

Data Projector
VPL-FHZ85/FHZ80



This manual is for those who encounter issues or have questions when using the Data Projector.
Not all models are available in all countries and areas. Please check with your local Sony Authorized Dealer.

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Checking the Supplied Accessories

Confirm that the following components are included. The () indicates the quantity of the component.

- Remote Commander (RM-PJ30) (1)
- Size AA (R6) batteries (2)
- AC power cord (1)
- Plug holder (1)
- Setup Guide (1)

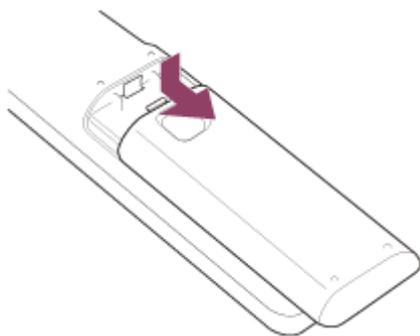
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Installing Batteries

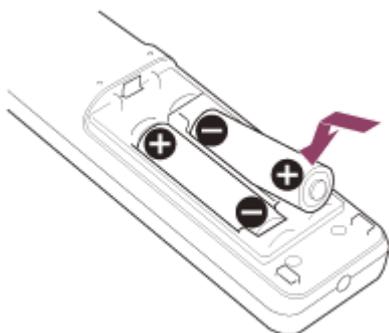
Insert two size-AA (R6) batteries (supplied) into the Remote Commander as follows.

If you cannot operate the unit with the Remote Commander, replace both batteries with new ones.

- 1 Slide the lid on the back of the Remote Commander while pressing it down.**



- 2 Insert the batteries from the negative side.**

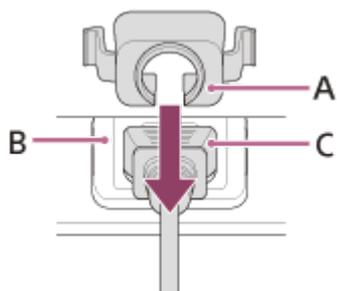


- 3 Replace the lid.**

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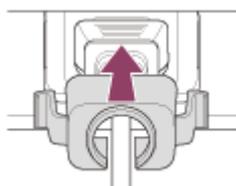
Connecting the AC Power Cord

- 1 Plug the AC power cord (C) into the AC IN socket (B), then attach the plug holder (A) to the AC power cord.



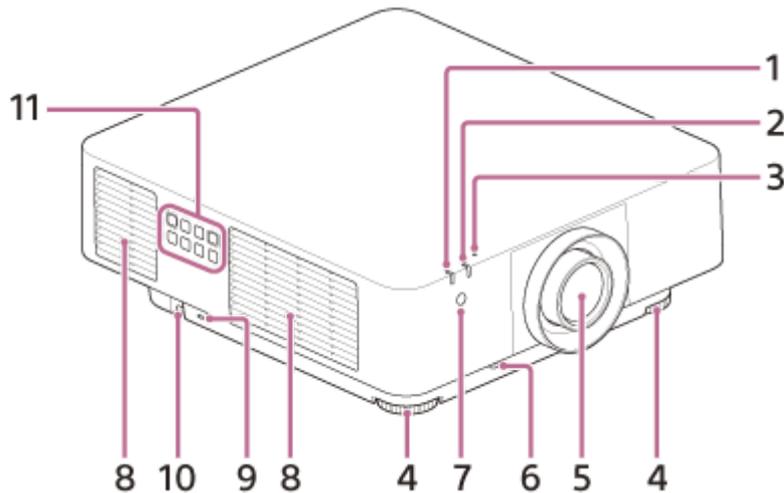
- A: Plug holder (supplied)
- B: AC IN socket
- C: AC power cord (supplied)

- 2 Slide the plug holder over the AC power cord to fix to the unit.



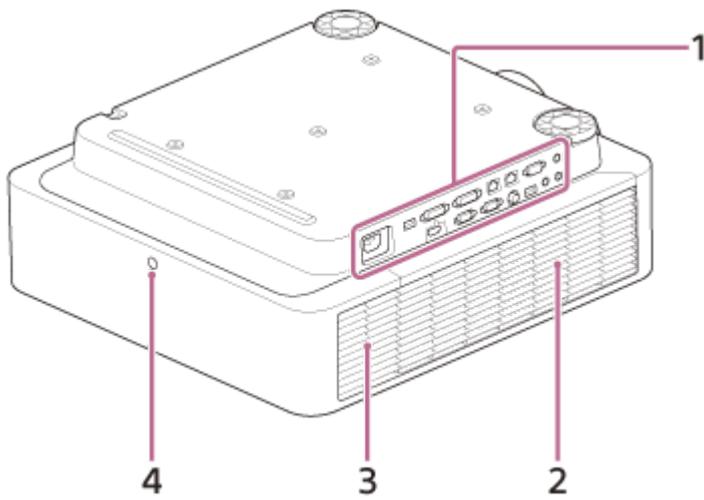
Parts and Controls (Main Unit)

Top/Front/Right



1. **ON/STANDBY indicator**
2. **WARNING indicator**
3. **Light sensor**
Detects the surrounding brightness.
4. **Front feet (adjustable)**
5. **Projection lens**
6. **LENS RELEASE button**
7. **Remote control receiver**
8. **Ventilation holes (exhaust)**
9. **Antitheft lock**
For attaching theft prevention cables manufactured by Kensington.
For details, visit the Kensington website.
<https://www.kensington.com/>
10. **Antitheft bar**
For attaching theft prevention chains (wires) and those sold commercially.
11. **Control panel**

Rear/Bottom



1. **Terminals**
2. **Side cover**
3. **Ventilation holes (intake)**
4. **Remote control receiver**

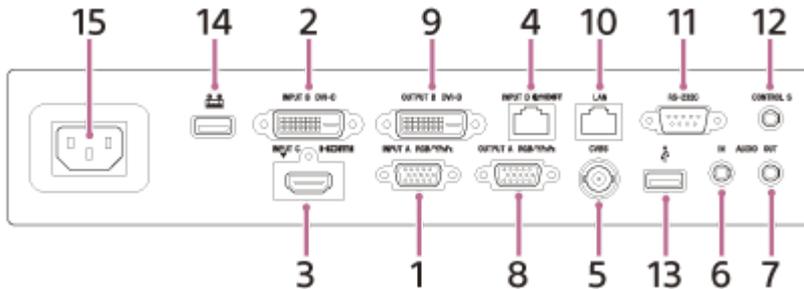
Caution

Do not place anything near the ventilation holes. The temperature may rise inside the unit, leading to a possible malfunction or fire. Do not place your hand or easily deformable objects near the ventilation holes (exhaust) or in its vicinity. Doing so may result in burning or deformation of these objects.

Related Topic

- [Parts and Controls \(Connection Terminals\)](#)
- [Parts and Controls \(Remote Commander and Control Panel\)](#)
- [Cleaning the Air Filter](#)
- [Replacing the Projection Lens](#)
- [Reading the Indicator](#)

Parts and Controls (Connection Terminals)



1. Input A (INPUT A)

Video: RGB/Y PB PR input terminal (RGB/Y PB PR)

2. Input B (INPUT B)

Video: DVI-D input terminal (DVI-D)

3. Input C (INPUT C)

Video: HDMI input terminal (HDMI)
Audio: HDMI input terminal (HDMI)

4. Input D (INPUT D)

HDBaseT terminal (HDBT)

5. Video (VIDEO IN)

Video: Video input terminal

6. Audio (AUDIO IN)

Audio: Audio input terminal

7. Audio (AUDIO OUT)

Audio: Audio output terminal

8. Output A (OUTPUT A)

Video: RGB/Y PB PR output terminal (RGB/Y PB PR)

9. Output B (OUTPUT B)

Video: DVI-D output terminal (DVI-D)

10. LAN terminal

11. RS-232C terminal (RS-232C)

A control terminal compliant to RS-232C. Connect to the RS-232C computer terminal with an RS-232C cable (cross).

12. CONTROL S input terminal (DC power supply) (CONTROL S)

Connect to the CONTROL S output terminal on the supplied Remote Commander with a connecting cable (stereo mini plug (not supplied)) when using it as a wired Remote Commander.

13. USB terminal (Type A) ()

Terminal for software update and copying/downloading the settings

14. USB terminal (Type A)

Dedicated terminal for power supply. USB power supply up to 5 V/2 A is available.

15. AC IN socket ()

Connect the supplied AC power cord.

Note

- The audio input terminals of the projector are for output to external equipment. Connect external audio equipment to output audio.
- The audio inputs of Input A, Input B, and Video are shared.
- Output terminals output projected images or audio. As for images, the signal input from Input A is output from Output A, and the signal input from Input B is output from Output B. However, if the signal input from Input B is protected by HDCP, the signal is not output from Output B.

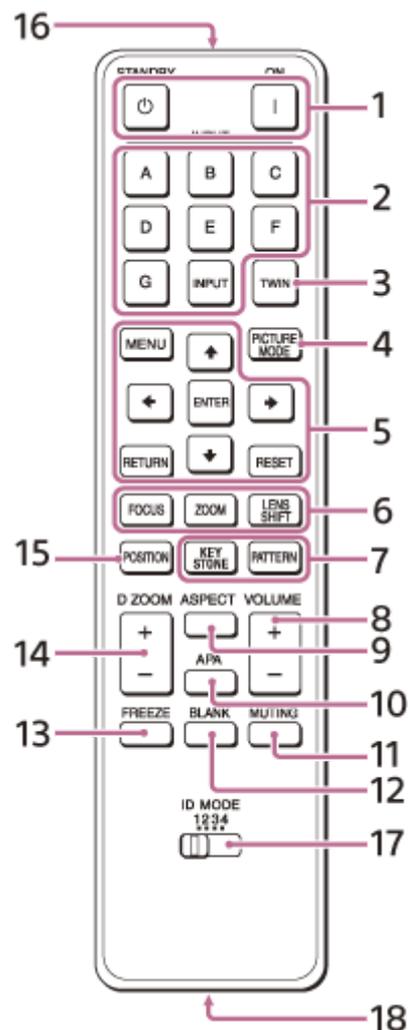
As for audio, when Input A or Input B, or Video is selected, the audio signal input from the audio input terminal is output; when Input C or Input D is selected, the audio signal input from the selected input terminal is output.

Related Topic

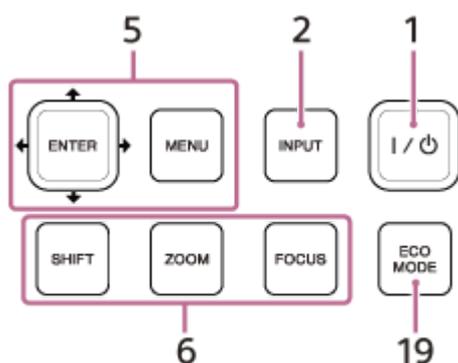
- [Connecting to a Computer with an RGB Output Terminal](#)
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- [Connecting to a Computer with an HDMI Output Terminal](#)
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- [Connecting to an External Monitor](#)
- [Connecting to Audio Equipment](#)
- [Connecting to an HDBaseT™ Device](#)
- [Supplying the Power to an External Device](#)

Parts and Controls (Remote Commander and Control Panel)

Remote Commander



Control panel



1. **I (On) key / ⏻ (Standby) key**

Turns on the power and goes to standby.

2. **INPUT (Input selection) key/Direct input select keys**

Selects the input. Select the Video (VIDEO IN) with the INPUT (Input selection) key. The E, F, and G keys are not used with this projector.

3. **TWIN (Twin picture) key**
Not available for this unit.
4. **PICTURE MODE key**
Switches the [Picture Mode] setting.
5. **MENU (Menu) key**
ENTER (Enter)/ ↑ / ↓ / ← / → (Arrow) keys
RETURN (Return) key
RESET (Reset) key
Perform menu operations, etc.
6. **FOCUS (Focus) key**
Used when the electric focus lens is attached.
ZOOM (Zoom) key
Used when the electric zoom lens is attached.
LENS SHIFT (Lens shift)/SHIFT (Shift) key
Adjusts the position of the image.
7. **PATTERN (Pattern) key/KEYSTONE (Trapezoidal correction) key**
Used for adjusting the projected image.
8. **VOLUME (Sound volume) +/- key**
Adjusts the volume output from the audio output terminal.
9. **ASPECT (Aspect) key**
Switches the aspect ratio of the projected image.
10. **APA (Auto pixel alignment) key**
Adjusts the input signal to fit to the screen automatically when there is a computer signal being input from the RGB input terminal (Input A). Pressing the APA key once more during adjustment will cancel the adjustment.
11. **MUTING (Mute) key**
When sound is output, temporarily mutes the audio. Press again to release.
12. **BLANK (Eliminate image) key**
Temporarily turns off the projected image. Press again to release.
13. **FREEZE (Freeze) key**
Pauses the image. Press again to release. This can be used when there is a computer signal being input.
14. **D ZOOM (Digital zoom) +/- key**
Zooms in or out on a part of the projected image.
15. **POSITION (Picture position) key**
Not in use for the projector.
16. **Infrared transmitter**
17. **ID MODE (ID mode) switch**
Set an ID mode of the Remote Commander. If you assign a different ID number to each projector when multiple projectors are used, you can control only the projector with the same ID mode as that of the Remote Commander.
18. **CONTROL S output terminal**
Connect to the CONTROL S input terminal on the projector with a connecting cable (stereo mini plug (not supplied)) to use the Remote Commander as a wired one.
You do not need to install batteries in the Remote Commander, as the power is supplied from the projector.
19. **ECO MODE (Eco mode) key**
Allows you to set to Eco Mode.

Note

- When [Intelligent Setting] in the  [Projection Setting] menu is set to [On], [Picture Mode] cannot be set.

Remote Commander Operation

- Direct the Remote Commander towards the remote control receiver on the projector.
- The shorter the distance between the Remote Commander and the projector, the wider the angle within which the Remote Commander can control the projector.
- If there is any obstruction between the Remote Commander and the remote control receiver on the projector, the projector may not be able to receive signals from the Remote Commander.

Related Topic

- [Turning Power On/Off](#)
- [Projecting Images](#)
- [Using the Digital Zoom Function](#)
- [Using Eco Mode](#)
- [Navigating Menus](#)

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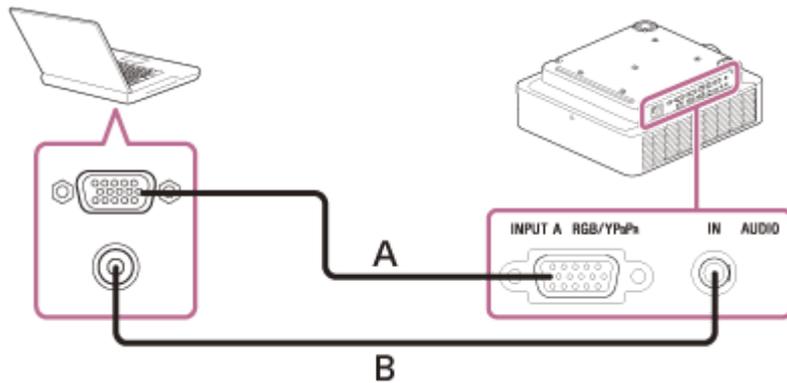
Precautions When Connecting

- Turn off all devices before making any connections.
- Use the proper cables for each connection.
- Insert the cable plugs firmly; Loose connections may reduce performance of picture signals or cause a malfunction.
When unplugging a cable, be sure to grip the plug, not the cable itself.
- For more information, refer also to the instruction manual of the device to be connected.
- Use a no-resistance audio cable.

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Connecting to a Computer with an RGB Output Terminal

Connect the INPUT A terminal to a computer's RGB output terminal and the AUDIO IN terminal to a computer's audio output terminal.



A: Mini D-sub 15-pin cable (not supplied)

B: Audio cable (stereo mini plug) (not supplied)

Hint

- For the screen settings of your computer, it is recommended that you set the resolution of the external monitor to 1,920 × 1,200 pixels.

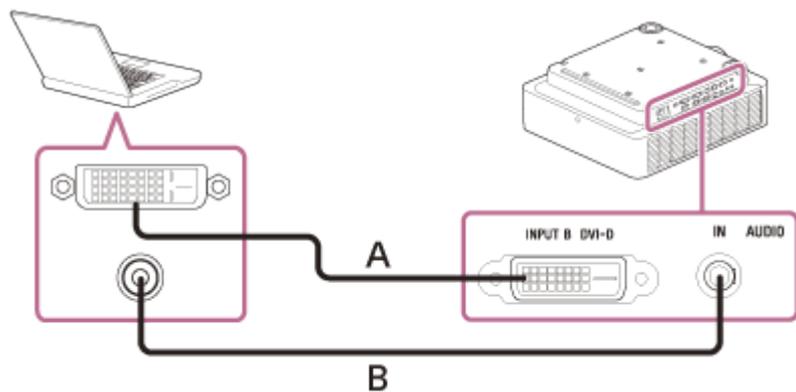
Related Topic

- [Parts and Controls \(Connection Terminals\)](#)
- [Precautions When Connecting](#)

Data Projector
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Connecting to a Computer with a DVI-D Output Terminal

Connect the INPUT B terminal to a computer's DVI-D output terminal and the AUDIO IN terminal to a computer's audio output terminal.



A: DVI-D cable (not supplied)

B: Audio cable (stereo mini plug) (not supplied)

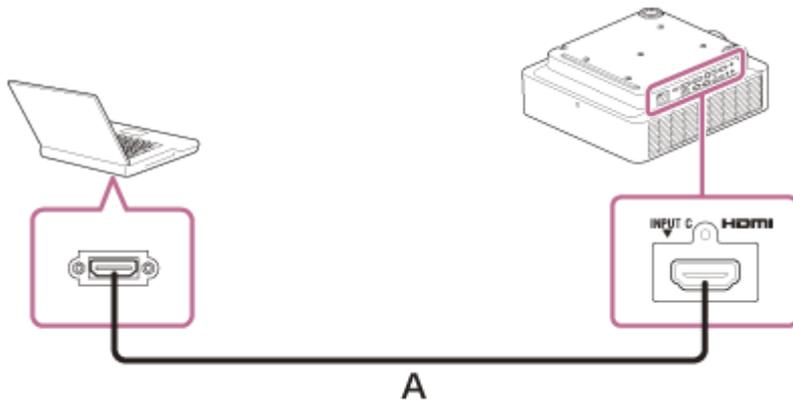
Related Topic

- [Parts and Controls \(Connection Terminals\)](#)
- [Precautions When Connecting](#)

Data Projector
VPL-FHZ85/FHZ80

Connecting to a Computer with an HDMI Output Terminal

Connect the INPUT C terminal to a computer's HDMI output terminal.



A: HDMI cable (not supplied)

Note

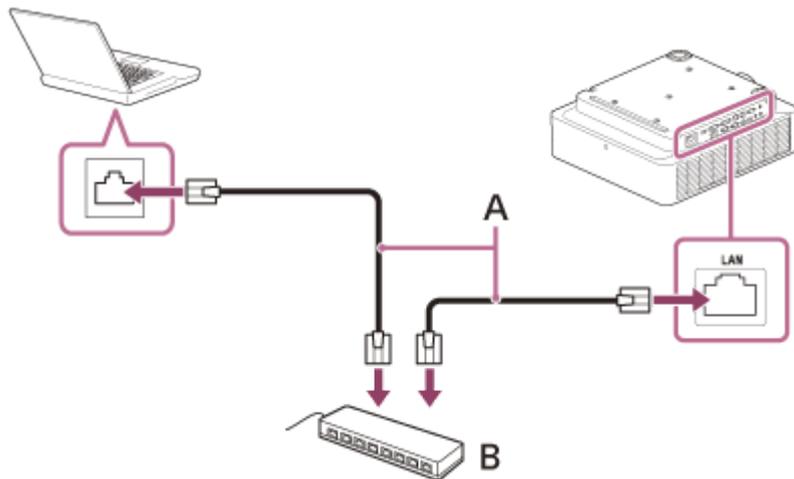
- Use an HDMI compatible device with the HDMI Logo.
- Use a high speed HDMI cable(s) on which the cable type logo is specified. (Sony products are recommended.)
- The HDMI terminal of this projector is not compatible with DSD (Direct Stream Digital) signal or CEC (Consumer Electronics Control) signal.

Related Topic

- [Parts and Controls \(Connection Terminals\)](#)
- [Precautions When Connecting](#)

Connecting to a Computer via a Hub or Router

Connect the LAN terminal and the computer LAN terminal via a hub or router.



A: LAN cable (straight type) (not supplied)

B: Hub or router, etc.

Note

- When using network features via the LAN terminal, be sure to check if [LAN Setting] is set to [LAN Port] under [HDBaseT Settings].
- Connect the projector to the network that is constructed to control the access from the internet, such as LAN. If the projector is connected directly to the internet, the security risk is increased.
- **When you monitor and control the projector via the network, access the Control Window of the projector via a Web browser and enable the desired control protocol.**

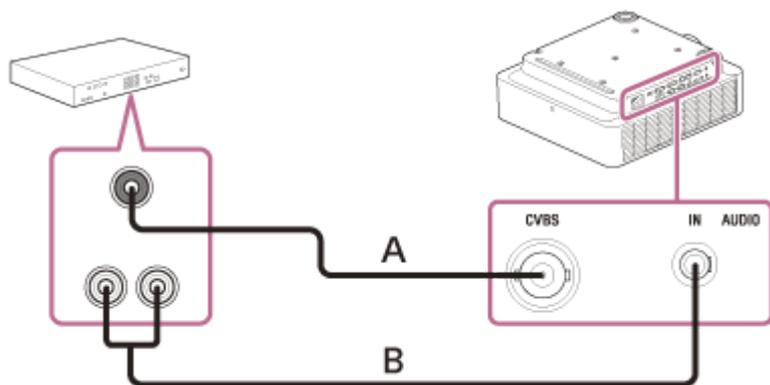
Related Topic

- [Parts and Controls \(Connection Terminals\)](#)
- [Precautions When Connecting](#)
- [Menu Operation: HDBaseT Settings](#)
- [Setting Advertisement](#)
- [Setting PJ Link](#)
- [Setting PJ Talk](#)
- [Setting ADCP](#)

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Connecting to a Video Device with a Video Output Terminal

Connect the VIDEO IN terminal to a video device's video output terminal, and the AUDIO IN terminal to a video device's audio output terminal.



A: Video - BNC cable (not supplied)

B: Audio cable (Pin plug × 2 - Stereo mini plug) (not supplied)

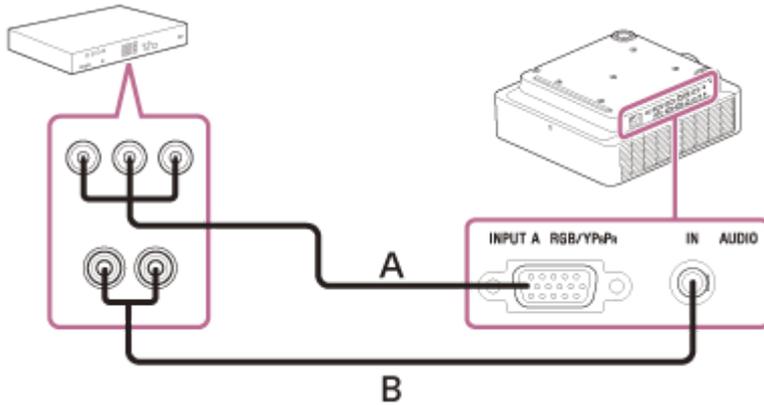
Related Topic

- [Parts and Controls \(Connection Terminals\)](#)
- [Precautions When Connecting](#)

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Connecting to a Video Device with a Y PB PR Output Terminal

Connect the INPUT A terminal to a video device's Y PB PR output terminal, and the AUDIO IN terminal to a video device's audio output terminal.



A: Component - Mini D-sub 15-pin cable (not supplied)

B: Audio cable (Pin plug × 2 - Stereo mini plug) (not supplied)

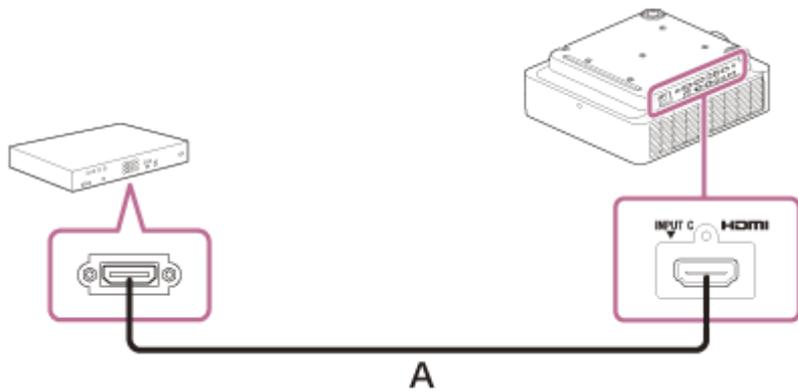
Related Topic

- [Parts and Controls \(Connection Terminals\)](#)
- [Precautions When Connecting](#)

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Connecting to a Video Device with an HDMI Output Terminal

Connect the INPUT C terminal to a video device's HDMI output terminal.



A: HDMI cable (not supplied)

Note

- Use an HDMI compatible device with the HDMI Logo.
- Use a high speed HDMI cable(s) on which the cable type logo is specified. (Sony products are recommended.)
- The HDMI terminal of this projector is not compatible with DSD (Direct Stream Digital) signal or CEC (Consumer Electronics Control) signal.

Related Topic

- [Parts and Controls \(Connection Terminals\)](#)
- [Precautions When Connecting](#)

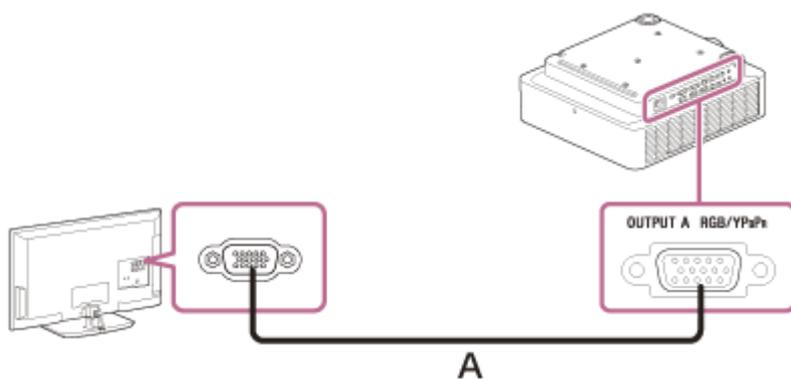
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Connecting to an External Monitor

By connecting the OUTPUT A terminal or OUTPUT B terminal to the video input terminal of a display device such as a monitor, etc., you can output the video input to the projector to the display device.

Connecting to the display device with an RGB input terminal

Connect the OUTPUT A terminal to an RGB input terminal of the display device.



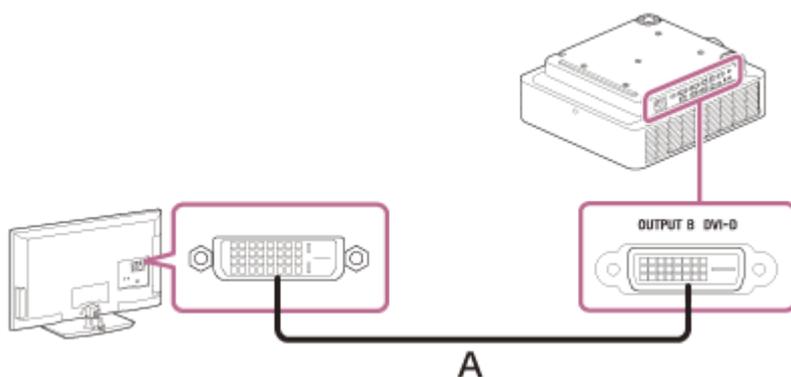
A: Mini D-sub 15-pin cable (not supplied)

Note

- This terminal outputs projected images. The images are output when a computer signal or video signal is input from the RGB/Y/PB PR input terminal (Input A).

Connecting to the display device with a DVI-D input terminal

Connect the OUTPUT B terminal to a DVI-D input terminal of the display device.



A: DVI-D cable (not supplied)

Note

- This terminal outputs projected images. The images are output when a computer signal is input from the DVI-D input terminal (Input B). However, if the signal input from Input B is protected by HDCP, the signal is not output to Output B.

Related Topic

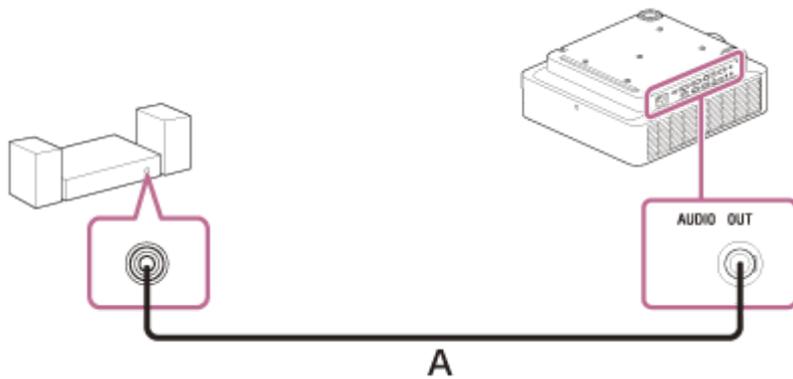
- [Parts and Controls \(Connection Terminals\)](#)
- [Precautions When Connecting](#)

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Connecting to Audio Equipment

By connecting the AUDIO OUT terminal and the audio input terminal of speakers with built-in amplifiers or other similar devices, you can output the audio fed into the projector through the audio device. When Input A, Input B, or Video is selected, the audio input from the audio input terminal is output; when Input C or Input D is selected, the audio input from the selected input terminal is output.



A: Audio cable (stereo mini plug) (not supplied)

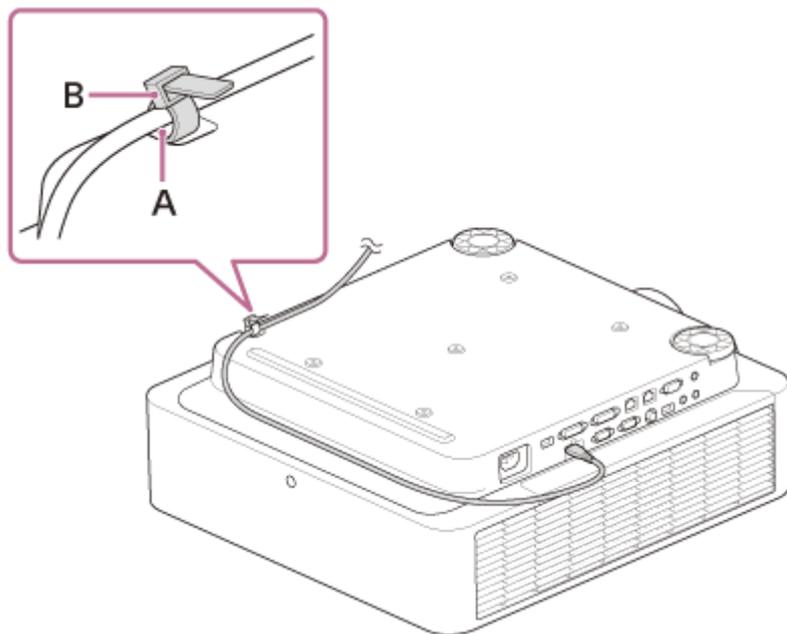
Related Topic

- [Parts and Controls \(Connection Terminals\)](#)
- [Precautions When Connecting](#)

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Fixing the HDMI Cable to the Projector

If you wish to fix the HDMI cable to the projector, attach a commercially available cable tie or similar item (B) to the antitheft bar (A) on the bottom surface, and secure it as shown in the image.



Related Topic

- [Parts and Controls \(Main Unit\)](#)

Connecting to an HDBaseT™ Device

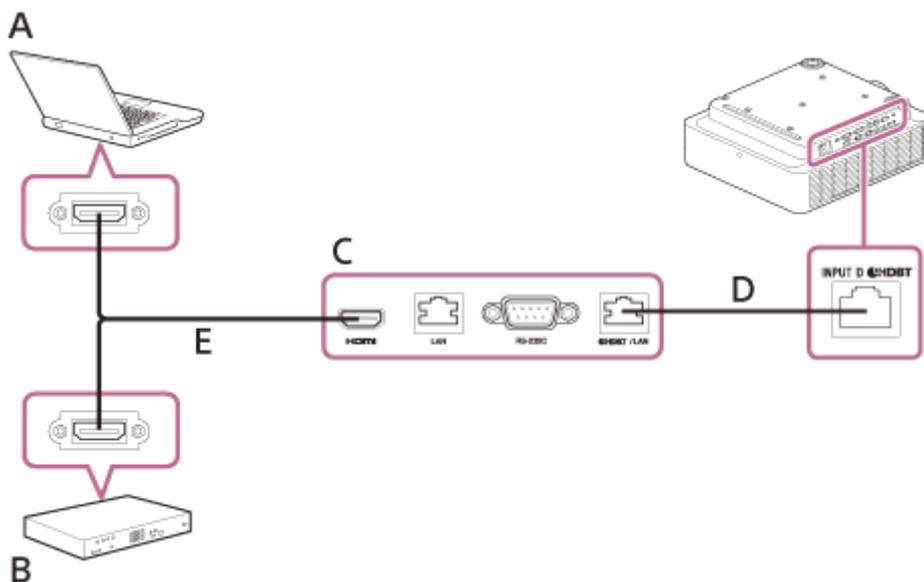
The HDBaseT transmitter is used when connecting the projector to a computer, video device, or network equipment.

Note

- Ask a professional or Sony dealer to perform wiring. If wiring has been insufficiently performed, it affects the transmission characteristics of the cable, and causes broken or unstable images.
- Connect the cable directly to the HDBaseT transmitter without going through a hub or router.
- Use cables that meet the following conditions.
 - CAT5e or higher
 - Shielded type (covering connectors)
 - Straight wire connection
 - Single wire
- When installing the cables, use a cable tester, cable analyzer, or similar device to check if the cables meet the CAT5e or higher requirement. If there is a transit connector between this unit and the HDBaseT transmitter, include it when measuring.
- To reduce the affect of noise, install and use the cable in a manner where it is not rolled up and it is as straight as possible.
- Install the cable away from the other cables (especially the power cable).
- When installing multiple cables, do not bind them and keep the running parallel distance as short as possible.
- The transmittable distance of the cable is 100 m (approx. 328 feet) maximum. If it exceeds 100 m (approx. 328 feet), it may cause broken images or a malfunction in LAN communication. Do not use the HDBaseT transmitter beyond the maximum transmittable distance of the cable.
- For operation or function problems caused by devices of other manufacturers, contact the relevant manufacturer.

Connecting to a computer/video device

Connect the HDBaseT terminal on the projector to the HDBaseT terminal on the HDBaseT transmitter, then connect the HDMI terminal on the HDBaseT transmitter to the HDMI output terminal on a computer or video device.

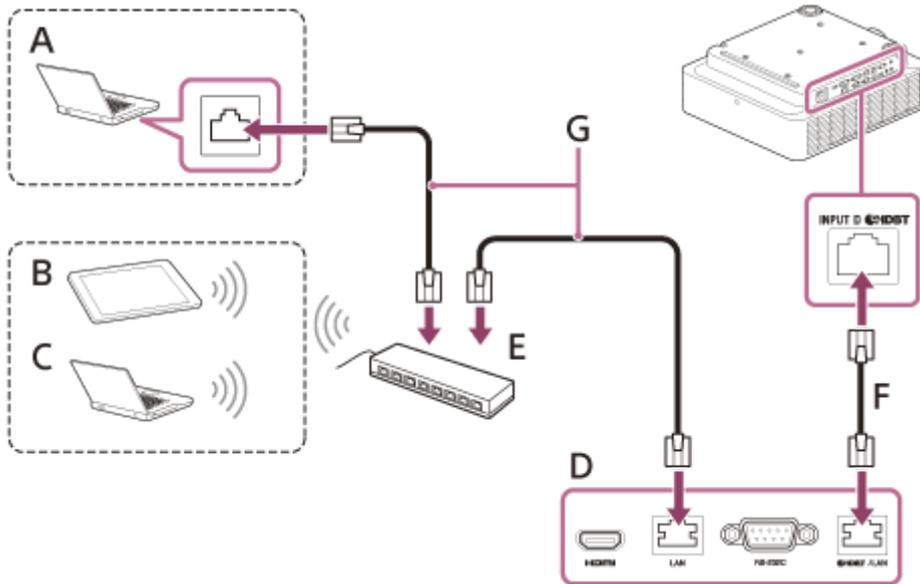


A: Computer
B: Video device

- C: HDBaseT transmitter
- D: LAN cable: STP cable with CAT5e or higher (straight type) (not supplied)
- E: HDMI cable (not supplied)

Connecting to a network equipment (using an HDBaseT terminal)

The HDBaseT terminal is used when connecting the projector to a network equipment to control the projector.



- A: Computer (Wired connection)
- B: Tablet PC/Smartphone
- C: Computer (Wireless connection)
- D: HDBaseT transmitter
- E: Hub or wireless router
- F: LAN cable: STP cable with CAT5e or higher (straight type) (not supplied)
- G: LAN cable (straight type) (not supplied)

Note

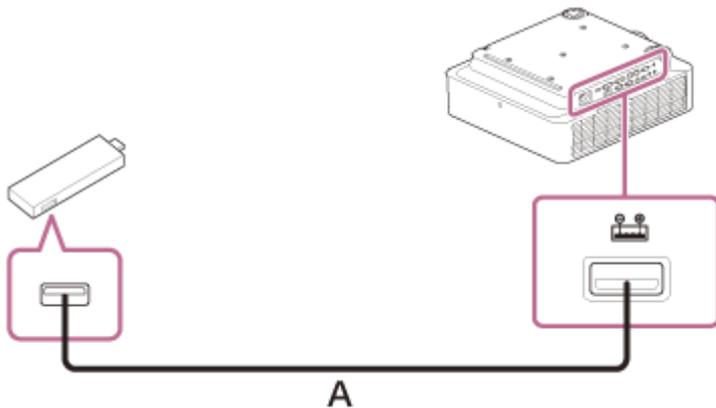
- When using the network features via the HDBaseT terminal, make sure that [LAN Setting] is set to [via HDBaseT] under [HDBaseT Settings].
- Connect the projector directly to the HDBaseT transmitter without going through a hub or router.
- When connecting to XTP Systems manufactured by Extron Electronics, it is necessary to set [Extron XTP] to [On] under [HDBaseT Settings].
- **When you monitor and control the projector via the network, access the Control Window of the projector via a Web browser and enable the desired control protocol.**

Related Topic

- [Parts and Controls \(Connection Terminals\)](#)
- [Precautions When Connecting](#)
- [Menu Operation: HDBaseT Settings](#)
- [Uses for Network Features](#)

Supplying the Power to an External Device

The unit supplies power (5 V/2 A maximum) via the USB cable to the external device.
Connect the USB terminal (for power supply only) to the external device.



A: USB cable (Type A) (not supplied)

Note

- Use external devices with the appropriate specification for using this unit.
- If you connect the unit incorrectly, it may cause a malfunction on the external device. In this case, Sony assumes no responsibility.
- If [Standby Mode] in [ECO] is set to [Low], you will no longer be able to supply the power while in standby mode.
- A power consumption of the connected device that exceeds the sharable power (5 V/2 A) cannot be used.

Related Topic

- [Parts and Controls \(Connection Terminals\)](#)
- [Precautions When Connecting](#)

Data Projector
VPL-FHZ85/FHZ80

Turning Power On/Off

1 Plug the AC power cord into a wall outlet.

2 Turn on the projector.

Press the  (On/Standby) key on the main unit or the  (On) key on the Remote Commander.

Turning Power Off

1. Press the  (On/Standby) key on the main unit or the  (Standby) key on the Remote Commander.
The projector starts shutdown and turns off.
For long-term use, turn off the projector when not in use.
2. Unplug the AC power cord from the wall outlet.

Related Topic

- [Parts and Controls \(Main Unit\)](#)
- [Parts and Controls \(Remote Commander and Control Panel\)](#)

Selecting the Menu Language

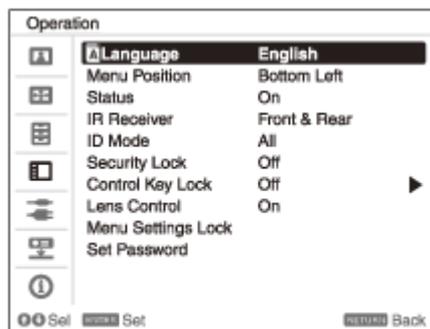
The factory setting for the language for displaying menus, messages, etc. is English. To change the on-screen language, proceed as follows:

1 Press the MENU key to display the menu screen.

If the display cannot be properly seen, adjust the focus, size, and position of the projected image.

2 Select the menu language.

1. Press the **▲** (Up) or **▼** (Down) key to select the **[Operation]** (Operation) menu, then press the ENTER key.
2. Press the **▲** (Up) or **▼** (Down) key to select **[A] [Language]** (Language), then press the ENTER key.



3. Press the **▲/▼/◀/▶** (Up/Down/Left/Right) key to select a language, then press the ENTER key.

3 Press the MENU key to turn off the menu screen.

Related Topic

- [Menu Operation: Language](#)

Projecting Images

The size of a projected image depends on the distance between the projector and screen. Place the projector so that the projected image fits the screen size. For details on projection distances and projected image sizes, see “Projection Distance.”

1 Turn on the projector.

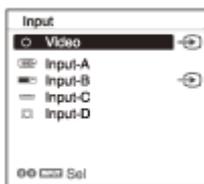
Press the  (On/Standby) key on the main unit or the  (On) key on the Remote Commander.

2 Turn on the connected device.

3 Select the input source.

Press the INPUT key on the projector or on the Remote Commander to display the input select window. Press the INPUT key repeatedly or the  (Up/Down) key to select an image to be projected. The signal icon  appears on the right side in the input select window when a signal is input. When there are multiple terminals to which signals are input, the terminals to which the signals are input are automatically selected each time the INPUT key is pressed.

You can select the input source using direct input select keys on the Remote Commander.



4 Change the computer screen output destination to an external display.

How to change the output destination varies, depending on the type of computer.

(Example)

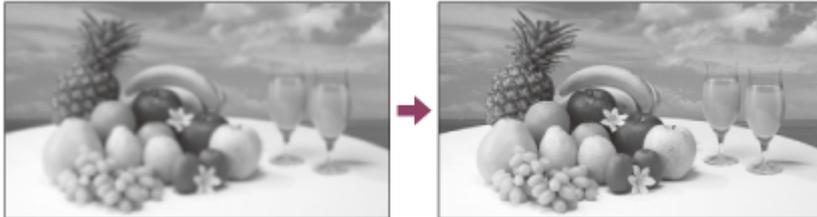


5 Adjust the focus, size and position of the projected image.

Related Topic

- [Projection Distance](#)
- [Projection Distance/Projection Distance Formula](#)
- [Lens Shift Range](#)
- [Focusing the Image](#)
- [Adjusting the Image Size](#)
- [Adjusting the Position of the Image](#)

Focusing the Image

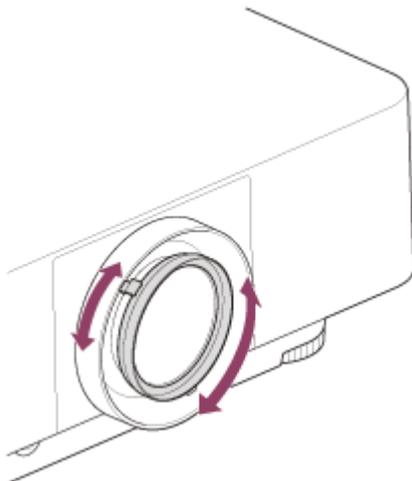


When attaching the electric focus lens

Press the FOCUS key on the projector or the Remote Commander, then press the **▲ / ▼ / ◀ / ▶** (Up/Down/Left/Right) key to adjust the focus. Press the FOCUS key on the projector or the Remote Commander to display the focus adjustment pattern.

When attaching the manual focus lens

Turn the focus lever and peripheral focus ring to adjust the focus.
You can adjust the focus of the peripheral area by rotating the peripheral focus ring.



Hint

- Each time you press the PATTERN key, the adjustment pattern and the input video are alternately switched.

Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)

Adjusting the Image Size

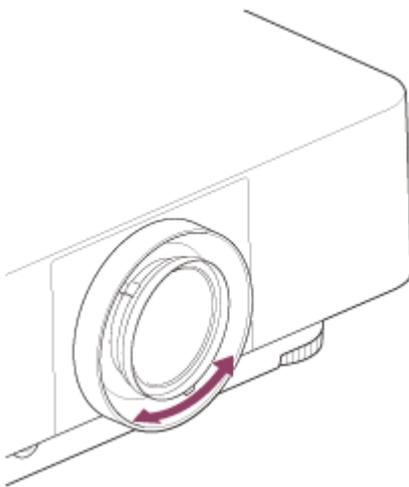


When attaching the electric zoom lens

Press the ZOOM key on the projector or the Remote Commander, then press the **▲** / **▼** / **◀** / **▶** (Up/Down/Left/Right) key to adjust the size. Press the ZOOM key on the projector or the Remote Commander to display the zoom adjustment pattern.

When attaching the manual zoom lens

Turn the zoom lever to adjust the size.



Hint

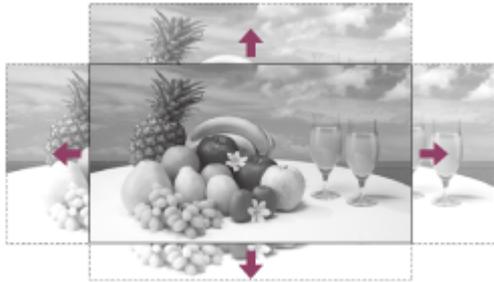
- Each time you press the PATTERN key, the adjustment pattern and the input video are alternately switched.

Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)

Data Projector
VPL-FHZ85/FHZ80

Adjusting the Position of the Image



Press the SHIFT key on the projector or the LENS SHIFT key on the Remote Commander, then press the **▲** / **▼** / **◀** / **▶** (Up/Down/Left/Right) key to adjust the position. Press the SHIFT key on the projector or the LENS SHIFT key on the Remote Commander to display the shift adjustment pattern.

To return the lens to the center position of the projected image

Press the RESET key on the Remote Commander while adjusting.

Hint

- Each time you press the PATTERN key, the adjustment pattern and the input video are alternately switched.

Note

- Do not touch the lens when you adjust the image position. Your fingers may be pinched when the lens extends/retracts.

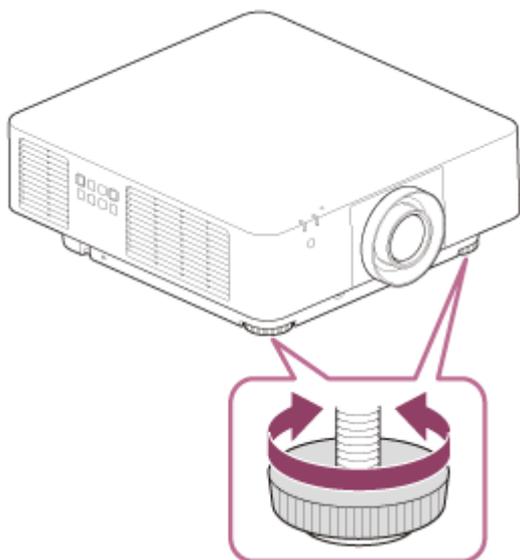
Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)

Data Projector
VPL-FHZ85/FHZ80

Adjusting the Tilt of the Projector with the Front Feet (adjustable)

If the projector is installed on an uneven surface, adjust the position of the projected image by changing the tilt of the projector with the front feet (adjustable).



Note

- Be careful not to let the projector down on your fingers.
- Do not push hard on the top of the projector with the front feet (adjustable) extended. It may cause malfunction.

Related Topic

- [Parts and Controls \(Main Unit\)](#)

Data Projector
VPL-FHZ85/FHZ80

Changing the Screen Aspect Ratio

Pressing the ASPECT key on the Remote Commander switches the aspect ratio of the projected screen.

Hint

- The screen aspect ratio can also be set from [Aspect] in the  [Screen] menu.

Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)
- [Menu Operation: Aspect](#)

Correcting a Vertical Trapezoid

If the screen is trapezoidal, perform keystone correction.

1 Press the KEYSTONE key on the Remote Commander once.

The [Screen Fitting] menu will be displayed.

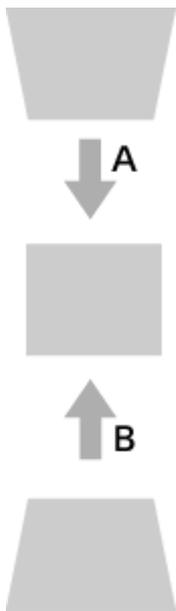
You can also display the menu from [Screen Fitting] in the  [Installation] menu.

2 Select [V Keystone].

3 Adjust the value with the  (Left/Right) keys.

A: Increasing the value in the positive direction makes the upper side screen width smaller.

B: Increasing the value in the negative direction makes the lower side screen width smaller.



Press the RESET key to return to the original screen.

Note

- The setting may not be reset depending on the combination of the adjustment items of the [Screen Fitting] menu. In this case, reset all of the setting items from [Reset] of the [Screen Fitting] menu.
- Because keystone correction is an electronic form of correction, the image quality may deteriorate.
- Depending on the position adjusted with the lens shift feature, using the Keystone feature may change the aspect ratio of the original image, or the projected image may be distorted.

Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)

Correcting a Horizontal Trapezoid

If the screen is trapezoidal, perform keystone correction.

1 Press the KEYSTONE key on the Remote Commander once.

The [Screen Fitting] menu will be displayed.
You can also display the menu from [Screen Fitting] in the  [Installation] menu.

2 Select [H Keystone].

3 Adjust the value with the  (Left/Right) keys.

A: Increasing the value in the negative direction makes the left side of the screen smaller.
B: Increasing the value in the positive direction makes the right side of the screen smaller.



Press the RESET key to return to the original screen.

Note

- The setting may not be reset depending on the combination of the adjustment items of the [Screen Fitting] menu. In this case, reset all of the items from [Reset] in the [Screen Fitting] menu.
- Because keystone correction is an electronic form of correction, the image quality may deteriorate.
- Depending on the position adjusted with the lens shift feature, using the Keystone feature may change the aspect ratio of the original image, or the projected image may be distorted.

Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)
- [Menu Operation: Screen Fitting](#)

Correcting Screen Distortion

You can correct image twist with the warp correction feature.

1 Press the KEYSTONE key on the Remote Commander once.

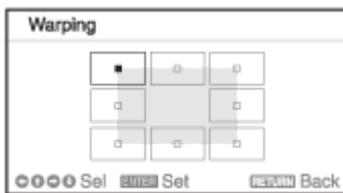
The [Screen Fitting] menu will be displayed.
You can also display the menu from [Screen Fitting] in the  [Installation] menu.

2 Select [Warping].

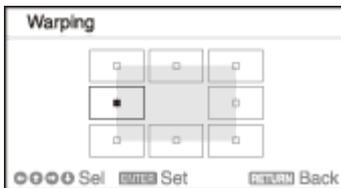
The guide will be displayed.

3 Select the adjustment point you want to correct with the  /  /  /  (Up/Down/Left/Right) keys.

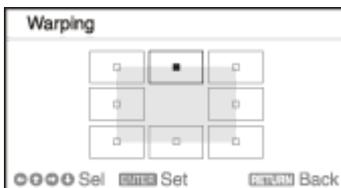
When correcting the corner position of the image, select the corner adjustment point.



When correcting the deflection on the left/right sides of the image, select the left/right adjustment point.



When correcting the deflection on the top/bottom sides of the image, select the top/bottom adjustment point.



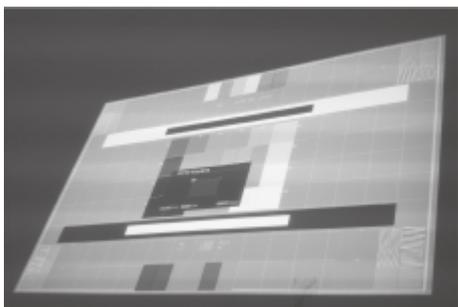
4 Press the ENTER key.

The selected corner becomes a cursor display ().



5 Adjust the image distortion with the  /  /  /  (Up/Down/Left/Right) keys.

When correcting the corner of the image



Adjust the position of the corner using the **↑/↓/←/→** (Up/Down/Left/Right) keys.

When correcting deflection on the left/right sides of the image



You can adjust the center point of deflection using the **↑/↓** (Up/Down) keys. For the range of deflection, use the **←/→** (Left/Right) keys. You can adjust the left/right side independently.

When correcting deflection on the top/bottom sides of the image



You can adjust the center point of deflection using the **←/→** (Left/Right) keys. For the range of deflection, use the **↑/↓** (Up/Down) keys. You can adjust the top/bottom independently.

Press the RESET key to return to the original screen.

Note

- The setting may not be reset depending on the combination of the adjustment items of the [Screen Fitting] menu. In this case, reset all of the items from [Reset] in the [Screen Fitting] menu.

Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)
- [Menu Operation: Screen Fitting](#)

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Projecting on an Angled Wall

You can correct image twist with the corner wall feature to adjust the image distortion that occurs when projecting on a wall, floor, corner, pillar, etc.

1 Press the KEYSTONE key on the Remote Commander once.

The [Screen Fitting] menu will be displayed.

You can also display the menu from [Screen Fitting] in the  [Installation] menu.

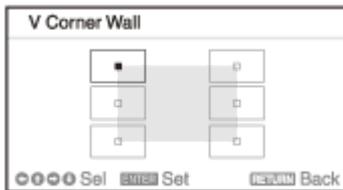
2 Select [V Corner Wall] or [H Corner Wall].

Select [V Corner Wall] when adjusting the horizontal distortion of the image, and select [H Corner Wall] when adjusting the vertical distortion of the image.

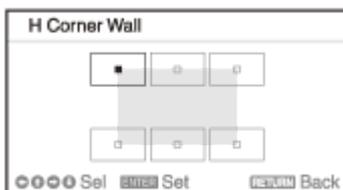
The guide will be displayed.

3 Select the adjustment point you want to correct with the  /  /  /  (Up/Down/Left/Right) keys.

[V Corner Wall] has 6 adjustment points including the upper left, middle left, lower left, upper right, middle right, and lower right.



[H Corner Wall] has 6 adjustment points including the upper left, upper middle, upper right, lower left, lower middle, and lower right.



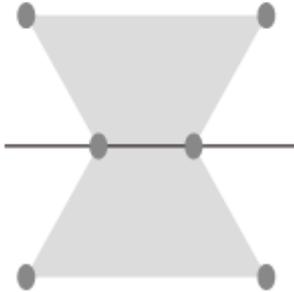
4 Press the ENTER key.

The selected corner becomes a cursor display ().

5 Adjust the image distortion with the  /  /  /  (Up/Down/Left/Right) keys.

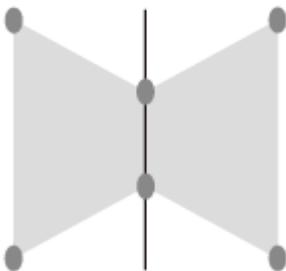
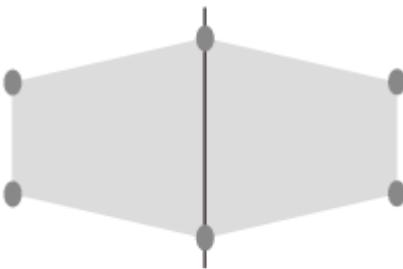
Adjust the position of the adjustment point using the  /  /  /  (Up/Down/Left/Right) keys.

When correcting distortion on the left/right sides of the image



If the image is distorted to the shape shown in the figure, select [V Corner Wall] and adjust the positions of the adjustment points using the **↑** / **↓** / **←** / **→** (Up/Down/Left/Right) keys.

When correcting distortion on the top/bottom sides of the image



If the image is distorted to the shape shown in the figure, select [H Corner Wall] and adjust the positions of the adjustment points using the **↑** / **↓** / **←** / **→** (Up/Down/Left/Right) keys.

Press the RESET key to return to the original screen.

Note

- The setting may not be reset depending on the combination of adjustment values of [Screen Fitting] menu. In this case, reset all of the items from [Reset] in the [Screen Fitting] menu.

Related Topic

- Parts and Controls (Remote Commander and Control Panel)
- Menu Operation: Screen Fitting

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Data Projector
VPL-FHZ85/FHZ80

Displaying Patterns

Pressing the PATTERN key on the Remote Commander allows you to display the ruled line pattern or adjustment pattern on the projected screen. Every time you press the PATTERN key, the pattern to be displayed switches. Continue pressing the PATTERN key to return to the original screen.

Hint

- The ruled line pattern can be used as auxiliary lines when drawing text and figures on a whiteboard or blackboard without using a computer.
- There are 2 types of color for the lines of the ruled line pattern so you can select a line that is easier to see according to the color of the projected screen.

Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)

Data Projector
VPL-FHZ85/FHZ80

Using the Auto Adjustment Function

When feeding a computer signal from the RGB input terminal (Input A), pressing the APA (Auto Pixel Alignment) key on the Remote Commander allows the projected screen phase, pitch, and shift to be automatically adjusted.

Pressing the APA key once more during adjustment will cancel the adjustment.

Hint

- APA can also be performed from [Adjust Signal] in the  [Screen] menu.
- Selecting [On] from [Smart APA] in the  [Function] menu will automatically perform APA when a computer signal is fed from the RGB input terminal (Input A).

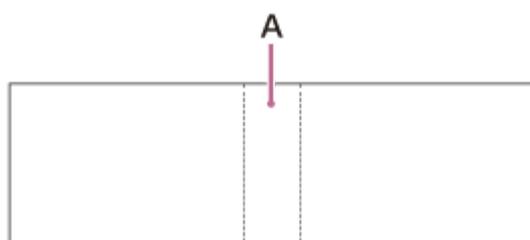
Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)
- [Menu Operation: Adjust Signal](#)
- [Menu Operation: Smart APA](#)

Blending Projections from Multiple Projectors on a Screen

You can project the image with a sense of unity by adjusting the image so that the image joint area becomes less noticeable when composing one screen with multiple projections.

- 1 Install the projectors.**
Input a pattern, etc., to adjust the projected positions from multiple projectors correctly.
- 2 Set the ID mode on [ID Mode] in the  [Operation] menu.**
Set a different ID mode for each projector.
- 3 Set [Picture Mode] in the  [Projection Setting] menu to [Multi Screen].**
- 4 Set the color space on [Multi Screen] - [Color Space] in the  [Installation] menu.**
Set the color space of the multiple projectors to the same mode ([Custom 1] - [Custom 3]).
[Red]/[Green]/[Blue] can be finely adjusted as necessary.
- 5 Adjust the color matching setting on [Multi Screen] - [Color Matching] in the  [Installation] menu.**
Finely adjust each tone as necessary.
- 6 When you project the overlapped image, set the edge blending setting on [Multi Screen] - [Edge Blending] in the  [Installation] menu.**
 1. Set [Edge Blending] to [On] in [Blend Settings].
Set this to each blending position (top, bottom, left, right).
 2. Set [Blending Range].
Set the blending width (A) according to the overlapping range for the source signal.



3. Adjust using [Blend Fitting].
Finely adjust the overlapped area.

4. Adjust using [Zone Black Level].

Adjust each correction zone by [Zone Black Level] for the most uniform black level between each zone. During this adjustment, a black image is automatically projected.

The procedure shown above is for general guidance. Your own installation may vary according to the situation.

Note

- Depending on the blending start position or the blending width, the menu screen may overlap with the blending area and become invisible. If you want to operate the projector while viewing the menu screen, set [Edge Blending] to [Off] once and make adjustments. Then, set [Edge Blending] to [On].
- When multiple projectors are set up in a line, the temperature inside the projectors may increase due to exhaust vent proximity, and an error indication may result. In this case, space the projectors farther apart and/or install deflection partitioning between them. Consult with qualified Sony personnel for details.

Related Topic

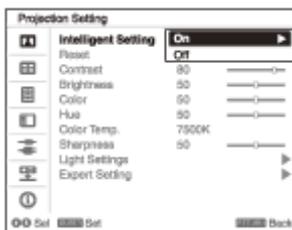
- [Menu Operation: Picture Mode](#)
- [Menu Operation: ID Mode](#)
- [Menu Operation: Multi Screen>Color Space](#)
- [Menu Operation: Multi Screen>Color Matching](#)
- [Menu Operation: Multi Screen>Edge Blending](#)

Use the Intelligent Setting Function

You can optimize the image quality settings, light settings, and system cooling (fan speed) just by choosing a location that matches the environment where the projector is being used. [Intelligent Setting] helps the projector remain in stable operation for long periods of time.

1 Press the MENU key to display the menu screen.

2 Set [Intelligent Setting] in the  [Projection Setting] menu to [On] and press the  (Right) key.



3 Select the location the projector is being used.



[Meeting/Class Room]

Optimizes the text and graphic quality so that they are displayed clearly. This is suitable for use in meeting rooms and classrooms.

[Museum]

Optimizes the color quality so that colors are reproduced accurately. This is suitable for use in quiet places such as galleries and museums.

[Entertainment]

Optimizes the image quality to achieve balance. This is suitable for use at theme parks, public entertainment facilities, conference rooms in the exhibition hall, and so on.

[Multi Screen]

This is suitable when simultaneously using multiple projectors for projections, such as blending projections or projections from multiple projectors set up side-by-side.

4 Select [Apply] and press the ENTER key.

Data Projector
VPL-FHZ85/FHZ80

Using the Digital Zoom Function

Zooms in or out on a part of the projected image. This can be used when there is a computer signal being input. However, it may not be usable depending on the input signal resolution.

- 1** Press the **D ZOOM +** key on the Remote Commander to display the digital zoom icon on the projected screen.
- 2** Adjust the image position with the **↑ / ↓ / ← / →** (Up/Down/Left/Right) keys.
- 3** Press the **D ZOOM +** key to enlarge an image.
- 4** Repeatedly press the **D ZOOM +** key or the **D ZOOM -** key to change the magnification ratio.
The magnification ratio can be changed from 1x to 4x.
When you select 1x, you cannot adjust the image position.

To return to the original image, press the **RESET** key.

Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)

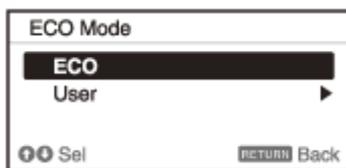
Using Eco Mode

The [With No Input] and [With Static Signal] of the Eco Mode settings are easy to use.

Note

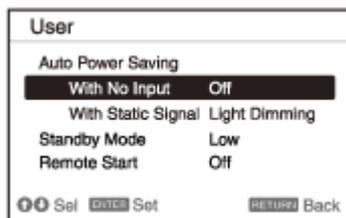
- If [ECO Mode] is set to [ECO] or if [Standby Mode] for [User] is set to [Low], you will no longer be able to use network control functions while in standby mode. If performing external control via networks and network control functions and so on, either do not select [ECO] or do not set [Standby Mode] for [User] to [Low].

- 1 Press the **ECO MODE** key on the projector to display the [ECO Mode] menu.



- 2 Press the **↑ / ↓** (Up/Down) key or the **ECO MODE** key, then select either [ECO] or [User] mode.

- [ECO]: Set each setting to the value that saves the most energy.
 - With No Input: [Standby]
 - With Static Signal: [Light Dimming]
- [User]: Configure the Eco Mode settings manually.



- 3 Press the **RETURN** key to return to the previous screen.

Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)
- [Menu Operation: Auto Power Saving](#)

Copying the Projector Settings and Downloading to Other Projectors

You can copy the projector settings to a USB drive and download them to other projectors.
This function can be used when applying the same settings to multiple projectors of the same model.

Note

- This projector has been confirmed to be compatible with USB 2.0 drives with capacities of up to 8 GB. However, it is not guaranteed to work with all USB drives.
If formatting your USB drive, be sure that the file system is set to FAT32. Formatting with any other type of file system will make the drive incompatible with the projector.
- Use an empty USB drive with no files or folders stored on it. If there are any files or folders stored on the USB drive, delete them before use.
- If the USB drive you are using has projector setting data, copying of the settings will not start.
- If the firmware versions of the copy source projectors and download destination projectors are different, the settings copied cannot be downloaded.

- 1 Turn off the power of the copy source projector, then unplug the AC power cord.**
- 2 Insert the USB drive into the USB terminal of the copy source projector.**
- 3 Plug the AC power cord to the wall outlet while pressing and holding  (Up) of the ENTER (Enter)/  /  /  /  (Arrow) key on the copy source projector.**
Press and hold  (Up) until the ON/STANDBY indicator flashes in orange.
- 4 When the ON/STANDBY indicator starts flashing in orange, release  (Up).**
When copying of the settings is complete, the ON/STANDBY indicator is lit in red.
- 5 Remove the USB drive from the copy source projector.**
- 6 Turn off the power of the download destination projector, then unplug the AC power cord.**
- 7 Insert the USB drive with the settings copied into the USB terminal of the download destination projector.**
- 8 Plug the AC power cord to the wall outlet while pressing and holding  (Down) of the ENTER (Enter)/  /  /  /  (Arrow) key on the download destination projector.**
Press and hold  (Down) until the ON/STANDBY indicator flashes in orange.
- 9 When the ON/STANDBY indicator starts flashing in orange, release  (Down).**
When downloading of the settings is complete, the ON/STANDBY indicator is lit in red.

10 Remove the USB drive from the download destination projector.

Settings that can be copied/downloaded

OSD menu

Projection Setting

- Intelligent Setting
- Picture Mode
- Contrast
- Brightness
- Color
- Hue
- Color Temp.
- Sharpness
- Light Settings
 - Dynamic Control
 - Light Output Mode
 - Light Out Control
- Expert Setting
 - Ambiance
 - Reality Creation
 - Bright View
 - Gamma Mode
 - Color Space
 - Color Correction

Screen

- Aspect
- Overscan

Function

- Audio Output Vol.
- Smart APA
- CC Display
- Background
- Start Up Image

Operation

- Language
- Menu Position
- Status
- IR Receiver
- ID Mode

Connection/Power

- Network Setting
 - Communication Mode
- HDBaseT Settings
 - LAN Setting

- RS-232C Setting
- Extron XTP
- Dynamic Range
 - Input-B
 - Input-C
 - Input-D
- HDMI Cable
- Input-A Signal Sel.
- ECO
 - With No Input and With Static Signal of Auto Power Saving
 - Standby Mode
 - Remote Start
- Auto Input Select
- Auto Power On
- Direct Power On

Installation

- Image Flip
- High Altitude Mode
- Screen Aspect

WEB menu (supported on version 1.04 or later)

Setting

- Setting
 - Timezone
 - Use NTP sever
 - NTP Server
 - Manual(Local)
 - Date(yyyy-mm-dd)
 - Time(hh:mm:ss)

E-mail Report

- E-mail Report
 - Send To
 - CC
 - Report Timing
- E-mail Account
 - User Name
 - Password
 - SMTP Server

ADCP

- ADCP
 - Start ADCP Service
 - Requires Authentication
 - Port No.
 - Timeout
 - Host Address
 - Address list

Advertisement/PJ Talk/PJ Link

- Advertisement
 - Start Advertisement Service
 - Community
 - Port No.
 - Interval
 - Broadcast Address
 - Address list

- PJ Link
 - Start PJ Link Service
 - Requires Authentication

- PJ Talk
 - Start PJ Talk Service
 - Community
 - Port No.
 - Timeout
 - Host Address
 - Address list

DDDP/Crestron Control

- DDDP
 - Start DDDP Service

- Crestron Control
 - Start Crestron Service
 - IP Address
 - IP ID(HEX)
 - Port No.

Certificate

- Communication Mode

SNMP

- SNMP
 - Start SNMP Service
 - Community
 - Community name
 - Rights
 - Trap destinations
 - Address list
 - Accept SNMP packets from any host
 - Accept SNMP packets from these hosts
 - Address list

Hint

- It takes about 30 seconds to start copying/downloading the settings.
- It takes about 2 minutes to complete copying the settings.
- It takes about 10 minutes to complete downloading the settings.

- After copying/downloading the settings, [Standby Mode] of the power supply is set to [Low].

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Navigating Menus

Various projector adjustments and settings can be performed from the menu screen. Selecting an item with an arrow (▶) after the item name will display the items to be set in the next tier.

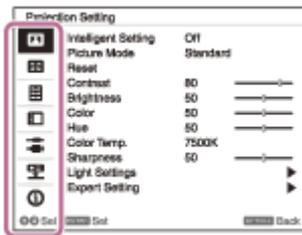
Note

- The images used in the explanation are for reference only. Please note that the items displayed may differ depending on the device you are using.

1 Press the MENU key.

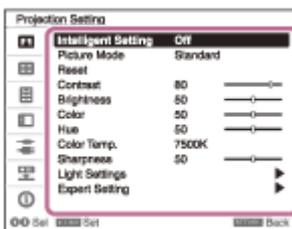
The menu screen will be displayed.

2 Press the ▲ / ▼ (Up/Down) key to select the menu, then press either the ▶ (Right) key or the ENTER key.



3 Press the ▲ / ▼ (Up/Down) key to select an item, then press either the ▶ (Right) key or the ENTER key.

To return to the configuration menu selection, press the ◀ (Left) key or the RETURN key.



4 Configure and adjust the items.

The configuration method differs depending on the item.

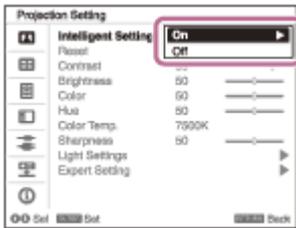
If a further tier is displayed, select the item you wish to configure in accordance with Step 3, then press the ENTER key to confirm the configuration.

To return to the configuration item selection, press the ◀ (Left) key or the RETURN key. To reset the setting value of an item to its factory preset value, press the RESET key during setting or adjusting.

Navigating Pop-up Menus

Select items using the ▲ / ▼ / ◀ / ▶ (Up/Down/Left/Right) key.

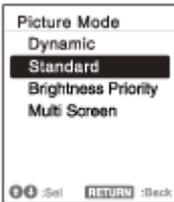
Press the ENTER key to confirm the settings, and return to the previous screen.



Navigating Settings Menus

Select items using the **↑** / **↓** (Up/Down) key.

Press the ENTER key to confirm the settings, and return to the previous screen.



Navigating Adjustment Menus

When increasing a value, press the **↑** (Up) or **➡** (Right) key.

When decreasing a value, press the **↓** (Down) or **⬅** (Left) key.

Press the ENTER key to confirm the settings, and return to the previous screen.



5 Press the MENU key to exit the menu screen.

If an operation has not been performed for some time, the menu screen will automatically disappear.

Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Intelligent Setting

Setting [Intelligent Setting] to [On] allows you to optimize the image quality settings, light settings, and system cooling (fan speed) just by choosing a location that matches the environment where the projector is being used. This setting helps the projector remain in stable operation for long periods of time.

- 1 Press the MENU key.
- 2 Select  [Projection Setting] - [Intelligent Setting] - [On] or [Off].
- 3 If [On] is selected, select the item you wish to configure in [Location].

Settings

[Meeting/Class Room]

Optimizes the text and graphic quality so that they are displayed clearly. This is suitable for use in meeting rooms and classrooms.

[Museum]

Optimizes the color quality so that colors are reproduced accurately. This is suitable for use in quiet places such as galleries and museums.

[Entertainment]

Optimizes the image quality to achieve balance. This is suitable for use at theme parks, public entertainment facilities, conference rooms in the exhibition hall, and so on.

[Multi Screen]

This is suitable when simultaneously using multiple projectors for projections, such as blending projections or projections from multiple projectors set up side-by-side.

Note

- When [Intelligent Setting] is set to [On], [Picture Mode] in the  [Projection Setting] menu cannot be set.
- If there is no usage environment that corresponds to the choices for [Location], then choose the location with the characteristics closest to your environment.
[Location] cannot be configured for each input terminal.

Related Topic

- [Menu Operation: Picture Mode](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Picture Mode

Configures the image quality.

- 1 Press the **MENU** key.
- 2 Select  **[Projection Setting]** - **[Picture Mode]** - The desired setting.

Settings

[Dynamic]

Sets the image quality to achieve balance between brightness and darkness.

[Standard]

Sets the image quality to achieve smooth and natural tones.

[Brightness Priority]

Makes the picture bright to suit a bright environment.

[Multi Screen]

Optimizes the picture quality to suit projecting using multiple projectors.

Note

- When **[Intelligent Setting]** in the  **[Projection Setting]** menu is set to **[On]**, **[Picture Mode]** cannot be set.

Related Topic

- [Menu Operation: Intelligent Setting](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Reset

Returns the image quality settings to their default values.

- 1 Press the **MENU** key.
- 2 Select  **[Projection Setting]** - **[Reset]**.

Note

- The **[Intelligent Setting]**, **[Picture Mode]**, and **[Custom 1]** - **[Custom 4]** of **[Color Temp.]** values in the  **[Projection Setting]** menu will not return to default values.

Related Topic

- [Menu Operation: Intelligent Setting](#)
- [Menu Operation: Picture Mode](#)
- [Menu Operation: Color Temp.](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Contrast

Adjust the image contrast.

1 Press the **MENU** key.

2 Select  **[Projection Setting] - [Contrast] - Adjust the values.**

The higher the setting, the greater the contrast. The lower the setting, the lower the contrast.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Brightness

Adjust the image brightness (luminance).

① Press the **MENU** key.

② Select  **[Projection Setting] - [Brightness] - Adjust the values.**

The higher the setting, the brighter the image. The lower the setting, the darker the image.

Note

- When [Ambiance] is set to [On], the brightness is set automatically, and the [Brightness] menu is not displayed.

Related Topic

- [Menu Operation: Expert Setting>Ambiance](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Color

Adjust the image color intensity.

1 Press the MENU key.

2 Select  [Projection Setting] - [Color] - Adjust the values.

The higher the setting, the greater the intensity. The lower the setting, the lower the intensity.

Note

- When [Ambiance] is set to [On], the saturation is set automatically, and the [Color] menu is not displayed.

Related Topic

- [Menu Operation: Expert Setting>Ambiance](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Hue

Adjust the image color tone.

- 1 Press the **MENU** key.
- 2 Select  **[Projection Setting] - [Hue] - Adjust the values.**

The higher the setting, the more greenish the image becomes. The lower the setting, the more reddish the image becomes.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Color Temp.

Adjust the image color temperature.

- 1 Press the **MENU** key.
- 2 Select  **[Projection Setting] - [Color Temp.] - The desired setting.**

Settings

[9300K]/[7500K]/[6500K]

The higher the temperature, the bluer the image tones become, and the lower the temperature, the redder the tones become.

[Brightness Priority]

Allows for the brightest projection image.

[Custom 1]/[Custom 2]/[Custom 3]/[Custom 4]

You can set and adjust the color temperature to suit your preference and save the setting.

The factory settings are [9300K] for [Custom 1], [7500K] for [Custom 2], [6500K] for [Custom 3], and [Brightness Priority] for [Custom 4].

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Sharpness

Adjust the outlines of the image.

- 1 Press the MENU key.**
- 2 Select  [Projection Setting] - [Sharpness] - Adjust the values.**
The higher the setting, the sharper the image. The lower the setting, the softer the image.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Light Settings

Adjust the laser light brightness.

- 1 Press the **MENU** key.
- 2 Select  **[Projection Setting]** - **[Light Settings]** - **The desired setting.**

Settings

[Dynamic Control]

[On]/[Off]: If set to [On], the brightness will automatically be adjusted according to the input image. For dark images, the brightness is adjusted as they are being projected, which can help save energy. Conversely, for bright images, the image brightness is not adjusted and the image remains bright.

[Light Output Mode]

Adjust the light source brightness.

- [Standard]: The image becomes brighter and energy consumption increases.
- [Middle]: Energy consumption decreases, but the image becomes dark.
- [Extended]: The image becomes dark, but projection becomes possible for long periods of time.
- [Custom]: You can adjust brightness as prefer.

[Light Out Control]

Set the time until the light turns off when the black image is input. When the image signal other than the black image is input after the light turns off, the light turns on again.

- [Quick]: The light turns off soon when the black image is input.
- [Standard]: The light turns off five seconds later when the black image is input.
- [Off]: The light does not turn off when the black image is input.

Note

- When [Intelligent Setting] in the  **[Projection Setting]** menu is set to [On], [Dynamic Control] cannot be set.

Related Topic

- [Menu Operation: Intelligent Setting](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Expert Setting>Ambiance

Adjusts the picture setting automatically by detecting the ambient brightness using the light sensor of this unit.

1 Press the **MENU** key.

2 Select  **[Projection Setting] - [Expert Setting] - [Ambiance] - [On] or [Off]**.

Adjust the picture quality automatically according to the ambient brightness by selecting [On].

Note

- When [Ambiance] is set to [On], [Brightness], [Color], [Resolution] under [Reality Creation], and [Bright View] in the  [Projection Setting] menu cannot be set.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Expert Setting>Reality Creation

Adjusts the detail and noise processing of images. (Super-resolution function)

- 1 Press the **MENU** key.
- 2 Select  **[Projection Setting] - [Expert Setting] - [Reality Creation] - The desired setting.**

Settings

[Reality Creation]

[Resolution]: When you increase the setting value, the texture and detail of the image become sharper.

[Test: On/Off]: Switches [On] and [Off] at a certain frequency to check the effect of Reality Creation.

[Reality Text]

[Resolution]: When you increase the setting value, thin letters and lines are emphasized, and the visibility of the image is improved.

[Test: On/Off]: Switches [On] and [Off] at a certain frequency to check the effect of Reality Text.

[Off]

The Reality Creation function is not applied.

Hint

- The display position of the status during the test works together with the [Menu Position] setting in the  [Operation] menu.

Note

- Depending on the input signals, image noise may become more prominent. In that case, adjust the settings of [Reality Creation] before use.
- When [Ambiance] is set to [On], the resolution is set automatically, and the [Resolution] menu is not displayed.

Related Topic

- [Menu Operation: Expert Setting>Ambiance](#)
- [Menu Operation: Menu Position](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Expert Setting>Bright View

Creates bright and sharp images suitable for projection in bright places while maintaining color balance.

- 1 Press the **MENU** key.
- 2 Select  **[Projection Setting] - [Expert Setting] - [Bright View] - The desired setting.**

Settings

[High]/[Middle]/[Low]

You can adjust the Bright View effect.

[Off]

The Bright View function is not applied.

Note

- When **[Ambiance]** is set to **[On]**, the Bright View is set automatically, and the **[Bright View]** menu is not displayed.

Related Topic

- [Menu Operation: Expert Setting>Ambiance](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Expert Setting>Gamma Mode

Set the gamma mode.

- 1 Press the MENU key.
- 2 Select  [Projection Setting] - [Expert Setting] - [Gamma Mode] - The desired setting.

Settings

[2.2]

This is the gamma correction to make the halftone brighter. This is suitable for projecting photos and vibrant images in bright locations.

[2.4]

This is the gamma correction to reproduce halftone more faithfully. This will project photos and other vibrant images with natural tones.

[Gamma 3]

This is the gamma correction to emphasize bright portions of the image. Creates a balanced image.

[Gamma 4]

Enhances light and dark contrasts to suit use in a relatively dark environment.

[DICOM GSDF Sim.]

The gamma setting is in accordance with the Grayscale Standard Display Function (GSDF) of the Digital Imaging and Communications in Medicine (DICOM) standards. This projector is not to be used as a device for medical diagnosis.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Expert Setting>Color Space

Converts the color space.

- 1 Press the MENU key.
- 2 Select  [Projection Setting] - [Expert Setting] - [Color Space] - The desired setting.

Settings

[Custom 1]

Produces images with vivid colors.

[Custom 2]

Produces images with muted colors.

[Custom 3]

Reproduces image colors true to the original image source.

- [Color Select]: Select the color to adjust from [Red], [Green], and [Blue].
 - [Cyan - Red (x)]: Adjusts the chromaticity point of the selected color towards cyan-red (x).
 - [Magenta - Green (y)]: Adjusts the chromaticity point of the selected color towards magenta-green (y).

You can select R/G/B for the selected color space and adjust the R/G/B chromaticity points in the x and y directions in the CIExy chromaticity diagram.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Expert Setting>Color Correction

Adjusts the hue, saturation, and brightness.

- 1 Press the MENU key.
- 2 Select  [Projection Setting] - [Expert Setting] - [Color Correction] - [On] or [Off].
- 3 When you select [On], adjust color hue, saturation, and brightness by repeating steps 1 and 2 as explained below.
 1. Press the  /  (Up/Down) key to select [Color Select], then press the  /  (Left/Right) key to select the color you want to adjust from [Red], [Yellow], [Green], [Cyan], [Blue], or [Magenta].
 2. Press the  /  (Up/Down) key to select [Hue], [Saturation], or [Brightness], then adjust them to suit your taste with the  /  (Left/Right) key while viewing the projected image.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Aspect

Set what aspect ratio images will be projected for each input signal.

- 1 Press the **MENU** key.
- 2 Select  **[Screen]** - **[Aspect]** - Item you wish to configure.

Settings

- For Computer Signal Input
 - [Full 1]: Maintains the aspect ratio and project onto the entire screen.
 - [Full 2]: Projects onto the entire screen.
 - [Normal]: Projects the original resolution onto the center of the screen without enlargement processing.
- For Video Signal Input
 - [4:3]: Fixes the aspect ratio to 4:3 and project onto the entire screen.
 - [16:9]: Fixes the aspect ratio to 16:9 and project onto the entire screen.
 - [Full]: Projects onto the entire screen.
 - [Zoom]: Enlarges and project the center of the image.

Note

- Be aware that dividing, shrinking and stretching the display by the aspect ratio function for commercial purposes or public viewing at cafes, hotels, etc., may be in violation of the author's copyrights protected under copyright law.
- Depending on the input, items in [Aspect] or some settings may not be configured. In addition, the image may remain the same even if a different aspect ratio is set.
- Depending on the selected item, some parts of the screen may be displayed in black.

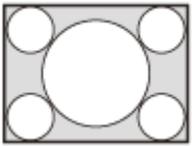
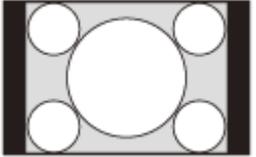
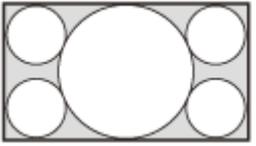
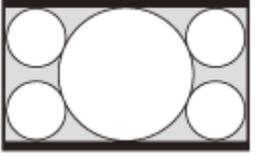
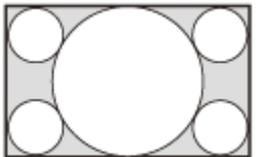
Related Topic

- [Aspect Ratio](#)

Data Projector
VPL-FHZ85/FHZ80

Aspect Ratio

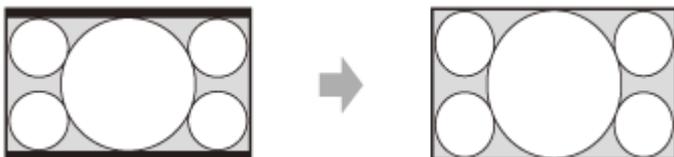
Computer Signal

Input signal	Image projected using recommended setting values
4:3 	[Full 1] ^{*1 *2} 
16:9 	[Full 1] ^{*1 *2} 
16:10 	[Full 1] ^{*1} 

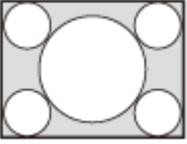
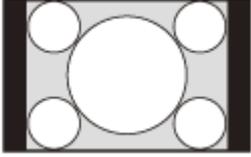
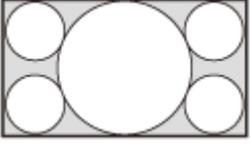
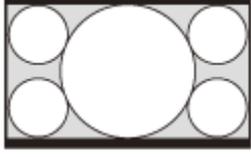
*1 Selecting [Normal] will project the image with the image signal resolution as-is without enlargement processing.



*2 Selecting [Full 2] will project the image onto the entire screen with the aspect ratio ignored.



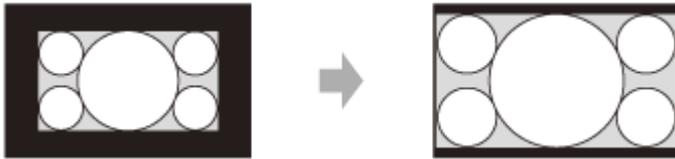
Video Signal

Input signal	Image projected using recommended setting values
4:3 	$[4:3]^{*1 *3}$ 
16:9 	$[16:9]^{*2 *3}$ 

*1 Depending on the input signal, images may be displayed as follows. In this case, select [16:9].



*2 Depending on the input signal, images may be displayed as follows. In this case, select [Zoom].



*3 Selecting [Full] will project the image onto the entire screen with the aspect ratio ignored.



Related Topic

- [Menu Operation: Aspect](#)

Menu Operation: V Center

Adjust the whole projected image by moving up and down on the screen.

1 Press the MENU key.

2 Select  [Screen] - [V Center] - Adjust the values.

The screen moves up as the setting increases and moves down as the setting decreases.

Note

- This item can be selected when a video signal is input from the RGB/Y PB PR input terminal (Input A), DVI-D input terminal (Input B), HDMI input terminal (Input C), or HDBaseT terminal (Input D).
- This item can be selected when [Aspect] in the  [Screen] menu is set to [Zoom] and [Screen Aspect] in the  [Installation] menu is [16:10] or [16:9].

Related Topic

- [Menu Operation: Aspect](#)
- [Menu Operation: Screen Aspect](#)

Menu Operation: Vertical Size

Enlarges or reduces the image vertically. If the subtitle of a movie, etc. cannot be seen, use this together with [V Center].

- 1 Press the **MENU** key.
- 2 Select  [Screen] - [Vertical Size] - Adjust the values.

The projected image is enlarged as the setting increases and reduced as the setting decreases.

Note

- This item can be selected when a video signal is input from the RGB/Y PB PR input terminal (Input A), DVI-D input terminal (Input B), HDMI input terminal (Input C), or HDBaseT terminal (Input D).
- This item can be selected when [Aspect] in the  [Screen] menu is set to [Zoom] and [Screen Aspect] in the  [Installation] menu is [16:10] or [16:9].

Related Topic

- [Menu Operation: V Center](#)
- [Menu Operation: Aspect](#)
- [Menu Operation: Screen Aspect](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Overscan

Select this item if noise appears along the edge of the image.

- 1 Press the **MENU** key.
- 2 Select  **[Screen]** - **[Overscan]** - **[On]** or **[Off]**.
Selecting **[On]** hides the outline of the image.

Note

- This item can be selected when a video signal is input from the RGB/Y PB PR input terminal.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Adjust Signal

Adjusts the projected image for computer signal input. Adjust when the edges of the screen are cut off or the image quality is poor.

- 1 Press the MENU key.
- 2 Select  [Screen] - [Adjust Signal] - The desired setting.

Settings

[APA]

Pressing the ENTER key will automatically modify the screen into its optimal state. This item can be selected when a computer signal is input from the RGB input terminal (Input A).

[Phase]

Adjusts the input signal and display the pixel phase. Set it to the value that produces the clearest image. This item can be selected when a computer signal is input from the RGB input terminal (Input A).

[Pitch]

Increasing the value will make the horizontal width (pitch) of the display pixels become larger, and decreasing it will make the width become smaller. This item can be selected when a computer signal is input from the RGB input terminal (Input A).

[Shift]

- [H]: Increasing the value will make the screen move to the right, and decreasing the value will make it move to the left.
- [V]: Increasing the value will make the screen move up, and decreasing the value will make it move down.

This item can be selected when a signal is input from the RGB/Y PB PR input terminal (Input A).

Note

- [APA] may not be able to function properly when there is a large black area around the projected image, and part of the image may not be displayed. In addition, depending on the input signal, the image may not be optimized. If this occurs, configure [Phase], [Pitch], and [Shift] manually.
- The value adjusted for [Pitch] will return to its factory setting if [APA] or [Smart APA] in the  [Function] menu is performed. If you wish to continue using the adjusted value, set [Smart APA] in the  [Function] menu to [Off].

Related Topic

- [Menu Operation: Smart APA](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Audio Output Vol.

Adjust the audio level output from the audio output terminal.

- 1 Press the **MENU** key.
- 2 Select  **[Function] - [Audio Output Vol.] - Adjust the values.**

Increasing the value will increase the volume, and decreasing it will decrease the volume.

Related Topic

- [Connecting to Audio Equipment](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Smart APA

When a computer signal is input from the RGB input terminal (Input A), APA is activated automatically, and the screen is adjusted into its optimal state.

1 Press the **MENU** key.

2 Select  **[Function] - [Smart APA] - [On] or [Off]**.

Selecting **[On]** allows APA to be activated automatically when a computer signal is input.

Related Topic

- [Menu Operation: Adjust Signal](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: CC Display

This operation controls the CC (Closed Captioning) setting.

- 1 Press the **MENU** key.
- 2 Select  **[Function] - [CC Display] - The desired setting.**

Settings

[CC1]/[CC2]/[CC3]/[CC4]/[Text1]/[Text2]/[Text3]/[Text4]

Select the CC (Closed Captioning) service (subtitles or textual information) that is displayed.

[Off]

CC (Closed Captioning) is not displayed.

Note

- The [CC Display] menu is only displayed when an applicable signal is being input.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Background

Sets the background for when there is no input signal.

1 Press the **MENU** key.

2 Select  **[Function] - [Background] - [Blue], [Black], or [Image].**

When set to **[Image]**, the startup image is displayed while no signal is input.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Start Up Image

Set whether the startup image is displayed during startup.

- 1 Press the MENU key.**
- 2 Select  [Function] - [Start Up Image] - [On] or [Off].**
Selecting [On] will enable the startup image to be displayed during startup.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: All Reset

All settings are initialized to their factory preset values.

1 Press the **MENU** key.

2 Select  **[Function]** - **[All Reset]**.

When the [Do you wish to reset the settings to default values?] message is displayed, select [Yes].

Note

- It will take some time for the unit to be reset. During this time, the unit cannot be operated.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Language

Set the language used in the menu, messages, and so on.

- 1 Press the **MENU** key.
- 2 Select  **[Operation] - [Language] - The desired language.**

Related Topic

- [Selecting the Menu Language](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Menu Position

Select the position of the menu displayed on the projected image.

- 1 Press the **MENU** key.
- 2 Select  [Operation] - [Menu Position] - [Bottom Left] or [Center].

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Status

Set whether the menu, messages, and so on are displayed.

- 1 Press the **MENU** key.
- 2 Select  **[Operation] - [Status] - The desired setting.**

Settings

[On]

All screen displays become active.

[Off]

All screens except for the menu display, warning messages, notifications, and so on will not be displayed.

[All Off]

Turns off the on-screen displays excluding certain menus.

Note

- When [All Off] is selected, the 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].

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: IR Receiver

Selects the remote control receivers (IR Receiver) on the front and rear of the projector.

- 1 Press the **MENU** key.
 - 2 Select  **[Operation] - [IR Receiver] - [Front & Rear], [Front], [Rear], or [Off]**.
-

Related Topic

- [Parts and Controls \(Main Unit\)](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: ID Mode

Assign an ID number to the projector.

- 1 Press the **MENU** key.
- 2 Select  **[Operation] - [ID Mode] - The desired setting.**

Settings

[All]/[1]/[2]/[3]/[4]

When set to [All], you can control the projector with the Remote Commander independent of the assigned ID Mode. Also refer to ID MODE switch of the Remote Commander.

Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Security Lock

Allows you to set a password and restrict users.

Set a password in [Set Password] in the  [Operation] menu.

- 1 Press the MENU key.
- 2 Select  [Operation] - [Security Lock] - [On] and press the ENTER key.
- 3 Enter the set password.

Turning Off Security Lock

Selecting [Off] allows you to turn off Security Lock. This also requires the password to be entered.

Note

- If the password is entered incorrectly three times in a row, further operation is not allowed. In this case, press the  (On/Standby) key to enter standby mode, and then turn the projector on again.
- If you forget the password, you will be unable to use the projector, so proceed with caution. If you forgot your password, contact qualified Sony personnel. (The confirmation method differs by country/region.)

Related Topic

- [Menu Operation: Set Password](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Control Key Lock

Allows operation via the control panel to be deactivated.

- 1 Press the MENU key.
- 2 Select  [Operation] - [Control Key Lock] - [On] or [Off].
Selecting [On] deactivates operation via the control panel.

Operations Possible During Operation Lockout

The following operations are possible even when [Control Key Lock] is [On].

- In standby mode, press and hold the  /  (On/Standby) key for approximately 10 seconds.
The power will turn on.
- With the power on, press and hold the MENU key for approximately 10 seconds.
[Control Key Lock] will turn [Off], and the control panel will become operational.

Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)

Menu Operation: Lens Control

Set whether you can adjust the lens (focus, zoom, and lens shift) or not.

1 Press the **MENU** key.

2 Select  **[Operation] - [Lens Control] - [On] or [Off]**.

When set to [On], you can adjust the lens from the Remote Commander or control panel. To prevent unintentional operation, set it to [Off] after adjusting the lens.

Related Topic

- [Focusing the Image](#)
- [Adjusting the Image Size](#)
- [Adjusting the Position of the Image](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Menu Settings Lock

Lock the menu settings.

- 1 Press the MENU key.
- 2 Select  [Operation] - [Menu Settings Lock] - The desired setting.

Settings

[Full]

Locks all menu settings.

[Startup]

Locks the settings when the projector is turned on. Settings can be changed while the projector is in use, but once the power is turned off, they will return to the originally locked settings.

[Update]

Selecting [Update] when [Startup] has been selected saves the changed settings and keeps them the same.

Note

- When performing [Menu Settings Lock] operations, a password must be entered. Set a password in [Set Password] in the  [Operation] menu.

Related Topic

- [Menu Operation: Set Password](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Set Password

Set a password for the [Security Lock] and [Menu Settings Lock] operations.

- 1 Press the MENU key.
 - 2 Select  [Operation] - [Set Password].
 - 3 Use the MENU,  /  /  /  (Up/Down/Left/Right), and ENTER keys to enter the password.
The default factory setting password is "ENTER, ENTER, ENTER, ENTER."
 - 4 Use the MENU,  /  /  /  (Up/Down/Left/Right), and ENTER keys to enter your new password.
 - 5 Enter the new password again for confirmation.
-

Related Topic

- [Menu Operation: Security Lock](#)
- [Menu Operation: Menu Settings Lock](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: IPv4 Setting

Set the network IP address.

- 1 Press the **MENU** key.
- 2 Select  **[Connection/Power] - [Network Setting] - [IPv4 Setting] - [IP Address Setup] - The desired setting.**

Settings

[Auto(DHCP)]

Network settings are automatically assigned via the DHCP server function such as a router.

[Manual]

Configure the network manually.

Note

- When setting the IP address manually, enter the IP address after changing the IP address setting to [Manual].
- Set the IP address of this unit manually after connecting to the network. If this unit is not connected to the network, the setting is not enabled.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Communication Mode

Configure the communication mode.

- 1 Press the **MENU** key.
- 2 Select  **[Connection/Power] - [Network Setting] - [Communication Mode] - The desired setting.**

Settings

[http]

Communicate with http only.

[http and https]

Communicate with both http and https.

[https]

Communicate with https only.

Related Topic

- [Configuring https Communication](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: HDBaseT Settings

Configure a connection to an HDBaseT device.

- 1 Press the **MENU** key.
- 2 Select  **[Connection/Power] - [HDBaseT Settings] - The desired setting.**

Settings

[LAN Setting]

[via HDBaseT]/[LAN Port]: You can select either via the LAN of the HDBaseT device connected to the HDBaseT terminal or via the network connection with the LAN terminal of the main unit.

[RS-232C Setting]

- [via HDBaseT]: You can connect this unit to the RS-232C terminal via the HDBaseT transmitter. (Baud rate: 9,600 bps)
- [RS-232C]: Use when connecting to the RS-232C terminal of this unit directly. (Baud rate: 38,400 bps)

[Extron XTP]

[On]/[Off]: Set to [On] when connecting the HDBaseT terminal of this unit to XTP Systems manufactured by Extron Electronics. Set to [Off] when connecting to other devices.

Note

- When connecting via HDBaseT, only the 100BASE-TX can be used for connection. When using the LAN terminal of the main unit, you can connect with the 10BASE-T/100BASE-TX/1000BASE-T.
- The IP addresses when using HDBaseT and when using the LAN terminal should be set respectively.
 - Setting the IP address when using a LAN via HDBaseT.
Set [LAN Setting] to [via HDBaseT] in [HDBaseT Settings], then set the IP address in [Network Setting].
 - Setting the IP address when using the LAN terminal.
Set [LAN Setting] to [LAN Port] in [HDBaseT Settings], then set the IP address in [Network Setting].
- For details on XTP Systems, refer to the product catalog or brochure from Extron Electronics.

Related Topic

- [Connecting to an HDBaseT™ Device](#)
- [Menu Operation: IPv4 Setting](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Dynamic Range

Set the image input level for the INPUT B/INPUT C/INPUT D terminal.

- 1 Press the **MENU** key.
- 2 Select  **[Connection/Power] - [Dynamic Range] - The desired setting.**

Settings

[Auto]

Identifies the image input level automatically.

[Limited]

Set when the image input level is between 16 and 235.

[Full]

Set when the image input level is between 0 and 255.

Note

- If the image output settings for the HDMI connection device are not correct, the bright sections and dark sections of the image may become too bright or dark.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: HDMI Cable

Set the item related to HDMI cables.

- 1 Press the **MENU** key.
- 2 Select  **[Connection/Power] - [HDMI Cable] - [Long] or [Normal]**.
Select **[Long]** when the image is disturbed or not projected.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: HDMI Signal Format

Switches the HDMI signal format.

- 1 Press the **MENU** key.
- 2 Select  **[Connection/Power] - [HDMI Signal Format] - The desired setting.**

Settings

[Standard]

Displays the image in the standard HDMI format.

Enhanced]

Displays the image in a more high-definition HDMI format.

Note

- The image or sound may not be output correctly when [Enhanced] is selected. In that case, select [Standard].
- It may take time to display an image after changing the image signal format.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Input-A Signal Sel.

Set the image signal type for when Input A is selected.

- 1 Press the **MENU** key.
- 2 Select  **[Connection/Power] - [Input-A Signal Sel.] - The desired setting.**

Settings

[Auto]

Automatically chooses the image signal type for when Input A is selected.

[Computer]/[Video GBR]/[Component]

The selected image signal type will be applied.

Note

- Even if [Auto] is set, the image may not be optimized depending on the input. If this occurs, configure manually in accordance with the connected device.

Menu Operation: Auto Power Saving

- 1 Press the MENU key.
- 2 Select  [Connection/Power] - [ECO] - [Auto Power Saving] - The desired setting.

Settings

[With No Input]

[Light Cutoff]: If there is no signal input for approximately 2 minutes, the light will automatically turn off and the power consumption will be reduced. Inputting a signal or operating a key will turn the light back on. When the light is off, the ON/STANDBY indicator will light in orange.

[Standby]: If there is no signal input for approximately 2 minutes, the projector will automatically go into standby mode.

[Off]: Disables the With No Input setting function.

[With Static Signal]

[Light Dimming]: If there has been no change to the image being input into the projector (approximately 10 seconds), the light mode settings will gradually reduce the light output (by approximately 10% - 15%). In addition, if there is no change detected in the input signal for an optionally set period of time ([5 min.]/[10 min.]/[15 min.]/[20 min.]/[Demo.]), the light output will be automatically reduced to approximately 5%. While the light output is being reduced, the [Light Dimming] message will be displayed. If [Demo.] is selected, the light will begin dimming after approximately 40 seconds. When a signal change, Remote Commander operation, or control panel operation is detected, it will revert to the original brightness.

[Off]: Disables the With Static Signal setting function.

Note

- If you do not want the projector to automatically enter standby mode when there is no input signal, set [With No Input] to [Off].
- Light reduction works gradually over time, so you may not notice that it is being reduced. For this reason, when the input signal changes and the light returns to its original brightness, you may notice that the light was reduced.
- The light output reduction amount differs depending on the [Light Output Mode] setting in the  [Projection Setting] menu.

Related Topic

- [Menu Operation: Light Settings](#)

Menu Operation: Standby Mode

Set the power consumption during standby mode.

- 1 Press the **MENU** key.
- 2 Select  **[Connection/Power] - [ECO] - [Standby Mode] - [Standard] or [Low]**.
Selecting [Standard] will increase the power consumption during standby mode.

Note

- If [Standby Mode] is [Low], you will no longer be able to use networks and network control functions while in standby mode.

Hint

- Setting [Remote Start] to [On] will turn on the projector by sending special commands even when [Standby Mode] is set to [Low].

Related Topic

- [Menu Operation: Remote Start](#)

Menu Operation: Remote Start

Configure Remote Start. Setting [Remote Start] to [On] will turn on the projector by sending special commands even when [Standby Mode] is set to [Low].

1 Press the MENU key.

2 Select  [Connection/Power] - [ECO] - [Remote Start] - [On] or [Off].

Selecting [On] will allow you to supply power from the computer and so on to the projector when in a network-connected environment.

Note

- When [Standby Mode] is set to [Standard], [Remote Start] is not displayed in the menu.
- It is necessary to configure the network settings correctly and connect the projector to the network in advance.
- When supplying power to the projector using the Remote Start function, it is necessary to send special commands from the computer. Consult with qualified Sony personnel for details.
- Setting [Remote Start] to [On] will increase standby power consumption during standby mode

Related Topic

- [Menu Operation: Standby Mode](#)
- [Menu Operation: IPv4 Setting](#)

Menu Operation: Auto Input Select

Detects the terminal the signal is input into and switches the input automatically.

- 1 Press the **MENU** key.
- 2 Select  **[Connection/Power] - [Auto Input Select] - [On] or [Off]**.
Selecting **[On]** switches to the input of the terminal the signal is input into.

Hint

- When **[Auto Input Select]** is set to **[On]** while signals are being input to multiple terminals, the input switches from the one currently selected as the starting point to the input with a signal being input in the order of Video input → Input A → Input B → Input C → Input D → Video input....
Ex.: When signals are input to Input A and Input C
 - When **[Auto Input Select]** is set to **[On]** while Input B is selected, Input C is selected automatically.
 - When **[Auto Input Select]** is set to **[On]** while Input D is selected, Input A is selected automatically.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Auto Power On

Sets the projector to turn on automatically when a video signal is input to a video input terminal other than INPUT D (HDBT).

1 Press the MENU key.

2 Select  [Connection/Power] - [Auto Power On] - [On] or [Off].

When [On] is selected, the projector turns on automatically when a video signal is input to a video input terminal other than INPUT D (HDBT).

Hint

- When [Auto Power On] is set to [On], the input that is selected when the projector is turned on will differ depending on the [Auto Input Select] settings.
 - When [Auto Input Select] is set to [Off], the input that was selected when the projector was turned off last is selected.
 - When [Auto Input Select] is set to [On] and a signal is input to only one input terminal, that input is selected.
 - When [Auto Input Select] is set to [On] and signals are input to multiple input terminals, the input that was selected when the projector was turned off last is selected. If there is no input signal for that input, the next input with an input signal is selected in the following order: Video input → Input A → Input B → Input C → Input D → Video input...

Note

- When [Standby Mode] is set to [Low], [Auto Power On] is not displayed in the menu.

Related Topic

- [Menu Operation: Auto Input Select](#)
- [Menu Operation: Standby Mode](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Direct Power On

Set whether power is set to On or Standby when plugging the AC power cord into an outlet.

1 Press the MENU key.

2 Select  [Connection/Power] - [Direct Power On] - [On] or [Off].

When [On] is selected, the projector is turned on without going into standby mode when the AC power cord is plugged into an outlet.

Hint

- When you turn off the power, you can disconnect the AC power cord without going into standby mode regardless of the [Direct Power On] settings.

Related Topic

- [Turning Power On/Off](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Screen Fitting

Adjust the distortion of the projected image that occurs due to installation conditions or when a portion of the image spreads beyond the screen.

- 1 Press the **MENU** key.
- 2 Select  [Installation] - [Screen Fitting] - The desired setting.

Settings

[Warping]

Adjust the image distortion.

Select an adjustment point and move it vertically/horizontally to adjust the image distortion.

[V Corner Wall]

Adjust the horizontal distortion of the projected image that occurs when projected on a wall, floor, corner, pillar, etc.

Select an adjustment point (upper left, middle left, lower left, upper right, middle right, lower right) you want to correct and move it vertically/horizontally to adjust the image distortion.

[H Corner Wall]

Adjust the vertical distortion of the projected image that occurs when projected on a wall, floor, corner, pillar, etc.

Select an adjustment point (upper left, upper middle, upper right, lower left, lower middle, lower right) you want to correct and move it vertically/horizontally to adjust the image distortion.

[V Keystone]

Adjust the projected image on a screen that has a vertical trapezoidal shape.

Increasing the value in the positive direction makes the upper side screen width smaller, and increasing it in the negative direction makes the lower side screen width smaller.

[H Keystone]

Adjust the projected image on a screen that has a horizontal trapezoidal shape.

Increasing the value in the positive direction makes the right side of the screen smaller, and increasing it in the negative direction makes the left side of the screen smaller.

[V Linearity]

Adjust the projected image so that the height of the upper half and lower half will be the same.

The higher the setting, the narrower the upper half of the projected image. The lower the setting, the narrower the lower half of the projected image.

[H Linearity]

Adjust the projected image so that the width of the right half and left half will be the same.

The higher the setting, the narrower the right half of the projected image. The lower the setting, the narrower the left half of the projected image.

[Reset]

Resets all of the Screen Fitting items.

Note

- Because Warping/Corner Wall/Keystone/Linearity adjustment is an electronic form of correction, the image quality may deteriorate.
- Depending on the position adjusted with the lens shift feature, the aspect ratio of the image may change from the original or the projected image may be distorted with Keystone adjustment.
- [Warping], [V Corner Wall] and [H Corner Wall] cannot be adjusted at the same time.

Related Topic

- [Correcting a Vertical Trapezoid](#)
- [Correcting a Horizontal Trapezoid](#)
- [Correcting Screen Distortion](#)
- [Projecting on an Angled Wall](#)

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Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Multi Screen>Color Space

Converts the color space when composing one screen with multiple projections. The same adjustments as [Color Space] in the  [Projection Setting] menu are available.

- 1 Press the MENU key.
- 2 Select  [Installation] - [Multi Screen] - [Color Space] - The desired setting.

Settings

[Custom 1]

Produces images with vivid colors.

[Custom 2]

Produces images with muted colors.

[Custom 3]

Reproduces image colors true to the original image source.

- [Color Select]: Select the color to adjust from [Red], [Green], and [Blue].
 - [Cyan - Red (x)]: Adjusts the chromaticity point of the selected color towards cyan-red (x).
 - [Magenta - Green (y)]: Adjusts the chromaticity point of the selected color towards magenta-green (y).

You can select R/G/B for the selected color space and adjust the R/G/B chromaticity points in the x and y directions in the CIExy chromaticity diagram.

Related Topic

- [Blending Projections from Multiple Projectors on a Screen](#)
- [Menu Operation: Expert Setting>Color Space](#)

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Multi Screen>Color Matching

Adjusts the overall brightness and hue of the projected image when composing one screen with multiple projections.

- 1 Press the MENU key.
- 2 Select  [Installation] - [Multi Screen] - [Color Matching] - The desired setting.

Settings

[Adjust]

Select one of 8 signal levels and adjust the brightness or hue.

- [Level]: Select the brightness level (1-8) to adjust.
- [Brightness]: Adjusts the brightness of the selected brightness level.
- [Color]: Adjusts the hue of the selected brightness level.

[Reset]

Resets all of the adjusted values.

Note

- The brightness and color of the projected image may not match completely even after you adjust [Brightness] and [Color].

Related Topic

- [Blending Projections from Multiple Projectors on a Screen](#)

Menu Operation: Multi Screen>Edge Blending

Sets the settings regarding edge blending when composing one screen with multiple projections.

- 1 Press the **MENU** key.
- 2 Select  [Installation] - [Multi Screen] - [Edge Blending] - The desired setting.

Settings

[Blend Settings]

Configure the Edge Blending setting for the top, bottom, right, and left of the screen respectively.

- [Left]/[Right]/[Top]/[Bottom]: Set the Edge Blending effect for each position.
 - [Edge Blending]: Select [On] or [Off]. When set to [On], you can set [Blending Range] and [Blend Start Pos.].
 - [Blending Range]: Set the width where images are overlapped.
 - [Blend Start Pos.]: Set the start position from which images overlap.
- [Blend Cursor]: Set whether the cursor is displayed on the start and end positions of the edge blending or not. When set to [On], the cursors are displayed during Blend settings.
 - [Start Pos. Color]: Select the color of the cursor that indicates the start position among [Red], [Green], [Blue], [Magenta], [Yellow], and [Cyan].
 - [End Pos. Color]: Select the color of the cursor that indicates the end position among [Red], [Green], [Blue], [Magenta], [Yellow], and [Cyan].
- [Reset]: Resets all of the Blend Settings values.

[Blend Fitting]

Finely adjusts the overlapped part.

- [Adjust]: Specify a position in the overlapped area and move image pixels. Use the  (Up/Down/Left/Right) keys to select the position to adjust. Press the ENTER key to determine the position and use the  (Up/Down/Left/Right) keys to move the image pixels vertically/horizontally so that neighboring images overlap.
- [Reset]: Resets all of the Blend Fitting values.

[Zone Black Level]

Adjusts so that the overlapped part is not noticeably bright when a dark image is displayed.

Select the correction zone [Adjust Zone 1] through [Adjust Zone 9], and set the adjustment values.

- [Zone Fitting]: Adjusts the area of each correction zone. When entering the Zone Fitting adjustment, the whole screen flashes twice to indicate the division state of the area.
 - [Adjust]: Specifies the position of the marginal line of each correction zone. Select the adjusting position using the  (Up/Down/Left/Right) keys. Press the ENTER key to determine the position and use the  (Up/Down/Left/Right) keys to move the image pixels vertically/horizontally so that the area of each correction zone is adjusted.
 - [Reset]: Resets all of the Zone Fitting values.
- [Black Level Adj.]: Adjusts the brightness of each correction zone. Only adjustable zones can be selected.

- [Adjust Zone 1] - [Adjust Zone 9]: Selects the area for adjusting and adjusts the brightness of each correction zone. When selecting the correction zone, the targeted correction zone flashes twice.
- [Reset]: Resets all of the Black Level Adj. values.
- [Test Pattern]: While selecting [On], the test pattern displays when the Zone Black Level is adjusted.
- [Reset]: Resets all of the Zone Black Level Adj. values.

[Reset]

Resets all of the [Blend Settings], [Blend Fitting], and [Zone Black Level] values.

Note

- You cannot adjust anything other than the targeted adjustment zones in [Zone Black Level].

Related Topic

- [Blending Projections from Multiple Projectors on a Screen](#)

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Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Image Flip

The image flips either horizontally or vertically depending on the installation method.

- 1 Press the **MENU** key.
- 2 Select  [Installation] - [Image Flip] - The desired setting.

Settings

[HV]

Flips the image horizontally and vertically.

[H]

Flips the image horizontally.

[V]

Flips the image vertically.

[Off]

Projects the image without flipping it.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: High Altitude Mode

Set in accordance to the air pressure at the installation location.

- 1 Press the **MENU** key.
- 2 Select  [Installation] - [High Altitude Mode] - The desired setting.

Settings

[Level2]

Select when using the projector in a location at an altitude of 1,800 m (approx. 5,900 feet) or higher.

[Level1]

Select when using the projector in a location at an altitude from 1,000 m (approx. 3,280 feet) to 1,800 m (approx. 5,900 feet).

[Off]

Select when using the projector on level ground.

Note

- Using the projector with improper settings may affect the reliability of the components.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Filter Cleaning

Cleans the air filter.

1 Press the **MENU** key.

2 Select  **[Installation] - [Filter Cleaning]**.

The [Shut off to start filter cleaning now?] message is displayed.

3 Select **[Yes]** or **[No]**.

If you select [Yes], the projector is turned off, and air filter cleaning starts.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Screen Aspect

Switches the display area to suit the screen.

- 1 Press the MENU key.**
- 2 Select  [Installation] - [Screen Aspect] - The desired setting.**
Select [16:10], [16:9], [21:9], or [4:3] to suit the screen.

Menu Operation: Blanking

This feature allows you to adjust the displayable region within the four directions of the projection surface.

- 1 Press the **MENU** key.
- 2 Select  [Installation] - [Blanking].
- 3 Select the edge to adjust from [Left], [Right], [Top], and [Bottom] using the  /  (Up/Down) keys.
- 4 Adjust the amount of blanking using the  /  (Left/Right) keys.

Note

- When the projected image is displayed smaller than the entire projection surface using the [Aspect] or [Screen Aspect] setting, blanking may not be applied.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Panel Alignment

This feature allows you to adjust the gaps in the color of characters or the picture. When set to [On], [Adjust Color] and [Pattern Color] can be assigned and adjusted.

- 1 Press the MENU key.
- 2 Select  [Installation] - [Panel Alignment] - [On] or [Off].
- 3 When you select [On], adjust the gaps in color by selecting [Adjust Item] and [Adjust Color].

Settings

[Adjust Item]

Select 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 [Adjust Color] is [B] (Blue).

[Adjust]

The shift adjustment and zone adjustment of the color selected in [Adjust Color] can be made with  /  /  /  (Up/Down/Left/Right) keys.

[Reset]

The panel alignment settings are initialized to their factory preset values.

Note

- Depending on the adjustment value of [Panel Alignment], the color and resolution may be changed.

Data Projector
VPL-FHZ85/FHZ80

Menu Operation: Uniformity

This feature allows you to adjust color uniformity.

1 Press the MENU key.

2 Select  [Installation] - [Uniformity] - The desired setting.

Select the appropriate brightness level from level 0 to level 11 in [Level]. Also, select the desired range to adjust the color.

Settings

[Level]

Select the brightness level (0-11) to adjust.

[Area: Top Left]

Select the top-left point to specify the adjustment range.

[Area: Bottom Right]

Select the bottom-right point to specify the adjustment range.

[R]

Adjusts the red level in the selected range.

[G]

Adjusts the green level in the selected range.

[B]

Adjusts the blue level in the selected range.

[Reset]

Resets all of the adjusted values.

Data Projector
VPL-FHZ85/FHZ80

Viewing the Projector Information

View the projector model name, serial number, input signal type, light usage time, and other information.

- 1 Press the **MENU** key.
- 2 Select **i** [Information].

Items that Can be Viewed

[Model Name]

Displays the model name.

[Serial No.]

Displays the serial number.

[fH / fV]

Displays the horizontal/vertical frequency and signal type (resolution) of the current input signal.

[Light Timer]

Displays the light usage time thus far.

Note

- The horizontal/vertical frequency may not be displayed properly due to the input signal.

Data Projector
VPL-FHZ85/FHZ80

Uses for Network Features

Connecting a projector to a network allows you to do the following.

Use the projector with only necessary functions enabled.

- Confirm the current projector state using a web browser.
- Operate the projector remotely using a web browser.
- Receive a report from the projector via e-mail.
- Configure network settings for the projector.
- Perform control using various types of network surveillance and control protocol (Advertisement, ADCP, PJ Talk, PJ Link, SNMP, AMX DDDP (Dynamic Device Discovery Protocol), Crestron RoomView).
- Reset the network settings.
- Set the date and time.
- Update the software.
- Use https communication.

Note

- When connecting the projector to a network, consult the network administrator. Also, use a network environment with security measures in place.
- When using the projector upon connecting it to a network, open the projector's control panel via a network and change the factory settings of the access control settings. We also recommend that you change your password periodically.
- Once you have finished configuration via the browser, close the browser to log out.
- Please note that the images used in the explanation are for reference only. Some images may differ depending on what model you are using.
- Supported web browsers are Internet Explorer (version 11 or later), Safari, and Chrome.
- The only display language available is English.
- When accessing the projector from a computer, if the browser is set to "use a proxy server," click the checkmark and configure it to not use a proxy server.

Related Topic

- [Operating the Control Panel](#)
- [Using the E-mail Report Function](#)
- [Configuring the Network Settings of the Projector](#)
- [Resetting the Network Settings](#)
- [Setting the Date and Time](#)
- [Using the Software Update Function](#)
- [Configuring https Communication](#)

Displaying the Control Window of the Projector with a Web Browser

Display the control window of the projector with a web browser and configure the network settings.

- 1 Connect the projector and computer to a hub or router using LAN cables.
- 2 Press the **MENU** key and configure the projector's network settings from  [Connection/Power] - [Network Setting].
- 3 Start the web browser, enter the following into the address field, and press the Enter key.

http://xxx.xxx.xxx.xxx

(xxx.xxx.xxx.xxx: IP address of the projector)

The IP address of the projector can be confirmed from [Network Setting] in the  [Connection/Power] menu.
The control panel will be displayed in the browser.



Hint

- Once the network settings have been configured, the control panel can be displayed thereafter via the operation in Step 3 alone.
- For https communication, connect with http first, then configure https communication.

Related Topic

- [Connecting to a Computer via a Hub or Router](#)
- [Menu Operation: IPv4 Setting](#)
- [Configuring https Communication](#)

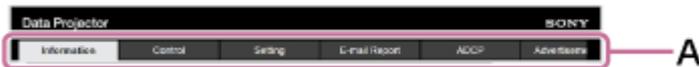
Data Projector
VPL-FHZ85/FHZ80

Operating the Control Panel

From the control panel displayed in your browser, you can configure access privileges and confirm the projector state.

Switching Pages

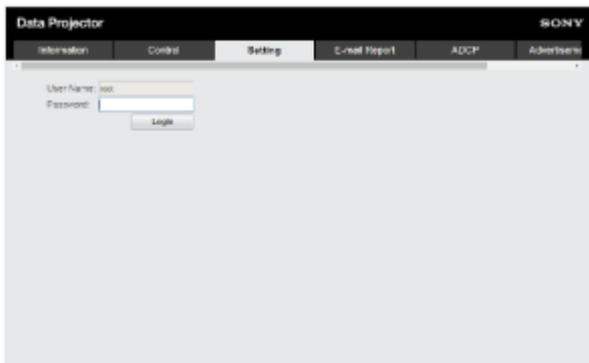
Click the page toggle tab (A) to display the page you wish to configure.
When the tab of the target page is not displayed, scroll the bar under the tab to display it.



Administrator privileges will be required to access to the pages other than Information and Control.

Setting the Password

Upon clicking [Setting] in the page toggle tab, a login window will be displayed.



When accessing the [Setting] page for the first time, enter the User Name “root” and the Password “Projector.”
When logging in for the first time, a window prompting you to change your password will be displayed. Follow the instructions displayed and change your password.

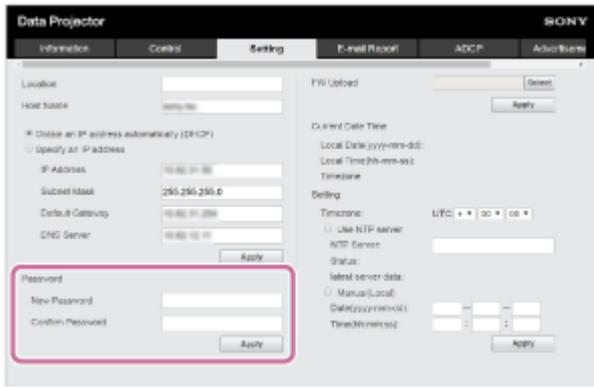
Set Password

This is the first access to this page.
Please change the administrator's password to continue

New Password:

Confirm:

The initial password “Projector” cannot be set as the new password.
To change the password, set [Password] in the [Setting] page.



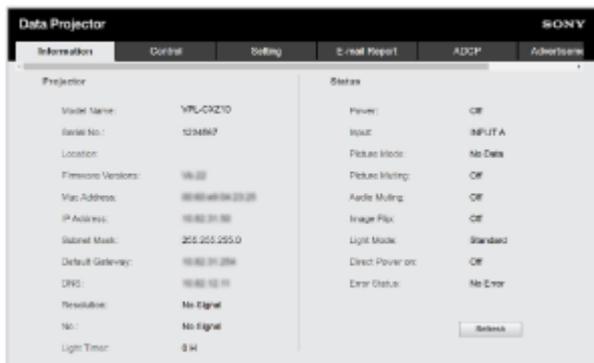
To enable the new password, enter the new password, then click [Apply].

Note

- If you forgot your password, contact qualified Sony personnel. Your password will be reconfigured once your approval has been obtained.

Confirming the Projector State

Clicking the [Information] page toggle tab and opening the [Information] page allows you to confirm the projector's current state.



Operating the Projector

Clicking the [Control] page toggle tab and opening the [Control] page allows you to operate the projector.



The button functions are the same as those of the keys on the Remote Commander.

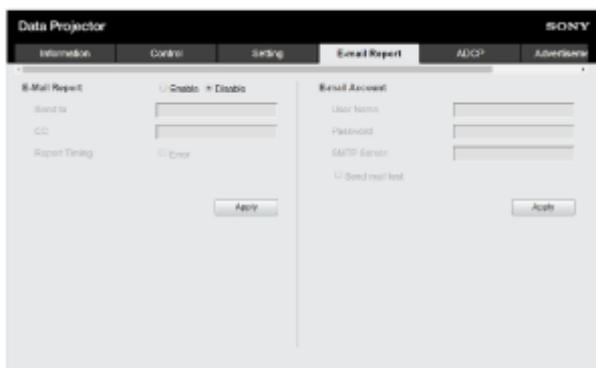
Using the E-mail Report Function

Configure the e-mail report function from the [E-mail Report] page.

Note

- The entered value will not be applied until [Apply] is clicked.

- 1 Click the [E-mail Report] tab and display the [E-mail Report] page.



- 2 Select [Enable] in [E-mail Report].
- 3 Configure [Send to] and [CC].
- 4 Configure the [Report Timing] items.
- 5 Click [Apply].
- 6 Configure the [E-mail Account] items.
- 7 Check [Send mail test] and click [Apply].

A test e-mail will be sent to the set destination address.

Settings

[Send to], [CC]

Enter the destination e-mail address.

[Report Timing]

- [Over Light usage time]: Send a report when the light usage time elapses the specified time. [Error]: Send a report when the projector detects an error.

[E-mail Account]

- [User Name]: Enter the e-mail address.
- [SMTP Server]: Enter the transmission e-mail server (SMTP) address.

Note

- For networks performing Outbound Port25 Blocking, the e-mail report function cannot be used because the SMTP server cannot be connected to.
- You cannot enter the following characters in the text box: ' " \ & < >

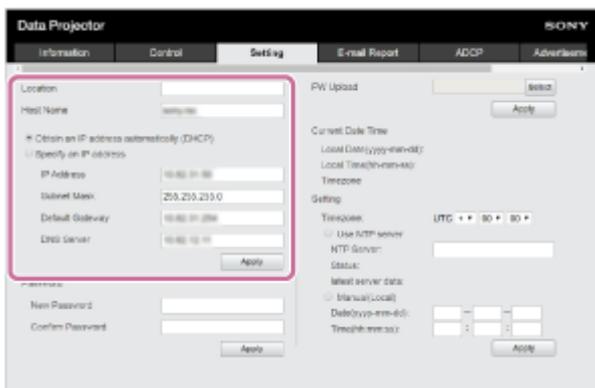
Configuring the Network Settings of the Projector

Configure the network functions from the [Setting] page.

Note

- The entered value will not be applied until [Apply] is clicked.

- 1 Click the [Setting] tab and display the [Setting] page.



- 2 Configure [Location].

- 3 Configure [Host Name].

This host name must be the same as the Common Name (common name) of the certificate used when accessing via https communication. For details, refer to “[Configuring https Communication.](#)”

- 4 Configure [Obtain an IP address automatically (DHCP)] or [Specify an IP address].

- 5 Click [Apply].

Settings

[Obtain an IP address automatically (DHCP)]

Network settings are automatically assigned via the router or other device's DHCP server function. The values allocated by the DHCP server are displayed in [IP Address], [Subnet Mask], [Default Gateway], and [DNS Server].

[Specify an IP address]

Configure the network manually.

- [IP Address]: Enter the IP address of the projector.
- [Subnet Mask]: Enter the subnet mask of the projector.
- [Default Gateway]: Enter the default gateway of the projector.
- [DNS Server]: Enter the primary DNS server of the projector.

Related Topic

- [Configuring https Communication](#)

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Data Projector
VPL-FHZ85/FHZ80

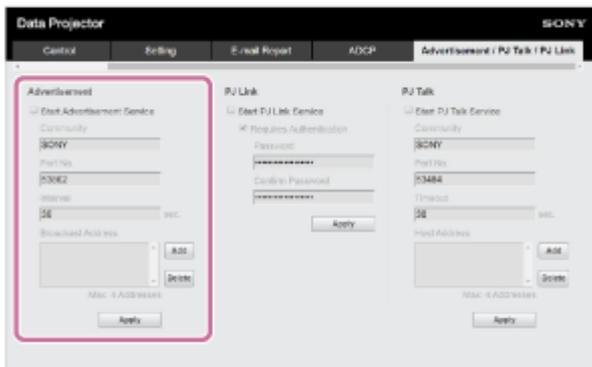
Setting Advertisement

Change the Advertisement control protocol settings from the [Advertisement / PJ Link / PJ Talk] page.

Note

- The entered value will not be applied until [Apply] is clicked.

- 1 Click the [Advertisement / PJ Link / PJ Talk] tab and display the [Advertisement / PJ Link / PJ Talk] page.



- 2 Configure each item under [Advertisement] and click [Apply].

Settings

[Start Advertisement Service]

Turn Advertisement on or off. The settings related to Advertisement are applied only if it is on. It is off in the default factory setting.

- [Community]: Enter the community names for Advertisement and PJ Talk. If changed, the PJ Talk community name changes as well. Only entries consisting of four alphanumeric characters are allowed. The default factory setting community name is "SONY." To avoid unauthorized access to the projector from another computer, we recommend changing the community name from the one in the factory setting.
- [Port No.]: Enter the Advertisement transmission port. The default factory setting Advertisement transmission port is "53862."
- [Interval]: Enter the Advertisement transmission interval (seconds). The Advertisement transmission interval in the default factory setting Advertisement transmission port is "30."
- [Broadcast Address]: Enter the Advertisement data transmission recipient. If nothing is entered, it will be broadcast on the same subnet.

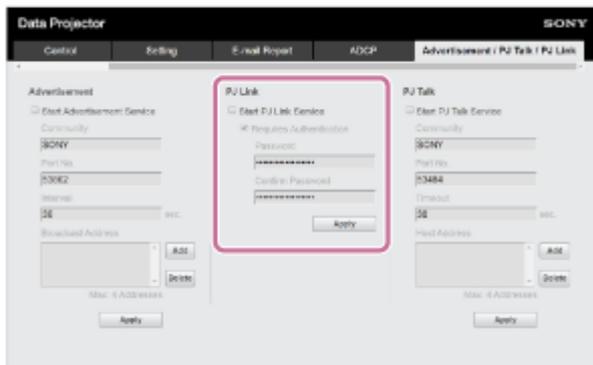
Setting PJ Link

Change the PJ Link control protocol settings from the [Advertisement / PJ Link / PJ Talk] page.

Note

- The entered value will not be applied until [Apply] is clicked.

- 1 Click the [Advertisement / PJ Link / PJ Talk] tab and display the [Advertisement / PJ Link / PJ Talk] page.



- 2 Configure each item under [PJ Link] and click [Apply].

Settings

[Start PJ Link Service]

Turn the PJ Link function on or off. The settings related to PJ Link are applied only if it is on. The function in the default factory setting is off.

- [Requires Authentication]: Turn the PJ Link authentication function on or off.
- [Password]: Enter the PJ Link authentication password. Refer to the PJ Link specifications for the default password.

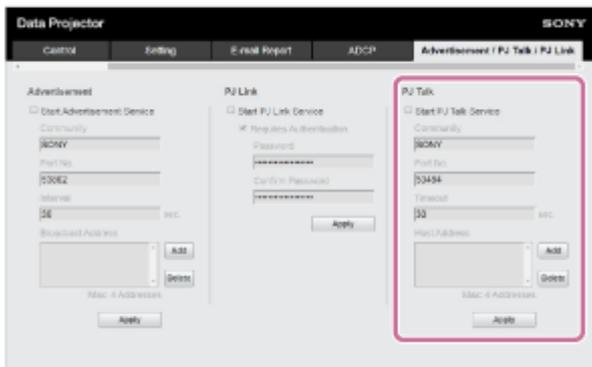
Setting PJ Talk

Change the PJ Talk control protocol settings from the [Advertisement / PJ Link / PJ Talk] page.

Note

- The entered value will not be applied until [Apply] is clicked.

- 1 Click the [Advertisement / PJ Link / PJ Talk] tab and display the [Advertisement / PJ Link / PJ Talk] page.



- 2 Configure each item under [PJ Talk] and click [Apply].

Settings

[Start PJ Talk Service]

Turn the PJ Talk setting on or off. The settings related to PJ Talk are applied only if it is on. The default factory setting function is off.

- [Community]: Enter the community names for Advertisement and PJ Talk. If changed, the Advertisement community name changes as well. Only entries consisting of four alphanumeric characters are allowed. The community name in the default factory setting is "SONY." To avoid unauthorized access to the projector from another computer, we recommend changing the community name from the one used in the factory setting.
- [Port No.]: Enter the PJ Talk server port. The default factory setting PJ Talk server port is "53484."
- [Timeout]: Enter the time (in seconds) until the connection is cut when PJ Talk communication is interrupted. The time in the default factory setting is "30."
- [Host Address]: Enter the IP address allowed to be received by the PJ Talk server. If nothing is entered, commands can be received from any IP address. Once an IP address has been entered, access will only be allowed from the entered IP address. For security purposes, we recommend entering an IP address and restricting access.

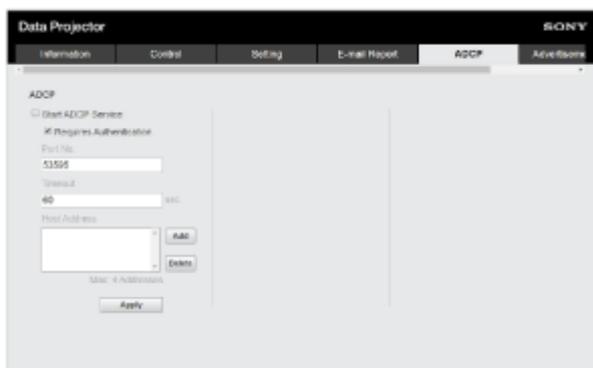
Setting ADCP

Change the ADCP control protocol settings from the [ADCP] page.

Note

- The entered value will not be applied until [Apply] is clicked.

- 1 Click the [ADCP] tab and display the [ADCP] page.



- 2 Configure each item and click [Apply].

Settings

[Start ADCP Service]

Turn ADCP on or off. The settings related to ADCP are applied only if it is on. It is off in the default factory setting.

- [Requires Authentication]: Turn the ADCP authentication function on or off. The web page administrator password is set for the password.
- [Port No.]: Enter the ADCP server port. The default factory setting ADCP server port is “53595.”
- [Timeout]: Enter the time (in seconds) until the connection is cut when ADCP communication is interrupted. The time in the default factory setting is “60.”
- [Host Address]: Enter the IP address allowed to be received by the ADCP server. If nothing is entered, commands can be received from any IP address. Once an IP address has been entered, access will only be allowed from the entered IP address. For security purposes, we recommend entering an IP address and restricting access.

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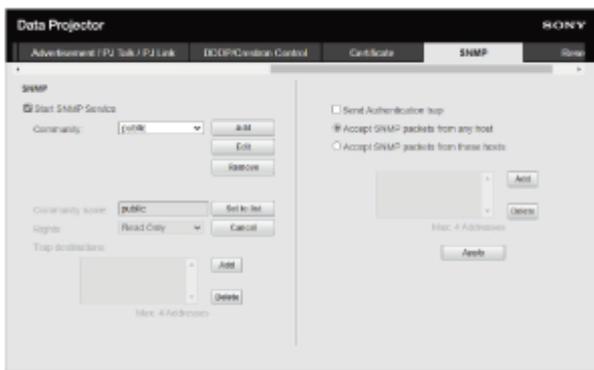
Setting SNMP

Change the SNMP control protocol settings from the [SNMP] page.

Note

- The entered value will not be applied until [Apply] is clicked.

1 Click the [SNMP] tab and display the [SNMP] page.



2 Configure each item and click [Apply].

Settings

[Start SNMP Service]

Turn SNMP on or off. The settings related to SNMP are applied only if it is on.

[Community]

Select the community name for SNMP.

- [Add]: Add a new community.
- [Edit]: Edit the community currently selected.
- [Remove]: Delete the community currently selected.

The default factory setting is "Public." Select the Add button or the Edit button to add or edit the community.

- [Community name]: Enter the community name for SNMP.
- [Rights]: Set the access rights to the management information base (MIB).
- [Trap destinations]: Set the destination address for traps. Select the Add button to add the IP address to Trap destinations.

After editing, select the Set to list button to add these contents to the community list.

[Send Authentication trap]

Set to on to send a trap message when an authentication failure is detected.

[Accept SNMP packets from any host]

Set to on to allow receiving SNMP packets from any IP address.

[Accept SNMP packets from these hosts]

Set to on to restrict the reception of SNMP packets only from the hosts registered in the list.

[Host address list]

Select the Add button to add the IP address of the host that receives SNMP packets.

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Setting AMX DDDP/Crestron Room View

Set the system service functions from the [DDDP/Crestron Control] page.

Note

- The entered value will not be applied until [Apply] is clicked.

- 1 Click the [DDDP/Crestron Control] tab and display the [DDDP/Crestron Control] page.



- 2 Configure each item and click [Apply].

Settings

[DDDP]

[Start DDDP Service]: Turn the DDDP function on or off. For details, refer to the AMX Corporation DDDP protocol specifications. The default factory setting is off.

[Crestron Control]

[Start Crestron Service]: Turn the Crestron Control function on or off. For details, refer to the Crestron Corporation product catalog and so on.

- [IP Address]: Enter the Crestron system server.
- [IP ID]: Enter the CIP protocol IP ID.
- [Port No.]: Enter the CIP protocol server port number.

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VPL-FHZ85/FHZ80

Resetting the Network Settings

Return all items that can be configured via a web browser to their factory settings.

- 1 Click the [Reset] tab and display the [Reset] page.



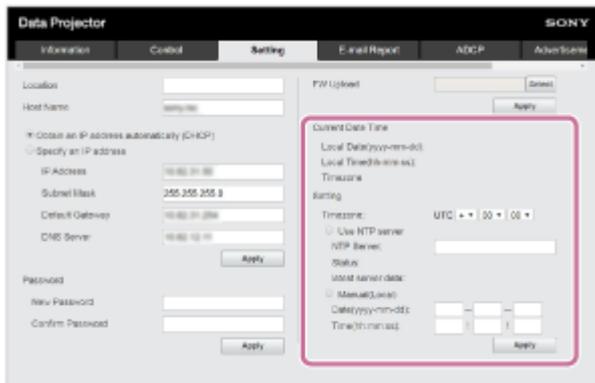
- 2 Click [Reset].

Setting the Date and Time

Set the date and time.

The time can be set from either [Use NTP server] or [Manual(Local)].

- 1 Click the [Setting] tab and display the [Setting] page.



- 2 Configure each item under the Date and Time and click [Apply].

Settings

[Current Date Time]

The currently set time will be displayed in the local time zone.

[Setting]

Enter the following items and set the date and time.

- [Timezone]: Set the time zone. Daylight Savings Time is not supported.
- [Use NTP server]: Select this if you are retrieving the time via a network (NTP server).
 - [NTP Server]: Enter the NTP server.
 - [Status]: Displays the status of the connection to the NTP server.
 - [latest server data]: Displays the information most recently obtained from the NTP server.
- [Manual(Local)]: Select this if you will set the date and time manually.
 - [Date(yyyy-mm-dd)]: Enter the date.
 - [Time(hh:mm:ss)]: Enter the time.

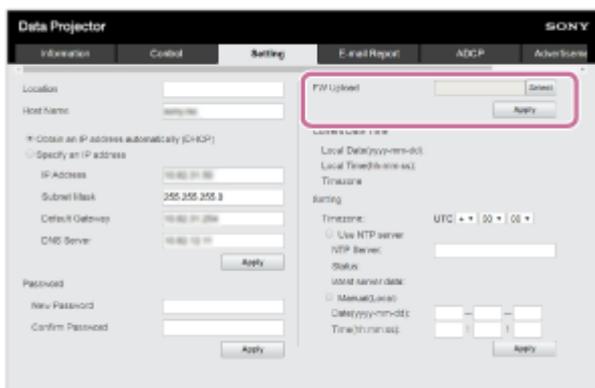
Using the Software Update Function

The projector software can be updated via a network.
The update file can be downloaded from the Sony website.

Note

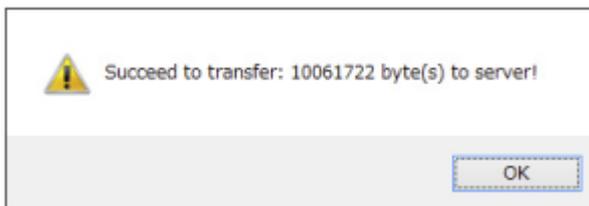
- The projector software can be updated via a network only when the projector is in standby mode.

- 1 Click the [Setting] tab and display the [Setting] page.



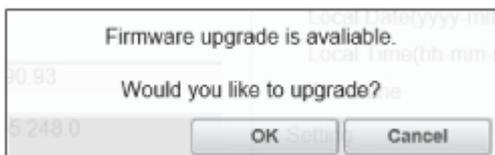
- 2 Click [Select] in [FW Upload] to select the file to be updated, then click [Apply].

Update preparation starts. A message will be displayed after preparation is complete.



- 3 Click [OK].

An update confirmation message will be displayed.



- 4 Click [OK].

Update starts.
The [Setting] page will be displayed again after update is complete.

Related Topic

- [Updating Software](#)

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Configuring https Communication

Configure https communication on the [Certificate] page.

- 1 Click the [Certificate] tab and display the [Certificate] page.



- 2 Select [Communication Mode].

- [Http]: http connection only.
- [Http and Https]: https and http connection can be used at the same time.
- [Https]: https connection only.

Select [Https] for https connection. However, follow the steps in [“Connecting with https for the First Time”](#) to set up https connection for the first time.

The encryption protocol supported by the projector is TLS 1.2. In addition, the port number is set to 443.

- 3 Set a certificate.

- [Upload Trusted CA Certificate]: The certificate issued by a CA will be installed. Select a certificate saved in a folder on your computer. Click [Apply] to install it.

Supported certificate

- Format: PEM
 - Extension: CRT, PEM
 - Encryption: RSA
 - Hash: SHA-256/SHA-384
 - Key length: 512/1024/2048/4096 bit
 - Common Name: Network host name
For Common Name, use the host name set under [Host Name] on the [Setting] page.
 - Organization: Define by customer
- [Generate self issued certificate (for test only)]: The certificate generated within the projector (self-generating certificate) will be installed. Click [Apply] to install it.

You can use either the certificate issued by a CA or the certificate generated within the projector (self-generating certificate).

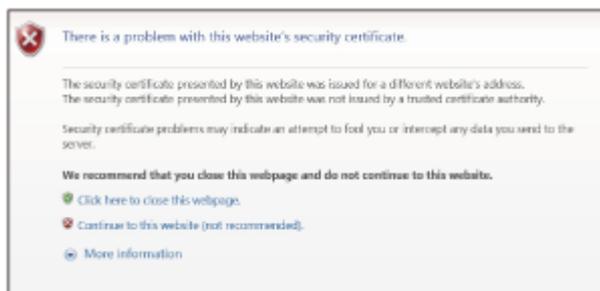
The installed certificate will be displayed in [Certificate information].

- [Status: OK]: When the certificate issued by a CA is installed and it is within the certification period.
- [Status: Expire]: When the certificate issued by a CA is installed but is past its expiration date.
- [Status: (blank)]: When a self-generating certificate is installed.

When Using the https Function

Use the host name set under [Host Name] on the [Setting] page to access the projector. Registration of the projector host name to the DNS server may be required depending on the operating environment. When accessing the projector with a different host name, such as the projector's IP address, a warning window may be displayed. In this case, continue with the procedure by referring to the instructions on the screen.

Example of the Screen for Internet Explorer (When the OS is Set to English)



Note

- When using a self-generating certificate, proof of existence, which is one type of https communication, cannot be used for the following reasons.
 - The secret key generated by the projector is self-signed.
 - A value decided in advance is entered for the Distinguished Name (Common Name, etc.).
 - A certificate has not been issued by a CA trusted by the user's system.

For security purposes, we recommend using a self-generating certificate in the case complete security, such as operation tests, is not necessary.

- The last certificate becomes effective.
- When using a self-generating certificate, [Security Warning] may be displayed when using a browser and connecting with https. In this case, continue with the procedure by referring to the instructions on the screen.
- https connections may not be possible depending on the certificate installed in the projector. In this case, install a CA certificate to your computer. For details, refer to "[Installing a CA Certificate to Your Computer.](#)"
- If using the https function, be sure to adjust the projector date and time before configuration. If the date and time are not accurate, you may not be able to connect via a browser.

Related Topic

- [Menu Operation: Communication Mode](#)
- [Configuring the Network Settings of the Projector](#)
- [Connecting with https for the First Time](#)
- [Installing a CA Certificate to Your Computer](#)

Data Projector
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Connecting with https for the First Time

If the https function works improperly when connecting only with https by setting [Communication Mode] to [Https], the computer cannot access the projector. To avoid this, confirm if the https connection is possible through the following steps.

- 1 Click [Certificate] and display the [Certificate] page.
- 2 Set [Communication Mode] to [Http and Https].
- 3 Install a certificate.
For installing a certificate, please refer to “Set a certificate” in “[Configuring https Communication.](#)”
- 4 Close the web browser.
- 5 Start the web browser to display the projector setting window with https connection.
For the connection method, please refer to “When Using the https Function” in “[Configuring https Communication.](#)”
- 6 Confirm that the https connection is possible, and then set [Communication Mode] to [Https].

If the setting window or web browser is closed due to https connection failure during confirmation, http connection is still possible as [Http and Https] is selected. Confirm the certificate setting with the http connection, and then confirm if the https connection becomes possible again.

Note

- When [Https] is selected in [Communication Mode] on the [Certificate] page, the computer cannot access the projector if the https connection fails. In this case, press the MENU key on the projector or Remote Commander to display the menu screen, and then select [Connection/Power] - [Network Setting] - [Communication Mode] - [http] to change the communication mode.

Related Topic

- [Configuring https Communication](#)

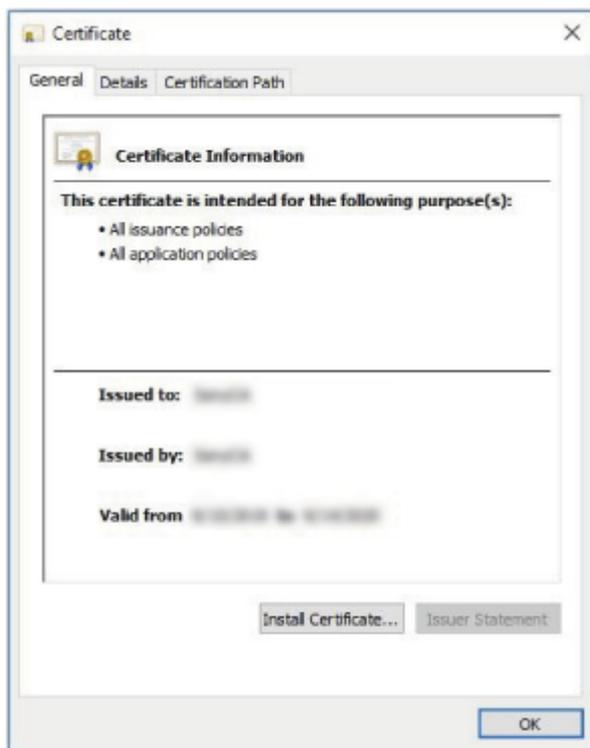
Data Projector
VPL-FHZ85/FHZ80

Installing a CA Certificate to Your Computer

Depending on the type of certificate installed to the projector, it may not be possible to connect to a network because the browser (Internet Explorer) does not display a dialog where you can decide whether or not to accept the certificate. In this case, follow the procedure below and install a CA certificate to your computer. (The following screens are examples when the OS is set to English.)

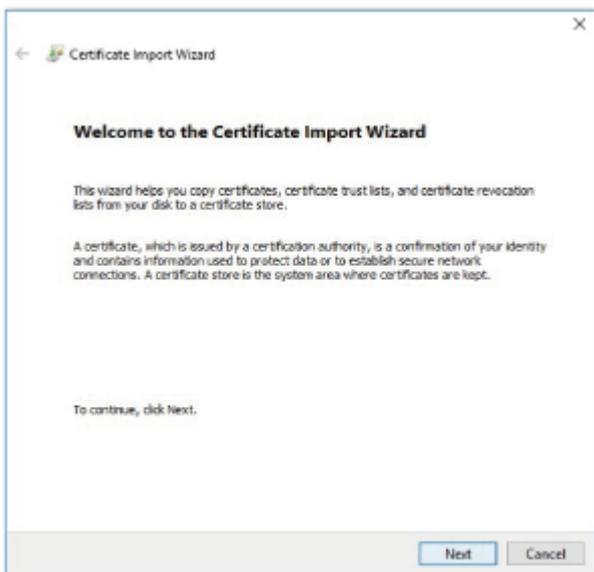
1 Save the signed CA certificate that is to be installed to the projector to your computer.

The standard certificate file extension is “.cer.” Double-click this file to display the certificate dialog.

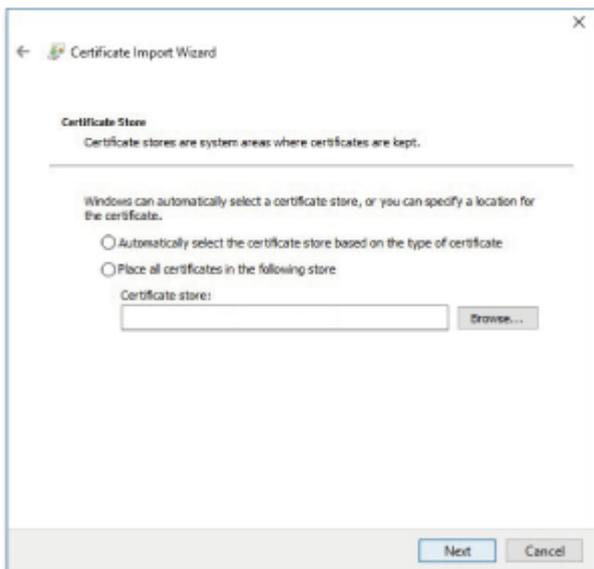


2 Click [Install Certificate].

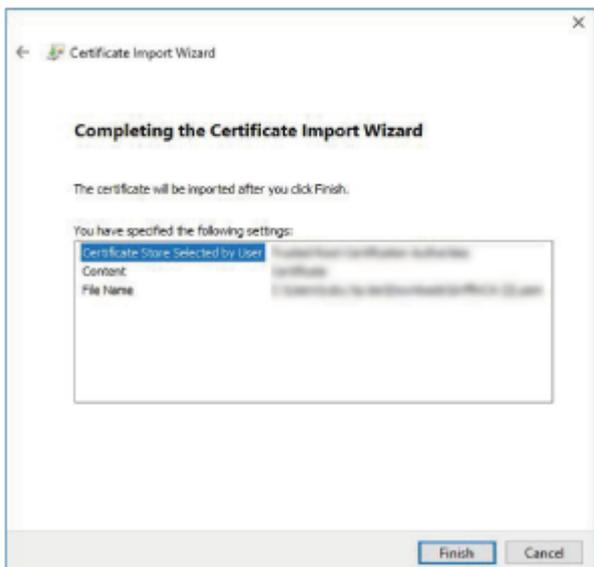
[Welcome to the Certificate Import Wizard] will be displayed.



3 Click [Next].



4 Select [Automatically select the certificate store based on the type of certificate] and click [Next]. [Completing the Certificate Import Wizard] will be displayed.



5 Confirm the content and click [Finish].

The CA certificate will be installed.

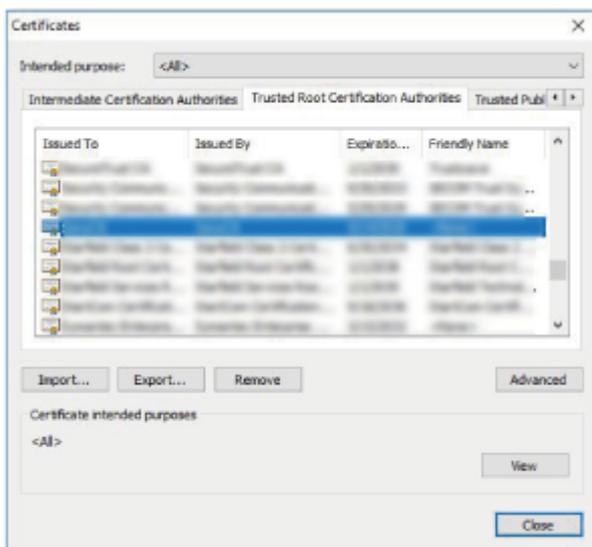
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Deleting a CA Certificate Installed to Your Computer

Follow the procedure below to delete the CA certificate installed to your computer.

- 1 On Internet Explorer, select [Internet Options] from the [Tools] menu, select the [Contents] tab and [Certificate], then display the [Certificate] dialog.

Example of the screen when the OS is set to English



- 2 Select the certificate you wish to delete.

Normally, CA certificates are saved under [Trusted Root Certificate Authorities].

- 3 Click [Remove].

The [Delete certificate?] confirmation dialog will appear.

- 4 Click [Yes].

The certificate will be deleted.

Depending on the certificate type, this procedure may not be able to delete it. In this case, follow the procedure below, confirm the certificate installation status, then delete it.

Note

- Performing the following procedure requires that you log in as a user with administrator privileges.

1. Open [Run] from the Windows menu, enter [mmc], then click [OK].
2. On the "Console 1" screen, select [Add/Remove Snap-in] from the [File] menu.
The [Add/Remove Snap-in] dialog will appear.
3. Select [Certificate] from the list and click [Add].
[Certificates snap-in] will be displayed.

4. Select [Computer Account] as the certificate being managed for this snap-in and click [Next].
5. Select [Local Computer] as the computer being managed for this snap-in and click [Finish].
The item managing the [Certificate] will be displayed in the console root window. Confirm the certificate in question and delete it.

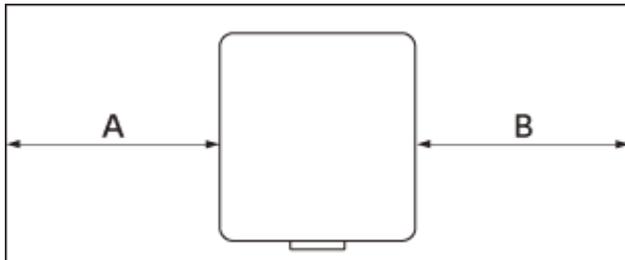
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Data Projector
VPL-FHZ85/FHZ80

On Installation

- When installing the unit, leave space between any walls, etc. and the unit as illustrated.

Top view



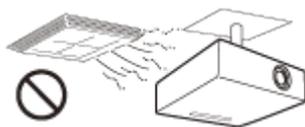
A: More than 50 cm (19 11/16 inches)

B: More than 50 cm (19 11/16 inches)

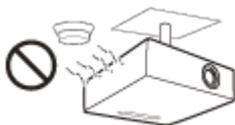
- Avoid using the unit in a location where the temperature or humidity is very high, or temperature is very low.



- Avoid installing the unit in a location subject to direct cool or warm air from an air-conditioner. Installing in such a location may cause malfunction of the unit due to moisture condensation or rise in temperature.



- Avoid installing the unit in a location near a heat or smoke sensor. Installing in such a location may cause malfunction of the sensor.



- Avoid installing the unit in a very dusty or extremely smoky environment. Otherwise, the air filter will become obstructed, and this may cause a malfunction of the unit or damage it.



- When using the unit in a location at an altitude of 1,000 m (approx. 3,280 feet) or higher, appropriately set [High Altitude Mode] in the  [Installation] menu. Failing to do so could have adverse effects, such as reducing the reliability of certain components.

Related Topic

- [Menu Operation: High Altitude Mode](#)

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Data Projector
VPL-FHZ85/FHZ80

On Cleaning the Lens and the Cabinet

- Be sure to disconnect the AC power cord from the wall outlet before cleaning.
- If you rub on the unit with a stained cloth, the cabinet may be scratched.
- If the unit is exposed to volatile materials such as insecticide, or the unit is in contact with a rubber or vinyl resin product for a long period of time, the unit may deteriorate or the coating may come off.
- Do not touch the lens with bare hands.
- On cleaning the lens surface:
Wipe the lens gently with a soft cloth, such as a glass cleaning cloth. Stubborn stains may be removed with a soft cloth lightly dampened with water. Never use solvent such as alcohol, benzene or thinner, or acid, alkaline or abrasive detergent, or a chemical cleaning cloth.
- On cleaning the cabinet:
Clean the cabinet gently with a soft cloth. Stubborn stains may be removed with a soft cloth lightly dampened with mild detergent solution and wrung, followed by wiping with a soft dry cloth. Never use solvent such as alcohol, benzene or thinner, or acid, alkaline or abrasive detergent, or a chemical cleaning cloth.

Data Projector
VPL-FHZ85/FHZ80

On Illumination

To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.

Data Projector
VPL-FHZ85/FHZ80

On Heat Dissipation

The temperature of the projector cabinet may increase during or immediately after use; however, this is not a malfunction.

Data Projector
VPL-FHZ85/FHZ80

On Screen

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.

Data Projector
VPL-FHZ85/FHZ80

On Fan

Since the projector is equipped with a fan inside to prevent internal temperature from rising, there may be some noise. This is a normal result of the manufacturing process and does not indicate a malfunction. If, however, in a case of abnormal noise, consult with qualified Sony personnel.

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Data Projector
VPL-FHZ85/FHZ80

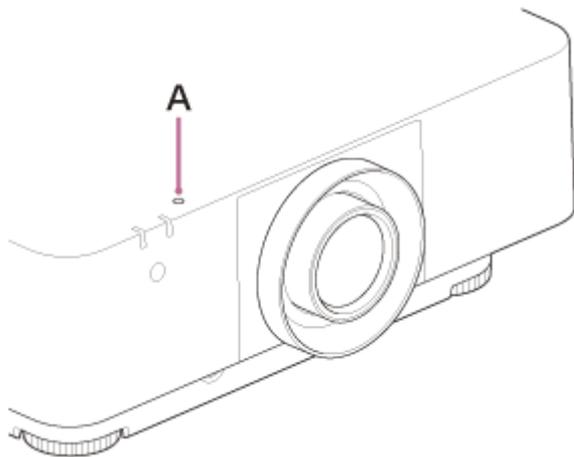
About the Automatic Filter Cleaning Function

This unit has an automatic filter cleaning function. You may hear a filter tapping sound multiple times when the power is turned on or off, but this is not a malfunction.

Data Projector
VPL-FHZ85/FHZ80

About the Light Sensor

This unit has a function that uses the light sensor (A) to detect the brightness of the surroundings to perform automatic image quality correction.



Do not block the light sensor when using automatic image quality correction based on the ambient brightness.

Data Projector
VPL-FHZ85/FHZ80

About Lens Replacement

When the power is connected, do not attach or remove the projection lens.
Do not attach any lens other than the specified accessory lens sold separately.
Do not replace the lens while the projector is mounted on the ceiling.

Related Topic

- [Replacing the Projection Lens](#)

Data Projector
VPL-FHZ85/FHZ80

On Inspection of Light Source Related Parts

Since the unit uses a laser, when adjusting or inspecting the light source related parts, particular attention and a safe environment are necessary. Be sure to consult with qualified Sony personnel.

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Data Projector
VPL-FHZ85/FHZ80

On Disposing Used Products

Do not dispose the used products and general garbage together.

Correctly dispose of used products to avoid harming the environment or the health of yourself and others.

Follow the disposal regulations of your area.

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Data Projector
VPL-FHZ85/FHZ80

On LCD Projector

The LCD projector is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the LCD projector. This is a normal result of the manufacturing process and does not indicate a malfunction. Also, when you use multiple LCD projectors to project onto a screen, even if they are of the same model, the color reproduction among projectors may vary, since color balance may be set differently from one projector to the next.

Data Projector
VPL-FHZ85/FHZ80

On condensation

If the room temperature where the projector is installed changes rapidly, or if the projector is moved suddenly from a cold to a warm place, condensation in the projector may occur.

As the condensation may cause malfunction, be careful in adjusting temperature settings of the air conditioner.

If condensation occurs, leave the projector turned on for about two hours before use.

Data Projector
VPL-FHZ85/FHZ80

Notes on Security

- SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND RESULTING FROM A FAILURE TO IMPLEMENT PROPER SECURITY MEASURES ON TRANSMISSION DEVICES, UNAVOIDABLE DATA LEAKS RESULTING FROM TRANSMISSION SPECIFICATIONS, OR SECURITY PROBLEMS OF ANY KIND.
 - Depending on the operating environment, unauthorized third parties on the network may be able to access the unit. When connecting the unit to the network, be sure to confirm that the network is protected securely.
 - From a safety standpoint, when using the unit connected with the network, it is strongly recommended to access the Control window via a Web browser and change the access limitation settings from the factory preset values. Also, it is recommended that you set a password with a sufficiently long character string that is hard to guess by others, and that you store it safely.
 - Do not browse any other website in the Web browser while making settings or after making settings. Since the login status remains in the Web browser, close the Web browser when you complete the settings to prevent unauthorized third parties from using the unit or harmful programs from running.
 - When connecting this product to a network, connect via a system that provides a protection function, such as a router or firewall. If connected without such protection, security issues may occur.
-

Related Topic

- [Operating the Control Panel](#)

Data Projector
VPL-FHZ85/FHZ80

Do not place this product close to medical devices

This product (including accessories) has magnet(s) which may interfere with pacemakers, programmable shunt valves for hydrocephalus treatment, or other medical devices. Do not place this product close to persons who use such medical devices. Consult your doctor before using this product if you use any such medical device.

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Data Projector
VPL-FHZ85/FHZ80

Disclaimer

- Always verify that the unit is operating properly before use. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER.
- SONY WILL NOT BE LIABLE FOR CLAIMS OF ANY KIND MADE BY USERS OF THIS UNIT OR MADE BY THIRD PARTIES.
- SONY WILL NOT BE LIABLE FOR THE TERMINATION OR DISCONTINUATION OF ANY SERVICES RELATED TO THIS UNIT THAT MAY RESULT DUE TO CIRCUMSTANCES OF ANY KIND.

Cleaning the Air Filter

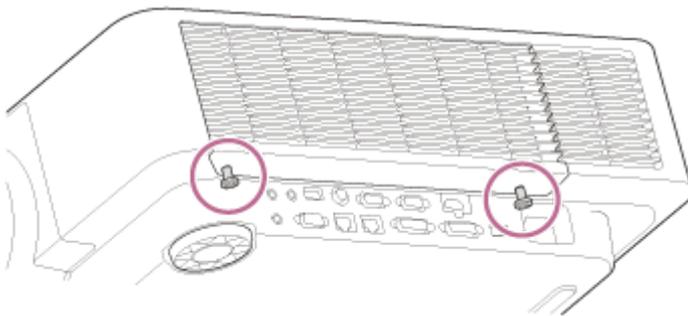
When the message that prompts cleaning the air filter appears, clean the air filter. If the dust cannot be removed from the air filter even after cleaning, replace the air filter with a new one. For details on a new air filter, consult with qualified Sony personnel.

Caution

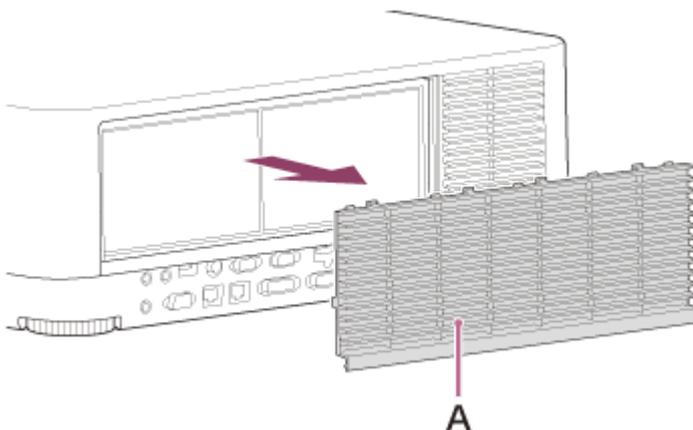
If you continue to use the projector even after the message is displayed, dust may accumulate, clogging it. As a result, the temperature may rise inside the unit, leading to a possible malfunction or fire.

1 Turn off the projector and disconnect the AC power cord from a wall outlet.

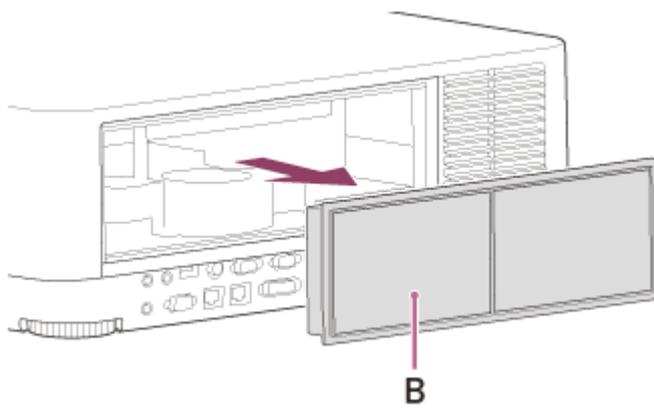
2 Loosen the two screws on the bottom of the side cover.



3 Press down on the upper part of the side cover (A) while sliding it downward to detach.



4 Pull out the air filter (B) from the main unit.



- 5 Clean the air filter with a vacuum cleaner.
- 6 Replace the air filter and attach the side cover to the unit.

Note

- If you remove the air filter while the power is turned on, you may accidentally touch the fan inside the unit, which may cause injury.
- Be sure to attach the air filter firmly; the power cannot be turned on if it is not attached securely.

Related Topic

- [Message List](#)

Replacing the Projection Lens

Caution

When replacing the lens, your eyes may be damaged if a strong light accidentally gets into your eyes. Before replacing the lens, turn off the projector and then unplug the AC power cord.

Note

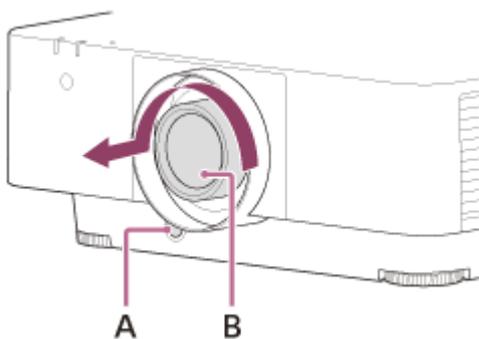
- Avoid removing/attaching the lens with the projector installed suspended from a ceiling.
- For usable projection lenses, see “Optional accessories” in “Specifications.”
- Do not attach any lens other than the specified accessory lens sold separately.
- Be careful not to drop the projection lens.
- Avoid touching the lens surface.

1 Return the projection lens to the center position.

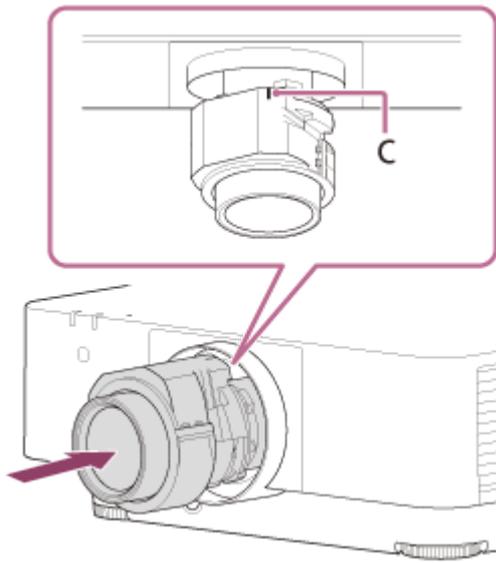
While the unit is turned on, press the LENS SHIFT key on the Remote Commander, then press the RESET key on it. The projection lens returns to the center position.

2 Turn off the projector, then unplug the AC power cord from the wall outlet.

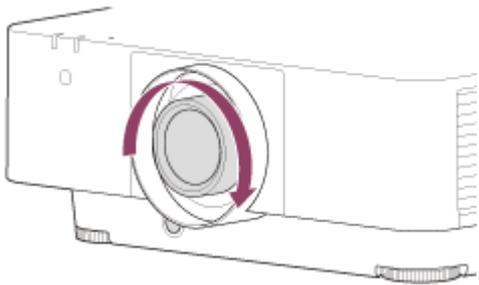
3 While pressing and holding down the LENS RELEASE button (A), rotate the projection lens (B) counterclockwise to pull out the lens straight.



4 Fully insert the projection lens with the index (C) on the lens facing toward the top surface of the main unit.



5 Rotate the lens clockwise until it clicks.



Note

- The projection lens cannot be removed unless it has returned to the center position.
- When attaching the projection lens, do not press the LENS RELEASE button.

Related Topic

- [Specifications](#)

Data Projector
VPL-FHZ85/FHZ80

Updating Software

Here are instructions for updating the projector software.

Updating from a USB Drive

You can download the update file to your computer and copy it to a USB drive, then insert it into the projector's USB terminal to perform the update.

This method requires that you prepare your own USB drive, have a computer with internet connection, and be in an environment that allows the update file to be written to the USB drive.

The update file can be downloaded from the Sony website.

<https://pro.sony.com>

- 1 Copy the update file to the root folder of the USB drive.**
- 2 Turn off the projector and unplug the AC power cord.**
- 3 Insert the USB drive to the USB terminal of the projector.**
- 4 Plug the AC power cord to the wall outlet while pressing the INPUT key on the projector.**
The ON/STANDBY indicator lights up in red and then flashes in orange (updating software).
- 5 Release the INPUT key.**
The ON/STANDBY indicator remains lit in red when update is complete.
- 6 Press the  (On/Standby) key with the USB drive inserted.**
The ON/STANDBY indicator starts flashing in green.
When there is another update, the ON/STANDBY indicator remains lit in red and the update proceeds automatically.
When there is no additional update, the projector light turns on.
- 7 Remove the USB drive from the projector.**
If the projector light is on, turn off the projector to remove the USB drive.

Updating by Connecting to a Network

Connecting a computer to the LAN environment that the projector is connected to allows you to update the projector via a network.

The update file can be downloaded from the Sony website.

<https://pro.sony.com>

For details, refer to “[Using the Software Update Function.](#)”

Note

- This projector has been confirmed to be compatible with USB 2.0 drives with capacities of up to 8 GB. However, it is not guaranteed to work with all USB drives.

If formatting your USB drive, be sure that the file system is set to FAT32. Formatting with any other type of file system will make the drive incompatible with the projector.

- Some USB drives may be incompatible. For details, please check the aforementioned website.
- Do not disconnect the AC power cord during the software update process.

Related Topic

- [Using the Software Update Function](#)

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Data Projector
VPL-FHZ85/FHZ80

Specifications

Optical System

Projection System

3 LCD system

Display Device

Effective Display Size

0.76 in (19.3 mm) × 3, 16:10 Aspect Ratio

Effective Pixels

6,912,000 pixels (1,920 × 1,200 pixels × 3)

Projection Lens

Focus Adjustment

Electric focus

Zoom Adjustment

Electric zoom: 1.6 times

Light Source

Laser diode

Projection Image Size

40 in - 600 in (1.02 m - 15.24 m)

Effective Light Flux (Brightness)

VPL-FHZ85: 7,300 lm ([Light Output Mode]: [Standard])

VPL-FHZ80: 6,000 lm ([Light Output Mode]: [Standard])

Electric System

Supported Scan Frequency*1

Horizontal: 15 kHz - 92 kHz, Vertical: 24 Hz - 92 Hz

Displayable Resolution*1

For Computer Signal Input

Maximum Display Resolution: 1,920 × 1,200 pixels

For Video Signal Input

NTSC, PAL, SECAM, 480/60i, 576/50i, 480/60p, 576/50p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/60p, 1080/50p, 1080/24p, 3840×2160/60p, 3840×2160/50p, 3840×2160/30p, 3840×2160/25p, 3840×2160/24p, 4096×2160/60p, 4096×2160/50p, 4096×2160/30p, 4096×2160/25p, 4096×2160/24p

Color System

NTSC3.58, PAL, SECAM, NTSC4.43, PAL-M, PAL-N, PAL60

*1 For details, refer to the supported signal table.

Input/Output Terminals

For Computer/Video Input and Output

Input A

RGB/Y PB PR Input Terminal: Mini D-sub 15 pin (Female), G with sync/Y: 1 Vp-p±2 dB, sync negative, 75 Ω terminated, RGB signal/PB PR signal: 0.7 Vp-p±2 dB, 75 Ω terminated, Sync signal: TTL level, high impedance, positive-negative polarity

Audio Input Terminal: Stereo mini jack, Rated input: 500 mVrms, Input impedance: 47 kΩ or above

Input B

DVI-D Input Terminal: DVI-D 24-pin (Single link), DVI 1.0 compliant, HDCP supported

Audio Input Terminal: Shared with Input A

Input C

HDMI Input Terminal: HDMI 19-pin, digital Y PB PR, HDCP

Audio Input Terminal: HDMI audio supported

Input D

HDBaseT Input Terminal: RJ45, digital RGB/Y PB PR, HDCP supported, RS-232C, Ethernet (100Base-TX) transmission supported

Video Input

Video Input Terminal: BNC, 1 Vp-p±2 dB, sync negative, 75 Ω terminated

Audio Input Terminal: Shared with Input A

Output A

Monitor Output Terminal: Mini D-sub 15-pin female, G with sync/Y: 1 Vp-p±2 dB, sync negative, 75 Ω terminated, RGB signal/PB PR signal: 0.7 Vp-p±2 dB, 75 Ω terminated, Sync signal: HD, VD 4 V (open), 1 Vp-p (75 Ω), positive/negative

Audio Output Terminal: Stereo mini jack, Stereo, 1 Vrms (maximum volume, when inputting 500 mVrms), Output impedance: 5 kΩ

Output B

DVI-D Output Terminal: DVI-D 24-pin (Single link), DVI 1.0 compliant, non-HDCP compliant

Other Terminals

RS-232C Terminal: D-Sub 9 pin (Male)

LAN terminal: RJ45, 10BASE-T/100BASE-TX

CONTROL S Input Terminal (DC power supply): Stereo mini jack, 5 Vp-p, Plug in power DC 5 V

USB Terminal: Type A

USB Power Supply Terminal: Type A

Power Supply/Other

Operating Temperature (Operating Humidity)

0 °C to 45 °C (32 °F to 113 °F) (20% - 80% (No condensation))

Storage Temperature (Storage Humidity)

-10 °C to +60 °C (14 °F to 140 °F) (20% - 80% (No condensation))

Power Requirements

100 V to 240 V AC, 5.1 A – 2.2 A, 50/60 Hz

Power Consumption

AC 100 V to 120 V

VPL-FHZ85: 506 W

VPL-FHZ80: 397 W

AC 220 V to 240 V

VPL-FHZ85: 474 W

VPL-FHZ80: 378 W

Standby Power Consumption (Standby Mode)

0.5 W (When setting [Standby Mode] to [Low] and [Remote Start] to [Off])

Standby Power Consumption (Network Standby Mode)

1.0 W (When setting [Standby Mode] to [Low] and [Remote Start] to [On])

16.0 W (If all network ports are connected) (When setting [Standby Mode] to [Standard])

Heat Dissipation

AC 100 V to 120 V

VPL-FHZ85: 1,727 BTU/h

VPL-FHZ80: 1,355 BTU/h

AC 220 V to 240 V

VPL-FHZ85: 1,617 BTU/h

VPL-FHZ80: 1,290 BTU/h

Standard Dimensions (W/H/D)

460 mm × 173.5 mm × 516.5 mm (18 1/8 in × 6 27/32 in × 20 11/32 in)

460 mm × 169 mm × 494 mm (18 1/8 in × 6 21/32 in × 19 7/16 in) (Without projecting parts)

Mass

VPL-FHZ85: Approx. 13 kg (29 lb)

VPL-FHZ80: Approx. 13 kg (28 lb)

Supplied Accessories

Remote Commander (RM-PJ30) (1)

Size AA (R6) batteries (2)

AC power cord (1)

Plug holder (1)

Setup Guide (1)

Optional Accessories ^{*1 *2 *3}

Projection Lens VPLL-3007

Manual focus

Projected image size: 60 in to 300 in (1.52 m to 7.62 m)

Maximum external dimensions (W × H × D): 150 mm × 150 mm × 222 mm (5 29/32 in × 5 29/32 in × 8 3/4 in)

Mass: Approx. 1.7 kg (3.7 lb 60 oz)

Projection Lens VPLL-Z3009

Manual focus/zoom

Projected image size: 60 in to 300 in (1.52 m to 7.62 m)

Maximum external dimensions (W × H × D): 150 mm × 150 mm × 217 mm (5 29/32 in × 5 29/32 in × 8 19/32 in)

Mass: Approx. 1.7 kg (3.7 lb 60 oz)

Projection Lens VPLL-Z3010

Electric focus/zoom (when attaching to this projector)

Projected image size: 60 in to 300 in (1.52 m to 7.62 m)

Maximum external dimensions (W × H × D): 150 mm × 150 mm × 227 mm (5 29/32 in × 5 29/32 in × 9 in)

Mass: 2.0 kg (4 lb 6.5 oz)

Projection Lens VPLL-Z3024

Electric focus/zoom (when attaching to this projector)

Projected image size: 40 in to 600 in (1.02 m to 15.24 m)

Maximum external dimensions (W × H × D): 97 mm × 105 mm × 177 mm (3 13/16 in × 4 9/64 in × 6 31/32 in)

Mass: 1.2 kg (2.6 lb 42 oz)

Projection Lens VPLL-Z3032

Electric focus/zoom (when attaching to this projector)

Projected image size: 40 in to 600 in (1.02 m to 15.24 m)

Maximum external dimensions (W × H × D): 97 mm × 105 mm × 177 mm (3 13/16 in × 4 9/64 in × 6 31/32 in)

Mass: 1.2 kg (2.6 lb 42 oz)

Projection Lens VPLL-3003

Electric focus/electric corner correction (when attaching to this projector)

Projected image size: 80 in to 300 in (2.03 m to 7.62 m)

Maximum external dimensions (W × H × D): 229 mm × 193.7 mm × 424.7 mm (9 1/32 in × 7 5/8 in × 16 23/32 in)
Mass: 2.9 kg (6.4 lb)

Projector Suspension Support PSS-650

Projector Suspension Support Joint Pole PSS-650P

*1 Not all optional accessories are available in all countries and areas. Please check with your local Sony Authorized Dealer.

*2 Information on accessories in this manual is current as of November 2021.

*3 For details on the optional accessories, refer to their operating instructions.

Note

- The values for mass and dimensions are approximate values.

Designs and specifications of the unit, including the optional accessories, are subject to change without notice.

Related Topic

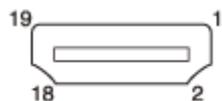
- [Compatible Signal List \(Computer Signal\)](#)
- [Compatible Signal List \(Video Signal\)](#)

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Data Projector
VPL-FHZ85/FHZ80

Pin Assignment (HDMI Terminal)

HDMI Terminal (HDMI, Female)

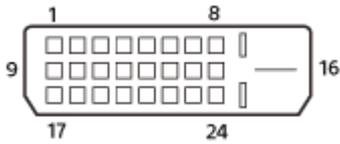


Pin Number	Function
1	T.M.D.S. Data2 +
2	T.M.D.S. Data2 Shield
3	T.M.D.S. Data2 -
4	T.M.D.S. Data1 +
5	T.M.D.S. Data1 Shield
6	T.M.D.S. Data1 -
7	T.M.D.S. Data0 +
8	T.M.D.S. Data0 Shield
9	T.M.D.S. Data0 -
10	T.M.D.S. Clock +
11	T.M.D.S. Clock Shield
12	T.M.D.S. Clock -
13	N.C.
14	RESERVED (N.C.)
15	SCL
16	SDA
17	DDC GND
18	+5 V Power
19	Hot Plug Detect

Data Projector
VPL-FHZ85/FHZ80

Pin Assignment (DVI-D Terminal)

DVI-D Terminal (DVI-D, Female)



Pin Number	Function
1	T.M.D.S. Data2-
2	T.M.D.S. Data2+
3	T.M.D.S. Data2 Shield
4	NC
5	NC
6	DDC Clock
7	DDC Data
8	NC
9	T.M.D.S. Data1-
10	T.M.D.S. Data1+
11	T.M.D.S. Data1 Shield
12	NC
13	NC
14	+5 V Power
15	Ground (return for +5 V)
16	Hot Plug Detect
17	T.M.D.S. Data0-
18	T.M.D.S. Data0+
19	T.M.D.S. Data0 Shield
20	NC
21	NC
22	T.M.D.S. Clock Shield
23	T.M.D.S. Clock+

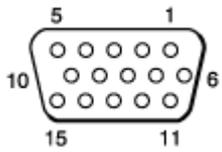
Pin Number	Function
24	T.M.D.S. Clock-

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Data Projector
VPL-FHZ85/FHZ80

Pin Assignment (RGB Input Terminal)

RGB Input Terminal (Mini D-sub 15 pin, Female)

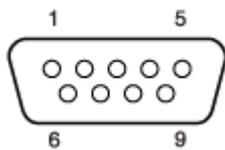


Pin Number	Function
1	Image Input (Red) R
2	Image Input (Green) G
3	Image Input (Blue) B
4	Ground
5	RESERVE
6	Ground (For red)
7	Ground (For green)
8	Ground (For blue)
9	Power input for DDC
10	Ground
11	Ground
12	DDC/SDA
13	Horizontal synchronization signal
14	Vertical synchronization signal
15	DDC/SCL

Data Projector
VPL-FHZ85/FHZ80

Pin Assignment (RS-232C Terminal)

RS-232C Terminal (D-Sub 9 pin, Male)

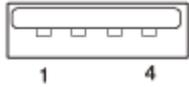


Pin Number	Function
1	NC
2	RXDA
3	TXDA
4	DTR
5	GND
6	NC
7	RTS
8	CTS
9	NC

Data Projector
VPL-FHZ85/FHZ80

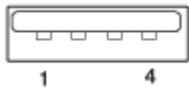
Pin Assignment (USB Terminal)

USB Terminal (Type A, Female)



Pin Number	Function
1	V BUS (4.4 - 5.25 V)
2	Data -
3	Data +
4	Ground

USB Power Supply Terminal (Type A, Female)



Pin Number	Function
1	V BUS (4.4 - 5.25 V)
2	N.C.
3	N.C.
4	Ground

Compatible Signal List (Computer Signal)

Note

- The projector may not be able to display the image properly if an input signal not listed in the table is used.
- With input signals that differ from the panel display resolution, the input signal may not be displayed at the same resolution, and the text, ruled line thickness, and so on may become unbalanced.
- The source device may not detect signals automatically even if the signal to be input is a compatible signal. In this case, set the signal manually.
- Some actual values may differ slightly from the design values given in the table.

Resolution	fH[kHz]/fV[Hz]	INPUT A	INPUT B / INPUT C / INPUT D
640 × 350	31.5/70	Compatible	Not compatible
640 × 350	37.9/85	Compatible	Not compatible
640 × 400	31.5/70	Compatible	Not compatible
640 × 400	37.9/85	Compatible	Not compatible
640 × 480	31.5/60	Compatible	Compatible
640 × 480	35.0/67	Compatible	Not compatible
640 × 480	37.9/73	Compatible	Not compatible
640 × 480	37.5/75	Compatible	Not compatible
640 × 480	43.3/85	Compatible	Not compatible
800 × 600	35.2/56	Compatible	Not compatible
800 × 600	37.9/60	Compatible	Compatible
800 × 600	48.1/72	Compatible	Not compatible
800 × 600	46.9/75	Compatible	Not compatible
800 × 600	53.7/85	Compatible	Not compatible
832 × 624	49.7/75	Compatible	Not compatible
1024 × 768	48.4/60	Compatible	Compatible
1024 × 768	56.5/70	Compatible	Not compatible
1024 × 768	60.0/75	Compatible	Not compatible
1024 × 768	68.7/85	Compatible	Not compatible
1152 × 864	64.0/70	Compatible	Not compatible

Resolution	fH[kHz]/fV[Hz]	INPUT A	INPUT B / INPUT C / INPUT D
1152 × 864	67.5/75	Compatible	Not compatible
1152 × 864	77.5/85	Compatible	Not compatible
1152 × 900	61.8/66	Compatible	Not compatible
1280 × 960	60.0/60	Compatible	Compatible
1280 × 960	75.0/75	Compatible	Not compatible
1280 × 1024	64.0/60	Compatible	Compatible
1280 × 1024	80.0/75	Compatible	Not compatible
1280 × 1024	91.1/85	Compatible	Not compatible
1400 × 1050	65.3/60	Compatible	Compatible
1600 × 1200	75.0/60	Compatible	Compatible
1280 × 768	47.8/60	Compatible	Compatible
1280 × 720	45.0/60	Compatible	Compatible ^{*1}
1920 × 1080	67.5/60	Not compatible	Compatible ^{*1}
1366 × 768	47.7/60	Compatible	Compatible
1440 × 900	55.9/60	Compatible	Compatible
1680 × 1050	65.3/60	Compatible	Compatible
1280 × 800	49.7/60	Compatible	Compatible
1920 × 1200	74.0/60	Compatible ^{*2}	Compatible ^{*2}

*1 INPUT B is determined as a computer signal; INPUT C/INPUT D is determined as a video signal.

*2 Available for VESA Reduced Blanking signals only.

Compatible Signal List (Video Signal)

Note

- The projector may not be able to display the image properly if an input signal not listed in the table is used.
- With input signals that differ from the panel display resolution, the input signal may not be displayed at the same resolution, and the text, ruled line thickness, and so on may become unbalanced.
- The source device may not detect signals automatically even if the signal to be input is a compatible signal. In this case, set the signal manually.
- Some actual values may differ slightly from the design values given in the table.

Signal Name	fV[Hz]	VIDEO IN	INPUT A	INPUT B	INPUT C	INPUT D
NTSC	60	Compatible	Not compatible	Not compatible	Not compatible	Not compatible
PAL/SECAM	50	Compatible	Not compatible	Not compatible	Not compatible	Not compatible
480i	60	Not compatible	Compatible	Compatible	Compatible	Compatible
576i	50	Not compatible	Compatible	Compatible	Compatible	Compatible
480p	60	Not compatible	Compatible	Compatible	Compatible	Compatible
576p	50	Not compatible	Compatible	Compatible	Compatible	Compatible
1080i	60	Not compatible	Compatible	Compatible	Compatible	Compatible
1080i	50	Not compatible	Compatible	Compatible	Compatible	Compatible
720p	60	Not compatible	Compatible	Compatible ^{*1}	Compatible ^{*1}	Compatible ^{*1}
720p	50	Not compatible	Compatible	Compatible	Compatible	Compatible
1080p	60	Not compatible	Not compatible	Compatible ^{*1}	Compatible ^{*1}	Compatible ^{*1}
1080p	50	Not compatible	Not compatible	Compatible	Compatible	Compatible
1080p	24	Not compatible	Not compatible	Compatible	Compatible	Compatible
2560 × 1080	30	Not compatible	Not compatible	Not compatible	Compatible	Compatible
3440 × 1440	30	Not compatible	Not compatible	Not compatible	Compatible	Compatible
3840 × 2160	24	Not compatible	Not compatible	Not compatible	Compatible	Compatible
3840 × 2160	25	Not compatible	Not compatible	Not compatible	Compatible	Compatible
3840 × 2160	30	Not compatible	Not compatible	Not compatible	Compatible	Compatible
3840 × 2160	50	Not compatible	Not compatible	Not compatible	Compatible	Not compatible
3840 × 2160	60	Not compatible	Not compatible	Not compatible	Compatible	Not compatible

Signal Name	fV[Hz]	VIDEO IN	INPUT A	INPUT B	INPUT C	INPUT D
4096 × 2160	24	Not compatible	Not compatible	Not compatible	Compatible	Compatible
4096 × 2160	25	Not compatible	Not compatible	Not compatible	Compatible	Compatible
4096 × 2160	30	Not compatible	Not compatible	Not compatible	Compatible	Compatible
4096 × 2160	50	Not compatible	Not compatible	Not compatible	Compatible	Not compatible
4096 × 2160	60	Not compatible	Not compatible	Not compatible	Compatible	Not compatible

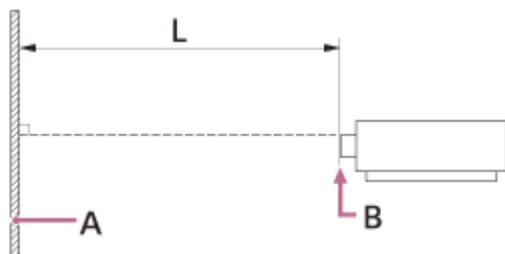
*1 INPUT B is determined as a computer signal; INPUT C/INPUT D is determined as a video signal.

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Data Projector
VPL-FHZ85/FHZ80

Projection Distance

The projection distance is the distance from the front surface of the lens to the projection surface.



A: Projection screen
B: Front of the lens
L: Projection distance

Related Topic

- [Projection Distance/Projection Distance Formula](#)

Data Projector
VPL-FHZ85/FHZ80

Projection Distance/Projection Distance Formula

Projection Distance

Standard lens

Projection image size Diagonal	Projection image size Width × Height	Projection distance L
80 in (2.03 m)	1.72 m × 1.08 m (68 in × 42 in)	2.36 m – 3.86 m (93 in – 152 in)
100 in (2.54 m)	2.15 m × 1.35 m (85 in × 53 in)	2.96 m – 4.84 m (117 in – 191 in)
120 in (3.05 m)	2.58 m × 1.62 m (102 in × 64 in)	3.57 m – 5.82 m (141 in – 229 in)
150 in (3.81 m)	3.23 m × 2.02 m (127 in × 79 in)	4.47 m – 7.29 m (176 in – 287 in)
200 in (5.08 m)	4.31 m × 2.69 m (170 in × 106 in)	5.97 m – 9.73 m (235 in – 383 in)

VPLL-3007

Projection image size Diagonal	Projection image size Width × Height	Projection distance L
80 in (2.03 m)	1.72 m × 1.08 m (68 in × 42 in)	1.09 m (43 in)
100 in (2.54 m)	2.15 m × 1.35 m (85 in × 53 in)	1.38 m (54 in)
120 in (3.05 m)	2.58 m × 1.62 m (102 in × 64 in)	1.67 m (66 in)
150 in (3.81 m)	3.23 m × 2.02 m (127 in × 79 in)	2.11 m (83 in)
200 in (5.08 m)	4.31 m × 2.69 m (170 in × 106 in)	2.83 m (112 in)

VPLL-Z3009

Projection image size Diagonal	Projection image size Width × Height	Projection distance L
80 in (2.03 m)	1.72 m × 1.08 m (68 in × 42 in)	1.44 m – 1.69 m (57 in – 66 in)
100 in (2.54 m)	2.15 m × 1.35 m (85 in × 53 in)	1.82 m – 2.13 m (72 in – 84 in)
120 in (3.05 m)	2.58 m × 1.62 m (102 in × 64 in)	2.20 m – 2.57 m (87 in – 101 in)
150 in (3.81 m)	3.23 m × 2.02 m (127 in × 79 in)	2.76 m – 3.23 m (109 in – 127 in)
200 in (5.08 m)	4.31 m × 2.69 m (170 in × 106 in)	3.70 m – 4.34 m (146 in – 170 in)

VPLL-Z3010

Projection image size Diagonal	Projection image size Width × Height	Projection distance L
80 in (2.03 m)	1.72 m × 1.08 m (68 in × 42 in)	1.69 m – 2.37 m (67 in – 93 in)

Projection image size Diagonal	Projection image size Width × Height	Projection distance L
100 in (2.54 m)	2.15 m × 1.35 m (85 in × 53 in)	2.13 m – 2.98 m (84 in – 117 in)
120 in (3.05 m)	2.58 m × 1.62 m (102 in × 64 in)	2.56 m – 3.59 m (101 in – 141 in)
150 in (3.81 m)	3.23 m × 2.02 m (127 in × 79 in)	3.22 m – 4.50 m (127 in – 177 in)
200 in (5.08 m)	4.31 m × 2.69 m (170 in × 106 in)	4.31 m – 6.03 m (170 in – 237 in)

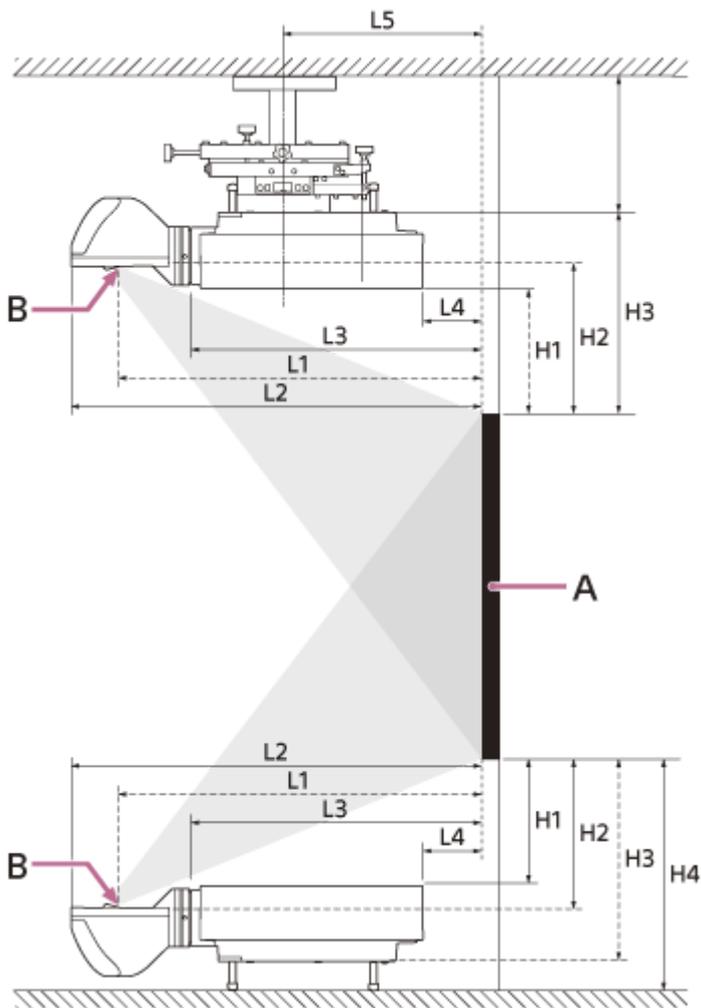
VPLL-Z3024

Projection image size Diagonal	Projection image size Width × Height	Projection distance L
80 in (2.03 m)	1.72 m × 1.08 m (68 in × 42 in)	4.00 m – 5.48 m (158 in – 215 in)
100 in (2.54 m)	2.15 m × 1.35 m (85 in × 53 in)	5.03 m – 6.87 m (198 in – 270 in)
120 in (3.05 m)	2.58 m × 1.62 m (102 in × 64 in)	6.05 m – 8.27 m (238 in – 325 in)
150 in (3.81 m)	3.23 m × 2.02 m (127 in × 79 in)	7.59 m – 10.36 m (299 in – 408 in)
200 in (5.08 m)	4.31 m × 2.69 m (170 in × 106 in)	10.15 m – 13.85 m (400 in – 545 in)

VPLL-Z3032

Projection image size Diagonal	Projection image size Width × Height	Projection distance L
80 in (2.03 m)	1.72 m × 1.08 m (68 in × 42 in)	5.45 m – 8.32 m (215 in – 327 in)
100 in (2.54 m)	2.15 m × 1.35 m (85 in × 53 in)	6.84 m – 10.43 m (270 in – 410 in)
120 in (3.05 m)	2.58 m × 1.62 m (102 in × 64 in)	8.24 m – 12.55 m (325 in – 494 in)
150 in (3.81 m)	3.23 m × 2.02 m (127 in × 79 in)	10.33 m – 15.72 m (407 in – 619 in)
200 in (5.08 m)	4.31 m × 2.69 m (170 in × 106 in)	13.82 m – 21.00 m (544 in – 827 in)

VPLL-3003



A: Projection screen
 B: Center of the cover glass

Projection image size Diagonal	Projection image size Width × Height	Projection distance L1	Projection distance L2	Projection distance L3	Projection distance L4	Projection distance L5
80 in (2.03 m)	1.72 m × 1.08 m (68 in × 42 in)	0.55 m (21 1/2 in)	0.66 m (26 1/8 in)	0.41 m (16 1/8 in)	-0.11 m (-4 1/8 in)	0.20 m (7 7/8 in)
100 in (2.54 m)	2.15 m × 1.35 m (85 in × 53 in)	0.69 m (27 1/8 in)	0.81 m (31 3/4 in)	0.55 m (21 5/8 in)	0.03 m (1 3/8 in)	0.34 m (13 1/2 in)
120 in (3.05 m)	2.58 m × 1.62 m (102 in × 64 in)	0.83 m (32 5/8 in)	0.95 m (37 1/4 in)	0.69 m (27 1/4 in)	0.18 m (6 7/8 in)	0.48 m (19 in)
150 in (3.81 m)	3.23 m × 2.02 m (127 in × 79 in)	1.04 m (41 in)	1.16 m (45 5/8 in)	0.90 m (35 1/2 in)	0.39 m (15 1/4 in)	0.69 m (27 3/8 in)
200 in (5.08 m)	4.31 m × 2.69 m (170 in × 106 in)	1.39 m (54 7/8 in)	1.51 m (59 1/2 in)	1.25 m (49 3/8 in)	0.74 m (29 1/8 in)	1.05 m (41 1/4 in)
300 in (7.62 m)	6.46 m × 4.04 m (254 3/8 in × 159 in)	2.10 m (82 5/8 in)	2.22 m (87 1/4 in)	1.96 m (77 1/8 in)	1.44 m (56 7/8 in)	1.75 m (69 in)

Projection image size Diagonal	Projection image size Width × Height	Projection distance H1	Projection distance H2	Projection distance H3	Projection distance H4
80 in (2.03 m)	1.72 m × 1.08 m (68 in × 42 in)	0.30 m (12 in)	0.36 m (14 in)	0.48 m (18 3/4 in)	0.54 m (21 1/4 in)
100 in (2.54 m)	2.15 m × 1.35 m (85 in × 53 in)	0.40 m (15 3/4 in)	0.45 m (17 3/4 in)	0.57 m (22 1/2 in)	0.63 m (24 7/8 in)
120 in (3.05 m)	2.58 m × 1.62 m (102 in × 64 in)	0.49 m (19 3/8 in)	0.54 m (21 3/8 in)	0.66 m (26 1/8 in)	0.73 m (28 5/8 in)
150 in (3.81 m)	3.23 m × 2.02 m (127 in × 79 in)	0.63 m (25 in)	0.69 m (27 in)	0.81 m (31 3/4 in)	0.87 m (34 1/8 in)
200 in (5.08 m)	4.31 m × 2.69 m (170 in × 106 in)	0.87 m (34 1/4 in)	0.92 m (36 1/4 in)	1.04 m (41 in)	1.10 m (43 1/2 in)
300 in (7.62 m)	6.46 m × 4.04 m (254 3/8 in × 159 in)	1.34 m (52 7/8 in)	1.39 m (54 3/4 in)	1.51 m (59 1/2 in)	1.58 m (62 in)

Projection Distance Formula

D: Screen Size (Inches)

Ex.) If the screen size is 80 inches, enter 80 for D.

Standard lens

(Unit: m (in))

Projection distance L (Minimal length)	Projection distance L (Maximal length)
$L = 0.030040 \times D - 0.0443$ ($L = 1.182677 \times D - 1.7457$)	$L = 0.048910 \times D - 0.0442$ ($L = 1.925591 \times D - 1.7394$)

VPLL-3007

(Unit: m (in))

Projection distance L (Minimal length)	Projection distance L (Maximal length)
$L = 0.014518 \times D - 0.0700$ ($L = 0.571579 \times D - 2.7563$)	–

VPLL-Z3009

(Unit: m (in))

Projection distance L (Minimal length)	Projection distance L (Maximal length)
$L = 0.018832 \times D - 0.0678$ ($L = 0.741408 \times D - 2.6702$)	$L = 0.022017 \times D - 0.0635$ ($L = 0.866824 \times D - 2.4985$)

VPLL-Z3010

(Unit: m (in))

Projection distance L (Minimal length)	Projection distance L (Maximal length)
$L = 0.021850 \times D - 0.0631$ ($L = 0.860217 \times D - 2.4830$)	$L = 0.030491 \times D - 0.0640$ ($L = 1.200444 \times D - 2.5211$)

VPLL-Z3024

(Unit: m (in))

Projection distance L (Minimal length)	Projection distance L (Maximal length)
$L = 0.051187 \times D - 0.0973$ ($L = 2.015234 \times D - 3.8296$)	$L = 0.069717 \times D - 0.0930$ ($L = 2.744761 \times D - 3.6617$)

VPLL-Z3032

(Unit: m (in))

Projection distance L (Minimal length)	Projection distance L (Maximal length)
$L = 0.069792 \times D - 0.1414$ ($L = 2.747720 \times D - 5.5654$)	$L = 0.105707 \times D - 0.1323$ ($L = 4.161687 \times D - 5.2083$)

VPLL-3003

(Unit: m (in))

Projection distance	Formula
L1	$L1 = 0.007053 \times D - 0.016810$ ($L1 = 0.277674 \times D - 0.661950$)
L2	$L2 = 0.007048 \times D + 0.101010$ ($L2 = 0.277471 \times D + 3.976810$)
L3	$L3 = 0.007048 \times D - 0.154990$ ($L3 = 0.277471 \times D - 6.101930$)
L4	$L4 = 0.007048 \times D - 0.669990$ ($L4 = 0.277471 \times D - 26.377520$)
L5	$L5 = 0.007048 \times D - 0.363290$ ($L5 = 0.277471 \times D - 14.302710$)
H1	$H1 = 0.004712 \times D - 0.072000$ ($H1 = 0.185500 \times D - 2.834650$)
H2	$H2 = 0.004712 \times D - 0.021670$ ($H2 = 0.185500 \times D - 0.853150$)
H3	$H3 = 0.004712 \times D + 0.099000$ ($H3 = 0.185500 \times D + 3.897640$)
H4	$H4 = 0.004712 \times D + 0.161500$ ($H4 = 0.185500 \times D + 6.358270$)

Related Topic

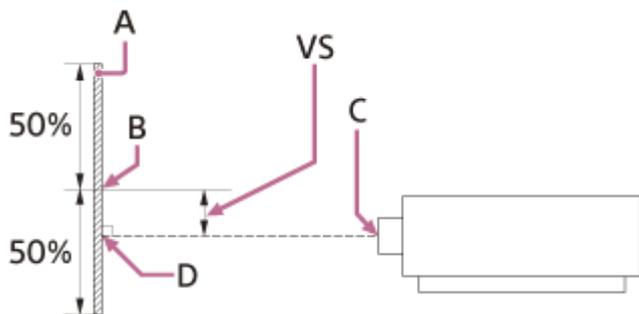
- [Projection Distance](#)

Data Projector
VPL-FHZ85/FHZ80

Lens Shift Range

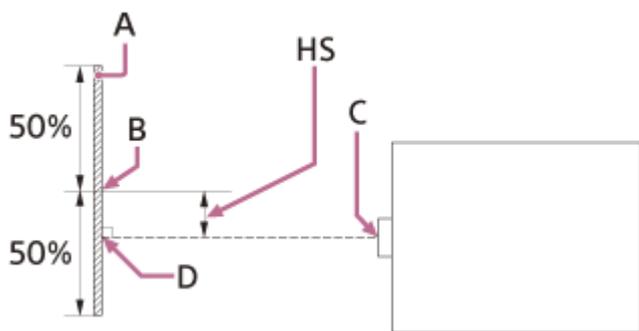
The lens shift range (VS, HS) is represented in percentages (%) displaying how much the lens can be shifted. When a line drawn from the lens center (C) crosses the projected surface (A) at right angles at the point (D) and if the point (D) is identical with the projected image center (B), the lens shift range is regarded as 0% while the full height and full width of the projected image are regarded as 100%.

Side view



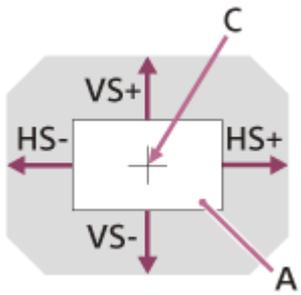
- A:** Projected image
- B:** Center of the projected image
- C:** Center of the lens
- D:** The point of intersection of the line drawn perpendicular to the surface projected from the lens center and the projection surface
- VS:** Lens shift range

Top view



- A:** Projected image
- B:** Center of the projected image
- C:** Center of the lens
- D:** The point of intersection of the line drawn perpendicular to the surface projected from the lens center and the projection surface
- HS:** Lens shift range

Lens shift range



A: Projected image

C: Center of the image

Shaded region: Lens shift range

VS+: Vertical lens shift range (up) [%]

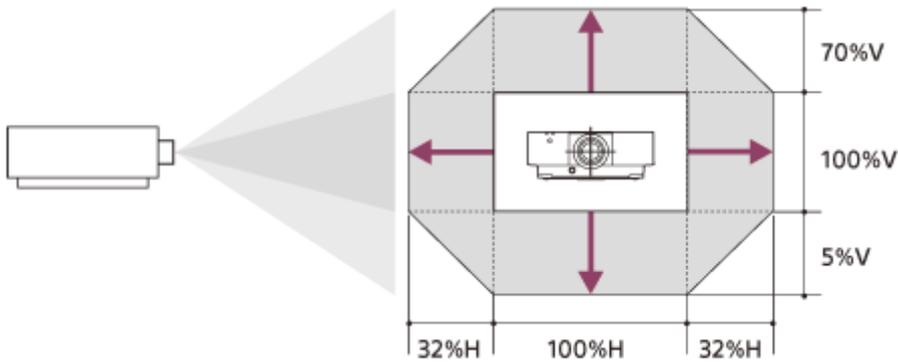
VS-: Vertical lens shift range (down) [%]

HS+: Horizontal lens shift range (right) [%]

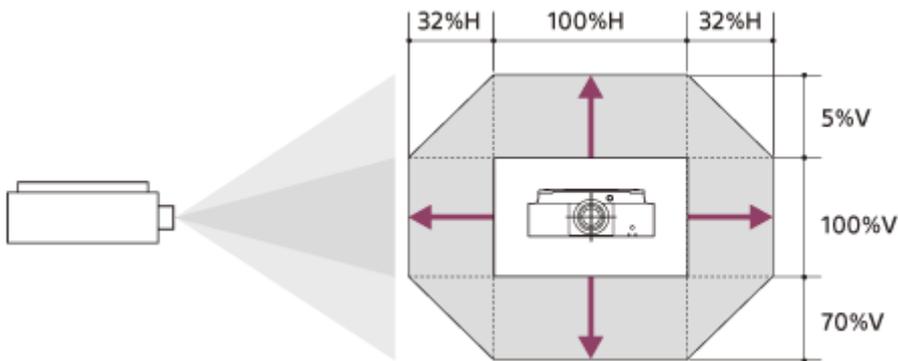
HS-: Horizontal lens shift range (left) [%]

Standard lens

Desktop installation



Ceiling mount installation



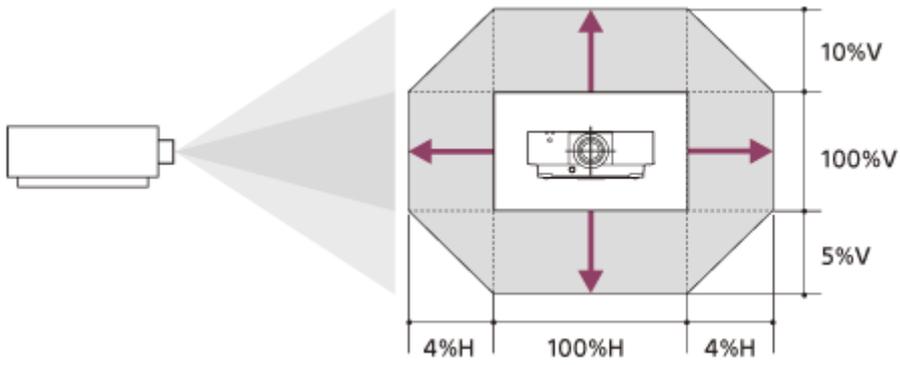
VS+ = 70 [%]

VS- = 5 [%]

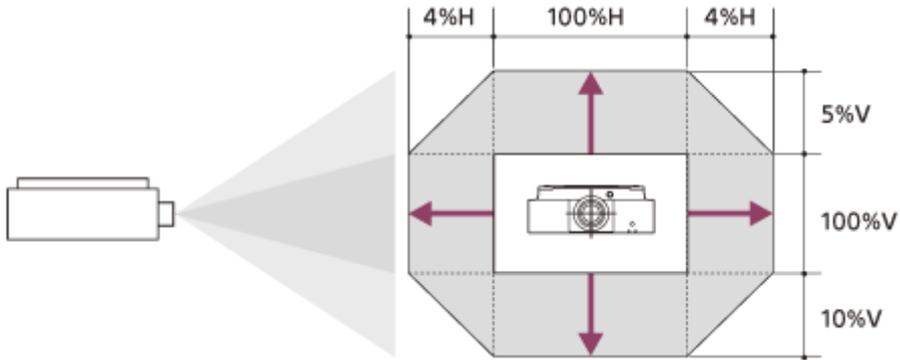
HS+ = HS- = 32 [%]

VPLL-3007

Desktop installation



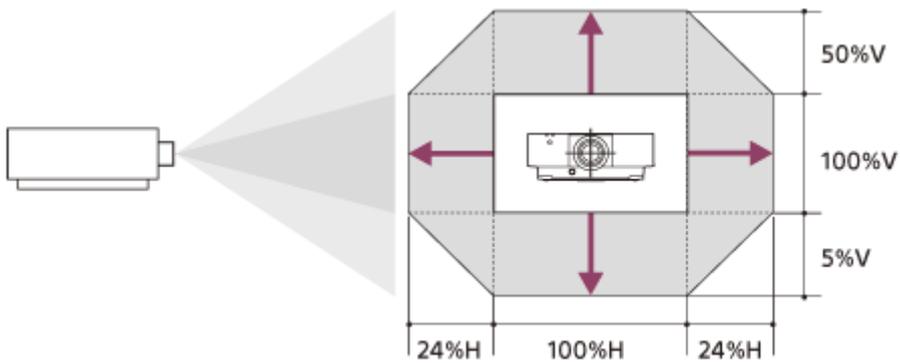
Ceiling mount installation



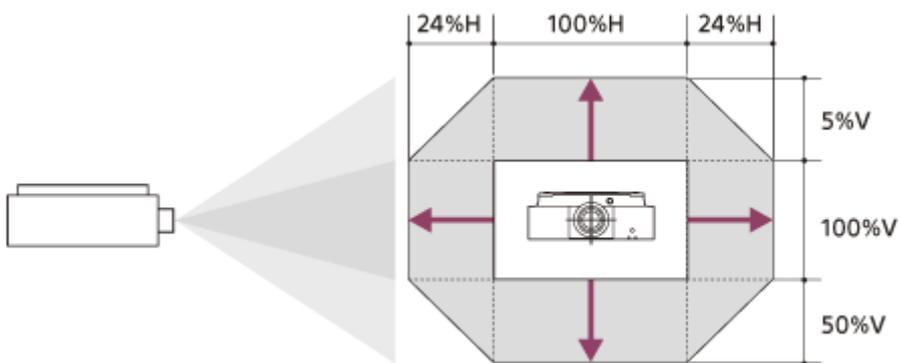
VS+ = 10 [%]
 VS- = 5 [%]
 HS+ = HS- = 4 [%]

VPLL-Z3009

Desktop installation



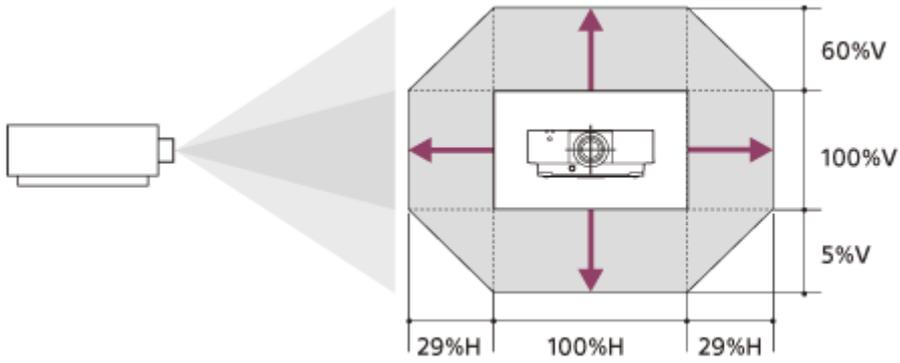
Ceiling mount installation



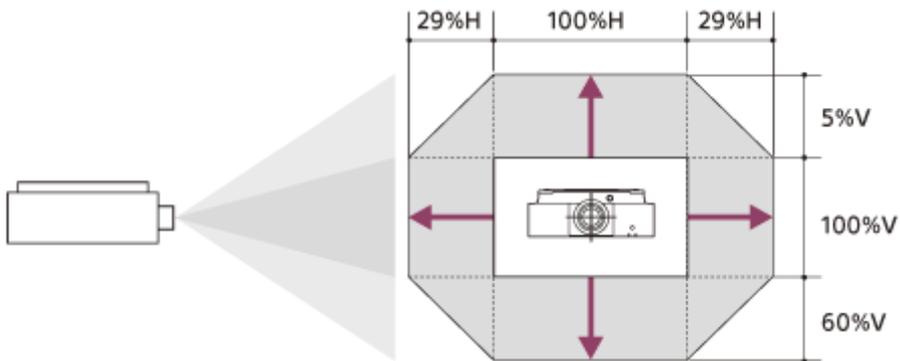
VS+ = 50 [%]
 VS- = 5 [%]
 HS+ = HS- = 24 [%]

VPLL-Z3010

Desktop installation



Ceiling mount installation



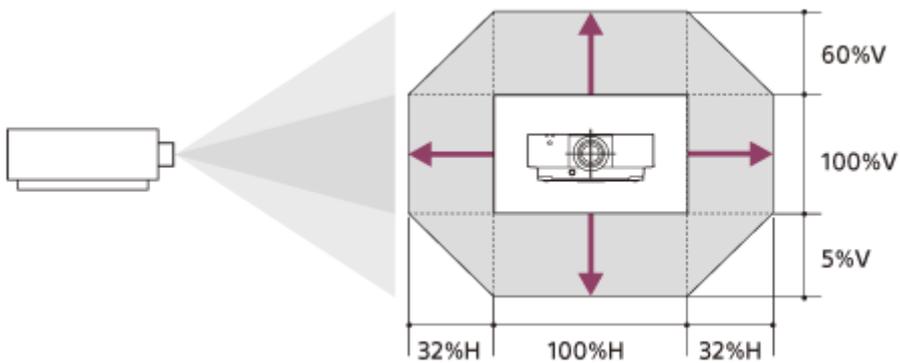
VS+ = 60 [%]

VS- = 5 [%]

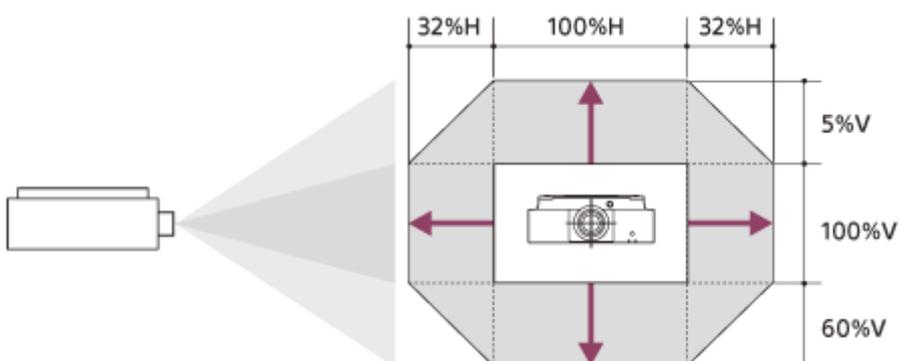
HS+ = HS- = 29 [%]

VPLL-Z3024, VPLL-Z3032

Desktop installation



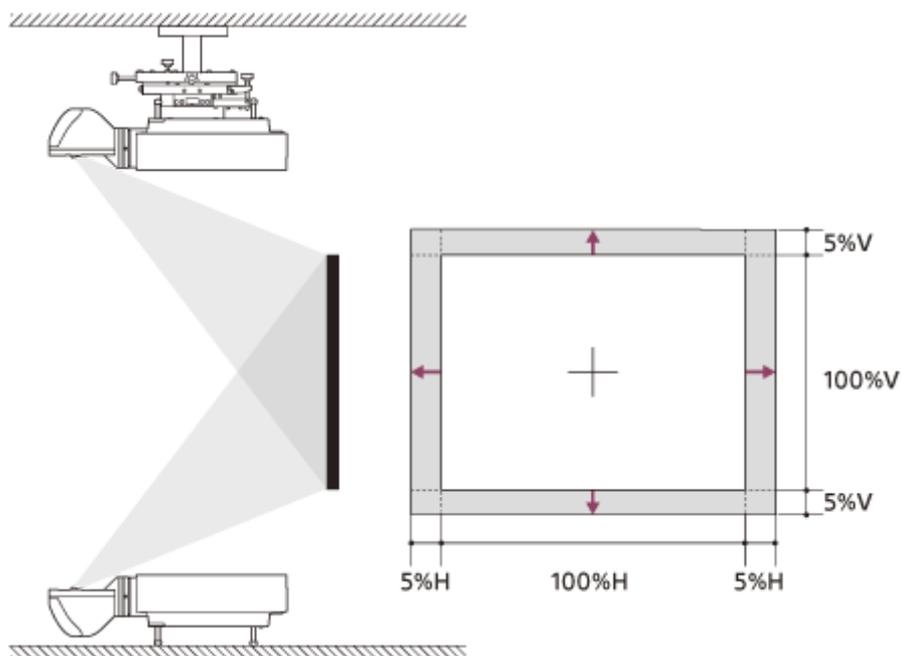
Ceiling mount installation



VS+ = 60 [%]
VS- = 5 [%]
HS+ = HS- = 32 [%]

VPLL-3003

Desktop installation/Ceiling mount installation



VS+ = VS- = 5 [%]
HS+ = HS- = 5 [%]

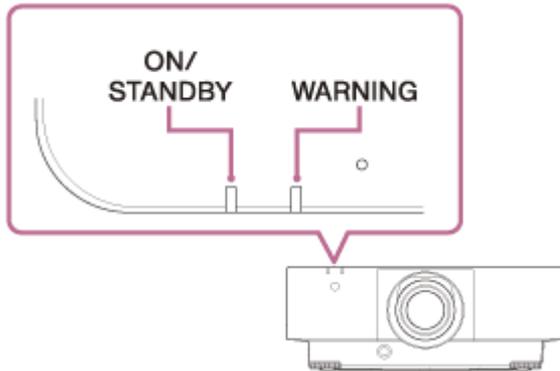
Data Projector
VPL-FHZ85/FHZ80

Reading the Indicator

You can check the projector status or abnormality by checking the lighting/flashing status of the ON/STANDBY indicator and WARNING indicator on the front.

If the indicators flash in red, address the problem in accordance with “Warning Indication and Remedies.”

Front of the main unit



Status Indication

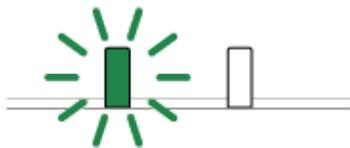
ON/STANDBY: Lights in red, WARNING: Off



Standby mode

The power is supplied to the projector and the projector is in a standby mode according to the setting.

ON/STANDBY: Flashes in green, WARNING: Off



Warm-up state

The projector is warming up after it is turned on.

ON/STANDBY: Lights in green, WARNING: Off



Power on state

The projector is ready for projection.

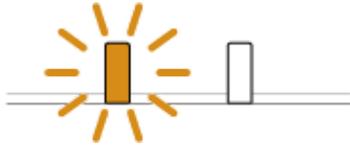
ON/STANDBY: Lights in orange, WARNING: Off



Other standby state

The projector is in With No Input (Light Cutoff).

ON/STANDBY: Flashes in orange, WARNING: Off

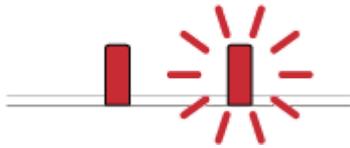


Updating software or copying/downloading settings

The projector software is being updated, or settings are being copied/downloaded.

Warning Indication and Remedies

ON/STANDBY: Lights in red, WARNING: Flashes in red



Number of flashes: Twice

The side cover or air filter is not installed securely.

Check how the side cover or air filter is attached and install it securely.

Number of flashes: Three times

The light source does not light properly.

Unplug the AC power cord and make sure the ON/STANDBY indicator turns off, then plug the AC power cord into the wall outlet and turn on the projector.

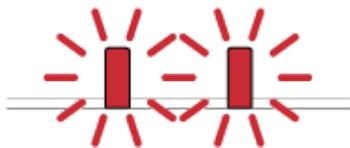
Number of flashes: Eight times

The lens is not securely attached.

Check how the lens is attached and install it securely.

ON/STANDBY: Flashes in red, WARNING: Flashes in red

Both indicators flash



Number of flashes: Twice

The temperature in the projector is abnormal.

- Check if the air filter is clogged, then clean or replace it.
- Check if the ventilation holes (intake/exhaust) are not blocked by the wall or an object and secure a sufficient gap.
- Check the ambient temperature and use the projector within the range of operating temperature.

Note

- If the indicators flash in a manner other than described above, unplug the AC power cord and make sure the ON/STANDBY indicator turns off, then plug the AC power cord into the wall outlet and turn on the projector. If the problem still persists, consult with qualified Sony personnel.

Related Topic

- [Cleaning the Air Filter](#)

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Data Projector
VPL-FHZ85/FHZ80

Message List

If a message such as one of the following appears on the screen, follow the instructions in the table to resolve the issue.

Message	Meaning/Solution
Please clean the filter.	Clean the air filter or replace it.
High temp.! Light off in 1 min.	<p>An increase in the inner projector temperature has been detected. Take the following measures.</p> <ul style="list-style-type: none"> ● Confirm that the air filter is not blocked and either clean the filter or replace it. ● Confirm that the ventilation holes are not blocked by a wall or other object, and secure a sufficient gap. ● Check the projector's ambient temperature and use it within a temperature range in which it is operable. ● When using the projector in a location at a high altitude, appropriately set the High Altitude Mode.
Frequency is out of range!	Change the signal to one that is compatible with the projector from the playback device screen settings.
Please check Input-A Signal Sel.	Set [Input-A Signal Sel.] to [Auto] or a setting appropriate for the input signal.
Not applicable!	An invalid key was pressed.
The control keys are locked!	The panel key lock has been set.
Lens Control is locked!	[Lens Control] is set to [Off].
Function is locked!	The function is locked by external control.
Startup Settings are Locked!! Settings will be reset when power off.	The setting when the projector is turned on is locked. You can change the setting while it is in use, but it returns to the first locked setting when the power is turned off.
Invalid Password!	<p>The password is entered incorrectly. Enter the correct password.</p> <p>If you forgot your password, contact qualified Sony personnel. (The confirmation method differs by country/region.)</p>
Light Dimming	This is displayed when the light output decreases due to the settings when there is no change in the signal. When a signal change or operation (Remote Commander or control panel) is detected, it will revert to its normal state.
Filter cleaning will start.	The filter will be automatically cleaned after the projector is turned off.

Message	Meaning/Solution
Filter cleaning completed.	The filter was automatically cleaned when the projector was turned on.

Related Topic

- [Parts and Controls \(Main Unit\)](#)
- [Parts and Controls \(Remote Commander and Control Panel\)](#)
- [Menu Operation: Control Key Lock](#)
- [Menu Operation: Lens Control](#)
- [Menu Operation: Menu Settings Lock](#)
- [Menu Operation: Set Password](#)
- [Menu Operation: Input-A Signal Sel.](#)
- [Menu Operation: Auto Power Saving](#)
- [Menu Operation: High Altitude Mode](#)
- [Cleaning the Air Filter](#)
- [Compatible Signal List \(Computer Signal\)](#)
- [Compatible Signal List \(Video Signal\)](#)

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VPL-FHZ85/FHZ80

No Power

- Confirm that the AC power cord is firmly inserted.
 - If [Control Key Lock] is [On], power cannot be supplied via the  (On/Standby) key on the main unit. Set [Control Key Lock] in the  [Operation] menu to [Off].
 - Check how the air filter is attached and install it securely.
-
-

Related Topic

- [Menu Operation: Control Key Lock](#)
- [Cleaning the Air Filter](#)

Data Projector
VPL-FHZ85/FHZ80

No Image is Displayed

- Confirm that the cable connected to the playback device is firmly inserted.
 - Confirm that the computer's output settings are set to external monitor output.
For laptops, etc., setting the output signal to be output both to the computer's LCD and the external monitor may cause the image to not be displayed correctly on the external monitor. If this occurs, configure the computer's settings so that it only outputs to the external monitor.
 - Confirm that the input is selected correctly.
 - Confirm that the BLANK key is not pressed and that the image is not being deleted.
 - When adjusting [Zone Black Level] in [Multi Screen] in the  [Installation] menu, a black image is automatically projected.
-

Related Topic

- [Parts and Controls \(Remote Commander and Control Panel\)](#)
- [Precautions When Connecting](#)
- [Projecting Images](#)
- [Menu Operation: Multi Screen>Edge Blending](#)

Data Projector
VPL-FHZ85/FHZ80

No image/Image disturbance

- Set [HDMI Cable] in the  [Connection/Power] menu to [Long].
-

Related Topic

- [Menu Operation: HDMI Cable](#)

Data Projector
VPL-FHZ85/FHZ80

Cannot Connect to Computer

- Check the network settings.
-
-

Related Topic

- [Menu Operation: IPv4 Setting](#)

Data Projector
VPL-FHZ85/FHZ80

No On-screen Display

- Set [Status] in the  [Operation] menu to [On].
-

Related Topic

- [Menu Operation: Status](#)

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VPL-FHZ85/FHZ80

Screen Aspect Ratio is Strange/Screen Display is Small/Part of Image Not Displayed

- The screen may not be displayed properly sometimes if the input signal is not properly determined. If this occurs, manually configure [Aspect] in the  [Screen] menu.
 - Check if [Screen Aspect] in the  [Installation] menu is correctly selected.
-

Related Topic

- [Menu Operation: Aspect](#)
- [Menu Operation: Screen Aspect](#)

Data Projector
VPL-FHZ85/FHZ80

Trapezoidal Screen

- If the projection is diagonal relative to the projection surface, the screen will appear trapezoidal. If this occurs, you can use the keystone correction function to correct the issue.
-
-

Related Topic

- [Correcting a Vertical Trapezoid](#)
- [Correcting a Horizontal Trapezoid](#)

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Edges of the image are cut off or dark

- If you use the lens shift function with a setting outside the recommended range, edges of the image may be cut off or appear dark. Use a setting within the normal range for the lens shift function.
-
-

Related Topic

- [Lens Shift Range](#)

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VPL-FHZ85/FHZ80

Screen Distortion

- The warp setting is active. Deactivate [Warping] in the  [Installation] menu.
-
-

Related Topic

- [Correcting Screen Distortion](#)
- [Menu Operation: Screen Fitting](#)

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VPL-FHZ85/FHZ80

Screen is Too Dark/Bright

- The [Brightness], [Contrast], and [Light Output Mode] settings change the screen brightness. In the  [Projection Setting] menu, confirm that the values are set to appropriate values.
 - [With Static Signal] under [ECO] in the  [Connection/Power] menu is set to [Light Dimming].
 - If there is no video signal, power consumption is reduced, and the light intensity decreases.
 - When using the projector in a location where the surrounding temperature is high, the luminance is sometimes reduced to protect the projector.
-

Related Topic

- [Menu Operation: Contrast](#)
- [Menu Operation: Brightness](#)
- [Menu Operation: Light Settings](#)
- [Menu Operation: Auto Power Saving](#)

Data Projector
VPL-FHZ85/FHZ80

Blurry Screen

- Adjust the focus.
 - The screen will blur if there is condensation on the lens. If there is condensation, keep the projector plugged in and let it sit for approximately two hours.
-
-

Related Topic

- [Focusing the Image](#)
- [On condensation](#)

Data Projector
VPL-FHZ85/FHZ80

Screen Noise

- Confirm that the cable connected to the playback device is firmly inserted.
-
-

Related Topic

- [Precautions When Connecting](#)

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No Sound

- Confirm that the cable that is connected to the playback device or the external audio device is firmly inserted.
 - Confirm that the external audio device is configured correctly.
 - If the MUTING key was pressed and the sound is muted, there will be no sound output. Press the MUTING key one more time.
 - Confirm that the audio output volume is not set to the minimum.
-

Related Topic

- [Connecting to Audio Equipment](#)
- [Menu Operation: Audio Output Vol.](#)

Data Projector
VPL-FHZ85/FHZ80

Remote Commander Does Not Function

- Confirm that the batteries are inserted correctly.
 - Confirm that the batteries are not depleted.
 - Check if the ID Mode setting of the projector corresponds to that of the Remote Commander.
 - Check the setting for [IR Receiver].
-
-

Related Topic

- [Installing Batteries](#)
- [Menu Operation: IR Receiver](#)
- [Menu Operation: ID Mode](#)

Loud Fan

- The noise from the fan may grow louder due to the following types of situations where it is necessary to cool the light source or other components.
 - [Light Output Mode] in [Light Settings] in the  [Projection Setting] menu is set to [Standard].
 - [Intelligent Setting] in the  [Projection Setting] menu is set to [Entertainment].
 - The projector is being used at a high altitude ([High Altitude Mode] in the  [Installation] menu is set to [Level2] or [Level1]).
 - The projector is being used in a location where the surrounding temperature is high.
 - Confirm that the air filter is not blocked, and either clean the filter or replace it.
 - Confirm that the ventilation holes are not blocked by a wall or other object, and secure a sufficient gap.
-

Related Topic

- [Cleaning the Air Filter](#)
- [On Installation](#)

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The projector suddenly restarted.

- Turn the power off and then on again to check the operating status. If the symptom occurs frequently, consult with qualified Sony personnel.

Data Projector
VPL-FHZ85/FHZ80

About the Help Guide

- To use the latest features described in the Help Guide, you may need to update the projector's software. For details about software updates, see the "[Updating Software](#)" page.
 - The setting item names described in the Help Guide may differ from those displayed on the projector depending on the release date of the projector.
 - The images and illustrations used in the Help Guide may differ from your projector.
 - Design and specifications are subject to change without notice for product improvement.
-

Related Topic

- [Updating Software](#)

Data Projector
VPL-FHZ85/FHZ80

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jpeg-lib-6b

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openssl 1.0.2t

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Igor Pavlov

zlib-1.2.7

ZLIB DATA COMPRESSION LIBRARY

zlib 1.2.7 is a general purpose data compression library. All the code is thread safe. The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://tools.ietf.org/html/rfc1950> (zlib format), [rfc1951](http://tools.ietf.org/html/rfc1951) (deflate format) and [rfc1952](http://tools.ietf.org/html/rfc1952) (gzip format).

All functions of the compression library are documented in the file `zlib.h` (volunteer to write man pages welcome, contact zlib@gzip.org). A usage example of the library is given in the file `test/example.c` which also tests that the library is working correctly. Another example is given in the file `test/minigzip.c`. The compression library itself is composed of all source files in the root directory.

To compile all files and run the test program, follow the instructions given at the top of `Makefile.in`. In short `./configure; make test`, and if that goes well, `make install` should work for most flavors of Unix. For Windows, use one of the special makefiles in `win32/` or `contrib/vstudio/`. For VMS, use `make_vms.com`.

Questions about zlib should be sent to [<zlib@gzip.org>](mailto:zlib@gzip.org), or to Gilles Vollant [<info@winimage.com>](mailto:info@winimage.com) for the Windows DLL version. The zlib home page is <http://zlib.net/>. Before reporting a problem, please check this site to verify that you have the latest version of zlib; otherwise get the latest version and check whether the problem still exists or not.

PLEASE read the zlib FAQ http://zlib.net/zlib_faq.html before asking for help.

Mark Nelson [<markn@ieee.org>](mailto:markn@ieee.org) wrote an article about zlib for the Jan. 1997 issue of Dr. Dobbs's Journal; a copy of the article is available at <http://marknelson.us/1997/01/01/zlib-engine/>.

The changes made in version 1.2.7 are documented in the file `ChangeLog`.

Unsupported third party contributions are provided in directory `contrib/`.

zlib is available in Java using the `java.util.zip` package, documented at <http://java.sun.com/developer/technicalArticles/Programming/compression/>.

A Perl interface to zlib written by Paul Marquess [<pmqs@cpan.org>](mailto:pmqs@cpan.org) is available at CPAN (Comprehensive Perl Archive Network) sites, including <http://search.cpan.org/~pmqs/IO-Compress-Zlib/>.

A Python interface to zlib written by A.M. Kuchling [<amk@amk.ca>](mailto:amk@amk.ca) is available in Python 1.5 and later versions, see <http://docs.python.org/library/zlib.html>.

zlib is built into tcl: <http://wiki.tcl.tk/4610>.

An experimental package to read and write files in `.zip` format, written on top of zlib by Gilles Vollant [<info@winimage.com>](mailto:info@winimage.com), is available in the `contrib/minizip` directory of zlib.

Notes for some targets:

- For Windows DLL versions, please see `win32/DLL_FAQ.txt`
- For 64-bit Irix, `deflate.c` must be compiled without any optimization. With `-O`, one `libpng` test fails. The test works in 32 bit mode (with the `-n32` compiler flag). The compiler bug has been reported to SGI.
- zlib doesn't work with `gcc 2.6.3` on a DEC 3000/300LX under OSF/1 2.1 it works when compiled with `cc`.

- On Digital Unix 4.0D (formerly OSF/1) on AlphaServer, the cc option -std1 is necessary to get gzprintf working correctly. This is done by configure.
- zlib doesn't work on HP-UX 9.05 with some versions of /bin/cc. It works with other compilers. Use "make test" to check your compiler.
- gzdopen is not supported on RISCOS or BEOS.
- For PalmOs, see <http://palmzlib.sourceforge.net/>

Acknowledgments:

The deflate format used by zlib was defined by Phil Katz. The deflate and zlib specifications were written by L. Peter Deutsch. Thanks to all the people who reported problems and suggested various improvements in zlib; they are too numerous to cite here.

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