

**UL6500/RL350/LU-U500/SL550/FL-440/  
F1P1702/UL5530/RL153/LU-U400/  
SL450/FL-423/F1P1706/UL5510/RL150/  
LU-U300/SL350/FL-420/F1P1710/  
UL6300W/RL320/LU-W500/SL530/  
FL-340/FWX1703/UL5330W/RL123/  
LU-W400/SL430/FL-323/FWX1707/  
UL5310W/RL120/LU-W300/SL330/  
FL-320/FWX1711/UL6200/RL310/  
LU-X500/SL510/FL-140/FNX1704/  
UL5230/RL113/LU-X400/SL410/FL-123/  
FNX1708/UL5210/RL110/LU-X300/  
SL310/FL-120/FNX1712 Series**

**Laser Projector  
User's Guide**

# Safety instructions

Read all of these instructions before you operate your projector and save for future reference.

1. Read instructions  
All the safety and operating instructions should be read before the appliance is operated.
2. Notes and warnings  
All notes and warnings in the operating instructions should be adhered to.
3. Cleaning  
Unplug the projector from the wall socket before cleaning. Use a damp cloth for cleaning the projector housing. Do not use liquid or aerosol cleaners.
4. Accessories  
Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.  
Keep the plastic packing materials (from the projector, accessories and optional parts) out of the reach of children as these bags may result in death by suffocation. Be particularly careful around the small children.
5. Ventilation  
The projector is equipped with ventilation holes (intake) and ventilation holes (exhaust).  
Do not block or place anything near these slots, or internal heat build-up may occur, causing picture degradation or damage to the projector.
6. Power sources  
Check that the operating voltage of your unit is identical with the voltage of your local power supply.
7. Servicing  
Do not attempt to service this projector yourself. Refer all servicing to qualified service personnel.
8. Replacement parts  
When replacement parts are required, be sure that the replacement parts are specified by the manufacture. Unauthorized substitutions may result in fire, electric shock or other hazards.
9. Moisture Condensation  
Never operate this projector immediately after moving it from a cold location to a warm one. When the projector is exposed to such a change in temperature, moisture may condense on the lens and the crucial internal parts. To prevent the unit from possible damage, do not use the projector.

## **WARNING:**

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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# Introduction

## Projector feature

The projector offers the following features:

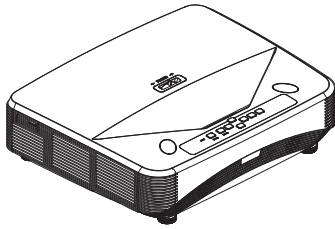
- UL6500/RL350/LU-U500/SL550/FL-440/F1P1702/UL5530/RL153/LU-U400/SL450/FL-423/F1P1706/UL5510/RL150/LU-U300/SL350/FL-420/F1P1710 series: Native 1920 x 1080 1080p resolution
- UL6300W/RL320/LU-W500/SL530/FL-340/FWX1703/UL5330W/RL123/LU-W400/SL430/FL-323/FWX1707/UL5310W/RL120/LU-W300/SL330/FL-320/FWX1711 series: Native 1280 x 800 WXGA resolution
- UL6200/RL310/LU-X500/SL510/FL-140/FNX1704/UL5230/RL113/LU-X400/SL410/FL-123/FNX1708/UL5210/RL110/LU-X300/SL310/FL-120/FNX1712 series: Native 1024 x 768 XGA resolution
- Laser-phosphor light source free from replacement
- Ultra-short throw (UST) projection lens delivers large images from a short projection distance
- HDMI x 2 inputs
- H./V. Keystone for easy horizontal and vertical keystone correction
- 4 Corner Correction allows you to adjust four corners of the projected image
- Blu-Ray 3D function supported
- 3D Color Management allowing color adjustments to your liking
- Screen Color correction allowing projection on surfaces of several predefined colors
- Network settings allowing for controlling the Projector via LAN

### **Note**

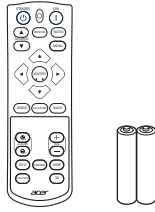
- *The information in this manual is subject to change without notices.*
- *The reproduction, transfer or copy of all or any part of this document is not permitted without express written consent.*

# Package contents

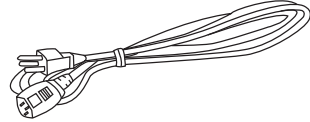
When you unpack the projector, make sure you have all these components:



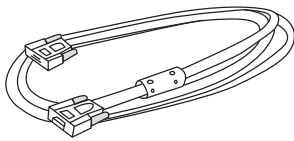
Projector



Remote control (IR) & batteries (AAA \*2 PCS)



AC power cord



VGA cable (D-SUB to D-SUB)



Quick start guide

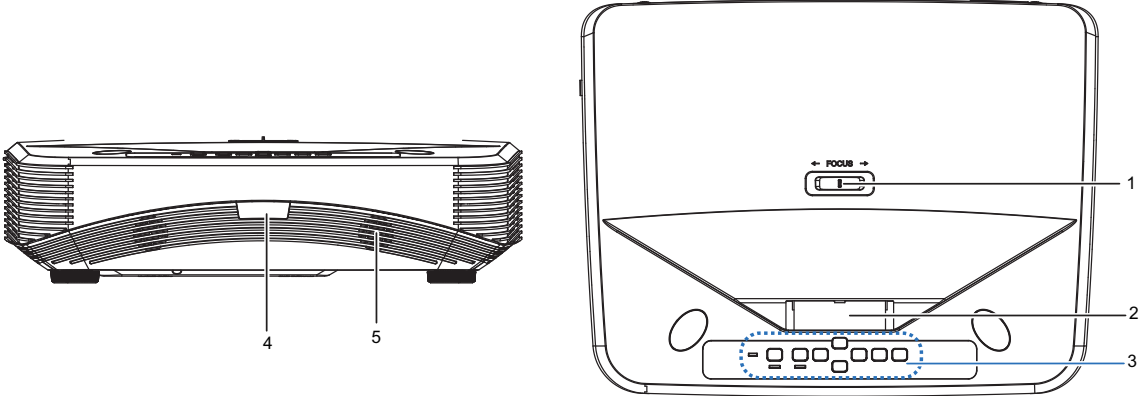
## Note

- **Contact your dealer immediately if any items are missing, appear damaged, or if the unit does not work.**
- **For maximum protection of the product, please save the original shipping carton and packing materials and repack your product as it was originally packed at the factory if you need to ship it.**

# Product overview

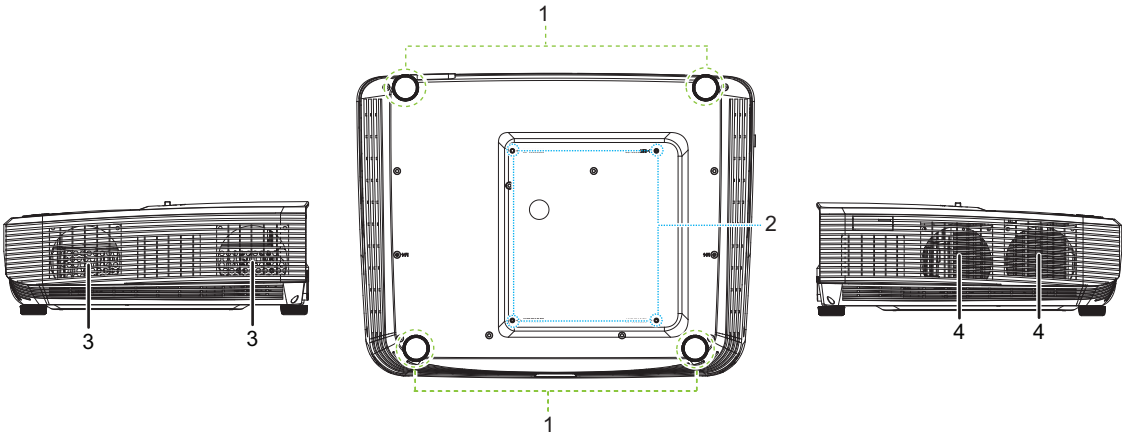
## Projector outlook

### Front and top



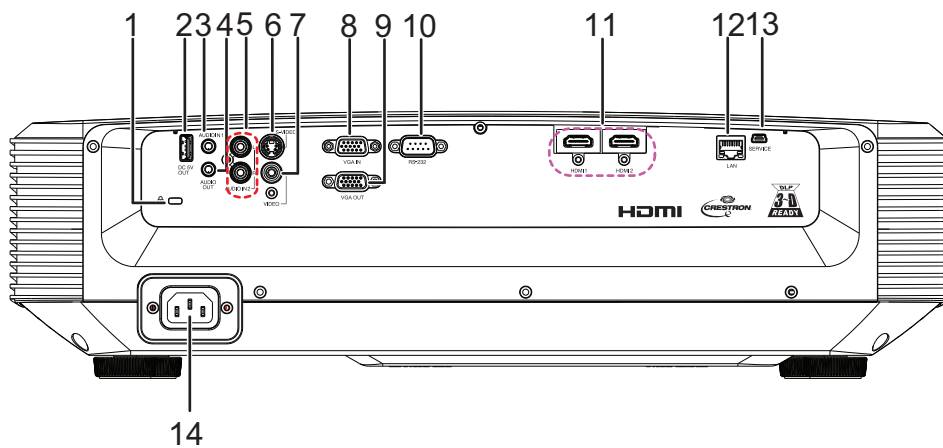
- 1. Focus switch
- 2. Projection window
- 3. Control pane
- 4. IR remote control sensor
- 5. Speaker

### Bottom and side



- 1. Adjuster feet
- 2. Ceiling mount holes
- 3. Ventilation holes (airflow out)
- 4. Ventilation holes (airflow in)

## Rear

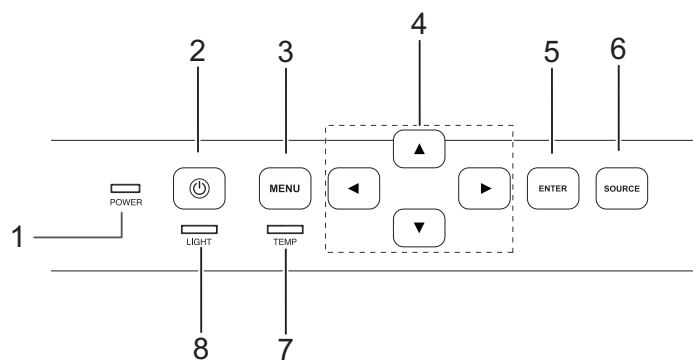


- |                                    |   |
|------------------------------------|---|
| 1. Kensington anti-theft lock slot | 2. 5V output for power charging                       |
| 3. Audio input jack                | 4. Audio output jack                                  |
| 5. Audio (L/R) input jack          | 6. S-Video input jack                                 |
| 7. Video input jack                | 8. RGB (PC)/Component video (YPbPr) signal input jack |
| 9. RGB signal output jack          | 10. RS232 control port                                |
| 11. HDMI input jack                | 12. RJ45 LAN input jack                               |
| 13. SERVICE jack                   | 14. AC power cord inlet                               |

### **Note**

- ***This projector can be used with a ceiling mount for support. The ceiling mount is not included in the package.***
- ***Contact your dealer for information to mount the projector on a ceiling.***

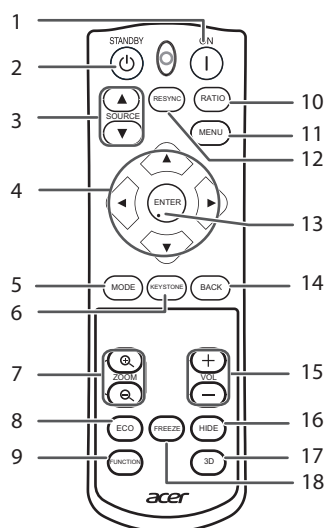
## Control panel



- |                              |                                 |
|------------------------------|---------------------------------|
| 1. Power LED indicator       | 2. Power button                 |
| 3. Menu button               | 4. Adjustment buttons (▲/▼/◀/▶) |
| 5. Enter button              | 6. Source button                |
| 7. Temperature LED indicator | 8. Light LED indicator          |



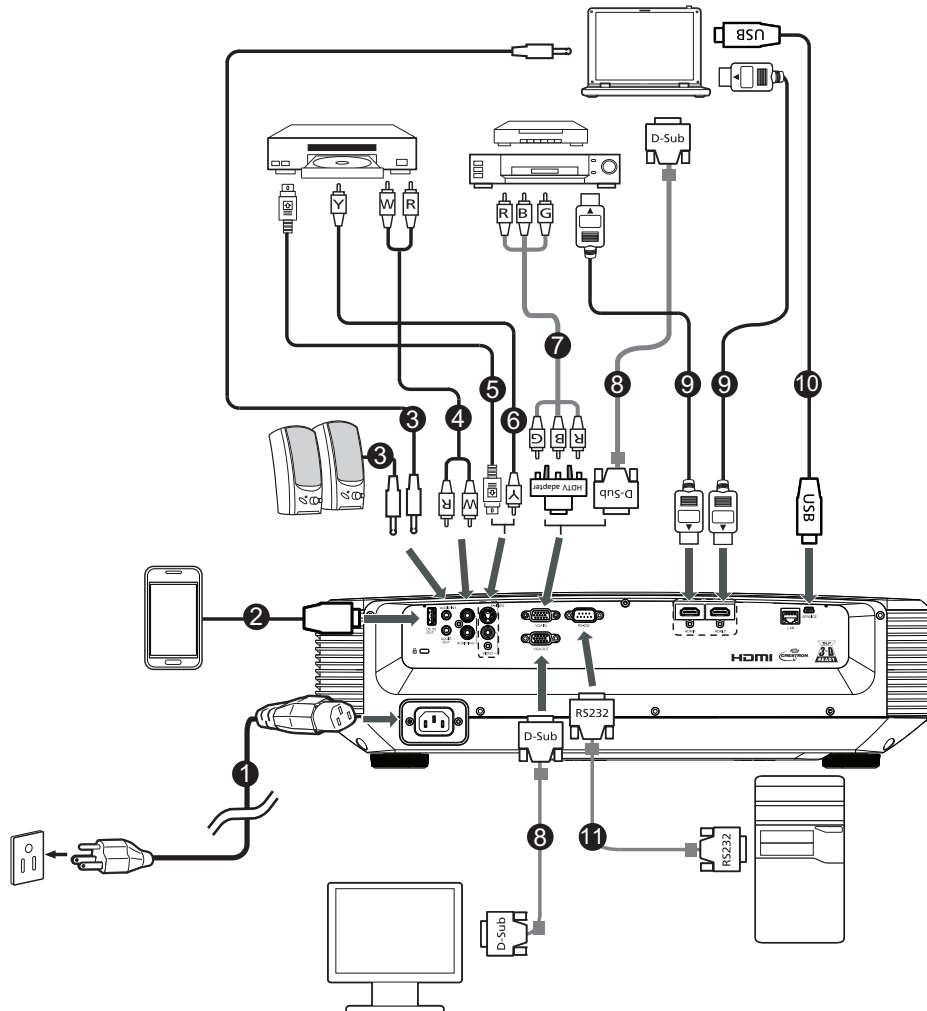
## Remote control



- |   |   |
|---|---|
| 1. ON button<br>For turning the power on.   | 2. STANDBY button<br>For putting the projector into the Standby mode.                   |
| 3. SOURCE buttons<br>For switching Input mode.  | 4. Adjustment buttons (▲/▼/◀/▶)<br>For selecting and adjusting menu items.              |
| 5. MODE button<br>For selecting the appropriate picture.                                    | 6. KEYSTONE button<br>For entering the Keystone Correction mode.                        |
| 7. ZOOM buttons<br>For enlarging/reducing part of the image.                                | 8. ECO button<br>For lowering the noise of the cooling fan.                             |
| 9. FUNCTION button<br>For operating and executing a function assigned to "FUNCTION Button". | 10. RATIO button<br>For switching the picture size (NORMAL, 16:9, etc.).                |
| 11. MENU button<br>For displaying adjustment and setting screens.                           | 12. RESYNC button<br>For automatically adjusting images when connected to a computer.   |
| 13. ENTER button<br>For setting items selected or adjusted on the menu.                     | 14. BACK button<br>For returning to the previous menu screen during menu operation.     |
| 15. VOL +/- (Volume) buttons<br>For adjusting the speaker sound level.                      | 16. HIDE button<br>For temporarily displaying a black screen and turning off the sound. |
| 17. 3D button<br>For displaying the 3D mode menu screen.                                    | 18. FREEZE button<br>For freezing images.   |

# Getting Started

## Connecting the Projector



- |  |                                  |
|--|----------------------------------|
| 1. Power cord                                  | 2. USB cable for charging device |
| 3. 3.5mm Audio cable                           | 4. Audio cable jack/RCA          |
| 5. S-Video cable                               | 6. Composite video cable         |
| 7. Component Video to VGA (DSub) adapter cable | 8. VGA cable                     |
| 9. HDMI cable                                  | 10. USB cable                    |
| 11. RS232 cable                                |                                  |

## Powering on/off the projector

### Powering on the projector:

Note that the connections to external equipment and power outlet should be done before performing the operations written below.

**Press Power on the projector or ON on the remote control.**

- The power indicator illuminates green.



#### **Warning**

- *Never look into the lens when the light is on. This can damage your eyes.*
- *This focal point concentrates high temperature. Do not place any object near it to avoid possible fire hazard.*

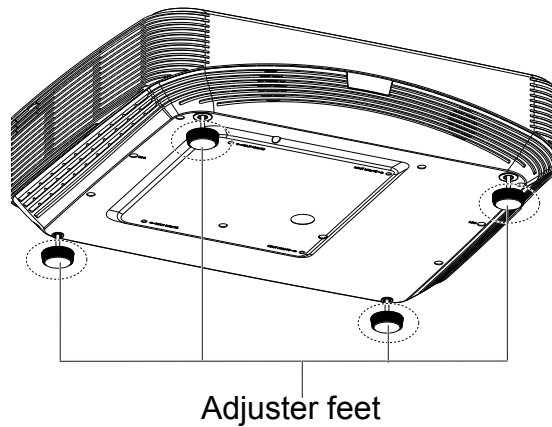
### Powering off the projector:

**Press Power on the projector or STANDBY on the remote control, then press that button again while the confirmation message is displayed, to put the projector into Standby mode.**

- The projector cannot be turned on while cooling.

## Adjusting the Projected Image

### Adjusting the Height of Projected Image



The height of the projector can be adjusted using the adjuster feet.

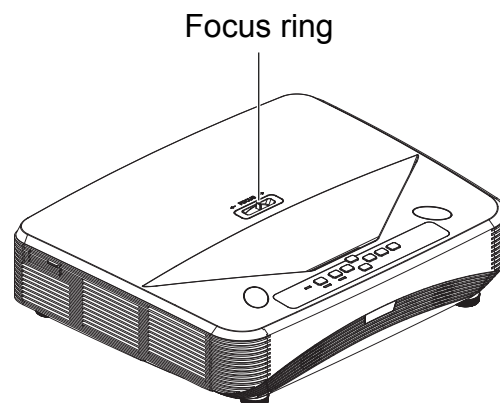
When the screen is above the projector, the projection image can be made higher by adjusting the projector.

1. Lift the projector to adjust its height.
2. Remove your hands from the adjuster feet of the projector after its height has been finely adjusted.

#### **Note**

- *When adjusting the height of the projector, trapezoidal distortion occurs. Follow the procedures in Keystone Correction to correct the distortion.*

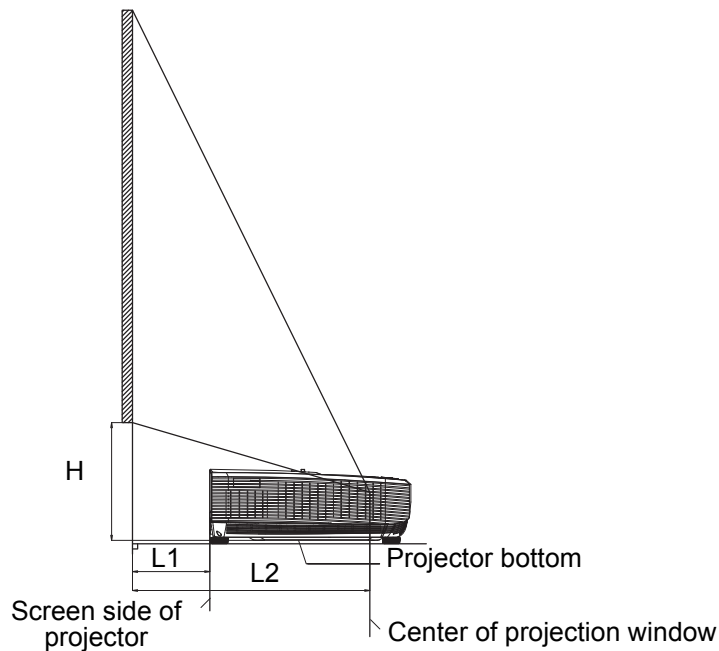
### Adjusting the Focus



You can adjust the focus with the focus ring on the projector.

**Rotate the focus ring to adjust the focus while watching the projected image.**

## Screen Size and Projection Distance



- UL6500/RL350/LU-U500/SL550/FL-440/F1P1702/UL5530/RL153/LU-U400/SL450/FL-423/F1P1706/UL5510/RL150/LU-U300/SL350/FL-420/F1P1710

### 16:9 Signal Input (Normal Mode)

| Picture (Screen) size |          |          | Projection distance [L] |         | H       |
|-----------------------|----------|----------|-------------------------|---------|---------|
| Diag. [x]             | Width    | Height   | L1                      | L2      |         |
| 150" (381 cm)         | 332.1 cm | 186.8 cm | 44.8 cm                 | 75.8 cm | 44.5 cm |
| 120" (305 cm)         | 265.7 cm | 149.4 cm | 28.8 cm                 | 59.8 cm | 37.5 cm |
| 100" (254 cm)         | 221.4 cm | 124.5 cm | 18.2 cm                 | 49.2 cm | 32.9 cm |
| 80" (203 cm)          | 177.1 cm | 99.6 cm  | 7.5 cm                  | 38.5 cm | 28.2 cm |

- UL6300W/RL320/LU-W500/SL530/FL-340/FWX1703/UL5330W/RL123/LU-W400/SL430/FL-323/FWX1707/UL5310W/RL120/LU-W300/SL330/FL-320/FWX1711

### 16:10 Signal Input (Normal Mode)

| Picture (Screen) size |          |          | Projection distance [L] |         | H       |
|-----------------------|----------|----------|-------------------------|---------|---------|
| Diag. [x]             | Width    | Height   | L1                      | L2      |         |
| 150" (381 cm)         | 323.1 cm | 201.9 cm | 46.6 cm                 | 77.6 cm | 39.8 cm |
| 120" (305 cm)         | 258.5 cm | 161.5 cm | 30.2 cm                 | 61.2 cm | 33.7 cm |
| 100" (254 cm)         | 215.4 cm | 134.6 cm | 19.4 cm                 | 50.4 cm | 29.7 cm |
| 80" (203 cm)          | 172.3 cm | 107.7 cm | 8.5 cm                  | 39.5 cm | 25.7 cm |

- UL6200/RL310/LU-X500/SL510/FL-140/FNX1704/UL5230/RL113/LU-X400/SL410/FL-123/FNX1708/UL5210/RL110/LU-X300/SL310/FL-120/FNX1712

#### 4:3 Signal Input (Normal Mode)

| Picture (Screen) size |          |          | Projection distance [L] |         | H       |
|-----------------------|----------|----------|-------------------------|---------|---------|
| Diag. [x]             | Width    | Height   | L1                      | L2      |         |
| 125" (318 cm)         | 254.0 cm | 190.5 cm | 45.1 cm                 | 76.1 cm | 43.2 cm |
| 100" (254 cm)         | 203.2 cm | 152.4 cm | 29.1 cm                 | 60.1 cm | 36.5 cm |
| 80" (203 cm)          | 162.6 cm | 121.9 cm | 16.3 cm                 | 47.3 cm | 31.1 cm |
| 65" (165 cm)          | 132.1 cm | 99.1 cm  | 6.7 cm                  | 37.7 cm | 27.0 cm |

x : Picture size (diag.) (in/cm)

L1: Projection distance from the screen side of the projector to the screen(cm)

L2: Projection distance from the center of the projection window to the screen (cm)

H: Distance from the projector bottom to the bottom of the image (cm)

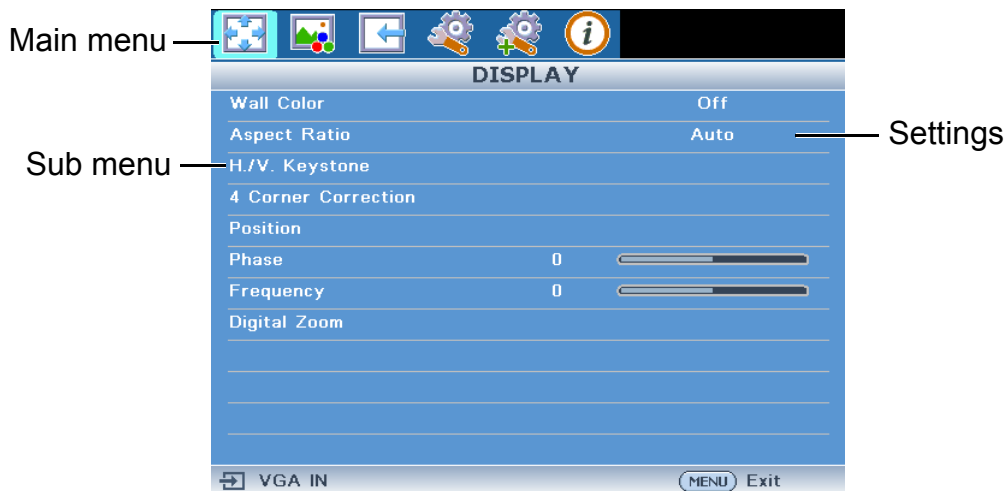
# User Controls

## On-screen display menus

The projector has multilingual on-screen display menus that allow you to make image adjustments and change a variety of settings.

### How to operate

1. Press **MENU** to display the OSD menu.
2. Press **▶** or **◀** and select main menu item.
3. Press **▼** to enter sub menu.
4. Press **▲** or **▼** to select the item.
5. Press **◀** or **▶** to select the desired item or adjust the settings.
6. Press **MENU**, the screen will return to the main menu or go back to the upper level of the menu.
7. Press **MENU** to leave and save the settings.



# Menu items

| Main Menu | Sub Menu            | Settings                                 |  |  |
|-----------|---------------------|--|--|--|
| DISPLAY   | Wall Color          | Off<br>Blackboard<br>Green<br>Whiteboard |  |  |
|           | Aspect Ratio        | Auto<br>4 : 3<br>16 : 9<br>16 : 10       |  |  |
|           | H./V. Keystone      |  |  |  |
|           | 4 Corner Correction |  |  |  |
|           | Position            |  |  |  |
|           | Phase               |  |  |  |
|           | Frequency           |  |  |  |
|           | Digital Zoom        |  |  |  |



|                          |                      |   |                                     |  |             |
|--------------------------|----------------------|---|-------------------------------------|--|-------------|
| PICTURE                  | Picture Mode         | Standard<br>Presentation<br>Movie<br>Bright |                                     |  |             |
|                          | Brightness           |   |                                     |  |             |
|                          | Contrast             |   |                                     |  |             |
|                          | Color<br>Temperature | Color<br>Temperature                        | Normal<br>Cool<br>Warm              |  |             |
|                          |                      | R Gain                                      |                                     |  |             |
|                          |                      | G Gain                                      |                                     |  |             |
|                          |                      | B Gain                                      |                                     |  |             |
|                          |                      | R Offset                                    |                                     |  |             |
|                          |                      | G Offset                                    |                                     |  |             |
|                          |                      | B Offset                                    |                                     |  |             |
|                          | Overscan             |   |                                     |  |             |
|                          | HDMI Settings        | Signal Type                                 | Auto<br>RGB<br>YPbPr                |  |             |
|                          |                      | HDMI Color<br>Range                         | Auto<br>Full Range<br>Limited Range |  |             |
|                          | Advanced             | Tint  |                                     |  |             |
|                          |                      | Color                                       |                                     |  |             |
|                          |                      | Sharpness                                   |                                     |  |             |
|                          |                      | Gamma                                       |                                     |  |             |
|                          |                      | BrilliantColor™                             |                                     |  |             |
|                          |                      | Noise<br>Reduction                          |                                     |  |             |
|                          |                      | 3D Color<br>Management                      | Primary color                       |  | R/G/B/C/M/Y |
| Hue                      |                      |   |                                     |  |             |
| Saturation               |                      |   |                                     |  |             |
| Value                    |                      |   |                                     |  |             |
| Reset Picture<br>Setting |                      |   |                                     |  |             |

|        |                  |                |                     |  |
|--------|------------------|----------------|---------------------|--|
| SOURCE | Source Selection | Manual<br>Auto |                     |  |
|        | 3D               | 3D Mode        | Auto                |  |
|        |                  |                | Off                 |  |
|        |                  |                | Top and Bottom      |  |
|        |                  |                | Frame<br>Sequential |  |
|        |                  |                | Frame Packing       |  |
|        |                  |                | Side By Side        |  |
|        |                  | 3D L/R Invert  | Disable<br>Invert   |  |

|                         |                    |  |  |  |  |
|-------------------------|--------------------|--|--|--|--|
| SYSTEM<br>SETUP : Basic | Language           | English<br>Deutsch<br>Español<br>Nederlands<br>Français<br>Italiano<br>Svenska<br>Português<br>Русский<br>polski<br>Magyar<br>Türkçe<br>汉语<br>한국어<br>日本語 |  |  |  |
|                         | Projection Mode    | Front<br>Rear<br>Rear Ceiling<br>Ceiling   |  |  |  |
|                         | Menu Settings      | Menu display time  | 5 sec<br>10 sec<br>15 sec<br>20 sec<br>25 sec<br>30 sec          |  |  |
|                         |                    | Menu position  | Center<br>Upper Left<br>Upper Right<br>Lower Right<br>Lower Left |  |  |
|                         | Background         | Logo<br>Black<br>Blue  |  |  |  |
|                         | FUNCTION<br>Button | Information<br>Projection<br>Mode<br>Brightness<br>Contrast  |  |  |  |
|                         | Advanced           | Test Pattern   | Off<br>On  |  |  |
| Reminder<br>Message     |                    | Off<br>On  |  |  |  |

|                               |                       |                                    |                          |  |  |
|-------------------------------|-----------------------|------------------------------------|--------------------------|--|--|
| SYSTEM<br>SETUP :<br>Advanced | High Altitude Mode    | Off<br>On                          |                          |  |  |
|                               | Audio Settings        | Volume                             |                          |  |  |
|                               |                       | Power On/Off<br>Volume             | Off<br>On                |  |  |
|                               | Closed Caption        | Closed Caption Enable              | Off<br>On                |  |  |
|                               |                       | Caption Version                    | CC1<br>CC2<br>CC3<br>CC4 |  |  |
|                               | Light Source Settings | Eco Mode                           | Off<br>On                |  |  |
|                               |                       | Light Source Hours                 |                          |  |  |
|                               | Auto Power Off        | Disable<br>10Min<br>20Min<br>30Min |                          |  |  |
|                               | Quick Cooling         | Off<br>On                          |                          |  |  |
|                               | Standby Settings      | LAN Control                        | Off<br>On                |  |  |
|                               | Network Settings      | DHCP Client                        | Off<br>On                |  |  |
|                               |                       | IP Address                         |                          |  |  |
|                               |                       | Subnet Mask                        |                          |  |  |
|                               |                       | Default Gateway                    |                          |  |  |
|                               |                       | DNS Server                         |                          |  |  |
|                               | Advanced              | Security Settings                  | Change password          |  |  |
| Power on Lock                 |                       |                                    | Off<br>On                |  |  |
| Keylock                       |                       | Off<br>On                          |                          |  |  |
| All Reset                     |                       |                                    |                          |  |  |
| INFORMATION                   | SOURCE                |                                    |                          |  |  |
|                               | Picture Mode          |                                    |                          |  |  |
|                               | Signal Info           |                                    |                          |  |  |
|                               | Signal Type           |                                    |                          |  |  |
|                               | Light Source Hours    |                                    |                          |  |  |
|                               | IP Address            |                                    |                          |  |  |
|                               | MAC Address           |                                    |                          |  |  |
|                               | Firmware Version      |                                    |                          |  |  |

# DISPLAY

## Wall Color

This function allows you to project the image to a colored (white or dark green) surface or wall without using a screen.

- Off: The Wall Color function is not activated.
- Blackboard: Projects images onto a blackboard (dark green).
- Green: Projects images onto a green wall.
- Whiteboard: Projects images onto a whiteboard.

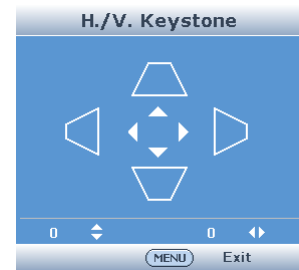
## Aspect Ratio

Use this function to stretch the image vertically or horizontally or when the edges of the image cannot be seen.

## H./V. Keystone

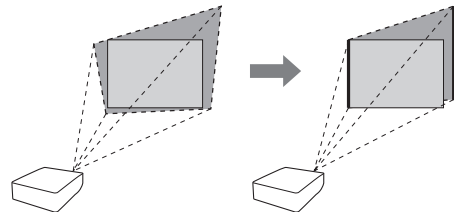
For correcting an image designating the horizontal or vertical axes.

1. Press **KEYSTONE** on the remote control. Select to "H./V. Keystone" and then press **Enter**.



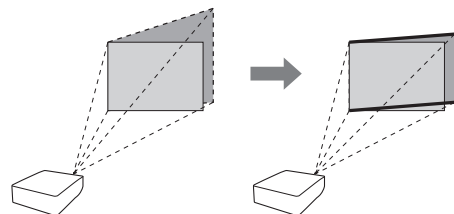
2. Press **▲/▼** to parallelize the left and right sides of the projected image.

Vertical Keystone Correction  
(Adjustment with **▲/▼**)



3. Press **◀/▶** to parallelize the upper and lower sides of the projected image.
4. Press **MENU** to set the position.

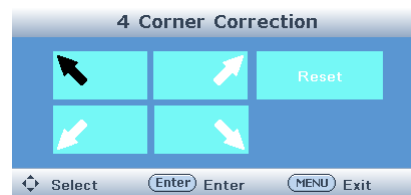
Vertical Keystone Correction  
(Adjustment with **◀/▶**)



## 4 Corner Correction

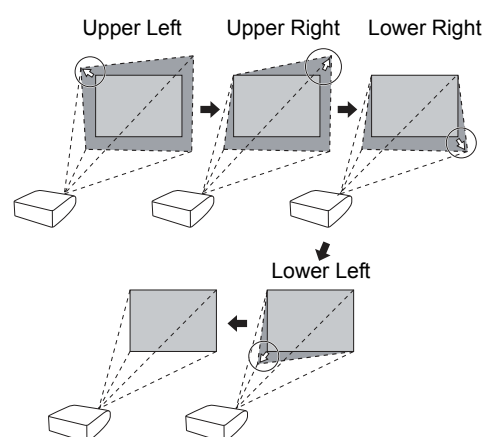
For correcting an image designating the corner of the projected image.

1. Press **KEYSTONE** on the remote control. Select to “**4 Corner Correction**” and then press **Enter**.
2. Press **▲/▼/◀/▶** to select one of the four corners and then press **ENTER**.
3. Press **▲/▼** to adjust vertical position.  
Press **◀/▶** to adjust horizontal position.
4. Press **MENU** to select other corners.



5. Repeat the same procedure with the positions for the corners.
  - At this time, pressing **BACK** on the projector or on the remote control returns to the previous screen.
  - Press **MENU** or **BACK** twice and the display disappears.

### 4 Corner Correction



## Position

- Horizontal Centers the on-screen image by moving it to the left or right.
- Vertical Centers the on-screen image by moving it up or down.

### Note

- *The adjustable range of Position (Horizontal or Vertical) may vary depending on the screen resolution of the computer.*

## Phase

Adjusts horizontal noise (similar to tracking on your VCR).

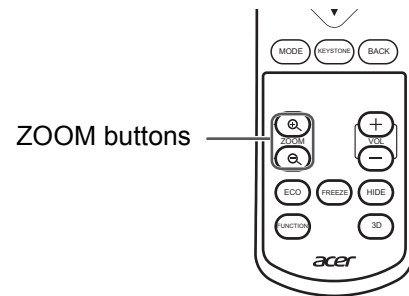
## Frequency

Adjusts vertical noise.

## Digital Zoom

Graphs, tables and other portions of projected images can be enlarged. This is helpful when providing more detailed explanations.

1. Press **ZOOM** on the remote control.
  - Enlarges the image.
  - Pressing **+** or **-** **ZOOM** enlarges or reduces the projected image.
2. Press **BACK** on the remote control to cancel the operation.
  - The magnification then returns to 1.0X.



## PICTURE

### Picture Mode

- Standard: For standard image
- Presentation: Brightens portions of image for more enhanced presentations.
- Movie: Gives natural tint to the projected image.
- Bright: Use in bright places.

### Brightness

Press ◀ for less brightness, press ▶ for more brightness.

### Contrast

Press ◀ for less contrast, press ▶ for more contrast.

### Color Temperature

- Cool: For lower color temperature for warmer, reddish incandescent-like images.
- Normal: For normal color temperature.
- Warm: For higher color temperature for cooler, bluish, fluorescent-like images.
- R Gain: Press ◀ for less contrast in red color, press ▶ for more contrast in red color
- G Gain: Press ◀ for less contrast in green color, press ▶ for more contrast in green color.
- B Gain: Press ◀ for less contrast in blue color, press ▶ for more contrast in blue color.
- R Offset: Press ◀ for less brightness in red color, press ▶ for more brightness in red color.
- G Offset: Press ◀ for less brightness in green color, press ▶ for more brightness in green color.
- B Offset: Press ◀ for less brightness in blue color, press ▶ for more brightness in blue color.

### Overscan

This function allows you to adjust the overscan area (display area).

- Off: The whole input area is displayed.
- 1 - 5: The input area is displayed without the screen edges.

#### **Note**

- ***This function is available for the following signals.***  
***With COMPUTER/HDMI 1 or 2 input for component signal:***  
***- 480P, 576P, 720P, 1080i, 1080P*** ***With VIDEO or S-VIDEO input:***  
***- All signals***
- ***If noise appears at the screen edges when "Off is selected, set the function to a larger value.***

## HDMI Settings

### Signal Type



This function allows you to select the input signal type RGB or Component for HDMI 1 or 2.

- Auto: Input signals are automatically recognized as RGB or component.
- RGB: Set when RGB signals are received.
- YPbPr: Set when Component signals are received.

### **HDMI Color Range**

An optimum picture may not be displayed if an HDMI-capable device's output signal type and the projector's input signal type do not match.

If this should occur, switch "HDMI Color Range".

- Auto: In most circumstances, "Auto" should be selected.
- Full Range/Limited Range: When the black levels of the image show banding or appear faded, select the item that results in the best picture quality.

## **Advanced**

### **Tint**

Press ◀ for making skin tones purplish, press ▶ for making skin tones greenish.

### **Color**

Press ◀ for less color intensity, press ▶ for more color intensity.

### **Note**

- *Tint and Color are available for VIDEO or S-VIDEO mode.*

### **Sharpness**

Press ◀ for less sharpness, press ▶ for more sharpness.

### **Gamma**

When the darker areas of the image become difficult to see because of the image or the projection environment, you can correct the gamma setting to make the image brighter and easier to see.

### **BrilliantColor™**

BrilliantColor™ uses Texas Instruments's BrilliantColor™ technology. The image becomes brighter while the color reproduction is kept at a high level.

### **Noise Reduction**

Video noise reduction provides high quality images with minimal dot crawl and cross color noise.

### **3D Color Management**

This function adjusts each of the six main colors that comprise the color wheel, altering their "Hue", "Saturation", or "Value".

### **Reset Picture Setting**

To reset all adjustment items.

## **SOURCE**

### **Source Selection**

- Manual: “Source Selection” is not activated.
- Auto: Automatically searches for and switches to the appropriate Input mode, when the projector turn on, or no input signal is detected.

## **3D**

### **3D Mode**

- Auto: When a 3D identification signal is detected, the format is selected automatically.
- Off: 3D Mode is not activated.
- Top and Bottom/Frame Sequential/Frame Packing/Side By Side: Select the same format type of the received 3D signal.

### **3D L/R Invert**

Selecting “Disable” or “Invert” switches between the image for the left eye and the image for the right eye, so that you can make the settings for more natural viewing.

## **SYSTEM SETUP : Basic**

### **Language**

Select the language used by the on-screen menu.

### **Projection Mode**

- Front: Normal image (Projected from the front of the screen).
- Rear: Reversed image (Projected from the rear of the screen or with a mirror)
- Rear Ceiling: Reversed and inverted image (Projected with a mirror)
- Ceiling: Inverted image (Projected from the front of the screen with an inverted projector)

### **Menu Settings**

#### **Menu display time**

Select “Menu Display Time” in the “Menu Settings” menu and the display time for the menu screen. The display time range is from 5 to 30 seconds.

#### **Menu position**

Select “Menu Position” in the “Menu Settings” menu and the desired position for the menu screen.

- Center: Displayed on the center of the image.
- Upper Left: Displayed on the upper left of the image.
- Upper Right: Displayed on the upper right of the image.
- Lower Left: Displayed on the lower left of the image.
- Lower Right: Displayed on the lower right of the image.

### **Background**

- Logo: Logo screen
- Black: Black screen
- Blue: Blue screen

### **FUNCTION Button**

You can assign one of the following functions to the **FUNCTION** button on the remote control. The assigned function can be performed by just pressing **FUNCTION**.

- Information: Information menu is displayed.
- Projection Mode: For reversing/inverting Projected Images.
- Brightness: For adjusting the brightness.
- Contrast: For adjusting the contrast.

### **Advanced**

#### **Test Pattern**

- Off: The test pattern is not displayed.
- On: The test pattern is displayed.

#### **Reminder Message**

- Off: The reminder message (input signal,during input search or etc.information) is not displayed.
- On: The reminder message is displayed.

## SYSTEM SETUP : Advanced

### High Altitude Mode

This function changes the fan rotation speed.

- Off: Suitable for normal environments.
- On: Set when using the projector at altitudes of approximately 1,500 meters (4,900 feet) or more. When “High Altitude Mode” is set to “On”, the fan rotation speeds up, and the fan noise becomes louder.

### Audio Settings

#### Volume


This function allows you to adjust the projector’s volume.

#### Power On/Off Volume

This function allows you to set the system sound.

- On: A confirmation sound is made when the projector turns on/off.
- Off: No confirmation sound is made.

### Closed Caption

- This function is available for NTSC3.58 signal.
- “Closed Caption” is a system which allows conversations, narration, and sound effects in TV programs (Limited regions) and home videos to be viewed as captions on the screen.
- Not all programs and videos will offer closed captioning. Please look for the  symbol to ensure that captions will be shown.

#### Closed Caption Enable

- Off: Closed Caption is not activated.
- On: Closed Caption is activated.

#### Caption Version

- CC1: Closed Caption mode for CH1 data
- CC2: Closed Caption mode for CH2 data
- CC3: Closed Caption mode for CH3 data
- CC4: Closed Caption mode for CH4 data

#### Note

- ***Closed Caption may malfunction (white blocks, strange characters, etc.) if signal conditions are poor or if there are problems at the broadcast source. This does not necessarily indicate a problem with the projector.***
- ***If any button is pressed to call up the onscreen display while viewing a Closed Caption broadcast, the closed captions will disappear.***

### Light Source Settings

#### Eco Mode

- Off: 100%

- On: Approx. 80%

#### **Note**

- *When “Eco Mode” is set to “On”, the fan sound and power consumption are lower than they are when “Off” is selected. (Projection brightness decreases.)*

### **Light Source Hours**

You can confirm the cumulative usage time.

### **Auto Power Off**

- Disable: The Auto Power Off function will be disabled.
- 10 Min./20 Min./30 Min.: When no input signal is detected for more than selected time, the projector will automatically enter Standby mode.

#### **Note**

- *When the Auto Power Off function is set to other than “Disable”, 30 seconds before the projector enters Standby mode, the message will appear on the screen*

### **Quick Cooling**

This function changes the cooling time.

- Off: The cooling time will be normal time.
- On: The cooling time is reduced.

### **Standby Settings**

This function is setting power consumption reduction in standby mode.

### **LAN Control**

You can be used Network function in Standby mode.

- Off: Network functions are switched off in Standby mode.
- On: Network functions are activated even if the projector is in Standby mode.

### **Network Settings**

Allow you to configure the wired LAN settings. Refer to ["Setting up the Projector Network Environment" on page 33](#).

### **DHCP Client**

Connect the LAN cable before turning the projector on. If not, the DHCP Client function does not work.

- On: Obtains configuration parameters for TCP/IP network automatically.
- Off: Sets the TCP/IP manually.

When "DHCP Client" is set to "On", Select "**Save Settings**", then press **ENTER**.

### **IP Address**

Factory default setting: 0. 0. 0. 0

Enter an IP address appropriate for the network.

### **Subnet Mask**

Factory default setting: 0. 0. 0. 0

Set the subnet mask to the same as that of the computer and equipment on the network.

### Default Gateway

Factory default setting: 0. 0. 0. 0

\* When not in use, set to "0. 0. 0. 0".

### DNS Server

Factory default setting: 0. 0. 0. 0

Enter a DNS Server address appropriate for the network.

## Advanced

### Security Settings

This function prevents unauthorized use of the projector. Once this function is activated, users must enter the correct Password each time the projector is turned on. We suggest you record the Password in a safe place where only authorized users have access.

### Change password

1. Select "**Security Settings**" then press **ENTER**.
2. Select "**Change Password**" then press **ENTER**.

The screen for entering the password appears.

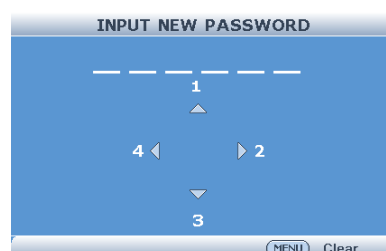
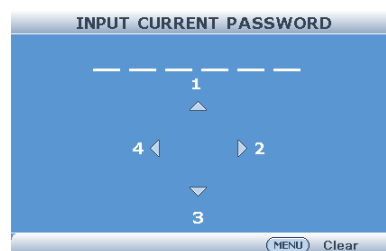
3. Press the ▲/▼/◀/▶ buttons on the remote control or on the projector to enter the preset password in "**INPUT CURRENT PASSWORD**".

- When setting the password for the first time, "**INPUT CURRENT PASSWORD**" input will be skipped.

- If you input a wrong password, the cursor returns to the first point of the "**INPUT CURRENT PASSWORD**".

4. Press the ▲/▼/◀/▶ buttons on the remote control or on the projector to enter the new password in "**Input New Password**".

5. Enter the same password in "**VERIFY NEW PASSWORD**".



### Power on Lock

When "**Power on Lock**" is set, the Password input screen appears after the power is turned on. When it appears, enter the right password to start projection.

- Off: "Power on Lock" is not activated.
- On: "Power on Lock" is activated.
  - When setting the Password for the first time, enter the password.

### Keylock

Use this function to lock the operation buttons on the projector.

Setting with the Menu Screen

- On: All buttons on the projector, except Power, are locked.
- Off: Turns off the Keylock function.

Taking the Keylock Off

Hold down ► on the projector for about 3 seconds while the projector is being turned on.

- The Keylock function does not affect the operation with the remote control buttons.
- You cannot use the Keylock function while the projector is warming up.

### **All Reset**

This function allows you to initialize the settings you have made in the projector.

The following items or menu cannot be initialized.

- Keystone Correction
- Projection Mode
- High Altitude Mode
- Network Settings
- Security Settings
- Light Source Hours



## **INFORMATION**

### **SOURCE**

The Input Mode of the projector is displayed.

### **Picture Mode**

The Picture Mode of the projector is displayed.

### **Signal Info**

This function allows you to check the current input signal information.

### **Signal Type**

The Signal Type of the projector is displayed.

### **Light Source Hours**

The Light source usage time of the projector is displayed.

### **IP Address**

The IP address of the projector is displayed.

### **MAC Address**

The MAC address of the projector is displayed.

### **Firmware Version**

The Firmware Version of the projector is displayed.

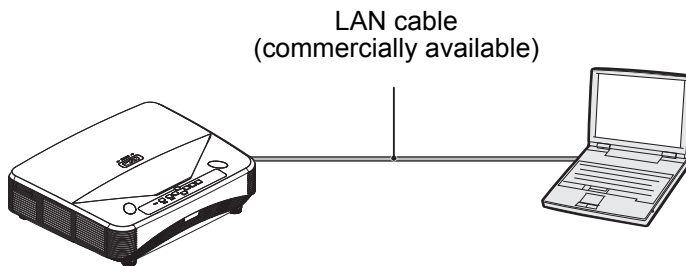
# Setting up the Projector Network Environment

This section describes the basic procedure for using the projector via the network. If the network is already constructed, the projector's network settings may need to be changed. Please consult your network administrator for assistance with these settings. You can make network settings both on the projector and on the computer. The following procedure is for making settings on the computer.

## Network settings on the computer

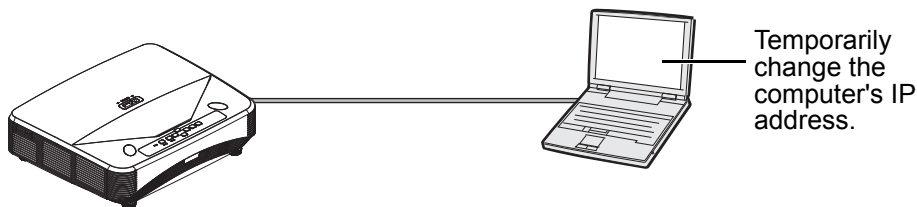
### 1. Connecting a projector to a computer.

Connect a LAN cable (Category 5, cross-over type) between the computer and projector.



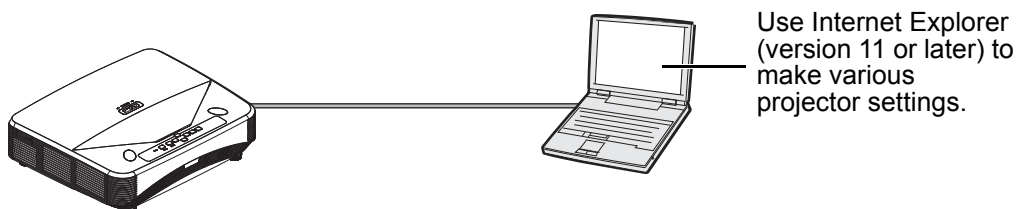
### 2. Setting an IP address for the computer.

Adjust the IP settings of the computer to enable one-to-one communications with the projector.



### 3. Setting up a network connection for the projector.

Adjust the projector network settings to conform to your network.



## Note

- **When connecting to a hub, use a straight-through Category 5 (CAT.5) type cable (commercially available).**
- **The following browsers are supported.**  
- Internet Explorer 11 or later

# Controlling the Projector via LAN

After connecting the projector to your network, enter the projector IP address in "Address" on Internet Explorer (version 11 or later) using a computer on the network to start a setup screen that will enable control of the projector via the network.

## Controlling the Projector Using Internet Explorer (Version 11 or later)

Complete connections to external equipment before starting the operation.

Complete the AC cord connection.

1. Start Internet Explorer on the computer.
2. Enter "http://" followed by the projector IP address set by the "/" in "Address", and then press the "Enter" key.
3. When the screen as shown on the right appears, enter the following.
  - Initial Password : 0000
4. A screen for controlling the projector appears, ready for performing various status conditions, control, and settings.

|                                      |                      |
|--------------------------------------|----------------------|
| User Name                            | Administrator        |
| Password                             | <input type="text"/> |
| <input type="button" value="Login"/> |                      |

# Setting the Network

## Network Settings

The Network Setting screen appears, ready for network settings for the projector.

| Network  | Password   | SNMP   |
|--|--|--|
| <input type="radio"/> DHCP <input checked="" type="radio"/> Manual<br>IP Address: <input type="text" value="10.0.50.100"/><br>Subnet Mask: <input type="text" value="255.255.0.0"/><br>Gateway: <input type="text" value="10.0.0.254"/><br>DNS Server: <input type="text" value="168.95.1.1"/> | Administrator: <input checked="" type="radio"/> Enable <input type="radio"/> Disable<br>New Password: <input type="password" value="••••"/><br>Confirm Password: <input type="password" value="••••"/> | SysLocation: <input type="text" value="LOCATION"/><br>SysName: <input type="text" value="ACERPJ"/><br>SysContact: <input type="text" value="CONTACT"/> |
| <input type="button" value="Submit"/>  | <input type="button" value="Submit"/>  | <input type="button" value="Submit"/>  |

| Items           | Setting example / Remarks  |
|-----------------|--|
| DHCP            | Select "ON" or "OFF" to determine whether to use DHCP Client.  |
| IP Address      | You can set this item when "DHCP Client" is set to "OFF".<br>Factory default setting: 0.0.0.0<br>Enter an IP address appropriate for the network.                                      |
| Subnet Mask     | You can set this item when "DHCP Client" is set to "OFF".<br>Factory default setting: 0.0.0.0<br>Set the subnet mask to the same as that of the computer and equipment on the network. |
| Default Gateway | You can set this item when "DHCP Client" is set to "OFF".<br>Factory default setting: 0.0.0.0<br>* When not in use, set to "0.0.0.0". 设为 "0.0.0.0".                                    |
| DNS Server      | Factory default setting: 0.0.0.0<br>* When not in use, set to "0.0.0.0".   |

| Items          | Setting example / Remarks   |
|----------------|---|
| administrator) | Select "Enable" or "Disable" to determine whether to use security protection. |
| Password       | Setting of password for security protection.<br>(within 4 characters)         |
| SysLocation    | Setting of Location for SNMP.<br>(within 22 characters)                       |
| SysName        | Setting of Name for SNMP.<br>(within 22 characters)                           |
| SysContac      | Setting of Name for SNMP.<br>(within 22 characters)                           |

# Setting for Sending E-mail when an Error Occurs

## Email Alert

On this screen, you can make settings for sending e-mail to report when the projector has generated an error.

### Email Setting

| Items    | Description   |
|----------|---|
| To<br>Cc | Set addresses to which error notification e-mail is sent.<br>(within 40 characters) |
| Subject  | Setting of Subject for error e-mail.<br>(within 40 characters).                     |
| From     | Setting of Originator Address for error e-mail.<br>(within 40 characters).          |

### SMTP Setting

| Items     | Setting example / Remarks  |
|-----------|--|
| Sever     | Setting an SMTP server address for email transmission.<br>(within 30 characters).<br>e.g.1: 192.168.150.253<br>e.g.2: smtp123.sharp.co.jp<br>* When using a domain name, make settings for the DNS server. |
| User Name | Setting of user name for SMTP server.<br>(within 40 characters).   |
| Password  | Setting of password for SMTP server.<br>(within 14 characters).  |

### Alert Condition

| Items   | Description  |
|---|--|
| Fan Error, Light Source error,<br>Temperature error | Error e-mail is sent on the error items checked in their check boxes.                                    |
| Issue Test Mail                                     | Send test e-mail. This allows you to confirm that the settings for e-mail transmission are properly set. |

# Controlling the Projector Using Crestron RoomView®

## Regarding Crestron Roomview®

Crestron RoomView is the consolidated control systems provided by Crestron Company, able to control and monitor the multiple of projectors which connected to a network.

This projector supports the protocol for this control system, so that it supports the systems offered by Crestron RoomView. For more detail, visit the Crestron website. (English page only).

<http://www.crestron.com>

## The main features for the Crestron RoomView® are below;

### - Control remotely using web browser.

Able to control the projector from a computer as you control with remote control.

### - Control, and monitor using application software.

By using the application software (Crestron RoomView Express/Crestron RoomView Sever Edition) offered by Crestron, you will able to monitor, contact with a helpdesk, and send a message in emergency. For detail, visit

<http://www.crestron.com/getroomview>

### **Note**

- *Only alphabets and the numbers can be entered for the character entry.*

## Control Using Web Browser

Display the control menu

Be sure to check the following before operation.

- Connect both projector and computer to the network
- Setting up the projector Network Environment
  1. Operate the web browser on the computer.
  2. Enter IP address of the Projector on the web browser and press **ENTER**.
  3. Click the "Crestron e-Control" button.
    - How to use the control menu.

## How to use the control menu



① Operate below functions by clicking on each buttons.

| Buttons     | Functions   |
|-------------|---|
| Power       | For turning the power on and putting the projector into Standby mode. |
| Vol - /Vol+ | For adjusting the speaker sound level.                                |
| AV Mute     | For temporarily displaying a black screen and turning off the sound.  |

② Change the input mode by clicking on the source. The input signal which is used will display in blue.

③ Operate below functions by clicking on each buttons.

| Buttons    | Functions                 |
|------------|---------------------------|
| Contrast   | Adjusting the contrast.   |
| Brightness | Adjusting the brightness. |
| Sharpness  | Adjusting the Sharpness.  |
| Freeze     | Freezing a Moving Image   |

④ The ▲/▼/◀/▶ button will work as same as the ▲/▼/◀/▶ on the remote control. For the other buttons, see below.

| Buttons  | Functions   |
|----------|---|
| Enter    | For setting items selected or adjusted on the menu.               |
| Menu     | For displaying adjustment and setting screens.                    |
| Autosync | For automatically adjusting images when connected to a computer.  |
| Resize   | For switching the picture size (NORMAL, 16:9, etc.).              |
| Return   | For returning to the previous menu screen during menu operations. |

⑤ Click on each tab to operate below;

| Tabs            | Functions   |
|-----------------|---|
| Contact IT Help | Help Desk window will be displayed, and able to send/receive a message to the administrator who uses the Crestron RoomView Express. |

|       |   |
|-------|---|
| Info  | Show the information of the projector which is connected.                       |
| Tools | Change the setting of the projector which is connected. Refer the next section. |



## How to use the Tool menu

Click on the Tool Tab on the control menu and the below will be displayed. It can change the settings for the projector which is connected.

### ① Crestron Control

Settings for the Crestron central control.

### ② Projector

Setting for the projector.

| Items           | Functions  |
|-----------------|--|
| Projector Name  | The Projector Name can be changed. (within 22 characters)                                  |
| Location        | The location name can be changed. (within 22 characters)                                   |
| Assigned To     | The user of the projector can be changed. (within 22 characters)                           |
| DHCP            | When using DHCP, check on "Enable". The address settings below will be invalid if checked. |
| IP Address      | Set IP Address for the projector.  |
| Subnet Mask     | Set subnet mask for the projector.   |
| Default Gateway | Set default gateway for the projector.   |
| DNS Server      | Set DNS Server for the projector.  |
| Send            | Click to fix what is set on this Projector Menu.   |

### ③ User Password

To lock the control menu on the computer with a password, check on "Enable".

Setting for the below items;

| Items        | Functions  |
|--------------|--|
| New Password | Enter new password to change the password for the control menu. (within 15 characters)   |
| Confirm      | Enter the password you have set on the "New Password". The error will show if not equal. |
| Send         | Click to fix what is set on this Admin Password.   |

③ Admin Password

To lock the Tool menu with a password, check on “Enable”. Setting for the below items:

| Items        | Functions  |
|--------------|--|
| New Password | Enter new password to change the password for the Tool menu. (within 15 characters)      |
| Confirm      | Enter the password you have set on the "New Password". The error will show if not equal. |
| Send         | Click to fix what is set on this Admin Password.   |

# Maintenance

The projector needs proper maintenance. You should keep the lens clean as dust, dirt or spots will project on the screen and diminish image quality. If any other parts need replacing, contact your dealer or qualified service personnel. When cleaning any part of the projector, always switch off and unplug the projector first.



## **Warning**

- ***Never open any of the covers on the projector. Dangerous electrical voltages inside the projector can cause severe injury. Do not attempt to service this product yourself. Refer all servicing to qualified service personnel.***

## Cleaning the projection window

Gently wipe the lens with lens cleaning paper. Do not touch the projection window with your hands.

## Cleaning the projector housing

Gently wipe with a soft cloth. If dirt and stains are not easily removed, use a soft cloth dampened with water, or water and neutral detergent, and wipe dry with a soft, dry cloth



## **Note**

- ***Turn off the projector and remove the AC power cord from the power outlet before beginning maintenance work.***
- ***Make sure the lens is cool before cleaning.***
- ***Do not use detergents or chemicals other than those noted above. Do not use benzene or thinners.***
- ***Do not use chemical sprays.***
- ***Use a soft cloth or lens paper only.***

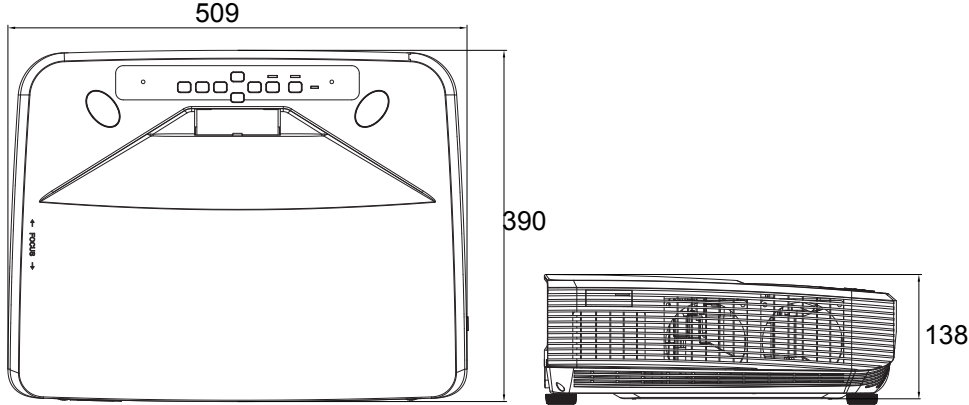
# Specifications

|                                     |   |  |  |   |
|-------------------------------------|---|--|--|---|
| Name of product type                |   | UL6500/RL350/LU-U500/<br>SL550/FL-440/F1P1702/<br>UL5530/RL153/LU-U400/<br>SL450/FL-423/F1P1706/<br>UL5510/RL150/LU-U300/<br>SL350/FL-420/F1P1710  | UL6300W/RL320/LU-W500/<br>SL530/FL-340/FWX1703/<br>UL5330W/RL123/LU-W400/<br>SL430/FL-323/FWX1707/<br>UL5310W/RL120/LU-W300/<br>SL330/FL-320/FWX1711 | UL6200/RL310/LU-X500/<br>SL510/FL-140/FNX1704/<br>UL5230/RL113/LU-X400/<br>SL410/FL-123/FNX1708/<br>UL5210/RL110/LU-X300/<br>SL310/FL-120/FNX1712 |
| Display system                      |   | DLP®Chip   |  |   |
| Display device                      | Effective display size                  | 0.65" x1 ,<br>Aspect ratio 16:9  | 0.65" x1 ,<br>Aspect ratio 16:10   | 0.55" x1 ,<br>Aspect ratio 4:3  |
| Effective pixels                    |   | 2,073,600 pixels<br>(1,920 x 1,080)  | 1,024,000 pixels<br>(1,280 x 800)  | 786,432 pixels<br>(1,024 x 768)   |
| Projection lens                     | Zoom                                    | -  |  |   |
|                                     | Focus                                   | Manual   |  |   |
| Light source                        |   | Laser diode  |  |   |
| Screen size                         |   | 80" - 150"   | 80" - 150"   | 65" - 125"  |
| Projection distance                 |   | 80" (Approx 39cm) ,<br>100" (Approx 49cm) ,<br>120" (Approx 60cm) ,<br>150" (Approx 76cm)  | 80" (Approx 40cm) ,<br>100" (Approx 50cm) ,<br>120" (Approx 61cm) ,<br>150" (Approx 78cm) ,  | 65" (Approx 38cm) ,<br>80" (Approx 47cm) ,<br>100" (Approx 60cm) ,<br>125" (Approx 76cm) ,  |
| Speakers                            |   | 10W × 1  |  |   |
| Displayable scanning frequency      | Horizontal                              | 15 - 102KHz  |  |   |
|                                     | Vertical                                | 23 - 120Hz   |  |   |
| Display resolution                  | Computer signal input                   | UXGA /WSXGA+ /SXGA+ /SXGA /WXGA+ /WXGA /XGA /SVGA /VGA<br>Mac21" / 19" / 16" / 13"   |  |   |
|                                     | Video signal input                      | 1080p / 1080i / 720p / 576p / 576i / 480p / 480i<br>NTSC / PAL / SECAM   |  |   |
| Input terminal                      | HDMI                                    | x2   |  |   |
|                                     | Computer/ Component (mini D-sub 15 pin) | x1   |  |   |
|                                     | S-Video (mini DIN 4 pin)                | x1   |  |   |
|                                     | Video (RCA)                             | x1   |  |   |
|                                     | Audio (Ø3.5 mm stereo mini jack)        | x1   |  |   |
|                                     | Audio (RCA)                             | x1   |  |   |
| Output terminal                     | Computer/ Component (mini D-sub 15 pin) | x1   |  |   |
|                                     | Audio (Ø3.5 mm stereo mini jack)        | x1   |  |   |
|                                     | USB (DC5V/1.5A)                         | x1   |  |   |
| Control and communication terminals | RS-232 (D-sub 9pin)                     | x1   |  |   |
|                                     | LAN (RJ-45)                             | x1   |  |   |
| Operating temperature               |   | 0°C - 35°C (no condensation)   |  |   |
| Power requirement                   |   | UL6500/RL350/LU-U500/SL550/FL-440/F1P1702/UL6300W/RL320/LU-W500/SL530/FL-340/FWX1703/UL6200/RL310/LU-X500/SL510/FL-140/FNX1704:<br>AC 100V-240V 50/60Hz 4.7A<br>UL5510/RL150/LU-U300/SL350/FL-420/F1P1710/UL5310W/RL120/LU-W300/SL330/FL-320/FWX1711/UL5210/RL110/LU-X300/SL310/FL-120/FNX1712:<br>AC 100V-240V 50/60Hz 2.5A |  |   |

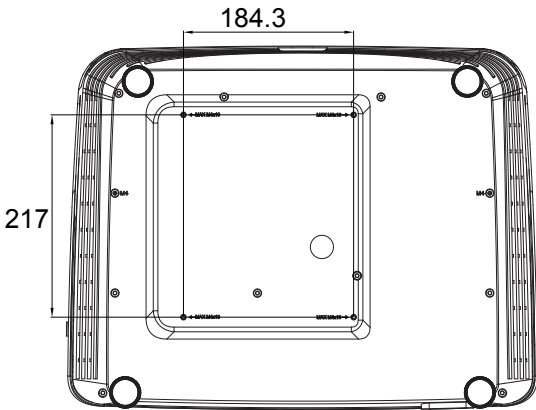
|   |  |   |  |
|---|--|---|--|
| Maximum power consumption                               | UL6500/RL350/LU-U500/<br>SL550/FL-440/F1P1702:<br>480W<br>UL5530/RL153/LU-U400/<br>SL450/FL-423/F1P1706/<br>UL5510/RL150/LU-U300/<br>SL350/FL-420/F1P1710:<br>370W           | UL6300W/RL320/LU-W500/<br>SL530/FL-340/FWX1703/<br>UL5330W/RL123/LU-W400/<br>SL430/FL-323/FWX1707:<br>250W<br>UL5310W/RL120/LU-W300/<br>SL330/FL-320/FWX1711:<br>280W | UL6200/RL310/LU-X500/<br>SL510/FL-140/FNX1704:<br>480W<br>UL5230/RL113/LU-X400/<br>SL410/FL-123/FNX1708:<br>250W<br>UL5210/RL110/LU-X300/<br>SL310/FL-120/FNX1712:<br>280W   |
| Standby mode power consumption<br>(LAN Control is off.) | < 0.5W   |   |  |
| Dimensions (W x D x H)                                  | W 509 x D 390 x H 138 mm (excluding protruding parts)  |   |  |
| Weight (approx.)  | UL6500/RL350/LU-U500/<br>SL550/FL-440/F1P1702:<br>10kg<br>UL5530/RL153/LU-U400/<br>SL450/FL-423/F1P1706:<br>8.4kg<br>UL5510/RL150/LU-U300/<br>SL350/FL-420/F1P1710:<br>8.2kg | UL5330W/RL123/LU-W400/<br>SL430/FL-323/FWX1707:<br>8.4kg<br>UL5310W/RL120/LU-W300/<br>SL330/FL-320/FWX1711:<br>8.2kg  | UL6200/RL310/LU-X500/<br>SL510/FL-140/FNX1704:<br>10kg<br>UL5230/RL113/LU-X400/<br>SL410/FL-123/FNX1708:<br>8.4kg<br>UL5210/RL110/LU-X300/<br>SL310/FL-120/FNX1712:<br>8.2kg |

# Dimensions

509 mm (W) x 390 mm (D) x 138 mm (H)



# Ceiling mount installation



Ceiling mount screws:  
Max. M4 x 10

Unit: mm

# Appendices

## LED indicator messages

|                        |                        |   |
|------------------------|------------------------|---|
| Power indicator        | Orange on              | Normal (Standby)                          |
|                        | Green on               | Normal (Power on)                         |
|                        | Green blinks           | Normal (Warm up)                          |
|                        | Orange blinks          | Normal (Cooling)                          |
|                        | Orange blinks (faster) | Abnormal (Refer to the table below)       |
| Light source indicator | Off                    | Normal                                    |
|                        | Red on                 | The light source is shut down abnormally. |
| Temperature indicator  | Off                    | Normal                                    |
|                        | Red blinks             | The internal temperature is abnormally.   |

|                        | Maintenance indicator |            | Problem                                 | Cause  | Possible Solution   |
|------------------------|-----------------------|------------|---|--|---|
|                        | Normal                | Abnormal   |   |  |   |
| Temperature indicator  | Off                   | Red blinks | The internal temperature is abnormally. | <ul style="list-style-type: none"> <li>• Temperatures around the projector are high.</li> <li>• Blocked air intake</li> <li>• Cooling fan breakdown</li> <li>• Internal circuit failure</li> <li>• Clogged air intake</li> </ul> | <ul style="list-style-type: none"> <li>• Use the projector in an area with a temperature of lower than +35° C.</li> <li>• Relocate the projector to an area with proper ventilation.</li> <li>• Take the projector to your nearest Authorized Projector Dealer or Service Center for repair.</li> </ul> |
| Light source indicator | Off                   | Red on     | The light source does not illuminate.   | <ul style="list-style-type: none"> <li>• Light source failure</li> </ul>   | <ul style="list-style-type: none"> <li>• Disconnect the power cord from the AC outlet, and then connect it again.</li> <li>• Take the projector to your nearest Authorized Projector Dealer or Service Center for repair.</li> </ul>  |

|                 |  |                        |                    |   |  |
|-----------------|--|------------------------|--------------------|---|--|
| Power indicator | Green on/<br>Green blinks<br>Orange on/<br>Orange blinks | Orange blinks (faster) | Projector shutdown | <ul style="list-style-type: none"> <li>• Cooling fan stops</li> </ul> | <ul style="list-style-type: none"> <li>• Disconnect the power cord from the AC outlet, and then connect it again.</li> <li>• Take the projector to your nearest Authorized Projector Dealer or Service Center for repair.</li> </ul> |
|-----------------|--|------------------------|--------------------|---|--|



# Compatibility Chart

## Computer

Horizontal Frequency: 15-90 kHz,  
Vertical Frequency: 50-85 Hz,  
Pixel Clock: 12-165 MHz

| Mode    | Resolution |           | Vertical frequency | Horizontal frequency | Analog Support | Digital Support | 3D Mode |                |                  |               |              |
|---------|------------|-----------|--------------------|----------------------|----------------|-----------------|---------|----------------|------------------|---------------|--------------|
|         |            |           | (Hz)               | (kHz)                |                |                 | Auto    | Top And Bottom | Frame Sequential | Frame Packing | Side By Side |
| PC      | VGA        | 640x480   | 60.0               | 31.47                | ✓              | ✓               |         |                |                  |               |              |
|         |            |           | 72.0               | 37.86                | ✓              | ✓               |         |                |                  |               |              |
|         |            |           | 75.0               | 37.50                | ✓              | ✓               |         |                |                  |               |              |
|         |            |           | 85.0               | 43.27                | ✓              | ✓               |         |                |                  |               |              |
|         | SVGA       | 800x600   | 60.0               | 37.88                | ✓              | ✓               |         | ✓              | ✓                |               | ✓            |
|         |            |           | 72.0               | 48.08                | ✓              | ✓               |         |                |                  |               |              |
|         |            |           | 75.0               | 46.88                | ✓              | ✓               |         |                |                  |               |              |
|         |            |           | 85.0               | 53.67                | ✓              | ✓               |         |                |                  |               |              |
|         | XGA        | 1024x768  | 60.0               | 48.36                | ✓              | ✓               |         | ✓              | ✓                |               | ✓            |
|         |            |           | 70.0               | 56.48                | ✓              | ✓               |         |                |                  |               |              |
|         |            |           | 75.0               | 60.02                | ✓              | ✓               |         |                |                  |               |              |
|         |            |           | 85.0               | 68.67                | ✓              | ✓               |         |                |                  |               |              |
|         | WXGA       | 1280x720  | 60.0               | 44.80                | ✓              | ✓               |         | ✓              | ✓                |               | ✓            |
|         |            | 1280x768  | 60.0               | 47.78                | ✓              | ✓               |         |                |                  |               |              |
|         |            | 1280x800  | 60.0               | 49.60                | ✓              | ✓               |         | ✓              | ✓                |               | ✓            |
|         |            | 1360x768  | 60.0               | 47.71                | ✓              | ✓               |         |                |                  |               |              |
|         | WXGA+      | 1440x900  | 60.0               | 55.90                | ✓              | ✓               |         |                |                  |               |              |
|         |            | 1152x864  | 75.0               | 67.50                | ✓              | ✓               |         |                |                  |               |              |
|         | SXGA       | 1280x1024 | 60.0               | 63.98                | ✓              | ✓               |         |                |                  |               |              |
|         |            |           | 75.0               | 79.98                | ✓              | ✓               |         |                |                  |               |              |
| 60.0    |            |           | 60.00              | ✓                    | ✓              |                 |         |                |                  |               |              |
| SXGA+   | 1400x1050  | 60.0      | 65.32              | ✓                    | ✓              |                 |         |                |                  |               |              |
| WSXGA+  | 1680x1050  | 60.0      | 65.30              | ✓                    | ✓              |                 |         |                |                  |               |              |
|         | 1920x1080  | 60.0      | 67.50              | ✓                    | ✓              |                 | ✓       | ✓              |                  | ✓             |              |
| UXGA    | 1600x1200  | 60.0      | 75.00              | ✓                    | ✓              |                 |         |                |                  |               |              |
| MAC 13" | VGA        | 640x480   | 66.6               | 35.00                | ✓              | ✓               |         |                |                  |               |              |
| MAC 16" | SVGA       | 832x624   | 74.5               | 49.70                | ✓              | ✓               |         |                |                  |               |              |
| MAC 19" | XGA        | 1024x768  | 75.0               | 60.30                | ✓              | ✓               |         |                |                  |               |              |
| MAC 21" | SXGA       | 1152x870  | 75.0               | 68.68                | ✓              | ✓               |         |                |                  |               |              |

## DTV

| Mode       | Signal |              | Vertical frequency | Horizontal frequency | Analog Support | Digital Support | 3D Mode |                |                  |               |              |
|------------|--------|--------------|--------------------|----------------------|----------------|-----------------|---------|----------------|------------------|---------------|--------------|
|            |        |              | (Hz)               | (kHz)                |                |                 | Auto    | Top And Bottom | Frame Sequential | Frame Packing | Side By Side |
| DTV Signal | 480i   | 720 x 480i   | 59.9               | 15.70                | ✓              | ✓               |         |                |                  |               |              |
|            |        |              | 50.0               | 15.60                | ✓              | ✓               |         |                |                  |               |              |
|            | 480p   | 720 x 480    | 59.9               | 31.50                | ✓              | ✓               |         |                |                  |               |              |
|            |        |              | 50.0               | 31.60                | ✓              | ✓               |         |                |                  |               |              |
|            | 720p   | 1280 x 720   | 60.0               | 45.00                | ✓              | ✓               |         | ✓              | ✓                |               | ✓            |
|            |        |              | 50.0               | 37.50                | ✓              | ✓               |         | ✓              | ✓                |               | ✓            |
|            | 1080i  | 1920 x 1080i | 60.0               | 33.80                | ✓              | ✓               |         |                |                  |               | ✓            |
|            |        |              | 50.0               | 28.10                | ✓              | ✓               |         |                |                  |               | ✓            |
|            |        |              | 24.0               | 27.00                | ✓              | ✓               |         |                |                  |               | ✓            |
|            | 1080p  | 1920 x 1080  | 60.0               | 67.50                | ✓              | ✓               |         | ✓              | ✓                |               | ✓            |
| 50.0       |        |              | 56.30              | ✓                    | ✓              |                 | ✓       | ✓              |                  | ✓             |              |

## 3D

| Mode           | Signal |              | Vertical frequency | Horizontal frequency | Analog Support | Digital Support | 3D Mode |                |                  |               |              |
|----------------|--------|--------------|--------------------|----------------------|----------------|-----------------|---------|----------------|------------------|---------------|--------------|
|                |        |              | (Hz)               | (kHz)                |                |                 | Auto    | Top And Bottom | Frame Sequential | Frame Packing | Side By Side |
| Frame Packing  | 720p   | 1280 x 720   | 50.0               | 75.00                | ✓              | ✓               | ✓       |                |                  | ✓             |              |
|                |        |              | 60.0               | 90.00                | ✓              | ✓               | ✓       |                |                  | ✓             |              |
| Top And Bottom | 720p   | 1280 x 720   | 24.0               | 54.00                | ✓              | ✓               | ✓       |                |                  | ✓             |              |
|                |        |              | 50.0               | 37.50                | ✓              | ✓               | ✓       |                |                  | ✓             |              |
| Side By Side   | 1080p  | 1920 x 1080  | 60.0               | 45.00                | ✓              | ✓               | ✓       | ✓              |                  |               |              |
|                |        |              | 24.0               | 27.00                | ✓              | ✓               | ✓       | ✓              |                  |               |              |
| Side By Side   | 1080i  | 1920 x 1080i | 50.0               | 28.10                | ✓              | ✓               | ✓       |                |                  |               | ✓            |
|                |        |              | 60.0               | 33.80                | ✓              | ✓               | ✓       |                |                  |               | ✓            |

# Troubleshooting

Refer to the symptoms and measures listed below before sending the projector for repairs. If the problem persists, contact your local reseller or service center. Please refer to "LED Indicator Messages" as well.

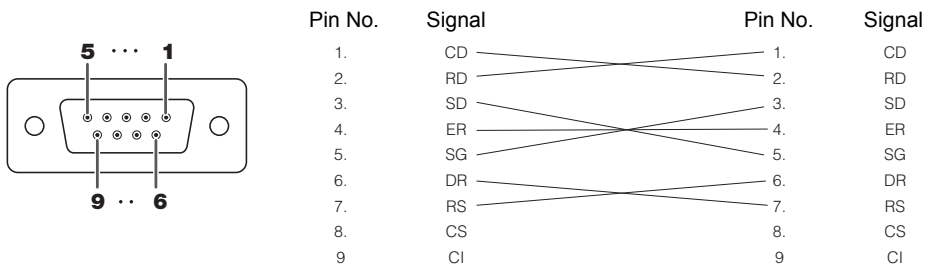
| # | Problem   | Solution  |
|---|---|---|
| 1 | No picture and no sound or projector does not start.        | <ul style="list-style-type: none"> <li>• Projector power cord is not plugged into the wall outlet.</li> <li>• Power to the external connected devices is off.</li> <li>• The selected input mode is wrong.</li> <li>• Cables are incorrectly connected to the projector.</li> <li>• Remote control battery has run out.</li> <li>• External output has not been set when connecting notebook computer</li> <li>• If you turn on the connected device prior to the projector, pictures are displayed incorrectly.</li> </ul>   |
| 2 | Sound is heard but no picture appears (or picture is dark). | <ul style="list-style-type: none"> <li>• Cables are incorrectly connected to the projector.</li> <li>• "Brightness" is set to minimum position.</li> <li>• Depending on the computer you are using, an image may not be projected unless the signal output setting of the computer is switched to the external output. Refer to the computer's operation manual for how to switch its signal output settings.</li> <li>• Do you use 3D viewing mode ?</li> <li>• When temperature inside the projector increases, the cooling fan runs faster. If this state continues, the picture may become dark.</li> </ul>   |
| 3 | Color is faded or poor.                                     | <ul style="list-style-type: none"> <li>• Image adjustments are incorrectly set.</li> <li>• Make adjustments of "Color" and "Tint" in "PICTURE &gt; Advanced" and lower the "BrilliantColor™" value.</li> </ul>  |
| 4 | Picture is blurred; noise appears.                          | <ul style="list-style-type: none"> <li>• Adjust the focus.</li> <li>• The projection distance exceeds the focus range.</li> <li>• There is fog on the projection window. If the projector is carried from a cold room into a warm room, or if it is suddenly heated, condensation may form on the surface of the projection window and the image will become blurred. Set up the projector at least one hour before it is to be used. If condensation should form, remove the power cord from the wall outlet and wait for it to clear.</li> </ul> <p>(Computer Input only)</p> <ul style="list-style-type: none"> <li>• Perform Synchronization Adjustments ("Frequency" and "Phase" Adjustment)</li> <li>• Noise may appear depending on the computer.</li> </ul> |

|    |   |  |
|----|---|--|
| 5  | Picture appears but no sound is heard.                                | <ul style="list-style-type: none"> <li>• Cables are incorrectly connected to the projector.</li> <li>• Volume is set to minimum.</li> <li>• When the projector is connected to an external device and the volume is set to minimum, the sound is not output even if you turn up the volume of the external device.</li> </ul>  |
| 6  | Data image is not centered.   | <ul style="list-style-type: none"> <li>• Depending on the computer you are using, the output resolution signal may be different from the one you have set. For details, refer to the operation manual of the computer.</li> </ul>  |
| 7  | An unusual sound is occasionally heard from the cabinet.              | <ul style="list-style-type: none"> <li>• If the picture is normal, the sound is due to cabinet shrinkage caused by room temperature changes. This will not affect operation or performance.</li> </ul>   |
| 8  | Maintenance indicator on the projector illuminates or blinks in red.  | <ul style="list-style-type: none"> <li>• See "LED indicator messages".</li> </ul>  |
| 9  | Picture is green on HDMI (Component).                                 | <ul style="list-style-type: none"> <li>• Change the input signal type setting.</li> </ul>  |
| 10 | Picture is pink (no green) on HDMI (RGB).                             |  |
| 11 | Picture is too bright and whitish.                                    | <ul style="list-style-type: none"> <li>• Image adjustments are incorrectly set.</li> </ul>   |
| 12 | The cooling fan becomes noisy.  | <ul style="list-style-type: none"> <li>• When temperature inside the projector increases, the cooling fan runs faster.</li> </ul>  |
| 13 | The light source does not light up even after the projector turns on. | <ul style="list-style-type: none"> <li>• The light source indicator is illuminating in red.</li> </ul>   |
| 14 | The light source suddenly turns off during projection.                |  |
| 15 | The image sometimes flickers.   | <ul style="list-style-type: none"> <li>• Cables are incorrectly connected to the projector or the connected equipment works improperly.</li> </ul>   |
| 16 | The remote control cannot be used.                                    | <ul style="list-style-type: none"> <li>• Operate the remote control while pointing it at the projector's remote control sensor.</li> <li>• The remote control may be too far away from the projector.</li> <li>• If direct sunlight or a strong fluorescent lamp is shining on the projector's remote control sensor, place the projector where it will not be affected by strong light.</li> <li>• The batteries may be depleted or inserted incorrectly. Make sure the batteries are inserted correctly or insert new ones.</li> </ul> |
| 17 | 3D images flicker when watching in a room.                            | <ul style="list-style-type: none"> <li>• Images may appear to flicker when fluorescent light or ambient light enters your vision. <ul style="list-style-type: none"> <li>-Turn off the lights.</li> <li>-Block any ambient light.</li> </ul> </li> </ul>   |

|    |   |   |
|----|---|---|
| 18 | Ghosting (a double image) occurs without the image appearing in 3D. | <ul style="list-style-type: none"> <li>• Check that you are using 3D LCD shutter glasses that support the DLP® Link™ system. <ul style="list-style-type: none"> <li>- Be sure to use 3D LCD shutter glasses that support the DLP® Link™ system.</li> </ul> </li> <li>• Check that the shutters on the 3D LCD shutter glasses are working properly. <ul style="list-style-type: none"> <li>- Turn the 3D LCD shutter glasses off and then on again.</li> <li>- Check the batteries of the 3D LCD shutter glasses.</li> <li>- Check that the 3D LCD shutter glasses are set to 3D viewing mode.</li> </ul> <p>Some 3D LCD shutter glasses are equipped with a special viewing mode (such as "dual view mode") in addition to the normal 3D viewing mode. See the operation manual of your 3D LCD shutter glasses.</p> </li> <li>• Check the settings of the projector. <ul style="list-style-type: none"> <li>- Check 3D Mode setting.</li> <li>- Use "3D Sync Invert" to change the setting.</li> </ul> </li> <li>• Check whether a signal that is not supported is being input. <ul style="list-style-type: none"> <li>- Configure your 3D application at the correct resolution and refresh rate.</li> </ul> <p>Make sure you are running your 3D application in resolutions that support 3D. To support 3D, your 3D application must be configured to run at the correct settings for this projector.</p> <p>For details on the supported signals, see "3D Supported Signals" of the Compatibility Chart.</p> </li> <li>• If the projector is connected to a computer for 3D image playback, check that a stereoscopically-enabled application is being used. <ul style="list-style-type: none"> <li>- Use the applicable software.</li> <li>- Set the applicable software to the field sequential format.</li> </ul> </li> <li>• Check that there are no obstructions between the screen and the 3D LCD shutter glasses. <ul style="list-style-type: none"> <li>- Remove any obstructions.</li> </ul> <p>Any obstructions may cause the glasses not to function properly causing the lenses to flicker or turn off. Do not place your hand or other objects in front of the 3D control signal sensor on the glasses.</p> </li> <li>• Check whether there is a source of high intensity lighting nearby. <ul style="list-style-type: none"> <li>- Block the light or turn it off.</li> </ul> <p>High intensity lighting can interfere with communication between the 3D LCD shutter glasses and the screen resulting in some flicker.</p> </li> <li>• Check whether two or more projectors are projecting 3D images at the same time. <ul style="list-style-type: none"> <li>- Use only one projector at a time.</li> </ul> </li> </ul> |
|----|---|---|

|    |   |   |
|----|---|---|
| 19 | A connection for Web Browser cannot be made because you have forgotten your user name or your password. | <ul style="list-style-type: none"> <li>Initialize the settings.</li> <li>After the initialization, carry out setting again.</li> </ul>  |
| 20 | Can not start the Internet Explorer in Windows 10.  | <ul style="list-style-type: none"> <li>How to start the Internet Explorer in Windows 10.             <ol style="list-style-type: none"> <li>Click the search box on the task bar.</li> <li>Enter the "internet explorer" in the search box.</li> <li>Click on the "Internet Explorer" from the search results.</li> </ol> </li> </ul> |

## RS-232C Specifications and Commands



### Communication conditions

Set the serial port settings of the computer to match that of the table.

Signal format: Conforms to RS-232C standard.

Parity bit: None

Baud rate: 9,600 bps

Stop bit: 1 bit

Data length: 8 bits

Flow control: None

| CONTROL CONTENTS |                       | COMMAND |   | PARAMETER |   |   |   | RETURN   |              |  |           |     |
|------------------|-----------------------|---------|---|-----------|---|---|---|----------|--------------|--|-----------|-----|
|                  |                       |         |   |           |   |   |   | Power ON | Standby mode |  |           |     |
| Power            | On                    | P       | O | W         | R | - | - | -        | 1            | OK   | OK        |     |
|                  | Off                   | P       | O | W         | R | - | - | -        | 0            | OK   | OK        |     |
|                  | State                 | P       | O | W         | R | ? | ? | ?        | ?            | 1  | 0         |     |
| Light Source     | Usage Time (Hour)     | T       | L | T         | T | - | - | -        | 1            | (Integer)  | ERR       |     |
| Source Change    | VGA IN                | I       | R | G         | B | - | - | -        | 1            | 1  | OK or ERR | ERR |
|                  | HDMI1                 | I       | R | G         | B | - | - | -        | 3            | 1  | OK or ERR | ERR |
|                  | HDMI2                 | I       | R | G         | B | - | - | -        | 3            | 2  | OK or ERR | ERR |
|                  | S-VIDEO               | I       | V | E         | D | - | - | -        | 2            | 1  | OK or ERR | ERR |
|                  | VIDEO                 | I       | V | E         | D | - | - | -        | 2            | 2  | OK or ERR | ERR |
|                  | Source Check          | I       | C | H         | K | ? | ? | ?        | ?            | 11: COMPUTER<br>31: HDMI1<br>32: HDMI2<br>21: S-VIDEO<br>22: VIDEO | ERR       |     |
| Volume           | Volume up (1 point)   | V       | O | U         | D | - | - | -        | 1            | 1  | OK or ERR | ERR |
|                  | Volume down (1 point) | V       | O | U         | D | - | - | -        | 1            | 1  | OK or ERR | ERR |
|                  | State                 | V       | O | U         | D | ? | ? | ?        | ?            | (Integer)  | ERR       |     |

|         |       |   |   |   |   |   |   |   |   |               |     |
|---------|-------|---|---|---|---|---|---|---|---|---------------|-----|
| AV Mute | On    | I | M | B | K | _ | _ | _ | 1 | OK or ERR     | ERR |
|         | Off   | I | M | B | K | _ | _ | _ | 0 | OK or ERR     | ERR |
|         | State | I | M | B | K | ? | ? | ? | ? | 0: Off, 1: On | ERR |
| Freeze  | On    | F | R | E | Z | _ | _ | _ | 1 | OK or ERR     | ERR |
|         | Off   | F | R | E | Z | _ | _ | _ | 0 | OK or ERR     | ERR |
|         | State | F | R | E | Z | ? | ? | ? | ? | 0: Off, 1: On | ERR |