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Usage Notice

Safety Instructions

Please take note of the safety instructions to prevent any potential accident or misuse of the projector.

→ Safety Instructions are given in two forms as detailed below.

 **WARNING** : The violation of this instruction may cause serious injuries and even death.

 **NOTES** : The violation of this instruction may cause injuries or damage to the projector.

→ After reading this manual, keep it in the place that you can access easily.

Indoor Installation

WARNING

Do not place the Projector in direct sunlight or near heat sources such as radiators, fires, stove etc.
This may cause a fire hazard !

Do not place flammable materials in, on or near the projector
This may cause a fire hazard!

Do not hang on the installed projector.
It may cause the projector to fall, causing injury or death.

Do not block the vents of the projector or restrict air-flow in any way.
This would cause the internal temperature to increase and could cause a fire hazard or damage to the unit!

Do not place the projector close to sources of steam or oil such as a humidifier.
This may create a fire hazard or an electric shock hazard !

Do not place the projector where it might be exposed to dust.
This may cause a fire hazard or damage to the unit!

Do not use the projector in a damp place such as a bathroom where it is likely to get wet.
This may cause a fire or an electric shock hazard!

Do not place the projector directly on a carpet, rug or place where ventilation is restricted.
This would cause its internal temperature to increase and might create a fire hazard or damage the unit.

Ensure good ventilation around the projector. The distance between the projector and the wall should be more than 30cm/12 inches.
An excessive increase in its internal temperature may cause a fire hazard or damage to the unit!

Indoor Installation

NOTES

When installing the projector on a table, be careful not to place it near the edge.
The projector could fall causing injury and damage to the projector.
Only use a suitable stand.

Disconnect from the power supply and remove all connections before moving, or cleaning.

Only use the projector on a level and stable surface.
It may fall and cause injury and/or damage to the unit.

Power

WARNING

Earth wire should be connected.
Ensure that you connect the earth ground wire to prevent possible electric shock (i.e. a Projector with a three-prong grounded AC plug must be connected to a three-prong grounded AC outlet.
If grounding methods are not possible, have a qualified electrician install a separate circuit breaker.
Do not try to ground the unit by connecting it to telephone wires, lightning rods, or gas pipes.

The power cord should be inserted fully into the power outlet to avoid a fire hazard!
This may cause a fire hazard or damage the unit.

Do not place heavy objects on the power cord.
This may cause a fire or an electric shock hazard !

Usage Notice

Power	 WARNING	
<p>Never touch the power plug with a wet hand</p> <p>This may cause an electric shock-hazard!</p>	<p>Do not plug-in too many items into one power outlet.</p> <p>It may result in overheating of the outlet and create a fire hazard!</p>	<p>Prevent dust from collecting on the power plug pins or outlet.</p> <p>This may cause a fire hazard!</p>

Power	 NOTES	
<p>Hold the plug firmly when unplugging. If you pull the cord, it may be damaged.</p> <p>This may cause a fire hazard !</p>	<p>Do not use if the power cord or the plug is damaged or any part of the power outlet is loose.</p> <p>This may cause a fire or an electric-shock hazard or damage to the unit!</p>	<p>Ensure the power cord does not come into contact with sharp or hot objects.</p> <p>This may cause a fire or an electric-shock hazard or damage to the unit!</p>
<p>Place the projector where people will not trip or tread on the power cord.</p> <p>This may cause a fire or an electric-shock hazard or damage to the unit!</p>	<p>Do not turn the projector On/Off by plugging-in or unplugging the power plug to the wall outlet. (Allow the unit to cool before removing power.)</p> <p>It may cause mechanical failure or could cause an electric shock.</p>	

Using	 WARNING	
<p>Do not place anything containing liquid on top of the projector such as flowerpot, cup, cosmetics or candle.</p> <p>This may cause a fire hazard or damage to the unit!</p>	<p>In case of impact shock or damage to the projector switch it off and unplug it from the power outlet and contact an authorized service center.</p> <p>This may cause a fire or an electric shock hazard or damage to the unit!</p>	<p>Do not allow any objects to fall into the projector.</p> <p>This may cause an electric shock hazard or damage to the unit!</p>
<p>If water is spilled into the projector unplug it from the power supply immediately and consult your Service Agent.</p> <p>This may cause an electric shock hazard or damage to the unit!</p>	<p>Dispose of used batteries carefully and safely.</p> <p>In the case of a battery being swallowed by a child please consult a doctor immediately.</p>	
<p>Do not remove any covers. High risk of Electric Shock!</p>	<p>Don't look directly into the lens when the projector is in use. Eye damage may occur!</p>	<p>Do not touch metal parts during or soon after operation since the vents will remain very hot!</p>

CAUTION concerning the Power Cord

It is recommend that most appliances be placed on a dedicated circuit; that is, a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page of this owner's manual to be certain.

Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in electric shock or fire. Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized service personnel.

Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance.

Usage Notice

Using		 WARNING
<p>If the projector is in a room that experiences a gas leak, do not touch the projector.</p> <p>It can cause a fire or a burn by a spark.</p>	<p>Don't look at laser beam directly as it can cause eye damage!</p>	<p>Always open the lens door or remove the lens cap when the projector lamp is on.</p>

Using		 NOTES
<p>Do not place heavy objects on top of projector.</p> <p>This may cause mechanical failure or personal injury!</p>	<p>Take care not to impact the lens particularly when moving the projector.</p>	<p>Do not touch the lens of the projector. It is delicate and easily damaged.</p>
<p>Do not use any sharp tools on the projector as this will damage the casing.</p>	<p>In the event that an image does not appear on the screen please switch it off and unplug it from the power outlet and contact your Service Agent.</p> <p>This may cause a fire or an electric shock hazard or damage to the unit!</p>	<p>Do not drop the projector or allow impact shock.</p> <p>This may cause mechanical failure or personal injury!</p>

Cleaning		 WARNING
<p>Do not use water while cleaning the projector.</p> <p>This may cause damage to the projector or an electric shock hazard.</p>	<p>In the unlikely event of smoke or a strange smell from the projector, switch it off, unplug it from the wall outlet and contact your dealer or service centre.</p> <p>This may cause a fire or an electric shock hazard or damage to the unit!</p>	<p>Use an air spray or soft cloth that is moist with a neutral detergent and water for removing dust or stains on the projection lens.</p>

Cleaning		 NOTES
<p>Contact the Service Center once a year to clean the internal parts of the projector.</p> <p>Accumulated dust can cause mechanical failure.</p>	<p>When cleaning the plastic parts such as projector case, unplug the power and wipe it with a soft cloth. Do not use cleanser, spray water or wipe with a wet cloth. Especially, never use cleanser (glass cleaner), automobile or industrial shiner, abrasive or wax, benzene, alcohol etc., which can damage the product.</p> <p>Use an air spray or soft cloth that is moist with a neutral detergent and water for removing dust or stains on the projection lens.</p> <p>It can cause fire, electric shock or product damage (deformation, corrosion and damage).</p>	

Others		 WARNING
<p>Do not attempt to service the projector yourself. Contact your dealer or service center.</p> <p>This may cause damage to the projector and could give an electric Shock as well as invalidating the warranty!</p>		

Others		 NOTES
<p>Be sure to unplug if the projector is not to be used for a long period.</p> <p>Accumulated dust may cause a fire hazard or damage to the unit!</p>	<p>Only use the specified type of battery.</p> <p>This could cause damage to the remote control.</p>	

Product Features

This product is an XGA single chip 0.55" DLP® projector. Outstanding features include:

- XGA (1024x768) Native resolution
- One built-in speaker with 8 watt amplifier
- HDTV compatible (720P, 1080i/p)
- RGB monitor Loop Thru (works on standby mode > 1W)
- BrilliantColor™ Technology
- RS232C control

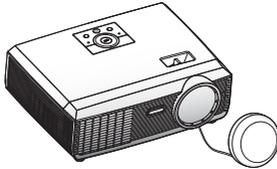
Introduction

Package Overview

This projector comes with all the items shown below. Check to make sure your unit is complete. Contact your dealer immediately if anything is missing.

Note

❖ Due to the difference in applications for each country, some regions may have different accessories.



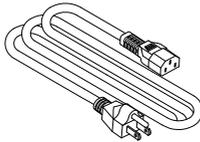
Projector with lens cap



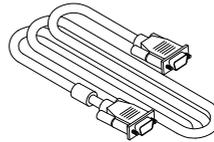
Wireless Remote Control



Battery



Power Cable

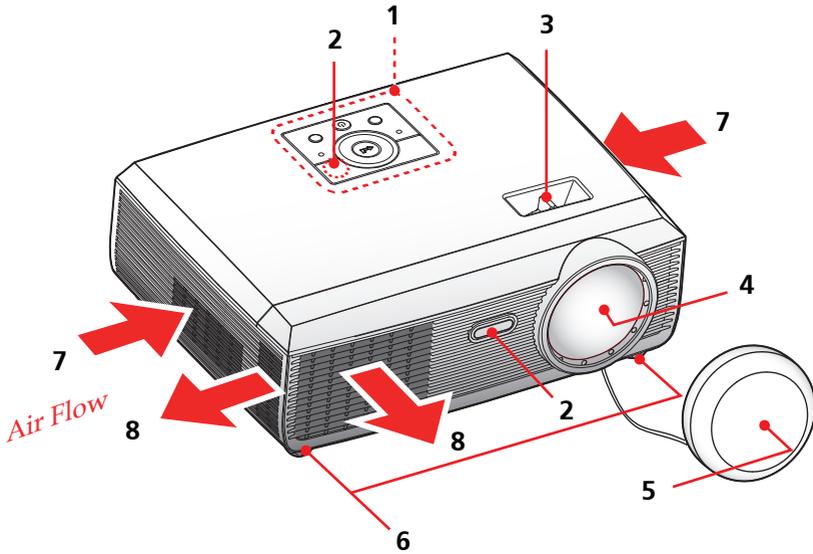


RGB Cable

Documentation:

CD-ROM User's Manual

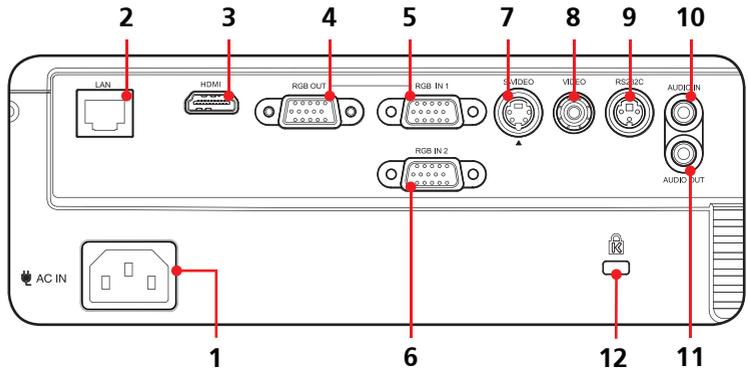
Product Overview



1. Control Panel
2. Remote Sensors
3. Focus Ring
4. Lens
5. Lens Cap
6. Adjustable feet
7. Ventilation (inlet)
8. Ventilation (outlet)

Introduction

Connection Ports



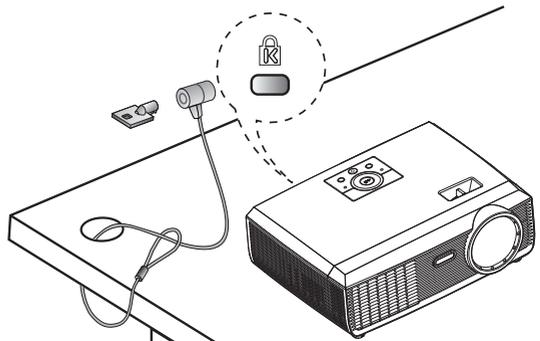
1. AC IN
2. RJ45 Connector
3. HDMI Connector
4. * RGB OUT Connector
5. RGB IN 1 Connector
6. RGB IN 2 Connector
7. S-VIDEO In Connector
8. VIDEO Connector
9. RS232C Service Port
10. AUDIO IN Jack
11. AUDIO OUT Connector
12. Kensington™ Lock

Note

❖ "*" for "RGB IN 1 Connector" only

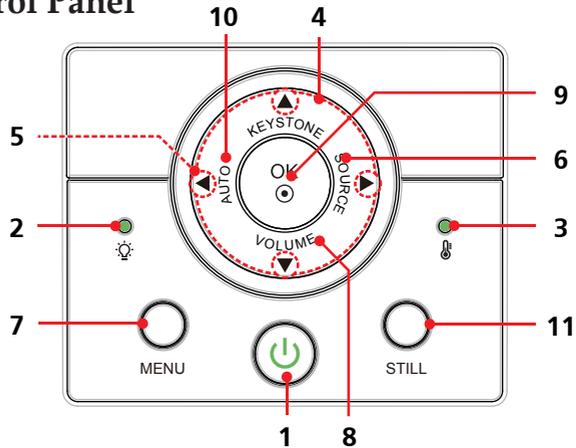
Kensington Security System

- ❖ This projector has a Kensington Security System Connector on the side panel. Connect the Kensington Security System cable as below.
- ❖ For the detailed installation and use of the Kensington Security System, refer to the user's guide included with the Kensington Security System set. And for further information, contact <http://www.kensington.com>, the internet homepage of the Kensington company that deals with expensive electronic equipment such as notebook PCs or projectors.
- ❖ The Kensington Security System is an optional item.



Introduction

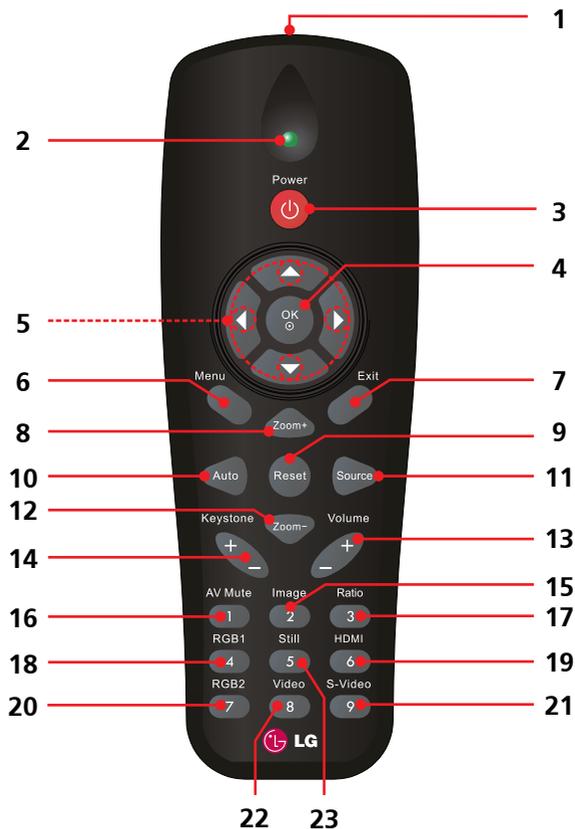
Control Panel



1	POWER POWER LED	Refer to the "Power On/Off the Projector" section on pages 15~16. Indicate the projector's status.
2	LAMP LED	Indicate the projector's lamp status.
3	TEMP LED	Indicate the projector's temperature status.
4	KEYSTONE	Adjust the image to compensate for distortion caused by tilting the projector.
5	Four Directional Select Keys	Use ▲ or ▼ or ◀ or ▶ to select items or make adjustments to your selection.
6	SOURCE	Press "SOURCE" to select an input signal.
7	MENU	Press "MENU" to launch the on-screen display (OSD) menu. To exit OSD, Press "MENU" again.
8	VOLUME	Adjust to increase / decrease the volume.
9	OK	Confirm your item selection.
10	AUTO	Automatically synchronizes the projector to the input source.
11	STILL	Pause the screen image. Press again to resume the screen image.

Introduction

Remote Control



Note

- ❖ You can only turn the projector on/off with POWER button on the projector.
- ❖ You can operate all of the functions of the projector via the remote control. Make sure not to lose the remote control.

1	Infrared transmitter	Sends signals to the projector.
2	LED	LED Indicator.
3	Power	Refer to the “Power On/Off the Projector” section. (See pages 15~16)
4	OK	Confirm your section of items in sub menu operation.
5	Four Directional Select Keys	Use ▲ or ▼ or ◀ or ▶ to select items or make adjustments to your selection.

Introduction

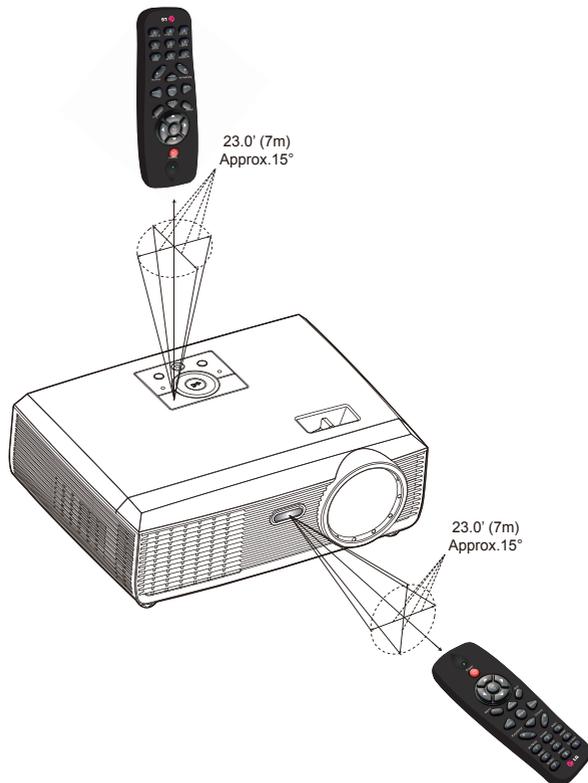
6	Menu	Press "Menu" to launch the Onscreen display (OSD), back to the top level of OSD for the OSD main menu operation
7	Exit	Press "Exit" to close the OSD menu.
8	Zoom+	Zoom in the projector display.
9	Reset	Return the adjustments and settings to the factory default values. (except for lamp counter)
10	Auto	Automatically synchronize the projector to the input source.
11	Source	Press "Source" to choose RGB, S-Video, Composite and HDMI sources.
12	Zoom-	Zoom out the projector display.
13	Volume +/-	Increase/decrease speaker volume.
14	Keystone +/-	Adjust the image to compensate for distortion caused by tilting the projector.
15	Image	Select the Image mode from Presentation, Bright, Movie, sRGB, and User.
16	AV Mute	Momentarily turn off/on the audio and video.
17	Ratio	Use this function to choose your desired aspect ratio.
18	RGB1	Press "RGB1" to choose RGB IN 1 connector.
19	HDMI	Press "HDMI" to choose HDMI connector.
20	RGB2	Press "RGB2" to choose RGB IN 2 connector.
21	S-Video	Press "S-Video" to choose S-VIDEO connector.

Introduction

22	Video	Press "Video" to choose VIDEO connector.
23	Still	Pause the screen image. Press again to resume the screen image.

Remote Control Operating Range

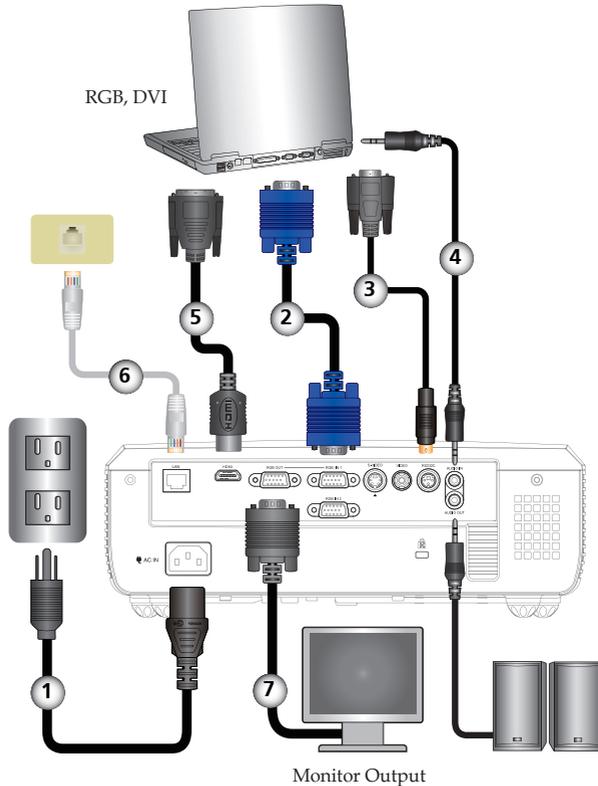
Point the remote control toward the projector (Infrared Remote Receiver) when pressing any button. Maximum operating range for the remote control is about 23.0' (7m) and 30° in front of the projector.



Installation

Connecting the Projector

Connect to Computer/Notebook



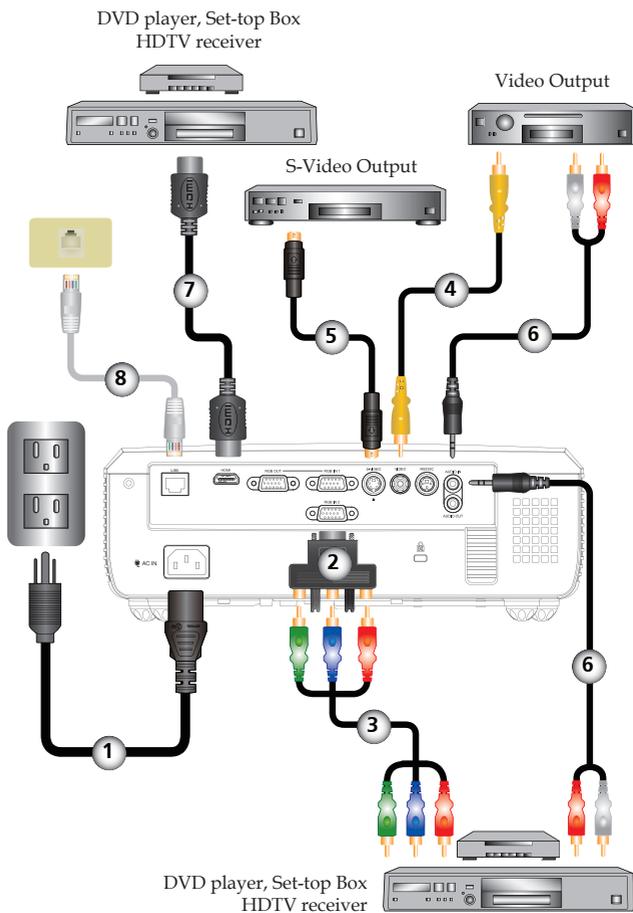
Note

❖ Due to the difference in applications for each country, some regions may have different accessories.

- | | |
|--------|------------------------|
| 1..... | Power cable (supplied) |
| 2..... | RGB cable (supplied) |
| 3..... | RS232C cable |
| 4..... | Audio cable Jack/Jack |
| 5..... | DVI/HDMI cable |
| 6..... | Network cable |
| 7..... | Monitor out cable |

Installation

Connect to Video



Note

❖ Due to the difference in applications for each country, some regions may have different accessories.

- | | |
|--------|------------------------|
| 1..... | Power cable (supplied) |
| 2..... | RGB to RCA adaptor |
| 3..... | 3 RCA Component Cable |
| 4..... | Composite video cable |
| 5..... | S-Video cable |
| 6..... | Audio cable Jack/RCA |
| 7..... | HDMI cable |
| 8..... | Network cable |

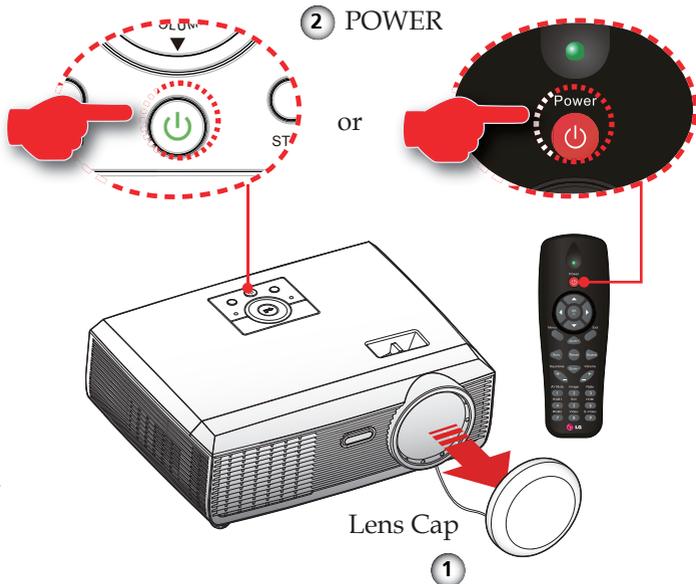
Powering On/Off the Projector

Powering On the Projector

1. Ensure that the power cable and signal cable are securely connected. The POWER LED will turn orange.
2. Remove the lens cap. ❶
3. Turn on the lamp by pressing “POWER” on the control panel or the remote control. ❷ The POWER LED will flash green.

The startup screen will display in approximately 5 seconds. When disappear startup screen, the POWER LED will turn green.

4. Turn on your source (computer, notebook, video player, etc.) The projector will detect your source automatically.
- ❖ If you connect multiple sources at the same time, use the “SOURCE” on the remote control or use “RGB”, “S-video”, “Video”, “HDMI” on the remote control to switch inputs.

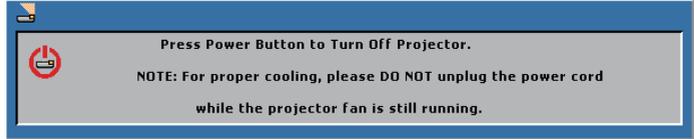


Note

- ❖ Turn on the projector first and then the signal sources.

Powering Off the Projector

1. Press the “POWER” to turn off the projector lamp, you will see a message as below on the on-screen display.



2. Press the “POWER” again to confirm.
3. The cooling fan continues to operate for about 60 seconds for cooling cycle and the POWER LED will flash green. When the POWER LED flashes orange, the projector has entered standby mode.

If you wish to turn the projector back on, you must wait until the projector has completed the cooling cycle and has enter standby mode.

Once in standby mode, simply press “POWER” to restart the projector.

4. Disconnect the power cable from the electrical outlet and the projector.
5. Do not turn on the projector immediately following a power off procedure.

Warning Indicator

- ❖ When the “TEMP” LED indicator lights red, it indicates the projector has overheated. The projector will automatically switch to eco mode.



When the projector keep overheated for 60 seconds under eco mode, the projector will automatically shut itself down.

If the problem persists, you should contact your local dealer or our service center.



- ❖ When you see the message below displays on-screen, the projector has detected that the lamp is approaching its end of life. Please change the lamp as soon as possible or contact your local dealer or our service center.



- ❖ When the “TEMP” LED indicator flashes red and the message below displays on-screen, it indicates the fan failed. Stop using the projector and disconnect the power cable from the electrical outlet, then contact your local dealer or our service center.



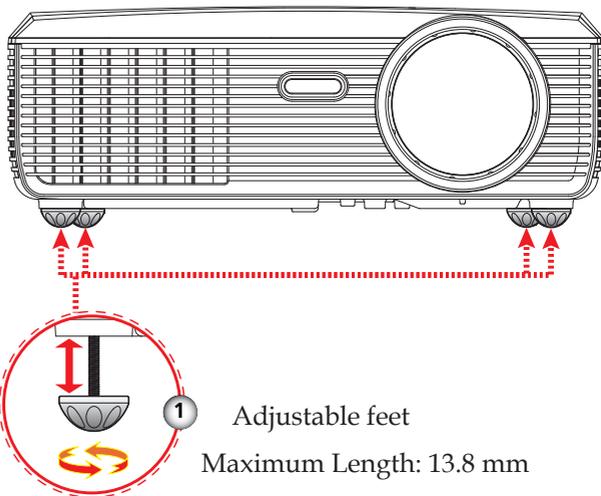
Adjusting the Projected Image

Adjusting the Height of Projector Image

The projector is equipped with adjustable feet to raise and lower the image to fill the screen.

To raise/lower the image:

1. Use ❶ to fine-tune the display angle.



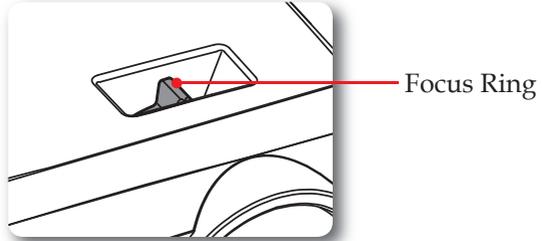
Note

- ❖ You can raise the projector front up to 4 degrees by rotating the adjustable feet.

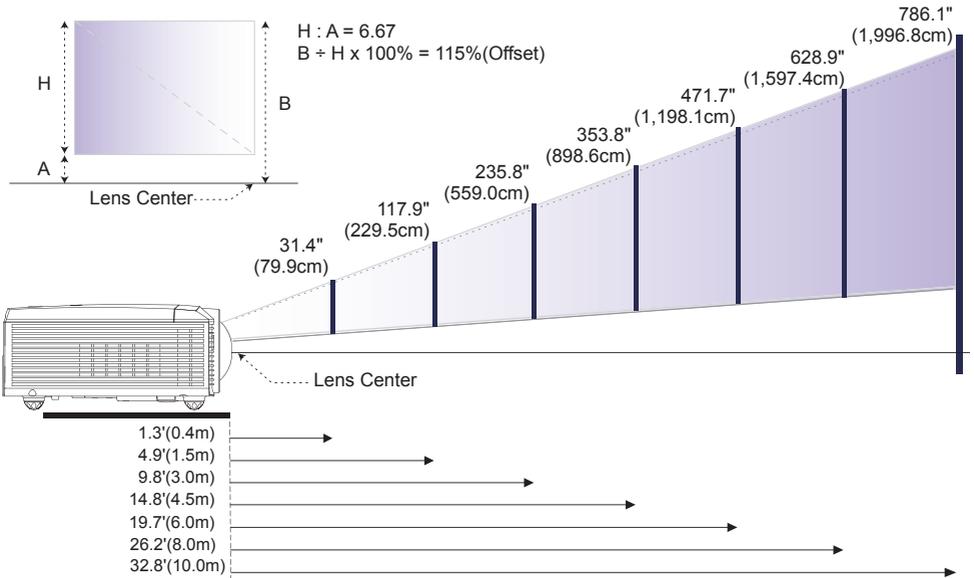
Installation

Adjusting the Projector's Focus

To focus the image, rotate the focus ring until the image is clear. The projector will focus at distances from 1.3 to 32.8 feet (0.4 to 10.0 meters) with mechanical travel.



Adjusting Projection Image Size



Screen (Diagonal)	31.4" (79.9cm)	117.9" (229.5cm)	235.8" (559.0cm)	353.8" (898.6cm)	471.7" (1,198.1cm)	628.9" (1,597.4cm)	786.1" (1,996.8cm)
Screen Size Max. (WxH)	25.1"x18.8" 63.9x47.9cm	94.3"x70.7" 239.6x179.7cm	188.6"x141.5" 479.2x359.4cm	283.0"x212.3" 718.9x539.2cm	377.4"x283.0" 958.5x718.9cm	503.1"x377.3" 1,227.9x958.4cm	628.9"x471.7" 1,597.4x1,198.1cm
Hd	2.83" (7.20cm)	10.61" (27.00cm)	21.22" (53.90cm)	31.84" (80.90cm)	42.45" (107.80cm)	56.60" (143.80cm)	70.75" (179.70cm)
Distance	1.3' (0.4m)	4.9' (1.5m)	9.8' (3.0m)	14.8' (4.5m)	19.7' (6.0m)	26.2' (8.0m)	32.8' (10.0m)

❖ This graph is for user's reference only.

On Screen Display

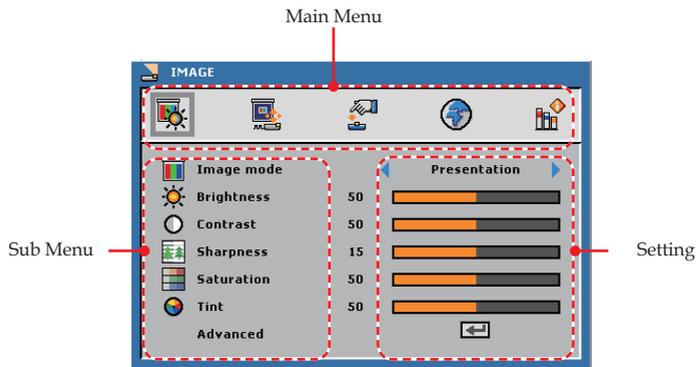
The Projector has multilingual On-screen Display menus that allow you to make image adjustments and change a variety of settings. The projector will automatically detect the source.

How to operate

1. To open the OSD, press “MENU” on the Remote Control or Control Panel.
2. When OSD is displayed, use ◀▶ keys to select any item in the main menu. While making a selection on a particular page, press ▼ or “OK” key to enter sub menu.
3. Use ▲ ▼ keys to select the desired item in the sub menu and adjust the settings using ◀▶ key.
4. If the setting has ◀↵ icon, you could press “OK” to enter another sub menu. Press “MENU” to close the sub menu after adjustment.
5. After adjusting the settings, press “MENU” go back to the main menu.
6. To exit, press “MENU” again. The OSD will be closed and the projector will automatically save the new settings.

Note

❖ If no button operation is made for 30 seconds, the OSD will be closed automatically.





IMAGE

Image Mode

There are many factory presets optimized for various types of images. Use the ◀ or ▶ to select the item.

- ▶ Presentation: For computer or notebook.
- ▶ Bright: For bright room.
- ▶ Movie: For home theater.
- ▶ sRGB: For standard color.
- ▶ User: Memorize user's settings.

Brightness

Adjust the brightness of the image.

- ▶ Press the ◀ to darken image.
- ▶ Press the ▶ to lighten the image.

Contrast

The contrast controls the degree of difference between the lightest and darkest parts of the picture.

- ▶ Press the ◀ to decrease the contrast.
- ▶ Press the ▶ to increase the contrast.

Sharpness

Adjust the sharpness of the image.

- ▶ Press the ◀ to decrease the sharpness.
- ▶ Press the ▶ to increase the sharpness.

User Controls

Saturation

Adjust a video image from black and white to fully saturated color.

- ▶ Press the ◀ to decrease the amount of color in the image.
- ▶ Press the ▶ to increase the amount of color in the image.

Tint

Adjust the color balance of red and green.

- ▶ Press the ◀ to increase the amount of green in the image.
- ▶ Press the ▶ to increase the amount of red in the image.

Note

❖ “Sharpness”, “Saturation” and “Tint” functions are only supported under Video mode.



IMAGE | Advanced

BrilliantColor™

Produces an expanded onscreen color spectrum that delivers enhanced color saturation for bright, true-to-life images.

Color Temp.

The screen appears cooler at higher color temperatures and warmer at lower color temperatures.

When you adjust the values in the color adjust menu, the user mode is activated. The values are saved in the user mode.

Color Space

Select an appropriate color matrix type from RGB, YCbCr or YPbPr.

Red

Use the setting for advanced adjustment of the individual red color.

Green

Use the setting for advanced adjustment of the individual green color.

Blue

Use the setting for advanced adjustment of the individual blue color.

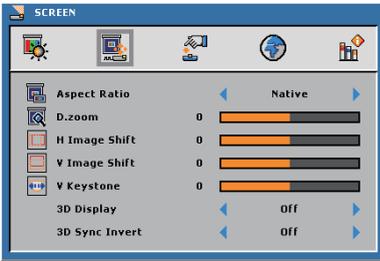
User Controls



IMAGE | Advanced | Input Source

Input

Use this option to enable / disable input sources. Press **←** to enter the sub menu and select which sources you require. Press "OK" to finalize the selection. The projector will not search for inputs that are not selected.



SCREEN

Aspect Ratio

Use this function to choose your desired aspect ratio.

- ▶ 4:3: This format is for 4×3 input sources not enhanced for Wide-screen TV.
- ▶ 16:9: This format is for 16×9 input sources, like HDTV and DVD enhanced for Wide screen TV.
- ▶ Native: This format displays the original image without any scaling.

D. zoom

Adjust the size of projector's display area.

- ▶ Press the ◀ to reduce the size of an image on the projection screen.
- ▶ Press the ▶ to magnify an image on the projection screen.

H Image Shift

Shift the projected image position horizontally.

V Image Shift

Shift the projected image position vertically.

V Keystone

Press the ◀ or ▶ to adjust image distortion vertically and makes a rectangular image.

User Controls

How 3D Works

* 3D technology takes advantage of the difference in angular vision between our two eyes to allow us to see images in three dimensions.

How to watch 3D video

1. You can watch 3D videos through your PC or DVD player. For PC, use the 3D video player in a computer equipped with a graphics card (Quad buffer feature) that has a quad buffer feature capable of outputting 120Hz vertical frequency.
2. There can be a difference in resolution of 3D video images depending on the capacity of the graphics card. The supported resolutions are shown below. For DVD player, please select 3D disk.

RGBPC	Signals	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Type of 3D Video Images which can be played
	SVGA	800x600	-	120	Frame Sequential
	XGA	1024x768	-	120	Frame Sequential

3. Select "3D function On" from the projector menu.
4. You can use the L/R function on the menu, to switch the video display from left to right and vice versa. Choose the one that works for you.

Please note the following facts.

- ▶ After you have turned the glasses on, the left and right video images may overlap to start with. Please allow a short time for the device to optimize.
- ▶ When you watch the 3D video images under a fluorescent light (50~60Hz), a 3-wave lamp or near a window, interference may cause the video images to strobe or flash.

If this happens, please draw the curtains to block sunlight, or dim the lights.

- ▶ If there is an object between the screen and the 3D glasses, you may not be able to fully experience the 3D video effect.
- ▶ The 3D glasses support DLP Link Type only.
- ▶ The performance of 3D glasses may vary depending on the manufacturer.

Things to remember when watching 3D videos

- ▶ Please watch 3D videos within the recommended angle and distance from the screen. (Recommended Distance: 1.5m~5m.)
 - If you exceed the recommended angle or distance, you may not be able to experience the full 3D effect.
- ▶ If you watch 3D video from very close to the screen for a prolonged period of time, it may weaken your eyesight.
- ▶ If you watch the 3D videos for a prolonged time with 3D glasses, it may cause dizziness or eye fatigue.
- ▶ Pregnant women, elderly and infirm persons, anyone with a heart condition or motion sickness should refrain from watching 3D video. Also please don't watch 3D video after consuming alcohol.
 - A viewer may perceive 3D images as being real and may become alarmed or excited.
- ▶ Please remove objects that might easily break, or could cause injury, when watching the 3D video.
 - A viewer may make a sudden movement after mistaking a 3D image for a real object or event and could be injured by such objects.
- ▶ Parents should pay extra attention when children are viewing 3D video.
- ▶ Children under the age of five should not be allowed to watch 3D video images, since this could cause complications in the proper development of eyesight.
- ▶ By following the preliminary steps as below, you can reduce the risks of problems related to 3D video viewing, such as photosensitive seizure for example.
 - Rest for 5 to 15 minutes after one hour of viewing 3D video.
 - If your sight is different for each of your eyes, please correct eyesight before watching.
 - Adjust your eye level to the 3D screen height and watch from directly in front of the screen.
 - If you experience a headache, exhaustion or dizziness, please stop watching and take a rest.
 - Refrain from watching 3D video for a prolonged time if you feel sleepy, exhausted or sick.

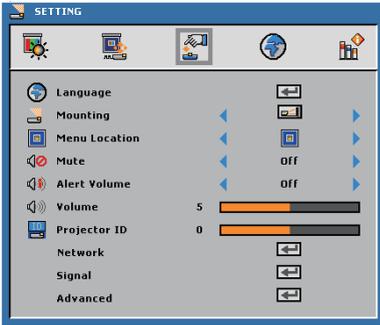
User Controls



SETTING | Language

Language

Choose the multilingual OSD. Press ▼ into the sub menu and then use the ▲ or ▼ or ◀ or ▶ key to select your preferred language. Press "OK" to finalize the selection.



SETTING

Mounting

- ▶  Front-Desktop
The factory default setting. The image is projected straight on the screen.
- ▶  Rear-Desktop
When you select this function, the projector reverses the image so you can project behind a translucent screen.
- ▶  Front-Ceiling
When you select this function, the projector turns the image upside down for ceiling-mounted projection.
- ▶  Rear-Ceiling
When you select this function, the projector reverses and turns the image upside down at same time. You can project from behind a translucent screen with ceiling mounted projection.

User Controls

Menu Location

Choose the menu location on the display screen.

Mute

- ▶ Choose “On” to mute the volume.
- ▶ Choose “Off” to restore the volume.

Alert Volume

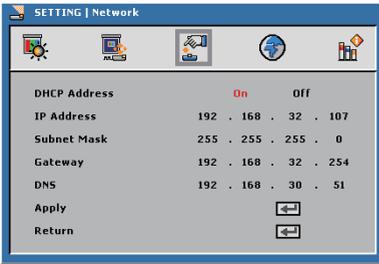
Allows you to set buzzer alert loudness (Off, Low, Medium or High) for power on/off, warning and command keys.

Volume

- ▶ Press the ◀ to decrease the volume.
- ▶ Press the ▶ to increase the volume.

Projector ID

ID definition can be set up by menu (range 0~99), and allow user control an individual projector by RS232C.



SETTING | Network

DHCP Address

- ▶ On: Assign an IP address to the projector from an external DHCP server automatically.
- ▶ Off: Assign an IP address manually.

IP Address

Select an IP address.

Subnet Mask

Select subnet mask number.

Gateway

Select the default gateway of the network connected to the projector.

DNS

Select DNS number.

Apply

Press "←" to save the changes made in network configuration settings.

User Controls



SETTING | Signal

Note

❖ “Signal” is only supported in Analog VGA (RGB) signal.

Fine Sync

Change the display data frequency to match the frequency of your computer’s graphic card. Use this function only if the image appears to flicker vertically.

Total Dots

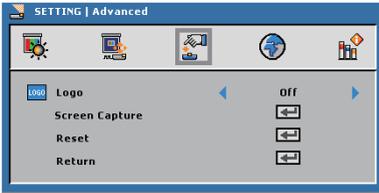
Synchronize the signal timing of the display with the graphic card. If the image appears to be unstable or flickers, use this function to correct it.

H. Position (Horizontal Position)

- ▶ Press the ◀ to move the image left.
- ▶ Press the ▶ to move the image right.

V. Position (Vertical Position)

- ▶ Press the ◀ to move the image down.
- ▶ Press the ▶ to move the image up.



SETTING | Advanced

Logo

Use this function to set the desired startup screen. If changes are made they will take effect the next time the projector is powered on.

- ▶ Off: No logo is displayed.
- ▶ Normal: LG startup screen.
- ▶ Capture Screen: Use memorize from “Screen Capture” function.

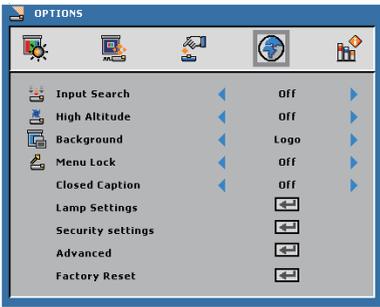
Screen Capture

Press “←” to immediately capture an image of the picture currently displayed on screen.

Reset

Press “←” to delete the captured picture and set back to the default setting.

User Controls



OPTIONS

Input Search

- ▶ When “On” is selected, the projector will search for other signals if the current input signal is lost.
- ▶ When “Off” is selected, the projector will only search a specified connection port.



High Altitude

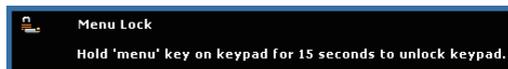
When “On” is selected, the fans will spin faster. This feature is useful in high altitude areas where the air is thin.

Background

Use this feature to display a “Logo”, “Black”, “Red”, “Blue”, “Green”, “White”, “Gray” or “Capture Screen” screen when no signal is available.

Menu Lock

- ▶ Choose “On” to enable Menu Lock and hide the OSD menu.
- ▶ Choose “Off” to disable the Menu Lock. If you want to disable the Menu Lock function and have the OSD disappear, press the Menu button on the control panel for 15 seconds, then disable the function.



Note

❖ “Closed Caption” option is available for NTSC only.

Closed Caption

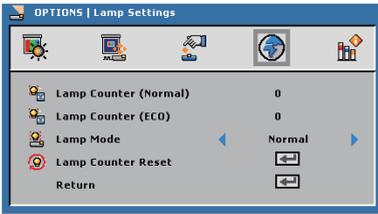
Select an appropriate closed captions option: CC1, CC2, CC3, and CC4.

Factory Reset

Press “←” to reset all settings to its factory default, the warning message below appears.



User Controls



OPTIONS | Lamp Settings

Lamp Counter (Normal)

Display the projection time of normal mode.

Lamp Counter (ECO)

Display the projection time of ECO mode.

Lamp Mode

- ▶ ECO: Choose "ECO" to dim the projector lamp which will lower power consumption and extend the lamp life.
- ▶ Normal: Choose "Normal" to increase the brightness.

Lamp Counter Reset

Reset the lamp hour counter after replacing the lamp.



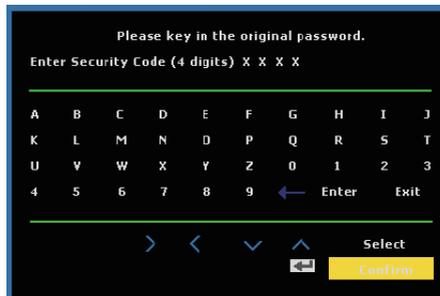
OPTIONS | Security Setting

Password

- ▶ On: Choose “On” to use password verification when the turning on the projector.
- ▶ Off: Choose “Off” to be able to switch on the projector without password verification.

Change Password

1. Press “←” to set the password.
2. The password has to be 4 digits.
3. Key in the original password, then enter the new password and confirm the new password again.



User Controls



OPTIONS | Advanced

Standby RGB Output

Choose "On" or "Off" the RGB output function at projector standby status. Default is Off.

Wake On Lan

Choose "On" or "Off" the Network function at projector standby status. Default is Off.

Direct Power On

Choose "On" to activate Direct Power mode. The projector will automatically power on when AC power is supplied, without pressing the "POWER" key on the projector control panel or "POWER" key on the remote control.

Auto Power Off

Use this function to activate power settings. By default, the projector is set to enter auto power off mode after 120 minutes of no activity.

A warning message appears on screen showing a 60-second countdown before switching to auto power off mode. Press any button during countdown period to stop auto power off mode.

Auto power off can be set to 30, 60, 90 or 120 minutes.

If an input signal is not detected within two hours during auto power off mode, the projector switches from auto power off mode to power off mode.

Quick Shutdown

Choose "On" to turn off the projector with a single press of the power button. This function allows the projector to quick power off with an accelerated fan speed.



INFORMATION	
Model Name	BX286-5D
Input Source	ANALOG RGB
Resolution	1024X768
Operating Hour	10 hr
Lamp Voltage	70 V

INFORMATION

Note

❖ All functions in **Information** display the status of the projector only.

Model Name

Display the model name.

Input Source

Display the input connector type.

Resolution

Display the current display resolution.

Operating Hour

Display the operation hours.

Lamp Voltage

Display the Lamp Voltage.

Lan Module User's Guide

Preface

LAN module is a connection bridge between a projector and a district network. And via network, PC users can process remote control with projectors and received information from projectors.

Definition of Terms

Projector RS232C Command: A separated projector can execute command received from RS232C interface. RS232C interface of a projector must be configured as network feature but not other functions.

LAN module: With its RS232C interface connected to projector, and its RJ45 interface connected to network, LAN module can then communicate with both. LAN module firmware is written for this job.

PC clients: Webpage control and Application can be used to process remote control.

Note

❖ Default configurations of this module are:

DHCP: Disabled
IP: 192.168.0.100
Mask: 255.255.255.0
Gateway:
192.168.0.254
DNS: 0.0.0.0

These configurations can be changed which are described bellow.

Network Connection

Ethernet LAN and 802.3 LAN are both supported by this module. Correctly configured, user can connect to the module by browser (Microsoft IE, Firefox, etc.).

HTML pages are shown after you enter the module's IP address.

Webpage Operations

Login

Before login the web server, please get the IP address from projector OSD Menu.



Key in the IP address projector acquired.

A password is needed to login before can do any other work.



Note

❖ Default passwords of two users are:

Administrator:

“admin”

User: “user”

Quote not included and capital sensitive.

Note

❖ **Network Setting** and **Alert Setting** page will NOT appear if **User** account is used.

- Select a user. Administrator is with high authority that can process more operations such as network setting and alert setting. And User is with normal authority.
- Click Login button to login. There will be a prompt if your password is wrong. With correct password, you can enter to control pages.

After login, control pages will appear, i.e. **Home, Control Panel, Network Setting, Alert Setting, and Logout.** **Home** page is automatically selected after login.

User Controls

Home

This is **Home** page which shows basic information of your projector. There is no control on this page.

Home Control Panel Network Setting Alert Setting Logout

Welcome to LG Projector Web Server
IP:192.168.32.107

Projector Status

Model Name: BX286-SD
System Status: Power ON
Display Source: Video
Lamp Hours: 0000
Image Mode: Movie
Error Status: Normal
FW Version: C07

Note

❖ Information on this page will be updated every time this page begins to show.

Projector Control Panel

This page shows many controls of your projector. And it will show current status of your projector.

Home Control Panel Network Setting Alert Setting Logout

Control Panel

Power ON	Power OFF	Source: Video	Audio
Resync	Factory Reset	Image	Volume: 5
Next Source	Screen Capture	Brightness: 50	Management
Input Search	ON	Contrast: 50	Aspect Ratio: Native
AV Mute	OFF	Sharpness: 15	Mounting: Front
Still	OFF	Brilliant Color: 10	D. zoom: 0
Lamp Mode	Normal	Color Temp.: High	V. Keystone: 0
High Altitude	OFF	Image Mode: Movie	V. Image Shift: 0
Menu Lock	OFF	Color Space: Ycbcr	Projector ID: 0
Direct Power On	OFF	Closed Caption: OFF	Auto Power Off: OFF
Standby RGB Output	OFF		
Wake On Lan	OFF		
3D Display	OFF		
3D Sync Invert	OFF		

Note

❖ Information on this page will be updated every time this page begins to show and 5 seconds after last button clicked if a serial of actions performed.

Not

1. After Network configurations are changed, LAN module may reboot and there will be a moment before runs normally.
2. Information on this page will be updated every time this page begins to show.

Network Setting

Home Control Panel Network Setting Alert Setting Logout

Network Setting

Projector Setting
Group Name: LG
Name: BX286-SD
Apply

Network Setting
 DHCP Manual
IP Address: 192.168.32.107
Subnet Mask: 255.255.255.0
Gateway: 192.168.32.254
DNS Server: 192.168.30.51
Apply

Password Setting
Administrator: Enable Disable
New password:
Confirm Password:
User:
Confirm Password:
Apply

Group Name and projector Name must be less than 32 characters. Strings will be truncated if it is too long.

Not

1. Information on this page will be updated every time this page begins to show.
2. Please submit settings before process test.

Alert Setting

Home Control Panel Network Setting Alert Setting Logout

Alert Setting

Email Setting
To: user@mailserver.com
Cc: cc@mailserver.com
Subject: Project alert
From: alert@mailserver.com

SMTP Setting
Server: mailserver.com
User Name:
Password:

Alert Condition
 Fan Lock
 Over Temperature
 Lamp Hours Running Out
 Lamp Fail
Submit Email Alert Test

Email will be sent whose body text informs the events which conditions occurred.

Logout

Home Control Panel Network Setting Alert Setting Logout

Logout!

This page will appear for 5 seconds and then jump to login page

Troubleshooting

If you experience trouble with the projector, refer to the following information. If the problem persists, please contact your local dealer or service center.

Problem: No image appears on screen

- ▶ Ensure all the cables and power connections are correctly and securely connected as described in the “Installation” section.
- ▶ Ensure the pins of connectors are not crooked or broken.
- ▶ Check if the projection lamp has been securely installed. Please refer to the “Replacing the lamp” section.
- ▶ Make sure you have removed the lens cap and the projector is switched on.
- ▶ Ensure that the “AV Mute” feature is not turned on.

Problem: Partial, scrolling or incorrectly displayed image

- ▶ Press “Auto” on the remote control or on the control panel.
- ▶ If you are using a PC:
For Windows 95, 98, 2000, XP:
 1. From the “My Computer” icon, open the “Control Panel” folder, and double click the “Display” icon.
 2. Select the “Settings” tab
 3. Click on the “Advanced Properties”.

For Windows Vista:

1. From the “My Computer” icon, open the “Control Panel” folder, and double click the “Appearance and Personalization”
2. Select “Personalization”
3. Click “Adjust screen resolution” to display “Display Settings”. Click on the “Advanced Settings”.

If the projector is still not projecting the whole image, you will also need to change the monitor display you are using. Refer to the following steps.

Appendices

4. Verify the resolution setting is less than or equal to 1600 x 1200 resolution.
 5. Select the "Change" under the "Monitor" tab .
 6. Click on "Show all devices". Next, select "Standard monitor types" under the SP box; choose the resolution mode you need under the "Models" box.
- ▶ If you are using a Notebook:
1. First, follow the steps above to adjust resolution of the computer.
 2. Press the toggle output settings. Example: [Fn]+[F4]

Acer ⇒	[Fn]+[F5]	IBM/Lenovo ⇒	[Fn]+[F7]
Asus ⇒	[Fn]+[F8]	HP/Compaq ⇒	[Fn]+[F4]
Dell ⇒	[Fn]+[F8]	NEC ⇒	[Fn]+[F3]
Gateway ⇒	[Fn]+[F4]	Toshiba ⇒	[Fn]+[F5]

Mac Apple:
System Preference ⇒ Display ⇒ Arrangement ⇒ Mirror display

- ▶ If you experience difficulty hanging resolutions or your monitor freezes, restart all equipment including the projector.

Problem: The screen of the Notebook or PowerBook computer is not displaying a presentation

- ▶ If you are using a Notebook PC:

Some Notebook PCs may deactivate their own screens when a second display device is in use. Each has a different way to be reactivated. Refer to your computer's documentation for detailed information.

Problem: Image is unstable or flickering

- ▶ Adjust the "Total Dots" or "Fine Sync" to correct it. Refer to the "SETTING | signal" section for more information.
- ▶ Change the monitor color setting from your computer
- ▶ Check and reconfigure the display mode of your graphic card to make it compatible with the product.

Problem: Image is out of focus

- ▶ Adjust the focus ing on the projector lens.
- ▶ Make sure the projection screen is between the required distance 1.3 to 32.8 feet (0.4 to 10.0 meters) from the projector (refer to page 19).

Problem: The image is stretched when displaying 16:9 DVD

The projector automatically detects 16:9 DVD and adjusts the aspect ratio by digitizing to full screen with 4:3 default setting.

If the image is still stretched, you will also need to adjust the aspect ratio by referring to the following:

- ▶ Please select 4:3 aspect ratio type on your DVD player if you are playing a 16:9 DVD.
- ▶ If you can't select 4:3 aspect ratio type on your DVD player, please select 4:3 aspect ratio in the on screen menu.

Problem: Image is too small or too large

- ▶ Move the projector closer to or further from the screen.
- ▶ Press "MENU" button on the remote control or projector panel, go to "SCREEN --> Aspect Ratio" and try the different settings.

Problem: Image is reversed

- ▶ Select "SETTING -->Mounting" from the OSD and adjust the projection direction.

Appendices

Problem: Lamp burns out or makes a popping sound

- ▶ When the lamp reaches its end of life, it will burn out and may make a loud popping sound. If this happens, the projector will not turn on until the lamp module has been replaced. To replace the lamp, follow the procedures in the “Replacing the Lamp”.

Problem: LED lighting message

Message	POWER-LED		LAMP-LED	TEMP-LED
	(Green)	(Orange)	(Red)	(Red)
Standby (Input power cable)	○	☀		
Normal (Power on)	☀	○		
Powering up (Warming up)	Flashing	○		
Power off (Cooling-I: It can't accept any key at this status)	Flashing	○		
Power off (Cooling-II: It can accept power key to turn on the projector)	○	Flashing		
Error (Lamp failed)	○	○	☀	○
Error (Fan lock)	○	○	○	Flashing
Error (Over temp.)	○	○	○	☀

Note

Steady light => ☀
 No light => ○

Problem: Message Reminders

- ▶ Over temperature - the projector has exceeded its recommended operating temperature and must be allowed to cool down before it may be used.



- ▶ Replacing the lamp - the lamp is about to reach its maximum life-time. Prepare to replace it soon.



- ▶ Fan failed - the system fan is not working.

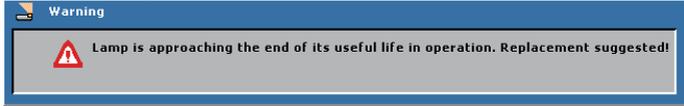


Replacing the lamp

The projector will detect the lamp life itself. It will show you a warning message



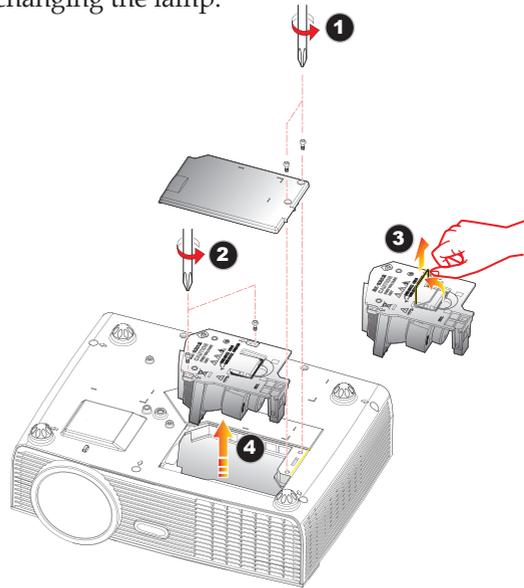
Warning: Lamp compartment may be hot! Allow it to cool down before changing the lamp!



When you see this message, please contact your local reseller or service center to change the lamp as soon as possible. Make sure the projector has been cooled down for at least 45 minutes before changing the lamp.



Warning: To reduce the risk of personal injury, do not drop the lamp module or touch the lamp bulb. The bulb may shatter and cause injury if it is dropped.



Lamp Replacing Procedure:

1. Switch off the power to the projector by pressing the "POWER".
2. Allow the projector to cool down at least 45 minutes.
3. Disconnect the power cable.
4. Use a screwdriver to remove the 2 screws from the cover. ❶
5. Push up and remove the cover.
6. Remove the 2 screws from the lamp module ❷ and pull up the lamp bar. ❸
7. Pull out the lamp module by force. ❹
8. Install the new lamp module by reversing the previous steps.
9. After replacing the lamp, turn on the power, and select the menu -> [OPTIONS | Lamp Settings] -> [Lamp Counter Reset] to reset the lamp usage hours. See page 36.

Compatibility Mode

Computer Compatibility (Analog)

Modes	Resolution	V-Sync (Hz)	H-Sync (kHz)
VGA	640 x 350	70	31.50
	640 x 350	85	37.90
	640 x 400	85	37.90
	640 x 480	60	31.50
	640 x 480	72	37.90
	640 x 480	75	37.50
	640 x 480	85	43.30
	720 x 400	70	31.50
	720 x 400	85	37.90
SVGA	800 x 600	56	35.20
	800 x 600	60	37.90
	800 x 600	72	48.10
	800 x 600	75	46.90
	800 x 600	85	53.70
XGA	*1024 x 768	60	48.40
	*1024 x 768	70	56.50
	*1024 x 768	75	60.00
	*1024 x 768	85	68.70
WXGA	*1280 x 768	60	47.40
	*1280 x 768	75	60.30
	*1280 x 720	60	45.00
SXGA	*1280 x 800	60	49.702
	*1152 x 864	60	53.50
	*1152 x 864	70	63.80
	*1152 x 864	75	67.50
	*1152 x 864	85	77.10
	*1280 x 1024	60	63.98
	*1280 x 1024	75	79.98
SXGA+	*1280 x 1024	85	91.10
	*1280 x 960	60	60.00
	*1400 x 1050	60	63.98
UXGA	*1600 x 1200	60	75.00
MAC LC 13"	640 x 480	66.66	34.98
MAC II 13"	640 x 480	66.68	35.00
MAC 16"	*832 x 624	74.55	49.725
MAC 19"	*1024 x 768	75	60.24
MAC	*1152 x 870	75.06	68.68
MAC G4	640 x 480	60	31.35
i Mac DV	*1024 x 768	75	60.00
i Mac DV	*1152 x 870	75	68.49
i Mac DV	*1280 x 960	75	75.00

Note

- ❖ "*" compressed computer image.
- ❖ If projector does not support the input signal, "Out of display range" message appears on the screen.
- ❖ If the input signal is not in the compatibility table, the image may not be displayed clearly.

Appendices

Computer Compatibility (HDMI)

► HDMI - PC Signal

Modes	Resolution	V-Sync (Hz)	H-Sync (kHz)
VGA	640 x 480	60	31.47
	640 x 480	72	37.86
	640 x 480	75	37.50
	640 x 480	85	43.27
SVGA	800 x 600	56	35.20
	800 x 600	60	37.88
	800 x 600	72	48.08
	800 x 600	75	46.88
	800 x 600	85	53.67
	800 x 600	119.85	77.20
XGA	1024 x 768	60	48.36
	1024 x 768	70	56.48
	1024 x 768	75	60.02
	1024 x 768	119.8	98.80
SXGA	1152 x 864	75	67.50
	1152 x 864	85	77.1
	1280 x 1024	60	64.00
	1280 x 1024	75	79.98
	1280 x 1024	85	91.15
	1280 x 960	75	75.00
PowerBook G4	640 x 480	60	31.50
PowerBook G4	640 x 480	66.6(67)	35.00
PowerBook G4	800 x 600	60	37.88
PowerBook G4	1024 x 768	60	48.36
PowerBook G4	1152 x 870	75	68.68
PowerBook G4	1280 x 960	75	75.20
i Mac DV(G3)	1024 x 768	75	60.30

Appendices

▶ HDMI - Extended Wide timing

Modes	Resolution	V-Sync (Hz)	H-Sync (kHz)
WXGA	1280 x 768	60	47.78
	1280 x 768	75	60.29
	1280 x 768	85	68.63
	1280 x 720	60	44.80
	1280 x 800	60	49.60
	1440 x 900	60	55.90
	1680 x 1050	60	65.30
	1366 x 768	60	47.71
	*1920 x 1080-RB	60	66.60

Note

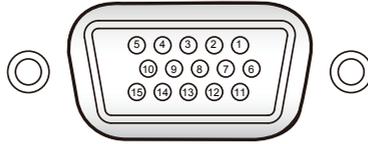
❖ "*" Only support 1080P@60Hz (with reduced blanking timing).

▶ HDMI - Video Signal

Modes	Resolution	V-Sync (Hz)	H-Sync (kHz)
480i	720 x 480(1440 x 480)	59.94(29.97)	27.00
480p	720 x 480	59.94	31.47
576i	720 x 576(1440 x 576)	50(25)	27.00
576p	720 x 576	50	31.25
720p	1280 x 720	60	45.00
720p	1280 x 720	50	37.50
1080i	1920 x 1080	60(30)	33.75
1080i	1920 x 1080	50(25)	33.75
1080p	1920 x 1080	60	67.50
1080p	1920 x 1080	50	56.26
1080p	1920 x 1080	24	27.00
1080p	1920 x 1080	23.98	26.97

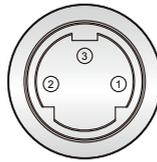
Configurations of Terminals

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



1	Red (R/Cr) Input/R Output	9	5V / ***
2	Green (G/Y) Input/G Output	10	Ground (Ver. sync.)
3	Blue (B/Cb) Input/B Output	11	ICP download
4	***	12	DDC data / ***
5	Ground (Horiz.sync.)	13	Horiz. sync. Input / Output (Composite H/V sync. Input)
6	Ground (Red)		
7	Ground (Green)	14	Vert. sync. Input / Output
8	Ground (Blue)	15	DDC clock / ***

Terminal : Mini DIN 3-pin



1	TXD
2	RXD
3	GND

Appendices

RS232 Command Table

Baud Rate : 9600

Data Bits: 8

Stop Bits: 1

Flow Control : None

UART16550 FIFO: Disable

Projector Return (Pass): P

Projector Return (Fail): F

Note : There is a <CR> after all ASCII commands
0D is the HEX code for <CR> in ASCII code

XX=01-99, projector's ID, XX=00 is for all projectors

SEND to projector

232 ASCII Code	HEX Code	Function	Description
-XX00 1	7E 30 30 30 30 20 31 0D	Power ON	
-XX00 0	7E 30 30 30 30 20 0D	Power OFF	(0/2 for backward compatible)
-XX00 1 ~ nnnn7E	30 30 30 20 31 20 a 0D	Power ON with Password	~ nnnn = -0000 (a=7E 30 30 30 30) ~ -9999(a=7E 39 39 39 39)
-XX01 1	7E 30 30 30 31 20 31 0D	Resume	
-XX02 1	7E 30 30 30 32 20 31 0D	AV Mute	On
-XX02 0	7E 30 30 30 32 20 30 0D		Off(0/2 for backward compatible)
-XX03 1	7E 30 30 30 33 20 31 0D	Mute	On
-XX03 0	7E 30 30 30 33 20 30 0D		Off(0/2 for backward compatible)
-XX04 1	7E 30 30 30 34 20 31 0D	Freeze	
-XX04 0	7E 30 30 30 34 20 30 0D	Unfreeze	(0/2 for backward compatible)
-XX05 1	7E 30 30 30 35 20 31 0D	Zoom Plus	
-XX06 1	7E 30 30 30 36 20 31 0D	Zoom Minus	
-XX07 1	7E 30 30 30 37 20 31 0D	Up (Pan under zoom)	
-XX08 1	7E 30 30 30 38 20 31 0D	Down (Pan under zoom)	
-XX09 1	7E 30 30 30 39 20 31 0D	Left (Pan under zoom)	
-XX10 1	7E 30 30 31 30 20 31 0D	Right (Pan under zoom)	
-XX12 1	7E 30 30 31 32 20 31 0D	Direct Source Commands	HDMI
-XX12 5	7E 30 30 31 32 20 35 0D		RGB 1
-XX12 6	7E 30 30 31 32 20 36 0D		RGB 2
-XX12 9	7E 30 30 31 32 20 39 0D		S-Video
-XX12 10	7E 30 30 31 32 20 31 30 0D		Video
-XX20 1	7E 30 30 32 30 20 31 0D	Display Mode	Presentation
-XX20 2	7E 30 30 32 30 20 32 0D		Bright
-XX20 3	7E 30 30 32 30 20 33 0D		Movie
-XX20 4	7E 30 30 32 30 20 34 0D		sRGB
-XX20 5	7E 30 30 32 30 20 35 0D		Customer
-XX21 n	7E 30 30 32 31 20 a 0D	Brightness	n = 0 (a=30) ~ 100 (a=31 30 30)
-XX22 n	7E 30 30 32 32 20 a 0D	Contrast	n = 0 (a=30) ~ 100 (a=31 30 30)
-XX23 n	7E 30 30 32 33 20 a 0D	Sharpness	n = 0 (a=30) ~ 31 (a=33 31)
-XX24 n	7E 30 30 32 34 20 a 0D	BrilliantColor™	n = 0 (a=30) ~ 10 (a=31 30)
-XX36 1	7E 30 30 33 36 20 31 0D	Color Temp.	Warm
-XX36 2	7E 30 30 33 36 20 32 0D		Medium
-XX36 3	7E 30 30 33 36 20 33 0D		Cold
-XX37 1	7E 30 30 33 37 20 31 0D	Color Space	RGB
-XX37 2	7E 30 30 33 37 20 32 0D		YCbCr
-XX37 3	7E 30 30 33 37 20 33 0D		YPbPr
-XX44 n	7E 30 30 34 34 20 a 0D	Color (Saturation)	n = 0 (a=30) ~ 100 (a=31 30 30)
-XX45 n	7E 30 30 34 35 20 a 0D	Tint	n = 0 (a=30) ~ 100 (a=31 30 30)
-XX90 1	7E 30 30 39 30 20 31 0D	3D	On
-XX90 0	7E 30 30 39 30 20 30 0D		Off
-XX91 1	7E 30 30 39 31 20 31 0D	3D Sync Invert	On
-XX91 0	7E 30 30 39 31 20 30 0D		Off
-XX60 1	7E 30 30 36 30 20 31 0D	Format	4:3
-XX60 2	7E 30 30 36 30 20 32 0D		16:9
-XX60 6	7E 30 30 36 30 20 36 0D		Native
-XX62 n	7E 30 30 36 32 20 a 0D	Zoom	n = -5 (a=2D 35) ~ 25 (a=32 35)
-XX63 n	7E 30 30 36 33 20 a 0D	H Image Shift	n = -50 (a=2D 35 30) ~ +50 (a=35 30)
-XX64 n	7E 30 30 36 34 20 a 0D	V Image Shift	n = -50 (a=2D 35 30) ~ +50 (a=35 30)
-XX66 n	7E 30 30 36 36 20 a 0D	V Keystone	n = -40 (a=2D 34 30) ~ 40 (a=34 30)
-XX70 1	7E 30 30 37 30 20 31 0D	Language	English
-XX70 2	7E 30 30 37 30 20 32 0D		German
-XX70 3	7E 30 30 37 30 20 33 0D		French
-XX70 4	7E 30 30 37 30 20 34 0D		Italian
-XX70 5	7E 30 30 37 30 20 35 0D		Spanish
-XX70 6	7E 30 30 37 30 20 36 0D		Polish
-XX70 7	7E 30 30 37 30 20 37 0D		Swedish
-XX70 8	7E 30 30 37 30 20 38 0D		Norwegian/Danish
-XX70 9	7E 30 30 37 30 20 39 0D		Portugese
-XX70 10	7E 30 30 37 30 20 31 30 0D		Japanese
-XX70 11	7E 30 30 37 30 20 31 31 0D		Traditional Chinese
-XX70 12	7E 30 30 37 30 20 31 32 0D		Simplified Chinese
-XX70 13	7E 30 30 37 30 20 31 33 0D		Korean
-XX70 14	7E 30 30 37 30 20 31 34 0D		Russian
-XX70 15	7E 30 30 37 30 20 31 35 0D		Arabic
-XX70 16	7E 30 30 37 30 20 31 36 0D		Greek
-XX70 17	7E 30 30 37 30 20 31 37 0D		Hungarian
-XX70 18	7E 30 30 37 30 20 31 38 0D		Czech
-XX70 19	7E 30 30 37 30 20 31 39 0D		Turkish
-XX70 20	7E 30 30 37 30 20 32 30 0D		Indonesian
-XX71 1	7E 30 30 37 31 20 31 0D	Projection	Front-Desktop
-XX71 2	7E 30 30 37 31 20 32 0D		Rear-Desktop
-XX71 3	7E 30 30 37 31 20 33 0D		Front-Ceiling
-XX71 4	7E 30 30 37 31 20 34 0D		Rear-Ceiling
-XX72 1	7E 30 30 37 32 20 31 0D	Menu Location	Top Left
-XX72 2	7E 30 30 37 32 20 32 0D		Top Right
-XX72 3	7E 30 30 37 32 20 33 0D		Centre
-XX72 4	7E 30 30 37 32 20 34 0D		Bottom Left
-XX72 5	7E 30 30 37 32 20 35 0D		Bottom Right
-XX73 n	7E 30 30 37 33 20 a 0D	Signal	Frequency
-XX74 n	7E 30 30 37 34 20 a 0D		Phase
-XX75 n	7E 30 30 37 35 20 a 0D		H. Position
-XX76 n	7E 30 30 37 36 20 a 0D		V. Position
-XX79 n	7E 30 30 37 39 20 a 0D	Projector ID	n = 00 (a=30 30) ~ 99 (a=39 39)
-XX81 n	7E 30 30 38 31 20 a 0D	Volume	n = 0 (a=30) ~ 20 (a=31 30)
-XX83 1	7E 30 30 38 33 20 31 0D	Logo Capture	
-XX88 0	7E 30 30 38 38 20 30 0D	Closed Captioning	Off

Appendices

232 ASCII Code	HEX Code	Function	Projector Return	Description
-XX88 1	7E 30 30 38 38 20 31 0D		cc1	
-XX88 2	7E 30 30 38 38 20 32 0D		cc2	
-XX88 3	7E 30 30 38 38 20 31 0D		cc3	
-XX88 4	7E 30 30 38 38 20 32 0D		cc4	
-XX100 1	7E 30 30 31 30 30 20 31 0D	Source Lock	On	
-XX100 0	7E 30 30 31 30 30 20 30 0D		Off (0/2 for backward compatible)	
-XX100 3	7E 30 30 31 30 30 20 33 0D	Next Source	On	
-XX101 1	7E 30 30 31 30 31 20 31 0D	High Altitude	Off (0/2 for backward compatible)	
-XX101 0	7E 30 30 31 30 31 20 30 0D		On	
-XX103 1	7E 30 30 31 30 33 20 31 0D	Menu Lock	On	
-XX103 0	7E 30 30 31 30 33 20 30 0D		Off (0/2 for backward compatible)	
-XX105 1	7E 30 30 31 30 35 20 31 0D	Advanced	Direct Power On	On
-XX105 0	7E 30 30 31 30 35 20 30 0D		off	Off (0/2 for backward compatible)
-XX106 0	7E 30 30 31 30 36 20 30 0D	Auto Power Off	30 min	
-XX106 1	7E 30 30 31 30 36 20 31 0D		60 min	
-XX106 2	7E 30 30 31 30 36 20 32 0D		90 min	
-XX106 3	7E 30 30 31 30 36 20 33 0D		120 min	
-XX106 4	7E 30 30 31 30 36 20 34 0D		Standby RGB Out	On
-XX114 1	7E 30 30 31 31 34 20 31 0D			Off
-XX114 0	7E 30 30 31 31 34 20 30 0D		Wake On Lan	On
-XX113 1	7E 30 30 31 31 33 20 31 0D			Off
-XX113 0	7E 30 30 31 31 33 20 30 0D		Brightness Mode	Normal
-XX110 1	7E 30 30 31 31 30 20 31 0D			ECO (0/2 for backward compatible)
-XX110 0	7E 30 30 31 31 30 20 30 0D			Yes
-XX112 1	7E 30 30 31 31 32 20 31 0D	Reset		

SEND from projector automatically

232 ASCII Code	HEX Code	Function	Projector Return	Description
when Standby/Warming/Cooling/Out of Range/Lamp fail/ Fan Lock/Over Temperature/Lamp Hours Running Out/Cover Open			INFOn	n : 0/1/2/3/4/6/7/8/9 = Standby/Warming/Cooling/Out of Range/Lamp fail/ Fan Lock/Over Temperature/Lamp Hours Running Out/Cover Open

READ from projector

232 ASCII Code	HEX Code	Function	Projector Return	Description
-XX150 1	7E 30 30 31 35 30 20 31 0D	Information	OKabbbccddde	a - 0/1 = Off/On bbbb: LampHour cc: source 00/01/02/03/04/05 = None/VGA1/VGA2/S-Video/Video/HDMI ddd: FW version e : Display mode 0/1/2/3/4/5 None/Presentation/Bright/Movie/sRGB/Customer
-XX150 2	7E 30 30 31 35 30 20 32 0D	Info. to web only	OK[data]	(!!! Caution !!! data[] are all ASCII character.) data[0] : NA 1 data[1] : NA 1 data[2] : Bright Mode 1/0=on/off data[3] : Freeze 1/0=on/off data[4] : Source Lock 1/0=on/off data[5] : AV 1/0=on/off data[6] : NA 0 data[7] : NA 0 data[8] : High Altitude 1/0=on/off data[9] : Menu Lock 1/0=on/off data[10] : NA 0 data[11] : Wake On Lan 1/0=on/off data[12] : Direct Power On 0/0=on/off data[13] : Standby RGB Out 1/0=on/off data[14] : Source 0/1/2/3/4/5= None/RGB1/RGB2/S-Video/Video/HDMI1 data[15] : Aspect Ratio 0/1/2=4:3/16:9/Native data[16] : Display mode 0/1/2/3/4/5/6/7/8= None/Presentation/Bright/Movie/sRGB/ Customer data[17] : Colour temperature 0/1/2=low/med/high data[18] : NA 0 data[19] : Projection 0/1/2/3=front/front-ceiling/rear/rear-ceiling data[20] : Logo 0/1=L G Logo/Screen Capture data[21] : Background Color 0/1/2/3/4/5/6/7=Logo/Capture Screen /Black/Red/Blue/Green/White/Gray data[22] : Color Space 0/1/2= RGB /Ycber/Ypbr data[23,24] : Projector ID XX data[25,26] : Volume XX data[27,28] : Sharpness XX data[29,30] : Phase XX data[31,32] : BrilliantColor XX data[33,34] : Zoom XX (zoom→0-20) data[35,37] : Brightness XXX data[38,40] : Contrast XXX data[41,43] : V Image Position XXX data[44,46] : Ver. keystone XXX data[47,49] : Auto Power Off XXX data[50,52] : NA 000 data[53] : Closed Captioning 0/1/2/3/4=Off/cc1/cc2/cc3/cc4 data[54] : NA 0 data[55] : 3D 0/1=off/on data[56] : 3D Sync Invert 0/1=off/on

Query Lan module

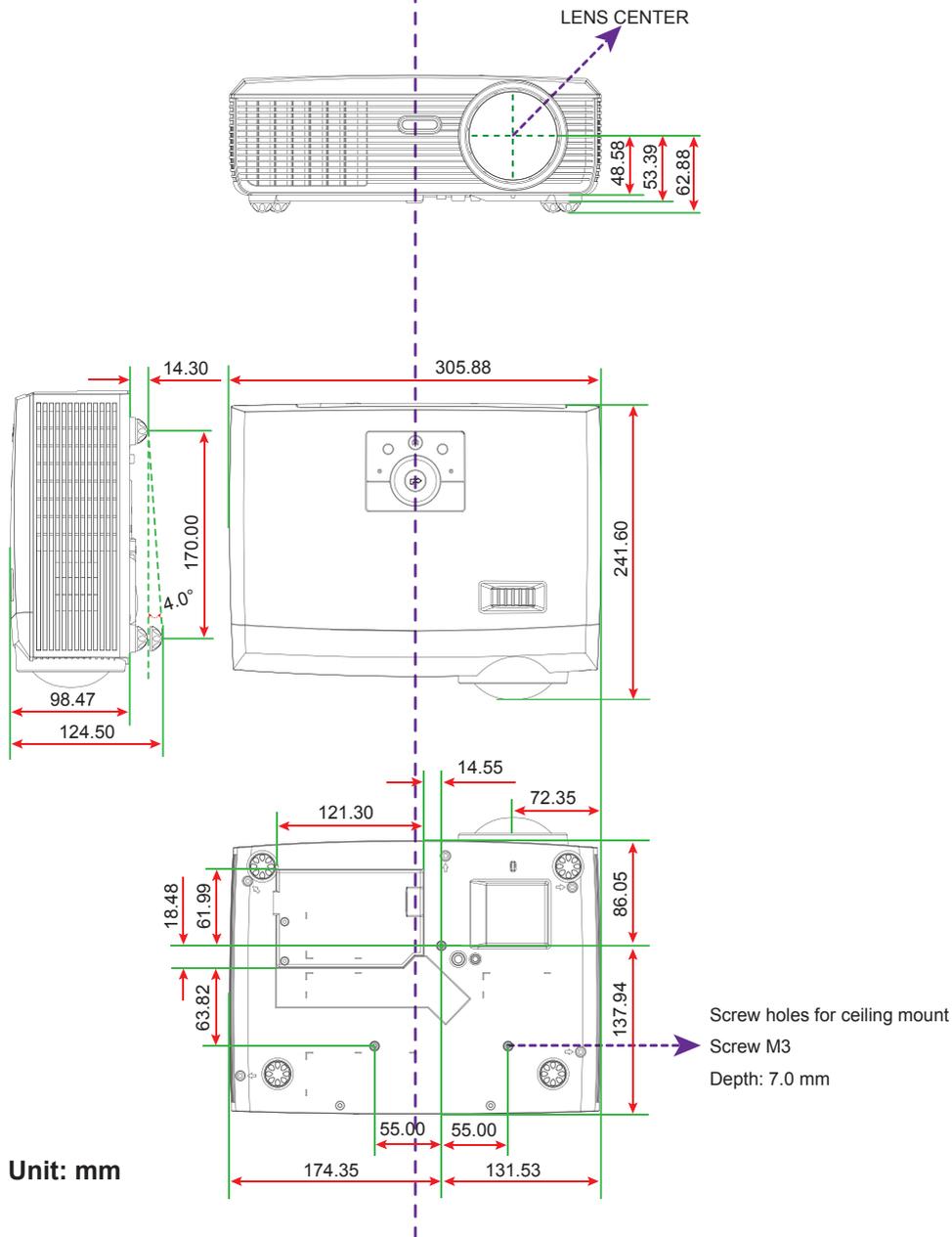
232 Code	Function	Lan module Return	Description
Q01	Query lan module	Okn	n : n=AAAAAAAAANNNNNNNGGGGGGGDDDDDDDDPC A: IP Address N: Subnet Mask G: Gateway D: DNS P: DHCP Mode(0/1: Off/On) C: RJ-45 Connector State(0/1: Disconnect/Connect)

Set Lan module

232 Code	Function	Lan module Return	Description
S01n	Set lan module	P or F	n : n=AAAAAAAAANNNNNNNGGGGGGGDDDDDDDD A: IP Address N: Subnet Mask G: Gateway D: DNS
S02n	Set lan module	P or F	n : 1/0=DHCP on/off

Appendices

Dimensions



Regulation & Safety Notices

This appendix lists the general notices of your projector.

FCC notice

This device has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and receiver.
- Connect the device into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Notice: Shielded cables

All connections to other computing devices must be made using shielded cables to maintain compliance with FCC regulations.

Caution

Changes or modifications not expressly approved by the manufacturer could void the user's authority, which is granted by the Federal Communications Commission, to operate this projector.

Operation conditions

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference and
2. This device must accept any interference received, including interference that may cause undesired operation.

Notice: Canadian users

This Class B digital apparatus complies with Canadian ICES-003.

Remarque à l'intention des utilisateurs canadiens

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Declaration of Conformity for EU countries

- EMC Directive 2004/108/EC (including amendments)
- Low Voltage Directive 2006/95/EC
- R & TTE Directive 1999/5/EC (if product has RF function)

Disposal instructions



Do not throw this electronic device into the trash when discarding. To minimize pollution and ensure utmost protection of the global environment, please recycle it.