EPSON
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User's Guide

Multimedia Projector

EB-1985WU EB-1975W

EB-1980WU EB-1970W

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Notations Used in This Guide

Safety Symbols

The projector and its manuals use graphical symbols and labels to indicate content that tells you how to use the projector safely.

Read and carefully follow the instructions that are marked with these symbols and labels to avoid injury to persons or damage to property.

Warning	This symbol indicates information that, if ignored, could possibly result in personal injury or even death.
Caution	This symbol indicates information that, if ignored, could possibly result in personal injury or physical damage due to incorrect handling.

General Information Notations

Attention	This label indicates procedures that may result in damage or injury if sufficient care is not taken.
	This label indicates additional information that may be useful to know.
[Button name]	Indicates the name of the buttons on the remote control or the control panel. Example: [Esc] button
Menu/Setting name	Indicates projector menu and setting names. Example: Select the **Image** menu ☛ **Image** > **Advanced**

Introduction to Your Projector

Refer to these sections to learn more about your projector's features and part names.

Related Links

- "Projector Features" p.9
- "Projector Parts and Functions" p.12

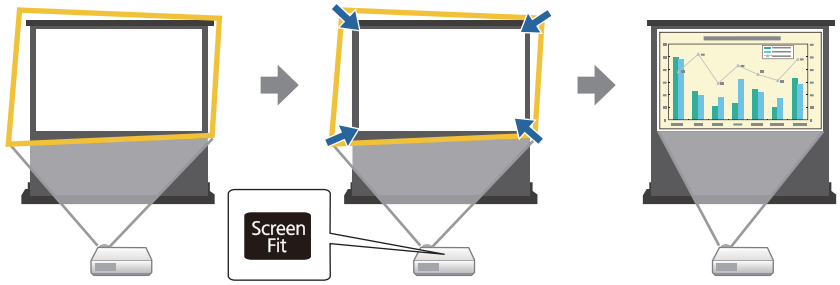
This projector has a quick and easy setup, and flexible connectivity features.

Related Links

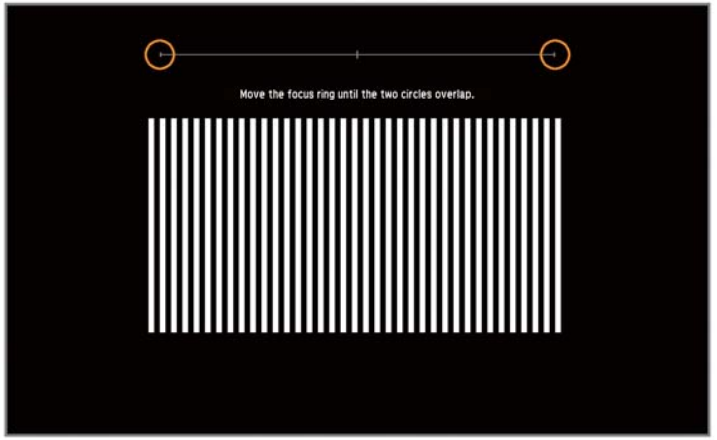
- "Introduction to Your Projector" p.8
- "Quick and Easy Setup" p.9
- "Flexible Connectivity" p.9

Quick and Easy Setup

- Direct Power On feature to turn on the projector as soon as you plug it in.
- Auto Power On feature to turn on the projector when the projector detects the image signal from the Computer1 port.
- Real-time, automatic vertical and horizontal keystone correction always displays a rectangular screen (Auto H/V-Keystone).
- Screen Fit feature to automatically resize projected images.



- Focus Help feature to guide you to the optimum focus adjustment.



Related Links

- "Projector Features" p.9
- "Turning On the Projector" p.35
- "Auto H/V-Keystone" p.44
- "Automatically Correcting the Image Shape with Screen Fit" p.44
- "Correcting the Image Shape with Quick Corner" p.47

Flexible Connectivity

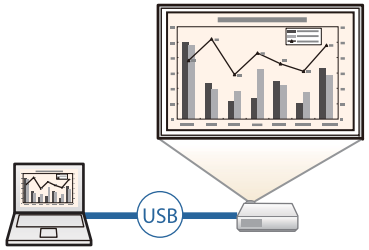
This projector supports a wide variety of easy-to-use connectivity options as shown below.

Related Links

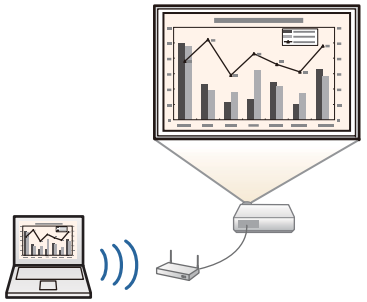
- "Projector Features" p.9
- "Connect with Computer" p.10
- "Connect with Mobile Devices" p.11

Connect with Computer

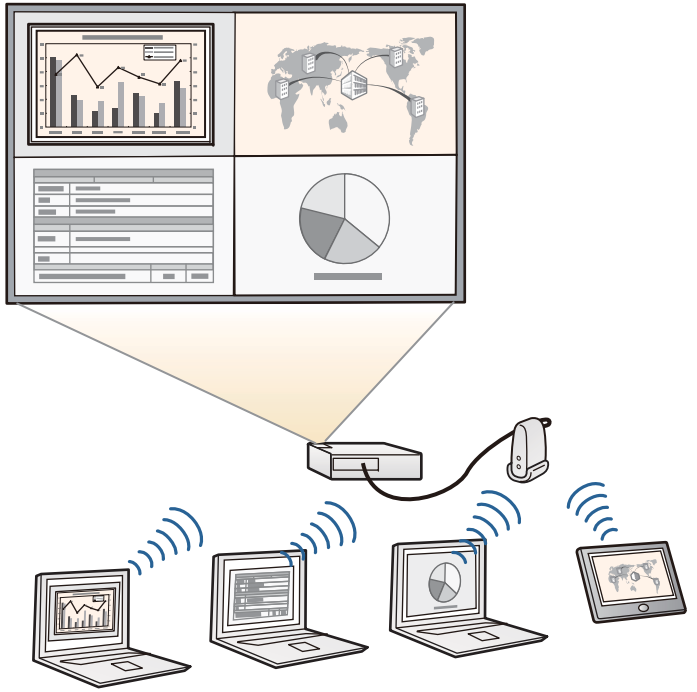
- Connect with one USB cable to project images and output audio (USB Display).



- EasyMP Network Projection to share the projector over the network and project images from any of the computers on the network.
  See the *EasyMP Network Projection Operation Guide* for details



- EasyMP Multi PC Projection to project up to four images at the same time by splitting the projected screen. You can project images from computer on the network or smartphones or tablet devices on which Epson iProjection is installed.
  See the *EasyMP Multi PC Projection Operation Guide* for details.

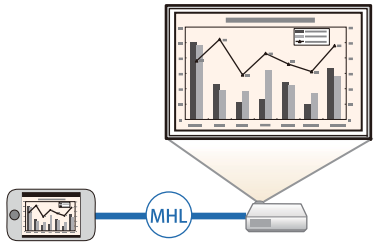


Related Links

- "Flexible Connectivity" p.9
- "Projecting with USB Display" p.53
- "Using the Projector on a Network" p.98

Connect with Mobile Devices

- HDMI1/MHL port to connect MHL cable to the mobile device and to the projector.



- Screen Mirroring to connect your projector and mobile device wirelessly using Intel® WiDi or Miracast technology (EB-1985WU/EB-1975W).

- Epson iProjection to connect your projector and mobile device wirelessly using the app available on App Store or Google play (EB-1985WU/EB-1975W/EB-1970W).

Any fees incurred when communicating with the App Store or Google play are the responsibility of the customer.

Related Links

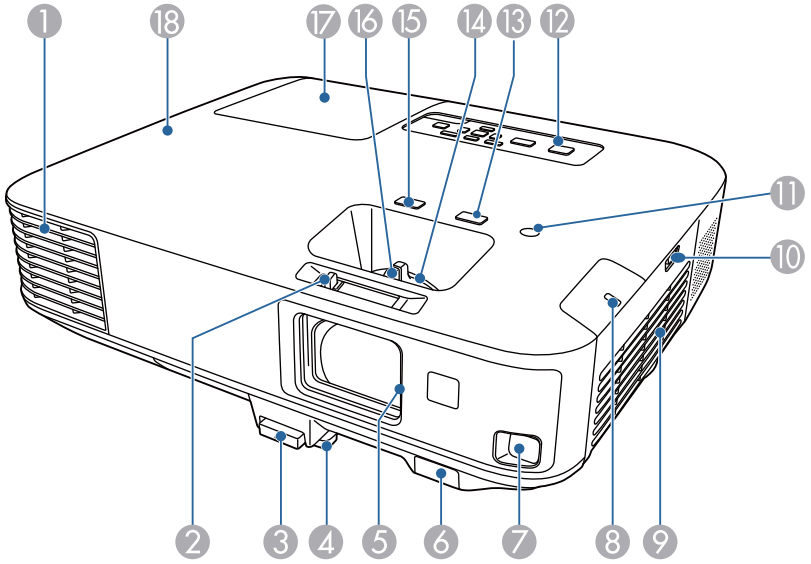
- "Flexible Connectivity" p.9
- "Connecting to Smartphones or Tablets" p.24
- "Wireless Network Projection from a Mobile Device (Screen Mirroring)" p.110

The following sections explain the projector parts and their functions.

Related Links

- "Introduction to Your Projector" p.8
- "Projector Parts - Front" p.12
- "Projector Parts - Rear" p.13
- "Projector Parts - Base" p.14
- "Projector Parts - Control Panel" p.15
- "Projector Parts - Remote Control" p.16

Projector Parts - Front



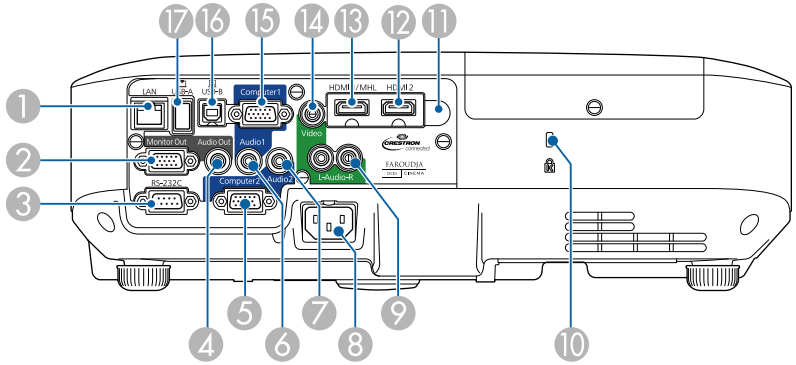
Name		Function
1	Air exhaust vent	Exhaust vent for air used to cool the projector internally. **Caution** While projecting, do not put your face or hands near the air exhaust vent, and do not place objects that may become warped or damaged by heat near the vent. Hot air from the air exhaust vent could cause burns, warping, or accidents to occur.
2	A/V Mute slide lever	Slide the lever to open and close the A/V mute slide.
3	Foot release lever	Press the foot release lever to extend and retract the front adjustable foot.
4	Front adjustable foot	When setup on a surface such as a desk, extend the foot to adjust the position of the image.
5	A/V Mute slide	Close when not using the projector to protect the lens. By closing during projection you can hide the image and the sound.
6	Remote receiver	Receives signals from the remote control.
7	Sensor	Sensor for detecting the projected images.
8	Wireless LAN light	Indicates the access status of the supplied or optional wireless LAN module.
9	Air intake vent (air filter)	Takes in air to cool the projector internally.
10	Air filter cover latch	Use this latch to open the air filter cover.
11	Illumination sensor	Detects the brightness of the surroundings to optimize the lamp brightness.
12	Control panel	Operates the projector.
13	[Focus Help] button	Projects the Focus Help screen to fine-tune your focus adjustments.

Name		Function
⑭	Zoom ring	Adjusts the image size.
⑮	[Screen Fit] button	Performs Screen Fit feature to automatically correct the shape and position of images to fit on your screen. This button is disabled when the projector is suspended from a ceiling.
⑯	Focus ring	Adjusts the image focus.
⑰	Lamp cover	Open when replacing the projector's lamp.
⑱	Lights	Indicates the projector's status.

Related Links

- "Projector Parts and Functions" p.12
- "Resizing the Image with the Zoom Ring" p.50
- "Focusing the Image Using the Focus Ring" p.51
- "Automatically Correcting the Image Shape with Screen Fit" p.44
- "Projector Light Status" p.170

Projector Parts - Rear



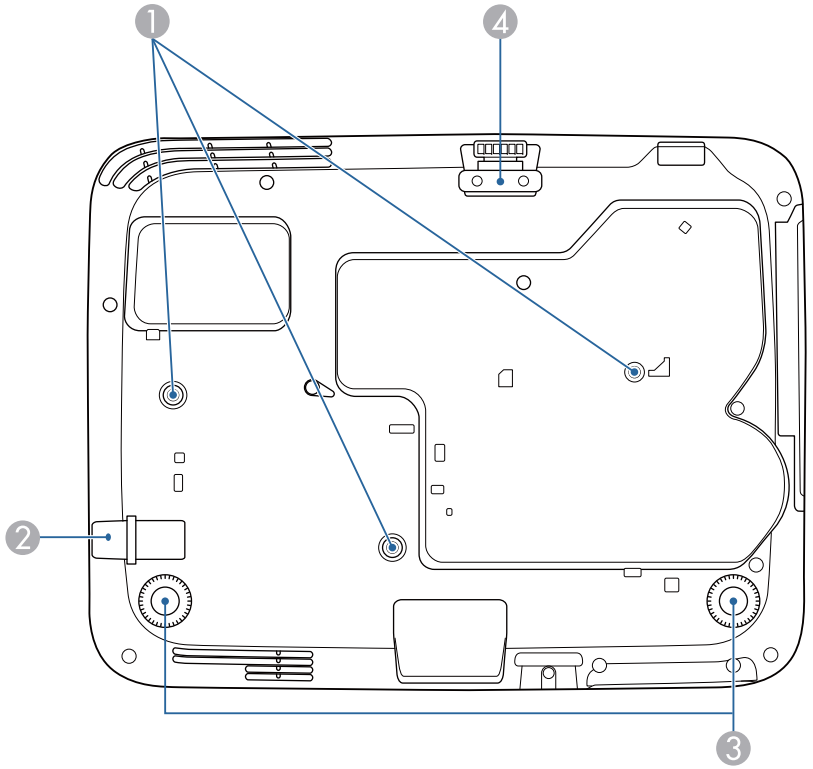
Name		Function
①	LAN port	Connects a LAN cable to connect to a network.
②	Monitor Out port	Outputs analog RGB signals input from the Computer1 port to an external monitor.
③	RS-232C port	Connects an RS-232C cable to control the projector from a computer. (You do not need to use this port normally.)
④	Audio Out port	Outputs audio from the current input source to an external speaker.
⑤	Computer2 port	Inputs image signals from a computer and component video signals from other video sources.
⑥	Audio1 port	Inputs audio from equipment connected to the Computer1 port.
⑦	Audio2 port	Inputs audio from equipment connected to the Computer2 port.
⑧	Power inlet	Connects the power cord to the projector.
⑨	L-Audio-R ports	Inputs audio from equipment connected to the Video port.
⑩	Security slot	The security slot is compatible with the Microsaver Security System manufactured by Kensington.
⑪	Remote receiver	Receives signals from the remote control.
⑫	HDMI2 port	Inputs video signals from HDMI compatible video equipment and computers.
⑬	HDMI1/MHL port	Inputs video signals from HDMI compatible video equipment and computers, or MHL (Mobile High-Definition) compatible mobile devices.
⑭	Video port	Inputs composite video signals from video sources.
⑮	Computer1 port	Inputs image signals from a computer and component video signals from other video sources.
⑯	USB-B port	Connects a commercially available USB cable to the computer to project computer images or to use the Wireless Mouse function.

Name		Function
⑰	USB-A port	Connects a USB memory device or a digital camera and projects PDFs, movies, or images using PC Free.

Related Links

- "Projector Parts and Functions" p.12
- "Using the Remote Control as a Wireless Mouse" p.84
- "Projecting a PC Free Presentation" p.73
- "Installing a Security Cable" p.97

Projector Parts - Base

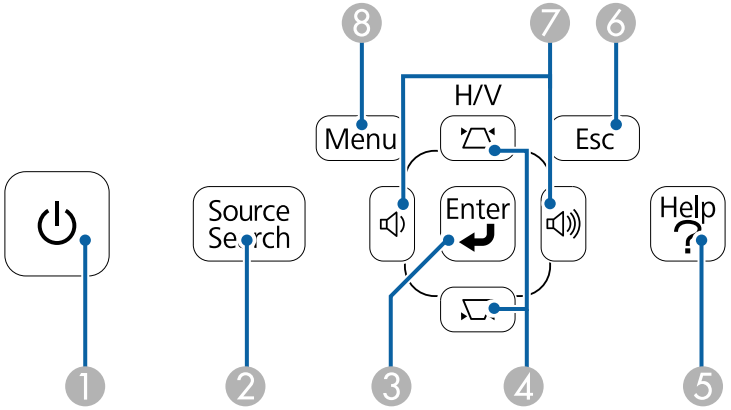


Name		Function
①	Ceiling mount fixing points (three points)	Attach the optional ceiling mount here when suspending the projector from a ceiling.
②	Security cable attachment point	Pass a commercially available wire lock through here and lock it in place.
③	Rear feet	When setup on a surface such as a desk, turn to extend and retract to adjust the horizontal tilt.
④	Front adjustable foot	When setup on a surface such as a desk, extend the foot to adjust the position of the image.

Related Links

- "Projector Parts and Functions" p.12
- "Installing a Security Cable" p.97

Projector Parts - Control Panel

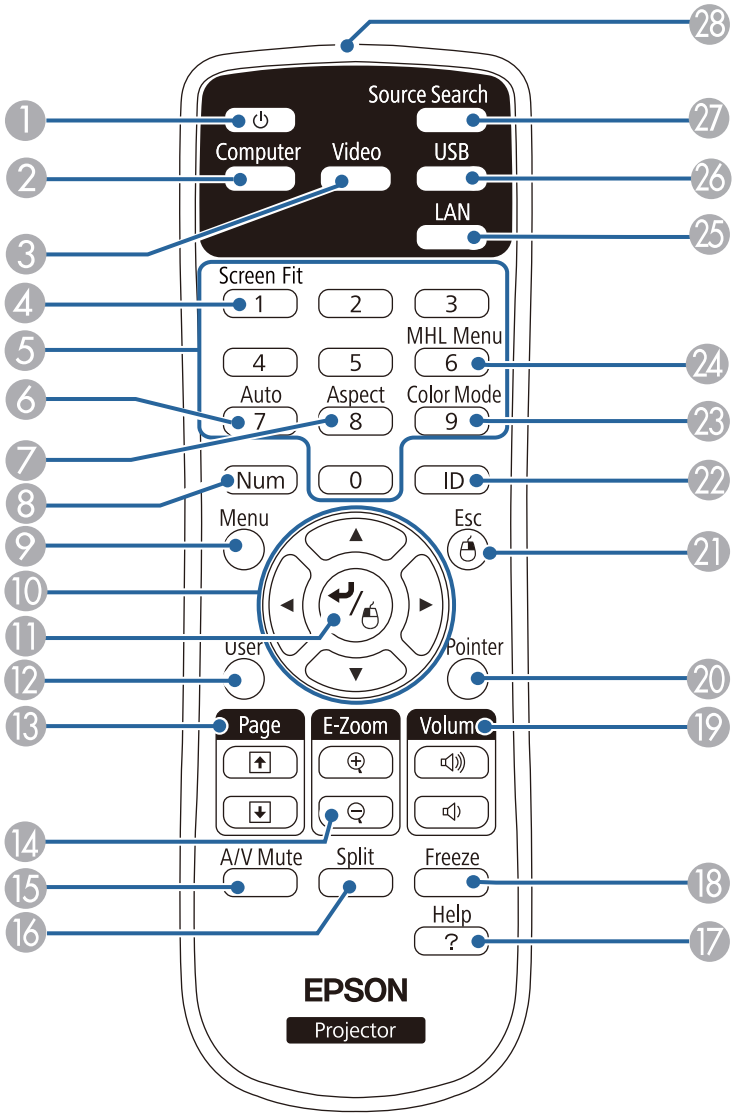


Name		Function
1	Power button	Turns the projector on or off.
2	[Source Search] button	Changes to the next input source.
3	[Enter] button	Enters the current selection and moves to the next level while displaying the projector's menu or help. Optimizes **Tracking**, **Sync.**, and **Position** in the projector's **Signal** menu while projecting an analog RGB signal from the Computer1 or Computer2 port.
4	Keystone adjustment buttons and arrow buttons	Displays the Keystone screen allowing you to correct keystone distortion in vertical and horizontal directions. Selects menu items while displaying the projector's menu or help.
5	[Help] button	Displays and closes the Help screen.
6	[Esc] button	Stops the current function. Moves back to the previous menu level while displaying the projector's menu.
7	Volume buttons and arrow buttons	Adjusts the speaker volume. Selects menu items while displaying the projector's menu or help.
8	[Menu] button	Displays and closes the projector's menu.

Related Links

- "Projector Parts and Functions" p.12
- "Input Signal Settings - Signal Menu" p.135
- "Correcting the Image Shape with the Keystone Buttons" p.46

Projector Parts - Remote Control



Name		Function
1	Power button	Turns the projector on or off.
2	[Computer] button	Changes the image source between the Computer1 and Computer2 ports.
3	[Video] button	Changes the image source between the Video input port and HDMI input port.
4	[Screen Fit] button	Performs Screen Fit feature to automatically correct the shape and position of images to fit on your screen. This button is disabled when the projector is suspended from a ceiling.
5	Numeric buttons	Enters numbers in the projector's menu while holding down the [Num] button.
6	[Auto] button	Optimizes **Tracking**, **Sync.**, and **Position** in the projector's **Signal** menu while projecting an analog RGB signal from the Computer1 or Computer2 port.
7	[Aspect] button	Changes the aspect mode.
8	[Num] button	Hold down this button to enter numbers using the numeric buttons.
9	[Menu] button	Displays and closes the projector's menu.
10	Arrow buttons	Selects menu items while displaying the projector's menu or help.
11	[Enter] button	Enters the current selection and moves to the next level while displaying the projector's menu or help. Acts as a mouse's left button when using the Wireless Mouse function.
12	[User] button	Performs settings assigned to this button in the **User Button** setting in the projector's **Settings** menu.
13	[Page] up/down buttons	Controls page up and down on your computer when you connect a projector and computer using a USB cable or over the network. Displays the previous or next screen while using the PC Free feature.

Name		Function
⑭	[E-Zoom +/–] buttons	Zooms in or zooms out the image area.
⑮	[A/V Mute] button	Turns the video and audio on or off temporarily.
⑯	[Split] button	Projects two images from different image sources simultaneously by splitting the projected screen.
⑰	[Help] button	Displays and closes the Help screen.
⑱	[Freeze] button	Pauses or resumes images.
⑲	[Volume] up/down buttons	Adjusts the speaker volume.
⑳	[Pointer] button	Displays the on-screen pointer.
㉑	[Esc] button	Stops the current function. Moves back to the previous menu level while displaying the projector's menu. Acts as a mouse's right button when using the Wireless Mouse function.
㉒	[ID] button	Hold down this button and press the numeric buttons to select the ID for the projector you want to operate using the remote control.
㉓	[Color Mode] button	Changes the color mode.
㉔	[MHL Menu] button	Displays the settings menu for the device linked to the projector's HDMI1/MHL port.
㉕	[LAN] button	Changes the image source between the network connected devices.
㉖	[USB] button	Changes the image source between the USB Display and USB-A port.
㉗	[Source Search] button	Changes to the next input source.
㉘	Remote control light emitting area	Outputs remote control signals.

Related Links

- "Projector Parts and Functions" p.12
- "Automatically Correcting the Image Shape with Screen Fit" p.44
- "Input Signal Settings - Signal Menu" p.135
- "Image Aspect Ratio" p.59
- "Using the Remote Control as a Wireless Mouse" p.84
- "Projector Setup Settings - Extended Menu" p.139
- "Projecting a PC Free Presentation" p.73
- "Projecting Two Images Simultaneously" p.70
- "Using the Remote Control as a Pointer" p.86
- "Color Mode" p.61
- "Using the Projector on a Network" p.98
- "Projecting with USB Display" p.53

Setting Up the Projector

Follow the instructions in these sections to set up your projector.

Related Links

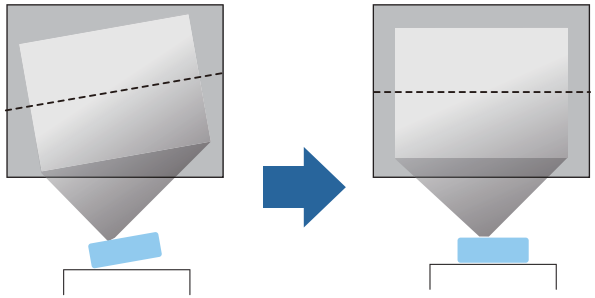
- "Projector Placement" p.19
- "Projector Connections" p.22
- "Installing Batteries in the Remote Control" p.31
- "Opening the Lens Cover" p.33

You can place the projector on almost any flat surface to project an image.

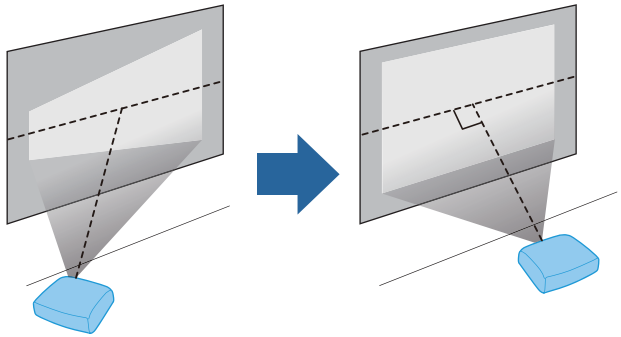
You can also install the projector in a ceiling mount if you want to use it in a fixed location. An optional ceiling mount is required when suspending the projector from a ceiling.

Note the following points when selecting a projector location:

- Place the projector on a sturdy, level surface or install it using a compatible mount.



- Leave plenty of space around and under the projector for ventilation, and do not place it on top of or next to anything that could block the vents.
- Position the projector within reach of a grounded electrical outlet or extension cord.
- Place the projector parallel to the screen.



If you cannot install the projector parallel to the screen, correct keystone distortion using the projector controls.

Warning

- You must install a ceiling mount when suspending the projector from a ceiling. If you do not install the projector correctly, it could fall and cause damage or injury.
- Do not use adhesives on the ceiling mount fixing points to prevent the screws from loosening, or use lubricants, oils, or similar substances on the projector; the projector case may crack causing it to fall from its ceiling mount. This could cause serious injury to anyone under the ceiling mount and could damage the projector.
- Do not cover the projector's air intake or air exhaust vents. If the vents are covered, the internal temperature could rise and cause a fire.

Attention

- Do not operate the projector on its side. This may cause the projector to malfunction.
- If you are using the projector at altitudes above 1500 m, set the **High Altitude Mode** setting to **On** in the projector's **Extended** menu to ensure the projector's internal temperature is regulated properly.

  ☛ **Extended** > **Operation** > **High Altitude Mode**

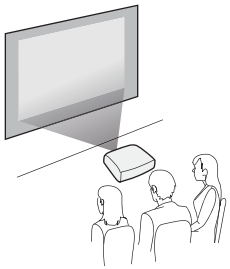
Related Links

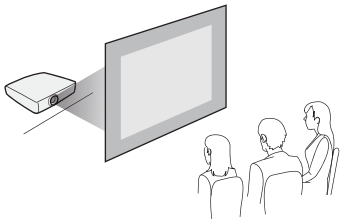
- "Setting Up the Projector" p.18
- "Projector Setup and Installation Options" p.20
- "Projection Distance" p.20
- "Image Shape" p.44
- "Projector Setup Settings - Extended Menu" p.139

Projector Setup and Installation Options

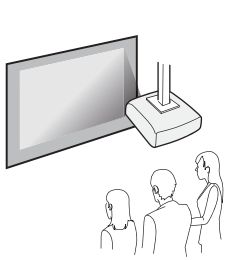
You can set up or install your projector in the following ways:

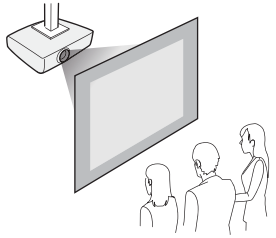
Front/Rear





Front Ceiling/Rear Ceiling





When projecting from the ceiling or from the rear, make sure you select the correct **Projection** option in the projector's **Extended** menu.

Related Links

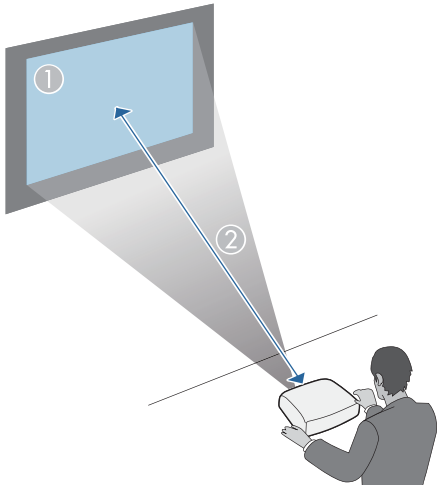
- "Projector Placement" p.19
- "Projection Modes" p.41

Projection Distance

The distance at which you place the projector from the screen determines the approximate size of the image. The image size increases the farther the projector is from the screen, but can vary depending on the zoom factor, aspect ratio, and other settings.

Use the illustration here to determine approximately how far to place the projector from the screen based on the size of the projected image.

When correcting keystone distortion, your image is slightly smaller.



① Screen size (inch)	② Approximate distance (m)
50	1.5
150	4.5

Related Links

- "Projector Placement" p.19
- "Screen Size and Projection Distance" p.188

You can connect the projector to a variety of computer, video, and audio sources to display presentations, movies, or other images, with or without sound.

- Connect a computer that has a USB port, standard video output (monitor) port, or HDMI port.
- For video projection, connect devices such as DVD players, gaming consoles, digital cameras, and smartphones with compatible video output ports.
- If your presentation or video includes sound, you can connect audio input cables.
- For slide shows or presentations without a computer, you can connect USB devices (such as a flash drive or camera) or the optional Epson document camera.

Related Links

- "Setting Up the Projector" p.18
- "Connecting to a Computer" p.22
- "Connecting to Smartphones or Tablets" p.24
- "Connecting to Video Sources" p.25
- "Connecting to External USB Devices" p.27
- "Connecting to a Document Camera" p.28
- "Connecting to External Output Devices" p.28

Connecting to a Computer

Follow the instructions in these sections to connect a computer to the projector.

Related Links

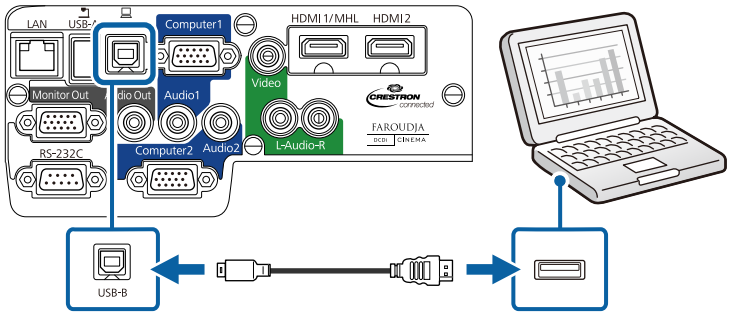
- "Projector Connections" p.22
- "Connecting to a Computer for USB Video and Audio" p.22
- "Connecting to a Computer for VGA Video and Audio" p.22
- "Connecting to a Computer for HDMI Video and Audio" p.23

Connecting to a Computer for USB Video and Audio

If your computer meets the system requirements, you can send video and audio output to the projector through the computer's USB port (preferably USB 2.0). This function is called USB Display. Connect the projector to your computer using a commercially available USB cable.

If you use a USB hub, the connection may not operate correctly. Connect the USB cable directly to the projector.

1. Connect the cable to your projector's USB-B port.



2. Connect the other end to any available USB port on your computer.

Related Links

- "Connecting to a Computer" p.22
- "Projecting with USB Display" p.53

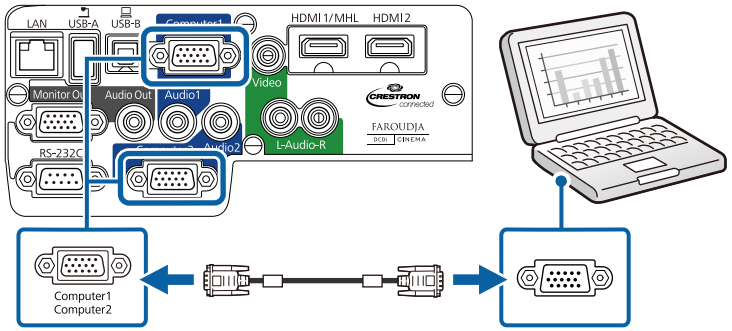
Connecting to a Computer for VGA Video and Audio

You can connect the projector to your computer using the supplied VGA computer cable. You can play sound through the projector's speaker system

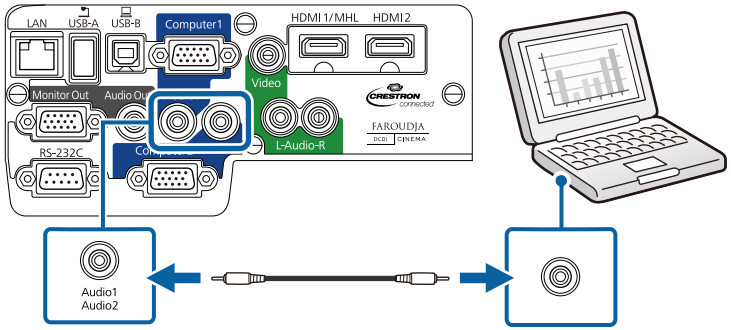
by connecting a commercially available 3.5 mm stereo mini-jack audio cable.

To connect a Mac that includes only a Mini DisplayPort, Thunderbolt port, 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.

1. Connect the VGA computer cable to your computer's monitor port.
2. Connect the other end to a Computer port on the projector.



3. Tighten the screws on the VGA connector.
4. Connect the audio cable to your laptop's headphone or audio-out jack, or your desktop's speaker or audio-out port.
5. Connect the other end to the Audio port that corresponds to the Computer port you are using.



Related Links

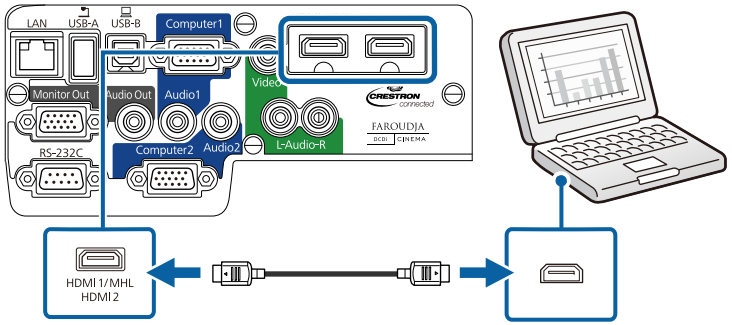
- "Connecting to a Computer" p.22

Connecting to a Computer for HDMI Video and Audio

If your computer has an HDMI port, you can connect it to the projector using a commercially available HDMI cable and send the computer's audio with the projected image.

To connect a Mac that includes only a Mini DisplayPort, Thunderbolt port, or Mini-DVI port for video output, you need to obtain an adapter that allows you to connect to the projector's HDMI port. Contact Apple for compatible adapter options. Older Mac computers (2009 and earlier) may not support audio through the HDMI port.

1. Connect the HDMI cable to your computer's HDMI output port.
2. Connect the other end to the projector's HDMI1/MHL or HDMI2 port.



If you have problems hearing audio through the HDMI connection, connect one end of a commercially available 3.5 mm stereo mini-jack audio cable to the projector's Audio port and the other end to your computer's audio out port. Select the input port you connected to from the **HDMI1 Audio Output** or **HDMI2 Audio Output** setting in the projector's **Extended** menu.

☛ **Extended** > **A/V Settings**

Related Links

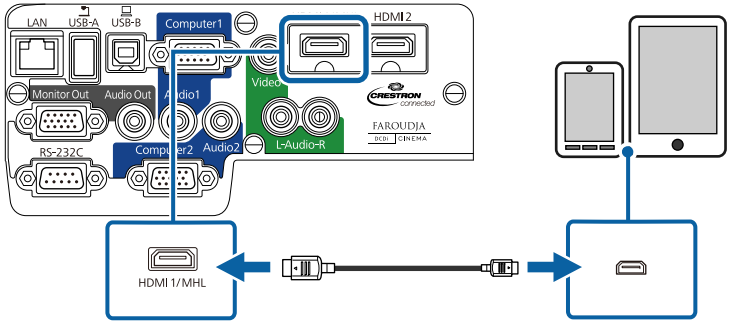
- "Connecting to a Computer" p.22
- "Projector Setup Settings - Extended Menu" p.139

Connecting to Smartphones or Tablets

You can connect the projector to smartphones and tablets using a commercially available MHL cable and send the audio with the projected image.

- You may not be able to connect an MHL cable to all devices.
- You may not be able to project correctly, depending on the model and settings of the smartphone or tablet.

1. Connect the MHL cable to your device's MHL port.
2. Connect the other end to the projector's HDMI1/MHL port.



Attention

If you connect an MHL cable that does not support the MHL standards, the smartphone or tablet device may become hot, leak, or explode.

The connected smartphone or tablet begins charging when images are projected. If you connect using a commercially available MHL-HDMI conversion adapter, charging the smartphone or tablet device may not work or you may not be able to perform operations using the projector's remote control.

If images are not projected correctly, disconnect and then reconnect the MHL cable.

Related Links

- "Projector Connections" p.22

Connecting to Video Sources

Follow the instructions in these sections to connect video devices to the projector.

Attention

Check the shape and orientation of the connectors on any cable you plan to connect. Do not force a connector into a port if it does not fit. The device or your projector could be damaged or could malfunction.

If the port on the device you connect has an unusual shape, use the cable supplied with the device or an optional cable to connect to the projector.

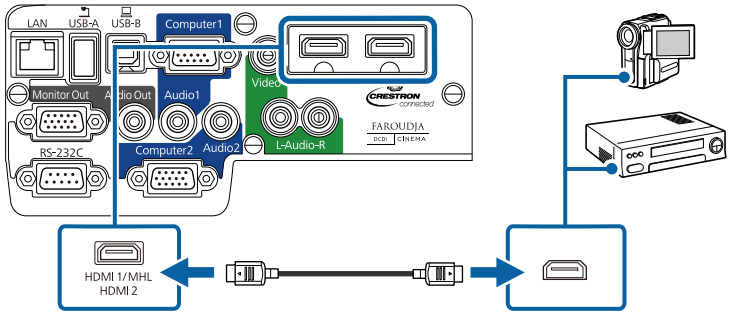
Related Links

- "Projector Connections" p.22
- "Connecting to an HDMI Video Source" p.25
- "Connecting to a Component-to-VGA Video Source" p.25
- "Connecting to a Composite Video Source" p.26

Connecting to an HDMI Video Source

If your video source has an HDMI port, you can connect it to the projector using a commercially available HDMI cable and send the image source's audio with the projected image.

1. Connect the HDMI cable to your video source's HDMI output port.
2. Connect the other end to the projector's HDMI1/MHL or HDMI2 port.



If you have problems hearing audio through the HDMI connection, connect one end of a commercially available 3.5 mm stereo mini-jack audio cable to the projector's Audio port and the other end to your computer's audio out port. Select the input port you connected to from the **HDMI1 Audio Output** or **HDMI2 Audio Output** setting in the projector's **Extended** menu.

☛ **Extended** > **A/V Settings**

Related Links

- "Connecting to Video Sources" p.25
- "Projector Setup Settings - Extended Menu" p.139

Connecting to a Component-to-VGA Video Source

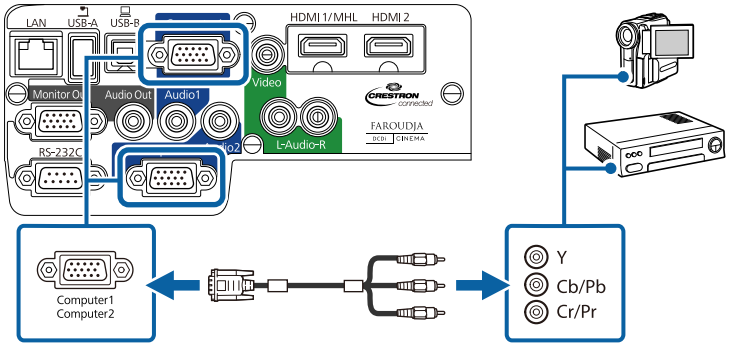
If your video source has component video ports, you can connect it to the projector using an optional component-to-VGA video cable. Depending on your component ports, you may need to use an adapter cable along with a component video cable. You can play sound through the projector's speaker system by connecting a commercially available stereo mini-jack audio cable or an RCA audio cable.

Make sure the audio cable is labeled "No resistance".

1. Connect the component connectors to your video source's color-coded component video output ports.

> The ports usually labeled Y, Pb, Pr or Y, Cb, Cr. If you are using an adapter, connect these connectors to your component video cable.

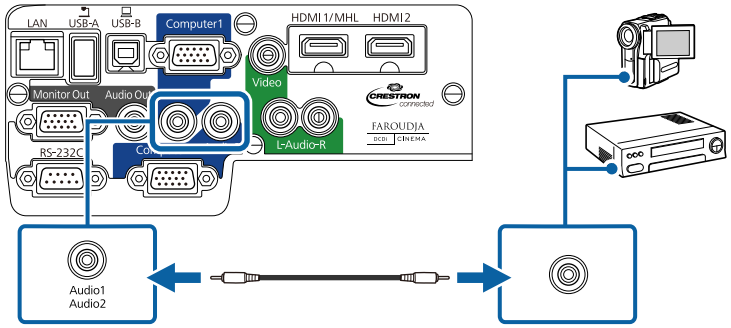
2. Connect the VGA connector to a Computer port on the projector.



3. Tighten the screws on the VGA connector.

4. Connect the audio cable to your video source's audio-out ports.

5. Connect the other end of the cable to the projector's Audio port that corresponds to the Computer port you are using for video.



If your image colors appear incorrect, you may need to change the **Input Signal** setting in the projector's **Signal** menu.

Related Links

- "Connecting to Video Sources" p.25
- "Input Signal Settings - Signal Menu" p.135

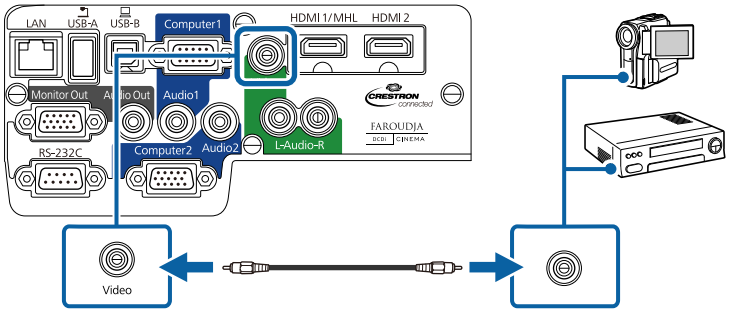
Connecting to a Composite Video Source

If your video source has a composite video port, you can connect it to the projector using a commercially available RCA-style video or A/V cable. You can play sound through the projector's speaker system by connecting a commercially available RCA audio cable.

> Make sure the audio cable is labeled "No resistance".

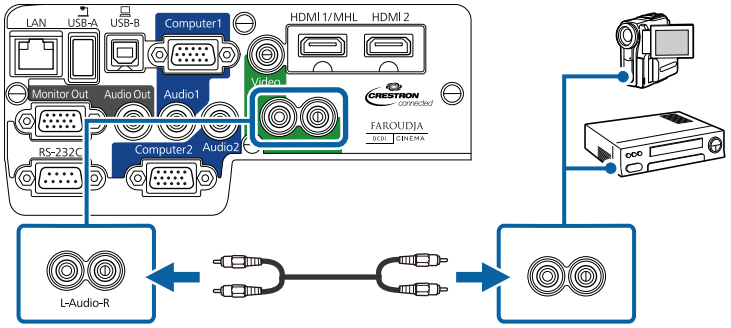
1. Connect the cable with the yellow connector to your video source's yellow video output port.

2. Connect the other end to the projector's Video port.



3 Connect the red and white connectors on the A/V cable, to your video source's audio-out ports.

4 Connect the red and white connectors on the other end of the cable to the projector's L-Audio-R ports.



Related Links

- "Connecting to Video Sources" p.25

Connecting to External USB Devices

Follow the instructions in these sections to connect external USB devices to the projector.

Related Links

- "Projector Connections" p.22
- "USB Device Projection" p.27
- "Connecting to a USB Device or Camera" p.28
- "Disconnecting a USB Device or Camera" p.28

USB Device Projection

You can project images and other content without using a computer or video device by connecting any of these devices to your projector:

- USB flash drive
- Digital camera or smartphone
- USB hard drive
- Multimedia storage viewer
- USB memory card reader

- Digital cameras or smartphones must be USB-mounted devices, not TWAIN-compliant devices, and must be USB Mass Storage Class-compliant.
- USB hard drives must meet these requirements:
  - USB Mass Storage Class-compliant (not all USB Mass Storage Class devices are supported)
  - Formatted in FAT or FAT32
  - Self-powered by their own AC power supplies (bus-powered hard drives are not recommended)
  - Avoid using hard drives with multiple partitions

You can project image files on a connected USB device or memory card reader using PC Free.

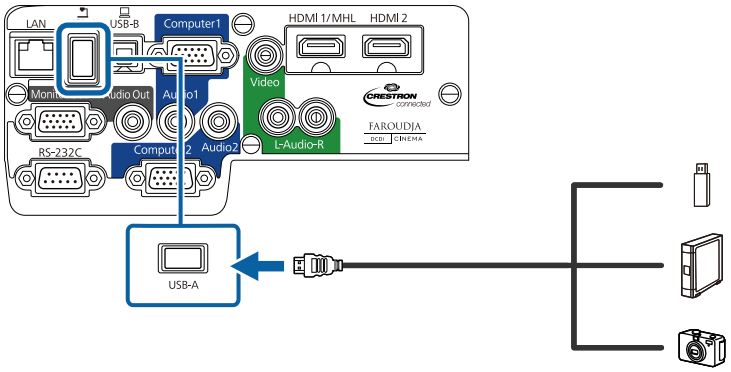
Related Links

- "Connecting to External USB Devices" p.27
- "Projecting a PC Free Presentation" p.73

Connecting to a USB Device or Camera

You can connect your USB device or camera to the projector's USB-A port and use it to project images and other content.

1. If your USB device came with a power adapter, plug the device into an electrical outlet.
2. Connect the USB cable (or USB flash drive or USB memory card reader) to the projector's USB-A port shown here.



Attention

- Use the USB cable supplied with or specified for use with the device.
- Do not connect a USB hub or a USB cable longer than 3 meters, or the device may not operate correctly.

3. Connect the other end of the cable to your device.

Related Links

- "Connecting to External USB Devices" p.27

Disconnecting a USB Device or Camera

When you have finished presenting with a connected USB device or camera, disconnect the device from the projector.

1. Turn off and unplug the device.
2. Disconnect the USB device or camera from the projector.

Related Links

- "Connecting to External USB Devices" p.27

Connecting to a Document Camera

You can connect a document camera to your projector to project images viewed by the camera.

The connection method varies depending on your Epson document camera model. See the document camera manual for details.

Related Links

- "Projector Connections" p.22

Connecting to External Output Devices

Follow the instructions in these sections to connect external devices to the projector.

Related Links

- "Projector Connections" p.22
- "Connecting to an External Computer Monitor" p.29
- "Connecting to External Speakers" p.29

Connecting to an External Computer Monitor

If you connected the projector to a computer using a Computer port, you can also connect an external monitor to the projector. This lets you see your presentation on the external monitor even when the projected image is not visible.

If you want to output images to an external monitor when the projector is turned off, you need to do the following:

- Select **Communication On** as the **Standby Mode** setting in the projector's **ECO** menu.
- Select **Always On** as the **A/V Output** setting in the projector's **Extended** menu.

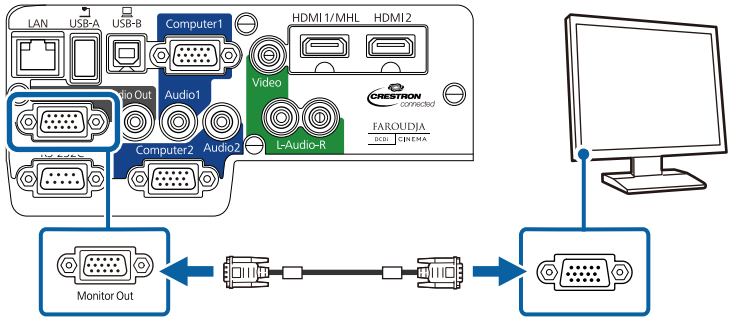
☛ **Extended** > **A/V Settings** > **A/V Output**

Monitors that use a refresh rate of less than 60 Hz may not be able to display images correctly.

1 Make sure your computer is connected to the projector's Computer port. If there are two computer ports, make sure you use the Computer1 port.

Only analog RGB signals from the Computer1 port can be output to an external monitor. You cannot output signals input from other ports or component video signals.

2 Connect the external monitor's cable to your projector's Monitor Out port.



Related Links

- "Connecting to External Output Devices" p.28
- "Projector Setup Settings - ECO Menu" p.150
- "Projector Setup Settings - Extended Menu" p.139

Connecting to External Speakers

To enhance the sound from your presentation, you can connect the projector to external self-powered speakers. You can control the volume using the projector's remote control.

If you want to output audio from the external speakers when the projector is turned off, you need to do the following:

- Select **Communication On** as the **Standby Mode** setting in the projector's **ECO** menu.
- Select **Always On** as the **A/V Output** setting in the projector's **Extended** menu.

☛ **Extended** > **A/V Settings** > **A/V Output**

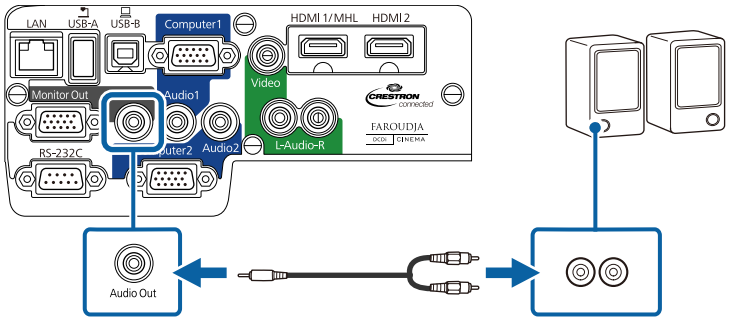
- You can also connect the projector to an amplifier with speakers.
- The projector's built-in speaker system is disabled when you connect external speakers.

1. Make sure your computer or video source is connected to the projector with both audio and video cables as necessary.

2. Locate the appropriate cable to connect your external speakers, such as a stereo mini-jack-to-pin-jack cable, or another type of cable or adapter.

3. Connect one end of the cable to your external speakers as necessary.

4. Connect the stereo mini-jack end of the cable to your projector's Audio Out port.



Related Links

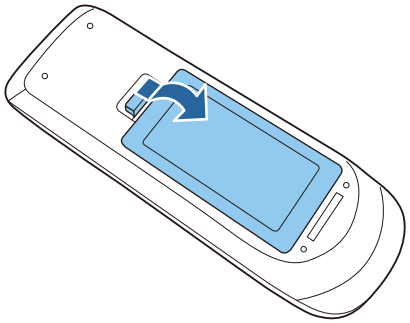
- "Connecting to External Output Devices" p.28
- "Projector Setup Settings - ECO Menu" p.150
- "Projector Setup Settings - Extended Menu" p.139

The remote control uses the two AA batteries that came with the projector.

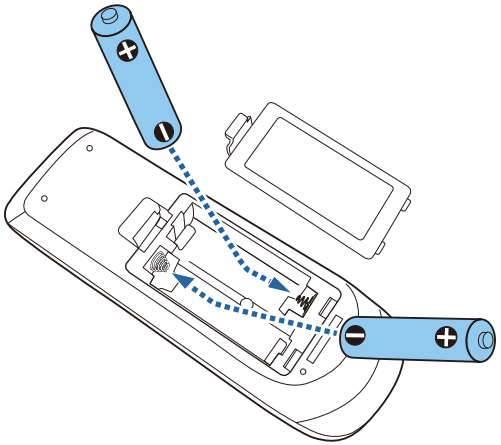
Attention

Make sure you read the *Safety Instructions* before handling the batteries.

1 Open the battery cover as shown.



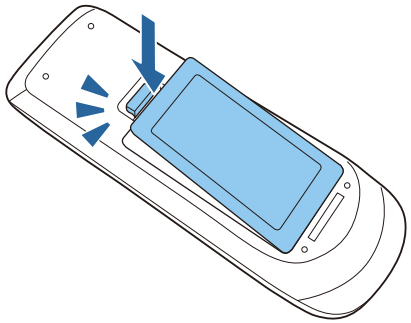
2 Insert the batteries with the + and – ends facing as shown.



Warning

Check the positions of the (+) and (–) marks inside the battery holder to ensure the batteries are inserted the correct way. If the batteries are not used correctly, they could explode or leak causing a fire, injury, or damage to the product.

3 Close the battery cover and press it down until it clicks into place.



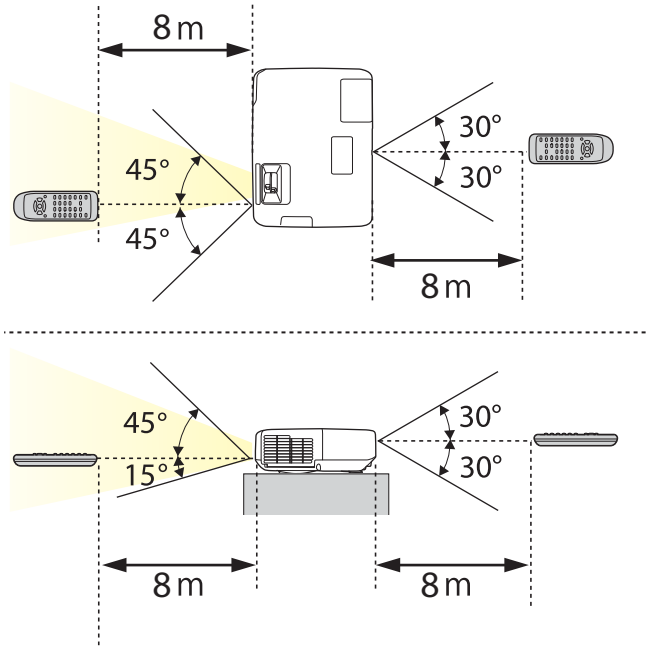
Related Links

- "Setting Up the Projector" p.18
- "Remote Control Operation" p.31

Remote Control Operation

The remote control lets you control the projector from almost anywhere in the room, up to 8 meters away.

Make sure that you aim the remote control at the projector's receivers within the angles listed here.

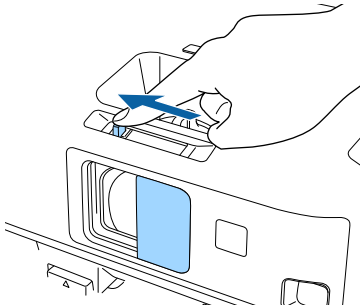


Avoid using the remote control in conditions with bright fluorescent lights or in direct sunlight, or the projector may not respond to commands. If you are not going to use the remote control for a long time, remove the batteries.

Related Links

- "Installing Batteries in the Remote Control" p.31

1 To open the projector's lens cover, slide the A/V Mute slide lever until it clicks.



2 To cover the lens or temporarily turn off the projected image and sound, close the A/V Mute slide cover.

Related Links

- "Setting Up the Projector" p.18

Using Basic Projector Features

Follow the instructions in these sections to use your projector's basic features.

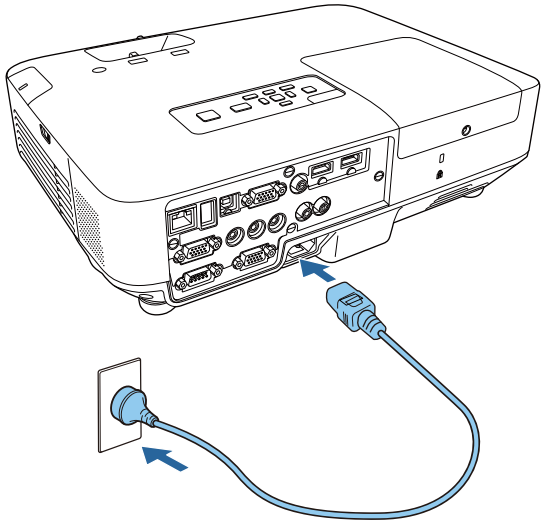
Related Links

- "Turning On the Projector" p.35
- "Turning Off the Projector" p.37
- "Setting the Date and Time" p.38
- "Selecting the Language for the Projector Menus" p.40
- "Projection Modes" p.41
- "Adjusting the Image Height" p.43
- "Image Shape" p.44
- "Resizing the Image with the Zoom Ring" p.50
- "Focusing the Image Using the Focus Ring" p.51
- "Projecting with USB Display" p.53
- "Selecting an Image Source" p.57
- "Image Aspect Ratio" p.59
- "Color Mode" p.61
- "Adjusting the Image Color" p.64
- "Controlling the Volume with the Volume Buttons" p.68

Turn on the computer or video equipment you want to use after you turn on the projector.

1 Connect the power cord to the projector's power inlet.

2 Plug the power cord into an electrical outlet.



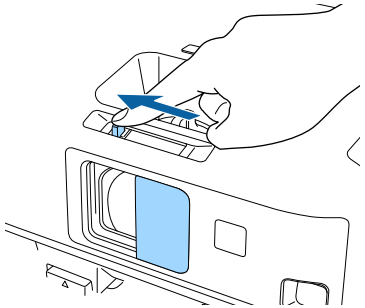
The projector's power light turns blue. This indicates that the projector is receiving power, but is not yet turned on (it is in standby mode).

3 Press the power button on the control panel or remote control to turn on the projector.

The projector beeps and the status light flashes blue as the projector warms up. Once the projector is warmed up, the status light stops flashing and turns blue.

> **Warning**
>
> Never look into the projector lens when the lamp is on. This can damage your eyes and is especially dangerous for children.

4 Open the projector's lens cover.



Try the following if you do not see a projected image.

- Verify the lens cover is open all the way.
- Turn on the connected computer or video device.
- Change the screen output from the computer when using a laptop computer.
- Insert a DVD or other video media, and press play (if necessary).
- Press the [Source Search] button on the remote control or control panel to detect the source.
- Press the button for the desired video source on the remote control.

- When the **Direct Power On** setting is set to **On** in the projector's **Extended** menu, the projector turns on as soon as you plug it in. Note that the projector also turns on automatically in cases such as recovering from a power outage.

  ☛ **Extended** > **Operation** > **Direct Power On**

- When the **Auto Power On** setting is set to **Computer1** in the projector's **Extended** menu, the projector turns on as soon as the projector detects an image signal from the Computer1 port. (Set **Standby Mode** to **Communication On** in the projector's **ECO** menu first.)

  ☛ **Extended** > **Operation** > **Auto Power On**

Related Links

- "Using Basic Projector Features" p.34
- "Projector Setup Settings - Extended Menu" p.139
- "Projector Setup Settings - ECO Menu" p.150

Before turning off the projector, shut down any computer connected to it so you can see the computer display during shutdown.

Turn off this product when it is not in use to prolong the life of the projector. Lamp life varies depending on the mode selected, environmental conditions, and usage. Brightness decreases over time.

1 Press the power button on the control panel or remote control.

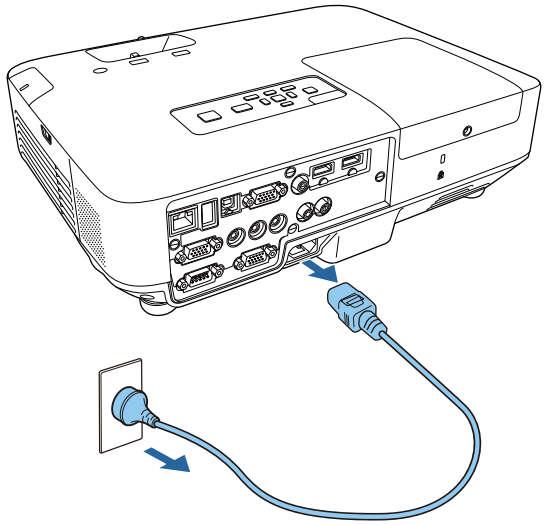
The projector displays a shutdown confirmation screen.

2 Press the power button again. (To leave it on, press any other button.)

The projector beeps twice, the lamp turns off, and the status light turns off.

With Epson's Instant Off technology, there is no cool-down period so you can pack up the projector for transport right away.

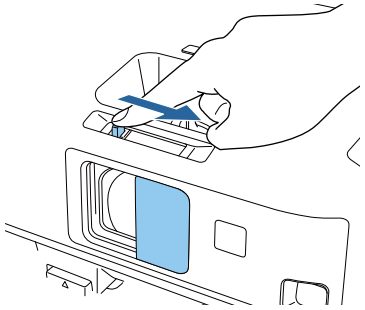
3 To transport or store the projector, make sure the power light is blue (but not flashing), then unplug the power cord.



Attention

To avoid damaging the projector or lamp, never unplug the power cord when the power light is flashing blue.

4 Close the projector's lens cover.

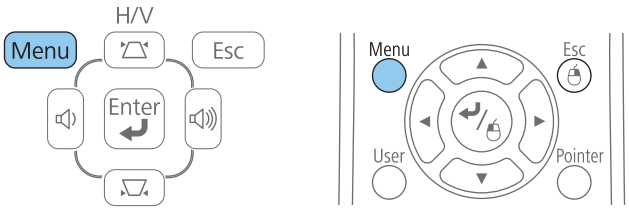


Related Links

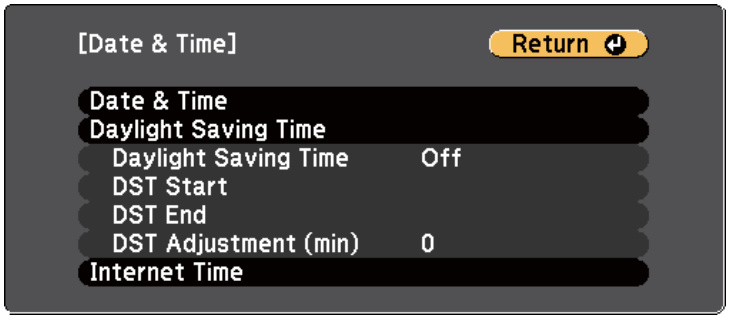
- "Using Basic Projector Features" p.34

You can set the date and time for the projector.

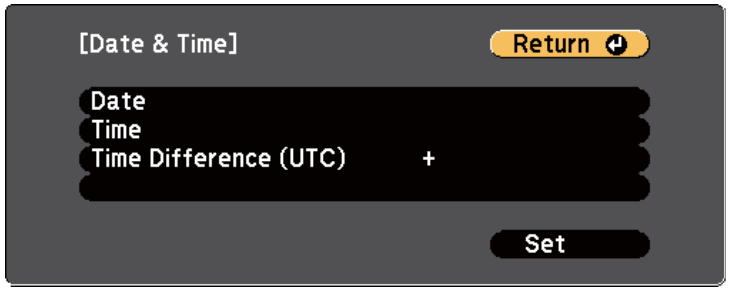
1. Turn on the projector.
2. Press the [Menu] button on the control panel or remote control.



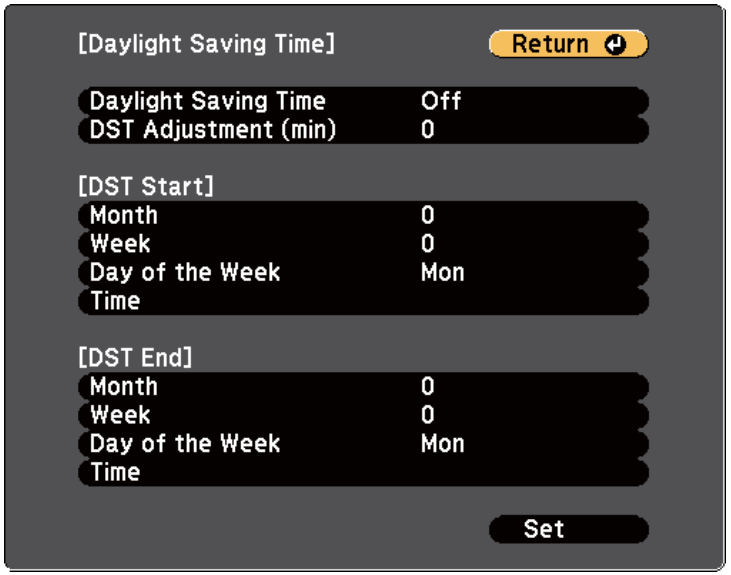
3. Select the **Extended** menu and press [Enter].
4. Select the **Operation** setting and press [Enter].
5. Select the **Date & Time** setting and press [Enter].
   You see this screen:



6. Select the **Date & Time** setting and press [Enter].
   You see this screen:

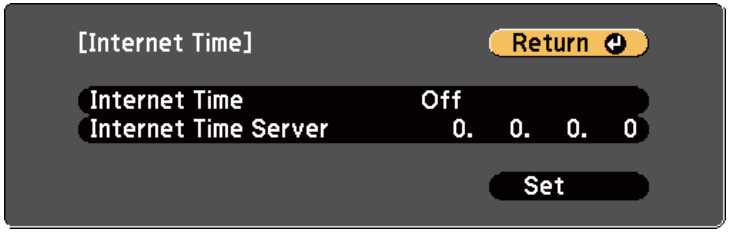


7. Select **Date**, press [Enter], and use the displayed keyboard to enter today's date.
8. Select **Time**, press [Enter], and use the displayed keyboard to enter the current time.
9. Select **Time Difference (UTC)**, press [Enter], and set the time difference from Coordinated Universal Time.
10. When you are finished, select **Set** and press [Enter].
11. To activate daylight saving time, select the **Daylight Saving Time** setting and press [Enter]. Then select settings.



12 When you are finished, select **Set** and press [Enter].

13 To update the time automatically through an Internet time server, select the **Use Internet Time** setting and press [Enter]. Then select settings.



14 When you are finished, select **Set** and press [Enter].

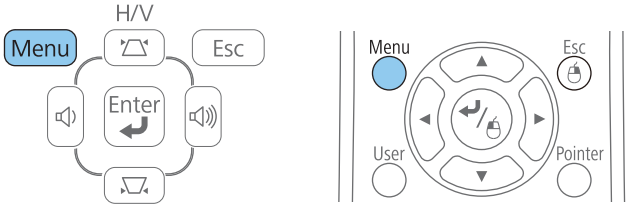
15 Press [Menu] or [Esc] to exit the menus.

Related Links

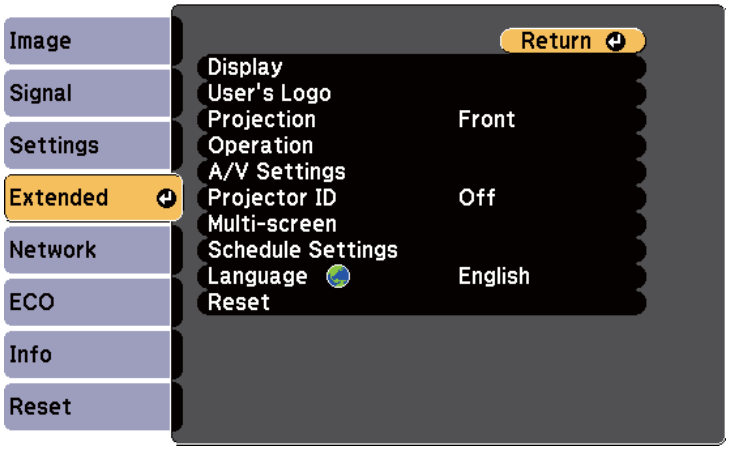
- "Using Basic Projector Features" p.34

If you want to view the projector's menus and messages in another language, you can change the **Language** setting.

1. Turn on the projector.
2. Press the [Menu] button on the control panel or remote control.



3. Select the **Extended** menu and press [Enter].



4. Select the **Language** setting and press [Enter].
5. Select the language you want to use and press [Enter].
6. Press [Menu] or [Esc] to exit the menus.

Related Links

- "Using Basic Projector Features" p.34

Depending on how you positioned the projector, you may need to change the projection mode so your images project correctly.

- **Front** (default setting) lets you project from a table in front of the screen.
- **Front/Ceiling** flips the image over top-to-bottom to project upside-down from a ceiling or wall mount.
- **Rear** flips the image horizontally to project from behind a translucent screen.
- **Rear/Ceiling** flips the image over top-to-bottom and horizontally to project from the ceiling and behind a translucent screen.

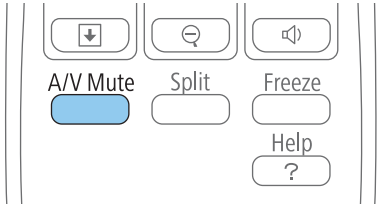
Related Links

- "Using Basic Projector Features" p.34
- "Changing the Projection Mode Using the Remote Control" p.41
- "Changing the Projection Mode Using the Menus" p.41
- "Projector Setup and Installation Options" p.20

Changing the Projection Mode Using the Remote Control

You can change the projection mode to flip the image over top-to-bottom.

1. Turn on the projector and display an image.
2. Hold down the [A/V Mute] button on the remote control for 5 seconds.



The image disappears briefly and reappears flipped top-to-bottom.

3. To change projection back to the original mode, hold down the [A/V Mute] button for 5 seconds again.

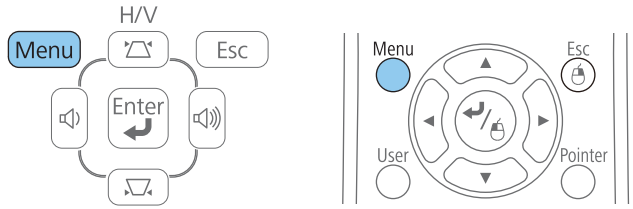
Related Links

- "Projection Modes" p.41

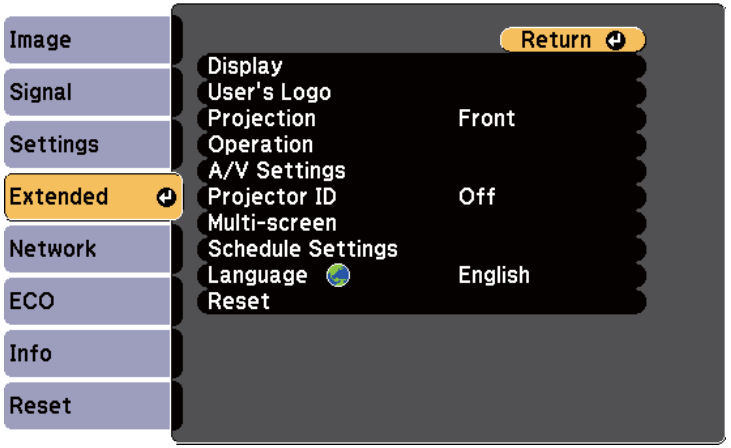
Changing the Projection Mode Using the Menus

You can change the projection mode to flip the image over top-to-bottom and/or left-to-right using the projector menus.

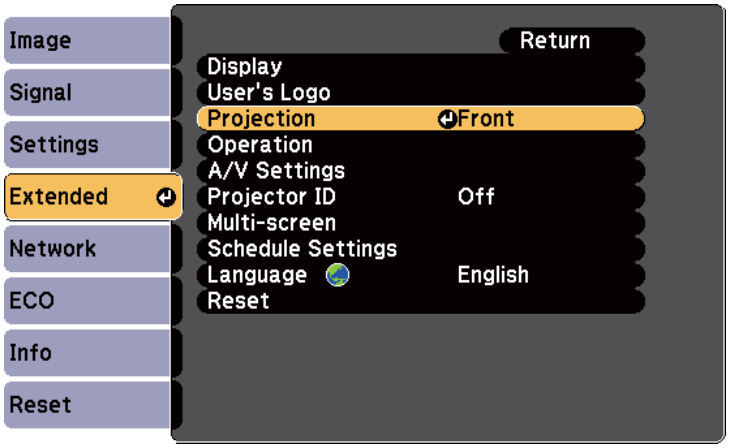
1. Turn on the projector and display an image.
2. Press the [Menu] button on the control panel or remote control.



3. Select the **Extended** menu and press [Enter].



4 Select **Projection** setting and press [Enter].



5 Select a projection mode and press [Enter].

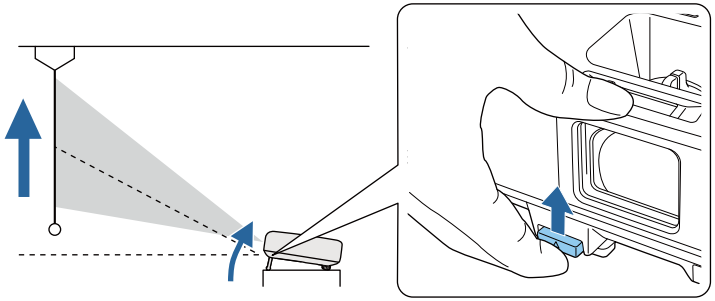
6 Press [Menu] or [Esc] to exit the menus.

Related Links

- "Projection Modes" p.41

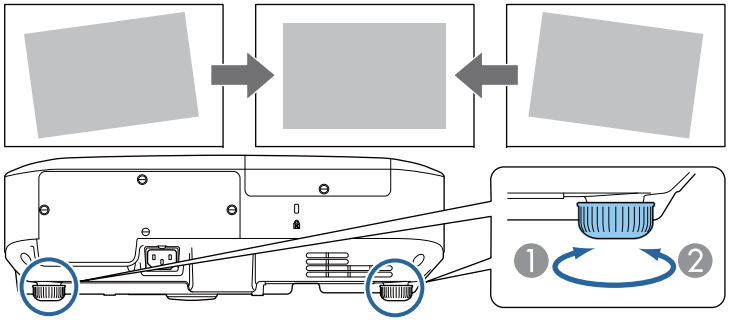
If you are projecting from a table or other flat surface and the image is too high or low, you can adjust the image height using the projector's adjustable feet. The larger the angle of tilt, the harder it becomes to focus. Locate the projector so that it only needs to be tilted at a small angle.

1. Turn on the projector and display an image.
2. To adjust the front foot, pull up on the foot release lever and lift the front of the projector.



The foot extends from the projector. You can adjust the position up to 14 degrees.

3. Release the lever to lock the foot.
4. If the image is tilted, rotate the rear feet to adjust their height.



1. Extend the rear foot
2. Retract the rear foot

If the projected image is unevenly rectangular, you need to adjust the image shape.

Related Links

- "Using Basic Projector Features" p.34
- "Image Shape" p.44

You can project an even, rectangular image by placing the projector directly in front of the center of the screen and keeping it level. If you place the projector at an angle to the screen, or tilt it up or down, or off to the side, you may need to correct the image shape.

Related Links

- "Using Basic Projector Features" p.34
- "Auto H/V-Keystone" p.44
- "Automatically Correcting the Image Shape with Screen Fit" p.44
- "Correcting the Image Shape with the Keystone Buttons" p.46
- "Correcting the Image Shape with Quick Corner" p.47

Auto H/V-Keystone

When the projector is moved or tilted, Auto H/V-Keystone automatically corrects any vertical and horizontal keystone distortion.

When the projector is moved, it displays an adjustment screen and then automatically corrects the projected image.

Auto H/V-Keystone can correct the projected image distortion in these conditions:

- Projection distance is about 1.5 to 3.0 m (EB-1985WU/EB-1980WU)
- Projection distance is about 0.9 to 3.0 m (EB-1975W/EB-1970W)
- Projection angle is about 20º right or left, or 30º up or down
- The **Projection** setting is set to **Front** in the projector's **Extended** menu

If you do not want to use the Auto H/V-Keystone function, set **Auto H/V-Keystone** to **Off** in the projector's **Settings** menu.

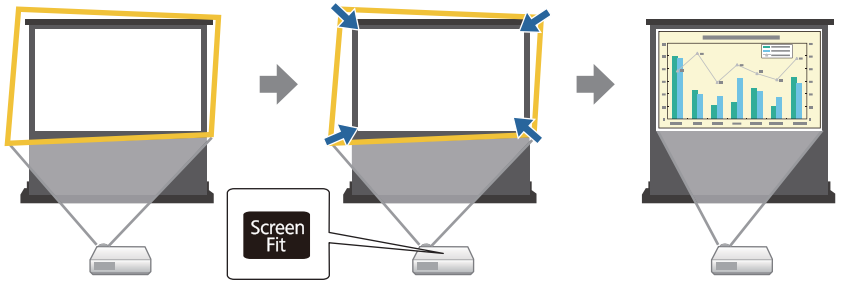
☛ **Settings** > **Keystone** > **H/V-Keystone** > **Auto H/V-Keystone**

Related Links

- "Image Shape" p.44
- "Projection Modes" p.41
- "Projector Setup Settings - Extended Menu" p.139
- "Projector Feature Settings - Settings Menu" p.137

Automatically Correcting the Image Shape with Screen Fit

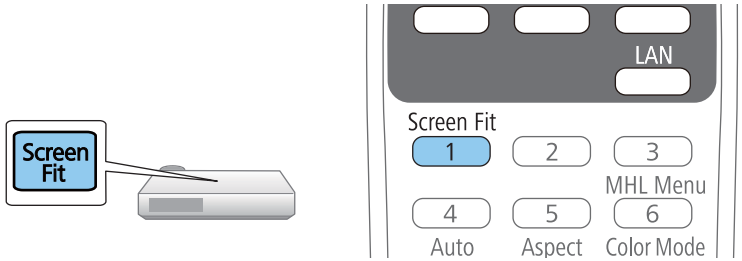
You can use the projector's Screen Fit feature to automatically correct the shape and position of images to fit on your screen.



The projector's sensor can detect the screen size and shape in these conditions:

- Projector is not suspended from the ceiling
- Screen size is 100 inches or less
- Projection distance is about 1.5 to 3.0 m (EB-1985WU/EB-1980WU)
- Projection distance is about 1.2 to 3.0 m (EB-1975W/EB-1970W)
- Projection angle is about 20º right or left, or 30º up or down
- The room is not too dark
- The projection surface is not patterned and does not deflect the sensor in some way

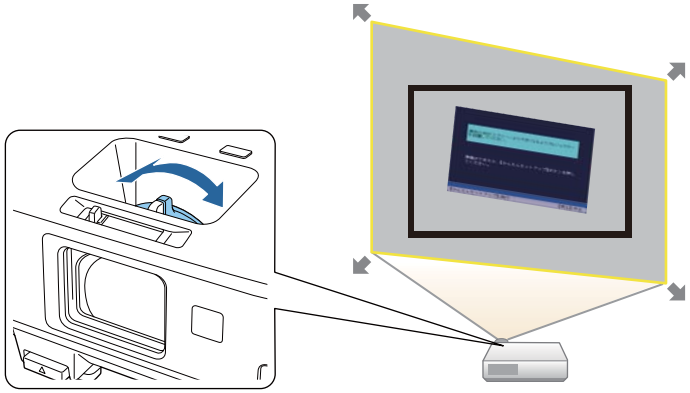
1. Turn on the projector and display an image.
2. Press the [Screen Fit] button on the control panel or remote control.



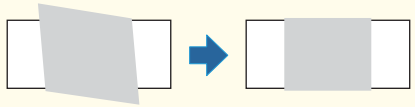
You see a message on the screen.

3 Move the projector as necessary to display the message in the middle of the screen.

4 Zoom into the image until the yellow frame extends beyond the edges of the screen.



- If the yellow frame is still within the screen frame after zooming in all the way, move the projector farther away from the screen.
- For example, when you project onto a wide screen in a small room and you cannot extend the yellow frame beyond the screen frame, the yellow frame must include at least the top and bottom two sides of the screen so that Screen Fit detects the screen height and adjusts the image to fit the screen.



5 Press the [Screen Fit] button again.

After the adjustment screen appears, do not move the projector or block the image. The projected image is corrected according to the aspect ratio of the image being input and this message appears.

6 Fine-tune the image shape as necessary using the keystone adjustment buttons on the control panel.

If no operations are performed, the message closes after about 7 seconds.

7 When you are finished, press [Esc].

The **Keystone** setting is now set to **Quick Corner** in the projector's **Settings** menu. If necessary, you can correct the image corners individually using Quick Corner by pressing the arrow buttons on the control panel.

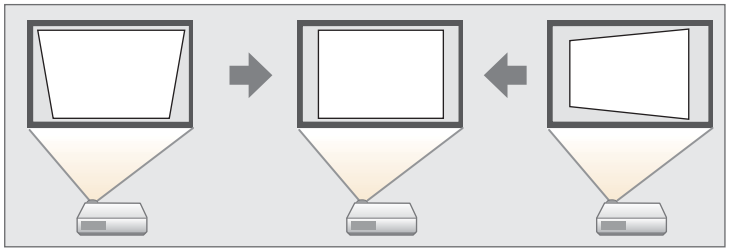
Related Links

- "Image Shape" p.44

• "Projector Feature Settings - Settings Menu" p.137
• "Correcting the Image Shape with Quick Corner" p.47

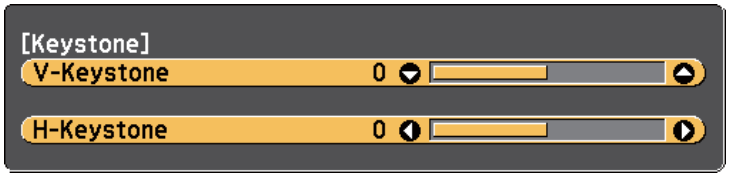
Correcting the Image Shape with the Keystone Buttons

You can use the projector's keystone correction buttons to correct the shape of an image that is unevenly rectangular.

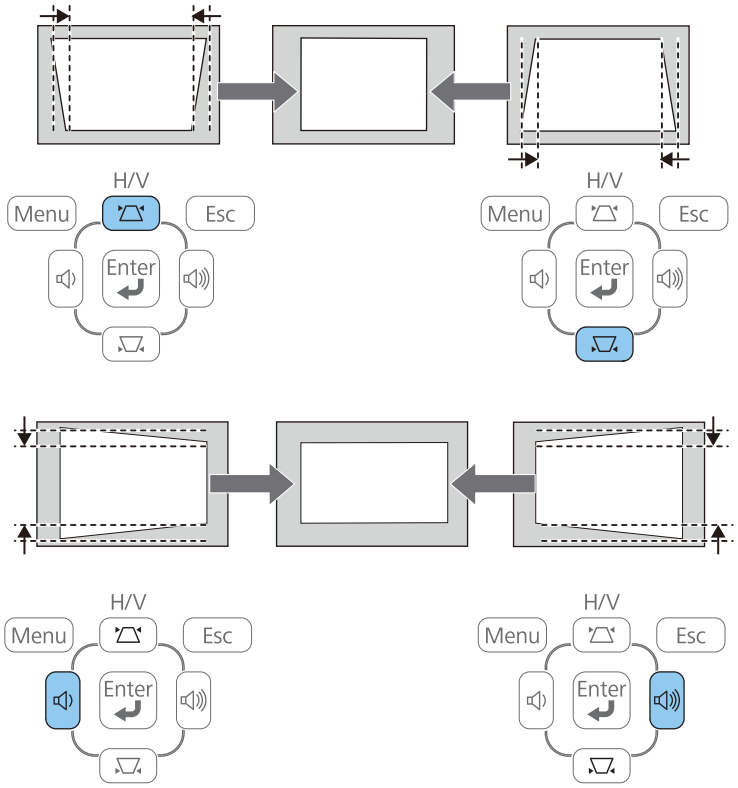


You can use keystone buttons to correct images up to 30º right, left, up, or down.

1. Turn on the projector and display an image.
2. Press one of the keystone adjustment buttons on the control panel to display the Keystone adjustment screen.



3. Press a keystone button to adjust the image shape.



After correction, your image is slightly smaller.

If the projector is installed out of your reach, you can also correct the image shape by pressing the [Menu] button on the remote control and selecting **H/V-Keystone** in the projector's **Settings** menu.

☛ **Settings** > **Keystone** > **H/V-Keystone**

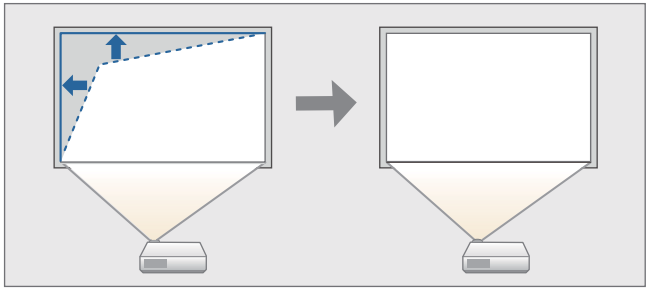
Related Links

• "Image Shape" p.44

- "Projector Feature Settings - Settings Menu" p.137

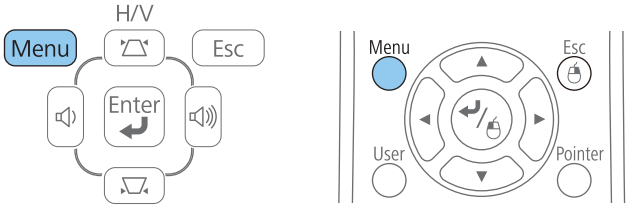
Correcting the Image Shape with Quick Corner

You can use the projector's Quick Corner setting to correct the shape and size of an image that is unevenly rectangular.

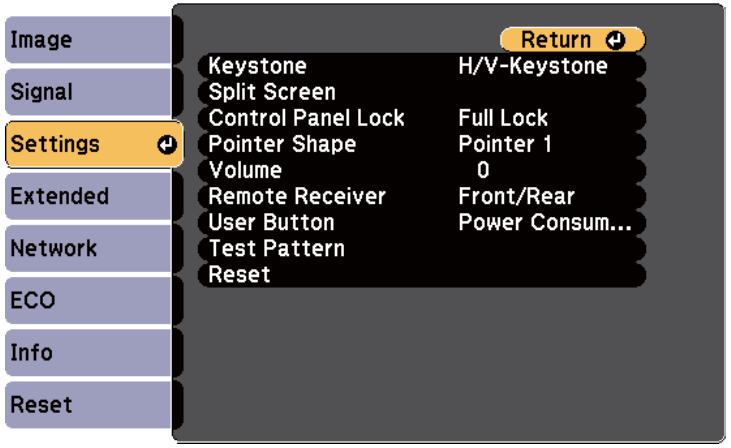


1 Turn on the projector and display an image.

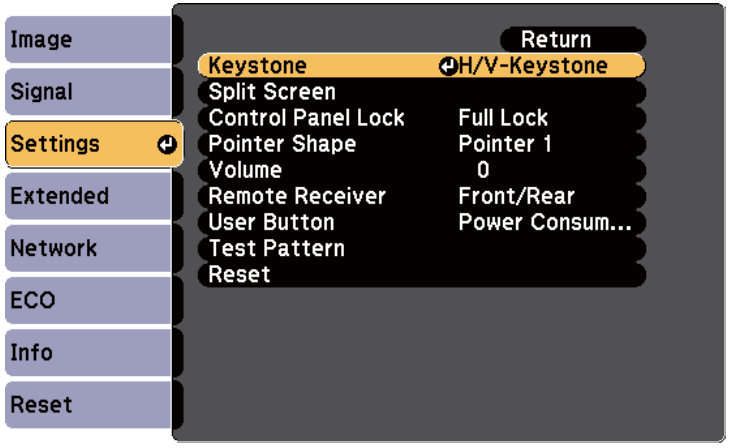
2 Press the [Menu] button on the control panel or remote control.



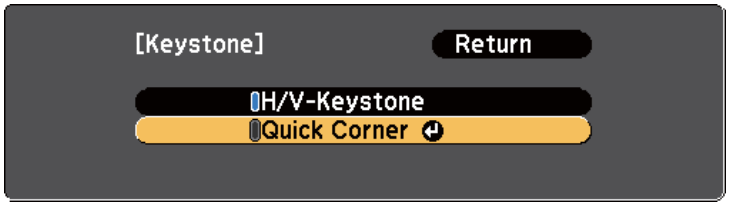
3 Select the **Settings** menu and press [Enter].



4 Select **Keystone** and press [Enter].

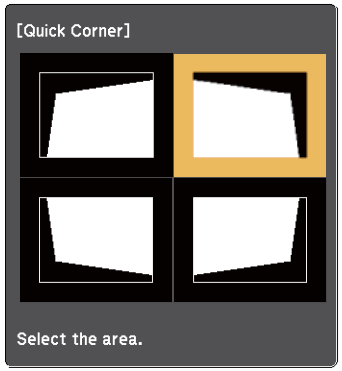


5 Select **Quick Corner** and press [Enter]. Press [Enter] again if necessary.



You see the Quick Corner adjustment screen.

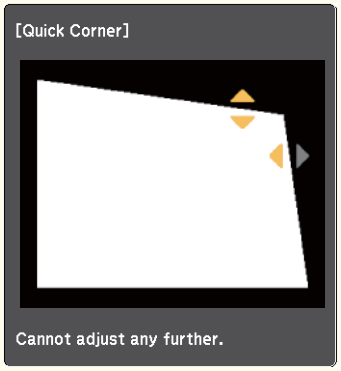
6 Use the arrow buttons to select the corner of the image you want to adjust. Then press [Enter].



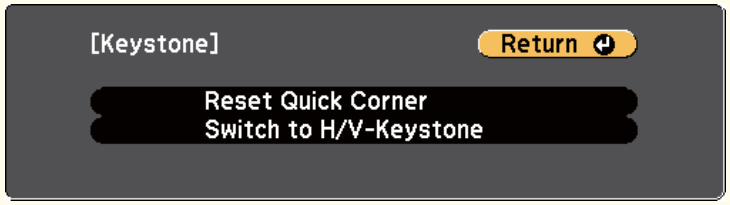
7 Press the arrow buttons to adjust the image shape as necessary.

When you press [Enter], the Quick Corner adjustment screen is displayed.

- If you see this screen, you cannot adjust the shape any further in the direction indicated by the gray triangle.



- To reset the Quick Corner corrections, hold down [Esc] for about 2 seconds while the Quick Corner adjustment screen is displayed, and select **Reset Quick Corner**. Select **Switch to H/V-Keystone** to switch the image shape correction method to H/V-Keystone.



8 Repeat steps 6 and 7 as needed to adjust any remaining corners.

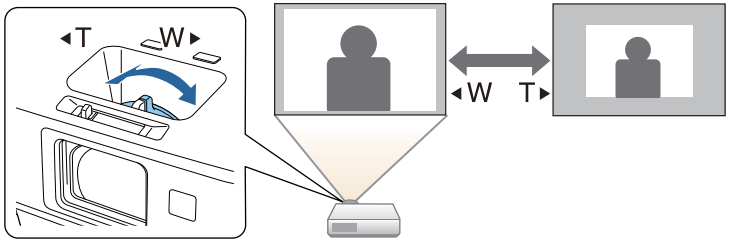
9 When you are finished, press [Esc].

The **Keystone** setting is now set to **Quick Corner** in the projector's **Settings** menu. The next time you press the keystone adjustment buttons on the control panel, the Quick Corner adjustment screen is displayed.

Related Links

- "Image Shape" p.44
- "Projector Feature Settings - Settings Menu" p.137

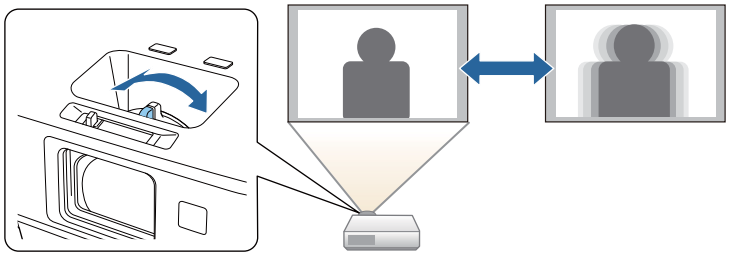
1. Turn on the projector and display an image.
2. Rotate the zoom ring to enlarge or reduce the image.



Related Links

- "Using Basic Projector Features" p.34

You can correct the focus using the focus ring.



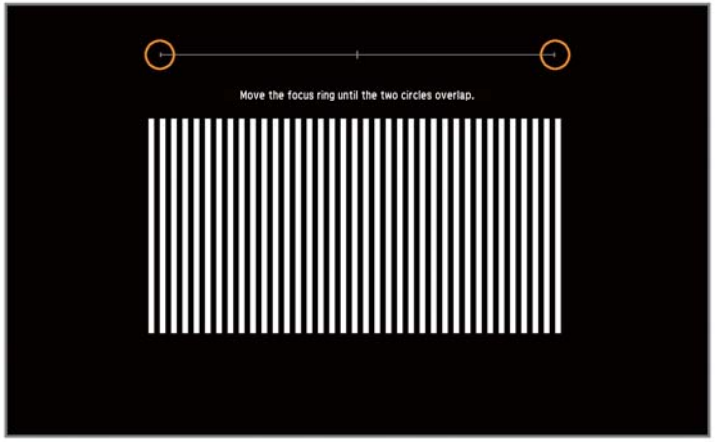
You can also use the projector's Focus Help screen to fine-tune your focus adjustments.

The Focus Help screen lets you correct the projected image under the following conditions:

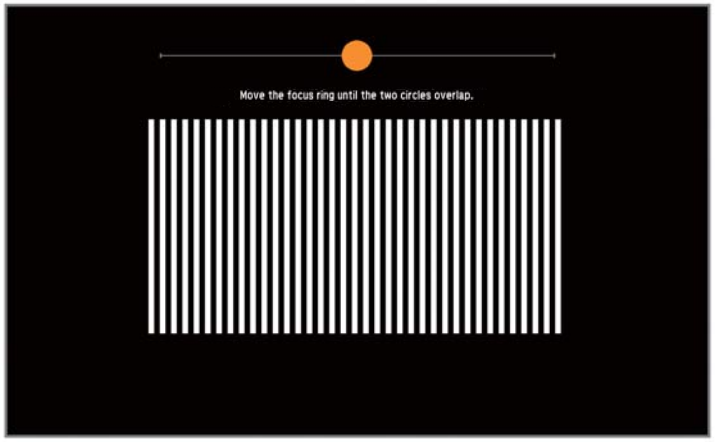
- Screen size is 100 inches or less
- Projection distance is about 1.5 to 3.0 m (EB-1985WU/EB-1980WU)
- Projection distance is about 0.9 to 3.0 m (EB-1975W/EB-1970W)
- Projection angle is about 20º right or left, or 30º up or down
- The projection environment is not too bright

1 Turn on the projector and display an image.

2 Press the [Focus Help] button on the control panel to display the Focus Help screen.



3 Rotate the focus ring until the two orange circles overlap in the center of the Focus Help screen.



4 Press [Focus Help] or [Esc] to exit the screen.

Related Links

- "Using Basic Projector Features" p.34

You can connect the projector to a computer using a USB cable to project images and send audio from the computer.

Related Links

- "Using Basic Projector Features" p.34
- "USB Display System Requirements" p.53
- "Installing the USB Display Software" p.54
- "Uninstalling the USB Display Software" p.55

USB Display System Requirements

To use the projector's Epson USB Display software, your computer must meet the following system requirements.

Requirement	Windows	Mac
Operating system	Windows 2000 (Service Pack 4 only)	OS X • Mac OS X 10.5.x (32-bit) • Mac OS X 10.6.x (32- and 64-bit) • OS X 10.7.x (32- and 64-bit) • OS X 10.8.x (64-bit) • OS X 10.9.x (64-bit)
	Windows XP • Professional (32-bit) • Home Edition (32-bit) • Tablet PC Edition (32-bit)	
	Windows Vista • Ultimate (32-bit) • Enterprise (32-bit) • Business (32-bit) • Home Premium (32-bit) • Home Basic (32-bit)	
	Windows 7 • Ultimate (32- and 64-bit) • Enterprise (32- and 64-bit) • Professional (32- and 64-bit) • Home Premium (32- and 64-bit) • Home Basic (32-bit) • Starter (32-bit)	
	Windows 8 • Windows 8 (32- and 64-bit) • Windows 8 Pro (32- and 64-bit) • Windows 8 Enterprise (32- and 64-bit)	
	Windows 8.1 • Windows 8.1 (32- and 64-bit) • Windows 8.1 Pro (32- and 64-bit) • Windows 8.1 Enterprise (32- and 64-bit)	
CPU	Mobile Pentium III 1.2 GHz or faster (Pentium M 1.6 GHz or faster recommended)	Power PC G4 1 GHz or faster (Core Duo 1.83 GHz or faster recommended)
Memory	256 MB or more (512 MB or more recommended)	512 MB or more
Hard disk space	20 MB or more	
Display	Resolution between 640 × 480 and 1920 × 1200 16-bit color or greater	Resolution between 640 × 480 and 1920 × 1200 16-bit color or greater

Related Links

- "Projecting with USB Display" p.53

Installing the USB Display Software

The first time you connect the projector to a computer using a USB cable, you must install the Epson USB Display software. You do not need to install the software the next time you connect.

If you are connected to multiple image sources, you may need to change the image source to USB Display.

1 Connect a USB cable to the computer's USB port and to the projector's USB-B port.

If you are using Windows 2000 or Windows XP and you see a message asking if you want to restart your computer, select **No**.

2 Do one of the following to install the software:

- Windows 2000: Double-click **Computer** > **EPSON_PJ_UD** > **EMP_UDSE.EXE**.
- Windows XP: Installation starts automatically.

If it is not installed automatically, double-click **My Computer** > **EPSON_PJ_UD** > **EMP_UDSE.EXE**.

- Windows Vista/Windows 7/Windows 8/Windows 8.1: When the dialog box is displayed, click **Run EMP_UDSE.EXE**.
- OS X: The USB Display **Setup** folder is displayed in **Finder**. Double-click the **USB Display Installer** icon and follow the on-screen instructions.

If the USB Display **Setup** folder is not displayed automatically, double-click **EPSON_PJ_UD** > **USB Display Installer**.

3 Follow any on-screen instructions.

After a moment, computer images are projected. Do not disconnect the USB cable or turn off the power to the projector until the images are projected.

If nothing is projected, do one of the following:

- Windows: Click **All Programs** > **EPSON Projector** > **Epson USB Display** > **Epson USB Display Ver.x.xx**.
- OS X: Click the **USB Display** icon in the **Dock**.

4 When you finish projection, do one of the following:

- Windows: Disconnect the USB cable. There is no need to use **Safely Remove Hardware**.
- OS X: Select **Disconnect** from the **USB Display** icon menu on the menu bar or **Dock** and disconnect the USB cable.

- When using a computer running Windows 2000 under user authority, a Windows error message is displayed and you may not be able to use the software. If this occurs, try updating Windows to the latest version, restart your computer, and try to connect again. Contact Epson for more details.
- If no **USB Display** icon appears on the **Dock**, double-click **USB Display** in the **Applications** folder.
- If you select **Exit** from the **USB Display** icon menu on the **Dock**, USB Display does not start automatically when you connect the USB cable.
- For projectors with a resolution of WUXGA (1920 × 1200), if you change the computer resolution during projection, the performance and quality of the video may decline.

Related Links

- "Projecting with USB Display" p.53
- "Selecting an Image Source" p.57
- "Connecting to a Computer for USB Video and Audio" p.22

Uninstalling the USB Display Software

Follow the instructions in these sections to uninstall the Epson USB Display software.

Related Links

- "Projecting with USB Display" p.53
- "Uninstalling USB Display (Windows 2000)" p.55
- "Uninstalling USB Display (Windows XP/Windows Vista/Windows 7)" p.55
- "Uninstalling USB Display (Windows 8/Windows 8.1)" p.56
- "Uninstalling USB Display (OS X)" p.56

Uninstalling USB Display (Windows 2000)

1. Click **Start**, select **Settings** and click **Control Panel**.
2. Double-click **Add/Remove Programs**.
3. Click **Change or Remove Programs**.
4. Select **Epson USB Display** and click **Change/Remove**.

Related Links

- "Uninstalling the USB Display Software" p.55

Uninstalling USB Display (Windows XP/Windows Vista/Windows 7)

1. Click **Start** and click **Control Panel**.
2. Do one of the following:
   - Windows XP: Double-click **Add or Remove Programs**.
   - Windows Vista and Windows 7: Click **Uninstall a program** from the **Programs** category.
3. Select **Epson USB Display** and do one of the following:
   - Windows XP: Click **Remove**.
   - Windows Vista and Windows 7: Click **Uninstall**.

Related Links

- "Uninstalling the USB Display Software" p.55

Uninstalling USB Display (Windows 8/Windows 8.1)

1. Select **Search** on Charms and search **Epson USB Display**.
2. Right-click (hold down) **Epson USB Display Ver.x.xx**.
3. Select **Uninstall** from the app bar.
4. Select **Epson USB Display** and click **Uninstall**.
5. Follow the on-screen instructions to uninstall.

Related Links

- "Uninstalling the USB Display Software" p.55

Uninstalling USB Display (OS X)

1. Double-click **Applications** > **USB Display** > **Tool**.
2. Double-click **USB Display Uninstaller** and follow the on-screen instructions to uninstall.

Related Links

- "Uninstalling the USB Display Software" p.55

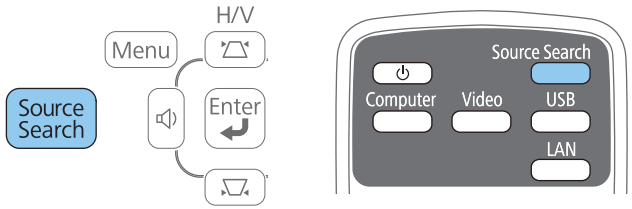
When multiple image sources are connected to the projector, such as a computer and DVD player, you can switch from one image source to the other.

1 Make sure the connected image source you want to use is turned on.

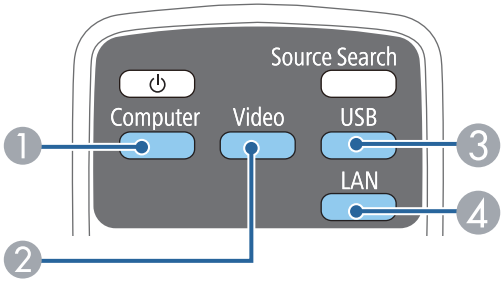
2 For video image sources, insert a DVD or other video media and press play.

3 Do one of the following:

- Press the [Source Search] button on the remote control or control panel until you see the image from the source you want.



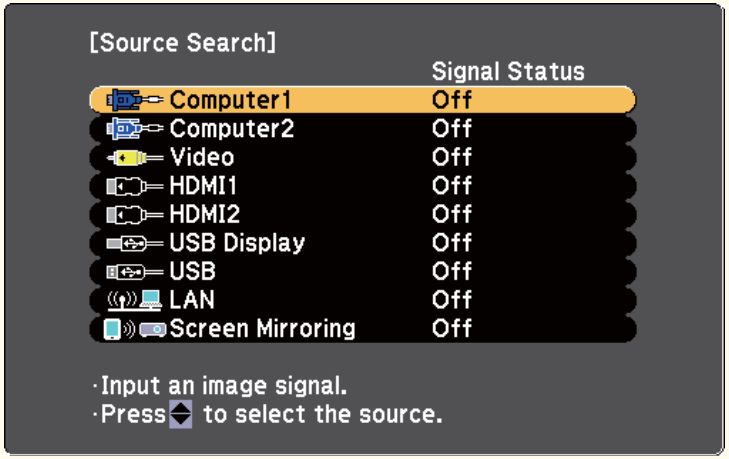
- Press the button for the source you want on the remote control. If there is more than one port for that source, press the button again to cycle through the sources.



1. Computer port sources (Computer1 and Computer2 ports)
2. Video and HDMI/MHL sources (Video, HDMI1/MHL, and HDMI2 ports)
3. USB port sources (USB-B port and external devices connected to the USB-A port)
4. Network source (LAN and Screen Mirroring)

Screen Mirroring is available only with the EB-1985WU/EB-1975W.

This screen is displayed when no image signal is detected. Check the cable connections between the projector and image source.



Related Links

- "Using Basic Projector Features" p.34

The projector can display images in different width-to-height ratios called aspect ratios. Normally, the input signal from your video source determines the image's aspect ratio. However, for certain images you can change the aspect ratio to fit your screen by pressing a button on the remote control.

If you always want to use a particular aspect ratio for a certain video input source, you can select it using the projector's **Signal** menu.

Related Links

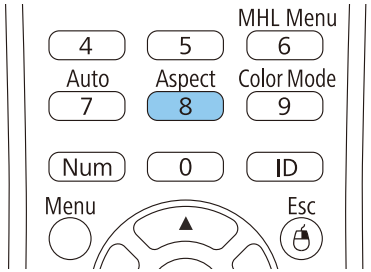
- "Using Basic Projector Features" p.34
- "Changing the Image Aspect Ratio" p.59
- "Available Image Aspect Ratios" p.59
- "Projected Image Appearance with Each Aspect Mode" p.60
- "Input Signal Settings - Signal Menu" p.135

Changing the Image Aspect Ratio

You can change the aspect ratio of the displayed image.

1. Turn on the projector and switch to the image source you want to use.

2. Press the [Aspect] button on the remote control.



3. To cycle through the available aspect ratios for your input signal, press the [Aspect] button repeatedly.

To display images without black bars, set **Resolution** to **Wide** or **Normal** in the projector's **Signal** menu according to the computer's resolution.

Related Links

- "Image Aspect Ratio" p.59
- "Input Signal Settings - Signal Menu" p.135

Available Image Aspect Ratios

You can select the following image aspect ratios, depending on the input signal from your image source.

Black bands and cropped images may project in certain aspect ratios, depending on the aspect ratio and resolution of your input signal.

Aspect ratio setting	Description
Auto	Automatically sets the aspect ratio according to the input signal and the **Resolution** setting.
Normal	Displays images using the full projection area and maintains the aspect ratio of the image.
16:9	Converts the aspect ratio of the image to 16:9.
Full	Displays images using the full width of the projection area, but does not maintain the aspect ratio.
Zoom	Displays images using the full width of the projection area and maintains the aspect ratio of the image.
Native	Displays images as is (aspect ratio and resolution are maintained).

The **Auto** aspect ratio setting is available only for HDMI/MHL image sources.

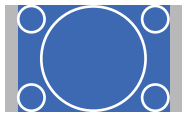
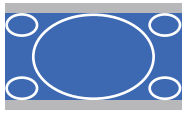
Related Links

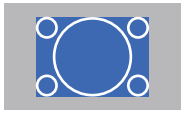
- "Image Aspect Ratio" p.59

Projected Image Appearance with Each Aspect Mode

Black bands and cropped images may project in certain aspect ratios, depending on the aspect ratio and resolution of your input signal. See the following table to confirm the position of black bands and cropped images.

For projectors with a resolution of WUXGA (1920 × 1200) or WXGA (1280 × 800)

Aspect mode	Aspect ratio for input signals		
	16:10	16:9	4:3
Normal Auto			
16:9			
Full			
Zoom			

Aspect mode	Aspect ratio for input signals		
	16:10	16:9	4:3
Native			

The image for **Native** varies depending on the input signal.

Related Links

- "Image Aspect Ratio" p.59

The projector offers different Color Modes to provide optimum brightness, contrast, and color for a variety of viewing environments and image types. You can select the mode designed to match your image and environment, or experiment with the available modes.

Related Links

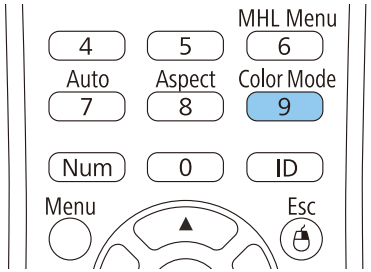
- "Using Basic Projector Features" p.34
- "Changing the Color Mode" p.61
- "Available Color Modes" p.61
- "Setting Auto Iris" p.62

Changing the Color Mode

You can change the projector's Color Mode using the remote control to optimize the image for your viewing environment.

1 Turn on the projector and switch to the image source you want to use.

2 Press the [Color Mode] button on the remote control to change the Color Mode.



The image appearance changes and the name of the Color Mode appears briefly on the screen.

3 To cycle through all of the available Color Modes for your input signal, press the [Color Mode] button repeatedly.

You can also set the **Color Mode** setting in the projector's **Image** menu.

Related Links

- "Color Mode" p.61
- "Image Quality Settings - Image Menu" p.134

Available Color Modes

You can set the projector to use these Color Modes, depending on the input source you are using:

Color Mode	Description
Presentation	Best for color presentations in a bright room
Dynamic	Best for projecting in a bright room
Theatre	Best for movies projected in a dark room
Sports	Best for television images in a bright room
sRGB	Best for standard sRGB computer displays
Blackboard	Best for presentations onto a green chalkboard (adjusts the colors accordingly)
Whiteboard	Best for presentations onto a whiteboard (adjusts the colors accordingly)
Photo	Best for still images projected in a bright room
DICOM SIM	Best for projecting X-ray photographs and other medical images

The **DICOM SIM** Color Mode is for reference purposes only and should not be used to make medical diagnoses.

Related Links

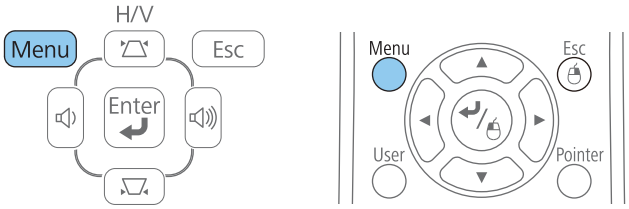
- "Color Mode" p.61

Setting Auto Iris

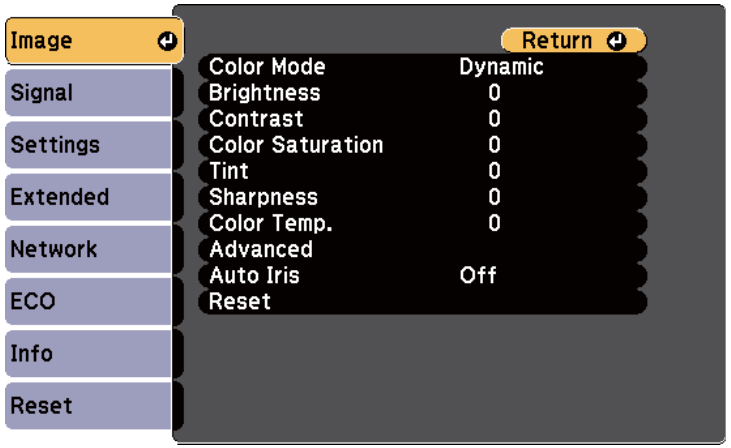
In **Dynamic** or **Theatre** color modes, you can turn on Auto Iris to automatically optimize the image based on the brightness of the content.

1 Turn on the projector and switch to the image source you want to use.

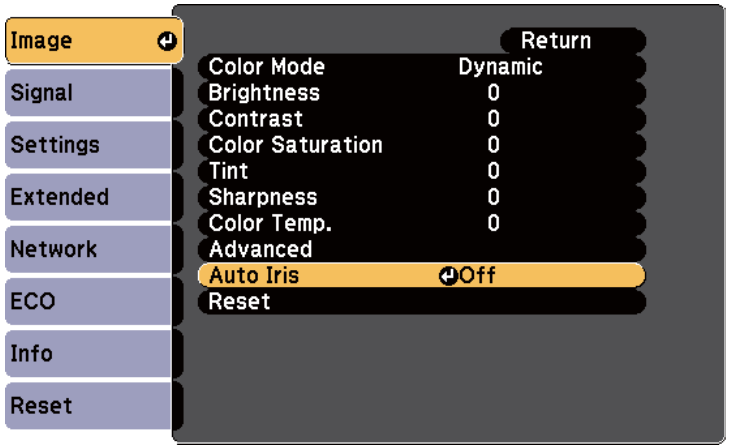
2 Press the [Menu] button on the control panel or remote control.



3 Select the **Image** menu and press [Enter].



4 Select **Auto Iris** and press [Enter].



5 Choose one of the following options and press [Enter]:

- **High Speed** to adjust brightness as soon as the scene changes.
- **Normal** for standard brightness adjustment.

6 Press [Menu] or [Esc] to exit the menus.

Related Links

- "Color Mode" p.61

You can fine-tune various aspects of how colors are displayed in your projected images.

Related Links

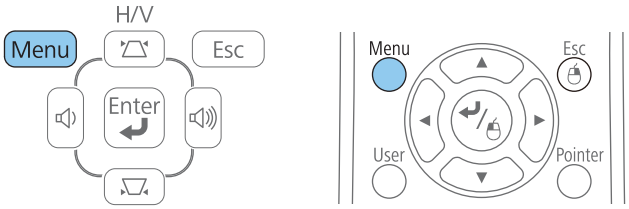
- "Using Basic Projector Features" p.34
- "Adjusting the Hue, Saturation, and Brightness" p.64
- "Adjusting the Gamma" p.65

Adjusting the Hue, Saturation, and Brightness

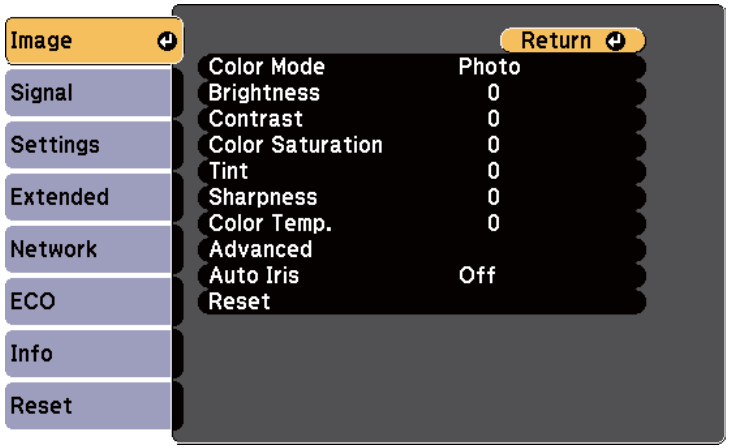
You can adjust the Hue, Saturation, and Brightness settings for individual image colors.

1 Turn on the projector and switch to the image source you want to use.

2 Press the [Menu] button on the control panel or remote control.



3 Select the **Image** menu and press [Enter].

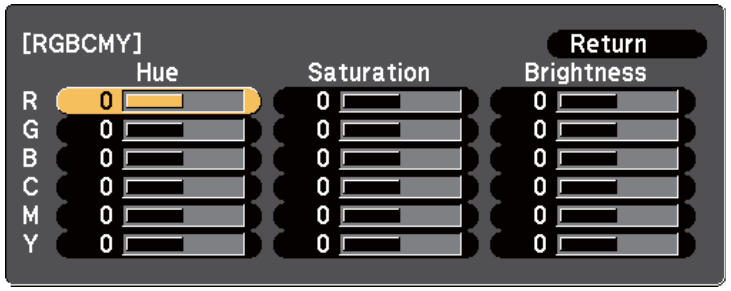


4 Select **Advanced** and press [Enter].

5 Select **RGBCMY** and press [Enter].

6 Do the following as necessary for each R (red), G (green), B (blue), C (cyan), M (magenta) and Y (yellow):

- To adjust the overall hue of the color, bluish - greenish - reddish, adjust the **Hue** setting.
- To adjust the overall vividness of the color, adjust the **Saturation** setting.
- To adjust the overall color brightness of the color, adjust the **Brightness** setting.



7 Press [Menu] or [Esc] to exit the menus.

Related Links

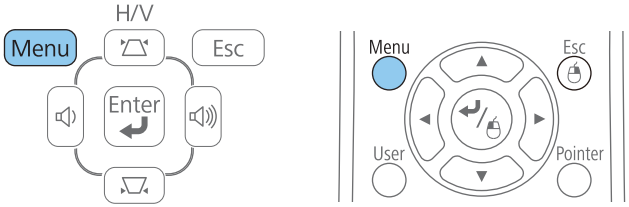
- "Adjusting the Image Color" p.64

Adjusting the Gamma

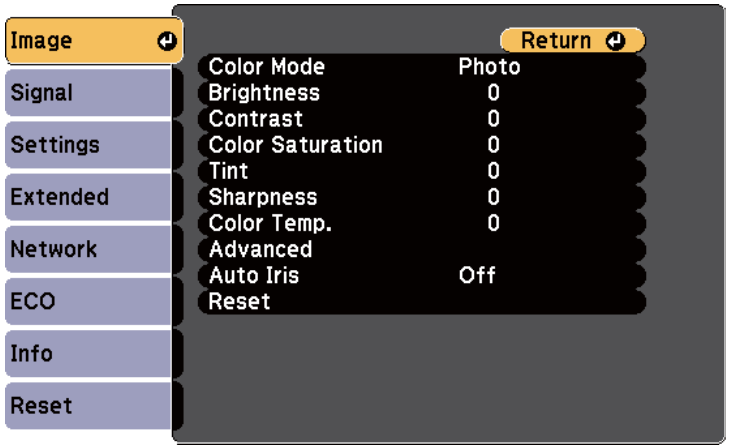
You can correct differences in projected image colors that occur between different image sources by adjusting the Gamma setting.

1 Turn on the projector and switch to the image source you want to use.

2 Press the [Menu] button on the control panel or remote control.



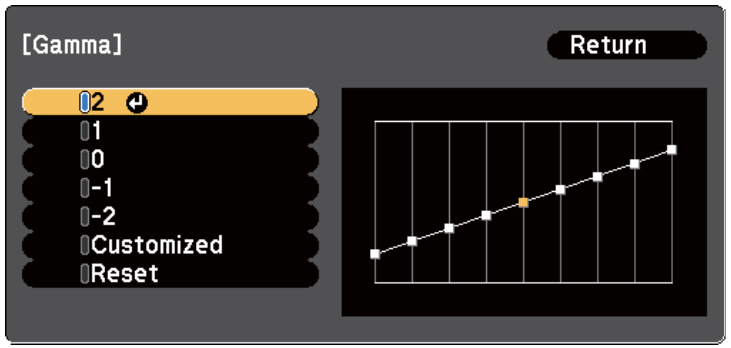
3 Select the **Image** menu and press [Enter].



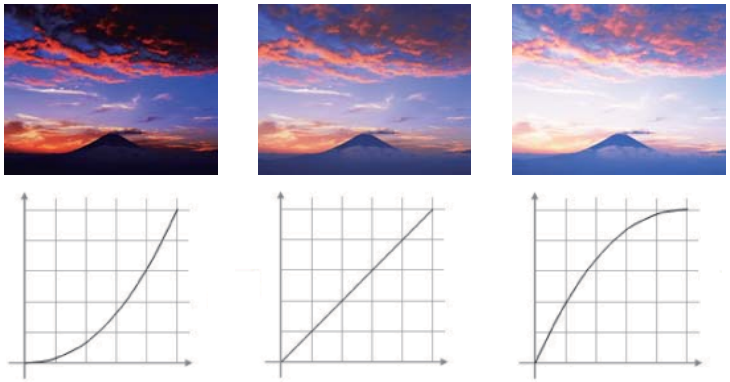
4 Select **Advanced** and press [Enter].

5 Select **Gamma** and press [Enter].

6 Select and adjust the correction value.



When you select a smaller value, you can reduce the overall brightness of the image to make the image sharper. When you select a larger value, the dark areas of images become brighter, but the color saturation for lighter areas may become weaker.

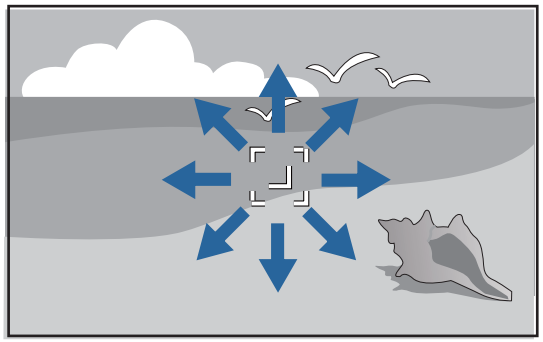


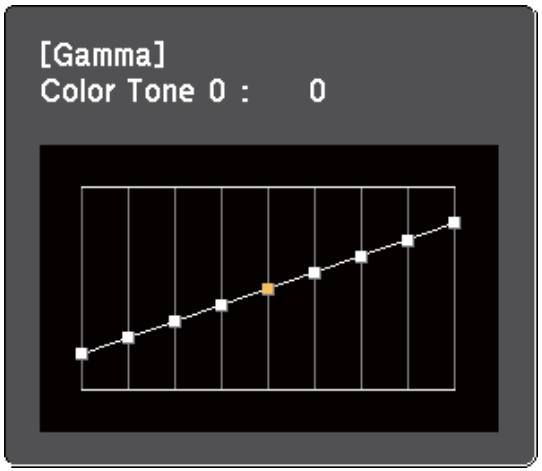
- If you selected **DICOM SIM** as the **Color Mode** setting in the projector's **Image** menu, select the adjustment value according to the projection size.
  - If the projection size is 120 inches or less, select a large value.
  - If the projection size is 120 inches or more, select a small value.
- Medical images may not be reproduced correctly depending on your settings and screen specifications.

7 If you want to make finer adjustments, select **Customized** and press [Enter].

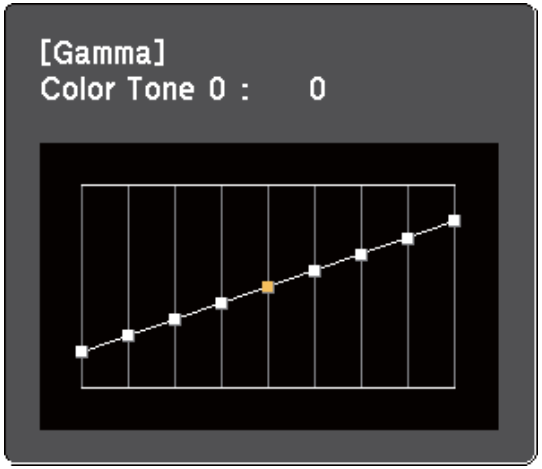
8 Adjust the value using one of the following methods.

- To select the color tone you want to adjust from the image, select **Adjust it from the image**. Press the arrow buttons to move the cursor to the part where you want to change the brightness and press [Enter]. Then press the up or down arrow button to adjust the value for the selected color tone and press [Enter].





- To use the gamma adjustment graph, select **Adjust it from the graph**. Press the left or right arrow buttons to select the color tone you want to adjust. Then press the up or down arrow button to adjust the value and press [Enter].



9 Press [Menu] or [Esc] to exit the menus.

Related Links

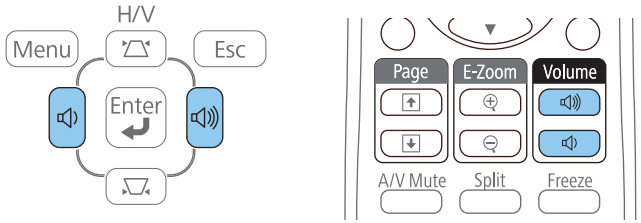
- "Adjusting the Image Color" p.64
- "Image Quality Settings - Image Menu" p.134

The volume buttons control the projector's internal speaker system or any external speakers you connected to the projector.

You must adjust the volume separately for each connected input source.

1. Turn on the projector and start a presentation.

2. To lower or raise the volume, press the [Volume] buttons on the control panel or remote control as shown.



A volume gauge appears on the screen.

3. To set the volume to a specific level for an input source, select **Volume** in the projector's **Settings** menu.

> **Caution**
>
> Do not start a presentation at a high volume setting. Sudden loud noises may cause hearing loss.
>
> Always lower the volume before powering off, so that you can power on and then gradually increase the volume.

Related Links

- "Using Basic Projector Features" p.34
- "Projector Feature Settings - Settings Menu" p.137

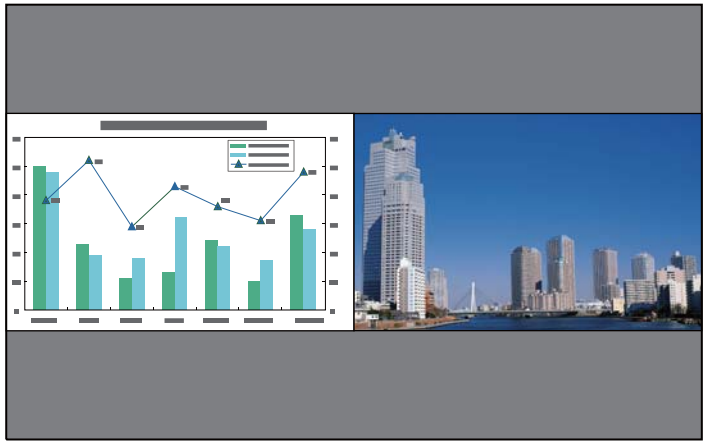
Adjusting Projector Features

Follow the instructions in these sections to use your projector's adjustment features.

Related Links

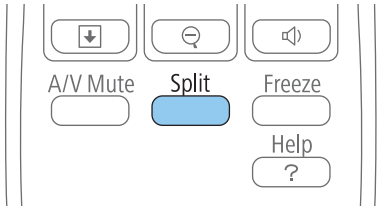
- "Projecting Two Images Simultaneously" p.70
- "Projecting a PC Free Presentation" p.73
- "Shutting Off the Image and Sound Temporarily" p.81
- "Stopping Video Action Temporarily" p.82
- "Zooming Images" p.83
- "Using the Remote Control as a Wireless Mouse" p.84
- "Using the Remote Control as a Pointer" p.86
- "Saving a User's Logo Image" p.87
- "Color Difference Correction when Projecting from Multiple Projectors" p.90
- "Projector Security Features" p.93

You can use the split screen feature to simultaneously project two images from different image sources. You can control the split screen feature using the remote control or the projector menus.



While using the split screen feature, other projector features may not be available and some settings may be automatically applied to both images.

1 Press [Split] on the remote control.

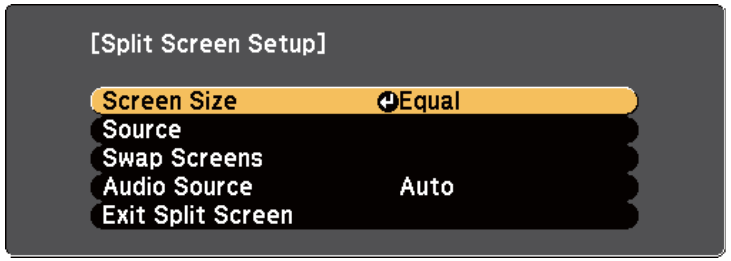


The currently selected input source moves to the left of the screen.

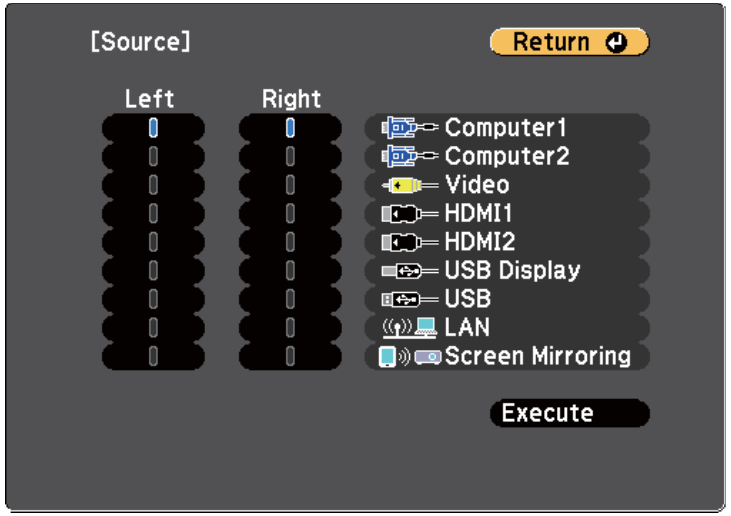
You can perform the same operations from **Split Screen** in the projector's **Settings** menu.

2 Press the [Menu] button.

You see this screen:

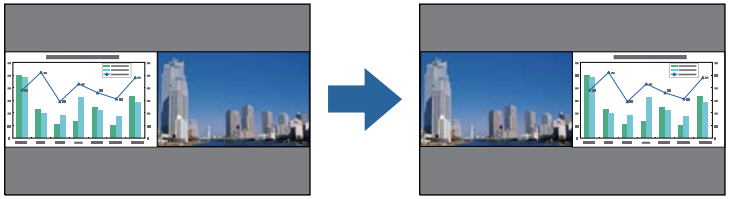


3 To select an input source for the other image, select the **Source** setting, press [Enter], select the input source, select **Execute**, and press [Enter].



- You can only select input sources that can be combined.
- While using the split screen feature, the source screen appears when you change the input source from the remote control.

4 To switch images, select **Swap Screens** and press [Enter].
The projected images on the left and right are swapped.



5 To enlarge one image while reducing the other image, select **Screen Size**, press [Enter], select a size, press [Enter], and press [Menu] to exit.

Depending on the video input signals, the images may not appear at the same size even if you select **Equal**.

6 To select the audio, select **Audio Source**, press [Enter], select an audio option, press [Enter], and press [Menu] to exit.

Select **Auto** to hear audio from the largest screen or the left screen.

7 To exit the split screen feature, press [Split] or [Esc].

Related Links

- "Adjusting Projector Features" p.69
- "Split Screen Projection Input Source Combinations" p.71
- "Split Screen Projection Restrictions" p.71

Split Screen Projection Input Source Combinations

These input source combinations cannot be projected on a split screen.

- Computer1 and Computer2
- HDMI1/MHL, HDMI2 and Screen Mirroring
- USB Display, USB and LAN
- LAN (Wireless) and Screen Mirroring

Related Links

- "Projecting Two Images Simultaneously" p.70

Split Screen Projection Restrictions

Operating restrictions

The following operations cannot be performed during split screen projection.

- Setting the projector's menu
- E-Zoom
- Switching the aspect mode (the aspect mode is set to **Normal**)
- Operations using the [User] button on the remote control
- Auto Iris

Help can only be displayed when no image signals are being input or when an error or warning notification is displayed.

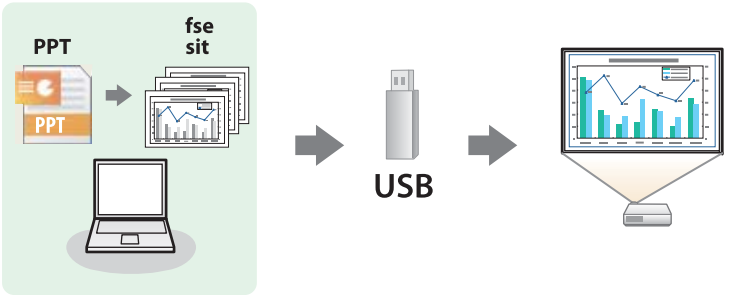
Image restrictions

- If you make adjustments in the projector's **Image** menu, you can apply them only for the image on the left and default adjustments are applied for the image on the right. Adjustments that affect the entire projected image such as **Color Mode** and **Brightness** are applied for both left and right images.
- **Progressive** and **Noise Reduction** in the projector's **Signal** menu are set to **Off** for the image on the right.
- Even if you set **Display Background** to **Logo** in the projector's **Extended** menu, the blue screen appears when no image signal is being input.

Related Links

- "Projecting Two Images Simultaneously" p.70
- "Zooming Images" p.83
- "Image Aspect Ratio" p.59
- "Projector Feature Settings - Settings Menu" p.137
- "Setting Auto Iris" p.62
- "Color Mode" p.61
- "Adjusting the Image Color" p.64
- "Input Signal Settings - Signal Menu" p.135
- "Projector Setup Settings - Extended Menu" p.139

You can use your projector's PC Free feature whenever you connect a USB device that contains compatible presentation files. This lets you quickly and easily display a presentation and control it using the projector's remote control.



Related Links

- "Adjusting Projector Features" p.69
- "Supported PC Free File Types" p.73
- "Precautions on PC Free Projection" p.73
- "Starting a PC Free Slide Show" p.74
- "Starting a PC Free PDF File Presentation" p.75
- "Starting a PC Free Movie Presentation" p.77
- "Playing a Scenario" p.78
- "PC Free Display Options" p.79

Supported PC Free File Types

You can project these types of files using the projector's PC Free feature.

- For best results, place your files on media that is formatted in FAT16/32.
- If you have trouble projecting from media formatted for non-Windows file systems, try formatting the media for Windows instead.

File contents	File type (extension)	Details
Image	.jpg	Make sure the file is not: • CMYK format • Progressive format • Highly compressed • Above 8192 × 8192 resolution
	.bmp	Make sure the file resolution is not above 1920 × 1200
	.gif	Make sure the file is not: • Above 1920 × 1200 resolution • Animated
	.png	Make sure the file resolution is not above 1920 × 1200
Scenario	.fse	Main format for files converted from PowerPoint using EasyMP Slide Converter
PDF	.pdf	Make sure the file is not: • Saved in PDF version 1.8 or later format • Encrypted
Movie	.avi (Motion JPEG)	Make sure the file is not: • Saved with an audio codec other than PCM or ADPCM • Above 1280 × 720 resolution • Larger than 2 GB

Related Links

- "Projecting a PC Free Presentation" p.73

Precautions on PC Free Projection

Note the following precautions when using PC Free features.

- Do not disconnect the USB storage device while it is being accessed; otherwise, PC Free may not operate correctly.
- You may not be able to use the security features on certain USB storage devices with PC Free features.
- When connecting a USB device that includes an AC adapter, connect the AC adapter to an electrical outlet when you use the device with your projector.
- Some commercially available USB card readers may not be compatible with the projector.
- You cannot correct keystone distortion while projecting in PC Free, so correct the image shape before you begin your presentation.
- You can use the following functions while projecting in PC Free.
  - Freeze
  - A/V Mute
  - E-Zoom
  - Pointer

Related Links

- "Projecting a PC Free Presentation" p.73
- "Stopping Video Action Temporarily" p.82
- "Shutting Off the Image and Sound Temporarily" p.81
- "Zooming Images" p.83
- "Using the Remote Control as a Pointer" p.86

Starting a PC Free Slide Show

After connecting a USB device to the projector, you can switch to the USB input source and start your slide show.

You can change the PC Free operation options or add special effects by highlighting **Option** at the bottom of the screen and pressing [Enter].

1 Press the [USB] button on the remote control.

The PC Free file list screen is displayed.

- If the Select Drive screen is displayed, press the arrow buttons to select the drive and press [Enter].
- To display the Select Drive screen, highlight **Select Drive** at the top of the file list screen and press [Enter].

2 Do one of the following to locate your files:

- If you need to display files inside a subfolder on your device, press the arrow buttons to highlight the folder and press [Enter].
- To move back up a folder level on your device, highlight **Back to Top** and press [Enter].
- To view additional files in a folder, highlight **Next Page** or **Previous Page** and press [Enter], or press the [Page] up or down buttons on the remote control.

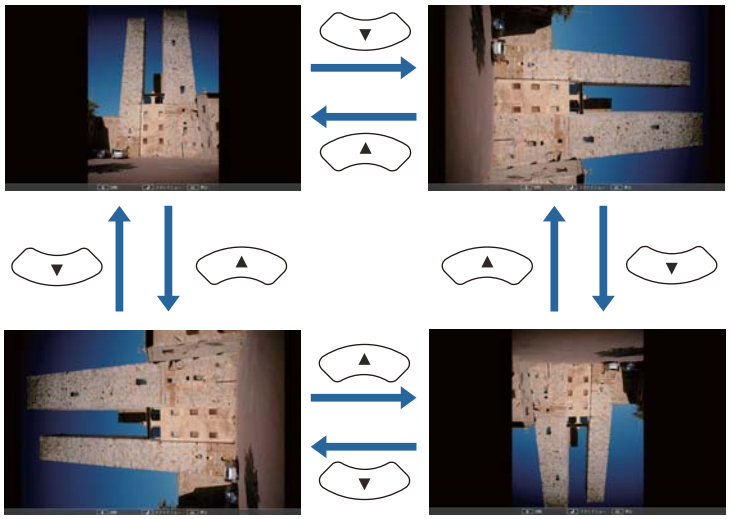
3 Do one of the following:

- To display an individual image, press the arrow buttons to highlight the image and press [Enter]. (Press the [Esc] button to return to the file list screen.)
- To display a slide show of all the images in a folder, press the arrow buttons to highlight the **Slideshow** option at the bottom of the screen and press [Enter].

- You can change the image switching time by highlighting **Option** at the bottom of the screen and pressing [Enter].
- If any file names are longer than the display area or include unsupported symbols, the file names may be shortened or changed only on the screen display.

4 While projecting, use the following commands to control the display:

- To rotate a displayed image, press the up or down arrow button.



- To move to the next or previous image, press the left or right arrow button.

5 To stop the display, follow the on-screen instructions or press the [Esc] button.

You return to the file list screen.

6 Turn off the USB device, if necessary, and then disconnect the device from the projector.

Related Links

- "Projecting a PC Free Presentation" p.73
- "Connecting to a USB Device or Camera" p.28
- "PC Free Display Options" p.79

Starting a PC Free PDF File Presentation

After connecting a USB device to the projector, you can switch to the USB input source and start your PDF file presentation.

You cannot do the following while presenting a PDF file from a USB device:

- Release a password
- Display e-signatures, JPEG2000 images, transparent effects, 3D artwork, or comments
- Play multimedia content
- Display a PDF file without a .pdf file extension

1 Press the [USB] button on the remote control.

The PC Free file list screen is displayed.

- If the Select Drive screen is displayed, press the arrow buttons to select the drive and press [Enter].
- To display the Select Drive screen, highlight **Select Drive** at the top of the file list screen and press [Enter].

2 Do one of the following to locate your files:

- If you need to display files inside a subfolder on your device, press the arrow buttons to highlight the folder and press [Enter].
- To move back up a folder level on your device, highlight **Back to Top** and press [Enter].
- To view additional files in a folder, highlight **Next Page** or **Previous Page** and press [Enter], or press the [Page] up or down buttons on the remote control.

3 Press the arrow buttons to highlight the file and press [Enter]. (Press the [Esc] button to return to the file list screen.)

The first page in the PDF file is displayed at full screen size.

If any file names are longer than the display area or include unsupported symbols, the file names may be shortened or changed only on the screen display.

4 While projecting a PDF file, use the following commands to control the display:

- To move to the next or previous page, press the up or down arrow button.

- To display a menu of pages to select from, press the [Esc] button, press the left or right arrow button to select a page and press [Enter]. (If you press [Esc] while the select page menu is displayed, the menu closes.)

- To enlarge the view of a page to fit the screen, press [Enter]. Portrait pages are expanded horizontally to fit the width of the screen, and landscape pages are expanded vertically to fit the height of the screen. To scroll the page while a page is displayed at expanded size, press the arrow buttons. Press [Enter] again to return to standard size display.
- To rotate a displayed page, press the left or right arrow button.

5 To stop the display, press the [Esc] button, highlight **Exit**, and press [Enter].

6 Turn off the USB device, if necessary, and then disconnect the device from the projector.

Related Links

- "Projecting a PC Free Presentation" p.73
- "Connecting to a USB Device or Camera" p.28

Starting a PC Free Movie Presentation

After connecting a USB device to the projector, you can switch to the USB input source and start your movie.

You can change the PC Free operation options by highlighting **Option** at the bottom of the screen and pressing [Enter].

1 Press the [USB] button on the remote control.

The PC Free file list screen is displayed.

- If the Select Drive screen is displayed, press the arrow buttons to select the drive and press [Enter].
- To display the Select Drive screen, highlight **Select Drive** at the top of the file list screen and press [Enter].

2 Do one of the following to locate your files:

- If you need to display files inside a subfolder on your device, press the arrow buttons to highlight the folder and press [Enter].

- To move back up a folder level on your device, highlight **Back to Top** and press [Enter].
- To view additional files in a folder, highlight **Next Page** or **Previous Page**, and press [Enter], or press the [Page] up or down buttons on the remote control.

3 To play back a movie, press the arrow buttons to highlight the file and press [Enter].

- If any file names are longer than the display area or include unsupported symbols, the file names may be shortened or changed only on the screen display.
- If you want to play back all the movies in a folder in sequence, select the **Slideshow** option at the bottom of the screen.

4 To stop movie playback, press the [Esc] button, highlight **Exit**, and press [Enter].

You return to the file list screen.

5 Turn off the USB device, if necessary, and then disconnect the device from the projector.

Related Links

- "Projecting a PC Free Presentation" p.73
- "Connecting to a USB Device or Camera" p.28
- "PC Free Display Options" p.79

Playing a Scenario

After connecting a USB device to the projector, you can switch to the USB input source and play your scenario.

See the *EasyMP Slide Converter Operation Guide* for more information on converting PowerPoint files to scenarios.

1 Press the [USB] button on the remote control.

The PC Free file list screen is displayed.

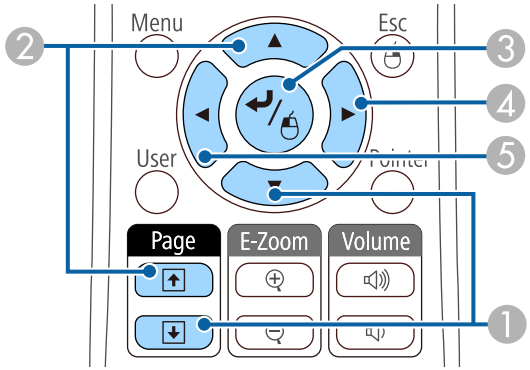
- If the Select Drive screen is displayed, press the arrow buttons to select the drive and press [Enter].
- To display the Select Drive screen, highlight **Select Drive** at the top of the file list screen and press [Enter].

2 Do one of the following to locate your files:

- If you need to display files inside a subfolder on your device, press the arrow buttons to highlight the folder and press [Enter].
- To move back up a folder level on your device, highlight **Back to Top** and press [Enter].
- To view additional files in a folder, highlight **Next Page** or **Previous Page** and press [Enter], or press the [Page] up or down buttons on the remote control.

3 To play a scenario, press the arrow buttons to highlight the file and press [Enter].

4 To switch screens while playing a scenario, press one of these buttons on the remote control:



1. Next slide
2. Previous slide
3. Next slide or animation
4. Next slide or animation (animation effects are not played)
5. Previous slide or animation (animation effects are not played)

5 To stop scenario playback, press the [Esc] button, highlight **Exit**, and press [Enter]. (Select **Return** and press [Enter] to continue playing the file.)

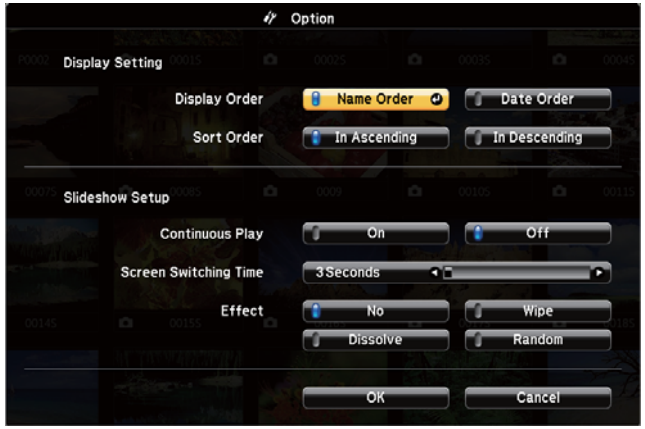
6 Turn off the USB device, if necessary, and then disconnect the device from the projector.

Related Links

- "Projecting a PC Free Presentation" p.73
- "Connecting to a USB Device or Camera" p.28

PC Free Display Options

You can select these display options when using PC Free. To access this screen, highlight **Option** at the bottom of the PC Free file list screen and press [Enter].



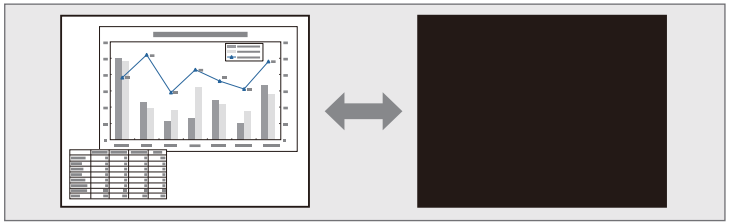
Setting	Options	Description
Display Order	Name Order	Displays files in name order
	Date Order	Displays files in date order
Sort Order	In Ascending	Sorts files in first-to-last order
	In Descending	Sorts files in last-to-first order
Continuous Play	On	Displays a slide show continuously
	Off	Displays a slide show once
Screen Switching Time	No	Does not display the next file automatically
	1 Second to 60 Seconds	Displays files for the selected time and switches to the next file automatically; high resolution images may switch at a slightly slower rate
Effect	No	No effect

Setting	Options	Description
	Wipe	Transitions between images using a wipe effect
	Dissolve	Transitions between images using a dissolve effect
	Random	Transitions between images using a random variety of effects

Related Links

- "Projecting a PC Free Presentation" p.73

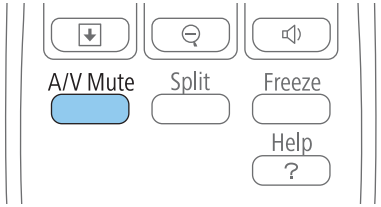
You can temporarily turn off the projected image and sound if you want to redirect your audience's attention during a presentation. Any sound or video action continues to run, however, so you cannot resume projection at the point that you stopped it.



If you want to display an image such as a company logo or picture when the [A/V Mute] button is pressed, you can select the screen displayed in the **A/V Mute** setting in the projector's **Extended** menu.

☛ **Extended** > **Display** > **A/V Mute**

1 Press the [A/V Mute] button on the remote control to temporarily stop projection and mute any sound.



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

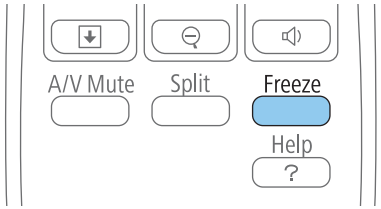
- You can also stop projection using the A/V Mute slide lever on the projector.
- The projector's power automatically turns off 30 minutes after A/V Mute is enabled. You can disable this feature in the projector's **ECO** menu.
  - ☛ **ECO** > **Lens Cover Timer**
  - ☛ **ECO** > **A/V Mute Timer**
- The lamp is still operating during A/V Mute, so the lamp hours continue to accumulate.

Related Links

- "Adjusting Projector Features" p.69
- "Projector Setup Settings - Extended Menu" p.139
- "Projector Setup Settings - ECO Menu" p.150

You can temporarily stop the action in a video or computer presentation and keep the current image on the screen. Any sound or video action continues to run, however, so you cannot resume projection at the point that you stopped it.

1. Press the [Freeze] button on the remote control to stop the video action.

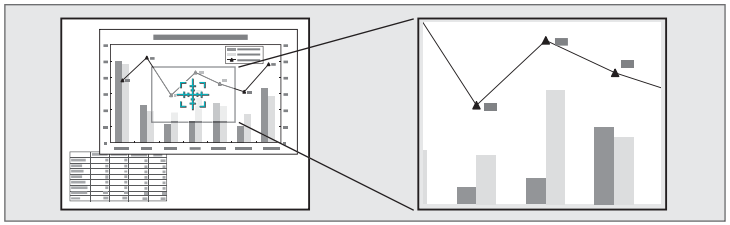


2. To restart the video action in progress, press [Freeze] again.

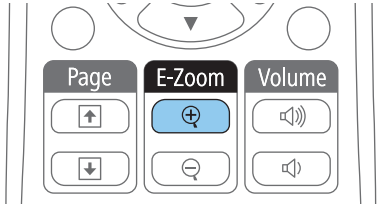
Related Links

- "Adjusting Projector Features" p.69

You can draw attention to parts of a presentation by zooming into a portion of the image and enlarging it on the screen.



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



You see a crosshair on the screen indicating the center of the zoom area.

2 Use the following buttons on the remote control to adjust the zoomed image:

- Use the arrow buttons to position the crosshair in the image area you want to zoom into. To move the crosshair diagonally, press any pair of adjacent arrow buttons at the same time.
- Press the [E-Zoom +] button repeatedly to zoom into the image area. Press and hold the [E-Zoom +] button to zoom in more quickly. The selected area can be enlarged to between one to four times in 25 incremental steps.
- To pan around the zoomed image area, use the arrow buttons.
- To zoom out of the image, press the [E-Zoom –] button.
- To return to the original image size, press [Esc].

The enlarged image is projected and the enlargement ratio is displayed on the screen.

Related Links

- "Adjusting Projector Features" p.69

You can use the projector's remote control as a wireless mouse so you can control projection at a distance from the computer.

You can use the wireless mouse features with Windows 2000 and later, or OS X 10.3.x and later.

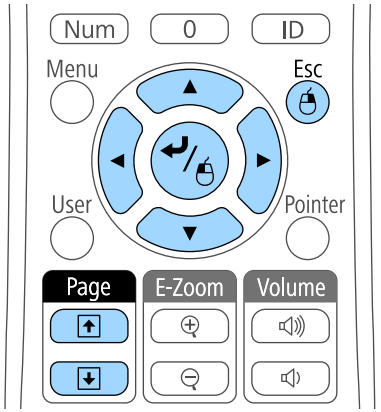
1. Connect the projector to a computer using the projector's USB-B, Computer1, Computer2, HDMI1/MHL, or HDMI2 port.

   The wireless mouse function does not work when projecting images from a device connected to the HDMI1/MHL port using an MHL cable.

2. If you connected your computer to the Computer1, Computer2, HDMI1/MHL, or HDMI2 port, also connect a USB cable to the projector's USB-B port and to a USB port on your computer (for wireless mouse support).

3. Start your presentation.

4. Use the following buttons on the remote control to control your presentation:



- To move through slides or pages, press the [Page] up or down buttons.
- To move the cursor on the screen, use the arrow buttons. To move the cursor diagonally, press any pair of adjacent arrow buttons as the same time.
- To left-click, press the [Enter] button once (press it twice to double-click). To right-click, press the [Esc] button.
- To drag-and-drop, hold the [Enter] button as you move the cursor with the arrow buttons, then release [Enter] at the destination.

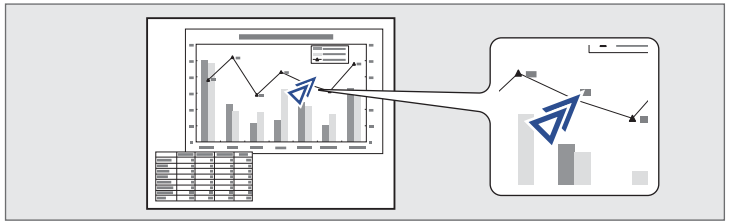
- If the mouse button settings are set to reverse on the computer, the operation of the remote control buttons is also reversed.
- The Wireless Mouse function does not work under the following conditions:
  - When the projector's menu or a Help screen is displayed.
  - When operating functions other than the Wireless Mouse function (such as adjusting the volume).

  However, when using the E-Zoom or Pointer function, the page up or down function is available.

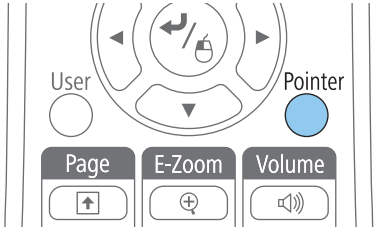
Related Links

- "Adjusting Projector Features" p.69
- "Zooming Images" p.83
- "Using the Remote Control as a Pointer" p.86

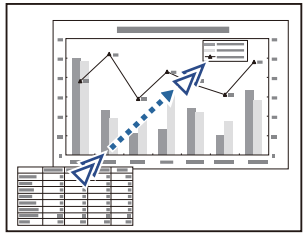
You can use the projector's remote control as a pointer to help you focus your audience on important information on the screen. The default pointer shape is an arrow. You can change the shape in the **Pointer Shape** setting in the projector's **Settings** menu.



1 Press the [Pointer] button on the remote control.



2 Use the arrow buttons to move the pointer on the screen. To move the pointer diagonally, press any pair of adjacent arrow buttons at the same time.



3 Press [Esc] to remove the pointer from the screen.

Related Links

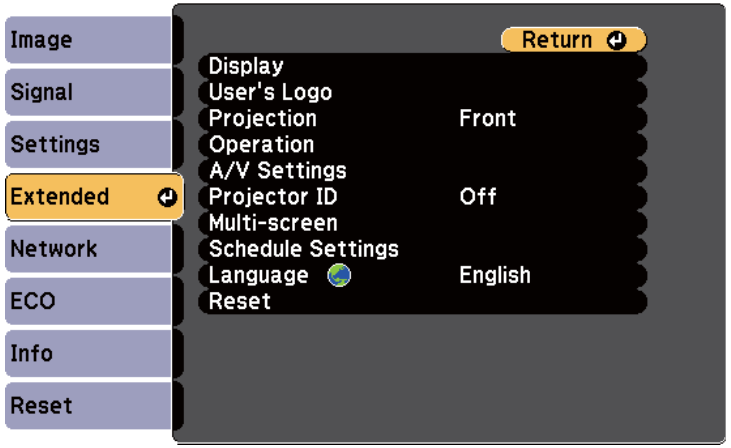
- "Adjusting Projector Features" p.69
- "Projector Feature Settings - Settings Menu" p.137

You can save an image on the projector and display it whenever the projector turns on. You can also display the image when the projector is not receiving an input signal or when you temporarily stop projection (using A/V Mute). This image is called the user's logo screen.

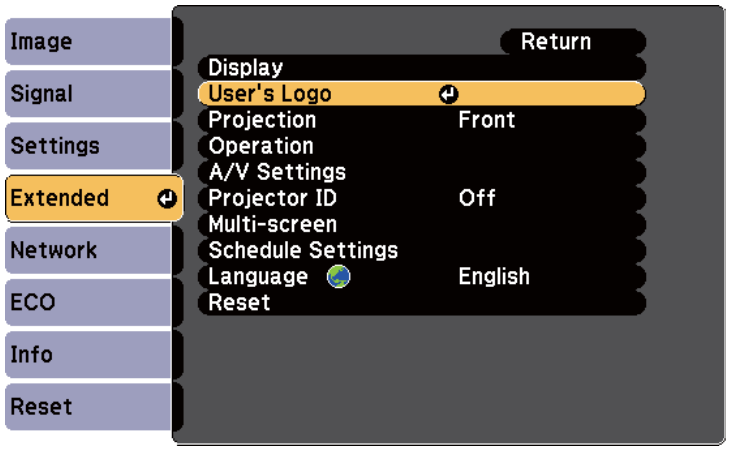
You can select a photo, graphic, or company logo as the user's logo, which is useful in identifying the projector's owner to help deter theft. You can prevent changes to the user's logo by setting up password protection.

- Once you save a user's logo, you cannot return to the factory default logo.
- If the **User's Logo Protection** setting is set to **On** in the **Password Protection** menu, set to **Off** before saving the user's logo.
- When you copy the menu settings from one projector to another using the batch setup feature, user's logo is also copied. Do not register the information that you do not want to share between multiple projector as a user's logo.

1. Display the image you want to project as the user's logo.
2. Press the [Menu] button on the control panel or remote control.
3. Select the **Extended** menu and press [Enter].



4. Select **User's Logo** and press [Enter].



You see a prompt asking if you want to use the displayed image as a user's logo.

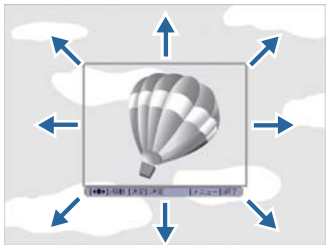
Adjustments such as Keystone, E-Zoom, or Aspect are temporarily cancelled when you select **User's Logo**.

5 Select **Yes** and press [Enter].

You see a selection box overlaying your image.

Depending on the current image signal, the screen size may change to match the resolution of the image signal.

6 Use the arrow buttons to surround the image area you want to use as the user's logo and press [Enter].



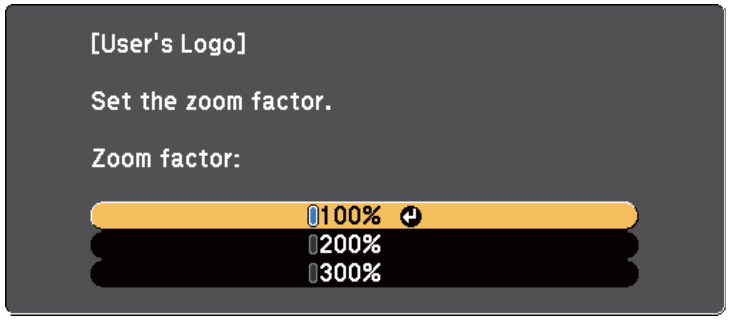
You see a prompt asking if you want to select this image area.

You cannot change the image area size (400 × 300 pixels).

7 Select **Yes** and press [Enter]. (If you want to change the selected area, select **No**, press [Enter], and repeat the last step.)

You see the User's Logo zoom factor menu.

8 Select a zoom percentage and press [Enter].



You see a prompt asking if you want to save the image as the user's logo.

9 Select **Yes** and press [Enter].

It takes a few moments for the projector to save the image; do not use the projector, its remote control, or any connected equipment until it is finished.

The user's logo is overwritten and a completion message appears.

10 Press [Esc] to exit the message screen.

11 Select the **Extended** menu and press [Enter].

12 Select **Display** and press [Enter].

13 Select when you want to display the User's Logo screen:

- To display it whenever there is no input signal, select **Display Background** and set it to **Logo**.
- To display it whenever you turn the projector on, select **Startup Screen** and set it to **On**.

- To display it whenever you press the [A/V Mute] button, select **A/V Mute** and set it to **Logo**.

To prevent anyone from changing the User's Logo settings without first entering a password, set the **User's Logo Protection** setting to **On** in the **Password Protection** menu and set the password.

Related Links

- "Adjusting Projector Features" p.69
- "Shutting Off the Image and Sound Temporarily" p.81
- "Selecting Password Security Types" p.94

When you line up multiple projectors to project images, you can correct the brightness and color tone of each projector's image with multi-screen color adjustment so that the colors of images from each projector match closely.

When you make multi-screen color adjustments, set a unique projector ID for each projector to operate them individually using a remote control, and then correct the brightness and color for each projector.

In some cases the brightness and color tone may not match completely even after correction.

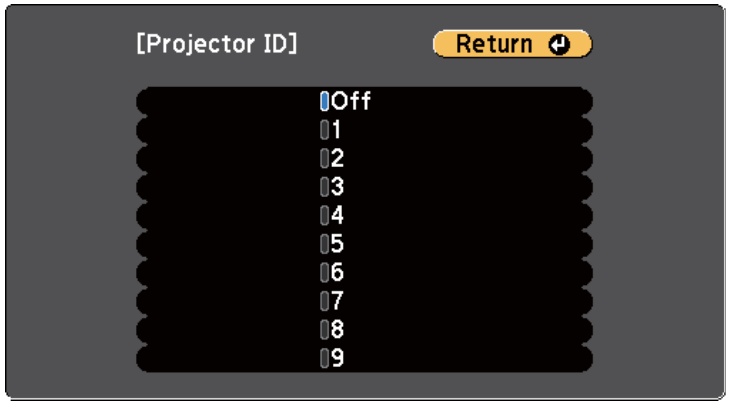
Related Links

- "Adjusting Projector Features" p.69
- "Setting the Projector ID" p.90
- "Selecting the Projector You want to Operate" p.90
- "Matching Multiple-Projector Display Quality" p.91

Setting the Projector ID

If you want to control multiple projectors from a remote control, give each projector a unique ID.

1. Press the [Menu] button on the control panel or remote control.
2. Select the **Extended** menu and press [Enter].
3. Select **Projector ID** and press [Enter].
4. Use the arrow buttons to select the identification number you want to use for the projector. Then press [Enter].



5. Press [Menu] or [Esc] to exit the menus.

Repeat these steps for all the other projectors you want to operate from one remote control.

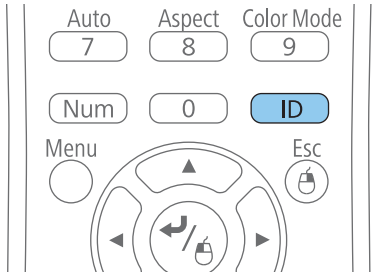
Related Links

- "Color Difference Correction when Projecting from Multiple Projectors" p.90

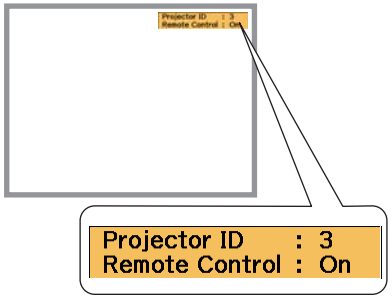
Selecting the Projector You want to Operate

After setting the projector's ID, select the ID for the projector you want to operate using the remote control.

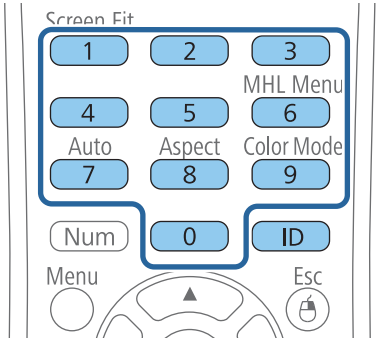
1. Aim the remote control at the target projector and press the [ID] button.



The current Projector ID is displayed on the projected screen. It disappears after about 3 seconds.



2 While holding the [ID] button, press the number button that matches the ID of the projector you want to operate.



The projector you want to operate is selected.

3 Press the [ID] button to check if the ID-setting process worked.

You see a message displayed by the projector.

- If the remote control is listed as **On**, you can operate the projector from the remote control.
- If the remote control is listed as **Off**, you cannot operate the projector from the remote control. Repeat the steps above to set the ID to match the projector you want to control.

- You must select the projector ID from the remote control each time you turn on the projector you have set it to control.
- When you set the **Projector ID** setting to **Off**, you can operate the projector using the remote control whichever ID you select on the remote control.
- When you select 0 on the remote control, you can operate all projectors regardless the Projector ID setting.

Related Links

- "Color Difference Correction when Projecting from Multiple Projectors" p.90

Matching Multiple-Projector Display Quality

You can match the display quality of multiple projectors that will project next to each other.

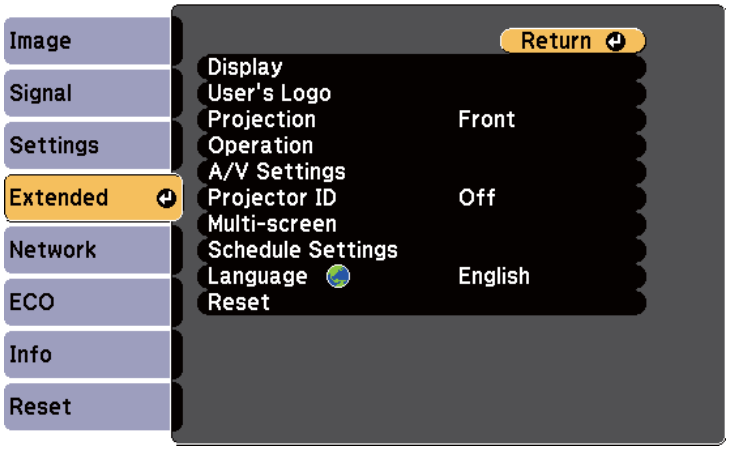
1 Turn on all the projectors on which you want to match the display quality.

2 Set ID numbers on each projector.

3 Make sure all the projectors are using the same Color Mode setting.

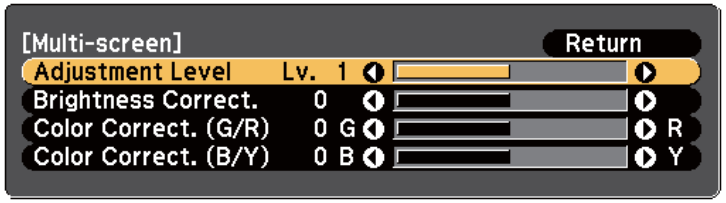
4 It is best to match two projectors at a time, so select the projector ID for the first projector on the remote control.

5 Press the [Menu] button, select the **Extended** menu, and press [Enter].



6 Select the **Multi-screen** setting and press [Enter].

7 Set the **Adjustment Level** setting to **1**.



8 Select the projector ID for the second projector on the remote control.

9 Access the **Extended** menu **Multi-screen** setting on the second projector and set the **Adjustment Level** setting to **1**.

10 Adjust the **Brightness Correct.** setting on the projector with the darkest display so it matches the lighter display, and press [Enter]. (You may need to switch the projector ID back and forth to make adjustments to each projector in all of these steps.)

11 Change the **Adjustment Level** setting to **5** on each projector, but this time match the lighter display to the darker one.

12 Adjust the **Brightness Correct.** setting on **Adjustment Level2**, **3** , and **4** in the same way.

13 Adjust the **Color Correct.** settings for green-to-red (**G/R**) and blue-to-yellow (**B/Y**) balance for all the levels on both projectors in the same way.

14 If you need to match more projectors, repeat these steps matching projector 3 to projector 2, 4 to 3, and so on.

Related Links

- "Color Difference Correction when Projecting from Multiple Projectors" p.90

You can secure your projector to deter theft or prevent unintended use by setting up the following security features:

- Password security to prevent people who do not know the password from using the projector, and prevent changes to the startup screen and other settings. This acts as an anti-theft function as the projector cannot be used even if it is stolen, and you can limit who can use the projector.
- Button lock security to block operation of the projector using the buttons on the control panel. This is useful at events or shows when you want to deactivate all buttons during projection or at schools when you want to limit button operation.
- Security cabling to physically secure the projector in place.

Related Links

- "Adjusting Projector Features" p.69
- "Password Security Types" p.93
- "Locking the Projector's Buttons" p.96
- "Installing a Security Cable" p.97

Password Security Types

You can set up the following types of password security using one shared password:

- **Power On Protection** password prevents anyone from using the projector without first entering a password. When plugging the power cord and turning on the projector at first time, you must enter the correct password. This also applies to Direct Power On and Auto Power On.
- **User's Logo Protection** password prevents anyone from changing the custom screen displayed when the projector turns on, when no signal is being input, or when you use the A/V Mute feature. The custom screen discourages theft by identifying the projector's owner.
- **Network Protection** password prevents anyone from changing the projector's **Network** settings.
- **Time/Schedule Protection** password prevents anyone from changing the projector's time or schedule settings.

Related Links

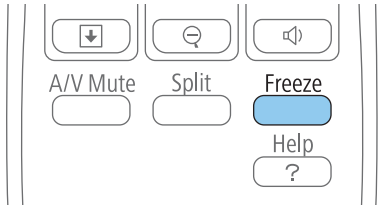
- "Projector Security Features" p.93
- "Setting a Password" p.93
- "Selecting Password Security Types" p.94
- "Entering a Password to Use the Projector" p.95

Setting a Password

To use password security, you must set a password.

The default password is set to "0000". Change this to your own password.

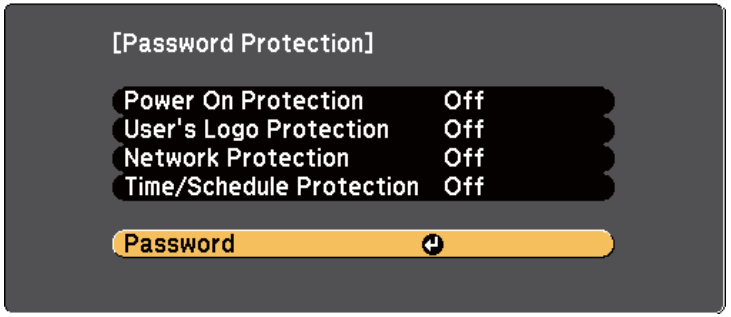
1 Hold down the [Freeze] button on the remote control for about 5 seconds.



You see the Password Protection setting menu.

If Password Protection is already activated, you must enter the correct password to display the Password Protection setting menu.

2 Select **Password** and press [Enter].

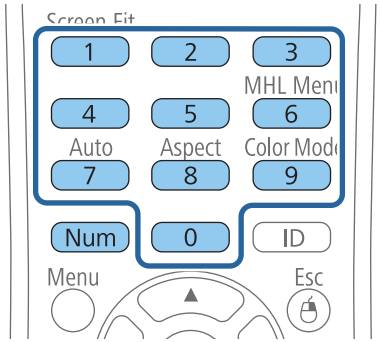


You see the prompt "Change the password?".

3 Select **Yes** and press [Enter].

If you select **No**, the Password Protection setting menu is displayed again.

4 Hold down the [Num] button on the remote control and use the numeric buttons to set a four-digit password.



The password displays as **** as it is entered. A confirmation prompt is displayed when you enter the fourth digit.

5 Enter the password again.

You see the message "Password accepted". If you enter the password incorrectly, a message is displayed prompting you to re-enter the password.

6 Press [Esc] to return to the menu.

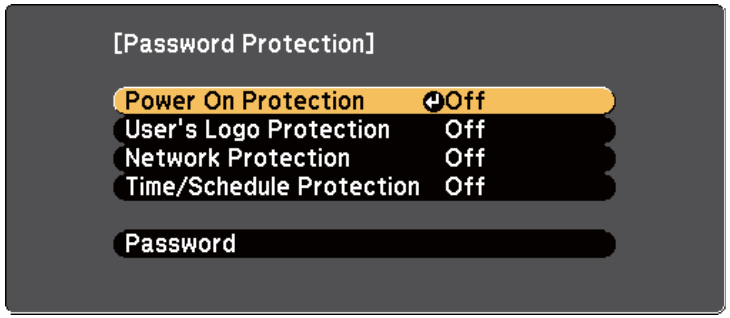
7 Make a note of the password and keep it in a safe place.

Related Links

- "Password Security Types" p.93

Selecting Password Security Types

After setting a password, you see this menu, allowing you to select the password security types you want to use.



If you do not see this menu, hold down the [Freeze] button on the remote control for 5 seconds until the menu appears.

- To prevent unauthorized use of the projector, select **On** as the **Power On Protection** setting.
- To prevent changes to the User's Logo screen or related display settings, select **On** as the **User's Logo Protection** setting.

- To prevent changes to network settings, select **On** as the **Network Protection** setting.
- To prevent changes to the projector's time or schedule settings, select **On** as the **Time/Schedule Protection** setting.

You can attach the password protect sticker to the projector as an additional theft deterrent.

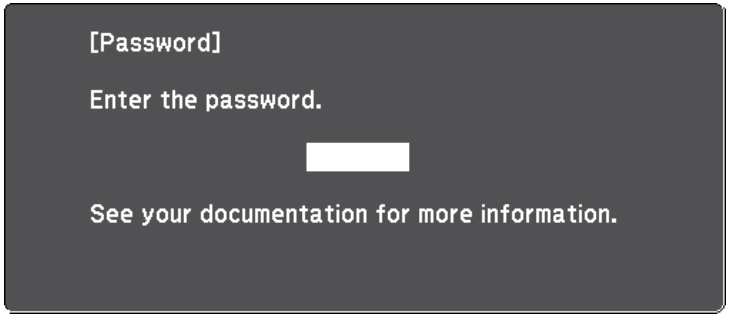
Be sure to keep the remote control in a safe place; if you lose it, you will not be able to enter the password.

Related Links

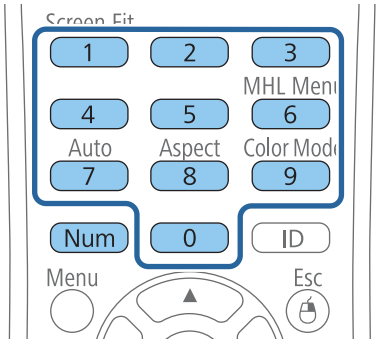
- "Password Security Types" p.93

Entering a Password to Use the Projector

When the password screen is displayed, enter the correct password.



1 Hold down the [Num] button on the remote control while you enter the password using the numeric buttons.



The password screen closes.

2 If the password is incorrect, you see a message and a prompt to try again. Enter the correct password to proceed.

Attention

- If an incorrect password is entered three times in succession, the message "The projector's operation will be locked." is displayed for approximately 5 minutes, and the projector switches to standby mode. If this happens, disconnect the power plug from the electrical outlet, reinsert it, and turn the projector back on. The projector displays the password entry screen again so that you can enter the correct password.
- If you have forgotten the password, make a note of the "**Request Code**: xxxxx" number that appears on the screen and contact Epson for help.
- If you continue to repeat the above operation and input the wrong password 30 times in succession, the message "The projector's operation will be locked. Contact Epson as described in your documentation." is displayed and the projector does not accept any more password entries. Contact Epson for help.

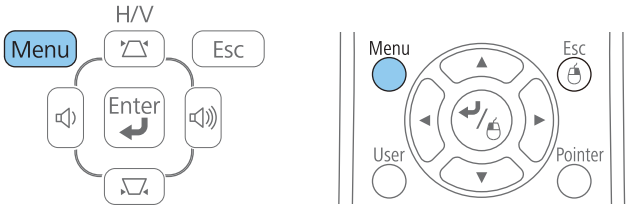
Related Links

- "Password Security Types" p.93

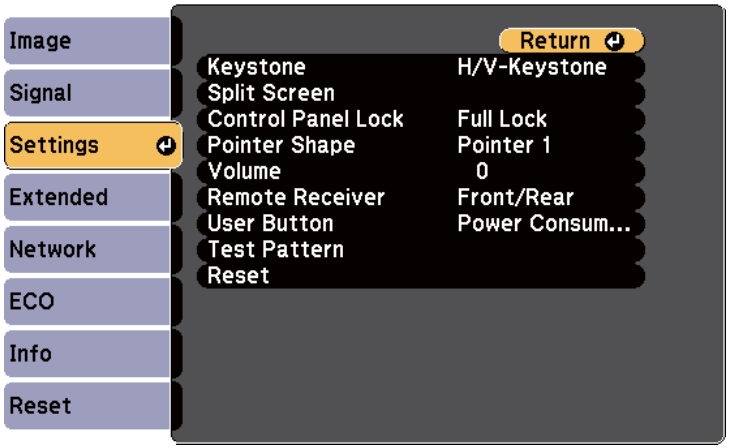
Locking the Projector's Buttons

You can lock the buttons on the control panel to prevent anyone from using the projector. You can lock all the buttons or all the buttons except the power button. The projector can still be operated using the remote control.

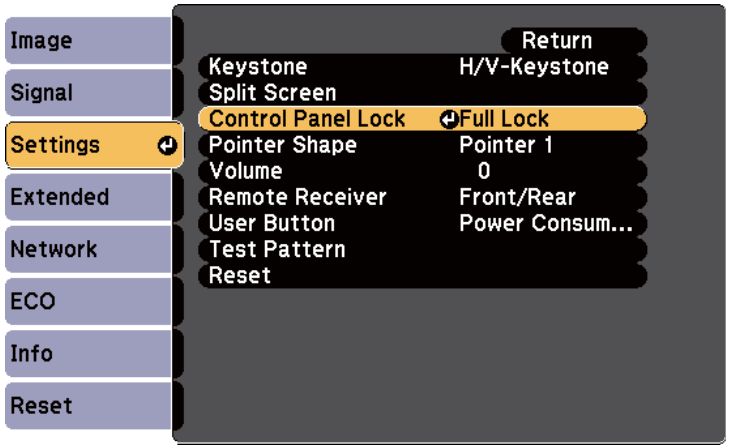
1 Press the [Menu] button on the control panel or remote control.



2 Select **Settings** and press [Enter].

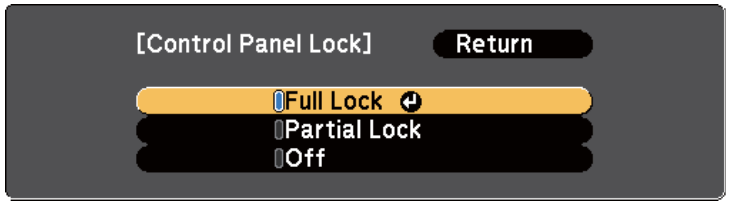


3 Select **Control Panel Lock** and press [Enter].



4 Select one of these lock types and press [Enter]:

- To lock all of the projector's buttons, select **Full Lock**.
- To lock all buttons except the power button, select **Partial Lock**.



You see a confirmation prompt.

5 Select **Yes** and press [Enter].

The control panel buttons are locked using the setting you chose.

Related Links

- "Projector Security Features" p.93
- "Unlocking the Projector's Buttons" p.97

Unlocking the Projector's Buttons

If the projector's buttons have been locked, do one of the following to unlock them.

- Hold down the [Enter] button on the control panel for 7 seconds. A message is displayed and the lock is released.
- Select **Off** as the **Control Panel Lock** setting in the projector's **Settings** menu.

Related Links

- "Locking the Projector's Buttons" p.96
- "Projector Feature Settings - Settings Menu" p.137

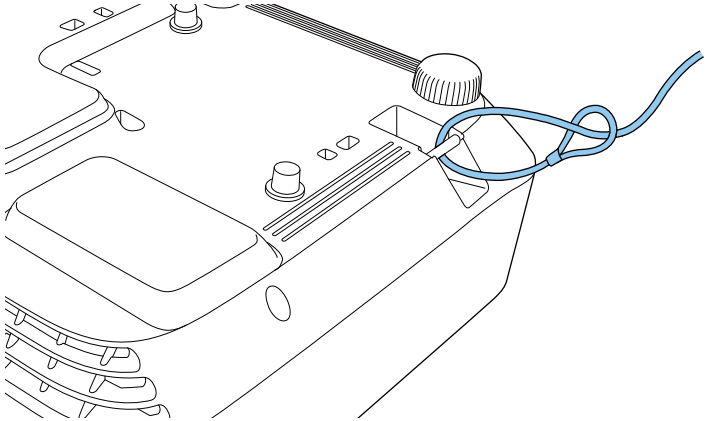
Installing a Security Cable

You can install two types of security cables on the projector to deter theft.

- Use the security slot on the projector to attach a Kensington Microsaver Security system.

For more details on the Microsaver Security System, see http://www.kensington.com/.

- Use the security cable attachment point on the projector to attach a wire cable and secure it to a room fixture or heavy furniture.



You can use a commercially available theft-prevention wire lock. See the documentation supplied with the wire lock for locking instructions.

Related Links

- "Projector Security Features" p.93

Using the Projector on a Network

Follow the instructions in these sections to set up your projector for use on a network.

Related Links

- "Wired Network Projection" p.99
- "Wireless Network Projection" p.102
- "Wireless Network Projection from a Mobile Device (Screen Mirroring)" p.110

You can send images to your projector through a wired network. To do this, connect the projector to your network, and then set up your projector and computer for network projection.

After connecting and setting up the projector as described here, install the network software from the Epson Projector Software CD-ROM or download the software as necessary. Use the following software and documentation to set up and control network projection.

- EasyMP Network Projection software sets up your computer for network projection. See the *EasyMP Network Projection Operation Guide* for instructions.
- EasyMP Multi PC Projection software allows you to hold interactive meetings by projecting the computer screens of users over a network. See the *EasyMP Multi PC Projection Operation Guide* for instructions.

If your projector is connected via a LAN cable to a network that includes a wireless access point, you can connect to the projector wirelessly through the access point using the EasyMP Network Projection software (EB-1985WU/EB-1975W/EB-1970W).

Related Links

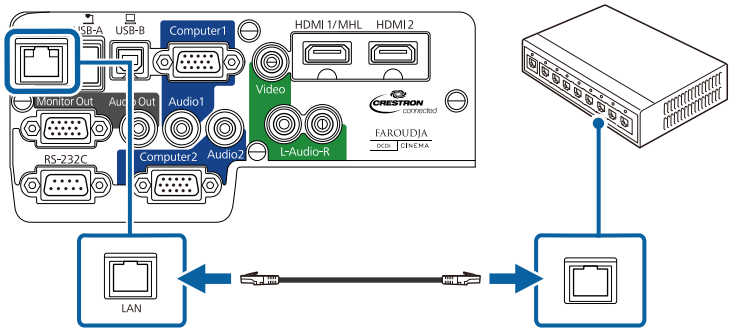
- "Using the Projector on a Network" p.98
- "Connecting to a Wired Network" p.99
- "Selecting Wired Network Settings" p.99

Connecting to a Wired Network

To connect the projector to a wired local area network (LAN), use a 100Base-TX or 10Base-T network cable. To ensure proper data transmission, use a Category 5 shielded cable or better.

1. Connect one end of the network cable to your network hub, switch, or router.

2. Connect the other end of the cable to the projector's LAN port.



Related Links

- "Wired Network Projection" p.99

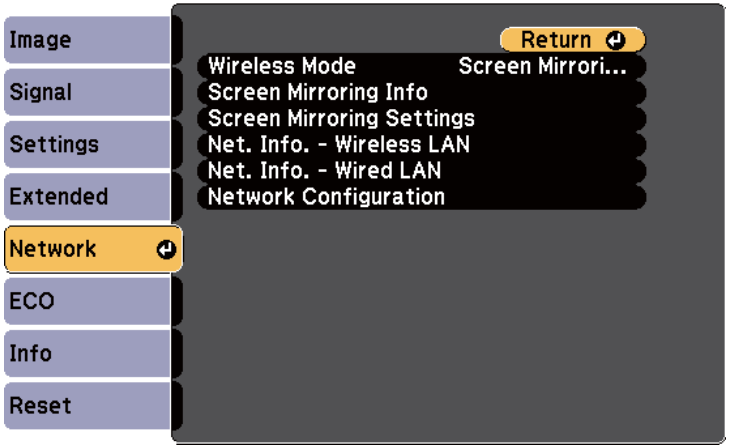
Selecting Wired Network Settings

Before you can project from computers on your network, you need to select network settings on the projector.

Make sure you already connected the projector to your wired network using the LAN port.

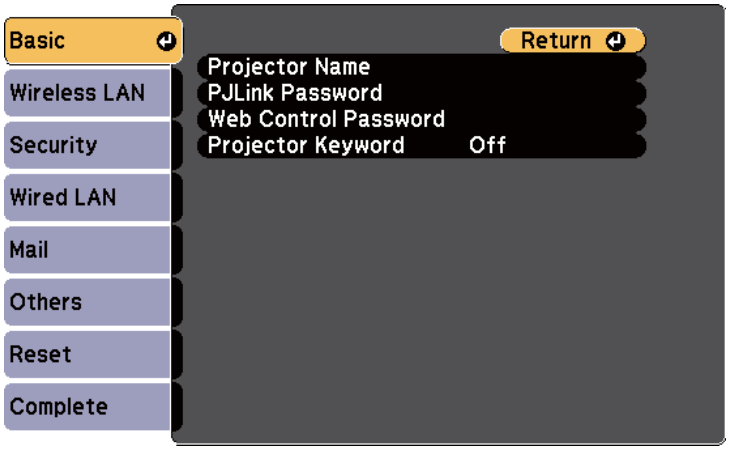
1. Press the [Menu] button on the control panel or remote control.

2. Select the **Network** menu and press [Enter].



3 Select **Network Configuration** and press [Enter].

4 Select the **Basic** menu and press [Enter].

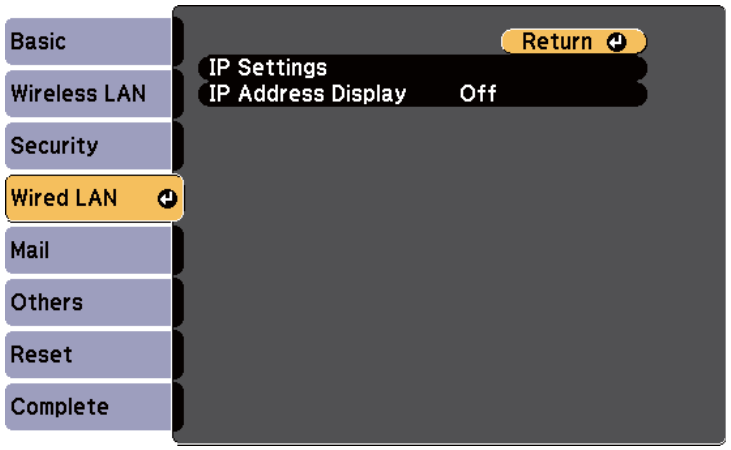


5 Select the basic options as necessary.

- **Projector Name** lets you enter a name up to 16 alphanumeric characters long to identify the projector over the network.
- **PJLink Password** lets you enter a password up to 32 alphanumeric characters long for using the PJLink protocol for projector control.
- **Web Control Password** lets you enter a password up to 8 alphanumeric characters long for accessing the projector over the Web. (Default user name is EPSONWEB; default password is admin.)
- **Projector Keyword** lets you turn on a security password to prevent access to the projector by anyone not in the room with it. You must enter a displayed, randomized keyword from a computer using the EasyMP Network Projection software to access the projector.

Use the displayed keyboard to enter the name, passwords and keyword. Press the arrow buttons on the remote control to highlight characters and press [Enter] to select them.

6 Select the **Wired LAN** menu and press [Enter].



7 Select **IP Settings** and press [Enter].

8 Select your **IP Settings** as necessary.

- If your network assigns addresses automatically, set the **DHCP** setting to **On**.
- If you must set addresses manually, set the **DHCP** setting to **Off** and enter the projector's **IP Address**, **Subnet Mask**, and **Gateway Address** as necessary.

To highlight the numbers you want from the displayed keyboard, press the arrow buttons on the remote control. To select a highlighted number, press [Enter].

9 To prevent the IP address from being displayed on the standby screen, set the **IP Address Display** setting to **Off**.

10 When you finish selecting settings, select **Complete** and follow the on-screen instructions to save your settings and exit the menus.

Related Links

- "Wired Network Projection" p.99

You can send images to your projector through a wireless network (EB-1985WU/EB-1975W/EB-1970W). To do this, you must install the Epson 802.11b/g/n wireless LAN module, and then set up your projector and computer for wireless projection.

If your projector is connected via a LAN cable to a network that includes a wireless access point, you can connect to the projector wirelessly using the EasyMP Network Projection software.

There are two ways to connect the projector to your wireless network:

- Using the optional Quick Wireless Connection USB Key (Windows only)
- Configuring the connection manually using the projector's **Network** menus

After installing the module and setting up the projector, install the network software from the Epson Projector Software CD-ROM or download the software, as necessary. Use the following software and documentation to set up and control wireless projection:

- EasyMP Network Projection software sets up your computer for wireless network projection. See the *EasyMP Network Projection Operation Guide* for instructions.
- EasyMP Multi PC Projection software allows you to hold interactive meetings by projecting the computer screens of users over a network. See the *EasyMP Multi PC Projection Operation Guide* for instructions.

Related Links

- "Using the Projector on a Network" p.98
- "Installing the Wireless LAN Module" p.102
- "Using Quick Wireless Connection (Windows Only)" p.103
- "Selecting Wireless Network Settings Manually" p.104
- "Searching for a Wireless Network" p.106
- "Selecting Wireless Network Settings in Windows" p.107
- "Selecting Wireless Network Settings in OS X" p.108
- "Setting Up Wireless Network Security" p.108

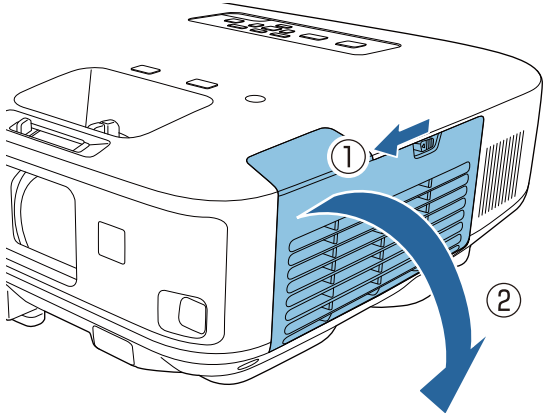
Installing the Wireless LAN Module

To use the projector over a wireless network, install the Epson 802.11b/g/n wireless LAN module (EB-1985WU/EB-1975W/EB-1970W). Do not install any other type of wireless LAN module.

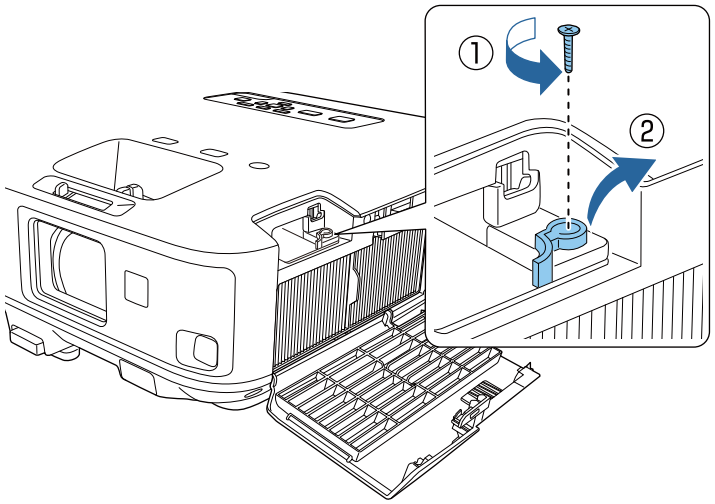
Attention

Never remove the module while its indicator is green or flashing, or while you are projecting wirelessly. This could damage the module or lose data.

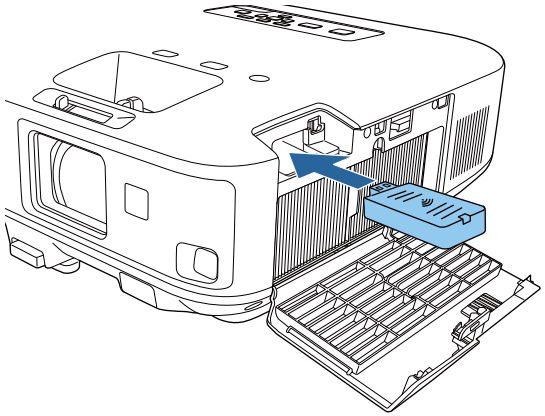
1. Turn off the projector and unplug the power cord.
2. Slide the air filter cover latch and open the air filter cover.



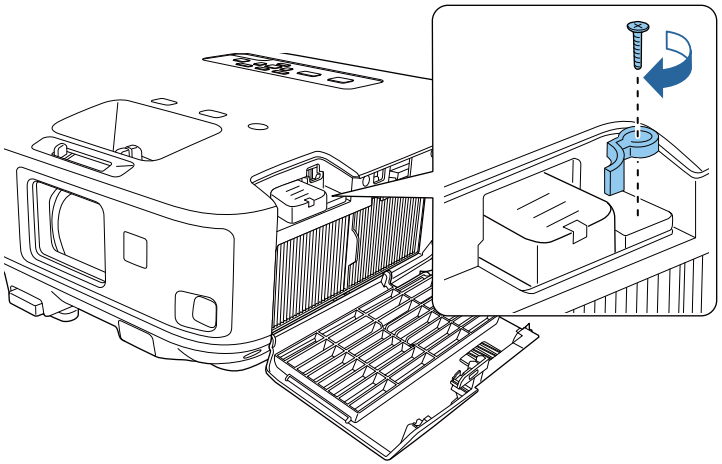
3. Remove the screw securing the wireless LAN module stopper and remove the stopper.



4 Insert the wireless LAN module into the port.



5 Replace the wireless LAN module stopper, and secure it using the screw you removed.



6 Close the air filter cover.

7 Plug in and turn on the projector.

Related Links

- "Wireless Network Projection" p.102

Using Quick Wireless Connection (Windows Only)

You can use the Quick Wireless Connection USB Key to quickly connect the projector to a Windows computer wirelessly. You can then project your presentation and remove the key when you are done.

The Quick Wireless Connection USB key is not included with your projector.

1 Turn on the projector.

2 Connect the USB key to the projector's USB-A port.

A message is displayed informing you that the network information update is complete.

3 Remove the USB key.

4 Connect the USB key to a USB port on your computer.

> In Windows Vista, if the AutoPlay window is displayed, select **Run LaunchQWRD.exe**, then select **Allow**.

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

> If the Windows Firewall message is displayed, click **Yes** to disable the firewall.

After a few minutes, your computer image is displayed by the projector. If it does not appear, press the [LAN] button on your projector remote control or restart your computer.

6 Run your presentation.

7 When you have finished projecting wirelessly, select the **Safely Remove Hardware** option in the Windows taskbar, and then remove the USB key from your computer.

> You may need to restart your computer to reactivate your wireless LAN connection.

Related Links

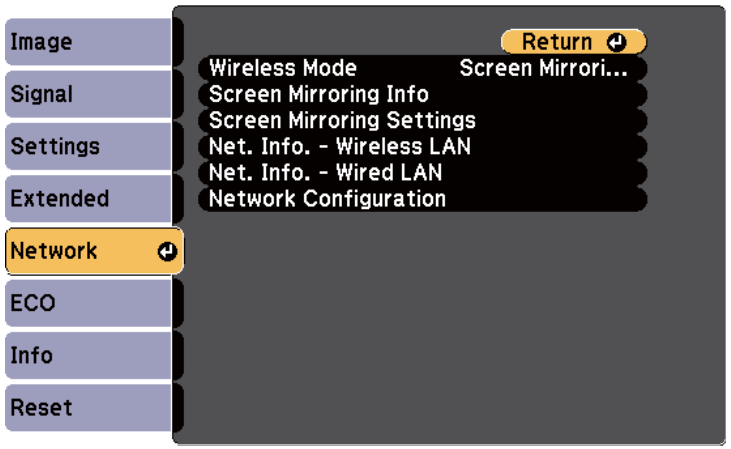
• "Wireless Network Projection" p.102

Selecting Wireless Network Settings Manually

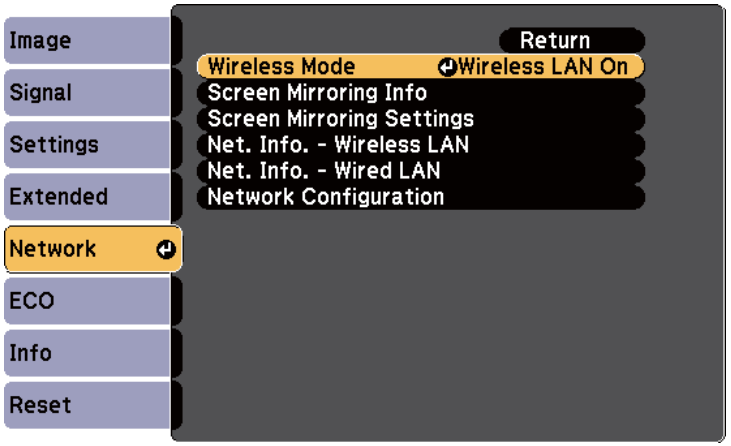
Before you can project from your wireless network, you need to select network settings for the projector.

1 Press the [Menu] button on the control panel or remote control.

2 Select the **Network** menu and press [Enter].

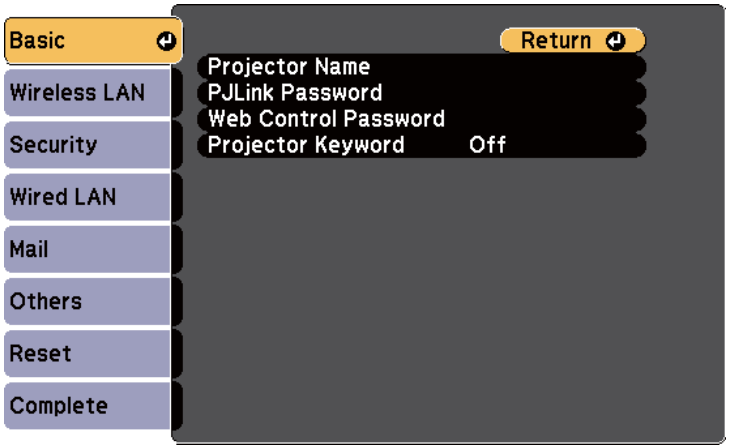


3 Select **Wireless LAN On** as the **Wireless Mode** setting.



4 Select **Network Configuration** and press [Enter].

5 Select the **Basic** menu and press [Enter].

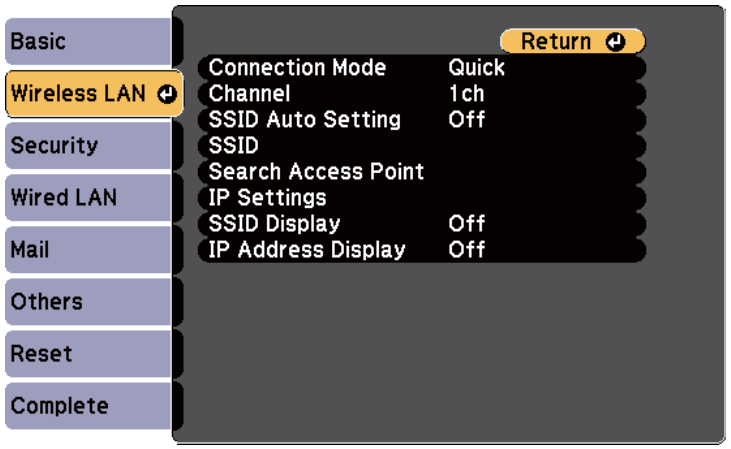


6 Select the basic options as necessary.

- **Projector Name** lets you enter a name up to 16 alphanumeric characters long to identify the projector over the network.
- **PJLink Password** lets you enter a password up to 32 alphanumeric characters long for using the PJLink protocol for projector control.
- **Web Control Password** lets you enter a password up to 8 alphanumeric characters long for accessing the projector over the Web. (Default user name is EPSONWEB; default password is admin.)
- **Projector Keyword** lets you turn on a security password to prevent access to the projector by anyone not in the room with it. You must enter a displayed, randomized keyword from a computer using the EasyMP Network Projection software to access the projector.

Use the displayed keyboard to enter the name, passwords and keyword. Press the arrow buttons on the remote control to highlight characters and press [Enter] to select them.

7 Select the **Wireless LAN** menu and press [Enter].



8 Select the **Connection Mode** setting.

- **Quick** lets you quickly connect to one computer.

- **Advanced** lets you connect to computers over a wireless network access point.

When switching the connection mode, follow the on-screen instructions to save your settings. After saving the settings, the **Network** menu appears.

9 Select the **SSID** and **IP Settings** as necessary for your network.

- If you assign an SSID automatically to speed up the projector search, set the **SSID Auto Setting** setting to **On**. Otherwise, select **SSID** to enter the projector's SSID.
- If your network assigns addresses automatically, select **IP Settings** to set the **DHCP** setting to **On**.
- If you must set addresses manually, select **IP Settings** to set the **DHCP** setting to **Off** and enter the projector's **IP Address**, **Subnet Mask**, and **Gateway Address** as necessary.

10 To prevent the SSID or IP address from being displayed on the standby screen, set the **SSID Display** setting or the **IP Address Display** setting to **Off**.

11 When you finish selecting settings, select**Complete** and follow the on-screen instructions to save your settings and exit the menus.

When you have finished making wireless settings for your projector, you need to select the wireless network on your computer.

Related Links

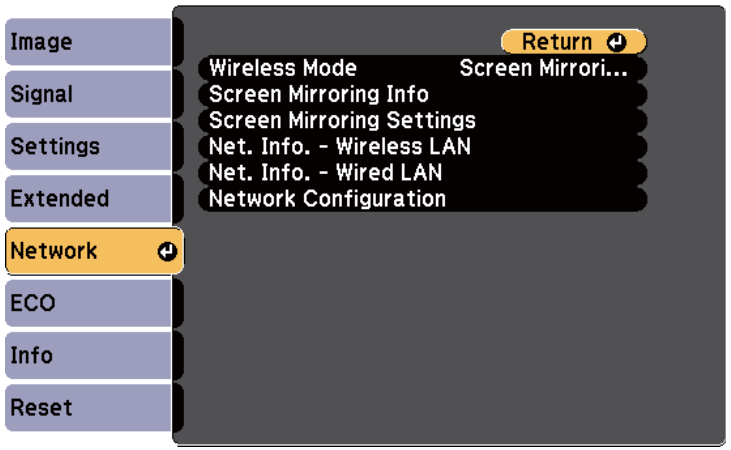
- "Wireless Network Projection" p.102

Searching for a Wireless Network

You can use your projector's site survey function to quickly locate and connect to available wireless networks.

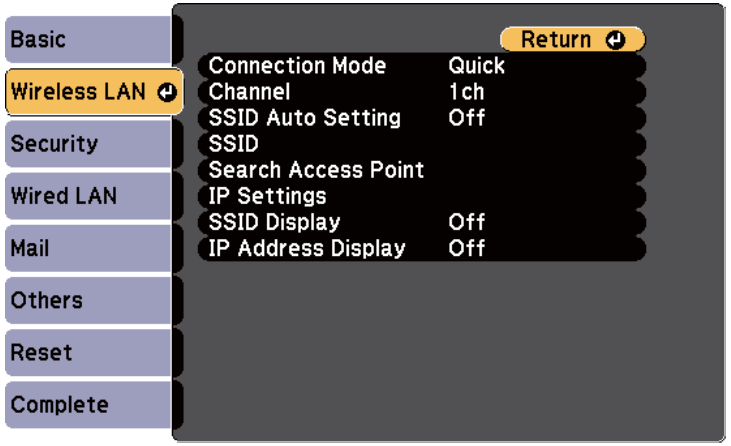
1 Press the [Menu] button on the control panel or remote control.

2 Select the **Network** menu and press [Enter].



3 Select **Network Configuration** and press [Enter].

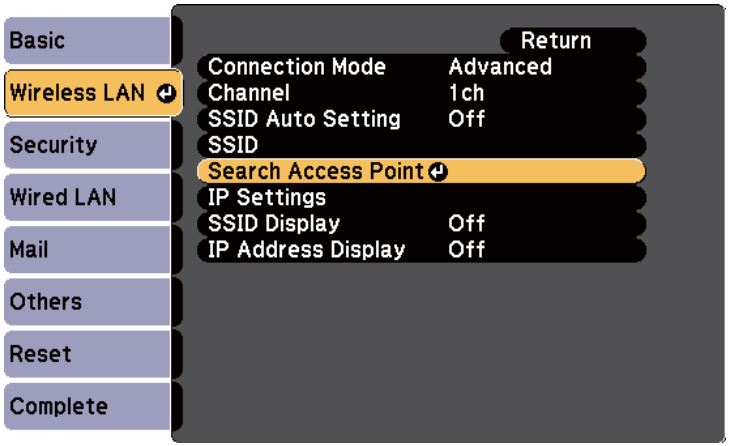
4 Select the **Wireless LAN** menu and press [Enter].



5 Select **Advanced** as the **Connection Mode** setting and press [Enter].

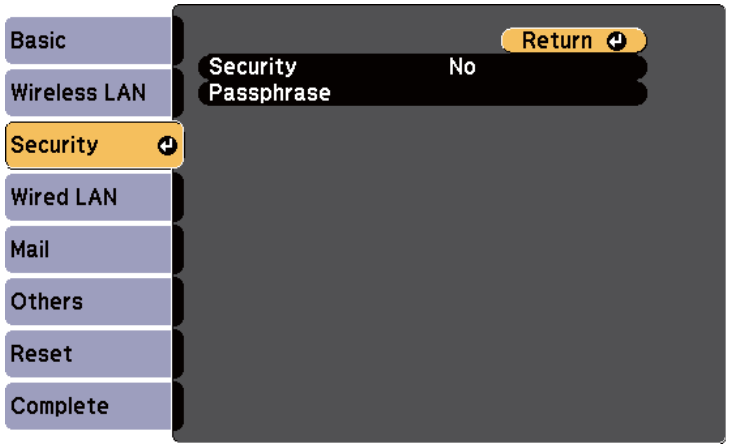
When switching the connection mode, follow the on-screen instructions to save your settings. After saving the settings, the **Network** menu appears.

6 Select **Search Access Point** and press [Enter].



7 Select the name of the wireless network you want to connect to and press [Enter].

8 When security is set for the access point, select the **Security** menu and press [Enter].



9 Select the settings on the **Security** menu to match your network.

10 When you have finished making settings, select **Complete** and follow the on-screen instructions to save your settings and exit the menus.

Related Links

- "Wireless Network Projection" p.102
- "Network Menu - Security Menu" p.145

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 When connecting in Advanced connection mode, select the network name (SSID) of the network the projector is connecting to.

3 Click **Connect**.

Related Links

• "Wireless Network Projection" p.102

Selecting Wireless Network Settings in OS X

Before connecting to the projector, select the correct wireless network in OS X.

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

2 When connecting in Advanced connection mode, make sure AirPort is turned on and select the network name (SSID) of the network the projector is connecting to.

Related Links

• "Wireless Network Projection" p.102

Setting Up Wireless Network Security

You can set up security for your projector to use on a wireless network (EB-1985WU/EB-1975W/EB-1970W). Set up one of the following security options to match the settings used on your network:

- WPA2 security
- WPA/WPA2 security

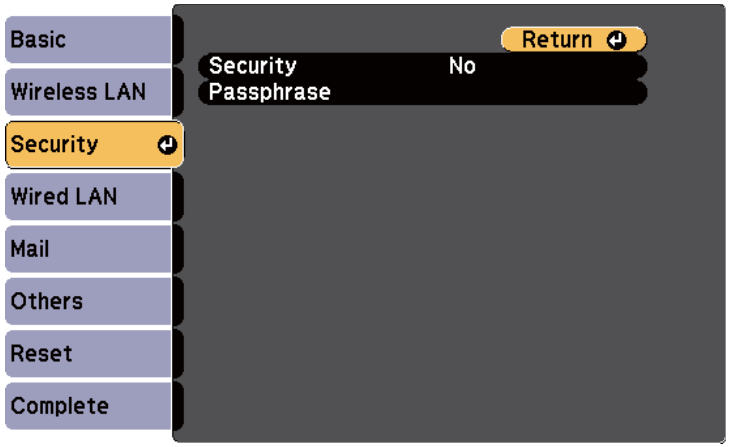
Contact your network administrator for guidance on entering the correct information.

1 Press the [Menu] button on the control panel or remote control.

2 Select the **Network** menu and press [Enter].

3 Select **Network Configuration** and press [Enter].

4 Select the **Security** menu and press [Enter].



5 Select the security settings to match your network settings.

6 When you have finished making settings, select **Complete** and follow the on-screen instructions to save your settings and exit the menus.

Related Links

• "Wireless Network Projection" p.102

- "Network Menu - Security Menu" p.145

You can send image to your projector from mobile devices such as laptops, smartphones, and tablets using Intel WiDi (Intel WiDi version 3.5 or later) and Miracast technology (EB-1985WU/EB-1975W).

If your device supports Intel WiDi or Miracast, you do not need to install any additional software.

Note the following limitations when using Screen Mirroring features.

- You cannot play multi-channel audio over 3ch (channel 3).
- You cannot project images with a resolution above 1920 × 1080 and a frame rate above 50 fps.
- You cannot play 3D video.
- Extended Miracast features on Windows 8.1 are not supported.
- The extended Intel WiDi version 4 features are not supported.
- You may not be able to view contents with copyright protection with a Miracast connection.

Mobile devices such as Ultrabook, 2-in-1 devices with Intel Core 3rd generation or later processors installed mainly support Intel WiDi. Mobile devices with Android installed or Windows 8.1 installed mainly support Miracast.

Support for Intel WiDi or Miracast varies depending on the mobile device. See your mobile device manual for details.

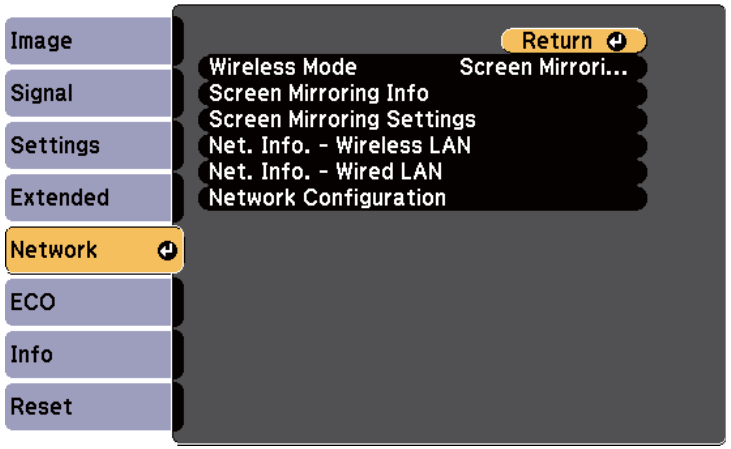
Related Links

- "Using the Projector on a Network" p.98
- "Selecting Screen Mirroring Settings" p.110
- "Connecting Using Screen Mirroring in Windows 8.1" p.112
- "Connecting Using Screen Mirroring with the Intel WiDi Software" p.113
- "Connecting Using Screen Mirroring with the Miracast Function" p.114

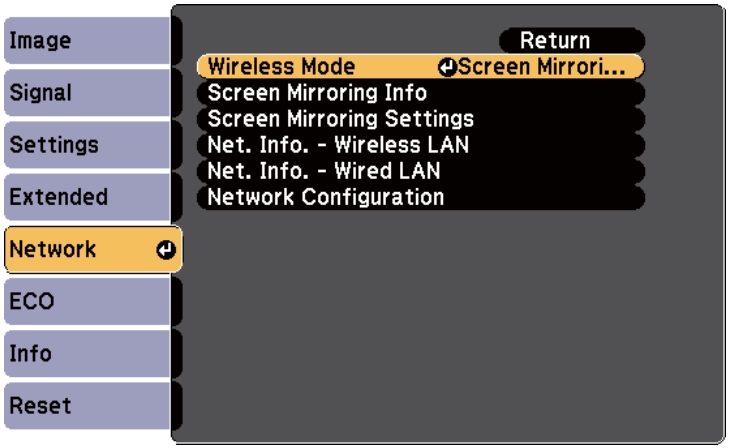
Selecting Screen Mirroring Settings

You must select Screen Mirroring settings for your projector to project images from your mobile device.

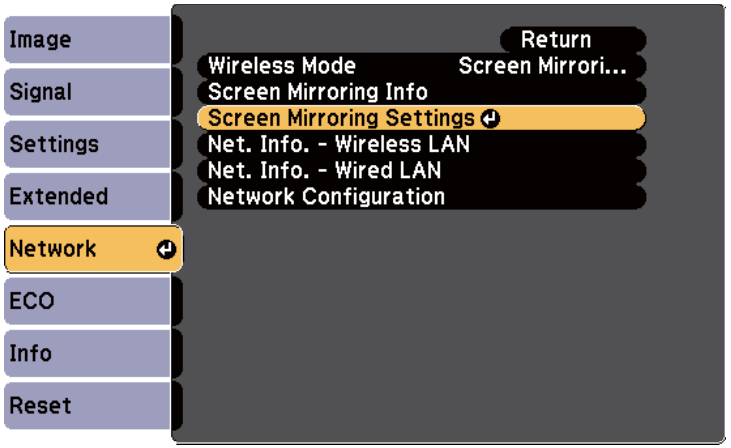
1. Press the [Menu] button on the control panel or remote control.
2. Select the **Network** menu and press [Enter].



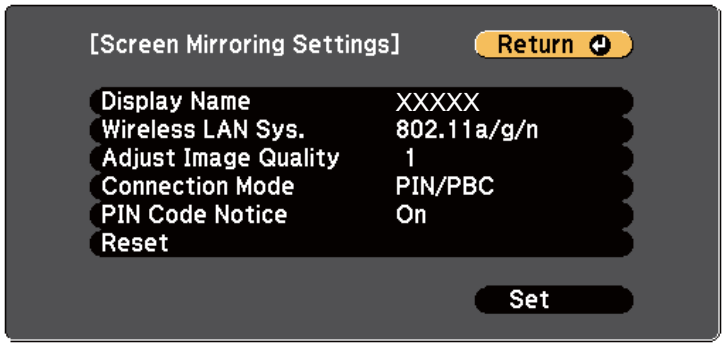
3. Select **Screen Mirroring On** as the **Wireless Mode** setting.



4 Select **Screen Mirroring Settings** and press [Enter].



5 Select the Screen Mirroring settings as necessary.



- **Display Name** lets you enter a name up to 32 alphanumeric characters long to identify the projector from a list of available WiFi Direct devices.
- **Wireless LAN Sys.** lets you select the type of wireless LAN system the projector is connecting to.
- **Adjust Image Quality** lets you adjust the screen mirroring speed/quality. Select a small number to improve the quality and select large number to increase the speed.
- **Connection Mode** lets you select the type of WPS (Wi-Fi Protected Setup).
- **PIN Code Notice** lets you display the PIN code on the projected image while projecting input sources other than Screen Mirroring.

6 When you finish selecting settings, select **Set** and follow the on-screen instructions to save your settings and exit the menus.

Related Links

- "Wireless Network Projection from a Mobile Device (Screen Mirroring)" p.110

Connecting Using Screen Mirroring in Windows 8.1

You can set up your computer for wireless projection from Charms in Windows 8.1. You can play audio through the projector's speaker system by connecting using Screen Mirroring.

1. Select the **Screen Mirroring Settings** on your projector as necessary.

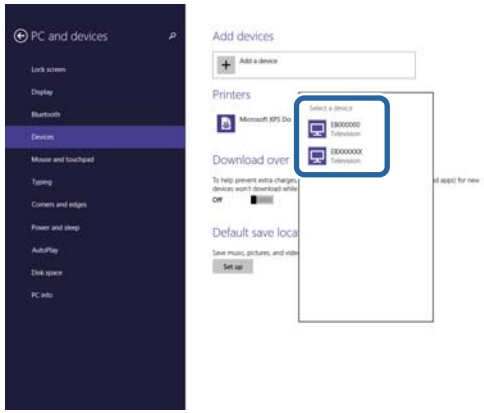
2. Press the [LAN] button on the remote control to switch to the Screen Mirroring source.
   You see the Screen Mirroring standby screen.

3. On your computer, select **Devices** from Charms and select **Project**.

4. Select **Add a wireless display**.

You see a list of available devices.

5. Select the projector's Display Name from the list.



6. If you see the PIN entry screen on your computer, enter the PIN code displayed on the Screen Mirroring standby screen or at the bottom right of the projected image.
   The projector displays the image from your computer.

It may take some time until the connection is established. While connecting, do not disconnect the projector's power cord. Doing so may cause your device to freeze or malfunction.

Related Links

- "Wireless Network Projection from a Mobile Device (Screen Mirroring)" p.110

Connecting Using Screen Mirroring with the Intel WiDi Software

If you are using Windows 7 or Windows 8 with the Intel WiDi software installed, you can connect to the projector wirelessly and project images. You can play audio through the projector's speaker system by connecting using Screen Mirroring.

1. Select the **Screen Mirroring Settings** on your projector as necessary.
2. Press the [LAN] button on the remote control to switch to the Screen Mirroring source.
   You see the Screen Mirroring standby screen.
3. On your mobile device, start the Intel WiDi software.
   You see a list of available devices.

4. Select the projector's Display Name from the list.
5. If you see the PIN entry screen on your mobile device, enter the PIN code displayed on the Screen Mirroring standby screen or at the bottom right of the projected image.
   The projector displays the image from your mobile device.

It may take some time until the connection is established. While connecting, do not disconnect the projector's power cord. Doing so may cause your device to freeze or malfunction.

Related Links

- "Wireless Network Projection from a Mobile Device (Screen Mirroring)" p.110

Connecting Using Screen Mirroring with the Miracast Function

If your mobile device such as a smartphone supports Miracast, you can connect it to the projector wirelessly and project images. You can play audio through the projector's speaker system by connecting using Screen Mirroring.

1. Select the **Screen Mirroring Settings** on your projector as necessary.
2. Press the [LAN] button on the remote control to switch to the Screen Mirroring source.

   You see the Screen Mirroring standby screen.
3. On your mobile device, use your Miracast function to search for the projector.

   You see a list of available devices.
4. Select the projector's Display Name from the list.
5. If you see the PIN entry screen on your mobile device, enter the PIN code displayed on the Screen Mirroring standby screen or at the bottom right of the projected image.

   The projector displays the image from your mobile device.

It may take some time until the connection is established. While connecting, do not disconnect the projector's power cord. Doing so may cause your device to freeze or malfunction.

Depending on the mobile device, you may need to delete a device when connecting. Follow the on-screen instructions on your device.

Related Links

- "Wireless Network Projection from a Mobile Device (Screen Mirroring)" p.110

Monitoring and Controlling the Projector

Follow the instructions in these sections to monitor and control the projector over a network.

Related Links

- "EasyMP Monitor" p.116
- "Controlling a Networked Projector Using a Web Browser" p.117
- "Setting Up Projector Network E-Mail Alerts" p.119
- "Setting Up Monitoring Using SNMP" p.121
- "Using ESC/VP21 Commands " p.122
- "PJLink Support" p.124
- "Crestron RoomView Support" p.125
- "Setting Projector Event Schedules" p.129

EasyMP Monitor software (Windows only) lets you monitor and control your projector through the network. See the *EasyMP Monitor Operation Guide* for instructions.

You can download EasyMP Monitor from the following Web site.

http://www.epson.com

Related Links

- "Monitoring and Controlling the Projector" p.115

Once you have connected your projector to your network, you can select projector settings and control projection using a compatible Web browser. This lets you access the projector remotely.

- The Web setup and control features support Internet Explorer 8.0 or later, and Safari on networks that do not use a proxy server for connection. You cannot select all of the projector menu settings or control all projector functions using a Web browser.
- If you set **Standby Mode** to **Communication On** in the projector's **ECO** menu, you can use a Web browser to select settings and control projection even if the projector is in standby mode (when the power is off).

1. Make sure the projector is turned on.
2. Start your Web browser on a computer connected to the network.
3. Type the projector's IP address into the browser's address box and press the computer's **Enter** key.

   You see the Web Control screen.

   - You may need to log in before you see the Web Control screen. If you see a log in window, enter your user name and password. (The default user name is **EPSONWEB** and the default password is **admin**.)
   - You can change the password in the **Web Control Password** menu in the projector's **Network** menu.

     ☛ **Network** > **Basic** > **Web Control Password**
4. To select projector menu settings, select the name of the menu and follow the on-screen instructions to select settings.

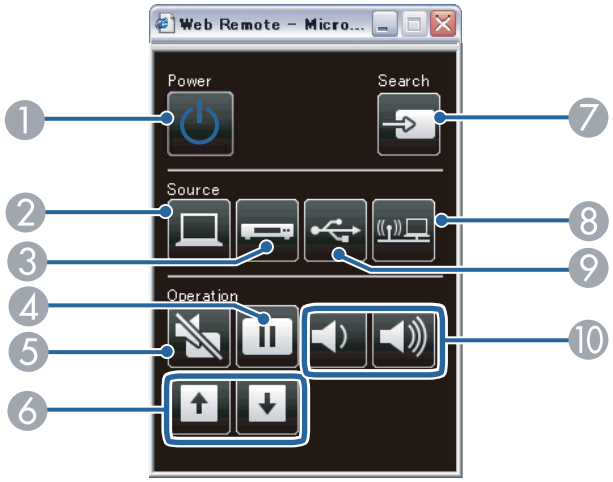
- You cannot select the following settings using a Web browser.

  Test Pattern, Pointer Shape, User Button, User's Logo, Language, and Reset Lamp Hours
- You can select the following settings only using a Web browser.

  - SNMP Community Name (up to 32 alphanumeric characters)
  - Monitor Password (up to 16 alphanumeric characters)
  - HTTP port (port number used for Web Control except for 80 (default), 843, 3620, 3621, 3625, 3629, 4352, 4649, 5357, 10000, 10001, 41794)

5. To control projection remotely, select the **Web Remote** option.

6. Select the icon corresponding to the projector function you want to control.



1. Power button control
2. Selects Computer port source
3. Selects Video and HDMI port sources
4. Freeze button control
5. A/V Mute button control
6. Page Up and Page Down button controls
7. Searches for sources
8. Selects the network source
9. Selects the USB Display or USB device source
10. Volume button controls

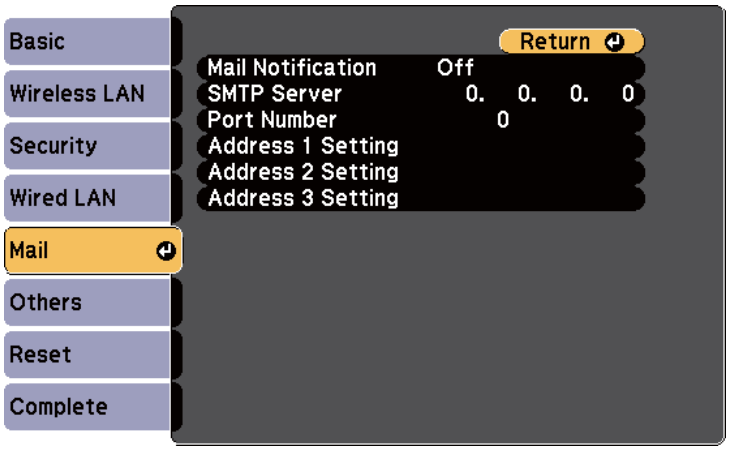
Related Links

- "Monitoring and Controlling the Projector" p.115
- "Projector Setup Settings - ECO Menu" p.150
- "Network Menu - Basic Menu" p.143

You can set up the projector to send you an e-mail alert over the network if there is a problem with the projector.

If you set the **Standby Mode** setting to **Communication On** in the projector's **ECO** menu, you can receive the e-mail alerts even if the projector is in standby mode (when the power is off).

1. Press the [Menu] button on the control panel or remote control.
2. Select the **Network** menu and press [Enter].
3. Select **Network Configuration** and press [Enter].
4. Select the **Mail** menu and press [Enter].



5. Set the **Mail Notification** setting to **On**.
6. Enter the IP address for the **SMTP Server** option.

> Do not use these addresses: 127.x.x.x or 224.0.0.0 through 255.255.255.255 (where x is a number from 0 to 255).

7. Select a number for the SMTP server **Port Number**, from 1 to 65535 (default is 25).
8. Choose an **Address** field, enter the e-mail address, and select the alerts you want to receive. Repeat for up to three addresses.

> Your e-mail address can be up to 32 alphanumeric characters long.

9. When you finish selecting settings, select **Complete** and follow the on-screen instructions to save your settings and exit the menus.

> If a critical problem causes a projector to shut down, you may not receive an e-mail alert.

Related Links

- "Monitoring and Controlling the Projector" p.115
- "Network Projector E-mail Alert Messages" p.119
- "Projector Setup Settings - ECO Menu" p.150

Network Projector E-mail Alert Messages

When a problem occurs with a projector on the network, and you selected to receive e-mail alerts, you receive an e-mail containing the following information:

- Address for Address 1 as the mail sender
- Epson Projector in the subject line
- The name of the projector experiencing a problem
- The IP address of the affected projector
- Detailed information about the problem

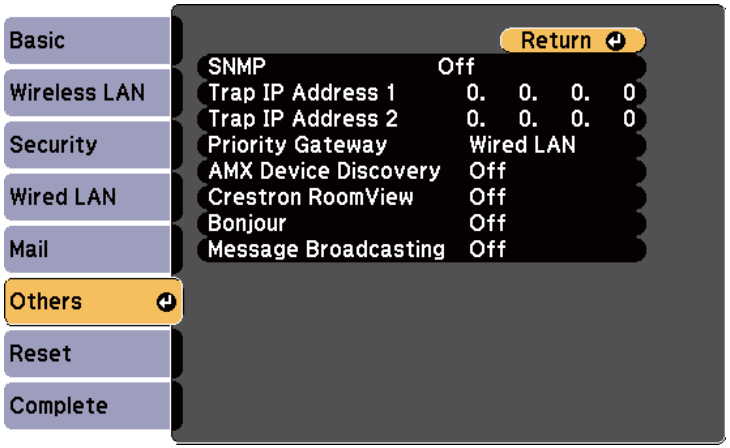
If a critical problem causes a projector to shut down, you may not receive an e-mail alert.

Related Links

- "Setting Up Projector Network E-Mail Alerts" p.119

Network administrators can install SNMP (Simple Network Management Protocol) software on network computers so they can monitor projectors. If your network uses this software, you can set up the projector for SNMP monitoring.

1. Press the [Menu] button on the control panel or remote control.
2. Select the **Network** menu and press [Enter].
3. Select **Network Configuration** and press [Enter].
4. Select the **Others** menu and press [Enter].



5. Set the **SNMP** setting to **On**.
6. Enter up to two IP addresses to receive SNMP notifications, using 0 to 255 for each address field.

Do not use these addresses: 127.x.x.x or 224.0.0.0 through 255.255.255.255 (where x is a number from 0 to 255).

7. When you have finished selecting settings, select **Complete** and follow the on-screen instructions to save your settings and exit the menus.

Related Links

• "Monitoring and Controlling the Projector" p.115

You can control the projector from an external device using ESC/VP21.

Related Links

- "Monitoring and Controlling the Projector" p.115
- "ESC/VP21 Command List" p.122
- "Cable Layouts" p.122

ESC/VP21 Command List

When the power ON command is transmitted to the projector, the power turns on and it enters warm-up mode. When the projector's power has turned on, a colon ":" (3Ah) is returned.

When a command is input, the projector executes the command and returns a ":", and then accepts the next command.

If the command being processed terminates abnormally, an error message is output and a ":" is returned.

The following commands are available.

Item			Command
Power ON/OFF	On		PWR ON
	Off		PWR OFF
Signal selection	Computer1	Auto	SOURCE 1F
		RGB	SOURCE 11
		Component	SOURCE 14
	Computer2	Auto	SOURCE 2F
		RGB	SOURCE 21
		Component	SOURCE 24
	HDMI1/MHL		SOURCE 30
	HDMI2		SOURCE A0
	Video		SOURCE 41
	USB Display		SOURCE 51
	USB		SOURCE 52
	LAN		SOURCE 53
	Screen Mirroring		SOURCE 56
A/V Mute On/Off	On		MUTE ON
	Off		MUTE OFF

Add a Carriage Return (CR) code (0Dh) to the end of each command and transmit.

Contact Epson for more details.

Related Links

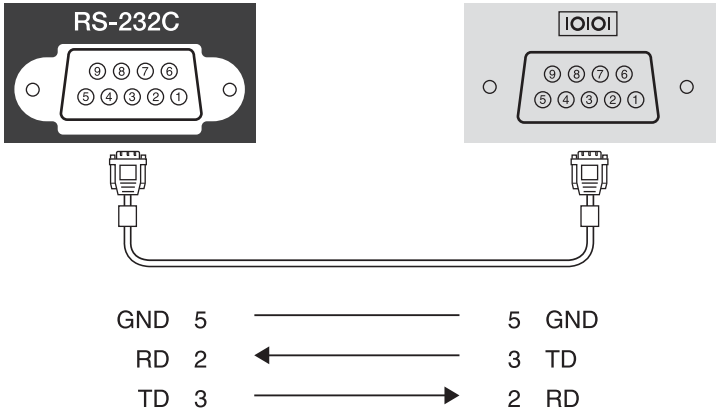
- "Using ESC/VP21 Commands " p.122

Cable Layouts

Serial connection

- Connector shape: D-Sub 9-pin (male)
- Projector input port name: RS-232C
- Cable type: Crossover (null modem) cable

In the following illustration, the projector side is shown on the left, and the computer side on the right:



Signal name	Function
GND	Signal wire ground
TD	Transmit data
RD	Receive data

Communications protocol

- Default baud rate setting: 9600 bps
- Data length: 8 bit
- Parity: None
- Stop-bit: 1 bit
- Flow control: None

Related Links

- "Using ESC/VP21 Commands " p.122

PJLink Class1 was established by the JBMIA (Japan Business Machine and Information System Industries Association) as a standard protocol for controlling network-compatible projector's as part of their efforts to standardize projector control protocols.

The projector complies with the PJLink Class1 standard established by the JBMIA.

You need to make network settings before you can use PJLink.

It complies with all commands except for the following commands defined by PJLink Class1, and agreement was confirmed by the PJLink standard adaptability verification.

http://pjlink.jbmia.or.jp/english/

- Non-compatible commands

Function		PJLink command
Mute settings	Image muting set	AVMT 11
	Audio muting set	AVMT 21

- Input names defined by PJLink and corresponding projector sources

Source	PJLink command
Computer1	INPT 11
Computer2	INPT 12
Video	INPT 21
HDMI1/MHL	INPT 32
HDMI2	INPT 33
USB	INPT 41
LAN	INPT 52
USB Display	INPT 53
Screen Mirroring	INPT 57

- Manufacturer name displayed for "Manufacture name information query"
  EPSON
- Model name displayed for "Product name information query"
  - EPSON 1985
  - EPSON 1980
  - EPSON 1975
  - EPSON 1970

Related Links

- "Monitoring and Controlling the Projector" p.115
- "Using the Projector on a Network" p.98

If you are using the Crestron RoomView network monitoring and control system, you can set up your projector for use on the system. Crestron RoomView lets you control and monitor your projector using a Web browser.

- You cannot use the Epson Web Control feature or the Message Broadcasting plug-in for EasyMP Monitor when you use Crestron RoomView.
- If you set the **Standby Mode** setting to **Communication On** in the projector's **ECO** menu, you can control the projector even if the projector is in standby mode (when the power is off).

For additional information on Crestron RoomView, visit the Crestron Web site.

http://www.crestron.com

To monitor devices in the system, you can use Crestron RoomView Express or Crestron RoomView Server Edition provided by Creston. You can communicate with the help desk and send emergency messages. See the following Web site for details.

http://www.crestron.com/getroomview

This manual describes how to perform operations on your computer using a Web browser.

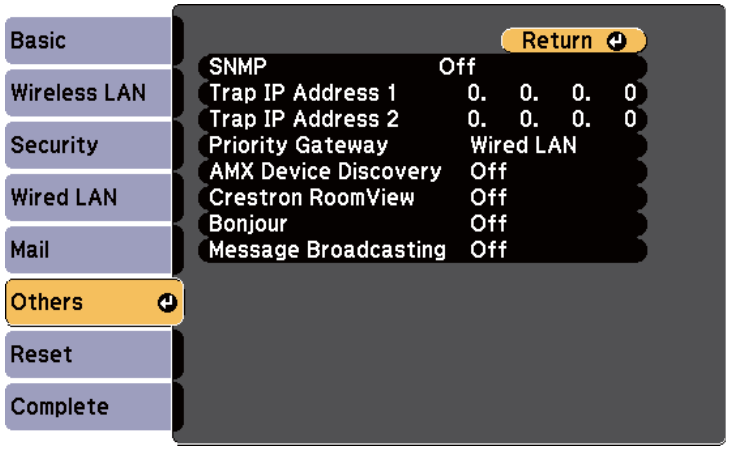
Related Links

- "Monitoring and Controlling the Projector" p.115
- "Setting Up Crestron RoomView Support" p.125
- "Controlling a Networked Projector Using Crestron RoomView" p.126
- "Projector Setup Settings - ECO Menu" p.150

Setting Up Crestron RoomView Support

To set up your projector for monitoring and control using a Crestron RoomView system, make sure your computer and projector are connected to the network. If you are connecting wirelessly, set up the projector using the Advanced network connection mode.

1. Press the [Menu] button on the control panel or remote control.
2. Select the **Network** menu and press [Enter].
3. Select **Network Configuration** and press [Enter].
4. Select the **Others** menu and press [Enter].



5. Set the **Crestron RoomView** setting to **On** to allow the projector to be detected.
6. When you have finished selecting settings, select **Complete** and follow the on-screen instructions to save your settings and exit the menus.

7 Turn off the projector, and then turn it on again to enable the setting.

Related Links

- "Crestron RoomView Support" p.125

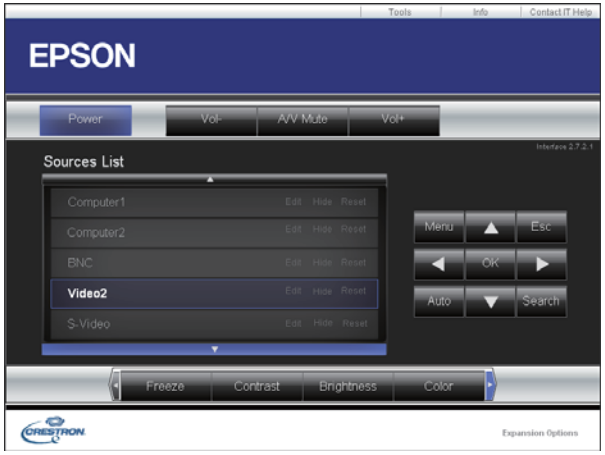
Controlling a Networked Projector Using Crestron RoomView

Once you have set up your projector to use Crestron RoomView, you can control and monitor projection using a compatible Web browser.

1 Start your Web browser on a computer connected to the network.

2 Type the projector's IP address into the browser's address box and press the computer's Enter key.

You see this screen:



3 Select the input source that you want to control in the **Sources List** box. You can scroll through available sources using the up and down arrows in the box.

4 To control projection remotely, click the on-screen buttons that correspond to the projector's remote control buttons. You can scroll through button options at the bottom of the screen.

These on-screen buttons do not directly correspond to the projector's remote control buttons:

- OK acts as the [Enter] button
- Menu displays the projector's menu

5 To view information about the projector, click the **Info** tab.

6 To change the projector, Crestron, and password settings, click the **Tools** tab, select settings on the displayed screen, and then click **Send**.

7 When you finish selecting settings, click **Exit** to exit the program.

Related Links

- "Crestron RoomView Support" p.125
- "Crestron RoomView Operation Window" p.126
- "Crestron RoomView Tools Window" p.127

Crestron RoomView Operation Window

Settings on the operation window let you control the projector and adjust the projection image.

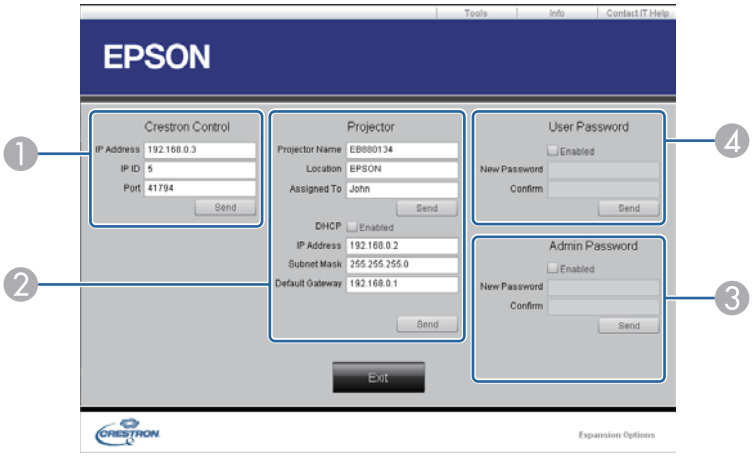
1	Power	Turns the projector on or off.
	Vol-/Vol+	Adjusts the volume.
	A/V Mute	Turns the video and audio on or off.
2	Switches to the image from the selected input source. To display input sources that are not shown in **Source List**, click (a) or (b) to scroll up or down. The current video signal input source is displayed in blue. You can change the source name if necessary.	
3	Freeze	Images are paused or released.
	Contrast	Adjusts the difference between light and shade in the images.
	Brightness	Adjusts the image brightness.
	Color	Adjusts the color saturation for the images.
	Sharpness	Adjusts the image sharpness.
	Zoom	Enlarges or reduces the image without changing the projection size. Click the arrow buttons to change the position of an enlarged image.
4	Arrow buttons	Performs the same operations as the arrow buttons on the remote control.
	OK	Performs the same operation as [Enter] on the remote control.
	Menu	Displays and closes the projector's menu.
	Auto	Optimizes **Tracking**, **Sync.**, and **Position** in the projector's **Signal** menu while projecting an analog RGB signal from Computer1 or Computer2 port.
	Search	Changes to the next input source that is sending an image.
	Esc	Performs the same operation as the [Esc] button on the remote control.
5	Contact IT Help	Displays the Help Desk window. Used to send messages to, and receive messages from, the administrator using Crestron RoomView Express.
	Info	Displays information on the projector that is currently connected.
	Tools	Changes settings in the projector that is currently connected.

Related Links

• "Controlling a Networked Projector Using Crestron RoomView" p.126

Crestron RoomView Tools Window

Settings on the Tools window let you customize various projector setup features.



1	Make settings for Crestron central controllers.	
2	Projector Name	Enter a name to differentiate the projector that is currently connected from other projectors on the network. (up to 16 alphanumeric characters)
	Location	Enter an installation location name for the projector that is currently connected on the network. (up to 32 alphanumeric characters and symbols)
	Assigned To	Enter a user name for the projector. (up to 32 alphanumeric characters and symbols)
	DHCP	Select to use DHCP. You cannot enter an IP address if DHCP is enabled.
	IP Address	Enter the IP address to assign to the currently connected projector.
	Subnet Mask	Enter a subnet mask for the currently connected projector.
	Default Gateway	Enter the gateway address for the currently connected projector.
	Send	Click to confirm the changes made to the Projector.

3	Enabled (Admin Password)	Select to require a password to open the Tools window.
	New Password	Enter the new password when changing the password to open the Tools window. (up to 26 alphanumeric characters)
	Confirm	Enter the same password as you entered in **New Password**. If the passwords are not the same, an error is displayed.
	Send	Click to confirm the changes made to the **Admin Password**.
4	Enabled (User Password)	Select to require a password to open the operation window on the computer.
	New Password	Enter the new password when changing the password to open the operation window. (up to 26 alphanumeric characters)
	Confirm	Enter the same password as you entered in **New Password**. If the passwords are not the same, an error is displayed.
	Send	Click to confirm the changes made to the **User Password**.

Related Links

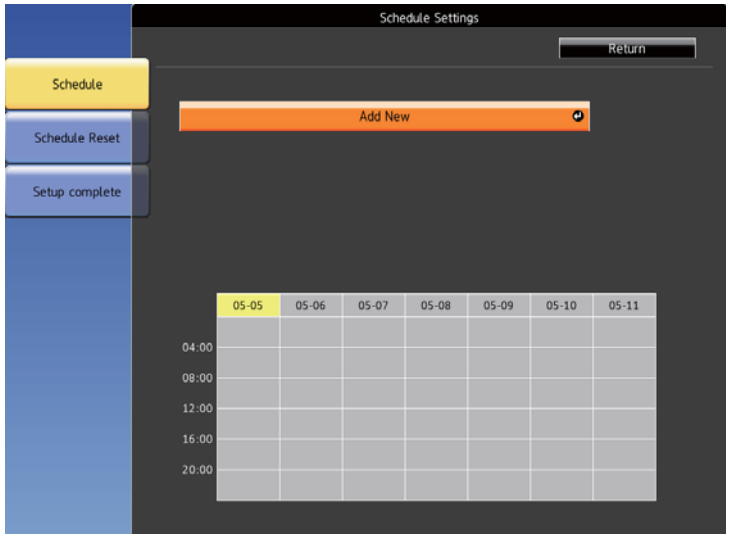
• "Controlling a Networked Projector Using Crestron RoomView" p.126

You can schedule up to 30 events to occur automatically on your projector, such as turning the projector on or off or switching the input source. The projector performs the selected events on the specified date and time in the schedule you set up.

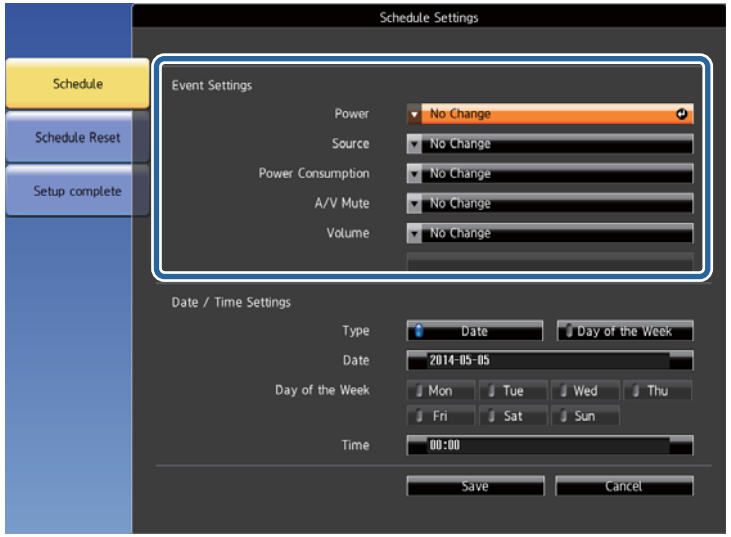
> **Warning**
>
> Do not place flammable objects in front of the lens. If you schedule the projector to turn on automatically, flammable objects in front of the lens could catch on a fire.

1. Set the date and time in the **Date & Time** menu.
   ☛ **Extended** > **Operation** > **Date & Time**
2. Press the [Menu] button on the control panel or remote control.
3. Select the **Extended** menu and press [Enter].

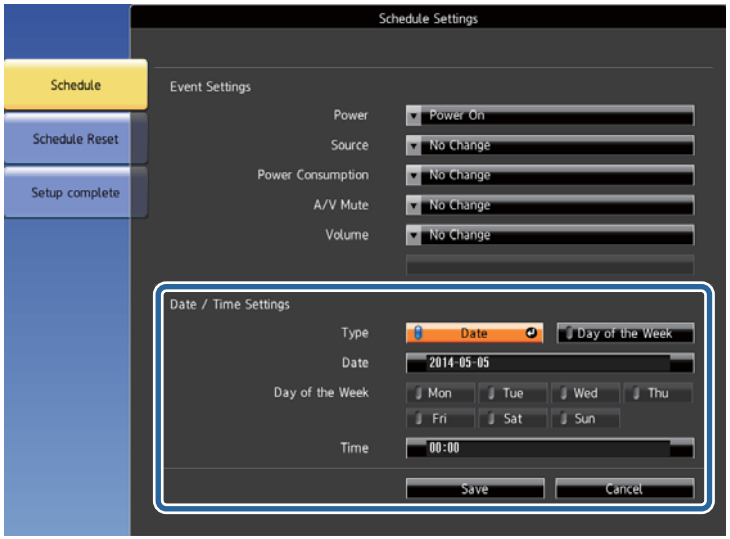
   If you set a **Time/Schedule Protection** password, turn off your **Time/Schedule Protection** password first.
4. Select **Schedule Settings** and press [Enter].
5. Select **Add New** and press [Enter].



6. Select the event details you want to perform.



7. Select the date and time at which you want the event to occur.



8 Select **Save** and press [Enter].

The scheduled events are displayed on the screen with icons indicating the event status.

❶ : valid schedule

: regular schedule

: invalid schedule

❷ : one time schedule

: regular schedule

: standby schedule (turns communication on or off during standby)

: invalid schedule

9 To edit a scheduled event, select the schedule and press [Esc].

10 Select an option from the menu displayed.

- **Enabled** or **Disabled** lets you enable or disable the selected event.
- **Edit** lets you change the event details or date and time.
- **Delete** lets you remove the scheduled event from a list.

11 Select **Complete**, then select **Yes**.

To delete all scheduled events, select **Schedule Reset**.

Related Links

- "Monitoring and Controlling the Projector" p.115
- "Setting the Date and Time" p.38
- "Setting a Password" p.93

Adjusting the Menu Settings

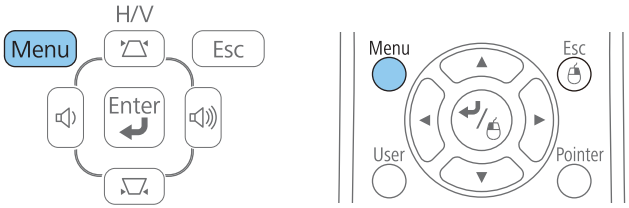
Follow the instructions in these sections to access the projector menu system and change projector settings.

Related Links

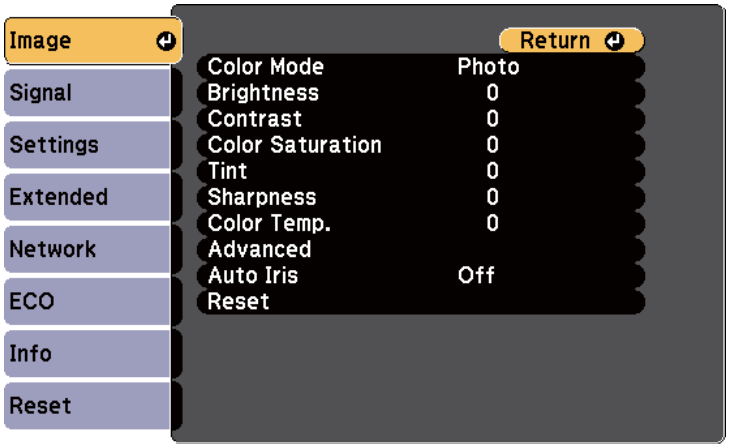
- "Using the Projector's Menus" p.132
- "Using the On-screen Keyboard" p.133
- "Image Quality Settings - Image Menu" p.134
- "Input Signal Settings - Signal Menu" p.135
- "Projector Feature Settings - Settings Menu" p.137
- "Projector Setup Settings - Extended Menu" p.139
- "Projector Network Settings - Network Menu" p.142
- "Projector Setup Settings - ECO Menu" p.150
- "Projector Information Display - Info Menu" p.151
- "Projector Reset Options - Reset Menu" p.153
- "Copy Menu Settings to Another Projector (Batch Setup)" p.154

You can use the projector's menus to adjust the settings that control how your projector works. The projector displays the menus on the screen.

1 Press the [Menu] button on the control panel or remote control.



You see the menu screen displaying the **Image** menu settings.



2 Press the up or down arrow buttons to move through the menus listed on the left. The settings for each menu are displayed on the right.

> The available settings depend on the current input source.

3 To change settings in the displayed menu, press [Enter].

4 Press the up or down arrow button to move through the settings.

5 Change the settings using the buttons listed on the bottom of the menu screens.

6 To return all the menu settings to their default values, select **Reset**.

7 When you finish changing settings on a menu, press [Esc].

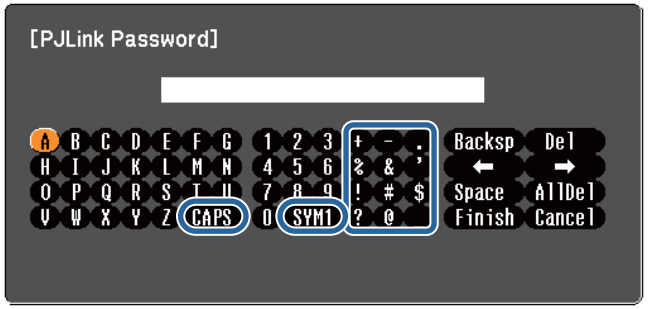
8 Press [Menu] or [Esc] to exit the menus.

Related Links

- "Adjusting the Menu Settings" p.131

The on-screen keyboard is displayed when you need to enter numbers and characters.

1 Use the arrow buttons on the control panel or remote control to highlight the number or character you want to enter and press the [Enter] button.



Each time you select the **CAPS** key, the characters change between upper case and lower case. Each time you select the **SYM1/2** key, the symbols enclosed by the frame change.

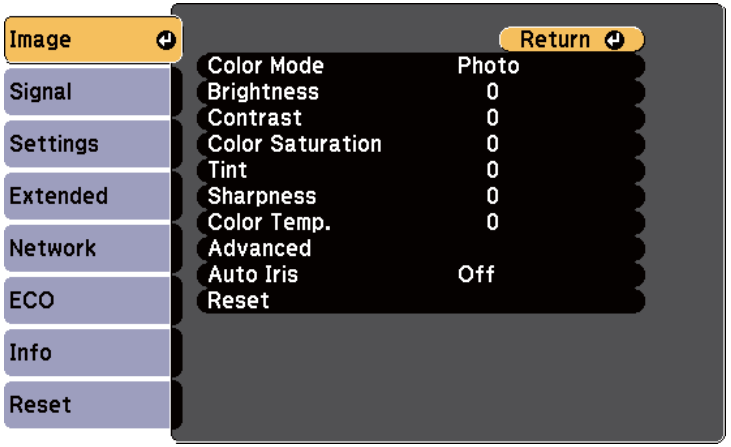
2 After entering the text, select **Finish** on the keyboard to confirm your entries. Select **Cancel** to cancel entering text.

You can select projector settings and control projection over a network using a Web browser from your computer. Some symbols cannot be entered using the on-screen keyboard. Use your Web browser to enter the text.

Related Links

- "Adjusting the Menu Settings" p.131
- "Controlling a Networked Projector Using a Web Browser" p.117

Settings on the **Image** menu let you adjust the quality of your image for the input source you are currently using. The available settings depend on the currently selected input source.



To change settings for an input source, make sure the source is connected and select that source.

Setting	Options	Description
Color Mode	See the list of available Color Modes	Adjusts the vividness of image colors for various image types and environments.
Brightness	Varying levels available	Lightens or darkens the overall image.
Contrast	Varying levels available	Adjusts the difference between light and dark areas of the image.
Color Saturation	Varying levels available	Adjusts the intensity of the image colors.
Tint	Varying levels available	Adjusts the balance of green to magenta tones in the image.
Sharpness	Varying levels available	Adjusts the sharpness or softness of image details.
Color Temp.	5000K to 10000K (for sRGB or DICOM SIM color mode) –3 to 6 (for other color modes)	Sets the color tone based on color temperature. The image is tinted blue when a high value is selected and tinted red when a low value is selected.
Advanced	Gamma RGB RGBCMY	Adjusts the gamma levels and intensity of individual hues in the image. **Gamma**: adjusts the coloring by selecting one of the gamma correction values, or referring to the projected image or a gamma graph. **RGB**: adjusts the individual R (red), G (green), and B (blue) components of the offset and gain. **RGBCMY**: adjusts the hue, saturation, and brightness of each color R (red), G (green), B (blue), C (cyan), M (magenta), Y (yellow) individually.
Auto Iris	Off Normal High Speed	Adjusts the projected luminance based on the image brightness when the Color Mode is set to **Dynamic** or **Theatre**.
Reset	—	Resets all adjustment values on the **Image** menu to their default settings.

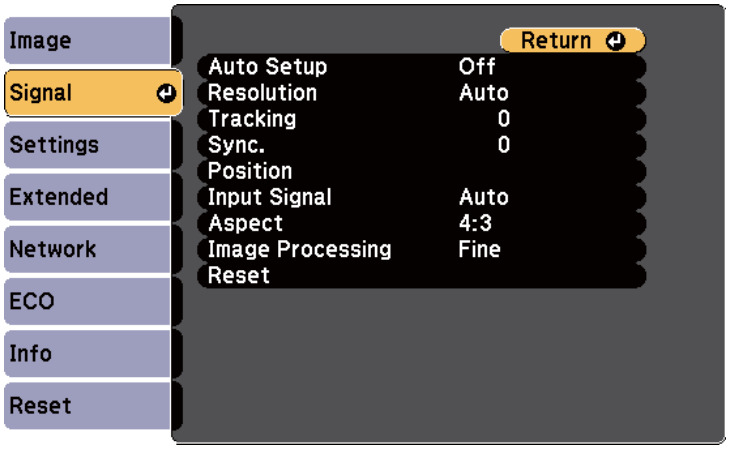
The **Brightness** setting does not affect lamp brightness. To change the lamp brightness mode, use the **Power Consumption** setting in the projector's **ECO** menu.

Related Links

- "Adjusting the Menu Settings" p.131
- "Available Color Modes" p.61

Normally the projector automatically detects and optimizes the input signal settings. If you need to customize the settings, you can use the **Signal** menu. The available settings depend on the currently selected input source.

You cannot select settings on the **Signal** menu when the current input source is USB Display, USB, LAN, or Screen Mirroring.



You can restore the default settings of the **Position**, **Tracking**, and **Sync.** settings by pressing the [Auto] button on the remote control.

To change settings for an input source, make sure the source is connected and select that source.

Setting	Options	Description
Auto Setup	On Off	Automatically optimizes computer image quality (when **On**).
Resolution	Auto Normal Wide	Sets the input signal resolution if not detected automatically using the **Auto** option.
Tracking	Varying levels available	Adjusts the signal to eliminate vertical stripes in computer images.
Sync.	Varying levels available	Adjusts the signal to eliminate fuzziness or flickering in computer images.
Position	Up Down Left Right	Adjusts the image location on the screen.
Progressive (For interlaced signal (480i/576i/1080i) input)	Off Video Film/Auto	Sets whether or not to convert interlaced-to-progressive signals for certain video image types. **Off**: for fast-moving video images. **Video**: for most video images. **Film/Auto**: for movies, computer graphics, and animation.
Noise Reduction	Off NR1 NR2	Reduces flickering in analog images in two levels.
HDMI Video Range	Auto Normal Expanded	Sets the video range to match the setting of the device connected to the HDMI input port. **Auto**: detects the video range automatically. **Normal**: normally for images from a device other than a computer; can also be selected if the black areas of the image are too bright. **Expanded**: normally for images from a computer; can also be selected if the image is too dark.

Setting	Options	Description
Input Signal	Auto RGB Component	Specifies the signal type from input sources connected to computer ports. **Auto**: detects signals automatically. **RGB**: corrects color for computer/RGB video inputs. **Component**: corrects color for component video inputs.
Video Signal	Auto NTSC NTSC4.43 PAL M-PAL N-PAL PAL60 SECAM	Specifies the signal type from the input sources connected to the video ports. **Auto**: detects signals automatically. If interference appears or no image appears when set to **Auto**, select the appropriate signal according to the connected equipment.
Aspect	See the list of available aspect ratios	Sets the aspect ratio (width-to-height ratio) for the selected input source.
Overscan (For component video and RGB video signal input)	Auto Off 4% 8%	Changes the projected image ratio to make the edges visible by a selectable percentage or automatically.
Image Processing	Fine Fast	Adjusts image processing speed/quality. **Fast**: increases image processing speed. **Fine**: increases image quality.
Reset	—	Resets all adjustment values on the **Signal** menu to their default settings, except for **Input Signal** and **Image Processing**.

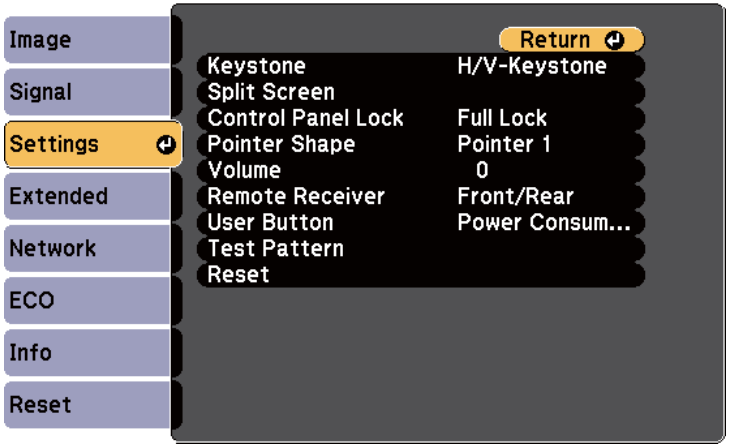
You cannot select the **Noise Reduction** setting when the following are being input.

- The **Image Processing** setting is set to **Fast**.
- The **Progressive** setting is set to **Off**.
- A digital RGB signal is being input.
- An interlaced signal (480i/576i/1080i) is being input.

Related Links

- "Adjusting the Menu Settings" p.131
- "Available Image Aspect Ratios" p.59

Options on the **Settings** menu let you customize various projector features.



Setting	Options	Description
Keystone	H/V-Keystone Quick Corner	Adjusts image shape to rectangular (horizontally and vertically). **H/V-Keystone**: select to manually correct horizontal and vertical sides, or turn automatic correction on or off. **Quick Corner**: select to correct image shape and alignment using an on-screen display.
Split Screen	Screen Size Source Swap Screens Audio Source	Divides the viewing area horizontally and displays two images side-by-side (press [Esc] to cancel split screen display).
Control Panel Lock	Full Lock Partial Lock Off	Controls projector button locking to secure the projector: **Full Lock**: locks all buttons. **Partial Lock**: locks all buttons except the power button. **Off**: no buttons locked.

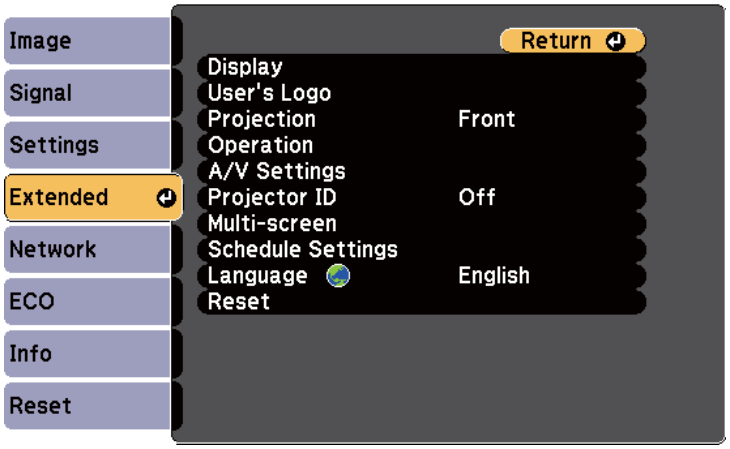
Setting	Options	Description
Pointer Shape	Pointer 1: Pointer 2: Pointer 3:	Changes the shape of the remote control pointer.
Volume	Varying levels available	Adjusts the volume of projector's speaker system or external speakers. Setting values are saved for each source.
Remote Receiver	Front/Rear Front Rear Off	Limits reception of remote control signals by the selected receiver; **Off** turns off all receivers.
User Button	Power Consumption Info Progressive Test Pattern Multi-screen Resolution	Assigns a menu option to the [User] button on the remote control for one-touch access.
Test Pattern	—	Displays a test pattern to assist in focusing and zooming the image and correcting image shape (press the [Esc] button to cancel pattern display). **Attention** If a pattern is displayed for a long time, a residual image may be visible in projected images.

Setting	Options	Description
Reset	—	Resets all adjustment values on the **Settings** menu to their default settings, except for **User Button**.

Related Links

- "Adjusting the Menu Settings" p.131

Settings on the **Extended** menu let you customize various projector setup features.



Setting	Options	Description
Display	Messages Display Background Startup Screen A/V Mute	Selects various display options: **Messages**: set to **On** to display messages such as input source name, color mode name, aspect ratio, no signal message, or high temperature warning on your projected image. **Display Background**: sets the screen color or logo to display when no signal is received. **Startup Screen**: set to **On** to display the user's logo when projection starts. **A/V Mute**: sets the screen color or logo to display when A/V Mute is turned on.
User's Logo	—	Creates a screen that the projector displays to identify itself and enhance security.
Projection	Front Front/Ceiling Rear Rear/Ceiling	Selects the way the projector faces the screen so the image is oriented correctly.
Operation	Direct Power On High Altitude Mode Startup Source Search Auto Power On Date & Time	Selects various operation options: **Direct Power On**: lets you turn on the projector without pressing the power button. **High Altitude Mode**: regulates the projector's operating temperature at altitudes above 1500 m. **Startup Source Search**: set to **Off** to project images from the same source as the last time the projector was used. **Auto Power On**: set to **Computer1** to start projecting automatically from the computer image source when the projector is in standby mode. (Set **Standby Mode** to **Communication On** in the projector's **ECO** menu first.) **Date & Time**: sets the projector's date and time.
A/V Settings	A/V Output Audio Output HDMI1 Audio Output HDMI2 Audio Output	Selects various audio and video output settings: **A/V Output**: set to **Always On** to output audio and images to external devices when the projector is in standby mode. (Set **Standby Mode** to **Communication On** in the projector's **ECO** menu first.) **Audio Output/HDMI1 Audio Output/HDMI2 Audio Output**: specifies the audio input source if not detected automatically using the **Auto** or **HDMI** option.

Setting	Options	Description
Projector ID	Off 1 through 9	Assigns an ID for the projector when you use multiple projectors.
Multi-screen	Adjustment Level (1 to 5) Brightness Correct. Color Correct. (G/R) Color Correct. (B/Y)	Matches display qualities and colors of multiple projectors by selecting color adjustments at each **Adjustment Level**.
Schedule Settings	To Schedule Settings menu	Schedules projector events to occur automatically at selected dates and times.
Language	Various languages available	Select the language for projector menu and message displays.
Reset	—	Resets all adjustment values on the **Extended** menu to their default settings, except for **Projection**, **High Altitude Mode**, **Startup Source Search**, **A/V Output**, **Projector ID**, **Multi-screen**, **Language**, and **Schedule Settings**.

When you set **User's Logo Protection** to **On** in the **Password Protection** screen, you cannot change settings related to user's logo display (**Display Background**, **Startup Screen**, **A/V Mute**, and **Display**). Set **User's Logo Protection** to **Off** first.

Related Links

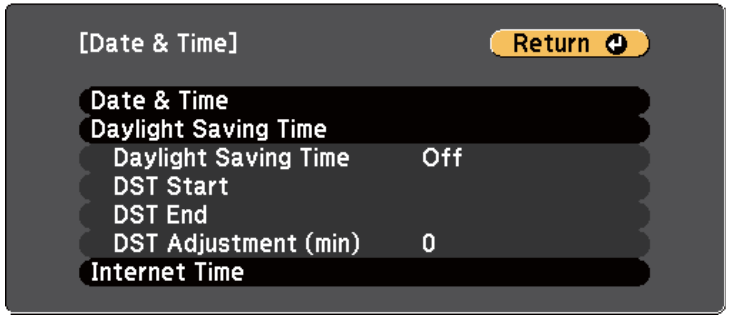
- "Adjusting the Menu Settings" p.131
- "Extended Menu - Date & Time Settings" p.140
- "Selecting Password Security Types" p.94

Extended Menu - Date & Time Settings

Settings on the Date & Time screen let you set the date and time.

☛ **Extended** > **Operation** > **Date & Time**

When you set **Time/Schedule Protection** to **On** in the **Password Protection** screen, you cannot change the **Date & Time** settings. Set **Time/Schedule Protection** to **Off** first.



Setting	Options	Description
Date & Time	Date Time Time Difference (UTC)	**Date**: set today's date in the projector. **Time**: set the current time in the projector. **Time Difference (UTC)**: set the time difference from Coordinated Universal Time.

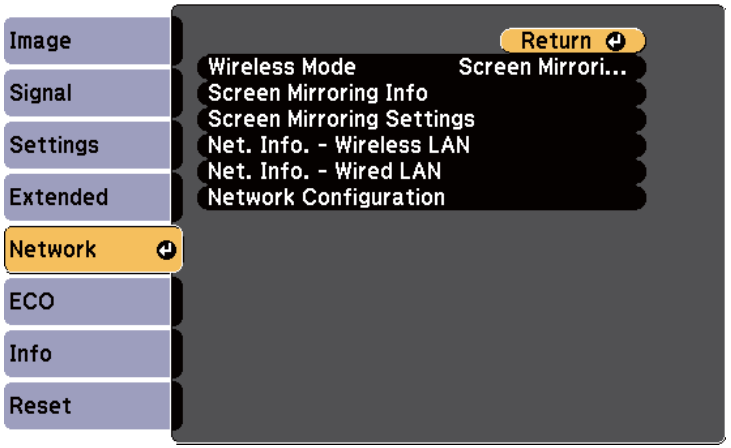
Setting	Options	Description
Daylight Saving Time	Daylight Saving Time DST Start DST End DST Adjustment (min)	**Daylight Saving Time**: set to **On** to activate daylight saving time. **DST Start**: set the date and time to start daylight saving time. **DST End**: set the date and time to end daylight saving time. **DST Adjustment (min)**: adjust the time difference between standard time and daylight saving time.
Use Internet Time	Use Internet Time Internet Time Server	**Use Internet Time**: set to **On** to update the time automatically through an Internet time server. **Internet Time Server**: enter the IP address for an Internet time server.

Related Links

- "Projector Setup Settings - Extended Menu" p.139
- "Selecting Password Security Types" p.94

Settings on the **Network** menu let you view network information and set up the projector for monitoring and control over a network.

When you set **Network Protection** to **On** in the **Password Protection** screen, you cannot change the network settings. Set **Network Protection** to **Off** first.



Setting	Options	Description
Wireless Mode (EB-1985WU/ 1975W/1970W)	**EB-1985WU/1975W**: Screen Mirroring On Wireless LAN On Both Settings Off **EB-1970W**: Wireless LAN On Off	Configures your wireless LAN settings. Select **Screen Mirroring On** to project with the Screen Mirroring features. Select **Wireless LAN On** when connecting the projector and a computer over a wireless LAN. If you do not want to connect via wireless LAN, turn it off to prevent unauthorized access by others.
Screen Mirroring Info (EB-1985WU/ 1975W)	Display Name MAC Address Region Code Version	Displays Screen Mirroring status and details when you have set **Wireless Mode** to **Screen Mirroring On**.
Screen Mirroring Settings (EB-1985WU/ 1975W)	To Screen Mirroring Settings menu	Configures your Screen Mirroring settings.
Net. Info. - Wireless LAN (EB-1985WU/ 1975W/1970W)	Connection Mode Wireless LAN Sys. Antenna Level Projector Name SSID DHCP IP Address Subnet Mask Gateway Address MAC Address Region Code	Displays wireless network status and details when you have selected **Wireless Mode** to **Wireless LAN On**.
Net. Info. - Wired LAN	Projector Name DHCP IP Address Subnet Mask Gateway Address MAC Address	Displays wired network status and details.
Network Configuration	To additional network menus	Configures your network settings.

Once you have connected your projector to your network, you can select projector settings and control projection using a compatible Web browser. This lets you access the projector remotely.

Related Links

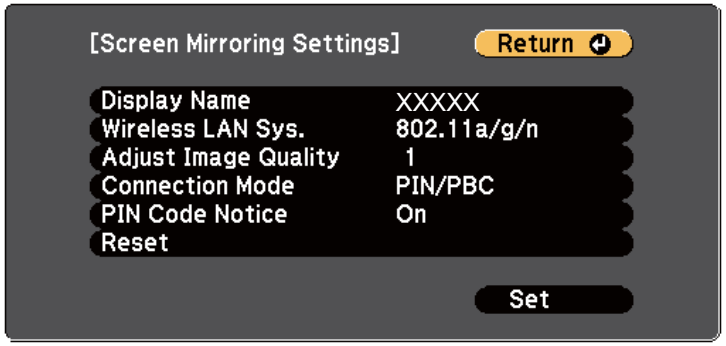
- "Adjusting the Menu Settings" p.131
- "Network Menu - Screen Mirroring Settings" p.143

- "Network Menu - Basic Menu" p.143
- "Network Menu - Wireless LAN Menu" p.144
- "Network Menu - Security Menu" p.145
- "Network Menu - Wired LAN Menu" p.146
- "Network Menu - Mail Menu" p.147
- "Network Menu - Others Menu" p.148
- "Network Menu - Reset Menu" p.148
- "Selecting Password Security Types" p.94

Network Menu - Screen Mirroring Settings

Settings on the **Screen Mirroring Settings** menu let you select the Screen Mirroring settings (EB-1985WU/EB-1975W).

☛ **Network** > **Network Configuration** > **Screen Mirroring Settings**



Setting	Options	Description
Display Name	Up to 32 alphanumeric characters	Enter a name to identify the projector when searching for the projector using the screen mirroring feature.
Wireless LAN Sys.	802.11a/g/n 802.11g/n	Sets the communication method between the projector and the mobile device.
Adjust Image Quality	1 2 3 4	Adjusts the screen mirroring speed/quality. 1: increases image quality. 4: increases processing speed.
Connection Mode	PIN/PBC PIN	Selects the type of WPS (Wi-Fi Protected Setup) when you connect to the network wirelessly. Select **PIN** to improve the connection security. If your mobile device supports only the PBC connection, select **PIN/PBC**.
PIN Code Notice	On Off	Set to **On** to display the eight-digit PIN code on the projected image when projecting input sources other than Screen Mirroring.
Reset	—	Resets all adjustment values on the **Screen Mirroring Settings** menu to their default settings.

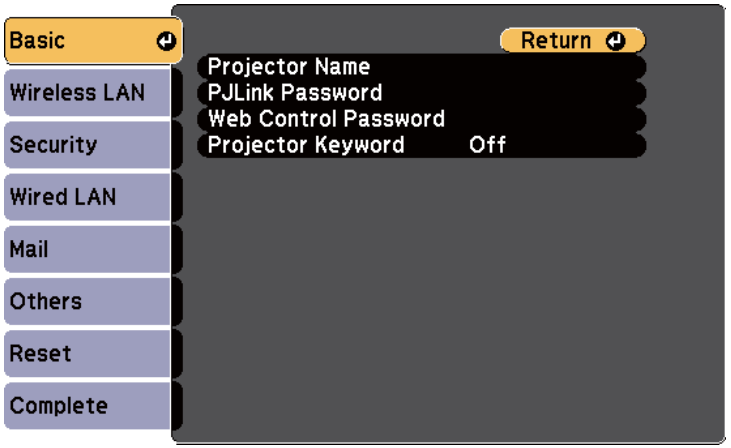
Related Links

- "Projector Network Settings - Network Menu" p.142

Network Menu - Basic Menu

Settings on the **Basic** menu let you select the basic network settings.

☛ **Network** > **Network Configuration** > **Basic**



Setting	Options	Description
Projector Name	Up to 16 alphanumeric characters	Enter a name to identify the projector over the network.
PJLink Password	Up to 32 alphanumeric characters	Enter a password for using the PJLink protocol for projector control.
Web Control Password	Up to 8 alphanumeric characters	Enter a password for accessing the projector over the Web. (Default user name is EPSONWEB; default password is admin.)
Projector Keyword	On Off	Set to **On** to enable a security password to prevent access to the projector by anyone not in the room with it. You must enter a displayed, randomized keyword from a computer using the EasyMP Network Projection and EasyMP Multi PC Projection software to access the projector.

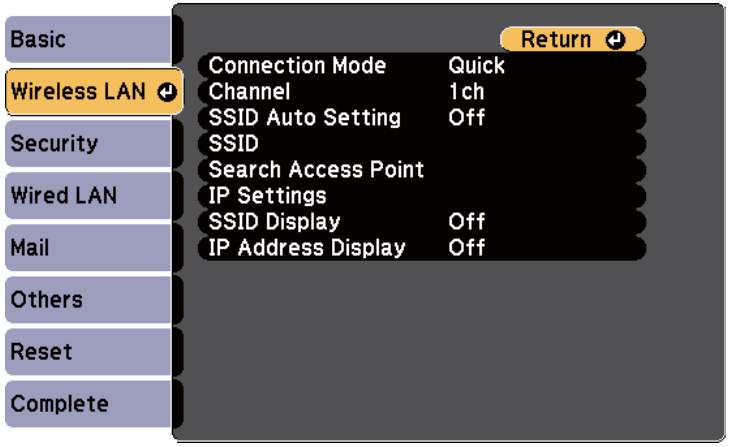
Related Links

• "Projector Network Settings - Network Menu" p.142

Network Menu - Wireless LAN Menu

Settings on **Wireless LAN** menu let you select the wireless LAN settings (EB-1985WU/EB-1975W/EB-1970W).

☛ **Network** > **Network Configuration** > **Wireless LAN**



Setting	Options	Description
Connection Mode	Quick Advanced	Select the type of wireless connection: **Quick**: lets you quickly connect to one computer. Use EasyMP Network Projection to connect in Quick connection mode. The projector becomes an easy access point if you set the **SSID Auto Setting** to **On**. Otherwise, the connection is established in Adhoc mode. **Advanced**: lets you connect to multiple computers over a wireless network access point. The connection is established in infrastructure mode.

Setting	Options	Description
Channel	1ch 6ch 11ch	In **Quick** connection mode, selects the frequency band (channel) used by the wireless LAN.
SSID Auto Setting	On Off	Turns on automatic SSID generation in **Quick** connection mode; set to **On** to speed up the projector search, and set to **Off** when connecting to multiple projectors at the same time.
SSID	Up to 32 alphanumeric characters	Sets the SSID (network name) of the wireless LAN system the projector is connecting to. Set SSID to blank or **ANY** to establish an ANY connection.
Search Access Point	To Search View	Search for available wireless network access points in Advanced connection mode. Depending on the access point settings, they may not be displayed in the list. You must set security separately.
IP Settings	DHCP IP Address Subnet Mask Gateway Address	**DHCP**: set to **On** if your network assigns addresses automatically; set to **Off** to manually enter the network's **IP Address**, **Subnet Mask**, and **Gateway Address** using 0 to 255 for each address field. Do not use these addresses: 0.0.0.0, 127.x.x.x or 224.0.0.0 through 255.255.255.255 (where x is a number from 0 to 255) for IP Address and Gateway Address and 0.0.0.0 and 255.255.255.255 for Subnet Mask.
SSID Display	On Off	Select whether to display the SSID on the network standby screen.

Setting	Options	Description
IP Address Display	On Off	Select whether to display the IP address on the network standby screen.

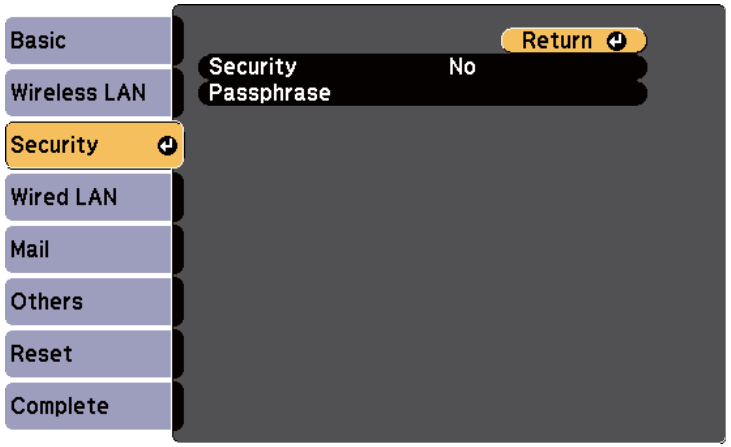
Related Links

- "Projector Network Settings - Network Menu" p.142

Network Menu - Security Menu

Settings on the **Security** menu let you select the type of security and security settings that match the network you are connecting the projector to (EB-1985WU/EB-1975W/EB-1970W).

☛ **Network** > **Network Configuration** > **Security**



Setting	Options	Description
Security	No WPA2-PSK WPA/WPA2-PSK	Selects the type of security used on the wireless network. When setting security, follow the instructions from the administrator of the network system you want to connect to.
Passphrase	Various passphrases from 8 to 32 characters	For **WPA2-PSK** and **WPA/WPA2-PSK** security, selects the pre-shared passphrase used on the network. When the passphrase is entered and the [Enter] button is pressed, the value is set and displayed as an asterisk (*). When connecting using EasyMP Network Projection, you do not need to input the passphrase on the computer if the passphrase has not been changed from the default. We recommend changing the passphrase periodically for security. If the network settings are initialized, it returns to the initial passphrase.

Type of security

When the optional wireless LAN module is installed and being used in Advanced connection mode, it is strongly recommended that you set security.

WPA is an encryption standard that improves the security for wireless networks. The projector supports TKIP and AES encryption methods.

WPA also includes user authentication functions. WPA authentication provides two methods: using an authentication server, or authenticating between a computer and an access point without using a server. This projector supports the latter method, without a server.

For setting details, follow the instructions from your network administrator.

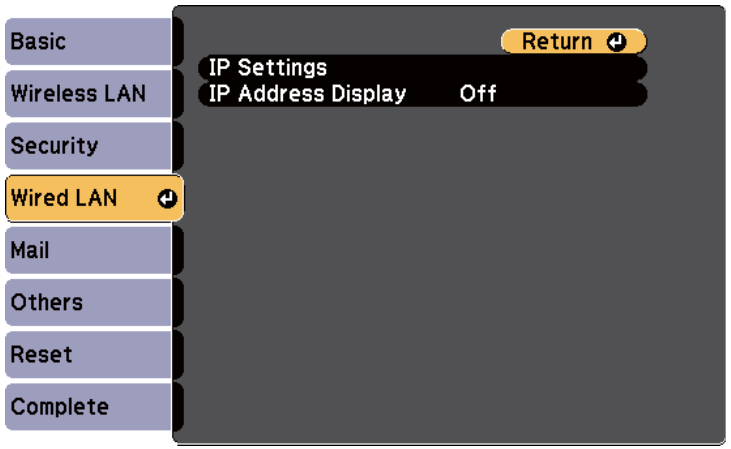
Related Links

- "Projector Network Settings - Network Menu" p.142

Network Menu - Wired LAN Menu

Settings on the **Wired LAN** menu let you select the wired LAN settings.

☛ **Network** > **Network Configuration** > **Wired LAN**



Setting	Options	Description
IP Settings	DHCP IP Address Subnet Mask Gateway Address	**DHCP**: set to **On** if your network assigns addresses automatically; set to **Off** to manually enter the network's **IP Address**, **Subnet Mask**, and **Gateway Address** using 0 to 255 for each address field. Do not use these addresses: 0.0.0.0, 127.x.x.x or 224.0.0.0 through 255.255.255.255 (where x is a number from 0 to 255) for IP Address and Gateway Address and 0.0.0.0 and 255.255.255.255 for Subnet Mask.
IP Address Display	On Off	Select whether to display the IP address on the network standby screen.

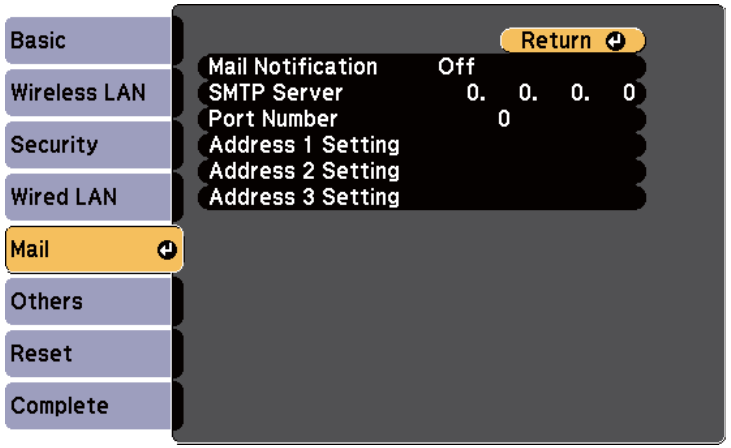
Related Links

• "Projector Network Settings - Network Menu" p.142

Network Menu - Mail Menu

Settings on the **Mail** menu let you receive an email notification if a problem or warning occurs in the projector.

☛ **Network** > **Network Configuration** > **Mail**



Setting	Options	Description
Mail Notification	On Off	Set to **On** to send an email to the preset addresses when a problem or warning occurs with a projector.
SMTP Server	IP address	Enter the IP address for the projector's SMTP server using 0 to 255 for each address field. Do not use these addresses: 127.x.x.x or 224.0.0.0 through 255.255.255.255 (where x is a number from 0 to 255).
Port Number	1 to 65535 (default is 25)	Select a number for the SMTP server Port Number.
Address 1 Setting Address 2 Setting Address 3 Setting	Up to 32 alphanumeric characters	Enter the e-mail address, and select the alerts you want to receive. Repeat for up to 3 addresses.

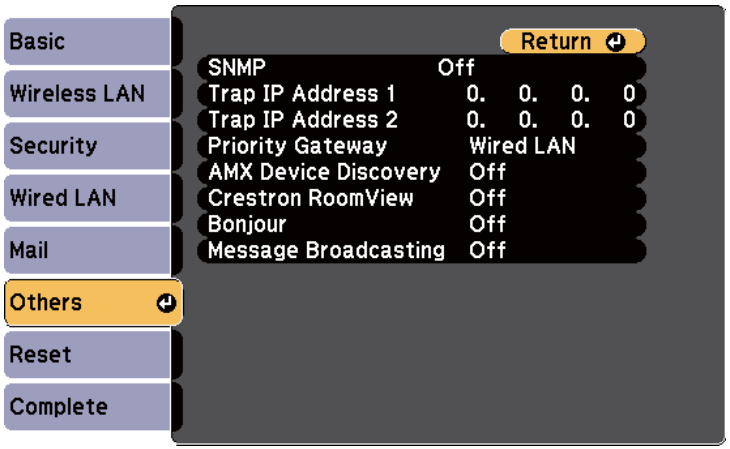
Related Links

• "Projector Network Settings - Network Menu" p.142

Network Menu - Others Menu

Settings on the **Others** menu let you select other network settings.

☛ **Network** > **Network Configuration** > **Others**



Setting	Options	Description
SNMP	On Off	Set to **On** to monitor the projector using SNMP. To monitor the projector, you need to install the SNMP manager program on your computer. SNMP should be managed by a network administrator. The default value is **Off**.
Trap IP Address 1 Trap IP Address 2	IP address	Enter up to 2 IP addresses to receive SNMP notifications, using 0 to 255 for each address field. Do not use these addresses: 127.x.x.x or 224.0.0.0 through 255.255.255.255 (where x is a number from 0 to 255).
Priority Gateway	Wired LAN Wireless LAN	You can set the priority gateway.
AMX Device Discovery	On Off	Set to **On** when you want to allow the projector to be detected by AMX Device Discovery.
Crestron RoomView	On Off	Set to **On** only when monitoring or controlling the projector over the network using Crestron RoomView. Enabling Crestron RoomView disables the Epson Message Broadcasting feature in the EasyMP Monitor software.
Bonjour	On Off	Set to **On** when connecting to the network using Bonjour. See Apple's Web site for more information on the Bonjour service. http://www.apple.com/
Message Broadcasting	On Off	Set to **On** to enable EPSON Message Broadcasting feature. You can download Message Broadcasting and its Operation Guide from the following Web site. http://www.epson.com

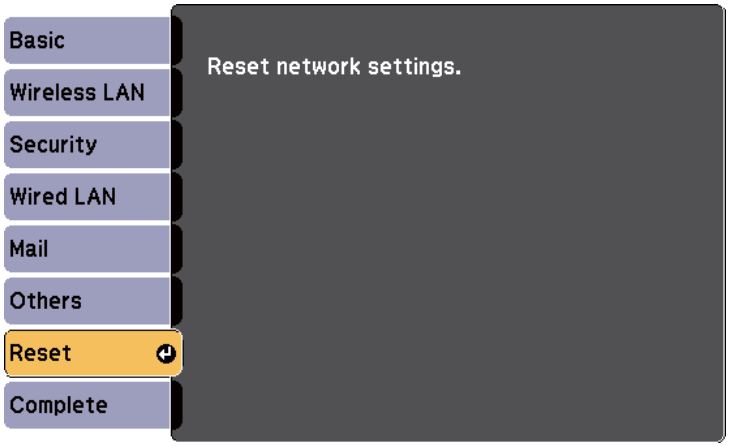
Related Links

- "Projector Network Settings - Network Menu" p.142
- "Crestron RoomView Support" p.125

Network Menu - Reset Menu

Settings on the **Reset** menu let you reset all of the network settings.

☛ **Network** > **Network Configuration** > **Reset**

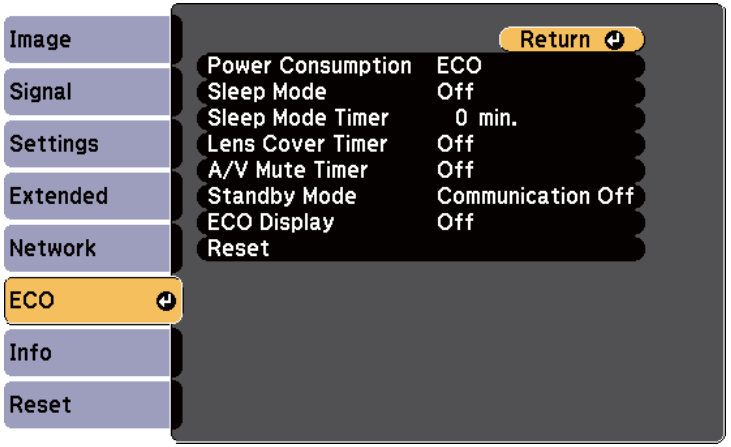


Setting	Options	Description
Reset network settings.	Yes No	Select **Yes** to reset all network settings.

Related Links

- "Projector Network Settings - Network Menu" p.142

Settings on the **ECO** menu let you customize projector functions to save power. When you select a power-saving setting, a leaf icon appears next to the menu item.

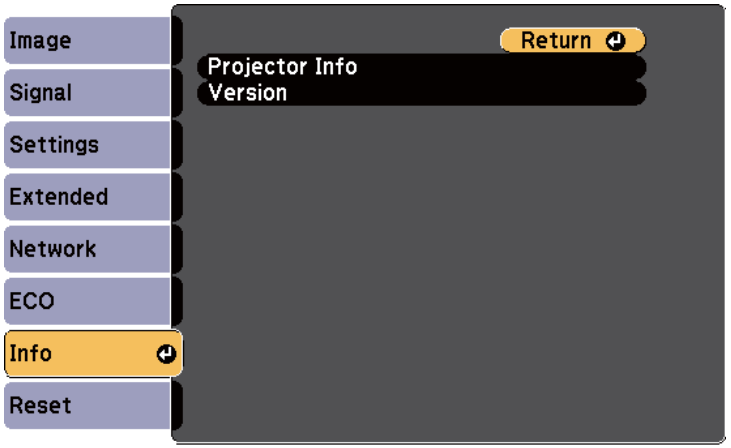


Setting	Options	Description
Power Consumption	Auto Normal ECO	Selects the brightness mode of the projector lamp: **Auto**: sets the projector to sense the optimum lamp brightness needed and adjusts the lamp's brightness accordingly. **Normal**: sets maximum lamp brightness. **ECO**: reduces lamp brightness and fan noise, and saves power and lamp life. You cannot select settings when you use your projector at high altitude or in locations subject to high temperatures.
Sleep Mode	On Off	Automatically turns off the projector after an interval of inactivity (when **On**).
Sleep Mode Timer	1 to 30 minutes	Sets the interval for Sleep Mode.
Lens Cover Timer	On Off	Automatically turns off the projector after 30 minutes if the lens cover is closed (when **On**).
A/V Mute Timer	On Off	Automatically turns off the projector after 30 minutes if **A/V Mute** is enabled (when **On**).
Standby Mode	Communication On Communication Off	**Communication On** indicates that the projector can be monitored over a network when the projector is in standby mode. Enable this setting to allow the following operations to occur when the projector is in standby mode: • Monitor and control the projector over a network • Output audio and video to an external device (**A/V Output** must be set to **Always On**) ☛ **Extended** > **A/V Settings** > **A/V Output**
ECO Display	On Off	Displays a leaf icon in the bottom left corner of the projected screen to indicate the power-saving status when the lamp brightness changes (when **On**).
Reset	—	Resets all adjustment values on the **ECO** menu to their default settings, except for **Standby Mode**.

Related Links

• "Adjusting the Menu Settings" p.131
• "Projector Setup Settings - Extended Menu" p.139

You can display information about the projector and version by viewing the **Info** menu. However, you cannot change any settings in the menu.



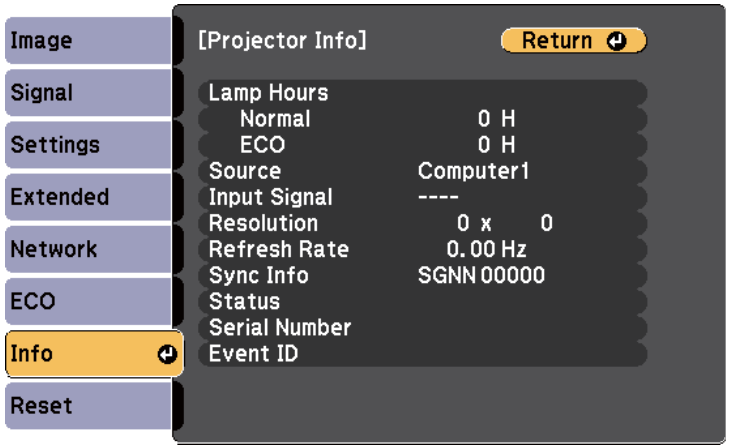
Information item	Description
Projector Info	Displays the projector information.
Version	Displays the **Main**, **Video**, and **Video2** firmware version.

Related Links

- "Adjusting the Menu Settings" p.131
- "Info Menu - Projector Info Menu" p.151

Info Menu - Projector Info Menu

You can display information about the projector and input sources by viewing the **Projector Info** menu in the projector's **Info** menu.



The available settings depend on the current input source. The lamp usage timer does not register any hours until you have used the lamp for at least 10 hours.

Information item	Description
Lamp Hours	Displays the number of hours (**H**) the lamp has been used in **Normal** and **ECO**Power Consumption modes; if the information is displayed in yellow, obtain a genuine Epson replacement lamp soon.
Source	Displays the name of the port to which the current input source is connected.
Input Signal	Displays the input signal setting of the current input source.
Resolution	Displays the resolution of the current input source.
Video Signal	Displays the video signal format of the current input source.
Refresh Rate	Displays the refresh rate of the current input source.
Sync Info	Displays information that may be needed by a service technician.

Information item	Description
Status	Displays information about projector problems that may be needed by a service technician.
Serial Number	Displays the projector's serial number.
Event ID	Displays the Event ID number corresponding to a specific projector problem; see the list of Event ID codes.

Related Links

- "Projector Information Display - Info Menu" p.151
- "Event ID Code List" p.152

Event ID Code List

If the **Event ID** option on the **Info** menu displays a code number, check this list of Event ID codes for the solution to the projector problem associated with the code.

If you cannot resolve the problem, contact your network administrator or Epson for technical support.

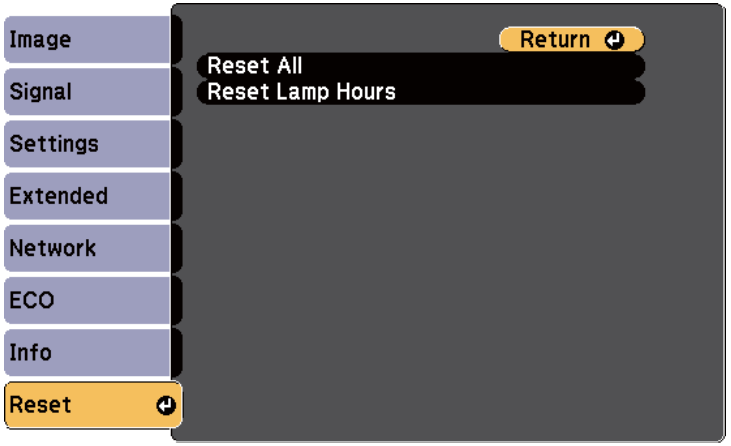
Event ID code	Cause and solution
0432	The network software did not start. Turn the projector off and then on again.
0435	
0434	Unstable network communication. Check the network communication status, wait a few moments, and try connecting to the network again.
0481	
0482	
0485	
0433	Cannot display the transferred images. Restart the network software.
0484	Communication with computer was disconnected. Restart the network software.
0483	The network software quit unexpectedly. Check the network communication status, then turn the projector off and then on again.
04FE	
0479	A projector system error has occurred. Turn the projector off and then on again.
04FF	
0891	Cannot find an access point with the same SSID. Set your computer, access point, and projector to the same SSID.
0892	The WPA/WPA2 authentication type does not match. Make sure the wireless network security settings are correct.
0893	The TKIP/AES encryption type does not match. Make sure the wireless network security settings are correct.
0894	Communication with an unauthorized access point was disconnected. Contact your network administrator.
0898	Failed to acquire DHCP. Make sure the DHCP server is operating correctly. If you are not using DHCP, set the **DHCP** setting to **Off** in the projector's **Network** menu. ☛ **Network** > **Wireless LAN** > **IP Settings** > **DHCP** ☛ **Network** > **Wired LAN** > **IP Settings** > **DHCP**
0899	Other communication errors.

Related Links

- "Info Menu - Projector Info Menu" p.151

You can reset most of the projector settings to their default values using the **Reset All** option on the **Reset** menu.

You can also reset the projector's lamp usage timer to zero when you replace the lamp using the **Reset Lamp Hours** option.



You cannot reset the following settings using the **Reset All** option:

- Input Signal
- User's Logo
- Multi-screen
- Schedule Settings
- Language
- Date & Time
- **Network** menu items
- Lamp Hours
- Password

Related Links

- "Adjusting the Menu Settings" p.131

After selecting the projector's menu settings for one projector, you can save the settings to a USB flash drive or a computer connected with a USB cable to copy settings to another projector, as long as they are the same model.

Menu settings such as the following are not copied to the other projector.

- **Network** menu settings (except for the **Mail** menu and the **Others** menu)
- **Lamp Hours** and **Status** from the **Info** menu

Perform batch setup before adjusting the image settings such as Keystone. Image adjustment values are also applied to another projector and the adjustment you made before performing the batch setup function is overwritten.

When copying the menu settings from one projector to another, user's logo is also copied. Do not register the information that you do not want to share between multiple projector as a user's logo.

Caution

Epson takes no responsibility for batch setup failures and associated repair costs due to power outages, communication errors, or other problems that may cause such failures.

Related Links

- "Adjusting the Menu Settings" p.131
- "Performing Batch Setup Using a USB Flash Drive" p.154
- "Performing Batch Setup Using a USB Cable" p.155

Performing Batch Setup Using a USB Flash Drive

You can copy menu settings from one projector to another of the same model using a USB flash drive.

The USB flash drive must use a FAT format and not incorporate any security function. Delete any files on the drive before using it for batch setup or the settings may not be saved correctly.

1. Disconnect the power cord from the projector, and check that all of the projector's lights have turned off.
2. Connect an empty USB flash drive directly to the projector's USB-A port.
3. Hold down the [Esc] button on the remote control or the control panel and connect the power cord to the projector.
4. When all of the projector's lights turn on, release the [Esc] button.

   The lights start flashing and the batch setup file is written to the USB flash drive. When writing is finished, the projector turns off.

Caution

Do not disconnect the power cord or the USB flash drive from the projector while the file is being written. If the power cord or drive is disconnected, the projector may not start correctly.

5. Remove the USB flash drive.

The file name for the batch setup file is PJCONFDATA.bin. If you need to change the file name, add text after PJCONFDATA using only alphanumeric characters. If you change the PJCONFDATA section of the file name, the projector may not be able to recognize the file correctly.

6 Disconnect the power cord from the projector to which you want to copy settings, and check that all of the projector's lights have turned off.

7 Connect the USB flash drive containing the saved batch setup file to the projector's USB-A port.

8 Hold down the [Menu] button on the remote control or the control panel and connect the power cord to the projector.

9 When all of the projector's lights turn on, release the [Menu] button. (The lights remain on for approximately 75 seconds.)

When all of the lights start flashing, the settings are being written. When writing is finished, the projector turns off.

Caution

Do not disconnect the power cord or the USB flash drive from the projector while the file is being written. If the power cord or drive is disconnected, the projector may not start correctly.

10 Remove the USB flash drive.

Related Links

• "Copy Menu Settings to Another Projector (Batch Setup)" p.154

Performing Batch Setup Using a USB Cable

You can copy menu settings from one projector to another of the same model by connecting the computer and projector with a USB cable.

You can use this batch setup method with Windows XP and later, or OS X 10.5.3 and later.

1 Disconnect the power cord from the projector, and check that all of the projector's lights have turned off.

2 Connect a USB cable to the computer's USB port and to the projector's USB-B port.

3 Hold down the [Esc] button on the remote control or the control panel and connect the power cord to the projector.

4 When all of the projector's lights turn on, release the [Esc] button.

The computer recognizes the projector as a removable disk.

5 Open the removable disk icon or folder, and save the batch setup file to the computer.

The file name for the batch setup file is PJCONFDATA.bin. If you need to change the file name, add text after PJCONFDATA using only alphanumeric characters. If you change the PJCONFDATA section of the file name, the projector may not be able to recognize the file correctly.

6 Eject the USB device (Windows) or drag the removable disk icon to the Trash (OS X).

7 Disconnect the USB cable.

The projector turns off.

8 Disconnect the power cord from the projector to which you want to copy settings, and check that all of the projector's lights have turned off.

9 Connect the USB cable to the computer's USB port and to the projector's USB-B port.

10 Hold down the [Menu] button on the remote control or the control panel and connect the power cord to the projector.

11 When all of the projector's lights turn on, release the [Menu] button.

The computer recognizes the projector as a removable disk.

12 Copy the batch setup file (PJCONFDATA.bin) that you saved to your computer to the top level folder of the removable disk.

Do not copy any files or folders other than the batch setup file to the removable disk.

13 Eject the USB device (Windows) or drag the removable disk icon to the Trash (OS X).

14 Disconnect the USB cable.

When all of the lights start flashing, the settings are being written. When writing is finished, the projector turns off.

Caution

Do not disconnect the power cord from the projector while the file is being written. If the power cord is disconnected, the projector may not start correctly.

Related Links

• "Copy Menu Settings to Another Projector (Batch Setup)" p.154

Maintaining the Projector

You may need to clean the projector's lens periodically, and clean the air filter and air vents to prevent the projector from overheating due to blocked ventilation.

The only parts you should replace are the lamp, air filter, and remote control batteries. If any other part needs replacing, contact Epson or an authorized Epson servicer.

> **Warning**
>
> Before cleaning any part of the projector, turn it off and unplug the power cord. Never open any cover on the projector, except as specifically explained in this manual. Dangerous electrical voltages in the projector can injure you severely.

Related Links

- "Cleaning the Lens" p.158
- "Cleaning the Projector Case" p.159
- "Air Filter and Vent Maintenance" p.160
- "Projector Lamp Maintenance" p.162
- "Replacing the Remote Control Batteries" p.167

Clean the projector's lens periodically, or whenever you notice dust or smudges on the surface.

- To remove dust or smudges, gently wipe the lens with lens-cleaning paper.
- To remove stubborn smudges, moisten a soft, lint-free cloth with lens cleaner and gently wipe the lens. Do not spray any liquid directly on the lens.

Warning

Do not use a lens cleaner that contains flammable gas. The high heat generated by the projector lamp may cause a fire.

Attention

Do not use glass cleaner or any harsh materials to clean the lens and do not subject the lens to any impacts; otherwise, it could be damaged. Do not use canned air, or the gases may leave a flammable residue.

Related Links

- "Maintaining the Projector" p.157

Before cleaning the projector case, turn off the projector and unplug the power cord.

- To remove dust or dirt, use a soft, dry, lint-free cloth.
- To remove stubborn dirt, use a soft cloth moistened with water and mild soap. Do not spray liquid directly on the projector.

Attention

Do not use wax, alcohol, benzene, paint thinner, or other chemicals to clean the projector case. These can damage the case. Do not use canned air, or the gases may leave a flammable residue.

Related Links

- "Maintaining the Projector" p.157

Regular filter maintenance is important to maintaining your projector. Clean the air filer when a message appears telling you the temperature inside the projector has reached a high level. It is recommended that you clean these parts at least once every three months. Clean them more often than this if you use the projector in a particularly dusty environment.

Attention

If regular maintenance is not performed, your Epson projector will notify you when the temperature inside the projector has reached a high level. Do not wait until this warning appears to maintain your projector filter as prolonged exposure to high temperatures may reduce the life of your projector or lamp.

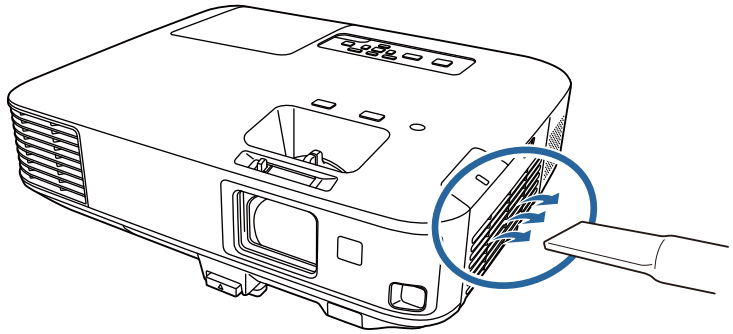
Related Links

- "Maintaining the Projector" p.157
- "Cleaning the Air Filter and Vents" p.160
- "Replacing the Air Filter" p.160

Cleaning the Air Filter and Vents

Clean the projector's air filter or vents if they get dusty, or if you see a message telling you to clean them.

1. Turn off the projector and unplug the power cord.
2. Gently remove the dust using a small vacuum designed for computers or a very soft brush (such as a paintbrush).



You can remove the air filter so that you can clean both sides. Do not rinse the air filter in water, or use any detergent or solvent to clean it.

Attention

Do not use canned air. The gases may leave a flammable residue or push dust and debris into the projector's optics or other sensitive areas.

3. If dust is difficult to remove or the air filter is damaged, replace the air filter.

Related Links

- "Air Filter and Vent Maintenance" p.160

Replacing the Air Filter

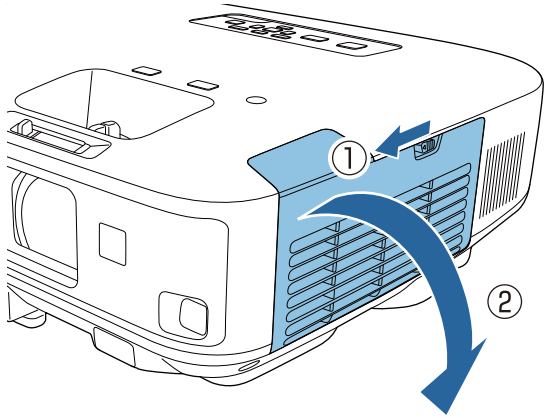
You need to replace the air filter in the following situations:

- After cleaning the air filter, you see a message telling you to clean or replace it
- The air filter is torn or damaged

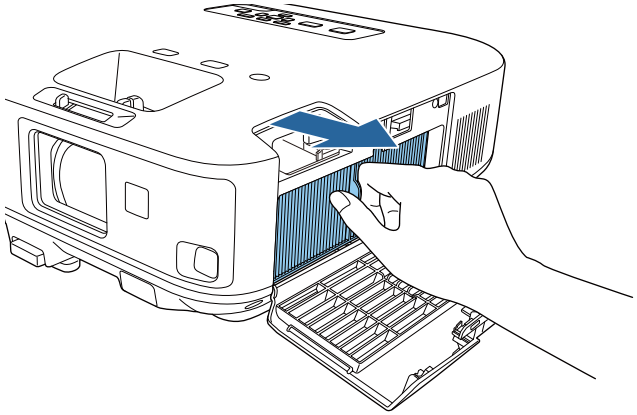
You can replace the air filter while the projector is mounted to the ceiling or placed on a table.

1 Turn off the projector and unplug the power cord.

2 Slide the air filter cover latch and open the air filter cover.



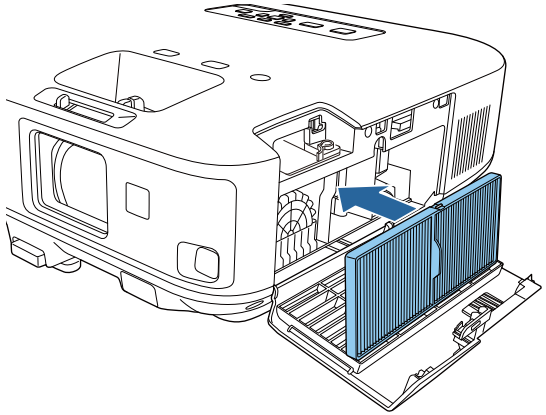
3 Pull the air filter out of the projector.



Dispose of used air filters according to local regulations.

- Filter frame: Polypropylene
- Filter: Polypropylene

4 Place the new air filter in the projector as shown and push gently until it clicks into place.



5 Close the air filter cover.

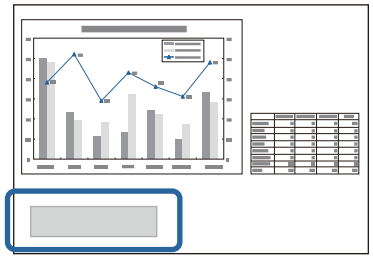
Related Links

- "Air Filter and Vent Maintenance" p.160
- "Replacement Parts" p.187

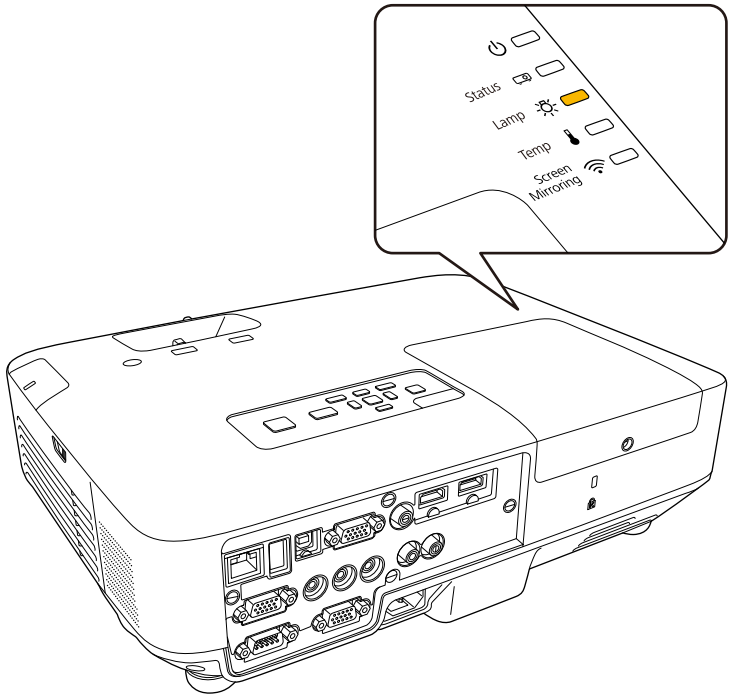
The projector monitors the number of hours the lamp is used and displays this information in the projector's menu system.

Replace the lamp as soon as possible when the following occurs:

- The projected image gets darker or quality declines
- A message appears when you turn on the projector telling you to replace the lamp (message remains displayed for 30 seconds)



- The projector's lamp light is flashing orange



Attention

- The lamp replacement message is set to appear after the following time periods to maintain the initial brightness and quality of the projected images.
  - When the **Power Consumption** setting is set to **Normal** in the projector's **ECO** menu: About 2900 hours
  - When the **Power Consumption** setting is set to **ECO** in the projector's **ECO** menu: About 3900 hours
- If you continue to use the lamp after the replacement period has passed, the possibility that the lamp may explode increases. When the lamp replacement message appears, replace the lamp with a new one as soon as possible, even if it is still working.
- Do not repeatedly turn off the power and then immediately turn it back on. Turning the power on and off frequently may shorten the lamp's operating life.
- Depending on the characteristics of the lamp and the way it has been used, the lamp may become darker or stop working before the lamp warning message appears. You should always have a spare lamp unit ready in case it is needed.
- We recommend the use of genuine Epson option lamps. The use of non-genuine lamps may affect projection quality and safety. Any damage or malfunction caused by the use of non-genuine lamps may not be covered by Epson's warranty.

Related Links

- "Maintaining the Projector" p.157
- "Replacing the Lamp" p.162
- "Resetting the Lamp Timer" p.165

Replacing the Lamp

You can also replace the lamp while the projector is mounted to the ceiling.

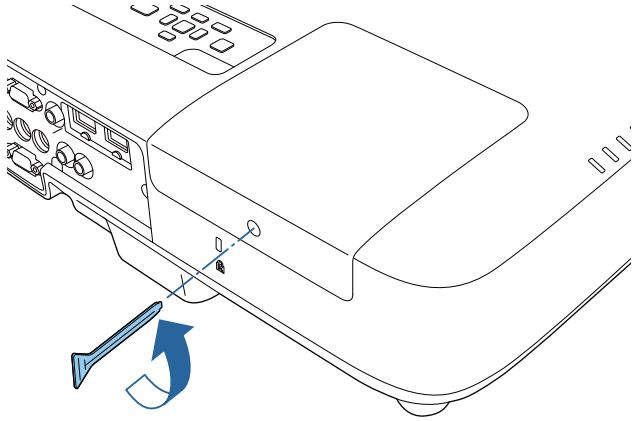
Warning

- Let the lamp fully cool before replacing it to avoid injury.
- Never disassemble or remodel the lamp. If a modified or disassembled lamp is installed in the projector, it could cause a fire, electric shock, or other damage or injury.

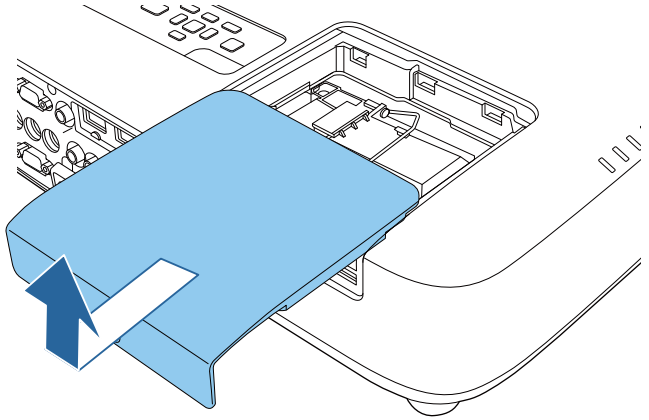
1. Turn off the projector and unplug the power cord.
2. Allow the projector lamp to cool down for at least one hour.
3. Use the screwdriver included with the replacement lamp to loosen the screw securing the lamp cover.

Warning

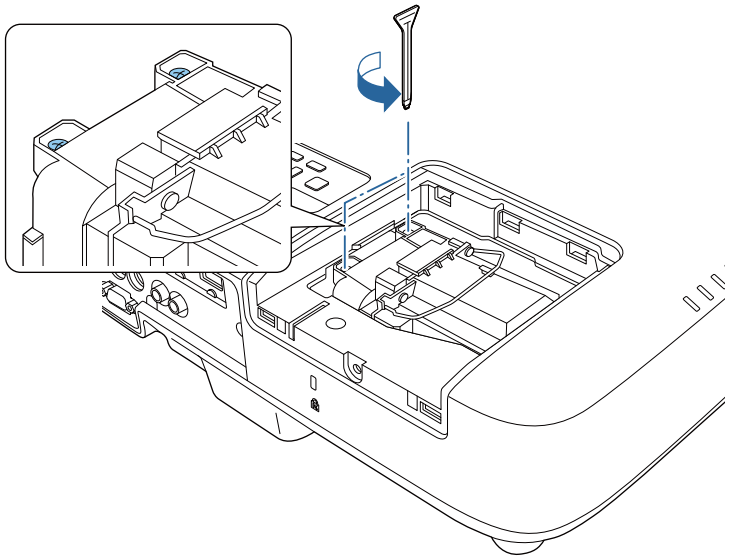
When replacing the lamp, there is a possibility that the lamp may be broken. If replacing the lamp of a projector which has been installed on the ceiling, you should always assume that the lamp is cracked, and you should stand to the side of the lamp cover, not underneath it. Remove the lamp cover gently. Be careful when removing the lamp cover as shards of glass may fall out and could cause an injury. If any shards of glass get into your eyes or mouth, contact your local physician immediately.



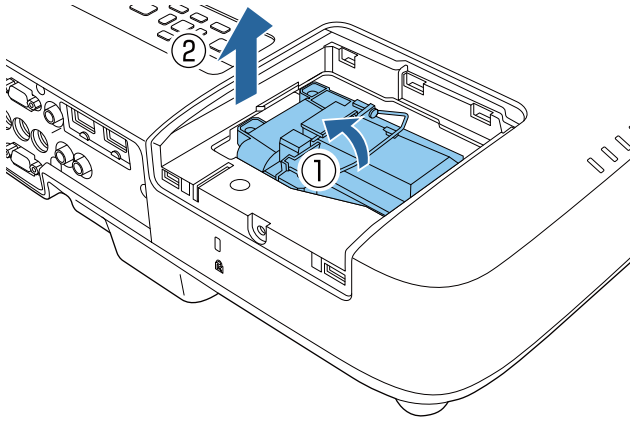
4. Slide the lamp cover out and lift it off.



5. Loosen the screws securing the lamp to the projector. The screws do not come all the way out.

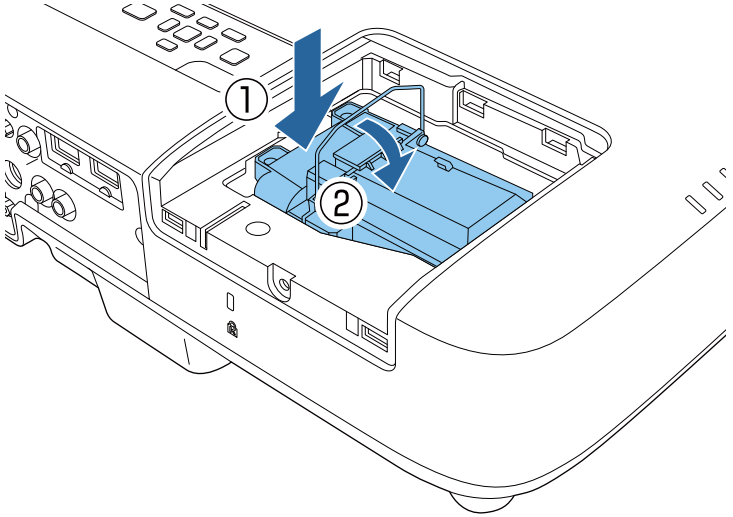


6 Lift up the lamp handle and carefully pull the lamp out of the projector.



- If you notice the lamp is cracked when removing the lamp, replace it with a new lamp, or contact Epson for help.
- The lamp(s) in this product contain mercury (Hg). Check your local laws and regulations regarding disposal or recycling. Do not put in the trash.

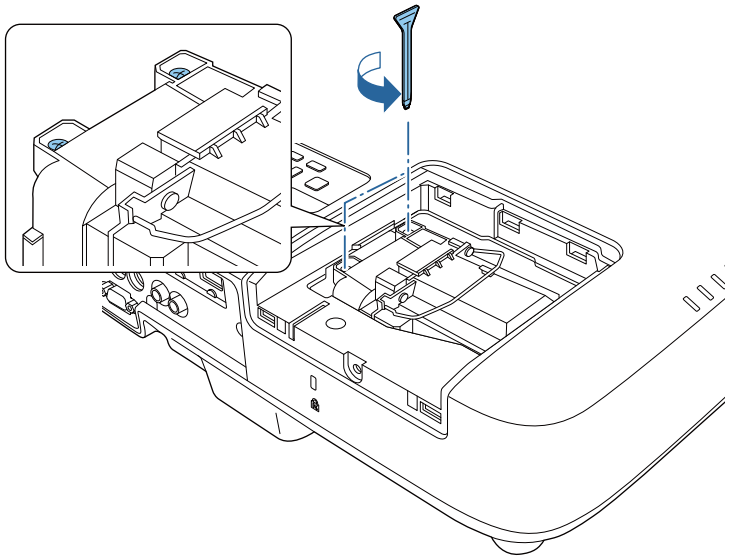
7 Gently insert the new lamp into the projector. If it does not fit easily, make sure it is facing the right way. Press the handle down.



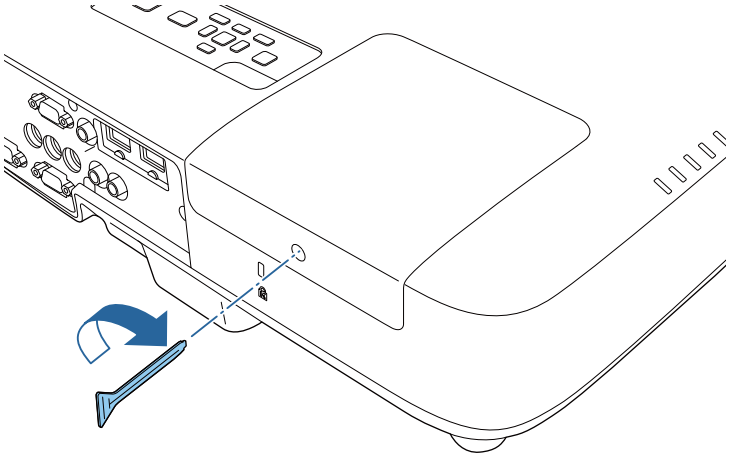
Attention

Do not touch any glass on the lamp assembly to avoid premature lamp failure.

8 Push in the lamp firmly and tighten the screws to secure it.



9 Replace the lamp cover and tighten the screw to secure it.



Make sure the lamp cover is securely installed or the lamp will not turn on.

Reset the lamp timer to zero to monitor the new lamp's usage.

Related Links

- "Projector Lamp Maintenance" p.162
- "Replacement Parts" p.187

Resetting the Lamp Timer

You must reset the lamp timer after replacing the projector's lamp to clear the lamp replacement message and to monitor lamp usage correctly.

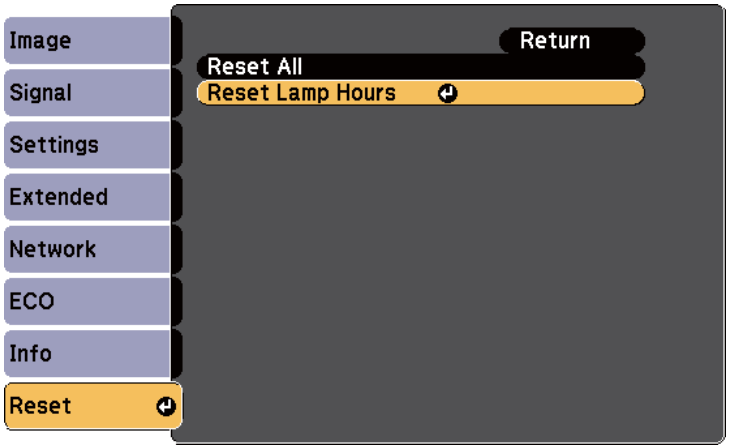
Do not reset the lamp timer if you have not replaced the lamp to avoid inaccurate lamp usage information.

1 Turn on the projector.

2 Press the [Menu] button on the control panel or remote control.

3 Select the **Reset** menu and press [Enter].

4 Select **Reset Lamp Hours** and press [Enter].



You see a prompt asking if you want to reset the lamp hours.

5 Select **Yes** and press [Enter].

6 Press [Menu] or [Esc] to exit the menus.

Related Links

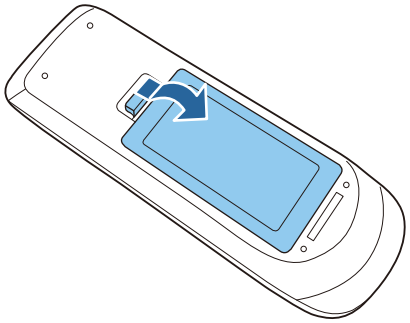
- "Projector Lamp Maintenance" p.162

The remote control uses two AA manganese or alkaline batteries. Replace the batteries as soon as they run out.

Attention

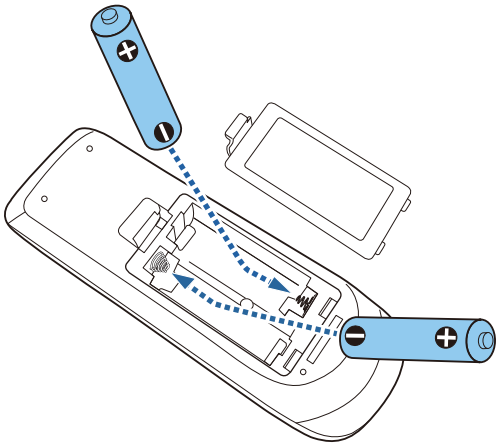
Make sure you read the *Safety Instructions* before handling the batteries.

1 Open the battery cover as shown.



2 Remove the old batteries.

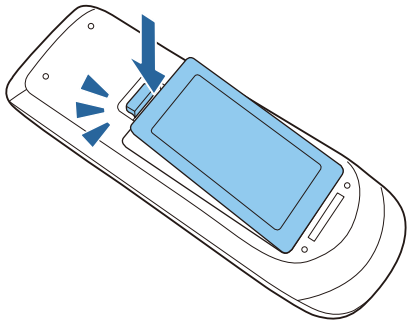
3 Insert the batteries with the + and – ends facing as shown.



Warning

Check the positions of the (+) and (–) marks inside the battery holder to ensure the batteries are inserted the correct way. If the batteries are not used correctly, they could explode or leak causing a fire, injury, or damage to the product.

4 Close the battery cover and press it down until it clicks into place.



Related Links

- "Maintaining the Projector" p.157

Solving Problems

Check the solutions in these sections if you have any problems using the projector.

Related Links

- "Projection Problems" p.169
- "Projector Light Status" p.170
- "Using the Projector Help Displays" p.173
- "Solving Image or Sound Problems" p.174
- "Solving Projector or Remote Control Operation Problems" p.180
- "Solving Network Problems" p.182

If the projector is not working properly, turn it off, unplug it, and then plug it back in and turn it on.

If this does not solve the problem, check the following:

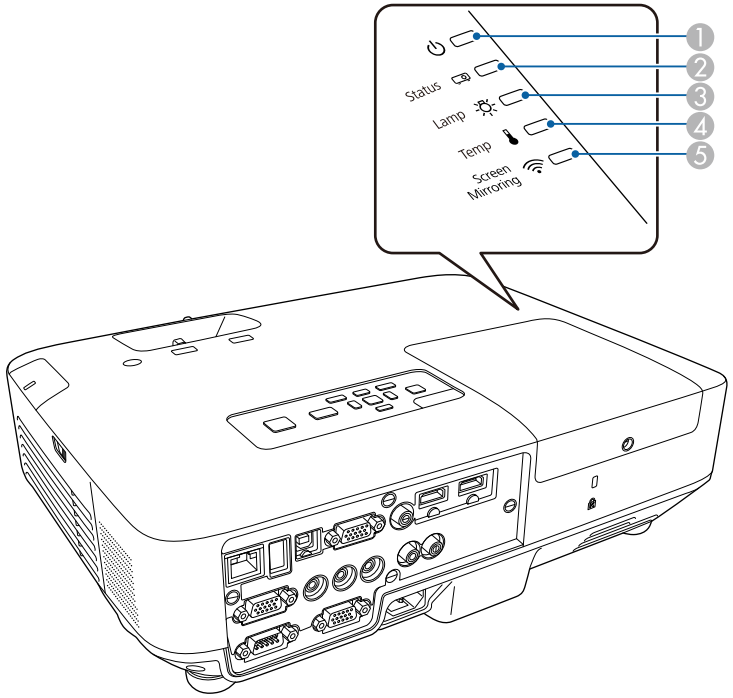
- The lights on the projector may indicate the problem.
- The projector's Help system can display information about common problems.
- The solutions in this manual can help you solve many problems.

If none of these solutions help, contact Epson for technical support.

Related Links

- "Solving Problems" p.168

The lights on the projector indicate the projector status and let you know when a problem occurs. Check the status and color of the lights and then refer to this table for a solution.



1. Power light
2. Status light
3. Lamp light
4. Temp (temperature) light
5. Screen Mirroring light (EB-1985WU/EB-1975W)

Lights	Status and solution
Power: Blue Status: Blue Lamp: Off Temp: Off	Normal operation.
Power: Blue Status: Flashing blue Lamp: Off Temp: Off	Warming up or shutting down. When warming up, wait about 30 seconds for an image to appear. All buttons are disabled during warm-up and shutting down.
Power: Blue Status: Off Lamp: Off Temp: Off	Standby, sleep mode, or monitoring. When you press the power button, projection starts.
Power: Flashing blue Status: Off Lamp: Off Temp: Off	Preparing for monitoring.
Power: Flashing blue Status: Light status varies Lamp: Off (or flashing orange while lamp life warning) Temp: Flashing orange	Projector is too hot. • Make sure that the vents and air filter are not clogged with dust or obstructed by nearby objects. • Clean or replace the air filter. • Make sure the environmental temperature is not too hot.

Lights	Status and solution
Power: Off Status: Flashing blue Lamp: Off Temp: Orange	Projector has overheated and turned off. Leave it turned off to cool down for 5 minutes. • Make sure that the vents and air filter are not clogged with dust or obstructed by nearby objects. • Clean or replace the air filter. • If operating the projector at high altitude, set the **High Altitude Mode** setting to **On** in the projector's **Extended** menu. ☛ **Extended** > **Operation** > **High Altitude Mode** • If the problem persists, unplug the projector and contact Epson for help.
Power: Off Status: Flashing blue Lamp: Orange Temp: Off	Lamp has a problem. • Check to see if the lamp is burned out, broken, or installed incorrectly. Reseat or replace the lamp as necessary. • Clean the air filter. • If operating the projector at high altitude, set the **High Altitude Mode** setting to **On** in the projector's **Extended** menu. ☛ **Extended** > **Operation** > **High Altitude Mode** • If the problem persists, unplug the projector and contact Epson for help.
Power: Flashing blue Status: Light status varies Lamp: Flashing orange Temp: Off	Replace the lamp soon to avoid damage. Do not continue using the projector.
Power: Off Status: Flashing blue Lamp: Off Temp: Flashing orange	A fan or sensor has a problem. Turn the projector off, unplug it, and contact Epson for help.

Lights	Status and solution
Power: Off Status: Flashing blue Lamp: Flashing orange Temp: Off	Internal projector error. Turn the projector off, unplug it, and contact Epson for help.
Power: Off Status: Flashing blue Lamp: Flashing orange Temp: Flashing orange	Auto iris error. Turn the projector off, unplug it, and contact Epson for help.
Power: Off Status: Flashing blue Lamp: Orange Temp: Flashing orange	Power error (Ballast). Turn the projector off, unplug it, and contact Epson for help.

Screen Mirroring light	Status and solution
Blue	Screen Mirroring is available.
Flashing blue quickly	Connecting to a mobile device.
Flashing blue slowly	Screen Mirroring error. Select **Both Settings Off** as the **Wireless Mode** setting in the projector's **Network** menu, and select **Screen Mirroring On** again.
Off	Screen Mirroring is not available. Check that the **Wireless Mode** setting is set to **Screen Mirroring On** in the projector's **Network** menu.

If the lights display a pattern not listed in the table above, turn the projector off, unplug it, and contact Epson for help.

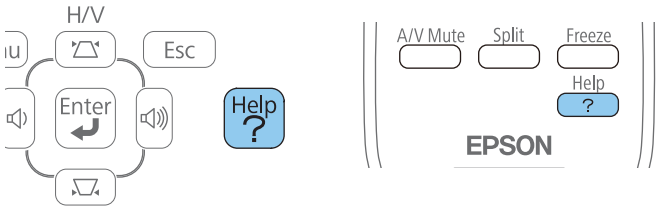
Related Links

- "Solving Problems" p.168
- "Cleaning the Air Filter and Vents" p.160
- "Replacing the Air Filter" p.160

- "Replacing the Lamp" p.162

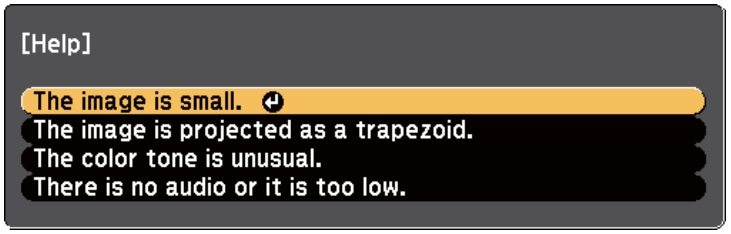
You can display information to help you solve common problems using the projector's Help system.

1. Turn on the projector.
2. Press the [Help] button on the control panel or remote control.



The Help menu is displayed.

3. Use the up and down arrow buttons to highlight the problem you want to solve.



4. Press [Enter] to view the solutions.
5. Perform one of the following actions when you are finished.

- To select another problem to solve, press [Esc].
- To exit the help system, press [Help].

Related Links

- "Solving Problems" p.168

Check the solutions in these sections if you have any problems with projected images or sound.

Related Links

- "Solving Problems" p.168
- "Solutions When No Image Appears" p.174
- "Solutions When Image is Incorrect Using the USB Display Function" p.174
- "Solutions When "No Signal" Message Appears" p.175
- "Solutions When "Not Supported" Message Appears" p.176
- "Solutions When Only a Partial Image Appears" p.176
- "Solutions When the Image is not Rectangular" p.176
- "Solutions When the Image Contains Noise or Static" p.177
- "Solutions When the Image is Fuzzy or Blurry" p.177
- "Solutions When the Image Brightness or Colors are Incorrect" p.178
- "Solutions to Sound Problems" p.179
- "Solutions When Image File Names are not Displayed Correctly in PC Free" p.179

Solutions When No Image Appears

If no image appears, try the following solutions:

- Press the power button to turn the power on.
- Make sure the lens cover is open all the way or removed.
- Press the [A/V Mute] button on the remote control to see if the image was temporarily turned off.
- Make sure all necessary cables are securely connected and the power is on for the projector and connected video sources.
- Make sure the image being projected is not completely black (only when projecting computer images).
- Make sure the projector's menu settings are correct.
- Press the projector's power button to wake it from standby or sleep mode. Also, check if the connected computer is in sleep mode or displaying a blank screen saver.
- Check the settings on the projector's **Signal** menu to make sure they are correct for the current video source.
- Adjust the **Brightness** setting in the projector's **Image** menu or select the **Normal** as the **Power Consumption** setting in the projector's **ECO** menu.
- Check the **Display** setting in the projector's **Extended** menu to make sure **Messages** is set to **On**.
- If the projector does not respond when you press the control panel buttons, the buttons may be locked. Unlock the buttons.
- If the projector does not respond when you press buttons on the remote control, make sure the remote receivers are turned on.
- For images projected with Windows Media Center, reduce the screen size from full screen mode.
- For images projected from applications using Windows DirectX, turn off DirectX functions.
- The projector may not be able to project copyrighted videos that you play back on a computer. For more details, see the manual supplied with the computer.

Related Links

- "Solving Image or Sound Problems" p.174
- "Input Signal Settings - Signal Menu" p.135
- "Image Quality Settings - Image Menu" p.134
- "Projector Setup Settings - ECO Menu" p.150
- "Unlocking the Projector's Buttons" p.97
- "Projector Setup Settings - Extended Menu" p.139

Solutions When Image is Incorrect Using the USB Display Function

If no image appears or if the image appears incorrectly using the USB Display function, try the following solutions:

- Press the [USB] button on the remote control.

- Make sure the Epson USB Display software has been installed correctly. Install it manually if necessary.
- For OS X, select the **USB Display** icon in the **Dock** or from the **Applications** folder.
- For images projected with Windows Media Center, reduce the screen size from full screen mode.
- For images projected from applications using Windows DirectX, turn off DirectX functions.
- If the mouse cursor flickers, select **Make the movement of the mouse pointer smooth** in the **Epson USB Display Settings** program on your computer (this feature is not available for Windows 2000).
- Turn off the **Transfer layered window** setting in the **Epson USB Display Settings** program on your computer.

Related Links

- "Solving Image or Sound Problems" p.174
- "Installing the USB Display Software" p.54

Solutions When "No Signal" Message Appears

If the "No Signal" message appears, try the following solutions:

- Press the [Source Search] button and wait a few seconds for an image to appear.
- Turn on the connected computer or video source, and press play to begin your presentation, if necessary.
- Check that all cables required for projection are securely connected.
- If you are projecting from a laptop computer, make sure it is set up to display on an external monitor.
- If necessary, turn off the projector and the connected computer or video source, and then turn them back on.

Related Links

- "Solving Image or Sound Problems" p.174
- "Displaying From a Laptop" p.175
- "Displaying From a Mac Laptop" p.175

Displaying From a Laptop

If the message "No Signal" is displayed when projecting from a laptop, you need to set up the laptop to display on an external monitor.

1. Hold down the laptop's **Fn** key and press the key labeled with a monitor icon or **CRT/LCD**. (See your laptop manual for details.) Wait a few seconds for an image to appear.
2. To display on the laptop's monitor and the projector, try pressing the same keys again.
3. If the same image is not displayed by the laptop and projector, check the Windows **Display** utility to make sure the external monitor port is enabled and extended desktop mode is disabled. (See your computer or Windows manual for instructions.)
4. If necessary, check your video card settings and set the multiple display option to **Clone** or **Mirror**.

Related Links

- "Solutions When "No Signal" Message Appears" p.175

Displaying From a Mac Laptop

If the message "No Signal" is displayed when projecting from a Mac laptop, you need to set up the laptop for mirrored display. (See your laptop manual for details.)

1. Open the **System Preferences** utility and select **Displays**.

2 Select the **Display** or **Color LCD** option, if necessary.

3 Click the **Arrange** or **Arrangement** tab.

4 Select **Mirror Displays**.

Related Links

- "Solutions When "No Signal" Message Appears" p.175

Solutions When "Not Supported" Message Appears

If the message "Not supported" is displayed, try the following solutions:

- Make sure the correct input signal is selected on the projector's **Signal** menu.
- Make sure the computer's display resolution does not exceed the projector's resolution and frequency limits. If necessary, select a different display resolution for your computer. (See your computer manual for details.)

Related Links

- "Solving Image or Sound Problems" p.174
- "Input Signal Settings - Signal Menu" p.135

Solutions When Only a Partial Image Appears

If only a partial computer image appears, try the following solutions:

- Press the [Auto] button on the remote control to optimize the image signal.
- Try adjusting the image position using the **Position** setting in the projector's **Signal** menu.
- Press the [Aspect] button on the remote control to select a different image aspect ratio.
- Change the **Resolution** setting in the projector's **Signal** menu according to the signal for the connected equipment.
- If you zoomed into or out of the image using the [E-Zoom] buttons, press the [Esc] button until the projector returns to a full display.
- Check your computer display settings to disable dual display and set the resolution within the projector's limits. (See your computer manual for details.)
- Check the resolution assigned to your presentation files to see if they are created for a different resolution. (See your software help for details.)
- Make sure you selected the correct projection mode. You can select **Front**, **Front/Ceiling**, **Rear**, or **Rear/Ceiling** as the **Projection** setting in the projector's **Extended** menu.

Related Links

- "Solving Image or Sound Problems" p.174
- "Input Signal Settings - Signal Menu" p.135
- "Projector Setup Settings - Extended Menu" p.139
- "Supported Monitor Display Resolutions" p.189

Solutions When the Image is not Rectangular

If the projected image is not evenly rectangular, try the following solutions:

- Place the projector directly in front of the center of the screen, facing it squarely, if possible.
- If you adjusted the projector height using the projector feet, press the keystone buttons on the projector to adjust the image shape.
- Turn on automatic keystone adjustment in the projector's **Settings** menu.

  ☛ **Settings** > **Keystone** > **H/V-Keystone** > **Auto H/V-Keystone**

- Press the [Screen Fit] button and adjust the image shape using the on-screen display.
- Adjust the Quick Corner setting to correct the image shape.
  ☛ **Settings** > **Keystone**

Related Links

- "Solving Image or Sound Problems" p.174
- "Auto H/V-Keystone" p.44
- "Automatically Correcting the Image Shape with Screen Fit" p.44
- "Correcting the Image Shape with the Keystone Buttons" p.46
- "Correcting the Image Shape with Quick Corner" p.47

Solutions When the Image Contains Noise or Static

If the projected image contains electronic interference (noise) or static, try the following solutions:

- Check the cables connecting your computer or video source to the projector. They should be:
  - Separated from the power cord to prevent interference
  - Securely connected at both ends
  - Not connected to an extension cable
  - No longer than 3 meters
- Check the settings on the projector's **Signal** menu to make sure they match the video source. If available for your video source, adjust the **Progressive** and **Noise Reduction** settings.
- Select a computer video resolution and refresh rate that are compatible with the projector.
- If you are projecting from a computer, press the [Auto] button on the remote control to automatically adjust the **Tracking** and **Sync.** settings. If the images are not adjusted correctly, manually adjust the **Tracking** and **Sync.** settings in the projector's **Signal** menu.
- Select **Auto** as the **Resolution** setting in the projector's **Signal** menu.
- If you adjusted the image shape using the projector controls, try decreasing the **Sharpness** setting in the projector's **Image** menu to improve image quality.
- If you connected an extension power cable, try projecting without it to see if it caused interference in the signal.
- If you are using the USB Display function, turn off the **Transfer layered window** setting in the **Epson USB Display Settings** program on your computer.

Related Links

- "Solving Image or Sound Problems" p.174
- "Input Signal Settings - Signal Menu" p.135
- "Image Quality Settings - Image Menu" p.134
- "Supported Monitor Display Resolutions" p.189

Solutions When the Image is Fuzzy or Blurry

If the projected image is fuzzy or blurry, try the following solutions:

- Adjust the image focus.
- Clean the projector lens.

To avoid condensation on the lens after bringing the projector in from a cold environment, let the projector warm up to room temperature before using it.

- Position the projector close enough to the screen.
- Position the projector so the keystone adjustment angle is not so wide that it distorts the image.
- When using the Screen Fit feature, position the projector at a compatible distance from the screen or adjust the image shape manually.

- Turn on automatic keystone adjustment in the projector's **Settings** menu.
  ☛ **Settings** > **Keystone** > **H/V-Keystone** > **Auto H/V-Keystone**
- Adjust the **Sharpness** setting in the projector's **Image** menu to improve image quality.
- If you are projecting from a computer, press the [Auto] button on the remote control to automatically adjust the tracking and sync.If any bands or overall blurriness remain, display a uniformly patterned image on the screen and manually adjust the **Tracking** and **Sync.** settings in the projector's **Signal** menu.
- If you are projecting from a computer, use a lower resolution or select a resolution that matches the projector's native resolution.

Related Links

- "Solving Image or Sound Problems" p.174
- "Focusing the Image Using the Focus Ring" p.51
- "Cleaning the Lens" p.158
- "Input Signal Settings - Signal Menu" p.135
- "Image Quality Settings - Image Menu" p.134
- "Supported Monitor Display Resolutions" p.189

Solutions When the Image Brightness or Colors are Incorrect

If the projected image is too dark or light, or the colors are incorrect, try the following solutions:

- Press the [Color Mode] button on the remote control to try different color modes for the image and environment.
- Check your video source settings.
- Adjust the available settings on the projector's **Image** menu for the current input source, such as **Brightness**, **Contrast**, **Tint**, **Color Adjustment**, and/or **Color Saturation**.
- Make sure you selected the correct **Input Signal** or **Video Signal** setting in the projector's **Signal** menu, if available for your image source.
- Make sure you selected the correct **Gamma**, **RGB**, or **RGBCMY** setting in the projector's **Image** menu.
  ☛ **Image** > **Advanced**
- Make sure all the cables are securely connected to the projector and your video device. If you connected long cables, try connecting shorter cables.
- If you are using the **ECO** as the **Power Consumption** setting, try selecting **Normal** in the projector's **ECO** menu.

At high altitudes or locations subject to high temperatures, the image may become darker and you may not be able to adjust the **Power Consumption** setting.

- Position the projector close enough to the screen.
- If the image has been progressively darkening, you may need to replace the projector lamp soon.

Related Links

- "Solving Image or Sound Problems" p.174
- "Color Mode" p.61
- "Input Signal Settings - Signal Menu" p.135
- "Image Quality Settings - Image Menu" p.134
- "Projector Setup Settings - ECO Menu" p.150

Solutions to Sound Problems

If there is no sound or the volume is too low or high, try the following solutions:

- Adjust the projector's volume settings.
- Press the [A/V Mute] button on the remote control to resume video and audio if they were temporarily stopped.
- Press the [Source Search] button on the projector or a source button on the remote control to switch to the correct input source, if necessary.
- Check your computer or video source to make sure the volume is turned up and the audio output is set for the correct source.
- Disconnect the audio cable, and then reconnect it.
- Check the audio cable connections between the projector and your video source.
- If you do not hear sound from an HDMI source, set the connected device to PCM output.
- Make sure any connected audio cables are labeled "No Resistance".
- If you are using the USB Display function, turn on the **Output audio from the projector** setting in the **Epson USB Display Settings** program on your computer.
- Select the correct audio input in the **A/V Settings** setting in the projector's **Extended** menu.
- If you are using a Mac and you do not hear sound from an HDMI source, make sure your Mac supports audio through the HDMI port. If not, you need to connect an audio cable.
- If you want to use a connected audio source when the projector is off, set the **Standby Mode** option to **Communication On** in the projector's **ECO** menu and make sure the **A/V Settings** options are set correctly in the projector's **Extended** menu.
- If you turn the projector on immediately after turning it off, the cooling fans may run at high speed momentarily and cause an unexpected noise. This is normal.
- If the volume for the computer is set to the minimum while the projector is set to the maximum, the noise may be mixed. Turn up the computer's volume and turn down the projector's volume. (When you use EasyMP Network Projection, EasyMP Multi PC Projection, USB Display or Quick Wireless Connection.)

Related Links

- "Solving Image or Sound Problems" p.174
- "Controlling the Volume with the Volume Buttons" p.68
- "Projector Connections" p.22
- "Projector Setup Settings - Extended Menu" p.139
- "Projector Setup Settings - ECO Menu" p.150

Solutions When Image File Names are not Displayed Correctly in PC Free

If any file names are longer than the display area or include unsupported symbols, the file names are shortened or changed in PC Free. Shorten or change the file name.

Related Links

- "Solving Image or Sound Problems" p.174

Check the solutions in these sections if you have problems operating the projector or remote control.

Related Links

- "Solving Problems" p.168
- "Solutions to Projector Power or Shut-Off Problems" p.180
- "Solutions to Problems with the Remote Control" p.180
- "Solutions to Password Problems" p.181
- "Solution When "The Battery that Saves Your Clock Settings is Running Low" Message Appears" p.181

Solutions to Projector Power or Shut-Off Problems

If the projector does not turn on when you press the power button or it turns off unexpectedly, try the following solutions:

- Make sure the power cord is securely connected to the projector and to a working electrical outlet.
- The projector's buttons may be locked for security. Unlock the buttons in the **Control Panel Lock** setting in the projector's **Settings** menu or use the remote control to turn on the projector.
- The power cord may be defective. Disconnect the cord and contact Epson for help.
- If the projector's lamp turns off unexpectedly, it may have entered sleep mode after a period of inactivity. Perform any operation to wake the projector. To turn off sleep mode, select **Off** as the **Sleep Mode** setting in the projector's **ECO** menu.
- If the projector's lamp turns off unexpectedly, the A/V mute timer may be enabled. To turn off the A/V mute timer, select **Off** as the **A/V Mute Timer** setting in the projector's **ECO** menu.
- If the projector's lamp turns off unexpectedly, the Lens Cover Timer may be enabled. To turn off the lens cover timer, select **Off** as the **Lens Cover Timer** setting in the projector's **ECO** menu.
- If the projector's lamp turns off and the power and Temp lights are lit, the projector has overheated and turned off. Check the solutions for this light status.
- If the power button on the remote control does not turn on the projector, check its batteries and make sure the **Remote Receiver** setting in the projector's **Settings** menu is turned on if available.
- When **Standby Mode** is set to **Communication On** in the projector's **ECO** menu, the fan may rotate in standby mode and may make a loud noise while waking up. When **A/V Output** is set to **Always On** or **Auto Power On** is set to **Computer1**, the fan may rotate in standby mode. This is not a malfunction.
  ☛ **Extended** > **A/V Settings** > **A/V Output**
  ☛ **Extended** > **Operation** > **Auto Power On**

Related Links

- "Solving Projector or Remote Control Operation Problems" p.180
- "Unlocking the Projector's Buttons" p.97
- "Projector Setup Settings - ECO Menu" p.150
- "Projector Light Status" p.170
- "Projector Feature Settings - Settings Menu" p.137

Solutions to Problems with the Remote Control

If the projector does not respond to remote control commands, try the following solutions:

- Check that the remote control batteries are installed correctly and have power. If necessary, replace the batteries.
- Make sure you are operating the remote control within the reception angle and range of the projector.
- Make sure the projector is not warming up or shutting down.
- 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 control up.

- Strong fluorescent lighting, direct sunlight, or infrared device signals may be interfering with the projector's remote receivers. Dim the lights or move the projector away from the sun or interfering equipment.
- If available, turn off one of the remote receivers or check if all the remote receivers were turned off in the **Remote Receiver** setting in the projector's **Settings** menu.
- If the **Remote Receiver** setting is disabled, hold down the [Menu] button on the remote control for at least 15 seconds to reset the setting to its default.
- If you assigned an ID number to the remote control to operate multiple projectors, you may need to check or change the ID setting (this feature is not available with all projectors).
- If you lose the remote control, you can order another one from Epson.

Related Links

- "Solving Projector or Remote Control Operation Problems" p.180
- "Remote Control Operation" p.31
- "Selecting the Projector You want to Operate" p.90
- "Replacing the Remote Control Batteries" p.167
- "Projector Feature Settings - Settings Menu" p.137

Solutions to 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 for help. Provide the request code and proof of ownership for assistance in unlocking the projector.
- If you lose the remote control you cannot enter a password. Order a new one from Epson.

Related Links

- "Solving Projector or Remote Control Operation Problems" p.180

Solution When "The Battery that Saves Your Clock Settings is Running Low" Message Appears

If the message "The battery that saves your clock settings is running low." is displayed, contact Epson for help.

Related Links

- "Solving Projector or Remote Control Operation Problems" p.180

Check the solutions in these sections if you have problems using the projector on a network.

Related Links

- "Solving Problems" p.168
- "Solutions When You Cannot Access the Projector Through the Web" p.182
- "Solutions When Network Alert E-Mails are not Received" p.182
- "Solutions When the Image Contains Static During Network Projection" p.182
- "Solutions When You Cannot Connect Using Screen Mirroring" p.183
- "Solutions When the Image Contains Static During Screen Mirroring Connection" p.183

Solutions When You Cannot Access the Projector Through the Web

If you are unable to access the projector through a Web browser, make sure you are using the correct ID and password.

- For the user ID, enter **EPSONWEB**. (You cannot change the user ID.)
- For the password, enter the password set in the projector's network **Basic** menu. The default password is **admin**.
- Make sure you have access to the network the projector is on.

The user ID and password are case sensitive.

Related Links

- "Solving Network Problems" p.182
- "Network Menu - Basic Menu" p.143

Solutions When Network Alert E-Mails are not Received

If you do not receive an e-mail alerting you to problems with a projector over the network, try the following solutions:

- Make sure the projector is turned on and connected to the network correctly. (If an error shut down the projector, it cannot send an e-mail.)
- Make sure you set up the projector e-mail alert settings correctly on the projector's network **Mail** menu or in the network software.
- Set the **Standby Mode** setting to **Communication On** in the projector's **ECO** menu so the network software can monitor the projector in standby mode.
- Make sure your electrical outlet or power source is functioning correctly.

Related Links

- "Solving Network Problems" p.182
- "Network Menu - Mail Menu" p.147

Solutions When the Image Contains Static During Network Projection

If the projected image contains static during network projection, try the following solutions:

- Check for any obstacles between the access point, the computer, the mobile device, and the projector, and change their positions to improve communication.
- Make sure that the access point, the computer, the mobile device and the projector are not too far apart. Move them closer together and try to connect again.

- If the wireless connection is slow or your projected image contains noise, check for interference from other equipment, such as a Bluetooth device or microwave. Move the interfering device farther away or expand your wireless bandwidth.
- Reduce the number of connected devices if the connection speed declines.

Related Links

- "Solving Network Problems" p.182

Solutions When You Cannot Connect Using Screen Mirroring

If you are unable to connect to the projector using Screen Mirroring, try the following solutions:

- Check the projector's settings.
  - Select **Screen Mirroring On** as the **Wireless Mode** setting in the projector's **Network** menu.
  - Change the **Display Name** so that it does not include "-" in the projector's **Screen Mirroring Settings** menu. If the Display Name includes "-", it may not be displayed correctly on your mobile device.
  - Select **Both Settings Off** as the **Wireless Mode** setting in the projector's **Network** menu, and select **Screen Mirroring On** again.
  - Make sure the Screen Mirroring light turns blue and the Screen Mirroring standby screen is displayed.
  - Make sure no other mobile device is connected to the projector.
- Check the mobile device's settings.
  - Make sure the settings on the mobile device are correct.
  - When connecting again immediately after disconnecting, it may take some time until the connection is established. Reconnect after waiting for a while.
  - Restart the mobile device.
  - Once you have connected using Screen Mirroring, the projector connection information may be recorded on the mobile device. However, you may not be able to reconnect to the projector from the recorded information. Select the projector from the list of available devices.
  - If your mobile device supports Intel WiDi and uses 5 GHz Wireless LAN, you cannot connect using Screen Mirroring and Wireless LAN at the same time. Turn off the Wireless LAN and connect using Screen Mirroring.

Related Links

- "Solving Network Problems" p.182
- "Projector Network Settings - Network Menu" p.142
- "Network Menu - Screen Mirroring Settings" p.143

Solutions When the Image Contains Static During Screen Mirroring Connection

If the projected image contains static when connecting using Screen Mirroring, try the following solutions:

- Try not to cover the Wi-Fi antenna of the mobile device.
- If you use a Screen Mirroring connection and an internet connection at the same time, the image may stop or contains noise. Disconnect the internet connection to expand your wireless bandwidth and improve the connection speed of the mobile device.
- Make sure the projection contents meet the requirements.

- Depending on the settings of the mobile device, the connection may be lost when the device enters the power saving mode. Check the electrical power saving settings on the mobile device.
- Update to the latest version of the wireless driver or firmware on the mobile device.

Related Links

- "Solving Network Problems" p.182
- "Wireless Network Projection from a Mobile Device (Screen Mirroring)" p.110

Appendix

Check these sections for the technical specifications and important notices about your projector.

Related Links

- "Optional Accessories and Replacement Parts" p.186
- "Screen Size and Projection Distance" p.188
- "Supported Monitor Display Resolutions" p.189
- "Projector Specifications" p.191
- "External Dimensions" p.193
- "Glossary" p.194
- "Notices" p.196

The following optional accessories and replacement parts are available. Please purchase these products as and when needed. The following list of optional accessories and replacement parts is current as of: June 2014. Details of accessories are subject to change without notice and availability may vary depending on the country of purchase.

Related Links

- "Appendix" p.185
- "Optional Accessories" p.186
- "Replacement Parts" p.187

Optional Accessories

- **Document Camera ELPDC06/ELPDC11/ELPDC12/ELPDC20**
  Use when projecting image such as books, OHP documents, or slides.
- **Soft carrying case ELPKS68**
  Use this to carry the projector by hand.
- **60" portable screen ELPSC27**
  80" portable screen ELPSC28
  100" portable screen ELPSC29
  Portable roll-type screens. (aspect ratio 4:3)
- **70" portable screen ELPSC23**
  80" portable screen ELPSC24
  90" portable screen ELPSC25
  Portable roll-type screens. (aspect ratio 16:10)
- **Computer cable ELPKC02 (1.8 m - for mini D-sub 15-pin/mini D-Sub 15pin)**
  This is the same as the computer cable supplied with the projector.
- **Computer cable ELPKC09 (3 m - for mini D-sub 15-pin/mini D-Sub 15pin)**
  Computer cable ELPKC10 (20 m - for mini D-sub 15-pin/mini D-Sub 15pin)
  Use one of these longer cables if the computer cable supplied with the projector is too short.
- **Component video cable ELPKC19 (3 m - for mini D-Sub 15-pin/RCA male x 3)**
  Use this to connect a component video source.
- **Wireless LAN module ELPAP07**
  Use this to project images from a computer via a wireless communication.
- **Quick Wireless Connection USB Key ELPAP09**
  Use when you want to quickly establish one-to-one connection between the projector and a component with Windows installed.
- **Ceiling pipe (450 mm) ELPFP13**
  Ceiling pipe (700 mm) ELPFP14
  Use when installing the projector on a high ceiling.
- **Ceiling mount ELPMB23**
  Use when installing the projector on a ceiling.
- **Mouse Receiver ELPST16**
  Use when you control the computer's mouse pointer from the projector's remote control.
- **External Speaker ELPSP02**
  External self-powered speaker.

Special expertise is required to suspend the projector from a ceiling. Contact Epson for help.

Related Links

- "Optional Accessories and Replacement Parts" p.186

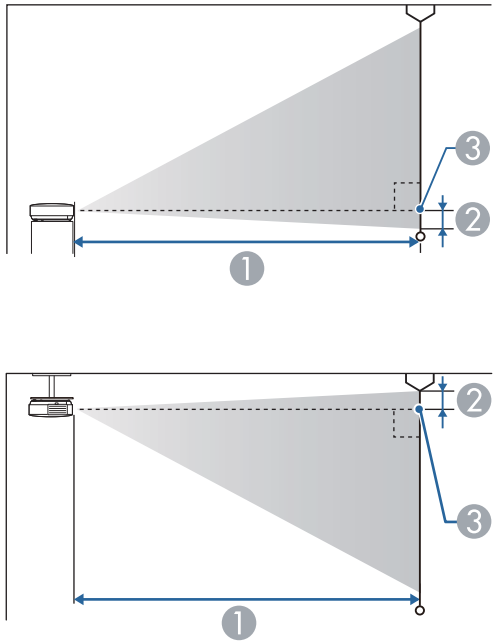
Replacement Parts

- **Lamp unit ELPLP77**
  Use as a replacement for used lamps.
- **Air filter ELPAF41**
  Use as a replacement for used air filters.

Related Links

- "Optional Accessories and Replacement Parts" p.186

Check the table here to determine approximately how far to place the projector from the screen based on the size of the projected image.



1. Projection distance (cm)
2. Distance from the center of the lens to the base of the screen (or to the top of the screen, if suspended from a ceiling) (cm)
3. Center of lens

16:10 screen size		1 Minimum (Wide) to Maximum (Tele)	2
30"	66 × 37	86 - 145	-4
40"	89 × 50	116 - 194	-5
50"	110 × 62	146 - 243	-6
60"	130 × 75	176 - 293	-7
80"	180 × 100	236 - 392	-10
100"	220 × 120	296 - 491	-12
150"	330 × 190	446 - 738	-18
200"	440 × 250	595 - 985	-24
250"	550 × 310	745 - 1232	-31
300"	610 × 457	895 - 1479	-37

EB-1985WU and EB-1980WU do not support screen sizes smaller than 50".

Related Links

- "Appendix" p.185

The table here lists the compatible refresh rate and resolution for each compatible video display format.

Component Signals (Analog RGB)

Signal	Refresh rate (Hz)	Resolution (dots)
VGA	60/72/75/85	640 × 480
SVGA	56/60/72/75/85	800 × 600
XGA	60/70/75/85	1024 × 768
WXGA	60	1280 × 768
	60	1366 × 768
	60/75/85	1280 × 800
WXGA+	60/75/85	1440 × 900
WXGA++	60	1600 × 900
SXGA	70/75/85	1152 × 864
	60/75/85	1280 × 960
	60/75/85	1280 × 1024
SXGA+	60/75	1400 × 1050
WSXGA+ *	60	1680 × 1050
UXGA	60	1600 × 1200
WUXGA **	60	1920 × 1200
MAC13"	67	640 × 480
MAC16"	75	832 × 624
MAC19"	75	1024 × 768
	59	1024 × 768
MAC21"	75	1152 × 870

* Only compatible when **Wide** is selected as the **Resolution** setting in the projector's **Signal** menu.

** WUXGA is available only for EB-1985WU and EB-1980WU.

Even when signals other than those mentioned above are input, it is likely that the image can be projected. However, not all functions may be supported.

Component Video

Signal	Refresh rate (Hz)	Resolution (dots)
SDTV (480i/480p)	60	720 × 480
SDTV (576i/576p)	50	720 × 576
HDTV (720p)	50/60	1280 × 720
HDTV (1080i)	50/60	1920 × 1080
HDTV (1080p)*	50/60	1920 × 1080

* HDTV (1080p) is available only for EB-1985WU and EB-1980WU.

Composite Video

Signal	Refresh rate (Hz)	Resolution (dots)
TV (NTSC)	60	720 × 480
TV (SECAM)	50	720 × 576
TV (PAL)	50/60	720 × 576

HDMI Input Signal

Signal	Refresh rate (Hz)	Resolution (dots)
VGA	60	640 × 480
SVGA	60	800 × 600
XGA	60	1024 × 768
WXGA	60	1280 × 800
	60	1366 × 768
WXGA+	60	1440 × 900
WXGA++	60	1600 × 900
WSXGA+	60	1680 × 1050

Signal	Refresh rate (Hz)	Resolution (dots)
SXGA	60	1280 × 960
	60	1280 × 1024
SXGA+	60	1400 × 1050
UXGA	60	1600 × 1200
WUXGA *	60	1920 × 1200
SDTV (480i/480p)	60	720 × 480
SDTV (576i/576p)	50	720 × 576
HDTV (720p)	50/60	1280 × 720
HDTV (1080i)	50/60	1920 × 1080
HDTV (1080p)	24/30/50/60	1920 × 1080

* WUXGA is available only for EB-1985WU and EB-1980WU.

MHL Input Signal

Signal	Refresh rate (Hz)	Resolution (dots)
VGA	60	640 × 480
SDTV (480i/480p)	60	720 × 480
SDTV (576i/576p)	50	720 × 576
HDTV (720p)	50/60	1280 × 720
HDTV (1080i)	50/60	1920 × 1080
HDTV (1080p)	24/30	1920 × 1080

Related Links

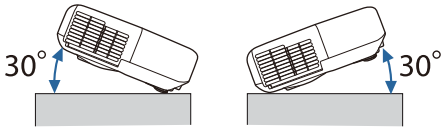
• "Appendix" p.185

Product name	EB-1985WU/EB-1980WU/EB-1975W/EB-1970W
Dimensions	377 (W) × 110 (H) × 291 (D) mm (not including raised section)
LCD panel size	0.76"
Display method	Polysilicon TFT active matrix
Resolution	**EB-1985WU/EB-1980WU**: 2,304,000 pixels WUXGA (1920 (W) × 1200 (H) dots) × 3 **EB-1975W/EB-1970W**: 1,024,000 pixels WXGA (1280 (W) × 800 (H) dots) × 3
Focus adjustment	Manual
Zoom adjustment	1-1.6
Lamp	**EB-1985WU/EB-1975W/EB-1970W**: UHE lamp, 280 W Model No.: ELPLP77 **EB-1980WU**: UHE lamp, 260 W Model No.: ELPLP77
Max. audio output	16 W
Speaker	1
Power supply	**EB-1985WU/EB-1975W/EB-1970W**: 100-240V AC±10% 50/60Hz 4.3 - 1.9 A **EB-1980WU**: 100-240V AC±10% 50/60Hz 4.1 - 1.8 A

Power consumption	100 to 120 V area	**EB-1985WU/EB-1975W/EB-1970W**: Operating: 435 W Standby power consumption (Communication On): 3.5 W Standby power consumption (Communication Off): 0.21 W **EB-1980WU**: Operating: 409 W Standby power consumption (Communication On): 3.5 W Standby power consumption (Communication Off): 0.21 W
	220 to 240 V area	**EB-1985WU/EB-1975W/EB-1970W**: Operating: 411 W Standby power consumption (Communication On): 3.5 W Standby power consumption (Communication Off): 0.34 W **EB-1980WU**: Operating: 388 W Standby power consumption (Communication On): 3.5 W Standby power consumption (Communication Off): 0.34 W
Operating altitude		Altitude 0 to 2,286 m
Operating temperature		5 to +35°C (No condensation)
Storage temperature		-10 to +60°C (No condensation)
Mass		**EB-1985WU/EB-1975W**: Approx. 4.6 kg **EB-1980WU/EB-1970W**: Approx. 4.5 kg

This product is also designed for IT power distribution system with phase-to-phase voltage 230V.

Angle of tilt



If you use the projector tilted at an angle of more than 30° it could be damaged and cause an accident.

Related Links

- "Appendix" p.185
- "Connector Specifications" p.192

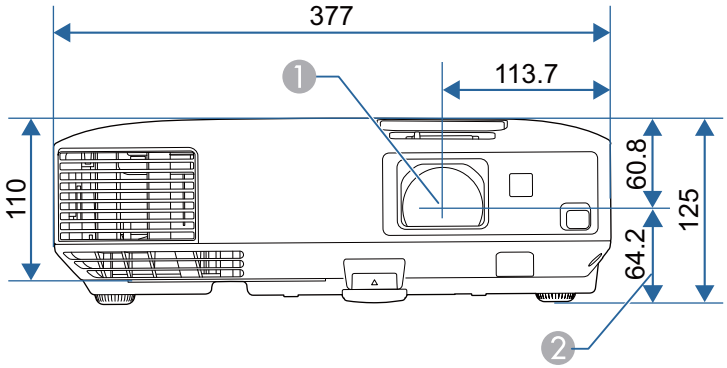
Connector Specifications

Computer1 port	1	Mini D-Sub15-pin (female)
Computer2 port	1	Mini D-Sub15-pin (female)
Video port	1	RCA pin jack
Audio1 port	1	Stereo mini jack (3.5Φ)
Audio2 port	1	Stereo mini jack (3.5Φ)
L-Audio-R port	1	RCA pin jack x 2 (L-R)
Audio Out port	1	Stereo mini jack (3.5Φ)
Monitor Out port	1	Mini D-Sub15-pin (female)
HDMI1/MHL port	1	HDMI (Audio is only supported by PCM)
HDMI2 port	1	HDMI (Audio is only supported by PCM)
USB-A port	1	USB connector (Type A)
USB-B port	1	USB connector (Type B)
LAN port	1	RJ-45
RS-232C port	1	Mini D-Sub 9-pin (male)

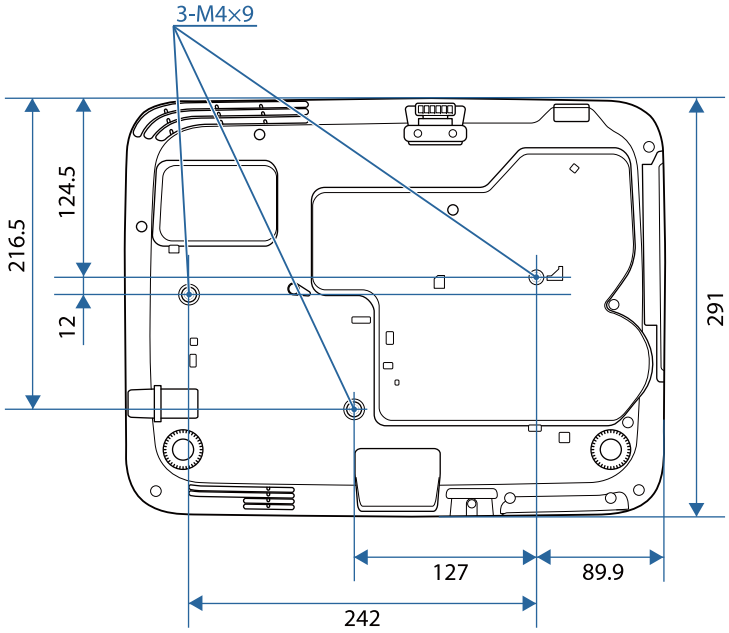
USB-A port supports USB 2.0. However, USB ports are not guaranteed to operate all devices that support USB.

Related Links

- "Projector Specifications" p.191



1 Center of lens
2 Distance from center of lens to suspension bracket fixing point



The unit in these illustrations is mm.

Related Links

- "Appendix" p.185

This section briefly explains the difficult terms that are not explained in the text of this guide. For details, refer to other commercially available publications.

Ad hoc mode	A method of wireless LAN connection that communicates with wireless LAN clients without using an access point.
AMX Device Discovery	AMX Device Discovery is a technology developed by AMX to facilitate AMX control systems for easy operation of the target equipment. Epson have implemented this protocol technology, and have provided a setting to enable the protocol function (ON). See the AMX Web site for more details. URL http://www.amx.com/
Aspect Ratio	The ratio between an image's length and its height. Screens with a horizontal:vertical ratio of 16:9, such as HDTV screens, are known as wide screens. SDTV and general computer displays have an aspect ratio of 4:3.
Component Video	A method that separates the video signal into a luminance component (Y), and a blue minus luminance (Cb or Pb) and a red minus luminance (Cr or Pr).
Composite video	A method that combines the video signal into a luminance component and a color component for transmission down a single cable.
Contrast	The relative brightness of the light and dark areas of an image can be increased or decreased to make text and graphics stand out more clearly, or to make them appear softer. Adjusting this particular property of an image is called contrast adjustment.
DHCP	An abbreviation of Dynamic Host Configuration Protocol, this protocol automatically assigns an IP address to equipment connected to a network.
DICOM	An acronym for Digital Imaging and Communications in Medicine. An international standard that defines image standards and a communications protocol for medical images.
Gateway Address	This is a server (router) for communicating across a network (subnet) divided according to subnet mask.
HDCP	HDCP is an abbreviation for High-bandwidth Digital Content Protection. It is used to prevent illegal copying and protect copyrights by encrypting digital signals sent over DVI and HDMI ports. Because the HDMI port on this projector supports HDCP, it can project digital images protected by HDCP technology. However, the projector may not be able to project images protected with updated or revised versions of HDCP encryption.
HDTV	An abbreviation for High-Definition Television that refers to high-definition systems which satisfy the following conditions: • Vertical resolution of 720p or 1080i or greater (p = Progressive, i = Interlace) • Screen aspect ratio of 16:9
Infrastructure mode	A method for wireless LAN connection in which devices communicate through access points.
Interlace	Transmits information needed to create one screen by sending every other line, starting from the top of the image and working down to the bottom. Images are more likely to flicker because one frame is displayed every other line.
IP Address	A number to identify a computer connected to a network.
MHL	An abbreviation for Mobile High-definition Link, a standard for connection interfaces aimed at mobile devices such as smartphones and tablets. Images can be transferred at high quality and at high speeds without compressing the digital signal, and also charges connected devices.

Progressive	Projects information to create one screen at a time, displaying the image for one frame. Even though the number of scan lines is the same, the amount of flicker in images decreases because the volume of information has doubled compared with an interlace system.
Refresh Rate	The light-emitting element of a display maintains the same luminosity and color for an extremely short time. Because of this, the image must be scanned many times per second to refresh the light-emitting element. The number of refresh operations per second is called the Refresh rate and is expressed in hertz (Hz).
SDTV	An abbreviation for Standard Definition Television that refers to standard television systems which do not satisfy the conditions for HDTV High-Definition Television.
SNMP	An abbreviation for Simple Network Management Protocol, which is the protocol for monitoring and controlling devices such as routers and computers connected to a TCP/IP network.
sRGB	An international standard for color intervals that was formulated so that colors that are reproduced by video equipment can be handled easily by computer operating systems (OS) and the Internet. If the connected source has an sRGB mode, set both the projector and the connected signal source to sRGB.
SSID	SSID is identification data for connecting to another device on a wireless LAN. Wireless communication is possible between devices with the same SSID.
Subnet Mask	This is a numerical value that defines the number of bits used for the network address on a divided network (subnet) from the IP address.
SVGA	A screen size standard with a resolution of 800 (horizontal) × 600 (vertical) dots.
SXGA	A screen size standard with a resolution of 1,280 (horizontal) × 1,024 (vertical) dots.
Sync.	The signals output from computers have a specific frequency. If the projector frequency does not match this frequency, the resulting images are not of a good quality. The process of matching the phases of these signals (the relative position of the crests and the troughs in the signal) is called Synchronization. If the signals are not synchronized, flickering, blurriness, and horizontal interference occur.
Tracking	The signals output from computers have a specific frequency. If the projector frequency does not match this frequency, the resulting images are not of a good quality. The process of matching the frequency of these signals (the number of crests in the signal) is called Tracking. If Tracking is not carried out correctly, wide vertical stripes appear in the signal.
Trap IP Address	This is the IP address for the destination computer used for error notification in SNMP.
VGA	A screen size standard with a resolution of 640 (horizontal) × 480 (vertical) dots.
XGA	A screen size standard with a resolution of 1,024 (horizontal) × 768 (vertical) dots.
WXGA	A screen size standard with a resolution of 1,280 (horizontal) × 768 (vertical) dots.
WUXGA	A screen size standard with a resolution of 1,920 (horizontal) × 1,200 (vertical) dots.

Related Links

• "Appendix" p.185

Check these sections for important notices about your projector.

Related Links

- "Appendix" p.185
- "FCC Compliance Statement" p.196
- "Indication of the manufacturer and the importer in accordance with requirements of directive 2011/65/EU (RoHS) " p.197
- "Wireless Telegraphy Act Regulations" p.197
- "Restriction of Use" p.197
- "Operating System References" p.197
- "Trademarks" p.198
- "Copyright Notice" p.198
- "Copyright Attribution" p.199

FCC Compliance Statement

DECLARATION of CONFORMITY
According to 47CFR, Part 2 and 15
Class B Personal Computers and Peripherals; and/or
CPU Boards and Power Supplies used with Class B Personal Computers

We: Epson America, Inc.

Located at: 3840 Kilroy Airport Way MS: 3-13 Long Beach, CA 90806

Tel: 562-981-3840

Declare under sole responsibility that the product identified herein, complies with 47CFR Part 2 and 15 of the FCC rules as a Class B digital device. Each product marketed, is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47CFR 2.909. Operation is subject to the following two conditions : (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Trade Name: EPSON

Type of Product: LCD Projector

Model: H619C/H620C/H621C/H622C

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 communications. 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 or Declaration 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.

Related Links

- "Notices" p.196

Indication of the manufacturer and the importer in accordance with requirements of directive 2011/65/EU (RoHS)

Manufacturer: SEIKO EPSON CORPORATION
Address: 3-5, Owa 3-chome, Suwa-shi, Nagano-ken 392-8502 Japan
Telephone: 81-266-52-3131

Importer: SEIKO EUROPE B.V.
Address: Azië building, Atlas ArenA, Hoogoorddreef 5, 1101 BA Amsterdam Zuidoost
The Netherlands
Telephone: 31-20-314-5000

Related Links

- "Notices" p.196

Wireless Telegraphy Act Regulations

The following acts are prohibited by the Wireless Telegraphy Act.

- Modifying and disassembling (including the antenna)
- Removing the label of conformance
- Using the 5 GHz Wireless LAN usage outdoors

Related Links

- "Notices" p.196

Restriction of Use

When this product is used for applications requiring high reliability/safety such as transportation devices related to aviation, rail, marine, automotive etc.; disaster prevention devices; various safety devices etc; or functional/precision devices etc, you should use this product only after giving consideration to including fail-safes and redundancies into your design to maintain safety and total system reliability. Because this product was not intended for use in applications requiring extremely high reliability/safety such as aerospace equipment, main communication equipment, nuclear power control equipment, or medical equipment related to direct medical care etc, please make your own judgment on this product's suitability after a full evaluation.

Related Links

- "Notices" p.196

Operating System References

- Microsoft® Windows® 2000 operating system
- Microsoft® Windows® XP operating system
- Microsoft® Windows Vista® operating system
- Microsoft® Windows® 7 operating system
- Microsoft® Windows® 8 operating system
- Microsoft® Windows® 8.1 operating system

In this guide, the operating systems above are referred to as "Windows 2000", "Windows XP", "Windows Vista", "Windows 7", "Windows 8", and "Windows 8.1". Furthermore, the collective term Windows may be used to refer to Windows 2000, Windows XP, Windows Vista, Windows 7, Windows 8, and Windows 8.1.

- Mac OS X 10.3.x
- Mac OS X 10.4.x
- Mac OS X 10.5.x

- Mac OS X 10.6.x
- OS X 10.7.x
- OS X 10.8.x
- OS X 10.9.x

In this guide, the operating systems above are referred to as "Mac OS X 10.3.x", "Mac OS X 10.4.x", "Mac OS X 10.5.x", "Mac OS X 10.6.x", "OS X 10.7.x", "OS X 10.8.x", and "OS X 10.9.x". Furthermore, the collective term "OS X" is used to refer to them all.

Related Links

- "Notices" p.196

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Related Links

- "Notices" p.196

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