## **SONY**®

# LCD Data Projector

**Operating Instructions** 

VPL-V800Q VPL-V800QM

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EN

### WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.





This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

### For the customers in the USA

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

#### For customers in Canada

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

#### For the customers in the United Kingdom

#### WARNING

#### THIS APPARATUS MUST BE EARTHED

#### IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow	: Earth
Blue	: Neutral
Brown	: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows: The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol  $\frac{1}{2}$  or coloured green or green-and-yellow. The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

#### Voor de klanten in Nederland



Bij dit produkt zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

The socket-outlet should be installed near the equipment and be easily accessible.

## **Table of Contents**

Overview	
	Precautions
	Features 6 (EN)
	Location and Function of Controls
Setting up and projecting	
	Installing the Projector16 (EN)
	Connecting with a Computer or a VCR 17 (EN)
	Projecting
Adjustments and settings	
using the menu	Using the MENU 21 (EN)
	The INPUT SELECT Menu 22 (EN)
	The PICTURE AUDIO CTRL Menu 23 (EN)
	The INPUT SETTING Menu 25 (EN)
	The SET SETTING Menu 28 (EN)
	The INPUT INFO Menu
Installation/connection	
examples	Installation Examples
•	Floor Installation
	Ceiling Installation
	Connection Examples
	Connecting 15k RGB/Component Equipment 38 (EN)
	Connecting the Switcher 39 (EN)
Maintenance	
	Maintenance 40 (EN)
	Replacing the Lamp
	Cleaning the Air Filter
	Troubleshooting 41 (EN)
Others	
	Specifications 43 (EN)
	Index

### **Precautions**

On safety	
	• Check that the operating voltage of your unit is identical with the voltage of your local power supply. If voltage adaptation is required, consult with qualified Sony personnel.
	<ul> <li>Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it further.</li> <li>Unplug the unit from the wall outlet or set the MAIN POWER switch to</li> </ul>
	<ul> <li>OFF if it is not to be used for several days.</li> <li>To disconnect the cord, pull it out by the plug. Never pull the cord itself.</li> <li>The wall outlet should be near the unit and easily accessible.</li> <li>The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.</li> </ul>
	<ul> <li>Do not look into the lens while the lamp is on.</li> <li>Do not place your hand or objects near the ventilation holes — the air coming out is hot.</li> </ul>
On installation	
	<ul> <li>When the projector is mounted on the ceiling, the Sony PSS-800 Projector Suspension Support must be used for installation.</li> <li>Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains draperies) that may block the ventilation holes. Leave space of more than 30 cm (11 <sup>7</sup>/<sub>8</sub> inches) between the wall and the projector. Be aware that room heat rises to the ceiling; check that the temperature near the installation location is not excessive.</li> <li>Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity, mechanical vibration or shock.</li> <li>To avoid moisture condensation, do not install the unit in a location</li> </ul>

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

### On preventing internal heat build-up

- After turning off the power, the cooling fan runs for about two minutes while the POWER indicator flashes in green. The indicator flashes quickly for the first minute. During that time, you will not be able to turn the power back on with the POWER ON key.
- Do not press the MAIN POWER switch while the fan is still running.

### Caution

The projector is equipped with ventilation holes (intake) at the bottom/ right side and ventilation holes (exhaust) at the front/left side on the rear. Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

### On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Clean the filter at regular intervals.

### On repacking

• Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.



### High brightness, high picture quality

### • High brightness

Adopting the 400 W, metal halide lamp and newly developed optical system allow high brightness (light output 800 of ANSI lumen) and excellent uniformity on the picture.

• High resolution

By using three 1.3-inch VGA<sup>1)</sup> panels, this projector offers resolution of  $640 \times 480$  pixels for RGB input and 500 horizontal TV lines for composite video input.

### • Superior color reproduction

The superior characteristics of the metal halide lamp and the optical design of the projector allow superior color reproduction.

### Accepts various input signals

Adopting the scan converter allows this projector to detect various kinds of inputs automatically and to project suitable picutres, such as the video, component, VGA signal, or horizontal frequencies of 15 to 65 kHz and vertical frequencies of 38 to120 Hz-RGB signal.

### System expandability and versatility

The projector has the RS-422A interface connectors for communication. By combining the optional IFB series interface boards and signal interface switcher, VPL-V800Q/QM projection system can be greatly expanded. This projector also has an index function for using multiple projectors in one system.

### Easy setup

### • Easy setup with external equipment

This projector automatically recognizes the input signal and selects an appropriate display mode from preset data held in the memory. You can get an optimum picture by simply connecting an equipment.

#### • Flexible setup

The picture shift function allows you to install the projector in a wide range of positions, without the worry of keystone distortion (the picture going out of square). The power focus and power zoom functions also let you change the size of the projection screen without having to move the projector.

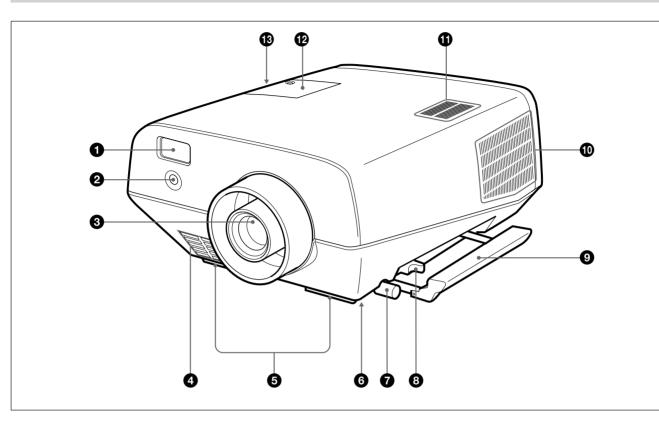
### • Twin-stack compatible

The brightness of the image can be doubled by stacking two projectors.

**6** (EN) 1) VGA is a registered trademark of the International Business Machines Corporation, U.S.A.

### **Location and Function of Controls**

### Front



### **1** Remote Commander pocket

Houses the supplied Remote Commander. When inserting the Remote Commander, make sure the infrared transmitter is facing forwards and push it until it clicks.

To take out the Remote Commander from the pocket, push it once and pull it out.

### **2** Front remote control detector

### **3** Lens

Remove the lens cap before projection.

### **4** Front ventilation holes (intake)

Do not place anything within the 50 cm (19  $^{3}/_{4}$  inches) range from these holes or block them.

### **5** Adjusters

Use the adjusters to keep the projector level if it is installed on an uneven surface.

### **6** Bottom ventilation holes (exhaust)

Do not block the holes.

### **7** Adjuster screw

Adjusts the height of the adjuster.

### **8** Handle lever

Use the lever for putting away the carrying handle.

### **9** Carrying handle

Pull out the handle for carrying the projector.

**(D)** Right side ventilation holes (exhaust) Do not block the holes.

**(**) Speaker

<sup>1</sup> Lamp cover

### **1**3 Left side ventilation holes (intake)

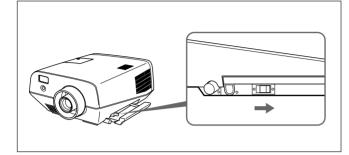
Do not place anything within the 30 cm (11  $^{7}/_{8}$  inches) range from these holes or block them.

### Notes

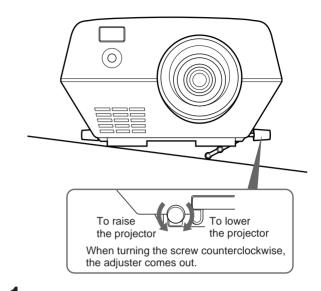
- Do not block the ventilation holes, or internal heat build-up may occur, causing fire or damage to the projector.
- Do not place anything near the ventilation holes or touch these holes as it may cause internal heat buildup.

### Using the carrying handles

Pull out to use for carrying the projector. To put away the handle, slide the handle lever backward.



### Using the adjusters

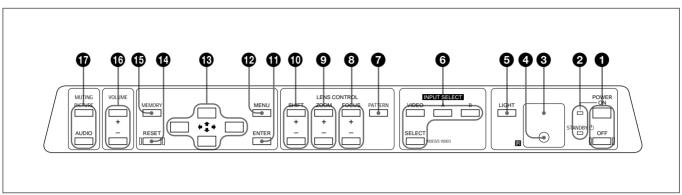


- While lifting the projector, turn the screw counterclockwise. The adjuster comes out.
- **2** Turn the screw to adjust the height so that the projector becomes level.

### Note

Be careful not to let the projector down on your fingers.

### **Control panel**



### **1** POWER keys

**ON :** Press to turn on the power when the projector is in the standby mode. The POWER indicator lights in green when the power is turned on.

**OFF** : Press to turn off the power.

### **2** Indicators

**POWER:** Lights in green when the power is turned on.

Flashes in green while the cooling fan runs after turning off the power with the POWER OFF key. The fan runs for about two minutes after turning off the power.

The POWER indicator flashes quickly for the first minute. During this time, you will not be able to turn the power back on with the POWER ON key.

### **STANDBY**<sup>()</sup>: Lights in red when the MAIN

POWER switch at the rear of the projector is turned on.

Once in the standby mode, you can turn on and off the projector with the POWER ON/OFF keys on the Remote Commander or the control panel.

### Note

When the MAIN POWER switch is turned off, there will be a slight delay before the STANDBY indicator goes off.

### **3** Error code display window

Displays the error codes.

For details on the error codes, see "Error codes" on page 42 (EN).

### Note

When the lamp is warm, it may not light up easily. In this case, BB appears in the error code display window, but this is not malfunction.

If  $\square$  remains lit for more than three minutes after turning on the power, never open the lamp cover if the projector is installed on the ceiling.

**4** Rear remote control detector

### **5** LIGHT key

Lights the back lighting for the keys on the control panel when the projector is turned on. Press again to turn off the back lighting. If you do not press any key for 30 seconds, back lighting turns off automatically.

### **6** INPUT SELECT keys

Select the input signal.

- **VIDEO:** Selects the video signal input from the VIDEO or S VIDEO connectors and the audio signal input from the AUDIO IN L/R jacks. To switch the S VIDEO and VIDEO connectors, use the SELECT key.
- **SELECT:** Each time you press this key, the input video signal is switched between the VIDEO and S VIDEO connectors.
- A: Selects the audio and video signals input from the INPUT A connectors.
- **B:** Selects the signal input from the connectors on the optional interface board (other than IFB-40) which is installed in the INPUT B section.

### **7** PATTERN key

Displays an H pattern on the screen for focus, zoom, and shift adjustments. Press again to clear the H pattern.

(Continued)



### **8** FOCUS +/- keys

Adjusts the focus. + : Picture focuses forward. - : Picture focuses farther back.

### **9** ZOOM +/- keys

Adjusts the zoom.

- +: Picture size is enlarged.
- -: Picture size is reduced.

### **1** SHIFT +/- keys

Adjusts the vertical position of the picture.

- +: Picture moves upward.
- -: Picture moves downward.

### **1** ENTER key

Press to enter the settings of items in the menu system.

### <sup>1</sup> MENU key

Press to display the on-screen menu. Press again to clear the menu.

### ③ Arrow keys (★/★/★ /★)

Used to move the on-screen cursor or to make various adjustments.

### RESET key

Press to restore the value of an item back to its factory preset value. This key functions when the menu or a setting item is displayed on the screen.

### **(b** MEMORY key

Stores various adjustment data into memory.

### **1** VOLUME +/- keys

Adjust the volume of the built-in speaker and output level of the AUDIO OUT jacks.

+ : Increases the volume.

-: Decreases the volume.

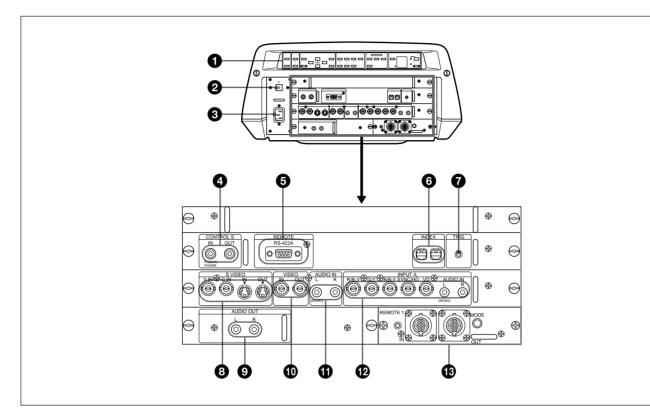
### **1** MUTING keys

Cuts off the picture or sound temporarily.

**PICTURE:** Press to cut off the picture. Press again to restore the picture.

**AUDIO:** Press to cut off the sound. Press again or press the VOLUME + key to restore the sound.

### Rear



### 1 Control panel

You can turn the control panel by 180 degrees when installing the projector upside-down, such as for ceiling installation. For details, consult with qualified Sony personnel.

For details on the control panel key arrangement, see "Control panel" on pages 9 (EN) and 10 (EN).

### **2** MAIN POWER switch (**\_ON/\_OFF**)

Turns the main power on and off.

### **3** AC IN socket

Connect the supplied AC Power cord.

### **4** CONTROL S IN/OUT jacks (stereo minijack)

Connect to the control S jacks of other Sony equipment.

**CONTROL S IN/PLUG IN POWER (DC 5 V output) jack:** Connects to the CONTROL S OUT jack of the supplied Remote Commander when using as a wired Remote Commander. In this case, you do not need to install the batteries in the Remote Commander, since the power is supplied from this jack.

**CONTROL S OUT jack:** Outputs the control S signal.

### Note

When connecting the remote commander cable to the CONTROL S IN jack, the remote control detectors will not work.

## **5** REMOTE RS-422A connector (D-sub 9-pin, female)

Connect to a computer to operate the projector from a computer. This expands system capability via the RS-422A interface. Before using this connector, remove the red cap attached at the factory.

### **6** INDEX switches

Set the index number of the projector when using multiple projectors. You can set the numbers between "01" and "99". It is set to "01" at the factory.

### Notes

- Do not set the index number to "00". If it is set to "00", the projector cannot be controlled with the Remote Commander.
- Do not set the index number to "9" if you use the supplied Remote Commander for controlling the projector.

(Continued) 11 (EN)



**7** TRIG (trigger output) jack (monaural minijack)

The signal is transmitted from this jack to the connected equipment whether the projector is on or off. (This is not a power source for external equipment.) A singal of approximately 5 V DC is output when the projector power is on. The signal is not output when the projector power is off.

### **8** S VIDEO connectors

Connect to external video equipment, such as a VCR. The OUT connector can be used as loop-through output via the Y/C IN or IN connectors.

- Y IN/C IN (BNC-type): Connect to the Y and C video outputs of the video equipment.
- **IN (mini DIN 4-pin):** Connects to the Y/C video output of the video equipment.
- **OUT (mini DIN 4-pin):** Used as loop-through output via the Y/C IN connectors or the IN connector.

### Note

If you have video equipment connected to both the Y/ C IN and IN connectors, the signal from the Y/C IN connectors are selected prior to the IN connector. When showing a video connected to the IN connector, be sure not to connect any cable to the Y/C IN connectors.

### **9** AUDIO OUT L/R jacks (phono type)

Connect to external active speakers.

The volume of the speakers can be controlled by the VOLUME keys on the Remote Commander or the control panel.

### **WIDEO connectors (BNC-type)**

Connect to external video equipment, such as a VCR. The VIDEO OUT connector can be used as loopthrough output via the VIDEO IN connector.

- **IN:** Connects to the composite video output connector of the video equipment.
- **OUT:** Used as loop-through output of the VIDEO IN connector.

### **(1)** AUDIO IN L (MONO) /R jacks (phono type)

Connect to the audio output jacks of equipment. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

### **12** INPUT A connectors

**RGB input connectors (R/R-Y, G/Y, B/B-Y, SYNC/HD, VD) (BNC-type):** Connect to such as the video outputs of a computer or a video camera. According to the connected equipment, the RGB or component (R-Y, Y, B-Y) signal is selected.

AUDIO IN L (MONO) /R jacks (phono type): Connect to the audio output jacks of equipment. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.

## Signal interface board attachment part (INPUT B)

The IFB-40 Signal Interface Board is installed at the factory. Other optional signal interface boards can be attached to this section instead of the IFB-40. *For details on installing the interface boards, consult with qualified Sony personnel.* 

- **Indicator (red):** Lights up when the REMOTE 1 IN connector is selected.
- **REMOTE 1 IN connector (14-pin multiconnector):** Connect to the optional signal interface switcher. When using two projectors and this unit is used as the first one, connect to the REMOTE 1 OUT connector on the IFB-40 installed on the other projector.
- **REMOTE 1 OUT connector (14-pin multiconnector):** Connect to the REMOTE 1 IN connector on IFB-40 installed on another projector when using two projectors and this unit is used as second one.
- **MODE selector:** Turn the control switch of the MODE selector to the appropriate position according to the length of the cable connecting to the REMOTE 1 OUT connector.

Cable length	up to 2 m	up to 10 m	up to 25 m	up to 50 m
Type of cable		CCQ-5BRS	SIC-M-15 CCQ-25BRS SIC-M-25	SIC-M-50 CCQ-50BRS
Position	1	2	3	4

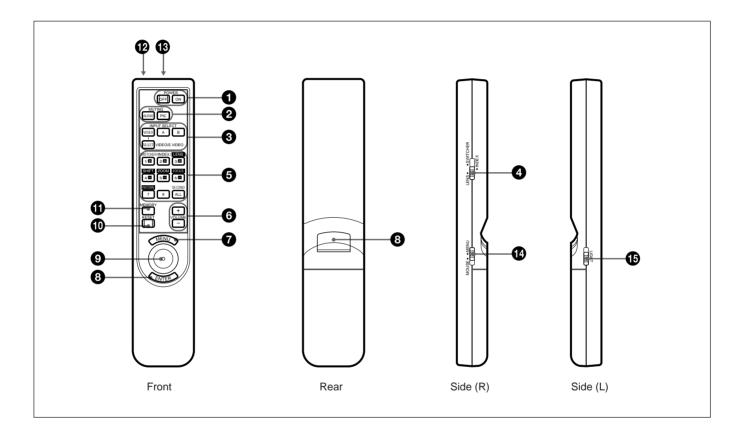
### **Remote Commander**

The Remote Commander can be used as a wireless or wired Remote Commander. The functions of the keys on the Remote Commander are the same as those on the control panel of the projector.

*For details on control panel keys on the projector, see pages 9 (EN) and 10 (EN).* 

If you use the optional RM-PJ20/PJ21 Mouse Receiver, you can use the Remote Commander as a mouse for a connected computer.

For details, refer to the instruction manual supplied with the RM-PJ20/PJ21 Mouse Receiver.



### **1** POWER ON/OFF keys

### **2** MUTING PIC/AUDIO keys

The MUTING PIC key has the same function as the MUTING PICTURE key on the control panel.

### **3** INPUT SELECT/ VIDEO/A/B/SELECT keys

### **4** SWITCHER/INDEX/LENS selector

Switches the function of the SWITCHER/INDEX/ LENS keys.

- **SWITCHER:** For designating the input from the optional switcher.
- **INDEX:** For selecting the projector to be operated when multiple projectors are used in one system.
- **LENS:** For adjsting the focus, zoom, shift, and displaying or clearing the H pattern.

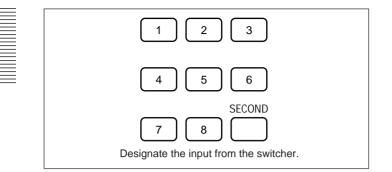
### **5** SWITCHER/INDEX/LENS keys

These keys function as follows depending on the position of the SWITCHER/INDEX/LENS selector.

### When the SWITCHER/INDEX/LENS selector is set to SWITCHER position

Designate the input from the switcher when the optional signal interface switcher is connected. The SECOND key is used when two switchers are connected. To select the input from the second switcher, press a number key between 1 and 8 within two seconds after pressing the SECOND key.

(Continued)

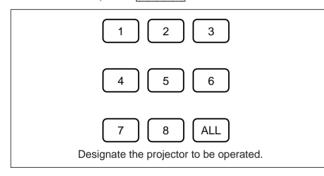


### When the SWITCHER/INDEX/LENS selector is set to INDEX

Used to designate the projector to be operated when multiple projectors are used in one system.

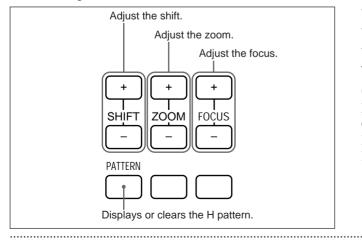
You can designate the projector by pressing the index number which you have set on the projector.

**Example:** When pressing 5 first and then ENTER, the next operation will be effective only on the projector on which the index number has been set to "5". When operating all the projectors at the same time, press ALL first, then **ENTER**.



### When the SWITCHER/INDEX/LENS selector is set to LENS

Used to adjust focus, zoom, shift and to display or clear the H pattern on the screen.



6 VOLUME +/- keys

7 MENU kev

**8** ENTER keys

### **9** Joy stick

Used to move the on-screen cursor or to make various adjustments.



**(1)** MEMORY key

### **CONTROL S OUT jack (stereo minijack)**

Connect to the CONTROL S IN jack on the projector when using the Remote Commander as a wired Remote Commander. In this case, you do not need to install the batteries since the power is supplied from the CONTROL S IN jack on the projector.

### **B** Infrared transmitter

### **1** MOUSE/MENU switch

Normally, set to MENU. Set to MOUSE when you operate the mouse function of a computer connected to the optional RM-PJ20/PJ21 Mouse Receiver from the Remote Commander.

When the MOUSE/MENU switch is set to MOUSE, the MENU, ENTER keys, and joy stick function as follows.

Key Function		nction
	IBM PC/AT <sup>1)</sup>	Macintosh4)
	compatible, NEC <sup>2), 3</sup>	3)
MENU	Left button	Mouse button
ENTER (front)	Right button	Mouse button
ENTER (rear)	Right button	Mouse button
Joy stick	Corresponds with the r	movements of the mous

### **1** LIGHT switch

Lights the back lighting for the keys on the Remote Commander. Press again to turn off the back lighting. If you do not press any key for 30 seconds, back lighting turns off automatically.

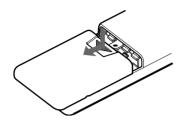
1) IBM PC/AT is a registered trademark of International Business Machines Corporation, USA.

- 2) NEC is a registered trademark of NEC Corporation.
- 3) RM-PJ21 does not function with NEC computers.

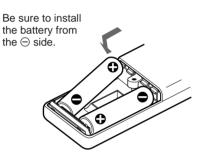
14 (EN) 4) Macintosh is a registered trademark of Apple Computer, Inc.

### **Battery installation**

**1** Push and slide to open the lid.



**2** Install the two size AA (R6) batteries (supplied) with the correct polarity.



**3** Replace the lid.

### Notes on batteries

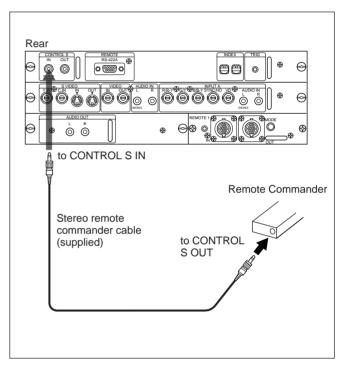
- Be careful that the battery orientation is correct when inserting batteries.
- Do not mix old battery with new one, or different types of batteries.
- If you do not intend to use the Remote Commander for a long time, remove the batteries to avoid damage from battery leakage. If a battery has leaked, remove the batteries, wipe the battery compartment dry and replace the batteries with new ones.

### Notes on wireless Remote Commander operation

- Be sure that there is nothing to obstruct the infrared beam between the Remote Commander and the projector.
- The operation range is limited. The shorter the distance between the Remote Commander and the projector, the wider the angle within which the commander can control the projector.

• The remote control detectors on the projector do not operate when connecting the remote commander cable to the CONTROL S IN jack. If you wish to use the Remote Commander as a wireless Remote Commander, be sure to remove the remote commander cable from both the Remote Commander and the projector.

## To connect the Remote Commander to the projector



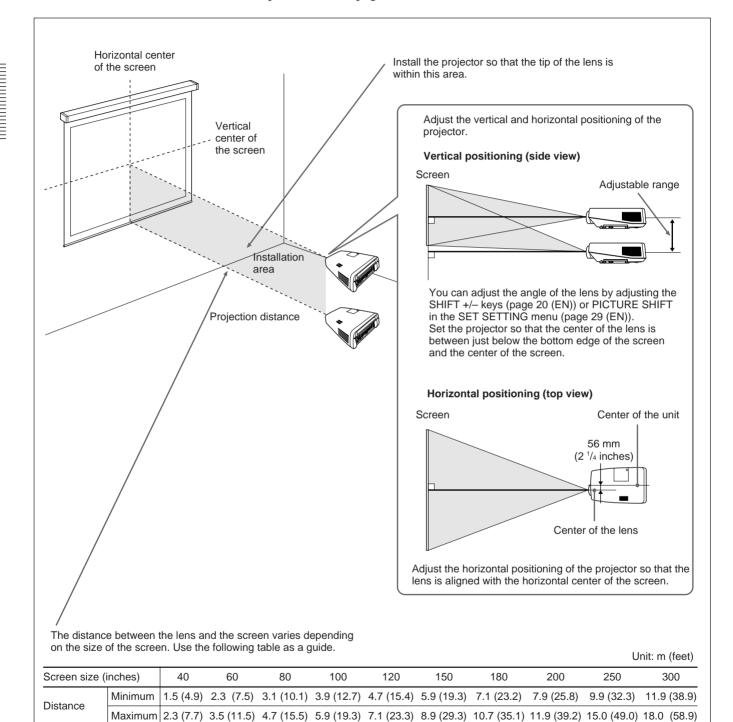
# Note on wired Remote Commander operation using the supplied stereo remote commander cable

If the MOUSE/MENU switch is set to MENU to operate the projector, you do not need to install the batteries since the power is supplied from the CONTROL S IN jack on the projector. In this case, the batteries are not consumed.



### **Installing the Projector**

This section describes the installation arrangements for installing the projector on a table. For ceiling installation, consult with qualified Sony personnel (see page 36 (EN)).



For detailed information on installation measurements, see page 35 (EN).

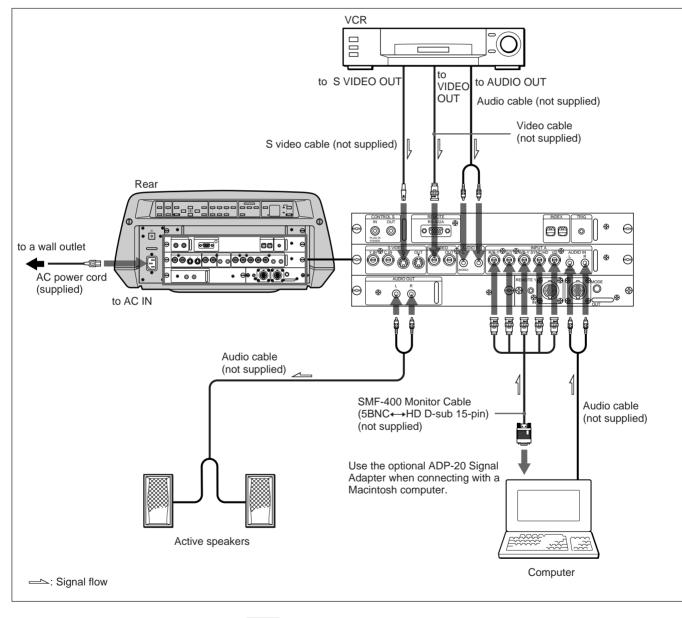
### Connecting with a Computer or a VCR

This section describes how to connect the projector with a computer, VCR, and external active speakers. For details on how to connect other equipment, see pages 37 (EN) to 39 (EN).

Also refer to the instruction manuals of the equipment to be connected.

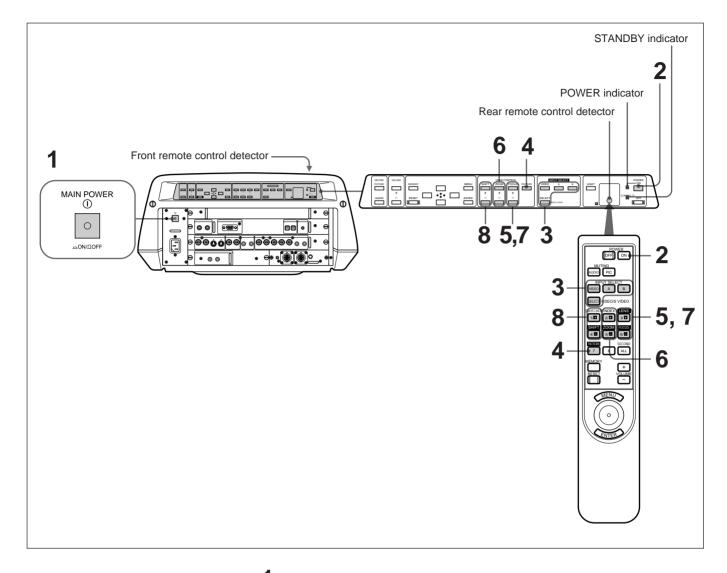
### When making connections, be sure to:

- turn off all equipment before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted often generate noise. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.



### Note

Set the INPUT-A item in the SET SETTING menu to RGB. *For details, see page 30 (EN).* 



**1** Press the MAIN POWER switch on the rear of the projector (**–** ON).

The STANDBY indicator lights in red and the projector goes into the standby mode.

**2** Press the POWER ON key on the Remote Commander or the control panel.

The POWER indicator lights in green.

- **3** Switch on equipment connected to the projector. Press the INPUT SELECT keys on the Remote Commander or the control panel to select the input source.
  - **VIDEO:** Selects the video signal input from the VIDEO or S VIDEO connectors and the audio signal input from the AUDIO IN L/R jacks. To switch the VIDEO or S VIDEO connectors, use the SELECT key.
  - **SELECT:** Each time you press this key, the input signal is switched between VIDEO and S VIDEO.
  - A: Selects the audio and video signals input from the INPUT A connectors.
  - **B:** Selects the signal input from the connectors on the optional interface board (other than IFB-40) which is installed in the INPUT B section.

When you input the signal from equipment connected to the optional signal interface switcher, set the SWITCHER/INDEX/LENS selector on the Remote Commander to the SWITCHER position and designate the channel number by pressing the number keys.

**4** Set the SWITCHER/INDEX/LENS selector to the LENS position, and then press the PATTERN key on the Remote Commander or the control panel to display the H pattern.

нннн		нннн
	нннн нннн	
нннн		нннн нннн

Press the PATTERN key again to clear the H pattern.

**5** Press the FOCUS +/- key on the Remote Commander or the control panel to adjust the focus.

"FOCUS" appears on the screen during adjustment.

6 Press the ZOOM +/- key on the Remote Commander or the control panel to adjust the zoom.

"ZOOM" appears on the screen during adjustment.

Press the FOCUS +/- key on the Remote Commander or the control panel again to adjust the focus.

"FOCUS" appears on the screen during adjustment.

(Continued)

**8** Press the SHIFT +/- key on the Remote Commander or the control panel to adjust the vertical position of the picture.

"PICTURE SHIFT" appears on the screen during adjustment.

То	Press	
Adjust the volume	the VOLUME +/- keys.	
Cut off the sound	the AUDIO MUTING key (also cut off the signal output from the AUDIO OUT jacks.) To restore the sound, press the AUDIO MUTING key again or press the VOLUME + key.	
Cut off the picture	the PICTURE MUTING key (PIC MUTING key on the Remote Commander). To restore the picture, press the PICTURE MUTING key again.	

### Notes

- Do not look into the lens when the projector lamp is on.
- When you adjust the focus, zoom, and shift with the Remote Commander, be sure to set the SWITCHER/INDEX/LENS selector to the LENS position.

### To turn off the power

**1** Press the POWER OFF key on the Remote Commander or the control panel.

The POWER indicator flashes in green and the cooling fan keeps running for about two minutes to reduce the internal heat. The POWER indicator flashes quickly for the first minute. During this time, you will not be able to turn the power back on. After about one minute, you can turn on the power with the POWER ON key.

2 Wait until the fan stops running and the STANDBY indicator lights in red; then press the MAIN POWER switch to turn off the main power (▲ OFF).

### Notes

- Do not press the MAIN POWER switch while the fan is still running; the fan will stop while the lamp is still hot, leading to breakdown.
- To make the lamp life last longer, do not turn off the power at least for about 10 minutes after turning on the power.

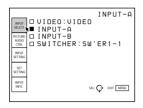
The projector is equipped with an on-screen menu for making various adjustments and settings. Adjustable items are displayed in green.

### To select the language used in the menu, see page 30 (EN).

Press the MENU key.

1

The menu display appears. The menu presently selected is highlighted in blue.



2 Use the ♠ or the ♥ key on the control panel to select a menu, then press the ➡ or the ENTER key. On the Remote Commander, move the joy stick up or down to select a menu, then move it to the right or press the ENTER key.

The selected menu appears.

Menus Setting items

	INPUT-A
INPUT	CONTRAST ####################################
SELEC	BRIGHT ####### 50
PICTUR	
CTRL	
INPUT	SHARP
SETTIN	D.PICTURE:ON
SET	COLOR SYS:AUTO
SETTIN	© UOLUME
INPUT	
INFO.	SEL: SET: C/ ENTER DAT: MENU
	-

3

Make setting or adjustment on an item. For details on setting individual items, see the relevant menu pages.

### To clear the menu display

Press the MENU key. The menu display also disappears automatically if no key is pressed for one minute.

### To reset settings that have been adjusted

Press the RESET key. "RESET complete!" appears on the screen and the settings appearing on the screen will be reset to their factory preset values.

### Items that can be reset are as follows:

"CONTRAST", "BRIGHT", "COLOR", "HUE", "SHARP", "DOT PHASE", "SIZE", and "SHIFT".

### About the memory of the settings

The settings are automatically stored in the projector memory. Also, every time you press the MEMORY key on the Remote Commander or the control panel, the settings are stored in the projector memory automatically. The INPUT SELECT menu is used for selecting the input signal.



### Operation

Use the  $\blacklozenge$  or the  $\clubsuit$  key on the control panel to select the input, then press the ENTER key.

On the Remote Commander, move the joy stick up or down to select the input, press the ENTER key.

### VIDEO

Selects the video signal input from the VIDEO or S VIDEO connectors and the audio signal input from the AUDIO IN L/R jacks.



Press the  $\Rightarrow$  key so that the following pop-up menu appears.

INPUT SELECT PICTURE AUDIO CTRL	VIDEO □ INPUT <u>DS-VIDEO</u> □ INPUT <u>DS-VIDEO</u> □ INPUT-B □ SWITCHER: SW'ER1-1
INPUT SETTING	
SET SETTING	
INPUT INFO.	SEL: Q SET: O/ ENTER EXIT: MENU

Use the  $\blacklozenge$  or the  $\clubsuit$  key on the control panel to select the input, then press the ENTER key.

On the Remote Commander, move the joy stick up or down to select the input, then press the ENTER key. If you select S-VIDEO when you have video equipment connected to both the Y IN/C IN and IN connectors, the signals from the Y IN/C IN connectors are selected.

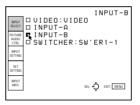
### **INPUT-A**

Selects audio and video signals input from the INPUT A connectors.



### INPUT-B

Selects the signal input from the connectors on the optional interface board (other than IFB-40) which is installed in the INPUT B section.



### SWITCHER

Selects the signal from equipment connected to the optional signal interface switcher.



Press the  $\Rightarrow$  key so that the following pop-up menu appears.

INPUT SELECT PICTURE AUDIO CTRL INPUT SETTING	SW'ERI-1 □ VIDEO: VIDESW'ERI-1 □ INPUT-A SSW'ERI-2 □ INPUT-B SSW'ERI-3 SWITCHER SSW'ERI-4 □SSW'ERI-5 □SSW'ERI-6 □SSW'ERI-6 □SSW'ERI-7
INPUT INFO.	

Use the  $\blacklozenge$  or the  $\clubsuit$  key on the control panel to select the input, then press ENTER key.

On the Remote Commander, move the joy stick up or down to select the input, then press the ENTER key.

The PICTURE AUDIO CTRL menu is used for adjusting the picture and volume. Adjustable items are displayed in green.

	I	VIDEO
INPUT	CONTRAST IIIIIIIIIII	⊪… 80
SELECT	□ BRIGHT IIIIIIIII	50
PICTURE	COLOR IIIIIIII	50
CTRL	U HUE	50
INPUT	Î□SHARP IIIIIIIII	50
SETTING	D.PICTURE:ON	
SET	COLOR SYS:AUTO	
SETTING	UVOLUME IIIIIIIII	50
INPUT		
INFO.	SEL: 🗘	EXIT: MENU



### 1. Select an item

Use the  $\blacklozenge$  or the  $\blacklozenge$  key on the control panel to select the item, then press the  $\blacklozenge$  or the ENTER key. On the Remote Commander, move the joy stick up or down to select the item, then move it to the right or press the ENTER key.

### 2. Adjust an item

 When changing the adjustment level: To increase the number, press the ↑ or the → key.

On the Remote Commander, move the joy stick up or to the right.

To decrease the number, press the  $\blacklozenge$  or the  $\blacklozenge$  key. On the Remote Commander, move the joy stick down or to the left.

Press the ENTER key to restore the original screen.

• When changing the setting:

Press the  $\blacklozenge$  or the  $\clubsuit$  key on the control panel to change the setting, then press the  $\blacklozenge$  or the ENTER key.

On the Remote Commander, move the joy stick up or down to change the setting, then move it to the left or press the ENTER key.

### CONTRAST

Adjusts the picture contrast.



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

### BRIGHT

Adjusts the picture brightness.



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

### COLOR

Adjusts color intensity.



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

### HUE

Adjusts skin tones.



At high settings, the picture becomes greenish. At low settings, the picture becomes purplish.

### SHARP

Adjusts the picture sharpness.



The higher the setting, the sharper the picture. The lower the setting, the softer the picture.

(Continued)

### D. (Dynamic) PICTURE

Emphasizes the black color.

UIDEO           Import         CONTRAST           BRIGHT         BRIGHT           Import         COLOR           Import         COLOR           Import         COLOR           Import         SHARP           Import         D.PICTURE           Import         D.PICTURE           Import         UVDLUME           Import         SUFF           Import         SUFF           Import         SUFF           Import         VOLUME           Import         SUFF           Import         SUFF
--

**ON:** Emphasizes the black color to produce a bolder "dynamic" picture.

**OFF:** Reproduces the dark portions of the picture accurately, in accordance with the source signal.

### COLOR SYS (System)

Selects the color system of the input signal.

BRIGHT RUNE ALADO COL OR HUE SHARP STINE D. PICTURE: STINE COLOR SYS: STINE VOLUME	
---	--

Normally, set to AUTO.

If the picture is distorted or colorless, select the color system according to the input signal.

### VOLUME

Adjusts the volume.



The higher the setting, the higher the volume. The lower the setting, the lower the volume.

## Items that cannot be adjusted depending on the types of input signal

ltem	Cannot be adjusted with
COLOR	RGB signal, black and white signal
HUE	Input signal other than NTSC <sup>1)</sup> 3.58/4.43
SHARP	RGB signal
D. PICTURE	RGB signal
COLOR SYS	Signal input from INPUT A connectors

24 (EN) 1) NTSC4.43 is the color system used when playing back a video recorded on NTSC on a NTSC4.43 system VCR.

The INPUT SETTING menu is used to adjust the input signal. Adjustable items are displayed in green. <page 1>

I NPUT-A
🗆 DOT PHASE:64
🗆 SIZE
H:800 V:156
🗆 SHIFT
H:2000 V:2000
🗆 H FILTER:ON
□ V FILTER:OFF
🗆 CLAMP:AUTO
▼
SEL: 🛟 EXIT: MENU

<page 2>

INPUT SELECT PICTURE	▲ INPUT-A ■ COLOR TEMP:HIGH □ SIG PROCESS:FRAME
AUDIO CTRL INPUT SETTING	
SET SETTING	RESET: RESET
INPUT INFO.	

The INPUT SETTING menu consists of two pages. To change the page, press the  $\checkmark$  or the  $\blacklozenge$  key until the page changes when selecting an item.

On the Remote Commander, move the joy stick up or down until the previous or next page changes when selecting an item.

### Operation

### 1. Select an item

Use the  $\blacklozenge$  or  $\blacklozenge$  key on the control panel to select the item, then press the  $\blacklozenge$  or the ENTER key.

On the Remote Commander, move the joy stick up or down to select the item, then move it to the right or press the ENTER key.

### 2. Adjust an item

• When changing the adjustment level:

To increase the number, press the  $\blacklozenge$  or the  $\blacklozenge$  key. On the Remote Commander, move the joy stick up or to the right.

To decrease the number, press the  $\blacklozenge$  or the  $\blacklozenge$  key. On the Remote Commander, move the joy stick down or to the left.

Press the ENTER key to restore the original screen.

• When changing the setting:

Press the  $\blacklozenge$  or the  $\clubsuit$  key to change the setting and press the  $\blacklozenge$  or the ENTER key.

On the Remote Commander, move the joy stick up or down to change the setting, then move to the left or press the ENTER key.

The original screen is restored.

### DOT PHASE

Adjusts the dot phase of the LCD panel and the signal when H FILTER is set to OFF.

Adjust the value to obtain the clearest picture.

DOT	PHASE:	64	

### SIZE

Adjusts the horizontal size of pictures.



As the setting for H increases, the horizontal size of the picture becomes larger, and as the setting decreases, the size becomes smaller.

As the setting for V increases, the vertical size of the picture becomes larger, and as the setting decreases, the size becomes smaller.

Use the  $\blacklozenge$  or the  $\blacklozenge$  key to adjust the horizontal size and the  $\blacklozenge$  or the  $\blacklozenge$  key for the vertical size.

(Continued)

### SHIFT

Adjusts the position of the picture.



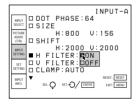
H adjusts the horizontal position of the picture. V adjusts the vertical position of the picture.

As the setting for H increases, the picture moves to the right, and as the setting decreases, the picture moves to the left.

As the setting for V increases, the picture moves up, and as the setting decreases, the picture moves down. Use the  $\blacklozenge$  or the  $\blacklozenge$  key to adjust the horizontal position and the  $\blacklozenge$  or the  $\blacklozenge$  key for the vertical position.

### **H FILTER**

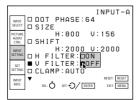
Corrects the vertical bands that appear on the picture.



These vertical bands may occur when an RGB signal which horizontal resolution is other than 640 dots is input. In such cases, set to ON. The picture will loose some clarity, but the vertical bands will be reduced. Set to OFF to associate a dot of the input signal with a pixel of the LCD.

### **V FILTER**

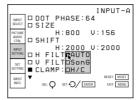
Corrects the horizontal bands that appear on the picture.



These horizontal bands may occur when an RGB signal which vertical resolution is other than 480 dots is input. In such cases, set to ON. The picture will loose some clarity, but the horizontal bands will be reduced. Set to OFF to associate a dot of the input signal with a pixel of the LCD.

### CLAMP

Corrects the luminance of the picture.



CLAMP is used as a standard for setting the black level of a picture correctly. The standard position of the clamp depends on the kind of sync signal being used. Normally, the projector CPU judges the signal and sets the position automatically. However, the CPU can misjudge the signal because of noise. If the luminance of the picture seems to be incorrect (too dark, the black color is too light, or the luminance is unstable) the clamp position may need to be changed.

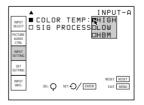
- **AUTO:** Automatic setting mode. Normally set to this position.
- **SonG:** Set to this position if the black seems too light or greenish.
- **H/C:** Set to this position if the picture is too dark or luminance is unstable.

### Note

If the luminance is still incorrect after changing the clamp setting, check the input signal and the connections.

### **COLOR TEMP**

Adjusts the color temperature.



HIGH: Makes the white color bluish.

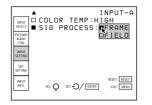
LOW: Makes the white color reddish.

**HBM (High Brightness Mode):** Reproduces a picture with high brightness.

26 (EN)

### SIG PROCESS

Selects the conversion format from the frame format or field format when the signal is input.



- **FRAME:** Selects the frame format. This position is suitable for a still picture.
- **FIELD:** Selects the field format. This position is suitable for a moving picture.

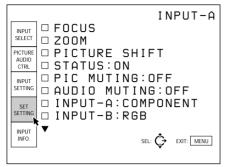
## Items that cannot be adjusted depending on the types of input signal

ltem	Cannot be adjusted with
DOT PHASE	Signal input from VIDEO IN connectors, component input signal (15k), 15k RGB Singal input
H FILTER	Signal input from VIDEO IN connectors, component input signal (15k), 15k RGB singal input
V FILTER	Signal input from VIDEO IN connectors, component input signal (15k), 15k RGB singal input
CLAMP	Signal input from VIDEO IN connectors, component input signal (15k)
SIG PROCESS	RGB singal input other than 15 kHz one

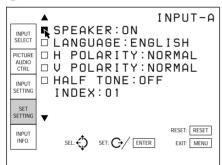
27 (EN)

The SET SETTING menu is used for changing the set settings of the projector. Adjustable items are displayed in green.

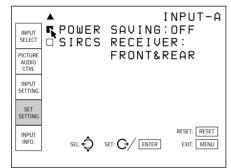
### <page 1>



### <page 2>



### <page 3>



The SET SETTING menu consists of three pages. To change the page, press the  $\clubsuit$  or the  $\clubsuit$  key until the page changes when selecting an item.

On the Remote Commander, move the joy stick up or down until the previous or next page appears when selecting an item.

### Operation

### 1. Select an item

Use the  $\blacklozenge$  or the  $\clubsuit$  key on the control panel to select the item, then press the  $\blacklozenge$  or the ENTER key. On the Remote Commander, move the joy stick up or down to select the item, then move it to the right or press the ENTER key.

### 2. Adjust an item

When changing the adjustment level: To increase the number, press the ↑ or the → key. On the Remote Commander, move the joy stick up or to the right. To decrease the number, press the ↓ or the ↓ key. On the Remote Commander, move the joy stick down or to the left.

Press the ENTER key to restore the original screen.

• When changing the setting:

Press the  $\blacklozenge$  or the  $\clubsuit$  key to change the setting, then press the  $\blacklozenge$  or the ENTER key.

On the Remote Commander, move the joy stick up or down to change the setting and move it to the left or press the ENTER key to restore the original screen.

### FOCUS

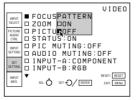
Adjusts the focus.

When selecting this item, you can display the H pattern on the screen for fine adjustment.

Press the 

 or the ENTER key while the FOCUS item is selected.

On the Remote Commander, move the joy stick to the right or press the ENTER key.



2 Select ON using the  $\blacklozenge$  or the  $\blacklozenge$  key to display the H pattern.

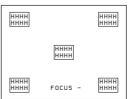
On the Remote Commander, move the joy stick up or down to select ON.

When you do not use the H pattern, set to OFF.

**3** Press the  $\rightarrow$  or the ENTER key.

On the Remote Commander, move the joy stick to the right or press the ENTER key.

The H pattern appears on the screen.



Adjust the focus with the ♠, ♥ or the ➡, ♠ key.
 On the Remote Commander, move the joy stick up, down or to the right, left.



### ZOOM

Adjusts the zoom.



When selecting this item, you can display the H pattern on the screen for fine adjustment. The procedure to display the H pattern is the same as the FOCUS item.

To zoom in, press the  $\blacklozenge$  or the  $\blacklozenge$  key.

On the Remote Commander, move the joy stick up or to the right.

To zoom out, press the  $\clubsuit$  or the  $\blacklozenge$  key.

On the Remote Commander, move the joy stick down or to the left.

### **PICTURE SHIFT**

Adjusts the vertical position of the picture.



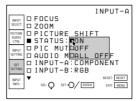
When selecting this item, you can display the H pattern on the screen for fine adjustment. The procedure to display the H pattern is the same as the FOCUS item.

To move the picture up, press the  $\blacklozenge$  or the  $\blacklozenge$  key. On the Remote Commander, move the joy stick up or to the right.

To move the picture down, press the  $\blacklozenge$  or the  $\blacklozenge$  key. On the Remote Commander, move the joy stick down or to the left.

### STATUS (on-screen display)

Sets up the on-screen display.



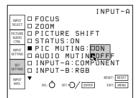
**ON:** Shows all of the on-screen displays.

- **OFF:** Turns off the on-screen displays except for "NO INPUT," "PIC/AUDIO MUTING," and warning messages.
- ALL OFF: Turns off all of the on-screen displays except for warning messages.

### PIC MUTING

Set to ON to cut off the picture.

When set to ON, "PIC MUTING" appears on the screen.



### **AUDIO MUTING**

Set to ON to cut off the sound. When set to ON, "AUDIO MUTING" appears on the screen.

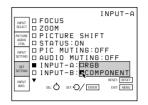
	INPUT-A
INPUT	
SELECT	🗆 ZOOM
PICTURE	D PICTURE SHIFT
CTRL	D STATUS:ON
INPUT	□ PIC MUTING:ON□ON
SETTING	■ AUDIO MUTING: COFF
SET	D INPUT-A:COMPONENT
SETTING	D INPUT-B:RGB
INPUT	RESET RESET
INFD.	SEL: O SET. O/ ENTER EXIT: MENU

(Continued)



### **INPUT-A**

Selects the RGB or component signal input from the INPUT A connectors.



### Note

If the INPUT-A setting is not correct, the color of the picture becomes strange or noisy.

### INPUT-B

Selects the RGB, component, video or S-video signal input from the optional IFB-12 Interface Board when it is installed in the INPUT B section.

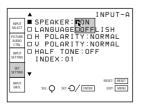
INPUT-A
---------

### Notes

- If the INPUT-B setting is not correct, the color of the picture becomes strange or noisy.
- You cannot select the item when you have not installed the optional IFB-12 Interface Board in the projector.

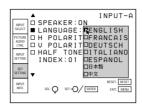
### SPEAKER

Set to OFF to cut off the sound of the internal speaker. When set to OFF, "SPEAKER OFF" appears on the screen when you turn on the power.



### LANGUAGE

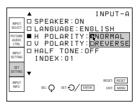
Selects the language used in the menu and on-screen displays.



Available languages are: English, French, German, Italian, Spanish, Japanese, and Chinese.

### H (Horizontal) POLARITY

Set to REVERSE to reverse the horizontal orientation of the picture.



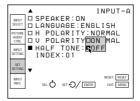
### V (Vertical) POLARITY

Set to REVERSE to reverse the vertical orientation of the picture.

	▲ INPUT-A
INPUT	D SPEAKER: ON
SELECT	LANGUAGE: ENGLISH
PICTURE	H POLARITY: NORMAL
CTRL	■ V POLARITY: DREVERSE
INPUT SETTING	HALF TONE:OFF
SET SETTING	-
INPUT	RESET: RESET
INFO.	SEL: Q SET. O/ ENTER EXIT: MENU

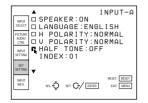
### HALF TONE

Set to ON to reduce the luminance of the menu background.



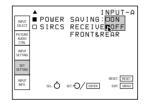
### INDEX

Displays the index number set with the INDEX switches on the rear of the projector.



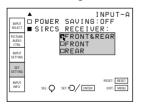
### **POWER SAVING**

When set to ON, the projector goes into the power saving mode if no signal is input for about 10 minutes. To reduce the internal heat, the cooling fan keeps running for about two minutes. The power saving mode is canceled when a signal is input or whenever a key is pressed.



### SIRCS RECEIVER

Selects the remote control detectors to be activated. Change the setting if the wireless Remote Commander does not work properly due to the influence of the fluorescent lamp.

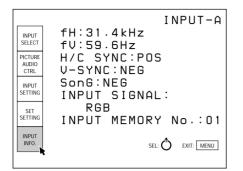


FRONT & REAR: Activates both the front and rear detectors.FRONT: Activates the front detector only.

31 (EN)

**REAR:** Activates the rear detector only.

The INPUT INFO menu displays the information on a current input signal.



### fH (Horizontal frequency)

Indicates the horizontal frequency of the input signal. This indication is only used as a reference, this is not absolute value.

### fV (Vertical frequency)

Indicates the vertical frequency of the input signal. This indication is only used as a reference, this is not absolute value.

### H/C (Horizontal/Composite) SYNC

Indicates the polarity of the horizontal or the composite sync signal. When the picture is being projected using its sync signal, POS (NEG) is displayed in green. When the picture is being projected without using sync signal, POS (NEG) is displayed in white.

**POS:** The polarity of the sync signal is positive.**NEG:** The polarity of the sync signal is negative.— : No sync signal is input.

### V (Vertical) – SYNC

Indicates the polarity of the vertical sync signal. When the picture is being projected using its sync signal, POS (NEG) is displayed in green. When the picture is being projected without using sync signal, POS (NEG) is displayed in white.

**POS:** The polarity of the sync signal is positive. **NEG:** The polarity of the sync signal is negative.

—: No sync signal is input.

### SonG

Indicates the polarity of the Sync on Green. When the picture is being projected using its sync signal, NEG is displayed in green. When the picture is being projected without using the sync signal, NEG is displayed in white.

**NEG:** The polarity of the sync signal is negative. — :No sync signal is input.

### **INPUT SIGNAL**

Displays the type of the current input signal. NTSC 3.58: NTSC 3.58 input signal PAL: PAL input signal **SECAM:** SECAM input signal NTSC 4.43: NTSC 4.43 input signal PAL-M: PAL-M input signal **B/W:** Black and white input signal **COMPONENT:** Component input signal **RGB:** RGB input signal NTSC 3.58 S VIDEO: S video input signal based on NTSC 3.58 **PAL S VIDEO:** S video input signal based on PAL SECAM S VIDEO: S video input signal based on **SECAM** NTSC 4.43 S VIDEO: S video input signal based on NTSC 4.43 PAL-M S VIDEO: S video input signal based on PAL-M

B/W S VIDEO: Black and white S video input signal

### **INPUT MEMORY No.**

Indicates the memory number of the current input signal.

Memory No.	Preset signal	fH(kHz)	fV(Hz)	Sync	
1	Video 60 Hz	15.73	59.94	_	
2	Video 50 Hz	15.625	50	-	
3	15k RGB 60 Hz	15.73	59.94	Composite sync/ Sync on G	
4	15k RGB 50 Hz	15.625	50	Composite sync/ Sync on G	
5	VGA-1	31.468	70.086	H-pos V-neg	
6	VGA-2	31.468	70.086	H-neg V-pos	
7	VGA-3	31.468	59.94	H-neg V-neg	
8	8514A/XGA	35.524	86.95	H-pos V-pos	
9	XGA2-3	61.08	75.781	H-pos V-pos	
10	VESA <sup>a)</sup> VGA 72 Hz	37.86	72.809	H-neg V-neg	
11	VESA VGA 75 Hz	37.5	75	H-neg V-neg	
12	VESA VGA 85 Hz	43.269	85.008	H-neg V-neg	
13	S-VGA 56 Hz	35.156	56.25	H-neg V-neg	
14	S-VGA 60 Hz	37.879	60.32	H-pos V-pos	
15	S-VGA 72 Hz	48.077	72.188	H-pos V-pos	
16	S-VGA 75 Hz	46.875	75	H-pos V-pos	
17	S-VGA 85 Hz	53.675	85.061	H-pos V-pos	
18	VESA XGA 60 Hz	48.363	60	H-neg V-neg	
19	VESA XGA 70 Hz	56.476	70.069	H-neg V-neg	
20	VESA XGA 75 Hz	60.023	75.029	H-pos V-pos	
21	VESA XGA 85 Hz	68.677	84.998	H-pos V-pos	
22	VESA 1280*1024 60 Hz	63.981	60.02	H-pos V-pos	
23	PS-55-1	46.474	115.2	H-pos V-pos	
24	PS-55-2	45.995	116	H-pos V-pos	
25	MAC 13"-1	35	66.669	H-neg V-neg	
26	MAC 13"-2	35	66.667	Sync on G	
27	MAC 16"	49.724	74.55	H-neg V-neg	
28	MAC 19"	60.241	74.927	H-neg V-neg	
29	MAC 21"	68.681	75.06	H-neg V-neg	
30	Super MAC-1	48.19	72.29	Sync on G	
31	PC 9801 Normal	24.83	56.4	H-neg V-neg	

a) VESA is a registered trademark of Video Electronics Standard Association.

Memory No.	Preset signal	fH(kHz)	fV(Hz)	Sync
32	PC 9801 High resolution	32.84	80	H-neg V-neg
33	SONY News-1	63.337	59.978	Sync on G
34	SONY News-2	63.337	59.978	H-neg V-neg
35	Sun micro	61.8	65.96	H-neg V-neg
36	SGI-1	48.732	59.94	Sync on G
37	SGI-2	63.839	59.943	Sync on G

### About the memory function

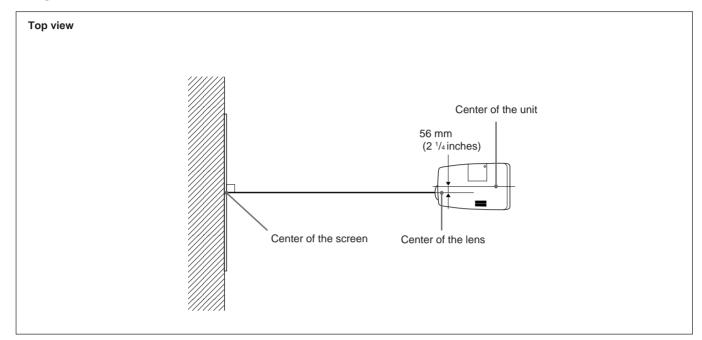
There are 37 kinds of input signal data preset in the projector (preset memory). Also, there are other 20 kinds of user memory.

Since the projector automatically distinguishes the input singal, if it is registered in preset memory, the memory function recalls the data in the preset memory and presents the most suitable picture to you. The recalled data also can be adjusted in the INPUT SETTING menu.

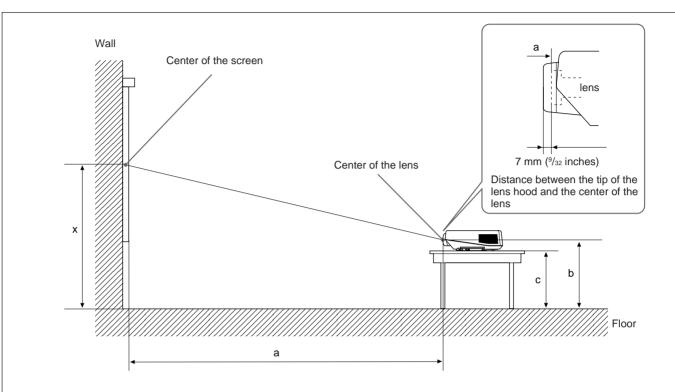
This setting value will be automatically registered in the user memory. The user memory will be overwritten from the least usable one when it becomes over 20 kinds as maximum.



When you install the projector, be sure to adjust the horizontal positioning of the projector so that the lens is aligned with the horizontal center of the screen.



### **Floor Installation**



a: distance between the screen and the center of the lens

b: distance between the floor and the center of the lens

c: distance between the floor and the bottom of the projector

x: free

										Unit:	mm (inche
Screen si	ize (inches)	40	60	80	100	120	150	180	200	250	300
a	Minimum	1490 (58 ³/4)	2290 (90 <sup>1</sup> / <sub>4</sub> )	3090 (121 <sup>3</sup> / <sub>4</sub> )	3880 (152 <sup>7</sup> /8)	4680 (184 ³/8)	5870 (231 <sup>1</sup> /8)	7070 (278 <sup>3</sup> /8)	7860 (309 ¹/₂)	9860 (388 ¹/₄)	11850 (466 <sup>5</sup> /8)
	Maximum	2290 (90 <sup>1</sup> / <sub>4</sub> )	3500 (137 <sup>7</sup> /8)	4710 (185 <sup>1</sup> / <sub>2</sub> )	5910 (232 ³/4)	7120 (280 <sup>3</sup> /8)	8920 (351 ¹/₄)	10730 (422 <sup>1</sup> / <sub>2</sub> )	11940 (470 <sup>1</sup> / <sub>8</sub> )	14950 (588 <sup>5</sup> /8)	17960 (707 <sup>1</sup> / <sub>8</sub> )
b	Minimum	x–338 (x–13 ³/8)	x–508 (x–20)	x-677 (x-26 <sup>3</sup> / <sub>4</sub> )	x-846 (x-33 <sup>3</sup> / <sub>8</sub> )	x–1015 (x–40)	x–1269 (x–50)	x—1523 (x—60)	x-1692 (x-66 <sup>5</sup> / <sub>8</sub> )	x–2115 (x–83 ³/8)	x–2538 (x–100)
	Maximum	х	х	х	х	х	х	х	х	х	х
С	Minimum	x–480 (x–19)	x649 (x25 <sup>5</sup> / <sub>8</sub> )	x-818 (x-32 <sup>1</sup> / <sub>4</sub> )	x–988 (x–39)	x-1157 (x-45 <sup>5</sup> / <sub>8</sub> )	x-1411 (x-55 <sup>5</sup> / <sub>8</sub> )	x-1665 (x-65 <sup>5</sup> / <sub>8</sub> )	x-1834 (x-72 <sup>1</sup> / <sub>4</sub> )	x-2257 (x-88 <sup>7</sup> / <sub>8</sub> )	x–2680 (x–105 <sup>5</sup> / <sub>8</sub> )
	Maximum	x-131 (x-5 <sup>1</sup> / <sub>4</sub> )	x-131 (x-5 <sup>1</sup> / <sub>4</sub> )	x-131 (x-5 <sup>1</sup> / <sub>4</sub> )	x-131 (x-5 <sup>1</sup> / <sub>4</sub> )	x-131 (x-5 <sup>1</sup> / <sub>4</sub> )	x-131 (x-5 <sup>1</sup> / <sub>4</sub> )	x-131 (x-5 <sup>1</sup> / <sub>4</sub> )	x-131 (x-5 <sup>1</sup> / <sub>4</sub> )	x-131 (x-5 <sup>1</sup> / <sub>4</sub> )	x-131 (x-5 <sup>1</sup> / <sub>4</sub> )

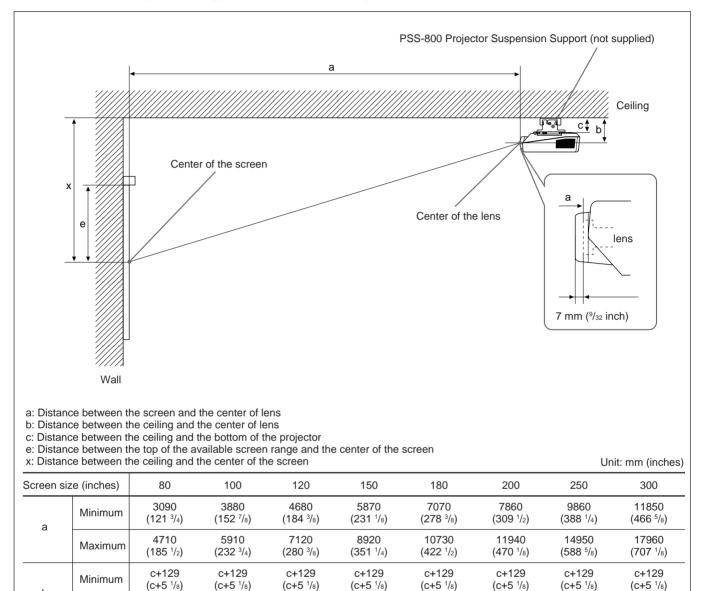
#### To calculate the installation measurement (unit: mm)

- SS: screen size diagonal (inches)
- a (minimum)= (SS 2.59) × 39.82 a (maximum)= (SS 1.84) × 60.26
- b (minimum)=  $(3S 1.34) \times 00.20$ b (minimum)=  $x (SS/1.3 \times 11)$ c (minimum)=  $x (SS/1.3 \times 11+141.5)$

### **Ceiling Installation**

When installing the projector on the ceiling, use the PSS-800 Projector Suspension Support.

For ceiling installation, consult with qualified Sony personnel.



b	1 1								
0	Maximum	c+140 (c+5 <sup>5</sup> /8)	c+140 (c+5 <sup>5</sup> / <sub>8</sub> )	c+140 (c+5 <sup>5</sup> / <sub>8</sub> )	c+140 (c+5 <sup>5</sup> /8)	c+140 (c+5 <sup>5</sup> / <sub>8</sub> )	c+140 (c+5 ⁵/ଃ)	c+140 (c+5 <sup>5</sup> / <sub>8</sub> )	c+140 (c+5 <sup>5</sup> /8)
е		610 (24 <sup>1</sup> /8)	762 (30)	914 (36)	1143 (45)	1372 (54 <sup>1</sup> / <sub>8</sub> )	1524 (60)	1905 (75)	2286 (90)
x	Minimum	c+129 (c+5 <sup>1</sup> / <sub>8</sub> )	c+129 (c+5 <sup>1</sup> / <sub>8</sub> )	c+129 (c+5 <sup>1</sup> / <sub>8</sub> )	c+129 (c+5 <sup>1</sup> / <sub>8</sub> )	c+129 (c+5 <sup>1</sup> / <sub>8</sub> )	c+129 (c+5 <sup>1</sup> / <sub>8</sub> )	c+129 (c+5 <sup>1</sup> / <sub>8</sub> )	c+129 (c+5 <sup>1</sup> / <sub>8</sub> )
	Maximum	c+817 (c+32 <sup>1</sup> / <sub>4</sub> )	c+986 (c+38 <sup>7</sup> / <sub>8</sub> )	c+1155 (c+45 <sup>1</sup> / <sub>2</sub> )	c+1409 (c+55 <sup>1</sup> / <sub>2</sub> )	c+1663 (c+65 <sup>1</sup> / <sub>2</sub> )	c+1832 (c+72 <sup>1</sup> / <sub>4</sub> )	c+2255 (c+88 <sup>7</sup> / <sub>8</sub> )	c+2678 (c+105 <sup>1</sup> / <sub>2</sub> )
	\\/hon	using the DCC	2 000 Droingto	· Cuenensien	Supports o 150		<u>^</u>		

When using the PSS-800 Projector Suspension Support; c =150, x (minimum) = e

#### To calculate the installation measurement (unit: mm)

SS: screen size diagonal (inches)

a (minimum)=  $(SS - 2.59) \times 39.82$ a (maximum)=  $(SS - 1.84) \times 60.26$ 

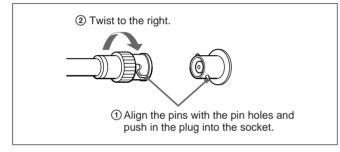
x (maximum) =  $c + (SS/1.3 \times 11+140)$ 

For details on how to connect a computer, a VCR or external active speakers, see page 17 (EN). Also refer to the instruction manual of the equipment to be connected.

#### When making connections, be sure to:

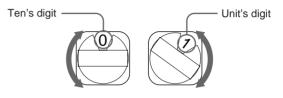
- Before connecting any cables, make sure that each piece of equipment to be connected is turned off.
- Use cables appropriate for the equipment to be connected.
- A loose connection may cause hum or noise.
- When disconnecting a cable, pull it out from the plug; not the cable itself.

# **Connecting a BNC connector**



# To set the index number

You have to set the index number when you use the multiple projectors. Set the index number so that you can select the projector to be operated with the Remote Commander. The index number is set with the INDEX switches. The index number is set to "01" at the factory. When using only one projector, set the number to "01".

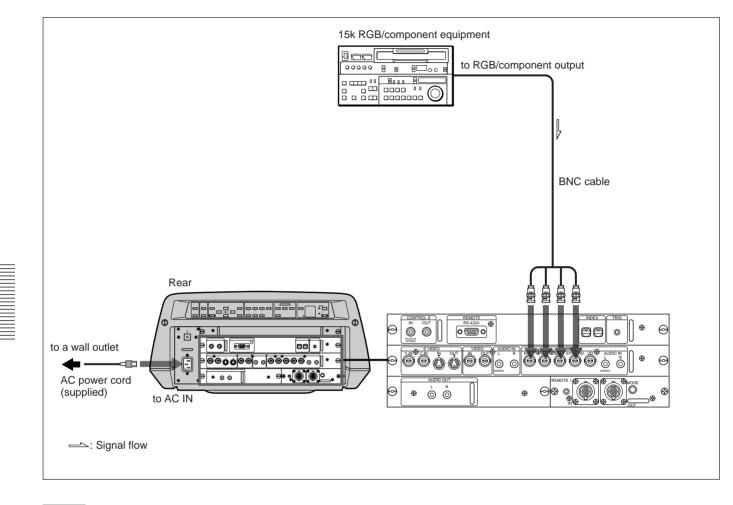


#### Notes

- Do not use the same index number twice in one system.
- Do not separate two index numbers in one system by more than eight numbers.
- Do not use the number "9" if you use the supplied Remote Commander for selecting the index number.
- Do not set the number to "00". If it is set to "00", the projector does not work.



# Connecting 15k RGB/Component Equipment



#### Notes

- Set the RGB or component signal with the INPUT-A item in the SET SETTING menu. *For details, see page 30 (EN).*
- Input the sync on G or composite sync signal when inputting the 15k RGB signal.

# **Connecting the Switcher**

Use the optional PC-1271 Signal Interface Switcher for connecting various video equipment. The input is selected by pressing the SWITCHER/INDEX/LENS keys on the Remote Commander.

For details on designating the input from the switcher, see pages 13 (EN) and 14 (EN).

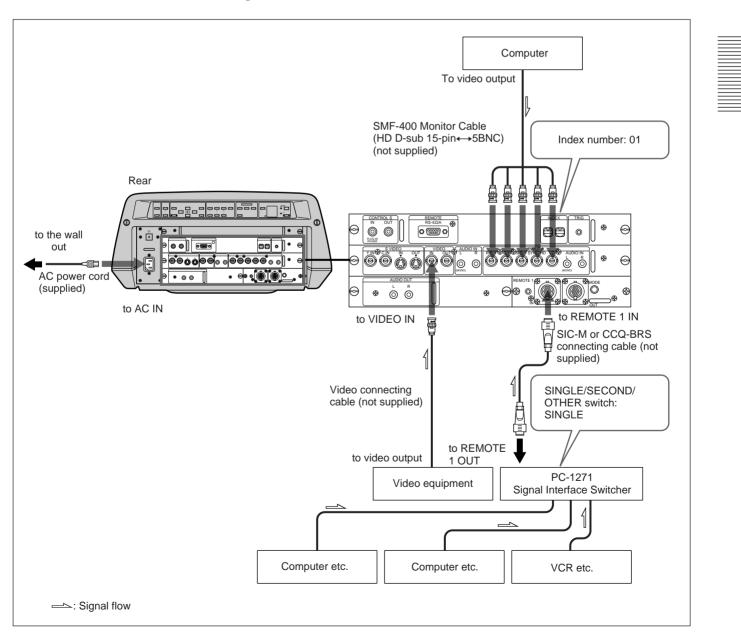
#### Notes

- When you designate the input from the switcher, be sure to set the SWITCHER/INDEX/LENS selector to the SWITCHER position.
- Be sure to designate the SINGLE/SECOND/OTHER switch of the switcher to the SINGLE position.

• Set the INPUT-A item in the SET SETTING menu depending on the type of external equipment connected to the INPUT A connectors on the projector.

For details, see page 30 (EN).

• When connecting the external equipment to the VIDEO or S VIDEO connectors, designate the input between VIDEO and S VIDEO connectors. *For details on designating the input between VIDEO and S VIDEO connectors, see page 19 (EN).* 



# **Replacing the Lamp**

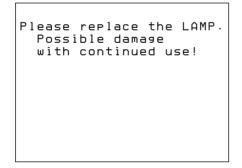
When it is time to replace the lamp, the message "Please replace the LAMP." appears on the screen when you turn on the projector. Once the message appears, replace the lamp promptly with a new PK-PJ800 Projector Lamp (not supplied).

Please	replace	the	LAMP.	

The message disappears if any key on the control panel or the Remote Commander is pressed.

#### Notes

• If you continue to use the projector after the message above has appeared, the following message appears. When this message appears, no key except the POWER ON/OFF keys will be operable.



• After turning off the power, wait at least for one hour before changing the lamp to give it enough time to cool down.

For details on replacement, refer to the instruction manual supplied with the lamp.

#### Note

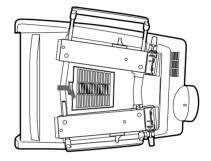
When the lamp is warm, it may not light up easily. In this case, BB appears in the error code display window, but this is not malfunction.

If BB remains lit for more than three minutes after turning on the power, never open the lamp cover if the projector is installed on the ceiling.

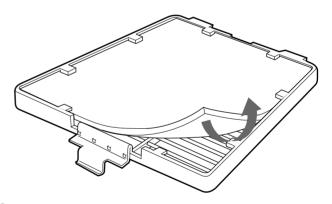
# **Cleaning the Air Filter**

The air filter should be cleaned in every 100 hours. When it becomes difficult to remove the dust from the filter, replace the filter with a new one. To clean the air filter, follow the steps below:

- **1** Turn off the MAIN POWER switch and unplug the power cord.
- **2** Remove the air filter cover on the bottom of the projector.



**3** Remove the air filter.



- **4** Remove the dust from the filter with a vacuum cleaner.
- **5** Attach the air filter and replace the cover.

### Notes

- If the air filter is excessively dirty, wash it with a mild detergent solution and dry it in a shaded place.
- Be sure to attach the air filter cover firmly; the power will not be turned on if it is not closed securely.

# Troubleshooting

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

Symptom	Cause	Remedy
The power is not turned on.	The MAIN POWER switch is turned off.	Press the MAIN POWER switch at the rear of the projector (see page 18 (EN)).
	The power has been turned off and on with the POWER ON/OFF key at a short interval.	Wait for about one minute before turning on the power with the POWER ON key.
	The lamp cover is detached.	Close the lamp cover securely (see page 40 (EN)).
	The air filter cover is detached.	Close the air filter cover securely <i>(see page 40 (EN))</i> .
No picture and no sound.	Cable is disconnected.	Check that the proper connections have been made (see pages 17 (EN) and 37 (EN) to 39 (EN)).
	Input selection is incorrect.	Select the input source correctly.
No picture or no sound.	Either the picture or the sound is cut off.	Press the MUTING keys to release the muting function (see page 20 (EN)).
The picture is noisy.	Noise may appear on the background depending on the combination of the numbers of dot input from the connector and numbers of pixel on the LCD panel.	Change the desktop pattern on the connected computer.
The picture is colored strange.	Setting for INPUT-A and INPUT-B in the SET SETTING menu is incorrect.	Set INPUT-A or INPUT-B in the SET SETTING menu to the appropriate position according to the input signal <i>(see page 30 (EN))</i> .
"NO INPUT" appears when 15k RGB or component signal is input.	The sync signal is incorrect.	Input the correct sync singal (composite sync or sync on G singal (sync on Y for component singal)).
On-screen displays do not appear.	STATUS in the SET SETTING menu has been set to OFF or ALL OFF.	Set STATUS in the SET SETTING menu to ON (see page 29 (EN)).
Color balance is incorrect.	Picture has not been adjusted properly.	Adjust the picture (see pages 23 (EN) and 24 (EN)).
	Projector is set to wrong color system.	Set COLOR SYS in the PICTURE AUDIO CTRL menu to match the color system being input <i>(see page 24 (EN))</i> .
The picture is too dark.	Lamp is nearing the end of its life.	Change the lamp (see page 40 (EN)).
	Contrast or brightness has not been adjusted properly.	Adjust the contrast or brightness in the PICTURE AUDIO CTRL menu properly (see page 23 (EN)).
The picture is not clear.	Picture is out of focus.	Adjust the focus (see page 19 (EN)).
	Condensation has occurred on the lens.	Leave the projector for about two hours with the power on.
The picture luminance is incorrect.	The CLAMP setting is wrong.	Set CLAMP correctly in the INPUT SETTING menu (see page 26 (EN)).
The Remote Commander does not work.	The Remote Commander batteries are dead.	Replace with new batteries (see page 15 (EN)).
	The MOUSE/MENU switch has been switched to the MOUSE position.	Set the switch to MENU position.
	You are using the Remote Commander as a wireless Remote Commander, and it is connected to the projector.	Disconnect the cable.
	The unit is influenced of the fluorescent lamp.	Change the setting of SIRCS RECEIVER in the SET SETTING menu <i>(see page 31 (EN))</i> .
Any key does not function other than the POWER ON/ OFF keys.	The lamp has reached the end of its life.	Replace the lamp <i>(see page 40 (EN))</i> .

(Continued)

#### **On-screen messages**

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning	Remedy
NO INPUT	No input signal.	Check connections.
Not applicable!	You have pressed the wrong key.	Press the appropriate key.
OPERATING TEMPERATURE TOO HIGH!	Operating temperature is too high.	Turn off the power. (The power turns off automatically after about five minutes.) Check to see that nothing is blocking the exhaust/intake ventilation holes.
Frequency is out of range!	This input signal cannot be projected as the frequency is out of the acceptable range of the projector.	Input a signal that is within the range of the frequency.
Please replace the LAMP. Possible damage with continued use!	The lamp has reached the end of its life.	Replace the lamp.

# **Error codes**

Use the list below to check the meaning of the error codes displayed in the error code display window.

Error code	Meaning	Remedy
88	The lamp does not light up.	When the lamp is warm, it may not light up easily. In this case, $BB$ appears in the error code display window, but this is not malfunction. If $BB$ remains lit for more than three minutes after turning on the power, never open the lamp cover if the projector is installed on the ceiling.
11	The lamp cover is detached.	Close the lamp cover securely, and turn on the power again.
12	The air filter cover is detached.	Close the air filter cover securely, and turn on the power again.
15	The temperature of the lamp is not normal.	Leave the projector for about one hour without blocking the exhaust/intake ventilation holes, and turn on the power again. If the error code is still in the window after the above operation, consult with qualified Sony personnel.
16	The temperature of the C-board is not normal.	Leave the projector for about one hour without blocking the exhaust/intake ventilation holes, and turn on the power again. If the error code is still in the window after the above operation, consult with qualified Sony personnel.
17	The temperature of the power is not normal.	Leave the projector for about one hour without blocking the exhaust/intake ventilation holes, and turn on the power again. If the error code is still in the window after the above operation, consult with qualified Sony personnel.
Others	The internal circuits do not function correctly.	Inform the displayed error code to qualified Sony personnel.

### **Optical characteristics**

Projection system 3 LCD panels, 1 lens, projection system 1.3-inch TFT LCD panel, LCD panel 921, 600 pixels (307, 200 pixels  $\times 3)$ 1.6 times zoom lens (power focus/ Lens power zoom) f 50 to 80 mm/F 2.5 to 3.1 ANSI lumen<sup>1)</sup> 800 lm Light output 400 W metal halide Lamp Projection picture size Range: 40 to 300 inches (diagonal measure) Throwing distance 40-inch: 1490 to 2290 mm  $(58^{3}/_{4} \text{ to } 90^{1}/_{4} \text{ inches})$ 80-inch: 3090 to 4710 mm  $(121^{3}/_{4} \text{ to } 185^{1}/_{2} \text{ inches})$ 100-inch:3880 to 5910 mm  $(152^{7}/8 \text{ to } 232^{3}/4 \text{ inches})$ 120-inch:4680 to 7120 mm  $(184^{3}/_{8} \text{ to } 280^{3}/_{8} \text{ inches})$ 200-inch:7860 to 11940 mm  $(309^{1}/_{2} \text{ to } 470^{1}/_{8} \text{ inches})$ 300-inch:11850 to 17960 mm  $(466^{5}/_{8} \text{ to } 707^{1}/_{8} \text{ inches})$ 

# **Electrical characteristics**

Color system	NTSC3.58/PAL/SECAM/NTSC4.43/		term
	PAL-M system, switched	VIDEO	IN: Co
	automatically		1 V <sub>1</sub>
Resolution	500 horizontal TV lines (video		(75)
Resolution	input)		OUT:
	$640 \times 480$ dots (RGB input)		Loo
Acceptable com			VID
	fH:15 to 65 kHz	AUDIO IN	Phono
	fV:38 to 120 Hz		500
Speaker	Max. 3 W, $90 \times 50$ mm		than
Speaker	$(3^{5/8} \times 2 \text{ inches})$ monaural	INPUT A	Analo
	(5 / 6 / 2 menes) monautar		type

## Input/Output

CONTROL S **IN/PLUG IN POWER:** Stereo minijack 5 Vp-p, plug in power, DC 5 V maximum output 60 mA OUT: Stereo minijack, 5 Vp-p

D-sub 9-pin (female) (For details, see "Pin assignment" on page 45 (EN).)

**REMOTE RS-422A** 

TRIG

Minijack, 5 Vp-p Power on: DC 5 V output, impedance more than 4.7 kilohms Power off: 0 V S VIDEO (priority to Y IN/C IN) IN: Mini DIN 4-pin type (male) Y (luminance): 1 Vp-p  $\pm 2$  dB sync negative, (75 ohms terminated) C (chrominance): Burst 0.286 Vp-p ±2 dB (NTSC), (75 ohms terminated) Burst 0.3 Vp-p  $\pm 2$  dB (PAL), (75 ohms terminated) OUT: Loop-through mini DIN 4pin type (male) Loop-through output from the S VIDEO IN connector Y IN: BNC-type Y (luminance): 1 Vp-p  $\pm 2$  dB sync negative, (75 ohms terminated) C IN: BNC-type C (chrominance): Burst 0.286 Vp-p ±2 dB (NTSC) (75 ohms terminated), 0.3 Vp-p ±2 dB (PAL) (75 ohms minated) Composite video: BNC-type  $p-p \pm 2 dB$  sync negative, ohms terminated) : Loop-through BNC-type op-through output from the DEO IN connector o type (stereo) ) mVrms, impedance more n 47 kilohms og RGB/component: BNCе R/R-Y: 0.7 Vp-p  $\pm 2$  dB positive, (75 ohms terminated) G: 0.7 Vp-p  $\pm 2$  dB positive, (75 ohms terminated) G with sync/Y: 1 Vp-p  $\pm 2$  dB sync negative, (75 ohms terminated) (*Continued*)

..... 1) ANSI lumen is a measuring method of American National Standard IT 7.228.

	B/B-Y: 0.7 Vp-p ±2 dB positive,
	(75 ohms terminated)
	SYNC/HD:
	Composite sync: 0.6-8 Vp-p high impedance, sync positive/negative Horizontal sync: 0.6-8 Vp-p high
	impedance, sync positive/negative
	VD:
	Vertical sync: 0.6-8 Vp-p high
	impedance, sync positive/
	negative
	AUDIO IN: Phono type
	500 m Vrms, impedance more
	than 47 kilohms
REMOTE 1 IN/OU	JT
	14-pin multi connector
	(For details, see "Pin assignment"
	on page 45 (EN).)
AUDIO OUT (vari	able out)
	Phono type
	Max. 1 Vrms
	When input is 500 mVrms,
	impedance less than 5 kilohms
Safety regulations	VPL-V800Q: UL1950, CSA950, FCC , IC
	VPL-V800QM: EN60 950 (TÜV),
	CE, C-Tick

### General

Dimensions	$480 \times 239 \times 663$ mm ( $19 \times 9^{1/2} \times$
	$26 \frac{1}{8}$ inches) (w/h/d)
Mass	Approx. 25 kg (55 lb 2 oz)
Power requiremen	ts
_	VPL-V800Q: AC 100 to 120 V/220
	to 240 V, 50/60 Hz <sup>1)</sup>
	VPL-V800QM: AC 220 to 240 V,
	50/60 Hz
Power consumption	on
	Max. 570 W (Standby mode: 15 W)
Heat dissipation	1945 BTU
Operating tempera	ature
	0°C to 40°C (32°F to 104°F)
Operating humidit	y
	35% to 85% (no condensation)
Storage temperatu	re
	$-20^{\circ}$ C to $+60^{\circ}$ C ( $-4^{\circ}$ F to $+140^{\circ}$ F)
Storage humidity	10% to 90%

Supplied Accessories

Remote Commander RM-PJM800

(1)

Size AA (R6) batteries (2)
Remote commander cable (15 m)

(1)

AC Power cord (1)
Lens cap (1)
Operating Instructions (1)
Installation Manual for Dealers (1)

Design and specifications are subject to change without notice.

#### **Optional accessories**

Projector Lamp PK-PJ800 (for replacement) Interface Board IFB-12 (Composite video input/output with 5BNC type connectors) IFB-20 (Analog RGB input with D-sub 9-pin type connector) IFB-21 (Analog RGB input/output with HD D-sub 15-pin type connector) IFB-30 (Digital RGB input with D-sub 9-pin type connector) IFB-1000 (Composite video input with BNC type connector/S-Video input with mini DIN 4-pin type connector) Signal Interface Switcher PC-1271/1271M Interface Unit IFU-1271/1271M SIC Cable SIC-10/20A/20C/21/22/30/31/M1/M5/M15/M25/ M50 CCQ-2BRS/5BRS/10BRS/25BRS/50BRS 9-pin remote cable (for RS-422A) RCC-5G/10G/30G Monitor Cable SMF-400 (HD D-sub 15-pin (female) ↔ 5BNC) SMF-401 (HD D-sub 15-pin (female) ↔ HD D-sub 15-pin (female)) Signal Adapter ADP-10 (D-sub 9-pin ↔ HD D-sub 15-pin (for SIC Cable)) ADP-20 (Macintosh ↔ VGA) Remote Commander RM-PJ1000 Mouse Receiver RM-PJ20/PJ21 Remote Control Receiver RM-PJ10

Projection Lens VPLL-FM100 Projector Stand SU-PJ800 (for twin-stacking) Projector Suspension Support PSS-10/800 Screens VPS-80FH (80-inch, flat) VPS-100FH (100-inch, flat) VPS-120FH (120-inch, flat)

Some of the items may not be available in some areas. For details, please consult your nearest Sony office.

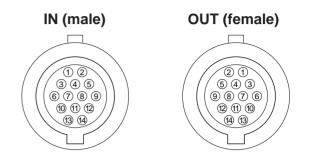
### **Pin assignment**

#### RS-422A connector (D-sub 9-pin, female)



1	GND	Ground	6	GND	Ground
2	TX	Receive	7	TX	Receive
3	RX	Transmit	8	RX	Transmit
4	GND	Ground	9	GND	Ground
5	NC				

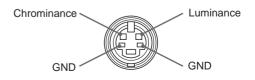
#### **REMOTE 1 IN/OUT connector (14-pin multiconnector)**



Pin No.	Signal	Signal level
1	GND	Ground
2	HD/C. sync	1Vp-p ± 3 dB
3	SIRCS	5Vp-p ± 1 dB
4	N.C.	Non connection
5	GND (SIRCS)	Ground
6	B/C	B: 0.7 Vp-p ± 3 dB, 75-ohm
		C (NTSC): 0.286 Vp-p ± 3 dB, 75-ohm C (PAL): 0.3 Vp-p ± 3 dB,75- ohm
7	GND (B.R.)	Ground
8	GND (G)	Ground
9	G/Y	G: 0.7 Vp-p (sync-on-green: 1 Vp-p) ± 3 dB, 75-ohm Y: 1 Vp-p ± 3 dB, 75-ohm
10	RGB/Video	5V / 0V
11	R/C. Video	R: 0.7 Vp-p ± 3 dB, 75-ohm
		C.Video: 1 Vp-p ± 3 dB, 75- ohm
12	C.Video/YC	5V / 0V
13	Audio	500 mVrms, output impedance 1 kohm
14	V.sync	1 Vp-p ± 3 dB, 75-ohm

The input singals are constantly output from the REMOTE 1 OUT connector.

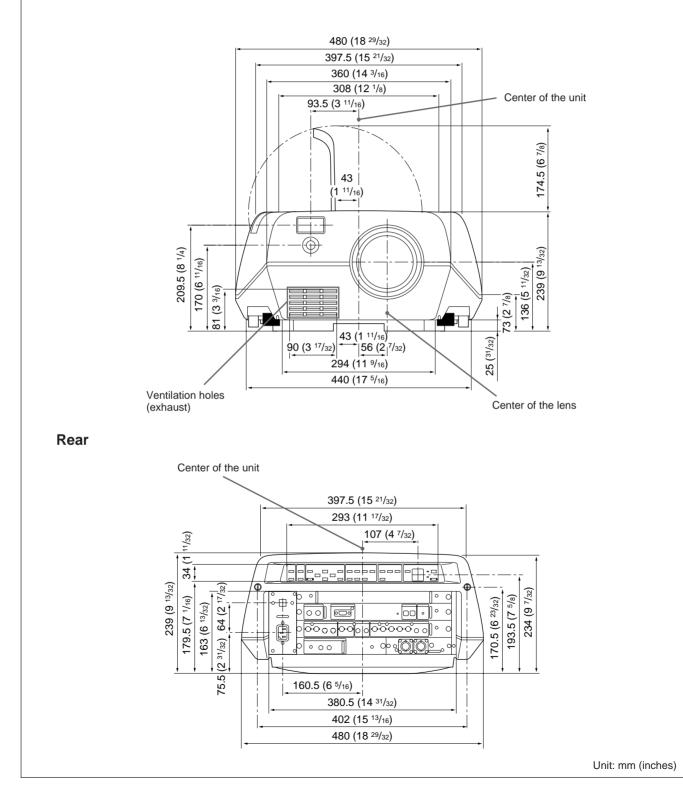
#### S VIDEO connector (4 pin, mini-DIN)

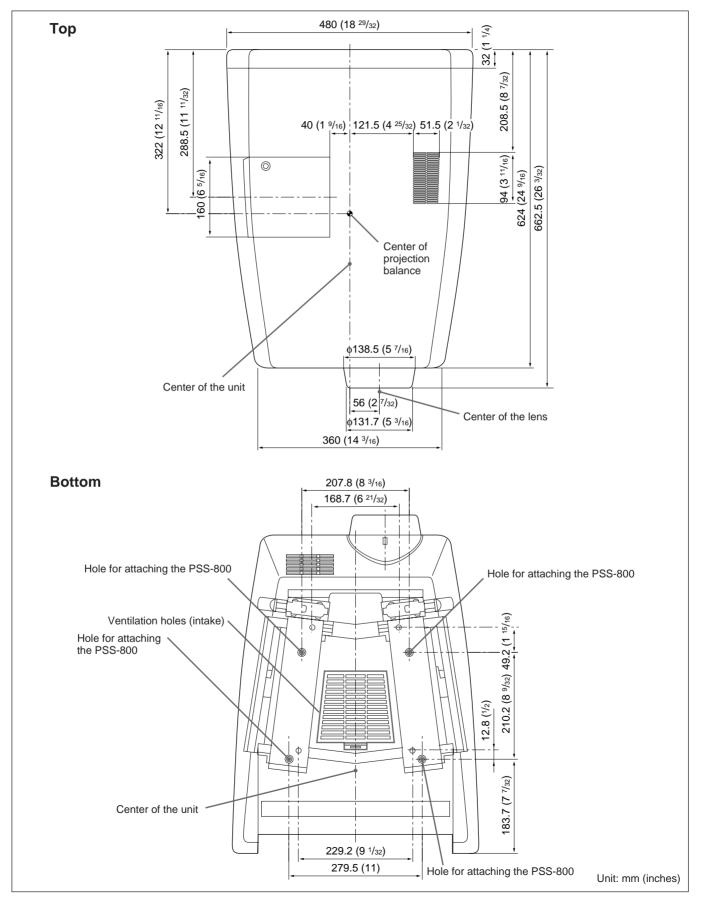


# **Specifications**

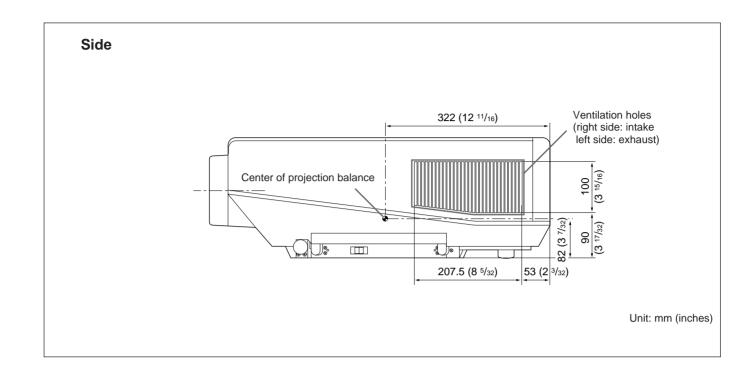
### Dimensions

#### Front





# Specifications



# Index

#### Α

Adjusters 8 (EN) Adjusting the picture 23 (EN) the picture size/shift 25 (EN), 26 (EN) the picture luminance (Clamp Setting) 26 (EN) the zoom 19 (EN) Air filter 40 (EN) AUDIO MUTING 29 (EN)

# В

Battery Installation 15 (EN) notes 15 (EN) BRIGHT 23 (EN)

# С

Carrying handles 8 (EN) CLAMP 26 (EN) Clamp setting 26 (EN) COLOR 23 (EN) COLOR SYS (System) 24 (EN) COLOR TEMP 26 (EN) Connections active speakers 17 (EN) BNC Connector 37 (EN) computer 17 (EN) 15k RGB/component equipment 38 (EN) Remote Commander 15 (EN) switchers 39 (EN) VCR 17 (EN) CONTRAST 23 (EN) Cut off the picture 20 (EN) the sound 20 (EN)

# D, E

D. (Dynamic) PICTURE 24 (EN) DOT PHASE 25 (EN) Error code 42 (EN)

# F, G, H

fH (Horizontal frequency) 32 (EN) FOCUS 28 (EN) fV (Vertical frequency) 32 (EN) FOCUS 28 (EN) HALF TONE 30 (EN) Handle lever 8 (EN) H/C (Horizontal/Composite) SYNC 32 (EN) H FILTER 26 (EN) H (Horizontal) POLARITY 30 (EN) HUE 23 (EN)

# I, J, K

INDEX 31 (EN) Index number 11 (EN) INPUT-A 22 (EN), 30 (EN) INPUT-B 22 (EN), 30 (EN) INPUT INFO menu 32 (EN) INPUT MEMORY No. 33 (EN) INPUT SELECT menu 22 (EN) INPUT SETTING menu 25 (EN) INPUT SIGNAL 32 (EN) Input signal selection 19 (EN) Installation examples on a ceiling 36 (EN) on a floor 16 (EN), 35 (EN)

#### L

Lamp replacement 40 (EN) LANGUAGE 30 (EN) Location and function of controls control panel 9 (EN) front 7 (EN) rear 11 (EN) Remote Commander 13 (EN)

#### M, N

Memory 21 (EN) Menu Clearing the menu display 21 (EN) INPUT INFO menu 32 (EN) INPUT SELECT menu 22 (EN) INPUT SETTING menu 25 (EN) PICTURE AUDIO CTRL menu 23 (EN) SET SETTING menu 28 (EN) Using the menu 21 (EN)

# 0

On-screen display 29 (EN) On-screen messages 42 (EN) Optional accessories 44 (EN)

### P, Q

PC-1271 Signal Interface Switcher 39 (EN) PIC MUTING 29 (EN) PICTURE AUDIO CTRL menu 23 (EN) PICTURE SHIFT 29 (EN) Pin assignment 45 (EN) Power turn on 18 (EN) turn off 20 (EN) POWER SAVING 31 (EN) Precautions 4 (EN) Projecting 18 (EN) PSS-800 Projector Suspension Support 36 (EN)

# R

Remote Commander battery installation 15 (EN) connecting to the projector 15 (EN) location and function of controls 13 (EN) notes 15 (EN) Remote control detector front 7 (EN) rear 9 (EN) Reset resetting the item 21 (EN) RS-422A Connector 11 (EN)

# S

Screen size 35 (EN), 36 (EN) SET SETTING menu 28 (EN) SHARP 23 (EN) SHIFT 26 (EN) SIG PROCESS 27 (EN) SIRCS RECEIVER 31 (EN) SIZE 25 (EN) SonG 32 (EN) SPEAKER 30 (EN) SPEAKER 30 (EN) STATUS (on-screen display) 29 (EN) Supplied accessories 44 (EN) SWITCHER 22 (EN)

**T, U** Troubleshooting 41 (EN)

# V, W, X, Y, Z

V FILTER 26 (EN) VIDEO 22 (EN) VOLUME 24 (EN) V (Vertical) POLARITY 30 (EN) V (Vertical) SYNC 32 (EN) ZOOM 29 (EN)

