SONY

4-412-942-**12** (1)

Data Projector

Operating Instructions

Before operating the unit, please read this manual and supplied Quick Reference Manual thoroughly and retain it for future reference.

VPL-SW535C/SW525C/SW535/SW525
VPL-SX535

Not all models are available in all countries and area. Please check with your local Sony Authorized Dealer.

HDMI

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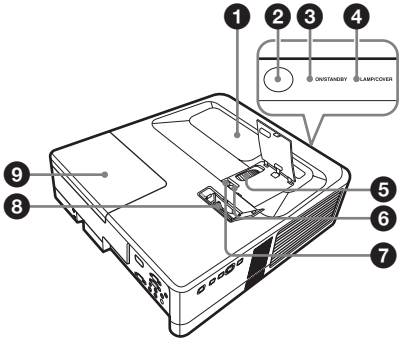
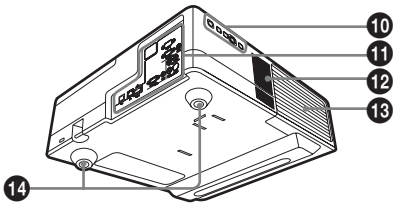
Location and Function of Controls

Main Unit





❶ Projection window

❷ Remote control detector

❸ ON/STANDBY indicator (page 36)

❹ LAMP/COVER indicator (page 36)

❺ Focus ring (page 14)

❻ Lends shift dial V (page 14)

❼ Lens shift dial H (page 14)

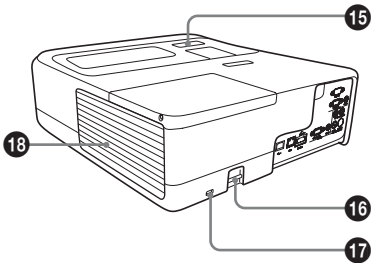
❽ Zoom lever (page 14)

❾ Lamp cover (page 40)

❿ Control panel keys (page 6)

⓫ Connector panel (page 5)

⓬ Speaker



⓭ Air filter cover/Ventilation holes (intake) (page 42)

⓮ Adjuster (page 15)

⓯ Interactive Pen detector (VPL-SW535C/SW525C only)

⓰ Security bar
Connects to a commercially available security chain or wire.

⓱ Security lock
Connects to an optional security cable manufactured by Kensington.
For details, visit Kensington's web site.
http://www.kensington.com/

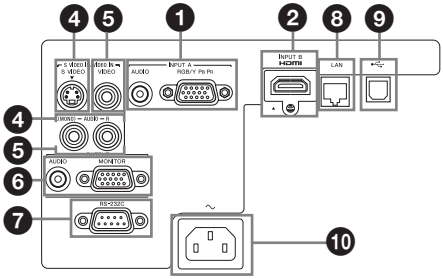
⓲ Ventilation holes (exhaust)

Caution

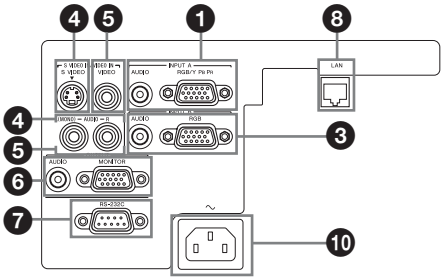
Do not place anything near the ventilation holes as this may cause internal heat buildup. Do not place your hand near the ventilation holes and the circumference as this may cause injury.

Connector Panel

VPL-SW535C/SW525C/SW535/SW525



VPL-SX535



Input (pages 9, 10)

❶ INPUT A
Video: RGB/YPBPR input connector (RGB/YPBPR)
Audio: Audio input connector (AUDIO)

❷ INPUT B (VPL-SW535C/SW525C/SW535/SW525 only)
Video: HDMI input connector (HDMI)
Audio: HDMI input connector (HDMI)

❸ INPUT B (VPL-SX535 only)
Video: RGB input connector (RGB)
Audio: Audio input connector (AUDIO)

❹ S VIDEO (S VIDEO IN)
Video: S video input connector
Audio: Audio input connector (L (MONO) AUDIO/R)

❺ VIDEO (VIDEO IN)
Video: Video input connector
Audio: Audio input connector (L (MONO) AUDIO/R)

Note

The audio inputs of S VIDEO and VIDEO are shared.

Output (page 12)

❻ OUTPUT
Video: Monitor output connector (MONITOR)
Audio: Audio output connector (AUDIO)

Note

This connector outputs the projected image or audio. The image is output as a computer signal input from the RGB input connector (INPUT A or INPUT B (VPL-SX535 only)) or a video signal input from the YPBPR input connector (INPUT A).

Others

❼ RS-232C connector (RS-232C)
RS-232C compatible control connector. Connects the computer's RS-232C connector and the RS-232C cross cables.

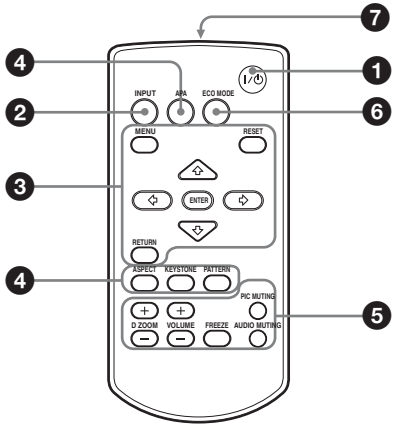
❽ LAN connector (page 28)

❾ USB connector (Type B)
VPL-SW535C/SW525C only.

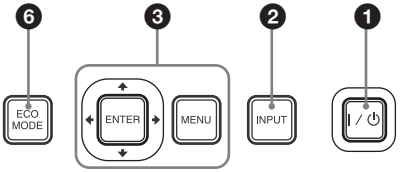
❿ AC IN (~) socket
Connects the supplied AC power cord.

Remote Commander and Control Panel Keys

Remote Commander



Control Panel Keys



❶ Turning on the power/Going to standby mode
I/⏻ (On/Standby) key

❷ Selecting an input signal (page 13)
INPUT key

❸ Operating a menu (page 17)
MENU key
RESET key
ENTER /↑/↓/←/→ (arrow) keys
RETURN key

❹ Adjusting the image (page 14)
ASPECT key (page 19)
KEYSTONE key (page 15)
PATTERN key (page 16)
APA (Auto Pixel Alignment) key* (page 16)

Note

* Use this key when inputting a computer signal via the RGB input connector (INPUT A or INPUT B (VPL-SX535 only)).

❺ Using various functions during projecting

D ZOOM (Digital Zoom) +/– key*1
Enlarges a portion of the image while projecting.

1 Press the D ZOOM + key to display the digital zoom icon on the projected image.
2 Press the ↑/↓/←/→ keys to move the digital zoom icon to the point on the image you want to enlarge.

3 Press the D ZOOM + key or the D ZOOM – key repeatedly to change the enlargement ratio. The image can be enlarged up to 4 times.

Press the RESET key to restore the previous image.

PIC MUTING key

Cuts off the projected image temporarily. Press again to restore the previous image. Picture muting helps reduce power consumption.

AUDIO MUTING key

Mutes the audio output temporarily. Press again to restore the previous volume.

VOLUME +/– key

Adjusts the volume output.

FREEZE key*2

Pauses a projected image. Press again to restore the image.

Notes

*1: Use this key when inputting a computer signal. But it may not be used depending on the resolution of the input signal.

*2: Use this key when inputting a computer signal.

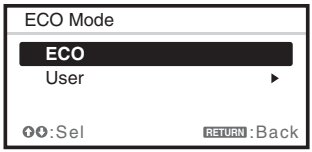
❻ Setting the energy–saving mode easily

ECO MODE key

Energy-saving mode can be set easily. Energy-saving mode consists of "Lamp Mode," "With No Input," "With Static Signal," "Standby Mode."

1 Press the ECO MODE key to display the ECO Mode menu.

ECO Mode Menu

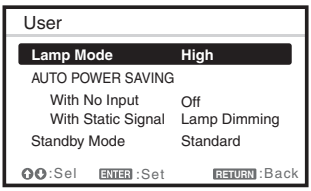


2 Press the ↑/↓ key or ECO MODE key to select ECO or User mode.

ECO: Sets each mode to the optimum energy-saving value.
Lamp Mode: Low
With No Input: Standby
With Static Signal: Lamp Dimming
Standby Mode: Low

User: Sets each item of the ECO mode menu as you desire (go to step **3**).

3 Select "User" then press the → key. The setting items appear.



4 Press the ↑/↓ key to select the item then press the ENTER key.

5 Press the ↑/↓ key to select the setting value.

6 Press the ENTER key.
The screen returns to the User screen.

For details on ECO Mode settings, see "Lamp Mode", "With No Input", "With Static Signal" and "Standby Mode" on the Connection/Power menu (page 24).

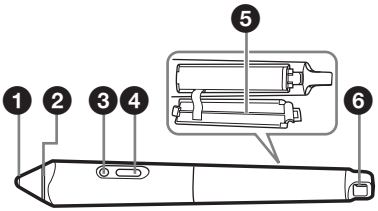
Others

❼ Infrared transmitter

About remote commander operation

- Direct the remote commander toward the remote control detector.
- The shorter the distance between the remote commander and the projector is, the wider the angle within which the remote commander can control the projector becomes.
- Make sure that nothing obstructs the infrared beam between the remote commander and the remote control detector on the projector.

Interactive Pen Device (SW535C/SW525C only)



❶ Pen tip switch
Functions as the left button of a mouse.

❷ Color ring
main: blue/sub: gray

❸ Indicator
When you press the button (main only), or touch the pen tip on the screen, this indicator lights up. It will not light up if battery power is low. In this case, replace the batteries.

❹ Button
Functions as the right button of a mouse (main only).

❺ Battery cover
The battery cover is attached to the Interactive Pen Device by a small strap. Be careful not to break the strap when opening the battery cover.

❻ Strap attachment hole

Connecting the Projector

Notes

- Make sure all the equipment is powered off when connecting the projector.
- 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 pulling out a cable, be sure to grip it by the plug, not the cable itself.
- For more information, refer also to the instruction manuals of the equipment you are connecting.
- Use a no-resistance audio cable.

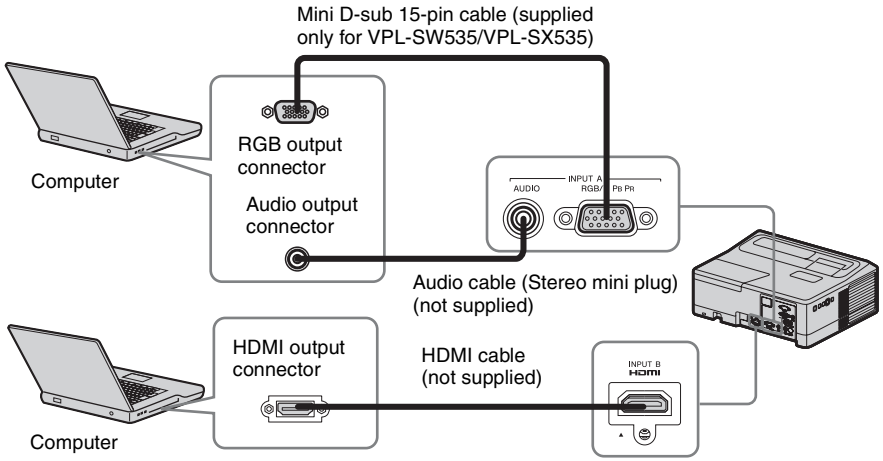
Connecting a Computer

Connection with a computer is explained for each input signal.

INPUT A/INPUT B

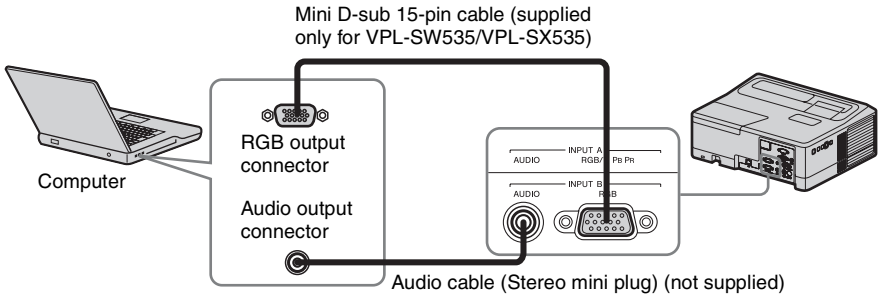
VPL-SW535C/SW525C/SW535/SW525

For connecting a computer with an RGB or HDMI output connector.



VPL-SX535

For connecting a computer with an RGB output connector.



Notes

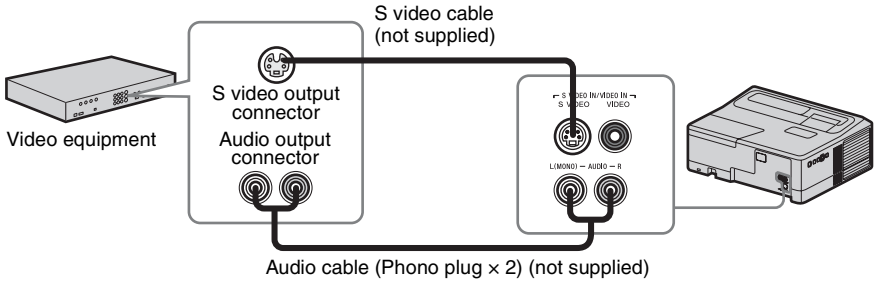
- Use HDMI-compatible equipment and cable(s) that have an HDMI logo on them.
- The HDMI connector of this projector is not compatible with DSD (Direct Stream Digital) Signal or CEC (Consumer Electronics Control) Signal.
- It is recommended that you set the resolution of your computer to 1280 × 800 pixels (VPL-SW535C/SW525C/SW535/SW525) or 1024 × 768 pixels (VPL-SX535) for the external monitor.

Connecting a Video equipment

Connections with a VHS video deck, DVD player, or BD player are explained for each input signal.

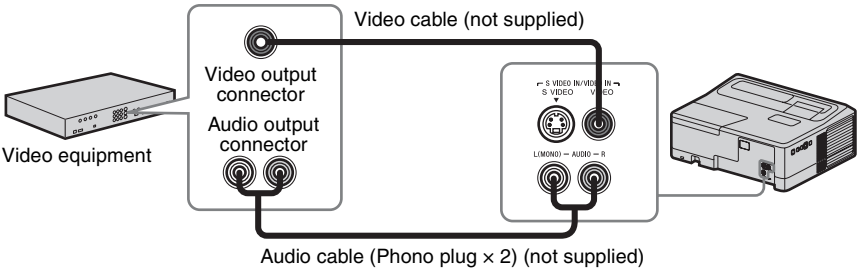
S VIDEO IN

For connecting video equipment with an S-video output connector.



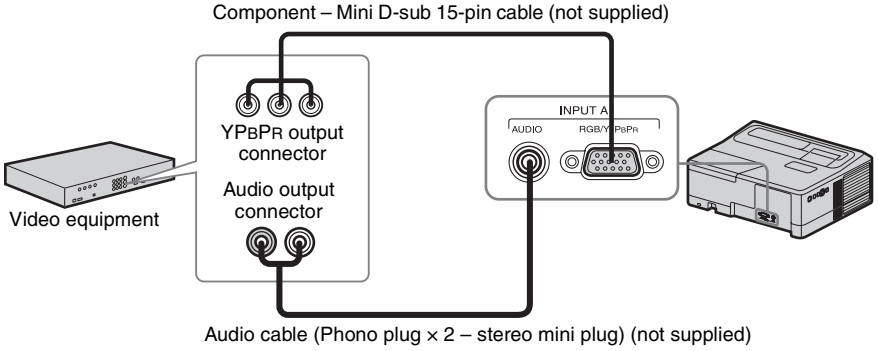
VIDEO IN

For connecting video equipment with a video output connector.



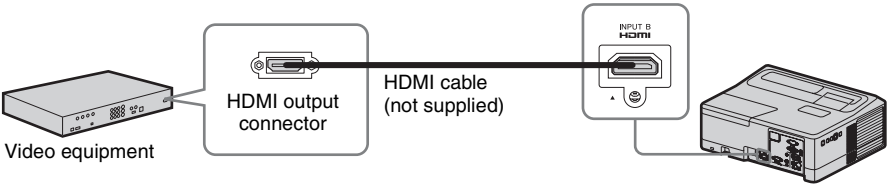
INPUT A

For connecting video equipment with a YPBPR output connector.



INPUT B (VPL-SW535C/SW525C/SW535/SW525 only)

For connecting video equipment with an HDMI output connector.



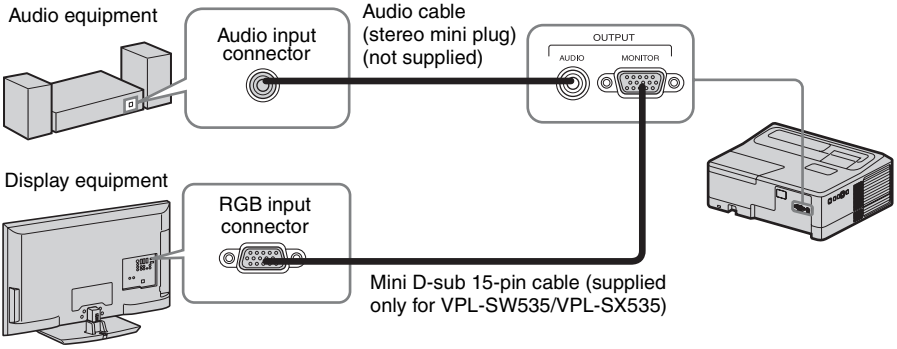
Notes

- Use HDMI-compatible equipment and cable(s) that have an HDMI logo on them.
- The HDMI connector of this projector is not compatible with DSD (Direct Stream Digital) Signal or CEC (Consumer Electronics Control) Signal.

Connecting an External Monitor and Audio Equipment

OUTPUT

Projected images or input audio can be output to display equipment such as a monitor or audio equipment such as speakers with a built-in amplifier.



Note

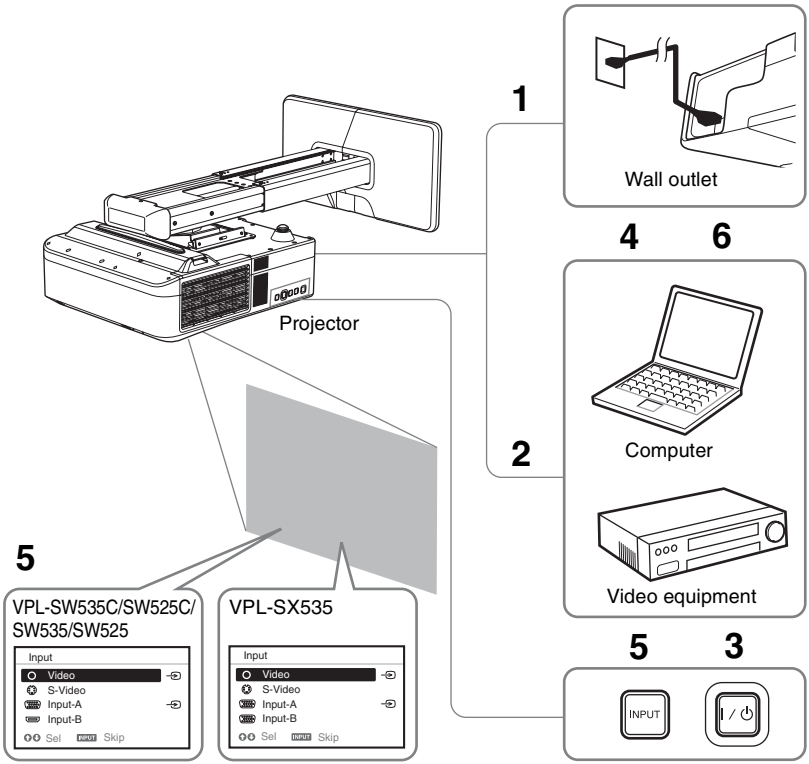
Projected images and audio can be output. The image is output only as a computer signal input from the RGB input connector (INPUT A or INPUT B (VPL-SX535 only)) or a video signal input from the YP_BP_R input connector (INPUT A).

Projecting an Image

The size of a projected image depends on the distance between the projector and screen. Install the projector so that the projected image fits the screen size. For details on projection distances and projected image sizes, see “Projection Distance and Lens Shift Range” (page 51).

Notes

- Due to the characteristics of ultra short throw projector, the image may appear uneven on a projection surface that is not absolutely flat. This is not a malfunction of the projector.
- Project the image on a flat surface.



1 Plug the AC power cord into the wall outlet.

2 Connect all equipment to the projector (page 9).

3 Press the I/⏻ key to turn on the unit.

4 Turn on the connected equipment.

5 Select the input source.

Press the INPUT key on the projector to display the menu for switching input signal on the screen. Press the ↑/↓ key to select an image to be projected.

6 When projecting a computer image, switch your computer’s output to external display.

The method to switch the output varies depending on the type of computer.

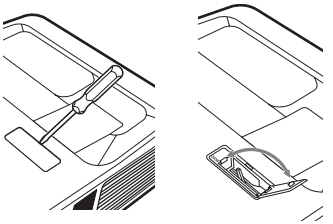
(Example)

Fn + F7

7 Adjust the focus, size and position of the projected image (page 14).

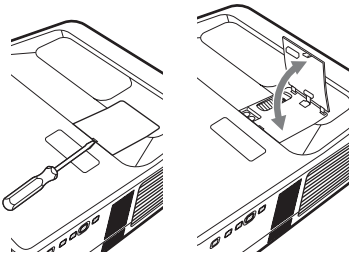
Open the zoom lever cover

Open the cover with a flat-bladed screwdriver, etc.

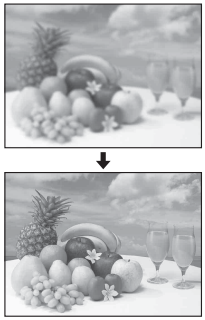
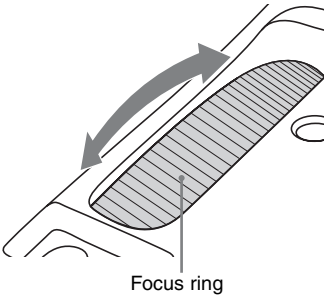
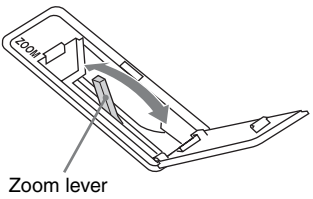


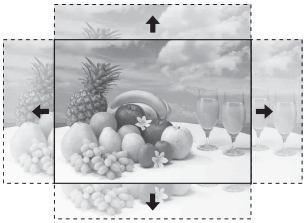
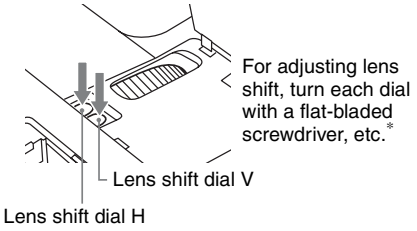
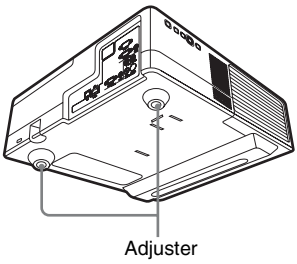
Open the lens shift cover

Open the cover with a flat-bladed screwdriver, etc.



Adjusting the Projected image

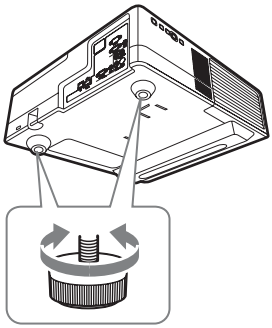
Focus	Size (Zoom)
	
 Focus ring	 Zoom lever

Position (Lens shift)	Position
	
	

* Do not adjust the lens shift more than the indicated range, otherwise it may cause a malfunction. For details, see "Projection Distance and Lens Shift Range" (page 51).

Adjusting the tilt of the projector with the adjusters

You can adjust the height of the projector using the adjusters.
By changing the tilt of the projector with adjusters, you can adjust the position of the projected image.



Notes

- Be careful not to let the projector down on your fingers.
- Do not push hard on the top of the projector with the adjuster extended.

Changing the aspect ratio of the projected image

Press the ASPECT key on the remote commander to change the aspect ratio of the projected image. You can also change the setting in Aspect of the Screen menu (pages 19, 20).

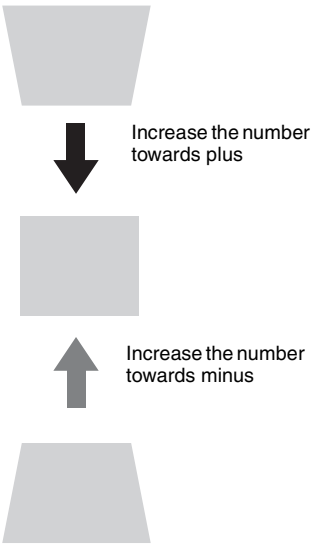
Correcting trapezoidal distortion of the projected image (Keystone feature)

If the image becomes trapezoidal, set the keystone manually.

1 Press the KEYSTONE key on the remote commander or select V Keystone in the Installation menu.
2 Use the ↑/↓/←/→ keys to set the value. The higher the value, narrower the top of the projected image. The lower the value, the narrower the bottom.

Notes

- Since the Keystone adjustment is an electronic correction, the image may be deteriorated.
- Depending on the position adjusted with the lens shift feature, the aspect ratio of the image may change from the original or projected image may be distorted with Keystone adjustment.



Displaying a pattern for adjusting an image

You can display a pattern for adjusting the projected image with the PATTERN key on the remote commander. Press the PATTERN key again to restore the previous image.

Automatically adjusts Phase, Pitch and Shift of projected image while a signal is input from a computer (APA (Auto Pixel Alignment))

Press the APA key on the remote commander. Press again to cancel adjusting during the setting. You can also set APA in the Screen Menu (page 19). If Smart APA in the Function menu is set to “On”, executes APA automatically when a signal is input (page 22).

Shrinking an image that exceeds the screen size

1 Select “Digital Shrink” in “Screen Fitting” to display adjusting menu.
2 Adjust the value by the ↑/↓/←/→ keys. The higher the value, the smaller the image becomes.

Note

Since the Digital shrink is an electronic correction, the image may be deteriorated.

Turning Off the Power

1 Press the I/⏻ key on the unit or the remote commander.
The projector starts shutdown and turns off. If you press the I/⏻ key within 10 seconds again, shutdown is cancelled.

2 Unplug the AC power cord from the wall outlet.

To turn off without displaying confirmation message

Press and hold the I/⏻ key on the unit for a few seconds (page 37).

Using a MENU

Note

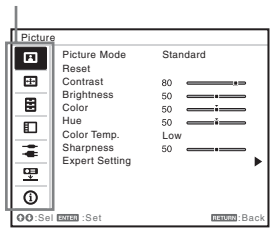
The menu displays used for the explanation below may be different depending on the model you are using.

1 Press the MENU key to display the menu.

2 Select the setting menu.

Use the ↑/↓ key to select the setting menu then press the → key or ENTER key.

Setting menu

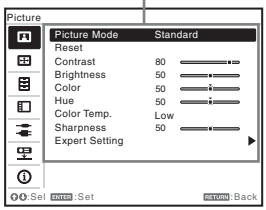


3 Select the setting item.

Use the ↑/↓ key to select the setting menu then press the → key or ENTER key.

To return to the selection screen of the setting menu, press the ← or RETURN key.

Setting items



4 Make the setting or adjustment for the selected item.

The setting method varies, depending on the setting item.

If the next menu window is displayed, select the item according to the operations in step **3** and then press the ENTER key to register the setting.

To return to the selection screen of the setting items, press the ← or RETURN key. You can press the RESET key to reset an item to its factory setting value to aid setting.

Using a pop-up menu

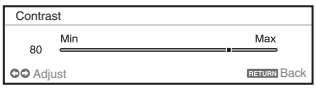
Press the ↑/↓/←/→ key to select an item. A selected item takes effect immediately, except “Language”, which will take effect after you press the ENTER key.

Using the setting menu

Press the ↑/↓ key to select the item. A selected item takes effect immediately. The previous screen is restored.

Using the adjustment menu

To increase the value, press the ↑/→ key and to decrease the number, press the ↓/← key. A selected item takes effect immediately. The previous screen is restored.



5 Press the MENU key to clear the menu.

The menu disappears automatically if no operation is performed.

The Picture Menu

The Picture is used to adjust the picture for each input signal.

Items	Item descriptions
Picture Mode	**Dynamic:** Emphasizes the contrast to produce a dynamic and vivid picture. **Standard:** Provides an image which is natural and well balanced. **Presentation**[*1]**:** Provides a bright image, suitable for presentations. **Living:** Provides an image suitable for viewing sports, music, and digital video camera content. **Game:** Provides an image suitable for viewing games. **Cinema:** Provides an image suitable for viewing movies.
Reset[*7]	Resets the factory setting.
Contrast	The higher the value, the greater the contrast. The lower the value, the lower the contrast.
Brightness	The higher the value, the brighter the picture. The lower the value, the darker the picture.
Color[*2 *4]	The higher the value, the greater the intensity. The lower the value, the lower the intensity.
Hue[*2 *4 *5]	The higher the value, the more greenish the picture becomes. The lower the value, the more reddish the picture becomes.
Color Temp.[*3]	**High/Middle/Low:** The higher the value, the more bluish the picture. The lower the value, the more reddish the picture.
Sharpness[*2]	The higher the value, the sharper the picture. The lower the value, the softer the picture.
Expert Setting	
Film Mode[*2 *6]	**Auto:** Precisely reproduces a film image to match the appearance of the original film source. Set to “Auto” in most cases. **Off:** Select this mode if the image outline appears jagged.
Gamma Mode[*1]	**Graphics1**[*7]**:** Gamma correction to make halftones brighter. This setting is suitable when projecting highly colorful images, such as photos, in a bright place. **Graphics2:** Gamma correction to improve the reproduction of halftones. Highly colorful images, such as photos, can be reproduced in natural tones. **Text:** Improves back and white contrast. Suitable for images with lots of text content.

Notes

*1: When a computer signal is input, this option is available.
*2: When a video signal is input, this option is available.
*3: When “Picture Mode” is set to the item other than “Presentation,” this option is available.
*4: When the signal without color burst signal is input, this option is unavailable.
*5: When an analog TV signal is input, this option may not available, depending on the color system.
*6: When a progressive signal is input, this option is not available.
*7: The settings in the Picture return to their factory defaults, except for Picture Mode.

The Screen Menu

The Screen menu is used to adjust the size, position and aspect ratio of the projected image for each input signal.

Items		Item descriptions
Aspect[*3]		Changes the aspect ratio of the projected image (page 20).
	When the computer signal is input	**Full1:** Displays the image to fit the maximum projected image size without changing the aspect ratio of the input signal.
		Full2: Displays the image to fit the maximum projected image size changing the aspect ratio of the input signal.
		Normal: Displays the image on the center position of the projected image without changing the resolution of the input signal or enlarging the image.
	When the video signal is input	**4:3:** Displays the image to fit the maximum projected image size with an aspect ratio fixed to 4:3. **16:9:** Displays the image to fit the maximum projected image size with an aspect ratio fixed to 16:9. **Full**[*5]**:** Displays the image to fit the maximum projected image size. **Zoom:** Zooms the center area of a projected image.
Adjust Signal		Adjusts the image of computer signal. Use this item if the edge of the image is cut and reception is bad.
	APA[*1*4]	Automatically adjusts the projected image to an optimum quality when you press the ENTER key (page 6).
	Phase[*1]	Adjusts the dot phase of the display pixel and the input signal. Set to the value where looks clearest.
	Pitch[*1]	The higher the value, the wider the horizontal image elements (pitch). The lower the value, the narrower the horizontal image elements (pitch).
	Shift[*2]	**H (Horizontal):** The higher the value, the farther right the image is projected on the screen. The lower the value, the image farther left. **V (Vertical):** The higher the value, the farther up the image is projected on the screen. The lower the value, the image farther down.

Notes

*1: Available when a computer signal is input from the RGB input connector (INPUT A/INPUT B (VPL-SX535 only)).

*2: Available when a computer signal is input from the RGB input connector (INPUT A/INPUT B (VPL-SX535 only)) or a video signal is input from the YPBPR input connector (INPUT A).

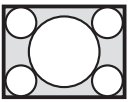
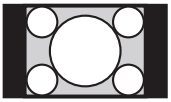
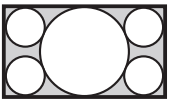
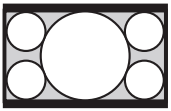
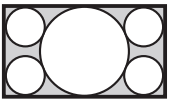
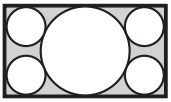
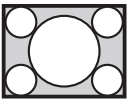
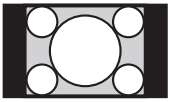
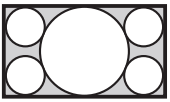
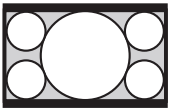
*3: • Note that if the projector is used for profit or for public viewing, modifying the original picture by switching to the aspect mode may constitute an infringement of the rights of authors or producers, which are legally protected.
• Depending on the input signal, setting items for aspect ratio or some other setting items cannot be set in some cases, or changing the aspect ratio setting may have no effect.
• A part of the image may be displayed in black, depending on the setting item.

*4: If the projected image includes large amount of black portion around it, the APA function will not work properly and a part of the image may not be displayed on the screen and also optimum image cannot be obtained, depending on the type of input signal. In this case, adjust the “Phase,” “Pitch,” and “Shift” items manually.

*5: VPL-SW535C/SW525C/SW535/SW525 only.

Aspect

VPL-SW535C/SW525C/SW535/ SW525

	Input signal	Recommended setting value and projected image
Computer signal	4:3 	Full1*1 *2 
	16:9 	Full1*1 *2 
	16:10 	Full1*1 
Video signal	4:3 	4:3*3 *5 
	16:9 	16:9*4 *5 

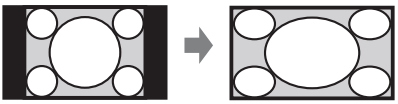
*1: If you select “Normal,” the image is projected in the same resolution as the input signal without changing the aspect ratio of the original image.

*2: If you select “Full2,” the image is projected to fit the projected image size, regardless of the aspect ratio of the image.

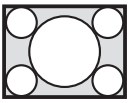
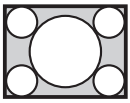
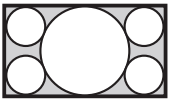
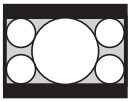
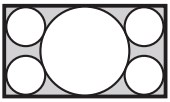
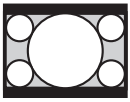
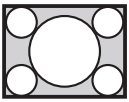
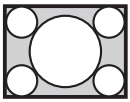
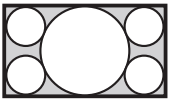
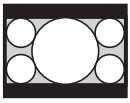
*3: Depending on the input signal, the projected image may be projected as illustrated below. In this a case, select “16:9.”

*4: Depending on the input signal, the projected image may be projected as illustrated below. In this a case, select “Zoom.”

*5: If you select “Full,” the image is projected to fit the projected image size, regardless of the aspect ratio of the image.



VPL-SX535

	Input signal	Recommended setting value and projected image
Computer signal	4:3 	Full1*1 
	16:9 	Full1*1 *2 
	16:10 	Full1*1 *2 
Video signal	4:3 	4:3*3 
	16:9 	16:9*4 

*1: If you select “Normal,” the image is projected in the same resolution as the input signal without changing the aspect ratio of the original image.

*2: If you select “Full2,” the image is projected to fit the projected image size, regardless of the aspect ratio of the image.

*3: Depending on the input signal, the projected image may be projected as illustrated below. In this a case, select “16:9.”

*4: Depending on the input signal, the projected image may be projected as illustrated below. In this a case, select “Zoom.”

The Function Menu

The Function menu is used for setting various functions of the projector.

Items	Item descriptions
Volume	The higher the value, the louder an audio volume and the lower the value, the lower the audio volume. The audio output level will work simultaneously.
Speaker	**On/Off:** When set to “On,” the sound will be output from the speaker. Set “Off” to mute the sound.
Smart APA	**On/Off:** When set to “On,” APA functions automatically when a signal is input.*1
CC Display	**CC1/CC2/CC3/CC4/Text1/Text2/Text3/Text4:** Select the closed caption service (captions or text). **Off:** Closed caption does not appear.
Lamp Timer Reset	When replacing the lamp, resets the lamp timer (page 40).
Background	**Black/Blue:** Selects the background color of the projected image when no signal is input.
Start Up Image	**On/Off:** When set to “On,” the Start Up Image is displayed on the screen when the projector is powered on.

Note

*1: APA functions when a computer signal is input via the RGB input connector (INPUT A/INPUT B (VPL-SX535 only)).

The Operation Menu

The Operation menu is used for setting for the operations by using the menu or the remote commander.

Items	Item descriptions
Language	Selects the language used in the menu and messages.
Status	**On:** All on-screen statuses are enabled. **Off:** Turns off the on-screen displays, except for menus, warning messages and messages from the message list.
Security Lock*1	**On/Off:** This function enables restriction of the projector to authorized users by password. The setting procedures for security locking are as follows: **1** Select "On" and press the ENTER key to display the setting menu. **2** Input the password with the MENU, ↑/↓/←/→ and ENTER keys. (The default setting password is "ENTER, ENTER, ENTER, ENTER.") **3** Input a new password with the MENU, ↑/↓/←/→ and ENTER keys. **4** Enter the password again to confirm. Enter the password when you turn on the projector after disconnecting and reconnecting the AC power cord. When it is set to "Off," you can cancel the security lock. You are required to input the password again. If you fail to enter the correct password after three consecutive times, the projector cannot be used. In this case, press the **I**/⏻ key to go Standby mode then turn on the power again.
Panel Key Lock	**On/Off:** When set to "On," locks all the control panel keys of the projector. However, you can operate the following when set to "On": • Press and hold the **I**/⏻ key for approximately 10 seconds during Standby mode. ➔ The projector turns on. • Press and hold the MENU key for approximately 10 seconds during power on. ➔ "Panel Key Lock" is set to "Off" and enables operation of all keys on the projector.

*1: You will not be able to use the projector if you forget your password. If you call qualified Sony personnel because you have forgotten the password, you will be asked to verify the projector's serial number and your identity. (This process may differ in other countries/regions.) Once your identity has been confirmed, we will provide you with the password.

The Connection/Power Menu

The Connection/Power menu is used for setting for the connections and power.

Items		Item descriptions
Network Setting		
	IP Address Setup	**Auto (DHCP):** The IP address is assigned automatically from the DHCP server such as a router. **Manual:** To specify the IP Address manually.
Input-A Signal Sel.		**Auto/Computer/Video GBR/Component:** When set to "Auto," selects the type of video signal input automatically when "Input-A" is selected with the INPUT key. *1
Color System		**Auto/NTSC3.58/PAL/SECAM/NTSC4.43/PAL-M/PAL-N:** When set to "Auto," selects the color system automatically when "S Video" or "Video" is selected with the INPUT key.*1
Eco		
	Lamp Mode	**High/Standard/Low:** When set to "High," the image becomes brighter, and power consumption becomes higher.
	AUTO POWER SAVIING	
	With No Input	**Lamp Cutoff:** The lamp turns off automatically and power consumption is reduced if no signal is input for more than 10 minutes. The lamp lights again when a signal is input or any key is pressed. In Lamp Cutoff, the ON/STANDBY indicator lights in orange. (page 36) **Standby***6**:** If no signal is input to the unit for more than 10 minutes, the power turns off automatically, and the unit enters standby mode. **Off:** You can deactivate the With No Input.
	With Static Signal	**Lamp Dimming:** If an image does not change for about 10 seconds, lamp output is gradually reduced (approximately 10% to 15%*3) from that set in the Lamp Mode.*4 Automatically the lamp slowly darkens to approximately 30% of its lamp output according to the selected time (with no change to input signal) "5," "10," "15," "20" minutes or "Demo.," While dimming the lamp, the message "Lamp Dimming" appears. If you select "Demo.," the image will start to darken about 35 seconds later. When any change in signal is detected, or an operation (remote control or control panel) is performed, normal brightness is restored.*5 **Off:** You can deactivate the With Static Signal.
	Standby Mode*2	**Standard/Low:** When set to "Low," lowers power consumption in Standby mode.
Direct Power On		**On/Off:** When set to "On," you can turn the power on without going to Standby mode when the AC power cord is connected to a wall outlet. With the projector turned off, you can also unplug the AC power cord without going to Standby mode, regardless of the Direct Power On setting.

Notes

*1: This may not be optimum depending on the input signal. In this case set manually according to the connected equipment.

*2: When “Standby Mode” is set to “Low,” the network and network control function cannot be operated while the projector is in standby mode.

*3: This varies depending on the “Lamp Mode” setting.

*4: As the lamp is dimmed gradually, you may not notice any change in brightness. You might only notice that the lamp has dimmed when its brightness is restored after there is a change in input signal.

*5: This mode does not work for about three minutes after the lamp lights. A change in signal may not be detected depending on the input image. The lamp may become brighter at intervals during lamp dimming. However, this is not a malfunction. If With No Input is set, it takes priority.

*6: Select “Off” to avoid entering standby mode when there is no input signal.

The Installation Menu

The Installation menu is used for installing the projector.

Items	Item descriptions
Image Flip	**HV/H/V/Off:** Flips the projected image horizontally or vertically according to the installation method.
Installation Attitude	**Right Side Up/Upside Down:** Change the cooling setting to suit to the installation attitude. Continuing to use the wrong setting may affect component reliability.
High Altitude Mode*1	**On/Off:** Set to "On" when using the projector at an altitude of 1,500 m or higher. Continuing to use the wrong setting may affect component reliability.
Screen Fitting	**V keystone*2*3:** The higher the value, the narrower the top of the projected image. The lower the value, the narrower the bottom. **Digital Shrink*4:** Reduces the entire image. "0" is standard size image. Use this function if the projected image exceeds the screen size.

Notes

*1: When "High Altitude Mode" is set to "On," the speed of the fan increases, and the fan noise becomes slightly louder.
*2: Since the Keystone adjustment is an electronic correction, the image may be deteriorated.
*3: Depending on the position adjusted with the lens shift feature, the aspect ratio of the image may change from the original or projected image may be distorted with Keystone adjustment.
*4: Since the Digital shrink is an electronic correction, the image may be deteriorated.

ⓘ The Information Menu

The Information menu is used to check projector status, such as total usage time of the lamp.

Items	Item descriptions
Model Name	Displays the model name.
Serial No.	Displays the serial number.
fH/fV*1	Displays the horizontal/vertical frequency of the current input signal.
Signal Type	Displays the type of the current input signal.
Lamp Timer	Indicates the total usage time of a lamp.

Note

*1: These items may not be displayed depending on the input signal.

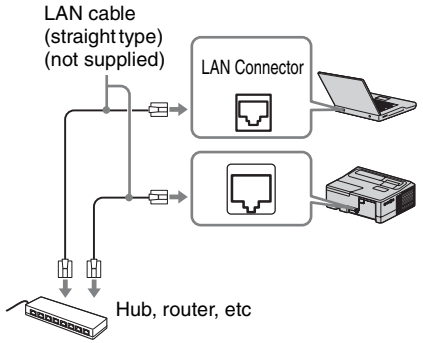
Using Network Features

Connection to the network allows you to operate the following features:
- Checking the current status of the projector via a Web browser.
- Remotely controlling the projector via a Web browser.
- Receiving the e-mail report via the projector.
- Making the network settings for the projector.
- Supports network monitoring, control protocol (Advertisement, PJ Talk, PJ Link, AMX DDDP [Dynamic Device Discovery Protocol], SNMP).

Notes
- The menu displays used for the explanation below may be different depending on the model you are using.
- Supported Web browsers are Internet Explorer 6/7/8.
- The menu displays only in English.
- If the browser of your computer is set to [Use a proxy server] when you access to the projector from your computer, click the check mark to set accessing without using a proxy server.

Displaying the Control Window of the Projector with a Web Browser

1 Connect the LAN cable.



2 Set the network settings for the projector using “Network Setting” on the Connection/Power menu (page 24).

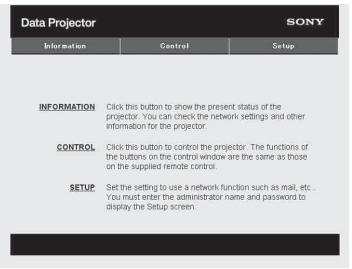
3 Start a web browser on the computer, enter the following in the address field, then press the Enter key on your computer.

http://xxx.xxx.xxx.xxx

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

You can confirm the IP address of the projector in the “Network Setting” on the Connection/Power menu (page 24).

The following window appears in the Web browser:

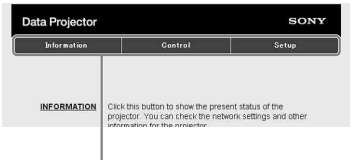


Once you make the network settings, you can open the Control window only by performing step **3** of this procedure.

How to operate the Control window

Switching the page

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



Page Switching buttons

Setting the access limitation

You can limit a user for accessing any particular page.

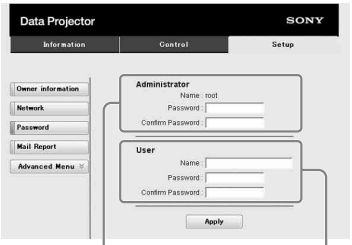
Administrator: Allowed access to all pages

User: Allowed access to all pages except the Setup page

Set the access limitation from [Password] of the Setup page.

When you access the Setup page for the first time, enter “root” for user name and enter nothing for password.

The name of the administrator is preset to “root.”



Entry area for [Administrator]

Entry area for [User]

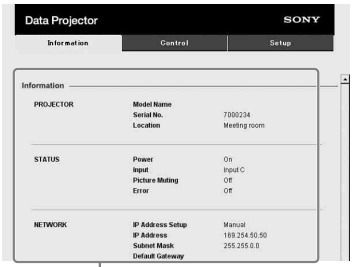
When you change the password, input a new password after deleting the password (*****) that was set.

Note

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

Confirming the Information regarding the Projector

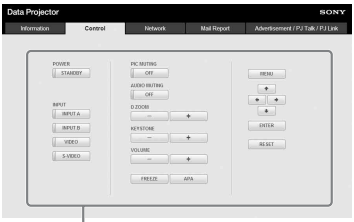
You can confirm the current settings for the projector on the Information page.



Information area

Operating the Projector from a Computer

You can control the projector from the computer on the Control page.



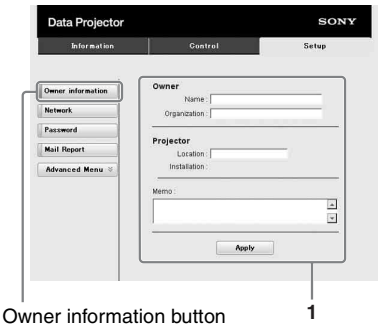
Operation area

The functions of the buttons shown in the operation area are the same as the keys on the remote commander.

Using the e-mail report Function

Set the e-mail report function on the Setup page.
Entered values will not be applied unless you click on [Apply].

1 Click on [Owner information] to enter the owner information recorded in the e-mail report.

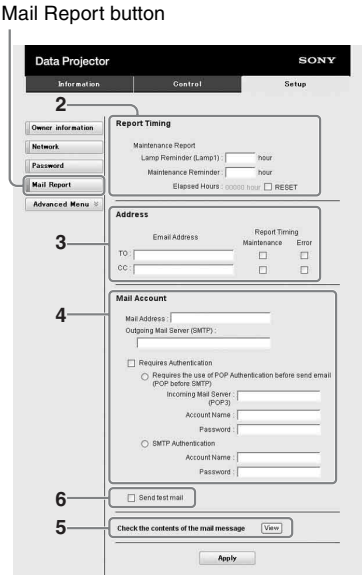


2 Set the timing of the e-mail report.
Click on [Mail Report] to open the Mail Report page.

Lamp Reminder (Lamp1): Set the timing for lamp replacement. To reset Lamp Reminder, execute "Lamp Timer Reset" on the projector (page 22).

Maintenance Reminder: Set the timing for maintenance. To reset Maintenance Reminder, check the RESET check box and then click on [Apply].

Mail Report button



3 Enter the outgoing e-mail address in the Email Address box then check the Report Timing check box of the e-mail report to be sent.

4 Set the mail account for sending e-mail reports.

Mail Address: Enter the e-mail address.

Outgoing Mail Server (SMTP): Enter the address of outgoing mail server (SMTP).

Required Authentication: Check this check box if authentication is required for sending e-mail.

Requires the use of POP Authentication before sending email (POP before SMTP): Check this check box to arrange for POP authentication to be performed before sending e-mail.

Incoming Mail Server (POP3): Enter the address of the incoming-mail server (POP3) to be used for POP authentication.

Account Name: Enter the mail account name.

Password: Enter the password.

SMTP Authentication: Check this check box to arrange for SMTP authentication to be performed before sending e-mail.

Account Name: Enter the mail account name.

Password: Enter the password.

5 Confirm the contents of the e-mail report.

When you click on [View], the contents of the e-mail report are displayed.

6 Send the test mail.

Check on the Send test mail check box then click on [Apply] to send your test mail to the e-mail address you set.

Notes

- The email report function will not work if the network uses Outbound Port25 blocking, which prevents access to the SMTP server.
- You cannot use the following characters to enter the characters in the text box: “ ' ”, “ “ ”, “ \ ”, “ & ”, “ < ”, “ > ”

Using Interactive Function

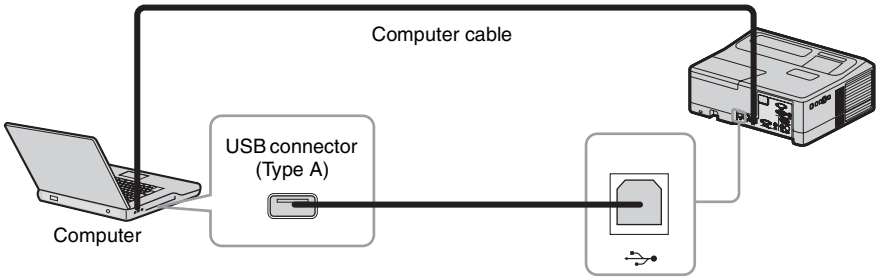
The Interactive function (VPL-SW535C/SW525C only) enables you to do the following:
- Draw shapes/write text on the screen with the Interactive Pen Device.
- Use the Interactive Pen Device as a mouse on the projected screen.

Notes

The Interactive Presentation function works by a detector in the projector, which picks up infrared rays emitted from the tip of the Interactive Pen Device. Observe the precautions noted below.
- Avoid placing the projector where the Interactive Pen detector is directly exposed to fluorescent light or other strong light.
- Do not cover the pen tip of the Interactive Pen Device or the Interactive Pen detector.
- Infrared data communication or noise from another device may cause improper operation.

Connecting a Computer with a USB Cable

Make sure your computer and the projector are connected with a computer cable. For details on connecting the projector with a computer, see “Connecting the Projector” (page 9).



Installing Interactive Presentation Utility

Use of these functions requires installation of Interactive Presentation Utility. For Interactive Presentation Utility software update, visit Sony’s web site.
https://www.servicesplus.sel.sony.com/
http://pro.sony.eu/InteractiveUtility

System Requirements
- CPU: Intel Pentium III 1.0GHz or faster
- Memory: 512MB or more
- Available hard drive space: 100MB or more
- Display: resolution higher than SVGA (800 × 600 pixels)
- Windows XP SP2 or later (Home/Professional Edition)*1
- Windows Vista non-SP or later (Starter*3/Home Basic/Home Premium/Business/Ultimate/Enterprise)*1
- Windows 7 (Starter*3/Home Basic/Home Premium/Professional/Ultimate/Enterprise)*2

*1: 32bit edition only
*2: 32bit edition and 64bit edition
*3: 32bit edition

1 Insert the supplied CD-ROM into the CD-ROM drive of the computer.

Open the CD-ROM and double-click [InteractivePresentationUtility.exe].

Note

Close all running applications, then start the installation.

2 Follow the on-screen instructions to install the software.

To uninstall Interactive Presentation Utility, click [Start]-[All Programs]-[Interactive Presentation Utility]-[Uninstall].

Starting Interactive Presentation Utility

To start Interactive Presentation Utility, click [Start]-[All Programs]-[Interactive Presentation Utility]-[Interactive Presentation Utility].

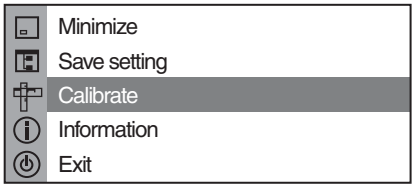
After the application starts, an icon appears in the taskbar.

Projector connected to computer.

Projector not connected to computer.

Changing the Settings

Click the icon in the taskbar to display the pop-up menu.



Minimize: Minimize toolbar
Save setting: Select a folder to save image files and file format.
Calibrate*: Start Calibration (page 33)
Information: Display information about Interactive Presentation Utility.
Exit: Close Interactive Presentation Utility.

* Appears in the pop-up menu when your computer is connected to the projector.

Performing Calibration (Position alignment)

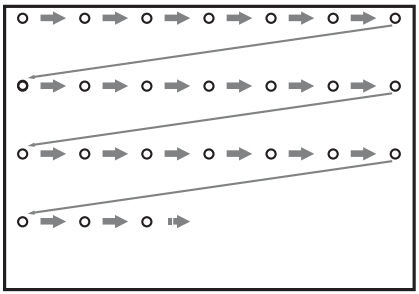
Use the supplied USB cable to connect the projector to the computer. Double-click the icon in the taskbar, then select [Calibrate].

Calibration is the operation to align the pen position on the projection surface with the mouse position on the computer screen. Be sure to perform calibration when using the Interactive function for the first time.

Changing resolution or moving the projector may offset the current calibration. In this case, perform calibration again.

Calibration (Position alignment)

A flashing dot appears in the top left of the screen.
Touch the center of the dot with the tip of the Interactive Pen Device until the dot stops flashing.
The dots appears from the top left to bottom right of the screen. Repeat the above for all dot positions to complete calibration.



Note

Make sure you touch the center of the dot, otherwise positioning may be offset.

Toolbar

When starting Interactive Presentation Utility, the toolbar is displayed.

Interactive mode

Mouse/Pen
Switch the Interactive Pen function between mouse and drawing pen.

Whiteboard mode

Page up

Page down

Highlight*

Pen/Eraser*
Switch between pen and eraser.

Fast Pen Set*

Accurate Pen Set*

Draw free lines*

Draw straight lines*

Draw circles*

Draw rectangles*

Undo

Redo

Clear the desk annotation
Clear all annotations on the screen. The confirmation message will not appear in interactive mode.

Virtual keyboard
Display the on-screen keyboard for entering text.

Save screen
Save the image on the screen.

Screen shade
Cover a partial area of the screen. Use the Interactive Pen Device to adjust the size of the mask area that appears on the projected screen.

Screen spotlight
Apply a spotlight effect to emphasize parts of the screen. In the pop-up menu, you can change the shape of the spotlit area, and the color/transparency outside the spotlight zone.

Minimize toolbar

*Functions are available for both main and sub Interactive Pen Device.

Whiteboard Mode

Browse

Return to interactive mode

Delete current page

Select background image
Select a jpg/bmp/ppt file as the background.

Select background template
Select a background from various templates.

New page

Duplicate last-drawn page

Open

Save whiteboard images

View List
Display a list of white board images that are being edited.

more...

more...

Print preview

Print current page

Time and date stamp

Browse

Jump to first page
Jump to first page.

Jump to last page
Jump to last page.

Go to previous page

Go to next page

Replay current page

Replay to end page

Complete replay
Skip the playback of the current page.

Stop replaying

Indicators

The indicators allow checking the status and notify you of abnormal operation of the projector. If the projector exhibits abnormal status, address the problem in accordance with the table below.

ON/STANDBY indicator

Status		Meaning/Remedies
Lights in red		The projector is in Standby mode.
Flashes in green		• The projector is ready to operate after having been turned on. • The lamp cools after the projector is turned off.
Lights in green		The projector's power is on.
Lights in orange		The projector is in With No Input (Lamp Cutoff). (page 24)
Flashes in red		The projector is in abnormal status. Symptoms are indicated by number of flashes. Address the problem in accordance with the following. If the symptom is shown again, consult with qualified Sony personnel.
	Flashes twice	The internal temperature is unusually high. Check the items below. • Check if nothing is blocking the ventilation holes. (pages 4, 4) • Check if the air filter is not clogged. (page 42) • Check if the Installation Attitude in the Installation menu is set correctly. (page 26)
	Flashes six times	Unplug the AC power cord from a wall outlet. After checking that the ON/STANDBY indicator goes out, plug the power cord to a wall outlet again then turn on the projector.
	Other number of flashes	Consult with qualified Sony personnel.

LAMP/COVER indicator

Status		Meaning/Remedies
Flashes in red		Symptoms are indicated by number of flashes. Address the problem in accordance with the following.
	Flashes twice	The lamp cover or the air filter cover is not attached securely. (pages 40, 42)
	Flashes three times	The temperature of lamp is unusually high. Turn off the power and wait for lamp to cool then turn on the power again. If the symptom is shown again, the lamp may be burnt out. In this case, replace the lamp with a new one (page 40).

Messages List

When any of the messages listed below appears on the projected image, address the problem in accordance with the table below.

Messages	Meaning/Remedy	Page
High temp.! Lamp off in 1 min.	Check the items below. • Check if nothing is blocking the ventilation holes. • Check if the air filter is not clogged. • Check if the Installation Attitude in the Installation menu is set correctly.	4, 4, 26, 42
Frequency is out of range!	Change the output setting of the connected equipment to one for signals supported by the projector.	49
Please check Input-A Signal Sel.	Set “Input-A Signal Sel.” to “Auto” or select the input signal type to suit to the input signal.	24
Please replace the Lamp and clean the Filter.	Replace the lamp with a new one and clean the air filter. The message appears whenever you turn on the power until you replace the lamp and reset the lamp timer.	40, 42
Projector temperature is high. High Altitude Mode should be “On” if Projector is being used at high altitude.	When not using the projector at an altitude of 1,500 m or higher, check the items below. • Check if nothing is blocking the ventilation holes. • Check if the air filter is not clogged. • Check if Installation Attitude in the Installation menu is set correctly.	4, 4, 26, 42
Not applicable!	Invalid key was pressed.	–
The panel keys are locked!	“Panel Key Lock” is set to “On.”	23
Projector will shutdown soon. Press I/⏻ Key to Restart	The I/⏻ key was pressed and the projector will be shut down soon. To cancel shutdown, press the I/⏻ key again (the projector will remain on). To turn off the projector directly, press and hold the I/⏻ key.	16
Lamp Dimming	Reduces lamp output when “With Static Signal” is set. When any change in signal is detected, or an operation (remote control or control panel) is performed, normal brightness is restored.	24

Troubleshooting

Before asking to have the projector repaired, try to diagnose the problem, following the instructions below.

Symptoms	Remedy	Page
The power is not turned on.	Check if the AC power cord is firmly connected.	–
	When the “Panel Key Lock” is set to “On,” you cannot turn on the projector using the I/⏻ key on the projector.	23
	If the lamp or lamp cover is not attached securely, the projector cannot be turned on.	40
	If the air filter or air filter cover is not attached securely, the projector cannot be turned on.	42
No image.	Check if the connecting cable is connected to external equipment firmly.	9
	Check the computer signal is set for output to an external monitor only. If you set your computer to output to both the computer’s display and an external monitor, the external monitor image may not be displayed properly. Set your computer to output to only an external monitor.	13
	Check if the input source is correctly selected.	13
	Check if the picture is muted.	7
On-screen display does not appear.	The on-screen display does not appear when “Status” in the Operation menu is set to “Off.”	23
The aspect ratio of the display is not right/the image is displayed smaller /a portion of image does not appear.	The image may not display correctly because the input signal cannot be judged correctly. In this case, set Aspect manually.	6, 19, 20
The image is a trapezoid.	The images become trapezoidal because of the projection angle. In this case, you can correct the trapezoidal distortion, using a Keystone feature.	6, 15, 26
The image is dark/too bright.	The settings for “Brightness,” “Contrast,” and “Lamp Mode” affect brightness of the image. Check if the value is appropriate.	18, 24
	The image will be dark when the lamp is burnt out. Check “Lamp Timer,” and replace the lamp with a new one if necessary.	27, 40
	“With Static Signal” is set to “On.”	24
	During picture muting, the lamp is dimmed to reduce power consumption.	24
	When video signal is not input, the lamp is dimmed to reduce power consumption.	–
The image becomes darker or brighter.	When the lamp is dimmed for a long time, brightness may increase temporarily, but this is not malfunction.	–

Symptoms	Remedy	Page
The image is not clear.	Check if the projector is in focus.	14
	The picture will not be clear if condensation has accumulated on the lens. In this case, let the projector sit for about two hours with the power on.	–
The image is noisy.	Check if the connecting cable is connected to the external equipment properly.	9
No sound.	Check that the connecting cables between the projector and external video or audio equipment are securely connected.	9
	Check if the external audio equipment is set properly.	–
	Check if the “Speaker” is not set to “Off”.	22
	Audio is not output if audio muting is activated.	7
	Check if the volume is not set to minimum.	7, 22
The remote commander does not work.	Check if the batteries are installed correctly.	–
	Check if the batteries are not exhausted.	–
The fan is noisy.	The sound from the fan is often greater than normal to cool the lamp, etc. in the following cases. • “Lamp Mode” is set to “High.” • The unit is used at a high altitude. “High Altitude Mode” is set to “On.” • The unit is used in the location where the temperature is high.	24, 26
	If the ventilation holes are blocked, the internal temperature of the projector rises and the fan noise becomes larger.	4, 4

Replacing the Lamp

Replace the lamp with a new one if a message displayed on the projected image or the LAMP/COVER indicator notifies you to replace the lamp (pages 36, 37).
Use an LMP-E212 projector lamp (not supplied) for replacement.

Caution

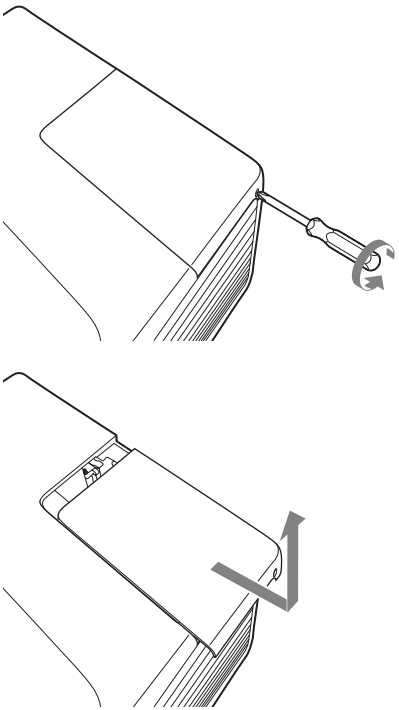
- The lamp remains hot after the projector is turned off. **If you touch the lamp, you may burn your finger. When you replace the lamp, wait for at least an hour after turning off the projector for the lamp to cool sufficiently.**
- Do not allow any metallic or inflammable objects into the lamp replacement slot after removing the lamp, otherwise it may cause electrical shock or fire. Do not put your hands into the slot.

Notes

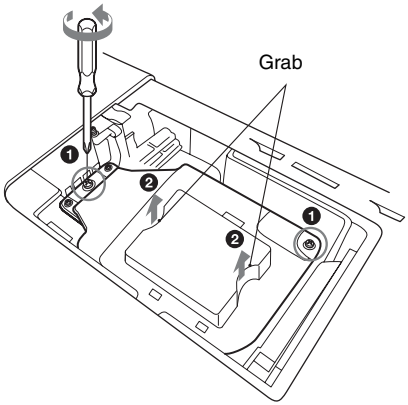
- **If the lamp breaks, contact qualified Sony personnel. Do not replace the lamp yourself.**
- When removing the lamp, be sure to pull it out straight, by holding the designated location. If you touch a part of the lamp other than the designated location, you may be burned or injured. If you pull out the lamp while the projector is tilted, the pieces may scatter if the lamp breaks any may cause injury.

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

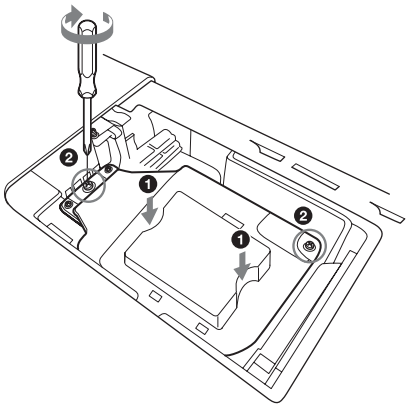
2 When the lamp has cooled sufficiently, open the lamp cover by loosening 1 screw.



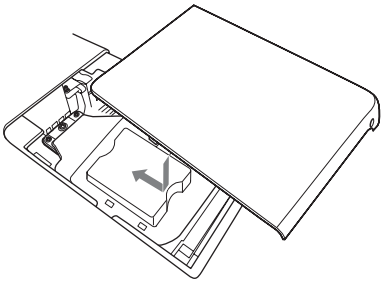
3 Loosen the 2 screws on the lamp then pull out the lamp by its grab.



4 Insert the new lamp all the way in until it is securely in place. Tighten the 2 screws.



5 Close the lamp cover and tighten the 1 screw.



Note

Be sure to install the lamp securely as it was. If not, the projector cannot be turned on.

6 Connect the AC power cord to a wall outlet and turn on the projector.

7 Reset the lamp timer for notification of the next replacement time.

Select “Lamp Timer Reset” on the Function menu then press the ENTER key. When a message appears, select “Yes” to reset the lamp timer (page 22).

Caution

Disposal of the used lamp

For the customers in the USA

Lamp in this product contains mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Telecommunications Industry Association (www.eiae.org).

Cleaning the Air Filter

When a message appears on the projected image indicating time for a filter cleaning, clean the air filter (pages 36, 37).
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.

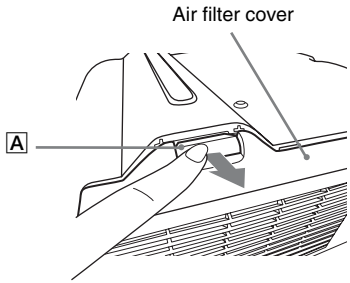
Caution

If you neglect to clean the air filter, dust may accumulate, clogging it. As a result, the temperature may rise inside the unit, leading to a possible malfunction or fire.

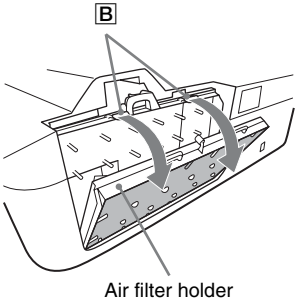
1 Turn off the projector, and disconnect the AC power cord from the AC outlet.

2 Open the air filter cover and remove the air filter holder.

Press A and open the air filter cover towards the arrow head as illustrated below, and remove the air filter holder.

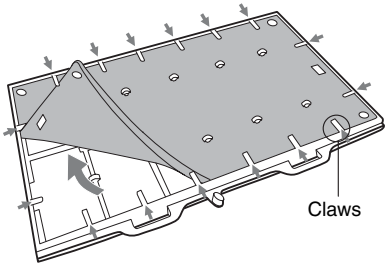


Push B, and remove the air filter holder in the direction of the arrow.

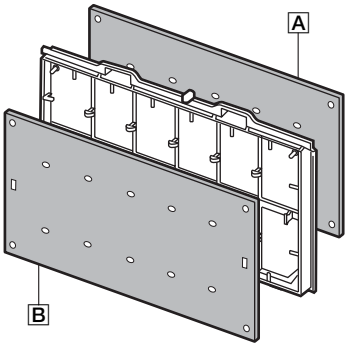


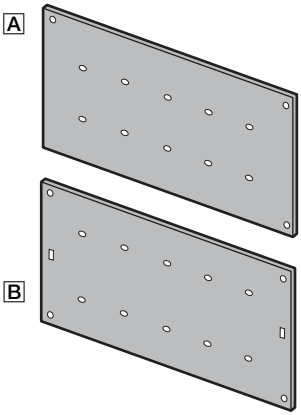
3 Clean the air filter with a vacuum cleaner.

Remove the air filter as illustrated below then clean with the vacuum cleaner.



The air filter consists of 2 filters (A, B).





4 Reattach the air filter cover to the unit.

Note

Be sure to attach the air filter cover firmly.
If not, the projector cannot be turned on.

Specifications

Items		Descriptions
Model		**VPL-SW535C/SW525C/SW535/SW525/VPL-SX535**
Projection system		3 LCD system
Display device	Effective display size	VPL-SW535C/SW525C/SW535/SW525: 0.75 inch (19.0 mm), 3 plate panels, Aspect ratio 16:10 VPL-SX535: 0.63 inch (16.0 mm), 3 plate panels, Aspect ratio 4:3
	Effective picture elements	VPL-SW535C/SW525C/SW535/SW525: 3,072,000 pixels (1280 × 800 pixels, 3 plate panels) VPL-SX535: 2,359,296 pixels (1024 × 768 pixels, 3 plate panels)
Projection lens	Zoom	Manual zoom approx.1.05 times
	Focus	Manual
Light source		High-pressure mercury lamp, 210 W type
Projected image size		VPL-SW535C/SW525C/SW535/SW525: 70 inches to 130 inches (1.78 m to 3.30 m) VPL-SX535: 60 inches to 110 inches (1.52 m to 2.79 m)
Luminous flux (Brightness)		VPL-SW535C/SW535/VPL-SX535: 3000 lm VPL-SW525C/SW525: 2500 lm (when “Lamp Mode” is set to “High”)
Speaker		VPL-SW535C/SW525C/SW525: 10 W × 1 (monaural) VPL-SW535/VPL-SX535: 1 W × 1 (monaural)
Applicable scanning frequency *1		Horizontal: 14 kHz to 93 kHz, Vertical: 47 kHz to 93 kHz
Resolution *1	When a computer signal is input	Maximum display resolution: 1600 × 1200 pixels (resize) Panel display resolution: VPL-SW535C/SW525C/SW535/SW525: 1280 × 800 pixels VPL-SX535: 1024 × 768 pixels
	When a video signal is input	NTSC, PAL, SECAM, 480/60i, 576/50i, 480/60p, 576/50p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/60p, 1080/50p
Color system		NTSC3.58, PAL, SECAM, NTSC4.43, PAL-M, PAL-N

Items		Descriptions
Model		**VPL-SW535C/SW525C/SW535/SW525/VPL-SX535**
INPUT OUTPUT (Computer/video)	INPUT A	**RGB/YPBPR input connector:** Mini D-sub 15 pin female, G with sync/Y: 1 Vp-p ± 2 dB, sync negative, 75 ohms terminated, RGB/PBPR: 0.7 Vp-p ± 2 dB, 75 ohms terminated, Sync signal: TTL level high impedance, positive/negative **Audio input connector:** Stereo mini jack, rated input 500 mVrms, input impedance more than 47 kohms
	INPUT B (VPL-SW535C/ SW525C/ SW535/SW525 only)	**HDMI input connector:** HDMI 19-pin, HDCP, HDMI audio support
	INPUT B (VPL-SX535 only)	**RGB input connector:** Mini D-sub 15-pin female, RGB: 0.7 Vp-p ± 2 dB, 75 ohms terminated, Sync signal: TTL level high impedance, positive/negative **Audio input connector:** Stereo mini jack, rated input 500 mVrms, input impedance more than 47 kohms
	S VIDEO (S VIDEO IN)	**S video input connector:** Mini DIN 4-pin, Y: 1 Vp-p ± 2 dB, sync negative, 75 ohmes terminated, C: (burst signal) 0.286 (NTSC)/0.3 (PAL/SECAM) Vp-p ± 2 dB, 75 ohms terminated **Audio input connector:** Phono jack × 2, rated input 500 mVrms, Input impedance more than 47 kohms
	VIDEO (VIDEO IN)	**Video input connector:** Pin jack, 1 Vp-p ± 2 dB, sync negative, 75 ohmes terminated **Audio input connector:** Shared with S VIDEO IN
	OUTPUT	**MONITOR output connector:** Mini D-sub 15-pin female, G with sync/Y: 1 Vp-p ± 2 dB, sync negative, 75 ohms terminated, RGB/PBPR: 0.7 Vp-p ± 2 dB, 75 ohms terminated, Sync signal: HD, VD 4 V (open), 1 Vp-p (75 ohms), positive/negative **Audio output connector:** Stereo mini jack, stereo, 1 Vrms (maximum volume, when inputting 500 mVrms), output impedance 5 kohms
Other conncectors		**RS-232C connector:** D-Sub 9 pin male
		LAN connector: RJ45, 10BASE-T/100BASE-TX
		USB connector: Type B (VPL-SW535C/SW525C only)
Operating temperature/ Operating humidity		0 °C to 40 °C (32 °F to 104 °F)/35% ~ 85% (no condensation)
Storage temperature/ Storage humidity		–20 °C to +60 °C (–4 °F to 140 °F)/10% to 90% (no condensation)
Power requirements		VPL-SW535C/SW525C/SW525: 100 V to 240 V AC, 3.5-1.2 A, 50/60 Hz VPL-SW535: 100 V to 240 V AC, 3.3-1.2 A, 50/60 Hz VPL-SX535: 100 V to 240 V AC, 3.6-1.4 A, 50/60 Hz

Items	Descriptions
Model	**VPL-SW535C/SW525C/SW535/SW525/VPL-SX535**
Power consumption	VPL-SW535C/SW525C/SW535/SW525: 100 V to 120 V AC: 290 W 220 V to 240 V AC: 280 W VPL-SX535: 100 V to 120 V AC: 310 W 220 V to 240 V AC: 300 W
Standby power	VPL-SW535C/SW525C/SW525: 100 V-120 V AC: 7.5 W (when "Standby Mode" is set to "Standard")/0.2 W (when "Standby Mode" is set to "Low") 220 V-240 V AC: 7.5 W (when "Standby Mode" is set to "Standard")/0.3 W (when "Standby Mode" is set to "Low") VPL- SW535/SX535: 100 V-240 V AC: 8.0 W (when "Standby Mode" is set to "Standard")/0.3 W (when "Standby Mode" is set to "Low")
Heat dissipation	VPL-SW535C/SW525C/SW535/SW525: 100 V AC: 989 BTU 240 V AC: 955 BTU VPL-SX535: 100 V AC: 1,057 BTU 240 V AC: 1,023 BTU
Standard dimensions (W/H/D)	Approx. 384.4 × 161.1 × 423.4 mm (15 1/8 × 6 11/32 × 16 21/32 inches) Approx. 384.4 × 122.5 × 423.4 mm (15 1/8 × 4 13/16 × 16 21/32 inches) (without projecting parts)
Mass	VPL-SW535C/SW525C: Approx. 7.1 kg (15 lb 10 oz) VPL-SW535/SW525/SX535: Approx. 7.0 kg (15 lb 7 oz)
Supplied accessories	See "Checking the Supplied Accessories" in the supplied Quick Reference Manual.
Optional accessories *2 *3	**Projector Lamp LMP-E212 (for replacement)** **Interactive Pen Device IFU-PN100M/IFU-PN100S**

Notes

*1: For details, refer to "Acceptable Input Signals*1" on page 49.

*2: Information on accessories in this manual is current as of March 2012.

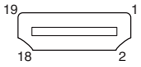
*3: Not all optional accessories are available in all countries and area. Please check with your local Sony Authorized Dealer.

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

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.

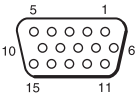
Pin assignment

HDMI connector (HDMI, female)



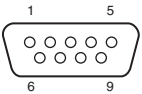
1	T.M.D.S. Data2+	11	T.M.D.S. Clock Shield
2	T.M.D.S. Data2 Shield	12	T.M.D.S. Clock –
3	T.M.D.S. Data2 –	13	N.C.
4	T.M.D.S. Data1+	14	RESERVED (N.C.)
5	T.M.D.S. Data1 Shield	15	SCL
6	T.M.D.S. Data1 –	16	SDA
7	T.M.D.S. Data0+	17	DDC GND
8	T.M.D.S. Data0 Shield	18	+5V Power
9	T.M.D.S. Data0 –	19	Hot Plug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

RGB input connector (Mini D-sub 15-pin, female)



1	Video input (red) R	9	Power supply input for DDC
2	Video input (green) G	10	GND
3	Video input (blue) B	11	GND
4	GND	12	DDC/SDA
5	RESERVE	13	Horizontal sync signal
6	GND (R)	14	Vertical sync signal
7	GND (G)	15	DDC/SCL
8	GND (B)		

RS-232C connector (D-Sub 9-pin, male)



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

USB connector (Type B, female)

1	VCC (+5 V)
2	Data-
3	Data+
4	Ground

Acceptable Input Signals[*1]

Computer signal

Signal	VPL-SW535C/SW525C/SW535/SW525		VPL-SX535	
	Input connector		Input connector	
	RGB/YP_BP_R	HDMI	RGB/YP_BP_R	RGB
VGA-1 (VGA350)	●		●	●
VESA 85 (VGA350)	●		●	●
VGA-2 (TEXT)/ VESA70	●		●	●
VESA 85 (VGA400)	●		●	●
VESA 60	●	●	●	●
Mac 13	●		●	●
VESA 72	●		●	●
VESA 75 (IBM M3)	●		●	●
VESA 85 (IBM M4)	●		●	●
800 × 600 VESA 56	●		●	●
800 × 600 VESA 60	●	●	●	●
800 × 600 VESA 72	●		●	●
800 × 600 VESA 75 (IBM M5)	●		●	●
800 × 600 VESA 85	●		●	●
Mac 16	●		●	●
XGA VESA 60	●	●	●	●
XGA VESA 70	●		●	●
XGA VESA 75	●		●	●
XGA VESA 85	●		●	●
1152 × 864 VESA 70	●		●	●
1152 × 864 VESA 75	●		●	●
1152 × 864 VESA 85	●		●	●
SUN LO	●		●	●
1280 × 960 VESA 60	●	●	●	●
1280 × 960 VESA 75	●		●	●
SXGA VESA 60	●	●	●	●
SXGA VESA 75	●		●	●
SXGA VESA 85	●		●	●
SXGA+/60	●	●	●	●
UXGA VESA 60	●	●	●	●
1280 × 768/60	●	●	●	●
1280 × 720/60	●	●[*2]	●	●
1920 × 1080/60		●[*3]		
1366 × 768/60	●	●	●	●
1440 × 900/60	●	●	●	●
1280 × 800/60	●	●	●	●

Digital TV signal

Signal	VPL-SW535C/ SW525C/ SW535/SW525		VPL-SX535
	Input connector		Input connector
	RGB/ YP_BP_R	HDMI	RGB/ YP_BP_R
480/60i	●	●	●
576/50i	●	●	●
480/60p (double-speed NTSC)	●	●	●
576/50p (double-speed PAL)	●	●	●
1035/60i, 1080/60i	●	●	●
1080/50i	●	●	●
720/60p	●	●	●
720/50p	●	●	●
1080/60p		●	
1080/50p		●	

Analog TV signal

Signal	VPL-SW535C/ SW525C/ SW535/ SW525	VPL-SX535
	Input connector	Input connector
	VIDEO / S VIDEO	VIDEO / S VIDEO
60 Hz	●	●
50 Hz	●	●

Notes

*1: • When a signal other than the signals listed in table is input, the picture may not be displayed properly.
• An input signal meant for screen resolution different from that of the panel will not be displayed in its original resolution. Text and lines may be uneven.

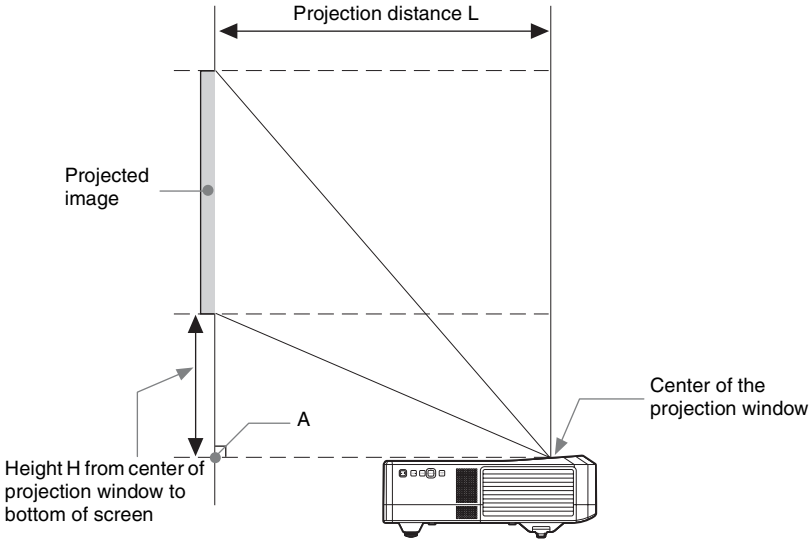
*2: This is identified as a movie delivery signal of 720/60p.

*3: This is identified as a movie delivery signal of 1080/60p.

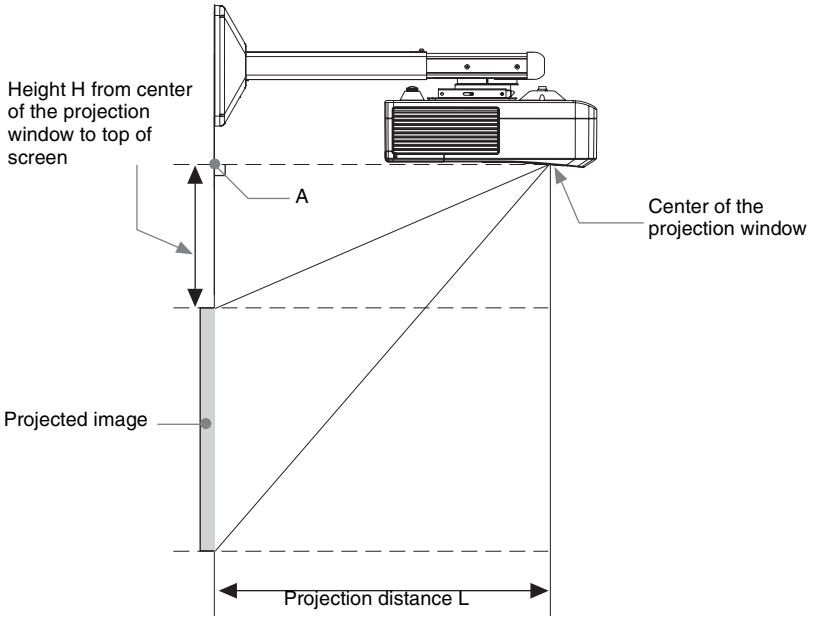
Projection Distance and Lens Shift Range

The projection distance is the distance between the center of the projection window and the surface of the projected image. The following describes the projection distance and height from the center of the projection window to edge of screen by each projected screen size. Height H is the height from the bottom of the projected image (top for wall mount) to A (determined by drawing a perpendicular line from the center of the projection window to projected image surface).

Floor Installation

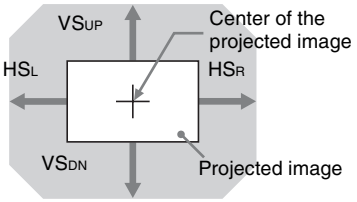


Wall Installation



L: Projection distance L
H: Distance between the edge of the image and the center of the projection window

The lens shift range is the distance you can move the lens shift from the center of the projected image(0) when full width and full height of the projected image is regarded as 100%.



Shaded region: Lens shift range

VS_{UP}: Vertical lens shift range (up) [%]
VS_{DN}: Vertical lens shift range (down) [%]
HS_R: Horizontal lens shift range (right) [%]
HS_L: Horizontal lens shift range (left) [%]

Projection distance table (VPL-SW535C/SW525C/SW535/SW525)

Unit: m (inches)

Projected image size		Projection Distance L	Height H from center of projection window to edge of screen
Diagonal D	Width × Height		
70 inch (1.78 m)	1.51 × 0.94	0.416-0.428 (16.4-16.8)	0.138 (5.4)
80 inch (2.03 m)	1.72 × 1.08	0.475-0.489 (18.7-19.2)	0.159 (6.2)
90 inch (2.29 m)	1.94 × 1.21	0.534-0.550 (21.1-21.6)	0.179 (7.1)
100 inch (2.54 m)	2.15 × 1.35	0.594-0.611 (23.4-24.0)	0.200 (7.9)
130 inch (3.30 m)	2.80 × 1.75	0.771-0.795 (30.4-31.3)	0.262 (10.3)

Projection distance formula (VPL-SW535C/SW525C/SW535/SW525)

D: Projected image size (Diagonal)
H: Distance between the edge of the image and the center of the projection window

Expression#1

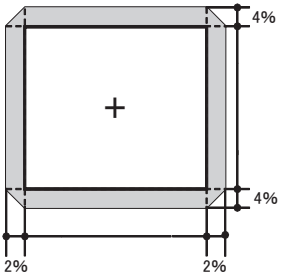
Unit: m (inches)

Projection Distance L (Min.)	Projection Distance L (Max.)
L=0.005931 × D-0.0001 (L=0.233509 × D-0.0024)	L=0.006119 × D-0.0001 (L=0.240915 × D-0.0050)

Expression#2

Height H from center of projection window to bottom of screen
H=0.00207 × D-0.00674 (H=0.08134 × D-0.26544)

Lens shift range (VPL-SW535C/SW525C/SW535/SW525)



VS_{UP} [%]= VS_{DN} [%]= 4 - 2.000 × (HS_R [%] or HS_L [%])
HS_R [%]= HS_L [%]= 2 - 0.500 × (VS_{UP} [%] or VS_{DN} [%])

Projection distance table (VPL-SX535)

Unit: m (inches)

Projected image size		Projection Distance L	Height H from center of projection window to edge of screen
Diagonal D	Width × Height		
60 inch (1.52 m)	1.22 × 0.91	0.424-0.436 (16.7-17.1)	0.163 (6.4)
70 inch (1.78 m)	1.42 × 1.07	0.495-0.509 (19.5-20.0)	0.192 (7.6)
80 inch (2.03 m)	1.63 × 1.22	0.566-0.581 (22.3-22.9)	0.220 (8.7)
90 inch (2.29 m)	1.83 × 1.37	0.636-0.654 (25.1-25.7)	0.249 (9.8)
110 inch (2.79 m)	2.24 × 1.68	0.778-0.800 (30.6-31.4)	0.305 (12.0)

Projection distance formula (VPL-SX535)

D: Projected image size (Diagonal)
H: Distance between the edge of the image and the center of the projection window

Expression#1

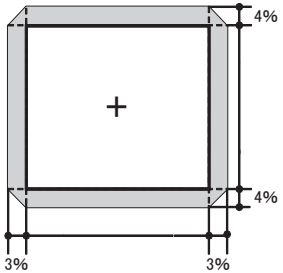
Unit: m (inches)

Projection Distance L (Min.)	Projection Distance L (Max.)
L=0.007067 × D-0.0001 (L=0.278225 × D-0.0047)	L=0.007275 × D-0.0001 (L=0.286402 × D-0.0046)

Expression#2

Height H from center of projection window to bottom of screen
H=0.00284 × D-0.00674 (H=0.11169 × D-0.26544)

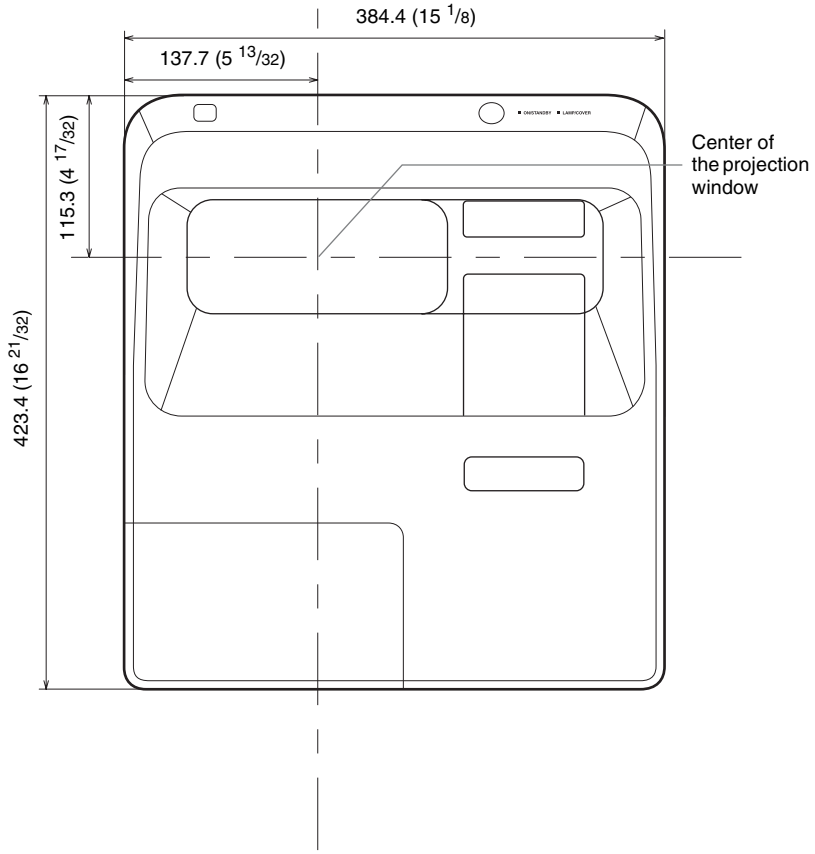
Lens shift range (VPL-SX535)



VS_{UP} [%]= VS_{DN} [%]= 4 - 1.333 × (HS_R [%] or HS_L [%])
HS_R [%]= HS_L [%]= 3 - 0.750 × (VS_{UP} [%] or VS_{DN} [%])

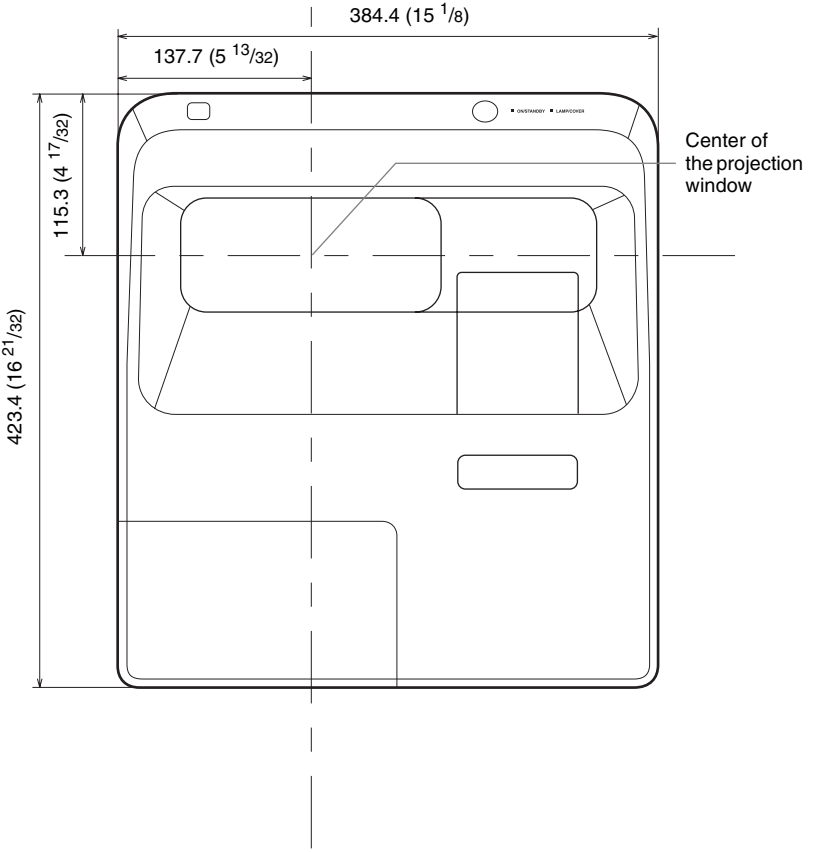
Dimensions

Top (VPL-SW535C/SW525C)



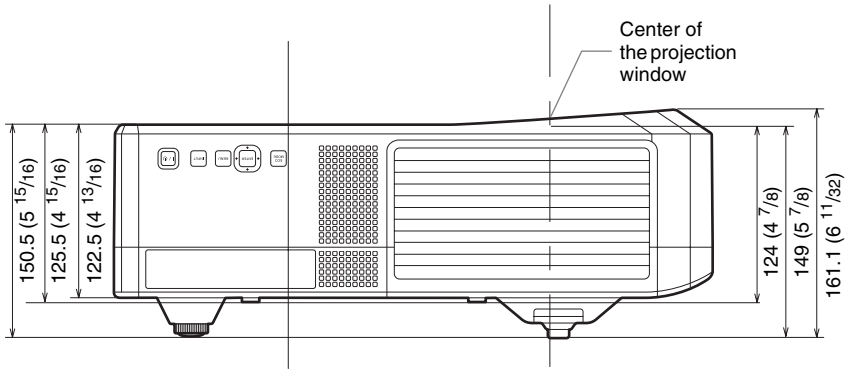
Unit: mm (inches)

Top (VPL-SW535/SW525/VPL-SX535)



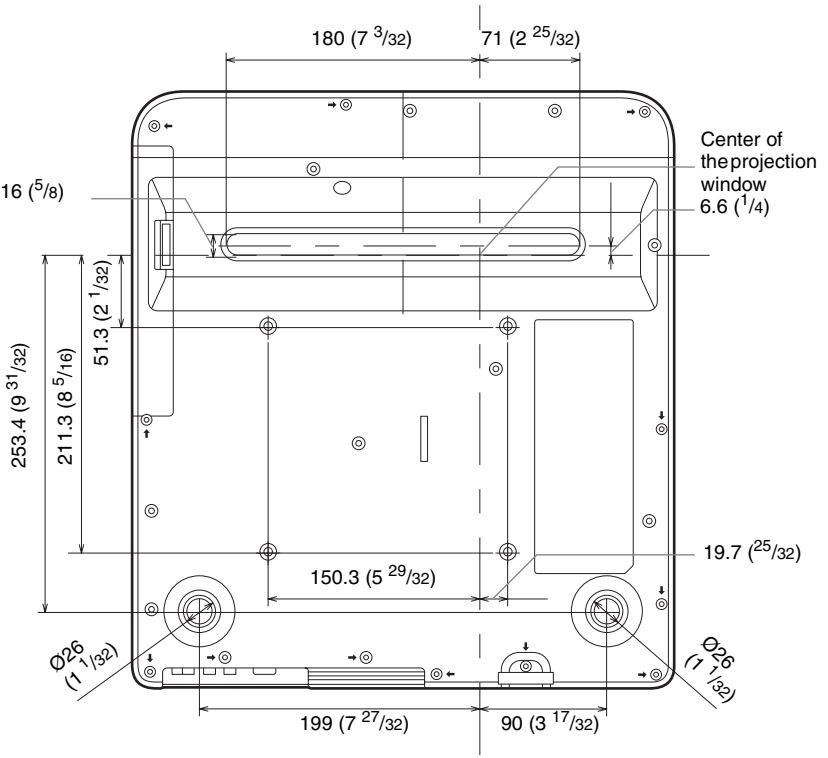
Unit: mm (inches)

Side



Unit: mm (inches)

Bottom

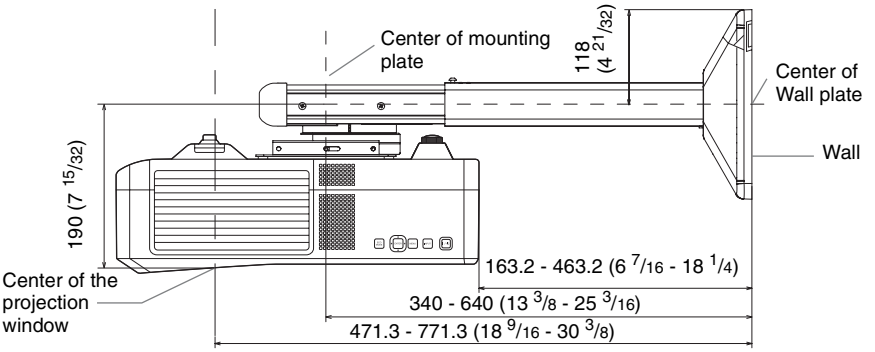


Unit: mm (inches)

Caution

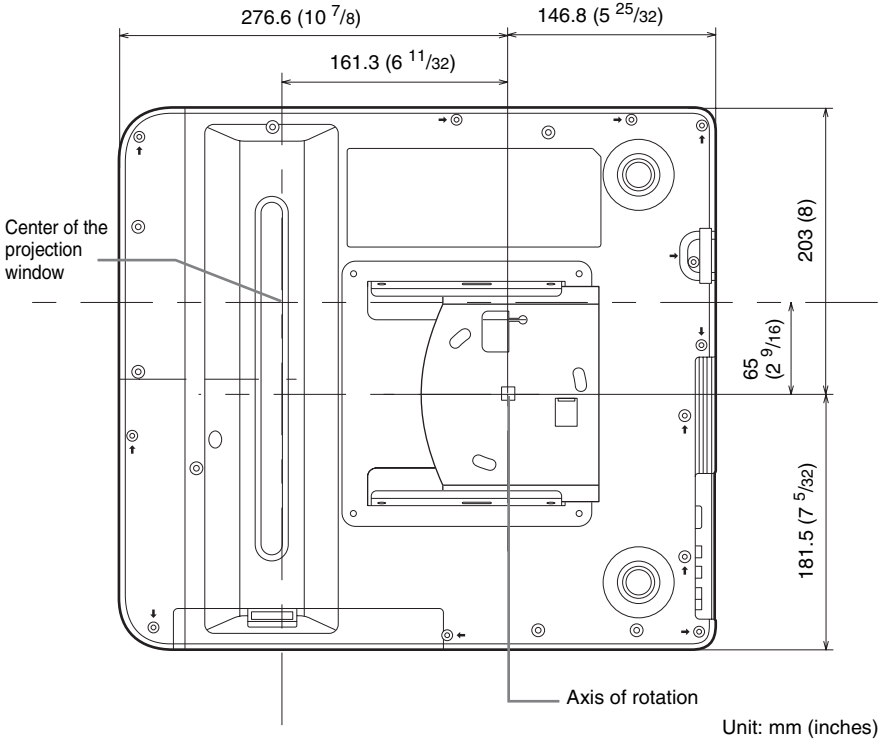
Never mount the projector on the wall or move it by yourself. Be sure to consult with qualified Sony personnel (charged).

Side view when the projector wall mount is set (The arm is fixed with method A. The distance between the center of projector mounting plate and the wall is 340 mm-640 mm. (13 3/8 inches - 25 3/16 inches))



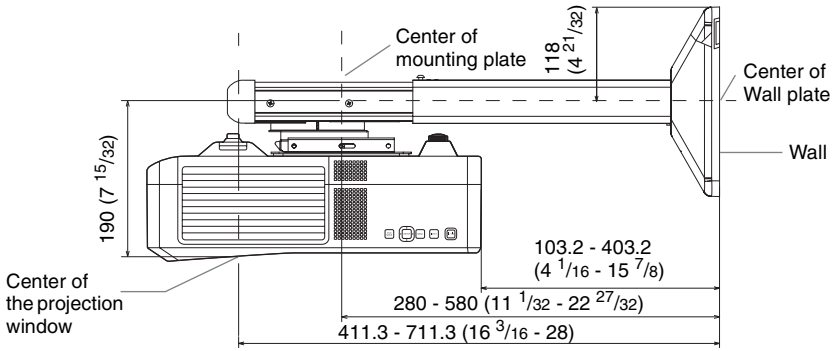
Unit: mm (inches)

Side view when the projector wall mount is set (The arm is fixed with method A. The distance between the center of projector mounting plate and the wall is 340 mm-640 mm. (13 3/8 inches - 25 3/16 inches))



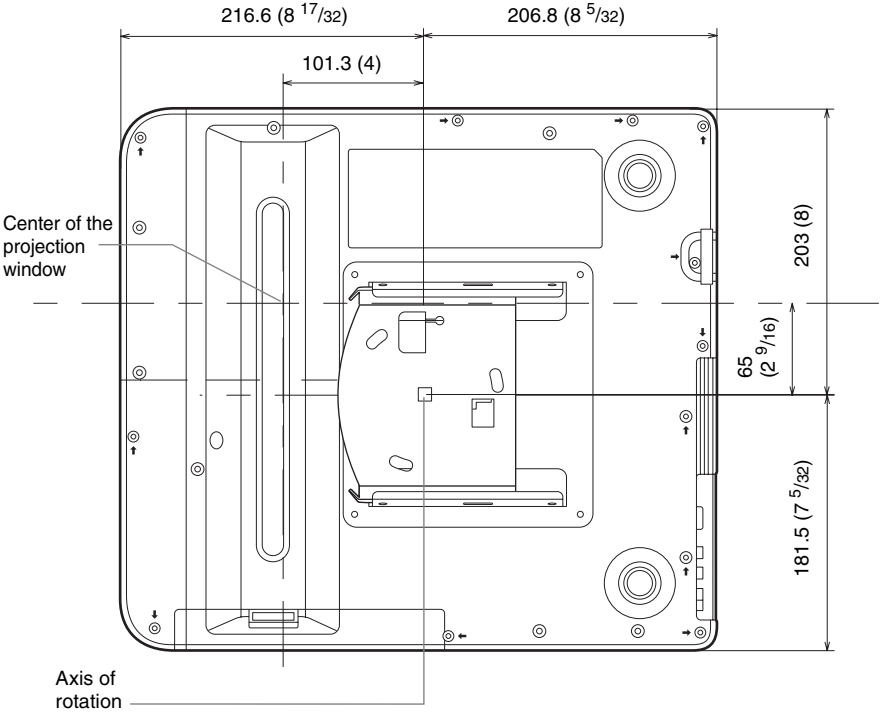
Unit: mm (inches)

Side view when the projector wall mount is set (The arm is fixed with method B. The distance between the center of projector mounting plate and the wall is 280 mm - 580 mm.
(11 1/32 inches - 22 27/32 inches))



Unit: mm (inches)

Bottom view when the projector wall mount is set (The arm is fixed with method B. The distance between the center of projector mounting plate and the wall is 280 mm - 580 mm.
(11 1/32 inches - 22 27/32 inches))



Unit: mm (inches)

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