

Lamp mode

Lamp mode

This function allows you to change brightness of the screen.

- 💡 **Auto**.....Brightness according to the input signal.
- 💡 **Normal**.....Normal brightness
- 💡 **Eco 1**.....70%-80% of the normal brightness.
- 💡 **Eco 2**.....50% of the normal brightness.

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 mode 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.48), during **Freeze** (p.27), or **Blank** (p.28).

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 controller 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 controller must be switched to **Code 2**.

To change the code for the projector:

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

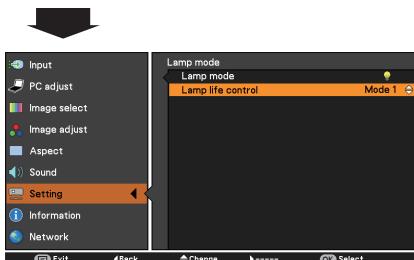
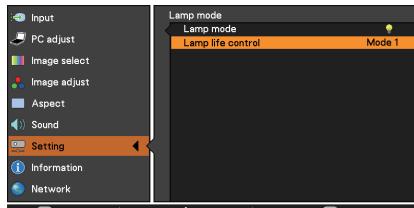
To change the code for the remote controller:

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

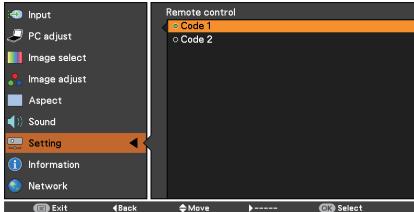
✓ **Note:**

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

Lamo mode



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 controller buttons to prevent operation by unauthorized persons.

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



.... Unlocked.



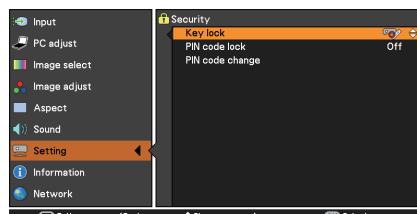
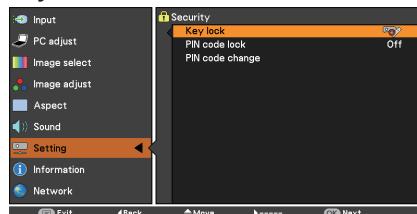
.... Lock the operation of the top control. To unlock, use the remote controller.



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

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

Key lock



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.

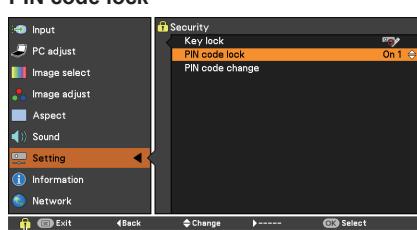
On 2..... Enter the PIN code to operate the projector once the power cord is disconnected; as long as the AC power cord is connected, the projector can be operated without a PIN code.

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 OK button and the PIN code dialog box appears.

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

PIN code lock



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

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 **OK** 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 **OK** button to make a choice.

Change the PIN code

The PIN code can be changed to your desired four-digit number. Press the **OK** 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 LOGO PIN CODE, WRITE DOWN THE NEW PIN CODE AS A REMINDER. IF YOU FORGET YOUR PIN CODE, THE PROJECTOR CAN NO LONGER BE STARTED.

✓Note:

If you forget your PIN code and unable to change it, the PIN code can be reset to the factory default setting (1234) according to the following procedures.

When you reset the PIN code, the Logo PIN code and Key lock will be reset, as well.

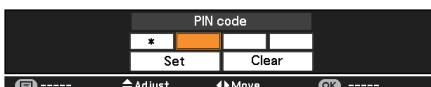
1. Unplug the AC Power Cord from the AC outlet.
2. Hold down the **OK** button on the projector and connect the AC Power Cord into the outlet again. Keep holding down the **OK** button until the POWER indicator lights. The PIN code returns to the factory default setting while the PIN code lock state will remain the same as the previous set state.

Fan

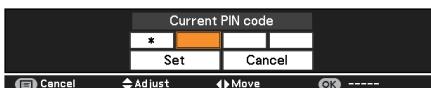
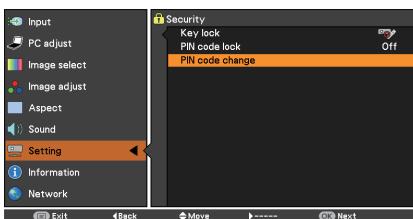
This function provides the following options in the cooling fans' operation when the projector is turned off (p.22).

L 1.... Normal operation
L 2.... Slower, lower-sound and longish-time than the normal operation (**L 1**).

Enter a PIN code



Change the PIN code



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 OK button to access the submenu items.

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

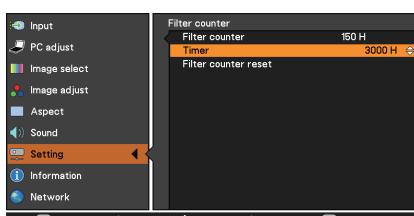
Timer.....To set a timer, when the projector reaches the time, the Filter warning icon (Fig.1) appears on the screen and the total accumulated time turns red, indicating that the filter replacement is necessary.

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 63.

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 OK 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.48), during **Freeze** (p.27), or **Blank** (p.28).

Setting

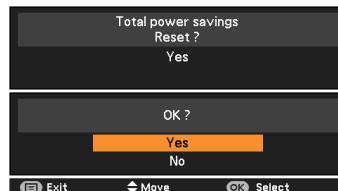
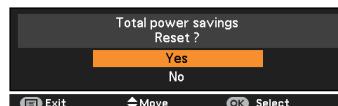
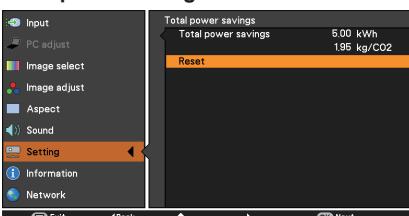
Total power savings

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.

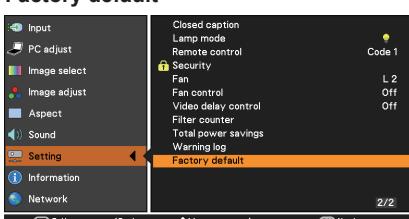
✓ Note:

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** and **Total power savings** to the factory default settings.

Factory default



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. Numbers of Hz doubles when during Interlace.

Aspect

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 mode

Off, **Standby** or **Exit**, and **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.

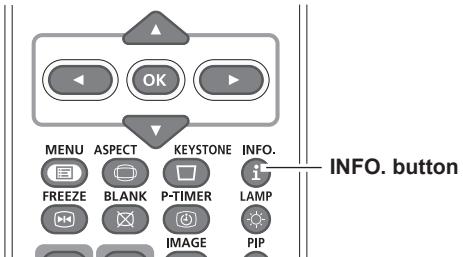
SERIAL NO.

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

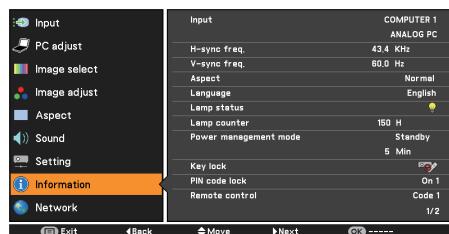
Total power savings

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

Remote controller



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.

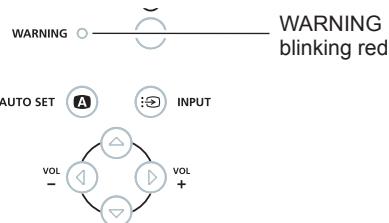
The projector is shut down and the WARNING indicator is blinking red.

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 POWER 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



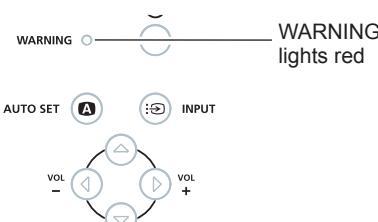
Then check the matters below:

- 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.

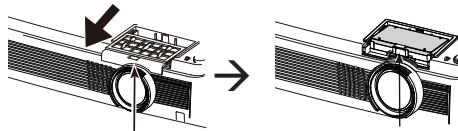
CAUTION

- 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.

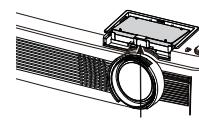
RECOMMENDATION

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.

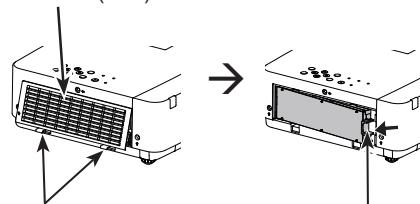


Filter cover (bottom)

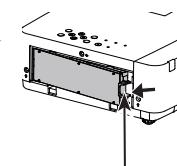


Handle (pull up)

Filter cover (side)



Latches (press up)

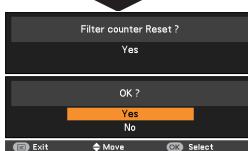


Handle (pull out)

Filter counter reset



Filter counter Reset?
appears.



Select Yes, then
another confirmation
box appears.



Select Yes again
to reset the Filter
counter.

- 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 OK button.
- 2 Use the Point **▲▼** buttons to select **Filter counter** and then press the Point **▶** or the OK button. Use the Point **▲▼** buttons or the OK button to select **Filter counter reset** and then press the OK button. **Filter counter Reset?** appears. Select **Yes** to continue.
- 3 Another confirmation dialog box appears, select **Yes** to reset the Filter counter.

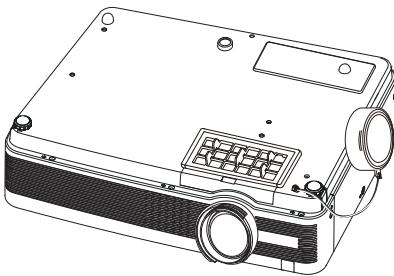
Maintenance and Cleaning

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.

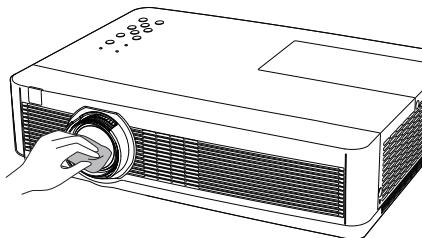


Cleaning the Projection Lens

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.

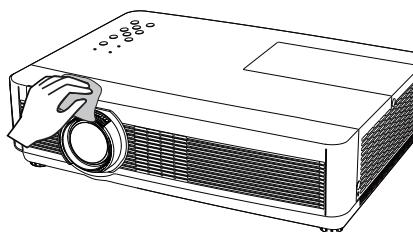
Gently wipe the projector body with a soft dry cleaning cloth. When the cabinet is heavily soiled, use a small amount of mild detergent and finish with a soft dry cleaning cloth. Avoid using an excessive amount of cleaner. Abrasive cleaners, solvents, or other harsh chemicals might scratch the surface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



Lamp replacement icon

✓ Note:

- The Lamp replacement icon will not appear when the Display function is set to Off (p.48), during Freeze (p.27), or Blank (p.28).
- 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 one hour before you open the Lamp Cover. The inside of the projector can become very hot.



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.



CAUTION

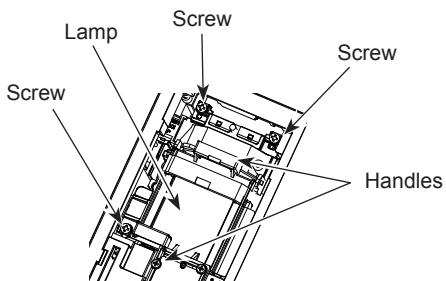
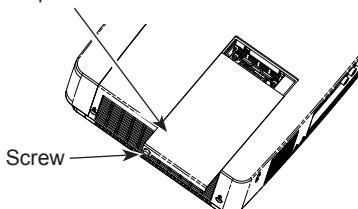
When replacing the lamp because it has stopped illuminating, there is a possibility that the lamp may be broken.

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.

Follow these steps to replace the lamp.

- 1 Unplug the AC power cord. Let the projector cool for at least one hour.
- 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 : LV-8320**
- **Replacement Lamp Type No.: LV-LP34**



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.

Appendix

Troubleshooting

Before calling your dealer or service center for assistance, check the items below once again.

- Make sure you have properly connected the projector to peripheral equipment as described on pages 16-18.
- Make sure all equipment is connected to AC outlet and the power is turned on.
- When the projector does not project an image from the connected computer, restart the computer.

Problem:

– Solutions

No power	<ul style="list-style-type: none">– Plug the power cord of the projector into the AC outlet.– See if the POWER indicator lights red.– Wait until the POWER indicator stops blinking to turn on the projector again. The projector can be turned on after the POWER indicator turns red. See page 20.– Check the WARNING indicator. If the WARNING indicator lights red, projector cannot be turned on. See page 72.– Check the projection lamp. See page 65.– Unlock the Key lock function for the projector. See page 57.
The initial display is not shown.	<ul style="list-style-type: none">– Make sure Off or Countdown off are not chosen at display function. See page 48.
The initial display is not same as the default set.	<ul style="list-style-type: none">– Make sure User or Off are not chosen at Logo (select) function. See page 48.
Input signal switches automatically. (or does not switch automatically)	<ul style="list-style-type: none">– Make sure Auto input function is adjusted properly. See page 47.
An icon other than Input mode or Lamp mode icon appears.	<ul style="list-style-type: none">– That is the Lamp replacement icon or the Filter warning icon. See page 65 or 59.
Image is out of focus.	<ul style="list-style-type: none">– Adjust focus of the projector. See page 25.– Provide proper distance between the projector and the projection screen. See page 15.– Check the projection lens to see if it needs cleaning. See page 64.– Moving the projector from a cool to warm place may result in moisture condensation on the projection lens. In such cases, leave the projector off and wait until condensation evaporates.
Image is Left/Right reversed.	<ul style="list-style-type: none">– Check the Ceiling/Rear function. See pages 37, 45.
Image is Top/Bottom reversed.	<ul style="list-style-type: none">– Check the Ceiling function. See pages 37, 45.
Picture is not bright enough.	<ul style="list-style-type: none">– Check if the Contrast or Brightness is adjusted properly. See pages 35, 42.– Check if Image mode is selected properly. See pages 34, 41.– Check the Lamp mode function. See pages 27, 56.– Check the LAMP REPLACE indicator. If it lights, the end of lamp life is approaching. Replace the lamp with a new one promptly. See page 65.

No image	<ul style="list-style-type: none">– Check the connection between your computer or video equipment and the projector. See pages 16-18.– See if the input signal is correctly output from your computer. Some laptop computers may need to change the setting for monitor output when connecting to a projector. See your computer's instruction manual for the setting.– It takes about 30 seconds to display an image after turning on the projector. See page 20.– Check the Input signal, color system, video system or computer system mode.– Make sure the temperature is not out of the specified Operating Temperature (41°F–95°F [5°C–35°C]).– When Blank is operating, the image cannot be displayed. Press the BLANK button or any other button on the remote controller.
No sound	<ul style="list-style-type: none">– Check the audio cable connection from audio input source.– Adjust the audio source.– Press the VOLUME + button. See page 26.– Press the MUTE button. See page 26.– When the AUDIO OUT is plugged-in, the projector's built-in speaker is not available.– Is the image projected? You will hear the Computer and VIDEO sound only when the image is projected.
The color is strange.	<ul style="list-style-type: none">– Check the Input signal, color system, video system or computer system mode.– Make sure the Blackboard is not selected on Image select menu. See pages 34, 41.
Some displays are not seen during the operation.	<ul style="list-style-type: none">– Check the Display function. See page 48.
Auto PC adjustment function does not work.	<ul style="list-style-type: none">– Check the Input signal. Auto PC adjustment function can not work when 480p, 575p, 720p, 480i, 575i, 1035i or 1080i is selected (see page 31), or when the signal is coming from the HDMI terminal.
The setting does not remain after turning off power.	<ul style="list-style-type: none">– Make sure you selected Store after adjusting setting. Some settings can not be stored if not registered with Store. See pages 35, 43.
Power management mode does not work.	<ul style="list-style-type: none">– Power management mode function can not work while Freeze or Blank function is running. See page 51.
Capture function does not work.	<ul style="list-style-type: none">– Check the connection and the input signal to see if there is signal.
Auto setup does not work properly.	<ul style="list-style-type: none">– Make sure Off is not selected at any function of Auto setup. See page 47.– Make sure On is not selected at the Ceiling function. See pages 37, 45.
Auto keystone function does not work even when the projector is tipped.	<ul style="list-style-type: none">– Make sure the Auto keystone function is not set to Manual. Press the AUTO SET button on the top control. See pages 25, 47.

The image is distorted or runs off.	– Check PC adjust menu or Aspect menu and adjust them. See pages 31-32, 36-37.
PIN code dialog box appears at start-up.	– PIN code lock is being set. Enter a PIN code (the “1234” or number you have set). See pages 21, 55-56.
The Remote controller does not work.	<ul style="list-style-type: none">– Check the batteries.– Make sure no obstruction is between the projector and remote controller.– Make sure you are not too far from the projector when using the remote controller. Maximum operating range is 16.4'(5 m).– Make sure the code of the remote controller is conformed to the projector’s code. See page 56.– Unlock the Key lock function for the remote controller function. See page 57.
Indicator blinks or lights.	<ul style="list-style-type: none">– Check the status of the projector with referring to “Indicators and projector Condition”. See page 72.
The exclamation mark appears on the screen.	– Your operation is invalid. Operate correctly.
Top control does not work.	<ul style="list-style-type: none">– The top control is not available if the top control is locked at Key lock under Security of Setting section. See page 57.

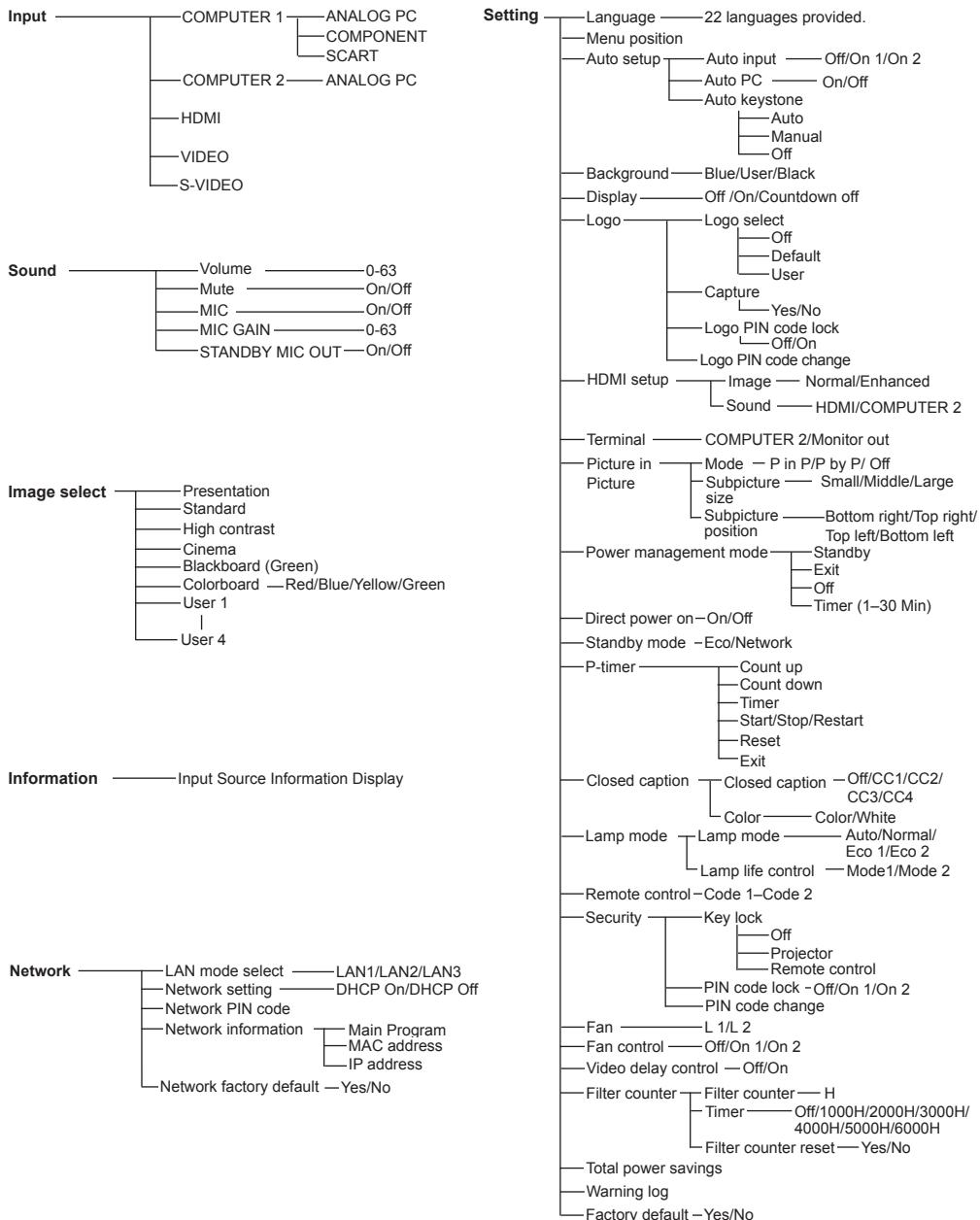
WARNING :

High voltages are used to operate this projector. Do not attempt to open the cabinet.

If problems still persist after following all operating instructions, contact the dealer where you purchased the projector or the service center. Specify the model number and explain about the problem. We will advise you how to obtain service.

Menu Tree

Computer Input/HDMI/ Input/VIDEO Input



HDMI Input/VIDEO Input

System (2)	Auto 1080i 1035i 720p 575p 480p 575i 480i	System (3)	Auto PAL SECAM NTSC NTSC 4.43 PAL-M PAL-N
-------------------	--	-------------------	---

Image Adjust	Contrast — 0-63 Brightness — 0-63 Color — 0-63 Tint — 0-63 Color temp. — XLow Low Mid High User Red — 0-63 Green — 0-63 Blue — 0-63 Sharpness — 0-15 Gamma — 0-15 Noise reduction — Off L1 L2 Progressive — Off L1 L2 Film Reset — Yes/No Store — User 1 User 4
---------------------	--

Aspect	Normal Full 16:9 Zoom Natural wide Custom Custom adj. — Scale — H/V H&V — On/Off Position — H/V Common — Yes/No Reset — Yes/No Keystone Ceiling Rear Screen aspect — Default(16:10)/16:9/4:3 Reset
---------------	---

Computer Input

System (1)	SVGA 1 Mode 1 Mode 2 -----
-------------------	-------------------------------------

* Systems displayed in the System Menu vary depending on an input signal.

PC adjust	Auto PC Fine sync — 0-31 Total dots Horizontal position Vertical position Current mode Clamp Display area H Display area V Reset — Yes/No Mode free — Mode 1 Store — Mode 1 Mode 10
------------------	---

Image Adjust	Contrast — 0-63 Brightness — 0-63 Color temp. — XLow Low Mid High User Red — 0-63 Green — 0-63 Blue — 0-63 Sharpness — 0-15 Gamma — 0-15 Reset — Yes/No Store — User 1 User 4
---------------------	---

Aspect	Normal Full 16:9 Zoom True Custom Custom adj. — Scale — H/V H&V — On/Off Position — H/V Common — Yes/No Reset — Yes/No Digital zoom + Digital zoom - Keystone Ceiling Rear Screen aspect — Default(16:10)/16:9/4:3 Reset
---------------	---

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 POWER 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)

Compatible Computer Specifications

Basically this projector can accept the signal from all computers with the V-, H-Frequency mentioned below and less than 140 MHz of Dot Clock.

When selecting these modes, PC adjustment can be limited.

ON-SCREEN DISPLAY	RESOLUTION	H-Freq. (KHz)	V-Freq. (Hz)	ON-SCREEN DISPLAY	RESOLUTION	H-Freq. (KHz)	V-Freq. (Hz)
VGA 1	640 x 480	31.47	59.88	SXGA 5	1280 x 1024	63.74	60.01
VGA 2	720 x 400	31.47	70.09	SXGA 6	1280 x 1024	71.69	67.19
VGA 3	640 x 400	31.47	70.09	SXGA 7	1280 x 1024	81.13	76.107
VGA 4	640 x 480	37.86	74.38	SXGA 8	1280 x 1024	63.98	60.02
VGA 5	640 x 480	37.86	72.81	SXGA 9	1280 x 1024	79.976	75.025
VGA 6	640 x 480	37.50	75.00	SXGA 10	1280 x 960	60.00	60.00
VGA 7	640 x 480	43.269	85.00	SXGA 11	1152 x 900	61.20	65.20
MAC LC13	640 x 480	34.97	66.60	SXGA 12	1152 x 900	71.40	75.60
MAC 13	640 x 480	35.00	66.67	SXGA 13	1280 x 1024	50.00	86.00 (Interface)
480p	640 x 480	31.47	59.88	SXGA 14	1280 x 1024	50.00	94.00 (Interface)
575p	768 x 575	31.25	50.00	SXGA 15	1280 x 1024	63.37	60.01
480i	640 x 480	15.734	60.00 (Interface)	SXGA 16	1280 x 1024	76.97	72.00
575i	768 x 576	15.625	50.00 (Interface)	SXGA 17	1152 x 900	61.85	66.00
SVGA 1	800 x 600	35.156	56.25	SXGA 18	1280 x 1024	46.43	86.70 (Interface)
SVGA 2	800 x 600	37.88	60.32	SXGA 19	1280 x 1024	63.79	60.18
SVGA 3	800 x 600	46.875	75.00	SXGA 20	1280 x 1024	91.146	85.024
SVGA 4	800 x 600	53.674	85.06	SXGA+ 1	1400 x 1050	63.97	60.19
SVGA 5	800 x 600	48.08	72.19	SXGA+ 2	1400 x 1050	65.35	60.12
SVGA 6	800 x 600	37.90	61.03	SXGA+ 3	1400 x 1050	65.12	59.90
SVGA 7	800 x 600	34.50	55.38	MAC21	1152 x 870	68.68	75.06
SVGA 8	800 x 600	38.00	60.51	MAC	1280 x 960	75.00	75.08
SVGA 9	800 x 600	38.60	60.31	MAC	1280 x 1024	80.00	75.08
SVGA 10	800 x 600	32.70	51.09	WXGA 1	1366 x 768	48.36	60.00
SVGA 11	800 x 600	38.00	60.51	WXGA 2	1360 x 768	47.70	60.00
MAC 16	832 x 624	49.72	74.55	WXGA 3	1376 x 768	48.36	60.00
MAC 19	1024 x 768	60.24	75.08	WXGA 4	1360 x 768	56.16	72.00
XGA 1	1024 x 768	48.36	60.00	WXGA 6	1280 x 768	47.776	59.87
XGA 2	1024 x 768	68.677	84.997	WXGA 7	1280 x 768	60.289	74.893
XGA 3	1024 x 768	60.023	75.03	WXGA 8	1280 x 768	68.633	84.837
XGA 4	1024 x 768	56.476	70.07	WXGA 9	1280 x 800	49.600	60.050
XGA 5	1024 x 768	60.31	74.92	WXGA 10	1280 x 800	41.200	50.000
XGA 6	1024 x 768	48.50	60.02	WXGA 11	1280 x 800	49.702	59.810
XGA 7	1024 x 768	44.00	54.58	WXGA 12	1280 x 800	63.98	60.02
XGA 8	1024 x 768	63.48	79.35	WUXGA 1	1920 x 1200	74.556	59.885
XGA 9	1024 x 768	36.00	87.17 (Interface)	WUXGA 2	1920 x 1200	74.038	59.950
XGA 10	1024 x 768	62.04	77.07	WSXGA+ 1	1680 x 1050	65.290	59.954
XGA 11	1024 x 768	61.00	75.70	WXGA+ 1	1440 x 900	55.935	59.887
XGA 12	1024 x 768	35.522	66.26 (Interface)	WXGA+ 2	1440 x 900	74.918	60.000
XGA 13	1024 x 768	46.90	58.20	UXGA 1	1600 x 1200	75.00	60.00
XGA 14	1024 x 768	47.00	58.30	UXGA 2	1600 x 1200	81.25	65.00
XGA 15	1024 x 768	58.03	72.00	UXGA 3	1600 x 1200	87.5	70.00
SXGA 1	1152 x 864	64.20	70.40	UXGA 4	1600 x 1200	93.75	75.00
SXGA 2	1280 x 1024	62.50	58.60	720p	1280 x 720	45.00	60.00
SXGA 3	1280 x 1024	63.90	60.00	720p	1280 x 720	37.50	50.00 (Interface)
SXGA 4	1280 x 1024	63.34	59.98	1035i	1920 x 1035	33.75	60.00 (Interface)
				1080i	1920 x 1080	33.75	50.00 (Interface)
				1080i	1920 x 1080	28.125	50.00 (Interface)

✓ Note:

The specifications are subject to change without notice.

Appendix

When the input signal is digital from HDMI terminal, refer to the chart below.

ON-SCREEN DISPLAY	RESOLUTION	H-Freq. (KHz)	V-Freq. (Hz)
D-480p	640 x 480	31.47	59.88
D-575p	768 x 575	31.25	50.00
D-720p	1280 x 720	37.50	50.00
D-720p	1280 x 720	45.00	60.00
D-VGA	640 x 480	31.47	59.94
D-SVGA	800 x 600	37.879	60.32
D-XGA	1024 x 768	43.363	60.00
D-WXGA 1	1366 x 768	48.36	60.00
D-WXGA 2	1360 x 768	47.7	60.00
D-WXGA 3	1376 x 768	48.36	60.00
D-WXGA 4	1360 x 768	56.160	72.000
D-WXGA 5	1366 x 768	46.500	50.000
D-WXGA 6	1280 x 768	47.776	59.870
D-WXGA 7	1280 x 768	60.289	74.893
D-WXGA 8	1280 x 768	68.633	84.837
D-WXGA 9	1280 x 800	49.572	59.870
D-1080i	1920 x 1080	---	59.94 (Interface)
D-1080p	1920 x 1080	---	59.94
D-1080p	1920 x 1080	---	60.00
D-1080p	1920 x 1080	---	50.00

ON-SCREEN DISPLAY	RESOLUTION	H-Freq. (KHz)	V-Freq. (Hz)
D-WXGA 10	1280 x 800	41.200	50.000
D-WXGA 11	1280 x 800	49.702	59.810
D-WXGA 12	1280 x 800	63.98	60.02
D-SXGA1	1280 x 1024	63.98	60.02
D-SXGA2	1280 x 1024	60.276	58.069
D-SXGA3	1280 x 1024	31.65	29.80
D-SXGA+ 1	1400 x 1050	63.97	60.19
D-SXGA+ 2	1400 x 1050	65.350	60.120
D-SXGA+ 3	1400 x 1050	65.120	59.900
D-UXGA	1600 x 1200	75.00	60.00
D-WSXGA +1	1680 x 1050	65.290	59.954
D-WXGA +1	1440 x 900	55.935	59.887
D-1035i	1920 x 1035	33.75	60.00 (Interface)
D-1080i	1920 x 1080	33.75	60.00 (Interface)
D-1080i	1920 x 1080	28.125	50.00 (Interface)
D-WUXGA 2	1920 x 1200	74.038	59.95

✓ Note:

- The specifications are subject to change without notice.
- Depending on your PC settings, the digital signals of your PC may not be projected correctly. In such a case, confirm your PC settings.
- When you project a DVI signal, connect the cables, turn the projector on, then select the input. Finally, turn on your PC. Be sure to follow this procedure, otherwise an image may not be projected on the screen. If an image is not projected correctly, restart your PC.
- Do not disconnect the cable while the projector is running. If the cable has been disconnected and then reconnected, an image may not be correctly projected.

Technical Specifications

Mechanical Information

Projector Type	Multi-media Projector
Dimensions (W x H x D)	13.78" x 3.52" x 10.90" (350.0 mm X 97.0 mm X 276.9 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: 480p, 575p, 720p and 1080i
Input Scanning Frequency	H-sync: 15kHz–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

Image Information

Brightness	3000 lm (Lamp mode in "Normal", Image mode in "Presentation")
Contrast ratio	2000:1 (Lamp mode in "Auto", Image mode in "Presentation")
Uniformity	85%

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 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
-------------------------------	---

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 Type 1.5V x2
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)

Accessories

User's Manual (CD-ROM)
Important Information and Quick Start Guide
AC Power Cord
Remote controller and Batteries
VGA Cable
Lens Cap with String
PIN Code Label
Soft Carrying Case
Filter Cover for Ceiling Mount

- The specifications are subject to change without notice.
- LCD panels are manufactured to the highest possible standards. Even though 99.99% of the pixels are effective, a tiny fraction of the pixels (0.01% or less) may be ineffective by the characteristics of the LCD panels.

Optional Parts

The parts listed below are optionally available. When ordering those parts, specify the item name and Model No. to the sales dealer.

Model No.

COMPONENT-VGA Cable	: LV-CA32
Remote Controller	: LV-RC04
Projector Attachment	: LV-CL16
Ceiling Attachment	: LV-CL18
High Ceiling Attachment	: LV-CL19

PJ Link Notice

This projector is compliant with PJLink Standard Class 1 of JBMIA (Japan Business Machine and Information System Industries Association). This projector supports all commands defined by PJLink Class 1 and is verified conformance with PJLink Standard Class 1.

For PJ Link password, see the user's manual of "Network Set-up and Operation."

Projector Input		PJLink Input	Parameter
COMPUTER 1	ANALOG PC	RGB 1	11
	COMPONENT	VIDEO 2	22
	SCART	RGB 2	12
COMPUTER 2	ANALOG PC	RGB 3	13
HDMI	RGB(Digital)	DIGITAL 3	33
VIDEO	VIDEO	VIDEO 1	21
S-VIDEO	S-VIDEO	VIDEO 5	25

PJLink is a registered trademark of JBMIA and pending trademark in some countries.

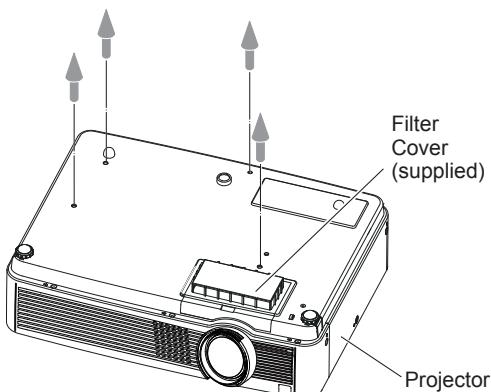


Attaching the Filter Cover to the Projector

The supplied filter cover is designed for preventing dust accumulation on the filter when mounting the projector on the ceiling.

- 1 Turn over the projector.
- 2 Before attaching the filter cover to the projector, removing the filter cover (bottom) first. See page 63 for removing.
- 3 For attaching the filter cover to the projector, push the cover as the picture shown. (For removing the filter cover, push the cover to the opposite direction.)
- 4 Attach the projector to the ceiling mount in accordance with the instruction manuals which come with the ceiling mount.

To Ceiling Mount



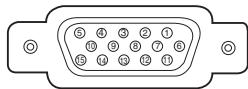
✓ Note:

- Please keep the filter cover (bottom) for later use.
- If the LV-CL16 Projector Attachment is applied, the supplied filter cover is unnecessary.

Configurations of Terminals

COMPUTER IN 1 / COMPONENT IN

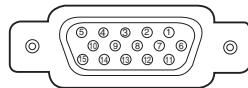
Terminal: Analog RGB (Mini D-sub 15 pin)



1	Red/Cr Input	9	+5V Power
2	Green/Y Input	10	Ground (Vert.sync.)
3	Blue/Cb Input	11	Ground
4	-----	12	DDC Data
5	Ground (Horiz.sync.)	13	Horiz. sync. Input/Output (Composite H/V sync.)
6	Ground (Red)	14	Vert. sync.
7	Ground (Green)	15	DDC Clock
8	Ground (Blue)		

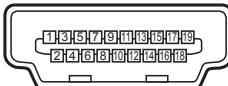
COMPUTER IN 2/MONITOR OUT (ANALOG)

Terminal: Analog RGB (Mini D-sub 15 pin)



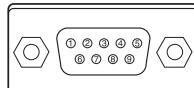
1	Red Input/Output	9	-----
2	Green Input/Output	10	Ground (Vert.sync.)
3	Blue Input/Output	11	-----
4	-----	12	-----
5	Ground (Horiz.sync.)	13	Horiz. sync. Input/Output
6	Ground (Red)	14	Vert. sync.
7	Ground (Green)	15	-----
8	Ground (Blue)		

HDMI (19 Pin Type A)



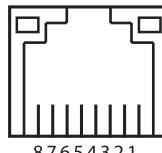
1	TMDS Data 2+ Input	11	Ground (TMDS Clock)
2	Ground (TMDS Data 2)	12	TMDS Clock- Input
3	TMDS Data 2- Input	13	-----
4	TMDS Data 1+ Input	14	-----
5	Ground (TMDS Data 1)	15	SCL
6	TMDS Data 1- Input	16	SDA
7	TMDS Data 0+ Input	17	Ground (DDC/CEC)
8	Ground (TMDS Data 0)	18	+5V Power
9	TMDS Data 0- Input	19	Plug insert detection
10	TMDS Clock+ Input		

CONTROL PORT CONNECTOR (D-sub 9 pin)



	Serial
1	-----
2	R X D
3	T X D
4	-----
5	SG
6	-----
7	-----
8	-----
9	-----

LAN TERMINAL



1	TX +
2	TX -
3	RX +
4	-----
5	-----
6	RX -
7	-----
8	-----

List of Picture in Picture

Main Window		Sub Window			COMPUTER 1		COMPUTER 2		HDMI	VIDEO	S-VIDEO
COMPUTER 1		ANALOG PC	COMPONENT	SCART	ANALOG PC	HDMI	VIDEO	S-VIDEO			
	ANALOG PC	x	x	x	○	○	○	○			
	COMPONENT	x	x	x	○	○	○	○			
	SCART	x	x	x	○	○	x	x			
COMPUTER 2	ANALOG PC	○	○	○	x	○	○	○			
HDMI	HDMI	○	○	○	○	x	○	○			
VIDEO	VIDEO	○	○	x	○	○	x	x			
S-VIDEO	S-VIDEO	○	○	x	○	○	x	x			

○ : Picture in Picture combinations are enabled.

x : Picture in Picture combinations are disabled.

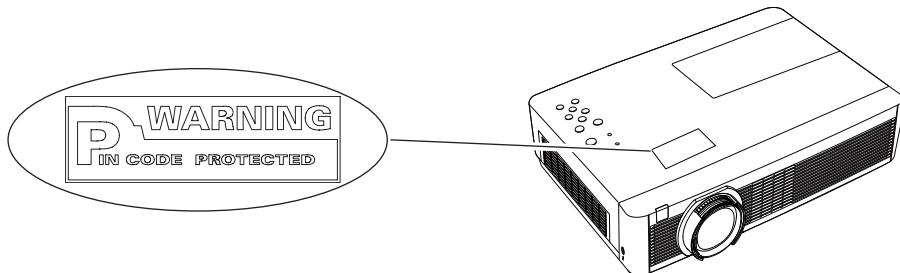
✓ Note:

- When the input signal(s) is/are incompatible, **[X]** mark will be displayed on the Main/Sub picture.
- Depending on the frequency or signal type of PC/AV input, the display resolution may be lowered or images may not be displayed on the Main/Sub picture.
 - <Display resolution is lowered when;>
 - Inputting PC analog signals: Between 100-140 MHz
 - <Images are not displayed and **X** mark appears when;>
 - Inputting PC analog signals: More than 140 MHz
 - Inputting PC digital signals: More than 100 MHz
 - Inputting AV digital signals: 1080p
 - <Picture in Picture is disabled when;>
 - Inputting signal formats: SXGA 20, WUXGA 1, WUXGA 2, WSXGA+1, WXGA+2, UXGA 1, UXGA 2, UXGA 3, UXGA 4, D-1080p

PIN Code Protection

While the projector is locked with the PIN code.

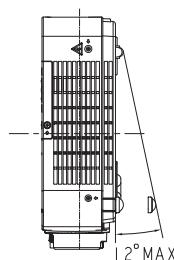
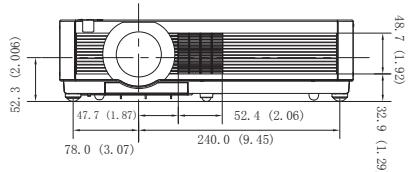
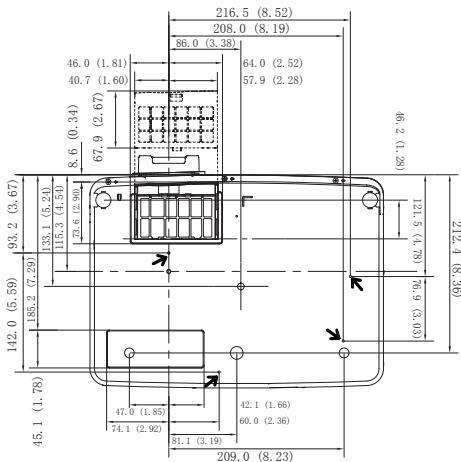
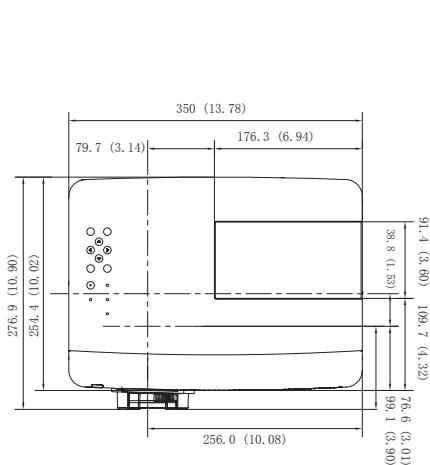
Put the label below (supplied) on in a prominent place of the projector's body while it is locked with a PIN code.



Dimensions

Unit: mm(inch)

▼ Screw Holes for Ceiling Mount
Screw: M4
Depth: 12.0(0.47)



CANON INC.

30-2, Shimomaruko 3-chome, Ohta-ku,
Tokyo 146-8501, Japan

U.S.A.**CANON U.S.A. INC.**

One Canon Plaza, Lake Success, NY
11042-1198, U.S.A.

*For all inquiries concerning this product, call
toll free in the U.S. 1-800-OK-CANON*

CANADA**CANON CANADA INC. HEADQUARTERS**

6390 Dixie Road, Mississauga, Ontario L5T
1P7, Canada

CANON CANADA INC. MONTREAL BRANCH

5990, Cote-de-Liesse, Montreal Quebec H4T
1V7, Canada

CANON CANADA INC. CALGARY OFFICE

2828, 16th Street, N.E. Calgary, Alberta T2E
7K7, Canada

*For all inquiries concerning this product, call
toll free in Canada 1-800-OK-CANON*

EUROPE, AFRICA & MIDDLE EAST**CANON EUROPE LTD.**

3 The Square, Stockley Park, Uxbridge,
Middlesex, UB11 1ET United Kingdom

CANON EUROPA N.V.

Bovenkerkerweg 59-61, 1185 XB Amstelveen,
The Netherlands

CANON FRANCE S.A.S

17, quai du President Paul Doumer, 92414
Courbevoie Cedex, France

CANON UK LTD.

Woodhatch Reigate Surrey RH2 8BF,
United Kingdom

CANON DEUTSCHLAND GmbH

Europark Fichtenhain A10, 47807 Krefeld,
Germany

CANON ITALIA S.p.A.

Via Milano 8 I-20097 San Donato Milanese,
Milano, Italy

CANON Schweiz AG

Geschäftsbereich Wiederverkauf,
Industriestrasse 12, CH-8305 Dietlikon,
Switzerland

CANON GMBH

Zetschegasse 11, A-1230 Wien, Austria

CANON España, S.A.

C/Joaquin Costa, 41, 28002 Madrid, Spain

CANON PORTUGAL S.A.

Rua Alfredo da Silva, 14 Alfragide 2610-016
Amadora, Portugal

CANON Belgium N.V./S.A.

Berkenlaan 3, 1831 Diegem (Mechelen), Belgium

CANON Nederland NV

Neptunusstraat 1, 2132 JA Hoofddorp,
The Netherlands

CANON LUXEMBOURG S.A.

Rue des Jons 21, L-1818 Howald, Luxembourg

CANON DANMARK A/S

Knud Hoejgaards Vej 1 DK-2860 Soeborg,
Danmark

CANON OY

Huopalahdentie 24 PL 1 00351 Helsinki, Finland

CANON SVENSKA AB

Gustav III:s Boulevard 26 169 88 Solna, Sweden

CANON NORGE as

Hallagerbakken 110, Postboks 33, Holmlia, 1201
Oslo, Norway

CENTRAL & SOUTH AMERICA**CANON LATIN AMERICA, INC.**

703 Waterford Way, Ste. 400 Miami, FL 33126,
U.S.A.

ASIA**CANON (China) Co., Ltd.**

15F Jinbao Building No.89 Jinbao Street,
Dongcheng District, Beijing 100005, China

CANON HONGKONG CO., LTD.

19/F., The Metropolis Tower, 10 Metropolis Drive,
Hung Hom, Kowloon, Hong Kong

CANON SINGAPORE PTE. LTD.

1 HarbourFront Avenue, #04-01 Keppel Bay
Tower, Singapore 098632

CANON KOREA CONSUMER IMAGING INC.

Gangnam Finance Center 17F, 737, Yeoksam-
Dong, Gangnam-gu, Seoul, 135-984, Korea

OCEANIA**CANON AUSTRALIA PTY. LTD.**

1 Thomas Holt Drive, North Ryde, N.S.W. 2113,
Australia

CANON NEW ZEALAND LTD.

Akoranga Business Park, Akoranga Drive,
Northcote, Auckland, New Zealand