EPSON®
EXCEED YOUR VISION

BrightLink™ 455Wi Interactive Projector

User's Guide

Important Safety Information

WARNING: Never look into the projector lens when the lamp is turned on; the bright light can damage your eyes. Never let children look into the lens when it is on. Never open any cover on the projector, except the lamp and filter covers. Dangerous electrical voltages inside the projector can severely injure you. Except as specifically explained in this *User's Guide*, do not attempt to service this product yourself. Refer all servicing to qualified service personnel.

WARNING: The projector and its accessories come packaged in plastic bags. Keep plastic bags away from small children to avoid any risk of suffocation.

Caution: When you replace the lamp, never touch the new lamp with your bare hands; the invisible residue left by the oil on your hands may shorten the lamp life. Use a cloth or glove to handle the new lamp.

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Pixelworks, DNX, and the DNX logo are trademarks of Pixelworks, Inc.

General Notice: Other product names used herein are for identification purposes only and may be trademarks of their respective owners. Epson disclaims any and all rights in those marks.

This information is subject to change without notice.

*C*ontents

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*W*elcome

The BrightLink™ 455Wi is an easy-to-use, ultra short-throw projector that turns any wall into an interactive whiteboard. The projector can be wall-mounted above a whiteboard or other surface and project an image up to 96 inches (diagonal) in native WXGA format. You can use the interactive pens to operate your computer or write and draw on a virtual whiteboard.

The projector offers up to 2500 lumens of white and color light output (brightness). You can connect it to a wide range of computers, interactive whiteboards, and video sources. You can also project from a document camera, USB storage device, or over your network. With the optional wireless LAN module, you can project over a wireless network.

The BrightLink 455Wi includes these additional features:

■ Wall bracket (setting plate) and built-in slide plate for easy and inexpensive wall mounting

■ Battery-operated pens and software that turns any wall into an interactive whiteboard

■ 8.5-second startup time and Instant Off® feature for fast setup and shut down

■ Closed captioning

■ 12 watt speaker and microphone input

■ USB display for easy setup of Windows® and Macintosh® computers

Using Your Documentation

This manual contains all the information you need to set up and use your projector. Please follow these guidelines as you read through it:

- **Warnings** must be followed carefully to avoid bodily injury.

- **Cautions** must be observed to avoid damage to your equipment.

- **Notes** contain important information about your projector.

- **Tips** contain additional projection hints.

Getting More Information

Need quick steps for setting up your projector? Here's where you can look for help:

- Installation Guide
  Provides detailed instructions on installing the projector using the wall mounting hardware included in the box.

- Quick Guide
  Provides all the information you need to install the software, use the interactive pens, and solve basic problems.

- EasyMP Network Projection Operation Guide
  Provides detailed instructions on using your projector in a network environment (PDF installed along with this manual from the projector CD).

- EasyMP Monitor Operation Guide
  Provides instructions on using the EasyMP Monitor software to manage projectors on a network. To download both the software and the guide, visit Epson's support website in the U.S. or Canada.

- Built-in help system
  Provides assistance for common problems. Available from the ? Help button on the projector or the remote control. See page 116 for details.

- epson.com/support or epson.ca/support
  Download FAQs and e-mail your questions to Epson support.

- PrivateLine® support

  If you still need help after checking this *User's Guide* and the sources listed in this section, you can use the Epson PrivateLine Support service to get help fast. Call (800) 637-7661 and enter the PIN on the PrivateLine card. Or take advantage of Epson's automated support services 24 hours a day. See page 134 for more information.

Registration and Warranty

Your projector comes with a basic warranty that lets you project with confidence. For details, see the warranty in the *Quick Guide*.

In addition, Epson offers free Extra Care℠ Road Service. In the unlikely event of an equipment failure, you won't have to wait for your unit to be repaired. Instead, Epson will ship you a replacement unit anywhere in the United States or Canada. See the brochure included with your projector for details.

You can register using the included CD, or you can register online at epson.com/webreg. Registering also lets you receive special updates on new accessories, products, and service.

Unpacking the Projector

After unpacking the projector, make sure you have all these parts:
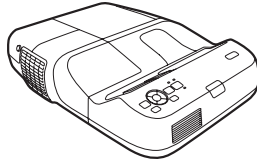
Projector
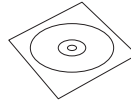
BrightLink
455Wi CD
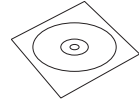
Epson Projector
Software CD
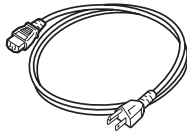
Power cord
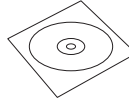
TeamBoard
Draw CD
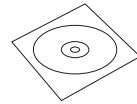
Epson Projector
Software for Easy
Interactive Function CD
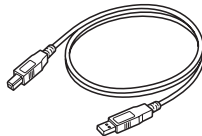
USB cable
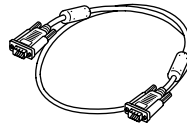
VGA computer cable

2 AA batteries
(for remote control)

WARNING
PASSWORD PROTECTED

Security sticker

Remote control

4 AAA batteries
(for interactive pens)
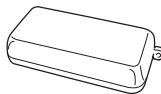
Pen tray
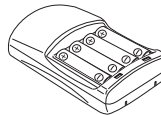
Battery charger with 4 AAA
rechargeable batteries
(for interactive pens)
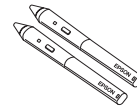
Interactive pens

Unpacking the Mounting Hardware

After unpacking the setting plate and mounting hardware, make sure you have all these parts:
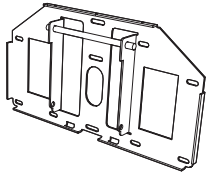
Wall plate
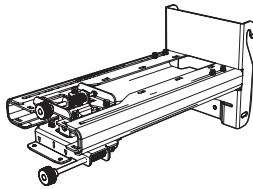
Wall mount (setting plate)
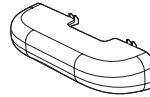
End cap
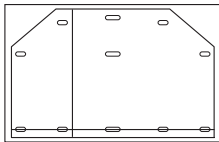
Installation template
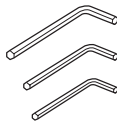
Hex wrenches
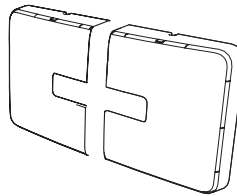
Wall plate cover

Bolts

See the *Installation Guide* for instructions on mounting the projector on a wall. Save all packaging in case you need to ship the projector. Always use the original packaging (or the equivalent) when you need to send the projector to another location. See page 114 for transportation instructions.

Projector Parts

Speaker

Control panel

Remote
receiver

Cable
cover

Air exhaust
vent

Lamp cover
screw

Lamp
cover

Air filter cover

Air
filter

Kensington
security slot

Filter cover
switch

Security
cable
attachment

Focus
lever

Wireless LAN
module slot

Remote
control
receiver

Projection
window

Interactive pen receiver

Base

Wall mounting slide plate

Security cable attachment

Connection Panel

Video port

Audio out port

Computer1/
Component
input and
audio jack

S-Video port

Audio in ports

Microphone jack

S-Video   Video   L-Audio-R   Audio Out   Mic   Audio1

RS-232C   Monitor Out   TypeA   Computer1   Audio2

TypeB   Computer2   LAN

AC power inlet

RS-232C port

Monitor out port

USB (TypeA) port

LAN port

Computer2/Component input and audio jack

USB (TypeB) port

Projector Control Panel

Keystone button
(corrects screen shape)

Menu button
(displays
projector menus)

Esc button
(exits menu
items)

Source Search button
(searches for connected
video sources)

Power
light

Power
button

Menu

Esc

Source
Search

Wide

Enter

Tele

?
Help

Help
button

Lamp | Temp

Lamp and
Temperature
warning lights

Wide button
(increases
image size

Keystone button
(corrects screen
shape)

Enter button
(selects
menu items)

Tele button
(decreases
image size)

Interactive Pens

Battery
compartment
cover

Battery
indicator

Button

EPSON

Attachment
for strap or
cord (not
included)

Remote Control

Power button

A/V Mute button (turns off image and audio)

Auto button (adjusts image size and position)

Aspect button (changes screen size)

Page Up/Down buttons (control PowerPoint® slides; USB cable required)

E-Zoom +/– buttons (zoom into image)

Menu button (accesses projector menus)

Source Search and Source buttons (select image source)

Freeze button (stops image)

User button (lets you assign function)

Color Mode button (changes display mode)

Num button (activates number buttons)

Pointer button (activates pointer tool)

Esc button (exits menus)

Menu navigation (arrow) buttons and Enter button

Projector Dimensions

Use the dimensions below to guide you in placing or installing the projector.

With slide plate

0.33 in. (8.3 mm)

0.22 in. (5.5 mm)

6.7 in.
(170 mm)

14.5 in.
(369 mm)

7.0 in.
(177 mm)

11.5 in. (292 mm)

19.0 in. (483 mm)

Without slide plate

0.91 in. (23 mm)

6.1 in.
(155 mm)

14.5 in.
(369 mm)

4−M4×9 Mounting screw holes

4.2 in.
(107 mm)

6.7 in.
(170 mm)

3.6 in.
(92 mm)

14.5 in.
(369 mm)

6.2 in. (157 mm)   6.3 in. (160 mm)   6.5 in. (166 mm)

19.0 in. (483 mm)

Additional Components

Depending on how you plan to use the projector, you may need additional components:

■   To receive a component video signal from a DVD player or other video device, you'll need a component-to-VGA video cable. You can purchase the ELPKC19 cable from Epson. See "Optional Accessories" on page 21.

■   To receive an S-Video signal, you'll need an S-Video cable. One may be included with your video equipment, or you can purchase one from a computer or electronics dealer.

■   To receive an audio signal, you'll need an RCA-type audio cable with two male plugs, or a stereo mini-jack audio adapter cable (with red and white jacks on one end).

■   To connect a Macintosh that includes only a Mini DisplayPort or Mini-DVI port for video output, you need to obtain an adapter that allows you to connect to the projector's VGA video port. Contact Apple for compatible adapter options.

Optional Accessories

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

Product	Part number
Additional interactive pen	V12H442001
Replacement lamp	V13H010L57
Replacement air filter set	V13H134A34
Wireless LAN module*	V12H306P11
Quick Wireless Connection USB key	V12H005M05
Kensington security lock	ELPSL01
DC-10s document camera DC-11 document camera	ELPDC10S V12H377020
Component-to-VGA video cable	ELPKC19
Cable management system	ELPCK01

* USB cable is still required for interactive use.

You can purchase accessories from an Epson authorized reseller. To find the nearest reseller, call 800-GO-EPSON (800-463-7766). Or you can purchase online at www.epsonstore.com (U.S. sales) or www.epson.ca (Canadian sales).

Interactive Table

The BrightLink 455Wi can be mounted at a 90-degree downward angle to create an interactive workspace directly on a table surface. This is ideal for interactive group projects or lessons. For more information, visit one of the following:

www.epson.com/bl455table (US)

www.epson.ca/bl455table (Canada)

1

Connecting to Computers, USB Devices, and Other Equipment

This chapter tells you how to connect the projector to a notebook or desktop computer or to video equipment, such as a VCR, DVD player, or video camera.

You can also connect the projector to a USB storage device or document camera.

Follow the instructions in this chapter on:

- Connecting to a computer
- Connecting an external monitor
- Connecting to video equipment
- Playing sound through the projector
- Connecting to a document camera or other USB device

Connecting to a Computer

You can connect the projector to any computer that has a standard video output (monitor) port. This connection is recommended for use with the interactive pens. See the next section for instructions.

You can also connect the projector to a computer using the projector's TypeB •⇌ (square) USB port, including desktop models, PC notebook computers, MacBook® computers, and other devices.

To play sound through the projector, connect an audio cable (see page 33).

You may be able to use your remote control as a wireless mouse when projecting from a computer (see page 58).

Connecting to the VGA Computer Port

You can connect to the projector using the VGA computer cable that came with it (the monitor port on your computer must be a D-sub 15-pin port).This is the best type of connection for use with the interactive pens.

1. Connect one end of the VGA computer cable to the projector's Computer1 or Computer2 port and the other end to your computer's monitor port.

Computer1 port

Computer2 port

2. You may need to change the Input Signal setting in the projector's Signal menu to RGB or Auto (see page 68).

3. You can connect an optional stereo mini-jack audio cable to play sound through the projector (see page 33) or connect a microphone (see page 35).

4. You may also be able to use the remote control as a wireless mouse (see page 58).

When you've finished making connections, see page 40 for instructions on turning on the projector and page 43 for instructions on displaying and adjusting the image. For instructions on using the interactive pens, see page 47.

Connecting to the USB Port

You can connect a Windows or Macintosh computer to the projector's TypeB •⟷ (square) USB port and project your computer's display. This feature supports the following operating systems: 32-bit versions of Windows 7, Windows Vista®, Windows XP, Windows 2000 (SP4), or Mac OS® 10.5.1 or later.

A USB 2.0 connection (recommended) provides better picture quality and response than USB 1.1.

The first time you connect a computer to the projector's USB port, software from the projector is installed on your computer.

1. Follow the instructions beginning on page 40 to turn on the projector.

2. Make sure the USB Type B setting on the Extended menu is set to USB Display (see page 71).

3. Turn on your computer.

4. Connect the square end of the USB cable to the projector's TypeB ⟷ (square) USB port.
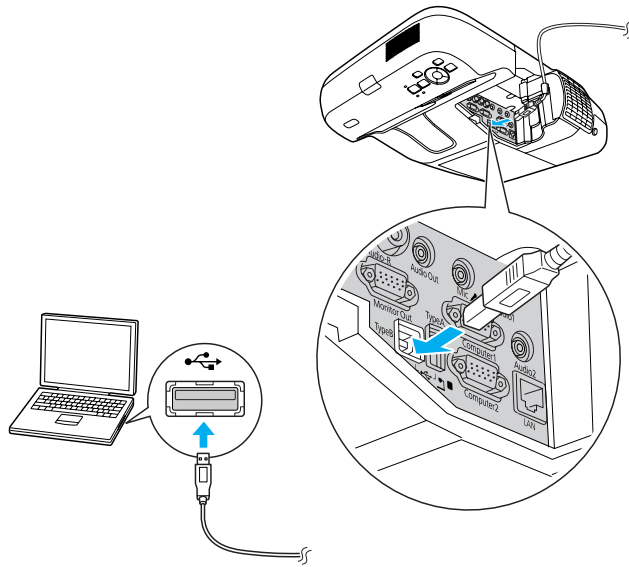
5. Connect the flat end of the cable to any available USB port on your notebook or desktop computer.

   Messages appear on your computer screen as the projector is recognized and the software is installed automatically.

6. In Windows, if the AutoPlay window appears, click EMP UDs.exe.

   On Mac OS, double-click the USB Display Installer icon to install the software.

7. Follow the instructions on the screen to install the Epson USB Display software. If you see a "Digital Signature Warning," select Continue or Continue Anyway. (You see these instructions only the first time you connect.)

   After the software is installed, you see your computer's current desktop displayed by the projector. You can switch the projector to other image sources using the Source Search button on the remote control or the projector.

8. You can connect an optional audio cable if you want to play sound through the projector (see page 33).

    When you've finished making connections, see page 43 for instructions on displaying and adjusting the image.

9. When you're done projecting, do one of the following:

    Windows: simply disconnect the USB cable.

    Mac OS: click the USB Display icon on the Dock and drag it to the trash, then remove the USB cable.

Connecting the USB Cable for the Interactive Pens or Remote Mouse Control

In order to use the interactive pens, you must connect the USB cable to the projector and your computer.

Connecting the USB cable also lets you use the projector's remote control as a wireless mouse. You can control your computer and click through slideshow-style presentations, such as PowerPoint, from up to 19.7 feet (6 meters) away (see page 58 for more information).

1. Connect the square end of the USB cable to the projector's TypeB ● $\leftarrow$ (square) USB port.
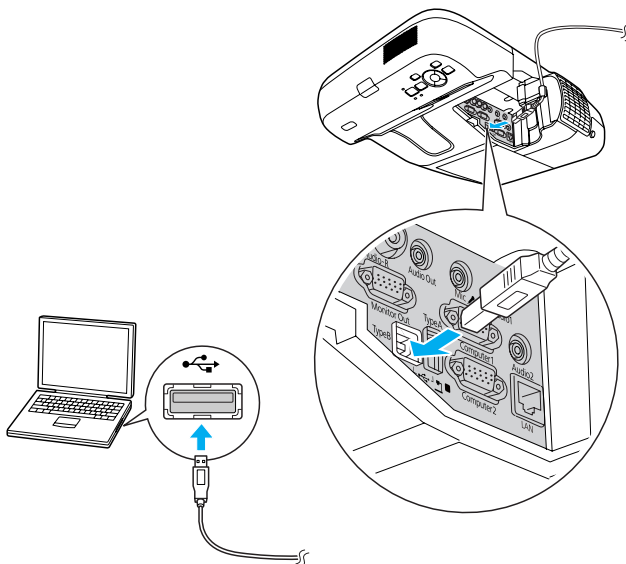
2. Connect the flat end of the cable to any available USB port on your notebook or desktop computer. A USB 2.0 port is recommended for the best performance.

3. Set the USB Type B setting in the projector's Extended menu to Wireless Mouse (see page 72).

4. Press the Computer button on the remote control to select your computer as the source. (The wireless mouse function doesn't work when other sources are selected.)

5. If necessary, configure your computer to work with a USB mouse. See your computer documentation for details.

Connecting an External Monitor

If you want to view your computer presentation close-up (on a monitor) as well as on the screen, you can connect an external monitor. You can use it to check on your presentation even if you've pressed the A/V Mute button or switched to a different picture source. Only computer images will appear on the external monitor, not video images.

First make sure your computer's VGA cable is connected to the projector's Computer1 port (see page 27). Then connect your monitor to the projector's Monitor Out port, as shown:
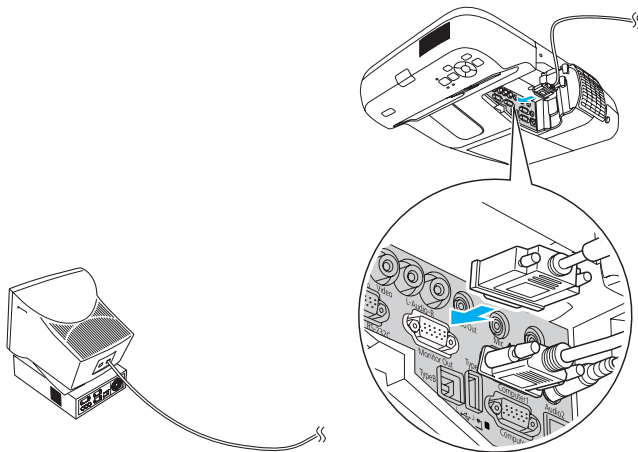
Connecting to Video Equipment

You can connect several video sources to the projector at the same time. Before starting, look at your video equipment to determine its available video output connections:

- If your video player has a yellow RCA video output connector, see "Connecting a Composite Video Source" on page 29.

- If your video player has an S-Video connector, see "Connecting an S-Video Source" on page 30.

- If your video player has a component video port (three connectors labeled either Y/Cb/Cr or Y/Pb/Pr), see "Connecting a Component Video Source" on page 31.

- If your video player has an RGB video port, see "Connecting an RGB Video Source" on page 32.

After connecting video cables, you may also want to connect an optional audio cable to play sound through the projector; see page 33.

Connecting a Composite Video Source

1. If your video cable has an RCA connector, connect it to the yellow video output connector on your player and the yellow Video port on the projector.
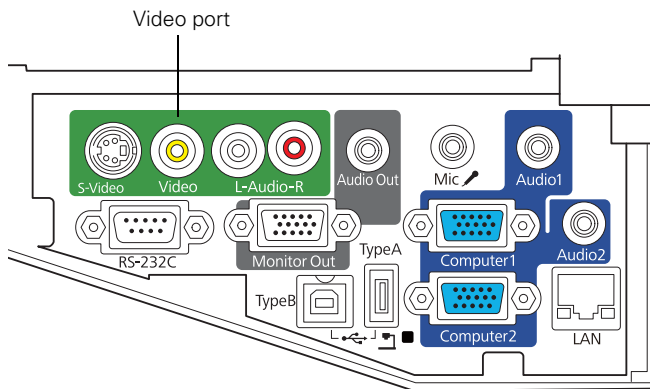
2. If you want to play sound through the projector, see page 33 for instructions on connecting an audio cable.

3. When you've finished making connections, see page 40 for instructions on turning on the projector and page 43 for instructions on displaying and adjusting the image.

Once the projector is turned on, select the image source by pressing the Source Search button on the projector or remote control.

Connecting an S-Video Source

1. Connect the S-Video cable to the S-Video connector on your player and the S-Video port on the projector.
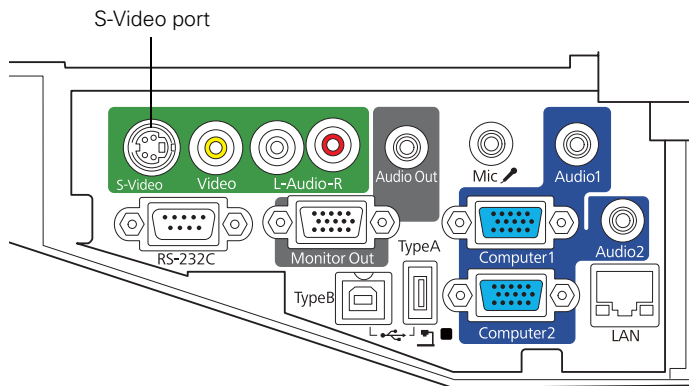
S-Video port

2. If you want to play sound through the projector, see page 33 for instructions on connecting an audio cable.

3. When you've finished making connections, see page 40 for instructions on turning on the projector and page 43 for instructions on displaying and adjusting the image.

Once the projector is turned on, select the image source by pressing the Source Search button on the projector or remote control.

Connecting a Component Video Source

If your video equipment has component video connectors (three connectors labeled either Y/Cb/Cr or Y/Pb/Pr), you will need a component-to-VGA video cable or a component video cable and adapter. You can order the component-to-VGA cable (ELPKC19) from Epson (see page 21) or an electronics dealer.

Component-to-VGA cable (ELPKC19)

1. Connect the component end of the cable (3 male RCA) to the color-coded Y/Cb/Cr (or Y/Pb/Pr) connectors on your player.

2. Connect the other end of the cable (HD15 male) to the blue Computer1 or Computer2 port on the projector.

Connect component-to-VGA cable

Connect component-to-VGA cable
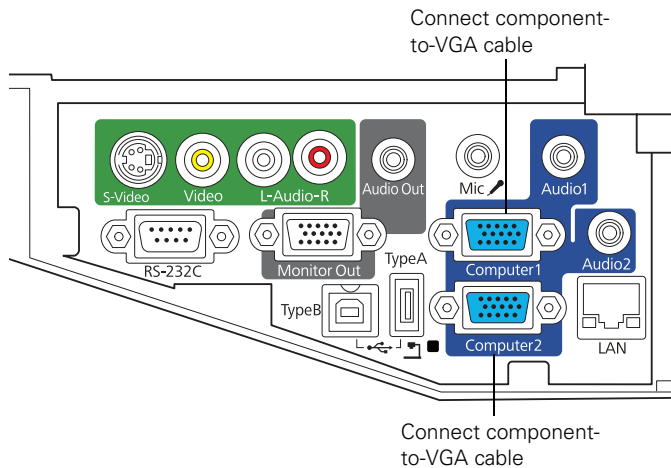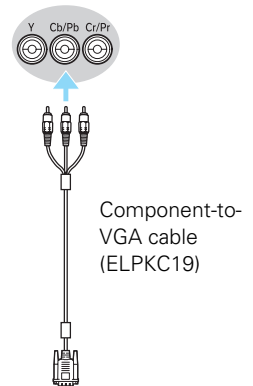
3. You may need to change the Input Signal setting in the projector's Signal menu to Auto (see page 68).

4. If you want to play sound through the projector, see page 33 for instructions on connecting an audio cable.

5. When you've finished making connections, see page 40 for instructions on turning on the projector and page 43 for instructions on displaying and adjusting the image.

   Once the projector is turned on, select the image source by pressing the Source Search button on the projector or remote control.

Connecting an RGB Video Source

You can connect to an RGB video source using the VGA computer cable provided with the projector.

1. Connect the cable to the RGB video port on your player and the Computer1 or Computer2 port on the projector.

Connect to RGB video source

Connect to RGB video source
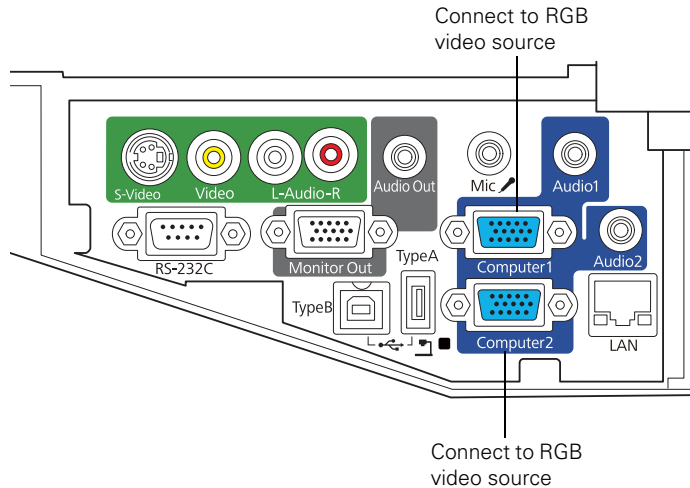
2. You may need to change the Input Signal setting in the projector's Signal menu to RGB (see page 68).

3. If you want to play sound through the projector, see page 33 for instructions on connecting audio cables.

4. When you've finished making connections, see page 40 for instructions on turning on the projector and page 43 for instructions on displaying and adjusting the image.

   Once the projector is turned on, select the image source by pressing the Source Search button on the projector or remote control.

Playing Sound Through the Projector

You can play sound through the projector's speaker system or attach an external speaker system. You can also connect a microphone and output sound through the projector.

You can use the ◁) or ◁)) **Volume** buttons on the remote control to adjust the volume.

You can use the projector's Extended menu to select a specific audio input source, or to enable audio output when the projector is in standby mode. See page 72 for more information.

Playing Computer Audio

For laptop and most desktop computers, use a 3.5 mm stereo mini-jack cable, which you can purchase from a computer or electronics store.

1. Connect one end of the cable to the **Audio1** or **Audio2** jack on the projector.

Audio jacks
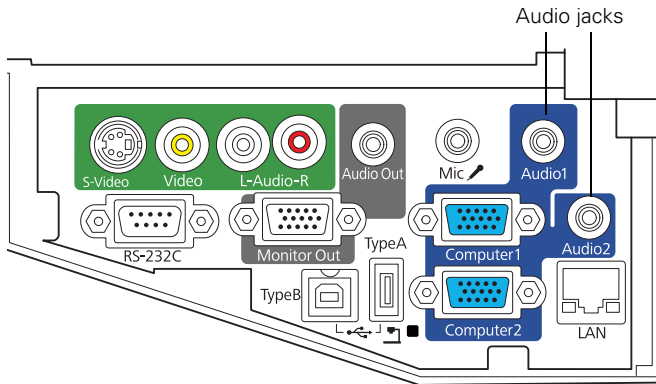
2. Connect the other end to your laptop's ⌒ headphone jack or ◀)) audio-out jack, or your computer's speaker or audio-out port.

Playing Sound from Video Equipment

For video equipment, use an RCA-style audio cable, which you can purchase from an electronics store.

1. Connect the red and white plugs on one end of the cable to the L and R Audio jacks on the projector.

Connect to audio-out
ports for video equipment
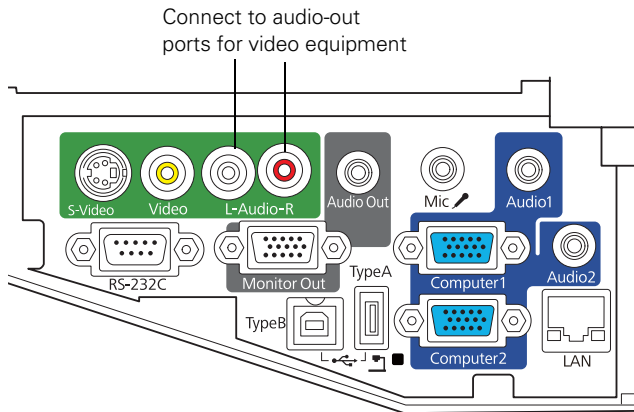
2. Connect the red and white plugs on the other end to the corresponding color-coded audio output jacks on your video source.

Connecting a Microphone

You can connect a dynamic microphone to the projector's Mic port, using a 3.5 mm mini-jack cable as shown below.
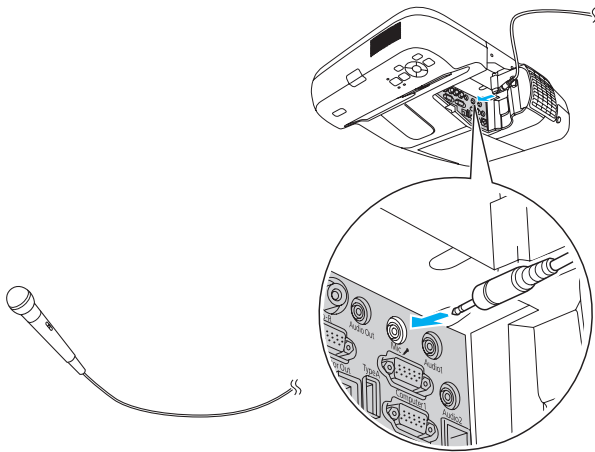
Use the Mic Input Level option on the Settings menu to adjust the volume. See page 70 for more information.

Connecting External Speakers

You can output sound from the projector to external speakers with a built-in amplifier.

1. Locate the appropriate cable to connect your speakers.

    Depending on your speakers, you may be able to use a standard audio cable with a stereo mini-jack connector on one end and pin jacks on the other end. For some speakers, you may need a special cable or adapter.

2. Connect the stereo mini-jack end of the audio cable to the Audio Out port on the projector.

Audio cable
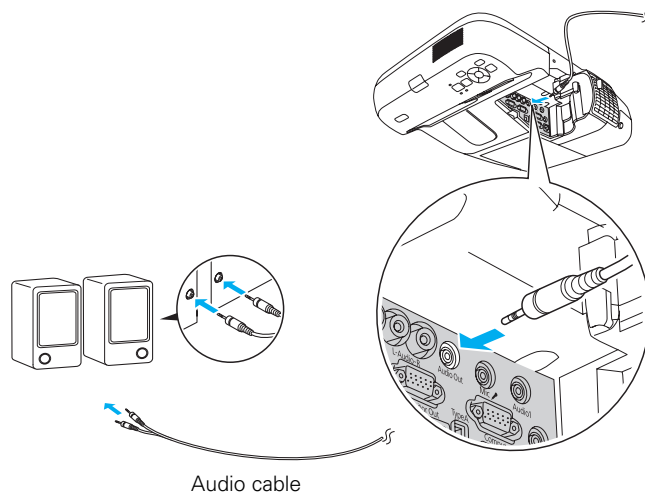
3. Connect the other end of the cable to your speakers.

The projector's internal speaker system is disabled while sound is output to external speakers.

Connecting a Document Camera or Other USB Device

You can connect an interactive whiteboard, document camera, USB thumb (flash memory) drive, USB hard drive, or multimedia storage viewer, such as the Epson P-7000. You can use the projector's Slideshow function to display JPEG images or a presentation. See page 60 for details.

Use the USB cable specified for your device.

1. Follow the instructions beginning on page 40 to turn on the projector.

2. Connect the USB drive or the flat end of the USB cable to the TypeA •⟷ (flat) USB port on the projector, as shown.

Connecting the DC-06
document camera
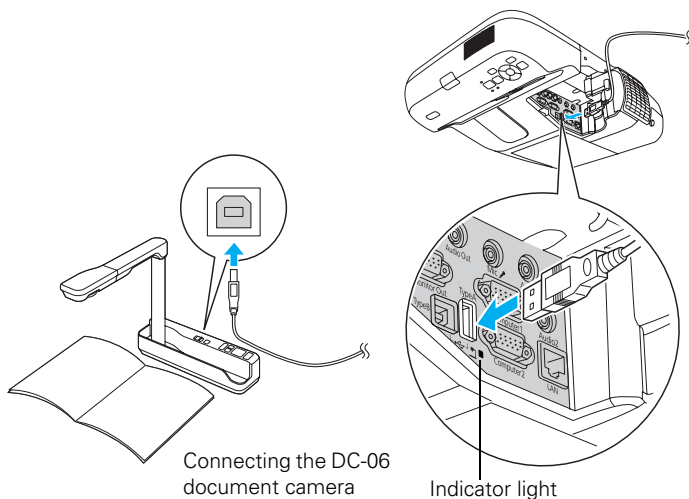
Indicator light

3. Connect the other end of the cable to your camera or other device, if necessary.

    The indicator light on the projector turns orange and then green when a USB device is connected.

4. If the projector is connected to a storage device (and not connected to another image source), the Slideshow program appears.

If you are connected to another image source, press the USB button on the remote control to go to the Slideshow program.

5. See page 60 for instructions on controlling the slideshow.

6. When you're finished, press Esc and select Exit to exit the Slideshow before turning off or removing the USB device.

Be sure to turn off your USB device (if necessary) before you remove the device or cable from the projector. Failure to do so may damage the device and/or the projector.

2 Displaying and Adjusting the Image

Whether you're projecting from a computer or video equipment, you need to follow some basic steps to display your image on the screen.

Follow the guidelines in this chapter for:

- Turning the projector on and off

- Selecting the image source

- Adjusting the image

Turning the Projector On and Off

Turn on any connected computer or video equipment before starting the projector so it can automatically detect and display the image source. If you turn on the projector first, or have multiple pieces of connected equipment, you may have to select the image source manually (see page 43).

Follow these steps to turn on the projector:

1. Make sure the power cord is connected and the projector is plugged into an electrical outlet.
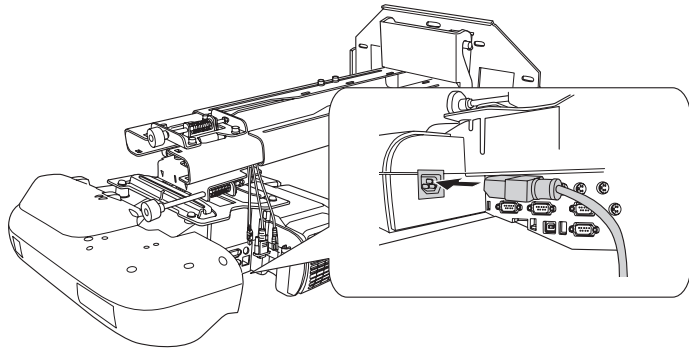
The ⏻ power light should be orange.
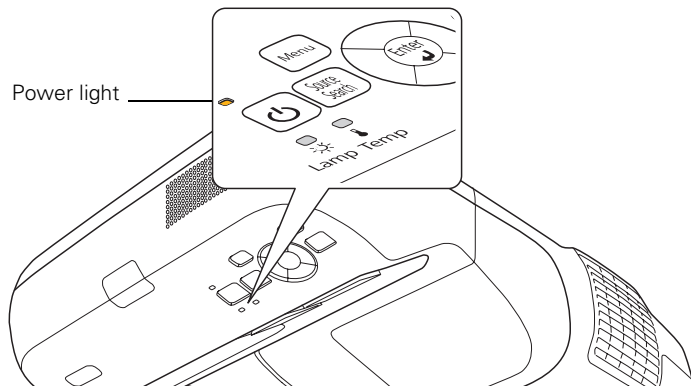
Power light

2. Press the ⏻ power button on the projector or on the remote control.
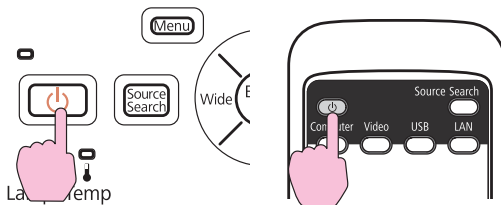
The projector beeps once and the ⏻ power light flashes green as the projector warms up, then an image begins to appear. When the ⏻ power light stops flashing and remains green, the projector is ready for use.

3. If you are prompted to enter a password, see page 75.

Using the Direct Power On Function

The Direct Power On function enables faster setup. The projector starts up automatically when you plug it in or turn it on with a wall switch. You don't have to press the ⏻ power button.

Follow these steps to enable Direct Power On:

1. Press the Menu button on the remote control or projector, then select the Extended menu and press Enter.

2. Choose Operation and press Enter.

3. Choose Direct Power On and press Enter.
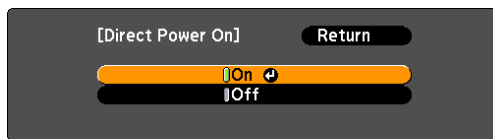
4. Highlight On and press Enter.

5. Press Menu to exit. The setting will take effect the next time you plug the projector into a power outlet or turn it on with a wall switch.

warning
Never look into the lens when the lamp is on. This can damage your eyes, and is especially dangerous for children.

note
If a power outage occurs when Direct Power On is enabled and the projector is plugged in, the projector will restart when the power is restored.

Shutting Down the Projector

This projector incorporates Instant Off technology. To turn it off, you can press its ⏻ power button as described below, unplug it, or turn off a power switch that supplies power to the projector. You don't have to wait for the projector to cool down first.

1. To turn off the projector, press the ⏻ power button on the remote control or projector.

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

    ```
    Power Off?

      Yes: Press ⏻ button
      No : Press any other button
    ```
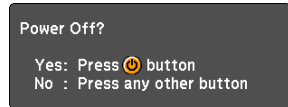
2. Press the ⏻ power button again. The projection lamp turns off and the projector beeps twice. You can then unplug the power cord.

    If you want to turn the projector on again, make sure the orange ⏻ power light is not flashing, then press the ⏻ power button.

Selecting an Image Source

You may need to select the image source if you have multiple image sources connected to the projector (such as a computer or DVD player). Selecting the image source lets you switch between images input from different pieces of connected equipment.

If you don't see the image you want, press the Source Search button on the remote control or the projector until you see the image you want to project. Or, press one of the Source buttons on the remote control (Computer, Video, USB, or LAN).
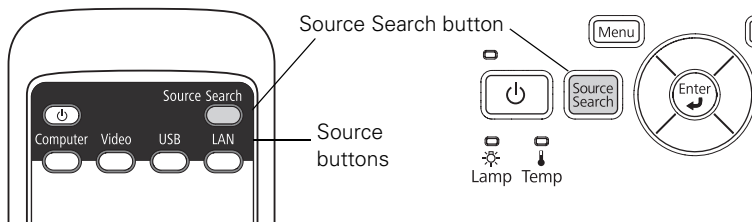
If you still can't see an image or can't project the same image that is on your notebook or computer screen, see page 120 for solutions.

Select USB to project from a USB device or LAN to project over a network. See page 60 for instructions.

Adjusting the Image

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

■   To focus the image, see page 44.

■   To quickly adjust the color, brightness, or contrast, see page 45.

■   To change the image aspect ratio, see page 46.

■   If you need to fine-tune the image and/or sound, see "Using the Projector Menus" on page 63.

Focusing the Image

Focusing the projector is part of the installation process. If necessary, you can re-adjust the focus at any time using the focus lever next to the air filter on the side of the projector.

1. Slide the switch to open the air filter cover on the side of the projector.

2. Raise or lower the focus lever to sharpen the image.

Air filter
cover switch

Focus lever
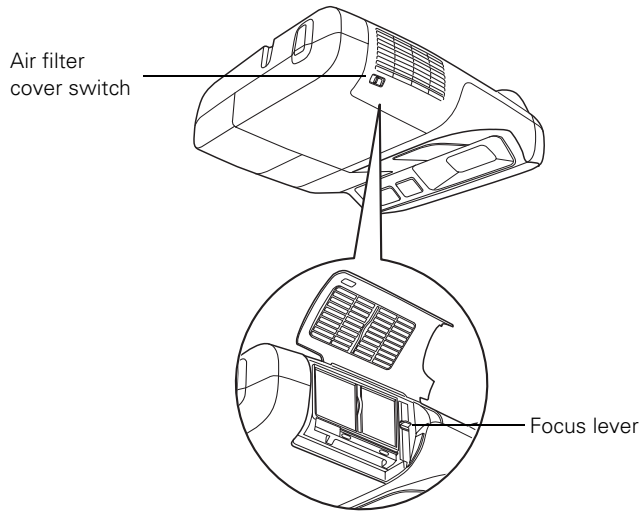
Selecting the Color Mode

The Color Mode adjusts the brightness, contrast, and color for various common viewing environments. Use this setting to quickly obtain a good picture.

Press the Color Mode button on the remote control to select an option. Press it until the option you want is projected in the upper right corner.

Color Mode button
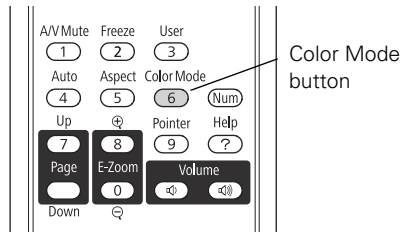
Select from one of these Color Mode options:

■ Dynamic: Brightest mode; for video games or TV in a bright room.

■ Presentation: For color presentations in a bright room (default setting).

■ Theatre: For natural-toned movies in a darkened room.

■ Photo: For vivid, high-contrast still images in a bright room (only available when the source is set to LAN or USB).

■ Sports: For vivid TV images in a bright room (only available for component video, S-Video, or composite video sources).

■ sRGB: Matches the color palette of standard sRGB computer displays.

■ Blackboard: Projects accurate colors on a green chalkboard (adjusts the white point).

■ Whiteboard: For computer presentations in a bright room with black-and-white text and graphics.

Resizing Video Images

You can resize your images by changing the aspect (width to height) ratio (depending on your input signal).

Press the Aspect button on the remote control. Press the Aspect button repeatedly to cycle through the available options.

Aspect button
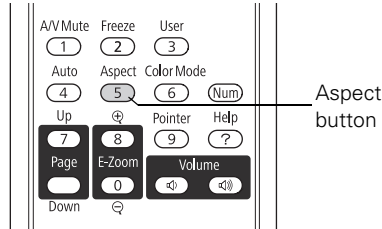
Select from one of these Aspect options:

■ Normal: Displays images using the full projection area and maintains the aspect ratio of the image. Choose this setting to automatically resize the image and make the best use of the display area.

■ 16:9: Converts the aspect ratio of the image to 16:9. 4:3 ratio images are elongated horizontally to fit.

■ Full: Displays images using the full width of the projection area, but does not retain the aspect ratio. 4:3 ratio images are elongated horizontally.

■ Zoom: Displays images using the full width of the projection area and maintains the aspect ratio of the image. The image may be cut off on the top and bottom depending on its aspect ratio.

■ Native: Displays images as is (aspect ratio and resolution are maintained). Black bands may appear or images may be cut off, depending on the resolution.

If you are using the interactive pens, you will have to recalibrate after changing the projector's aspect setting.

3 Using the Interactive Pens

The interactive pens included with your projector turn almost any wall into an interactive whiteboard. This chapter tells you how to use the Easy Interactive Driver software, calibrate the projector, and use the pens to annotate presentations or write and draw on a virtual whiteboard.

Follow the instructions in this chapter on:

- Using the Easy Interactive Pen Driver
- Calibrating the projector
- Using the pens
- Using the Tablet PC function

Periodically, it's a good idea to check Epson's support website in the U.S. or Canada for free updates to your Easy Interactive software.

Using the Easy Interactive Pen Driver

The Easy Interactive Driver software is included on the CD labeled "Epson Projector Software for Easy Interactive Function." Note the following system requirements:

■ Microsoft® Windows 2000, Windows XP, Windows Vista (32-bit versions) or Windows 7 (32-bit and 64-bit)
  or
  Mac OS X 10.3 or above

■ USB 1.1 port (minimum) or USB 2.0 port (recommended)

1. Connect the VGA computer cable and USB cable to the projector and computer, as described on pages 24 and 27.

2. Turn on your computer.

3. Make sure the driver software is installed on your computer, as described in the *Quick Guide.*

4. Turn on the projector, as described on page 40.

   You should see your computer desktop displayed. If you see a blank screen or the No signal message, check the following:

   ■ Make sure the power light on the projector is green and not flashing.

   ■ Press the Computer button on the remote control.

   ■ If you're using a Windows laptop, press the function key on your keyboard that lets you display on an external monitor. It may be labelled CRT/LCD or have an icon such as 🖥/⬜. You may need to hold down the Fn key while pressing it.

   If you need more help, see page 121.

5. Check the connection status.

   Windows: you should see the ✎ pen icon in the system tray on your taskbar (lower right corner of your screen).

   Mac OS: you should see the ✎ pen icon in the Dock.

   You may need to wait a minute for the icon to appear after you turn on the computer and projector.

If a red X appears on the icon, the computer and projector are not connected correctly. Try removing and reconnecting the USB cable.

If you don't see the icon, do one of the following:

Windows: select or Start > All Programs or Programs > Epson Projector > Easy Interactive Driver.

Mac OS: open the Application folder, then select the Easy Interactive Driver icon.

If you need more help, see page 128.

When the computer and projector are connected and the Easy Interactive Driver icon is displayed, you're ready to calibrate. See the next section for instructions.

Calibrating the Projector

Calibration sets up the connection between your computer and the interactive pens. This simple process ensures that your computer can accurately detect the position of the pen on the projection surface.

You need to calibrate before using the pens for the first time, or if you change the resolution on your computer or connect a different computer. You can use either pen for calibration.

Two types of calibration are available:

■ Normal, which is faster and appropriate for most situations (25 calibration points)

■ Advanced, which is recommended when you need higher accuracy (49 calibration points)

You may need to recalibrate if you change the projector's aspect ratio using the remote control, or if you change the following settings in the projector's menu system:

■ Settings menu: Keystone or Zoom. See page 69 for more information.
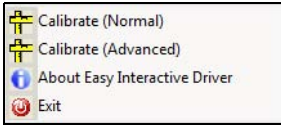
■ Signal menu: Auto Setup, Resolution, Tracking, Sync, Position, or Aspect. See page 67 for more information.

1. To start calibration, do one of the following:

   ■ In Windows, click the ✎ pen icon in the system tray on your taskbar (lower right corner of your screen), then select Calibrate (Normal) or Calibrate (Advanced).

   ■ In Mac OS, click the ✎ pen icon in the Dock, select Calibrate from the menu bar, then select Calibrate (Normal) or Calibrate (Advanced).

2. After you read the message about calibration, click OK.

   You see a flashing green circle in the upper left corner of your projected image.

3. Touch the center of the circle with the tip of the pen.

   The circle stops flashing and turns black. You see another circle on the right.
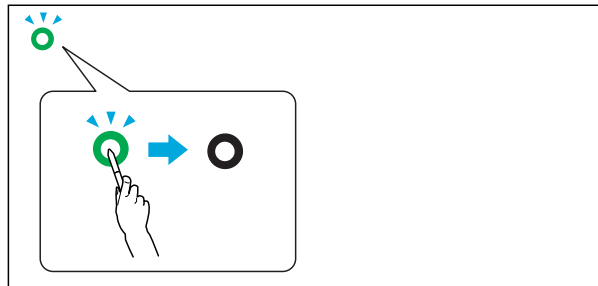
4. Touch the center of the next circle, then repeat. When you get to the end of the row, the next circle appears at the left edge of a new row.

   Make sure you are not blocking the signal between the pen and the interactive receiver (next to the projection window on the projector)

   Don't press the button on the pen while calibrating.

   If you make a mistake, press Esc on your computer keyboard and restart the calibration process.

5. Continue until all of the circles are black.
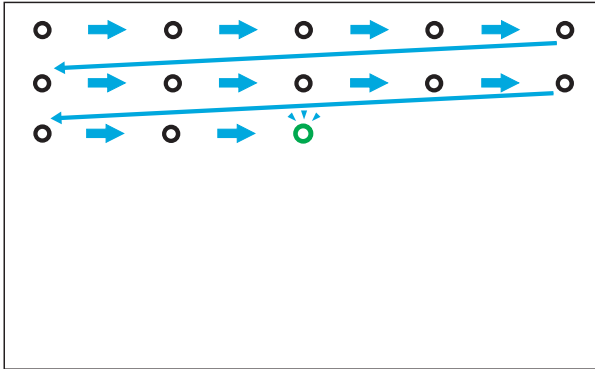
After you have finished calibration, you can use either pen as a mouse on the projection board or wall. With additional software, you can also use the pens to write or draw on the projected image. See the next section for more information.

Using the Pens

The Easy Interactive Driver allows you to use the pen as a mouse. If you installed interactive whiteboard software such as RM Easiteach or TeamBoard Draw, you can also use the pens to write or draw on the projected image.
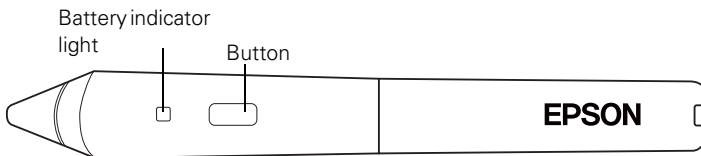
Press the button on the pen to test the battery. If the indicator light is green, the battery has enough power.

Follow these tips to use the pen as a mouse:

■ For best performance, hold the pen at an angle, rather than perpendicular to the board.

■ To left-click, tap on the board.

■ To double-click, tap twice.

■ To right-click, tap while pressing the button on the pen.

■ To click and drag, tap and drag with the pen.

To use the pen for writing or drawing on the board, you need to install annotation software, such as TeamBoard Draw or RM Easiteach.

Using the Tablet PC Function

When you install the Easy Interactive Driver, the Tablet PC function is enabled in Windows 7 and Windows Vista. This allows you to annotate, use handwriting input, and perform other actions using the pen, even without installing annotation software.

If you have Microsoft Office 2003 or later, you can also use the Ink function in Office applications. This lets you add handwritten notes to a document, spreadsheet, or presentation, and save the notes with the file.

For more information about the Tablet PC and Ink functions, visit Epson's support website in the US or Canada.

4 Presenting With the Remote Control

The projector includes a number of tools to enhance your presentation. All of them can be accessed using the remote control, which lets you operate the projector from anywhere in the room—up to 19.7 feet (6 meters) away.

This chapter covers:

- Using the remote control
- Controlling the picture and sound
- Displaying Patterns
- Operating your computer with the remote control
- Highlighting your presentation
- Presenting a slideshow from a USB device

Using the Remote Control

Make sure batteries are installed as described on page 113. Follow these tips for using the remote control:

■ Point the remote control at the projector or at the screen.

■ Stand within 19.7 feet (6 meters) of the projector.

■ Aim the remote control within 30° to the side of, or 15° above or below, the remote control receivers on the projector.

Controlling the Picture and Sound

You can use the remote control to temporarily turn off the picture and sound, freeze the action, zoom in on the picture, and adjust the volume.

Turning Off the Picture and Sound

Press the A/V Mute button on the remote control to turn off the image and sound, and darken your screen. This is useful if you want to temporarily re-direct your audience's attention without the distraction of a bright screen.

A/V Mute button
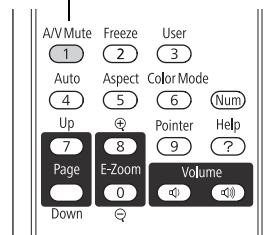
To turn the image and sound back on, press the button again.

You can create an image, such as a company logo or picture, to display on the screen whenever you press the A/V Mute button. (See page 76 for more information.)

Stopping Action

Press the Freeze button on the remote control to stop the action in your video or computer image. The image freezes but the sound continues.

To restart the action, press the Freeze button again.
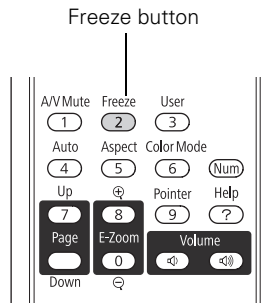
Freeze button

Zooming In on Your Image

You can zoom in on a portion of the image using the E-Zoom buttons on the remote control.

If you are using one of the interactive pens, the pen position and mouse position will not match when you press the E-Zoom buttons.

1. Press the E-Zoom + button on the remote control.
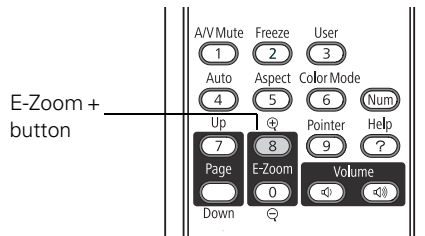
E-Zoom + button

You see a crosshair indicating the center of the zoom-in area.

2. Use the arrow (menu navigation) buttons to position the crosshair.

3. Continue pressing the E-Zoom + button to enlarge the selected area up to 4 times.

4. While the image is enlarged, you can:

  ■ Use the arrow buttons to move around the screen.

  ■ Press the E-Zoom – button to zoom out.

5. Press the ESC button to return the image to its original size.

Controlling the Volume

To change the volume on the projector, press the ◁) or ◁») button on the remote control.

Volume buttons
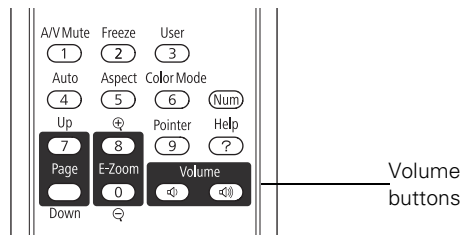
You can also adjust the volume using the projector's menu system. See page 69.

Displaying Patterns

You can display a test pattern or one of the following 4 patterns for use on a whiteboard or chalkboard:

Pattern 1   Pattern 2   Pattern 3   Pattern 4

1. Press the Menu button on the remote control, then select the Settings menu and press Enter.

2. Highlight Pattern and press Enter.

3. Highlight Pattern Type and press Enter.

4. Select one of the patterns shown on page 56, or choose Test Pattern. If you want to create your own pattern, choose User Pattern. See below for more information.

5. Press Enter to select the pattern you want, then press Esc.

6. Choose Pattern Display to display the pattern.

7. Press Esc when you're finished displaying the pattern.

Assigning a Pattern to the User Button

You can assign any of the available patterns to the User button on the remote control, and then display it by simply pressing the User button.

1. In the Settings menu, select the Pattern Type as described on page 56.

2. Highlight User Button and press Enter.

3. Highlight Pattern Display and press Enter.

4. Press Menu to exit.

Creating Your Own Pattern

You can transfer any image from your computer or video source to the projector and then use it as a pattern. If you assign it to the User button as described above, you can display it any time you want by simply pressing the User button on the remote control.

Start by displaying the image you want to use from a computer or other source. Then follow these steps to capture the image and transfer it to the projector:

1. In the Settings menu, highlight Pattern and press Enter.

2. Select User Pattern and press Enter.

3. When you see a message asking if you want to use the current image as the pattern, select Yes and press Enter.

4. Press Enter again.

note
When you choose an image for the user pattern, it erases any previously used image.

5. When you see a confirmation message, select Yes and press Enter. Saving the image may take a few moments. Do not use your projector, remote control, or video source while the pattern is being saved.

6. When you see a message that saving is complete, press Menu to exit.

Operating Your Computer With the Remote Control

You can use the remote control in place of your computer's mouse so you won't have to stand next to the computer to control the presentation.

Before you can use the remote control to operate your computer, you must connect a USB cable to the TypeB ⬩⟷ (square) USB port on the projector (see page 25) and select Wireless Mouse as the USB Type B setting on the Extended menu (see page 71).

Page up or down to change slides in PowerPoint

Right-click

Left-click

EPSON
Projector
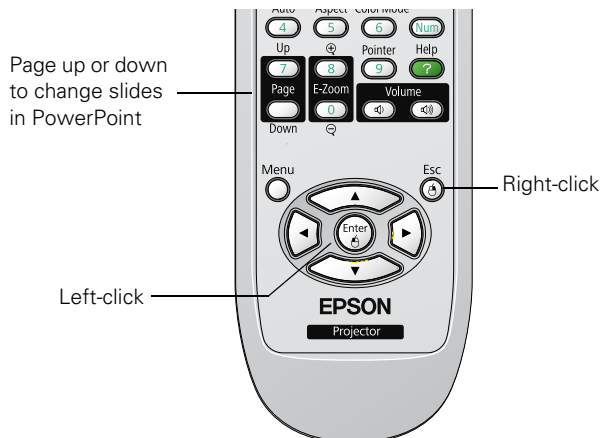
Then you can control your computer as follows:

■ Use the remote control's Page Up or Page Down buttons to move through presentation slides.

■ Use the arrow buttons to move the cursor on the screen.

■ Press the Enter button once to left-click, or twice to double-click. Press the Esc button to right-click.

■ To drag-and-drop, hold down the Enter button. Then use the arrow buttons to drag the object. When it's where you want it, release the Enter button.

Highlighting Your Presentation

You can display a pointer to call out important information on the screen. If you want to customize the pointer tool, you can choose from three alternative shapes.

Using the Pointer Tool

1. To activate the pointer tool, press the Pointer button on the remote control. A pointer appears on the screen.
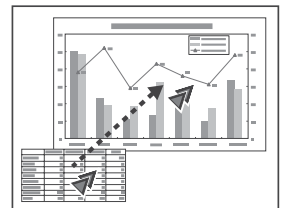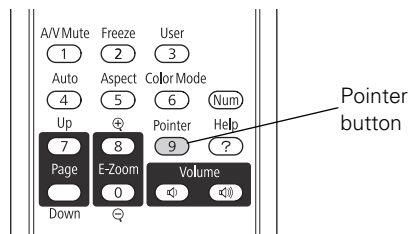
If you prefer to use a different style of pointer, see the instructions in the next section.

2. Use the arrow buttons on the remote control to position the pointer on the screen.

3. When you're done using the pointer, press the Pointer or Esc button to clear the screen.

Customizing the Pointer Tool

You can change the appearance of the pointer by choosing from three alternative shapes.

1. Press the Menu button on the remote control, highlight the Settings menu, highlight Pointer Shape, and press Enter. You can select one of the pointer shapes shown at the left.

2. Select the shape you want and press Enter.

3. Press Menu to exit from the menu system.

Presenting a Slideshow

You can use your projector's Slideshow feature whenever you connect a USB device that contains image files having a .JPG filename extension. This lets you quickly and easily display individual images, or start a slideshow of all the images in a folder. You can control your slideshow using the projector remote control.

For an instant PowerPoint presentation, convert your PowerPoint slides to individual .JPG files (save as *.jpg) and store them in a folder. Copy that folder to a USB flash memory drive (thumb drive), or other USB device. Then connect the device to the projector and begin your presentation.

You can switch the display from the device displaying the slideshow to another source using the Source Search button or one of the specific source buttons on the remote control. To return to the Slideshow source, press Source Search and select USB, or simply press the USB button.

Starting a Slideshow

1. Connect a USB device to the projector's TypeA ⟜ (flat) USB port (see page 37).

2. If you are connected to another image source, press the USB button on the remote control to go to the Slideshow program.

If you are not connected to another image source, the Slideshow program appears automatically.

Files for images that have been scanned or modified will display an icon, rather than a thumbnail image.

If necessary, press the arrow buttons on the remote control to highlight the device you want to present from, then press the Enter button.

3. If you need to select a subfolder on your device, press the arrow buttons to highlight the folder and press Enter.

4. To display an individual image, press the arrow buttons to highlight it and press Enter. To display additional image files, press the ◀ or ▶ arrow button.

5. To display a slideshow of all the images in the current folder, use the arrow buttons to highlight Slideshow on the bottom of the Slideshow screen and press Enter. The images display sequentially one time through. At the end, you see the folder display again.

Select the following as necessary to control your display or slideshow:

■ To move back up a folder level, highlight Back to Top at the top of the Slideshow screen and press Enter.

■ To select a different device, highlight Select drive in the upper right corner of the screen, press Enter, and select the device.

note
To rotate a displayed image, press the ▲ or ▼ button on the remote control until it is displayed correctly.

note
To display a slideshow from a folder that is not open, highlight the folder and press the Esc button on the remote control. Then select Slideshow from the menu that appears and press Enter.

To begin a slideshow from a particular image, use the arrow buttons to highlight that image, press Enter, then press Enter again.

■ If all the images in a folder do not fit on the Slideshow screen, highlight Next page at the bottom of the screen and press Enter to display the next screen full of images. Select Previous page at the top of the screen to select the previous screen.

■ To exit the slideshow, press Esc, select Exit, and press Enter.

Selecting Slideshow Display Options

1. Highlight Option at the bottom left corner of the slideshow screen and press Enter. You see this screen:

2. Highlight the options you want to use, and press Enter.

Option	Available settings
Display order	Name order displays files in name order Date order displays files in date order
Sort order	In Ascending sorts the files first to last In Descending sorts the files last to first
Continuous play	On displays a slideshow continuously Off displays a slideshow one time through
Screen switching time	No does not switch file display automatically 1Sec. to 60Sec. displays files for the selected time and switches them automatically

3. When you are finished, highlight OK at the bottom of the screen and press Enter. (Highlight Cancel and press Enter to cancel.)

5 Using the Projector Menus

You can use the projector's on-screen menus to adjust the image, sound, and other features. This chapter covers the following information:

- Using the menu system
- Adjusting the image
- Adjusting signal settings
- Customizing projector features
- Customizing power and operation
- Using the projector security features

Using the Menu System

You can use the remote control or the projector's control panel to access the menus and change settings. Follow these steps:

1. To display the menu screen, press the Menu button on the remote control or on the projector. You see a menu screen similar to the one below:

Options

Menu list

[◆] :Select   [Enter] :Enter   [Menu]:Exit
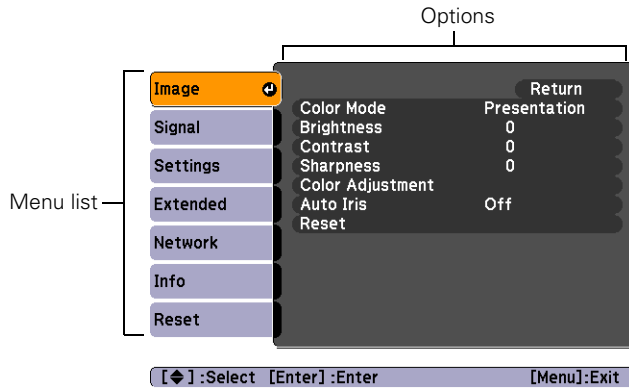
The menus are listed on the left and the options available for the highlighted menu are shown on the right.

2. Use the arrow buttons on the remote control or the projector to scroll through the menu list. When you've highlighted the desired menu, press the Enter button to select it.

3. Once you've selected the menu, use the arrow buttons to scroll through the list of options. (Some of the options may be grayed out or unavailable, depending on the selected source.)

4. After highlighting the option you want to adjust, use the arrow buttons to change the setting. In some cases, you may have to press the Enter button to view a sub-screen.

    ■ Press the left or right arrow button to adjust a slider bar.

    ■ To select from two or more settings, press the up or down arrow button to highlight the setting and press Enter.

5. After changing the settings, press the Esc button to save your changes and return to the previous menu (or press it again to exit the menu system). You can also press the Menu button to exit.

Restoring the Default Settings

You can use the Reset option on any menu to restore the factory-default settings for the settings in that menu.

To restore all the projector settings to their factory-default values, select the Reset menu, highlight Reset All, press Enter, and select Yes to confirm.

Adjusting the Image

You can use the Image menu to adjust the brightness, sharpness, color, tint, contrast, and Auto Iris settings.

1. Press the Menu button on the projector or remote control and select the Image menu. You see a screen similar to one of these:
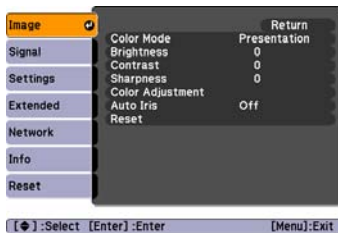
Computer/USB/USB Display/LAN

Component video/
Composite video/
S-Video

2. Adjust the desired options as needed:

    ■   Color Mode
        Lets you quickly adjust the color and brightness for various environments. You can save a different setting for each source. See page 45 for a description of each color mode.

    ■   Brightness
        Lightens or darkens the overall image.

    ■   Contrast
        Adjusts the difference between light and dark areas.

    ■   Color Saturation
        Adjusts the color depth of the image.

    ■   Tint
        Adjusts the balance of green to magenta in the image.

    ■   Sharpness
        Adjusts the sharpness of the image.

    ■   Color Adjustment
        Adjusts the color values. Select Abs. Color Temp. to adjust the overall value from 5000 °K (red) to 10000 °K (blue). Select Red, Green, Blue to adjust red, green, and blue hue and saturation values. (Not available if sRGB is selected as the Color Mode setting.)

    ■   Auto Iris
        Automatically adjusts the projected luminance according to the brightness of the image. (Available only when Dynamic or Theater is selected as the Color Mode for the current input source.)

Adjusting Signal Settings

Although the projector normally detects and optimizes the input signal automatically, you can use the Signal menu to make manual adjustments. In addition to changing the position of the projected image, you can correct tracking and sync for computer images, or change the aspect ratio.

1. Press the Menu button and select the Signal menu. You see a screen similar to one of those below. (The settings will be different depending on the source you are projecting from.)
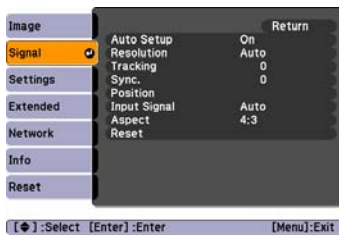
Computer
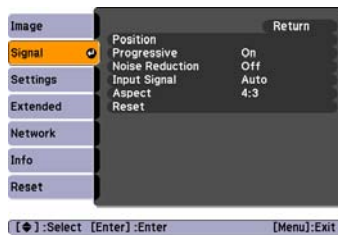
Component video
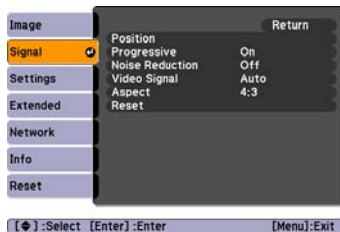
Composite video/S-Video

2. Adjust the desired options as needed:

    ■ Auto Setup
       Leave this setting On to automatically optimize computer images. Turn it off if you want to save adjustments you have made to the Tracking, Sync, and Position settings.

    ■ Resolution
       Set to Auto to have the projector automatically identify the resolution of the input signal. If necessary, select Wide (for widescreen images) or Normal (for 4:3 or 5:4 ratio images).

■ Tracking
Adjust this value to eliminate vertical stripes in computer images.

■ Sync
Adjust this value if computer images appear blurry or flicker.

■ Position
If the image is slightly cut off on one or more sides, it may not be centered exactly. Select this setting and use the arrow buttons to center it.

■ Progressive
For composite video, S-Video, and component video. Turn this setting on to convert interlaced signals into progressive signals (best for moving images). Leave the setting Off for still images.

■ Noise Reduction
Smooths out rough images. You may need to experiment to select the best setting for your image. Select Off when viewing low-noise image sources, such as DVDs.

■ Input Signal
If the colors don't look right on the Auto setting, select the setting for the type of equipment you've connected to the Computer1 or Computer2 port. Choose RGB for a computer or RGB-video connection, or Auto for a video player that outputs a component video signal (with connectors labeled Y/Cb/Cr or Y/Pb/Pr).

■ Video Signal (composite or S-Video signals only)
Select the setting for the type of equipment you've connected to the Video port. Leave this setting at Auto unless you are using a 60-Hz PAL system (then select PAL60).

■ Aspect
Sets the image's aspect ratio (ratio of width to height). See page 46 for more information.

Customizing Projector Features

You can use the Settings menu to lock the buttons on the projector, adjust audio volume, and customize several other features.

```
┌─────────────────────────────────────────────────────┐
│ Image          │              Return                 │
│ Signal         │  Keystone            0              │
│                │  Zoom                               │
│ Settings    ↵  │  Control Panel Lock  Off            │
│                │  Pointer Shape       Pointer 1      │
│ Extended       │  Power Consumption   ECO            │
│ Network        │  Volume              10             │
│                │  Mic Input Level     5              │
│ Info           │  Remote Receiver     Front/Rear     │
│ Reset          │  User Button         Power Consum... │
│                │  Pattern                            │
│                │  Reset                              │
└─────────────────────────────────────────────────────┘
  [◆]:Select  [Enter]:Enter          [Menu]:Exit
```
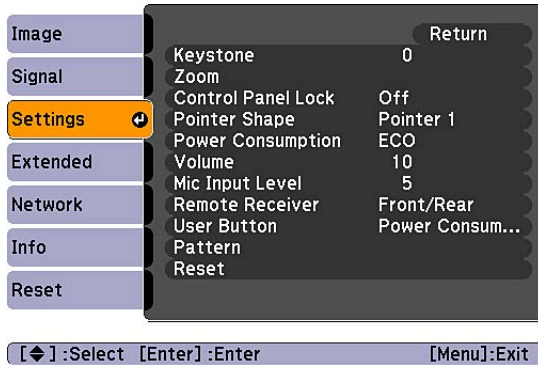
- **Keystone**
  Adjusts the shape of the image if the projector has been tilted upward or downward. If you notice that lines or edge look jagged after adjustment, decrease the Sharpness setting (see page 65).

- **Zoom**
  Adjusts the image size from Wide (larger) to Tele (smaller).

- **Control Panel Lock**
  Lets you disable all of the buttons on the projector, or all of the buttons except the ⏻ power button. See page 77 for more information.

- **Pointer Shape**
  Lets you choose from three alternative pointer shapes. See page 59 for more information.

- **Power Consumption**
  Lets you select from two levels of brightness. The ECO setting reduces power consumption and projector noise, and extends the lamp's operating life.

- **Volume**
  Raises or lowers the volume of the projector's speaker.

note
If you are using the interactive pens and you change the Keystone or Zoom settings, you will have to recalibrate.

■ Mic Input Level
Adjusts the microphone volume.

■ Remote Receiver
Deactivates the projector's front and/or rear sensors that detect signals from the remote control. Use this setting to prevent use of the remote control or to stop interference from bright fluorescent lights. Restart the projector for this setting to take effect.

■ User Button
Lets you create a shortcut to one of the following menu items: , Power Consumption, Info, Progressive, Closed Caption, Test Pattern, Resolution, Mic Input Level, or Pattern Display. When you press the User button on the remote control, the assigned menu item is displayed.

■ Pattern
Lets you select one of the following:

Pattern Display to display one of the available patterns.

Pattern Type to select from the following 4 patterns, or select a user-defined pattern:

Pattern 1   Pattern 2   Pattern 3   Pattern 4

User Pattern to capture a customized pattern. See page 57 for more information.

Test Pattern to display a pattern that you can use for adjusting the projector without connecting it (for a 16:10 image). You can use the pattern to adjust the zoom, focus, and other settings. To cancel the test pattern, press the Esc button on the remote control.

Customizing Power and Operation

You can use the Extended menu to customize the way the projector displays images, enable Direct Power On, use closed captioning, turn sleep mode on or off, and customize other projector operations.
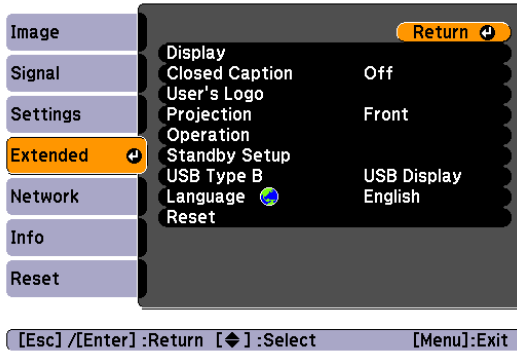
- ■ **Display**

  Messages: Lets you turn screen messages on or off.

  Display Background: Sets the screen background to Black, Blue, or Logo when no image signal is available.

  Startup Screen: Enables or disables display of the startup (User's Logo) screen when the projector is turned on.

  A/V Mute: Sets the screen background to Black, Blue, or Logo when the A/V Mute button is pressed.

- ■ **Closed Caption**
  Lets you display closed captioning for content that provides it.

- ■ **User's Logo**
  Create a custom startup screen, as described on page 76.

- ■ **Projection**

  Front/Ceiling: Lets you project onto the front of a screen.

  Rear/Ceiling: Lets you project from behind onto a transparent screen.

■   Operation

Direct Power On: Enable if you want to be able to start the projector when you connect the power cord (without pressing the ⏻ power button).

Sleep Mode: Enable if you want the projector to turn off automatically if it is idle and no signal is received for 1 to 30 minutes (you can adjust the amount of time using the next setting).

Sleep Mode Timer: When Sleep Mode is on, you can set the period of time before the projector turns off automatically, from 1 to 30 minutes.

High Altitude Mode: Enable when you are using the projector above 4,900 feet (1,500 meters) to ensure that the temperature is regulated properly. Turn this setting off for lower elevations.

Audio Input: Select a specific audio input source or set to Auto to support any input source.

■   Standby Setup

Standby Mode: Select Communication On to enable the projector to be monitored and controlled from a computer when it is in standby mode (the power light is orange). This setting also allows you to use a microphone connected to the projector or to run audio through the projector in standby mode.

Standby Microphone: Enable this setting to use a connected microphone when the projector is in standby mode.

Standby Audio: Enable this setting to output audio when the projector is in standby mode.

■   USB Type B
Select how you want to use the TypeB •⟷| (square) USB port. Select USB Display to use the USB port to project computer images. Select Wireless Mouse to use the remote control buttons like a wireless mouse. See page 58 for restrictions and details.

■   Language

     Select a language to use for the projector menus and messages. To
     change the language, press the Menu button on the remote
     control, highlight Extended and press Enter, select Language
     and press Enter, then select your language and press Enter.

Using the Projector Security Features

To prevent unauthorized use of the projector, you can:

■   Assign a password. You can use the password to prevent the
     projector from being turned on and prevent your custom startup
     screen from being changed. See the next section.

■   Create a custom screen that is displayed at startup and/or when
     the A/V Mute button is pressed. The screen can be locked with a
     password to discourage theft and provides a way to identify the
     projector should it be stolen. See page 76.

■   Disable the projector's buttons; this is useful, for example, in a
     classroom when you want to ensure that no one touches the
     projector's buttons while you're using the remote control. See
     page 77.

■   Secure the projector to prevent theft using a cable locking system.
     See page 78.

Hold down

Enabling Password Protection

The default setting for the password is 0000. Follow these steps to create a new password:

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

    ```
    [Password Protect]

    Power On Protect       Off
    User's Logo Protect    Off
    Network Protect        Off

    Password
    ```

    [♦]:Select [Enter]:Enter   [Menu]:Exit
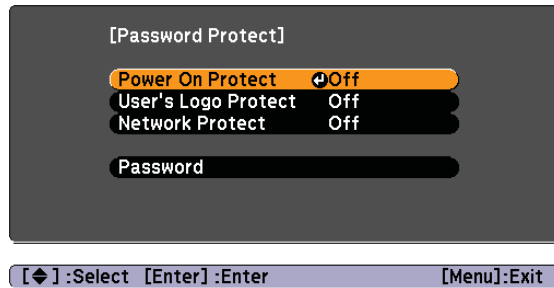
2. Select the type(s) of password protection you want to use:

    ■ Power On Protect: Prevents unauthorized use of the projector. After the projector is plugged in and turned on, you must enter a password to use the projector. Select On, press Enter, then press Esc to return to the Password Protect screen.

    ■ User's Logo Protect: Prevents your custom screen (see page 76), display, and User's Logo settings in the Extended menu from being changed. Select On, press Enter, then press Esc to return to the Password Protect screen.

    ■ Network Protect: Prevents any of the network settings from being changed. Select On, press Enter, then press Esc to return to the Password Protect screen.

3. Use the arrow buttons to 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. Hold down the Num button and use the numeric keypad to enter a four digit password.

6. When you see a confirmation message, re-enter the password.
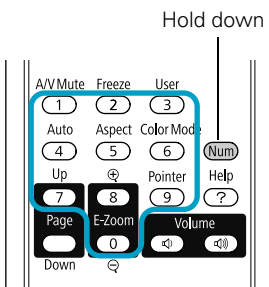
7. Press the Menu button, then press Enter to exit the screen.

8. Turn off and unplug the projector.

Starting the Projector With a Password

When the password function is enabled, you see this screen when you plug in and turn on the projector:
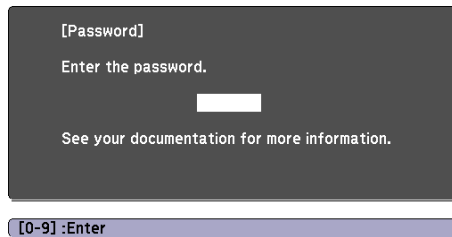
```
[Password]

Enter the password.

          _____

See your documentation for more information.
```

`[0-9] :Enter`

Hold down the Num button and use the numeric keypad to enter the four digit password.

The password screen closes and projection begins.

If projection does not begin, check the following:

■ If the password is not correct, you see a message prompting you to re-enter the password. If you enter an incorrect password three times in succession, you see an error code with the message The projector's operation will be locked and the projector switches to standby mode. Write down the error code, then disconnect the projector's power cord from the electrical outlet, reconnect it, and turn the projector back on. Try entering the correct password again.

■ If you have forgotten the password, contact Epson with the request code number that appears in the Password screen for assistance. See "Where To Get Help" on page 134.

■ If you enter an incorrect password 30 times in succession, the projector remains locked and you must contact Epson to arrange for service.

Creating Your Own Startup Screen

You can transfer any image from your computer or video source to the projector and then use it as your startup screen. You can also use it as the screen displayed when the projector is not receiving a signal or when you press the A/V Mute button. The image can be a company logo, slogan, photograph, or any other image you want to use.

Capturing the Image

Start by displaying the image you want to use from either a computer or video source, such as a DVD player or digital camera. Then follow these steps to capture the image and transfer it to the projector:

1. Press the Menu button on the remote control, highlight the Extended menu, and press Enter.

   Image
   Signal
   Settings
   Extended
   Network
   Info
   Reset

   Return
   Display
   Closed Caption   Off
   User's Logo
   Projection   Front
   Operation
   Standby Setup
   USB Type B   USB Display
   Language   English
   Reset

   [Esc] /[Enter] :Return [◆] :Select   [Menu]:Exit
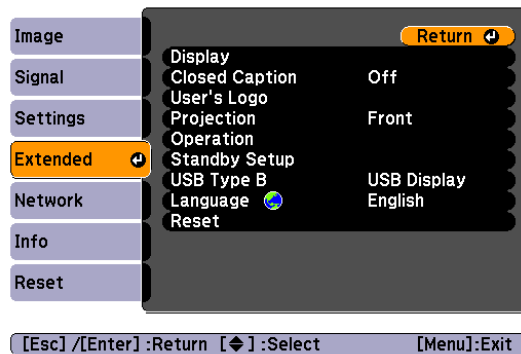
2. Highlight User's Logo and press Enter.

3. When you see a message asking Choose this image as the User's Logo?, select Yes and press Enter. A selection box displays over the image.

4. Use the arrow buttons to select the area of the image you want to use. Then press Enter.

5. When you see the message Select this image?, highlight Yes and press Enter.

6. Use the arrow buttons to select a zoom factor (display size) and press Enter.

7. When the message Save this image as the User's Logo? appears, select Yes and press Enter. Saving the logo may take a few moments. Do not use your projector, remote control, or video source while the logo is being saved.

8. When you see the message Completed, press Menu to exit.

Choosing When to Display the Image

After your image is saved, you can set it to display as the startup screen, the screen you see when there's no signal, or the screen you see when you press the A/V Mute button (see page 54).

1. Press the Menu button, highlight the Extended menu, and press Enter.

2. Select Display and press Enter.

3. Choose from these display options:

   ■ Set Display Background to Logo to display your image when there is no signal.

   ■ Set Startup Screen to On to display your image when the projector is warming up.

   ■ Set A/V Mute to Logo to display your image when you press the A/V Mute button.

4. When you're finished, press Menu to exit.

Disabling the Projector's Buttons

When you enable the Control Panel Lock function, you can lock all of the projector's buttons, or all of the buttons except the ⏻ power button. The remote control can still be used to operate the projector.

1. Press the Menu button, highlight the Settings menu, and press Enter.

2. Select Control Panel Lock and press the Enter button.

note
You can lock these settings to prevent them from being changed without a password (see page 74).

3. Select Full Lock (to lock all projector buttons) or Partial Lock (to lock all buttons except the ⏻ power button) and press Enter.


```
[Control Panel Lock]        Return
            Full Lock  ⏻
            Partial Lock
            Off

[Esc]:Return [♦]:Select [Enter]:Set        [Menu]:Exit
```
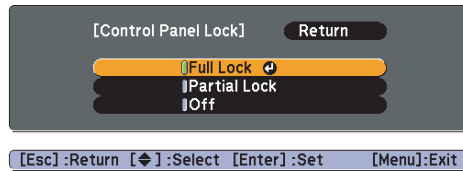
4. Select Yes and press Enter to confirm the setting.

5. Press the Menu button to exit.

To disable the Control Panel Lock function, select Off in the Control Panel Lock menu. Or press and hold the Enter button on the projector's control panel for seven seconds. A message is displayed and the lock is released.

Using Security Locking

The projector includes two security locking points to prevent its theft when installed or used in public locations:

■   Security cable attachment. You can attach a commercially available security cable as shown below to secure the projector to the wall mount (setting plate).

Kensington security slot

Security cable attachment bar
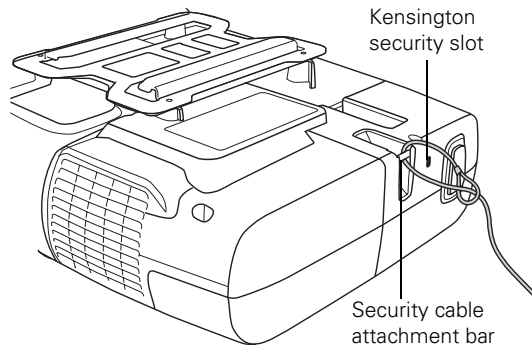
■   Kensington security slot. The security slot (located on the side of the projector) is compatible with the MicroSaver security systems manufactured by Kensington. You can purchase this lock from Epson (see page 21).

6 Using the Projector on a Network

This chapter tells you how to prepare to send images to your projector through a wired or wireless network.

Using EasyMP Network Projection, you can project images shown on your computer screen—including text, graphics, and video—directly to your audience. See the *EasyMP Network Projection Operation Guide* for information on features and use.

You can use EasyMP Monitor (available for Windows only) to monitor and control your projector through the network. For information on installing and using EasyMP Monitor, see the *EasyMP Monitor Operation Guide*.

You'll find instructions in this chapter on:

For wireless connection, make sure you've installed the optional wireless LAN module, as described on page 83. Then follow the steps in this chapter to use Quick Wireless Connection (Windows only) or configure your projector and network. See the *EasyMP Network*

---

note

If you want to use the interactive pens while projecting through a wired or wireless network, you must connect the USB cable from the projector to your computer.

Projection Operation Guide for instructions on installing the software. The guide also contains instructions on using the software to project over the network.

If you want to use the interactive pens while projecting through a wired or wireless network, you must set the USB Type B option to Wireless Mouse in the Extended menu. See page 72 for more information.

Connecting to a Wired Network

With a shielded, Category-5 Ethernet cable, you can connect the projector to your network and configure it with an IP address. You can then project from multiple computers on your network without changing any cables.

1. Connect the projector to your network using a commercially available 100BaseTX or 10BaseT network cable. Connect the cable to the LAN port on the projector as shown.

Network cable
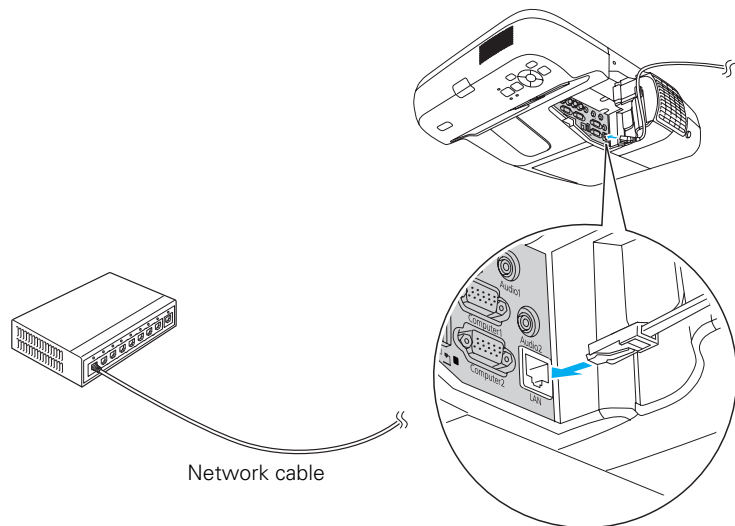
2. Connect the other end to your Ethernet hub or router.

3. Point the remote control at the projector and press the ⏻ power button.

4. Press the **LAN** button on the remote control to select network as the source.

5. Press the **Menu** button on the remote control, select the **Network** menu, then press **Enter**.
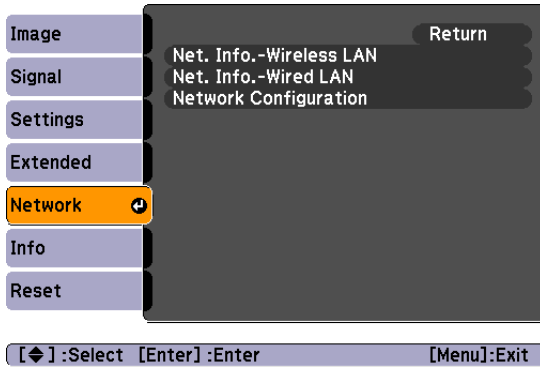
6. Choose **Network Configuration** and press **Enter**.

7. Select the **Wired LAN** menu and press **Enter**.

8. Choose **IP Settings** and press **Enter**. You see a screen like the following:
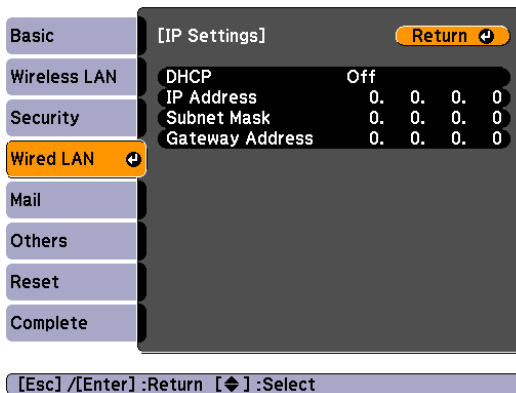
9. Do one of the following:

    ■ If your network assigns addresses automatically, turn on the **DHCP** setting.

■ 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, use the arrow buttons on the remote control to select each number on the screen, then press the Enter button. When you're finished entering an address in the network menu, highlight Finish, then press the Enter button.

10. Press Esc to return to the previous menu.

11. To prevent the IP address from appearing on the standby screen, set the IP Address Display setting to Off.

12. When you're done making these changes, press Esc, select Complete and press Enter. Then select Yes and press Enter again to save your settings.

Press Menu to exit the menu system.

Installing the Optional Wireless LAN Module

Make sure you have the optional Wireless LAN Module. Turn off the projector and disconnect the power cord before you install the module.

1. Open the air filter cover by sliding the switch and lifting the cover.
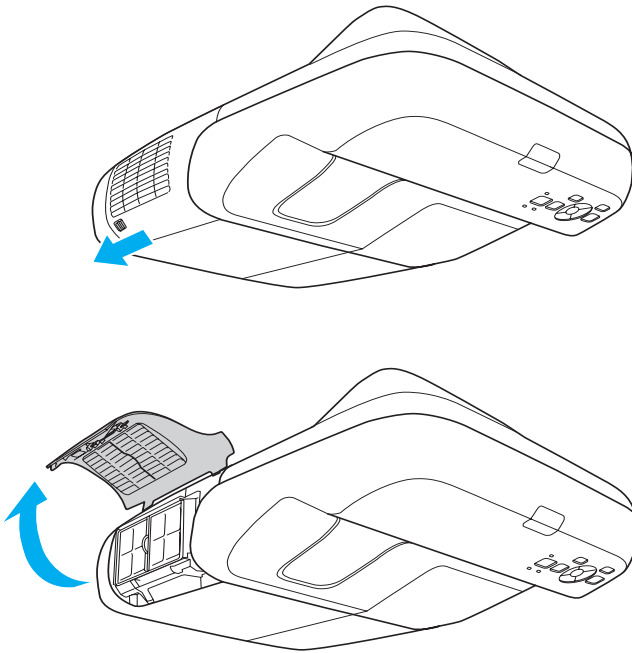
2. Insert the wireless LAN module as shown.
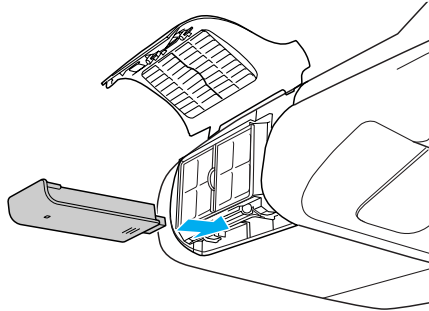
3. As a security feature, you can fasten the module using the screw that came with it.

Insert
screw here
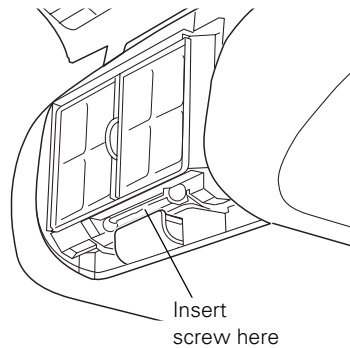
4. Close the air filter cover.

If you have the optional Quick Wireless Connection USB key (V12H005M005), you can use Quick Wireless connection as described in the next section (Windows only). Or, you can configure your connection manually as described on page 85.

Using Quick Wireless Connection

Using the optional Quick Wireless Connection USB key, you can connect the projector to a Windows computer wirelessly without any configuration.

First, make sure you have installed the wireless module as described on page 83 and turned on the projector.

1. Connect the USB key to the projector's TypeA (flat) ⟵⟶ USB port.

2. When you see a projected message that the network information update is complete, remove the USB key.

3. Connect the USB key to a USB port on your computer or notebook.

   In Windows 7 or Windows Vista, if you see the AutoPlay window, select Run LaunchU3.exe. When you see the User Account Control screen, click Allow.

4. Follow the instructions on the screen to install the Quick Wireless Connection driver.

   If you see a Windows Firewall message, click Yes to disable the firewall.

   After a few moments, your computer image will be displayed through the projector. If not, try restarting your computer.

5. When you're done with your presentation, remove the USB key. You may need to restart your computer to reactivate your wireless interface.

Configuring Basic Settings

You can give your projector a unique name, enable a projector keyword, or create a password for controlling the projector over the Web.

1. Press the Menu button, then choose Network and press Enter.

2. Choose Network Configuration and press Enter.

3. Choose Basic and press Enter. You see the following screen:
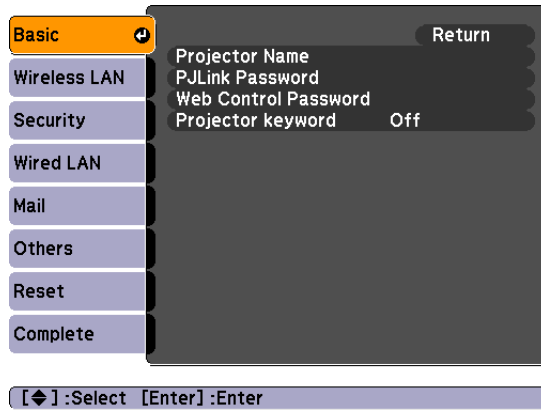
4. Make sure the projector has a unique name, so you can identify it on your network.

   If you need to rename it, highlight the Projector name text box then press Enter.

5. Use the arrow buttons on the remote control to select individual letters; then press Enter to input a character. To navigate backward and forward through the input text, highlight the arrows and press Enter. To toggle symbol settings or capital letters, highlight the option and press Enter. (The only symbols available are the hyphen and underscore.) When you're done, highlight Finish and press Enter.

6. If you want to create a password for using PJLink to control the projector, highlight PJLink Password, press Enter, and enter a password of up to 8 alphanumeric characters. When you're done, highlight Finish and press Enter.

7. If you want to create a password for remote access to the projector, highlight Web Control Password, press Enter, and enter a password of up to 8 alphanumeric characters. When you're done, highlight Finish and 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. If you're using EasyMP Network Projection, you can enter the keyword on your computer to connect (see the *EasyMP Network Projection Operation Guide* for details).

9. When you're done making these settings, press Esc, choose Complete and press Enter, then choose Yes and press Enter to save your settings.

Configuring a Wireless Connection

After you install the optional wireless LAN module, you can use the EasyMP Network Projection software 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, 802.11b, or 802.11a) network card or adapter, or a Macintosh with an AirPort® or AirPort Extreme card. When you connect with this mode, any connection to other wireless networks is broken; you can connect to the projector only.

■   **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, 802.11b, or 802.11a) access point or an AirPort Extreme (or AirPort) base station, and one or more computers with wireless network cards or adapters.

Configuring the Projector

1. Press the Menu button, then choose Network and press Enter.

2. Choose Network Configuration and press Enter.

3. Choose Wireless LAN and press Enter. You see this screen:
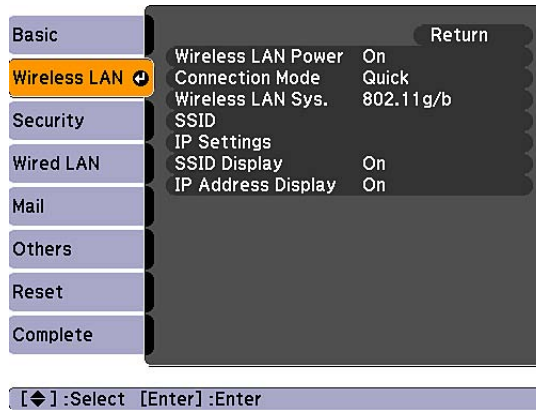
4. Make sure Wireless LAN Power is set to On. You can turn it off to prevent unauthorized access.

5. Select one of the following connection modes:

    ■ Quick mode lets you easily connect one computer to the projector at a time. You can also select this setting when you're using the optional Epson Quick Wireless Connection USB key.

    ■ Advanced mode lets multiple computers access the projector at the same time and easily trade off control of the projector. This method requires a wireless network access point or an AirPort Extreme (or AirPort) base station.

6. If your network is using 802.11a, use the arrow buttons on the remote control to highlight 802.11a, then press Enter to select it. Press Esc to return to the previous menu.

7. Highlight SSID, press Enter, and enter the name you want to assign to the projector (Quick mode), or the name of your existing wireless network (Advanced mode):

Use the arrow buttons to select individual letters; then press Enter to input a character. To navigate backward and forward through the input text, highlight the arrows and press Enter. To toggle symbol settings or capital letters, highlight the option and press Enter. When you're done, highlight Finish and press Enter.

```
[SSID]
_____

A  B  C  D  E  F  G   1  2  3  +  -  .    Backsp  Del
H  I  J  K  L  M  N    4  5  6  %  &  '      ←     →
O  P  Q  R  S  T  U    7  8  9  !  #  $             AllDel
V  W  X  Y  Z  CAPS    0  SYM1  ?  @  _     Finish  Cancel
```
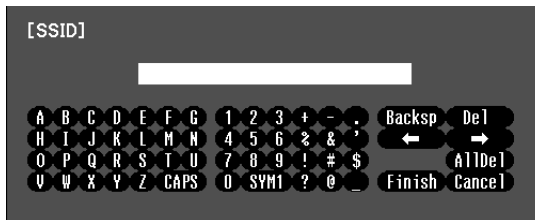
Note that the SSID is case-sensitive (if you enter the name in uppercase on the projector, you must type it the same way on the computer connecting to the projector).

8. Select IP Settings and do one of the following:

■ If your network assigns addresses automatically, turn on the DHCP setting.

■ 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, use the arrow buttons on the remote control to select each number on the screen, then press the Enter button. When you're finished entering an address in the network menu, highlight Finish, then press the Enter button.

9. If you want to prevent the SSID from being displayed on the standby screen, set the SSID Display option to Off.

10. To prevent the IP address from appearing on the standby screen, set the IP Address Display setting to Off. Press Esc to return to the previous menu.

11. When you're done making these settings, press Esc. Choose Complete and press Enter, then choose Yes and press Enter to save your settings.

Now you're ready to select the wireless network your computer, as described below.

Selecting Wireless Network Settings in Windows

Before connecting to the projector, select the correct wireless network on your computer.

1. To access your wireless utility software, double-click the network icon on the Windows taskbar.

2. Do one of the following:

   ■ If your projector is set up on an existing network (Advanced mode), select the network name (SSID).

   ■ If your projector is configured for Quick mode, select the SSID you assigned to the projector.

3. Click Connect.

Now you're ready to connect to the projector. See the *EasyMP Network Projection Operation Guide* for details.

Selecting Wireless Network Settings in Mac OS

Before connecting to the projector, select the correct wireless network on your computer.

1. Click the AirPort icon on the menu bar at the top of the screen.

2. Make sure AirPort is turned on, then do one of the following:

   ■ If your projector is set up on an existing network (Advanced mode), select the network name (SSID).

   ■ If your projector is configured for Quick mode, select the SSID you assigned to the projector.

Using Wireless Security Options

The projector includes WEP and WPA data encryption security options which you can enable for network projection.

Make sure the settings you select match the ones used by your network; follow the directions from your network administrator.

See the following sections to enable security options on your projector:

- "Enabling WEP Encryption" below

- "Enabling WPA Security" on page 93

You also need to enable security settings from EasyMP Network Projection (see page 94).

Enabling WEP Encryption

1. Press **Menu** on the projector remote. Highlight **Network** and then press **Enter**.

2. Choose **Network Configuration** and press **Enter**.

3. Highlight **Security**, then press **Enter**. You see the following screen:

4. Press **Enter** to select Security, then select **WEP** and press **Enter**. Press **Esc** to return to the previous menu.

5. For the WEP encryption setting, select 128Bit or 64Bit and press Enter. Press Esc to return to the previous menu.

6. For Format, highlight ASCII to enable text input or HEX to enable hexadecimal input, then press Enter. Press Esc to return to the previous menu.

7. If you chose 64Bit as WEP Encryption, choose Encryption key 1, 2, 3, or 4. Press Esc to return to the previous menu.

Highlight the Encryption key that corresponds to the Key ID you selected, then press Enter. Use the arrow buttons to select individual letters; then press Enter to input a character. To navigate backward and forward through the input text, highlight the arrows and press Enter. To toggle symbol settings or capital letters, highlight the option and press Enter. When you're done, highlight Finish and press Enter.
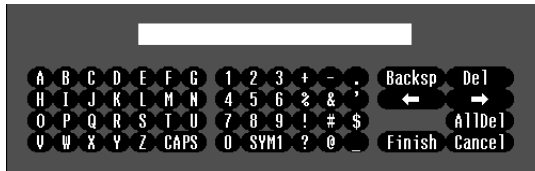
8. Check with your network administrator for directions on entering a key for your network, and follow these general guidelines:

   ■ For 128 bit WEP encryption with hexadecimal input, enter 26 characters, from 0 to 9 and from A to F.

   ■ For 64 bit WEP encryption with hexadecimal input, enter 10 characters, from 0 to 9 and from A to F.

   ■ For 128 bit WEP encryption with ASCII or text input, enter 13 alphanumeric characters.

   ■ For 64 bit WEP encryption with ASCII or text input, enter 5 alphanumeric characters.

9. For Authentication Type, select Open or Shared, depending on the setting your network uses. Press Esc to return to the previous menu.

10. When you're done making these settings, press **Esc**. Choose **Complete** and press **Enter**, then choose **Yes** and press **Enter** to save your settings.

Enabling WPA Security

1. Press **Menu**. Highlight **Network** and then press **Enter**.

2. Choose **Network Configuration** and press **Enter**.

3. Highlight **Security**, then press **Enter**. You see the following screen:

4. Press **Enter** to show the menu, then choose one of the following and press **Enter**.

   ■   WPA-PSK (TKIP)

   ■   WPA-PSK (AES)

   ■   WPA2-PSK (TKIP)

   ■   WPA2-PSK (AES)

5. Press **Esc** to return to the previous screen.

6. Highlight the **PSK** (pre-shared key) and press **Enter**. Use the arrow buttons to select individual letters; then press **Enter** to input a character. To navigate backward and forward through the

input text, highlight the arrows and press Enter. To toggle symbol settings or capital letters, highlight the option and press Enter. When you're done, highlight Finish and press Enter.

```
┌─────────────────────────────────────────────┐
│           ┌───────────────────────┐          │
│           └───────────────────────┘          │
│  A B C D E F G  1 2 3 + -  .  Backsp  Del     │
│  H I J K L M N  4 5 6 % &  '    ←     →       │
│  O P Q R S T U  7 8 9 ! # $          AllDel   │
│  V W X Y Z CAPS 0 SYM1 ? @ _  Finish  Cancel  │
└─────────────────────────────────────────────┘
```
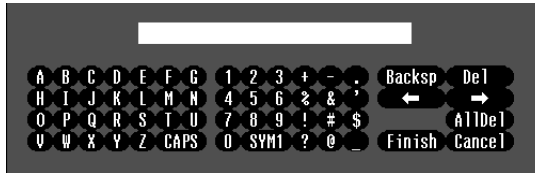
7. When you're done making these settings, press Esc. Choose Complete and press Enter, then choose Yes and press Enter to save your settings.

Enabling Data Encryption from EasyMP Network Projection

When using the EasyMP Network Projection software, follow these steps to enable data encryption.

1. Click Set options on the main screen.

2. Click the General Settings tab.

3. Select the Encrypt communications checkbox.

4. Click OK.

For more information, see the *EasyMP Network Projection Operation Guide*.

Using the EasyMP Software

Once you've set up your projector and computer for network projection, see the *EasyMP Network Projection Operation Guide* for instructions on the following EasyMP features:

■ Starting EasyMP Network Projection

■ Projecting over the network (content over IP)

■ Multi-screen projection

■ Using Presentation mode

■ Connecting to a projector on a different subnet

Using Projector E-mail Alerts

When this feature is enabled, the projector sends you an e-mail alert if it has any problems.

1. Press the Menu button on the remote control, select the Network menu, then press Enter.

2. Choose Network Configuration and press Enter.

3. Choose Mail, then press Enter. You see the following screen:
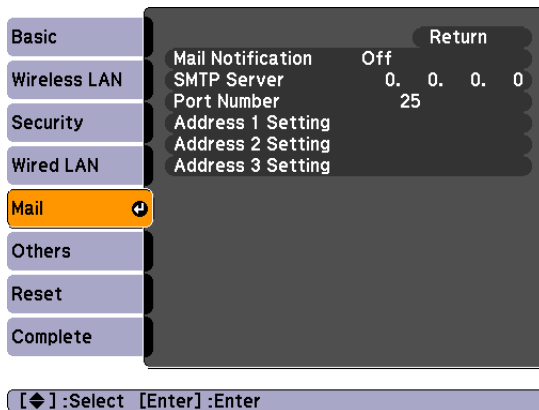
4. Highlight On to receive email notifications, then press Enter. Press Esc to return to the previous menu.

5. Enter the IP address for the SMTP server for the projector.

    You can enter a number from 0 to 255 in each field of the address. However, the following IP addresses cannot be used: 127.x.x.x, 224.0.0.0 to 255.255.255.255 (where x is a number from 0 to 255).

    To enter numbers, use the arrow buttons on the remote control to select each number on the screen, then press the Enter button. When you're finished entering an address in the network menu, highlight Finish, then press the Enter button.

6. Enter the SMTP server's port number. The default value is 25. You can enter a numeric value from 1 to 65535.

7. Choose one of the Address fields and press Enter. Then enter the e-mail address and the contents of the message that you will receive when a problem or warning occurs. You can register up to three addresses. You can enter up to 32 alphanumeric characters for the e-mail address.

8. When you're done making these settings, press Esc. Choose Complete and press Enter, then choose Yes and press Enter to save your settings.

When the selected problem or warning occurs, an e-mail message is sent to the specified notification addresses. The subject line of the e-mail is EPSON Projector.

The e-mail includes the following information:

■ Line 1: The name of the projector where the problem has occurred

■ Line 2: The IP address of the projector where the problem has occurred

■ Line 3: Details of the problem

Using SNMP to Monitor the Projector

Network administrators can use SNMP (Simple Network Management Protocol) to monitor projectors.

1. Press the **Menu** button on the remote control, select the **Network** menu, then press **Enter**.

2. Choose **Network Configuration** and press **Enter**.

3. Choose **Others**, then press **Enter**. You see the following screen:

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.
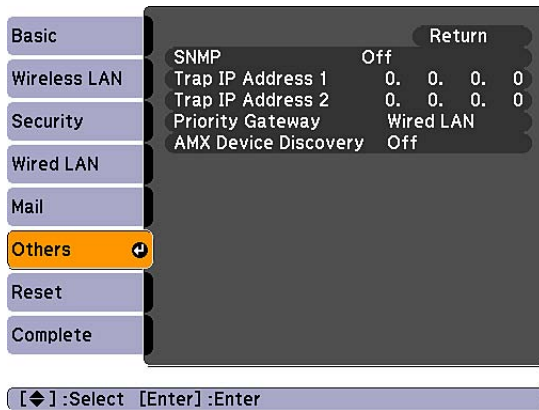
4. Turn on the SNMP setting.

5. Enter up to two IP addresses for notification in the Trap IP Address fields.

    You can enter a number from 0 to 255 in each field of the address. However, the following IP addresses cannot be used: 127.x.x.x, 224.0.0.0 to 255.255.255.255 (where x is a number from 0 to 255).

    To enter numbers, use the arrow buttons on the remote control to select each number on the screen, then press the **Enter** button. When you're finished entering an address in the network menu, highlight **Finish**, then press the **Enter** button.

6. For **Priority Gateway**, select **Wired** or **Wireless**. Press **Esc** to return to the previous screen.

7. If your network environment uses an AMX controller, select ON to allow the projector to be detected by AMX Device Discovery.

8. When you're done making these settings, press Esc. Choose Complete and press Enter, then choose Yes and press Enter to save your settings.

Using a Browser to Control the Projector

You can use a standard web browser to monitor and control the projector through the network. Because you can use your computer's keyboard, you may find it easier to make network settings using your browser than using the projector's remote control.

1. Make sure the projector is set up for your network, as described on page 80. (Standby Mode in the Extended menu should be set to Communication On to monitor the projector in standby mode.) When using a browser to access the projector, you cannot connect through a proxy server.

2. Open your web browser and enter the IP address of the projector you want to monitor in the browser window.

   If you're not sure what the address of the projector is, turn the projector on and select Net. Info.-Wired LAN or Net. Info.-Wireless LAN from the Network menu to display the IP address of the projector. Do not enter the leading zeroes.

3. Press Enter, or, if you set a Web control password in the projector's Network menu, enter your user name and password, then press Enter. You see a screen like the following:
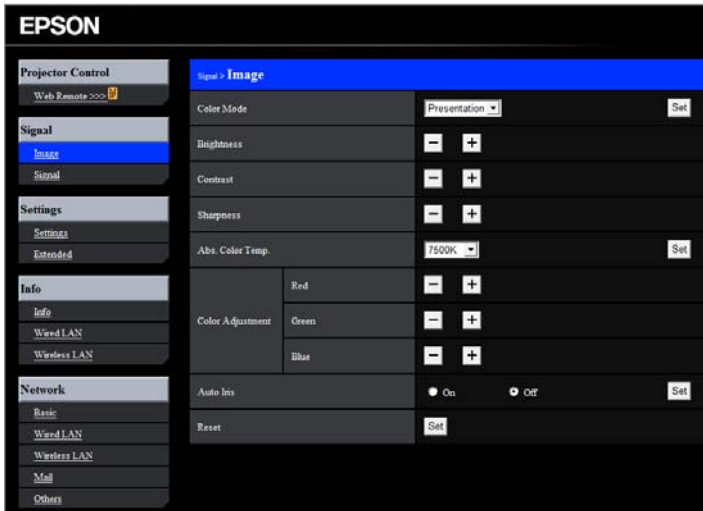
4. Select one of the menu options listed on the screen, then change any of the settings as needed. These settings correspond to those found in the projector's menu system.

   You cannot change the following settings using a web browser:

   ■ Pointer Shape, Pattern, or User Button in the Settings menu

   ■ User's Logo, High Altitude Mode, and Language in the Extended menu

   ■ Reset All and Reset Lamp Hours in the Reset menu

   ■ Password protection

Using Web Remote Control

When you access the projector through your browser, you can display a "virtual remote control" on your computer screen. This lets you change sources and perform many of the same functions as you can with the physical remote control.

From the Projector Control menu, select Web Remote. You see the following screen:
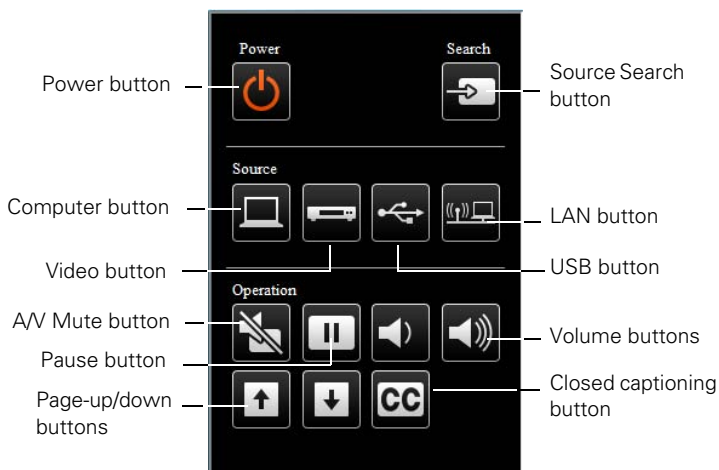
- ■ The Power button turns the projector on and off.

- ■ The Search button searches for signal sources (see page 43).

- ■ The Computer button selects a computer signal (connected to the Computer1 or Computer2 port).

- ■ The Video button selects a video signal (connected to the Video or S-Video port).

- ■ The LAN button selects a network signal or wireless signal (using the optional wireless unit).

- ■ The USB button selects USB computer display (see page 25) or a signal from equipment connected to the TypeA ⟳ (flat) USB port, such as a document camera (see page 37).

- ■ The Pause button stops the image (see page 55).

- A/V Mute button temporarily turns off the picture and sound (see page 54).

- The Page Up/Down buttons control PowerPoint slides (requires USB cable. See page 58).

- The Volume buttons raise or lower the audio volume.

- The CC (Closed Captioning) button lets you display closed captioning for content that provides it.

7 *Maintaining the Projector*

Your projector needs little maintenance. All you have to do on a regular basis is clean the lens, and check that the air filter and vents are clean. A clogged air filter or vent can block ventilation needed to cool the projector.

The only parts you should replace are the lamp and air filter. If any other part needs replacing, contact your dealer or a qualified servicer.

This chapter covers the following:

■ Cleaning the projection window

■ Cleaning the projector case

■ Cleaning the air filter

■ Replacing the air filter

■ Replacing the lamp

■ Replacing the pen batteries

■ Replacing the remote control batteries

■ Transporting the projector

Cleaning the Projection Window

Clean the projection window whenever you notice dirt or dust on the surface.
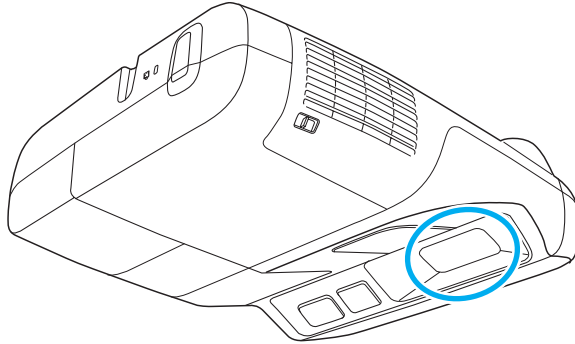
To remove dirt or smears on the window, use a commercially available cloth for cleaning glasses.

Cleaning the Projector Case

Before cleaning, 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 neutral detergent and firmly wring the cloth dry. Then wipe the case.

Cleaning the Air Filter

Your projector includes an air filter to ensure the best performance and help protect your equipment investment. If dust collects on the air filter, clean it as described here. Dust clogs prevent proper ventilation and can cause overheating, which can damage the projector.

1. Turn off the projector.

2. Remove dust from the air filter using a small vacuum cleaner designed for computer or office equipment, or gently clean the vent with a soft brush (such as an artist's paintbrush).
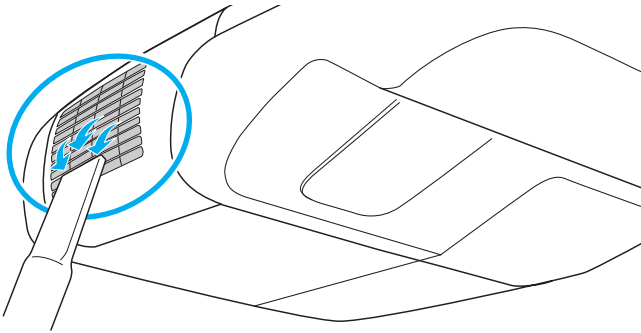
You can remove the air filter to clean both sides.

If the filter is too dirty or broken, replace the filter as described below.

Replacing the Air Filter

You need to replace the air filter if:

■ You cannot remove the dust from it

■ The air filter is damaged or torn

■ You repeatedly see a projected message telling you to clean or replace it

Contact your dealer or call Epson at 800-GO-EPSON
(800-463-7766) to obtain a new air filter. Request part number
V13H134A34.

1. Turn off the projector and unplug the power cord.

2. Slide the switch, then open the air filter cover on the side of the
   projector.
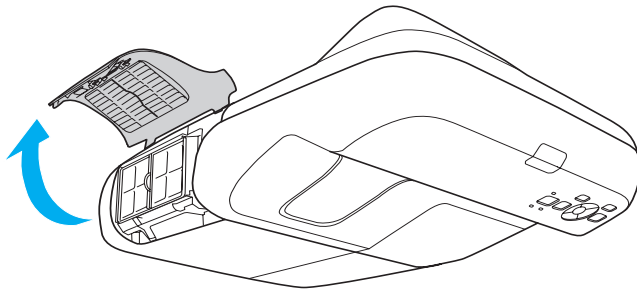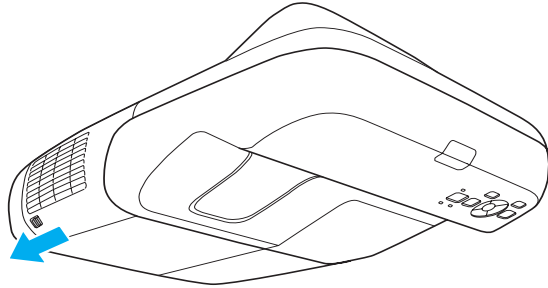
3. Grasp the tab and pull the air filter straight out as shown.
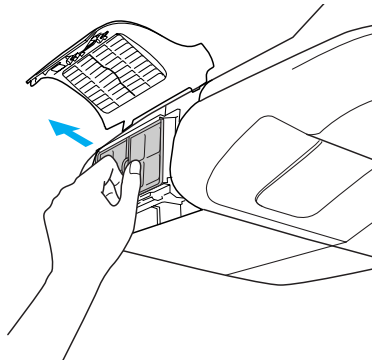
4. Press in the new air filter until it clicks into place.
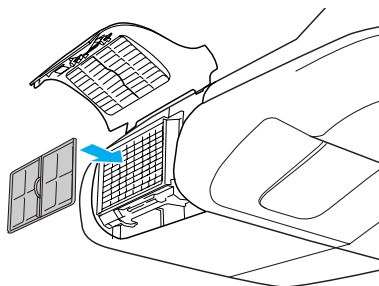
Replacing the Lamp

The life span of the projection lamp is about 2500 hours if Power Consumption in the Settings menu is Normal (default), and 3500 hours if this setting is ECO. See page 111 to check the lamp usage.

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 and the ☼ Lamp light flashes orange. To maintain projector brightness and image quality, replace the lamp as soon as possible.

You may also need to replace the lamp if the ☼ Lamp light flashes red. See page 117.
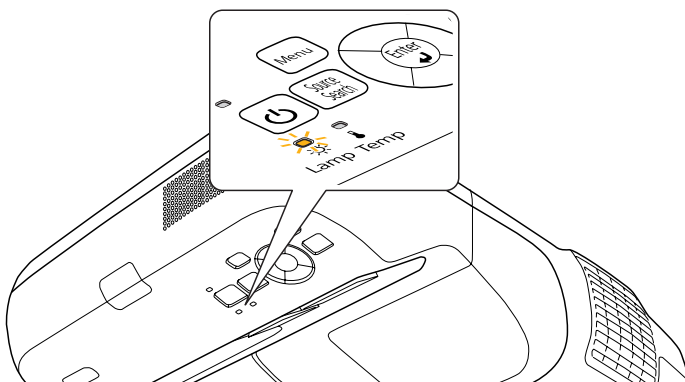
Contact your dealer or call Epson at 800-GO-EPSON (800-463-7766). Request part number V13H010L57.

*In the unlikely event that
the lamp has broken, small
glass fragments may be
present and should be
removed carefully to avoid
injury. If the projector has
been installed on the ceiling,
you should stand to the side
of the lamp cover, not
underneath it.*

*If the lamp is used after the
replacement period has
passed, the possibility that
the lamp may break
increases. When a lamp
replacement message
appears, replace the lamp
with a new one as soon as
possible, even if it is still
working.*

Follow these steps to replace the lamp:

1. Turn off the projector and unplug the power cord.

2. Let the projector cool for at least an hour (if it has been on). The lamp is extremely hot immediately after use.

3. Loosen the lamp cover screw (you cannot remove it). Then slide the lamp cover off.
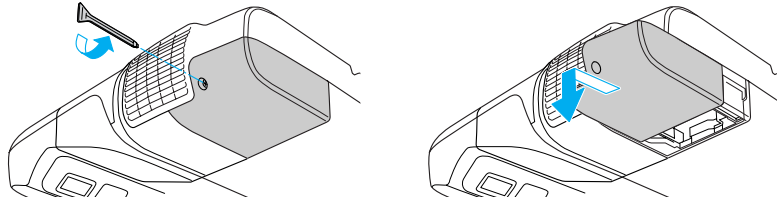
4. Loosen the two screws holding the lamp in place (you can't remove them).

Loosen, but don't
remove these screws
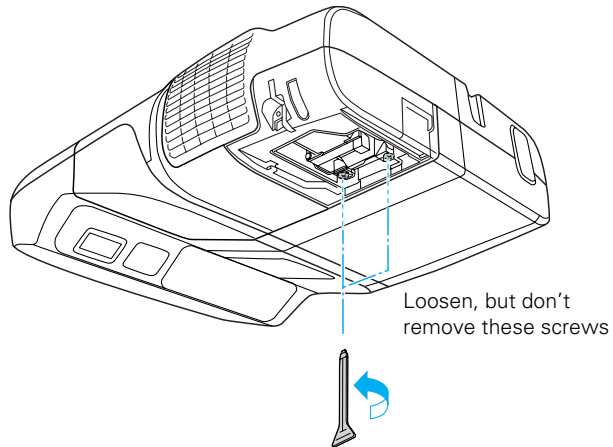
5. Grasp the lamp handle as shown and pull it straight out.
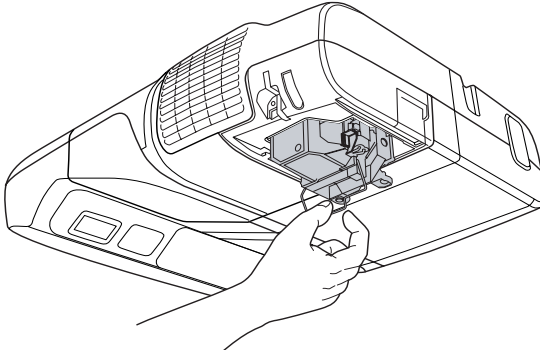
6. Gently insert the new lamp along the guide rail, then push it in place.
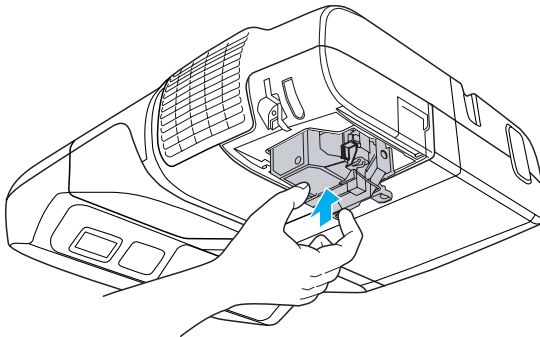
7. Tighten its screws, then press it in by the handle until it clicks into place.
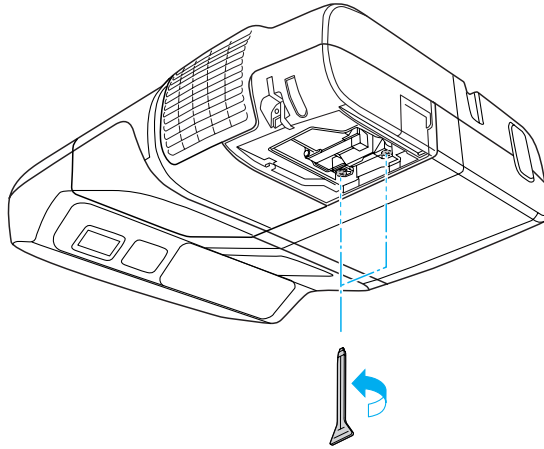
note

Tighten the lamp cover securely so you do not receive a lamp cover error when you turn the projector back on.

8. Replace the lamp cover, then tighten its screw.
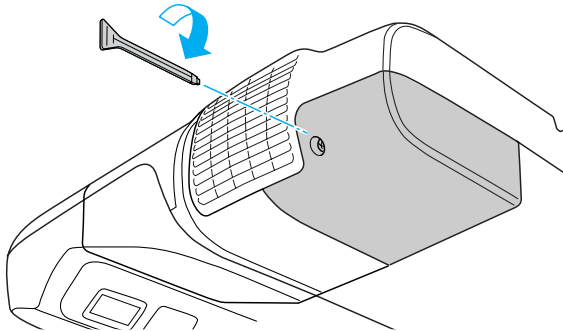
9. Reset the lamp timer as described in the next section.

Resetting the Lamp Timer

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

1. Press the Menu button on the remote control or on the projector's control panel. You see the main menu.

2. Select the Reset menu and press Enter. You see this screen:
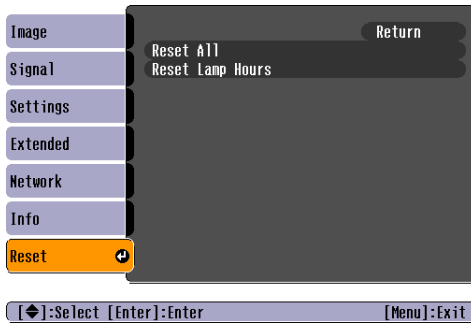
3. Select Reset Lamp Hours and press Enter.

4. When you see the prompt, select Yes and press Enter.

5. When you're finished, press Menu to exit.

Checking Lamp Usage

To check the number of hours the lamp has been used, press the Menu button and highlight the Info menu. You see a screen like this:

The life span of the lamp is about 2500 hours if **Power Consumption** in the Settings menu is **Normal** (default), and 3500 hours if this setting is **ECO**. Make sure you have a spare lamp handy if the usage hours on this menu are close to the life span of your lamp.

Replacing the Pen Batteries

To check the pen batteries, press the button. If the indicator light is green, the battery has enough power.

Battery indicator
light
Button

EPSON
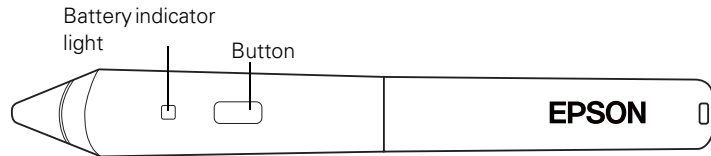
If you need to replace the batteries, use two rechargeable or alkaline AAA batteries.

1. Press in the tab on the battery cover as you lift the cover off.
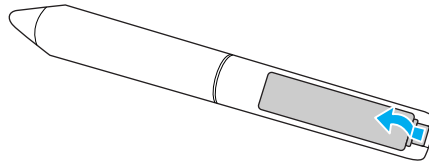
2. Install two batteries, inserting the + and – ends as shown.
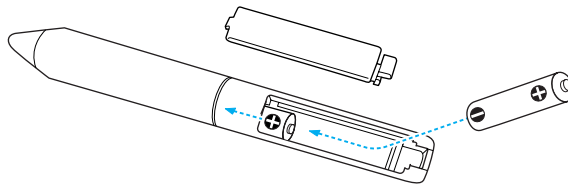
3. Replace the battery cover and press it down until it clicks into place.
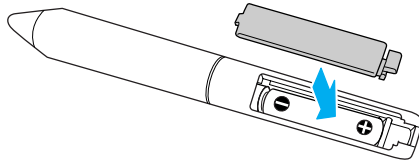
Replacing the Remote Control Batteries

Replace the batteries in the remote as described below:

1. Turn the remote control over.

2. Press in on the catch on the battery cover as you lift the cover off.
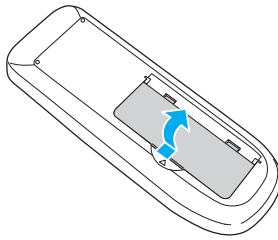
3. Install two AA alkaline batteries, inserting the + and − ends as shown.
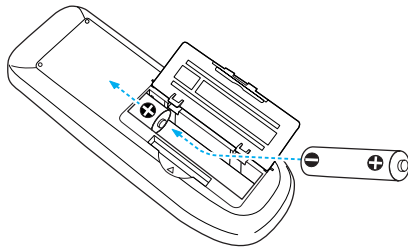
4. Replace the battery cover and press it down until it clicks into place.
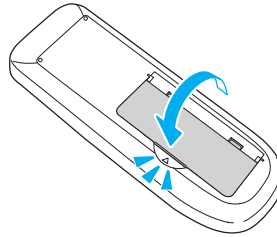
Transporting the Projector

The projector contains many glass and precision parts.

Follow these guidelines to prevent damage when transporting it:

■ 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, then pack it in a firm box with cushioning around the case.

8 *Solving Problems*

This chapter helps you solve problems with your projector and tells you how to contact technical support for problems you can't solve yourself. The following information is included:

■ Using the projector's on-screen help system

■ What to do when the projector's status lights flash

■ Solving projector operation problems

■ Solving problems with the image or sound

■ Solving problems with the interactive pens

■ Solving password problems

■ Solving network problems

■ Solving problems with the remote control

■ Contacting technical support

Using On-Screen Help

If the image doesn't look right or your audio isn't working, you can get help by pressing the **? Help** button on the projector or the remote control.

1. Press the **? Help** button on the remote control or on the projector. You see the Help menu:
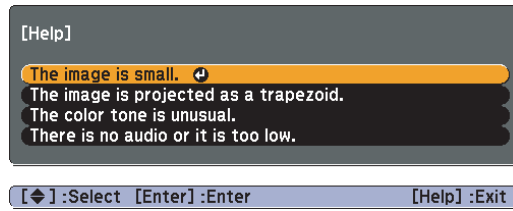
2. Use the arrow buttons on the remote control or the projector to highlight menu items.

3. Press the **Enter** button on the remote control or the projector to select the menu item and read the solutions.

4. To exit the help system, press the **? Help** button or **Esc** button.

If none of the suggestions solve your problem, see additional solutions to problems in the following sections.

Checking Projector Status

If your projector isn't working correctly, first turn it off and unplug it. Then plug the power cord back in and turn on the projector. If this doesn't solve the problem, check the lights on top of the projector.

What To Do When the Lights Flash

The lights on top of the projector indicate the projector's status.
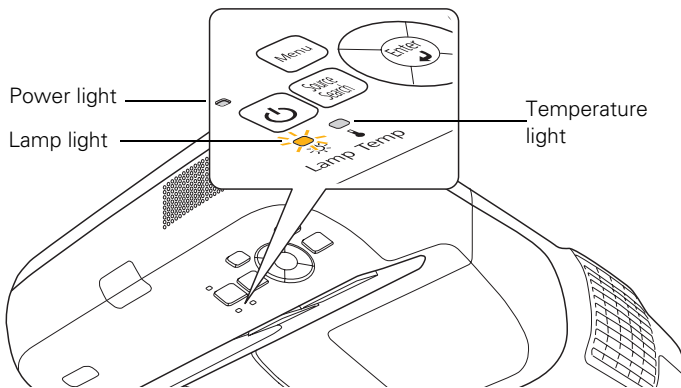
Refer to the following tables for a complete description of the projector's status lights:

Power light status

⏻ **Power light status**	**Description**
Flashing green	The projector is warming up. Wait for the image to appear.
Green	The projector is operating normally.
Orange	The projector is in sleep or standby mode. You can unplug it or press the ⏻ power button to turn it on.
Flashing orange	Preparing for network monitoring or cooling down.
Red or flashing red	There is a problem with the projector. Check the next table to diagnose the problem.

Error light(s) status

Error light(s) status	Description
⏻ Green or orange ☼ Flashing orange 🌡 Off	It's time to replace the lamp. See page 107 for instructions. If you continue to use the lamp after the replacement warning, there is an increased possibility that the lamp may break.
⏻ Flashing red ☼ Off 🌡 Flashing orange	Rapid cooling is in progress. Although this is not an abnormal condition, projection will stop automatically if the temperature rises higher. Make sure there is plenty of space around and under the projector for ventilation, and that the air filter and vents are clean.
⏻ Red ☼ Off 🌡 Red	The projector is overheating, which turns the lamp off automatically. Wait until the projector switches to standby mode (about 5 minutes). Make sure there is plenty of space around and under the projector for ventilation. The air filter may be clogged. Clean or replace the air filter as described on pages 105 to 107. If you're using the projector above an altitude of 4,900 feet (1,500 meters), turn on **High Altitude Mode** in the Operation menu (see page 72). If the projector continues to overheat after you clean the air filter, stop using the projector, disconnect the power cord, and contact Epson for help as described on page 134. **Warning:** Except as specifically explained in this *User's Guide*, do not attempt to service this product yourself.
⏻ Flashing red ☼ Red 🌡 Flashing red	The projector has an internal problem. Stop using the projector, disconnect the power cord, and contact Epson for help, as described on page 134.
⏻ Red ☼ Off 🌡 Flashing red	There is a problem with the fan or temperature sensor. Stop using the projector, disconnect the power cord, and contact Epson as described on page 134.
⏻ Red ☼ Flashing red 🌡 Off	The lamp may be burnt out. First make sure the lamp cover is securely installed. If that's not the problem, the air filter may be clogged. Clean or replace the air filter as described on pages 105 to 107. If this does not resolve the problem, let the lamp cool and then remove it. If the lamp is cracked, replace it as described on page 107. If the lamp is not cracked, reinstall it. If reinstalling doesn't work, replace the lamp. If you're using the projector above an altitude of 4,921 feet (1,500 meters), turn on **High Altitude Mode** in the Operation menu (see page 72). If none of these suggestions resolves the problem, contact Epson as described on page 134.
⏻ Flashing red ☼ Flashing red 🌡 Flashing red	The projector has an Auto Iris error or power error. Stop using the projector, disconnect the power cord, and contact Epson for help, as described on page 134.

Solving Projector Operation Problems

The power doesn't turn on.

■ If the projector doesn't turn on when you press the ⏻ power button, make sure the power cord is connected to the projector and plugged into a working electrical outlet.

■ The power cord may be defective. Disconnect the cord from the outlet and contact Epson as described on page 134.

■ If you're using the Direct Power On function and you immediately plug the power cord back in after unplugging it, the power may not turn back on. Press the ⏻ power button to turn the projector back on.

The buttons on the projector don't work.

If the Control Panel Lock function has been enabled, you can't use the buttons on the projector. Try using the remote control instead, or press and hold the projector's Enter button for seven seconds to release the lock (see page 77).

You are having trouble projecting through the USB cable connection.

■ Press the USB button on the remote control.

■ If the USB Display driver is not installed automatically the first time you connect the cable, do one of the following:

Windows: Double-click Computer or My Computer > EPSON_PJ_UD > EMP_USDE.EXE.

Mac OS: Double-click EPSON_PJ_UD > USB Display Installer.

- If nothing is projected after the drivers are installed, do one of the following:

  Windows: Select 🪟 or Start > All Programs or Programs > EPSON Projector > EPSON USB Display > EPSON USB Display Vx.x.

  Mac OS: Click the USB Display icon in the Dock. If you don't see it, open the USB Display folder in the Applications folder and run USB Display.

- Make sure USB Type B in the Extended menu is set to USB Display (see page 72).

- In Windows, if the mouse pointer flickers, select All Programs or Programs > EPSON Projector > EPSON USB Display > EPSON USB Display Vx.x., then clear the Transfer layered window checkbox.

- With Windows DirectX, turn off DirectX functions.

- If you are using Windows Media Center, make sure you use window display mode, rather than full-screen display mode.

- If the image is choppy, make sure you are using a USB 2.0 interface on your computer.

Solving Problems With the Image or Sound

No image appears on the screen.

- Check that the ⏻ power light is green and not flashing. Also press the A/V Mute button on the remote control to make sure the picture has not been turned off temporarily.

- The projector may be in standby or sleep mode. If the ⏻ power light is orange, press the ⏻ power button to turn the projector on.

- If the power was switched off and then on again, the projector may be cooling down. Wait until the ⏻ power light stops flashing and remains orange; then press the ⏻ power button again.

- The attached computer may be in sleep mode or displaying a black screen saver. Try pressing a key on the computer.

- If you are projecting from a DVD player or other video source, make sure you turn it on and press its Play button.

- If you are projecting video from a laptop, you may need to set the laptop to external output only.

- If you are projecting from a composite or S-Video video source, make sure the Video Signal setting is correct (see page 67).

- You can also try resetting all of the menu settings (see page 65).

- If you're projecting through your computer's USB port, make sure the USB Type B setting in the Extended menu is set to USB Display (see page 72).

  With Windows, you may need to install the USB display drivers manually by clicking My Computer or Computer > EPSON_PJ_UD > EMP_UDSE.EXE. If nothing is projected after the USB display drivers are installed, click All Programs or Programs > EPSON Projector > EPSON USB Display > EPSON USB Display Vx.x on your computer.

  With Mac OS X, click the USB Display icon in the Dock. If there is no USB Display icon in the Dock, open the USB Display folder in the Applications folder and run USB Display.

- If you see a black screen and you are connected through your computer's USB port (or through your network), the application may be using DirectX drawing features, which are not supported.

You've connected a computer and see a blue screen with the message No Signal **displayed.**

- Make sure the cables are connected correctly, as described beginning on page 24.

- If you've connected a computer and one or more video sources, you may need to press the Source Search button to select the correct source. Allow a few seconds for the projector to sync up after pressing the button.

■ Make sure the power for your connected equipment is turned on.

If you're using a PC notebook:

■ Press the function key that lets you display on an external monitor. It may have an icon such as ⊟/◯, or it may be labelled CRT/LCD. 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. Check your notebook's manual or online help for details.

On most systems, the ⊟/◯ 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 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 Mac OS X:

1. Open System Preferences.

2. Click Display or Displays.

3. Click Detect Displays.

4. Do one of the following:

   Mac OS X 10.6: Click Show displays in menu bar.

   Other versions of Mac OS X: Make sure the VGA Display or Color LCD dialog box is selected. Click the Arrangement or Arrange tab and make sure the Mirror Displays checkbox is selected.

The message Not Supported **is displayed.**

■ Make sure the correct input signal is selected in the Signal menu (see page 67).

■ Make sure your computer's resolution and frequency or refresh rate is supported by the projector (see page 139). If necessary, change your computer's settings.

The projector and notebook don't display the same image

If you're projecting from a notebook, and you can't see your image on the projection screen and on your computer at the same time, follow these guidelines.

If you're using a PC notebook:

■ 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 have an icon such as ⬚/◯. 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, select the Settings option, then select the Advanced option (in Windows Vista, right-click on the desktop, select Personalize, select Display Settings, then select Advanced Settings). 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 Mac OS X:

You may need to set up your system to display on the projector screen as well as the LCD screen. Make sure your projector is connected and follow these steps:

1. Open System Preferences.

2. Click Display or Displays.

3. Click Detect Displays.

4. Do one of the following:

   Mac OS X 10.6.x: Click Show displays in menu bar.

   Other versions of Mac OS X: Make sure the VGA Display or
   Color LCD dialog box is selected, click the Arrangement or
   Arrange tab, then make sure the Mirror Displays checkbox is
   selected.

Only part of the computer image is displayed.

■ Press the Auto button on the remote control or the Enter button
  on the projector.

■ Make sure the image Position setting is correct in the Signal
  menu. See page 68 for more information.

■ Press the Aspect button on the remote control or select the
  correct Aspect setting from the Signal menu. See page 46 for
  details on the available options.

■ Press the Esc button on the remote control to cancel the E-Zoom
  function.

■ Make sure your computer's resolution setting is correct. See the
  compatible video formats listed on page 139.

■ You also may need to modify existing presentation files if you
  created them for a different resolution. See your software
  documentation for specific information.

■ If you're projecting a widescreen computer image, adjust the
  Resolution setting (see page 67), if necessary.

■ If you're projecting an image from a computer with dual display
  activated, turn dual display off.
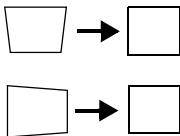
The image isn't square, but keystone-shaped.

If the image isn't evenly rectangular, adjust its shape using the
Keystone setting on the Settings menu (see page 69).

The image contains static or noise.

■ If you're using a computer cable longer than 6 feet (1.8 meters), or an extension cable, the image quality may be reduced.

■ Keep your computer and video cables away from the power cord as much as possible to prevent interference.

■ The video signal may be split between the computer and the projector. If you notice a decline in the projected image quality when the image is displayed simultaneously on your notebook computer and the projector, turn off the notebook's LCD display.

■ Make sure the correct input signal is selected in the Signal menu (see page 68).

■ If you're using a composite, S-Video, or component video source with 480i signals, turn on the Progressive setting on the Signal menu (see page 68).

■ If you've used the Keystone adjustment, you may need to decrease the Sharpness setting in the Image menu (see page 66).

■ If you're projecting from a computer, make sure its signal is compatible with the projector. See page 139.

■ If you're projecting from a computer, press the Auto button on the remote control to reset the projector's Tracking, Sync, and Position settings.

■ Reconnect the interface cable or try a different cable.

The image is blurry.

■ There may be dirt or smears on the projection window. Clean the window as described on page 104.

■ Adjust the focus using the focus lever (see page 44).

■ Lower the projection angle to reduce the amount of keystone correction required.

■ If you're projecting from a computer, you may need to adjust the tracking and sync settings as described in the next section.

You see vertical bands or the image still looks blurry after trying the solutions in the previous section.

■   If you're projecting from a computer and displaying an image that contains a lot of fine detail, you may notice vertical bands or some of the characters may look heavy or blurred. Press the Auto button on the remote control or the Enter button on the projector to reset the projector's Tracking, Sync, and Position settings.

■   If further adjustment is needed, you can fine-tune the Tracking and Sync settings manually using the Signal menu, as described on page 68.

   1.   Fill the screen with an image containing fine detail, such as a pattern to appear as your desktop background, or try projecting black text on a white background.

   2.   Adjust the Tracking to eliminate vertical bands.
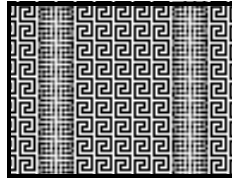
   3.   Adjust the Sync setting to increase the image sharpness.
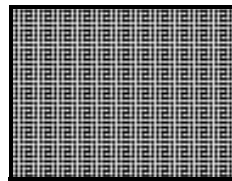
The image is too light or dark, or colors are incorrect.

■   Press the Color Mode button or select a different Color Mode option in the Image menu. See page 45 for details on the available options.

- If you're displaying video, adjust the Color Adjustment and Color Mode settings on the Image menu. You can also try adjusting the Color Saturation, Abs. Color Temp, and Tint settings on the Image menu.

- Try adjusting the Brightness and Contrast settings on the Image menu.

- Try adjusting the Power Consumption setting (see page 69).

- Check your computer display settings to correct the color balance.

- The projector's lamp may need to be replaced. See page 107 for instructions.

- Make sure the correct input signal is selected in the Signal menu (see page 68).

- Make sure that all cables are connected to the proper ports and connected securely.

Nothing appears on an external monitor.

The only images that can be displayed on an external monitor are computer images connected through the Computer1 port (see page 24).

There is no sound, or the sound is not loud enough.

- Use the Volume buttons to adjust the volume (see page 56), or adjust the Volume setting in the Settings menu.

- Make sure you are using a "no resistance" audio cable.

- Make sure A/V Mute is not enabled. (Press the A/V Mute button to disable it.)

- If your presentation includes computer audio, make sure the volume control on your computer is not turned all the way down or muted. In Windows, you may be able to check this by clicking the volume control in your Windows system tray (lower right corner of the screen). On a Mac, you may be able to adjust the volume from your menu bar (top right corner of the screen) or via the volume control function keys.

- If you're using a DVD player or other video source, make sure the cables are connected correctly, as described on page 33.

- If you are using a microphone connected to the projector's Mic port, make sure the cable is connected securely and the Mic Input Volume on the Settings menu is adjusted correctly. See page 69 for more information.

Solving Problems With the Interactive Pens

You see the message "Hardware device not found" when you try to use the Easy Interactive Driver.

- Make sure the USB cable is securely connected to the projector and computer. Try disconnecting and reconnecting the cable to your computer.

- If you're using a laptop computer, make sure the battery has enough power.

- If an antivirus program is running, try disabling it and restarting the Easy Interactive Driver.

- If your USB cable is installed in the wall, try connecting a different USB cable to the projector and your computer.

You don't see the Easy Interactive Driver on your computer.

If you don't see the ⬚ pen icon on your taskbar (Windows) or in the Dock (Mac OS), do one of the following:

- Make sure you install the driver from the CD labeled "Epson Projector Software for Easy Interactive Function."

- In Windows, select All Programs or Programs > Epson Projector > Easy Interactive Driver.

- In Mac OS, open the Application folder, then select the Easy Interactive Driver icon.

■ If the ⬜ pen icon has a red **X** on it, make sure the USB cable is securely connected to the projector and computer. Try disconnecting and reconnecting the cable to your computer.

The pen doesn't work.

■ Make sure nothing is blocking the signal between the pen and the interactive pen receiver on the projector (see page 14).

■ Make sure the cable cover is in place to keep cables from blocking the signal.

■ Make sure the pen batteries have enough power. If the light on the pen doesn't turn green when you press the button, you need to replace the batteries.

■ Dim the room lights and turn off any fluorescent lights. Make sure the projection surface and the pen receiver are not in direct sunlight or other sources of bright lighting.

■ Make sure the pen receiver on the projector is clean and free from dust.

■ Make sure the USB cable is securely connected to the projector and computer. Try disconnecting and reconnecting the cable to your computer.

■ Make sure there is no interference from infrared remote controls or infrared microphones.

■ Make sure the location is free from electromagnetic interference from nearby equipment (such as electric motors or transformers).

■ If the tablet function does not work, you may have other tablet device drivers on your system. Uninstall the Easy Interactive Virtual Tablet Driver using the Windows Control Panel.

The pen is hard to use.

For easier operation, hold the pen at an angle to the projection surface.

The pen position is not accurate.

- If you use the E-Zoom + button on the remote control to enlarge the image, the pen position will not be accurate. When you return to the original size, the pen position should be correct.

- You may need to recalibrate (see page 49).

- Make sure the cable cover is in place to keep cables from blocking the signal.

You're having trouble calibrating.

- If the flashing circles don't appear, make sure the VGA cable and USB cable are securely connected to the computer. Try restarting the Easy Interactive Driver, as described on page 128.

- If the circles don't stop flashing and turn black (or they stop flashing and turn black automatically), dim or turn off any bright lights near the projection surface.

Solving Password Problems

If you cannot enter or remember a password, try the following solutions:

- You may have turned on password protection without first setting a password. Try entering 0000 using the remote control.

- If you have entered an incorrect password too many times and see a message displaying a request code, write down the code and contact Epson as described on page 134.

Solving Network Problems

You can't display an image using Quick Wireless Connection.

You may need to restart your computer to connect.

You can't connect to the projector using EasyMP Network Projection.

■ Make sure the network cable is connected, as described on page 80.

■ If you are using the optional wireless LAN module, make sure it is installed correctly in the projector, as shown on page 83.

■ Restart your computer.

■ Make sure your projector and computer are configured correctly; see page 88 (configuring the projector) or page 90 (configuring the computer).

■ If you are using the optional wireless LAN module, make sure that you have sufficient wireless signal strength (above 50 percent). On a Mac, check the AirPort icon on the Mac menu bar. In Windows, see the documentation for your computer's wireless card or adapter for details.

■ Make sure you aren't projecting one of the EasyMP Network Projection screens. (You should see a message that the projector is ready to connect.) If you have to exit a configuration screen, restart EasyMP Network Projection.

■ If the projector is configured for Access Point mode and you're using DHCP, allow time for your projector to appear. It takes the server a little while to pick up the IP address.

■ If you've changed any settings for your projector or network, or restarted your computer, allow a minute or two for the connection to appear. If you're using AirPort, try turning AirPort off and then on again.

■ Make sure that 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 connected to the same SSID as the projector. On a Mac, click the AirPort icon at the top of your Mac desktop to make sure AirPort is turned on and the right network is selected.

- If you have an access point or AirPort base station and you're not using DHCP, check your projector's IP address on the Access Point mode advanced settings screen. The first three segments of the IP address should be identical to the first three segments of the IP address of your access point or base station. The last segment of the projector's IP address should be close, but not identical, to the last segment of the IP address of the access point or base station.

- If you're not using DHCP, check your projector's Gateway address on the projector's Access Point mode advanced settings screen. It should be identical to the IP address for your access point or AirPort base station.

- If you're using a projector keyword, it changes each time you turn the projector off and then on again. Check the projector's keyword on the LAN standby screen and enter it at the prompt.

- If you're using AirPort, check the configuration of your network. Start the AirPort Admin utility, select your base station, click Configure and click Show All Settings. Click the Network tab. If you set up your projector to connect in DHCP mode, turn on Distribute IP Addresses and Share a Single IP Address.

- If you're using AirPort and DHCP is turned off on your projector's Access Point mode advanced settings screen, make sure Distribute IP Addresses is off.

- If you're using Access Point mode and you're connecting to the wrong network, you may be experiencing signal interference from another network. Try resetting your access point or base station, then restart EasyMP Network Projection.

- If you're using AirPort, the projector's SSID should match the AirPort network name, not the name of the AirPort base station. 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.

- If you're prompted for a password when you connect, enter the WEP encryption key (if you're using WEP encryption).

You are not receiving mail when a projector problem occurs.

■ Make sure the Mail settings are correct in the Network menu. For details, see page 95.

■ To receive mail notification when the projector is in standby mode, you need to set Standby Mode to Communication On in the Extended menu. See page 72.

Solving Problems With the Remote Control

The projector doesn't respond to remote control commands.

■ Point the remote control towards the projector's receiver. Make sure you are within 19.7 feet (6 meters) of the projector and within a 30° horizontal angle and a 15° vertical angle from the projector's front or back receiver.

■ The remote control's batteries may not be installed correctly or may be low on power. To change the batteries, see page 113.

■ Dim the room lights and turn off any fluorescent lights. Make sure the projector is not in direct sunlight. Strong lighting, especially fluorescent lights, may affect the projector's infrared receivers. Also, turn off any nearby equipment that emits infrared energy, such as a radiant room heater.

■ If you can't adjust the room lighting, you can turn off one of the remote receivers by using the Settings menu. Make sure the receivers are not both turned off (see page 70).

■ Check to see if a button on the remote control is stuck down, causing it to enter sleep mode. Release the button to wake the remote.

■ If you want to use the remote control as a wireless mouse (or to move through presentation slides), make sure USB Type B in the Extended menu is set to Wireless Mouse (see page 72). Also, make sure you have connected the USB cable.

Where To Get Help

Epson provides these technical support services:

Internet Support

Visit Epson's support website in the US or Canada for solutions to common problems. You can download utilities and documentation, get FAQs and troubleshooting advice, or e-mail Epson with your questions.

Speak to a Support Representative

To use the Epson PrivateLine Support service, call (800) 637-7661 and enter the PIN on the included Epson PrivateLine Support card. This is the fastest way of speaking to a live representative, and it's free. This service is available 6 AM to 6 PM, Pacific Time, Monday through Friday, for the duration of your warranty period.

You may also speak with a projector support specialist by dialing one of these numbers:

- U.S.: (562) 276-4394, 6 AM to 8 PM, Pacific Time, Monday through Friday and 7 AM to 4 PM Saturday.

- Canada: (905) 709-3839, 6 AM to 8 PM, Pacific Time, Monday through Friday.

Days and hours of support are subject to change without notice. Toll or long distance charges may apply.

Software Technical Support

If your projector included RM Easiteach and you need help, call (866) 728-6758 or visit the following support website:

www.rmeducation.com/easiteach

For all other software issues, please contact Epson as described above.

Before you call for support, please have the following information ready:

■ Product name (BrightLink 455Wi)

■ Product serial number (located on the bottom of the projector and on the Info menu)

■ Proof of purchase (such as a store receipt) and date of purchase

■ Computer or video configuration

■ Description of the problem

Purchase Supplies and Accessories

You can purchase screens and other accessories from an Epson authorized reseller. To find the nearest reseller, call 800-GO-EPSON (800-463-7766). Or you can purchase online at www.epsonstore.com (U.S. sales) or www.epson.ca (Canadian sales).

A Technical Specifications

General

Type of display	Poly-silicon TFT active matrix
Resolution (native format)	1280 × 800 pixels (WXGA)
Color reproduction	16.8 million colors
Light output (brightness)	Normal mode:
	White light output 2500 lumens
	(ISO 21118 standard)
	Color light output 2500 lumens
	ECO mode:
	White light output 1740 lumens
	(ISO 21118 standard)
	Color light output 1740 lumens
Contrast ratio	2000:1 (Dynamic color mode, Normal Power Consumption, with Auto Iris setting turned on in the Image menu; see page 65)
Image size	59 to 97 inches (149.8 to 246.4 cm)
Projection distance	18.3 to 30.1 inches (0.465 to 0.766 m), lens to projection surface
Projection methods	front or rear ceiling mount
Internal sound system (monaural)	12 W
Optical aspect ratio	16:10 (horizontal:vertical)
Zoom ratio	Digital 1:1.35

Noise level	28 dB in ECO mode
	35 dB in Normal mode
Keystone correction	±5°

Projection Lamp

Type	UHE (Ultra High Efficiency E-TORL®)
Power consumption	230 W
Lamp life	Approx. 2500 hours (Normal mode)
	Approx. 3500 hours (ECO mode)
Part number	V13H010L57

Remote Control

| Range | 19.7 feet (6 meters) |
| Batteries (2) | Alkaline AA |

Dimensions

Height	6.1 inches (155 mm)
Width	19 inches (483 mm)
Depth	14.5 inches (369 mm)
Weight	Approximately 12.9 lb (5.8 kg) without slide plate
	Approximately 14.1 lb (6.3 kg) with slide plate

Electrical

Rated frequency	50/60 Hz AC
Power supply	100 to 240 VAC ±10%, 3.4 A to 1.4 A
Power consumption 100 to 120 V	268 W in ECO mode
	363 W Normal mode
	0.3 W Standby (Communication Off)
	10 W Standby (Communication On)

220 to 240 V	257 W in ECO mode
	343 W Normal mode
	0.3 W Standby (Communication Off)
	12 W Standby (Communication On)

Environmental

Temperature	Operating: 41 to 95 °F (5 to 35 °C)
	Storage: 14 to 140 °F (–10 to 60 °C)
Humidity (non-condensing)	Operating: 20 to 80% RH
Operating altitude	0 to 7500 ft (0 to 2286 m); over 4921 ft (1500 m), enable High Altitude mode in the Extended menu (see page 71)

Safety and Approvals

| United States | FCC 47CFR Part 15B Class B (DoC) UL60950-1 Second Edition (cTUVus Mark) |
| Canada | ICES-003 Class B CSA C22.2 No. 60950-1-07 |

 Pixelworks™ DNX™ ICs are used in this projector.

Compatible Video Formats

This projector supports the high definition video and computer display formats listed here.

To project images output from a computer, the computer's video card must be set at a refresh rate (vertical frequency) that's compatible with the projector. Some images are automatically resized using Epson's SizeWize™ technology to display in the projector's native format. The frequencies of some computers may not allow images to display correctly; see your computer's documentation for details.

Mode	Refresh rate (Hz)	Resolution
Computer signals (analog RGB)		
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
SXGA1—70	70	1152 × 864
SXGA1—75	75	1152 × 864
SXGA1—85	85	1152 × 864
WXGA—60	60	1280 × 800
WXGA—75	75	1280 × 800
WXGA—85	85	1280 × 800
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
WXGA1—60	60	1280 × 768
WXGA2—60	60	1360 × 768
WXGA+—60	60	1440 × 900
WXGA+—75	75	1440 × 900
WXGA+—85	85	1440 × 900
SXGA+60	60	1400 × 1050
SXGA+75	75	1400 × 1050
UXGA—60	60	1600 × 1200
WSXGA+—60*	60	1680 × 1050

Mode	Refresh rate (Hz)	Resolution
MAC13	67	640 × 480
MAC16	75	832 × 624
MAC19	75	1024 × 768
MAC19-60	60	1024 × 768
MAC21	75	1152 × 870
Composite video, S-Video		
NTSC	60	720 × 480
PAL	50	720 × 576
PAL—60	60	720 × 576
SECAM	50	720 × 576
SECAM—60	60	720 × 576
Component video		
SDTV (480i)	60	720 × 480
SDTV (576i)	50	720 × 576
SDTV (480p)	60	720 × 480
SDTV (576p)	50	720 × 576
HDTV (720p)	60/50	1280 × 720
HDTV (1080i)	60/50	1920 × 1080

* Available only when you select **Wide** as the Resolution setting

B Notices

This appendix includes safety instructions and other important information about your projector.

Important Safety Instructions

Follow these safety instructions when setting up and using the projector:

■ Do not look into the lens when the projector is on. The bright light can damage your eyes.

■ Do not operate the projector on its side, or while tilted to one side. Do not tilt the projector forward or back at a greater angle than that specified for keystone correction (see page 138).

■ The projector should be installed by qualified technicians using mounting hardware designed for use with this projector.

■ If you apply adhesives to the mount to prevent the screws from loosening, or if you use lubricants or oils on the projector, the projector case may crack and the projector may fall from its mount. This could cause serious injury to anyone under the mount and could damage the projector. When installing or adjusting the mount, do not use adhesives to prevent the screws from loosening and do not use oils or lubricants.

■ Do not use the projector where it may be exposed to rain, water, or excessive humidity. Do not handle the pen with wet hands.

■ Unplug the projector from the wall outlet before cleaning. Use a dry cloth (or, for stubborn dirt or stains, a moist cloth that has been wrung dry) for cleaning. Do not use liquid or aerosol cleaners.

■ Never spill liquid of any kind into the projector.

■ Do not use the projector where it may be exposed to excessive dust or smoke.

■ Never push objects of any kind through the cabinet slots.

■ Do not use or store the projector or remote control in a hot location, such as near a heater, in direct sunlight, or in a closed vehicle.

- Do not block the slots and openings in the projector case. They provide ventilation and prevent the projector from overheating. Do not operate the projector on a sofa, rug, or other soft surface, or set it on top of loose papers, which could block vents underneath your projector. If you are setting up the projector near a wall, leave at least 7.9 inches (20 cm) of space between the wall and the air exhaust vent.

- Do not operate the projector in a closed-in cabinet unless proper ventilation is provided.

- If you are using two or more projectors side-by-side, leave at least 2 feet (60 cm) of space between the projectors to allow for proper ventilation.

- You may need to clean the air filter and vent. A clogged air filter or vent can block ventilation needed to cool the projector.

- Do not store the projector outdoors for an extended length of time.

- Do not use the projector outside the required temperature range of 41 to 95 °F (5 to 35 °C). Doing so may cause an unstable display and could lead to projector damage.

- Do not store the projector outside the required temperature range of 14 to 140 °F (–10 to 60 °C) or in direct sunlight for long periods of time. Doing so may cause damage to the case.

- Do not touch the plug during an electrical storm. Otherwise, you may receive an electric shock.

- Unplug the projector when it will not be used for extended periods.

- Unplug the projector from the wall outlet and refer servicing to qualified service personnel under the following conditions: if it does not operate normally when you follow the operating instructions, or exhibits a distinct change in performance; if smoke, strange odors, or strange noises come from the projector; if the power cord or plug is damaged or frayed; if liquid or foreign objects get inside the projector, or if it has been exposed to rain or water; if it has been dropped or the housing has been damaged.

- Except as specifically explained in this *User's Guide*, do not attempt to service this product yourself. Refer all servicing to qualified personnel. Opening or removing covers may expose you to dangerous voltages and other hazards.

- Never open any covers on the projector except as specifically explained in this *User's Guide*. Never attempt to disassemble or modify the projector. Refer all repairs to qualified service personnel.

- Use the type of power source indicated on the projector. Use of a different power source may result in fire or electric shock. If you are not sure of the power available, consult your dealer or power company.

- If you use the projector in a country other than where you purchased it, use the correct power cord for that country.

- Do not overload wall outlets, extension cords, or power strips. Do not insert the plug into a dusty outlet. This can cause fire or electric shock.

- Take the following precautions when handling the plug: Do not hold the plug with wet hands. Do not insert the plug into an outlet with dust present. Insert the plug firmly into the outlet. Do not pull the power cord when disconnecting the plug; always be sure to hold the plug when disconnecting it. Failure to comply with these precautions could result in fire or electric shock.

- Do not place the projector where the cord can be walked on.

- (Hg) The lamp(s) in this product contain mercury. Please consult your state and local regulations regarding disposal or recycling. Do not put in the trash.

- Do not place anything that can become warped or damaged by heat near the exhaust vents. Do not bring your hands or face close to the vents while projection is in progress.

- Before you move the projector, make sure its power is turned off, the plug is disconnected from the outlet, and all cables are disconnected.

- Never try to remove the lamp immediately after use because it will be extremely hot. Before removing the lamp, turn off the power and wait at least an hour to allow the lamp to cool completely.

- Do not place the source of an open flame, such as a lit candle, on or near the projector.

- Do not modify the power cord. Do not place heavy objects on top of the power cord or bend, twist, or pull it excessively. Keep the power cord away from hot electrical appliances.

- If the lamp breaks, ventilate the room to prevent gases contained in the lamp from being inhaled or coming in contact with the eyes or mouth.

- If the projector is mounted overhead and the lamp breaks, be careful to prevent pieces of glass from falling into your eyes when you open the lamp cover.

WARNING: The cords included with this product contain chemicals, including lead, known to the State of California to cause birth defects or other reproductive harm. *Wash hands after handling*. (This notice is provided in accordance with Proposition 65 in Cal. Health & Safety Code §25249.5 and following.)

FCC Compliance Statement

For United States Users

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

■   Reorient or relocate the receiving antenna.

■   Increase the separation between the equipment and receiver.

■   Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

■   Consult the dealer or an experienced radio/TV technician for help.

WARNING

The connection of a non-shielded equipment interface cable to this equipment will invalidate the FCC Certification of this device and may cause interference levels which exceed the limits established by the FCC for this equipment. It is the responsibility of the user to obtain and use a shielded equipment interface cable with this device. If this equipment has more than one interface connector, do not leave cables connected to unused interfaces. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

For Canadian Users

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le materiel brouilleur du Canada.

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The list of GPL Programs

> **busybox-1.7.2**
> **libgcc1(gcc-4.2.3)**
> **linux-2.6.20**
> **patches**
> **udhcp 0.9.8**
> **uvc rev.219**
> **wireless_tools 29**
> **Pixelworks PWC950 SDK drivers**

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Version 2, June 1991

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    <one line to give the program's name and a brief idea of what it does.>
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<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

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uClibc-0.9.29
SDL-1.2.13

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Version 2.1, February 1999

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Glenn Randers-Pehrson
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September 12, 2004

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Jean-loup Gailly   Mark Adler
jloup@gzip.org   madler@alumni.caltech.edu

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L. Peter Deutsch ghost@aladdin.com

Independent implementation of MD5 (RFC 1321).

This code implements the MD5 Algorithm defined in RFC 1321, whose text is available at

http://www.ietf.org/rfc/rfc1321.txt

The code is derived from the text of the RFC, including the test suite (section A.5) but excluding the rest of Appendix A. It does not include any code or documentation that is identified in the RFC as being copyrighted.

The original and principal author of md5.h is L. Peter Deutsch <ghost@aladdin.com>. Other authors are noted in the change history that follows (in reverse chronological order):

2002-04-13 lpd Removed support for non-ANSI compilers; removed

references to Ghostscript; clarified derivation from RFC 1321; now handles byte order either statically or dynamically.

1999-11-04 lpd Edited comments slightly for automatic TOC extraction.

1999-10-18 lpd Fixed typo in header comment (ansi2knr rather than md5);

added conditionalization for C++ compilation from Martin Purschke <purschke@bnl.gov>.

1999-05-03 lpd Original version.

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