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

Owner's Record

The model and serial numbers are located on the rear. Record these numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. _____

Serial No. _____

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.

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.

For the customers in Canada
This Class A digital apparatus complies with Canadian ICES-003.

For the customers in Europe, Australia and New Zealand

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.

For the customers in Europe
The manufacturer of this product is Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japan.
The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

This apparatus shall not be used in the residential area.

For kundene i Norge
Dette utstyret kan kobles til et IT-strømfordelingssystem.

For the State of California, USA only
Perchlorate Material - special handling may apply, See www.dtsc.ca.gov/hazardouswaste/perchlorate
Perchlorate Material : Lithium battery contains perchlorate.

For the customers in Taiwan only

廢電池請回收

AVERTISSEMENT

Afin de réduire les risques d'incendie ou d'électrocution, ne pas exposer cet appareil à la pluie ou à l'humidité.

Afin d'écarter tout risque d'électrocution, garder le coffret fermé. Ne confier l'entretien de l'appareil qu'à un personnel qualifié.

AVERTISSEMENT
CET APPAREIL DOIT ÊTRE RELIÉ À LA TERRE.

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

Pour les clients en Europe, Australie et Nouvelle-Zélande

AVERTISSEMENT
Il s'agit d'un produit de Classe A. Dans un environnement domestique, cet appareil peut provoquer des interférences radio, dans ce cas l'utilisateur peut être amené à prendre des mesures appropriées.

Pour les clients en Europe
Le fabricant de ce produit est Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japon.
Le représentant autorisé pour EMC et la sécurité des produits est Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Allemagne. Pour toute question concernant le service ou la garantie, veuillez consulter les adresses indiquées dans les documents de service ou de garantie séparés.

Ne pas utiliser cet appareil dans une zone résidentielle.

WARNUNG

Um die Gefahr von Bränden oder elektrischen Schlägen zu verringern, darf dieses Gerät nicht Regen oder Feuchtigkeit ausgesetzt werden.

Um einen elektrischen Schlag zu vermeiden, darf das Gehäuse nicht geöffnet werden. Überlassen Sie Wartungsarbeiten stets nur qualifiziertem Fachpersonal.

WARNUNG
DIESES GERÄT MUSS GEERDET WERDEN.

Für Kunden in Europa, Australien und Neuseeland

WARNUNG
Dies ist eine Einrichtung, welche die Funk-Entstörung nach Klasse A besitzt. Diese Einrichtung kann im Wohnbereich Funkstörungen verursachen; in diesem Fall kann vom Betreiber verlangt werden, angemessene Maßnahmen durchzuführen und dafür aufzukommen.

Für Kunden in Europa
Der Hersteller dieses Produkts ist Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japan.
Der autorisierte Repräsentant für EMV und Produktsicherheit ist Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Deutschland. Bei jeglichen Angelegenheiten in Bezug auf Kundendienst oder Garantie wenden Sie sich bitte an die in den separaten Kundendienst- oder Garantiedokumenten aufgeführten Anschriften.

Dieser Apparat darf nicht im Wohnbereich verwendet werden.

Table of Contents

Chapter 5 Others

Overview

Precautions

On safety

- Operate the unit on 200 V to 240 V AC, 50/60 Hz.
- 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.
- Set the power switch to the lower position if it is not to be used for several days.
- 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.
- Use a lifter to carry the projector to avoid accidents or injury.
- 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.
- Since an intense light has come out of this projector from the front, do not stand on the front of a projector for a long time.

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 3 to 15 minutes by detecting an internal temperature while the MAIN and LAMP indicators flash green.

Caution

The projector is equipped with ventilation holes (intake) at the right side, and ventilation holes (exhaust) at the upper and left sides.
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.

On "stuck" pixels on an LCD screen

The LCD panel fitted to this unit is manufactured with high precision technology. Thus a very small proportion of pixels may be "stuck," either always off (black), always on (red, green, or blue), or flashing. In addition, over a long period of use, because of the physical characteristics of the liquid crystal display, such "stuck" pixels may appear spontaneously. These problems are not a malfunction.

On prohibiting continuous lighting

Continuously lighting the Xenon lamp for 24 hours will reduce approximately half of its lamp life. Be sure to turn off the lamp for an hour or more after continuously lighting for 24 hours.
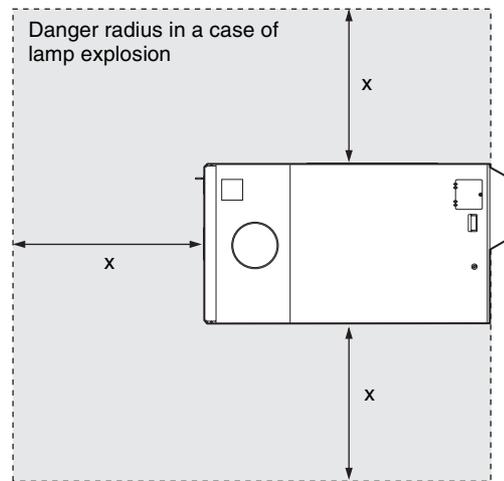
On dangerous areas in a case of lamp explosion

Since a projector lamp can explode, it is dangerous to be in the shaded areas shown in the illustrations below. Keep away from the dangerous areas.
The danger radius (x) differs depending on the height (y) between the bottom of the projector and the floor.
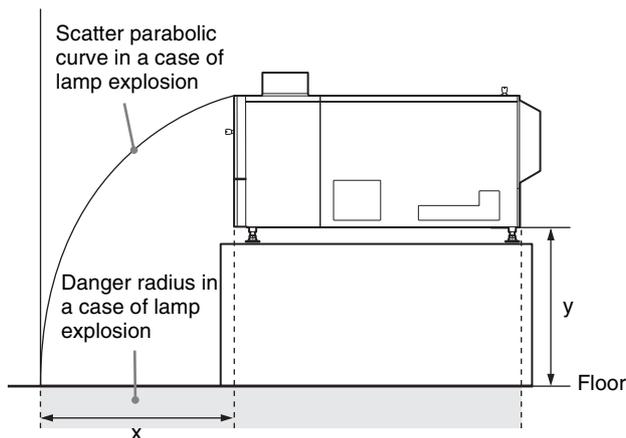$$x = 20/3 \times \sqrt{10y + 6400}$$

For example, in a case where the height (y) is 800 mm (31 $^1/_2$ in.), the danger radius (x) calculated by the formula above is 800 mm (31 $^1/_2$ in.)
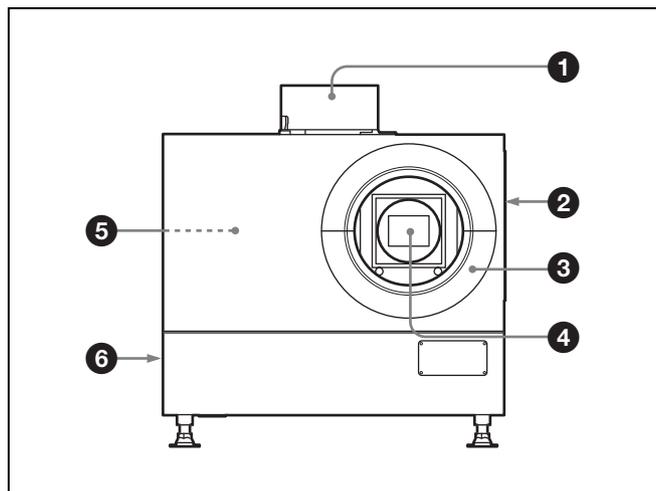
Top view

Danger radius in a case of lamp explosion

x

x

x

Left side view

Scatter parabolic curve in a case of lamp explosion

Danger radius in a case of lamp explosion

y

Floor

x

Location and Function of Controls

Projector Unit

Front/Sides

❶ **Upper side ventilation hole (exhaust)**

❷ **Ventilation holes (intake)/air filter (right side)**
For replacement of an air filter, consult your Sony dealer.

❸ **Lens cover**

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

❺ **Input board attachment parts (inside the projector)**
Depending on the input sources, install the optional input board in a slot inside the projector. For installation of the board, consult your Sony dealer.
The input board slots are arranged in order of INPUT A, INPUT B, INPUT C and INPUT D from right to left.
INPUT A is preinstalled with an LKRI-005 HDCP DVI board. Depending on the input source, you can replace it with an optional input board.
DVI-D connector (24-pin DVI connector, male): For input of progressive DVI signals and HDCP-compatible DVI signals.
AUX connector (24-pin DVI connector, male):
Used for input extension. For details, consult your Sony dealer.

❻ **Ventilation holes (exhaust) (left side)**

Rear
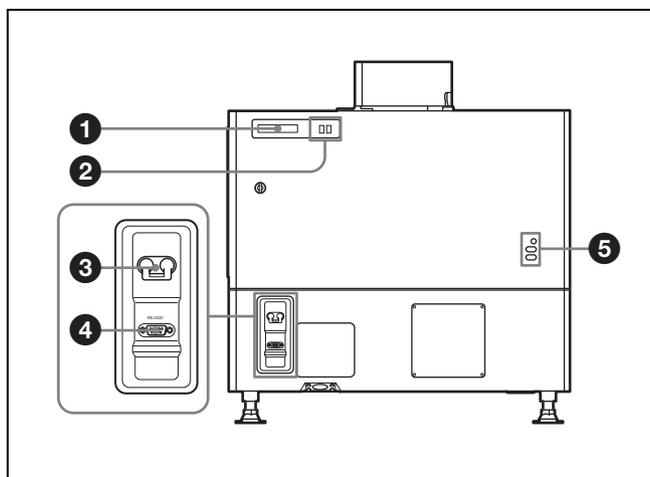
❶ **STATUS MESSAGE window**
Displays various messages.

For details on messages, see page 69.

❷ **Status indicators**
Combinations of the MAIN and LAMP indicators indicate the status of the projector as follows:

MAIN indicator	LAMP indictor	Status of the projector
● (red)	● (red)	The projector is in standby mode. You can turn it on with the SRX controller.
● (green)	● (green)	The projector is turned on with the SRX controller. You can operate the projector with the SRX controller.
☼ (green)	☼ (green)	The projector is in standby after shutting it down with the SRX controller. Cooling fans are running.

●: Lights   ☼: Flashes

❸ **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.

❹ **RS-232C 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.

❺ **Lamp adjustment windows**
The lamp adjustment screws are behind these windows. Fine adjustment of lamp position is necessary after replacing the lamp.
For lamp adjustment, contact 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 61.
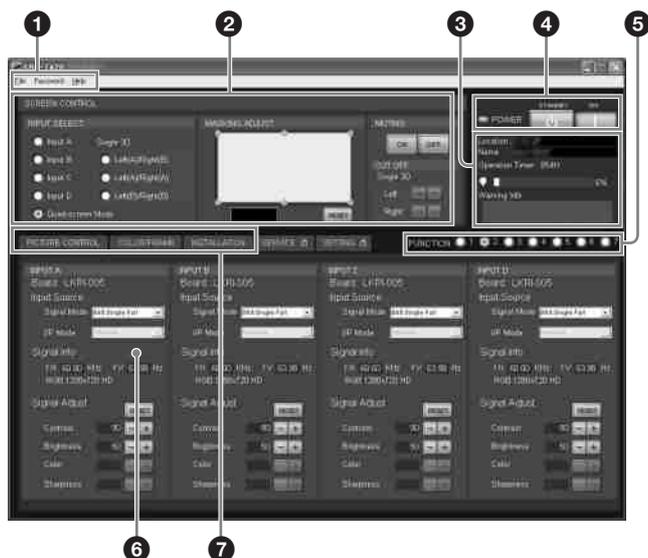
a Menu bar

File menu
Selecting "Quit" from the File menu exits the SRX Controller.
Save Log: This item is for service use. For details, consult your Sony dealer.

Password menu
Used 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.

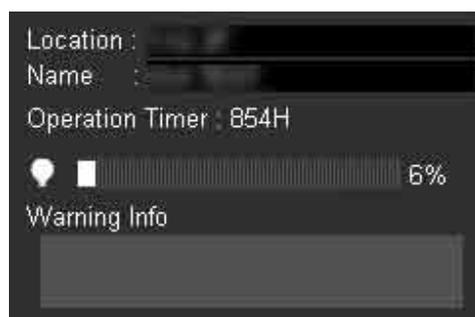*For details on the SETTING window and the SERVICE window, refer to the Installation Manual for Dealers.*

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

b SCREEN CONTROL window

For details, see "SCREEN CONTROL window" on page 48.

c Information window

Location: Shows the installation location of the projector that was set in the SETTING window.
Name: Shows the name of the projector that was set in the SETTING window.
Operation Timer: Shows the total operating hours (H) of the projector.
◗ indicator: The bar indicator and the value (%) indicate the proportion of elapsed usage time to the recommended time between replacements.
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 at the rear side of the projector.

d POWER ON/STANDBY (I/ $\circlearrowleft$) buttons and POWER indicator
Click "ON" to turn on the projector when the MAIN and LAMP indicators at the rear of the projector are lit in red. Both indicators and the POWER indicator on a computer turn green, and you can operate the projector with the SRX controller on the computer.
To turn off the projector, click "STANDBY" then click "OK" in the displayed confirmation window. The projector enters standby mode, and 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 in red.

e 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:
- "INPUT SELECT," "MASKING ADJUST" and "CUT OFF" 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," "SQUEEZE," "PROGRESSIVE DISPLAY MODE," "LAMP POWER" settings, "LENS CONTROL" settings when

the optional lens equipped with zoom/focus memory function is installed, and "3D Gamma Select" and "Position Adjust" of "SINGLE 3D ADJUST" when 3D images are projected, in the INSTALLATION window

For details, see "To register the settings that have been adjusted" on page 61.

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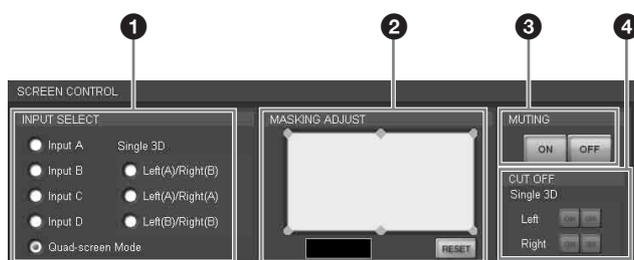Clicking the window select button switches the window for the adjustment and setting.
The PICTURE CONTROL, COLOR/FRAME and INSTALLATION windows can be displayed.

For details on each window, see "Adjustments and Settings Using the SRX Controller" on page 61.

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

SCREEN CONTROL window

❶ **INPUT SELECT radio buttons**
Selects the input signal you want to project on the screen.
Input A: Selects the signal input from the connectors on the preinstalled input board in the INPUT A section.
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.
Quad-screen Mode: Selects when you project pictures from four input sources from INPUT A to INPUT D on one screen.
Single 3D buttons: Used for projecting 3D images. For details, contact your Sony dealer.
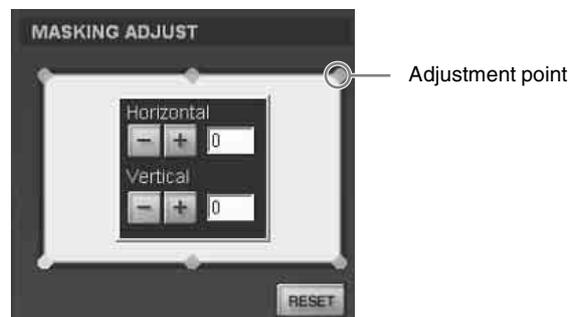
❷ **MASKING ADJUST section**
You can mask the areas of unnecessary portions of the screen.
You can adjust the masking areas with each of six adjustment points.

1 Double-click one of the adjustment points.

The adjustment window opens.

Adjustment point

2 Adjust a masking area by clicking the "Horizontal" or "Vertical" ➕/➖ buttons or by entering values in both text boxes, while viewing the screen to check the results.

The adjustment ranges for the values are 0 to 950 for the four points at the corners and –500 to 500 for the two points in the center.

3 Repeat steps 1 and 2 to adjust each point while viewing the screen, and mask the screen as necessary.

Clicking the "RESET" button resets all the values to the factory-preset settings.

❸ **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.
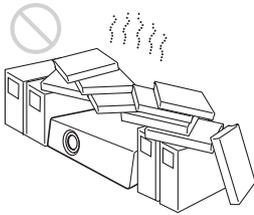
❹ **CUT OFF ON/OFF buttons**
Used for projecting 3D images. For details, contact your Sony dealer.

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
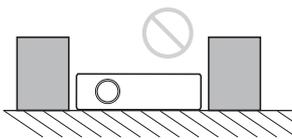
If you put something beside the ventilation holes for exhaust on the side or rear of the projector, the exhaust may be inhaled into the projector through the ventilation holes for intake, causing internal heat build-up and thereby activating the protection circuit. Be sure not to block the ventilation 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
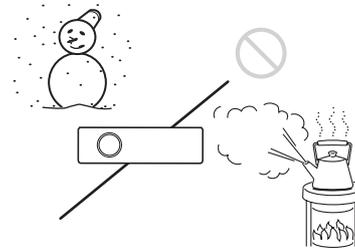
A sudden change of temperature may produce moisture condensation, causing damage to the projector. Take care with heaters or air-conditioners.

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. 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.

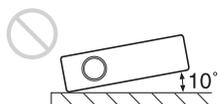*For the locations of the ventilation holes (exhaust/intake), see "Location and Function of Controls" on page 46.*

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 Pentium M 1.6GHz or higher, and a recommended CPU in your Operating System
    – Installed memory: 256 MB or more (512 MB or more recommended), and recommended memory in your Operating System
    – Communication: LAN (10BASE-T/100BASE-T) or COM (RS-232C)
    – VGA: XGA (1024 × 768) or higher
    – HDD: Usable memory with 15 MB or more on the built-in hard disk drive
    – CD-ROM drive: × 8 or faster
- Operating System: Microsoft Windows XP Professional SP2 (English or Japanese version) (excluding ×64 Edition) or Microsoft Windows Vista Business (English or Japanese version)

Intel and Pentium are registered trademarks of Intel Corporation in the United States and other countries.
Microsoft, Windows XP and Windows Vista are registered trademarks of Microsoft Corporation in the United States and other countries.

User Account Control of Windows Vista

Windows Vista incorporates the User Account Control (UAC) function for improving its security level. As the SRX Controller supports the UAC function, the warning dialog of UAC may be displayed during installation or activation of application.
When the warning dialog is displayed, allow execution of the application in the following procedure. Otherwise, the SRX Controller cannot be executed.

When the unidentified application dialog is displayed
Select "Allow" to allow execution of the application.
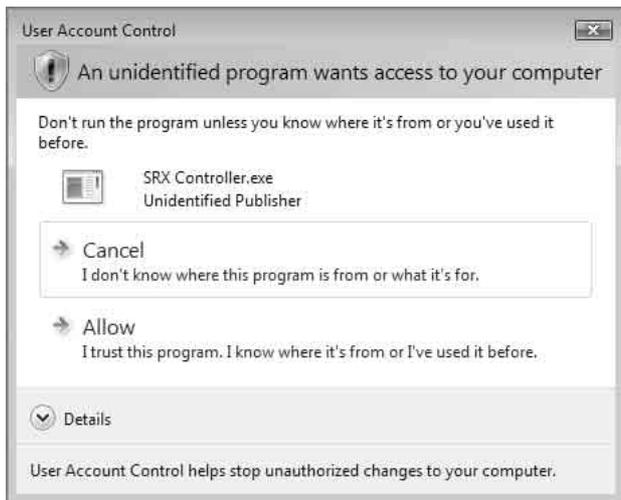
Note

If "Cancel" is selected, the application is not executed.

When the administrator password dialog is displayed

Type an administrator password then click "OK."

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.
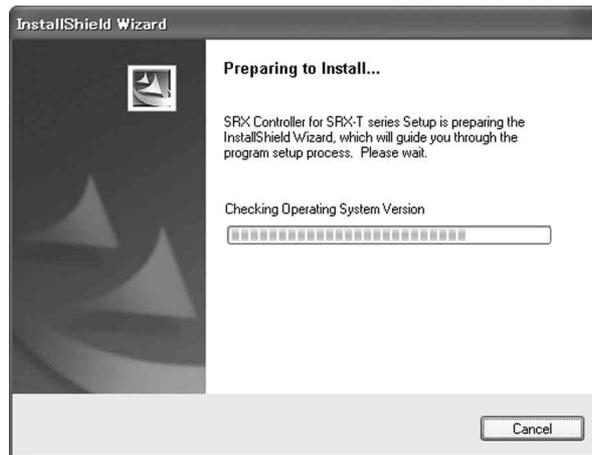
After a while, the wizard of the SRX Controller appears.

2 Click "Next."

The License Agreement window appears.

3 Read the license agreement, click "I accept the terms in the license agreement" 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.
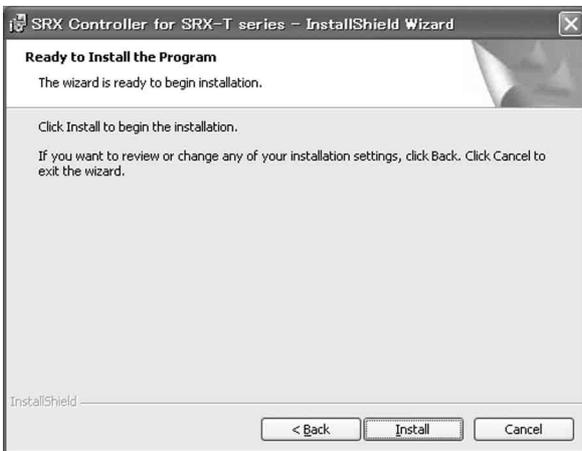
4 Click "Install."

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 for SRX-T series," 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 cable or via the RS-232C connector.

Connecting the Computer via the Ethernet

Connect the computer to the ethernet cable (supplied) connected to the projector inside.
For connecting the ethernet cable to the projector, consult your Sony dealer.

Note

Set the IP address of the connected computer to be assingned from DHCP.

Ethernet cable (cross cable) (supplied)

Computer for controlling the projector

Ethernet connector
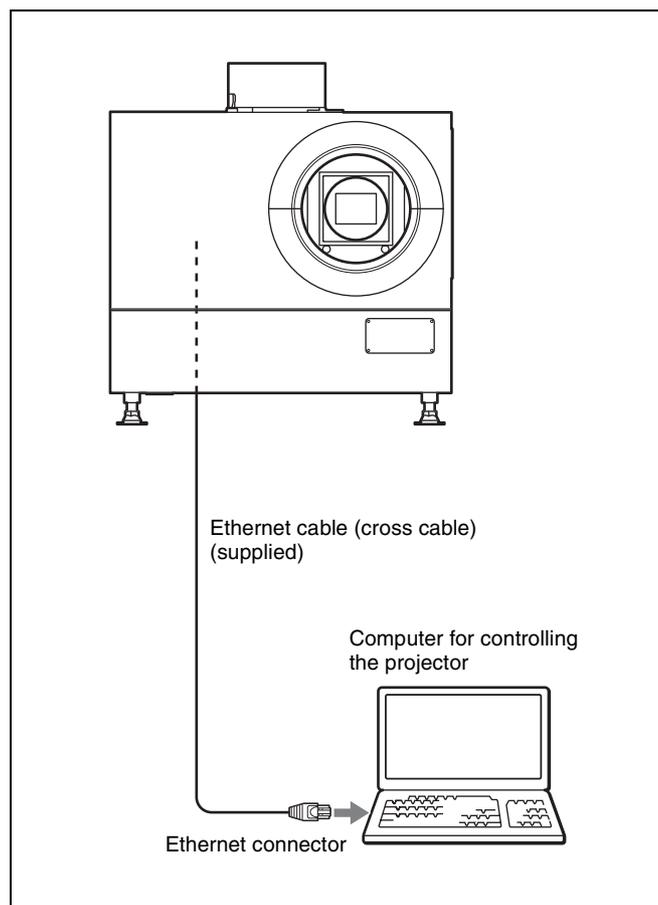
CAUTION

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.

ATTENTION

Par mesure de sécurité, ne raccordez pas le connecteur pour le câblage de périphériques pouvant avoir une tension excessive à ce port. Suivez les instructions pour ce port.

VORSICHT

Aus Sicherheitsgründen nicht mit einem Peripheriegerät-Anschluss verbinden, der zu starke Spannung für diese Buchse haben könnte. Folgen Sie den Anweisungen für diese Buchse.

Note

If the power of the projector remains on for a long period of time without the ethernet cable connected, the message "Sony Data 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

RS-232C connector

Connecting cable (not supplied)

Computer for controlling the projector

RS-232C connector
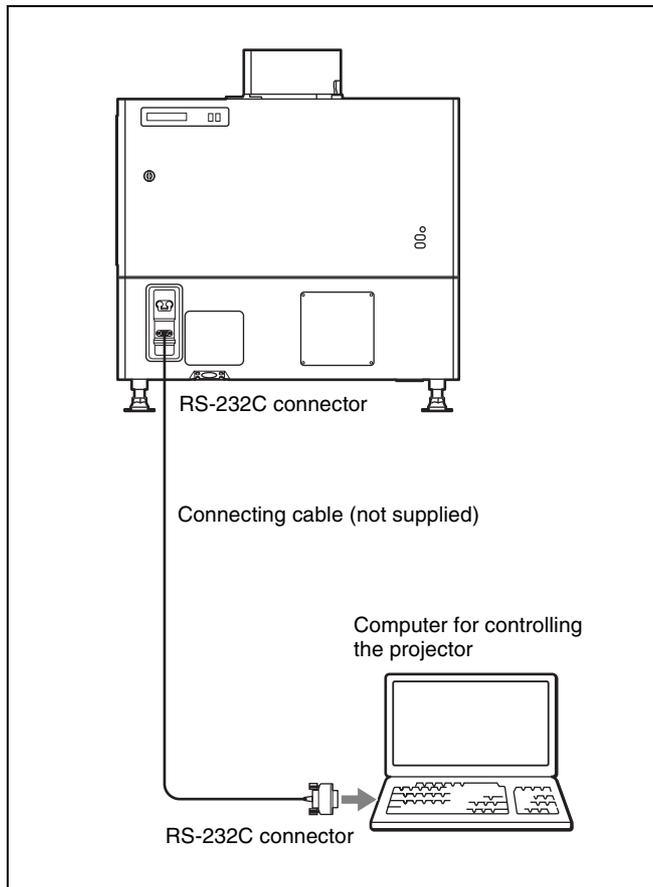
Starting the SRX Controller

Starting the SRX Controller

Double-click the ![icon] icon for the SRX Controller in the desktop window of the computer.
The SRX Controller starts and the Program Launcher 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 Program Launcher screen
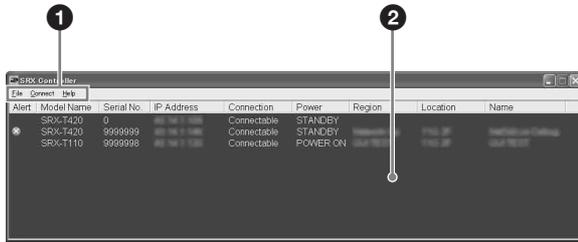
❶ Menu bar

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 55.

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

❷ Projector detect window
Information on all of the projectors connected to a network is displayed.

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 SRX Controller 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 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 "Network" from the "Connect" menu on the menu bar to open the dialog. Enter the IP address and model name 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 "COM" from the "Connect" menu on the menu bar to open the dialog. Enter the port number and model name 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.
- For connecting the cable to the connector inside the projector, consult your Sony dealer.

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

Connecting a Computer Equipped with a DVI-D Connector

Connect a computer with a DVI-D connector to the optional LKRI-005 HDCP DVI input board attached to any of INPUT A to INPUT D inside the projector.

DVI cable
(not supplied)

DVI-D connector   AUX connector

Computer
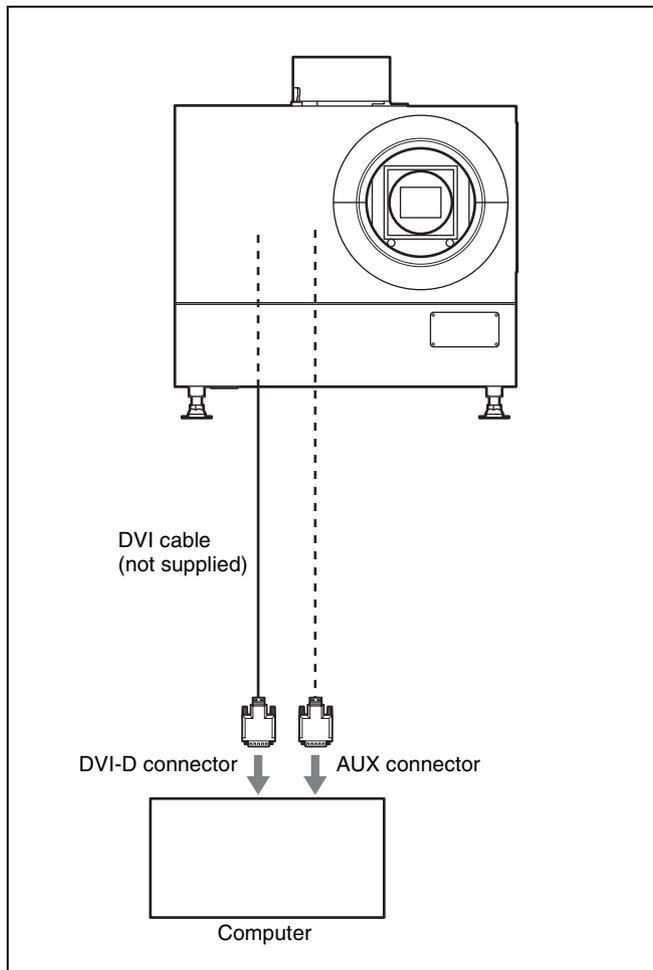
HDCP (High-bandwidth Digital Content Protection) DVI-D signal can also be input when the input signal with specified resolution is input from LKRI-005.

For details, refer to the Operating Instructions of LKRI-005.

Notes

- According to the input signal type, set "Signal Mode" on "Input Source" in the PICTURE CONTROL window of the SRX Controller. (page 62)
- 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 an HD-SDI Equipment

Attach the optional LKRI-003 HD-SDI input board inside the projector and connect an HD-SDI equipment to the connectors on the attached input board.

HD-SDI connecting cable
(not supplied)

to HD-SDI output

HD-SDI equipment, etc.
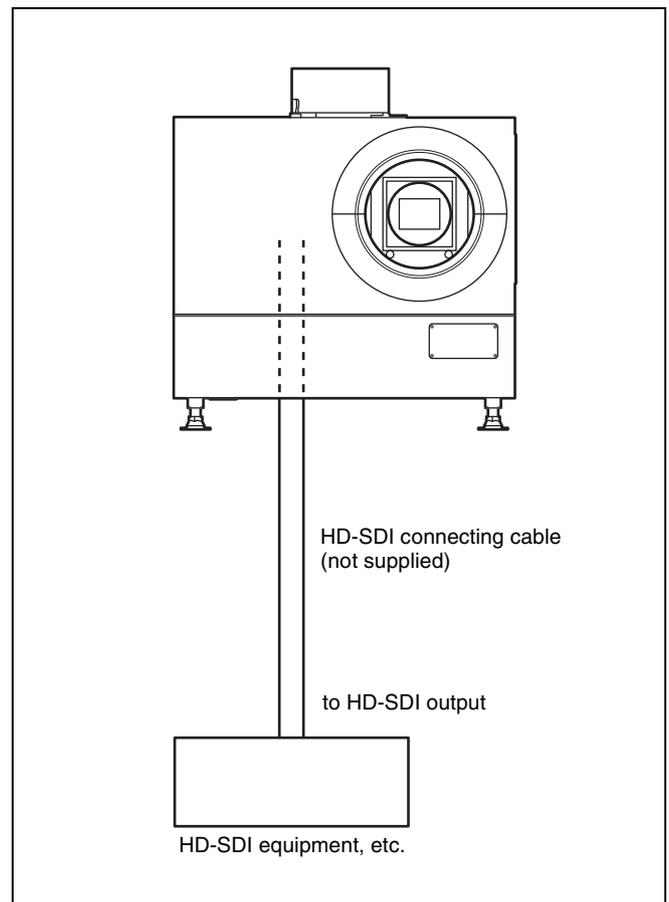
Note

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 62.

Projecting

Projecting the Picture

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

LAMP indicator

MAIN indicator

1

3

6 **4**

7
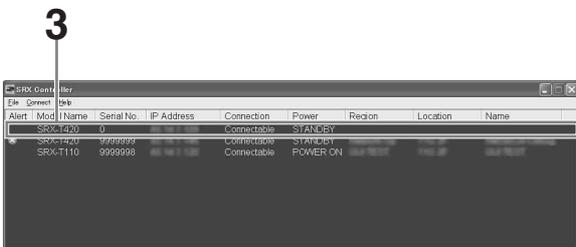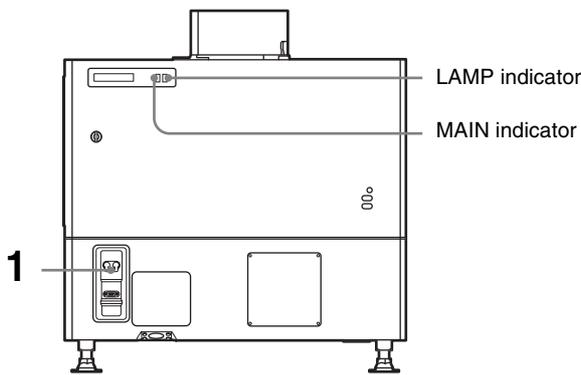
8,10 **9**

1 Set the power switch at the rear of the projector to the upper position.

The MAIN and 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 Program Launcher screen appears.

3 Select the projector you want to operate by double-clicking the projector.

The SRX Controller starts and the Control Function Menu window appears.

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 RS-232C connector on the projector, specify the RS-232C port number of the computer.

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

The MAIN and LAMP indicators light green.

5 Turn on the equipment connected to the projector.

6 Select the input signal to be projected on the screen.

Click one of the INPUT SELECT radio buttons on the SCREEN CONTROL window.

Input A: Selects the signal input from the connectors on the preinstalled input board in the INPUT A section.

Input B to Input D: Select the signal input from the connectors on the optional input board in the INPUT B to INPUT D sections, respectively.

Quad-screen Mode: Projects images in quad-screen mode.

Images from four input signals are projected on the screen simultaneously.

The image from signal input from INPUT A is displayed on the upper left of the screen, that of the signal from INPUT B on the upper right, that of the signal from INPUT C on the lower left, and that of the signal from INPUT D on the lower right.

Note

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 62.

Notes when quad-screen mode is selected in step 6

- When projecting moving pictures in quad-screen mode, all the input signals should be genlocked to synchronize with each other with a phase difference of less than 5 μsec. The projected moving picture not synchronized with the reference picture will appear to have dropped frames. A moving picture on the upper left screen for quad-screen mode is regarded as a reference picture. If you project still pictures and moving pictures together, select the upper left screen for the moving picture.
- When projecting signals with vertical frequency of more than 1080 pixels such as UXGA and WUXGA, a part of the displayed image may be invisible.

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

8 Adjust the focus with the "Focus +/–" buttons under "LENS CONTROL."

9 Adjust the picture size with the "Zoom +/–" buttons.

10 Adjust the focus again with the "Focus +/–" buttons.

To cut off the whole screen

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

To turn off the power

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

The MAIN and LAMP indicators flash green. The projector detects the temperature of the lamp and the fan continues to run for 3 to 15 minutes to reduce the internal temperature. When the fan stops running, the MAIN and LAMP indicators light red.

2 Set the power switch to the lower position.

Note

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

Projecting a 4K Signal in Quad-Screen Mode

4K signals separately input from four input boards can be projected as one 4K image in quad-screen mode.
When projecting a 4K image, all the input signals should be genlocked to synchronize with each other with a phase difference of less than 5 μsec. Set "Signal Mode" and "I/P Mode" of "Input Source" in the PICTURE CONTROL window to the same settings for INPUT A to INPUT D. After completing the above, click the "On" radio button with "PROGRESSIVE DISPLAY MODE" in the INSTALLATION window.

Notes

- "PROGRESSIVE DISPLAY MODE" is effective when the signals below are input in the same refresh rate.
  - Four 1920 × 1080 signals
  - Four 2048 × 1080 signals
  - Four SXGA+ (1400 × 1050) signals
  "PROGRESSIVE DISPLAY MODE" cannot be selected for any other signals that are not stated above.
- Depending on signal types, there are certain limits when displaying the signal. To check whether the signal can be projected as 4K images, see the following table.

Type of signal	LKRI-003	LKRI-005
1080_60i	▲	–
1024×768_VESA60	–	●
1024×768_VESA70	–	–
1024×768_VESA75	–	–
1024×768_VESA85	–	–
1280×960_VESA60	–	●
1280×1024_VESA60	–	●
1280×1024_VESA75	–	–
1280×1024_VESA85	–	–
1600×1200_VESA60	–	×
1080_50i	▲	–
720_60P	●	●
720_50P	●	●
1080_24PsF	○	–
1400×1050_VESA60	–	○
2048×1080_48i	▲	–
2048×1080_50i	▲	–
2048×1080_60i	▲	–
1080_24P	○	○
1080_50P	–	○
1080_60P	–	○
2048×1080_24P	○	○
2048×1080_25P	○	–
2048×1080_30P	○	–
2048×1080_48P	–	○
2048×1080_60P	–	○
1920×1200_DVI_60	–	×

○: Both still pictures and moving pictures can be projected as 4K images.
●: Both still pictures and moving pictures are projected with a line in the center.
▲: Only moving pictures are projected with a line in the center.
×: The picture cannot be projected as 4K images, because the lower portion of the pictures is cut off.
–: Both still pictures and moving pictures cannot be projected as 4K images.

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.

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

The Program Launcher screen appears.

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

The SRX Controller starts and the Control Function Menu window appears.

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 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 adjustable 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.

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 66.

PICTURE CONTROL Window

The PICTURE CONTROL window is used to select the input source or to adjust the picture quality.
When "Quad-screen Mode" is selected with the INPUT SELECT radio buttons, the items can be independently adjusted for each input channel displayed on the screen.
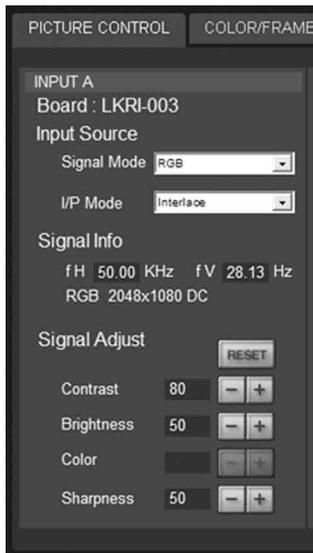
Board

Shows the input board installed in the relative input board slot of the projector.

Input Source

Signal Mode: Click ▼ to open the drop-down list to select the type of signal input from equipment connected to the optional input board.

When the LKRI-005 is installed
Select the input signal type of progressive DVI-D 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-003 is installed
For Single-link input, select "YPbPr" or "YPbPr FULL."
For Dual-link input, select "RGB" or "RGB 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 [1] of 64 to 960 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.

[1] Data value 64 of a 10-bit HD-SDI signal input is equivalent to the video level of 0% (black), and data value 960 equivalent to 100% (white).

I/P Mode: Selects the I/P conversion mode. Depending on the input signal source, set the mode to "Interlace," "PsF" or "1080 50p60p."

Notes

- This item is available with the interlace, PsF or HD 50P/60P signal input.
- When the LKRI-005 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 the following four 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 "Quad-screen Mode" is selected with the INPUT SELECT radio buttons, the items can be independently adjusted for each input channel displayed on the screen.
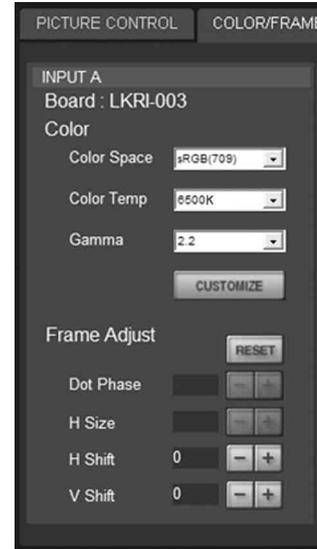
Board

Shows the input board installed in the relative input board slot of the projector.

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.

sRGB(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.

CIE XYZ: Select when projecting an XYZ signal from LKRI-003.

Note

Set "Signal Mode" of "Input Source" in the PICTURE CONTROL window to "RGB FULL."

Adobe RGB: Select when projecting Adobe RGB compatible computer signals.
CUSTOM: Select when projecting a signal using the color gamut defined by the user. The default value is the same as DCDM.
Color Temp (temperature): Selects the color temperature from among "DCI W/P," "6500K," "9300K," "CUSTOM1," "CUSTOM2" and "CUSTOM3." 6500K is preset in CUSTOM1 to 3 settings in the factory.
"6500K" 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. The smaller the value, the brighter the image. "2.2" is recommended to project a normal high-definition signal or RGB signal.
Select "2.6" or "2.2," or set a value from 1.80 to 2.59 (except 2.20) in 0.01 steps according to the signal input. This allows projection of an image with optimum brightness.
To set the gamma value in 0.01 steps, set "Gamma" to "1.8," and click the "CUSTOMIZE" button. Input the values in the Input Gamma Data screen and press the "OK" button.

Input Gamma Data

[ ]

OK   Cancel

When a signal is input from the connector on the LKRI-005

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
sRGB(709): Red (0.6400, 0.3300), Green (0.3000, 0.6000), Blue (0.1500, 0.0600)
Adobe RGB: Red (0.6400, 0.3300), Green (0.2100, 0.7100), Blue (0.1500, 0.0600)
DCDM, CIE XYZ, CUSTOM: Red (0.6800, 0.3200), Green (0.2650, 0.6900), Blue (0.1500, 0.0600)
Color Temp settings
6500K: White (0.3127, 0.3290)
9300K: White (0.2840, 0.2970)
DCI W/P: White (0.3140, 0.3510)
CUSTOM1 to CUSTOM3: White (0.3127, 0.3290) (default values)
Gamma settings
2.6: 2.6
2.2: 2.2

CUSTOMIZE: Value set using CUSTOMIZE

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. Adjust the value to obtain the clearest picture. The item does not function with this projector.
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. The item does not function with this projector.
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.

Note

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 and to 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.

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 and "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 with a phase difference of less than 5 µsec. If they are not synchronized, the picture is not displayed correctly.
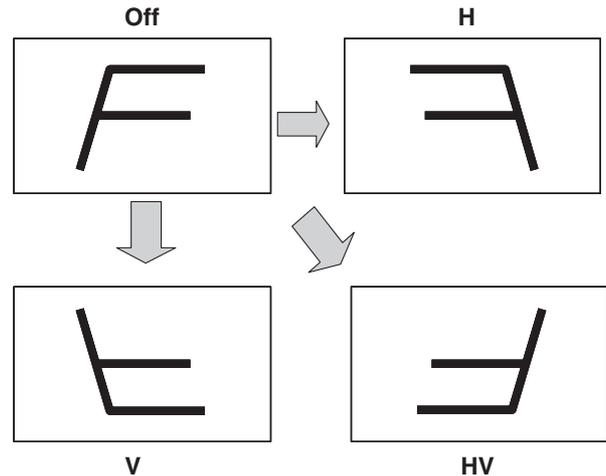
IMAGE FLIP

Flips the picture.
Select it from the drop-down list displayed by clicking ▾ according to the installed condition of the projector.

Off: Normal projection
H: Flips the picture horizontally
V: Flips the picture vertically
HV: Flips the picture horizontally and vertically

PROGRESSIVE DISPLAY MODE

Normally, click the "Off" radio button.
Click the "On" radio button when the signals from four input boards are used to project a 2048 (1920) × 1080-pixel signal as a 4096 (3840) × 2160-pixel 4K image or to project a 1400 × 1050-pixel (SXGA+) signal as a 2800 × 2100-pixel image in single-screen mode.

SQUEEZE

This function allows the input signal to be displayed on the screen in a converted aspect ratio.
When you click the "On" radio button, the 720p, 1920 × 1080 or 2048 × 1080 signal with a 16:9 aspect ratio can be displayed by stretching to a 2.39:1 aspect ratio.
When you click the "Off" radio button, the input signal is displayed without converting the aspect ratio.

Note

This function is available only for projection in single-screen mode.

LAMP POWER

Adjusts the lamp power output.
Lamp Power: You can reduce the lamp power to a value from 53% to 100% in increments of 1% using the ⊞ or ⊟ button.

Luminance Value: The value is referred to when your Sony service representative performs axis adjustments after replacing the lamp.

Note

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

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 "Test mode 1 (all white)." When you do not display a built-in test pattern, click the "Off" radio button.

Notes

- While a built-in test pattern is displayed on the screen, you cannot switch the INPUT SELECT radio button, and cannot adjust the PICTURE CONTROL and COLOR/FRAME settings.
- "Single 3D" is used for projecting a 3D image. For details, contact your Sony Dealer.

SINGLE 3D ADJUST

Used to project a 3D image.
For details, contact your Sony Dealer.

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		
	HD-SDI	**DVI-D**	**4K**
Contrast	●	●	●
Brightness	●	●	●
Color	●	–	–
Sharpness	●	–	–

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

Frame Adjust

Item	Input signal		
	HD-SDI	**DVI-D**	**4K**
Dot Phase	–	–	–
H Size	–	–	–
H Shift	●	●	–
V Shift	●	●	–

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

Chapter 4 Adjustments and Settings Using the SRX Controller

Recommended Replacement Time

Recommended usage time of the LKRX-2042A projection lamp is approximately 500 hours.
The bar of the ▣ indicator in the Control Function Menu window becomes 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.

Maintenance

Some components of the projector are consumable parts over a long period of use.
To keep the projector working properly and to prolong its usable lifetime, have the projector inspected periodically. We recommend you make a maintenance contract for periodical inspection with us. For details on the contract, consult with your Sony dealer.

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 at the rear of the projector to the upper position (page 58).
	The projector and a computer for controlling the projector are disconnected.	Connect the projector and a computer properly (page 53).
	The ventilation duct for a lamp is disconnected.	Consult your Sony dealer.

Picture

Symptom	Cause	Remedy
No picture.	Cables are disconnected.	Check that the proper connection has been made (page 56). **Note** For connections to the projector, contact your Sony dealer.
	Input selection is not correct.	Check that the INPUT SELECT radio button in the SCREEN CONTROL window is selected correctly (page 59).
	The picture is cut off.	Click the "OFF" button of "MUTING" in the SCREEN CONTROL window (page 59).
	Ambient temperature is high.	Reduce the room temperature so that it becomes within the operating temperature (5°C to 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 62).
The picture is too dark.	Contrast and brightness has not been adjusted properly.	Adjust the "Contrast" or "Brightness" in the PICTURE CONTROL window (page 62).
	Lamp power output is not properly selected.	Set "LAMP POWER" in the INSTALLATION window correctly (page 65).
A line appears in the center of a projected 4K image.	The input signal is not suitable to be projected as a 4K image.	Check that the signal can be projected as a 4K image (page 60).

SRX Controller

Symptom	Cause	Remedy
The "Control Function Menu" window does not appear.	The projector and a computer for controlling the projector are disconnected.	Check that the proper connection between the projector and a computer has been made (page 53).

Messages

The messages are displayed in the STATUS MESSAGE window at the rear of the projector.
Displayed messages are classified into "Error messages" and "Information messages."
The error messages are also displayed under "Warning Info" in the "Control Function Menu" window of the SRX Controller.

Rear of the projector

STATUS MESSAGE window

Message number
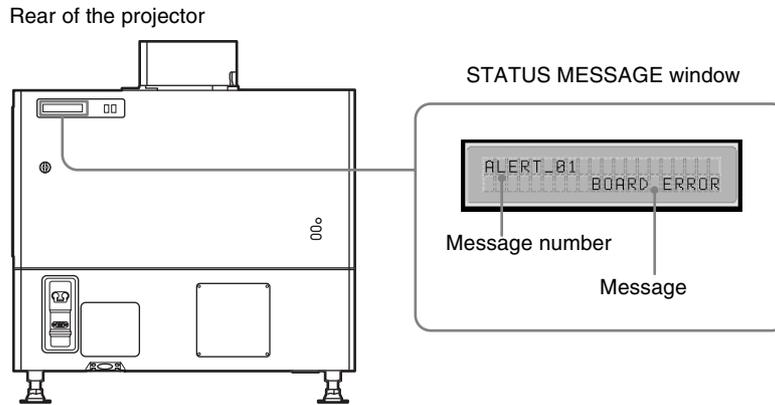
Message

Error Messages

Error messages are classified into three types, described below, depending on the danger level.
If an error occurs, the message number and the message are displayed in the STATUS MESSAGE window.

ALERT : Danger level - High
Message number: ALERT_xx

WARNING: Danger level - Middle
Message number: WARN_xx

FAILURE: Danger level - Low
Message number: FAIL_xx

If an error message is displayed, contact your Sony dealer and give them the message and its number.

ALERT : Danger level - High

Message number	Error message	Meaning
ALERT_01	BOARD ERROR	Trouble with power of IFA board
ALERT_02	BOARD ERROR	Trouble with power of IFB board
ALERT_03	BOARD ERROR	Trouble with power of IFC board
ALERT_04	BOARD ERROR	Trouble with power of IFD board
ALERT_05	BOARD ERROR	Trouble with power of MX board
ALERT_06	BOARD ERROR	Trouble with power of LPD board
ALERT_07	BOARD ERROR	Trouble with power of CT board
ALERT_08	BOARD ERROR	Trouble with power of DST board
ALERT_09	BOARD ERROR	Trouble with power of PR1 board

Message number	Error message	Meaning
ALERT_10	BOARD ERROR	Trouble with power of PR2 board
ALERT_11	BOARD ERROR	Trouble with power of SY board
ALERT_12	BOARD DETACHED	CN board disconnected
ALERT_13	BOARD DETACHED	MX board disconnected
ALERT_14	BOARD DETACHED	LPD board disconnected
ALERT_15	BOARD DETACHED	CT board disconnected
ALERT_16	BOARD DETACHED	DST board disconnected
ALERT_17	BOARD DETACHED	PR1 board disconnected
ALERT_18	BOARD DETACHED	PR2 board disconnected
ALERT_19	TEMPERATURE ERROR	Temperature of R panel is too high, and the unit stops operation.
ALERT_20	TEMPERATURE ERROR	Temperature of G panel is too high, and the unit stops operation.
ALERT_21	TEMPERATURE ERROR	Temperature of B panel is too high, and the unit stops operation.
ALERT_22	COVER DETACHED	Rear cover detached and/or internal mirror position changed
ALERT_27	FAN ERROR	Abnormal in fan A for lamp
ALERT_28	FAN ERROR	Abnormal in fan B for lamp
ALERT_29	FAN ERROR	Abnormal in fan C for lamp
ALERT_30	FAN ERROR	Abnormal in fan D for lamp
ALERT_32	BALLAST ERROR	Temperature of lamp power is too high, and the unit stops operation.
ALERT_33	BALLAST ERROR	Abnormal in the fans for lamp power
ALERT_34	BALLAST ERROR	Abnormal in the lamp power
ALERT_35	LAMP ERROR	The lamp does not light, or goes out.
ALERT_36	BALLAST ERROR	Abnormal in the lamp power
ALERT_37	COVER DETACHED	Abnormal position of the lamp house cover
ALERT_38	BOARD ERROR	Trouble with power of CN board
ALERT_39	TEMPERATURE ERROR	Temperature of 8-inch duct attachment part is too high, and the unit stops operation.
ALERT_41	COVER DETACHED	Filter duct is detached, and the unit stops operation.

WARNING: Danger level – Middle

Message number	Error message	Meaning
WARN_01	FAN ERROR	Abnormal in fan 1 for the main power
WARN_02	FAN ERROR	Abnormal in fan 2 for the main power
WARN_05	FAN ERROR	Abnormal in fan 1 for board
WARN_06	FAN ERROR	Abnormal in fan 2 for board
WARN_12	FAN ERROR	Abnormal in fan for peltier R
WARN_13	FAN ERROR	Abnormal in fan for peltier G
WARN_14	FAN ERROR	Abnormal in fan for peltier B
WARN_20	DEVICE ERROR	Failure of the peltier R control
WARN_21	DEVICE ERROR	Failure of the peltier G control
WARN_22	DEVICE ERROR	Failure of the peltier B control
WARN_23	CONNECTOR DETACHED	The peltier R connector disconnected
WARN_24	CONNECTOR DETACHED	The peltier G connector disconnected
WARN_25	CONNECTOR DETACHED	The peltier B connector disconnected
WARN_26	DOUSER ERROR	Trouble with the douser operation
WARN_27	BALLAST ERROR	Failure of the ballast communication for the lamp power

Message number	Error message	Meaning
WARN_28	BALLAST ERROR	Incorrect settings of the lamp S/N
WARN_30	COVER DETACHED	Filter duct is detached
WARN_31	FAN ERROR	Abnormal in fan for PS2
WARN_32	FAN ERROR	Abnormal in fan for PS1
WARN_33	FAN ERROR	Abnormal in fan for PBS

FAILURE: Danger level – Low

Message number	Error message	Meaning
FAIL_02	TEMPERATURE ERROR	Warning for abnormal temperature of 8-inch duct
FAIL_04	TEMPERATURE ERROR	Temperature of the intakes is too high.
FAIL_06	TEMPERATURE ERROR	Temperature of the optical unit area is too high.
FAIL_10	TEMPERATURE ERROR	Warning for abnormal temperature of Panel R
FAIL_11	TEMPERATURE ERROR	Warning for abnormal temperature of Panel G
FAIL_12	TEMPERATURE ERROR	Warning for abnormal temperature of Panel B
FAIL_15	TEMPERATURE ERROR	Warning for abnormal temperature of the lamp power
FAIL_16	LENS ERROR	Failure of the zoom position adjustment to the registered setting
FAIL_17	LENS ERROR	Failure of the lens focus adjustment to the registered setting
FAIL_18	LENS ERROR	Trouble with the zoom position adjustment
FAIL_19	LENS ERROR	Trouble with the lens focus adjustment
FAIL_21	ADJUSTMENT ERROR	Abnormal in the Z-axis adjustment
FAIL_25	DEVICE ERROR	Failure of FPGA configuration
FAIL_26	DEVICE ERROR	Trouble with the IIC circuit
FAIL_27	DEVICE ERROR	Trouble with the LVDS circuit
FAIL_28	DEVICE ERROR	Trouble with the PLL circuit
FAIL_29	DEVICE ERROR	Trouble with the PARITY circuit
FAIL_30	BALLAST ERROR	Lamp power interlocked
FAIL_36	DEVICE ERROR	Error of the DVI setting

Information Messages

The message number is not displayed for information messages. Check the following if a message appears in the STATUS MESSAGE window.

Message	Meaning
LOW REAL TIME CLOCK BATTERY	The RTC battery (BT200) for the SY board should be replaced.
LAMP ALERT	The recommended usage time of the projection lamp has passed.
AIR FILTER WARNING OPTICAL	The recommended usage time of the optical air filter has passed.

Specifications

Optical characteristics

Projection system

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

SXRD   8,847,360 pixels (4096 × 2160 × 3)
Lens   Optional
Light output   21,000 lm (center)
        19,000 lm
Lamp   4.2 kW Xenon lamp (not supplied)

Electrical characteristics

Acceptable signal

XGA, Quad-VGA, SXGA, SXGA+, UXGA, WUXGA, 1920 × 1080, 2048 × 1080 (when the LKRI-005 HDCP DVI 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 73.)
AUX   DVI connector, 24-pin (male) (For details, see "Pin assignment" on page 73.)
RS-232C   D-sub 9-pin (female) (For details, see "Pin assignment" on page 73.)
ETHERNET   10BASE-T/100BASE-T

Input signal

Preinstalled board (LKRI-005)

XGA, Quad-VGA, SXGA, SXGA+, UXGA, WUXGA, 1920 × 1080, 2048 × 1080

When the LKRI-003 is installed

SMPTE Format HD-SDI/DC-SDI/Dual-link HD-SDI/Dual-link DC-SDI

When the LKRI-005 is installed

XGA, Quad-VGA, SXGA, SXGA+, UXGA, WUXGA, 1920 × 1080, 2048 × 1080

General

Dimensions   Approx. 700 × 640 × 1250 mm (27 $^5/_8$ × 25 $^1/_4$ × 49 $^1/_4$ inches) (w/h/d) (excluding the optional lens and main unit's projecting parts)

Mass   Approx. 181 kg (399 lb) (excluding the optional lamp and lens)
Power requirements

200 to 240 V AC, 50/60 Hz

Power consumption

Max. approx. 5.4 kW
(Standby mode: 29 W)

Current consumption

27 to 22.5 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

SRX Controller (CD-ROM) (1)
Ethernet cable (1-830-803-12 (Sony)) (1)
Lens cover (1 set)
M8 screws for lens mounting (4)
Attachment board for the LKRI-003 (4)
Attachment board for the LKRI-005 (3)
Keys (4)
Operating Instructions (1)

Optional accessories

Projection lamp

LKRX-2042A

HD-SDI (4:4:4) input board

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

HDCP DVI input board

LKRI-005 (2DVI-D input connectors)

Projection lens   LKRL-Z111C, LKRL-Z114C, LKRL-Z116C, LKRL-Z117, LKRL-Z119, LKRL-Z122, LKRL-Z115, LKRL-Z140, LKRL-90
(For details, refer to the Operating Instructions of each projection lens.)

Design and specifications are subject to change without notice.
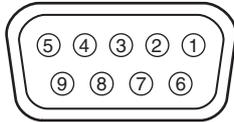
Pin assignment

RS-232C connector (D-sub 9-pin, female)

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

[a] Circuit between pins 4 and 6 is short-circuited in the projector.
[b] Circuit between pins 7 and 8 is short-circuited in the projector.

DVI-D connector, AUX connector (24-pin, male)
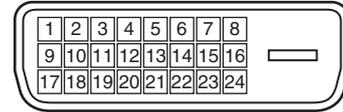
Pin number	Signal name
1	DATA2–
2	DATA2+
3	GND
4	DATA4–
5	DATA4+
6	DDC_SCL
7	DDC_SDA
8	NC
9	DATA1–
10	DATA1+
11	GND
12	DATA3–
13	DATA3+
14	+5V
15	DDC_GND
16	HOTPLUG_DET
17	DATA0–
18	DATA0+
19	GND
20	DATA5–
21	DATA5+
22	GND
23	CLK+
24	CLK–

Preset Signals

Preset signal	fH (kHz)	fV (Hz)	Aspect ratio
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_VESA60	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	–
1400 × 1050_60p	65.30	60.00	4:3
1920 × 1080_60p	67.50	60.00	16:9
1920 × 1200_60p	74.038	60.00	–
2048 × 1080_48p	54.00	48.00	–
2048 × 1080_60p	67.50	60.00	–

Displayed image size in multiple screen mode

Unit: pixel

Screen mode / Type of signal	Single screen		Quad screen	
	Horizontal size	Vertical size	Horizontal size	Vertical size
XGA	2849	2137	1432	1074
SXGA1	2560	2048	1280	1024
SXGA2	2560	1920	1280	960
SXGA+	2800	2100	1400	1050
UXGA [a]	2864	2148	–	–
WUXGA [a]	3437	2148	–	–
720p	3810	2143	1916	1077
HD	3840	2160	1920	1080
2K	4096	2160	2048	1080
4K	4096	2160	–	–

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

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