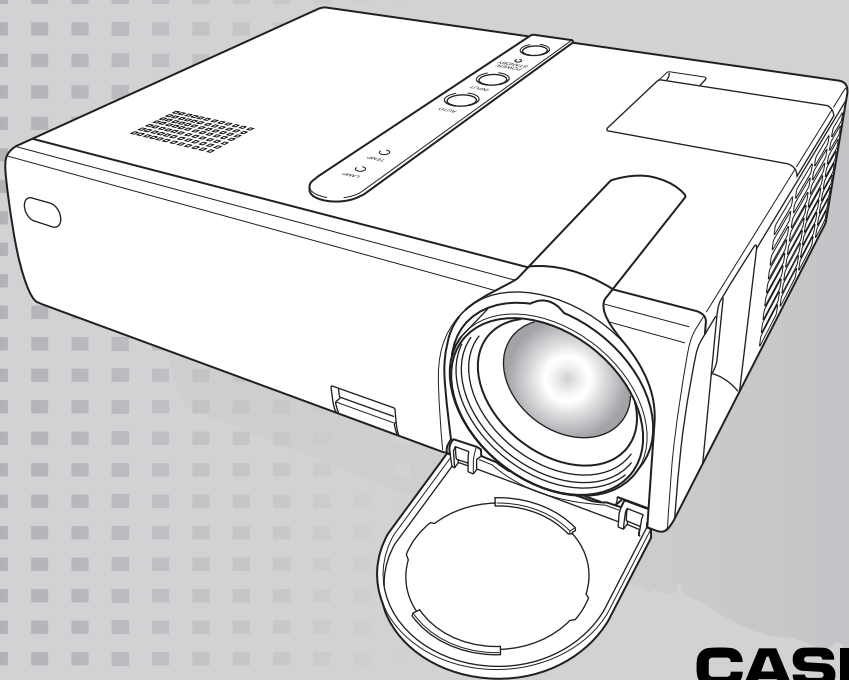# DATA PROJECTOR XJ-350

User's Guide

Keep this manual in a safe place for future reference.

CASIO®

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Safety Precautions

Thank you for selecting this CASIO product. Be sure to read these "Safety Precautions" before trying to use it. After reading this User's Guide, keep it in a safe place for future reference.

About safety symbols

Various symbols are used in this User's Guide and on the product itself to ensure safe use, and to protect you and others against the risk of injury and against material damage. The meaning of each of the symbols is explained below.

⚠ **Danger**	This symbol indicates a condition that, if ignored or applied incorrectly, creates the risk of death or serious personal injury.
⚠ **Warning**	This symbol indicates a condition that, if ignored or applied incorrectly, could possibly create the risk of death or serious personal injury.
⚠ **Caution**	This symbol indicates a condition that, if ignored or applied incorrectly, could possibly create the risk of personal injury or material damage.

Icon Examples

A triangle indicates a situation against which you need to exercise caution. The example shown here indicates you should take precaution against electric shock.

A circle with a line through it indicates information about an action that you should not perform. The specific action is indicated by the figure inside the circle. The example shown here means disassembly is prohibited.

A black circle indicates information about an action that you must perform. The specific action is indicated by the figure inside the circle. The example shown here indicates you must unplug the power cord from the power outlet.

Precautions During Use

⚠ Warning

●**Smoke, odor, heat, loud noise, and other abnormalities**

Should you ever notice smoke, strange odor, or loud noise being emitted by the projector, or any other abnormality, immediately stop using the projector.
Continued use creates the risk of fire and electric shock.
Immediately perform the following steps.

1. Unplug the projector.

2. Contact your original dealer or authorized CASIO service center.

●**Malfunction**

Immediately stop using the projector if the screen appears abnormal, if sound is not produced, or if any other abnormal operation occurs even though you are operating the projector correctly. Continued use creates the risk of fire and electric shock. Immediately perform the following steps.

1. Turn off the projector.

2. Unplug the projector.

3. Contact your original dealer or authorized CASIO service center.

●**Power cord**

Misuse of the power cord creates the risk of fire and electric shock. Make sure that you always observe the following precautions.

• Make sure that you use a power source with the same voltage as that specified for the projector.

• Do not overload a power outlet with too many devices.

●**Power cord**

A damaged power cord creates the risk of fire and electric shock. Make sure that you always observe the following precautions.

• Never place heavy objects on the power cord and never expose it to heat.

• Make sure the power cord is not pinched between the wall and the rack or table where the projector is located, and never cover the power cord with a cushion or other object.

• Never try to modify the power cord, allow it to become damaged, or subject it to excessive bending.

• Do not twist the power cord or pull on it.

●**Power cord**

Never touch the power cord or plug while your hands are wet. Doing so creates the risk of electric shock.

●**Water and foreign matter**

Never allow water to get on the projector. Water creates the risk of fire and electric shock.

Never place a vase or any other container of water on top of the projector. Water creates the risk of fire and electric shock.

Water or other liquid, or foreign matter (metal, etc.) getting into the projector creates the risk of fire and electric shock. Should anything get inside the projector, immediately perform the following steps.

1. Turn off the projector.

2. Unplug the projector.

3. Contact your original dealer or authorized CASIO service center.

●**Disassembly and modification**

Never try to take the projector apart or modify it in any way. The projector contains a large number of high-voltage components that create the risk of electric shock and burn injury. Be sure to leave all internal inspection, adjustment, and repair up to your original dealer or authorized CASIO service center.

●**Dropping and impact**

Continued use of the projector after it has been damaged by dropping or other mistreatment creates the risk of fire and electric shock. Immediately perform the following steps.

1. Turn off the projector.

2. Unplug the projector.

3. Contact your original dealer or authorized CASIO service center.

●**Disposal by burning**

Never try to dispose of the projector by burning it. Doing so can cause an explosion, which creates the risk of fire and personal injury.

●**Looking into the lens or vents while lamp is on**

Never look directly into the lens or vents while lamp is on. The strong light emitted by the projector creates the risk of eye damage.

●**Blocking the vents**

Never allow the intake vents (on the bottom or back of the projector) or the exhaust vents (on the side of the projector) to become blocked. Doing so causes internal heat build up, which creates the risk of fire and breakdown of the projector. Touching the projector while it is hot creates the risk of burn injury. Make sure that you always observe the following precautions.

• Allow at least 30 cm (11.8 inches) between the projector and walls.

• Do not insert the projector into any space where air circulation is poor.

• Never cover the projector with a blanket or any similar item.

• Never use the projector on a carpet, blanket, towel, or other soft material.

• Never stand the projector up on either end during use.

●**Projector cabinet**

Never open the projector's cabinet. Doing so creates the risk of electric shock.

●**Cleaning**

Before cleaning the projector, be sure to turn it off and unplug it from the power outlet. Failure to do so creates the risk of electric shock.

●**Exhaust vents**

The exhaust vents become very hot while the projector is running. Never touch them. Doing so creates the risk of burn injury. The areas near the exhaust vents also become quite hot. Never locate objects made of plastic or other heat-sensitive materials near or under the projector. Doing so creates the risk of deformation and discoloration of the object.

●**Lens cover**

Be sure to open the lens cover before turning on the projector. Never close the lens cover while the projector is in use.

●**Location**

Never locate the projector in any of the following types of locations. Doing so creates the risk of fire and electric shock.

- Near an area subject to strong vibration
- An area subject to large amounts of moisture or dust
- In a kitchen or other area exposed to oil smoke
- Near a heater, on a heated carpet, or in an area exposed to direct sunlight
- An area subject to temperature extremes (Operating temperature range is 5°C to 35°C (41 to 95 °F)).

●**Heavy objects**

Never place heavy objects on the projector or climb on top of the projector. Doing so creates the risk of fire and electric shock.

●**Water**

Never locate the projector in a bathroom or anywhere else there is the chance that it will be splashed with water.

●**Unstable location**

Never place the projector on an unstable surface or on a high shelf. Doing so can cause it to fall, creating the risk of personal injury.

●**Using the projector on a base with casters**

Whenever using the projector on a base that has casters, make sure that you lock the casters when not moving the base.

●**Lightening**

During a lightening storm, do not touch the plug of the projector's power cord.

⚠ Caution

●**Power cord**

🚫 Misuse of the power cord creates the risk of fire and electric shock. Make sure that you always observe the following precautions.
- Do not locate the power cord near a stove.
- When unplugging the power cord, always grasp the plug, and do not pull on the power cord.

●**Power cord**

🚫 Misuse of the power cord creates the risk of fire and electric shock. Make sure that you always observe the following precautions.
- Insert the plug into the power outlet as far as it will go.
- After using the projector, turn it off and allow it to cool down. Next, unplug it from the power outlet.
- Unplug the projector from the power outlet if you do not plan to use it for a long time.
- To avoid the built up of dust between the prongs of the plug, unplug it from the power outlet and clean between the prongs at least once a year.
- Before moving the projector, be sure to turn it off and unplug it from the power outlet first.

●**Backup of important data**

❗ Be sure to keep separate written records of all data stored in projector memory. Memory data can be lost due to breakdown, maintenance, etc.

●**Lens effect**

Never have an aquarium or any other object that produces a lens effect in front of the projector while the lamp is on. Such an object creates the risk of fire.

●**Lens**

Never touch the lens with your hand.

Battery Precautions

⚠️ Warning

Misuse of batteries can cause them to leak and stain the area around them, or to explode, creating the risk of fire and personal injury. Make sure that you always observe the following precautions.

🚫
- Never try to take batteries apart and do not allow them to become shorted.
- Never expose batteries to heat or throw them into fire.
- Never mix old batteries and new ones.
- Never mix batteries of different types.
- Never try to charge batteries.

❗
- Take care that batteries are oriented correctly when you load them.

⚠️ Caution

Misuse of batteries can cause them to leak and stain the area around them, or to explode, creating the risk of fire and personal injury. Make sure that you always observe the following precautions.

🚫
- Use only the type of batteries that is specified for the remote controller.

●**Dead batteries**
Be sure to remove batteries from the remote controller as soon as they go dead.

❗
- Remove batteries from the remote controller if you do not plan to use it for a long time.

●**Disposing of batteries**
Make sure that you dispose of used batteries in accordance with the rules and regulations in your local area.

Lamp Precautions

⚠ Warning

●**Lamp removal**

Never remove the lamp from the projector immediately after using it. The lamp becomes very hot during use, creating the risk of burn injury. Turn off the projector. After the POWER/STANDBY indicator changes to steady (not flashing) amber, unplug the projector from the power outlet. Next, wait for at least 60 minutes before removing the lamp.

●**Specified lamp type**

Use only the lamp type that is specified for this projector. Use of any other type of lamp creates the risk of fire and breakdown.

⚠ Caution

●**Lamp replacement**

Before replacing the lamp, be sure to turn off the projector and unplug it from the power outlet. Failure to do so creates the risk of electric shock.

• Take care when replacing a broken lamp.
  A broken lamp can cause glass fragments to be scattered inside the lamp housing. Glass inside of the lamp housing may also be discharged from the projector's vent exhaust ports. Gas inside of the lamp includes mercury, so be sure to ventilate the area whenever the lamp breaks. Should you accidentally inhale gas fumes or should gas fumes get into your eyes, immediately contact a physician.

●**Broken lamp**

Never attempt to replace a broken lamp on your own. The projector uses a mercury lamp with high internal pressure as its light source. Should the lamp break, be sure to contact your original dealer or authorized CASIO service center to request replacement. Attempting to replace a broken lamp on your own creates the risk of personal injury due to broken glass or dispersed mercury.

Operating Precautions

Lamp Handling Precautions

⚠ Caution!	Continued use of a lamp that has passed its lamp life increases the risk of the lamp rupturing. Replace the lamp with a new one as soon as possible after the replacement message appears.

● Never touch the glass of the lamp with your fingers. Doing so can damage the lamp and shorten its life.

● The light source lamp is a consumable item. The average life of a lamp is approximately 2000 hours. After 2000 hours, a message appears to alert you to the need of lamp replacement. However, note that the characteristics of a particular lamp or lamp operating conditions can cause the lamp to start to go dim or even fail before the message appears.

● Lamps are guaranteed for 90 days from the date of purchase or for 500 hours operation, whichever comes first.

● A mercury lamp with high internal pressure is used as the light source. A lamp that is weakened by impact, damage, or expiration of its lamp life may explode or fail to light if exposed to loud noise. Note that the performance of the lamp differs greatly from lamp to lamp, and due to conditions under which a lamp is used.

● The replacement message appears and the LAMP indicator flashes red after the lamp life is reached. When this happens, replace the lamp using the instructions provided in this User's Guide.

● If the lamp continues to be used after its lamp life is reached, after 100 hours the projector will enter a cool down state and then go into standby. The projector will not turn on again until you replace the lamp.

Lamp Replacement Precautions

● When the lamp life is reached, the message "It is time to replace the lamp. Use the procedure in the User's Guide to replace the lamp as soon as possible." appears on the display for about 10 seconds, and the LAMP indicator starts to flash red in one-second intervals. Replace the lamp as soon as possible after the message appears or the LAMP indicator flashes.

● Replace the lamp with a special YL-30 replacement lamp, which should be available from your original dealer.

● Turn off the projector. After the POWER/STANDBY indicator changes to steady (not flashing) amber, unplug the projector from the power outlet. Next, wait for at least 60 minutes before removing the lamp. Note that the lamp cartridge becomes very hot during normal use and during standby. Handling it when hot creates the risk of burn injury.

● The lamp contains mercury. Dispose of old lamps in accordance with the rules and regulations of your local jurisdiction.

● When replacing the lamp, use the special screwdriver that comes with the YL-30 replacement lamp.

Other Precautions

This projector is made of precision components. Failure to observe the following precautions can result in inability to correctly save data and malfunction.

● **Never use or store the projector in the following locations. Doing so creates the risk of malfunction of and damage to the projector.**

- Locations subjected to electrostatic charge
- Locations subjected to temperature extremes
- Locations where there is extreme moisture
- Locations subjected to sudden temperature changes
- Locations where there is a lot of dust
- On a shaky, slanted, or otherwise unstable surface
- Locations where there is the danger of getting wet
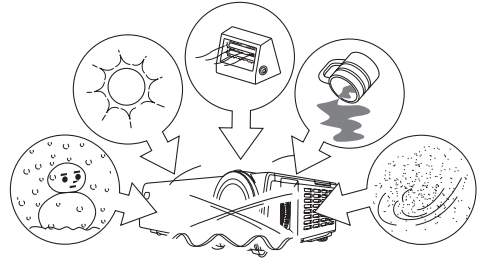
● **Avoid using the projector under the following conditions. Such conditions create the risk of malfunction of and damage to the projector.**

- Avoid areas subject to temperature extremes (operating temperature range is 5°C to 35°C (41 to 95 °F)).
- Never place heavy objects on the projector or climb on top of the projector.
- Never insert or allow foreign objects to drop into the projector.
- Never place a vase or any other container of water on top of the projector.

Operating Precautions

●**Never leave dead batteries inside the remote controller for a long time.**
Batteries can leak, which leads to malfunction of and damage to the remote controller.

●**Clean with a soft, dry cloth.**
When very dirty, use a soft cloth that has been dampened in a weak solution of water and a mild neutral detergent. Wring all excess water from the cloth before wiping. Never use thinner, benzene, or any other volatile agent to clean the projector. Doing so can remove its markings and cause staining of the case.

●**Missing Screen Dots**
Though this projector is manufactured using the most advanced digital technology available today, some of the dots on the screen may be missing. This is normal, and does not indicate malfunction.

- The contents of this User's Guide are subject to change without notice.
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- The sample screens shown in this manual are for illustrative purposes only, and appear differently from the screens actually produced by the product.

Contents

Features and Functions

The following are some of the major features and functions of this product.

■230 × 55 × 171 mm (9.1 × 2.2 × 6.7 inch), 1.8 kg (3.97 lbs) lightweight and compact data projector

Though it is compact and lightweight enough to go just about anywhere, the projector's high-luminosity allows (2200ANSI lumen) clear projection of images, even in a brightly lit room.

■Versatile projection range

The shortest projection distance is 0.8 meters (2.62 feet), which means that very little space is required for projection. 2X zoom makes it possible to produce a projected image of the size you want from a range of possible distances. To project onto a 60-inch screen, for example, you can set up the projector anywhere from 1.6 meters (5.25 feet) to 3.2 meters (10.5 feet) from the screen.

■A selection of possible input sources

Possible input sources are a computer's RGB signal, a video device's VIDEO/S-VIDEO signal, and a component video signal (Y·Cb/Pb·Cr/Pr).

■Various automated features

Everything from setup configuration to projection is quick and easy thanks to auto input source switching, auto image adjustment, auto keystone correction, and more.

■Versatile projection functions

A collection of powerful projection tools let you enlarge a specific part of the projected image with digital zoom, use picture-in-picture to insert a video input sub-window into a projected computer image, and much more.

■Remote controller also performs computer mouse functions

You can use the remote controller that comes with the projector to perform mouse operations on the computer connected to the projector's USB port, to perform page up and page down operations, and more. The remote controller helps to make presentations more effective.

General Guide

This section defines the names and explains the main functions of each part of the projector.

[Front/Right Side]
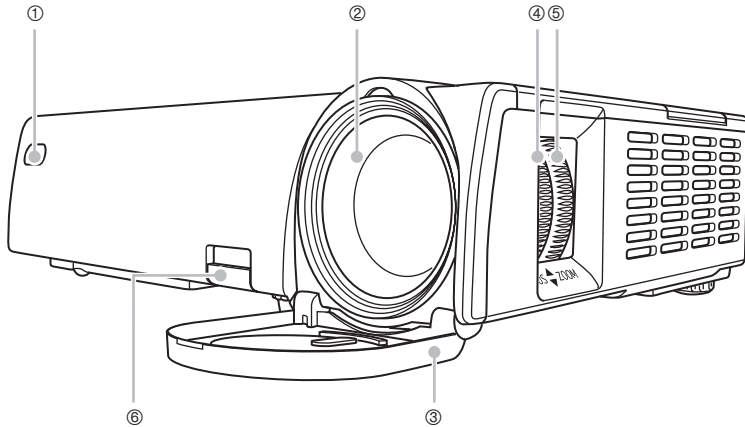
① Remote control signal receiver : Receives the remote control signal.
   ☞ Remote Controller Signal Range (page 27)

② Lens   : Projects the image from the projector.
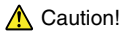
⚠ Caution!	Never look into the lens while the projector is turned on.

③ Lens cover   : Covers the lens to protect it. Be sure to open this cover when using the projector.
   Should the lens cover become accidentally detached, use the procedure under "Reattaching the Lens Cover" on page 101 to reattach it.

④ Focus ring   : Rotate to focus the projected image.

⑤ Zoom ring   : Rotate to change the size of the projected image.
   ☞ Zoom and Focus (page 47)

⑥ Release button   : Press to release the elevation adjustment foot.

General Guide

* For details about the terminals on the back of the projector, see "Back, Terminals" on page 22.
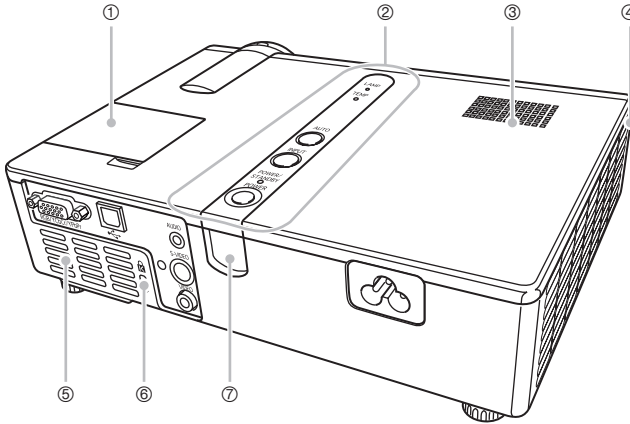
① Projection key panel cover : Protects a key panel for projection operations.

② Key and Indicator Panel : This panel includes the [⏻] (power) key and various indicators.
☞ Key and Indicator Panel, Projection Key Panel (page 19)

③ Speaker : Outputs audio input through the AUDIO terminal.
☞ Back, Terminals (page 22)

④ Exhaust vents : Exhaust air for cooling.
☞ Setup Precautions (page 30)

⚠ Caution!	● Never allow the exhaust vents to become blocked, and make sure there is at least 30 cm (11.8 inches) clearance around the projector. Blocked vents can cause heat to build up, creating the risk of fire and malfunction. ● Never touch the areas around the exhaust vents. These areas can become very hot, and create the risk of burn injury.

⑤ Intake vents : Intake air for cooling.
☞ Setup Precautions (page 30)

⚠ Caution!	Never allow the intake vents on the back or the bottom of the projector to become blocked. Blocked vents can cause heat to build up, creating the risk of fire and malfunction.

⑥ Anti-theft lock hole : An anti-theft chain can be passed through this hole. Visit the Kensington Lock Website at http://www.kensington.com/ for more information.

⑦ Remote control signal receiver : Receives the remote control signal.
☞ Remote Controller Signal Range (page 27)

General Guide

① Elevation adjustment foot   : Rotate to change the angle of the projector.
   ☞ To change the projector elevation angle (page 32)

② Left, right adjustment feet (2)   : Rotate for fine adjustment of the left and right angle of
                                     the projector.
   ☞ To change the projector elevation angle (page 32)

③ Intake vents   : Intake air for cooling.
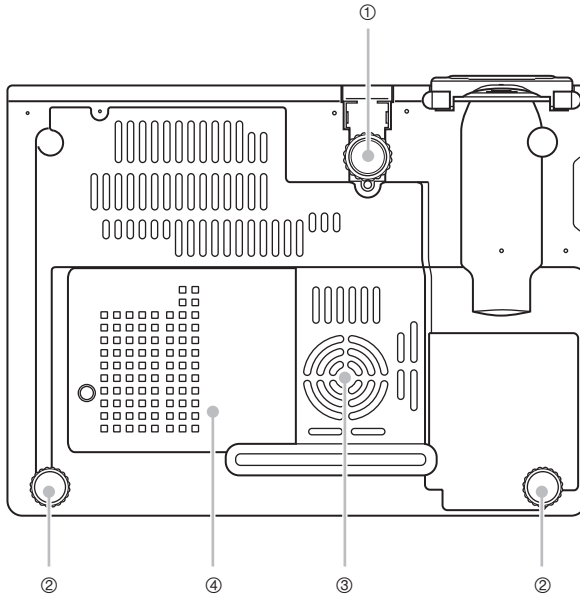   ☞ Setup Precautions (page 30)

⚠ Caution!	Never allow the intake vents on the back or the bottom of the projector to become blocked. Blocked vents can cause heat to build up, creating the risk of fire and malfunction.

④ Lamp cover   : Open this cover to replace the lamp.
   ☞ To replace the lamp (page 105)

General Guide

* The illustration below shows the configuration when the projection key panel cover is open.
  See the next page for information about opening and closing the projection key panel cover.
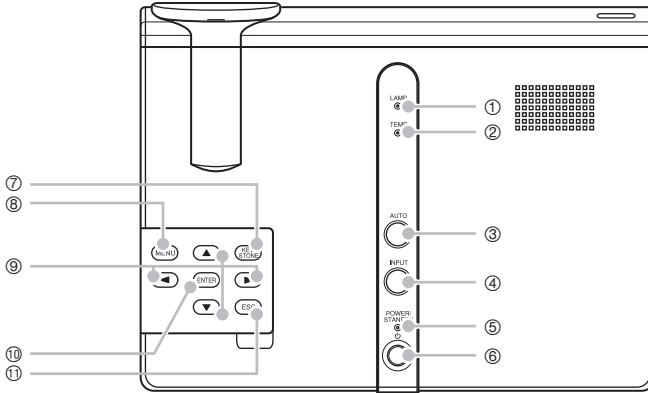
① LAMP indicator   : Indicates the current lamp status.
   ☞ Indicators and Alert Tones (page 110)
   ☞ Replacing the Lamp (page 102)

② TEMP indicator   : Indicates the error status of the projector.
   ☞ Indicators and Alert Tones (page 110)

③ [AUTO] key   : Automatically adjusts the projected image in accordance
                             with RGB input.
   ☞ Auto Adjustment of an RGB Image (page 48)

④ [INPUT] key   : Press to cycle through available projector input sources.
   ☞ Manually Selecting the Input Source (page 45)

⑤ POWER/STANDBY indicator : Indicates the current projector status.
   ☞ Turning On the Projector (page 38)
   ☞ Indicators and Alert Tones (page 110)

⑥ [⏻] (power) key   : Turns projector power on and off.
   ☞ Turning On the Projector (page 38)

⑦ [KEYSTONE] key   : Press this key to automatically correct the projected image
                             and remove vertical and horizontal keystoning.
   ☞ Keystone Correction (KEYSTONE) (page 50)

⑧ [MENU] key   : Press this key to display the projector setup menu on the
                             projected image.
   ☞ Setup Menu Screen Operations (page 65)

⑨ Cursor keys   : Use these keys to perform the operations described below.
- To move the highlighting (selection cursor) on the menu screen (☞page 65)

⑩ [ENTER] key   : Use this key to perform the operations described below.
- To execute the command currently highlighted on the menu screen (☞page 65)

⑪ [ESC] key   : Use this key to perform the operations described below.
- When a menu screen is displayed, to back-step to the previous screen (☞page 65)
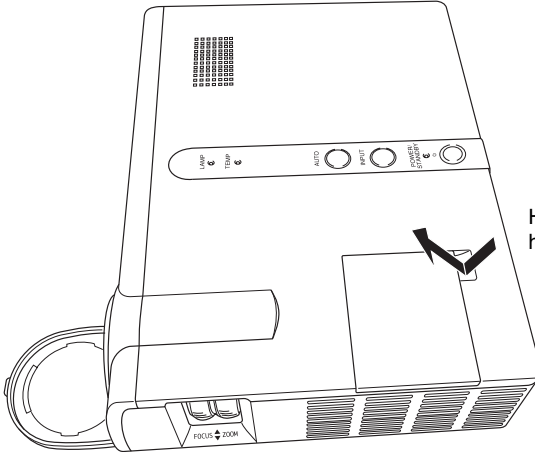
📝**NOTE**
- You can disable certain key operations, if you want. For details, see "Option Settings → Key Lock" on page 91.

Using the Projection Key Panel

You can use the keys on the projection key panel to control the projector when the remote controller is not available for some reason.

Opening and Closing the Projection Key Panel Cover

Hook your finger here and lift to open.

General Guide
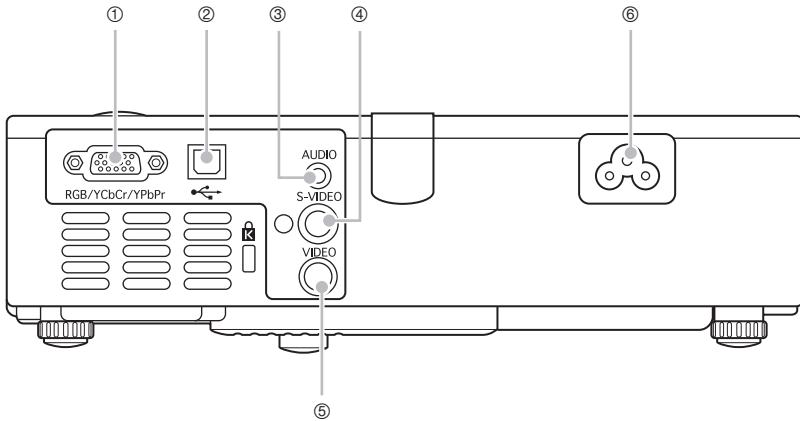
① RGB input terminal   : For connection to the video output terminal of a computer
                                or component video device using the bundled Mini D-Sub
                                cable or the optional component video cable (YK-3).
   ☞ Connecting a Computer to the Projector (Video and Audio) (page 34)
   ☞ Connecting to a Component Video Output Device (page 37)

② USB port   : For connection to a USB port of a computer using the
                                bundled USB cable.
   ☞ Connecting a Computer to the Projector's USB Port (page 35)

③ AUDIO input terminal   : For connection to the audio output terminal of a computer
                                or video device using a commercially available audio cable
                                (∅3.5mm stereo).
   ☞ Connecting a Computer to the Projector (Video and Audio) (page 34)
   ☞ Connecting to a Standard Video Device (page 36)

④ S-VIDEO input terminal   : For connection to the S-VIDEO output terminal of a video
                                device using a commercially available S-video cable.

⑤ VIDEO input terminal   : For connection to the VIDEO output terminal of a video
                                device using the bundled video cable.
   ☞ Connecting to a Standard Video Device (page 36)

⑥ Power connector   : For connection of the bundled AC power cord.
   ☞ Turning On the Projector (page 38)

Remote Controller

This section defines the names and explains the main functions of each part of the remote controller.

General Guide
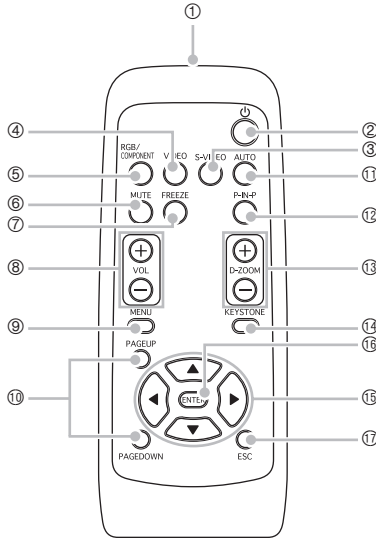
📝 **NOTE**

● The asterisks (*) in the following explanations indicate keys that have the same names and functions as keys on the projector itself. Note that the operations of remote controller keys ③, ④, and ⑤ can be performed using the projector's [INPUT] key.

● Some remote controller keys have the same names as projector keys. Unless stated otherwise in this manual, the remote controller keys perform the same functions as their corresponding projector keys.

① Remote control signal emitter   **CLASS 1 LED PRODUCT**

② *[⏻] (power) key   : Turns projector power on and off.
    ☞ Turning On the Projector (page 38)

③ [S-VIDEO] key   : Press to select the S-VIDEO input terminal as the input source.
    ☞ Manually Selecting the Input Source (page 45)

④ [VIDEO] key   : Press to select the VIDEO input terminal as the input source.

⑤ [RGB/COMPONENT] key   : Press to select the RGB input terminal as the input source.

⑥ [MUTE] key   : Press to momentarily cut off the projected image and audio output from the projector's speaker.
  ☞ Muting the Image and Audio (MUTE) (page 58)

⑦ [FREEZE] key   : Freezes the projected image.
  ☞ Freezing the Projected Image (FREEZE) (page 59)

⑧ [VOL +] / [VOL −] keys   : Press the [+] key to increase volume, and the [−] key to decrease volume.
  ☞ Adjusting the Volume Level (VOL +/−) (page 53)

⑨ *[MENU] key   : Press this key to display the projector setup menu on the projected image.
  ☞ Using the Setup Menu (page 61)

⑩ [PAGEUP] / [PAGEDOWN] keys: Press to perform page up and page down operations on the computer connected to the projector's USB port.
  ☞ Operating the Computer with the Remote Controller (Wireless Mouse) (page 59)

⑪ *[AUTO] key   : Automatically adjusts the projected image in accordance with RGB input.
  ☞ Auto Adjustment of an RGB Image (page 48)

⑫ [P-IN-P] key   : When projecting RGB (computer) input, press this key to project video input in a sub-window.
  ☞ Using Picture-in-Picture (P-IN-P) (page 56)

⑬ [D-ZOOM +] / [D-ZOOM −] keys: Press the [+] key to increase the size of the projected image, and the [−] key to decrease it.
  ☞ Enlarging the Projected Image (D-ZOOM +/−) (page 54)

⑭ *[KEYSTONE] key   : Press this key to automatically correct the projected image and remove vertical and horizontal keystoning.
  ☞ Keystone Correction (KEYSTONE) (page 50)

⑮ *Cursor keys   : Use these keys to perform the operations described below.
  ● To move the highlighting (selection cursor) on the menu screen (☞page 65)
  ● To perform mouse operations on the computer connected to the projector's USB port (☞page 60)
  ● In this manual, cursor key operations are indicated as [▲], [▼], [◀], [▶].

⑯ *[ENTER] key   : Use this key to perform the operations described below.
  ● To execute the command currently highlighted on the menu screen (☞page 65)
  ● To perform a mouse left-click operation on the computer connected to the projector's USB port (☞page 60)

⑰ *[ESC] key   : Use this key to perform the operations described below.
  ● When a menu screen is displayed, to back-step to the previous screen (☞page 65)
  ● To perform a mouse right-click operation on the computer connected to the projector's USB port (☞page 60)

Loading Remote Controller Batteries

Before you can use the remote controller for the first time, you need to load the two batteries that come with it. Replace remote controller batteries with a set of new ones whenever the remote controller does not work or if you need to move the remote controller very close to the projector before it will work.

⚠ Caution!	Misuse of batteries can cause them to leak and stain of the area around them, or to explode, creating the risk of fire and personal injury. Make sure that you always observe the following precautions. ● Take care that batteries are oriented correctly when you load them. ● Never mix old batteries and new ones. ● Never mix batteries of different types. ● Use only battery type that is specified for use with the remote controller.

To load remote controller batteries

1. Remove the battery cover from the back of the remote controller.
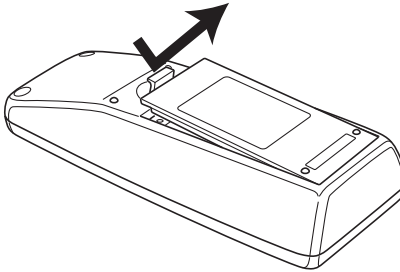
● If there are old batteries inside the case, remove them.

2. Load two new batteries into the case, making sure that their positive (+) and negative (–) ends are facing correctly.
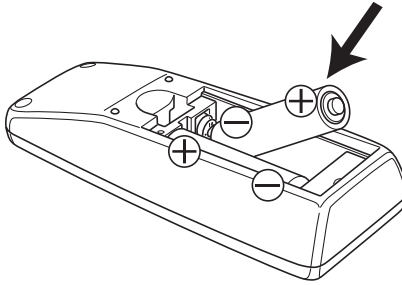
3. Replace the battery cover on the back of the remote controller.
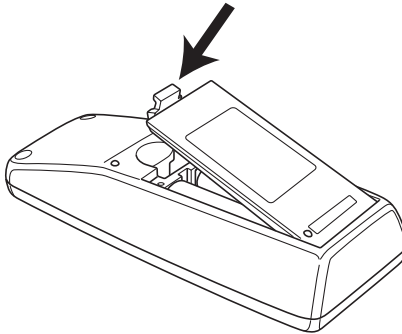
Remote Controller Signal Range

When performing an operation on the remote controller, point it at the remote control signal port on the back or front of the projector. The following illustration shows the range of the remote controller signal.

±40 degrees max.

9 meters (29.53 feet) max.

±40 degrees max.

9 meters (29.53 feet) max.

Front

Back

±20 degrees max.

±20 degrees max.

9 meters (29.53 feet) max.

9 meters (29.53 feet) max.
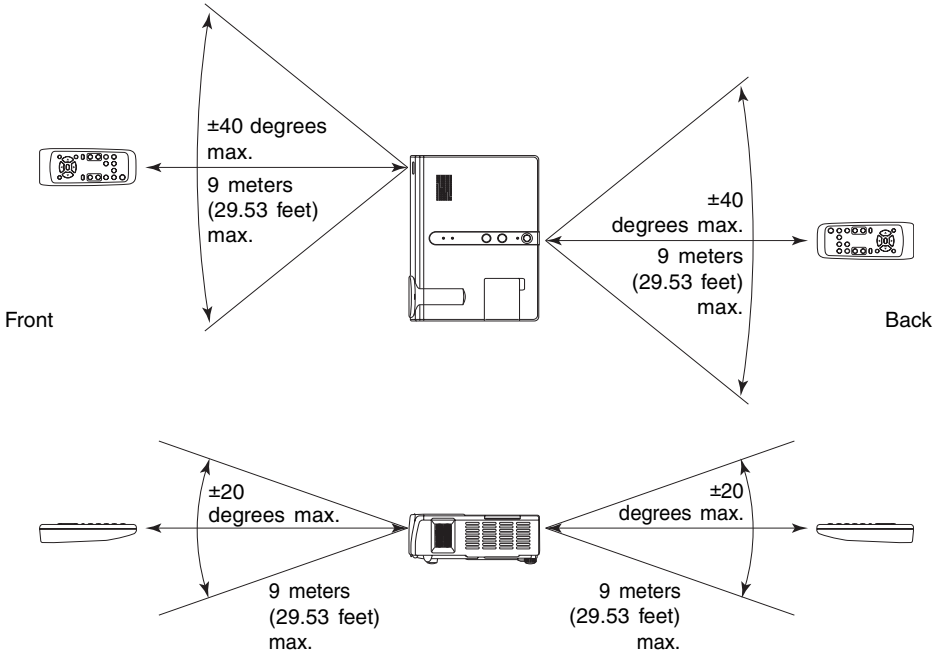
Getting Ready

This section explains how to set up the projector to get it ready for use, and how to connect it to an input source (computer or video device).
It also includes information about how to turn on the projector, how to select the display language the first time you turn it on, and precautions you need to keep in mind concerning the power supply.

Setting Up the Projector

This projector is designed for tabletop use only. Place the projector onto a table, desk, or stand that is level and firm, making sure you allow enough room around it.
● The following illustrations show how the projector should be oriented for optimum projection relative to the screen.

Viewed from Above	Viewed from the Side
Screen 	Screen
The center of the projector's lens should be aligned with the horizontal center of the screen.	Make sure the projector is at a right angle to the screen.
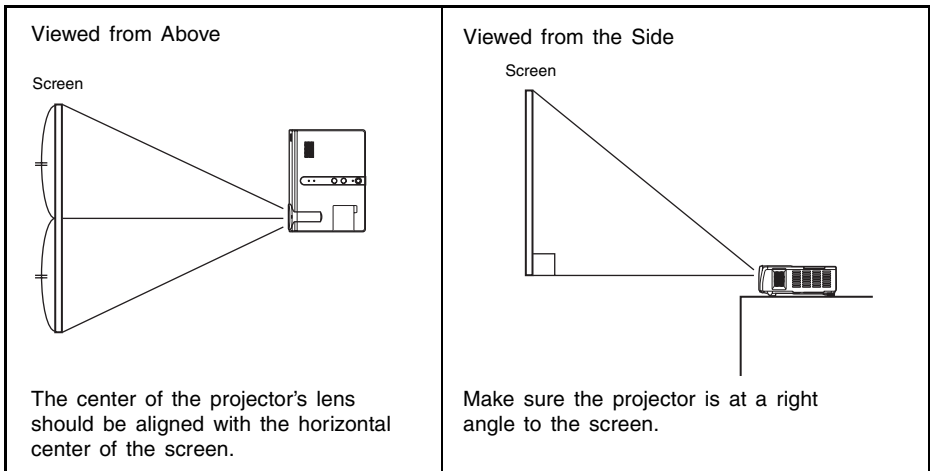
Important!
● You can place the projector on a surface that is angled up to 30 degrees up or down during use.Angling the projector more than 30 degrees up or down can cause rupture or premature aging of the projector's lamp,or malfunction of the projector.

NOTE
● The above setup enables proper projection without any image correction. If the projector is at an angle to the screen, a phenomenon called "keystoning" will occur, which causes the sides, and/or the top and bottom of the image to be different lengths. The projector comes with a keystone correction feature that automatically corrects the image. See "Keystone Correction (KEYSTONE)" on page 50 for information about keystone correction.

● The allowable projection range is from 0.8 meter (2.62 feet) to 16 meters (52.49 feet), which is the distance from the surface of the lens to the screen.

Screen Size 300
8.0 m to 16.0 m
(26.25 feet to 52.49 feet)

Screen Size 30
0.8 m to 1.6 m
(2.62 feet to 5.25 feet)

Screen Size 60
1.6 m to 3.2 m
(5.25 feet to 10.50 feet)

| 16 m | 14 m | 12 m | 10 m | 8 m | 6 m | 4 m | 2 m |
| (52.49 feet) | (45.93 feet) | (39.37 feet) | (32.81 feet) | (26.25 feet) | (19.69 feet) | (13.12 feet) | (6.56 feet) |

Minimum: 0.8 meter
(2.62 feet)

Maximum: 16 meters (52.49 feet)
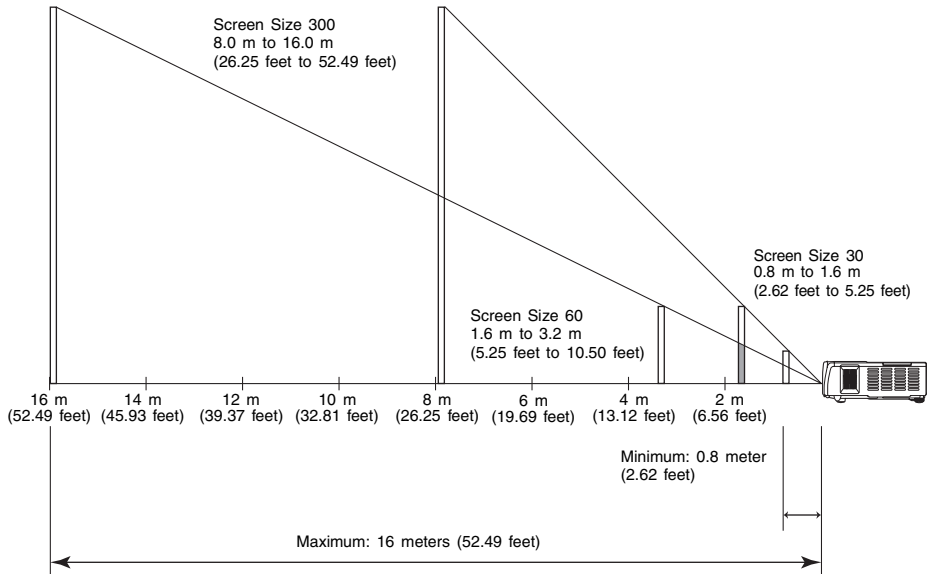
The following table shows the relationship between the distance and projected image size.

| Projection Size		Projection Distance			
Screen Size	Diagonal (cm)	Minimum Distance (m)	Maximum Distance (m)	Minimum Distance (feet)	Maximum Distance (feet)
30	76	0.8	1.6	2.62	5.25
40	102	1.1	2.1	3.61	6.89
60	152	1.6	3.2	5.25	10.50
80	203	2.1	4.3	6.89	14.11
100	254	2.7	5.3	8.86	17.39
120	305	3.2	6.4	10.50	21.00
150	381	4.0	8.0	13.12	26.25
200	508	5.3	10.7	17.39	35.10
250	635	6.7	13.3	21.98	43.64
300	762	8.0	16.0	26.25	52.49

Important!

● Note that the distances provided above are for reference only. Actual distances will be within ±5% of those provided.

Setup Precautions

Note that the condition of the environment where you use the projector greatly affects its performance. Make sure that the following are the conditions of projector setup whenever you use it.

- Use a conveniently located power outlet that you can reach easily when you need to unplug the projector.
- Do not place any objects within the area indicated by the dashed line in the illustration below. Be especially careful that you never block intake and exhaust vents.
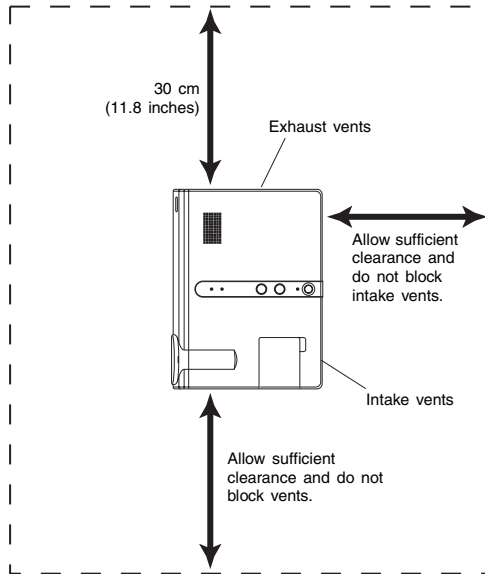
- Do not locate any objects near the projector while it is in use. Keep all items at least 30 cm (11.8 inches) away from the exhaust vents.
- The vents become quite hot while the projector is in use. Never touch the vents with your hands. Also, the areas near the exhaust vents also become quite hot. Never locate objects made of plastic or other heat-sensitive materials near or under the projector. Doing so creates the risk of deformation and discoloration of the object.
- Avoid placing the projector on a surface that is unstable or prone to vibration. Never place the projector on top of a carpet, blanket, towel, or other soft material.
- Do not locate the projector where it will be exposed to direct sunlight.
- Avoid locations where there are large amounts of dust and moisture.
- Keep the projector away from speakers, TVs, radios, and other devices that generate magnetism, as well as from heaters.

Projector Angle to the Screen

The following shows the allowable angle that the projector can be positioned relative to the screen.

Vertical   Horizontal

Screen   Screen

Up to about 30 degrees   Up to about 8 degrees

Up to about 30 degrees   Up to about 8 degrees
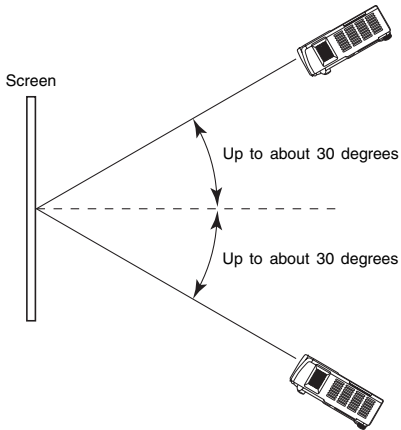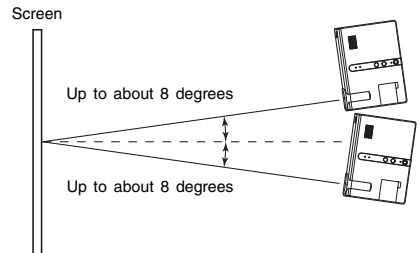
Important!

- The angles shown in the above illustration are subject to the following conditions.
  - Projection of an image from a computer (Resolution: 1024 × 768; Vertical Frequency: 60Hz)
  - Resize Image To Fit: On
  - Either vertical or horizontal keystone correction only.
- The correction range of horizontal keystone correction is narrower while vertical keystone correction is in effect.
- Actual correction ranges are affected by the type of signal being projected, zoom, the "Resize Image To Fit" setting, the aspect ratio setting, and other factors.

Adjusting the Projector Elevation Angle

You can change the elevation angle of the projector in a range of 0 to 8 degrees. You can also make fine adjustments to the left and right side elevation angle when necessary.

To change the projector elevation angle

1. Lift up the front of the projector and press the release button.
   ● This causes the elevation adjustment foot to drop from the bottom of the projector.
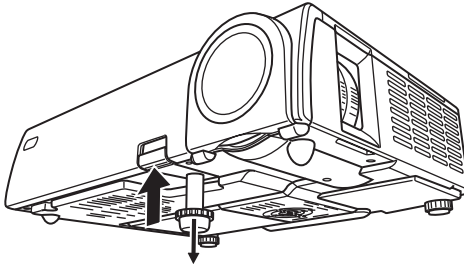
2. While holding down the release button, raise and lower the front of the projector until the elevation adjustment foot is approximately the length you need.

3. Release the release button to lock the elevation adjustment foot in its current position.

4. Rotate the elevation adjustment foot for fine adjustment of its length.

Longer   Shorter
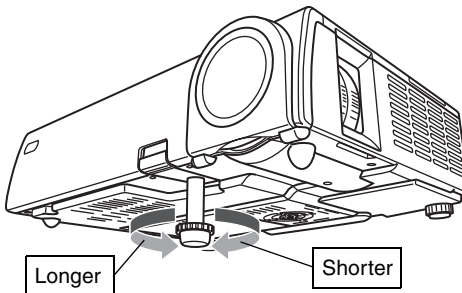
5. Use the left and right adjustment feet to further fine adjust the elevation angle.

Rotate to adjust horizontal alignment.
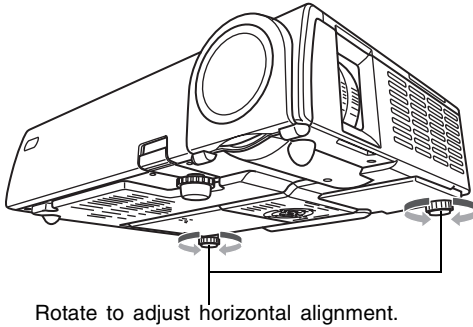
Important!

● To retract the elevation adjustment foot, hold down the release button and slide the elevation adjustment foot back into the projector. Never try to forcibly change the elevation adjustment foot position without pressing the release button.

Rear Projection (From the Back of the Screen)

Distances and angles for rear projection are the same as those for front projection. In the case of rear projection, however, left/right orientation is opposite that of front projection, so you need to configure the setup menu accordingly. For details, see "Screen Settings → Flip Horizontal" on page 82.

Connecting a Computer to the Projector (Video and Audio)

You can use the projector to project an image of video output from a computer. You can also output audio from the computer through the projector's speaker.

Important!

● Always turn off the projector and the computer before connecting them.

Projector

RGB input terminal   AUDIO input terminal

Computer

Audio cable (commercially available)

To line output terminal

Bundled mini D-Sub cable

To monitor terminal (analog RGB output terminal)
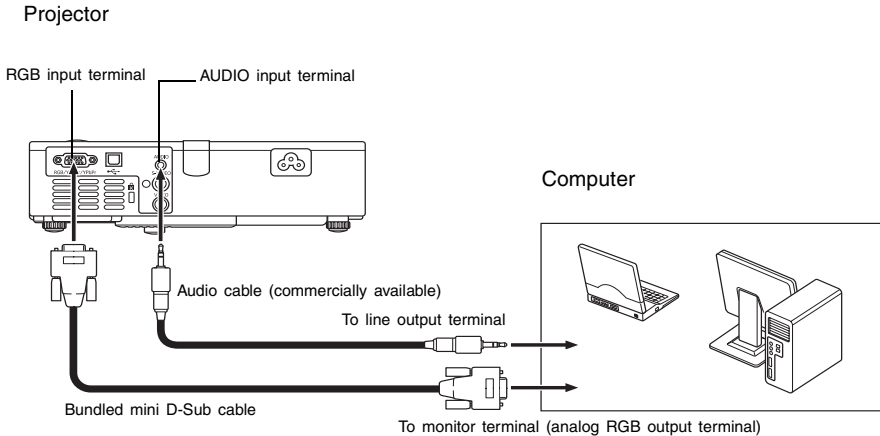
● You can use the bundled mini D-Sub cable to connect to a D-Sub 15-pin type monitor terminal. For other types of monitor terminals (like the one on the old model Macintosh), you need to purchase an optional adapter. See the documentation that came with your computer for information about its terminal.
● The analog RGB video output display mode (resolution and frequency combination) of your computer may not allow proper operation with the projector. See "Supported Signals" on page 116 for information about the computer display modes supported by this projector.

Connecting a Computer to the Projector's USB Port

After you connect a computer to the projector's USB port, you can use the remote controller to perform computer mouse operations, and previous page and next page operations. The illustration shows how to connect to the USB port.

Projector

USB port

Computer

Bundled USB cable   To USB port
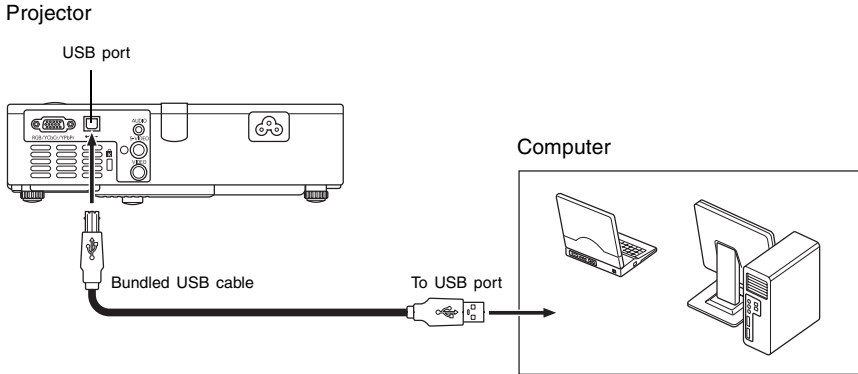
- For details about computer requirements, see "Computer System Requirements for USB Connection" on page 115.
- For details about operation over a USB connection, see "Operating the Computer with the Remote Controller (Wireless Mouse)" on page 59.

Connecting to a Standard Video Device

You can use the projector to project an image from a video deck, TV, video camera, or other video device. You can also output audio from the video device through the projector's speaker.

Important!
● Always turn off the projector and the video device before connecting them.

Projector   Video device

Commercially available audio cable

To AUDIO output terminal

VIDEO input terminal
S-VIDEO input terminal
AUDIO input terminal

To S-VIDEO output terminal
To VIDEO output terminal

Commercially available S-video cable
Bundled video cable
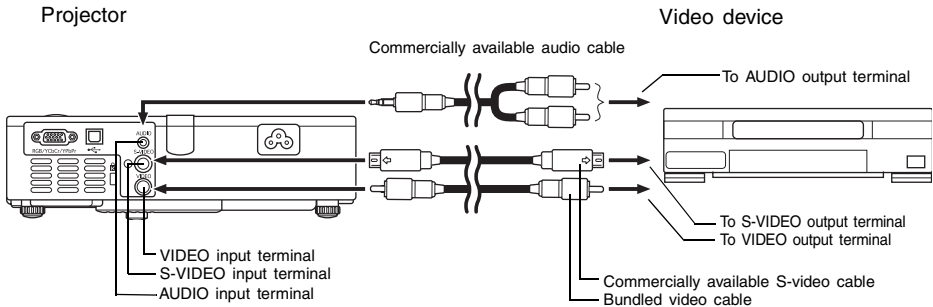
● You can use the bundled video cable to connect to a pin jack (RCA) type VIDEO output terminal. When connecting a video camera or other video device with a special video output terminal, use the special cable that comes with the video device. For details, see the documentation that comes with the video device.
● Note that the projector is equipped with separate circuits for the VIDEO input terminal and S-VIDEO input terminal. Make sure you connect the video device to the correct terminal. The projector lets you switch the input source between RGB (or Component), VIDEO, and S-VIDEO whenever you want.

Connecting to a Component Video Output Device

Some video devices are equipped with a component video output terminal. You can use an optionally available component video cable (YK-3) to connect the RGB input terminal of the projector to the component video output terminal of a video device.

Important!

● Always turn off the projector and the video device before connecting them.

Projector

RGB input terminal

AUDIO input terminal

Commercially available audio cable

Video device

To AUDIO output terminal

Optional component video cable (YK-3)

To Component video output terminal
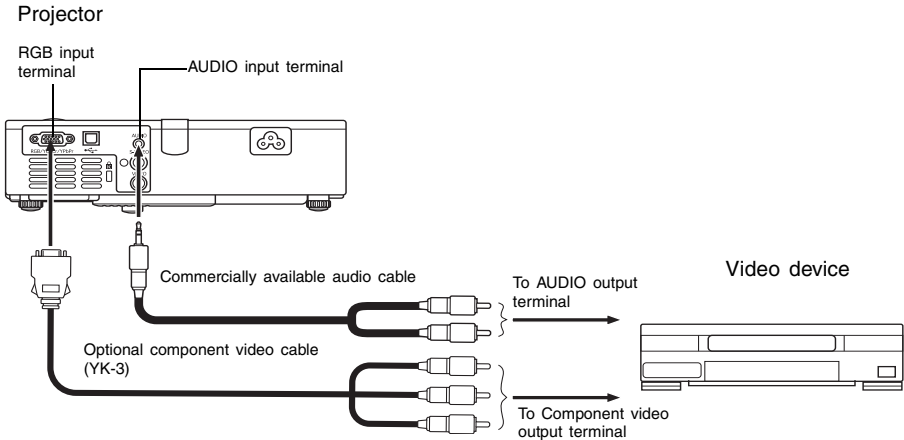
● Component video output terminals come in 3-terminal sets: Y·Cb·Cr or Y·Pb·Pr. Be sure to match the colors of the plugs on the optional YK-3 component video cable with the colors of the terminals (Green: Y; Blue: Cb/Pb; Red: Cr/Pr).
● You can use the optional YK-3 component video cable to connect to pin jack (RCA) type component video output terminals. The projector does not support connection to any other type of terminal.
● Note that connection only to an analog component video output terminal is supported. Connection to a digital output terminal is not supported.
● In order to connect to a component video terminal, you must use the setup menu to configure input settings. For details, see "Input Settings → RGB Input" on page 85.

Turning On the Projector

Before performing any of the operations in this section, make sure you first set up the projector (page 28) and connect to an output device (pages 34 to 37).

AC Power Cord Precautions

● Make sure that you use a power source with the same voltage as that specified for the projector.
● Do not share the outlet supplying power to the projector with other devices. If you are using an extension cord, make sure that the ampere rating of the extension cord is compatible with the power consumption value of this projector.
● Never use the power cord while it is still bundled together.
● Never place objects on top of the power cord and do not step on it.
● Never pull on the power cord. When unplugging it, grasp the plug.
● Use a conveniently located power outlet that you can reach easily when you need to unplug the projector.
● If you need more information about the power supply, contact your original dealer or authorized CASIO service center.

To turn on the projector

1. Use the bundled AC power cord to plug the projector into a power outlet.

Power supply connector

Bundled AC power cord
The shape of the plug depends on your geographical area.
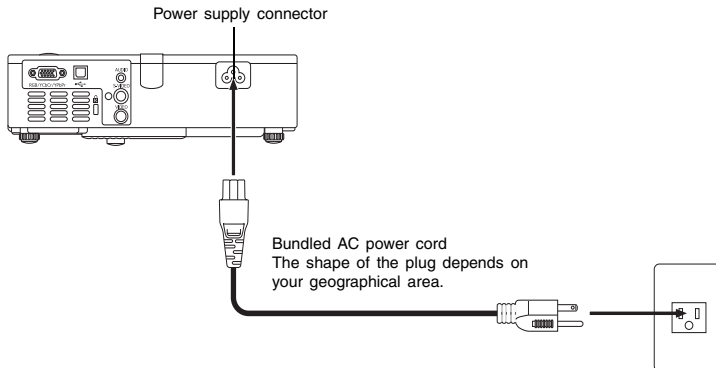
● Plugging into a power outlet causes the three indicators on the top of the projector to light amber. After a short while, two of the indicators will go out and only the POWER/STANDBY indicator will remain lit amber, which indicates the standby state.
● Note that the projector will not turn on if you press the [⏻] (power) key while all three indicators are lit amber. Wait until the projector is in the standby state before trying to turn it on.

2. Turn on the computer or video device that is connected to the projector.

3. If the projector's lens cover is closed, open it.

4. Press the [⏻] (power) key.
- This causes the POWER/STANDBY indicator to flash green, which indicates that the projector is warming up. After a short while, the start up screen will be projected (warm up is still in progress).
- After warm up is complete, POWER/STANDBY indicator stops flashing and remains lit green, and the projector starts projecting an image from the device connected to it. It normally takes about 60 seconds from the point that warm up starts until an image is projected from the connected device.
- A "Language" window will be projected the first time you turn on the projector. Use the procedure under "Specifying the Display Message Language" on page 40 to configure the language settings.

Startup screen   Input image projection
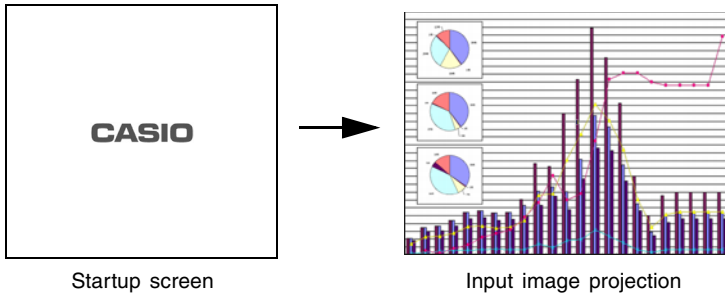
NOTE
- You can configure the startup screen so it shows a custom logo you created yourself, or so nothing appears at startup. For details, see "Option Settings → Custom Logo Settings" on page 92 and "Screen Settings → Startup Screen" on page 82.
- If the projector is configured for low-noise mode operation, the LAMP indicator lights green when warm up starts. See "Option Settings → Low-noise Mode" on page 90 for information about the low noise mode.
- For details about projection operations, see "Projecting onto a Screen" on page 43.

Specifying the Display Message Language

A "Language" window will be projected the first time you turn on the projector. Use the menu on this screen to specify the display language you want to use.

1. Use the cursor [▲] and [▼] keys to highlight the language you want to use.

Language	
Select a language : English	[▲]/[▼] : Scroll [ENTER] : Apply
Sélectionner une langue : Français	[▲]/[▼] : Défilement [ENTER] : Validation
Wählen Sie eine Sprache : Deutsch	[▲]/[▼] : Scrollen [ENTER] : Anwenden
Seleziona una lingua : Italiano	[▲]/[▼] : Scorrimento [ENTER] : Applicazione
Seleccione un idioma : Español	[▲]/[▼] : Desplazar [ENTER] : Aplicar
Selecione um idioma : Português	[▲]/[▼] : Rolar [ENTER] : Executar
选择语言 : 中文〈简体字〉	[▲]/[▼] : 选换 [ENTER] : 采用
選擇語言 : 中文〈繁體字〉	[▲]/[▼] : 選換 [ENTER] : 套用
언어 선택하기 : 한국어	[▲]/[▼] : 스크롤 [ENTER] : 적용
言語を選択してください : 日本語	[▲]/[▼] : 選択 [ENTER] : 決定
[▲]/[▼] : Scroll [ENTER] : APPLY	

2. Press the [ENTER] key.
- This applies the selected language, closes the "Language" window, and displays the projected image from the connected device.

📋**NOTE**

- You can change the display language selection later, if you need to. For details, see "Option Settings → Language" on page 98.
- For details about projection operations, see "Projecting onto a Screen" on page 43.
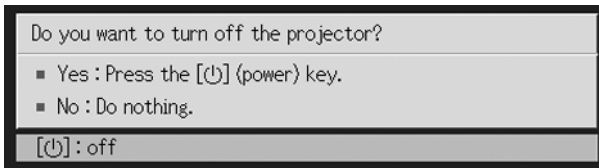
Turning Off the Projector

Caution

- When you turn off the projector, the lamp goes out and the projector goes into a cool down state. Note that you will not be able to turn the projector back on again while it is cooling down.
- The projector may remain quite hot for a while after you turn it off. Avoid touching the projector after you turn it off.
- Note that the projector may still be quite warm even after it completes its cool down procedure. Before packing up the projector, it is recommended that you check to make sure that the fan is stopped and that the projector is no longer warm.

To turn off the projector

1. Press the [⏻] (power) key.
- This causes a confirmation message like the one shown below to appear in the center of the projection screen.

Do you want to turn off the projector?
- Yes : Press the [⏻] (power) key.
- No : Do nothing.

[⏻] : off

- If you do not turn off the projector the confirmation message will disappear automatically after about 10 seconds. The confirmation message will also disappear if you press [ESC] key.

2. To turn off the projector, press the [⏻] (power) key again in response to the confirmation message.
- This causes the projector lamp to go out and stops projection.
- Also the POWER/STANDBY indicator starts to flash amber, which indicates that the projector is cooling down. It takes about 90 seconds from the start of cool down until the projector turns off.
- The projector will not turn back on again while it is cooling down.
- After cool down is finished, the POWER/STANDBY indicator on the top of the projector will light amber, which indicates the standby state. You can now turn the projector back on, if you want.

3. After confirming that cool down is complete, unplug the AC power cord from the power outlet.

Caution

● Note that the projector may still be quite warm even after it completes its cool down procedure. Before packing up the projector, it is recommended that you check to make sure that the fan is stopped and that the projector is no longer warm.

● This causes the POWER/STANDBY indicator to go out.

4. After ensuring that the projector and the connected computer or video device are turned off, disconnect the connecting cables from the projector and the connected device.

5. Close the lens cover.
● Make sure that the lens is not extended before trying to close the lens cover.

Auto Power Off

Auto Power Off automatically turns off the projector whenever there is no input signal from the currently selected input source, and no operation is performed on the projector for about 10 minutes.
When Auto Power Off is triggered, the projector first enters a cool down state, the same as it does when you press the [⏻] (power) key to turn it off.
● The POWER/STANDBY indicator flashes amber to indicate that the projector is cooling down. It takes about 90 seconds from the start of cool down until the projector turns off.
● The projector will not turn back on again while it is cooling down.
● After cool down is finished, the POWER/STANDBY indicator on the top of the projector to lights amber, which indicates the standby state. You can now turn the projector back on, if you want.

📝**NOTE**

● You can turn off Auto Power Off, if you want. See "Option Settings → Auto Power Off" on page 91.
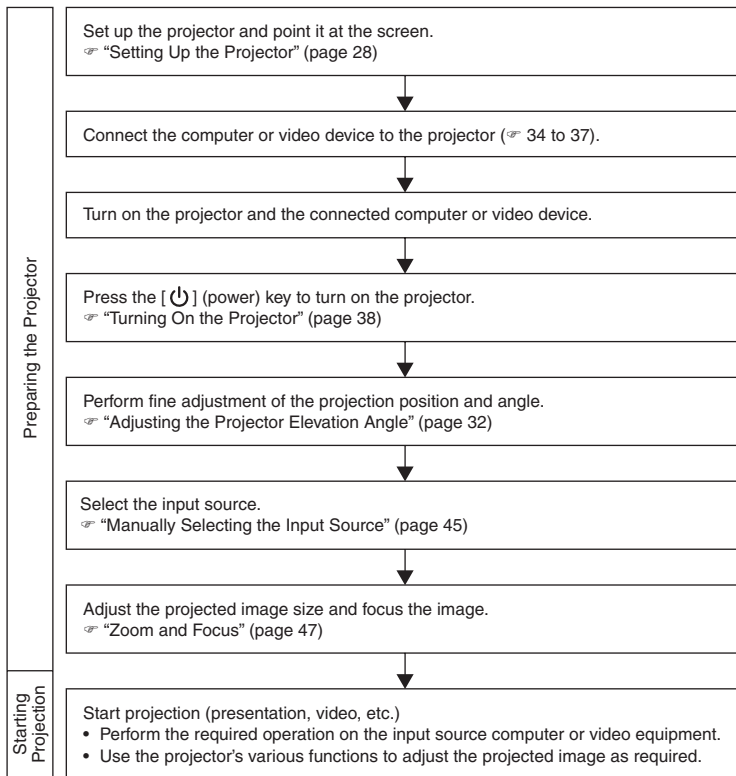
Projection Operations

This section explains operations that are related to projection of an image.

Projecting onto a Screen

This section explains the basic steps for projecting an image.

Basic Flow

Preparing the Projector

Set up the projector and point it at the screen. ☞ "Setting Up the Projector" (page 28)

↓

Connect the computer or video device to the projector (☞ 34 to 37).

↓

Turn on the projector and the connected computer or video device.

↓

Press the [⏻] (power) key to turn on the projector. ☞ "Turning On the Projector" (page 38)

↓

Perform fine adjustment of the projection position and angle. ☞ "Adjusting the Projector Elevation Angle" (page 32)

↓

Select the input source. ☞ "Manually Selecting the Input Source" (page 45)

↓

Adjust the projected image size and focus the image. ☞ "Zoom and Focus" (page 47)

↓

Starting Projection

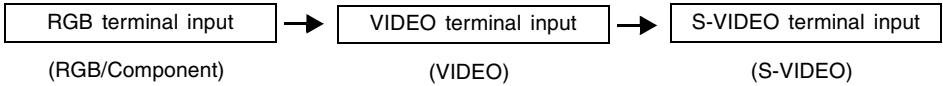| |
|---|
| Start projection (presentation, video, etc.)
• Perform the required operation on the input source computer or video equipment.
• Use the projector's various functions to adjust the projected image as required. |

Auto Input Source Selection

When you turn on the projector, it checks the status of each input source (whether or not the input source is sending a signal) in the sequence shown below. It automatically selects the first input source it finds that is sending an input signal, and projects the applicable image.

RGB terminal input	→	VIDEO terminal input	→	S-VIDEO terminal input
(RGB/Component)		(VIDEO)		(S-VIDEO)

If the RGB input terminal is connected to a computer and the S-VIDEO input terminal is connected to a video deck and signals are being supplied by both, for example, the projector automatically selects RGB input when it is turned on. The currently selected input source name is shown in the upper right corner of the projection screen.

Input source name

RGB
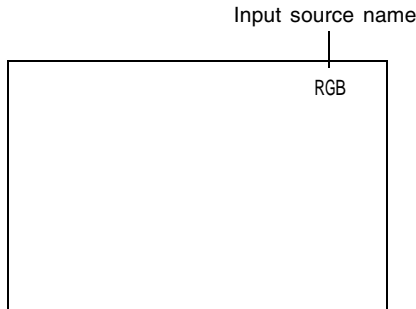
NOTE

● If the projector does not find any input signal, the message "No signal input" appears in place of the input source name.
● Whether the displayed input source name shows [RGB] or [Component] depends on the current "Input Settings → RGB Input" (page 85) setting that is configured on the projector's setup menu.

If the input source name shows this:	It means this input is selected:
RGB	RGB
Component	Component video

For information about configuring setup menu settings, see "Using the Setup Menu" on page 61. For information about component video, see "Connecting to a Component Video Output Device" on page 37.
● Note that the projector does not select the input source automatically when "Off" is selected for the "Option Settings → Auto Input Detect" (page 89) setting on the setup menu.
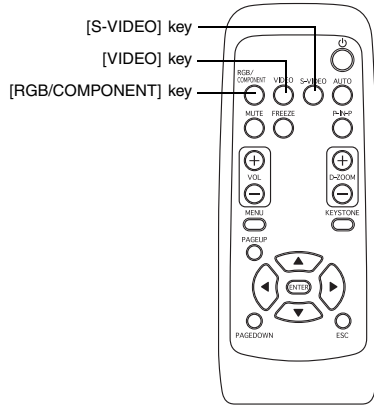
Manually Selecting the Input Source

The procedure you should use to select the input source depends on whether you are using projector keys or remote controller keys.

[Projector]

[Remote Controller]

[S-VIDEO] key

[VIDEO] key

[RGB/COMPONENT] key
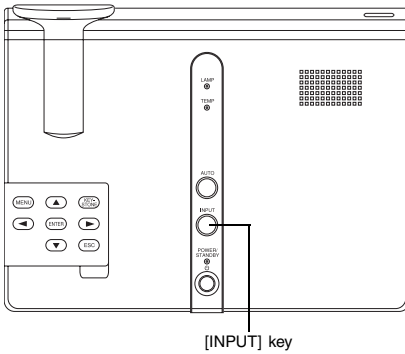
[INPUT] key

To select the input source using projector keys

On the projector, press the [INPUT] key to cycle through input sources in the sequence shown below.

(RGB/Component) ➡ (VIDEO) ➡ (S-VIDEO)

To select the input source using remote controller keys

On the remote controller, press the [RGB/COMPONENT], [VIDEO], or [S-VIDEO] key to select the input source you want.

📝 **NOTE**

● The currently selected input source name is shown in the upper right corner of the projection screen.
● If the currently selected input source is not sending an input signal, the message "No signal input" appears in place of the input source name.
● Whether the displayed input source name shows [RGB] or [Component] depends on the current "Input Settings → RGB Input" (page 85) setting that is configured on the projector's setup menu.

| If the input source name shows this:	It means this input is selected:
RGB	RGB
Component	Component video

For information about configuring setup menu settings, see "Using the Setup Menu" on page 61. For information about component video, see "Connecting to a Component Video Output Device" on page 37.

Zoom and Focus

Use the zoom ring to adjust the image size, and the focus ring to focus the image.

To adjust the image size

Zoom ring

Smaller

Larger
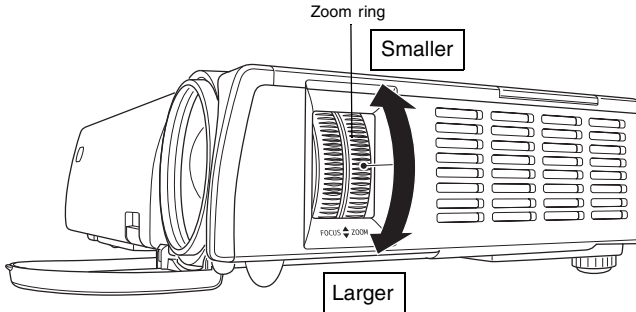
To focus the image

It is best to have a still image on the screen when you focus the image.

Focus ring
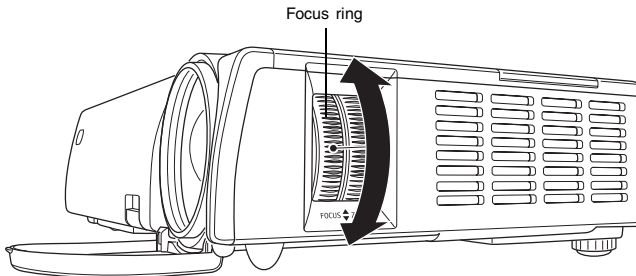
📝 **NOTE**

● Performing zoom after focusing can cause the image to go out of focus. If this happens, focus again.

Auto Adjustment of an RGB Image

When the input source is RGB (computer), the projector automatically adjusts vertical and horizontal positioning, frequency, and phase whenever it detects an RGB signal (following input source selection, power up, etc.) You can also execute an automatic adjustment operation by pressing the [AUTO] key.
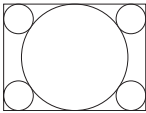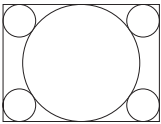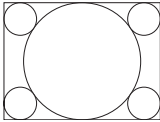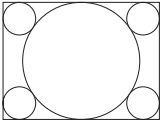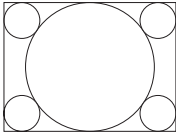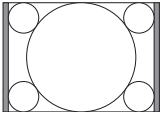
📝 **NOTE**

● You can turn off auto adjustment (page 90) when you want to disable auto adjustment and maintain manual settings.
● The projected image may become distorted while an auto adjustment operation is in progress.
● The [AUTO] key is disabled whenever S-VIDEO, VIDEO, or Component is selected as the input source.
● If an image is unclear following the auto adjustment operation, you can use the menu to adjust items manually. For details, see "Image Adjustment" on page 73.

Full-screen Display of an RGB Image

The projector outputs images using XGA (1024 pixels × 768 pixels) video resolution. When the input signal from the computer connected to the projector is not an XGA signal, "Resize Image To Fit" automatically enlarges or reduces the image so it matches the projector's video resolution and fills the entire screen. The following shows how different input signals from a computer are adjusted during projection.

Input Signal Example	Projected Image
800 × 600	
1024 × 768	
1280 × 1024	

📝 **NOTE**

● Resizing of an input image by "Resize Image To Fit" can call coarsening of the image or can cause part of the image to be cut off. If this happens, try turning off "Resize Image To Fit". See "Screen Settings → Resize Image to Fit" on page 81 for more information.

Keystone Correction (KEYSTONE)

When the projector is at an angle to the screen it is projecting on, the projected image may have different length left and right edges, or top and bottom edges. This phenomenon is called, "keystoning". This projector comes with functions for automatic as well as manual keystone correction, which provides a regularly shaped projected image.

Important!

● Keystone correction (auto or manual) can cause dustortion of the projected image. If this happens try moving the screen and/or projector so they are oriented close to the configuration shown under "Setting Up the Projector" on page 28.

NOTE

● Keystone correction can cause the corrected image to be smaller than the original (uncorrected) image.

Automatic Keystone Correction

Automatic keystone correction correct the image to counteract the effects of vertical keystoning.
Performing auto keystone correction causes the message "Auto Keystone Corrected." to appear in the center of the projected image.
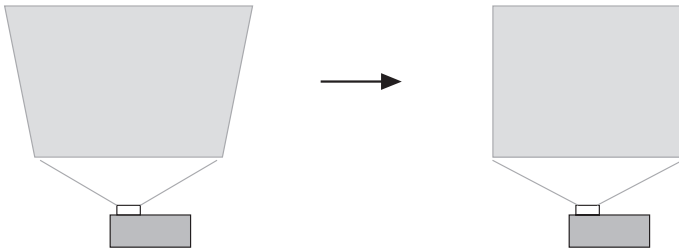
NOTE

● Note that auto keystone correction is possible within a range of about –30 degrees to +30 degrees.
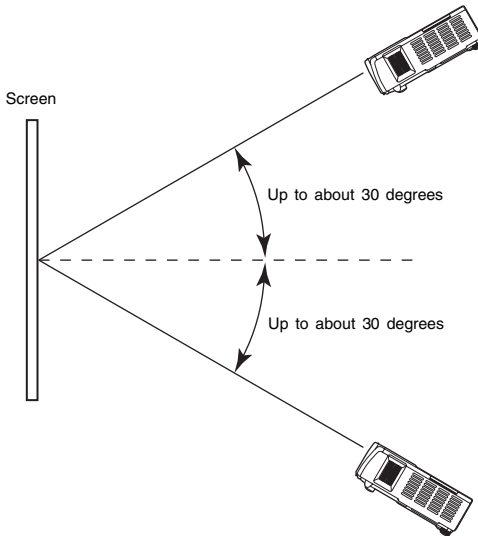
● Auto keystone correction is performed by detecting the elevation angle of the projector. This means that the surface you are projecting onto needs to be standing straight up. If the surface you are projecting onto is not straight, use manual keystone correction to correct the image.
● You can turn auto keystone correction on or off as required. For details, see "Option Settings → Auto Keystone Correction" on page 89.

Important!

● Note that auto keystone correction is not performed for horizontal keystoning. Use manual correction for horizontal keystoning.
● Performing manual horizontal keystone correction and then automatic keystone correction can cause the manual horizontal keystone correction value to change, and can magnify horizontal keystoning. This occurs when vertical keystone correction narrows the allowable manual horizontal keystone correction range, causing the manually specified correction value to be outside the correction range.
If this happens, rearrange the projector and screen so the lens is pointing straighter at the screen, and then perform manual keystone correction or auto keystone correction again.

Manual Keystone Correction

Manual keystone correction can be used to correct for both vertical and horizontal keystoning.

To use manual keystone correction

1. Press the [KEYSTONE] key.
 ● This causes the keystone correction screen to appear on the projected image.

Vertical Keystone Correction	0	–		+
Horizontal Keystone Correction	0	–		+
[▲]/[▼] : Select [◄]/[►] : Adjust [KEYSTONE] : Exit				
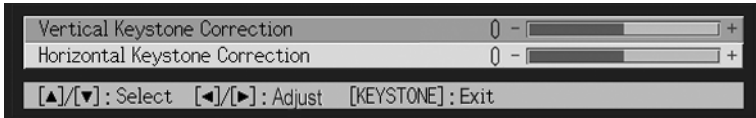
2. Use the [▲] and [▼] keys to select either "Vertical Keystone Correction" or "Horizontal Keystone Correction".

3. Use the [◄] and [►] keys to correct for keystoning.
 ● Each press of [◄] or [►] shifts the indicator on the currently selected bar left or right.
 ● Keystone correction is possible within the range that the indicator is able to move within the selected bar. Depending on conditions, the indicator may not move all the way to either end of the bar.

Vertical Keystone Correction	22	–		+
Horizontal Keystone Correction	0	–		+
[▲]/[▼] : Select [◄]/[►] : Adjust [KEYSTONE] : Exit				

 ● Repeat steps 2 and 3 to perform keystone correction for the other direction, if you want.

4. After the settings are the way you want, press the [ESC] key or the [KEYSTONE] key.
 ● This causes the keystone correction screen to disappear.

📝 **NOTE**

- The allowable ranges for manual keystone correction are −30 to +30 degrees vertically, and −8 to +8 degrees horizontally.
- Performing horizontal keystone correction and then vertical keystone correction can cause the horizontal keystone correction value to change. This occurs when vertical keystone correction narrows the allowable manual horizontal keystone correction range, causing the horizontal keystone correction value to be outside the correction range.
  If this happens, rearrange the projector and screen so the lens is pointing straighter at the screen, and then perform manual keystone correction or auto keystone correction again.

Adjusting the Volume Level (VOL +/–)

You can use the remote controller keys to adjust the volume level of the audio that is output from the projector's speaker.

To adjust the volume level

1. On the remote controller, press the [VOL +] or [VOL −] key.
- This causes the [Volume] screen to appear on the projected image.

Volume	16 − [▬▬▬▬▬▬▬▬▬▬▬] +
[VOL−]/[VOL+]: Adjust [ESC]: Exit	

2. Press the [VOL +] key or the [▶] key to increase the volume, or the [VOL −] or [◀] key to lower the volume.

3. After the setting is the way you want, press the [ESC] key.
- This causes the [Volume] screen to disappear.

Enlarging the Projected Image (D-ZOOM +/–)

You can use the remote controller's zoom keys to enlarge a specific part of the projected image up to four times its original size.

To enlarge part of the projected image

1. On the remote controller, press the [D-ZOOM +] or [D-ZOOM –] key.
- This causes a cross cursor to appear on the projected image.
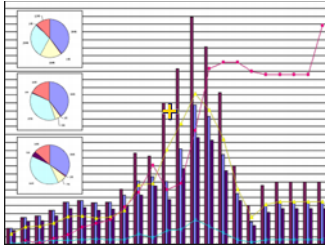
2. Use the remote controller's cursor keys to move the cross cursor to the part of the image that you want in the center of the enlarged image.
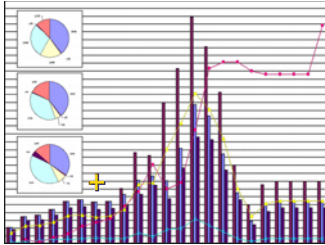
3. On the remote controller, press the [D-ZOOM +] key to enlarge the image.
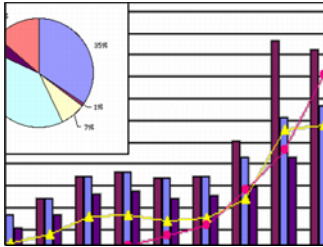
- You can press the [D-ZOOM +] key again to further enlarge the image, up to 4 times.
- You can back step through the image enlargements by pressing the [D-ZOOM −] key.
- You can shift the zoomed image up, down, left, or right by pressing the applicable remote controller cursor key.

4. To exit image enlargement and return the image to its original size, press the remote controller's [ESC] key.

Using Picture-in-Picture (P-IN-P)

While RGB is selected as the input source, you can display a sub-window that simultaneously displays the image being input through the VIDEO or S-VIDEO terminal. This function is called "picture-in-picture" or "P-IN-P".

RGB input image

VIDEO (or S-VIDEO) input image
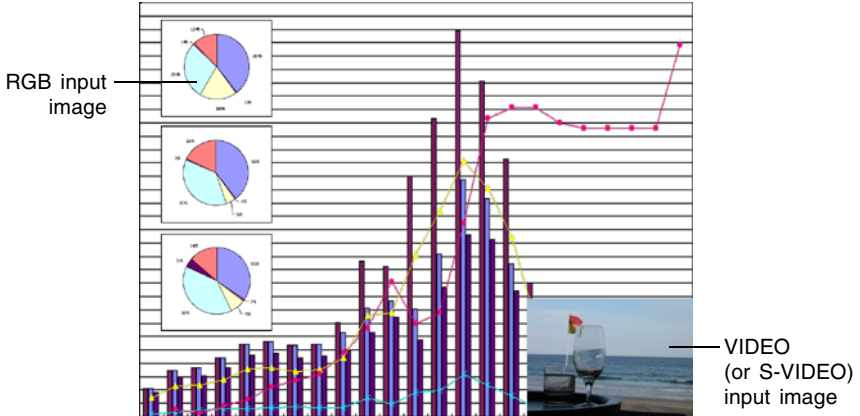
📝 **NOTE**

● The initial default setting for the sub-window input source is VIDEO. Use the setup menu when you want to change the sub-window input source to S-VIDEO. For details, see "Input Settings → P-in-P Input" on page 87.

● Note that P-IN-P can be used only when RGB is selected as the input source. It is not available while any other input source is selected.

● If Component is selected for "Input Settings → RGB Input" on the setup menu, you need to change the setting to RGB in order to use picture-in-picture. Note that the initial default setting for "Input Settings → RGB Input" is RGB.

To display the sub-window

1. On the remote controller, press the [RGB/COMPONENT] key to select RGB as the input source.
- You can also select the input source using the projector's [INPUT] key.

2. On the remote controller, press the [P-IN-P] key to display the sub-window.
- This causes the sub-window, containing the image input through the VIDEO or S-VIDEO terminal, to appear on the projected image. The sub-window will be located at the position that was used the last time a sub-window was displayed. The initial default location is the lower right corner.
- You can leave the sub-window where it is, or move it to another location within the projected image. See "To change the location of the sub-window" for more information.
- You can also select one of three sizes for the sub-window. See "To change the size of the sub-window" for more information.

3. To close the sub-window, press the remote controller's [P-IN-P] key or the [ESC] key.

To change the location of the sub-window

While a sub-window is displayed, use the remote controller's cursor keys to move it to one of the nine locations shown below.
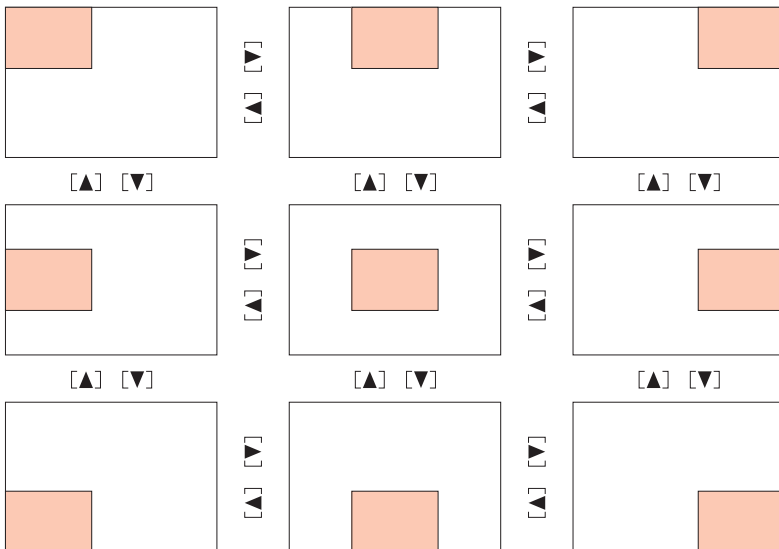
To change the size of the sub-window

While a sub-window is displayed, use the [D-ZOOM +] and [D-ZOOM –] keys to select one of the three available sub-window sizes (small, medium, large).
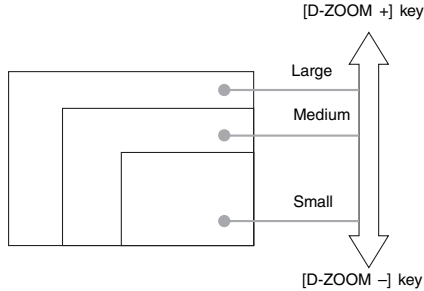
Important!

● When RGB is selected as the input source, certain signal types (1600 × 1200 UXGA signal, for example) do not support selection of the large sub-window size.

Muting the Image and Audio (MUTE)

The mute function causes the projected image to go to black screen, and stop output of the audio from the speaker.

To mute the image and audio

1. On the remote controller, press the [MUTE] key.
  ● This causes the projected image to go to a black screen, and stops output from the speaker.

2. To restore the image and audio, press the [MUTE] key again or press the [ESC] key.

NOTE

● You can select a black screen, blue screen, or a logo screen for the mute function. For details, see "Screen Settings → Mute Screen" on page 83.

Freezing the Projected Image (FREEZE)

The freeze function stores the current projected image in projector memory, and projects it as a still image.

To freeze the projected image

1. On the remote controller, press the [FREEZE] key.
- This freezes the image that was being projected when you pressed the [FREEZE] key.

2. To unfreeze the image, press the [FREEZE] key again or press the [ESC] key.

Operating the Computer with the Remote Controller (Wireless Mouse)

You can use the remote controller as a wireless mouse to perform mouse operations on the computer that is connected to the projector. Wireless mouse capabilities really come in handy when you need to open a presentation software file for projection during a meeting or presentation.

Important!
- To use the remote controller as a wireless mouse, the computer must be connected to the projector by the USB cable that comes with the projector. For details, see "Connecting a Computer to the Projector's USB Port" on page 35.
- Note that wireless mouse capabilities are available only when RGB is selected as the input source and there is RGB input from the computer to the projector.

To operate the computer with the remote controller

1. Use the mini D-Sub cable and USB cable that come with the projector to connect the computer to the projector. After that, turn on the projector and the computer.
- See the following for more information.
- ☞ Connecting a Computer to the Projector (Video and Audio) (page 34)
- ☞ Connecting a Computer to the Projector's USB Port (page 35)

2. On the remote controller, press the [RGB/COMPONENT] key to select RGB as the input source.
- You can also select the input source using the projector's [INPUT] key.

3. Use the remote controller to perform mouse operations as described below.

To do this:	Use this remote controller key:
Move the pointer on the computer screen up, down, left, or right	Cursor key
Scroll up one page	[PAGE UP]
Scroll down one page	[PAGE DOWN]
Perform a left-click operation	[ENTER]
Perform a right-click operation	[ESC]

NOTE

● Note that wireless mouse operations are not possible while a manual keystone correction (page 52), volume adjustment (page 53), image enlargement (page 54), or P-IN-P (page 56) operation is in progress, or while the menu is displayed (page 61). Wireless mouse capabilities will be restored as soon as the operation that disabled them is complete.

● Note that wireless mouse operation is not supported when the input signal from the computer is larger than XGA, and "Resize Image To Fit" (page 81) is turned off. Wireless mouse operation will be supported for an input signal that is larger than XGA if "Resize Image To Fit" is turned on.

● Note that drag-and-drop is not supported by wireless mouse operations.

Using the Setup Menu

This section explains how to configure setup menu settings, and provides details about each of the settings.

Setup Menu Overview

Pressing the [MENU] key while an image is being projected displays the setup menu on the projected image. The setup menu can be used to configure a variety of different projector settings. See the "Setup Menu Setting List" on page 62 for details about the settings that are available.

Using the Setup Menu Setting List

● The settings that can be configured and the settings that appear on the item depend on the input source that is currently selected. Under "Input Source" in the following list, there is a column for each of the input sources listed below. A "○" in a column means that the menu item to the left is displayed for that input source, while "✕" indicates that the menu item is not displayed.

Column name:	Input source:
R	RGB
C	Component
S	S-VIDEO
V	VIDEO
No Signal	No signal being input

● The "Sub-menu Item Type" column shows the type of the applicable sub-menu item. Refer to the pages noted below for more information about each item type.
Value Setting: Specifies a numeric value (☞ page 67).
Selection: Allows selection from multiple options (☞ page 67).
Setting Screen: Numeric value specification or option selection on a separate setting screen (☞ page 68).
Execution: Initializes a setting (☞ page 69).
Information: Displays information only (☞ page 69).
● The "See page" column shows where you should go for more information.

Setup Menu Setting List

Main menu	Sub-menu	Sub-menu Item Type	Input source					See page
			R	C	S	V	No Signal	
Image Adjustment	Brightness	Value Setting	○	○	○	○	✕	page 73
	Contrast	Value Setting	○	○	○	○	✕	page 73
	Sharpness	Value Setting	○	○	○	○	✕	page 73
	Saturation	Value Setting	✕	✕	○	○	✕	page 73
	Tint	Value Setting	✕	✕	*2	*2	✕	page 73
	Gamma Mode	Setting Screen	○	○	○	○	✕	page 74
	Color Balance	Setting Screen	○	○	○	○	✕	page 74
	Vertical Position	Value Setting	○	○	○	○	✕	page 76
	Horizontal Position	Value Setting	○	○	○	○	✕	page 76
	Frequency	Value Setting	○	✕	✕	✕	✕	page 77
	Phase	Value Setting	○	✕	✕	✕	✕	page 77
	Noise Filter	Selection	○	✕	✕	✕	✕	page 77
	Restore Menu Defaults	Execution	○	○	○	○	✕	page 78
Volume Adjustment	Volume	Value Setting	○	○	○	○	*1	page 78
	Restore Menu Defaults	Execution	○	○	○	○	○	page 78
Screen Settings	Vertical Keystone Correction	Value Setting	○	○	○	○	○	page 79
	Horizontal Keystone Correction	Value Setting	○	○	○	○	○	page 79
	Aspect Ratio	Selection	✕	*3	○	○	✕	page 80
	Resize Image To Fit	Selection	○	✕	✕	✕	✕	page 81
	Flip Horizontal	Selection	○	○	○	○	○	page 82
	Startup Screen	Selection	○	○	○	○	○	page 82
	No Signal Screen	Selection	○	○	○	○	○	page 83
	Mute Screen	Selection	○	○	○	○	○	page 83
	Restore Menu Defaults	Execution	○	○	○	○	○	page 84
Input Settings	RGB Input	Selection	○	○	✕	✕	*4	page 85
	Video Signal	Setting Screen	✕	✕	✕	○	*5	page 86
	S-Video Signal	Setting Screen	✕	✕	○	✕	*6	page 86
	P-in-P Input	Selection	○	✕	✕	✕	*7	page 87
	Signal Name Indicator	Selection	○	○	○	○	○	page 87
	Special Signal	Setting Screen	○	✕	✕	✕	*7	page 88
	Restore Menu Defaults	Execution	○	○	○	○	○	page 88

*1 This setting is for the currently selected input source.
*2 This setting can be configured only for an NTSC or NTSC4.43 signal.
*3 This setting can be selected only when the aspect ratio of the input signal is 4:3.
*4 This setting can be configured only when the input source is RGB/Component.
*5 This setting can be configured only when the input source is VIDEO.
*6 This setting can be configured only when the input source is S-VIDEO.

Setup Menu Setting List

Main menu	Sub-menu	Sub-menu Item Type	Input source					See page
			R	C	S	V	No Signal	
Option Settings	Auto Input Detect	Selection	○	○	○	○	○	page 89
	Auto Keystone Correction	Selection	○	○	○	○	○	page 89
	Auto Adjust	Selection	○	✕	✕	✕	*7	page 90
	Low-noise Mode	Selection	○	○	○	○	○	page 90
	Auto Power Off	Selection	○	○	○	○	○	page 91
	Key Lock	Selection	○	○	○	○	○	page 91
	Custom Logo Settings	Special*8	○	○	○	○	✕	page 92
	Language	Setting Screen	○	○	○	○	○	page 98
	Alert Tones	Selection	○	○	○	○	○	page 98
	Restore Menu Defaults	Execution	○	○	○	○	○	page 99
Operational Info	Lamp Time	Information	○	○	○	○	○	page 99
	Reset Lamp Time	Execution	○	○	○	○	○	page 99
	Input Signal	Information	○	○	○	○	○	page 99
	Signal Name	Information	○	○	○	○	✕	page 99
	Index	Information	○	○	✕	✕	✕	page 99
	Resolution	Information	○	✕	✕	✕	✕	page 99
	Horizontal Frequency	Information	○	○	○	○	✕	page 99
	Vertical Frequency	Information	○	○	○	○	✕	page 99
	Scan System	Information	○	○	✕	✕	✕	page 100
Restore All Defaults	Restore All Defaults	Execution	○	○	○	○	○	page 100

*7 This setting can be configured only when the input source is RGB.
*8 This is a special sub-menu item that is different from other types. For details, see "Option Settings → Custom Logo Settings" on page 92.

Before Configuring Menu Settings

Always remember that the settings you configure on the setup menu are applied for the input source (RGB, Component, S-VIDEO, VIDEO) that was selected when you displayed the setup menu. Note the following important points.

● The items that appear on the setup menu depend on the currently selected input source and other factors.
  Some items apply to a certain specific input source, while some apply to multiple input sources.

● Even for menu items that are common to multiple input sources, the setting range or selectable options may differ according to the input source.

● With certain exceptions, there are basically two types of settings that can be configured for multiple input sources. One type lets you configure different settings for each individual input source. The other type applies a single setting to all input sources. The volume level setting, for example, lets you configure a different setting for each input source, while the keystone correction setting lets you configure a single common setting for all input sources.

📝**NOTE**

● For details about how settings are saved, and other details, see "Setup Menu Reference" on page 73.

Setup Menu Screen Operations

This section explains projector operations you need to perform while configuring setup menu settings. It also provides details about each sub-menu item type.

Basic Setup Menu Operations

The following is the general flow of the steps you need to perform when configuring setup menu operations.

1. Select the input source whose settings you want to configure.

2. Press the [MENU] key.
- This causes the setup menu screen to appear in the center of the projected image.
- The setup menu has a main menu on the left side. On the right side is a sub-menu of settings that can be configured for the currently selected main menu item.
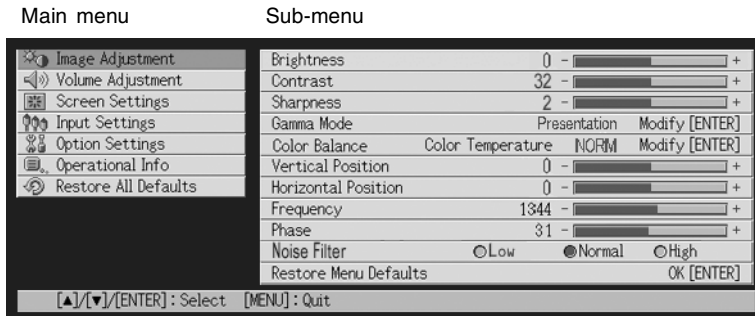
      Main menu   Sub-menu

- The items that appear in the sub-menu depend on the currently selected input source, and whether or not a signal is being input from the input source. For details, see "Setup Menu Overview" on page 61.

3. Use the [▲] and [▼] keys to select the main menu whose sub-menu contains the settings you want to configure.
- The settings for the selected main menu item appear in the sub-menu.
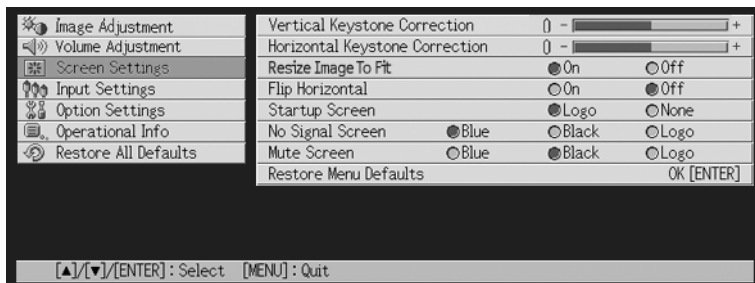
4. Press the [ENTER] key.
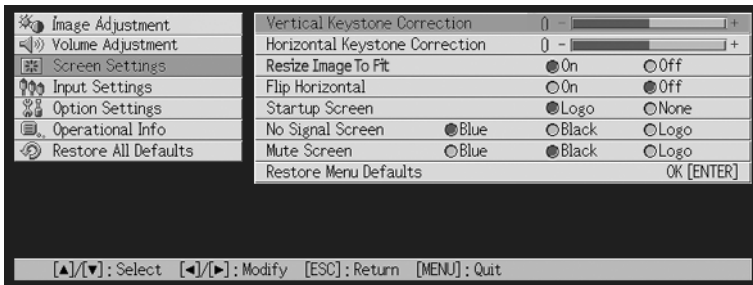- This selects the top item in the sub-menu.

5. Use the [▲] and [▼] keys to select the sub-menu item whose setting you want to change.
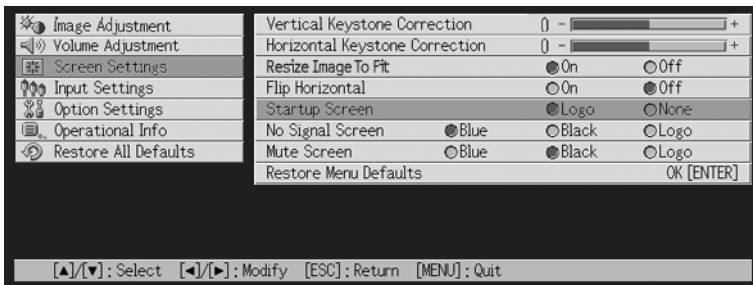
6. Change the setting or select an option to configure the currently selected sub-menu item.
- The operation you need to perform depends on the sub-menu item type. See "Setup Menu Overview" on page 61 for more information.
- For information about how to configure settings for each sub-menu item, see "Sub-menu Operations" on page 67.
- After configuring the settings of one sub-menu item, you can repeat steps 5 and 6 to select another item on the same sub-menu and configure its setting.
- If you want to configure the settings of another main menu item, press the [ESC] key to exit the current sub-menu. Next, repeat steps 3 through 6 to select another main menu item and change the settings of its sub-menu.

7. Press the [MENU] key to exit the setup menu.
- This causes the setup menu to disappear from the projected image.

Sub-menu Operations

This section explains steps you need to perform in order to configure settings for each sub-menu item type (value, selection, setting screen, execution, information).

Value Setting Type Sub-menu Item

This type of sub-menu item consists of a value and a bar graph.

Examples: Image Adjustment → Brightness; Screen Settings → Vertical Keystone Correction

Operation: Press the [◀] key to make the value smaller, or the [▶] key to make it larger. A value can be selected within the range that the indicator is able to move within the selected bar. Depending on conditions, the indicator may not move all the way to either end of the bar.
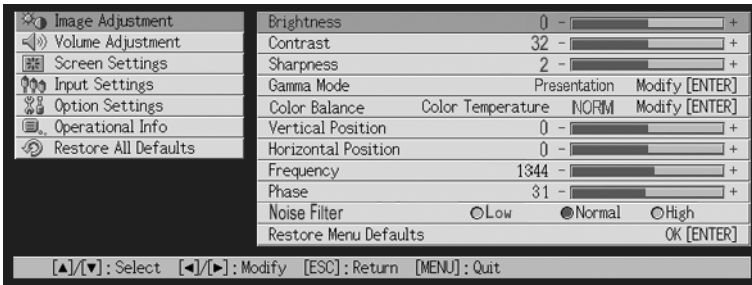
Selection Type Sub-menu Item

This type of sub-menu item provides a number of options from which you can choose.

Examples: Screen Settings → Startup Screen; Option Settings → Auto Keystone Correction

Operation: The currently selected option is indicated by a black button next to it. Use the [◀] and [▶] keys to move between the selections, which causes the buttons next to them to become either black (selected) or white (deselected).
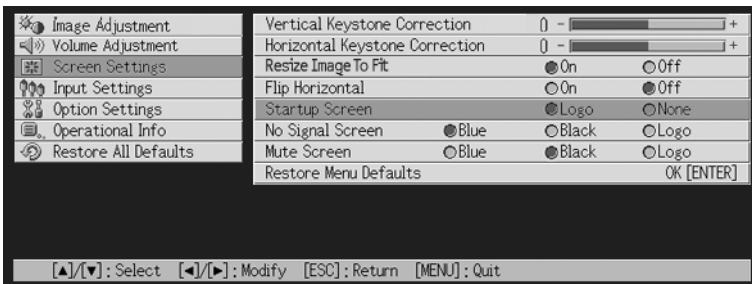
📝 **NOTE**

● For details about the options that are available for each selection type sub-menu item, see "Setup Menu Reference" on page 73.

Setting Screen Type Sub-menu Item

This type of sub-menu item displays a separate screen that you use to configure its settings.
　　Examples: Image Adjustment → Gamma Mode; Option Settings → Language, etc.
　　Operation: The following example shows how to configure settings for Input Settings →
　　　　　　　Video Signal, S-Video Signal

1. On the remote controller, press the [VIDEO] key to select the VIDEO input terminal as the input source.

2. Perform steps 2 through 4 under "Basic Setup Menu Operations" on page 65. On the "Input Settings" main menu, select the "Video Signal" sub-menu item.
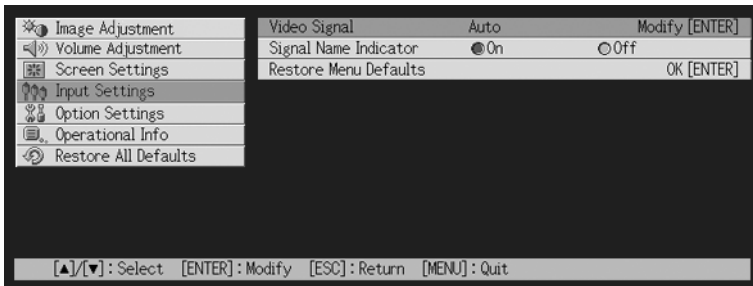
3. Press the [ENTER] key.
● This displays the video signal selection screen shown below.
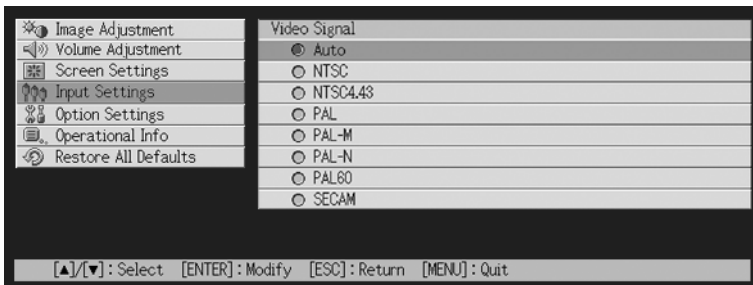
4. Use the [▲] and [▼] keys to highlight the item you want to select, and then press the [ENTER] key.

5. After you are finished configuring the settings, press the [ESC] key to close the setting screen and return to the sub-menu screen.
● After you are finished, press the [MENU] key to exit the setup menu.

📝 **NOTE**

● Note that the available settings and configuration procedures depend on the setting screen. See "Setup Menu Reference" on page 73 for details about each sub-menu item.

Execution Type Sub-menu Item

This type of sub-menu item returns a setting to its initial default value.

Examples: Image Adjustment → Restore Menu Defaults; Operational Info → Reset Lamp Time

☞ Initializing Settings (page 70)
☞ Resetting the Lamp Time (page 108)

Information Type Sub-menu Item

This type of sub-menu item provides status and setup information.

Examples: Operational Info → Lamp Time; Operational Info → Input Signal

Refer to the following for details about the type of information that is available using the information type sub-menu items.

☞ Operational Info (page 99)
☞ Operational Info → Input Signal (page 99)
☞ Operational Info → Signal Name (page 99)
☞ Operational Info → Index (page 99)
☞ Operational Info → Resolution (page 99)
☞ Operational Info → Horizontal Frequency (page 99)
☞ Operational Info → Vertical Frequency (page 99)
☞ Operational Info → Scan System (page 100)

Initializing Settings

The setup menu lets you initialize the settings of a particular main menu item, or for all setup menu items.

To initialize the settings of a particular main menu item

Example: To initialize the settings of the "Image Adjustment" main menu item.

Important!

● Performing the following procedure returns all of the sub-menu items under the currently selected main menu item to their initial default settings.

● Initializing the settings of the "Image Adjustment" main menu item returns the "Vertical Position", "Horizontal Position", "Frequency", and "Phase" settings of the current signal type only (XGA/60Hz, UXGA/60Hz, etc.) to their initial defaults.

1. Select the input source whose settings you want to initialize.

2. Perform steps 2 through 4 under "Basic Setup Menu Operations" on page 65. Select the "Image Adjustment" main menu, and then select the "Restore Menu Defaults" sub-menu item.
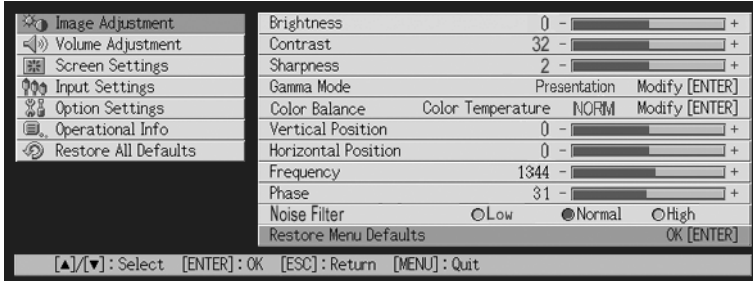
3. Press the [ENTER] key.
  ● This displays a confirmation message asking if you want to initialize settings.
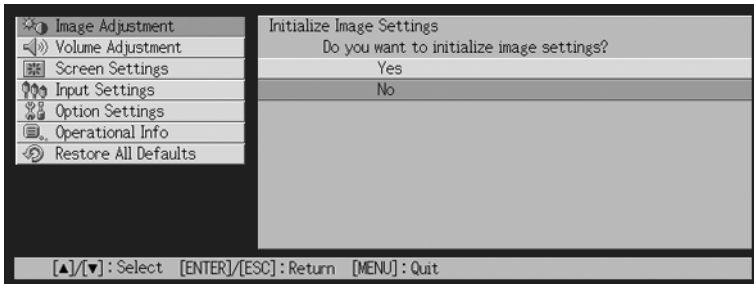
4. Use the [▲] and [▼] keys to select [Yes].

5. Press the [ENTER] key to initialize the menu's settings, or the [ESC] key to exit the initialize operation without doing anything.
  ● Pressing the [ENTER] key returns all of the sub-menu items on the currently selected main menu to their initial default settings.

To initialize all menu settings

Important!

● Performing the following procedure initializes all sub-menu items for all menus, except for the language (Option Settings → Language) and the lamp time (Operational Info → Lamp Time).
● Note that initialization does not delete the custom logo.

1. Perform steps 1 through 4 under "Basic Setup Menu Operations" on page 65. Select the "Restore All Defaults" main menu, and then select the "Restore All Defaults" sub-menu item.
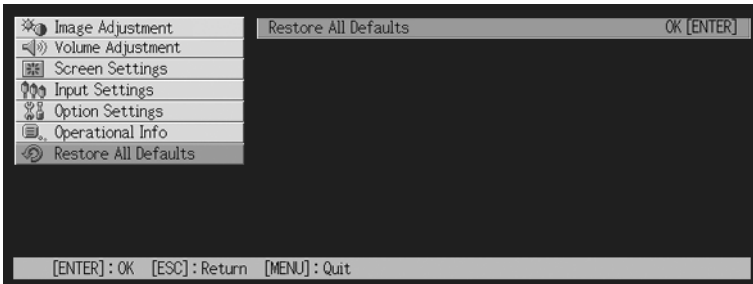
※ Image Adjustment	Restore All Defaults OK [ENTER]
◁》 Volume Adjustment	
▤ Screen Settings	
♆♆♆ Input Settings	
⅔⅛ Option Settings	
▤. Operational Info	
◎ Restore All Defaults	

[ENTER] : OK   [ESC] : Return   [MENU] : Quit

2. Press the [ENTER] key.
● This displays a confirmation message asking if you want to initialize all settings.

※ Image Adjustment	Initialize All Settings
◁》 Volume Adjustment	Do you want to initialize all settings?
▤ Screen Settings	Yes
♆♆♆ Input Settings	No
⅔⅛ Option Settings	
▤. Operational Info	
◎ Restore All Defaults	

[▲]/[▼] : Select   [ENTER]/[ESC] : Return   [MENU] : Quit
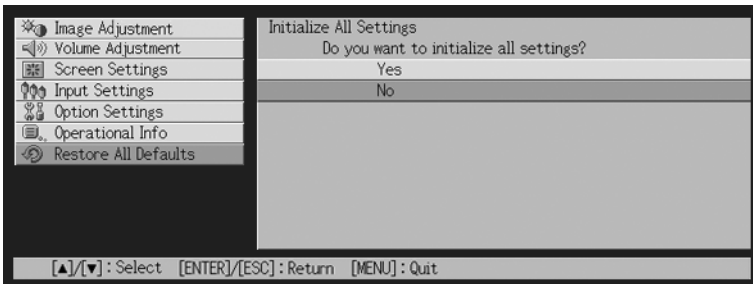
3. Use the [▲] and [▼] keys to select [Yes].

4. Press the [ENTER] key to initialize all menu settings, or the [ESC] key to exit the initialize operation without doing anything.
● Pressing the [ENTER] key initializes all menu items except for "Language" and "Lamp Time".

Setup Menu Reference

This section provides detailed explanations about the contents for all of the setup menu items.

📝**NOTE**

- The titles in this section use the format: Main Menu Item → Sub-menu Item.

Image Adjustment

■Image Adjustment → Brightness

This sub-menu adjusts the brightness of the projected image. A larger value produces a brighter image.
- This setting is not possible when there is no input signal.
- A different setting can be configured and is stored for each input source.

■Image Adjustment → Contrast

This sub-menu adjusts the contrast of the projected image. A larger value produces a stronger contrast.
- This setting is not possible when there is no input signal.
- A different setting can be configured and is stored for each input source.

■Image Adjustment → Sharpness

This sub-menu adjusts the sharpness of the projected image. A larger value makes the image sharper, while a smaller value makes it softer.
- This setting is not possible when there is no input signal.
- A different setting can be configured and is stored for each input source.

■Image Adjustment → Saturation

This sub-menu adjusts the color saturation of the projected image. A larger value increase color saturation.
- This setting is not possible when the input source is RGB and when there is no input signal.
- A different setting can be configured and is stored for each input source.

■Image Adjustment → Tint

This sub-menu adjusts the tint of the projected image. A larger value makes the overall image more reddish, while a smaller value makes the overall image more bluish.
- This setting is not possible when the input source is RGB and when there is no input signal.
- A different setting can be configured and is stored for each input source.

■Image Adjustment → Gamma Mode

This sub-menu lets you select the gamma mode for the projected image.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	Standard, (Presentation), Theater, Graphics
Component	Standard, Presentation, (Theater), Graphics
S-VIDEO	
VIDEO	
No Signal	None

Setting Explanations

Standard: Standard gamma mode

Presentation: Emphasis on clarity to make text easy to read

Theater: Emphasis on reproduction of moderate color tones and dark image areas

Graphics: Emphasis on color gradations and contrast

Setting Storage

A different setting is stored for each input source.

■Image Adjustment → Color Balance

This sub-menu lets you adjust the color balance of the projected image. There are two methods you can use to adjust color balance, selecting a preset color temperature value or adjusting the red, green, or blue components of each color.
- Note that you can adjust the color balance either by selecting a color temperature value or by adjusting color components. You cannot do both.
- Color balance settings cannot be configured when there is no input signal.
- A different setting can be configured and is stored for each input source.

Adjusting Color Balance by Selecting a Color Temperature Value

You can use the procedure below to adjust color balance by selecting one of three color temperatures (low, normal, high).
Changing the color temperature of an image alters its whiteness. A lower color temperature makes whites redder, while a higher color temperature makes them bluer.

1. On the "Image Adjustment" main menu, select the "Color Balance" sub-menu item, and then press the [ENTER] key.
- This displays the color balance setting screen.

2. Use the [▲] and [▼] keys to select "Color Temperature", and then press the [ENTER] key.
- This causes a ● marker to appear at the beginning of the "Color Temperature" line, which indicates that color temperature value selection is enabled.
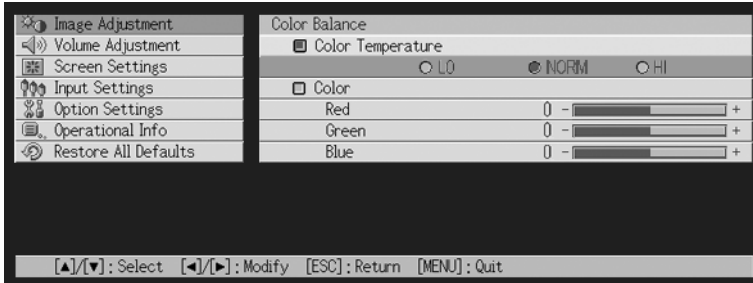
3. Use the [◄] and [►] keys to select the color temperature setting you want.

4. After the setting is the way you want, press the [MENU] key.

Adjusting Color Balance by Adjusting Color Components

Instead of specifying a color temperature to adjust color balance, you can also individually adjust the relative intensity of the red, green, and blue components.

1. On the "Image Adjustment" main menu, select the "Color Balance" sub-menu item, and then press the [ENTER] key.
- This displays the color balance setting screen.

2. Use the [▲] and [▼] keys to select "Color", and then press the [ENTER] key.
- This causes a ● marker to appear at the beginning of the "Color" line, which indicates that color adjustment is enabled.
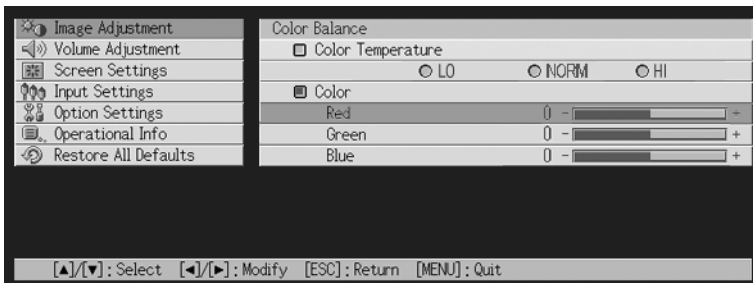
3. Use the [▲] and [▼] keys to select the color you want to adjust, and then use the [◄] and [►] keys to adjust it.

4. After all the settings are the way you want, press the [MENU] key.

■Image Adjustment → Vertical Position

This sub-menu lets you adjust the vertical position of the input source image within the projection area.
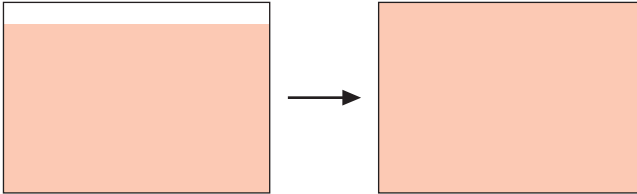
- This setting is not possible when there is no input signal.
- "Image Adjustment" main menu item settings are saved for the current signal type only (XGA/60Hz, UXGA/60Hz, etc.), and not for the input signal source. Note, however, that the number of signal type settings that can be saved is limited. Exceeding the limit causes the oldest setting to be deleted automatically.

■Image Adjustment → Horizontal Position

This sub-menu lets you adjust the horizontal position of the input source image within the projection area.

- This setting is not possible when there is no input signal.
- See "Image Adjustment → Vertical Position" for details about how settings are saved.

■Image Adjustment → Frequency

This sub-menu lets you manually control the frequency of the image.
Normally, the projector is able to adjust the frequency automatically. If there are vertical bands in the projected image, however, it means that automatic adjustment is not possible for some reason. When this happens use this setting to adjust the image frequency.
● This setting is possible only when RGB is selected as the input source.
● Settings are saved for each signal type (XGA/60Hz, UXGA/60Hz, etc.). Note, however, that the number of signal type settings that can be saved is limited. Exceeding the limit causes the oldest setting to be deleted automatically.

Important!
● If, for some reason, your manual frequency settings cause the image input from the computer to disappear from the projection, you can press the [AUTO] key to perform an auto adjust operation (page 48), which should cause the image to reappear.

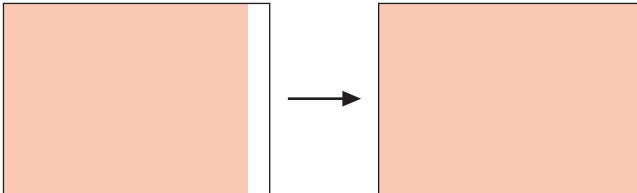## ■Image Adjustment → Phase

This sub-menu lets you manually control the phase of the image.
Normally, the projector is able to adjust the phase automatically. If there are color errors or flickering in the projected image, however, it means that automatic adjustment is not possible for some reason. When this happens use this setting to adjust the image phase.
● This setting is possible only when RGB is selected as the input source.
● See "Image Adjustment → Frequency" for details about how settings are saved.

■Image Adjustment → Noise Filter

This sub-menu provides a choice of noise filter levels to remove digital noise from the projected image when RGB is selected as the input source. Note that the noise filter may not be able to remove certain types of digital noise.
● This setting is possible only when RGB is selected as the input source. The setting is saved for the RGB input source only.
● Turning off the projector automatically returns this sub-menu to its initial default setting (Normal).

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	Low, (Normal), High
Component	None
S-VIDEO	
VIDEO	
No Signal	

■Image Adjustment → Restore Menu Defaults

This sub-menu returns all of the sub-menu items on the Image Adjustment main menu to their initial default settings.

- You can perform initialization even when there is no input signal. In this case, the initialization is performed for the currently selected input source.
- "Image Adjustment" main menu "Vertical Position", "Horizontal Position", "Frequency", and "Phase" settings are initialized for the current signal type (XGA/60Hz, UXGA/60Hz, etc.) only.
- For details about the initialization procedure, see "To initialize the settings of a particular main menu item" on page 70.

Volume Adjustment

■Volume Adjustment → Volume

This sub-menu can be used to adjust the volume level of the projector's speaker. This setting is also linked to volume settings made with the remote controller's [VOL +] and [VOL −] keys.

- Changing this setting when there is no input signal changes the volume setting of the currently selected signal source.
- A different setting is stored for each input source.

■Volume Adjustment → Restore Menu Defaults

This sub-menu returns Volume to its initial default setting.

- You can perform initialization even when there is no input signal. In this case, the initialization is performed for the currently selected input source.
- Initialization is performed separately for each input source.
- For details about the initialization procedure, see "To initialize the settings of a particular main menu item" on page 70.

Screen Settings

∎Screen Settings → Vertical Keystone Correction

This sub-menu lets you correct for vertical keystoning of the projected image.
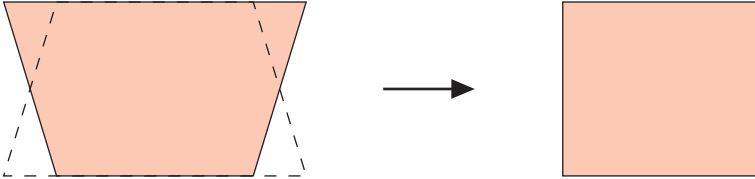
- Vertical keystone correction can be performed regardless of the currently selected input source.
- A single setting is stored, which is applied to all input sources.

∎Screen Settings → Horizontal Keystone Correction

This sub-menu lets you correct for horizontal keystoning of the projected image.
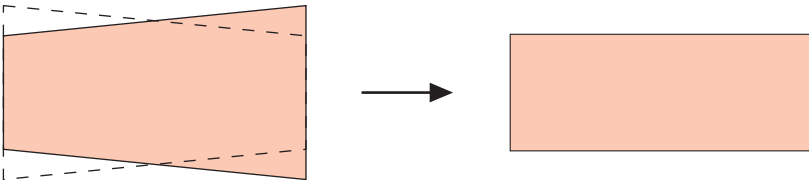
- Horizontal keystone correction can be performed regardless of the currently selected input source.
- A single setting is stored, which is applied to all input sources.

Important!

- Performing horizontal keystone correction and then vertical keystone correction can cause the horizontal keystone correction value to change. This occurs when vertical keystone correction narrows the allowable manual horizontal keystone correction range, causing the horizontal keystone correction value to be outside the correction range. If this happens, rearrange the projector and screen so the lens is pointing straighter at the screen, and then perform manual keystone correction or auto keystone correction again.

■Screen Settings → Aspect Ratio

This sub-menu lets you select the aspect ratio (ratio between the vertical and horizontal dimensions) of the projected image.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	None
Component	(4:3), 16:9
S-VIDEO	
VIDEO	
No Signal	None

Setting Explanations

4:3: Sets the aspect ratio of the projected image to 4:3 (same as a standard TV screen). This setting is normally used when S-VIDEO or VIDEO is selected as the input source.

16:9: Sets the aspect ratio of the projected image to 16:9 (same as a movie screen or high-definition TV screen). Using this setting when the input source image is a 16:9 image that has been squeezed to a 4:3 image causes the image to be projected with its normal 16:9 aspect ratio.

Setting Storage

A different setting is stored for each input source.

NOTE

● When a component signal with an aspect ratio of 16:9 is sent from the input source, the aspect ratio of the projected image is automatically switched to 16:9. In this case, this setting cannot be changed.

Important!

● Using this projector to reduce, enlarge, or otherwise alter an image for business purposes or public display may infringe upon the rights of the individual who holds the copyright of the image.

■Screen Settings → Resize Image to Fit

When RGB is selected as the input source and the video resolution of the connected computer is anything other than XGA (1024 × 768 pixels), "Resize Image To Fit" automatically enlarges or reduces the input image so it matches the video resolution of the projector and fills the entire screen.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	(On), Off
Component	None
S-VIDEO	
VIDEO	
No Signal	

Setting Explanations

On: When the input signal from the computer connected to the projector is not an XGA signal, the image is automatically enlarged or reduced so it matches the projector's video resolution and fills the entire screen.

Off: Turns off resizing of the image input from the computer. If the image input from the computer is smaller than XGA, the size of the projected image will also be smaller. When the image input from the computer is larger than XGA, only the center part of the image that corresponds to XGA size is projected.

📝**NOTE**

● Resizing of an input image by "Resize Image To Fit" can call coarsening of the image or can cause part of the image to be cut off. If this happens, try turning off "Resize Image To Fit". Note, however, that turning off "Resize Image To Fit" can cause the projected image to become smaller, or it can cause only the center part of the image to be projected.

Setting Storage

This setting is possible only when RGB is selected as the input source. The setting is saved for the RGB input source only.

■Screen Settings → Flip Horizontal

Use this sub-menu to flip the projected image horizontally when projecting from the back of the screen.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	On, (Off)
Component	
S-VIDEO	
VIDEO	
No Signal	

Setting Explanations

On: Flips the image horizontally.

Off: Projects the image normally (without flipping it).

Setting Storage

A single setting is stored, which is applied to all input sources.

■Screen Settings → Startup Screen

Use this sub-menu to specify whether or not a startup screen should be projected whenever the projector is turned on.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	(Logo), None
Component	
S-VIDEO	
VIDEO	
No Signal	

Setting Explanations

Logo: Projects the logo screen as the startup screen.
A built-in logo screen is the initial default startup screen. You can also create a custom logo, if you want. For details, see "Option Settings → Custom Logo Settings" on page 92.

None: No startup screen is projected.

Setting Storage

A single setting is stored, which is applied to all input sources.

■Screen Settings → No Signal Screen

This sub-menu lets you specify what should be projected when there is no input signal to the projector.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	(Blue), Black, Logo
Component	
S-VIDEO	
VIDEO	
No Signal	

Setting Explanations

Blue: Displays a blue screen when there is no input signal.

Black: Displays a black screen when there is no input signal.

Logo: Displays a logo screen when there is no input signal.
A built-in logo screen is the initial default startup screen. You can also create a custom logo, if you want. For details, see "Option Settings → Custom Logo Settings" on page 92.

Setting Storage

A single setting is stored, which is applied to all input sources.

■Screen Settings → Mute Screen

This sub-menu lets you specify what should be projected during mute (page 58).

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	Blue, (Black), Logo
Component	
S-VIDEO	
VIDEO	
No Signal	

Setting Explanations

Blue: Displays a blue screen during mute.

Black: Displays a black screen during mute.

Logo: Displays a logo screen during mute.
A built-in logo screen is the initial default startup screen. You can also create a custom logo, if you want. For details, see "Option Settings → Custom Logo Settings" on page 92.

Setting Storage

A single setting is stored, which is applied to all input sources.

■Screen Settings → Restore Menu Defaults

This sub-menu returns all of the sub-menu items on the Screen settings main menu to their initial default settings.

- You can perform initialization even when there is no input signal. In this case, the initialization is performed for the currently selected input source.
- Basically, initialization initializes the settings of the current input source. Note, however, that the following settings are always initialized, regardless of the currently selected input source.

    Vertical keystone correction

    Horizontal keystone correction

    Flip horizontal

    Startup screen

    No signal screen

    Mute screen

- For details about the initialization procedure, see "To initialize the settings of a particular main menu item" on page 70.

📄**NOTE**

- Initializing these settings when "Option Settings → Auto Keystone Correction" is turned on causes automatic keystone correction to be performed after initialization is complete, which causes "Vertical Keystone Correction" setting to show a corrected value.

Input Settings

■Input Settings → RGB Input

This sub-menu lets you specify the type of input signal in accordance with the device connected to the projector's RGB terminal.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	(RGB), Component
Component	
S-VIDEO	None
VIDEO	
No Signal	(RGB), Component * Only when the currently selected input source is RGB or Component.

Setting Explanations

RGB: Select this setting when a computer is connected to the projector's RGB input terminal. For details about connection, see "Connecting a Computer to the Projector (Video and Audio)" on page 34.

Component: Select this setting when the projector's RGB input terminal is connected the component video output terminal of a video device using an optionally available YK-3 component video cable. For details about connection, see "Connecting to a Component Video Output Device" on page 37.

Setting Storage

This setting is saved for the RGB input terminal only.

■Input Settings → Video Signal, S-Video Signal

This sub-menu specifies the input signal for the projector's VIDEO and S-VIDEO input terminals.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	None
Component	
S-VIDEO	(Auto), NTSC, NTSC4.43, PAL, PAL-M, PAL-N, PAL60, SECAM
VIDEO	
No Signal	(Auto), NTSC, NTSC4.43, PAL, PAL-M, PAL-N, PAL60, SECAM * Only when the currently selected input source is VIDEO or S-VIDEO.

Setting Explanations

Auto: Select this setting to have the projector switch the video signal system automatically in accordance with the input signal from the video device that is connected to the VIDEO or S-VIDEO input terminal. This is the setting you should normally use.

Other settings: Each setting selects the applicable video system. Use these settings when you want to specify only one specific video signal for the VIDEO and S-VIDEO input terminals.

Setting Storage

This setting is saved for the VIDEO and S-VIDEO input terminals only.

■Input Settings → P-in-P Input

This sub-menu lets you select the input source for the image that appears in the P-in-P sub-window (page 56).

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	(VIDEO), S-VIDEO
Component	None
S-VIDEO	
VIDEO	
No Signal	(VIDEO), S-VIDEO * Only when the currently selected input source is RGB.

Setting Explanations

VIDEO: Select VIDEO as the input source of the sub-window.

S-VIDEO: Select S-VIDEO as the input source of the sub-window.

Setting Storage

This setting is saved for the RGB input terminal only.

■Input Settings → Signal Name Indicator

This sub-menu lets you specify whether or not the name of the currently selected input source should be displayed in the projected image.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	(On), Off
Component	
S-VIDEO	
VIDEO	
No Signal	

Setting Explanations

On: Turns on display of the name of the currently selected input source in the projected image.

Off: Turns off display of the input source name.

Setting Storage

A single setting is stored, which is applied to all input sources.

Using the Setup Menu

■Input Settings → Special Signal

When a computer is connected to the RGB input terminal, the projector automatically detects the type of RGB signal being sent from the computer and projects the image. Some signals, however, cannot be detected properly by the projector. When auto detection is not possible for some reason, try using this setting for a computer signal with a resolution of SXGA (1280 × 1024) or SXGA+ (1400 × 1050).

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	(1280 × 1024), 1400 × 1050
Component	None
S-VIDEO	
VIDEO	
No Signal	* Only when the currently selected input source is RGB.

Setting Explanations

1280 × 1024: Specifies an SXGA (1280 × 1024) resolution RGB signal.

1400 × 1050: Specifies an SXGA+ (1400 × 1050) resolution RGB signal.

Setting Storage

This setting is saved for the RGB input terminal only.

■Input Settings → Restore Menu Defaults

This sub-menu returns all of the sub-menu items on the Input Settings main menu to their initial default settings.
● You can perform initialization even when there is no input signal. In this case, the initialization is performed for the currently selected input source.
● Basically, initialization initializes the settings of the current input source. Note, however, that the signal name indicator setting is always initialized, regardless of the currently selected input source.
● For details about the initialization procedure, see "To initialize the settings of a particular main menu item" on page 70.

Option Settings

■Option Settings → Auto Input Detect

This sub-menu lets you specify whether auto detect of the input source should be performed whenever the projector is turned on (page 44).

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	(On), Off
Component	
S-VIDEO	
VIDEO	
No Signal	

Setting Explanations

On: Turns on auto detection of the input source whenever the projector is turned on.

Off: Turns off auto detection of the input source whenever the projector is turned on.

Setting Storage

A single setting is stored, which is applied to all input sources.

■Option Settings → Auto Keystone Correction

This sub-menu lets you specify whether auto keystone correction should be performed whenever the elevation angle of the projector is changed (page 50).

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	(On), Off
Component	
S-VIDEO	
VIDEO	
No Signal	

Setting Explanations

On: Turns on auto keystone correction.

Off: Turns off auto keystone correction.

Setting Storage

A single setting is stored, which is applied to all input sources.

■Option Settings → Auto Adjust

This sub-menu lets you specify whether or not auto adjustment should be performed (page 48) when RGB is selected as the input source.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	(On), Off
Component	None
S-VIDEO	
VIDEO	
No Signal	(On), Off * Only when the currently selected input source is RGB.

Setting Explanations

On: Turns on auto adjustment, which is performed when RGB is selected as the input source.

Off: Turns off auto adjustment.

Setting Storage

This setting is saved for the RGB input terminal only.

■Option Settings → Low-noise Mode

The low-noise mode reduces the luminosity of the projection lamp and the speed of the cooling fan, allowing quieter projector operation.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	(Off), On
Component	
S-VIDEO	
VIDEO	
No Signal	

Setting Explanations

Off (normal mode):   This mode projects at normal luminosity.

On (low-noise mode): This mode reduces luminosity and fan motor speed for quieter operation than the normal mode.

Setting Storage

A single setting is stored, which is applied to all input sources.

■Option Settings → Auto Power Off

This sub-menu lets you turn Auto Power Off (page 42) on or off.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	(On), Off
Component	
S-VIDEO	
VIDEO	
No Signal	

Setting Explanations

On: Turns on Auto Power Off.

Off: Turns off Auto Power Off.

Setting Storage

A single setting is stored, which is applied to all input sources.

■Option Settings → Key Lock

This sub-menu lets you turn key lock on and off.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	On, (Off)
Component	
S-VIDEO	
VIDEO	
No Signal	

Setting Explanations

On: Turns on key lock and disables projector keys.

Off: Turns off key lock and enables projector keys.

Setting Storage

A single setting is stored, which is applied to all input sources.

📝**NOTE**

- ● Besides the menu operation explained above, the following operations can also be used to turn off key lock.
    - ● While the projector is on: Hold down the projector's [ESC] key for about five seconds.
    - ● While the projector is off: Simultaneously hold down the projector's [ESC] and [⏻] (power) keys for about five seconds. This turns on the projector and also turns off key lock.
- ● You can use the above projector operations to turn off key lock if the remote controller batteries unexpectedly go dead, etc.

■Option Settings → Custom Logo Settings

With this sub-menu, you can cut part of the projected screen and use it to create an original logo, which you can display for the startup screen, the no signal screen, and the mute screen. An original logo that you create is called a "custom logo". The custom logo settings let you create a custom logo, view your custom logo, and perform other operations.
- ● Custom logo settings cannot be configured when there is no input signal.
- ● A single custom logo is stored, which is applied to all input sources.

Capturing a Custom Logo Image

You can create a custom logo by capturing part of an image that is currently being projected by the projector.

Important!

- ● The display size and position of a custom logo created by capturing an image depend on the configuration of the following settings when you capture the image: Logo Vertical, Logo Horizontal, Custom Logo Zoom, Background Color, and Resolution. Make sure that you configure these settings the way you want before performing the image capture operation. For details of these operations, see "Configuring Custom Logo Capture Settings" on page 95.

To capture a custom logo

1. Project the still image that you want to use as the custom logo.

2. Perform steps 1 through 4 under "Basic Setup Menu Operations" on page 65. Select the "Option Settings" main menu, and then select the "Custom Logo Settings" sub-menu item.

3. Press the [ENTER] key.
   ● This displays the custom logo settings screen.

Image Adjustment	Custom Logo Settings			
Volume Adjustment	Logo Vertical	○Top	◉Center	○Bottom
Screen Settings	Logo Horizontal	○Left	◉Center	○Right
Input Settings	Custom Logo Zoom	◉100%	○200%	○Fit To Screen
Option Settings	Background Color	○Black	◉White	
Operational Info	Resolution	◉Normal	○High	
Restore All Defaults	Start Capture			OK [ENTER]
	View Custom Logo			OK [ENTER]
	Initialize Custom Logo Settings			OK [ENTER]

[▲]/[▼] : Select   [◄]/[►] : Modify   [ESC] : Return   [MENU] : Quit

4. Use the [▲] and [▼] keys to select "Start Capture", and then press the [ENTER] key.
   ● This causes a cross cursor to appear in the projected image.
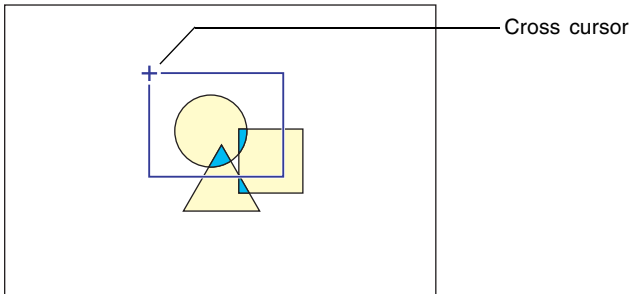
Cross cursor

5. Use the cursor keys to move the cross cursor to the location where you want the upper left corner of the selection boundary to be.

6. Press the [ENTER] key.
   ● This fixes the current cross cursor location as the upper left corner of the selection boundary.

7. Use the cursor keys to move the cross cursor and draw the selection boundary.
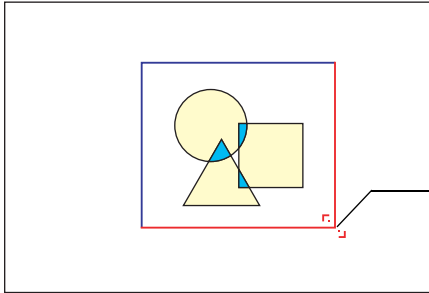
Pressing the cursor key moves the lower right corner of the selection boundary.

8. When the area you want to capture is enclosed by the selection boundary, press the [ENTER] key.
- This causes the message "Start image capture and registration as custom logo?" to appear.

9. Press the [ENTER] key to capture the image enclosed by the selection boundary.
- After a few moments, a dialog box with the message "Image capture and registration as custom logo complete!" appears to let you know when the capture operation is complete.

10. To view the custom logo (captured image), press the [ENTER] key.
- This projects the custom logo. After you are finished viewing it, press the [ESC] key to return to custom logo setting screen in step 3.

11. Press the [MENU] key to exit the setup menu.

Configuring Custom Logo Capture Settings

Before capturing a custom logo, configure the following settings to control its position, zoom, and other parameters when it is projected.

| Setting	Available Items (Parentheses indicate defaults.)
Logo Vertical	Top, (Center), Bottom
Logo Horizontal	Left, (Center), Right
Custom Logo Zoom	(100%), 200%, Fit To Screen
Background Color	(White), Black
Resolution	(Normal), High

📝 NOTE

- The "Logo Vertical", "Logo Horizontal", and "Background Color" settings are not used when the zoom setting is "Fit To Screen".
- Note that you cannot change the above settings for a custom logo after you capture it.
- The following are some examples of how the above settings affect the custom logo.

Logo Vertical: Center
Logo Horizontal: Center
Custom Logo Zoom: 100%
Background Color: White
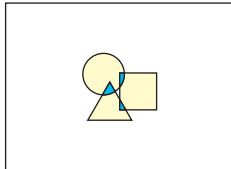
Logo Vertical: Center
Logo Horizontal: Center
Custom Logo Zoom: 200%
Background Color: White
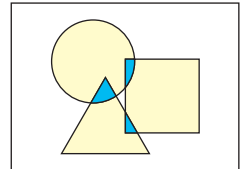
Logo Vertical: Bottom
Logo Horizontal: Left
Custom Logo Zoom: 100%
Background Color: White
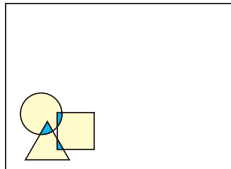
Logo Vertical: Center
Logo Horizontal: Center
Custom Logo Zoom: 100%
Background Color: Black
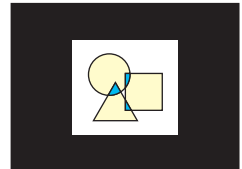
- If an error occurs with the "High" resolution setting, try changing the resolution setting to "Normal". This will increase the chance of a successful capture. If you experience problems capturing with the "Normal" setting, it may also mean that the area you are trying to capture is too large. Try selecting a smaller area.

To configure custom logo settings

1. Perform steps 2 and 3 under "To capture a custom logo" on page 93 to display the custom logo setting screen.

2. Use the [▲] and [▼] keys to select the custom logo item whose setting you want to change.

3. Use the [◄] and [►] keys to select the setting you want. The button next to the currently selected setting is black (●).

4. Repeat steps 2 and 3 to configure all of the custom logo settings you want.

5. After you are finished, press the [MENU] key to exit the setup menu.
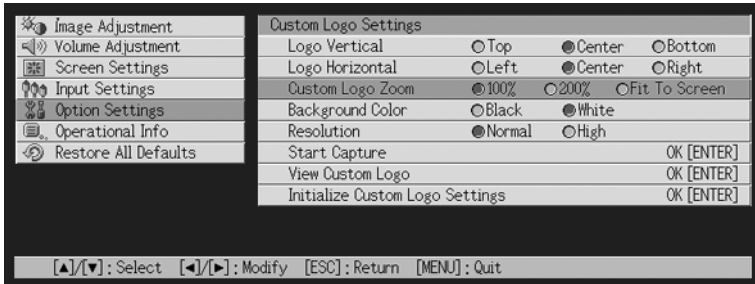
To view the current custom logo

1. Perform steps 2 and 3 under "To capture a custom logo" on page 93 to display the custom logo setting screen.

2. Use the [▲] and [▼] keys to select "View Custom Logo", and then press the [ENTER] key.
● This projects the currently registered custom logo.

3. To return to the custom logo setting screen, press the [ESC] key.

4. Press the [MENU] key to exit the setup menu.

To initialize the custom logo

📝**NOTE**
● Initializing custom logo settings clears the currently registered custom logo and returns all of the settings of the custom logo setting screen to their initial defaults.

1. Perform steps 2 and 3 under "To capture a custom logo" on page 93 to display the custom logo setting screen.

2. Use the [▲] and [▼] keys to select "Initialize Custom Logo Settings", and then press the [ENTER] key.
● This displays a confirmation message asking if you want to initialize custom logo settings.

3. Use the [▲] and [▼] keys to select [Yes].

4. Press the [ENTER] key to initialize the custom logo settings, or the [ESC] key to exit the initialize operation without doing anything.
● Pressing the [ENTER] key initializes settings and returns to the custom logo settings screen.
● Pressing the [ESC] key returns to the custom logo settings screen without initializing anything.

5. Press the [MENU] key to exit the setup menu.

📝**NOTE**
● Initializing the custom logo settings and deleting the custom logo causes the projector's preset logo to appear when "Logo" is selected for the startup screen (page 82), no signal screen (page 83), and mute screen (page 83).

■Option Settings → Language

This sub-menu lets you specify the language to use for messages, setup menus, etc.

Input Source Specific Menu Items

Input Source	Available Items
RGB	English, French, German, Italian, Spanish, Portuguese, Chinese (Simplified), Chinese (Traditional), Korean, Japanese
Component	
S-VIDEO	
VIDEO	
No Signal	

Setting Storage

A single setting is stored, which is applied to all input sources.

📝**NOTE**

● This setting is required the first time you turn on the projector. For more information, see "Specifying the Display Message Language" on page 40.

■Option Settings → Alert Tones

This sub-menu lets you turn alert tones on and off.

Input Source Specific Menu Items

Input Source	Available Items (Parentheses indicate defaults.)
RGB	(On), Off
Component	
S-VIDEO	
VIDEO	
No Signal	

Setting Explanations

On: Turns on error alert, which sounds a tone when an error occurs.

Off: Turns off error alert.

Setting Storage

A single setting is stored, which is applied to all input sources.

📝**NOTE**

● For details about the alert tone that sounds for each type of error when the alert tone is turned on, see "Indicators and Alert Tones" on page 110.

■Option Settings → Restore Menu Defaults

This sub-menu returns all of the sub-menu items on the Option Settings main menu to their initial default settings.

● You can perform initialization even when there is no input signal. In this case, the initialization is performed for the currently selected input source.

● The Auto Adjust item is initialized only when RGB is selected as the input source. All other items are always initialized, regardless of the currently selected input source.

● For details about the initialization procedure, see "To initialize the settings of a particular main menu item" on page 70.

Operational Info

■Operational Info → Lamp Time

This sub-menu item shows the cumulative number of hours the current lamp has been used to date.

Use this value as a reference when deciding whether or not the current lamp needs to be replaced. For details about replacing the lamp, see "Replacing the Lamp" on page 102.

■Operational Info → Reset Lamp Time

Use this submenu item to reset the lamp time to 0 hours. For details about replacing the lamp and the initialization procedure, see "Replacing the Lamp" on page 102.

■Operational Info → Input Signal

This sub-menu item shows the currently selected input signal (RGB, Component, S-VIDEO, or VIDEO). "None" is indicated here when there is no input signal.

■Operational Info → Signal Name

This sub-menu item shows the signal name of the signal input to the projector. The "Signal Name" column of the table under "Supported Signals" on page 116 shows the signal names that are displayed by this sub-manu item.

■Operational Info → Index

This sub-menu item appears only when RGB or Component is the input signal. It shows projector internal information.

■Operational Info → Resolution

This sub-menu item appears only when RGB is the input signal, and shows the resolution of the RGB input signal in terms of vertical and horizontal pixels.

■Operational Info → Horizontal Frequency

This sub-menu item appears only when RGB, Component, S-VIDEO, or VIDEO is the input signal. It shows the horizontal frequency of the input signal.

■Operational Info → Vertical Frequency

This sub-menu item appears only when RGB, Component, S-VIDEO, or VIDEO is the input signal. It shows the vertical frequency of the input signal.

■Operational Info → Scan System

This sub-menu item appears only when RGB or Component is the input signal, and shows the scanning frequency of the input signal. The input signal is interlace or non-interlace for RGB signal input, and interlace or progressive for Component signal input.

Restore All Defaults

■Restore All Defaults → Restore All Defaults

This sub-menu returns all of sub-menu items on all main menus to their initial default settings. This operation can be performed regardless of the currently selected input source and regardless of whether or not a signal is currently being input.
For details about this initialization procedure, see "To initialize all menu settings" on page 72.

User Maintenance

This section explains user maintenance procedures, including lamp replacement and projector cleaning.

Cleaning the Projector

Always turn off the projector before cleaning it.

Cleaning the Projector Exterior

Wipe the exterior of the projector with a soft cloth that has been moistened in a weak solution of water and a mild neutral detergent. Be sure to wring all excess moisture from the cloth before wiping.
Never use benzene, alcohol, thinner, or any other volatile agent for cleaning.

Cleaning the Lens

Carefully wipe the lens with a lens cloth or lens cleaning paper, which you should be able to purchase from a nearby eye wear or camera shop. When cleaning the lens, be very careful to avoid scratching it.

Reattaching the Lens Cover

Use the following procedure to reattach the lens cover if it should accidentally become detached from the projector.

1. Positioning the lens cover so it is at an angle that is more than 90 degrees relative to the lens, insert left hinge ③ of the lens cover into the slot on the left ①.
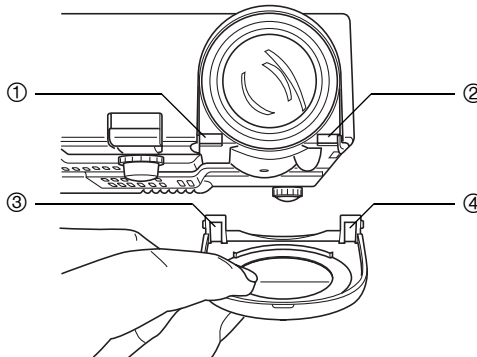
2. Without changing the angle of the lens cover relative to the lens, use the end (not the tip) of a pen or some similar instrument to gently press the right hinge of the cover ④ inwards as you insert the hinge into the slot on the right ②.

Insert the right hinge while pressing here.

Important!

● When reattaching the lens cover, make sure it is at an angle that is more than 90 degrees relative to the lens as shown in the illustration on the left. If you reattach the lens cover while it 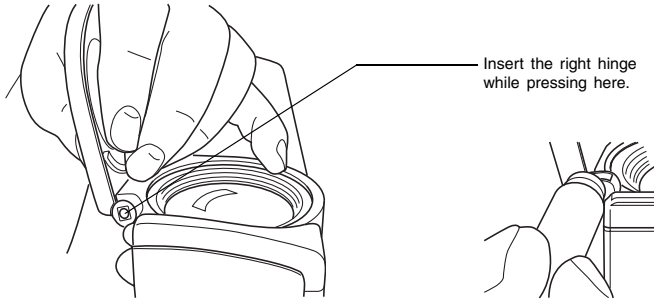is at an angle less than 90 degrees as shown in the illustration on the right, the lens cover will not open and close correctly, and may become damaged.

Replacing the Lamp

⚠ Caution!	Continued use of a lamp that has passed its lamp life increases the risk of the lamp rupturing. Replace the lamp with a new one as soon as possible after the replacement message appears.

● The light source lamp is a consumable item. The average life of a lamp is approximately 2000 hours. After 2000 hours, a message appears to alert you to the need of lamp replacement. However, note that the characteristics of a particular lamp or lamp operating conditions can cause the lamp to start to go dim or even fail before the message appears.

To check the current lamp use time

1. Press the [MENU] key to display the setup menu.

2. Press the [▼] key to select the "Operational Info" main menu.
  ● The "Lamp Time" sub-menu item shows the number of hours that the current lamp has been used.

❄ Image Adjustment	Lamp Time	10 Hours
◁ Volume Adjustment	Reset Lamp Time	OK [ENTER]
Screen Settings	Input Signal	RGB
Input Settings	Signal Name	1024×768 / 60
Option Settings	Index	82
Operational Info	Resolution	1024×768
Restore All Defaults	Horizontal Frequency	48.36 kHz
	Vertical Frequency	60.00 Hz
	Scan System	Non-interlaced

[▲]/[▼]/[ENTER] : Select   [MENU] : Quit
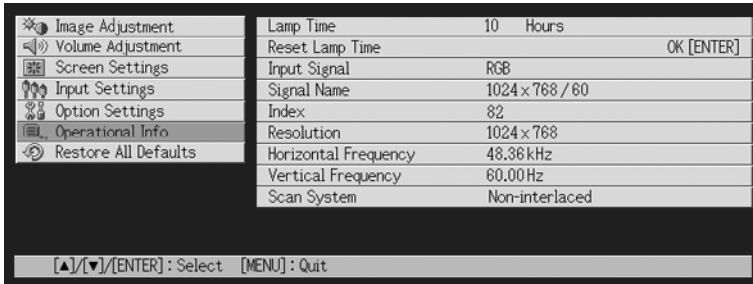
3. Press the [MENU] key to exit the setup menu.

When to replace the lamp

The LAMP indicator starts to flash red and the message shown below appears whenever the lamp time exceeds 2000 hours.

> It is time to replace the lamp. Use the procedure in the User's Guide to replace the lamp as soon as possible.

When this message appears, replace the lamp as soon as possible using the procedure under "Replacing the Lamp" on page 104.
Note that the above message will disappear about 10 seconds after you turn on the projector, even if you do not replace the lamp.
You will be able to continue using the projector without replacing the lamp until the lamp time reaches 100 hours. At that time, the LAMP indicator will stop flashing and remain lit red, the following message will appear for about 10 seconds, and then the projector will turn off automatically.

> The lamp has exceeded its service life! The projector will not turn on until you replace the lamp.

When this message appears, replace the lamp immediately using the procedure under "Replacing the Lamp" on page 104.

Replacing the Lamp

⚠️ **Caution**	● During normal use, the lamp and the area around it become extremely hot. Before replacing the lamp, turn off the projector and wait for the cool down operation (indicated when the POWER/STANDBY indicator is flashing amber) to finish. Next, disconnect the AC power cord from the projector, and wait for at least 60 minutes to allow it to cool down even further. Touching the lamp or the area around it during operation or immediately after turning off the projector creates the risk of serious burn injury. ● Replace the lamp using the YL-30 optional lamp cartridge only. ● The projector uses a mercury lamp with high internal pressure as its light source. A lamp that is weakened by impact, damage, or expiration of its lamp life may explode or fail to light. Note that the performance of the lamp differs greatly from lamp to lamp, and due to conditions under which a lamp is used. ● Never touch the glass of the lamp with your fingers. Doing so can cause the lamp to rupture and shorten its life. ● A broken lamp can cause glass fragments to be scattered inside the lamp housing. Gas inside of the lamp housing may also be discharged from the projector's vent exhaust ports. Gas inside of the lamp includes mercury, so be sure to ventilate the area whenever the lamp breaks. Should you accidentally inhale gas fumes or should gas fumes get into your eyes, immediately contact a physician. ● Should the lamp break, take care to avoid personal injury on the glass fragments. Never try to replace a broken lamp on your own. Be sure to contract your original dealer or authorized CASIO service center to request replacement. ● The lamp contains mercury. Dispose of old lamps in accordance with the rules and regulations of your local jurisdiction.

Important!

● Disposing of the Lamp (U.S.A. Only)

This product utilizes a lamp containing mercury. Disposal of the lamp may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: http://www.eiae.org.

To replace the lamp

Important!

● When replacing the lamp, use the special screwdriver that comes with the YL-30 replacement lamp. The projector does not come with a screwdriver.

1. Turn off the projector and unplug its AC power cord.

2. Wait for about 60 minutes to allow the projector's current lamp to cool down completely.

3. Turn over the projector and place it on top of a desk or on some other stable surface.

4. Loosen the lamp cover screw, and then remove the lamp cover.

Lamp cover
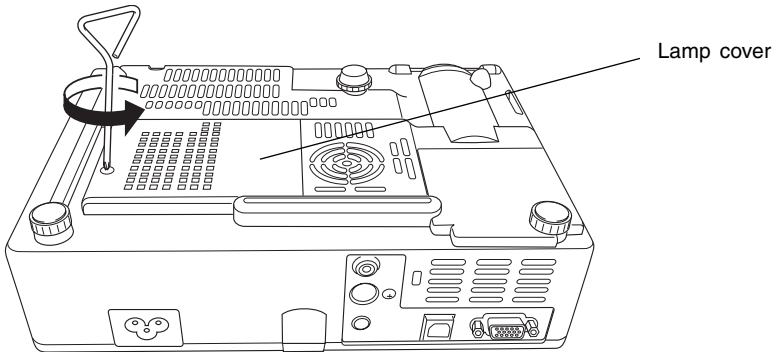
5. Loosen the three screws securing the lamp cartridge.

Screws
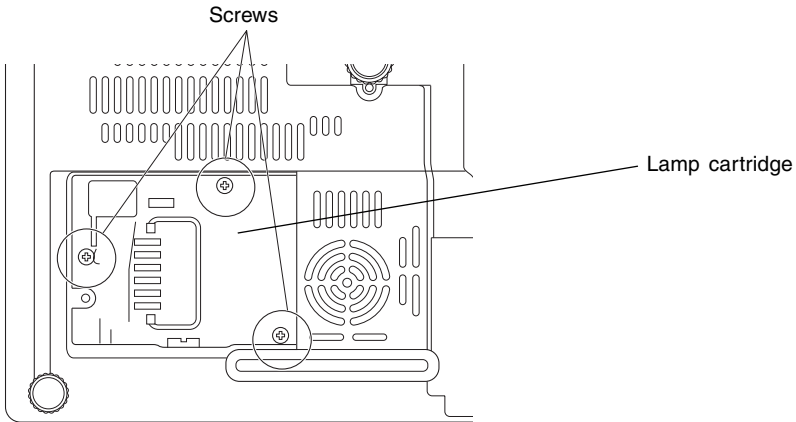
Lamp cartridge

6. Use the lamp cartridge handle to pull the lamp cartridge from the projector.

● Bracing your thumb on the projector as shown in the illustration, slowly lift the cartridge handle and pull the cartridge out of the projector.
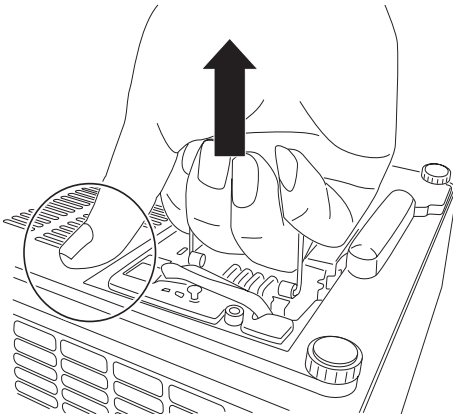
7. Insert the new lamp cartridge as far as it will go, as shown in the illustration.
   ● After inserting the lamp cartridge, lay its handle down in the position shown in the illustration under step 5 on page 106.
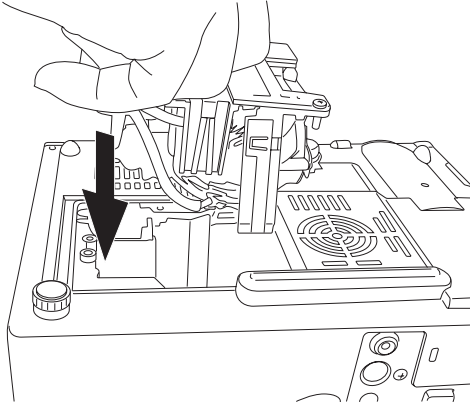
Caution
● Never touch the lamp with your hand. Doing so can cause the lamp to rupture and shorten its life.

8. Secure the lamp cartridge with the three screws.

9. Return the lamp cover to its original position, and secure it with the screw.
   ● After replacing the lamp, be sure to perform the procedure under "Resetting the Lamp Time" on page 108.

Resetting the Lamp Time

The reset lamp time operation you need to perform depends on when you replace the lamp.

> It is time to replace the lamp. Use the procedure in the User's Guide to replace the lamp as soon as possible.

If you replace the lamp when the above message appears, use the procedure under "To reset the lamp time" on page 108.

> The lamp has exceeded its service life! The projector will not turn on until you replace the lamp.

If you replace the lamp after the above message appears, use the procedure under "To reset the lamp time after exceeding the lamp life" on page 109.

To reset the lamp time

1. Use the procedure under "To turn on the projector" on page 38 to turn on the projector.
   - There is no need to connect a computer or video device to the projector if you plan only to reset the lamp time.

2. Press the [MENU] key to display the setup menu.

3. Press the [▼] key to select "Operational Info", and then press the [ENTER] key.
   - On the sub-menu that appears, select "Reset Lamp Time".
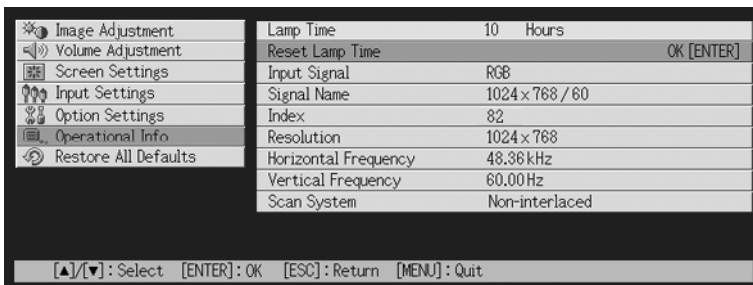
4. Press the [ENTER] key.
   - This causes the message "Reset lamp time?" to appear.

5. Press the [▲] key to select "Yes", and then press the [ENTER] key.
● This resets the lamp time to 0 hours.

6. Press the [MENU] key to exit the setup menu.
● This causes the setup menu to disappear from the projected image.

To reset the lamp time after exceeding the lamp life

If you use the existing lamp until its life is exceeded, you will not be able to turn on the projector even after you replace the lamp with a new one. Perform the following procedure to initialize the lamp time in this case, which will make it possible to turn on the projector.

1. Use the bundled AC power cord to plug the projector into a power outlet.
● Connecting to a power outlet causes the POWER/STANDBY and LAMP indicators on the top of the projector to light red, which indicates that the lamp has exceeded its service life.

2. While holding down the projector's [◄] key, hold down the [AUTO] key for about five seconds.
● This will reset the lamp time, cause the POWER/STANDBY indicator to change from red to amber, and also cause the LAMP indicator to go out.

3. Press the [⏻] (power) key to ensure that the projector turns on normally.

Troubleshooting

This section explains how to interpret the projector's indicators, and what you need to do when you experience problems with projector operation.

Indicators and Alert Tones

The status of the indicators let you know the current operational status of the projector. This section provides details about indicators, and about the error alert tones.

LAMP indicator
TEMP indicator
POWER/STANDBY indicator
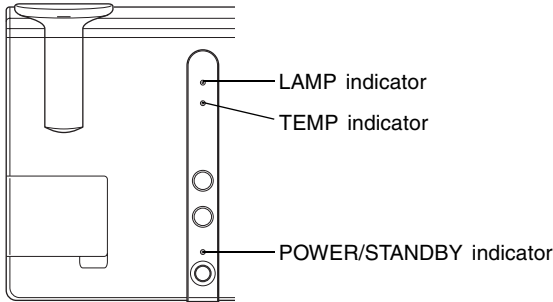
Normal Operation Indicators

● "POWER" in the following table stands for the "POWER/STANDBY" indicator.

When this indicator	Is this	It means this	See page
POWER: TEMP: LAMP:	Amber steady Amber steady Amber steady	You have just plugged the AC cord into a power outlet. Wait until the projector enters the standby state (see below) before trying to turn on power.	38
POWER:	Amber steady	Standby state: The AC power cord is plugged in and the projector is in standby.	38
POWER:	Green flashing	Projector is warming up after being turned on.	
POWER:	Green steady	Projector is on and standing by for use.	
POWER:	Amber flashing	Projector is cooling down after being turned off.	41
LAMP:	Green steady	Projector is in the low noise mode.	90

Error Indicators

- "POWER" in the following table stands for the "POWER/STANDBY" indicator.
- "○" in the "Alert" column indicates that the projector will emit four long beeps when an error occurs. "△" in the "Alert" column indicates that the projector will emit two short beeps when an error occurs. Note that alert tones sound only when "On" is specified for "Option Settings → Alert Tones".
- When an error occurs, wait until cool down is complete and the fan stops before unplugging the AC power cord. If you unplug the AC power cord while the fan is still operate, and error may occur when you plug the AC power cord back in.

Indicator	Alert	Description
POWER : Amber flashing → Red steady TEMP : Red steady	○	An operational problem was caused by external noise or some other factor. After confirming that the POWER/STANDBY indicator is lit red (steady) and that the fan has stopped, unplug the AC power cord. After the indicator goes out, plug the AC power cord back in and turn on the projector again. If the error occurs again when you turn power back on, contact your retailer or nearest authorized CASIO Service Center.
POWER : Amber flashing → Red steady TEMP : Red flashing (0.5-second interval)	○	There is some problem with the fan. After confirming that the POWER/STANDBY indicator is lit red (steady) and that the fan has stopped, unplug the AC power cord. After the indicator goes out, plug the AC power cord back in and turn on the projector again. If the error occurs again when you turn power back on, contact your retailer or nearest authorized CASIO Service Center.
POWER : Amber flashing → Red steady TEMP : Red flashing (1-second interval)	○	Power has turned off automatically due to internal overheating. Perform the following steps. ① After confirming that the POWER/STANDBY indicator is lit red, unplug the AC power cord and wait for about 60 minutes to allow the projector to cool down. ② Check for any blocking of the projector's intake vents and exhaust vents, and make sure that there is sufficient space around the projector. ☞ "Setup Precautions" (page 30). ③ Plug the AC power cord back in, and turn on the projector again.
POWER : Amber flashing → Red steady TEMP : Red flashing (0.5-second interval) LAMP : Red flashing (0.5-second interval)	○	Power has turned off automatically due to a lamp problem. After confirming that the POWER/STANDBY indicator is lit red, unplug the AC power cord, then plug it back in and turn on the projector again. If this does not correct the problem, wait for the projector to cool down and then check the lamp cartridge for damage. If there is nothing wrong with the lamp cartridge, take it to your retailer or nearest authorized CASIO Service Center.

Indicator	Alert	Description
POWER : Amber flashing → Red steady TEMP : Amber flashing	○	Power has turned off automatically because the lamp cover is open. Perform the following steps. ① After confirming that the POWER/STANDBY indicator is lit red, unplug the AC power cord and wait for about 60 minutes to allow the projector to cool down. ② Close the lamp cover. ☞ "To replace the lamp" (page 105). ③ Plug the AC power cord back in, and turn on the projector again.
POWER : Amber flashing → Red steady TEMP : Red flashing (2-second interval)	○	Internal memory error. After confirming that the POWER/STANDBY indicator is lit red, unplug the AC power cord, wait for about 60 minutes to allow the projector to cool down, and then take it to your retailer or nearest authorized CASIO Service Center.
POWER : Green steady LAMP : Red flashing (1-second interval)	△	It is time to replace the lamp. Replace the lamp following the steps under "Replacing the Lamp" on page 102.
POWER : Amber flashing → Red steady LAMP : Red steady	○	The allowable life for the lamp has been exceeded, and the projector will not turn on. Replace the lamp following the steps under "Replacing the Lamp" on page 102.

Projector Troubleshooting

Check the following items whenever you experience any problem with the projector.

Problem	Cause and Recommended Action	See page
The projector does not turn on when I press the [⏻] (power) key.	If the POWER/STANDBY indicator is not lit, the AC power cord may not be connected correctly. → Make sure the AC power cord is connected correctly to the projector and the power outlet.	38
	If the TEMP or LAMP indicator remains flashing or lit, it means some type of error has occurred. → See "Error Indicators".	111

Troubleshooting

Problem	Cause and Recommended Action	See page
The projector does not project any image from the connected device.	The connected computer or video device may not be turned on, or it may not be outputting a video signal. → Make sure the connected computer or video device is turned on, and perform the required operation on it to output a video signal.	—
	The correct output source is not selected on the projector. → On the projector, select the input source that corresponds to the device whose image you are trying to project.	45
The projector does not correctly project the image from the connected device.	Images may not project correctly when you have the component output of a video device connected to the RGB input terminal of the projector. → Try using the projector's VIDEO input terminal or S-VIDEO input terminal.	36
When RGB/Component is selected as the input source, the color of the projected image or the image itself is abnormal.	The settings configured on the setup menu's "Input Settings → RGB Input" menu may not be compatible with the device connected to the RGB input terminal. → Use the setup menu to configure the "Input Settings → RGB Input" menu settings to correct the problem.	85
The projector keys to not work.	Key lock may be turned on. → Turn off key lock.	91
The remote controller does not work.	The remote controller batteries may be dead. → Replace the batteries.	25
	The remote controller may be too far from the projector. → Make sure the remote controller is within the allowable range when you operate it.	27
The TEMP or LAMP indicator is flashing or lit.	→ See "Error Indicators".	111
The message "It is time to replace the lamp." is being projected.	It is time to replace the lamp. → Replace the lamp.	102
The message "The lamp has exceeded its service life!." is being projected.	The allowable life for the lamp has been exceeded, and the projector will not turn on. → Replace the lamp.	102

Appendix

Specifications

Model Name			XJ-350
Projection System			DLP (DMD, single panel)
DMD	Size		0.7inch
	Number of Pixels		XGA (1024 × 768)
Projection Lens			Manual, optical zoom (×2); manual focus F = 2.0 to 2.8 f = 20 to 40mm
Light Source			200W high-pressure mercury lamp
RGB input terminal			RGB mini D-Sub 15-pin × 1 (Also used as component signal input terminal.)
VIDEO input terminal			RCA pin jack × 1
S-VIDEO input terminal			Mini DIN4-pin × 1
Audio input terminal			Stereo mini jack × 1
Audio output			1W monaural
USB port			USB TYPE B
Environment			Operating Temperature: 5 to 35°C (41 to 95°F) Operating Humidity: 20 to 80% (non-condensation)
Power Requirements			100-240V AC, 50/60Hz
Dimensions			230(W) × 55(H) × 171(D) mm (excluding projections) (9.1 × 2.2 × 6.7 inch)
Weight			1.8kg (3.97 lbs)

* Specifications are subject to change without notice.

Computer System Requirements for USB Connection

The following are the minimum Windows and Macintosh computer system requirements for USB connection with the projector.

■Windows

IBM PC/AT or compatible computer with USB port and Windows 98, 98SE, Me, 2000 Professional, or XP preinstalled

■Macintosh

Macintosh computer with USB port and OS 8.6 to 9, 10.1, or 10.2 preinstalled

📝**NOTE**

● Normal USB operation may not be possible under certain system configurations.
● Proper operation is not guaranteed on computers that have been upgraded from another version operating system.

Supported Signals

RGB Signal

	Signal Name	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
VESA	640 × 350/85	640 × 350	37.9	85
	640 × 400/85	640 × 400	37.9	85
	720 × 400/85	720 × 400	37.9	85
	640 × 480/60	640 × 480	31.5	60
	640 × 480/72	640 × 480	37.9	73
	640 × 480/75	640 × 480	37.5	75
	640 × 480/85	640 × 480	43.3	85
	800 × 600/56	800 × 600	35.2	56
	800 × 600/60	800 × 600	37.9	60
	800 × 600/72	800 × 600	48.1	72
	800 × 600/75	800 × 600	46.9	75
	800 × 600/85	800 × 600	53.7	85
	1024 × 768/43i	1024 × 768	35.5	87
	1024 × 768/60	1024 × 768	48.4	60
	1024 × 768/70	1024 × 768	56.5	70
	1024 × 768/75	1024 × 768	60.0	75
	1024 × 768/85	1024 × 768	68.7	85
	1152 × 864/75	1152 × 864	67.5	75
	1280 × 960/60	1280 × 960	60.0	60
	1280 × 960/85	1280 × 960	85.9	85
	1280 × 1024/60	1280 × 1024	64.0	60
	1280 × 1024/75	1280 × 1024	80.0	75
	1280 × 1024/85	1280 × 1024	91.1	85
	1600 × 1200/60	1600 × 1200	75.0	60
APPLE	640 × 480/67M13	640 × 480	35.0	67
	832 × 624/75M16	832 × 624	49.7	75
	1024 × 768/75M19	1024 × 768	60.2	75
	1152 × 870/75M21	1152 × 870	68.7	75
	640 × 480/117iM	640 × 480	56.0	117
	800 × 600/95iM	800 × 600	59.0	95
	1024 × 768/75iM	1024 × 768	59.0	75
NEC	640 × 400/56	640 × 400	24.8	56
Other	1400 × 1050/A	1400 × 1050	64.0	59
	1400 × 1050/B	1400 × 1050	64.0	60
	1152 × 864/70	1152 × 864	64.0	70
	1152 × 864/85	1152 × 864	77.5	85
	1280 × 960/75	1280 × 960	75.0	75

Component Signal

	Signal Name	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
HDTV	1080i60	33.7	60
	720p60	45.0	60
SDTV	576p50	31.3	50
	576i50	16.6	50
	480p60	31.5	60
	480i60	15.7	60

Video/S-Video Signal

Signal Name	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
NTSC	15.7	60
NTSC4.43	15.7	60
PAL	15.6	50
PAL-M	15.7	60
PAL-N	15.6	50
PAL60	15.7	60
SECAM	15.6	50

* Listing of a device in the above table does not guarantee that you will be able to display its images correctly.
* When "640 $\times$ 350/85" is the input signal, the "Operational Info" sub-menu items show 640 $\times$ 400/85 information.
* When "1024 $\times$ 768/75iM" is the input signal, the "Operational Info" sub-menu items show "1024 $\times$ 768/75" information.
* If you experience problems projecting the image of a "1280 $\times$ 1024/60", "1400 $\times$ 1050/A" or "1400 $\times$ 1050/B" signal, you may be able to obtain a correct image by changing to "Special Signal".

GUIDELINES LAID DOWN BY FCC RULES FOR USE OF THIS UNIT IN THE U.S.A. (not applicable to other areas).

NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

FCC WARNING

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
Proper connectors must be used for connection to host computer and/or peripherals in order to meet FCC emission limits.

Connector cable .... XJ-350 unit to PC

Declaration of Conformity

Model Number:XJ-350
Trade Name:CASIO COMPUTER CO., LTD.
Responsible party:CASIO, INC.
Address:570 MT. PLEASANT AVENUE, DOVER, NEW JERSEY 07801
Telephone number:973-361-5400
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.

FC Tested To Comply With FCC Standards
FOR HOME OR OFFICE USE

**Batterij niet weggooien,
maar inlevern als KCA**

CASIO®

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