

# **User's Guide**

Home Projector

**EF-11** 

| Notations Used in This Guide                                      |          |
|---|----------|
| Introduction to Your Projector                                    | 8        |
| Projector Parts and Functions                                     | 9        |
| Projector Parts - Front/Top                                       | 9        |
| Projector Parts - Rear  | 10       |
| Projector Parts - Base  | 10       |
| Projector Parts - Remote Control                                  | 11       |
| Setting Up the Projector  | 13       |
| Projector Placement   | 14       |
| Projector Setup and Installation Options                          |          |
| Precautions on Installation                                       |          |
| Projection Distance   |          |
| Installing the Projector on VESA Compliant Mounting Hardware or a | ripod 17 |
| Projector Connections   | 20       |
| Connecting to Video Sources                                       | 20       |
| Connecting to External USB Devices                                | 20       |
| Disconnecting a USB Device  | 21       |
| Connecting Headphones   | 21       |
| Installing Batteries in the Remote Control                        | 22       |
| Remote Control Operation  |          |
| Using Basic Projector Features                                    | 24       |
| Turning On the Projector  | 25       |
| AC Adapter Safety Instructions                                    |          |
| Turning Off the Projector   | 27       |
| Selecting the Language for the Projector Menus                    | 28       |

| Projection Modes   | 29 |
|--|----|
| Changing the Projection Mode Using the Menus                 | 29 |
| Adjusting the Image Height                                   | 30 |
| Image Shape  | 31 |
| Auto V-Keystone  | 31 |
| Correcting the Image Shape with the Keystone Button          | 31 |
| Correcting the Image Shape with Quick Corner                 | 32 |
| Focusing the Image Using the Focus Lever                     | 34 |
| Resizing the Image with Zoom                                 | 35 |
| Selecting an Image Source                                    | 36 |
| Adjusting Image Quality (Color Mode)                         | 37 |
| Changing the Color Mode                                      |    |
| Available Color Modes  | 37 |
| Turning On Automatic Luminance Adjustment                    | 37 |
| Adjusting the Sharpness                                      | 39 |
| Adjusting the Image Color                                    | 40 |
| Adjusting the Color Temperature                              | 40 |
| Adjusting the RGB Offset and Gain                            |    |
| Adjusting the Hue, Saturation, and Brightness                |    |
| Adjusting the Gamma  |    |
| Adjusting the Light Source Brightness                        | 44 |
| Saving Settings to Memory and Using Saved Settings           | 45 |
| Controlling the Volume with the Volume Buttons               | 46 |
| Changing the Sound Mode                                      | 47 |
| Available Sound Modes  | 47 |
| Adjusting Projector Features                                 | 48 |
| HDMI Link Features   | 49 |
| Operating the Connected Devices Using the HDMI Link Features |    |
| 1 5  |    |

| Projecting a PC Free Presentation                                   | 51 |
|---|----|
| Supported PC Free File Types  | 51 |
| Precautions on PC Free Projection                                   | 51 |
| Starting a PC Free Slide Show                                       | 52 |
| Starting a PC Free Movie Presentation                               | 53 |
| PC Free Display Options   | 54 |
| Wireless Network Projection from a Mobile Device (Screen Mirroring) | 56 |
| Selecting Screen Mirroring Settings                                 |    |
| Connecting Using Screen Mirroring with the Miracast Function        |    |
| Shutting Off the Image and Sound Temporarily (A/V Mute)             |    |
| Installing a Security Cable   | 59 |
| Adjusting the Menu Settings   | 60 |
| Using the Projector's Menus   | 61 |
| Using the Displayed Keyboard  | 62 |
| Available Text Using the Displayed Keyboard                         |    |
| Image Quality Settings - Image Menu                                 | 63 |
| Projector Feature Settings - Settings Menu                          | 64 |
| Settings Menu - Screen Mirroring Settings                           |    |
| Projector Information Display - Info Menu                           |    |
| Info Menu - Projector Info Menu                                     |    |
| Projector Reset Options - Reset Menu                                | 68 |
| Copying Menu Settings Between Projectors (Batch Setup)              | 69 |
| Transferring Settings From a USB Flash Drive                        | 69 |
| Transferring Settings From a Computer                               | 70 |
| Batch Setup Error Notification                                      | 71 |

| Maintaining the Projector  | /2 |
|--|----|
| Projector Maintenance  | 73 |
| Cleaning the Lens  | 74 |
| Cleaning the Projector Case  | 75 |
| Air Filter and Vent Maintenance  |    |
| Cleaning the Air Filter and Vents  | 76 |
| Replacing the Air Filter   | 76 |
| Solving Problems   | 78 |
| Projection Problems  | 79 |
| Projector Indicator Status   | 80 |
| Solving Projector Power-On or Power-Off Problems                                       | 81 |
| Solving Projector Power Problems   | 81 |
| Solving Projector Shutdown Problems  | 81 |
| Solving Image Problems   | 82 |
| Solving Missing Image Problems   | 82 |
| Adjusting an Image that is not Rectangular   |    |
| Adjusting a Fuzzy or Blurry Image  |    |
| Fixing Partial Image Problems  |    |
| Adjusting an Image that Contains Noise or Static                                       |    |
| Adjusting an Image with Incorrect Brightness or Colors  Adjusting an Upside-down Image |    |
| ,  |    |
| Solving Missing or Low Audio Problems  | 85 |
| Solving Remote Control Operation Problems  | 86 |
| Solving HDMI Link Problems   | 87 |
| Solving Screen Mirroring Problems  | 88 |
| Solving Screen Mirroring Connection Problems   | 88 |

| Projection  | 88  |
|---|-----|
| Appendix  | 90  |
| Optional Accessories and Replacement Parts  | 91  |
| Mounts  | 91  |
| Replacement Parts   | 91  |
| Screen Size and Projection Distance   | 92  |
| Supported Monitor Display Resolutions   | 94  |
| Projector Specifications  | 95  |
| AC Adapter Specifications   |     |
| Connector Specifications  | 95  |
| External Dimensions   | 96  |
| List of Safety Symbols and Instructions   | 97  |
| Laser Safety Information  | 99  |
| Laser Warning Labels  |     |
| Glossary  | 101 |
| Notices   | 102 |
| FCC Compliance Statement  | 102 |
| Indication of the manufacturer and the importer in accordance with requirements of EU directive |     |
| Restriction of Use  |     |
| Trademarks  | 103 |
| Copyright Notice  |     |
| Copyright Attribution   | 104 |

### **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.

| <b>⚠</b> Warning | This symbol indicates information that, if ignored, could possibly result in personal injury or even death.                                |
|------------------|--|
| <b>⚠</b> 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  Indicates the buttons on the remote control or the control panel.  Example: Enter button |  |
| Menu/Setting name  | Indicates projector menu and setting names.  |
|  | Example:   |
|  | Select the <b>Image</b> menu.  |
| ■ Image > Color  |  |
| <b>*</b>   | This label indicates links to the related pages.   |
| ( <b>6</b> *   | This label indicates the projector's current menu level.   |

#### Using the Manual to Search for Information

The PDF manual allows you to search for information you are looking for by keyword, or jump directly to specific sections using the bookmarks. You can also print only the pages you need. This section explains how to use a PDF manual that has been opened in Adobe Reader X on your computer.

#### Searching by keyword

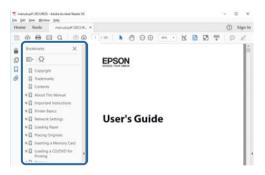
Click **Edit** > **Advanced Search**. Enter the keyword (text) for information you want to find in the search window, and then click **Search**. Hits are displayed as a list. Click one of the displayed hits to jump to that page.



#### Jumping directly from bookmarks

Click a title to jump to that page. Click + or > to view the lower level titles in that section. To return to the previous page, perform the following operation on your keyboard.

- Windows: Hold down **Alt**, and then press ←.
- Mac OS: Hold down the command key, and then press  $\leftarrow$ .



#### Printing only the pages you need

You can extract and print only the pages you need. Click **Print** in the **File** menu, and then specify the pages you want to print in **Pages** in **Pages to Print**.

• To specify a series of pages, enter a hyphen between the start page and the end page. Example: 20-25

• To specify pages that are not in series, divide the pages with commas. Example: 5, 10, 15



# **Introduction to Your Projector**

See these sections to learn more about your projector.

#### **→** Related Links

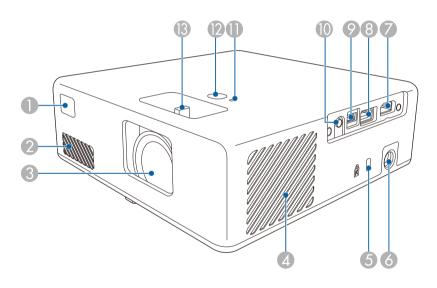
• "Projector Parts and Functions" p.9

The following sections explain the projector parts and their functions.

#### **→** Related Links

- "Projector Parts Front/Top" p.9
- "Projector Parts Rear" p.10
- "Projector Parts Base" p.10
- "Projector Parts Remote Control" p.11

### **Projector Parts - Front/Top**



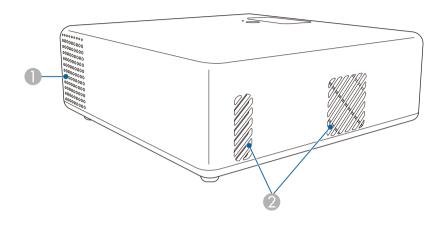
| Name |                              | Function  |
|------|------------------------------|---|
| 0    | Remote receiver              | Receives signals from the remote control.   |
| 2    | Air intake vent              | Takes in air to cool the projector internally.  |
| 3    | Lens                         | Images are projected from here.   |
| 4    | Air intake vent (air filter) | Takes in air to cool the projector internally.  |
| 5    | Security slot                | The security slot is compatible with the Microsaver Security System manufactured by Kensington. |

| Name     |                  | Function  |
|----------|------------------|---|
| 6        | AC adapter port  | Connects the AC adapter.  |
| 7        | HDMI port        | Inputs video signals from HDMI compatible video equipment and computers. This projector is compatible with HDCP.  |
| 8        | USB-A port       | Connects a USB memory device or a digital camera and projects movies or images using PC Free.  Supplies power to the connected device. (5V/2A)  You cannot use the PC Free projection and power supply function at the same time. |
| 9        | Service port     | This port is not normally used.   |
| 0        | Audio Out port   | Outputs audio from the current input source to headphones.  |
| •        | Status indicator | Indicates the projector's status.   |
| 12       | Power button     | Turns the projector on or off.  |
| <b>B</b> | Focus lever      | Adjusts the image focus.  |

#### **→** Related Links

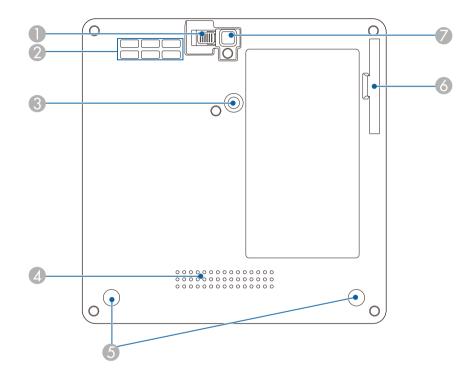
- "Remote Control Operation" p.22
- "Projector Indicator Status" p.80
- "Focusing the Image Using the Focus Lever" p.34
- "Connecting to Video Sources" p.20
- "Connecting to External USB Devices" p.20
- "Connecting Headphones" p.21
- "Installing a Security Cable" p.59

### **Projector Parts - Rear**



| Nan | ne                | Function   |
|-----|-------------------|--|
| 0   | Speaker           | Outputs audio.   |
| 2   | Air exhaust vents | Exhaust vents 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. |

### **Projector Parts - Base**



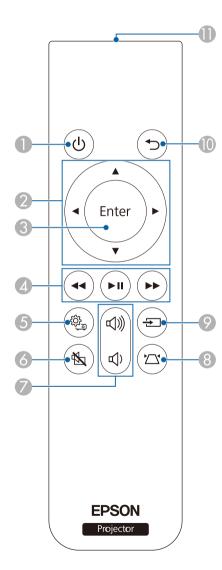
| Name |                                       | Function   |
|------|---------------------------------------|--|
| 0    | Foot release lever                    | Press the foot release lever to extend and retract the front adjustable foot.  |
| 2    | Air intake vent                       | Takes in air to cool the projector internally.   |
| 3    | Mount plate fixing point              | Attach the optional or supplied mount plate here.  |
| 4    | Speaker                               | Outputs audio.   |
| 5    | Rear feet (Mount plate fixing points) | Loosen these feet by turning them counterclockwise, and then remove them to attach the optional or supplied mount plate. |
| 6    | Air filter cover                      | Open to access the air filter.   |

| Nan | ne | Function   |
|-----|----|--|
| 7   |    | When setup on a surface such as a desk, extend the foot to adjust the position of the image. |

#### **→** Related Links

- "Air Filter and Vent Maintenance" p.76
- "Installing the Projector on VESA Compliant Mounting Hardware or a Tripod" p.17
- "Adjusting the Image Height" p.30

### **Projector Parts - Remote Control**



| Name |                          | Function  |
|------|--------------------------|---|
| 0    | Power button             | Turns the projector on or off.  |
| 2    | Arrow buttons            | Selects menu items while displaying the projector's menu.   |
| 3    | Enter button (Enter)     | Enters the current selection and moves to the next level while displaying the projector's menu.   |
| 4    | Playback control buttons | Controls playback of the connected video equipment that supports the HDMI CEC standard.   |
| 6    | Menu button              | Displays and closes the projector's menu. You can use<br>the projector's menus to adjust the settings that control<br>how your projector works. |
| 6    | A/V Mute button          | Turns the video and audio on or off temporarily.  |
| 7    | Volume up/down buttons   | Adjusts the volume for the speaker and headphones.  |
| 8    | Keystone button          | Displays the <b>Keystone</b> adjustment screen or the <b>Quick Corner</b> screen.   |
| 9    | Source Search button     | Switches to the next input source.  |

| Name |                                    | Function  |
|------|------------------------------------|---|
| 10   | Esc button                         | Stops the current function.  Moves back to the previous menu level while displaying the projector's menu. |
| •    | Remote control light emitting area | Outputs remote control signals.   |

#### **→** Related Links

- "Adjusting Image Quality (Color Mode)" p.37
- "Correcting the Image Shape with the Keystone Button" p.31
- "Correcting the Image Shape with Quick Corner" p.32
- "Turning On the Projector" p.25
- "Controlling the Volume with the Volume Buttons" p.46
- "Shutting Off the Image and Sound Temporarily (A/V Mute)" p.58
- "Using the Projector's Menus" p.61

# **Setting Up the Projector**

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

#### **→** Related Links

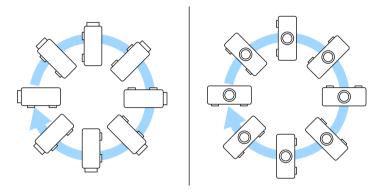
- "Projector Placement" p.14
- "Projector Connections" p.20
  "Installing Batteries in the Remote Control" p.22

## Projector Placement

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

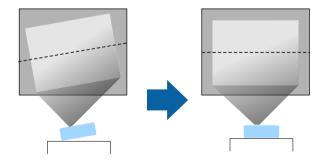
You can also install the projector on a mount if you want to use it in a fixed location. An optional or supplied mount plate is required when installing the projector on a commercially available tripod or on VESA compliant mounting hardware.

The projector can be installed at various angles. There is no vertical or horizontal limit to how the projector can be installed.



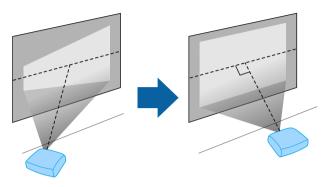
Note the following points when selecting a projector location:

• 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.

• Place the projector so it squarely faces the screen, not at an angle.





If you cannot install the projector squarely facing the screen, correct any resulting keystone distortion using the projector controls. For the best quality images, we recommend adjusting the installation position of the projector to achieve the correct image size and shape.

### **Marning**

- 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 mount plate 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.
- Failure to install the mount plate, mounting hardware, and projector may cause the projector to fall. After installing the projector onto VESA compliant (75  $\times$ 75mm) mounting hardware using the optional or supplied mount plate (ELPMB65), make sure you secure the mounting hardware to all of the projector's mount plate fixing points. Also, secure the projector and the mounting hardware using wire that is strong enough to hold their weight.
- Do not install the projector in a location subject to high levels of dust or humidity, or in a location subject to smoke or steam. Otherwise, it could cause a fire or electric shock to occur. The projector's case could also deteriorate and be damaged causing the projector to fall from the mount.

#### Examples of environments that could cause the projector to fall due to case deterioration

- Locations subject to excessive smoke or airborne oil particles, such as factories or kitchens
- Locations containing volatile solvents or chemicals, such as factories or laboratories
- Locations where the projector could be subjected to detergents or chemicals, such as factories or kitchens
- Locations in which aroma oils are often used, such as relaxation rooms
- Near devices that produce excessive smoke, airborne oil particles, or foam at events

#### **Marning**

- 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.
- Do not use or store the projector in locations where it will be subject to dust or dirt. Otherwise, the quality of the projected image may decline, or the air filter may become clogged, resulting in a malfunction or fire.
- Do not install the projector on an unstable surface or in a location beyond the weight specifications of the projector. Otherwise, it could fall or topple causing an accident and injury.
- When installing the projector in a high position, take measures to prevent falling by using wires to ensure safety in an emergency, such as an earthquake, and to prevent accidents. If it is not installed correctly, it could fall causing an accident and injury.
- Do not install in locations where salt damage could occur, or in locations subject to corrosive gas such as sulphuric gas from hot springs. Otherwise, corrosion could cause the projector to fall. It could also cause the projector to malfunction.

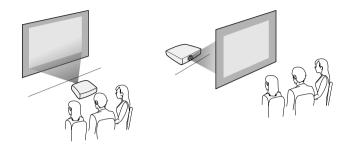
#### **→** Related Links

- "Projector Setup and Installation Options" p.15
- "Projection Distance" p.16
- "Installing the Projector on VESA Compliant Mounting Hardware or a Tripod" p.17
- "Image Shape" p.31
- "Projector Feature Settings Settings Menu" p.64
- "Adjusting the Image Height" p.30
- "Resizing the Image with Zoom" p.35
- "Focusing the Image Using the Focus Lever" p.34

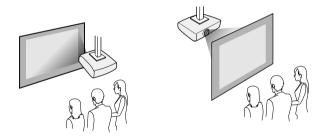
### **Projector Setup and Installation Options**

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

#### Front/Rear



#### Front Upside Down/Rear Upside Down





If you project from the ceiling or from the rear, select the correct **Projection** setting and, if necessary, adjust the **OSD Rotation** setting.

Settings > Installation > OSD Rotation

#### **→** Related Links

- "Precautions on Installation" p.16
- "Projection Modes" p.29

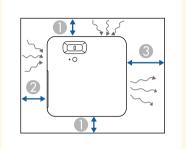
#### **Precautions on Installation**

Note the following precautions when installing the projector.

#### **Installation space**

#### **Attention**

Be sure to leave the following amount of space around the projector so as not to block the air exhaust and intake vents.



- 10 cm
- 20 cm
- 30 cm

#### **A** Caution

Install the supplied AC adapter more than 30 cm away from the projector. If the temperature of the AC adapter rises due to heat from the projector, the projector may not operate properly.

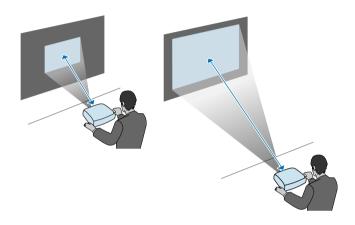
### **Projection Distance**

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 aspect ratio and other settings.

See the Appendix for details about 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.



#### **→** Related Links

• "Screen Size and Projection Distance" p.92

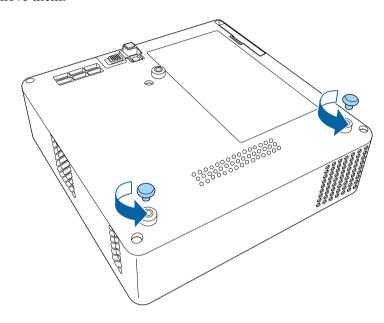
# **Installing the Projector on VESA Compliant Mounting Hardware or a Tripod**

You can install the projector onto VESA compliant mounting hardware or a tripod using the optional or supplied mount plate (ELPMB65).



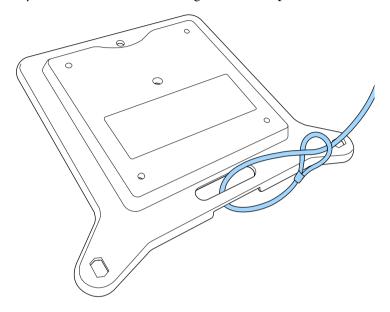
- You can install the projector on VESA compliant  $(75 \times 75 \text{mm})$  mounting hardware.
- You can install the projector on a tripod for which 1/4-20UNC size fixed screws can be used.
- When installing the projector in a high place, be sure to install the optional security wire set (ELPWR01) for safety purposes.

- Turn the projector upside down.
- 2 Loosen the rear feet by turning them counterclockwise, and then remove them.

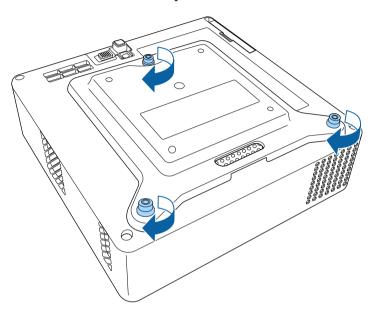


### **Projector Placement**

When installing the projector in a high place, thread the optional security wire set (ELPWR01) through the mount plate.



Attach the mount plate to the projector and secure it in place with the screws that come with the mount plate.





Do not use the rear feet that you removed in step 2 to fix the mount plate. They could loosen and cause the projector to fall.

Install the projector onto VESA compliant mounting hardware or a tripod. For details, see the documentation supplied with the mounting hardware or tripod.

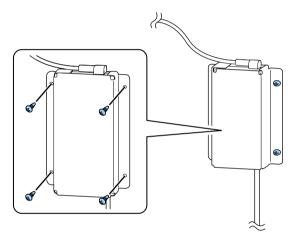


When installing the projector on the tripod, make sure you securely fix the tripod's screws. If you place the projector upside down, the screws could loosen and cause the projector to fall from the tripod.



When installing the projector in a high place such as a ceiling, make sure you hook the carabiner of the optional security wire set (ELPWR01) to a point that is strong enough to hold the weight of the projector and the mounting hardware.

If necessary, fix the AC adapter onto the wall or ceiling using the AC adapter holder that comes with the mount plate.





When fixing the AC adapter on the wall or ceiling, use screws  $(M4 \times 8-10)$  suitable for the material of the wall or ceiling.

See these sections to connect the projector to a variety of projection sources.

#### **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.



See the *Quick Start Guide* for a list of cables supplied with your projector. Purchase optional or commercially available cables when necessary.

#### **→** Related Links

- "Connecting to Video Sources" p.20
- "Connecting to External USB Devices" p.20
- "Connecting Headphones" p.21

### **Connecting to Video Sources**

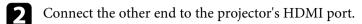
If your video source has an HDMI port, you can connect it to the projector using an HDMI cable and send the image source's audio with the projected image.

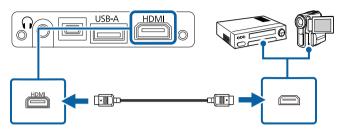
#### **Attention**

Do not turn on the video source before connecting it to the projector. Doing so could damage the projector.



- 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.
- Some video equipment is capable of outputting different types of signals. See your video equipment manual to confirm what type of signals can be output.





### **Connecting to External USB Devices**

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

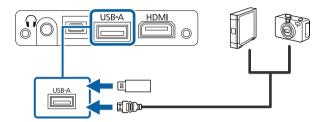
- USB flash drive
- Digital camera or smartphone
- USB hard drive



- 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 FAT16/32
  - Self-powered by their own AC power supplies (bus-powered hard drives are not recommended)
  - Avoid using hard drives with multiple partitions
- If your USB device came with a power adapter, plug the device into an electrical outlet.

### **Projector Connections**

Connect the USB cable or USB flash drive to the projector's USB-A port as shown.



#### **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.
- Connect the other end to your device, if necessary.

#### **→** Related Links

- "Disconnecting a USB Device" p.21
- "Projecting a PC Free Presentation" p.51

#### **Disconnecting a USB Device**

When you have finished projecting with a connected USB device, disconnect the device from the projector.

- Turn off and unplug the device, if necessary.
- Disconnect the USB device from the projector.

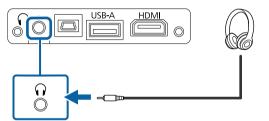
### **Connecting Headphones**

You can connect headphones to the projector's Audio Out port. You can control the volume using the projector's remote control.

#### **Attention**

The projector's Audio Out port only supports 3-pin headphones. If you use any other headphones, audio may not be output normally.

Connect the stereo headphone's mini-jack cable to the projector's Audio Out port.





### **⚠** Caution

Do not start a playback at a high volume setting. Sudden loud noises may cause hearing loss.

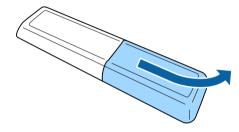
Always lower the volume before powering off, so that you can power on and then gradually increase the volume.

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

#### **Attention**

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

Remove the battery cover as shown.

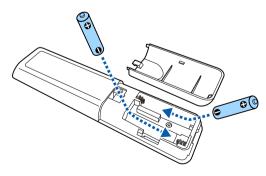


**?** Remove the old batteries, if necessary.



Dispose of used batteries according to local regulations.

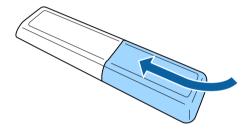
Insert the batteries with the + and – ends facing as shown.



### **Marning**

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.

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



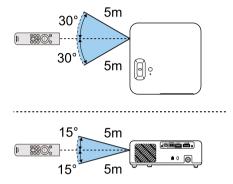
#### **→** Related Links

• "Remote Control Operation" p.22

### **Remote Control Operation**

The remote control lets you control the projector from almost anywhere in the room.

It is recommended that you aim the remote control at the projector's receivers within the distance and 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.

## **Using Basic Projector Features**

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

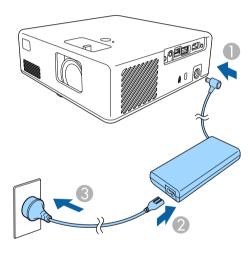
#### **→** Related Links

- "Turning On the Projector" p.25
- "Turning Off the Projector" p.27
- "Selecting the Language for the Projector Menus" p.28
- "Projection Modes" p.29
- "Adjusting the Image Height" p.30
- "Image Shape" p.31
- "Focusing the Image Using the Focus Lever" p.34
- "Resizing the Image with Zoom" p.35
- "Selecting an Image Source" p.36
- "Adjusting Image Quality (Color Mode)" p.37
- "Adjusting the Sharpness" p.39
- "Adjusting the Image Color" p.40
- "Adjusting the Light Source Brightness" p.44
- "Saving Settings to Memory and Using Saved Settings" p.45
- "Controlling the Volume with the Volume Buttons" p.46
- "Changing the Sound Mode" p.47

### **Turning On the Projector**

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

- Connect the AC adapter to the projector's AC adapter port.
- Connect the power cord to the AC adapter.
- Plug the power cord into an electrical outlet.



The projector enters standby mode. This indicates that the projector is receiving power, but is not yet turned on.

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

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

The first time you turn on the projector, the **Welcome Guide** screen is displayed. The **Welcome Guide** shows product features and tips on how to use the projector.



If you want to display the **Welcome Guide** screen again, select Welcome Guide in the projector's Settings menu.

Settings > Display > Welcome Guide



### **Marning**

- Never look into the projector lens when the light source is on. This can damage your eyes and is especially dangerous for children.
- When turning on the projector at a distance using the remote control, make sure there is no one looking into the lens.
- During projection, do not block the light from the projector with a book or other objects. If the light from the projector is blocked, the area on which the light shines becomes hot which could cause it to melt, burn, or start a fire. Also, the lens may get hot due to the reflected light which could cause the projector to malfunction. To stop projection, use the A/V Mute function, or turn off the projector.

#### ▶ Related Links

- "AC Adapter Safety Instructions" p.25
- "Projector Feature Settings Settings Menu" p.64

### **AC Adapter Safety Instructions**

Follow these safety instructions when using the supplied AC adapter.



#### **Marning**

- Under the following conditions, unplug the projector from the outlet and refer all repairs to qualified service personnel. Continuing to use under these conditions may result in fire or electric shock.
- If smoke comes from the AC adapter.
- If strange odors or strange noises come from the AC adapter.
- If the AC adapter has been damaged.
- If liquid or foreign objects get inside the AC adapter.

### **Marning**

- Incorrect use of the AC adapter may cause malfunction, fire, or electric shock. Take the following precautions when using the AC adapter.
  - Do not use any AC adapter other than the one supplied with the projector.
- The supplied AC adapter is designed specifically for this projector model. Do not use it with any other models.
- Do not apply strong pressure or shocks to the AC adapter.
- Do not hold the AC adapter with wet hands.
- Do not install the AC adapter in a narrow space and do not cover it with cloth.
- Do not touch the AC adapter for a long time while it is energized. It may cause a low-temperature burn.
- Do not spray flammable gas such as insecticide on the AC adapter.
- Do not put the AC adapter in a high-pressure container or a cooking appliance such as a microwave oven.
- Do not place the AC adapter near the projector's air exhaust vent.
- Do not wind the power cord around the AC adapter.

Turn off the projector after use.



- Turn off this product when it is not in use to prolong the life of the projector. Light source life varies depending on the environmental conditions and usage. Brightness decreases over time.
- Press the power button on the projector or remote control.

  The projector displays a shutdown confirmation screen.

Power Off?

Yes: Press 🕲 button

No : Press any other button

- Press the power button again. (To leave it on, press any other button.)
  The light source turns off, and the status indicator turns off.
- To transport or store the projector, make sure the status indicator on the projector is off, and then unplug the power cord.

#### **→** Related Links

• "Projector Feature Settings - Settings Menu" p.64

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

- Turn on the projector.
- Press the button on the remote control.
- Select the **Settings** menu and press Enter.



- Select the **Language** setting and press Enter.
- Select the language you want to use and press Enter.
- Press or to exit the menus.

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

- Front lets you project from a table in front of the screen.
- **Front/Upside Down** 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/Upside Down** flips the image over top-to-bottom and horizontally to project from a ceiling or wall mount and behind a translucent screen.

#### **→** Related Links

- "Changing the Projection Mode Using the Menus" p.29
- "Projector Setup and Installation Options" p.15

### **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.

- Turn on the projector and display an image.
- Press the button on the remote control.

Select the **Settings** menu and press (Enter).



- Select Installation > Projection and press Enter.
- Select a projection mode and press Enter.



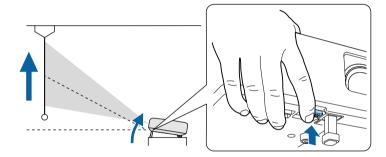
Press or to exit the menus.

### **Adjusting the Image Height**

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 foot.

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.

- Turn on the projector and display an image.
- Press the foot release lever to extend and retract the front adjustable foot.



The foot extends from the projector.

You can adjust the position up to 9 degrees.

**3** Release the lever to lock the foot.

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

#### **→** Related Links

• "Image Shape" p.31

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.

After correction, your image is slightly smaller.

For the best quality images, we recommend adjusting the installation position of the projector to achieve the correct image size and shape.

#### **→** Related Links

- "Auto V-Keystone" p.31
- "Correcting the Image Shape with the Keystone Button" p.31
- "Correcting the Image Shape with Quick Corner" p.32

### **Auto V-Keystone**

When the projector is moved or tilted, **Auto V-Keystone** automatically corrects any vertical keystone distortion.

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

- The **OSD Rotation** setting is set to **Off** in the projector's **Settings** menu.
- Settings > Installation > OSD Rotation



- **Auto V-Keystone** can correct the shape of an image vertically in a projection angle of 360 degrees. If you want to correct the shape of the image finely, use the button on the remote control to correct images manually.
- If you do not want to use the **Auto V-Keystone** function, set **Auto V-Keystone** to **Off** in the projector's menu.

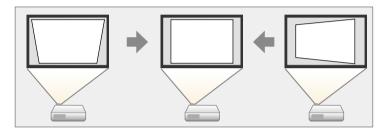
#### **→** Related Links

- "Projector Feature Settings Settings Menu" p.64
- "Correcting the Image Shape with the Keystone Button" p.31

# Correcting the Image Shape with the Keystone Button

You can correct the shape of an image that is unevenly rectangular.

To correct the distortion in the horizontal and vertical directions independently, use the button on the remote control.



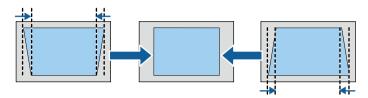


- You cannot combine H/V-Keystone correction with other image shape correction methods.
- You can correct vertical keystone distortion up to 34° up or down.
- You can correct horizontal keystone distortion up to 40° right or left.
- Turn on the projector and display an image.
- Press the button on the remote control.
  You see the **Keystone** adjustment screen:

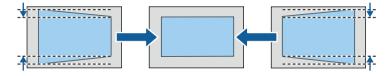


## **Image Shape**

- Use the arrow buttons on the remote control to select between vertical and horizontal keystone correction and to adjust the image shape as necessary.
  - V-Keystone



• H-Keystone

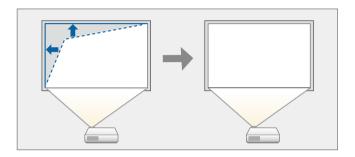


4. When you are finished, press .

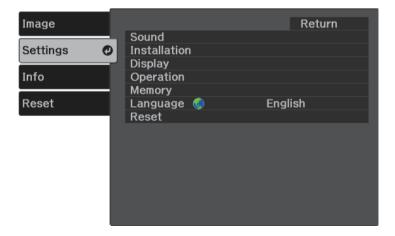
After correction, your image is slightly smaller.

### **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.



- Turn on the projector and display an image.
- Press the button on the remote control.
- Select the **Settings** menu and press (Enter).

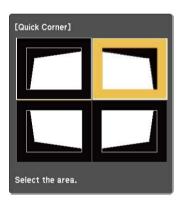


- Select Installation > Keystone and press (Enter).
- Select Quick Corner and press Enter. Then press again if necessary.



You see the area selection screen.

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

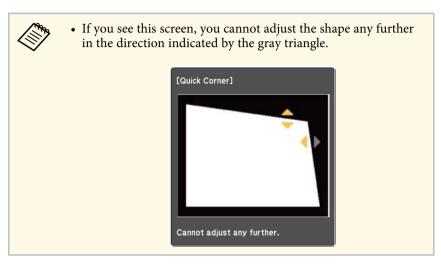




To reset the Quick Corner corrections, hold down for about two seconds while the area selection screen is displayed, and then select **Yes**.

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

To return to the area selection screen, press (Enter).

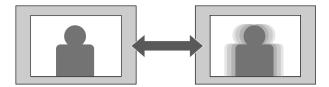


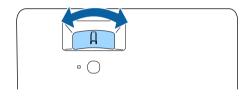
- Repeat steps 6 and 7 as needed to adjust any remaining corners.
- When you are finished, press .

#### **→** Related Links

• "Projector Feature Settings - Settings Menu" p.64

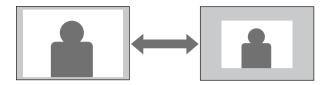
You can correct the focus using the focus lever.





## Resizing the Image with Zoom

You can resize the image using the projector's menu.



- Turn on the projector and display an image.
- Press the button on the remote control.
- Select the **Settings** menu and press Enter.



Select **Installation** > **Zoom** and press Enter).

Press the left or right arrow button to adjust the zoom setting and press



6 Press or to exit the menus.

# Selecting an Image Source

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.

- Make sure the connected image source you want to use is turned on.
- For video image sources, insert a DVD or other video media and press play.
- Press the button on the remote control until you see the image from the source you want.



When no image signal is detected, check the cable connections between the projector and the image source.

# **Adjusting Image Quality (Color Mode)**

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.

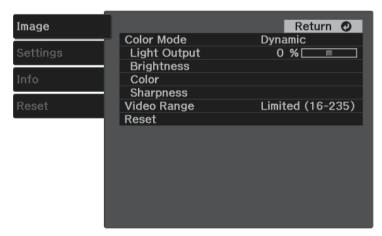
#### **→** Related Links

- "Changing the Color Mode" p.37
- "Available Color Modes" p.37
- "Turning On Automatic Luminance Adjustment" p.37

## **Changing the Color Mode**

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

- Turn on the projector and display an image.
- Press the button on the remote control.
- Select the **Image** menu and press Enter.



- Select Color Mode and press Enter
- Select the color mode you want to use from the list and press (Enter).
- 6 Press or to exit the menus.

#### **▶** Related Links

• "Image Quality Settings - Image Menu" p.63

## **Available Color Modes**

You can set the projector to use these color modes, depending on your environment and image types.

| Color mode    | Description   |  |
|---------------|---|--|
| Dynamic       | This is the brightest mode. Best for prioritizing brightness.     |  |
| Vivid         | Best for enjoying various content in a bright environment.        |  |
| Bright Cinema | Best for enjoying content such as movies in a bright environment. |  |
| Cinema        | Best for enjoying content such as movies in a dark environment.   |  |
| Natural       | Best for adjusting the image color.                               |  |

## **Turning On Automatic Luminance Adjustment**

You can turn on Dynamic Contrast to automatically optimize the image luminance. This improves the image contrast based on the brightness of the content you project.

# **Adjusting Image Quality (Color Mode)**

- Turn on the projector and display an image.
- Press the button on the remote control.
- 3 Select the **Image** menu and press Enter.



- Select Brightness > Dynamic Contrast and press (Enter).
- **5** Select one of the following options and press Enter:
  - Normal for standard brightness adjustment.
  - **High Speed** to adjust brightness as soon as the scene changes.



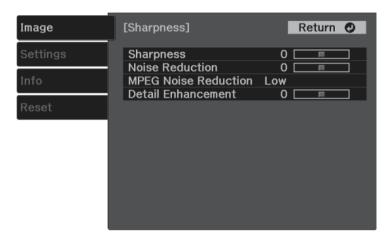
You can fine-tune various aspects of the quality of your projected images.

- Turn on the projector and display an image.
- Press the button on the remote control.
- Select the **Image** menu and press Enter.



- 4 Select **Sharpness** and press Enter.
- **5** Do the following as necessary for each setting:
  - To adjust the outline of the image, adjust the **Sharpness** setting.
  - To reduce flickering in images, adjust the **Noise Reduction** setting.
  - To reduce flickering in MPEG images, adjust the **MPEG Noise Reduction** setting.

• To create a more emphatic texture and material feel of the image, adjust the **Detail Enhancement** setting.



# **Adjusting the Image Color**

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

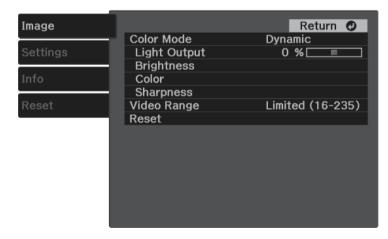
#### **→** Related Links

- "Adjusting the Color Temperature" p.40
- "Adjusting the RGB Offset and Gain" p.40
- "Adjusting the Hue, Saturation, and Brightness" p.41
- "Adjusting the Gamma" p.42

## **Adjusting the Color Temperature**

You can set the overall color tone by adjusting the **Color Temp.** setting if the image is too bluish or reddish.

- Turn on the projector and display an image.
- Press the button on the remote control.
- 3 Select the **Image** menu and press Enter).



- Select Color > White Balance > Color Temp. and press (Enter).
- Press the left or right arrow button to adjust the color tone of the image.



Higher values tint the image blue and lower values tint the image red.

Press or to exit the menus.

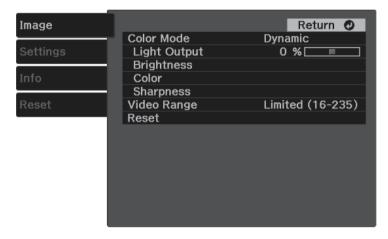
## **Adjusting the RGB Offset and Gain**

You can adjust the brightness of dark and bright areas by adjusting the **Offset** and **Gain** settings for individual image colors.

- Turn on the projector and display an image.
- Press the button on the remote control.

# **Adjusting the Image Color**

Select the **Image** menu and press Enter.



- Select Color > White Balance > Custom and press (Enter).
- **5** Do the following as necessary for each R (red), G (green), and B (blue):
  - To adjust the brightness of dark areas, adjust the **Offset** setting.
  - To adjust the brightness of bright areas, adjust the Gain setting.



Higher values make the image brighter and lower values make the image darker.

In the **Offset** setting, shading for the dark areas is more vividly expressed when you select a high value. When you select a low value,

the image appears more full-bodied but shading for the dark areas is harder to distinguish.

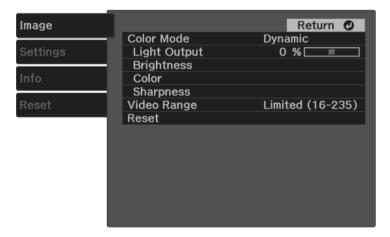
In the **Gain** setting, the bright areas become whiter and shading is lost when you select a high value. When you select a low value, shading for the bright areas is more vividly expressed.

6 Press or to exit the menus.

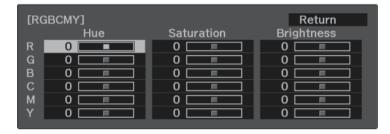
## Adjusting the Hue, Saturation, and Brightness

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

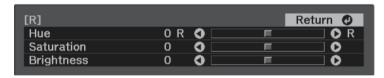
- Turn on the projector and display an image.
- Press the button on the remote control.
- Select the **Image** menu and press Enter.



- Select Color > RGBCMY and press Enter).
- Select the color to adjust, and press Enter.



- **6** Do the following as necessary for each setting:
  - 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 or to exit the menus.

## **Adjusting the Gamma**

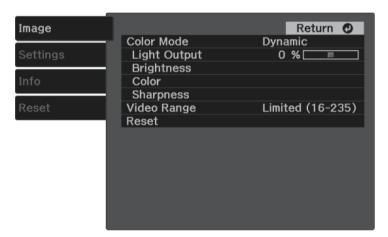
You can correct differences in projected image colors that occur between different image sources by adjusting the **Gamma** setting.



To optimize the color tone according to the scene, and to obtain a more vivid image, correct the image by adjusting the **Scene Adaptive Gamma** setting.

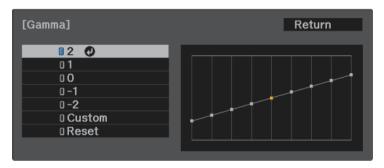
**■** Image > Brightness > Scene Adaptive Gamma

- Turn on the projector and display an image.
- Press the button on the remote control.
- 3 Select the **Image** menu and press (enter).

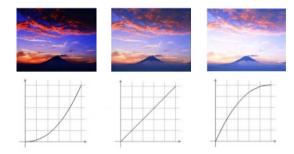


Select **Brightness** > **Gamma** and press Enter.

**5** Select and adjust the correction value.

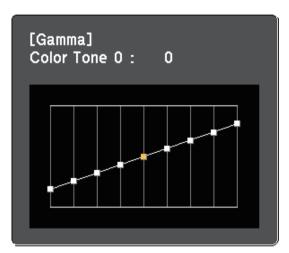


When you select a smaller value, you can reduce the overall brightness of the image to make the image sharper. When you select a larger value, the dark areas of images become brighter, but the color saturation for lighter areas may become weaker.



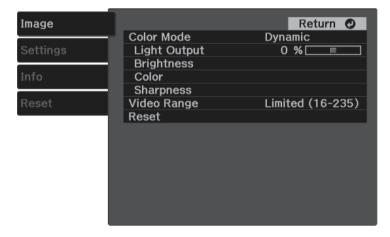
6 If you want to make finer adjustments, select **Custom** and press (Enter).

Press the left or right arrow buttons to select the color tone you want to adjust on the gamma adjustment graph. Then press the up or down arrow button to adjust the value and press Enter.



You can adjust the brightness of your projector's light source.

- Turn on the projector and display an image.
- Press the button on the remote control.
- Select the **Image** menu and press Enter.



- Select **Light Output** and press Enter.
- **5** Press the left and right arrow buttons to select the brightness.



You can save the customized **Image** menu settings for your video inputs and then select the saved settings whenever you want to use them.

- Turn on the projector and display an image.
- Press the button on the remote control.
- Select the **Settings** menu and press Enter.

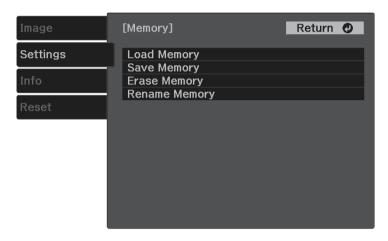


- Select **Memory** and press Enter.
- **S**elect one of the following options:
  - **Load Memory** lets you overwrite your current **Image** menu settings with saved settings.
  - **Save Memory** lets you save your current **Image** menu settings to memory (10 memories with different names are available).



A memory name that has already been used is indicated by a blue mark. Saving over a previously saved memory overwrites the settings with your current settings.

- Erase Memory lets you erase the selected memory settings.
- Rename Memory lets you rename a saved memory.





- The saved Color Mode is displayed on the right of the memory name.
- To delete all saved memories, select Reset Memory in the projector's Reset menu.

The volume buttons control the projector's internal speaker system.

- Turn on the projector and start a video.
- To lower or raise the volume, press the or button on the remote control.

A volume gauge appears on the screen.



## **A** Caution

Do not start a playback 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

• "Projector Feature Settings - Settings Menu" p.64

# **Changing the Sound Mode**

The projector offers different sound modes to provide optimum sound for a variety of image types.

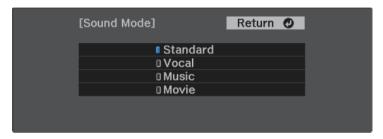
You can select the mode designed to match your image, or experiment with the available modes.

- Turn on the projector and start a video.
- Press the button on the remote control.
- Select the **Settings** menu and press Enter.



Select Sound > Sound Mode and press (Enter).

Select your sound mode and press Enter.



Press or to exit the menus.

#### **→** Related Links

• "Available Sound Modes" p.47

## **Available Sound Modes**

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

| Sound mode | Description   |  |
|------------|---|--|
| Standard   | Outputs the audio using normal sound quality.                                   |  |
| Vocal      | Best for hearing voices and spoken lines.                                       |  |
| Music      | Best for music. Low and high pitch sounds are clearer.                          |  |
| Movie      | Best for audio from videos or movies. Low and high pitch sounds are emphasized. |  |

# **Adjusting Projector Features**

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

#### **→** Related Links

- "HDMI Link Features" p.49
- "Projecting a PC Free Presentation" p.51
- "Wireless Network Projection from a Mobile Device (Screen Mirroring)" p.56
- "Shutting Off the Image and Sound Temporarily (A/V Mute)" p.58
- "Installing a Security Cable" p.59

When an audio/video source that meets the HDMI CEC standard is connected to the projector's HDMI port, you can use the projector's remote control to control certain features of the linked device.

#### **→** Related Links

• "Operating the Connected Devices Using the HDMI Link Features" p.49

# Operating the Connected Devices Using the HDMI Link Features

You can select the connected device that is available for HDMI Link and control the selected device using the HDMI Link features.

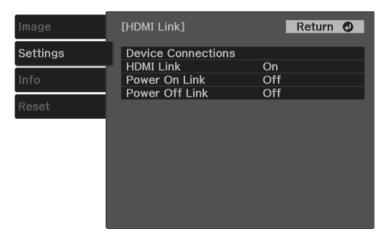


- You must also configure the connected device. See the documentation supplied with the device for more information.
- Some connected devices or functions of those devices may not operate properly even if they meet the HDMI CEC standard. See the documentation supplied with the device for more information.
- Use a cable that supports the HDMI standard.
- Press the button on the remote control.

Select the **Settings** menu and press Enter.



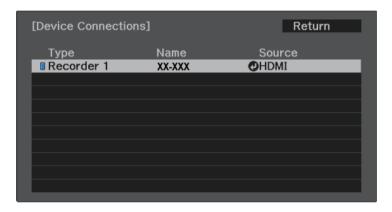
- 3 Select Operation > HDMI Link and press Enter.
- Select **On** as the **HDMI Link** setting and press Enter).



HDMI Link Features 50

Select **Device Connections** and press You see the Device Connections list.

Select the device you want to control and project the image from, and press Enter.

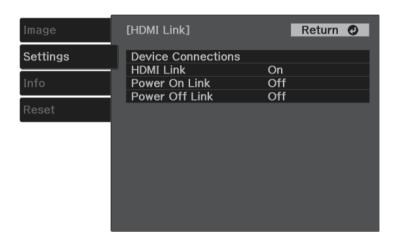




- A linked device is indicated by a blue mark.
- The device name is left blank if it cannot be acquired.
- **7** Press to select the HDMI Link options as necessary.
  - Power On Link lets you control what happens when you turn on the projector or linked device. Select PJ -> Device or Bidirectional to turn the linked device on when the projector is turned on. Select Device -> PJ or Bidirectional to turn the projector on when the linked device is turned on.
  - **Power Off Link** lets you control whether linked devices are turned off when the projector is turned off.



- **Power Off Link** only works when the connected device's CEC power link function is enabled.
- Note that depending on the status of the connected device (for example, if it is recording), the device may not be turned off.



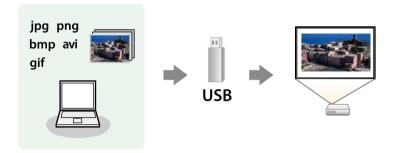
Press to exit the menus.

You can use the projector's remote control to control the linked device such as playback, stop, or adjust the volume.

#### **→** Related Links

• "Projector Feature Settings - Settings Menu" p.64

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

- "Supported PC Free File Types" p.51
- "Precautions on PC Free Projection" p.51
- "Starting a PC Free Slide Show" p.52
- "Starting a PC Free Movie Presentation" p.53
- "PC Free Display Options" p.54

## **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 is not:<br>• Above $1280 \times 800$ resolution  |  |
|               | .gif                  | Make sure the file is not:<br>• Above $1280 \times 800$ resolution<br>• Animated<br>• Interlaced  |  |
|               | .png                  | Make sure the file is not: $ \bullet \   \text{Above 1920} \times 1080 \ \text{resolution}  \\  \bullet \   \text{Interlaced}  $  |  |
| Movie         | .avi                  | Supports only AVI 1.0.  Make sure the file is not:  • Saved with a video codec other than Motion JPEG  • Saved with an audio codec other than PCM or ADPCM  • Above 1280 × 720 resolution  • Larger than 2 GB |  |

## **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.

# **Projecting a PC Free Presentation**

- 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.

## 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).

Press the button on the remote control to switch to the USB source.

The PC Free file list screen is displayed.





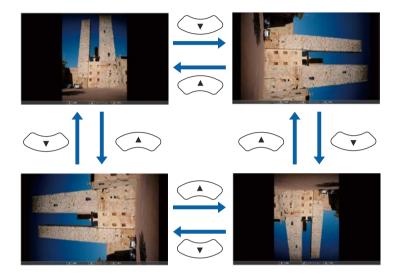
- If the Select Drive screen is displayed, press the arrow buttons to select the drive and press Enter.
- To display images on the other USB drive, highlight **Select Drive** at the top of the file list screen and press Enter.
- **2** Do one of the following to locate your files:
  - If you need to display 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.
- **3** Do one of the following:
  - To display an individual image, press the arrow buttons to highlight the image and press Enter. (Press the 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 the content of the screen and press the arrow option at the bottom of the screen and press the content of the screen option option of the screen option opt



- 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.

# **Projecting a PC Free Presentation**

- 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.
- To stop the display, follow the on-screen instructions or press the button.

You return to the file list screen.

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

## **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.

Press the button on the remote control to switch to the USB source.

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 movie files on the other USB drive, 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 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.
- To stop movie playback, press the button, highlight **Exit**, and press

You return to the file list screen.

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

## **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<br>Time | No                     | Does not display the next file automatically   |
|                          | 1 Second to 60 Seconds | Displays files for the selected time<br>and switches to the next file<br>automatically; high resolution images<br>may switch at a slightly slower rate |

| Setting | Options  | Description  |
|---------|----------|--|
| Effect  | No       | No effect  |
|         | 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 |

You can send image to your projector from mobile devices such as laptops, smartphones, and tablets using Miracast technology.

If your device supports Miracast, you do not need to install any additional software. When using a Windows computer, make sure the necessary adapter for the Miracast connection is available.

Note the following limitations when using Screen Mirroring features.

- You cannot play an interlaced image.
- You cannot play multi-channel audio over 3ch (channel 3).
- You cannot project images with a resolution above  $1920 \times 1080$  and a frame rate above 30 fps.
- You cannot play 3D video.
- You may not be able to view contents with copyright protection with a Miracast connection depending on your device.
- Do not change the projector's Screen Mirroring Settings during Screen Mirroring projection. Doing so may cause the projector to disconnect and it may take a while to re-connect.
- Settings > Operation > Screen Mirroring Settings



Mobile devices with Android installed or Windows 8.1 or later installed mainly support Miracast.

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

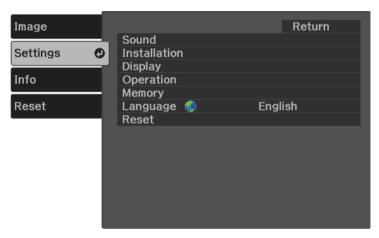
#### **→** Related Links

- "Selecting Screen Mirroring Settings" p.56
- "Connecting Using Screen Mirroring with the Miracast Function" p.57

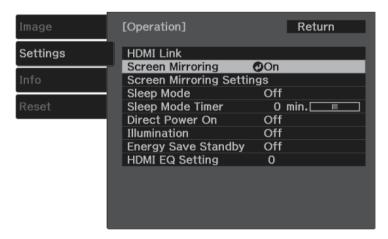
## **Selecting Screen Mirroring Settings**

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

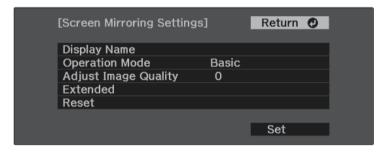
Press the button, select the **Settings** menu, and press the



- Select Operation > Screen Mirroring and press Enter.
- Select On as the Screen Mirroring setting.



**5** Set the **Display Name** setting as necessary.



- **6** Select the **Operation Mode** setting.
  - Basic lets you connect with basic options.
  - Extended lets you connect with advanced options.
- Select the **Adjust Image Quality** setting as necessary.

  You can adjust the screen mirroring speed/quality. Select a small number to improve the quality and select large number to increase the speed.
- **8** For the **Extended** operation mode, select the **Extended** setting.
  - **Interrupt Connection** lets you select the type of meeting. Select **On** to connect to another mobile device during Screen Mirroring projection or **Off** to exclusively connect to one device.
  - **Channel** lets you select the wireless channel used by Screen Mirroring.
- When you finish selecting settings, select **Set** and follow the on-screen instructions to save your settings and exit the menus.

# 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.

- Select Screen Mirroring Settings on your projector as necessary.
- Press the button on the remote control to switch to the Screen Mirroring source.

You see the Screen Mirroring standby screen.

On your mobile device, use your Miracast function to search for the projector.

You see a list of available devices.

- A Select the projector's Display Name from the list.
- 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. You can temporarily turn off the projected image and sound. Any sound or video action continues to run, however, so you cannot resume projection at the point that you stopped it.



- Press the button on the remote control.

  The light source turns off and the projected image and sound are interrupted.
- To turn the image and sound back on, press again.

You can use the security slot on the projector to attach a Kensington Microsaver Security system as a theft deterrent.



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

#### **→** Related Links

• "Projector Parts - Front/Top" p.9

# **Adjusting the Menu Settings**

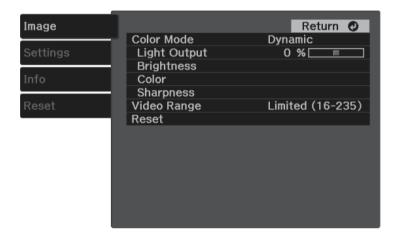
Follow the instructions in these sections to access the projector menu system and change projector settings.

#### **→** Related Links

- "Using the Projector's Menus" p.61
- "Using the Displayed Keyboard" p.62
- "Image Quality Settings Image Menu" p.63
- "Projector Feature Settings Settings Menu" p.64
- "Projector Information Display Info Menu" p.67
- "Projector Reset Options Reset Menu" p.68
- "Copying Menu Settings Between Projectors (Batch Setup)" p.69

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.

Press the button on the remote control.
You see the menu screen displaying the **Image** menu settings.



- 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.
- To change settings in the displayed menu, press Enter.
- Press the up or down arrow button to move through the settings.
- Change the settings using the buttons listed on the bottom of the menu screens.
- To return all the menu settings to their default values, select **Reset**.
- When you finish changing settings on a menu, press .

You can use the displayed keyboard to enter numbers and characters.

Use the arrow buttons on the 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.

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

#### **→** Related Links

• "Available Text Using the Displayed Keyboard" p.62

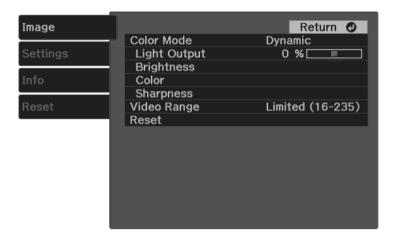
## **Available Text Using the Displayed Keyboard**

You can enter the following text when using the displayed keyboard.

| Text type | Details                        |
|-----------|--------------------------------|
| Numbers   | 0123456789                     |
| Alphabet  | ABCDEFGHIJKLMNOPQRSTUVWXY<br>Z |
|           | abcdefghijklmnopqrstuvwxyz     |

| Text type | Details                             |
|-----------|-------------------------------------|
|           | !"#\$%&'()*+,/:;<=>?@[\]<br>^_`{ }~ |

Settings on the **Image** menu let you adjust the quality of your image for the input source you are currently using.



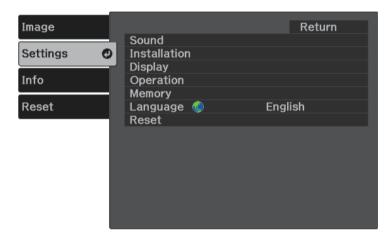
| Setting      | Options                                     | Description   |
|--------------|---|---|
| Color Mode   | See the list of<br>available color<br>modes | Adjusts the vividness of image colors for various image types and environments.   |
| Light Output | Varying levels available                    | Adjusts the brightness for the light source.  |
| Brightness   | Brightness                                  | Lightens or darkens the overall image.  |
|              | Contrast                                    | Adjusts the difference between light and dark areas of the image.   |
|              | Scene Adaptive<br>Gamma                     | Adjusts the coloring according to the scene, and obtains a more vivid image. Select a large number to enhance contrast. |
|              | Gamma                                       | Adjusts the coloring by selecting one of the gamma correction values, or referring to a gamma graph.                    |
|              | Dynamic Contrast                            | Adjusts the projected luminance based on the image brightness.  |

| Setting     | Options                                  | Description   |
|-------------|--|---|
| Color       | Color Saturation                         | Adjusts the intensity of the image colors.  |
|             | Tint                                     | Adjusts the balance of green to magenta tones in the image.   |
|             | White Balance                            | Color Temp.: Sets the color temperature according to the color mode you selected. Higher values tint the image blue and lower values tint the image red. Customized: 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.   |
| Sharpness   | Sharpness                                | Adjusts the sharpness or softness of image details.   |
|             | Noise Reduction                          | Reduces flickering in analog images.  |
|             | MPEG Noise<br>Reduction                  | Reduces the noise or artifacts seen in MPEG video.  |
|             | Detail<br>Enhancement                    | Creates a more emphatic texture and material feel of the image.   |
| Video Range | Auto<br>Limited (16-235)<br>Full (0-255) | Sets the video range to match the setting of the device connected to the HDMI port.   |
| Reset       | _  | Resets all adjustment values on the <b>Image</b> menu for the selected color mode to their default settings.  |

#### **→** Related Links

- "Available Color Modes" p.37
- "Adjusting the Light Source Brightness" p.44
- "Adjusting the Sharpness" p.39
- "Adjusting the Image Color" p.40

Options on the **Settings** menu let you customize various projector features.



| Setting      | Options       | Description   |
|--------------|---------------|---|
| Sound        | Volume        | Adjusts the volume of the projector's speaker system.   |
|              | Sound Mode    | Select your favorite mode for sound output from the projector's speaker system according to the playback contents.                                    |
| Installation | Keystone      | H/V-Keystone: select to manually correct horizontal and vertical sides.  Quick Corner: select to correct image shape and alignment using an on-screen |
|              | Zoom          | display.  Adjusts the image size.   |
|              | Zoom          | radusts the image size.   |
|              | Projection    | Selects the way the projector faces the screen so the image is oriented correctly.  |
|              | OSD Rotation  | Rotates the menu display 90°.   |
| Display      | Welcome Guide | Shows the <b>Welcome Guide</b> that presents product features and tips on how to use the projector.   |

| Setting   | Options                      | Description  |
|-----------|------------------------------|--|
|           | Messages                     | Set to <b>On</b> to display messages such as color mode name, aspect ratio, or high temperature warning on your projected image. Set to <b>Off</b> if you do not want to display messages.   |
|           | Startup Screen               | Set to <b>On</b> to display the Epson logo when the projector starts up.   |
|           | Standby<br>Confirmation      | Set to <b>Off</b> to shut down the projector without displaying the shutdown confirmation screen when you press the power button on the control panel or remote control.   |
| Operation | HDMI Link                    | <b>Device Connections</b> : lists the devices connected to the HDMI ports.   |
|           |                              | <b>HDMI Link</b> : enables or disables the HDMI Link features.   |
|           |                              | <b>Power On Link</b> : controls what happens when you turn on the projector or connected device.   |
|           |                              | <ul> <li>Bidirectional: automatically turns on the connected device when you turn on the projector, and vice versa.</li> <li>Device -&gt; PJ: automatically turns on the projector when you turn on the connected device.</li> <li>PJ -&gt; Device: automatically turns on the connected device when you turn on the projector.</li> </ul> |
|           |                              | Power Off Link: controls whether connected devices are turned off when you turn off the projector.   |
|           | Screen Mirroring             | Select <b>On</b> to project with the Screen Mirroring features.  |
|           | Screen Mirroring<br>Settings | Configures your Screen Mirroring settings.   |
|           | Sleep Mode                   | Automatically turns off the projector after an interval of inactivity (when <b>On</b> ).   |

| Setting  | Options  | Description  |
|----------|--|--|
|          | Sleep Mode Timer                                   | Sets the interval for <b>Sleep Mode</b> .  |
|          | Illumination                                       | Turns off the status indicator on the projector.   |
|          | Energy Save<br>Standby                             | Set to <b>Off</b> to power the device connected to the projector's USB-A port even if the projector is in standby mode (when the power is off).  |
|          | HDMI EQ Setting                                    | Adjust the HDMI input signal level depending on the devices connected to the HDMI port. If there is a lot of interference in the image, or if a problem such as no image being projected occurs, change the setting.  If no images are displayed using a thumb-sized media streaming device, select 1. |
| Memory   | Load Memory Save Memory Erase Memory Rename Memory | Save customized sets of settings to memory.  |
| Language | Various languages available                        | Select the language for projector menu and message displays.   |
| Reset    |  | Resets all adjustment values on the <b>Settings</b> menu to their default settings, except for the following:  |
|          |  | • Zoom   |
|          |  | Projection     Power On Link   |
|          |  | Power Off Link   |
|          |  | Screen Mirroring   |
|          |  | • Energy Save Standby  |
|          |  | • HDMI EQ Setting  |
|          |  | • Memory   |
|          |  | • Language   |

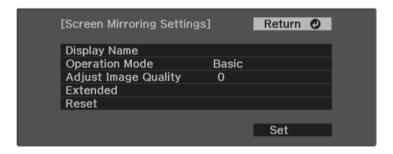
#### **→** Related Links

- "Settings Menu Screen Mirroring Settings" p.65
- "Wireless Network Projection from a Mobile Device (Screen Mirroring)" p.56
- "Image Shape" p.31
- "HDMI Link Features" p.49
- "Saving Settings to Memory and Using Saved Settings" p.45
- "Controlling the Volume with the Volume Buttons" p.46
- "Changing the Sound Mode" p.47

## **Settings Menu - Screen Mirroring Settings**

Settings on the **Screen Mirroring Settings** menu let you select the Screen Mirroring settings.

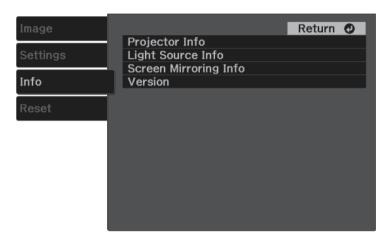
Settings > Operation > Screen Mirroring Settings



| Setting        | Options                                | Description   |
|----------------|--|---|
| Display Name   | Up to 32<br>alphanumeric<br>characters | Enter a name to identify the projector when searching for the projector using the screen mirroring feature. |
| Operation Mode | Basic<br>Extended                      | Select <b>Extended</b> to connect with advanced options.  |

| Setting                 | Options                 | Description  |
|-------------------------|-------------------------|--|
| Adjust Image<br>Quality | 1 through 4             | Adjusts the screen mirroring speed/quality.  |
|                         |                         | When you want to increase image quality, select a small number. When you want to increase processing speed, select a large number. |
| Extended                |                         | Available when you have set <b>Operation Mode</b> to <b>Extended</b> .   |
|                         | Interrupt<br>Connection | Set to <b>On</b> to allow another device to interrupt image projection.  |
|                         |                         | Set to <b>Off</b> to allow one device to connect to the projector without being interrupted.                                       |
|                         | Channel                 | Selects the wireless channel used by Screen Mirroring.   |
| Reset                   | _                       | Resets all adjustment values on the <b>Screen Mirroring Settings</b> menu to their default settings.                               |

You can display information about the projector and version by viewing the **Info** menu. However, you cannot change any settings in the menu.



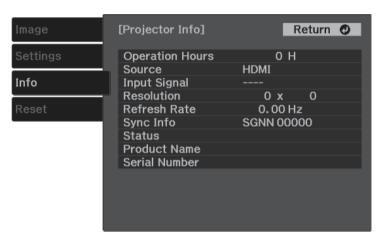
| Information item      | Description  |
|-----------------------|--|
| Projector Info        | Displays the projector information.  |
| Light Source Info     | Displays the number of operating hours for the projector's light source.       |
| Screen Mirroring Info | Display connection information when projecting from a Screen Mirroring source. |
| Version               | Displays the projector's firmware version.                                     |

#### **→** Related Links

• "Info Menu - Projector Info Menu" p.67

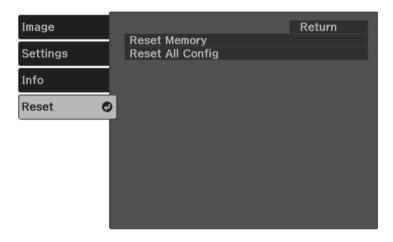
## Info Menu - Projector Info Menu

You can display information about the projector and input sources by viewing the **Projector Info** menu in the projector's **Info** menu.



| Information item | Description   |  |
|------------------|---|--|
| Operation Hours  | Displays the number of hours the projector has been used since it was turned on.          |  |
| 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.                                      |  |
| Refresh Rate     | Displays the refresh rate of the current input source.                                    |  |
| Sync Info        | Displays information that may be needed by a service technician.                          |  |
| Status           | Displays information about projector problems that may be needed by a service technician. |  |
| Product Name     | Displays the projector's product name.  |  |
| Serial Number    | Displays the projector's serial number.   |  |

You can reset most of the projector settings to their default values using the **Reset** menu.



| Setting          | Options | Description  |
|------------------|---------|--|
| Reset Memory     |         | Resets the name and settings of a saved memory.                |
| Reset All Config |         | Resets most of the projector settings to their default values. |

You cannot reset the following settings using the **Reset All Config** option:

- Zoom
- Screen Mirroring Settings
- Memory
- Language

After selecting the projector's menu settings for one projector, you can use the following methods to copy the settings to other projectors, as long as they are the same model.

- by using a USB flash drive
- by connecting a computer and projector using a USB cable

You cannot copy any information unique to an individual projector, such as Screen Mirroring Settings or Info menu.



• Perform batch setup before adjusting the image settings such as keystone distortion correction. Since image adjustment values are also copied to another projector, the adjustments you made before performing the batch setup are overwritten and the projected screen you adjusted may change.



#### 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

- "Transferring Settings From a USB Flash Drive" p.69
- "Transferring Settings From a Computer" p.70

## **Transferring Settings From 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.

Disconnect the power cord from the projector, and check that all of the projector's indicators have turned off.

- Connect an empty USB flash drive directly to the projector's USB-A
- Hold down the button on the remote control and connect the power cord to the projector.
- When all of the projector's indicators turn on, release the button. The indicators 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 USB flash drive is disconnected, the projector may not start correctly.

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.

- Disconnect the power cord from the projector to which you want to copy settings, and check that all of the projector's indicators have turned off.
- Connect the USB flash drive containing the saved batch setup file to the projector's USB-A port.
- Hold down the button on the remote control and connect the power cord to the projector.
- When all of the projector's indicators turn on, release the button.

When all of the indicators 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 USB flash drive is disconnected, the projector may not start correctly.

Remove the USB flash drive.

## **Transferring Settings From a Computer**

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 the following operating system versions:

- Windows 7 and later
- OS X 10.11.x and later
- Disconnect the power cord from the projector, and check that all of the projector's indicators have turned off.
- Connect a USB cable to the computer's USB port and to the projector's Service (USB Mini-B) port.
- Hold down the button on the remote control and connect the power cord to the projector.
- When all of the projector's indicators turn on, release the button. The computer recognizes the projector as a removable disk.

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 PICONFDATA section of the file name, the projector may not be able to recognize the file correctly.

- Eject the USB device (Windows) or drag the removable disk icon to the Trash (Mac).
- Disconnect the USB cable. The projector turns off.
- Disconnect the power cord from the projector to which you want to copy settings, and check that all of the projector's indicators have turned off.
- Connect the USB cable to the computer's USB port and to the projector's Service (USB Mini-B) port.
- Hold down the button on the remote control and connect the power cord to the projector.
- When all of the projector's indicators turn on, release the button. The computer recognizes the projector as a removable disk.
- 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.

- Eject the USB device (Windows) or drag the removable disk icon to the Trash (Mac).
- Disconnect the USB cable. When all of the indicators 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

• "Batch Setup Error Notification" p.71

### **Batch Setup Error Notification**

The projector's indicators notify you if an error occurs during a batch setup operation. Check the status of the projector's indicators and follow the instructions described in the table here.

| Indicator status | Problem and solutions  |
|------------------|--|
| Flashing orange  | The batch setup file may be corrupt, or the USB flash drive or USB cable may not be connected correctly.                 |
|                  | Disconnect the USB flash drive or the USB cable, unplug and then plug in the projector's power cord, and then try again. |
|                  | If the problem persists, unplug the projector and contact Epson for help.  |

# **Maintaining the Projector**

Follow the instructions in these sections to maintain your projector.

#### **→** Related Links

- "Projector Maintenance" p.73
- "Cleaning the Lens" p.74
- "Cleaning the Projector Case" p.75
- "Air Filter and Vent Maintenance" p.76

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 air filter and remote control batteries. If any other part needs replacing, contact Epson or an authorized Epson servicer.



## **Marning**

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.

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 clean and dry lenscleaning paper.
- If the lens is dusty, blow off dust using a blower, and then wipe the lens.



## **Marning**

- Before cleaning the lens, turn off the projector and unplug the power cord.
- Do not use any flammable gas sprays such as air dusters to blow off dust. The high heat generated by the projector may cause a fire.

### **Attention**

- Do not wipe the lens right after you turn off the projector. Doing so could damage the lens.
- Do not use any harsh materials to clean the lens and do not subject the lens to any impacts; otherwise, it could be damaged.

## **Cleaning the Projector Case**

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.

Regular filter maintenance is important to maintain your projector. Clean the air filter when a message appears telling you the temperature inside the projector has reached a high level. It is recommended that you clean these parts over a 5,000 hour period. Clean them more often than this if you use the projector in a environment that is dustier than expected. (Assuming the projector is used in an atmosphere in which airborne particulate matter is less than 0.04 to 0.2 mg/m3.)

#### **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.

#### **→** Related Links

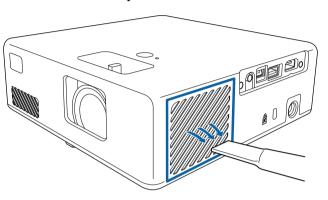
- "Cleaning the Air Filter and Vents" p.76
- "Replacing the Air Filter" p.76

## **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.

Turn off the projector and unplug the power cord.

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.

If dust is difficult to remove or the air filter is damaged, replace the air filter.

## Replacing the Air Filter

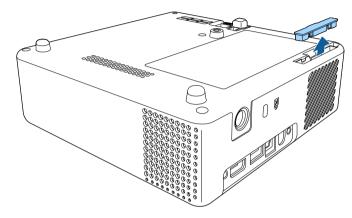
You need to replace the air filter in the following situations:

• The air filter is torn or damaged.

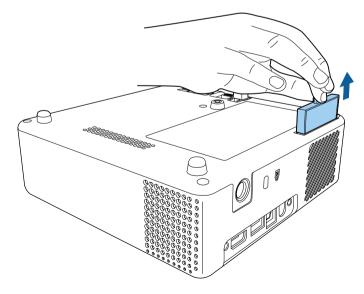
You can replace the air filter while the projector is mounted to the ceiling or placed on a table.

Turn off the projector and unplug the power cord.

- Turn the projector upside down.
- Open the air filter cover.



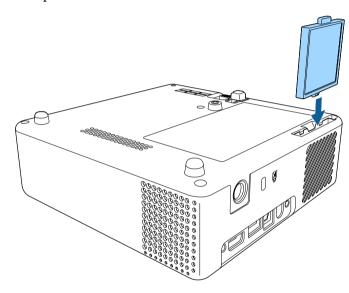
Pull the air filter out of the projector.





Dispose of used air filters according to local regulations.

- Filter frame: ABS
- Filter: Polyurethane foam
- Place the new air filter in the projector as shown and push gently until it clicks into place.



**6** Close the air filter cover.

## **→** Related Links

• "Replacement Parts" p.91

## **Solving Problems**

Check the solutions in these sections if you have any problems using the projector.

### **→** Related Links

- "Projection Problems" p.79
- "Projector Indicator Status" p.80
- "Solving Projector Power-On or Power-Off Problems" p.81
- "Solving Image Problems" p.82
- "Solving Missing or Low Audio Problems" p.85
- "Solving Remote Control Operation Problems" p.86
- "Solving HDMI Link Problems" p.87
- "Solving Screen Mirroring Problems" p.88

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:

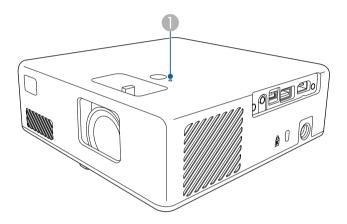
- The indicators on the projector may indicate the problem.
- The solutions in this manual can help you solve many problems.

If none of these solutions help, contact Epson for technical support.

The indicators on the projector indicate the projector status and let you know when a problem occurs. Check the status and color of the indicators and then refer to this table for a solution.



If the indicators display a pattern not listed in the table below, turn the projector off, unplug it, and contact Epson for help.



Status indicator

## **Projector status**

| Indicator status | Problem and solutions  |  |
|------------------|--|--|
| Lit blue         | Normal operation.  |  |
| Flashing blue    | Warming up, shutting down, or cooling down.                                    |  |
|                  | When warming up, wait about 30 seconds for an image to appear.                 |  |
|                  | Remote control operations may be disabled when the indicator is flashing blue. |  |
| Off              | Standby or sleep mode. When you press the power button, projection starts.     |  |

| Indicator status | Problem and solutions  |  |
|------------------|--|--|
| Lit 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. |  |
|                  | Make sure the environmental temperature is not too hot.  |  |
|                  | Clean or replace the air filter.   |  |
|                  | If the problem persists, unplug the projector and contact Epson for help.                          |  |
|                  | Laser warning.   |  |
|                  | Turn the projector off, unplug it, and contact Epson for help.                                     |  |
| Flashing orange  | Laser has a problem.   |  |
|                  | Turn the projector off, unplug it, and contact Epson for help.                                     |  |
|                  | A fan or sensor has a problem.   |  |
|                  | Turn the projector off, unplug it, and contact Epson for help.                                     |  |
|                  | Internal projector error.  |  |
|                  | Turn the projector off, unplug it, and contact Epson for help.                                     |  |

### **→** Related Links

- "Projector Feature Settings Settings Menu" p.64
- "Cleaning the Air Filter and Vents" p.76
- "Replacing the Air Filter" p.76

Check the solutions in these sections if the projector does not turn on when you press the power button or it turns off unexpectedly.

#### **→** Related Links

- "Solving Projector Power Problems" p.81
- "Solving Projector Shutdown Problems" p.81

## **Solving Projector Power Problems**

If the projector does not turn on when you press the power button, try the following steps until the problem is solved.

- Make sure the power cord is securely connected to the projector and to a working electrical outlet.
- If you are using the remote control, check the batteries of the remote control.
- The power cord may be defective. Disconnect the cord and contact Epson for help.

#### **→** Related Links

- "Turning On the Projector" p.25
- "Installing Batteries in the Remote Control" p.22

## **Solving Projector Shutdown Problems**

If the projector's light source turns off unexpectedly, try the following steps until the problem is solved.

- Projectors 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.
  - Settings > Operation > Sleep Mode

When the status indicator is lit orange, the projector has overheated and turned off.



The cooling fans may run in standby status depending on the projector settings. Also, when the projector wakes from standby status, the fans may cause an unexpected noise. This is not a malfunction.

#### ▶ Related Links

• "Projector Feature Settings - Settings Menu" p.64

## **Solving Image Problems**

Check the solutions in these sections if you have any problems with projected images.

#### **→** Related Links

- "Solving Missing Image Problems" p.82
- "Adjusting an Image that is not Rectangular" p.82
- "Adjusting a Fuzzy or Blurry Image" p.83
- "Fixing Partial Image Problems" p.83
- "Adjusting an Image that Contains Noise or Static" p.83
- "Adjusting an Image with Incorrect Brightness or Colors" p.84
- "Adjusting an Upside-down Image" p.84

## **Solving Missing Image Problems**

If no image is displayed, try the following steps until the problem is solved.

- **1** Check the projector's status:
  - Press the button on the remote control to see if the image was temporarily turned off.
  - Check the status indicator to confirm that the projector is in normal operating status.
  - Press the projector's power button to wake it from standby or sleep mode.
    - Settings > Operation > Sleep Mode
- Check the cable connection:
  - Make sure all necessary cables are securely connected and the power is on for the projector.
  - Connect the video source directly to the projector.
  - Replace the HDMI cable with the shorter one.

- Check the status of your video source:
  - Turn on the connected video source, and press the play button to start a video, if necessary.
  - Make sure the connected device meets the HDMI CEC standard. See the documentation supplied with the device for more information.
  - If you are projecting from a laptop computer, make sure it is set up to display on an external monitor.
- Check the following items:
  - Turn off the projector and the connected video source, and then turn them back on.
  - Set the CEC function for the connected device again and restart the device.
  - 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.)
  - Resets all of the projector settings to their default values.
    - Reset > Reset All Config

#### **→** Related Links

- "Projector Feature Settings Settings Menu" p.64
- "Projector Reset Options Reset Menu" p.68

## Adjusting an Image that is not Rectangular

If the projected image is not evenly rectangular, try the following steps until the problem is solved.

- Place the projector directly in front of the center of the screen, facing it squarely, if possible.
- Adjust the image shape using the **Keystone** settings.

- Settings > Keystone > H/V-Keystone
- Settings > Keystone > Quick Corner

#### **→** Related Links

- "Projector Feature Settings Settings Menu" p.64
- "Correcting the Image Shape with the Keystone Button" p.31
- "Correcting the Image Shape with Quick Corner" p.32

## **Adjusting a Fuzzy or Blurry Image**

If the projected image is fuzzy or blurry, try the following steps until the problem is solved.

- Adjust the image focus using the focus lever.
- Check the following items:
  - 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.
- 3 Clean the projector's 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.

- Adjust the **Sharpness** setting in the projector's **Image** menu to improve image quality.
- If you are projecting from a computer, use a lower resolution or select a resolution that matches the projector's native resolution.

#### **→** Related Links

- "Image Quality Settings Image Menu" p.63
- "Focusing the Image Using the Focus Lever" p.34
- "Cleaning the Lens" p.74

## **Fixing Partial Image Problems**

If only a partial computer image is displayed, try the following steps until the problem is solved.

- If you zoomed into or out of the image using the **Zoom** setting, press the button until the projector returns to a full display.
- Make sure you selected the correct projection mode. You can select this using the **Projection** setting in the projector's **Settings** menu.
  - Settings > Installation > Projection
- Check your computer display settings to disable dual display and set the resolution within the projector's limits. (See your computer manual for details.)

### **→** Related Links

• "Projector Feature Settings - Settings Menu" p.64

## **Adjusting an Image that Contains Noise or Static**

If the projected image contains electronic interference (noise) or static, try the following steps until the problem is solved.

- Check the cables connecting your video source to the projector. They should be:
  - Separated from the power cord to prevent interference
  - Securely connected at both ends

## **Solving Image Problems**

- Not connected to an extension cable
- 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.
- Select a computer video resolution and refresh rate that are compatible with the projector.

#### **→** Related Links

• "Image Quality Settings - Image Menu" p.63

# Adjusting an Image with Incorrect Brightness or Colors

If the projected image is too dark or bright, or the colors are incorrect, try the following steps until the problem is solved.

- Try different color modes for your image and environment by selecting the **Color Mode** setting in the projector's **Image** menu.
- **2** Check your video source settings.
- Adjust the available settings in the projector's **Image** menu for the current input source, such as **Brightness**, **Contrast**, **Tint**, and **Color Saturation**.
  - **☞** Image > Brightness
  - **☞** Image > Color
- Make sure you selected the correct **Video Range** setting in the projector's **Image** menu, if available for your image source.

## **☞** Image > Video Range

- Make sure all the cables are securely connected to the projector and your video equipment. If you connected long cables, try connecting shorter cables.
- **6** Position the projector close enough to the screen.

#### **→** Related Links

• "Image Quality Settings - Image Menu" p.63

## **Adjusting an Upside-down Image**

If the projected image is upside-down, select the correct projection mode.

Settings > Installation > Projection

### **→** Related Links

• "Projector Feature Settings - Settings Menu" p.64

If there is no sound or the volume is too low, try the following steps until the problem is solved.

- Adjust the projector's volume settings using the or button on the remote control.
- Check the cable connection between the projector and your video source.
- Press the button on the remote control to resume video and audio if they were temporarily stopped.
- Check the following settings on your video equipment:
  - Check your video source to make sure the volume is turned up and the audio output is set for the correct source.
  - Set the connected device to PCM output.
  - When you are connecting the projector to a Mac using an HDMI cable, make sure your Mac supports audio through the HDMI port.

### **→** Related Links

• "Projector Feature Settings - Settings Menu" p.64

If the projector does not respond to remote control commands, try the following steps until the problem is solved.



If you lose the remote control, you can order another one from Epson.

- Check that the remote control batteries are installed correctly and have power. If necessary, replace the batteries.
- 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.
- If the image is projected from the projector, make sure you are operating the remote control within the reception angle and range of the projector.
- Check the status indicator to confirm that the projector is in normal operating status.
- 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.

#### **→** Related Links

• "Remote Control Operation" p.22

## **Solving HDMI Link Problems**

If you cannot operate the connected devices using the HDMI Link features, try the following steps until the problem is solved.

- Make sure the cable meets the HDMI CEC standard.
- Make sure the connected device meets the HDMI CEC standard. See the documentation supplied with the device for more information.
- Check if the device is available in the **Device Connections** list.

  If the device does not appear in the **Device Connections** list, it does not meet the HDMI CEC standards. Connect a different device.
  - Settings > Operation > HDMI Link > Device Connections
- Check that all cables required for HDMI Link are securely connected.
- Make sure the connected devices are turned on and in standby status. See the documentation supplied with the device for more information.
- If you connect a new device or change the connection, set the CEC function for the connected device again and restart the device.

### **→** Related Links

• "Projector Feature Settings - Settings Menu" p.64

## **Solving Screen Mirroring Problems**

Check the solutions in these sections if you have any problems with Screen Mirroring projection.

#### **→** Related Links

- "Solving Screen Mirroring Connection Problems" p.88
- "Adjusting an Image that Contains Noise or Static in Screen Mirroring Projection" p.88

## **Solving Screen Mirroring Connection Problems**

If you are unable to connect to the projector using Screen Mirroring, try the following solutions:

- Check the projector's settings.
  - Select **On** as the **Screen Mirroring** setting.
    - Settings > Operation > Screen Mirroring
  - Change the **Display Name** so that it does not include "-" or it may not be displayed correctly on your mobile device.
    - Settings > Operation > Screen Mirroring Settings > Display Name
  - Select **Off** as the **Screen Mirroring** setting, and select **On** again.
  - Change the **Operation Mode** setting and connect again.
    - Settings > Operation > Screen Mirroring Settings > Operation Mode
  - Make sure that the no other devices are connected to the projector with the **Interrupt Connection** settings.
    - Settings > Operation > Screen Mirroring Settings > Extended > **Interrupt Connection**
  - Change the Channel setting according to the wireless LAN environment.
    - Settings > Operation > Screen Mirroring Settings > Extended > Channel

- 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.

## Adjusting an Image that Contains Noise or Static in **Screen Mirroring Projection**

If the projected image or sound contains static when connecting using Screen Mirroring, try the following solutions:

- - Check the mobile device's settings.
  - Avoid covering 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 contain noise. Disconnect the internet connection to expand your wireless bandwidth and improve the connection speed of the mobile device.
  - Depending on the settings of the mobile device, the connection may be lost when the device enters 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.
- Make sure the projection contents meet the Screen Mirroring requirements.

## **→** Related Links

• "Projector Feature Settings - Settings Menu" p.64

## **Appendix**

Check these sections for the technical specifications and important notices about your projector.

### **→** Related Links

- "Optional Accessories and Replacement Parts" p.91
- "Screen Size and Projection Distance" p.92
- "Supported Monitor Display Resolutions" p.94
- "Projector Specifications" p.95
- "External Dimensions" p.96
- "List of Safety Symbols and Instructions" p.97
- "Laser Safety Information" p.99
- "Glossary" p.101
- "Notices" p.102

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: July 2021.

Details of accessories are subject to change without notice and availability may vary depending on the country of purchase.

### **→** Related Links

- "Mounts" p.91
- "Replacement Parts" p.91

## **Mounts**

### **Mount plate ELPMB65**

Use when installing the projector on a VESA compliant mounting hardware or a tripod.

## **Safety Wire Set ELPWR01**

Use when connecting the projector to the installation mount to prevent the projector from falling down.



Special expertise is required to suspend the projector from a ceiling. Contact Epson for help.

### **→** Related Links

• "Installing the Projector on VESA Compliant Mounting Hardware or a Tripod" p.17

## **Replacement Parts**

### Air filter ELPAF61

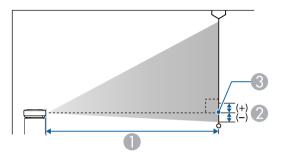
Use as a replacement for used air filters.

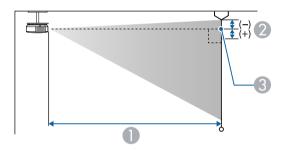
#### **→** Related Links

• "Replacing the Air Filter" p.76

## **Screen Size and Projection Distance**

Check the table here to determine how far to place the projector from the screen based on the size of the projected image.





- 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)
- Center of lens

| 16:9 screen size |          | 0                                   | 2 |
|------------------|----------|-------------------------------------|---|
|                  |          | Minimum (Wide) to<br>Maximum (Tele) |   |
| 30"              | 66 × 37  | 65 - 89                             | 0 |
| 40"              | 89 × 50  | 88 - 120                            | 0 |
| 50"              | 111 × 62 | 110 - 150                           | 0 |

| 16:9 screen size |           | 0                                   | 2 |
|------------------|-----------|-------------------------------------|---|
|                  |           | Minimum (Wide) to<br>Maximum (Tele) |   |
| 60"              | 133 × 75  | 133 - 181                           | 0 |
| 70"              | 155 × 87  | 156 - 212                           | 0 |
| 80"              | 177 × 100 | 179 - 243                           | 0 |
| 90"              | 199 × 112 | 202 - 273                           | 0 |
| 100"             | 221 × 125 | 224 - 304                           | 0 |
| 120"             | 266 × 149 | 270                                 | 0 |
| 150"             | 332 × 187 | 338                                 | 0 |

| 16:10 s | 16:10 screen size |                                     | 2 |
|---------|-------------------|-------------------------------------|---|
|         |                   | Minimum (Wide) to<br>Maximum (Tele) |   |
| 30"     | 65 × 40           | 70 - 96                             | 0 |
| 40"     | 86 × 54           | 95 - 130                            | 0 |
| 50"     | 108 × 67          | 120 - 163                           | 0 |
| 60"     | 129 × 81          | 144 - 196                           | 0 |
| 70"     | 151 × 94          | 169 - 229                           | 0 |
| 80"     | 172 × 108         | 194 - 262                           | 0 |
| 90"     | 194 × 121         | 218 - 296                           | 0 |
| 100"    | 215 × 135         | 243 - 329                           | 0 |
| 120"    | 258 × 162         | 292                                 | 0 |
| 130"    | 280 × 175         | 317                                 | 0 |
| 140"    | 302 × 188         | 341                                 | 0 |

| 4:3 screen size |           | 0                                   | 2 |
|-----------------|-----------|-------------------------------------|---|
|                 |           | Minimum (Wide) to<br>Maximum (Tele) |   |
| 30"             | 61 × 46   | 80 - 109                            | 0 |
| 40"             | 81 × 61   | 108 - 147                           | 0 |
| 50"             | 102 × 76  | 136 - 185                           | 0 |
| 60"             | 122 × 91  | 164 - 222                           | 0 |
| 70"             | 142 × 107 | 192 - 260                           | 0 |
| 80"             | 163 × 122 | 220 - 298                           | 0 |
| 90"             | 183 × 137 | 247 - 335                           | 0 |
| 100"            | 203 × 152 | 275                                 | 0 |
| 120"            | 244 × 183 | 331                                 | 0 |

| Signal           | Refresh rate (Hz)             | Resolution (dots) |
|------------------|-------------------------------|-------------------|
| VGA              | 60                            | 640 × 480         |
| SDTV (480i/480p) | 59.94                         | 720 × 480         |
| SDTV (576i/576p) | 50                            | 720 × 576         |
| HDTV (720p)      | 50/59.94/60                   | $1280 \times 720$ |
| HDTV (1080i)     | 50/59.94/60                   | 1920 × 1080       |
| HDTV (1080p)     | 23.98/24/29.97/30/50/59.94/60 | 1920 × 1080       |

## **Projector Specifications**

| Product name                | EF-11   |
|-----------------------------|---|
| Dimensions                  | $175 \text{ (W)} \times 58 \text{ (H)} \times 175 \text{ (D)} \text{ mm (not including raised section)}$                                    |
| LCD panel size              | 0.62"   |
| Display method              | Poly-silicon TFT active matrix  |
| Resolution                  | 2,073,600 pixels Full HD (1,920 (W) $\times$ 1,080 (H) dots) $\times$ 3   |
| Focus adjustment            | Manual  |
| Zoom adjustment             | 1.0 to 1.35 (Digital Zoom)  |
| Light source                | Laser diode   |
| Light source output power   | Up to 22.5 W  |
| Wavelength                  | 449 to 461 nm   |
| Light source life *         | Light Output 100%: Up to about 12,000 hours<br>Light Output 50%: Up to about 20,000 hours   |
| Max. audio output           | 1.5 W   |
| Speaker                     | Monaural (2 way)  |
| Power supply                | 24V DC 4.1A   |
| Operating power consumption | 102 W   |
| Standby power consumption   | 0.5 W   |
| Operating altitude          | Altitude 0 to 3,000 m   |
| Operating temperature       | Altitude of 0 to 2,286 m: 5 to +35°C (No condensation)<br>Altitude of 2,287 to 3,000 m: 5 to +30°C (Humidity of 20 to 80%, No condensation) |
| Storage temperature         | -10 to +60°C (Humidity of 10 to 90%, No condensation)   |
| Mass                        | Approx. 1.2kg   |

<sup>\*</sup> Approximate time until the light source brightness decreases to half of its original value. (Assuming the projector is used in an atmosphere in which

airborne particulate matter is less than 0.04 to 0.2mg/m3. The estimated time varies depending on the projector usage and operating conditions.)

This product is also designed for IT power distribution system with phase-to-phase voltage 230V.

### **→** Related Links

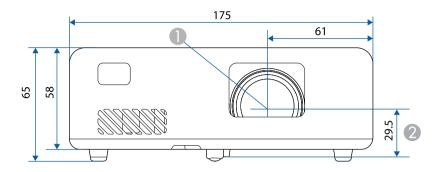
- "AC Adapter Specifications" p.95
- "Connector Specifications" p.95

## **AC Adapter Specifications**

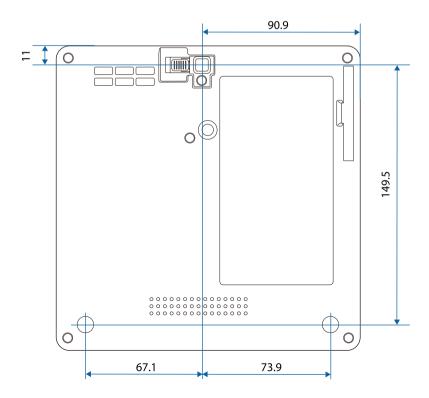
| Manufacturer | EPSON                          |
|--------------|--------------------------------|
| Model        | AD10370LF                      |
| Input power  | 100-240V AC ±10% 50/60Hz 1.75A |
| Output power | 24.0V DC 5.0A 120.0W           |

## **Connector Specifications**

| Audio Out port | 1 | Stereo mini pin jack   |
|----------------|---|------------------------|
| HDMI port      | 1 | HDMI                   |
| USB-A port     | 1 | USB connector (Type A) |
| Service port   | 1 | USB connector (Mini-B) |



- Center of lens
- ② Distance from center of lens to suspension bracket fixing point



The unit in these illustrations is mm.

## **List of Safety Symbols and Instructions**

The following table lists the meaning of the safety symbols labeled on the equipment.

| No. | Symbol mark  | Approved standards | Description  |
|-----|--|--------------------|--|
| 0   |  | IEC60417           | "ON" (power)   |
|     | •  | No. 5007           | To indicate connection to the mains.   |
| 2   |  | IEC60417           | "OFF" (power)  |
|     | $\cup$   | No. 5008           | To indicate disconnection from the mains.  |
| 3   |  | IEC60417           | Stand-by   |
|     | The control of the con | No. 5009           | To identify the switch or switch position by means of which part of the equipment is switched on in order to bring it into the stand-by condition. |
| 4   | Λ  | ISO7000            | Caution  |
|     | <i> </i>   | No. 0434B,         | To identify general caution when   |
|     | <u> </u>   | IEC3864-B3.1       | using the product.   |
| 5   | <b>^</b>   | IEC60417           | Caution, hot surface   |
|     |  | No. 5041           | To indicate that the marked item can be hot and should not be touched without taking care.   |
| 6   | Δ  | IEC60417           | Caution, risk of electric shock  |
|     | /4\  | No. 6042           | To identify equipment that has risk of   |
|     |  | ISO3864-B3.6       | electric shock.  |
| 7   | $\sim$   | IEC60417           | For indoor use only  |
|     |  | No. 5957           | To identify electrical equipment designed primarily for indoor use.  |
| 8   |  | IEC60417           | Polarity of d.c. power connector   |
|     |  | No. 5926           | To identify the positive and negative connections (the polarity) on a piece of equipment to which a d.c. power supply may be connected.            |

| No. | Symbol mark           | Approved standards    | Description  |
|-----|-----------------------|-----------------------|--|
| 9   | $\bigoplus \bigoplus$ |                       | The same as No. 8.   |
| •   |                       | IEC60417<br>No. 5001B | Battery, general On battery powered equipment. To identify a device for instance a cover for the battery compartment, or the connector terminals.  |
| •   | <b>(</b> +            | IEC60417<br>No. 5002  | Positioning of cell  To identify the battery holder itself and to identify the positioning of the cell(s) inside the battery holder.   |
| 12  | <del>+</del> –        | _                     | The same as No. 11.  |
| (3) |                       | IEC60417<br>No. 5019  | Protective earth To identify any terminal which is intended for connection to an external conductor for protection against electric shock in case of a fault, or the terminal of a protective earth electrode. |
| 14  | 4                     | IEC60417<br>No. 5017  | Earth To identify an earth (ground) terminal in cases where neither the symbol No. 13 is explicitly required.  |
| 15  |                       | IEC60417<br>No. 5032  | Alternating current To indicate on the rating plate that the equipment is suitable for alternating current only; to identify relevant terminals.   |
| 16  |                       | IEC60417<br>No. 5031  | Direct current To indicate on the rating plate that the equipment is suitable for direct current only; to identify relevant terminals.   |

## **List of Safety Symbols and Instructions**

| No. | Symbol mark | Approved standards              | Description   |
|-----|-------------|---------------------------------|---|
|     |             | IEC60417<br>No. 5172            | Class II equipment To identify equipment meeting the safety requirements specified for Class II equipment according to IEC 61140. |
| 18  | $\Diamond$  | ISO 3864                        | General prohibition  To identify actions or operations that are prohibited.   |
| 19  |             | ISO 3864                        | Contact prohibition  To indicate injury that could occur due to touching a specific part of the equipment.                        |
| 20  | <b>√-×→</b> |                                 | Never look into the optical lens while the projector is on.   |
| 2   | Pax         | _                               | To indicate that the marked item don't place anything on projector.   |
| 22  | *           | ISO3864<br>IEC60825-1           | Caution, laser radiation To indicate the equipment has a laser radiation part.  |
| 23  |             | ISO 3864                        | Disassembly prohibition  To indicate a risk of injury, such as electric shock, if the equipment is disassembled.                  |
| 24  | Ö           | IEC60417<br>No. 5266            | Standby, partial standby To indicate that part of the equipment is in the ready status.   |
| 25  |             | ISO3864<br>IEC60417<br>No. 5057 | Caution, movable parts To indicate that you must keep away from movable parts according to protection standards.                  |
| 26  | <b>A</b>    | IEC60417<br>No. 6056            | Caution (Moving Fan Blades) As a safety precaution, stay away from the moving fan blades.   |

| No. | Symbol mark | Approved standards              | Description   |
|-----|-------------|---------------------------------|---|
| 27  | ME          | IEC60417<br>No. 6043            | Caution (Sharp Corners) To indicate sharp corners that should not be touched.   |
| 28  |             |                                 | To indicate that looking into the lens while projecting is prohibited.  |
| 29  | *           | ISO7010<br>No. W027<br>ISO 3864 | Warning, Optical radiation (such as UV, visible radiation, IR)  Taking care to avoid injury to eyes and skin when in the vicinity of optical radiation. |
| 30  |             | IEC60417<br>No. 5109            | Not to be used in residential areas.<br>To identify electrical equipment which<br>is not suitable for a residential area.                               |

## **Laser Safety Information**

This projector is a Class 1 laser product that complies with the IEC/EN60825-1:2014 international standard for lasers.

Follow these safety instructions when using the projector.



## **Marning**

- Do not open the projector's case. The projector contains a high-powered laser.
- Possibly hazardous optical radiation emitted from this product. Do not look at operating light source. Eye injury may result.



## Caution

Do not disassemble the projector when disposing of it. Dispose according to your local or national laws and regulations.



The projector uses a laser as the light source. The laser has the following characteristics.

- Depending on the surroundings, the brightness of the light source may decline. The brightness declines a lot when the temperature gets too high.
- The brightness of the light source declines the longer it is used. You can change the relationship between usage time and decline in brightness settings.

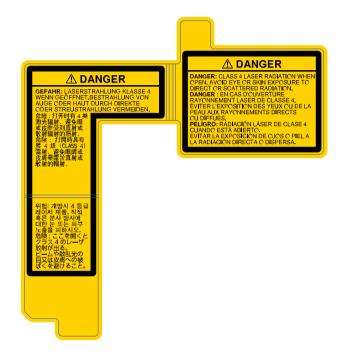
#### **→** Related Links

• "Laser Warning Labels" p.99

## **Laser Warning Labels**

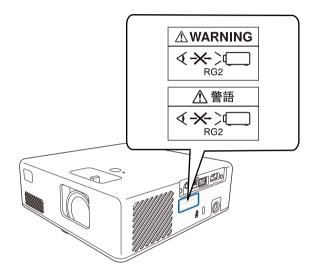
Laser warning labels are attached on the projector.

#### Inside



### Side

As with any bright source, do not stare into the beam, RG2 IEC/EN 62471-5:2015.



### For North/South America

This projector is a Class 1 laser product that complies with the IEC/EN60825-1:2014 international standard for lasers. Follow these safety instructions when using the projector.

Complies with FDA performance standards for laser products except for conformance as a Risk Group 2 LIP as defined in IEC 62471-5: Ed. 1.0. For more information see Laser Notice No. 57, dated May 8, 2019.

## Glossary

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.

| 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.  |  |
| 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. |  |
| Full HD      | A screen size standard with a resolution of 1,920 (horizontal) $\times$ 1,080 (vertical) dots.   |  |
| 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.  |  |
| HDMI         | An abbreviation for High Definition Multimedia Interface. HDMI is a standard aimed at digital consumer electronics and computers. This is the standard by which HD images and multichannel audio signals are digitally transmitted.                          |  |
|              | By not compressing the digital signal, the image can be transferred at the highest quality possible. It also provides an encryption function for the digital signal.   |  |
| 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  |  |

| 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. |  |
| VGA          | A screen size standard with a resolution of 640 (horizontal) $\times$ 480 (vertical) dots.   |  |
| WXGA         | A screen size standard with a resolution of 1,280 (horizontal) $\times$ 800 (vertical) dots.   |  |

Notices 102

Check these sections for important notices about your projector.

#### **→** Related Links

- "FCC Compliance Statement" p.102
- "Indication of the manufacturer and the importer in accordance with requirements of EU directive" p.103
- "Restriction of Use" p.103
- "Trademarks" p.103
- "Copyright Notice" p.104
- "Copyright Attribution" p.104

## **FCC Compliance Statement**

### Supplier's 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: 3131 Katella Avenue, Los Alamitos, CA

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 2.906. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interface received, including interference that may cause undesired operation.

Trade Name: EPSON

Type of Product: LCD Projector

Model: HA14C/HA23C

Options:

| Product name      | Model                         |
|-------------------|-------------------------------|
| Remote controller | 2208327 xx (x=0-9), RC4261804 |

## Supplier's DECLARATION of CONFORMITY

According to 47CFR, Part 2 and 15

Class B external switching power supplies

We: Epson America, Inc.

Located at: 3131 Katella Avenue, Los Alamitos, CA

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 2.906. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interface received, including interference that may cause undesired operation.

Trade Name: EPSON

Type of Product: AC Adapter

Model: AD10370LF

### FCC Compliance Statement For United States Users

This device complies with part 15 of the FCC Rules. 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.

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

Notices 103

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.

# Indication of the manufacturer and the importer in accordance with requirements of EU directive

Manufacturer: SEIKO EPSON CORPORATION

Address: 3-5, Owa 3-chome, Suwa-shi, Nagano-ken 392-8502 Japan

Telephone: 81-266-52-3131 http://www.epson.com/ Importer: EPSON EUROPE B.V.

Address: Atlas Arena, Asia Building, Hoogoorddreef 5,1101 BA Amsterdam

Zuidoost

The Netherlands

Telephone: 31-20-314-5000 http://www.epson.eu/

## **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.

## **Trademarks**

EPSON is a registered trademark, EXCEED YOUR VISION and its logos are registered trademarks or trademarks of Seiko Epson Corporation.

Mac, OS X, and macOS are trademarks of Apple Inc.

Microsoft, Windows, and the Windows logo are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

App Store is a service mark of Apple Inc.

HDMI, the HDMI Logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

Wi-Fi and Miracast are trademarks of the Wi-Fi Alliance.

Adobe and Adobe Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

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

## **Copyright Notice**

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Seiko Epson Corporation. No patent liability is assumed with respect to the use of the information contained herein. Neither is any liability assumed for damages resulting from the use of the information contained herein.

Neither Seiko Epson Corporation nor its affiliates shall be liable to the purchaser of this product or third parties for damages, losses, costs, or expenses incurred by the purchaser or third parties as a result of: accident, misuse, or abuse of this product or unauthorized modifications, repairs, or alterations to this product, or (excluding the U.S.) failure to strictly comply with Seiko Epson Corporation's operating and maintenance instructions.

Seiko Epson Corporation shall not be liable against any damages or problems arising from the use of any options or any consumable products other than those designated as Original Epson Products or Epson Approved Products by Seiko Epson Corporation.

The contents of this guide may be changed or updated without further notice.

Illustrations in this guide and the actual projector may differ.

## **Copyright Attribution**

This information is subject to change without notice.

© 2021 Seiko Epson Corporation

2021.12 414186501EN