RICOH

RICOH PJ S2240 / X2240 / WX2240 / TS100
X5460 / WX5460 / HD5450

User's Manual

Read this manual carefully before you use this machine and keep it handy for future reference. For safe and correct use, be sure to read the Precautions in this manual before using the machine.

Table of Contents

Precautions

⚠️

Follow all warnings, precautions and maintenance as recommended in this user's guide to maximize the life of your unit.

■ Warning-   This apparatus must be earthed.

■ Warning-   Do not look into the projector's lens when the lamp is on. The bright light may hurt your eyes.

■ Warning-   To reduce the risk of fire or electric shock, do not expose this projector to rain or moisture.

■ Warning-   Do not open or disassemble the projector as this may cause electric shock.

■ Warning-   When replacing the lamp, allow unit to cool down at least 60 minutes, and follow all replacement instructions.

■ Warning-   When the lamp reaches the end of its life, it will burn out and may make a loud popping sound. If this happens, the projector will not turn back on until the lamp module has been replaced. To replace the lamp, follow the procedures listed under "Replacing the Lamp".

■ Warning-   Do not remove the cabinet cover, or you may be exposed to dangerous voltage. Refer servicing to qualified service personnel only.

■ Warning-   This product should be operated only from the type of power source which does not exceed the voltage range specified on the rating label and the power cord. If you are not sure of the type of power supply to your home, consult your sales representative or local power company.

■ Warning-   Do not use the polarized plug with an extension cord, receptacle, or other outlet unless the blades can be inserted completely with three wire grounding type to prevent blade exposure. Failure to follow these instructions may result in fire or electric shock.

■ Warning-   Plastic bags can be dangerous, please do not leave near babies and young children. To avoid the threat of suffocation, please keep away from their nose and mouth.

■ Warning-   Installing the Projector on a Wall or Ceiling:

a) Do not attempt to clean or replace parts for a machine that is installed in a high location on a wall or ceiling. Doing so may cause it to fall down, resulting in an injury.

b) Do not open the lamp cover of a machine 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.

c) Contact your sales or service representative to clean or replace parts for a machine that is installed on a wall or ceiling.

d) If a machine 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 machine on a wall or ceiling.

e) Do not obstruct the machine's vents. Doing so risks fire caused by overheated internal components.

f) For users, do not install the projector by yourself. Contact your sales or service representative if you want to install the projector on a wall or ceiling.

g) For sales or service representatives:
- Use brackets that are strong enough to support the projector.

  * PJ WX2240 Series weighs about 2.6kg (5.75lb.).

  * PJ WX5460 Series weighs about 3.0kg (6.61lb.).

- The projector must be installed in a location that is sturdy enough to support the full weight of the projector and brackets.
- Use only the screws (three M4~16 screws) provided with the projector to attach the brackets to the projector.

- Use all three of the projector's screw holes to attach the brackets. The locations of the screw holes are shown in the illustration below. Make sure that the screws are tightened firmly.

■ Caution- Do not use lens cap when projector is powered on.

■ Caution- This projector will detect the life of the lamp itself. Be sure to change the lamp when it shows warning messages.

■ Caution- Never operate this unit on AC power during a thunderstorm. If you see lightning or hear thunder, never touch the unit, cables and/or peripherals. An electric surge caused by the storm, may result in an electrical shock or damage to the unit.

■ Caution- Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

■ Caution- Do not place or keep the projector within the reach of the children. It may fall or tip over, possibly causing serious injury.

■ Caution- Do not stack other equipment on this product and do not place this product on other equipment. The top and bottom surface of this product increase in temperature during normal use and may damage the other unit.

■ Caution- Do not use attachments not recommended by RICOH. Use of an incompatible attachments could cause hazards or damage to the product.

■ Caution- Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product.

■ Caution- Unplug this product from the wall outlet and take the product to qualified service personnel if you encounter any of the following conditions:
a) The power supply cord or plug is damaged.
b) Liquid has been spilled, or objects have fallen into the product.
c) The product has been exposed to rain or water.
d) The product does not operate normally when following the operating instructions. Adjust only those controls that are covered by the operating instructions.
e) The product has been dropped or damaged in any way. (If the cabinet should break, please handle with care to avoid injury.)

■ Caution- This product incorporates glass components, including a lens and a lamp. If these should break, please handle with care to avoid injury and contact your sales representative for repair service. Avoid any broken pieces of glass since they may cause injury. In the unlikely event that the lamp ruptures, thoroughly clean the area around the projector and discard any edible items placed in that area since they may be contaminated.

■ Caution- Do not place anything in front of the lens while the projector is operating. Things placed in front of the lens may overheat and burn or start a fire.

■ Caution- Unauthorized substitutions may result in fire, electric shock, or other hazards. (Only the replacement of the lamp should be made by users.)

■ Caution- Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to verify that the product is in proper operating condition.

■ Caution- Do not leave thermal paper documents or easily deformed items on top of the unit or near the air exhaust for long periods of time.

■ Caution-   The heat from the unit could erase the information on the thermal paper, or cause deformation or warping.

■ Caution-   Do not use the product in a closed installation location. Do not place the product in a box or in any other closed installation location. Otherwise it may overheat, which could result in a risk of fire.

Do:

- After unpacking this product, read the manual carefully, and follow all the operating and other instructions.
- Turn off the product before cleaning.
- Use a soft cloth moistened with mild detergent to clean the display housing.
- Disconnect the power plug from AC outlet if the product is not being used for a long period of time.

Do not:

- Block the slots and openings on the unit provided for ventilation.
- Use abrasive cleaners, waxes or solvents to clean the unit.
- Use under the following conditions:
    - Extremely heat, cold or humidity.
    - In areas susceptible to excessive dust and dirt.
    - Near any appliance generating a strong magnetic field.
    - In direct sunlight.

Important:
Contents of this manual are subject to change without prior notice. In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handing or operating this product.

Safety Labels of This Machine

1 To replace the lamp, unplug the power cord and then wait for 60 minutes.

2 Do not look into the lens while the lamp is on. The strong light from the lamp may cause damage to your eyesight.

3 Do not place anything in front of the lens while the projector is operating. Things placed in front of the lens may overheat and burn or start a fire. If you want to temporarily stop the projected image, use the AV mute on the remote control or the keypad.

4 This product should be operated only from the type of power source which does not exceed the voltage range specified on the rating label and the power cord.

1

CAUTION   ACHTUNG   ATTENTION
ATTENZIONE   PRECAUCIÓN   CUIDADO

•To replace the lamp, first unplug the power cord then wait for more than 1 hour.
 The lamp might be broken. Be careful of pieces of broken glass.
•Z. Ersetzen d. Lampe erst Netzkabel herausziehen u. über 1 Stunde warten.
 Die Lampe kénnte zerbrochen sein. Auf Glasscherben achten.
•Pour rempl. lampe, débrancher cordon d'alimentation, puis attendre + d'1 h.
 Lampe peut-être cassée. Attent° aux morceaux de verre brisé.
•Per sostituire la lampada, scollegare l'alimentazione e attendere min.1 ora.
 La lampada potrebbe essere rotta.Attenzione schegge vetro.
•Para cambiar la lámpara, desenchufe el cable y espere más de 1 hora.
 La lámpara puede romperse. Cuidado con los cristales rotos.
•P/ subst. a lámpada, desligue o cabo de alimentação e aguarde + de 1 hora.
 A lâmpada pode estar partida. Tome cuidado com vidros partidos.

2

3

4
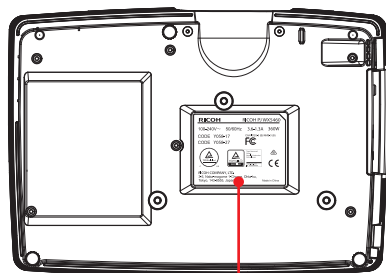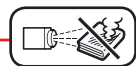
Regulation & Safety Notices

This appendix lists the general notices of your Projector.

Notice: Users in the United States of America

FCC notice

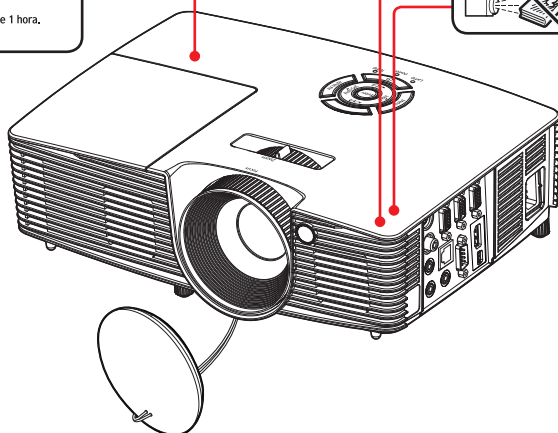**MODEL NAME: RICOH PJ S2240 / RICOH PJ X2240 / RICOH PJ WX2240 / RICOH PJ X5460 / RICOH PJ WX5460 / RICOH PJ HD5450**

```
TRADE NAME: PROJECTOR
MODEL NAME: RICOH PJ S2240 / RICOH PJ X2240 /
                RICOH PJ WX2240 / RICOH PJ X5460 /
                RICOH PJ WX5460/ RICOH PJ HD5450
   FC   Tested To Comply
        With FCC Standards

FOR HOME OR OFFICE USE
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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

  1. This device may not cause harmful interference and
  2. This device must accept any interference received, including interference that may cause undesired operation.

This device has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

  ▪ Reorient or relocate the receiving antenna.
  ▪ Increase the separation between the device and receiver.
  ▪ Connect the device into an outlet on a circuit different from that to which the receiver is connected.
  ▪ Consult the dealer or an experienced radio/television technician for help.

Usage Notice

RESPONSIBLE PARTY: Ricoh Americas Corporation
5 Dedrick Place, West Caldwell, NJ 07006
Phone: 973-882-2000

Notice: Shielded cables

All connections to other computing devices must be made using shielded cables to maintain compliance with FCC regulations.

Caution

Changes or modifications not expressly approved by the manufacturer could void the user's authority, which is granted by the Federal Communications Commission, to operate this projector.

LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS.

Notes to Users in the State of California

Perchlorate Material - special handling may apply, See www.dtsc.ca.gov/hazardouswaste/perchlorate.

WARNING: Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. *Wash hands after handling*.

Declaration of Conformity for EU countries

- ▪ EMC Directive 2004/108/EC (including amendments)
- ▪ Low Voltage Directive 2006/95/EC

Notice: Users in EU countries

CE Marking Traceability Information (For EU Countries Only)

Manufacturer:
Ricoh Co., Ltd.
3-6 Nakamagome 1-chome, Ohta-ku, Tokyo. 143-8555, Japan

Importer:
Ricoh Europe PLC
20 Triton Street, London. NW1 3BF, United Kingdom

User Information on Electrical and

Electronic Equipment

Users in the countries where this symbol shown in this section has been specified in national law on collection and treatment of E-waste.

Our Products contain high quality components and are designed to facilitate recycling.
Our products or product packaging are marked with the symbol below.

This product contains substances which are harmful to humans and the environment.

Usage Notice

• The lamp contains mercury.

Please dispose of this product or used lamps in accordance with local regulations.

The symbol indicates that the product must not be treated as municipal waste. It must be disposed of separately via the appropriate return and collection systems available. By following these instructions you ensure that this product is treated correctly and help to reduce potential impacts on the environment and human health, which could otherwise result from inappropriate handling. Recycling of products helps to conserve natural resources and protect the environment.
For more detailed information on collection and recycling systems for this product, please contact the shop where you purchased it, your local dealer or sales/service representatives.

Notice: Users in Turkey

EEE Yönetmeliğine Uygundur.
Bu sistem sarf malzemeleri ve yedek parçaları da dahil olmak üzere EEE Yönetmeliğine Uygundur.

All Other Users

If you wish to discard this product, please contact your local authorities, the shop where you bought this product, your local dealer or sales/service representatives.

REMOTE CONTROL BATTERY

Warning

• Never throw battery into a fire.

Using the battery improperly may cause them to explode or leak and may result in serious injury. If battery-leaking fluid contacts skin, wash the fluid off immediately with clean water and consult a doctor. If the fluid spills on an instrument, avoid contact and wipe it off using tissue paper. Then dispose of the used tissue paper as flammable garbage after moistening the tissue with water.

• Do not ingest battery, Chemical Burn Hazard.

The remote control supplied with this product contains a coin cell battery. If the coin cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.

• Keep new and used batteries away from children.

If the battery compartment does not close securely, stop using the product and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

Notes

• Be sure to use a CR2025 lithium 3V coin battery.

• Dispose of battery in a designated disposal area.

• Attention should be drawn to the environmental aspects of battery disposal.

• If the remote control does not operate correctly, or if the operating range becomes reduced, replace the battery.

• Avoid contact with water or liquid.

• Do not expose the remote control to moisture or heat.

• Do not drop the remote control.

• If the battery has leaked in the remote control, carefully wipe the case clean and install new battery.

• Dispose of used battery according to the instructions.

• The remote control may fail to operate if the infrared remote sensor is exposed to bright sunlight or fluorescent lighting.

Notice: Users in the EU

Note for the Battery and/or Accumulator Symbol

In accordance with the Battery Directive 2006/66/EC Article 20 Information for end-users Annex II, the above symbol is printed on batteries and accumulators. This symbol means that in the European Union, used batteries and accumulators should be disposed of separately from your household waste. In the EU, there are separate collection systems for not only used electrical and electronic products but also batteries and accumulators. Please dispose of them correctly at your local community waste collection/recycling centre.

Notice: Users in Taiwan

廢電池請回收

請勿將電池當作一般垃圾丟棄。這個標誌表示電池不應視為一般垃圾丟棄。僅適用於台灣。

Other Information

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

Note to Users Viewing 3D Images

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

• 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 image in a room where on 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.

Introduction

Product Features

Outstanding features include:

- True RICOH PJ S2240 - SVGA /RICOH PJ TS100 - SVGA / RICOH PJ X2240 - XGA / RICOH PJ WX2240 - WXGA / RICOH PJ X5460 - XGA / RICOH PJ WX5460 - WXGA / RICOH PJ HD5450 - 1080p addressable pixels

- Single chip DLP® technology

- NTSC M (3.58MHz)/NTSC 4.43 MHz/ PAL(B/D/G/H/I/M/N)/SECAM (B/D/G/K/ K1/L) and SDTV(480i/576i), EDTV(480p/576p), HDTV(720p/1080i/1080p) compatible

- Multi-Auto functions: Auto detection, Auto image and Auto saving the adjustments

- Full function remote control

- User friendly multilingual on screen display

- Advanced digital keystone correction and high quality full screen image re-scaling

- Built-in mono 2-Watt speaker (RICOH PJ X2240 / RICOH PJ WX2240)

- Built-in mono 10-Watt speaker (RICOH PJ X5460 / RICOH PJ WX5460 / RICOH PJ HD5450)
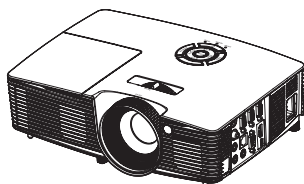
Introduction

Package Overview

This projector comes with all the items shown below. Check to make sure your unit is complete. Contact your dealer immediately if anything is missing.

Projector · Lens Cap (*1) · Remote Control (with Battery, please see page 24)

Power Cord · Carrying Bag (*1) · CD-ROM
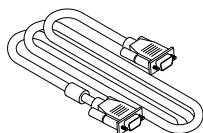
RGB Cable · Read This First

Note

❖ Due to the difference in applications for each country, some regions may have different accessories.
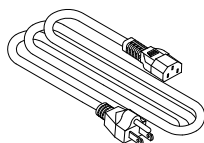
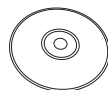❖ (*1)is not available on RICOH PJ S2240 and PJ TS100.
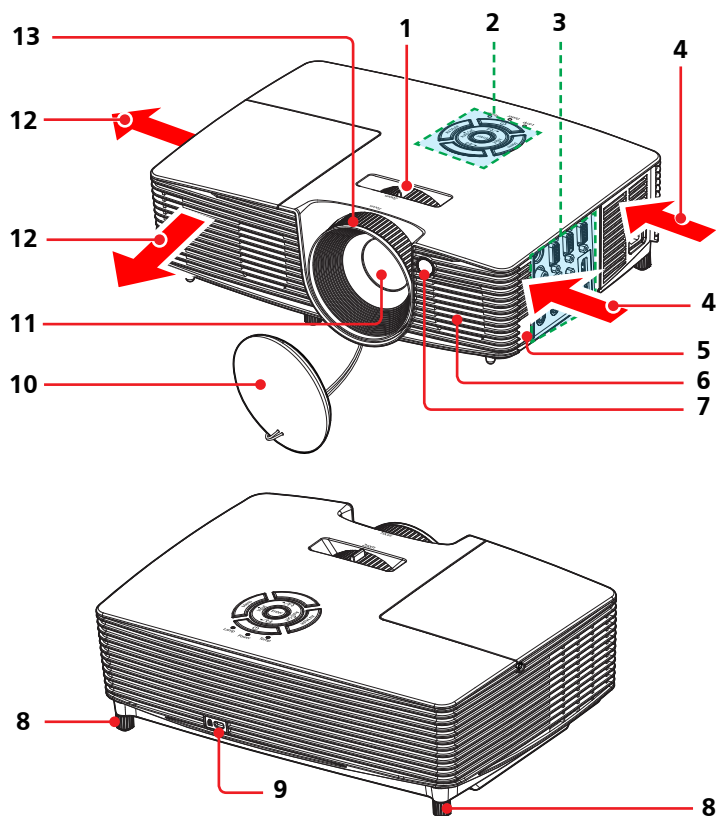

❖ About the CD-ROM

Contains an user's manual in PDF format.

Support languages are English, Japanese and Chinese. For the other languages, visit RICOH Web site.

Projector Management Utility Software can be used only RICOH PJ WX5460/X5460/HD5450

Introduction

Product Overview

1. Zoom lever
2. Control panel
3. Connection ports
4. Ventilation (inlet)
5. Security chain opening
6. Speaker
7. Remote Receiver
8. Adjustable feet
9. Anti-theft lock hole (Kensington™ lock)
10. Lens cap
11. Lens
12. Ventilation (outlet)
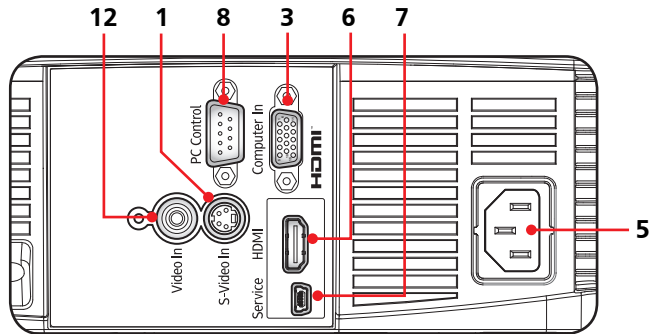13. Focus ring

Introduction

Connection Ports

RICOH PJ X2240 / RICOH PJ WX2240
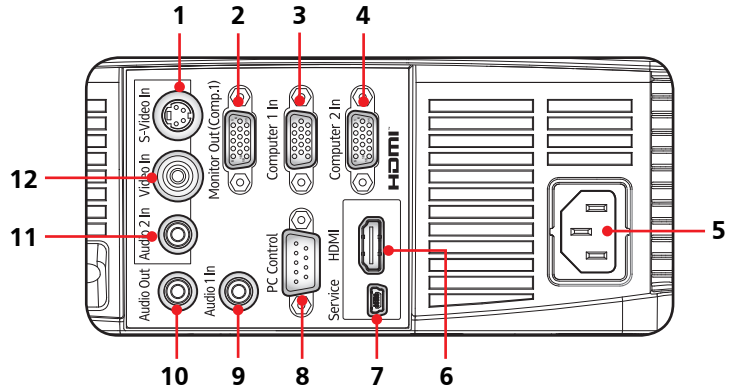
RICOH PJ S2240

Note

❖ The interface is subject to model's specifications.

RICOH PJ X5460 / RICOH PJ WX5460
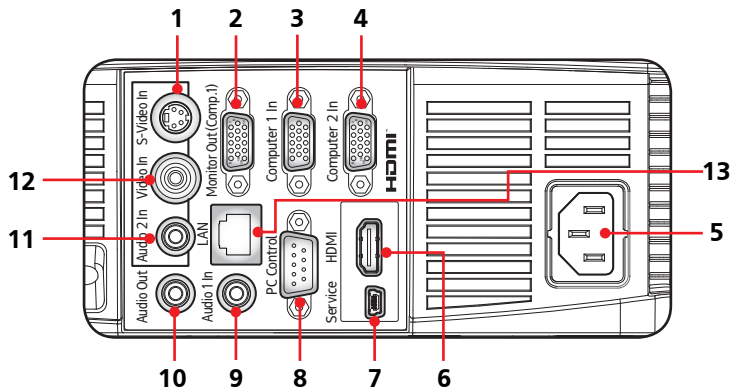
Introduction

RICOH PJ TS100
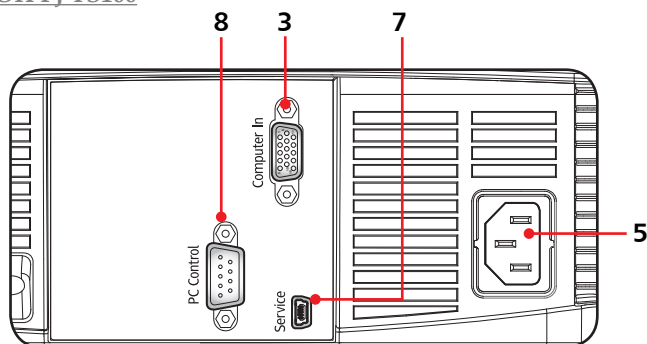
RICOH PJ HD5450
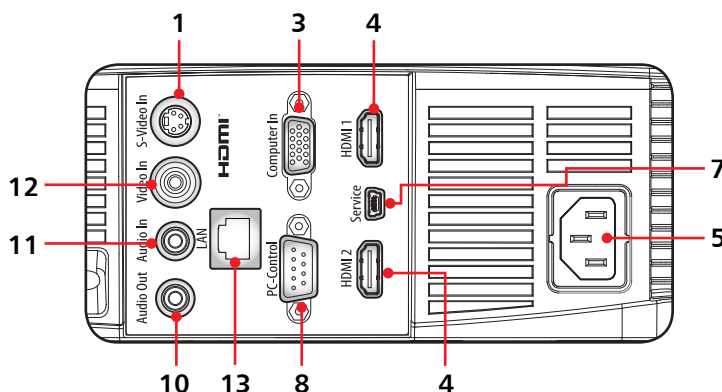
Note

❖ (*1)is not available on RICOH PJ S2240

❖ (*2)is available on RICOH PJ WX5460/X5460/HD5450.

❖ (*3)is not available on RICOH PJ TS100.

Connection Ports (continue)

1. S-Video In terminal(*3)
2. Monitor Out terminal(*1)(*3)
3. Computer 1 In terminal
4. Computer 2 In terminal(*1)(*3)
5. AC In socket
6. HDMI Input terminal(*3)
7. Service terminal
8. PC Control terminal
9. Audio 1 In terminal(*1)(*3)
10. Audio Out terminal(*1)(*3)
11. Audio 2 In terminal (For Video and S-Video)(*1)(*3)
12. Video In terminal(*3)
13. LAN terminal(*2)

Introduction

Control Panel
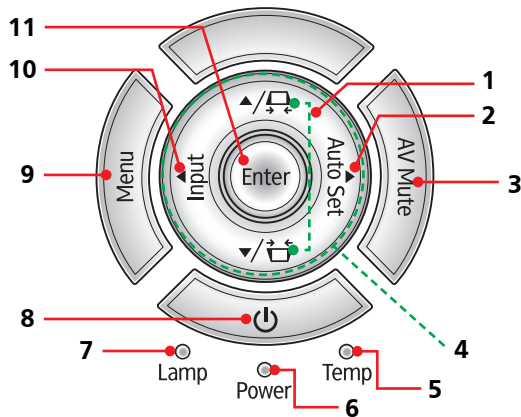
1	Keystone ⊡/⊡	Use ▲ or ▼ to adjust the image to compensate for distortion caused by tilting the projector.
2	Auto Set	Automatically synchronize the projector to the input source.
3	AV Mute	Momentarily turn off/on the audio and video.
4	Four Directional Select Keys	Use ▲ or ▼ or ◄ or ► to select items or make adjustments to your selection.
5	Temp indicator	Indicate the inside of the projector's temperature status.
6	Power indicator	Indicate the projector's power status.
7	Lamp indicator	Indicate the projector's lamp status.
8	Power	Refer to the "Power On/Off the Projector" section. (See pages 35~36)
9	Menu	Press "Menu" to launch the on screen display (OSD), or go back to the previous menu. (See page 42)
10	Input	Select the input source.
11	Enter	Select or confirm settings.

Introduction

Remote Control
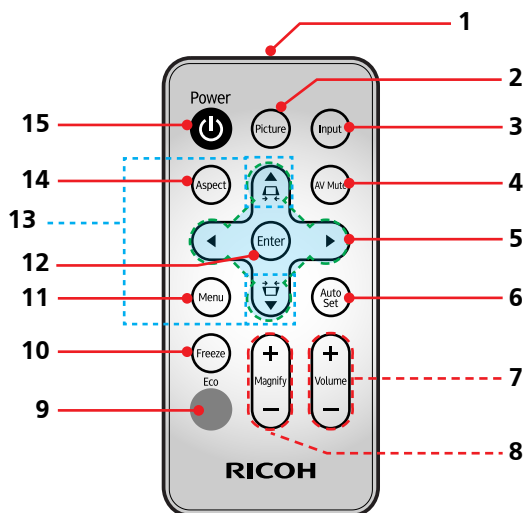
1	Transmitter	Send signals to the projector.
2	Picture	Select the preset picture mode.
3	Input	Select the input source.
4	AV Mute	Momentarily turn off/on the audio and video.
5	Four Directional Select Keys	Use ▲ or ▼ or ◄ or ► to select items or make adjustments to your selection.
6	Auto Set	Automatically synchronize the projector to the input source.
7	Volume +/-	Increase/decrease speaker volume.
8	Magnify +/-	Enlarge part of the screen image. Reduce the enlarged part of the image. (Digital Zoom)
9	Eco	Show "Lamp Power Mode" menu.
10	Freeze	Pause the screen image. Press again to resume the screen image.
11	Menu	Press "Menu" to launch the on screen display (OSD), or go back to the previous menu. (See page 33)
12	Enter	Select or confirm settings.

13	Keystone ⊡/⊟	Adjust the image to compensate for distortion caused by tilting the projector.
14	Aspect	Use this function to choose your desired aspect ratio for the screen.
15	Power	Refer to the "Power On/Off the Projector" section. (See pages 35~36)

Introduction

Remote Control Battery

For the First Time

Before using the remote control for the first time, remove the transparent insulation sheet.

Transparent insulation sheet
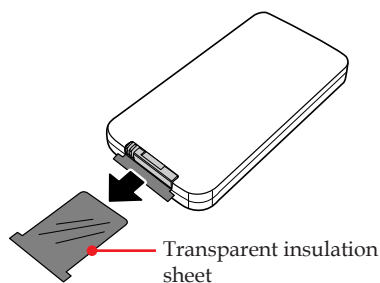
Replace the Battery

① Press the battery compartment release button and then slide out the battery tray.

② Remove the old battery and put the new battery (CR2025) into the battery tray.

③ Slide the battery tray back into the battery compartment until it snaps into place.
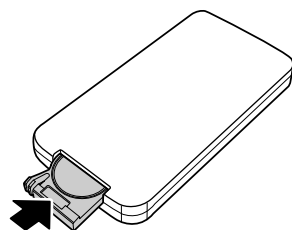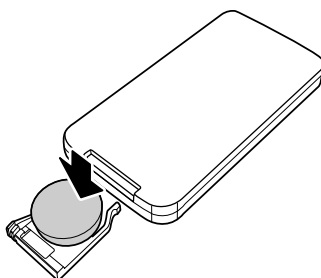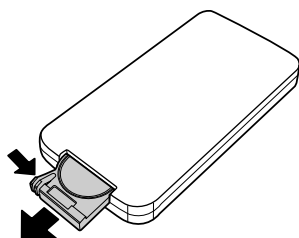
⚠ To ensure safe operation, please observe the following precautions:

■ Never throw battery into a fire.

■ Do not ingest battery, Chemical Burn Hazard.

■ Keep new and used batteries away from children.

For more detail information, please see page 13.

Introduction

Remote Control Operating Range

Point the remote control toward the projector (Remote Receiver) when pressing any button.

19.7′ (6m)
±30° (horizontally),
±20° (vertically)
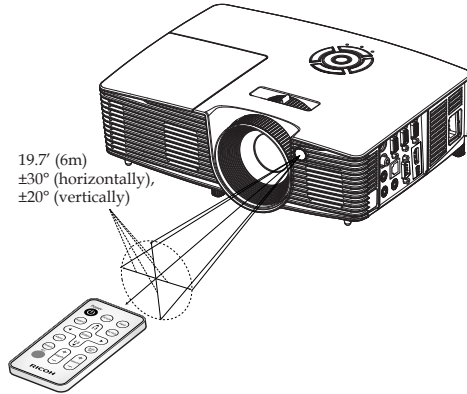
Maximum operating range for the remote control is about 19.7′ (6m) and ±30° (horizontally), ±20° (vertically) in front of the projector.

Basic Operations

Connecting the Projector

Connect to Computer/Notebook

RICOH PJ S2240

```
1..............................................................................Power cord (supplied)
2.............................................................................. HDMI/DVI cable
3..............................................................................RGB cable (supplied)
```

❖ To ensure the projector works well with your computer, please make sure the timing of the display mode is compatible with your projector. (See pages 76-79)

❖ Use the cables that come with the projector. (*)

Basic Operations

Connect to Computer/Notebook

<u>RICOH PJ TS100</u>

```
1............................................................................................Power cord (supplied)
2..............................................................................................RGB cable (supplied)
```

❖ To ensure the projector works well with your computer, please make sure the timing of the display mode is compatible with your projector. (See pages 76-79)

❖ Use the cables that come with the projector. (*)

Basic Operations

Connect to Computer/Notebook

Monitor

(*) **4**

3

2

5

2

6

Powered Speaker

1...Power cord (supplied)
2... Audio cable
3.. HDMI/DVI cable
4...RGB cable (supplied)
5.. RGB cable
6.. Audio cable

❖ To ensure the projector works well with your computer, please make sure the timing of the display mode is compatible with your projector. (See pages 76-79)

❖ Use the cables that come with the projector. (*)

Basic Operations

Connect to Computer/Notebook

RICOH PJ X5460 /
RICOH PJ WX5460

Monitor

Powered Speaker

Router /
Network Switch
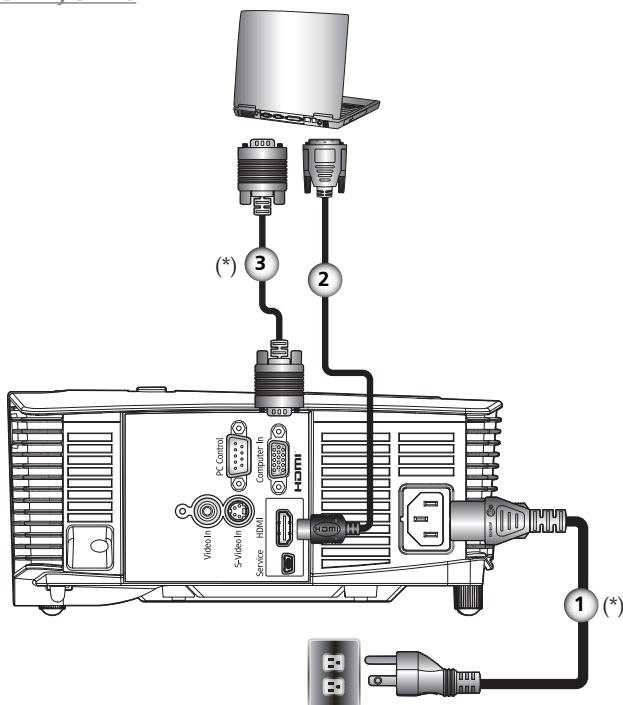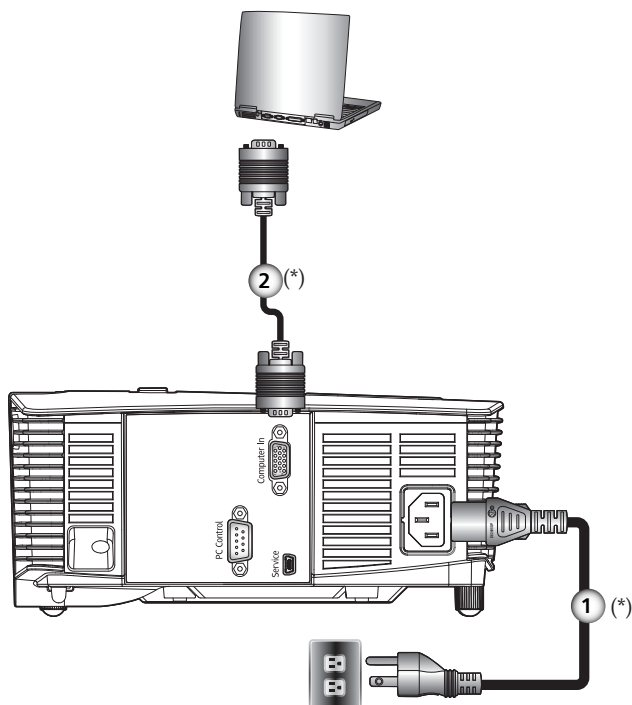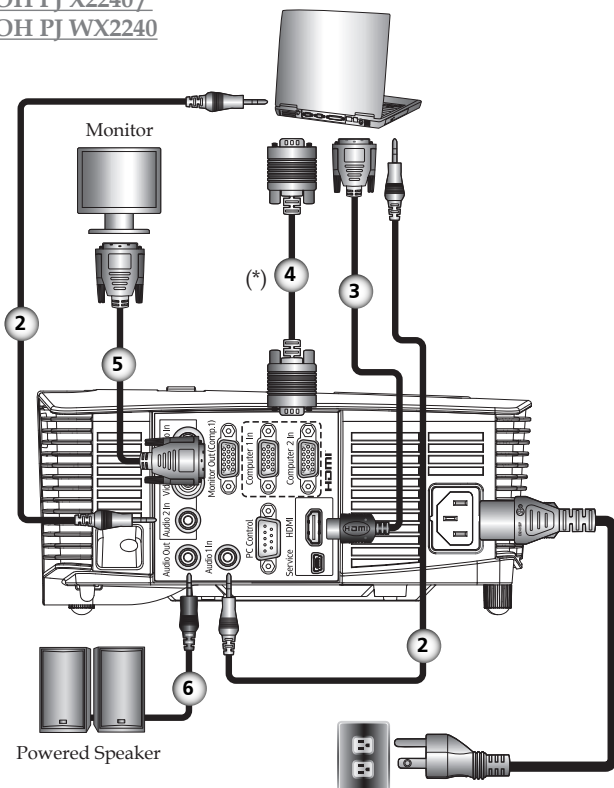
Note

❖   Make sure that the power plug is fully inserted into both the projector AC inlet and the wall outlet.

❖   The AC outlet must be near this equipment and must be easily accessible.

Note

❖   Due to the difference in applications for each country, some regions may have different accessories.

Note

❖   When "MonitorOut(Standby)" is set to "Off", the monitor out and audio out will be deactivated in standby mode.

❖   When Audio Out is connected, the built-in speaker doesn't produce sound.
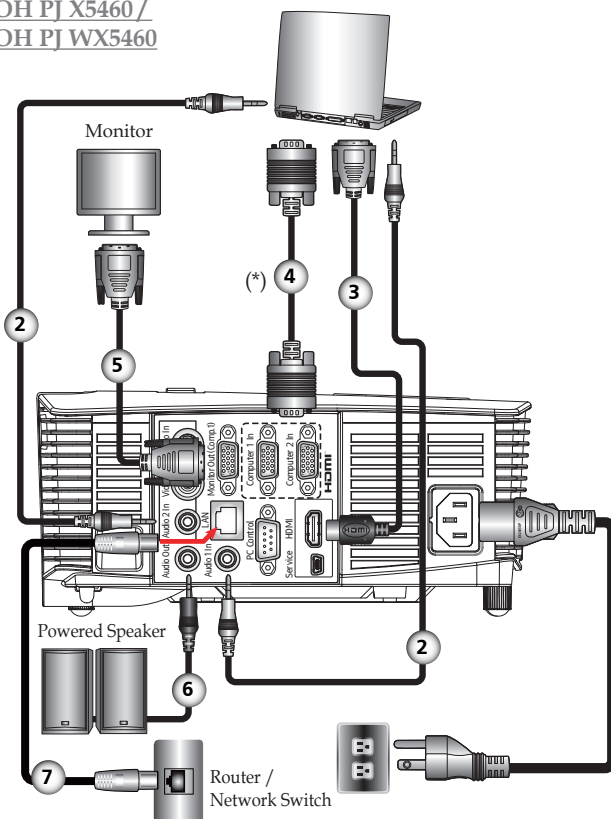
1..Power cord (supplied)
2.. Audio cable
3.. HDMI/DVI cable
4..RGB cable (supplied)
5.. RGB cable
6.. Audio cable
7..LAN cable

❖To ensure the projector works well with your computer, please make sure the timing of the display mode is compatible with your projector. (See pages 76-79)

❖Use the cables that come with the projector. (*)

English

Basic Operations

Connect to Computer/Notebook

RICOH PJ HD5450

Powered Speaker

Router / Network Switch

1...Power cord (supplied)
2.. Audio cable
3.. HDMI/DVI cable
4.. RGB cable (supplied)
5.. Audio cable
6..LAN cable

❖ To ensure the projector works well with your computer, please make sure the timing of the display mode is compatible with your projector. (See pages 76-79)

❖ Use the cables that come with the projector. (*)

Connect to AV Equipment

RICOH PJ S2240

DVD player, HDTV receiver

HDMI

Component

(*)

Video   S-Video

1...Power cord (supplied)
2...HDMI cable
3...Component-RGB Cable
4... Component Cable
5...Video cable
6.. S-Video cable

❖ Use the cables that come with the projector. (*)

Basic Operations

Connect to AV Equipment
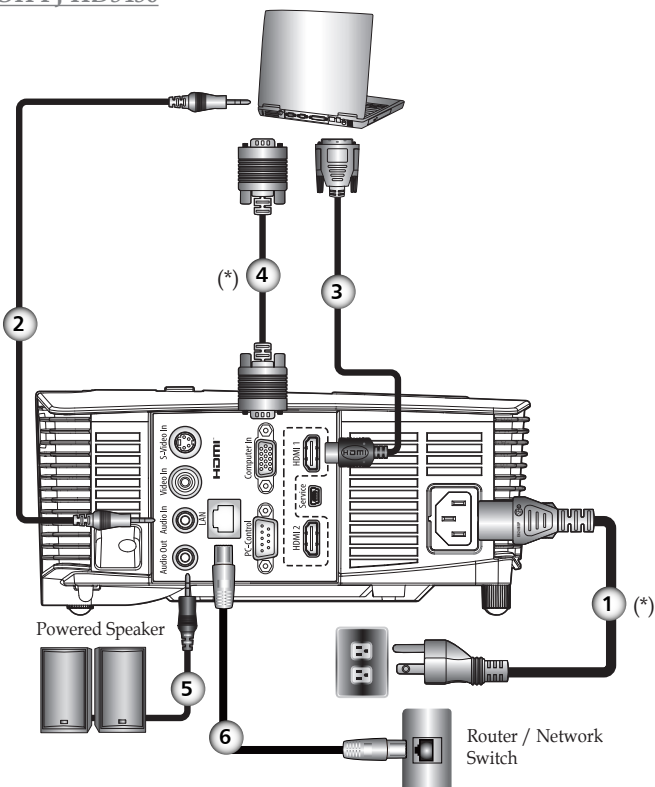
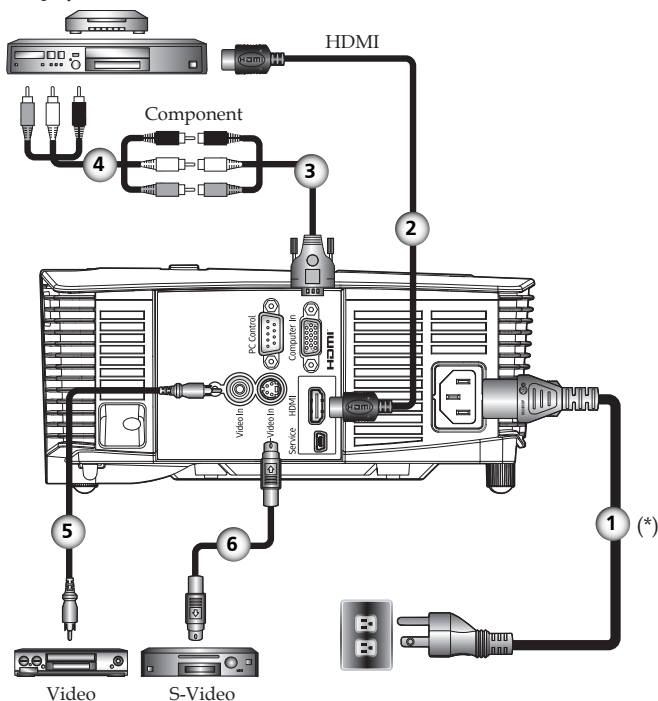### RICOH PJ X2240 / RICOH PJ WX2240

Note

❖ Make sure that the power plug is fully inserted into both the projector AC inlet and the wall outlet.

❖ The AC outlet must be near this equipment and must be easily accessible.

DVD player, HDTV receiver

HDMI

Component

Powered Speaker

Video

S-Video

Note

❖ Due to the difference in applications for each country, some regions may have different accessories.

Note

❖ When HDMI input is selected, only audio signal with HDMI can be output.

❖ When Audio Out is connected, Built-in speaker doesn't sound.

1...Power cord (supplied)
2...HDMI cable
3..Component-RGB Cable
4.. Component Cable
5... S-Video cable
6..Video cable
7.. Audio cable
8.. Audio cable

❖ Use the cables that come with the projector. (*)

Basic Operations

Connect to AV Equipment

RICOH PJ X5460 / RICOH PJ WX5460

DVD player, HDTV receiver

HDMI

Component

Powered Speaker

Video

S-Video

Note

❖ Make sure that the power plug is fully inserted into both the projector AC inlet and the wall outlet.

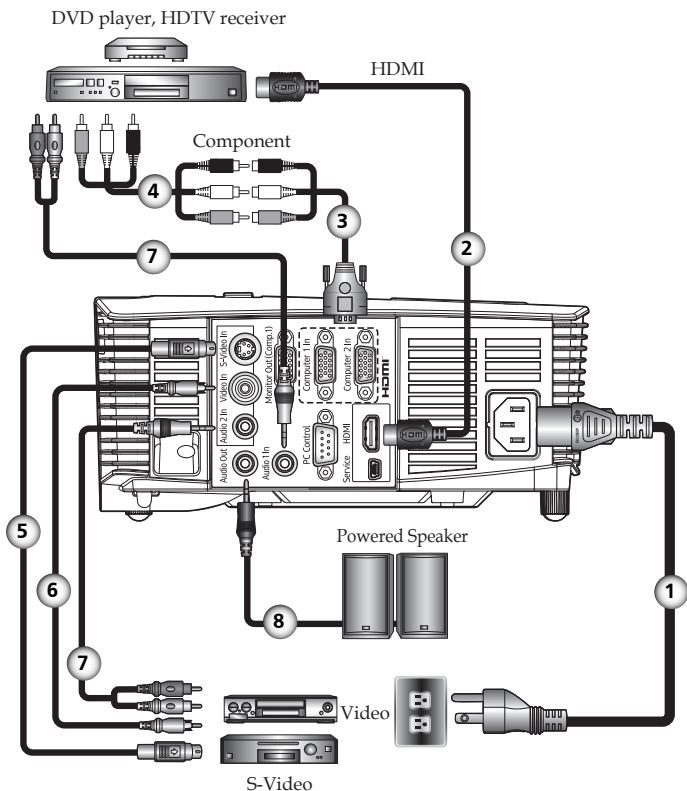❖ The AC outlet must be near this equipment and must be easily accessible.

Note

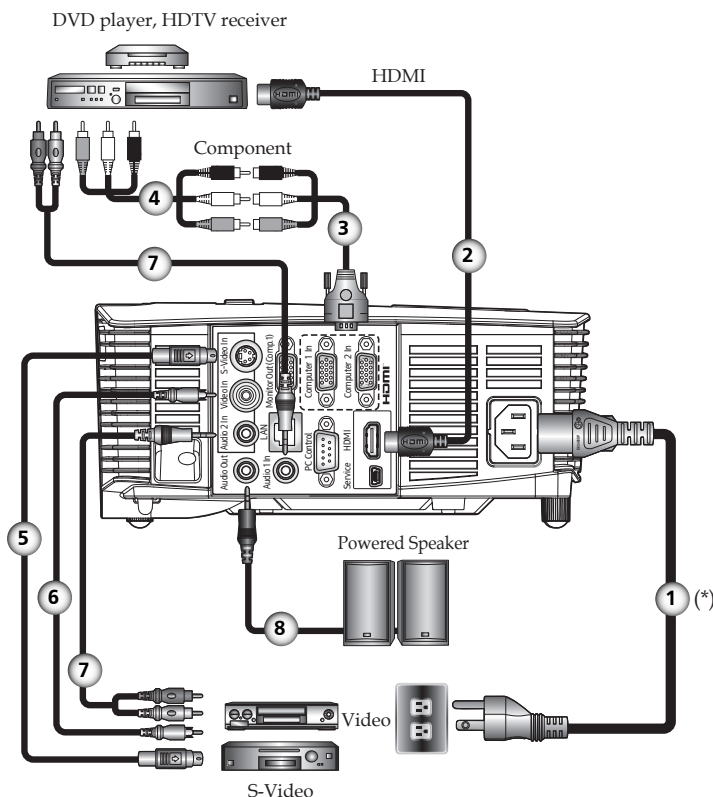❖ Due to the difference in applications for each country, some regions may have different accessories.

Note

❖ When HDMI input is selected, only audio signal with HDMI can be output.

❖ When Audio Out is connected, Built-in speaker doesn't sound.

1...Power cord (supplied)
2...HDMI cable
3..Component-RGB Cable
4...Component Cable
5..S-Video cable
6...Video cable
7...Audio cable
8...Audio cable

❖ Use the cables that come with the projector. (*)

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English

Basic Operations

❖ Make sure that the power plug is fully inserted into both the projector AC inlet and the wall outlet.

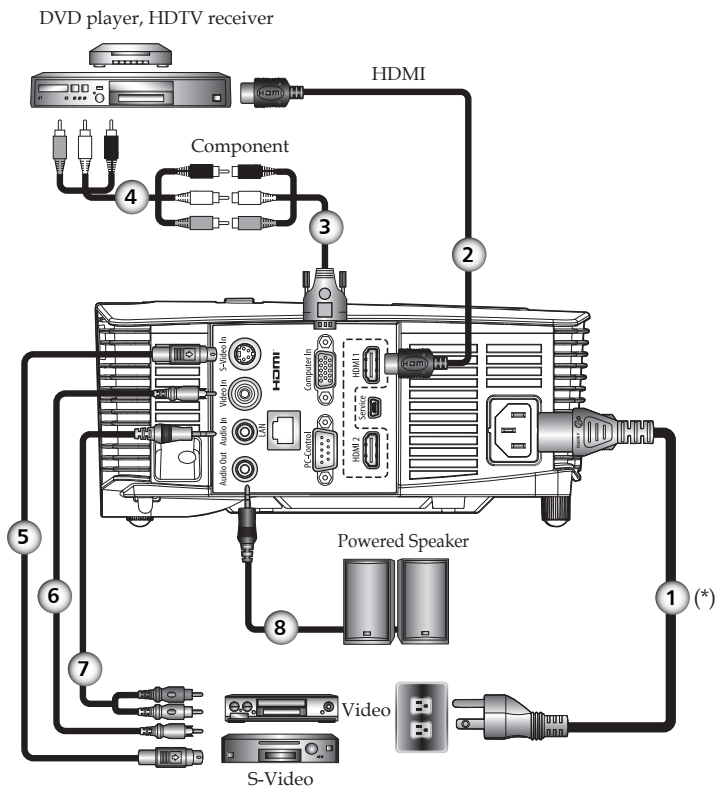❖ The AC outlet must be near this equipment and must be easily accessible.

Connect to AV Equipment

RICOH PJ HD5450

DVD player, HDTV receiver

HDMI

Component

❖ Due to the difference in applications for each country, some regions may have different accessories.

Powered Speaker

Video

S-Video

❖ When HDMI input is selected, only audio signal with HDMI can be output.

❖ When Audio Out is connected, Built-in speaker doesn't sound.

1...Power cord (supplied)
2...HDMI cable
3...Component-RGB Cable
4... Component Cable
5.. S-Video cable
6...Video cable
7... Audio cable
8... Audio cable

❖ Use the cables that come with the projector. (*)

Basic Operations

Powering On/Off the Projector

Powering On the Projector

1. Ensure that the power cord and signal cable are securely connected. The Power indicator will turn red.

2. Remove the lens cap. ❶ There is no lens cap on RICOH PJ S2240/PJ TS100.

3. Turn on the lamp by pressing the "⏻" button on the control panel or the remote control. ❷ The Power indicator will flash blue.

    The startup screen will display and the Power indicator will turn blue.

4. The first time you use the projector, you will be asked to select the preferred language. Turn on your source (computer, notebook, video player, etc.) The projector will detect your source automatically.

    Make sure that the "Auto Source" has been set to "On".

CAUTION:
• Do not look into the lens while the lamp is on. The strong light from the lamp may cause damage to your eyesight.
• Do not block the air intake or exhaust. Doing so could cause a fire due to internal overheating.
• Do not place your hands, face, or other objects near the air exhaust, the lamp cover or the bottom of the unit. Doing so could result in injury and/or damage the object.

Note

❖ If you connect multiple sources at the same time, press "Input" to switch inputs.

Note

❖ Turn on the projector first and then the signal sources.

② Power

OR

Power

Lens Cap

①

35
English
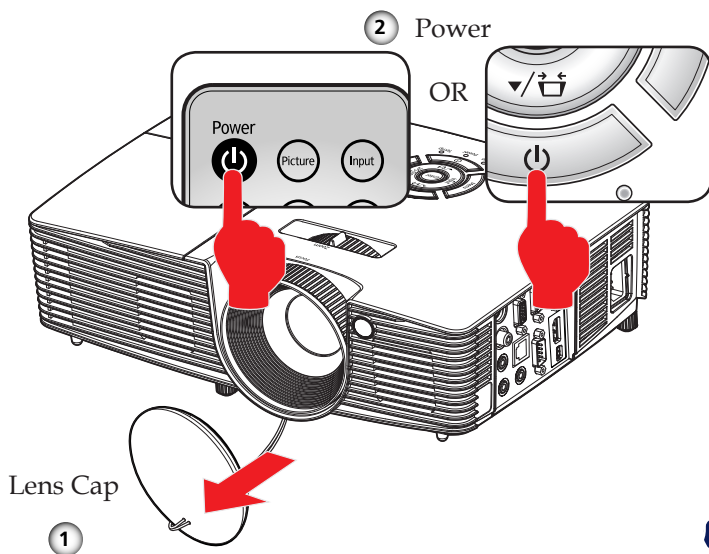
Basic Operations

Powering Off the Projector

1. Press the "⏻" button and you will see a message as below on the on-screen display.
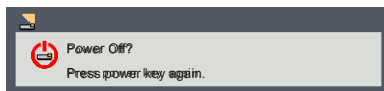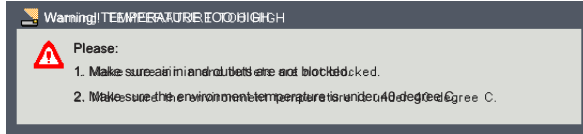

2. Press the "⏻" button again to turn off the projector lamp.

3. The cooling fan continues to operate for about 30 seconds for cooling cycle and the Power indicator will flash red. After cooling down, the light stops flashing, and then the projector will enter the standby mode.

   If you wish to turn the projector back on, you must wait until the projector has completed the cooling cycle and has entered standby mode. Once in standby mode, simply press the "⏻" button to restart the projector.

4. Disconnect the power cord from the electrical outlet and the projector.

Warning Indicator

❖ When the "Temp" indicator lights red, it indicates the projector has overheated. The projector will automatically shut itself down.

Warning TEMPERATURE TOO HIGH

Please:
1. Make sure air in and outlets are not blocked.
2. Make sure the environment temperature is under 40 degree C.

❖ When the "Lamp" indicator lights red, and you see the message below displays on-screen, the projector has detected that the lamp is approaching its end of life. Please change the lamp as soon as possible or contact your local dealer or our service center.

Warning Lamp

Lamp is approaching the end of its useful life.
Replacement Suggested!
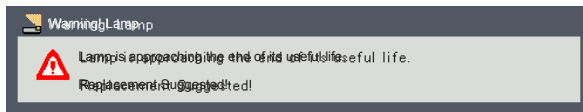
❖ When the "Temp" indicator flashes red (0.5 sec on, 0.5 sec off) and the message below displays, it indicates the cooling fan failed. Stop using the projector and disconnect the power cord from the electrical outlet, then contact your local dealer or our service center.

Warning FAN LOCKED

The projector will switch off automatically.
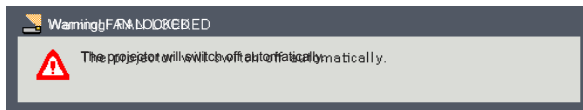
Adjusting the Projected Image

Adjusting the Position of Projector Image

The projector is equipped with adjustable feet to raise and lower the image to fill the screen.

1. Locate the adjustable foot you wish to modify on the underside of the projector.

2. Rotate the adjustable ring clockwise to raise the projector or counter clockwise to lower it. Repeat with the remaining feet as necessary.
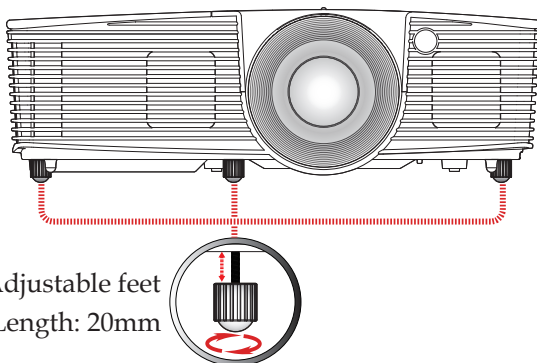
*Note*

❖ You can incline the projector up to 6.5° by rotating the adjustable feet.

Front Adjustable feet
Maximum Length: 20mm

Adjusting the Projector Zoom and Focus

You may turn the zoom lever to zoom in or out. To focus the image, rotate the focus ring until the image is clear.

‣ RICOH PJ S2240/PJ TS100/PJ X2240/PJ X5460: Focus at distances from 3.94 to 39.4 feet (1.2 to 12.0 meters).

‣ RICOH PJ WX2240/PJ WX5460: Focus at distances from 3.28 to 36.1 feet (1.0 to 11.0 meters).

‣ RICOH PJ HD5450: Focus at distances from 4.89 to 32.7 feet (1.5 to 10.0 meters).

Zoom Lever

Focus Ring
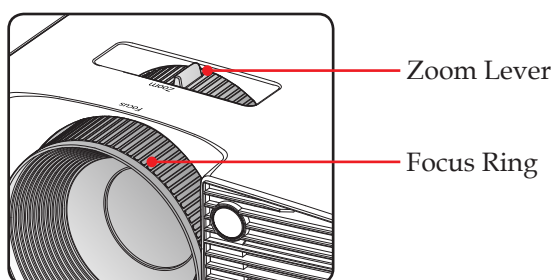
Adjusting Projection Image Size

‣ RICOH PJ S2240/PJ TS100/PJ X2240/PJ X5460: Projection Image Size from 30″ to 300″ (0.76 to 7.6 meters)

‣ RICOH PJ WX2240/PJ WX5460: Projection Image Size from 30″ to 300″ (0.76 to 7.6 meters)

‣ RICOH PJ HD5450: Projection Image Size from 38″ to 300″ (0.97 to 7.6 meters)

Height

Diagonal

Width

Side View

Screen

Screen (H)

Offset (Hd)

Projection Distance (D)
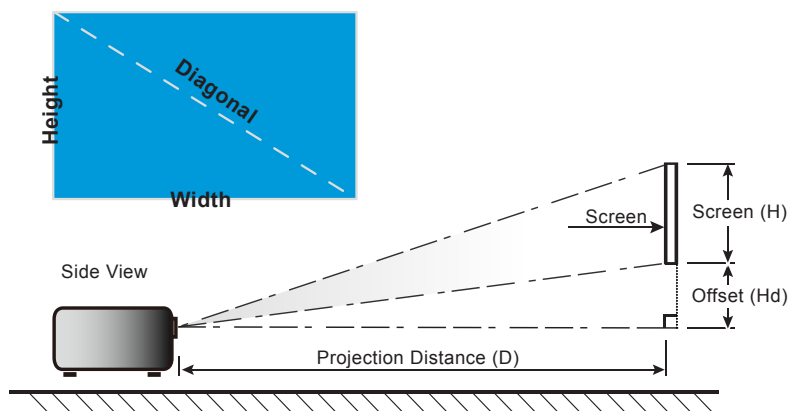
Basic Operations

RICOH PJ S2240 /PJ TS100/ PJ X2240 / PJ X5460

Diagonal length (inch) size of 4:3 Screen	Screen Size W x H				Projection Distance (D)				Offset (Hd)	
	(m)		(inch)		(m)		(feet)			
	Width	Height	Width	Height	wide	tele	wide	tele	(m)	(feet)
30	0.6	0.5	24.0	18.0	1.2	1.3	3.9	4.3	0.07	0.23
40	0.8	0.6	32.0	24.0	1.6	1.8	5.2	5.7	0.09	0.30
60	1.2	0.9	48.0	36.0	2.4	2.6	7.8	8.6	0.14	0.45
70	1.4	1.1	56.0	42.0	2.8	3.1	9.1	10.0	0.16	0.52
80	1.6	1.2	64.0	48.0	3.2	3.5	10.4	11.5	0.18	0.60
90	1.8	1.4	72.0	54.0	3.6	3.9	11.7	12.9	0.21	0.67
100	2.0	1.5	80.0	60.0	4.0	4.4	13.0	14.3	0.23	0.75
120	2.4	1.8	96.0	72.0	4.8	5.2	15.6	17.2	0.27	0.90
150	3.1	2.3	120.0	90.0	5.9	6.6	19.5	21.5	0.34	1.13
200	4.1	3.1	160.0	120.0	7.9	8.7	26.0	28.7	0.46	1.50
250	5.1	3.8	200.0	150.0	9.9	10.9	32.5	35.8	0.57	1.88
300	6.1	4.6	240.0	180.0	11.9	13.1	39.0	43.0	0.69	2.25

❖This table is for user's reference only.

RICOH PJ WX2240 / PJ WX5460

Diagonal length (inch) size of 16:10 Screen	Screen Size W x H				Projection Distance (D)				Offset (Hd)	
	(m)		(inch)		(m)		(feet)			
	Width	Height	Width	Height	wide	tele	wide	tele	(m)	(feet)
30	0.7	0.4	25.4	15.9	1.0	1.1	3.3	3.6	0.05	0.16
40	0.9	0.5	33.9	21.2	1.3	1.5	4.4	4.8	0.07	0.22
60	1.3	0.8	50.9	31.8	2.0	2.2	6.6	7.2	0.10	0.33
70	1.5	0.9	59.4	37.1	2.3	2.6	7.7	8.4	0.12	0.38
80	1.7	1.1	67.8	42.4	2.7	2.9	8.8	9.6	0.13	0.44
90	1.9	1.2	76.3	47.7	3.0	3.3	9.9	10.8	0.15	0.49
100	2.2	1.4	84.8	53.0	3.3	3.7	11.0	12.0	0.17	0.55
120	2.6	1.6	101.8	63.6	4.0	4.4	13.1	14.4	0.20	0.66
150	3.2	2.0	127.2	79.5	5.0	5.5	16.4	18.0	0.25	0.82
180	4.3	2.7	169.6	106.0	6.7	7.3	21.9	24.0	0.33	1.10
200	5.4	3.4	212.0	132.5	8.3	9.2	27.4	30.0	0.42	1.37
300	6.5	4.0	254.4	159.0	10.0	11.0	32.9	36.0	0.50	1.64

❖This table is for user's reference only.

RICOH PJ HD5450

Diagonal length (inch) size of 16:9 Screen	Screen Size W x H				Projection Distance (D)				Offset (Hd)	
	(m)		(inch)		(m)		(feet)			
	Width	Height	Width	Height	wide	tele	wide	tele	(m)	(feet)
38	0.84	0.47	33.1	18.6	-	1.5	-	5.0	0.08	0.25
45	1.00	0.56	39.2	22.1	1.5	1.8	4.9	5.9	0.09	0.29
50	1.11	0.62	43.6	24.5	1.7	2.0	5.4	6.5	0.10	0.33
60	1.33	0.72	52.3	29.4	2.0	2.4	6.5	7.8	0.12	0.39
70	1.55	0.87	61.0	34.3	2.3	2.8	7.6	9.2	0.14	0.46
80	1.77	1.00	69.7	39.2	2.7	3.2	8.7	10.5	0.16	0.52
90	1.99	1.12	78.4	44.1	3.0	3.6	9.8	11.8	0.18	0.59
100	2.21	1.25	87.2	49.0	3.3	4.0	10.9	13.1	0.20	0.65
120	2.66	1.49	104.6	58.8	4.0	4.8	13.1	15.7	0.24	0.78
150	3.32	1.87	130.7	73.5	5.0	6.0	16.3	19.6	0.30	0.98
200	4.43	2.49	174.3	98.1	6.6	8.0	21.8	26.1	0.40	1.31
300	6.64	3.74	261.5	147.1	10.0	-	32.7	-	0.50	1.96

❖This table is for user's reference only.

Using the On Screen Display (OSD)

The Projector has a multilingual On Screen Display that allows you to make image adjustments and change a variety of settings.

How to operate

1. To open the OSD, press "Menu" on the Control Panel or Remote Control.

2. When OSD is displayed, use ▲ ▼ keys to select any item in the main menu. While making a selection on a particular page, press ▶ or "Enter" key to enter sub menu.

3. Use ▲ ▼ keys to select the desired item in the sub menu and press ▶ or "Enter" key to view further settings. Adjust the settings by using ◀▶ key or ▲ ▼ key.

4. Select the next item to be adjusted in the sub menu and adjust as described above.

5. Press "Enter"or "Menu" to confirm, and the screen will return to the previous menu.

6. To exit, press "Menu" again. The OSD menu will close and the projector will automatically save the new settings.

Main Menu

Sub Menu
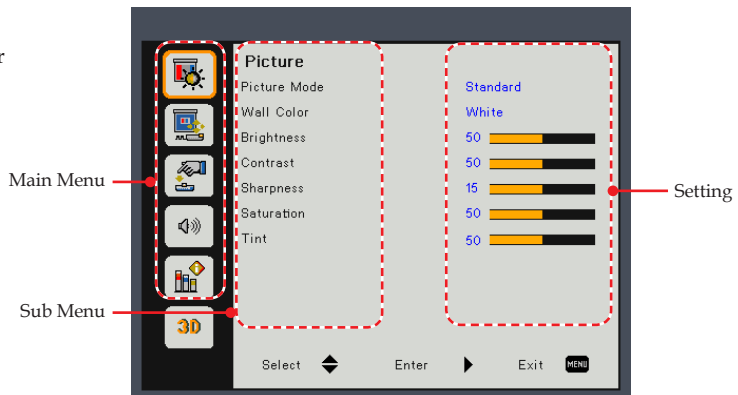
Setting
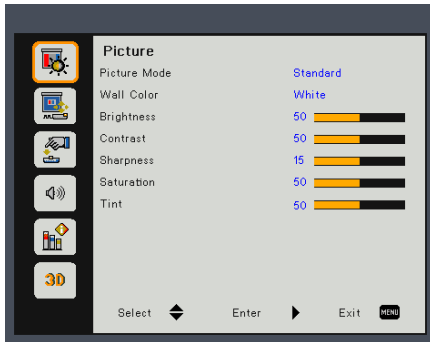
Picture

Picture Mode

There are many factory presets optimized for various types of images. Use the ▲ or ▼ key to select the item.

▶ Bright: Mode for emphasizing brightness.

▶ Standard: Mode for optimizing the balance between brightness and color reproduction.

▶ Game: For game content.

▶ Natural: Mode for emphasizing color reproduction.

▶ User: User defined settings.

Wall Color

Use this function to obtain an optimized screen image according to the wall color. The available options: White/ Light Yellow/ Light Blue/ Pink/ Dark Green.

Brightness

Adjust the brightness of the image.

▶ Press the ◀ key to darken image.

▶ Press the ▶ key to lighten the image.

User Settings

Contrast

The contrast controls the degree of difference between the lightest and darkest parts of the picture. Adjusting the contrast changes the amount of black and white in the image.

▶ Press the ◀ key to decrease the contrast.

▶ Press the ▶ key to increase the contrast.

Sharpness

Adjust the sharpness of the image.

▶ Press the ◀ key to decrease the sharpness.

▶ Press the ▶ key to increase the sharpness.

Saturation

Adjust the color saturation of the image.

▶ Press the ◀ key to decrease the amount of color in the image.

▶ Press the ▶ key to increase the amount of color in the image.

Tint

Adjust the color balance of the image.

▶ Press the ◀ key to adjust the image color grrenish.

▶ Press the ▶ key to adjust the image color reddish.
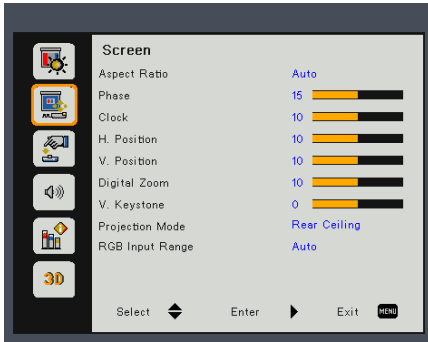
Screen

Aspect Ratio

Use this function to choose your desired aspect ratio.

▸ Auto: Automatically selects the appropriate display format. When input is 4:3, the image is displayed as 4:3. When input is 16:9 above, the image is displayed as 16:9.

▸ 4:3: Displays 4:3 aspect ratio.

▸ 16:9: Displays 16:9 aspect ratio.

Phase

Eliminate flicker from the image displayed. Use the ◂ or ▸ key to adjust the value.

Clock

Adjust the number of total dots in one horizontal period. Use the ◂ or ▸ key to adjust number to match your PC image.

H. Position (Horizontal Position)

Shift the projected image position horizontally.

▸ Press the ◂ key to move the image left.

▸ Press the ▸ key to move the image right.

❖ "H. Position" and "V. Position" functions are only supported under Computer Signal source.

V. Position (Vertical Position)

Shift the projected image position vertically.

| V. Position | 10 |

- ▶ Press the ◀ key to move the image down.
- ▶ Press the ▶ key to move the image up.

Digital Zoom

Adjust the digital zoom ratio of the projected image.

| Digital Zoom | 3 |

- ▶ Press the ◀ key to reduce the size of an image.
- ▶ Press the ▶ key to magnify an image on the projection screen.

V. Keystone

Press the ◀ or ▶ key to adjust image distortion vertically. If the image looks trapezoidal, this option can help make the image rectangular.

Projection Mode

Use this function to select the projector mode, depending upon how the projector is mounted.

- ▶ Front: This is the default selection. The image is projected straight on the screen.
- ▶ Front Ceiling: When selected, the image will turn upside down.
- ▶ Rear: When selected, the image will appear reversed.
- ▶ Rear Ceiling: When selected, the image will appear reversed in upside down position.

Note

❖ "RGB Input Range" is only supported under HDMI source.

RGB Input Range

Adjust the color range of the HDMI image data.

- ▶ Auto: Automatically detect RGB range.
- ▶ Standard: Process the input image as standard range data.
- ▶ Full: Select this mode when computer signal or full range signal from AV equipment is input.

Setting

Language

Choose the multilingual OSD. Press "Enter" to open the sub menu and then use the ▲ or ▼ or ◀ or ▶ key to select your preferred language. Press "Enter" to finalize the selection.

Note

❖ "Monitor Out (Standby)" menu option is not available on RICOH PJ S2240/ RICOH PJ TS100.

Monitor Out (Standby)

Enable/Disable the Monitor output function.

▶ On: Enable the Monitor Out function at projector standby status.

▶ Off: Disable the Monitor Out function at projector standby status.

Note

❖ "Network (Standby)" menu option is only available on RICOH PJ X5460 / RICOH PJ WX5460/ RICOH PJ HD5450.

Network (Standby)
(RICOH PJ X5460 / PJ WX5460 / PJ HD5450 only)

Enable/Disable the network function.

▶ On: Enable the network function at projector standby status.
▶ Off: Disable the network function at projector standby status.

User Settings

Network
(RICOH PJ X5460 / PJ WX5460 /PJ HD5450 only)

Configure the network settings.

▶ Network State: Display the network connection status.

▶ DHCP: Select **On** to allow the projector to obtain an IP address automatically from your network. Select **Off** to manually assign IP, Subnet Mask, Gateway and DNS configuration.

▶ IP Address: Set an IP address or display IP address provided from DHCP server when DHCP is set to **On**.

▶ Subnet Mask: Set subnet mask number or display subnet mask number provided from DHCP server when DHCP is set to **On**.

▶ Gateway: Set the default gateway of the network connected to the projector or display the default gateway of the network provided from DHCP server when DHCP is is set to **On**.

▶ Apply: Select **Yes** to apply the changes made in network configuration settings.

▶ MAC: Display MAC address.

Reset

Return the adjustments and settings to the factory default values. Choose "Yes" to return the display parameters on all menus except Language and Lamp Hours Used to the factory default settings. LAN Control settings also return to the factory default. Set again after reset.

User Settings

Volume

Mute

Temporarily turn off the sound.

‣ Choose "On" to mute the sound.

‣ Choose "Off" to turn mute off.

Volume

Adjust the volume level.

‣ Press the ◀ key to decrease the volume.

‣ Press the ▶ key to increase the volume.
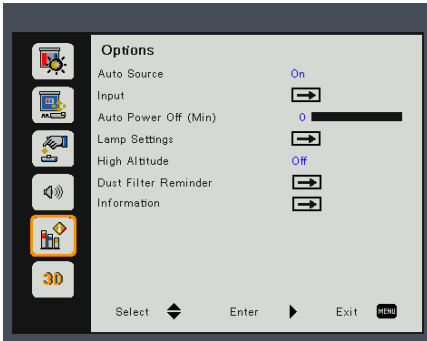
Options

<u>Auto Source</u>

When this function is turned "On", the projector will search for other signals if the current input signal is lost. When this function is turned "Off", it will only search a specified connection port.

<u>Input</u>

Use this option to enable/disable input sources. Press the ► key to enter the sub menu and select which sources you require. Press "Enter" to finalize the selection. The projector will only search for inputs that are enabled.

<u>Auto Power Off (Min)</u>

Sets the countdown timer interval. The countdown timer will start, when there is no signal being sent to the projector. The projector will automatically power off when the countdown has finished (in minutes). When countdown timer is selected to "0", auto power off is disabled.

Note

❖ Default value of "Auto Power Off (Min)" is 20 min.
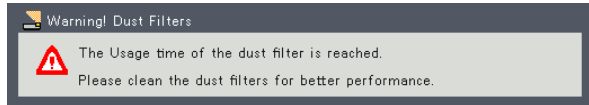
User Settings

Lamp Settings

Use this option to view the lamp life status and configure the lamp settings. Press the ► key to enter the sub menu and configure the desired settings.

```
Lamp Settings
Lamp Hours Used (Normal)          9999
Lamp Life Reminder                 Off
Lamp Power Mode                  Normal
Image Eco                          Off



Select  ⬍        Enter  ▶      Exit  MENU
```
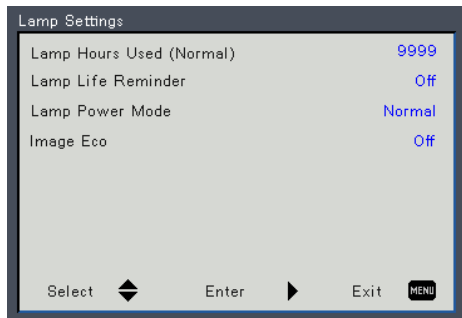
Note

❖ When ambient temperature is over 40°C in operating, the projector will switch to "ECO" automatically.

▸ Lamp Hours Used (Normal): Display the projection time.

 Lamp Hours Used in Eco mode or "Image Eco" mode "On" will be converted to Lamp Hours Used in "Normal" mode.

▸ Lamp Life Reminder: Choose this function to show or to hide the warning message when the changing lamp message is displayed. The message will appear 30 hours before suggested replacement of lamp.

▸ Lamp Power Mode: Set the brightness mode. Choose "Normal" to increase the brightness or choose "ECO" to dim the projector lamp which will lower power consumption and extend the lamp life.

▸ Image Eco: Choose "On" to dim the lamp power, depending on the brightness level of images, and significantly reduce the lamp power consumption. The lamp life will be extended.

High Altitude

When "On" is selected, the fans will spin faster. Set High Altitude mode to "On" when the projector is used over 2500ft (750m) elevation.

```
High Altitude          On        Off
```

Dust Filter Reminder

Use this option to view the filter status and configure the filter settings. Press the ► key to enter the sub menu and configure the desired settings.

This item is disabled for the projector sold in some regions.

Dust Filter Reminder		
Filters Remind (Hour)	10	
Cleaning Up Reminder	➡	
Select ⬥	Enter ▶	Exit MENU
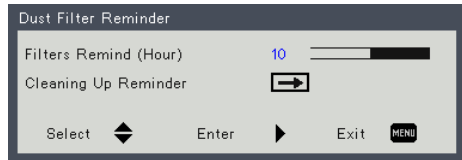
‣ Filters Remind (Hour): Set the maximum filter time usage.

‣ Cleaning Up Reminder: Choose this function to show or hide the warning message when the changing filter message is displayed.

   If the reminder function is enabled and the usage time reached its limit, a message will appear on the screen to remind you to clean or change the filter.

> **Warning! Dust Filters**
> ⚠ The Usage time of the dust filter is reached.
> Please clean the dust filters for better performance.

Information

Display the projector information.

Information	
Source	Computer1
Resolution	100x100 60hz
Software Version	A01
Color Space	No Data
Aspect Ratio	Auto
	Exit MENU
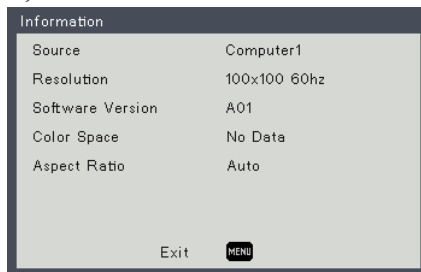
‣ Source: Display the input source that is currently connected to.
‣ Resolution: Display the resolution setting of the current input source.
‣ Software Version: Display the firmware version.
‣ Color Space: Display the currently used color matrix type.
‣ Aspect Ratio: Display the currently used aspect ratio setting.

User Settings

3D

Note

❖ Compatible 3D source, 3D content and Optical 3D glasses Type 2 is required for 3D viewing.

❖ "3D Sync Invert" is only available when 3D is enabled.

❖ This setting may need to change when re-start running 3D movie.

❖ 3D function is turned on automatically when Blu-ray 3D source is input.

3D

Use this option to enable/disable the 3D function.

▸ Off: Choose "Off" to display normal (2D) picture.

▸ On: Choose "On" to display 3D format.

3D Sync Invert

Use this option to enable/disable the 3D sync invert function.

▸ Off: Choose "Off" for default frame contents.

▸ On: Choose "On" to invert left and right frame contents. Choose "On" if viewing image is not natural or felt 3D incorrect.

3D Format

Use this option to select the appropriate 3D format content.

▸ Side by Side: Use this mode for "Side by Side" format 3D content.

▸ Top and Bottom: Use this mode for "Top and Bottom" format 3D content.

▸ Frame Sequential: Use this mode for "Frame Sequential" format 3D content.

How to use web browser to control your projector

Connecting to the projector

1. Check IP address of the projector

Check IP address in "Settings" > "Network" in the projector menu system. (See page 44 on the projector user's manual).

2. Connect

Open your web browser and type in the IP address you checked. For example, type "http://192.168.0.100" when IP address is displayed as the screen above.

Login

1. The web browser shows a login page

LAN Control

2. Select a user

You can use all functions (Control Panel, Network setting and Alert setting) when you select "**administrator**". And you can use only "**Control Panel**" when you select "**user**".

3. Enter the Password

If the password setting is enabled the correct password needs to enter.

Default passwords of Administrator: "**admin**"

Default passwords of User: "**user**"

If the password setting is disabled the "Password" item will be gray out.

Click [**Login**] button to login.

4. Login

After login, control tabs will appear. It contains **Home**, **Control Panel**, **Network Setting**, **Alert Setting**, and **Logout**.

Home is automatically selected after login.

Home

This is **Home** page which shows basic information of your projector. There is no control on this page.

1. **Projector Status**

   System Status:

   It shows the current system status of the projector. It includes Standby, Warm-up, Power-on, cooling, Power-off and Unknown.

   -Input:

   [PJ X5460][PJ WX5460]

   It shows the current input source of the projector. It includes Computer 1, Computer 2, S-Video, Video, HDMI, None and Unknown.

   -Lamp Hours:

   It shows the current lamp hours of the projector.

   -FW Version:

   It shows the current firmware version of the projector.

LAN Control

Projector Control Panel
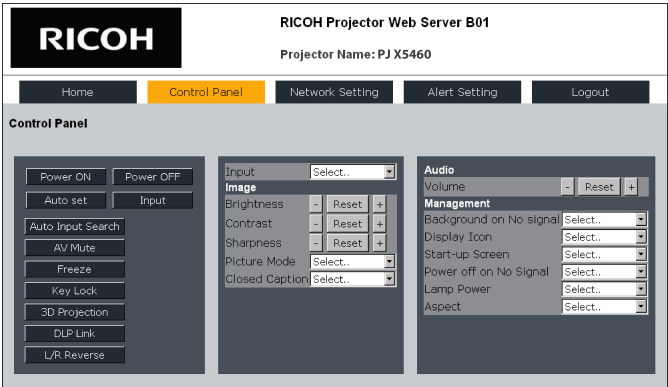
This page shows the control items of your projector. User can control the projector by this page.

Control Buttons

Execute a function when the button is clicked.

[Power ON]	Power is turned on.
[Power OFF]	Power is turned off.
[Auto Set]	Automatically adjust the RGB signal from the computer.
[Input]	Switch among Computer1, Computer2, Video, S-Video, and HDMI.

Setting Buttons

Setting is toggled On and Off by clicking the button.

[Auto Source]	Search the next signal source automatically when the current signal is lost.
	(See p.47 on the Projector User's manual)
[AV Mute]	Momentarily turn off the audio and video.
[Freeze]	Pause the screen image.
[3D Projection]	Set 3D projection mode on.
[L/R Reverse]	Change left and right frame content of 3D projection.
	(See p.50).

Input Select

Select an input source from the drop down list.

Adjusting the Settings

Image

[Brightness]	Adjust brightness by clicking [+] or [-]. Click [**Reset**] to return the default value 0.
	(See p.39 on the Projector User's manual)
[Contrast]	Adjust contrast by clicking [+] or [-]. Click [**Reset**] to return the default value 0.
[Sharpness]	Adjust sharpness by clicking [+] or [-]. Click [**Reset**] to return the default value 0.
[Picture mode]	Select a picture mode from the drop down list.

Audio

[Volume]	Adjust volume by clicking [+] or [-]. Click [**Reset**] to return the default value 5

Management

[Power off on No signal]	Select power off timer value after no signal is detected from the drop down list.
[Lamp Power]	Select lamp power from the drop down list.
[Aspect]	Select aspect ratio from the drop down list.

Network Settings

Projector Setting

Projector name which is displayed in this web page can be changed.

Enter a new projector name in the box and clock [**Apply**] button.

PJLink setting

Settings of PJLink password can be changed in this section.

-Change the password.

Confirm "**Enable**" is checked in PJLink password.

Enter the current password in current password box.

Default password is "admin".

Enter a new password in both New Password box and Confirm Password box.

Click [**Apply**] button.

> **Note**
>
> ❖ This projector name is also used in PJLink control. Up to 32 alphanumeric characters and symbols are accepted.

> **Note**
>
> ❖ Up to 32 alphanumeric characters and symbols are accepted for a password.
>
> ❖ When entered the new password and the confirm password are not the same, an error message will be displayed. Re-enter passwords in this case.

-Enable the password when disabled.

Check "**Enable**" in PJLink password.

Enter a new password in both New Password box and Confirm Password box.

Click [**Apply**] button.

-Disable the password when enabled.

Check "**Disable**" in PJLink password.

Enter the current password in current password box.

Click [**Apply**] button.

Network setting

Network settings such as IP address can be set in this section.

DHCP, IP address, and Default gateway can be also set OSD menu in the projector.

DNS Server address can be set only in this section. This is required when E-mail setting is set by domain names.

-Check DHCP when network settings are provided by DHCP server in your network.

-Check Manual when you want set network settings manually.

And enter the settings to following boxes.

[**IP Address**], [**Subnet mask**], [**Default gateway**], [**DNS server**]

After settings are changed, click [**Apply**] button to apply new settings.

Password setting

Passwords setting for web pages can be changed in this section.

A password for "**Administrator**" and "**User**" can be set independently.

-Change the password.

Confirm "**Enable**" is checked in Administrator or User.

Enter the current password in current password box.

Enter a new password in both New Password box and Confirm Password box.

Click [**Apply**] button.

-**Enable the password when disabled.**

Check "**Enable**" in PJLink password.

Enter a new password in both New Password box and Confirm Password box.

Click [**Apply**] button.

-**Disable the password when enabled.**

Check "**Disable**" in Administrator or User.

Enter the current password in current password box.

Click [**Apply**] button.

Note

❖ IPv6 is not supported.

Alert Setting

Alert setting

This projector can send E-mail when an error occurs in the projector.

-**Email setting**

Enter Email settings in the boxes.

[**To**], [**Cc**] Enter an alert mail destination.

Only one destination can be entered in each destination.

[**Subject**] Enter subject of an alert mail.

[**From**] Enter a sender of an alert mail.

Click [**Apply**] to apply settings.

-SMTP Setting

Enter SMTP mail server address in the box.

Click [**Apply**] to apply settings.

-Alert Condition

Check alert mail conditions that you desire.

Fan Lock

An alert mail is sent when a cooling fan is stopped.

The body of the mail is "Fan Lock:xxx.xxx.xxx.xxx*"

Over Temperature

An alert mail is sent when internal temperature is too high.

The body of the mail is "Over Temperture:xxx.xxx.xxx.xxx*"

Lamp Hours Running Out

An alert mail is sent when lamp life is ending.

The body of the mail is "Lamp Hours Running out:xxx.xxx.xxx.xxx*"

Lamp Fail

An alert mail is sent when the projector fail to light the lamp.

The body of the mail is "Lamp Fail:xxx.xxx.xxx.xxx*"

* "*xxx.xxx.xxx.xxx*" *means IP address of the projector. (ex. 192.168.0.100)*

-Email test

Test Email is sent when click [Email Test].

Since no error will be reported even if any error is occurred in sending a test mail.

Check if the test mail is arrived to destination mail box.

The body of the mail is "Email Test:xxx.xxx.xxx.xxx"

* "*xxx.xxx.xxx.xxx*" *means IP address of the projector. (ex. 192.168.0.100)*

Logout

Click Logout tab to logout from this projector control web site.

This page will appear for 2 seconds and then jump to login page.
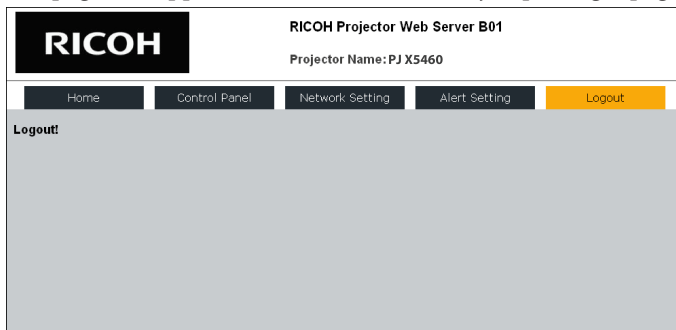
Control the Projector via the Projector Management Utility

Projector Management Utility conforms to the PJLink class 1 standards, and is compatible with all class 1 commands.

A maximum of 100 projectors connected to the network can be managed using one computer.

Projector Management Utility operating environment is described below.

• Supported operating system

  • Windows Vista (32-bit/64bit version) Ultimate, Business, Home Premium, Home Basic

  • Windows 7 (32-bit/64bit version) Home Premium, Professional, Ultimate, Enterprise

  • Windows 8 (32-bit/64bit version) Pro, Enterprise

  • Windows 8.1 (32-bit/64bit version) Pro, Enterprise

  • Windows Server 2008 SP2 (32-bit/64bit version)

  • Windows Server 2008 R2 Standard SP1 (64bit version)

• Memory size

  Recommended memory size for the operating system of the computer you are using

• Display resolution

  800 × 600 pixels or more

Installing Projector Management Utility

Projector Management Utility is included on the supplied CD-ROM.

Log in to the computer with administrator privileges to install or uninstall utilities.

1. Close all applications.

2. Insert the CD-ROM in the CD-ROM drive of your computer, and then click [X] to close the user's manual window.

3. Right click the CD-ROM icon and select OPEN.

4. Open "Projector Management Utility" folder stored on the CD-ROM.

LAN Control

5. Double-click "setup.exe" stored in the "Projector Management Utility" folder.

6. Install the application by following the on-screen instruction.

7. When the installation is complete, exit the installer.

A shortcut icon is created on the desktop.

Register projectors

### 1. Registers the projectors with Auto search

-Click [**Register Projector**] button.
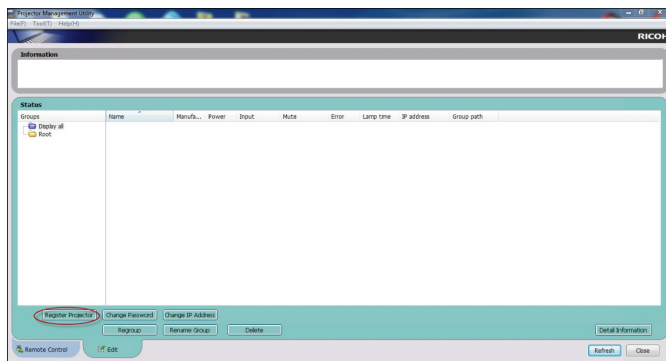
-Click [**Auto Search**] button.

<div style="note">

Note

❖ This software is to control and monitor projectors manufactured by our company. The software may not work properly when used to control other projectors.

Note

❖ To uninstall Projector Management Utility, use the program delete function in Control Panel to delete "Projector Management Utility".

</div>
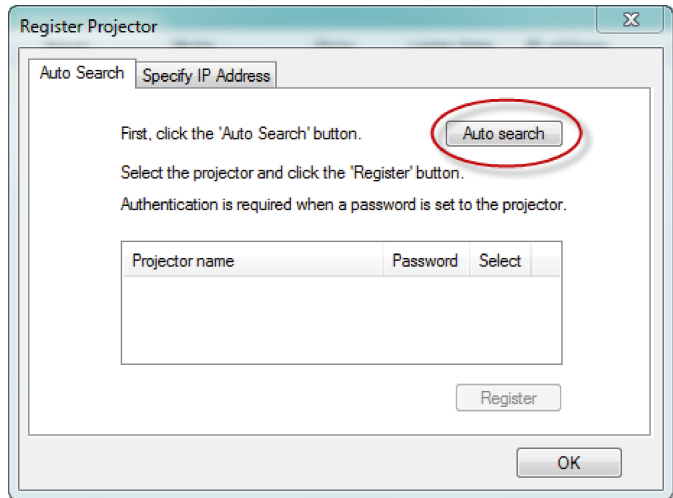
-List of projectors which support PJLink are displayed in the window. Projector name is displayed as "********" until authorization if password is enable.
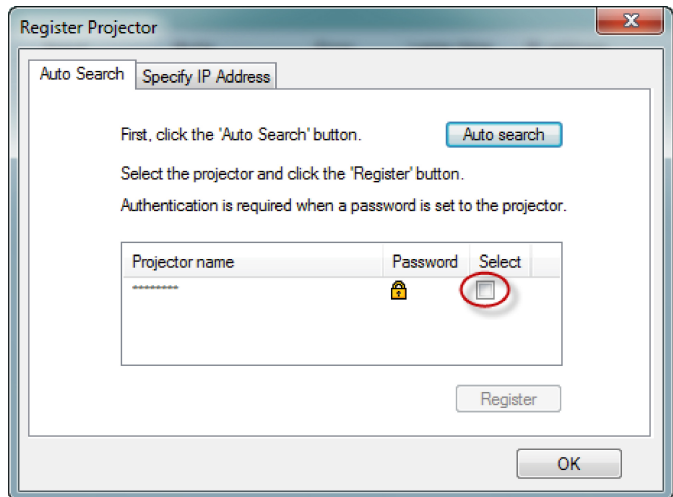
-Select the desired projector and click [**Register**] button. Password authorization is required if password of the projector is set to enable.
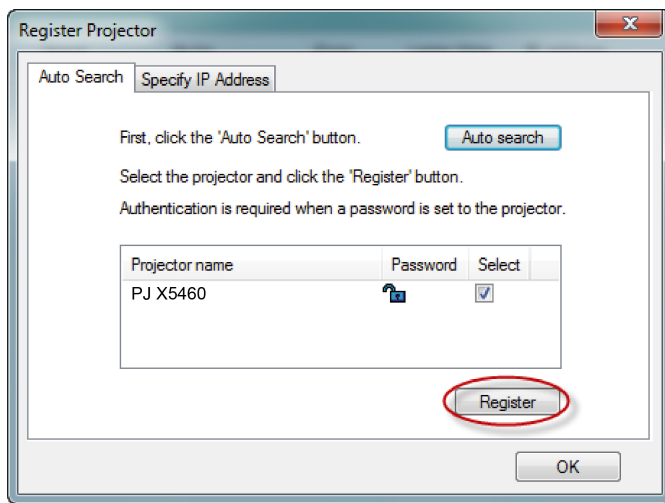
-Click [**OK**] button to return to the original screen.

2. Directly specifies the IP address and registers the projector.

-Enter IP address of the desired projector and click [Confirm] button then the projector name will be displayed. After confirming the projector name, click [Register] button.

Control the projector with the projector Management Utility

Click [**Remote Control**] tab and select the desired projector in the list. You can control the selected projector by clicking control buttons in the bottom of the window.

[Power] button

Turn "On/Off" the power of the projectors or groups selected from the Projector (/Group) List.
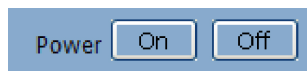
[Input] button

Switches the input source of the projectors or groups selected from the Projector (/Group) List.

Input source will not be changed if the projector doesn't support the selected input source.
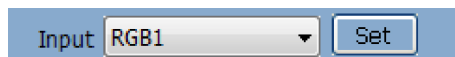
A Table of input source name in the projector and the projector management utility.

[PJ X5460][PJ WX5460]

The projector	The projector Management Utility
Computer 1	RGB 1
Computer 2	RGB 2
Video	Video 1
S-Video	Video 2
HDMI	Digital 1

[Mute] button

Turn "On/Off " the muting of the projectors or groups selected from the Projector (/Group) List. The projector only supports Video & Audio mute.
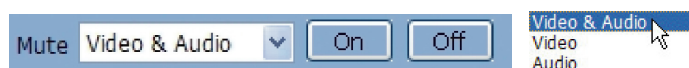
[Detail Information] button

Show detail information of the selected projector.

Troubleshooting

If you experience trouble with the projector, refer to the following information. If the problem persists, please contact your local dealer or service center.

Problem: No image appears on screen

‣ Ensure all the cables and power connections are correctly and securely connected as described in the "Installation" section.

‣ Ensure the pins of terminals are not crooked or broken.

‣ Check if the projection lamp has been securely installed. Refer to the "Replacing the lamp" section section for more information.

‣ Make sure you have removed the lens cap and the projector is switched on.

‣ Ensure that the "AV Mute" feature is not turned on.

Problem: Partial, scrolling or incorrectly displayed image

‣ Press "Auto Set" on the remote control.

‣ Adjust the computer display settings. Verify the resolution setting is less than or equal to 1600 x 1200 resolution. See your operating system's Help file.

‣ If you are using a Notebook:

   1. First, follow the steps above to adjust resolution of the computer.

   2. Press the toggle output settings. For example: [Fn]+[F3]

   PANASONIC, NEC => Fn+F3
   HP, SHARP, TOSHIBA => Fn+F5
   IBM, SONY => Fn+F7
   DELL, EPSON => Fn+F8
   FUJITSU => Fn+F10
   APPLE =>F7

‣ If you experience difficulty changing resolutions or your monitor freezes, restart all equipment including the projector.

Problem: The screen of the Notebook computer is not displaying a presentation

▶ If you are using a Notebook PC:

Some Notebook PCs may deactivate their own screens when a second display device is in use. Each has a different way to be reactivated. Refer to your computer's documentation for detailed information.

Problem: Image is unstable or flickering

▶ Adjust the "Phase" or "Clock" to correct it. Refer to the "H. Position" or "V. Position" section for more information.
▶ Check and reconfigure the display mode of your graphic card to make it compatible with the product.

Problem: Image is out of focus

▶ Adjust the Focus Ring on the projector lens.
▶ Make sure the projection screen is between the required distance. (refer to pages 39~41)

Problem: The image is stretched when displaying 16:9 DVD

Change the aspect ratio by pressing the "Aspect" button on the remote control or select "Screen > Aspect Ratio" from the OSD menu to show image with proper aspect ratio.

Problem: Image is too small or too large

▶ Adjust the Zoom lever on the top of the projector.
▶ Move the projector closer to or further from the screen.
▶ Press the "Aspect" button on the remote control or press the "Menu" button on the projector panel, go to "Screen > Aspect Ratio" and try the different settings.

Troubleshooting

Problem: Image is reversed

▶ Select "Screen > Projection Mode" from the OSD menu to adjust the image.

Problem: Lamp burns out or makes a popping sound

▶ When the lamp reaches its end of life, it will burn out and may make a loud popping sound. If this happens, the projector will not turn on until the lamp module has been replaced. To replace the lamp, follow the procedures in the "Replacing the Lamp".

Problem: Indicator lighting message

Message	POWER indicator	TEMP indicator	LAMP indicator
	(Red/Blue)	(Red)	(Red)
Standby (Input power cord)	☀ (Red)	⊘	⊘
Normal (Power on)	☀ (Blue)	⊘	⊘
Powering up (Warming up)	Flashing Blue (0.5 sec)	⊘	⊘
Power off (Cooling Down)	Flashing Red (0.5 sec)	⊘	⊘
Temperature Error (Over temperature On Event)	☀ (Blue)	☀	⊘
Temperature Error (Over temperature On Standby)	☀ (Red)	☀	⊘
Lamp Error (Lamp failed On Event)	☀ (Blue)	⊘	☀
Lamp Error (Lamp failed On Standby)	☀ (Red)	⊘	☀
Fan Error (Fan failed On Event)	☀ (Blue)	Flashing (0.5 sec)	⊘
Fan Error (Fan failed On Standby)	☀ (Red)	Flashing (0.5 sec)	⊘
Error (Color Wheel fail / Striking Lamp Fail On Event)	☀ (Blue)	⊘	Flashing (0.5 sec)
Error (Color Wheel fail / Striking Lamp Fail On Standby)	☀ (Red)	⊘	Flashing (0.5 sec)

Note

Steady light => ☀
No light => ⊘

Problem: Message Reminders

▶ Temperature Error - the projector is overheat inside. Check the environmental condition.

⚠ Warning! TEMPERATURE TOO HIGH
⚠ Please: 1. Make sure air in and outlets are not blocked. 2. Make sure the environment temperature is under 40 degree C.
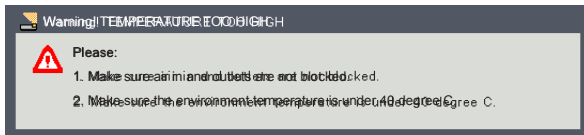
▶ Replacing the lamp - the lamp is about to reach its maximum lifetime. Prepare to replace it soon.

⚠ Warning! Lamp
⚠ Lamp is approaching the end of its useful life. Replacement Suggested!
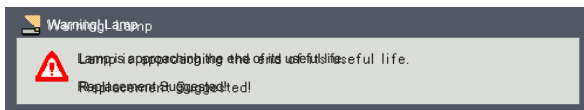
▶ Fan Error - the cooling system fan is not working.

⚠ Warning! FAN LOCKED
⚠ The projector will switch off automatically.
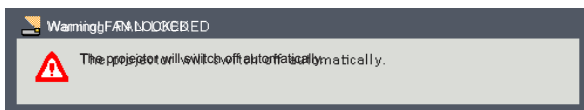
▶ Replacing the filter - the filter is about to reach its maximum usage time. Clean or replace the filter soon.

⚠ Warning! Dust Filters
⚠ The Usage time of the dust filter is reached. Please clean the dust filters for better performance.
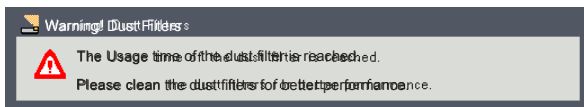
The projector will detect the lamp life itself. It will show you a warning message

Warning Lamp

Lamp is approaching the end of its useful life.
Replacement Suggested!
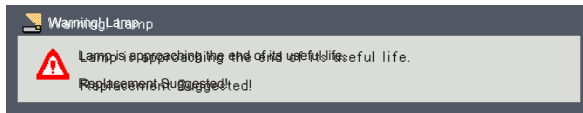
Warning: To avoid burns, allow the projector to cool for at least 60 minutes before you replace the lamp!

Warning: Do not drop the lamp module or touch the glass parts. The glass parts may shatter and cause injury if it is dropped.

Warning: For continued safety replace with PJ Replacement Lamp Type 14 for PJ WX2240/X2240/S2240.

Warning: For continued safety replace with PJ Replacement Lamp Type 16 for PJ WX5460/X5460/ HD5450.

Caution: If the lamp should break, handle with care to avoid injury due to broken pieces and contact your sales representative for repair service.

When you see this message, change the lamp as soon as possible. Make sure the projector has been cooled down for at least 60 minutes before changing the lamp.
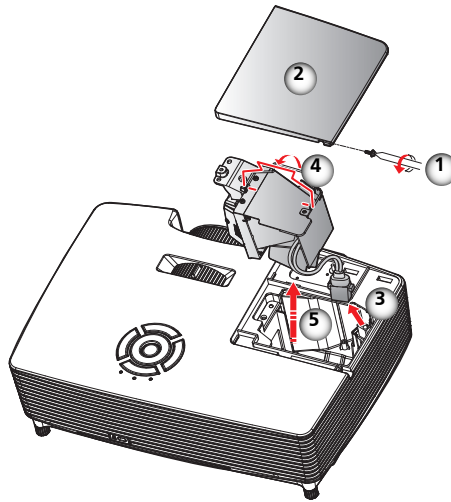
Lamp Replacing Procedure:

1. Switch off the power to the projector by pressing the "⏻" button.
2. Allow the projector to cool down at least 60 minutes.
3. Disconnect the power cord.
4. Remove the screw on the lamp cover. ❶
5. Slide the lamp cover to the side and remove the cover. ❷
6. Pull out the lamp connector. ❸
7. Lift up the lamp handle. ❹
8. Carefully remove the lamp module. ❺
9. Install the new lamp module by reversing the previous steps.

See the lamp's manual for instructions on resetting the lamp time.

Used Lamps
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.

Appendices

List of Compatible Signals

A. VGA Analog			
(1) VGA Analog - PC Signal			
Modes	Resolution	V.Frequency (Hz)	H.Frequency (kHz)
VGA	640 x 480	60	31.47
	640 x 480	72	37.86
	640 x 480	75	37.5
	640 x 480	85	43.27
SVGA	800 x 600	56	35.2
	800 x 600	60	37.88
	800 x 600	72	48.08
	800 x 600	75	46.88
	800 x 600	85	53.67
XGA	1024 x 768	60	48.36
	1024 x 768	70	56.48
	1024 x 768	75	60.02
	1024 x 768	85	68.67
SXGA	1152 x 864	70	63.8
	1152 x 864	75	67.5
	1152 x 864	85	77.1
	1280 x 1024	60	63.98
	1280 x 1024	72	77.9
	1280 x 1024	75	79.98
	1280 x 1024	85	91.15
Quad VGA	1280 x 960	60	60
	1280 x 960	75	75
SXGA+	1400 x 1050	60	65.32
UXGA	1600 x 1200	60	75
PowerBook G4	640 x 480	60	31.5
	640 x 480	66.6(67)	35
	800 x 600	60	37.88
	1024 x 768	60	48.36
	1152 x 870	75	68.68
	1280 x 960	75	75.2
i Mac DV(G3)	1024 x 768	75	60.3

A. VGA Analog

(2) VGA Analog - Extended Wide Timing

Modes	Resolution	V.Frequency (Hz)	H.Frequency (kHz)
WSVGA	1024 x 600	60	37.3
WXGA	1280 x 768	60	47.78
	1280 x 768	75	60.29
	1280 x 768	85	68.63
	1280 x 720	60	44.8
	1280 x 800	60	49.6
	1366 x 768	60	47.71
WXGA+	1440 x 900	60	55.9
WSXGA	1680 x 1050	60	65.3
WUXGA	1920 x 1080-RB	60	66.6
	1920 x 1080-EIA	60	67.5

(3) VGA Analog - Component Signal

480i	720 x 480	59.94(29.97)	27
480p	720 x 480	59.94	31.47
576i	720 x 576	50(25)	27
576p	720 x 576	50	31.25
720p	1280 x 720	60	45
720p	1280 x 720	50	37.5
1080i	1920 x 1080	60(30)	33.75
1080i	1920 x 1080	50(25)	33.75
1080p	1920 x 1080	60	67.5
1080p	1920 x 1080	50	56.25

B. HDMI

(1) HDMI - PC Signal

Modes	Resolution	V.Frequency (Hz)	H.Frequency (kHz)
VGA	640 x 480	60	31.47
	640 x 480	72	37.86
	640 x 480	75	37.5
	640 x 480	85	43.27
SVGA	800 x 600	56	35.2
	800 x 600	60	37.88
	800 x 600	72	48.08
	800 x 600	75	46.88
	800 x 600	85	53.67

Note

❖ (*1) is not available on RICOH PJ TS100.

Appendices

B. HDMI			
(1) HDMI - PC Signal			
Modes	Resolution	V.Frequency (Hz)	H.Frequency (kHz)
XGA	1024 x 768	60	48.36
	1024 x 768	70	56.48
	1024 x 768	75	60.02
	1024 x 768	85	68.67
SXGA	1152 x 864	70	63.8
	1152 x 864	75	67.5
	1152 x 864	85	77.1
	1280 x 1024	60	63.98
	1280 x 1024	72	77.9
	1280 x 1024	75	79.98
	1280 x 1024	85	91.15
Quad VGA	1280 x 960	60	60
	1280 x 960	75	75
SXGA+	1400 x 1050	60	65.32
UXGA	1600 x 1200	60	75
PowerBook G4	640 x 480	60	31.5
	640 x 480	66.6 (67)	35
	800 x 600	60	37.88
	1024 x 768	60	48.36
	1152 x 870	75	68.68
	1280 x 960	75	75.2
i Mac DV(G3)	1024 x 768	75	60.3
(2) HDMI - Extended Wide Timing			
WSVGA	1024 x 600	60	37.3
WXGA	1280 x 768	60	47.78
	1280 x 768	75	60.29
	1280 x 768	85	68.63
	1280 x 720	60	44.8
	1280 x 800	60	49.6
	1366 x 768	60	47.71
WXGA+	1440 x 900	60	55.9
WSXGA	1680 x 1050	60	65.3
WUXGA	1920 x 1080-RB	60	66.6
	1920 x 1080-EIA	60	67.5
	1920 x 1200-RB	59.95	74.04

B. HDMI

(3) HDMI - Video Signal

Modes	Resolution	V.Frequency (Hz)	H.Frequency (kHz)
480i	720 x 480	59.94 (29.97)	27
480p	720 x 480	59.94	31.47
576i	720 x 576	50 (25)	27
576p	720 x 576	50	31.25
720p	1280 x 720	60	45
720p	1280 x 720	50	37.5
1080i	1920 x 1080	60 (30)	33.75
1080i	1920 x 1080	50 (25)	33.75
1080p	1920 x 1080	60	67.5
1080p	1920 x 1080	50	56.25
1080p	1920 x 1080	23.97/24	27

C. 3D Timing

Input Resolutions		Input timing		
	HDMI 3D Input (with 3D Info Frame information)	1280 x 720P @ 50Hz	Top - and - Bottom	
		1280 x 720P @ 60Hz	Top - and - Bottom	
		1280 x 720P @ 50Hz	Frame packing	
		1280 x 720P @ 60Hz	Frame packing	
		1920 x 1080i @ 50Hz	Side- by-Side (Half)	
		1920 x 1080i @ 60Hz	Side- by-Side (Half)	
		1920 x 1080P @ 24Hz	Top - and – Bottom	
		1920 x 1080P @ 24Hz	Frame packing	
	HDMI 3D Input (without 3D Info Frame information)	1920 x 1080i @ 50Hz	Side-by-Side (Half)	SBS mode is on
		1920 x 1080i @ 60Hz		
		1280 x 720P @ 50Hz		
		1280 x 720P @ 60Hz		
		1920 x 1080i @ 50Hz	Top-and-Bottom	TAB mode is on
		1920 x 1080i @ 60Hz		
		1280 x 720P @ 50Hz		
		1280 x 720P @ 60Hz		
		480i	HQFS	
	VGA (PC)	800 x 600 @ 60Hz	SBS or TAB	
		1024 x 768 @ 60Hz		
		800 x 600 @ 120Hz	Frame Sequential	
		1024 x 768 @ 120Hz		
	Composite	NTSC	HQFS	
	S-Video	NTSC	HQFS	

Appendices

Configurations of Terminals

Terminal: Computer In 1/2 (Mini D-sub 15 pin) [Monitor Out]
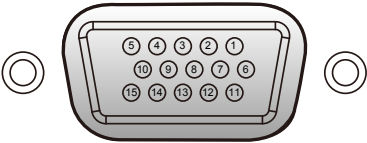
1	Red (R/Cr) Input [R Output]	9	DDC 5V [NC*]
2	Green (G/Y) Input [G Output]	10	Ground (Ver. sync.)
3	Blue (B/Cb) Input [B Output]	11	NC*
4	NC*	12	DDC Data [NC*]
5	Ground (Horiz.sync.)	13	Horiz. sync. Input [Output] (Composite H/V sync. Input)
6	Ground (Red)		
7	Ground (Green)	14	Vert. sync. Input [Output]
8	Ground (Blue)	15	DDC CLK [NC*]
* Do not connect anything.			

Terminal: PC Control (D-sub 9 pin)
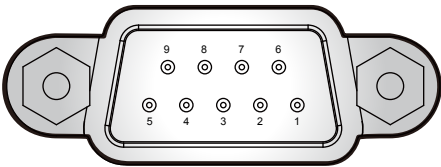
1	NC*	6	NC*
2	TXD (Sending Data)	7	NC*
3	RXD (Receiving Data)	8	NC*
4	NC*	9	NC*
5	GND	* Do not connect anything.	

Specifications

■ List of general specifications

Item	Model Name		
	PJ S2240 PJ TS100	PJ X2240	PJ WX2240
DLP chip	0.55" SVGA	0.55" XGA	0.65" WXGA
Lamp Type	190W		
Projection Lens	Manual Zoom (1.1x) and Manual Focus		
Projection Distance (Focus range)	1.2~12m		1~10m
Throw Ratio (distance/width)	1.95 ~ 2.15		1.55~1.7
Dimension (WxDxH)	314.2(W) x 223.5(D) x 88.2(H) mm (without feet)		
	314.2(W) x 223.5(D) x 101.7(H) mm (with feet)		
Weight	approx. 2.6 kg		
I/O Terminal	• Computer in • S-Video • Video • Service • PC Control (9 pins) • HDMI	• Computer 1 In • Computer 2 In • PC Control (9 pins) • S-video • Video • Audio 1 In	• Audio 2 In • Audio Out • Service • HDMI • Monitor Out
Speaker	Not Available	2W	
Lamp life	Normal: 4500 hours ECO: 6000 hours		
Noise Level (Typ.)	Full: 34dB(A) ECO: 31dB(A)		
Standby Power (Monitor Out Off)	0.5W or less		
Environment	• Operational Temperatures: 41° to 104°F (5° to 40°C); 20% to 80% humidity (non-condensing) • Storage Temperatures: -4° to 140°F (-20° to 60°C); 20% to 80% humidity (non-condensing)		
Power Consumption	• Eco Mode: Typ. 204W, max. 224W @ 110Vac 　　　　　　Typ. 196W, max. 216W @ 220Vac • Full Mode: Typ. 243W, max. 267W @ 110Vac 　　　　　　Typ. 232W, max. 255W @ 220Vac		

Note

• (*)S-Video, Video, and HDMI are not available for RICOH PJ TS100.
• This model complies with the above specifications.
• Designs and specifications are subject to change without notice.
• This model may not be compatible with features and/or specifications that may be added in the future.

■ Separately sold product

PJ Replacement Lamp Type 14

Appendices

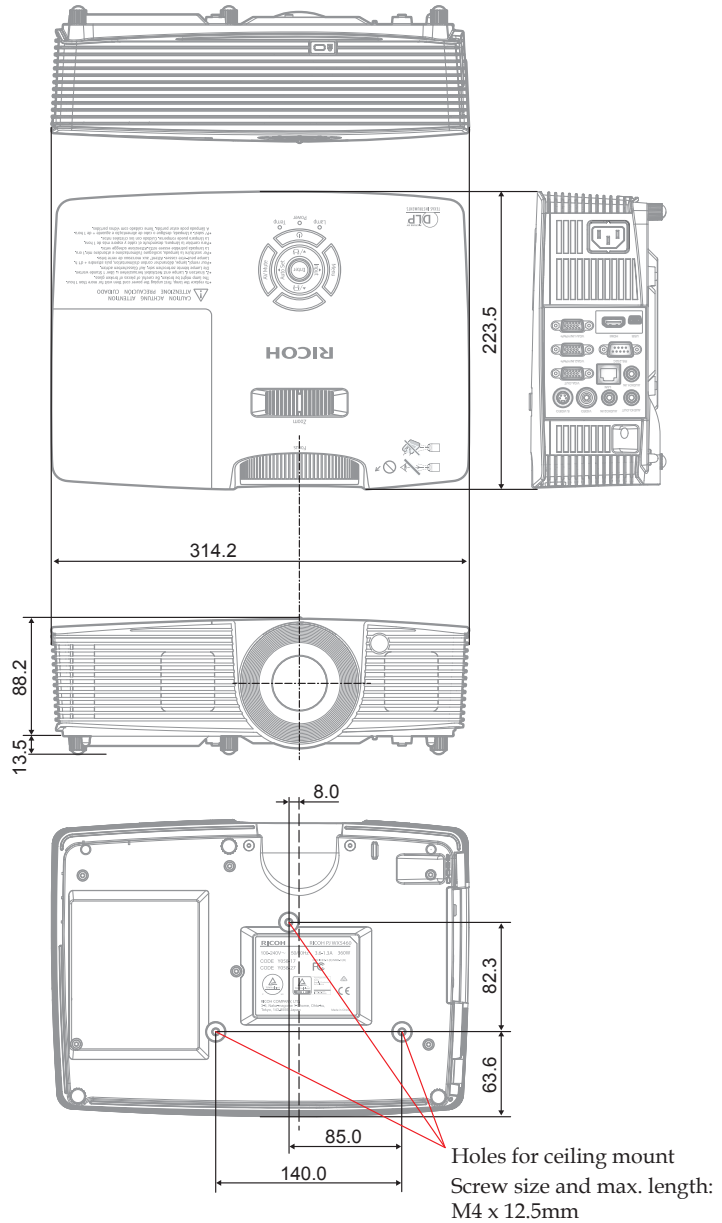| Item	Model Name		
	PJ X5460	**PJ WX5460**	**PJ HD5450**
DLP chip	0.55" XGA	0.65" WXGA	0.65" 1080P
Lamp Type	260W		
Projection Lens	Manual Zoom (1.1x) and Manual Focus		Manual Zoom(1.2x) and Manual Focus
Projection Distance (Focus range)	1.2~12m	1~10m	1.5~10m
Throw Ratio (distance/width)	1.95 ~ 2.15	1.55~1.7	1.5~1.8
Dimension (WxDxH)	314.2(W) x 223.5(D) x 88.2(H) mm (without feet)		
	314.2(W) x 223.5(D) x 101.7(H) mm (with feet)		
Weight	approx. 3.0 kg		
I/O Terminal	• Computer 1 In • Computer 2 In • PC Control (9 pins) • S-video • Video • Audio 1 In	• Audio 2 In • Audio Out • Service • HDMI • Monitor Out • LAN	• Computer In • PC Control (9 pins) • S-video • Video • Audio in • Audio Out • Service • HDMI 1 • HDMI 2 • LAN
Speaker	10W / 8 ohm		
Lamp life	Normal: 3000 hours ECO: 4000 hours		
Noise Level (Typ.)	Full: 37dB(A) ECO: 34dB(A)		
Standby Power (Monitor Out Off)	0.5W or less		
Environment	• Operational Temperatures: 41° to 104°F (5° to 40°C); max. 80% humidity (non-condensing) • Storage Temperatures: -4° to 140°F (-20° to 60°C); max. 80% humidity (non-condensing)		

Power Consumption	• Eco Mode: Typ. 280W, max. 308W @110Vac
	            Typ. 265W, max. 292W @ 220Vac
	• Full Mode: Typ. 330W, max. 363W @110Vac
	              Typ. 315W, max. 347W @ 220Vac		

Note

• This model complies with the above specifications.
• Designs and specifications are subject to change without notice.
• This model may not be compatible with features and/or specifications that may be added in the future.

■ **Separately sold product**
   PJ Replacement Lamp Type 16

Appendices

Cabinet Dimensions

Unit: mm

314.2

223.5

88.2

13.5

8.0

82.3

63.6

85.0

140.0

Holes for ceiling mount
Screw size and max. length:
M4 x 12.5mm

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