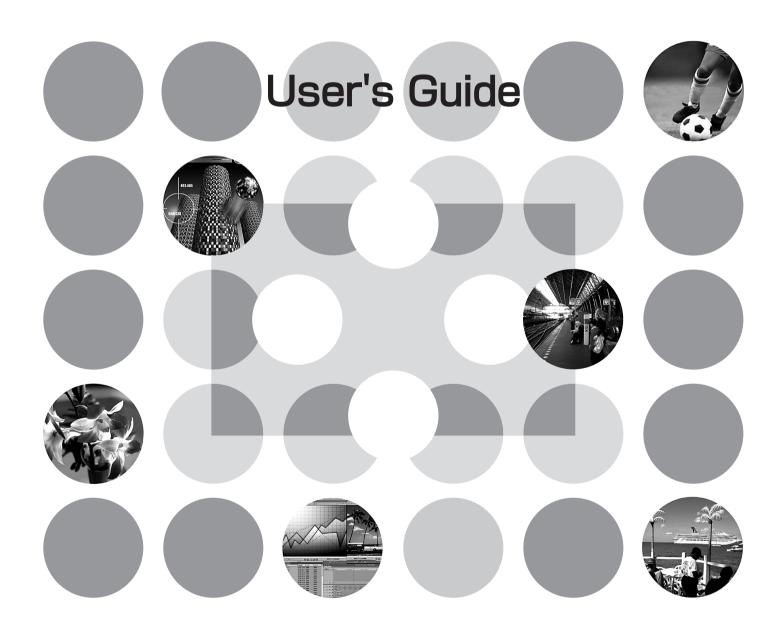


0



# Home Projector EH-TW3600 EH-TW3200



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## **About the Manuals and Notations Used**

## **Types of Manual**

The documentation for your EPSON projector is divided into the following two manuals. Refer to the manuals in the order given below.

### Safety Instructions/Support and Service Guide

This manual contains information on using the projector safely, and also includes a guide for warranty service, and a troubleshooting check sheet.

Be sure to read this manual thoroughly before using the projector.

### **2** User's Guide (this manual)

This User's Guide contains information on installing the projector, basic operations, using the configuration menus, troubleshooting and maintenance.

## Notations used in this User's Guide

### Safety indications

So that you can use the product safely and correctly, symbols are applied in the User's Guide and on the product to indicate possible harm to the user or to others and the risk of damage to property. The indications and their meaning are as follows. Make sure you understand them properly before reading the guide.

A Warning	This symbol indicates information that, if ignored, could possibly result in death or personal injury due to incorrect handling.
<u> </u>	This symbol indicates information that, if ignored, could possibly result in personal injury or physical damage due to incorrect handling.

### **General information**

Attention	Indicates procedures where personal injury or damage to the projector may occur if the procedures are not followed correctly.
- IP	Indicates additional information and points which may be useful to know regarding a topic.
B	Indicates a page where useful information regarding a topic can be found.
••	Indicates that an explanation of the underlined word or words in front of this symbol appears in the glossary of terms. Refer to the "Glossary" in the "Appendix". \$\sigma p.56\$
(b), Menu etc.	Indicates buttons on the remote control or projector's control panel.
"Menu Name"	Indicates configuration menu items. Example: "Image"-"Color Mode"
[Name]	Indicates the port name of the projector. Example: [Video]

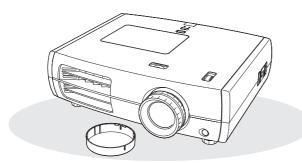
### Meaning of "unit" and "projector"

When "unit" or "projector" appears in the text of this *User's Guide*, they may refer to items which are accessories or optional equipment in addition to the main projector unit itself.



## **Checking the Components**

When you unpack the projector, make sure that you have all these components. If any of the components are missing or incorrect, please contact the place of purchase.



□ Projector (with lens cover)



Remote control



Power cable (3.0m) Connect to the projector and to a wall outlet.



□ AA-size alkali batteries (2 pcs.) Insert into the remote control.



- Document CD-ROM (Safety Instructions/Support and Service Guide, User's Guide)
- Quick Start Guide

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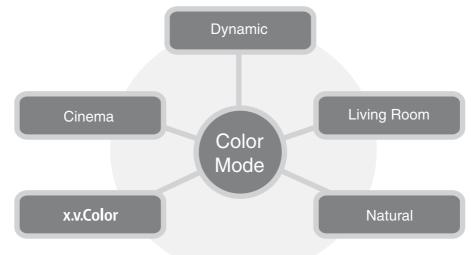
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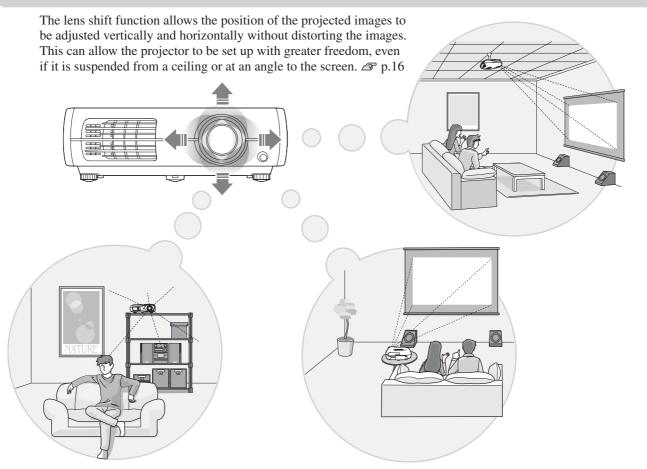
## Image appearance can be selected to match the projection environment (Color Mode)

The optimum images for the location can be projected simply by selecting the desired color mode from the following five preset modes.  $\square$  p.18



If "Natural", "Cinema" or "x.v.Color" is selected, the Epson Cinema Filter effect is applied automatically to increase the contrast and to make skin tones appear with more natural tints.  $\Delta p$  p.18

## **Equipped with a wide-angle lens shift function**





## "x.v.Color " mode realizes more natural color reproduction

This mode is compatible with the extended-gamut color space standard for video (xvYCC). Extended-gamut color images output by equipment supporting this standard are more faithful to the original, and the viewer can enjoy clearer, more natural images. B p.18

## Sophisticated color adjustment

In addition to the "Color Mode", the absolute color temperature and skin tones can be adjusted by simple procedures to render the picture even more to your own liking. Further, you can adjust gamma, the offset and gain for RGB colors, and the hue, saturation, and brightness of RGBCMY colors, to create colors that match the image. 🔊 p.20

## Equipped with 2.1x short throw zoom lens

For zoom adjustment, 2.1x short throw zoom lens is provided. Images can be projected onto an 100" screen (16:9 screen only) even at a distance of approximately 3 m. *P* p.10

## Advanced image quality adjustment functions

Advanced image quality adjustment functions such as "Auto Iris" and "Sharpness (Advanced)" can be used to enjoy even sharper images. With the Auto Iris function turned on, the amount of light can be automatically adjusted to match the images being projected, to create images with depth and perspective. The Sharpness function is used not only to adjust the entire image, but also to emphasize specific regions, such as hair and clothing. \_ p.23

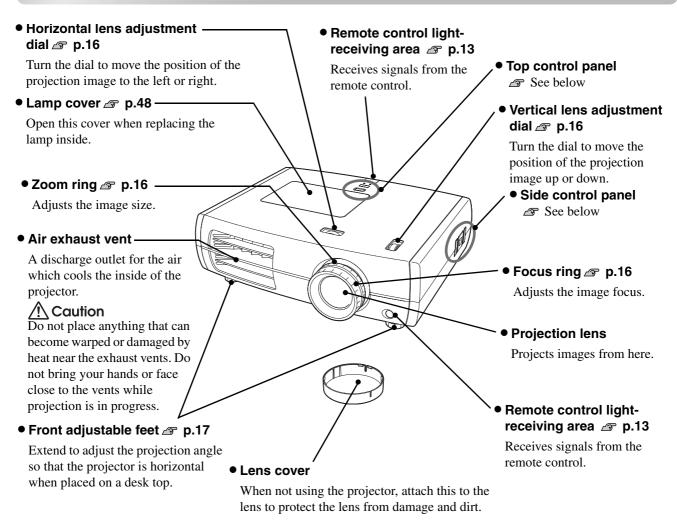
## Other functions to enjoy images more

Some of the other many functions are available as follows.

- EPSON Super White that prevents overexposure in images that are too bright *P* p.32
- The memory function makes it easy to store your preferred color tone settings for projected images into memory, and to load them again. *P* p.24
- Remote control with backlight provides greater visibility and ease of operation in dark rooms. B p.7
- Auto iris function automatically recognizes changes in the brightness of images to produce natural feelings of depth and stereoscopic effect. B p.23

## **Part Names and Functions**

## Front / Top

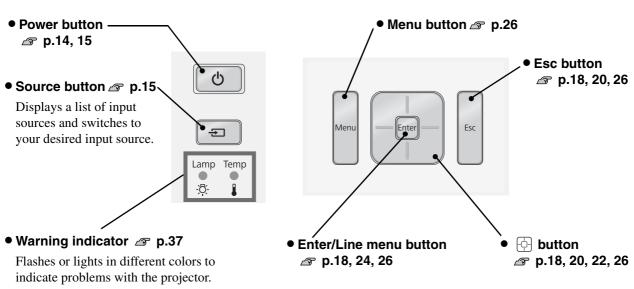


## **Control panel**

Buttons with no explanation function in the same way as the corresponding buttons on the remote control. Refer to "Remote control" for further details on these buttons.

### Top control panel

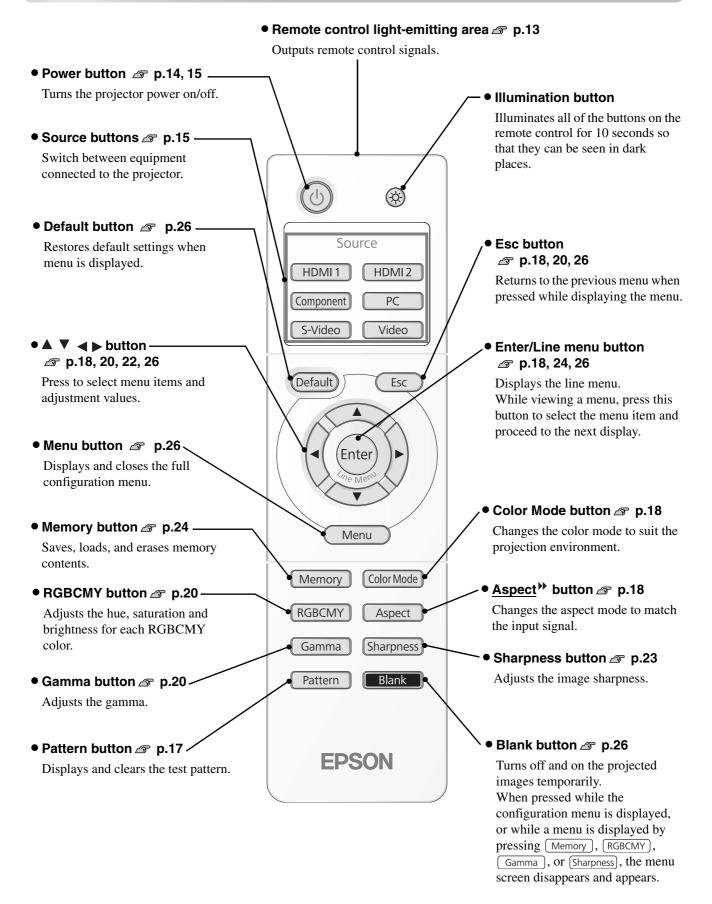
### Side control panel







## **Remote control**





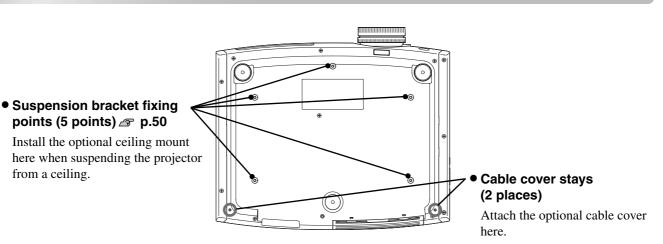
### Rear

- [S-Video] input port @ p.12 • [PC] input port *r* p.12 [RS-232C] port Connects to the S-Video out ports Connects to the RGB out Connects to a computer using an RS-232C port of the computer. cable to control the projector from the of the video equipment. computer. This is not used in normal use. • [Video] input port *A* p.12 Lamp cover open switch *s* p.48 Connects to the Composite Video<sup>▶</sup> Press to open the lamp cover. output port of the video equipment. [Trigger out] port • [HDMI1] input port\* Outputs a 12-volt DC *I S P* .12 signal when the projector Connects to an is turned on. HDMI<sup>™</sup>→-compatible 0 000 It is used to transmit the video source or to a power status of this computer. projector (on/off) to • [HDMI2] input external equipment such port\* @ p.12 as a motorized screen. Connects to an H<u>DMI</u><sup>TM</sup>→ -compatible video source or to a Security lock<sup>▶</sup> ⊕ computer. 🖙 p.57 [Component] input port Main power switch \_r p.12 🖙 p.14 Connects to the component (YCbCr<sup>▶</sup>) or YPbPr<sup>▶</sup>) out [Power] inlet s p.14 port of the video equipment. Connects the power cable. • Air inlet (air filter) 🔊 p.45, 48 Cable holders This draws in air for cooling the When an HDMI cable with a large outer inside of the projector. If dust collects diameter is connected to the input port, the on the filter, the temperature inside weight of the cable may cause it to hang the projector will rise and problems down and result in a poor connection. To with operation or more rapid prevent this by securing the cable, you can deterioration of the optical pass a commercially-available cable tie components may occur. The air filter through one of the two holders whichever is Cable tie
  - (commercially available)

\* Compatible with <u>HDCP</u><sup>▶</sup>

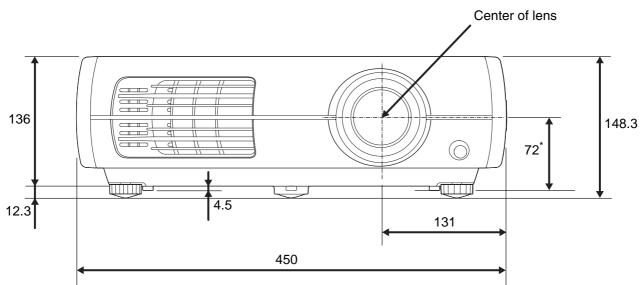
should be cleaned periodically.

### Base

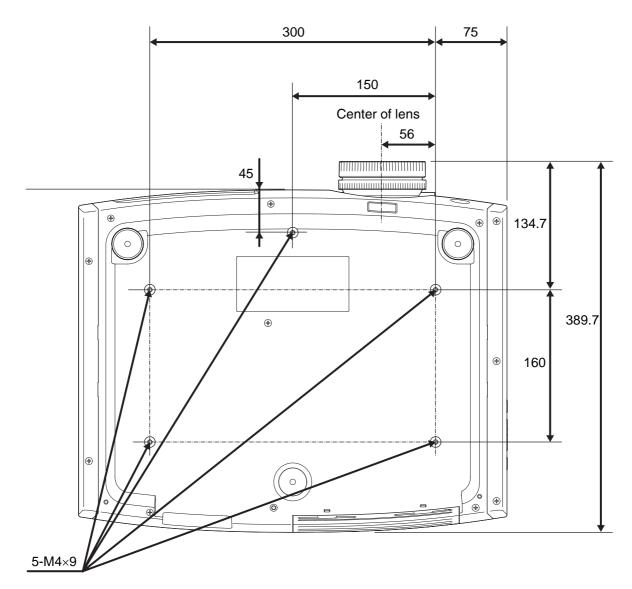


more convenient for you.





\* Distance from center of lens to suspension bracket fixing point



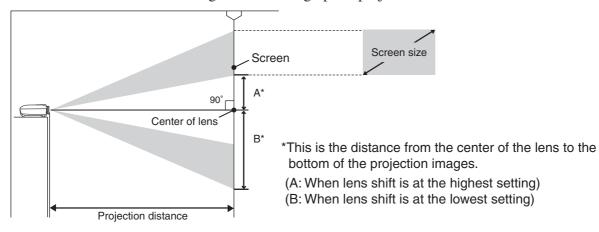
Units: mm



### Adjusting the projection size

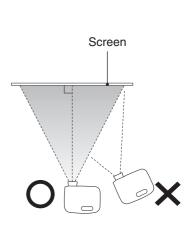
When the projector is further away from the screen, the projection image size are larger. While referring to the table below, position the projector so that the images are projected onto the screen at the optimum size.

The values should be used as a guide for setting up the projector.



					Units: cm
		Projection distance			
16:	9 screen size	Shortest (Wide)	Longest (Tele)	A	В
30"	66×37	87	188	17	55
40"	89×50	117	252	23	73
60"	130×75	177	380	35	109
80"	180×100	238	508	46	146
100"	220×120	298	636	58	182
120"	270×150	359	764	69	219
150"	330×190	450	956	86	273
200"	440×250	601	1276	115	364

					Units: cm
		Projection distance			
4:3	screen size	Shortest (Wide)	Longest (Tele)	A	В
30"	61×46	107	231	21	67
40"	81×61	144	309	28	89
60"	120×90	218	466	42	134
80"	160×120	292	623	56	178
100"	200×150	366	779	71	223
120"	240×180	440	936	85	268
150"	300×230	551	1171	106	334
200"	410×300	736	1562	141	446



Set up so that the projector is parallel to the screen. If the projector is set up at an angle to the screen, distortion of the images will occur.

### Lens shift adjustment

The lens shift can be used to position the image and the feature is especially useful under the following conditions.  $\square p.16$ 

. . .

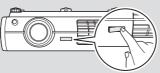
- When the projector is suspended from the ceiling
- When the height of the projector does not match with that of the screen
- When the projector is set up to the side so that the screen can be viewed sitting right in front of it

When positioning an image using the lens shift dial, hardly any deterioration of the image occurs because the lens shift correction is adjusted optically. However, for optimal image quality the lens shift function should not be used.



Installing the Projector

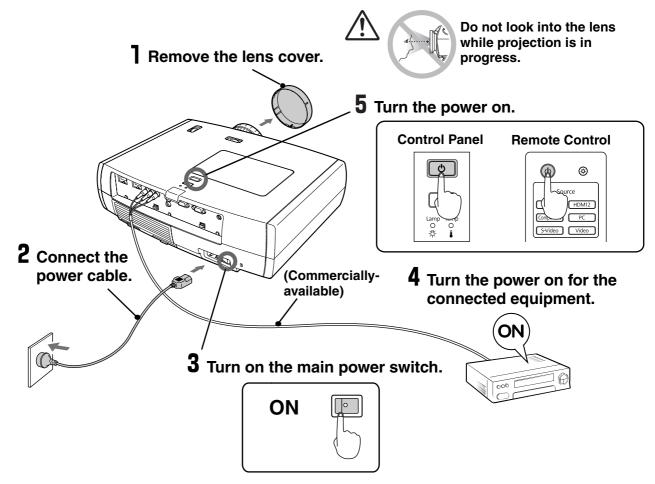
### **Projection methods** Warning • If you are installing the projector on the ceiling, this projector should be installed by qualified technicians using only approved mounting equipment. If installation work is not carried out correctly, the projector could fall down. This may result in injury or accidents. Contact your dealer to carry out the installation work. If you use a ceiling mount and apply adhesives to the mount to prevent the screws from loosening, or if you use lubricants or oils on the projector, the projector housing may crack and the projector may fall from its ceiling mount. This could cause serious injury to anyone under the mount and could damage the projector. When installing or adjusting a ceiling mount, do not use adhesives to prevent the screws from loosening and do not use oils or lubricants. Do not use the projector in places where there is a lot of humidity or dust, near cooking Attention or heating appliances, or in places where it may come into contact with smoke or steam. Do not use or store this projector outdoors for an extended length of time. Fire or electric shock may result. • Clean the air filter at least once every 3 months. Clean the air filter more frequently if using the projector in a dusty environment. • Do not use the projector on its side. This may cause malfunctions to occur. When projecting from directly in front When projecting from the side of the screen When projecting from a ceiling \* If you place the projector off to the side, aim it straight ahead (rather than at the center of the screen), then use the horizontal lens shift dial to center the image on the screen. \* When suspending the projector from a ceiling, change the configuration menu settings. B p.34 **Configuration menu** Settings Projection Front Front/Ceiling You can rotate the EPSON logo plate around 180 degrees when suspending the projector from a ceiling. TIP When one end of the plate is pressed, the



When one end of the plate is pressed, the opposite end lifts up, so you can pull it out slightly, turn it around and then push it back in.



## Turning the power on and projecting images



If there is a problem with projection even though the projector is set up and connected correctly, refer to  $\square$  p.15, 37.

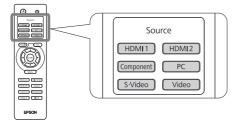
TIP	<ul> <li>If you set the "Direct Power On" to "On", the power of the unit will turn on when the main power switch is turned on, without having to press the power button of the remote control or the projector's control panel.</li></ul>			
	<ul> <li>The projector is equipped with the "Child Lock" function that prevents young children from accidentally turning the power on and looking into the lens, and also the "Control Panel Lock" function that prevents mis-operations is available.</li></ul>			
	<ul> <li>When using the projector at an altitude of about 1500m set the "High Altitude Mode" to "On".</li></ul>		e, make sure you	
	<ul> <li>This projector is equipped with an automatic adjustment function that automatically optimizes it when a computer input signal is switched.</li> </ul>	NEC Panasonic SOTEC HP	Fn + F3 Fn + F4	
	<ul> <li>If a laptop computer or a computer with a LCD screen has been connected to the projector, you may need to use keyboard or function settings to change the output destination. While holding down the (D) key press (D) (the key with a symbol such</li> </ul>	Toshiba IBM LENOVO SONY DELL Fujitsu	Fn + F5 Fn + F7 Fn + F8 Fn + F10	
	the 🖻 key, press 🖾 (the key with a symbol such as 🗋 / 📃 on it). After the selection is made, projection will soon start. To Computer's documentation	Macintosh	Set mirror setting or display detection. Depending on OS, you can change the output selection by pressing ( ).	



## When the expected images are not projected

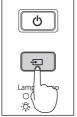
If more than one signal source has been connected, or if no images are projected, use the remote control or the projector's control panel buttons to select the signal source. For video devices, press the [Play] button on the video equipment first, then select the signal source.

### Using the remote control



Press the button that has the name of the port on it that the desired signal source is connected to.

### Using the control panel



[Source] + HDM11 • HDM12 Component S-Video Video PC

When you press , the menu is displayed. Each press of moves the pointer. Move the pointer to the target input source to select it. The input source is automatically switched when no operations are performed about three seconds with placing pointer at the target input source. You can also press mer to switch to the target source.

When the color of the image projected from the [Component] input port is unnatural, select an appropriate signal according to the signal from the device connected at "Input Signal" in the Configuration menu. riansigned projected from the device provide the signal of the signal of

## **Turning the power off**

TIP

- **1** Turn the power off for the signal sources that are connected to the projector.
- 2 Press (b) on the remote control or (b) on the projector's control panel.

A standby confirmation message will be displayed, so press 0 or 0 once more.



You can select whether the standby confirmation message is displayed (On) or not displayed (Off) in the Configuration menu.

If it is set to Off, the power will turn off with a single button operation.  $\triangle p$  p.34

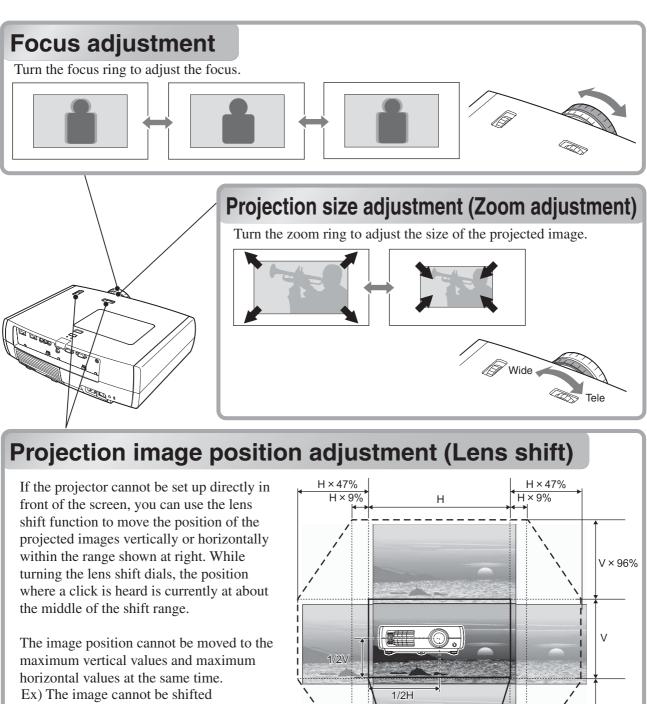
3 When <u>cool-down</u><sup>▶</sup> (approximately 16 seconds) is completed, flashing around the <sup></sup><sup></sup> stops and you can then turn off the main power switch.

Simply pressing 0 or 0 does not stop electricity consumption.

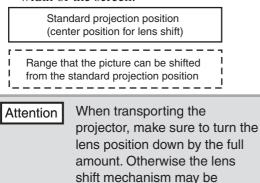
### 4 Attach the lens cover.

If the projector is suspended from a ceiling and the lens cover is left removed, the lens cover will still be needed if the projector is moved anywhere, so keep it in a safe place.

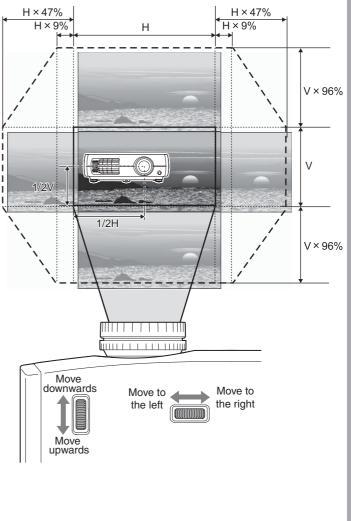
## **Adjusting the Projection Screen**



vertically when it has been shifted horizontally by the full amount. When the image has been shifted vertically by the full amount, it can be shifted up to 9% of the horizontal width of the screen.



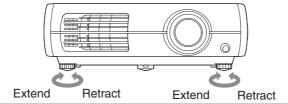
damaged.





## Adjusting the tilt of the projector

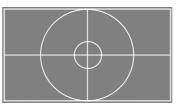
When an image from the projector that is placed on a flat surface is tilting horizontally ( $\blacksquare$ ), use the front feet to correct the tilt.



## **Displaying a test pattern**

You can use a test pattern to make the first setup such as zoom, focus, and image position using the lens shift without connecting to any electrical equipment.

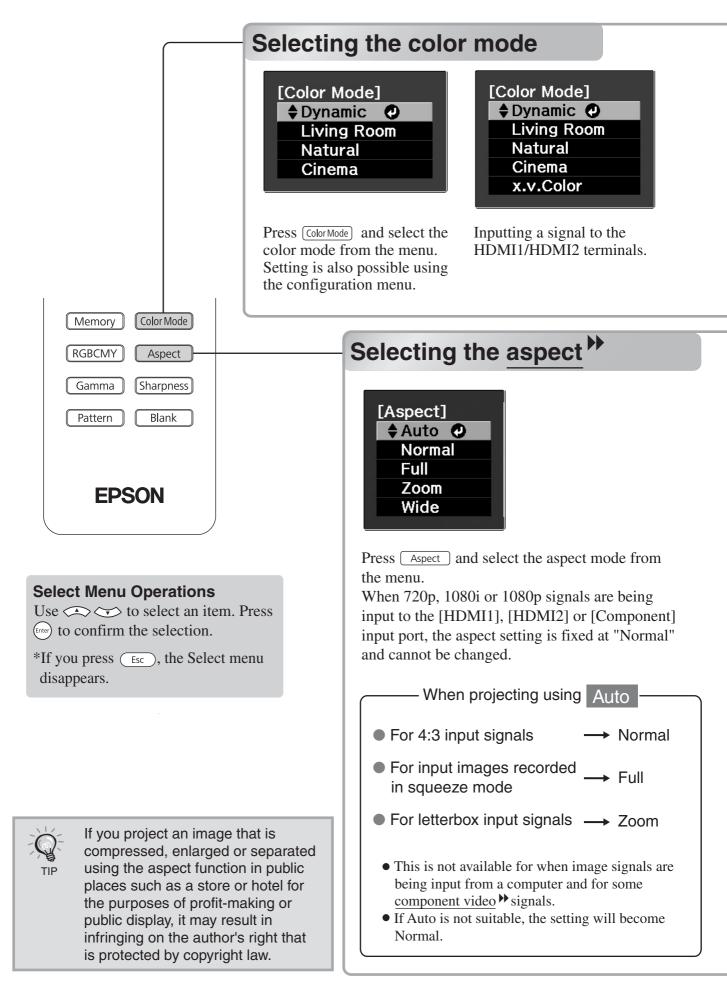
If Pattern on the remote control is pressed, the test pattern appears.



To stop displaying the test pattern, press Pattern again.

## **Basic Image Quality Adjustments**







### Hue

Adjusts the tone of the entire image to bluish, greenish and reddish.

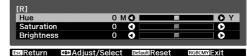
### Saturation

Adjusts the overall vividness of the images.

### Brightness

Adjusts the brightness of the overall image.

Use concernence or (UP or DOWN) to select and confirm the color, and then select either "Hue", "Saturation" or "Brightness" and then use (()) or ()(LEFT or RIGHT) to make the adjustment.



To adjust another color, press Esc. To return the adjustment results to their default settings, press Default).

**2** Press **RGBCMY** to exit the menu.

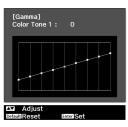
### Customized ("Adjust it from the image")

Use  $\checkmark$  or  $\bigcirc$  (UP or DOWN) to select "Customized" - "Adjust it from the image" in that order, and then press  $\fbox{enter}$  or  $\fbox{enter}$  to confirm the selection.

A gamma icon will appear in the projected image.



Use () () or  $\Box$  to move the gamma icon to the place where you want to adjust the brightness, and press  $\Box$   $\Box$  or  $\Box$   $\Box$  to confirm the selection. The place selected and the regions of the same brightness will flash, and a gamma graph will appear.



Use  $\longrightarrow$  or  $\bigcirc$  (UP or DOWN) to make the adjustment, and then press  $\bigcirc$  or  $\bigcirc$  to confirm the adjustment. Press  $\bigcirc$  (Default) to go back and do it again.

### Customized ("Adjust it from the graph")

Use  $\checkmark$  or  $\bigcirc$  (UP or DOWN) to select "Customized" - "Adjust it from the graph" in that order, and then press  $\bigcirc$  or  $\bigcirc$  to confirm the selection. A gamma adjustment graph will appear.



Use  $(\cdot, \cdot)$  or - (LEFT or RIGHT) to select the place where you would like to adjust the brightness of the color tone.

[Gamma] Color Tone 1	: 0
Adjust Default Reset	Move Enter Set

Use ( OP or DOWN ) to make the adjustment, and then press ( OP or DOWN ) to confirm the adjustment. Press ( Default ) to go back and do it again.



## **RGB** adjustment (Offset, Gain)

The image brightness can be adjusted by adjusting the individual R (red), G (green) and B (blue) components of the dark areas (offset) and bright areas (gain).

Adjustment is not possible when "Color Mode" is set to "x.v. Color".

### Offset

If you would like dark areas to appear more clearly, change the setting to the + (right) side. If you change it to the - (left) side, the whole image will become sharper, but the contrast in dark areas will become poorer.

### Gain

If you would like bright areas to appear more clearly, change the setting to the - (left) side. If you change it to the + (right) side, you will feel that the image is becoming brighter and closer to white, but the contrast in light areas will become poorer.

Press Menu and then select "Image" - "Advanced" - "RGB" in that order and confirm the selection.

Offset R		0 🜒 💻	
Offset G		0 🜒 📃 🗌	
Offset B		0 🜒 📃 🗌	
Gain R		0 🜒 📃	
Gain G		0 🜒 📃	
Gain B		0 🜒 📃 🗌	
EscReturn	CAdjust/Select	Default Reset	Menu <b>Exit</b>

To return the adjustment results to their default settings, press (Default).

**3** Press Menu to exit the menu.



In addition to color adjustments, adjustments to advanced sharpness and the amount of light from the lamp can also be made to match the image in search of the best picture.

## Sharpness (Advanced) adjustment

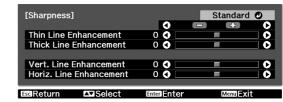
If "Thin Line Enhancement" is set in the + direction, hair and the detailed areas of clothing will be emphasized.

If "Thick Line Enhancement" is set in the + direction, the areas emphasized by "Thin Line Enhancement" will be hardly emphasized. Instead, the rough areas of the entire subject, such as contour and background, will be emphasized, resulting in a sharp image.

Setting "Horiz. Line Enhancement" / "Vert. Line Enhancement" to the + side will enhance the image sharpness in the horizontal / vertical direction. Setting them to the - side will give a soft image.

This cannot be adjusted during input of computer image signals.

Press Menu, and then select "Image" -"Sharpness". Select "Advanced" at the top-right corner of the screen to confirm the selection.



2 Use  $\longrightarrow$  or  $\bigcirc$  (UP or DOWN) to select a menu item, and use  $\bigcirc$  or  $\bigcirc$ (LEFT or RIGHT) to make adjustments. You can adjust "Thin Line Enhancement" and "Thick Line Enhancement" at the same time by using the bar on the top in the screen. To return the adjustment results to their default settings, press  $\bigcirc$ 

Press Menu to exit the menu.

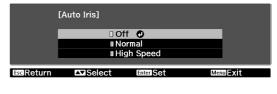
3

By pressing (Sharpness) on the remote control, you can directly display the sharpness setting ("Standard"/"Advanced") screen just as selected using "Sharpness" of the "Image" menu.

## Auto Iris (automatic aperture) setting

When "Auto Iris" is on, the light intensity from the lamp is automatically controlled according to the brightness of images, and you can get higher contrast and rich images. Tracking speed of the light intensity control in response to changes in brightness of images can be set to either "Normal" or "High Speed" depending on your preference. Setting is not possible when "Color Mode" is set to "x.v. Color."

\* An operation sound of Auto Iris function may be emitted while projecting some images. This is not a failure of the projector. Press Menu, and then select "Image" - "Auto Iris".

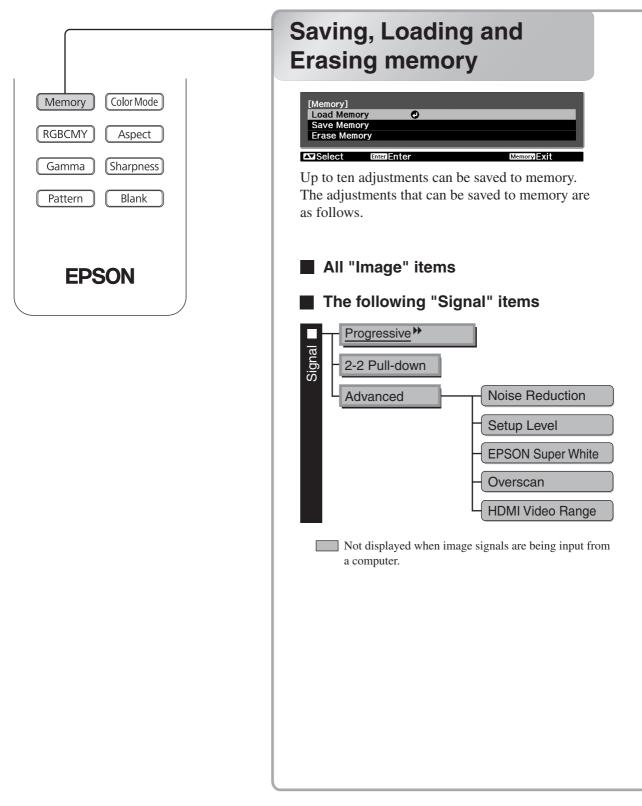


- **2** Select "Normal" or "High Speed" to confirm the selection.
- **3** Press Menu to exit the menu.

After using a subset of "Signal" and "Image" in the configuration menu to adjust the projected images, the adjusted values can then be saved (Save Memory).

TOP

In addition, the saved data can be retrieved easily, so that you can enjoy viewing images with the adjusted settings at any time (Load Memory).





### Save Memory

- Adjust each of the settings to the values to be saved.
- 2 Press Memory, and select "Save Memory".

The Save Memory screen is displayed.

[Sav	ve Memory]		
	Memory1	ODynamic	
	Memory2		
	Memory3		
	Memory4		
	Memory5		
	Memory6		
	Memory7		
	Memory8		
	Memory9		
	Memory10		
Deducer			

3 Select the memory name to register the adjustments to from Memory1 to 10, and press [inter] or [inter].

When preceding the memory name is green, this indicates that adjustments are already saved to memory.

Select an already saved memory name, and press  $\ensuremath{\scriptsize \mbox{cnter}}$  or  $\ensuremath{\scriptsize \mbox{Enter}}$  .

A confirmation message will be displayed. If you select "Yes", the previous memory content is erased, and the current adjustment values are saved.

### Load Memory

Load saved memories.

- Press Memory, and select "Load Memory". The Load Memory screen will be displayed.
- **2** Select the target memory name.



- The color mode selected when the memory was registered is displayed on the right side.
- Some settings retrieved from memory may not be applied to the images depending on the input signal.

### Erase Memory

This feature can be used to erase and clean up unwanted memories.

Press Memory, and select "Erase Memory". The Erase Memory screen will be displayed.

**2** Select the memory name to erase. A confirmation message will be displayed. If

you select "Yes", the memory will be erased.

To erase all saved memories, select "Reset" -"Reset Memory" in the Configuration menu. \$\arrow\$ p.36



The configuration menus can be used to make a variety of adjustments and settings involving image quality and input signals.

The following two types of menu are available.

### Full menu

All items in the configuration menu can be checked while the settings are being made.

Top menu	Sub-menu		
Image 🥑	Color Mode Brightness	Dynamic 0	
Signal	Contrast		
Settings	Sharpness Abs. Color Temp.	Standard	
Memory	Skin Tone Advanced		
Info	Power Consumption Auto Iris	Normal Off	
Reset	Reset		
ZSelect II	terEnter	MenuExit •	

### ■ Line menu

Some of the items in the "Image" menu in the Configuration menu can be adjusted.

This menu is useful for viewing the effects of adjustments in the images being projected while the adjustments are being made.

[Image] Brightness	0 🔿 🗖	• • • •
EscReturn 🙀 🖾 Adjust	DefaultReset	Menu Exit
Navigation Bar		

For details on the operation method, refer to "Using the configuration menus" in the next section.

The Configuration menu can be used to change the color pattern and display position of the menus.

## Using the configuration menus

### **1** Displaying a menu

Full menu: Press Menu.

Image 🥑	Color Mode	Dynamic
Signal	Brightness Contrast	
Settings	Sharpness Abs. Color Temp. Skin Tone	Standard
Memory	Advanced Power Consumption	0  Normal
Info	Auto Iris	Off
Reset	Reset	
In ⊡Select	erEnter	Menu

Line menu: H	Press Enter	or Enter.	
[Image] Brightness		0 🜒 💻	
EscReturn (D)	Adjust 🛛 🛛	efaultiReset	Menu <b>Exit</b>

### 2 Selecting a menu item

Use  $\Leftrightarrow$  or  $\Leftrightarrow$  to select a menu item, then press  $\textcircled{\text{true}}$ .



### **3** Changing settings

Example:

Image]       Brightness       0       Use       Image)       Ima	[Projection] Front Front/Ceiling Rear Rear/Ceiling
	EscReturn A⊐Select EnterSet MenuExit [] (green): Current setting value
	Use $\Leftrightarrow$ or $\Leftrightarrow$ to select an item, then press $(e^{nter})$ .
$\frown$	

If you press  $\stackrel{\text{[Enter]}}{\longrightarrow}$  when an item with  $\bigcirc$  next to it is selected, the selection screen for that item will be displayed.

To return to a previous display, press (Esc).

- For items such as "Brightness" which can be adjusted using an adjustment bar, the adjustment values can be reset to the default if you press Default while the adjustment bar is being displayed.
  - If Blank on the remote control is pressed while a menu is being displayed, the menu screen disappears. This is useful for checking your adjustment result on the images. If you press Blank once more, the menu is displayed again.

### 4 When setting is complete

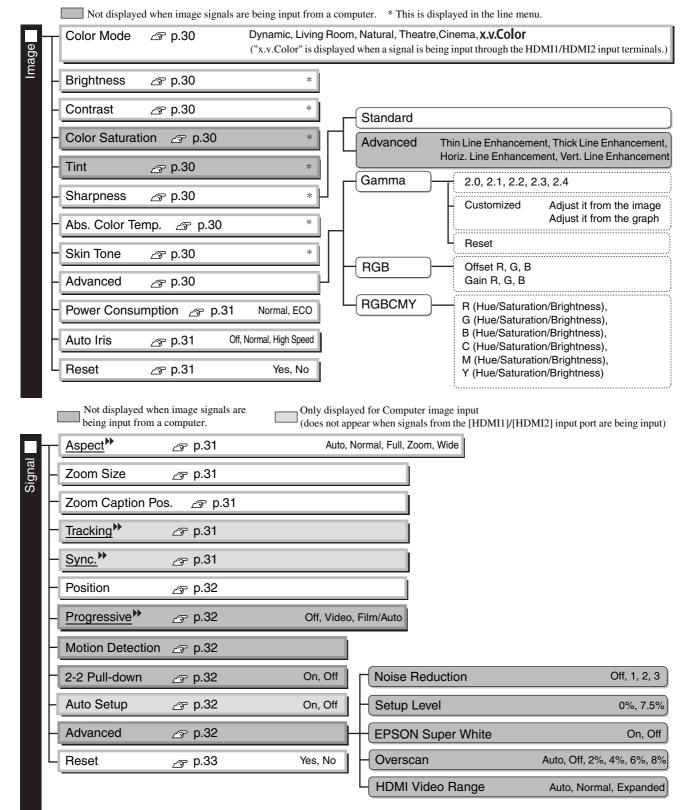
Press Menu .

TIP

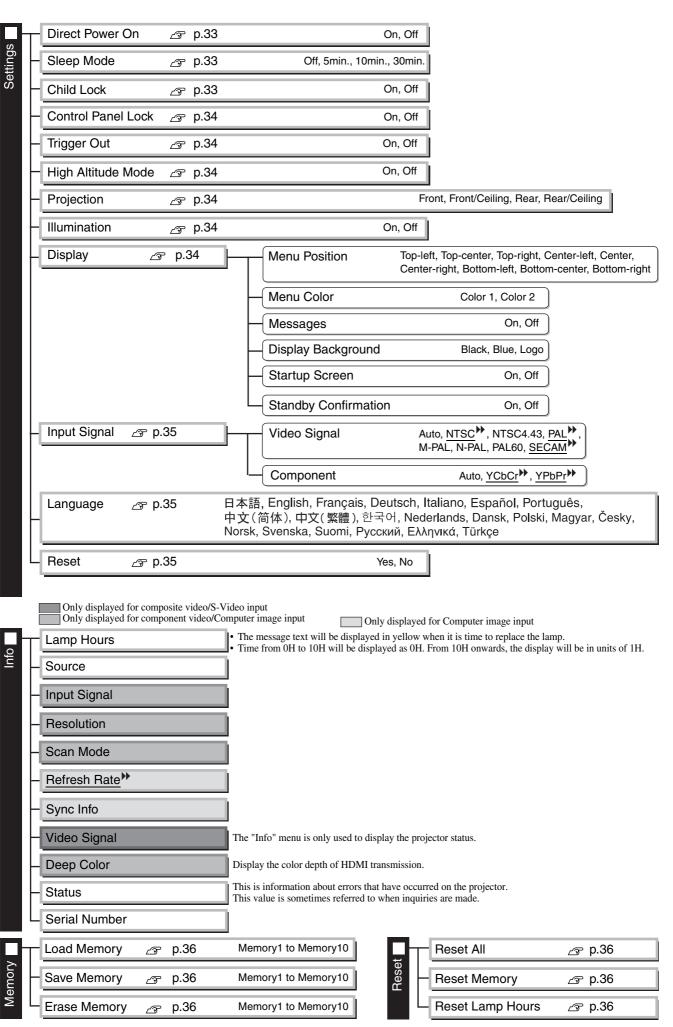


## List of configuration menus

When no image signals are being input, the "Image" menu and the "Signal" menu cannot be adjusted. Also, the items displayed in the "Image" menu, the "Signal" menu and the "Info" menu will vary depending on the type of image signals that are being projected.







### "Image" menu

Not displayed when image signals are being input from a computer.

### Color Mode <sup>\*1</sup>

Five different settings can be selected for the Color Mode, to match the images being projected or the projection environment. *P* p.18

### Brightness \*2

(Adjustment is not possible when "Color Mode" is set to "x.v. Color".) Adjust this when the output level of the connected equipment is weak and you feel that images are dark.

### Contrast \*\*\*2

(Adjustment is not possible when "Color Mode" is set to "x.v. Color".) Adjusts the difference between bright and dark areas. When the contrast is increased, images with greater modulation are obtained.

### Color Saturation \*2

(Adjustment is not possible when "Color Mode" is set to "x.v. Color".) This adjusts the color intensity for the images.

#### Tint \*2

(Adjustment is not possible when "Color Mode" is set to "x.v. Color".) This adjusts the image tint.

#### Sharpness \*2

This adjusts the image sharpness.

#### Standard

The adjustment results are applied to the entire image.

#### Advanced

This can be used to adjust a specific region. 🔊 p.23

### Abs. Color Temp.<sup>\*2</sup>

(Adjustment is not possible when "Color Mode" is set to "x.v. Color".)

This adjusts the overall tints of the images. If you select a higher value, images appear bluish, and if you select a lower value, images appear reddish. The absolute color temperature can be set to one of 12 settings within the range of 5000K to 10000K.

### Skin Tone \*2

(Adjustment is not possible when "Color Mode" is set to "x.v. Color".)

This adjusts the skin tones of people who appear in the images. If you select a higher value, green tone is increased, and if you select a lower value, red tone is increased.

#### Advanced

(When "Color Mode" is set to "x.v.Color", these adjustments are not possible except for "Super-resolution".)

#### Gamma

This adjusts gamma. You can select a value, or make adjustments while viewing an image or a graph.  $rac{1}{2}$  p.20

### RGB<sup>\*1</sup>

This lets you adjust the offset and gain for each of the R/G/B color components. 🕿 p.22

\*2 The setting values are stored separately for each image source and color mode setting.

(does not appear when signals from the [HDMI1] /[HDMI2] input port are being input)



RGBCMY \*1

This lets you adjust the hue, saturation, and brightness for each of the R/G/B/C/M/Y color components. a p.20

Only displayed for Computer image input

### Power Consumption<sup>\*2</sup>

This lets you set the lamp brightness to one of two settings.

Set to "ECO" if the projection images are too bright when projecting in a dark room or projecting onto a small screen. When used at the "ECO" setting, the power consumption and fan noise during projection is reduced.

### Auto Iris <sup>\*3</sup>

(Setting is not possible when "Color Mode" is set to "x.v. Color.")

Tracking speed of the light intensity control in response to changes in brightness of images can be set to either "Normal" or "High Speed" depending on your preference. If set to "Off", no light intensity control is performed.  $rac{1}{r}$  p.23

#### Reset

This returns all settings in the "Image" menu to their default settings.

### "Signal" menu

### Aspect \*\*

Selects the aspect mode. A p.18

### Zoom Size \*1

This can be set only when "Aspect" is set to "Zoom".

This function enables the image to be reduced in size in the vertical direction so that the top and bottom of images that are hidden from view can be viewed when "Zoom" is set. The larger the adjustment value (reduction ratio) set here, the more the image is compressed and displayed squashed in the vertical direction.

#### Zoom Caption Pos. \*

This can be set only when "Aspect" is set to "Zoom".

This function moves the display position of the image in one direction, up or down, to display captions when projecting images with captions.

#### Tracking <sup>\*1</sup>

(This can be adjusted only when analog RGB image signals are being input.) This adjusts the images if vertical stripes appear in the images.

### Sync. \*\* \*1

(This can be adjusted only when analog RGB image signals are being input.)

This adjusts the images if flickering, fuzziness or interference appear in the images.

- Flickering and fuzziness may also occur when the brightness, <u>contrast</u> and sharpness settings are adjusted.
- Clearer adjustments can be obtained if you adjust the "Tracking" first and then adjust the "Sync".
  - \*1 The setting values are stored separately for each image source and signal type.
  - \*2 The setting values are stored separately for each image source and color mode setting.
  - \*3 The setting values are stored separately for each color mode setting.



Not displayed when image signals are being input from a computer. Only displayed for Computer image input (does not appear when signals from the [HDMI1]/[HDMI2] input port are being input)

### Position

(Setting is not possible when signals are being input from the [HDMI1] /[HDMI2] input port.) When part of the image is clipped, move the image display position vertically and horizontally so that the entire image is projected. Press (A), (A), (A) and (A) to adjust the position.

### Progressive<sup>™\*</sup>

(This can be set only when signals are being input from the [Video] / [S-Video] input port, or 480i, 576i, 1080i signals are being input from the [HDMI1] / [HDMI2] / [Component] input port.)

- Interlace (i) signals are converted to progressive (p) signals using a method appropriate for the image.
- Off : This is ideal for using when viewing images with a large amount of movement.
- Video :This is ideal for general video images.
- Film/Auto :Optimum conversion is performed for movie, computer graphics, and animation input signals.

### **Motion Detection**

(This can be set only when signals are being input from the [Video] / [S-Video] input port, or 480i, 576i, 1080i signals are being input from the [HDMI1] / [HDMI2] / [Component] input port.)

Select whether the progressive conversion operation mode is for fast-moving images or for slow-moving images. The smaller the value, the more suitable the mode is for viewing still images. The larger the value, the more suitable the mode is for viewing video images.

### 2-2 Pull-down

(This setting can be made only when a 1080p/24Hz signal is being input to the [HDMI1] / [HDMI2] / [Component] input terminals.)

For a 1080p/24Hz input signal, you can select between 2-2 pull-down projection or 2-3 pull-down projection. Selecting "On" sets the 2-2 pull-down.

### Auto Setup

This sets automatic adjustment to on or off in order to set whether the projector automatically adjusts images to their optimum condition when the input signal is changed. The three automatically adjusted items are "Tracking", "Position" and "Sync."

### Advanced

#### Noise Reduction

This reduces flickering of images.

Three modes are available. Select the mode to suit your liking.

Set "Off" when the image source, such as DVD, contains little electrical interference.

#### Setup Level

(This can be set when <u>NTSC</u><sup>▶</sup> signals or <u>component video</u><sup>▶</sup> signals are being input from the [Video]/[S-Video] input port.)

If using products designed for destinations such as South Korea that have different black level (setup level) settings, use this function to obtain correct images. Check the specifications of the connected equipment when changing this setting.

#### **EPSON Super White**

(This can only be adjusted when the color mode is set to "Natural" or "Cinema" and signals are being input via the [HDMI1]/[HDMI2] input ports.)

If bright white areas of images appear uneven and overexposed, set to "On".

When set to "On", the "HDMI Video Range" setting will be ignored.



Overscan

Not displayed when image signals are being input from a computer.

(Setting is possible only when signals are being input from the [HDMI1]/[HDMI2]/[Component] input port.)

This changes the display area (the part of projected images).

- Off, 2%, 4%, 6%, 8%: If set to "Off", the top and the bottom of the image are sometimes affected by electrical interference depending on the image signal. In such cases, try to adjust the display position ("Position"). *P* p.32
- Auto: Displayed when the signals from [HDMI1] / [HDMI2] input port are being input. This is automatically set to Off or 8%, depending on the input signal. (Not displayed when the equipment's DVI port is connected to the projector's [HDMI1] / [HDMI2] input port.)

#### HDMI Video Range

(Setting is possible only when "EPSON Super White" is "Off". Setting is not possible, however, when "Color Mode" is set to "x.v. Color.")

When the [HDMI1] / [HDMI2] input port of the projector is connected to a DVD player, for example, setting this to Auto allows the projector to automatically determine and set the video range of the input signal.

If this is set to Auto and a blackout/whiteout condition occurs, set the video range of the projector to match that of the DVD player. The setting on the DVD player can be either Normal or Expand.

Note that if the equipment's DVI port is connected to the projector's [HDMI1] / [HDMI2] input port, Auto is not displayed.

#### Reset

All the adjustment values on the "Signal" menu, except "<u>Aspect</u><sup>™</sup>", are returned to their default values.

\* The setting values are stored separately for each image source and signal type.

## "Settings" menu

### **Direct Power On**

When the main power switch is turned on, you can set for projection to start (On) / not start (Off) without pressing  $\bigcirc$  or 0.

When set to "On" with the main power switch left on, be aware that sudden surges of electricity that may occur when the power comes back on after a power outage may cause the projector to turn on.

### Sleep Mode

The projector is equipped with a power-saving function that causes the power to turn off automatically and the projector to switch to standby if no signal is input to the projector for a continuous length of time. The length of time before the power-saving function operates can be selected from four available settings. If "Off" is selected, the power-saving function will not operate.

If you press (b) while the projector is in standby mode, projection will start again.

#### Child Lock

This locks the power on function of the O button on the projector's control panel, so that a child cannot accidentally turn the projector's power on and look into the projector's lens. When the lock is applied, the power will only turn on if O is pressed down for about 3 seconds. O can be used to turn off the power, and the remote control will continue to operate as normal.

If you change the setting, the new setting will take effect after the power has been turned off and the <u>cool-down</u> period is complete.

Even if "Child Lock" is set to "On", be aware that projection starts merely by turning the main power switch on when "Direct Power On" is set to "On".



### **Control Panel Lock**

If this is set to "On", you can't operate the projector's control panel buttons and a 🗈 icon appears on the screen when a button is pressed. To cancel, press and hold 🔤 on the projector's control panel for about seven seconds or more.

If you change the setting, the new setting will take effect after exiting the configuration menu.

### Trigger Out

This sets the trigger out function which communicates information such as the power on status of the projector to external equipment.

If you change the setting, the new setting will take effect after the power has been turned off and the <u>cool-</u> <u>down</u> period is complete.

#### High Altitude Mode

A fan is set at a certain speed of rotation so as to bring down internal temperature. When using above an altitude of about 1500m, set to "On".

### Projection

This should be set in accordance with the method used to set up the projector.

- Front : Select when the projector is set up in front of the screen.
- Front/Ceiling : Select when the projector is set up in front of the screen and suspended from a ceiling.
- Rear : Select when the projector is set up behind the screen.
- Rear/Ceiling : Select when the projector is set up behind the screen and suspended from a ceiling.

#### Illumination

If the light from [	ပ	or [	Ð	becomes bothersome while watching a movie or the like in a dark room,
turn this setting t	o "Of	f".		

### Display

Menu Position

Press (A, b), (A, b), (A, b) and (A, b) to specify the position for the menus to be displayed.

Menu Color

Selects the color for the main configuration menu.

- Color 1:Black
- Color 2:Blue

#### Messages

This sets whether the following message displays appear (On) or don't appear (Off).

- Image signal, color mode, <u>aspect</u><sup>\*\*</sup> and item name when memory settings are retrieved.
- Messages such as when no image signals are being input, when an incompatible signal is input, and when the internal temperature rises.

#### **Display Background**

Displays a menu for selecting the screen status for when using the blank function or when no image signal is input.

#### Startup Screen

This sets whether the start-up screen (the image that is projected when projection starts) is displayed (On) or not displayed (Off).

If you change the setting, the new setting will take effect after the power has been turned off and the <u>cool-</u> <u>down</u> period is complete.

#### Standby Confirmation

Sets whether the standby confirmation message is displayed (On) or not displayed (Off).



#### Input Signal

#### Video Signal

Sets the signal format in accordance with the video equipment that is connected to the [Video] or [S-Video] input port. If set to "Auto", the video signal format is set automatically.

If there is a lot of interference in the image, or if a problem such as no image being projected occurs even though "Auto" has been selected, select the correct signal format manually.

#### Component

Change this setting depending on the type of signal that is being output from the video equipment that is connected to the [Component] input port.

If "Auto" is selected, appropriate signal is automatically set. If colors appear unnatural even though "Auto" is selected, select appropriate signal name in the menu.

#### Language

This sets the display language for messages and menus.

#### Reset

Adjustment values for the "Settings" menu functions are returned to their default settings, except for the "High Altitude Mode", "Projection", "Component", and "Language".

# "Memory" menu

#### Load Memory

This retrieves settings previously saved using "Save Memory". *A* p.24 This cannot be selected when nothing is saved at "Save Memory".

#### Save Memory

This can be used to save "Image" menu settings. 🔊 p.24

#### **Erase Memory**

This is used to erase unwanted saved memory. 🔊 p.25

# "Reset" menu

#### Reset All

This resets all configuration menu settings to their default settings. "Component" and "Language" in the "Settings" menu, and the settings of "Memory" menu are not returned to their default even if "Reset All" is executed.

#### **Reset Memory**

This resets (erases) all settings that have been made using the "Save Memory".

#### **Reset Lamp Hours**

Clear the cumulative lamp operating time and reset to "0H". Perform this procedure when you replace the lamp.





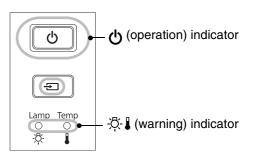
 $\circ$  : Off

# **Reading the indicators**

The projector indicates its status using the indicators.  $\mathfrak{G}$  (the icon and the around the button) and ÷ (the icon) light and flash, and  $B^{\downarrow}$  lights and flashes in red according to the current status.

The following tables show what the indicators mean and how to remedy the problems that they indicate.

\* If all indicators are switched off, check that the power cable is connected correctly and that the main power switch is on.



•: Lit

### When the 🚓 🛿 (warning) indicator is lit or flashing warning/problem

	<u> </u>	Internal problem	1			
Red	Red	•••••				
- <u>Ö</u> -					Disconnect the	power cable from the
Red				Atte		Then contact your local
-`@`- -`&`-	-) <b>\</b>					arest address provided in
<u>Q</u> .	•	<u> </u>			Projector Conta	l Service Guide. 🖙 Epson
	Red	Fan problem / Sensor problem			· · · · · · · · · · · · · · · · · · ·	
O VE/	-` <b>\</b> .					
-ġ-	•					
Red		Lamp problem /	-			
<u>ک</u>	0	Check if the lamp Clean the air filte		0.48		
Ŭ.			i. ⊉ β.+5			
		If the lamp is not broken	Replace the lan and then turn th power on.		replaced, stop using the power cable from the el your local dealer or t	t solved after the lamp is e projector and disconnect the lectrical outlet. Then contact he nearest address provided Service Guide.  rianglerightarrow Epson
		If the lamp is broken	Projector Conta	ct List.		ress provided in the <i>Epson</i>
		When using above "On".  P.34	an altitude of abo	out 150	0 m, make sure you s	et the "High Altitude Mode" to
	Red	High internal ter	mperature			
ە ب <del>ۆ</del>		(overheating) The lamp will switc automatically and p stop. Wait for appro- minutes. When the stops, turn off the r switch at the rear of	projection will pximately 5 cooling fan main power	inst wal of 2	ne projector is talled against a I, leave a space 20 cm or more ween it and the I.	If the problem is not solved when the power is turned back on, stop using the projector, turn off the main power switch, and disconnect the power cable from the electrical outlet. Then contact your
 Or ق: بې-		High-speed coo progress You can continue u projector, but if the rises again, it will s automatically.	ising the temperature	if th	an the air filters bey are blocked. p.45	local dealer or the nearest address provided in the Support and Service Guide. Beson Projector Contact List

Orange -)@\_-

ð

0

1



#### Lamp replacement warning -)Ų́-

It is time to replace the lamp. Replace the lamp with a new one as soon as possible. 🔊 p.50 If you continue to use the projector without replacing the lamp, the lamp may blowout.

### Indicator statuses in normal operation

During normal operation, the $\mathfrak{B}$	indicator is off.	Ů/æ:Lit	: Flashing
ර Standby condition	If you press (6), projection will start a	fter a brief inte	erval.
Warm-up in progress	Warm-up time is approximately 30 second Power off operations are ignored while		n progress.
Projection in progress €	Normal operation is in progress.		
Cool-down <sup>₩</sup> in progress (Approx. 16 seconds)	Remote control and control panel are progress. Once cool-down is complete mode. If the main power switch at the while cool-down is still in progress, down sufficiently (approximately 10 n the main power switch back on.	e, the projector rear of the pro wait until the	r turns to stand-by jector is turned off e lamp has cooled



# When the indicators provide no help

If any of the following problems occur and the indicators do not offer a solution, refer to the pages given for each problem.

#### Problems relating to images

- No images appear p.39
   Projection does not start, the projection area is completely black, the projection area is completely blue, etc.
   Moving images are not displayed provide that the grade on computer are not displayed.
   The message "Not Supported" is displayed provide that the grade on computer are not displayed provide that the grade on computer are not displayed.
- The message "No Signal" is displayed

   *p*.41
- Images are fuzzy or out of focus 
  p.41

Problems such as interference, distortion or black & white checked patterns appear.

### Problems when projection starts

Power does not turn on 
p.43

#### 

Only part of the image is displayed.

Image colors are not right p.42

The whole image appears purplish or greenish, images are black & white, colors appear dull, etc.

(Computer monitors and LCD screens have different color reproduction performance, so that the colors projected by the projector and the colors appearing on the monitor may not necessarily match, but this is not a sign of a problem.)

- Projection stops automatically 
  p.43

Problems with the remote control

 The remote control does not work p.44

# Problems relating to images

#### No images appear

Have you pressed the [Power] button?	Press (1) on the remote control or (2) on the projector's control panel.
Is the main power switch turned off?	Turn on the main power switch at the rear of the projector.
Are all of the indicators switched off?	Disconnect the power cable and then reconnect it. <i>P</i> p.14 Check the circuit breaker to see if power is being supplied.
Is blank mode active?	Press Blank on the remote control to cancel the blank function.
Is a video signal being input?	Check that the power for the connected equipment is turned on. If the "Messages" menu command has been set to "On", messages relating to the image signals will be displayed.



Are the image signal format settings correct?	If a <u>composite video</u> <sup>→</sup> or <u>S-Video</u> <sup>→</sup> signal is being input If projection does not occur when the "Video Signal" menu command is set to "Auto", select the signal format that matches the signal source.	
	If the signal source is connected to the [Component] input port If projection does not occur when the "Component" in the "Input Signal" menu command is set to "Auto", set the signal format that matches the signal that is being projected from the connected equipment.	
Have the configuration menu settings been made correctly?	Try resetting all of the current settings. <i>P</i> p.36	
Were the projector and computer connected while their power was already turned on?	If the connection is made while the power is already turned on, the function [Fn] key that switches the computer's video signal to external output may not work. Turn the power for the computer that	
When a computer is connected	is connected to the projector off and then back on again.	

### Moving images are not displayed

Is the computer image signal set	When attempting to display images simultaneously on an external
to output simultaneously both	monitor and an LCD monitor, moving images may not be displayed
externally and to the LCD	due to specifications of the computer. Set the image signal to output
monitor?	only externally.
Only when projecting images from a laptop computer or computer with a built-in LCD screen	Computer documentation, under a title such as "External output" or "Connecting an external monitor"

# The message "Not Supported" is displayed

If a <u>composite video</u> or <u>S-Video</u> is being input If projection does not occur when the "Video Signal" menu command is set to "Auto", select the signal format that matches the signal source. "Settings" - "Input Signal" - "Video Signal" p.35
If the signal source is connected to the [Component] input port If projection does not occur when the "Component" in the "Input Signal" menu command is set to "Auto", set the signal format that matches the signal that is being projected from the connected equipment.
Use the "Resolution" menu command to check the signals being input, and check the "List of Supported Monitor Displays" to make sure that the signals are compatible.



#### ■ The message "No Signal" is displayed

Are the cables connected correctly?	Check that all of the cables required for projection are securely connected. <i>P</i> p.12
Has the correct video input port been selected?	Press [HDMI1], [HDMI2], [Component], [PC], [S-Video] or Video] on the remote control or [] on the projector's control panel to change the image source. [] p.15
Is the power for the connected equipment turned on?	Turn the power on for the devices.
Are the image signals being output to the projector? Only when projecting images from a laptop computer or computer with a built-in LCD	If the image signals are only being output to the computer's LCD monitor, you need to change the output. For some computer models, when the image signals are output externally, they no longer appear on the LCD monitor. Computer documentation, under a title such as "External output" or "Connecting an external monitor"
screen	If the connection is made while the power is already turned on, the function [Fn] key that switches the computer's video signal to external output may not work. Turn the power for the projector and the computer off and then back on again.  P.14

#### Images are fuzzy or out of focus

Has the focus been adjusted correctly?	Adjust the focus. <i>A</i> p.16	
Is the lens cover still attached?	Remove the lens cover.	
Is the projector at the correct distance?	The recommended distance from the projector to the screen is within 87 to 1276 cm for a screen size of 16:9, and 107 to 1562 cm for a screen size of 4:3. Set up the projector so that the projection distance is within this range. $\square$ p.10	
Has condensation formed on the lens?	If the projector is suddenly taken from a cold environment to a warm environment or if sudden ambient temperature changes occur, condensation may form on the surface of the lens, and this may cause the images to appear fuzzy. Set the projector up in the room approximately one hour before it is to be used. If condensation forms on the lens, turn off the projector, disconnect the power cable and wait for the condensation to disappear.	

#### Interference or distortion appear in images

Are the image signal format settings correct?	If a <u>composite video</u> <sup>→</sup> or <u>S-Video</u> <sup>→</sup> is being input If projection does not occur when the "Video Signal" menu command is set to "Auto", select the signal format that matches the signal source.
	If the signal source is connected to the [Component] input port If projection does not occur when the "Component" in the "Input Signal" menu command is set to "Auto", set the signal format that matches the signal that is being projected from the connected equipment.
Are the cables connected correctly?	Check that all of the cables required for projection are securely connected. <i>P</i> p.12



Is an extension cable being used?	If an extension cable is used, interference may increase. Try connecting a signal amplifier.
Have the " <u>Sync.</u> <sup>₩</sup> " and " <u>Tracking</u> <sup>₩</sup> " settings been adjusted correctly? Only when projecting computer images	The projector has an automatic adjustment function that causes the optimum images to be projected. However, for some types of signal, the correct adjustments may not be obtained even after automatic adjustment is carried out. In such cases, use the "Tracking" and "Sync." menu commands to make the adjustments.
Has the correct resolution been selected? Only when projecting computer images	<ul> <li>Set the computer so that the signals that are output are compatible with this projector.</li> <li>     "List of Supported Monitor Displays" p.51     Computer documentation     </li> </ul>

#### Image is truncated (large) or small

Has the correct <u>aspect</u> <sup>▶</sup> been selected?	Press Aspect to select the aspect that corresponds to the input signal.  Press p.18 If images with subtitles are being projected using "Zoom", use the "Zoom Caption Pos." menu command to adjust the images.  P.31
Has the "Position" setting been adjusted correctly?	Use the "Position" the menu command to make the adjustment. "Signal" - "Position" p.32
Has the computer been set for dual display? Only when projecting computer images	If the dual display setting has been activated by the connected computer, only half of the images on the computer screen is displayed by the projector. To display the whole of the image on the computer screen, turn off the dual display setting.
Has the correct resolution been selected? Only when projecting computer images	<ul> <li>Set the computer so that the signals that are output are compatible with this projector.</li> <li> Ist of Supported Monitor Displays" p.51 Computer documentation </li> </ul>

# Image colors are not right

Are the image signal format settings correct?	If a <u>composite video</u> or <u>S-Video</u> is being input If projection does not occur when the "Video Signal" menu command is set to "Auto", select the signal format that matches the signal source.
	If the signal source is connected to the [Component] input port If projection does not occur when the "Component" in the "Input Signal" menu command is set to "Auto", set the signal format that matches the signal that is being projected from the connected equipment.
Are the cables connected correctly?	Check that all of the cables required for projection are securely connected. <i>P</i> p.12
Has the image <u>contrast</u> <sup></sup> <sup> →</sup> been adjusted correctly?	Use the "Contrast" menu command to adjust the color.
Has color been adjusted appropriately?	Use the "Advanced" menu command to adjust the color.      "Image" - "Advanced" p.30



Have the color intensity and tint been adjusted correctly?	the color and tint.	
Only when projecting images from a video source	Image" - "Color Saturation", "Tint" p.30	

#### Images appear dark

Has the image brightness been adjusted correctly?	Use the "Brightness" menu commands to make the adjustments. "Image" - "Brightness" p.30	
Has the image contrast been adjusted correctly?	Use the "Contrast" menu command to adjust the color.      "Image" - "Contrast" p.30	
Is the lamp due for replacement?	When the lamp is nearly due for replacement, the images will become darker and the color quality will become poorer. When this happens, the lamp should be replaced with a new one. 🖛 p.48	

#### Projection stops automatically

When "Sleep Mode" has been set to On, the lamp turns off	
automatically if no signal is input for about 30 minutes, and the	
projector switches to standby mode. Press the 🕑 button on the	
remote control or the 🕑 button on the projector's control panel	
to turn the projector's power back on. To cancel the sleep mode	
setting, change "Sleep Mode" menu command to "Off".	
☞ "Settings" - "Sleep Mode" p.33	

# Problems when projection starts

#### Power does not turn on

Have you pressed the [Power] button?	Press (b) on the remote control or panel.
Is "Child Lock" set to "On"?	If the "Child Lock" menu command is set to "On", press 🕑 on the projector's control panel for about 3 seconds or press (b) on the remote control to turn the power on.
Is "Control Panel Lock" set to "On"?	If the "Control Panel Lock" menu command is set to "On", all buttons on the projector's control panel are disabled. Press (b) on the remote control.
Are all of the indicators switched off?	Disconnect the power cable and then reconnect it.  Provember p.14 Check the circuit breaker to see if power is being supplied.
Do the indicators turn off and on when the power cable is touched?	Turn the power off, disconnect the power cable and then reconnect it. If this does not solve the problem, there may be a problem with the power cable. Then contact your local dealer or the nearest address provided in the <i>Support and Service Guide</i> . <i>Are Epson</i> <i>Projector Contact List</i>



# Problems with the remote control

### The remote control does not work

Is the remote control light- emitting area facing towards the remote control light-receiving area when it is operated?	Face the remote control towards the remote control light-receiving area. Operating range @ p.13
Is the remote control too far from the projector?	The operating range for the remote control is approximately 10m. p.13
Is direct sunlight or strong light from fluorescent lamps shining onto the remote control light- receiving area?	Set the projector up in a location where strong light will not shine onto the remote control light-receiving area.
Are the batteries dead, or have the batteries been inserted correctly?	Insert new batteries, while making sure that they face correctly. p.13



This section describes maintenance tasks such as cleaning the projector and replacing consumable parts.

# Cleaning

You should clean the projector if it becomes dirty or if the quality of projected images starts to deteriorate.

Warning Do not use sprays containing a flammable gas to remove dirt or dust which is adhering to parts such as the lens or filter of the projector. Because the lamp inside the projector becomes very hot during use, the gases may ignite and result in a fire.

### Cleaning the air filter

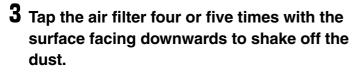
If the air filter becomes blocked with dust and the message "The projector is overheating. Make sure nothing is blocking the air vent, and clean or replace the air filter" is displayed, clean the air filter.

- Attention If the air filter becomes clogged with dust, it can result in overheating which may cause operating problems or reduce the operating life of the optical parts. It is recommended that you clean the air filter about once every three month. If using the projector in a dusty location, the air filter should be cleaned more often.
  - The air filter is not washable. Also do not use detergent or solvents.
  - When using a brush for cleaning, use a soft brush with long bristles and brush the filter gently. If you brush too strong, dust may be pushed inside the air filter and hardly be removed.

### Remove the air filter cover.

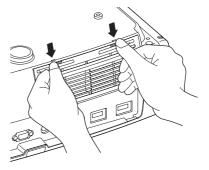
Press the knobs to release the catches, and then pull the cover upward.

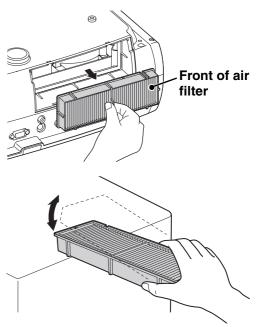
**2** Take out the air filter.



Hold the filter at the other side and tap it again to shake off the dust.

Attention Do not hit the air filter hard, otherwise it may become bent or broken and can no longer be used.







**4** Use a vacuum cleaner to remove any remaining dust from the surface of the air filter.

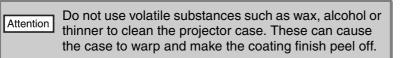
**5** Install the air filter.

**6** Install the air filter cover.

# Cleaning the projector case

Clean the projector case by wiping it gently with a soft cloth.

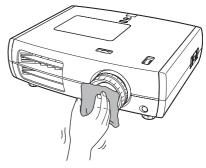
If the projector is particularly dirty, moisten the cloth with water containing a small amount of neutral detergent, and then firmly wring the cloth dry before using it to wipe the projector case. Then wipe the case again with a soft, dry cloth.

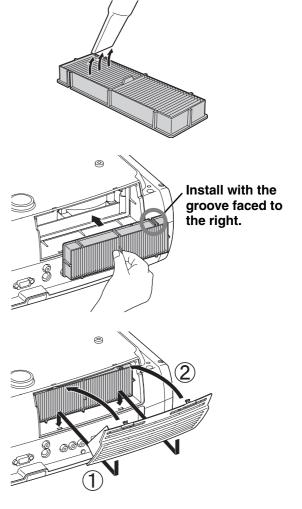


# **Cleaning the lens**

To clean the lens it is preferable to use an air blower purchased for the purpose. But alternatively you can wipe it gently clean with a spectacle-cleaning cloth.

Attention Do not rub the lens with harsh materials or subject the lens to shocks, as it can easily become damaged.







# **Consumable replacement periods**

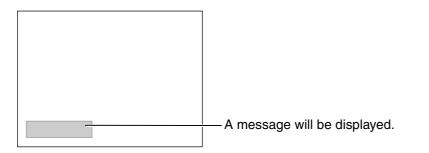
### Air filter replacement period

• If the air filter has been broken or the "Replace" message is displayed even though the air filter has been cleaned.

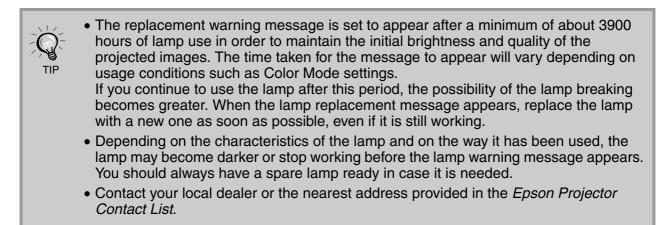
Replacing the air filter p.48

### Lamp replacement period

• The message "Replace the lamp." appears on the screen when projection starts.



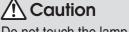
• The projected images get darker or start to deteriorate.





# **Replacing consumables**

# Replacing the air filter



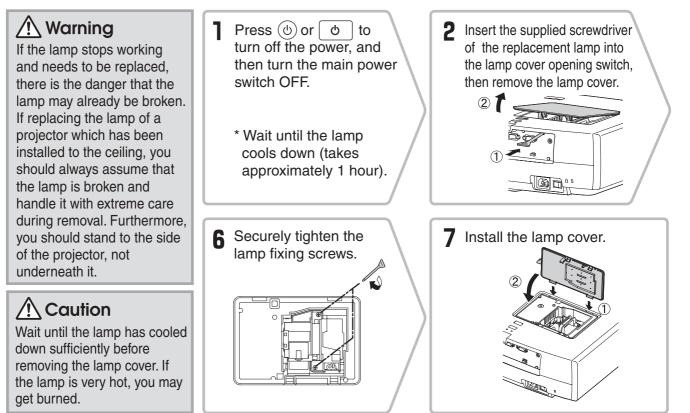
Do not touch the lamp cover soon after power-off or you may get burned because it is very hot.

Dispose of used air filters properly in accordance with your local regulations. Frame material: PP Filter materials: PP, PET Press (b) or b) to turn off the power, and then turn the main power switch OFF.



Press the knobs to release the catches, and then pull the cover upward.

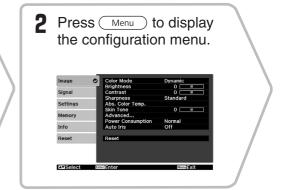
# Replacing the lamp



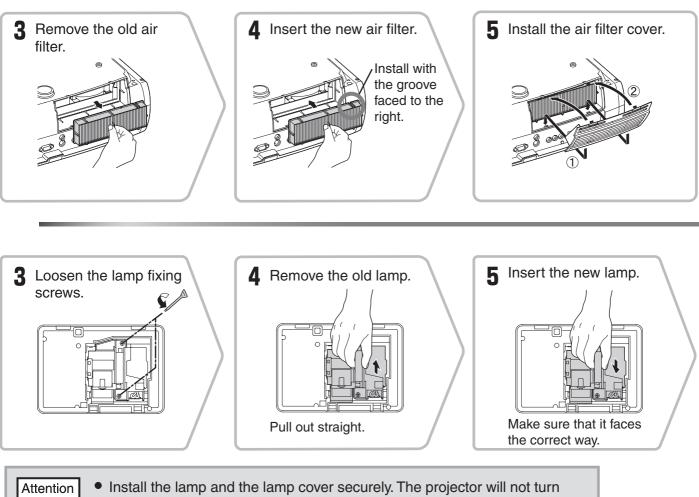
# Resetting the lamp operating time

The lamp operating time must always be reset after the lamp has been replaced with a new one. The projector has a built-in counter which keeps track of the lamp operating time. When the cumulative operating time reaches a certain point, it causes the replacement warning message to be displayed.

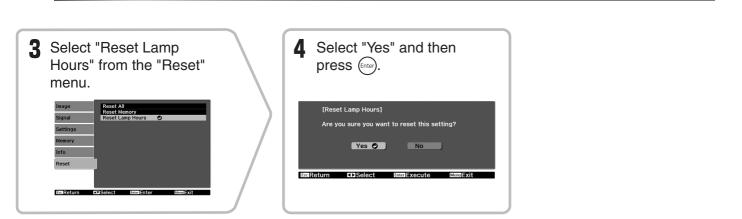
Press (b) to turn on the power.







- on if the lamp or the lamp cover is not installed correctly.
- This product includes a lamp component that contains mercury (Hg). Please consult your local regulations regarding disposal or recycling. Do not dispose of it with normal waste.





The following optional accessories/consumables are available for purchase if required. This list of optional accessories/consumables is current as of: 2010.7. Details of accessories are subject to change without notice.

Varies depending on country of purchase.

#### Optional Accessories

50" Portable Screen	ELPSC06
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A compact screen which can be carried easily. (Aspect Ratio → 4:3)

60" Portable Screen	ELPSC07
80" Portable Screen	ELPSC08
100" Portable Screen	ELPSC10

A portable roll-type screen. (Aspect 4:3)

VGA-HD15 PC Cable (1.8 m)	ELPKC02
VGA-HD15 PC Cable (3 m)	ELPKC09
VGA-HD15 PC Cable (20 m)	ELPKC10

(For mini D-Sub 15-pin/mini D-Sub 15-pin) Use to connect the projector to a computer.

Ceiling Mount*	ELPMB20
	ELPMB22

(with ceiling plate)

Use when installing the projector to a ceiling.

Ceiling Pipe 600 (600 mm/white)*	ELPFP07
Ceiling Pipe 450 (450 mm/white)*	ELPFP13
Ceiling Pipe 700 (700 mm/white)*	ELPFP14

Use when installing the projector to a high ceiling or a ceiling with veneer panels.

#### Cable Cover (White)

ELPCC01W

Use to cover cables of the projector that is suspended from a ceiling to improve the appearance.

\* A special method of installation is required in order to suspend the projector from the ceiling. Please contact the place of purchase if you would like to use this installation method.

#### ■ Consumables

Lamp Unit	ELPLP49
(1 spare lamp, 1 spare screwdriver) Use as a replacement for spent lamps.	

#### Air Filter Set

ELPAF21

#### (1 air filter)

Use as a replacement for old air filters.



# Component Video»

Signal	Refresh rate (Hz)	Resolution (Dots)
<u>SDTV</u> <sup>▶</sup> (480i)	60	720×480
SDTV(576i)	50	720×576
SDTV(480p)	60	720×480
SDTV(576p)	50	720×576
<u>HDTV</u> ₩ (720p)	50/60	1280×720
HDTV(1080i)	50/60	1920×1080
HDTV(1080p)	50/60	1920×1080

# Composite Video»/S-Video»

Signal	Refresh rate (Hz)	Resolution (Dots)		
$TV(\underline{NTSC}^{)})$	60	720×480		
$TV(\underline{SECAM}^{)})$	50	720×576		
TV( <u>PAL</u> ♥)	50/60	720×576		



# Input signal from the [HDMI1] / [HDMI2] input port

Signal	Refresh rate (Hz)	Resolution (Dots)
<u>VGA</u>	60	640×480
<u>SDTV</u> <sup>▶</sup> (480i)	60	720×480
SDTV(576i)	50	720×576
SDTV(480p)	60	720×480
SDTV(576p)	50	720×576
<u>HDTV</u> <sup>►</sup> (720p)	50/60	1280×720
HDTV(1080i)	50/60	1920×1080
HDTV(1080p)	24/30/50/60	1920×1080

# Computer image (analog RGB)

Signal	Refresh rate (Hz)	Resolution (Dots)		
<u>VGA</u>	60/72/75/85	640×480		
<u>SVGA</u> ♥	56/60/72/75/85	800×600		
XGA **	60/70/75/85	1024×768		
	70/75/85	1152×864		
<u>SXGA</u> ♥	60/75/85	1280×960		
	60/75/85	1280×1024		
	60	1280×768		
WXGA	60	1360×768		
	60/75/85	1280×800		
MAC13"	67	640×480		
MAC16"	75	832×624		
MAC19"	59/75	1024×768		
MAC21"	75	1152×870		



Product name		EH-TW3600 EH-TW3200				
Dimensions		$450 \text{ (W)} \times 136 \text{ (H)} \times 360 \text{ (D)} \text{ mm (not including feet)}$				
Panel size		0.74 inch wide				
Display metho	d	Polysilicon TFT active matrix				
Resolution		2,073,600 piz	xels (1920	$(W) \times 1080 (H) dots) \times 3$		
Scanning	Digital	Pixel clock: 13.5 to 148.5 MHz				
frequencies		Horizontal: 15.63 to 67.5 kHz				
		Vertical: 24, 50 to 60 Hz				
	Analogue	Pixe	l clock: 13	3.5 to 157.5 MHz		
		Hor	izontal: 15	5.63 to 91.15 kHz		
		Ver	tical: 50 to	85 Hz		
Focus adjustm	ent		Ma	anual		
Zoom adjustm	ent	Manual (Approx. 1 : 2.1)				
Lens shift			Manual			
		· · ·	•	vertically, 47% horizontally)		
Lamp (light so	urce)	UHE lamp, 200 W, Model No.: ELPLP49				
Power supply	1	100 to 240V AC±10%, 50/60Hz, 3.1 to 1.3A				
Power Consumption	100 to 120V area	Operating: 272W				
Consumption		Standby: 0.2W				
220 to 240V area		Operating: 261W				
		Standby: 0.3W				
Operating altit	ude	0 to 2286m				
Operating tempe	erature	+5 to +35°C (No condensation)				
Storage tempe	rature	-10 to +60°C (No condensation)				
Mass			Appro	ox. 7.3kg		
Ports		Component input	1	RCA pin jack × 3		
		PC input	1	Mini D-sub 15-pin (female) blue		
		HDMI input*	2	HDMI*		
				HDCP compatible, incompatible with CEC signals		
		Video input	1	RCA pin jack		
		S-Video input	1	Mini DIN 4-pin		
		RS-232C	1	D-sub 9-pin (male)		
		Trigger out	1	3.5 mm mini jack		

\* You can connect any HDMI or DVI-D compatible equipment. However, depending on the equipment, the projector may not project any image.





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

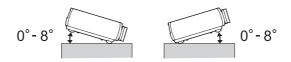
#### **Product Information**

#### Türkiye'deki kullanıcılar için

EEE Yönetmeliğine Uygundur.

For users in Turkey: In Conformity with the Turkish EEE Regulation.

Angle of tilt



If you set the projector higher than 8 °, it could damage the projector and cause an accident.

#### RS-232C cable layout

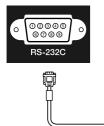
• Connector shape:

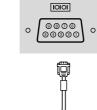
D-Sub 9-pin (male)

**RS-232C** 

- Projector input connector:
  - <At projector>







<at projector=""> (PC serial cable) <at computer=""></at></at>			>	Signal	Function			
	GND	5		5	GND		GND	Signal wire earth
	RD	2	◀────	3	TD		TD	Transmit data
	TD	3		2	RD		RD	Receive data