3-992-606-**12** (1)

SONY®

Data Projector

Operating Instructions

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

SRX-S110
SRX-S105

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WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

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

WARNING

THIS APPARATUS MUST BE EARTHED.

For the customers in the U.S.A.

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

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

All interface cables used to connect peripherals must be shielded in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

For the customers in Europe

WARNING

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Voor de klanten in Nederland

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

For the customers in Taiwan only

廢電池請回收

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Overview

Chapter 1

Precautions

On safety

- Operate the unit on 200 – 240 V AC, 50/60 Hz (SRX-S110), or 100 – 240 V AC, 50/60 Hz (SRX-S105).
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by your Sony dealer before operating it further.
- Unplug the unit from the wall outlet or set the power switch to the lower position 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 from the AC power source (mains) as long as it is connected to the wall outlet and the power switch is set to the upper position.
- 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.
- Have at least four people carry and handle the projector, to avoid accidents or injury.
- Avoid using an extension cord with a low voltage limit, as it may cause short-circuiting and physical injury.
- To carry the projector, be sure to use the carrying handles. Do not hold other parts of the projector, especially the lens, nor catch your finger between the handle, floor, and the projector.
- Do not catch your finger between the unit and surface of the floor when moving the projector installed on the floor.
- Be careful not to catch your finger in the cooling fan.

On installation

- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. Leave space of more than 100 cm (39 $^{3}/_{8}$ inches) between the wall and the projector. Be aware that room heat rises to the ceiling; check that the temperature near the installation location is not excessive.
- Install the projector on the floor or hang it from the ceiling. Any other installation causes a malfunction such as color irregularity or a shorten lamp life.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity, mechanical vibration or shock.
- To avoid moisture condensation, do not install the unit in a location where the temperature may rise rapidly.

On illumination

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

On preventing internal heat build-up

After turning off the power, the cooling fan runs for about 10 minutes while the STATUS LAMP indicator flashes in green.

Caution

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

On cleaning

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

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.

Features

High Brightness, High Picture Quality

High brightness

The SRX-S110 uses two 2kW Xenon lamps as a light source, and the SRX-S105 uses two 1kW Xenon lamps. These compact-size Xenon lamps provide high brightness of 10,000 ANSI lumens for the SRX-S110 and 5,000 ANSI lumens for the SRX-S105, assuring excellent uniformity on the entire screen.

High resolution

Sony's new, unique three SXRD™ (Silicon X-tal Reflective Display) panels with about 8,850,000 pixels realizes a high-resolution of 4096 × 2160 dots. The resolution corresponds to four times that of an HDTV image.

Multi-screen mode

The high resolution of the projector enables single-, dual- and quad-mode projection in which full HD images can be displayed even in each of two or four divided screens. Images from different input sources can be displayed in these divided screens simultaneously.

High contrast ratio

The combination of the SXRD imaging devices and 3PBS optical devices offers a high contrast ratio of more than 1800:1.

Gamma correction circuit

Three types of gamma correction circuit, 1.8, 2.2 and 2.6, are selectable according to the signal input, allowing projection of an image with optimum brightness.

Color space feature

The projector supports three standards of color tonal reproduction range, 709, DCDM and CIEXYZ, allowing you to obtain an image with precise color reproduction according to the input sources.

Registration adjustment feature

A red and blue picture element can be moved for registration up to two picture elements vertically and horizontally.

Flexible and Reliable System

Dual lamp system

The projector adopts a dual lamp system for versatility of use. You can select dual-lamp or single-lamp mode, and can reduce each lamp's power output. These modes allow you to save power and increase lamp life.
Also, if one bulb burns out, the other keeps projecting images.

Versatile Setup

Equipped with DVI-D input

The projector is equipped with DVI-D input connectors, enabling reception of progressive DVI signals. This allows you to project a picture for a simulation system or a large-scale presentation only by inputting the DVI-D signals from a computer, etc. equipped with a DVI-D output.

Various signal input

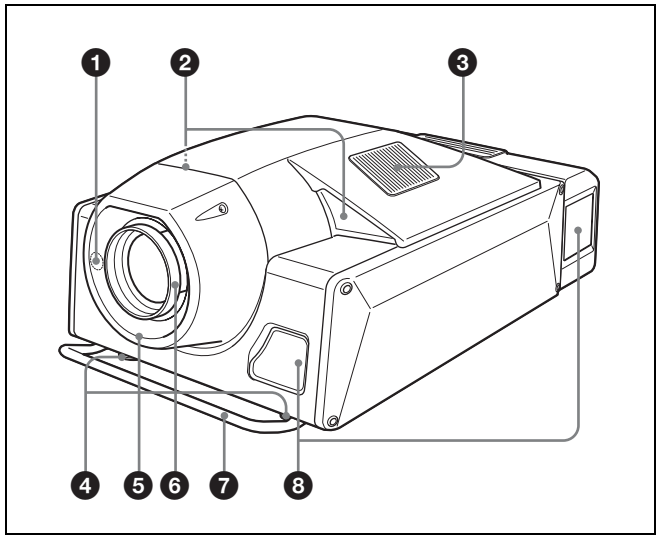
The projector is equipped with an RS232C connector and ETHERNET connector for communication. For signal inputs, the projector has three slots to which the optional analog input boards, HD-SDI input boards and DVI-D interface boards can be attached according to your requirement.

Optional lens

Optional zoom lenses are available depending on the projection distance you are setting up. The lens shift function of this projector enables easy setup.
When the optional LKRL-Z122 zoom lens equipped with zoom/focus memory function is installed, you can register the zoom and focus settings adjusted to fit the desired screen size. Registration of the settings adjusted for screen sizes of aspect ratio of 4:3 and 16:9 allows you to switch between them easily with the buttons in the window of the SRX Controller.

Location and Function of Controls

Front/Top



1 Remote control detector (front)

2 Upper side ventilation holes (intake)

3 Upper side ventilation holes (exhaust)

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

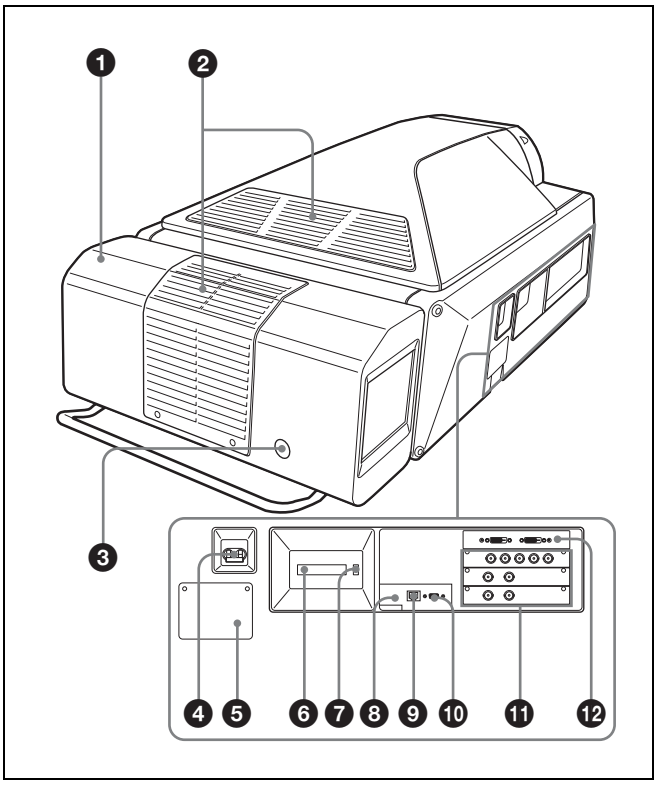
5 Lens cover

6 Lens mount part
When attaching the optional lens, consult your Sony dealer.

7 Carrying handle
Use to carry the projector. There is another handle on the rear side.

8 Front/right side ventilation holes (intake)

Left Side/Rear



❶ Cooling unit
A cooling fan and the two lamp houses are installed here. For replacement of the projection lamp or lamp house, consult your Sony dealer.

❷ Upper/rear side ventilation holes (exhaust)

❸ Remote control detector (rear)

❹ Power switch
Set the switch to the upper position to turn on the main power of the projector. To turn it off, set the switch to the lower position.

❺ AC IN terminal board
Connect the AC power cord with three wires (not supplied).
For connection of the AC power cord, contact your Sony dealer.

❻ STATUS MESSAGE window
Displays an error message. If the message is displayed, contact your Sony dealer.

❼ STATUS LAMP indicator
Lights red when the projector is in standby mode. When the power is turned on, it lights green. The indicator flashes for about 10 minutes after the power is turned off by clicking "POWER STANDBY ⏻" in the Control Function Menu window or by pressing the ⏻ button on the Remote Commander.

❽ INTER LOCK jack (minijack)
Connects to the external emergency switch.
When you use the interlock function, insert the mini-plug into this jack to open the + and – terminals. The projector's lamps will be turned off immediately. When not in use, do not insert the mini-plug.

❾ ETHERNET connector (10BASE-T/100BASE-TX)
Connect to the ethernet connector on a computer in which the supplied SRX Controller is installed. You can control the projector from the computer.

❿ RS232C connector (D-sub 9-pin, female)
Connect to the RS-232C connector on a computer in which the supplied SRX Controller is installed. You can control the projector from the computer.

⓫ Input board attachment parts
Depending on the input sources, attach the optional input board to each slot. They are arranged in order of INPUT B, INPUT C and INPUT D from the top.

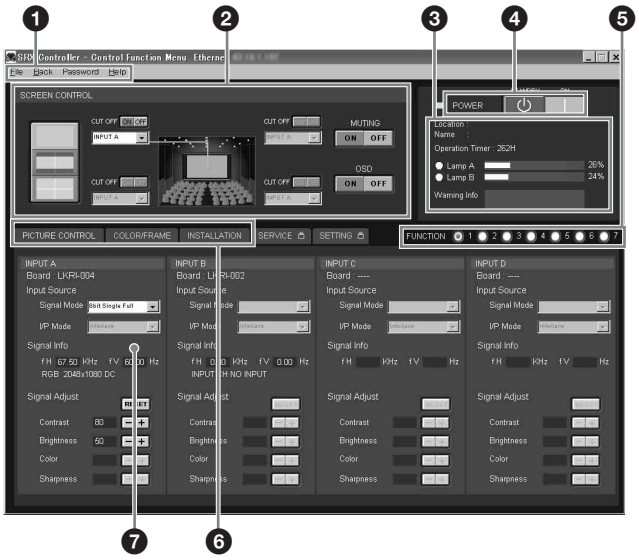
For attachment, contact your Sony dealer.

⓬ INPUT A (DVI interface board attached at the factory)
DVI-D connector (24-pin DVI connector, male): Inputs progressive DVI signals.
AUX connector (24-pin DVI connector, male): Used for input extension. For details on connecting devices compatible with the connector, please consult your Sony dealer.

Control Function Menu Window

When you install the supplied SRX Controller in your computer, you can operate all of the features of the projector in your computer window. This section explains the functions of the parts for projecting an image on the screen.

For the windows used for the settings and adjustments, see "Adjustments and Settings Using the SRX Controller" on page 25.



❶ Menu bar

File menu
Selecting "Quit" from the File menu exits the SRX Controller.

Back menu
Click to return to the Browser Screen window of the SRX Controller.

Password menu
Use to reset the authentication passwords required for displaying the SETTING window and the SERVICE window. The Password menu can be displayed only when an authorized administrator starts the SRX Controller on the computer for controlling the projector.

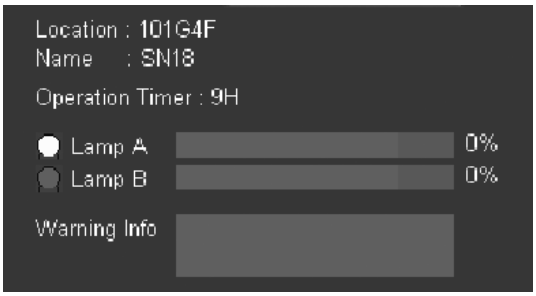
For details on the SETTING window and the SERVICE window, refer to the Installation Manual for Dealers.

Help menu
Shows the version information of the SRX Controller and the serial number of the projector.

❷ SCREEN CONTROL window

For details, see "SCREEN CONTROL window" on page 10.

❸ Information window



Location: Shows the location where the projector is installed, as set in the SETTING window at the time of installation.

Name: Shows the name of the projector that was set in the SETTING window at the time of installation.

Operation Timer: Shows the operation hours of the projector.

Lamp A/Lamp B: Shows an approximate percentage to indicate the time used before the recommended time for replacement of each projection lamp (i.e. 100% indicates the time for replacement). The indicator on the left lights when the corresponding lamp turns on. It does not light when the corresponding lamp turns off.

Warning Info: Displays an error message if there is any warning information on the projector. The same message is displayed in the STATUS MESSAGE window on the left side of the projector.

❹ POWER ON/STANDBY (I/⏻) buttons and POWER indicator

Click ON to turn on the lamp. The indicator lights green. Clicking STANDBY opens the confirmation dialog. Clicking "OK" makes the projector enter standby mode. The indicator flashes green. Even in standby mode, the fans continue to run to reduce internal heat. When the fans stop running, the indicator lights red.

❺ FUNCTION 1 to 7 radio buttons

Register the data set or adjusted in the Control Function Menu windows to these buttons, and recall it later to project an image with that setting.
The setting items that can be registered are as follows:

- Screen mode and input signal settings in the SCREEN CONTROL window
- "Input Source" and "Signal Adjust" settings in the PICTURE CONTROL window
- "Color" settings in the COLOR/FRAME window
- "ELECTRIC V SHIFT FUNCTION," "PROGRESSIVE DISPLAY MODE," "LAMP POWER" and "LAMP SELECT" settings, and "LENS CONTROL" settings when the optional LKRL-Z122 lens equipped with zoom/focus memory function is installed, in the INSTALLATION window

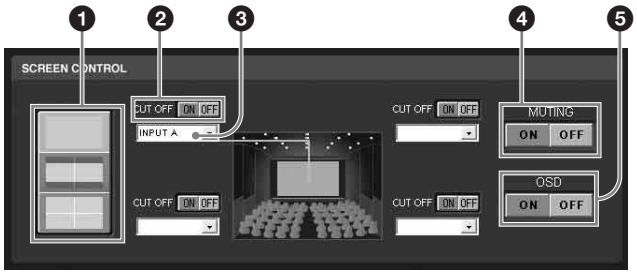
For details, see "To register the settings that have been adjusted" on page 25.

❻ Window select buttons
Open the window with the items you want to set or adjust.

❼ Adjustment/setting window
Clicking the window select button switches the window for the adjustment and setting.
The "PICTURE CONTROL," "COLOR/FRAME" and "INSTALLATION" windows can be displayed.

For details on each window, see "Adjustments and Settings Using the SRX Controller" on page 25.

SCREEN CONTROL window



❶ Screen mode buttons
Select single-, dual- or quad-screen mode for multiple display mode. Click for single, for dual and for quad mode.

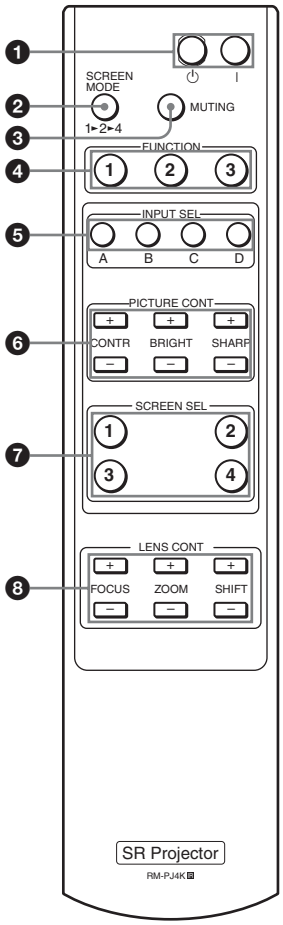
❷ CUT OFF "ON/OFF" buttons
Click the ON button to cut off the picture momentarily. Click the OFF button to restore the picture.
The SCREEN CONTROL window changes depending on the screen mode selected with the screen mode button (❶). When dual- or quad-screen mode is selected, the buttons function independently on each divided screen.

❸ Input signal select drop-down list box
Selects the input signal you want to project on the screen. The SCREEN CONTROL window changes depending on the screen mode selected with the screen mode button (❶). When dual- or quad-screen mode is selected, you can select the input independently on each divided screen.
INPUT A: Selects the signal input from the DVI-D connectors on INPUT A.
INPUT B: Selects the signal input from the connectors on the optional input board installed in the INPUT B section.
INPUT C: Selects the signal input from the connectors on the optional input board installed in the INPUT C section.
INPUT D: Selects the signal input from the connectors on the optional input board installed in the INPUT D section.

❹ MUTING ON/OFF buttons
Clicking the ON button cuts off the whole picture on the screen momentarily. Click the OFF button to restore the picture. Activating the muting function blocks off lamp light completely by use of a shutter, and displays the black signal on the whole screen.

❺ OSD ON/OFF buttons
Click the OFF button to eliminate the on-screen display. Click the ON button to display it on the screen.
The setting using the buttons also functions when you operate the projector with the Remote Commander.

Remote Commander



❶ I/⏻ (power on/standby) buttons
I: Press to turn on the projector.
⏻: Press to make the projector enter standby mode.

❷ SCREEN MODE button
Selects single-, dual- or quad-screen. Each press of the button changes the mode, 1 (single), 2 (dual) and 4 (quad), in this order.

❸ MUTING button
Press to cut off the whole picture on the screen. Press it again to restore the picture. Activating the muting function

shuts off from lamp light completely using a shutter, and displays the black signal on the whole screen.

❹ FUNCTION 1/2/3 buttons

Use these buttons in synchronization with the FUNCTION 1, 2 and 3 buttons in the Control Function Menu window of the SRX Controller. You can recall the data set or adjusted with the SRX Controller. You cannot recall settings registered in FUNCTION buttons 4 to 7.

❺ INPUT SEL A/B/C/D buttons

Select the input source you want to project or operate.

A: Selects the signal input from the DVI-D connectors on INPUT A.

B: Selects the signal input from the connectors on the optional input board installed in the INPUT B section.

C: Selects the signal input from the connectors on the optional input board installed in the INPUT C section.

D: Selects the signal input from the connectors on the optional input board installed in the INPUT D section.

Use these buttons together with the PICTURE CONT buttons (❻) or SCREEN SEL buttons (❼).

Example: When you want to increase the contrast of the signal input from INPUT A, press INPUT SEL A button, then press the CONTR + button.

❻ PICTURE CONT (Picture control) buttons

Adjust the projected picture quality.

CONTR+/–: Adjust the contrast. Pressing the + button increases the contrast. Pressing the – button decreases the contrast.

BRIGHT +/–: Adjust the picture brightness. Pressing the + button makes the picture brighter. Pressing the – button makes the picture darker.

SHARP +/–: Adjust the picture sharpness. Pressing the + button makes the picture sharper. Pressing the – button makes the picture softer.

In multiple screen mode, adjustment can be made for the input signal from INPUT A or each input board.
Select the input signal with the INPUT SEL A/B/C/D buttons (❺), then adjust the picture with these buttons. In single-screen mode, you need not press the INPUT SEL button.

Example: When you want to increase the contrast for the signal input from INPUT A, press the INPUT SEL A button, then press the CONTR + button.

❼ SCREEN SEL buttons

In multiple screen mode, select one of the divided screens where you want to project the selected signal from each input.

Select the input signal with one of the INPUT SEL A/B/C/D buttons (❺), then select the screen with one of these buttons.

Example: When you want to project the signal input from the INPUT B board on Screen 3 (lower left screen), press the INPUT SEL B button, then press the SCREEN SEL 3 button.

❽ LENS CONT buttons

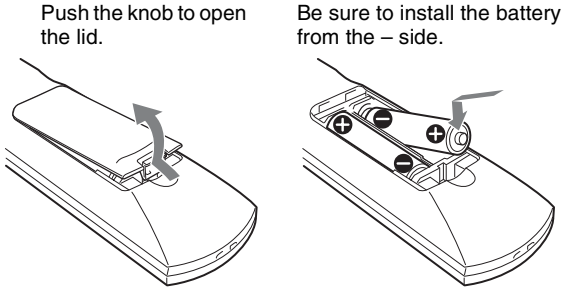
FOCUS +/–: Adjust the focus. Pressing the + button focuses on a picture further back. Pressing the – button focuses on a forward picture.

ZOOM +/–: Adjust the picture size. Pressing the + button enlarges the picture size. Pressing the – button reduces the picture size.

SHIFT +/–: Adjust the vertical picture position. Pressing the + button moves the picture upward. Pressing the – button moves the picture downward.

To install batteries

1 Remove the lid, then install the two size AA (R6) batteries (supplied) with the correct polarity.



2 Replace the lid.

Notes

- Be sure that there is nothing to obstruct the infrared beam between the Remote Commander and the projector. Direct the Remote Commander toward one of the remote control detectors at the front and rear of the projector when operating.
- The operation range is limited. The shorter the distance between the Remote Commander and the projector, the wider the angle within which the Commander can control the projector.

Preparations

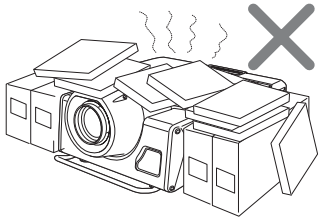
Chapter 2

Precautions on Installation

Unsuitable Installation

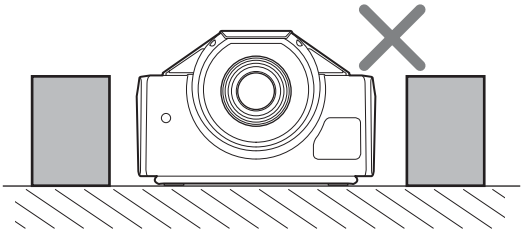
Do not install the projector in the following situations. Such installations may cause a malfunction or damage to the projector.

Poorly ventilated



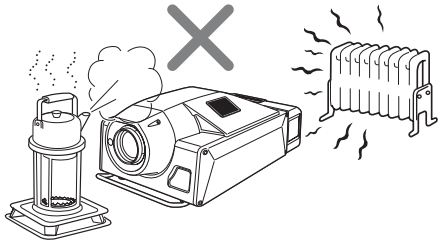
The projector is equipped with ventilation holes for intake and exhaust to prevent internal heat build-up. Do not place the projector in a place where the ventilation holes may be blocked.

Situation that may block the ventilation holes for exhaust

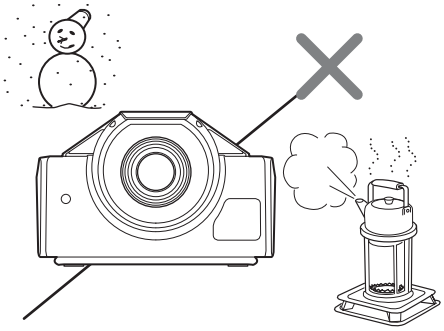


If you put something beside the ventilation holes for exhaust on the side or rear of the projector, the exhaust may be inhaled into the projector through the ventilation holes for intake, causing internal heat build-up and thereby activating the protection circuit. Be sure not to block the ventilation holes for exhaust. Leave a space of more than 1 m (39 3/8 inches) around the unit.

Extremely hot and humid

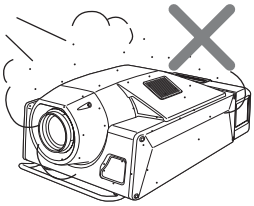


Location subject to sudden change of temperature



A sudden change of temperature may produce moisture condensation, causing damage to the projector. Take care with heaters or air-conditioners.

Very dusty

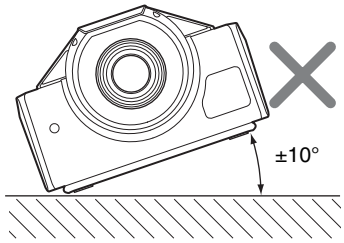


Unsuitable Conditions

Do not use the projector under the following conditions.

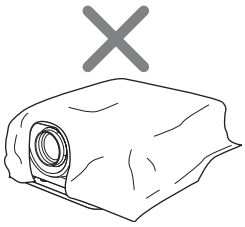
Laying the unit on its side or upside down

Tilting the unit to the right or left



Avoid tilting the projector more than ± 10 degrees, and avoid installing it in place other than a floor. Doing so may cause color shading or shorten the lamp life excessively.

Blocking the ventilation holes



Avoid using a thick-piled carpet or anything that covers the ventilation holes (exhaust/intake). Otherwise, internal heat may build up.

For the locations of the ventilation holes (exhaust/intake), see "Location and Function of Controls" on page 7.

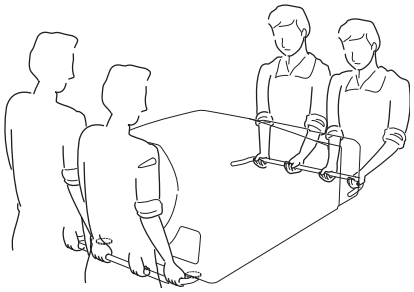
Installation

Using the Carrying Handles

Use the front and rear carrying handles to carry the projector.

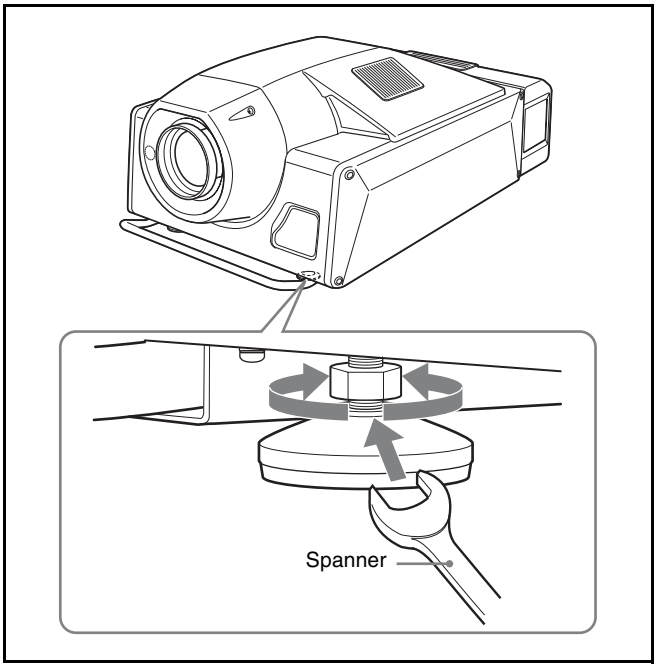
Caution

To avoid injury, have at least four people carry the projector using the front and rear handles.



Using the Adjusters

When the projector installation location is not horizontal, rotate the adjusters using a spanner so that the projector is placed horizontally. There are an adjuster on the right and one on the left.



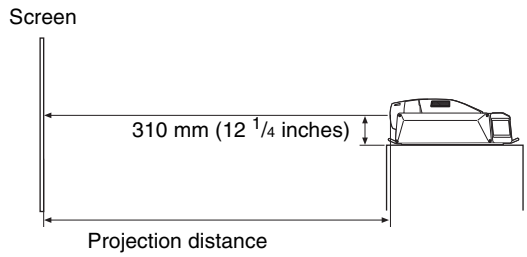
Caution

Do not turn the spanner forcibly when the screw has fully rotated. Otherwise, the spanner may slip and injure your hand.

Installing the Projector

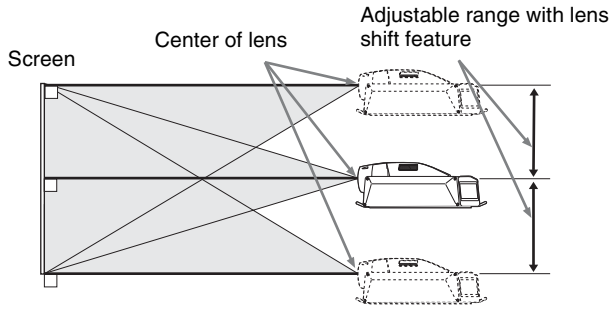
This section describes briefly how to install the projector on the floor. The distance between the center of the lens and the screen varies depending on the optional lens attached, the horizontal screen size or the input signal.

For details on installation examples with projection distances, see "Installation Manual for Dealers."

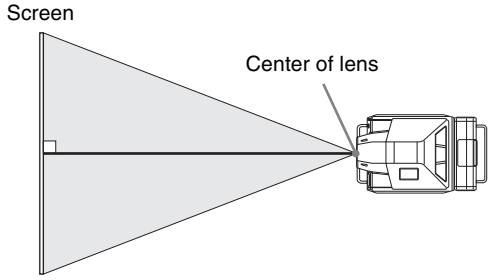


Vertical positioning (side view)

Install the projector so that the center of the lens is between the bottom edge and the top edge of the screen. You can move the picture position vertically by half of the screen vertical size using the lens shift adjustment.



Horizontal positioning (top view)



Installing the SRX Controller in a Computer for Controlling the Projector

If you install the supplied SRX Controller in a computer, you can control the projector from the computer.

System Requirements

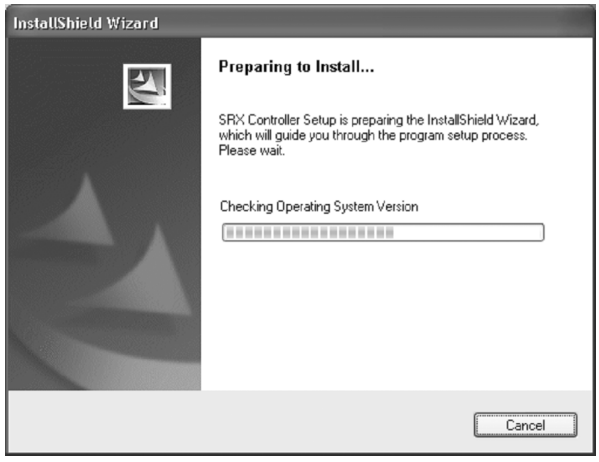
The following are required to operate the supplied SRX Controller.

- Computer: Intel Celeron CPU, 1 GHz or more
  - Installed memory: 256 MB or more
  - Communication: 10BASE-T/100BASE-TX
  - VGA: XGA (1024 × 768) or higher
  - HDD: Connected to a computer via the IDE port, Usable memory with 8 MB or more
  - CD-ROM drive: × 8 or faster
- Operating System: Microsoft Windows XP Professional SP2 (English or Japanese version)

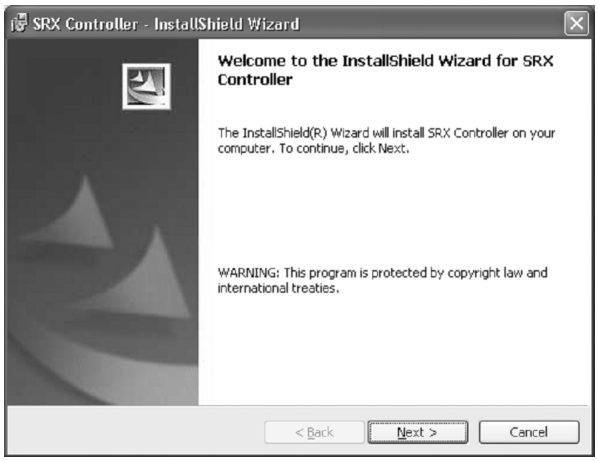
Installing the SRX Controller

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

The setup.exe in the root folder of the installation disc starts, and the window for preparing the installation appears.

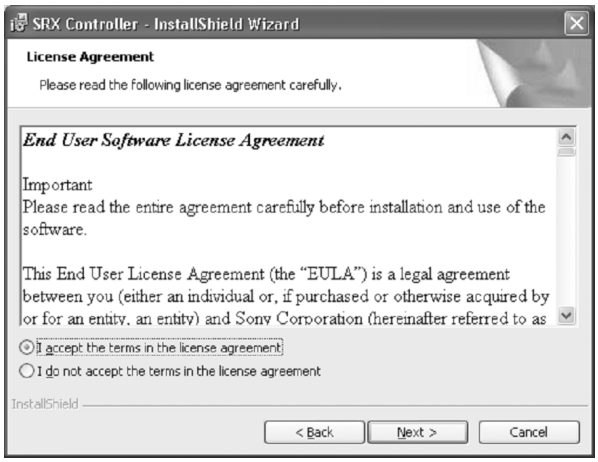


After a while, the Welcome page of the SRX Controller appears.



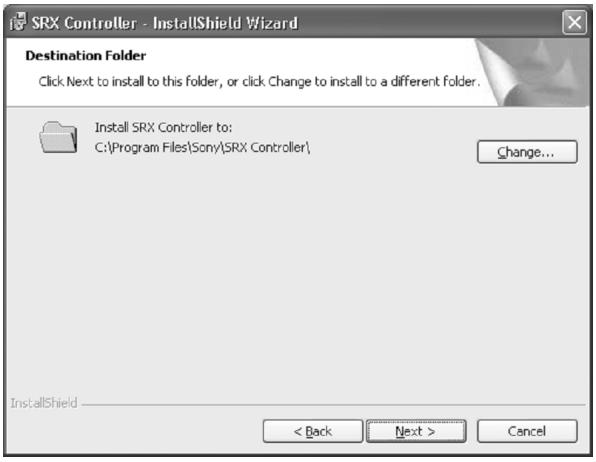
2 Click "Next."

The License Agreement window appears.

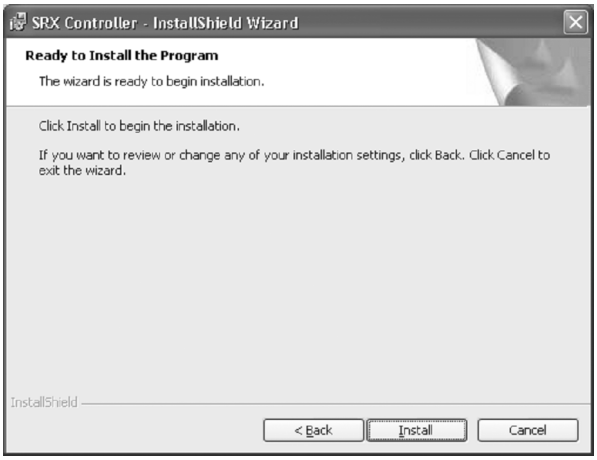


3 Read the license agreement, click "I accept…" if you agree to be bound by the terms, and click "Next."

The select window of the destination folder in which to install the SRX Controller appears.

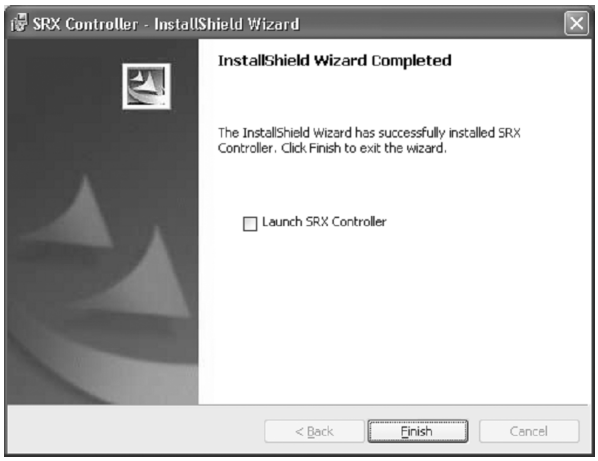


When you want to install it in the currently displayed folder, click "Next."
If you want to install it in a different folder, click "Change…," specify the folder, click "OK," then click "Next."
The installation start window appears.



4 Click "Install."

The program installation starts.
After a while, the following window appears.



5 Click "Finish."

Installation of the SRX Controller is completed.
To restart the SRX Controller immediately after installation has been completed, click to check "Launch SRX Controller," then click "Finish."

The icon is displayed in the desktop window.

Connecting a Computer for Controlling the Projector

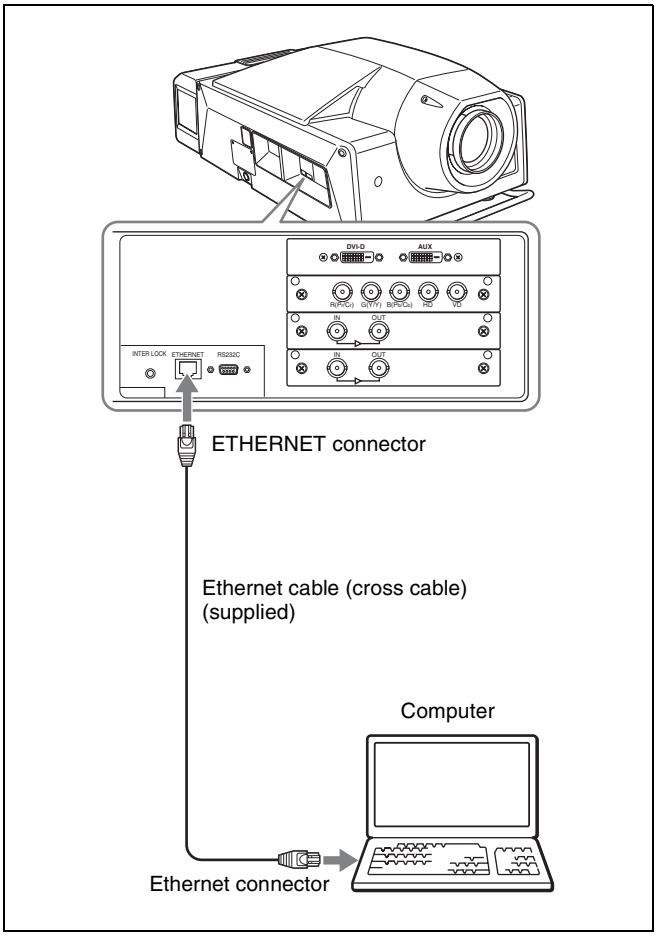
Connect a computer for controlling the projector to the projector via the ETHERNET connector or the RS232C connector.

Connecting the Computer via the Ethernet

Connect the computer to the projector using the supplied ethernet cable (cross cable).

Note

Set the TCP/IP protocol of the connected computer to DHCP.



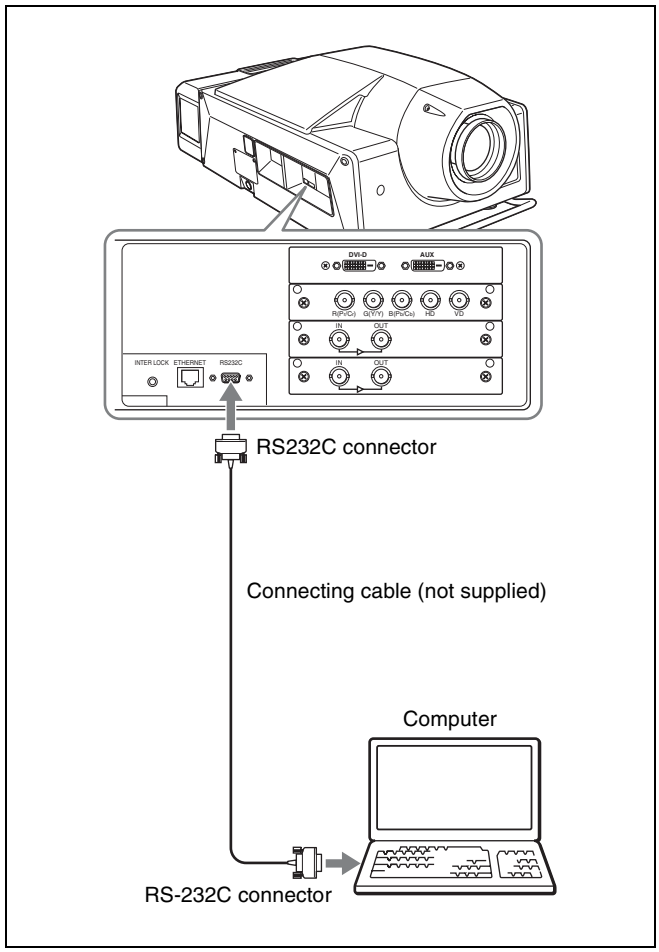
CAUTION

For safety, do not connect the connector for peripheral device wiring that might have excessive voltage to this port.
Follow the instructions for this port.

Note

If the power of the projector remains on for a long period of time without the Ethernet cable connected, the message "Sony SR Projector Initializing…" may appear in the STATUS MESSAGE window while you are setting up for networking after connecting the Ethernet cable. This is not a malfunction of the projector.

Connecting the Computer via the RS-232C



Starting the SRX Controller

Starting the SRX Controller

Double-click the icon for the SRX Controller in the desktop window of the computer.
The SRX Controller starts and the Browser Screen is displayed.

Note when starting the SRX Controller

When the Operating System of the computer is Windows XP SP2 or later, or any commercially available firewall software is installed in your computer, the following may occur. In these cases, unblock the Windows firewall following the procedures below.

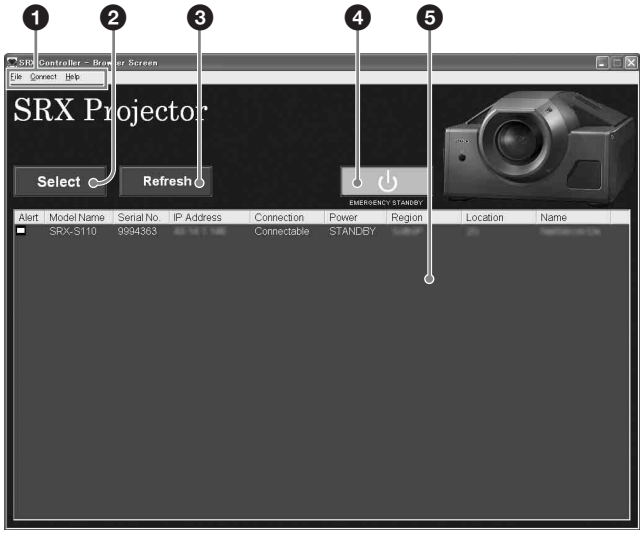
For Windows XP SP2 or later

If the dialog shown below appears when the SRX Controller is started, select "Unblock." When the dialog does not appear but the computer does not access the projector, start "Windows Firewall" from "Control Panel," and then add "SRX Controller" to the list in the "Exceptions" tab.

For commercially available firewall software

Add "SRX Controller" to the Exceptions list, referring to the operating instructions supplied with the software.

About the Browser Screen



❶ Menu bar

File
Select "Quit" from the File menu to exit the SRX Controller.

Connect
Selects the connection mode between the projector and the computer for controlling the projector.

For details, see "Changing the Connection Mode" on page 18.

Help
Select "Version" from the Help menu to display the version information of the SRX Controller.

❷ Select button
Selecting the projector displayed in the projector detect window and then clicking this button opens the Control Function Menu window of the selected projector.

❸ Refresh button
Updates all of information on the projectors displayed in the projector detect window.

❹ EMERGENCY STANDBY ⏻ button
Clicking the button makes the projectors indicated by "Connectable" under "Connection" in the projector detect window enter standby mode. The fans continue to run.

❺ Projector detect window
Information on all of the projectors connected to a network is displayed.
The following information is shown:
Alert: Shows whether there is any warning information on the projector or not. (■: Yes, □: No)
Model Name: Model name of the projector
Serial No.: Serial number of the projector

IP Address: IP address of the projector
Connection: Network connection status of the projector
The projectors that can be selected with the Select button are indicated by "Connectable" under "Connection."
Power: Power on/off status of the projector
Region: Region where the projector is installed
Location: Installation location of the projector
Name: Free name

To exit the SRX Controller

Click "Quit" from the File menu on the menu bar.

Changing the Connection Mode

When the projector you want to operate is connected to the computer via a network, you can also select it by specifying the IP address of the projector. Connection via the RS-232C is also available.

When connecting the computer via a network by specifying the IP address of the projector

Select "Ethernet" from the Connect menu on the menu bar to open the dialog. Enter the IP address of the projector, then click "OK."
To change the port number, select "PC Port Setting" from the Connect menu on the menu bar to display the dialog. Enter the new port number in the dialog and click "OK."

When connecting the computer via RS-232C

Select "RS232C" from the Connect menu on the menu bar to open the dialog. Enter the port number of the COM port (RS-232C) for the computer, then click "OK."

Connecting the Projector

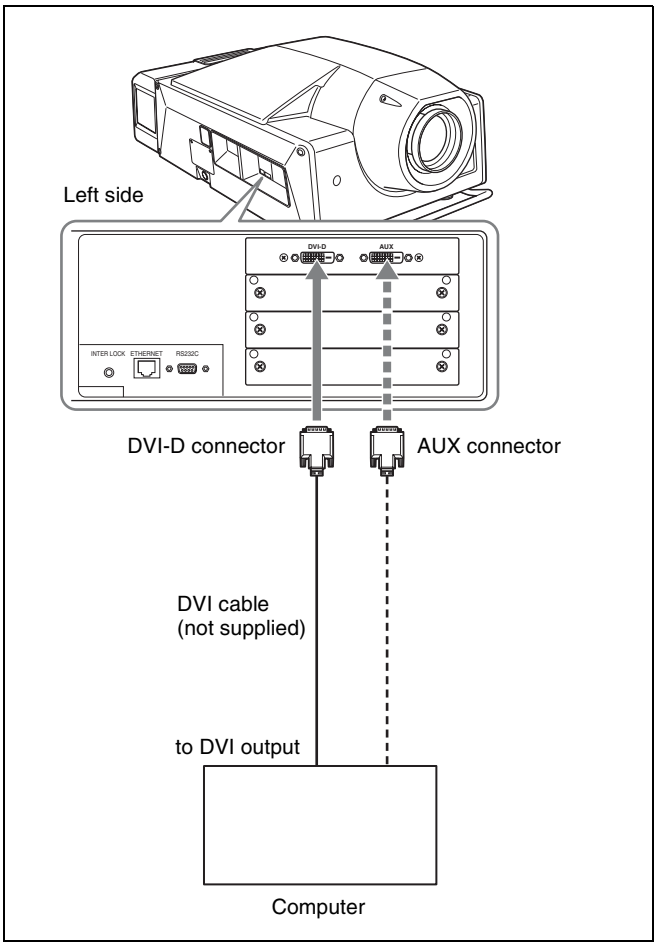
When you connect the projector, make sure to:

- Turn off all equipment before making any connections.
- Use the proper cables for each connection.
- Insert the cable plugs firmly; loose connections may increase noise and reduce performance of picture signals. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.
- When installing the optional input board, consult your Sony dealer.

Refer also to the instruction manuals of the equipment to be connected.

Connecting a Computer Equipped With a DVI Connector

Connect a computer equipped with a DVI connector to the DVI-D connectors on INPUT A of the projector, or those on the optional LKRI-004 interface board attached to the input board attachment part. A progressive DVI signal can be input.
The illustration below shows an example in which the connection is made using INPUT A on the projector.

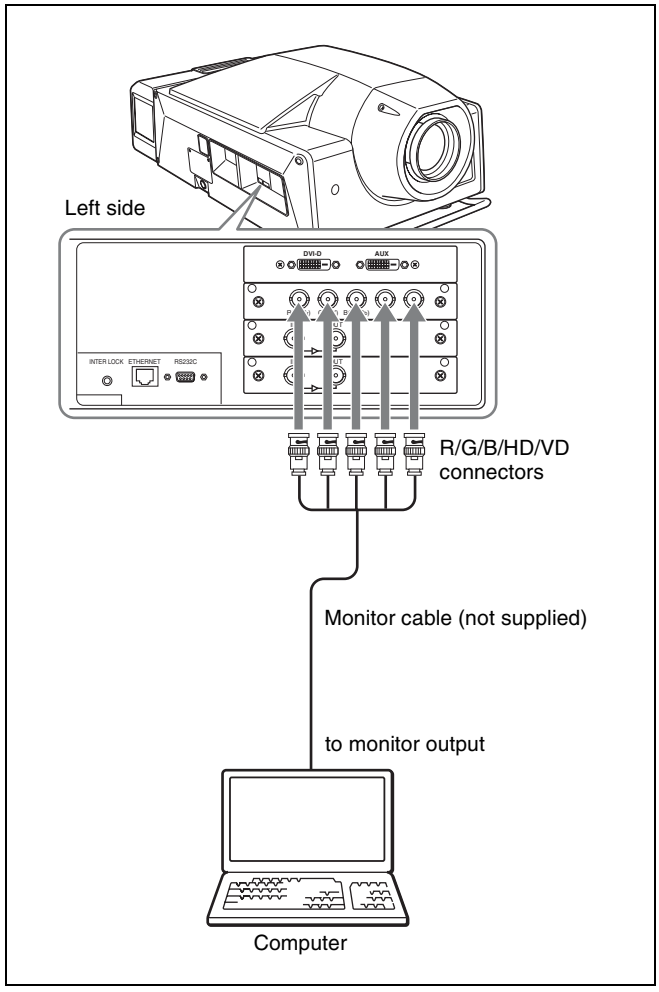


Notes

- According to the input signal type, set "Signal Mode" on "Input Source" in the PICTURE CONTROL window of the SRX Controller. *(page 26)*
- When an extension cable is used, the signal may not be input correctly due to signal reduction.
- If you input 10-bit signals from a DVI-D connector only (10-bit single mode), a DVI cable compatible with the Dual-link is required.

Connecting with a Computer Equipped With an Analog RGB Output

Attach the optional LKRI-001 analog input board to the input board attachment part on the projector, and connect with a computer.



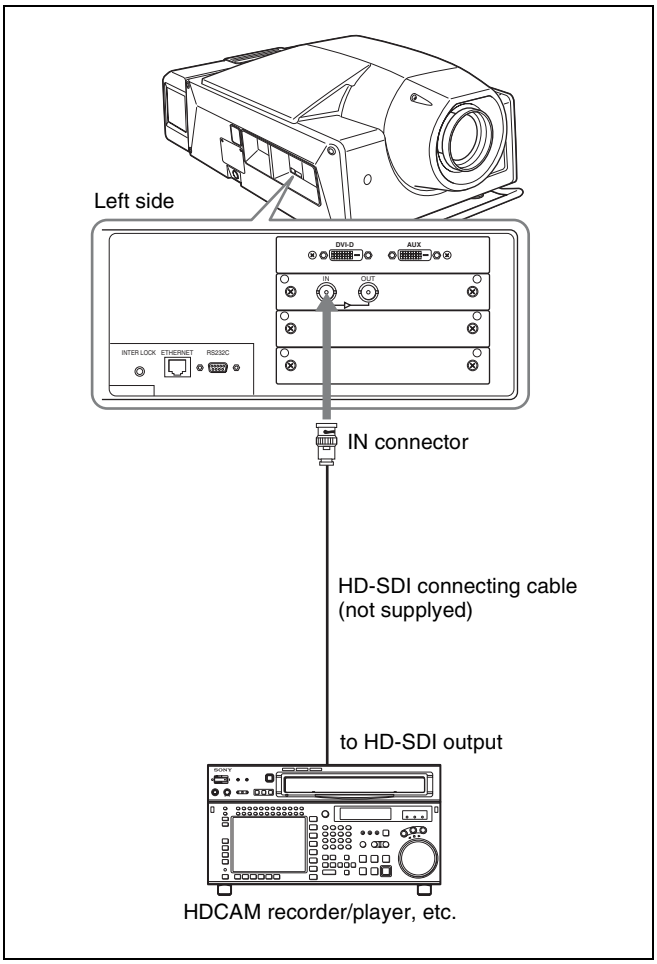
Note

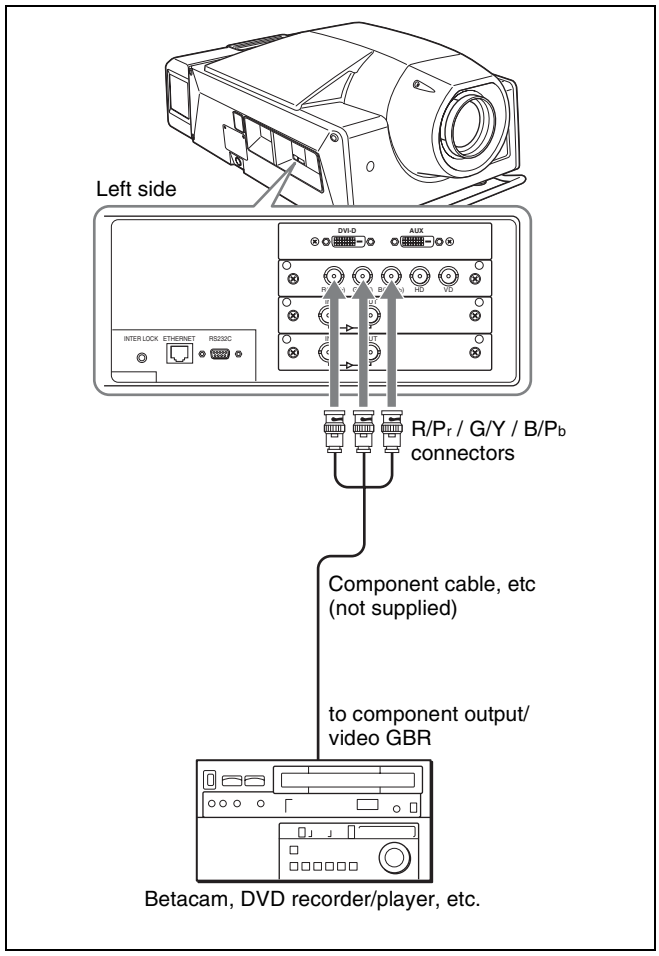
Select "RGB" in "Signal Mode" of "Input Source" in the PICTURE CONTROL window.

For details, see page 26.

Connecting with HD-SDI Equipment

Attach the optional LKRI-002 HD-SDI (4:2:2) or LKRI-003 HD-SDI (4:4:4) input board to the input board attachment part, and connect the HDCAM recorder/player. The illustration below shows an example with the LKRI-002 attached on INPUT B.





Note

When the LKRI-003 is attached to the projector, select the type of signal with "Signal Mode" of "Input Source" in the PICTURE CONTROL window. For Single-link input, select "YPbPr" or "YPbPr FULL." For Dual-link input, select "RGB" or "RGB FULL."

For details, see page 26.

Connecting with Component/Video GBR Equipment

Attach the optional LKRI-001 analog input board to the input board attachment part on the projector, and connect with a DVD recorder/player or analog video equipment equipped with the component output, or an high-definition equipment equipped with a video GBR connector.

Note

When connecting to the output of HD component equipment, set "Signal Mode" of "Input Source" in the PICTURE CONTROL window to "YPbPr," and when connecting to the output of HD video GBR equipment, set to "RGB."

For details, see page 26.

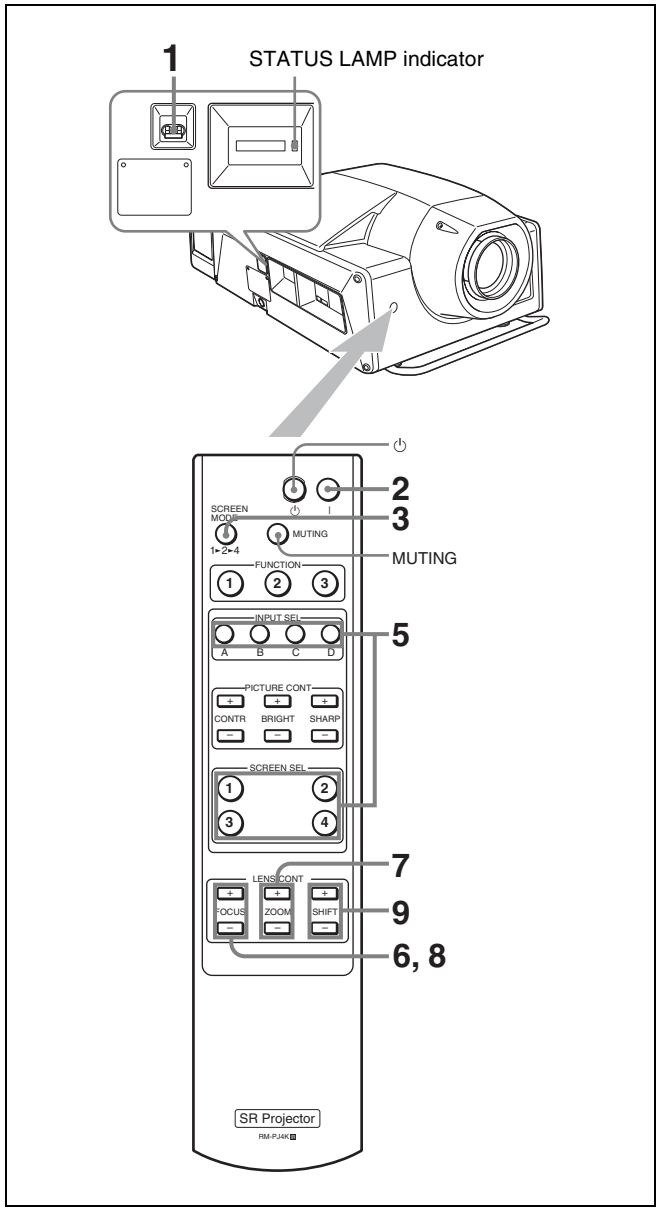
Projecting

Chapter 3

Projecting the Picture

Use the supplied Remote Commander or a computer in which the supplied SRX Controller is installed to project the picture on the screen.

Using the Remote Commander



1 Set the main power switch on the left side of the projector to the upper position.

The STATUS LAMP indicator lights red and the projector goes into standby mode.

2 Press the **I** button to turn on the projector.

The STATUS LAMP indicator lights green.

3 Select the screen mode.

Each time you press the SCREEN MODE button, the screen mode switches as follows:

1 (single-screen mode): Projects an image in full screen.

2 (dual-screen mode): Projects images in two divided screens. You can also project a different input source in each of the two screens.

4 (quad-screen mode): Projects images in four divided screens. You can also project a different input source in each of the four screens.

4 Turn on the equipment connected to the projector.

5 Press the INPUT SEL button to select the input source.

A: to select the input source from the equipment connected to INPUT A.

B: to select the input source from the equipment connected to the optional input board attached to the INPUT B section.

C: to select the input source from the equipment connected to the optional input board attached to the INPUT C section.

D: to select the input source from the equipment connected to the optional input board attached to the INPUT D section.

When you select "dual-screen mode" or "quad-screen mode" in step 3

Press one of the INPUT SEL A to D buttons to select the input source you want to project, then select one of the divided screens where you want to project the picture with the SCREEN SEL button.

Note

When projecting moving pictures in multiple screens, all the input signals should be genlocked to synchronize with each other. A picture on the left screen for dual-screen mode or that on the upper left screen for quad-screen mode is regarded as a reference picture. The projected moving picture not synchronized with the reference picture appears incompatible with the moving pictures projected on other screens. If you project still pictures and moving pictures together, select the left screen for the moving picture in dual-screen mode or the upper left screen in quad-screen mode. If you project still pictures only, you may project them on any screen.

6 Adjust the focus with the FOCUS +/– buttons.

During adjustment, "FOCUS" appears on the screen.

7 Adjust the picture size with the ZOOM +/– buttons.

During adjustment, "ZOOM" appears on the screen.

8 Adjust the focus again with the FOCUS +/– buttons.

9 Adjust the vertical position of the picture with the SHIFT +/– buttons.

During adjustment, "SHIFT" appears on the screen.

Note

The FOCUS, ZOOM and SHIFT indications do not appear when you select "OSD OFF" in the Control Function Menu window of the computer.

To cut off the picture

Press the MUTING button.
To restore the picture, press the MUTING button again.

To turn off the power

1 Press the ⏻ button.

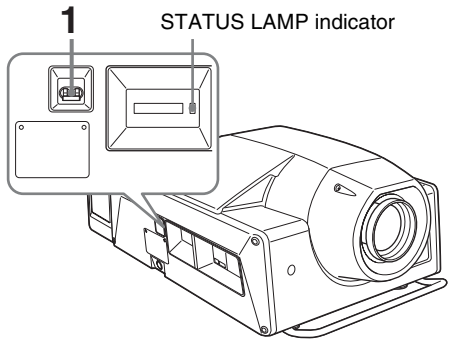
The STATUS LAMP indicator flashes green and the fan continues to run for 10 minutes to reduce the internal heat. When the fan stops running, the STATUS LAMP indicator lights red.

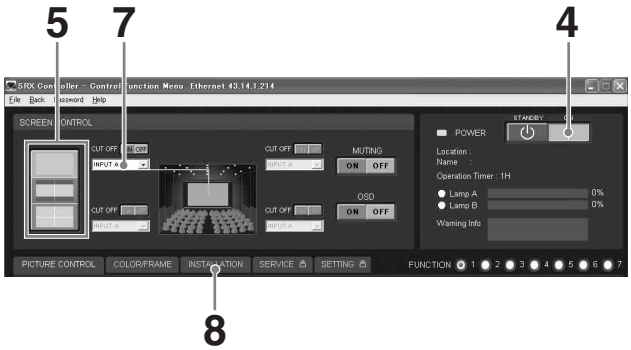
2 Set the main power switch to the lower position.

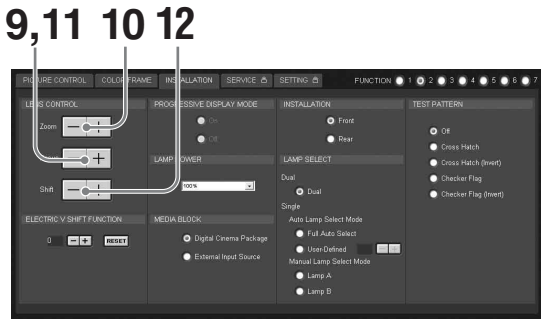
Note

Do not set the main power switch to the lower position while the fan is running. Doing so stops the fan before the inside of the projector has been cooled down sufficiently and may damage the unit.

Using the Computer for Controlling the Projector







1 Set the main power switch on the left side of the projector to the upper position.

The POWER and STATUS LAMP indicators light red and the projector goes into standby mode.

2 Start your computer and double-click the icon of the SRX Controller in the desktop window.

The Browser Screen of the SRX Controller opens.

3 Select the projector you want to operate by double-clicking the projector or by pointing at it and clicking the Select button.

The Control Function Menu window opens.

Note

When you connect the projectors to the computer via a network, you can also select the projector you want to operate by specifying the IP address of the projector. If connection is made via the RS232C connector on the projector, specify the RS-232C port number of the computer.

For details, see "Changing the Connection Mode" on page 18.

4 Click the POWER ON I button to turn on the projector.

The POWER and STATUS LAMP indicators light green.

5 Click one of the following buttons to select the screen mode.

(single screen mode): Projects images in full screen.
(dual screen mode): Projects images in two divided screens. You can also project a different input source in each of the two screens.
(quad screen mode): Projects images in four divided screens. You can also project a different input source in each of the four screens.

6 Turn on the equipment connected to the projector.

7 Select the input source from the drop-down list box displayed by clicking .

INPUT A: to select the input source from the equipment connected to INPUT A.
INPUT B: to select the input source from the equipment connected to the optional input board attached to the INPUT B section.
INPUT C: to select the input source from the equipment connected to the optional input board attached to the INPUT C section.
INPUT D: to select the input source from the equipment connected to the optional input board attached to the INPUT D section.

Note

When you select the input from the connectors on INPUT A on the projector, or on the LKRI-001, LKRI-003 or LKRI-004 input board, select the appropriate input signal from "Signal Mode" of "Input Source" in the PICTURE CONTROL window. Improper setting may cause deterioration of the picture.

For details, see page 26.

When you select "dual-screen mode" or "quad-screen mode" in step 5

Select the input source for each screen from the corresponding drop-down list box.

Notes

- When projecting moving pictures in multiple screens, all the input signals should be genlocked to synchronize with each other. A picture on the left screen for dual-screen mode or that on the upper left screen for quad-screen mode is regarded as a reference picture. The projected moving picture not synchronized with the reference picture appears incompatible with the moving pictures projected on other screens. If you project still pictures and moving pictures together, select the left screen for the moving picture in dual-screen mode or the upper left screen in quad-screen mode. If you project still pictures only, you may project them on any screen.
- When projecting signals with vertical frequency of more than 1080 pixel such as UXGA and WUXGA in quad-screen mode, a part of the displayed image may be invisible.

8 Click the "INSTALLATION" button to open the INSTALLATION window.

9 Adjust the focus with the Focus +/– buttons.

During adjustment, "FOCUS" appears on the screen.

10 Adjust the picture size with the Zoom +/– buttons.

During adjustment, "ZOOM" appears on the screen.

11 Adjust the focus again with the Focus +/– buttons.

12 Adjust the vertical position of the picture with the Shift +/– buttons.

During adjustment, "SHIFT" appears on the screen.

Note

The FOCUS, ZOOM and SHIFT indications do not appear when you select "OSD OFF" in the SCREEN CONTROL window.

To cut off the picture

Click "ON" of the CUT OFF buttons.
When you select the dual-screen mode or quad-screen mode, you can cut off the picture of each screen independently. Click "ON" of the CUT OFF buttons of each screen.
To restore the picture, click "OFF" of the CUT OFF buttons.

To cut off the whole screen

Click the MUTING ON button. The whole screen appears in black. To restore the picture, click the MUTING OFF button.

To turn off the power

1 Click the POWER STANDBY ⏻ button, then the OK button in the displayed confirmation dialog.

The POWER and STATUS LAMP indicators flash green and the fan continues to run for 10 minutes to reduce the internal heat. When the fan stops running, the POWER and STATUS LAMP indicators light red.

2 Set the main power switch to the lower position.

Note

Do not switch the main power switch to the lower (off) position while the fan is running. Doing so stops the fan before the inside of the projector has been cooled down sufficiently and may damage the unit.

Adjustments and Settings Using the SRX Controller

Chapter 4

Displaying the Control Function Menu Window

When you install the supplied SRX Controller in a computer, you can operate the picture adjustments, input signal settings, installation settings, etc. from the computer.

Some of the picture adjustments are available using the supplied Remote Commander.

For details, see "Remote Commander" on page 10.

1 Double-click the icon of the SRX Controller in the desktop window of the computer.

The Browser Screen appears.

2 Select the projector you want to operate by double-clicking the projector or click the Select button.

The Control Function Menu window opens.

3 Click any of the PICTURE CONTROL, COLOR/FRAME and INSTALLATION buttons to display the desired control window.

For details on each setting window, see the relevant window pages.

To go back to the Browser Screen

Select "Back" on the menu bar.

To clear the Control Function Menu window

Select "Quit" from the File menu on the menu bar, or click the ☒ (close) button.

To reset the settings that have been adjusted

Clicking the RESET button in the PICTURE CONTROL window resets all the settings of the items for "Signal Adjust" to their factory preset values. To reset the settings of the items for "Frame Adjust" in the COLOR/FRAME window, click the RESET button in the COLOR/FRAME window.

To register the settings that have been adjusted

You can register the settings that have been adjusted in the control windows to FUNCTION 1 to 7. As the default setting, the settings are registered to FUNCTION 1. To register the settings to FUNCTION 2 to 7, click one of the FUNCTION 2 to 7 radio buttons, then adjust the items in each window.
You can recall it later to project the picture with the desired setting by clicking one of the FUNCTION radio buttons. You can also recall the settings registered to the FUNCTION 1, 2 or 3 button with the FUNCTION 1, 2 or 3 button on the Remote Commander.

Note

When you click the FUNCTION button to switch to another FUNCTION setting, the picture will be cut off for up to about 10 seconds. The picture with the selected FUNCTION setting will then appear on the screen.

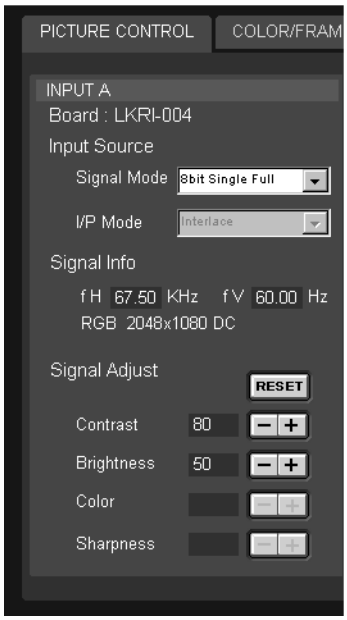
About the items that cannot be adjusted

Items that cannot be adjusted depending on the input signal are not displayed in the window.

For details, see "Input Signals And Adjustable/Setting Items" on page 31.

PICTURE CONTROL Window

The PICTURE CONTROL window is used to select the input source or to adjust the picture quality.
When the screen mode is set to "dual screen" or "quad screen," the items can be independently adjusted for each input channel displayed on the screen.



Board

Shows the input board installed in the relative input board slot of the projector. If you select INPUT A, "LKRI-004" is always displayed.

Input Source

Signal Mode: Click ▾ to open the drop-down list to select the type of signal input from equipment connected to INPUT A of the projector or to the optional input board.

When a signal is input from INPUT A or when the LKRI-004 is installed

Select the input signal type of progressive DVI signals.
When used in normal, select "8bit Single Full," which is compatible with DVI1.0 standard and the signal level is Full Range compliance.
When the DTV signal is input, select "8bit Single Limited," which is compatible with DVI1.0 standard and the signal level is Limited Range compliance.

When the 10-bit signal based on Sony's unique specification is input, select "10bit Twin Full" or "10bit Single Full" for a signal of Full Range compliance, or "10bit Twin Limited" or "10bit Single Limited" for a signal of Limited Range compliance.

When the LKRI-001 is installed
Select "YPbPr" to input a high-definition signal from component equipment, and "RGB" to input a high-definition signal from video GBR equipment.

When the LKRI-003 is installed
For Dual-link input, select "RGB" or "RGB FULL." For Single-link input, select "YPbPr" or "YPbPr FULL."

When "RGB" or "YPbPr" is selected, in the case that a 10-bit HD-SDI signal is input and "Contrast" is set to 90 in "Signal Adjust" of the PICTURE CONTROL window, mapping is done so that HD-SDI signal data values* of 64 to 940 are converted to the video levels of 0 to 100% to display an image on the projector.

When "RGB FULL" or "YPbPr FULL" is selected, in the case that a 10-bit HD-SDI signal is input and "Contrast" is set to 90 in "Signal Adjust" of the PICTURE CONTROL window, mapping is done so that HD-SDI signal data values* of 0 to 1023 are converted to the video levels of 0 to 100% to display an image on the projector. In this case, inhibition codes included in a 10-bit HD-SDI signal (data area 0 to 3, and 1020 to 1023) are blocked out.

* Data value 64 of a 10-bit HD-SDI signal input is equivalent to the video level of 0% (white), and data value 940 equivalent to 100% (black).

I/P Mode: Selects the I/P conversion mode. Depending on the input signal source, set the mode to "Interlace" or "PsF."

Notes

- This item is available with the interlace or PsF signal input.
- When the signal is input from INPUT A or the LKRI-004 is installed, this item is not available.

Signal Info (Information)

Shows the horizontal and vertical frequencies of the input signal automatically. The values are approximate.
The type of the input signal is also displayed.

fH: Displays the horizontal frequency.
fV: Displays the vertical frequency.

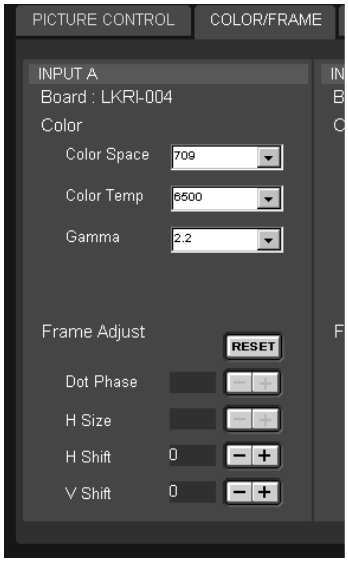
Signal Adjust

Adjusts the picture quality of the input signal.
Clicking [+] increases the setting value, and [−] decreases it.
Clicking the RESET button resets all the settings to the factory preset values.

Contrast: Adjusts the picture contrast. The higher the setting, the greater the contrast.
Brightness: Adjusts the picture brightness. The higher the setting, the brighter the picture.
Color: Adjusts the color intensity. The higher the setting, the greater the intensity.
Sharpness: Adjusts the picture sharpness. The higher the setting, the sharper the picture. The lower the setting, the softer the picture.

COLOR/FRAME Window

The COLOR/FRAME window is used to adjust the input signal.
When the screen mode is set to “dual-screen” or “quad-screen,” the items can be independently adjusted for each input channel displayed on the screen.



Board

Shows the input board installed in the relative input board slot of the projector. If you select INPUT A, “LKRI-004” is always displayed.

Color

Adjusts the items so that you can obtain precise color reproduction.
If the color of an image is not correct, check the setting of “Color Space” first.
Select the setting from the drop-down list displayed by clicking ▼.

Color Space: Selects the color gamut.
- **709:** Select when projecting a normal high-definition signal or RGB signal.
- **DCDM:** Select when projecting a signal source using the Minimum D-Cinema Color Gamut defined by the DCI Specifications Book/Version 1.0.
- **CIEXYZ:** Select when projecting a special signal source with wider color gamut than that of “DCDM,” such as a 12-bit XYZ signal.

Color Temp (temperature): Selects the color temperature from among “DCI W/P,” “6500,” “CUSTOM1,” “CUSTOM2,” “CUSTOM3” and “CUSTOM4.” “DCI W/P” is preset in CUSTOM1 to 4 settings in the factory.
“6500” is recommended for a normal high-definition signal or RGB signal. Set this item to “DCI W/P” to project a movie source.

Gamma: Selects a gamma correction curve from among “2.6,” “2.2” and “1.8.”
The smaller the value, the brighter the image. Select the setting depending on the signal source. “2.2” is recommended to project a normal high-definition signal or RGB signal.

When a signal is input from the connector on INPUT A or the LKRI-004 interface board

When you set each item in “Color,” the setting will be written to the color space description area of the EDID ROM.
The values to be written to the EDID ROM are shown below.

Color Space settings
- **“709”:** Red (0.6400, 0.3300), Green (0.3000, 0.6000), Blue (0.1500, 0.0600)
- **“DCDM”:** Red (0.6800, 0.3200), Green (0.2650, 0.6900), Blue (0.1500, 0.0600)

Color Temp settings
- **“6500”:** White (0.3127, 0.3290)
- **“DCI W/P”:** White (0.3140, 0.3510)
- **“CUSTOM1” to “CUSTOM4”:** White (0.3140, 0.3510) (default values)

Gamma settings
- **“2.6”:** 2.6
- **“2.2”:** 2.2
- **“1.8”:** 1.8

Frame Adjust

Adjusts the horizontal size and the position of the picture.
Clicking + increases the setting value, and − decreases it.
Clicking the RESET button resets all the settings of “Frame Adjust” to the factory-preset values.

Dot Phase: Adjusts the phase of the SXRD panels and the input signal. Adjusts the value to obtain the clearest picture.

H Size: Adjusts the horizontal size of the picture according to the input signal. As the setting value increases, the horizontal size of the picture becomes larger.

H Shift: Adjusts the horizontal position of the picture. As the setting value increases, the picture moves to the right. As the value decreases, the picture moves to the left.

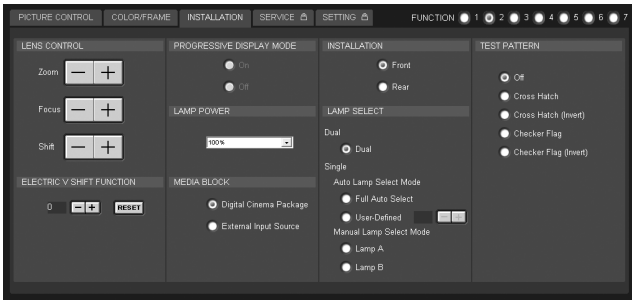
V Shift: Adjusts the vertical position of the picture. As the setting value increases, the picture moves up. As the value decreases, the picture moves down.

Notes

- Adjustment of “Dot Phase” and “H Size” is available only for analog RGB signals input from a computer.
- If the position of the picture is not adjusted correctly, noise may appear in the blank portion of the screen. This is not a malfunction of the projector. Adjust the picture position correctly with “Frame Adjust.”

INSTALLATION Window

The INSTALLATION window is used to adjust the projected picture, change the lamp output, etc.



LENS CONTROL

Adjusts the projected picture on the screen.

Zoom +/–: Adjusts the size of the picture. Clicking [+] enlarges the picture size, and [–] reduces the picture size.

Focus +/–: Adjusts the picture focus. Clicking [+] focuses on a picture further back. Clicking [–] focuses on a forward picture.

Shift +/–: Adjusts the vertical position of the picture. Clicking [+] moves the picture upward. Clicking [–] moves it downward.

ELECTRIC V SHIFT FUNCTION

Adjusts the vertical position of the projected pictures electrically. As the setting value increases, the picture moves upward. As the setting value decreases, the picture moves downward.
Clicking the RESET button resets the setting to the factory-preset values.

Notes

- This function is effective in the following cases:
  - When single-screen mode is selected
  - When quad-screen mode is selected, in which a signal from INPUT A is projected on the upper left window, that from INPUT B on the upper right window, that from INPUT C on the lower left window and that from INPUT D on the lower right window, when the input signal frequencies are 24/23.98 Hz and when “PROGRESSIVE DISPLAY MODE” is set to “On”.
- When this function is used for quad-screen mode, all the projected signals should be genlocked to synchronize with each other. If they are not synchronized, the picture is not displayed correctly.

PROGRESSIVE DISPLAY MODE

Normally, click the Off radio button.
Click the On radio button when four images with 2048 (1920) × 1080 pixels are input from INPUT A and three LKRI-004 interface boards and are combined into a 4096 (3840) × 2160-pixel image on the screen in quad-screen mode.

LAMP POWER

Adjust the lamp power output.
Select it from the drop-down list displayed by clicking ▼.
You can reduce the lamp power to 93%, 86%, 79%, 72%, 65%, 58% or 51%. The brightness of the projected image will be darker, but power consumption can be reduced and this increases the lamp life. Selecting 100% allows you to obtain the brightest projection image.

Note

Switching the lamp output frequently may reduce the lamp life. Use of the defined lamp output is recommended.

INSTALLATION

Selects how to install the projector.

Front: Selects front projection.
Rear: Selects rear projection.

Note

When you click the radio button to switch to the other setting, the picture will be cut off for up to about 10 seconds, and the picture will then appear on the screen.

LAMP SELECT

Selects whether to use one of two lamps or both lamps.

Dual: Select if you want to use two lamps.
Single: Select if you want to use only one of two lamps. In this setting, you can further select the lamp to be used automatically or manually.

Auto Lamp Select Mode
When you click the Full Auto Select radio button, the lamp with fewer used hours is automatically turned on. When you use the projector for a long period of time, click the User-Defined radio button. If you specify the hour between 4 and 24 hours by clicking the + / − buttons, the two lamps turn on alternately at the interval of the specified hours.

Manual Lamp Select Mode
You can specify the lamp to be used by clicking the Lamp A or Lamp B radio button.

Note

If you switch “LAMP SELECT” from “Single” to “Dual” or when either Lamp A or Lamp B switches to turn on, the projected image will be cut off momentarily.

TEST PATTERN

Displays a built-in test pattern on the screen for adjusting the picture with no signal input from external equipment. Click the radio button of the desired test pattern from among “Cross Hatch,” “Cross Hatch (Invert),” “Checker Flag” and “Checker Flag (Invert).” When you do not display a built-in test pattern, click the “Off” radio button.

Note

While a built-in test pattern is displayed on the screen, you cannot change the screen mode and input select mode, and cannot adjust the “PICTURE CONTROL” and “COLOR/FRAME.”

Input Signals And Adjustable/Setting Items

Some items of “Signal Adjust” in the PICTURE CONTROL window and “Frame Adjust” in the COLOR/FRAME window are not adjusted or set depending on the input signals. Items that cannot be adjusted depending on the input signal are not displayed in the window.

Signal Adjust

Item	Input signal					
	Component	Video GBR	Computer	HD-SDI	DVI-D	4K
Contrast	●	●	●	●	●	●
Brightness	●	●	●	●	●	●
Color	●	–	–	●	–	–
Sharpness	●	●	●	●	–	–

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

Frame Adjust

Item	Input signal					
	Component	Video GBR	Computer	HD-SDI	DVI-D	4K
Dot Phase	–	–	●	–	–	–
H Size	–	–	●	–	–	–
H Shift	●	●	●	●	●	–
V Shift	●	●	●	●	●	–

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

Others

Chapter 5

Lamp Life

Recommended time for replacement of the projection lamp is as follows:
SRX-S110: Approx. 800 hours
SRX-S105: Approx. 1,000 hours
The “Lamp A” and “Lamp B” bar indicators in the Control Function Menu window become red when the time for replacement is coming near. The percentage indicates the time used before the recommended time for replacement. Use them as a guide.

Be sure to ask your Sony dealer to replace a projection lamp and lamp house.

Troubleshooting

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

Power

Symptom	Cause	Remedy
Power is not turned on.	The main power is turned off.	Set the power switch on the projector to the upper position (pages 22 and 23).
	The projector and a computer for controlling the projector are disconnected.	Connect the projector and a computer properly (page 16).
	The cooling unit is detached.	Consult your Sony dealer.

Picture

Symptom	Cause	Remedy
No picture.	Cables are disconnected.	Check that the proper connection has been made (page 18).
	Input selection is not correct.	Select the input source correctly in the SCREEN CONTROL window (page 23).
	The picture is cut off.	Click the MUTING OFF or CUT OFF ON button in the SCREEN CONTROL window (page 24), or press the MUTING button on the Remote Commander (page 22).
	Ambient temperature is high.	Reduce the room temperature so that it becomes within the operating temperature (5–35°C).
Color balance is incorrect.	Incorrect input source mode is selected.	Set “Signal Mode” of “Input Source” in the PICTURE CONTROL window correctly (page 26).
The picture is too dark.	Contrast and brightness has not been adjusted properly.	Adjust the contrast or brightness in the PICTURE CONTROL window (page 27), or adjust them using the CONTR or BRIGHT button on the Remote Commander (page 11).
	Lamp mode is not properly selected.	Set “LAMP POWER” or “LAMP SELECT” in the INSTALLATION window correctly. (page 29)
On-screen display does not appear.	OSD OFF button has been clicked.	Click the OSD ON button in the SCREEN CONTROL window (page 10).

Remote Commander/SRX Controller

Symptom	Cause	Remedy
The SRX Controller does not start.	The projector and a computer for controlling the projector are not properly connected.	Check that the proper connection between the projector and a computer has been made (page 16).
The Remote Commander does not work.	The remote control detector has been removed.	Consult your Sony dealer.
	The batteries are dead.	Replace with new batteries.

Error Messages

The error messages are displayed in the STATUS MESSAGE window on the projector and the Error display window of the SRX Controller. If there are two or more messages, a displayed message changes each 5 seconds. Use the list below to check the meaning of the error, and consult your Sony dealer. Be sure to inform them of the displayed messages and their numbers.

No.	Error messages	Meaning
1	INPUT-A POWER ALERT	Trouble with power of INPUT A board
2	INPUT-B POWER ALERT	Trouble with power of INPUT B board
3	INPUT-C POWER ALERT	Trouble with power of INPUT C board
4	INPUT-D POWER ALERT	Trouble with power of INPUT D board
5	PR-284_1 POWER ALERT	Trouble with power of PR-284 board at the top
6	PR-284_2 POWER ALERT	Trouble with power of PR-284 board on the second row
7	PR-284_3 POWER ALERT	Trouble with power of PR-284 board on the third row
8	PR-284_4 POWER ALERT	Trouble with power of PR-284 board on the fourth row
9	24V POWER SUPPLY ALERT	The projector has failed to supply 24V power.
10	16V POWER SUPPLY ALERT	The projector has failed to supply 16V power.
11	PR-284_1 DETACHED	The PR-284 board is not attached correctly on the top row.
12	SXRD PANEL TEMPERATURE ALERT	The temperature of the panels is too high.
13	LAMP_A FAN ALERT	Trouble with the fan for Lamp A, or the harness is disconnected or down.
14	LAMP_B FAN ALERT	Trouble with the fan for Lamp B, or the harness is disconnected or down.
15	LAMP_A POWER SUPPLY UNIT FAN ALERT	Trouble with the ballast fan for Lamp A power, or the harness is disconnected or down.
16	LAMP_B POWER SUPPLY UNIT FAN ALERT	Trouble with the ballast fan for Lamp B power, or the harness is disconnected or down.
17	PR-284 FAN FAILURE	Trouble with the fan for PR-284 board, or the harness is disconnected or down.
18	OPTICAL UNIT TEMPERATURE ALERT	The temperature of the optical unit is too high, or the harness is disconnected or down.
19	LAMP_A TEMPTEMPERATURE ALERT	The temperature of Lamp A is too high, or the harness is disconnected or down.
20	LAMP_B TEMPTEMPERATURE ALERT	The temperature of Lamp B is too high, or the harness is disconnected or down.
21	LAMP_A HOUSE DETACHED	The projection lamp house of Lamp A is not installed correctly, or the harness is disconnected or down.
22	LAMP_B HOUSE DETACHED	The projection lamp house of Lamp B is not installed correctly, or the harness is disconnected or down.
23	REAR COVER DETACHED	The rear cover is open, or the harness is disconnected or down.
24	LAMP_A POWER SUPPLY UNIT ALERT	Temporary high temperature or some trouble with the power (ballast) of Lamp A
25	LAMP_B POWER SUPPLY UNIT ALERT	Temporary high temperature or some trouble with the power (ballast) of Lamp B
26	LAMP_A IGNITION FAILURE	Lamp A does not turn on.
27	LAMP_B IGNITION FAILURE	Lamp B does not turn on.
28	CPU ALERT	Trouble with the main CPU (IC301) on the SY-321. Serious trouble
29	MUTING OFF FAILURE DOUSER OPEN FAILURE	Trouble with opening/shutting of the shutter, or the harness is disconnected or down.
30	INPUT BOARD FAN FAILURE	Trouble with the HIF fan next to the INPUT A/B/C/D boards, or the harness is disconnected or down.

No.	Error messages	Meaning
31	REAR FAN ALERT	Trouble with the huge fan at the rear, or the harness is disconnected or down.
32	LOW REAL TIME CLOCK BATTERY	The RTC battery (BT201) for the SY-321 board should be replaced.
33	FPGA CONFIG FAILURE	An internal line does not function properly.
34	IIC FAILURE	An internal line does not function properly.
35	LAMP A ALERT	The recommended time for replacement of Lamp A has elapsed.
36	LAMP B ALERT	The recommended time for replacement of Lamp B has elapsed.
37	LAMP A WARNING	80% of the recommended time for replacement of Lamp A has elapsed.
38	LAMP B WARNING	80% of the recommended time for replacement of Lamp B has elapsed.
39	DATA LOAD FAILURE LENS POSITION SENSOR	Failure of the lens position adjustment to the registered setting.
40	PS FAN FAILURE	Trouble with the fan for PS converter, or the harness is disconnected or down.
41	DVI SIGNAL FAILURE	An inappropriate menu setting for the input signal has been found, or the cable has become disconnected or is down.

Specifications

Optical characteristics

Projection system
SXRD (Silicon X-tal Reflective Display) 3 panel prism color integration system

SXRD: 8,847,360 pixels (4098 × 2160 × 3)

Lens: Optional

Light output: SRX-S110: 10,000 ANSI[1)] lm ± 10% (factory preset value)
SRX-S105: 5,000 ANSI[1)] lm ± 10% (factory preset value)

Lamp: SRX-S110: 2 kW Xenon lamp × 2
SRX-S105: 1 kW Xenon lamp × 2

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

Electrical characteristics

Acceptable signal
DVI-D, XGA, QVGA, SXGA, UXGA, HD, 2048 × 1080 (INPUT A or when the LKRI-004 DVI interface board is installed)
Component, XGA, SXGA, WXGA, HD (when the LKRI-001 analog input board is installed)
HD-SDI (SMPTE Serial Digital Interface standard) (when the LKRI-002 HD-SDI (4:2:2) input board is installed)
HD-SDI (SMPTE Serial Digital Interface standard) (when the LKRI-003 HD-SDI (4:4:4) input board is installed)

Input/Output

DVI-D: DVI connector, 24-pin (male) (For details, see "Pin assignment" on page 37.)

AUX: DVI connector, 24-pin (male) (For details, see "Pin assignment" on page 37.)

INTER LOCK: Minijack
Normal operation at short circuit
Lamp power off at open circuit

RS232C: D-sub 9-pin (female) (For details, see "Pin assignment" on page 37.)

ETHERNET: 10BASE-T/100BASE-TX

Input signal

INPUT A: DVI-D, XGA, QVGA, SXGA, UXGA, HD, 2048 × 1080

When the LKRI-001 is installed
Analog RGB/component: BNC type
R/R-Y: 0.7 Vp-p ±2 dB positive, 75 ohms terminated
G/G SYNC: 0.7 Vp-p ±2 dB positive, 75 ohms terminated
G with sync/Y: 1 Vp-p ±2 dB sync negative, 75 ohms terminated
B/B-Y: 0.7 Vp-p ±2 dB positive, 75 ohms terminated
SYNC/HD: Composite sync: 0.6 – 8 Vp-p, high impedance, sync positive/negative
Horizontal sync: 0.6 – 8 Vp-p, high impedance, sync positive/negative
VD: Vertical sync: 0.6 – 8 Vp-p, high impedance, sync positive/negative
HDTV (YP_bP_r): BNC type
Y: 1 Vp-p ± 2 dB positive, 75 ohms terminated
Tri-level sync: ± 0.3 Vp-p
Bi-level sync: 0.3 Vp-p
P_b/P_r: 0.35 Vp-p ± 2 dB positive, 75 ohms terminated
HDTV (GBR): BNC type
G with sync: 1 Vp-p ± 2 dB, 75 ohms terminated
Tri-level sync: ± 0.3 Vp-p
Bi-level sync: 0.3 Vp-p
B/R (GBR): 0.7 Vp-p ± 2 dB positive, 75 ohms terminated

When the LKRI-002 is installed
SMPTE format HD

When the LKRI-003 is installed
SMPTE Format HD-SDI/DC-SDI/Dual-link HD-SDI/Dual-link DC-SDI

When the LKRI-004 is installed
DVI-D, XGA, QVGA, SXGA, UXGA, HD, 2048 × 1080

General

Dimensions
740 × 500 × 1320 mm (29 1/4 × 19 3/4 × 52 inches) (w/h/d)

Mass: Approx. 110 kg (242 lb 8 oz) (excluding the optional lens)

Power requirements
SRX-S110: 200 to 240 V AC, 50/60 Hz
SRX-S105: 100 to 240 V AC, 50/60 Hz

Power consumption
SRX-S110: Max. approx. 5.4 kW (Standby mode: 40 W)
SRX-S105: Max. approx. 3.0 kW (Standby mode: 40 W)

Current consumption
SRX-S110: 30 to 22 A
SRX-S105: 30 to 12.5 A

Operating temperature

5°C to 35°C (41°F to 95°F) (About 20 minutes of aging is recommended to provide better quality picture.)

Performance guarantee temperature
10°C to 30°C (50°F to 86°F)

Operating humidity
35% to 85% (no condensation)

Storage temperature
–20°C to + 60°C (–4°F to +140°F)

Storage humidity
10% to 90%

Supplied accessories
Remote Commander RM-PJ4K (1)
Size AA (R6) batteries (2)
SRX Controller (CD-ROM) (1)
Ethernet cable (cross cable manufactured by Sony: 1-830-803-11) (1)
Operating Instructions (1)
Installation Manual for Dealers (1)
Operating Instructions (CD-ROM) (1)
Quick Reference Guide (1)

Design and specifications are subject to change without notice.

Optional accessories

Projection lamp house
LKRX-B110 (for SRX-S110)
LKRX-B105 (for SRX-S105)

Projection lamp
LKRX-110 (for SRX-S110)
LKRX-105 (for SRX-S105)

Analog input board
LKRI-001 (analog RGB/component/HD input with 5 BNC type)

HD-SDI (4:2:2) input board
LKRI-002 (HD-SDI input/output with 2 BNC type)

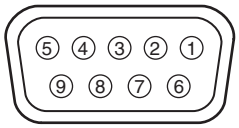
HD-SDI (4:4:4) input board
LKRI-003 (HD-SDI input/output with 4 BNC type)

DVI interface board
LKRI-004 (2DVI-D input connectors)

Projection lens
LKRL-Z115 (1.5 to 1.9-times zoom lens)
LKRL-Z120 (1.9 to 2.3-times zoom lens)
LKRL-Z125 (2.3 to 4.0-times zoom lens)
LKRL-Z140 (4.0 to 7.0-times zoom lens)
LKRL-Z122 (2.23 to 3.92-times zoom lens with zoom/focus memory function)
LKRL-90 (0.9-times fixed focus lens)

Pin assignment

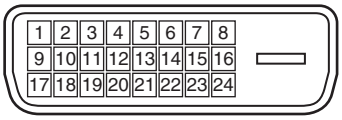
RS232C connector (D-sub 9-pin, female)



Pin number	Signal name	Meaning
1	NC	
2	RD	Received Data
3	TD	Transmit Data
4	DTR*	Data Terminal Ready
5	GND	Ground
6	DSR*	Data Set Ready
7	RTS**	Request to Send
8	CTS**	Clear to send
9	NC	

* Circuit between pins 4 and 6 is short-circuited in the projector.
** Circuit between pins 7 and 8 is short-circuited in the projector.

DVI-D connector, AUX connector (24-pin, male)



Pin number	Signal name
1	DATA2–
2	DATA2+
3	GND
4	DATA4–
5	DATA4+
6	DDC_SCL
7	DDC_SDA
8	NC
9	DATA1–
10	DATA1+
11	GND
12	DATA3–
13	DATA3+
14	+5V
15	DDC_GND
16	HOTPLUG_DET
17	DATA0–

Pin number	Signal name
18	DATA0+
19	GND
20	DATA5–
21	DATA5+
22	GND
23	CLK+
24	CLK–

Preset Signals

Preset signal	fH (kHz)	fV (Hz)	Aspect ratio
VIDEO60	15.73	59.94	4:3
VIDEO50	15.63	50.00	4:3
HDTV	33.75	60.00	16:9
1024 × 768_VESA60	48.36	60.00	4:3
1024 × 768_VESA70	56.48	70.07	4:3
1024 × 768_VESA75	60.02	75.03	4:3
1024 × 768_VESA85	68.68	85.00	4:3
1280 × 960_VESA60	60.00	60.00	4:3
1280 × 1024_VESA60	63.97	60.01	5:4
1280 × 1024_VESA75	79.98	75.03	5:4
1280 × 1024_VESA85	91.15	85.02	5:4
1600 × 1200_VESA605	75.00	60.00	4:3
720/60P	45.00	60.00	16:9
720/50P	37.50	50.00	16:9
1080/48I (24PsF)	27.00	48.00	16:9
1080/50I	28.13	50.00	16:9
1080_24P	27.00	24.00	16:9
DC2048 × 1080_48I	27.00	48.00	
DC2048 × 1080_24P	27.00	24.00	

Displayed image size in multiple screen mode

Unit: pixel

Screen mode / Type of signal	Full screen		Dual screen		Quad screen	
	Horizontal size	Vertical size	Horizontal size	Vertical size	Horizontal size	Vertical size
VIDEO60	2880	2156	2003	1499	1440	1078
VIDEO50	2880	2146	2003	1504	1440	1073
XGA	2849	2137	2048	1536	1432	1074
SXGA1	2560	2048	2048	1638	1280	1024
SXGA2	2560	1920	2048	1536	1280	960
UXGA*	2864	2148	1600	1200	–	–
WUXGA*	3437	2148	1920	1200	–	–
720p	3810	2143	2048	1152	1280	720
HD	3840	2160	1920	1080	1920	1080
4K	4096	2160	–	–	–	–

* When projecting signals with vertical frequency of more than 1080 pixel such as UXGA and WUXGA in quad-screen mode, a part of the displayed image may be invisible.

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