



Operating Instructions

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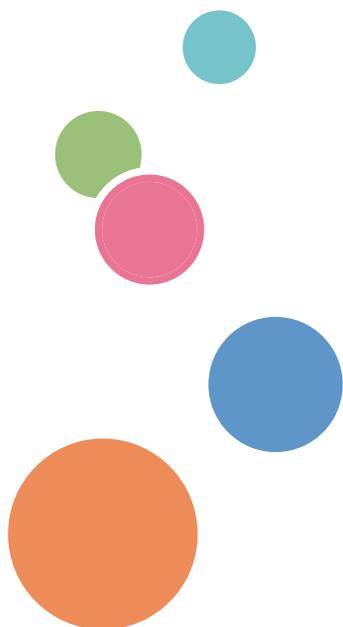


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Introduction

Copyrights to Images

When projecting images using the projector, be careful not to infringe the copyright of protected materials.

The following are examples that may infringe the copyright of protected materials.

- Broadcasting images or movies for commercial purposes
- Modifying images or movies using functions such as freeze, magnify, or zoom to broadcast images for commercial purposes or public viewing
- Varying the aspect ratio of images or movies using a function that changes the screen size to broadcast images for commercial purposes or public viewing

Important

In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.

The manufacturer shall not be responsible for any damage or expense that might result from the use of parts other than genuine parts from the manufacturer with your office products.

Notes to Users Viewing 3D Images

Pay attention to the following points when viewing images using 3D glasses with the projector:

- You need 3D glasses to view 3D images. The projector uses DLP Link technology to synchronize with 3D glasses. You need to use the optional 3D glasses that support DLP Link (RICOH PJ 3D Glasses Type 2).
- How 3D images are viewed may vary according to the individual.
- Do not use 3D glasses for viewing any material other than 3D images.
- Before viewing 3D images, make sure to read the manuals provided with your 3D glasses and 3D compatible content.
- Avoid viewing 3D images for a long period of time. Take a break of 15 minutes or longer after every hour of viewing.
- If you feel sick while viewing 3D images, stop viewing them. If you continue to feel sick, consult a doctor.

-
- When viewing 3D images in a room where an LED lighting system or fluorescent lights are used, you may feel that the light in the room flickers. If this is the case, dim the lights until you do not notice any flickers, or turn off the lights.
 - If you or any member of your family has a history of light-sensitive seizures, consult a doctor before viewing 3D images.
 - To view 3D images, sit in front of the screen so that your eyes are parallel and level with the screen.
 - Viewing 3D images from a place that is too close to the screen may result in eye strain. The distance between the screen and you should be at least three times the height of the screen.
 - Adult supervision is required for children using 3D glasses.
 - Viewing 3D images is not recommended for children under 6 years old. It may negatively affect development of their vision. Consult a doctor before using 3D glasses.

Manuals Provided with the Projector

Manuals for the Projector

Read this manual carefully before you use the projector.

Refer to the manuals that are relevant to what you want to do with the projector.

Important

- The manuals are provided in various formats.
- Adobe® Acrobat® Reader®/Adobe Reader must be installed in order to view the manuals as PDF files.

Read This First

Provides information about safe usage of the projector.

To avoid injury and prevent damage to the projector, be sure to read the section of this manual entitled Safety Information.

Start Guide

Provides basic information about how to install the projector and how to project images. Since the contents of this manual are a summary of Operating Instructions, see Operating Instructions for detailed information.

Operating Instructions

Provide information about how to install the projector, how to project images using the projector, and how to configure the projector. It also provides information about troubleshooting and maintenance.

The CD-ROM includes only the English manual. For other languages, download the latest version from the Web site.

How to Read This Manual

Symbols

This manual uses the following symbols:



Indicates points to pay attention to when using the projector.



Indicates supplementary explanations of the projector's functions, and instructions on resolving user errors.



Indicates the names of buttons on the control panel and remote control. It also indicates items displayed on the menu screens.



Differences in the functions of Region A and Region B models are indicated by two symbols. Read the information indicated by the symbol that corresponds to the region of the model you are using. For details about which symbol corresponds to the model you are using, see page 8 "Model-Specific Information".

Notes

Contents of this manual are subject to change without prior notice.

Two kinds of size notation are employed in this manual.

Some illustrations in this manual might be slightly different from the machine.

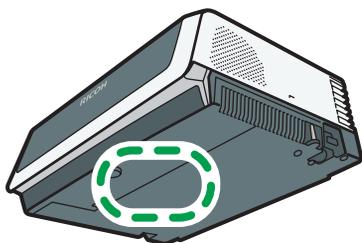
Certain options might not be available in some countries. For details, please contact your local dealer.

Depending on which country you are in, certain units may be optional. For details, please contact your local dealer.

Model-Specific Information

This section explains how you can identify the region your projector belongs to.

There is a label on the bottom of the projector, located in the position shown below. The label contains details that identify the region your projector belongs to. Read the label.



CUD107

The following information is region-specific. Read the information under the symbol that corresponds to the region of your projector.

 **Region A** (mainly Europe and Asia)

If the label contains the following, your projector is a region A model:

- CODE XXXX -27

 **Region B** (mainly North America)

If the label contains the following, your projector is a region B model:

- CODE XXXX -17

Note

- Dimensions in this manual are given in two units of measure: metric and inch. If your projector is a Region A model, refer to the metric units. If your projector is a Region B model, refer to the inch units.

1. Preparations for Using the Projector

This chapter explains the names and functions of the different parts of the projector and remote control, and how to use them. It also explains how to position the projector and how to connect it to other equipment.

Main Functions

The projector features the following functions that you can use.

Auto eco function

The projector switches the lamp power automatically by detecting the brightness of the projecting location and image signals. This function is useful for energy saving.

Quick on

The projector starts projection automatically if the image signals are input even while in standby.

Auto keystone function

The projector automatically adjusts the shape of the projected image according to the angle at which the projector is positioned.

AV Mute/Freeze

Pressing the [AV Mute] button mutes the sound and blanks the screen. Pressing the [Freeze] button freezes the image temporarily.

Magnify/Zoom

Pressing the [Magnify] button enlarges the projected image. Pressing the [Zoom] button reduces the projected image.

Timer function

Pressing the [Timer] button displays the countdown timer on the projection screen. You can check the elapsed time on the projection screen.

Wall color mode

You can adjust the hue of the image in accordance with the color of the wall on which it is projected.

Password setting/Key lock

You can specify a password for the projector to limit the people that can use it. The buttons on the control panel can be disabled with the key lock setting to prevent misoperation.

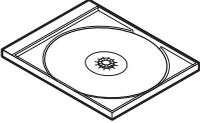
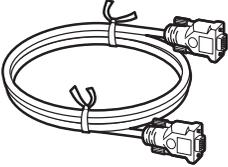
User logo function

The projector can project a registered logo or image when there is no signal or when it is starting up.

Checking the Accessories

The projector is provided with the following accessories. Make sure that everything is included in the package.

If anything is missing or damaged, contact your sales representative or service representative.

<p>Read This First Start Guide</p>	
<p>Remote control AAA battery LR03</p>	
<p>CD-ROM</p>	
<p>RGB cable</p>	
<p>Power cord</p>	
<p>Warranty card</p>	
<p>Carrying bag</p>	

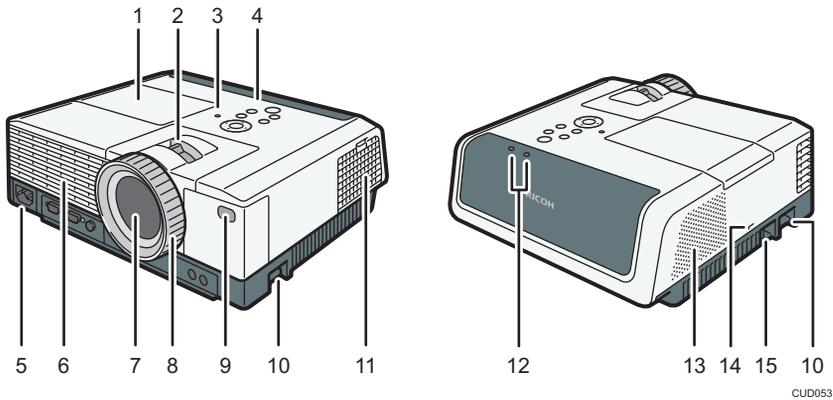
↓ Note

- The bundled accessories may vary depending on the location that this product was purchased.
- Use only the RGB cable and power cord provided with the projector.

Projector Parts and Their Functions

Exterior

1



1. Lamp cover

Remove to replace the lamp.

2. Zoom lever

Adjusts the size of the projected image.

3. Illuminance sensor

Measures the brightness of the projecting location.

4. Control panel

See page 13 "Control Panel".

5. AC In socket

For connecting the power cord set provided with the projector.

6. Exhaust vents

Releases hot air from inside the projector.

7. Lens

Enlarges and projects the image (light).

8. Focus ring

Adjusts the focus of the image.

9. Remote control receiver

Receives the signal from the remote control.

10. Adjustable feet

Adjusts the angle of the projection. Adjustable feet are located on the left and right sides on the projector.

11. Intake vents

For circulating air from the outside to cool the projector.

12. LED indicators

You can confirm the status of the projector by referring to the LED indicators. The left LED shows the status of the lamp, and the right LED shows the temperature inside the projector. For details, see page 63 "Indicator Display List".

13. Speaker

Outputs the audio input from an external device.

14. Security slot

For connecting an anti-theft cable.

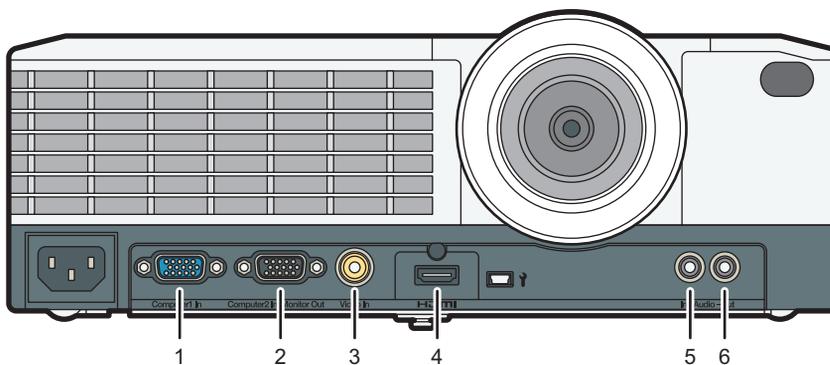
15. Security bar

For connecting an anti-theft cable or chain.

Note

- The top of the projector is covered with a protective film when it is shipped. Remove the film before using the projector.

Ports on the Projector



CUD062

1. Computer1 In port (Y/Pb/Pr)

For inputting RGB signals from a computer or component image signals (Y/Pb/Pr) from a video player.

2. Computer2 In/Monitor Out port

For inputting RGB signals, or outputting the image signals input into the "Computer 1 In port" to an external display device. You can switch the purpose of this port in [Computer 2 Terminal] under [Default Settings 1].

3. Video In port

For inputting image signals from a video player.

4. HDMI port

For inputting HDMI signals from a computer or video player.

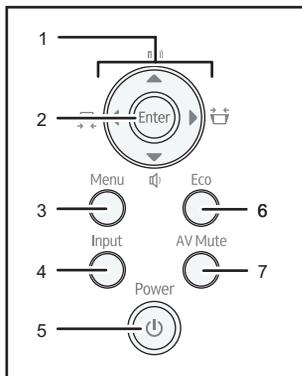
5. Audio In port

For inputting audio signals from a computer or video player.

6. Audio Out port

For outputting audio signals to an external speaker.

Control Panel



CUD054

1. Arrow buttons

Used to operate the menu screen and the value bar. The [◀] and [▶] buttons are used to adjust the keystone distortion. The [▲] and [▼] buttons are used to adjust the volume.

2. [Enter] button

Enters the selected item or mode.

3. [Menu] button

Displays the menu screen. Press it again to close the menu screen.

4. [Input] button

Switches the signal input. The input signal changes each time the button is pressed.

5. [Power] button

Turns the projector on and off. You can confirm the status of the projector with the indicator.

- On: Power is on.
- Off: Power is off.
- Flashing at 1 or 3 second intervals: Standby.
- Flashing at short intervals: Starting up or cooling.

6. [Eco] button

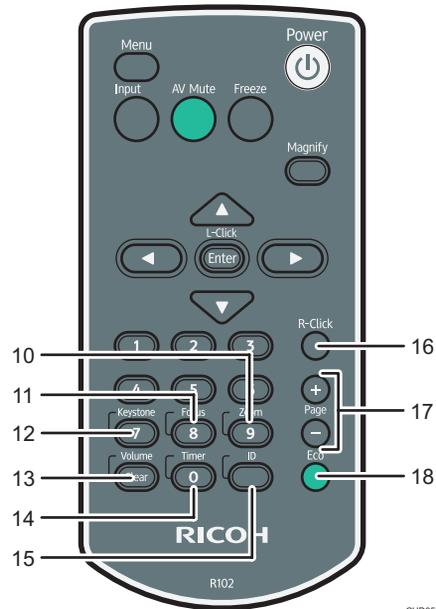
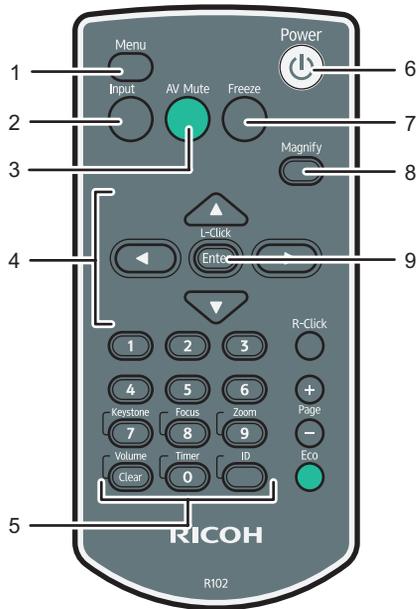
Displays the [Energy Saving Settings] screen. On the [Energy Saving Settings] screen, you can specify the energy saving settings for the lamp.

7. [AV Mute] button

Temporarily blanks the screen and mutes the audio. The button lights up blue when the projector is muted.

Remote Control Parts and Their Functions

1



CUD050

1. [Menu] button

Displays the menu screen. Press it again to close the menu screen.

2. [Input] button

Switches the signal input. The input signal changes each time the button is pressed.

3. [AV Mute] button

Temporarily blanks the screen and mutes the audio. For details, see page 38 "Temporarily Blanking the Image and Muting the Audio".

4. Arrow buttons

Used to operate the menu screen and the value bar.

5. Number buttons

Used to enter numbers.

6. [Power] button

Turns the projector on and off.

7. [Freeze] button

Temporarily freezes the image. For details, see page 39 "Freezing the Image".

8. [Magnify] button

Displays the magnification ratio bar. Press it, and then specify the magnification ratio using the [◀] and [▶] buttons. For details, page 37 "Enlarging the Image".

9. [Enter] button

Enters the selected item or mode.

10. [Zoom] button

Displays the digital zoom bar. Press it, and then adjust the size of the projected image using the [◀] and [▶] buttons. For details, see page 34 "Reducing the size of the projected image".

11. [Focus] button

This button is not used.

12. [Keystone] button

Displays the keystone adjustment bar. Press it, and then adjust the keystone distortion using the [◀] and [▶] buttons. For details, see page 35 "Adjusting for Keystone Distortion".

13. [Volume] button

Displays the volume control bar. Press it, and then adjust the volume of the speaker using the [◀] and [▶] buttons. For details, see page 37 "Adjusting the Volume of the Speaker".

14. [Timer] button

Displays the presentation timer. For details, see page 40 "Using the Presentation Timer".

15. [ID] button

Registers the remote control ID. For details, see page 18 "Operating Multiple Projectors with the Remote Control".

16. [R-Click] button

This button is not used.

17. [Page] buttons

This button is not used.

18. [Eco] button

Displays the [Energy Saving Settings] screen. On the [Energy Saving Settings] screen, you can specify the energy saving settings for the lamp. For details, see page 39 "Specifying the Lamp Settings".

How to Use the Remote Control

You can use the remote control to turn the projector on and off, and to change the signal of the image being input and projected. You can also enlarge or reduce the image and mute the audio.

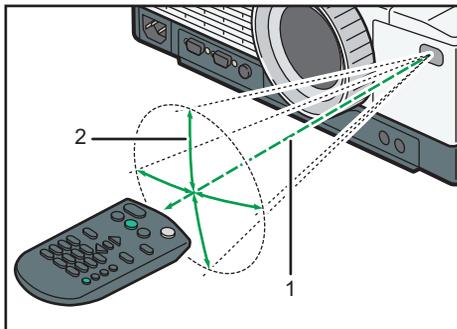
Note the following precautions when using the remote control:

- Do not drop or hit the remote control.
- Do not place the remote control in a place that is very hot or very humid.
- Do not get the remote control wet. Also, do not place it on anything that is wet.
- Do not dismantle the remote control.

Effective Range of the Remote Control

Point the remote control at the remote control receiver on the projector to use it.

The effective range of the remote control is about 5 meters (16.4 feet) from the receiver and at an angle of about 15 degrees to the remote control receiver on the projector.



1. Distance: up to 5 meters (16.4 feet)

2. Angle: within 15 degrees

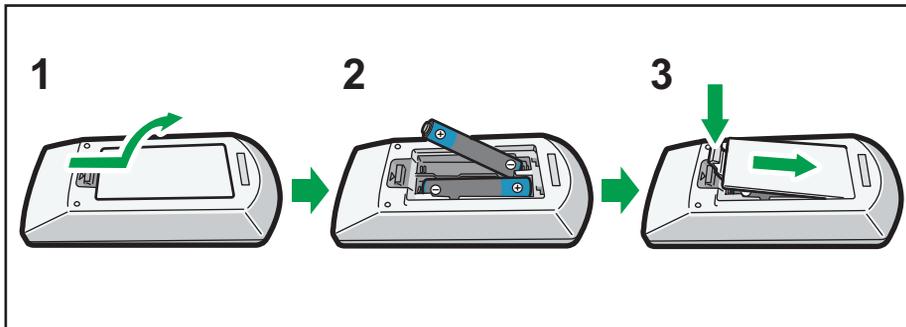
↓ Note

- The remote control may not be effective in some areas and in some conditions. If this happens, point the remote control at the projector and try it again.
- The remote control may not work if the remote control receiver on the projector is exposed to sunlight, fluorescent light, or strong light.
- You can use the remote control from behind the projector by reflecting the signal off of the screen. However, the effective range may change depending on the shape and material of the screen.

Loading Batteries into the Remote Control

⚠ WARNING

- For safe operation, follow the warnings below regarding the batteries used in the remote control. If you use the batteries incorrectly, it may result in fire or injury due to batteries leaking or exploding.
 - Do not use batteries other than the ones specified.
 - Do not mix and use batteries that are different types or that are new and old.
 - Correctly insert batteries according to the polarity (+/-).
 - Do not charge non-rechargeable batteries.
 - Do not heat or throw the batteries into fire or water.
 - Do not connect the positive and negative terminals on a battery with a wire.
 - Remove the batteries from the remote control that are past their suggested use period or that are depleted.
 - Remove the batteries when they will not be used for extended periods.
 - Keep the batteries out of the reach of children. Children may swallow or choke on the batteries. If this happens, contact a doctor immediately.



CUD092

1. Remove the battery cover from the remote control.

2. Insert the batteries.

Note the direction of the positive and negative terminals when inserting the batteries.

3. Close the battery cover.

↓ Note

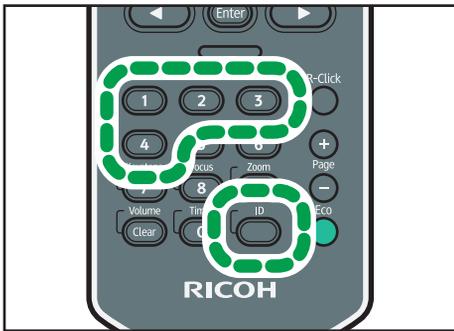
- Replace the batteries if the remote control does not work or if the effective distance becomes too narrow.

Operating Multiple Projectors with the Remote Control

You can operate multiple projectors with a single remote control. It is possible to operate a maximum of four projectors.

You need to specify an ID number to assign to each projector in [Remote Control ID] under [Default Settings 2] in advance.

1. Press and hold the [ID] button and then press a number button from 1 to 4 for at least three seconds.



CUD086

The ID number assigned to the remote control is changed to the number you pressed.

2. Operate the projector.

↓ Note

- The remote control cannot operate a projector unless the ID on the remote control is the same as the controller ID specified in [Default Settings 2].
- The ID number specified in the remote control is effective until a different ID number is specified.
- The ID number in the remote control must be specified again if the batteries are changed.

Positioning the Projector

When positioning the projector, place it so that the projector's lens faces the screen. Make sure the projector and the screen are parallel to each other.

Adjust the distance between the projector and the screen according to the size of the projected image. For details, see page 20 "Relationship Between the Projection Distance and the Screen Size".

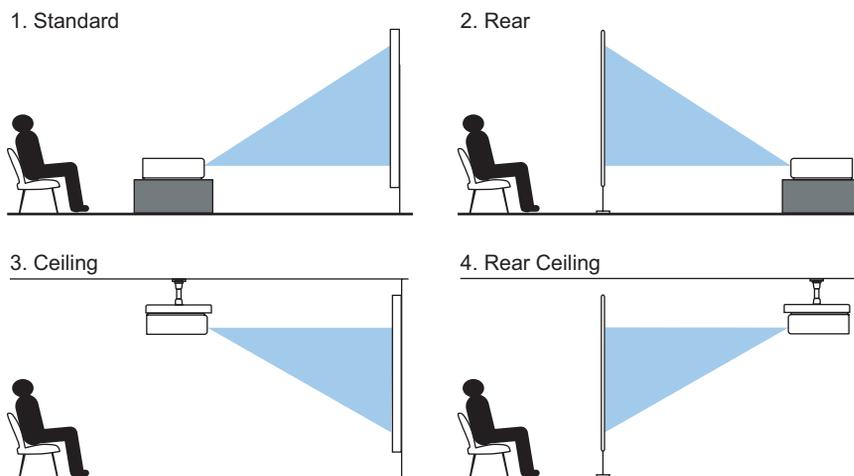
Projection Mode

⚠ WARNING

- If a projector is incorrectly installed on a wall or ceiling, it may fall down and cause an injury. Contact your sales or service representative if you want to install a projector on a wall or ceiling.
 - Use brackets that are strong enough to support the projector. The projector weighs about 3.1 kg (6.9 lb.).
 - The projector must be installed in a location that is sturdy enough to support the full weight of the projector and brackets.

You can position the projector in one of four ways.

Select the setting according to the position of the projector in [Projection Mode] under [Default Settings 2]. For details, see page 59 "Default Settings 2 Menu".



1. Standard

The projector is placed in front of a screen onto which the images are projected.

2. Rear

The projector is placed behind a screen onto which the images are projected.

3. Ceiling

The projector is mounted on the ceiling in front of a screen onto which the images are projected.

4. Rear Ceiling

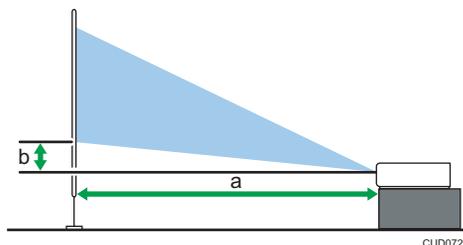
The projector is mounted on the ceiling behind a screen onto which the images are projected.

1

Relationship Between the Projection Distance and the Screen Size

The size of the projected image varies according to the distance from the projector to the screen.

Refer to the following tables to position the projector in a suitable position. The projection sizes presented in tables are for a full size image without keystone adjustment. The projection distance becomes shortest when the zoom lever is at the end of the wide side, and longest when the zoom lever is at the end of the tele side.



RICOH PJ X3340

Projection size	a Projection distance		b Projection height
	Shortest	Longest	
30 inches	0.68 m (2.22 feet)	1.05 m (3.45 feet)	4 cm (1 inch)
40 inches	0.92 m (3.02 feet)	1.41 m (4.64 feet)	5 cm (2 inches)
60 inches	1.40 m (4.58 feet)	2.13 m (6.99 feet)	7 cm (3 inches)
80 inches	1.87 m (6.12 feet)	2.86 m (9.38 feet)	10 cm (4 inches)
100 inches	2.34 m (7.68 feet)	3.58 m (11.75 feet)	12 cm (5 inches)
120 inches	2.82 m (9.24 feet)	4.31 m (14.12 feet)	14 cm (6 inches)
150 inches	3.54 m (11.60 feet)	5.39 m (17.67 feet)	18 cm (7 inches)
200 inches	4.73 m (15.50 feet)	7.20 m (23.61 feet)	24 cm (9 inches)

RICOH PJ WX3340

Projection size	a Projection distance		b Projection height
	Shortest	Longest	
40 inches	0.77 m (2.53 feet)	1.20 m (3.94 feet)	3 cm (1 inch)
60 inches	1.18 m (3.87 feet)	1.80 m (5.92 feet)	5 cm (2 inches)
80 inches	1.58 m (5.18 feet)	2.42 m (7.92 feet)	6 cm (2 inches)
100 inches	1.98 m (6.50 feet)	3.03 m (9.94 feet)	8 cm (3 inches)
120 inches	2.39 m (7.84 feet)	3.65 m (11.98 feet)	9 cm (4 inches)
150 inches	2.99 m (9.81 feet)	4.57 m (14.98 feet)	11 cm (4 inches)
200 inches	4.00 m (13.12 feet)	6.10 m (20.01 feet)	15 cm (6 inches)
240 inches	4.81 m (15.79 feet)	7.33 m (24.06 feet)	18 cm (7 inches)

Connecting Equipment to the Projector

⚠ CAUTION

- Do not place the power cord and connection cable in a way that might cause someone to trip and fall. The product might fall over and cause an injury.

Various equipments can be connected to the projector.

Turn off the power to any equipment before connecting it to the projector. Be sure to read the manual for the applicable equipment before connecting it to the projector.

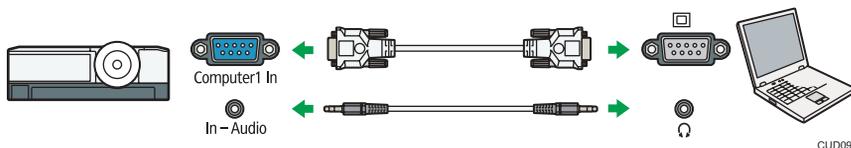
Connecting a Computer

↓ Note

- Some computers cannot be connected to the projector. Before connecting a computer to the projector, check the output terminals and signal compatibility.

Using an RGB cable

Connect an RGB cable to the Computer1 In port of the projector and to the RGB output of a computer. To output audio from the speaker on the projector, connect an audio cable to the Audio In port of the projector and to the audio output of a computer.

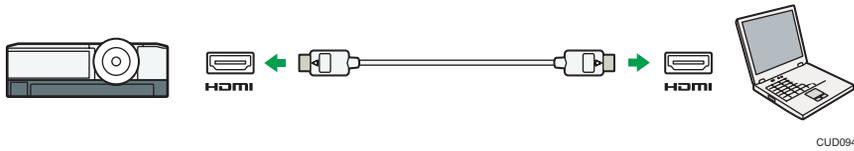


↓ Note

- Use the RGB cable provided with the projector.
- You can also use the Computer2 In/Monitor Out port to input RGB signals if [Computer 2 Terminal] in [Default Settings 1] is specified as [Input].

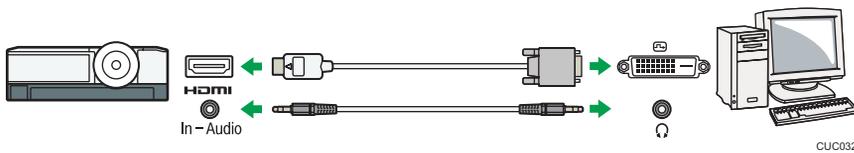
Using an HDMI cable

Connect an HDMI cable to the HDMI ports of the projector and the computer.



Using a DVI-to-HDMI cable

To input a DVI signal to the projector, connect a DVI-to-HDMI cable to the HDMI port of the projector and to the DVI output of a computer. To output audio from the speaker on the projector, connect an audio cable to the Audio In port of the projector and to the audio output of a computer.



Note

- You can use a DVI-to-HDMI conversion adapter instead of a DVI-to-HDMI cable.

Connecting AV Equipment

Use a cable that supports the signal being input when connecting AV equipment.

Using an HDMI cable

Connect an HDMI cable to the HDMI ports of the projector and the AV equipment.

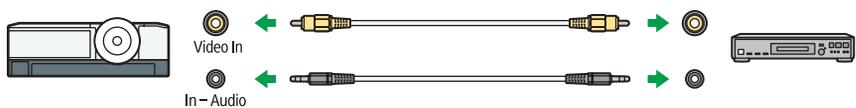


Note

- Some devices may not operate properly when connected using HDMI.
- Use only an HDMI cable that has the HDMI logo. To input 1080p image signals, use a high-speed HDMI cable. A conventional HDMI cable may not work properly.

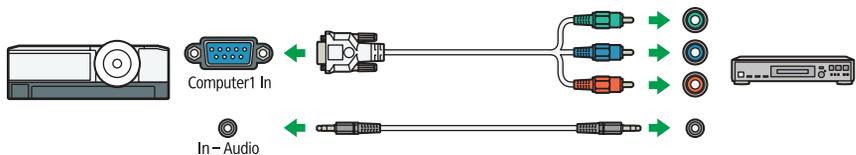
Using a video cable

Connect a video cable to the Video In port of the projector and to the video output of AV equipment. To output audio from the speaker on the projector, connect an audio cable to the Audio In Port of the projector and to the audio output of AV equipment.



Using a D-sub to component video cable

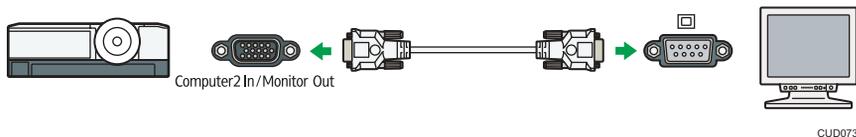
Connect a D-sub to component video cable to the Computer1 In port of the projector and to the Y/Pb/Pr output of the AV equipment. To output audio from the speaker on the projector, connect an audio cable to the Audio In Port of the projector and to the audio output of AV equipment.



Connecting an External Display Device

You can display the projected image on another display simultaneously by connecting the projector and the external display device. The image signals input into the Computer 1 In port can be displayed on an external display device.

To connect an external display, specify [Computer 2 Terminal] to [Output]. Then connect an RGB cable to the Computer2 In/Monitor Out port of the projector and the RGB input of an external display device.

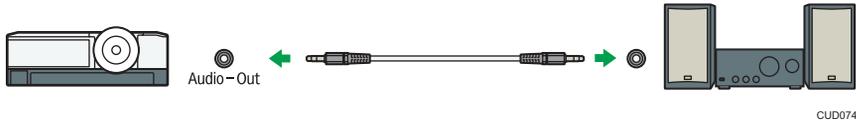


Note

- Only the image input from a computer or AV equipment is displayed on the external display device. Images generated by the projector, such as menu screens, are not displayed on the external display device.
- Use the external display device's settings to adjust its display.

Connecting an External Speaker

You can output the audio signal to an external speaker. To connect an external speaker, connect an audio cable to the Audio Out port of the projector and the audio input of an external speaker.



Note

- There is no sound output from the projector's speaker when an external speaker is connected.
- You can adjust the sound output from the external speaker by using the [Volume] button.

2. Projecting an Image

This chapter explains the procedure for projecting an image.

Precautions for Using the Projector

WARNING

- Do not use any power sources other than those that match the specifications shown. Doing so could result in fire or electric shock.

WARNING

- Do not use any frequencies other than those that match the specifications shown. Doing so could result in fire or electric shock.

WARNING

- The supplied power cord is for use with this machine only. Do not use it with other appliances. Doing so could result in fire or electric shock.

WARNING

- It is dangerous to handle the power cord plug with wet hands. Doing so could result in electric shock.

WARNING

- Do not place the power cord and connection cable in front of the lens or exhaust vents when the product is turned on. Doing so may result in fire.

WARNING

- Do not look into the lens or vent when the product is on. The bright light may damage your eyes. Be especially careful in an environment with children.

CAUTION

- Do not place low heat resistant material near the exhaust vents. Hot air may come from the exhaust vents, resulting in damage to the product or an accident.

CAUTION

- Do not place the power cord and connection cable in a way that might cause someone to trip and fall. The product might fall over and cause an injury.

CAUTION

- Push the power plug all the way into the power outlet. Do not use a power outlet with a loose connection. Doing so may result in heat buildup. Plug the power cord in the correct direction into the base. If they are not plugged in correctly, it could result in smoke, fire, or electric shock.

CAUTION

- When disconnecting the power cord from the wall outlet, always pull the plug, not the cord. Pulling the cord can damage the power cord. Use of damaged power cords could result in fire or electric shock.

CAUTION

- Do not block the projection light when it is on. If you do so, the part that is blocking the projection light may get quite hot and deform, deteriorate or cause a burn or fire. The reflected light may make the lens hot and cause a product failure. To temporarily suspend projection, select the mute function. To suspend longer, turn off the product.

- Power Source
 -  **Region A** (mainly Europe and Asia)
220–240 V, 1.6 A or more, 50/60Hz
 -  **Region B** (mainly North America)
120 V, 3.4 A or more, 60Hz

Please be sure to connect the power cord to a power source as above.

Basic Operations

Position the projector squarely in front of the screen and connect the projector and equipment before using the projector. For details, see page 19 "Positioning the Projector" and page 22 "Connecting Equipment to the Projector".

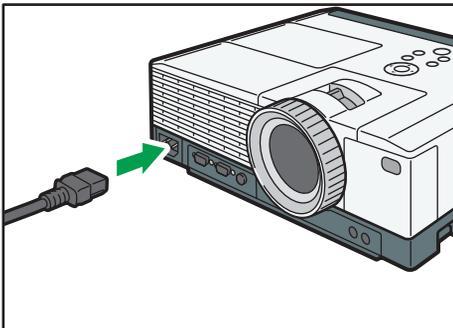
↓ Note

- If [Key Lock] in [Default Settings 2] is specified as [On], you cannot operate the projector from its control panel. Use the remote control.
- If you press a button that is disabled, the projector beeps and an error icon appears on the screen.
- If [Beep] in [Default Settings 1] is specified as [Off], the projector does not beep.

2

Projecting an Image

1. Insert the connector of the power cord set into the AC In socket on the lens side of the projector.



CUD018

2. Insert the power plug into a power outlet.

When [Power On Method] in [Default Settings 2] is specified as [Auto.], the projector turns on in this step. Proceed to Step 4.

3. Press the [Power] button.

Power



The projector beeps and the indicator flashes blue.

The start-up screen is displayed.

4. Turn on the equipment that is connected to the projector.

The input signal is detected automatically and the image is projected.

To project the image of a video player, press the play button on the video player.

To project a laptop computer's screen, switch the computer's image output. For details, see page 31 "When projecting the screen of a laptop computer".

5. If the projected image is not the one that you wanted to project, press the [Input] button to switch the input signal.

The input signal changes each time the [Input] button is pressed.

Note

- Do not place anything near the power outlet.
- The password input screen is displayed if a password for the projector is specified in [Startup Password] under [Default Settings 2]. Enter a password.
- Select the display language on the start menu the first time you turn on the projector after you purchase it. For details, see page 30 "When the start menu is displayed".
- The start-up screen closes shortly after appearing. You can specify that the start-up screen not appear in [Start-up Screen] under [Default Settings 1].
- In Step 5, the input signal selection screen appears if [Off] is specified for [Auto Input Search] in [Default Settings 1]. Select a signal that is compatible with the equipment that is connected.
- The image specified in [Background on No Signal] under [Default Settings 1] is displayed if the signal is lost or there is no signal being input from the connected equipment. Check that the equipment is turned on and that it is properly connected to the projector.
- If the projector does not support the input signal, a "Unsupported signal" message is displayed.
- The motion of images in videos projected using the DVD software on a computer may seem unnatural.
- The projector's focus may shift slightly if the temperature in the room changes or during the first 30 minutes after the projector is turned on. Readjust the focus if this happens. The focus is more stable when the temperature is stable.
- The brightness of the image may vary temporarily because the lamp may automatically adjust to maintain its condition.

When the start menu is displayed

When the projector is turned on for the first time after it is purchased, select the display language.

1. Select the display language, and then press the [Enter] button.

Note

- The display language can also be changed in the menu screen. For details, see page 59 "Default Settings 2 Menu".

When projecting the screen of a laptop computer

When connecting a laptop computer to the projector, switch the computer's image output.

In Windows operating systems, the image output can be switched with a function key. While pressing and holding the [Fn] key, press the  key, the  key, or the LCD/VGA function key.

Examples of various computers

Computer brand	Key combination
MSI	[Fn] + [F2]
Everex, Mitsubishi, NEC, Panasonic, Sotec	[Fn] + [F3]
Gateway, HP	[Fn] + [F4]
acer, Sharp, Sotec, Toshiba	[Fn] + [F5]
Hitachi, IBM, lenovo, Sony	[Fn] + [F7]
Asus, Dell, Epson, Hitachi	[Fn] + [F8]
Fujitsu	[Fn] + [F10]

↓ Note

- Depending on the computer, the image may not be projected properly if it is displayed on the computer's LCD display while being projected onto the screen by the projector. If this happens, turn off the computer's LCD display. For details about switching the display, see the manual provided with the computer.

Turning Off the Projector

★ Important

- Unplug the power cord if the projector will not be used for an extended period of time.
- After disconnecting the power cord, wait at least 1 second before connecting the power cord again. Not doing so may result in a malfunction.

- Press the [Power] button.

Power



The confirm screen appears.

2. Press the [Power] button.

The projector beeps and enters the standby mode.

3. Disconnect the power cord.

Note

- After turning the lamp off, wait about five minutes for the lamp to cool before turning the lamp on again. The lamp may not light if it is very hot.
- The projector turns off as soon as the power cord is disconnected (direct power off).
- You can specify the settings for saving energy in standby mode in [Energy Saving Settings]. For details, see page 54 "Energy Saving Settings Menu".

Adjusting the Projected Image

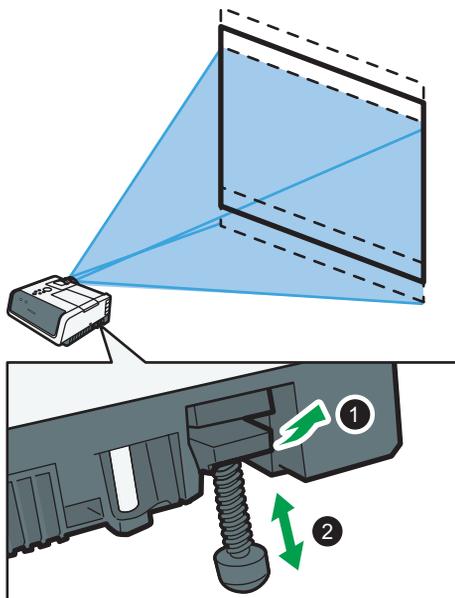
Adjusting the Angle of the Projection

You can adjust the height of the projected image by using the adjustable feet to change the angle of the projector.

2

1. Lift the lens side of the projector.
2. While holding the lever (❶), adjust the length of the adjustable feet (❷).

Adjust the height of the right and left adjustable feet so the projector is level.



CUD045

↓ Note

- The projector automatically adjusts the projected image for keystone distortion according to the projection angle. If [Auto Keystone] in [Display Settings] is specified as [Off], manually adjust for keystone distortion. For details, see page 35 "Adjusting for Keystone Distortion".

Changing the Size of the Projected Image

If the size of the projected image does not fit the screen, you can change the size of the projected image.

Reducing the size of the projected image

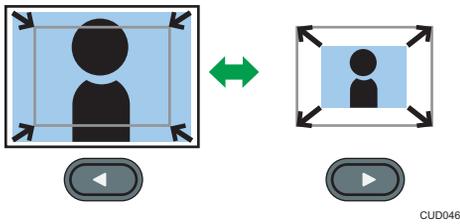
The image can be reduced by 80 to 100% using the digital zoom function.

1. Press the [Zoom] button.



The value bar appears at the bottom of the screen.

2. Adjust the size of the projected image using the [◀] and [▶] buttons.



Press the [◀] button to reduce the size of the projected image. Press the [▶] button to enlarge the size of the projected image. The image is enlarged until it reaches the original size.

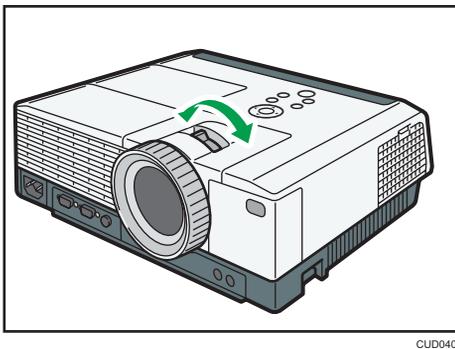
Note

- The image may sometimes be disrupted while it is reduced.

Enlarging the size of the projected image

The image can be enlarged by 100 to 150% using the optical zoom function.

1. Move the zoom lever to adjust the size of the projected image.

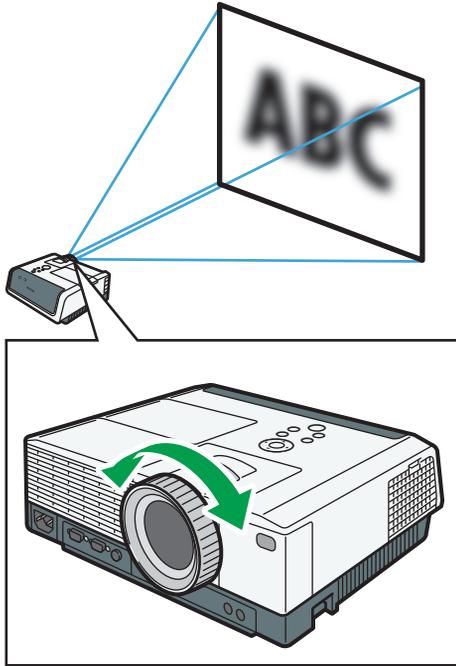


Adjusting the Focus

Adjust the focus of the projected image.

1. Turn the focus ring to adjust the focus.

The shape of the projected image changes slightly when the focus ring is turned.



CUD041

Adjusting for Keystone Distortion

If the projector is placed at an angle, the projected image will be distorted. This is called keystone distortion.

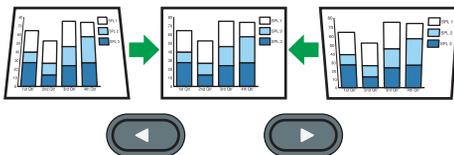
If [Auto Keystone] in [Display Settings] is specified as [Off], manually adjust for keystone distortion.

1. Press the [Keystone] button.



The value bar appears at the bottom of the screen.

2. Adjust the keystone distortion using the [◀] and [▶] buttons.



CUD004

Press the [◀] button to decrease the width of the bottom of the projected image. Press the [▶] button to decrease the width of the top of the projected image.

↓ Note

- Some data may be lost or the image quality may be degraded depending on the degree of the keystone adjustment and the type of the image.
- You can manually adjust for keystone distortion even if [Auto Keystone] is specified as [On]. However, if you change the angle of the projector, it is automatically adjusted again.
- The keystone adjustment level stays registered even if the projector is turned off. We recommend that you specify [Auto Keystone] to [Off] if the projector and screen are permanently installed.
- You can also adjust the keystone distortion from the control panel on the projector.

Operations while Projecting Images

Adjusting the Volume of the Speaker

⚠ CAUTION

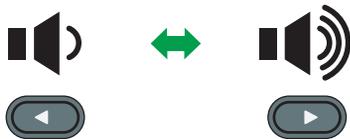
- Do not increase the volume unless you are listening while increasing the volume. Also, lower the volume before turning off the power, because a loud sound may be emitted when the power is turned on and cause hearing damage.

1. Press the [Volume] button.



The value bar appears at the bottom of the screen.

2. Adjust the volume using the [◀] and [▶] buttons.



CUD047

Press the [◀] button to decrease the volume. Press the [▶] button to increase the volume.

ⓘ Note

- You can also adjust the volume of the speaker from the control panel on the projector.

Enlarging the Image

Enlarges and displays a part of the image. The image can be enlarged in a range of 100 to 200%.

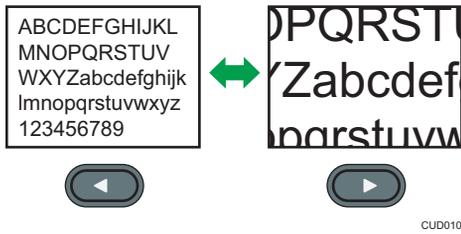
The enlarged image becomes grainy due to the digital processing.

1. Press the [Magnify] button.



The value bar appears at the bottom of the screen.

2. Adjust the magnification ratio using the [◀] and [▶] buttons.

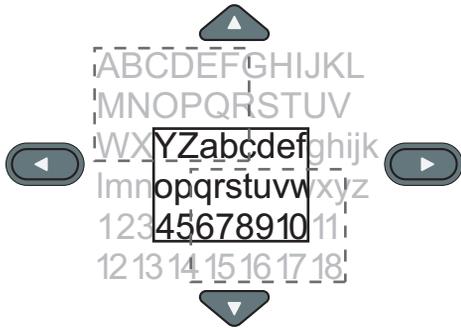


CUD010

Press the [◀] button to decrease the magnification ratio. Press the [▶] button to increase the magnification ratio.

3. Press the [Enter] button.

4. Move the display position using the [▲], [▼], [◀], and [▶] buttons.



CUD012

To change the magnification ratio, press the [Enter] button, and then repeat Step 2.

5. To cancel this function, press the [Magnify] button again.

Note

- The Magnify function is canceled automatically if any operation is performed.
- The image may sometimes be disrupted while it is enlarged or while moving the enlarged portion.

Temporarily Blanking the Image and Muting the Audio

Temporarily blanks the screen and mutes the audio.

This is useful when projecting images from another projector or an OHP.

1. Press the [AV Mute] button.



The image blanks and the audio mutes.

2. To cancel this function, press the [AV Mute] button again.

↓ Note

- An icon appears on the screen when mute is used.
- The mute function is canceled automatically if any button on the control panel is pressed.
- You can also use the [AV Mute] button on the projector's control panel.

Freezing the Image

Freezes the video or moving image that is being projected.

1. Press the [Freeze] button.



The image freezes.

2. To unfreeze the image, press the [Freeze] button again.

↓ Note

- An icon appears on the screen when freeze is used.
- The Freeze function is canceled automatically if any operation is performed.
- When the [Freeze] button is pressed, the image that is being projected at that time is stored in memory, and that image is projected. Because of this, even though the projector has paused the image, the equipment continues to play the video.

Specifying the Lamp Settings

Specify the lamp settings to save energy or to make images brighter according to how you use the projector. You can select the following modes in [Eco Mode]:

On (Auto)

Select this mode to save energy. In this mode, the following settings are automatically specified:

- Lamp Power: [Auto]
- Lamp Pwr on No Signal: [Eco]
- Image Eco: [On]

On (Detailed)

Select this mode to specify [Lamp Power], [Lamp Pwr on No Signal], and [Image Eco] manually.

Off

Select this mode to make images brighter. In this mode, the following settings are automatically specified:

- Lamp Power: [Maximum]
- Lamp Pwr on No Signal: [Std.]
- Image Eco: [Off]

For details about [Lamp Power], [Lamp Pwr on No Signal], and [Image Eco], see page 54 "Energy Saving Settings Menu".

1. Press the [Eco] button.



2. In [Eco Mode], select [On (Auto)], [On (Detailed)], or [Off].
3. If you selected [On (Detailed)] in Step 2, specify [Lamp Power], [Lamp Pwr on No Signal], and [Image Eco] manually.
4. Press the [Eco] button.

Note

- You can also change the lamp settings with [Energy Saving Settings]. For details, see page 54 "Energy Saving Settings Menu".
- The image may flicker, depending on the characteristics of the lamp, when the power is cut by the Eco Mode. If this happens, disable the Eco Mode.

Using the Presentation Timer

Displays the timer on the projection screen. This function is useful for time management when you are giving a presentation.

1. Press the [Timer] button.



2. Specify the time period from 1 to 99 minutes using the number buttons.

You can also use the [▲] and [▼] buttons to specify the time period.

3. Select [Start (Small Size)] or [Start (Large Size)], and then press the [Enter] button.

You can use two types of timer.

- Small size: A small timer is displayed in the lower right corner of the projection screen.
- Large size: A large timer is displayed in the center of the projection screen.

To stop the countdown, press the [Timer] button.

After the time countdown is finished, a message appears and the projector beeps.

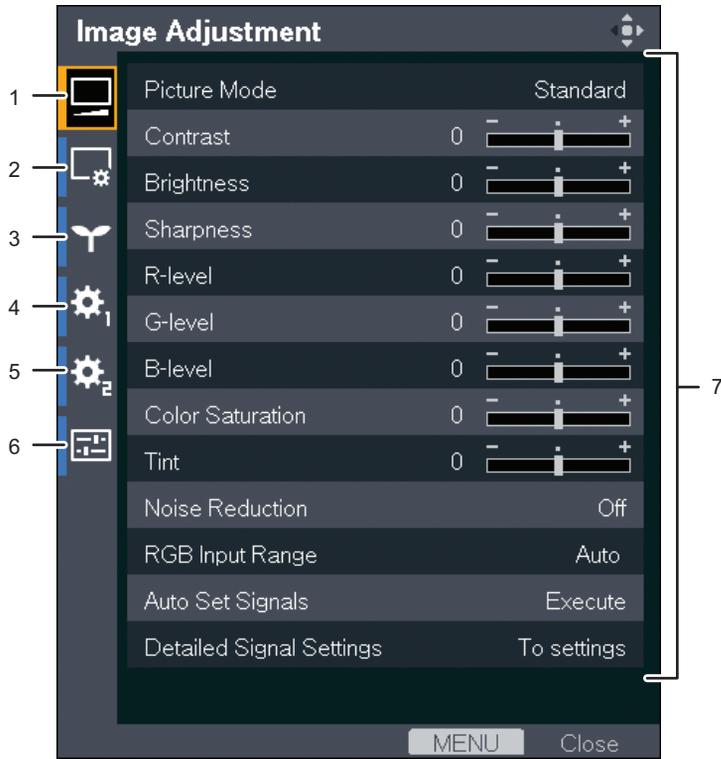
↓ Note

- The projector does not beep if [Beep] in [Default Settings 1] is specified as [Off].

3. Changing the Projector Settings

This chapter explains the settings on the menu screen and how to change the settings.

Viewing the Menu Screen



CUD081

1. Image Adjustment menu tab

Adjusts the settings for the projected image, such as contrast and brightness.

For the Image Adjustment menu settings, see page 48 "Image Adjustment Menu".

2. Display Settings menu tab

Specifies the settings for how to display the image, such as auto keystone correction and aspect.

For the Display Settings menu settings, see page 51 "Display Settings Menu".

3. Energy Saving Settings menu tab

Specifies the settings for energy saving.

For the Energy Saving Settings menu settings, see page 54 "Energy Saving Settings Menu".

4. Default Settings 1 menu tab

Specifies the settings for the beep sound, user logo, etc.

For the Default Settings 1 menu settings, see page 57 "Default Settings 1 Menu".

5. Default Settings 2 menu tab

Specifies the settings for the display language, startup password, etc.

For the Default Settings 2 menu settings, see page 59 "Default Settings 2 Menu".

6. Display Status tab

Enables information such as input signals and lamp usage time, etc., to be displayed.

For item that can be displayed, see page 61 "Display Status".

7. Settings

The settings and information for each menu can be displayed.

Using the Menu Screen

1. Press the [Menu] button.



2. Select the menu tab using the [▲] and [▼] buttons.



If you select the Display Status tab, you can confirm the information in this step.

3. Press the [▶] button.
4. Select the item to be changed using the [▲] and [▼] buttons.
5. Press the [Enter] button.

If [To settings] is displayed on the right, the item has a submenu. Select an item on the submenu, and then press the [Enter] button.

If [Execute] is displayed to the right of the item you select, the function is executed in this step.

6. Change the settings.

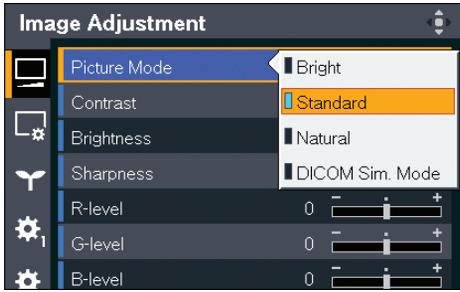
- Adjusting values using the values bar

Change the value using the [◀] and [▶] buttons, and then press the [Enter] button.



- Selecting the value from a list

Change the value using the [▲], [▼], [◀], and [▶] buttons, and then press the [Enter] button.



3

- Inputting numbers

Use the number buttons on the remote control to input numbers.



↓ Note

- The control panel on the projector can be used for operations, but numbers for settings cannot be inputted.
- A confirmation screen appears before some functions are executed or some settings are changed.
- Changes to the settings are automatically applied when you close the menu screen. You do not need to press the [Enter] button.

Restoring Settings to Their Default Settings

1. Press the [Menu] button.

Menu



2. Select the Default Settings 2 menu tab, and then press the [▶] button.



3. Select [Reset All], and then press the [Enter] button.
4. Select [OK] in the confirm screen, and then press the [Enter] button.

↓ Note

- The language selection screen appears after [Reset All] is executed. Select the display language.
- The following settings cannot be reset with this function:
 - [User Logo] in [Default Settings 1]
To reset the registered user logo, select [Reset Logo] in [Default Settings 1].
 - [Startup Password] in [Default Settings 2]
To reset the registered passwords, contact your service representative.

Image Adjustment Menu

Item	Default
<p>Picture Mode</p> <p>Select the picture mode.</p> <p>This function is not available when you select [On] in [3D Projection] under [Display Settings] or [On] in [Interactive Mode] under [Default Settings 1].</p> <ul style="list-style-type: none"> • Bright <p>This image mode makes it easier to see the projection in bright locations.</p> • Standard <p>This is the standard image mode.</p> • Natural <p>Photos appear more natural in this mode.</p> • DICOM Sim. Mode <p>In this image mode, the images are adjusted to simulate the DICOM format. DICOM is a global standard for storing and transmitting medical images. DICOM is used for computer tomography (CT), magnetic resonance imaging (MRI), and endoscope images. However, this mode only simulates these formats, so the image may be projected differently from the original DICOM format. Use this mode only for education. It should not be used for actual diagnoses.</p> 	<p>Standard</p>
<p>Contrast</p> <p>Adjust the image contrast. The greater the value, the stronger the image contrast.</p>	<p>0</p>
<p>Brightness</p> <p>Adjust the image brightness. The greater the value, the brighter the image.</p>	<p>0</p>
<p>Sharpness</p> <p>Adjust the sharpness of the image. The greater the value, the sharper the image.</p>	<p>0</p>
<p>R-level</p> <p>Adjust the level of red in the image. The greater the value, the stronger the color red is in the image.</p>	<p>0</p>

Item	Default
<p>G-level</p> <p>Adjust the level of green in the image. The greater the value, the stronger the color green is in the image.</p>	0
<p>B-level</p> <p>Adjust the level of blue in the image. The greater the value, the stronger the color blue is in the image.</p>	0
<p>Color Saturation</p> <p>Adjust the color saturation of the image. The greater the value, the richer the image.</p> <p>This function is available when you select [Y/Pb/Pr] or [Video] as an input signal.</p>	0
<p>Tint</p> <p>Adjust the tint of the image.</p> <p>This function is available when you select [Y/Pb/Pr], [HDMI] (Y/Pb/Pr signals), or [Video] as an input signal.</p>	0
<p>Noise Reduction</p> <p>Specify whether or not to use the function to reduce the Y/Pb/Pr (480i/576i) or video signal noise.</p> <p>This function is available when you select [Y/Pb/Pr] (480i/576i) or [Video] as an input signal.</p>	Off
<p>RGB Input Range</p> <p>Select the RGB input range.</p> <p>This function is available when you select [HDMI] (RGB signals) as an input signal.</p> <ul style="list-style-type: none"> • Auto <p>The projector switches RGB input range according to the settings of the connected equipment.</p> • Standard <p>Select this mode when the color black in the image is light.</p> • Full <p>Select this mode when dark parts in the image are too dark.</p> 	Auto

Item	Default
<p>Auto Set Signals</p> <p>Automatically adjust the items in [Detailed Signal Settings].</p> <p>This function is available when you select [Computer 1] or [Computer 2] as an input signal.</p>	-
<p>Detailed Signal Settings > Phase</p> <p>Adjust to eliminate image flicker.</p> <p>This function is available when you select [Computer 1] or [Computer 2] as an input signal.</p>	0 to 31 ^{*1}
<p>Detailed Signal Settings > Frequency</p> <p>Adjust to eliminate moiré patterns and flicker when you project images with thin vertical-stripes.</p> <p>This function is available when you select [Computer 1] or [Computer 2] as an input signal.</p>	0
<p>Detailed Signal Settings > H-position</p> <p>Adjust the horizontal position of the image.</p> <p>This function is available when you select [Computer 1] or [Computer 2] as an input signal.</p>	0
<p>Detailed Signal Settings > V-position</p> <p>Adjust the vertical position of the image.</p> <p>This function is available when you select [Computer 1] or [Computer 2] as an input signal.</p>	0
<p>Detailed Signal Settings > Clamp Pulse 1</p> <p>Adjust the clamp pulse position.</p> <p>This function is available when you select [Computer 1] or [Computer 2] as an input signal.</p>	0 to 255 ^{*1}
<p>Detailed Signal Settings > Clamp Pulse 2</p> <p>Adjust the clamp pulse width.</p> <p>This function is available when you select [Computer 1] or [Computer 2] as an input signal.</p>	0 to 255 ^{*1}

*1 The default of [Phase], [Clamp Pulse 1], and [Clamp Pulse 2] is variable because the projector automatically adjusts these settings according to the input signal.

Display Settings Menu

Item	Default
<p>Auto Keystone</p> <p>Specify whether or not to implement keystone correction automatically depending on the angle of the projector's position.</p>	On
<p>Zoom</p> <p>Reduce the size of the image if the projected image is larger than the screen. The image can be reduced in a range of 80 to 100% using the digital zoom function.</p>	100%
<p>Aspect</p> <p>Select the aspect ratio of the image.</p> <ul style="list-style-type: none"> • Normal Display in full screen without changing the input signal aspect ratio. • 16:9 Display using 16:9 aspect ratio. <ul style="list-style-type: none"> • RICOH PJ X3340: 1024 × 576 resolution • RICOH PJ WX3340: 1280 × 720 resolution • Full Display using full size resolution. <ul style="list-style-type: none"> • RICOH PJ X3340: 1024 × 768 resolution • RICOH PJ WX3340: 1280 × 800 resolution • Native Display the image without changing the resolution of the input signal. • Zoom (RICOH PJ WX3340 only) Display the image width as the projection screen width while maintaining the input signal aspect ratio. 	Normal
<p>Display Position</p> <p>Move the image if the projected image is smaller or larger than the screen size. You can move the image using the [▲], [▼], [◀], and [▶] buttons.</p>	-

Item	Default
<p>Wall Color Mode</p> <p>Select the image hue according to the projection surface when the image is being projected on something other than a screen.</p> <ul style="list-style-type: none"> • Off • Whiteboard • Beige • Gray • Blackboard (Green) 	<p>Off</p>
<p>3D Projection > 3D Projection</p> <p>Specify whether or not to use 3D projection.</p> <p>The image will be slightly darker if this is set to [On].</p> <p>3D projection and interactive mode cannot be enabled simultaneously. If you change this setting to [On], [Interactive Mode] in [Default Settings 1] is switched to [Off].</p>	<p>Off</p>
<p>3D Projection > L/R Reverse</p> <p>Specify whether or not to reverse left and right in a 3D image.</p> <ul style="list-style-type: none"> • Normal • Reverse 	<p>Normal</p>
<p>3D Projection > 3D Format</p> <p>Select a 3D format.</p> <p>Select [Auto] when the 3D signals are input through HDMI. If the image does not project in 3D even if [Auto] is selected, change the setting to match the 3D format of the signal being input.</p> <ul style="list-style-type: none"> • Auto • Frame Sequential • Side by Side • Top and Bottom • Frame Packing 	<p>Auto</p>

Item	Default
<p>Closed Caption</p> <p>The projector supports closed captioning, which allows subtitles to be displayed at the bottom of the picture. This is pursuant to the regulations set forth by the US Federal Communications Commission (FCC).</p> <p>Select [CC-1] to [CC-4] to display the dialogue and narration of TV programs and videos that are closed captioned.</p> <p>This function is available when you select [Video] as an input signal.</p> <ul style="list-style-type: none">• Off• CC-1• CC-2• CC-3• CC-4	Off

Energy Saving Settings Menu

3

Item	Default
<p>Eco Mode</p> <p>Specify the lamp settings to save energy or to make images brighter.</p> <ul style="list-style-type: none"> • On (Auto) <p>Select this mode to save energy. In this mode, the following settings are automatically specified:</p> <ul style="list-style-type: none"> • Lamp Power: [Auto] • Lamp Pwr on No Signal: [Eco] • Image Eco: [On] • On (Detailed) <p>You can specify [Lamp Power], [Lamp Pwr on No Signal], and [Image Eco] manually.</p> • Off <p>Select this mode to make images brighter. In this mode, the following settings are automatically specified:</p> <ul style="list-style-type: none"> • Lamp Power: [Maximum] • Lamp Pwr on No Signal: [Std.] • Image Eco: [Off] 	<p>On (Auto)</p>

Item	Default
<p>Lamp Power</p> <p>Select the lamp power level.</p> <p>[Auto] is selectable when you select [Standard] or [Rear] in [Projection Mode] under [Default Settings 2]. If you select [Auto], the lamp power level switches automatically depending on the brightness of the projecting location. Make sure that the illuminance sensor on the top of the projector is not blocked. This function may not work correctly depending on the positioning of the projector.</p> <p>When you select [Maximum], the image is brightest but the power consumption is highest. When you select [Low], the power consumption is lowest but the image brightness is lowest.</p> <p>The lamp power reaches maximum regardless of this setting when [DICOM Sim. Mode], [3D Projection], or [Interactive Mode] is enabled.</p> <ul style="list-style-type: none"> • Auto • Maximum • High • Medium • Low 	<p>Auto</p>
<p>Lamp Pwr on No Signal</p> <p>Specify whether or not to lower the lamp power when there is no input signal. If you select [Eco], the projector lowers the lamp power thirty seconds after the input signal disappears.</p> <ul style="list-style-type: none"> • Eco • Std. 	<p>Eco</p>
<p>Image Eco</p> <p>Specify whether or not to switch the lamp power automatically depending on the brightness of the image.</p> <p>This function does not work when [DICOM Sim. Mode], [3D Projection], or [Interactive Mode] is enabled.</p>	<p>On</p>

Item	Default
<p>Power Off on No Signal</p> <p>Select the amount of time from the last input signal or operation until the projector enters standby mode.</p> <ul style="list-style-type: none"> • Off • 5 min. • 10 min. • 20 min. • 30 min. 	<p>20 min.</p>
<p>Power on Standby</p> <p>Specify whether or not to save energy while in standby.</p> <ul style="list-style-type: none"> • Eco <p>You can save energy while in standby, but start-up time is slower.</p> • Q'ck On <p>You can turn on the projector quickly, and the projector starts projection automatically if the image signals are input even while in standby. However, the standby energy level is higher.</p> 	<p>Eco</p>

Default Settings 1 Menu

Item	Default
<p>Auto Input Search</p> <p>Specify whether or not to only select inputs with signals when switching input signals.</p>	On
<p>Interactive > Interactive Mode</p> <p>When the interactive kit is connected to the projector, you can specify whether or not to enable the interactive mode. For details about the interactive mode, see the manual provided with the interactive kit.</p> <p>The interactive mode and 3D projection cannot be enabled simultaneously. If you change this setting to [On], [3D Projection] in [Display Settings] is switched to [Off].</p>	Off
<p>Interactive > PC Adapter Registration</p> <p>Register the computer USB adapter to the projector to use the interactive mode. For details about how to register the computer USB adapter, see the manual provided with the interactive kit.</p> <p>This function is not available when you select [Video] as an input signal.</p>	-
<p>Computer 2 Terminal</p> <p>Select the purpose of Computer2 In/Monitor Out port.</p> <ul style="list-style-type: none"> • Input You can use Computer2 In/Monitor Out port for inputting RGB signals. • Output You can use Computer2 In/Monitor Out port for outputting RGB signals and Y/Pb/Pr signals. 	Input
<p>Beep</p> <p>Specify whether or not to beep during use.</p>	On
<p>Background on No Signal</p> <p>Select the image display when there is no input signal.</p> <ul style="list-style-type: none"> • Logo • Blue • None 	Logo

Item	Default
<p>Display Guidance</p> <p>Specify whether or not to display the guidance for operating the projector.</p>	On
<p>Start-up Screen</p> <p>Specify whether or not to display the start-up screen when the projector is turned on.</p>	On
<p>User Logo > Register Logo</p> <p>Register a user logo. Project the image to be registered as a user logo, and then execute this function. User logos can be displayed in the start-up screen or as the background when there are no input signals.</p> <p>User logos can be registered up to the following resolutions:</p> <ul style="list-style-type: none"> • RICOH PJ X3340: 1024 × 768 pixels • RICOH PJ WX3340: 1280 × 800 pixels <p>This function is available when you select [Computer 1], [Computer 2], or [HDMI] (RGB signals) as an input signal.</p>	-
<p>User Logo > Confirm Logo</p> <p>Display the registered user logo.</p>	-
<p>User Logo > Reset Logo</p> <p>Delete the registered user logo.</p>	-

Default Settings 2 Menu

Item	Default
<p>Language</p> <p>Select the display language.</p> <p>Available languages are as follows:</p> <p>English, Japanese, Spanish, Russian, French, Portuguese, German, Italian, Dutch, Polish, Czech, Swedish, Finnish, Hungarian, Norwegian, Danish, Romanian, Greek, Turkish, Arabic, Thai, Indonesian, Simplified Chinese, Traditional Chinese, Korean.</p>	<p>English</p>
<p>Projection Mode</p> <p>Select the projection method according to how the projector is positioned.</p> <p>When you select [Ceiling] or [Rear Ceiling], you cannot select [Auto] in [Lamp Power] under [Energy Saving Settings].</p> <p>If you change this setting to [Ceiling] or [Rear Ceiling] when [Lamp Power] is [Auto], [Lamp Power] is switched to [Maximum].</p> <ul style="list-style-type: none"> • Standard Select this mode when the projector is placed in front of a screen. • Rear Select this mode when the projector is placed behind a screen. • Ceiling Select this mode when the projector is mounted on the ceiling in front of a screen. • Rear Ceiling Select this mode when the projector is mounted on the ceiling behind a screen. 	<p>Standard</p>
<p>Remote Control ID</p> <p>Select the projector remote control ID. Specify the ID for each projector when operating multiple projectors using one remote control.</p> <ul style="list-style-type: none"> • 1 • 2 • 3 • 4 	<p>1</p>

Item	Default
<p>Power On Method</p> <p>Select the power on method of the projector.</p> <ul style="list-style-type: none"> • Manual Turn the projector on when the [Power] button is pressed. • Auto. Automatically turn on the projector when the power cord is connected. 	<p>Manual</p>
<p>High Altitude Mode</p> <p>Specify whether or not to increase the speed of the fan.</p> <p>The number of fan rotations is high when set to [On]. Select [On] only when using the projector at an altitude of more than 1,500 meters (4,921 feet). Do not select [On] when the altitude is less than 1,500 meters (4,921 feet).</p>	<p>Off</p>
<p>Key Lock</p> <p>Specify whether or not to lock the buttons on the control panel. You can change this setting to [Off] by pressing the [AV Mute] button on the projector's control panel for 10 seconds.</p>	<p>Off</p>
<p>Reset All</p> <p>Reset all menus to their defaults.</p> <p>This function cannot restore the default settings of [User Logo] in [Default Settings 1] and [Startup Password] in [Default Settings 2].</p>	<p>-</p>
<p>Startup Password > Register Password</p> <p>Enter a 6-digit password. The current password is required to change the password.</p>	<p>000000</p>
<p>Startup Password > Password Protect</p> <p>Specify whether or not to enter a password when the projector is turned on. If this is selected, a password must be entered when the projector is turned on after the power cord has been unplugged. However, a password is not required when turning the projector on from the standby mode.</p> <p>A password is required to change this setting.</p>	<p>Off</p>

Display Status

Item
<p>Input</p> <p>Displays the selected input signals.</p>
<p>Resolution</p> <p>Displays the resolution.</p> <p>This item appears when you select [Computer 1], [Computer 2], or [HDMI] as an input signal.</p>
<p>Frequency</p> <p>Displays the synchronous frequency.</p> <p>This item appears when you select [Computer 1], [Computer 2], or [HDMI] as an input signal.</p>
<p>Sync</p> <p>Displays the synchronous signal polarity.</p> <p>This item appears when you select [Computer 1] or [Computer 2] as an input signal.</p>
<p>Signal Format</p> <p>Displays the Y/Pb/Pr signal format.</p> <p>This item appears when you select [Y/Pb/Pr] or [HDMI] (Y/Pb/Pr signals) as an input signal.</p>
<p>Video Mode</p> <p>Displays the video signal color format.</p> <p>This item appears when you select [Video] as an input signal.</p>
<p>Lamp Time</p> <p>Displays the lamp usage time.</p>
<p>Lamp Reset Count</p> <p>Displays the number of lamp replacements.</p>
<p>Total Time</p> <p>Displays the projector usage time.</p>
<p>Total CO2 Reduction</p> <p>Displays the total reduction in CO₂ caused by setting the lamp to the eco mode.</p>

Item
Eco Time Ratio Displays the ratio of the time the lamp power was not set to maximum to the total time used. Using eco mode saves electricity.
Main FW Version Displays the version of the firmware on the main board.

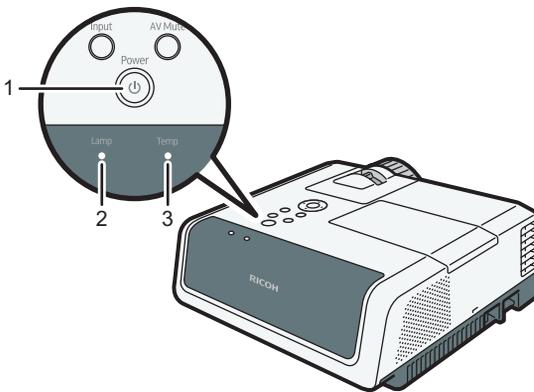
4. Troubleshooting

This chapter explains the basic problems and troubleshooting methods when an indicator light is lit.

Indicator Display List

The projector uses the [Power] button, indicators, and beeps to notify you if a malfunction occurs. Check the indicator's status, and implement the following measures.

Indicator location



CUD077

1. [Power] button
2. Lamp indicator
3. Temp indicator

"" means the indicator is flashing.

Status	Causes	Solutions
<p>The projector does not turn on.</p> <p> Lamp Temp</p> <p>○ ○</p>	<p>The projector has malfunctioned.</p>	<p>Disconnect the power cord, and contact your service representative.</p>
<p>"Hardware Error" was displayed, and the projector turned off during operation.</p> <p> Lamp Temp</p> <p>○ ○</p>	<p>The projector has malfunctioned.</p>	<p>Disconnect the power cord, wait a while, and then turn on the projector again.</p> <p>If the problem cannot be resolved, contact your service representative.</p>

Status	Causes	Solutions
<p>The lamp turned off during operation, or it does not turn on</p> 	<ul style="list-style-type: none"> The lamp has overheated and cannot turn on. The lamp's service life has expired. The projector has malfunctioned. 	<ul style="list-style-type: none"> Disconnect the power cord, wait a while, and then turn on the projector again. If the lamp burns out, replace it with a new lamp. For details of how to replace the lamp, see page 75 "Replacing the Lamp".
<p>The lamp does not turn off.</p>  <p>Flashing interval: 2 seconds</p>	<p>The projector has malfunctioned.</p>	<p>Disconnect the power cord, wait a while, and then turn on the projector again.</p> <p>If the problem cannot be resolved, contact your service representative.</p>
<p>The projector turned off during operation, or it does not turn on.</p>  <p>Flashing interval: 1 second</p>	<p>The lamp cover is not installed correctly.</p>	<p>Disconnect the power cord, and reinstall the lamp cover correctly. For details of how to install the lamp cover, see page 75 "Replacing the Lamp".</p>
<p>"Temperature Error" was displayed, and the projector turned off during operation.</p> 	<ul style="list-style-type: none"> The interior has overheated. The projector is being used in a high-temperature environment. 	<p>Place the projector so that the intake and exhaust vents are not blocked.</p> <p>Disconnect the power cord, wait a while, and then turn on the projector again.</p>
<p>"Fan Error" was displayed, and the projector turned off during operation.</p> 	<p>The cooling fan in the projector has malfunctioned.</p>	<p>Disconnect the power cord, and contact your service representative.</p>

Common Problems

If you think a malfunction has occurred, check the following before contacting your service representative.

Problem	Solutions
Power does not turn on.	<ul style="list-style-type: none"> • Make sure the power plug or connector is connected correctly. • Make sure the lamp cover is mounted correctly. For details, see page 75 "Replacing the Lamp".
Power turns off during use.	<ul style="list-style-type: none"> • Make sure the environment in which the projector is being used is within the acceptable temperature range. • Make sure the vents are not blocked.
No image.	<ul style="list-style-type: none"> • Make sure the input signal is switched correctly if [Auto Input Search] in [Default Settings 1] is set to [Off]. For details, see page 57 "Default Settings 1 Menu". • Make sure the mute function is not turned on. For details, see page 38 "Temporarily Blanking the Image and Muting the Audio". • Check the settings of [Brightness] in [Image Adjustment]. For details, see page 48 "Image Adjustment Menu". • Make sure the computer or AV equipment is connected to the projector correctly. For details, see page 22 "Connecting Equipment to the Projector". • Make sure the computer's image output is switched correctly. For details, see page 31 "When projecting the screen of a laptop computer". • Make sure the computer or AV equipment is working properly.

Problem	Solutions
<p>No sound.</p>	<ul style="list-style-type: none"> • Press the [Input] button. For details, see page 29 "Basic Operations". • Make sure the mute function is not turned on. For details, see page 38 "Temporarily Blanking the Image and Muting the Audio". • Check the speaker's volume adjustment. For details, see page 37 "Adjusting the Volume of the Speaker". • Make sure the computer or AV equipment is connected to the projector correctly. For details, see page 22 "Connecting Equipment to the Projector". • Make sure the computer or AV equipment is working properly.
<p>Image is not projected normally.</p>	<ul style="list-style-type: none"> • Make sure the input signal is compatible with the projector. For details, see page 85 "List of Compatible Signals". • Check the status of the video tape or other video source. • Execute [Auto Set Signals] in [Image Adjustment]. For details, see page 48 "Image Adjustment Menu". • Check the settings of the computer's graphics driver. For details, see the manual provided with the computer.

Problem	Solutions
<p>Image is blurred.</p> <p>Image is partially out of focus.</p>	<ul style="list-style-type: none"> • Make sure the lens is clean. For details, see page 73 "Cleaning the Lens". • Check the focus adjustment. For details, see page 34 "Adjusting the Focus". • Make sure the projection distance is within the projector's range. For details, see page 20 "Relationship Between the Projection Distance and the Screen Size". • Check the installation angles of the projector and screen. For details, see page 33 "Adjusting the Angle of the Projection". • Check the settings of [Sharpness] and [Phase] in [Image Adjustment]. For details, see page 48 "Image Adjustment Menu".
<p>Image is dark.</p>	<ul style="list-style-type: none"> • Check the settings of [Brightness] and [Contrast] in [Image Adjustment]. For details, see page 48 "Image Adjustment Menu". • Make sure the lamp is not near the end of its service life. For details, see page 61 "Display Status". • Check the settings of [RGB Input Range] in [Image Adjustment]. For details, see page 48 "Image Adjustment Menu". • Make sure [3D Projection] in [Display Settings] is set to [Off]. For details, see page 51 "Display Settings Menu".

Problem	Solutions
<p>Color is faded. Tint is poor.</p>	<ul style="list-style-type: none"> • Check the settings of [Color Saturation], [R-level], [G-level], and [B-level] in [Image Adjustment]. For details, see page 48 "Image Adjustment Menu". • Make sure the screen is clean. • Check the settings of [Wall Color Mode] in [Display Settings]. For details, see page 51 "Display Settings Menu". • Make sure the lamp is not near the end of its service life. For details, see page 61 "Display Status".
<p>The projector's operation keys do not respond.</p>	<ul style="list-style-type: none"> • Make sure [Key Lock] in [Default Settings 2] is not set to [On]. For details, see page 59 "Default Settings 2 Menu".
<p>The remote control does not respond.</p>	<ul style="list-style-type: none"> • Make sure the ID assigned to the remote control and in the settings of [Remote Control ID] in [Default Settings 2] are the same. For details, see page 59 "Default Settings 2 Menu". • Make sure the batteries in the remote control are not dead. • Make sure the batteries are correctly loaded into the remote control. For details, see page 17 "Loading Batteries into the Remote Control". • Make sure the remote control is inside its effective range. For details, see page 16 "Effective Range of the Remote Control". • Make sure there is nothing placed between the remote control and the projector. • Make sure the remote control receiver is not exposed to strong light.
<p>Display language is unknown.</p>	<ul style="list-style-type: none"> • Press the [Menu] button, and then select the display language in [Language / XXX] (XXX indicates the current display language) on the  tab. For details, see page 59 "Default Settings 2 Menu".

Accessing the Online Knowledge Base

If you have any questions about the projector, refer to the knowledge base. Visit our global Web site listed below, and then access a knowledge base page in your language.

<http://www.ricoh.com/support/>

You can search the knowledge base by product name or keyword.

5. Maintenance

This chapter explains the operating precautions and maintenance for the projector.

Operating Precautions

CAUTION

- The product's light uses a mercury vapor lamp that becomes high pressure when it is turned on. The lamp has the following characteristics, so be sure to handle it with care after understanding the contents.
 - Deterioration or shock can cause the lamp's life span to end or the lamp to explode. If the lamp explodes, it may make a big noise.
 - The time that it takes for the lamp to reach its life span or explode depends on each individual lamp and its operating conditions. It is possible that it might explode the first time it is used.
 - If you use the lamp past its replacement period, the possibility of explosion increases.
 - If the lamp explodes, broken glass pieces may be scattered around the inside of the product and ejected from the vent or other opening.
 - If the lamp explodes, a very small amount of mercury vapor in the lamp tube and broken glass pieces may be ejected from the vents or other opening.

CAUTION

- What to do if a lamp has exploded
 - If the lamp explodes, remove the power cord from the product, leave the room while making sure it is thoroughly ventilated.
 - If the lamp explodes and you think that you have gotten glass particles or mercury vapor in your eyes or have inhaled either, contact a doctor immediately.
 - Clean up the area around the product completely while being careful not to get injured from any broken glass pieces.
 - Throw away any food that was near the product.
 - Ask your service representative to replace the lamp and inspect the product.

Pay attention to the following points when using the projector:

- When you carry the projector by hand, hold it with both hands and keep it in a horizontal position. If you hold the projector with one hand, its covers may come off or you may drop it.
- If moving the projector under conditions including vibration and shock, use both the packing case and included carrying bag. Transporting the projector using the carrying bag only may damage it

due to shock or vibration. Further, transporting the projector in a damaged packing case may damage the projector, so use a packing case that is in good condition.

- Do not apply volatile substances such as insecticide to the projector. Also, do not bring the projector into long-term contact with rubber or vinyl products. Doing so may cause discoloration or the paint to peel.
- The projector is not intended for long-term continuous operation. Further, remove the projector from the packing case before using. If a malfunction occurs when using the projector under these conditions, a fee is charged for repair even if the warranty is still in effect.
- Do not use locations that may be hot, such as near a heater. Doing so may cause the projector to malfunction or reduce the service life.
- Avoid locations that may become smoky. Particulates may adhere to the optical parts, reducing the service life and causing the image to darken.
- Using the projector close to a television or radio may adversely affect the images and sound. If this happens, move the projector away from the television or radio.
- Moving the projector from a low-temperature location to a high-temperature location may cause water droplets to form on the projector lens and parts due to condensation. Continued use under such conditions may cause malfunction, so do not use the projector until the water droplets have evaporated.
- The air is thin at high elevations, so the cooling efficiency of the projector is reduced. Select [On] in [High Altitude Mode] before using.
- Do not use the projector in an extremely inclined position ($\pm 20^\circ$ or greater). Doing so may cause malfunction or reduce the service life.
- Do not use benzene or paint thinners. Doing so may cause the projector to warp, discolor, or the paint to peel. Further, do not use cleaning cloths that contain chemicals.

Cleaning the Projector

WARNING

- Do not remove any covers or screws that are not mentioned in this manual. There are high voltage components inside the product that may cause electric shock. Contact your service representative if any of the product's internal components require maintenance, adjustment, or repair.
- Do not disassemble or modify the product. Doing so may cause injury or malfunction.

WARNING

- Contact your sales or service representative to clean or replace parts for a projector that is installed on a wall or ceiling.
 - Do not attempt to clean or replace parts for a projector that is installed in a high location on a wall or ceiling. Doing so may cause it to fall down, resulting in an injury.
 - Do not open the lamp cover of a projector that is installed on a wall or ceiling. Doing so may cause the lamp cover to fall down. If the lamp is broken, pieces of glass may fall and cause an injury.

CAUTION

- When performing maintenance on the machine, always disconnect the power cord from the wall outlet.

Cleaning the Lens

When cleaning the lens, make sure to do the following:

- Use a commercially available blower or cloth for cleaning glass, cleaning paper, plastic lens cleaner, etc.
- The lens surface scratches easily, so do not rub or tap it with a hard object.

Cleaning the Projector

When cleaning the projector, make sure to do the following:

- Disconnect the power plug before cleaning.
- Gently wipe any dirt from the projector using a soft cloth. Using a damp cloth may cause water to seep inside the projector and cause electric shock or malfunction.

- Do not use benzene or paint thinners. Doing so may cause the projector to warp, discolor, or the paint to peel. Further, do not use cleaning cloths that contain chemicals.

Replacing the Lamp

WARNING

- Before replacing the lamp, turn off the power and wait at least one hour to allow the product to cool completely. If it is not completely cool, you may burn or injure yourself due to the inside of the product and lamp unit being hot. If you replace the lamp without unplugging the power cord from the power outlet, electric shock or explosion may occur.
- Be careful when handling the used lamp so that it does not break. If it breaks, it may cause injury.

WARNING

- Contact your sales or service representative to clean or replace parts for a projector that is installed on a wall or ceiling.
 - Do not attempt to clean or replace parts for a projector that is installed in a high location on a wall or ceiling. Doing so may cause it to fall down, resulting in an injury.
 - Do not open the lamp cover of a projector that is installed on a wall or ceiling. Doing so may cause the lamp cover to fall down. If the lamp is broken, pieces of glass may fall and cause an injury.

CAUTION

- Be sure to always use a dedicated replacement lamp that is new when replacing the lamp. If you use a lamp that is not dedicated, it may result in an explosion and injury.

CAUTION

- The product's light uses a mercury vapor lamp that becomes high pressure when it is turned on. The lamp has the following characteristics, so be sure to handle it with care after understanding the contents.
 - Deterioration or shock can cause the lamp's life span to end or the lamp to explode. If the lamp explodes, it may make a big noise.
 - The time that it takes for the lamp to reach its life span or explode depends on each individual lamp and its operating conditions. It is possible that it might explode the first time it is used.
 - If you use the lamp past its replacement period, the possibility of explosion increases.
 - If the lamp explodes, broken glass pieces may be scattered around the inside of the product and ejected from the vent or other opening.
 - If the lamp explodes, a very small amount of mercury vapor in the lamp tube and broken glass pieces may be ejected from the vents or other opening.

CAUTION

- What to do if a lamp has exploded
 - If the lamp explodes, remove the power cord from the product, leave the room while making sure it is thoroughly ventilated.
 - If the lamp explodes and you think that you have gotten glass particles or mercury vapor in your eyes or have inhaled either, contact a doctor immediately.
 - Clean up the area around the product completely while being careful not to get injured from any broken glass pieces.
 - Throw away any food that was near the product.
 - Ask your service representative to replace the lamp and inspect the product.

Important

5

- **The lamp is a glass product. Do not touch the glass surface with bare hands, hit it forcefully, or damage it.**
- **This projector's lamp contains trace amounts of environmentally harmful inorganic mercury. Be careful not to break used lamps, and dispose of them in accordance with local regulations or contact your sales representative or service representative.**

When the lamp is due for replacement, the message "The lamp is reaching the end of its life. Please change it." is displayed. Change the lamp as instructed.

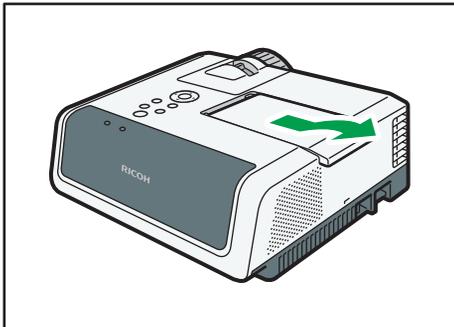
When [Lamp Power] in [Energy Saving Settings] is specified as [Maximum], replace the lamp after approximately 3,500 hours. When the setting is [Low], replace it after approximately 5,000 hours. However, depending on the characteristics of the lamp and how the lamp is used, the image may become dim or the lamp may go out before the message is displayed. We recommend preparing a spare lamp, just in case.

Do not repeatedly turn off the projector immediately after the lamp is lit, or turn on the projector immediately after turning it off. Doing so may damage the lamp or shorten its life.

Furthermore, if the lamp is used for an extended period of time, the image may darken or the lamp may burn out. If this happens, replace the lamp with a new one.

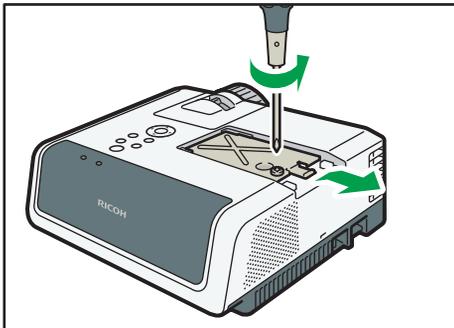
You need a Phillips screwdriver to replace the lamp.

1. Slide the outer lamp cover to the right to remove it.



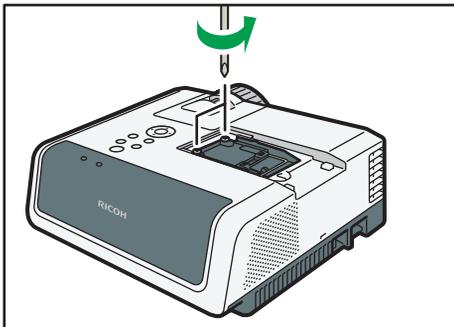
CUD021

2. Loosen the screw on the right side of the inner lamp cover, and then remove the inner lamp cover.



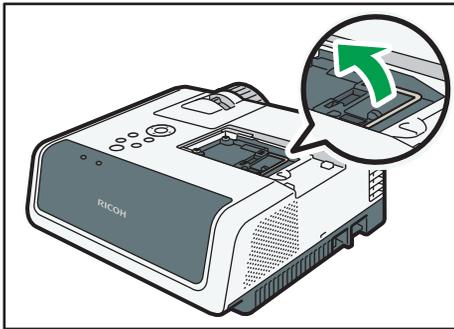
CUD022

3. Loosen the two screws on the left side of the lamp unit.



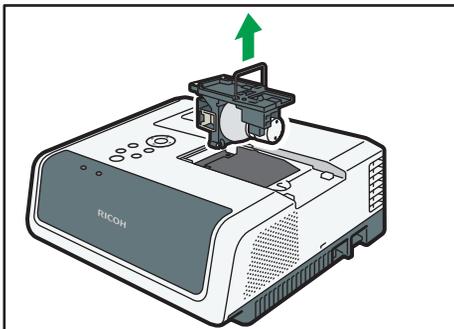
CUD023

4. Raise the metal handle.



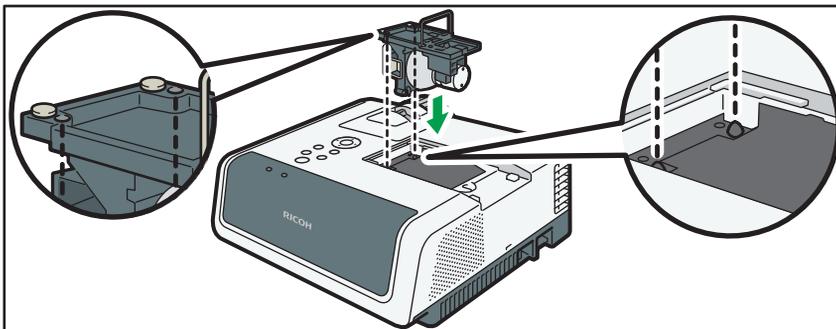
CUD024

5. Hold the handle, and then pull the lamp unit out of the projector.



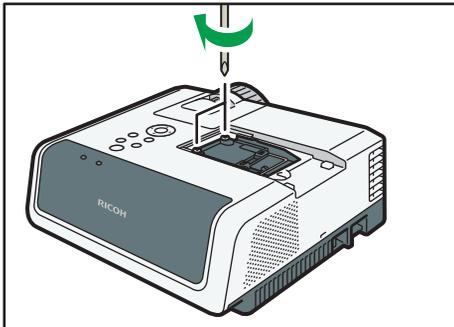
CUD025

6. Insert a new lamp unit.



CUD026

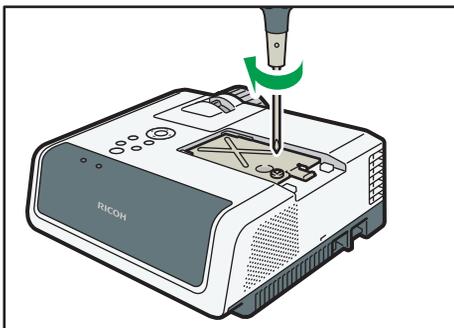
Make sure that the small projections inside the projector are inserted into the holes of the lamp unit properly.

7. Tighten the two screws on the left side of the lamp unit.

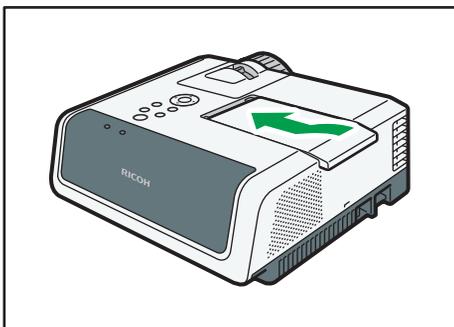
CUD027

8. Attach the inner lamp cover by sliding it from the right.

Make sure the inner lamp cover is inserted into the slits inside the projector.

9. Tighten the screw on the right side of the inner lamp cover.

CUD028

10. Put the outer lamp cover on the projector, and then slide it to the left.

CUD029

Make sure the projections on the left edge of the outer lamp cover are inserted into the holes on the projector properly.

Correctly install the outer lamp cover. Incorrect installation may prevent the lamp or projector from turning on.

11. Reset the lamp time.

For the reset method, see the manual provided with the lamp.

Note

- The lamp's service life can be verified using [Lamp Time] in [Display Status].
- The lamp may stop working before it reaches its approximate service life or before the replacement message is displayed.

Consumables

- Lamp unit
RICOH PJ Replacement Lamp Type9

↓ Note

- Contact your sales or service representative for information about consumables.

6. Appendix

This chapter explains the projector's specifications and compatible signals. This chapter also explains where to inquire about the projector and related services.

Specifications for the Projector

Component	Specifications
Power consumption	Standard mode: 289 W Eco mode: 204 W
Power consumption (Standby mode)	0.28 W
Weight	Approx. 3.0 kg (6.7 lb.)
External dimensions (not including protruding parts)	297 × 235 × 100 mm (11.7 × 9.3 × 4.0 inches)
Operating environment	Temperature: 5 to 35°C (73 to 95°F), Humidity: 30 to 70%
Power requirements	<ul style="list-style-type: none">•  Region A (mainly Europe and Asia) 220–240 V, 1.6 A, 50/60Hz•  Region B (mainly North America) 120 V, 3.4 A, 60Hz
Display element	<ul style="list-style-type: none">• Display method Single-chip DLP®• Panel size RICOH PJ X3340: 0.55 inches RICOH PJ WX3340: 0.65 inches• Pixels RICOH PJ X3340: 786,432 pixels (1,024 H × 768 V) RICOH PJ WX3340: 1,024,000 pixels (1,280 H × 800 V)
Projection method	1.5x zoom lens
Lamp	230 W high-pressure mercury lamp

Component	Specifications
Projection screen size	RICOH PJ X3340: 30 to 200 inches RICOH PJ WX3340: 40 to 240 inches
Projection distance	RICOH PJ X3340: 0.68 to 7.20 m (2.22 to 23.61 feet) RICOH PJ WX3340: 0.77 to 7.33 m (2.53 to 24.06 feet)
Speaker	10 W (Mono)
Connection ports	<ul style="list-style-type: none"> • Computer1 In port Mini D-SUB15 × 1 • Computer2 In/Monitor Out port Mini D-SUB15 × 1 • HDMI port (HDCP compliant)* HDMI × 1 • Video In port RCA_1pin × 1 • Audio In port Mini Jack × 1 • Audio Out port Mini Jack × 1 • Control port USB-TYPE-minB × 1

* HDCP (High-bandwidth Digital Content Protection) is a copyright protection method to encrypt digital signals across the DVI/HDMI interface and prevent unauthorized copying. The HDCP specification was developed and is licensed by Digital Content Protection, LLC. The HDMI port on this projector is HDCP compliant and can project digital video content protected by HDCP. Updates to the HDCP specification may void this compliance and prevent access to protected data. If this occurs, it is not caused by the projector.

List of Compatible Signals

Set the computer and AV equipment output signals so that they match the input signals compatible with the projector.

If resolutions or signal frequencies that are not compatible with the projector are input, the image may flicker or become blurred. Further, the image may not be displayed.

↓ Note

- Images with a resolution greater than the following are compressed when displayed, so some of the information may be lost or the image may deteriorate.
 - RICOH PJ X3340: 1024 × 768 resolution
 - RICOH PJ WX3340: 1280 × 800 resolution

Video Input

Compatible mode

NTSC, PAL, SECAM, PAL-M, PAL-N, PAL60, NTSC4.43

Y/Pb/Pr Input

Compatible mode

480i (525i), 480p (525p), 576i (625i), 576p (625p), 720/50p, 720/60p, 1080/50i, 1080/60i, 1080/50p, 1080/60p

Computer Input

Mode	Resolution		Frequency		
	Horizontal (pixel)	Vertical (pixel)	Vertical (Hz)	Horizontal (kHz)	Clock (MHz)
640 × 480	640	480	59.940	31.469	25.175
			72.809	37.861	31.500
			75.000	37.500	31.500
			85.008	43.269	36.000
720 × 400	720	400	85.039	37.927	35.500
800 × 600	800	600	56.250	35.156	36.000
			60.317	37.879	40.000
			72.188	48.077	50.000
			75.000	46.875	49.500
832 × 624	832	624	85.061	53.673	56.250
848 × 480	848	480	74.550	49.725	57.283
1024 × 768	1024	768	60.000	31.020	33.750
			60.004	48.363	65.000
			70.069	56.476	75.000
			75.029	60.023	78.750
			84.997	68.678	94.500
1152 × 864	1152	864	74.700	60.134	79.857
1152 × 870	1152	870	75.000	67.500	108.000
1280 × 720	1280	720	75.062	68.682	100.001
1280 × 768	1280	768	60.000	45.000	74.250
			59.995	47.396	68.250
			59.870	47.776	79.500
			74.893	60.289	102.250
1280 × 800	1280	800	84.837	68.633	117.500
			59.910	49.306	71.000
			59.810	49.702	83.500
			74.934	62.795	106.500
1280 × 960	1280	960	84.880	71.554	122.500
			60.000	60.000	108.000
			75.019	75.019	126.032
1280 × 1024	1280	1024	85.002	85.937	148.500
			60.020	63.981	108.000
			75.025	79.976	135.000
1360 × 768	1360	768	85.024	91.146	157.500
1366 × 768	1366	768	60.015	47.712	85.500
			60.000	48.000	72.000
1400 × 1050	1400	1050	59.790	47.712	85.500
			59.948	64.744	101.000
			59.978	65.317	121.750
			74.867	82.278	156.000
1440 × 900	1440	900	59.901	55.469	88.750
			59.887	55.935	106.500
			74.984	70.635	136.750
			84.842	80.430	157.000
1600 × 900	1600	900	60.000	60.000	108.000
1600 × 1200	1600	1200	60.000	75.000	162.000
1680 × 1050	1680	1050	59.883	64.674	119.000
			59.954	65.290	146.250

HDMI Input

Mode	Resolution		Frequency		
	Horizontal (pixel)	Vertical (pixel)	Vertical (Hz)	Horizontal (kHz)	Clock (MHz)
480i (525i)	720	242.5	59.940	15.734	13.500
576i (625i)	720	288	50.000	15.625	13.500
480p (525p)	720	483	59.940	31.469	27.000
576p (625p)	720	576	50.000	31.250	27.000
720 / 50p	1280	720	50.000	37.500	74.250
720 / 60p	1280	720	60.000	45.000	74.250
1080 / 50i	1920	540	50.000	28.125	74.250
1080 / 60i	1920	540	60.000	33.750	74.250
1080 / 24p	1920	1080	24.000	27.000	74.250
1080 / 30p	1920	1080	30.000	33.750	74.250
1080 / 50p	1920	1080	50.000	56.250	148.500
1080 / 60p	1920	1080	60.000	67.500	148.500
640 × 480	640	480	59.940	31.469	25.175
			72.809	37.861	31.500
			75.000	37.500	31.500
			85.008	43.269	36.000
800 × 600	800	600	56.250	35.156	36.000
			60.317	37.879	40.000
			72.188	48.077	50.000
			75.000	46.875	49.500
832 × 624	832	624	85.061	53.673	56.250
			74.550	49.725	57.283
848 × 480	848	480	60.000	31.020	33.750
1024 × 768	1024	768	60.004	48.363	65.000
			70.069	56.476	75.000
			75.029	60.023	78.750
			84.997	68.678	94.500
			74.700	60.134	79.857
1152 × 864	1152	864	75.000	67.500	108.000
1152 × 870	1152	870	75.062	68.682	100.001
1280 × 720	1280	720	60.000	45.000	74.250
1280 × 768	1280	768	59.995	47.396	68.250
			59.870	47.776	79.500
			74.893	60.289	102.250
			84.837	68.633	117.500
1280 × 800	1280	800	59.910	49.306	71.000
			59.810	49.702	83.500
			74.934	62.795	106.500
			84.880	71.554	122.500
1280 × 960	1280	960	60.000	60.000	108.000
			75.019	75.019	126.032
			85.002	85.937	148.500
1280 × 1024	1280	1024	60.020	63.981	108.000
			75.025	79.976	135.000
			85.024	91.146	157.500
1360 × 768	1360	768	60.015	47.712	85.500
1366 × 768	1366	768	60.000	48.000	72.000
			59.790	47.712	85.500
1400 × 1050	1400	1050	59.948	64.744	101.000
			59.978	65.317	121.750
			74.867	82.278	156.000
1440 × 900	1440	900	59.901	55.469	88.750
			59.887	55.935	106.500
			74.984	70.635	136.750
			84.842	80.430	157.000
1600 × 900	1600	900	60.000	60.000	108.000
1680 × 1050	1680	1050	59.883	64.674	119.000
			59.954	65.290	146.250

3D Format

○: Supported

✕: Not Supported

Computer input

Mode	Frequency		3D format		
	Vertical (Hz)	Clock (MHz)	Frame Sequential	Side by Side	Top and Bottom
640 × 480	59.940	25.175	○	○	○
800 × 600	60.317	40.000	○	○	○
1024 × 768	60.004	65.000	○	○	○
1280 × 960	60.000	108.000	○	○	○
1280 × 1024	60.020	108.000	○	○	○
1360 × 768	60.015	85.500	○	○	○
1366 × 768	60.000	72.000	○	○	○
	59.790	85.500	○	○	○
1440 × 900	59.901	88.750	○	○	○
	59.887	106.500	○	○	○
1600 × 900	60.000	108.000	○	○	○
1600 × 1200	60.000	162.000	○	○	○
1680 × 1050	59.883	119.000	○	○	○
	59.954	146.250	○	○	○

Y/Pb/Pr input

Mode	3D format		
	Frame Sequential	Side by Side	Top and Bottom
480i (525i)	○	○	○
576i (625i)	○	○	○
480p (525p)	✕	○	○
576p (625p)	✕	○	○
720 / 60p	✕	○	○
1080 / 60i	✕	○	○
1080 / 60p	✕	○	○

Video input

Mode	3D format		
	Frame Sequential	Side by Side	Top and Bottom
NTSC	○	✕	✕
PAL	○	✕	✕

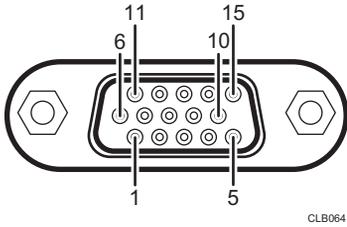
HDMI input

Mode	Frequency		3D format			
	Vertical (Hz)	Clock (MHz)	Frame Sequential	Side by Side	Top and Bottom	Frame Packing
640 × 480	59.940	25.175	○	○	○	✕
800 × 600	60.317	40.000	○	○	○	✕
1024 × 768	60.004	65.000	○	○	○	✕
1280 × 960	60.000	108.000	○	○	○	✕
1280 × 1024	60.020	108.000	○	○	○	✕
1360 × 768	60.015	85.500	○	○	○	✕
1366 × 768	60.000	72.000	○	○	○	✕
	59.790	85.500	○	○	○	✕
1440 × 900	59.901	88.750	○	○	○	✕
	59.887	106.500	○	○	○	✕
1600 × 900	60.000	108.000	○	○	○	✕
1600 × 1200	60.000	162.000	○	○	○	✕
1680 × 1050	59.883	119.000	○	○	○	✕
	59.954	146.250	○	○	○	✕
480i (525i)	59.940	13.500	○	○	○	✕
576i (625i)	50.000	13.500	○	○	○	✕
480p (525p)	59.940	27.000	✕	○	○	✕
576p (625p)	50.000	27.000	✕	○	○	✕
720 / 60p	60.000	74.250	✕	○	○	✕
1080 / 60i	60.000	74.250	✕	○	○	✕
1080 / 60p	60.000	148.500	✕	○	○	✕
720 / 50p (Frame Packing)	50.000	148.500	✕	✕	✕	○
720 / 60p (Frame Packing)	59.940/60.000	148.350/148.500	✕	✕	✕	○
1080 / 24p (Frame Packing)	23.976/24.000	148.350/148.500	✕	✕	✕	○
1080 / 50i (Side by Side)	50.000	74.250	✕	○	✕	✕
1080 / 60i (Side by Side)	59.940/60.000	74.176/74.250	✕	○	✕	✕
720 / 50p (Top and Bottom)	50.000	74.250	✕	✕	○	✕
720 / 60p (Top and Bottom)	59.940/60.000	74.176/74.250	✕	✕	○	✕
1080 / 24p (Top and Bottom)	23.976/24.000	74.176/74.250	✕	✕	○	✕

Specifications for Ports

Computer1 In Port and Computer2 In/Monitor Out Port

Pin assignment



Pin No.	Pin description	
	During RGB input	During Y/Pb/Pr input (Computer1 In port only)
1	Video signal (R)	Color difference signal (Pr)
2	Video signal (G)	Luminance signal (Y)
3	Video signal (B)	Color difference signal (Pb)
4	N.C	-
5	GND	-
6	GND (R)	GND (Pr)
7	GND (G)	GND (Y)
8	GND (B)	GND (Pb)
9	N.C	-
10	GND	-
11	N.C	-
12	I ² C Data	-
13	Horizontal sync signal	-
14	Vertical sync signal	-

Pin No.	Pin description	
	During RGB input	During Y/Pb/Pr input (Computer1 In port only)
15	I ² C CLOCK	-

Input Signal

- RGB input
RGB signals: 0.7V (p-p), 75 Ω
Horizontal sync signal: TTL level (Pos/neg polarity)
Vertical sync signal: TTL level (Pos/neg polarity)
- Y/Pb/Pr input (Computer1 In port only)
Y signal: 1.0V (p-p), 75 Ω
Pb/Pr signals: 0.7V (p-p), 75 Ω

Control Port

Interface format

Communication method	RS-232C, 115,200bps, No Parity, Data Length: 8 bits; Stop Bit Length: 1 bit
Communication format	#(23h) + Command + CR (0Dh) Only 1 command valid per communication. For the available commands, see "Main commands".
Data format	For input commands, only ASCII-compliant all-uppercase alphanumeric characters supported.
Replies	<ul style="list-style-type: none"> • Acknowledge (Aborted) '=(3Dh)' + Command(3byte) + ':(3Ah)' + 'E(45h)' + 'R(52h)' + 'O(30h)' + CR(0Dh) • No acknowledge '=(3Dh)' + 'E(45h)' + 'R(52h)' + 'O(30h)' + CR(0Dh) For details of Acknowledge (Normally ended), see "Main commands".

Main commands

Item	Command	Acknowledge (Normally ended) *
Power on	PON	=PON:SC0
Power off	POF	=POF:SC0
Guidance display on	ICN:1	=ICN:1
Guidance display off	ICN:0	=ICN:0
Auto setting (RGB input)	PAT	=PAT:SC0
Status display on	DON	=DON:SC0
Status display off	DOF	=DOF:SC0
Computer1 input	INP:1	=INP:1
HDMI input	INP:5	=INP:5

* CR is added to the end of "Acknowledge (Normally ended)".

↓ Note

- The control port is for service representatives or administrators of the projector.
- A USB driver must be installed to control the projector using the control port. For details, contact your service representative.

Information

Where to Inquire

Contact your sales or service representative for further information about topics covered in this manual or to inquire about topics not covered in this manual.

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MEMO

MEMO

MEMO

