⚠ Disclaimer

Sponsors:

SHARP®

OPERATION MANUAL

MODEL
XG-C60X

LCD PROJECTOR

Notevision
SLIM & COMPACT LCD PROJECTOR
Sponsored by DM

香港電器安全規格
（國際電工委員會規格適合）

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 **14**.

Model No.: XG-C60X

Serial No.:

This equipment complies with the requirements of Directives 89/336/EEC and 73/23/EEC as amended by 93/68/EEC.

Dieses Gerät entspricht den Anforderungen der EG-Richtlinien 89/336/EWG und 73/23/EWG mit Änderung 93/68/EWG.

Ce matériel répond aux exigences contenues dans les directives 89/336/CEE et 73/23/CEE modifiées par la directive 93/68/CEE.

Dit apparaat voldoet aan de eisen van de richtlijnen 89/336/EEG en 73/23/EEG, gewijzigd door 93/68/EEG.

Dette udstyr overholder kravene i direktiv nr. 89/336/EEC og 73/23/EEC med tillæg nr. 93/68/EEC.

Quest' apparecchio è conforme ai requisiti delle direttive 89/336/EEC e 73/23/EEC, come emendata dalla direttiva 93/68/EEC.

Η εγκατάσταση αυτή ανταποκρίνεται στις απαιτήσεις των οδηγιών της Ευρωπαϊκής Ενωσης 89/336/ΕΟΚ και 73/23/ΕΟΚ, όπως οι κανονισμοί αυτοί συμπληρώθηκαν από την οδηγία 93/68/ΕΟΚ.

Este equipamento obedece às exigências das directivas 89/336/CEE e 73/23/CEE, na sua versão corrigida pela directiva 93/68/CEE.

Este aparato satisface las exigencias de las Directivas 89/336/CEE y 73/23/CEE, modificadas por medio de la 93/68/CEE.

Denna utrustning uppfyller kraven enligt riktlinjerna 89/336/EEC och 73/23/EEC så som kompletteras av 93/68/EEC.

Dette produktet oppfyller betingelsene i direktivene 89/336/EEC og 73/23/EEC i endringen 93/68/EEC.

Tämä laite täyttää direktiivien 89/336/EEC ja 73/23/EEC vaatimukset, joita on muutettu direktiivillä 93/68/EEC.

SPECIAL NOTE FOR USERS IN THE U.K.

The mains lead of this product is fitted with a non-rewireable (moulded) plug incorporating a 10A fuse. Should the fuse need to be replaced, a BSI or ASTA approved BS 1362 fuse marked ⎆ or ⎏ and of the same rating as above, which is also indicated on the pin face of the plug, must be used.

Always refit the fuse cover after replacing the fuse. Never use the plug without the fuse cover fitted.

In the unlikely event of the socket outlet in your home not being compatible with the plug supplied, cut off the mains plug and fit an appropriate type.

DANGER:

The fuse from the cut-off plug should be removed and the cut-off plug destroyed immediately and disposed of in a safe manner.

Under no circumstances should the cut-off plug be inserted elsewhere into a 10A socket outlet, as a serious electric shock may occur.

To fit an appropriate plug to the mains lead, follow the instructions below:

WARNING:

THIS APPARATUS MUST BE EARTHED.

IMPORTANT:

The wires in this mains lead are coloured in accordance with the following code:

    Green-and-yellow   : Earth

    Blue   : Neutral

    Brown   : Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

- The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.

- The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

- The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

IF YOU HAVE ANY DOUBT, CONSULT A QUALIFIED ELECTRICIAN.

The supplied CD-ROM contains operation instructions in English, German, French, Swedish, Spanish, Italian, Dutch, Portuguese, Chinese (Traditional Chinese and Simplified Chinese) and Korean. Carefully read through the operation instructions before operating the projector.

Die mitgelieferte CD-ROM enthält Bedienungsanleitungen in Englisch, Deutsch, Französisch, Schwedisch, Spanisch, Italienisch, Niederländisch, Portugiesisch, Chinesisch (Traditionelles Chinesisch und einfaches Chinesisch) und Koreanisch. Bitte lesen Sie die Bedienungsanleitung vor der Verwendung des Projektors sorgfältig durch.

Le CD-ROM fourni contient les instructions de fonctionnement en anglais, allemand, français, suédois, espagnol, italien, néerlandais, portugais, chinois (chinois traditionnel et chinois simplifié) et coréen. Veuillez lire attentivement ces instructions avant de faire fonctionner le projecteur.

Den medföljande CD-ROM-skivan innehåller bruksanvisningar på engelska, tyska, franska, svenska, spanska, italienska, holländska, portugisiska, kinesiska (traditionell kinesiska och förenklad kinesiska) och koreanska. Läs noga igenom bruksanvisningen innan projektorn tas i bruk.

El CD-ROM suministrado contiene instrucciones de operación en inglés, alemán, francés, sueco, español, italiano, holandés, portugués, chino (chino tradicional y chino simplificado) y coreano. Lea cuidadosamente las instrucciones de operación antes de utilizar el proyector.

Il CD-ROM in dotazione contiene istruzioni per l'uso in inglese, tedesco, francese, svedese, spagnolo, italiano, olandese, portoghese, cinese (cinese tradizionale e cinese semplificato) e coreano. Leggere attentamente le istruzioni per l'uso prima di usare il proiettore.

De meegeleverde CD-ROM bevat handleidingen in het Engels, Duits, Frans, Zweeds, Spaans, Italiaans, Nederlands, Portugees, Chinees (Traditioneel Chinees en Vereenvoudigd Chinees) en Koreaans. Lees de handleiding zorgvuldig door voor u de projector in gebruik neemt.

O CD-ROM fornecido contém instruções de operação em Inglês, Alemão, Francês, Sueco, Espanhol, Italiano, Holandês, Português, Chinês, (Chinês Tradicional e Chinês Simplificado) e Coreano. Leia cuidadosamente todas as instruções de operação antes de operar o projetor.

附送之CD-ROM光碟中，有用英文、德文、法文、瑞典文、西班牙文、意大利文、荷蘭文、葡萄牙文、中文（繁體中文和簡體中文）和韓國文所寫的使用說明書。在操作本投影機之前，請務必仔細閱讀整本使用說明書。

附送之CD-ROM光碟中，有用英文、德文、法文、瑞典文、西班牙文、意大利文、荷兰文、葡萄牙文、中文（繁体中文和简体中文）和韩国文所写的使用说明书。在操作本投影机之前，请务必仔细阅读整本使用说明书。

제공된 CD-ROM에는 영어, 독일어, 프랑스어, 스웨덴어, 스페인어, 이탈리아어, 네덜란드어, 포르투갈어, 중국어(번체자와 간체자), 그리고 한국어로 작성된 조작 설명서가 포함되어 있습니다. 프로젝터를 조작하기 전에 조작 지침을 상세하게 숙지하십시오.

Before using the projector, please read this operation manual carefully.

Introduction ENGLISH

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. U.S.A. ONLY

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

**RISK OF ELECTRIC SHOCK.
DO NOT REMOVE SCREWS
EXCEPT SPECIFIED USER
SERVICE SCREWS.**

**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

INFORMATION

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. 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. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense. U.S.A. ONLY

The enclosed computer cable must be used with the device. The cable is provided to ensure that the device complies with FCC Class A verification. U.S.A. ONLY

WARNING:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
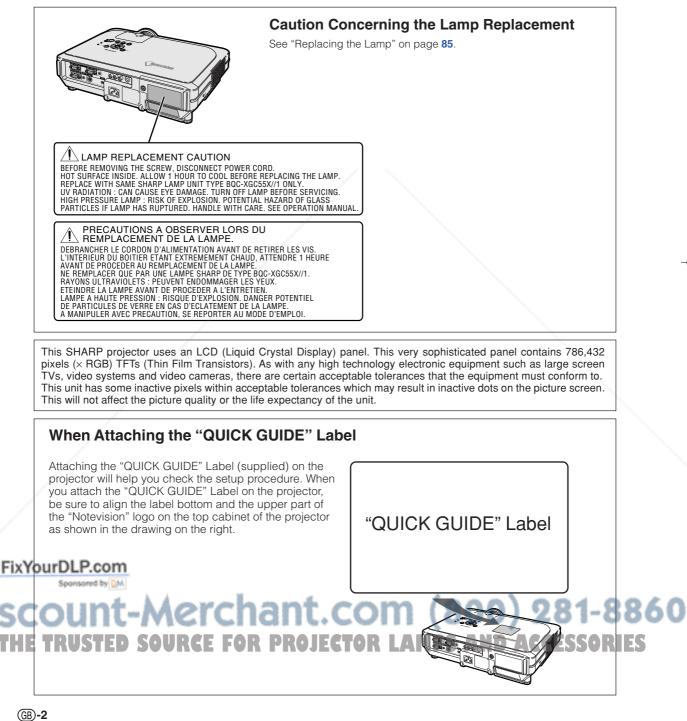
XG-C60X_E_PDF_p01_03.p65   1   03.8.28, 1:55 PM

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.

PRODUCT DISPOSAL

This projector utilizes tin-lead solder, and a pressurized lamp containing a small amount of mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or, if you are located in the United States of America, the Electronic Industries Alliance: www.eiae.org .

Caution Concerning the Lamp Replacement

See "Replacing the Lamp" on page **85**.

⚠ LAMP REPLACEMENT CAUTION
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-XGC55X//1 ONLY.
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.

⚠ PRECAUTIONS A OBSERVER LORS DU REMPLACEMENT DE LA LAMPE.
DEBRANCHER LE CORDON D'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 BQC-XGC55X//1.
RAYONS ULTRAVIOLETS : PEUVENT ENDOMMAGER LES YEUX.
ETEINDRE LA LAMPE AVANT DE PROCEDER A L'ENTRETIEN.
LAMPE A HAUTE PRESSION : RISQUE D'EXPLOSION. DANGER POTENTIEL DE PARTICULES DE VERRE EN CAS D'ECLATEMENT DE LA LAMPE.
A MANIPULER AVEC PRECAUTION, SE REPORTER AU MODE D'EMPLOI.

This SHARP projector uses an LCD (Liquid Crystal Display) panel. This very sophisticated panel contains 786,432 pixels (× RGB) TFTs (Thin Film Transistors). As with any high technology electronic equipment such as large screen TVs, video systems and video cameras, there are certain acceptable tolerances that the equipment must conform to. This unit has some inactive pixels within acceptable tolerances which may result in inactive dots on the picture screen. This will not affect the picture quality or the life expectancy of the unit.

When Attaching the "QUICK GUIDE" Label

Attaching the "QUICK GUIDE" Label (supplied) on the projector will help you check the setup procedure. When you attach the "QUICK GUIDE" Label on the projector, be sure to align the label bottom and the upper part of the "Notevision" logo on the top cabinet of the projector as shown in the drawing on the right.

"QUICK GUIDE" Label

Outstanding Features

1. Ultra High Brightness from a Compact Projector
- **300W SHP Lamp**
  Use 300W SHP lamp for excellent color uniformity and ultra high brightness.
- **Power Save mode function enables lower noise levels, reduced power consumption and longer lamp life.**

2. Simple & Easy Operation
- **Color coded terminals, automatic signal search and graphical menu system insure easy set-up and configuration.**
- **Frequently used connections and controls are strategically placed for easy access.**
- **Simple lens replacement**
  Using an easy access lens cover and a new bayonet mount configuration, the optional lens can be easily installed.

3. Superior PC Compatibility
- **Compatible with up to 200 Hz vertical refresh rate, Sync on Green and Composite Sync signals for use with a wide variety of high-end PCs and Workstations.**
- **Using Advanced Intelligent Compression Technology, computer screens of UXGA (1,600 × 1,200) resolution can be displayed with minimal distortion.**

4. Advanced Computer & Video Integrated Composer Technology
- **Realizes vivid images using the latest image quality circuitry.**
  - **New I/P conversion algorithm enhances the performance of the motion detect I/P conversion.**
    Extensive improvements on the jagged edges or slanted lines in moving images.
  - **Color Management System**
    Supports sRGB.
    Enables individual settings of lightness, chromatic value and hue for six target colors.
  - **Noise Reduction**
    Allows for a clear image even with noisy source signals.
  - **New Edge Up-Scaling**
    Reduces jaggies and flickering when up-scaling edges of slanted lines, enabling sharper quality images.

5. Theft Deterrent and Security
- **Anti-theft**
  This feature will render the projector useless if a keycode is not entered.
- **Notevision Lock Down**
  A secure installation is achieved by tethering one of the projector's mounting points to the optical block. This added measure makes it extremely difficult to pull the projector off of its ceiling mount thus minimizing the chance of injury from horseplay or unauthorized removal of the projector.

ⒼⒷ**-3**

Contents

Appendix

IMPORTANT SAFEGUARDS

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

Electrical energy can perform many useful functions. This product has been engineered and manufactured to assure your personal safety. BUT IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARDS. In order not to defeat the safeguards incorporated in this product, observe the following basic rules for its installation, use and servicing.

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 bath tub, 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, and these openings must not be blocked or covered. The openings should never be 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 adhered to.

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 provided with one of the following types of plugs. If the plug should fail to fit into the power outlet, please contact your electrician.
    Do not defeat the safety purpose of the plug.
    a. Two-wire type (mains) plug.
    b. Three-wire grounding type (mains) plug with a grounding terminal.
       This plug will only fit into a grounding type power outlet.

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 cable system. 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**
    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. When 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. When the product exhibits a distinct change in performance, this indicates a need for service.

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.

INTELLECTUAL PROPERTY RIGHTS
IMPORTANT
READ BEFORE USING THE PRODUCT

- You have acquired a product that includes software licensed to SHARP Corporation by Lineo, Inc. ("Lineo"). The Software is protected by copyright laws, international copyright treaties, and other intellectual property laws and treaties. Lineo and its suppliers retain all ownership of, and intellectual property rights in (including copyright), the Software components and all copies thereof, provided however, that certain components of the Software are components licensed under the GNU General Public License (version 2), which Lineo supports. You may obtain a copy of the GNU General Public License at http://www.fsf.org/copyleft/gpl.html. Lineo will provide source code for any of the components of the Software licensed under the GNU General Public License. To obtain such source code, send email to embedix-support@lineo.com.

- OS: Embedix (Embedded Linux) Embedix (TM) is a registered trademark of U.S.A. LINEO, Inc.

- Microsoft, Windows and PowerPoint are registered trademarks of Microsoft Corporation in the United States and/or other countries.

- PC/AT is a registered trademark of International Business Machines Corporation in the United States.

- Adobe Acrobat is a trademark of Adobe Systems Incorporated.

- Macintosh is a registered trademark of Apple Computer, Inc. in the United States and/or other countries.

- This software is based in part on the work of the Independent JPEG Group.

- All other company or product names are trademarks or registered trademarks of their respective companies.

(GB)-7

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

Caution concerning the lamp unit
■ Potential hazard of glass particles if lamp ruptures. In case of lamp rupture, contact your nearest Sharp Authorized Projector Dealer or Service Center for a replacement.
See "Replacing the Lamp" on page 85.

⚠ ⚠
高温注意
CAUTION
PRECAUCIÓN
PRÉCAUTION
BQC-XGC55
X//1

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 must be cleaned more often. As long as the projector is regularly cleaned, use in these environments will not reduce the overall operation life of the unit. Internal cleaning should only be performed by a Sharp Authorized Projector Dealer or Service Center.

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.

The projector may safely be tilted to a maximum angle of 12 degrees.
■ Placement should be within ±12 degrees.

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.
■ Continuously watching the screen for long hours will make your eyes tired. Be sure to occasionally rest your eyes.

Avoid locations with high or low temperature.
■ The operating temperature for the projector is from 41°F to 95°F (+5°C to +35°C).
■ The storage temperature for the projector is from –4°F to 140°F (–20°C to +60°C).

Do not block the exhaust and intake vents.
■ Allow at least 7.9 inches (20 cm) of space between the exhaust vent and the nearest wall or obstruction.

■ Be sure that the intake vent and the exhaust vent are not obstructed.
■ If the cooling fan becomes obstructed, a protection circuit will automatically put the projector into the standby mode. This does not indicate a malfunction. Remove the projector power cord from the wall outlet and wait at least 10 minutes. Place the projector where the intake and exhaust vents are not blocked, plug the power cord back in and turn on the projector. 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 a computer or other audio-visual equipment to the projector, make the connections AFTER unplugging the power cord of the projector from the AC outlet and turning off 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.

Using the projector in other countries
■ The power supply voltage and the shape of the plug may vary depending on the region or country you are using the projector in. When using the projector overseas, be sure to use the appropriate power cord for the country you are in.

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 temperature 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 83 for details.

📖 Info

• 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.
• Do not unplug the power cord during projection or cooling fan operation. This can create damage due to the rise in internal temperature, as the cooling fan also stops.

How to Access the PDF Operation Manuals (Windows, Macintosh)

PDF operation manuals in several languages are included in the CD-ROM, so that you can work with the projector, even if you do not have this manual. To utilize these manuals, you need to install Adobe Acrobat Reader on your PC (Windows or Macintosh). If you have not installed Acrobat Reader yet, you can install it from the CD-ROM.

To install Acrobat Reader from the CD-ROM

For Windows:
① Insert the CD-ROM in the CD-ROM drive.
② Double click the "My Computer" icon.
③ Double click the "CD-ROM" drive.
④ Double click the "ACROBAT" folder.
⑤ Double click the language (name of the folder) that you want to view.
⑥ Double click the installation program and follow the instructions on the screen.

For Macintosh:
① Insert the CD-ROM in the CD-ROM drive.
② Double click the "CD-ROM" icon.
③ Double click the "ACROBAT" folder.
④ Double click the language (name of the folder) that you want to view.
⑤ Double click the installation program and follow the instructions on the screen.

For other operating systems:
Please download Acrobat Reader from the Internet (http://www.adobe.com).

For other languages:
If you prefer using Acrobat Reader for languages other than those included in the CD-ROM, please download the appropriate version from the Internet.

Accessing the PDF Manuals

For Windows:
① Insert the CD-ROM in the CD-ROM drive.
② Double click the "My Computer" icon.
③ Double click the "CD-ROM" drive.
④ Double click the "MANUALS" folder.
⑤ Double click the language (name of the folder) that you want to view.
⑥ Double click the "C60X" pdf file to access the projector manuals.

For Macintosh:
① Insert the CD-ROM in the CD-ROM drive.
② Double click the "CD-ROM" icon.
③ Double click the "MANUALS" folder.
④ Double click the language (name of the folder) that you want to view.
⑤ Double click the "C60X" pdf file to access the projector manuals.
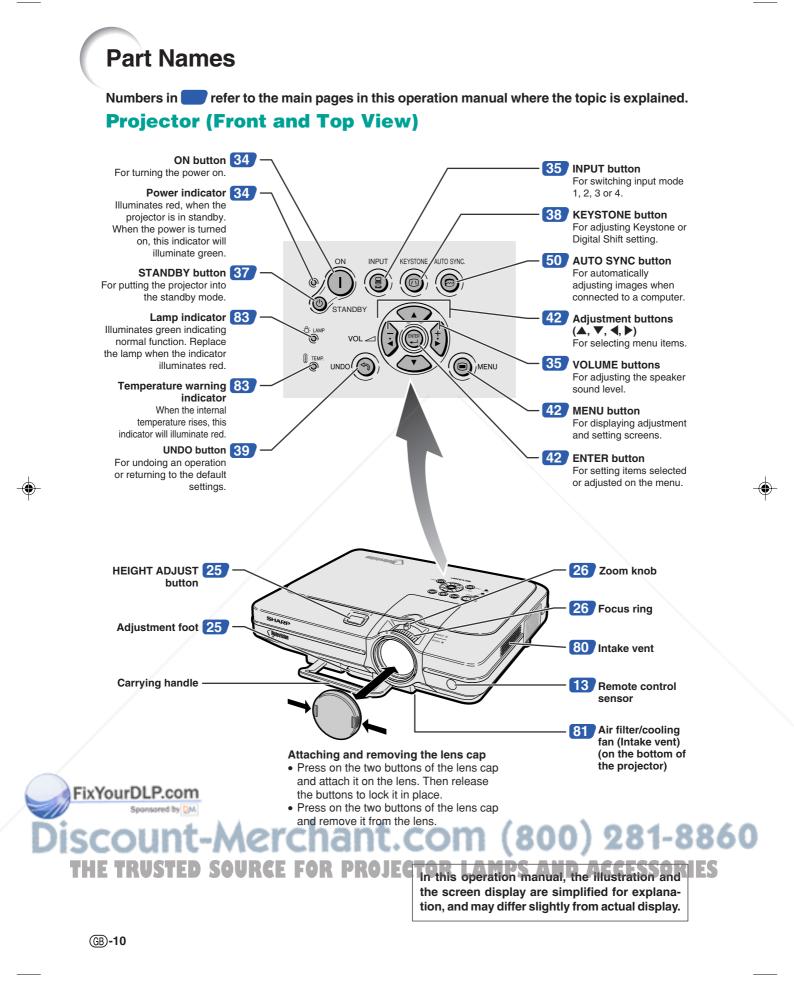
✎ **Note**

• If the desired pdf file cannot be opened by double clicking the mouse, start Acrobat Reader first, then specify the desired file using the "File", "Open" menu.
• See the "readme.txt" file on the CD-ROM for important information not included in this operation manual.

Ⓖ**-9**

Part Names

Numbers in ▢ refer to the main pages in this operation manual where the topic is explained.

Projector (Front and Top View)

ON button `34`
For turning the power on.

Power indicator `34`
Illuminates red, when the projector is in standby. When the power is turned on, this indicator will illuminate green.

STANDBY button `37`
For putting the projector into the standby mode.

Lamp indicator `83`
Illuminates green indicating normal function. Replace the lamp when the indicator illuminates red.

Temperature warning indicator `83`
When the internal temperature rises, this indicator will illuminate red.

UNDO button `39`
For undoing an operation or returning to the default settings.

`35` **INPUT button**
For switching input mode 1, 2, 3 or 4.

`38` **KEYSTONE button**
For adjusting Keystone or Digital Shift setting.

`50` **AUTO SYNC button**
For automatically adjusting images when connected to a computer.

`42` **Adjustment buttons (▲, ▼, ◀, ▶)**
For selecting menu items.

`35` **VOLUME buttons**
For adjusting the speaker sound level.

`42` **MENU button**
For displaying adjustment and setting screens.

`42` **ENTER button**
For setting items selected or adjusted on the menu.

ON   INPUT   KEYSTONE   AUTO SYNC.
STANDBY
LAMP
TEMP.
VOL
UNDO   ENTER   MENU

HEIGHT ADJUST button `25`

Adjustment foot `25`

Carrying handle

`26` **Zoom knob**

`26` **Focus ring**

`80` **Intake vent**

`13` **Remote control sensor**

`81` **Air filter/cooling fan (Intake vent) (on the bottom of the projector)**

Attaching and removing the lens cap
• Press on the two buttons of the lens cap and attach it on the lens. Then release the buttons to lock it in place.
• Press on the two buttons of the lens cap and remove it from the lens.

FixYourDLP.com
Sponsored by DM

Discount-Merchant.com (800) 281-8860
THE TRUSTED SOURCE FOR PROJECTOR LAMPS AND ACCESSORIES

In this operation manual, the illustration and the screen display are simplified for explanation, and may differ slightly from actual display.

Projector (Rear View)

RS-232C terminal `22`
For controlling projector using a computer.

AUDIO OUTPUT terminal `21`
Shared audio output terminal for INPUT 1, 2, 3 and 4.

INPUT 1 terminal `17`
Terminal for computer RGB and component signals.

OUTPUT (INPUT 1, 2) terminal `23`
Shared computer RGB and component signals output terminal for INPUT 1 and 2.

INPUT 2 terminal `17`
Terminal for computer RGB and component signals.

`17` **AUDIO INPUT 1, 2 terminal**
Shared audio input terminal for INPUT 1 and 2.

`23` **WIRED REMOTE control input terminal**

`19` **INPUT 3 terminal**
For connecting video equipment.

`19` **AUDIO (L/R) INPUT 3, 4 terminals**
Shared audio input terminals for INPUT 3 and 4.

`19` **INPUT 4 terminal**
Terminal for connecting video equipment with an S-video terminal.

`17` **AC socket**

`80` **Exhaust vent**

Kensington Security Standard connector

`25` **Adjustment Feet**

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.

Carrying the projector
Before carrying the projector, fully extend the carrying handle.

GB-11

Part Names

Remote Control (Front View)

STANDBY button `37`
For putting the projector into the standby mode.

KEYSTONE button `38`
For adjusting Keystone or Digital Shift setting.

ENTER button `42`
For setting items selected or adjusted on the menu.

UNDO button `39`
For undoing an operation or returning to the default settings.

ENLARGE (Enlarge/Reduce) buttons `55`
For enlarging or reducing part of the image.

GAMMA button `56`
For correcting the brightness of an image, when the images displayed are hard to see because of the brightness of the room. Four gamma modes are available to choose from.

AUTO SYNC button `50`
For automatically adjusting images when connected to a computer.

INPUT buttons `35`
For switching to the respective input modes.

VOLUME buttons `35`
For adjusting the speaker sound level.

ON button `34`
For turning the power on.

MENU button `42`
For displaying adjustment and setting screens.

Adjustment buttons (▲, ▼, ◀, ▶) `42`
For selecting menu items.

PinP button `57`
For displaying dual pictures.

FORWARD/BACK buttons `24`
Same function as the [Page Down] and [Page Up] keys on a computer keyboard when using the Remote receiver.

FREEZE button `54`
For freezing images.

BLACK SCREEN button `58`
For superimposing a black screen.

RESIZE button `52`
For switching the screen size (NORMAL, BORDER, etc).

MUTE button `36`
For temporarily turning off the sound.

BREAK TIMER button `59`
For displaying the break timer.

Remote control buttons labeled: STANDBY, ON, KEYSTONE, MENU, ENTER, UNDO, PinP, BACK, FORWARD, ENLARGE, FREEZE, AUTO SYNC, GAMMA, BLACK SCREEN, INPUT 1, INPUT 2, INPUT3, INPUT 4, RESIZE, VOL, MUTE, BREAK TIMER, SHARP

Remote Control (Top View)

WIRED R/C JACK `23`
For controlling the projector by connecting the remote control to the projector.

Remote control signal transmitters `13`

XG-C60X_E_PDF_p06_14.p65   12   03.8.28, 1:56 PM

Using 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, 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.

Remote control sensor

30°   45°

Remote control signal transmitters   30°

23' (7 m)

Remote control

Inserting the Batteries

The batteries (two R-6 batteries ("AA" size, UM/SUM-3, HP-7 or similar)) are included in the package.

1 **Pull down the tab on the cover and remove the cover towards 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.**

Incorrect use of the batteries may cause them to leak or explode. Please follow the precautions below.

⚠ Caution

• Insert the batteries making sure the polarities correctly match the ⊕ and ⊖ marks inside the battery compartment.
• Batteries of different types have different properties, therefore do not mix batteries of different types.
• Do not mix new and old batteries.
  This may shorten the life of new batteries or may cause old batteries to leak.
• Remove the batteries from the remote control once they have run out, as leaving them can cause them to leak. Battery fluid from leaked batteries is harmful to your skin, therefore be sure to first wipe them and then remove them using a cloth.
• The batteries included with this projector may exhaust over a short period, depending on how they are kept. Be sure to replace them as soon as possible with new batteries.
• Remove the batteries from the remote control if you will not be using the remote control for a long time.

Ⓖ**Ⓑ-13**

Accessories

Supplied accessories

Remote control
RRMCGA176WJSA

Two R-6 batteries
("AA" size, UM/SUM-3, HP-7 or similar)

Power cord

(1)

For U.S., Canada, etc.
(11'10" (3.6 m))
QACCDA010WJPZ

(2)

For Europe, except U.K.
(6' (1.8 m))
QACCVA011WJPZ

(3)

For U.K., Hong Kong and
Singapore
(6' (1.8 m))
QACCBA012WJPZ

(4)

For Australia, New
Zealand and Oceania
(6' (1.8 m))
QACCLA018WJPZ

✎ Note

• Use the power cord that corresponds to the wall outlet in your country.

RGB cable
(9'10" (3 m))
QCNWGA012WJPZ

DIN-D-sub RS-232C
adaptor (5 $^{57}/_{64}$" (15 cm))
QCNWGA015WJPZ

USB cable (3'3" (1 m))
QCNWG0007CEPZ

Projector manual and
technical reference
CD-ROM
UDSKAA042WJZZ

Sharp Advanced Presen-
tation Software CD-ROM
UDSKAA043WJZZ

Remote receiver
RUNTKA061WJZZ

Sharp Advanced
Presentation Software
quick installation guide
TINS-A867WJZZ

Quick guide label
TLABZA364WJZZ

Operation manual
(this manual)

Lens cap (attached)
PCAPHA003WJSA

Extra air filter
PFILDA005WJZZ

Optional cable

■ 3 RCA to 15-pin D-sub cable (9'10" (3.0 m))   AN-C3CP

✎ Note

• This cable may not be available depending on the region. Please check with your nearest Sharp
Authorized Projector Dealer or Service Center.

Connections and Setup
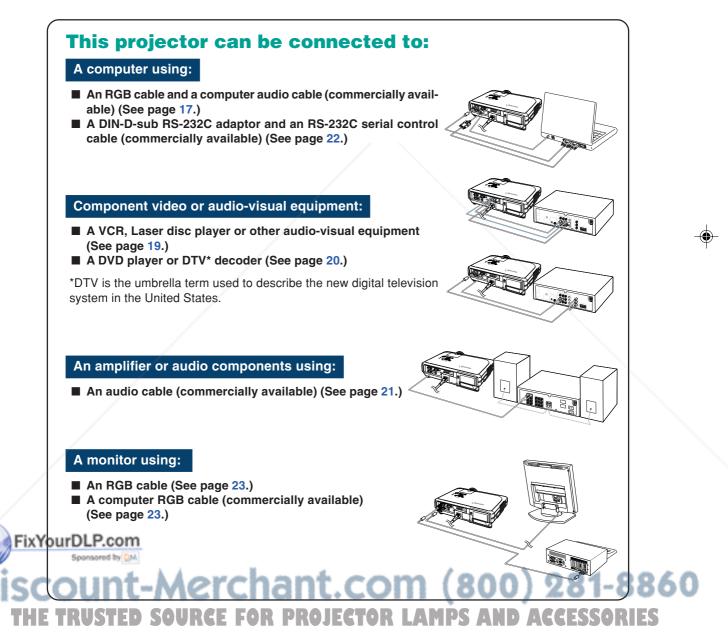
Connecting the Projector to Other Devices

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:

A computer using:

■ **An RGB cable and a computer audio cable (commercially available) (See page 17.)**
■ **A DIN-D-sub RS-232C adaptor and an RS-232C serial control cable (commercially available) (See page 22.)**

Component video or audio-visual equipment:

■ **A VCR, Laser disc player or other audio-visual equipment (See page 19.)**
■ **A DVD player or DTV* decoder (See page 20.)**

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

An amplifier or audio components using:

■ **An audio cable (commercially available) (See page 21.)**

A monitor using:

■ **An RGB cable (See page 23.)**
■ **A computer RGB cable (commercially available) (See page 23.)**

Connecting the Power Cord

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

Supplied accessory	Power code

Connecting the Projector to a Computer

Connecting to a Computer Using the RGB Cable

1 Connect the projector to the computer using the supplied RGB cable.

• Secure the connectors by tightening the thumbscrews.

2 To input audio signal, connect the projector to the computer using the computer audio cable (commercially available or available as Sharp service part QCNWGA038WJPZ).

Supplied accessory	RGB cable

Notebook computer

To RGB output terminal

To audio output terminal

❶ RGB cable

❷ Computer audio cable (commercially available or available as Sharp service part QCNWGA038WJPZ)

✎ Note

• See page **93** "Computer Compatibility Chart" 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.

• When connecting the projector to a computer in this way, select "RGB" for "Signal Type" in the "Picture" menu. See page **46**.

• A Macintosh adaptor may be required for use with some Macintosh computers. Contact your nearest Sharp Authorized Projector Dealer or Service Center.

• Depending on the computer you are using, an image may not be projected unless the signal output setting of the computer is switched to the external output. Refer to the computer operation manual for switching the computer signal output settings.

-17

Connecting the thumbscrew cables

■ Connect the thumbscrew cable making sure that it fits correctly into the terminal. Then, firmly secure the connectors by tightening the screws on both sides of the plug.

■ Do not remove the ferrite core attached to the RGB cable.

Ferrite core

"Plug and Play" function (when connecting to a 15-pin terminal)

■ This projector is compatible with VESA-standard DDC 1/DDC 2B. The projector and a VESA DDC compatible computer will communicate their setting requirements, allowing for quick and easy setup.
■ Before using the "Plug and Play" function, be sure to turn on the projector first and the connected computer last.

✎ Note

• The DDC "Plug and Play" function of this projector operates only when used in conjunction with a VESA DDC compatible computer.

XG-C60X_E_PDF_p15_18.p65   18   03.8.28, 1:56 PM

Connecting to Video Equipment
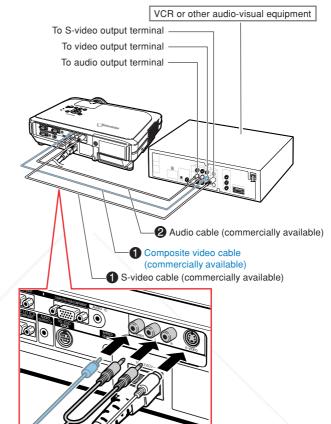
Connecting to Video Equipment Using an S-video, a Composite Video or an Audio Cable

Using an S-video, video, or audio cable, a VCR, laser disc player or other audio-visual equipment can be connected to INPUT 3, INPUT 4 and AUDIO (L/R) input terminals.
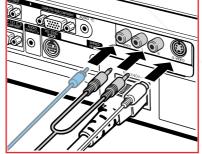
1 Connect the projector to the video equipment using an S-video cable or a composite video cable (both commercially available).

2 Connect the projector to the video equipment using an audio cable (commercially available).

✎ **Note**

- The INPUT 4 (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 4 terminal on the projector and the S-video output terminal on the video equipment.

VCR or other audio-visual equipment

To S-video output terminal

To video output terminal

To audio output terminal

❷ Audio cable (commercially available)

❶ Composite video cable (commercially available)

❶ S-video cable (commercially available)

Connections and Setup

Ⓖ**-19**

Connecting to Component Video Equipment
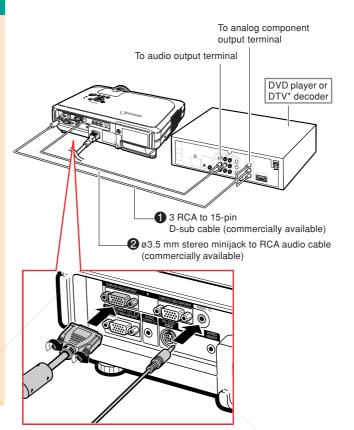
Use a 3 RCA to 15-pin D-sub cable when connecting to the INPUT 1 or 2 terminal, component video equipment such as DVD players and DTV* decoders.

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

1 Connect the projector to the video equipment using the 3 RCA to 15-pin D-sub cable (commercially available).

2 Connect the projector to the video equipment using a ø3.5 mm stereo minijack to RCA audio cable (commercially available).

Note

- When connecting the projector to the video equipment in this way, select "Component" for "Signal Type" in the "Picture" menu. See page **46**.
- A ø3.5 mm stereo minijack to RCA audio cable (commercially available) is required for audio input.

To analog component output terminal
To audio output terminal
DVD player or DTV* decoder

❶ 3 RCA to 15-pin D-sub cable (commercially available)
❷ ø3.5 mm stereo minijack to RCA audio cable (commercially available)

Connecting to an Amplifier
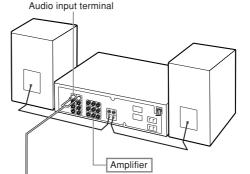
Connecting to an Amplifier or Other Audio Components

Using a ø3.5 mm stereo minijack to RCA audio cable, an amplifier or other audio components can be connected to the AUDIO OUTPUT terminal.
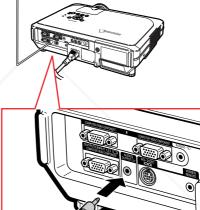
Connect the projector to the amplifier using a ø3.5 mm stereo minijack to RCA audio cable (commercially available).

📕 Info

• By using external audio components, the volume can be amplified for better sound.
• The AUDIO OUTPUT terminal allows you to output audio to audio components from the selected AUDIO input terminal (for INPUT 1 and 2) or AUDIO (L/R) input terminals (for INPUT 3 and 4) connected to audiovisual equipment.
• For details on Variable Audio Output (VAO) and Fixed Audio Output (FAO), see page **63**.
• A ø3.5 mm stereo minijack to RCA audio cable (commercially available) is required for audio input.

Audio input terminal

Amplifier

ø3.5 mm stereo minijack to RCA audio cable (commercially available)

Connections and Setup

Controlling the Projector by a Computer
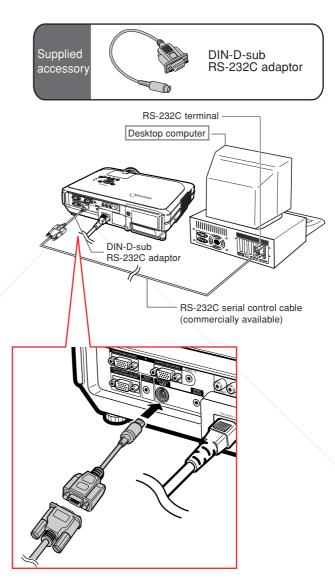
Connecting to a Computer Using a DIN-D-sub RS-232C Adaptor and an RS-232C Serial Control Cable

When the RS-232C terminal on the projector is connected to a computer with a DIN-D-sub RS-232C adaptor and an RS-232C serial control cable (cross type, commercially available), the computer can be used to control the projector and check the status of the projector. See page 89 for details.

1 Connect the supplied DIN-D-sub RS-232C adaptor to an RS-232C serial control cable (commercially available).

2 Use the above cables to connect the projector and the computer.

✏ **Note**

- Do not connect or disconnect an RS-232C serial control 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.
- See page **88** for connection of an RS-232C serial control cable.

Supplied accessory

DIN-D-sub RS-232C adaptor

RS-232C terminal

Desktop computer

DIN-D-sub RS-232C adaptor

RS-232C serial control cable (commercially available)

Connecting to a Monitor

Watching Images on Both the Projector and a Monitor
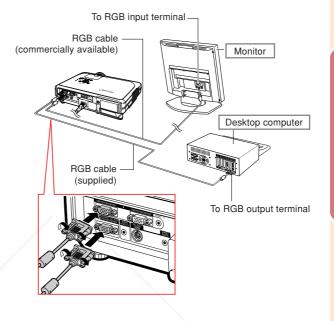
You can display computer images on both the projector and a separate monitor using two sets of an RGB cable. An RGB cable is supplied with this projector. You need to buy another RGB cable for connecting the projector to a monitor.

1 Connect the projector to the computer and monitor using RGB cables (one is supplied, the other is commercially available).

2 In the "Options(1)" menu, select "Economy Mode", "Mntr. out/RS232" and then "ON". (see page **69**.)

Supplied accessory   RGB cable

To RGB input terminal
RGB cable (commercially available)
Monitor
Desktop computer
RGB cable (supplied)
To RGB output terminal

✎ Note

• Analog RGB signals as well as Component signals can be output to the monitor.
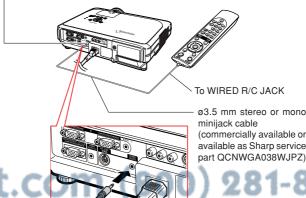
Using as a Wired Remote Control

Connecting the Remote Control to the Projector

When the remote control cannot be used due to the range or positioning of the projector (rear projection, etc.), connect a ø3.5 mm stereo or mono minijack cable (commercially available or available as Sharp service part QCNWGA038WJPZ) from the WIRED R/C JACK on the top of the remote control to the WIRED REMOTE control input terminal.

✎ Note

• FORWARD/BACK presentation control cannot be used when the remote control is wired to the projector. To utilize this feature, disconnect the cable from the remote control.

WIRED REMOTE control input terminal

To WIRED R/C JACK

ø3.5 mm stereo or mono minijack cable (commercially available or available as Sharp service part QCNWGA038WJPZ)

ⒼⒷ-23

Using the Wireless Presentation Function of the Remote Control

By connecting the remote receiver to a computer, wireless presentation control is possible. BACK and FORWARD buttons on the remote control will emulate the [Page Up] and [Page Down] keys on your computer keyboard. This will allow you to remotely navigate applicable presentation programs such as Microsoft PowerPoint®.

Using the Wireless Presentation Function

1 Connect the remote receiver to the computer using the supplied USB cable.

Note

• This function only works with the Microsoft Windows OS and Mac OS. However, this function does not work with the following operation systems that do not support USB.
  • Versions earlier than Windows 95.
  • Versions earlier than Windows NT4.0.
  • Versions earlier than Mac OS 8.5.

Supplied accessories	USB cable
	Remote receiver

Computer

USB terminal

Remote receiver

USB cable

2 Press BACK or FORWARD while using presentation software on your computer.

• Press BACK to move the page up.
• Press FORWARD to move the page down.

BACK button

FORWARD button

Setup

Using the Adjustment Feet

The height of the projector can be adjusted using the adjustment feet at the front and back of the projector when the surface the projector is placed on is uneven or when the screen is slanted.
The projection of the image can be made higher by adjusting the projector when it is in a location lower than the screen.

1 Press HEIGHT ADJUST.

2 Lift the projector to adjust its height and remove your finger from HEIGHT ADJUST.

3 Rotate the adjustment feet at the back of the projector for fine adjustment.

HEIGHT ADJUST button

Adjustment foot

Adjustment feet

Up

Down
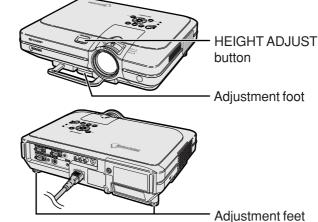
Note
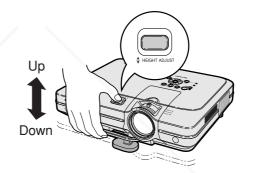
• When returning the projector to its original position, hold the projector firmly, press **HEIGHT ADJUST** and then gently lower it.
• The projector is adjustable up to approximately 12 degrees on the front and 3 degrees on the back from the standard position.
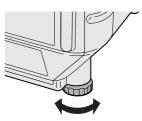
Info

• Do not press **HEIGHT ADJUST** when the adjustment foot is extended without firmly holding the projector.
• Do not hold the lens when lifting or lowering the projector.
• When lowering the projector, be careful not to get your finger caught in the area between the adjustment foot and the projector.
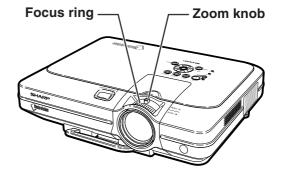
Adjusting the Lens

The image is focused and adjusted to the desired size using the focus ring or zoom knob on the projector.

Focus ring ——— **Zoom knob**
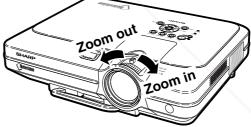
1 The focus is adjusted by rotating the focus ring.

2 Zooming is adjusted by moving the zoom knob.

Zoom out

Zoom in

FixYourDLP.com
Sponsored by DM

Discount-Merchant.com (800) 281-8860
THE TRUSTED SOURCE FOR PROJECTOR LAMPS AND ACCESSORIES

Setting up the Screen

Position the projector perpendicular to the screen with all feet flat and level to achieve an optimal image.
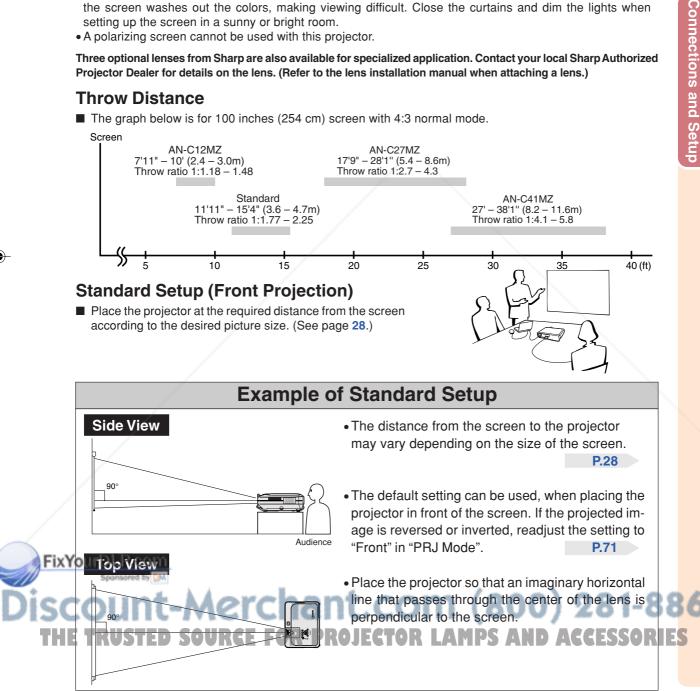
✎ Note

- The projector lens should be centered in the middle of the screen. If the horizontal line passing through the lens center is not perpendicular to the screen, the image will be distorted, making viewing difficult.
- For optimal image, 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.
- A polarizing screen cannot be used with this projector.

Three optional lenses from Sharp are also available for specialized application. Contact your local Sharp Authorized Projector Dealer for details on the lens. (Refer to the lens installation manual when attaching a lens.)
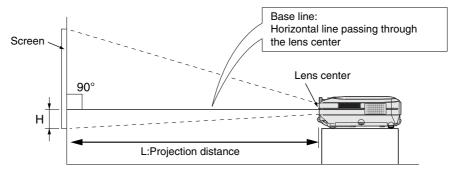
Throw Distance

■ The graph below is for 100 inches (254 cm) screen with 4:3 normal mode.

Screen

AN-C12MZ
7'11" – 10' (2.4 – 3.0m)
Throw ratio 1:1.18 – 1.48

AN-C27MZ
17'9" – 28'1'' (5.4 – 8.6m)
Throw ratio 1:2.7 – 4.3

Standard
11'11" – 15'4" (3.6 – 4.7m)
Throw ratio 1:1.77 – 2.25

AN-C41MZ
27' – 38'1'' (8.2 – 11.6m)
Throw ratio 1:4.1 – 5.8

5   10   15   20   25   30   35   40 (ft)

Standard Setup (Front Projection)

■ Place the projector at the required distance from the screen according to the desired picture size. (See page **28**.)

Example of Standard Setup

Side View

90°

Audience

- The distance from the screen to the projector may vary depending on the size of the screen.

  P.28

- The default setting can be used, when placing the projector in front of the screen. If the projected image is reversed or inverted, readjust the setting to "Front" in "PRJ Mode".

  P.71

Top View

90°

- Place the projector so that an imaginary horizontal line that passes through the center of the lens is perpendicular to the screen.

ⒼⒷ-27

Screen Size and Projection Distance

Base line:
Horizontal line passing through the lens center

Screen

Lens center

90°

H

L:Projection distance

Standard Lens
Throw ratio
1:1.77 to 2.25

NORMAL Mode (4:3)

Picture (Screen) size			Projection distance [L]		Distance from the lens center to the bottom of the image [H]
Diag. [χ]	Width	Height	Maximum [L1]	Minimum [L2]	
300" (762 cm)	240" (610 cm)	180"(457 cm)	46' 4" (14.1 m)	36' (11.0 m)	17 11 / 16" (45.0 cm)
250" (635 cm)	200" (508 cm)	150" (381 cm)	38' 7" (11.8 m)	30' (9.1 m)	14 3 / 4" (37.5 cm)
200" (508 cm)	160" (406 cm)	120" (305 cm)	30'10" (9.4 m)	24' (7.3 m)	11 13 / 16" (30.0 cm)
150" (381 cm)	120" (305 cm)	90" (229 cm)	23' 1" (7.0 m)	17'11" (5.5 m)	8 7 / 8" (22.5 cm)
100" (254 cm)	80" (203 cm)	60" (152 cm)	15' 4" (4.7 m)	11'11" (3.6 m)	5 7 / 8" (15.0 cm)
84" (213 cm)	67" (170 cm)	50" (127 cm)	12'11" (3.9 m)	10' (3.0 m)	4 15 / 16" (12.6 cm)
72" (183 cm)	58" (147 cm)	43" (109 cm)	11' (3.4 m)	8' 6" (2.6 m)	4 1 / 4" (10.8 cm)
60" (152 cm)	48" (122 cm)	36" (91 cm)	9' 2" (2.8 m)	7' 1" (2.2 m)	3 9 / 16" (9.0 cm)
40" (102 cm)	32" (81 cm)	24" (61 cm)	6' 1" (1.8 m)	4' 8" (1.4 m)	2 3 / 8" (6.0 cm)

The formula for picture size and projection distance

χ: Picture size (diag.) (in)

[Feet, inches]
L1 (ft) = (0.0472χ − 0.0517) / 0.3048
L2 (ft) = (0.0367χ − 0.0529) / 0.3048
H (in) = (0.1499χ − 0.0064) / 2.54

[m, cm]
L1 (m) = 0.0472χ − 0.0517
L2 (m) = 0.0367χ − 0.0529
H (cm) = 0.1499χ − 0.0064

STRETCH Mode (16:9)

Picture (Screen) size			Projection distance [L]		Distance from the lens center to the bottom of the image [H]
Diag. [χ]	Width	Height	Maximum [L1]	Minimum [L2]	
300" (762 cm)	261" (663 cm)	147" (373 cm)	50' 6" (15.4 m)	39' 3" (12.0 m)	−4 15 / 16"(−12.6 cm)
250" (635 cm)	218" (554 cm)	123" (312 cm)	42' (12.8 m)	32' 8" (10.0 m)	−4 1 / 8"(−10.5 cm)
225" (572 cm)	196" (498 cm)	110" (279 cm)	37'10" (11.5 m)	29' 5" (9.0 m)	−3 3 / 4" (−9.5 cm)
200" (508 cm)	174" (442 cm)	98" (249 cm)	33' 7" (10.2 m)	26' 1" (8.0 m)	−3 5 / 16"(−8.4 cm)
150" (381 cm)	131" (333 cm)	74" (188 cm)	25' 2" (7.7 m)	19' 7" (6.0 m)	−2 1 / 2" (−6.3 cm)
133" (338 cm)	116" (295 cm)	65" (165 cm)	22' 3" (6.8 m)	17' 4" (5.3 m)	−2 3 / 16"(−5.6 cm)
106" (269 cm)	92" (234 cm)	52" (132 cm)	17' 9" (5.4 m)	13' 9" (4.2 m)	−1 3 / 4" (−4.5 cm)
100" (254 cm)	87" (221 cm)	49" (124 cm)	16' 9" (5.1 m)	13' (4.0 m)	−1 5 / 8" (−4.2 cm)
92" (234 cm)	80" (203 cm)	45" (114 cm)	15' 5" (4.7 m)	11'11" (3.6 m)	−1 9 / 16"(−3.9 cm)
84" (213 cm)	73" (185 cm)	41" (104 cm)	14' (4.3 m)	10'11" (3.3 m)	−1 3 / 8" (−3.5 cm)
72" (183 cm)	63" (160 cm)	35" (89 cm)	12' (3.7 m)	9' 4" (2.8 m)	−1 3 / 16"(−3.0 cm)
60" (152 cm)	52" (132 cm)	29" (74 cm)	10' (3.0 m)	7' 9" (2.4 m)	−31 / 32"(−2.5 cm)
40" (102 cm)	35" (89 cm)	20" (51 cm)	6' 7" (2.0 m)	5' 2" (1.6 m)	−11 / 16"(−1.7 cm)

The formula for picture size and projection distance

χ: Picture size (diag.) (in)

[Feet, inches]
L1 (ft) = (0.0514χ − 0.0516) / 0.3048
L2 (ft) = (0.04χ − 0.0523) / 0.3048
H (in) = (−0.0422χ + 0.0018) / 2.54

[m, cm]
L1 (m) = 0.0514χ − 0.0516
L2 (m) = 0.04χ − 0.0523
H (cm) = −0.0422χ + 0.0018

✎ Note
• There is an error of ± 3% in the formula above.
• Values with a minus (−) sign indicate the distance of the lens center below the bottom of the image.

AN-C41MZ (Optional accessory)
Throw ratio
1:4.1 to 5.8

NORMAL Mode (4:3)

Picture (Screen) size			Projection distance [L]		Distance from the lens center to the bottom of the image [H]	
Diag. [χ]	Width	Height	Maximum [L1]	Minimum [L2]		
300" (762 cm)	240" (610 cm)	180" (457 cm)	114' 6" (34.9 m)	81' (24.7 m)	17 7/8"	(45.4 cm)
250" (635 cm)	200" (508 cm)	150" (381 cm)	94'10" (28.9 m)	67' 2" (20.5 m)	14 7/8"	(37.8 cm)
200" (508 cm)	160" (406 cm)	120" (305 cm)	75'11" (23.1 m)	53' 9" (16.4 m)	11 59/64"	(30.3 cm)
150" (381 cm)	120" (305 cm)	90" (229 cm)	57' (17.4 m)	40' 5" (12.3 m)	8 15/16"	(22.7 cm)
100" (254 cm)	80" (203 cm)	60" (152 cm)	38' 1" (11.6 m)	27' (8.2 m)	5 15/16"	(15.1 cm)
84" (213 cm)	67" (170 cm)	50" (127 cm)	32' 1" (9.8 m)	22' 9" (6.9 m)	5"	(12.7 cm)
72" (183 cm)	58" (147 cm)	43" (109 cm)	27' 6" (8.4 m)	19' 7" (6.0 m)	4 19/64"	(10.9 cm)
60" (152 cm)	48" (122 cm)	36" (91 cm)	23' (7.0 m)	16' 4" (5.0 m)	3 37/64"	(9.1 cm)
40" (102 cm)	32" (81 cm)	24" (61 cm)	15' 5" (4.7 m)	11' (3.4 m)	2 23/64"	(6.0 cm)

The formula for picture size and projection distance

χ: Picture size (diag.) (in)

[Feet, inches]
$L1 \text{ (ft)} = (0.1158\chi + 0.0403) / 0.3048$
$L2 \text{ (ft)} = (0.0818\chi + 0.0606) / 0.3048$
$H \text{ (in)} = (0.1514\chi - 0.0071) / 2.54$

[m, cm]
$L1 \text{ (m)} = 0.1158\chi + 0.0403$
$L2 \text{ (m)} = 0.0818\chi + 0.0606$
$H \text{ (cm)} = 0.1514\chi - 0.0071$

STRETCH Mode (16:9)

Picture (Screen) size			Projection distance [L]		Distance from the lens center to the bottom of the image [H]	
Diag. [χ]	Width	Height	Maximum [L1]	Minimum [L2]		
300" (762 cm)	261" (663 cm)	147" (373 cm)	123'10" (37.8 m)	87' 9" (26.8 m)	−5 3/64"	(−12.8 cm)
250" (635 cm)	218" (554 cm)	123" (312 cm)	103' 3" (31.5 m)	73' 2" (22.3 m)	−4 11/64"	(−10.6 cm)
225" (572 cm)	196" (498 cm)	110" (279 cm)	93' (28.3 m)	65'11" (20.1 m)	−3 25/32"	(−9.6 cm)
200" (508 cm)	174" (442 cm)	98" (249 cm)	82' 8" (25.2 m)	58' 8" (17.9 m)	−3 11/32"	(−8.5 cm)
150" (381 cm)	131" (333 cm)	74" (188 cm)	62' 1" (18.9 m)	44' (13.4 m)	−2 33/64"	(−6.4 cm)
133" (338 cm)	116" (295 cm)	65" (165 cm)	55' 1" (16.8 m)	39' 1" (11.9 m)	−2 1/4"	(−5.7 cm)
106" (269 cm)	92" (234 cm)	52" (132 cm)	44' (13.4 m)	31' 2" (9.5 m)	−1 49/64"	(−4.5 cm)
100" (254 cm)	87" (221 cm)	49" (124 cm)	41' 6" (12.7 m)	29' 6" (9.0 m)	−1 11/16"	(−4.3 cm)
92" (234 cm)	80" (203 cm)	45" (114 cm)	38' 2" (11.6 m)	27' 2" (8.3 m)	−1 17/32"	(−3.9 cm)
84" (213 cm)	73" (185 cm)	41" (104 cm)	34'11" (10.6 m)	24'10" (7.6 m)	−1 27/64"	(−3.6 cm)
72" (183 cm)	63" (160 cm)	35" (89 cm)	29'11" (9.1 m)	21' 4" (6.5 m)	−1 7/32"	(−3.1 cm)
60" (152 cm)	52" (132 cm)	29" (74 cm)	25' (7.6 m)	17'10" (5.4 m)	−1 1/32"	(−2.6 cm)
40" (102 cm)	35" (89 cm)	20" (51 cm)	16'10" (5.1 m)	12' (3.7 m)	−43/64"	(−1.7 cm)

The formula for picture size and projection distance

χ: Picture size (diag.) (in)

[Feet, inches]
$L1 \text{ (ft)} = (0.1255\chi + 0.0951) / 0.3048$
$L2 \text{ (ft)} = (0.0888\chi + 0.0975) / 0.3048$
$H \text{ (in)} = (-0.0425\chi - 0.001) / 2.54$

[m, cm]
$L1 \text{ (m)} = 0.1255\chi + 0.0951$
$L2 \text{ (m)} = 0.0888\chi + 0.0975$
$H \text{ (cm)} = -0.0425\chi - 0.001$

✎ **Note**

• There is an error of ± 3% in the formula above.
• Values with a minus (−) sign indicate the distance of the lens center below the bottom of the image.

Ⓖ**-29**

AN-C27MZ (Optional accessory)
Throw ratio
1:2.7 to 4.3

NORMAL Mode (4:3)

Picture (Screen) size			Projection distance [L]				Distance from the lens center to the bottom of the image [H]	
Diag. [χ]	Width	Height	Maximum [L1]		Minimum [L2]			
300" (762 cm)	240" (610 cm)	180" (457 cm)	85' 2"	(26.0 m)	54' 2"	(16.5 m)	17 63/64"	(45.7 cm)
250" (635 cm)	200" (508 cm)	150" (381 cm)	70' 11"	(21.6 m)	45' 1"	(13.7 m)	14 61/64"	(38.0 cm)
200" (508 cm)	160" (406 cm)	120" (305 cm)	56' 8"	(17.3 m)	36'	(11.0 m)	11 31/32"	(30.4 cm)
150" (381 cm)	120" (305 cm)	90" (229 cm)	42' 4"	(12.9 m)	26' 10"	(8.2 m)	8 31/32"	(22.8 cm)
100" (254 cm)	80" (203 cm)	60" (152 cm)	28' 1"	(8.6 m)	17' 9"	(5.4 m)	5 63/64"	(15.2 cm)
84" (213 cm)	67" (170 cm)	50" (127 cm)	23' 6"	(7.2 m)	14' 10"	(4.5 m)	5 3/64"	(12.8 cm)
72" (183 cm)	58" (147 cm)	43" (109 cm)	20' 1"	(6.1 m)	12' 8"	(3.9 m)	4 21/64"	(11.0 cm)
60" (152 cm)	48" (122 cm)	36" (91 cm)	16' 8"	(5.1 m)	10' 6"	(3.2 m)	3 37/64"	(9.1 cm)
40" (102 cm)	32" (81 cm)	24" (61 cm)	11'	(3.4 m)	6' 10"	(2.1 m)	2 13/32"	(6.1 cm)

The formula for picture size and projection distance

χ: Picture size (diag.) (in)

[Feet, inches]
$L1$ (ft) = (0.087χ – 0.1353) / 0.3048
$L2$ (ft) = (0.0555χ – 0.1377) / 0.3048
H (in) = (0.1522χ – 0.002) / 2.54

[m, cm]
$L1$ (m) = 0.087χ – 0.1353
$L2$ (m) = 0.0555χ – 0.1377
H (cm) = 0.1522χ – 0.002

STRETCH Mode (16:9)

Picture (Screen) size			Projection distance [L]				Distance from the lens center to the bottom of the image [H]	
Diag. [χ]	Width	Height	Maximum [L1]		Minimum [L2]			
300" (762 cm)	261" (663 cm)	147" (373 cm)	92' 8"	(28.3 m)	59' 1"	(18.0 m)	–5"	(–12.7 cm)
250" (635 cm)	218" (554 cm)	123" (312 cm)	77' 2"	(23.5 m)	49' 2"	(15.0 m)	–4 11/64"	(–10.6 cm)
225" (572 cm)	196" (498 cm)	110" (279 cm)	69' 5"	(21.2 m)	44' 3"	(13.5 m)	–3 47/64"	(–9.5 cm)
200" (508 cm)	174" (442 cm)	98" (249 cm)	61' 8"	(18.8 m)	39' 3"	(12.0 m)	–3 11/32"	(–8.5 cm)
150" (381 cm)	131" (333 cm)	74" (188 cm)	46' 2"	(14.1 m)	29' 4"	(8.9 m)	–2 33/64"	(–6.4 cm)
133" (338 cm)	116" (295 cm)	65" (165 cm)	40' 10"	(12.5 m)	25' 11"	(7.9 m)	–2 13/64"	(–5.6 cm)
106" (269 cm)	92" (234 cm)	52" (132 cm)	32' 6"	(9.9 m)	20' 7"	(6.3 m)	–1 49/64"	(–4.5 cm)
100" (254 cm)	87" (221 cm)	49" (124 cm)	30' 7"	(9.3 m)	19' 5"	(5.9 m)	–1 21/32"	(–4.2 cm)
92" (234 cm)	80" (203 cm)	45" (114 cm)	28' 1"	(8.6 m)	17' 10"	(5.4 m)	–1 17/32"	(–3.9 cm)
84" (213 cm)	73" (185 cm)	41" (104 cm)	25' 7"	(7.8 m)	16' 2"	(4.9 m)	–1 27/64"	(–3.6 cm)
72" (183 cm)	63" (160 cm)	35" (89 cm)	21' 11"	(6.7 m)	13' 10"	(4.2 m)	–1 7/32"	(–3.1 cm)
60" (152 cm)	52" (132 cm)	29" (74 cm)	18' 2"	(5.5 m)	11' 5"	(3.5 m)	–63/64"	(–2.5 cm)
40" (102 cm)	35" (89 cm)	20" (51 cm)	12'	(3.7 m)	7' 6"	(2.3 m)	–43/64"	(–1.7 cm)

The formula for picture size and projection distance

χ: Picture size (diag.) (in)

[Feet, inches]
$L1$ (ft) = (0.0946χ – 0.1356) / 0.3048
$L2$ (ft) = (0.0605χ – 0.1377) / 0.3048
H (in) = (–0.0424χ + 0.0013) / 2.54

[m, cm]
$L1$ (m) = 0.0946χ – 0.1356
$L2$ (m) = 0.0605χ – 0.1377
H (cm) = –0.0424χ + 0.0013

✎ Note

• There is an error of ± 3% in the formula above.
• Values with a minus (–) sign indicate the distance of the lens center below the bottom of the image.

AN-C12MZ (Optional accessory)
Throw ratio
1:1.18 to 1.48

NORMAL Mode (4:3)

Picture (Screen) size			Projection distance [L]				Distance from the lens center to the bottom of the image [H]	
Diag. [χ]	Width	Height	Maximum [L1]		Minimum [L2]			
300" (762 cm)	240" (610 cm)	180" (457 cm)	30' 5"	(9.3 m)	24' 3"	(7.4 m)	17 3/4"	(45.1 cm)
250" (635 cm)	200" (508 cm)	150" (381 cm)	25' 4"	(7.7 m)	20' 2"	(6.1 m)	14 13/16"	(37.6 cm)
200" (508 cm)	160" (406 cm)	120" (305 cm)	20' 3"	(6.2 m)	16' 1"	(4.9 m)	11 13/16"	(30.0 cm)
150" (381 cm)	120" (305 cm)	90" (229 cm)	15' 2"	(4.6 m)	12'	(3.7 m)	8 7/8"	(22.5 cm)
100" (254 cm)	80" (203 cm)	60" (152 cm)	10'	(3.0 m)	7' 11"	(2.4 m)	5 7/8"	(15.0 cm)
84" (213 cm)	67" (170 cm)	50" (127 cm)	8' 4"	(2.5 m)	6' 8"	(2.0 m)	4 15/16"	(12.6 cm)
72" (183 cm)	58" (147 cm)	43" (109 cm)	7' 2"	(2.2 m)	5' 8"	(1.7 m)	4 1/4"	(10.8 cm)
60" (152 cm)	48" (122 cm)	36" (91 cm)	5'11"	(1.8 m)	4' 8"	(1.4 m)	3 9/16"	(9.0 cm)
40" (102 cm)	32" (81 cm)	24" (61 cm)	3'11"	(1.2 m)	3' 1"	(0.9 m)	2 3/8"	(6.0 cm)

The formula for picture size and projection distance

χ: Picture size (diag.) (in)

[Feet, inches]
L1 (ft) = (0.0311χ − 0.0676) / 0.3048
L2 (ft) = (0.0248χ − 0.0693) / 0.3048
H (in) = (0.1504χ − 0.0328) / 2.54

[m, cm]
L1 (m) = 0.0311χ − 0.0676
L2 (m) = 0.0248χ − 0.0693
H (cm) = 0.1504χ − 0.0328

STRETCH Mode (16:9)

Picture (Screen) size			Projection distance [L]				Distance from the lens center to the bottom of the image [H]	
Diag. [χ]	Width	Height	Maximum [L1]		Minimum [L2]			
300" (762 cm)	261" (663 cm)	147" (373 cm)	33' 2"	(10.1 m)	26' 5"	(8.0 m)	−5"	(−12.7 cm)
250" (635 cm)	218" (554 cm)	123" (312 cm)	27' 7"	(8.4 m)	22'	(6.7 m)	−4 3/16"	(−10.6 cm)
225" (572 cm)	196" (498 cm)	110" (279 cm)	24'10"	(7.6 m)	19' 9"	(6.0 m)	−3 3/4"	(−9.5 cm)
200" (508 cm)	174" (442 cm)	98" (249 cm)	22' 1"	(6.7 m)	17' 7"	(5.3 m)	−3 3/8"	(−8.5 cm)
150" (381 cm)	131" (333 cm)	74" (188 cm)	16' 6"	(5.0 m)	13' 2"	(4.0 m)	−2 1/2"	(−6.4 cm)
133" (338 cm)	116" (295 cm)	65" (165 cm)	14' 7"	(4.4 m)	11' 7"	(3.5 m)	−2 3/16"	(−5.6 cm)
106" (269 cm)	92" (234 cm)	52" (132 cm)	11' 7"	(3.5 m)	9' 3"	(2.8 m)	−1 3/4"	(−4.5 cm)
100" (254 cm)	87" (221 cm)	49" (124 cm)	10'11"	(3.3 m)	8' 8"	(2.6 m)	−1 5/8"	(−4.2 cm)
92" (234 cm)	80" (203 cm)	45" (114 cm)	10' 1"	(3.1 m)	8'	(2.4 m)	−1 9/16"	(−3.9 cm)
84" (213 cm)	73" (185 cm)	41" (104 cm)	9' 2"	(2.8 m)	7' 3"	(2.2 m)	−1 7/16"	(−3.6 cm)
72" (183 cm)	63" (160 cm)	35" (89 cm)	7'10"	(2.4 m)	6' 3"	(1.9 m)	−1 3/16"	(−3.0 cm)
60" (152 cm)	52" (132 cm)	29" (74 cm)	6' 6"	(2.0 m)	5' 2"	(1.6 m)	−31/32"	(−2.5 cm)
40" (102 cm)	35" (89 cm)	20" (51 cm)	4' 3"	(1.3 m)	3' 4"	(1.0 m)	−11/16"	(−1.7 cm)

The formula for picture size and projection distance

χ: Picture size (diag.) (in)

[Feet, inches]
L1 (ft) = (0.0339χ − 0.0669) / 0.3048
L2 (ft) = (0.027χ − 0.0683) / 0.3048
H (in) = (−0.0424χ + 0.0079) / 2.54

[m, cm]
L1 (m) = 0.0339χ − 0.0669
L2 (m) = 0.027χ − 0.0683
H (cm) = −0.0424χ + 0.0079

✎ **Note**

• There is an error of ± 3% in the formula above.
• Values with a minus (−) sign indicate the distance of the lens center below the bottom of the image.

Connections and Setup

Ⓖ**-31**

Projecting a Reversed/Inverted Image
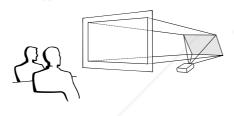
Projection from behind the screen

■ Place a translucent screen between the projector and the audience.

■ Reverse the image by setting "Rear" in "PRJ Mode". See page **71** for use of this function.

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

The image is reversed.
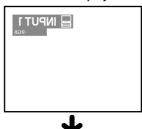
Projection using a mirror

■ 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.
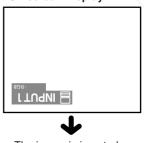
Ceiling-mount setup

■ It is recommended that you use the optional Sharp ceiling-mount bracket for this installation.

Before mounting the projector, contact your nearest Sharp Authorized Projector Dealer or Service Center to obtain the recommended ceiling-mount bracket (sold separately).

• AN-XGCM55 ceiling-mount bracket, its AN-EP101B extension tube and AN-JT200 universal bracket, adaptor for non-level ceiling installation (for U.S.A.).

• BB-M20T ceiling adaptor, its BB-NVHOLDER280, BB-NVHOLDER550, BB-NVHOLDER900 ceiling mount systems (for GERMANY).

• AN-60KT ceiling-mount bracket, its AN-TK201 and AN-TK202 extension tubes (for countries other than the U.S.A. and GERMANY).

■ Be sure to adjust the position of the projector to match the distance (H) from the lens center position (see page **28**) to the lower edge of the image, when mounting the projector on the ceiling.

■ Invert the image by setting "Ceiling + Front" in "PRJ Mode". See page **71** for use of this function.

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

The image is inverted.

Basic Operation
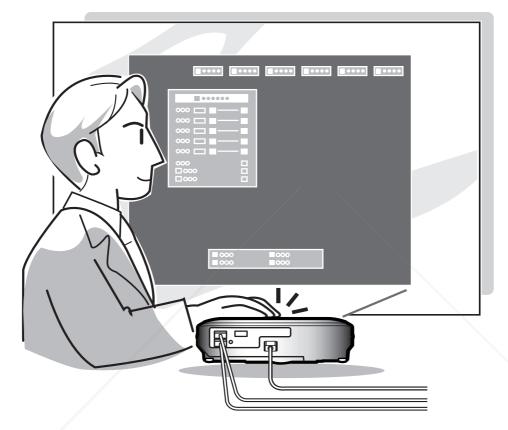
Image Projection

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 **36**.

1 Plug the power cord into the wall outlet.
• The power indicator illuminates red, and the projector enters the standby mode.

2 Press ⓘ on the projector or on the remote control.
• The power indicator illuminates green. After the lamp indicator illuminates, the projector is ready to start operation.

Note
• The lamp indicator illuminates, indicating the status of the lamp.
  Green: The lamp is ready.
  Green blinking: The lamp is warming up or shutting down.
  Red: The lamp should be replaced.
• If the projector is put into the standby mode and immediately turned on again, the lamp indicator may take time to illuminate.
• When controlling the projector using RS-232C commands from a computer, wait for at least 40 seconds after the power has been turned on, and then transmit the commands.
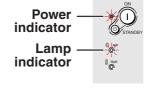
When "Anti-Theft" (see page 75) is set, the keycode input box will appear.
• Enter the keycode.
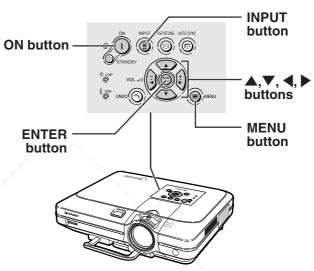
Note
• When entering the keycode, press the buttons previously set on the projector or the remote control.
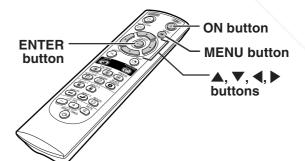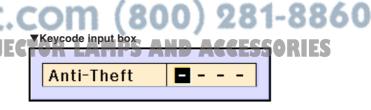
Info
• When "Anti-Theft" is set, enter the keycode or the input display will not appear. Even when the signal is input, the display will not appear. (see page **75**.)

Power indicator

Lamp indicator

ON button

INPUT button

▲, ▼, ◀, ▶ buttons

ENTER button

MENU button

ENTER button

ON button

MENU button

▲, ▼, ◀, ▶ buttons

▼ Keycode input box

Anti-Theft ▬ - - -

3 Press ⊞(INPUT 1), ⊞(INPUT 2), ⊟(INPUT3) or ⊟(INPUT 4) on the remote control to select the INPUT mode.

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

✎ **Note**

• When no signal is received, "NO SIGNAL." will be displayed. When a signal that the projector is not pre-set to receive is received, "NOT REG." will be displayed.
• When "Auto Search" is "ON", the INPUT modes with signals can be selected. (see page **64**.)
• The INPUT mode is not displayed when "OSD display" is set to "Level A" or "Level B". (see page **65**.)

About the INPUT modes

INPUT 1 INPUT 2 (RGB/ Component)	Used for projecting images from equipment that sends RGB signals or component signals connected to the RGB input terminal.
INPUT 3 (Video)	Used for projecting images from equipment connected to the VIDEO input terminal.
INPUT 4 (S-Video)	Used for projecting images from equipment connected to the S-VIDEO input terminal.

4 Press ⊖ or ⊕ on the remote control to adjust the volume.

✎ **Note**

• Pressing ⊖ will lower the volume.
  Pressing ⊕ will raise the volume.
• On the projector, the volume can be adjusted by pressing ⊟ or ⊟.
• ⊟, ⊟ on the projector operate as cursor buttons (◄, ►) when the menu screen is active.

▼**On-screen Display (Example)**

INPUT 1 mode

Using RGB

🖥 **INPUT 1**
-RGB

Using Component

🖥 **INPUT 1**
Component

INPUT 2 mode

Using RGB

🖥 **INPUT 2**
-RGB

Using Component

🖥 **INPUT 2**
Component

INPUT 3 mode
Using Video

⬭ **INPUT3**
Video

INPUT 4 mode
Using S-Video

🔊 **INPUT4**
S-Video

🔊 **VOLUME**

25 ▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌

INPUT buttons

VOLUME buttons

Basic Operation

5 Press ⌧^{MUTE} to temporarily turn off the sound.

. . . .

✎ Note

• Pressing ⌧^{MUTE} again will turn the sound back on.

⌧ MUTE

Selecting the On-screen Display Language

The on-screen display language of the projector can be set to English, German, Spanish, Dutch, French, Italian, Swedish, Portuguese, Chinese, Korean or Japanese.

1 Press ▣^{MENU}.

• The menu will be displayed.

2 Press ◀ or ▶ to select "Language".

3 Press ▲ or ▼ to select the desired language, and then press ⊙^{ENTER}.

4 Press ▣^{MENU}.

• The desired language will be set as the on-screen display.

C.M.S. | Fine Sync | Options | Options | Language | Status

◀ Picture ▶

Contrast
Bright
Red
Blue
CLR Temp
Reset
Signal Type
P Progressive Mode

◀ 💬 Language ▶

| English |
| Deutsch |
| Español |
| Nederlands |
| Français |
| Italiano |
| Svenska |
| Português |
| 汉语 |
| 한국어 |
| 日本語 |

GB-36

Turning the Power off

1 Press ⏻ STANDBY on the projector or ⏻ STANDBY on the remote control, then press that button again while the confirmation message is displayed, to put the projector into the standby mode.

✎ Note
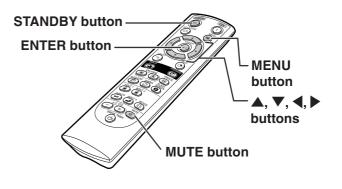
• If you accidentally pressed ⏻ STANDBY or ⏻ STANDBY and do not want to put the projector into the standby mode, wait until the confirmation message disappears.
• The projector cannot be operated while a message "Shutting Down. Please Wait." is displayed.

⏻ Enter STANDBY mode?
Yes: Press Again No: Please Wait

Shutting Down. Please Wait.

2 Unplug the power cord from the AC outlet after the cooling fan stops.

📖 Info

• Do not unplug the power cord during projection or cooling fan operation. This can cause damage due to the rise in internal temperature, as the cooling fan also stops.

Basic Operation

GB-37

Correcting Trapezoidal Distortion (Keystone Correction)

Correcting Trapezoidal Distortion

This function allows for Keystone (On-screen Trapezoidal Distortion) Correction.

✎ **Note**

- When the image is projected either from top or from bottom towards the screen at an angle, the image becomes distorted trapezoidally.
  The function for correcting trapezoidal distortion is called Keystone Correction.
- The Keystone Correction can be adjusted up to angle of approximately ±35 degrees.

KEYSTONE button
ENTER button
UNDO button
▲, ▼, ◀, ▶ buttons

Normal screen   Keystone Correction screen

Compresses upper side.

Compresses lower side.

1 Press ⓘ KEYSTONE .

- Pressing ⓘ KEYSTONE again while the BORDER, STRETCH or SMART STRETCH screen is displayed will start the Digital Shift function. See page **39**.
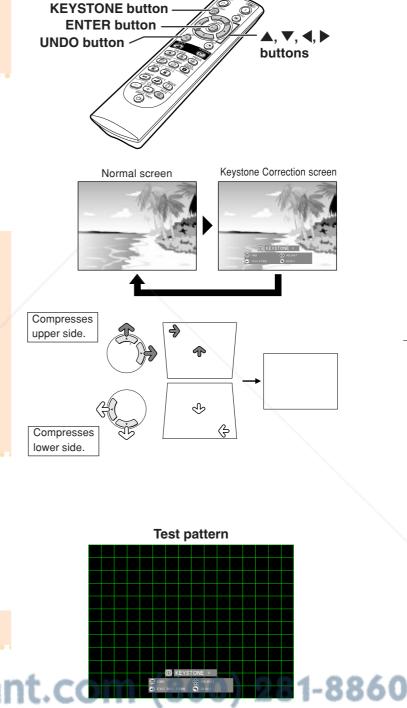
2 Press ▲, ▼, ◀ and ▶ to adjust the Keystone correction.

- If you want to make more detailed corrections, press ⓞ ENTER to display the test pattern, and then press ▲, ▼, ◀ and ▶ to make the adjustments.

✎ **Note**

- Since the trapezoidal distortion of the image can be corrected up to an angle of approximately ±35 degrees, the actual screen can be diagonally set up to that angle as well.
- Press ⓤ UNDO to cancel Keystone Correction.
- When no signal is detected, the test pattern will be displayed without pressing ⓞ.

Test pattern

3 Press ⓘ KEYSTONE .

✎ Note
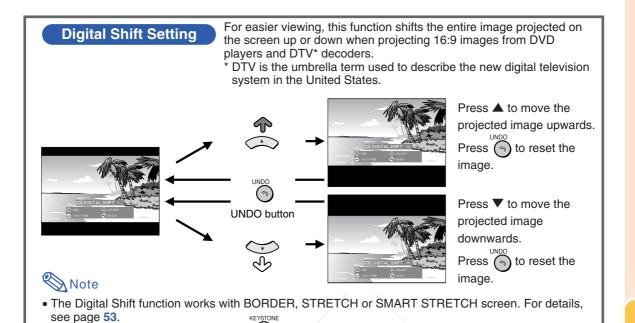
- You can use the same settings used in NORMAL mode 4:3 for 16:9.
- Straight lines or the edges of images may appear jagged while adjusting the image.

Ⓖ **-38**

Digital Shift Setting

For easier viewing, this function shifts the entire image projected on the screen up or down when projecting 16:9 images from DVD players and DTV* decoders.

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

Press ▲ to move the projected image upwards.
Press (UNDO) to reset the image.

UNDO button

Press ▼ to move the projected image downwards.
Press (UNDO) to reset the image.

✎ Note

• The Digital Shift function works with BORDER, STRETCH or SMART STRETCH screen. For details, see page **53**.
• To access Digital Shift function, press (KEYSTONE) twice.
  The Digital Shift menu will appear when a compatible 16:9 signal is displayed.

Basic Operation

Menu Bar Items

This list shows the items that can be set in the projector.

■ INPUT 1 / 2 Mode

Main menu	Sub menu	
Picture Page **46**	Contrast	−30 ↔ +30
	Bright	−30 ↔ +30
	Color	−30 ↔ +30
	Tint	−30 ↔ +30
	Sharp	−30 ↔ +30
	Red	−30 ↔ +30
	Blue	−30 ↔ +30
	CLR Temp	−3 ↔ +3
	Reset	
	Signal Type	RGB Component
	Progressive Mode	2D Progressive 3D Progressive Film Mode

C.M.S. Page **60**	Color Selected	Standard Custom 1 ↔ Custom 3 sRGB
	Target	[R] Red [Y] Yellow [G] Green [C] Cyan [B] Blue [M] Magenta
	Lightness −30 ↔ +30	
	Chroma −30 ↔ +30	
	Hue −30 ↔ +30	
	Reset (This Color)	
	Reset (All Colors)	
	View Settings	

Fine Sync Page **48**	Clock −150 ↔ +150	
	Phase −30 ↔ +30	
	H-Pos −150 ↔ +150	
	V-Pos −60 ↔ +60	
	Reset	
	Save Setting	Resolution Vert Freq 1 1024 × 768 60 Hz 2 800 × 600 75 Hz : : 7
	Select Setting	Resolution Vert Freq 1 1024 × 768 60 Hz 2 800 × 600 75 Hz : : 7
	Special Modes	Resolution 1 1024 × 864 2 1152 × 864 3 1152 × 870 4 1152 × 882 : : 7
	Signal Info	Resolution 1024 × 768 Hor Freq 48.4 KHz Vert Freq 60 Hz
	Auto Sync	OFF Normal High Speed
	Auto Sync Disp [ON/OFF]	

Main menu	Sub menu	
Options (1) Page **63**	Audio Out	FAO VAO
	Speaker [ON/OFF]	
	Auto Search [ON/OFF]	
	DNR	OFF Level 1 ↔ Level 3
	OSD Display	Normal Level A Level B
	Image Capture	Save Image Delete
	Background	Sharp Custom Blue None
	Startup Image	Sharp Custom None
	Economy Mode	Power Save [ON/OFF] Mntr.out/RS232 [ON/OFF] Auto Power Off [ON/OFF]

Options (2) Page **70**	Lamp Life	
	PRJ Mode	Front Ceiling + Front Rear Ceiling + Rear
	Keylock Level	Normal Level A Level B
	RS-232C	9600 bps 38400 bps 115200 bps
	Password	Old Password New Password Reconfirm
	Anti-Theft	Old Code New Code Reconfirm
	All Reset	

Language Page **36**		English Deutsch Español Nederlands Français Italiano Svenska Português 汉语 한국어 日本語

Status Page **78**		

- The resolution, vertical frequency and horizontal frequency figures displayed above are for example purposes only.
- Only when the signal type is set as "Component", in the "Picture" menu of INPUT 1 or 2 "Color", "Tint" and "Sharp" are displayed.
- Some items cannot be reset, even when "All Reset" in Options (2) has been selected. For details see page **77**.

■ INPUT 3 / 4 Mode

Main menu	Sub menu	
Picture Page **46**	Contrast	−30 ↔ +30
	Bright	−30 ↔ +30
	Color	−30 ↔ +30
	Tint	−30 ↔ +30
	Sharp	−30 ↔ +30
	Red	−30 ↔ +30
	Blue	−30 ↔ +30
	CLR Temp	−3 ↔ +3
	Reset	
	Progressive Mode	2D Progressive 3D Progressive Film Mode

Main menu	Sub menu	
C.M.S. Page **60**	Color Selected	Standard Custom 1 ↔ Custom 3
	Target	[R] Red [Y] Yellow [G] Green [C] Cyan [B] Blue [M] Magenta
	Lightness	−30 ↔ +30
	Chroma	−30 ↔ +30
	Hue	−30 ↔ +30
	Reset (This Color)	
	Reset (All Colors)	
	View Settings	

Main menu	Sub menu	
Options (1) Page **63**	Audio Out	FAO VAO
	Speaker [ON/OFF]	
	Auto Search [ON/OFF]	
	DNR	OFF Level 1 ↔ Level 3
	OSD Display	Normal Level A Level B
	Video System	Auto PAL (50/60Hz) SECAM NTSC4.43 NTSC3.58 PAL-M PAL-N
	Background	Sharp Custom Blue None
	Startup Image	Sharp Custom None
	Economy Mode	Power Save [ON/OFF] Mntr.out/RS232 [ON/OFF] Auto Power Off [ON/OFF]

Main menu	Sub menu	
Options (2) Page **70**	Lamp Life	
	PRJ Mode	Front Ceiling + Front Rear Ceiling + Rear
	Keylock Level	Normal Level A Level B
	RS-232C	9600 bps 38400 bps 115200 bps
	Password	Old Password New Password Reconfirm
	Anti-Theft	Old Code New Code Reconfirm
	All Reset	

Main menu	Sub menu
Language Page **36**	English Deutsch Español Nederlands Français Italiano Svenska Português 汉语 한국어 日本語

Main menu
Status Page **78**

Basic Operation

Using the Menu Screen

This projector has two sets of menu screens that allow you to adjust the image and various projector settings.
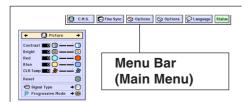You can operate the menus from the projector or remote control using the following procedure.

**Menu screen for INPUT 1
or INPUT 2 RGB mode**

Menu Bar
(Main Menu)

**Menu screen for INPUT 3
or INPUT 4 Mode**

Menu Bar
(Main Menu)

Menu Selections
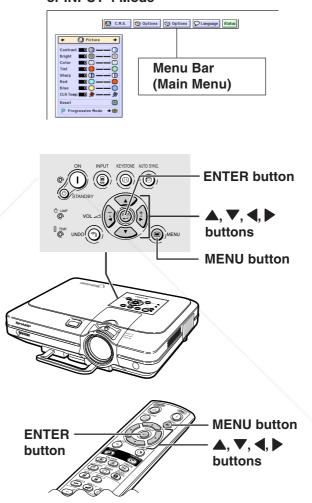## (Adjustments)

1 Press ⊡.

• The menu screen is displayed.

✎ **Note**

• The "Picture" menu screen for the selected input mode is displayed.
• The on-screen display shown on the lower right is displayed when the IN-PUT 1 or 2 mode is selected.

ENTER button

▲, ▼, ◀, ▶
buttons

MENU button

MENU button

ENTER
button

▲, ▼, ◀, ▶
buttons

▼Menu Screen

2 Press ◀ or ▶ to select the menu you want to adjust.

✎ **Note**

• For details on the menus, see the tree charts on pages **40** and **41**.

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

✎ **Note**

• To display a single adjustment item, press ⊙ after selecting the item. Only the menu bar and the selected adjustment item will be displayed. Then if you press ▲ or ▼, the following item ("Red" is after "Bright") will be displayed.

ENTER

• Press ⊙ to return to the previous screen.

4 Press ◀ or ▶ to adjust the item selected.

• The adjustment is stored.

5 Press ⊙.

• The menu screen will disappear.

🌐-43

Menu Selections (Settings)

1 Press ⊙.

MENU

• The menu screen is displayed.

✎ **Note**

• The "Picture" menu screen for the selected input mode is displayed.
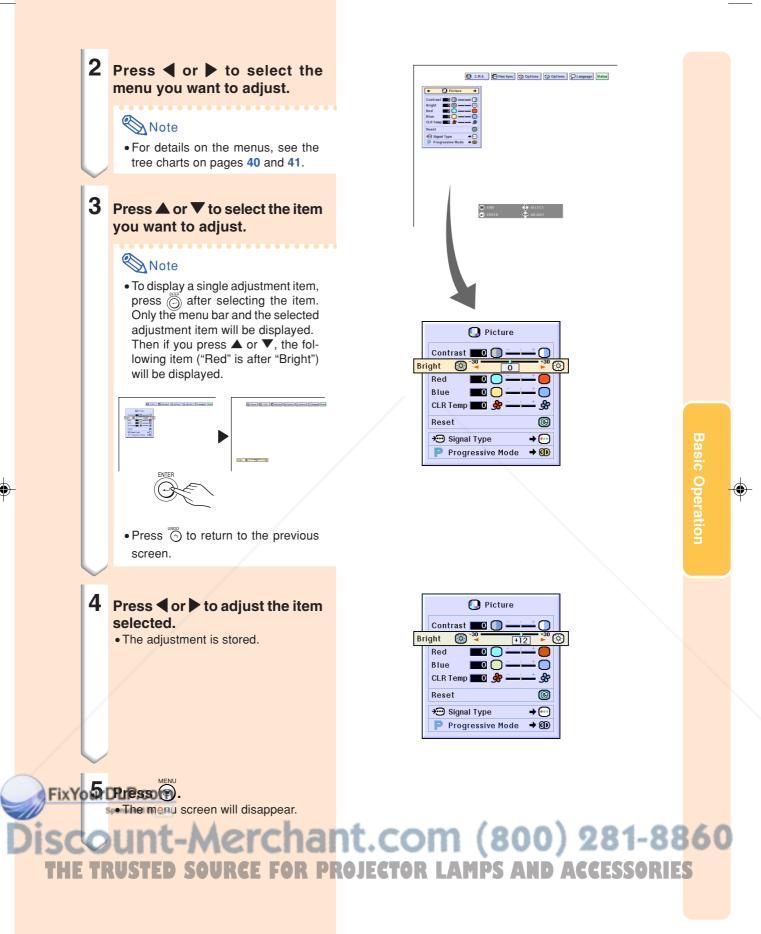• The on-screen display shown on the lower right is displayed when INPUT 1 or 2 mode is selected.
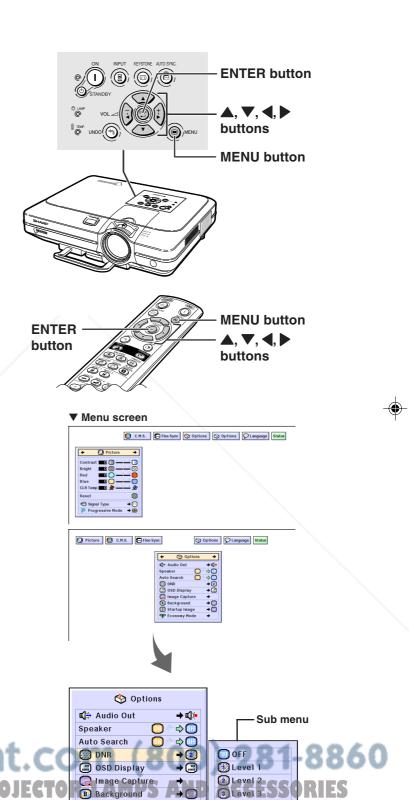
2 Press ◀ or ▶ to select the menu you want to adjust.

✎ **Note**

• For details on the menus, see the tree charts on pages **40** and **41**.

3 Press ▲ or ▼ to select the item you want to set.

✎ **Note**

• Press ⊙ to return to the previous screen.
UNDO

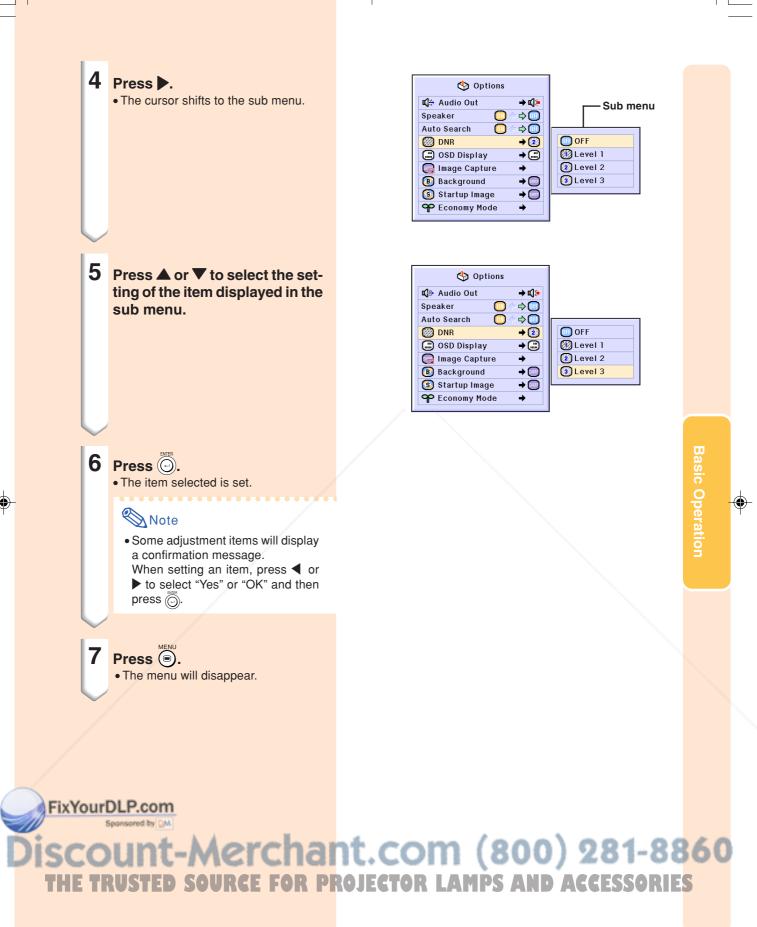• In some menus, select the icon using "➡".

ENTER button

▲, ▼, ◀, ▶ buttons

MENU button

ENTER button

MENU button

▲, ▼, ◀, ▶ buttons

▼ **Menu screen**

Sub menu

4 Press ▶.

• The cursor shifts to the sub menu.

Sub menu

⛉ Options	
🔊 Audio Out	➡ 🔊
Speaker	🔲 ➡ 🔲
Auto Search	🔲 ➡ 🔲
🔲 DNR	➡ ②
OSD Display	➡ 🔲
🖼 Image Capture	➡
Ⓑ Background	➡ 🔲
Ⓢ Startup Image	➡ 🔲
✂ Economy Mode	➡

🔲 OFF	
▦ Level 1	
② Level 2	
③ Level 3	

---

5 Press ▲ or ▼ to select the setting of the item displayed in the sub menu.

⛉ Options	
🔊 Audio Out	➡ 🔊
Speaker	🔲 ➡ 🔲
Auto Search	🔲 ➡ 🔲
🔲 DNR	➡ ②
OSD Display	➡ 🔲
🖼 Image Capture	➡
Ⓑ Background	➡ 🔲
Ⓢ Startup Image	➡ 🔲
✂ Economy Mode	➡

🔲 OFF	
▦ Level 1	
② Level 2	
③ Level 3	

---

6 Press ⓔₙₜₑᵣ.

• The item selected is set.

✎ **Note**

• Some adjustment items will display a confirmation message.
When setting an item, press ◀ or ▶ to select "Yes" or "OK" and then press ⓔₙₜₑᵣ.

---

7 Press ⓜₑₙᵤ.

• The menu will disappear.

Basic Operation

Ⓖ**-45**

Adjusting the Picture

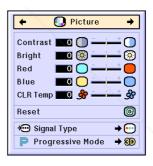**You can adjust the projector's picture to your preferences with the following picture settings.**

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 the 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 level	For weaker red	For stronger red
Blue	For adjusting the blue level	For weaker blue	For stronger blue
CLR Temp	For adjusting the color temperature of an image	Decreases color temperature for warmer, reddish, incandescent-like images.	Increases color temperature for cooler, bluish, fluorescent-like images.

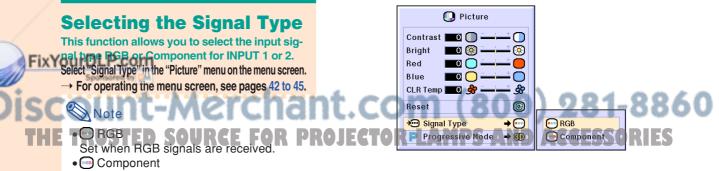Picture · C.M.S. · Fine Sync · Options · Options · Language · Status

Adjusting Image Preferences

Adjust the "Picture" menu on the menu screen.
→For operating the menu screen, see pages 42 to 45.

✏ Note

- "Color", "Tint" and "Sharp" are not displayed when selecting INPUT 1 or 2 and the "Signal Type" is "RGB".
- The picture adjustments can be stored separately in each input mode.
- When the signal type in INPUT 1 or 2 has been set to Component, "Sharp" can be adjusted when 480I, 480P, 540P, 580I, 580P, 720P, 1035I or 1080I signals are connected.
- To reset all adjustment items, select "Reset" and press ⊙.
- "Red", "Blue" and "CLR Temp" cannot be adjusted when "Color Selected" on the C.M.S. menu is set to "sRGB".

Selecting the Signal Type

This function allows you to select the input signal type RGB or Component for INPUT 1 or 2.

Select "Signal Type" in the "Picture" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

✏ Note

- RGB
  Set when RGB signals are received.
- Component
  Set when Component signals are received.

Progressive Mode

This function allows you to select the progressive display of a video signal. The progressive display projects a smoother video image.

Select "Progressive Mode" in the "Picture" menu on the menu screen.
→**For operating the menu screen, see pages 42 to 45.**

✎ **Note**

- **2D** 2D Progressive
  This function is useful to display fast-moving images such as sports and action films. This mode optimizes the image in a displayed frame.
- **3D** 3D Progressive
  This function is useful to display relatively slow-moving images such as drama and documentary more clearly.
  This mode optimizes the image by estimating the movement of a number of preceding and succeeding frames.
- Film Mode
  Reproduces the image of film source clearly. Displays the optimized image of film transformed with three-two pull down (NTSC and PAL60Hz) or two-two pull down (PAL50Hz and SECAM) enhancement to progressive mode images.
  * The film source is a digital video recording with the original encoded as is at 24 frames/second. The projector can convert this film source to progressive video at 60 frames/second with NTSC and PAL60Hz or at 50 frames/second with PAL50Hz and SECAM to play back a high-definition image.

- When using progressive inputs, these inputs are directly displayed therefore 2D Progressive, 3D Progressive and Film Mode cannot be selected. These modes can be selected in interlace signals other than 1080I.
- In NTSC or PAL60Hz, even if the 3D Progressive mode has been set, the three-two pull down enhancement will be enabled automatically, when the film source has been entered.
- In PAL50Hz or SECAM, the two-two pull down enhancement will be enabled only in the Film Mode, when the film source has been entered.

Basic Operation

Ⓖ**-47**

Adjusting Computer Images

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

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.

Picture C.M.S. Fine Sync Options Options Language Status
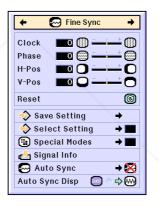
Computer Image Adjustment

When "Auto Sync" is set to OFF or when vertical stripes or flickering occur in portions of the screen even if "Auto Sync" is set to "Normal" or "High Speed", adjust "Clock", "Phase", "H-Pos" or "V-Pos" to obtain the best computer image.
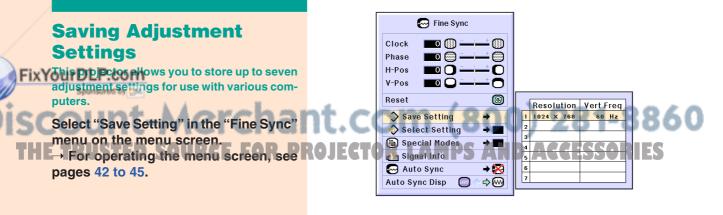
Select "Clock", "Phase", "H-Pos" or "V-Pos" in the "Fine Sync" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

Note

• Computer image adjustments can be made easily by pressing $\overset{AUTO\ SYNC}{\textcircled{=}}$. See page 50 for details.

Saving Adjustment Settings

This projector allows you to store up to seven adjustment settings for use with various computers.

Select "Save Setting" in the "Fine Sync" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

GB-48

Selecting Adjustment Settings

Adjustment settings stored in the projector can be easily accessed.

Select "Select Setting" in the "Fine Sync" menu on the menu screen.
→ **For operating the menu screen, see pages 42 to 45.**

✎ **Note**

- If a memory has not been set, a resolution and frequency setting will not be displayed.
- When selecting a stored adjustment setting with "Select Setting", you can set the projector in the stored adjustments.

Special Mode Settings

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.
→ **For operating the menu screen, see pages 42 to 45.**

✎ **Note**

- Avoid displaying computer patterns which repeat every other line (horizontal stripes). (Flickering may occur, making the image hard to see.)
- When a DVD player or Digital Video is connected, select 480P as the input signal.
- See "Checking the Input Signal" below for information on the currently selected input signal.

Checking the Input Signal

This function allows you to check the current input signal information.
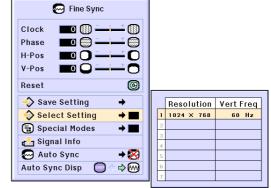
Select "Signal Info" in the "Fine Sync" menu on the menu screen.
→ **For operating the menu screen, see pages 42 to 45.**

✎ **Note**

- The projector will display the number of scanned lines available from audio-visual equipment such as a DVD player or Digital Video.

Basic Operation

GB -49

Auto Sync Adjustment

Used to automatically adjust a computer image.

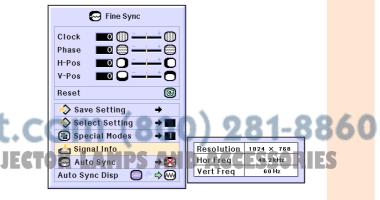**Select "Auto Sync" in the "Fine Sync" menu on the menu screen.**
→ **For operating the menu screen, see pages 42 to 45.**

✎ Note

When setting to " Normal" or " High Speed":
- Auto Sync adjustment will occur when the projector is turned on or when the inputs are switched, when connected to a computer.

Manual adjustments should be performed:
- When the optimum image cannot be achieved with Auto Sync adjustment. See page **48**.
- Auto Sync adjustment may take some time to complete, depending on the image of the computer connected to the projector.
- When setting "Auto Sync" to "OFF" or "High Speed", and if [AUTO SYNC] is pressed Auto Sync will be executed in "High Speed" mode. If the button is pressed again within one minute, Auto Sync will be executed in "Normal" mode.

Auto Sync Display Function

Used to set the screen displayed during Auto Sync.
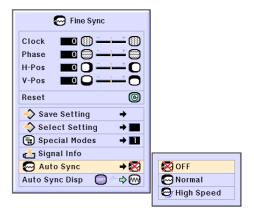
Select "Auto Sync Disp" in the "Fine Sync" menu on the menu screen.
→ **For operating the menu screen, see pages 42 to 45.**

✎ Note

- ..... The image set as a background image is projected.
- ..... The computer image being adjusted is displayed.
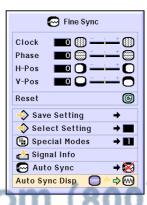
Screen display during Auto Sync

AUTO SYNC button

Easy to Use Functions

Selecting the Picture Display Mode

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 "NORMAL", "FULL", "DOT BY DOT", "BORDER", "STRETCH" or "SMART STRETCH" image.
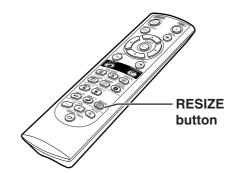
Switching the Picture Display Using Different Input Signals

Press RESIZE.

- Each time RESIZE is pressed, the display changes as shown on page **52** and **53**.

📖 Info

- In the Dot by Dot Mode, images are displayed in the original resolution, therefore they will not be enlarged.
- To return to the standard image, press UNDO while "RESIZE" is displayed on the screen.

RESIZE button
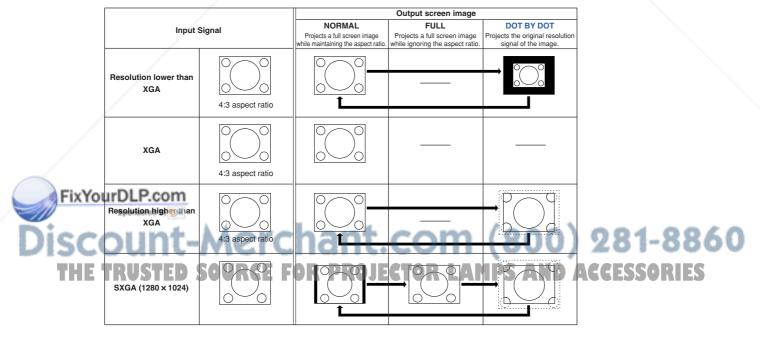
Screen display of the picture display mode

⬭ **RESIZE**
NORMAL

COMPUTER

		NORMAL	FULL	DOT BY DOT
4:3 aspect ratio	SVGA (800 × 600)	1024 × 768	—	800 × 600
	XGA (1024 × 768)	1024 × 768	—	—
	SXGA (1280 × 960)	1024 × 768	—	1280 × 960
	UXGA (1600 × 1200)	1024 × 768	—	1600 × 1200
Other aspect ratios	SXGA (1280 × 1024)	960 × 768	1024 × 768	1280 × 1024

- "NORMAL" is fixed when XGA (1024 × 768) signals are entered.

Input Signal		Output screen image		
		NORMAL Projects a full screen image while maintaining the aspect ratio.	**FULL** Projects a full screen image while ignoring the aspect ratio.	**DOT BY DOT** Projects the original resolution signal of the image.
Resolution lower than XGA	4:3 aspect ratio			
XGA	4:3 aspect ratio			
Resolution higher than XGA	4:3 aspect ratio			
SXGA (1280 × 1024)				

XG-C60X_E_PDF_p51_59.p65   52   03.8.28, 2:10 PM
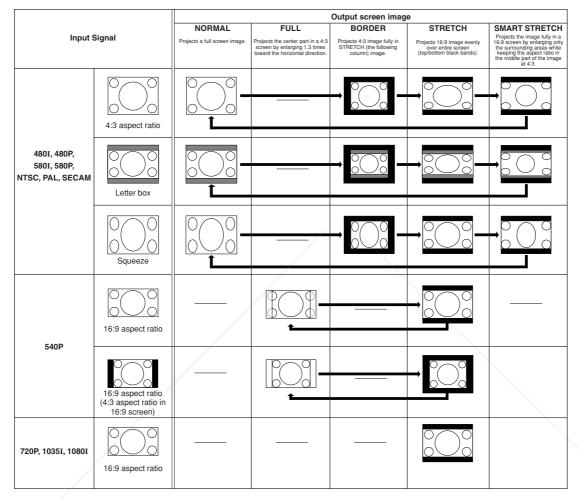
		NORMAL	FULL	BORDER	STRETCH	SMART STRETCH
480I, 480P, 580I, 580P, NTSC, PAL, SECAM	4:3 aspect ratio. Letter box, squeeze	1024 × 768	—	768 × 576*	1024 × 576*	1024 × 576*
540P	16:9 aspect ratio	—	1024 × 768	—		—
720P, 1035I, 1080I	16:9 aspect ratio	—	—	—		—

• "STRETCH" is fixed when 720P, 1035I or 1080I signals are entered.

* The Digital Shift function can be used with these images.

Input Signal		Output screen image				
		NORMAL	FULL	BORDER	STRETCH	SMART STRETCH
		Projects a full screen image.	Projects the center part in a 4:3 screen by enlarging 1.3 times toward the horizontal direction.	Projects 4:3 image fully in STRETCH (the following column) image.	Projects 16:9 image evenly over entire screen (top/bottom black bands).	Projects the image fully in a 16:9 screen by enlarging only the surrounding areas while keeping the aspect ratio in the middle part of the image at 4:3.
480I, 480P, 580I, 580P, NTSC, PAL, SECAM	4:3 aspect ratio					
	Letter box					
	Squeeze					
540P	16:9 aspect ratio					
	16:9 aspect ratio (4:3 aspect ratio in 16:9 screen)					
720P, 1035I, 1080I	16:9 aspect ratio					

Easy to Use Functions

GB-53

Displaying a Still Image
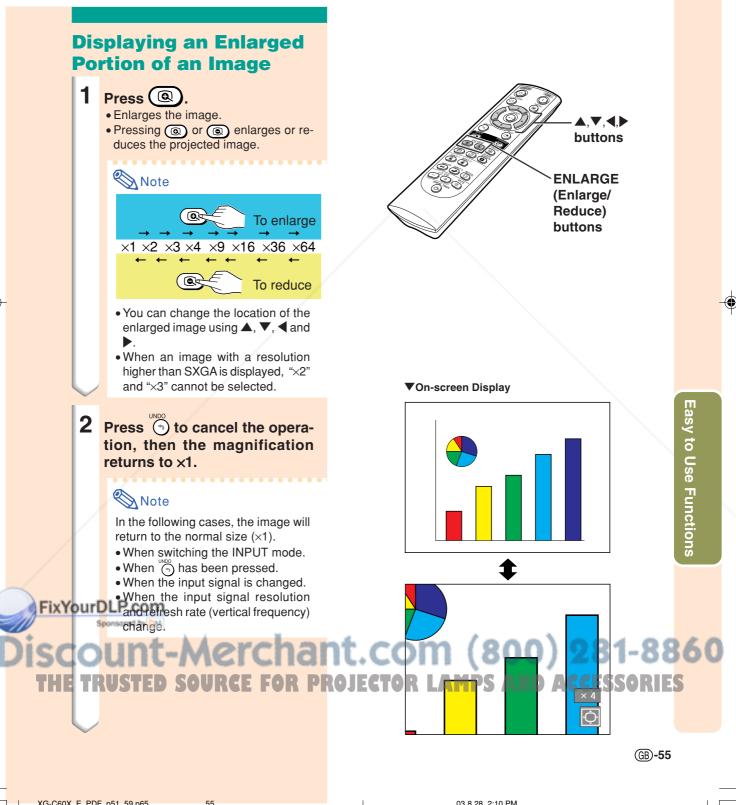
This function allows you to instantly freeze a moving image. This is useful when you want to display a still image from a computer or video, giving you more time to explain the image to the audience.

Freezing a Moving Image

1 Press ^{FREEZE} ⊡.

• The projected image is frozen.

FREEZE button

▼On-screen Display

FREEZE ON

2 Press ^{FREEZE} ⊡ again to return to the moving image from the currently connected device.

FREEZE OFF

GB -54

Enlarging a Specific Portion of an Image

This function allows you to enlarge a specific portion of an image. This is useful when you want to display a detailed portion of the image.

Displaying an Enlarged Portion of an Image

1 Press ⊕.
  • Enlarges the image.
  • Pressing ⊕ or ⊖ enlarges or reduces the projected image.

✎ Note

To enlarge
→ → → → → → →
×1 ×2 ×3 ×4 ×9 ×16 ×36 ×64
← ← ← ← ← ← ←

To reduce

  • You can change the location of the enlarged image using ▲, ▼, ◀ and ▶.
  • When an image with a resolution higher than SXGA is displayed, "×2" and "×3" cannot be selected.

2 Press ⟲ (UNDO) to cancel the operation, then the magnification returns to ×1.

✎ Note

In the following cases, the image will return to the normal size (×1).
  • When switching the INPUT mode.
  • When ⟲ (UNDO) has been pressed.
  • When the input signal is changed.
  • When the input signal resolution and refresh rate (vertical frequency) change.

▲,▼,◀,▶ buttons

ENLARGE (Enlarge/ Reduce) buttons

▼On-screen Display

× 4

Ⓖ-55

Easy to Use Functions

Gamma Correction Function

Gamma is an 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. When you are displaying images with frequent dark scenes, such as a film or concert, or when you are displaying images in a bright room, this feature makes the dark scenes easier to see and gives the impression of greater depth in the image.

Selected Mode	Description
STANDARD	For Standard picture
PRESENTATION	Brightens darker portions of image for more enhanced presentations.
CINEMA	Gives greater depth to darker portions of image for a more exciting theater experience.
CUSTOM	Allows you to adjust gamma value using Sharp Advanced Presentation Software.

Adjusting Gamma Correction

1 Press ^{GAMMA} ⊘.
• Each time ⊘^{GAMMA} is pressed, the gamma level toggles between the different types of gamma modes.

2 To return to the default settings, press ^{UNDO} ⊙ when "GAMMA" is displayed.
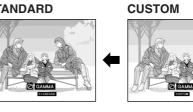
✎ Note

• The Gamma mode does not operate for INPUT 1 or INPUT 2 when "Color Selected" on the C.M.S. menu is set to "sRGB".

UNDO button

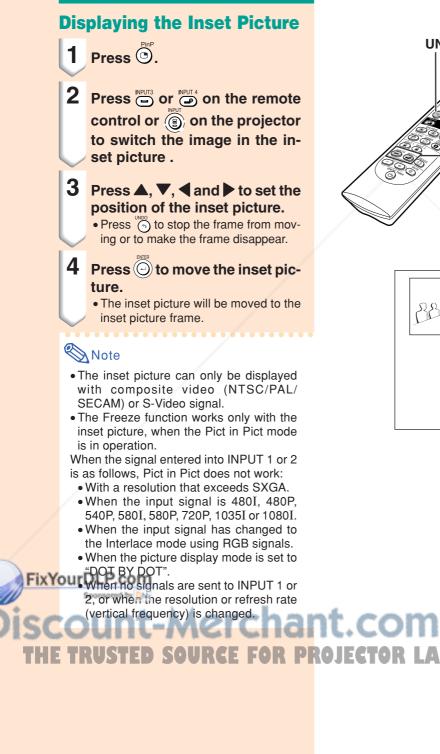**GAMMA button**
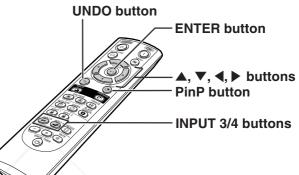
STANDARD   CUSTOM

PRESENTATION   CINEMA
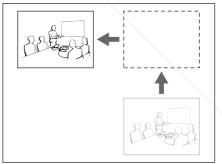
Displaying Dual Pictures (Pict in Pict)

Picture in Picture function allows you to display two pictures on the same screen. You can display the image input from INPUT 3 or 4 as an inset picture overlapping the main picture from INPUT 1 or 2.

Displaying the Inset Picture

1 Press ⌷.

2 Press ^{INPUT3}⌷ or ^{INPUT 4}⌷ on the remote control or ^{INPUT}⌷ on the projector to switch the image in the inset picture .

3 Press ▲, ▼, ◀ and ▶ to set the position of the inset picture.
  • Press ^{UNDO}⌷ to stop the frame from moving or to make the frame disappear.

4 Press ^{ENTER}⌷ to move the inset picture.
  • The inset picture will be moved to the inset picture frame.

UNDO button

ENTER button

▲, ▼, ◀, ▶ buttons
PinP button

INPUT 3/4 buttons

🖉 Note

• The inset picture can only be displayed with composite video (NTSC/PAL/SECAM) or S-Video signal.
• The Freeze function works only with the inset picture, when the Pict in Pict mode is in operation.
When the signal entered into INPUT 1 or 2 is as follows, Pict in Pict does not work:
  • With a resolution that exceeds SXGA.
  • When the input signal is 480I, 480P, 540P, 580I, 580P, 720P, 1035I or 1080I.
  • When the input signal has changed to the Interlace mode using RGB signals.
  • When the picture display mode is set to "DOT BY DOT".
  • When no signals are sent to INPUT 1 or 2, or when the resolution or refresh rate (vertical frequency) is changed.

Easy to Use Functions

Ⓖ **-57**

Black Screen Function

This function can be used to display a black screen.

Blacking out the Projected Image

1 **Press** BLACK SCREEN.
- The screen turns black and "BLACK SCREEN" is displayed on the screen.

2 **To return to the original projected image, press** BLACK SCREEN **again.**

BLACK SCREEN button

▼ **Projected Image**

B BLACK SCREEN

Displaying the Break Timer

This function can be used to show the remaining time for break during meeting.

Displaying and Setting the Break Timer

1 Press ^{BREAK TIMER} ⌚ . **The break timer starts to count down from 5 minutes.**

2 **When "☕" is displayed, press ▲ , ▼ , ◄ or ► to set the break timer.**
- You can set anywhere between 1 and 60 minutes (in 1 minute units).
- The break timer starts to count down as soon as ▲ , ▼ , ◄ or ► is pressed.

3 **Press** ^{UNDO} ↩ **to cancel the break timer.**

▲, ▼, ◄, ►
buttons

BREAK TIMER
button

✎ Note
- Auto Power Off function will be temporarily disabled during the break timer.
  When no input signal is detected for more than 15 minutes, the projector will automatically enter the standby mode if the break timer has elapsed.
- The break timer will be displayed on the startup image. To change the screen displayed during the break timer, change the setting of "Startup Image" (see page **68**).

▼On-screen Display

☕ 4:50

Easy to Use Functions

Ⓖⓑ-59

Color Management System (C. M. S.)

This function allows you individually adjust the display characteristics of six colors (R: Red, Y: Yellow, G: Green, C: Cyan, B: Blue, M: Magenta) .

| 🖼 Picture | 🖼 C.M.S. | 🖼 Fine Sync | 🖼 Options | 🖼 Options | 💬 Language | Status |

Selecting the Color Reproduction Mode

Select "Color Selected" in the "C.M.S." menu on the menu screen.
→ **For operating the menu screen, see pages 42 to 45.**

✎ Note

- For additional information about sRGB function, visit "http://www.srgb.com/".
- "sRGB" cannot be selected for "Color Selected" on the C.M.S. menu when "Component" is selected for "Signal Type" on the "Picture" menu.
- When "sRGB" is selected;
  - The gamma correction cannot be set.
  - "Red", "Blue" or "CLR Temp" in "Picture" cannot be adjusted.
- If "Standard" or "sRGB" is selected for "Color Selected", other items (e.g., Target) cannot be adjusted.
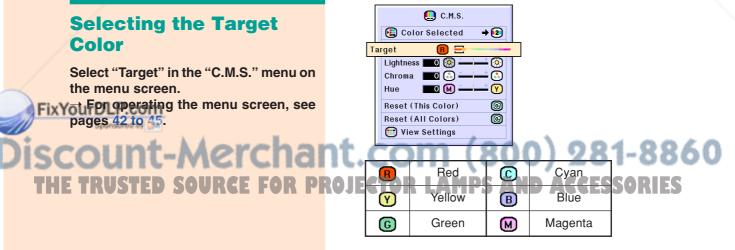
📕 Info

- When "sRGB" is selected, the projected image may become dark; however, this does not indicate a malfunction.

Selected item	Description
Standard	Sharp default setting
Custom 1-3	"Lightness", "Chroma" and "Hue" can be adjusted for each of the six colors.
sRGB	The mode changes to sRGB

Selecting the Target Color

Select "Target" in the "C.M.S." menu on the menu screen.
→ **For operating the menu screen, see pages 42 to 45.**

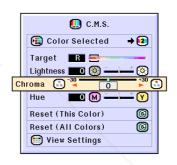| R	Red	C	Cyan
Y	Yellow	B	Blue
G	Green	M	Magenta

Setting the Brightness of the Target Color

Select "Lightness" in the "C.M.S." menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

Setting the Chromatic Value of the Target Color

Select "Chroma" in the "C.M.S." menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

Setting the Hue of the Target Color

Select "Hue" in the "C.M.S." menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

Easy to Use Functions

ⒼⒷ-61

Resetting User-Defined Color Settings

Select "Reset (This Color)" or "Reset (All Colors)" in the "C.M.S." menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

Selected item	Description
Reset (This Color)	"Lightness", "Chroma" and "Hue" of the color selected for "Target" are reset.
Reset (All Colors)	"Lightness", "Chroma" and "Hue" of all colors are reset.

Overview of All Color Settings

Select "View Settings" in the "C.M.S." menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

	R	Y	G	C	B	M
Lightness	0	0	0	0	0	0
Chroma	0	0	0	0	0	0
Hue	0	0	0	0	0	0

Setting the Audio Output Type
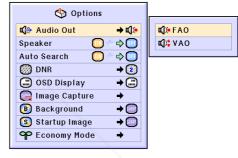
This function allows you to set the audio output type.

| Picture | C.M.S. | Fine Sync | Options | Options | Language | Status |

Selected Item	Description
FAO (Fixed audio output)	Audio output that does not vary in strength with the volume level of the source projector.
VAO (Variable audio output)	Audio output that varies in strength with the volume level of the source projector.
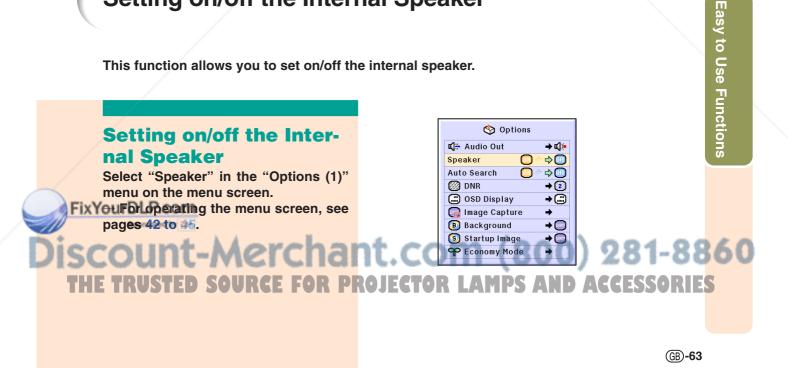
Setting the Audio Output Type

Select "Audio Out" in the "Options (1)" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

Options
- Audio Out →
- Speaker ON →
- Auto Search ON →
- DNR → 2
- OSD Display →
- Image Capture →
- Background →
- Startup Image →
- Economy Mode →

FAO
VAO

Setting on/off the Internal Speaker

This function allows you to set on/off the internal speaker.

Setting on/off the Internal Speaker

Select "Speaker" in the "Options (1)" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

Options
- Audio Out →
- Speaker ON →
- Auto Search ON →
- DNR → 2
- OSD Display →
- Image Capture →
- Background →
- Startup Image →
- Economy Mode →

Easy to Use Functions

-63

Auto Search Function

This function automatically searches for and switches to the input mode in which signals are being received, when the projector is turned on, or when the INPUT button is pressed.

🖼 Picture	🎨 C.M.S.	〰 Fine Sync	📦 Options	📦 Options	💬 Language	Status

Using Auto Search

Select "Auto Search" in the "Options (1)" menu on the menu screen.

→ **For operating the menu screen, see pages 42 to 45.**

📝 Note

- **ON**
  Automatically switches to the input mode in which signals are being received, when turning on the projector or pressing 📷 on the projector.

- **OFF**
  For switching input modes manually in order by pressing 📷 on the projector.

- To stop searching for the input mode, press 📷 on the projector, or 📷 INPUT 1, 📷 INPUT 2, 📼 INPUT3 or 📷 INPUT 4 on the remote control.

📕 Info

- Even while this function is searching for input signals, whenever 📷 INPUT 1, 📷 INPUT 2, 📼 INPUT3 or 📷 INPUT 4 on the remote control is pressed, the input mode is switched to the respective one.

- Even while the function is searching for input signals, pressing 📷 on the projector returns to the previous input mode.

Options

🔊 Audio Out	➜ 🔊
Speaker	ON ⇒ ON
Auto Search	ON ⇒ ON
🔲 DNR	➜ 2
🔲 OSD Display	➜ 🔲
🖼 Image Capture	➜
B Background	➜ 🔲
S Startup Image	➜ 🔲
🌱 Economy Mode	➜

Video Digital Noise Reduction (DNR) System

Digital Noise Reduction (DNR) provides high quality images with minimal dot crawl and cross color noise.

| 🖼 Picture | 🎨 C.M.S. | 🔄 Fine Sync | 💡 Options | 💡 Options | 💬 Language | Status |

Reducing Image Noise

Select "DNR" in the "Options (1)" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

✎ Note

• Set a level so as to view a clearer picture.

Make sure to set DNR to "OFF" in the following cases:
• When the image is blurry.
• When the contours and colors of moving images drag.
• When TV broadcasts with weak signals are projected.

📖 Info

• This function is available with INPUT 1, 2 (480I, 480P, 580I and 580P signals) and INPUT 3, 4 (all signals).

```
            💡 Options
  🔊 Audio Out      → 🔊
  Speaker       🔟 ↔ → 🔟
  Auto Search   🔟 ↔ → 🔟
  🗔 DNR            → ②        🔟 OFF
  🗔 OSD Display     → 🗔       ① Level 1
  🗔 Image Capture   →         ② Level 2
  Ⓑ Background      → 🗔       ③ Level 3
  Ⓢ Startup Image   → 🗔
  🔀 Economy Mode    →
```

Setting On-screen Display

This function allows you to turn on or off the on-screen messages. When setting "🗔 Level A" or "◯ Level B" in "OSD Display", the input mode display (e.g. INPUT 1) will not appear, even if the INPUT button is pressed.

Selected Item	Description
🗔 Normal	All On-screen Displays are displayed.
🗔 Level A	Input/Freeze/Enlarge/Auto Sync/Volume/Mute/Black Screen are not displayed.
◯ Level B	All On-screen Displays are not displayed. (except Menu, On-Screen Displays displayed when the KEYSTONE button is pressed, and warning displays (Temp./Change The Lamp., etc.))

Turning Off the On-screen Display

Select "OSD Display" in the "Options (1)" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

```
            💡 Options
  🔊 Audio Out      → 🔊
  Speaker       🔟 ↔ → 🔟
  Auto Search   🔟 ↔ → 🔟
  🗔 DNR            → ②
  🗔 OSD Display     → 🗔       🗔 Normal
  🗔 Image Capture   →         🗔 Level A
  Ⓑ Background      → 🗔       ◯ Level B
  Ⓢ Startup Image   → 🗔
  🔀 Economy Mode    →
```

Easy to Use Functions

Ⓖ-65

Setting the Video System

The video input system mode is preset to "Auto"; however, a clear picture from the connected audio-visual equipment may not be received, depending on the video signal difference. In that case, switch the video signal.

🖼 Picture	🎨 C.M.S.	🔅 Options	🔆 Options	💬 Language	Status
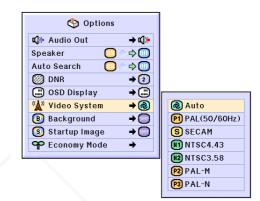
Setting the Video System

Select "Video System" in the "Options (1)" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

✏️ Note

• The video signal can only be set in IN-PUT 3 or INPUT 4 mode.
• When the system mode is set to "Auto", you may not receive a clear picture due to signal differences. Should this occur, switch to the video system of the source signal.

Options

🔊 Audio Out	→ 🔊
Speaker	ON → OFF
Auto Search	ON → OFF
🔅 DNR	→ 2
OSD Display	→
《A》 Video System	→ 🔄
Ⓑ Background	→ SHARP
Ⓢ Startup Image	→ SHARP
🎛 Economy Mode	→

🔄 Auto	
P1 PAL(50/60Hz)	
S SECAM	
N1 NTSC4.43	
N2 NTSC3.58	
P2 PAL-M	
P3 PAL-N	

PAL	When connected to PAL video equipment.
SECAM	When connected to SECAM video equipment.
NTSC4.43	When reproducing NTSC signals in PAL video equipment.
NTSC3.58	When connected to NTSC video equipment.

Saving Projected Images

- **This projector allows you to capture projected images (RGB signals) and set them as a startup image, or background image when no signals are being received.**
- **You can capture the images that are input using RGB signals.**

🔲 Picture	🔳 C.M.S.	〰 Fine Sync	🔄 Options	🔄 Options	💬 Language	Status

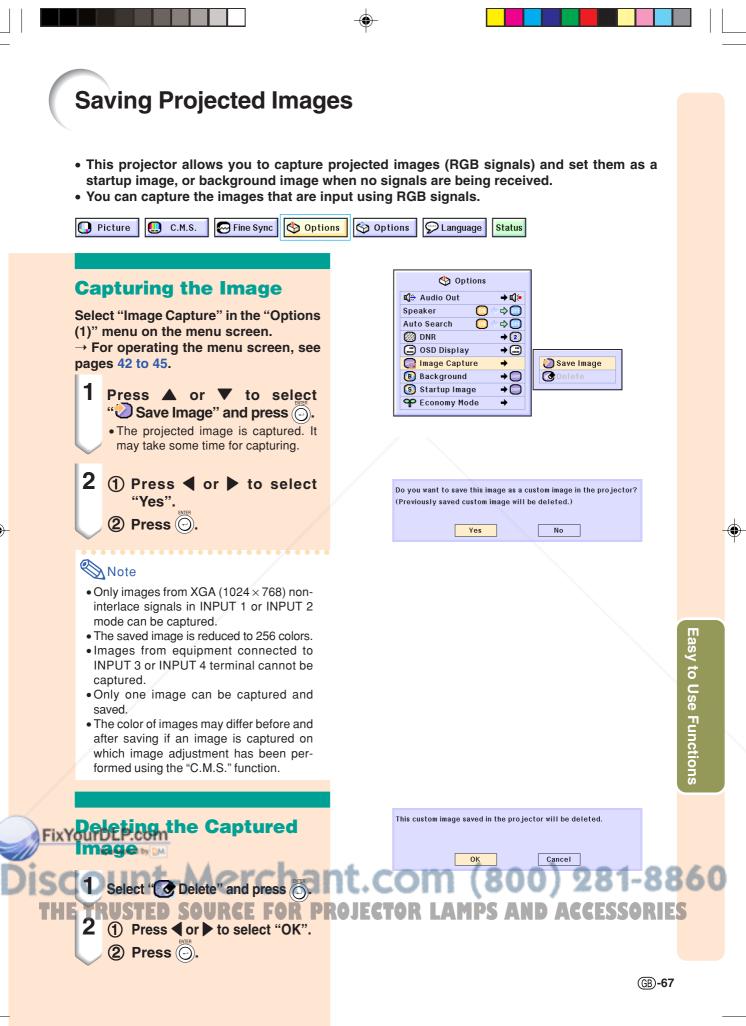## Capturing the Image

Select "Image Capture" in the "Options (1)" menu on the menu screen.
→ For operating the menu screen, see pages **42 to 45**.

1 Press ▲ or ▼ to select "🕐 Save Image" and press ⊙.

- The projected image is captured. It may take some time for capturing.

2 ① Press ◀ or ▶ to select "Yes".
② Press ⊙.

Options

🔊 Audio Out	➡🔊	
Speaker	🔲 ➡ 🔲	
Auto Search	🔲 ➡ 🔲	
▨ DNR	➡②	
🔲 OSD Display	➡🔲	
🔲 Image Capture	➡	🕐 Save Image
Ⓑ Background	➡🔲	🔄 Delete
Ⓢ Startup Image	➡🔲	
✿ Economy Mode	➡	

Do you want to save this image as a custom image in the projector? (Previously saved custom image will be deleted.)

Yes	No

✎ **Note**

- Only images from XGA (1024 × 768) non-interlace signals in INPUT 1 or INPUT 2 mode can be captured.
- The saved image is reduced to 256 colors.
- Images from equipment connected to INPUT 3 or INPUT 4 terminal cannot be captured.
- Only one image can be captured and saved.
- The color of images may differ before and after saving if an image is captured on which image adjustment has been performed using the "C.M.S." function.

Deleting the Captured Image

1 Select "🔄 Delete" and press ⊙.

2 ① Press ◀ or ▶ to select "OK".
② Press ⊙.

This custom image saved in the projector will be deleted.

OK	Cancel

Easy to Use Functions

Ⓖ**-67**

Setting a Background Image

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

Selected Item	Description
Sharp	SHARP default image
Custom *1	User customized image (e.g. company logo)
Blue	Blue screen
None	Black screen *2

*1 You can set a captured image as a background image by selecting "Custom".
*2 If the input signal has interference, the screen will be displayed with the interference.

| Picture | C.M.S. | Fine Sync | Options | Options | Language | Status |

Selecting a Background Image

Select "**Background**" in the "Options (1)" menu on the menu screen.
→ For operating the menu screen, see pages **42 to 45**.

✎ **Note**

- When "Custom" is selected, an image saved using "Image Capture" can be displayed as a background image.
- A "Custom" image is preset as a black screen.

Options
- Audio Out
- Speaker
- Auto Search
- DNR
- OSD Display
- Image Capture
- Background
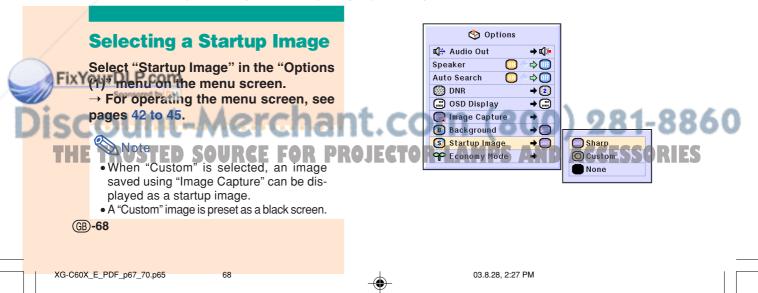- Startup Image
- Economy Mode

- Sharp
- Custom
- Blue
- None

Selecting a Startup Image

This function allows you to specify the image to be displayed upon the projector's startup.

Selected Item	Description
Sharp	SHARP default image
Custom *	User customized image (e.g. company logo)
None	Black screen

* You can set a captured image as a startup image by selecting "Custom".

Selecting a Startup Image

Select "Startup Image" in the "Options (1)" menu on the menu screen.
→ For operating the menu screen, see pages **42 to 45**.

✎ **Note**

- When "Custom" is selected, an image saved using "Image Capture" can be displayed as a startup image.
- A "Custom" image is preset as a black screen.

Options
- Audio Out
- Speaker
- Auto Search
- DNR
- OSD Display
- Image Capture
- Background
- Startup Image
- Economy Mode

- Sharp
- Custom
- None

GB-68

Selecting the Economy Mode

These functions allow you to reduce the power consumption of the projector.

Setting the Power Save Mode

Select "Power Save" in "Economy Mode" under the "Options (1)" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

✎ Note

- Although lamp life and noise are improved when "Power Save" is set to "ON", brightness decreases by 20%.
- "Power Save" mode is factory preset to "OFF".
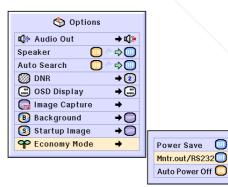
Monitor Out/RS-232C Off Function

This projector consumes power when using a monitor connected to the OUTPUT (INPUT 1, 2) terminal and a computer connected to the RS-232C terminal. When not using these terminals, "Mntr.out/RS232" can be set to "OFF" to reduce standby power consumption.

Select "Mntr.out/RS232" in "Economy Mode" under the "Options (1)" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

ON	Monitor Out/RS-232C connection is set to "ON".
OFF	Monitor Out/RS-232C connection is set to "OFF".

✎ Note

- Set "Mntr.out/RS232" to "ON" when using the Sharp Advanced Presentation Software.

Status	Brightness	Power consumption (When using AC 100V)	Lamp Life
ON (Low power mode)	80%	325 W	3,000 hours
OFF (Standard mode)	100%	400 W	2,000 hours

Options
- 🔊 Audio Out → 🔊
- Speaker ON → OFF
- Auto Search ON → OFF
- 🔳 DNR → 2
- 🔲 OSD Display → 🔲
- 🖼 Image Capture →
- B Background → 🔲
- S Startup Image → 🔲
- ⚘ Economy Mode →

Power Save OFF
Mntr.out/RS232 OFF
Auto Power Off ON

Options
- 🔊 Audio Out → 🔊
- Speaker ON → OFF
- Auto Search ON → OFF
- 🔳 DNR → 2
- 🔲 OSD Display → 🔲
- 🖼 Image Capture →
- B Background → 🔲
- S Startup Image → 🔲
- ⚘ Economy Mode →

Power Save OFF
Mntr.out/RS232 OFF
Auto Power Off ON

Easy to Use Functions
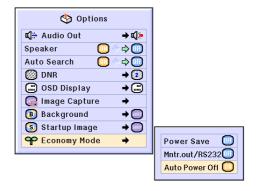
-69

Auto Power Off Function

When no input signal is detected for more than 15 minutes, the projector will automatically enter the standby mode if set to "ON".
The Auto Power Off function will be disabled when it has been set to "OFF".

Select "Auto Power Off" in "Economy Mode" under the "Options (1)" menu on the menu screen.
→ **For operating the menu screen, see pages 42 to 45.**

✎ Note

- 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.

Displaying the Remaining Lamp Life (Percentage)

Checking the Remaining Lamp Life (Percentage)

This function allows you to check the remaining lamp life (percentage).

Select the "Options (2)" menu on the menu screen.
→ **For operating the menu screen, see pages 42 to 45.**

✎ Note

- It is recommended that the lamp be changed when the remaining lamp life becomes 5%.
  For lamp replacement, contact your nearest Sharp Authorized Projector Dealer or Service Center.
- The table at the right 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 "Power Save" is switched "ON" and "OFF" (see page 69).

Remaining Lamp Life (Percentage)

	Remaining lamp life	
	100%	5%
Used with only "ON" on "Power Save" (Low power mode)	3,000 hours	150 hours
Used with only "OFF" on "Power Save" (Standard mode)	2,000 hours	100 hours

XG-C60X_E_PDF_p67_70.p65   70   03.8.28, 2:27 PM

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.

Selected Item	Description
🖳 Front	Normal image
🖳 Ceiling + Front	Inverted image
🖳 Rear	Reversed image
🖳 Ceiling + Rear	Reversed and inverted image

🖼 Picture	🎨 C.M.S.	〰 Fine Sync	⊘ Options	⊘ Options	💬 Language	Status

Setting the Projection Mode

Select "PRJ Mode" in the "Options (2)" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

✎ Note

• If a password has been set, the password input box will be displayed when selecting the "PRJ Mode".
• This function is used for the reversed image and ceiling-mount setups. See page 32 for these setups.

Locking the Operation Buttons on the Projector

This function can be used to lock the use of certain operation buttons on the projector. The following are the three keylock levels.

Keylock Level	Description
🔓 Normal	All operation buttons are functional.
🔓 Level A	Only INPUT/VOLUME buttons on the projector are available.
🔒 Level B	All operation buttons on the projector are unavailable.

Setting up the Keylock

Select "Keylock Level" in the "Options (2)" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

✎ Note

• If a password has been set, the password input box will be displayed when selecting the "Keylock Level".

Easy to Use Functions
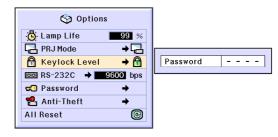
ⒼⒷ-71

Canceling the Keylock Setting

When the Keylock Level is set to "Normal", all buttons are functional.

Select "Keylock Level" in the "Options (2)" menu on the menu screen and set " Normal".
→ For operating the menu screen, see pages 42 to 45.
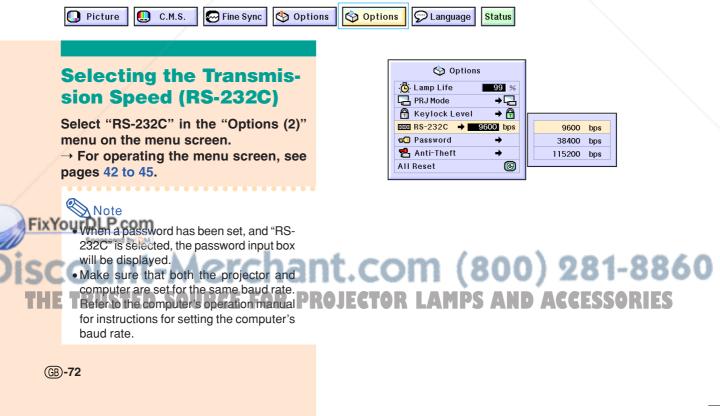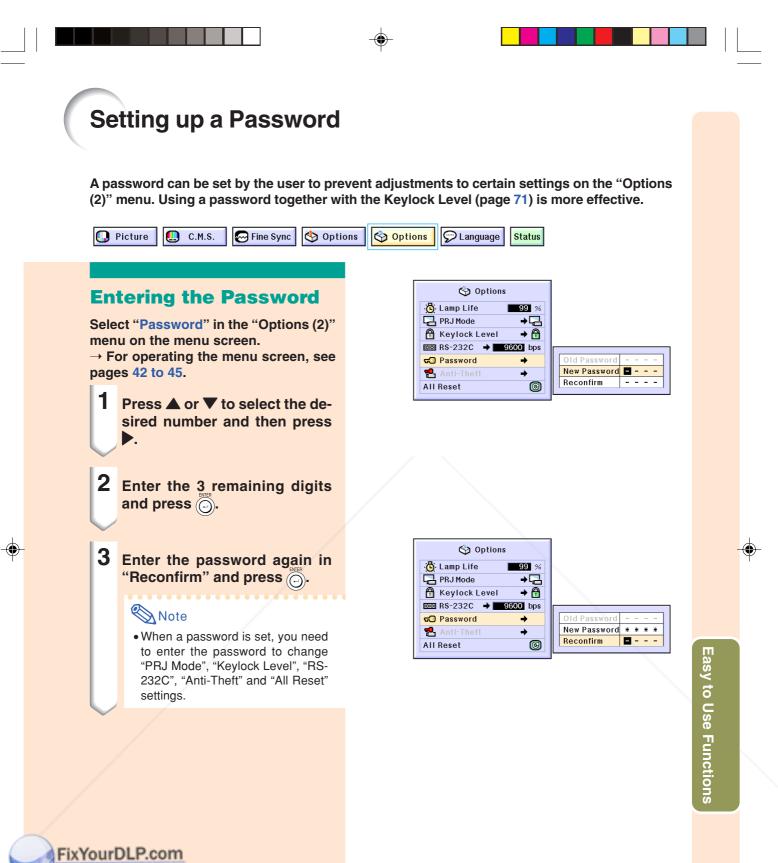
Note

- When a password has been set, and "Keylock Level" is selected, the password input box will be displayed.
- If both a password and the Keylock Level have been set at the same time, the password will be necessary before changing the Keylock Level.

```
         Options
 Lamp Life        99  %
 PRJ Mode        →
 Keylock Level   →
 RS-232C  →  9600  bps
 Password        →
 Anti-Theft      →
 All Reset            ©
```

```
Password   - - - -
```

Selecting the Transmission Speed (RS-232C)

This menu allows you to adjust the transmission speed of the RS-232C connection by selecting the baud rate.

```
 Picture  | C.M.S. | Fine Sync | Options | Options | Language | Status
```

Selecting the Transmission Speed (RS-232C)

Select "RS-232C" in the "Options (2)" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

Note

- When a password has been set, and "RS-232C" is selected, the password input box will be displayed.
- Make sure that both the projector and computer are set for the same baud rate. Refer to the computer's operation manual for instructions for setting the computer's baud rate.

```
         Options
 Lamp Life        99  %
 PRJ Mode        →
 Keylock Level   →
 RS-232C  →  9600  bps
 Password        →
 Anti-Theft      →
 All Reset            ©
```

```
  9600   bps
  38400  bps
  115200 bps
```

Setting up a Password

A password can be set by the user to prevent adjustments to certain settings on the "Options (2)" menu. Using a password together with the Keylock Level (page 71) is more effective.

| 🖼 Picture | 🌈 C.M.S. | 〰 Fine Sync | 🔧 Options | 🔧 Options | 💬 Language | Status |

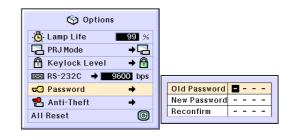## Entering the Password

Select "Password" in the "Options (2)" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

1 Press ▲ or ▼ to select the desired number and then press ►.

2 Enter the 3 remaining digits and press ⊙.

3 Enter the password again in "Reconfirm" and press ⊙.

✎ Note

• When a password is set, you need to enter the password to change "PRJ Mode", "Keylock Level", "RS-232C", "Anti-Theft" and "All Reset" settings.

Options

⏱ Lamp Life	99 %
🔧 PRJ Mode	→
🔒 Keylock Level	→ 🔒
RS-232C	→ 9600 bps
🔧 Password	→
Anti-Theft	→
All Reset	Ⓒ

Old Password	– – – –
New Password	■ – – –
Reconfirm	– – – –

Options

⏱ Lamp Life	99 %
🔧 PRJ Mode	→
🔒 Keylock Level	→ 🔒
RS-232C	→ 9600 bps
🔧 Password	→
Anti-Theft	→
All Reset	Ⓒ

Old Password	– – – –
New Password	* * * *
Reconfirm	■ – – –

Easy to Use Functions

Ⓖ**-73**

Changing the Password

Select "Password" in the "Options (2)" menu on the menu screen.
→ For operating the menu screen, see pages 42 to 45.

1 Press ▲, ▼ and ▶ to enter the password in "Old Password" and press ⊙.

2 Press ▲, ▼ and ▶ to set the new password and press ⊙.

3 Enter the new 4-digit password again in "Reconfirm" and press ⊙.

✎ Note

• If you do not want to set a password, leave the fields in procedures 2 and 3 blank and press ⊙.
• To cancel the password settings, click ⊙.

If You Forget Your Password

If you forget the password, delete it and set a new password using the following procedure.

Press ⊙ → ⊙ → ⊙ → ⊙ →

⊙ → ⊙ → ⊙ .

FixYourDLP.com
Sponsored by DM

Discount-Merchant.com (800) 281-8860
THE TRUSTED SOURCE FOR PROJECTOR LAMPS AND ACCESSORIES

Setting the Anti-Theft

The anti-theft function prevents unauthorized use of the projector. You can choose to use this function or not. If you do not want to use this function, just do not enter the keycode. Once the anti-theft function is activated, users will need to enter the correct keycode each time the projector is turned on. Failure to enter the correct keycode will cause images not to be projected. The following procedures explain how to use this function.

| 🖥 Picture | 🎛 C.M.S. | 〰 Fine Sync | ▣ Options | ▣ Options | 💬 Language | Status |

Entering the Keycode

- "Anti-Theft" cannot be selected unless "Password" is set. (See page **73**.)
- When "Anti-Theft" is selected, the password input box will appear. Enter the keycode after the right password is entered.

Select "Anti-Theft" in the "Options (2)" menu on the menu screen.

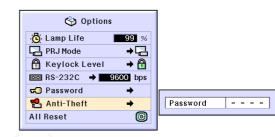→ **For operating the menu screen, see pages 42 to 45.**

📖 **Info**

- Once the function is activated, you must remember the correct keycode. We suggest you record the keycode in a safe place where only authorized users have access. If you lose or forget your keycode, you will need to contact your nearest Sharp Authorized Projector Dealer or Service Center (see page **96**). You may need to bring your projector to them to restore the projector to original factory condition (password and keycode reset).

---

1 Press any button you like on the remote control or projector to set the first digit in "New Code".

✎ Note

- The following buttons on the remote control and projector cannot be set as keycodes:
  - ON button
  - STANDBY button
  - ENTER button
  - UNDO button
  - MENU button
  - FORWARD button
  - BACK button

▣ Options	
⏱ Lamp Life	99 %
PRJ Mode	→
🔒 Keylock Level	→ 🔒
RS-232C	→ 9600 bps
🔒 Password	→
Anti-Theft	→
All Reset	©

| Password | – – – – |

▣ Options	
⏱ Lamp Life	99 %
PRJ Mode	→
🔒 Keylock Level	→ 🔒
RS-232C	→ 9600 bps
🔒 Password	→
Anti-Theft	→
All Reset	©

Old Code	– – – –
New Code	■ – – –
Reconfirm	– – – –

Easy to Use Functions

Ⓖ**-75**

Setting the Anti-Theft

2 Enter the remaining 3 digits by pressing any buttons you like.

3 Enter the same keycode once more in "Reconfirm".

✎ Note

• The Keylock function will become temporarily disabled.

When "Anti-Theft" is set, the keycode inputting box appears after the power is turned on. When it appears, enter the right keycode.

• Press the buttons on the remote control if the buttons on the remote control are used for setting the keycode. In the same manner, press the buttons on the projector if the buttons on the projector are used for setting the keycode.

Changing the Keycode

• When "Anti-Theft" is selected, the password input box is displayed. After the password has been entered, you can change the keycode.
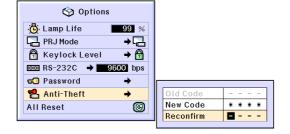
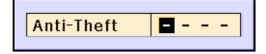**Select "Anti-Theft" in the "Options (2)" menu on the menu screen.**

→ **For operating the menu screen, see pages 42 to 45.**
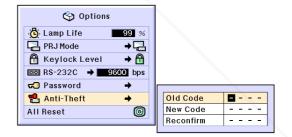
1 Press the buttons on the remote control or the projector to enter the preset 4-digit keycode in "Old Code".

2 Press any button you like on the remote control or the projector to enter the new keycode.

3 Enter the same 4-digit keycode in "Reconfirm".

✎ Note
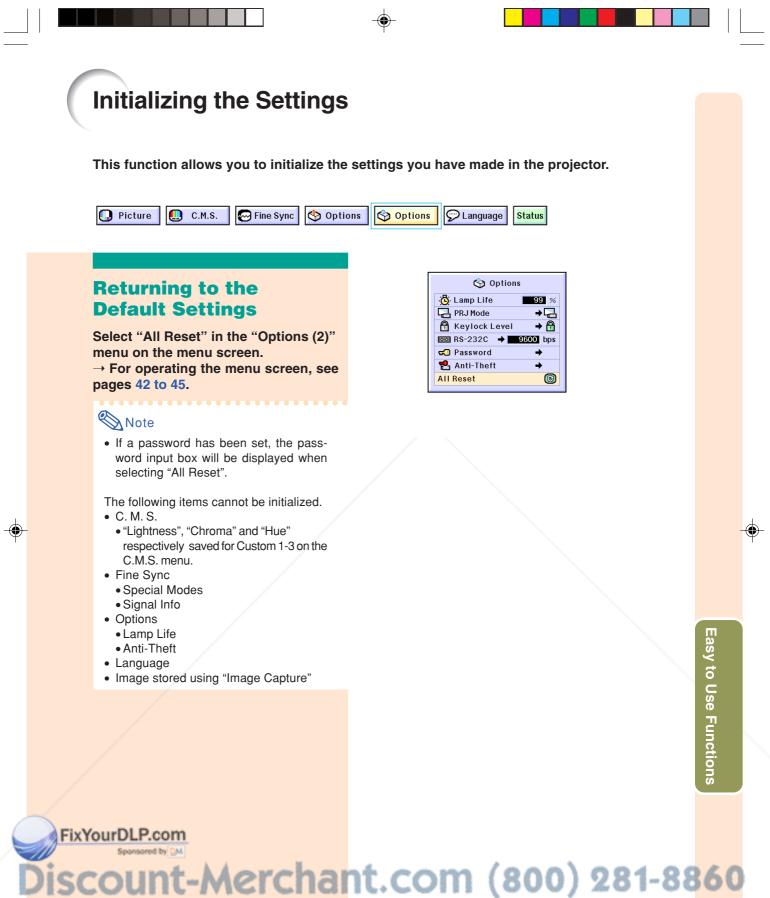
• If you do not want to set a keycode, leave the keycode field blank in steps 2 and 3 and press ⊙.

Initializing the Settings

This function allows you to initialize the settings you have made in the projector.

| Picture | C.M.S. | Fine Sync | Options | Options | Language | Status |

Returning to the Default Settings

Select "All Reset" in the "Options (2)" menu on the menu screen.
→ **For operating the menu screen, see pages 42 to 45.**

Options
- Lamp Life   99 %
- PRJ Mode   →
- Keylock Level   →
- RS-232C   → 9600 bps
- Password   →
- Anti-Theft   →
- All Reset   ⟳

Note

- If a password has been set, the password input box will be displayed when selecting "All Reset".

The following items cannot be initialized.
- C. M. S.
  - "Lightness", "Chroma" and "Hue" respectively saved for Custom 1-3 on the C.M.S. menu.
- Fine Sync
  - Special Modes
  - Signal Info
- Options
  - Lamp Life
  - Anti-Theft
- Language
- Image stored using "Image Capture"

Easy to Use Functions

Displaying the Adjustment Settings

This function can be used to display all the adjusted settings as a list on the screen.

| 🖼 Picture | 🎨 C.M.S. | 🌊 Fine Sync | 🔧 Options | 🔧 Options | 💬 Language | **Status** |

Overview of All Menu Settings

Select the "Status" menu on the menu screen and press ⊙_{ENTER} .
→ For operating the menu screen, see pages **42 to 45**.

🖼 Picture	🎨 C.M.S.	🌊 Fine Sync	🔧 Options	🔧 Options	Other
Contrast 0	Color Selected	Clock 0	Audio Out	Lamp Life 99%	Language English
Bright 0		Phase 0	Speaker	PRJ Mode	
Red 0		H-Pos 0	Auto Search	Keylock Level	
Blue 0		V-Pos 0	DNR	RS-232C 115200bps	Gamma Standard
CLR Temp 0		Select Setting	OSD Display	Password	Resize Normal
Signal Type		Special Modes 1	Background	Anti-Theft	
Progressive Mode		Auto Sync	Startup Image		
		Auto Sync Disp	Power Save		Serial Number 123456789
		Mntr.out/RS232	Auto Power Off		Firmware C60XXXXXXX

XG-C60X_E_PDF_p71_78.p65   78   03.8.28, 2:28 PM
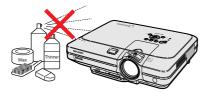
Appendix

Appendix

Maintenance

Cleaning the projector
■ Be sure to unplug the power cord before cleaning the projector.
■ The cabinet as well as the operation panel is made of plastic. Avoid using benzene or thinner, as these can damage the finish on the cabinet.
■ Do not use volatile agents such as insecticides on the projector.
  Do not attach rubber or plastic items on the projector for long time.
  The effects of some of the agents in the plastic may cause damage to the quality or finish of the projector.

■ Wipe off dirt gently with a soft flannel cloth.

■ When the dirt is hard to remove, soak a cloth in a neutral detergent diluted with water, wring the cloth well and then wipe the projector.
  Strong cleaning detergents may discolor, warp or damage the coating on the projector.
  Make sure to test on a small, inconspicuous area on the projector before using.
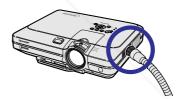
Cleaning the lens
■ Use a commercially available blower or lens cleaning paper (for glasses and camera lenses) for cleaning the lens. Do not use any liquid type cleaning agents, as they may wear off the coating film on the surface of the lens.
■ As the surface of the lens can easily get damaged, be sure not to scrape or hit the lens.

Cleaning the exhaust and intake vents
■ Use a vacuum cleaner to clean dust from the exhaust vent and the intake vent.
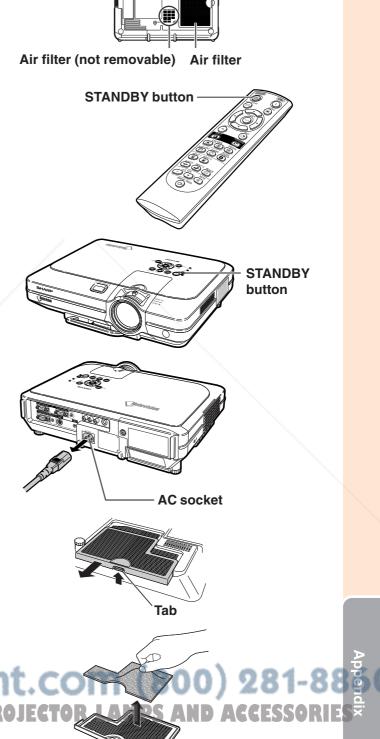
Replacing the Air Filter

- **This projector is equipped with air filters to ensure the optimal operating condition of the projector.**
- **The air filters should be cleaned every 100 hours of use. Clean the filters more often when the projector is used in a dusty or smoky location.**
- **Ask your nearest Sharp Authorized Projector Dealer or Service Center to exchange the filter (PFILDA005WJZZ) when it is no longer possible to clean.**

Air filter (not removable)   Air filter

STANDBY button

Cleaning and replacing the bottom air filter

1 **Press ⏻ STANDBY on the projector or ⏻ on the remote control to put the projector into the standby mode.**
- Wait until the cooling fan stops.

STANDBY button

2 **Disconnect the power cord.**
- Unplug the power cord from the AC socket.

AC socket

3 **Remove the bottom filter cover.**
- Turn over the projector. Grab the tab and slide open the filter cover in the direction of the arrow.

Tab
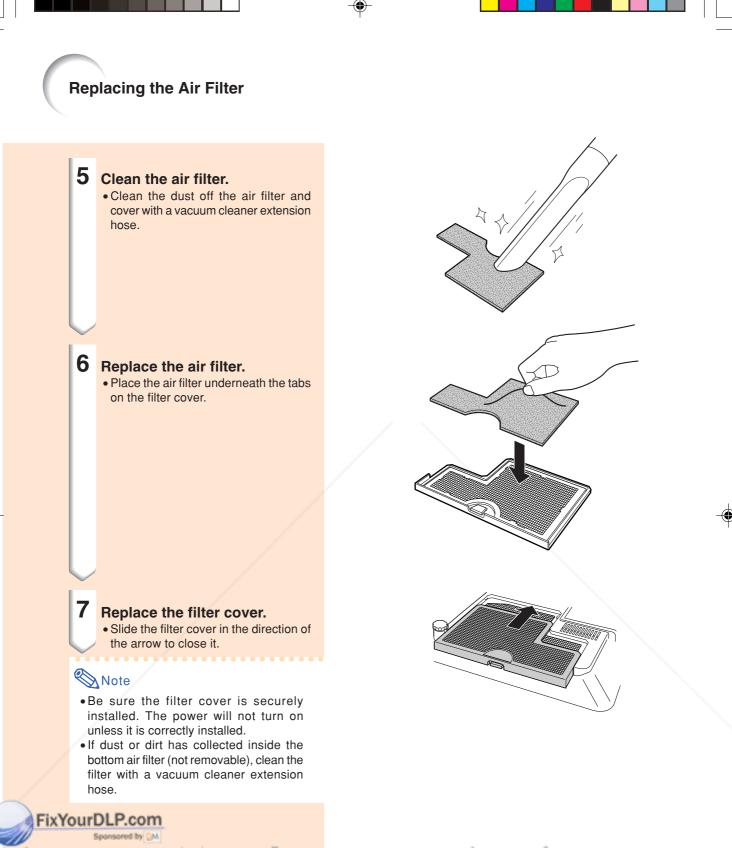
4 **Remove the air filter.**
- Pick the air filter up with your fingers and lift it out of the filter cover.

Appendix

Ⓖ**-81**

5 **Clean the air filter.**
- Clean the dust off the air filter and cover with a vacuum cleaner extension hose.

6 **Replace the air filter.**
- Place the air filter underneath the tabs on the filter cover.

7 **Replace the filter cover.**
- Slide the filter cover in the direction of the arrow to close it.

✎ Note

- Be sure the filter cover is securely installed. The power will not turn on unless it is correctly installed.
- If dust or dirt has collected inside the bottom air filter (not removable), clean the filter with a vacuum cleaner extension hose.

GB**-82**

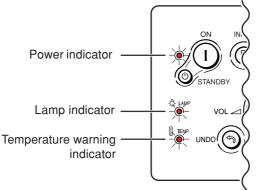# Maintenance Indicators

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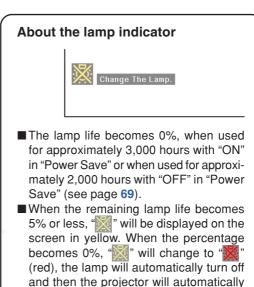■ **If a problem occurs, either the temperature warning indicator or the lamp indicator will illuminate red, and the projector will enter the standby mode. After the projector has entered the standby mode, follow the procedures given below.**

Power indicator
Lamp indicator
Temperature warning indicator

About the lamp indicator

Change The Lamp.

■ The lamp life becomes 0%, when used for approximately 3,000 hours with "ON" in "Power Save" or when used for approximately 2,000 hours with "OFF" in "Power Save" (see page **69**).
■ When the remaining lamp life becomes 5% or less, "🔲" will be displayed on the screen in yellow. 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.

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 blink 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 further 90 seconds, then the projector will enter the standby mode. After "**TEMP.**" appears, be sure to perform the following measures.

Maintenance indicator			Condition	Problem	Possible Solution
	Normal	Abnormal			
Temperature warning indicator	Off	Red on/ Standby	The internal temperature is abnormally high.	• Blocked air intake	• Relocate the projector to an area with proper ventilation.
				• Cooling fan breakdown • Internal circuit failure • Clogged air intake	• Take the projector to your nearest Sharp Authorized Projector Dealer or Service Center (see page **96**) for repair.
Lamp indicator	Green on (Green blinks when the lamp is warming up or shutting down.)	Red blinks/ Red on	Time to change the lamp	• Remaining lamp life becomes 5% or under.	• Carefully replace the lamp. (See page **86**) • Take the projector to your nearest Sharp Authorized Projector Dealer or Service Center (see page **96**) for repair. • Please exercise care when replacing the lamp.
		Red on/ Standby	The lamp does not illuminate.	• Burnt-out lamp • Lamp circuit failure	
Power indicator	Green on/ Red on	Red blinks	The power indicator blinks in red when the projector is on.	• The filter cover, lamp unit cover or lens cover is open.	• Securely install the covers. • If the power indicator blinks even when the filter cover is securely installed, contact your nearest Sharp Authorized Projector Dealer or Service Center for advice.

Appendix

Maintenance Indicators

📖 **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.
- 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 70.
- For lamp replacement, please consult your nearest Sharp Authorized Projector Dealer or Service Center.

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 Sharp Authorized Projector Dealer or Service Center, 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 indicator and on-screen display icon are illuminated or flash, 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 cage 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 with 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 Sharp Authorized Projector Dealer or Service Center to remove the damaged lamp and assure safe operation.

Replacing the Lamp

⚡ Caution

- Do 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 Sharp Authorized Projector Dealer or Service Center for repair. Purchase a replacement lamp unit of type BQC-XGC55X//1 from your nearest Sharp Authorized Projector Dealer or Service Center. 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 Sharp Authorized Projector Dealer or Service Center.

Appendix

Removing and Installing the Lamp Unit

> **📖 Info**
>
> - Be sure to remove the lamp unit by the handle. Be sure not to touch the glass surface of the lamp unit or the inside of the projector.
> - To avoid injury to yourself and damage to the lamp, be sure to carefully follow the steps below.
> - Do not loosen other screws except for the lamp unit cover and lamp unit.
>   (Only the silver screws are loosened).
> - Please refer to the installation manual included with the lamp unit.

Lamp unit		BQC-XGC55X//1

1 Press ⏻ STANDBY on the projector or ⏻ on the remote control to put the projector into the standby mode.

- Wait until the cooling fan stops.

⚠ Warning!

- Do not remove the lamp unit from the projector right after use. The lamp will be very hot and may cause burn or injury.

STANDBY button

STANDBY button

2 Disconnect the power cord.

- Unplug the power cord from the AC socket.
- Leave the lamp until it has fully cooled down (about 1 hour).

3 Change the air filter.

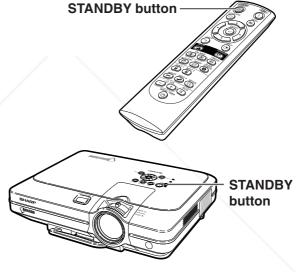- Change the air filter whenever you install the lamp unit (see pages **81** and **82**).

AC socket

4 Remove the lamp unit cover.
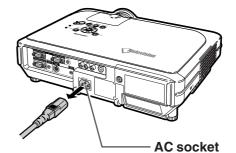
- Loosen the user service screw that secures the lamp unit cover. Then open the cover in the direction of the arrow.

User service screw

ⒼⒷ**-86**

5 Remove the lamp unit.

- Loosen the securing screws from the lamp unit. Hold the lamp unit by the handle and pull it in the direction of the arrow.

6 Insert the new lamp unit.

- Press the lamp unit firmly into the lamp unit compartment. Fasten the securing screws.

7 Attach the lamp unit cover.

- Insert the tab of the lamp unit cover into the opening, and press the cover until it clicks in place.

📖 Info

- If the lamp unit and lamp cover are not correctly installed, the power will not turn on, even if the power cord is connected to the projector.

Resetting the Lamp Timer

Reset the lamp timer after replacing the lamp.

1 Connect the power cord.

- Plug the power cord into the AC socket of the projector.

2 Reset the lamp timer.

- While pressing simultaneously , and UNDO on the projector, press ON on the projector.

- "LAMP 100%" is displayed, indicating that the lamp timer is reset.

📖 Info

- Make sure to reset the lamp timer only when replacing the lamp. If you reset the lamp timer and continue to use the same lamp, this may cause the lamp to become damaged or explode.

Securing screw

User service screw

AC socket

INPUT button **ENTER button**

ON button

UNDO button

Appendix

GB-87

Connecting Pin Assignments

INPUT 1/2 RGB and OUTPUT Signal Terminal: 15-pin Mini D-sub female connector
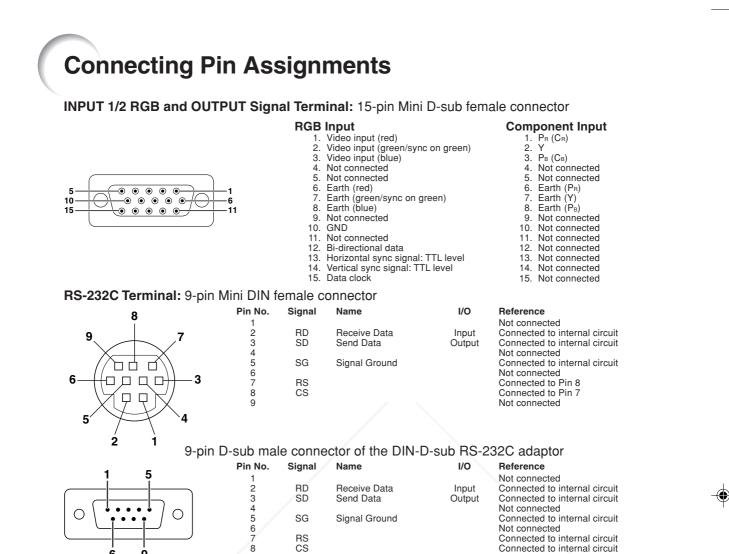
	RGB Input	Component Input
	1. Video input (red)	1. P_R (C_R)
	2. Video input (green/sync on green)	2. Y
	3. Video input (blue)	3. P_B (C_B)
	4. Not connected	4. Not connected
	5. Not connected	5. Not connected
	6. Earth (red)	6. Earth (P_R)
	7. Earth (green/sync on green)	7. Earth (Y)
	8. Earth (blue)	8. Earth (P_B)
	9. Not connected	9. Not connected
	10. GND	10. Not connected
	11. Not connected	11. Not connected
	12. Bi-directional data	12. Not connected
	13. Horizontal sync signal: TTL level	13. Not connected
	14. Vertical sync signal: TTL level	14. Not connected
	15. Data clock	15. Not connected

RS-232C Terminal: 9-pin Mini DIN female connector

Pin No.	Signal	Name	I/O	Reference
1				Not connected
2	RD	Receive Data	Input	Connected to internal circuit
3	SD	Send Data	Output	Connected to internal circuit
4				Not connected
5	SG	Signal Ground		Connected to internal circuit
6				Not connected
7	RS			Connected to Pin 8
8	CS			Connected to Pin 7
9				Not connected

9-pin D-sub male connector of the DIN-D-sub RS-232C adaptor

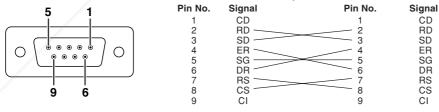| Pin No.	Signal	Name	I/O	Reference
1				Not connected
2	RD	Receive Data	Input	Connected to internal circuit
3	SD	Send Data	Output	Connected to internal circuit
4				Not connected
5	SG	Signal Ground		Connected to internal circuit
6				Not connected
7	RS			Connected to internal circuit
8	CS			Connected to internal circuit
9				Not connected

✎ Note

• Pin 8(CS) and Pin 7(RS) are short circuited inside the projector.

RS-232C Cable recommended connection: 9-pin D-sub female connector

Pin No.	Signal		Pin No.	Signal
1	CD		1	CD
2	RD		2	RD
3	SD		3	SD
4	ER		4	ER
5	SG		5	SG
6	DR		6	DR
7	RS		7	RS
8	CS		8	CS
9	CI		9	CI

✎ Note

• Depending on the controlling device used, it may be necessary to connect Pin 4 and Pin 6 on the controlling device (e.g. PC).

Projector Pin No.	PC Pin No.
4	4
5	5
6	6

GB

(RS-232C) Specifications and Command Settings

PC control

A computer can be used to control the projector by connecting an RS-232C serial control cable (cross type, sold separately) to the projector. (See page 22 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.   Parity bit: None
Baud rate: 9,600 bps   Stop bit: 1 bit
Data length: 8 bits   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

| C1 | C2 | C3 | C4 | P1 | P2 | P3 | P4 | Return code (0DH)

Command 4-digit   Parameter 4-digit

Response code format

Normal response

| O | K | Return code (0DH)

Problem response (communication error or incorrect command)

| E | R | R | Return code (0DH)

📖 Info

- When more than one code is being sent, send each command only after the response code for the previous command from the projector is verified.
- To conserve power in STANDBY mode, the CPU in this model will enter Deep Sleep mode approximately 10 seconds after the last command is received. In the case of transmitting commands during Deep Sleep mode, it takes a maximum of 30 seconds until the response code is received. If subsequent commands are sent to the projector within 10 seconds, the projector will reply immediately. If no further commands are received within 10 seconds, the projector will again return to Deep Sleep mode. Please note that Deep Sleep mode is only activated in STANDBY mode. There is no delayed RS-232C response when the projector is in operation.
- Special commands, "POWR????" and "TLPS_ _ _1" are available for applications that require continuous polling. These commands will not wake the CPU in Deep Sleep mode and the projector will provide immediate reply in STANDBY mode. "1" will indicate Power on, "0" will indicate STANDBY mode. When the power is turned on during standby with the "POWER ON" command, wait for at least 40 seconds after the power has been turned on, and then transmit the next command.
- We suggest disabling the AUTO SEARCH feature before initiating RS-232C communications. If AUTO SEARCH is enabled, it will be necessary to send the STANDBY mode command "POWR_ _ _0" two times to power down the projector. (The first "POWR_ _ _0" command cancels AUTO SEARCH and the second "POWR_ _ _0" command will put the projector into the standby mode.)
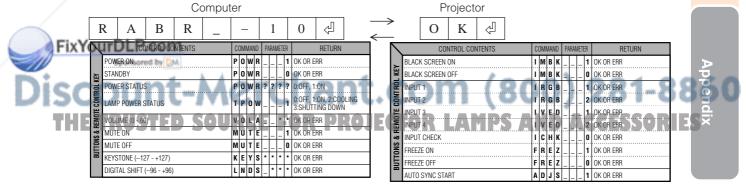
✎ Note

- Do not repeatedly or periodically send any commands other than "POWR????" and "TLPS_ _ _1" in STANDBY mode as it will cause problems.
- When the projector is put into the standby mode, a message "Shutting Down. Please Wait." is displayed for about 20 seconds. At that time, if the "POWR_ _ _1" command is being sent, "ERR" will be returned and this command is not received.
- When using the computer control function of the projector, the adjustment values cannot be read by the computer. Therefore, confirm the values by transmitting the display commands (e.g. "RARE_ _ _0") for each adjustment menu and checking the values with the on-screen display. If the projector receives adjustment/setting commands other than menu display commands, it will execute the commands without displaying the on-screen display.

Commands

Example:

- When "BRIGHT" of INPUT 1 image adjustment is set to –10.

Computer

| R | A | B | R | _ | – | 1 | 0 | ↵ |

Projector

| O | K | ↵ |

	CONTROL CONTENTS	COMMAND	PARAMETER	RETURN
BUTTONS & REMOTE CONTROL KEY	POWER ON	P O W R	_ _ _ 1	OK OR ERR
	STANDBY	P O W R	_ _ _ 0	OK OR ERR
	POWER STATUS	P O W R	? ? ? ?	0:OFF, 1:ON
	LAMP POWER STATUS	T P O W	_ _ _ 1	0:OFF, 1:ON, 2:COOLING 3:SHUTTING DOWN
	VOLUME (0 - 60)	V O L A	_ * *	OK OR ERR
	MUTE ON	M U T E	_ _ _ 1	OK OR ERR
	MUTE OFF	M U T E	_ _ _ 0	OK OR ERR
	KEYSTONE (–127 - +127)	K E Y S	* * * *	OK OR ERR
	DIGITAL SHIFT (–96 - +96)	L N D S	_ * * *	OK OR ERR

	CONTROL CONTENTS	COMMAND	PARAMETER	RETURN
BUTTONS & REMOTE CONTROL KEY	BLACK SCREEN ON	I M B K	_ _ _ 1	OK OR ERR
	BLACK SCREEN OFF	I M B K	_ _ _ 0	OK OR ERR
	INPUT 1	I R G B	_ _ _ 1	OK OR ERR
	INPUT 2	I R G B	_ _ _ 2	OK OR ERR
	INPUT 3	I V E D	_ _ _ 1	OK OR ERR
	INPUT 4	I V E D	_ _ _ 2	OK OR ERR
	INPUT CHECK	I C H K	_ _ _ 0	OK OR ERR
	FREEZE ON	F R E Z	_ _ _ 1	OK OR ERR
	FREEZE OFF	F R E Z	_ _ _ 0	OK OR ERR
	AUTO SYNC START	A D J S	_ _ _ 1	OK OR ERR

Appendix

(RS-232C) Specifications and Command Settings

	CONTROL CONTENTS	COMMAND	PARAMETER	RETURN
BUTTONS & REMOTE CONTROL KEY	INPUT 1 RESIZE : NORMAL	R A S R	_ _ _ 1	OK OR ERR
	INPUT 1 RESIZE : FULL	R A S R	_ _ _ 5	OK OR ERR
	INPUT 1 RESIZE : DOT BY DOT	R A S R	_ _ _ 3	OK OR ERR
	INPUT 1 RESIZE : STRETCH	R A S R	_ _ _ 2	OK OR ERR
	INPUT 1 RESIZE : SMART STRETCH	R A S R	_ _ _ 4	OK OR ERR
	INPUT 2 RESIZE : NORMAL	R B S R	_ _ _ 1	OK OR ERR
	INPUT 2 RESIZE : FULL	R B S R	_ _ _ 5	OK OR ERR
	INPUT 2 RESIZE : DOT BY DOT	R B S R	_ _ _ 3	OK OR ERR
	INPUT 2 RESIZE : STRETCH	R B S R	_ _ _ 2	OK OR ERR
	INPUT 2 RESIZE : SMART STRETCH	R B S R	_ _ _ 4	OK OR ERR
	INPUT 3 RESIZE : NORMAL	R A S V	_ _ _ 1	OK OR ERR
	INPUT 3 RESIZE : BORDER	R A S V	_ _ _ 3	OK OR ERR
	INPUT 3 RESIZE : STRETCH	R A S V	_ _ _ 2	OK OR ERR
	INPUT 3 RESIZE : SMART STRETCH	R A S V	_ _ _ 4	OK OR ERR
	INPUT 4 RESIZE : NORMAL	R B S V	_ _ _ 1	OK OR ERR
	INPUT 4 RESIZE : BORDER	R B S V	_ _ _ 3	OK OR ERR
	INPUT 4 RESIZE : STRETCH	R B S V	_ _ _ 2	OK OR ERR
	INPUT 4 RESIZE : SMART STRETCH	R B S V	_ _ _ 4	OK OR ERR
	RGB GAMMA : STANDARD	G A M R	_ _ _ 1	OK OR ERR
	RGB GAMMA : PRESENTATION	G A M R	_ _ _ 2	OK OR ERR
	RGB GAMMA : CINEMA	G A M R	_ _ _ 3	OK OR ERR
	RGB GAMMA : CUSTOM	G A M R	_ _ _ 4	OK OR ERR
	VIDEO GAMMA : STANDARD	G A M V	_ _ _ 1	OK OR ERR
	VIDEO GAMMA : PRESENTATION	G A M V	_ _ _ 2	OK OR ERR
	VIDEO GAMMA : CINEMA	G A M V	_ _ _ 3	OK OR ERR
	VIDEO GAMMA : CUSTOM	G A M V	_ _ _ 4	OK OR ERR
PICTURE	INPUT 1 CONTRAST (–30 - +30)	R A P I	* * *	OK OR ERR
	INPUT 1 BRIGHT (–30 - +30)	R A B R	* * *	OK OR ERR
	INPUT 1 RED (–30 - +30)	R A R D	* * *	OK OR ERR
	INPUT 1 BLUE (–30 - +30)	R A B E	* * *	OK OR ERR
	INPUT 1 COLOR (–30 - +30)	R A C O	* * *	OK OR ERR
	INPUT 1 TINT (–30 - +30)	R A T I	* * *	OK OR ERR
	INPUT 1 SHARP (–30 - +30)	R A S H	* * *	OK OR ERR
	INPUT 1 CLR TEMP (–3 - +3)	R A C T	_ * *	OK OR ERR
	INPUT 1 DISPLAY	R A R E	_ _ _ 0	OK OR ERR
	INPUT 1 ADJUSTMENT RESET	R A R E	_ _ _ 1	OK OR ERR
	INPUT 2 CONTRAST (–30 - +30)	R B P I	* * *	OK OR ERR
	INPUT 2 BRIGHT (–30 - +30)	R B B R	* * *	OK OR ERR
	INPUT 2 RED (–30 - +30)	R B R D	* * *	OK OR ERR
	INPUT 2 BLUE (–30 - +30)	R B B E	* * *	OK OR ERR
	INPUT 2 COLOR (–30 - +30)	R B C O	* * *	OK OR ERR
	INPUT 2 TINT (–30 - +30)	R B T I	* * *	OK OR ERR
	INPUT 2 SHARP (–30 - +30)	R B S H	* * *	OK OR ERR
	INPUT 2 CLR TEMP (–3 - +3)	R B C T	_ * *	OK OR ERR
	INPUT 2 DISPLAY	R B R E	_ _ _ 0	OK OR ERR
	INPUT 2 ADJUSTMENT RESET	R B R E	_ _ _ 1	OK OR ERR
	INPUT 1 SIGNAL TYPE : RGB	I A S I	_ _ _ 1	OK OR ERR
	INPUT 1 SIGNAL TYPE : COMPONENT	I A S I	_ _ _ 2	OK OR ERR
	INPUT 2 SIGNAL TYPE : RGB	I B S I	_ _ _ 1	OK OR ERR
	INPUT 2 SIGNAL TYPE : COMPONENT	I B S I	_ _ _ 2	OK OR ERR
	INPUT 1 2D PROGRESSIVE	R A I P	_ _ _ 0	OK OR ERR
	INPUT 1 3D PROGRESSIVE	R A I P	_ _ _ 1	OK OR ERR
	INPUT 1 FILM MODE	R A I P	_ _ _ 2	OK OR ERR
	INPUT 2 2D PROGRESSIVE	R B I P	_ _ _ 0	OK OR ERR
	INPUT 2 3D PROGRESSIVE	R B I P	_ _ _ 1	OK OR ERR
	INPUT 2 FILM MODE	R B I P	_ _ _ 2	OK OR ERR
	INPUT 3 CONTRAST (–30 - +30)	V A P I	* * *	OK OR ERR
	INPUT 3 BRIGHT (–30 - +30)	V A B R	* * *	OK OR ERR
	INPUT 3 RED (–30 - +30)	V A R D	* * *	OK OR ERR

	CONTROL CONTENTS	COMMAND	PARAMETER	RETURN
PICTURE	INPUT 3 BLUE (–30 - +30)	V A B E	* * *	OK OR ERR
	INPUT 3 COLOR (–30 - +30)	V A C O	* * *	OK OR ERR
	INPUT 3 TINT (–30 - +30)	V A T I	* * *	OK OR ERR
	INPUT 3 SHARP (–30 - +30)	V A S H	* * *	OK OR ERR
	INPUT 3 CLR TEMP (–3 - +3)	V A C T	_ * *	OK OR ERR
	INPUT 3 DISPLAY	V A R E	_ _ _ 0	OK OR ERR
	INPUT 3 ADJUSTMENT RESET	V A R E	_ _ _ 1	OK OR ERR
	INPUT 4 CONTRAST (–30 - +30)	V B P I	* * *	OK OR ERR
	INPUT 4 BRIGHT (–30 - +30)	V B B R	* * *	OK OR ERR
	INPUT 4 RED (–30 - +30)	V B R D	* * *	OK OR ERR
	INPUT 4 BLUE (–30 - +30)	V B B E	* * *	OK OR ERR
	INPUT 4 COLOR (–30 - +30)	V B C O	* * *	OK OR ERR
	INPUT 4 TINT (–30 - +30)	V B T I	* * *	OK OR ERR
	INPUT 4 SHARP (–30 - +30)	V B S H	* * *	OK OR ERR
	INPUT 4 CLR TEMP (–3 - +3)	V B C T	_ * *	OK OR ERR
	INPUT 4 DISPLAY	V B R E	_ _ _ 0	OK OR ERR
	INPUT 4 ADJUSTMENT RESET	V B R E	_ _ _ 1	OK OR ERR
	INPUT 3 2D PROGRESSIVE	V A I P	_ _ _ 0	OK OR ERR
	INPUT 3 3D PROGRESSIVE	V A I P	_ _ _ 1	OK OR ERR
	INPUT 3 FILM MODE	V A I P	_ _ _ 2	OK OR ERR
	INPUT 4 2D PROGRESSIVE	V B I P	_ _ _ 0	OK OR ERR
	INPUT 4 3D PROGRESSIVE	V B I P	_ _ _ 1	OK OR ERR
	INPUT 4 FILM MODE	V B I P	_ _ _ 2	OK OR ERR
C. M. S.	COLOR SELECTED : STANDARD	C M C S	_ _ 0 0	OK OR ERR
	COLOR SELECTED : sRGB	C M C S	_ _ 0 1	OK OR ERR
	COLOR SELECTED : CUSTOM 1	C M C S	_ _ 1 1	OK OR ERR
	COLOR SELECTED : CUSTOM 2	C M C S	_ _ 1 2	OK OR ERR
	COLOR SELECTED : CUSTOM 3	C M C S	_ _ 1 3	OK OR ERR
	TARGET : RED	C M T G	_ _ _ 1	OK OR ERR
	TARGET : YELLOW	C M T G	_ _ _ 2	OK OR ERR
	TARGET : GREEN	C M T G	_ _ _ 3	OK OR ERR
	TARGET : CYAN	C M T G	_ _ _ 4	OK OR ERR
	TARGET : BLUE	C M T G	_ _ _ 5	OK OR ERR
	TARGET : MAGENTA	C M T G	_ _ _ 6	OK OR ERR
	LIGHTNESS (–30 - +30)	C M S L	* * *	OK OR ERR
	CHROMA (–30 - +30)	C M S C	* * *	OK OR ERR
	HUE (–30 - +30)	C M S H	* * *	OK OR ERR
	Reset (THIS COLOR)	C M R E	_ _ _ 1	OK OR ERR
	Reset (All COLORS)	C M R E	_ _ _ 2	OK OR ERR
FINE SYNC *1	CLOCK (–150 - +150)	I N C L	* * * *	OK OR ERR
	PHASE (–30 - +30)	I N P H	_ * * *	OK OR ERR
	H-POSITION (–150 - +150)	I A H P	* * * *	OK OR ERR
	V-POSITION (–60 - +60)	I A V P	_ * * *	OK OR ERR
	RGB INPUT DISPLAY	I A R E	_ _ _ 0	OK OR ERR
	RGB ADJUSTMENT RESET	I A R E	_ _ _ 1	OK OR ERR
	SAVE SETTING (1 - 7)	M E M S	_ _ _ *	OK OR ERR
	SELECT SETTING (1 - 7)	M E M L	_ _ _ *	OK OR ERR
	RGB HORIZONTAL FREQUENCY CHECK	T F R Q	_ _ _ 1	kHz (***. * OR _)
	RGB VERTICAL FREQUENCY CHECK	T F R Q	_ _ _ 2	Hz (***. * OR _)
	AUTO SYNC OFF	A A D J	_ _ _ 0	OK OR ERR
	AUTO SYNC : ON (NORMAL)	A A D J	_ _ _ 1	OK OR ERR
	AUTO SYNC : ON (HIGH SPEED)	A A D J	_ _ _ 2	OK OR ERR
	AUTO SYNC DISPLAY ON	I M A S	_ _ _ 1	OK OR ERR
	AUTO SYNC DISPLAY OFF	I M A S	_ _ _ 0	OK OR ERR

OPTIONS (1)

CONTROL CONTENTS	COMMAND				PARAMETER				RETURN
FAO	A	O	U	T	_	_	_	1	OK OR ERR
VAO	A	O	U	T	_	_	_	2	OK OR ERR
SPEAKER ON	A	S	P	K	_	_	_	1	OK OR ERR
SPEAKER OFF	A	S	P	K	_	_	_	0	OK OR ERR
PICT IN PICT : BOTTOM RIGHT	P	I	N	P	_	_	1	1	OK OR ERR
PICT IN PICT : BOTTOM LEFT	P	I	N	P	_	_	1	2	OK OR ERR
PICT IN PICT : UPPER RIGHT	P	I	N	P	_	_	1	3	OK OR ERR
PICT IN PICT : UPPER LEFT	P	I	N	P	_	_	1	4	OK OR ERR
PICT IN PICT OFF	P	I	N	P	_	_	_	0	OK OR ERR
POWER SAVE: STANDARD	T	H	M	D	_	_	_	0	OK OR ERR
POWER SAVE: LOW POWER	T	H	M	D	_	_	_	1	OK OR ERR
DNR: OFF	3	D	N	R	_	_	_	0	OK OR ERR
DNR: LEVEL 1	3	D	N	R	_	_	_	1	OK OR ERR
DNR: LEVEL 2	3	D	N	R	_	_	_	2	OK OR ERR
DNR: LEVEL 3	3	D	N	R	_	_	_	3	OK OR ERR
AUTO SEARCH: OFF	I	N	S	E	_	_	_	0	OK OR ERR
AUTO SEARCH: ON	I	N	S	E	_	_	_	1	OK OR ERR
OSD DISPLAY NORMAL	I	M	D	I	_	_	_	1	OK OR ERR
OSD DISPLAY LEVEL A	I	M	D	I	_	_	_	2	OK OR ERR
OSD DISPLAY LEVEL B	I	M	D	I	_	_	_	0	OK OR ERR
BLACK SCREEN DISPLAY ON	I	M	B	K	_	_	_	1	OK OR ERR
BLACK SCREEN DISPLAY OFF	I	M	B	K	_	_	_	0	OK OR ERR
VIDEO SYSTEM SELECTION : AUTO	M	E	S	Y	_	_	_	1	OK OR ERR
VIDEO SYSTEM SELECTION : PAL (50/60 Hz)	M	E	S	Y	_	_	_	2	OK OR ERR
VIDEO SYSTEM SELECTION : SECAM	M	E	S	Y	_	_	_	3	OK OR ERR
VIDEO SYSTEM SELECTION : NTSC4.43	M	E	S	Y	_	_	_	4	OK OR ERR
VIDEO SYSTEM SELECTION : NTSC3.58	M	E	S	Y	_	_	_	5	OK OR ERR
VIDEO SYSTEM SELECTION : PAL_M	M	E	S	Y	_	_	_	6	OK OR ERR
VIDEO SYSTEM SELECTION : PAL_N	M	E	S	Y	_	_	_	7	OK OR ERR
BACKGROUND SELECTION : SHARP	I	M	B	G	_	_	_	1	OK OR ERR
BACKGROUND SELECTION : CUSTOM	I	M	B	G	_	_	_	2	OK OR ERR
BACKGROUND SELECTION : BLUE	I	M	B	G	_	_	_	3	OK OR ERR
BACKGROUND SELECTION : NONE	I	M	B	G	_	_	_	4	OK OR ERR
STARTUP IMAGE SELECTION : SHARP	I	M	S	I	_	_	_	1	OK OR ERR
STARTUP IMAGE SELECTION : CUSTOM	I	M	S	I	_	_	_	2	OK OR ERR
STARTUP IMAGE SELECTION : NONE	I	M	S	I	_	_	_	3	OK OR ERR
AUTO POWER OFF : NO USE	A	P	O	W	_	_	_	0	OK OR ERR
AUTO POWER OFF : USE	A	P	O	W	_	_	_	1	OK OR ERR

OPTIONS (2)

CONTROL CONTENTS	COMMAND				PARAMETER				RETURN
LAMP LIFE (PERCENTAGE)	T	L	T	L	_	_	_	1	0-100 (INTEGER)
LAMP STATUS	T	L	P	S	_	_	_	1	0:OFF, 1:ON, 2:RETRY, 3:WAITING, 4:LAMP ERROR
PRJ MODE : REVERSE OFF	I	M	R	E	_	_	_	0	OK OR ERR
PRJ MODE : REVERSE ON	I	M	R	E	_	_	_	1	OK OR ERR
PRJ MODE : INVERT OFF	I	M	I	N	_	_	_	0	OK OR ERR
PRJ MODE : INVERT ON	I	M	I	N	_	_	_	1	OK OR ERR
KEYLOCK LEVEL : NORMAL	K	E	Y	L	_	_	_	0	OK OR ERR
KEYLOCK LEVEL : LEVEL A	K	E	Y	L	_	_	_	1	OK OR ERR
KEYLOCK LEVEL : LEVEL B	K	E	Y	L	_	_	_	2	OK OR ERR

LANGUAGE

CONTROL CONTENTS	COMMAND				PARAMETER				RETURN
LANGUAGE SELECTION : ENGLISH	M	E	L	A	_	_	_	1	OK OR ERR
LANGUAGE SELECTION : DEUTSCH	M	E	L	A	_	_	_	2	OK OR ERR
LANGUAGE SELECTION : ESPAÑOL	M	E	L	A	_	_	_	3	OK OR ERR
LANGUAGE SELECTION : NEDERLANDS	M	E	L	A	_	_	_	4	OK OR ERR
LANGUAGE SELECTION : FRANÇAIS	M	E	L	A	_	_	_	5	OK OR ERR
LANGUAGE SELECTION : ITALIANO	M	E	L	A	_	_	_	6	OK OR ERR
LANGUAGE SELECTION : SVENSKA	M	E	L	A	_	_	_	7	OK OR ERR
LANGUAGE SELECTION : 日本語	M	E	L	A	_	_	_	8	OK OR ERR
LANGUAGE SELECTION : PORTUGUÊS	M	E	L	A	_	_	_	9	OK OR ERR
LANGUAGE SELECTION : 汉语	M	E	L	A	_	_	1	0	OK OR ERR
LANGUAGE SELECTION : 한국어	M	E	L	A	_	_	1	1	OK OR ERR

CONTROL CONTENTS	COMMAND				PARAMETER				RETURN
MODEL NAME CHECK	M	N	R	D	_	_	_	1	MODEL NAME
SERIAL NO. CHECK *2	S	N	R	D	_	_	_	1	SERIAL NO.
PROJECTOR NAME SETTING 1 (First four characters)	P	J	N	1	*	*	*	*	OK OR ERR
PROJECTOR NAME SETTING 2 (Middle four characters)	P	J	N	2	*	*	*	*	OK OR ERR
PROJECTOR NAME SETTING 3 (Last four characters)	P	J	N	3	*	*	*	*	OK OR ERR
PROJECTOR NAME CHECK	P	J	N	0	_	_	_	1	PROJECTOR NAME

FixYourDLP.com
Sponsored by DM

Note
- If an underbar (_) appears in the parameter column, enter a space. If an asterisk (*) appears, enter a value in the range indicated in brackets under CONTROL CONTENTS.
- *1 FINE SYNC can only be set in the displayed RGB mode.
- *2 SERIAL NO. CHECK command is used to read out the 12 digits of serial No..

Appendix

Wired Remote Control Terminal Specifications

Specifications of wired remote control input

- **ø3.5 mm minijack**
- **External: +5 V (1 A)**
- **Internal: GND**

Function and transmission codes

CONTROL ITEM	SYSTEM CODE					DATA CODE						EXTERNAL CODE			
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15
ON	1	0	1	1	0	0	1	1	0	1	0	1	0	1	0
STANDBY	1	0	1	1	0	0	1	1	0	1	0	0	1	1	0
VOLUME +	1	0	1	1	0	0	0	1	0	1	0	0	0	1	0
VOLUME –	1	0	1	1	0	1	0	1	0	1	0	0	0	1	0
MUTE	1	0	1	1	0	1	1	1	0	1	0	0	0	1	0
MENU	1	0	1	1	0	0	0	1	0	0	0	1	1	1	0
KEYSTONE	1	0	1	1	0	1	1	0	1	0	0	0	1	1	0
BLACK SCREEN	1	0	1	1	0	1	0	0	1	0	1	1	0	1	0
ENTER	1	0	1	1	0	1	1	1	0	1	0	1	0	1	0
RESIZE	1	0	1	1	0	0	1	1	1	1	0	1	0	1	0
UNDO	1	0	1	1	0	1	0	0	1	1	0	1	0	1	0
FREEZE	1	0	1	1	0	1	0	1	1	0	0	0	1	1	0
ENLARGE (+)	1	0	1	1	0	1	0	1	1	0	1	1	0	1	0
ENLARGE (–)	1	0	1	1	0	1	0	1	1	0	1	0	1	1	0

CONTROL ITEM	SYSTEM CODE					DATA CODE						EXTERNAL CODE			
	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15
AUTO SYNC	1	0	1	1	0	0	1	0	1	1	1	1	1	1	0
▲	1	0	1	1	0	0	0	1	1	1	0	0	1	1	0
▼	1	0	1	1	0	1	0	1	1	1	0	0	1	1	0
◄	1	0	1	1	0	0	0	0	0	1	0	1	0	1	0
►	1	0	1	1	0	1	1	1	1	0	0	1	0	1	0
GAMMA	1	0	1	1	0	0	0	0	0	0	0	1	0	1	0
PinP	1	0	1	1	0	1	1	1	1	1	1	1	1	1	0
BACK	1	0	1	1	0	0	1	1	0	1	0	0	1	1	0
FORWARD	1	0	1	1	0	1	1	1	0	1	0	0	1	1	0
BREAK TIMER	1	0	1	1	0	0	1	0	1	1	0	0	1	1	0
INPUT 1	1	0	1	1	0	1	0	1	0	1	1	0	0	1	0
INPUT 2	1	0	1	1	0	0	1	1	0	1	1	0	0	1	0
INPUT 3	1	0	1	1	0	0	1	0	0	1	1	0	0	1	0
INPUT 4	1	0	1	1	0	1	1	0	0	1	1	0	0	1	0
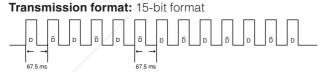
Wired remote control function code

LSB   MSB

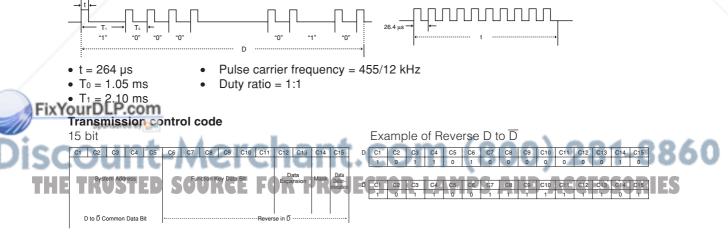	C1 ←	System Code	→ C5	C6	←	Data Code	→	C13	C14	C15
1	0	1	1	0	•	•	•	•	•	•	•	•	1	0

- System codes C1 to C5 are fixed at "10110".
- Codes C14 and C15 are reverse confirmation bits, with "10" indicating "Front" and "01" indicating "Rear".

Sharp remote control signal format

Transmission format: 15-bit format

67.5 ms   67.5 ms

Wave form of output signal: Output using Pulse Position Modulation

T_1 "1" T_0 "0"   "0"   "0"   "0"   "1"   "0"
D
26.4 µs   t

- t = 264 µs
- T_0 = 1.05 ms
- T_1 = 2.10 ms
- Pulse carrier frequency = 455/12 kHz
- Duty ratio = 1:1

Transmission control code

15 bit

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15

System Address   Function Key Data Bit   Data Expansion | Mask | Data Determination

D to $\overline{D}$ Common Data Bit   Reverse in $\overline{D}$

Example of Reverse D to $\overline{D}$

D	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15
	1	0	1	1	0	1	0	0	0	0	0	0	0	1	0

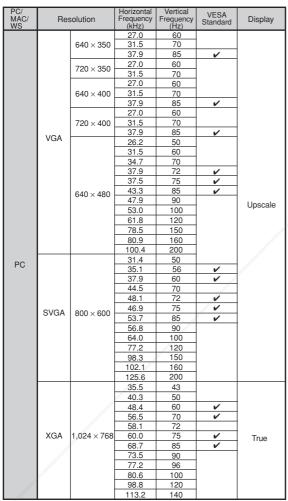| $\overline{D}$	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15
	1	0	1	1	0	0	1	1	1	1	1	1	1	0	1

Computer Compatibility Chart

Computer

- Multiple signal support
  Horizontal Frequency: 15–126 kHz, Vertical Frequency: 43–200 Hz*, Pixel Clock: 12–230 MHz
- Compatible with sync on green and composite sync signals
- UXGA and SXGA compatible in advanced intelligent compression
- AICS (Advanced Intelligent Compression and Expansion System) resizing technology

The following is a list of modes that conform to VESA. However, this projector supports other signals that are not VESA standards.

PC/MAC/WS	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	VESA Standard	Display
PC	VGA				
	640 × 350	27.0	60		
		31.5	70		
		37.9	85	✔	
	720 × 350	27.0	60		
		31.5	70		
	640 × 400	27.0	60		
		31.5	70		
		37.9	85	✔	
	720 × 400	27.0	60		
		31.5	70		
		37.9	85	✔	
	640 × 480	26.2	50		Upscale
		31.5	60		
		34.7	70		
		37.9	72	✔	
		37.5	75	✔	
		43.3	85	✔	
		47.9	90		
		53.0	100		
		61.8	120		
		78.5	150		
		80.9	160		
		100.4	200		
	SVGA 800 × 600	31.4	50		
		35.1	56	✔	
		37.9	60	✔	
		44.5	70		
		48.1	72	✔	
		46.9	75	✔	
		53.7	85	✔	
		56.8	90		
		64.0	100		
		77.2	120		
		98.3	150		
		102.1	160		
		125.6	200		
	XGA 1,024 × 768	35.5	43		True
		40.3	50		
		48.4	60	✔	
		56.5	70	✔	
		58.1	72		
		60.0	75	✔	
		68.7	85	✔	
		73.5	90		
		77.2	96		
		80.6	100		
		98.8	120		
		113.2	140		

PC/MAC/WS	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	VESA Standard	Display
PC	1,152 × 864	54.3	60		
		64.0	70		
		64.1	72		
		67.5	75	✔	
		75.7	80		
		77.3	85		
		90.2	100		Advanced Intelligent Compression
	SXGA 1,152 × 882	54.8	60		
		65.9	72		
		67.4	74		
	1,280 × 1,024	64.0	60	✔	
		74.6	70		
		78.1	74		
		80.0	75	✔	
		91.1	85	✔	
		108.4	100		
	SXGA⁺ 1,400 ×1,050	64.0	60		
		74.7	52		
	UXGA 1,600 × 1,200	75.0	60	✔	Intelligent Compression
		81.3	65	✔	
		87.5	70	✔	
		90.1	72		
		93.8	75	✔	
		106.3	85	✔	
PC/MAC 13"	VGA 640 × 480	34.9	67		Upscale
PC/MAC 19"	XGA 1,024 × 768	48.4	60	✔	True
		60.0	75	✔	
PC/MAC 21"	SXGA 1,280×1,024	80.0	75	✔	Advanced Intelligent Compression
MAC 16"	SVGA 800 × 600 / 832 × 624	46.8	75		Upscale
		49.6	75		
HP (WS)	SXGA 1,152 × 870	68.5	75		Advanced Intelligent Compression
PC (WS) WS	SXGA 1,280×1,024	78.1	72		
	1,280 × 960	60.0	60	✔	
		85.9	85		
SGI (WS)	1,280×1,024	53.5	50		
		76.8	72		
SUN (WS)	1,152 × 900	60.9	66		
		71.9	76		

* Temporary noise may be visible with vertical frequencies above 100Hz if OSD functions are activated.

✎ **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.
- When this projector receives 640 × 350 VESA format VGA signals, "640 × 400" appears on the screen.
- When receiving 1,600 × 1,200 VESA format signals, sampling occurs and part of the image may be cut as the image is displayed in 1,024 lines.

DTV

Signal	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
480I	15.7	60
480P	31.5	60
540P	33.8	60
580I	15.6	50
580P	31.3	50
720P	45.0	60
1035I	33.8	60
1080I	33.8	60
1080I	28.1	50

Appendix

Troubleshooting

Problem	Check	Page
No picture and no sound or projector does not start.	• Projector power cord is not plugged into the wall outlet.	17
	• Power to the external connected devices is off.	—
	• The selected input mode is wrong.	35
	• Cables incorrectly connected to rear panel of the projector.	17
	• Remote control batteries have run out.	13
	• External output has not been set when connecting notebook computer.	17
	• The cover of the lamp unit is not installed correctly.	87
Sound is heard but no picture appears.	• Cables incorrectly connected to the rear panel of the projector.	17
	• "Bright" is set to minimum position.	46
Color is faded or poor.	• Picture adjustments are incorrectly set.	46
	(Video Input only) • Video input system is incorrectly set. (INPUT 1 and 2 only) • Input signal type (RGB/Component) is incorrectly set.	66 46
Picture is blurred; noise appears.	• Adjust the focus.	26
	• The projection distance exceeds the focus range.	27
	(Computer Input only) • Perform "Fine Sync" Adjustments ("Clock" Adjustment) • Perform "Fine Sync" Adjustments ("Phase" Adjustment) • Noise will appear depending on the computer.	48 48 —
	• The "DNR" (Digital Noise Reduction) setting is not correct.	65
Picture appears but no sound is heard.	• Cables incorrectly connected to rear panel of projector.	17
	• Volume is set to minimum. • The MUTE display appears.	35 36
An unusual sound is occasionally heard from the cabinet.	• If the picture is normal, the sound is due to cabinet shrinkage caused by a room temperature changes. This will not affect operation or performance.	—
Maintenance Indicator illuminates.	• See "Maintenance Indicators".	83
Image cannot be captured.	• The signal in INPUT 1 or 2 is not an RGB XGA (1024 × 768) signal. Images cannot be captured if the signals are different from the above.	67

Problem	Check	Page
Pict in Pict does not work.	• The signal in INPUT 1 or 2 is set to a resolution that exceeds SXGA. • The signal in INPUT 1 or 2 is sending Component signals 480I, 480P, 540P, 580I, 580P, 720P, 1035I or 1080I. • The signal in INPUT 1 or 2 is set to interlace mode using RGB signals.	57
The projector cannot be turned on or put into the standby mode using the ON or STANDBY button on the projector.	• The Keylock level is set. If the Keylock level is set to Level B, all the buttons are locked. If the Keylock level is set to Level A, only the INPUT and VOLUME buttons are functional.	71
Picture is green on INPUT 1 or 2 COMPONENT.	• Change the input signal type setting.	46
Picture is pink (no green) on INPUT 1 or 2 RGB.		
Picture is dark.	• The lamp indicator is blinking in red. Replace the lamp.	83
Picture is too bright and whitish.	• Picture adjustments are incorrectly set.	46
The VOLUME buttons on the projector do not work.	The VOLUME buttons do not work when: (try the VOL+/− on the remote control) • when the menu is displayed • when the lens menu is displayed • when Pict in Pict is working • during Enlarge (More than double size) • a dot by dot screen resolution larger the panel resolution	—
A response code cannot be received when the projector was attempted to be controlled using RS-232C commands from a computer during standby.	• In the case of transmitting RS-232C commands from a computer during standby, it takes a maximum of 30 seconds for the computer to receive the response code. Set the response code waiting time of the computer to 30 seconds or more.	89

Appendix

For SHARP Assistance

If you encounter any problems during setup or operation of this projector, first refer to the "Troubleshooting" section on pages 94 and 95. If this operation manual does not answer your question, please contact the SHARP Service departments listed below.

U.S.A.
Sharp Electronics Corporation
1-888-GO-SHARP (1-888-467-4277)
lcdsupport@sharpsec.com
http://www.sharplcd.com

Canada
Sharp Electronics of Canada Ltd.
(905) 568-7140
http://www.sharp.ca

Mexico
Sharp Electronics Corporation Mexico Branch
(525) 716-9000
http://www.sharp.com.mx

Latin America
Sharp Electronics Corp. Latin American Group
(305) 264-2277
www.servicio@sharpsec.com
http://www.siempresharp.com

Germany
Sharp Electronics (Europe) GMBH
01805-234675
http://www.sharp.de

U.K.
Sharp Electronics (U.K.) Ltd.
0161-205-2333
custinfo@sharp-uk.co.uk
http://www.sharp.co.uk

Italy
Sharp Electronics (Italy) S.P.A.
(39) 02-89595-1
http://www.sharp.it

France
Sharp Electronics France
01 49 90 35 40
hotlineced@sef.sharp-eu.com
http://www.sharp.fr

Spain
Sharp Electronica Espana, S.A.
93 5819700
sharplcd@sees.sharp-eu.com
http://www.sharp.es

Switzerland
Sharp Electronics (Schweiz) AG
0041 1 846 63 11
cattaneo@sez.sharp-eu.com
http://www.sharp.ch

Sweden
Sharp Electronics (Nordic) AB
(46) 8 6343600
vision.support@sen.sharp-eu.com
http://www.sharp.se

Austria
Sharp Electronics Austria (Ges.m.b.H.)
0043 1 727 19 123
pogats@sea.sharp-eu.com
http://www.sharp.at

Benelux
SHARP Electronics Benelux BV
0900-SHARPCE (0900-7427723)
Nederland
9900-0159 Belgium
http://www.sharp.nl
http://www.sharp.be
http://www.sharp.lu

Australia
Sharp Corporation of Australia Pty. Ltd.
1300-135-022
http://www.sharp.net.au

New Zealand
Sharp Corporation of New Zealand
(09) 634-2059, (09) 636-6972
http://www.sharpnz.co.nz

Singapore
Sharp-Roxy Sales (S) Pte. Ltd.
65-226-6556
ckng@srs.global.sharp.co.jp
http://www.sharp.com.sg

Hong Kong
Sharp-Roxy (HK) Ltd.
(852) 2410-2623
dcmktg@srh.global.sharp.co.jp
http://www.sharp.com.hk

Taiwan
Sharp Corporation (Taiwan)
0800-025111
http://www.sharp-scot.com.tw

Malaysia
Sharp-Roxy Sales & Service Co.
(60) 3-5125678

U.A.E.
Sharp Middle East Fze
971-4-81-5311
helpdesk@smef.global.sharp.co.jp

Thailand
Sharp Thebnakorn Co. Ltd.
02-236-0170
svc@stcl.global.sharp.co.jp
http://www.sharp-th.com

Korea
Sharp Electronics Incorporated of Korea
(82) 2-3660-2002
lcd@sharp-korea.co.kr
http://www.sharpkorea.co.kr

India
Sharp Business Systems (India) Limited
(91) 11- 6431313
service@sharp-oa.com

Specifications

Product type	LCD Projector
Model	XG-C60X
Video system	NTSC 3.58/NTSC 4.43/PAL/PAL-M/PAL-N/PAL 60/SECAM/ DTV480I/DTV480P/DTV540P/DTV580I/DTV580P/DTV720P/DTV1035I/DTV1080I
Display method	LCD panel × 3, RGB optical shutter method
LCD panel	Panel size: 0.99" (25.1 mm) (15 [H] × 20 [W] mm) No. of dots: 786,432 dots (1,024 [H] × 768 [V])
Standard lens	1–1.27 × zoom lens, F1.7–2.2, f = 36.5–46.3 mm
Projection lamp	SHP 300 W
Component input signal (INPUT1/2)	15-pin mini D-sub connector Y: 1.0 Vp-p, sync negative, 75 Ω terminated P_B: 0.7 Vp-p, 75 Ω terminated P_R: 0.7 Vp-p, 75 Ω terminated
Horizontal resolution	750 TV lines (DTV720P)
Computer RGB input signal (INPUT 1/2)	15-pin mini D-sub connector RGB separate/sync on green type analog input: 0–0.7 Vp-p, positive, 75 Ω terminated HORIZONTAL SYNC. SIGNAL: TTL level (positive/negative) VERTICAL SYNC. SIGNAL: Same as above
Video input signal (INPUT 3)	RCA connector: VIDEO, composite video, 1.0 Vp-p, sync negative, 75 Ω terminated
S-video input signal (INPUT 4)	4-pin mini DIN connector Y (luminance signal): 1.0 Vp-p, sync negative, 75 Ω terminated C (chrominance signal): Burst 0.286 Vp-p, 75 Ω terminated
Computer control signal (RS-232C)	9-pin mini DIN connector
Pixel clock	12–230 MHz
Vertical frequency	43–200 Hz*
Horizontal frequency	15–126 kHz
Audio input signal	ø3.5 mm minijack: AUDIO, 0.5 Vrms, more than 47 kΩ (stereo)
Audio output	3.0 W (monaural)
Speaker system	4 cm × 7 cm
Rated voltage	AC 100–240 V
Input current	4.0 A
Rated frequency	50/60 Hz
Power consumption	400 W (Standard mode)/325 W (Low power mode) with AC 100 V 380 W (Standard mode)/310 W (Low power mode) with AC 240 V
Power consumption (standby)	0.5 W (AC 100 V) – 0.8 W (AC 240 V) (When "Mntr.out/RS232" is set to "OFF")
Heat dissipation	1,505 BTU/hour (Standard mode)/1,220 BTU/hour (Low power mode) with AC 100 V 1,430 BTU/hour (Standard mode)/1,165 BTU/hour (Low power mode) with AC 240 V
Operating temperature	41°F to 95°F (+5°C to +35°C)
Storage temperature	−4°F to 140°F (−20°C to +60°C)
Cabinet	Plastic
I/R carrier frequency	38 kHz
Dimensions (approx.)	15 ⅜" × 3 ⅞" × 11 ⁹⁄₁₆" (390 (W) × 99 (H) × 294 (D) mm) (main body only) 15 ½" × 4 ⁷⁄₁₆" × 11 ⅝" (393 (W) × 114 (H) × 303 (D) mm) (including adjustment foot and projecting parts)
Weight (approx.)	11.3 lbs. (5.1 kg)
Supplied accessories	Remote control, Two R-6 batteries, Power cord for U.S., Canada etc. (11'10", 3.6 m), Power cord for Europe, except U.K. (6', 1.8 m), Power cord for U.K., Hong Kong and Singapore (6', 1.8 m), Power cord for Australia, New Zealand and Oceania (6', 1.8 m), RGB cable (9'10", 3 m), USB cable (3'3", 1 m), DIN-D-sub RS-232C adaptor (5 ⁵⁷⁄₆₄", 15 cm), Remote receiver, Extra air filter, Lens cap (attached), Projector manual and technical reference CD-ROM, Sharp Advanced Presentation Software CD-ROM, Sharp Advanced Presentation Software quick installation guide, Quick guide label, Operation manual
Replacement parts	Lamp unit (Lamp/cage module) (BQC-XGC55X//1), Remote control (RRMCGA176WJSA), Two R-6 batteries ("AA" size, UM/SUM-3, HP-7, or similar), Power cord for U.S., Canada etc. (QACCDA010WJPZ), Power cord for Europe, except U.K. (QACCVA011WJPZ), Power cord for U.K., Hong Kong and Singapore (QACCBA012WJPZ), Power cord for Australia, New Zealand and Oceania (QACCLA018WJPZ), RGB cable (QCNWGA012WJPZ), USB cable (QCNWG0007CEPZ), DIN-D-sub RS-232C adaptor (QCNWGA015WJPZ), Remote receiver (RUNTKA061WJZZ), Air filter (PFILDA005WJZZ), Lens cap (PCAPHA003WJSA), Projector manual and technical reference CD-ROM (UDSKAA042WJZZ), Sharp Advanced Presentation Software CD-ROM (UDSKAA043WJZZ), Sharp Advanced Presentation Software quick installation guide (TINS-A867WJZZ), Quick guide label (TLABZA364WJZZ), Operation manual (TINS-B043WJZZ)

* Temporary noise may be visible with vertical frequencies above 100Hz if OSD functions are activated.

As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

Dimensions

Units: inches (mm)

Rear View

Side View

1/8 (4)

8 7/16 (213.3)

11 9/16 (294)

3/16 (5.2)

Top View

Side View

1/16 (1.5)   15 3/8 (390)   1/16 (1.5)

5 (126.5)

Front View

3 15/16 (99)
1 3/4 (44.5)
2 1/8 (54.5)
9/16 (15)

3 1/8 (80)   ø 67.5

9 1/2 (241.5)   3 15/16 (100.5)

Bottom View

4 3/8 (111.75)
2 15/16 (75)
2 11/16 (67.5)

4 15/16 (124.5)
5/16 (7.5)
4 1/8 (104)

M4   M4

M4   M4

XG-C60X_E_PDF_p94_101.p65   98   03.8.28, 2:29 PM

Glossary

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

Anti-theft
If the "Keycode" set in the projector is not correctly entered, the projector will not operate even if signals are entered.

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.

Border
Projects a 4:3 image fully within a 16:9 screen by keeping the aspect ratio at 4:3.

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.

C.M.S. (Color Management System)
Function allows you individually adjust the display characteristics of six colors (R: Red, Y: Yellow, G: Green, C: Cyan, B: Blue, M: Magenta)

Digital Shift Setting
Shifts image up or down easily by ▲, ▼ buttons when RESIZE mode of input image is BORDER, STRETCH or SMART STRETCH of the video or the DTV signals.

Dot by dot
Mode that projects images in their native resolution.

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 four different modes: STANDARD, PRESENTATION, CINEMA and CUSTOM.

Keylock Level
Mode that can lock the operation of projector buttons to prevent mischief.

Keystone correction
Function to digitally correct a distorted image when the projector is set up at an angle, smoothens out jaggies on keystone images and compresses the image not only horizontally but vertically keeping the 4:3 aspect ratio.

Notevision Lock Down
A new ceiling mounting mechanism that is effective in anti-theft and realizing improved installation strength.

Password
A password is set so that changes cannot be made in the settings of the "Options (2)" menu.

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.

Picture in Picture
Allows you to add video images onto a data screen image, providing you with even more effective presentations.

Progressive Mode
The progressive display projects a smoother video image. You can select three different modes: 2D Progressive, 3D Progressive and Film Mode.

Resize
Allows you to modify or customize the picture display mode to enhance the input image. You can select six different modes: NORMAL, FULL, DOT BY DOT, BORDER, STRETCH and SMART STRETCH.

Smart Stretch
Projects the image fully in a 16:9 screen by enlarging only the surrounding areas while keeping the aspect ratio in the middle part of the image at 4:3.

sRGB
An international standard of color reproduction regulated by the IEC (International Electrotechnical Commission). As the fixed color area has been decided by the IEC, the color changes according to LCD features, so that the images are displayed in a natural tint based on an original image, when switching to the "sRGB" mode.

Stretch
Mode that stretches the 4:3 image horizontally to display it fully on a 16:9 screen.

Appendix

Index

Appendix

-101

SHARP

SHARP CORPORATION

Disclaimer

This user manual is provided as a free service by FixYourDLP.com. FixYourDLP is in no way responsible for the content of this manual, nor do we guarantee its accuracy. FixYourDLP does not make any claim of copyright and all copyrights remain the property of their respective owners.

About FixYourDLP.com
FixYourDLP.com (http://www.fixyourdlp.com) is the World's #1 resource for media product news, reviews, do-it-yourself guides, and manuals.

Informational Blog: http://www.fixyourdlp.com
Video Guides: http://www.fixyourdlp.com/guides
User Forums: http://www.fixyourdlp.com/forum

FixYourDLP's Fight Against Counterfeit Lamps:
http://www.fixyourdlp.com/counterfeits

Sponsors:

RecycleYourLamp.org – Free lamp recycling services for used lamps:
http://www.recycleyourlamp.org

Lamp Research - The trusted 3rd party lamp research company:
http://www.lampresearch.com

Discount-Merchant.com – The worlds largest lamp distributor:
http://www.discount-merchant.com