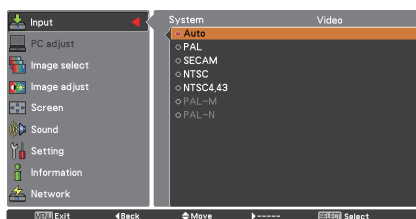
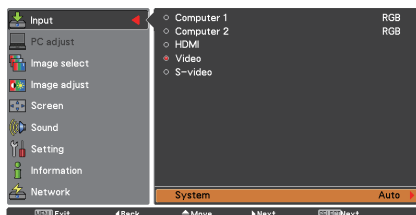


# Video Input

## Video System Selection

- 1 Press the MENU button to display the On-Screen Menu. Use the Point ▲▼ buttons to select **Input** and then press the Point ► button or the SELECT button.
- 2 Use the Point ▲▼ buttons to select **Video**, **S-video** or **Computer 1(Component)** and then press the SELECT button.
- 3 Use the Point ▲▼ buttons to select **System** and then press the Point ► button or the SELECT button. Use the Point ▲▼ buttons to select the desired system and then press the SELECT button.

### AV System Menu (Video or S-video)



### Video or S-video

#### Auto

The projector automatically detects an incoming video system, and adjusts itself to optimize its performance. When Video System is **PAL-M** or **PAL-N**, select the system manually.

### PAL/SECAM/NTSC/NTSC4.43/PAL-M/PAL-N

If the projector cannot reproduce proper video image, select a specific broadcast signal format from among **PAL**, **SECAM**, **NTSC**, **NTSC 4.43**, **PAL-M** and **PAL-N**.

### Component

#### Auto

The projector automatically detects an incoming video signal, and adjusts itself to optimize its performance.

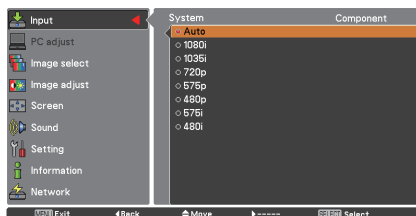
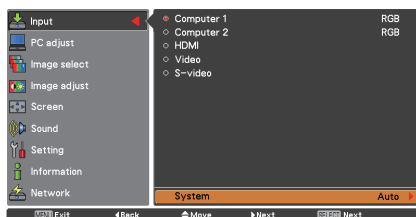
### COMPONENT VIDEO SIGNAL FORMAT

If the projector cannot reproduce proper video image, select a specific component video signal format from among **480i**, **575i**, **480p**, **575p**, **720p**, **1035i** and **1080i**.

#### ✓Note:

The AV System Menu cannot be selected when selecting **RGB(Scart)** or **HDMI**.

### AV System Menu (Component)



## Image Mode Selection

### Direct Operation

Select the desired image mode among **Dynamic**, **Standard**, **Real**, **Cinema**, **Blackboard (Green)**, **Colorboard**, **Image 1**, **Image 2**, **Image 3** and **Image 4** by pressing the IMAGE button on the remote control.

### Remote control

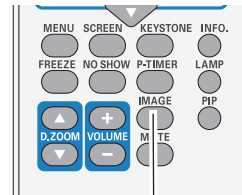
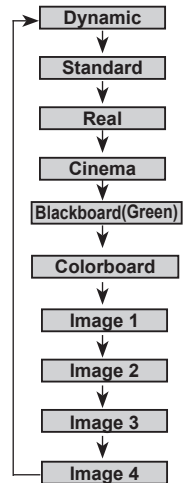


IMAGE button

### IMAGE button



### Menu Operation

- 1 Press the MENU button to display the On-Screen Menu. Use the Point ▲▼ buttons to select **Image select** and then press the Point ► button or the SELECT button.
- 2 Use the Point ▲▼ buttons to select the desired item and then press the SELECT button.

### Dynamic

For viewing pictures in a bright room.

### Standard

Normal picture mode preset on the projector.

### Real

Picture mode with improved halftone for graphics.

### Cinema

Picture mode adjusted with fine tone.

### Blackboard (Green)

For the image projected on a blackboard. This mode helps enhance the image projected on a blackboard. This is mainly effective on a green colored board, not truly effective on a black colored board.

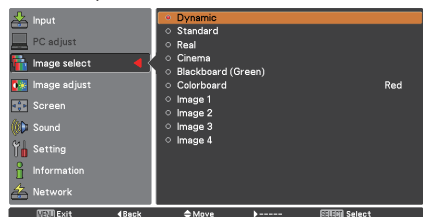
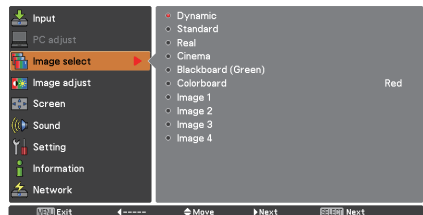
### Colorboard

At the time of simple projection on the colored wall, you can get the close color image to the color image projected on a white screen by selecting the similar color to the wall color from the preset four colors.

### Image 1-4

For viewing with the user preset image mode in the Image Adjust Menu (p. 41).

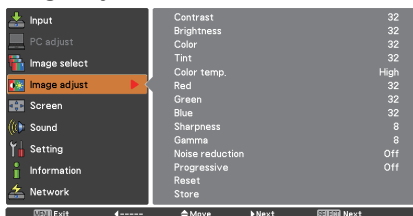
### Image select Menu



## Image Adjustment

- 1 Press the MENU button to display the On-Screen Menu. Use the Point ▲▼ buttons to select **Image adjust** and then press the SELECT button.
- 2 Use the Point ▲▼ buttons to select the desired item and then press the SELECT button to display the adjustment dialog box. Use the Point ◀▶ buttons to adjust the setting value.

### Image Adjust Menu



### Contrast

Press the Point ◀ button to decrease the contrast, press the Point ▶ button to increase the contrast (from 0 to 63).

### Brightness

Press the Point ◀ button to decrease the brightness, press the Point ▶ button to increase the brightness (from 0 to 63).

### Color

Press the Point ◀ button decrease the intensity of the color, press the Point ▶ button increase the intensity of the color (from 0 to 63).

### Tint

Press the Point ◀▶ buttons to adjust the tint value to get a proper color balance (from 0 to 63).

### Color temp.

Use the Point ◀▶ buttons to select the desired Color temp. level (**XLow**, **Low**, **Mid** or **High**).

### White balance (Red / Green / Blue)

Press the Point ◀ button to lighten R/G/B tone, press the Point ▶ button to deepen R/G/B tone (from 0 to 63).

### Sharpness

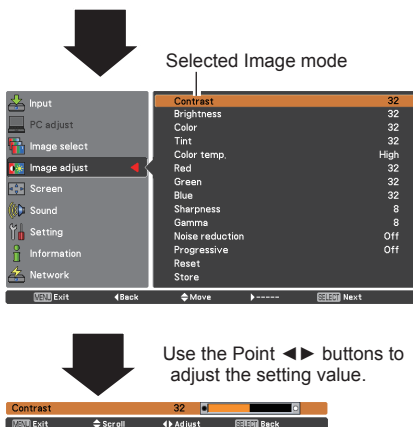
Press the Point ◀ button to decrease the sharpness of the image, press the Point ▶ button to increase the sharpness of the image (from 0 to 15).

### Gamma

Use the Point ◀▶ buttons to adjust the gamma value to obtain a better balance of contrast (from 0 to 15).

#### ✓Note:

- When the **White balance Red**, **Green** or **Blue** is adjusted, the Color temp. will change to **User**.
- **Tint** cannot be selected when the video system is **PAL**, **SECAM**, **PAL-M** or **PAL-N** (p. 38).
- When **Blackboard (Green)** or **Colorboard** is selected in Image select, **Color temp.** will change to **Blackboard** or **Colorboard**.



## Noise reduction

Noise interference on the screen can be reduced. Select one of the following options to get smoother images.

- Off**..... Disabled.
- L 1**..... Lower reduction
- L 2**..... Higher reduction

## Progressive

An interlaced video signal can be displayed in progressive mode. Select one of the following options.

- Off**..... Disabled.
- L 1**..... For an active picture.
- L 2**..... For a still picture.
- Film**..... For watching a film. With this function, the projector reproduces pictures faithful to the original film quality.

## Reset

To reset the adjusted data, select **Reset** and press the SELECT button. A confirmation box appears and then select **Yes**. All adjustments will return to their previous figures.

## Store

To store the adjusted data, select **Store** and press the Point ► button or the SELECT button. Use the Point ▲▼ buttons to select one from **Image 1 to Image 4** and press the SELECT button.

A confirmation box appears and then select **Yes**. Stored data can be called up by selecting an **Image (1-4)** in the Image Mode Selection on page 39.

## Store



A confirmation box appears and then select **Yes**.

### ✓Note:

**Progressive** can not be selected when the input signal is **480p**, **575p** or **720p** (p.38).

## Screen Setting

This projector has the picture screen resize function, which enables you to customize the image size.

- 1 Press the MENU button to display the On-Screen Menu. Use the Point ▲▼ buttons to select **Screen** and then press the Point ► button or the SELECT button.
- 2 Use the Point ▲▼ buttons to select the desired item and then press the SELECT button.

### Normal

Provide the image to fit the screen size while maintaining the aspect ratio of the input signal.

### Full

Provide the full screen image.

### Wide (16:9)

Provide the image at the 16:9 wide screen ratio.

### Zoom

Pan the horizontal direction of the image and cut the vertical direction of the image to fit the screen size (16:9). Only for 4:3 video aspect ratio signals.

### Natural wide

Expand the right and left sides of images naturally without changing the center areas.

### Custom

Provide the last stored aspect screen image.

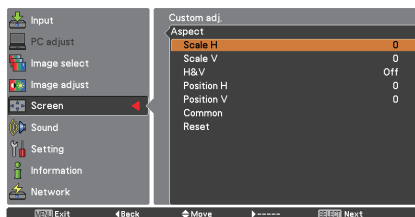
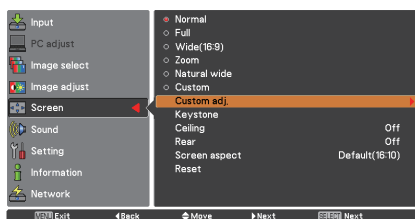
### Custom adj.

Adjust the screen scale and position manually with this function.

Press the Point ► button at **Custom adj.** and the Custom adjustment menu is displayed on the screen, you can use the Point ▲▼ buttons to choose the item you want to adjust.

- Scale H/V** ..... Adjust the Horizontal/Vertical screen scale.
- H&V** ..... When set to **On**, the aspect ratio is fixed. The **Scale V** appears dimmed and becomes unavailable. Adjust **Scale H**, then the screen scale is automatically modified based on the aspect ratio.
- Position H/V** .. Adjust the Horizontal/Vertical screen position.
- Common** ..... Save the adjusted scale or position to all the inputs. Press the SELECT button at **Common** to display a confirmation box. To save the scale or position, press the SELECT button at **Yes**. When **Custom** is selected, the saved scale or position is used.
- Reset** ..... Reset the all adjusted values. Press the SELECT button at **Reset** to display a confirmation box. To reset, press the SELECT button at **Yes**.

### Screen Menu



### ✓Note:

- When no signal is detected, **Normal** is set automatically and the Aspect adjustment menu disappears.
- The adjustable range for **Scale H/V** and **Position H/V** is limited depending on the input signal.

## Keystone

This function is used to adjust keystone distortion of the projected image. Use the Point ▲▼ buttons to choose the item you want to adjust.

### Keystone

To correct keystone distortion, press the SELECT button.

Keystone appears on the screen. Use the Point ▲▼ buttons to correct keystone distortion (p. 23).

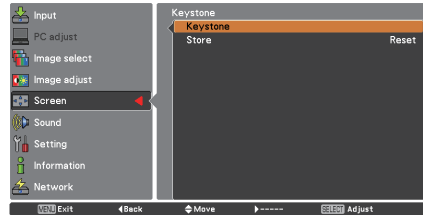
### Store

To store or reset the keystone correction, press the Point ► button.

**Store** .....Keep the keystone correction even when the AC power cord is unplugged.

**Reset**.....Release the keystone correction when the AC power cord is unplugged.

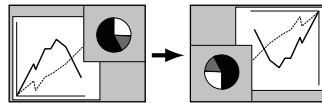
## Keystone



## Ceiling

When this function is set to **On**, the picture will be top/bottom and left/right reversed. This function is used to project the image from a ceiling-mounted projector.

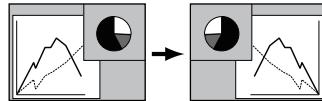
### Ceiling



## Rear

When this function is set to **On**, the picture will be left/right reversed. This function is used to project the image from rear of the screen.

### Rear



## Screen aspect

This function is used to project the image to a 4:3 or 16:9 projection screen.

**Default (16:10)** ....16:10 is the aspect of the LCD panel. The original Screen Menu is available.

**16:9** ..... Set to a 16:9 projection screen.

**4:3** .....Set to a 4:3 projection screen.

## Reset

To reset the adjusted data, select **Reset** and press the SELECT button. A confirmation box appears and then select **Yes**. All adjustments will return to their previous figures.

### ✓Note:

When the 16:9 function is selected on Screen aspect menu, Wide (16:9) is not available in the PC and AV screen (pp.34, 42).

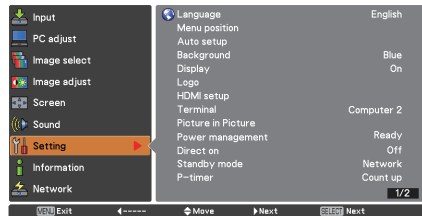
# Setting

## Setting

This projector has a Setting menu that allows you to set up the other various functions described below.

- 1 Press the MENU button to display the On-Screen Menu. Press the Point ▲▼ buttons to select **Setting** and press the Point ► button or the SELECT button to access the submenu items.
- 2 Use the Point ▲▼ buttons to select the desired item and then press the Point ► button or the SELECT button to access the selected item.
- 3 Use the Point ▲▼ buttons to select the desired item and then press the SELECT button.

### Setting Menu



### Language

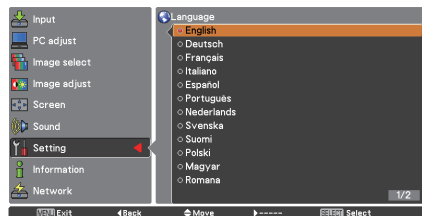
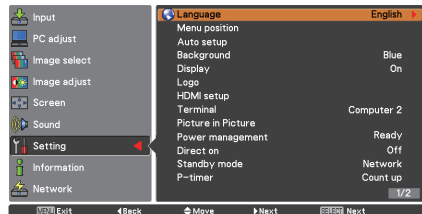
The language used in the On-Screen Menu is available in English, German, French, Italian, Spanish, Portuguese, Dutch, Swedish, Finnish, Polish, Hungarian, Romanian, Czech, Russian, Turkish, Arabic, Kazakh, Vietnamese, Chinese, Korean, Japanese and Thai.

### Menu position

This function is used to change the position of the On-Screen Menu. Select **Menu position** and press the SELECT button.

The Menu position changes each time you press the SELECT button as follows.  
the center → the bottom left → the bottom right → the top left → the top right→.....

### Language



## Auto setup

This function enables Input search, Auto PC adj. and Auto Keystone adjustment by pressing the AUTO SETUP button on the top control or the AUTO SET button on the remote control. Settings for those functions can be altered as follows:

### Input search

This function detects the input signal automatically. When a signal is found, the search will stop. Use the Point ▲▼ buttons to select one of the following options.

**Off**..... Input search does not work.

**On 1**..... Input search works under the following situation.

- When pressing the AUTO SET button on the remote control.
- When pressing the AUTO SETUP button on the top control.

**On 2**..... Input search works under the following situation.

- When turning on the projector by pressing the ON/STAND-BY button on the top control or the remote control.
- When pressing the AUTO SET button on the remote control.
- When pressing the AUTO SETUP button on the top control.
- When the current input signal is cut off.\*

\* If the No show or Freeze function is active, cancel it to activate the Input search. It is also unavailable when On-Screen menu is displayed.

### Auto PC adj.

**On**..... Enables Auto PC Adjustment when pressing the AUTO SET button on the remote control or the AUTO SETUP button on the top control.

**Off**..... Disables Auto PC Adjustment.

### Auto keystone

**Auto**..... Always works and corrects keystone distortion according to the projector's tilt.

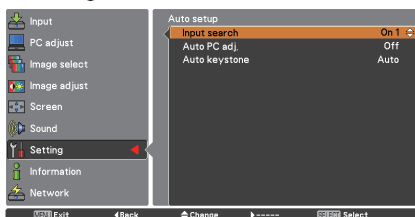
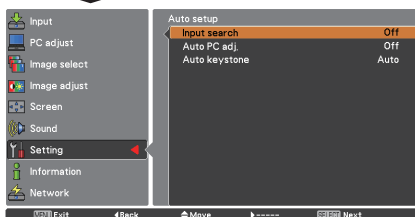
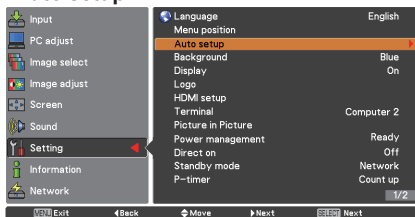
**Manual**..... Works only when pressing the AUTO SET button on the remote control or the AUTO SETUP button on the top control.

**Off**..... Disables Auto Keystone.

#### ✓Note:

- While **Input search** is set to **On 1** or **On 2**, the status of Input and Lamp are displayed every time the signal is switched.
- Only the last selected input source can be detected.

## Auto setup



#### ✓Note:

- During **Input search** is in progress, If the MENU button or the ON/STAND-BY button is pressed, **Input search** will stop. If the COMPUTER 1/2 or VIDEO or COMPONENT or S-VIDEO or HDMI button is pressed, **Input search** will stop and go back to the button's input signal.
- **Input search**, **Auto PC adj.** and **Auto keystone** can not be set **Off** at the same time.
- **Auto keystone** corrects vertical distortion only, not correct horizontal distortion.
- The Auto keystone function can not work when the Ceiling feature is set **On** in the Screen menu (pp. 35, 43).
- Perfect correction of the image distortion can not be ensured with the Auto setup function. If the distortion is not corrected properly by pressing the AUTO SETUP or the AUTO SET button, adjust manually by pressing the KEYSTONE button on the remote control or selecting **Keystone** in the Setting menu (pp. 35, 43).
- **Fine sync**, **Total dots**, **Horizontal** and **Vertical** of some computers cannot be fully adjusted with the Auto PC Adjustment function. When the image is not provided properly with this operation, manual adjustments are required (pp. 30-31).



# Setting

## Background

Select the background screen for when no input signal is detected. Press the Point ▲▼ buttons to switch between each option.

**Blue**.....Project a blue background.

**User**.....Project an image captured in the Logo setting.

**Black**.....Project a black background.

## Display

This function decides whether to display On-Screen Displays.

**On**..... Show all the On-Screen displays. Use this function when you want to project images after the lamp becomes bright enough. The factory default setting is in this option.

**Countdown off**... Show the input image instead of the countdown when turning on the projector. Use this function when you want to project the image as early as possible even when the lamp is not bright enough.

**Off**..... Hide the On-Screen Displays except:

- On-Screen Menu.
- **Power off?** (p. 20)
- P-Timer display.
- **No signal** for Power management (p. 49)
- **Please wait ...**
- Arrows for the True function in the Screen Menu. (p. 34)

## Logo (Logo and Logo PIN code lock settings)

This function allows you to customize the screen logo with **Logo select**, **Capture**, **Logo PIN code lock** and **Logo PIN code change** functions.

### ✓Note:

When **On** is selected in the Logo PIN code lock function, **Logo select** and **Capture** functions cannot be selected.

### Logo select

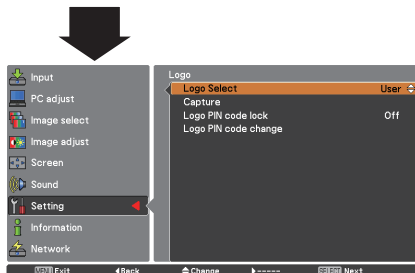
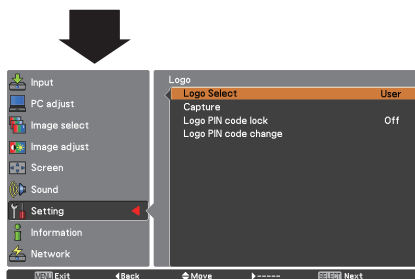
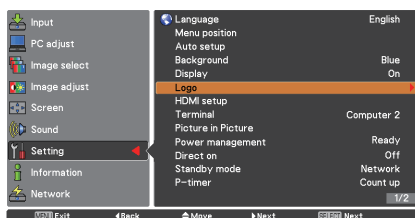
This function decides on the starting-up display from among following options.

**User**..... Show the image you captured.

**Default**... Show the factory-set logo.

**Off**..... Show the countdown display only.

### Logo select



## Capture

This function enables you to capture an image being projected to use it for a starting-up display or interval of presentations.

Select **Capture** and press the SELECT button. A confirmation box appears and select **Yes** to capture the projected image.

After capturing the projected image, go to the Logo select function and set it to **User**. Then the captured image will be displayed the next time you turn on the projector or when you press the NO SHOW button (p. 26).

To cancel the capture function, select **Yes** in the **Quit?** confirmation box.

### ✓Note:

- Before capturing an image, select **Standard** in the Image select Menu to capture a proper image (pp. 32, 39).
- The output image resolution from a computer can be supported up to the panel resolution (1280 x 800).
- When capturing the image that has been adjusted by the Keystone function, the adjusted data is automatically reset and the projector captures an image without keystone correction.
- When Logo PIN code lock function is set to **On**, **Logo select** and **Capture** can not be selected.
- When starting to capture a new image, the previously stored image is cleared even if you cancel the capturing.
- When there is no captured image or it is interrupted while capturing an image, **User** can not be selected, you can only switch between **Default** and **Off**.

## Logo PIN code lock

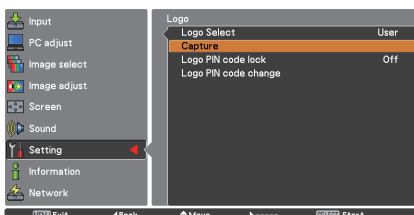
This function prevents an unauthorized person from changing the screen logo.

**Off**..... The screen logo can be changed freely from the Logo Menu (p. 46).

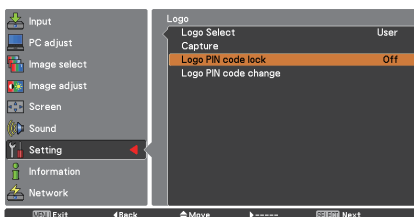
**On**..... The screen logo cannot be changed without a Logo PIN code.

If you want to change the **Logo PIN code lock** setting, press the SELECT button and the Logo PIN code dialog box appears. Enter a Logo PIN code by following the steps below. The initial **Logo PIN code** is set to "4321" at the factory.

## Capture



## Logo PIN code lock



## Enter a Logo PIN code

Use the Point ▲▼ buttons to enter a number. Press the Point ◀▶ buttons to fix the number and move the red frame pointer to the next box. The number changes to \*. If you fixed an incorrect number, use the Point ◀▶ buttons to move the pointer to the number you want to correct, and then enter the correct number.

Repeat this step to complete entering a four-digit number.

After entering the four-digit number, move the pointer to **Set**. Press the SELECT button so that you can start to operate the projector.

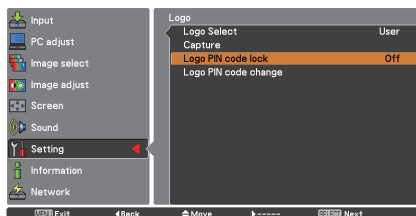
If you entered an incorrect Logo PIN code, **Logo PIN code** and the number (\*\*\*\*) will turn red for a moment. Enter the correct Logo PIN code all over again.

## Enter a Logo PIN code



After a correct Logo PIN code is entered, the following dialog box appears.

## Change the Logo PIN code lock setting



## Change the Logo PIN code lock setting

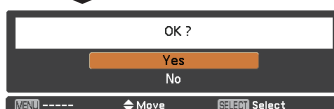
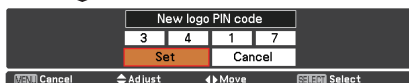
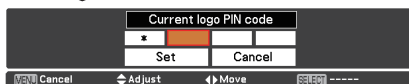
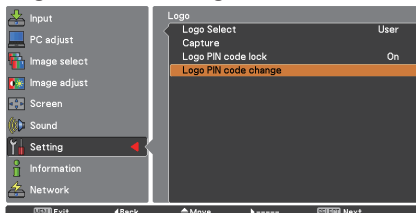
Use the Point ▲▼ buttons to switch **On** or **Off**, and then press the SELECT button to make a choice.

## Logo PIN code change

Logo PIN code can be changed to your desired four-digit number. Press the SELECT button to select **Logo PIN code change**. **Current logo PIN code** dialog box appears, use the Point ▲▼ buttons to enter the current code. The New Logo PIN code input dialog box appears. Set a new Logo PIN code, confirmation box appears, choose **Yes** to set the new Logo PIN code.

Be sure to note the new Logo PIN code and keep it on hand. If you lost the number, you could no longer change the Logo PIN code setting.

## Logo PIN code change



## CAUTION:

**WHEN YOU HAVE CHANGED THE LOGO PIN CODE, WRITE DOWN THE NEW PIN CODE IN COLUMN OF THE LOGO PIN CODE NO. MEMO ON PAGE 78 , AND KEEP IT SECURELY. SHOULD THE LOGO PIN CODE BE LOST OR FORGOTTEN, THE LOGO PIN CODE SETTING CAN NO LONGER BE CHANGED.**

## HDMI setup

This function is only used for HDMI input source.

### Image

Select **Normal** or **Enhanced** to match the video range setting of your HDMI Digital RGB equipment.

### Sound

**HDMI**: When using the HDMI cable, select **HDMI**.

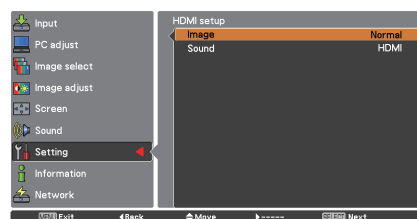
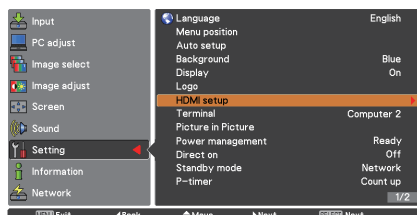
Both video and audio are transferred and you need not to connect any additional cables for audio.

**Computer 2**: When using the DVI-HDMI cable, select **Computer 2** and connect the audio cable to COMPUTER IN 2 terminal.

The names for the output setting of Digital RGB vary from equipment to equipment. For details, refer to the owner's manual of your Digital RGB equipment.

When the black parts of the image are destroyed or stand out, please switch to **Normal** or **Enhanced**, and then switch the output type of the HDMI Digital RGB output equipment.

## HDMI setup



## Terminal

The COMPUTER IN 2/MONITOR OUT terminal on the back of the projector is switchable for computer input or monitor output (p.9). Select **Computer 2** or **Monitor out** with the Point ▲ ▼ buttons.

**Computer 2** ..... computer input  
**Monitor out** ..... monitor out

Terminal function is not available when selecting **Computer 2** to the input source. Change the input source to the others (**Computer 1**, and so on) so that the Terminal function will be available. (pp. 25, 27, 37)

# Setting

## Picture in Picture

This function is used to project two images simultaneously by placing a separate small sub screen within or next to the main screen.  
Use the Point ▲ ▼ buttons to select **Picture in Picture** and then press the SELECT button or the Point ► button to access the submenu.  
Only the sound from the source of Main picture is valid, while the source of Sub picture cannot output the sound. ( In P in P, the larger picture is main picture, and the smaller one is sub picture; in P by P, the left picture is main picture, and the right one is sub picture.)

### Mode

Select the Picture in Picttrue mode among **P in P**, **P by P** and **Off**.

**P in P**: Provide the images of Main picture and Sub picture at the ratio of Screen aspect in the Screen Menu.

**P by P**: Provide the images of Main picture and Sub picture at the ratio of Screen aspect in the Screen Menu.

**Off**: Turn off the Picture in Picture function.

### Subpicture size

Press the Point ◀ ▶ buttons to change the Subpicture size among **Small**, **Middle** and **Large**.

### Subpicture position

Adjust the Subpicture position.  
Press the Point ◀ ▶ buttons to change the Subpicture position.

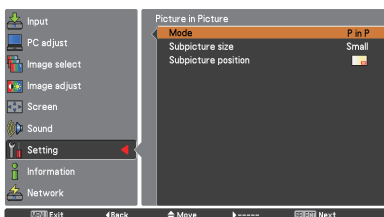
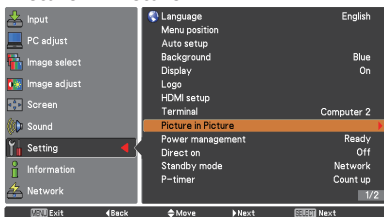
### Selecting the Sub picture

During Picture in Picture mode, and being undisplayed On Screen Menu, press the SELECT button to select Sub picture. (A red frame will be displayed on the selected picture.)

### Switching Input Source

When Main picture or Sub picture is selected, input source can be set by pressing the INPUT button on the top control or COMPUTER1/2 or HDMI buttons on the remote control.

## Picture in Picture



### ✓Note:

- The Picture in Picture function is not available depending on the input signals and the selected input terminals. Refer to **List of Picture in Picture** for details. (p.77)
- When the input signal(s) is/are incompatible, **X** mark will be displayed on the Main/Sub picture.
- **Subpicture size** and **Subpicture position** works only under **P in P** mode.

## Power management

For reducing power consumption as well as maintaining the lamp life, the Power management function turns off the projection lamp when the projector is not operated for a certain period.

Select one of the following options:

**Ready** ..... When the lamp has been fully cooled down, the POWER indicator changes to green blinking. In this condition, the projection lamp will be turned on if the input signal is reconnected or any button on the top control or remote control is pressed.

**Shut down** ... When the lamp has been fully cooled down, the power will be turned off.

**Off** ..... Power management function is off.

**Timer** ..... If the input signal is interrupted and no button is pressed for more than 30 seconds, the timer display with **No signal** appears. It starts the countdown until the lamp is turned off. Use the Point ▲ ▼ buttons to set the Timer (1~30 min).

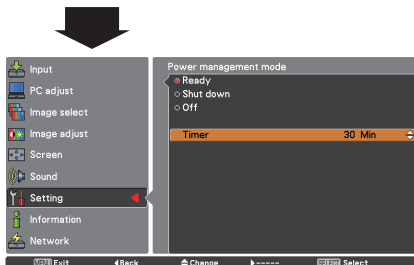
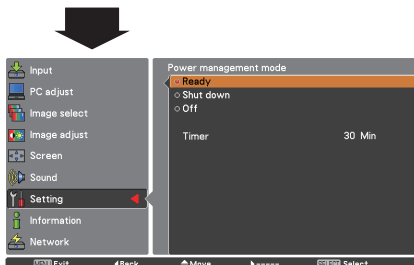
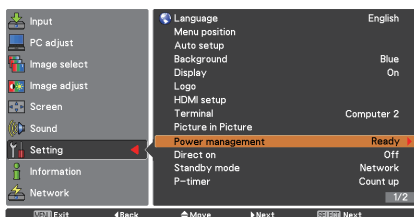
### ✓Note:

Factory default is **Ready: 5 min**.

## Power management



Time left before Lamp is off.



## Direct on

When this function is set to **On**, the projector will be automatically turned on just by connecting the AC power cord to a wall outlet.

### ✓Note:

Be sure to turn off the projector properly (see "Turning Off the Projector" on page 20). If the projector is turned off in the incorrect sequence, the Direct on function will not work properly.

# Setting

## Standby mode

This function is available when operating the projector via network.

**Network..** Supply the power to the network function even after turning off the projector by pressing the ON/STAND-BY button on the remote control. You can turn on/off the projector via network, modify network environment, and receive an e-mail about projector status while the projector is powered off.

**Eco .....** Select **Eco** when you do not use the projector via network. The projector's network function will stop when turning off the projector.

Refer to the owner's manual of "Network Set-up and Operation".

✓ **Note:**

When selecting **Network**, the cooling fans may be running depending on the temperature inside the projector even if the projector is turned off.

## P-timer

This function allows you to change the setting of the P-timer and execute it.

Select one of the following options:

- Count up .....** The P-timer display **000:00** appears on the screen and the count up starts (**000:00-180:00**).
- Count down ..** The time set in the Timer setting appears on the screen and the countdown starts.
- Timer .....** Use the Point ▲▼ buttons to set the Timer (**1-180 Min**). **Timer** is available in Count down only. Factory default value is **10 Min**.
- Start .....** It executes the count up or count down function. Press the SELECT button at **Start** and the indication changes into Stop. To stop **Count up** or **Count down**, press the SELECT button at **Stop** on the screen menu, then the indication changes into **Restart**. Press the SELECT button at **Restart** to resume **Count up** or **Count down**.
- Reset .....** Reset the P-timer values. Press the SELECT button at **Reset** to return to the following value:
  - Count up .....** "000:00"
  - Count down ...** Timer that you set
- Exit .....** To exit the P-timer operation.

X: disabled    O: enabled

	Eco	Network
Serial command	x *1	O
Network	x	O
Monitor Out	x	O
Audio Out	x	x *2
Direct on	O	O

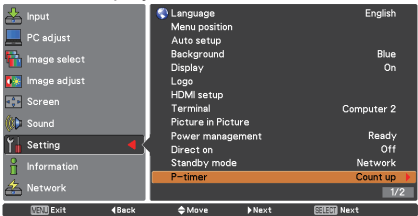
\*1 When **Eco** is selected, it is only possible to turn on the projector while using the RS-232C serial port.

\*2 When switch the Standby MIC out function On and in Standby mode status, only MIC volume can be output.

## P-TIMER



### P-timer display



### Stop or Cancel the P-timer via Remote control

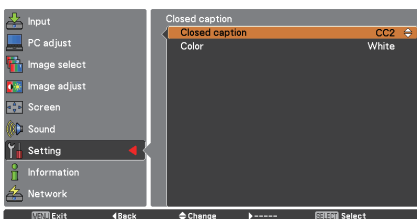
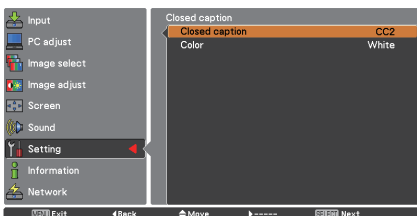
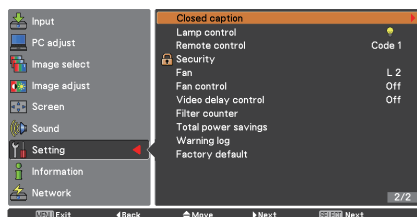
To stop the P-timer function, press the P-TIMER button. To cancel the P-timer, press and hold the P-TIMER button for a few seconds.

## Closed caption

Closed Caption is a function that displays the audio portion of a TV program as text on the screen. You can turn on the feature and switch the channels. If the input signal contains closed captions, you can turn on the feature and switch the channels. Press the Point ▲▼ buttons to select **Off**, **CC1**, **CC2**, **CC3** or **CC4**.

If the Closed caption is not clear, you can change the text from **Color** to **White**.

## Closed caption



Press the Point ▲▼ buttons to select **Off**, **CC1**, **CC2**, **CC3** or **CC4**, and then press the SELECT button.

### ✓Note:

The Closed caption is available only under the situation below.

- When the input signal is **Component** (for adjustment only), **Video** or **S-video**, and the system is set to **Auto** or **NTSC**, the Closed caption is available.
- If the system is set to **Auto**, and choose **NTSC** as the input signal, the Closed caption function will be available.

**Closed caption** will be unavailable when under other setting conditions.

- The Closed caption function is unavailable when On-Screen menu and P-timer are displayed.
- The menu items of Closed caption are displayed in gray while it is not available.







# Setting

## Lamp control

### Lamp control

This function allows you to change brightness of the screen.

-  **Auto.....** Brightness according to the input signal.
-  **Normal..** The lamp power output is maximum.
-  **1Eco 1....** The lamp power output is 70% of the Normal mode.
-  **2Eco 2....** The lamp power output is 53% of the Normal mode.

### Lamp life control

Select the lamp operation when the total lighting time of a lamp exceeds the recommended total hours of use.

**Mode 1.....** The lamp can be turned on even after exceeding the recommended total hours of use.

**Mode 2.....** The lamp can be turned on even after exceeding the recommended total hours of use. But the projector turns off automatically after 3 minutes.

#### ✓Note:

- Lamp control can not be changed for a while after turning on the projector. Lamp needs some time to stabilize after the power is turned on. Stored lamp mode will be active after the lamp is stabilized.
- If Mode 2 has been selected and the projection lamp exceeds the recommended total hours of use, the replacement icon will be displayed at the time of power-on. Then the projector will turn off after 3 minutes.



### Lamp replacement icon

- The Lamp replacement icon will not appear when the Display function is set to **Off** (p.46), during **Freeze** (p.25), or **No show** (p.26).

## Remote control

This projector provides two different remote control codes: the factory-set initial code (**Code 1**) and the secondary code (**Code 2**). This switching function prevents remote control interference when operating several projectors or video equipment at the same time.

When operating the projector in **Code 2**, both the projector and the remote control must be switched to **Code 2**.

### To change the code for the projector:

Select either **Code 1** or **Code 2** in this Setting Menu.

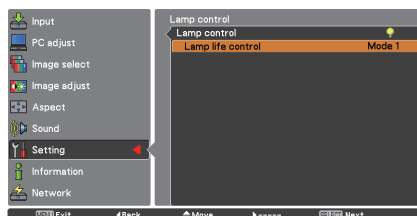
### To change the code for the remote control:

Press and hold both the MENU and IMAGE buttons together for 5 seconds or more. After changing the code, make sure the remote control operates properly.

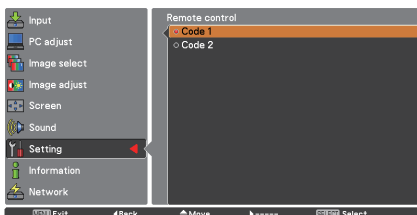
#### ✓Note:

- When different codes are set on the projector and on the remote control, any operation cannot be made. In that case, switch the code on the remote control to fit the code on the projector.
- If the batteries are removed from the remote control for a long period of time, the remote control code will be reset.

## Lamo control



## Remote control





## Security (Key lock and PIN code lock)

This function allows you to use the Key lock and PIN code lock function to set the security for the projector operation.

### Key lock

This function locks the top control and remote control buttons to prevent operation by unauthorized persons.

Select **Key lock** and then press the SELECT button and select the desired item by pressing the Point ▲▼ buttons.



Unlocked.



Lock the operation of the top control. To unlock, use the remote control.



Lock the operation of the remote control. To unlock, use the top control.

If the top control accidentally becomes locked and you do not have the remote control nearby or there is something wrong with your remote control, contact the dealer where you purchased the projector or the service center.

### PIN code lock

This function prevents the projector from being operated by unauthorized persons and provides the following setting options for security.

**Off**..... Unlocked.

**On 1**..... Enter the PIN code every time turning on the projector.

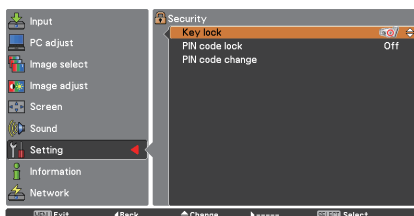
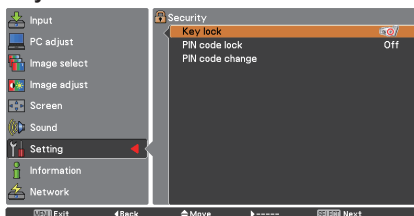
**On 2**..... Enter the PIN code to operate the projector once the power cord is disconnected; as long as the AC power cord is connected, the projector can be operated without a PIN code.

Whenever you change the PIN code lock setting or the PIN code (the four-digit number), you are required to enter the PIN code. The “1234” is set as the initial PIN code at the factory.

If you want to change the PIN code lock setting, press the SELECT button and the PIN code dialog box appears.

When the projector is locked with the PIN code, the Security icon appears on the guide.

### Key lock



### PIN code lock



When the projector is locked with the PIN code, the Security icon appears on the guide.

# Setting

## Enter a PIN code

Use the Point ▲▼ buttons to enter a number. Press the Point ◀▶ buttons to fix the number and move the red frame pointer to the next box. The number changes to \*. If you fixed an incorrect number, use the Point ◀▶ buttons to move the pointer to the number you want to correct, and then enter the correct number.

Repeat this step to complete entering a four-digit number.

After entering the four-digit number, move the pointer to **Set**. Press the SELECT button so that you can change the following PIN code lock setting.

If you entered an incorrect PIN code, **PIN code** and the number (\*\*\*\*) will turn red for a moment. Enter the correct PIN code all over again.

## Change the PIN code lock setting

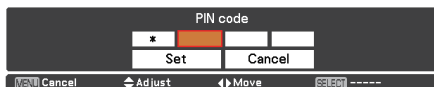
Use the Point ▲▼ buttons to select **Off**, **On 1** or **On 2**, and then press the SELECT button to make a choice.

## Change the PIN code

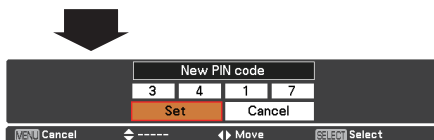
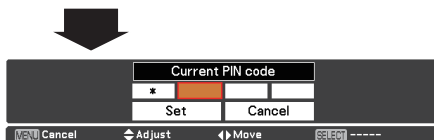
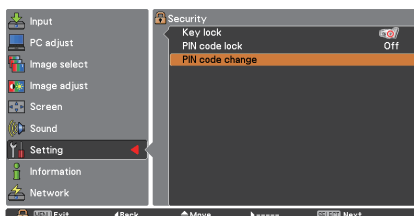
The PIN code can be changed to your desired four-digit number. Press the SELECT button to select **PIN code change**. Pin code dialog box appears, use the Point ▲▼ buttons to enter the current code. The New PIN code input dialog box appears. Set a new PIN code.

**CAUTION:**  
**WHEN YOU HAVE CHANGED THE PIN CODE, WRITE DOWN THE NEW PIN CODE IN COLUMN OF THE PIN CODE NO. MEMO ON PAGE 78, AND KEEP IT SECURELY. IF YOU FORGET YOUR PIN CODE, THE PROJECTOR CAN NO LONGER BE STARTED.**

## Enter a PIN code



## Change the PIN code



## Fan

This function provides the following options in the cooling fans' operation when the projector is turned off (p.20).

- L 1....** Higher-sound than L 2 mode and it takes less time to cool the projector down.
- L 2....** Slower and lower-sound than L 1 mode, but it takes more time to cool the projector down.

## Fan control

Choose the running speed of cooling fans from the following options according to the ground elevation under which you use the projector.

- Off**..... Normal speed. Set this function to **Off** when using the projector in non- high altitude environment.
- On 1**..... Faster than Off mode. Select this mode when using the projector in high altitudes (about 1,200 meters or more above the sea level) where the fans have less cooling effect.
- On 2**..... Faster than On 1 mode. Select this mode when using the projector in higher altitudes than above where the fans have lesser cooling effect.

✓**Note:**

- The fan noise becomes louder in **On 1** and **On 2**.
- Failure to set the running speed of cooling fans properly may affect the projector life.

## Video delay control

When you want to make a digital processing of a projected image faster, set this function.

Use the Point ▲ ▼ buttons, select an item of **Off** or **On**.

✓**Note:**

**Noise reduction** and **Progressive** can not be selected when Video delay control function is set to **On**.

## Filter counter

This function is used to set a frequency for the filter replacement.

Use the Point ▲ ▼ buttons to select **Filter counter** and then press the Point ► button or the SELECT button to access the submenu items.

**Filter counter**....Show the total accumulated time of the filter use timer setting.

**Timer**.....To set a timer, when the projector reaches the time, the Filter warning icon (Fig.1) appears on the screen and the total accumulated time turns red, indicating that the filter replacement is necessary.

**Filter counter reset**.. After replacing the filter, be sure to reset the timer. The Filter warning icon will not turn off until the filter counter is reset. For details about resetting the timer, refer to "Resetting the Filter Counter" on page 61.

**Fig.1** Filter warning icon



Filter warning icon appears on the screen at a set time (**Off/1000H/2000H/3000H/4000H/5000H/6000H**).

## Filter counter



Press the SELECT button to select **Timer**, and then use the Point ▲ ▼ buttons to set the timer. Select from (**Off/1000H/2000H/3000H/4000H/5000H/6000H**) depending on the use environment.

✓**Note:**

- This icon also appears at turning on.
- The Filter warning icon (Fig.1) will not appear when the Display function is set to **Off** (p.46), during **Freeze** (p.25), or **No show** (p.26).

# Setting

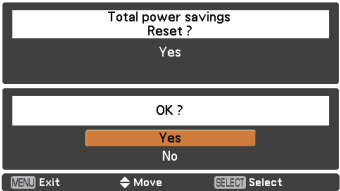
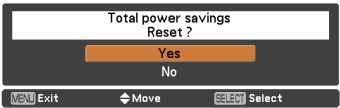
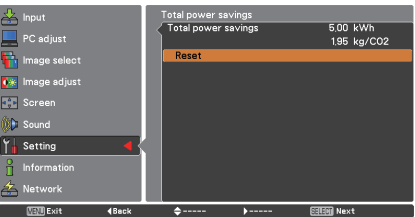
## Total power savings

This function displays the saved amount of power and the exhausted CO2 of the projector.

**Total power savings**.....Show the total accumulated power savings of the projector and display the total amount of CO2 exhausted from the projector.

**Reset**.....Reset the figures of the total power savings and the exhausted CO2.

## Total power savings



## Warning log

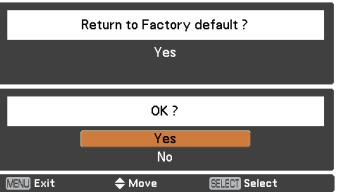
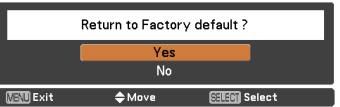
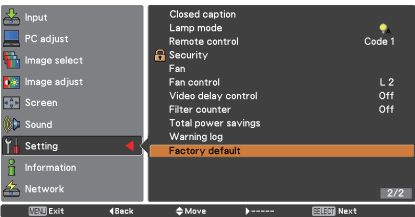
This function records anomalous operations while the projector is in operation and use it when diagnosing faults. Up to 10 warning logs are displayed with the latest warning message at the top of the list, followed by previous warning messages in chronological order.

✓ **Note:**  
When the Factory default function is executed, all the warning log records will be deleted.

## Factory default

This function returns all setting values except for the **User logo**, **PIN code lock**, **Logo PIN code lock**, **Lamp counter** and **Filter counter** to the factory default settings.

## Factory default



# Information

## Input Source Information Display

The Information Menu is used for checking the status of the image signal being projected and the operation of the projector.

### Direct Operation

The information menu changes each time you press the INFO. button on the remote controller as follows.

page 1/2 → page 2/2 → hide → page 1/2 → ....  
While the information menu is displayed, press the Point ◀ ▶ buttons to display the previous or next page.

### Menu Operation

Press the Point ▲ ▼ buttons to select the Information. The Information Menu is displayed. See below for displayed information.

#### Input

The selected input source is displayed.

#### H-sync freq.

The horizontal frequency of the input signal is displayed in **KHz**, or - - - - **KHz** when no signal.

#### V-sync freq.

The vertical frequency of the input signal is displayed in **Hz**, or - - - - **Hz** when no signal.

#### Screen

The selected Screen size is displayed.

#### Language

The selected language is displayed.

#### Lamp status

The selected lamp mode is displayed.

#### Lamp counter

The cumulative lamp operating time is displayed.

#### Power management

**Shut down**, **Ready**, **Off Timer** are displayed.

#### Key lock

The selected Key lock icon is displayed.

#### PIN code lock

**Off** or **On 1** or **On 2** is displayed.

#### Remote control

The selected remote code is displayed.

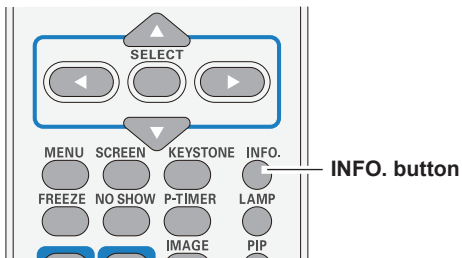
#### SERIAL NO.

The serial number of the projector is displayed.  
The serial number is used to service the projector.

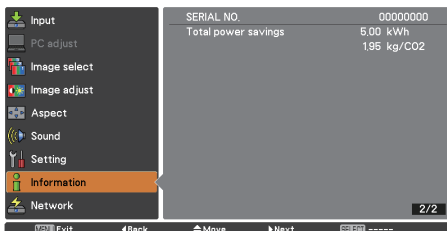
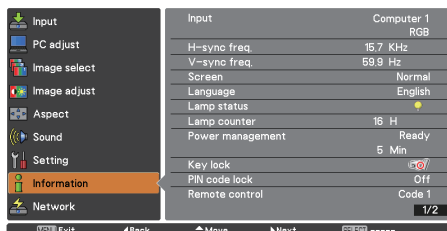
#### Total power savings

The saved amount of power and the exhausted CO2 are displayed.

### Remote control



### Information Menu



# Maintenance and Cleaning

## WARNING indicator

The WARNING indicator shows the state of the function which protects the projector. Check the state of the WARNING indicator and the POWER indicator to take proper maintenance.

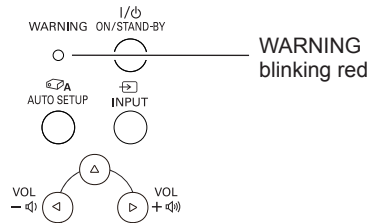
### The projector is shut down and the WARNING indicator is blinking red.

When the temperature inside the projector reaches a certain level, the projector will be automatically shut down to protect the inside of the projector. The POWER indicator is blinking while the projector is being cooled down. When the projector has cooled down enough (to its normal operating temperature), it can be turned on again by pressing the ON/STAND-BY button.

✓ **Note:**

The WARNING indicator continues to blink even after the temperature inside the projector returns to normal. When the projector is turned on again, the WARNING indicator stops blinking.

### Top Control



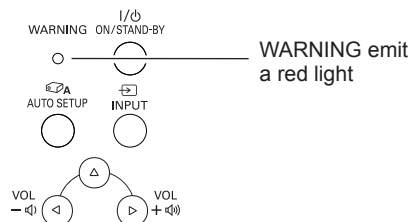
### Then check the matters below:

- Did you provide appropriate space for the projector to be ventilated? Check the installing condition to see if the air vents of the projector are not blocked.
- Has the projector been installed near an Air-Conditioning/ Heating Duct or Vent? Move the installation of the projector away from the duct or vent.
- Are the filters clean? Replace the filters with new ones.

### The projector is shut down and the WARNING indicator lights red.

When the projector detects an abnormal condition, it is automatically shut down to protect the inside of the projector and the WARNING indicator lights red. In this case, unplug the AC power cord and reconnect it, and then turn the projector on once again to verify operation. If the projector cannot be turned on and the WARNING indicator still lights red, unplug the AC power cord and contact the service center.

### Top Control



### WARNING

**DO NOT LEAVE THE PROJECTOR WITH THE AC POWER CORD CONNECTED UNDER AN ABNORMAL CONDITION. IT MAY RESULT IN FIRE OR ELECTRIC SHOCK.**

## Replacing the Filters

Filter prevents dust from accumulating on the optical elements inside the projector. Should the filter become clogged with dust particles, it will reduce cooling fans' effectiveness and may result in internal heat buildup and adversely affect the life of the projector. If a "Filter warning" icon appears on the screen, replace the filters immediately. Replace the filters by following the steps below.

- 1 Turn off the projector and unplug the AC power cord from the AC outlet.
- 2 Turn over the projector and pull out the filter cover (bottom); pull up the handle and take out the whole filter (bottom.) Press up the latches and pull out the filter cover (side); pull out the handle and take out the side filter.
- 3 Put new filters back into the position. Make sure that the filters are fully inserted to the projector.
- 4 Connect the AC power cord to the projector and turn on the projector.

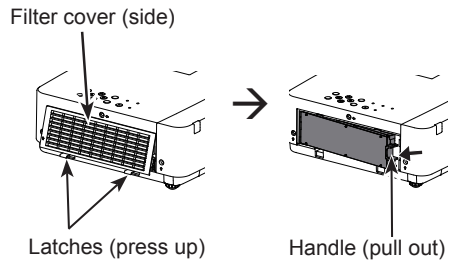
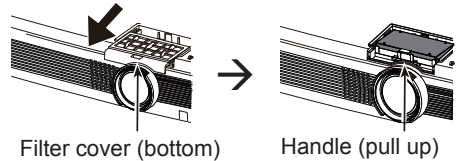
### CAUTION

- Do not operate the projector with the filters removed. Dust may accumulate on the optical elements degrading picture quality.
- Do not put anything into the air vents. Doing so may result in malfunction of the projector.
- Do not wash the filters with water or any other liquid matter. Otherwise the filters may be damaged.

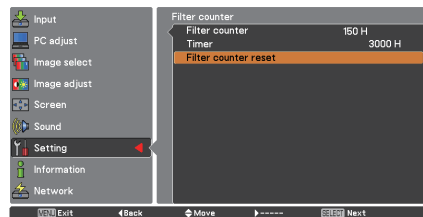
### RECOMMENDATION

**We recommend avoiding dusty/smoky environments when you operate the projector. Usage in these environments may cause poor image quality.**

When using the projector under dusty or smoky conditions, dust may accumulate on a lens, LCD panels, or optical elements inside the projector degrading the quality of a projected image. When the symptoms above are noticed, contact your authorized dealer or service center for proper cleaning.



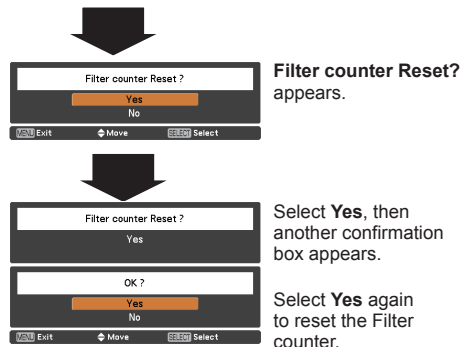
### Filter counter reset



## Resetting the Filter Counter

Be sure to reset the Filter counter after replacing the filter.

- 1 Press the MENU button to display the On-Screen Menu. Use the Point ▲▼ buttons to select Setting and then press the Point ► button or the SELECT button.
- 2 Use the Point ▲▼ buttons to select **Filter counter** and then press the Point ► or the SELECT button. Use the Point ▲▼ buttons or the SELECT button to select **Filter counter reset** and then press the SELECT button. **Filter counter Reset?** appears. Select **Yes** to continue.
- 3 Another confirmation dialog box appears, select **Yes** to reset the Filter counter.





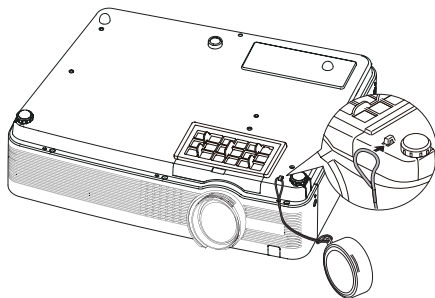
## Maintenance and Cleaning

### Attaching the Lens Cap

When moving this projector or while not using it over an extended period of time, attach the lens cap.

Attach the lens cap according to the following procedures.

- 1 Thread the string through the hole on the lens cap and then tie a knot in the string to secure it in place.
- 2 To pass the other end of the string into the hole on the bottom of the projector and pull at it.

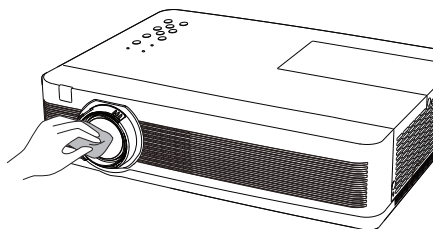


### Cleaning the Projection Lens

Unplug the AC power cord before cleaning.

Gently wipe the projection lens with a cleaning cloth that contains a small amount of non-abrasive camera lens cleaner, or use a lens cleaning paper or commercially available air blower to clean the lens.

Avoid using an excessive amount of cleaner. Abrasive cleaners, solvents, or other harsh chemicals might scratch the surface of the lens.

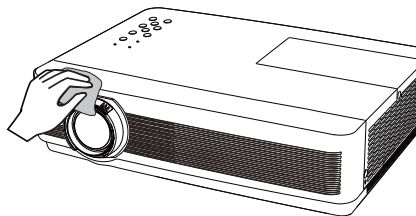


### Cleaning the Projector Cabinet

Unplug the AC power cord before cleaning.

Gently wipe the projector body with a soft dry cleaning cloth. When the cabinet is heavily soiled, use a small amount of mild detergent and finish with a soft dry cleaning cloth. Avoid using an excessive amount of cleaner. Abrasive cleaners, solvents, or other harsh chemicals might scratch the surface of the cabinet.

When the projector is not in use, put the projector in an appropriate carrying case to protect it from dust and scratches.



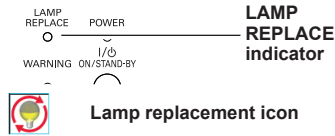
#### CAUTION

Do not use any flammable solvents or air sprays on the projector and in its vicinity. The explosion or fire hazard may occur even after the AC power cord is unplugged because the temperature inside the projector is extremely high due to the lamps. In addition, there is a risk that the internal parts may be damaged not only by the flammable air spray but also by the cold air.

## Lamp Replacement

When the projection lamp of the projector reaches its end of life, the Lamp replacement icon appears on the screen and LAMP REPLACE indicator lights yellow. Replace the lamp with a new one promptly. The timing when the LAMP REPLACE indicator should light is depending on the lamp mode.

### Top Control



#### ✓Note:

- The Lamp replacement icon will not appear when the Display function is set to **Off** (p.46), during **Freeze** (p.25), or **No show** (p.26).
- When **Mode 2** is selected in the Lamp life control menu, if the projection lamp of the projector reaches its end of life, the lamp replacement icon appears on the screen, and the projector is turned off automatically after 3 minutes.



### CAUTION

Allow a projector to cool for at least 45 minutes before you open the Lamp Cover. The inside of the projector can become very hot.



### CAUTION

When replacing the lamp because it has stopped illuminating, there is a possibility that the lamp may be broken. If replacing the lamp of a projector which has been installed on the ceiling, you should always assume that the lamp is broken, and you should stand to the side of the lamp cover, not underneath it. Remove the lamp cover gently. Small pieces of glass may fall out when the lamp cover is opened. If pieces of glass get into your eyes or mouth, seek medical advice immediately.



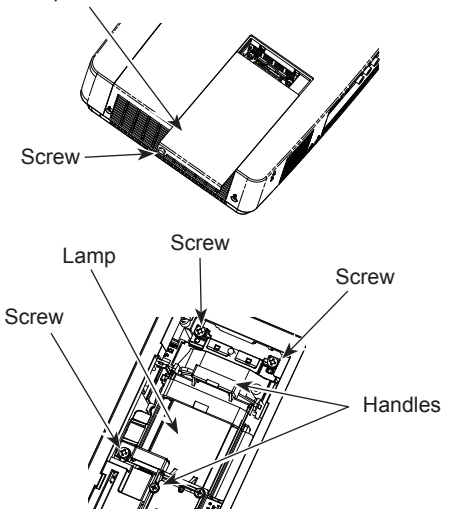
### CAUTION

For continued safety, replace with a lamp of the same type. Do not drop a lamp or touch a glass bulb! The glass can shatter and may cause injury.

Follow these steps to replace the lamp.

- 1 Unplug the AC power cord. Let the projector cool for at least 45 minutes.
- 2 Loosen the screw and open the lamp cover.
- 3 Loosen the three (3) screws that secure the lamp. Lift the lamp out of the projector by using the handle.
- 4 Replace the lamp with a new one and secure the three (3) screws. Make sure that the lamp is set properly. Close the lamp cover and secure the screw.
- 5 Connect the AC power cord to the projector and turn on the projector.

Lamp Cover



### **ORDER REPLACEMENT LAMP**

Replacement lamp can be ordered through your dealer. When ordering a projection lamp, give the following information to the dealer.

- **Model No. of your projector : LC-WB200A**
- **Replacement Lamp Type No.: POA-LMP148**  
(Service Parts No. 610 352 7949)



### **CAUTION**

### **LAMP HANDLING PRECAUTIONS**

This projector uses a high-pressure lamp which must be handled carefully and properly.

Improper handling may result in accidents, injury, or create a fire hazard.


















- Lamp life may differ from lamp to lamp and according to the environment of use. There is no guarantee of the same life for each lamp. Some lamps may fail or terminate their life in a shorter period of time than other similar lamps.
- If the projector indicates that the lamp should be replaced, i.e., if the LAMP REPLACE indicator lights up, replace the lamp with a new one IMMEDIATELY after the projector has cooled down.  
(Follow carefully the instructions in the Lamp Replacement section of this manual.) Continuous use of the lamp with the LAMP REPLACE indicator lighted may increase the risk of lamp explosion.
- A Lamp may explode as a result of vibration, shock or degradation as a result of hours of use as its lifetime draws to an end. Risk of explosion may differ according to the environment or conditions in which the projector and lamp are being used.






### **IF A LAMP EXPLODES, THE FOLLOWING SAFETY PRECAUTIONS SHOULD BE TAKEN.**

If a lamp explodes, disconnect the projector's AC plug from the AC outlet immediately. Contact an authorized service center for a checkup of the unit and replacement of the lamp. Additionally, check carefully to ensure that there are no broken shards or pieces of glass around the projector or coming out from the cooling air circulation holes. Any broken shards found should be cleaned up carefully. No one should check the inside of the projector except those who are authorized trained technicians and who are familiar with projector service. Inappropriate attempts to service the unit by anyone, especially those who are not appropriately trained to do so, may result in an accident or injury caused by pieces of broken glass.

Indicators and Projector Condition

Check the indicators for projector condition.

Indicators			Projector Condition
POWER red/ green	WARNING red	LAMP REPLACE yellow	
			The projector is off. (The AC power cord is unplugged.)
		★	The projector is in stand-by mode. Press the ON/STAND-BY button to turn on the projector.
		★	The projector is operating normally.
		★	The projector is preparing for stand-by or the projection lamp is being cooled down. The projector cannot be turned on until cooling is completed and the POWER indicator stops blinking.
		★	The projector is in the Power management mode.
		★	The temperature inside the projector is abnormally high. The projector cannot be turned on. When the projector is cooled down enough and the temperature returns to normal, the POWER indicator stops blinking and the projector can be turned on. (The WARNING indicator keeps blinking.)
		★	The projector has been cooled down enough and the temperature returns to normal. When turning on the projector, the WARNING indicator stops blinking.
		★	The projector detects an abnormal condition and cannot be turned on. Unplug the AC power cord and plug it again to turn on the projector. If the projector is turned off again, unplug the AC power cord and contact the dealer or the service center for service and checkup. Do not leave the projector on. It may cause an electric shock or a fire hazard.

-  ... green
-  ... red
-  ... off
-  ... blinks green.
-  ... blinks red.

★ When the projection lamp reaches its end of life, the LAMP REPLACE indicator lights yellow. When this indicator lights yellow, replace the projection lamp with a new one promptly. (p. 65)

## Technical Specifications

### Mechanical Information

Projector Type	Multi-media Projector
Dimensions (W x H x D)	13.78" x 3.44" x 10.02" (350.0 mm X 87.5 mm X 254.4 mm ) (Not including protrusions)
Net Weight	7.51 lbs (3.4 kg)
Feet Adjustment	0° to 12°

### Panel Resolution

LCD Panel System	0.59" TFT Active Matrix type, 3 panels
Panel Resolution	1,280 x 800 dots
Number of Pixels	3,072,000 (1,280 x 800 x 3 panels)

### Signal Compatibility

Color System	PAL, SECAM, NTSC, NTSC4.43, PAL-M, and PAL-N
SD/HD TV Signal	Component: 480i, 480p, 575i, 575p, 720p, 1035i and 1080i HDMI: 480i, 480p, 575i, 575p, 720p, 1080i and 1080p
Input Scanning Frequency	H-sync. 15 kHz–100 kHz, V-sync. 50–100 Hz

### Optical Information

Projection Image Size (Diagonal)	Adjustable from 30" to 300"
Throw Distance	2.4' ~ 25.2' (0.74 m ~ 7.67 m)
Projection Lens	F 1.65 ~ 2.33 lens with f 15.47 mm ~ 24.53 mm with manual zoom and focus
Projection Lamp	245 W

### Interface

Video Input Jack	RCA Type x 1
S-video Input Jack	Mini DIN 4 pin x 1
Audio Input Jacks	RCA Type x 2
Computer 1/Computer 2 Audio Input Jacks	Mini Jack (stereo) x 2 (Computer 2 Audio Input: Common use for MIC Input)
Computer In 1/Component Input Terminal	Mini D-sub 15 pin x 1
Computer In 2/Monitor Output Terminal	Mini D-sub 15 pin x 1
Control Port	D-sub 9 pin x 1
Audio Output Jack	Mini Jack (stereo) x 1 (variable)
LAN Connection Terminal	RJ-45
HDMI	HDMI (V.1.3 with Deep Color) x 1

### Audio

Internal Audio Amp	10 W RMS
Built-in Speaker	1 speaker, ø1.5"(37 mm)

### Power

Voltage and Power Consumption	AC 100–240 V (3.8-1.8 A Max.), 50/60 Hz
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### Operating Environment

Operating Temperature	41°F–95°F (5 °C–35 °C)
Storage Temperature	14°F–140°F (-10°C–60 °C)

### Remote Control

Battery	AAA or LR03 1.5V ALKALINE TYPE x 2
Operating Range	16.4' (5 m)/±30°
Dimensions	2.0" (W) x 0.7" (H) x 4.3" (D) (52 mm x 18 mm x 110 mm)
Net Weight	2.37 oz (67 g) (including batteries)

## Dimensions

## Dimensions

## Dimensions

