

Video Projector

Operating Instructions

GB

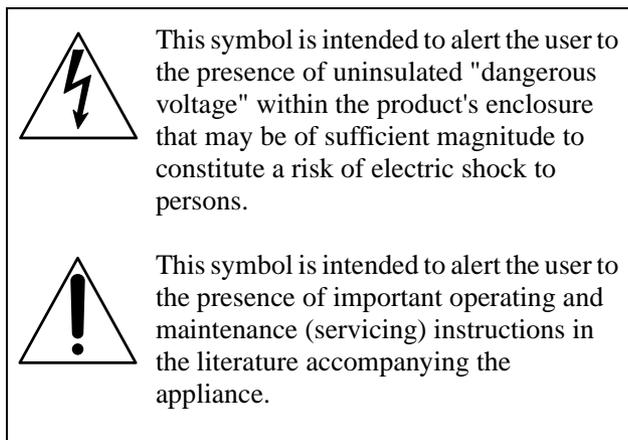
HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE


MEMORY STICK™

VPL-HS20

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.



For the customers in the USA

If you have any questions about this product, you may call; Sony Customer Information Services Center 1-800-222-7669 or <http://www.sony.com/>

The number below is for FCC related matters only.

Declaration of Conformity

Trade Name: SONY
Model No.: VPL-HS20
Responsible Party: Sony Electronics Inc.
Address: 16450 W.Bemardo Dr, San Diego, CA 92127
U.S.A
Telephone Number: 858-942-2230

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

Dit apparaat bevat een vast ingebouwde batterij die niet vervangen hoeft te worden tijdens de levensduur van het apparaat.

Raadpleeg uw leverancier indien de batterij toch vervangen moet worden. De batterij mag alleen vervangen worden door vakbekwaam servicepersoneel.

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

Lever het apparaat aan het einde van de levensduur in voor recycling, de batterij zal dan op correcte wijze verwerkt worden.



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

Table of Contents

Precautions	5
--------------------------	----------

Connections and Preparations

Unpacking	6
------------------------	----------

Step 1: Installing the Projector	7
---	----------

Before Setting Up the Projector	7
---------------------------------------	---

Using the Optional Conversion Lens	8
--	---

Installing the Projector and a Screen	
— Floor Installation	9

Installing the Projector and a Screen	
— Ceiling Installation	11

Step 2:	
Connecting the Projector	13

Step 3: Adjusting the Picture Size and Position	19
--	-----------

Step 4:	
Selecting the Menu Language	23

Projecting

Projecting the Picture on the Screen ..	25
--	-----------

Selecting the Wide Screen Mode	27
---	-----------

Selecting the Picture Viewing Mode ...	29
---	-----------

Using the Menus

Operation through the Menus	30
--	-----------

Menu Lists	32
-------------------------	-----------

Menu Configurations	32
---------------------------	----

Menu Items	32
------------------	----

About the Preset Memory No.	36
----------------------------------	----

Adjusting Picture Quality of a Signal from the Computer	36
---	----

Using a “Memory Stick”

About a “Memory Stick”	37
-------------------------------------	-----------

Preparing for Viewing the Picture Files Stored in a “Memory Stick”	40
---	-----------

Inserting a “Memory Stick”	40
----------------------------------	----

Displaying the Desired Pictures in	
Digital Camera Mode	41

Viewing the Pictures	44
-----------------------------------	-----------

Viewing the Pictures in Sequence	
----------------------------------	--

— Slide Show	44
--------------------	----

Displaying a Picture on the Full Screen	
— Full Screen	45

Playing Movie Pictures	46
------------------------------	----

Selecting the Folder Containing the Desired Picture	48
---	----

Rotating a Still Picture	49
---------------------------------------	-----------

Protecting an Important Picture	50
--	-----------

Projecting a Selected Picture When the Power Is Turned On — Startup	51
--	-----------

Registering a Still Picture as the Startup Picture	51
--	----

Setting the Startup Picture	52
-----------------------------------	----

Deleting a Picture	53
---------------------------------	-----------

Sorting the Pictures	55
-----------------------------------	-----------

Displaying Either of the Still Pictures or Movie Pictures	56
--	-----------

Displaying the “Memory Stick” Information	57
--	-----------

Initializing a “Memory Stick” — Format	58
---	-----------

Others

Troubleshooting	59
------------------------------	-----------

Replacing the Lamp	62
---------------------------------	-----------

Replacing the Air Filter	63
---------------------------------------	-----------

Specifications 64
Location of Controls 74
 Front 74
 Rear 75
 Bottom 76
 Remote Control 77
Index 76

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.

On preventing internal heat build-up

After you turn off the power with the I/⏻ (on/standby) switch, 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 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.

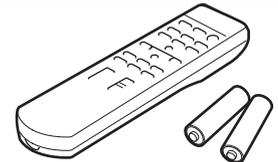
Connections and Preparations

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

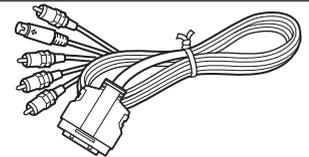
Unpacking

Check the carton to make sure it contains the following items:

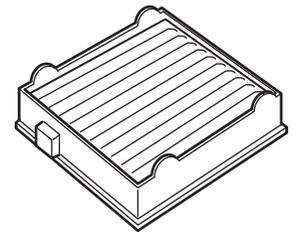
Remote control (1),
Size AA (R6)
batteries (2)



Signal interface
cable (1)



Air filter (for
replacement) (1)

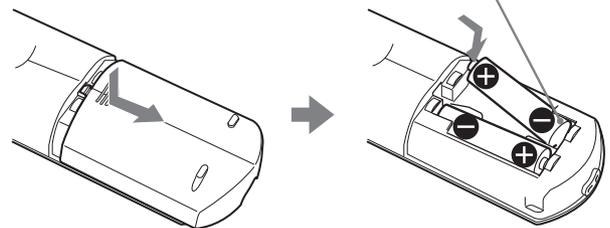


AC power cord (1)
Operating Instructions (this manual) (1)

Inserting the batteries into the remote control

Insert the batteries **+** side first as shown in the illustration.

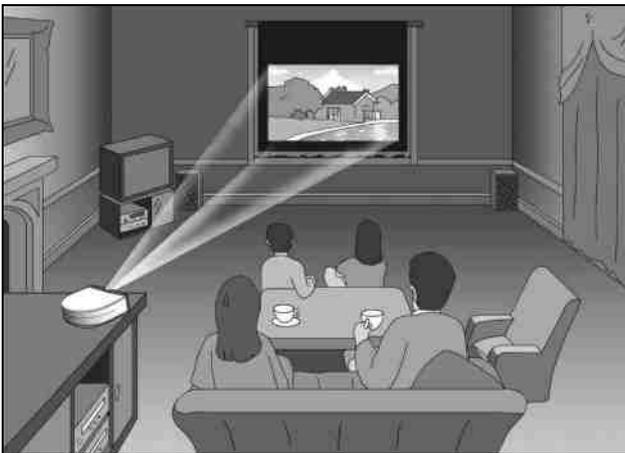
Inserting them forcibly or with the polarities reversed may cause a short circuit and may generate heat.



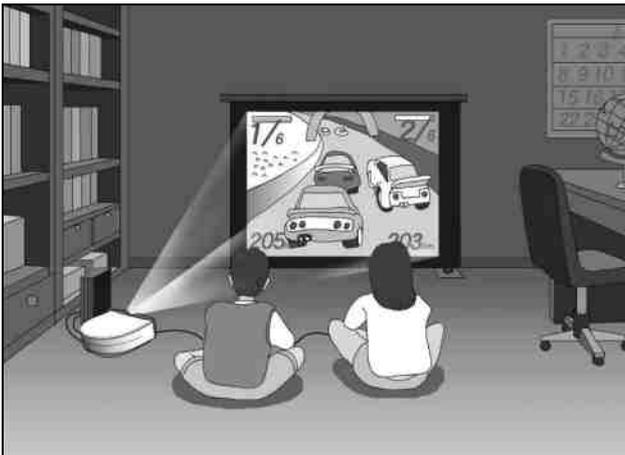
Step 1: Installing the Projector

You can obtain good picture quality even when you project the picture from the side of the screen (“Side Shot”) (☞ page 10). You can enjoy home entertainment with this projector in various situations.

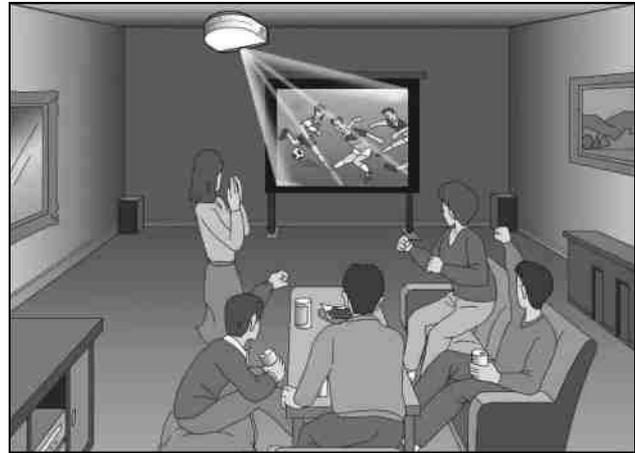
Enjoying home theater



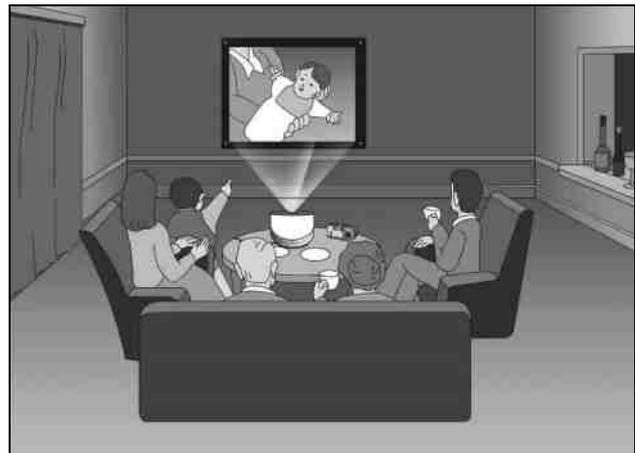
Enjoying video games on a large screen



Watching sports, etc. with your company



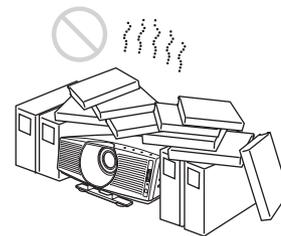
Viewing images, recorded by a digital camera and stored in the “Memory Stick,” on a large screen



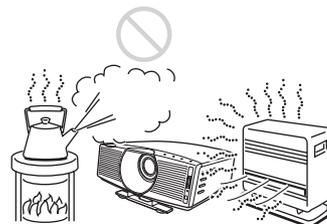
Before Setting Up the Projector

Do not place the projector in the following situations, which may cause malfunction or damage to the projector.

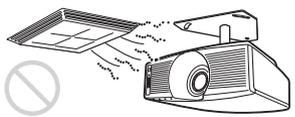
Poorly ventilated



Highly heated and humid



Subject to direct cool or warm air from an air-conditioner



Installing in such a location may cause malfunction of the unit due to moisture condensation or rise in temperature.

Near a heat or smoke sensor



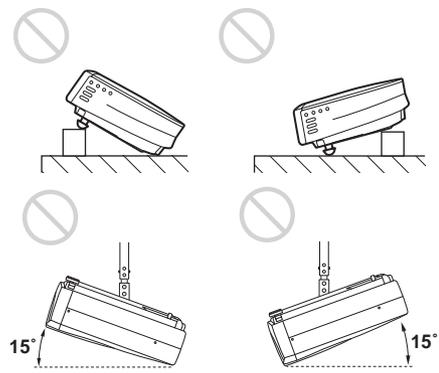
Malfunction of the sensor may be caused.

Very dusty and extremely smoky

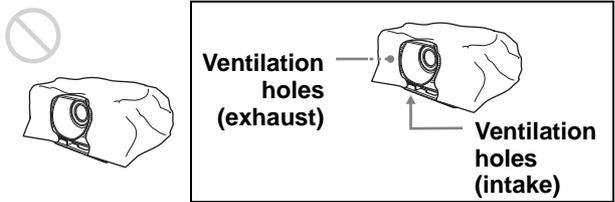


Do not use the projector under the following conditions:

Tilting the unit extremely



Blocking the ventilation holes



Tip

For further details on the location of the ventilation holes (intake or exhaust), see "Location of Controls" on pages 74 to 76.

Placing the unit upside down



Do not place the unit upside down on the table etc. The unit will be unusable.

Note

Installing the unit at altitudes

When using the projector at an altitude of 1,500 m or higher, turn on high altitude mode in the INSTALL SETTING menu. Failing to set this mode when using the projector at high altitudes could have adverse effects, such as reducing the reliability of certain components.

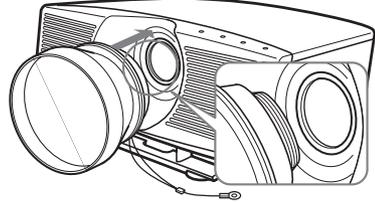
Using the Optional Conversion Lens

You can install the following two types of lenses (optional) on the projector. For projection distances when installing the Conversion Lens, see page 67.

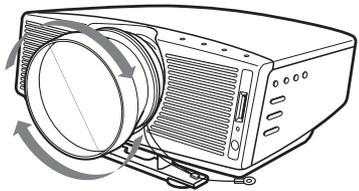
- VPLL-CT10 Long Focused Conversion Lens
- VPLL-CW10 Short Focused Conversion Lens

Follow the steps below to install the Conversion Lens. For details on installing the Lens, refer also to the installation manual supplied with the Lens.

- 1 Turn off the power and disconnect the power cord.**
- 2 Remove the lens hood from the projector's lens, and remove the lens cap from the Conversion Lens.**
- 3 Align the screw of the Conversion Lens with the thread around the lens of the projector as illustrated below.**



- 4 Turn the Conversion Lens clockwise until you hear it click.**



Note

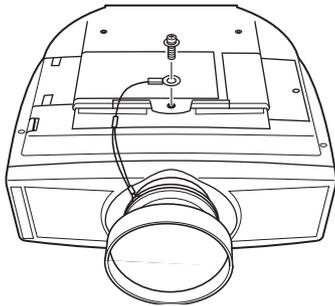
If the Conversion Lens is hard to turn, turn it slightly counterclockwise first, then turn it clockwise.

5 Place a thick cloth (e.g., a cushion) beneath the projector. Place the projector face down.

Note

The optional Conversion Lens projects from the top of the projector when the Lens is installed on the projector. Before installation, place a cloth of adequate thickness beneath the projector to keep the Lens from contact with the floor or a desk top. Otherwise, the Lens may malfunction if it receives too much pressure from the weight of the projector.

6 Fasten the end of the safety wire of the Conversion Lens to the bottom of the projector using the screw supplied with the Conversion Lens (M5×8, with washer).



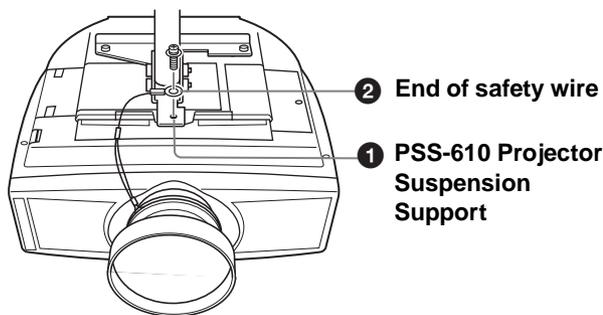
Note

Be sure to fasten the end of the safety wire of the Lens to the bottom of the projector.

When installing the projector on the ceiling

Be sure to fasten the end of the safety wire of the Lens to both the projector and the PSS-610 Projector Suspension Support in step 6, as illustrated below. In this case, use the screw (M5×12, with washer) supplied with the PSS-610.

First, place the PSS-610 (❶) on the projector, then place the safety wire (❷) on the PSS-610.



WARNING

Be sure to use the screw (M5×12 with washer) supplied with the PSS-610. Never use the screw supplied with the Conversion Lens. If you use the screw supplied with the Lens, the Lens may fall from the projector and may cause injury.

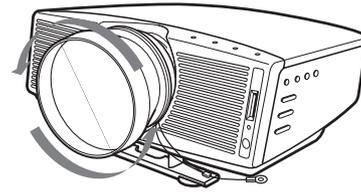
Notes on installation of the optional Conversion Lens

- The Lens scratches easily, so when handling it, always place it gently on a stable and level surface in a horizontal position.
- Be sure not to bump the Lens on the surface of the lens of the projector.

- Avoid touching the Lens surface.

To remove the installed Conversion Lens

- 1 Remove the end of the safety wire of the installed Lens from the bottom of the projector by removing the screw.**
- 2 Turn the installed Lens counterclockwise until it can be removed.**



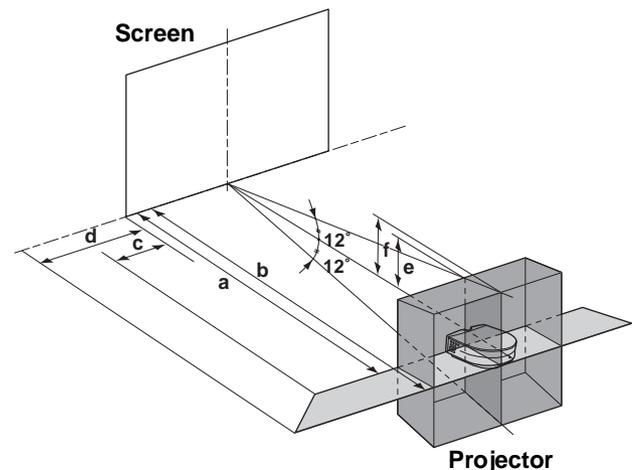
Notes

- Be sure not to drop the uninstalled Conversion Lens.
- When you adjust picture distortion using “V Keystone” or “Side Shot” in the INSTALL SETTING menu with the optional Conversion Lens attached to the projector, the aspect ratio of the original picture may not be correctly displayed.

Installing the Projector and a Screen — Floor Installation

The installation distance between the projector and screen varies depending on the size of the screen.

1 Determine the installation position of the projector and screen.



- a:** Minimum projection distance between the screen and the center of the projector’s lens when you place the projector on the side (“Side Shot”), or when you place the projector with the center of the screen and the center of the lens aligned.

- b:** Maximum projection distance between the screen and the center of the projector's lens when you place the projector on the side, or when you place the projector with the center of the screen and the center of the lens aligned
- c:** Maximum horizontal distance between the right/left end of the screen and the center of the projector's lens when the projector is placed on the side (when you use projection distance **a**)
- d:** Maximum horizontal distance between the right/left end of the screen and the center of the lens when the projector is placed on the side (when you use projection distance **b**)
- e:** Maximum vertical distance from the bottom of the screen to the center of the projector's lens when you place the projector on the side (when you use projection distance **a**)
- f:** Maximum vertical distance from the bottom of the screen to the center of the projector's lens when you place the projector on the side (when you use projection distance **b**)

When projecting using “Side Shot” adjustment only (☞ page 20)

Position the projector with the lens end within the area  in the illustration, by using the values **a**, **b**, **c** and **d** in the table below as a guide.

Unit: m (feet)

Screen size (inches)	40	60	80	100	120
a	1.6 (5.2)	2.4 (7.9)	3.2 (10.5)	4.0 (13.1)	4.8 (15.7)
b	1.8 (5.9)	2.8 (9.2)	3.7 (12.1)	4.7 (15.4)	5.6 (18.4)
c	0.2 (0.7)	0.3 (1.0)	0.3 (1.0)	0.4 (1.3)	0.5 (1.6)
d	0.3 (1.0)	0.4 (1.3)	0.6 (2.0)	0.7 (2.3)	0.9 (3.0)

Screen size (inches)	150	180	200	250	300
a	6.0 (19.7)	7.3 (24.0)	8.1 (26.6)	10.1 (33.1)	12.1 (39.7)
b	7.0 (23.0)	8.4 (27.6)	9.4 (30.8)	11.7 (38.4)	14.1 (46.3)
c	0.7 (2.3)	0.8 (2.6)	0.9 (3.0)	1.1 (3.6)	1.4 (4.6)
d	1.1 (3.6)	1.3 (4.3)	1.5 (4.9)	1.9 (6.2)	2.2 (7.2)

Tip

The tables show the distances when projecting the 15 kHz RGB/component, progressive component, DTV (480i/480p/575i/575p), composite video and Y/C video signals. Distances used for projecting a 1080i/720p format signal, computer's signal and data stored in the “Memory Stick” are shown on page 66.

Note

If you project the picture using “Side Shot” only, set “V Keystone” in the INSTALL SETTING menu to “Manual,” and adjust the level to “0.”

When projecting using both “Side Shot” and “V Keystone” adjustments (☞ page 21)

Position the projector with the lens end within the area  in the illustration, by using the values **a** to **f** in the table below as a guide.

Unit: m (feet)

Screen size (inches)	40	60	80	100	120
a	1.6 (5.2)	2.4 (7.9)	3.2 (10.5)	4.0 (13.1)	4.8 (15.7)
b	1.8 (5.9)	2.8 (9.2)	3.7 (12.1)	4.7 (15.4)	5.6 (18.4)
c	-0.1 (-0.3)	-0.1 (-0.3)	-0.2 (-0.6)	-0.2 (-0.6)	-0.3 (-1.0)
d	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
e	0.3 (1.0)	0.5 (2.0)	0.7 (2.3)	0.8 (2.6)	1.0 (3.3)
f	0.4 (1.6)	0.6 (2.0)	0.8 (2.6)	1.0 (3.3)	1.2 (3.9)

Screen size (inches)	150	180	200	250	300
a	6.0 (19.7)	7.3 (24.0)	8.1 (26.6)	10.1 (33.1)	12.1 (39.7)
b	7.0 (23.0)	8.4 (27.6)	9.4 (30.8)	11.7 (38.4)	14.1 (46.3)
c	-0.3 (-1.0)	-0.4 (-1.3)	-0.4 (-1.3)	-0.5 (-1.6)	-0.6 (-1.6)
d	-0.1 (-0.3)	-0.1 (-0.3)	-0.1 (-0.3)	-0.1 (-0.3)	-0.1 (-0.3)
e	1.3 (4.3)	1.5 (4.9)	1.7 (5.6)	2.1 (6.9)	2.5 (8.2)
f	1.5 (4.9)	1.8 (5.9)	1.9 (6.2)	2.4 (7.9)	2.9 (9.5)

Tip

The tables show the distances when projecting the 15 kHz RGB/component, progressive component, DTV (480i/480p/575i/575p), composite video and Y/C video signals. Distances used for projecting a 1080i/720p format signal, computer's signal and data stored in the “Memory Stick” are shown on page 66.

Note

When projecting with the optional Conversion Lens attached, the values **a**, **b**, **e** and **f** are slightly different from those in the table.

When projecting from the center (☞ page 22)

You can change the projection angle using the adjuster. (☞ page 20)

Position the projector with the lens end within the area in the illustration page 9, by using the values **a** and **b** in the table below as a guide.

When using the 16:9 aspect ratio screen

Unit: m (feet)

Screen size (inches)	40	60	80	100	120
a	1.5 (4.9)	2.3 (7.5)	3.1 (10.2)	3.9 (12.8)	4.6 (15.1)
b	1.8 (5.9)	2.8 (9.2)	3.7 (12.1)	4.7 (15.4)	5.6 (18.4)

Screen size (inches)	150	180	200	250	300
a	5.8 (19.0)	7.0 (23.0)	7.8 (25.6)	9.7 (31.8)	11.7 (38.4)
b	7.0 (23.0)	8.4 (27.6)	9.4 (30.8)	11.7 (38.4)	14.1 (46.3)

When using the 4:3 aspect ratio screen

Unit: m (feet)

Screen size (inches)	40	60	80	100	120
Minimum	1.8 (72 1/2)	2.8 (109 7/8)	3.7 (147 3/8)	4.7 (184 3/4)	5.6 (222 1/8)
Maximum	2.2 (87 7/8)	3.4 (132 3/4)	4.5 (177 5/8)	5.7 (222 1/2)	6.8 (267 3/8)

Screen size (inches)	150	180	200	250	300
Minimum	7.1 (278 1/2)	8.5 (334 3/8)	9.4 (371 3/4)	11.8 (465 1/2)	14.2 (558 3/4)
Maximum	8.5 (334 3/4)	10.2 (402 1/8)	11.4 (447)	14.2 (559 1/8)	17.1 (611 3/4)

2 Project an image on the screen and adjust the picture so that it fits the screen. (☞ page 19)

To project an image, connect video equipment to the projector. (☞ page 13)

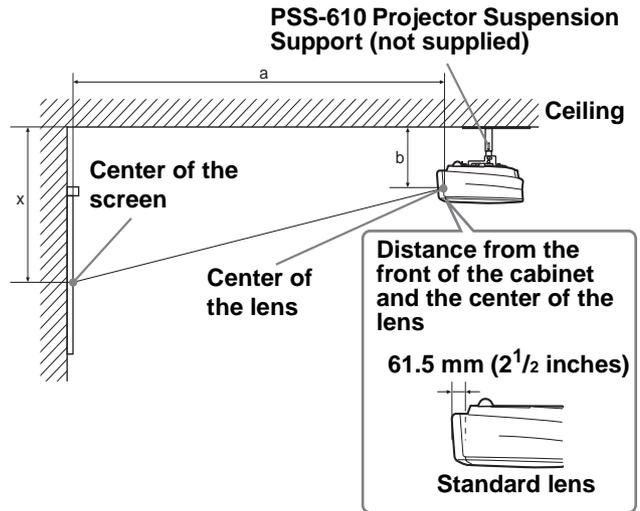
Note

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

Installing the Projector and a Screen — Ceiling Installation

Use the PSS-610 Projector Suspension Support when you install the projector on a ceiling.

- a:** Distance between the center of the lens and the screen
- b:** Distance between the ceiling and the center of the lens
- x:** Distance between the ceiling and the center of the screen



When using the 16:9 aspect ratio screen

Unit: mm (inches)

SS (inches)	40	60	80	100	
a	Minimum	1510 (59 1/2)	2290 (90 1/4)	3070 (121)	3850 (151 5/8)
	Maximum	1820 (71 3/4)	2760 (108 3/4)	3700 (145 3/4)	4640 (182 3/4)
x	b+251 (b+10)	b+377 (b+14 7/8)	b+502 (b+19 7/8)	b+628 (b+24 3/4)	
b	When using the PSS-610, adjustable with 243/268/293/343/368/393 mm				

SS (inches)	120	150	180	200	
a	Minimum	4640 (182 3/4)	5810 (228 7/8)	6990 (275 1/4)	7770 (306)
	Maximum	5580 (219 3/4)	6990 (275 1/4)	8400 (330 3/4)	9340 (367 7/8)
x	b+753 (b+29 3/4)	b+924 (b+37 1/8)	b+1130 (b+44 1/2)	b+1255 (b+49 1/2)	
b	When using the PSS-610, adjustable with 243/268/293/343/368/393 mm				

SS (inches)		250	300
a	Minimum	9730 (383 1/8)	11680 (460 3/8)
	Maximum	11690 (460 3/8)	14040 (552 7/8)
x		b+1569 (b+61 7/8)	b+1883 (b+74 1/4)
b	When using the PSS-610, adjustable with 243/268/293/343/368/393 mm		

To calculate the installation measurements (SS: Screen Size)
 a (minimum) = $\{(SS \times 33.56/0.8788) - 56.520408\} \times 1.025$
 a (maximum) = $\{(SS \times 42.3591819/0.8788) - 57.181415\} \times 0.975$
 x = b + $(SS/0.8788 \times 5.516)$

When using the 4:3 aspect ratio screen

Unit: mm (inches)

SS (inches)		40	60	80	100
a	Minimum	1840 (72 1/2)	2790 (109 7/8)	3740 (147 3/8)	4690 (184 3/4)
	Maximum	2230 (87 7/8)	3370 (132 3/4)	4510 (177 5/8)	5650 (222 1/2)
x		b+305 (b+12)	b+457 (b+18)	b+609 (b+24)	b+762 (b+30)
b	When using the PSS-610, adjustable with 243/268/293/343/368/393 mm				

SS (inches)		120	150	180	200
a	Minimum	5640 (222 1/8)	7070 (278 1/2)	8490 (334 3/8)	9440 (371 3/4)
	Maximum	6790 (267 3/8)	8500 (334 3/4)	10210 (402 1/8)	11350 (447)
x		b+914 (b+36)	b+1143 (b+45)	b+1371 (b+54)	b+1524 (b+60)
b	When using the PSS-610, adjustable with 243/268/293/343/368/393 mm				

SS (inches)		250	300
a	Minimum	11820 (465 1/2)	14190 (558 3/4)
	Maximum	14200 (559 1/8)	17060 (671 3/4)
x		b+1905 (b+75)	b+2286 (b+90)
b	When using the PSS-610, adjustable with 243/268/293/343/368/393 mm		

To calculate the installation measurements (SS: Screen Size)
 a (minimum) = $\{(SS \times 33.56/0.7240) - 58.520408\} \times 1.025$
 a (maximum) = $\{(SS \times 42.3591819/0.7240) - 57.181415\} \times 0.975$
 x = b + $(SS/0.7240 \times 5.516)$

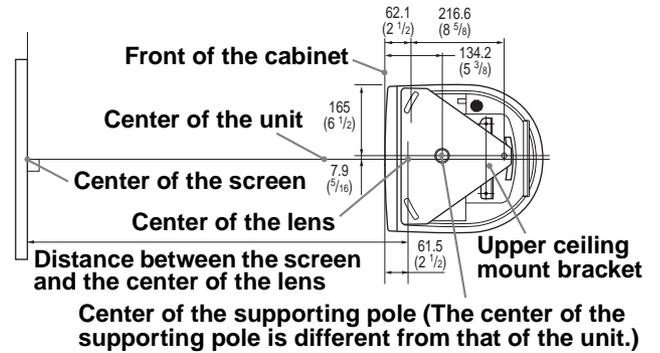
Attaching the projector suspension support PSS-610

When installing the projector on the ceiling, use the PSS-610 Projector Suspension Support. For more details on the ceiling installation, refer to the Installation manual for Dealers of the PSS-610. The installation measurements are shown below when you install the projector on the ceiling.

Installation diagram

Top view

Align the center of the lens with the center of the screen.



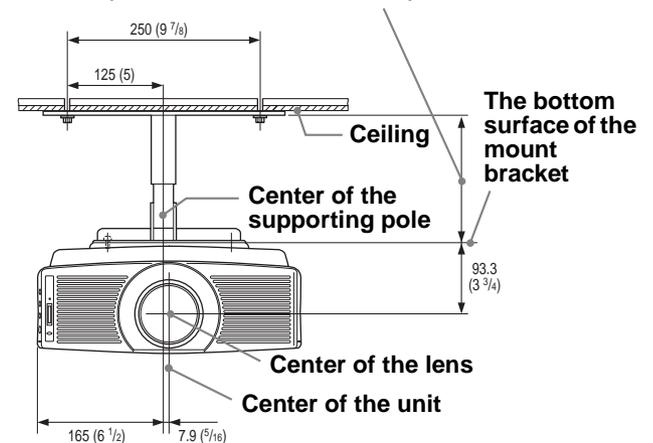
Front view

The lens is offset 7.9 mm (5/16 inch) to the right from the center of the supporting pole. When mounting, take care to align the center of the lens with the center of the screen; not the center of the supporting pole.

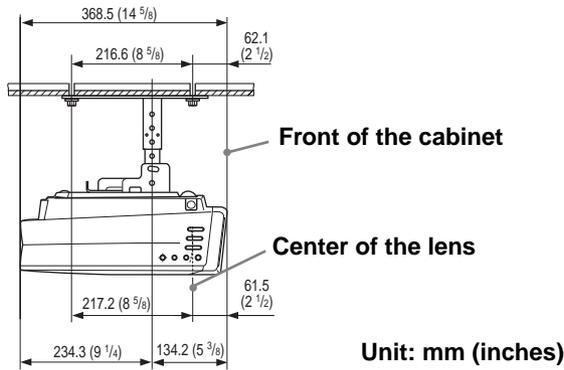
Distance between the ceiling and the surface of the mount bracket

Using adjustment pipe (b): 150/175/200 mm
(6 / 7 / 7 7/8 inches)

Using adjustment pipe (c): 250/275/300 mm
(9 7/8 / 10 7/8 / 11 7/8 inches)



Side view



Step 2: Connecting the Projector

When making connections, be sure to do the following:

- Turn off all equipment before making any connections.
- Use the proper cables for each connection.
- Insert the cable plugs properly; 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.
- Refer to the operating instructions of the connected equipment.
- When you connect your projector to PJ MULTI or DVI connector, select the input signal with the “Input-A Signal Sel.” or “DVI Signal Sel.” setting in the SET SETTING menu. (page 34)

Note

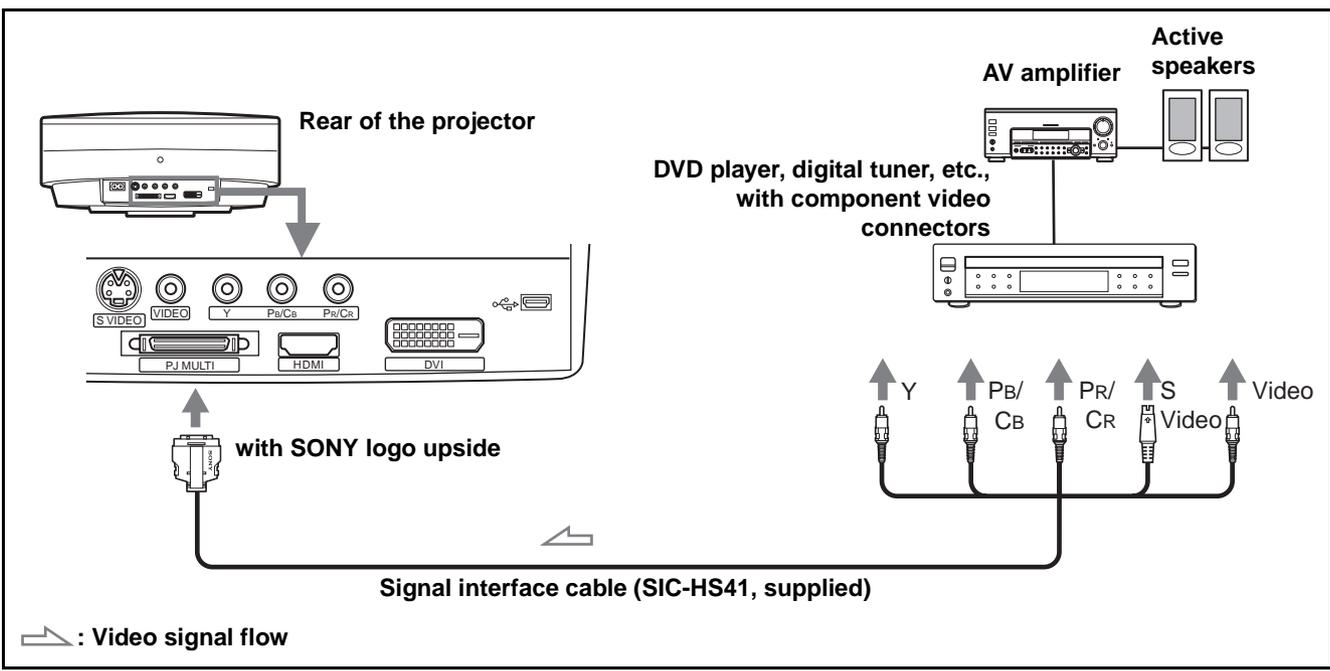
Before you change the “DVI Signal Sel.” setting, disconnect the DVI cable and turn off the digital tuner, etc.

-
- HDMI, HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

Connecting to a DVD Player/Digital Tuner

To connect to a DVD player/digital tuner equipped with component video connectors

You can connect a DVD player/digital tuner equipped with component video connectors using the supplied signal interface cable.

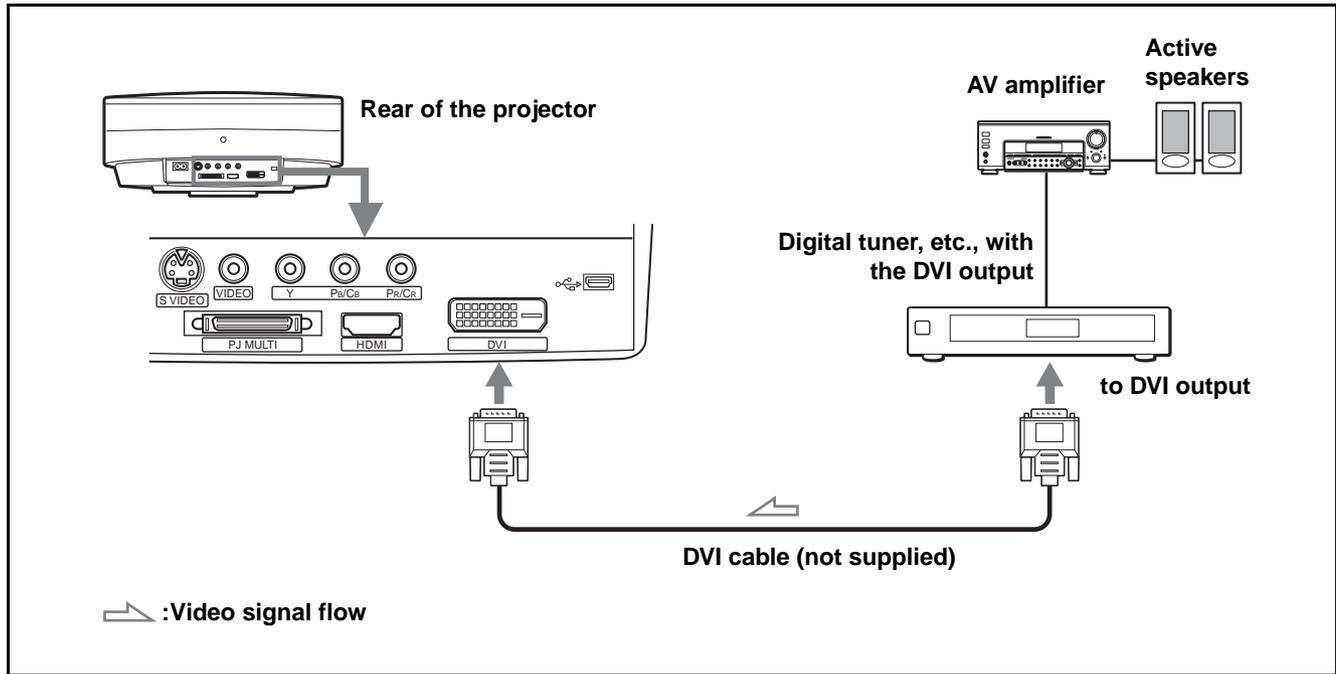


Tips

- To connect the projector to a DVD player/digital tuner which is not equipped with component video connectors, use the S video cable of the DVD player/digital tuner.
- To connect the projector to a DVD player/digital tuner which is not equipped with S video output, use the video cable instead of the S video cable.
- To connect the projector to a DVD player/digital tuner equipped with a D connector, use a commercially available conversion cable.

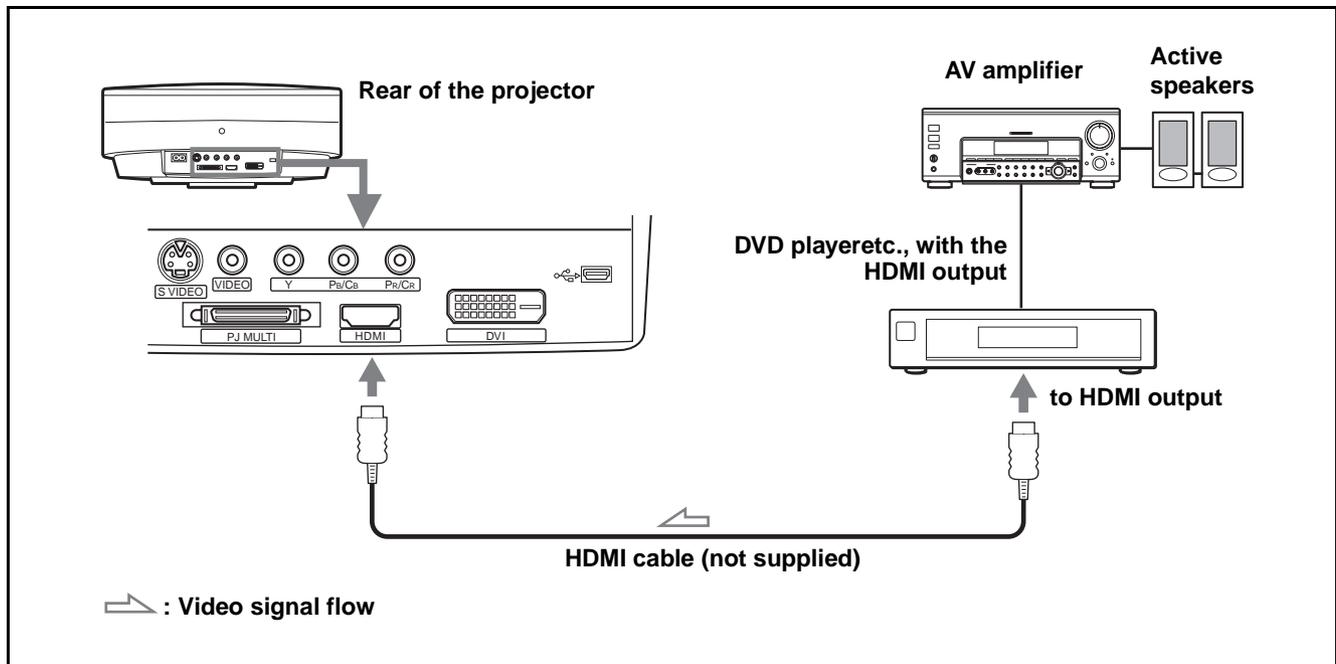
To connect to a digital tuner equipped with DVI output

You can enjoy better picture by connecting a digital tuner equipped with DVI output to the HDMI input of the projector.



To connect to a DVD player equipped with HDMI output

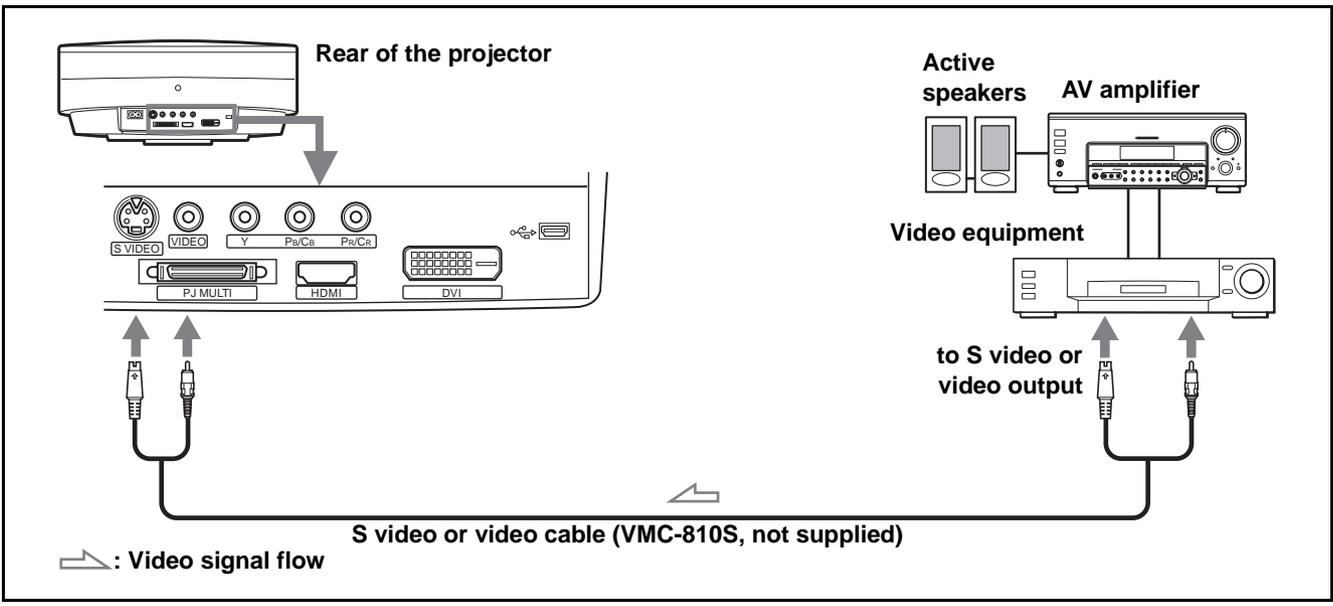
You can enjoy better picture quality by connecting a DVD player/digital tuner equipped with HDMI output to the HDMI input of the projector.



Connecting to Video Equipment

To connect to video equipment equipped with S video or video output

You can connect a VCR, Sony hard disk video recorder “Clip on” or a laser disk player. See also the instruction manual for each equipment.

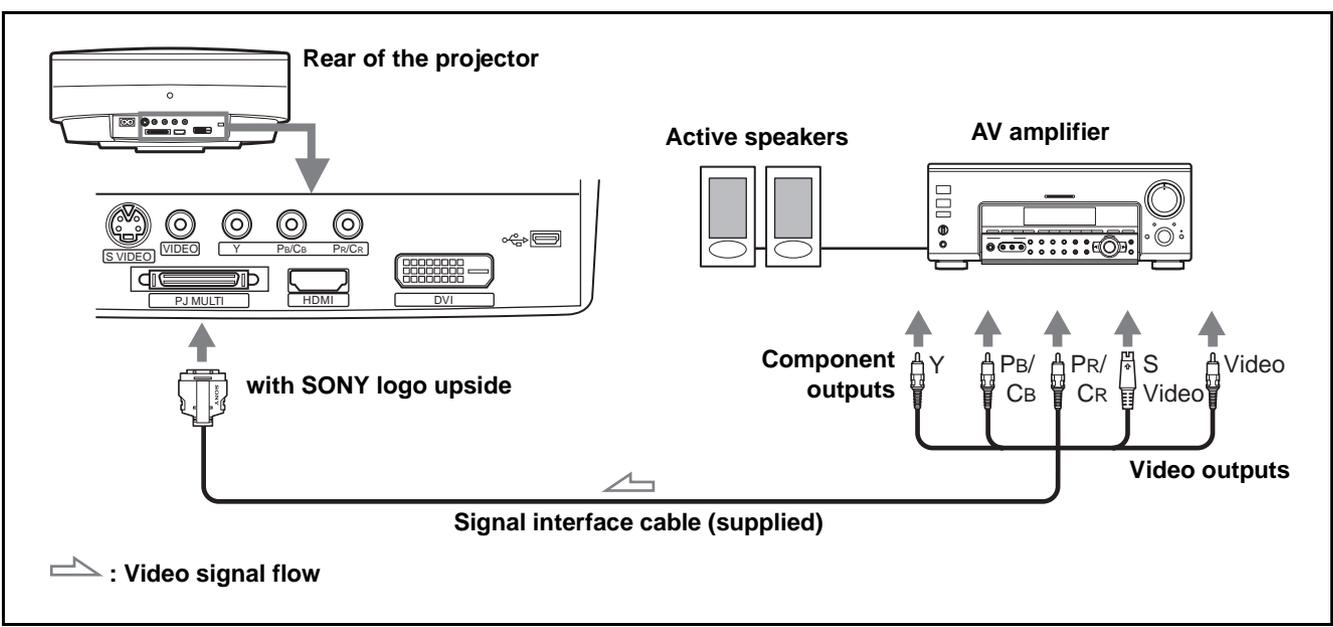


Tip

If you do not know to which connector you should connect the cable, S VIDEO (S video connector) or VIDEO (video connector), connect it to S VIDEO (S video connector) to enjoy better picture quality.
 If the equipment to be connected has no S VIDEO (S video connector), connect the cable to VIDEO (video output).

Connecting to an AV Amplifier

You can enjoy better sound quality by connecting the projector to an AV amplifier using the supplied signal interface cable.



Connecting to a Computer

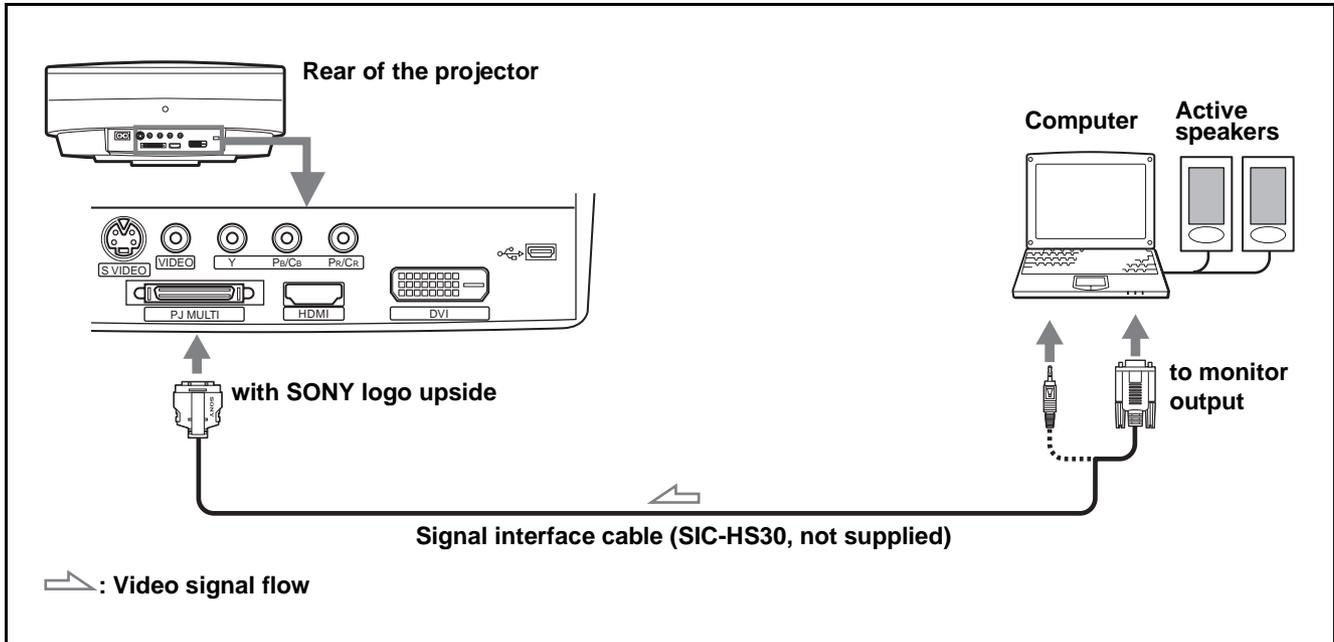
To connect to an analog connector

To hear the sound from a computer, use the speakers built in the computer or connect the active speakers to the computer.

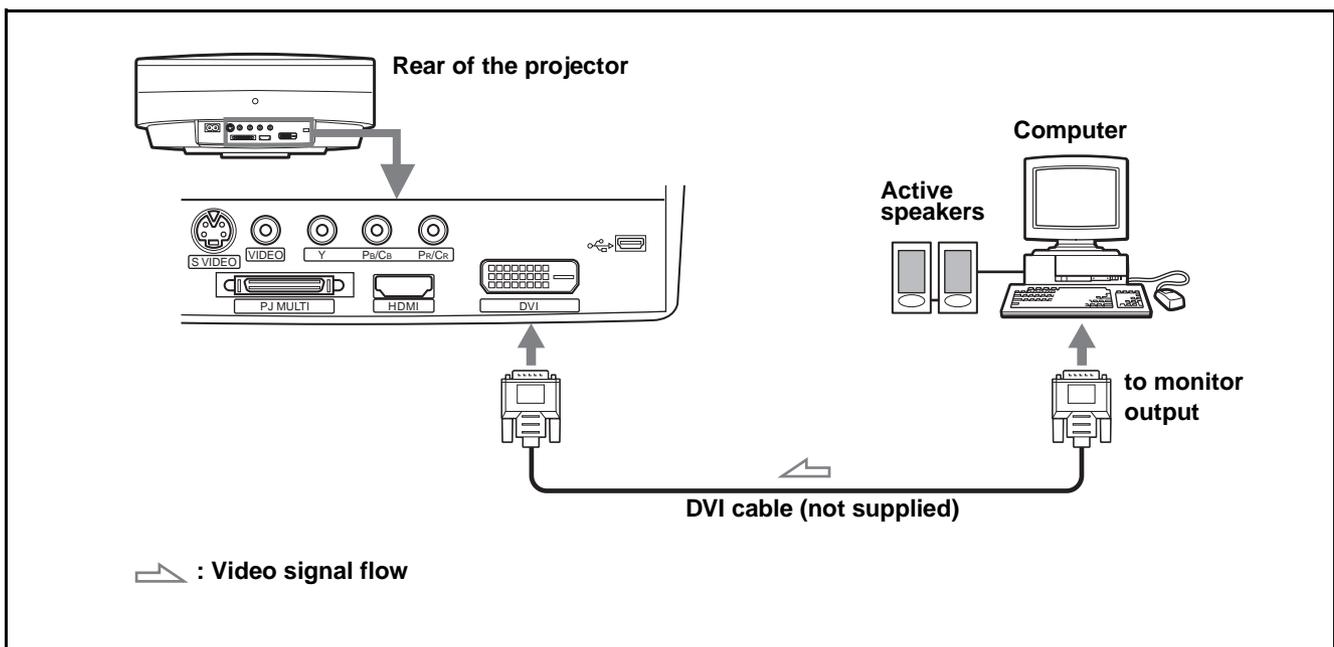
You can project a computer's picture on a large screen using the optional signal interface cable (SIC-HS30).

Note

Even if you connect the signal interface cable to the audio output on the computer, there is no sound output from the projector.

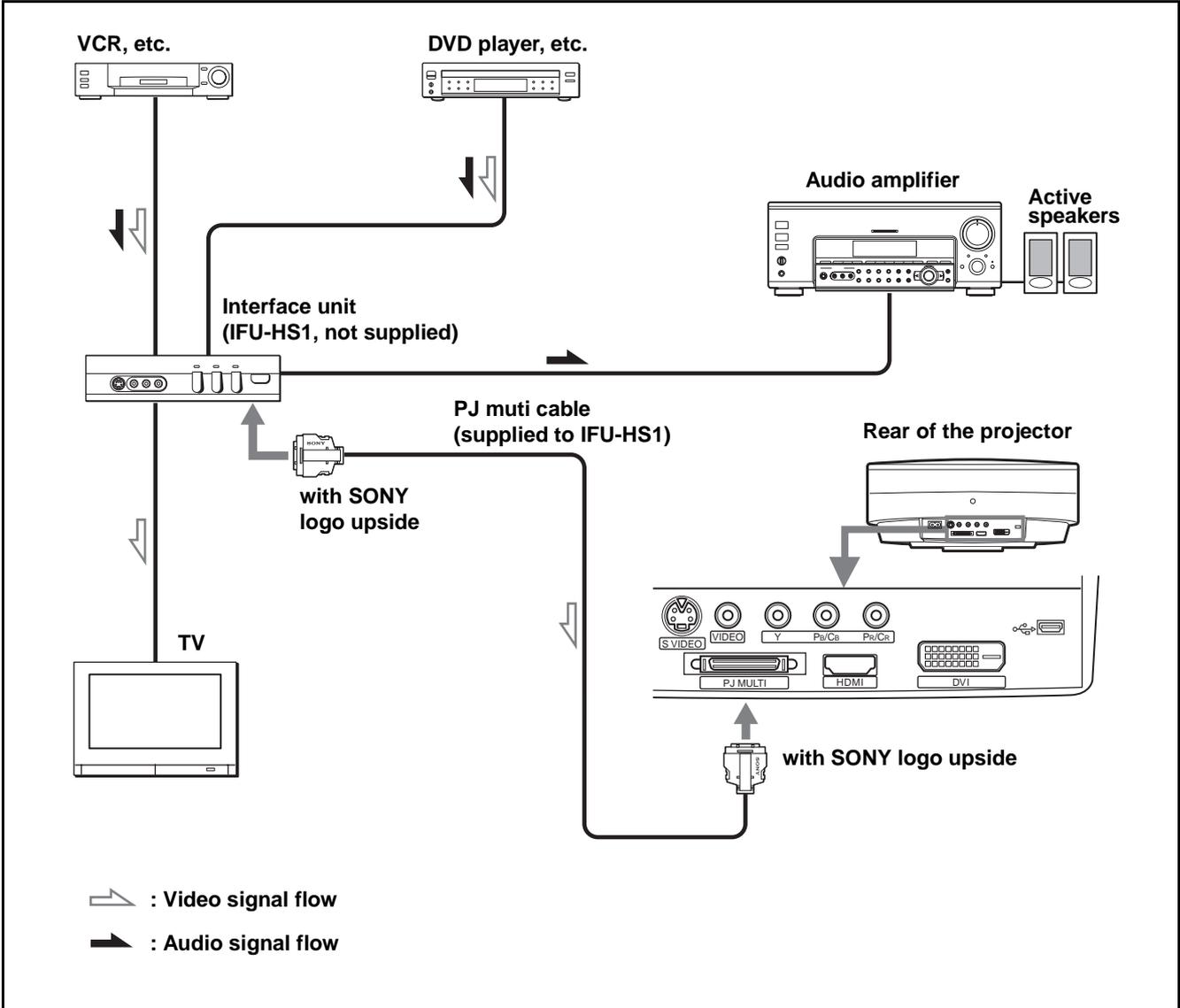


To connect to the DVI connector



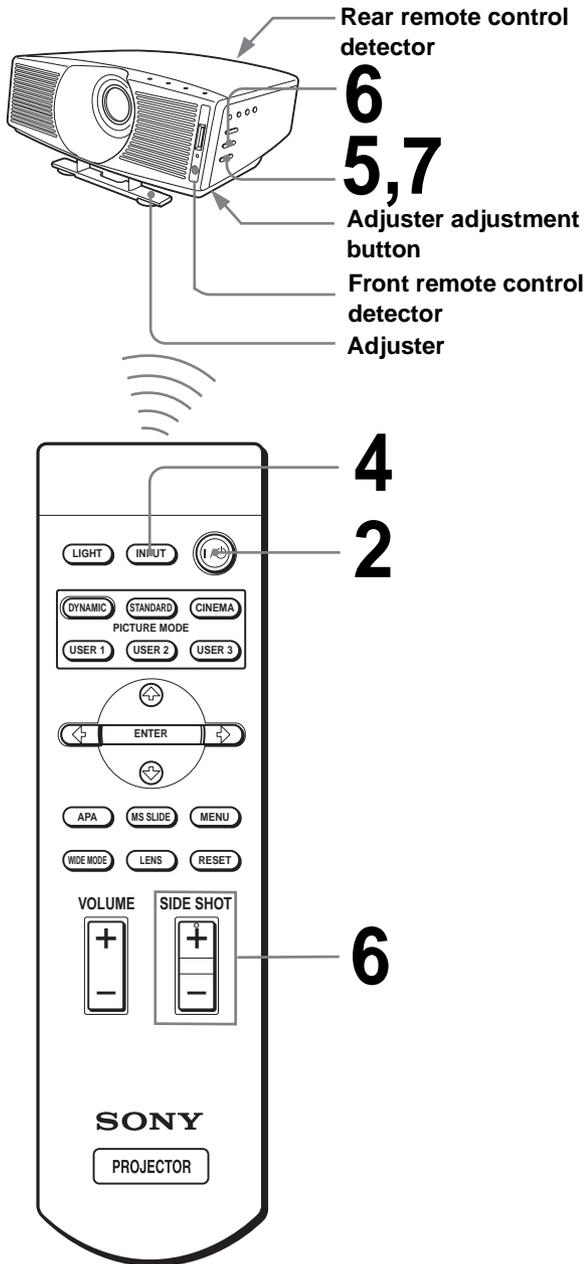
Connecting to Various Equipment using the Optional Interface Unit

You can connect other equipment using the optional interface unit. Additionally, you can select output to the projector or the TV simply by switching the selector of the interface unit.



Note
Audio from the Interface Unit IFU-HS1 is output only when a TV is connected.

Step 3: Adjusting the Picture Size and Position



1 Plug the AC power cord into a wall outlet.

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



2 Press the I/⏻ (on/standby) switch to turn on the projector.

The ON/STANDBY indicator lights in green.

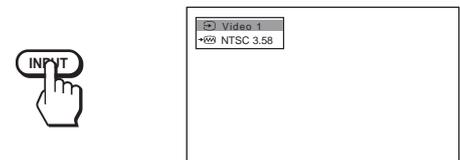


3 Turn on the equipment connected to the projector.

Refer to the operating instructions of the connected equipment.

4 Press INPUT to project the picture on the screen.

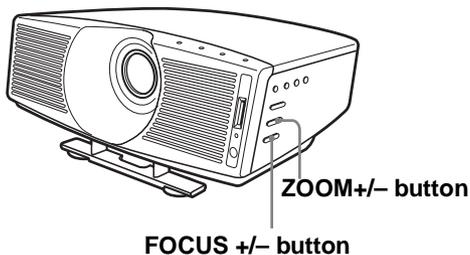
Each time you press the button, the input indication changes. (ⓘ page 26)



Tip

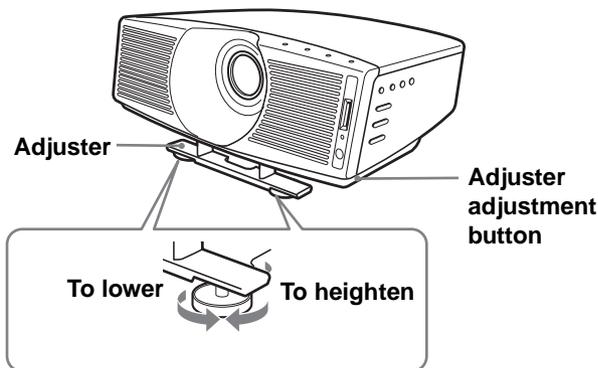
The I/⏻ (on/standby), INPUT, MENU, and ⬆/⬇/⬅/➡/ENTER (joystick) buttons on the side panel of the projector function the same as those on the remote control.

5 Adjust the focus using the **FOCUS +/-** button, and adjust the picture size using the **ZOOM +/-** button.



6 Adjust the position of the picture to fit the screen using the adjuster.

Adjusting the picture position using the adjuster



Lift the projector while pressing the adjuster adjustment button, and release the button. Holding the adjuster adjustment button pressed, move the projector, then release the button at the locked position.

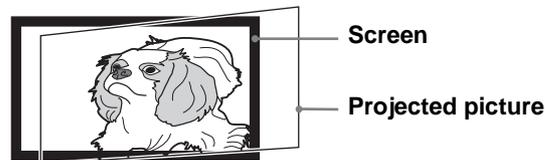
To adjust vertically

Lift the projector while pressing the adjuster adjustment button, then lock the adjuster by releasing the button at the proper point.

To adjust horizontally

Adjust by turning the round pads of the adjuster to the right or left.

7 Adjust the picture size and position.



If "Side Shot" or "V Keystone" are adjusted manually (value adjustment), the built-in test pattern is projected on the screen. If you want to make adjustments using the current input signal, set "Test Pattern" in the INSTALL SETTING menu to "Off." (☞ page 35)

When projecting using "Side Shot" adjustment only

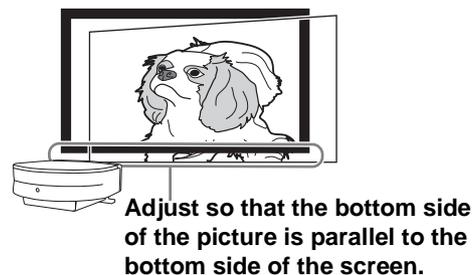
When projecting using "Side Shot" adjustment only, you can adjust to correct horizontal trapezoidal distortion using the "Side Shot" function to the maximum.

- ① Set "V Keystone" in the INSTALL SETTING menu to "Manual", press ENTER, then ↑, ↓ or RESET to set the level to "0." The adjuster is reset.

Note

If "V Keystone" is set to "Auto," the correction capacity of "Side Shot" is reduced.

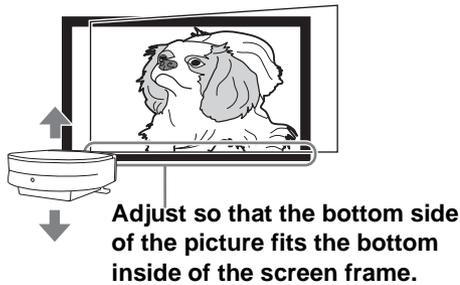
- ② Position the projector so that the picture overlaps on the screen as shown below.



Check that both vertical sides of the picture are parallel to the both vertical sides of the screen. If the picture does not overlaps on the screen as shown above, confirm and adjust the installation position of the projector and screen referring to

“Installing the Projector and a Screen” (☞ page 9).

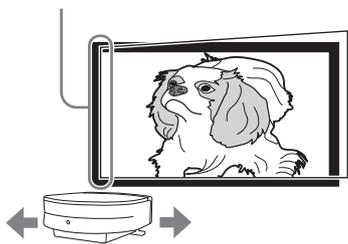
- ③ **Move the projector vertically so that the bottom side of the picture fits the bottom inside of the screen frame.**



When adjusting the picture height, do not use the adjuster (☞ page 20), but move the projector or the screen vertically to adjust so that the bottom side of the picture fits the bottom inside of the screen frame.

- ④ **Move the projector horizontally to the left or right so that one side of the picture fits the inside end of the screen frame.**

Adjust so that one side of the picture fits the inside end of the screen frame.

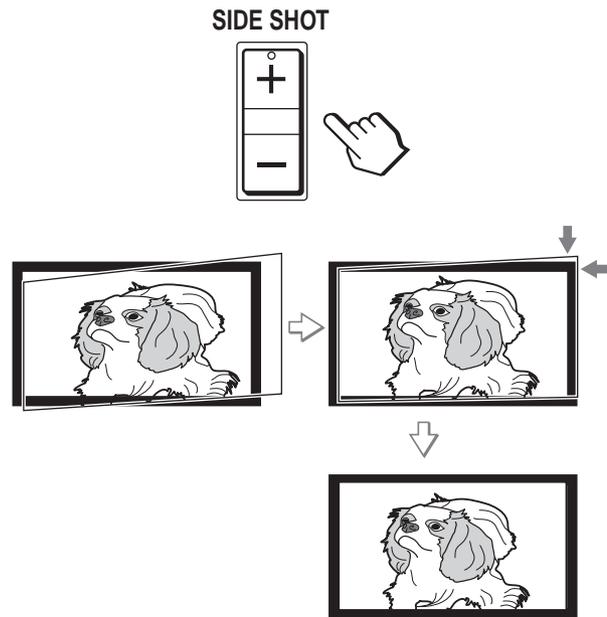


If you position the projector on the left side of the screen, adjust so that the left side of the picture fits the left inside end of the screen frame. With the projector positioned on the right side, adjust so that the right side of the picture fits the right inside end of the screen frame.

Note

When adjusting so that one side of the picture fits the inside end of the screen frame, make sure not to separate the bottom side of the picture from the bottom inside of the screen frame.

- ⑤ **Adjust to correct horizontal trapezoidal distortion using the SIDE SHOT + or – .**



Press SIDE SHOT + or – so that the upper side of the picture becomes parallel to the bottom side. If the right side is longer than the left side, press SIDE SHOT +. If the left side is longer than the right side, press SIDE SHOT –. To fine-adjust the distortion, press ↑ or ↓.

Note

Even when projecting using “Side Shot”, four sides of a picture may sometimes not be parallel to the sides of a screen frame.

When projecting using both “Side Shot” (☞ page 35) and “V Keystone” (☞ page 35) adjustments

When projecting using both “Side Shot” and “V Keystone” adjustments, the vertical and horizontal distortions are corrected.

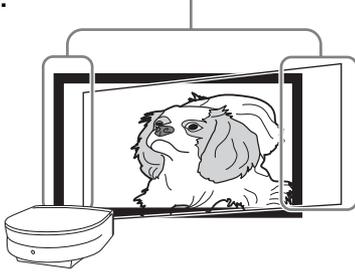
- ① **Check that “V Keystone” in the INSTALL SETTING menu is set to “Auto.”**

Note

“V Keystone” in the INSTALL SETTING menu is set to “Auto” in the default. If it is set to “Auto,” the vertical distortion of the picture will be automatically corrected. The “V Keystone” adjustment may not correct trapezoidal distortion perfectly, depending on the room temperature or the screen angle. In this case, set manually by value adjustment.

- ② **Position the projector so that the picture overlaps on the screen as shown below.**

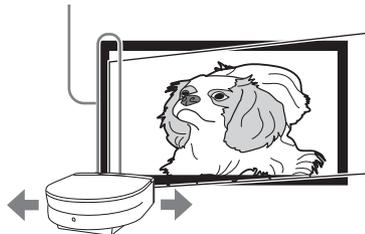
Adjust so that both vertical sides of the picture are parallel to the both vertical sides of the screen.



Check that both vertical sides of the picture are parallel to the both vertical sides of the screen. If they are not parallel, set "V Keystone" in the INSTALL SETTING menu to "Manual," then press ENTER and adjust the distortion with ↑ or ↓ so that they become parallel.

- ③ **Move the projector horizontally to the left or right so that one side of the picture fits the inside end of the screen frame.**

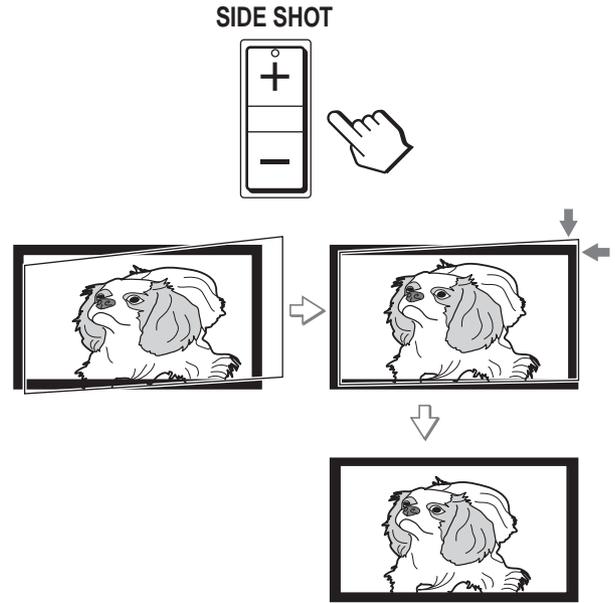
Adjust so that one side of the picture fits the inside end of the screen frame.



If you position the projector on the left side of the screen, adjust so that the left side of the picture fits the left inside end of the screen frame. With the projector positioned on the right side, adjust so that the right side of the picture fits the right inside end of the screen frame.

If the picture does not overlap on the screen, determine and adjust the installation position of the projector and screen referring to "Installing the Projector and a Screen" (📖 page 9).

- ④ **Adjust to correct horizontal trapezoidal distortion using the SIDE SHOT + or –.**



Press SIDE SHOT + or – so that the upper side of the picture becomes parallel to the bottom side. If the right side is longer than the left side, press SIDE SHOT +. If the left side is longer than the right side, press SIDE SHOT –. To fine-adjust the distortion, press ↑ or ↓.

Note

Even when projecting using "Side Shot", four sides of a picture may sometimes not be parallel to the sides of a screen frame.

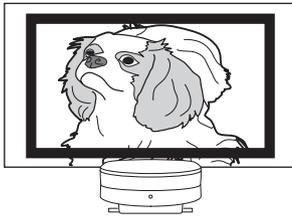
When projecting from the center

- ① **Check that "V Keystone" in the INSTALL SETTING menu is set to "Auto."**

Note

"V Keystone" in the INSTALL SETTING menu is set to "Manual" in the default. If it is set to "Auto," the vertical distortion of the picture will be automatically corrected. The "V Keystone" adjustment may not correct trapezoidal distortion perfectly, depending on the room temperature or the screen angle. In this case, set manually by value adjustment.

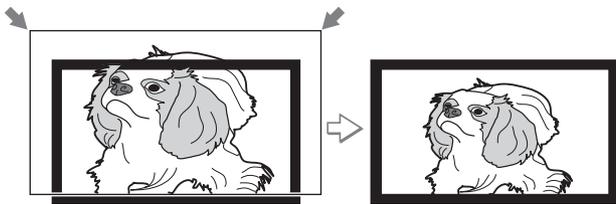
- ② **Position the projector so that the upper and bottom sides of the picture are parallel to the horizontal frame ends of the screen, and the left and right sides of the picture are parallel to the vertical frame ends of the screen, as shown below.**



If the picture does not overlap on the screen as shown above, confirm and adjust the installation position of the projector and screen referring to “Installing the Projector and a Screen” (page 9).

If the left and right sides of the picture are not parallel to the left and right sides of the screen, set “V Keystone” in the INSTALL SETTING menu to “Manual,” press ENTER, then adjust with ↑ or ↓ so that they become parallel.

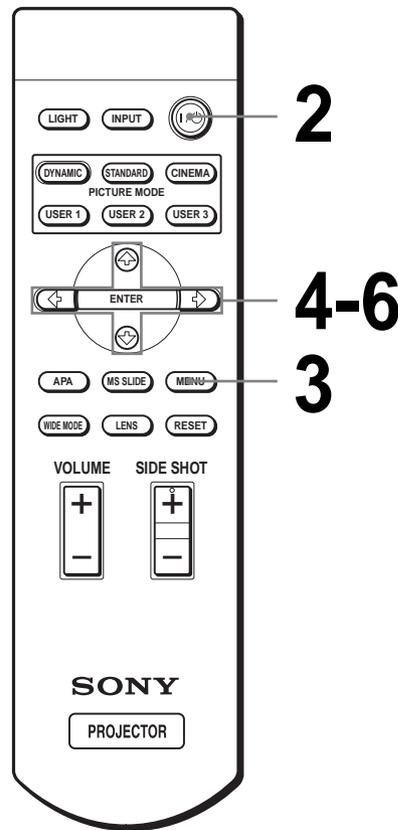
- ③ Adjust so that both ends of the bottom side of the picture fit those of the bottom side of the screen using the adjuster and the ZOOM + or –.



- 8** Press the FOCUS buttons + or – to adjust the focus again.

Step 4: Selecting the Menu Language

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



Tip

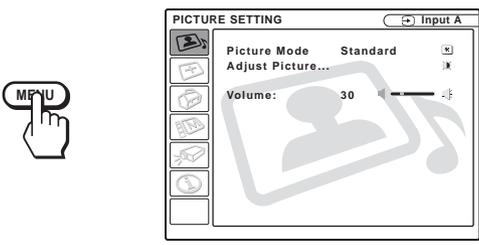
You can operate the menu using the ↑/↓/←/→ (arrow) buttons on the side panel of the projector instead of the ↑/↓/←/→/ENTER buttons on the remote control.

- 1** Plug the AC power cord into a wall outlet.

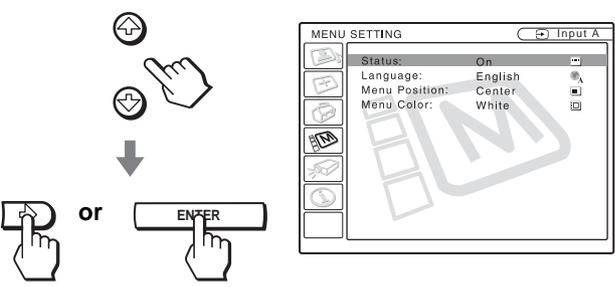
The ON/STANDBY indicator lights in red and the projector goes into standby mode.

2 Press the I/⏻ (on/standby) switch to turn on the projector.
The ON/STANDBY indicator lights in green.

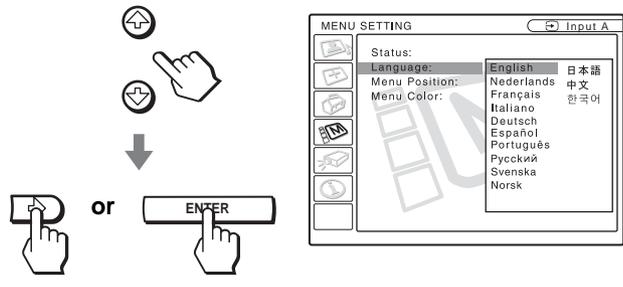
3 Press MENU.
The menu appears.
The menu presently selected is shown as a yellow button.



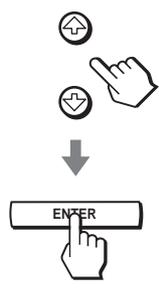
4 Press ↑ or ↓ to select the MENU SETTING  menu, and press → or ENTER.
The selected menu appears.



5 Press ↑ or ↓ to select “Language”, and press → or ENTER.



6 Press ↑ or ↓ to select a language, and press ENTER.
The menu changes to the selected language.

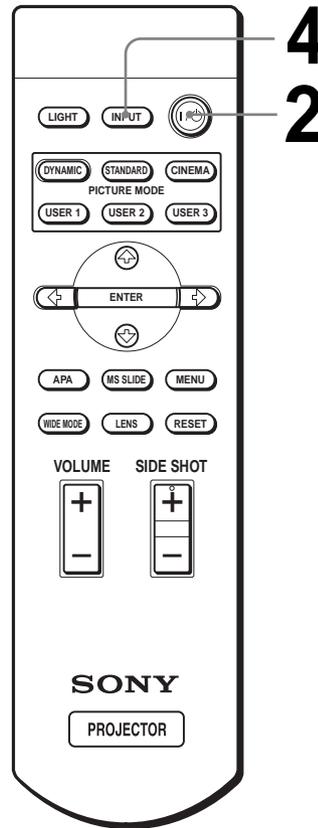


To clear the menu
Press MENU.

Projecting

This section describes how to operate the projector to view the picture from the equipment connected to the projector. It also describes how to select the wide screen mode or the quality of the picture to suit your taste.

Projecting the Picture on the Screen



1 Plug the AC power cord into a wall outlet.

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



Lights in red.

2 Press the I/O (on/standby) switch to turn on the projector.

The ON/STANDBY indicator lights in green.



Lights in green.

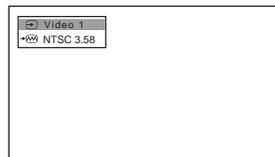
3 Turn on the equipment connected to the projector.

Refer to the operating instructions of the connected equipment.

4 Press INPUT repeatedly to select the input you want to project on the screen.

Display the indication of the input you want.

Example: To view the picture from the video equipment connected to the VIDEO INPUT jack.



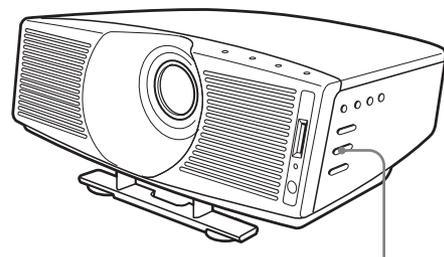
To view the picture from	Press INPUT to display
Video equipment connected to VIDEO INPUT on the projector	Video 1
Video equipment connected to S VIDEO INPUT on the projector	S-Video 1
RGB/component equipment connected to PJ MULTI INPUT via the optional signal interface cable or the interface unit	Input-A*
Video equipment connected to PJ MULTI INPUT via the optional signal interface cable or the interface unit	Video 2
Video equipment equipped with S VIDEO connected to PJ MULTI INPUT via the optional signal interface cable or the interface unit	S-Video 2
Component equipment connected to Y / Pb/Cb / Pr/Cr on the projector	Component
Digital video equipment connected to digital (DVI) connector on the projector	DVI*
Equipment connected to HDMI connector on the projector	HDMI
"Memory Stick" inserted into the "Memory Stick" slot	MS

* Set the "Input-A Signal Sel." or "DVI Signal Sel." setting in the SET SETTING menu according to the input signal. (Ⓞ page 34)

Note

Before you change the "DVI Signal Sel." setting, disconnect the DVI cable and turn off the digital tuner, etc.

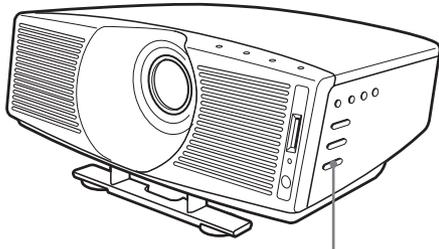
5 Press ZOOM +/- to adjust the size of the picture.



ZOOM +/- button

6 Press FOCUS +/- to adjust the focus.

Adjust to obtain sharp focus.



FOCUS +/- button

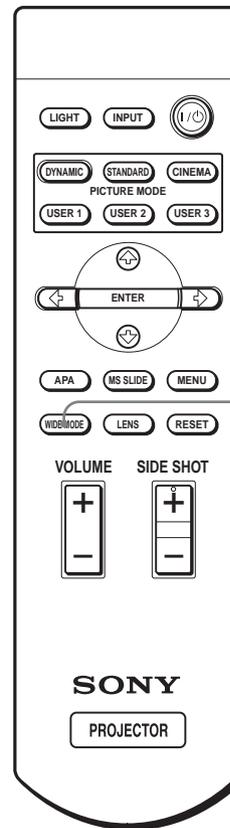
To turn off the power

- 1 Press the I/⏻ (on/standby) switch.**
A message “POWER OFF?” appears on the screen.
- 2 Press the I/⏻ switch again.**
The ON/STANDBY indicator flashes in green and the fan continues to run to reduce the internal heat. Also, the ON/STANDBY indicator flashes quickly during which you will not be able to light up the ON/STANDBY indicator with the I/⏻ switch.
- 3 Unplug the AC power cord from the wall outlet after the fan stops running and the ON/STANDBY indicator lights in red.**

You can turn off the projector by holding the I/⏻ (on/standby) switch for about one second, instead of performing the above steps.

Selecting the Wide Screen Mode

You can enjoy various wide screen mode according to the video signal received. You can also select it using the menu. (☞ page 33)



WIDE MODE button

Press WIDE MODE.

Each time you press the button, you can select the “Wide Mode” setting.

Full

A 16:9 squeezed picture is displayed with the correct aspect ratio. A 4:3 picture is enlarged horizontally to fit the 16:9 screen.

**Tip**

Squeezed: An original 16:9 aspect ratio picture is recorded horizontally compressed to a 4:3 picture.

Normal

A picture with normal 4:3 aspect ratio is displayed in the center of the screen to fill the vertical screen size.

**Wide Zoom**

A 4:3 aspect ratio picture is enlarged and the upper and lower portions of the picture are compressed to fit the 16:9 screen. Use this mode to view news, variety shows, etc.

**Zoom**

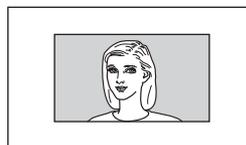
A normal 4:3 aspect ratio picture is enlarged vertically and horizontally in the same ratio to fill the 16:9 screen. This mode is ideal for viewing a wide-format movie.

**Subtitle**

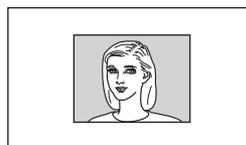
The subtitle area is compressed and displayed in the lower part of the screen. Use this mode to view a movie with subtitles.

**Full Through**

One-to-one mapping is done on a squeezed 16:9 picture. It is displayed in the center of the screen.

**Normal Through**

One-to-one mapping is done on a 4:3 normal aspect ratio picture. It is displayed in the center of the screen.

**Notes**

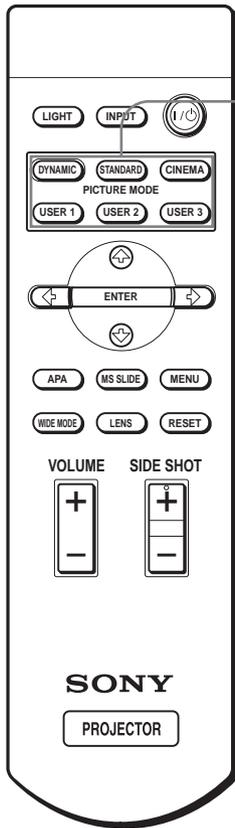
- You can adjust the vertical position of the picture with “V Position” in the INPUT SETTING menu only when “Zoom” or “Subtitle” is selected.
- You can adjust the position of the subtitles with “Title Area” in the INPUT SETTING menu only when “Subtitle” is selected.
- If “Full Through” or “Normal Through” is selected when a video signal of the Memory No. 1, 2, 3, 4, 43 or 44 (refer to the “Preset Signals” chart) is input, you cannot adjust “V Keystone” or “Side Shot” in the INSTALL SETTING menu.

Notes on selecting the wide screen mode

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

Selecting the Picture Viewing Mode

You can select the picture viewing mode that best suits the type of program or room condition.



PICTURE MODE buttons
DYNAMIC
STANDARD
CINEMA
USER 1, 2 and 3

Press one of the PICTURE MODE buttons (DYNAMIC, STANDARD, CINEMA and USER 1, 2 and 3).

DYNAMIC

Select for enhanced picture sharpness in bright environment.

STANDARD

Recommended for normal viewing condition in your home.

CINEMA

Select for soft, film-like picture in dark environment.

USER 1, 2 and 3

You can adjust the quality of the picture to suit your taste and store the settings into the selected memory of the projector. Press one of the USER 1, 2 and 3 buttons, then adjust the picture by using the menus. The settings are stored, and you can view the picture with the adjusted picture quality by pressing the button. (ⓘ page 32)

Using the Menu

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

Operation through the Menu

The projector is equipped with an on-screen menu for making various adjustments and settings. The setting items are displayed in a pop-up menu or in a sub menu. If you select an item name followed by dots (...), a sub menu with setting items appear. You can change the tone of the menu display and the menu language displayed in the on-screen menu. To change the menu language, see “Selecting the Menu Language” on page 23.

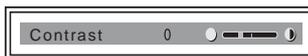
Display items

Input signal indicator



Input signal setting indicator

Picture adjustment menu



Input signal indicator

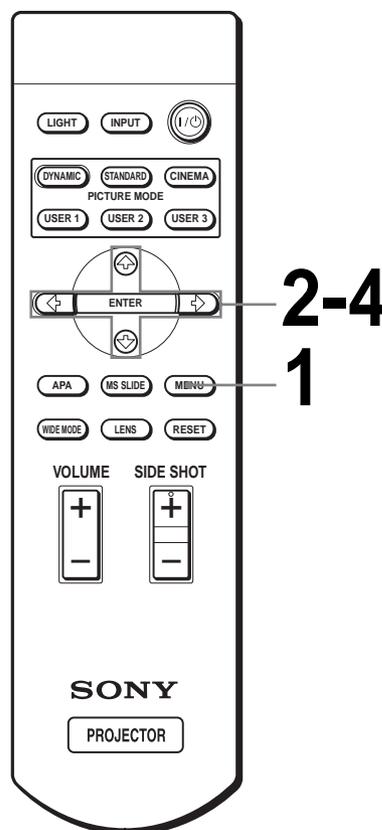
Shows the selected input channel. x(⏏) is displayed when no signal is input. You can hide this indicator using “Status” in the MENU SETTING menu.

Input signal setting indicator

For Input-A: Shows “Computer,” “Component” or “Video GBR.”

For Digital : Shows “Computer” or “Video GBR.”

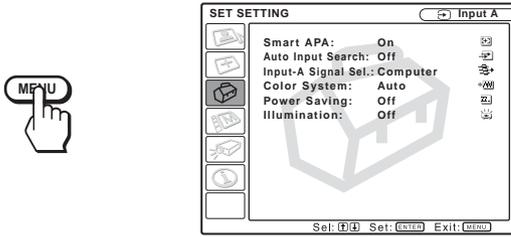
For Video/S Video input: Shows “Auto” or the “Color System” setting in the SET SETTING menu.



1 Press MENU.

The menu appears.

The menu presently selected is shown as a yellow button.

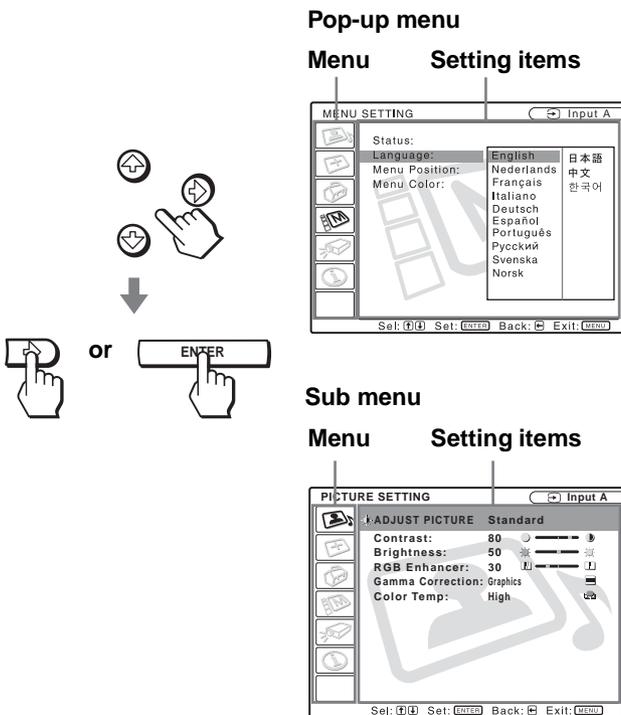


2 Press ↑ or ↓ to select a menu, and press → or ENTER.

The selected menu appears.

3 Press ↑ or ↓ to select an item you want to adjust and press → or ENTER.

The setting items are displayed in a pop-up menu or in a sub menu.



4 Make the setting or adjustment on an item.

When changing the adjustment level

To increase the value, press ↑ or →.

To decrease the value, press ↓ or ←.

Press ENTER to restore the original screen.

When changing the setting

Press ↑ or ↓ to change the setting.

Press ENTER to restore the original screen.

You can restore the original screen using ← depending on the selected item.

To clear the menu

Press MENU.

To reset items that have been adjusted

Select the item you want to reset, then press RESET. “Complete!” appears on the screen and the setting is reset to its factory preset value.

Items that can be reset are:

- “Contrast,” “Brightness,” “Color,” “Hue” and “Sharpness” in “Adjust Picture...” of the PICTURE SETTING menu
- “Dot Phase,” “H Size” and “Shift” in “Adjust Signal...” of the INPUT SETTING menu
- “V Keystone” (when set to “Manual”) and “Side Shot” of the INASTALL SETTING menu

Menu Lists

Menu Configurations

The projector is equipped with six pages. The items that can be adjusted in each menu are described on page 32.

PICTURE SETTING menu

The PICTURE SETTING menu is used for adjusting the picture. You can also adjust the volume (available only for “Memory Stick”).

INPUT SETTING menu

The INPUT SETTING menu is used to adjust the input signal. You can adjust the size of the picture, and select wide screen mode, etc.

SET SETTING menu

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

MENU SETTING menu

The MENU SETTING menu is used to change the display position, intensity of the background picture, etc., of the menu screen.

INSTALL SETTING menu

The INSTALL SETTING menu is used for correcting distortion of the picture.

INFORMATION menu

The INFORMATION menu is used to display the horizontal and vertical frequencies of the input signal and the used time of the lamp.

Menu Items

Adjustable items are limited according to the input signals. Items that cannot be adjusted are not displayed in the menu. (☞ page 71)

PICTURE SETTING

Item	Description
Picture Mode	<p>You can select picture viewing mode that best suits the type of picture or the environment.</p> <p>Dynamic: Select for enhanced picture contrast and sharpness.</p> <p>Standard: Recommended for normal viewing condition. Also select to reduce roughness when viewing the picture with Dynamic.</p> <p>Cinema: Select for soft, film-like picture.</p> <p>User 1, 2 and 3: You can adjust the quality of the picture to suit your taste and store the settings. Once the settings are stored, you can view the picture with the adjusted picture quality by pressing the PICTURE MODE button.</p> <p>To store the settings</p> <ol style="list-style-type: none">1 Select User 1, User 2 or User 3.2 Adjust the items you want in the menus. <p>Items that can be stored are: “Adjust Picture...” items other than “Volume,” and “Wide Mode” setting</p> <p>Tip You can also adjust the picture quality in “Dynamic”, “Standard” or “Cinema” mode. To reset to the factory setting, press RESET.</p>
Volume	<p>Adjusts the volume.</p> <p>Tip Audio is output only when a movie file stored in a “Memory Stick” is played.</p>
Adjust Picture...	
Contrast	<p>The higher the setting, the greater the contrast. The lower the setting, the lower the contrast.</p>
Brightness	<p>The higher the setting, the brighter the picture. The lower the setting, the darker the picture.</p>
Color	<p>The higher the setting, the greater the intensity. The lower the setting, the lower the intensity.</p>
Hue	<p>The higher the setting, the more greenish the picture becomes. The lower the setting, the more purplish the picture becomes.</p>
Sharpness	<p>The higher the setting, the sharper the picture. The lower the setting, the softer the picture.</p>

Item	Description
Black Level Adj (Adjust)	Emphasizes black color to produce a bolder “dynamic” picture. Set according to the input signal source. High: Gives higher emphasis to the black color. Low: Gives lower emphasis to the black color. Off: Cancels this feature.
Gamma Correction	Off: Cancels this feature. Gamma1, Gamma2, Gamma3: Can adjust, set and store the favorite tone using the specified controller “ImageDirector” (*1).
Color Temp.	High: Gives the white colors a blue tint. Middle: Gives the white colors a neutral tint. Low: Gives the white colors a red tint. Custom1, Custom2, Custom3: Can adjust, set and store the favorite color temperature.
DDE (Dynamic Detail Enhancer)	Off: Plays a video signal in an interlace format without converting. Progressive: Converts an interlace format video signal to a progressive format. Film: Normally, select this option. Reproduces the 2-3 Pull-Down film sources with smooth picture movement. When the video signal with a format other than the 2-3 Pull-Down is input, “Progressive” is automatically selected.
Cinema Black Pro	Iris Control Switches the iris function during projection. Off: Normal contrast. On: Enhances the black by emphasizing the contrast.
	Lamp Control Switches the lamp wattage during projection. High: Normal wattage. Low: Enhances the black by reducing the lamp wattage. Tip If “Lamp Control” is set to “Low,” the next time the power is turned on, the lamp will use the “High” setting initially, and then go to “Low.”

*1: You can download free “ImageDirector” from URL described below.

UK: <http://www.sony.co.uk>

Canada: <http://www.sonystyle.ca/productsupport>

South-east Asia: <http://www.css.ap.sony.com>

South America: <http://www.sony-latin.com/WEGA>

INPUT SETTING

Item	Description
Adjust Signal...	
Dot Phase	Adjusts the picture from a computer for clearer picture after it is adjusted by pressing the APA button.
H Size	Adjusts the horizontal size of the picture from a computer. The higher the setting, the wider the picture. The lower the setting, the narrower the picture.
Shift	As the setting for H (horizontal) increases, the picture moves to the right, and as the setting decreases, the picture moves to the left. Use ← or → to adjust the horizontal position. As the setting for V (vertical) increases, the picture moves up, and as the setting decreases, the picture moves down. Use ↑ or ↓ to adjust the vertical position.
Wide Mode	You can select the 4:3 aspect ratio picture mode, “Normal” and “Normal Through,” and 16:9 aspect ratio picture mode, “Full,” “Wide Zoom,” “Zoom,” “Subtitle” and “Full Through.” Full: The 16:9 squeezed* picture is displayed with the correct aspect. The 4:3 picture is enlarged horizontally to fit the 16:9 screen. * squeezed: An original 16:9 aspect ratio picture is recorded horizontally compressed to be a 4:3 picture. Normal: The picture with normal 4:3 aspect ratio is displayed to fill the vertical screen size. Wide Zoom: The picture with 4:3 aspect ratio is enlarged and the upper and lower portions of the picture are compressed to fit the 16:9 screen. Use this mode to view news, variety shows, etc. Zoom: The normal 4:3 aspect ratio picture is enlarged vertically and horizontally at the equal ratio to fill the 16:9 screen. The mode is ideal for viewing a wide-format movie. Subtitle: The subtitle area is compressed and displayed at the lower part of the screen. Use this mode to view a movie with the subtitle. Full Through: One-to-one mapping is done on a squeezed 16:9 picture. It is displayed in the center of the screen. Normal Through: One-to-one mapping is done on the picture with 4:3 aspect ratio. It is displayed in the center of the screen. Note If “Full Through” or “Normal Through” is selected when a video signal of the Memory No. 1, 2, 3, 4, 43 and 44 (refer to the “Preset Signals” chart) is input, you cannot adjust “V Keystone” or “Side Shot” in the INSTALL SETTING menu. For details, see “Selecting the Wide Screen Mode” on page 27”.

Item	Description
V Position	Adjusts the vertical position of the picture in wide screen mode. As the setting increases, the picture moves up. As the setting decreases, the picture moves down. Note This item is adjustable only when “Zoom” or “Subtitle” is selected.
Title Area	Adjusts the subtitle area. As the setting increases, the subtitle area moves up. As the setting decreases, the subtitle area moves down. Note This item is adjustable only when “Subtitle” is selected.

Note

For input signals from the DVI and HDMI connector, “Dot Phase,” “H size” and “Shift” are not adjustable.

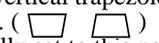
 **SET SETTING**

Item	Description
Smart APA	With this item set to On , the APA function works automatically for a signal input from a computer so that the picture can be seen clearly. You can also activate the APA function by pressing the APA button on the remote control. Tip The APA (Auto Pixel Alignment) automatically adjusts the input signal from a computer so that the picture can be seen clearly.
Auto Input Search	Set to On when an optional Interface Unit such as the IFU-HS1 is connected to the PJ MULTI connector on the projector.
Input-A Signal Sel.	Selects the signal input from the equipment by selecting “Input-A” with the INPUT button. Computer: Inputs the signal from a computer. Component: Inputs the component or progressive component signal from a DVD player, digital tuner, etc. Video GBR: Inputs the signal from a TV game or HDTV broadcast.
DVI Signal Sel.	Selects the signal input from the equipment by selecting “Digital” with the INPUT button. Computer: Inputs the signal from a computer. Video GBR: Inputs the signal from a digital tuner, etc. Note Before you change the “DVI Signal Sel.” setting, disconnect the DVI cable and turn off the digital tuner, etc.
Color System	Select the color system of the input signal. Auto: Selects the color system of the input signal automatically from among NTSC, PAL, SECAM, NTSC _{4.43} , PAL-M or PAL-N. “NTSC_{3.58}”–“PAL-N”: Sets the color system to the selected system manually.
Power Saving	When set to On , the POWER SAVING indicator lights. The projector goes into power saving mode if no signal is input for 10 minutes, and the lamp goes out and the cooling fan keeps running. In power saving mode, no button functions for the first 60 seconds. It is cancelled when a signal is input or any button is pressed. If you do not set the projector to power saving mode, select Off .
Illumination	Turns on the illumination on the top panel of the projector when set to On . It turns off when set to Off .

MENU SETTING

Item	Description
Status	Set to Off to turn off the on-screen displays except for the menus, message when turning off the power, and warning messages.
Language	Selects the language used in the menu and on-screen displays. Available languages are: English, Dutch, French, Italian, German, Spanish, Portuguese, Russian, Swedish, Norwegian, Japanese, Chinese, and Korean.
Menu Position	Selects the display position from Top Left , Bottom Left , Center , Top Right and Bottom Right .
Menu Color	Selects the tone of the menu display from White or Black .

INSTALL SETTING

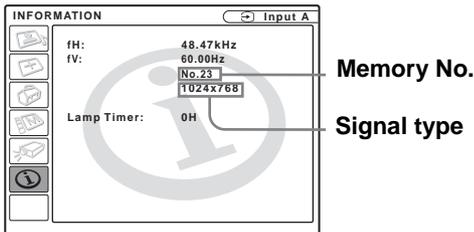
Item	Description
V Keystone	Corrects the vertical trapezoidal distortion of the picture. () Auto: Normally set to this position. Manual: Sets a lower value (– direction) when the bottom of the trapezoid is longer than the top. Sets a higher value (+ direction) when the top of the trapezoid is longer than the bottom. If you project the picture using “Side Shot” only, set to “Manual,” and adjust the level to “0.” Note The “V Keystone” adjustment may not correct the trapezoidal distortion perfectly, depending on the room temperature or the screen angle.
Side Shot	Corrects the horizontal trapezoidal distortion of the picture. () Set the level to “0” when you adjust the picture using “V Keystone” only. Note Even when projecting using “Side Shot”, four sides of a picture may sometimes not be parallel to the sides of a screen frame.
Image Flip	Flips the picture on the screen horizontally and/or vertically. Off: The picture does not flip. HV: Flips the picture horizontally and vertically. H: Flips the picture horizontally. V: Flips the picture vertically.
Background	Selects the background color of the screen when no signal is input. You can select “ Black ” or “ Blue .”
Test Pattern	When set to On , a test pattern is displayed on the screen when adjusting using the “Lens Zoom,” “Lens Focus,” “Side Shot” or “V Keystone.” If you do not want to display a test pattern, set to Off .
High Altitude Mode	Off: Use this setting when using the projector at normal altitudes. On: Use this setting when using the projector at an altitude of 1,500 m or higher.

INFORMATION

Item	Description
fH	Displays the horizontal frequency of the input signal.
fV	Displays the vertical frequency of the input signal.
Lamp Timer	Indicates how long the lamp has been turned on.

About the Preset Memory No.

This projector has 35 types of preset data for input signals (the preset memory). When the 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 INFORMATION menu.



You can also adjust the preset data through the INPUT SETTING menu.

This projector also 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 0. 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 chart on page 73 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 “H size.” Make fine adjustment by adjusting “Shift.”

Signal	Memory No.	H size
Super Mac-2	23	1312
SGI-1	23	1320
Macintosh 19"	25	1328

Note

When the aspect ratio of input signal does not match the screen size, a part of the screen is displayed in black.

Adjusting Picture Quality of a Signal from the Computer

You can automatically adjust to obtain the clearest picture when projecting a signal from the computer.

1 Project a still picture from the computer.

2 Press the APA (Auto Pixel Alignment) button.

When the picture is adjusted properly, “complete!” appears on the screen.

Notes

- When “Smart APA” is set to “On,” the APA function is automatically activated.
- Press the APA button when the image appears on the whole display area of the computer. If there are black edges around the image, the APA function will not function properly and the image may extend beyond the screen.
- If you switch the input signal or re-connect a computer, press the APA button again to get the suitable picture.
- To restore the original screen, press the APA button again during the adjustment.
- When a signal of which the timing is the same as the “Memory No.23” or the “Memory No.72” signal (refer to the “Preset Signals” chart) is input, if the polarity of the synchronized signal is different, the input signal may be misjudged and the image may not appear properly (incorrect aspect ratio or lack of a part of the image). In this case, press the APA button to adjust the image. This APA processing time may be longer than the APA processing time of signal in another case. If the image does not still appear properly, input the signal as described in the following example, then press the APA button again.
Example:
display of whitish wallpaper with a window’s bar in the lower part
- The picture may not be adjusted properly depending on the types of input signals.
- Adjust the items in the INPUT SETTING menu when you adjust the picture manually. (☞ page 32)

Using a “Memory Stick”

This section describes how to view the picture files that are recorded by a digital camera and stored in a “Memory Stick.” You can make a slide show using the pictures, display an index screen of the pictures, etc.

About a “Memory Stick”

What is “Memory Stick”?

“Memory Stick” is a new compact, portable and versatile IC (Integrated Circuit) recording medium with a data capacity that exceeds a floppy disk. “Memory Stick” is specially designed for exchanging and sharing digital data among “Memory Stick” compatible products. Because it is removable, “Memory Stick” can also be used for external data storage. “Memory Stick” is available in two sizes: standard size and compact “Memory Stick Duo” size. Once attached to a Memory Stick Duo adaptor, “Memory Stick Duo” turns to the same size as standard “Memory Stick” and thus can be used with products compliant with standard “Memory Stick.”

Types of “Memory Stick”

“Memory Stick” is available in the following six types to meet various requirements in functions.

- “Memory Stick PRO”
Equipped with the MagicGate copyright protection technology and can be used only with “Memory Stick PRO” compliant products.
- “Memory Stick”
Stores any type of data except copyright-protected data that requires the MagicGate copyright protection technology.
- “Memory Stick” (compatible with “MagicGate”/ high speed data transfer)
Equipped with the “Magic Gate” copyright protection and compatible with high speed data transfer. This “Memory Stick” can be used with all “Memory Stick” compliant products. The projector is not compatible with the high speed data transfer function of this “Memory Stick.”
- “MagicGate Memory Stick”
Equipped with the MagicGate copyright protection technology.
- “Memory Stick-ROM”
Stores pre-recorded, read-only data. You cannot record on “Memory Stick-ROM” or erase the pre-recorded data.
- “Memory Stick” (with memory select function)
This is a “Memory Stick” that has (128MB) plural memory in it. You can select memory to use for whatever purposes through the memory select switch on the back of the “Memory Stick”. You cannot use all the available memory at the same time and/or continuously.

Available types of “Memory Stick” for the projector

Memory Stick Media Compatibility Chart

	Playback
“Memory Stick” “Memory Stick” (with memory select function) “Memory Stick Duo”	○
“Memory Stick” (compatible with MagicGate/high speed data transfer) “Memory Stick Duo” (compatible with “MagicGate”/high speed data transfer)	○ *1 *2
“Memory Stick-ROM”	○
“MagicGate Memory Stick” “MagicGate Memory Stick Duo”	○ *1
“Memory Stick PRO” “Memory Stick PRO Duo”	○ *1 *2

*1: Data playback that requires MagicGate functions cannot be performed.

*2: Does not support high speed data transfer using the parallel interface.

- When using a “Memory Stick Duo” in the projector, always insert the “Memory Stick Duo” into the sold separately “Memory Stick Duo” adaptor. If you insert a “Memory Stick Duo” without the “Memory Stick Duo” adaptor, you may be unable to remove the “Memory Stick Duo”.
- Not all types of “Memory Stick” media are guaranteed to operate.

Note on “Memory Stick PRO” and “Memory Stick” (compatible with “MagicGate”/high speed data transfer

“Memory Stick PRO” and “Memory Stick” (compatible with “MagicGate”/high speed data transfer) do not support high speed data transfer using the parallel interface.

Note on “Memory Stick” (compatible with “MagicGate”/high speed data transfer)

Transfer speed when using “Memory Stick” (compatible with “MagicGate”/high speed data transfer) varies and is dependent upon “Memory Stick” compliant products.

Note on memory capacity of “Memory Stick PRO”

“Memory Stick PRO” features vary by and are dependent upon the design of host hardware devices.

“Memory Stick PRO” Media slot:

- does not support MagicGate copyright protection technology;
 - does not support access control security function.
- This device has been demonstrated the operation with up to 1GB “Memory Stick”. Operation is not guaranteed for “Memory Stick PRO” beyond this capacity.

Notes on “Memory Stick Duo”

- To use “Memory Stick Duo” with your projector, attach it to the “Memory Stick Duo” adaptor before inserting it into your projector. If you insert a “Memory Stick Duo” without the “Memory Stick Duo” adaptor, you may be unable to remove the “Memory Stick Duo”.
- Be sure to attach “Memory Stick Duo” to the adaptor with the correct orientation.
- Be sure to insert the Memory Stick Duo adaptor with the correct orientation. Otherwise, the projector may be damaged.
- Do not insert the Memory Stick Duo adaptor without “Memory Stick Duo” attached. Doing so may result in malfunction of the projector.

Note on data read/write speed

Data read/write speed may vary depending on the combination of the “Memory Stick” and “Memory Stick” compliant product you use.

Note on access control

This unit cannot read “Memory Stick” that has been Access Control with other units. To read/write data on the Access Control “Memory Stick”, unlock the “Memory Stick” with the unit that has locked it.

Note on “Memory Stick” (with memory select function)

- You cannot use all the available memory at the same time and/or continuously.
- Do not use the memory select switch while the “Memory Stick” is connected to any of the compatible device that is compatible for use with this feature, as this may cause a malfunction. If you use the memory select function while the “Memory Stick” is connected to any compatible device and there is a malfunction, we will not honor the guarantee.

- When using the memory select switch, make sure to firmly move the switch to the end. If you do not switch it completely, it may cause a problem or malfunction.
- Check your memory selection on the “Memory Stick” before inserting it into the “Memory Stick” slot of the compatible device.
- When you use “Memory Stick” with memory select function, you can choose the type of memory by switching the memory select switch. As the compatible device will only access the memory selected by you, note the following:
 - A formatting (initializing) process is executed for the selected memory only.
 - Remaining memory display reflects only selected memory information.
 - Error display reflects only selected memory information.
 Each memory is handled individually by selecting it.

What is MagicGate ?

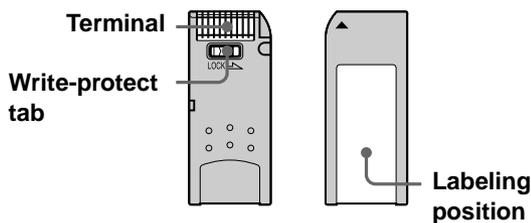
MagicGate is copyright protection technology that uses encryption technology.

Format that can be displayed with this projector

The projector can display the picture files recorded by a digital camera and recorded on a “Memory Stick” in the following format:

- Image files (DCF-compatible) compressed in the JPEG (Joint Photographic Experts Group) format (extension: .jpg)
- MPEG1 format picture files recorded by Sony products; MPEG MOVIE, MPEG MOVIE AD, MPEG MOVIE EX, MPEG MOVIE HQ, MPEG MOVIE HQX, MPEG MOVIE CV, VAI0 Giga pocket (equivalent to video CD).

Before using a “Memory Stick”



- When you set the “Memory Stick” erasure prevention switch to “LOCK,” data cannot be recorded, edited, or erased.
- Some “Memory Sticks” (“Memory Stick PRO”/”Memory Stick PRO Duo”) are not equipped with a write-protect tab. Make sure not to edit or erase data

- by mistake when using “Memory Stick” which is not equipped with a write-protect tab.
- Use a sharp object, such as a ballpoint pen, to move the “Memory Stick Duo” erasure prevention switch.
- Data may be damaged if:
 - You remove the “Memory Stick” or turn off the unit while it is reading or writing data.
 - You use the “Memory Stick” in a location subject to the effects of static electricity or electric noise.
- We recommend that you make a backup copy of important data that you record on the “Memory Stick.”

Notes

- Do not attach anything other than the supplied label to the “Memory Stick” labeling position.
- Attach the label so that it does not stick out beyond the labeling position.
- Do not write forcefully on the “Memory Stick Duo” memo area.
- Carry and store the “Memory Stick” in its case.
- Do not touch the connector of the “Memory Stick” with anything, including your finger or metallic objects.
- Do not strike, bend, or drop the “Memory Stick.”
- Do not disassemble or modify the “Memory Stick.”
- Do not allow the “Memory Stick” to get wet.
- Do not use or store the “Memory Stick” in a location that is:
 - Extremely hot, such as in a car parked in the sun
 - Under direct sunlight
 - Very humid or subject to corrosive substances

About formatting “Memory Stick”

When “Memory Sticks” are shipped from the factory, they are already formatted to a special standard. When you format “Memory Stick,” we recommend formatting them on this projector.

Caution when formatting “Memory Stick” on a personal computer

Pay attention to the following points when formatting “Memory Stick” on a personal computer. Operation of “Memory Stick” formatted on a personal computer is not guaranteed on this projector. To use a “Memory Stick” that has been formatted on a personal computer, the “Memory Stick” must be reformatted on this projector. If it is not reformatted, all data stored on the “Memory Stick” will be lost.

Access Indicator

If the access indicator is turned on or is flashing, data is being read from or written to the “Memory Stick.” At this time, do not shake the projector or subject it to shock. Do not turn off the power of the projector or remove the “Memory Stick.” This may damage the data.

Precautions

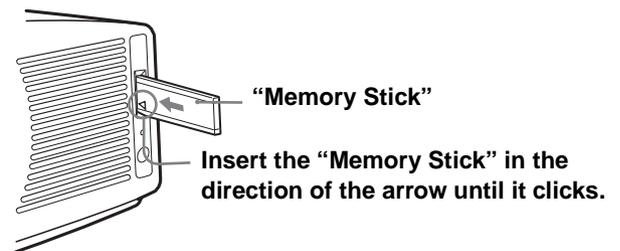
- To prevent data loss, make backups of data frequently. In no event will Sony be liable for any loss of data.
- Unauthorized recording may be contrary to the provisions of copyright law.
- The “Memory Stick” application software may be modified or changed by Sony without prior notice.

-
- “Memory Stick Duo” and MEMORY STICK DUO are trademarks of Sony Corporation.
 - “Memory Stick” and  are trademarks of Sony Corporation.
 - “Memory Stick PRO” and MEMORY STICK PRO are trademarks of Sony Corporation.
 - “MagicGate Memory Stick” and MAGICGATE are trademarks of Sony Corporation.
 - “Memory Stick-ROM” and MEMORY STICK-ROM are trademarks of Sony Corporation.

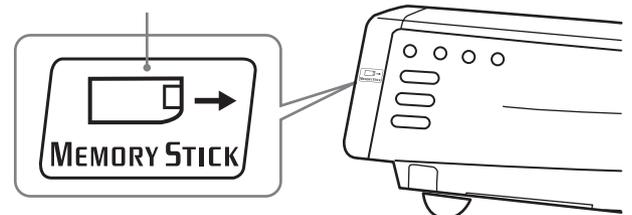
Preparing for Viewing the Picture Files Stored in a “Memory Stick”

Inserting a “Memory Stick”

Insert the “Memory Stick” into the “Memory Stick” slot on the front of the projector. Be sure to insert the “Memory Stick” in the correct direction.

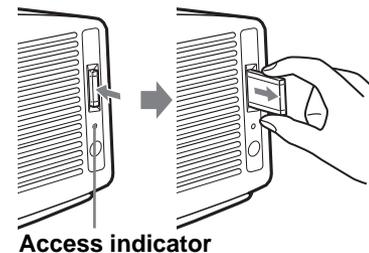


Label for preventing incorrect insertion



To remove the “Memory Stick”

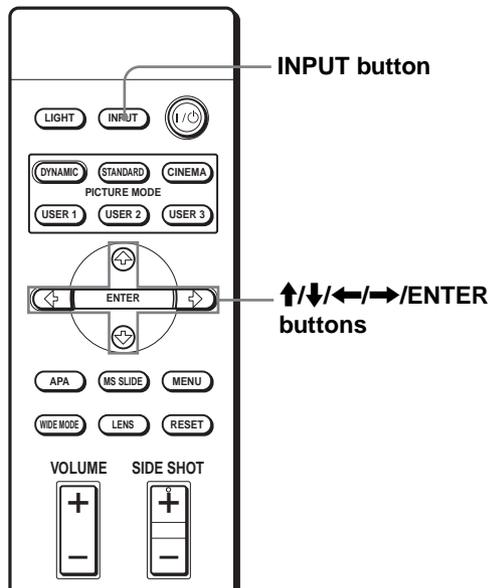
When the access indicator is turned off, press the “Memory Stick” and remove your hand. As the lock is released, remove the “Memory Stick.”



Note

Insert the “Memory Stick” with the arrow mark pointing toward the “Memory Stick” slot.

Displaying the Desired Pictures in Digital Camera Mode

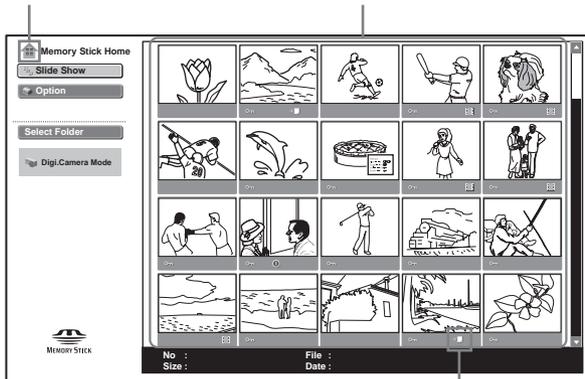


Press INPUT to select MS.

Memory Stick Home appears.

Memory Stick Home mark

Appears the first 20 thumbnails



Appears if another file with the same name in the last four figures is included in the "Memory Stick."

What is Digital Camera Mode?

The projector can choose and display JPEG and MPEG1 picture files recorded by a digital camera (DCF-compatible) only from among picture files stored in a "Memory Stick."

Notes

- The digital camera mode does not function if more than 2000 picture files recorded by a digital camera are stored in a "Memory Stick."
- For a picture file recorded with the Voice Memo function of the Sony digital camera, only the still picture file is displayed.
- If you delete a picture file with the relative file mark (+ □), its relative picture file will also be deleted.

Tip

Several small pictures included in a folder, displayed at one time, are called thumbnails.

Before operating the picture file

To operate the picture file, display the index menu or the picture setting menu.

Index menu

To display the index menu, select a thumbnail, then press ENTER.

You can perform the following operations using the menu displayed on the index screen:

- Displaying a picture file on the full screen
- Executing the slide show
- Protecting an important picture file
- Rotating a picture file (still picture only)
- Registering the startup picture file (still picture only)
- Deleting a picture file

Picture setting menu

Menu of a still picture

To display the picture setting menu, press ENTER when a picture is displayed on the full screen. You can perform the following operations using the menu displayed on the picture setting screen:

- Showing/hiding the picture file information
- Protecting an important picture file
- Rotating a picture file
- Registering the startup picture file
- Deleting a picture file

Menu of a movie file

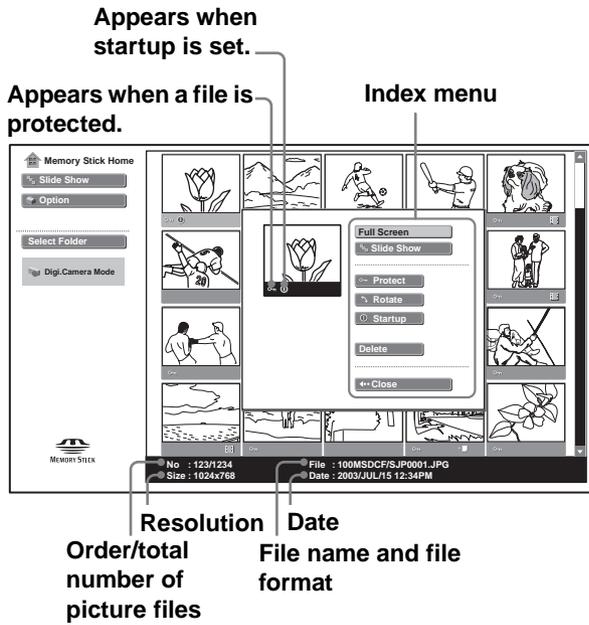
To display the picture setting menu, select "Menu" on the Movie Player.

You can perform the following operations using the menu displayed on the picture setting screen:

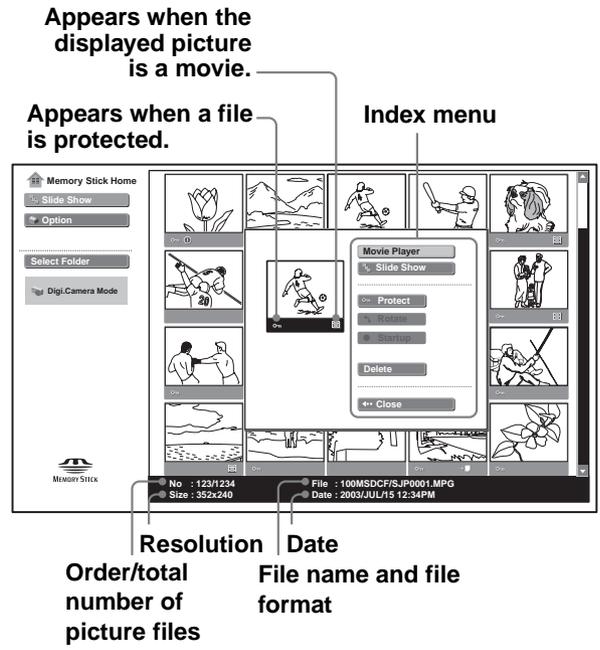
- Showing/hiding the movie file information
- Switching the sound to be heard
- Protecting an important movie file
- Deleting a movie file

For details on operations, see the description for each screen.

Index screen of a still picture file

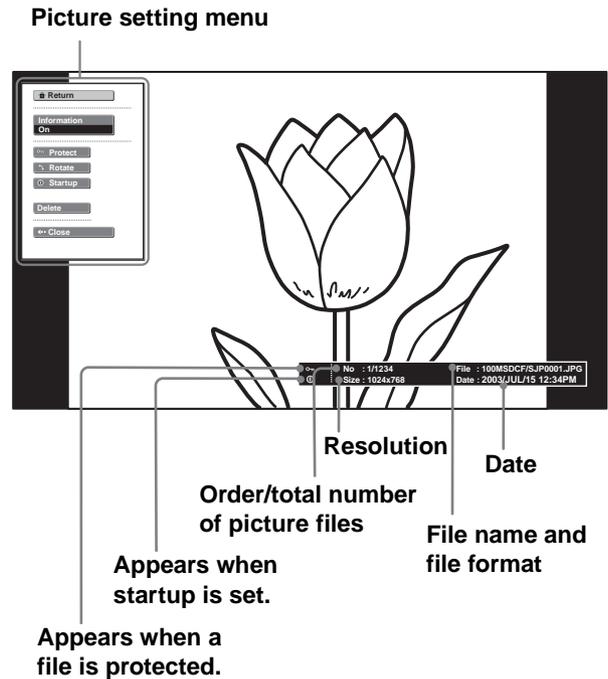


Index screen of a movie file



To select a picture file in the thumbnail display, press **↑**, **↓**, **←** or **→**. If you want to display other picture files when more than 20 picture files are contained in the current folder, select a picture file in the bottom row and press **↓**, or select a file on the right-most column, press **→** to select the slider, then press **↓**. If you press MS SLIDE in the index menu, the slide show starts from the selected picture.

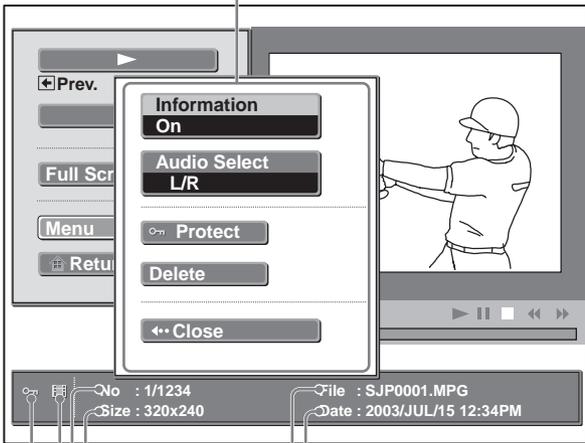
Picture setting screen of a still picture



If you want to display another picture file when multiple picture files are contained in the current folder, press **→**. If you press MS SLIDE in the picture setting menu, the screen returns to Memory Stick Home.

Movie Player

Picture setting menu
of a movie file



Resolution

Date

Order/total number
of picture files

File name and file
format

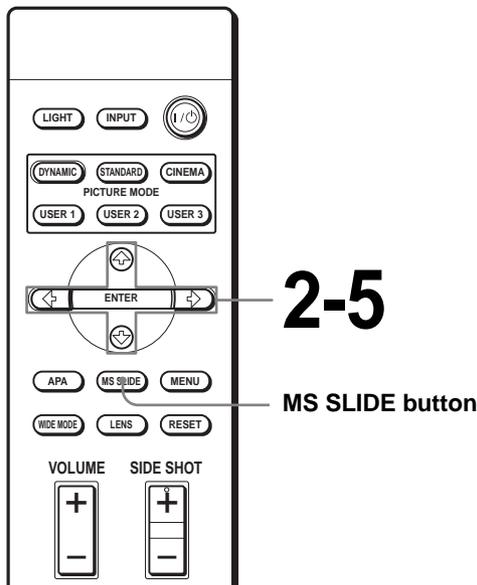
Movie icon

Appears when a
file is protected.

Viewing the Pictures

Viewing the Pictures in Sequence — Slide Show

You can run a slide show by using the pictures recorded by a digital camera. You can advance a slide automatically or manually.

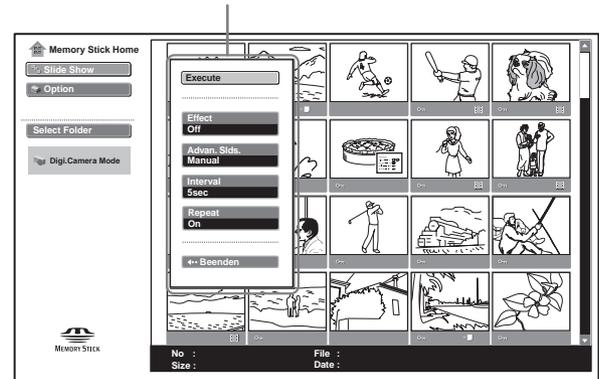


1 Display the Memory Stick Home. (☞ page 41)

2 Press **↑** or **↓** to select “Slide Show,” and press ENTER.

The slide show setting menu appears.

Slide show setting menu



Effect: to set the effect when the slide is displayed.

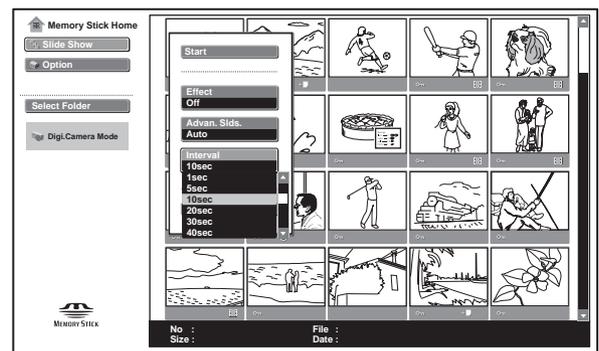
Advan. Slids. (Advance Slides) : to set to advance a next slide automatically (“Auto”) or manually (“Manual”).

Interval: to set the period for which one slide is displayed. When “Advan. Slids.” is set to “Manual,” this item does not work. The time is about right.

Repeat: set to execute the slide show repeatedly or one time only.

3 Press **↑** or **↓** to select the setting item, and press ENTER.

4 Press **↑** or **↓** to set the selected item, and press ENTER.



5 After setting all the items, press **↑** or **↓** to select “Start” and press **ENTER**.

When you set “Advan. Slids.” to “Auto,” the slide advances automatically. When a movie picture is selected, it is played automatically, and after playback the next slide is displayed. When you set to “Manual,” use the **→** button to advance a slide. To return to the previous slide, use the **←** button. The movie picture is not played back and the first frame of the picture is displayed. To play back the movie pictures, see “Playing Movie Pictures” on page 46.

To end the slide show

Press **MS SLIDE** or **ENTER** when you set “Advan. Slids.” to “Auto.”

When setting it to “Manual,” press **MS SLIDE**.

To return to the Memory Stick Home before executing the slide show

Select “Close” in step 5 above.

Executing the slide show promptly

As the settings are stored even if you change the input after performing steps 1 to 4, press **MS SLIDE** just as you start the slide show. The input is changed to **MS** and the slide show starts promptly.

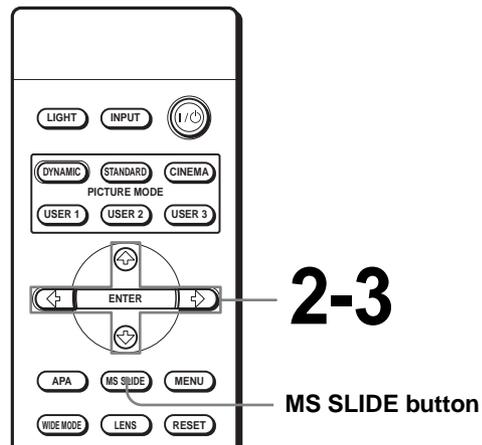
To start a slide show from the selected index picture

You can run a slide show by selecting a thumbnail in the index screen.

- 1 Press **↑**, **↓**, **←** or **→** to select the picture file from which you want to start the slide show, and press **ENTER**.
- 2 Press **↑** or **↓** to select “Slide Show” in the index menu of a still picture file/movie file, and press **ENTER**.

Displaying a Picture on the Full Screen — Full Screen

You can project one of the index pictures on the full screen. To display a movie picture on the full screen, see “Playing Movie Pictures” on page 46.

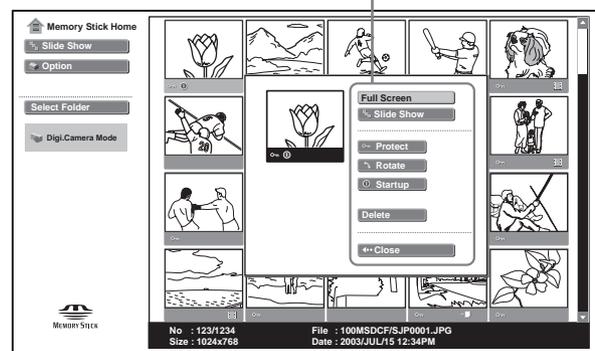


1 Display the Memory Stick Home. (☞ page 41)

2 Press **↑**, **↓**, **←** or **→** to select a still picture you want to display on the full screen, and press **ENTER**.

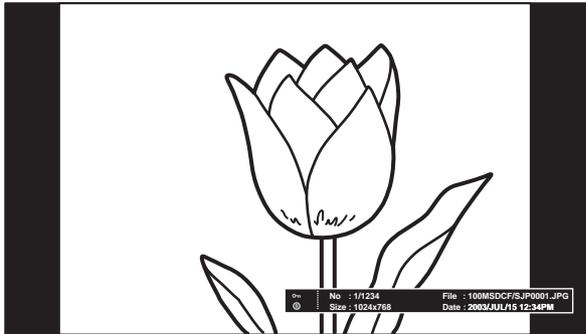
The index menu of a still picture file appears.

Index menu of a still picture file



3 Press **↑** or **↓** to select “Full Screen,” and press **ENTER**.

The selected picture is projected to fit the screen.



To display a previous or next slide

To display the next slide, press **→**.

To return to the previous slide, press **←**.

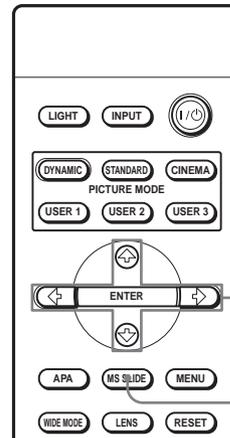
To return to the Memory Stick Home

Press **MS SLIDE**.

You can also return to the Memory Stick Home by using the index menu. Press **ENTER** to display the index screen of a still picture file, press **↑** or **↓** to select “Return” and press **ENTER**.

Playing Movie Pictures

You can play back a movie of MPEG1 format recorded with the Sony MPEG MOVIE, etc.



2-4

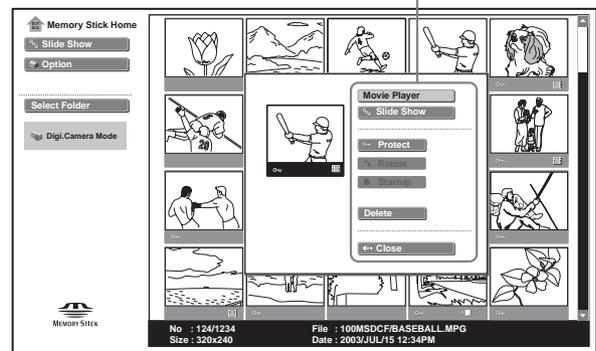
MS SLIDE button

1 Display the Memory Stick Home. (☞ page 41)

2 Press **↑**, **↓**, **←** or **→** to select a movie picture you want to display, and press **ENTER**.

The index menu of a movie file appears.

Index menu of a movie file

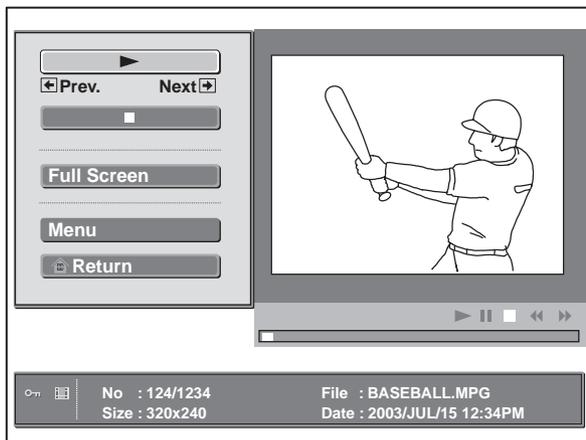


Tip

When you select a movie picture in the index screen, “Rotate” and “Startup” are not available.

3 Press **↑** or **↓** to select “Movie Player,” and press **ENTER**.

The Movie Player appears.



▶ **(play/pause)**: to play back. During playback, the button display is changed to the **||** (pause) button.

■ **(stop)**: to stop playback.

Full Screen: to play a full-screen movie picture.

Menu: to display the movie picture setting menu.

[Guide display]

← **Previous**: to display the previous slide in the movie pause mode. During playback the guide display is changed to ← “Rw” (rewind).

→ **Next**: to display the next slide in the movie pause mode. During playback the guide display is changed to → “FF” (fast-forward).

Tip

The Movie Player is not displayed when you set “Advan. Slids.” of “Slide Show” to “Auto.”

4 Press **↑** or **↓** to select **▶**.

Playback starts. When the playback is finished, playback stops with the first picture of the movie displayed.

Note

The projector can play back a MPEG1 movie recorded by the Sony MPEG MOVIE, etc. (Movies may occasionally skip when you watch them.) Usable MPEG1 movies are MPEG MOVIE AD/EX/HQ/HQX/CV, MPEG1 of VAIO Giga pocket (equivalent to a video CD).

To stop playback

Press **↓** to select ■.

To play a movie on the full screen

Press **↑** or **↓** to select “Full Screen” in the Movie Player, and press **ENTER**.

The picture is enlarged to fill the screen and playback starts. When you press **↑**, **↓**, **←**, **→** or **ENTER** during playback, the Movie Player is restored.

Note

When the picture size is small, it is not enlarged to fill the screen if you select “Full Screen.”

To return to the Memory Stick Home

Press **↑** or **↓** to select “Return.”

To switch the sound to be heard

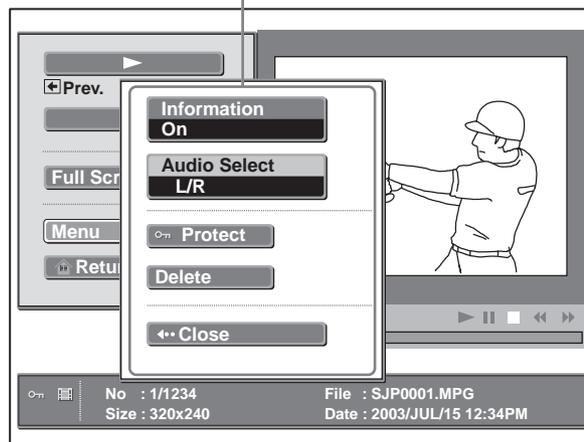
1 Press **↑** or **↓** to select “Menu.”

The movie picture setting menu appears.

2 Press **↑** or **↓** to select “Audio Select.”

3 Press **VOLUME +** or **-** to adjust the sound.

Movie picture setting menu



L/R: to hear the left and right sounds.

L: to hear the left sound.

R: to hear the right sound.

Selecting the Folder Containing the Desired Picture

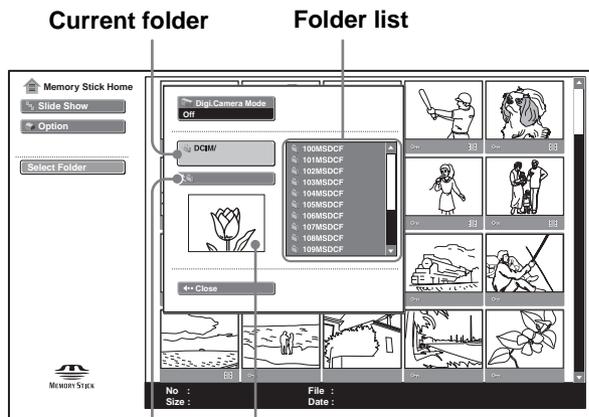
1 Display the Memory Stick Home.

Note

Set “Digi. Camera Mode” to “Off” before operation. (☞ page 48)

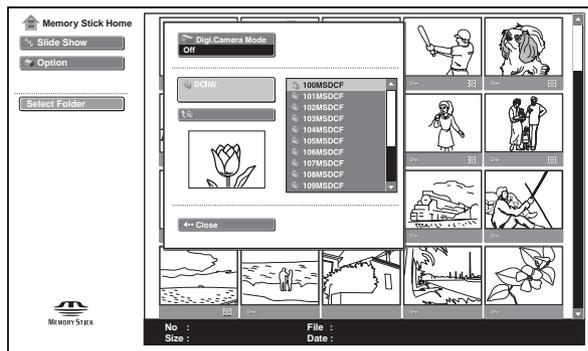
2 Press **↑** or **↓** to select “Select Folder,” and press ENTER.

The folder list appears.



To upper stage First picture file in the current folder

3 Press **→** to select the folder list.



4 Press **↑** or **↓** to select the folder which contains the picture file you want to display, and press ENTER.

To select the folders which are not displayed, press **→** to select the slider on the folder list and press **▲** or **▼**. The next 10 folders appear.

Tip

Multiple picture files are included in the folder. The folder may include individual still or movie picture files and other folders. You must select folders when you are displaying a picture file stored in a “Memory Stick.”

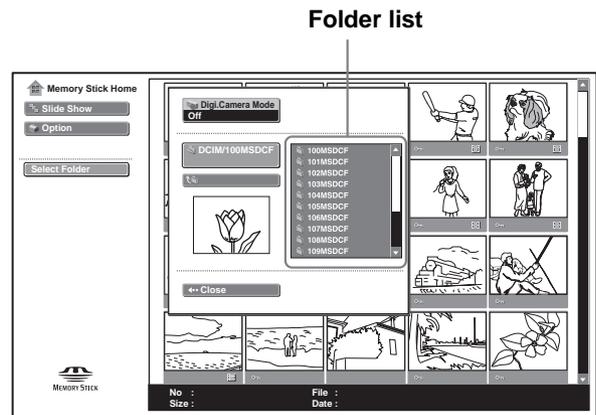
To turn off the Digital Camera Mode

1 Display the Memory Stick Home.

2 Press **↑** or **↓** to select “Select Folder,” and press ENTER.

3 Press **↑** or **↓** to select “Digi. Camera Mode,” and press ENTER.

4 Press **↓** to select “Off,” and press ENTER. The folder list appears.

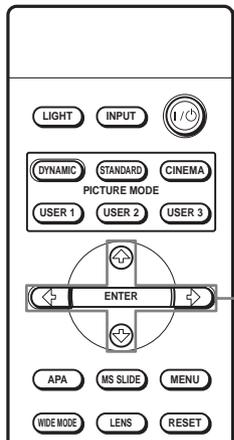


Rotating a Still Picture

You can rotate a thumbnail picture or full-screen still picture clockwise or counterclockwise in 90° steps.

Note

You cannot rotate a movie picture.



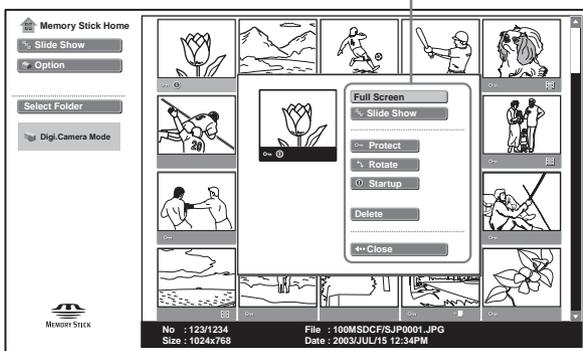
2-4

1 Display the Memory Stick Home. (☞ page 41)

2 Press **↑**, **↓**, **←** or **→** to select the picture you want to rotate, and press **ENTER**.

The index menu of a still picture appears.

Index menu of a still picture



3 Press **↑** or **↓** to select “Rotate,” and press **ENTER**.

4 Press **↑** or **↓** to select the direction of rotation, **↻** (clockwise) or **↺** (counterclockwise), and press **ENTER**.

The picture rotates 90° every pressing of the **ENTER** button.

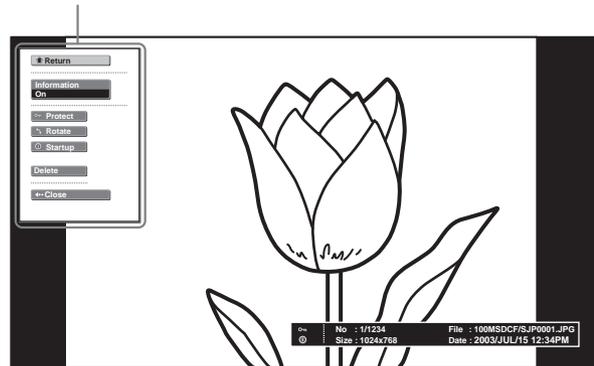
To rotate the full-screen still picture

1 Display a still picture on the full screen. (☞ page 45)

2 Press **ENTER**.

The picture setting menu of a still picture file appears.

Picture setting menu of a full-screen still picture



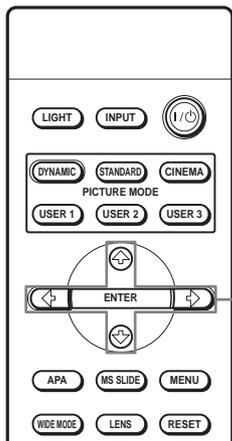
3 Follow steps 3 and 4 in “Rotating a Still Picture.”

Notes

- You cannot rotate a picture which is protected. (☞ page 50) To rotate it, release the protection on that picture.
- When the write-protect tab on the “Memory Stick” is set to **LOCK**, you cannot rotate the pictures stored in that “Memory Stick.”

Protecting an Important Picture

You can protect a still picture to prevent it from accidental erasure.

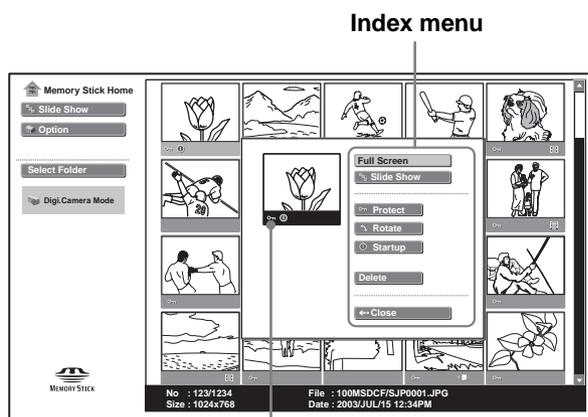


2-4

1 Display the Memory Stick Home. (☞ page 41)

2 Press **↑**, **↓**, **←** or **→** to select the picture you want to protect, and press **ENTER**.

The index menu appears.



Appears when a file is protected.

3 Press **↑** or **↓** to select “Protect,” and press **ENTER**.

4 Press **↑** or **↓** to select “On” or “All on,” and press **ENTER**.

On: A picture selected in the index screen is protected.

All on: All the pictures in the selected folder are protected.

The protect mark appears in the index screen for the protected picture.

To release protection

Select “Off” or “All off” in step 4.

Selecting “Off” releases the protection for the selected picture. Selecting “All off” releases the protection for all the pictures in the selected folder.

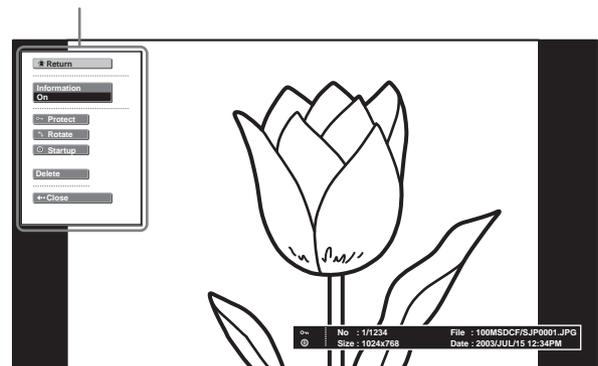
To protect the full-screen still picture

1 Display the desired still picture on the full screen. (☞ page 45)

2 Press **ENTER**.

The still picture setting menu appears.

Still picture setting menu



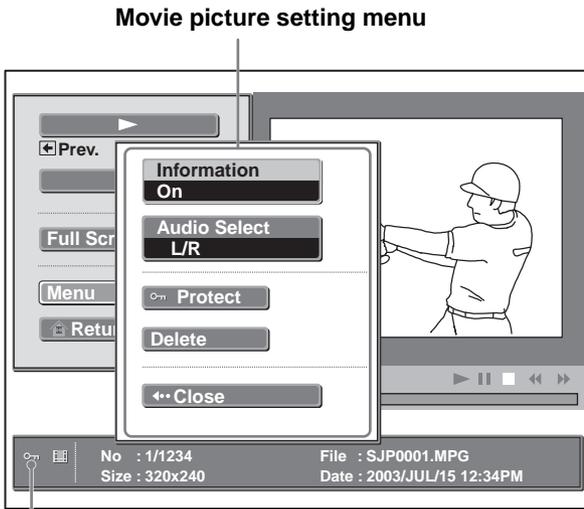
3 Follow steps 3 and 4 in “Protecting an Important Picture.”

Protecting a movie picture in the Movie Player

1 Perform steps 1 to 3 in “Playing Movie Pictures” (☞ page 46) to display the Movie Player on the screen.

- 2 Press **↑** or **↓** to select “Menu,” and press **ENTER**.

The movie picture setting menu appears.



Appears when a file is protected.

- 3 Follow steps 3 and 4 in “Protecting an Important Picture.”

Projecting a Selected Picture When the Power Is Turned On — Startup

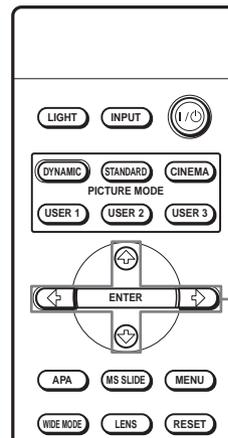
When the projector is turned on, the specific still picture stored in the projector is projected automatically for about 30 seconds, even if no signal is input. You can change this still picture to the one you prefer.

Registering a Still Picture as the Startup Picture

When you want to use a picture stored in your “Memory Stick” as the startup picture, register the picture in the “Memory Stick.”

Tip

You cannot register a movie file as the startup picture.



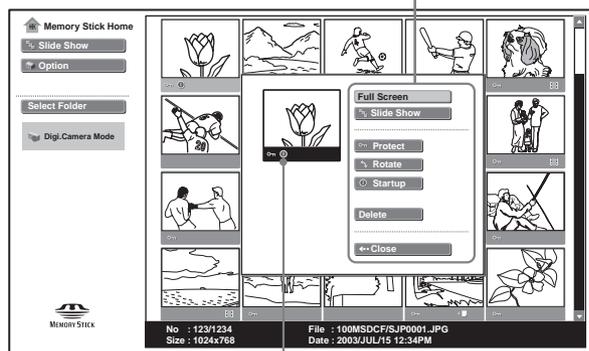
2-4

- 1 Display the Memory Stick Home. (☞ page 41)

- 2 Press **↑**, **↓**, **←** or **→** to select the picture you want to use as the startup picture, and press **ENTER**.

The index menu of a still picture appears.

Index menu of a still picture



Appears when a startup file is set.

3 Press **↑** or **↓** to select “Startup,” and press **ENTER**.

4 Press **↑** or **↓** to select “Entry,” and press **ENTER**.

The startup mark is displayed in the index screen.

You can register one picture used for the startup picture, per one “Memory Stick.”

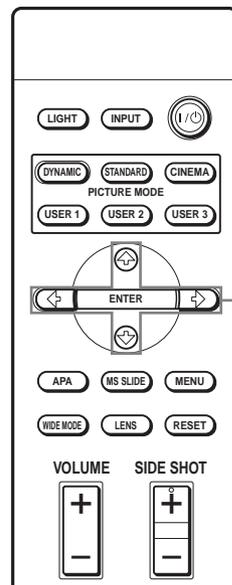
To register a full-screen still picture as the startup picture

- 1 Display a picture you want to register on the full screen. (☞ page 45)
- 2 Press **ENTER** to display the still picture setting menu.
- 3 Follow steps 3 and 4 in “Registering a Still Picture as the Startup Picture.”

To cancel the registration of the startup picture

- 1 Display the index screen by selecting a thumbnail, select “Startup,” and press **ENTER**.
- 2 Press **↑** or **↓** to select “Cancel,” and press **ENTER**.

Setting the Startup Picture



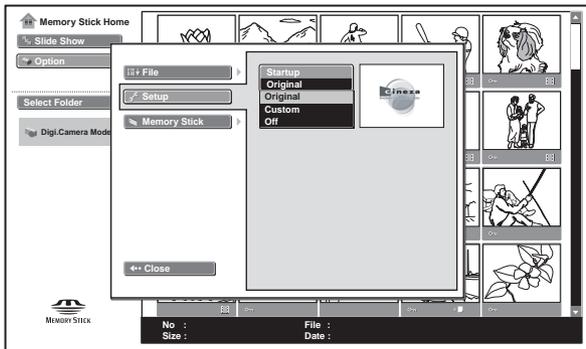
2-4

1 Display the Memory Stick Home. (☞ page 41)

2 Press **↑** or **↓** to select “Option,” and press **ENTER**.

3 Press **↑** or **↓** to select “Setup,” and press **→** or **ENTER**.
“Startup” is selected.

4 Press **↑** or **↓** to select the item used for startup picture, and press **ENTER**.



Original: Select to use the original picture stored in the projector. This is the factory setting.

Custom: Select to use the picture registered in the index screen and stored in the “Memory Stick.” (☞ page 51)

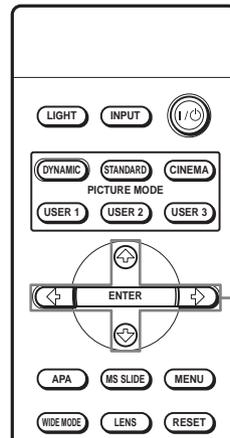
Off: Select when you do not set the startup.

Notes

- When you want to clear the startup screen while displaying it, press **↑/↓/←/→**, or **ENTER**.
- When you are using the registered picture, insert the “Memory Stick” where the registered picture is saved into the projector, then turn on the power.
- You can register one startup picture per one “Memory Stick.”

Deleting a Picture

You can delete unnecessary picture from the “Memory Stick.”

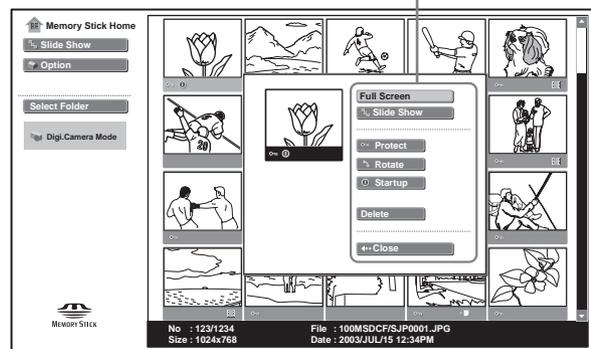


1 Display the Memory Stick Home. (☞ page 41)

2 Press **↑**, **↓**, **←** or **→** to select the picture you want to delete from the “Memory Stick,” and press **ENTER**.

The index menu appears.

Index menu



Using a “Memory Stick”

3 Press **↑** or **↓** to select “Delete,” and press **ENTER**.

4 Press **↑** or **↓** to select the item you want, and press **ENTER**. When “Selected file deleted. OK?” or “All files deleted. OK?” is displayed, select “Yes,” then press **ENTER**.

Sel. Img.: to delete the selected picture

All Img.: to delete all pictures of the selected folder.

Close: when you do not delete the picture.

Notes

- You cannot delete the file which is protected. (☞ page 50) To delete it, release the protection on that file.
- When the write-protect tab on the “Memory Stick” is set to LOCK, you cannot delete the pictures from that “Memory Stick.”

To delete a full-screen still picture

- 1 Display a picture you want to delete on the full screen. (☞ page 45)
- 2 Press **ENTER** to display the still picture setting menu.
- 3 Press **↑** or **↓** to select “Delete,” and press **ENTER**.
- 4 Press **↑** or **↓** to select the desired item, and press **ENTER**. When “Selected file deleted. OK?” is displayed, select “Yes,” then press **ENTER**.

To delete a movie picture in the Movie Player

- 1 Perform steps 1 to 4 in “Playing Movie Pictures” (☞ page 46) to display the Movie Player on the screen.
- 2 Press **↑** or **↓** to select “Menu,” and press **ENTER**.
The movie picture setting menu appears.
- 3 Press **↑** or **↓** to select “Delete,” and press **ENTER**.

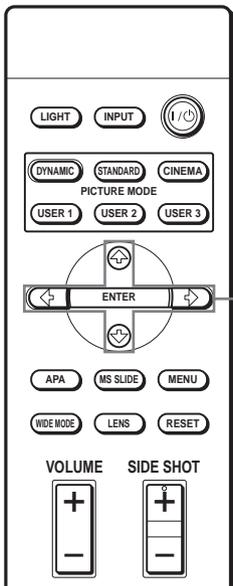
- 4 Press **↑** or **↓** to select the desired item, and press **ENTER**. When “Selected file deleted. OK?” is displayed, select “Yes,” then press **ENTER**.

Note

If you delete a file with “Digi. Camera Mode” set to “On,” other files may be deleted. (☞ page 41)

Sorting the Pictures

You can sort the pictures stored in the “Memory Stick” by name or by the renewal date in ascending/descending order.



2-4

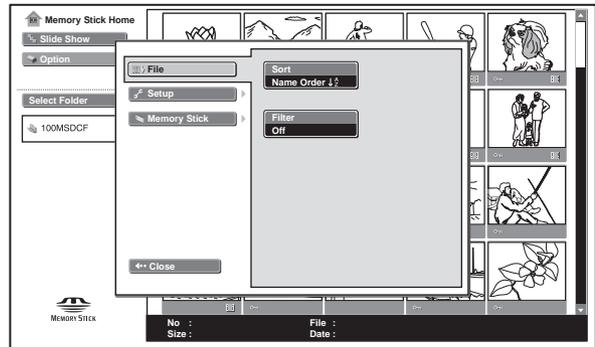
1 Display the Memory Stick Home. (☞ page 41)

Note

Set “Digi. Camera Mode” to “Off” before operation. (☞ page 48)

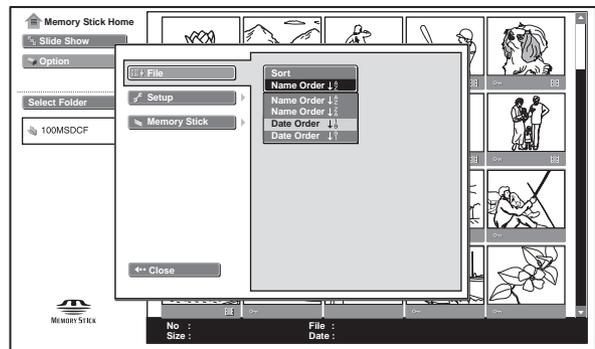
2 Press \uparrow or \downarrow to select “Option,” and press ENTER.

The option setting menu appears, and “File” is selected.



3 Press \rightarrow or ENTER, then press \uparrow or \downarrow to select “Sort,” and press ENTER.

4 Press \uparrow or \downarrow to select the item you want to set, and press ENTER.



Name order \downarrow^A_Z : to sort from A of the picture names.

Name order \downarrow^Z_A : to sort from Z of the picture names.

Date order \downarrow^1_9 : to sort from the earliest date of recording.

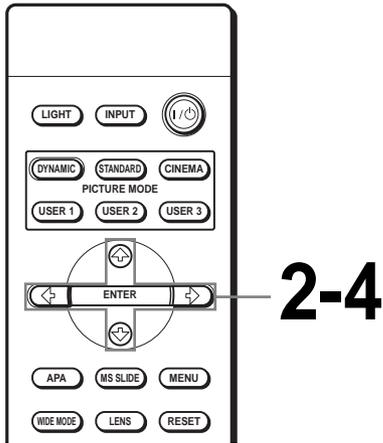
Date order \downarrow^9_1 : to sort from the latest date of recording.

Note

For a picture processed on a computer, the displayed date may be the date when the data is updated instead of the recorded date.

Displaying Either of the Still Pictures or Movie Pictures

You can choose and display the still pictures only or movie pictures only stored in a “Memory Stick.”



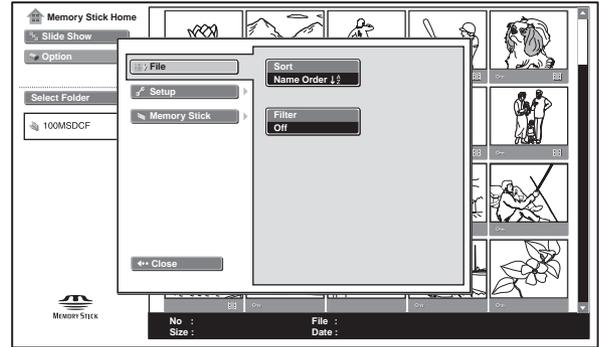
1 Display the Memory Stick Home. (☞ page 41)

Note

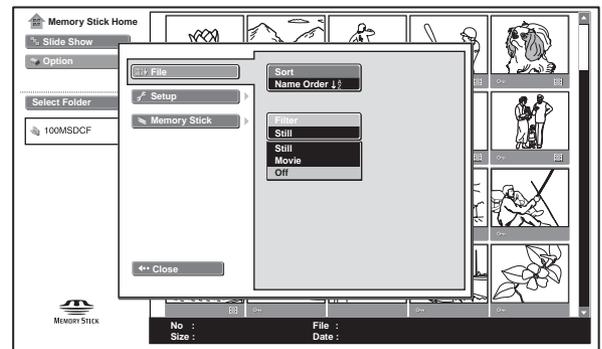
Set “Digi. Camera Mode” to “Off” before operation. (☞ page 48)

2 Press **↑** or **↓** to select “Option,” and press ENTER.

The option setting menu appears, and “File” is selected.



3 Press **→** or ENTER, then press **↑** or **↓** to select “Filter,” and press ENTER.



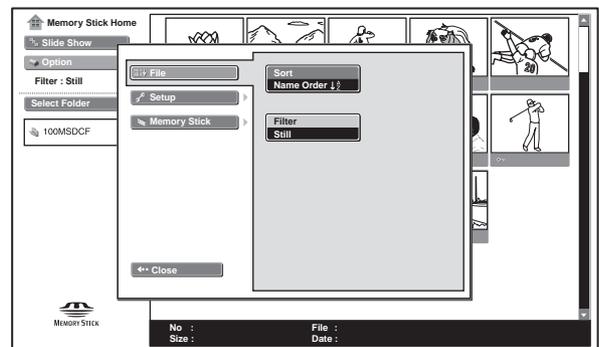
Still: to display still pictures only.

Movie: to display movie pictures only.

Off: to display all pictures.

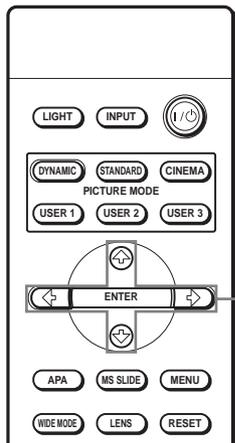
4 Press **↑** or **↓** to select the item you want to set, and press ENTER.

When “Filter” is selected, the selected setting, “Still” or “Movie,” is indicated on the Memory Stick Home.



Displaying the “Memory Stick” Information

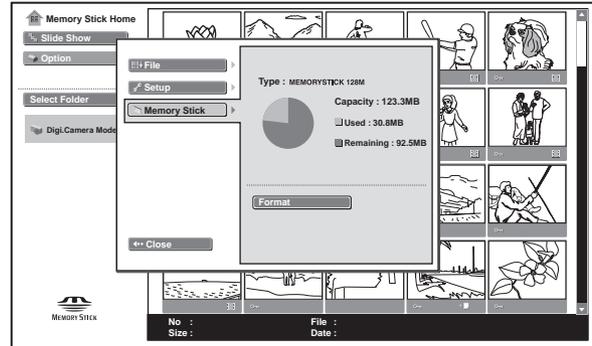
You can display the type and the used and remaining capacity of the “Memory Stick” in use.



2-3

3 Press **↑** or **↓** to select “Memory Stick.”

The information on the “Memory Stick” in use is displayed.



To return to the Memory Stick Home

Press **↑** or **↓** to select “Close.”

1 Display the Memory Stick Home. (👉 page 41)

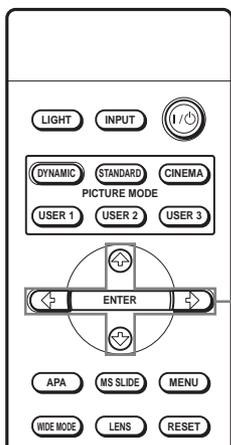
2 Press **↑** or **↓** to select “Option,” and press ENTER.

The option setting menu appears.

Initializing a “Memory Stick” — Format

When a “Memory Stick” cannot be used, initialize it by the projector.

All the data stored in a “Memory Stick” is cleared when the “Memory Stick” is initialized.



2-5

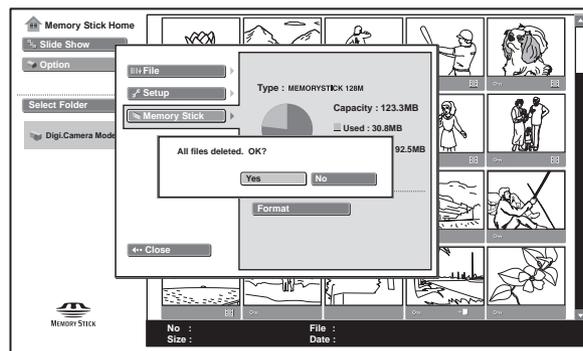
1 Display the Memory Stick Home. (☞ page 41)

2 Press **↑** or **↓** to select “Option”, and press **ENTER**.

The option setting menu appears.

3 Press **↑** or **↓** to select “Memory Stick,” and press **→** or **ENTER**.

4 Press **ENTER** again.



5 When “All files deleted. OK?” is displayed, select “Yes,” and press **ENTER**.

Formatting starts.

To return to the Memory Stick Home before initializing the “Memory Stick”

Select “Close,” in step 4. The Memory Stick Home is restored.

Notes

- When the “Memory Stick” is initialized, the protected picture is also cleared.
- When the “Memory Stick” with the write-protect tab set to LOCK is initialized, the message “Memory Stick locked” is displayed.
- While initializing the “Memory Stick,” you cannot use the buttons for operation in the Memory Stick Home.

Others

This section describes how to solve the problems, how to replace a lamp and air filter, etc.

Troubleshooting

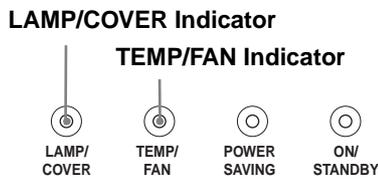
Power	
The power is not turned on.	<ul style="list-style-type: none"> → Wait for about one minute before turning on the power. (☞ page 27) → Close the lamp cover securely. (☞ page 62) → Close the air filter cover securely. (☞ page 63)
Picture	
No picture.	<ul style="list-style-type: none"> → Check that the proper connections have been made. (☞ page 13) → Select the input source correctly using the INPUT button. (☞ page 26) → Set the computer signal to output from an external monitor. → Set the computer signal to output only to an external monitor.

No picture. (cont.)	<ul style="list-style-type: none"> → Select “Computer”, “Component” or “Video GBR” for “Input-A Signal Sel” in the SET SETTING  menu according to the input signal. (☞ page 34)
The picture from the PJ MULTI connector is colored strange.	<ul style="list-style-type: none"> → Select “Computer”, “Component” or “Video GBR” for “Input-A Signal Sel” in the SET SETTING  menu according to the input signal. (☞ page 34)
Color balance is incorrect.	<ul style="list-style-type: none"> → Adjust the picture in the “Adjust Picture ...” of the PICTURE SETTING  menu (☞ page 32). → Set “Color System” in the SET SETTING  menu to match the color system being input. (☞ page 34)
The picture is too dark.	<ul style="list-style-type: none"> → Adjust the contrast or brightness in the “Adjust Picture ...” of the PICTURE SETTING  menu properly. (☞ page 32)
The picture is not clear.	<ul style="list-style-type: none"> → Adjust the focus with the FOCUS +/- . (☞ page 27) → Condensation has occurred on the lens. Leave the projector for about two hours with the power on.
The picture flickers.	<ul style="list-style-type: none"> → Adjust “Dot Phase” for “Adjust Signal...” in the INPUT SETTING  menu properly. (☞ page 33)
Sound	
No sound.	<ul style="list-style-type: none"> → Sound can be heard only when an MPEG1 format movie picture of the “Memory Stick” is played. (☞ page 47) → Adjust “Volume” in the PICTURE SETTING  menu, or press VOLUME + on the remote control.
On-screen display	
On-screen display does not appear.	<ul style="list-style-type: none"> → Set “Status” in the MENU SETTING  menu to “On.” (☞ page 35)
Remote control	
The remote control does not work.	<ul style="list-style-type: none"> → Batteries could be weak. Replace with new batteries. (☞ page 6) → Insert the batteries with correct polarities. (☞ page 6)

"Memory Stick"	
The "Memory Stick" cannot be inserted into the "Memory Stick" slot.	→ Insert the "Memory Stick" with the arrow mark pointing toward the "Memory Stick" slot of the projector. (☞ page 40)
A still picture in the "Memory Stick" cannot be rotated or deleted.	→ Release the lock for the write-protect tab on the "Memory Stick". (☞ page 39) → Release the protect in the index screen. (☞ page 50)
The "Memory Stick" cannot be formatted.	→ Release the lock for the write-protect tab on the "Memory Stick". (☞ page 39) → The "Memory Stick" is broken. Use another "Memory Stick".
The thumbnails are not displayed.	→ The pictures are the JPEG format but not DCF-compatible. Use the DCF-compatible pictures.
The still pictures files in the JPEG format stored in a "Memory Stick" cannot be displayed.	→ Set "Filter" in the "Option" menu to "Still" or "Off."
The movie picture files in the MPEG1 format stored in a "Memory Stick" cannot be displayed.	→ Set "Filter" in the "Option" menu to "Movie" or "Off."

Indicators

The LAMP/COVER or TEMP/FAN indicator on the control panel lights up or flashes if there is any trouble with your projector.



LAMP/COVER flashes.	→ Attach the lamp cover or the air filter cover securely. (☞ pages 62 and 63)
LAMP/COVER lights up.	→ The lamp has reached the end of its life. Replace the lamp. (☞ page 62) → The lamp becomes a high temperature. Wait for one minute to cool down the lamp and turn on the power again. (☞ page 27)
TEMP/FAN flashes.	→ The fan is broken. Consult with qualified Sony personnel.

TEMP/FAN lights up.	→ The internal temperature is unusually high. Check to see if nothing is blocking the ventilation holes or whether or not the projector is being used at high altitudes.
LAMP/COVER and TEMP/FAN 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.

High temp.! Lamp off in 1 min.	→ Turn off the power. → Check to see if nothing is blocking the ventilation holes.
Frequency is out of range!	→ Input a signal that is within the acceptable range of the frequency. → Set the output signal on an external monitor of the connected computer to SVGA. → Set "Input-A Signal Sel." in the SET SETTING ☞ menu to "Computer".
Please check Input-A Signal Sel.	→ Set "Input-A Signal Sel." in the SET SETTING ☞ menu to "Computer" when RGB signal is input from the computer. (☞ page 34)
Please check DVI Signal Sel.	→ Set "DVI Signal Sel." in the SET SETTING ☞ menu to "Computer" when RGB signal is input from the computer. (☞ page 34) Note Before you change the "DVI Signal Sel." setting, disconnect the DVI cable and turn off the digital tuner, etc.
Please replace the LAMP.	→ It is time to replace the lamp. Replace the lamp. (☞ page 62)
Please replace the filter.	→ It is time to replace the air filter. Replace the air filter. (☞ page 63)
High temp.! Probably use in high altitude. Switch to high altitude mode on? Yes: ↑ No: ↓	→ When using the projector at an altitude of 1,500 m or higher: select "Yes" to set to "High Altitude Mode". (☞ page 35) → If this message is displayed when using the projector at an altitude of less than 1,500 m: check to see if nothing is blocking the ventilation holes.
Iris unit doesn't work.	→ The iris is damaged. → Consult with qualified Sony Personnel.

Caution messages

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

	→ No signal is input in the selected input. Check connections. (☞ page 13)
Not applicable!	→ Press the appropriate button.

Caution regarding messages while using the “Memory Stick”

Use the list below to check the meaning of the messages.

No Memory Stick	→ Insert the “Memory Stick” into the “Memory Stick” slot correctly.
No files that can be displayed.	→ Digital Camera Mode is selected, although no DCF compatible picture file are contained.
No files in this folder that can be displayed.	→ No picture files are contained in the currently selected folder.
No movie files in this folder that can be displayed.	→ No movie picture files are contained in the currently selected folder although “Filter” is set to “Movie” in the “Option” menu.
No still files in this folder that can be displayed.	→ No still picture files are contained in the currently selected folder although “Filter” is set to “Still” in the “Option” menu.
Cannot play	→ The MS SLIDE button has been pressed while no movie picture files are contained in the selected folder. Slide show will not start.
Cannot play	→ Image data of a movie picture file is broken.
Memory Stick locked	→ The erasure prevention switch on a “Memory Stick” is set to “LOCK.” Release the lock.
Memory Stick error	→ The “Memory Stick” is broken. → Clean the terminal on the “Memory Stick.” → The “Memory Stick” with memory select function has not been selected correctly with the memory select switch.
Memory Stick type error	→ A “Memory Stick” that is not compatible or cannot be used with the projector has been inserted.
Format error	→ The “Memory Stick” has not been formatted correctly. Format it on this projector correctly. → Formatting is not successful.

File error	→ The selected folder has not been named correctly. Reenter the name with less than 66 characters including “/” by displaying the “Select Folder” menu.
Read Only Memory	→ A read-only “Memory Stick” in which picture files are recorded has been inserted. You cannot record or delete the data with a read-only “Memory Stick.”
Access denied.	→ A “Memory Stick” with Access Control from another unit is inserted. You cannot read/write data in this projector. To read/write data on a “Memory Stick” with Access Control, unlock the “Memory Stick” with the unit that has locked it.

Caution displays while you are using the “Memory Stick”

If a picture file has some problem, the following indicator may appear on the screen. Check the following to cope with the corresponding situation.

	→ The image data is the JPEG or MPEG1 format that is not-compatible.
	→ There is the thumbnail but it is not DCF-compatible.
	→ There is no selected image data.
	→ There is the image data but the thumbnail is broken.
	→ The image data is broken.

Replacing the Lamp

The lamp used for the light source has a certain life. When the lamp dims, the color balance of the picture becomes strange, or “Please replace the LAMP.” appears on the screen, the lamp is exhausted. Replace the lamp with a new one (not supplied). Use LMP-H180 Projector Lamp as the replacement lamp.

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

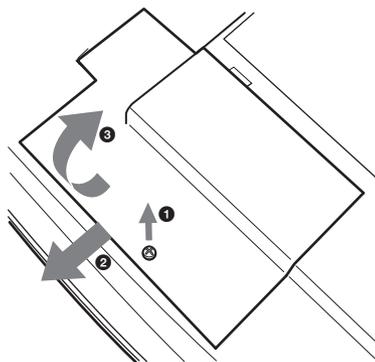
The lamp becomes a high temperature after turning off the projector with the I/O (on/standby) switch. If you touch the lamp, you may scald your finger. When you replace the lamp, wait for at least an hour for the lamp to cool. When removing the lamp unit, make sure it remains horizontal, then pull straight up. Do not tilt the lamp unit. If you pull out the lamp unit while tilted and if the lamp breaks, the pieces may scatter, causing injury.

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

Note

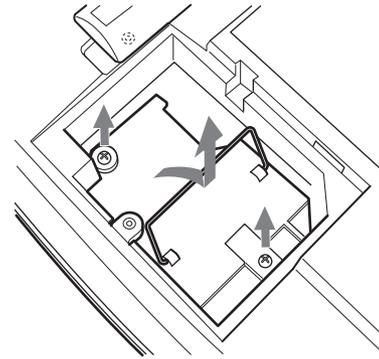
Be sure that the projector is stable after turning it over.

- 2 Press the adjuster adjustment button to raise the adjuster.
- 3 Open the lamp cover by loosening a screw with the Philips screwdriver.

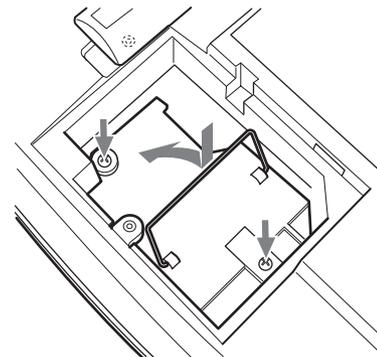


- 4 Loosen the two screws on the lamp unit with the Philips screwdriver. Pull out the

lamp unit by the handle, taking care not to touch the adjuster.



- 5 Insert the new lamp all the way in until it is securely in place, taking care not to touch the adjuster. Tighten the two screws. Fold down the handle.



- 6 Close the lamp cover and tighten the screws.
- 7 Press the adjuster adjustment button to replace the adjuster.
- 8 Turn the projector back over.
- 9 Connect the power cord and set the projector to standby mode.
- 10 Press the following buttons on the remote control in the following order for less than five seconds each: RESET, ←, →, ENTER.

Notes

- Do not put your hands into the lamp replacement spot, or not fall any liquid or object into it to avoid electrical shock or fire.
- Be sure to use the LMP-H180 Projector Lamp for replacement. If you use lamps other than LMP-H180, the projector may cause a malfunction.
- Be sure to turn off the projector and unplug the power cord before replacing the lamp.

Disposal the used lamp

The used lamp contains Mercury, dispose according to local, state or federal laws.

As the materials used in this lamp are similar to those of a fluorescent lamp, you should dispose of a used projector lamp in the same way as a fluorescent lamp.

Replacing the Air Filter

The air filter should be replaced periodically. When “Please replace the filter.” appears on the screen, replace the air filter immediately.

Notes

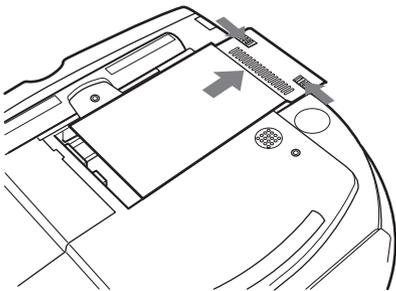
- Replacing the air filter is very important to maintain the high efficiency of the projector and to prevent a malfunction. When the replacement message appears on the screen, replace the air filter without delay. It is recommended to replace the air filter approximately every 1000 hours of use.
- When removing the air filter from the projector, be careful that no dust or object gets into the inside of the projector.

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

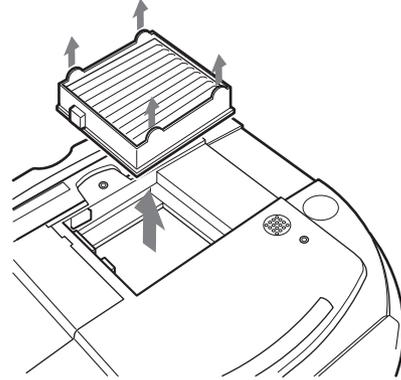
Note

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

- 2 Open the filter cover while pushing the filter lock knobs inward.**



- 3 Remove the air filter from the projector by holding the tab on the filter cover.**



- 4 Insert the new air filter into the projector.**
- 5 Replace the filter cover.**

Specifications

System

Projection system	3 LCD panels, 1 lens, projection system
LCD panel	0.87-inch TFT LCD panel with micro-lens array, 3,276,504 pixels (1,092,168 pixels × 3)
Lens	1.3 times zoom lens (powered) f33.6 - 42 mm/F1.7 - 2.1
Lamp	180 W UHP type
Projection picture size	Range: 40 to 300 inches (measured diagonally)
Color system	NTSC3.58/PAL/SECAM/NTSC4.43/ PAL-M/PAL-N system, switched automatically/manually
Acceptable video signals	15 kHz RGB/component 50/60 Hz, Progressive component 50/60 Hz, DTV (480/60i, 575/50i, 480/60p, 575/50p, 720/60p, 720/50p, 1080/ 60i, 1080/50i), 1080/24PsF, Composite video, Y/C video
Acceptable computer signals	fH: 19 to 72 kHz fV: 48 to 92 Hz Maximum resolution XGA 1024 × 768, fV: 85 Hz 1280 × 768, fV: 60 Hz
Speaker	33 mm (1 ⁵ / ₁₆ inches) diameter, max. 2 W × 1 (available only for using a “Memory Stick”)

Input

Video input	VIDEO: phono type Composite video: 1 Vp-p±2 dB sync negative (75 ohms terminated) S VIDEO: Y/C mini DIN 4-pin type Y (luminance): 1 Vp-p±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±2 dB (PAL) (75 ohms terminated)
Y/PB/CB/PR/CR	Component: phono type G with Sync/Y: 1 Vp-p±2dB sync negative (75 ohms terminated) B/CB/PB: 0.7 Vp-p±2dB positive (75 ohms terminated) R/CR/PR: 0.7 Vp-p±2 dB positive (75 ohms terminated)

DVI-D (TMDS)	Digital RGB
HDMI	Digital RGB/YC _B (PB)CR(PR)
PJ MULTI	32-pin multi connector Composite video: 1 Vp-p±2 dB sync negative (75 ohms terminated) S video: Y/C Y (luminance): 1 Vp-p±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±2 dB (PAL) (75 ohms terminated) Analog RGB/component: R/CR (PR): 0.7 Vp-p±2 dB (75 ohms terminated) G: 0.7 Vp-p±2 dB (75 ohms terminated) G with sync/Y: 1 Vp-p±2 dB sync negative (75 ohms terminated) B/CB (PB): 0.7 Vp-p±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
“Memory Stick”	Slot 1

General

Dimensions	345 × 148 × 369 mm (13 ⁵ / ₈ × 5 ⁷ / ₈ × 14 ⁵ / ₈ inches) (w/ h/d)
Mass	Approx. 5.4 kg (11 lb 14 oz)
Power requirements	AC 100 to 240 V, 2.9–1.1 A, 50/60 Hz
Power consumption	Max. 260 W (Standby mode: 5 W)
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 control RM-PJHS10 (1) Size AA (R6) batteries (2) Signal interface cable SIC-HS41 (10 m) (1) AC power cord (1)

When projecting using both “Side Shot” and “V Keystone” adjustments

For a 1080i/720p format signal, computer’s signal or data stored in a “Memory Stick”

Unit: m (feet)

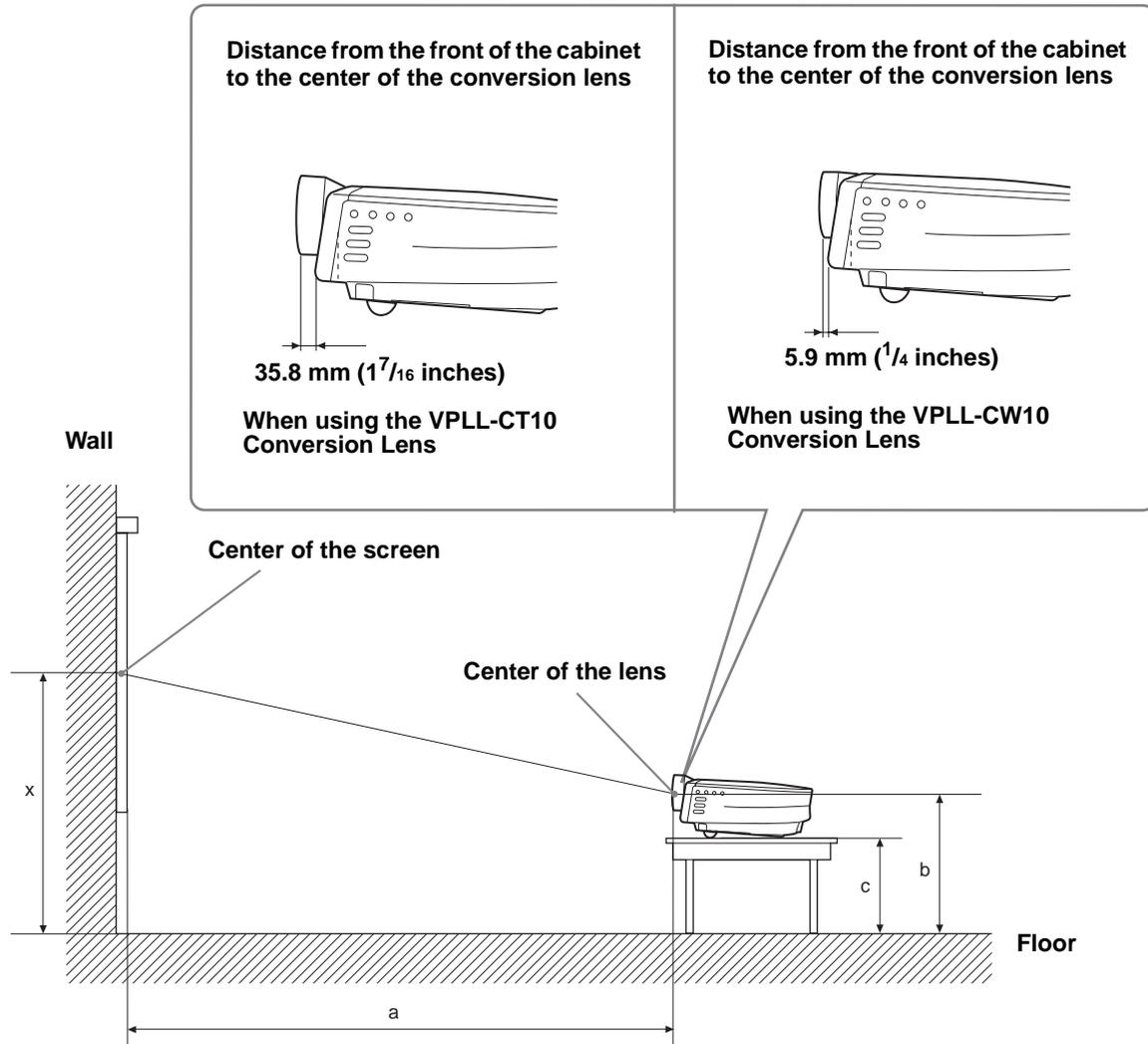
Screen size (inches)	40	60	80	100	120
a	1.6 (5.2)	2.4 (7.9)	3.2 (10.5)	4.0 (13.1)	4.8 (15.7)
b	1.8 (5.9)	2.8 (9.2)	3.7 (12.1)	4.7 (15.4)	5.6 (18.4)
c	-0.1 (-0.3)	-0.1 (-0.4)	-0.2 (-0.6)	-0.2 (-0.7)	-0.3 (-0.9)
d	0.0 (-0.1)	0.0 (-0.1)	0.0 (-0.1)	0.0 (-0.1)	0.0 (-0.2)
e	0.3 (1.0)	0.5 (1.6)	0.7 (2.3)	0.8 (2.6)	1.0 (3.3)
f	0.4 (1.3)	0.6 (2.0)	0.8 (2.6)	1.0 (3.3)	1.2 (3.9)

Screen size (inches)	150	180	200	250	300
a	6.0 (19.7)	7.3 (24.0)	8.1 (26.6)	10.1 (33.1)	12.1 (39.7)
b	7.0 (23.0)	8.4 (27.6)	9.4 (30.8)	11.7 (38.4)	14.1 (46.3)
c	-0.3 (-1.1)	-0.4 (-1.3)	-0.4 (-1.4)	-0.5 (-1.7)	-0.6 (-2.1)
d	-0.1 (-0.2)	-0.1 (-0.2)	-0.1 (-0.2)	-0.1 (-0.3)	-0.1 (-0.3)
e	1.3 (4.3)	1.5 (4.9)	1.7 (5.6)	2.1 (6.9)	2.5 (8.2)
f	1.5 (4.9)	1.8 (5.9)	1.9 (6.2)	2.4 (7.9)	2.9 (9.5)

Projection Distances When Installing the Optional Conversion Lens

Floor installation example

- a: Distance between the screen and the center of the lens
- b: Distance from the floor to the center of the lens
- c: Distance from the floor to the bottom of the projector
- x: Free



Floor installation

When using the VPLL-CT10 Long Focused Conversion Lens

- Use the 40 to 100-inch screen.
- Set the projector's lens to the telephoto position. To set it to the telephoto position, press ZOOM +/- until the projected picture becomes the smallest.

For 16:9 aspect ratio screens

Unit: mm (inches)

SS (inches)	40	60	80	100
a (Standard values)	2250 (88 ⁵ / ₈)	3480 (137 ¹ / ₈)	4720 (185 ⁷ / ₈)	5950 (234 ³ / ₈)
b	x-251 (x-10)	x-377 (x-14 ⁷ / ₈)	x-502 (x-19 ⁷ / ₈)	x-628 (x-24 ³ / ₄)
c	x-347 (x-13 ³ / ₄)	x-473 (x-18 ⁵ / ₈)	x-598 (x-23 ⁵ / ₈)	x-724 (x-28 ¹ / ₂)

To calculate the installation measurements (SS: Screen size)

$$a = \{(SS \times 54.15/0.8788) - 211.9761\}$$

$$b = x - (SS/0.8788 \times 5.516)$$

$$c = x - (SS/0.8788 \times 5.516 + 96.3)$$

For 4:3 aspect ratio screens

Unit: mm (inches)

SS (inches)	40	60	80	100
a (Standard values)	2780 (109 ¹ / ₂)	4280 (168 ⁵ / ₈)	5770 (227 ¹ / ₄)	7270 (286 ³ / ₈)
b	x-305 (x-12)	x-457 (x-18)	x-609 (x-24)	x-762 (x-30)
c	x-401 (x-15 ⁷ / ₈)	x-553 (x-21 ⁷ / ₈)	x-706 (x-27 ⁷ / ₈)	x-858 (x-33 ⁷ / ₈)

To calculate the installation measurements (SS: Screen size)

$$a = \{(SS \times 54.15/0.7240) - 211.9761\}$$

$$b = x - (SS/0.7240 \times 5.516)$$

$$c = x - (SS/0.7240 \times 5.516 + 96.3)$$

When using the VPLL-CW10 Short Focused Conversion Lens

Use the 60 to 300-inch screens.

For 16:9 aspect ratio screens

Unit: mm (inches)

SS (inches)	40	60	80	100	120	150	180	200	250	300	
a	Minimum	-	1790 (70 ¹ / ₂)	2410 (95)	3030 (119 ⁵ / ₁₆)	3650 (143 ³ / ₄)	4590 (180 ³ / ₄)	5520 (217 ³ / ₈)	6140 (241 ⁷ / ₈)	7700 (303 ¹ / ₄)	9250 (364 ¹ / ₄)
	Maximum	-	2160 (85 ¹ / ₈)	2910 (114 ⁵ / ₈)	3660 (144 ¹ / ₈)	4410 (173 ³ / ₄)	5530 (217 ³ / ₄)	6650 (261 ⁷ / ₈)	7400 (291 ³ / ₈)	9270 (365 ¹ / ₈)	11130 (438 ¹ / ₄)
b	-	x-377 (x-14 ⁷ / ₈)	x-502 (x-19 ⁷ / ₈)	x-628 (x-24 ³ / ₄)	x-753 (x-29 ³ / ₄)	x-942 (x-37 ¹ / ₈)	x-1130 (x-44 ¹ / ₂)	x-1255 (x-49 ¹ / ₂)	x-1569 (x-61 ⁷ / ₈)	x-1883 (x-74 ¹ / ₄)	
c	-	x-473 (x-18 ⁵ / ₈)	x-598 (x-23 ⁵ / ₈)	x-724 (x-28 ¹ / ₂)	x-850 (x-33 ¹ / ₂)	x-1038 (x-40 ⁷ / ₈)	x-1226 (x-48 ³ / ₈)	x-1352 (x-53 ¹ / ₄)	x-1666 (x-85 ⁵ / ₈)	x-1979 (x-78)	

To calculate the installation measurements (SS: Screen size)

$$a \text{ (minimum)} = \{(SS \times 26.67/0.8788) - 78\} \times 1.025$$

$$a \text{ (maximum)} = \{(SS \times 33.6857998/0.8788) - 80.103586\} \times 0.975$$

$$b = x - (SS/0.8788 \times 5.516)$$

$$c = x - (SS/0.8788 \times 5.516 + 96.3)$$

For 4:3 aspect ratio screens

Unit: mm (inches)

SS (inches)		40	60	80	100	120	150	180	200	250	300
a	Minimum	-	2190 (86 1/4)	2940 (115 7/8)	3700 (145 3/4)	4450 (175 1/4)	5580 (219 3/4)	6720 (264 5/8)	7470 (294 1/4)	9360 (368 5/8)	11250 (443)
	Maximum	-	2640 (104)	3550 (139 7/8)	4460 (175 5/8)	5370 (211 1/2)	6730 (265)	8090 (318 5/8)	8990 (354)	11260 (443 3/8)	13530 (532 3/4)
b		-	x-457 (x-18)	x-609 (x-24)	x-762 (x-30)	x-914 (x-36)	x-1143 (x-45)	x-1371 (x-54)	x-1524 (x-60)	x-1905 (x-75)	x-2286 (x-90)
c		-	x-553 (x-21 7/8)	x-706 (x-27 7/8)	x-858 (x-33 7/8)	x-1011 (x-39 7/8)	x-1239 (x-48 7/8)	x-1468 (x-57 7/8)	x-1620 (x-63 7/8)	x-2001 (x-78 13/16)	x-2382 (x-93 7/8)

To calculate the installation measurements (SS: Screen size)

$$a \text{ (minimum)} = \{(SS \times 26.67/0.7240) - 78\} \times 1.025$$

$$a \text{ (maximum)} = \{(SS \times 33.6857998/0.7240) - 80.103586\} \times 0.975$$

$$b = x - (SS/0.7240 \times 5.516)$$

$$c = x - (SS/0.7240 \times 5.516 + 96.3)$$

Ceiling installation

When using the VPLL-CT10 Long Focused Conversion Lens

- Use the 40 to 100-inch screens.
- Set the projector's lens to the telephoto position. To set it to the telephoto position, press ZOOM +/- until the projected picture becomes the smallest.

For 16:9 aspect ratio screens

Unit: mm (inches)

SS (inches)	40	60	80	100
a (standard values)	2250 (88 5/8)	3480 (137 1/8)	4720 (185 7/8)	5950 (234 3/8)
x	b+251 (b+10)	b+377 (b+14 7/8)	b+502 (b+19 7/8)	b+628 (b+24 3/4)
b	When using the PSS-610, adjustable with 243/268/293/343/368/393 mm			

To calculate the installation measurements (SS: Screen size)

$$a = \{(SS \times 54.15/0.8788) - 211.9761\}$$

$$x = b - (SS/0.8788 \times 5.516)$$

For 4:3 aspect ratio screens

Unit: mm (inches)

SS (inches)	40	60	80	100
a (standard values)	2780 (109 1/2)	4280 (168 5/8)	5770 (227 1/4)	7270 (286 3/8)
x	b+305 (b+12 1/8)	b+457 (b+18)	b+609 (b+24)	b+762 (b+30)
b	When using the PSS-610, adjustable with 243/268/293/343/368/393 mm			

To calculate the installation measurements (SS: Screen size)

$$a = \{(SS \times 54.15/0.7240) - 211.9761\}$$

$$x = b + (SS/0.7240 \times 5.516)$$

When using the VPLL-CW10 Short Focused Conversion Lens

Use the 60 to 300-inch screens.

For 16:9 aspect ratio screens

Unit: mm (inches)

SS (inches)		40	60	80	100	120	150	180	200	250	300
a	Minimum	-	1790 (70 1/2)	2410 (95)	3030 (119 5/16)	3650 (143 3/4)	4590 (180 3/4)	5520 (217 3/8)	6140 (241 7/8)	7700 (303 1/4)	9250 (364 1/4)
	Maximum	-	2160 (85 1/8)	2910 (114 5/8)	3660 (144 1/8)	4410 (173 3/4)	5530 (217 3/4)	6650 (261 7/8)	7400 (291 3/8)	9270 (365 1/8)	11130 (438 1/4)
x		-	b+377 (b+14 7/8)	b+502 (b+19 7/8)	b+628 (b+24 3/4)	b+753 (b+29 3/4)	b+942 (b+37 1/8)	b+1130 (b+44 1/2)	b+1255 (b+49 1/2)	b+1569 (b+61 7/8)	b+1883 (b+74 1/4)
b		When using the PSS-610, adjustable with 243/268/293/343/368/393 mm									

To calculate the installation measurements (SS: Screen size)

$$a \text{ (minimum)} = \{(SS \times 26.67/0.8788) - 78\} \times 1.025$$

$$a \text{ (maximum)} = \{(SS \times 33.6857998/0.8788) - 80.103586\} \times 0.975$$

$$x = b + (SS/0.8788 \times 5.516)$$

For 4:3 aspect ratio screens

Unit: mm (inches)

SS (inches)		40	60	80	100	120	150	180	200	250	300
a	Minimum	-	2190 (86 1/4)	2940 (115 7/8)	3700 (145 3/4)	4450 (175 1/4)	5580 (219 3/4)	6720 (264 5/8)	7470 (294 1/4)	9360 (368 5/8)	11250 (443)
	Maximum	-	2640 (104)	3550 (139 7/8)	4460 (175 5/8)	5370 (211 1/2)	6730 (265)	8090 (318 5/8)	8990 (354)	11260 (443 3/8)	13530 (532 3/4)
x		-	b+457 (b+18)	b+609 (b+24)	b+762 (b+30)	b+914 (b+36)	b+1143 (b+45)	b+1371 (b+54)	b+1524 (b+60)	b+1905 (b+75)	b+2288 (b+90)
b		When using the PSS-610, adjustable with 243/268/293/343/368/393 mm									

To calculate the installation measurements (SS: Screen size)

$$a \text{ (minimum)} = \{(SS \times 26.67/0.7240) - 78\} \times 1.025$$

$$a \text{ (maximum)} = \{(SS \times 33.6857990/0.7240) - 80.103586\} \times 0.975$$

$$x = b + (SS/0.7240 \times 5.516)$$

Warning on power connection

Use a proper power cord for your local power supply.

	The United States, Canada	Continental Europe	UK	Australia	Japan
Plug type	YP-11	YP-21	SP-61	B8	YP-13
Female end	YC-13L	YC-13L	YC-13L	C7-2	YC-13L
Cord type	SPT-2	H03VVH2-F	H03VVH2-F	H03VVH2-F	VCTFK
Rated Voltage & Current	10A/125V	2.5A/250V	2.5A/250V	2.5A/250V	7A/125V
Safety approval	UL/CSA	VDE	BS	SAA	DENANHO
Cord length (max.)	4.5 m	–	–	–	–

Input signals and adjustable/setting items

Some of the items in the menus cannot be adjusted depending on the input signal. The following tables indicate them.

The items that cannot be adjusted are not displayed in the menu.

Adjust Picture... menu

Item	Input signal			
	Video or S video (Y/C)	Component	Video GBR	Computer/MS
Contrast	●	●	●	●
Brightness	●	●	●	●
Color	● (except for B & W)	●	●	–
Hue	● (NTSC _{3.58/4.43} only, except for B & W)	●	●	–
Sharpness	●	●	●	–
Black Level Adj	●	●	●	–
Gamma Correction	●	●	●	●
Color Temp	●	●	●	●
DDE	●	● (only for preset memory numbers 1,2,3,4,5,45 and 49)	● (only for preset memory numbers 1,2,3,4,5,45 and 49)	–
Cinema Black Pro	Iris Control	●	●	●
	Lamp Control	●	●	●

● : Adjustable/can be set

– : Not adjustable/cannot be set

INPUT SETTING menu

Item	Input signal				
	Video or S video (Y/C)	Component	Video GBR	Computer	MS
Dot Phase	–	–	–	●	–
H size	–	● (preset memory numbers 43, 44, 47, 48 only)	● (preset memory numbers 43, 44, 47, 48 only)	●	–
Shift	–	● (preset memory numbers 5, 43, 44, 45, 47, 48, 49 and 50 only)	● (preset memory numbers 5, 43, 44, 45, 47, 48, 49 and 50 only)	●	–
Wide Mode	●	● (preset memory numbers 1, 2, 3, 4, 43, 44, 47, 48 only of DTV)	● (preset memory numbers 1, 2, 3, 4, 43, 44, 47, 48 only of DTV)	–	–

● : Adjustable/can be set

– : Not adjustable/cannot be set

Note

For input signals from the DVI and HDMI connector, “Dot Phase,” “H size” and “Shift” are not adjustable.

Preset Signals

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	H size	HDMI input
1	VIDEO/60	Video 60 Hz	15.734	59.940	—	—	×
2	VIDEO/50	Video 50 Hz	15.625	50.000	—	—	×
3	480/60i	480/60i (DTV)	15.734	59.940	SonG/Y or Composite Sync	—	○
4	575/50i	575/50i (DTV)	15.625	50.000	SonG/Y or Composite sync/Composite video	—	○
5	1080/60i	1080/60i (DTV), 1080/60i	33.750	60.000	—	—	○
6	640 × 350	VGA mode 1	31.469	70.086	H-pos, V-neg	800	×
7		VGA VESA 85Hz	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 85Hz	37.861	85.080	H-neg, V-pos	832	×
11		VGA mode 3	31.469	59.940	H-neg, V-neg	800	○
12	640 × 480	Macintosh 13"	35.000	66.667	H-neg, V-neg	864	×
13		VGA VESA 72Hz	37.861	72.809	H-neg, V-neg	832	×
14		VGA VESA 75Hz	37.500	75.000	H-neg, V-neg	840	×
15		VGA VESA 85Hz	43.269	85.008	H-neg, V-neg	832	×
16	800 × 600	SVGA VESA 56Hz	35.156	56.250	H-pos, V-pos	1024	×
17		SVGA VESA 60Hz	37.879	60.317	H-pos, V-pos	1056	×
18		SVGA VESA 72Hz	48.077	72.188	H-pos, V-pos	1040	×
19		SVGA VESA 75Hz	46.875	75.000	H-pos, V-pos	1056	×
20		SVGA VESA 85Hz	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 43Hz	35.522	43.479	H-pos, V-pos	1264	×
23		XGA VESA 60Hz	48.363	60.004	H-neg, V-neg	1344	×
24		XGA VESA 70Hz	56.476	70.069	H-neg, V-neg	1328	×
25		XGA VESA 75Hz	60.023	75.029	H-pos, V-pos	1312	×
26		XGA VESA 85Hz	68.677	84.997	H-pos, V-pos	1376	×
43	480/60p	480/60p (Progressive component)	31.470	60.000	SonG/Y	—	○
44	575/50p	575/50p (Progressive component)	31.250	50.000		—	○
45	1080/50i	1080/50i (DTV)	28.130	50.000		—	○
47	720/60p	720/60p (DTV)	45.000	60.000		—	○
48	720/50p	720/50p (DTV)	37.500	50.000		—	○
49	1080/24ps	DTV1080/48i	27.000	48.000		—	×
50	540/60p	540/60p	33.750	60.000		—	×
72	1280 × 768	1280 × 768 60 Hz	47.776	59.870	H-neg, V-neg	1664	×
73	1280 × 720	1280 × 720 60 Hz	44.772	59.855	H-neg, V-neg	1664	×

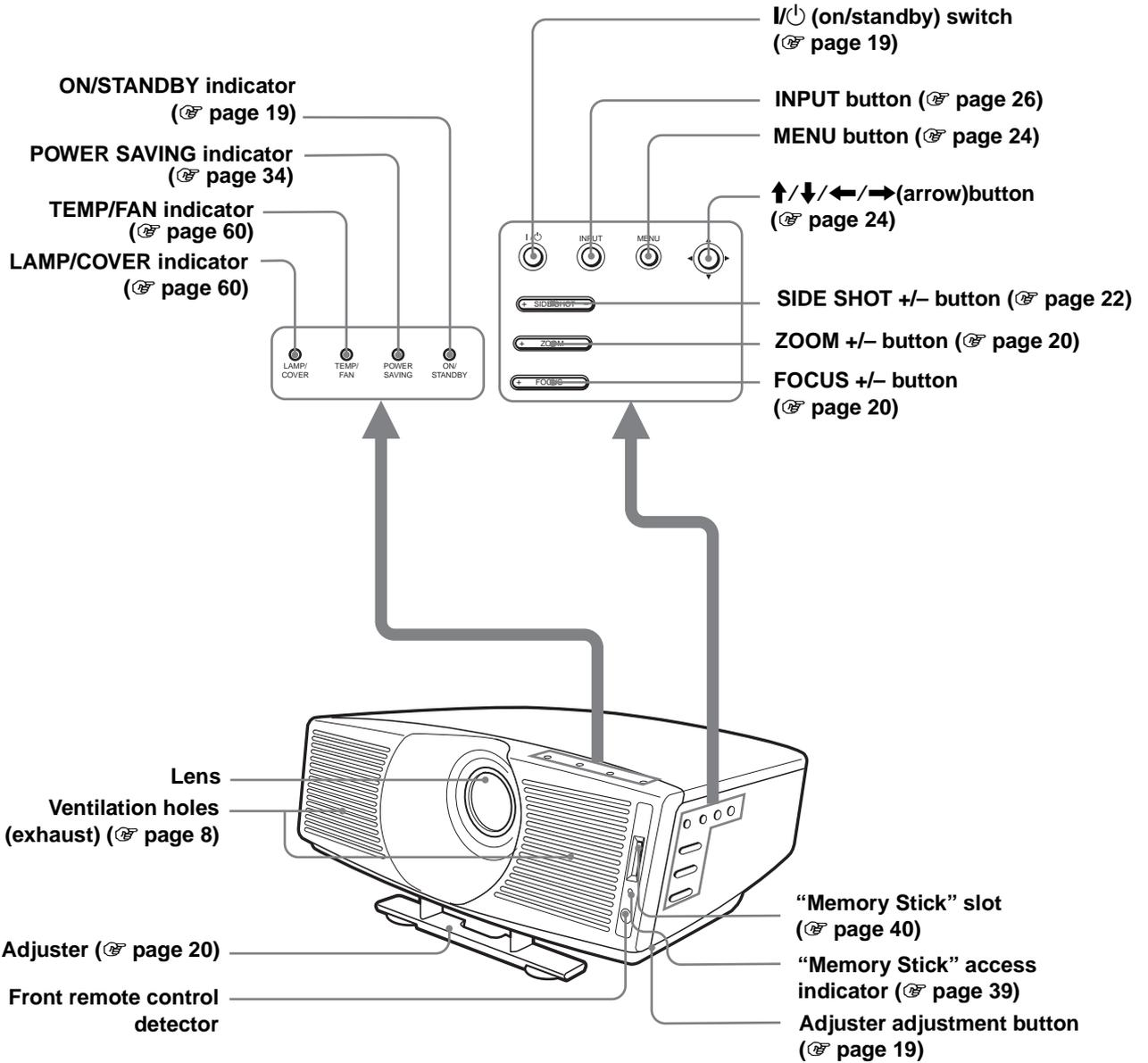
Notes

- When a signal other than the preset signals shown above is input, the picture may not appear properly.
- The signal from the “Memory Stick” is displayed as No. 53 to 64.
- Memory No. 22 shows the interlace signal.

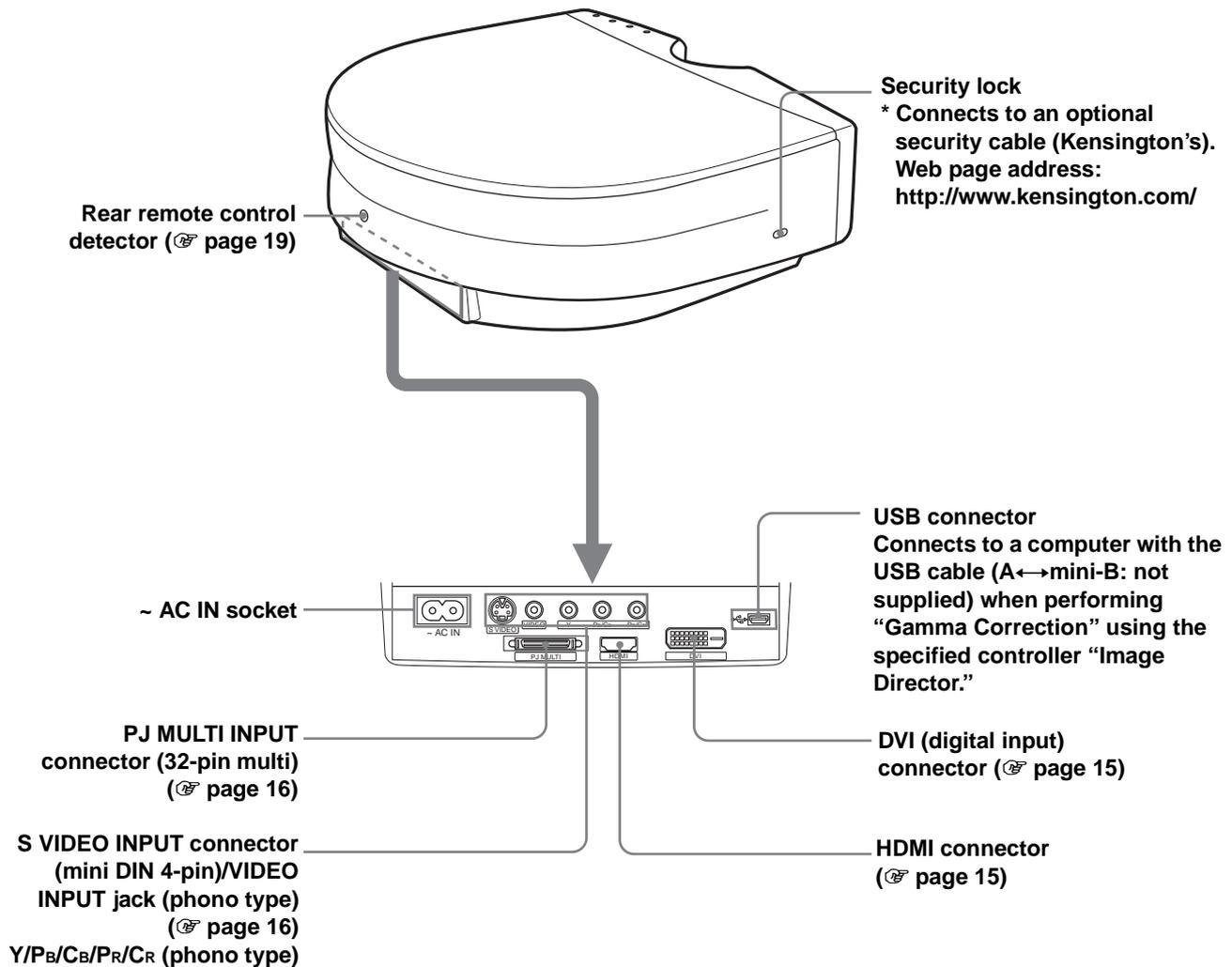
Location of Controls

Front

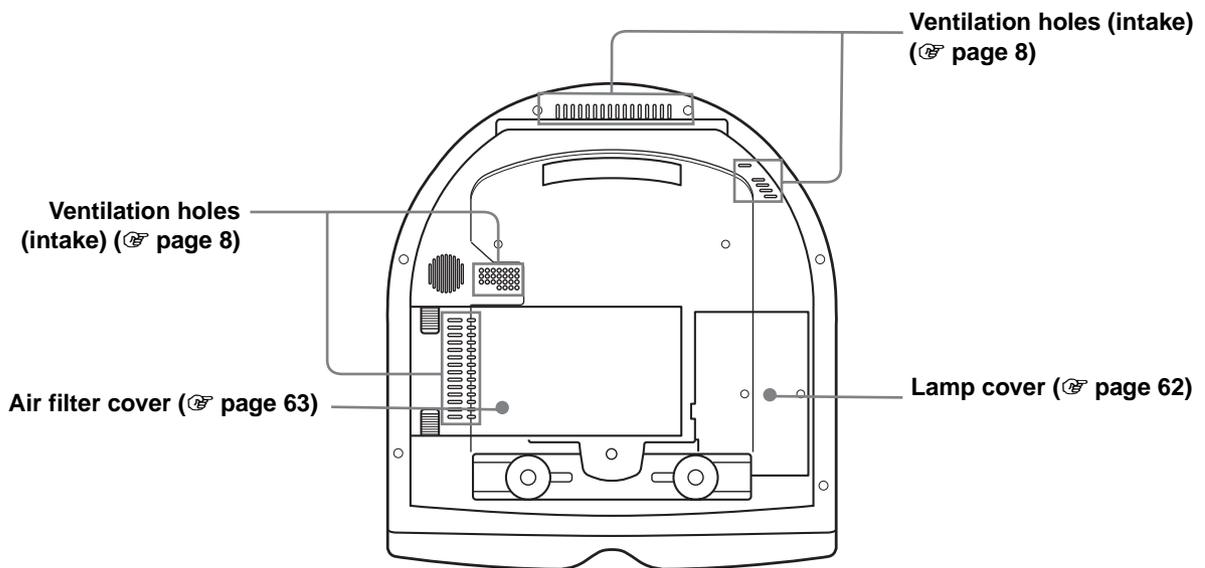
You can use the buttons on the control panel with the same names as those on the remote control to operate the projector.



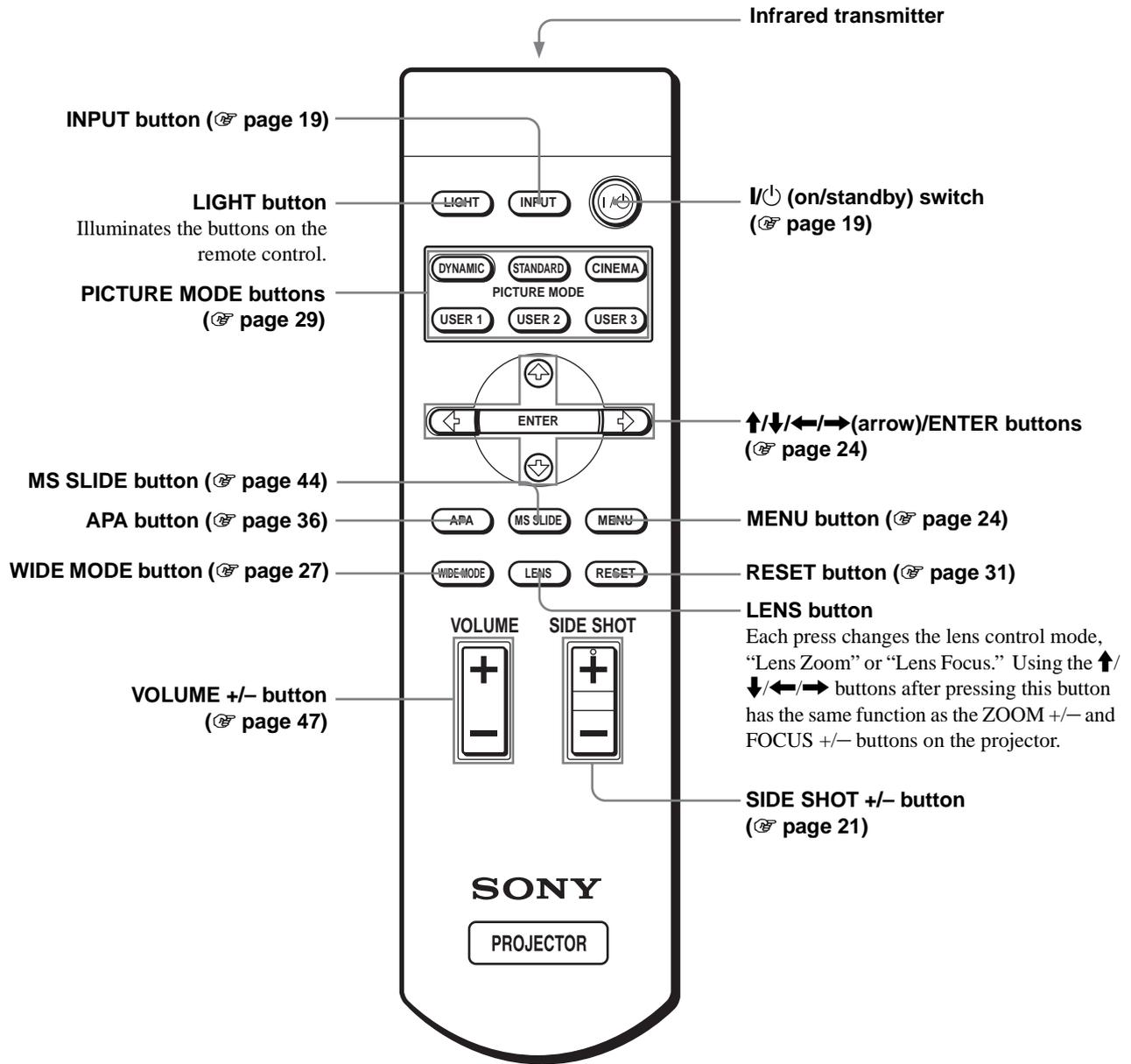
Rear



Bottom



Remote Control



Index

A

Adjust Picture.....	32
Adjusting	
focus.....	20
picture.....	32, 36
picture size and position.....	19
zoom.....	20, 26
Air filter.....	63

B

Black Level Adj (Adjust).....	33
Brightness.....	32

C

Cinema Black Pro.....	33
Iris control.....	33
Lamp control.....	33
Color.....	32
Color System.....	34
Color Temp.....	33
Connections	
AV amplifier.....	16
computer.....	17
DVD player/Digital tuner player.....	14
using the optional interface unit.....	18
video equipment.....	16
Contrast.....	32

D

DDE (Dynamic Detail Enhancer).....	33
Dot Phase.....	33
DVI Signal Sel.	34

F

fH.....	35
fV.....	35

G

Gamma Correction.....	33
-----------------------	----

H

H Size.....	33
Hue.....	32

I

Image Flip.....	35
Indicator	
LAMP/COVER.....	60
TEMP/FAN.....	60
INFORMATION menu.....	35
INPUT SETTING menu.....	33
Input-A Signal Sel.	34
INSTALL SETTING menu.....	35
Installing the Projector and a Screen.....	9, 11

L

Lamp replacement.....	62
Lamp Timer.....	35
Language.....	35
Location of controls	
bottom.....	76
front.....	74
rear.....	75
remote control.....	77

M

Memory Stick	
delete a picture.....	53
index menu.....	41
initializing.....	58
inserting.....	40
Memory Stick Home.....	41
picture setting menu.....	41
protection.....	50
rotate.....	49
slide show.....	44
startup.....	51

Menu

clearing the menu display.....	31
operation.....	30
reset.....	31
Menu Color.....	35
Menu Position.....	35
MENU SETTING menu.....	35

Message

caution.....	61
caution display (“Memory Stick”).....	61

warning.....	60
--------------	----

O

Optional accessories.....	65
---------------------------	----

P

Picture Mode.....	32
Cinema.....	32
Dynamic.....	32
Standard.....	32
User 1, 2 and 3.....	32
PICTURE SETTING menu.....	32
Power Saving.....	34
Preset memory.....	36, 73
Projection.....	25

R

Remote control	
inserting the batteries.....	6
location of controls.....	77
Remote control detector	
front.....	19
rear.....	19

S

Screen size.....	9, 11
Selecting the menu language.....	23
SET SETTING menu.....	34
Sharpness.....	32
Shift.....	33
Side Shot.....	10, 21, 35
Specifications.....	64
Status.....	35
Supplied accessories.....	6

T

Troubleshooting.....	59
----------------------	----

V

V Keystone.....	10, 35
Ventilation holes	
exhaust.....	8
intake.....	8
Volume.....	32

W

WIDE MODE.....	27
Wide Mode.....	33