Data Projector

Operating Instructions

Before operating the unit, please read this manual and supplied Safety Regulations thoroughly and retain it for future reference.

VPL-GTZ280

4K SXRD
Silicon X-tal Reflective Display

Table of Contents

Location of Controls

Connections and Preparations

Projecting

Using the Menus

Using Network Features

Error Handling

Others

Location of Controls

Front/Right Side

The buttons on the control panel function the same as those on the remote control.

Control panel
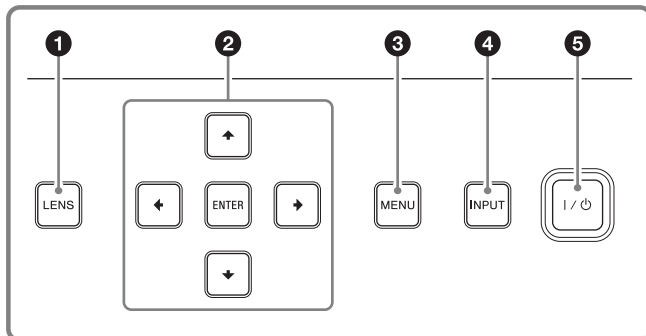
Connectors
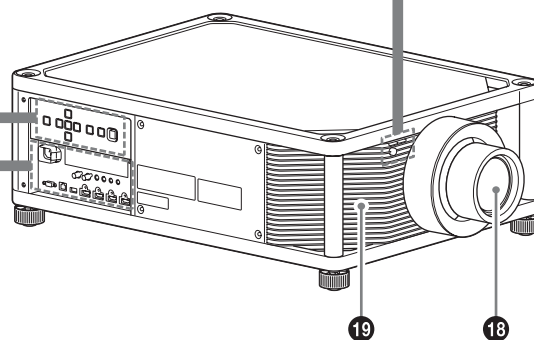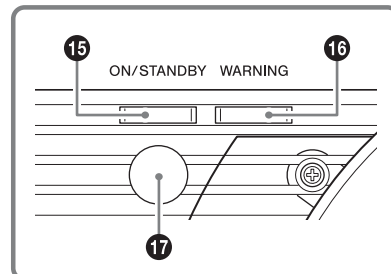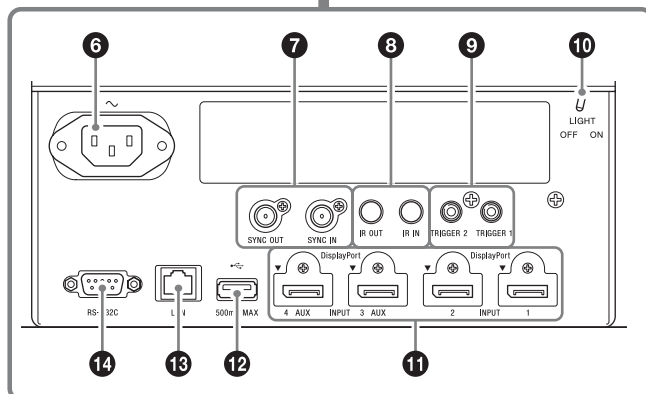
Control panel

❶ **LENS button (page 8)**

❷ **↑/↓/←/→/ENTER button (page 16)**

❸ **MENU button (page 16)**

❹ **INPUT button (page 13)**

❺ **I/⏻ (On/Standby) button (page 7)**

Connectors

❻ **∿ AC IN socket (page 7)**

❼ **SYNC IN/SYNC OUT connector**
Not available.

❽ **IR IN/IR OUT connector**
IR IN: Inputs the signals to control the projector. When connecting to the IR IN connector, the remote control detector does not work with the remote control.
IR OUT: Outputs the control signals received at the projector to the connected devices. When operating the projector with the remote control, the connected devices can also be operated.

❾ **TRIGGER 1/TRIGGER 2 connector (page 29)**

❿ **Connector light switch**
Turns on/off the connector lights.

⓫ **DisplayPort 1/DisplayPort 2/DisplayPort 3/ DisplayPort 4 connector (page 11)**

⓬ **USB connector (page 39)**

⑬ **LAN connector (page 33)**

⑭ **REMOTE connector**
Connects to a computer, etc. for remote control.

Indicators and remote control detector

⑮ **ON/STANDBY indicator (page 37)**

⑯ **WARNING indicator (page 37)**

⑰ **Remote control detector (page 8)**

Others

⑱ **Lens (not supplied) (page 40)**

⑲ **Ventilation holes (intake)**

Note

If you look through the projection lens while the unit is projecting, the light may damage your eyes. Take special caution when using the unit around children.

Rear/Bottom
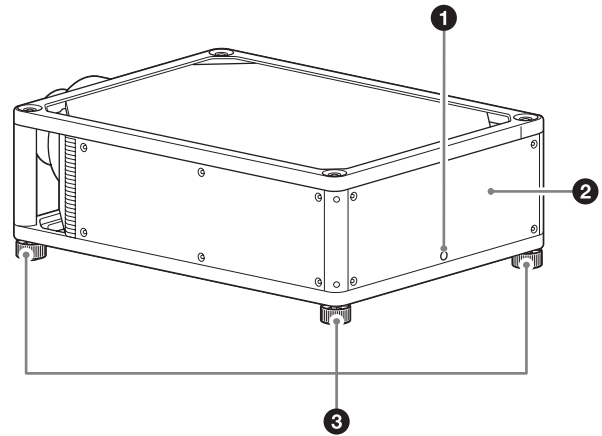
❶ **Remote control detector (page 8)**

❷ **Ventilation holes (exhaust)**

❸ **Feet (adjustable) (page 10)**
When using the unit in the upside down position, you can remove the feet and attach them to the top side of the unit.

Remote Control

INPUT button: Press to change the input connector in order from A to E.

❸ **Operating a menu (page 16)**
ENTER/↑/↓/←/→ buttons
MENU button
RESET button

❹ **Adjusting the lens**
FOCUS button: Adjusts the focus.
ZOOM button: Adjusts the screen size with the zooming magnification.
SHIFT button: Adjusts the projection position of the image.
PRECISE ADJ button: Not available.

❺ **Adjusting the image**
BRIGHTNESS button: Adjusts the brightness (page 19).
LIGHT OUTPUT button: Adjusts the laser output of the light source (page 19).
CONTRAST button: Adjusts the contrast (page 19).

❻ **Using various functions while projecting**
BLANK button: Cuts off the image. Press again to restore the image.
POSITION button: Stores and recalls the lens settings (page 14).
MOTIONFLOW button: Reproduces fast-moving images smoothly (page 19).
CONTRAST ENHANCER button: Corrects the image automatically to optimize the contrast according to a scene (page 19).
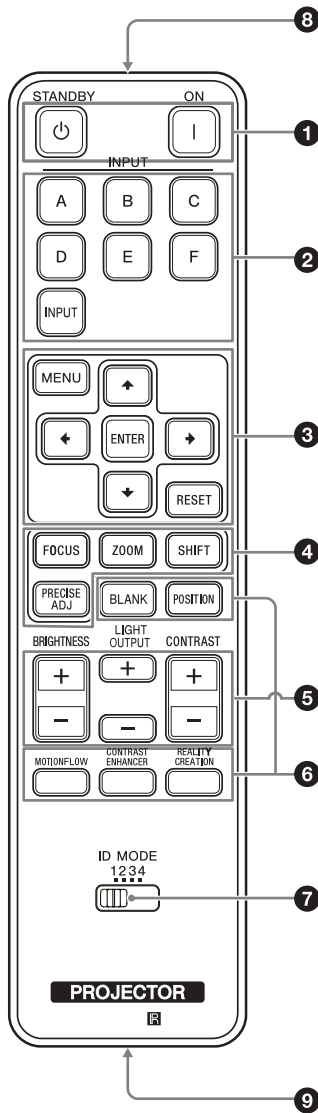REALITY CREATION button: Adjusts the detail and noise processing of images (page 18).

❼ **ID MODE switch**
Sets the ID mode of the remote control. If a different ID number is assigned to each projector when multiple projectors are used, you can operate only the projector with the same ID mode as that of the remote control (page 29).

❽ **Infrared transmitter**
Transmits the infrared light. Direct toward the projector you want to operate.

❾ **IR output connector**
Connects to the IR IN connector on the projector with a connecting cable (stereo mini plug (not supplied)) when using the remote control as a wired one. You do not need to install batteries in the remote control.

❶ **Turning on the power/Going to standby (page 7)**
I (On) button
⏻ (Standby) button

❷ **Selecting an input signal (page 13)**
A - E buttons: Selects the following input connector.

Button	Input connector
A	DisplayPort 1
B	DisplayPort 2
C	DisplayPort 3
D	DisplayPort 4
E	DisplayPort 1/2

F button: Not available.

Connections and Preparations

This section describes how to install the unit and screen, how to connect the equipment from which you want to project the picture, etc.

Checking the Supplied Accessories

Check the carton to make sure it contains the following items:
• Remote control RM-PJ29 (1)
• Size AA (R6) manganese batteries (2)
• AC power cord (1)
• Plug holder (1)
• Safety Regulations (1)
• Operating Instructions (CD-ROM) (1)

Inserting the Batteries into the Remote Control

While pressing the lid, slide it.

Insert the batteries ⊖ side first.
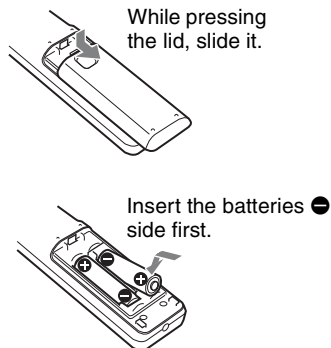
Caution about handling the remote control
• Handle the remote control with care. Do not drop or step on it, or spill liquid of any kind onto it.
• Do not place the remote control in a location near a heat source, a place subject to direct sunlight, or a damp room.

Connecting the AC Power Cord

1 Plug the AC power cord into the AC IN socket, then attach the plug holder to the AC power cord.

Plug holder (supplied)

AC IN socket

AC power cord (supplied)
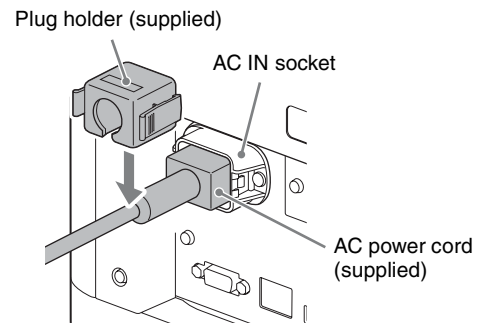
2 Slide the plug holder over the AC power cord to fix to the unit.
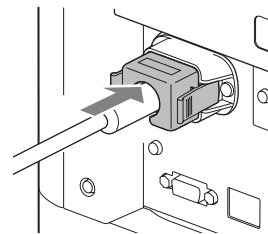
Installing the Unit

The installation distance between the unit and a screen varies depending on the size of the screen or whether or not you use the lens shift features. Install this unit so that it fits the size of your screen. For details on the distance between the unit and the screen (the projection distance) and the size of projected video, see "Projection Distance and Lens Shift Range" (page 43).

1 Position the unit so that the lens is parallel to the screen.

Top view

Screen

2 Project an image on the screen and adjust the picture so that it fits the screen (page 8).

Note

When using a screen with an uneven surface, stripes pattern may rarely appear on the screen depending on the distance between the screen and the unit or the zooming magnifications. This is not a malfunction of the unit.

Selecting the Menu Language

The factory setting for the language for displaying menus, messages, etc. is English.
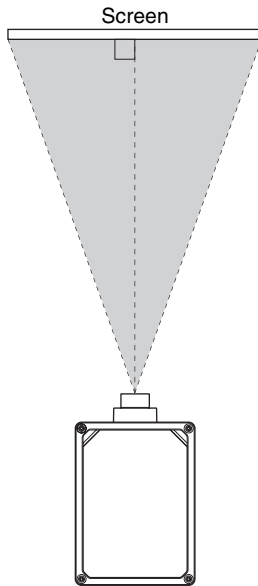To change the on-screen language, proceed as follows:

1 After connecting the AC power cord to the unit, plug the AC power cord into a wall outlet.
The ON/STANDBY indicator lights in red and the unit goes into standby mode.

ON/STANDBY
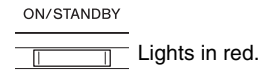
Lights in red.

2 Press the I/⏻ button on the unit or the I button on the remote control to turn on the unit.
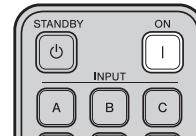
The ON/STANDBY indicator flashes in green, and then lights in green.

ON/STANDBY

Flashes in green for tens of seconds and then lights in green.
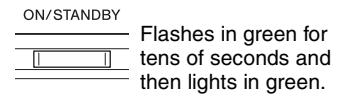
3 Press MENU to display the menu.

The menu window appears.

Picture		
Calib. Preset	Cinema Film 1	
Reset		
Reality Creation	On	
Cinema Black Pro		▶
Motionflow	Smooth High	
Contrast	90	
Brightness	50	
Color	50	
Hue	50	
Color Temp.	D65	
Sharpness	10	
Expert Setting		▶

Sel: ⬆⬇ Set: ⊞ Exit: MENU
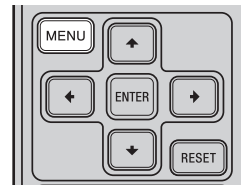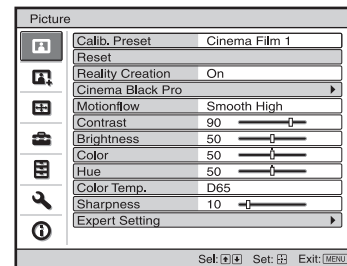
4 Select the menu language.
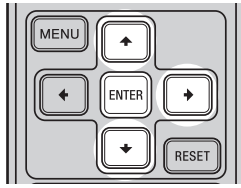
❶ **Press ↑/↓ to select the Setup 🧰 menu, then press ➡ or ENTER.**

❷ **Press ↑/↓ to select "🌐 Language," then press ➡ or ENTER.**

Setup		
	Status	On
	Language	English
	Menu Position	Bottom Left
	Constant Brightness	On
	Periodic LD Calibration	On
	High Altitude Mode	Off
	Remote Start	Off
	Network Management	Off
	Power Saving	Standby
	All Reset	
	Sel: ↑↓ Set: ⊞ Back: ◀ Exit: MENU	
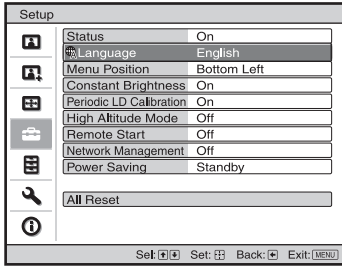
❸ **Press ↑/↓/⬅/➡ to select a language, then press ➡ or ENTER.**

5 Press MENU to turn off the menu window.

Adjusting the Picture Position

Project an image on the screen and then adjust the picture position.

Tips
- The I/⏻ (On/Standby), INPUT, MENU, and ↑/↓/⬅/➡/ ENTER buttons on the side panel of the unit function the same as those on the remote control. The LENS button functions in the same way as the FOCUS, ZOOM, and SHIFT buttons of the remote control.
- When adjusting the lens, each time you press the LENS button on the unit, the lens adjustment function switches between "Lens Focus," "Lens Zoom" and "Lens Shift."

$$FOCUS \rightarrow ZOOM \rightarrow SHIFT$$
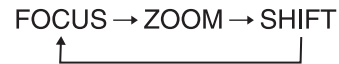
Note

Depending on the installation location of the unit, you may not be able to control it with the remote control. In this case, point the remote control at the remote control detector of the unit or the screen.

1 Adjust the focus.

Press the FOCUS button to display the Lens Focus adjustment window (test pattern). Then adjust the focus of the picture by pressing the ↑/↓/⬅/➡ buttons.
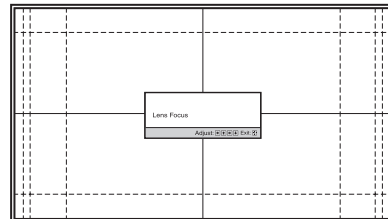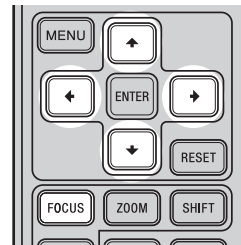
Tips
- When "Lens Control" is set to "Off" on the Installation 🔧 menu, you cannot adjust the focus, the picture size or the proper position by pressing the FOCUS, ZOOM or SHIFT buttons (page 29).
- When "Test Pattern" is set to "Off" on the Function 📋 menu, the test pattern is not displayed (page 27).

Note

Adjust the lens by using buttons on the remote control or the control panel of the unit. Never make adjustments by directly turning the lens with your hands, which may cause damage or malfunction to the unit.

2 Adjust the picture size.

Press the ZOOM button to display the Lens Zoom adjustment window (test pattern). Then adjust the size of the picture by pressing the ↑/↓/←/→ buttons.
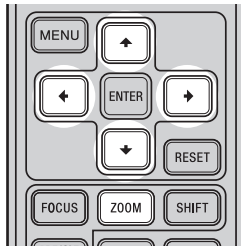
To make the picture larger, press ↑/→.
To make the picture smaller, press ↓/←.

3 Adjust the picture position.

Press the SHIFT button to display the Lens Shift adjustment window (test pattern). Then adjust to the proper position of the picture by pressing the ↑/↓/←/→ buttons.
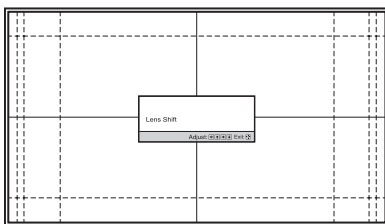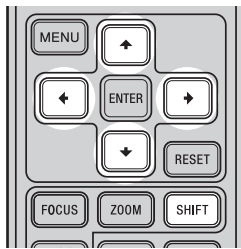
Tips
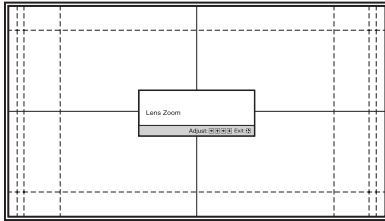- Whenever you press the ENTER button, the test pattern disappears.
- Press the RESET button on the remote control while the Lens Shift adjustment window is displayed, the horizontal position returns to the center of the lens (factory default position). The zoom and focus are not changed.

Note

When adjusting the picture position, do not touch the lens unit, otherwise your fingers may be pinched by the moving parts.

To adjust the horizontal position

Press ←/→.
The picture projected on the screen moves right or left from the center of the lens.

Top view
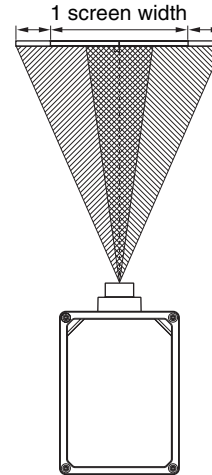
To adjust the vertical position

Press ↑/↓.
The picture projected on the screen moves up or down from the center of the lens.

Side view
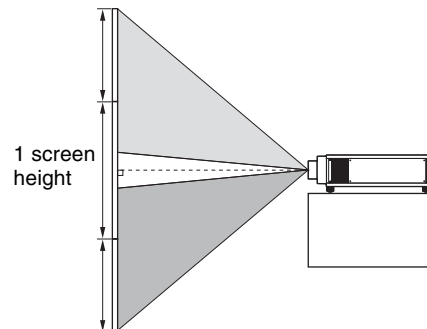
Note

The range to move the picture projected on the screen can be adjusted only within the octagon area illustrated below. The movable range depends on the lens or the aspect ratio of the projected picture. For details, see "Projection Distance and Lens Shift Range" (page 43).

Range of movement of the projected picture

Projected Picture
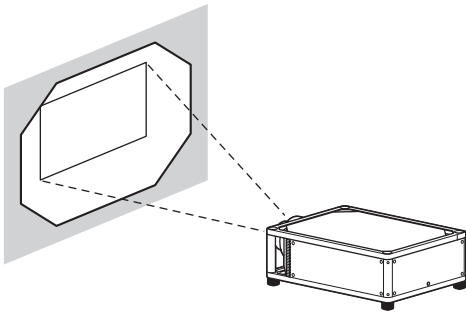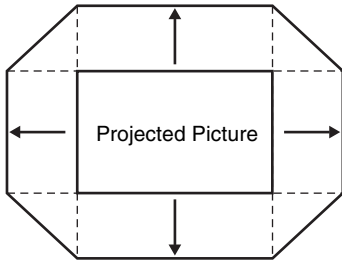
To adjust the tilt of the installation surface

If the unit is installed on an uneven surface, use the feet (adjustable) to keep the unit level.

Turn to adjust.
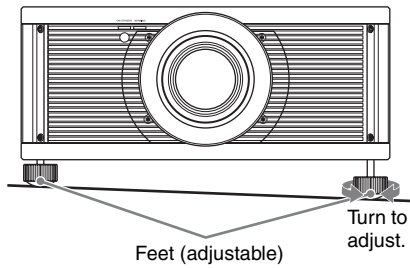
Feet (adjustable)

Notes

- If the unit is tilted up or down, the projected image may be trapezoidal.
- Be careful not to catch your finger when turning the feet (adjustable).

Lens adjustment window (test pattern)

1.78:1 (16:9)

1.33:1 (4:3)

2.35:1

Lens Focus

Adjust ◄►▲▼ Exit ⊕

1.85:1
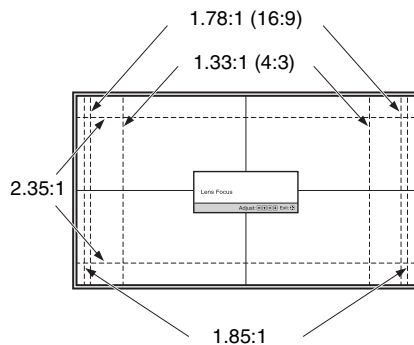
The dashed lines show the screen sizes of each aspect ratio.

Connecting to Video Equipment or a Computer

When making connections, be sure to do the following:
- Turn off all equipment before making any connections.
- Use the proper cables for each connection.
- Insert the cable plugs properly; poor connection at the plugs may cause a malfunction or poor picture quality. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.
- Refer to the operating instructions of the connected equipment.

Connecting to a workstation (V Split display connection)

When connecting two DisplayPort cables to project a "4096 × 2160" or "3840 × 2160" high resolution picture, connect DisplayPort output 1 and DisplayPort output 2 of the workstation to DisplayPort input 1 and DisplayPort input 2 of the unit respectively.
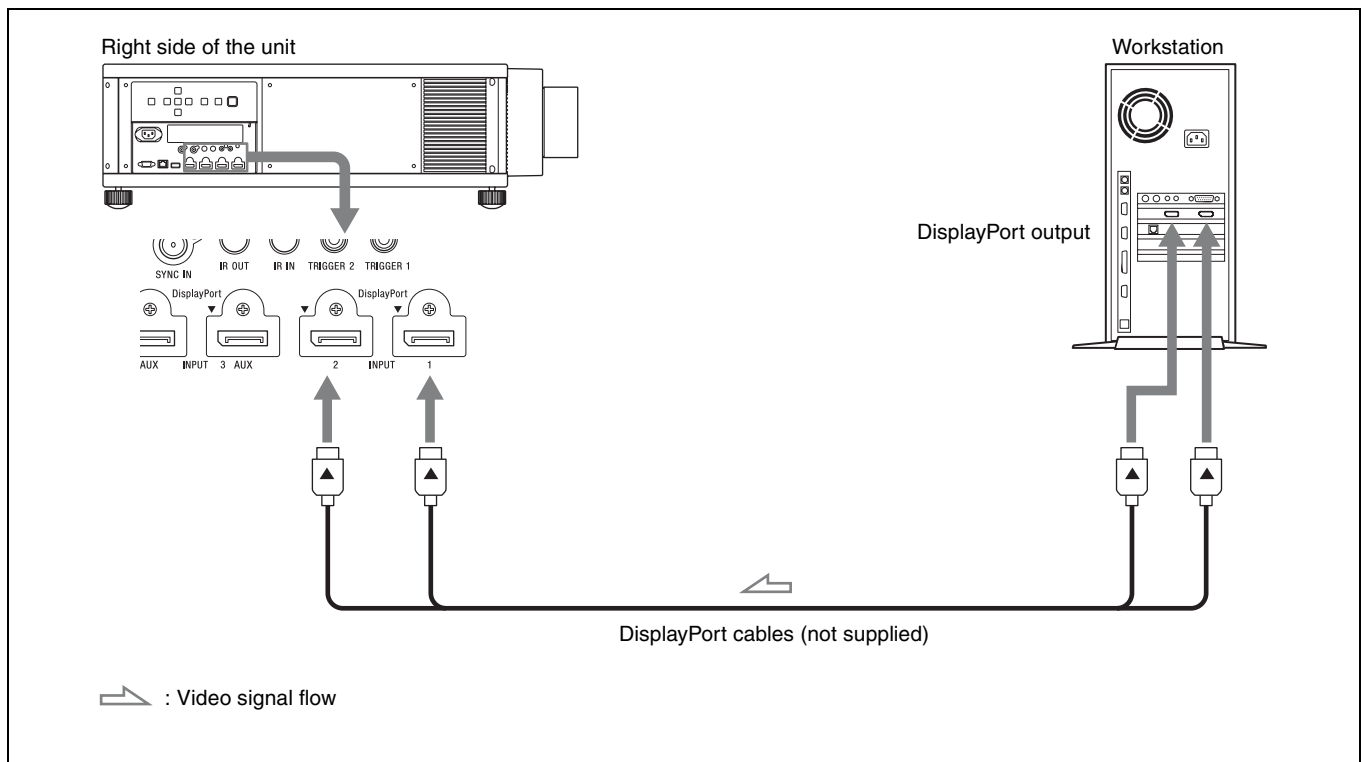
Note

If no picture is projected with the workstation connected to the unit with DisplayPort cables, check the settings of the workstation, or graphic boards.

Connecting to a Computer

Right side of the unit

SYNC OUT   SYNC IN   IR OUT   IR IN   TRIGGER 2   TRIGGER 1

DisplayPort   DisplayPort

MAX   4   AUX   INPUT   3   AUX   2   INPUT   1

Computer

to monitor output

DisplayPort cable (not supplied)

: Video signal flow
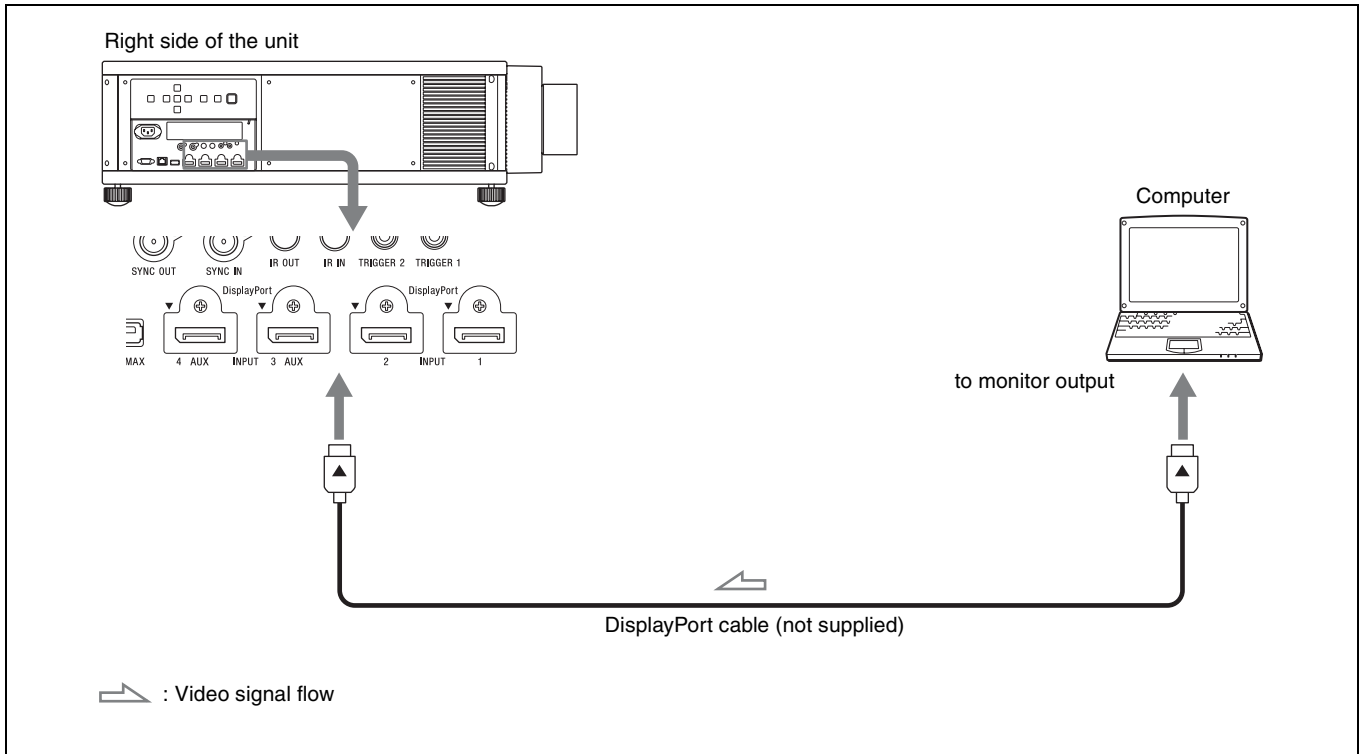
Notes

• If the picture from equipment connected to the unit with a DisplayPort cable is not correct, check the settings of the connected equipment.
• If you set your computer, such as a notebook type, to output the signal to both computer's display and this equipment, the picture of the equipment may not appear properly. Set your computer to output the signal to only the external monitor. For details, refer to the computer's operating instructions supplied with your computer. For settings of the computer, consult with the manufacturer of the computer.

Projecting

This section describes how to operate the unit to view a picture from the equipment connected to the unit. It also describes how to switch the screen size according to the picture.

Projecting the Picture

1 Turn on both the unit and the equipment connected to the unit.

2 Press INPUT to display the input palette on the projection surface.
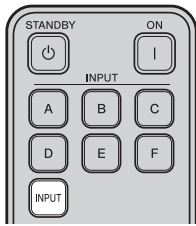
3 Select the equipment from which you want to display images.

Press INPUT repeatedly or press ↑/↓/ENTER to select the equipment from which to project.
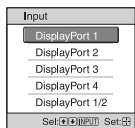
Example: To view the picture from the video equipment connected to the DisplayPort 1 connector of this unit.

Tips
• When "Status" is set to "Off" on the Setup 🧰 menu, the input palette does not appear. Press the INPUT button to switch between input terminals sequentially.
• You can also switch the input connectors using the A to E buttons on the remote control.
• You can change the language for the menu and on-screen displays in "Language" on the Setup 🧰 menu (page 25).

Turning Off the Power

1 Press the I/⏻ button twice on the unit or press the ⏻ button once on the remote control.
The projector starts shutdown and turns off.

2 Unplug the AC power cord from the wall outlet.

Note

Never disconnect the AC power cord while the unit is turned on.

Projecting High-Resolution Images (V Split display)

Signals transferred after an image is split at "4096 × 2160" or "3840 × 2160" resolution are projected.
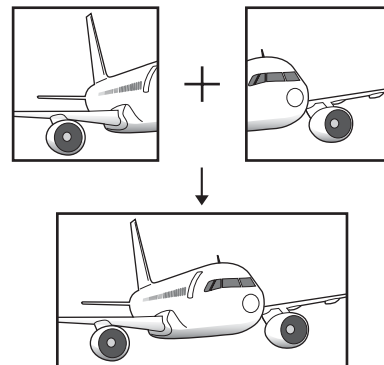
1 Connect DisplayPort output 1 and DisplayPort output 2 of the workstation to DisplayPort input 1 and DisplayPort input 2 of the unit respectively (page 11).

2 Turn on the unit and workstation.

3 Select DisplayPort 1/2 in the input palette.

4 Select either "2048 × 2160" or "1920 × 2160" resolution in the setting screen on the workstation*.

5 Select 60Hz for the refresh rate.
* For information on the setting screen, as operation differs depending on the OS or the graphic boards which are installed in the workstation, consult with the manufacturer of the workstation or graphic boards.

Note

Input the synchronized signals output from the same signal system in the same signal format to DisplayPort 1 and DisplayPort 2.

Using the Picture Position

You can store up to five combinations of lens settings (focus, picture size, picture position), aspect ratio, and blanking. These settings can be recalled.

1 Press POSITION.
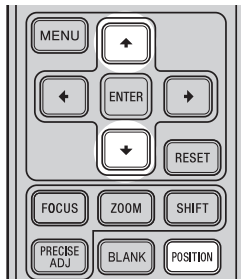
The Picture Position selecting palette is displayed.
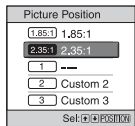
2 Press POSITION repeatedly, or press ↑/↓/ENTER to select the position.
The settings of the position selected is recalled.
Store or delete lens settings (focus, picture size, picture position) in the "Picture Position" of the Screen ⊞ menu (page 23).
Adjust the aspect ratio or blanking in the "Aspect" (page 24) or "Blanking" (page 24) of the Screen ⊞ menu.
The position where the lens settings are not stored is displayed as "---."

Image of the lens moving

In the example below, the images with aspect ratio of 1.78:1 (16:9) and 2.35:1 are projected on a 2.35:1 screen.
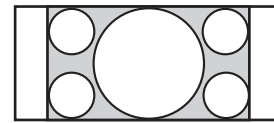
When a 1.78:1 (16:9) image is input

When a 2.35:1 image is input
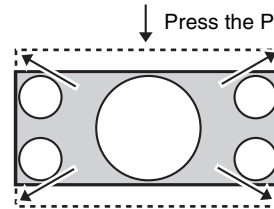
Press the POSITION button.

The 2.35:1 image expands to fill the screen.

Notes

- After you have selected and confirmed the lens position, the lens starts to move. Do not touch, or place anything near, the lens, otherwise it may cause injury or a malfunction.
- If you press any button on the remote control or the unit while the lens is moving, the lens stops. In this case, select the lens position again or adjust the lens manually.
- The Picture Position function is not guaranteed to reproduce the lens settings precisely.
- When you use the subtended screen angle of two or more aspects using lens zoom, install the unit within the specified parameters referring to "Projection distance" (page 44). With some setting positions, the range of lens shift may be restricted, even though the unit is installed within the specified parameters.

Selecting the Aspect Ratio According to the Video Signal

You can select an aspect ratio best suited for the video signal received.

1 Press MENU to display the menu.

2 Press ↑/↓ to select the Screen ⊞ menu, then press → or ENTER.

3 Press ↑/↓ to select "Aspect", then press → or ENTER.

4 Press ↑/↓ to select the aspect setting (page 24).

Original image (for 16:9 display)	Recommended setting and resultant images
1.85:1 / Squeezed 1.85:1	1.85:1 Zoom
2.35:1 / Squeezed 2.35:1	2.35:1 Zoom
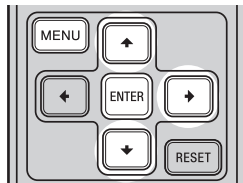
Original image (for 16:9 display)	Recommended setting and resultant images
1.78:1 (16:9) / 1.33:1 (4:3) / 1.33:1 (4:3) with side panels	Normal
Squeezed	Stretch

Notes

- Selectable aspect modes vary depending on the input signal (page 41).
- When a computer signal is input, you cannot select the aspect setting.

Notes on switching the "Aspect" setting

- Select the aspect mode taking into account that changing the aspect ratio of the original picture will provide a different look from that of the original image.
- Note that if the unit is used for profit or for public viewing, modifying the original picture by switching the aspect may constitute an infringement of the rights of authors or producers, which are legally protected.

Using the Menus

This section describes how to make various adjustments and settings using the menus.

Note

The menu displays used for the explanation may be different from the actual menu display.

Operation through the Menus

The unit is equipped with an on-screen menu for making various adjustments and settings. If you select an item name followed by an arrow (▶), the next menu window with setting items appears.

1 Press MENU.
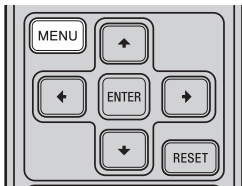
The menu window appears.
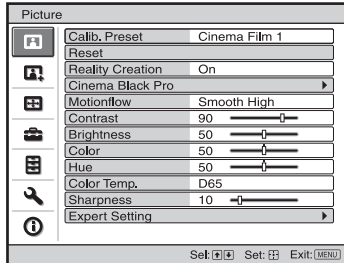
2 Press ↑/↓ to select a menu item, and press ➡ or ENTER.
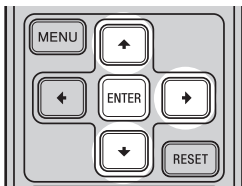
The items that can be set or adjusted with the selected menu appear. The item presently selected is shown in white.
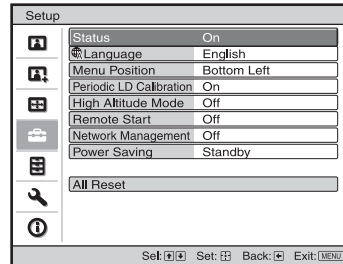
3 Press ↑/↓ to select an item you want to set or adjust and press ➡ or ENTER.
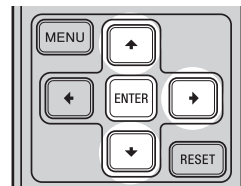
The setting items are displayed in a pop-up menu, in a setting menu, in an adjustment menu or in the next menu window.

Pop-up menu

Setting items

Setting menu

16

Adjustment menu

```
Contrast
         Min                    Max
  50  ━━━━━━━━●━━━━━━━━━━
                  Adjust: ⊞⊞  Set: ⊞
```

Next menu window

Setting items

```
Picture
  ┌─────────────────────────────────┐
  │ 🖼 │ Cinema Black Pro              │
  │ 🖼↕│ Laser Light Setting        ▶ │
  │ ⊞ │ Contrast Enhancer    High    │
  │ 🧰 │                              │
  │ 📋 │                              │
  │ 🔧 │                              │
  │ ⓘ │                              │
  └─────────────────────────────────┘
        Sel: ⊞⊞  Set: ⊞  Back: ⊞  Exit: MENU
```
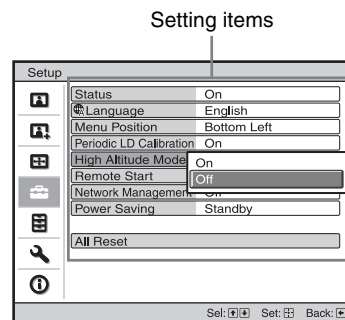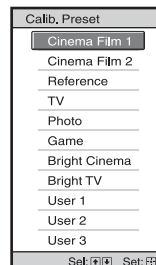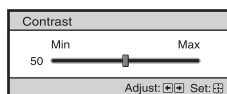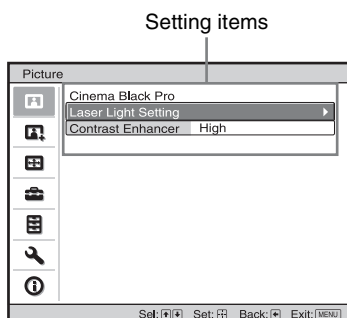
4 Make the setting or adjustment of an item.

When changing the adjustment level
To increase the value, press ↑/→.
To decrease the value, press ↓/←.
Press ENTER to store the setting and restore the original menu screen.

When changing the setting
Press ↑/↓ to change the setting.
Press ENTER to restore the original screen.
You can restore the original screen using ←
depending on the selected item.

To clear the menu

Press MENU.

To reset the picture that has been adjusted

Select "Reset" from the Picture 🖼 menu.

```
Reset
  ┌─────────────────────────────────┐
  │ Do you wish to reset the settings│
  │ to default values?               │
  │                                  │
  │     ┌────────┐  ┌────────┐       │
  │     │  Yes   │  │   No   │       │
  │     └────────┘  └────────┘       │
  │                    Sel: ⊞⊞  Set: ⊞│
  └─────────────────────────────────┘
```
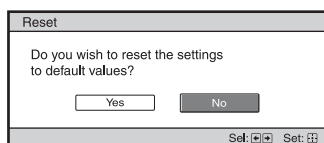
When the screen display appears, select "Yes" using ←
and press ENTER.
All of the following settings are reset to its factory preset
value:
"Reality Creation," "Cinema Black Pro," "Motionflow,"
"Contrast," "Brightness," "Color," "Hue," "Color Temp.,"
"Sharpness," and "Expert Setting" on the Picture 🖼 menu

To reset the items that have been adjusted

Select an item in the menu screen, and display the pop-up
menu, the setting menu, or the adjustment menu.
Press RESET on the remote control to reset only the
selected settings to its factory preset value.

Note

The RESET button on the remote control is available only when the
adjustment menu or the setting menu is selected.

17

🖼 Picture Menu

The Picture menu is used for adjusting the picture.

```
Picture
┌────┐  Calib. Preset      Cinema Film 1
│ 📷 │  Reset
├────┤  Reality Creation   On
│ 📷 │  Cinema Black Pro                    ▶
├────┤  Motionflow         Smooth High
│ ⊞  │  Contrast           90    ──────□──
├────┤  Brightness         50    ───□──────
│ 📦 │  Color              50    ────□─────
├────┤  Hue                50    ────□─────
│ 📋 │  Color Temp.        D65
├────┤  Sharpness          10    ─□───────
│ 🔧 │  Expert Setting                      ▶
├────┤
│ ⓘ  │
└────┘
        Sel: ↑↓   Set: ⊞   Back: ◀   Exit: MENU
```

Item names in brackets represent those printed on the remote control.

Setting items	Description
Calib. Preset	You can select the picture viewing mode that best suits the type of video source or the environment. **Cinema Film 1:** Picture quality suited to reproducing the highly dynamic and clear images typical of master positive film. **Cinema Film 2:** Picture quality suited to reproducing the rich tone and color typical of a movie theater, based on the Cinema Film 1. **Reference:** A picture quality setup suitable for when you want to reproduce faithfully the original image quality, or for enjoying image quality, without any adjustment. **TV:** Picture quality suited for watching TV programs, sports, concerts, and other video images. **Photo:** Ideal for projecting still images taken with a digital camera. **Game:** Picture quality suited to gaming, with well-modulated colors and fast response. **Bright Cinema:** Picture quality suited for watching movies in a bright environment. **Bright TV:** Picture quality suited for watching TV programs, sports, concerts, and other video images in a bright environment. **User 1, User 2, User 3:** You can adjust the picture quality to suit your taste, and save the setting. The factory default setting is the same as "Reference." **Tip** Any adjustments to picture quality settings are saved for each input.
Reset	Resets all currently selected Calib. Preset mode settings to their default values (page 17). **Tip** Reset does not affect settings saved for the Custom 1 to 5 items of "Color Temp."

Reality Creation [REALITY CREATION]	Adjusts the detail and noise processing of images. (Super-resolution function)
	On: Adjusts the settings of "Reality Creation."
	  Database: Select "Normal" or "Mastered in 4K."
	  "Mastered in 4K" provides image quality suitable for Blu-ray Disc™ "Mastered in 4K" releasing from Sony Pictures Home Entertainment.
	  Resolution: When you increase the setting value, the texture and detail of the picture become sharper.
	  Noise Filtering: When you increase the setting value, the noise (picture roughness) becomes less prominent.
	  Test: On/Off: Changes "On" and "Off" at a certain frequency to check the effect of "Reality Creation."
	
	  Tip
	  The display position of status during the test works together with the "Menu Position" setting (page 25).
	Off: The "Reality Creation" function is not applied.

Setting items	Description
Cinema Black Pro	
Laser Light Setting	**Output:** The higher the setting, the brighter the picture. The lower the setting, the darker the picture. **Tip** Adjust "Output" according to the brightness of the picture.
Contrast Enhancer [CONTRAST ENHANCER]	Corrects the level of bright and dark parts automatically to optimize contrast according to a scene. Increases image sharpness and makes image dynamic. **High/Middle/Low:** You can adjust the contrast enhancer. **Off:** The contrast enhancer function is not applied.
Motionflow [MOTIONFLOW]	**Impulse 1:** Reduces afterimage more than Impulse 2. **Impulse 2:** Reduces afterimage. **Impulse 3:** Reduces afterimage slightly. **Combination:** Reduces motion blur while maintaining brightness for high-speed picture content. **Smooth High:** Provides smoother picture movement; especially effective for film-based content. **Smooth Low:** Provides smoother picture movement for standard use. **True Cinema:** Images, such as a movie created in 24 frames per second, are reproduced at the original framerate. **Off:** The "Motionflow" function is not applied. **Tips** • Select "Off" if the selected "Smooth High," "Smooth Low," "Impulse 1," "Impulse 2," "Impulse 3," "Combination," or "True Cinema" results in a distorted picture. • When selecting "Impulse 1" or "Impulse 2," the picture becomes dark. Also, it may flicker. • Depending on the picture content, you may not see the effect visually even if you have changed the settings. • Only "Off," "Impulse 1," "Impulse 2," or "Impulse 3" is available when a signal with a resolution of 4096×2160 is input.
Contrast [CONTRAST]	Adjusts the contrast. Higher values increase the sharpness in images, while lower values decrease the sharpness.
Brightness [BRIGHTNESS]	Adjusts the brightness of the picture. The higher the setting, the brighter the picture. The lower the setting, the darker the picture.
Color	Adjusts the color density. The higher the setting, the greater the intensity. The lower the setting, the lower the intensity.
Hue	Adjusts the color tone. The higher the setting, the more greenish the picture becomes. The lower the setting, the more reddish the picture becomes.
Color Temp.	Adjusts the color temperature. **D93:** Equivalent to 9,300 K color temperature normally used in TVs. Gives white colors a blue tint. **D75:** Equivalent to 7,500 K color temperature used as an ancillary standard illuminant. Gives a neutral tint between "D93" and "D65." **D65:** Equivalent to 6,500 K color temperature used as a standard illuminant. Gives white colors a red tint. **D55:** Equivalent to 5,500 K color temperature used as an ancillary standard illuminant. Gives white colors an even redder tint. **Custom 1 to 5:** Enables you to adjust, set, and store your favorite color temperature. The factory default settings are as follows. 　**Custom 1:** Same as the "D93" color temperature setting. 　**Custom 2:** Same as the "D75" color temperature setting. 　**Custom 3:** Same as the "D65" color temperature setting. 　**Custom 4:** Same as the "D55" color temperature setting. 　**Custom 5:** Setting that prioritizes brightness. **Tip** You can adjust each item to a color temperature according to your preference.
Sharpness	Sharpens the outline of the picture, or reduces the noise. The higher the setting, the sharper the picture. The lower the setting, the softer the picture, thus reducing the noise.

Setting items	Description
Expert Setting	
NR (Noise Reduction)	Reduces the roughness or noise of the picture. **Auto:** Detects the noise level to reduce the roughness or noise of the picture automatically. **High/Middle/Low:** Select a setting according to the roughness or noise of the input signal source. **Off:** The NR (noise reduction) function is not applied. **Tip** The noise level may not be detected accurately with "Auto" depending on the input signal source. If the picture is unacceptable with "Auto," select a setting from among "High," "Middle," "Low" or "Off."
MPEG NR (MPEG Noise Reduction)	Reduces block noise and mosquito noise, particularly in digital signals. **Auto:** Detects the noise level to reduce the block noise and mosquito noise of the picture automatically. **High/Middle/Low:** Select a setting according to the block noise and mosquito noise of the input signal source. **Off:** The MPEG NR (MPEG noise reduction) function is not applied. **Tip** The noise level may not be detected accurately with "Auto" depending on the input signal source. If the picture is unacceptable with "Auto," select a setting from among "High," "Middle," "Low" or "Off."
Smooth Gradation	Smooths the gradation of the flat parts of images. **High/Middle/Low:** You can adjust the smooth gradation effect. **Off:** The smooth gradation function is not applied.
Gamma Correction	Adjusts the response characteristics of the tone of the picture. Select a favorite tone from 10 options. **1.8:** Bright Produces a brighter picture overall. **2.0** **2.1** **2.2** **2.4** **2.6:** Dark Produces a darker picture overall. **Gamma 7:** Simulates the gamma curve of film. **Gamma 8:** Increases the sharpness in images. Select this when you watch in a bright environment. **Gamma 9:** Produces a brighter picture than Gamma 8. **Gamma 10:** Increases the sharpness in images. Select this when you watch TV programs, etc., in a bright environment. **Off:** The "Gamma Correction" function is not applied.
Color Correction	**On:** Adjusts Hue, Saturation and Brightness of the selected colors. Repeat steps ① and ② described below to specify the target color. ① Press ↑/↓ to select "Color Select," then press ←/→ to select the color you want to adjust among "Red," "Yellow," "Green," "Cyan," "Blue," and "Magenta." <table><tr><td>Color Correction</td></tr><tr><td>Color Select: ← Red →</td></tr><tr><td>Hue: 0</td></tr><tr><td>Saturation: 0</td></tr><tr><td>Brightness: 0</td></tr><tr><td>Sel:↑↓ Set:⊞</td></tr></table> ② Press ↑/↓ to select "Hue," "Saturation" or "Brightness," then adjust them to suit your taste using ←/→ while watching the projected picture. **Off:** The "Color Correction" effect is not applied.
Clear White	Emphasizes vivid whites. **High/Low:** You can adjust the "Clear White" effect. **Off:** The "Clear White" effect is not applied.

Setting items	Description
Color Space	Converts the color space. **BT.709:** An ITU-R BT.709 color space. The color space is equivalent to sRGB. **Color Space 1:** A color space suited for video images. **Color Space 2:** A color space suited for watching movies or video images. **Color Space 3:** A color space suited for watching movies. **Custom:** You can adjust the color space setting. Color Space Color Select: ← Red → Cyan - Red: 0 Magenta - Green: 0 Sel: Set: **Tip** You can adjust each item to a color space according to your preference.
Input Lag Reduction	Reduces the delay of the display for a video. **On:** Shortens the time to display the input video image; effective for increasing the performance of the display reaction speed when using an external controller, etc. **Off:** Turns the Input Lag Reduction function off. **Tip** When "Input Lag Reduction" is set to "On," the following items cannot be set: "Combination," "Smooth High," "Smooth Low," and "True Cinema" of "Motionflow"
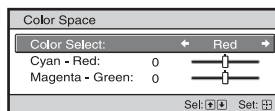
⊞ Advanced Picture Menu

You can adjust the gaps in color that have occurred after a long period of use.

```
Advanced Picture
        Auto Calibration
  ⊡     Pre Check
  ⊞     Adjust
        Before/After
  ⊞     Reset
  ⊟
  ⊟
  ⚲
  ⓘ
              Sel: ⊡⊡  Set: ⊞  Back: ⊡  Exit: MENU
```

Setting items	Description
Auto Calibration	**Pre Check:** Checks the color difference against the factory default settings, before calibration starts. **Adjust:** Performs Auto Calibration. **Before/After:** Toggles the factory default settings and the setting after the calibration at a certain frequency. You can check the effect of the calibration by monitoring the actual image. **Reset:** Resets the calibration results, and returns to the factory default settings.

Notes
- Auto Calibration results in relatively coarse calibration. The color settings are not guaranteed to be the same as the factory default values.
- The colors are projected automatically while performing "Pre Check" or "Adjust." A similar phenomenon may occur infrequently while the power is off to adjust the unit. Both cases are not a malfunction.
- Do not turn off the power or operate the remote control or control panel during "Pre Check" or "Adjust," as the process may be canceled.

Tips
- dE is an indicator of changing color. The smaller the value of dE, the fewer the changes caused by the color.
- Perform the calibration after the power has been on for more than 30 minutes.
- It takes a few minutes for "Pre Check" or "Adjust" to complete.
- When "Pre Check" or "Adjust" starts, the screen position may shift as the lens returns to its factory default position. After completion, the screen returns to its previous position automatically.
- If the environment, such as the brightness of the room, changes while performing "Pre Check" or "Adjust", measurement may be affected.
- If the "Pre Check" or "Adjust" function fails, try it again.

⊞ Screen Menu

You can set the picture size, aspect mode, etc.

```
Screen
          Picture Position          ▶
 🖼       Aspect            Normal
 🖼       Blanking          On
          Image Shift       On
 ⊞
 🗄
 🗃
 🔧
 ⓘ
                Sel: 🖼🖼  Set: ⊞  Back: 🖼  Exit: MENU
```
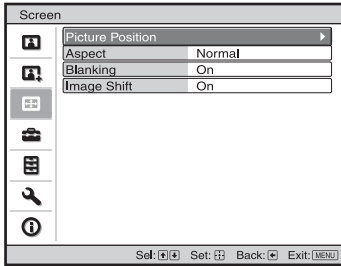
Note

These items may not be available, depending on the type of input signal. For details, see "Input Signals and Adjustment/Setting Items" (page 41).

Item names in brackets represent those printed on the remote control.

Setting items	Description
Picture Position [POSITION]	You can store up to five combinations of lens settings, aspect ratio, and blanking. After setting the lens (focus, picture size, picture position), select from "1.85:1," "2.35:1," "Custom 1," "Custom 2," or "Custom 3" depending on the subtended screen angle, and after confirming, continue by selecting "Save," "Delete," or "Select." **Save:** Stores the current lens settings (focus, picture size, picture position) in the selected position. If a setting is already stored in that position, it is overwritten. **Delete:** Deletes the stored setting. After the setting is deleted, "1.85:1," "2.35:1," "Custom 1," "Custom 2," or "Custom 3" in the display change to "---." **Select:** Recalls the settings of the selected position. **Tips** • The optimal aspect ratio is preset for each picture position. The aspect ratio can be changed and saved for each picture position. • When saving the Picture Position, temporarily move the picture from the saving point down 5 cm or more, then move the picture up again and save. This improves the precision of the Picture Position when calling it. **Notes** • After you have selected and confirmed the lens position, the lens starts to move. Do not touch the lens and the area around the lens, otherwise it may cause injury or a malfunction. • If you press any button on the remote control or the unit while the lens is moving, the lens stops. In this case, select the lens position again or adjust the lens manually. • When you use a 2.35:1 or a 16:9 subtended angle with the Picture Position function, make sure that the installation position is suitable (page 14). • The Picture Position function is not guaranteed to reproduce the lens settings precisely. • "Picture Position" cannot be set when "Lens Control" is set to "Off."

Setting items	Description
Aspect	You can set the aspect ratio of the picture to be displayed for the current input signal (page 15). You can use this setting only when a 2K signal is input. **1.85:1 Zoom:** A 1.85:1 aspect ratio picture is displayed in its original aspect ratio, enlarged so that black bands do not appear at the top and bottom of the projection surface. **2.35:1 Zoom:** A 2.35:1 aspect ratio picture is displayed in its original aspect ratio, enlarged so that black bands at the top and bottom of the projection surface are as small as possible. When you select "2.35:1 Zoom" from "Trigger Select 1/2" on the Installation ⚲ menu, a 12 V signal is output from the TRIGGER 1 or TRIGGER 2 connector (page 29). **Normal:** Input video is displayed in its original aspect ratio, enlarged to fill the projection surface. This mode is suitable for viewing 1.78:1 (16:9) and 1.33:1 (4:3) video. **Stretch:** Displays video that has been squeezed to 1.33:1 (4:3) as 1.78:1 (16:9) aspect ratio. **Tips** • Selectable aspect modes vary depending on the input signal (page 41). • When a computer signal is input, you cannot select the aspect setting. • Aspect setting is stored for each of the five Picture Positions. Adjust the aspect after selecting the Picture Position. Final adjusted values are stored automatically.
Blanking	This feature allows you to adjust the displayable region within the four directions of the screen. **On:** Select the edge to adjust by highlighting Left, Right, Top, or Bottom using the ⬆/⬇ buttons. Adjust the amount of blanking using the ⬅/➡ buttons. | Blanking	
Left:	2
Right:	3
Top:	2
Bottom:	3 | Sel:⬆⬇ Adjust:⬅➡ Set:⊞ **Off:** Turns off the Blanking function. **Tips** • Depending on the aspect ratio setting, right/left blanking may not be available. • Blanking setting is stored for each of the five Picture Positions. Adjust the blanking after selecting the Picture Position. Final adjusted values are stored automatically.

Image Shift	**On:** You can adjust the image position.
	  H: The image moves to the right as the value increases, and moves to the left as decreases.
	  V: The image moves up as the value increases, and moves down as decreases.
	Off: You can turn off the image shift function.
	
	Tip
	When displaying one image with two projectors installed side-by-side, position both images to align their adjoining edges.

🧰 Setup Menu

The Setup menu is used to change the factory preset settings, etc.

Setting items	Description
Status	Sets whether or not on-screen messages or menus, etc. are displayed. **On:** Displays on-screen messages and menus. **Off:** Turns off the on-screen displays, other than certain menus, a message when turning off the power, and warning messages. **All Off:** Turns off the on-screen displays, other than certain menus, and a message when turning off the power. **Notes** • When "All Off" is selected, warning message for high temperature is not displayed. • Note that Sony is not liable for failure of the unit or any accident caused by selecting "All Off."
Language	Selects the language used in the menu and on-screen displays.
Menu Position	You can change the position to display the menu on the projection surface. **Bottom Left:** Displays the menu on the bottom left area of the projection surface. **Center:** Displays the menu on the center of the projection surface.
Periodic LD Calibration	Performs the calibration automatically after a certain period of use. At that time, the calibration starts when the I/⏻ button of the unit or the ⏻ button of the remote controller is pressed, and after the calibration finishes the power turns off. **On:** Performs the calibration automatically. **Off:** Does not perform the calibration automatically.
High Altitude Mode	Sets the unit to operate at the prevailing atmospheric pressure. **On:** Use this setting when using the unit at an altitude of 1,500 m (approx. 4,900 ft) or higher. **Off:** Use this setting when using the unit at normal altitudes. **Tip** When this item is set to "On," the fan noise becomes slightly louder since the fan speed increases.
Remote Start	Sets the Remote Start settings. **On:** You can turn on the power from a PC or a terminal which is connected to a network. **Off:** Turns off the Remote Start function. **Tips** • To use the function, the unit should be connected to the network in advance (page 30). • To turn on the power with the Remote Start function, a special command should be sent from a PC or a terminal. For details, consult with qualified Sony personnel. **Note** When the Remote Start is set to "On," the standby power requirement will increase. When Network Management is set to "On," Remote Start is fixed at "On" and is not displayed in the menu.
Network Management	**On:** Set when connected to the network and continuously communicating with the projector control equipment. **Off:** Turns off the Network Management function. **Note** When Network Management is set to "On," the network function is continuously enabled. Set Network Management to "Off" for normal use. If you set to "On," the power consumption increases.

Setting items	Description
Power Saving	Sets the Power Saving mode. **Standby:** If no signal is input for 10 minutes, power is turned off automatically and the projector goes into standby mode. **Off:** Disables the Power Saving function.
All Reset	All settings by the main unit and adjusted data by the connected devices are initialized to their factory preset values.

☷ Function Menu

The Function menu is used for changing the settings of the various functions of the unit.

```
Function
┌──────────────────────────────────────────┐
│ 📖  | Stream Format                      ▶ |
│ 🔍  | Test Pattern          On            |
│ ⊞  | Settings Lock         Off           |
│ 💼                                         │
│ 📋                                         │
│ 🔧                                         │
│ ⓘ                                         │
│          Sel:↑↓  Set:⊞  Back:◀  Exit:MENU │
└──────────────────────────────────────────┘
```

Setting items	Description
Stream Format	Selects the signal format for DisplayPort. **Single:** Select this format for the SST (Single Stream Transmission)-compatible signal of DisplayPort. **Dual:** Select this format for the MST (Multi Stream Transmission) -compatible signal.
Test Pattern	Displays a test pattern according to the setting. **On:** A test pattern appears on the screen to be used when adjusting the lens with "Lens Focus," "Lens Zoom," and "Lens Shift." **Off:** A test pattern does not appear. **Tip** While the test pattern is displayed, it is only displayed in green to allow you to adjust the focus easily.
Settings Lock	Locks menu item settings to prevent operational error (page 28). **Off:** Cancels the Settings Lock. **Level A:** Group 1 items (below) are not displayed on the menu, and are not available. **Level B:** Group 1 and Group 2 items (below) are not displayed on the menus, and are not available.

Items Locked by Settings Lock

Group 1

Picture menu

    Reset
    Reality Creation
    Laser Light Setting
    Contrast Enhancer
    Motionflow
    Contrast
    Brightness
    Color
    Hue
    Color Temp.
    Sharpness
    NR
    MPEG NR
    Smooth Gradation
    Gamma Correction
    Color Correction
    Clear White
    Color Space
    Input Lag Reduction

Advanced Picture menu

    Auto Calibration

Setup menu

    Periodic LD Calibration

Group 2

Setup menu

    Status
    Language
    Menu Position
    High Altitude Mode
    Remote Start
    Network Management
    Power Saving
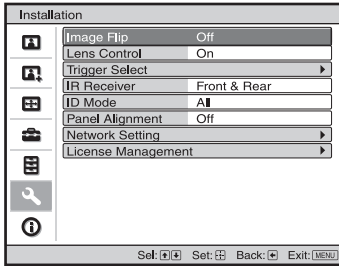
Function menu

    Test Pattern

Installation menu
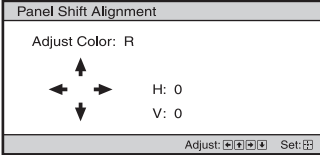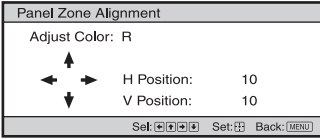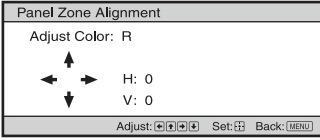
    Image Flip
    Lens Control
    Trigger Select
    IR Receiver
    ID Mode
    Panel Alignment
    Network Setting

🔧 Installation Menu

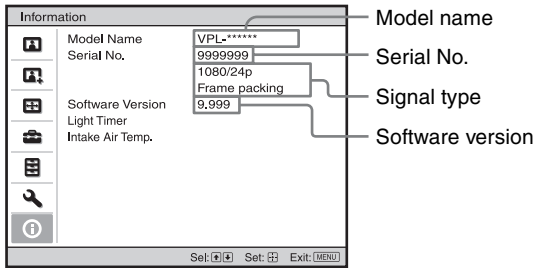The Installation menu is used for changing the installation settings.

```
Installation
  [icon] │ Image Flip        Off
  [icon] │ Lens Control      On
         │ Trigger Select              ▶
  [icon] │ IR Receiver       Front & Rear
  [icon] │ ID Mode           All
  [icon] │ Panel Alignment   Off
  [icon] │ Network Setting             ▶
  [icon] │ License Management          ▶
  [icon] │
  [icon] │
         │   Sel: [↑↓]  Set: [⊞]  Back: [←]  Exit: [MENU]
```

Setting items	Description
Image Flip	Flips the picture on the screen horizontally and/or vertically. **HV:** Flips the picture horizontally and vertically. **H:** Flips the picture horizontally. **V:** Flips the picture vertically. **Off:** The picture does not flip. Use this item for installation for the rear projection or ceiling installation.
Lens Control	Avoids any operation of the lens such as "Lens Focus," "Lens Zoom," and "Lens Shift," by mistake. **On:** Enables adjustment of the lens. **Off:** Prevents any adjustment of the lens.
Trigger Select	Switches the output function of the TRIGGER 1/TRIGGER 2 connector. **Off:** Turns off the TRIGGER connector function. **Power:** Outputs 12 V signals from the TRIGGER 1/TRIGGER 2 connectors when the unit is on. The TRIGGER 1/TRIGGER 2 connectors do not output any signals when the unit is in standby. **2.35:1 Zoom:** Works with the "Aspect" setting's "2.35:1 Zoom" (page 24) and outputs a 12 V signal from the TRIGGER 1 or TRIGGER 2 connector.
IR Receiver	Selects the remote control detectors (IR Receiver) on the front and rear of the unit. **Front & Rear:** Activates both the front and rear detectors. **Front:** Activates the front detector only. **Rear:** Activates the rear detector only.
ID Mode	**All/1/2/3/4:** Assigns an ID number to the projector. When set to "All," you can control the projector with the remote control independently of the assigned ID Mode. Refer also to "ID MODE switch" of the remote control (page 5).

Setting items	Description

Panel Alignment	This feature allows you to adjust the gaps in the color of characters or the picture on the projection surface.
	On: Adjusts the gaps in the colors selecting "Adjust Item" or "Adjust Color."
	  Adjust Item: Selects how to make adjustments from below.
	    Shift: Shifts the whole picture and makes adjustments.
	    Zone: Selects the desired range and makes adjustments.
	  Adjust Color: Assigns the desired color to adjust the gaps in color. Select "R" (Red) or "B" (Blue) to make adjustments based on "G" (Green).
	  Pattern Color: Select "R/G" (Red and Green) or "R/G/B" (White, all colors) when "Adjust Color" is "R" (Red). Select "B/G" (Blue and Green) or "R/G/B" (White, all colors) when the "Adjust Color" is "B" (Blue).
	  Adjust: The shift adjustment and zone adjustment of the color selected in "Adjust Color" can be made with the ←/→, ↑/↓ buttons.
	    When "Shift" is selected: Assign the settings of the horizontal direction (H) with the ←/→ buttons and the vertical direction (V) with the ↑/↓ buttons on the shift adjustment screen.
	
	```\nPanel Shift Alignment\n\nAdjust Color: R\n ↑\n ← • → H: 0\n ↓ V: 0\n\n Adjust: ⊡⊞⊞⊞ Set: ⊞\n```
	
	    When "Zone" is selected: Select the position to adjust with the ←/→ buttons for the horizontal position (H Position) and the ↑/↓ buttons for the vertical position (V Position), then press ENTER.
	
	```\nPanel Zone Alignment\n\nAdjust Color: R\n ↑\n ← • → H Position: 10\n ↓ V Position: 10\n Sel: ⊡⊞⊞⊞ Set: ⊞ Back: MENU\n```
	
	    Set the amount to adjust with the ←/→ buttons for the horizontal direction (H) and with the ↑/↓ buttons for the vertical direction (V). You can select the position to adjust again by pressing ENTER.
	
	```\nPanel Zone Alignment\n\nAdjust Color: R\n ↑\n ← • → H: 0\n ↓ V: 0\n Adjust: ⊡⊞⊞⊞ Set: ⊞ Back: MENU\n```
	
	    Reset: Returns to the factory settings.
	Off: The optimized data has been preset.
	
	Note
	Depending on the adjustments made above, colors may become uneven or the resolution may change.

Network Setting	Perform internet protocol settings.

IPv4 Setting	**IP Address Setup**: Selects the IP address setting method.
	  Auto(DHCP): The IP address is assigned automatically from the DHCP server such as a router.
	  Manual: Specifies the IP address manually.
	  When "Manual" is selected for "IP Address Setup," select the item with the ←/→ buttons and input the value with the ↑/↓ buttons. When all items are entered, select "Apply," and then press the ENTER button. The entered settings will be registered.
	IP Address: Sets the unit's IP address.
	Subnet Mask: Sets the unit's subnet mask.
	Default Gateway: Sets the unit's default gateway.
	MAC Address: Displays the unit's MAC address. This cannot be changed.
	Apply: Enables the IP address that is set manually.

IPv6 Information	Displays the IPv6 information. When you set the IPv6 IP address, set it on a Web browser (page 33).

Setting items	Description
License Management	Manages the activation (validation) status of the license. **Activate Licenses:** Activates (validates) the available license. **Unique Device ID:** Displays the ID number of the unit. **Tip** For details on features activated by "Activate Licenses, " refer to the following web site: https://www.ecspert.sony.biz/ **Note** Supported Web browsers are as follows: Windows OS: Internet Explorer 10/11, Microsoft Edge (Windows 10), Google Chrome Mac OS: Safari

ⓘ Information Menu

The Information menu displays the model name, serial number, input signal type, and software version.

Information		
📖	Model Name	VPL-******
🔲	Serial No.	9999999
		1080/24p
		Frame packing
🔳	Software Version	9.999
🧰	Light Timer	
	Intake Air Temp.	
📑		
🔧		
ⓘ		

Sel: ⬆⬇ Set: 🔳 Exit: MENU

— Model name
— Serial No.
— Signal type
— Software version

Items	Description
Model Name	Displays the model name
Serial No.	Displays the serial number.
Signal type	Displays the resolution of the video which you are watching.
Software Version	Displays the software version.
Light Timer	Displays how long the light has been turned on (total usage).
Intake Air Temp.	Displays the intake air temperature.

Note

You cannot adjust or change the displays listed above.

About the Preset Memory

This unit has default image data to adjust preset data for input signals appropriately according to the signals shown in "Preset Signals" (page 41) (the preset memory). When the preset signal is input, the unit automatically detects the signal type and recalls the data for the signal from the preset memory to adjust it to an optimum picture. The signal type is displayed in the Information ⓘ menu.

Note

Depending on the computer input signal, parts of projection image may be hidden or displayed incorrectly.

Using Network Features

Connection to the network allows you to operate the following features:
- Checking the current status of the unit via a Web browser.
- Making the network settings for the unit.
- Network monitoring and controlling with control protocol (SDAP [Advertisement], SDCP [PJ Talk], DDDP [AMX], Crestron RoomView, Control4).

Notes
- When connecting this projector with the network, consult with the network administrator. The network must be secured.
- When using this projector connected with the network, access the Control window via a Web browser and change the access limitation of the factory preset values (page 34). It is recommended to change the password regularly.
- When the setting on the Web browser is completed, close the Web browser to log out.
- The menu displays used for the explanation below may be different depending on the model you are using.
- Supported Web browsers are Internet Explorer 8/9/10/11.
- The menu displays only English.
- If the browser of your computer is set to [Use a proxy server] when you have access to the unit from your computer, click the check mark to set accessing without using a proxy server.
- AMX DDDP is not compatible with IPv6.
- These network functions are available when the unit is turned on.

Displaying the Control Window of the Unit with a Web Browser

1 Connect the LAN cable.

2 Set the network settings for the unit using "Network Setting" on the Installation 🔧 menu (page 30).

3 Start a Web browser on the computer, enter the following in the address field, then press the Enter key on your computer.
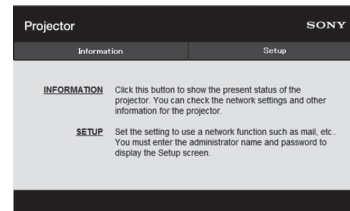
http://xxx.xxx.xxx.xxx
(xxx.xxx.xxx.xxx: IP address for the unit)

When connecting by the IPv6 address
http://[xxxx:xxxx:- xxxx]

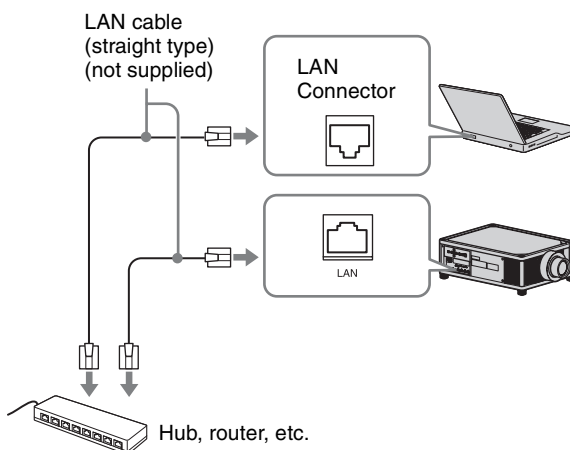You can confirm the IP address of the unit under "Network Setting" on the Installation 🔧 menu.
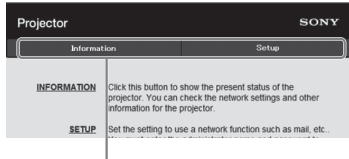
The following window appears in the Web browser:

Once you make the network settings, you can open the Control window only by performing step **3** of this procedure.

Operating the Control Window

Switching the Page

Click one of the Page Switching buttons to display the desired setting page.

Page Switching buttons

Setting the Access Limitation

You can limit a user for accessing any particular page.

Administrator: Allowed access to all pages

User: Allowed access to all pages except the Setup page

When you access the Setup page for the first time, input "root" as the user name and "Projector" as the password in the authentication dialog.

When you log in for the first time, the window that prompts you to change the password is displayed. Follow the instructions on the screen to change the password.

The name of the administrator is preset to "root."
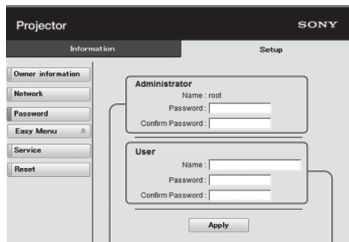
Entry area for [Administrator]

Entry area for [User]

The password can be changed in the Password page in the Setup page.

When you change the password, input a new password after deleting the password (*****) that was set.

The password of the administrator and user should be 8 to 16 characters that includes both alphabet and numeric characters. Alphabet is case-sensitive.

The default password "Projector" cannot be set as a new password.

> **Note**
>
> If you forget your password, consult with qualified Sony personnel.

Confirming the Information Regarding the Unit

You can confirm the current settings for the unit on the Information page.

Information area

Error Handling

Troubleshooting

If the unit appears to be operating erratically, try to diagnose and correct the problem using the following instructions. If the problem persists, consult with qualified Sony personnel.

Power

Symptom	Cause and Remedy	Page
The power is not turned on.	Check the indicators.	37
	After the AC power cord is connected, it may take about 10 seconds until the unit is ready to be turned on. Wait a while then turn on the unit.	–
The power is suddenly turned off.	Check that "Power Saving" in the Setup 🧰 menu is set to "Standby."	26
	Set "Power Saving" to "Off."	26

Picture

Symptom	Cause and Remedy	Page
No picture.	Check that the connecting cable is connected to the external equipment properly.	11
	Select the input source correctly using the INPUT button.	13
	Check that the computer signal is set for output to an external monitor. If a notebook computer and the signal is output to its display and an external monitor, the external monitor's image may not be displayed correctly. Set your computer to output the signal to only an external monitor.	–
The picture is too dark.	Adjust "Contrast" or "Brightness" on the Picture 🖼 menu properly.	19
The picture is not clear.	Adjust the focus.	8
	Condensation has accumulated on the lens. Leave the unit for about two hours with the power on.	–
The color of characters or the picture is not appropriate.	Select the desired color registration in "Panel Alignment" on the Installation 🔧 menu.	30
Image is left on the projection image. (Image retention)	When high contrast non-moving images are displayed for a long period of time, there may be some image retention on the projection image. This is only a temporary condition. Turning off the power for a while will eliminate the retained image.	–

On-screen display

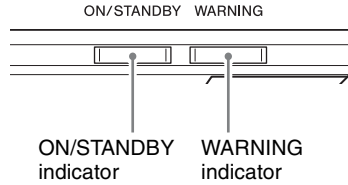| Symptom	Cause and Remedy	Page
On-screen display does not appear.	Set "Status" on the Setup 🧰 menu to "On."	25
	Check if the ON/STANDBY indicator should light in green. When the ON/STANDBY indicator blinks in green, the unit is starting up. Wait until it stops blinking and remains lit in green.	7

Remote control

Symptom	Cause and Remedy	Page
The remote control does not work.	Batteries could be weak. Replace them with new batteries.	–
	Insert the batteries with the correct polarities.	6
	If there is a light source near the remote control detector, the unit may work improperly or inadvertently.	–
	Confirm the position of the remote control detector on the unit.	4
	Set "IR Receiver" to "Front & Rear" on the Installation 🔧 menu.	29
	Check if the "ID Mode" of the projector corresponds to that of the remote control.	5, 29
	Make sure that the cable is not connected to the IR IN connector.	3

Others

Symptom	Cause and Remedy	Page
The fan is noisy.	Check the setting of "High Altitude Mode" on the Setup 🧰 menu.	25
	Make sure that the room temperature is not too high.	–
	Check the installation requirements of the unit. Fan speed increases to maintain the product reliability of the projector's components in a room where the temperature is higher than normal. The fan noise becomes slightly louder in these rooms. The approximate normal temperature for the unit is 25°C (77°F).	–
The lens shift cannot be adjusted.	The lens shift cannot be adjusted over the range of movement. Adjust the lens shift within the range of movement.	10, 43

About Indicators

The ON/STANDBY or WARNING indicator lights up or flashes if there is any trouble with your projector.

ON/STANDBY WARNING

ON/STANDBY indicator

WARNING indicator

Flashing/Lighting indicators	The number of flashes	Cause and Remedy
ON/STANDBY WARNING (Lights in red) (Flashes in red)	Three times	The unit does not light properly due to an abnormality of the light source and light source power. Turn off, then turn on the power after a while. If the symptom persists, consult qualified Sony personnel.
	Six times	The unit detects a drop impact. If there is abnormality on the unit, consult with qualified Sony personnel. If there are no abnormalities on the unit, disconnect the AC power cord and check that the ON/STANDBY indicator turns off, then connect the AC power cord and turn the unit on.
	Eight times	The lens is not securely attached.
ON/STANDBY WARNING (Flashes in red) (Flashes in red) Both indicators flash	Twice	The internal temperature is unusually high. Check to ensure that nothing is blocking the ventilation holes and the unit is not being used at high altitudes.

Note

If the indicator starts flashing in a way of other than the above, and the symptom persists even after carrying out the above methods, consult with qualified Sony personnel.

Message Lists

Warning messages

Symptom	Cause and Remedy	Page
High temp.! Light off in 1 min.	Turn off the power.	–
	Check to ensure that nothing is blocking the ventilation holes.	4
Frequency is out of range!	Frequency is out of range. Input a signal that is within the acceptable frequency range of the unit.	41
Projector temperature is high. High Altitude Mode should be "On" if Projector is being used at high altitude.	Check to ensure that nothing is blocking the ventilation holes.	4
	When using the unit at high altitude, set "High Altitude Mode" to "On."	25
	Note When temperature inside the unit remains high, "High Altitude Mode" is switched to "On" in 1 minute, then the fan speed increases.	
Power Saving Mode is set. Projector will automatically enter Standby Mode in 1 minute.	"Power Saving" is set to "Standby." **Note** If no signal is input, the power turns off after 1 minute, and the projector goes into standby mode.	26

Caution messages

Symptom	Cause and Remedy	Page
x⊕	No signal is input in the selected input. Check connections.	11
Not applicable!	Press the appropriate button. The operation to be activated by the button is currently prohibited.	–
Settings Lock enabled.	"Settings Lock" is set to "Level A" or "Level B."	27

Others

Updating the Software

You can download files to update the software of the unit. Copy the downloaded files to your USB memory, insert the USB memory to the USB terminal of the unit, then perform the update.
To use the features updated, insert a USB memory device into a PC connected to the internet.
Download the update files from the Sony website.

Note
Some USB memories may not be supported for use.

NOTICES AND LICENSES FOR SOFTWARE USED IN THIS PRODUCT

Refer to "Software License Information" supplied separately.

Trademark Information
- "Blu-ray" and "Blu-ray Disc" are trademarks of Blu-ray Disc Association.
- DisplayPort, DisplayPort logo and VESA are trademarks or registered trademarks of Video Electronics Standards Association.

Specifications

Item		Description
Display System		Projection system
Display device	Size of effective display area	SXRD 0.74-inch (18.8 mm) × 3
	Number of pixels	4096 × 2160 × 3 pixels
Projection image size		60-inch to 300-inch (1,524 mm to 7,620 mm) (when using VPLL-Z7013) 60-inch to 1000-inch (1,524 mm to 25,400 mm) (when using VPLL-Z7008)
Light source		Laser diode
Accepted digital signals		See "Preset Signals" (page 41).
Inputs/Outputs	DisplayPort connectors	× 4
	REMOTE connector	RS-232C, D-sub 9-pin
	LAN connector	RJ45, 10BASE-T/100BASE-TX
	USB connector	Type A, DC 5 V, Max. 500 mA
	IR connectors	IN: 1, OUT:1, mini jack
	TRIGGER connectors	× 2, mini jack, DC 12 V, Max. 100 mA
	Sync connectors	IN: 1, OUT:1
Outside dimensions (w/h/d)		550 mm × 228 mm × 750 mm (21 $^{21}/_{32}$ inches × 8 $^{31}/_{32}$ inches × 29 $^{17}/_{32}$ inches)
Mass		Approx. 40.0 kg (88 lb 1.7 oz) (excluding the lens)
Power requirements		AC 220 V to 240 V, 6 A, 50/60 Hz (for Europe and China) AC 100 V to 240 V, 12 A to 6 A, 50/60 Hz (for countries other than Europe and China)
Power consumption		1.2 kw (max.)
Standby mode power consumption		0.5 W
Operating temperature (Operating humidity)		5°C to 40°C (41°F to 104°F) (20% to 80% (no condensation))
Storage temperature (Storage humidity)		−10°C to +60°C (14°F to 140°F) (20% to 80% (no condensation))
Supplied accessories		See "Checking the Supplied Accessories" (page 6).
Optional accessories		Projection Lens VPLL-Z7008: Motorized, Throw ratio: 0.80:1 to 1.02:1, Shift: ±50% (V), ±18% (H), F2.9, Projected image size: 60" to 1000" (1,524 mm to 25,400 mm), Maximum external dimensions: 134 mm × 134 mm × 309 mm (5 $^{9}/_{32}$ inches × 5 $^{9}/_{32}$ inches × 12 $^{5}/_{32}$ inches) (W × H × D), Mass: 3.7 kg (8.2 lb)
		Projection Lens VPLL-Z7013: Motorized, Throw ratio: 1.27:1 to 2.73:1, Shift: ±80% (V), ±31% (H), F2.9 to 3.9, Projected image size: 60" to 300" (1,524 mm to 7,620 mm), Maximum external dimensions: 131 mm × 131 mm × 252 mm (5 $^{5}/_{32}$ inches × 5 $^{5}/_{32}$ inches × 9 $^{29}/_{32}$ inches) (W × H × D), Mass: 2.6 kg (5.7 lb)

Notes

- The values for mass and dimensions are approximate.
- Not all optional accessories are available in all countries and area. Please check with your local Sony Authorized Dealer.
- Information on accessories in this manual is current as of December 2016.

Design and specifications of this unit and its optional accessories are subject to change without notice.

Preset Signals

The following table shows the signals and video formats which you can project using this unit.
When a signal other than the preset signals shown below is input, the picture may not be displayed properly.

Preset memory no.	Preset signal (resolution)		fH (kHz)	fV (Hz)	Sync	DisplayPort
12	1080/60p	1080/60p (1920 × 1080p)	67.500	60.000	–	●
13	1080/50p	1080/50p (1920 × 1080p)	56.260	50.000	–	●
14	1080/24p	1080/24p (1920 × 1080p)	26.973	23.976	–	●
74	3840 × 2160/60p	3840 × 2160/60p (3840 × 2160)	133.293	59.988	–	●*1
75	3840 × 2160/50p	3840 × 2160/50p (3840 × 2160)	112.500	50.000	–	●*2
76	4096 × 2160/60p	4096 × 2160/60p (4096 × 2160)	133.264	59.975	–	●*1
77	4096 × 2160/50p	4096 × 2160/50p (4096 × 2160)	112.500	50.000	–	●*2
78	4096 × 2160/30p	4096 × 2160/30p (4096 × 2160)	67.500	30.000	–	●*3
93	3840 × 2160/24p	3840 × 2160/24p (3840 × 2160)	53.946	23.976	–	●*3
95	3840 × 2160/30p	3840 × 2160/30p (3840 × 2160)	67.433	29.970	–	●*3
96	4096 × 2160/24p	4096 × 2160/24p (4096 × 2160)	54.000	24.000	–	●*3

*1: Available for DisplayPort 1, DisplayPort 2, and DisplayPort 1/2 (V Split)
*2: Available for DisplayPort 1/2 (V Split) only
*3: Available for DisplayPort 1 and DisplayPort 2

Input Signals and Adjustment/Setting Items

The items in the menus available for making adjustments differ depending on the input signal.

Aspect Mode

Selectable items vary depending on the type of input signal.
For details, see the tables below. Items that cannot be selected are not displayed in the menu.

Acceptable signals	4096 × 2160	3840 × 2160	1920 × 1080
Preset memory number (page 41)	76 to 78, 96	74, 75, 93, 95	12 to 14
1.85:1 Zoom	–	●	●
2.35:1 Zoom	–	●	●
Normal	●*	●	●
Stretch	–	–	–

*: Not displayed in the menu as fixed at Normal.

Storage Conditions of Adjustment/Setting Items

Each adjustable/setting item is individually stored according to the storage conditions in the following table. For further details, see the tables below.

Picture menu

Item	Storage conditions
Calib. Preset	For each input connector and preset signal
Reset	For each input connector and Calib. Preset
Reality Creation	
Laser Light Setting	
Contrast Enhancer	
Motionflow	
Contrast	
Brightness	
Color	
Hue	
Color Temp.	
D93 - D55, Custom	
Gain R	For each Color Temp.
Gain G	
Gain B	
Bias R	
Bias G	
Bias B	
Sharpness	For each input connector and Calib. Preset
NR	
MPEG NR	
Smooth Gradation	
Gamma Correction	
Color Correction	
Clear White	
Color Space	
BT.709 - Custom	
Red	For each Color Space
Green	
Blue	
Cyan - Red	
Magenta - Green	
Input Lag Reduction	For each input connector and Calib. Preset

Screen menu

Item	Storage conditions
Aspect	For each Picture Position
Blanking	

Projection Distance and Lens Shift Range

The projection distance refers to the distance between the front of the lens and the projected surface.
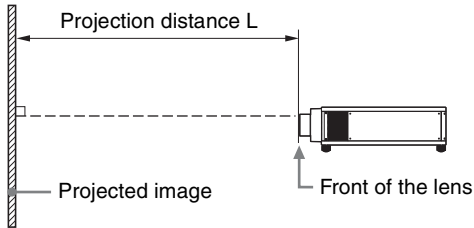
The lens shift range represents the distance in percent (%) by which the lens can be shifted from the center of the projected image. The lens shift range is regarded as 0% when the point Ⓐ in the illustration (point where a line drawn from the center of the lens and the projected image cross at right angles) is aligned with the center of the projected image and full width or full height of the projected image is regarded as 100%.
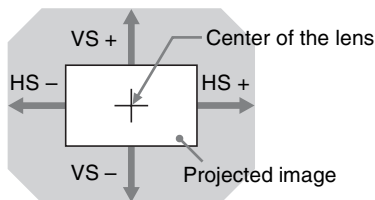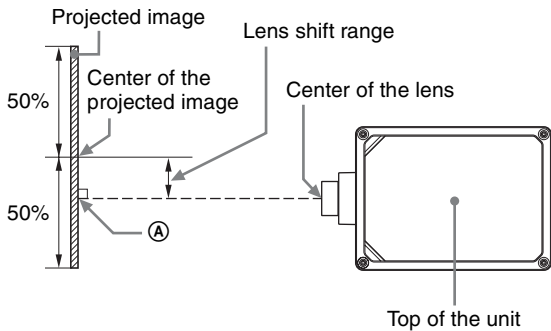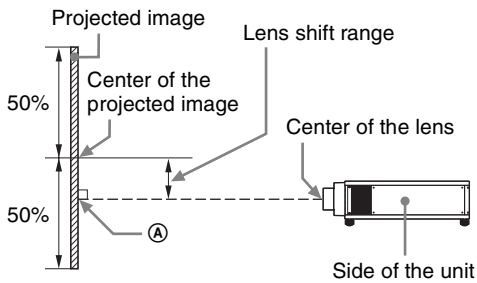
Shaded region: Lens shift range

VS +: Vertical lens shift range (up) [%]
VS –: Vertical lens shift range (down) [%]
HS +: Horizontal lens shift range (right) [%]
HS –: Horizontal lens shift range (left) [%]

When projecting in 1.90:1 (Native Full Display 17:9) format
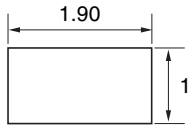
Projection distance

Projection image size		Projection distance L	
Diagonal	Width × Height	VPLL-Z7008	VPLL-Z7013
80" (2.03 m)	1.80 × 0.95 (71 × 37)	1.43 – 1.82 (56 – 71)	2.23 – 4.90 (88 – 192)
100" (2.54 m)	2.25 × 1.18 (88 × 47)	1.80 – 2.29 (71 – 90)	2.81 – 6.14 (111 – 241)
120" (3.05 m)	2.70 × 1.42 (106 × 56)	2.17 – 2.76 (86 – 108)	3.39 – 7.38 (134 – 290)
150" (3.81 m)	3.37 × 1.78 (133 × 70)	2.74 – 3.47 (108 – 136)	4.25 – 9.25 (168 – 364)
200" (5.08 m)	4.49 × 2.37 (177 × 93)	3.67 – 4.65 (145 – 183)	5.70 – 12.36 (225 – 486)

Projection distance formula
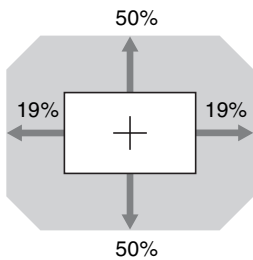
D: Projected image size (Diagonal)   Unit: m (inches)

| Lens	Projection distance L (minimal length)	Projection distance L (maximal length)
VPLL-Z7008	$L = 0.018689 \times D - 0.0733$ ($L = 0.735786 \times D - 2.8875$)	$L = 0.023617 \times D - 0.0664$ ($L = 0.929788 \times D - 2.6152$)
VPLL-Z7013	$L = 0.028860 \times D - 0.0800$ ($L = 1.136218 \times D - 3.1491$)	$L = 0.062212 \times D - 0.0756$ ($L = 2.449310 \times D - 2.9775$)

Lens shift range
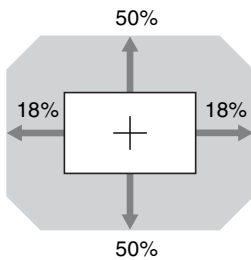
VPLL-Z7008

$$VS + = VS - = 50 - 2.778 \times (HS + \text{ or } HS -) \, [\%]$$
$$HS + = HS - = 18 - 0.360 \times (VS + \text{ or } VS -) \, [\%]$$

VPLL-Z7013
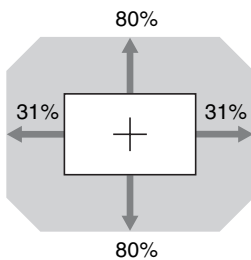
$$VS + = VS - = 80 - 2.581 \times (HS + \text{ or } HS -) \, [\%]$$
$$HS + = HS - = 31 - 0.388 \times (VS + \text{ or } VS -) \, [\%]$$

When projecting in 1.78:1 (16:9) format
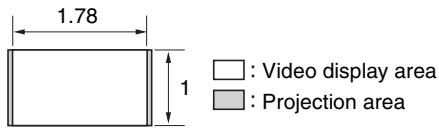
1.78

1

☐ : Video display area
▨ : Projection area

Projection distance

Unit: m (inches)

Projection image size		Projection distance L	
Diagonal	Width × Height	VPLL-Z7008	VPLL-Z7013
80" (2.03 m)	1.77 × 1.00 (70 × 39)	1.50 – 1.91 (59 – 75)	2.35 – 5.15 (93 – 202)
100" (2.54 m)	2.21 × 1.25 (87 × 49)	1.90 – 2.41 (75 – 95)	2.96 – 6.46 (117 – 254)
120" (3.05 m)	2.66 × 1.49 (105 × 59)	2.29 – 2.91 (90 – 114)	3.56 – 7.77 (141 – 305)
150" (3.81 m)	3.32 × 1.87 (131 × 74)	2.88 – 3.65 (114 – 143)	4.47 – 9.73 (176 – 383)
200" (5.08 m)	4.43 × 2.49 (174 × 98)	3.86 – 4.89 (152 – 192)	5.99 – 13.00 (236 – 511)

Projection distance formula
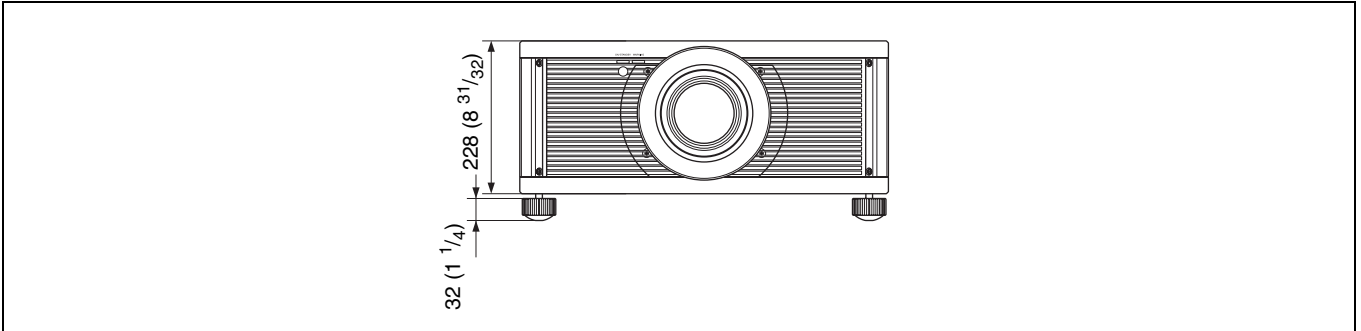
D: Projected image size (Diagonal)

Unit: m (inches)

Lens	Projection distance L (minimal length)	Projection distance L (maximal length)
VPLL-Z7008	L = 0.019643 × D – 0.0733 (L = 0.773332 × D – 2.8875)	L = 0.024822 × D – 0.0664 (L = 0.977234 × D – 2.6152)
VPLL-Z7013	L = 0.030333 × D – 0.0800 (L = 1.194198 × D – 3.1491)	L = 0.065387 × D – 0.0756 (L = 2.574296 × D – 2.9775)

Lens shift range

VPLL-Z7008

50%

19%   19%

50%

$VS + = VS - = 50 - 2.632 \times (HS + \text{ or } HS -)$ [%]
$HS + = HS - = 19 - 0.380 \times (VS + \text{ or } VS -)$ [%]

VPLL-Z7013

80%

33%   33%

80%
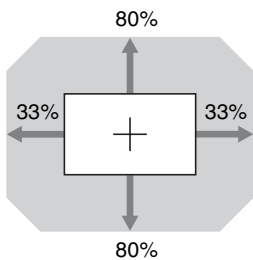
$VS + = VS - = 80 - 2.424 \times (HS + \text{ or } HS -)$ [%]
$HS + = HS - = 33 - 0.413 \times (VS + \text{ or } VS -)$ [%]

When projecting in 2.35:1 format
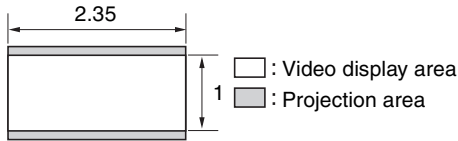
□ : Video display area
▨ : Projection area

Projection distance

Unit: m (inches)

Projection image size		Projection distance L	
Diagonal	Width × Height	VPLL-Z7008	VPLL-Z7013
80" (2.03 m)	1.87 × 0.80 (74 × 31)	1.49 – 1.89 (59 – 74)	2.33 – 5.10 (92 – 200)
100" (2.54 m)	2.34 × 0.99 (92 × 39)	1.88 – 2.39 (74 – 94)	2.93 – 6.39 (116 – 251)
120" (3.05 m)	2.80 × 1.19 (110 × 47)	2.26 – 2.88 (89 – 113)	3.53 – 7.69 (139 – 302)
150" (3.81 m)	3.51 × 1.49 (138 × 59)	2.85 – 3.61 (112 – 142)	4.43 – 9.63 (175 – 379)
200" (5.08 m)	4.67 × 1.99 (184 × 78)	3.82 – 4.84 (151 – 190)	5.93 – 12.86 (234 – 506)

Projection distance formula

D: Projected image size (Diagonal)   Unit: m (inches)

Lens	Projection distance L (minimal length)	Projection distance L (maximal length)
VPLL-Z7008	L = 0.019441 × D – 0.0733 (L = 0.765407 × D – 2.8875)	L = 0.024567 × D – 0.0664 (L = 0.967219 × D – 2.6152)
VPLL-Z7013	L = 0.030024 × D – 0.0800 (L = 1.182064 × D – 3.1491)	L = 0.064723 × D – 0.0756 (L = 2.548138 × D – 2.9775)

Lens shift range
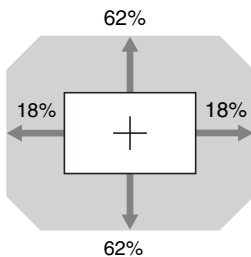
VPLL-Z7008

$\text{VS}+ = \text{VS}- = 62 - 3.444 \times (\text{HS}+ \text{ or HS}-)$ [%]
$\text{HS}+ = \text{HS}- = 18 - 0.290 \times (\text{VS}+ \text{ or VS}-)$ [%]

VPLL-Z7013
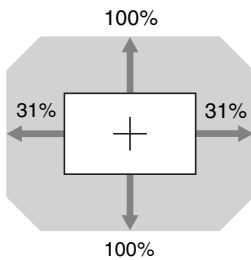
$\text{VS}+ = \text{VS}- = 100 - 3.226 \times (\text{HS}+ \text{ or HS}-)$ [%]
$\text{HS}+ = \text{HS}- = 31 - 0.310 \times (\text{VS}+ \text{ or VS}-)$ [%]

Dimensions

Front

Unit: mm (inches)

228 (8 $^{31}/_{32}$)

32 (1 $^1/_4$)

Top

Unit: mm (inches)

750 (29 $^{17}/_{32}$)

65 (2 $^9/_{16}$)

L'

L"

550 (21 $^{21}/_{32}$)

197 (7 $^3/_4$)

L': The distance between the front of the lens (center) and the front of the cabinet
VPLL-Z7008: 159.0 mm (6 $^1/_4$ inches) (Tele) to 185.2 mm (7 $^9/_{32}$ inches) (Wide)
VPLL-Z7013: 130.2 mm (5 $^1/_8$ inches)

L": 131 (5 $^5/_{32}$) (VPLL-Z7013)
134 (5 $^9/_{32}$) (VPLL-Z7008)

Bottom

Unit: mm (inches)

28.6 (1 $^1/_8$)

28.6 (1 $^1/_8$)

692.7 (27 $^9/_{32}$)

492.7 (19 $^{13}/_{32}$)

Index