SONY®

Data Projector

Operating Instructions GB

VPL-CX11

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.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,

DO NOT REMOVE COVER (OR BACK).

NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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

If you have any questions about this product, you may contact:
Sony Electronics Inc.
Attn: Business Information Center (BIC)
12451 Gateway Boulevard
Ft. Myers, Florida 33913
Telephone No.: 800-686-7669

The number below is for FCC related matters only.

Declaration of Conformity

Trade Name: SONY
Model No.: VPL-CX11
Responsible Party: Sony Electronics Inc.
Address: 680 Kinderkamack Road, Oradell, NJ 07649 U.S.A.
Telephone No.: 201-930-6972

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.
You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

For the customers in Canada

This Class B digital apparatus complies with
Canadian ICES-003

Voor de klanten in Nederland
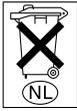
Gooi de batterij niet weg
maar lever deze in als klein
chemisch afval (KCA).

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

Table of Contents

Overview

Setting Up and Projecting

Adjustments and Settings Using the Menu

Maintenance

Other

GB

Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected to the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not place your hand or objects near the ventilation holes. The air coming out is hot.
- Be careful not to catch your fingers by the adjuster when you lift up the projector. Do not push hard on the top of the projector with the adjuster out.
- Install the projector on the floor or ceiling. Any other installation causes a mulfunction such as color irregularity or shortened lamp life.
- For ceiling installation, consult with qualified Sony personnel.

On illumination

- 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 you turn off the power with the I / ⏻ key, do not disconnect the unit from the wall outlet while the cooling fan is still running.

Caution

The projector is equipped with ventilation holes (intake) and ventilation holes (exhaust). 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.

On data projector

- The data projector is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the data projector. This is a normal result of the manufacturing process and does not indicate a malfunction.

Features

High portability

• **Light weight/small size**
This projector has been miniaturized to approx. 3.3 kg (7 lb 4 oz) in weight and A4-file size. A carrying handle is equipped with the projector, so you can carry it easily with your computer.

Reduced noise

Because the projector uses a new cooling mechanism, noise has been reduced.

High brightness, high picture quality

• **High brightnes**s
Adopting the new developed optical system and the 160 W lamp allows high brightness (light output 1500 ANSI lumen) and excellent uniformity on the picture.
• **High resolution**
Three 0.9-inch, about 790,000 pixel, XGA panels provide a resolution of 1024×768 dots for RGB input and 750 horizontal TV lines for video input.

Simple setup

• **Simple setup with external equipment**
This projector is preset for 37 kinds of input signals. You can project images from an external signal source just by connecting the equipment with the supplied cable and pushing the APA key.
• **Compatible with USB (Universal Serial Bus) hub function**
You can connect an USB equipment (e.g., USB mouse) to the projector, and also control the projector by using the application software (CD-ROM) supplied with the projector from a computer operated with Windows 98, Windows 98 SE, Windows 2000 or Windows ME. Using this application software, you can open a file you want to use for your presentation with the supplied Remote Commander.

Easy presentation

• **Multi functional Remote Commander with mouse control functions**
You can operate a computer connected to this projector with the Remote Commander since the unit has a build-in mouse receiver.
• **Digital ZOOM and FUNCTION keys on the Remote Commander**
The Digital ZOOM allows you to enhance your presentation by zooming in on the image. You can allocate a presentation file to the FUNCTION keys by using the application software (CD-ROM) supplied with the projector. Just pressing the FUNCTION key opens the file immediately.

Accepts various input signals

• **Scan converter loaded**
This projector has a build-in scan converter that converts the input signal within 1024×768 dots.
• **Compatible input signals**
This projector accepts video signals of composite, S video, and component as well as 15k RGB, VGA, SVGA, XGA, and SXGA signals, which all can be displayed.
• **Compatible with six color systems**
NTSC, PAL, SECAM, NTSC$_{4.43}$[1], PAL-M, or PAL-N color system can be selected automatically or manually.

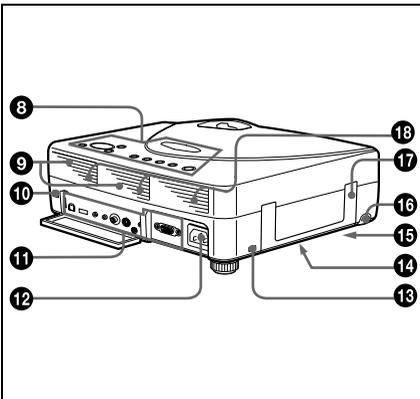..

1)NTSC$_{4.43}$ is the color system used when playing back a video recorded on NTSC on a NTSC$_{4.43}$ system VCR.

Location and Function of Controls

Front/Left Side
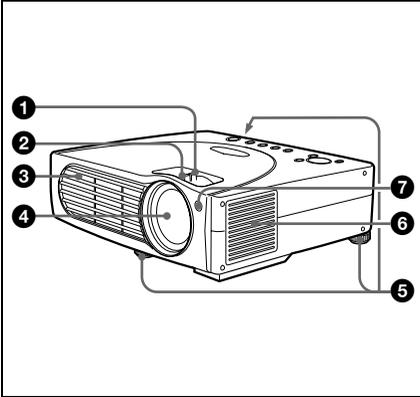
Rear/Right Side/Bottom

1 Zoom ring

Adjusts the picture size.

2 Focus ring

Adjusts the picture focus.

3 Ventilation holes (exhaust)

4 Lens

5 Adjuster

When a picture is projected on the exterior of the screen, adjust the picture using this adjuster.

For details on how to use the adjusters, see "How to use the adjuster" on page 10.

6 Ventilation holes (intake)/air filter cover

Notes

- Do not place anything near the ventilation holes as it may cause internal heat build-up.
- Do not place your hand or objects near the ventilation holes as it may cause the air coming out heat build-up.
- To maintain optimal performance, **clean the air filter every 300 hours.**

7 Front remote control detector (SIRCS receiver)

8 Control panel

For details, see "Control Panel" on page 11.

9 Speakers

0 Rear remote control detector (SIRCS receiver)

qa Connector panel

For details, see "Connector Panel" on page 12.

qs AC IN socket

Connects the supplied AC power cord.

⑬ Security lock

Connects to an optional security cable (Kensington's).

The security lock corresponds to Kensington's MicroSaver® Security System.
If you require further information, contact

Kensington
2855 Campus Drive
San Mateo, CA 94403

In North America
Phone: 800-235-6708
Fax: 800-247-1317

Outside North America
Phone: 847-541-9500

Home page address:
http://www.kensington.com/

⑭ Ventillation holes (intake, bottom)

⑮ Lamp cover (bottom)

⑯ RELEASE (adjuster adjustment) button

For details, see "How to use the adjuster" on page 10.

⑰ Carrying handle

Pull up the handle from the projector for carrying.

⑱ Ventilation holes (intake, rear)

How to use the adjuster

To adjust the height

Adjust the height of the projector as follows:

1 Lift the projector and press the RELEASE button.

The adjuster will extend from the projector.
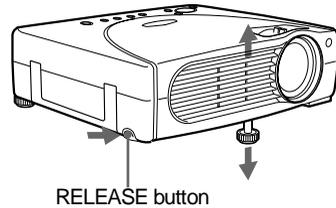
RELEASE button

2 While pressing the button, lower the projector. Then, release the button.

For fine adjustment, turn the adjusters to the right and the left.

to lower the projector   to raise the projector
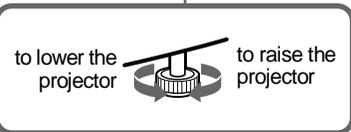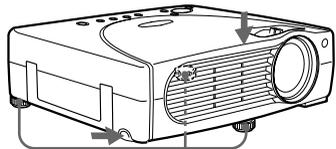
Notes

• Do not remove the adjusters from the projector. Do not use the projector with the adjusters removed.
• Be careful not to let the projector down on your fingers.
• Do not push hard on the top of the projector with the adjusters out.

Control Panel
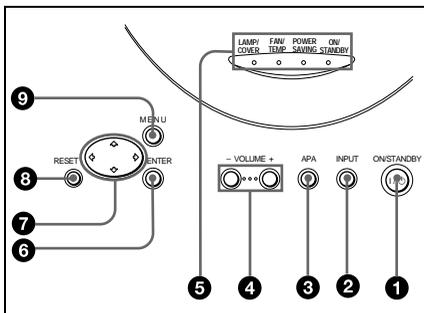
❶ I / ⏻ (ON/STANDBY) key

Turns on and off the projector when the projector is in standby mode. The ON/STANDBY indicator lights in green when the power is turned on.
When turning off the power, press the I / ⏻ key twice following the message on the screen, or press and hold the key for about one second.

For details on steps for turning off the power, see "To turn off the power" on page 24.

❷ INPUT key

Selects the input signal. Each time you press the key, the input signal switches as follows:

INPUT A → VIDEO → S VIDEO

❸ APA (Auto Pixel Alignment) key

Adjusts a picture clearest automatically while a signal is input from a computer.

❹ VOLUME +/– keys

Adjust the volume of the built-in speakers.

+ **:** Increases the volume.
– **:** Decreases the volume.

❺ Indicators

- **LAMP/COVER:** Lights up or flashes under the following conditions:
  – Lights up when the lamp has reached the end of its life or becomes a high temperature.
  – Flashes when the lamp cover or air filter cover is not secured firmly.
- **FAN/TEMP (Temperature):** Lights up or flashes under the following conditions:
  – Lights up when temperature inside the projector becomes unusually high.
  – Flashes when the fan is broken.
- **POWER SAVING:** Lights up when the projector is in power saving mode. When POWER SAVING in the SET SETTING menu is set to ON, the projector goes into power saving mode if no signal is input for 10 minutes. Although the lamp goes out, the cooling fan keeps running. In power saving mode, any key does not function for the first 30 seconds. The power saving mode is canceled when a signal is input or any key is pressed.
- **ON/STANDBY:** Lights up or flashes under the following conditions:
  – Lights in red when a AC power cord is plugged into a wall outlet. Once in standby mode, you can turn on the projector with the I / ⏻ key.
  – Lights in green when the power is turned on.
  – Flashes in green while the cooling fan runs after the power is turned off with the I / ⏻ key. The fan runs for about 60 seconds after the power is turned off.
  The ON/STANDBY indicator flashes quickly for the first 30 seconds. During this time, you cannot light up the ON/STANDBY indicator with the I / ⏻ key.

For details on the LAMP/COVER and the FAN/TEMP indicators, see page 35.

❻ ENTER key

Enters the settings of items in the menu system.

❼ Arrow keys (↑/↓/←/→)
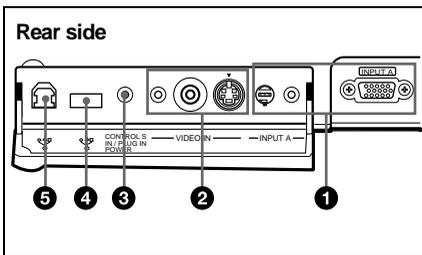
Select the menu or to make various adjustments.

❽ RESET key

Resets 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.

❾ MENU key

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

Connector Panel

```
Rear side
```


❶ INPUT A connector

Connect to external equipment such as a computer.

- **INPUT A connector (HD D-sub 15-pin, female):** Connects to the monitor output on a computer using the supplied cable.
  When inputting a component or 15k RGB signal, use an optional cable.

For details, see "To connect a 15k RGB/ Component equipment" on page 19.

- **AUDIO (stereo minijack) connector:** Connects to the audio output of the computer.
- **MOUSE connector (6-pin):** Connects to the PS/2 mouse port on a computer via the supplied mouse cable, to control the mouse function of the connected computer.

❷ VIDEO IN connector

Connect to external video equipment such as a VCR.

- **S VIDEO (mini DIN 4-pin):** Connects to the S video output (Y/C video output) of video equipment.
- **VIDEO (phono type):** Connects to the composite video output of video equipment.
- **AUDIO (stereo minijack) connector:** Connects to the audio output of the VCR.

❸ CONTROL S IN/PLUG IN POWER (DC 5V output) jack

Connects to the control S out jack of the Sony equipment.
Connects to the CONTROL S OUT jack on the supplied Remote Commander when using it 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.

❹ USB connector (USB A-plug for downstream, 4-pin)

Connect to USB equipment such as a mouse, camera, etc.

## ❺ USB connector (USB B-plug for upstream, 4-pin)

Connect to the USB connector on a computer.
When you connect the projector to the computer, the projector recognizes the mouse of the computer connected to the INPUT A connector and you can control the mouse function with the supplied Remote Commander. The supplied application software can be installed in the computer attached to this connector.

Remote Commander

The keys that have the same names as those on the control panel function identically. You can control a connected computer using the Remote Commander.

For details, see "To control the computer using the supplied Remote Commander" on page 23.
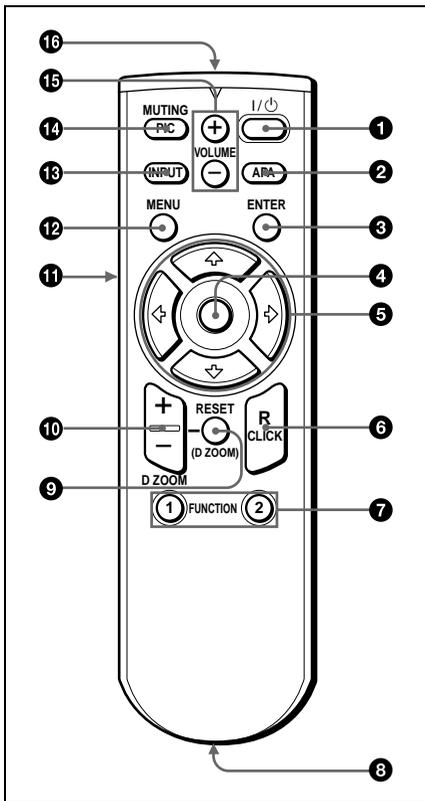
⓵ I / ⏻ key

② APA (Auto Pixel Alignment) key

③ ENTER key

④ Joystick

Functions as the mouse of the computer connected to the unit.

⑤ Arrow (↑/↓/←/→) keys

⑥ R CLICK key

Functions as the right button on a mouse.

⑦ FUNCTION 1, 2 keys

These keys function when the supplied application software is used. When you connect the projector with a computer, you can open a file on the screen by just pressing the FUNCTION key. This will enhance your presentation. To use this function, allocate a file to the FUNCTION key by using the application software.

For details, see the README file and the HELP file supplied with the application software.

⑧ CONTROL S OUT jack (stereo minijack)

Connects to the CONTROL S IN jack on the projector with the connecting cable (not supplied) when using the Remote Commander as a wired one. In this case, you do not need to install the batteries as the power is supplied via the CONTROL S IN jack on the projector.

⑨ RESET (D ZOOM) key

Resets the value of an item back to its factory preset value or returns the enlarged image back to its original size.

⑩ D ZOOM +/– key

Enlarges the image at a desired location on the screen.

+: Pressing the + key once highlights one of the images divided into 16. Use an arrow key (↑/↓/←/→) to move the highlight portion to the point in the image to be enlarged. Press the + key repeatedly until the image is enlarged to your requirements.

–: Pressing the – key reduces an image that has been enlarged with the D ZOOM + key.

⑪ L CLICK key

Functions as the left button on a mouse.

⑫ MENU key

⑬ INPUT key

⑭ MUTING PIC key

Cut off the picture. Press again to restore the picture.

⑮ VOLUME +/– keys

⑯ Infrared transmitter

To install batteries

1 Push and slide to open the lid, then install the two size AA (R6) batteries (supplied) with the correct polarity.

While pressing the lid, slide it.

Be sure to install the battery from the ⊖ side.
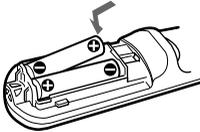
2 Replace the lid.

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

Notes on Remote Commander operation
- Make sure that nothing obstructs the infrared beam between the Remote Commander and the remote control detector on the projector. Direct the Remote Commander toward the front or rear remote control detector.
- The operation range is limited. The shorter the distance between the Remote Commander and the projector is, the wider the angle within which the commander can control the projector becomes.

Installing the Projector

This section describes how to install the projector.
The distance between the lens and the screen varies depending on the size of the screen. Use the following table as a guide.

Distance between the screen and the center of the lens
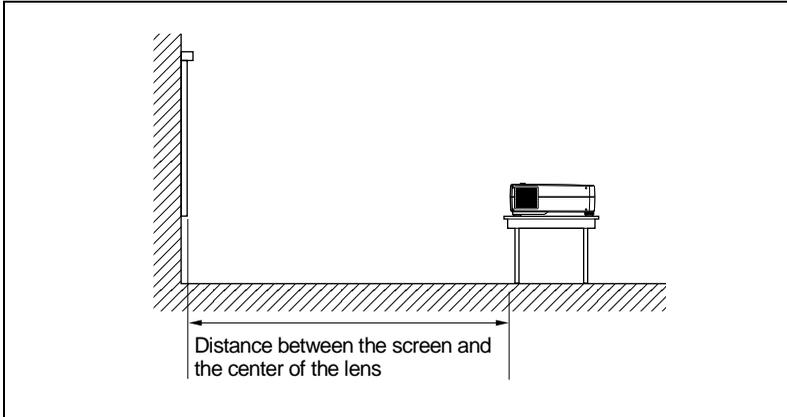
Unit: m (feet)

Screen size (inches)	40	60	80	100	120	150	200	300
Minimum Distance	1.5 (4.8)	2.2 (7.3)	3.0 (9.8)	3.8 (12.4)	4.5 (14.9)	5.7 (18.6)	7.6 (24.9)	11.4 (37.5)
Maximum Distance	1.8 (5.8)	2.7 (8.8)	3.6 (11.8)	4.5 (14.8)	5.4 (17.8)	6.8 (22.3)	9.1 (29.8)	13.7 (44.9)

For details, see "Installation Example" on page 36.
For details on ceiling installation, consult with qualified Sony personnel (fee charged).

Setting Up and Projecting

Connecting the Projector

To connect the projector, refer to the illustrations on the next page and the instructions below.

Notes
- Turn off all equipment before making any connections.
- Use the proper cables for each connection.
- Insert the cable plugs 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.

Connecting with a Computer

This section describes how to connect the projector to a computer.
For more information, refer to the computer's instruction manual.

Notes
- The projector accepts VGA, SVGA, XGA, and SXGA signals. However, we recommend that you set the output mode of your computer to XGA mode for the external monitor.
- If you set your computer, such as a notebook type, to output the signal to both your computer's display and the external monitor, the picture of the external monitor may not appear properly. Set your computer to output the signal to only the external monitor.
  For details, refer to the operating instructions supplied with your computer.
- Supplied mouse cable may not work properly according to your computer.
- This projector is compatible with a DDC2B (Digital Data Channel 2B). If your computer is compatible with a DDC, turn the projector on according to the following procedures.

  1 Connect the projector to the computer by using the supplied HD D-sub 15 pin cable.
  2 Turn the projector on.
  3 Start the computer.

To connect an IBM PC/AT compatible computer

When you use a USB mouse and USB equipment

Rear side

CONTROL S
IN / PLUG IN
POWER

VIDEO IN — INPUT A

INPUT A

Computer

HD D-sub
15-pin cable
(supplied)

to monitor output

to USB equipment

Stereo audio connecting
cable (not supplied)

to audio output

USB cable A type – B type (supplied)
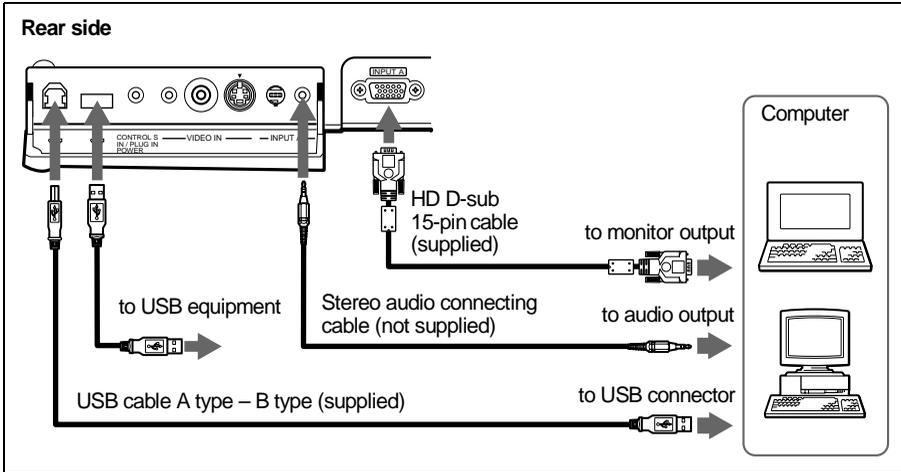
to USB connector

On the USB function

When connecting the projector to a computer by using the USB cable for the
first time, the computer recognizes the following devices automatically.

1 USB hub (general use)
2 USB human interface device (wireless mouse function)
3 USB human interface device (projector control function)

The computer also recognizes the device connected to the downstream
connector on the projector.

Recommended operating environment

When you use the USB function, connect your computer as illustrated above.
This application software and the USB function can be used on a computer
loaded with Windows 98, Windows 98 SE, Windows 2000 or Windows ME
preinstall models.

Notes

• As the projector recognizes the USB mouse when the computer is
  connected to the USB connector, do not connect anything to the PS/2
  mouse port.
• Your computer may not start correctly when connected to the projector
  via the USB cable. In this case, disconnect the USB cable, restart the
  computer, then connect the computer to the projector using the USB
  cable.
• This projector is not guaranteed for suspend, standby mode. When you
  use the projector in suspend, standby mode, disconnect the projector
  from the USB port on the computer.
• Operations are not guaranteed for all the recommended computer
  environments.

When you use a PS/2 mouse port

Rear side

HD D-sub
15-pin cable
(supplied)

to monitor output

Computer

Stereo audio connecting cable
(not supplied)

to audio output

PS/2 Mouse cable
(supplied)

to mouse port
(PS/2)
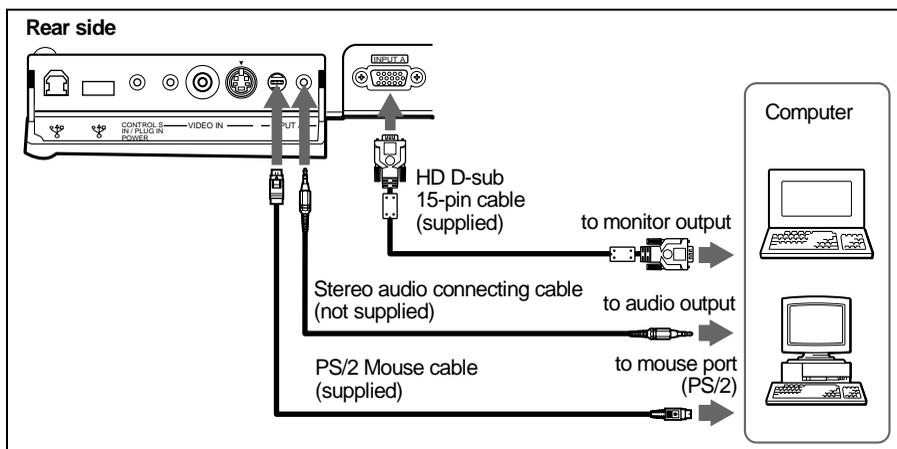
To connect a Macintosh computer

To connect a Macintosh computer equipped with video output connector of a
type having two rows of pins, use a commercially available plug adaptor. In
this case, however, you can not control the mouse of the computer by the
Remote Commander.

Connecting with a VCR or 15k RGB/Component Equipment

This section describes how to connect the projector to a VCR or 15k RGB/
component equipment.
For more information, refer to the instruction manuals of the equipment you
are connecting.

To connect a VCR

AV cable (supplied)

S-Video cable (not supplied)

Rear side

to S video
output

to
audio
output
(R/L)

to video
output

VCR
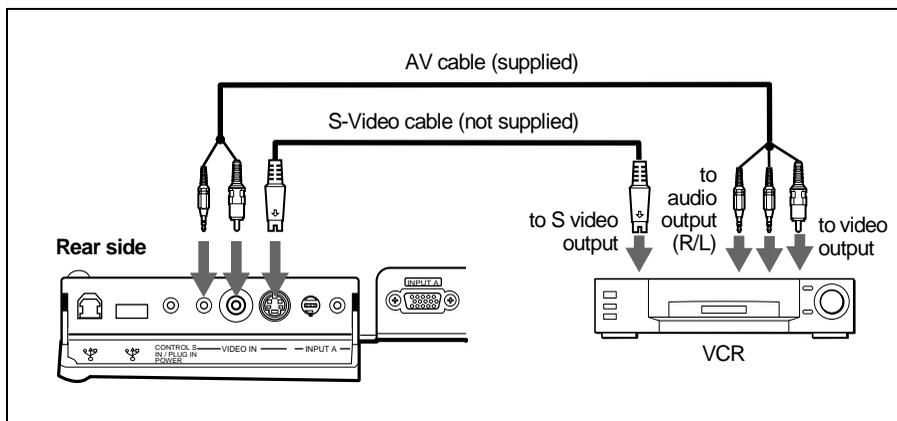
To connect a 15k RGB/Component equipment
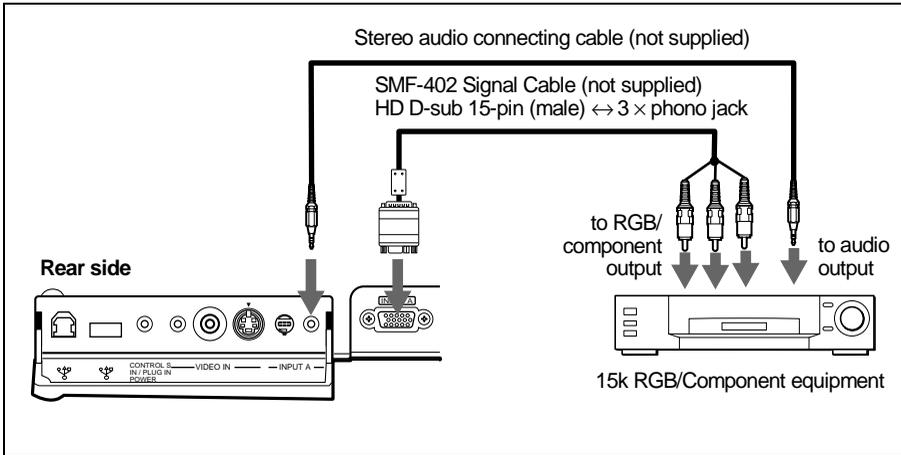
Notes

- Set the aspect ratio using ASPECT in the INPUT SETTING menu according to the input signal.
- When you connect the unit to 15k RGB/component video equipment, select RGB or component with the INPUT-A setting in the SET SETTING menu.
- Use the composite sync signal when you input the external sync signal from 15k RGB/component equipment.

Selecting the Menu Language

You can select one of seven languages for displaying the menu and other on-screen displays. The factory setting is English.

Front remote control detector
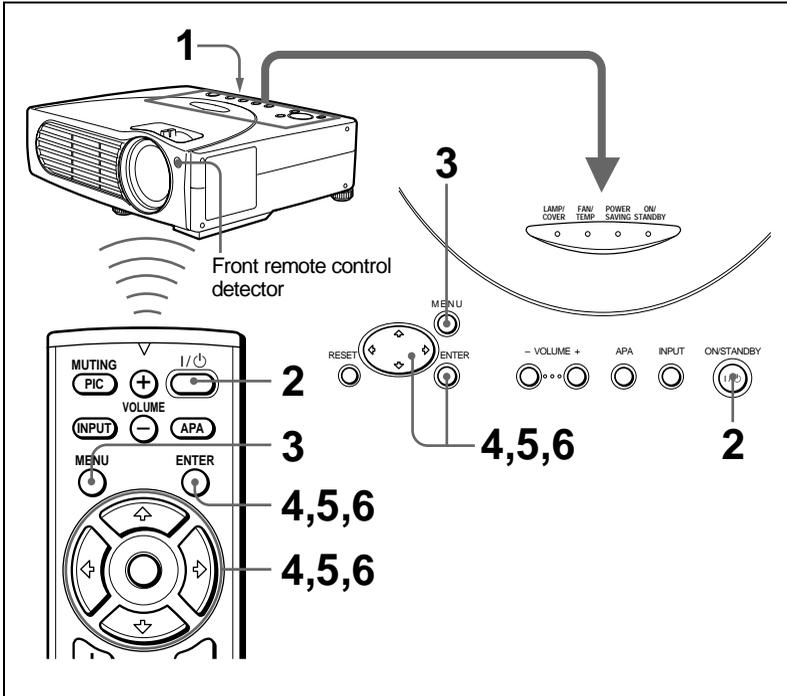
1 Plug the AC power cord on the rear side on the projector into a wall outlet.

2 Press the I / $\circlearrowleft$ key to turn on the projector.

3 Press the MENU key.
The menu appears.
The menu presently selected is shown as a yellow button.

PICTURE CTRL		INPUT-A
□ CONTRAST:	8 0	
□ BRIGHT:	5 0	
□ GAMMA MODE:	GRAPHICS	
□ COLOR TEMP:	HIGH	
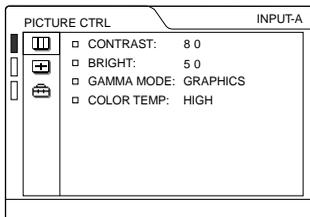
4 Press the ↑ or ↓ key to select the SET SETTING menu, then press the ➡ or ENTER key.
The selected menu appears.

```
SET SETTING                    INPUT-A
 ┌─┐  ▪ STATUS:          ON
 │▥│  □ INPUT-A:         RGB
 │⊞│  □ KEYSTONE MEMORY: ON
 │▣│  □ DIGITAL KEYSTONE: OFF
      □ LANGUAGE:        ENGLISH
      □ INSTALLATION:    FLR-FRONT
      □ POWER SAVING:    OFF
      □ SIRCS RECEIVER:  FRONT&REAR
        LAMP TIMER:      00010h
```
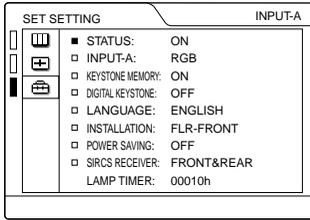
5 Press the ↑ or ↓ key to select "LANGUAGE," then press the ➡ or ENTER key.

```
SET SETTING                    INPUT-A
 ┌─┐  □ STATUS:          ON
 │▥│  □ INPUT-A:         RGB
 │⊞│  □ KEYSTONE MEMORY: ON
 │▣│  □ DIGITAL KEYSTONE: OFF
      ▪ LANGUAGE:        ENGLISH
      □ INSTALLATION:    FLR-FRONT
      □ POWER SAVING:    OFF
      □ SIRCS RECEIVER:  FRONT&REAR
        LAMP TIMER:      00010h
```
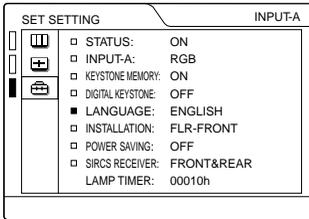
6 Press the ↑ or ↓ key to select a language, then press the ⬅ or ENTER key.
The menu changes to the selected language.

To clear the menu

Press the MENU key.
The menu disappears automatically if a key is not pressed for one minute.

Projecting

Rear remote control detector

ON/STANDBY indicator

5
6
1
2
4
2

APA key

VOLUME +/– keys

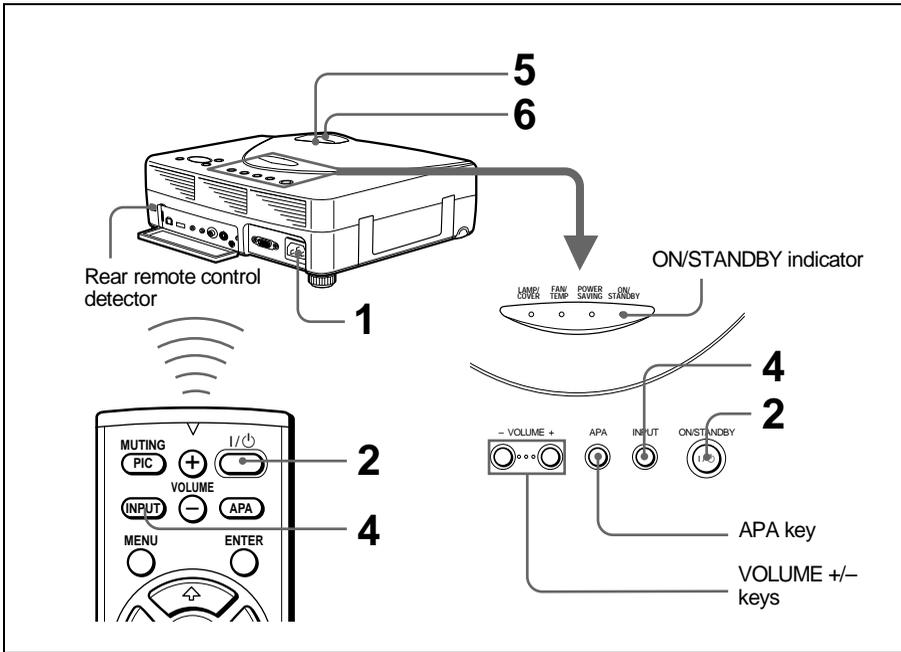**1** Plug the AC power cord on the rear side on the projector into a wall outlet, then connect all equipment.
The ON/STANDBY indicator lights in red and the projector goes into standby mode.

2 Press the I / ⏻ key.
The ON/STANDBY indicator lights in green.

3 Turn on the equipment connected to the projector.

4 Press the INPUT key to select the input source.

To input from	Press INPUT to display
Computer connected to the INPUT A connector	INPUT A
Video equipment connected to the VIDEO input connector	VIDEO
Video equipment connected to the S VIDEO input connector	S VIDEO

5 Turn the zoom ring to adjust the size of the picture.

6 Turn the focus ring to adjust the focus.

Caution

Looking into the lens when projecting may cause injury to your eyes.

To adjust the volume

Press VOLUME +/– keys. The volume can be adjusted for each of INPUT A, VIDEO and S VIDEO input.

To cutoff the picture

Press the MUTING PIC key on the Remote Commander.
To restore the picture, press the MUTING PIC key again.

To control the computer using the supplied Remote Commander

When you connect an IBM PC/AT compatible to the projector, you can control the mouse of the computer using the Remote Commander.
The R/L CLICK keys and joystick function as follows.

Key and joystick	Function
R CLICK (front)	Right button
L CLICK (rear)	Left button
Joystick	Corresponds with the movements of the mouse

Note

Make sure that nothing obstructs the infrared beam between the Remote Commander and the remote control detector on the projector.

To get the clearest picture

You can adjust picture quality when projecting a signal from the computer.

1 Project a still picture from the computer.

2 Press the APA key.
"Complete!" appears on the screen when the picture is adjusted properly.

Notes

- Press the APA key when the full image is displayed on the screen. If there are black edges around the image, the APA function will not function properly and the image may extend beyond the screen.
- When you switch the input signal or re-connect a computer, press the APA key again to adjust the picture again.
- You can cancel the adjustment by pressing the APA key again while "ADJUSTING" appears on the screen.
- The picture may not be adjusted properly depending on the kinds of input signals.
- Adjust the items in the INPUT SETTING menu when you adjust the picture manually.

To turn off the power

1 Press the I / ⏻ key.

"POWER OFF? Please press I / ⏻ key again." appears to confirm that you want to turn off the power.

Note

A message disappears if you press any key except the I / ⏻ key, or if you do not press any key for five seconds.

2 Press the I / ⏻ key again.

The ON/STANDBY indicator flashes in green and the fan continues to run for about 60 seconds to reduce the internal heat. Also, the ON/STANDBY indicator flashes quickly for the first 30 seconds. During this time, you will not be able to light up the ON/STANDBY indicator with the I / ⏻ key.

3 Unplug the AC power cord from the wall outlet after the fan stops running and the ON/STANDBY indicator lights in red.

When you cannot confirm the on-screen message

When you cannot confirm the on-screen message in a certain condition, you can turn off the power by holding the I / ⏻ key for about one second.

Note

Do not unplug the AC power cord while the fan is still running; otherwise, the fan will stop even though the internal heat is still high, which could result in a breakdown of the projector.

On air filter

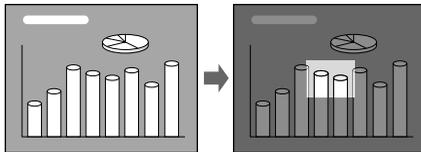To maintain optimal performance, **clean the air filter every 300 hours**.

Effective Tools for Your Presentation

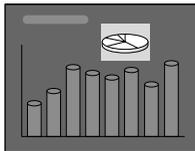### To enlarge the image (Digital Zoom function)

You can select a point in the image to enlarge.

1 Project the original size picture and press the D ZOOM + key on the
Remote Commander.

One of images divided into 16 is highlighted at the center of the image.

2 Move the highlight portion to the point you want to enlarge by pressing the
arrow keys (↑/↓/←/→).

3 Press the D ZOOM + key again.

The highlight portion displayed in step 2 is enlarged. By pressing the + key
repeatedly, the image size increases. (ratio of enlargement: max. 4 times)
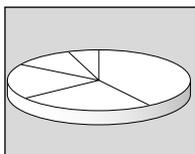
Use the arrow keys (↑/↓/←/→) to scroll the enlarged image.
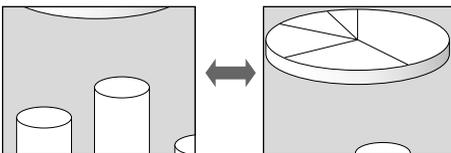
To return the image back to its original size

Press the D ZOOM – key on the Remote Commander. Just pressing the
RESET (ZOOM) key returns the image back to its original size immediately.

Using the MENU

The projector is equipped with an on-screen menu for making various adjustments and settings. You can change the menu language displayed in the on-screen menu.

To change the menu language, see "Selecting the Menu Language" on page 20.

1 Press the MENU key.
The menu appears.
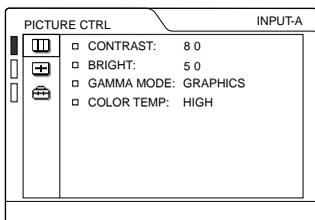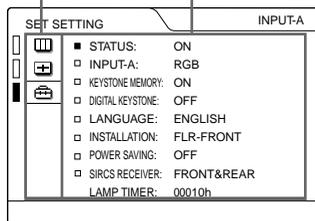The menu presently selected is shown as a yellow button.

```
PICTURE CTRL                    INPUT-A

  ▯  □ CONTRAST:      8 0
  ⊞  □ BRIGHT:        5 0
  ⊜  □ GAMMA MODE:    GRAPHICS
     □ COLOR TEMP:    HIGH
```

2 Use the ↑ or ↓ key to select a menu, then press the ➡ or ENTER key.
The selected menu appears.

Menus   Setting items

```
SET SETTING                     INPUT-A

  ▯  ■ STATUS:          ON
  ⊞  □ INPUT-A:         RGB
  ⊜  □ KEYSTONE MEMORY: ON
     □ DIGITAL KEYSTONE: OFF
     □ LANGUAGE:        ENGLISH
     □ INSTALLATION:    FLR-FRONT
     □ POWER SAVING:    OFF
     □ SIRCS RECEIVER:  FRONT&REAR
       LAMP TIMER:      00010h
```

3 Select an item.
Use the ↑ or ↓ key to select the item, then press the ➡ or ENTER key.

4 Make the setting or adjustment on an item.

• When changing the adjustment level:
To increase the number, press the ↑ or ➡ key.
To decrease the number, press the ↓ or ← key.
Press the ENTER key to restore the original screen.
• When changing the setting:
Press the ↑ or ↓ key to change the setting.
Press the ENTER or ← key to restore the original screen.

To clear the menu

Press the MENU key.
The menu disappears automatically if a key is not pressed for one minute.

To reset items that have been adjusted

Press the RESET key.
"Complete!" appears on the screen and **the settings appearing on the screen are reset to their factory preset values**.
Items that can be reset are:
• "CONTRAST," "BRIGHT," "COLOR," "HUE," and "SHARP" in the PICTURE CTRL menu
• "DOT PHASE," "SIZE," and "SHIFT" in the INPUT SETTING menu
• "DIGITAL KEYSTONE" in the SET SETTING menu

About the memory of the settings

The settings are automatically stored in the projector memory.

If no signal is input

If there is no input signal, "NO INPUT– Cannot adjust this item." appears on the screen.
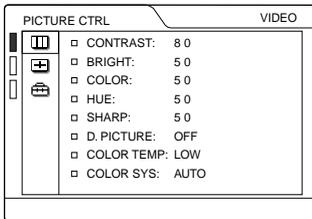
The PICTURE CTRL Menu

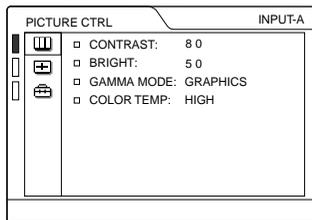The PICTURE CTRL (control) menu is used for adjusting the picture.
Items that cannot be adjusted depending on the input signal are not displayed in the menu.

For details on the unadjustable items, see page 42.

When the video signal is input

```
PICTURE CTRL                          VIDEO
     ┌────┐  □ CONTRAST:   8 0
     │ ▦  │  □ BRIGHT:     5 0
     │ ⊞  │  □ COLOR:      5 0
     │ ☷  │  □ HUE:        5 0
     └────┘  □ SHARP:      5 0
             □ D. PICTURE: OFF
             □ COLOR TEMP: LOW
             □ COLOR SYS:  AUTO
```

When the RGB signal is input

```
PICTURE CTRL                         INPUT-A
     ┌────┐  □ CONTRAST:    8 0
     │ ▦  │  □ BRIGHT:      5 0
     │ ⊞  │  □ GAMMA MODE:  GRAPHICS
     │ ☷  │  □ COLOR TEMP:  HIGH
     └────┘
```

Menu Items

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 color tones. The higher the setting, the picture becomes greenish. The lower the setting, 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.

D. (Dynamic) PICTURE

Emphasizes the black color.

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.

GAMMA MODE

Selects a gamma correction curve.

GRAPHICS: Improves the reproduction of halftones. Photos can be reproduced in natural tones.

TEXT: Contrasts black and white. Suitable for images that contain lots of text.

COLOR TEMP

Adjusts the color temperature.

HIGH: Makes the white color bluish.

LOW: Makes the white color reddish.

COLOR SYS (System)

Selects the color system of the input signal.
• **AUTO:** NTSC$_{3.58}$, PAL, SECAM and NTSC$_{4.43}$ (switched automatically)
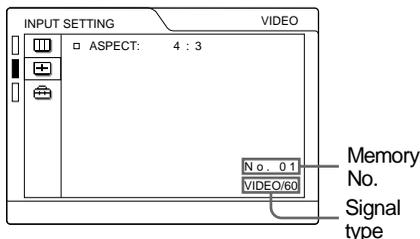• **PAL-M/N:** PAL-M/PAL-N and NTSC$_{3.58}$ (switched automatically)
Normally, set to AUTO. If the picture is distorted or colorless, select the color system according to the input signal.
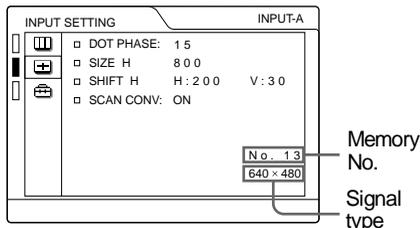
The INPUT SETTING Menu

The INPUT SETTING menu is used to adjust the input signal.
Items that cannot be adjusted depending on the input signal are not displayed in the menu.

For details on the unadjustable items, see page 42.

When the video signal is input

```
INPUT SETTING                    VIDEO
  ▭   □ ASPECT:        4 : 3
  ▦
  ▱

                        No. 01      ─── Memory
                                        No.
                        VIDEO/60    ─── Signal
                                        type
```

When the RGB signal is input

```
INPUT SETTING                    INPUT-A
  ▭   □ DOT PHASE:  1 5
  ▦   □ SIZE  H       8 0 0
  ▱   □ SHIFT H      H : 2 0 0    V : 3 0
      □ SCAN CONV:  ON

                        No. 13      ─── Memory
                                        No.
                        640 × 480   ─── Signal
                                        type
```

MENU Items

DOT PHASE

Adjusts the dot phase of the LCD panel and the signal input from the INPUT A connector.
Adjust the picture further for finer picture after the picture is adjusted by pressing the APA key.
Adjust the picture to where it looks clearest.

SIZE

Adjusts the horizontal size of picture input from the INPUT A connector. The higher the setting, the larger the horizontal size of the picture. The lower the setting, the smaller the horizontal size of the picture. Adjust the setting according to the dots of the input signal.

For details on the suitable value for the preset signals, see page 43.

SHIFT

Adjusts the position of the picture input from the INPUT A connector. 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 ← or the → key to adjust the horizontal position and the ↑ and ↓ key for the vertical position.

SCAN CONV (Scan converter)

Converts the signal to display the picture according to the screen size.

ON: Displays the picture according to the screen size. The picture will lose some clarity.

OFF: Displays the picture while matching one pixel of input picture element to that of the LCD. The picture will be clear but the picture size will be smaller.

Note

This item will not be displayed when XGA or SXGA signal is input.

ASPECT

Sets the aspect ratio of the picture. When inputting 16:9 (squeezed) signal from equipment such as a DVD player, set to 16:9.

4:3: When the picture with ratio 4:3 is input.

16:9: When the picture with ratio 16:9 (squeezed) is input.

About the Preset Memory No.

This projector has 37 types of preset data for input signals for INPUT-A (the preset memory). When a preset signal is input, the projector automatically detects the signal type and recalls the data for the signal from the preset memory to adjust it to an optimum picture. The memory number and signal type of that signal are displayed in the INPUT SETTING menu. You can also adjust the preset data through the INPUT SETTING menu.

This projector has 20 types of user memories for INPUT-A into which you can save the setting of the adjusted data for an unpreset input signal.

When an unpreset signal is input for the first time, a memory number is displayed as 00. When you adjust the data of the signal in the INPUT SETTING menu, it will be registered to the projector. If more than 20 user memories are registered, the newest memory always overwrites the oldest one.

See the chat on page 43 to find if the signal is registered to the preset memory.

Since the data is recalled from the preset memory about the following signals, you can use these preset data by adjusting SIZE. Make fine adjustment by adjusting SHIFT.
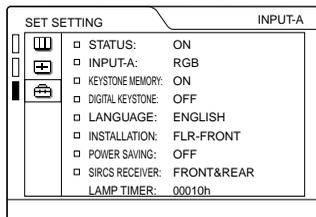
Signal	Memory No.	SIZE
Super Mac-2	23	1312
SGI-1	23	1320
Macintosh 19"	25	1328
Macintosh 21"	27	1456
Sony News	36	1708
PC-9821 1280 × 1024	36	1600
WS Sunmicro	37	1664

Note

When the aspect ratio of input signal is other than 4:3, a part of the screen is displayed in black.

The SET SETTING Menu

The SET SETTING menu is used for changing the settings of the projector.

```
SET SETTING                    INPUT-A
     ▭ STATUS:          ON
     ▭ INPUT-A:         RGB
     ▭ KEYSTONE MEMORY:  ON
     ▭ DIGITAL KEYSTONE:  OFF
     ▭ LANGUAGE:        ENGLISH
     ▭ INSTALLATION:    FLR-FRONT
     ▭ POWER SAVING:    OFF
     ▭ SIRCS RECEIVER:  FRONT&REAR
       LAMP TIMER:      00010h
```

Menu Items

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 the menus, a message when turning off the power, and warning messages.

INPUT-A

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

Note

If the setting is not correct, "Please check INPUT-A setting." appears on the screen and the color of the picture becomes strange or the picture is not displayed.

KEYSTONE MEMORY

Memorizes the data adjusted with DIGITAL KEYSTONE.

DIGITAL KEYSTONE

Adjusts trapezoidal distortion of the picture that may occur depending on the projection angle.

When the downside of the trapezoid is longer than the upside ⬜ **:** Sets to a minus value.

When the upside of the trapezoid is longer than the downside ⬜ **:** Sets to a plus value.

LANGUAGE

Selects the language used in the menu and on-screen displays. Available languages are: English, French, German, Italian, Spanish, Japanese and Chinese.

INSTALLATION

Sets to reverse the picture horizontally or vertically.

FLR-FRONT: The picture is not reversed.
CEIL.-FRT: The picture is reversed horizontally and vertically.
FLOOR-REAR: The picture is reversed horizontally.
CEIL.-REAR: The picture is reversed vertically.

Note

In case of using a mirror, be careful of installation since the picture may be reversed.

POWER SAVING

When set to ON, the projector goes into power saving mode if no signal is input for 10 minutes.

SIRCS RECEIVER

Selects the remote control detectors (SIRCS receiver) on the front and rear of the projector.

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

FRONT: Activates the front detector only.

REAR: Activates the rear detector only.

LAMP TIMER

Indicates the total number of hours for which the lamp currently used has been operated.

Maintenance

Replacing the Lamp

When the lamp has burnt out or dims, or
"Please replace the lamp." appears on the
screen, replace the lamp with a new one.
Use LMP-C160 Projector Lamp. The lamp
life varies depending on conditions of use.

When replacing the lamp after using the projector

Turn off the projector, then unplug the
power cord.
Wait for at least an hour for the lamp to cool.

Caution

The lamp becomes a high temperature after
turning off the projector with the I / ⏻ key. If
you touch the lamp, you may scald your finger.
When you replace the lamp, wait for at least an
hour for the lamp to cool.

1 Place a protective sheet (cloth)
beneath the projector. Turn the
projector over so you can see its
underside.

Note

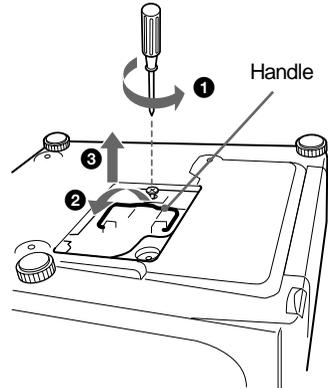Be sure that the projector is stable after
turning it over.

2 Open the lamp cover by loosening a
screw with the Phillips screwdriver
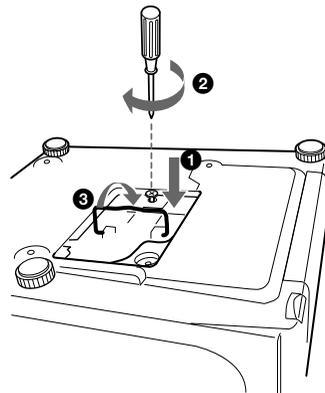(supplied with the projector lamp).
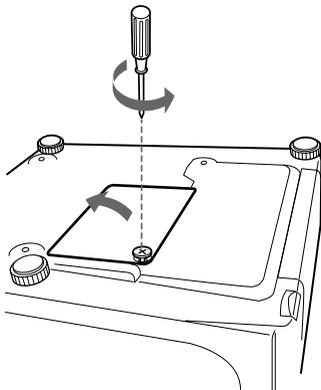
Note

For safety sake, do not loosen any other
screws.

3 Loosen the screw on the lamp unit
with the Phillips screwdriver. Pull out
the lamp unit by the handle.

Handle

4 Insert the new lamp all the way in until
it is securely in place. Tighten the
screw. Fold up the handle.

Notes

• Be careful not to touch the glass surface
of the lamp.
• The power will not turn on if the lamp is
not secured properly.

5 Close the lamp cover and tighten the
screws.

Maintenance

6 Turn the projector back over.

7 Connect the power cord and turn the projector to standby mode.

8 Press the following keys on the control panel in the following order for less than five seconds each: RESET, ←, →, ENTER.
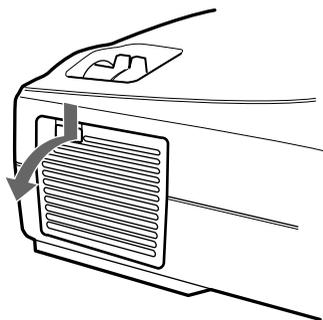
Notes

• Be sure to use the **LMP-C160** Projector Lamp for replacement. **If you use lamps other than LMP-C160, the projector may malfunction**.
• The LMP-C160 Projector Lamp for replacement is used for the VPL-CX11 only. Do not use it for other projectors.
• Be sure to turn off the projector and unplug the power cord before replacing the lamp.
• Do not put your hands into the lamp replacement spot, or not drop any liquid or object into it, **to avoid electrical shock or fire**.
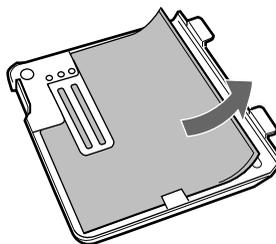
Cleaning the Air Filter

The air filter should be cleaned every 300 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 power and unplug the power cord.

2 Turn the projector over.

3 Remove the air filter cover.

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 mild detergent solution and dry it in a shaded place. If the dust cannot be removed, replace the air filter with the supplied new one.
• Be sure to attach the air filter cover firmly; the power will not be turned on if it is not closed securely.
• The air filter has a face and a reverse side. Place the air filter so that it fits in a notch on the air filter cover.

To clean the ventilation holes

When you clean the air filter, clean the ventilation holes (intake, rear) also. Remove the dust from the outside of the ventilation holes with a vacuum cleaner.

Troubleshooting

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

Power

Symptom	Cause and Remedy
The power is not turned on.	• The power has been turned off and on with the I / ⏻ key at a short interval. → Wait for about 60 seconds before turning on the power (see page 24). • The lamp cover is detached. → Close the lamp cover securely (see page 31). • The air filter cover is detached. → Close the air filter cover securely (see page 32).
Both the LAMP/COVER and FAN/TEMP indicators light up.	• The electrical system breaks down. → Consult with qualified Sony personnel.

Picture

Symptom	Cause and Remedy
No picture.	• Cable is disconnected or the connections are wrong. → Check that the proper connections have been made (see page 16). • The picture is cut off. → Press the MUTING PIC key to release the muting function (see page 23). • Input selection is incorrect. → Select the input source correctly using the INPUT key (see page 22). • The computer signal is not set to output to an external monitor. → Set the computer signal to output to an external monitor (see page 16). • The computer signal is set to output to both the LCD of the computer and external monitor. → Set the computer signal to output only to the external monitor (see page 16).
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 from INPUT A connector is colored strange.	• Setting for INPUT-A in the SET SETTING menu is incorrect. → Select RGB or COMPONENT for INPUT-A in the SET SETTING menu according to the input signal (see page 30).
"Please check INPUT-A setting." appears in spite of inputting the correct signal from INPUT A.	• Setting for INPUT-A in the SET SETTING menu is incorrect. → Select RGB or COMPONENT for INPUT-A in the SET SETTING menu according to the input signal (see page 30).

Maintenance

Symptom	Cause and Remedy
On-screen display does not appear.	• STATUS in the SET SETTING menu has been set to OFF. → Set STATUS in the SET SETTING menu to ON (see page 30).
Color balance is incorrect.	• Picture has not been adjusted properly. → Adjust the picture (see page 27). • Projector is set to wrong color system. → Set COLOR SYS in the PICTURE CTRL menu to match the color system being input (see page 27).
The picture is too dark.	• Contrast or brightness has not been adjusted properly. → Adjust the contrast or brightness in the PICTURE CTRL menu properly (see page 27).
The picture is not clear.	• Picture is out of focus. → Adjust the focus (see page 23). • Condensation has occurred on the lens. → Leave the projector for about two hours with the power on.
The picture appears too small on the screen.	• SHIFT in the INPUT SETTING menu has not been adjusted properly. → Adjust SHIFT in the INPUT SETTING menu properly (see page 28).
The picture flickers.	• DOT PHASE in the INPUT SETTING menu has not been adjusted properly. → Adjust DOT PHASE in the INPUT SETTING menu properly (see page 28).

Sound

Symptom	Cause and Remedy
No sound.	• Cable is disconnected or the connections are wrong. → Check that the proper connections have been made (see page 16).
When sound is input through AUDIO connector, sound comes through one channel only.	• Monaural sound is being input through the AUDIO connector. → Input stereo sound.

Remote Commander

Symptom	Cause and Remedy
The Remote Commander does not work.	• The Remote Commander batteries are dead. → Replace with new batteries (see page 14). • The front/rear remote control detector is near the fluorescent lamp. → Change the setting of SIRCS RECEIVER in the SET SETTING menu (see page 30).
The joystick, R CLICK, or L CLICK key does not function.	• The mouse port on the computer does not recognize the mouse cable. → Restart the computer.

Others

Symptom	Cause and Remedy
The LAMP/COVER indicator flashes.	• The lamp cover or the air filter cover is detached. → Attach the cover securely (see page 31).
The LAMP/COVER indicator lights up.	• The lamp has reached the end of its life. → Replace the lamp (see page 31). • The lamp becomes a high temperature. → Wait for 60 seconds to cool down the lamp and turn on the power again (see page 24).
The FAN/TEMP indicator flashes.	• The fan is broken. → Consult with qualified Sony personnel.
The FAN/TEMP indicator lights up.	• The internal temperature is unusually high. → Check to see if nothing is blocking the ventilation holes.
Both the LAMP/COVER and FAN/TEMP indicators light up.	• The electrical system breaks down. → Consult with qualified Sony personnel.

Warning Messages

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

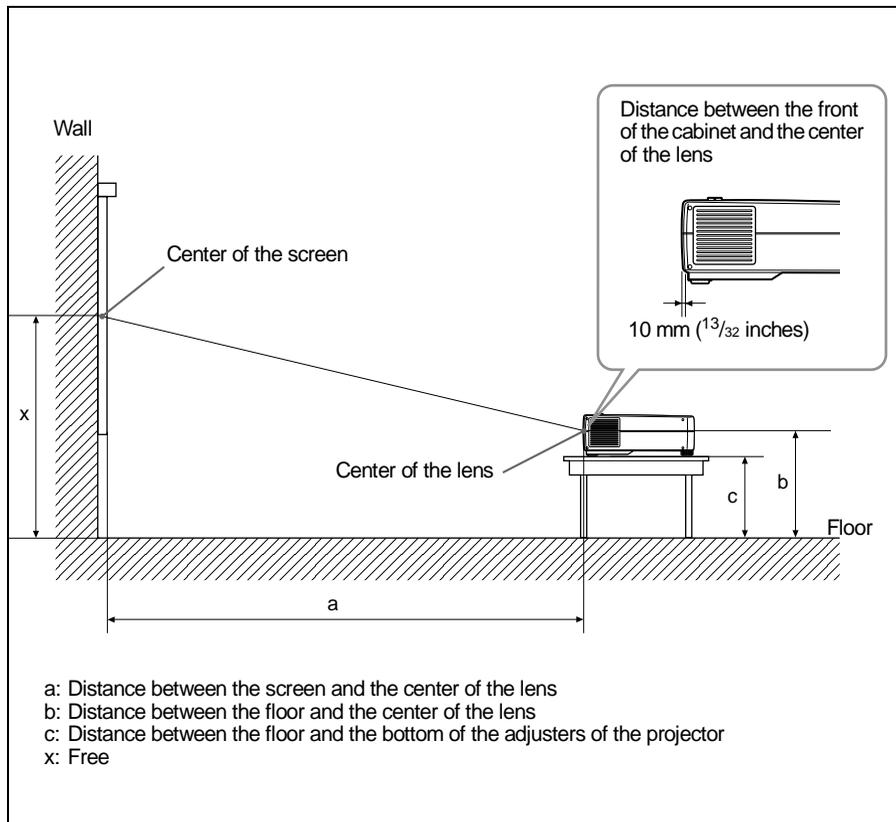| Message	Meaning and Remedy
High temp.! Lamp off in 1 min.	• Internal temperature is too high. → Turn off the power. → Check to see if nothing is blocking the ventilation holes.
Frequency is out of range!	• This input signal cannot be projected as the frequency is out of the acceptable range of the projector. → Input a signal that is within the range of the frequency. • The resolution setting of the output signal of a computer is too high. → Set the setting of output to XGA (see page 16).
Please check INPUT-A setting.	• You have input RGB signal from the computer when INPUT-A in the SET SETTING menu is set to COMPONENT. → Set INPUT-A correctly (see page 30).
Please replace the lamp.	• It is time to replace the lamp. → Replace the lamp.

Caution Messages

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

Message	Meaning and Remedy
NO INPUT	• No input signal → Check connections (see page 16).
Not applicable!	• You have pressed the wrong key. → Press the appropriate key.

Installation Example

This section describes an example for floor installation. The installation measurements may differ for the kind of the projector that you use.

Floor Installation

Wall

Distance between the front of the cabinet and the center of the lens

10 mm ($^{13}/_{32}$ inches)

Center of the screen

x

Center of the lens

c

b

Floor

a

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 adjusters of the projector
x: Free

The installation measurements and their calculation method are shown below.

The letters in the charts and calculation methods indicate the following.
SS: screen size measured diagonally (inches)
N: Minimum
M: Maximum
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 adjusters of the projector
x: Free

Unit: mm (inches)

SS		40	60	80	100	120	150	180	200	250	300
a	N	1465 (58)	2230 ($87^7/_8$)	2996 ($118^1/_8$)	3761 ($148^1/_8$)	4526 ($178^3/_8$)	5674 ($223^3/_8$)	6822 ($268^5/_8$)	7587 ($298^7/_8$)	9500 ($374^1/_8$)	11413 ($449^3/_8$)
	M	1768 ($69^3/_4$)	2683 ($105^5/_8$)	3598 ($141^3/_4$)	4513 ($177^5/_8$)	5428 ($213^7/_8$)	6800 ($267^3/_4$)	8172 ($321^3/_4$)	9087 (358)	11375 ($447^3/_4$)	13662 ($537^7/_8$)
b		x-304 (12)	x-456 (18)	x-609 (24)	x-761 (30)	x-913 (36)	x-1141 (45)	x-1369 (54)	x-1521 (60)	x-1902 ($74^7/_8$)	x-2282 ($89^7/_8$)
c		x-358 ($14^1/_8$)	x-510 ($20^1/_8$)	x-662 ($26^1/_8$)	x-814 ($32^1/_8$)	x-966 ($38^1/_8$)	x-1195 ($47^1/_8$)	x-1423 ($56^1/_8$)	x-1575 ($62^1/_8$)	x-1955 (77)	x-2336 (92)

Calculation method of the installation measurement (unit: mm)
a (minimum) = $\{(SS \times 33.8585/0.907087) – 63.6124\} \times 1.025$
a (maximum) = $\{(SS \times 42.5589/0.907087) – 63.3149\} \times 0.975$
b = $x – (SS/0.907087 \times 6.9)$
c = $x – (SS/0.907087 \times 6.9 + 53.5)$

Other
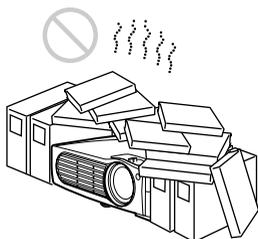
Notes on Installation

Unsuitable Installation

Do not install the projector in the following situations. These installations may cause malfunction or damage to the projector.

Poorly ventilated

- 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. When the internal heat builds up due to the block-up, the temperature sensor will function with the message "High temp.! Lamp off in 1 min." The power will be turned off automatically after one minute.
- Leave space of more than 30 cm (11 $^7/_8$ inches) around the unit.
- Be careful that the ventilation holes may inhale tininess such as a piece of paper.

Highly heated and humid
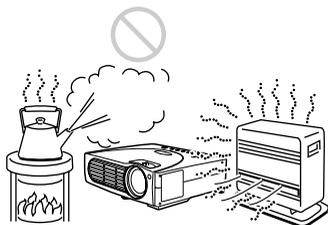
- Avoid installing the unit in a location where the temperature or humidity is very high, or temperature is very low.

- To avoid moisture condensation, do not install the unit in a location where the temperature may rise rapidly.

Very dusty

Avoid installing the unit in a location where there is a lot of dust; otherwise, the air filter will be obstructed. The dust blocking the air through the filter may cause raising the internal heat of the projector. Clean it up periodically.
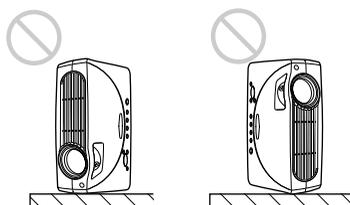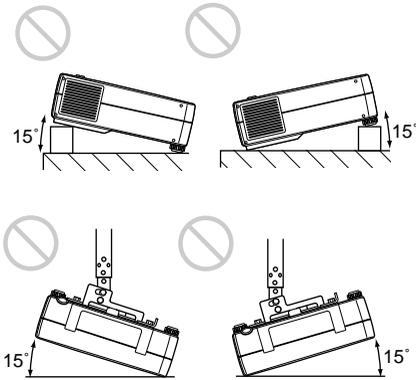

Unsuitable Conditions

Do not use the projector under the following conditions.

Toppling the unit

Avoid using as the unit topples over on its side. It may cause malfunction.
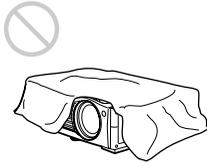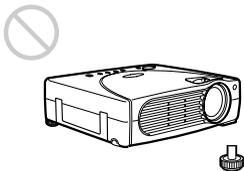
Tilting the unit more than 15 degrees

Avoid using as the unit tilts more than 15 degrees. These installation may cause malfunction.

Blocking the ventilation holes

Avoid using something to cover over the ventilation holes (exhaust/intake); otherwise, the internal heat may build up.

Removing the adjusters

Avoid using the unit with the adjusters removed. Blocking the ventilation holes (intake) may cause internal heat build-up.

Specifications

Optical characteristics

Projection system
    3 LCD panels, 1 lens, projection system
LCD panel   0.9-inch TFT LCD panel with micro-lens array, 2,359,296 pixels (786,432 pixels × 3)
Lens   1.3 times zoom lens
    f 33.6 to 42 mm/F 1.7 to 2.2
Lamp   160 W
Projection picture size
    Range: 40 to 300 inches (diagonal measure)
Light output   ANSI lumen[1] 1500 lm
Throwing distance
    (When the XGA signal is input)
    40-inch: 1465 to 1768 mm
    $(57\,^{3}/_{4}$ to $69\,^{5}/_{8}$ inches)
    60-inch: 2230 to 2683 mm
    $(87\,^{7}/_{8}$ to $105\,^{3}/_{4}$ inches)
    80-inch: 2996 to 3598 mm
    (118 to $141\,^{3}/_{4}$ inches)
    100-inch: 3761 to 4513 mm
    $(148\,^{1}/_{8}$ to $177\,^{3}/_{4}$ inches)
    120-inch: 4526 to 5428 mm
    $(178\,^{1}/_{4}$ to $213\,^{3}/_{4}$ inches)
    150-inch: 5674 to 6800 mm
    $(223\,^{1}/_{2}$ to $267\,^{3}/_{4}$ inches)
    180-inch: 6822 to 8172 mm
    $(268\,^{5}/_{8}$ to $321\,^{7}/_{8}$ inches)
    200-inch: 7587 to 9087 mm
    $(298\,^{3}/_{4}$ to $357\,^{7}/_{8}$ inches)
    250-inch: 9500 to 11375 mm
    $(374\,^{1}/_{8}$ to 448 inches)
    300-inch: 11413 to 13662 mm
    $(449\,^{1}/_{2}$ to 538 inches)

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

Other

Electrical characteristics

Color system   NTSC3.58/PAL/SECAM/
      NTSC4.43/PAL-M/PAL-N
      system, switched automatically/
      manually
Resolution   750 horizontal TV lines (Video
      input)
      1024×768 dots (RGB input)
Acceptable computer signals
      fH: 19 to 92 kHz
      fV: 48 to 92 Hz
Speaker   Stereo speakers system, 36 mm
      ($1 ^7/_{16}$ inches) diameter,
      max. 0.5 W $\times$ 2

Input/Output

VIDEO IN   S VIDEO: Y/C 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 $\pm$2 dB (NTSC)
      (75 ohms terminated),
      burst 0.3 Vp-p $\pm$2 dB (PAL)
      (75 ohms terminated)
      VIDEO: phono type
      Composite video: 1 Vp-p $\pm$2 dB
      sync negative (75 ohms
      terminated)
      AUDIO: Stereo minijack
      500 mVrms, impedance more
      than 47 kilohms
INPUT A   INPUT A: HD D-sub15-pin
      (female)
      Analog RGB/component:
      R/R-Y: 0.7 Vp-p $\pm$2 dB
      (75 ohms terminated)
      G: 0.7 Vp-p $\pm$2 dB
      (75 ohms terminated)
      G with sync/Y: 1 Vp-p $\pm$2 dB
      sync negative
      (75 ohms terminated)
      B/B-Y: 0.7 Vp-p $\pm$2 dB
      (75 ohms terminated)
      SYNC/HD:
      Composite sync input: 1-5 Vp-p
      high impedance, positive/
      negative
      Horizontal sync input: 1-5 Vp-p
      high impedance, positive/
      negative
      VD:
      Vertical sync input: 1-5 Vp-p
      high impedance, positive/
      negative
      AUDIO:Stereo minijack
      500 mVrms, impedance more
      than 47 kilohms

MOUSE:6-pin (female)
      (For details, see "Pin assignment"
      on page 41.)
CONTROL S IN/PLUG IN POWER: Stereo
      minijack 5 Vp-p, plug in power
      5 V DC
USB hub: Up (B type: female) $\times$ 1
      Down (A type: female) $\times$ 1
Safety regulations:
      UL1950, cUL (CSA No. 950),
      FCC Class B, IC Class B,
      NEMKO (EN60950),
      CE (LVD, EMC), C-Tick

General

Dimensions $285 \times 76 \times 249.5$ mm ($11 ^1/_4 \times$
      $3 \times 9 ^7/_8$ inches) (w/h/d)
      (without the projection parts)
Mass   Approx. 3.3 kg (7 lb 4 oz)
Power requirements
      AC 100 to 240 V, 2.0–0.8A,
      50/60 Hz
Power consumption
      Max. 230 W
      (Standby mode: 6 W)
Heat dissipation
      784.9 BTU
Operating temperature
      0°C to 35°C (32°F to 95°F)
Operating humidity
      35% to 85% (no condensation)
Storage temperature
      –20°C to 60°C (–4°F to 140°F)
Storage humidity
      10% to 90%
Supplied accessories
      Remote Commander (1)
      Size AA (R6) batteries (2)
      AV cable (2 m) (1)
      (1-757-350-11)
      HD D-sub 15 pin (2 m) (1)
      (1-791-992-21)
      PS/2 Mouse Cable (2 m) (1)
      (1-792-424-11)
      USB cable A type – B type (1)
      (1-790-081-31)
      CD-ROM (Application software)
      (1)
      AC power cord (1)
      Air filter (for replacement) (1)
      Lens cap (1)
      Operating Instructions (1)
      Installation Manual for Dealers (1)
      Quick Reference Card (1)
      Warranty Booklet (1)

Design and specifications are subject to change
without notice.

Optional accessories

Projector Lamp
      LMP-C160 (for replacement)
Signal Cable SMF-402 (HD D-sub 15-pin
      (male) ←→ 3 × phono type
      (male))
Monitor Cable SMF-410 (HD D-sub 15 pin
      (male) ←→ HD D-sub 15 pin
      (male))
Screens   50-inch Portable Screen
      VPS-50C[1]
      100-inch Flat Screen
      VPS-100FH
Suspension Support
      PSS-610

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

1) VPS-50C may not be available in some areas. For details, please consult your nearest Sony office.

Pin assignment

INPUT A connector (HD D-sub 15-pin, female)
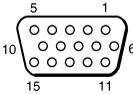
1	R/R-Y	9	N.C.
2	G/Y	10	GND
3	B/B-Y	11	GND
4	GND	12	DDC/SDA
5	GND	13	HD/C.Sync
6	GND (R)	14	VD
7	GND (G)	15	DDC/SCL
8	GND (B)		

MOUSE connector (6-pin, female)

1	DATA
2	N.C.
3	GND
4	+5V
5	CLK
6	N.C.

Other

Input signals and adjustable/setting items

PICTURE CTRL menu

Item	Input signal			
	Video or S video (Y/C)	Component	RGB	B&W
CONTRAST	●	●	●	●
BRIGHT	●	●	●	●
COLOR	●	●	–	–
HUE	● (NTSC 3.58/ 4.43 only)	–	–	–
SHARP	●	●	–	●
D. PICTURE	●	●	–	●
GAMMA MODE	–	–	●	–
COLOR TEMP	●	●	●	●
COLOR SYS	●	–	–	●

● : Adjustable/can be set
– : Not adjustable/cannot be set

INPUT SETTING menu

Item	Input signal			
	Video or S video (Y/C)	Component	RGB	B&W
DOT PHASE	–	–	●	–
SIZE	–	–	●	–
SHIFT	–	–	●	–
SCAN CONV	–	–	●	–
ASPECT	●	●	–	●

● : Adjustable/can be set
– : Not adjustable/cannot be set

Preset signals

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	SIZE
1	Video 60 Hz		15.734	59.940		
2	Video 50 Hz		15.625	50.000		
3	15k RGB/Component 60 Hz		15.734	59.940	S on G/Y or Composite Sync	
4	15k RGB/Component 50 Hz		15.625	50.000	S on G/Y or Composite Sync	
6	640 × 350	VGA mode 1	31.469	70.086	H-pos, V-neg	800
7		VGA VESA 85 Hz	37.861	85.080	H-pos, V-neg	832
8	640 × 400	PC-9801 Normal	24.823	56.416	H-neg, V-neg	848
9		VGA mode 2	31.469	70.086	H-neg, V-pos	800
10		VGA VESA 85 Hz	37.861	85.080	H-neg, V-pos	832
11	640 × 480	VGA mode 3	31.469	59.940	H-neg, V-neg	800
12		Macintosh 13"	35.000	66.667	H-neg, V-neg	864
13		VGA VESA 72 Hz	37.861	72.809	H-neg, V-neg	832
14		VGA VESA 75 Hz	37.500	75.000	H-neg V-neg	840
15		VGA VESA 85 Hz	43.269	85.008	H-neg V-neg	832
16	800 × 600	SVGA VESA 56 Hz	35.156	56.250	H-pos, V-pos	1024
17		SVGA VESA 60 Hz	37.879	60.317	H-pos, V-pos	1056
18		SVGA VESA 72 Hz	48.077	72.188	H-pos, V-pos	1040
19		SVGA VESA 75 Hz	46.875	75.000	H-pos, V-pos	1056
20		SVGA VESA 85 Hz	53.674	85.061	H-pos, V-pos	1048
21	832 × 624	Macintosh 16"	49.724	74.550	H-neg, V-neg	1152
22	1024 × 768	XGA VESA 43 Hz	35.522	43.479	H-pos, V-pos	1264
23		XGA VESA 60 Hz	48.363	60.004	H-neg V-neg	1344
24		XGA VESA 70 Hz	56.476	70.069	H-neg V-neg	1328
25		XGA VESA 75 Hz	60.023	75.029	H-pos, V-pos	1312
26		XGA VESA 85 Hz	68.677	84.997	H-pos, V-pos	1376
27	1152 × 864	SXGA VESA 70 Hz	63.995	70.016	H-pos, V-pos	1472
28		SXGA VESA 75 Hz	67.500	75.000	H-pos, V-pos	1600
29		SXGA VESA 85 Hz	77.487	85.057	H-pos, V-pos	1568
30	1152 × 900	Sunmicro LO	61.795	65.960	H-neg, V-neg	1504
31		Sunmicro HI	71.713	76.047	H-neg, V-neg	1472
32	1280 × 960	SXGA VESA 60 Hz	60.000	60.000	H-pos, V-pos	1800
33		SXGA VESA 75 Hz	75.000	75.000	H-pos, V-pos	1728

Other

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	SIZE
34	1280 × 1024	SXGA VESA 43 Hz	46.433	43.436	H-pos, V-pos	1696
35		SGI-5	53.316	50.062	S on G	1680
36		SXGA VESA 60 Hz	63.974	60.013	H-pos, V-pos	1696
37		SXGA VESA 75 Hz	79.976	75.025	H-pos, V-pos	1688
38		SXGA VESA 85 Hz	91.146	85.024	H-pos, V-pos	1296

Note

Whan a signal other than the preset signals shown above is input, the picture may not appear properly.

Warning on power connection

Use a proper power cord for your local power supply.

	The United States, Canada		Continental Europe	UK, Ireland, Australia, Newzealand	Japan
Plug type	VM0233	290B	YP-12A	__ 1)	YP332
Female end	VM0089	386A	YC-13B	VM0310B	YC-13
Cord type	SVT	SJT	H05VV-F	N13237/CO-228	VCTF
Rated Voltage & Current	10A/125V	10A/125V	10A/250V	10A/250V	7A/125V
Safety approval	UL/CSA	UL/CSA	VDE	VDE	DENAN

Note

1) Use an appropriate rating plug which is applied to local regulations.

Index

Other

AVERTISSEMENT

Afin d'éviter tout risque d'incendie ou d'électrocution, n'exposez pas cet appareil à la pluie ou à l'humidité.

Afin d'éviter tout risque d'électrocution, n'ouvrez pas le châssis. Confiez l'entretien uniquement à un personnel qualifié.

Pour les utilisateurs au Canada
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

La prise doit être près de l'appareil et facile d'accès.