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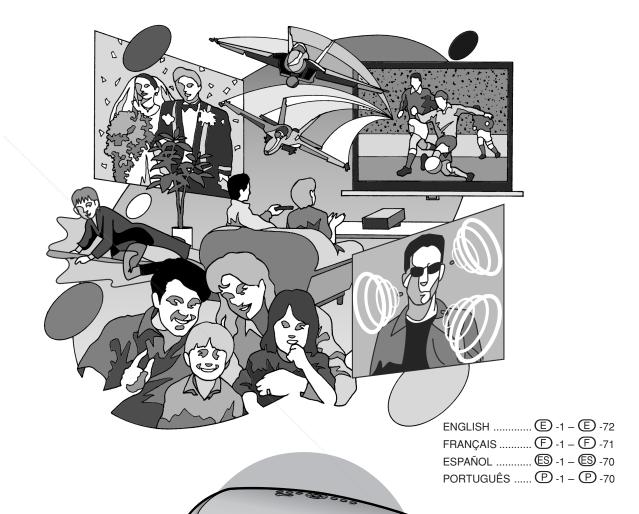




PROJECTOR PROJECTEUR PROYECTOR PROJETOR

XV-Z200U

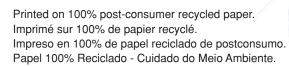
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# **SHARP**<sup>®</sup> SHARP CORPORATION

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OPERATION MANUAL MODE D'EMPLOI MANUAL DE OPERACION MANUAL DE OPERAÇÃO Before using the projector, please read this operation manual carefully.

# Introduction

### IMPORTANT

For your assistance in reporting the loss or theft of your Projector, please record the Serial Number located on the bottom of the projector and retain this information. Before recycling the packaging, please be sure that you have checked the contents of the carton thoroughly against the list of "Supplied accessories" on page **12**.

Model No.: XV-Z200U

Serial No.:

There are two important reasons for prompt warranty registration of your new SHARP Projector, using the REGISTRATION CARD packed with the projector.

### 1. WARRANTY

This is to assure that you immediately receive the full benefit of the parts, service and labor warranty applicable to your purchase.

### 2. CONSUMER PRODUCT SAFETY ACT

To ensure that you will promptly receive any safety notification of inspection, modification, or recall that SHARP may be required to give under the 1972 Consumer Product Safety Act, PLEASE READ CAREFULLY THE IMPORTANT "LIMITED WARRANTY" CLAUSE.

**WARNING:** High brightness light source. Do not stare into the beam of light, or view directly. Be especially careful that children do not stare directly into the beam of light.

**WARNING:** To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

See bottom of actual set.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS EXCEPT LAMP UNIT. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk or electric shock to persons.

The exclamation point within a triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

WARNING: FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.
U.S.A. ONLY

### **PRODUCT DISPOSAL**

This product utilizes tin-lead solder, and high intensity discharge lamp (HID lamp) containing a small amount of mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling intermation, please contact your local authorities or the Electronic Industries Alliance: www.eiae.org.

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ENGLISH

### INFORMATION

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 operation manual, 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 the 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.

U.S.A. ONLY

### **Declaration of Conformity**

SHARP PROJECTOR, MODEL XV-Z200U

This device complies with Part 15 of the FCC rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

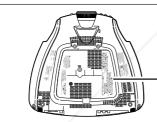
**Responsible Party:** 

SHARP ELECTRONICS CORPORATION Sharp Plaza, Mahwah, New Jersey 07430 TEL: 1-800-BE-SHARP (1-800-237-4277)

U.S.A. ONLY

### WARNING:

The cooling fan in this projector continues to run for about 90 seconds after the projector enters the standby mode. During normal operation, when putting the projector into the standby mode always use the STANDBY button on the projector or on the remote control. Ensure the cooling fan has stopped before disconnecting the power cord. DURING NORMAL OPERATION, NEVER TURN THE PROJECTOR OFF BY DISCONNECTING THE POWER CORD. FAILURE TO OBSERVE THIS WILL RESULT IN PREMATURE LAMP FAILURE.



### Caution Concerning the Lamp Replacement

There is potential glass particles hazard if the lamp ruptures.



BEFORE REMOVING THE SCREW, DISCONNECT POWER CORD. HOT SURFACE INSIDE: ALLOW 1 HOUR TO COOL BEFORE REPLACING THE LAMP. REPLACE WITH SAME SHARP LAMP UNIT TYPE BQC-XV200+110NLY. UV RADIATION : CAN CAUSE EYE DAMAGE. TURN OFF LAMP BEFORE SERVICING. HIGH PRESSURE LAMP : RISK OF EXPLOSION. POTENTIAL HAZARD OF GLASS PARTICLES IF LAMP HAS RUPTURED. HANDLE WITH CARE. SEE OPERATION MANUAL.

2

### PRECAUTIONS A OBSERVER LORS LU REMPLACEMENT DE LA LAMPE.

DU REIMPLACEIVIEINI DE LA LAMPE. DEBRANCHER LE CORDOND'ALIMENTATION AVANT DE RETIRER LES VIS. L'INTERIEUR DU BOITIER ETANT EXTREMEMENT CHAUD. ATTENDRE 1 HEURE AVANT DE PROCEDER AU REMPLACEMENT DE LA LAMPE. NE REMPLACER QUE PAR UNE LAMPE SHARP DE TYPE BOC-XV2200++1. RAYONS ULTRAVIOLETS: PEUVENT ENDOMMAGER LES YEUX. LAMPE A HAUTE PRESSION: RISQUE D'EXPLOSION. DANGER POTENTIEL DE PARTICUES DE VERRE EN CAS D'ECLATEMENT DE LA LAMPE. A MANIPULER AVEC PRECAUTION, SE REPORTER AU MODE D'EMPLOI.



Some IC chips in this product include confidential and/or trade secret property belonging to Texas Instruments Therefore you may not copy, modify, adapt, translate, distribute, reverse engineer, reverse assemble or discompile the contents thereof.

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Introduction

# **IMPORTANT SAFEGUARDS**

# **CAUTION**: Please read all of these instructions before you operate this product and save them for later use.

Electrical energy can perform many useful functions. This product has been engineered and manufactured to ensure your personal safety. However IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARD. In order not to defeat the safeguards incorporated into this Projector, observe the following basic rules for its installation, use and servicing. For your own protection and reliable usage of your Projector, please be sure to read these "IMPORTANT SAFEGUARDS" carefully before use.

### **1. Read Instructions**

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

### 2. Retain Instructions

The safety and operating instructions should be retained for future reference.

#### 3. Heed Warnings

All warnings on the product and in the operating instructions should be adhered to.

### 4. Follow Instructions

All operating and use instructions should be followed. **5. Cleaning** 

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

### 6. Attachments

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

### 7. Water and Moisture

Do not use this product near water-for example, near a bathtub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.

#### 8. Accessories

Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

#### 9. Transportation

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



### 10. Ventilation

Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. The openings should hever be covered or blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been

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### **11. Power Sources**

This product 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 supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

### 12. Grounding or Polarization

This product is equipped with a three-wire groundingtype plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

#### 13. Power-Cord Protection

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

### 14. Lightning

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

### 15. Overloading

Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

### 16. Object and Liquid Entry

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

### 17. Servicing

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

### 18. Damage Requiring Service

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

a. If the power-supply cord or plug is damaged.

- b. If liquid has been spilled, or objects have fallen into the product.
- c. If the product has been exposed to rain or water.
- d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
- e. If the product has been dropped or damaged in any way.
- f. If the product exhibits a distinct change in performance.

### 19. Replacement Parts

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

### 20. Safety Check

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

### 21. Wall or Ceiling Mounting

This product should be mounted to a wall or ceiling only as recommended by the manufacturer.

### 22. Heat

This product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

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### **IMPORTANT SAFEGUARDS**

# Be sure to read the following safeguards when setting up your projector.

### Caution concerning the lamp unit

There is a potential hazard of glass particles if the lamp ruptures. In case of lamp rupture, contact your nearest Authorized SharpVision Service Center or Dealer for replacement. See "Replacing the Lamp" on page 59.



Cautions concerning the setup of the projector

For minimal servicing and to maintain high image quality, SHARP recommends that this projector be installed in an area free from humidity, dust and cigarette smoke. When the projector is subjected to these environments, the lens and part of filter must be cleaned more often than usual. As long as the projector is properly maintained in this manner, use in these environments will not reduce the overall operation life. Please note that all internal cleaning must be performed by an Authorized SharpVision Service Center or Dealer.

# Do not set up the projector in places exposed to direct sunlight or bright light.

Position the screen so that it is not in direct sunlight or room light. Light falling directly on the screen washes out the colors, making viewing difficult. Close the curtains and dim the lights when setting up the screen in a sunny or bright room.

### Do not subject the projector to hard impact and/ or vibration.

Take care with the lens so as not to hit or damage the surface of the lens.

### Rest your eyes occasionally.

Watching the screen for long hours continuously will make your eyes tired. Be sure to occasionally rest your eyes.

# Do not expose the projector to extreme heat or cold.

- Operating temperature:
- 41°F to 95°F (+5°C to 35°C) ■ Storage temperature:
- –4°F to 140°F (–20°C to +60°C)

# Notes on Operation

The exhaust ventilative holes, the lamp unicover and adjacent areas may get extremely hot during projector operation. To prevent injury, do not touch these areas until they have suf-

e holes,

If the cooling fan becomes obstructed, a protection device will automatically turn off the projector lamp. This does not indicate a malfunction. Remove the projector power cord from the wall outlet and wait at least 10 minutes. Then turn on the power by plugging the power cord back in. This will return the projector to the normal operating condition.

### Cautions regarding the transportation of the projector

When transporting the projector, be sure not to subject it to hard impact and/or vibration, as this can result in damage. Take extra caution with the lens. Before moving the projector, be sure to unplug the power cord from the wall outlet, and disconnect any other cables connected to it.

### Other connected equipment

- When connecting other audio-visual equipment or a computer to the projector, make the connections AF-TER turning off the projector and the equipment to be connected.
- Please read the operation manuals of the projector and the equipment to be connected for instructions on how to make the connections.

### **Temperature monitor function**

If the projector starts to overheat due to setup problems or blockage of the air vents, """ and "TEMP." will blink in the lower left corner of the picture. If the tem-



perature continues to rise, the lamp will turn off, the temperature warning indicator on the projector will blink, and after a 90-second cooling-off period the projector will enter the standby mode. Refer to "Maintenance Indicators" on page **58** for details.

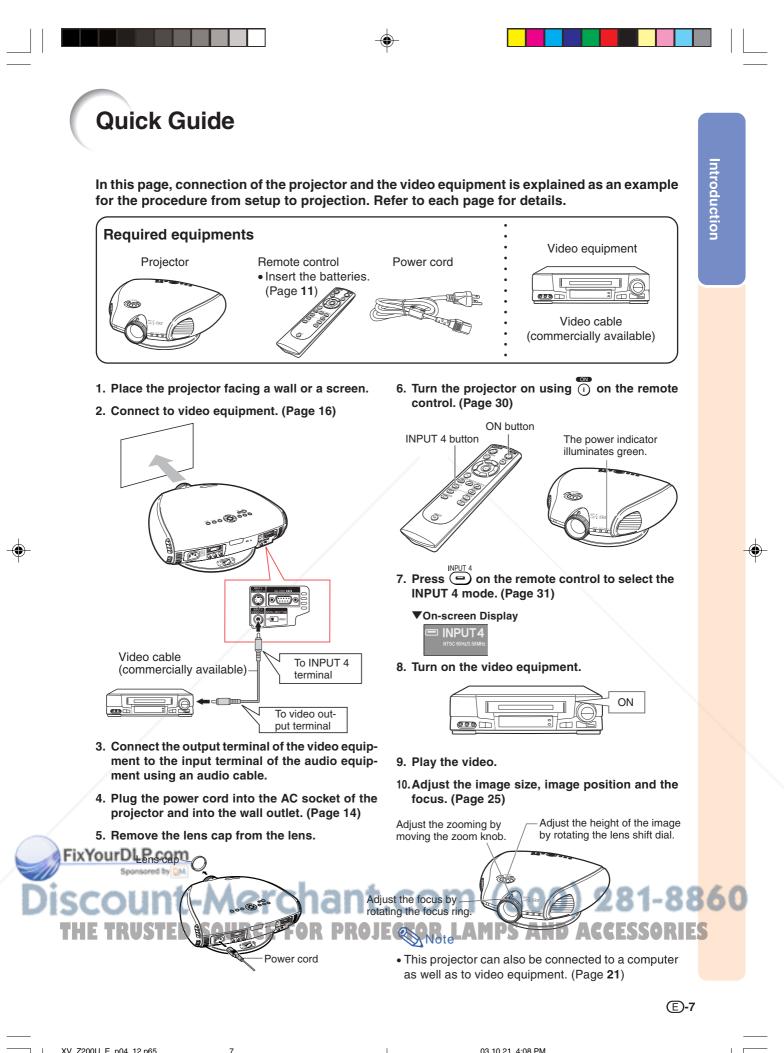
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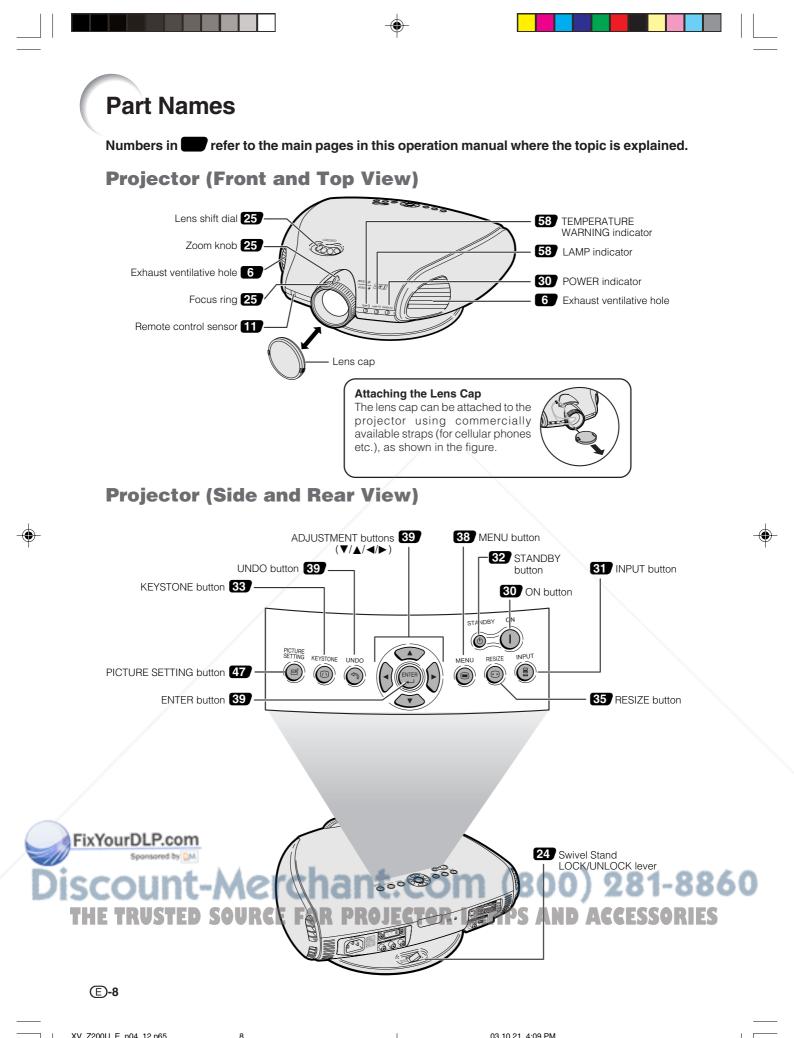
 The cooling fan regulates the internal temperature, and its performance is automatically controlled. The sound of the fan may change during projector operation due to changes in the fan speed. This does not indicate malfunction.

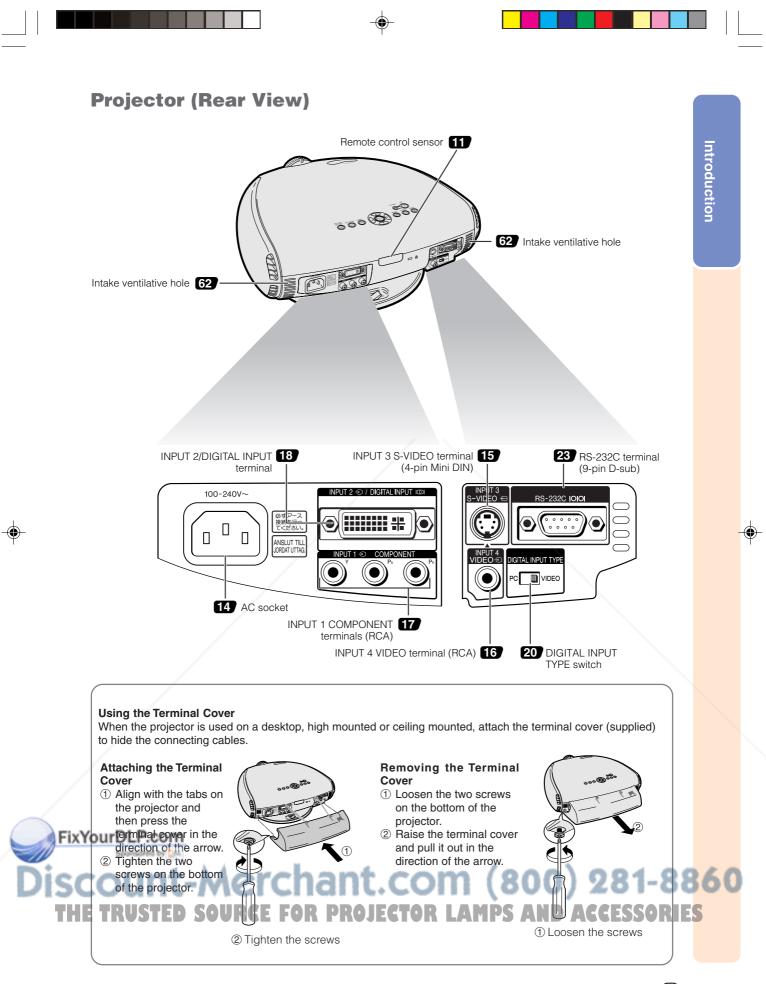
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ficiently cooled down.
 Allow at least 1 foot (30 cm) of space between the exhaust ventilative hole and the nearest wall or obstruction.

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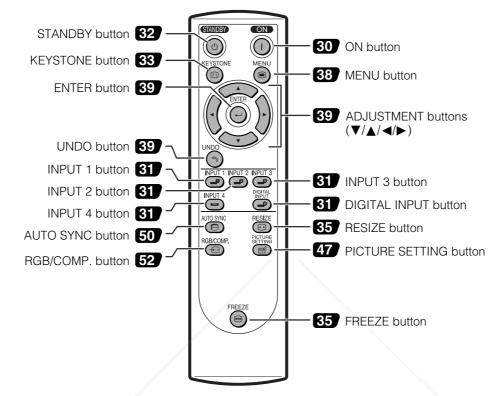




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### **Remote Control (Front View)**



### **Remote Control (Top View)**

Remote control signal transmitters



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# **Operating the Remote Control**

### **Available Range of the Remote Control**

The remote control can be used to control the projector within the ranges shown in the illustration.

### 🗞 Note

• The signal from the remote control can be reflected off a screen for easy operation. However, the effective distance of the signal may differ due to the screen material.

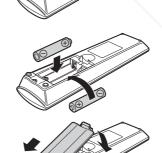
### When using the remote control:

- Be sure not to drop, or expose to moisture or high temperature.
- The remote control may malfunction under a fluorescent lamp. Under that circumstance, move the projector away from the fluorescent lamp.

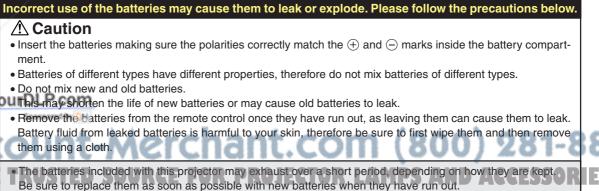
### **Inserting the Batteries**

The batteries (two "AA" size) are included in the package.

- Pull down the tab on the cover and remove the cover toward the direction of the arrow.
- 2 Insert the included batteries. • Insert the batteries making sure the polarities correctly match the ⊕ and ⊖ marks inside the battery compartment.
- 3 Insert the lower tab of the cover into the opening, and lower the cover until it clicks in place.



Remote control



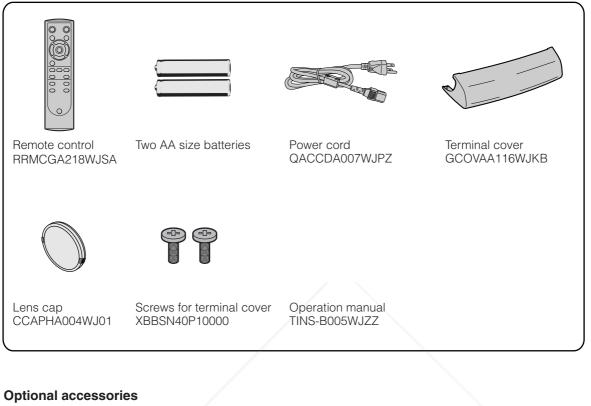
• Remove the batteries from the remote control if you will not be using the remote control for a long time.

Remote control

**(E)-11** 

# Accessories

### Supplied accessories



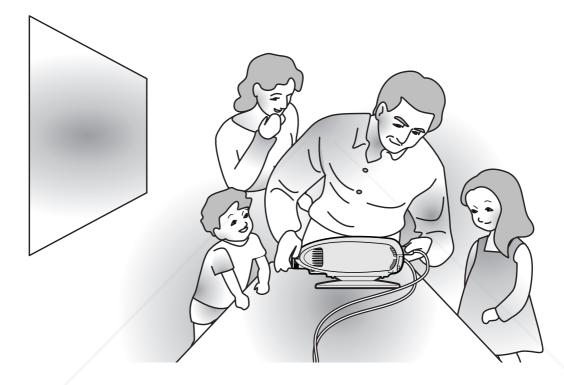
3 RCA to 15-pin D-sub cable (9'10" (3.0 m))	AN-C3CP	
DVI to 15-pin D-sub adaptor (7.9" (20 cm))	AN-A1DV	
DVI cable (9'10" (3.0 m))	AN-C3DV	

# Note 📎

• Some of the cables may not be available depending on the region. Please check with your nearest Authorized SharpVision Service Center or Dealer.

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# **Connections and Setup**



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**Connections and Setup** 

# **Connecting the Projector to Other Devices**

### **Before Connecting**

### Note 🚫

• Before connecting, be sure to unplug the power cord of the projector from the AC outlet and turn off the devices to be connected. After making all connections, turn on the projector and then the other devices.

When connecting a computer, be sure that it is the last device to be turned on after all the connections are made.

• Be sure to read the operation manuals of the devices to be connected before making connections.

### This projector can be connected to:

### Video equipment:

■ A VCR, DVD player or other video equipment (See page 15.)

■ A DVD player or DTV\* decoder (See page 17.)

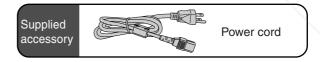
\*DTV is the umbrella term used to describe the new digital television system in the United States.

### A computer using:

- DVI to 15-Pin D-sub adapter (See page 21.)
- A DVI cable (See page 22.)
- An RS-232C cable (See page 23.)

### Connecting the Power Cord

Plug in the supplied power cord into the AC socket on the rear of the projector.





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## **Connecting to Video Equipment**

### **Connecting to Video Equipment Using an S-video Cable (INPUT 3)**

Using an S-video cable, a VCR, DVD player or other video equipment can be connected to INPUT 3 input terminal.

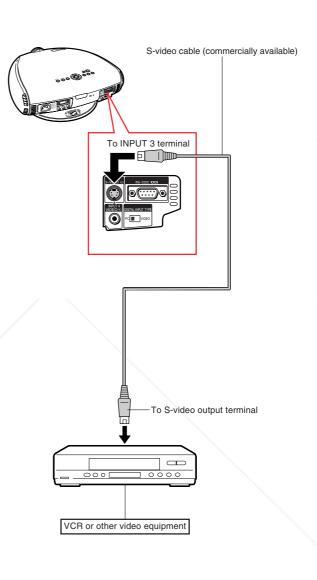
Connect an S-video cable to the projector.

2 Connect the S-video cable to the video equipment.

### Note 📎

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• The INPUT 3 (S-VIDEO) terminal uses a video signal system in which the picture is separated into color and luminance signals to realize a higher-quality image. To view a higher-quality image, use a commercially available S-video cable to connect the INPUT 3 terminal on the projector and the S-video output terminal on the video equipment.



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**Connections and Setup** 

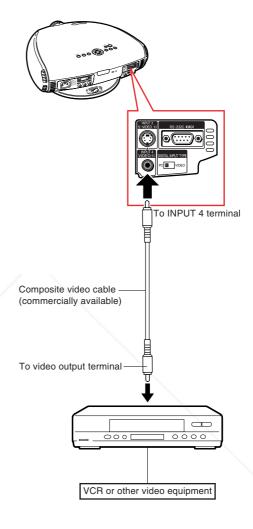
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### **Connecting the Projector to Other Devices**

### Connecting to Video Equipment Using a Composite Video Cable (INPUT 4)

Using a composite video cable, a VCR, DVD player or other video equipment can be connected to INPUT 4 input terminal.

- Connect a composite video cable to the projector.
- 2 Connect the composite video cable to the video equipment.





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## **Connecting to a DVD Player and DTV Decoder**

### Connecting to Component Video Equipment Using a Component Cable (INPUT 1)

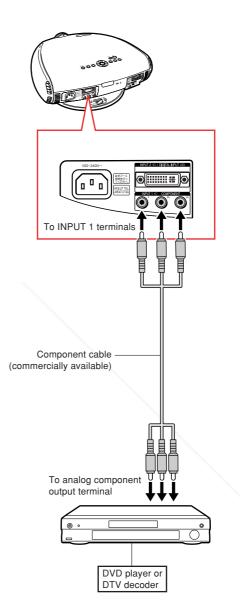
Use a component cable when connecting component video equipment such as DVD players and DTV decoders to INPUT 1 terminals.

- 1 Connect a component cable to the projector.
- 2 Connect the above cable to the component video equipment.

# Note Note

 Make sure to turn both the projector and the video equipment off before connecting.

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Setup and Connections

### **Connecting the Projector to Other Devices**

### **Connecting to Compo**nent Video Equipment Using a 3 RCA to 15-pin **D-sub Cable and the DVI to 15-pin D-sub** Adaptor (INPUT 2)

Use a 3 RCA to 15-pin D-sub cable and the DVI to 15-pin D-sub adaptor when connecting component video equipment such as DVD players and DTV decoders to INPUT 2 terminal.

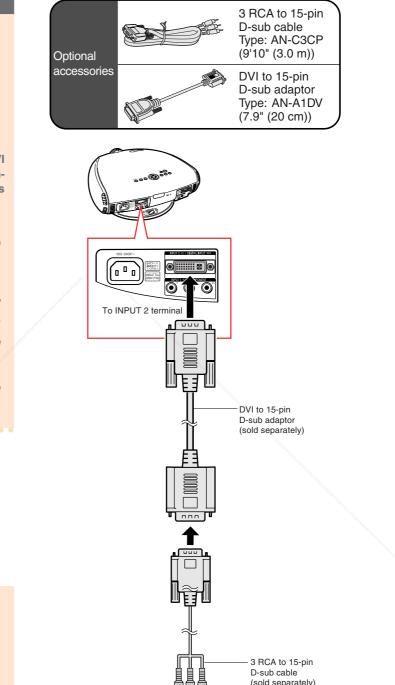
- 1 Connect a DVI to 15-pin D-sub adaptor to the projector.
- 2 Connect a 3 RCA to 15-pin Dsub cable to the above adaptor.
- Secure the connectors by tightening the thumbscrews.
- 3 Connect the above cable to the video equipment.

# Note Note

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- When connecting this projector to component output terminal of the DTV decoder, select "Component" for "Signal Type" on the OSD menu or press (G) on the remote control. (See page 52.)
- Make sure to turn both the projector and the video equipment off before connecting.



# output terminal

60

**(E)-18** 

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FOR

DVD player or DTV decoder

To analog component

### **Connecting to RGB Video Equipment Using** the DVI to 15-pin D-sub Adaptor and the RGB Cable (INPUT 2)

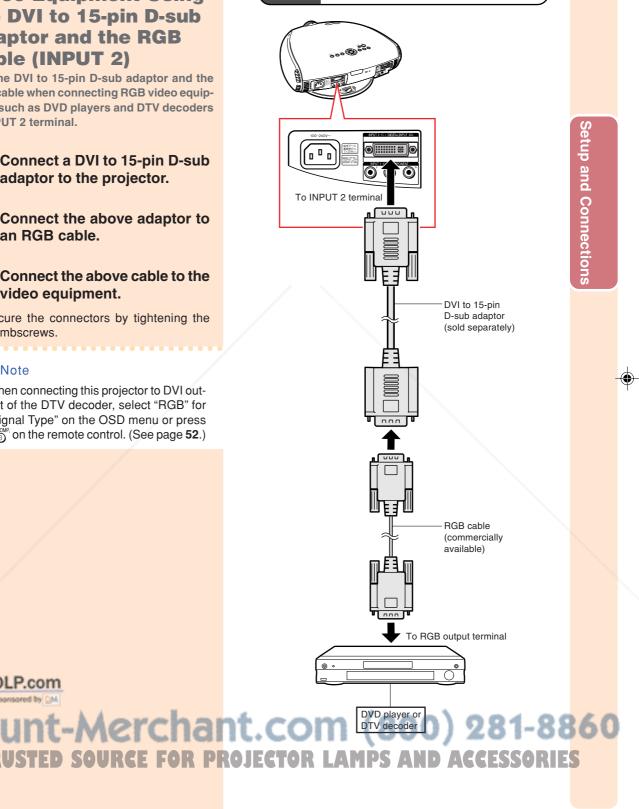
Use the DVI to 15-pin D-sub adaptor and the RGB cable when connecting RGB video equipment such as DVD players and DTV decoders to INPUT 2 terminal.

- 1 Connect a DVI to 15-pin D-sub adaptor to the projector.
- 2 Connect the above adaptor to an RGB cable.
- 3 Connect the above cable to the video equipment.
- · Secure the connectors by tightening the thumbscrews.
- Note Note
- . When connecting this projector to DVI output of the DTV decoder, select "RGB" for "Signal Type" on the OSD menu or press  $\stackrel{\text{REBCOMP}}{\textcircled{}}$  on the remote control. (See page 52.)

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Optional accessory

ß DVI to 15-pin D-sub adaptor Type: AN-A1DV (7.9" (20 cm))



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### **Connecting the Projector to Other Devices**

### **Connecting to Video Equipment with the DVI Output Terminal Using** a DVI Cable (DIGITAL **INPUT**)

Use the DVI cable when connecting video equipment with the DVI output terminal such as DVD players and DTV decoders to DIGITAL **INPUT** terminal.

- 1 Slide the "DIGITAL INPUT TYPE" switch on the back terminal board to "VIDEO".
- 2 Connect the DVI cable to the **DIGITAL INPUT terminal.**
- **3** Connect the other end to the corresponding terminal on the DVD player or DTV decoder.
- Secure the connectors by tightening the thumbscrews.

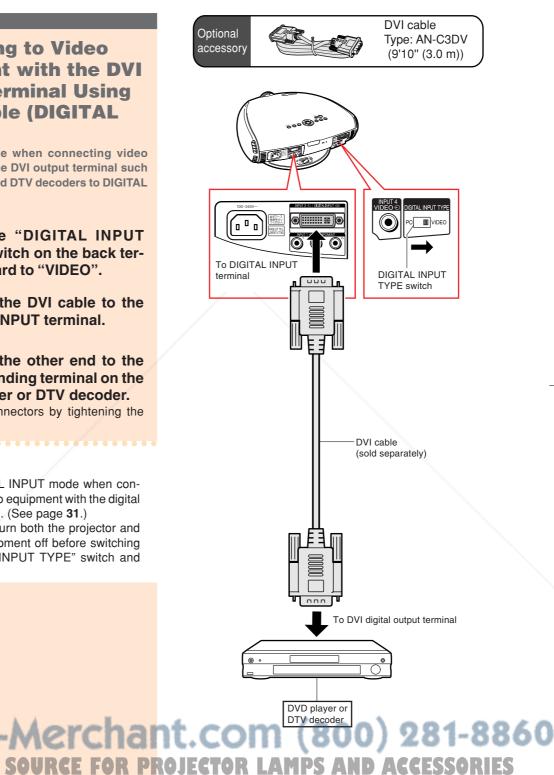
# Note

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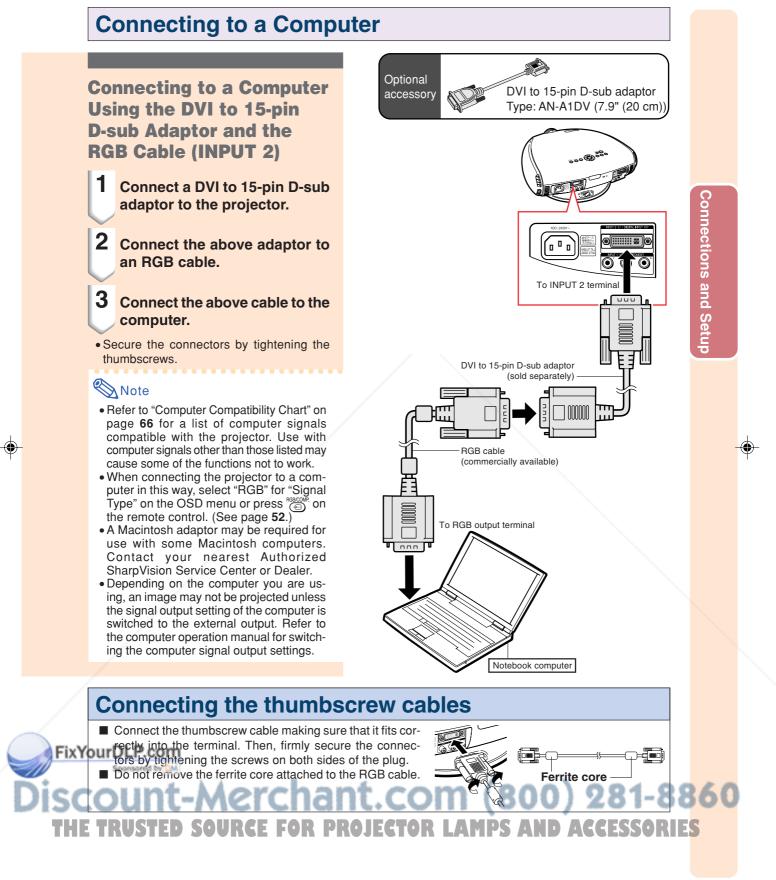
| ? **| | K % | ∃** → )

- Select DIGITAL INPUT mode when connecting to video equipment with the digital output terminal. (See page 31.)
- · Make sure to turn both the projector and the video equipment off before switching the "DIGITAL INPUT TYPE" switch and connecting.



(E)-20

20



### **Connecting the Projector to Other Devices**

### Connecting to a computer with DIGITAL RGB output Terminal (DIGITAL INPUT)

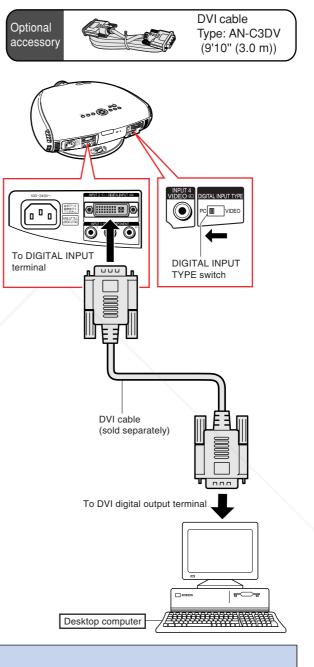
- 1 Slide the "DIGITAL INPUT TYPE" switch on the back terminal board to "PC".
- 2 Connect a DVI cable to the projector.

# 3 Connect the above cable to the computer.

• Secure the connectors by tightening the thumbscrews.

### Note 🚫

- Select DIGITAL INPUT mode when connecting to digital output terminal of the computer. (See page **31**.)
- Before switching the "DIGITAL INPUT TYPE" switch and connecting, be sure to unplug the power cord of the projector from the AC outlet and turn off the computer to be connected. After making all connections, turn on the projector and then the computer.
- Be sure that the computer is the last device to be turned on after all the connections are made.



### 

# **Controlling the Projector by a Computer**

### Controlling the Projector Using an RS-232C Cable

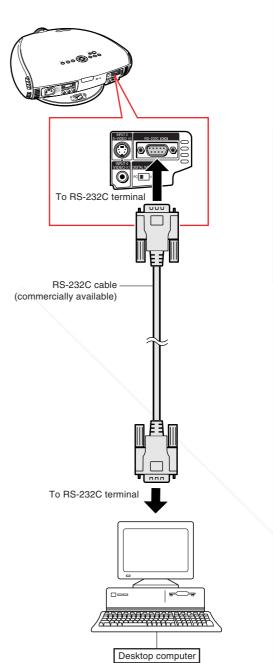
When the RS-232C terminal on the projector is connected to a computer with an RS-232C cable (null modem, cross type, commercially available), the computer can be used to control the projector and check the status of the projector. See page 65 for details.

# 1 Connect an RS-232C cable to the projector.

2 Connect the above cable to the computer.

### Note Note

- Do not connect or disconnect an RS-232C cable to or from the computer while it is on. This may damage your computer.
- The RS-232C function may not operate if your computer terminal is not correctly set up. Refer to the operation manual of the computer for details.
- Refer to "Computer Compatibility Chart" on page **66** for a list of computer signals compatible with the projector. Use with computer signals other than those listed may cause some of the functions not to work.



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**E-23** 

**Connections and Setup** 

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# Setup

# Using the Swivel Stand

You can adjust the angle and direction of the projected image by using the Swivel Stand.

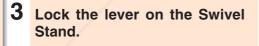
- 1 Unlock the lever on the Swivel Stand.
- 2 Adjust the angle and direction of the projected image as you want by lifting up the projector and rotating the projector on the Swivel Stand.

### **Caution**

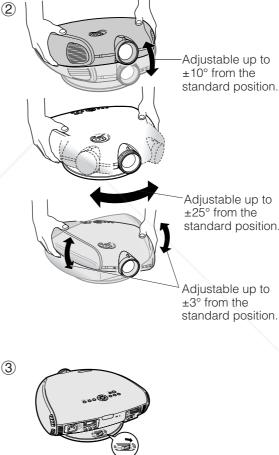
- Do not hold the lens when lifting, lowering or rotating the projector.
- When lowering the projector, be careful not to get your fingers caught in the area between the Swivel Stand and the projector.

### 🆏 Note

• When the height or direction of the projector is adjusted, the image may become distorted (keystoned), depending on the relative positions of the projector and the screen. See page 33 for details on the keystone correction.



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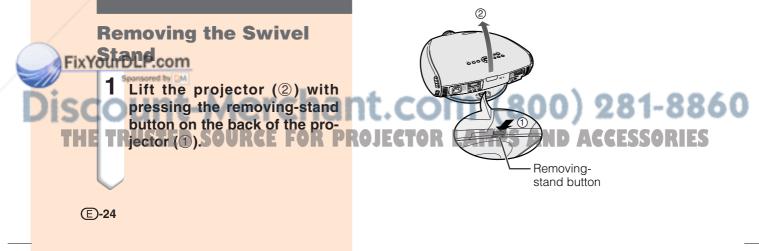
Adjustable up to ±25° from the standard position.

Swivel Stand

lever

LOCK/UNLOCK

Adjustable up to ±3° from the standard position.



1

# Attaching the Swivel Stand

- **1** Align the tabs on the front bottom of the projector (1).
- 2 While holding down the button (2), place the projector onto the Swivel Stand (3) to attach.
- **3** Press the projector down firmly to attach it to the Swivel Stand to make sure it is securely attached to the Swivel Stand.

### **Focusing and Zooming**

The picture can be focused and zoomed in or out by using the Focus ring and the Zoom knob.

- 1 Rotate the Focus ring until the image on the screen comes into focus.
- 2 Slide the Zoom knob. The image can be adjusted to the desired size within the zoom range.

### **Using the Lens Shift**

The picture can be adjusted within the shift range of the lens by rotating the lens shift dial on the top of the projector using your finger.

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2000

6000

**Projected Image** 

Zoom knob

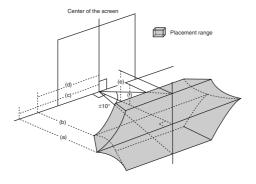
Focus ring

UP

Lens shift dial

### **Adjusting the Projection Distance**

- Refer to pages 33 and 34 about the function of Keystone correction and placement of projector using the correction.
- Decide the placement of the projector referring to the figures on the table and the diagram below according to the size of your screen and input signal.



(a) Maximum projection distance

(b) Minimum projection distance

(c) Horizontal placement range when projection distance is maximum. (d) Horizontal placement range when projection distance is minimum. (e) Vertical placement range when projection distance is maximum.

(f) Vertical placement range when projection distance is minimum.

# Note 📎

- The aspect ratio of the projected image shifts slightly when the lens shift is at a position other than the top position.
- The aspect ratio of the projected image also shifts slightly when the "H Keystone" and "V Keystone" functions are adjusted simultaneously.
- When adjusting "H Keystone" and "V Keystone" at the same time, the values of adjustable angles for each setting become smaller.
- Keystone correction cannot be applied to On-screen Display.
- · When Keystone correction is applied, the resolution of image can be deteriorated to some extent.
- There are errors of ±3% in the formulas below.

#### When using a wide screen (16:9)

In case of displaying the 16:9 picture on the whole of the 16:9 screen. 16

9

: Picture area

When using a normal screen (4:3) In case of setting the 16:9 picture to the full horizontal width of the 4:3 screen.



Screen size				Proje	ection distance ar	nd Keystone corr	ection			
(16:9)( <i>x</i> )		Maxim	um projection di	stance			Minim	um projection di	stance	
	Horizon		ital Placement ra	inge (c)	Vertical	Projection	Horizon	tal Placement ra	nge (d)	Vertical
Diag.	Projection distance (a) Composite, S-video 480I/P, 1080I 720P	720P	RGB	placement range (e)		distance (b)	Composite, S-video 480I/P, 1080I	720P	RGB	placement range (f)
200"	34' 6'' (10.5m)	10'6" (3.2m)	11'10''(3.6m)	8' 6" (2.6m)	5' 11"(1.8m)	28' 7" (8.7m)	7' 7'' (2.3m)	8' 2" (2.5m)	5'11''(1.8m)	4'11''(1.5m)
150"	25'10"(7.9m)	7' 10''(2.4m)	8' 10''(2.7m)	6' 7'' (2.0m)	4' 3" (1.3m)	21'5" (6.5m)	5' 7'' (1.7m)	6' 3" (1.9m)	4' 3'' (1.3m)	3' 7" (1.1m)
133"	22'11"(7.0m)	6'11''(2.1m)	7' 10''(2.4m)	5'7" (1.7m)	3' 11"(1.2m)	18'12''(5.8m)	4'11"(1.5m)	5' 7" (1.7m)	3'11"(1.2m)	3' 3" (1.0m)
106"	18' 3'' (5.6m)	5'7" (1.7m)	6' 3" (1.9m)	4' 7" (1.4m)	2' 11"(0.9m)	15' 1" (4.6m)	3'11"(1.2m)	4' 3" (1.3m)	2'11''(0.9m)	2' 7" (0.8m)
100"	17' 2" (5.2m)	5' 3" (1.6m)	5'11''(1.8m)	4' 3" (1.3m)	2'11"(0.9m)	14' 3" (4.3m)	3' 7'' (1.1m)	3'11''(1.2m)	2'11''(0.9m)	2' 4" (0.7m)
92"	15'10"(4.8m)	4' 7" (1.4m)	5' 3" (1.6m)	3'11"(1.2m)	2' 7'' (0.8m)	13' 1" (4.0m)	3' 3'' (1.0m)	3' 7" (1.1m)	2' 7'' (0.8m)	2' 4" (0.7m)
84"	14'5" (4.4m)	4' 3" (1.3m)	4'11''(1.5m)	3'7" (1.1m)	2' 4'' (0.7m)	11'11''(3.6m)	2'11"(0.9m)	3' 3" (1.0m)	2' 4'' (0.7m)	1' 12''(0.6m)
72"	12'4" (3.8m)	3'7" (1.1m)	4' 3'' (1.3m)	2'11"(0.9m)	1' 12"(0.6m)	10' 3" (3.1m)	2' 7'' (0.8m)	2' 11''(0.9m)	1' 12''(0.6m)	1' 8" (0.5m)
60"	10' 3'' (3.1m)	2'11''(0.9m)	3' 3" (1.0m)	2' 4" (0.7m)	1' 8'' (0.5m)	8' 6" (2.6m)	2' 4'' (0.7m)	2' 4" (0.7m)	1' 8'' (0.5m)	1' 4" (0.4m)
40"	6' 10''(2.1m)	1' 12''(0.6m)	2' 4" (0.7m)	1' 8" (0.5m)	12"(0.3m)	5' 7" (1.7m)	1' 4'' (0.4m)	1' 4" (0.4m)	12''(0.3m)	8" (0.2m)

Screen size		Projection distance and Keystone correction								ĺ	
(4:3)(x)		Ma	ximum projectior	n distance		Minimum projection distance					
	Projection	Horizontal Placement range (c)			e (c) Vertical		Horizor	ital Placement ra	nge (d)	Vertical	
Diag.	distance (a)	Composite, S-video 480I/P, 1080I	720P	RGB	placement range (e)	Projection distance (b)	Composite, S-video 480I/P, 1080I	720P	RGB	placement range (f)	
200"	-	-	-	-	-	26'3" (8.0m)	6' 11"(2.1m)	7' 7" (2.3m)	5' 3" (1.6m)	4' 7" (1.4m)	
150"	23' 9" (7.2m)	7' 3'' (2.2m)	8' 2" (2.5m)	5'11''(1.8m)	3' 11"(1.2m)	19' 8'' (6.0m)	5' 3" (1.6m)	5' 7" (1.7m)	3'11''(1.2m)	3' 3" (1.0m)	
100"	15' 9" (4.8m)	4' 7" (1.4m)	5' 3" (1.6m)	3'11''(1.2m)	2' 7'' (0.8m)	13' 1" (4.0m)	3' 3" (1.0m)	3' 7" (1.1m)	2' 7" (0.8m)	2' 4" (0.7m)	
84"	13' 3" (4.0m)	3' 11"(1.2m)	4' 7" (1.4m)	3' 3" (1.0m)	2' 4'' (0.7m)	10'11"(3.3m)	2' 11"(0.9m)	2' 11" (0.9m)	1' 12'' (0.6m)	1' 8" (0.5m)	
72"	11' 4" (3.5m)	3' 3'' (1.0m)	3'11''(1.2m)	2' 7'' (0.8m)	1' 12"(0.6m)	9' 4'' (2.9m)	2' 4" (0.7m)	2' 7'' (0.8m)	1' 8'' (0.5m)	1' 8" (0.5m)	
60"	9' 5" (2.9m)	2' 7" (0.8m)	2' 11''(0.9m)	2' 4'' (0.7m)	1' 8" (0.5m)	7' 9" (2.4m)	1' 12"(0.6m)	1' 12" (0.6m)	1' 4" (0.4m)	1' 4'' (0.4m)	060
40'	6' 3'' (1.9m)	1' 8" (0.5m)	1' 4" (0.4m)	1' 4'' (0.4m)	12"(0.3m)	5' 2'' (1.6m)	1' 4" (0.4m)	1' 4" (0.4m)	12''(0.3m)	8" (0.2m)	000
(a) = (0.0484949 (b) =(0.0402014		69) / 0.3048 x: 5 856) / 0.3048	Screen size (diag		RL	AMP	S AN	ID A	ECES	SOR	IES

### E)-26

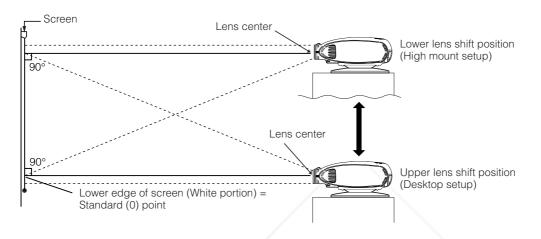
### **Upper and Lower Lens Shift Position**

- This projector is equipped with a lens shift function that lets you adjust the projection height.
- Adjust the projection height to match the setup configuration.
- The screen can be moved maximum the length of one screen vertically using the lens shift.

# Note 📎

• Optimal image quality is produced with the projector positioned perpendicular to the screen with all feet flat and level. Tilting or angling the projector will reduce the effectiveness of the lens shift function.

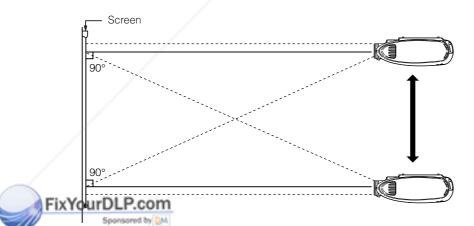
Screen size: 100 inches (254 cm) Aspect ratio: 16:9



### Upper and Lower Lens Shift Position (Ceiling Mount)

When the projector is in the inverted position, use the upper edge of the screen as the base line, and exchange the lower and upper lens shift values.

Screen size: 100 inches (254 cm) Aspect ratio: 16:9



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**Connections and Setup** 

### Setup

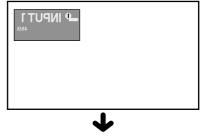
### **Image Projection**

### **Rear Projection**

- Place a translucent screen between the projector and the audience.
- Use the projector's menu screen to reverse the projected image. (See page 56 for use of this func-



### When using the default setting. ▼On-screen Display



The image is reversed.

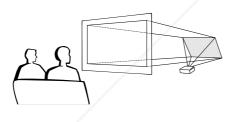
### 🆏 Note

tion.)

· Optimal image quality can be achieved when the projector is positioned perpendicular to the screen with all feet flat and leveled.

### Projection using a mirror

Place a mirror (normal flat type) in front of the lens.



### 🚺 Info

• When using a mirror, be sure to carefully position both the projector and the mirror so the light does not shine into the eyes of the audience.

### Ceiling-mount setup

- It is recommended that you use the optional Sharp ceiling-mount bracket for this installation.
- Before mounting the projector, remove the Swivel Stand. (See pages 24 and 25 for removing and attaching the Swivel Stand.)
- Before mounting the projector, contact your nearest Authorized SharpVision Service Center



ix Your Dealer to obtain the recommended ceiling-mount bracket (sold separately). (AN-CM260 ceiling-mount bracket, AN-EP101B extension tube for AN-CM260.) When the projector is in the inverted position, use the upper

edge of the screen as the base line.

Use the projector's menu screen to select the appropriate pro-MPS AND ACCESSORIES jection mode. (See page 56 for use of this function.)

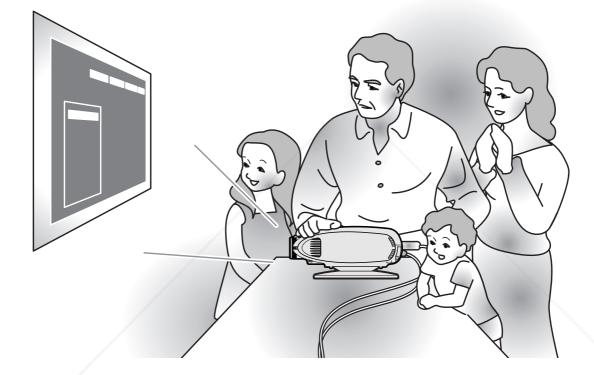
When using the default setting. ▼On-screen Display

LTURNI C	
$\mathbf{+}$	
The image is inverted.	

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# **Basic Operation**





# **Image Projection**

### **Basic Procedure**

Connect the required external equipment to the projector before operating the following procedures.

### 🚺 Info

• The language preset at the factory is English. If you want to change the on-screen display to another language, reset the language according to the procedure on page **31**.

# **1** Plug the power cord into the wall outlet.

• The POWER indicator illuminates red, and the projector enters standby mode.

# 2 Press on the remote control or on the projector.

- The blinking green LAMP indicator shows that the lamp is warming up. Wait until the indicator stops blinking before operating the projector.
- If the power is turned off and then immediately turned on again, it may take a short while before the lamp turns on.

# **Note**

• After the projector is unpacked and turned on for the first time, a slight odor may be emitted from the exhaust ventilative holes. This odor will soon disappear with use.

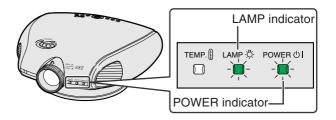
When the power is on, the LAMP indicator illuminates, indicating the status of the lamp.

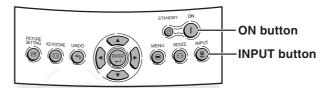
Green: Lamp is ready.

Green blinking: Warming up. / Cooling down.

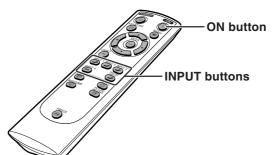
Red: Change the lamp.

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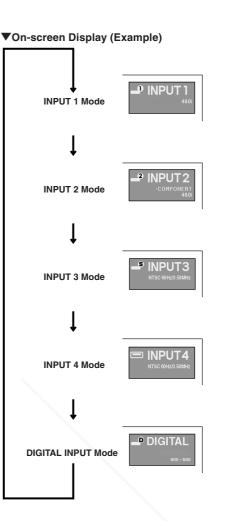
on the remote control or (a) on the projector to select the IN-PUT mode.

After pressing (a) once on the projector, use (a) to select the desired input mode.

# Note 📎

 When no signal is received, "NO SIG-NAL" will be displayed. When a signal that the projector is not preset to receive is received, "NOT REG." will be displayed.

About the	INPUT modes
INPUT 1 (Compo- nent)	Used for projecting im- ages from equipment connected to INPUT 1 terminals.
INPUT 2 (Compo- nent/RGB)	Used for projecting im- ages from equipment connected to INPUT 2 terminal.
INPUT 3 (S-Video)	Used for projecting im- ages from equipment connected to INPUT 3 terminal.
INPUT 4 (Video)	Used for projecting im- ages from equipment connected to INPUT 4 terminal.
DIGITAL	Used for projecting im- ages from equipment connected to DIGITAL INPUT terminal.



# **Basic Operatio**

# Selecting the Onscreen Display Lan-

### guage

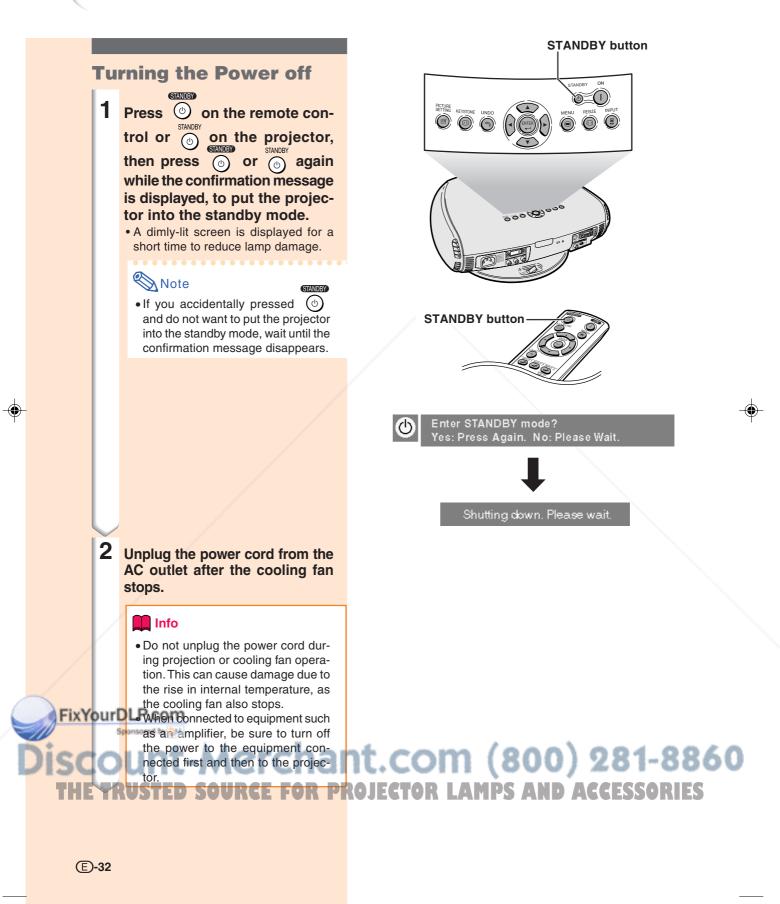
English is the preset language for the Onscreen Display; however, this can be changed to German, Spanish, Dutch, French, Italian, Swedish, Portuguese, Chinese, Korean or Japanese.

Display the "Language" menu and select the desired Language. →For operating the menu screen, see pages 38 to 41.

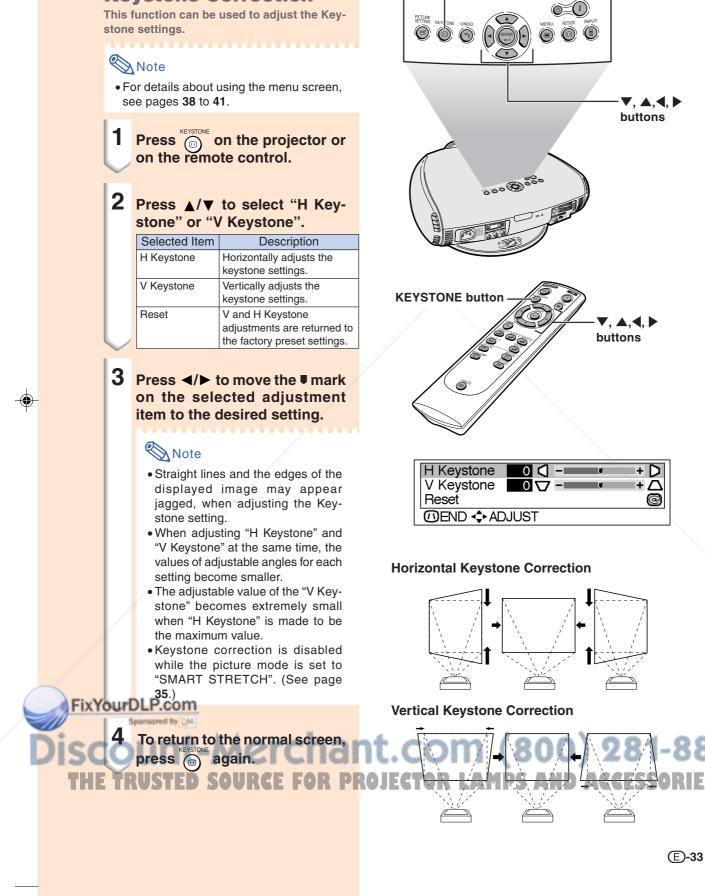
# On-screen Display







XV\_Z200U\_E\_p29\_43.p65



**Basic Operation** 

**Keystone Correction** 

**KEYSTONE** button

### **Image Projection**

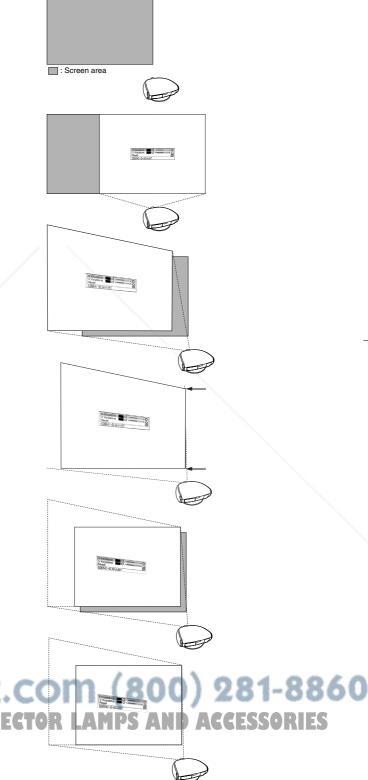
### Placement of the Projected Image Using the Keystone Correction

Place the projector at a distance from the screen that allows images to be projected onto the screen by referring to "Adjusting the Projection Distance" on pages 26 and 27.

- **1** Project the test pattern of the Keystone correction function onto the screen. Rotate the Focus ring until the image on the screen comes into focus. (See page 25.)
- 2 Change the projection angle using the Swivel Stand to properly project images onto the screen. (See page 24).
- **3** Align the edge of the screen closest to the projector with the test pattern by adjusting the zoom and the Swivel Stand. (See pages 24 and 25.)
- 4 Adjust the Keystone function so that the size of the projected image matches the screen size. (See page 33.)
- 5 Align the image on the screen by adjusting the zoom function and the Swivel Stand.
- 6 Adjust the focus so that the projected image is in focus at the center of the screen. (See

FixYourDLP.com Note

# The aspect ratio of the projected image shifts slightly when the lens shift is at a position other than the top position. The aspect ratio of the projected image also shifts slightly when the "H Keystone" and "V Keystone" functions are adjusted simultaneously.



# Freezing a Moving Image

1

You can instantly freeze a moving image with the remote control.

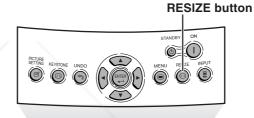
Press .
The projected image is frozen.

Press again to return to the moving image from the currently connected device.

# Adjusting the Picture Aspect Ratio

This function allows you to modify or customize the picture display mode to enhance the input image. Depending on the input signal, you can choose SIDE BAR, SMART STRETCH, CINEMA ZOOM or STRETCH image.

Press C. Each time C is pressed, the picture mode changes as shown on the next page. FREEZE button



**Basic Operation** 





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**E-35** 

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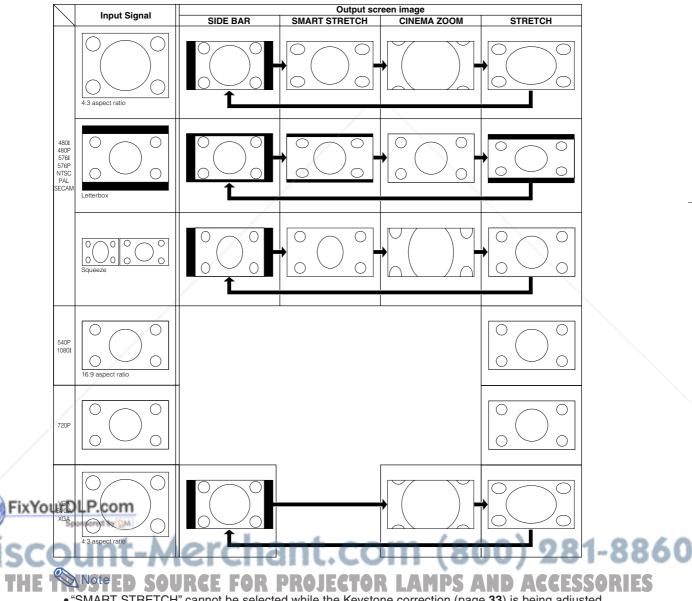
03.10.21, 4:14 PM

# **Image Projection**

		SIDE BAR	SMART STRETCH	CINEMA ZOOM	STRETCH
For 4:3 aspect ratio	4801 480P 5761 VGA 576P SVGA NTSC XGA PAL SECAM	768 × 576	1024 × 576	1024 × 576	1024 × 576
	480P	768 × 576	$1024 \times 576$	$1024 \times 576$	$1024 \times 576$
For 16:9 aspect ratio	720P	-	-	-	1024 × 576
	10801	-	-	-	1024 × 576

• "STRETCH" is fixed when 540P, 720P or 1080I signal is entered.

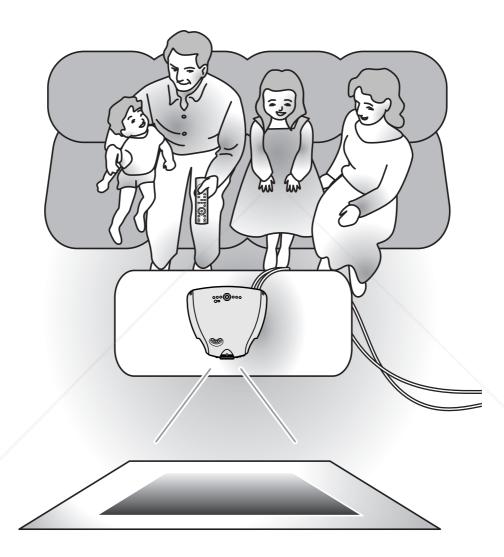
• "SMART STRETCH" cannot be selected while input signal from a computer (VGA, SVGA or XGA) is entered.



• "SMART STRETCH" cannot be selected while the Keystone correction (page **33**) is being adjusted.

- Keystone correction (page **33**) is disabled while the picture mode is set to "SMART STRETCH".
- 580I/580P is displayed on the screen when signal 576I/576P is input.

# **Adjustments and Settings**



Adjustments and Settings

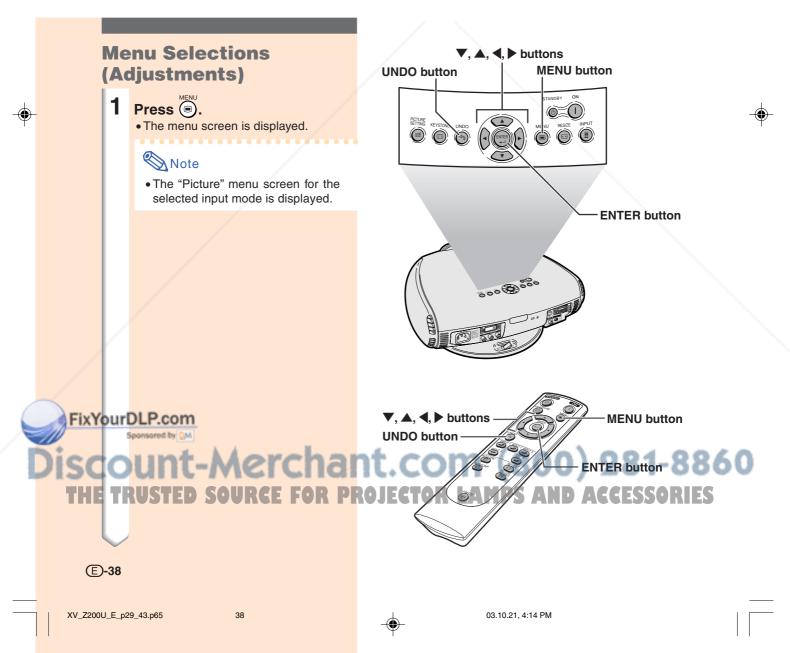


# Using the Menu Screen

The menu screens allow you to adjust the image and various projector settings. The menu can be operated to achieve two functions, adjustment and setting. (For adjusting the menu items, see pages 38 and 39. For setting the menu items, see pages 40 and 41.)

### Menu screen (example)

Picture		�়	J.	INP	UT 1)
Contrast	0	0	ų		+O
Bright	0	☺	¢.		+ 😔
Color	0	🕢	ų.		+ 🕑
Tint	0	◯	ţ.		+O
Sharp	0	ወ	ų.		+@
Red	0	Q-■	U		+Q
Blue	0	○	ų.		+Q
Reset					g
🛛 🖕 CLR Ten	np 5	\$ 85			
🛛 🖉 Gamma		¢©	Stand		_
White Empl	nasis				
Picture S			Mem		
	SEL ./AD	J.	NTER	<b>Ф</b> В	ACK



Press ◀ or ▶ to display the other menu screens.

• The menu icon for the selected menu screen is highlighted.

Menu icon	Menu screen
	Picture
<b>S</b>	Fine Sync
٩	Options
Ø	Language
Ľ	PRJ Mode

# Note 📎

- The "Fine Sync" menu is not available for INPUT 3 or 4.
- For items on the menus, see the tree charts on pages 42 and 43.

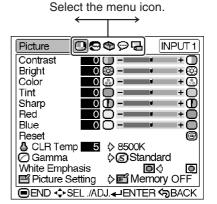
# Press ▼ or ▲ to select the item you want to adjust.

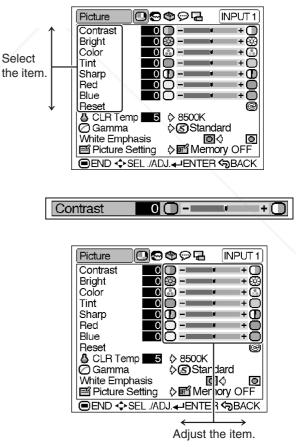
# \delta Note

- To display a single adjustment item, press on after selecting the item. Only the menu bar and the selected adjustment item will be displayed. Then if you press ▼ or ▲, the following item ("Bright" after "Contrast") will be displayed.
- Press 🕤 to return to the previous screen.

# 4 Press ◀ or ▶ to adjust the item selected.

• The adjustment is stored.





Adjustments and Settings

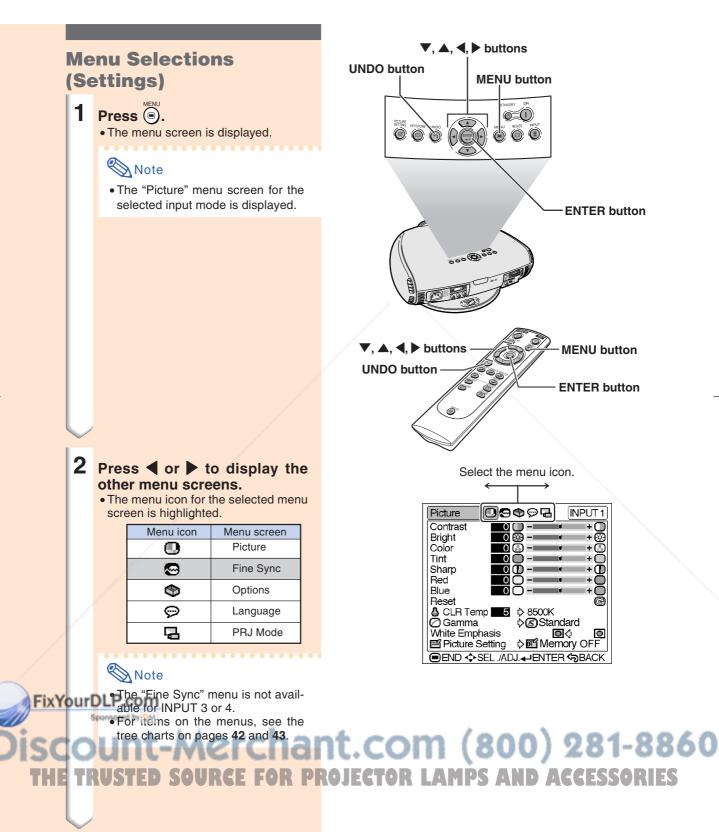
### 

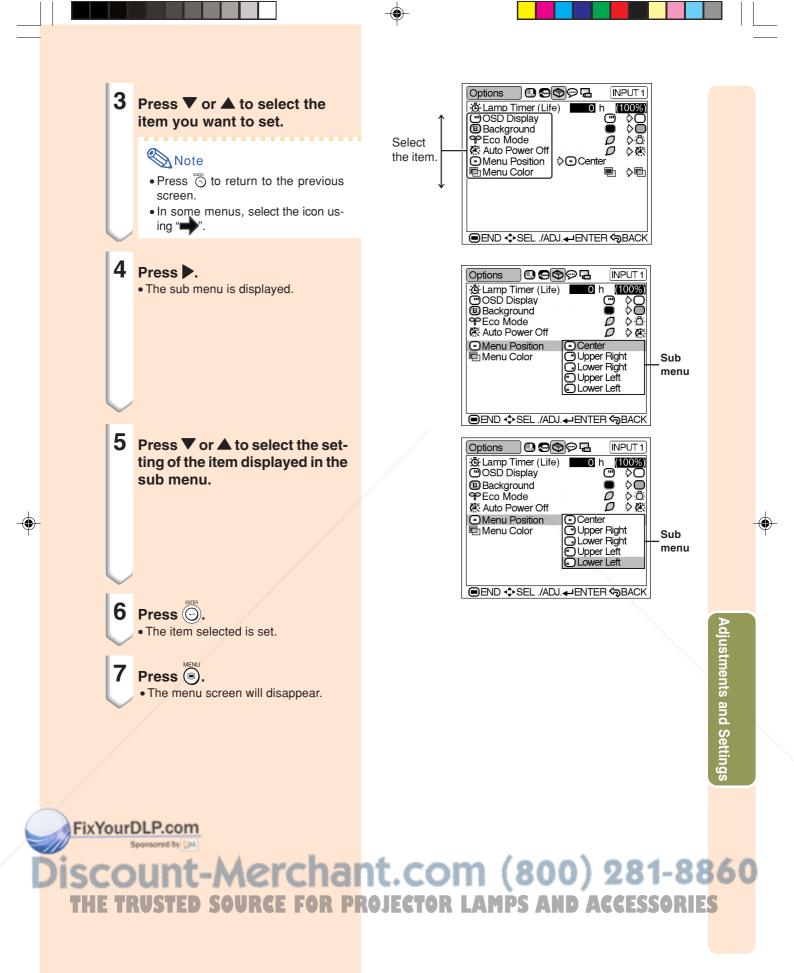
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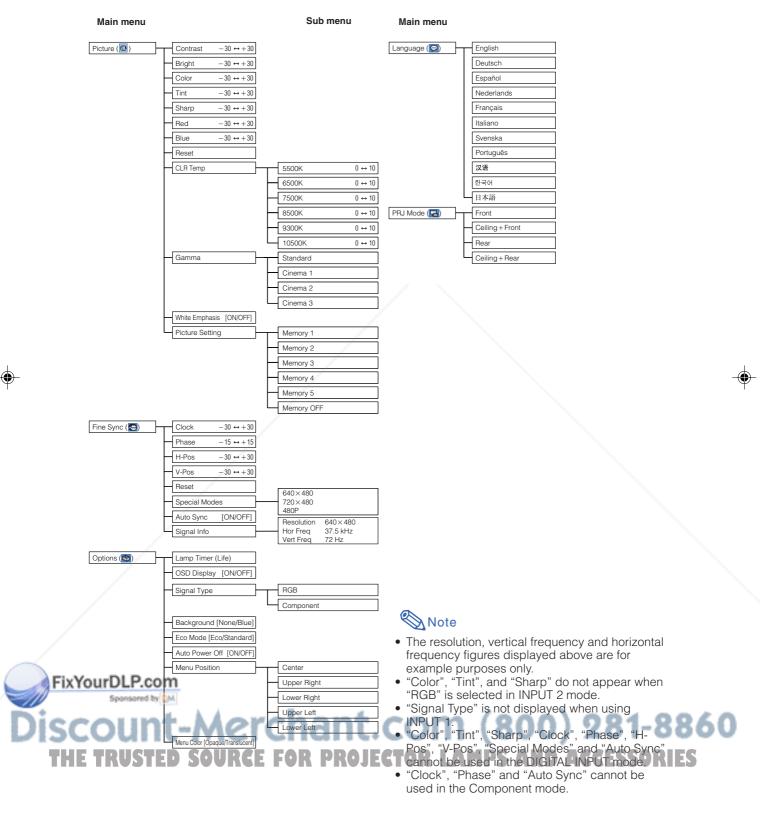


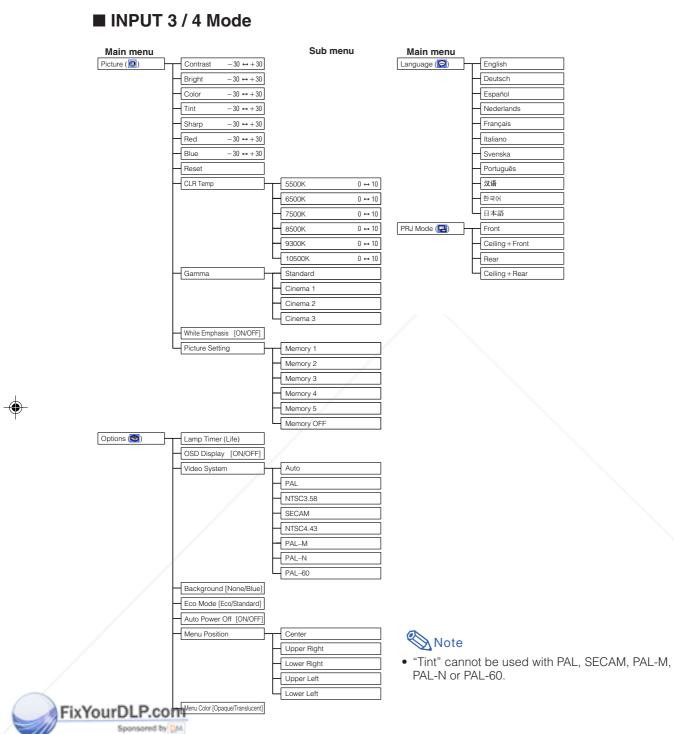




# **Menu Bar Items**

# ■ INPUT 1 / 2 / DIGITAL INPUT Mode





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Adjustments and Settings

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# **Adjusting the Picture**

You can adjust the projector's picture to your preferences with the following picture settings.

# Adjusting Image Preferences

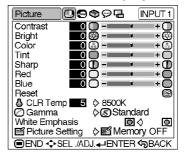
# Note Note

• First select "Memory 1-5" or "Memory OFF" when you want to save the "Picture" menu settings. See page **47** for details.

# Adjust the "Picture" menu on the menu screen.

# $\rightarrow$ For operating the menu screen, see pages 38 to 41.

### **On-screen Display**



Selected Item	Description	■ button	▶ button
Contrast	For adjusting the contrast level	For less contrast	For more contrast
Bright	For adjusting the brightness of an image	For less brightness	For more brightness
Color	For adjusting the color intensity of an image	For less color intensity	For more color intensity
Tint	For adjusting the tones of an image	Skin tones become purplish	Skin tones become greenish
Sharp	For making sharper or softer the contour of an image	For less sharpness	For more sharpness
Red	For adjusting the redness of an image	For weaker red	For stronger red
Blue	For adjusting the blueness of an image	For weaker blue	For stronger blue

# 🗞 Note

- "Color", "Tint" and "Sharp" do not appear for RGB input in INPUT 2 mode.
- To reset all adjustment items, select "Reset" on the "Picture" menu screen and press .
- "Tint" cannot be used with PAL, SECAM, PAL-M, PAL-N or PAL-60.
- "Color", "Tint" and "Sharp" cannot be used in the DIGITAL INPUT mode.

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# Adjusting the Color Temperature

This function allows for selecting the desired color temperature. With the lower value selected, the projected image becomes warmer, reddish and incandescent-like while with the higher value, the image becomes cooler, bluish and fluorescent-like.

# Select "CLR Temp" in the "Picture" menu on the menu screen.

# $\rightarrow$ For operating the menu screen, see pages 38 to 41.

Selected Item	Description
5500K	The less the value is set to, the
6500K	warmer, reddish, incandescent-like the image becomes.
7500K	the image becomes. ↑
8500K	The more the value is get to the
9300K	The more the value is set to, the cooler, bluish, fluorescent-like the
10500K	image becomes.

"CLR Temp" is fine adjusted by following the procedure below.

1 Select "CLR Temp" in the "Picture" menu on the menu screen and press .

• A single menu bar of "CLR Temp" is displayed.

# 2 Press ▲ or ▼ to fine adjust the color temperature.

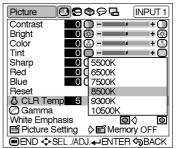
- With the lower value selected, the projected image becomes magentatinged. With the higher value selected, the projected image becomes greentinged.
- Pressing ◀ or ▶ changes the value of the color temperature in the sub menu.

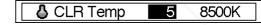
# \delta Note

•Values on "CLR Temp" are only for general standard purposes.

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## **On-screen Display**





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XV\_Z200U\_E\_p44\_50.p65

# Adjusting the Picture

# Gamma Correction Function

Gamma is an image quality enhancement function.

Four gamma settings are available to allow for differences in the brightness of the room.

# Select "Gamma" in the "Picture" menu on the menu screen.

 $\rightarrow$ For operating the menu screen, see pages 38 to 41.

Selected Item	Description
Standard	Standard picture without gamma
	correction
Cinema 1	Gives greater depth to darker portions
	of images.
Cinema 2	Brightness is toned down and the
	image becomes more balanced.
Cinema 3	Brighten the darker portions of images
	for easier viewing in a dimly lit room.

# Emphasizing the Contrast

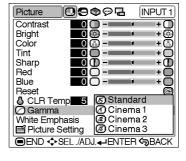
This function emphasizes the bright portions of images to obtain a higher contrast image.

Select "White Emphasis" in the "Picture" menu on the menu screen. →For operating the menu screen, see pages 38 to 41.

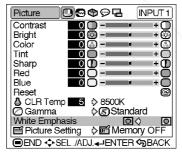
Selected Item	Description
<b>O</b> (ON)	For emphasizing the bright portions of
/	images
O(OFF)	For disabling "White Emphasis"

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### **On-screen Display**



### **On-screen Display**



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# Picture Setting Function

This function stores all items set in "Picture". Five settings can be stored separately in "Memory 1" to "Memory 5". Each stored setting is reassigned to each input mode (INPUT 1 to INPUT 4 and DIGITAL).

Even when the input mode or signal is changed, you can easily select optimal settings from the stored settings.

# Storing the Adjustment Values for Each Memory Number

Select "Picture Setting" on the "Picture" menu and the memory location where you want to store the settings. Then adjust the setting items on the "Picture" menu.

# $\rightarrow$ For operating the menu screen, see pages 38 to 41.

Selected Item	Description
Memory	Settings of all items in "Picture" can be
1-5	stored for the respective input modes.
	The stored settings can be selected in
	any input modes.
Memory	Besides "Memory 1" to "Memory 5",
OFF	other settings on the "Picture" menu
	can be stored for each input mode.
	The settings stored in "Memory OFF"
	cannot be applied when another input
	mode is selected.

# Applying the Stored Settings

If you want to apply the stored settings on the "Picture" menu, select "Picture Setting" on the "Picture" menu and the memory location where you have stored the settings.

# 🕙 Note

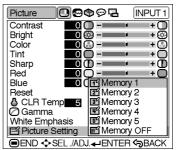
Memory 1

You This function can be operated using the on the projector or on the remote control, as well as the OSD menu screen.
 Each time or is pressed, the memory number changes as shown be-tow.
 Source For PR

-Memory OFF ← Memory 5 ← Memory 4 ←

→Memory 2 → Memory 3

### **On-screen Display**



### **PICTURE SETTING button**



000 0000 000 0000 0000 0000

PICTURE

button

Adjustments and Settings



# Adjusting the Computer and DVD/DTV Images

Use the Fine Sync function in case of irregularities such as vertical stripes or flickering in portions of the screen.

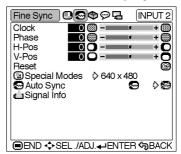
# When Auto Sync is OFF

When "Auto Sync" is "OFF", interference such as flickering or vertical stripes may occur if displaying tilings or vertical stripes. Should this occur, adjust "Clock", "Phase", "H-Pos" and "V-Pos" for obtaining an optimum image.

Select "Clock", "Phase", "H-Pos" or "V-Pos" in the "Fine Sync" menu on the menu screen.

→For operating the menu screen, see pages 38 to 41.

### **On-screen Display**



Selected Item	Description	
Clock	Adjusts vertical noise.	
Phase	Adjusts horizontal noise (similar to tracking on your VCR).	
H-Pos	Centers the on-screen image by moving it to the left or right.	
V-Pos	Centers the on-screen image by moving it up or down.	

# Note

- "Clock", "Phase", "H-Pos" and "V-Pos" cannot be used in the DIGITAL INPUT mode.
- "Clock" and "Phase" cannot be used in the Component mode.
- · Computer image adjustments can be made easily by pressing (E) on the remote control. See page 50 for details.
- To reset all adjustment items, select "Reset" on the "Fine Sync" menu screen and press .
- The adjustable area of each item may be changed according to the input signal.

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# Special Modes Adjustment

Ordinarily, the type of input signal is detected and the correct resolution mode is automatically selected. However, for some signals, the optimal resolution mode in "Special Modes" on the "Fine Sync" menu screen may need to be selected to match the computer display mode.

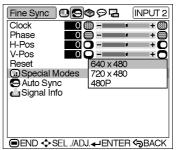
Set the resolution by selecting "Special Modes" in the "Fine Sync" menu on the menu screen.

 $\rightarrow$ For operating the menu screen, see pages 38 to 41.

# Note 📎

- Avoid displaying computer patterns which repeat every other line (horizontal stripes). (Flickering may occur, making the image hard to see.)
- When inputting DTV 1080I signal, select the corresponding type of signal.
- When inputting 720P signal from the video equipment, select "720P". When inputting 1280 × 720 signal from the computer, select "HTPC".
- "Special Modes" cannot be used in the DIGITAL INPUT mode.

### **On-screen Display**



# djustments and Settings

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# Adjusting the Computer and DVD/DTV Images

# Auto Sync Adjustment Used to automatically adjust a computer im-

age.

Select whether the image is to be synchronized automatically when switching the signal with "ON" or "OFF".

# Select "Auto Sync" in the "Fine Sync" menu on the menu screen.

 $\rightarrow$ For operating the menu screen, see pages 38 to 41.

Selected Item	Description
🐼 (ON)	Auto Sync adjustment will occur when the projector is turned on or when the input signals are switched, when connected to a computer.
(OFF)	Auto Sync adjustment is not automatically performed.

# **Note**

- When the optimum image cannot be achieved with Auto Sync adjustment, use manual adjustments. (See page **48**.)
- The Auto Sync adjustment may take some time to complete, depending on the image of the computer connected to the projector.
- "Auto Sync" cannot be used in the DIGI-TAL INPUT mode.
- Auto Sync adjustment is also performed by pressing autosinc on the remote control.

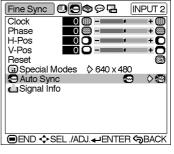
# **Checking the Input Signal**

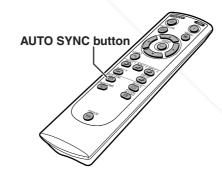
This function allows you to check the current input signal information.

Select "Signal Info" in the "Fine Sync" menu on the menu screen.

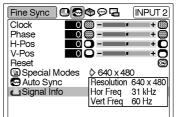
→For operating the menu screen, see pages 38 to 41.

# **On-screen Display**





# On-screen Display



# Note Stars displayed on the screen when PROJECTOR LAMPS AND ACCESSORIES signal 1080I is inputted during DVI connection.

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# Using the "Options" Menu

# Checking the Lamp Life Status

You can confirm the cumulative lamp usage time and the remaining lamp life (percentage).

# Display the "Options" menu to check the lamp life status.

 $\rightarrow$ For operating the menu screen, see pages 38 to 41.

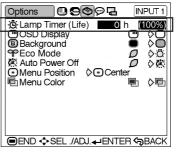
Lamp usage condition	Remaining lamp life		
Lamp usage condition	100%	5%	
Operated exclusively	Approx.	Approx.	
in Eco mode ( 💋 )	4,000 hours	200 hours	
Operated exclusively	Approx.	Approx.	
in Standard mode (:		150 hours	

# 🆏 Note

- It is recommended that the lamp be changed when the remaining lamp life becomes 5%.
- For lamp replacement, contact your nearest Authorized SharpVision Service Center or Dealer.
- The table above indicates rough estimates in the case of using only in each mode shown. Remaining lamp life changes within the range of the values shown depending on the frequency at which "Eco Mode" is switched to " $\mathcal{O}$ " (Eco mode) and " $\mathcal{O}$ " (Standard mode) (see page 53).

### **On-screen Display Turning on/off the On-**Options 🛛 🖸 🗟 🗐 🖓 🖫 INPUT 1 😟 Lamp Timer (Life) screen Display (100% Background PEco Mode This function allows you to turn on or off the ٥ ð $\overline{C}$ on-screen messages that appear during input K Auto Power Off Þ 0R Menu Position Menu Color ♦ OCenter select. 0 🖻 Fix Yselect 'OSD Display" in the "Options" menu on the menu screen. For operating the menu screen, see ■END � SEL ./ADJ. + ENTER →BACK pages 38 to 41. AMPS AND ACCESSORIES Selected Item Description All On-screen Displays are 🗂 (ON) displayed. INPUT/FREEZE/AUTO SYNC/ O (OFF)

# **On-screen Display**



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djustments and Settings

"An invalid button has been pressed." are not displayed.

# Selecting the Signal Type

This function allows you to select the input signal type Component or RGB for INPUT 2.

Select "Signal Type" in the "Options" menu on the menu screen. →For operating the menu screen, see pages 38 to 41.

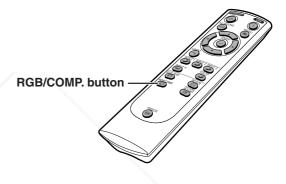
Selected Item	Description
😁 RGB	Set when RGB signals are received.
Component	Set when Component signals are received.

# Note

• "RGB" or "Component" can be selected with state on the remote control only in INPUT 2.

# **On-screen Display**

Options		©₽	INF	PUT 2
Camp Tir OSD Dis Signal Ty Backgrou PEco Moc ≪ Auto Pow OMenu Po Menu Co	play /pe / und / de ver Off osition &	RGB     Comr     Comr	Doner D D D	
	SEL ./ADJ.	<b>↓</b> ENTE	R 🕤	BACK



# Setting the Video Signal (VIDEO menu only)

The video input system mode is preset to "Auto"; however, it can be changed to a specific system mode if the selected system mode is not compatible with the connected audiovisual equipment.

Select "Video System" in the "Options" menu on the menu screen.

→For operating the menu screen, see pages 38 to 41.

# Note Note

signal.

you may not receive a clear picture due to signal differences. Should this occur, switch to the video system of the source

> "Auto" cannot be set for PAL-M and PAL-**PROJECTOR LAMPS AND ACCESSORIES** N input signals. Select "PAL-M" or "PAL-N" in "Video System" menu for PAL-M and PAL-N input signals.

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### **On-screen Display**

Options 🖸 👁	P 🛛 🛛 🖓
Camp Timer (Life	) <b>0</b> h <u>(100%)</u>
🕵 Video System	@ Auto
Background PEco Mode	PAL M2INTSC3.58
🕅 Auto Power Off	SECAM
Menu Position     Menu Color	MINTSC4.43 PAL-M
	BPAL-N
	PAL-60

# Selecting a Background Image

This function allows you to select the image displayed when no signal is being sent to the projector.

# Select "Background" in the "Options" menu on the menu screen.

 $\rightarrow$ For operating the menu screen, see pages 38 to 41.

Selected Iten	Description	
O (Blue	Blue screen	
🛑 (None	) Black screen	

# **Setting the Eco Mode**

This function allows you to select the desired power consumption mode.

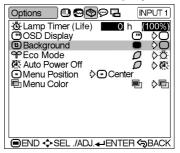
Select "Eco Mode" in the "Options" menu on the menu screen. →For operating the menu screen, see pages 38 to 41.

Selected Item	Brightness	Power consumption	Lamp life
(Eco mode)	80%	230 W	Approx. 4,000 hours
Standard mode)	100%	285 W	Approx. 3,000 hours

# Note 📎

- Although lamp life and noise are improved when "Eco Mode" is set to "D" (Eco mode), brightness decreases by 20%.
- "Eco Mode" is factory preset to "♂" (Standard mode).

### **On-screen Display**



### **On-screen Display**

Options       Image: Second sec
<sup>™</sup> OSD Display <sup>™</sup> Background <sup>™</sup> Eco Mode <sup>™</sup> Auto Power Off
■ Background     ● ◇ ○       P Eco Mode     □ ◇ ○            ≪ Auto Power Off     □ ◇ ※
PPEco Mode D ⊘Ö © Auto Power Off D ⊘®
孫 Auto Power Off  Ø ◇ 恋
Monu Bosition NO Center
E Menu Color E � D
■END ♦ SEL /ADJ. ■ENTER SBACK

# djustments and Settings

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# Automatic Power Shutoff Function

When no input signal is detected for more than 15 minutes, the projector will automatically enter the standby mode if set to " $\mathcal{O}$ " (ON).

# Select "Auto Power Off" in the "Options" menu on the menu screen. $\rightarrow$ For operating the menu screen, see pages 38 to 41.

Selected Item	Description	
Ø	Projector automatically enters the standby mode after 15 minutes without an input signal.	
<b>×</b>	Automatic Power Shut-off disabled.	

# 🗞 Note

"Auto Power Off" is factory preset to " "."
When the Auto Power Off function is set to " (ON)", 5 minutes before the projector enters the standby mode, the message "Enter STANDBY mode in X min." will appear on the screen to indicate the remaining minutes.

### **On-screen Display**

Options		©₽	INPUT 1
© Lamp Tir ─OSD Dis B Backgrou ♀ Eco Moc ♀ Loo Moc ♀ Menu Pc ► Menu Cc	play und ver Off vsition Ø	Center	
	SEL ./ADJ.		R 🖘 BACK

Enter STANDBY mode in 1 min.

# Selecting the Menu Screen Position

This function allows you to select the desired position of the menu screen.

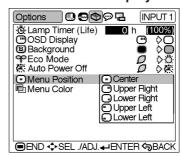
Select "Menu Position" in the "Options" menu on the menu screen.

 $\rightarrow$ For operating the menu screen, see pages 38 to 41.

		Selected Item	Description	
FixYourDLP. Center of the image.				
Upper Right			The menu is displayed on the upper right of the image.	
DISC		Lower Right	The menu is displayed on the lower right of the image.	
THE		Upper S Left	The menu is displayed on the upper left of the image.	
Lower		Lower Left	The menu is displayed on the lower left of the image.	

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### **On-screen Display**



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# Selecting the Menu Color

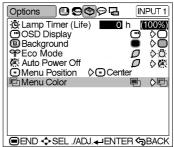
This function allows you to select the color of the menu screen.

Select "Menu Color" in the "Options" menu on the menu screen. →For operating the menu screen, see

pages 38 to 41.

Selected Item	Description
🗐 (Opaque)	The menu is displayed opaquely.
<b>⊡</b> (Translucent)	The menu is displayed translucently. The part of the menu on the image becomes transparent.

### **On-screen Display**



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# **Reversing/Inverting Projected Images**

This projector is equipped with a reverse/invert image function that allows you to reverse or invert the projected image for various applications.

# Setting the Projection Mode

Display the "PRJ Mode" menu and select the desired projection mode. →For operating the menu screen, see pages 38 to 41.

Selected Item	Description	
🖪 Front	Normal image	
Ceiling + Front	Inverted image	
📮 Rear	Reversed image	
🔁 Ceiling + Rear	Reversed and inverted image	

# Note 📎

• This function is used for the reversed image and ceiling-mount setups. See page 28 for these setups.

## **On-screen Display**





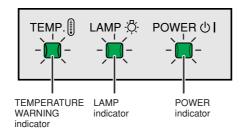
# Appendix





# **Maintenance Indicators**

- The warning lights on the projector indicate problems inside the projector.
- If a problem occurs, either the temperature warning indicator or the lamp indicator will illuminate red, and the projector will enter the standby mode. After the projector has entered the standby mode, follow the procedures given below.



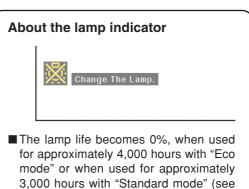
### About the temperature warning indicator

If the temperature inside the projector increases, due to blockage of the air vents, or the setting location, "TEMP." will



illuminate in the lower left corner of the picture. If the temperature keeps on rising, the lamp will turn off and the temperature warning indicator will blink, the cooling fan will run for a further 90 seconds, and then the projector will enter the standby mode. After

"TEMP." appears, be sure to perform the following measures.



page 53). ■ When the remaining lamp life becomes 5% or less, "≦"" (yellow) will be displayed on the screen. When the percentage becomes 0%, "≦"" will change to "≦"" (red), the lamp will automatically turn off and then the projector will automatically enter the standby mode. At this time, the lamp indicator will illuminate in red.

■ If you try to turn on the projector a fourth time without replacing the lamp, the projector will not turn on.

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2

1	Maintenance indicator		Condition	Condition Problem	Possible Solution	
		Normal	Abnormal	Condition	FIODIeIII	
		/		The internel	<ul> <li>Blocked air intake</li> </ul>	Relocate the projector to an area     with proper ventilation.
	Temperature warning indicator	Off Red on/ Standby		The internal temperature is abnormally high.	<ul> <li>Cooling fan break- down</li> <li>Internal circuit failure</li> <li>Clogged air intake</li> </ul>	<ul> <li>Take the projector to your neares Authorized SharpVision Service Center or Dealer for repair.</li> </ul>
/	Lamp	Green on Green blinks	Red on	Time to change the lamp.	Remaining lamp life becomes 5% or less.	<ul> <li>Carefully replace the lamp. (See page 59.)</li> <li>Take the projector to your nearest Authorized SharpVision Service</li> </ul>
THAN .	indicator		Red on/ Standby	The lamp does not illuminate.	mp does minate. • Burnt-out lamp • Lamp circuit failure • Please exercis	<ul><li>Center or Dealer for repair.</li><li>Please exercise care when replacing the lamp.</li></ul>
FixYe	Sponsored b	y QM				<ul> <li>Securely install the cover.</li> <li>If the power is not turned on even</li> </ul>
Disc	Power indicator	Green on/ Red on	Off	The power is not turned on.	The lamp unit cover is open.	when the lamp unit cover is securely installed, contact your nearest Authorized SharpVision
THE	TRUST	ED SOU	RCE I	FOR PROJ	ECTOR LAM	Service Center or Dealer for advice.

### Info

- If the temperature warning indicator illuminates, and the projector enters the standby mode, follow the possible solutions on the previous page and then wait until the projector has cooled down completely before plugging in the power cord and turning the power back on. (At least 5 minutes.)
- If the power is turned off for a brief moment due to power outage or some other cause while using the projector, and the power supply recovers immediately after that, the lamp indicator will illuminate in red and the lamp may not be lit. In this case, unplug the power cord from the AC outlet, replace the power cord in the AC outlet and then turn the power on again.
- If you want to clean the air vents during projector operation, be sure to put the projector into the standby mode. After the cooling fan has stopped, clean the vents.
- The cooling fan keeps the internal temperatures of the projector constant and this function is controlled automatically. The sound of the cooling fan may change during operation because the fan speed may change and this is not a malfunction.
- Do not unplug the power cord after the projector has entered the standby mode and while the cooling fan is running. The cooling fan runs for about 90 seconds.

# **Regarding the Lamp**

### Lamp

- It is recommended that the lamp (sold separately) be replaced when the remaining lamp life becomes 5% or less, or when you notice a significant deterioration in the picture and color quality. The lamp life (percentage) can be checked with the on-screen display. See page 51.
- For lamp replacement, please consult your nearest Authorized SharpVision Service Center or Dealer.

### **IMPORTANT NOTE TO U.S. CUSTOMERS:**

The lamp included with this projector is backed by a 90-day parts and labor limited warranty. All service of this projector under warranty, including lamp replacement, must be obtained through a Sharp Authorized Projector Dealer or Service Center. For the name of the nearest Authorized SharpVision Service Center or Dealer, please call toll-free: 1-888-GO-SHARP (1-888-467-4277). U.S.A. ONLY

# Caution Concerning the Lamp

- This projector utilizes a pressurized mercury lamp. A loud sound may indicate lamp failure. Lamp failure can be attributed to numerous sources such as: excessive shock, improper cooling, surface scratches or deterioration of the lamp due to a lapse of usage time. The period of time up to failure largely varies depending on the individual lamp and/or the condition and the frequency of use. It is important to note that failure can often result in the bulb cracking.
- When the lamp replacement indicator and on-screen display icon are illuminated, it is recommended that the lamp be replaced with a new one immediately, even if the lamp appears to be operating normally
- Should the lamp break, the glass particles may spread inside the lamp unit or gas contained in the lamp may be vented into the room from the exhaust vent. Because the gas in this lamp includes mercury, ventilate the room well if the lamp breaks and avoid all exposure to the released gas. In case of exposure to the gas, consult a doctor as soon as possible.
- Should the lamp break, there is also a possibility that glass particles may spread inside of the projector. In such a case, it is recommended you contact your nearest Authorized SharpVision Service Center or Dealer to remove the damaged lamp and assure safe operation.

# **Replacing the Lamp**

# Caution

- Fix YoDo not remove the lamp unit immediately after operation of the projector. The lamp will be hot and touching it can lead to burn or injury. • Wait at least one hour after the power cord is disconnected to allow the surface of the lamp unit to fully cool

  - before removing the lamp unit.

If the new lamp does not light after replacement, take your projector to the nearest Authorized SharpVision Service Center or Dealer for repair. Purchase a replacement lamp unit of type BQC-XVZ200++1 from your nearest Authorized SharpVision Service Center or Dealer. Then carefully change the lamp by following the instructions described in this section. If you wish, you may have the lamp replaced at your nearest Authorized SharpVision Service Center or Dealer.

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# **Regarding the Lamp**

# **Removing and Install**ing the Lamp Unit

# **A** Caution

- Be sure to remove the lamp unit by the handle. Do not touch the glass surface of the lamp unit or the inside of the projector.
- · To avoid injury to yourself and damage to the lamp, carefully follow the steps below.
- Replace the lamp after turning off the power and unplugging the power cord.

### 1 Put the projector into the standby mode.

- Press ()
- Wait until the cooling fan stops.

# **2** Unplug the power cord.

- Unplug the power cord from the AC socket.
- . Leave the lamp until it has fully cooled down (about 1 hour).
- **3** Remove the Swivel Stand. (See page 24.)

### 4 Remove the lamp unit cover.

- Loosen the user service screw that secures the lamp unit cover.
- Slide the lamp unit cover in the direction of the arrow.

# **STANDBY** button 000 Power cord User service screw

BQC-XVZ200++1

Lamp

unit

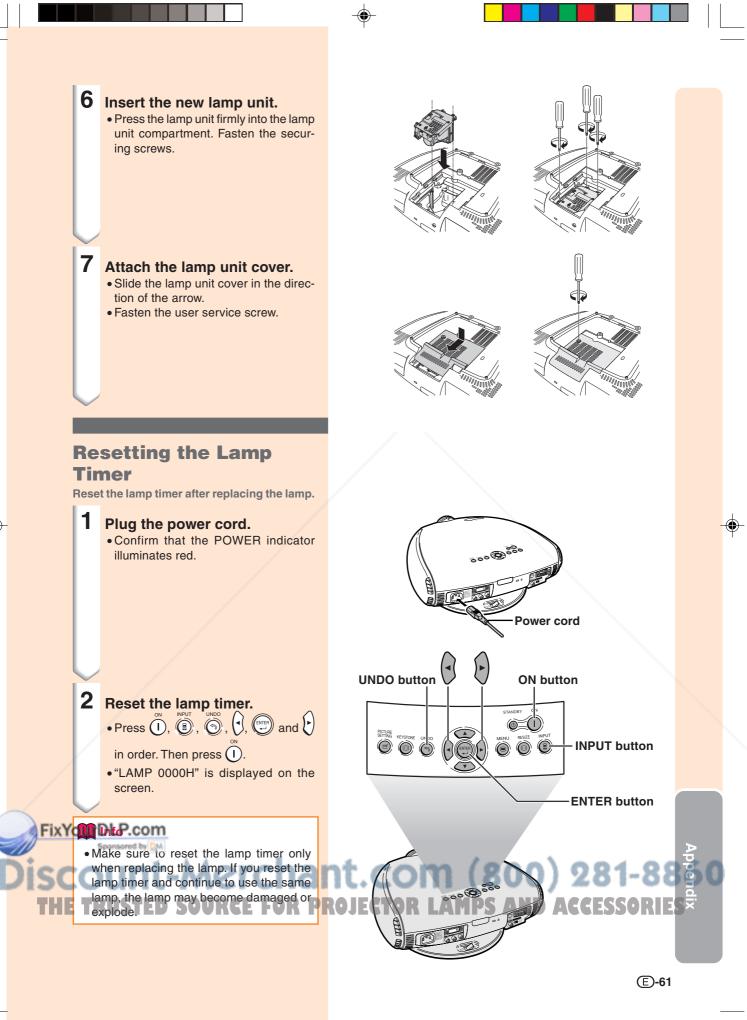
### 5 Remove the lamp unit.

• Loosen the securing screws from the lamp unit. Hold the lamp unit by the FixYourDLhandlerand pull it in the direction of

the arrow

(E)-60

03.10.21. 4:21 PM



03.10.21, 4:21 PM

# **Cleaning the Ventilative Holes**

- This projector is equipped with ventilative holes to ensure the optimal operating condition of the projector.
- Periodically clean the ventilative hole by vacuuming it off with a vacuum cleaner.
- The ventilative holes should be cleaned every 100 hours of use. Clean the ventilative holes more often when the projector is used in a dirty or smoky location.



Side and Rear view

Intake ventilative holes



Intake ventilative holes



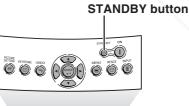
Swivel stand

# Cleaning the Ventilative Holes

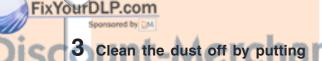
**1** Put the projector into the standby mode.

• Press ().

- Wait until the cooling fan stops.
- 2 Unplug the power cord.







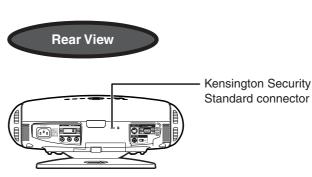
SC 3 Clean the dust off by putting the cleaner hose on the intake The cleaner hose on the intake

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# Using the Kensington Lock

This projector has a Kensington Security Standard connector for use with a Kensington MicroSaver Security System. Refer to the information that came with the system for instructions on how to use it to secure the projector.



# Troubleshooting

Problem	Check		
No picture appears.	<ul> <li>Projector power cord is not plugged into the wall outlet.</li> <li>Selected input is wrong. (See page 31.)</li> <li>Cables incorrectly connected to back panel of the projector. (See pages 14–23.)</li> <li>"Contrast" and "Bright" adjustments are set to minimum position. (See page 44.)</li> </ul>		
Color is faded or poor.	• Picture adjustments are not correct. (See page 44.)		
Picture is blurred.	<ul> <li>Adjust the focus. (See page 25.)</li> <li>Projection distance is too long or too short to allow for proper focus. (See pages 26 and 27.)</li> </ul>		
No OSD appears.	•OSD Display is set to "OFF", preventing to display some or all On-screen Displays. (See page <b>51</b> .)		
An unusual sound is occasionally heard from the cabinet.	• If the picture is normal, the sound is due to cabinet shrinkage caused by temperature changes. This will not affect operation or performance of the projector.		
Maintenance indicator illuminates.	Refer to "Maintenance Indicators" on page 58.		
Picture noise appears.	• Adjust the "Phase" setting. (See page <b>48</b> .)		
Image is green on INPUT 2 Component. Image is pink (no green) on INPUT 2 RGB.	• Change the input signal type. (See page <b>52</b> .)		

# For SHARP Assistance (U.S.A. only)

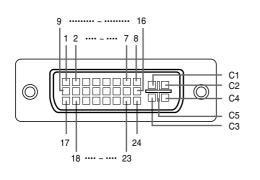
# xYourDLP.com

If you encounter any problems during setup or operation of this projector, first refer to the "Troubleshooting" section on this page. If this operation manual does not answer your question, please call toll free 1-877-DTV-SHARP (1-877-388-7427) for further assistance. Or, send us an e-mail at Icdsupport@sharpsec.com. Our World Wide Web address is http://www.sharpusa.com/AMPS AND ACCESSOR



# **Connecting Pin Assignments**

# DVI-I (INPUT 2 / DIGITAL INPUT) port : 29 pin connector



# DVI Digital INPUT

Pin No.	Signal	Pin No.	Signal
1	T.M.D.S data 2–	16	Hot plug detection
2	T.M.D.S data 2+	17	T.M.D.S data 0-
3	T.M.D.S data 2 shield	18	T.M.D.S data 0+
4	Not connected	19	T.M.D.S data 0 shield
5	Not connected	20	Not connected
6	DDC clock	21	Not connected
7	DDC data	22	T.M.D.S clock shield
8	Not connected	23	T.M.D.S clock+
9	T.M.D.S data 1–	24	T.M.D.S clock-
10	T.M.D.S data 1+	C1	Not connected
11	T.M.D.S data 1 shield	C2	Not connected
12	Not connected	C3	Not connected
13	Not connected	C4	Not connected
14	+5V power	C5	Ground
15	Ground		

### DVI Analog RGB Input

Pin No.	Signal	Pin N
1	Not connected	16
2	Not connected	17
3	Not connected	18
4	Not connected	19
5	Not connected	20
6	DDC clock	21
7	DDC data	22
8	Vertical sync	23
9	Not connected	24
10	Not connected	C1
11	Not connected	C2
12	Not connected	C3
13	Not connected	C4
14	+5V power	C5
15	Ground	

	o: .
lo.	Signal
	Hot plug detection
	Not connected
	Analog input Red
	Analog input Greer
	Analog input Blue
	Horizontal sync
	Ground

## DVI Analog Component Input

Pin No.	Signal	Pin No.	Signal
1	Not connected	16	Not connected
2	Not connected	17	Not connected
3	Not connected	18	Not connected
4	Not connected	19	Not connected
5	Not connected	20	Not connected
6	Not connected	21	Not connected
7	Not connected	22	Not connected
8	Not connected	23	Not connected
9	Not connected	24	Not connected
10	Not connected	C1	Analog input Pr/Cr
11	Not connected	C2	Analog input Y
12	Not connected	C3	Analog input Pb/Cb
13	Not connected	C4	Not connected
14	Not connected	C5	Ground
15	Ground		

# RS-232C Port: 9-pin D-sub male connector

	Pin No.	Signal	Name	I/O	Reference
1 2 3 4 5	1				Not connected
	2	RD	Receive Data	Input	Connected to internal circuit
	3	SD	Send Data	Output	Connected to internal circuit
	4		Reserved		Connected to internal circuit
	5	SG	Signal Ground		Connected to internal circuit
	6		Reserved		Connected to internal circuit
6789	7		Reserved		Connected to internal circuit
FixYourDLP.com	8		Reserved		Connected to internal circuit
Sponsored by DM	9				Not connected

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# (RS-232C) Specifications and Command Settings

# **PC** control

A computer can be used to control the projector by connecting an RS-232C cable (null modem, cross type, commercially available) to the projector. (See page 23 for connection.)

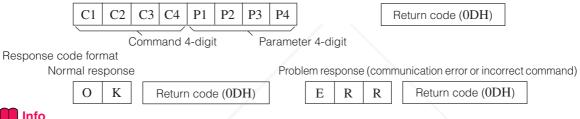
# **Communication conditions**

Set the serial port settings of the computer to match that of the table. Signal format: Conforms to RS-232C standard. Baud rate: 9,600 bps Data length: 8 bits Parity bit: None Stop bit: 1 bit Flow control: None

# **Basic format**

Commands from the computer are sent in the following order: command, parameter, and return code. After the projector processes the command from the computer, it sends a response code to the computer.

Command format



🚺 Info

• When more than one code is being sent, send each command only after the OK response code for the previous command from the projector is verified.

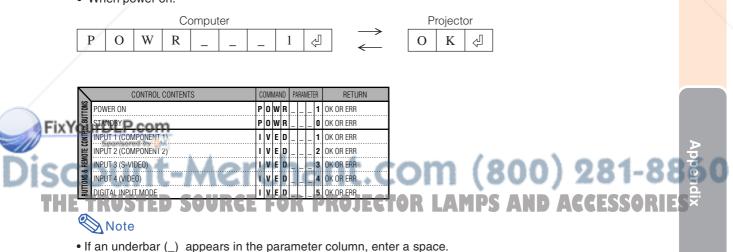
# 🆏 Note

· When using the computer control function of the projector, the projector's operating status cannot be read by the computer. Therefore, confirm the status by transmitting the display commands for each adjustment menu and checking the status with the on-screen display.

# Commands

### **Example:**

• When power on.



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# **Computer Compatibility Chart**

Horizontal Frequency: 15–70 kHz Vertical Frequency: 43–75 Hz Pixel Clock: 12–80 MHz Compatible with sync on green XGA compatible in intelligent compression

PC/ MAC/ WS	Resolution		Horizontal Frequency (kHz)	Vertical Frequency (Hz)	VESA Standard	DVI Support	Display
		$640 \times 350$	27.0	60			
		640 X 350	31.5	70			
		$720 \times 350$	27.0	60			
		720 × 000	31.5	70			
		$640 \times 400$	27.0	60			
		040 × 400	31.5	70			
	VGA	$720 \times 400$	27.0	60			Upscale
		720 X 400	31.5	70			
			26.2	50		~	
			31.5	60	~	~	
		$640 \times 480$	34.7	70		~	
			37.9	72	~	~	
			37.5	75	~	~	
PC			31.4	50		~	Intelligent Compression
	SVGA	800 × 600	35.1	56	~	~	
			37.9	60	~	~	
			44.5	70		~	
			48.1	72	V	~	
			46.9	75	~	~	
	XGA	1,024 × 768	35.5	43	~	~	
			40.3	50		~	
			56.5	70	~	~	
			58.1	72		~	
	-	1,280 × 720	45.0	60		~	1
PC/ MAC 13"	VGA	640 × 480	34.9	67			Upscale
			46.8	75			
MAC 16"	SVGA	832 × 624	49.6	75			Intelligent
PC/			48.4	60	~		Compression
MAC 19"	XGA	1,024 × 768	60.0	75	V		1

# 🗞 Note

• This projector may not be able to display images from notebook computers in simultaneous (CRT/LCD) mode. Should this occur, turn off the LCD display on the notebook computer and output the display data in "CRT only" mode. Details on how to change display modes can be found in your notebook computer's operation manual.

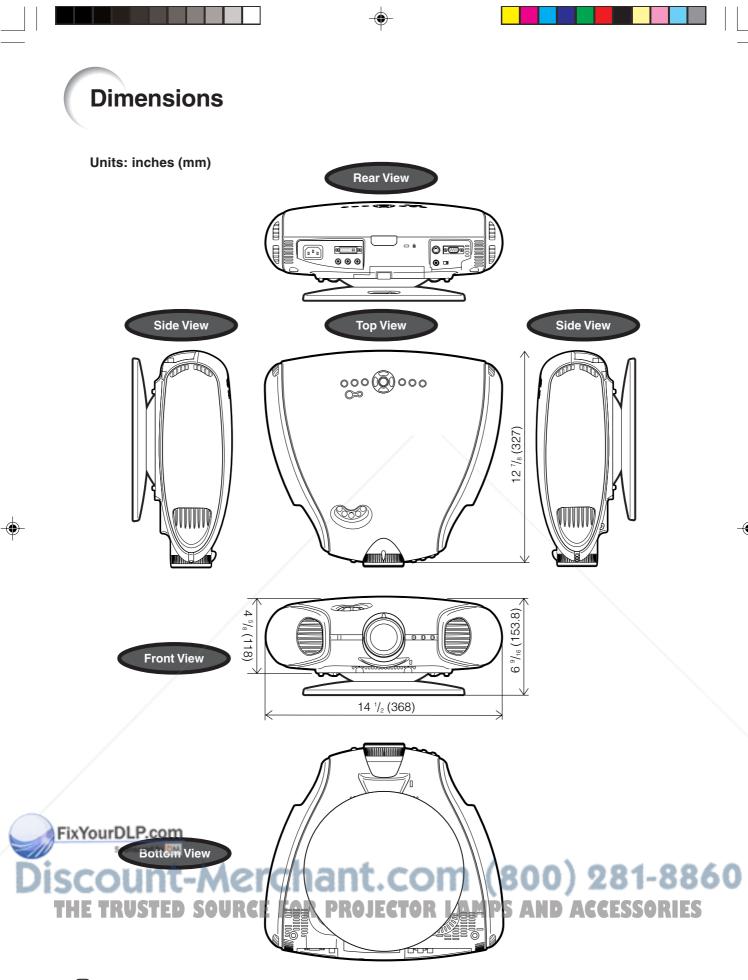
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# Specifications

Product type	Projector			
	XV-Z200U RAL/DAL CO/DAL M/DAL N/CECAM/NITCO 2 58/			
Video system	PAL/PAL 60/PAL-M/PAL-N/SECAM/NTSC 3.58/ DTV 480I/480P/720P/1080I	NISC 4.43		
	DLP chip, RGB optical shutter method			
DLP panel	Panel size: 0.6" Display method: Single Panel Digital Micromirr	or Device (DMD™) by Texas Instruments		
	Drive method: Digital Light Processing (DLP™	)		
	No. of dots: 589,824 dots (1,024 [H] $ imes$ 576 [V] 1–1.2 $ imes$ zoom lens, F1.75–2.04 f=28.0–33.5 m	])		
	210 W/168 W SHP lamp	1111		
Video input signal	RCA Connector: VIDEO (INPUT 4), composite	video, 1.0 Vp-p, sync negative, 75 $\Omega$		
S-video input signal	terminated 4-pin Mini DIN connector (INPUT 3)			
	Y (luminance signal): 1.0 Vp-p, sync negative,			
Component input signal	C (chrominance signal): Burst 0.286 Vp-p, 75 RCA Connector	12 terminated		
	Y: 1.0 Vp-p, sync negative, 75 $\Omega$ terminated			
	PB: 0.7 Vp-p, 75 $\Omega$ terminated PR: 0.7 Vp-p, 75 $\Omega$ terminated			
Component input signal				
(INPUT 2)	DVI input signal: Digital 250–1,000 mV 50 $\Omega$ Analog 0.7 Vp-p 75 $\Omega$			
	Y: 1.0 Vp-p, sync negative, 75 $\Omega$ terminated			
	PB: 0.7 Vp-p, 75 $\Omega$ terminated			
Horizontal resolution	Pr: 0.7 Vp-p, 75 $\Omega$ terminated 520 TV lines (NTSC 3.58 input)			
RGB input signal	DVI-I terminal			
	<digital> Input impedance 50 <math>\Omega</math></digital>			
	Input level 250-1000 mV			
	<analog> Input impedance 75 <math>\Omega</math></analog>			
+	Input level 0.7 Vp-p		_	
	<synchronization signal=""> <ul> <li>Separate sync/Composite sync</li> </ul></synchronization>			Ψ
	Input level TTL level			
	Input impedance 1 KΩ • Green on sync			
	Input level (Synchronizing input) 0.286 Vp-	р		
Divel cleat	Input impedance 75 $\Omega$			
Pixel clock Vertical frequency				
Horizontal frequency	15–70 kHz			
Computer control signal Rated voltage	9-pin D-sub connector (RS-232C Port) AC 100–240 V			
Input current	3.2 A			
Rated frequency Power consumption				
Heat dissipation	1,070 BTU/hour			
	41°F to 95°F (+5°C to +35°C) -4°F to 140°F (-20°C to +60°C)			
Cabinet	Plastic			
I/R carrier frequency	38 kHz 14½″ (W) × 6%ı₀″ (H) × 12%″ (D) (368 × 153.	$8 \times 327$ mm) (including swivel stand)		
	14½" (W) $ imes$ 45%" (H) $ imes$ 127%" (D) (368 $ imes$ 118 $ imes$			
Weight (approx.)	10.1 lbs. (4.6 kg) (including swivel stand) 9.0 lbs. (4.1 kg) (main body only)			
Supplied accessories	Remote control, Two AA size batteries, Power	cord, Terminal cover, Lens cap (attached		
FIX YOURDLP.com	on the body), Operation manual, Screws for te Lamp unit (Lamp/cage module) (BQC-XVZ200	rminal cover		
	(RRMCGA218WJSA), AA size batteries, Power	r cord (QACCDA007WJPZ), Terminal	þ	
Discount-Mo	cover (GCOVAA116WJKB), Lens cap (CCAPH B005WJZZ), Screws for terminal cover (XBBS)	A004WJ01), Operation manual (TINS- N40P10000)	Sen O	
This SHARP projector uses sophisticated chip contains 589	a DMD chip. This very This unit has	some inactive pixels within acceptable the may result in inactive dots on the picture	S×	
technology electronic equipme	t such as large screen TVs, screen. This w	ill not affect the picture quality or the life		
video systems and video ca	meras, there are certain expectancy of t	he unit. If you have any questions about this		
acceptable tolerances that the	quipment must conform to. matter, please of 7427). U.S.A. OI	call toll free 1-877-DTV-SHARP (1-877-388- NLY		
	Specifications are subject to change v		,	
		· · · · · · · · · · · · · · · · · · ·		

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# Glossary

### Aspect Ratio

Width and height ratio of an image. The normal aspect ratio of a computer and video image is 4:3. There are also wide images with an aspect ratio of 16:9 and 21:9.

### Auto Sync

Optimizes projected computer images by automatically adjusting certain characteristics.

### Background

Initial setting image projected when no signal is being output.

### Clock

Clock adjustment is used to adjust vertical noise when clock level is incorrect.

### CLR Temp (Color temperature)

Function that can be used to adjust the color temperature to suit the type of image input to the projector. Decrease the color temperature to create warmer, reddish images for natural flesh tones, or increase to create cooler, bluish images for a brighter picture.

### **Composite sync**

Signal combining horizontal and vertical sync pulses.

### Digital keystone correction

Function to digitally correct a distorted image when the projector is set up at an angle, smoothes out jaggies on keystone images and compresses the image not only horizontally but vertically keeping the 16 : 9 aspect ratio.

### **DVI (Digital Visual Interface)**

Display digital interface that also supports analog interfaces.

### Gamma

Image quality enhancement function that offers a richer image by brightening the darker portions of the image without altering the brightness of the brighter portions. You can select from four different modes: Standard, Cinema 1, Cinema 2 and Cinema 3.

### Intelligent compression and expansion

High quality resizing of lower and higher resolution images to fit the projector's native resolution.

### Phase

Phase shift is a timing shift between isomorphic signals with the same resolution. When phase level is incorrect, the projected image typically displays horizontal flicker.

### Resize

Allows you to modify or customize the picture display mode to enhance the input image. You can select from four different modes: SIDE BAR, SMART STRETCH, CINEMA ZOOM and STRETCH.

### **RS-232C**

Function to control the projector from the computer by using the RS-232C ports on the projector and computer.

### Stretch

Mode that stretches the 4:3 image horizontally to display it on the wide screen.

### Sync on green

Video signal mode of a computer which overlaps horizontal and vertical sync signal to green color signal pin.

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# **E**-70

FixYourD

R indicator

# **CONSUMER LIMITED WARRANTY**

SHARP ELECTRONICS CORPORATION warrants to the first consumer purchaser that this Sharp brand product (the "Product"), when shipped in its original container, will be free from defective workmanship and materials, and agrees that it will, at its option, either repair the defect or replace the defective Product or part thereof with a new or remanufactured equivalent at no charge to the purchaser for parts or labor for the period(s) set forth below.

This warranty does not apply to any appearance items of the Product nor to the additional excluded item(s) set forth below nor to any Product the exterior of which has been damaged or defaced, which has been subjected to improper voltage or other misuse, abnormal service or handling, or which has been altered or modified in design or construction.

In order to enforce the rights under this limited warranty, the purchaser should follow the steps set forth below and provide proof of purchase to the servicer.

The limited warranty described herein is in addition to whatever implied warranties may be granted to purchasers by law. ALL IMPLIED WARRANTIES INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO THE PERIOD(S) FROM THE DATE OF PURCHASE SET FORTH BELOW. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Neither the sales personnel of the seller nor any other person is authorized to make any warranties other than those described herein, or to extend the duration of any warranties beyond the time period described herein on behalf of Sharp.

The warranties described herein shall be the sole and exclusive warranties granted by Sharp and shall be the sole and exclusive remedy available to the purchaser. Correction of defects, in the manner and for the period of time described herein, shall constitute complete fulfillment of all liabilities and responsibilities of Sharp to the purchaser with respect to the Product, and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall Sharp be liable, or in any way responsible, for any damages or defects in the Product which were caused by repairs or attempted repairs performed by anyone other than an authorized servicer. Nor shall Sharp be liable or in any way responsible for any incidental or consequential economic or property damage. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

XV-Z200U Projector		
(Be sure to have this information available when you need service for your Product.)		
One (1) year parts and labor from date of purchase except for the Projector Lamp for which the warranty period is ninety (90) days from date of purchase. After the ninety (90) day warranty period on the Projector Lamp, parts and labor for a lamp replacement are the responsibility of the consumer.		
Cleaning of Optical System and/or replacement of any filter. Labor & materials required to remove and reinstall a suspended projector in installations not accessible with a standard (8' step) ladder or ceilings exceeding 12' in beint		
Labor & materials required to remove and reinstall a projector in complex systems including, but not limited to, projectors installed in custom enclosures, projectors connected to third party control and automation systems, and realignment of projectors installed in		
From a Sharp Authorized Servicer located in the United States. To find the location of the nearest Sharp Authorized Servicer, call Sharp		
toll free at 1-800-BE-SHARP. Contact your Sharp Authorized Servicer to obtain in-home service for this Product. The Servicer will come to your home and if necessary to remove the Product for repair at the Servicer's facility, the Servicer will reinstall it upon completion of repair. Be sure to have <b>Proof of Purchase</b> available.	38	Appendix
	<ul> <li>(Be sure to have this information available when you need service for your Product.)</li> <li>One (1) year parts and labor from date of purchase except for the Projector Lamp for which the warranty period is ninety (90) days from date of purchase. After the ninety (90) day warranty period on the Projector Lamp, parts and labor for a lamp replacement are the responsibility of the consumer.</li> <li>Cleaning of Optical System and/or replacement of any filter. Labor &amp; materials required to remove and reinstall a suspended projector in installations not accessible with a standard (8' step) ladder or ceilings exceeding 12' in height.</li> <li>Labor &amp; materials required to remove and reinstall a projector in complex systems including, but not limited to, projectors installed in custom enclosures, projectors connected to third party control and automation systems, and realignment of projectors installed in "mirrored" rear projection enclosures.</li> <li>From a Sharp Authorized Servicer located in the United States. To find the location of the nearest Sharp Authorized Servicer, call Sharp toll free at 1-800-BE-SHARP.</li> <li>Contact your Sharp Authorized Servicer to obtain in-home service for this Product. The Servicer will come to your home and if necessary to remove the Product for repair at the Servicer's facility, the Servicer will reinstall it upon completion of repair. Be sure to</li> </ul>	<ul> <li>(Be sure to have this information available when you need service for your Product.)</li> <li>One (1) year parts and labor from date of purchase except for the Projector Lamp for which the warranty period is ninety (90) days from date of purchase. After the ninety (90) day warranty period on the Projector Lamp, parts and labor for a lamp replacement are the responsibility of the consumer.</li> <li>Cleaning of Optical System and/or replacement of any filter. Labor &amp; materials required to remove and reinstall a suspended projector in installations not accessible with a standard (8' step) ladder or ceilings exceeding 12' in height.</li> <li>Labor &amp; materials required to remove and reinstall a projector in complex systems including, but not limited to, projectors installed in custom enclosures, projectors connected to third party control and automation systems, and realignment of projectors installed in "mirrored" rear projection enclosures.</li> <li>From a Sharp Authorized Servicer located in the United States. To find the location of the nearest Sharp Authorized Servicer, call Sharp toll free at 1-800-BE-SHARP.</li> <li>Contact your Sharp Authorized Servicer to obtain in-home service for this Product. The Servicer will come to your home and if necessary to remove the Product for repair at the Servicer's facility, the Servicer will reinstall it upon completion of repair. Be sure to</li> </ul>

TO OBTAIN PRODUCT INFORMATION, CALL 1-877-DTV-SHARP OR VISIT www.sharpusa.com.

# VALID IN CANADA ONLY

# SHARP LIMITED WARRANTY

**Consumer Electronics Products** 

# Congratulations on your purchase!

Sharp Electronics of Canada Ltd. (hereinafter called "Sharp") gives the following express warranty to the first consumer purchaser for this Sharp brand product, when shipped in its original container and sold or distributed in Canada by Sharp or by an Authorized Sharp Dealer:

Sharp warrants that this product is free, under normal use and maintenance, from any defects in material and workmanship. If any such defects should be found in this product within the applicable warranty period, Sharp shall, at its option, repair or replace the product as specified herein.

This warranty shall not apply to:

- (a) Any defects caused or repairs required as a result of abusive operation, negligence, accident, improper installation or inappropriate use as outlined in the owner's manual.
- (b) Any Sharp product tampered with, modified, adjusted or repaired by any party other than Sharp, Sharp's Authorized Service Centres or Sharp's Authorized Servicing Dealers.
- (c) Damage caused or repairs required as a result of the use with items not specified or approved by Sharp, including but not limited to head cleaning tapes and chemical cleaning agents.
- (d) Any replacement of accessories, glassware, consumable or peripheral items required through normal use of the product including but not limited to earphones, remote controls, AC adapters, batteries, temperature probe, stylus, trays, filters, belts, ribbons, cables and paper.
- (e) Any cosmetic damage to the surface or exterior that has been defaced or caused by normal wear and tear.
- Any damage caused by external or environmental conditions, including but not limited to transmission line/power line voltage or (f) liquid spillage
- (g) Any product received without appropriate model, serial number and CSA/cUL markings.
- (h) Any products used for rental or commercial purposes.
- Any installation, setup and/or programming charges. (i)

Should this Sharp product fail to operate during the warranty period, warranty service may be obtained upon delivery of the Sharp product together with proof of purchase and a copy of this LIMITED WARRANTY statement to an Authorized Sharp Service Centre or an Authorized Sharp Servicing Dealer. In home warranty service may be provided at Sharp's discretion on any Sharp television with the screen size of 27" or larger and on any Sharp Over The Range Microwave Oven.

This warranty constitutes the entire express warranty granted by Sharp and no other dealer, service centre or their agent or employee is authorized to extend, enlarge or transfer this warranty on behalf of Sharp. To the extent the law permits, Sharp disclaims any and all liability for direct or indirect damages or losses or for any incidental, special or consequential damages or loss of profits resulting from a defect in material or workmanship relating to the product, including damages for the loss of time or use of this Sharp product or the loss of information. The purchaser will be responsible for any removal, reinstallation, transportation and insurance costs incurred. Correction of defects, in the manner and period of time described herein, constitute complete fulfillment of all obligations and responsibilities of Sharp to the purchaser with respect to the product and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise.

### WARRANTY PERIODS

Projector

SHARP ELECTRONICS OF CANADA LTD 335 Britannia Road East

### 1 year (bulb 90 days)

To obtain the name and address of the nearest Authorized Sharp Service Centre or Dealer, please contact: SHARP ELECTRONICS OF CANADA LTD. OBE THE BEST urDLP.com

> L4Z 1W9 (905) 568-7140 Web site: www.sharp.ca

Mississauga, Ontario

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CUSTOMER SAT



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