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PROJECTOR OWNER'S MANUAL

# EIKI

# LC-XB22

**Need a replacement lamp for this projector?**

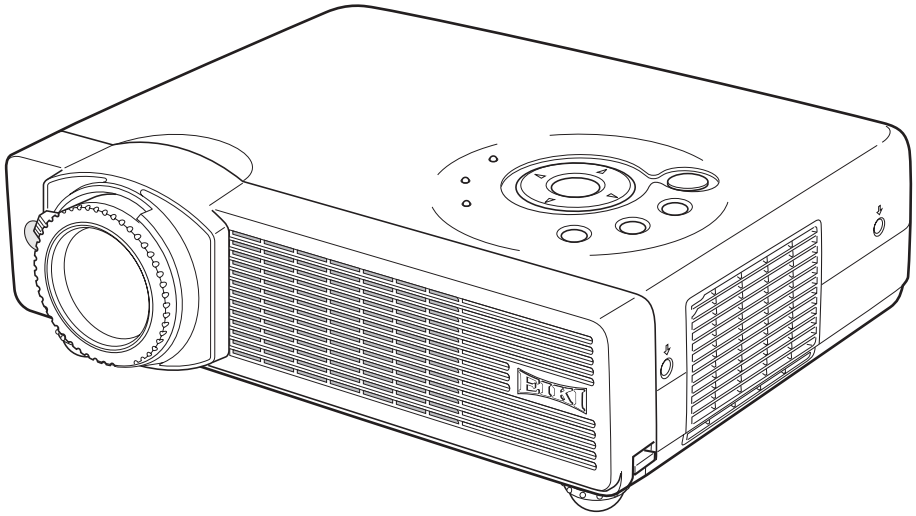
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EIKI

MULTIMEDIA PROJECTOR

# MODEL LC-XB22



# OWNER'S MANUAL

# Features and Design

This Multimedia Projector is designed with the most advanced technology for portability, durability, and ease of use. This projector utilizes built-in multimedia features, a palette of 16.77 million colors, and matrix liquid crystal display (LCD) technology.

### ◆ *Compact Design*

This projector is designed compact in size and weight. It is easy to carry and work anywhere you wish to use.

### ◆ *Compatibility*

The projector widely accepts various video and computer input signals including; Computers, 6 Color systems (PAL, SECAM, NTSC, NTSC4.43, PAL-M, PAL-N), Component video, S-video and RGB scart.

### ◆ *Simple Computer System Setting*

The projector has the Multi-scan system to conform to almost all computer output signals quickly. (See page 25.)

### ◆ *Digital Zoom (for Computer)*

The digital zoom function expands (to approx. 16 times of screen size) or compresses the image size, allowing you to focus on crucial information at a presentation. (See page 31.)

### ◆ *Keystone Adjustment*

The keystone correction function is provided to correct distortion of the projected image allowing you to use the projector without locational constraints. (See page 22 and 39.)

### ◆ *Power Management*

The Power management function reduces power consumption and maintains the lamp life. (See page 41.)

### ◆ *User's Logo*

A projected image can be captured and used for the starting display of the projector with the Capture function. You can also display the captured image in an interval during your presentation instead of blackout image with the No show function. (See page 23 and 40.)

### ◆ *Selectable Lamp Mode*

Brightness of the projection lamp can be selected in the Setting menu. (See page 42.)

### ◆ *Blackboard Function*

Blackboard✳ can be used as a projection screen.
✳ The board color is limited to Green.
(See page 29 and 35.)

### ◆ *Film Function*

The Film function reproduces pictures faithful to the original film quality from 3-2 pull-down video contents.
(See page 37.)

### ◆ *PIN Code Lock Function*

The PIN code lock function prevents others except users from using the projector. (See page 18 and 43.)

### ◆ *Multilanguage Menu Display*

Operation menu is available in 12 languages; English, German, French, Italian, Spanish, Portuguese, Dutch, Swedish, Russian, Chinese, Korean, or Japanese. (See page 39.)

### ◆ *Switchable Interface Terminal*

The projector provides a switchable interface terminal. You can use the terminal as computer input or monitor output conveniently. (See page 41.)

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***Trademarks***
Each name of corporations or products in this book is either a registered trademark or a trademark of its respective corporation.

Before operating this projector, read this manual thoroughly to operate the projector properly.
This projector provides many convenient features and functions. Operating the projector properly enables you to manage those features and maintains it in better condition for a considerable time.
Improper operation may result in not only shortening the product-life, but also malfunctions, fire hazard, or other accidents.
If your projector seems to operate improperly, read this manual again, check operations and cable connections and try the solutions in the "Troubleshooting" section in the end of this booklet. If the problem still persists, contact the dealer where you purchased the projector or the service center.

**CAUTION**
**RISK OF ELECTRIC SHOCK**
**DO NOT OPEN**

**CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE EXCEPT LAMP REPLACEMENT. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

THIS SYMBOL INDICATES THAT DANGEROUS VOLTAGE CONSTITUTING A RISK OF ELECTRIC SHOCK IS PRESENT WITHIN THIS UNIT.

THIS SYMBOL INDICATES THAT THERE ARE IMPORTANT OPERATING AND MAINTENANCE INSTRUCTIONS IN THE OWNER'S MANUAL WITH THIS UNIT.

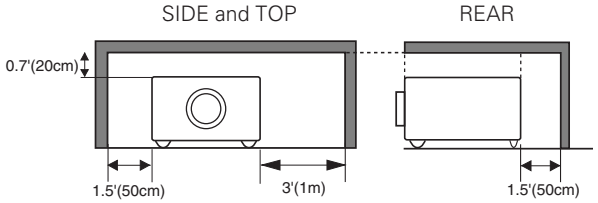
## Safety Precaution

**WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

– This projector produces intense light from the projection lens. Do not stare directly into the lens as possible. Eye damage could result. Be especially careful that children do not stare directly into the beam.

– Install the projector in a proper position. If not, it may result in a fire hazard.

– Provide appropriate space on the top, sides and rear of the projector cabinet for allowing air circulation and cooling the projector. Minimum clearance must be maintained. If the projector is to be built into a compartment or similarly enclosed, the minimum distances must be maintained. Do not cover the ventilation slot on the projector. Heat build-up can reduce the service life of your projector, and can also be dangerous.




– Do not put any flammable object or spray can near the projector, hot air is exhausted from the ventilation holes.

– If the projector is not to be used for an extended time, unplug the projector from the power outlet.

**READ AND KEEP THIS OWNER'S MANUAL FOR LATER USE.**

## CAUTION

Not for use in a computer room as defined in the Standard for the Protection of Electronic Computer/Data Processing Equipment, ANSI/NFPA 75.

Ne peut être utilisé dans une salle d'ordinateurs telle que définie dans la norme ANSI/NFPA 75 Standard for Protection of Electronic Computer/Data Processing Equipment

All the safety and operating instructions shoule be read before the product is operated.

Read all of the instructions given here and retain them for later use. Unplug this projector from AC power supply before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

Follow all warnings and instructions marked on the projector.

For added protection to the projector during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage due to lightning and power line surges.

---

Do not expose this unit to rain or use near water... for example, in a wet basement, near a swimming pool, etc...

Do not use attachments not recommended by the manufacturer as they may cause hazards.

Do not place this projector on an unstable cart, stand, or table. The projector may fall, causing serious injury to a child or adult, and serious damage to the projector. Use only with a cart or stand recommended by the manufacturer, or sold with the projector. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturers.

An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



---

Slots and openings in the back and bottom of the cabinet are provided for ventilation, to ensure reliable operation of the equipment and to protect it from overheating.

The openings should never be covered with cloth or other materials, and the bottom opening should not be blocked by placing the projector on a bed, sofa, rug, or other similar surface. This projector should never be placed near or over a radiator or heat register.

This projector should not be placed in a built-in installation such as a book case unless proper ventilation is provided.

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

Do not install the projector near the ventilation duct of air-conditioning equipment.

This projector should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied, consult your authorized dealer or local power company.

Do not overload wall outlets and extension cords as this can result in fire or electric shock. Do not allow anything to rest on the power cord. Do not locate this projector where the cord may be damaged by persons walking on it.

Do not attempt to service this projector yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Unplug this projector from wall outlet and refer servicing to qualified service personnel under the following conditions:

a. When the power cord or plug is damaged or frayed.
b. If liquid has been spilled into the projector.
c. If the projector has been exposed to rain or water.
d. If the projector does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the projector to normal operation.
e. If the projector has been dropped or the cabinet has been damaged.
f. When the projector exhibits a distinct change in performance-this indicates a need for service.

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or injury to persons.

Upon completion of any service or repairs to this projector, ask the service technician to perform routine safety checks to determine that the projector is in safe operating condition.

---



**Voor de klanten in Nederland**

Bij dit produkt zijn batterijen geleverd.
Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

NL

## *Air Circulation*

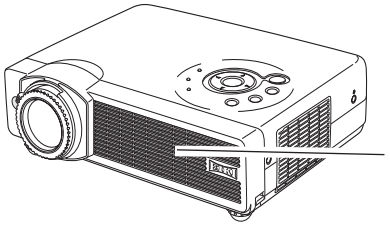
Openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered.

**CAUTION**

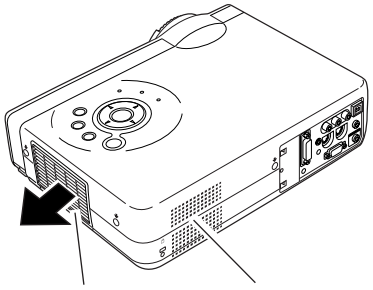
Hot air is exhausted from the exhaust vent. When using or installing the projector, the following precautions should be taken.

– Do not put any flammable objects near the vent.
– Keep the exhaust vent at least 3'(1m) away from any objects.
– Do not touch a peripheral part of the exhaust vent, especially screws and metallic part. This area will become hot while the projector is being used.
– Do not put anything on the cabinet. The materials put on the cabinet will not only get damaged but also cause fire hazard by heat.

Cooling fans are provided to cool down the projector. This projector monitors internal temperature and control the running speed of the cooling fans.



Air Intake Vent

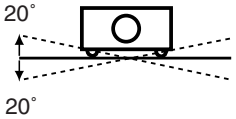


Exhaust Vent
(Hot air exhaust)

Air Intake Vent

## *Installing the Projector in Proper Position*

Install the projector properly. Improper Installation may reduce the lamp life and cause a fire hazard.




Do not tilt the projector more than 20 degrees from side to side.



Do not point the projector up to project an image.



Do not point the projector down to project an image.



Do not put the projector on either side to project an image.

## *Moving the Projector*

When moving the projector, replace the Lens Cover and retract Adjustable Feet to prevent damage to the lens and cabinet.

**USE CAUTION IN CARRYING OR TRANSPORTING THE PROJECTOR**

– Do not drop or bump a projector, otherwise damages or malfunctions may result.
– When carrying a projector, use a suitable carrying case.
– Do not transport a projector by using a courier or transport service in an unsuitable transport case. This may cause damage to a projector. To transport a projector through a courier or transport service, consult your dealer for their information.

## Federal Communication Commission Notice

Note : 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 communications. 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.

Use of shielded cable is required to comply with class B limits in Subpart B of Part 15 of FCC Rules.

Do not make any changes or modifications to the equipment unless otherwise specified in the instructions. If such changes or modifications should be made, you could be required to stop operation of the equipment.

| | |
|---|---|
| Model Number | : LC-XB22 |
| Trade Name | : EIKI |
| Responsible party | : EIKI International, Inc. |
| Address | : 30251 Esperanza Rancho Santa Margarita CA 92688-2132 |
| Telephone No. | : 800-242-3454 (949-457-0200) |

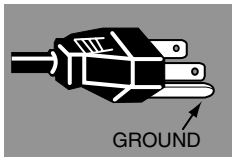
## AC Power Cord Requirement

The AC Power Cord supplied with this projector meets the requirement for use in the country you purchased it.

### AC Power Cord for the United States and Canada :

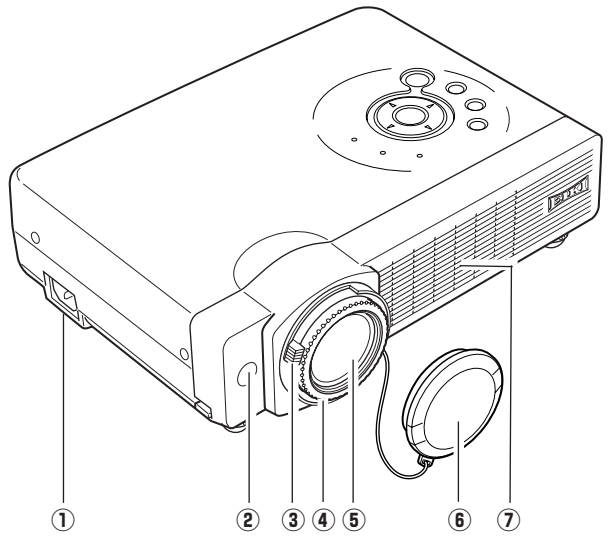
AC Power Cord used in the United States and Canada is listed by the Underwriters Laboratories (UL) and certified by the Canadian Standard Association (CSA).

AC Power Cord has a grounding-type AC line plug. This is a safety feature to be sure that the plug will fit into the power outlet. Do not try to defeat this safety feature. Should you be unable to insert the plug into the outlet, contact your electrician.



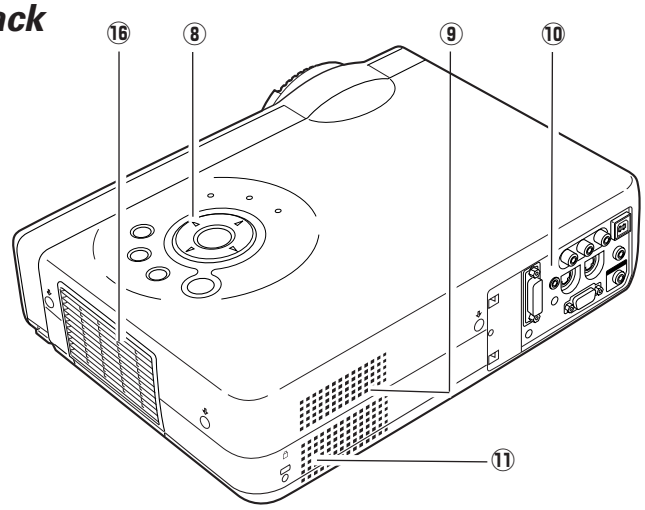

**THE SOCKET-OUTLET SHOULD BE INSTALLED NEAR THE EQUIPMENT AND EASILY ACCESSIBLE.**

## Front




① **Power Cord Connector**
② **Infrared Remote Receiver**
③ **Zoom Lever**
④ **Focus Ring**
⑤ **Projection Lens**
⑥ **Lens Cover** (See page 46 for attaching.)
⑦ **Air Intake Vent**

## Back



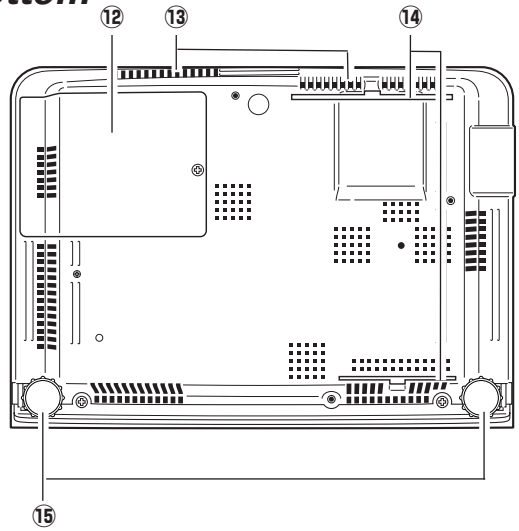

⑧ **Top Controls and Indicators**
⑨ **Air Intake Vent**
⑩ **Terminals and Connectors**
⑪ **Speaker**

⑯ **Exhaust Vent**

**CAUTION**

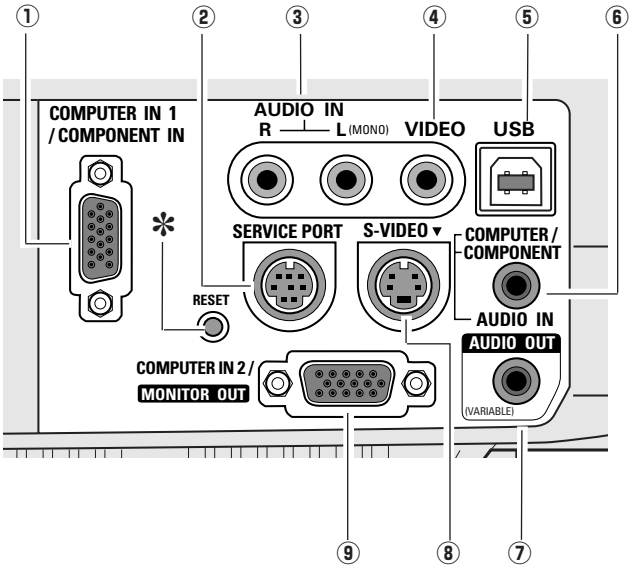
Hot air is exhausted from the exhaust vent. Do not put heat-sensitive objects near this side.

## Bottom




⑫ **Lamp Cover**
⑬ **Air Intake Vent (back and bottom)**
⑭ **Air Filter**
⑮ **Adjustable Feet**

## Rear Terminal




**① COMPUTER IN 1/ COMPONENT IN**
Connect output signal from a computer (Analog RGB) or video equipment (Component or RGB Scart) to this terminal. Optional cables are required when using this terminal as component input or RGB Scart 21-Pin Video input. (p15, 17)

**② SERVICE PORT**
This jack is used to service this projector.

**③ AUDIO IN**
Connect the audio output from video equipment connected to ④ or ⑧ to this jack. (When the audio output is monaural, connect it to L (MONO) jack.) (p16)

**④ VIDEO**
Connect the composite video output from video equipment to VIDEO jack. (p16)

**⑤ USB (Series B)**
Connect the USB port of your computer to this port when you wish to use the PAGE ▲▼ buttons on the remote control to scroll back and forth pages on the screen of the connected computer. (p15)

**⑥ AUDIO IN COMPUTER/ COMPONENT**
Connect the audio output (stereo) from a computer or video equipment connected to ① or ⑨ to this jack. (p15, 17)

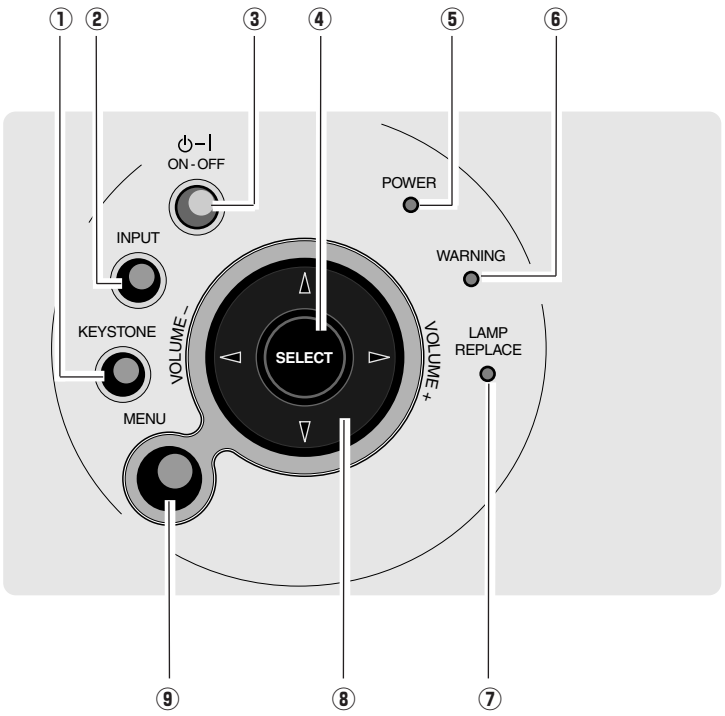
**⑦ AUDIO OUT(VARIABLE)**
Connect an external audio amplifier to this jack. (p15, 16, 17)
This terminal outputs sound from AUDIO IN terminal (③ or ⑥).

**⑧ S-VIDEO**
Connect the S-VIDEO output from video equipment to this jack. (p16)

**⑨ COMPUTER IN 2/ MONITOR OUT**
This terminal is switchable and can be used for input from a computer or output to the other monitor. Set the terminal up as either Computer input or Monitor output properly. (Used for Monitor out, this terminal outputs only incoming signal from COMPUTER IN 1/ COMPONENT IN terminal.) (p15, 41)

✻ *A built-in micro processor which controls this unit may occasionally malfunction and need to be reset. This can be done by pressing the RESET button with a pen, which will shut down and restart the unit. Do not use the RESET function excessively.*

## *Top Control*




① **KEYSTONE button**
Correct keystone distortion. (p22, 39)

② **INPUT button**
Select input source. (p24, 32, 33 )

③ **POWER ON–OFF button**
Turn the projector on or off. (p18, 19)

④ **SELECT button**
Execute the item selected. It is also used to expand/compress the image in Digital zoom +/– mode. (p31)

⑤ **POWER indicator**
Blink red until the projector gets ready to be turned on. It turns red when the projector is in the stand-by mode. It remains green while the projector is under operation. (p52)

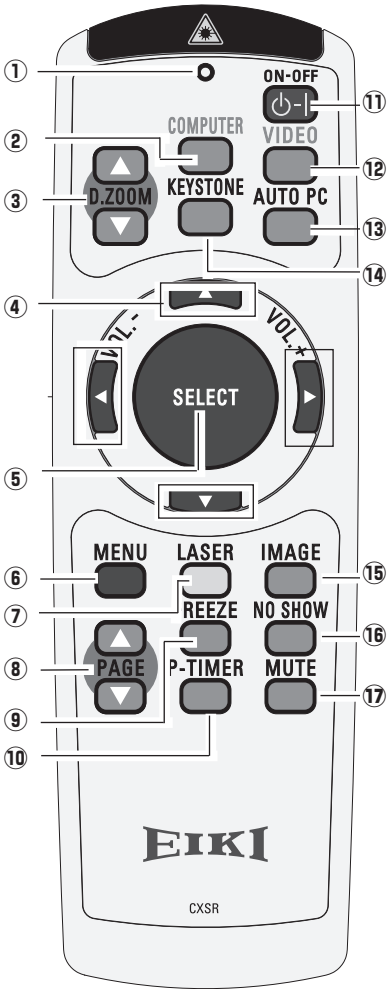
⑥ **WARNING indicator**
Light red when the projector detects abnormal condition. This also blinks red when the internal temperature of the projector exceeds the operating range. (p45, 52)

⑦ **LAMP REPLACE indicator**
Turn yellow when the life of the projection lamp draws to an end. (p48, 52)

⑧ **POINT (▲▼◀▶ ) buttons**
Select an item or adjust value in the On-Screen Menu. These are also used to pan the image in the Digital zoom +/– mode. (p31)
Point ◀▶ buttons are used as VOLUME +/– button. (p23)

⑨ **MENU button**
Open or close the On-Screen Menu. (p20)

## Remote Control




① **SIGNAL EMISSION indicator**
This indicator lights red while the laser beam is being emitted from the laser light window or a signal is being sent from the remote control to the projector.

② **COMPUTER button**
Select the input source (COMPUTER 1 or COMPUTER 2). (p24, 33)

③ **D.ZOOM (▲▼) button**
Select the Digital zoom +/– mode and resize the image. (p31)

④ **POINT (▲▼◀▶) buttons**
Select an item or adjust the value in the On-Screen Menu. These are also used to pan the image in the Digital zoom +/- mode. (p31)
The POINT ◀▶ buttons are also used as VOLUME +/- buttons. (p23)

⑤ **SELECT button**
Execute the item selected, or to expand or compress the image in the Digital zoom +/- mode. (p31)

⑥ **MENU button**
Open or close the On-Screen Menu. (p20)

⑦ **LASER button**
Operate the Laser pointer function. The Laser beam is emitted while pressing this button within 1 minute. When using this laser pointer for more than 1 minute, release the LASER button and press it again. (p12)

⑧ **PAGE UP/DOWN buttons**
Turn page; the Up button to the previous page and the Down button to the next page for an image from a computer. Connect the projector and your computer with a USB cable before use. (See page 15.)

⑨ **FREEZE button**
Freeze the projected picture. (p22)

⑩ **P-TIMER button**
Operate the P-Timer function. (p23)

⑪ **POWER ON-OFF button**
Turn the projector on or off. (p18, 19)

⑫ **VIDEO button**
Select the input source (VIDEO). (p32)

⑬ **AUTO PC button**
Operate the Auto PC Adjustment function. (p26)

⑭ **KEYSTONE button**
Correct keystone distortion. (p22, 39)

⑮ **IMAGE button**
Select the image levels.(p29, 35)

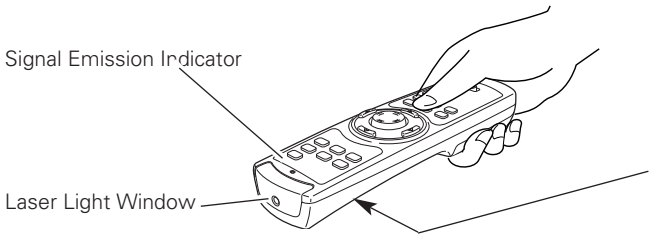
⑯ **NO SHOW button**
Turn the picture into black image. (p23)

⑰ **MUTE button**
Mute the sound. (p23)

## *Laser Pointer Function*

This remote control emits a laser beam from the laser light window. With the LASER button pressed, laser light goes on. The signal emission indicator lights red and laser is emitted with red light. With the LASER button pressed for more than 1 minute or released, the light goes off.
To lock this function, press both the MENU button and the NO SHOW button for more than 10 seconds. To unlock, press the MENU button and NO SHOW button again for more than 10 seconds.
The laser emitted is a class II laser. Do not look into the laser light window or shine the laser beam on yourself or other people. The caution labels for laser beam are shown below.

**CAUTION** : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. Do not look into the laser light window while laser is emitted, otherwise eye damage may result.

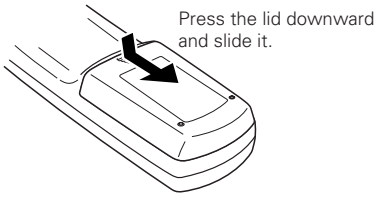



The caution label is put on the remote control.

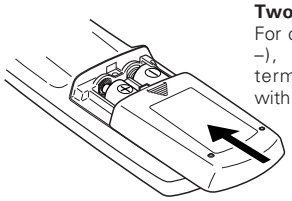



## *Remote Control Battery Installation*

***1*** Remove the battery compartment lid.

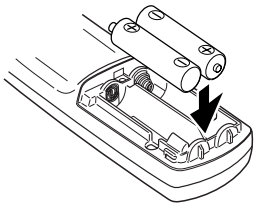



***2*** Slide the batteries into the compartment.



**Two AAA size batteries**
For correct polarity (+ and –), be sure battery terminals are in contact with pins in compartment.

***3*** Replace the compartment lid.

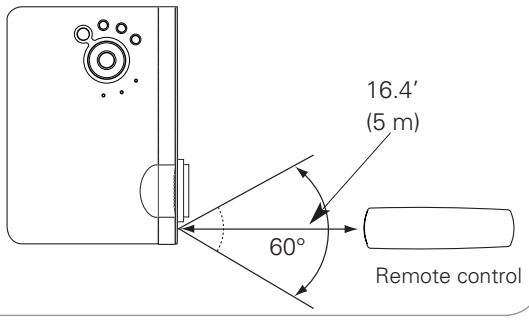


To insure safe operation, please observe the following precautions :

- Use (2) AAA, SUM-4 or LR3 type alkaline batteries.
- Replace two batteries at the same time.
- Do not use a new battery with a used battery.
- Avoid contact with water or liquid.
- Do not expose the remote control to moisture, or heat.
- Do not drop the remote control.
- If battery solution has leaked in the battery compartment, carefully wipe the compartment clean and install new batteries.
- Risk of explosion if the battery is replaced by an incorrect type.
- Dispose of used batteries according to the instructions.

## *Operating Range*

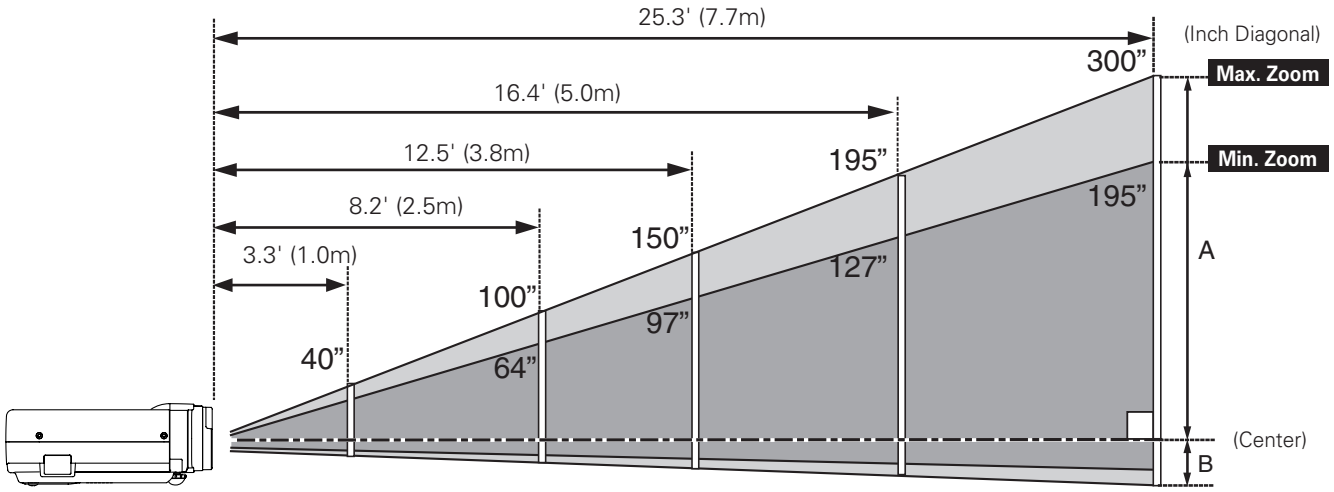
Point the remote control toward the projector (Infrared Remote Receiver) whenever pressing any button. Maximum operating range for the remote control is about 16.4' (5m) and 60° in front of the projector.



## Positioning the Projector

This projector is designed to project on a flat projection surface and can be focused from 3.3'(1.0m) - 25.3'(7.7m). Refer to the figure and the table below for the screen size and the distance between the projector and the screen.

A : B = 9 : 1




| Screen Size (W x H) mm 4 : 3 aspect ratio | 40″ | 100″ | 150″ | 195″ | 300″ |
|---|---|---|---|---|---|
| | 813 x 610 | 2032 x 1524 | 3048 x 2286 | 3962 x 2972 | 6096 x 4572 |
| Zoom (min) | 4.9' (1.5m) | 12.8' (3.9m) | 19.3' (5.9m) | 25.3' (7.7m) | —— |
| Zoom (max) | 3.3' (1.0m) | 8.2' (2.5m) | 12.5' (3.8m) | 16.4' (5.0m) | 25.3' (7.7m) |

✔***Note:***

- *The brightness in a room has a great influence on picture quality. It is recommended to limit ambient lighting in order to obtain the best image.*
- *The values shown above are approximate and may vary from the actual size.*

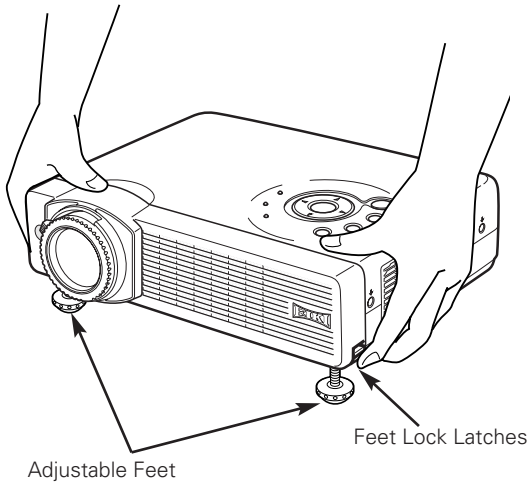
## Adjustable Feet

Projection angle can be adjusted up to 11.8 degrees with the adjustable feet.

***1*** Lift the front of the projector and pull upward the feet lock latches on both sides of the projector.

***2*** Release the feet lock latches to lock the adjustable feet and rotate the adjustable feet to adjust the position and tilt.

***3*** To retract the adjustable feet, lift the front of the projector and pull and undo the feet lock latches.
Keystone distortion of the projected image can be adjusted by menu operation. (p22, 39)

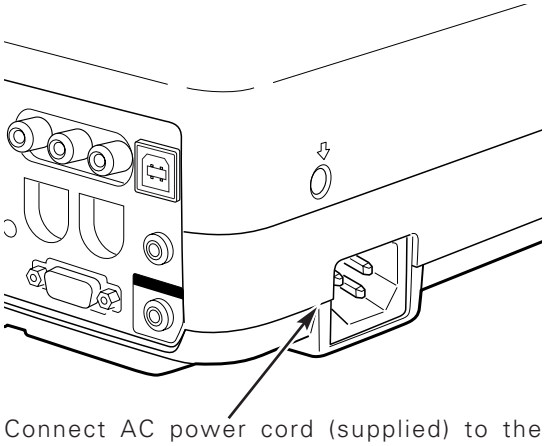


## *Connecting the AC Power Cord*

This projector uses nominal input voltages of 100-120 V or 200-240 V AC. This projector automatically selects the correct input voltage. It is designed to work with single-phase power systems having a grounded neutral conductor. To reduce risk of electrical shock, do not plug into any other type of power system.
Consult your authorized dealer or service station if you are not sure of the type of power being supplied.
Connect the projector with all peripheral equipment before turning the projector on. (See page 15-17 for connection.)

**CAUTION**

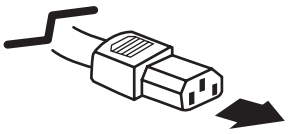
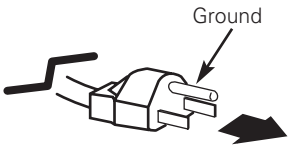
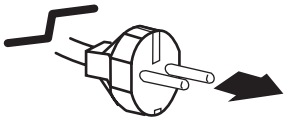
For safety, unplug AC power cord when the projector is not in use. When this projector is connected to an outlet with AC power cord, it is in Stand-by mode and consumes a little electric power.



Connect AC power cord (supplied) to the projector.
The AC outlet must be near this equipment and must be easily accessible.

### NOTE ON THE POWER CORD

AC power cord must meet requirement of the country where you use a projector.
Confirm an AC plug type with the chart below and proper AC power cord must be used.
If supplied AC power cord does not match your AC outlet, contact your sales dealer.

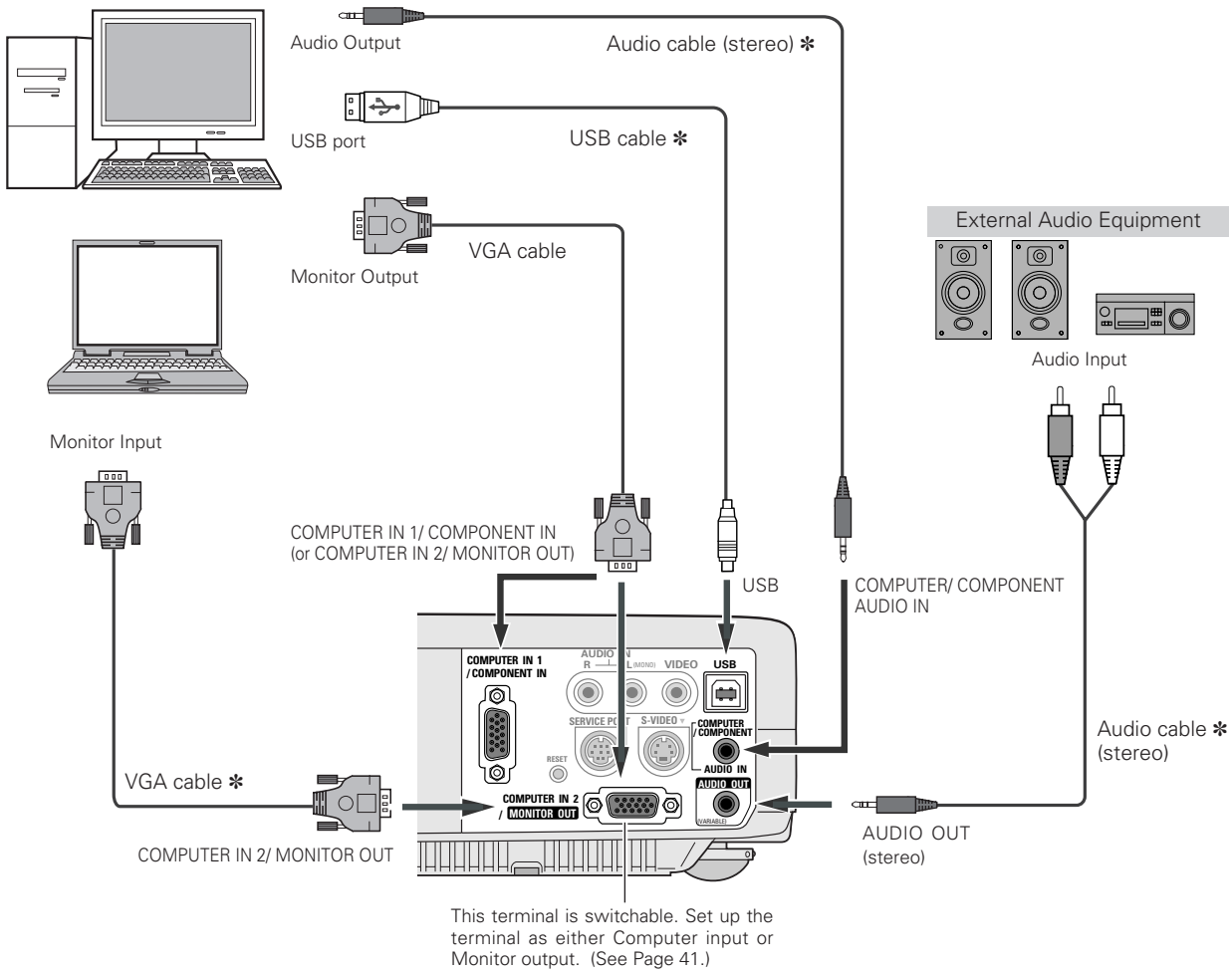
| Projector side | AC outlet side | |
|---|---|---|
| | **For the U.S.A. and Canada** | **For Continental Europe** |
|  To power cord connector on your projector. |  Ground To the AC outlet. **(120 V AC)** |  To the AC outlet. **(200 - 240 V AC)** |

# Connecting to a Computer

### Cables used for connection

- VGA Cable (Mini D-sub 15 pin) (Only one cable is supplied.)
- USB Cable ✻
- Audio Cables (Mini Plug: stereo) ✻

(✻ = Not supplied with this projector.)




✔***Note:***

- *If you wish to use Page ▲▼ buttons on the remote control, connect USB port of your computer to the USB socket of the projector (p9 and 42)*
- *When connecting AUDIO OUT to external audio equipment, the projector's built-in speaker is disconnected.*
- *Input sound to the COMPUTER/COMPONENT AUDIO IN terminal when using the COMPUTER IN 2/ MONITOR OUT terminal as input.*
- *See p58 for ordering optional parts.*

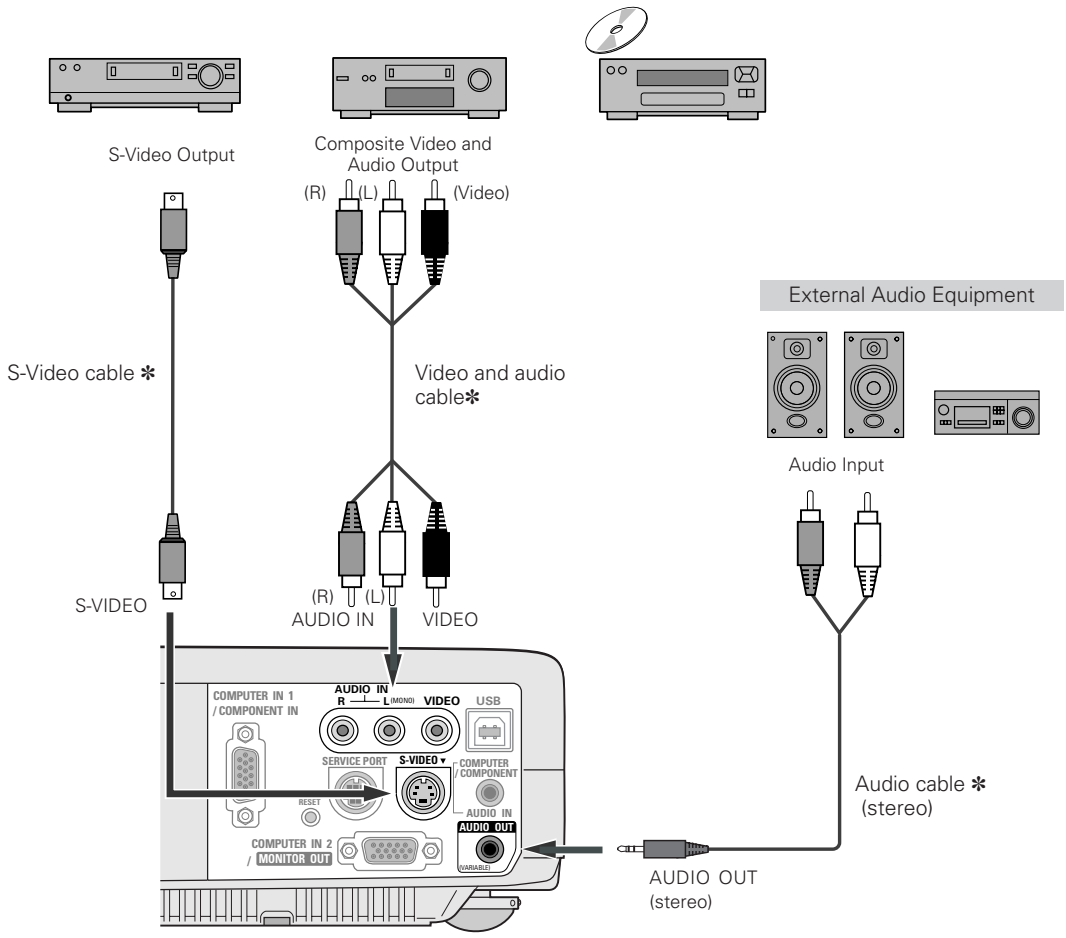
***Note:***
*When connecting the cable, the power cords of both the projector and the external equipment should be disconnected from AC outlet.*

# *Connecting to Video Equipment*

### Cables used for connection

- Video and Audio Cable (RCA x 3) ✻
- S-VIDEO Cable ✻
- Audio Cable (Mini Plug: stereo) ✻

(✻ = Not supplied with this projector.)




✔***Note:***

- *If both the S-VIDEO jack and the VIDEO jack are connected at the same time when AUTO is selected in the Input Menu, the S-VIDEO jack will override the signal from the VIDEO jack.*
- *When connecting AUDIO OUT to external audio equipment, the projector's built-in speaker is disconnected.*
- *See p58 for ordering optional parts.*

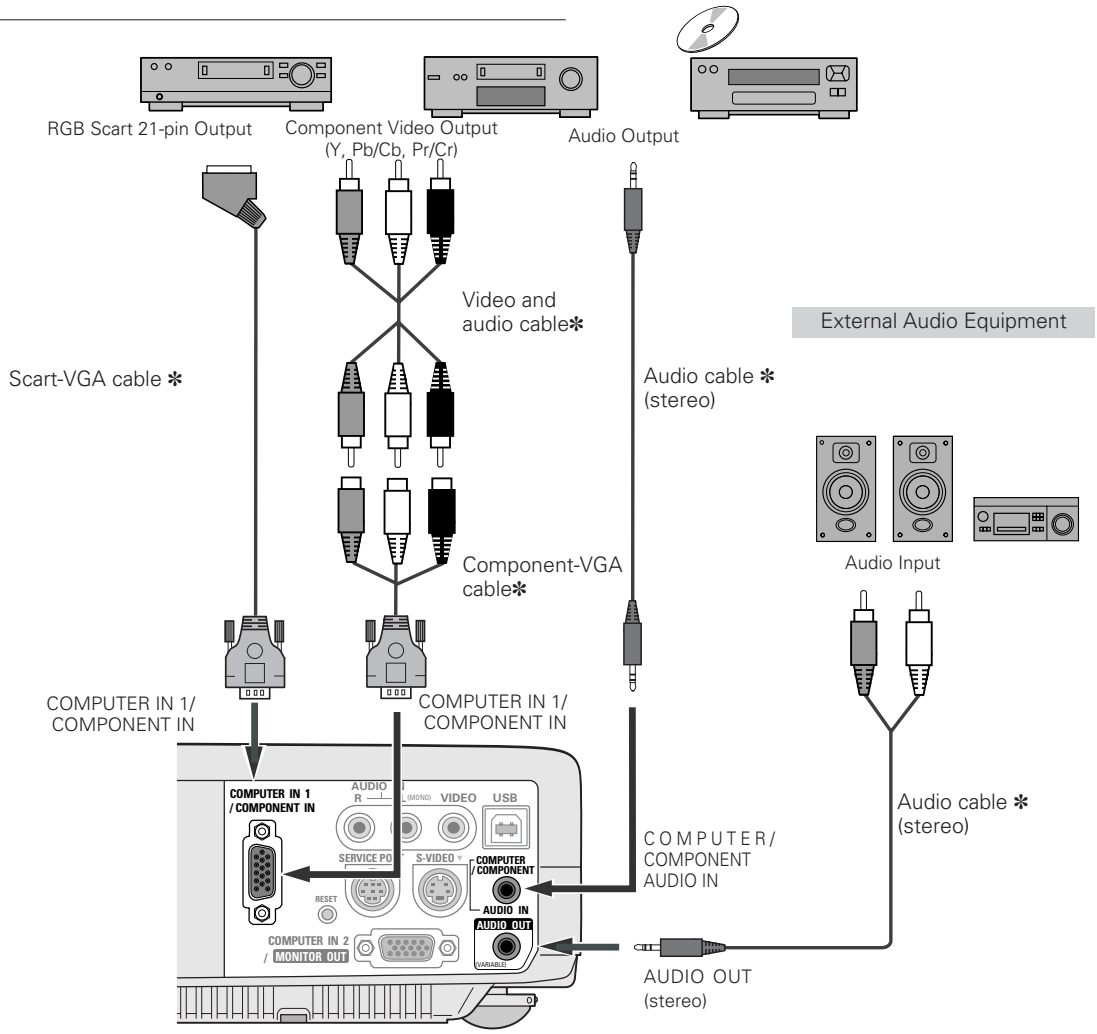
***Note:***
*When connecting the cable, the power cords of both the projector and the external equipment should be disconnected from AC outlet.*

# Connecting to Component Video Equipment

### Cables used for connection

- Audio Cable (Mini Plug (stereo) x 2 or RCA x 2) ✻
- Scart-VGA Cable ✻
- Video and audio cable✻
- Component-VGA Cable ✻

(✻ = Not supplied with this projector.)




✔***Note:***

- *When connecting AUDIO OUT to external audio equipment, the projector's built-in speaker is disconnected.*
- *See p58 for ordering optional parts.*

***Note:***
*When connecting the cable, the power cords of both the projector and the external equipment should be disconnected from AC outlet.*

## Turning On the Projector

1. Complete peripheral connections (with a computer, VCR, etc.) before turning on the projector.

2. Connect the projector's AC power cord into an AC outlet. The POWER indicator blinks red in a moment and lights red.

3. Press the POWER ON-OFF button on the top control or on the remote control. The POWER indicator turns green lighting and the cooling fans start to operate. The preparation display appears on the screen and the count down starts.

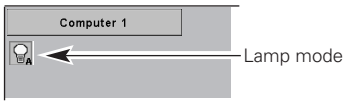



The preparation display disappears after 20 seconds.

4. After the count-down, the input source that was selected last and the Lamp mode status icon (see page 42) appear on the screen.

   If the projector is locked with a PIN code, PIN code Input Dialog Box will appear. Enter the PIN code as instructed below.

**Selected Input Source and Lamp Mode**




(See page 42 for Lamp mode.)

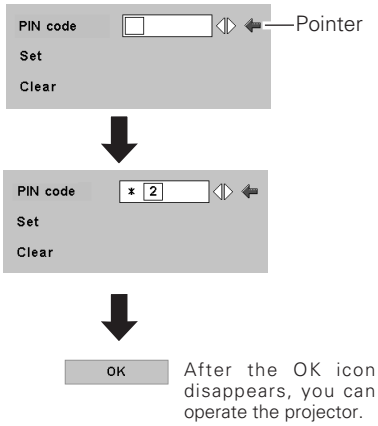
### *Enter a PIN code*

Select a number by pressing the Point ◀ ▶ buttons and fix the number with the SELECT button. The number will change to "✳". If you fixed a wrong number, move the pointer to "Set" or "Clear" once by pressing the Point ▼ button, then return to "PIN code". Enter the correct number again. Repeat this step to complete entering a four-digit number.

When the four-digit number is fixed, the pointer will automatically move to "Set". Press the SELECT button so that you can start to operate the projector.

If you entered a wrong PIN code, "PIN code" and the number (✳✳✳✳) will turn red and disappear. Enter a correct PIN code all over again.

**PIN code Input Dialog Box**




After the OK icon disappears, you can operate the projector.

### *What is PIN code?*

The PIN code is a security code using Personal Identification Number that allows the person who knows it to operate the projector. Setting the PIN code prevents others except the specific users from operating the projector.

A PIN code consists of a four-digit number. Refer to the PIN Code Lock function in Setting on page 43 for locking operation of the projector with your PIN code.

**CAUTION ON HANDLING PIN CODE**

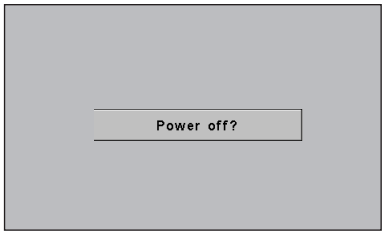
If you forget your PIN code, the projector can no longer be started. Set a new PIN code with special care, write it down in column on page 59 of this manual, and keep it at hand. Should the PIN code be missing or forgotten, consult your dealer or service center.

## Turning Off the Projector

1. Press the POWER ON-OFF button on the top control or on the remote control, and a message "Power off?" appears on the screen.

2. Press the POWER ON-OFF button again to turn off the projector. The POWER indicator starts to blink red, and it continues while the cooling fans are operating for about 90 seconds. (About 120 seconds when the fan mode is L2. See page 44.)

3. When the projector has cooled down enough to be turned on again, the POWER indicator lights red. Then you can disconnect the AC power cord.




The message disappears after 4 seconds.

TO MAINTAIN THE LIFE OF LAMP, ONCE YOU TURN PROJECTOR ON, WAIT AT LEAST 5 MINUTES BEFORE TURNING IT OFF.
DO NOT DISCONNECT AC POWER CORD WHILE COOLING FANS ARE RUNNING OR BEFORE POWER INDICATOR LIGHTS RED. OTHERWISE IT WILL RESULT IN SHORTENING LAMP LIFE.

✔***Note:***

- *The projector cannot be turned on during the cooling period with the POWER indicator blinking red. You can turn it on again after the POWER indicator lights red.*
- *When the On start function is "On", this projector is turned on automatically by connecting the AC power cord to an AC outlet. (See page 41 for the On start function.)*
- *Do not operate the projector continuously without rest. Continuous use may result in shortening the lamp life. Turn off the projector and give it a rest about an hour in every 24 hours.*
- *This projector monitors internal temperature and automatically controls the running speed of the cooling fans.*
- *If the WARNING indicator blinks or lights red, see "Warning Indicator" on page 45.*

## How to Operate the On-Screen Menu

The projector can be adjusted or set via the On-Screen Menu. Refer to the following pages regarding each adjustment and setting procedure.

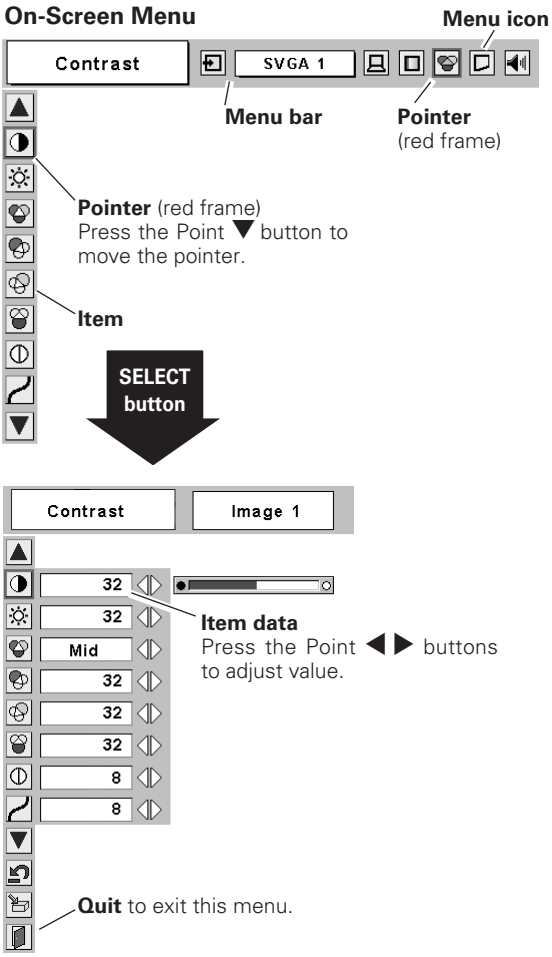
*1* Press the MENU button to display the On-Screen Menu.

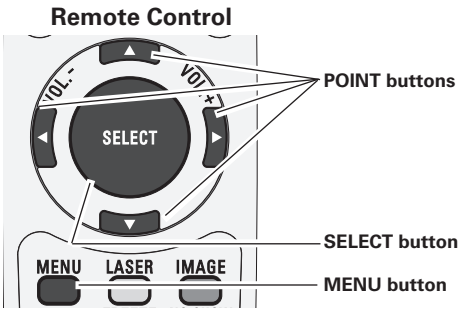
*2* Press the Point ◀▶ buttons to select a Menu icon to adjust. Press the Point ▲▼ buttons to select an item to adjust.

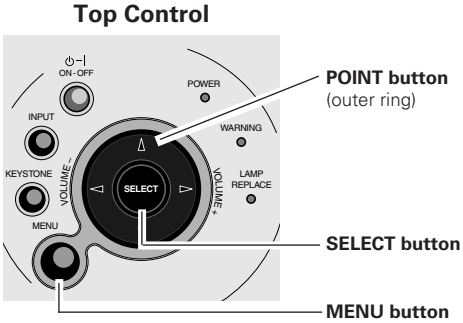
*3* Press the SELECT button to show the item data. Press the Point ◀▶ buttons to adjust the data. Refer to the following pages for respective adjustments.

✔***Note:***

*The selected item is not in effective until the SELECT button is pressed.*

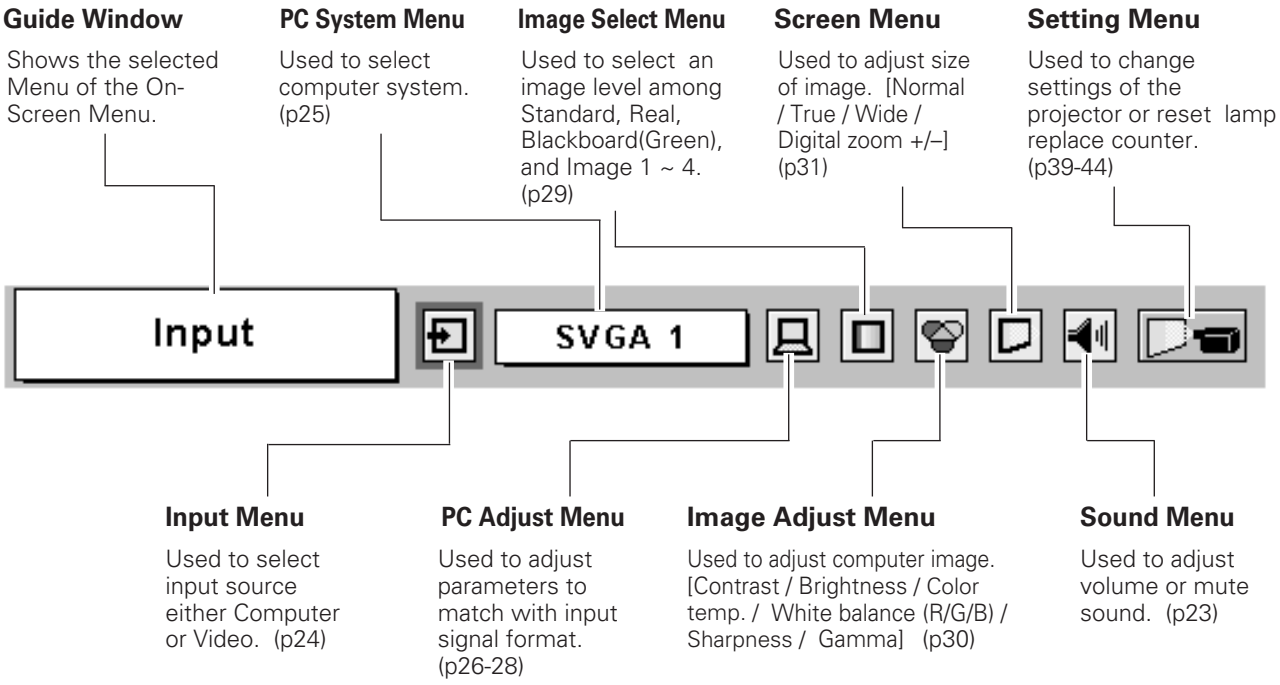


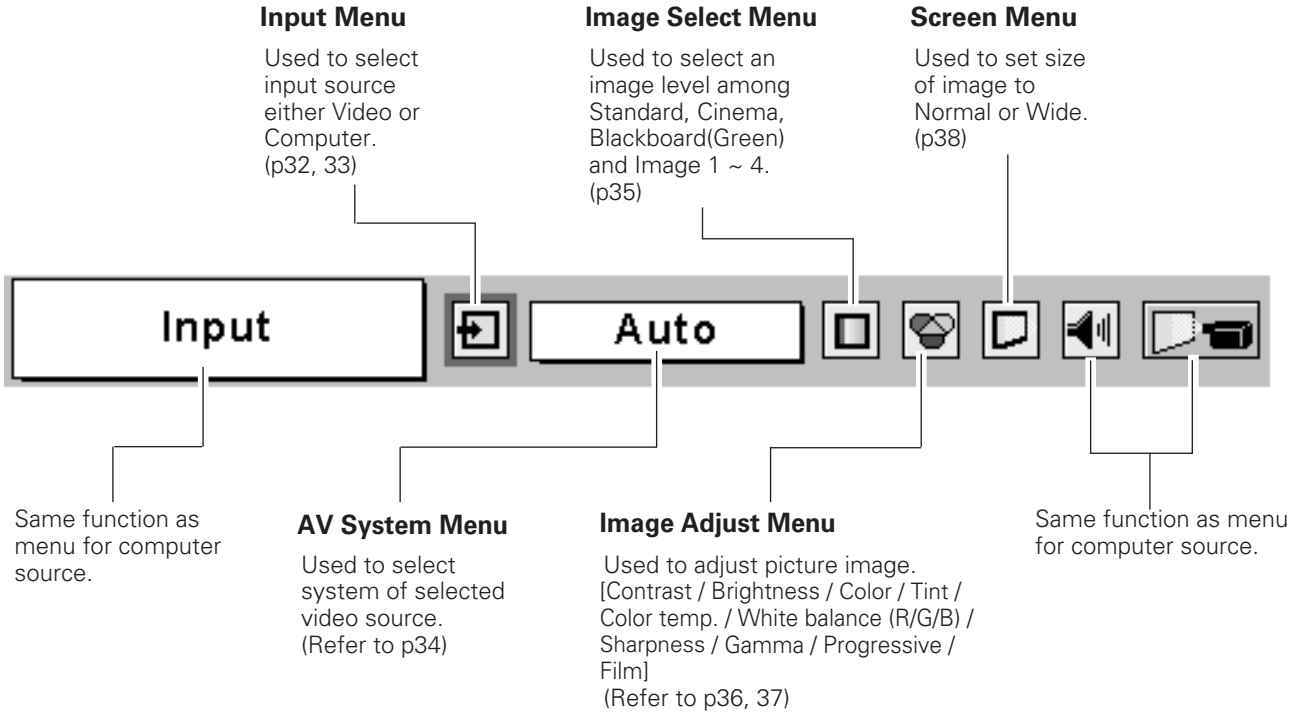



## Menu Bar

**For computer source**

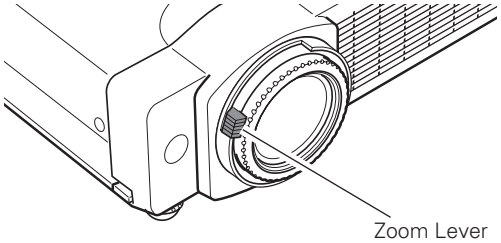


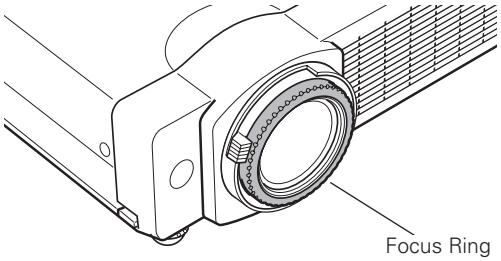

**For video source**



## Zoom and Focus Adjustment

Rotate the Zoom Lever to zoom in and out.
Rotate the Focus Ring to adjust the projected picture focus.




## Keystone Adjustment

If a projected picture has keystone distortion, correct the image with Keystone adjustment.

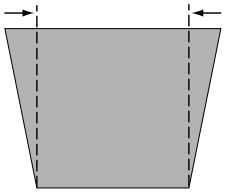
*1* Press the KEYSTONE button on the top control or on the remote control, or select Keystone in the Setting Menu (p41). The keystone dialog box appears.

*2* Correct keystone distortion by pressing the Point ▲▼ buttons. Keystone adjustment can be memorized. (p39)

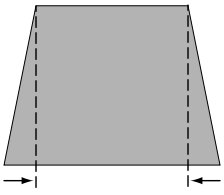



- The arrows are white when there is no correction.
- The arrows disappear at the maximum correction.
- The direction of the arrow being corrected turns red.
- If you press the KEYSTONE button on the top control or on the remote control once more while the keystone dialog box is being displayed, the keystone adjustment will be canceled.

Reduce the upper width with Point ▲ button.



Reduce the lower width with Point ▼ button.



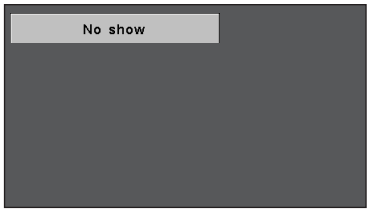
## Picture Freeze Function

Press the FREEZE button on the remote control to freeze the picture on the screen. To cancel the Freeze function, press the FREEZE button again or press any other button. (p11)

## No Show Function

Press the NO SHOW button on the remote control to black out the image. To restore to normal, press the NO SHOW button again or press any other button. When a projected image is captured and set as "User" in the Logo item in the Setting Menu (p40), the screen changes each time you press the NO SHOW button as follows.

black out ➜ the captured image ➜ normal ➜ ·····




The message disappears after 4 seconds.

## P-Timer Function

Press the P-TIMER button on the remote control. The timer display "00 : 00" appears on the screen and the timer starts to count time (00 : 00 ~ 59 : 59).
To stop the P-Timer, press the P-TIMER button. And then, press the P-TIMER button again to cancel the P-Timer function.

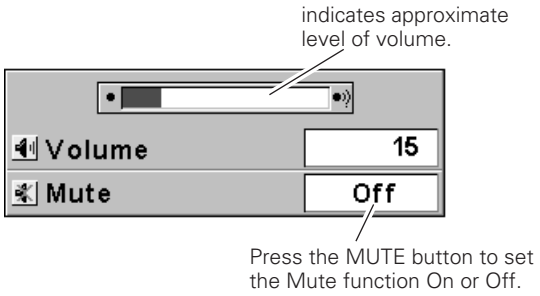



## Sound Adjustment

### Direct Operation

***Volume***
Press the VOLUME +/– button on the top control or on the remote control to adjust volume. The volume dialog box appears on the screen for a few seconds.
+ button to turn up the volume and – button to turn down the volume.

***Mute***
Press the MUTE button on the remote control to cut off sound. To restore sound to its previous level, press the MUTE button again or press the VOLUME +/– button.




The display disappears after 4 seconds.

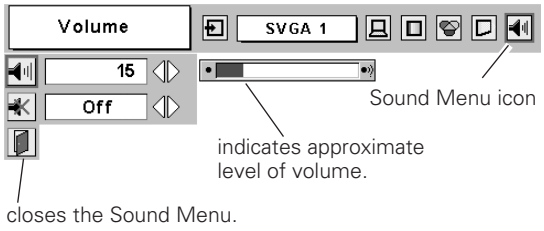
### Menu Operation

1. Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the Sound Menu icon.
2. Press the Point ▼ button to move the red frame pointer to the item that you want to select, and then press the SELECT button.

***Volume***
Press the Point ▶ button to turn up the volume, and press the Point ◀ button to turn down the volume.

***Mute***
Press the Point ◀▶ buttons to cut off sound. Dialog box display is changed to "On" and sound is cut off. To restore sound to its previous level, press the Point ◀▶ buttons again.

**Sound Menu**

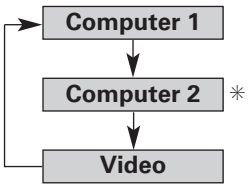


## Input Source Selection

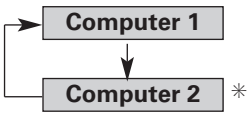
### Direct Operation

Choose either Computer 1 or Computer 2 by pressing the INPUT button on the top control or press the COMPUTER button on the remote control.
Before using these buttons, correct input source should be selected through menu operation as described below.

**INPUT button**




**COMPUTER button**



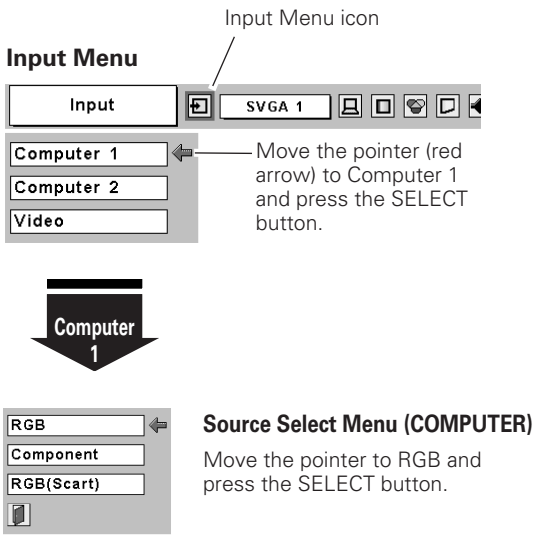

✳ See Note at the bottom of this page.

### Menu Operation

*1* Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the Input Menu icon.

*2* Press the Point ▼ button to move the red arrow pointer to either Computer 1 or Computer 2, and then press the SELECT button.

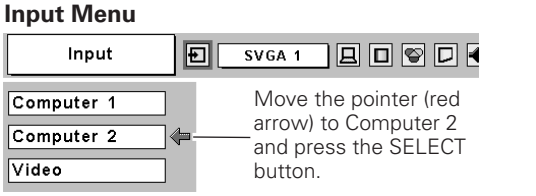
*3* Move the pointer to the correct input source and then press the SELECT button.




**RGB** — When the input source is analog coming from a computer through the COMPUTER IN 1/ COMPONENT IN terminal, select RGB.

**Component** — See "Input Source Selection (Component, RGB-Scart 21-pin )" on p33.

**RGB (Scart)** — See "Input Source Selection (Component, RGB-Scart 21-pin )" on p33.




✔***Note:***

*Computer 2 is not displayed when the COMPUTER IN 2/ MONITOR OUT terminal is used as Monitor out. (p41)*

## Computer System Selection

This projector automatically tunes to various types of computers based on VGA, SVGA, XGA or SXGA with its Multi-scan system and Auto PC Adjustment. If Computer is selected as a signal source, this projector automatically detects the signal format and tunes to project a proper image without any additional setting. (Signal formats provided in this projector is shown on page 55 )

✔***Note:***
*The projector may display one of the following messages.*

**Auto** When the projector cannot recognize connected signal conforming to PC Systems provided in this projector, Auto PC Adjustment function works to display proper images and the message "Auto" is displayed on the PC System Menu icon. When the image is not projected properly, manual adjustment is required. (p27, 28)

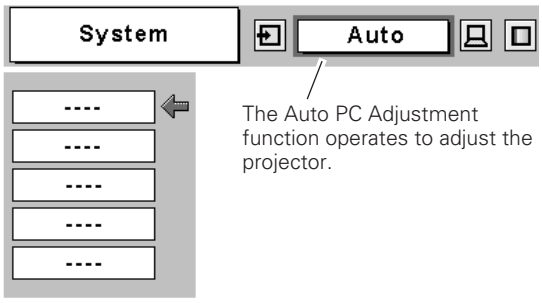
**-----** There is no signal input from computer. Check the connection of your computer and the projector. ( " Troubleshooting" p50 )

**Mode 1** User preset system manually adjusted in PC Adjust menu. Adjustment data can be stored in Mode 1 - 5. (p27, 28)

**SVGA 1** PC Systems provided in the projector. The projector chooses a proper system and displays it.

*Mode 1 and SVGA 1 are examples.

**PC System Menu**



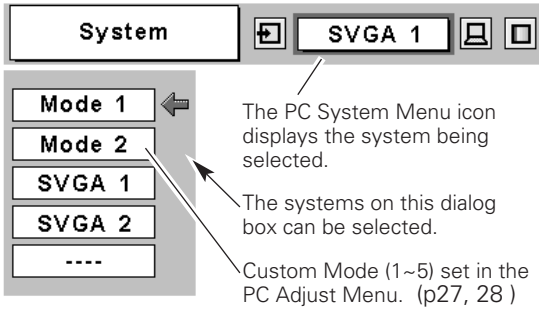

### Selecting Computer System Manually

PC system can also be selected manually.

*1* Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the PC System Menu icon.

*2* Press the Point ▼ button to move the red arrow pointer to the system that you want to set, and then press the SELECT button.

**PC System Menu**



## Auto PC Adjustment

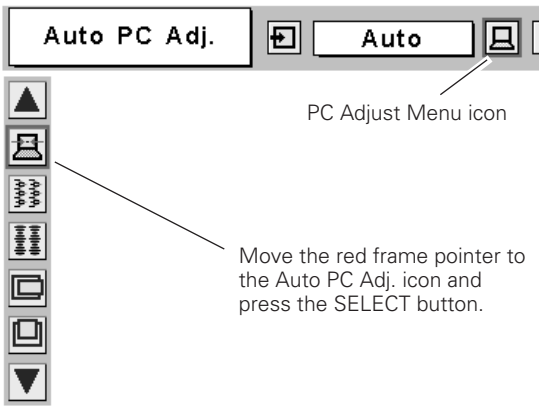
Auto PC Adjustment function is provided to automatically adjust Fine sync, Total dots, Horizontal, and Vertical to conform to your computer. Auto PC Adjustment function can be operated as follows.

***Auto PC Adj.***

*1* Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to PC Adjust Menu icon.

*2* Press the Point ▼ button to move the red frame pointer to Auto PC Adj. icon and then press the SELECT button twice. This Auto PC Adjustment can be also executed by pressing the Auto PC button on the remote control.

**PC Adjust Menu**




**To store adjustment parameters**

Adjustment parameters from Auto PC Adjustment can be memorized in this projector. Once parameters are memorized, the setting can be done just by selecting Mode in the PC System Menu (p25). See "Store" on page 28.

✔***Note:***

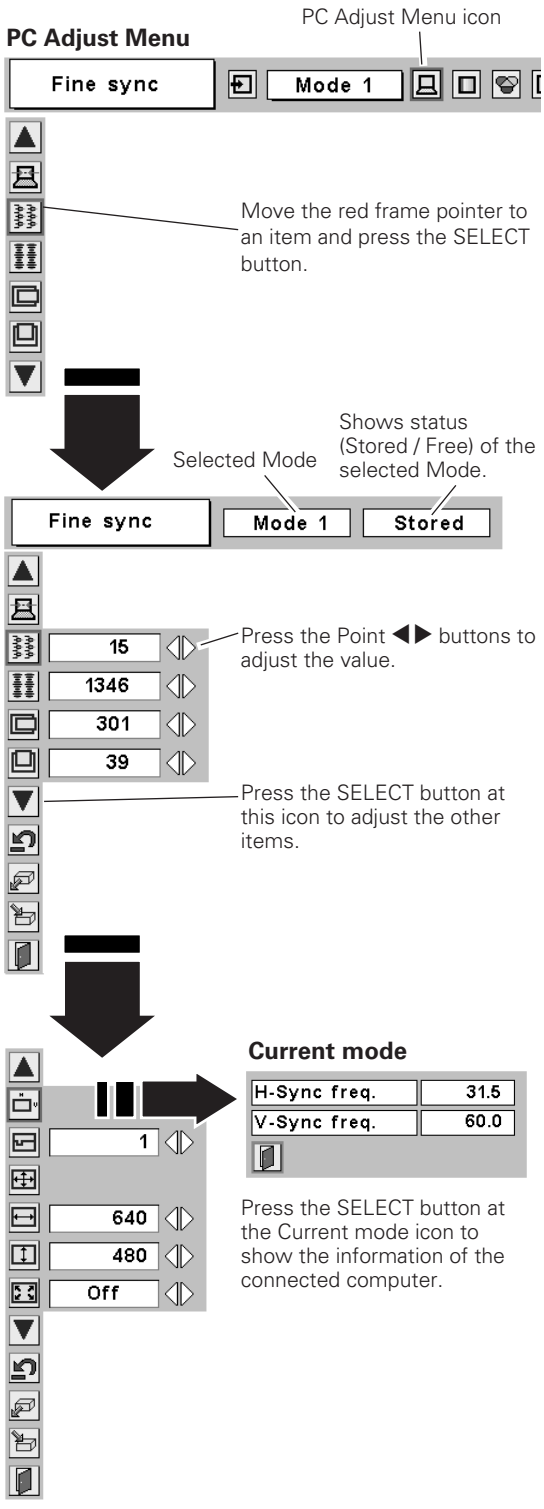
- *Fine sync, Total dots and Picture Position of some computers can not be fully adjusted with this Auto PC Adjustment function. When the image is not provided properly with this operation, manual adjustments are required. (p27, 28)*
- *The Auto PC Adjustment cannot be operated when 480i, 575i, 480p, 575p, 720p,1035i, or 1080i is selected in the PC System Menu. (p25)*

## Manual PC Adjustment

Some computers employ special signal formats which may not be tuned by Multi-scan system of this projector. Manual PC Adjustment enables you to precisely adjust several parameters to match those signal formats. The projector has 5 independent memory areas to memorize those parameters manually adjusted. It allows you to recall the setting for a specific computer.

*1* Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the PC Adjust Menu icon.

*2* Press the Point ▼ button to move the red frame pointer to the item that you want to adjust and then press the SELECT button to display the adjustment dialog box. Press the Point ◀▶ buttons to adjust value.




### *Fine sync*

Eliminate flicker from the image displayed. Press the Point ◀▶ buttons to adjust value. (From 0 to 31)

### *Total dots*

Adjust the number of total dots in one horizontal period. Press the Point ◀▶ buttons and adjust number to match your PC image.

### *Horizontal*

Adjust horizontal picture position. Press the Point ◀▶ buttons to adjust the position.

### *Vertical*

Adjust vertical picture position. Press the Point ◀▶ buttons to adjust the position.

### *Current mode*

Press the SELECT button to show H-Sync freq. and V-Sync freq. of the connected computer.

### *Clamp*

Adjust clamp level. When the image has dark bars, try this adjustment.

### *Display area*

Select the resolution at the Display area dialog box.

### *Display area H*

Adjust the horizontal area displayed by this projector. Press the Point ◀▶ buttons to decrease/increase value and then press the SELECT button.

### *Display area V*

Adjust the vertical area displayed by this projector. Press the Point ◀▶ buttons to decrease/increase value and then press the SELECT button.

### *Full screen*

With this function on, SXGA image is fully displayed at 4 : 3 aspect ratio. It is displayed at 5 : 4 aspect ratio with this function off.

### *Reset*

Reset all adjustments to their previous levels.

### *Mode free*

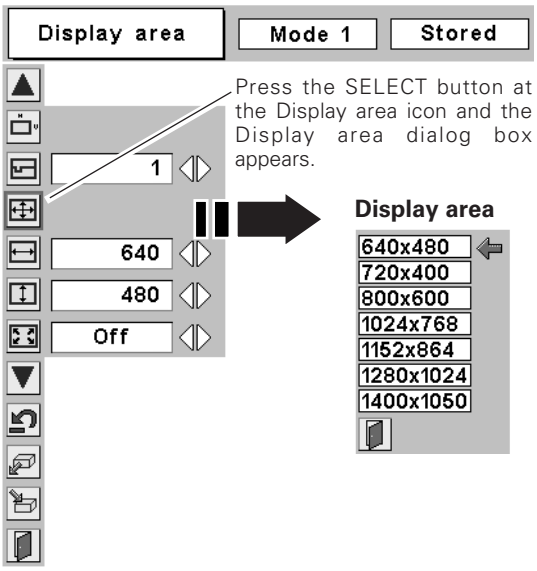
To clear adjustment data previously set, move the red frame pointer to the Mode free icon and then press the SELECT button. Move the red arrow pointer to the Mode that you want to clear and then press the SELECT button.

### *Store*

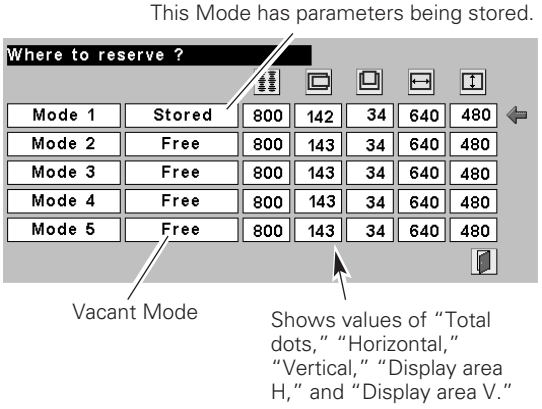
To store adjustment data, move the red frame pointer to the Store icon and then press the SELECT button. Move the red arrow pointer to any of Mode 1 to 5 in which you want to store and then press the SELECT button.

### *Quit*

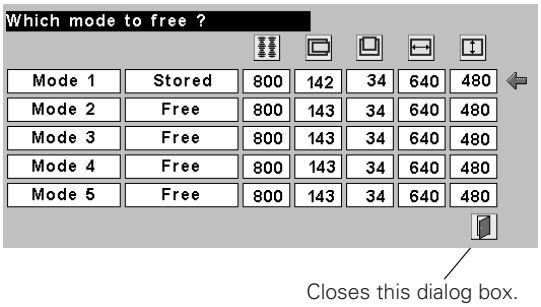
Exit the PC Adjust Menu.




**To store adjustment data**




**To clear adjustment data**



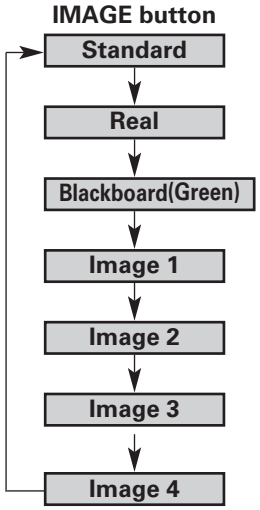

✔***Note:***

*Auto PC Adjustment, Display area, Display area (H/V), and Full screen cannot be selected when 480i, 575i, 480p, 575p, 720p, 1035i, or 1080i is selected in the PC System Menu (p25).*

# Image Level Selection

## Direct Operation

Select an image level among Standard, Real, Blackboard(Green), Image 1, Image 2, Image 3, and Image 4 by pressing the IMAGE button on the remote control.




***Standard***
Normal picture level preset on this projector.

***Real***
Picture level with improved halftone for graphics.

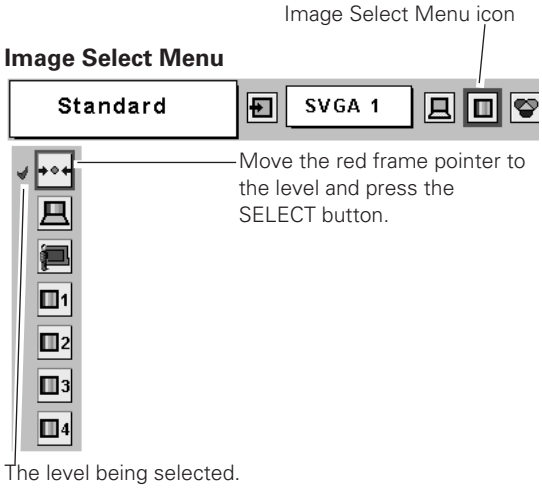
***Blackboard(Green)***
Picture level suitable for the image projected on a blackboard.
This mode assists to enhance the image projected on a blackboard. This is mainly effective on a green colored board, not truly effective on a black colored board.

***Image 1~4***
User preset image in the Image Adjust Menu (p30).

## Menu Operation

*1* Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the Image Select Menu icon.

*2* Press the Point ▼ button to move the red frame pointer to the level that you want to set and then press the SELECT button.




***Standard***
Normal picture level preset on this projector.

***Real***
Picture level with improved halftone for graphics.

***Blackboard(Green)***
Picture level suitable for the image projected on a blackboard. See above for further description.

***Image 1~4***
User preset image in the Image Adjust Menu (p30).

## Image Level Adjustment

*1* Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the Image Adjust Menu icon.

*2* Press the Point ▼ button to move the red frame pointer to the item that you want to adjust, and then press the SELECT button. The level of each item is displayed. Adjust each level by pressing the Point ◀▶ buttons.

***Contrast***

Press the Point ◀ button to decrease contrast and the Point ▶ button to increase contrast. (From 0 to 63.)

***Brightness***

Press the Point ◀ button to adjust image darker and the Point ▶ button to adjust image brighter. (From 0 to 63.)

***Color temp.***

Press the Point ◀ button or the Point ▶ button for Color temp. level that you want to select. (XLow, Low, Mid, or High)

***White balance (Red)***

Press the Point ◀ button to lighten red tone and the Point ▶ button to deepen red tone. (From 0 to 63.)

***White balance (Green)***

Press the Point ◀ button to lighten green tone and the Point ▶ button to deepen green tone. (From 0 to 63.)

***White balance (Blue)***

Press the Point ◀ button to lighten blue tone and the Point ▶ button to deepen blue tone. (From 0 to 63.)

***Sharpness***

Press the Point ◀ button to soften the image and the Point ▶ button to sharpen the image. (From 0 to 15.)

***Gamma***

Press the Point ◀▶ buttons to obtain better balance of contrast. (From 0 to 15.)

***Reset***

Reset all adjustments to their previous levels.

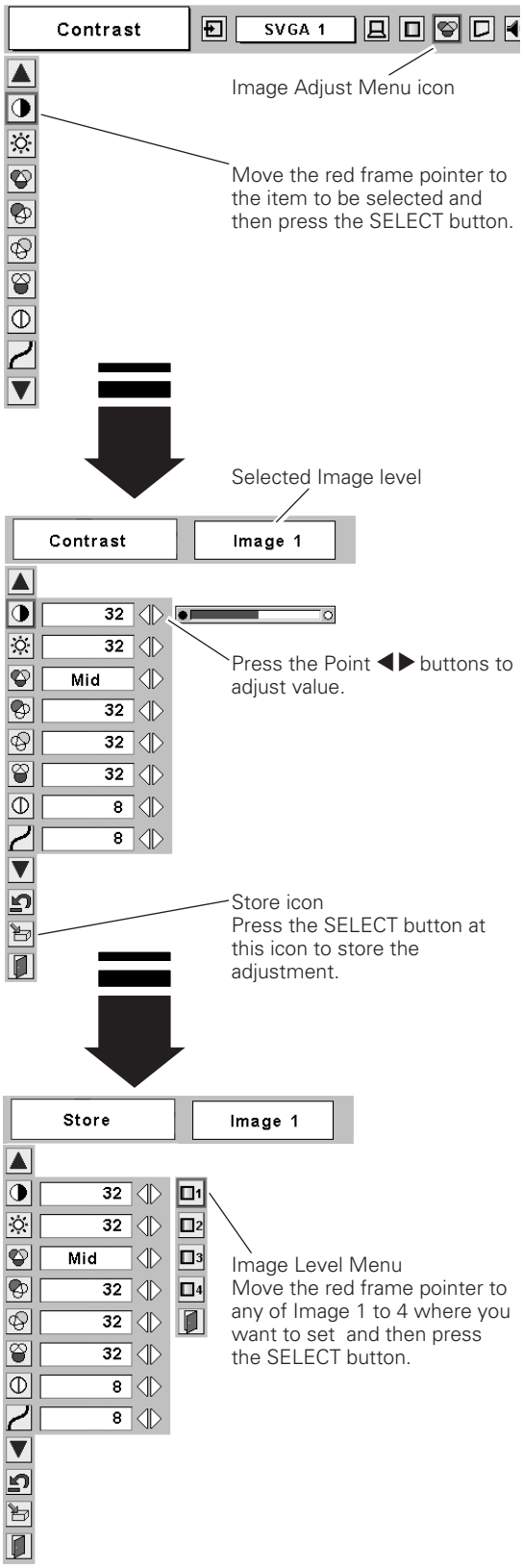
***Store***

To store the image data adjusted manually, move the red frame pointer to the Store icon and press the SELECT button to display the Image Level Menu. Move the red frame pointer to the Image 1 to 4 where you want to set and then press the SELECT button.

***Quit***

Close the Image Adjust Menu.

**Image Adjust Menu**



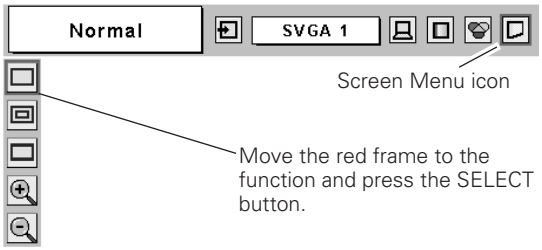
## Screen Size Adjustment

This projector has the picture screen resize function, which enables you to customize the image size.

1 Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the Screen Menu icon.

2 Press the Point ▼ button and move the red frame pointer to the function that you want to select and then press the SELECT button.

**Screen Menu**




***Normal***

Provide image to fit the screen size.

***True***

Provide image in its original size. When the original image size is larger than the screen size (1024 x 768), this projector enters "Digital zoom +" mode automatically.

***Wide***

Provide image to fit wide video aspect ratio (16 : 9) by expanding image width uniformly. This function can be used for providing a squeezed video signal at 16 : 9.

***Digital zoom +***

When the Digital zoom + is selected, the On-Screen Menu disappears and the message "D. Zoom +" is displayed. Press the SELECT button to expand the image size. And press the Point ▲▼◀▶ buttons to pan the image. The Panning function can work only when the image is larger than the screen size.
A projected image can be also expanded by pressing the D.ZOOM ▲ button on the remote control.

***Digital zoom –***

When the Digital zoom – is selected, the On-Screen Menu disappears and the message "D. Zoom –" is displayed. Press the SELECT button to compress the image size.
A projected image can be also compressed by pressing the D.ZOOM ▼ button on the remote control.

To exit the Digital zoom +/– mode, press any button except the D.ZOOM ▲ ▼ buttons, SELECT and Point button.

To return to the normal screen, press the KEYSTONE button or the D.ZOOM ▲▼ buttons, or select Normal from the Screen menu.

✔***Note:***

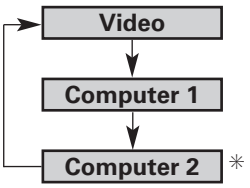
- *This Screen Menu cannot be operated when 720p(HDTV), 1035i (HDTV), or 1080i (HDTV) is selected in the PC System Menu (p25).*
- *The True and Digital zoom +/– cannot be selected when 480i, 575i, 480p, or 575p is selected in the PC System Menu (p25).*
- *This projector cannot display any resolution higher than 1280 X 1024. If your computer's screen resolution is higher than 1280 X 1024, reset the resolution to the lower before connecting to the projector.*
- *The image data in other than XGA (1024 x 768) is modified to fit the screen size in initial mode.*
- *The panning function may not operate properly if the computer system prepared in the PC Adjust Menu is used.*

## Input Source Selection (Video, S-Video)

### Direct Operation

Choose Video by pressing the INPUT button on the top control or the VIDEO button on the remote control.
Before using these buttons, correct input source should be selected through menu operation as described below.

**INPUT button**




**VIDEO button**



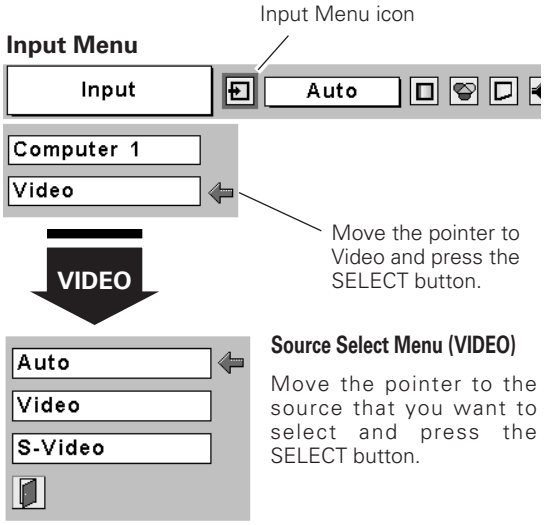

✳ See Note at the bottom of this page.

### Menu Operation

*1* Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the Input Menu icon.

*2* Press the Point ▼ button to move the red arrow pointer to Video. Then press the SELECT button to display the Source Select Menu.

*3* Move the pointer to the source that you want to select and then press the SELECT button.




**Auto** When selecting Auto, the projector automatically detects incoming video signal, and adjusts itself to optimize its performance. The projector selects connection in the following order:
1st S-Video
2nd Video
If both the S-VIDEO jack and the VIDEO jack are connected at the same time when AUTO is selected in the Input Menu, the S-VIDEO jack will override the signal from the VIDEO jack.

**Video** When video input signal is connected to the VIDEO jack, select Video.

**S-Video** When video input signal is connected to the S-VIDEO jack, select S-Video.

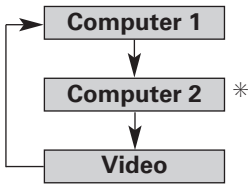
✔***Note:***
*When Monitor out is selected at the Terminal item in the Setting Menu, Computer 2 is not displayed. (p41)*

# Input Source Selection (Component, RGB Scart 21-Pin)

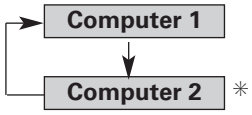
### Direct Operation

Choose Computer 1 by pressing the INPUT button on the top control or press the COMPUTER button on the remote control. Before using these buttons, correct input source should be selected through menu operation as described below.

**INPUT button**




**COMPUTER button**



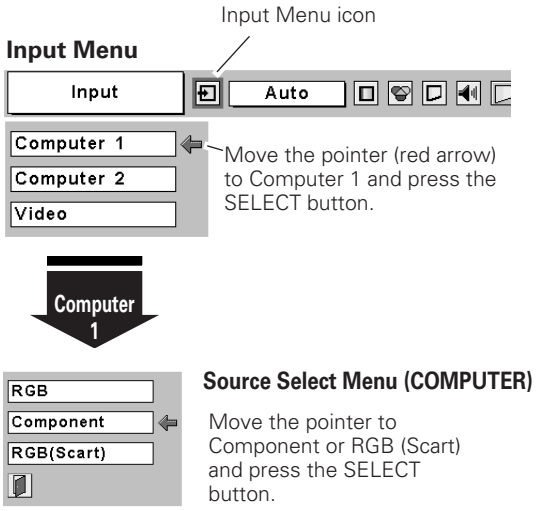

✳ See Note at the bottom of this page.

### Menu Operation

*1* Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the Input Menu icon.

*2* Press the Point ▼ button to move the red arrow pointer to Computer 1, and then press the SELECT button to display the Source Select Menu.

*3* Move the pointer to the correct input source and then press the SELECT button.




**Component** — When the input source is coming from video equipment connected to the COMPUTER IN 1/ COMPONENT IN terminal with a Component-VGA Cable, select Component.

**RGB (Scart)** — When the input source is coming from video equipment connected to the COMPUTER IN 1/ COMPONENT IN terminal with a Scart-VGA Cable, select RGB (Scart).

✔***Note:***

- *Component-VGA Cable and Scart-VGA Cable are optionally supplied. See page 58 for order.*
- *Computer 2 is not displayed when the COMPUTER IN 2/ MONITOR OUT terminal is used as Monitor out. (p41)*

## *Video System Selection*

*1* Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the AV System Menu icon.

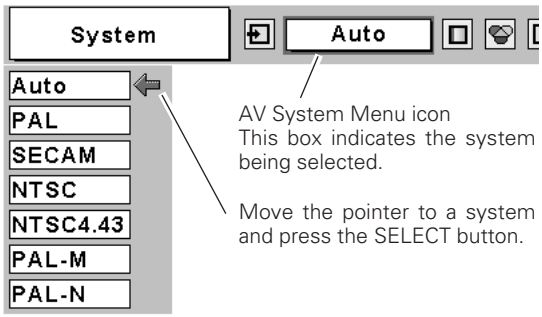
*2* Press the Point ▼ button to move the red arrow pointer to the system that you want to select and then press the SELECT button.

### Video or S-Video

***Auto***
The projector automatically detects incoming video system, and adjusts itself to optimize its performance.
When Video System is PAL-M or PAL-N, select system manually.

***PAL / SECAM / NTSC / NTSC4.43 / PAL-M / PAL-N***
If the projector cannot reproduce proper video image, it is necessary to select a specific broadcast signal format among PAL, SECAM, NTSC, NTSC4.43, PAL-M, and PAL-N.

**AV System Menu (Video or S-Video)**

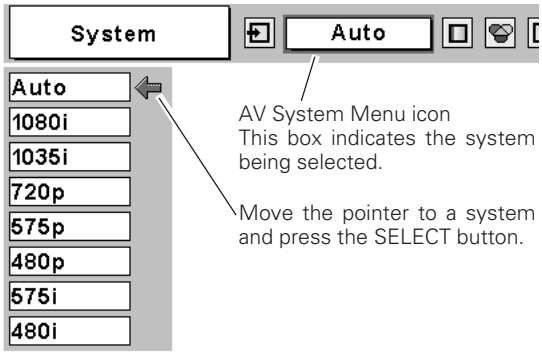



### Component

***Auto***
The projector automatically detects incoming video signal, and adjusts itself to optimize its performance.

***COMPONENT VIDEO SIGNAL FORMAT***
If the projector cannot reproduce proper video image, it is necessary to select a specific component video signal format among 480i, 575i, 480p, 575p, 720p, 1035i, and 1080i.

**AV System Menu (Component)**

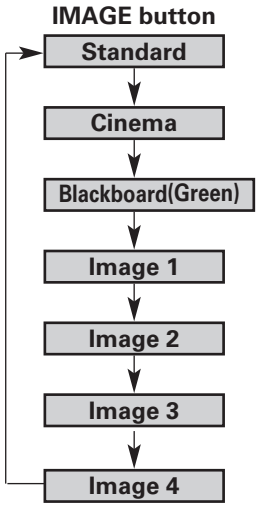



✔***Note:***
*The AV System Menu cannot be selected when selecting RGB(Scart).*

# Image Level Selection

## Direct Operation

Select a desired image level among Standard, Cinema, Blackboard (Green), Image 1, Image 2, Image 3, and Image 4 by pressing the IMAGE button on the remote control.




***Standard***
Normal picture level preset on this projector.

***Cinema***
Picture level adjusted for the picture with fine tone.

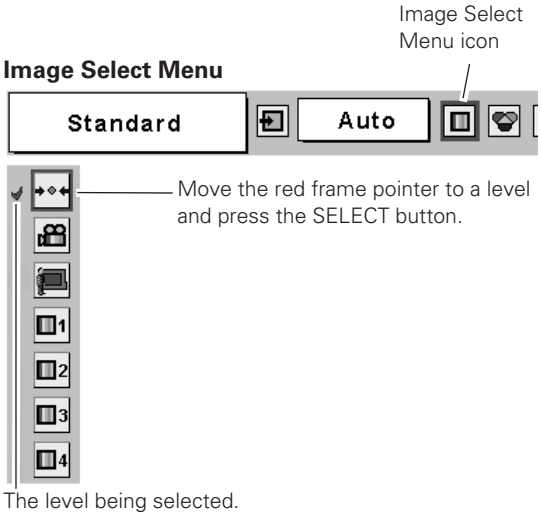
***Blackboard(Green)***
Picture level suitable for the image projected on a blackboard. This mode assists to enhance the image projected on a blackboard. This is mainly effective on a green colored board, not truly effective on a black colored board.

***Image 1~4***
User preset image in the Image Adjust Menu (p36, 37).

## Menu Operation

*1* Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the Image Select Menu icon.

*2* Press the Point ▼ button to move the red frame pointer to the level that you want to set and then press the SELECT button.




***Standard***
Normal picture level preset on this projector.

***Cinema***
Picture level adjusted for the picture with fine tone.

***Blackboard(Green)***
Picture level suitable for the image projected on a Blackboard. See above for further description.

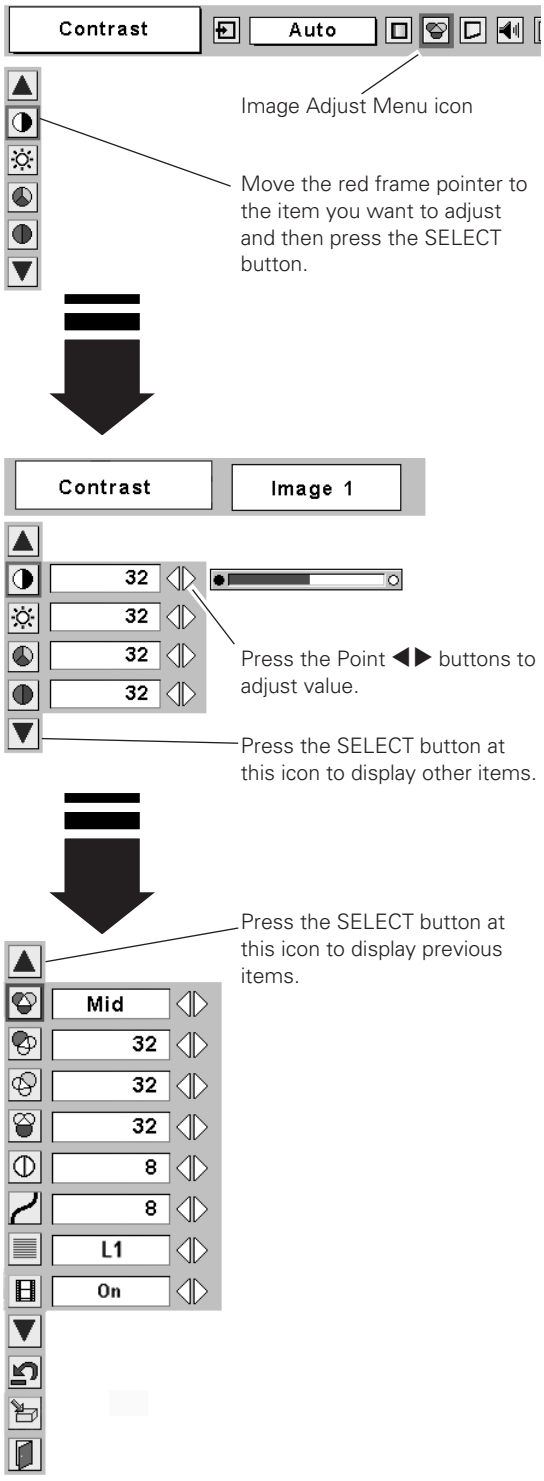
***Image1~4***
User preset image in the Image Adjust Menu (p36, 37).

## Image Level Adjustment

*1* Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the Image Adjust Menu icon.

*2* Press the Point ▼ button to move the red frame pointer to the item that you want to adjust and then press the SELECT button. The level of each item is displayed. Adjust each level by pressing the Point ◀▶ buttons.

**Image Adjust Menu**




***Contrast***

Press the Point ◀ button to decrease contrast and the Point ▶ button to increase contrast. (From 0 to 63.)

***Brightness***

Press the Point ◀ button to adjust image darker and the Point ▶ button to adjust image brighter. (From 0 to 63.)

***Color***

Press the Point ◀ button to lighten color and the Point ▶ button to deepen color. (From 0 to 63.)

***Tint***

Press the Point ◀▶ buttons to obtain proper color. (From 0 to 63.)

***Color temp.***

Press the Point ◀▶ buttons for Color temp. level that you want to select. (XLow, Low, Mid, or High)

***White balance (Red)***

Press the Point ◀ button to lighten red tone and the Point ▶ button to deepen red tone. (From 0 to 63.)

***White balance (Green)***

Press the Point ◀ button to lighten green tone and the Point ▶ button to deepen green tone. (From 0 to 63.)

***White balance (Blue)***

Press the Point ◀ button to lighten blue tone and the Point ▶ button to deepen blue tone. (From 0 to 63.)

***Sharpness***

Press the Point ◀ button to soften the image and the Point ▶ button to sharpen the image. (From 0 to 15.)

***Gamma***

Press the Point ◀▶ buttons to obtain better balance of contrast. (From 0 to 15.)

✔***Note:***

*The Tint cannot be selected when the video system is PAL, SECAM, PAL-M, or PAL-N.*

### *Progressive*

Interlaced video signal can be displayed in a progressive picture.

Off . . . .Not activated.

L1 . . . . .Select "L1" for an active picture.

L2 . . . . .Select "L2" for a still picture.

### *Film*

This function is effective on 3-2 pulldown video source. With this function on, the projector reproduces pictures faithful to the original film quality.

### *Reset*

Reset all adjustments to their previous figure.

### *Store*

To store the adjustment data, move the red frame pointer to the Store icon and press the SELECT button to display the Image Level Menu. Move the red frame pointer to the Image Level 1 to 4 and then press the SELECT button.

### *Quit*

Close the Image Adjust Menu.

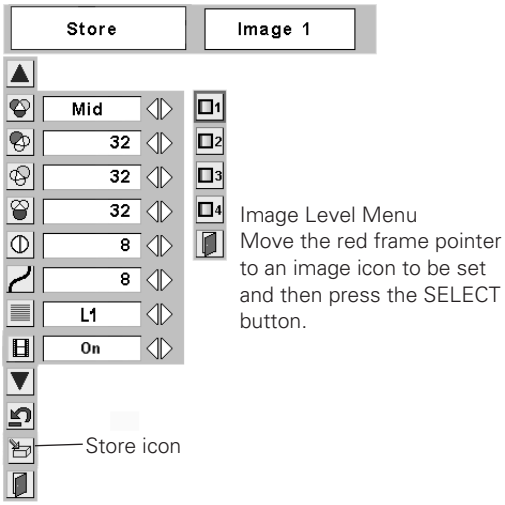



Image Level Menu
Move the red frame pointer to an image icon to be set and then press the SELECT button.

✔***Note:***

- *Progressive cannot be selected when 480p, 575p, 720p, 1035i, or 1080i is selected.*
- *Film can only be activated when selecting NTSC for Video System and L1/ L2 for Progressive.*
- *3-2 Pulldown or Telecine transfer is the process of changing images from film mode to video mode. While film runs at 24 frames per second (fps), NTSC television signals (or video) have a run rate of 30fps so the 24 fps film needs to be speeded up to 30fps and transferred using a proper field pattern to get the best film-like images.*

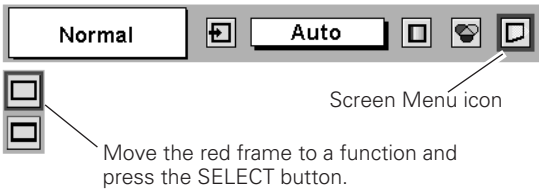
## *Screen Size Adjustment*

This projector has the picture screen resize function, which enables you to customize the image size.

*1* Press the MENU button to display the On-Screen Menu. Press the Point ◀ ▶ buttons to move the red frame pointer to the Screen Menu icon.

*2* Press the Point ▼ button and move the red frame pointer to the function that you want to select and then press the SELECT button.

**Screen Menu**




***Normal***

Provide image at a normal video aspect ratio of 4 : 3.

***Wide***

Provide image at a wide screen ratio of 16 : 9.

✔***Note:***

*Screen Menu cannot be operated when 720p, 1035i, or 1080i is selected in the AV System Menu (p34).*

## Setting

This projector has Setting menu that allows you to set up the other various functions described as follows;

*1* Press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the Setting Menu icon.

*2* Press the Point ▼ button to move the red frame pointer to the item that you want to set and then press the SELECT button. The Setting dialog box appears.

### *Language*

The language used in the On-Screen Menu is available in English, German, French, Italian, Spanish, Portuguese, Dutch, Swedish, Russian, Chinese, Korean, or Japanese.

### *Keystone*

This function corrects distortion of a projected image. Select either Store or Reset with the Point ◀▶ button, and then press the Select button. The keystone dialog box appears. Adjust keystone with the Point ▲▼◀▶ button.

Store . . . . stores the keystone adjustment even if the AC power cord is disconnected.

Reset . . . . .resets the keystone adjustment when the AC power cord is disconnected.

### *Blue back*

When this function is "On," the projector produces a blue image while input signal is not detected.

### *Display*

This function decides whether to display On-Screen Displays.

On . . . . . shows all the On-Screen Displays.

Off . . . . . does not show On-Screen Displays except;

- On-Screen Menu
- "Power off?" message
- P-Timer
- "No signal" message
- "Wait a moment!" message

### *Logo PIN code lock*

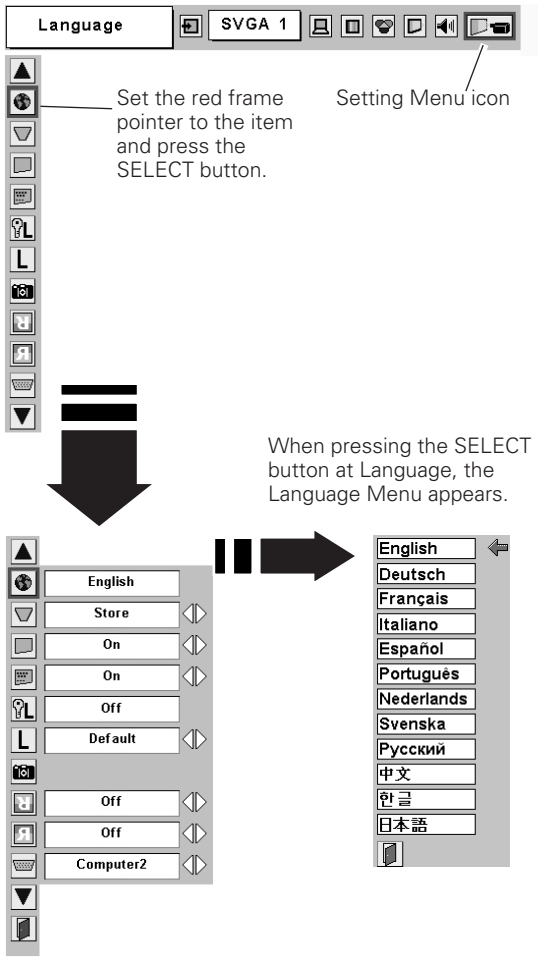
This function prevents others except specific users from changing the Logo setting.

Off . . . . .the Logo setting can be changed freely from the Logo menu. (p40)

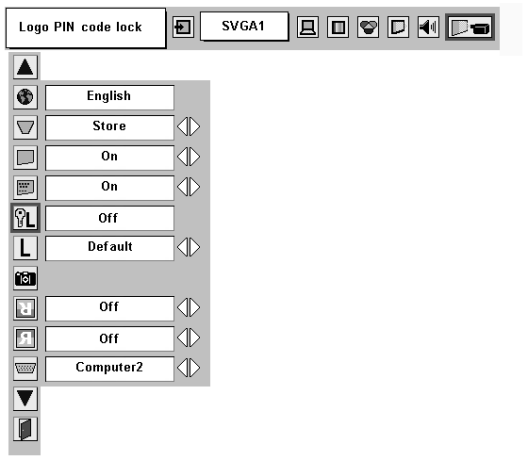
On . . . . . .the Logo setting cannot be changed without the Logo PIN code.

If you want to change the Logo PIN code lock setting, enter a Logo PIN code along the following steps. The initial Logo PIN code is set "4321" at the factory.

**Setting Menu (Language)**




**Logo PIN code lock**



***Enter a Logo PIN code***

Select a number by pressing the Point ◀ ▶ buttons and fix the number with the SELECT button. The number will change to "✳". If you fixed a wrong number, move the pointer to "Set" or "Clear" once by pressing the Point ▼ button, then return to "Logo PIN code". Enter the correct number again.

Repeat this step to complete entering a four-digit number.

When the four-digit number is fixed, the pointer will automatically move to "Set". Press the SELECT button so that you can change the Logo PIN code lock setting.

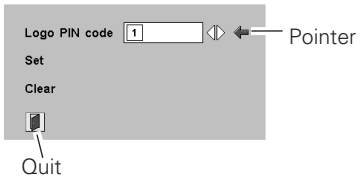
If you entered a wrong Logo PIN code, "Logo PIN code" and the number (✳✳✳✳) will turn red and disappear. Enter a correct Logo PIN code all over again.

***Change the Logo PIN code***

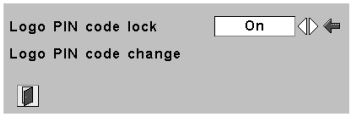
The Logo PIN code can be changed to your desired four-digit number. Select "Logo PIN code change" with the Point ▼ button and press the SELECT button. Set a new Logo PIN code.

Be sure to note the new Logo PIN code and keep it at hand. If you lost the number, you could no longer change the Logo PIN code setting. For details on PIN code setting, refer to relevant instructions of the PIN code lock function on page 43.

**Logo PIN code lock Dialog Box**




After a correct Logo PIN code is entered, the following dialog box will appear.




Select On/Off by pressing the Point ◀ ▶ buttons or change the Logo PIN code.

***Logo***

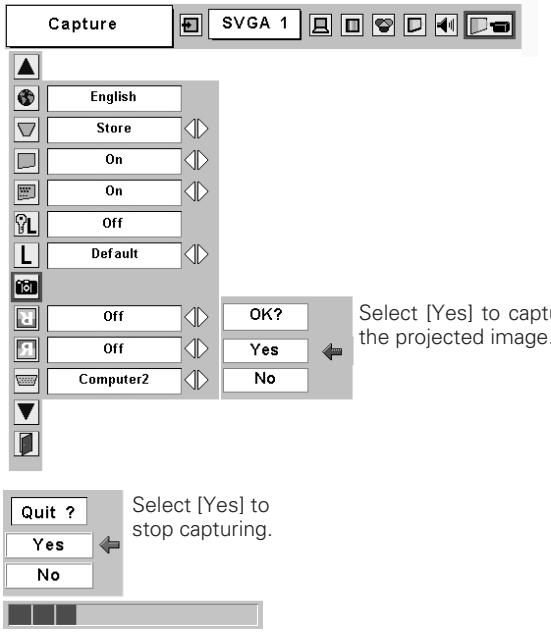
This function decides what to be displayed on the start-up display as follows:

User . . . . . .the image you captured
Default . . . .the factory-set logo
Off . . . . . .count-down only

***Capture***

This function enables you to capture the image being projected and use it for a start-up display or interval of presentations.
After capturing the projected image, go to the Logo function and set it to "User". Then the captured image can be displayed when turning on the projector next time or pressing the NO SHOW button. (p23)
To capture the image, select [Yes]. To cancel the Capture function, select [No].

**Capture**




✔***Note:***

- *Before capturing an image, select Standard in the Image Select Menu to capture a proper image. (See page 29, 35.)*
- *A signal from a computer can be captured up to XGA(1024 x 768). A signal from video equipment can be captured except for 720p, 1035i, and 1080i.*
- *When capturing the image that was adjusted by the Keystone function, the adjustment data is automatically reset and the projector captures an image without keystone adjustment.*
- *When the Logo PIN code lock function is "On", the Logo and Capture menu cannot be selected.*

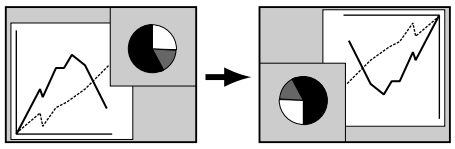
### *Ceiling*

When this function is "On," the picture is top/bottom and left/right reversed. This function is used to project the image from a ceiling mounting the projector.

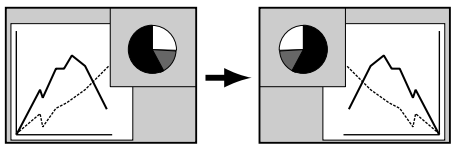
### *Rear*

When this function is "On," the picture is left/right reversed. This function is used to project the image to a rear projection screen.

**Ceiling**



**Rear**



### *Terminal*

The COMPUTER IN 2/MONITOR OUT terminal on the back of the projector is switchable for computer input or monitor output. (See page 9) Select Computer2 or Monitor out with the Point ◀▶ buttons.

Computer2 . . . . . .computer input
Monitor out . . . . .monitor out

Terminal item is not available when selecting Computer 2 to the input source. Change the input source to the others (Computer1 or Video) so that the Terminal item will be available. (p24, 32, 33)

### *Power management*

For reducing power consumption as well as maintaining the lamp life, the Power management function turns off the projection lamp when the input signal is interrupted and no button is pressed for 30 seconds or more.

If the input signal is interrupted and no button is pressed for 30 seconds or more, the timer display with the message "No signal" appears on the screen. The count-down of the set time will get started. The count-down time can be set between 1 and 30 minutes.

When the count-down time has been elapsed, the lamp will be turned off to cool itself down. The POWER indicator is blinking red during this cooling-off period. The next operation depends on the setting as follows :

Ready . . . . . .When the lamp has been fully cooled down, the POWER indicator changes to green blinking. In this condition, the projection lamp will be turned on if the input signal is reconnected or any button on the top control or the remote control is pressed.

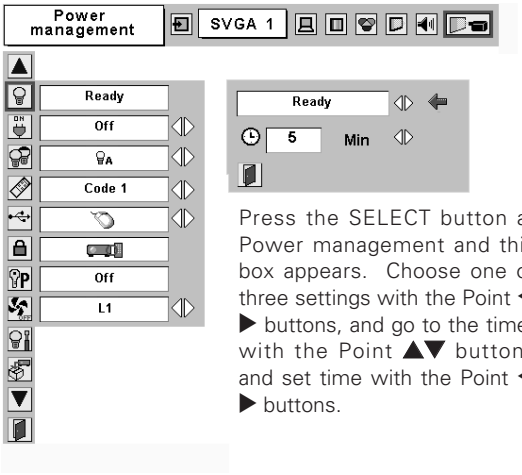
Shutdown . . .When the lamp has been fully cooled down, the power is turned off.

Off . . . . . .The Power management function is canceled.

**Power management**




Time left until Lamp off




Press the SELECT button at Power management and this box appears. Choose one of three settings with the Point ◀ ▶ buttons, and go to the timer with the Point ▲▼ buttons and set time with the Point ◀ ▶ buttons.

### *On start*

When this function is "On," the projector is automatically turned on just by connecting the AC power cord to a wall outlet.

✔***Note:***

*Be sure to turn the projector off properly (see "Turning Off the Projector" on page 19). If the projector is turned off in the incorect sequence, such as disconnecting the AC power cord before completing the cool down etc., the On start function does not operate properly.*

### *Lamp mode*

This function allows you to change the brightness of the screen.

- Normal mode.....normal brightness
- Auto mode.....the controlled brightness according to the input signal
- Eco mode.....lower brightness reduces the lamp power consumption and extends the lamp life

✔***Note:***

*Lamp mode is not switched into Eco mode ( ) within 2 minutes after the projector is turned on.*

### *Remote control*

This projector provides two different remote control codes; the factory-set, initial code (Code 1) and the secondary code (Code 2). This switching function prevents remote control interference when operating several projectors or video equipment at the same time.
When operating the projector in "Code 2", both the projector and the remote control must be switched to "Code 2".

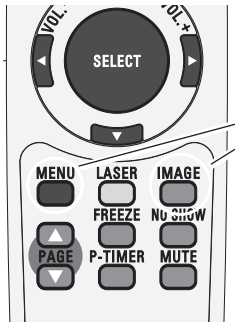
**To change the code for the projector;**
Select either "Code 1" or "Code 2" in this Setting Menu.

**To change the code for the remote control;**
Press and hold both the MENU and IMAGE buttons together for 10 seconds or more. After changing the code, make sure the remote control operates properly.

✔***Note:***

*When the batteries of the remote control are replaced, the remote control code automatically returns to the initial code (Code 1).*

**Remote control**




Press and hold MENU and IMAGE buttons for 10 seconds or more.

### *USB*

This projector is equipped with the USB port for interactive operation between the projector and computer. Selects either of the followings as needed.

- ···· When using the PAGE ▲▼ buttons on the remote control. (p11)
- ···· When controlling the projector with a computer.
  This item is provided for future use. Not available now.

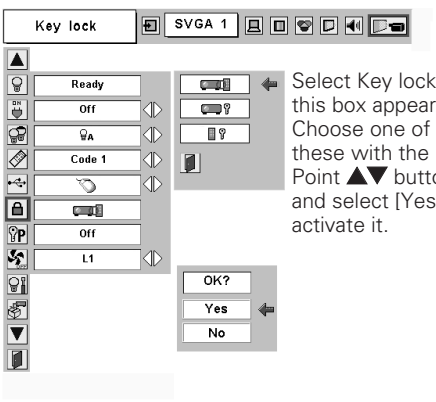
### *Key lock*

This function locks operation of the top control and the remote control. It is useful to prevent operation by an unauthorized person.

- ···· not locked.
- ···· lock operation of the top control. To unlock, use the remote control.
- ···· lock operation of the remote control. To unlock, use the top control.

If the top control accidentally becomes locked and you do not have the remote control nearby, disconnect the AC power cord from the AC outlet, and then while pressing the SELECT button, reinsert the AC power cord. This will release the top control lock.

**Key lock**




Select Key lock and this box appears. Choose one of these with the Point ▲▼ buttons and select [Yes] to activate it.

### *PIN code lock*

This function prevents the projector from being operated by an unauthorized person and provides the following settings for security options.

Off.....the projector is unlocked with the PIN code.
On 1 .....require to enter the PIN code every time turning on the projector.
On 2 .....require to enter the PIN code to operate the projector once the power cord is disconnected; as long as the AC power cord is connected, the projector can be operated without the PIN code.

To change the PIN code lock setting or the PIN code (the four-digit number), you are required to enter the PIN code. "1234" is set as the initial PIN code at the factory.

#### *Enter a PIN code*

Select a number by pressing the Point ◀▶ buttons and fix the number with the SELECT button. The number will change to "✳". If you fixed a wrong number, move the pointer to "Set" or "Clear" once by pressing the Point ▼ button, then return to "PIN code". Enter the correct number again.
Repeat this step to complete entering a four-digit number.

When the four-digit number is fixed, the pointer will automatically move to "Set". Press the SELECT button so that you can change the following PIN code lock settings.

If you entered a wrong PIN code, "PIN code" and the number (✳✳✳✳) will turn red and disappear. Enter a correct PIN code all over again.

#### *To Change the PIN code lock setting*

Select "Off", "On 1", or "On 2" with the Point ◀▶ buttons and then "Quit" with the Point ▼ button and press the SELECT button to close the dialog box.

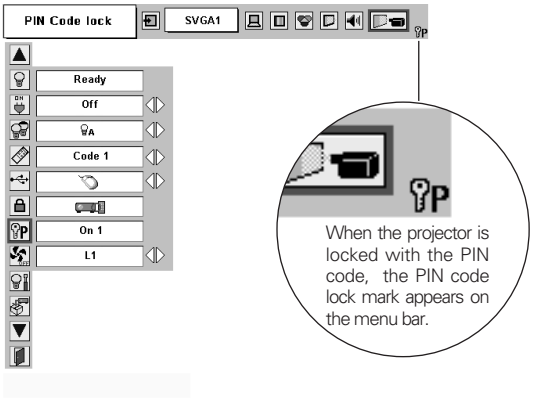
#### *To Change the PIN code*

The PIN code can be changed to your desired four-digit number.
Select "PIN code change" with the Point ▼ button, and press the SELECT button. The New PIN code input dialog box will appear.

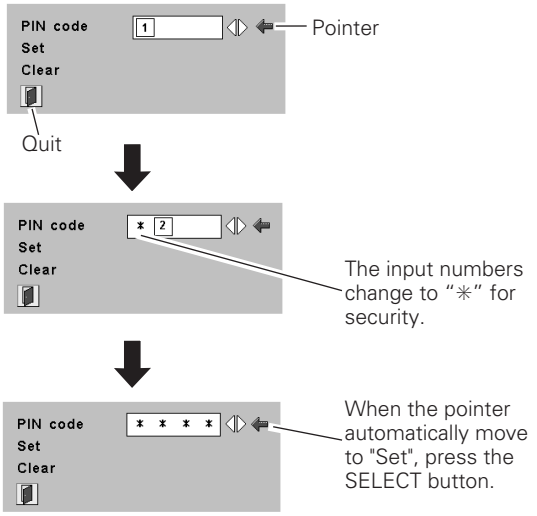
Select a number with the Point ◀▶ buttons and fix the number with the SELECT button. Repeat it to complete entering a four-digit number. When the four-digit number is fixed, the pointer will automatically move to "Set". Then press the SELECT button.

**CAUTION:**
**WHEN YOU HAVE CHANGED THE PIN CODE, WRITE DOWN THE NEW PIN CODE IN COLUMN OF THE PIN CODE NUMBER MEMO ON PAGE 59, AND KEEP IT SECURELY. SHOULD THE PIN CODE BE LOST OR FORGOTTEN, THE PROJECTOR CAN NO LONGER BE OPERATED.**

**PIN code lock**




**Enter a PIN code**

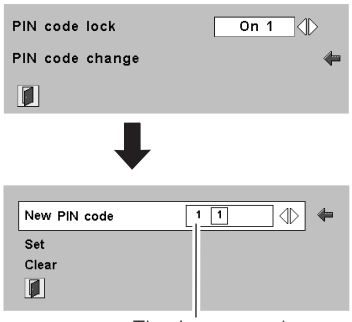



**Change the PIN Code Lock setting**




Select a desired setting with the Point ◀▶ buttons.

**Change the PIN code**




Select PIN code change and press the SELECT button. The New PIN code input dialog box will appear.

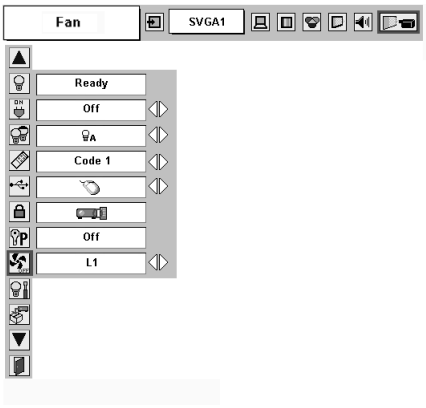
### *Fan*

This function provides you the following alternatives in the cooling fan's operation after turning off the projector.

L1 . . . . . .normal operation

L2 . . . . . .slower operation than the normal (L1) , but take longer to cool down the projector. In this mode, cooling time after turning off the projector will be extended longer than in the normal mode.

**Fan**



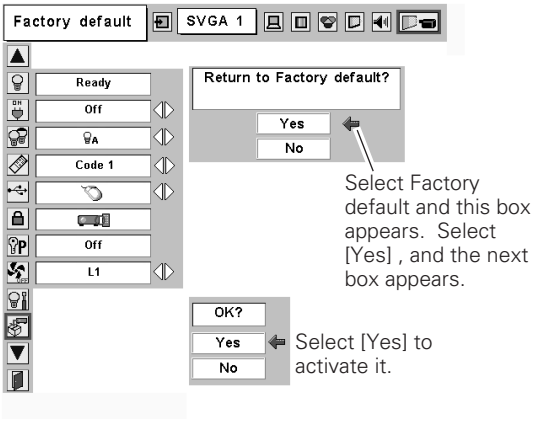

### *Lamp counter reset*

This function is used to reset the lamp replace counter. When replacing the projection lamp, reset the lamp replace counter by using this function. See page 49 for operation.

### *Factory default*

This function returns all setting values except for the user logo, PIN code lock, logo PIN code lock and the lamp counter to the factory default settings.

**Factory default**



## Warning Indicator

The WARNING indicator shows the state of the function which protects the projector. Check the state of the WARNING indicator and the POWER indicator to take proper maintenance.

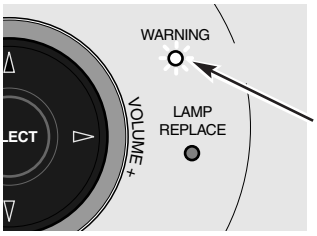
***The projector is shut down and the WARNING indicator is blinking red.***

When the temperature inside the projector exceeds the normal temperature, the projector is automatically shut down to protect the inside of the projector. The POWER indicator is blinking and the projector is being cooled down. When the temperature inside the projector returns to normal, the POWER indicator lights red and the projector can be turned on.

✔***Note:***

*After the temperature inside the projector returns to normal, the WARNING indicator still continues to blink. When the projector is turned on again, the WARNING indicator stops blinking.*

**TOP CONTROL**




WARNING
blinking red

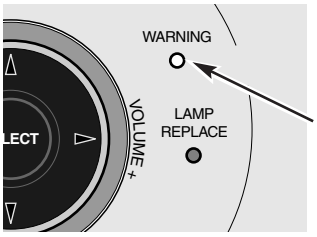
**Then check the matters below:**

- Did you provide appropriate space for the projector to be ventilated? Check the installing condition to see if ventilation slots are not blocked.
- Is the projector not installed near the ventilation duct of air-conditioning equipment which may be hot? Install the projector away from the ventilation duct of air-conditioning equipment.
- Are the air filters clean? Clean the air filters periodically.

***The projector is shut down and the WARNING indicator lights red.***

When the projector detects an abnormal condition, it is automatically shut down to protect the inside and the WARNING indicator lights red. In this case, disconnect the AC power cord and reconnect it, and then turn the projector on once again for check. If the projector is still turned off and the WARNING indicator lights red, disconnect the AC power cord and contact the service station for check and repair.

**TOP CONTROL**




WARNING
lights red

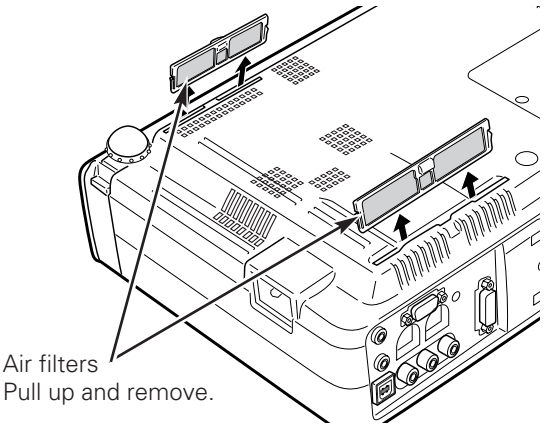
**CAUTION**

DO NOT LEAVE THE PROJECTOR WITH THE AC POWER CORD CONNECTED UNDER THE ABNORMAL CONDITION. IT MAY RESULT IN FIRE OR ELECTRIC SHOCK.

## *Cleaning the Air Filters*

Air filters prevent dust from accumulating on the surface of the optical elements inside the projector. Should the air filters become clogged with dust particles, it will reduce cooling fan's effectiveness and may result in internal heat build up and adversely affect the life of the projector. Clean the air filters following the steps below.

1. Turn off the projector, and disconnect the AC power cord from the AC outlet.
2. Turn the projector upside down and remove the air filters by pulling the latches upward.
3. Clean the air filters with a brush or rinse them softly.
4. When cleaning the air filters by rinsing, dry them well. Replace the air filters properly. Make sure that the air filters are fully inserted.




**CAUTION**

Do not operate the projector with the air filters removed. Dust may accumulate on the LCD panel and the projection mirror degrading picture quality.

Do not put small parts into the air intake vents. It may result in malfunction of the projector.

**RECOMMENDATION**

**We recommend avoiding dusty/smoky environments when operating the projector. Usage in these environments may cause poor image quality.**

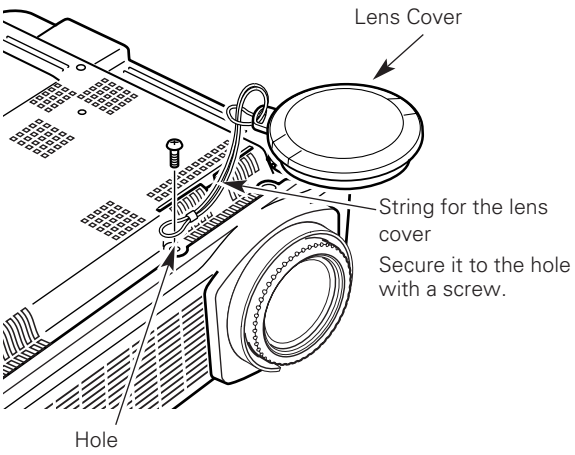
When using the projector under dusty or smoky conditions, dust may accumulate on a lens, LCD panels, or optical elements inside the projector. This condition may degrade the quality of a projected image.

When the symptoms above are noticed, contact your authorized dealer or service station for proper cleaning.

## *Attaching the Lens Cover*

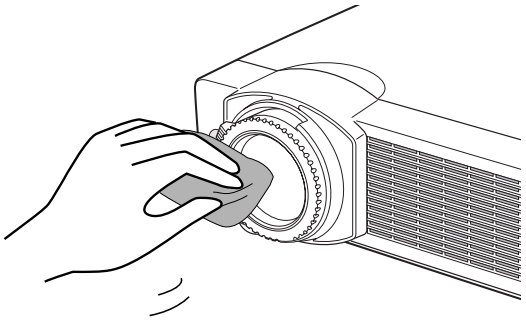
When moving this projector or while not using it over an extended period of time, replace the lens cover.

1. Pass the string through a hole of the lens cover.
2. Turn the projector upside down.
3. Attach the string with lens cover to a hole at the bottom of the projector and secure it with a screw.



## Cleaning the Projection Lens

Follow these steps to clean the projection lens.



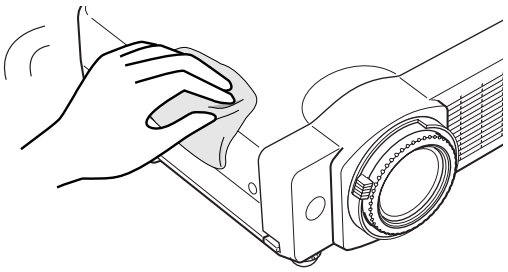
1. Disconnect the AC power cord before cleaning.

2. Softly wipe the projection lens with a cleaning cloth that contains a small amount of non-abrasive camera lens cleaner, or use lens cleaning paper or a commercially available air blower to clean the lens. Avoid using an excessive amount of cleaner. Abrasive cleaners, solvents, or other harsh chemicals might scratch the surface.

3. When the projector is not in use, replace the lens cover.

## Cleaning the Projector Cabinet

Follow these steps to clean the projector cabinet.



1. Disconnect the AC power cord before cleaning.

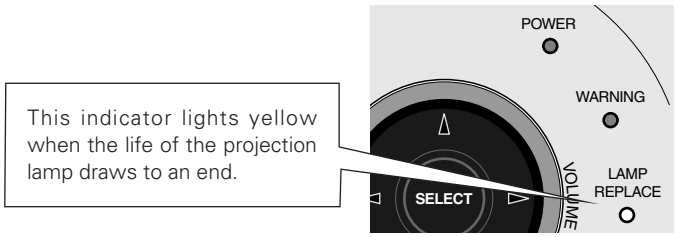
2. Lightly wipe the projector body with a soft, dry cleaning cloth. When it is heavily soiled, use a small amount of mild detergent and finish with a soft, dry cleaning cloth. Avoid using an excessive amount of cleaner. Abrasive cleaners, solvents, or other harsh chemicals might scratch the surface.

3. When the projector is not in use, put the projector in an appropriate carrying case to protect it from being exposed to the dust and being scratched.

## *Lamp Replacement*

When the life of the projection lamp of this projector draws to an end, the LAMP REPLACE indicator lights yellow. If this indicator lights yellow, replace the lamp with a new one promptly.

**Top Control**




### CAUTION

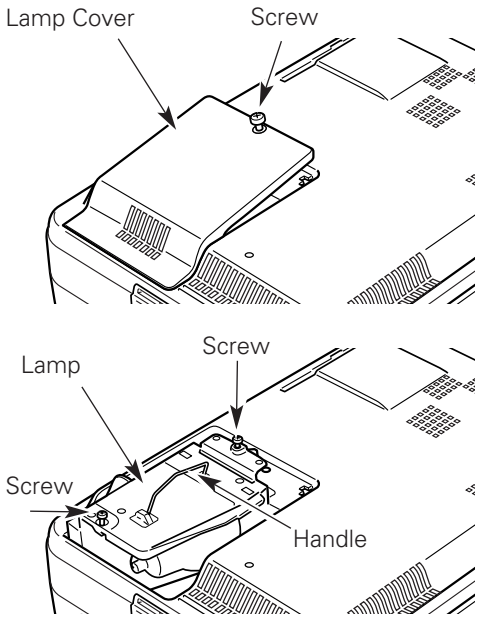
Allow a projector to cool, for at least 45 minutes before you open the Lamp cover. The inside of the projector can become very hot.

### CAUTION

For continued safety, replace with a lamp of the same type. Do not drop a lamp or touch a glass bulb. The glass can shatter and may cause injury.

Follow these steps to replace the lamp.

1. Turn off the projector and disconnect the AC plug. Allow the projector to cool for at least 45 minutes.
2. Loosen the screw with a screwdriver, and remove the lamp cover.
3. Loosen 2 screws of the lamp with a screwdriver and pull out the lamp by grasping the handle.
4. Replace the lamp with a new one and tighten the 2 screws back into position. Make sure that the lamp is set properly. Replace the lamp cover and tighten the screw.
5. Connect the AC power cord to the projector and turn on the projector.
6. **Reset the Lamp replace counter.**
   See "Lamp Replace Counter" on the next page .




**ORDER REPLACEMENT LAMP**

Replacement lamp can be ordered through your dealer. When ordering a projection lamp, give the following information to the dealer.

- **Model No. of your projector : LC-XB22**
- **Replacement Lamp Type No. : POA-LMP55**
  (Service Parts No. 610 309 2706)

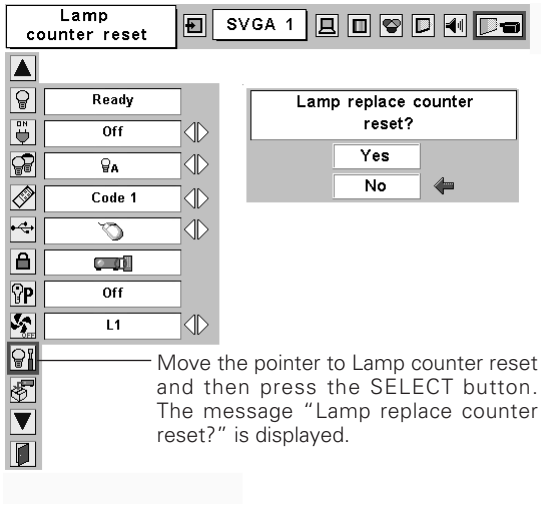
## Lamp Replace Counter

Be sure to reset the lamp replace counter after the lamp is replaced. When the lamp replace counter is reset, the LAMP REPLACE indicator stops lighting.

1. Turn the projector on, press the MENU button to display the On-Screen Menu. Press the Point ◀▶ buttons to move the red frame pointer to the Setting Menu icon.
2. Press the Point ▼ button to move the red frame pointer to the Lamp counter reset item and then press the SELECT button. The message "Lamp replace counter Reset?" is displayed. Move the pointer to [Yes] and then press the SELECT button.
3. Another confirmation dialog box appears and select [Yes] to reset the Lamp replace counter.

✔***Note:***

*Do not reset the Lamp replace counter without implementation of lamp replacement. Be sure to reset the Lamp replace counter only after replacing the lamp.*






## ⚠ LAMP HANDLING PRECAUTIONS

This projector uses a high-pressure lamp which must be handled carefully and properly. Improper handling may result in accidents, injury, or create a fire hazard.

- Lamp life may differ from lamp to lamp and according to the environment of use. There is no guarantee of the same life for each lamp. Some lamps may fail or terminate their life in a shorter period of time than other similar lamps.
- If the projector indicates that the lamp should be replaced, i.e., if the LAMP REPLACE indicator lights up, replace the lamp with a new one IMMEDIATELY after the projector has cooled down. ( Follow carefully the instructions in the Lamp Replacement section of this manual. ) Continuous use of the lamp with the LAMP REPLACE indicator lighted may increase the risk of lamp explosion.
- A Lamp may explode as a result of vibration, shock or degradation as a result of hours of use as its lifetime draws to an end. Risk of explosion may differ according to the environment or conditions in which the projector and lamp are being used.

### IF A LAMP EXPLODES, THE FOLLOWING SAFETY PRECAUTIONS SHOULD BE TAKEN.

If a lamp explodes, disconnect the projector's AC plug from the AC outlet immediately. Contact an authorized service station for a checkup of the unit and replacement of the lamp. Additionally, check carefully to ensure that there are no broken shards or pieces of glass around the projector or coming out from the cooling air circulation holes. Any broken shards found should be cleaned up carefully. No one should check the inside of the projector except those who are authorized trained technicians and who are familiar with projector service. Inappropriate attempts to service the unit by anyone, especially those who are not appropriately trained to do so, may result in an accident or injury caused by pieces of broken glass.

## Troubleshooting

Before calling your dealer or service center for assistance, check the items below once again.

– Make sure you have properly connected the projector to peripheral equipment as described in "Connecting to a Computer", "Connecting to Video Equipment"and "Connecting to Component Video Equipment" on page15–17.
– Make sure all equipment is connected to AC outlet and the power is turned on.
– If the projector does not project an image being operated with a computer, restart the computer.

| ***Problem:*** | – Solutions |
|---|---|
| ***No power*** | – Plug the power cord of the projector into the AC outlet.<br>– See if the POWER indicator lights red.<br>– Wait 90-120 seconds after the projector is turned off when turning the projector back on. The projector can be turned on after the POWER indicator turns red. (See "Turning Off the Projector" on page 19.)<br>– Check the WARNING indicator. If the WARNING indicator lights red, the projector cannot be turned on. (See "Warning Indicator" on page 45.)<br>– Check the projection lamp. (See page 48.)<br>– Unlock Key lock for the projector in the Setting Menu. (See page 42.) |
| ***Image is out of focus.*** | – Adjust focus of the projector. (See page 22.)<br>– Provide proper distance between the projector and the projection screen. (See page 13.)<br>– Check the projection lens to see if it needs cleaning. (See page 47.)<br>– Moving the projector from a cool to a warm place may result in moisture condensation on the projection lens. In this case, leave the projector off and wait until condensation evaporates. |
| ***No image*** | – Check the connection between your computer or video equipment and the projector. (See page 15–17)<br>– See if the input signal is correctly output from your computer. Some laptop computers may need to change the setting for monitor output when connecting to a projector. See your computer's instruction manual for the setting.<br>– It takes about 20 seconds to display an image after turning on the projector.<br>– See if the selected system is corresponding with your computer or video equipment. (See page 25 and 34)<br>– Select correct input source once again through menu operation. (See page 24, 32 and 33)<br>– Make sure the temperature is not out of the specified Operating Temperature 41 ˚F ~ 95 ˚F (5 ˚C ~ 35 ˚C). |
| ***Image is Left/Right reversed.***<br>***image is Top/Bottom reversed.*** | – Check the Ceiling / Rear item. (See "Setting" on page 41.)<br>– Check the Ceiling item. (See "Setting" on page 41.) |
| ***No sound*** | – Check audio cable connection from audio input source.<br>– Adjust the audio source.<br>– Press the Volume + button. (See page 23)<br>– Press the Mute button. (See page 23) |

| | |
|---|---|
| ***Some displays are not seen during the operation.*** | – Check the Display item. (See "Setting" on page 39.) |
| ***PIN code dialog box appears at start-up.*** | – PIN code lock is being set. Input a PIN code (1234 or numbers you have set). (See "PIN code lock" on page 18 and 43.) |
| ***Computer 2 cannot be selected.*** | – Select Computer 2 at the Terminal item in the Setting Menu. (See "Setting" on page 41.) |
| ***The Terminal item cannot be selected.*** | – The Terminal item in the Setting Menu cannot be selected after Computer 2 is selected. Select other input source such as Computer 1 or Video with the INPUT button on the top control, the COMPUTER button or the VIDEO button on the remote control so that the Terminal item can be selected. |
| ***The Remote Control does not work.*** | – Check the batteries.<br>– Make sure no obstruction is between the projector and remote control.<br>– Make sure you are not too far from the projector when using the remote control. Maximum operating range is 16.4' (5m).<br>– Make sure the code of the remote control is conformed to the projector. (See page 42.)<br>– Unlock Key lock for the remote control in the Setting Menu. (See page 42.) |
| ***Page Up/Down function does not work.*** | – Make sure your computer is connected to the projector with a USB cable. (See page 15.)<br>– Check cable connection between the projector and your computer. (See page 15.) |



**WARNING :**
**High voltages are used to operate this projector. Do not attempt to open the cabinet.**

If problems still persist after following all operating instructions, contact the dealer where you purchased the projector or the service center. Give the model number and explain about the problem. We will advise you how to obtain service.

CE The CE Mark is a Directive conformity mark of the European Community (EC).

c UL US LISTED This symbol on the nameplate means the product is Listed by Underwriters Laboratories Inc. It is designed and manufactured to meet rigid U.L. safety standards against risk of fire, casualty and electrical hazards.

## *Indicators and Projector Condition*

Check the indicators to see the projector condition.

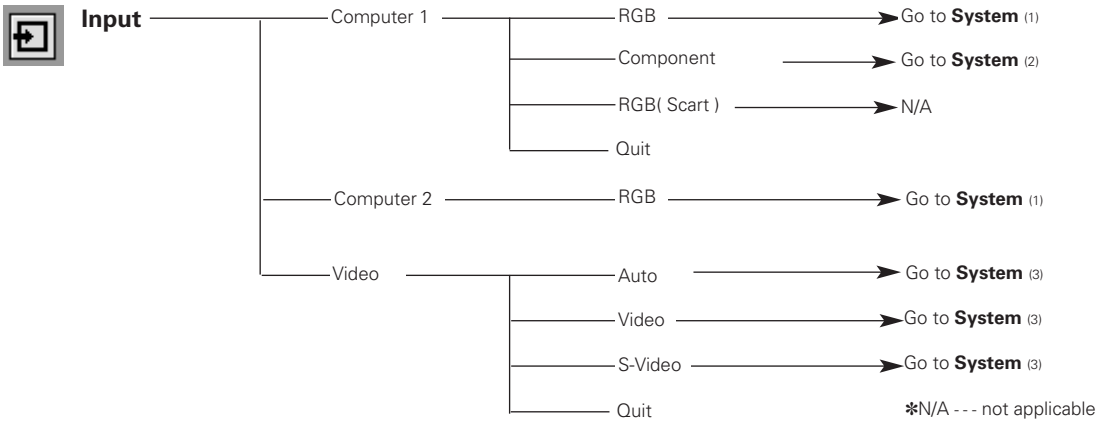
| Indicators | | | Projector Condition |
|---|---|---|---|
| POWER **red/green** | WARNING **red** | LAMP REPLACE **yellow** | |
| ● | ● | ● | The projector is OFF. (The AC power cord is unplugged.) |
| ▨ (blinks) | ● | ✻ | The projector is preparing for stand-by or the projection lamp is being cooled down. The projector cannot be turned on until cooling is completed. |
| ▨ | ● | ✻ | The projector is ready to be turned on with the POWER ON-OFF button. |
| ○ | ● | ✻ | The projector is operating normally. |
| ○ (blinks) | ● | ✻ | The projector is in the Power management mode. |
| ▨ (blinks) | ▨ (blinks) | ✻ | The temperature inside the projector is abnormally high. The projector cannot be turned on. When the projector is cooled down enough and the temperature returns to normal, the POWER indicator lights red and the projector can be turned on. (The WARNING indicator keeps blinking.) Check and clean the air filters. |
| ▨ | ▨ (blinks) | ✻ | The projector has been cooled down enough and the temperature returns to normal. When turning on the projector, the WARNING indicator stops blinking. Check and clean the air filters. |
| ● | ▨ | ✻ | The projector detects an abnormal condition and cannot be turned on. Unplug the AC power cord and plug it again to turn on the projector. If the projector is turned off again, disconnect the AC power cord and contact the dealer or the service center for service and checkup. Do not leave the projector on. It may cause an electric shock or a fire hazard. |

○ • • • lights green. ○ (blinks) • • • blinks green. ▨ • • • lights red. ▨ (blinks) • • • blinks red. ● • • • off

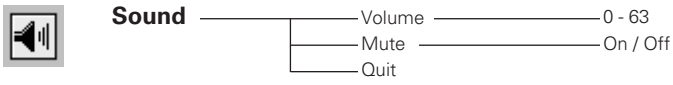
✻ When the life of the projection lamp draws to an end, the LAMP REPLACE indicator lights yellow. When this indicator lights yellow, replace the projection lamp with a new one promptly. Reset the Lamp replace counter after replacement of the lamp. See page 48 and 49.

# Menu Tree

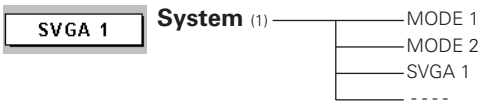
## Computer Input / Video Input



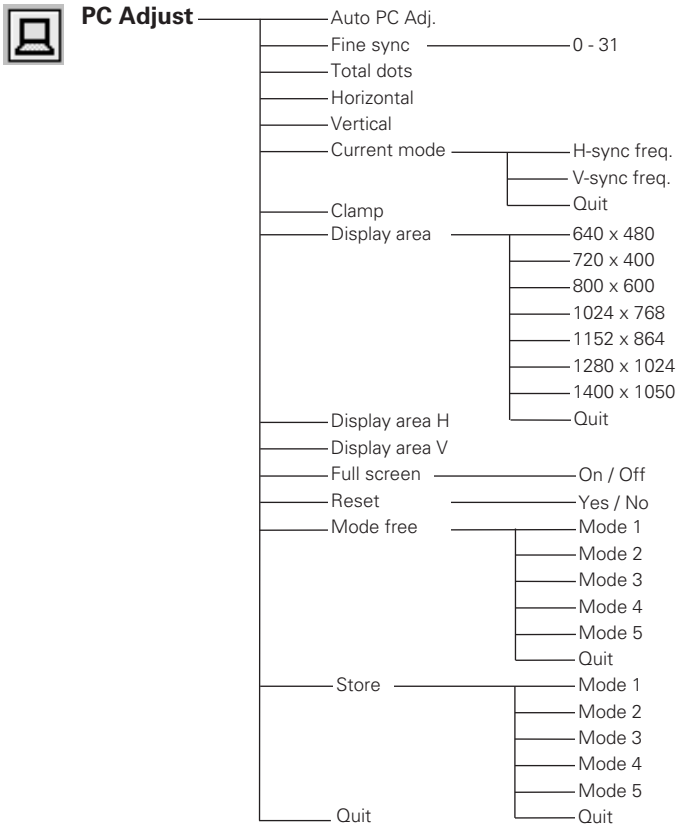

## Sound

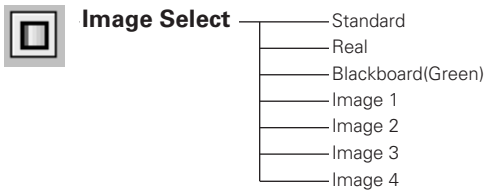


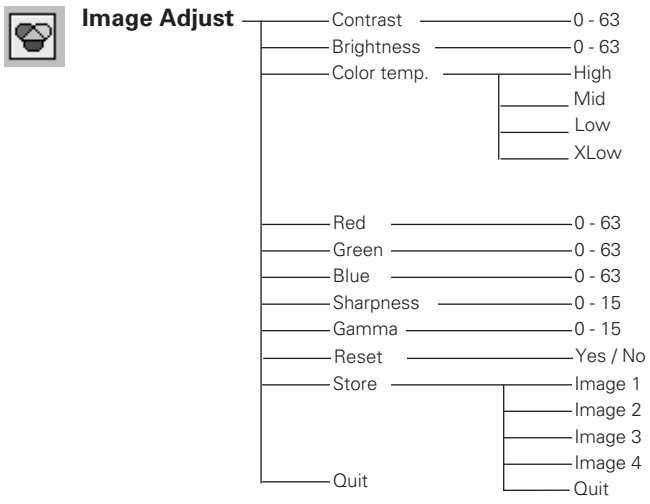

## Computer Input

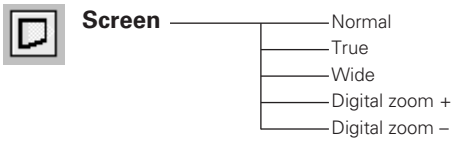



✻Systems displayed in the System Menu vary depending on an input signal.



## Video Input

**System** (2)
- Auto
- 1080i
- 1035i
- 720p
- 575p
- 480p
- 575i
- 480i

**System** (3)
- Auto
- PAL
- SECAM
- NTSC
- NTSC4.43
- PAL-M
- PAL-N

**Image Select**
- Standard
- Cinema
- Blackboard(Green)
- Image 1
- Image 2
- Image 3
- Image 4

**Image Adjust**
- Contrast — 0 - 63
- Brightness — 0 - 63
- Color — 0 - 63
- Tint — 0 - 63
- Color temp.
  - High
  - Mid
  - Low
  - XLow
- Red — 0 - 63
- Green — 0 - 63
- Blue — 0 - 63
- Sharpness — 0 - 15
- Gamma — 0 - 15
- Progressive
  - Off
  - L1
  - L2
- Film — On/ Off
- Reset — Yes / No
- Store
  - Image 1
  - Image 2
  - Image 3
  - Image 4
- Quit

**Screen**
- Normal
- Wide

## Setting

**Setting**
- Language
  - English
  - German
  - French
  - Italian
  - Spanish
  - Portuguese
  - Dutch
  - Swedish
  - Russian
  - Chinese
  - Korean
  - Japanese
  - Quit
- Keystone — Store / Reset
- Blue back — On / Off
- Display — On / Off
- Logo PIN code lock
  - Logo PIN code entry
  - Off
  - On
  - Logo PIN code change
  - Quit
- Logo
  - Off
  - User
  - Default
- Capture — Yes/No
- Ceiling — On / Off
- Rear — On / Off
- Terminal
  - Computer2
  - Monitor out
- Power management
  - Off
  - Ready
  - Shutdown
  - Timer(1-30 Min)
  - Quit
- On start — On / Off
- Lamp mode
  - Normal
  - Auto
  - Eco
- Remote control
  - Code 1
  - Code 2
- USB — Mouse / Projector
- Key lock
  - Off
  - Projector
  - Remote Control
  - Quit
- PIN code lock
  - PIN code entry
  - Off
  - On 1
  - On 2
  - PIN code change
  - Quit
- Fan — L1 / L2
- Lamp counter reset — Yes / No
- Factory default — Yes / No
- Quit

## Compatible Computer Specifications

Basically this projector can accept the signal from all computers with the V, H-Frequency below mentioned and less than 130 MHz of Dot Clock.

| ON-SCREEN DISPLAY | RESOLUTION | H-Freq. (kHz) | V-Freq. (Hz) | ON-SCREEN DISPLAY | RESOLUTION | H-Freq. (kHz) | V-Freq. (Hz) |
|---|---|---|---|---|---|---|---|
| VGA 1 | 640 x 480 | 31.47 | 59.88 | XGA 11 | 1024 x 768 | 61.00 | 75.70 |
| VGA 2 | 720 x 400 | 31.47 | 70.09 | XGA 12 | 1024 x 768 | 35.522 | 86.96 (Interlace) |
| VGA 3 | 640 x 400 | 31.47 | 70.09 | XGA 13 | 1024 x 768 | 46.90 | 58.20 |
| VGA 4 | 640 x 480 | 37.86 | 74.38 | XGA 14 | 1024 x 768 | 47.00 | 58.30 |
| VGA 5 | 640 x 480 | 37.86 | 72.81 | XGA 15 | 1024 x 768 | 58.03 | 72.00 |
| VGA 6 | 640 x 480 | 37.50 | 75.00 | MAC 19 | 1024 x 768 | 60.24 | 75.08 |
| VGA 7 | 640 x 480 | 43.269 | 85.00 | MAC 21 | 1152 x 870 | 68.68 | 75.06 |
| MAC LC13 | 640 x 480 | 34.97 | 66.60 | SXGA 1 | 1152 x 864 | 64.20 | 70.40 |
| MAC 13 | 640 x 480 | 35.00 | 66.67 | SXGA 2 | 1280 x 1024 | 62.50 | 58.60 |
| 575i | ——— | 15.625 | 50.00 (Interlace) | SXGA 3 | 1280 x 1024 | 63.90 | 60.00 |
| 480i | ——— | 15.734 | 60.00 (Interlace) | SXGA 4 | 1280 x 1024 | 63.34 | 59.98 |
| SVGA 1 | 800 x 600 | 35.156 | 56.25 | SXGA 5 | 1280 x 1024 | 63.74 | 60.01 |
| SVGA 2 | 800 x 600 | 37.88 | 60.32 | SXGA 6 | 1280 x 1024 | 71.69 | 67.19 |
| SVGA 3 | 800 x 600 | 46.875 | 75.00 | SXGA 8 | 1280 x 1024 | 63.98 | 60.02 |
| SVGA 4 | 800 x 600 | 53.674 | 85.06 | SXGA 10 | 1280 x 960 | 60.00 | 60.00 |
| SVGA 5 | 800 x 600 | 48.08 | 72.19 | SXGA 11 | 1152 x 900 | 61.20 | 65.20 |
| SVGA 6 | 800 x 600 | 37.90 | 61.03 | SXGA 12 | 1152 x 900 | 71.40 | 75.60 |
| SVGA 7 | 800 x 600 | 34.50 | 55.38 | SXGA 13 | 1280 x 1024 | 50.00 | 86.00 (Interlace) |
| SVGA 8 | 800 x 600 | 38.00 | 60.51 | SXGA 14 | 1280 x 1024 | 50.00 | 94.00 (Interlace) |
| SVGA 9 | 800 x 600 | 38.60 | 60.31 | SXGA 15 | 1280 x 1024 | 63.37 | 60.01 |
| SVGA 10 | 800 x 600 | 32.70 | 51.09 | SXGA 16 | 1280 x 1024 | 76.97 | 72.00 |
| SVGA 11 | 800 x 600 | 38.00 | 60.51 | SXGA 17 | 1152 x 900 | 61.85 | 66.00 |
| MAC 16 | 832 x 624 | 49.72 | 74.55 | SXGA 18 | 1280 x 1024 | 46.43 | 86.70 (Interlace) |
| XGA 1 | 1024 x 768 | 48.36 | 60.00 | SXGA 19 | 1280 x 1024 | 63.79 | 60.18 |
| XGA 2 | 1024 x 768 | 68.677 | 84.997 | SXGA 21 | 1400 x 1050 | 63.90 | 60.00 |
| XGA 3 | 1024 x 768 | 60.023 | 75.03 | MAC | 1280 x 960 | 75.00 | 75.08 |
| XGA 4 | 1024 x 768 | 56.476 | 70.07 | 480p | ——— | 31.47 | 59.88 |
| XGA 5 | 1024 x 768 | 60.31 | 74.92 | 575p | ——— | 31.25 | 50.00 |
| XGA 6 | 1024 x 768 | 48.50 | 60.02 | 720p | ——— | 45.00 | 60.00 |
| XGA 7 | 1024 x 768 | 44.00 | 54.58 | 1035i | ——— | 33.75 | 60.00 (Interlace) |
| XGA 8 | 1024 x 768 | 63.48 | 79.35 | 1080i | ——— | 33.75 | 60.00 (Interlace) |
| XGA 9 | 1024 x 768 | 36.00 | 87.17 (Interlace) | 1080i | ——— | 28.125 | 50.00 (Interlace) |
| XGA 10 | 1024 x 768 | 62.04 | 77.07 | | | | |

# *Technical Specifications*

### Mechanical Information

| | |
|---|---|
| Projector Type | Multi-media Projector |
| Dimensions (W x H x D) | 11.73" x 2.8" x 8.58" (298mm x 71mm x 218mm) (Not including adjustable feet) |
| Net Weight | 6.2 lbs (2.8kgs) |
| Feet Adjustment | 0˚ to 11.8˚ |

### Panel Resolution

| | |
|---|---|
| LCD Panel System | 0.8" TFT Active Matrix type, 3 panels |
| Panel Resolution | 1,024 x 768 dots |
| Number of Pixels | 2,359,296 (1,024 x 768 x 3 panels) |

### Signal Compatibility

| | |
|---|---|
| Color System | PAL, SECAM, NTSC, NTSC4.43, PAL-M, PAL-N |
| High Definition TV Signal | 480i, 480p, 575i, 575p, 720p, 1035i, and 1080i |
| Scanning Frequency | H-sync. 15 ~ 100 KHz, V-sync. 50 ~ 100 Hz |

### Optical Information

| | |
|---|---|
| Projection Image Size (Diagonal) | Adjustable from 40" to 300" |
| Projection Lens | F 1.7 ~ 2.5 lens with f 20.0 mm ~ 30.0 mm with manual zoom and focus |
| Throw Distance | 3.3 ~ 25.3' (1.0m ~ 7.7m) |
| Projection Lamp | 200W |

### Interface

| | |
|---|---|
| Video Input Jacks | RCA Type x 1 (Video) and Mini DIN 4 pin x 1 (S-Video) |
| Audio Input Jacks | RCA Type x 2 |
| Computer Input1/ Component Input Terminal | Analog RGB (Mini D-sub 15pin) X 1 |
| Computer Input 2/ Monitor Output Terminal | Analog RGB (Mini D-sub 15pin) X 1 (In / Out switchable) |
| Computer/ Component Audio Input Jacks | Mini Jack (stereo) x 1 |
| Service Port Connector | Mini DIN 8 pin x 1 |
| USB Connector | USB Series B receptacle x 1 |
| Audio Output Jack | Mini Jack (stereo) x 1 (Variable) |

### Audio

| | |
|---|---|
| Internal Audio Amp | 1.0W RMS |
| Built-in Speaker | 1 speaker, ø1.1" (28mm) |

### Power

| | |
|---|---|
| Voltage and Power Consumption | AC 100 ~ 120 V (3.6 A Max. Ampere), 50 / 60 Hz (The U.S.A and Canada) |
| | AC 200 ~ 240 V (1.8 A Max. Ampere), 50 / 60 Hz (Continental Europe) |

### Operating Environment

| | |
|---|---|
| Operating Temperature | 41 ˚F ~ 95 ˚F (5 ˚C ~ 35 ˚C) |
| Storage Temperature | 14 ˚F ~ 140 ˚F (-10˚C ~ 60 ˚C) |

### Remote Control

| | |
|---|---|
| Battery | AAA, UM-04 or LR03 Type x 2 |
| Operating Range | 16.4' (5m) / ±30˚ |
| Dimensions | 1.8" x 1.0" x 5.7" (45mm x 25mm x 145mm) |
| Net Weight | 0.22 lbs (99g) (including batteries) |

**Accessories**

Owner's Manual
AC Power Cord
Remote Control and Batteries
VGA Cable
Lens Cover with String and Screw
PIN Code Label

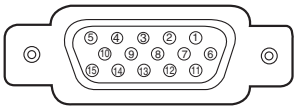
- The specifications are subject to change without notice.
- LCD panels are manufactured to the highest possible standards. Even though 99.99% of the pixels are effective, a tiny fraction of the pixels (0.01% or less) may be ineffective by the characteristics of the LCD panels.
- The On-Screen Menu and figures in this manual may differ slightly from the product.

## *Configurations of Terminals*

***COMPUTER INPUT/COMPONENT INPUT/MONITOR OUTPUT TERMINAL (ANALOG)***

**Terminal : Alanog RGB (Mini D-sub 15pin)**

**Pin Configuration**

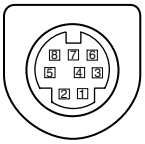



| | | | |
|---|---|---|---|
| **1** | Red (R/Cr) Input / Output | **9** | ----- |
| **2** | Green (G/Y) Input / Output | **10** | Ground (Vert.sync.) |
| **3** | Blue (B/Cb) Input / Output | **11** | Ground / ----- |
| **4** | ----- | **12** | ----- |
| **5** | Ground (Horiz.sync.) | **13** | Horiz. sync. Input/Output (Composite H/V sync.) |
| **6** | Ground (Red) | **14** | Vert. sync. Input / Output |
| **7** | Ground (Green) | **15** | ----- |
| **8** | Ground (Blue) | | |

***SERVICE PORT CONNECTOR***

**Terminal : Mini DIN 8-PIN**

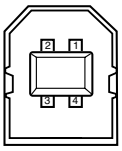
**Pin Configuration**




| | **Serial** |
|---|---|
| **1** | R X D |
| **2** | ----- |
| **3** | ----- |
| **4** | GND |
| **5** | RTS / CTS |
| **6** | T X D |
| **7** | GND |
| **8** | GND |

***USB CONNECTOR (Series B)***

**Pin Configuration**




| | |
|---|---|
| **1** | Vcc |
| **2** | - Data |
| **3** | + Data |
| **4** | Ground |

## *Optional Parts*

The parts listed below are optionally available. When ordering those parts, give the item name and Model No. to the sales dealer.

| | ***Model No.*** |
|---|---|
| ***COMPONENT-VGA Cable*** | : *POA-CA-COMPVGA* |
| ***SCART-VGA Cable*** | : *AH-98881 (POA-CA-SCART)*<br>*(This cable is used for RGB Scart 21-Pin Video output of video equipment.)* |

## PIN Code Number Memo

Write down the PIN code number in the column below and keep it with this manual securely. If you forgot or lost the number and unable to operate the projector, contact the service station.

***PIN Code Lock No.***

| | | | |
|---|---|---|---|
| | | | |

***Factory default set No: 1 2 3 4****

***Logo PIN Code Lock No.***

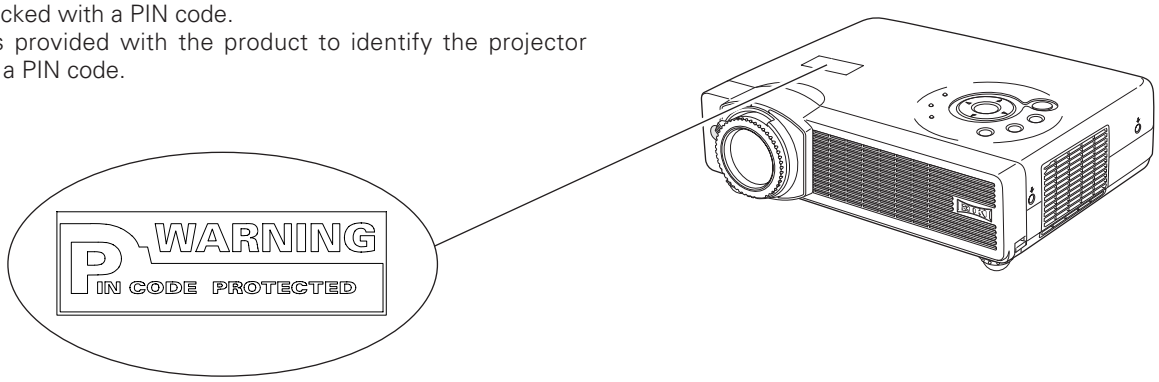
| | | | |
|---|---|---|---|
| | | | |

***Factory default set No: 4 3 2 1****

*Should the four-digit number be changed, the factory set number will be invalid.

***While the projector is locked with the PIN code...***

Put a label below on in a prominent place of the projector's body while it is locked with a PIN code.
The label is provided with the product to identify the projector locked with a PIN code.



EIKI

**A-key to better communications**


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