

LIMITED WARRANTY (USA and Canada only)

NEC MultiSync® Projector Products

NEC Technologies, Inc. (hereafter NECTECH) warrants this product to be free from defects in material and workmanship under the following terms.

HOW LONG IS THE WARRANTY?

The GT1150 projector is covered by a (2) two year parts and labor limited warranty. Offered concurrently with the parts and labor limited warranty is InstaCare, the industry's leading service program. InstaCare provides for 3 business day repair and return of your projector. InstaCare is in effect for the first two years for the original owner. See the enclosed limited warranty card for registration instructions. The lamp, under normal operating conditions, is warranted for 1500 hours of operation time or six months, whichever comes first.

WHO IS PROTECTED?

This warranty may be enforced only by the first purchaser.

WHAT IS COVERED AND WHAT IS NOT COVERED

Except as specified below, this warranty covers all defects in material or workmanship in this product. The following are not covered by the warranty:

1. Any product which is not distributed in the U.S.A. or Canada by NECTECH or which is not purchased in the U.S.A. or Canada from an authorized NECTECH dealer. For a listing of authorized dealers please contact NECTECH at 800-836-0655.
2. Any product on which the serial number has been defaced, modified or removed.
NECTECH'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT AT OUR OPTION. REPLACEMENT PRODUCTS MAY BE NEW OR 'LIKE NEW'.
3. NECTECH SHALL NOT BE LIABLE FOR : Damage, deterioration or malfunction resulting from:
 - a. Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
 - b. Repair or attempted repair by anyone not authorized by NECTECH.
 - c. Any shipment of the product (claims must be presented to the carrier).
 - d. Removal or installation of the product.
 - e. Any other cause which does not relate to a product defect.
4. Cartons, carrying cases, batteries, external cabinets, CD-ROM, or any accessories used in connection with the product.

WHAT NEC WILL COVER

We will pay labor and material expenses for covered items. But we will not pay for the following:

1. Removal or installation charges.
2. Costs of initial technical adjustments (set-up), including adjustment of user controls. These costs are the responsibility of the NECTECH dealer from whom the product was purchased.
3. Payment of shipping charges.

HOW TO OBTAIN WARRANTY SERVICE

1. To obtain service on your product, consult the dealer from whom you purchased the product.
2. Whenever warranty service is required, the original dated invoice (or a copy) must be presented as proof of warranty coverage. Please be prepared to describe or demonstrate the problem to your dealer.
3. For the name of the nearest NECTECH authorized service center, call NECTECH at 800-836-0655.

LIMITATION OF IMPLIED WARRANTIES

ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.

EXCLUSION OF DAMAGES

NECTECH'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT AT OUR OPTION. NECTECH SHALL NOT BE LIABLE FOR:

1. DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN THIS PRODUCT, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME, COMMERCIAL LOSS; OR
2. ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU.

HOW STATE LAW RELATES TO THE WARRANTY

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

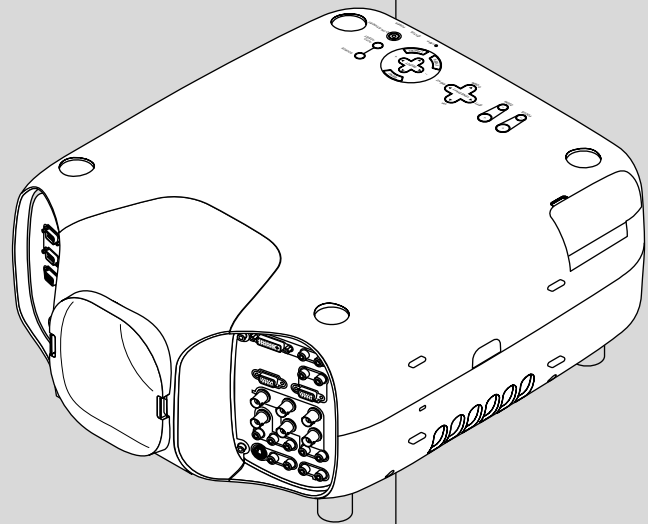
FOR MORE INFORMATION, TELEPHONE 800-836-0655
NEC TECHNOLOGIES, INC.
1250 N. Arlington Heights Road, Suite 500
Itasca, Illinois 60143-1248

NOTE: All products returned to NECTECH for service MUST have prior approval. To get approval, call NEC Technologies at 800-836-0655.

LCD Projector

GT1150

User's Manual



IMPORTANT INFORMATION

Precautions

Please read this manual carefully before using your NEC GT1150 Projector and keep the manual handy for future reference. Your serial number is located on the bottom of your GT1150. Record it here:

CAUTION



To turn off main power, be sure to remove the plug from power outlet. The power outlet socket should be installed as near to the equipment as possible, and should be easily accessible.

CAUTION



TO PREVENT SHOCK, DO NOT OPEN THE CABINET. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED NEC SERVICE PERSONNEL.



This symbol warns the user that uninsulated voltage within the unit may be sufficient to cause electrical shock. Therefore, it is dangerous to make any kind of contact with any part inside of the unit.



This symbol alerts the user that important information concerning the operation and maintenance of this unit has been provided. The information should be read carefully to avoid problems.

WARNING

TO PREVENT FIRE OR SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

DO NOT USE THIS UNIT'S GROUNDED PLUG WITH AN EXTENSION CORD OR IN AN OUTLET UNLESS ALL THREE PRONGS CAN BE FULLY INSERTED.

DO NOT OPEN THE CABINET. THERE ARE HIGH-VOLTAGE COMPONENTS INSIDE. ALL SERVICING MUST BE DONE BY QUALIFIED NEC SERVICE PERSONNEL.

DOC Compliance Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

3. GSGV Acoustic Noise Information Ordinance:
The sound pressure level is less than 70 dB (A) according to ISO 3744 or ISO 7779.

RF Interference

WARNING

The Federal Communications Commission does not allow any modifications or changes to the unit EXCEPT those specified by NEC Technologies in this manual. Failure to comply with this government regulation could void your right to operate this equipment.

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

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

In UK, a BS approved power cable with moulded plug has a Black (five Amps) fuse installed for use with this equipment. If a power cable is not supplied with this equipment please contact your supplier.

- IBM is a registered trademark of International Business Machines Corporation.
- Macintosh and PowerBook are registered trademarks of Apple Computer, Inc.
- Other product and company names mentioned in this user's manual may be the trademarks of their respective holders.

INFORMATIONS IMPORTANTES

Précautions

Veuillez lire ce manuel avec attention avant d'utiliser votre projecteur NEC GT1150 et gardez ce manuel à portée de main afin de pouvoir y recourir facilement.

Votre numéro de série est situé sur le fond de votre GT1150. Reportez-le ici:

ATTENTION



Pour couper complètement l'alimentation, retirez la prise du secteur.
La prise du secteur doit être accessible et installée le plus près possible de l'appareil.

ATTENTION



POUR ÉVITER TOUT CHOC ÉLECTRIQUE, N'OUVREZ PAS LE BOÎTIER. LES PIÈCES INTERNES NE SONT PAS RÉPARABLES PAR L'UTILISATEUR. POUR TOUTE RÉPARATION, ADRESSEZ-VOUS À UN RÉPARATEUR AGRÉE NEC.



Ce symbole avertit l'utilisateur que le contact avec certaines parties non isolées à l'intérieur de l'appareil risque de causer une électrocution. Il est donc dangereux de toucher quoi que ce soit à l'intérieur de l'appareil.



Ce symbole avertit l'utilisateur que d'importantes informations sont fournies sur le fonctionnement ou l'entretien de cet appareil. Ces informations doivent être lues attentivement pour éviter tout problème.

AVERTISSEMENT

AFIN DE PREVENIR TOUT RISQUE D'INCENDIE OU DE CHOC ÉLECTRIQUE, N'EXPOSEZ PAS CET APPAREIL À LA PLUIE OU À L'HUMIDITÉ. N'UTILISEZ PAS LA PRISE AVEC TERRE DE L'APPAREIL AVEC UNE RALLONGE OU UNE AUTRE PRISE, A MOINS QUE LES TROIS BROCHES PUISSENT ÊTRE COMPLÈTEMENT INSÉRÉES. N'OUVREZ PAS LE BOÎTIER. À L'INTÉRIEUR SE TROUVENT DES COMPOSANTS À HAUTE TENSION. TOUTE RÉPARATION DOIT ÊTRE FAITE PAR DU PERSONNEL AGRÉE NEC.

DOC avis de conformation

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le Matériel Brouilleur du Canada.

3. Règlement sur les informations concernant les nuisances acoustiques GSGV:
Le niveau de pression sonore est inférieur à 70 dB (A) conformément à la norme ISO 3744 ou ISO 7779.

- IBM est une marque déposées de International Business Machines Corporation.
- Macintosh et PowerBook sont des marques déposées de Apple Computer, Inc.
- Tous les autres marques et les noms de produits sont des marques de fabrique ou des marques déposées de leurs compagnies respectives.

Important Safeguards

These safety instructions are to ensure the long life of your projector and to prevent fire and shock. Please read them carefully and heed all warnings.

Installation

1. For best results, use your projector in a darkened room.
2. Place the projector on a flat, level surface in a dry area away from dust and moisture.
3. Do not place your projector in direct sunlight, near heaters or heat radiating appliances.
4. Exposure to direct sunlight, smoke or steam can harm internal components.
5. Handle your projector carefully. Dropping or jarring can damage internal components.
6. Do not place heavy objects on top of the projector.
7. **If you wish to have the projector installed on the ceiling:**
 - a. Do not attempt to install the projector yourself.
 - b. The projector must be installed by qualified technicians in order to ensure proper operation and reduce the risk of bodily injury.
 - c. In addition, the ceiling must be strong enough to support the projector and the installation must be in accordance with any local building codes.
 - d. Please consult your dealer for more information.

Power Supply

1. The projector is designed to operate on a power supply of 100-120 or 200-240 V 50/60 Hz AC. Ensure that your power supply fits this requirement before attempting to use your projector.
2. Handle the power cable carefully and avoid excessive bending. A damaged cord can cause electric shock or fire.
3. If the projector is not to be used for an extended period of time, disconnect the plug from the power outlet.

Cleaning

1. Unplug the projector before cleaning.
2. Clean the cabinet periodically with a damp cloth. If heavily soiled, use a mild detergent. Never use strong detergents or solvents such as alcohol or thinner.
3. Use a blower or lens paper to clean the lens, and be careful not to scratch or mar the lens.

CAUTION

Do not unplug the power cable from the wall outlet under any one of the following circumstances. Doing so can cause damage to the projector:

- While the Hour Glass icon appears.
- While the message "Please wait a little." appears. This message will be displayed after the projector is turned off.
- Immediately after the power cable is plugged into the wall outlet (the POWER indicator has not changed to a steady amber glow).
- Immediately after the cooling fan stops working (The cooling fan continues to work for ONE minute after the projector is turned off with the POWER button).
- While the POWER and the STATUS indicators are alternately flashing.

CAUTION

Do not put the projector on its side when the lamp is turned on. Doing so may cause damage to the projector.

Lamp Replacement

- To replace the lamp, follow all instructions provided on page E-58.
- Be sure to replace the lamp when the message "**The Lamp has reached the end of its usable life. Please replace the lamp.**" appears. If you continue to use the lamp after the lamp has reached the end of its usable life, the lamp bulb may shatter, and pieces of glass may be scattered in the lamp case. Do not touch them as the pieces of glass may cause injury. If this happens, contact your NEC dealer for lamp replacement.
- Allow a minimum of ONE minute to elapse after turning off the projector. Then disconnect the power cable and allow 60 minutes to cool the projector before replacing the lamp.

Fire and Shock Precautions

1. Ensure that there is sufficient ventilation and that vents are unobstructed to prevent the build-up of heat inside your projector. Allow at least 3 inches (10 cm) of space between your projector and a wall.
2. Prevent foreign objects such as paper clips and bits of paper from falling into your projector. Do not attempt to retrieve any objects that might fall into your projector. Do not insert any metal objects such as a wire or screwdriver into your projector. If something should fall into your projector, disconnect it immediately and have the object removed by a qualified NEC service personnel.
3. Do not place any liquids on top of your projector.
 - Do not look into the lens while the projector is on. Serious damage to your eyes could result.
 - Keep any items such as magnifying glass out of the light path of the projector. The light being projected from the lens is extensive, therefore any kind of abnormal objects that can redirect light coming out of the lens, can cause unpredictable outcome such as fire or injury to the eyes.
 - Do not cover the lens with the supplied lens cap or equivalent while the projector is on. Doing so can lead to melting of the cap and possibly burning your hands due to the heat emitted from the light output.
4. When using a LAN cable:
 - For safety, do not connect to the connector for peripheral device wiring that might have excessive Voltage.

Mesures de sécurité importantes

Ces instructions de sécurité garantissent la longévité de votre projecteur et préviennent les risques d'incendie et de décharge électrique. Lisez-les et respectez les conseils.

Installation

1. Pour de meilleurs résultats, utilisez votre projecteur dans une pièce sombre.
2. Placez le projecteur sur une surface plane et à niveau, dans un endroit sec à l'abri de la poussière et de l'humidité.
3. Ne placez pas votre projecteur en plein soleil, à côté d'appareils de chauffage ou d'appareils dégageant de la chaleur.
4. L'exposition en plein soleil, la fumée ou la vapeur peuvent endommager des composants internes.
5. Manipulez votre projecteur avec précaution. Une chute ou un choc peuvent endommager des composants internes.
6. Ne placez pas d'objets lourds sur le projecteur.
7. **Si vous voulez installer le projecteur au plafond:**
 - a. N'essayez pas d'installer le projecteur vous-même.
 - b. Le projecteur doit être installé par un technicien qualifié pour garantir une installation réussie et réduire le risque d'éventuelles blessures corporelles.
 - c. De plus le plafond doit être suffisamment solide pour supporter le projecteur et l'installation doit être conforme aux réglementations locales de construction.
 - d. Veuillez consulter votre revendeur pour de plus amples informations.

Alimentation

1. Ce projecteur est conçu pour fonctionner avec une alimentation électrique de 100-120 ou 200-240 V 50/60 Hz. Assurez-vous que votre alimentation correspond à ces critères avant d'essayer d'utiliser votre projecteur.
2. Manipulez le câble d'alimentation avec précaution et évitez de l'entortiller. Tout câble endommagé peut provoquer une décharge électrique ou un incendie.
3. Si le projecteur ne doit pas être utilisé pendant longtemps, débranchez la prise de la source d'alimentation.

Nettoyage

1. Débranchez le projecteur avant de procéder au nettoyage.
2. Nettoyez régulièrement le coffret avec un chiffon humide. Si celui-ci est très sale, utilisez un détergent doux. N'utilisez jamais de détergents puissants, de l'alcool ou d'autres solvants.
3. Utilisez un ventilateur ou un papier à objectif pour nettoyer l'objectif et faites attention de ne pas rayer ou d'abîmer l'objectif.

Information importante

Ne pas débrancher le câble d'alimentation de la prise du secteur dans les circonstances suivantes car cela risque d'endommager le projecteur:

- * Lorsque l'icône Hour Glass (vitre d'heure) apparaît.
- * Lorsque le message "Veuillez patienter un instant" apparaît. Ce message sera affiché après que le projecteur soit éteint.
- * Immédiatement après que le cordon d'alimentation électrique ait été branché sur la prise du mur (l'indicateur POWER n'est pas encore devenu orange).
- * Immédiatement après que le ventilateur de refroidissement de soit arrêté de fonctionner (le ventilateur de refroidissement continue à fonctionner pendant UNE minute après l'extinction du projecteur grâce à l'interrupteur POWER OFF).
- * Lorsque les indicateurs POWER (alimentation électrique) et STATUS (état) clignotent alternativement.

ATTENTION

Ne pas placer le projecteur sur le côté lorsque la lampe est allumée, sinon le projecteur risque d'être endommagé.

Remplacement de la lampe

- Effectuez le remplacement de la lampe en fonction des instructions de la page E-60.
- Assurez-vous de remplacer la lampe lorsque le message "**La lampe a atteint sa durée de vie maximum, prière de la remplacer.**" apparaît. Si vous continuez à l'utiliser au-delà de sa durée de vie, celle-ci risque d'exploser et de répandre des fragments de verre à l'intérieur du boîtier.
Ne les touchez pas car elles peuvent vous blesser. Dans ce cas, contactez votre revendeur NEC afin de procéder au remplacement de la lampe.
- Attendez au minimum UNE minute après avoir éteint la lampe avant de la rallumer.
Une haute tension est immédiatement appliquée à la lampe quand celle-ci est mise sous tension.
Par conséquent, éteindre, puis tout de suite rallumer peut réduire la durée de vie de votre lampe et endommager votre projecteur.

Précautions contre les risques d'incendie et de décharge électrique

1. Assurez-vous que la ventilation est suffisante et que les trous d'aération ne sont pas obstrués afin d'éviter tout échauffement à l'intérieur de votre projecteur. Laissez au-moins 3 pouces (10 cm) d'espace entre le projecteur et le mur.
2. Evitez de faire tomber dans le projecteur des objets étrangers comme des trombones ou des morceaux de papier. N'essayez pas de récupérer tout objet tombé à l'intérieur de votre projecteur. N'insérez pas d'objets métalliques comme du fil de fer ou un tournevis dans votre projecteur. Si quelque chose est tombée à l'intérieur de votre projecteur, débranchez-le immédiatement et faites retirer l'objet par une personne qualifiée de la maintenance NEC.
3. Ne placez aucun liquide sur votre projecteur.

Avertissements

- Ne regardez pas à l'intérieur de l'objectif lorsque le projecteur est en marche. Vous risquez de vous blesser gravement aux yeux.
- Maintenez tout ce qui s'apparente à une loupe en dehors du faisceau lumineux du projecteur. La lumière projetée par l'objectif est très puissante, de sorte que tout objet en opposition pourrait dévier le faisceau provenant de l'objectif, ce qui pourrait avoir des conséquences imprévues telles qu'un incendie ou une lésion oculaire.
- Ne bouchez pas l'objectif avec son couvercle fourni lorsque le projecteur est allumé. Faire cela pourrait faire fondre le couvercle et peut-être brûler vos mains à cause de la chaleur émise par le faisceau lumineux.
- Ne tenez pas de pièces de l'objectif. Faire cela pourrait entraîner un risque de blessure.

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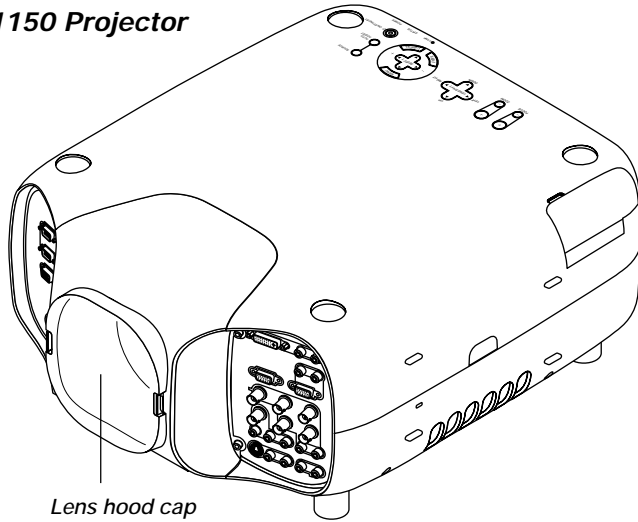
1. INTRODUCTION

What's in the Box?

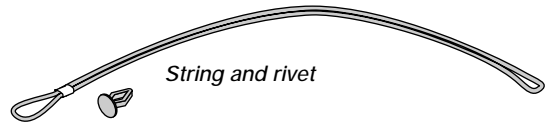
Make sure your box contains everything listed. If any pieces are missing, contact your dealer. Please save the original box and packing materials if you ever need to ship your GT1150 Projector.

NOTE: Lenses are optional. Order lenses from your NEC dealer.

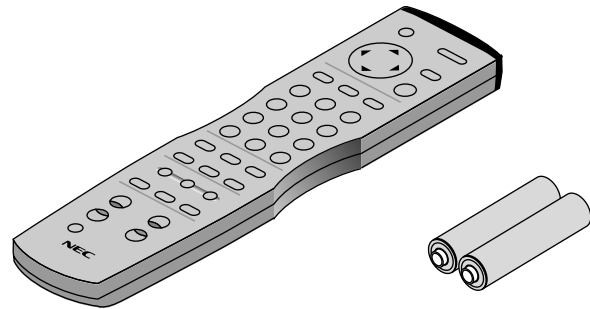
GT1150 Projector



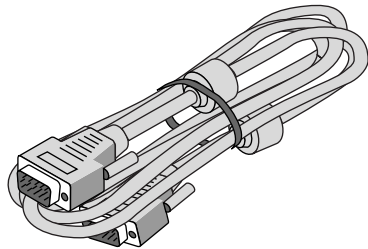
Lens hood cap



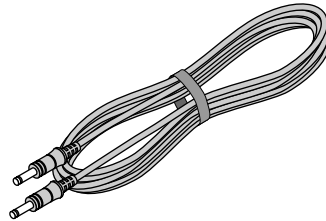
String and rivet



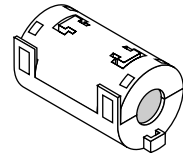
Remote control and batteries (AAA x 2)



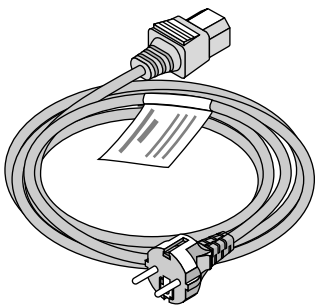
RGB signal cable
(15-Pin Mini D-Sub To 15-Pin Mini D-Sub connector)



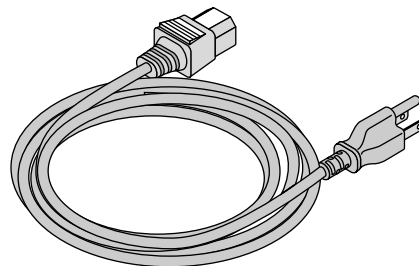
Remote cable



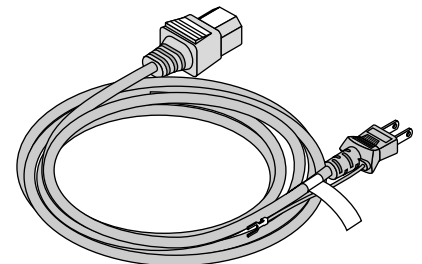
Ferrite clamp core for a commercially available BNC cable
(For RGB 2 connector. See page E-27 for installation instructions.)



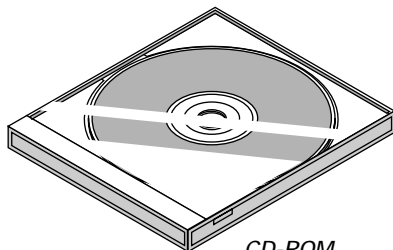
Power cable for Europe (AC 220-240V)



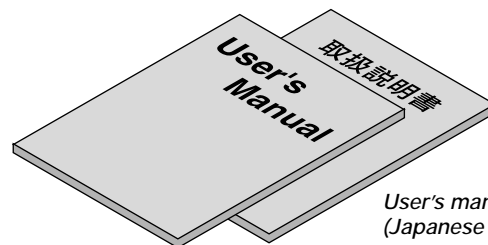
Power cable for North America (AC 120V)



Power cable for Japan (AC 100V)

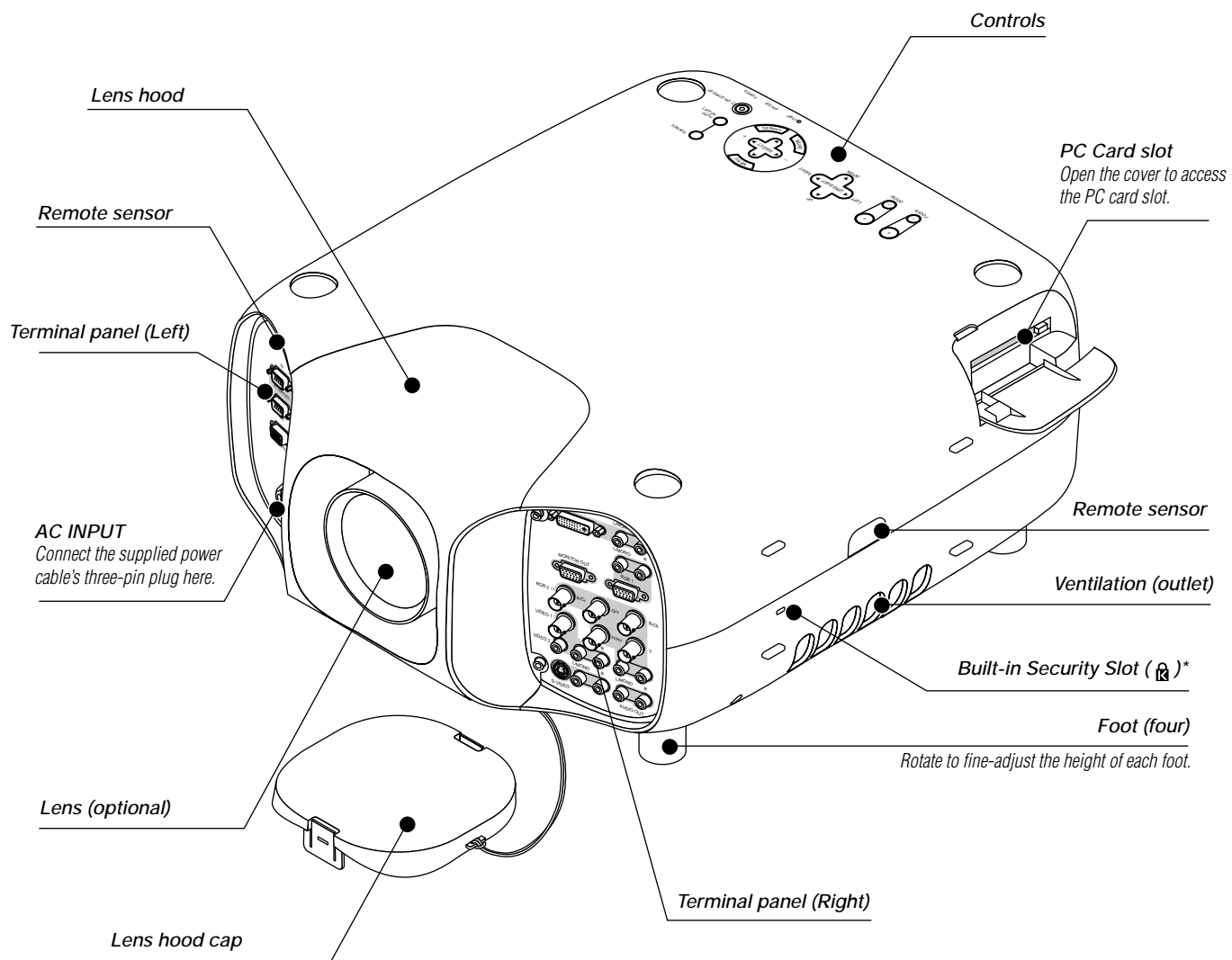


CD-ROM

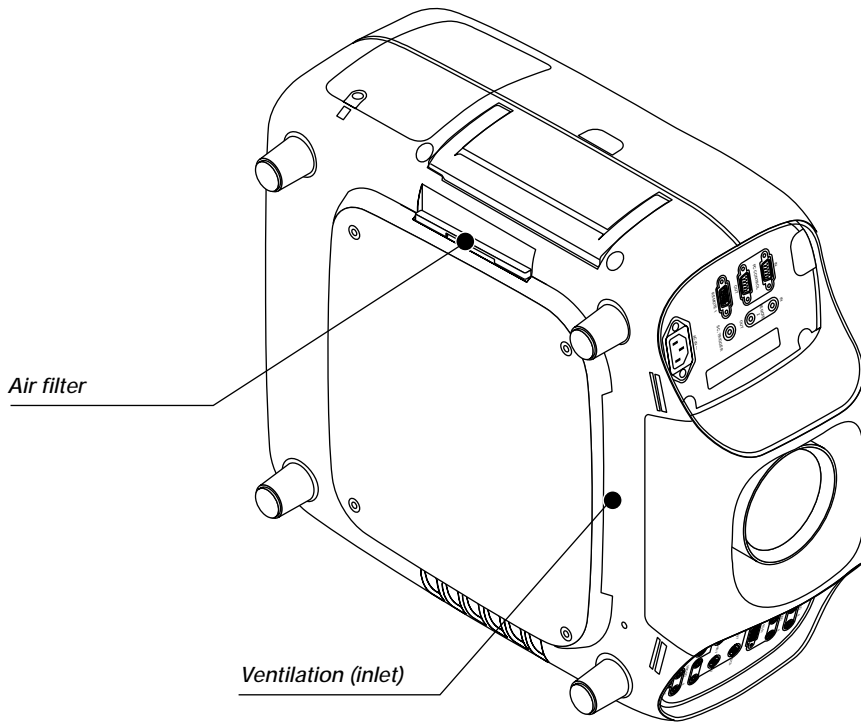
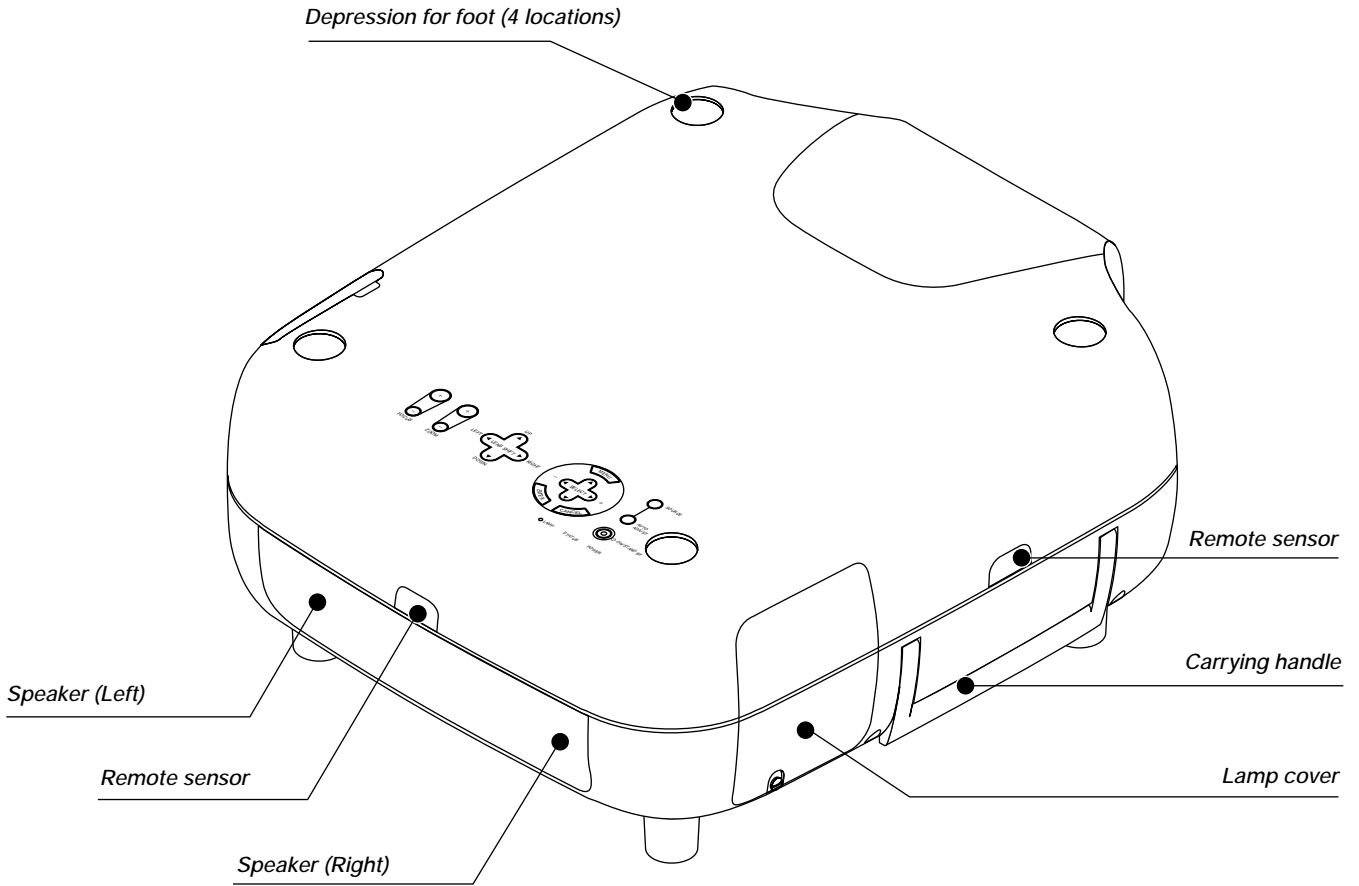


User's manuals
(Japanese and English/German)

Getting to Know Your GT1150 Projector

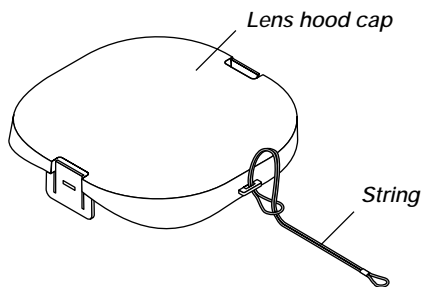


***NOTE:** Slot for Kensington MicroSaver Security System
 This security slot supports the MicroSaver® Security System.
 MicroSaver® is a registered trademark of Kensington Microware Inc. The logo
 is trademarked and owned by Kensington Microware Inc.

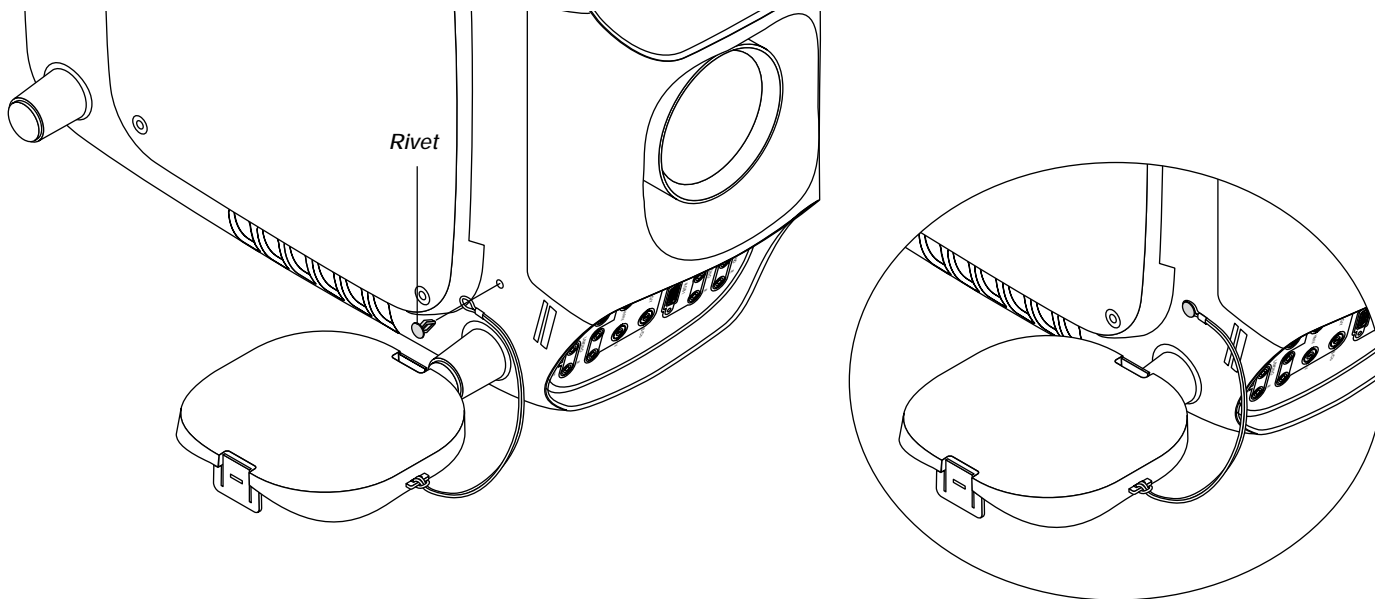


Attaching the lens hood cap to the lens hood with the supplied string and rivet

1. Thread the string through the hole on the lens hood cap.



2. Use the rivet to attach the string to the bottom of the projector.

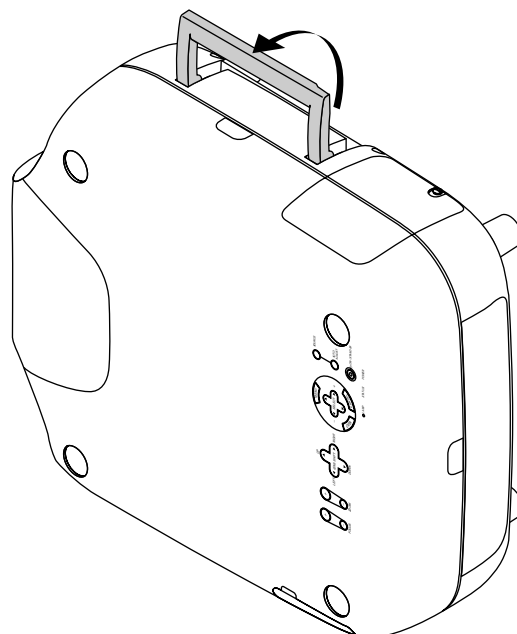


Carrying the Projector

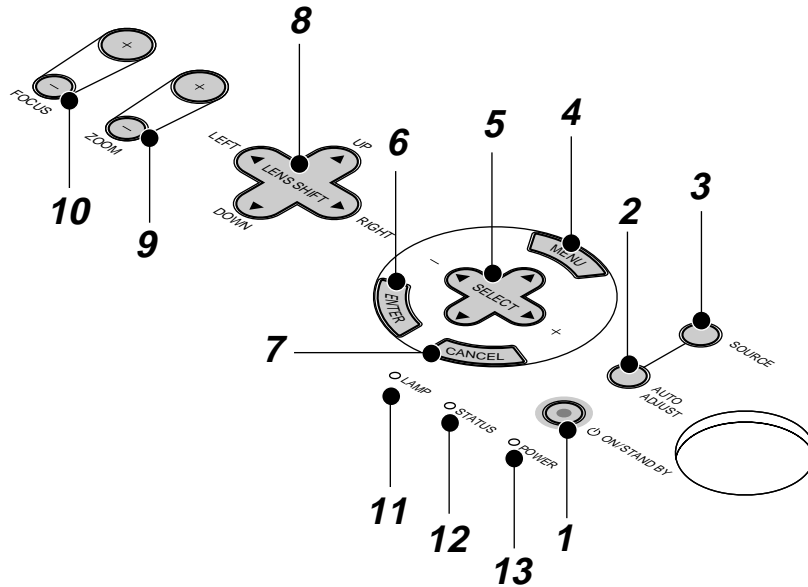
Always carry your projector by the handle.
Ensure that the power cable and any other cables connecting to video sources are disconnected before moving the projector.
When moving the projector or when it is not in use, cover the lens with the lens hood cap.

CAUTION:

**Do not put the projector on its side when the lamp is on.
Doing so may cause damage to the projector.**



Top Features



1. Power Button (ON / STAND BY)

Use this button to turn the power on and off when the power is supplied and the projector is in standby mode.

NOTE: To turn off the projector, press and hold this button for a minimum of two seconds.

2. Auto Adjust Button (RGB only)

Use this button to adjust Position-H/V and Pixel Clock/Phase for an optimal picture. Some signals may not be displayed correctly or take time to switch between sources.

3. Source Button

Use this button to select a video source such as a PC, VCR, DVD player or PC Card Viewer (PC card). Each time this button is pressed, the input source will change as follows:

→ RGB1 → RGB2 → Video1 → Video2 → S-Video → DVI digital → DVI analog → PC Card Viewer

If no input signal is present, the input will be skipped.

4. Menu Button

Displays the menu.

5. Select ▲▼◀▶ / Volume (+) (-) Buttons

▲▼: Use these buttons to select the menu of the item you wish to adjust.

When no menus appear, these buttons work as a volume control.

◀▶: Use these buttons to change the level of a selected menu item. A press of the ▶ button executes the selection.

When the menus or the Viewer tool bar is not displayed, these ◀▶ buttons can be used to select a slide, or to move the cursor in Folder List or Slide List.

When the pointer is displayed, these ▲▼◀▶ buttons move the pointer.

6. Enter Button

Executes your menu selection and activates items selected from the menu.

7. Cancel Button

Press this button to exit "Menus". Press this button to return the adjustments to the last condition while you are in the adjustment or setting menu.

8. Lens Shift Button

Adjust the lens offset by shifting the projected image position horizontally and / or vertically.

9. Zoom Button

Zoom the lens in and out.

10. Focus Button

Adjust the lens focus.

11. Lamp Remaining Indicator

Indicates the lamp remaining amount. See the Lamp Light Messages on page E-62 for more details.

12. Status Indicator

When this is lit red (orange in Eco mode) continually, it's warning you that the projection lamp has reached the end of its usable life (1500 hours in High-Bright mode and up to 2000 hours in Eco mode). After this light appears, it is advisable to replace the projection lamp as soon as possible. (See page E-58 or 60). In addition the message "The lamp has reached the end of its usable life. Please replace the lamp." appears continually until the lamp is replaced.

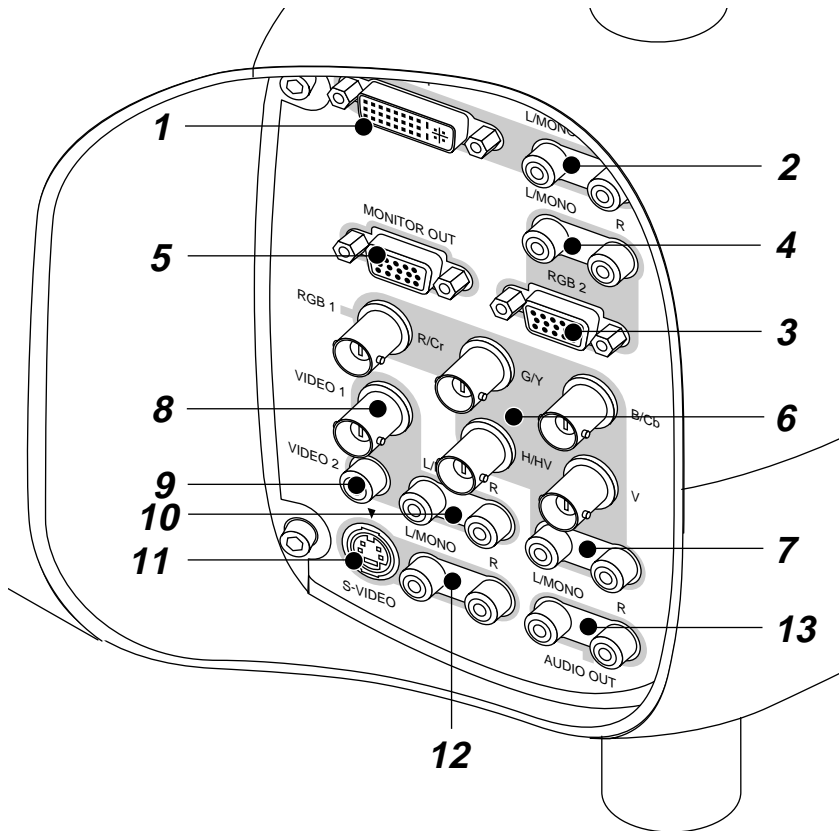
If the projector is in Eco mode or something out of the ordinary takes place, this indicator is lit or blinks. For example, If this light blinks red rapidly, it indicates that the lamp cover is not attached properly or the projector is overheated.

See the Power / Status Light Messages on page E-62 for more details.

13. Power Indicator (⏻)

When this indicator is green, the projector is on; when the indicator is orange, it is in standby mode.

Front Terminal Panel (Right)



1. DVI Connector

This connector can be used to accept digital or analog signal output from a computer with a DVI connector.

2. DVI Audio Input Jacks (RCA)

These are the left channel and the right audio inputs for stereo sound coming from the equipment connected to a computer with DVI output.

L/MONO

This is your left channel audio input for stereo sound from the equipment connected to a computer with DVI output.

The L/MONO jack also serves as your monaural audio input.

R

This is your right channel audio input for stereo sound from the equipment connected to a computer with DVI output.

3. RGB 2 Connector (Mini D-Sub 15 pin)

Connect your PC, Macintosh, DVD player with Y/Cb/Cr outputs or other RGB equipment. The optional Component V. Cable is required for Y/ Cb/ Cr input connection.

NOTE: The RGB2 connector does not support the Switcher Control mode.

4. RGB 2 Audio Input Jacks (RCA)

L/MONO

This is your left channel audio input for stereo sound coming from the RGB Input 2 source.

This also serves as your monaural audio input.

R

This is your right channel audio input for stereo sound from the RGB Input 2 source.

5. MONITOR OUT Connector (Mini D-Sub 15 pin)

You can use this connector to loop your computer image an external monitor from either the RGB 1, RGB 2 or DVI analog input source.

6. RGB 1 Input Connectors (BNC)

Connect R,G,B,H (Horizontal sync) and V (Vertical sync) outputs of external equipment such as the NEC ISS-6020 Switcher.

If using a component with a combined sync (SYNC) output, connect it to the H/V terminal. When using luminance and color-difference signals of HDTV and DVD, connect Pr/Cr to the R, Y to the G and Pb/Cb to the B input of the projector.

7. RGB 1 Audio Input Jacks (RCA)

L/MONO

This is your left channel audio input for stereo sound coming from the RGB Input 1 source.

This also serves as your monaural audio input.

R

This is your right channel audio input for stereo sound from the RGB Input 1 source.

8. VIDEO 1 Input Connector (BNC)

Connect a VCR, DVD player, laser disc player, or document camera here to project video.

9. VIDEO 2 Input Connector (RCA)

Connect a VCR, DVD player, laser disc player, or document camera here to project video.

10. VIDEO Audio Input Jacks (RCA)

L/MONO

This is your left channel audio input for stereo sound coming from the VIDEO 1 or VIDEO 2 source.

This also serves as your monaural audio input.

R

This is your right channel audio input for stereo sound from the VIDEO 1 or VIDEO 2 source.

11. S-VIDEO Input Connector (Mini DIN 4 pin)

Here is where you connect the S-Video input from an external source such as a VCR or laser disc player.

NOTE: S-Video provides more vivid color and higher resolution than the traditional composite video format.

12. S-VIDEO Audio Input Jacks (RCA)

L/MONO

This is your left channel audio input for stereo sound coming from the S-VIDEO source.

This also serves as your monaural audio input.

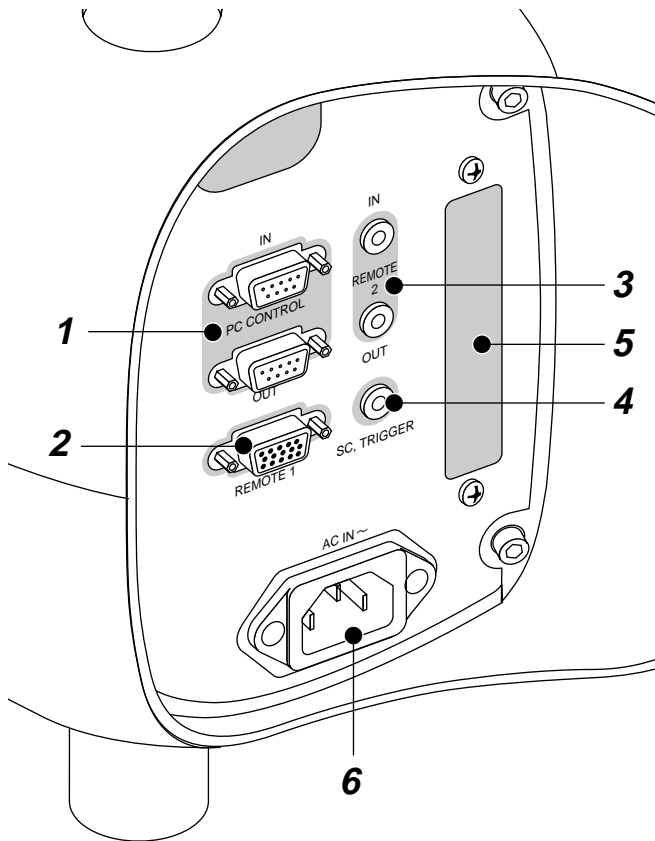
R

This is your right channel audio input for stereo sound from the S-VIDEO source.

13. AUDIO OUT Jacks (RCA)

You can use this connector to output sound from the currently selected input source (RGB 1, RGB 2, VIDEO 1, VIDEO 2, S-VIDEO or DVI [digital/analog]). Output sound level can be adjusted in accordance with the sound level of the internal speaker.

Front Terminal Panel (Left)



1. PC CONTROL Connectors (Mini D-Sub 9 pin)

For system expansion such as PC-Control.

IN: connect to the external equipment such as PC.

OUT: for daisy-chaining multiple projectors and operating them with the same external equipment. To do so, connect to a second projector's IN terminal to relay the input at the IN terminal of the first projector until all the projectors are connected.

2. REMOTE 1 Connector (Mini D-Sub 15 pin)

This terminal allows external control of the projector from either the Switcher or from an external control. When the Switcher is used, connect to the REMOTE 1 terminal on the back of the Switcher.

NOTE: This projector is compatible with the ISS-6020 Switcher.

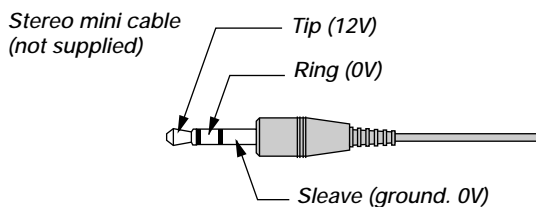
3. REMOTE 2 Mini Jacks

IN: wired remote control input.

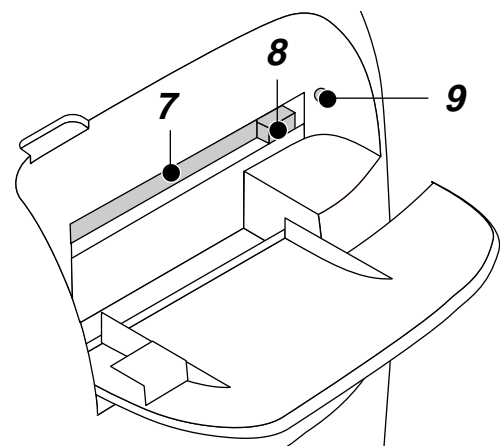
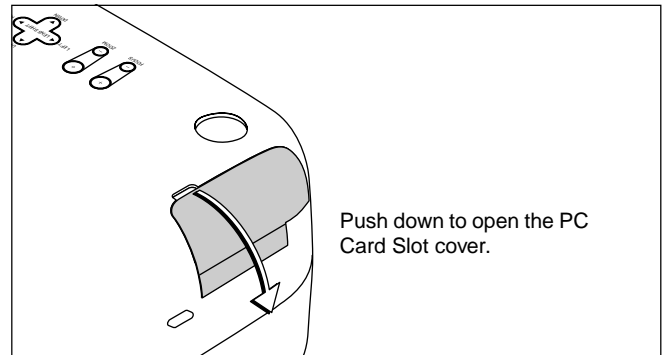
OUT: for daisy-chaining multiple projectors and operating them with the same remote control. To do so, connect to a second projector's IN terminal to relay the input at the IN terminal of the first projector until all the projectors are connected.

4. SC. TRIGGER Mini Jack

Screen Trigger- When the GT1150 is powered ON the screen trigger output sends a low voltage trigger to the screen controller and the screen will go down.



PC Card Viewer



When the GT1150 is powered OFF the screen trigger stops sending a low voltage trigger to the screen controller and the screen will go up.

NOTE: Screen Controllers are supplied and supported by screen manufactures. This option is not included with the GT1150 projector.

NOTE: Do not use this jack for other than intended use.

5. Slot for LAN Board (Optional)

Use this connector to control the projector on a LAN. The optional LAN kit is required when this connector is used. See the instructions included with the optional LAN kit.

6. AC IN

Connect the supplied power cable's three-pin plug here.

Three types of power cable are supplied with this LCD projector: three-pin type for U. S. A. and Canada. Two-pin type for Germany and Japan.

7. PC Card Slot

Insert a PC card here.

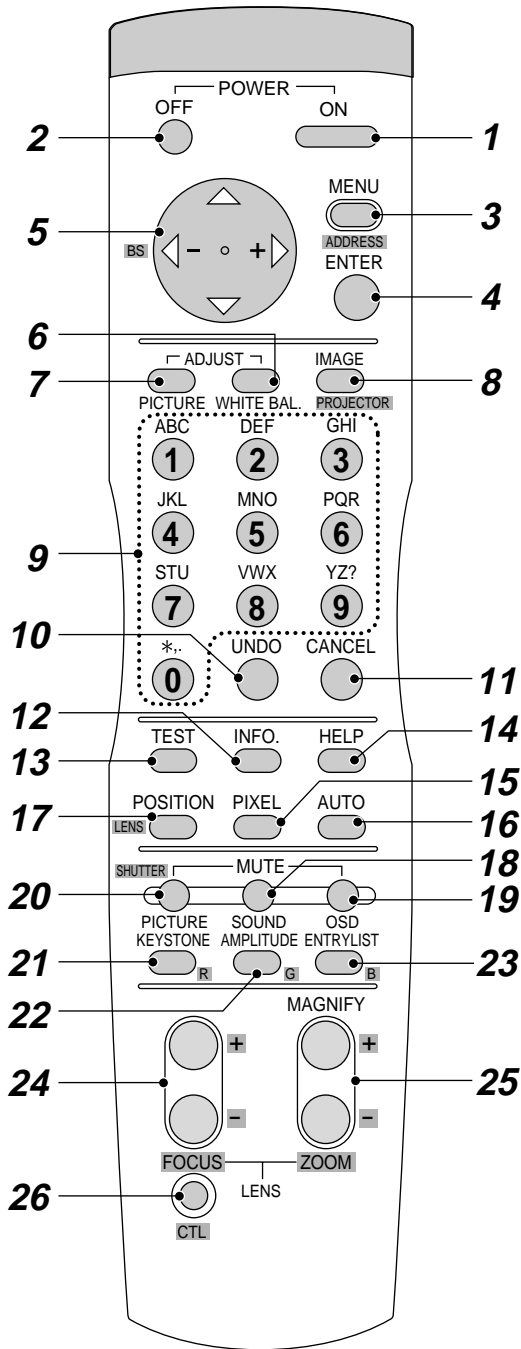
8. PC Card Eject Button

Press to eject a PC card.

9. PC Card Access Indicator

Lights while accessing a PC card.

Remote Control Features



1. POWER ON Button

Press this button to turn on the projector when the power is supplied and the projector is in standby mode.

2. POWER OFF Button

Press and hold this button for a minimum of two seconds to turn off the projector.

3. MENU Button

Press to display the main menu.

While pressing and holding CTL, press this button to display the Remote Control ID dialog box to specify the remote control ID. See page E-33.

4. ENTER Button

Executes the menu selection and activates items selected from the menu. When the slider or dialog box is displayed: Pressing this button confirms adjustments/setting and returns to the previous menu display.

5. Select (Up/Down/Left/Right) Button

▲▼: Use these buttons to select the menu of the item you wish to adjust.

When no menus appear, these buttons work as a volume control.

◀▶: Use these buttons to change the level of a selected menu item. A press of the ▶ button executes the selection.

When the menus or the Viewer tool bar is not displayed, these ◀▶ buttons can be used to select a slide, or to move the cursor in Folder List or Slide List.

When the pointer is displayed, these ▲▼◀▶ buttons move the pointer. See page E-35 for displaying the pointer.

Pressing and holding CTL, then pressing ◀ button works as a Back Space key in the entry screen.

Pressing and holding CTL, then pressing this button moves the menu, slider, toolbar or dialog box.

6. ADJUST WHITE BAL Button

Press to display the color adjustment screen. Pressing this button sequentially selects "Color Temperature" → "White Balance" → "Switcher Gain".

7. ADJUST PICTURE Button

Press to display the Picture screen.

8. IMAGE/PROJECTOR Button

Press to display the Image Options screen.

Pressing this button sequentially selects "Gamma Correction" → "Aspect Ratio" → "Noise Reduction" → "Color Matrix" → "Resolution" → "Video Filter" → "Overscan" → "Clamp Timing" → "Y/C Delay" → "YTR Adjustment" → "CTR Adjustment" → "HD Delay".

While pressing and holding CTL, pressing this button rotates "On/Off Timer" → "Sleep Timer" → "Menu" → "Setup" → "Link Mode" → "Switcher Control" → "LAN mode" (optional).

9. Source / Alphanumeric Buttons

Press to select input or to name a signal.

- 1 Selects RGB 1 input.
- 2 Selects RGB 2 input.
- 3 Selects VIDEO 1 input.
- 4 Selects VIDEO 2 input.
- 5 Selects S-VIDEO 1 input.
- 6 Selects DVI digital input.
- 7 Selects DVI analog input.
- 8 Selects PC Card Viewer.
- 9 Selects RGB1 (VIDEO) input
- 0 Selects RGB2 (S-VIDEO) input

10. UNDO

Press to return the adjustments and settings to the previous condition. While pressing and holding CTL, pressing this button clears the entire menus or adjustment/setting screen. At this time the adjustments/settings are stored in memory except the items on the setting screen with "OK" and "Cancel" buttons such as the Menu and the Setup screen.

11. CANCEL

Press to exit the menu.

Press this button with CTL to return to the previous menu without closing adjustment/setting screen while the menus appear. This feature allows you to adjust or set several items concurrently.

12. INFO

Displays the Information screen.

13. TEST

Press to display the test pattern. Pressing this button sequentially selects nine test patterns.

14. HELP

Provides online help.

15. PIXEL

Displays the Position/Clock screen to adjust the clock and phase.

16. AUTO (RGB only)

Press to adjust Position-H/V and Pixel Clock/Phase for an optimal picture.

17. POSITION

Press to display the Position/Clock screen.

While pressing and holding CTL, pressing this button displays the Lens Shift adjustment screen.

18. MUTE SOUND

Turns off the sound for a short period of time. Press again to restore the sound.

19. MUTE OSD

Press to turn off the on-screen display. Press again to restore the on-screen display.

NOTE: You can also turn off the on-screen display forcefully by pressing and holding CTL and then pressing MUTE OSD (Forced On-Screen Mute Mode) ; doing this again restores it. In this case any adjustment will still change the projector's memory settings. This mode is available even when input is switched to another or the power is turned off the main power.

20. MUTE PICTURE

Press to turn off the picture for a short period of time. Press again to restore the picture.

21. KEYSTONE (R)

Press to display the Keystone Correction screen.

When the test pattern is displayed, while pressing and holding CTL, pressing this button displays a red test pattern.

22. AMPLITUDE (G)

Service personnel only.

When the test pattern is displayed, while pressing and holding CTL, pressing this button displays a green test pattern.

23. ENTRY LIST (B)

Press to display the Entry List screen.

When the test pattern is displayed, while pressing and holding CTL, pressing this button displays a blue test pattern.

24. FOCUS (+/-)

While pressing and holding CTL, pressing this button allows you to adjust the lens focus.

25. MAGNIFY/ZOOM (+/-)

Magnify the size of a target portion.

While pressing and holding CTL, pressing this button allows you to zoom the lens in and out.

26. CTL

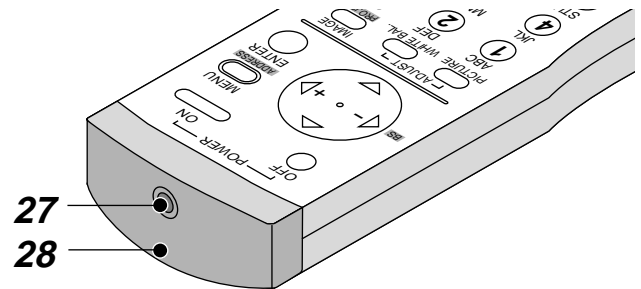
Used in conjunction with other buttons, similar to a shift key on a computer.

27. Remote Jack

Connect your remote control cable here for wired operation.

28. Infrared Transmitter

Direct the remote control toward the remote sensor on the projector cabinet.



Remote Control Precautions

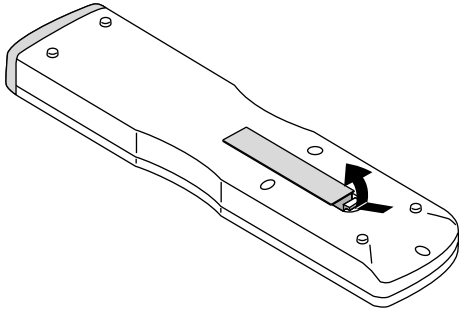
- The remote control system may not function when direct sunlight or strong illumination strikes the remote control sensor of the main unit, or when there is an obstacle in the path.
- When remote control buttons are pressed and held, projector's function keys may not operate.
- Do not subject to strong shock.
- Do not allow water or other liquid to splash on the remote control. If the remote control gets wet, wipe it dry immediately.
- Avoid exposure to heat and steam.
- Remove the batteries from the remote control when the remote control is not going to be used for a long period.

Remote Control Battery Installation

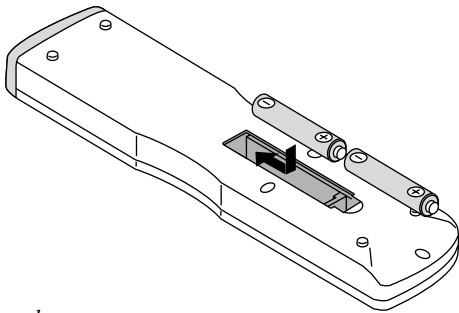
Installing the Remote Control Batteries

When it comes time to replace the batteries, two "AAA" type will be required.

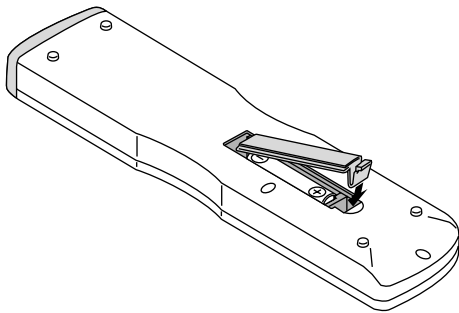
1. Press and open the cover.



2. Align and insert the batteries according to the (+) and (-) indications inside the case.



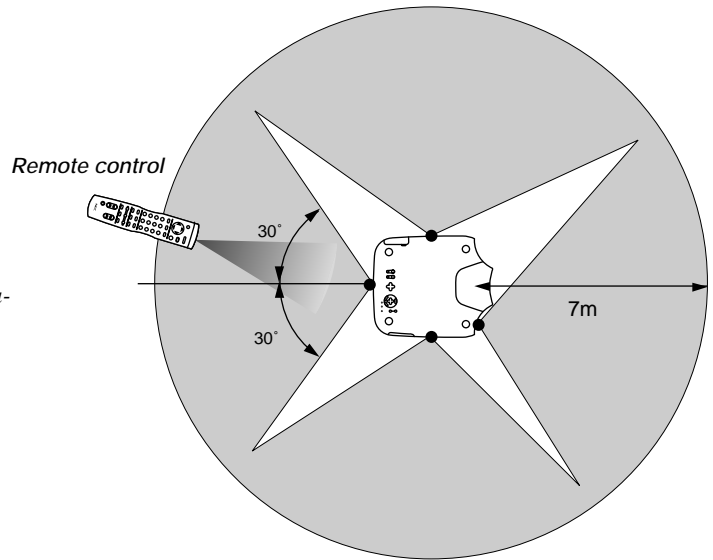
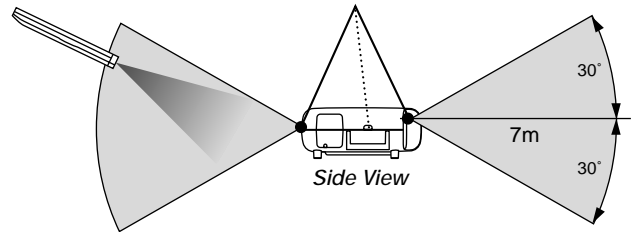
3. Replace the cover.



Operating Range for Wireless Remote Control

The infrared signal operates by line-of-sight up to a distance of approximately 7m (20 feet) and a 60 degree angle of the remote sensor. The projector will not function if there are objects between the remote sensor and the remote control or if strong light falls on the remote sensor. Weak batteries will also prevent the projector from operating properly.

Remote sensors on the projector cabinet

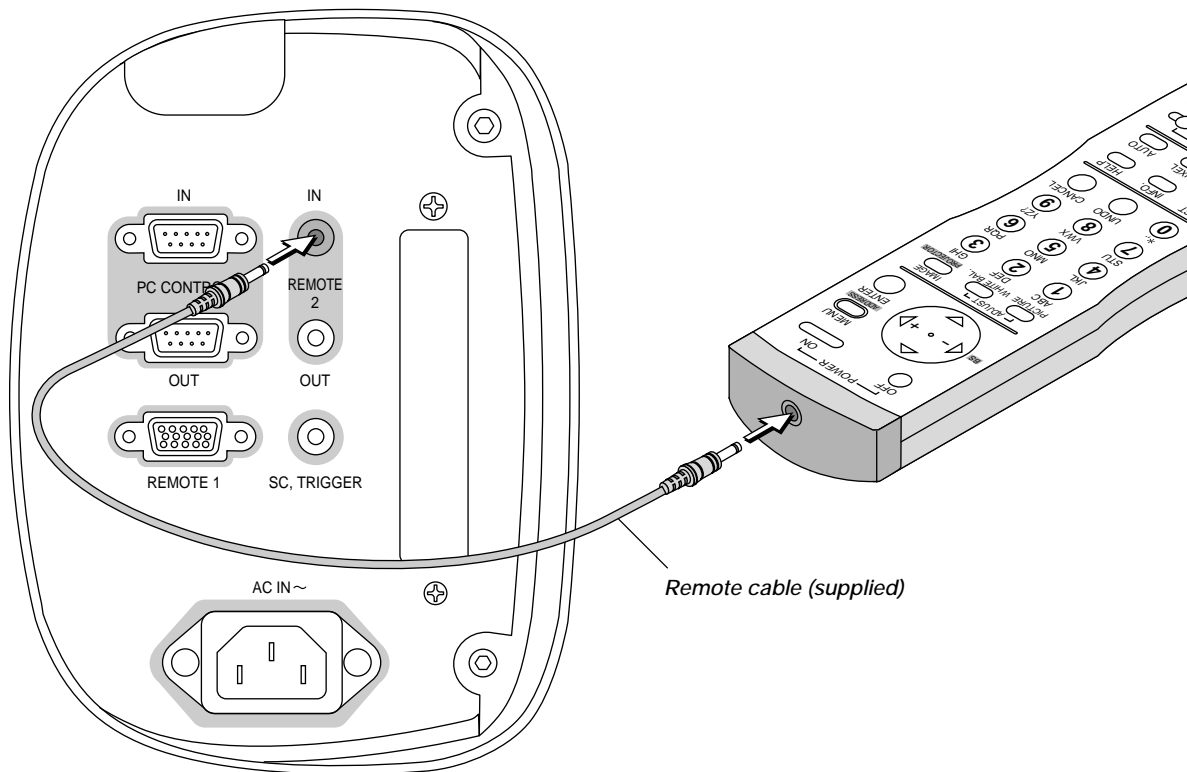


NOTE: You cannot operate the projector using the remote control if:

- The remote ID is not set to [00].
- The remote ID is not the same as the projector ID.

See page E-33 for setting remote ID and page E-49 for setting projector ID.

Using the Remote Control in Wired Operation
Connect one end of the supplied remote cable to the REMOTE 2 IN mini jack and the other end to the remote jack on the remote control.



Terminal panel (Left)

2. INSTALLATION

This section describes how to set up your GT1150 projector and how to connect video and audio sources.

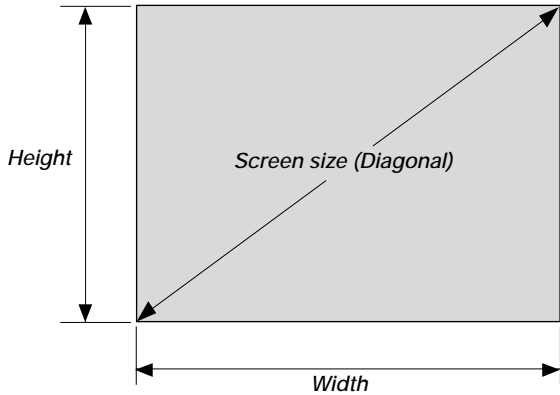
Setting Up Your GT1150 Projector

Your GT1150 Projector is simple to set up and use. But before you get started, you must first:

1. Determine the image size
2. Set up a screen or select a non-glossy white wall onto which you can project your image.
3. Install the optional lens to the projector.
4. Connect the supplied power cable.
5. Set up the projector.
6. Connect a PC, VCR, DVD player, or other equipment.
7. Make settings or adjustments on the projector.

Screen Size and Projection Distance

Applicable lens and throwing distance/ List of screen sizes



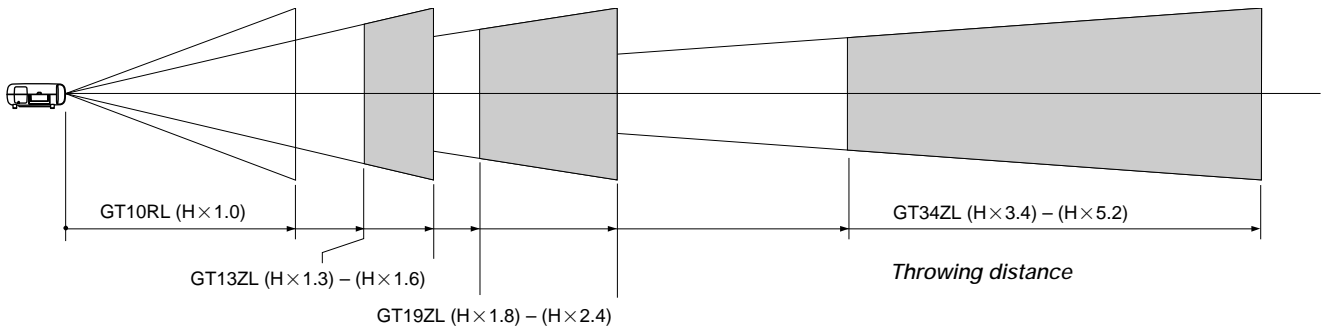
List of Screen Sizes

| Screen size | Width (H) | | Height (V) | |
|-------------|-----------|------|------------|------|
| | m | feet | m | feet |
| 40" | 0.8 | 2.7 | 0.6 | 2.0 |
| 60" | 1.2 | 4.0 | 0.9 | 3.0 |
| 80" | 1.6 | 5.3 | 1.2 | 4.0 |
| 100" | 2.0 | 6.7 | 1.5 | 5.0 |
| 120" | 2.4 | 8.0 | 1.8 | 6.0 |
| 150" | 3.0 | 10.0 | 2.3 | 7.5 |
| 200" | 4.1 | 13.3 | 3.0 | 10.0 |
| 250" | 5.1 | 16.7 | 3.8 | 12.5 |
| 300" | 6.1 | 20.0 | 4.6 | 15.0 |
| 400" | 8.1 | 26.7 | 6.1 | 20.0 |
| 500" | 10.2 | 33.3 | 7.6 | 25.0 |

Formulas: Screen width H (m)= Screen Diagonal (4:3) x 4/5 x 0.0254
 Screen height V (m)= Screen Diagonal (4:3) x 3/5 x 0.0254
 Screen width H (feet)= Screen size x 4/5
 Screen height V (feet)= Screen size x 3/5

Table of Throwing Distances and Screen Sizes for Optional Lenses

| Lens | Model Magnification | GT10RL | | GT13ZL | | GT19ZL | | GT34ZL | |
|------------------------|------------------------|---------|-------------|-------------|------------------|---------------|------------------|--------------------|-------------------|
| | | 1.0 | | 1.3 – 1.6 | | 1.8 – 2.4 | | 3.4 – 5.2 | |
| Screen Size (Diagonal) | 40" | 0.8 (m) | 2.7 (feet) | 1.1-1.3 (m) | 3.5-4.3 (feet) | 1.5-2.0 (m) | 4.8-6.4 (feet) | - | - |
| | 60" | 1.2 (m) | 4.0 (feet) | 1.6-2.0 (m) | 5.2-6.4 (feet) | 2.2-2.9 (m) | 7.2-9.6 (feet) | - | - |
| | 80" | 1.6 (m) | 5.3 (feet) | 2.1-2.6 (m) | 6.9-8.5 (feet) | 2.9-3.9 (m) | 9.6-12.8 (feet) | 5.5-8.5 (m) | 18.1-27.7 (feet) |
| | 100" | 2.0 (m) | 6.7 (feet) | 2.6-3.3 (m) | 8.7-10.7 (feet) | 3.7-4.9 (m) | 12.0-16.0 (feet) | 6.9-10.6 (m) | 22.7-34.6 (feet) |
| | 120" | 2.4 (m) | 8.0 (feet) | 3.2-3.9 (m) | 10.4-12.8 (feet) | 4.4-5.9 (m) | 14.4-19.2 (feet) | 8.3-12.7 (m) | 27.2-41.6 (feet) |
| | 150" | 3.0 (m) | 10.0 (feet) | 4.0-4.9 (m) | 13.0-16.0 (feet) | 5.5-7.3 (m) | 18.0-24.0 (feet) | 10.4-15.8 (m) | 34.0-52.0 (feet) |
| | 200" | 4.1 (m) | 13.3 (feet) | 5.3-6.5 (m) | 17.3-21.3 (feet) | 7.3-9.8 (m) | 24.0-32.0 (feet) | 13.8-21.1 (m) | 45.3-69.3 (feet) |
| | 250" | 5.1 (m) | 16.7 (feet) | 6.6-8.1 (m) | 21.7-26.6 (feet) | 9.1-12.2 (m) | 30.0-40.0 (feet) | 17.3-26.4 (m) | 56.6-86.6 (feet) |
| | 300" | 6.1 (m) | 20.0 (feet) | 7.9-9.8 (m) | 26.0-32.0 (feet) | 11.0-14.6 (m) | 36.0-48.0 (feet) | 20.7-31.7 (m) | 68.0-103.9 (feet) |
| | 400" | - | - | - | - | - | - | 27.6-42.3 (m) | 90.6-138.6 (feet) |
| 500" | - | - | - | - | - | - | 34.5-52.8 (m) | 113.3-173.2 (feet) | |



For screen sizes between 40" and 500" not indicated on the above table, use formulas below.

Projection Distance = Screen Width (H) x Lens Magnification

Throwing distance for GT10R lens (m/feet) = H x 1.0 (between 0.8 m/2.7feet and 6.1 m/20.0 feet)

Throwing distance for GT13Z lens (m/feet) = H x 1.3 - H x 1.6 (between 1.1 m/3.5 feet and 9.8 m/32.0 feet)

Throwing distance for GT19Z lens (m/feet) = H x 1.8 - H x 2.4 (between 1.5 m/4.8 feet and 14.6 m/48.0 feet)

Throwing distance for GT34Z lens (m/feet) = H x 3.4 - H x 5.2 (between 5.5 m/18.1 feet and 52.8 m/173.2 feet)

NOTE: Distances may vary +/-5%.

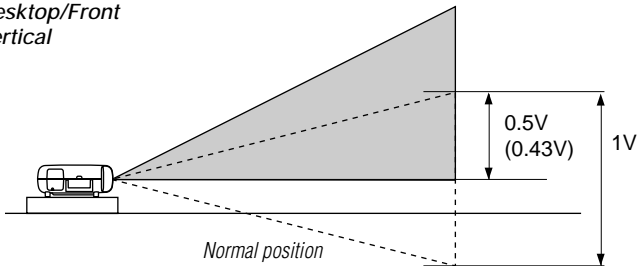
Lens Shift Adjustable Range

Lens Shift Adjustable Range for Desktop Application

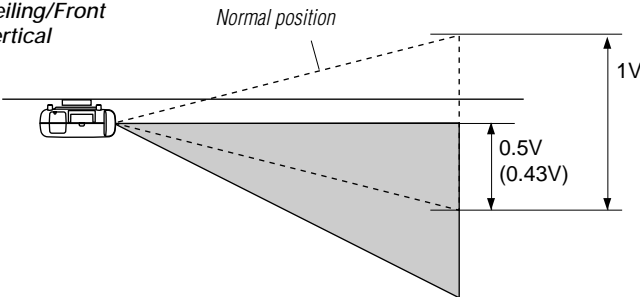
The diagram below shows the location of the image position in the lens for desktop application. The lens can be shifted within the shaded area as shown using the normal projection position as a starting point.

NOTE: Lens shift feature is not available on GT10RL(fixed lens).

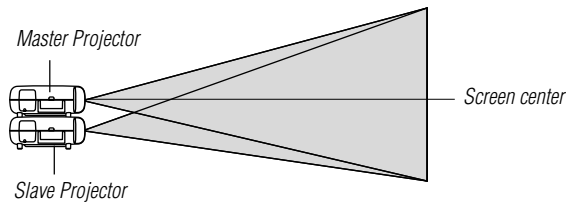
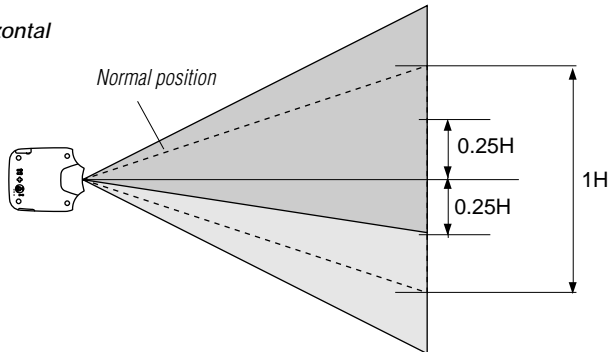
Desktop/Front Vertical



Ceiling/Front Vertical

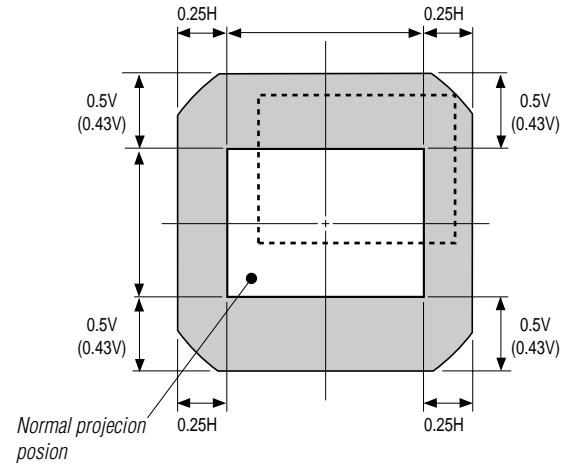


Horizontal



Maximum Possible Range:

- Up: 0.5 V (0.43V)
 - Down: 0.5 V (0.43V)
 - Right: 0.25 H
 - Left: 0.25 H
- (H: width of projected image, V: height of projected image)



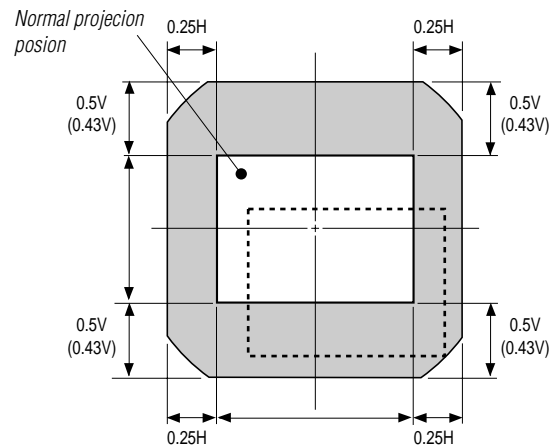
NOTE: Lens shift feature is not available on GT10RL(fixed lens).

Lens Shift Adjustable Range for Ceiling Mount Application

The diagram below shows the location of the image position in the lens for ceiling mount application. The lens can be shifted within the shaded area as shown using the normal projection position as a starting point.

Maximum Possible Range:

- Up: 0.5 V (0.43V)
 - Down: 0.5 V (0.43V)
 - Right: 0.25 H
 - Left: 0.25 H
- (H: width of projected image, V: height of projected image)



Optional Lens Installation

This section describes how to install the lens.

Before installation

* Determine the optional lens to be used to obtain a desired projection distance. There are four optional lenses available:

GT10RL (Fixed short throw lens)

GT19ZL, GT13ZL and GT34ZL (Zoom lens)

* Press the power button (ON/STAND BY) on the projector or POWER OFF button on the remote control, wait ONE minute for the cooling fan to stop, then disconnect the power cable.

Check that the projector has cooled off sufficiently before proceeding.

CAUTION

* The projector and lens contain high-precision parts. Do not induce shock to the projector or the lens.

* Do not touch the lens surface. Doing so can degrade the optical performance.

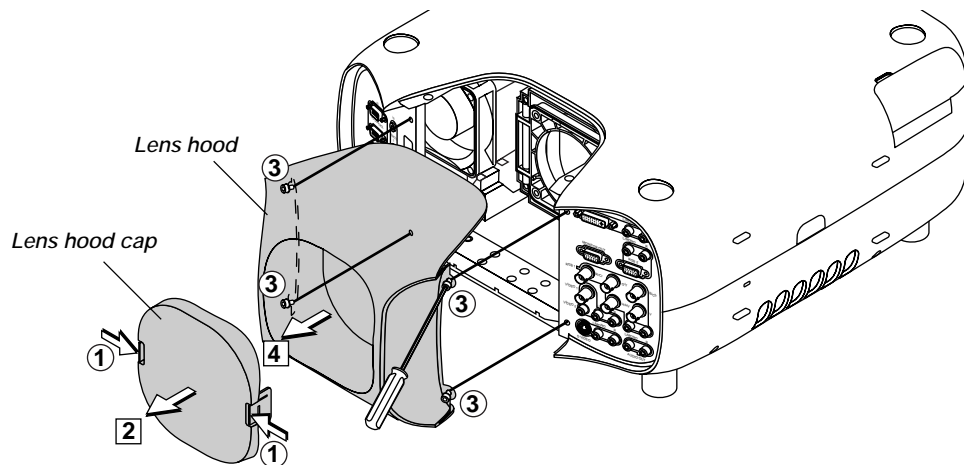
Preparation: Tools needed for installation:

A hexagonal driver and dust-protective sheets are supplied with the optional lens.

1. Remove the lens hood cap and lens hood.

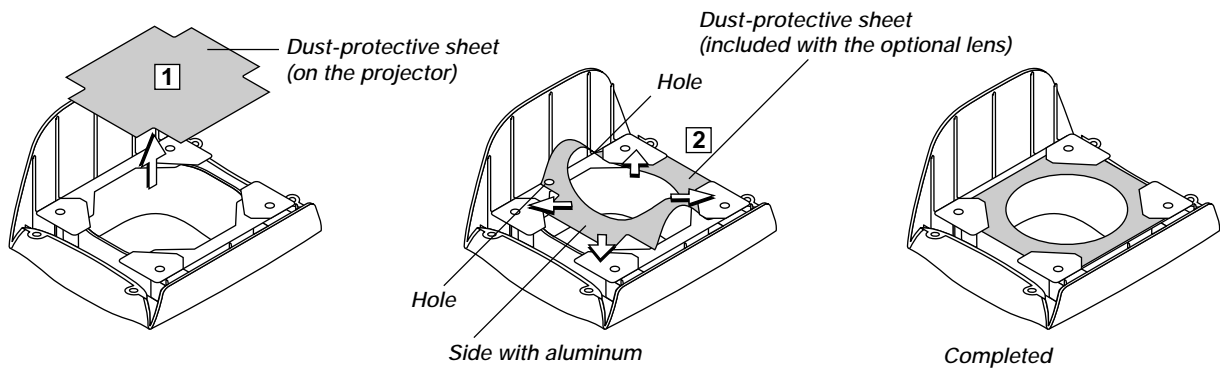
① Press and hold the catches on both ends of the lens hood cap, and ② then remove it.

③ Loosen the 4 screws on the lens hood using the hexagonal driver until the hexagonal driver goes into a freewheeling condition and ④ remove the lens hood. The 4 screws are not removable.



2. Remove the dust-protective sheet and replace with the new one.

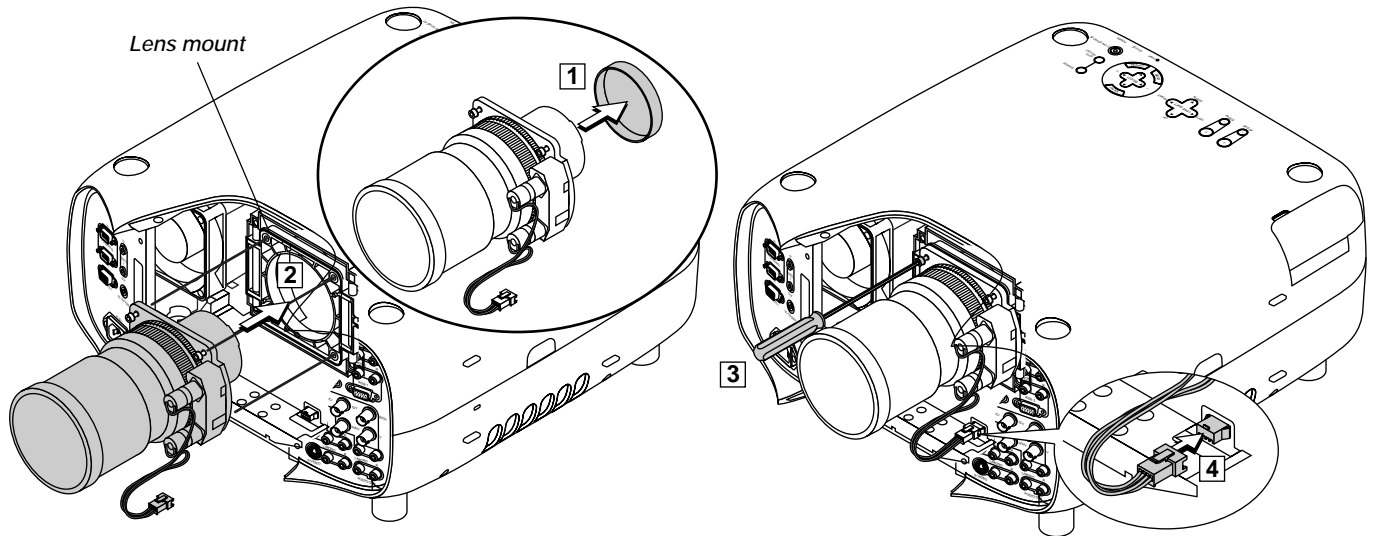
① Remove the dust-protective sheet on the back of the lens hood. ② Replace it with the dust-protective sheet included with the optional lens. Place the dust-protective sheet with the two holes side up while warping it. Be careful not to fold the sheet.



3. Mount the lens unit on the projector and connect the extension cable attached to the projector.

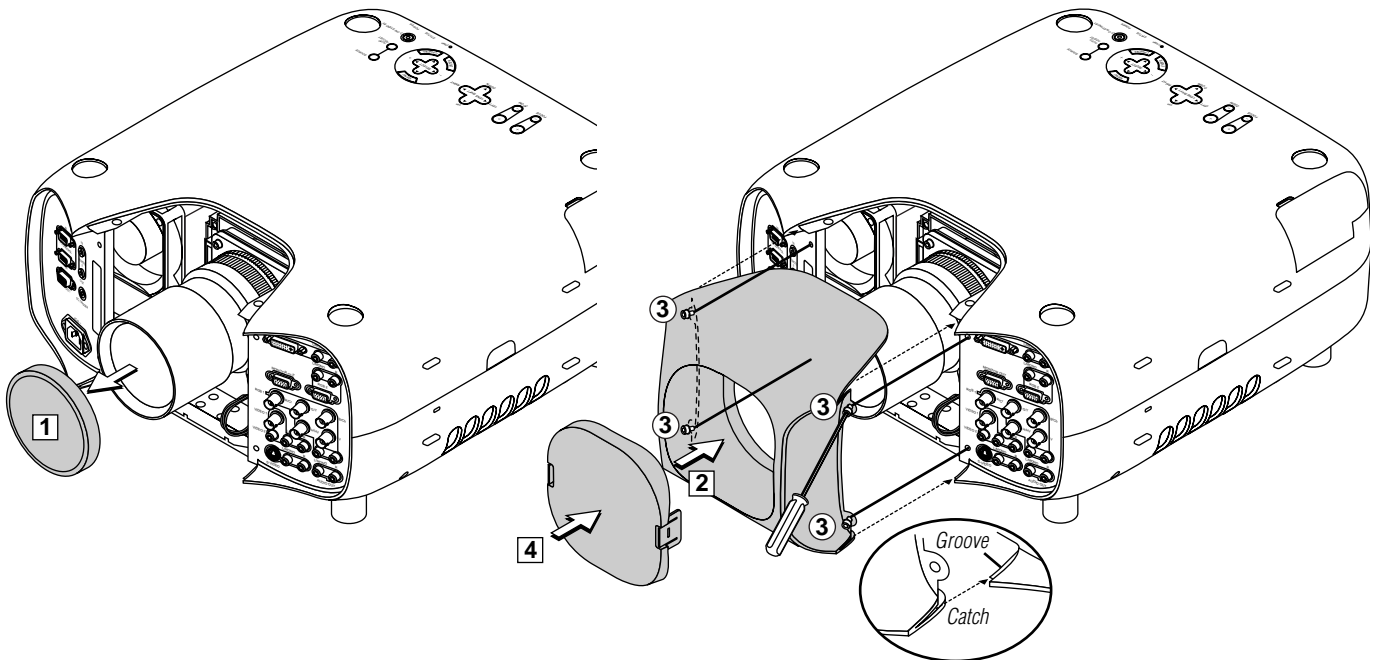
- 1 Remove the lens cap from the rear end of the lens unit.
- 2 Insert the lens unit so that the 4 screws on the lens unit are properly lined up with the 4 holes on the lens mount.
- 3 Secure the 4 screws using the hexagonal driver.
- 4 Insert the connector of the lens unit fully into the socket of the extension cable attached to the projector.

NOTE: Leave the front lens cap for protection while mounting the lens unit.

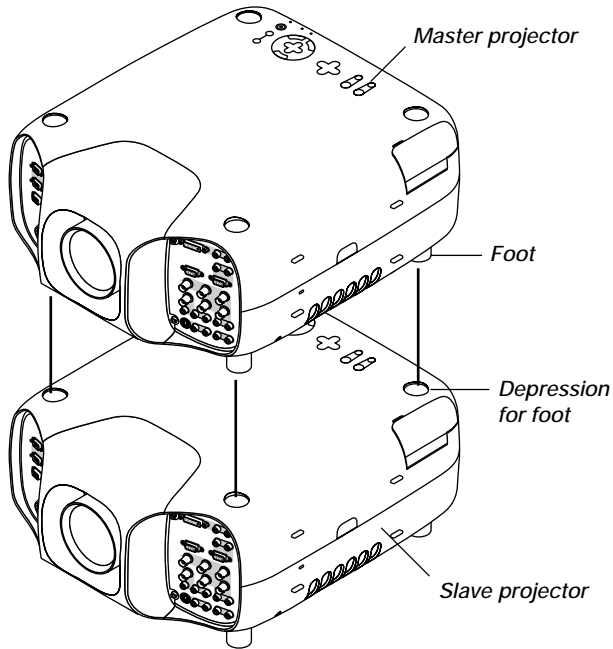


4. Reinstall the lens hood.

- 1 Remove the front lens cap from the lens unit.
 - 2 Insert the lens hood so that the grooves on the 4 corners of the lens hood are properly lined up with the 4 catches on the projector.
 - 3 Secure the 4 screws using the hexagonal driver.
- This completes installation. 4 If necessary, put the lens hood cap on the lens hood.



Setting up for Double Stacking in Link Mode



CAUTION: To prevent the projectors from falling, install them in a place and fasten them in a way with sufficient strength to support the two projectors.

NOTE: SW 1 Level and SW 2 Level of Switcher Control are not available on Link Mode.

For double stacking, follow the instructions described below.

1) Stacking the Projectors

1-1. Place the projectors at the proper height for best screen to projector relationship. Make sure that all projectors have the same display orientation.

2) Hookup

2-1. Use the supplied RGB signal cable to connect the RGB output of the master projector to the RGB input of the slave projector until all the projectors are connected.

2-2. Next, using a commercially available, bi-directional RS-232C cable connect the PC CONTROL OUT terminal of the master projector to the PC CONTROL IN terminal of the slave projector until all the projectors are connected.

2-3. Turn all the projectors on and roughly make some optical adjustments to each projector.

3) Adjusting and registering signals to be projected in Link mode and stack application.

Signal Data Preparation

3-1. Create data for the master projector and copy data to the slave projector.

3-1-1. Choose one projector as the master.

3-1-2. Turn the master projector on.

3-1-3. Display all desired input signals, make adjustment to each signal, then save all adjustments on the master projector. (Adjustments will be saved automatically.)

3-1-4. Turn the master projector off (standby mode).

3-1-5. Store all the adjustments on a PC card from the master projector.

3-1-5-1. Open the PC Card slot cover to access the PC card slot. Insert a PC card into this slot.

3-1-5-2. Press and hold CANCEL, then press POWER on the top panel of the master projector. The POWER indicator will change to steady green and the PC Card Access indicator will start flashing. After storing data on the PC card, the POWER indicator will change to orange.

3-1-5-3. Remove the PC card from the slot of the master projector.

3-1-6. Transfer the data to the other slave projectors using the PC card so that all the projectors have the same data in memory.

3-1-6-1. Insert the PC card into the slot of a slave projector.

NOTE: Since data in the slave projectors will be lost at this time, make backup copies of them before proceeding.

3-1-6-2. Press and hold ENTER, then press MENU on the top panel of the slave projector. The POWER indicator will change to steady green and the PC Card Access indicator will start flashing to indicate that the data is being copied from the PC card to the slave projector. After copying data to the slave projector, the POWER indicator will change to orange.

3-1-6-3. Remove the PC card from the slave projector.

NOTE: If you select the RGB1 input on the master projector, you must select the same input on the slave projector and the RGB2 on the master projector and the slave projector.

NOTE: After adjusting and registering signals as mentioned above, you must change the input to RGB on the Entry Edit Command window for Link Mode. See "Entry List Edit" on page E-40 for changing to RGB source.

3-1-6-3. Display the desired source.

4) Display the internal crosshatch test pattern.

NOTE: Use a different single color for each projector. Example: Turn on Green of one projector (master), then Red of the other (slave).

5) Adjusting the lens shift, zoom and focus to clearly display all projected patterns.

5-1. Adjust the Lens Shift using the LENS SHIFT button on the projector cabinet. You can also adjust the Lens Shift by pressing and holding CTL and pressing the POSITION button on the remote control. For Lens Shift Adjustable Range, see page E-13.

5-2. Zoom the lens in and out by using the ZOOM button on the projector cabinet or the remote control.

5-3. Adjust the lens focus by using the FOCUS button on the projector cabinet or the remote control.

NOTE: If the physical (vertical) alignment of the projector is not correct, adjust the height of the feet. If there is any keystone distortion, use Keystone adjustment to correct and save the settings on each projector. See page E-22 and E-42 for Keystone correction.

This completes set-up and adjustments. An image is projected from the master projector. See page E-49 for Link mode.

6) Link Mode Setting

6-1 Assign a unique Projector ID for each projector.

6-1-1. Select [Projector Options] → [Setup] → [Page 6] → [Projector ID].
See page E-49 for specifying ID.

6-1-2. Specify a unique projector ID for each projector.

6-2 Select the same communication speed for all the projectors.

6-2-1. Select [Projector Options] → [Setup] → [Page 6] → [Communication Speed]. See page E-49 for setting the communication speed.

6-2-2. Select the appropriate speed between 4800 and 38400.

6-3 Set the Link Mode on each projector.

6-3-1. Select [Projector Options] → [Link Mode].

6-3-2. First select [Slave] on the slave projector.

6-3-3. Select [Master] on the master projectors. See page E-49 for setting Link Mode.

6-4 Project a source image from all projectors

6-4-1. Display any signal onto the screen.

6-4-2. Check to see if the images on the master projector are displayed in synchronization with the ones on the other slave projector while the projectors are in link mode.

NOTE: Registering signals is not possible in the Link mode. To register a signal, first set "Link Mode" to "Standalone" on the menu and then repeat the above steps from 3. If you select a unregistered signal, the projector will display a background image. To view the information on the currently displayed signal, select [Help] → [Information] → [Page1].

6-5 Make adjustments to the slave projector.

NOTE: See "List of Menu Items Available on Link Mode" on page E-68 for more information.

6-5-1. Temporarily, change the master projector from Master to Standalone. Make sure that the slave projectors are still in Slave mode.

6-5-2. Display a source you want to adjust from the master projector.

6-5-3. On the Slave Projector select the same signal From the Entry List (same No.) as that of the master projector. Display it from the slave projector.

6-5-4. Make Picture adjustment such as brightness, contrast, or color temperature.

6-5-5. Change the master projector from Standalone to Master to activate the Link Mode

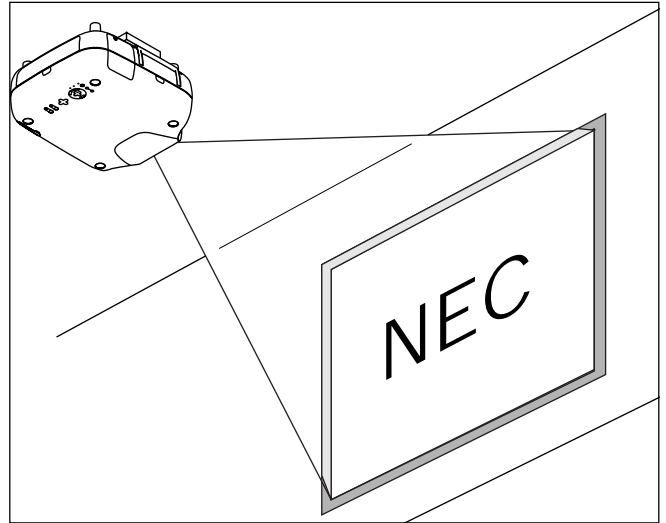
6-6 This completes the Link Mode adjustment procedure.

Projector Orientation

An image can be projected from in front or behind a screen, and the projector can be installed on the ceiling*.

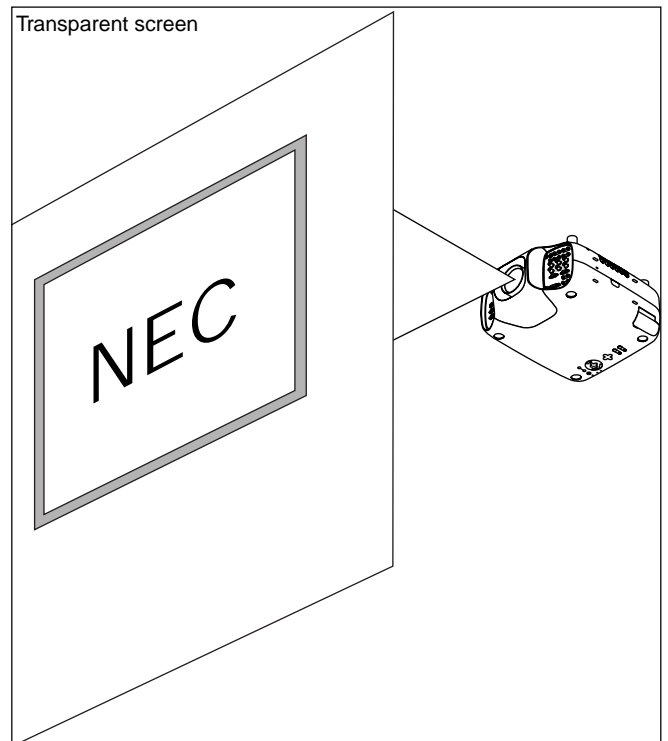
Ceiling Front Projection

Use [Projector Options] → [Setup] → [Page 1] → [Orientation] to select "Ceiling Front". (See page E-47.)



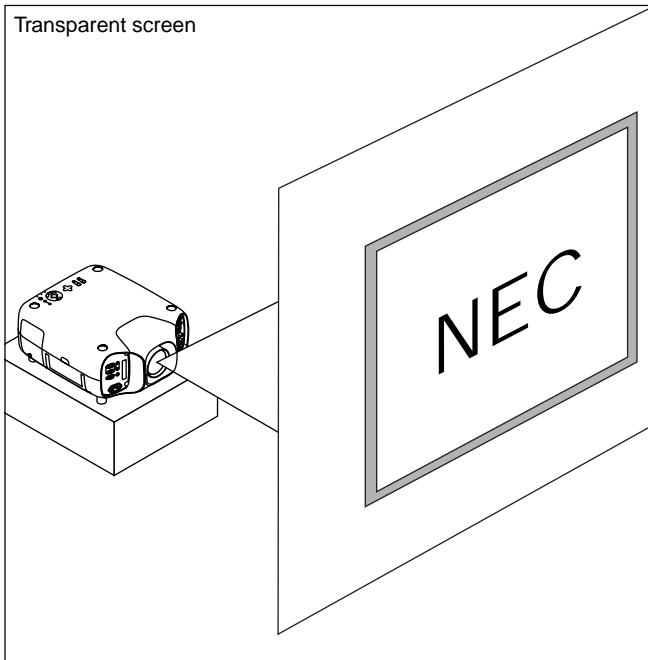
Ceiling Rear Projection

Use [Projector Options] → [Setup] → [Page 1] → [Orientation] to select "Ceiling Rear". (See page E-47.)



Desktop Rear Projection

Use [Projector Options] → [Setup] → [Page 1] → [Orientation] to select "Desktop Rear". (See page E-47.)



WARNING

- Installing your projector on the ceiling must be done by a qualified technician. Contact your NEC dealer for more information.
- * Do not attempt to install the projector yourself.
- Only use your projector on a solid, level surface. If the projector falls to the ground, you can be injured and the projector severely damaged.
- Do not use the projector where temperatures vary greatly. The projector must be used at temperatures between 32°F (0°C) and 104°F (40°C).
- Do not expose the projector to moisture, dust, or smoke. This will harm the screen image.
- Ensure that you have adequate ventilation around your projector so heat can dissipate. Do not cover the vents on the projector.

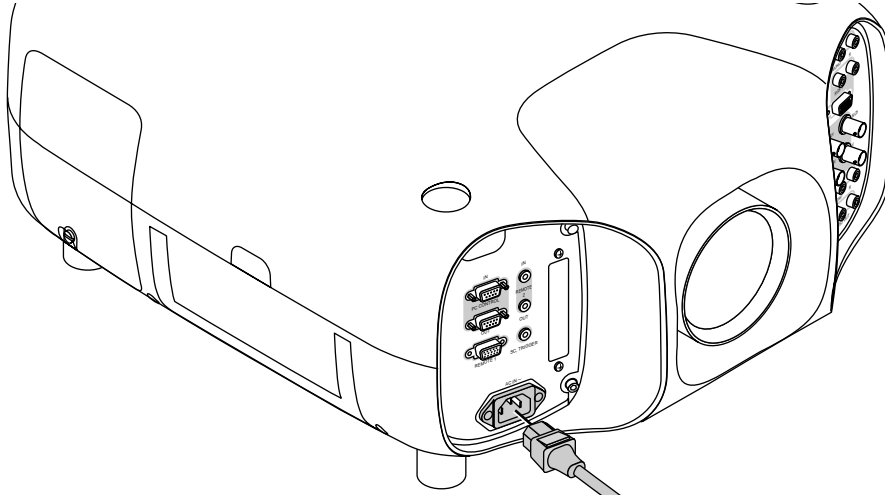
3. BASIC OPERATION

Connecting the Power Cable and Turn on the Projector

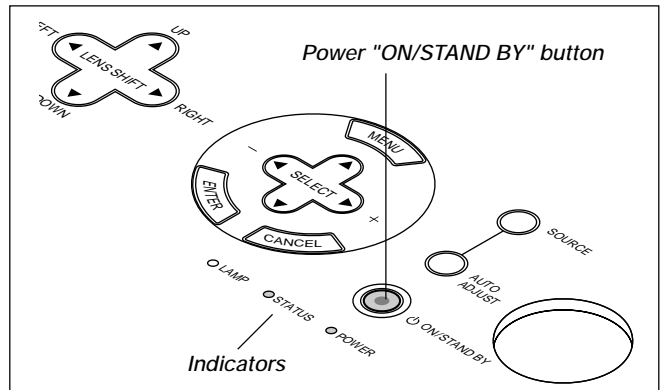
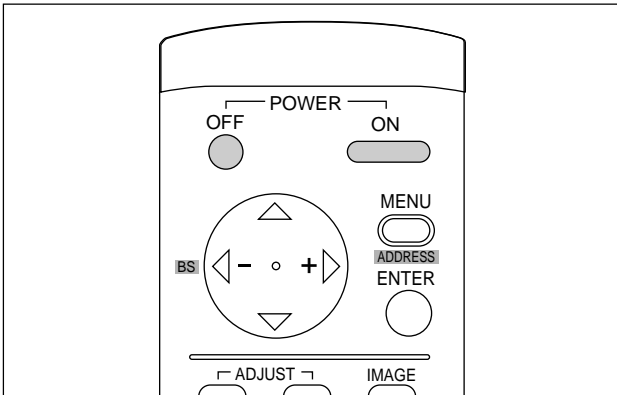
Before you turn on your projector, ensure that the computer or video source is turned on and that your lens cap is removed.

1. Connect the supplied power cable to the projector.

Plug the supplied power cable in the wall outlet. The projector will go into its standby mode and the power indicator will glow orange.



2. Turn on and off the Projector.

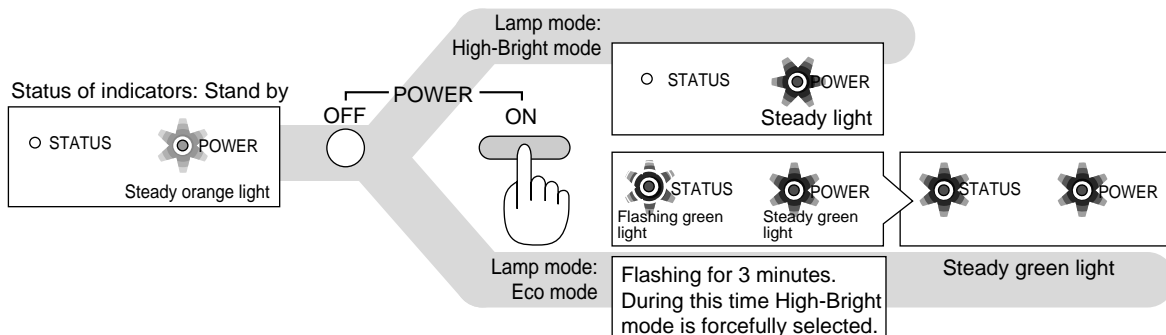


To turn on the projector:

Only after you press the "ON/STAND BY" button on the projector cabinet or "POWER ON" button on the remote control will the power indicator turn to green and the projector become ready to use.

NOTE: To turn the projector on by plugging in the power cable, use the menu and enable the "Auto Start" feature. (See page E-48.)

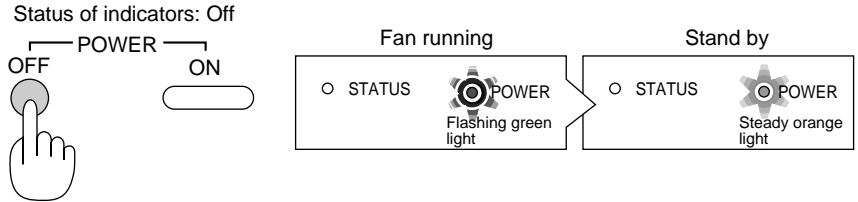
NOTE: Immediately after turning on the projector, screen flicker may occur. This is not a fault. Wait 3 to 5 minutes until the lamp lighting is stabilized.



To turn off the projector:

First press the Power (ON/STANDBY) button on the projector cabinet or the POER OFF button on the remote control for a minimum of two seconds. The power indicator will glow orange. After the projector turns off, the cooling fans keep operating for ONE minute.

NOTE: Do not disconnect the power cable during this time. Then, unplug the power cable. The power indicator will go out.



About Startup Screen

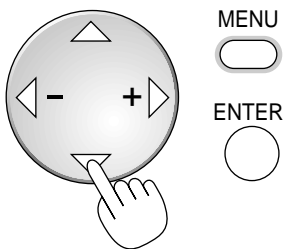
(Menu Language Select screen)

When you first turn on the projector, you will get the Startup screen.

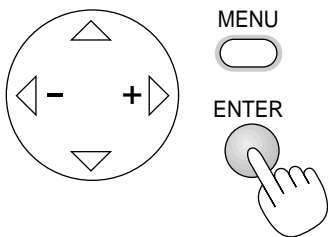
This screen gives you the opportunity to select one of the seven menu languages: English, German, French, Italian, Spanish, Swedish and Japanese.

To select a menu language, follow these steps:

1. Use the Select ▲ or ▼ button to select one of the seven languages for the menu.



2. Press the Enter button to execute the selection.



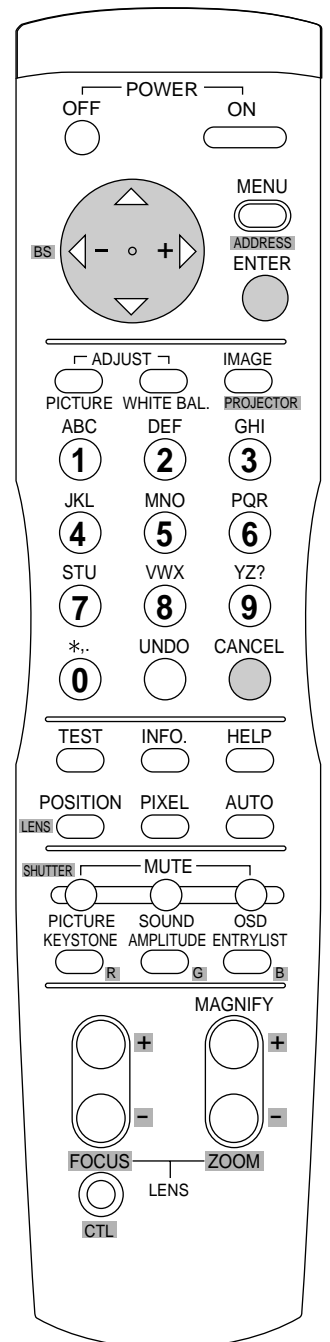
3. The Basic/Custom menu will be displayed in the language you have selected.



To close the menu, press the Cancel button.

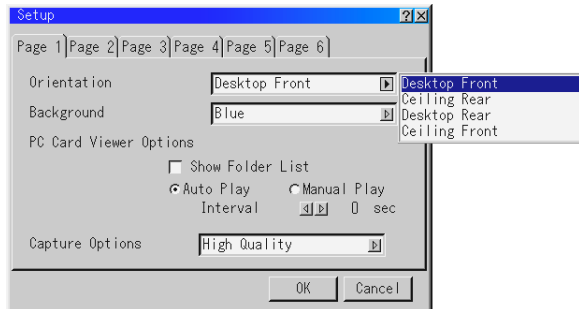
After this has been done, you can proceed to the advanced menu operation.

If you want, you can select the menu language later. See "Language" on page E-45.

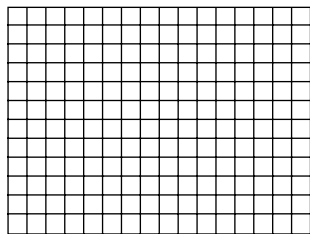


Set up the projector

1. Turn on the projector
2. Select your type of projection:
Desktop front, ceiling rear, desktop rear, and ceiling front.



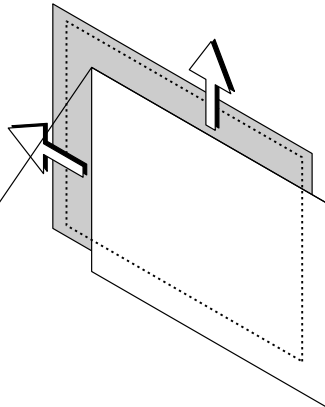
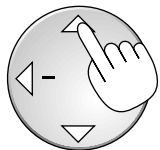
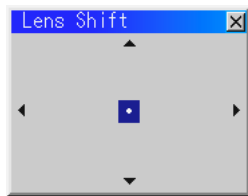
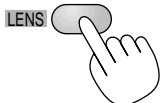
3. Display the test pattern by pressing the TEST button on the remote control or using the menu.



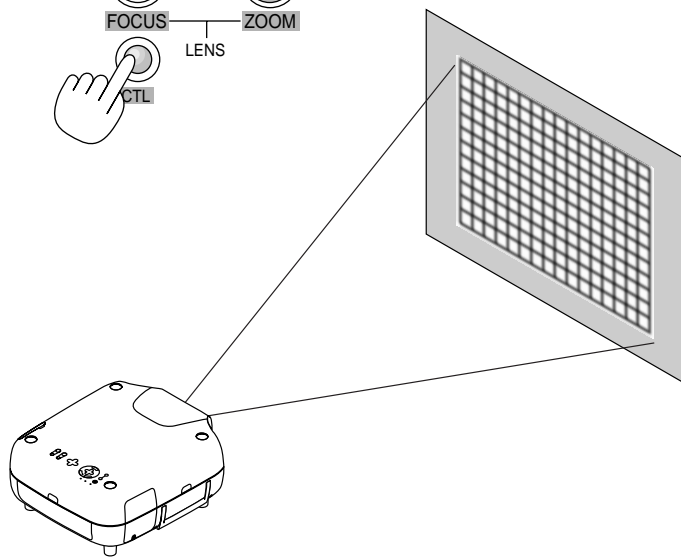
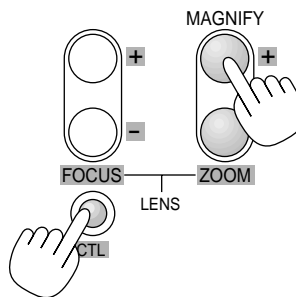
4. Adjust the image position and the image size.

- (1) Press and hold the CTL button and press the POSITION button to display the Lens Shift adjustment screen.
Use the Select button on the remote control or the LENS SHIFT button on the projector cabinet to move the image horizontally and vertically.
To close the the Lens Shift adjustment screen, press the CANCEL button.
See page E-13 for "Lens Shift Adjustable Range".

POSITION

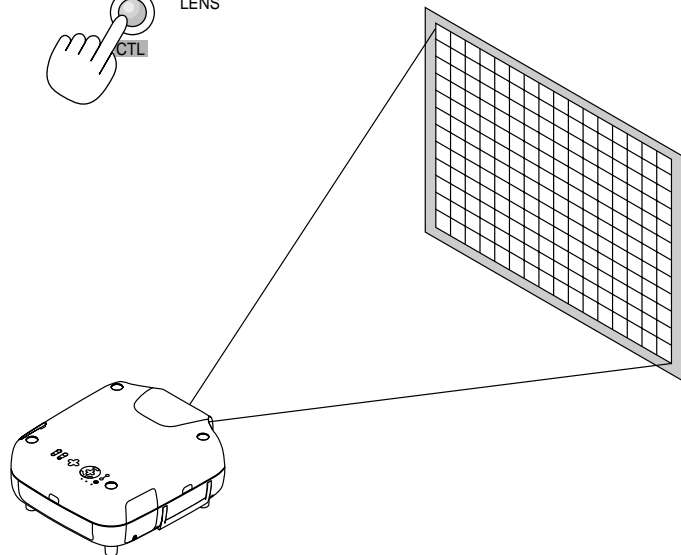
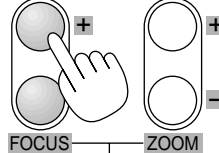


- (2) Press and hold the CTL and press the ZOOM + or - button to adjust the image size. You can also adjust the image size by using the ZOOM + or - button on the projector cabinet.



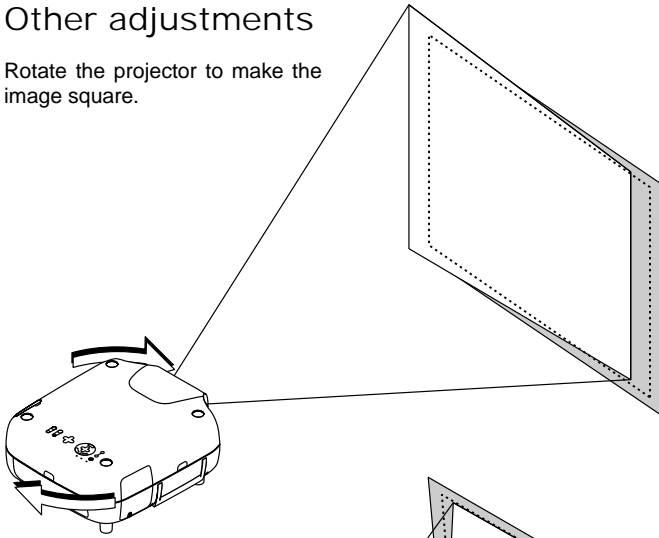
- (3) Press and hold the CTL button and press the FOCUS + or - button to obtain the best focus. You can also adjust the focus by using the FOCUS + or - button on the projector cabinet.

MAGNIFY

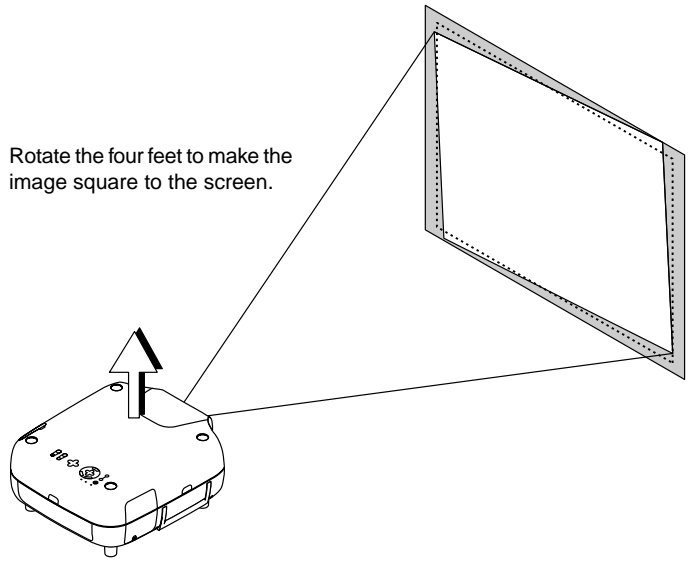


Other adjustments

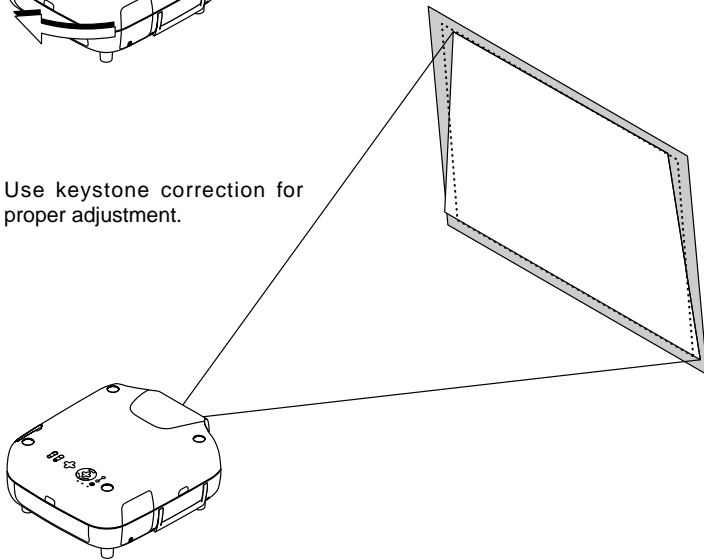
Rotate the projector to make the image square.



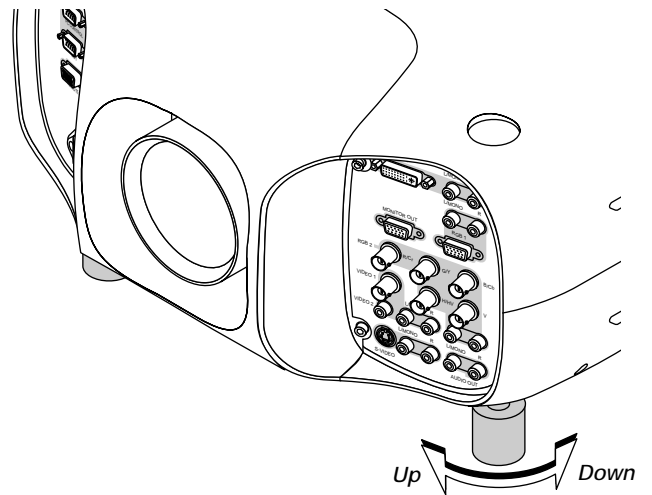
Rotate the four feet to make the image square to the screen.



Use keystone correction for proper adjustment.



Each of the feet height can be changed up to 20 mm or at angles up to 3.5 degrees.



4. CONNECTIONS

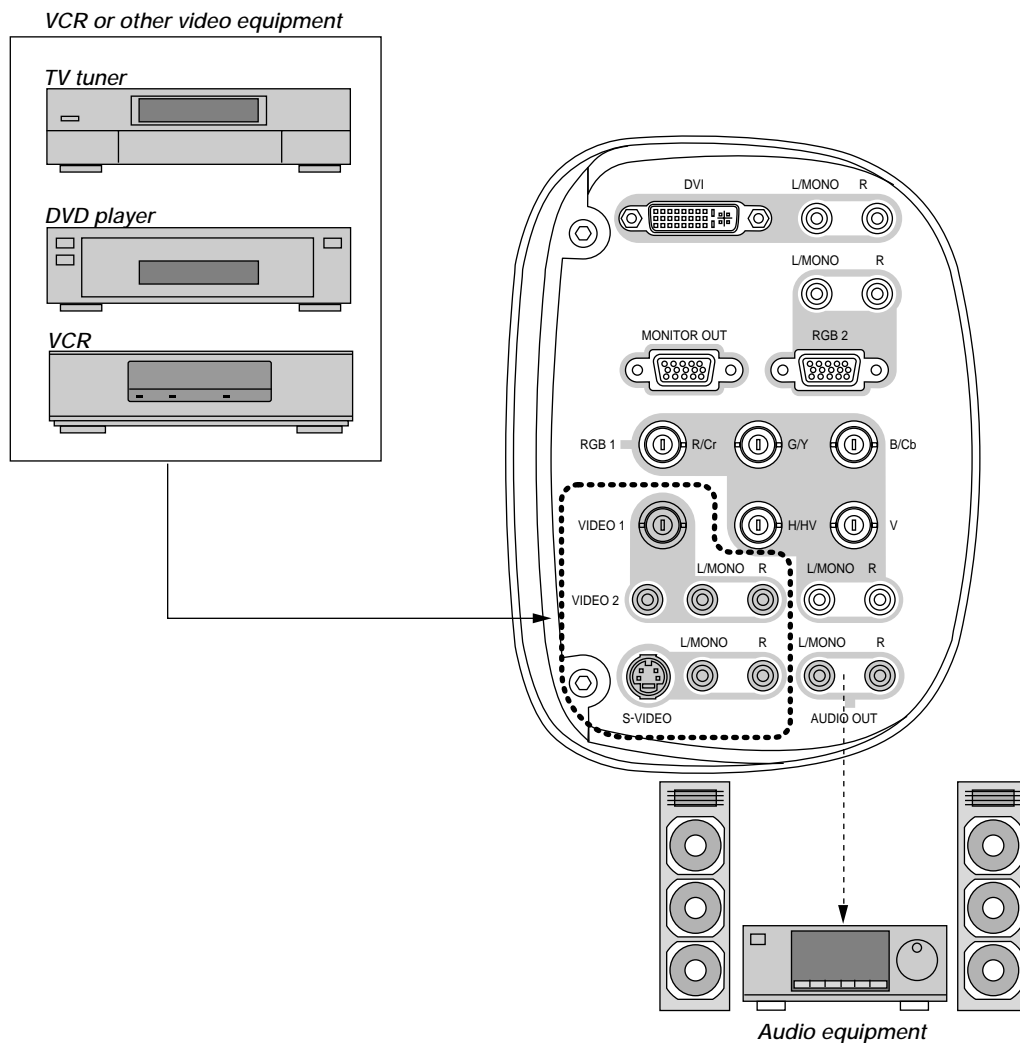
When used in standalone operation

Connecting Your VCR Or Laser Disc Player

Use common RCA cables (not provided) to connect your VCR or laser disc player to your GT1150 Projector. To make these connections, simply:

1. Turn off the power to your projector and VCR or laser disc player.
2. Connect one end of your RCA cable to the video output connector on the back of your VCR or laser disc player, connect the other end to the Video input on your projector. Use standard RCA audio patch cords to connect the audio from your VCR or laser disc player to your projector (if your VCR or laser disc player has this capability). Be careful to keep your right and left channel connections correct for stereo sound.
3. Turn on the projector and the VCR or laser disc player.

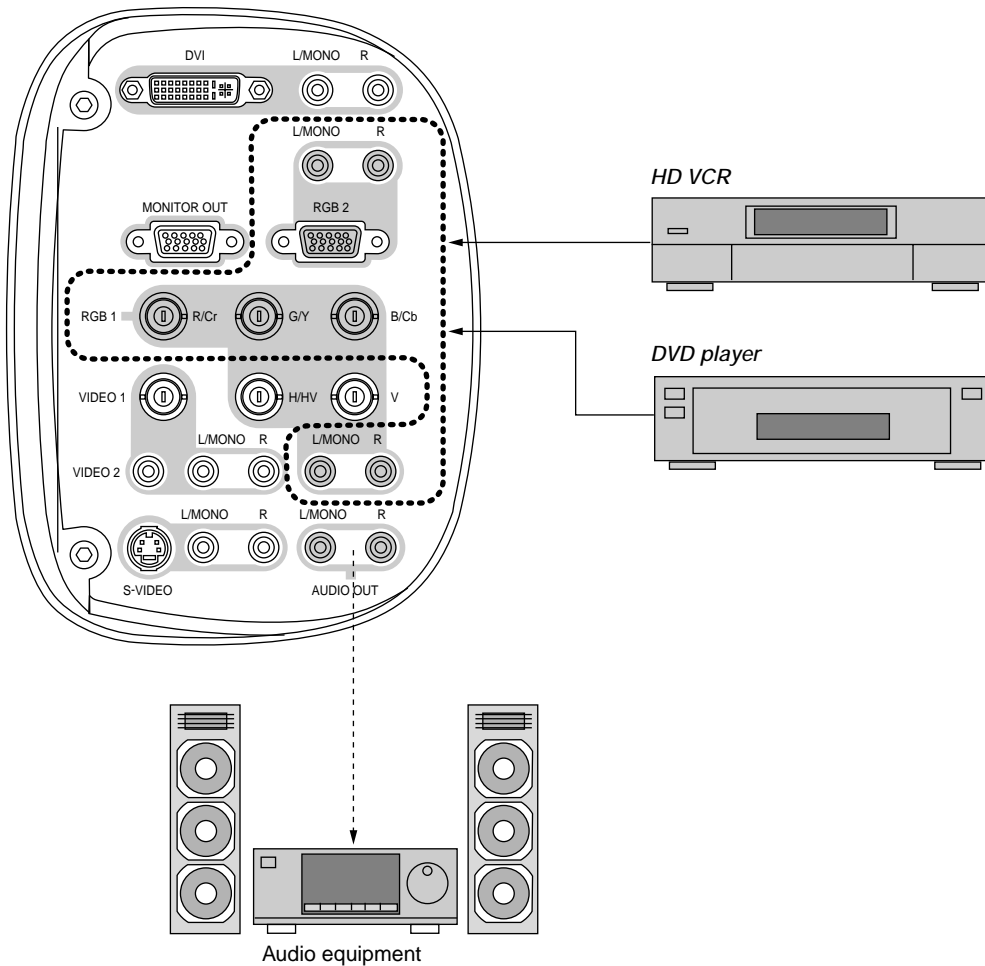
NOTE: Refer to your VCR or laser disc player owner's manual for more information about your equipment's video output requirements.



Connecting Your DVD Player with Component Output

Use the optional Component V cable to connect your DVD player with the component output to your GT1150 Projector. To make these connections, simply:

1. Turn off the power to your projector and DVD player.
2. Use the optional Component V cable to connect your DVD player to the RGB 1 input or use a D-Sub 15 pin cable to the RGB 2 input of your GT1150 projector.
3. Turn on the projector and the DVD player.

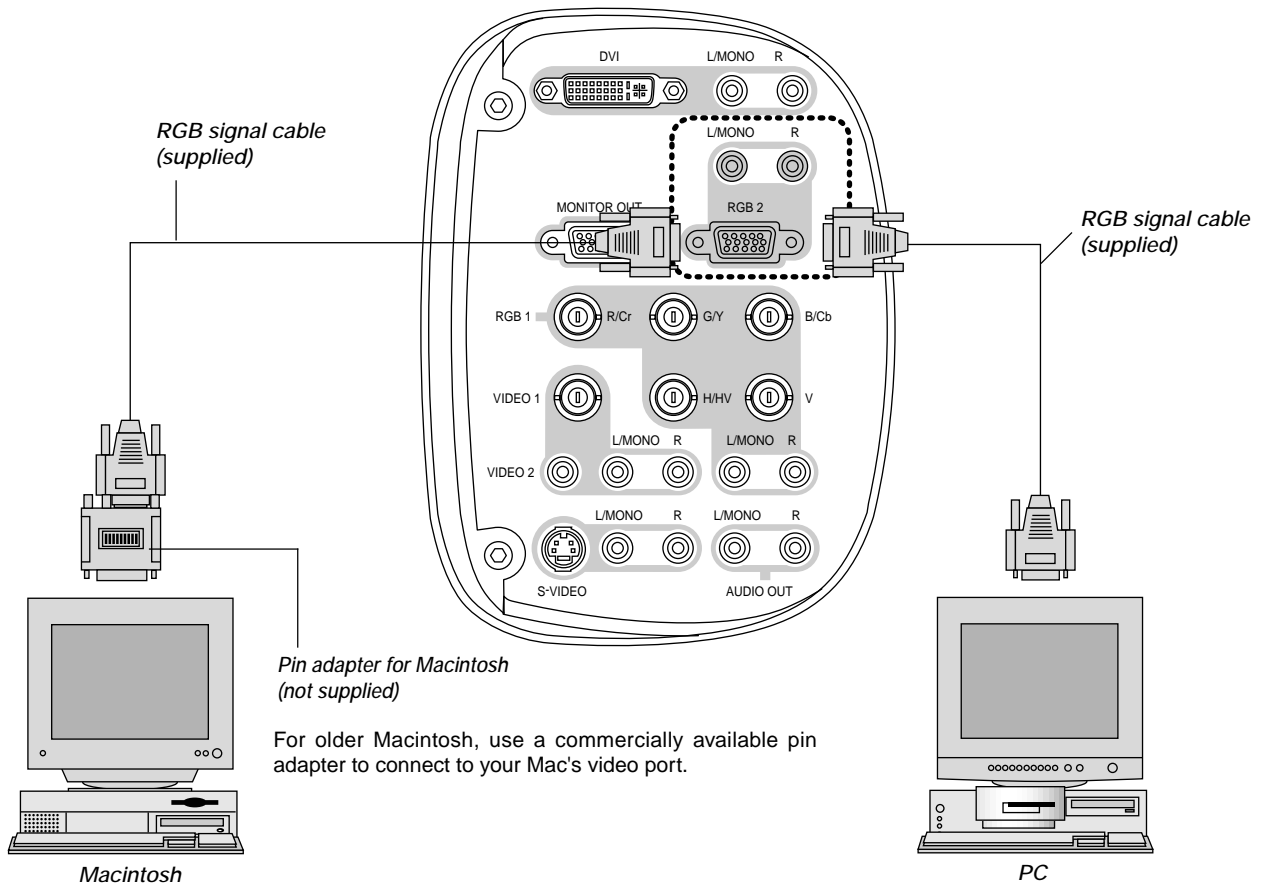


Connecting Your PC Or Macintosh Computer

Connecting your PC or Macintosh computer to GT1150 Projector will enable you to project your computer's screen image for an impressive presentation.

To connect to a PC or Macintosh :

1. Turn off the power to your projector and computer.
2. Use the supplied RGB signal cable to connect your PC or Macintosh computer to the projector.
3. Turn on the projector and the computer.
4. If the projector goes blank after a period of inactivity, it may be caused by a screen saver installed on the computer.



NOTE: To mini D-Sub 15-pin connector on the projector. It is recommended that you use a commercially available distribution amplifier if connecting a signal cable longer than the supplied one.

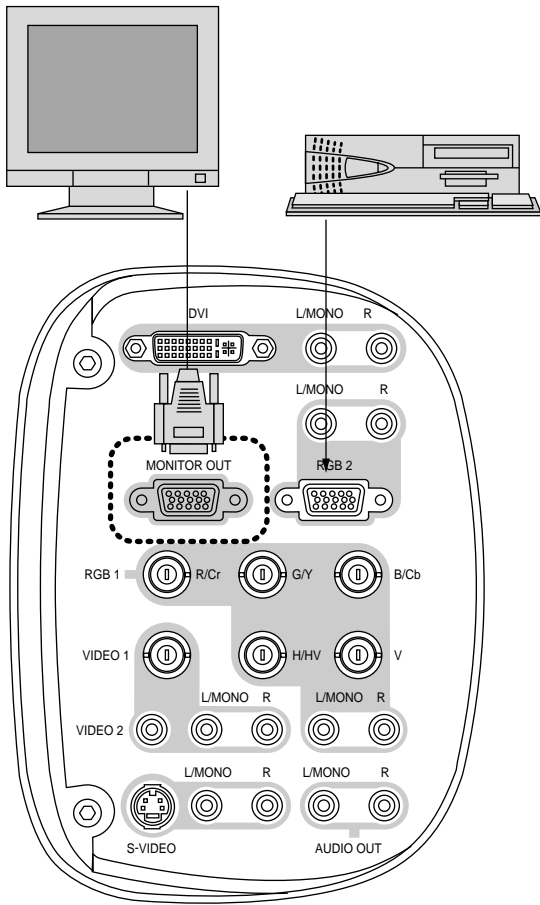
Connecting an External Monitor

You can connect a separate, external monitor to your GT1150 projector to simultaneously view on a monitor the RGB analog, DVI analog, or component image you're projecting. To do so:

1. Turn off the power to your projector, monitor and computer.
2. Use a 15-pin cable to connect your monitor to the RGB MONITOR OUTPUT (Mini D-Sub 15 pin) connector on your projector.
3. Turn on the projector, monitor and the computer.

NOTE:

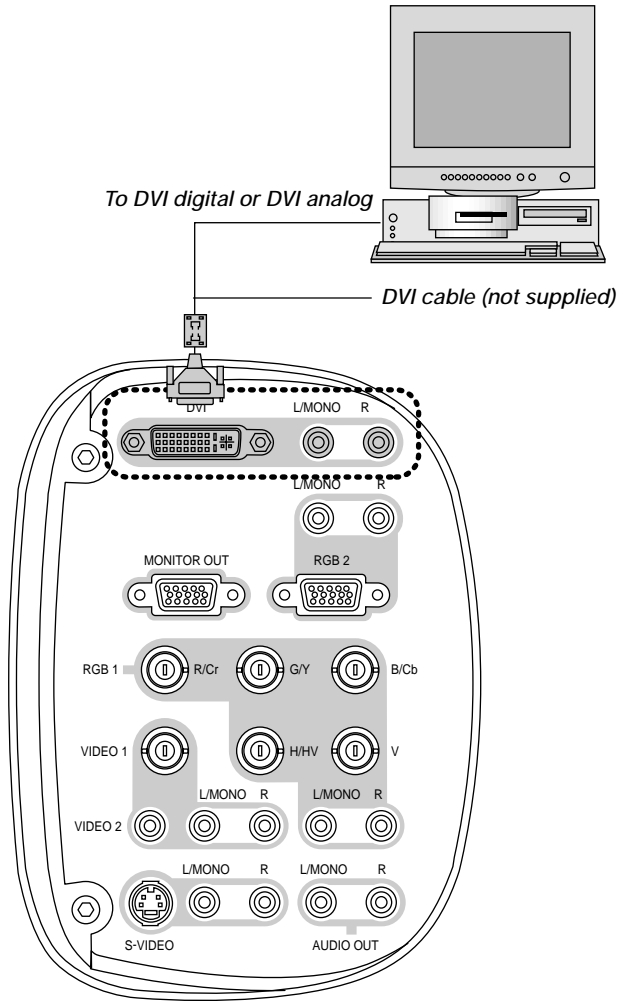
- * The MONITOR OUT connector outputs RGB signal during standby. When the projector goes into standby, the image on an external monitor disappears for a moment.
- * The DVI digital output signal from the MONITOR OUT connector is muted.



Connecting a PC with DVI output

The DVI (digital) input accepts up to the XGA signal.

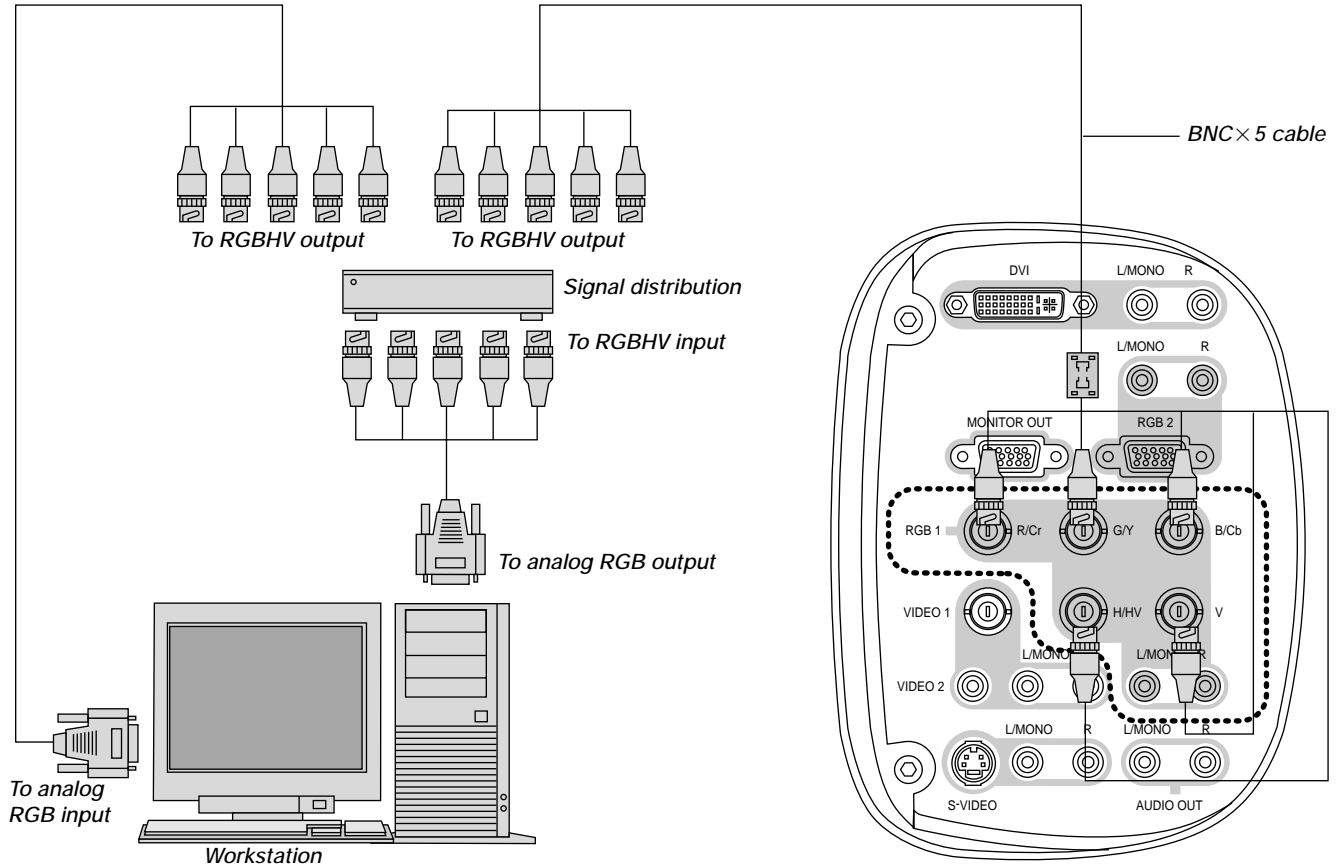
NOTE: The Auto Adjust feature does not work for DVI digital signal. When DVI signal is selected and the image position is not corrected, adjust the horizontal and vertical position using the Position/Clock screen. See page E-43 for more details.



Connecting to a Single Workstation

You can connect a workstation to your GT1150 projector. To do so:

1. Turn off the power to your projector and workstation.
2. Use a BNC x 5 cable to connect your workstation and the RGB 1 connectors on your projector.
3. Turn on the projector and a workstation.



NOTE: All cables mentioned above are sold separately.

Information for Reducing Radiation of Electromagnetic Waves

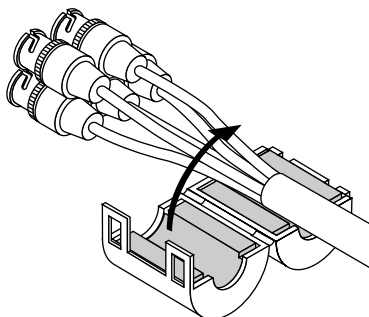
To reduce unnecessary radiation of electromagnetic waves, use the supplied ferrite core,

Installation Instructions

1. Open and attach the ferrite core to a signal cable as close as possible to the end that goes to the projector.

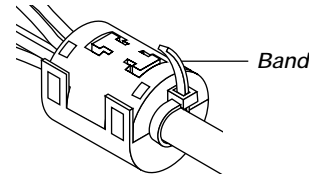
* Push the catch to open the ferrite core.

2. Close the ferrite core tightly.

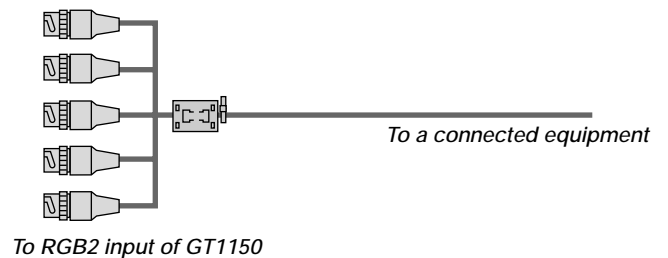


3. Fix the supplied band to the cable as a stopper.

* Pull the end of the band to tighten it. Cut off the surplus of the band.

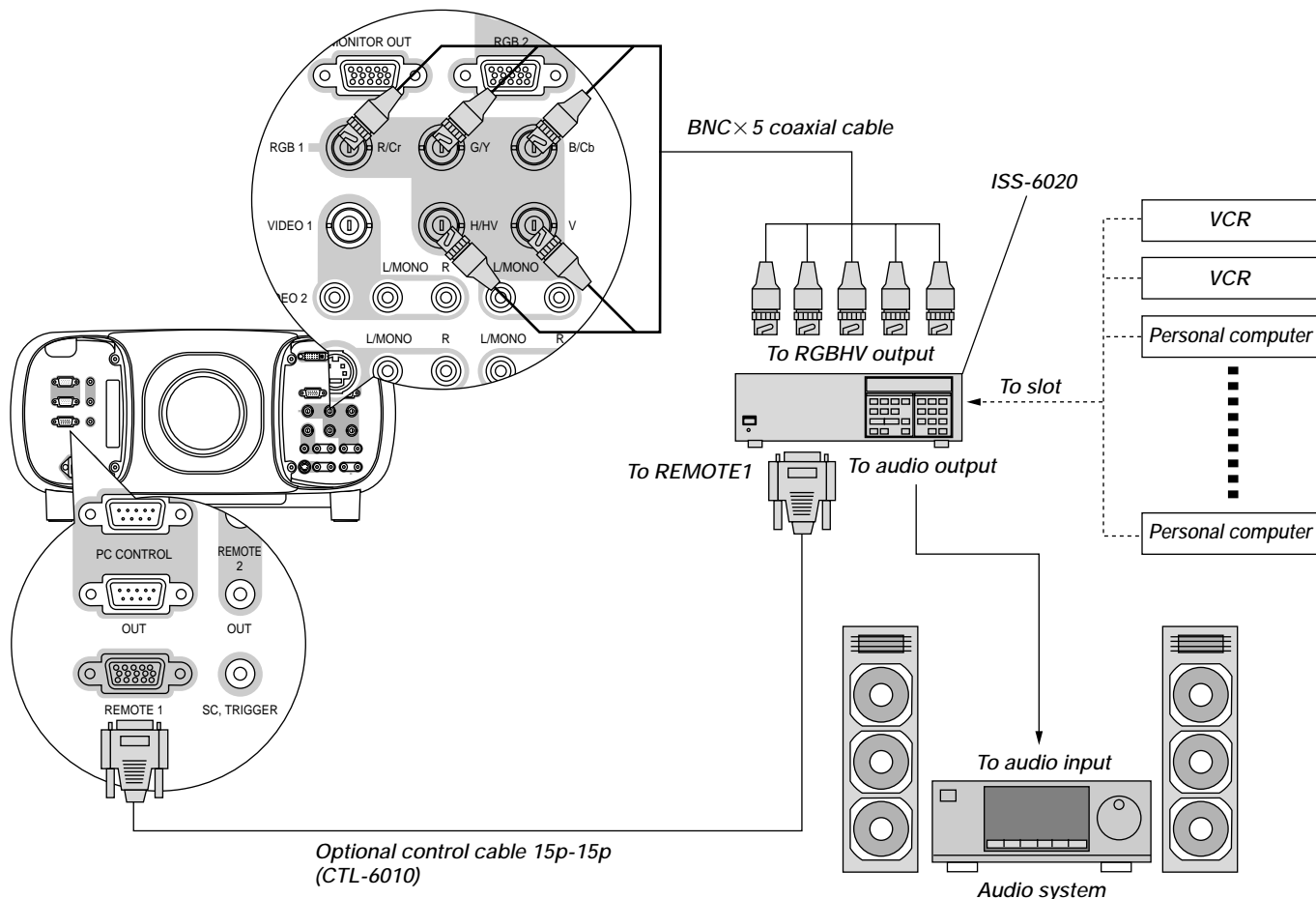


NOTE: Be sure to use the ferrite core at the end of the signal cable.



When Used with One Switcher (ISS-6020/ISS-6020G)

Up to 10 input signals can be accepted when the projector is connected to one Switcher. Using the projector with the Switcher allows easy adjustment and signal selection.



- Select [Advanced Menu] → [Projector Options] → [Switcher Control] → [SW1 Level]. See page E-49 for the information in detail.
- For more information on the Switcher, refer to the user's manual accompanying the ISS-6020/ISS-6020G Switcher.
- All cables mentioned above are sold separately.
- The RGB2 terminal will not work with the Switcher Control function.

When Used with Two or More Switchers (100 Inputs)

Up to 100 inputs can be accepted using the NEC ISS-6020 Switcher.

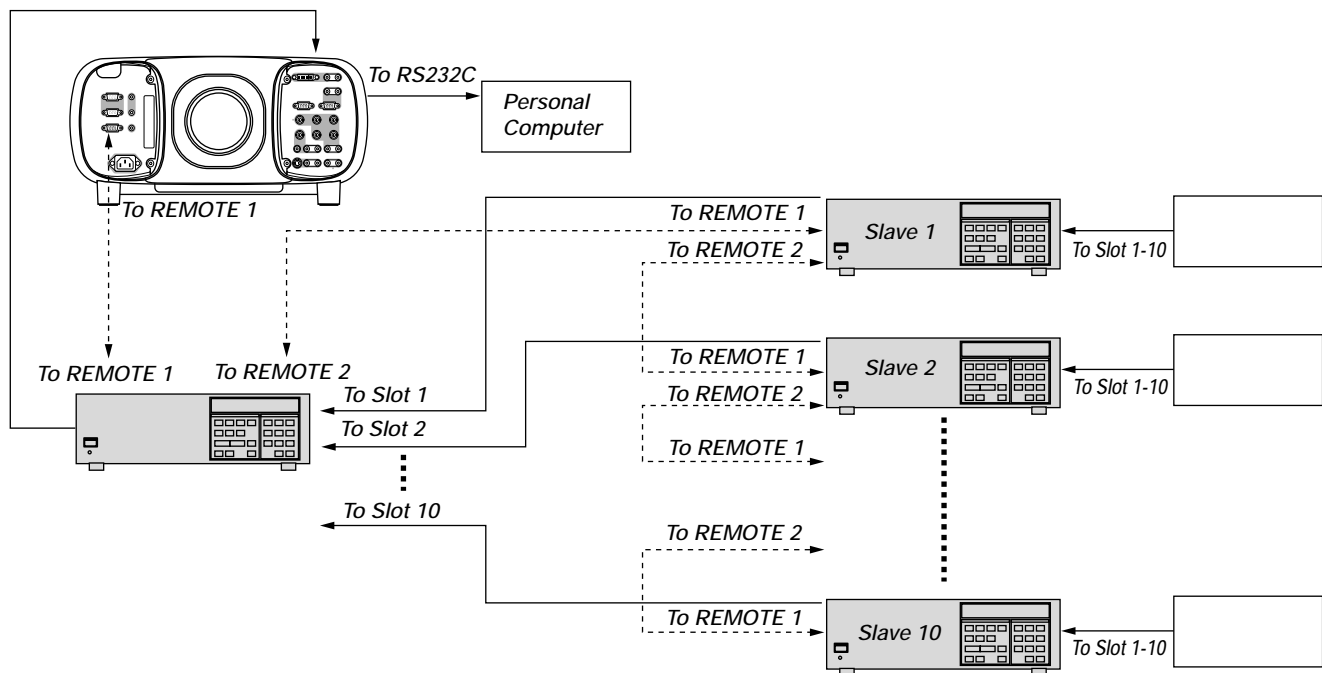
How to make connections:

- 1 Connect the REMOTE 1 terminal of the master Switcher to the REMOTE 1 of the projector using the optional control cable (15p-15p/CTL-6010).
- 2 Next connect the REMOTE 2 terminal of the master Switcher to the REMOTE 1 terminal of the first slave Switcher using the same optional control cable as mentioned above. Third, connect the REMOTE 2 terminal of the first slave to the REMOTE 1 of the second slave, and the REMOTE 2 terminal of the second slave to the REMOTE 1 terminal of the third slave (— and the REMOTE 2 of the ninth slave to the REMOTE 1 of the tenth slave). Connect all the Switchers with optional control cables.

- Select [Advanced Menu] → [Projector Options] → [Switcher Control] → [SW2 Level]. See page E-49 for the information in detail.
- Refer to the user's manual accompanying the Switcher.
- Cables mentioned are not included with the projector.

NOTE:

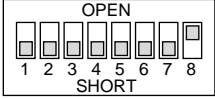
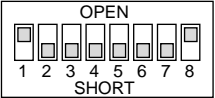
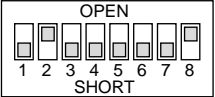
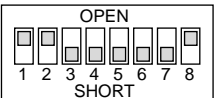
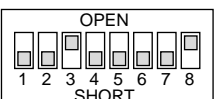
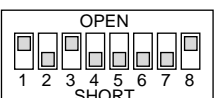
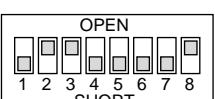
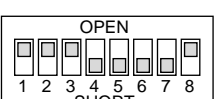
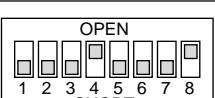
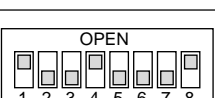
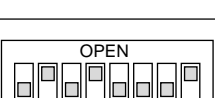
- Be sure to set all the slide switches (S8603) of the Switcher to RS-422 positions. Set the one on the last slave Switcher to the appropriate position to match the connected equipment such as a personal computer. (RS-422/RS-232C for PC control of projector)
- Set the DIP switch S8601 of the Switcher.



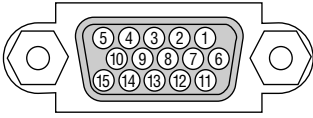
NOTE: The optional remote control RC-6320 for ISS-6020 will not work correctly in the SW Level 1 or 2 mode.

Set the DIP switch (S8601) of the Switcher as follows:

NOTE: Slave numbers 1 to 10 must correspond to the master's slot numbers 1 to 10.

| ISS-6020 ISS-6020G | Output to | Setting of S8601 |
|-----------------------|-----------------------|---|
| Master | The Projector |  |
| Slave 1 | Slot 1 of the Master |  |
| Slave 2 | Slot 2 of the Master |  |
| Slave 3 | Slot 3 of the Master |  |
| Slave 4 | Slot 4 of the Master |  |
| Slave 5 | Slot 5 of the Master |  |
| Slave 6 | Slot 6 of the Master |  |
| Slave 7 | Slot 7 of the Master |  |
| Slave 8 | Slot 8 of the Master |  |
| Slave 9 | Slot 9 of the Master |  |
| Slave 10 | Slot 10 of the Master |  |

REMOTE 1 Connector



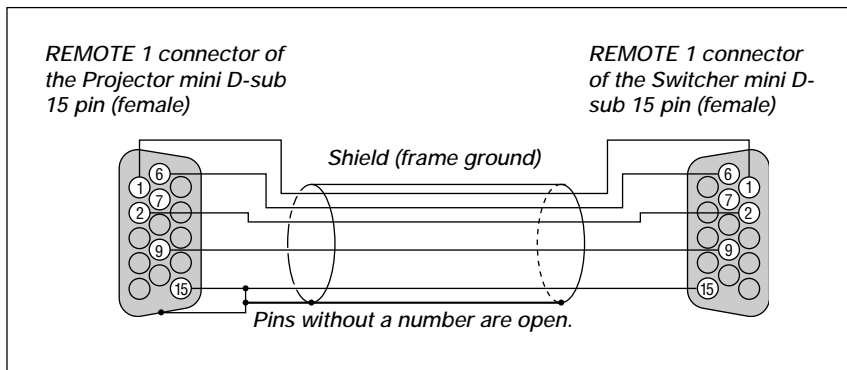
This connector is used for either connecting the ISS-6020/ISS-6020G Switcher or a third party external control device. When the Switcher is used, connect it with the optional control cable (15-15 pin; 50 ft./16m; CTL-6010) to this connector.

When used with the Switcher.

| Pin No. | FUNCTION |
|---------------|---|
| 1, 2, 6 and 7 | Sending and receiving data when the Switcher is used. |
| 9 | Identifying the Projector |
| 15 | Ground |
| 8,11 and 12 | Used inside the Projector. Normally set to OPEN. |

When using with the Switcher ISS-6020/ISS-6020G, connect No. 1,2,6,7,9 and15 pins of the projector to the same No. pins of the switcher as shown below.

Pin Configuration of Optional CTL-6010 Cable



When used in stand alone operation.

| Pin No. | SHORT/OPEN | | | | FUNCTION |
|-----------|---------------|-------|-------|---------------|---|
| 14 | SHORT OPEN | | | | External control mode ON External control mode OFF |
| 5 | SHORT OPEN | | | | POWER ON POWER OFF |
| 10 | SHORT OPEN | | | | PICTURE MUTE ON PICTURE MUTE OFF |
| 3 | SHORT OPEN | | | | MUTE SOUND ON MUTE SOUND OFF |
| 4,8,12,11 | 11pin | 12pin | 8pin | 4pin | |
| | OPEN | OPEN | OPEN | OPEN | RGB 1 |
| | OPEN | OPEN | OPEN | SHORT | VIDEO 1 |
| | OPEN | OPEN | SHORT | OPEN | S-VIDEO |
| | OPEN | SHORT | OPEN | SHORT | RGB 2 |
| | OPEN | SHORT | SHORT | OPEN | VIDEO 2 |
| | OPEN | SHORT | SHORT | SHORT | RGB1 (S-VIDEO) |
| | SHORT | OPEN | OPEN | OPEN | DVI (DIGITAL) |
| | SHORT | OPEN | OPEN | SHORT | PC CARD VIEWER |
| | SHORT | OPEN | SHORT | OPEN | DVI (ANALOG) |
| | SHORT | OPEN | SHORT | SHORT | RGB 1 (VIDEO) |
| | SHORT | SHORT | OPEN | OPEN | RGB 2 (S-VIDEO) |
| SHORT | SHORT | OPEN | SHORT | RGB 2 (VIDEO) | |

- * When the combinations other than specified in the above table are selected, the input will be forcefully switched to RGB 1.
- * The term "SHORT" means to connect with pin 15
- * When in the external control mode, the POWER, Source/Alphanumeric, PICTURE MUTE and SOUND MUTE buttons on the remote control will not function.
- * When the External control mode is set to ON, the following settings are not effective: Timer, Auto Start, Power Management, Power Confirmation, Default Source Select.

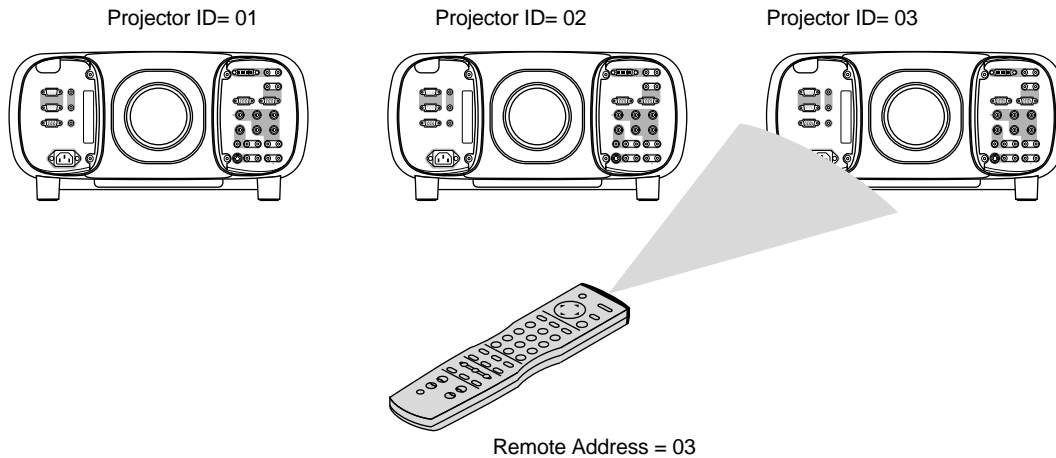
NOTE: Pin 13 is the external remote signal terminal. The projector can be controlled by the same format signal as the supplied remote control from the external controller regardless of setting on Pin 14.

NOTE: When turning off the power to the projector using the external control, do not disconnect the plug from the power outlet. These procedures are to protect your projector and the connected equipment.

Operating Multiple Projector with Remote Control

You can operate multiple projectors with the same remote control in wireless operation.
To do so:

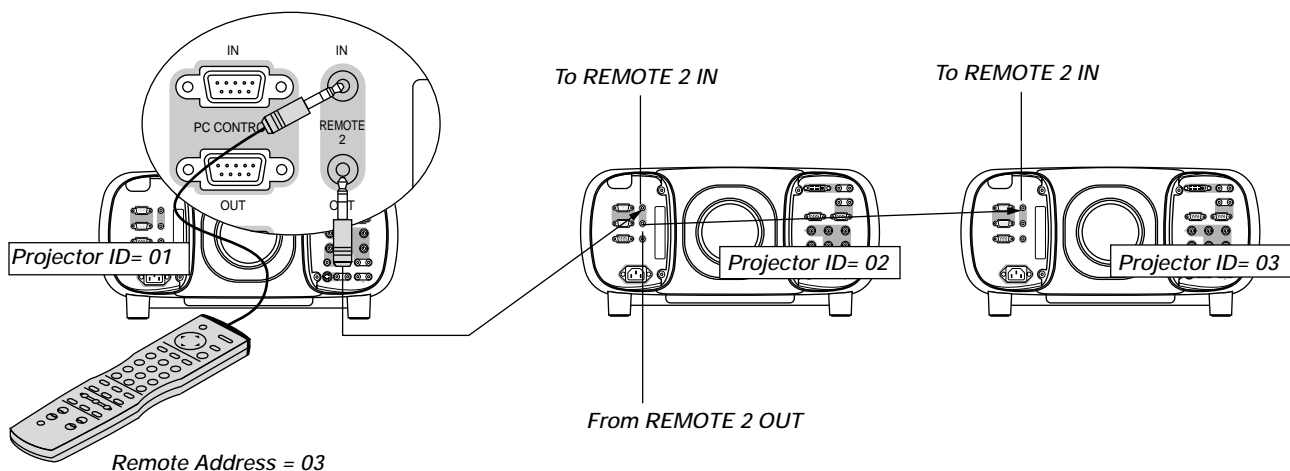
1. Select [Advanced Menu]→[Projector Options]→[Setup]→[Page 6]→[Projector ID] and assign an ID number to each projector. See also page E-49.
2. On the remote control specify the ID number of the projector to be adjusted. Press and hold the CTL and press MENU (ADDRESS) button to enter the ID number.
You can operate the projector assigned the same ID number as the remote control.



You can daisy-chain multiple projectors and operate them separately with the same remote control in wired operation.

To do so:

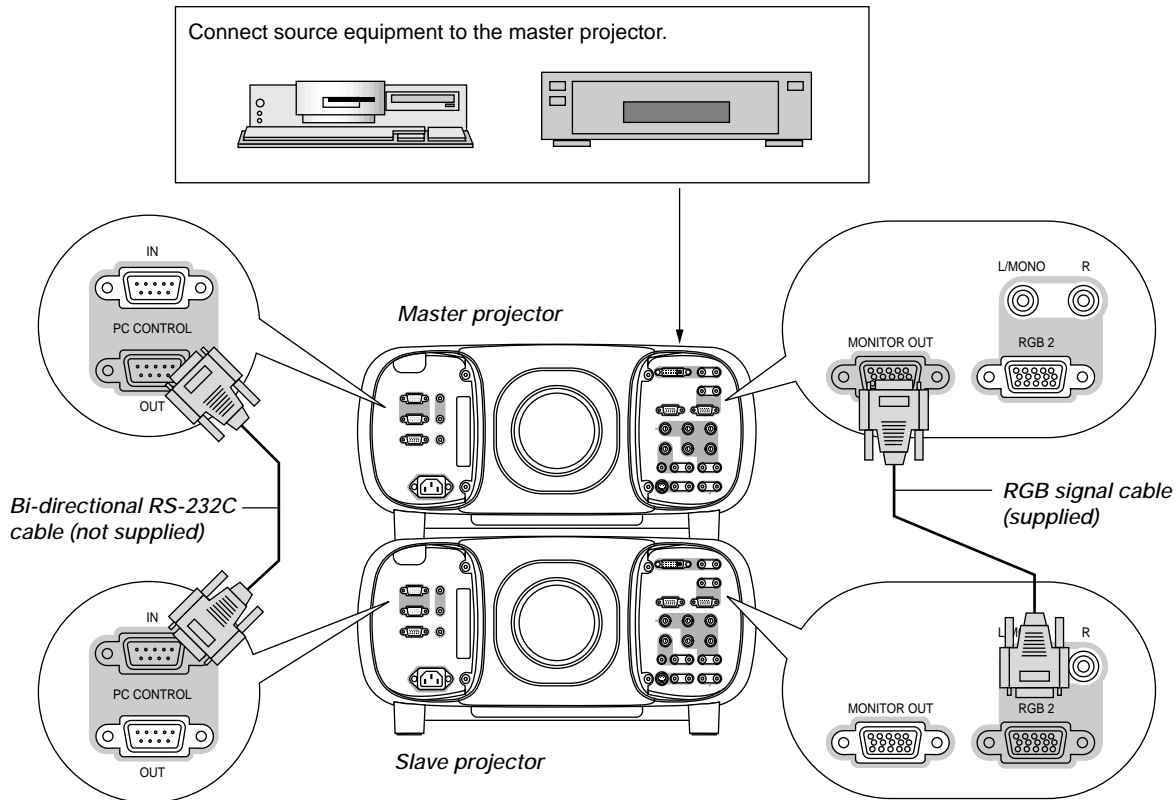
Use the remote control cable to connect the Remote Control Output of one projector to the Remote Control Input of the next until all the projectors are connected. Only one remote control cable is supplied with the projector. Additional remote control cables are optional.



Using the PC CONTROL connectors

The Link mode function allows you to adjust or set multiple projectors using the RGB 2 and the PC CONTROL connectors.

Connection for Double Stacking in Link Mode



It is recommended that you use a commercially available distribution amplifier if connecting multiple projectors in Link mode.

5. OPERATION

This section describes how to select a computer or video source, adjust the picture and sound, edit a signal and adjust all other settings and adjustments for proper projector set-up.

General Controls

Before you turn on the projector ensure that the computer or video source is turned on and that the lens hood cap is removed.

1. Turn on the Projector

Plug the supplied power cable in the wall outlet. The projector will go into its standby mode and the power indicator will glow orange.

Only after you press the "POWER ON" button on the remote control ("ON/STAND BY" button on the projector cabinet) will the power indicator turn to green and the projector become ready to use.

NOTE: To turn the projector on by plugging in the power cable, use the menu and enable the "Auto Start" feature. (See page E-48.)

2. Select The Computer Or Video Source

Press one of the Source buttons on the remote control to select the desired source. Or press the MENU button on the remote control and use the Source Select to select your video source: Video, S-Video, RGB, PC Card Viewer, DVI Digital or DVI Analog.

3. Adjust The Image

Press the ADJUST PICTURE button on the remote control or use the menu to adjust the picture.

4. Turn Off The Projector

First press the "POWER OFF" button on the remote control ("ON/STAND BY" button on the projector cabinet) for a minimum of two seconds. The power indicator will glow orange. Then, unplug the power cable. The power indicator will go out.

IMPORTANT:

- The projector should be unplugged if it will not be used for an extended period.
- If you want to turn off the image briefly (five minutes or less), press the MUTE PICTURE button instead of turning the projector off and on.
- The projector will display a black, blue image or logo if no input signal is present.
- Do not turn the projector off and then immediately back on. The Projector needs to cool down for ONE minute before it is powered on again.

CAUTION: Do not connect the power cable while the cooling fan is running.

Using the Menu

NOTE: The on-screen menu may not be displayed correctly while interlaced motion video image is projected.

1. Press the "Menu" button on the remote control or projector cabinet to display the menu.
2. Press the ▲▼ buttons on the remote control or the projector cabinet to highlight the menu for the item you want to adjust or set.
3. Press the ► button or the "Enter" button on the projector cabinet or the remote control to select a submenu or item.
NOTE: The right-oriented delta symbol indicates further choices are available.
4. Adjust the level or turn the selected item on or off by using "Select" ◀ or ▶ buttons on the remote control or the cabinet. The on-screen slide bar will show you the amount of increase or decrease.
5. Changes are stored until you adjust it again.

ENTER Stores the setting or adjustments.

CANCEL Return to the previous screen without storing settings or adjustments.

NOTE: The change is stored automatically when any one of the following procedures is performed:

* The on-screen disappears.

* The projector goes into standby.

* One input is switched to another.

6. Repeat steps 2-5 to adjust an additional item, or press "Cancel" on the projector cabinet or the remote control to quit the menu display.

Using the Magnifying Glass Icon

When the image is magnified with the MAGNIFY button on the remote control, pressing CTL and any one of ◀, ▶, ▲ or ▼ will display the magnifying glass icon.

At this time you can select any part of the screen and expand it.

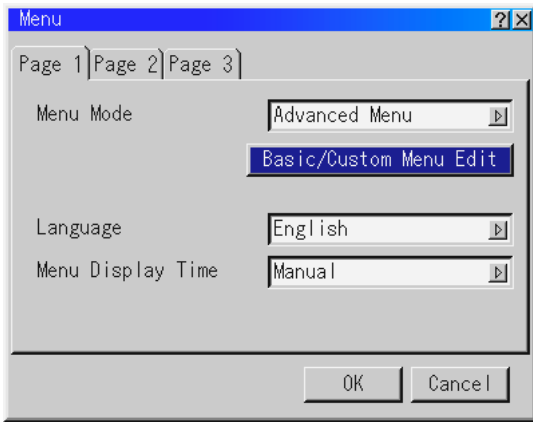
To move the magnifying glass icon, use ◀, ▶, ▲ or ▼.

Press CTL and any one of ◀, ▶, ▲ or ▼ again and the magnifying glass icon will disappear.

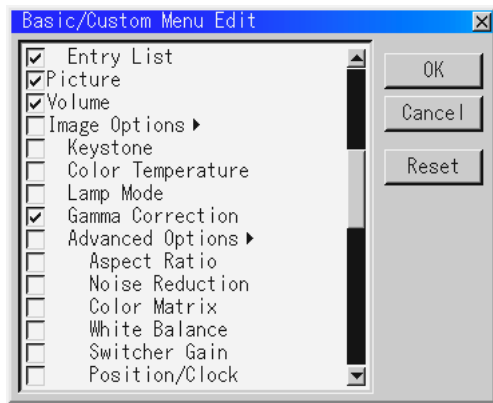
Customizing Basic/Custom Menu

The Basic/Custom menu can be customized to meet your requirements. Selecting a menu item from the “Basic/Custom Menu Edit” list, allows you to custom tailor the menu items to your needs.

1. Select “Basic/Custom Menu Edit” to display the “Basic/Custom Menu Edit” screen.



2. Use the ▲ or ▼ button to highlight your selection and press the Enter button to place a check mark next to an option. This action enables that feature. Press the Enter button again to clear the check box.



If you select an item with a solid triangle ► and press the Enter button on the remote control or the projector cabinet, you can enable all the items within that submenu.

Also you can turn on an item within the submenu without placing a check mark on the main menu item.

NOTE: Up to 12 main menu items (within Basic/Custom Menu Edit, not including submenu items) can be selected.

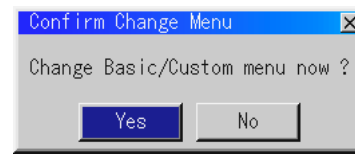
3. In order for the changes to take effect, use the ◀ or ▶ button on the remote control or the projector cabinet to highlight “OK”, then press the Enter button. To cancel the changes, use the ▲ or ▼ buttons to highlight “Cancel” and press the “Enter” button. To return to the factory default, select “Reset” then press the “Enter” button.

The default Basic/Custom Menu items are:

Source Select (RGB1/2, Video1/2, S-Video, DVI digital/analog, and PC Card Viewer), Picture, Volume, Image Options (Keystone, Color Temperature and Lamp Mode), Projector Options (Menu and Setup), Tools (Capture and PC Card Files) and Help (Contents and Information)

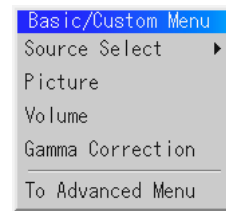
NOTE: Once you have selected OK on the Basic/Custom Menu Edit screen, you cannot cancel the changes on the Menu screen. However, you can re-edit the menu items over again as described in the steps above.

NOTE: If the “Advanced Menu” item has been selected on the Menu mode, you get the “Confirmation Change Menu” upon completion of “Basic/Custom Menu” editing. In this case, selecting “Yes” then “Enter” will close all the menus and apply the changes from the Advanced menu to the Basic/Custom Menu. If you select “No” then “Enter” functions, then all menu items will return to the Advanced menu, but your changes will still be available within the “Basic/Custom Menu” selection. To display the previously tailored Basic/Custom Menu, select “Basic/Custom Menu” from the “Menu Mode”.



An item “To Advanced Menu” will be added to the bottom of the Basic/Custom Menu.

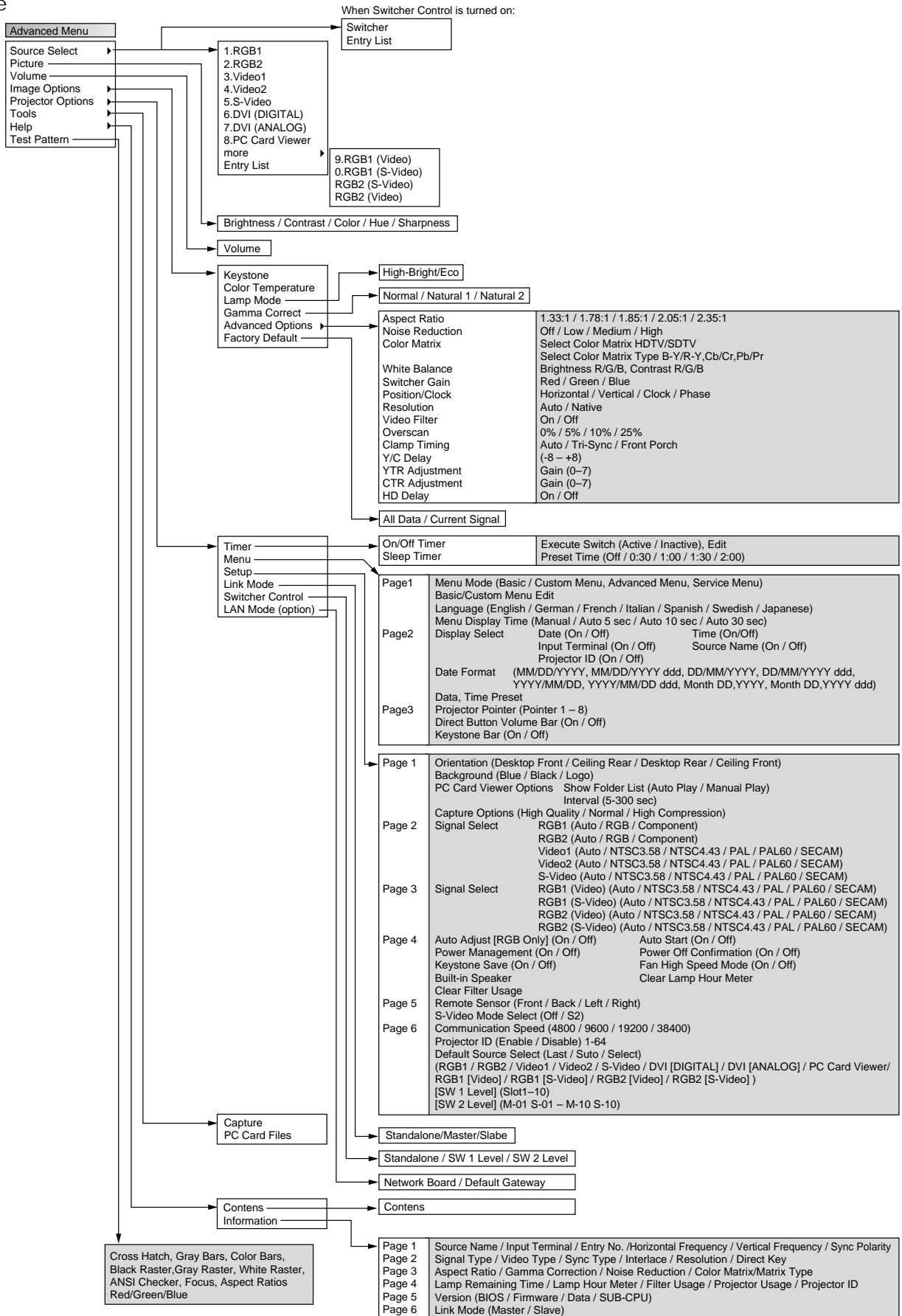
Selecting this item and pressing the “Enter” button will display the “Advanced Menu” features.



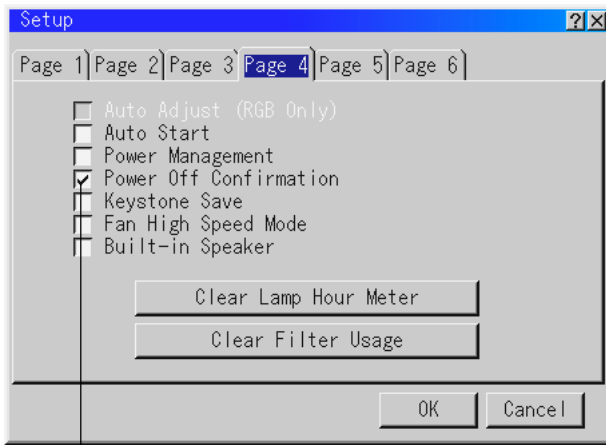
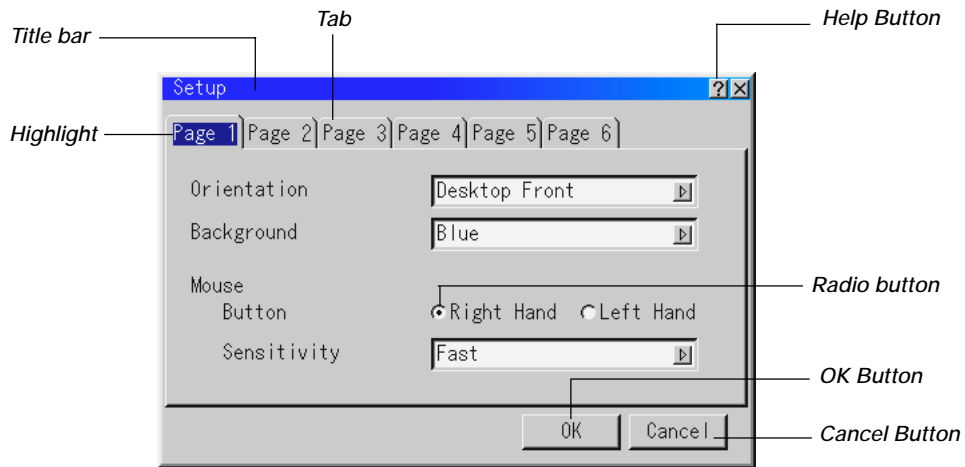
List of Direct Button Combinations

| | |
|--|---|
| CTL+ SOURCE (1-10) | Switches to any selected signal found in the Entry List. To enable this combination, you must first assign specific remote buttons for direct input selection in the Entry Edit window. |
| CTL+ ENTER (While displaying Entry list) | Displays the Entry Edit Command window. |
| CTL+CANCEL | Returns to the previous menu without closing the sidebar or dialog. |
| CTL+ UNDO | Clears all menus or adjustment/setting screens. All adjustments are saved automatically. |
| CTL+ ◀/▶/▲/▼ | Moves the sidebar or dialog box horizontally or vertically. |
| While using zoom on remote control: | Displays the magnifying glass icon. |
| CTL+ ◀ (BS) | Deletes one letter or numeral in the entry screen. |
| CTL+MUTE OSD | Turns off the on-screen display forcefully. |
| SOURCE (1-10) in SW Level mode | Displays the Select switcher Input Slot window. NOTE: This feature is available for SW 2 Level mode only. When the SW 1 Level mode is selected, pressing Source button switches to the corresponding slot without displaying the Select Slot window. |
| CTL+ MENU (ADDRESS) | Displays the remote ID entry window. |
| CTL+ IMAGE (PROJECTOR) | Sequentially selects the Projector Options sub menu. |
| CTL+ POSITION (LENS) | Displays the Lens Shift adjustment window. |
| CTL+ KEYSTONE (R) | Turns on red. Available only when the projector is in the test pattern mode. |
| CTL+ AMPLITUDE (G) | Turns on green. Available only when the projector is in the test pattern mode. |
| CTL+ ENTRY LIST (B) | Turns on blue. Available only when the projector is in the test pattern mode. |
| CTL+ MAGNIFY (ZOOM) | Zooms the lens in and out |
| CTL+ (FOCUS) | Adjusts the lens focus. |

Menu tree



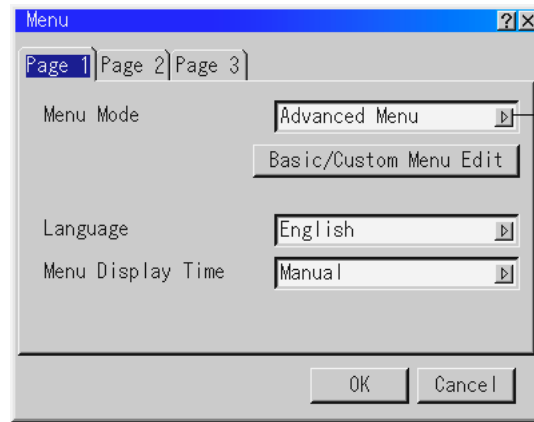
Menu Elements



Check box



Tool bar



Solid triangle



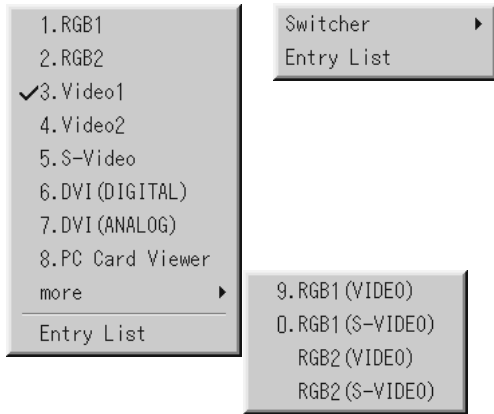
Slide bar

Menu windows or dialog boxes typically have the following elements:

- Title bar:** Indicates the menu title.
- Highlight:** Indicates the selected menu or item.
- Solid triangle:** Indicates further choices are available. A highlighted triangle indicates the item is active.
- Tab:** Indicates a group of features in a dialog box. Selecting on any tab brings its page to the front.
- Radio button:** Use this round button to select an option in a dialog box.
- Check box:** Place a checkmark in the square box to turn the option On.
- Slide bar:** Indicates settings or the direction of adjustment.
- OK button:** Press to confirm your setting. You will return to the previous menu.
- Cancel button:** Press to cancel your setting. You will return to the previous menu.
- Help button:** Press the Help button on the remote control to display help.
- Toolbar:** Contains several icons for specific tasks. It is also referred to as "launcher".

Menu Descriptions & Functions

Source Select



When Switcher Control is set to "Standalone", you can select a video source such as a VCR, DVD player, laser disc player, computer, or document camera depending on what is connected to your inputs, or PC Card Viewer (PC card installed).

Enables you to select a video source such as a VCR, DVD player, laser disc player, computer or document camera depending on what is connected to your inputs.

Press the up/down buttons on your remote control or the projector cabinet to highlight the menu for the item you want to project.

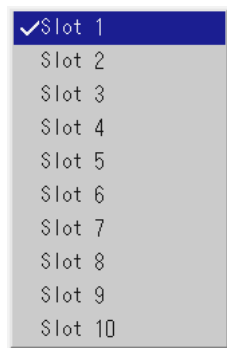
- * RGB1,2
- * Video 1,2
- * S-Video
- * RGB Digital
- * RGB Analog
- * PC Card Viewer
- * RGB1 (VIDEO)
- * RGB1 (S-VIDEO)
- * RGB2 (S-VIDEO)
- * RGB2 (VIDEO)

Switcher



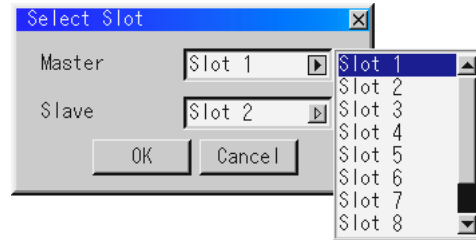
You can select the slot number from 1 to 10 of the Switcher(s) ISS-6020.

When using with a single Switcher ISS-6020:



Use the Select ▲ or ▼ button to select the desired slot number from 1 to 10 of the ISS-6020 Switcher and press ENTER.

When using with two or more Switcher ISS-6020:

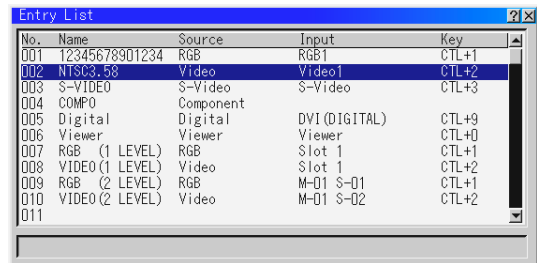


Use the Select ▲ or ▼ button to select the master slot number from 1 to 10 and then the slave slot number from 1 to 10 on the Select Slot menu. Select OK and press ENTER.

To close the window without storing the settings, select Cancel and press ENTER.

Entry List

Displays the list of the entry signals. Use the ▲▼ buttons on your remote control or the projector cabinet to select the signal and press the ENTER button on the remote control or the projector cabinet to project the image of the selected source.



Entry Edit Command (Expert mode only)

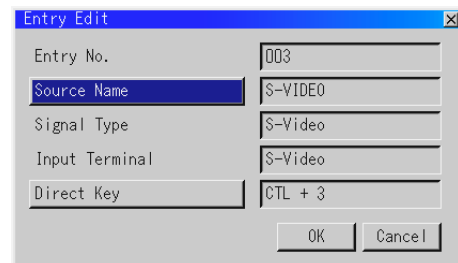
You can edit the signal on the entry list.

To do so:

1. While pressing and holding CTL, press ENTER on the remote control to display the Entry Edit Command window.

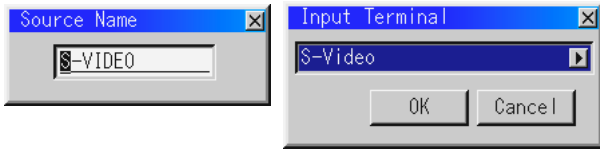


- * **Cut** Enables you to remove a selected signal from the list and place it on the "clipboard" in the projector.
- * **Copy** Enables you to copy a selected signal from the list and place it on the "clipboard" in the projector.
- * **Paste** Enables you to paste the signal placed on the "clip-board" to any other line of the list. To do this, select "Paste" and then select the line number you want to paste to. Last press ENTER.
- * **Edit** Enables you to change source name or assign the direct key.
- * The following buttons are not available for the currently projecting signals:
 - 1) The Cut and Paste buttons on the Entry Edit Command screen
 - 2) The Input Terminal button on the Entry Edit screen



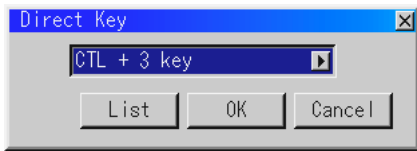
When complete, select OK and press ENTER. To exit without storing setting, select Cancel.

Select "Source Name" and press ENTER to display the Source Name Edit window. You can change source name on this window. Select "Input Terminal" and press ENTER to display the Input Terminal window. You can change input terminal on this window.



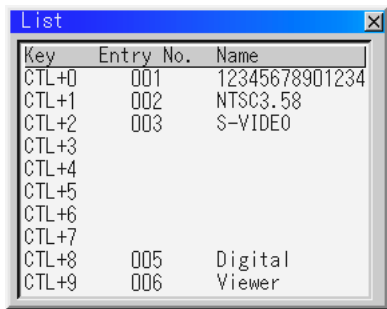
Select "Direct Key" and press ENTER to display the Direct Key window. You can assign specific remote keys for direct signal input selection.

NOTE: Existing direct key settings are overwritten with new settings.



Select "List" and press ENTER to display the direct Key assignment list.

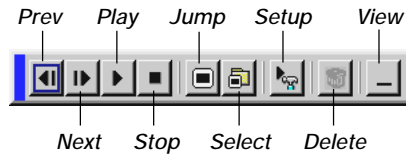
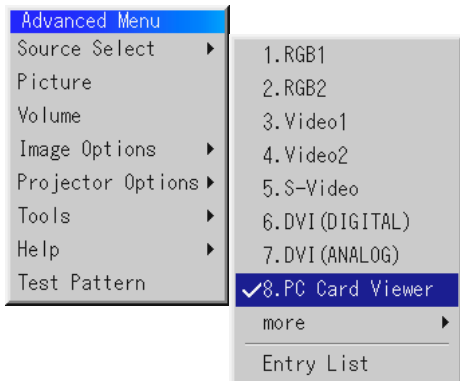
Select "OK" and press ENTER to close the window. To close the List window, press CANCEL on the remote.



PC Card Viewer

This feature enables you to make presentations using a PC card that contains captured images and slides created with the exclusive PC Card Viewer Utility contained in the CD-ROM. See page E-53 for installing the PC Card Viewer Utility. The starting screen for the PC Card Viewer varies depending on the settings of the Setup's Page 1. See Setup on page E-47.

NOTE: Even if you switch the current PC Card Viewer source to another source, the current slide is retained. When you return back to the PC Card Viewer, you will get the slide that has been retained. A launcher will appear when you press the MENU button.



A press of the MENU button displays the toolbar; a press of the MENU button again displays the Menu and hereafter each press of the MENU button switches displaying between the Menu and the toolbar.

The launcher is a tool bar including the following buttons:

- Prev Returns to the previous slide or folder.
- Next Advances to the next slide or folder.
- Play Plays back automatically or manually depending on the setting on PC Card Viewer Options of the menu. This allows you to move on to the next slide when "Manual Play" is selected.
- Stop Stops Auto Play while you are playing back and to resume playing from the selected slide or folder when "Auto Play" is selected.
- Jump Displays a list of slides while you are playing back.
- Select Displays a list of folders while you are playing back.
- Setup Displays the PC Card Viewer Options dialog box on Page 1 of the Setup dialog box.
- Delete Deletes a captured slide(s) or all the captured slides in the selected folder.
- View Hides the tool bar while you are playing back. Pressing the MENU button shows it again.

Picture (not available for PC Card Viewer)



Provides access to controls for your image. Use ▲▼ buttons on the projector cabinet or the remote control to highlight the menu for the item you want to adjust.

- Brightness ... Adjusts the brightness level or the back raster intensity.
- Contrast Adjusts the intensity of the image according to the incoming signal.
- Color Increases or decreases the color saturation level (not valid for RGB).
- Hue Varies the color level from +/- green to +/-blue. The red level is used as reference. This adjustment is only valid for Video and Component inputs (not valid for RGB).
- Sharpness Controls the detail of the image for Video (Not valid for RGB and Component).

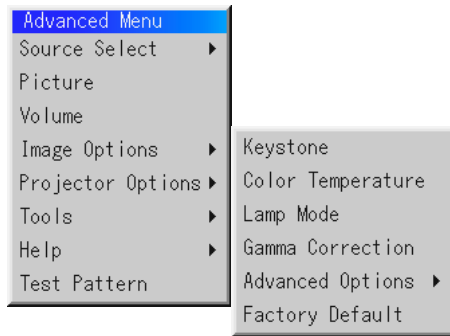
Volume (not available for PC Card Viewer)



Adjusts the sound level of the projector.

NOTE: You can also display the volume bar without opening the menu. See "Volume Bar (Direct Button)" on page E-46 for more details.

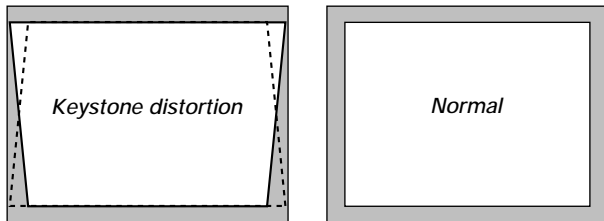
Image Options



Keystone



This feature corrects the keystone (trapezoidal) distortion to make the top of the screen longer or shorter to be the same as the bottom. Use the ◀ or ▶ buttons on the slide bar to correct the keystone (trapezoidal) distortion.



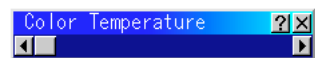
NOTE:

- 1) The maximum keystone angle that can be corrected is 30 degrees upward and 30 degrees downward with the projector placed horizontally on the ground plane.
- 2) When "Resolution" is set to "Native", this feature is not available, and the stored settings and adjustments are invalid.

Depending on the type of graphics being used, the picture may get blurred or keystone correction may not be possible when excessive keystone correction is used.

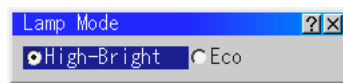
The idea is, the closer you are to native resolution, the better image you will see.

Color Temperature



This feature adjusts the color temperature using the slide bar. Move the slide bar to the right to increase the color temperature for a bluish image; to the left to decrease it for a reddish image.

Lamp Mode

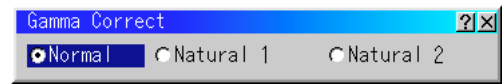


This feature enables you to select two brightness mode of the lamp: High-Bright and Eco modes. The lamp life can be extended up to 2000 hours by using the Eco mode.

- High-Bright Mode This is the default setting.
- Eco Mode Select this mode to increase the lamp life.

NOTE: If you have selected the Eco mode, the lamp lights in High-Bright mode for 3 minutes after the projector is turned on. After 3 minutes the lamp will change to Eco mode.

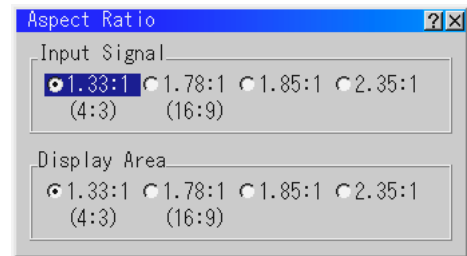
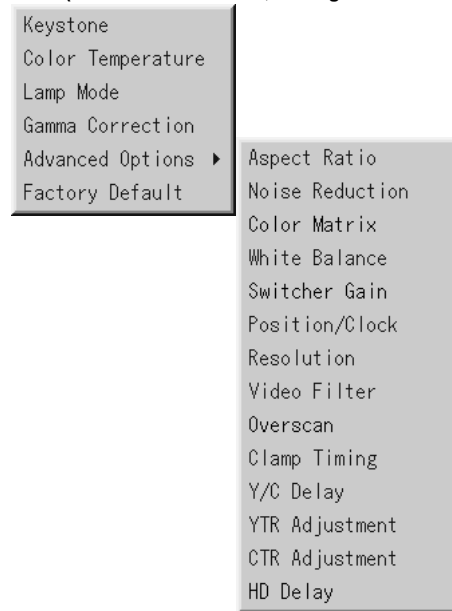
Gamma Correction



Use the ◀ or ▶ button to choose "Normal" when in a lighted room and "Natural 1&2" when in a darkened room. "Natural 1" for better flesh tone; "Natural 2" for true reproduction of middle tones. Each mode is recommended for :

- Normal For the regular picture
- Natural 1 For true color reproduction of natural tones
- Natural 2 For dark portions of a picture

Aspect Ratio (not available for RGB, DVI digital and PC Card Viewer)



You can select the aspect ratio for input signal and display area respectively.

Select the appropriate aspect ratio using the Select ◀, ▶, ▲, or ▼ button.

NOTE: When "Resolution" is set to "Native", this feature is not available, and the stored settings and adjustments are invalid.

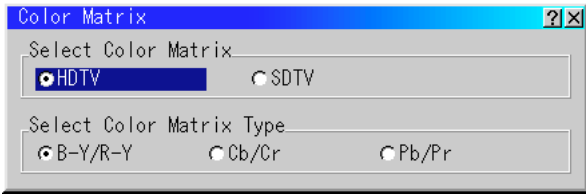
Noise Reduction (not available for RGB and PC Card Viewer)



You can select three levels video noise reduction.

NOTE: The lower the Noise Reduction level, the better the image quality by way of higher video bandwidth.

Color Matrix (available for component video signal only)



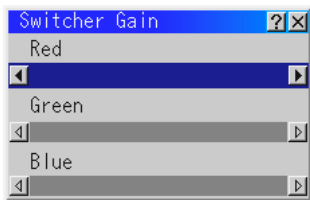
First select an appropriate color matrix to fit your component signal for HDTV or SDTV. Then select an appropriate matrix type from B-Y/R-Y, Cb/Cr or Pb/Pr.

White Balance (not available for PC Card Viewer)



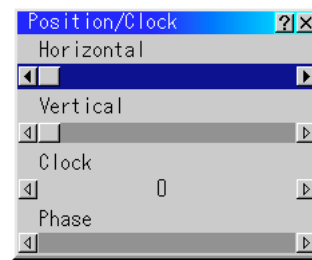
This allows you to adjust the white balance. Brightness for each color (RGB) is used to adjust the black level of the screen; Contrast for each color (RGB) to adjust the white level of the screen. First use the ▲ or ▼ buttons to select R, G, or B for the brightness and the contrast. Next use the ◀ or ▶ buttons to adjust the level.

Switcher Gain (available only when used with ISS-6020)



This feature adjusts the input level of the signal. This must be done to each color: R, G, and B.

Position/ Clock (when Auto Adjust is off)



This allows you to manually adjust the image horizontally and vertically, and adjust Clock and Phase.

Horizontal/Vertical Position

..... Adjusts the image location horizontally and vertically using the ◀ and ▶ buttons. This adjustment is made automatically when the Auto Adjust is turned on. See "Auto Adjust (RGB Only)" on page E-48 for turning on or off the Auto Adjust feature.

Clock Use this item to fine tune the computer image or to remove any vertical banding that might appear. This function adjusts the clock frequencies that eliminate the horizontal banding in the image. Press the ◀ and ▶ buttons until the banding disappears. This adjustment may be necessary when you connect your computer for the first time. This adjustment is made automatically when the Auto Adjust is turned on.

Phase Use this item to adjust the clock phase or to reduce video noise, dot interference or cross talk. (This is evident when part of your image appears to be shimmering.) Use the ◀ and ▶ buttons to adjust the image. Use "Phase" only after the "Clock" is complete. This adjustment is made automatically when the Auto Adjust is turned on.

Resolution (when Auto Adjust is off)

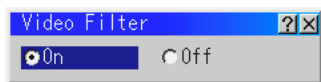


This allows you to activate or deactivate the Advanced AccuBlend feature.

- Auto Turns on the Advanced AccuBlend feature. The projector automatically reduces or enlarges the current image to fit the full screen.
- Native Turns off the Advanced AccuBlend feature. The projector displays the current image in its true resolution. See "Auto Adjust (RGB Only)" on page E-48 for turning on or off the Auto Adjust feature.

NOTE: While you are displaying an image with higher resolution than the projector's native resolution, even when you are in the Native mode, the image is displayed full screen using the Advanced AccuBlend feature.

Video Filter (when Auto Adjust is off)



This function reduces video noise.
Select On/Off with the Select ◀ or ▶ button.

On The low-pass filter is applied.
Off The filter is removed.

Screen adjustments are possible even when the filter is On.

Overscan (RGB only)



You can select overscan percentage for RGB signal.
Select the appropriate option using the Select ◀ or ▶ button.

NOTE: When "Resolution" is set to "Native", this feature is not available, and the stored settings and adjustments are invalid.

Clamp Timing (not available for DVI digital)



This function sets the standard black level position of the displayed image. Select one of the following three options.

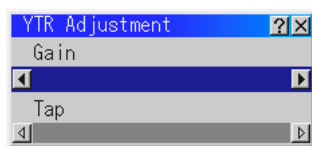
Auto Normal setting.
Tri-Sync Setting for HDTV signal
Front Porch .. For other settings than above

Y/C Delay (not available for RGB and DVI digital)



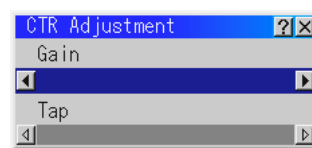
Adjusts Y/C delay level (-8 and +8).

YTR Adjustment (not available for RGB and DVI digital)



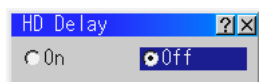
Adjusts luminance transient time (0-7).

CTR Adjustment (not available for RGB and DVI digital)



Adjusts chroma transient time (0-7).

HD Delay (available for DVI digital signal only)



This feature is used to correct vertical jitter of DVI digital signal.
Select On/Off with the Select ◀ or ▶ button.

On Delays the horizontal sync.
Off Does not delay the horizontal sync.

Factory Default



Changes all adjustments and setting to the factory preset for each source individually except Lamp Hour Meter, Projector Usage, Language and Communication Speed. (To reset the lamp usage time, see "Clear Lamp Hour Meter" on page E-48.)

All Data Reset all the settings for all the signals to the factory preset.
Current Signal Resets the adjustments for the current signal to the factory preset levels.

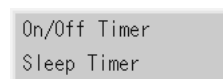
The items that can be reset for the currently projected image are:
Picture (Brightness, Contrast, Color, Hue and Sharpness) and Image Options (Color Temperature, Gamma Correction, Advanced Options [Aspect Ratio, Noise Reduction, Color Matrix, White Balance, Switcher Gain, Position/Clock, Resolution, Video Filter, Overscan, Clamp Timing, Y/C Delay, YTR Adjustment, CTR Adjustment and HD Delay]).

NOTE: The Volume, Keystone, Lamp Mode and all the items in the Projector Options can be reset only when "All Data" is selected.

Projector Options

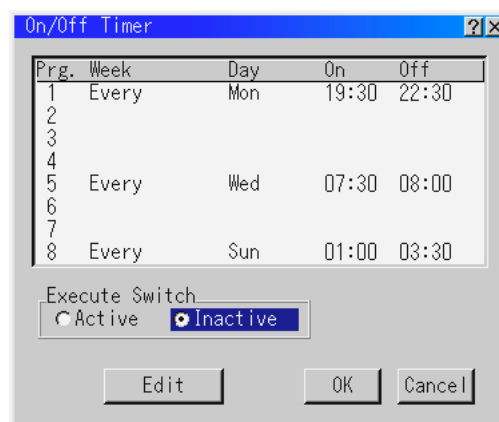
Enables you to set preferences and other operating options.

Timer



Enables you to turn on or off your projector automatically at a specified time. Two timer functions are available: On/Off Timer and Sleep Timer.

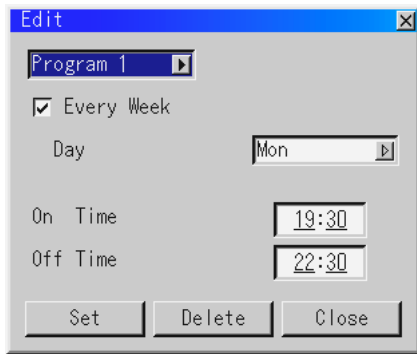
[On/Off Timer]



Up to eight settings can be programmed.

- Before setting On/Off Timer, make sure that Date, Time Preset feature is set.
- Even after setting On/Off Timer, turning the projector on or off with the remote control is possible.
- There are two time display formats: 24-hour or AM/PM for-mat.

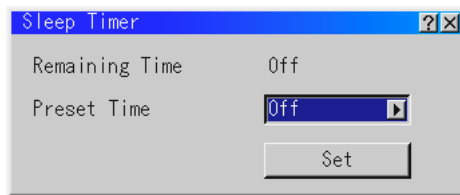
1. Open the On/OFF Timer window.
2. Select EDIT and press ENTER on the remote control to open the EDIT window.



3. Set the Week, Day, On-Time and Off-Time using the Select buttons and Source buttons (1 thru 10). To cancel the on-time or off time, use Delete.
4. Select Set and press the ENTER button on the remote control to complete the setting. To close, select Close.
5. To enable your setting, select Active on the Execute Switch.
6. Select OK and press the ENTER button on the remote control to complete the setting.

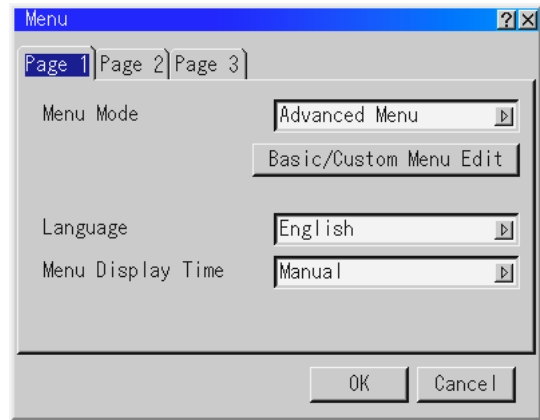
NOTE: When On Timer is set and the projector is in the standby mode, the Status indicator flashes green (4 sec interval) to show that On Timer program is active.
The projector must be in stand-by mode at the time of turning on.
The preset power-on time will be void if the cooling fan is working or an error occurs.

Sleep Timer



1. Select your desired time between 30 minutes and 2 hours in 30 minute increments.
2. Select Set and press the ENTER button on the remote control.
3. The remaining time starts counting down.
4. The projector will turn off after the countdown is complete.

Menu [Page 1]



Allows you to set preferences for the on-screen menu.
Press "OK" to save your changes for all the features.

Menu Mode:

This feature allows you to select two menu modes: Advanced Menu and Basic/Custom Menu.

Advanced Menu This is the menu that contains all the available menus and commands.

Basic/Custom Menu This is the menu that you can customize using the

Basic/Custom Menu Edit to fit your needs.

The factory default Basic/Custom menu includes:

Source Select (RGB1/2, Video1/2, S-Video, DVI (Digital), DVI (Analog) and PC Card Viewer), Picture, Volume, Image Options (Keystone, Color Temperature and Lamp Mode), Projector Options (Menu and Setup), Tools (Capture and PC Card Files) and Help (Contents and Information). See page E-36 for instructions about how to customize the Basic/Custom Menu.

Language:

You can choose one of seven languages for on-screen instructions. The options are: English, German, French, Italian, Spanish, Swedish and Japanese.

Menu Display Time :

This option allows you to select how long the projector waits after the last touch of a button to turn off the menu.

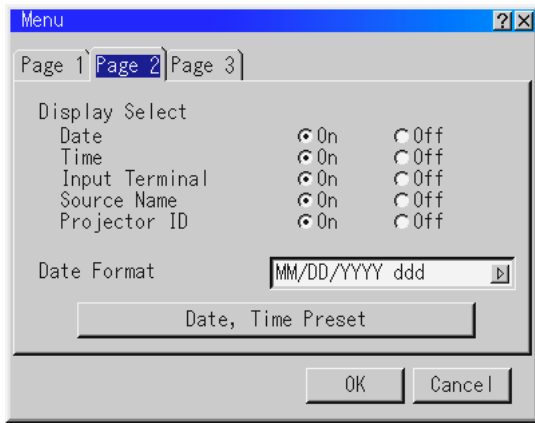
The preset choices are "Manual", "Auto 5 sec", "Auto 10 sec", and "Auto 30 sec". The "Auto 10 sec" is the factory preset.

Manual The menu can be turned off manually.

Auto 5 sec The menu will automatically be turned off in 5 seconds if no buttons are pressed within 5 seconds.

Auto 10 sec .. The menu will automatically be turned off in 10 seconds if no buttons are pressed within 10 seconds.

Auto 30 sec .. The menu will automatically be turned off in 30 seconds if no buttons are pressed within 30 seconds.



Display Select:

You can choose the desired status information to be displayed on the screen. The desired status information will be displayed each time you switch between sources.

Date Format:

Eight display formats can be selected. This date format sets the current date that appears on the upper left corner of the screen.

Date, Time Preset:

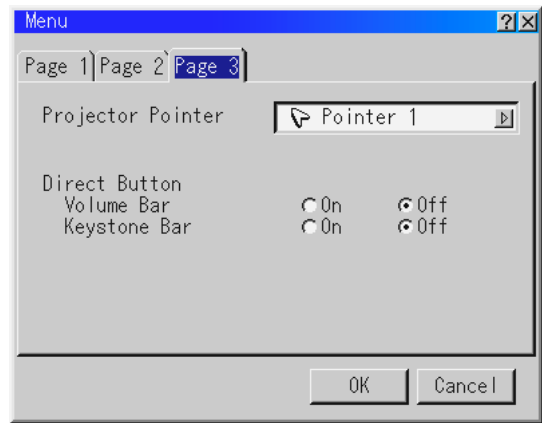
Setting the Current Date and Time



You can set the current time, month, date, and year.

1. Type in date.
Enter month, date and year in this order using INPUT buttons on the remote control.
Month and date must be entered in two digits. For example, to display "February", press "0" and "2".
2. Type in time.
Time is expressed in the 24-hour format. For example, 6:00 p.m. is entered as 18:00.
3. Select "OK" and press ENTER.
Closing the window allows the clock to start.
The current year, month, date and time are displayed on the top of the screen.

NOTE: The projector has a built-in clock. The clock will keep working for about 3 days after the main power is turned off. If the main power is off for 3 days or more, the built-in clock will be reset. If the built-in clock is reset, set the date and time again. The built-in clock will not reset while in the standby condition.



Projector Pointer:

This option is available on the optional presentaion remote control (PR50KIT) only.

This enables you to select from eight different Pointer icons for the "Pointer" button on your remote control.

After moving your Pointer icon to the area you want on the screen, press the Magnify button on the remote control to enlarge the selected area on the screen.



NOTE: There may be cases where the Pointer function is not available (ex. A non-interlace signal at 15kHz such as video game.)

Direct Button:

Volume Bar: This option turns on or off the volume bar when you adjust the sound volume using Select ▲▼ button on the remote control.

- On You can increase or decrease the sound volume with the volume bar on screen.
- Off You can increase or decrease the sound volume without having to use the volume bar.

Keystone Bar: This option is available on the optional presentaion remote control (PR50KIT) only. This option turns on or off the keystone bar when you adjust the keystone using KEYSTONE +/- button on the optional presentation remote control.

- On You can increase or decrease the level with the keystone bar on screen.
- Off You can increase or decrease the level without having to use the keystone bar.

Setup

Enables you to set operating options.

Press "OK" to save your changes for all the features of Page1, Page2, Page3, Page 4, Page5 and Page6.

[Page 1]



Orientation:

This reorients your image for your type of projection.

The options are: desktop front projection, ceiling rear projection, desktop rear projection, and ceiling front projection.

Background:

Use this feature to display a blue/ black screen or logo when no signal is available. The default background is blue. You can change the logo screen using the PC Card Files feature. See page E-50.

PC Card Viewer Options

Show Folder List:

If this option is checked, when PC Card Viewer input is selected on the projector, the folder lists will be displayed and allows you to select the presentation from a PC card.

Auto Play:

If this option is checked, any given slide will start to play automatically.

Auto Play Interval:

You can specify interval time between 5 and 300 seconds.

NOTE: The Auto Play Interval time set on the PC Card Viewer Utility overrides the one set here.

Manual Play:

Views a slide manually when PC Card Viewer input is selected.

NOTE: The Auto Play and Manual Play options determine the behavior of the Play/Stop [] / [] icon on the Viewer toolbar.

NOTE: If you check "Auto Play" and select "PC Card Viewer" on the projector, the slides will automatically start to play back from any given slide.

Capture Options: (available for JPEG only)

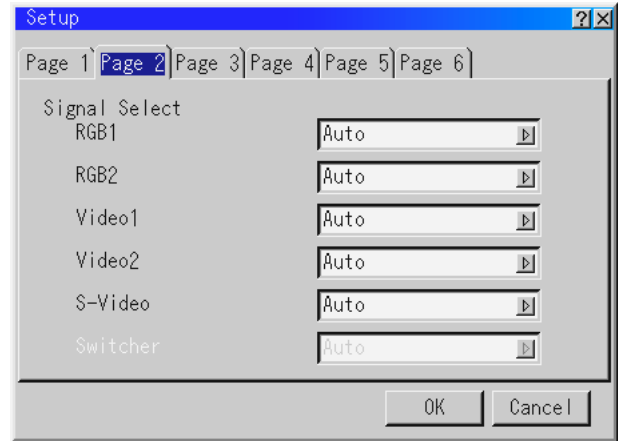
These options are used for the Capture function that you can select from Tools. You have three options for JPEG compression quality: High quality, Normal and High Compression.

High Quality Gives quality of JPEG a priority.

Normal Gives normal JPEG quality.

High Compression Gives compression a priority.

[Page2]



Signal Select

RGB1/2:

Allows you to choose "RGB" for an RGB source such as a computer, or "Component" for a component video source such as a DVD player. Normally select "Auto" and the projector automatically detects a component signal. However there may be some component signals that the projector is unable to detect. If this is the case, select "Component".

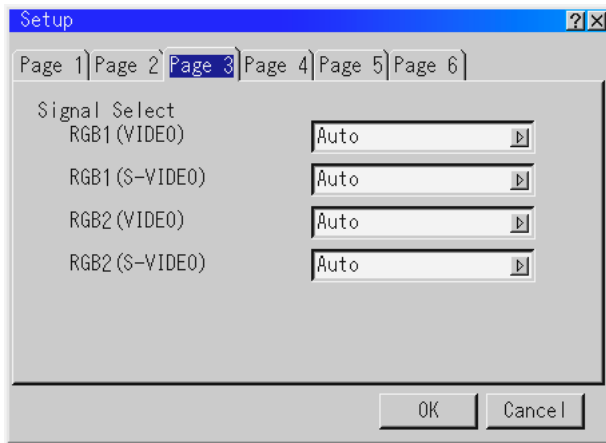
VIDEO 1/2 and S-VIDEO:

This feature enables you to select composite video standards manually.

Normally select "Auto".

Select the video standard from the pull-down menu. This must be done for Video and S-Video separately.

[Page 3]

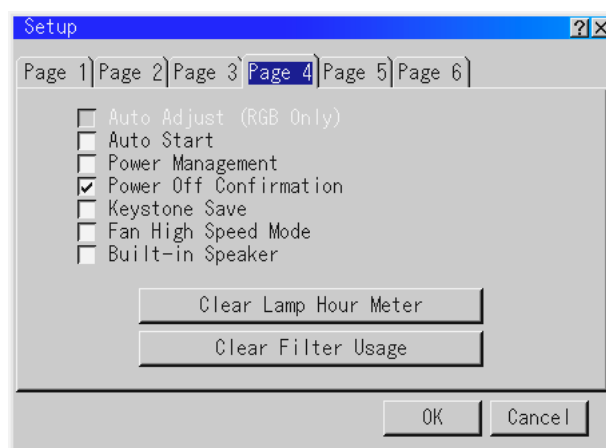


Signal Select (RGB connector):

Allows you to choose "VIDEO" or "S-VIDEO" for RGB 1 or 2 connector.

Normally select "Auto".

[Page 4]



Auto Adjust (RGB Only):

When "Auto Adjust" is set to "On", the projector automatically determines the best resolution for the current RGB input signal to project an image using NEC's Advanced AccuBlend Intelligent Pixel Blending Technology.

The image can be automatically adjusted for position and stability; "Horizontal Position", "Vertical Position", "Clock", "Phase", and "Resolution."

On Automatically adjusts image display functions ("Video Filter", "Horizontal Position", "Vertical Position", "Clock", "Phase" and "Resolution".)

Off User can adjust the image display functions ("Video Filter", "Horizontal Position", "Vertical Position", "Clock", "Phase" and "Resolution") manually.

Auto Start:

Turns the projector on automatically when the power cable is inserted into an active power outlet. This eliminates the need to always use the "Power" button on the remote control or projector cabinet.

Power Management:

When this option is on and there is no RGB input for five minutes or more, the projector will automatically turn itself off.

Power Off Confirmation:

This option determines whether a confirmation dialog for turning off the projector will appear or not.

Keystone Save:

This option enables you to save your current keystone settings. Saving your change once affects all sources. The changes are saved when you turn off the projector.

Fan High Speed Mode:

This option allows you to select two modes for fan speed: high-speed mode and normal speed mode.

When you wish to cool down the temperature inside the projector quickly, check this box. This is convenient especially when the projector is installed on the ceiling.

Built-in Speaker:

This option allows you to activate the built-in speakers when you connect an audio cable to the AUDIO OUT terminal.

Clear Lamp Hour Meter:

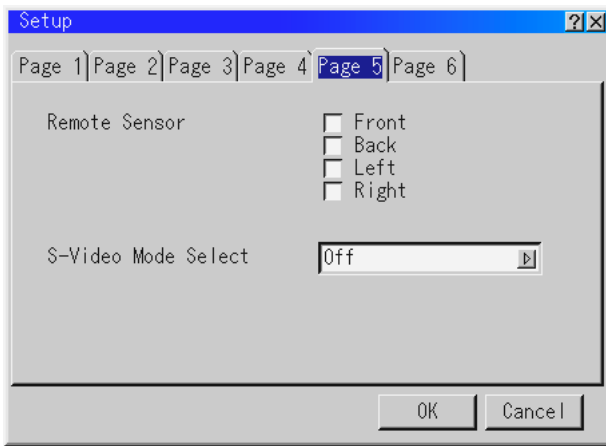
Resets the lamp clock back to zero. Pressing this button appears a confirmation dialog box. To reset the lamp usage hour, press "OK".

NOTE: The projector will turn off and go into standby mode after 1600 hours (up to 2100 hours in Eco mode) of service. If this happens, press the "Help" button on the remote control for ten seconds to reset the lamp clock back to zero. Do this only after replacing the lamp.

Clear Filter Usage:

Resets the filter usage back to zero. Pressing this button appears a confirmation dialog box. To reset the filter usage hour, press "OK".

[Page 5]



Remote Sensor:

This option determines which remote sensors on the projector are enabled in wireless mode.

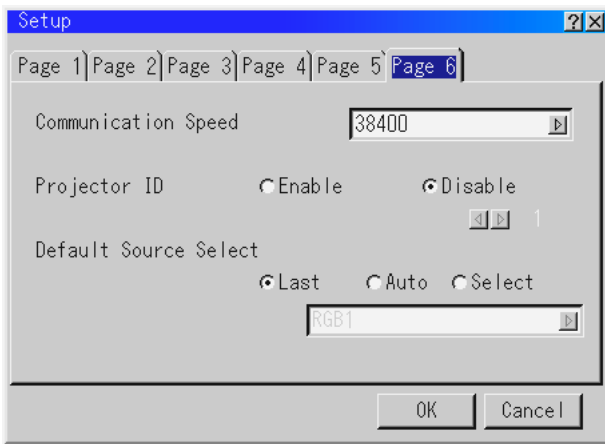
The options are: front, rear, right, or left. All checked boxes indicate that they can accept the infrared signal from the supplied remote control.

S-Video Mode Select:

This feature is used to select the S-Video signal detection mode. This allows identifying of the S-Video signals with different aspect ratio (Zoom signal 16:9, Wide Zoom signal 4:3).

- S2 Identifies Zoom or Wide Zoom signal.
- OFF Does not identify any S-video signal.

[Page 6]



Communication Speed:

This feature sets the baud rate of the PC CONTROL connector (Mini D-Sub 9 Pin). It supports data rates from 4800 to 38400 bps. The default is 38400 bps. Select the appropriate baud rate for your equipment to be connected.

Projector ID

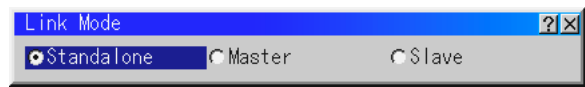
Each projector needs its own unique addresses when used in serial communication mode. You can choose one of 64 unique address using the spin box. First select Enable. Keep pressing increases the number. To make your setting available, select OK.

Default Source Select:

You can set the projector to default to any one of its inputs each time the projector is turned on.

- Last Sets the projector to default to the previous or last active input each time the projector is turned on.
- Auto Searches for an active source in order of RGB1 → RGB2 → Video 1 → Video 2 → S-Video → PC Card Viewer → DVI Digital → DVI Analog → RGB1 (Standalone) and displays the first found source.
Searching order in SW1 Level: from Slot 1 to 10
Searching order in SW2 Level: from Master projector 01, Slave projector 01 to Master projector 10, Slave projector 10
- Select Displays the selected source input every time the projector is started up. Select an input from the pull-down menu.

Link Mode (not available for DVI digital)



This feature is used for multiple projector connection using RGB Digital Input/Output connectors. The master projector is set to Master. The other slave projectors are set to Slave. When not using Link mode, set to Standalone. See page E-16 for setting up for double stacking in link mode.

Switcher Control



This feature sets the projector in communication with the NEC ISS-6020 Switchers.

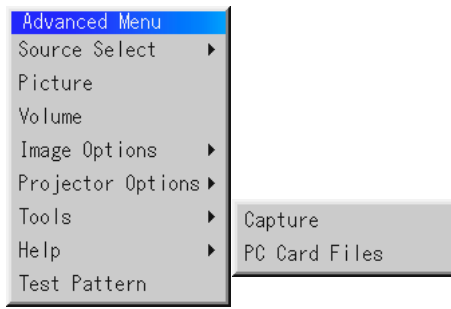
- Stand Alone Use the projector in stand alone operation.
- SW 1 Level Use the projector with one Switcher. (not available in Link mode)
- SW 2 Level Use the projector with two or more Switchers. (not available in Link mode)



When changing this setting, the confirmation message will appear. If you want to restart your projector, select Yes; if not, select No.

NOTE: This setting becomes effective only after the projector is restarted.

Tools

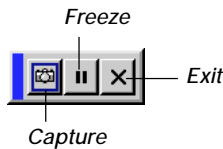


Provides tools for capturing images and displaying files in a PC Card.

NOTE: The "Capture" and "PC Card Files" features are required for a PC card.

Capture:

Allows you to capture an image from a source that is currently being displayed. The image is saved as JPEG in the PC card. When you select Capture from the menu, you will get a tool bar. You can capture an image directly using the tool bar when the menu is not displayed.



The tool bar includes the following buttons:

Capture Captures an image and save it as a JPEG file in a PC card.
Freeze Freezes and unfreezes images.
Exit Exits the Capture function.

Unless a PC card is inserted into the PC Card slot of the projector, the Capture feature is not available.

The "Card Error" display means that the free space of the PC card is insufficient for saving images. Make more space available on the card by erasing unwanted images with your PC. The number of images that can be captured depends on the size of the PC card.

NOTE: Be sure not to turn off the power or remove the PC card while capturing an image. Doing so could cause a loss of the data in the PC card or damage to the card itself.

NOTE: Captured images with higher resolution than the projector's native resolution cannot be displayed correctly.

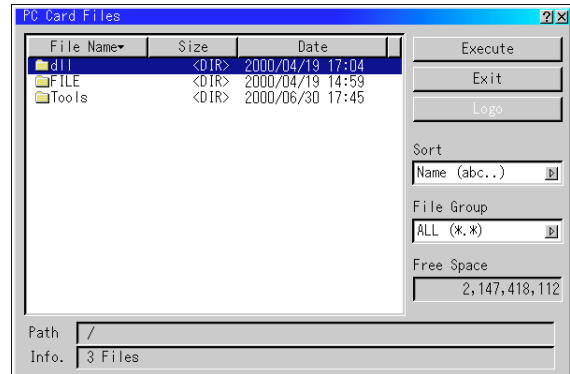
PC Card Files:

Displays a list of all the files stored in the PC card so that you can select a file you want to display. You can also sort files by file name or date, or display the file.

Although a list of all the files in the PC card is displayed, you can view files in idx, text, HTML, JPEG and BMP format only.

Selecting BMP and JPEG files automatically switches to the PC Card Viewer source.

NOTE: When an image with a resolution of XGA (1024 x 768) or higher is projected, the PC Card Files screen may not be correctly displayed.



Selecting "Execute" displays the file you selected.

When you select a JPEG or BMP file and press the Enter button on the remote or the cabinet, or "Execute" on the above, you will get a toolbar. This toolbar is used to return to the PC Card Files screen.



Return Returns to the PC Card Files screen.

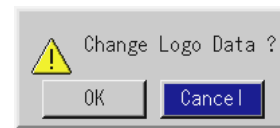
Close Close the toolbar.

Changing Background Logo:

The Logo button allows you to select a background logo from graphic files on a PC card and change to it as the background logo.

NOTE: File size must be 64KB or less. Other file formats than JPEG and BMP are not available.

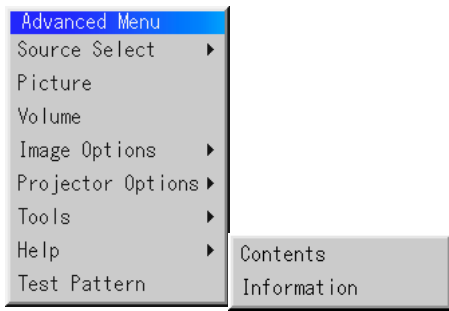
1. Use the ▲ or ▼ button to select a JPEG or BMP file for your background logo.
2. Use the ► and then ▼ button to select "Logo".



3. Press the Enter on the remote control or the cabinet. You will get the confirmation dialog box.
4. Select "OK" and press the Enter button. This completes changing a logo for the background.

* Once you have changed the background from the NEC logo to another, you cannot return the logo to background even by using Factory Default. To do so, repeat the above steps. The NEC logo file is included on the supplied CD-ROM (/logo/nec_b_x.jpg).

Help



Contents:

Provides an online help about how to use the menus. An underlined link means that you can move to an adjustment item directly. Selecting the underlined link and pressing ENTER moves to the corresponding adjustment item.

NOTE: The Help Menu may not be displayed correctly when a UXGA signal is displayed.

Information:

Displays the status of the current signal, and the lamp and the projector usage hours.

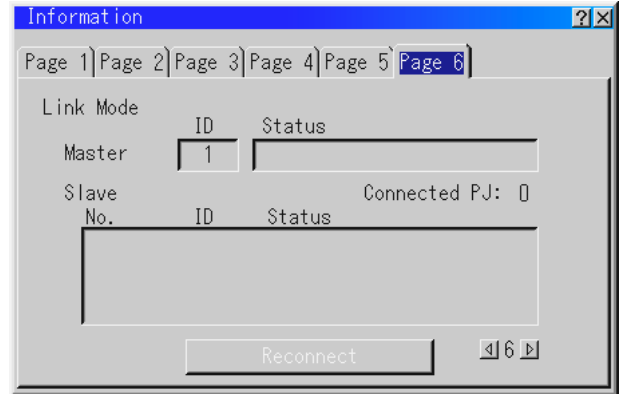
This dialog box has six pages.

| | |
|-----------------------|---------------------------------|
| [Page 1] | [Page 2] |
| Source Name | Signal Type |
| Input Terminal | Video Type |
| Entry No. | Sync Type |
| Horizontal Frequency | Interlace |
| Vertical Frequency | Resolution |
| Sync Polarity | Direct Key (See also page E-41) |
| [Page 3] | [Page 4] |
| Aspect Ratio (IN/OUT) | Lamp Remaining Time (%) |
| Gamma Correction | Lamp Hour Meter (H) |
| Noise Reduction | Filter Usage (H) |
| Color Matrix | Projector Usage (H) |
| Matrix Type | Projector ID |

NOTE: The progress indicator shows the percentage of remaining bulb life. The value informs you of the amount of lamp, filter and projector usage respectively.

[Page 5]
Version (BIOS/Firmware/Data/SUB-CPU)

[Page 6]



Link Mode:

Displaying Current Status of Link Mode

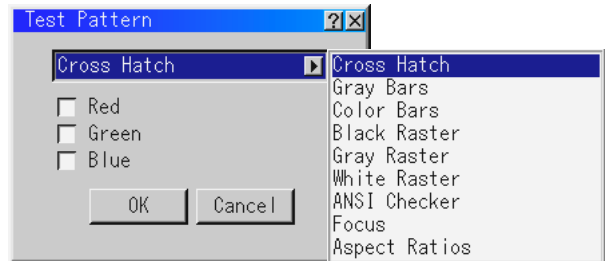
When selecting the tab "Page 6", you will get the following dialog box.

- Master ID Indicates the Master projector
- Status Indicates the status of the master projector
- Connected PJ Indicates number of connected slave projectors
- Slave No. Indicates serial number of the slave projector
- ID Indicates ID of a slave projector
- Status Indicates the status of the slave projector
- Page buttons ◀▶ Turns pages. One screen displays information of 3 projectors only. Information of a maximum of 16 projectors can be displayed using these page buttons.
- Reconnect button Confirms connection of all linked projectors

Status items:

- Running The projector is now working
- Cooling Lamp The fan is now cooling the lamp
- Standby The projector is in stand-by
- Communication Error . A communication error has occurred
- Connecting The projector is now verifying for connection
- Error Standby An error caused the projector to enter the stand-by mode

Test Pattern



Nine test patterns can be selected. You can turn on or off red, green, or blue respectively.

Using the PC Card Viewer function

NOTE: When using the supplied software (CD-ROM)

The software is designed to use with a personal computer only. Do not play the software on CD player. Doing so could cause damage to speakers.

Features

The Viewer feature allows slides stored on a PC memory card (referred to as PC card in this manual) to be displayed on the projector. Even if no computer is available, presentations can be conducted simply with the projector. This feature is convenient for holding presentations at meetings and in offices, as well as for playing images taken on digital cameras.

Easy to use

- Presentations can be started immediately simply by inserting a PC card (not supplied)
- Easy slide switching
- Remote control operation
- Jumping to list of slides or any specific slide

High quality images

- High resolution up to 1024 × 768 dots
- 24-bit full color playback
- Viewing of digital camera images

Simple utility software (for computer)

- PC Card Viewer Utility operable on Windows 95 / 98 / NT4.0 (SP3 or later) / 2000
- Slides can be created by capturing the currently displayed image
- Control screen for displaying lists of slides and editing
- PC Card Viewer PPT Converter 1.0 [Add-In Version] converts files created with Microsoft PowerPoint 95/97/2000 (hereafter referred to as PowerPoint) into indexes playable with PC Card Viewer

* Microsoft, Windows and PowerPoint are registered trademarks of Microsoft Corporation.

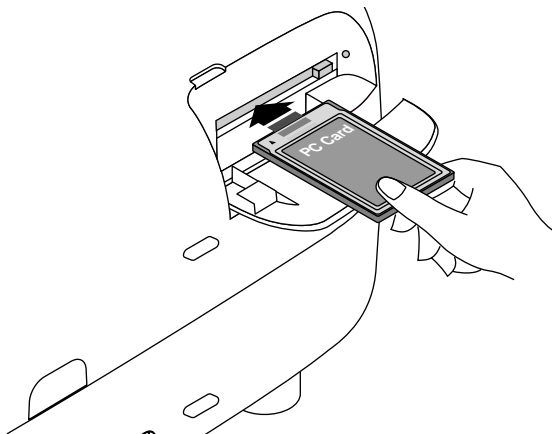
Inserting and Ejecting a PC Card

A PC card is used to view presentation data prepared on the computer and to capture and play images projected with the projector.

Inserting the PC Card

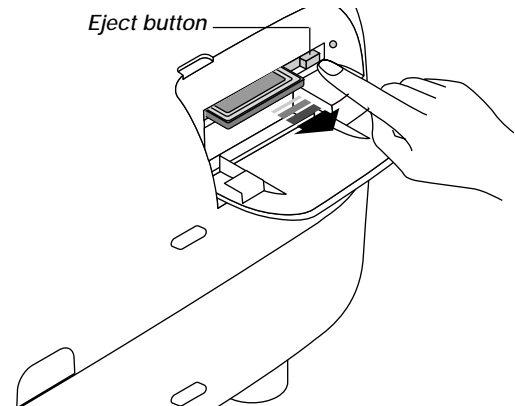
- Hold the PC card horizontally and insert it slowly into the card slot with its top facing up.
- The eject button pops out once the PC card is fully inserted. Check that the PC card is fully inserted.

NOTE: Do not try to force the PC card into the slot.



Ejecting the PC Card

Press the eject button. The PC card pops out a little. Grasp the edges of the PC card and pull it out. Do not eject the PC card while its data is being accessed.



Direction for Inserting the PC Card

The PC card has a top and bottom and must be inserted into the PC card slot in a specific direction. It cannot be inserted backwards or upside-down. Attempting to force it into the slot in the wrong direction may break the internal pin and damage the card slot. Refer to the PC card's operating instructions for the proper direction of insertion.

PC Card Type

The PC Card slot accepts PCMCIA Type II only.

Installing the PC Card Viewer Software

Before Installing

Perform the following before installing the PC Card Viewer software:

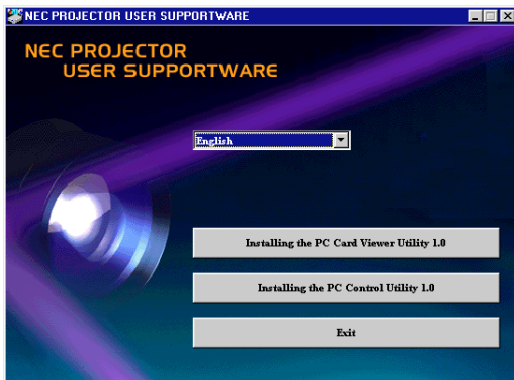
- If Windows is already started, exit all applications. Installation may not be performed properly if any applications are running.

Installation

Install the viewer software as described below.

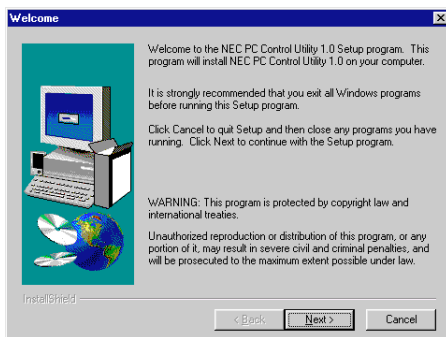
To quit installation before it is completed, press the "Cancel" button then follow the instructions in the dialog box.

1. Start up Windows.
2. Insert the CD-ROM into the CD-ROM drive.
The auto CD play function automatically starts the CD-ROM's program and the contents screen appears.



- * The auto CD play function operates if the "Auto insert notification" box in the computer's CD-ROM control panel is checked. (The box is checked by default.)

3. Click [Installing the PC Card Viewer Utility 1.0]
The setup dialog appears.



- * Follow the instructions in the setup dialog to complete the installation.

For instructions on uninstalling the PC Card Viewer software, see page E-50.

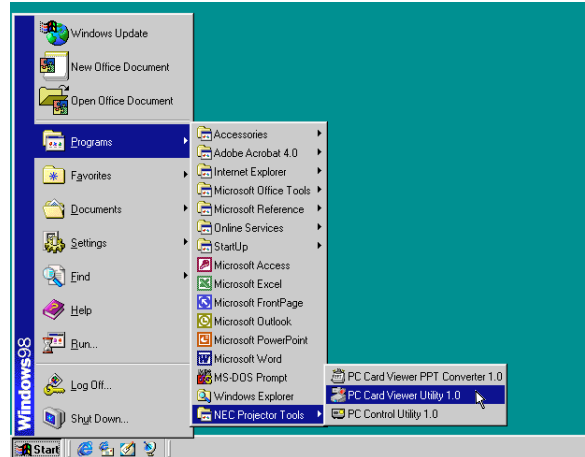
Starting Up the PC Card Viewer Software on your PC

(PC Card Viewer Utility 1.0)

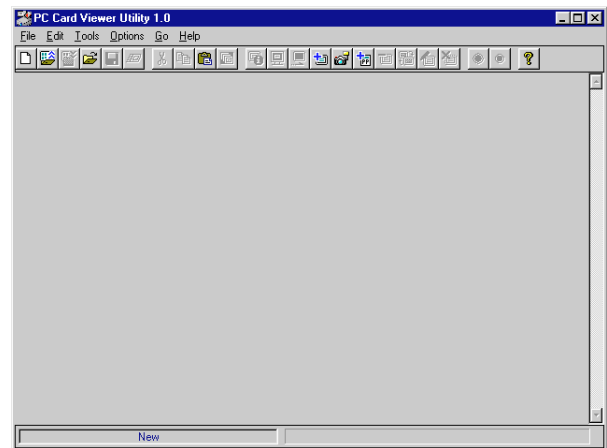
Use the PC Card Viewer Utility 1.0 for creating viewer slides.

To start the PC Card Viewer software:

- * Select [Start]-[Programs]-[NEC Projector Tools]-[PC Card Viewer Utility 1.0].



Refer to online help for instructions on using the PC Card Viewer software.



Contents of the English version PC Card Viewer software (PC Card Viewer Utility 1.0)

This is the software used for creating PC Card Viewer slides. In this manual it is referred to as the "PC Card Viewer software".

PC Card Viewer PPT Converter 1.0

This is an application that converts files created with Microsoft PowerPoint 95/97/2000 into indexes so that they can be played directly with the PC Card Viewer Utility 1.0.

PC Card Viewer PPT Converter is installed automatically when you install the PC Card Viewer Utility.

To start PC Card Viewer PPT Converter:

- * Select PC Card Viewer PPT Converter from NEC Projector Tools.

Basic Operation of the PC Card Viewer Software

PC Card Viewer Utility is an application for editing documents, converting them into slides and storing them on PC cards as playback data (indexes) for presentations using projectors.

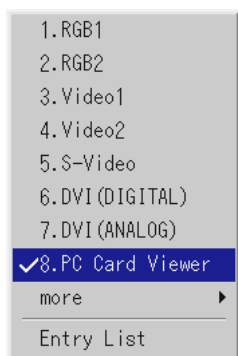
Operating the PC Card Viewer Function from the Projector (playback)

This section describes the operation for showing slides of presentation documents created using the PC Card Viewer function with the projector.

It is also possible to make slides directly from the images projected with the projector.

Projecting slides

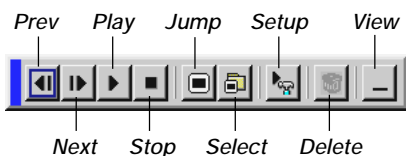
1. Insert a PC card into the card slot.
Insert the PC card with the side with the insertion direction arrow on the top.
* Press the eject button to eject the card.
2. Select the "PC Card Viewer" from the Source Select menu.



3. Project slides.

Checking "Show Folder List", means that selecting PC Card Viewer input displays a list of the folders in the PC card and if "Auto Play" is checked the projector automatically starts to play slides at the first slide of the folder you have selected.

A tool bar will appear when you press the MENU button on the remote control or the projector cabinet.



The tool bar includes the following buttons:

- Prev Returns to the previous slide or folder. Or this lets you play slides back in reverse.
- Next Advances to the next slide or folder. Or this lets you play slides back.
- Play Plays back automatically or manually depending on the setting on PC Card Viewer Options of the menu. This allows you to move on to the next slide when "Manual Play" is selected.
- Stop This allows you to stop Auto Play while you are playing back and to resume playing from the selected slide or folder when "Auto Play" is selected.

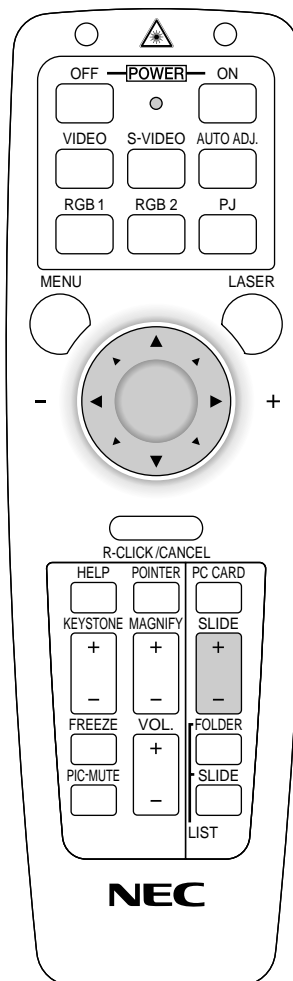
- Jump Displays a list of slides while you are playing back.
- Select Displays a list of folders while you are playing back.
- Setup Displays the PC Card Viewer Options dialog box on Page 1 of the Setup dialog box.
- Delete Deletes a captured slide(s) or all the captured slides in the Capture – specific folder.
- View Hides the tool bar while you are playing back. Pressing the MENU button shows it again.

NOTE: If no PC card is inserted in the PC CARD slot, there is no signal, and a black, blue or logo background is displayed, depending on the setting.

Playback is stopped when ◀/▶ button on the cabinet or the supplied remote control or SLIDE +/- on the optional presentation remote control is pressed in Auto Play mode.

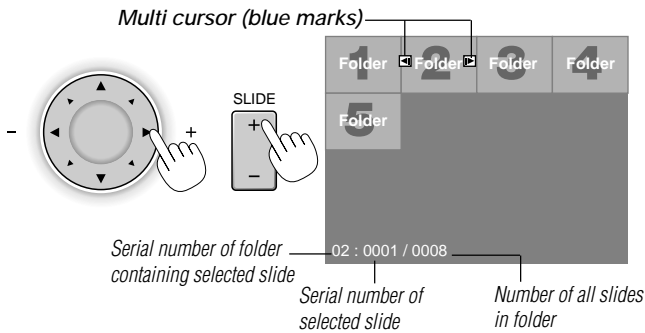
NOTE: Up to 12 indexes can be displayed on the list of folders. The folder in the right bottom is always a folder exclusively for captured images, but is only displayed when images have been captured. To display the list of folders when there are 13 or more indexes stored on the PC card, select "Edit index" from the PC Card Viewer software's "File" menu and move the index you want to display to within 12 indexes from the top of the folder index. For details on indexes, refer to the PC Card Viewer software's help folder.

Optional Presentation Remote Control



When the tool bar is not displayed:

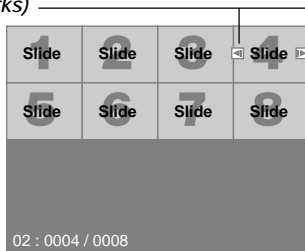
Press select ◀ or ▶, or the FOLDER LIST button on the optional remote control to display folders from a PC card in the projector's PC Card slot.



Use the select ◀ or ▶, or the SLIDE +/- button to advance to the next folder or return to the previous folder.



Slide(Table) cursor (green marks)

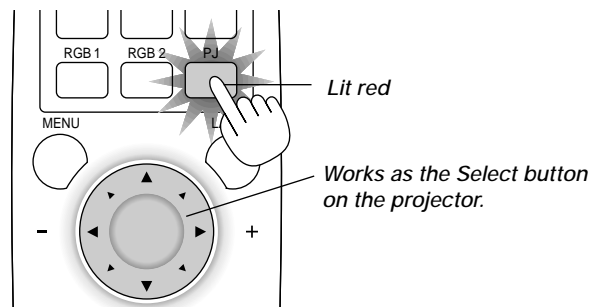


Use the select ◀ or ▶, or the SLIDE +/- button to advance to the next slide or return to the previous slide.



NOTE: You can also use the ◀ and ▶ button on the remote control (supplied or optional) to select folders or slides.

If you use the ◀ and ▶ button on the remote control for PC Card Viewer operation, press the PJ button to switch to the Projector mode and the PJ button lights red.



Auto Play Mode

- If the "Auto Play" option is selected in "PC Card Viewer Options" of the menu, any given slide will start to play automatically. You can also specify Auto Play Interval between 5 and 300 seconds.

Switching to Slides Directly from Other Input Modes

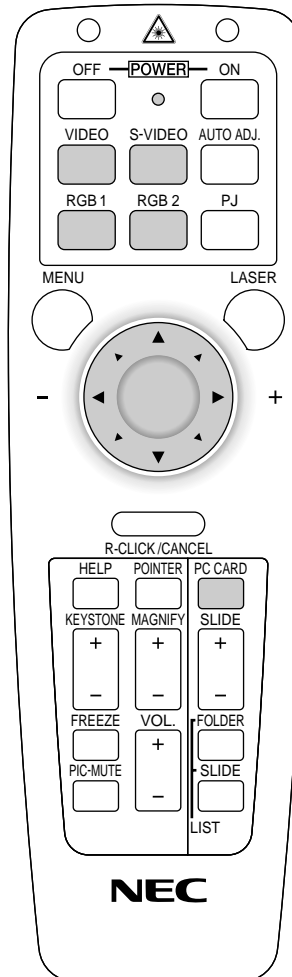
With this function it is possible to switch directly to a slide when the picture of a VCR or computer is being projected.

Example:

When conducting presentations using a combination of slides and moving pictures from a VCR, etc., it is possible to switch from a PC Card Viewer slide to the video picture then back to the PC Card Viewer slide simply by using a source button and PC CARD button.

NOTE: Even if you switch the current PC Card Viewer source to another source, the current slide is retained. When you return back to the PC Card Viewer, you will get the slide that has been retained.

Optional Presentation Remote Control



NOTE: The PC card editing operation cannot be performed from the projector. Do so using the PC Card Viewer software.

Capturing Images Displayed on the Projector

Storing images displayed on the projector on the PC card

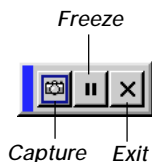
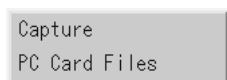
Preparations:

Insert the PC card into the card slot.

Insert the PC card with the side with the insertion direction arrow on the top.

* Press the eject button to eject the card.

1. Project the image you wish to store on the projector.
2. Select the "Capture" from the Tools menu.



3. A tool bar will appear.

The tool bar includes the following buttons:

Capture Captures an image and save it as a JPEG file in a PC card.

Freeze Freezes and unfreezes images.

Exit Exits the Capture function. Another option to exit the Capture function is to press MENU or CANCEL button on the remote control or projector cabinet.

NOTE: You can compress a captured file (JPEG) using the Capture Options in the Setup dialog. See page E-47.

NOTE: Captured images with higher resolution than the projector's native resolution cannot be displayed correctly.

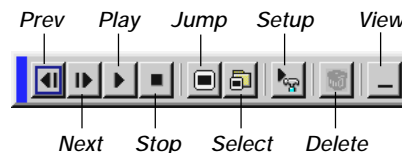
NOTE:

- File size of the captured image varies depending on the resolution of an input signal.
 - Since an image data is compressed with the JPEG format, the image is slightly degraded.
-

NOTE: An hourglass indicating that an image is being captured appears on the projector's display. Do not eject the PC card or turn off the projector's power while this icon is displayed. Doing so will damage the PC card data. If the PC card data is damaged, use a computer to repair the data.

NOTE: The folder in the right bottom is always a folder exclusively for captured images. To display the list of folders when there are 13 or more indexes stored on the PC card, select "Edit index" from the PC Card Viewer software's "File" menu and move the index you want to display to within 12 indexes from the top of the folder index. For details on indexes, refer to the PC Card Viewer software's help file.

Deleting Captured Images



Using the Delete button on the tool bar for PC Card Viewer can delete captured images.

To delete captured images:

1. Select PC Card Viewer.
2. Use ► button to select the Capture folder in the right bottom of the screen.
3. Press the MENU button to display the tool bar.
4. Use the ◀ or ▶ button to select the Delete icon and press the ENTER button.

Viewing Digital Images

Digital images can be played with the PC Card Viewer if the following conditions are met:

- If the image can be stored on an MS-DOS format PC card
 - If the image can be stored in a format supported by the PC Card Viewer.
- With the PC Card Viewer, images on the card are searched for in directories and images in JPEG or BMP format are recognized as slides. Searchable directories are directories within two steps from the root directory, and searchable images are images within the first 12 files in the directory. Only file and slide switching are possible.

NOTE: The maximum number of images recognized as slides within one directory is 128.

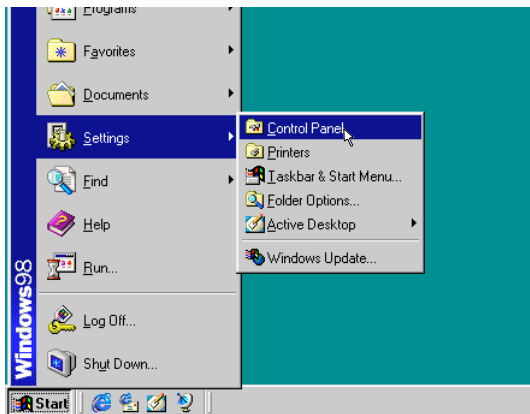
Uninstalling the PC Card Viewer Software

Even if you do not know the PC Card Viewer software's file names or where they are stored, the PC Card Viewer software files can be easily removed from the system using the "Install/Uninstall Applications" control panel in Windows. (Normally there is no need to perform this operation.)

Uninstalling the software

Use the procedure described below to uninstall the PC Card Viewer software files.

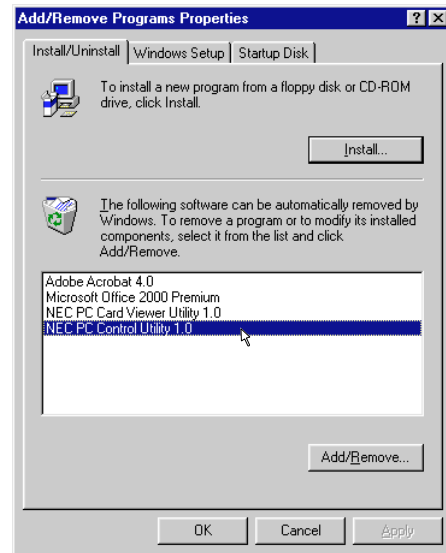
1. From the "Start" menu, select "Settings" then "Control Panels".



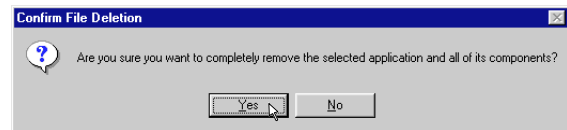
2. In the "Control Panels" dialog box, double-click on "Add/Remove Programs".



3. In the "Add/Remove Programs Properties" dialog box, click the "Setup/Remove" tab, then select "PC Card Viewer Utility 1.0" from the list of applications and click on "Add/Remove".



4. In the "Confirm File Deletion" dialog box, click "Yes".



5. Once the application is uninstalled, click on "OK" in the "Remove Program From Your Computer" dialog box.

6. MAINTENANCE

This section describes the simple maintenance procedures you should follow to replace the lamp and clean the filter.

Replacing the Lamp

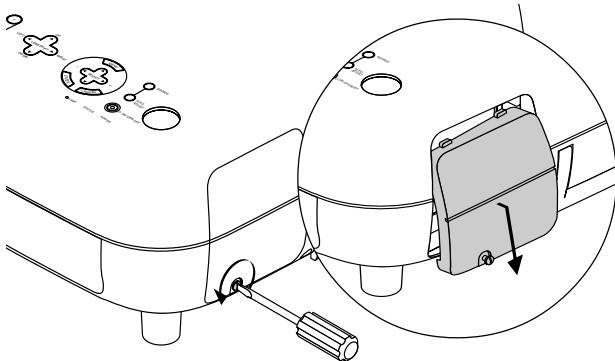
After your lamp has been operating for 1500 hours (2000 hours : Eco mode) or longer, the "Status" light in the cabinet will go on and the message will appear. Even though the lamp may still be working, replace it at 1500 (up to 2000 hours : Eco mode) hours to maintain optimal projector performance.

CAUTION

- DO NOT TOUCH THE LAMP immediately after it has been used. It will be extremely hot. Turn the projector off, wait a full minute, and then disconnect the power cable. Allow at least one hour for the lamp to cool before handling.
- DO NOT REMOVE ANY SCREWS except the lamp cover screw and two lamp housing screws. You could receive an electric shock.
- The projector will turn off and go into stand by mode after 1600 (2100 hours : Eco mode) hours of service. If this happens, be sure to replace the lamp. If you continue to use the lamp after 1500 hours (2000 hours : Eco mode) of use, the lamp bulb may shatter, and pieces of glass may be scattered in the lamp housing. Do not touch them as the pieces of glass may cause injury. If this happens, contact your NEC dealer for lamp replacement.

To replace the lamp:

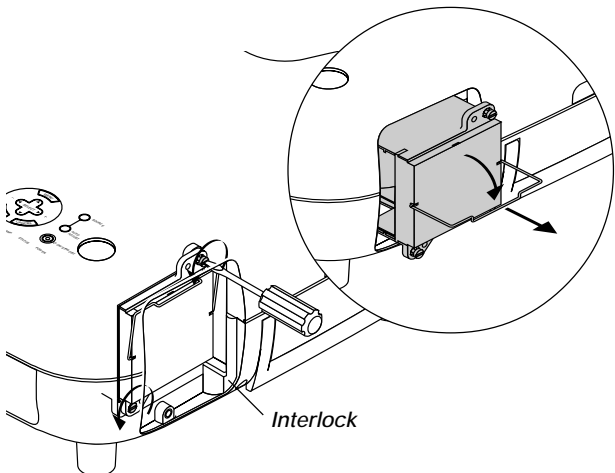
1. Loosen the lamp cover screw until the screwdriver goes into a freewheeling condition and remove the lamp cover. The lamp cover screw is not removable.



2. Loosen the two screws securing the lamp housing until the screwdriver goes into a freewheeling condition. The two screws are not removable.

Remove the lamp housing by pulling out the handle.

NOTE: There is an interlock on this case to prevent the risk of electrical shock. Do not attempt to circumvent this interlock.

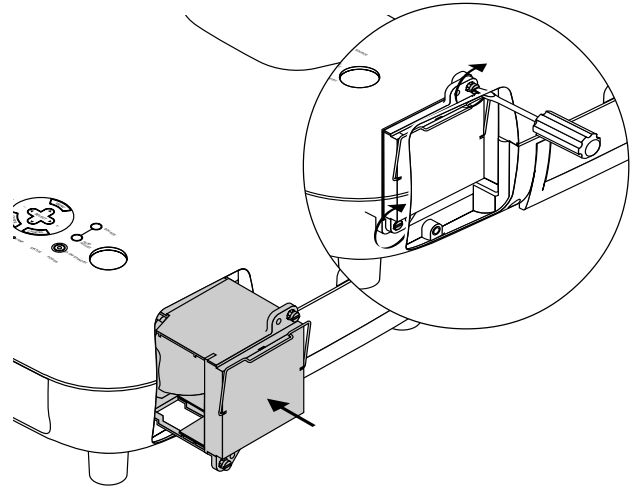


3. Insert a new lamp housing until the lamp housing is plugged into the socket.

CAUTION: Do not use a lamp other than the NEC replacement lamp (GT50LP). Order this from your NEC dealer.

Secure it in place with the two screws.

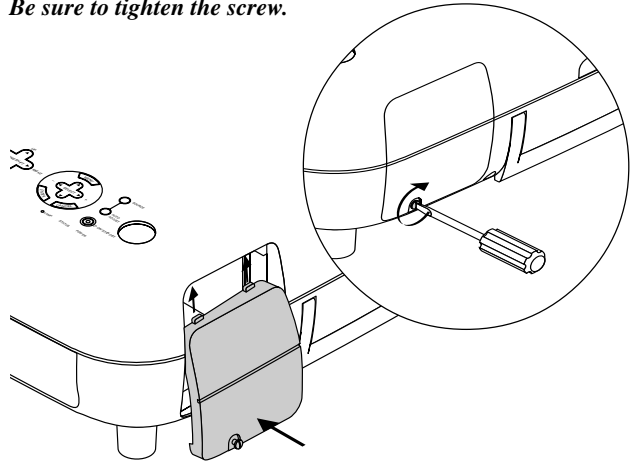
Be sure to tighten the screws.



4. Reattach the lamp cover.

Tighten the lamp cover screw.

Be sure to tighten the screw.



5. After you install a new lamp, select [Menu] → [Projector Options] → [Setup] → [Page 4] → [Clear Lamp Hour Meter] to reset the lamp usage hours.

NOTE: When the lamp exceeds 1600 hours (2100 hours : Eco mode) of service, the projector cannot turn on and the message is not displayed. If this happens, press Help button on the remote control for a minimum of 10 seconds while in standby mode. When the lamp time clock is reset to zero, the STATUS indicator goes out.

Cleaning or Replacing the Filter

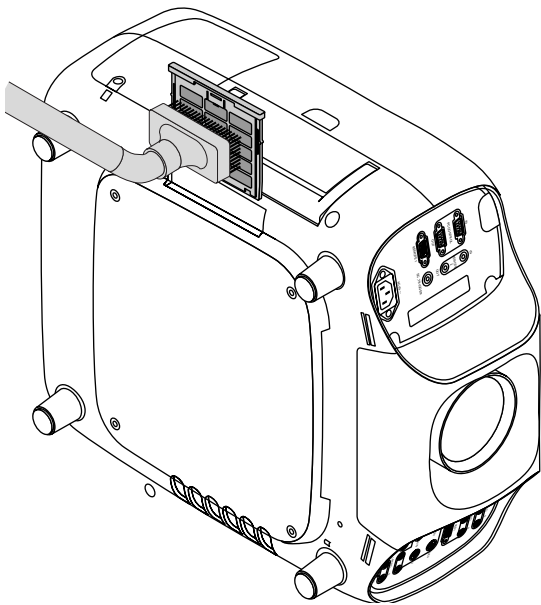
The air-filter sponge keeps the inside of the MultiSync GT1150 Projector free from dust or dirt and should be cleaned after every 100 hours of operation (more often in dusty conditions). If the filter is dirty or clogged, your projector may overheat.

CAUTION

- Turn off the power, wait for a full minute, and unplug the projector before replacing the filter.
- Only clean the outside of the filter with a vacuum cleaner.
- Do not attempt to operate the projector without filter.
- Your projector will not operate unless the filter is installed correctly.

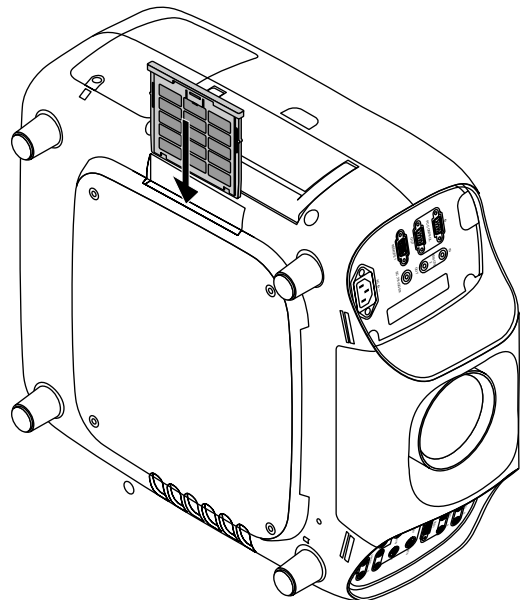
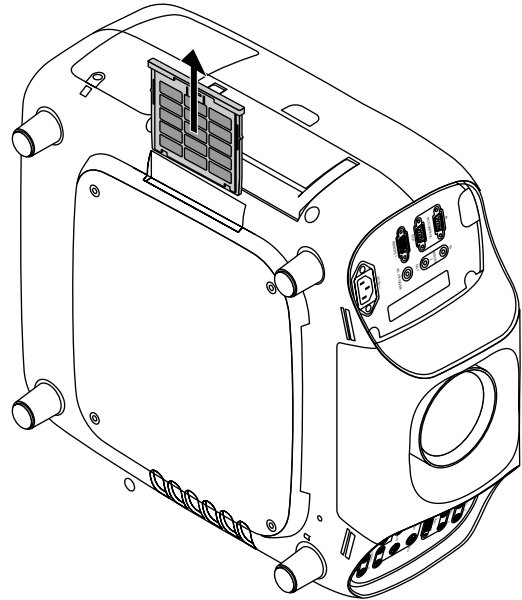
To clean the filter:

Pull out the filter by pushing up on the catch. Vacuum the filter-through the filter.



To replace the filter:

1. Pull out the filter by pushing up on the catch.



2. Reinstall the new filter.

NOTE: Do not detach the sponge from the filter. Do not wash the filter with soap and water. Soap and water will damage the the filter membrane. Before replacing the filter cover, remove dust and dirt from the projector cabinet. Keep out dust and during filter replacement.

3. After you install a new lamp, select [Menu] → [Projector Options] → [Setup] → [Page 4] → [Clear Filter Usage] to reset the filter usage hours.

Cette section décrit les procédures simples d'entretien que vous devez suivre pour remplacer la lampe, nettoyer ou remplacer le filtre.

Remplacement de la lampe

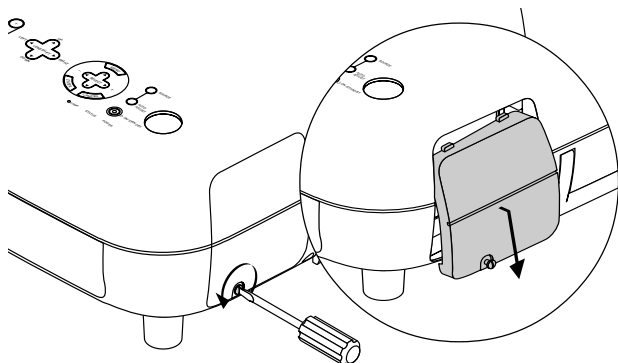
Après que votre lampe ait fonctionné pendant 1500 heures (2000 heures : mode Eco) ou plus, le voyant "Status" du coffret s'allume. Même si la lampe peut encore fonctionner, remplacez-la au bout de 1500 heures (2000 heures : mode Eco) pour conserver une performance optimale de votre projecteur.

ATTENTION

- NE TOUCHEZ PAS A LA LAMPE juste après qu'elle ait été utilisée. Elle est très chaude. Eteignez le projecteur laissez au moins 60 secondes d'intervalle après avoir éteint le projecteur et débranchez le câble d'alimentation. Laissez la refroidir pendant au moins une heure avant de la manipuler.
- NE RETIREZ PAS LES VIS excepté la vis du couvercle de la lampe et deux vis du coffret de la lampe. Une décharge électrique pourrait en résulter.
- Le projecteur s'éteint et entre en mode d'attente après 1600 heures (2100 heures : mode Eco) de service. Dans ce cas, remplacez la lampe. Si vous continuez à utiliser la lampe après 1500 heures (2000 heures : mode Eco) d'utilisation, l'ampoule de la lampe risque d'éclater, et des bris de glaces risquent d'être dispersés dans le boîtier de la lampe. Ne les touchez pas car elles peuvent vous blesser. Dans ce cas, contactez votre revendeur NEC afin de procéder au remplacement de la lampe.

Pour remplacer la lampe:

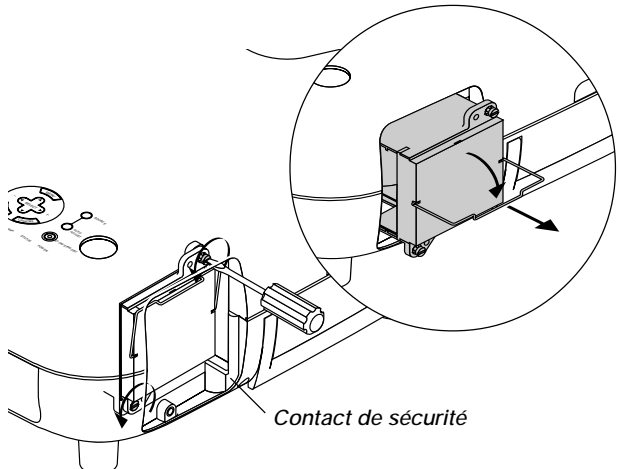
1. Dévissez la vis du couvercle de la lampe jusqu'à ce que le tournevis tourne librement et retirez le couvercle de la lampe. La vis du couvercle de la lampe ne peut pas être retirée.



2. Dévissez les deux vis fixant le coffret de la lampe jusqu'à ce que le tournevis tourne librement. Les deux vis ne peuvent pas être retirées.

Retirez le coffret de la lampe en tirant la poignée.

REMARQUE: Il y a un contact de sécurité sur le boîtier pour éviter le risque d'électrocution. N'essayez pas de contourner ce contact de sécurité.

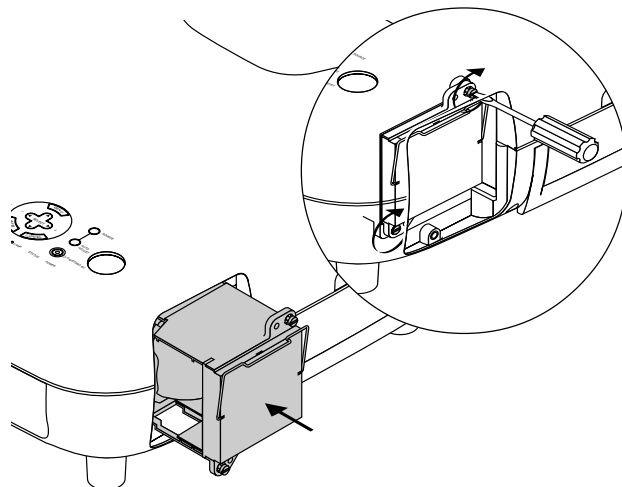


3. Insérez un coffret de lampe neuve dans la prise.

ATTENTION: N'utilisez pas une lampe autre que la lampe de remplacement NEC (GT50LP). Commandez-la de votre revendeur NEC.

Fixez-le à l'aide de deux vis.

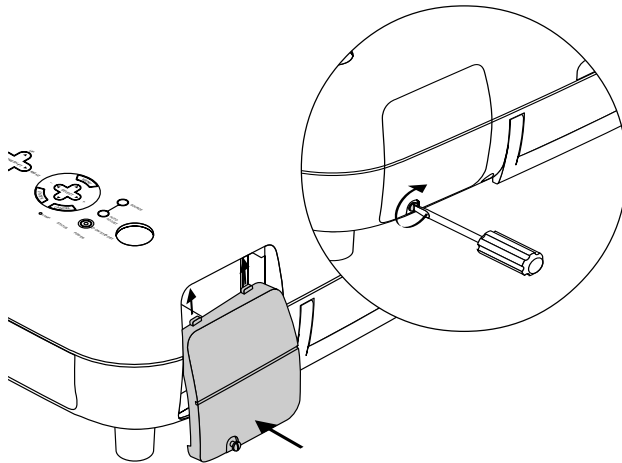
Assurez-vous de visser les deux vis.



4. Refixez le couvercle de la lampe.

Serrez la vis du couvercle de la lampe.

Assurez-vous de visser la vis du couvercle de la lampe.



5. Après avoir installé une lampe neuve, sélectionnez [Menu] → [Options Projecteur] → [Réglage] → [Page 4] → [Durée d'utilisation lampe] pour remettre le compteur d'heures d'utilisation de la lampe à zéro.

REMARQUE: Si la lampe a servi pendant plus de 1600 heures (2100 heures : mode Eco), le projecteur ne peut pas être allumé et le menu n'est pas affiché. Si cela se produit, appuyez sur le bouton HELP sur la télécommande pendant au moins 10 secondes pendant le mode de veille. Lorsque le compteur de durée d'utilisation de la lampe est remis sur zéro, le témoin STATUS disparaît.

Nettoyage ou remplacement du filtre

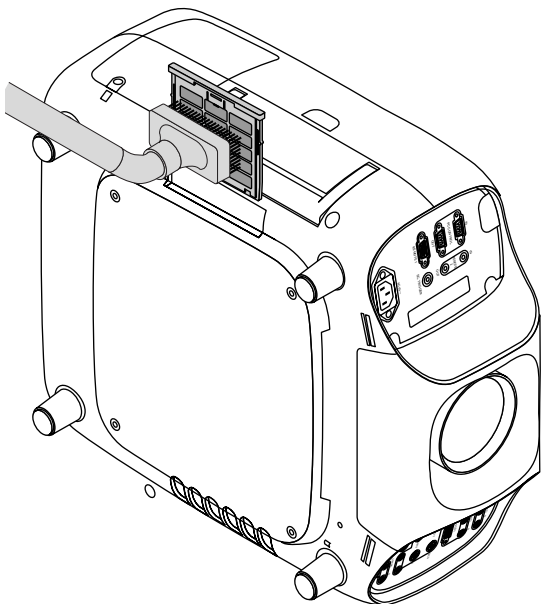
Le coussin éponge du filtre à air maintient l'intérieur du projecteur GT1150 à l'abri de la poussière ou de la saleté et doit être nettoyé toutes les 100 heures d'utilisation (plus souvent dans les endroits poussiéreux). Si le filtre est sale ou bouché, le projecteur risque de surchauffer.

PRECAUTION

- Coupez l'alimentation et débranchez le projecteur avant de remplacer le filtre.
- Nettoyez uniquement le couvercle extérieur du filtre avec un aspirateur.
- N'essayez pas de faire fonctionner le projecteur sans filtre.
- Votre projecteur à affichage à cristaux liquides ne fonctionnera pas tant que le filtre ne sera pas installé correctement.

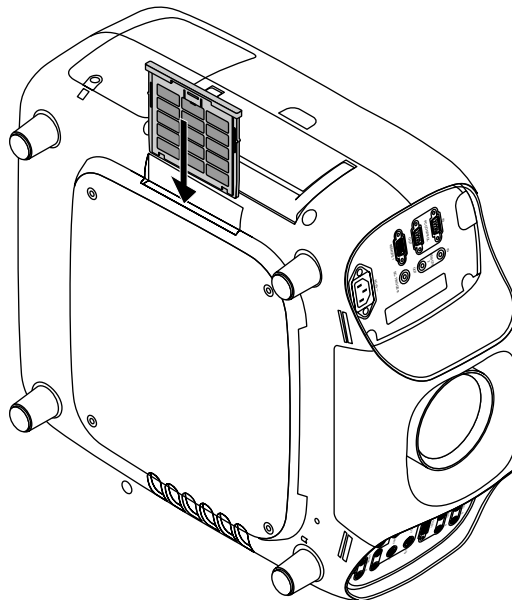
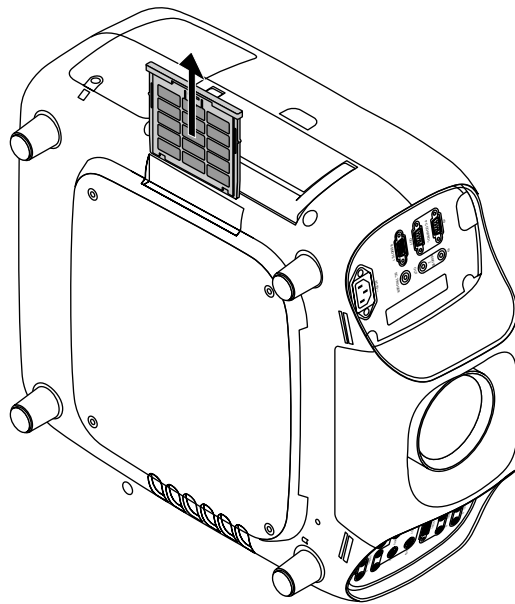
Pour nettoyer le filtre à air:

Aspirez le filtre à travers le couvercle de filtre.



Pour remplacer le filtre à air:

1. Retirez-vous le le filtre en poussant au-dessus sur la prise.



2. Réinstallez le panneau du filtre.

REMARQUE: Ne détachez pas le coussin éponge du couvercle de filtre. Ne lavez pas le filtre au savon et à l'eau. Le savon et l'eau endommageront la membrane du filtre. Avant de remplacer le filtre à air, dépoussiérez et nettoyez le coffret du projecteur. Maintenez propre pendant le remplacement du filtre.

3. Après avoir installé un filtre neuve, sélectionnez [Menu] → [Options Projecteur] → [Réglage] → [Page 4] → [Pour effacement filtre] pour remettre le compteur d'heures d'utilisation de le filtre zéro.

7. TROUBLESHOOTING

This section helps you resolve problems you may encounter while setting up or using the projector.

Power/ Status Light Messages

| Condition | Power Indicator | Status Indicator | Note |
|---|------------------|--|---|
| Standby | Normal | Steady orange | – |
| | ON-Timer setting | Steady orange | Blinking green (4 sec interval) On Timer is active |
| Cooling down | Blinking green | – | Blinks green for 60 seconds |
| Lamp in High-Bright mode | Steady green | – | – |
| Lamp in Eco mode | Steady green | Steady green | – |
| 3 minutes after lamp is turned on in Eco mode | Steady green | Blinking green | Fixed at High-Bright mode. Lamp mode can be changed on the menu |
| Lamp has reached its end of life (1500 hours or over) | Steady green | Steady red (High-Bright mode)/ Steady orange (Eco mode) | Message appears on screen during 1500-1600 hours of lamp usage. The projector reaches its end of life. Please replace the lamp as soon as possible. |
| Lamp life has reached its end of life (1600 hours or over) | Steady orange | Steady red | The projector is in standby mode and cannot be turned on. |
| Lamp cover, filter cover or lens holder error (3 locations) | Steady orange | Blinking red (1 sec interval) | The projector is in standby mode and cannot be turned on. |
| Temperature error | Steady orange | Blinking red (4 sec interval) | The projector is in standby mode and cannot be turned on. |
| Fan error | Steady orange | Blinking red (8 sec interval) | The projector is in standby mode and cannot be turned on. |
| Lamp error | Steady orange | Blinking red (12 sec interval) | The projector is in standby mode and cannot be turned on. |

Lamp Light Messages

| Lamp Remaining Time | Indicator |
|---------------------|---------------|
| 100 – 50% | Steady green |
| 50 – 25% | Steady orange |
| 25 – 0% | Steady red |

Common Problems & Solutions

| Problem | Check These Items |
|---|--|
| Does not turn on | <ul style="list-style-type: none"> Check that the power cable is plugged in and that the power button on the projector cabinet or the remote control is on. Ensure that the lamp cover is installed correctly. See page E-58 or E-60. Check to see if the projector has overheated or the lamp usage exceeds 1600 hours (2100 hours in Eco mode). If there is insufficient ventilation around the projector or if the room where you're presenting is particularly warm, move the projector to a cooler location. |
| No picture | <ul style="list-style-type: none"> Use the menu to select your source (Video1/2, S-Video, RGB1/2, DVI (digital/analog) or PC Card Viewer). See page E-40. Ensure your cables are connected properly. Use menus to adjust the brightness and contrast. See page E-41. Remove the lens hood cap. Reset the settings or adjustments to factory preset levels using the Factory Default on the Image Options Menu in Advanced menu. See page E-44. |
| Image isn't square to the screen | <ul style="list-style-type: none"> Reposition the projector to improve its angle to the screen. See page E-22. Use the Keystone to correct the trapezoid distortion. See page E-22 or 42. |
| Picture is blurred | <ul style="list-style-type: none"> Adjust the focus. See page E-21. Reposition the projector to improve its angle to the screen. See page E-22. Ensure that the distance between the projector and screen is within the adjustment range of the lens. See page E-12. |
| Image is scrolling vertically, horizontally or both | <ul style="list-style-type: none"> Use menus or a source button on the remote control or the cabinet to select the source you want to input. |
| Remote control does not work | <ul style="list-style-type: none"> Install new batteries. See page E-10. Make sure there are no obstacles between you and the projector. Stand within 22 feet (7 m) of the projector. See page E-10. |
| Status indicator is lit or blinking | <ul style="list-style-type: none"> See the Power/ Status Light messages above. |
| Cross color in RGB mode | <ul style="list-style-type: none"> If Auto Adjust is off, turn it on. If Auto Adjust is on, turn it off and balance the image with the Position and Clock Adjust on the Advanced Options Menu. See page E-43. |

When using the PC Card Viewer function

| Condition | Status |
|----------------------------------|---|
| No picture | <ul style="list-style-type: none">• Is "PC Card Viewer" selected from the Source menu?• Is the PC card seated in the PC CARD slot completely?• Are slide data stored in the PC card?• Have the contents of the PC card been destroyed? |
| Part of a slide is not displayed | <ul style="list-style-type: none">• While an image with over 1024×768 dots is projected, several lines of information will be lost. Use the supplied software change the image to 1024×768 dots in size. |
| Contents of PC Card are damaged | <ul style="list-style-type: none">• Use a computer, etc., to repair the data. |

For more information contact your dealer.

8. SPECIFICATIONS

This section provides technical information about the GT1150 Projector's performance.

Model Number GT1150

Optical

| | |
|-----------------------------------|---|
| LCD Panel | 1.3" p-Si TFT active-matrix with Micro Lens Array, 1024×768 native resolution up to 1600×1200 with Advanced AccuBlend Technology |
| Lamp | 250 W NSH lamp |
| Lamp Life | Eco-mode 2000 hours/High-Bright mode 1500 hours The lamp, under normal operating conditions, is warranted for 1500 hours of operation time within 6 months. |
| Lens Options | Motorized zoom (except GT10RL lens) and Motorized focus GT19ZL : F2.0-2.5 f=48.9-63.7mm GT13ZL : F2.3-2.8 f=34.5-42.5mm GT34ZL : F2.5-3.4 f=92.4-140.6mm GT10RL : F2.3 f=27mm |
| Lens Shift (GT19ZL and GT34ZL) | Vertical +/- 0.5V Horizontal +/- 0.25H |
| Image Size | GT19ZL/GT13ZL/GT10RL: 40 - 300 inches (1016 - 7620 mm) diagonal GT34ZL : 80-500 inches (2032-12700 mm) diagonal |
| Projection Distance | GT19ZL lens : 4.8 - 48.0 ft (1.5 - 14.6 m) GT10RL lens : 2.7-20.0 ft (0.8m-6.1m) GT13ZL lens : 3.5-32.0 ft (1.1m-9.8m) GT34ZL lens : 18.1-173.2 ft (5.5m-52.8m) |
| Projection Angle | GT19ZL: -9.0 degree (tele) / 11.7 degree (wide) GT13ZL: -13.3 degree (tele) / 16.4 degree (wide) GT34ZL: -4.0 degree (tele) / 6.2 degree (wide) |

Electrical

| | |
|-----------------------|--|
| Input Connections | RGB/YCr/Cb/H(HV)V 5 BNC×1, RCA (L/MONO, R)×1 RGB D-Sub 15 pin×1, RCA (L/MONO, R)×1 RGB digital DVI (Max resolution : XGA) x 1, RCA (L/MONO, R)×1 DVI also accepts analog signal Video BNC×1, RCA×1, RCA (L/MONO, R)×1 S-Video Mini DIN 4×1, RCA (L/MONO, R)×1 PC Card Slot×1 |
| Output Connections | RGB D-Sub 15 pin×1, RCA (L/MONO, R)×1 |
| Other Input/Output | Remote Control Stereo mini jack ;IN x 1; OUT×1 PC Control D-Sub 9 pin; IN×1;OUT×1 SW Control D-Sub 15×1 SC. TRIGGER Stereo mini jack×1 |
| Input Compatibility | NTSC / PAL / PAL60 / SECAM / NTSC4.43, YCbCr Component, HDTV-1080I, 720p, 480p, 480I, VGA, SVGA, XGA, SXGA / UXGA (with AccuBlend) |
| Synchronization | Horizontal Frequency : 15 - 100 kHz (RGB : 24 kHz or over) |
| Range | Vertical Frequency : 48 - 120 Hz |
| Video Bandwidth | RGB: 100 MHz |
| Color Reproduction | Full color, 16.7 million colors simultaneously |
| Horizontal Resolution | 550 TV lines : NTSC / PAL / NTSC4.43 / YCbCr 350 TV lines : SECAM RGB: 1024 dots horizontal, 768 dots vertical |
| Built-in Speakers | 5W×2 |
| Power Requirement | 100 - 120VAC / 200 - 240 VAC, 50 / 60 Hz |
| Input Current | 3.9 A (100 - 120 VAC) / 1.9A (200 - 240 VAC) |

Mechanical

| | |
|-------------|---|
| Dimensions | 16.5" (W) × 4.7" (H) × 19.4" (D) / 419 mm (W) × 195 mm (H) × 494 mm (D) (not including feet) |
| Net Weight | 22.1 lbs / 10.0 kg (not including lens) |
| Environment | Operational Temperatures: 32° - 104°F (0° to 40°C), 20 - 80% humidity Storage Temperatures: 14° - 122°F (-10° to 50°C), 20 - 80% humidity |
| Regulations | UL Approved (UL 1950, CSA 950) Meets DOC Canada Class B requirements Meets FCC Class B requirements Meets AS/NZS3548 Class B Meets EMC Directive (EN55022, EN55024, EN61000-3-2, EN61000-3-3) Meets Low Voltage Directive (EN60950, TUV GS Approved) |

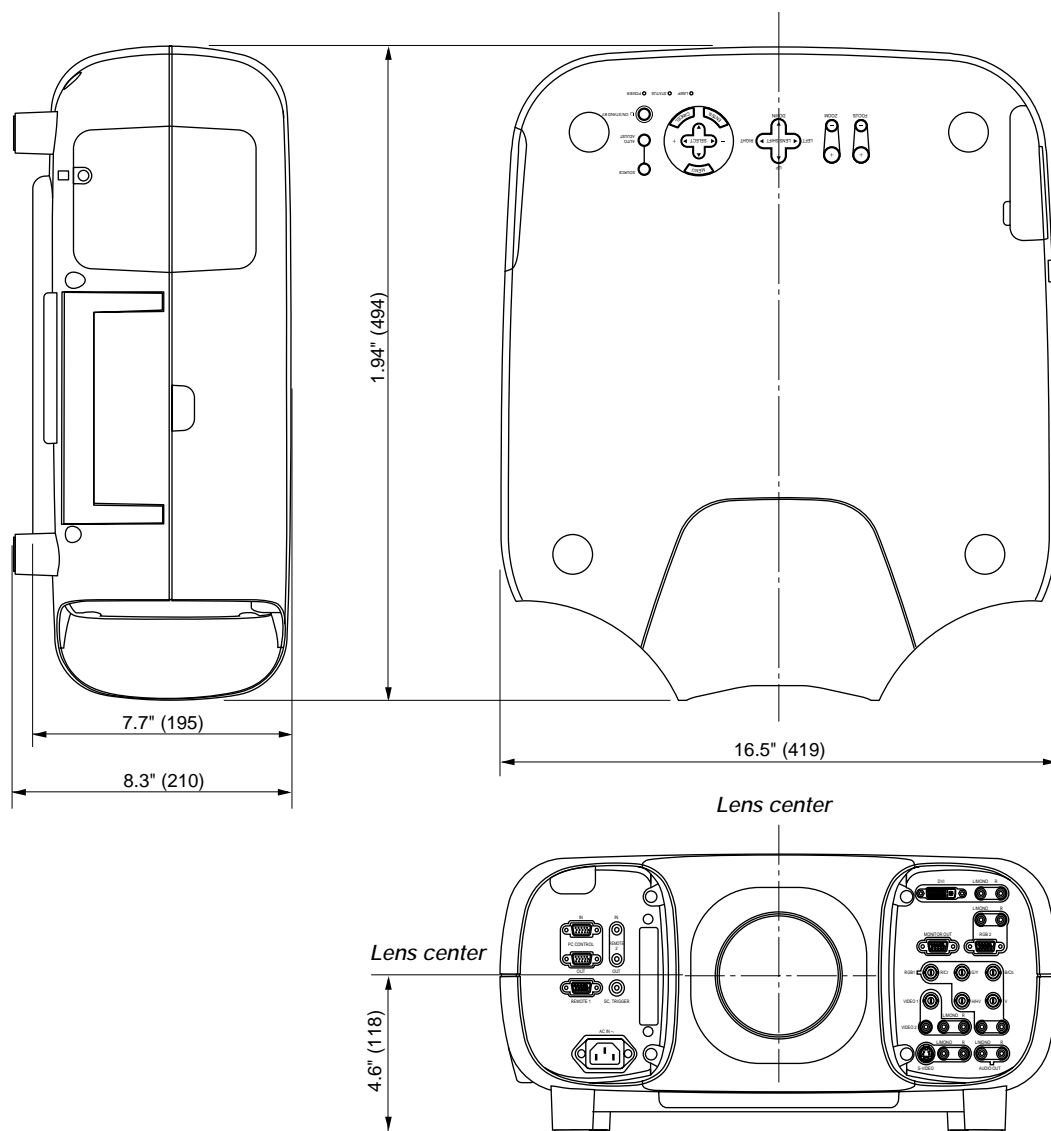


LCD panels are inherently susceptible to bad pixels. The LCD panel may have pixel failures at the rate of 0.01% or less.

We provide information about our projectors through the World Wide Web at <http://www.nec-pj.com/>

The specifications are subject to change without notice.

Cabinet Dimensions



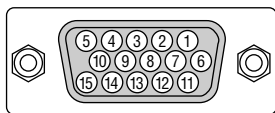
Unit = inch (mm)

Optional Accessories

| | | |
|------------------|--|---------|
| Lens | Optional lens (Fixed short throw: 1.0) | GT10RL |
| | Optional lens (Zoom: 1.3 – 1.6) | GT13ZL |
| | Optional lens (Zoom: 1.8 – 2.4) | GT19ZL |
| | Optional lens (Zoom: 3.4 – 5.2) | GT34ZL |
| Lamp | Replacement lamp | GT50LP |
| Ceiling Mount | Kit for ceiling mount installation | GT50CM |
| Expansion module | LAN module | GT50LAN |
| Remote Control | Presentation remote control kit | PR50KIT |

D-Sub Pin Assignments

Mini D-Sub 15 Pin Connector (RGB2)



Signal Level
 Video signal : 0.7Vp-p (Analog)
 Sync signal : TTL level

| Pin No. | RGB Signal (Analog) | YCbCr Signal | Video / S-Video |
|---------|-----------------------------------|--------------|------------------|
| 1 | Red | Cr | Composite video |
| 2 | Green or Sync on Green | Y | Y |
| 3 | Blue | Cb | C |
| 4 | Ground | | |
| 5 | Ground | | |
| 6 | Red Ground | Cr Ground | Composite Ground |
| 7 | Green Ground | Y Ground | Y Ground |
| 8 | Blue Ground | Cb Ground | C Ground |
| 9 | No Connection | | |
| 10 | Sync Signal Ground | | |
| 11 | Ground | | |
| 12 | Bi-directional DATA (SDA) | | |
| 13 | Horizontal Sync or Composite Sync | | |
| 14 | Vertical Sync | | |
| 15 | Data Clock | | |

List of Menu Items Available in Link Mode

See the table below for available functions in the analog link mode.

Each letter used in the table below indicates the following:

| | Master projector | Slave projector |
|---|--------------------------|--------------------------|
| L | valid | linked |
| N | invalid | invalid |
| M | valid | invalid |
| I | adjustable independently | adjustable independently |

NOTE: The DVI connector does not support digital signal in the Link Mode.

| Menu | Function | | Link mode | | |
|---------------|----------------------|--|-----------------|--------|---|
| Menu | Source Select | All (except PC Card Viewer, which is invalid in Link mode) | L | | |
| | Picture | All | L | | |
| | Volume | | L | | |
| | Image Options | Keystone | | N | |
| | | Color Temperature | | L | |
| | | Lamp Mode | | N | |
| | | Gamma Correction | | L | |
| | | Advanced Options | Aspect Ratio | | L |
| | | | Noise Reduction | | N |
| | | | Color Matrix | | N |
| | | | White Balance | | L |
| | | | Switcher Gain | | N |
| | | | Position | | L |
| | | | Overscan | | L |
| | | | Clock | | N |
| | | | Resolution | | L |
| | | | Video Filter | | L |
| | | | Clamp Timing | | N |
| | | Y/C Delay | | N | |
| | YTR Adjustment | | N | | |
| | CTR Adjustment | | N | | |
| | HD Delay | | N | | |
| | Factory Default | | N | | |
| | Projector Options | Timer | | L | |
| | | Menu | | M | |
| | | Setup | | N | |
| | | Link Mode | | M | |
| | | Switcher Control | | N | |
| | | LAN Mode | | N | |
| | Tools | Capture | | N | |
| PC Card Files | | | N | | |
| Help | | M | | | |
| Test Pattern | | N | | | |
| Direct Button | LENS SHIFT | Projector | I | | |
| | | Remote control | N | | |
| | FOCUS | Projector | I | | |
| | | Remote control | I | | |
| | ZOOM | Projector | I | | |
| | | Remote control | I | | |
| | MENU | Projector | L (*1) | | |
| | | Remote control | L (*1) | | |
| | POWER | Projector | L (*2) | | |
| | POWER ON | Remote control | L (*2) | | |
| | POWER OFF | Remote control | L (*2) | | |
| | INPUT (Alphanumeric) | Remote control | L (*1) | | |
| | MUTE(PICTURE) | Remote control | L (*1) | | |
| | MUTE(OSD) | Remote control | L (*1) | | |
| | MUTE(SOUND) | Remote control | L (*1) | | |
| | VOLUME | Up/Down on projector | Bar display | L (*1) | |
| | | | No bar display | L (*1) | |
| | | Up/Down on remote control | Bar display | L (*1) | |
| | | | No bar display | L (*1) | |
| | KEystone | Remote control KEystone | N | | |
| | AUTO | Projector | M | | |
| | | Remote control | M | | |
| SOURCE | Projector | L (*1) | | | |
| TEST | Remote control | N | | | |

*1 Each adjustment is not possible on the slave projector in the link mode.

*2 Each adjustment is possible on the slave projector in the link mode.

Timing Chart

| Y / N | Signal | Resolution (Dots) | Frequency H. (kHz) | Refresh Rate (Hz) | Dot Clock (MHz) |
|-------|---------------------|------------------------|-------------------------|------------------------|----------------------|
| Y | NTSC | 640 × 480 | 15.734 | 60 | - |
| Y | PAL | 768 × 576 | 15.625 | 50 | - |
| Y | SECAM | 768 × 576 | 15.625 | 50 | - |
| Y | VESA | 640 × 480 | 31.47 | 59.94 | 25.175 |
| Y | IBM | 640 × 480 | 31.47 | 60 | 25.175 |
| Y | MAC | 640 × 480 | 31.47 | 60 | 25.175 |
| Y | MAC | 640 × 480 | 34.97 | 66.67 | 31.334 |
| Y | MAC | 640 × 480 | 35 | 66.67 | 30.24 |
| Y | VESA | 640 × 480 | 37.86 | 72.81 | 31.5 |
| Y | VESA | 640 × 480 | 37.5 | 75 | 31.5 |
| Y | IBM | 640 × 480 | 39.375 | 75 | 31.49 |
| Y | VESA | 640 × 480 | 43.269 | 85.01 | 36 |
| Y | IBM | 720 × 350 | 31.469 | 70.09 | 28.322 |
| Y | VESA | 720 × 400 | 37.927 | 85.04 | 35.5 |
| Y | IBM | 720 × 350 | 39.44 | 87.85 | 35.5 |
| Y | IBM | 720 × 400 | 39.375 | 87.7 | 35.5 |
| Y | VESA | 800 × 600 | 35.16 | 56.25 | 36 |
| Y | VESA | 800 × 600 | 37.879 | 60.32 | 40 |
| Y | VESA | 800 × 600 | 48.077 | 72.19 | 50 |
| Y | VESA | 800 × 600 | 46.88 | 75 | 49.5 |
| Y | VESA | 800 × 600 | 53.674 | 85.06 | 56.25 |
| #Y | MAC | 832 × 624 | 49.725 | 74.55 | 57.283 |
| #Y | VESA | 1024 × 768 | 35.5 | 43 Interlaced | 44.9 |
| #Y | VESA | 1024 × 768 | 48.363 | 60 | 65 |
| #Y | VESA | 1024 × 768 | 57.476 | 70.07 | 75 |
| #Y | IBM | 1024 × 768 | 58.131 | 72.03 | 79 |
| #Y | MAC | 1024 × 768 | 60.241 | 74.93 | 80 |
| #Y | VESA | 1024 × 768 | 60.023 | 75.03 | 78.75 |
| #Y | VESA | 1024 × 768 | 68.677 | 85 | 94.5 |
| ##Y | VESA | 1152 × 864 | 67.5 | 75 | 108 |
| ##Y | MAC | 1152 × 870 | 68.681 | 75.06 | 100 |
| ##Y | SUN | 1152 × 900 | 61.796 | 65.95 | 92.94 |
| ##Y | SGI | 1152 × 900 | 71.736 | 76.05 | 105.6 |
| ##Y | VESA | 1280 × 960 | 60 | 60 | 108 |
| ##Y | SGI | 1280 × 1024 | 63.9 | 60 | 107.35 |
| ##Y | VESA | 1280 × 1024 | 63.981 | 60.02 | 108 |
| ##Y | MAC | 1280 × 1024 | 64.31 | 60.38 | 107 |
| ##Y | MAC | 1280 × 1024 | 69.9 | 65.2 | 118.5 |
| ##Y | HP | 1280 × 1024 | 78.125 | 72.01 | 135 |
| ##Y | SUN | 1280 × 1024 | 81.13 | 76.11 | 135 |
| ##Y | VESA | 1280 × 1024 | 79.976 | 75.03 | 135 |
| ##Y | VESA | 1280 × 1024 | 91.146 | 85.02 | 157.5 |
| ##Y | HDTV (1080i)(1125i) | 1920 × 1080 | 33.75 | 60 Interlace | 74.25 |
| ##Y | HDTV (720p)(750p) | 1280 × 720 | 45 | 60 Progressive | 74.25 |
| ##Y | SDTV (480p)(525p) | 720 × 483 | 31.47 | 59.94 Progressive | 27 |
| ##Y | SDTV (480i)(525i) | 720 × 480 | 15.73 | 59.9 Interlace | - |
| ##Y | VESA | 1600 × 1200 | 75.0 | 60 | 162 |
| ##Y | VESA | 1600 × 1200 | 81.3 | 65 | 175.5 |
| ##Y | VESA | 1600 × 1200 | 87.5 | 70 | 189 |
| ##Y | VESA | 1600 × 1200 | 93.75 | 75 | 202.5 |

##Y: Images in above flagged with ## and Y are compressed with Advanced AccuBlend.

NOTE1: Some composite sync signals may not be displayed correctly.

NOTE2: Signals other than those specified in the table above may not be displayed correctly. If this should happen, change the refresh rate or resolution on your PC. Refer to Display Properties help section of your PC for procedures.

NOTE3: UXGA can be supported for separate sync signal only.

PC Control Codes

| Function | Code Data |
|-----------------------------|---------------------------------|
| POWER ON | 02H 00H 00H 00H 00H 02H |
| POWER OFF | 02H 01H 00H 00H 00H 03H |
| INPUT SELECT RGB 1 | 02H 03H 00H 00H 02H 01H 01H 09H |
| INPUT SELECT RGB 2 | 02H 03H 00H 00H 02H 01H 02H 0AH |
| INPUT SELECT VIDEO 1 | 02H 03H 00H 00H 02H 01H 06H 0EH |
| INPUT SELECT VIDEO 2 | 02H 03H 00H 00H 02H 01H 07H 0FH |
| INPUT SELECT S-VIDEO | 02H 03H 00H 00H 02H 01H 0BH 13H |
| INPUT SELECT DVI (DIGITAL) | 02H 03H 00H 00H 02H 01H 1AH 22H |
| INPUT SELECT DVI (ANALOG) | 02H 03H 00H 00H 02H 01H 03H 0BH |
| INPUT SELECT PC CARD VIEWER | 02H 03H 00H 00H 02H 01H 1FH 27H |
| PICTURE MUTE ON | 02H 10H 00H 00H 00H 12H |
| PICTURE MUTE OFF | 02H 11H 00H 00H 00H 13H |
| SOUND MUTE ON | 02H 12H 00H 00H 00H 14H |
| SOUND MUTE OFF | 02H 13H 00H 00H 00H 15H |
| ON SCREEN MUTE ON | 02H 14H 00H 00H 00H 16H |
| ON SCREEN MUTE OFF | 02H 15H 00H 00H 00H 17H |

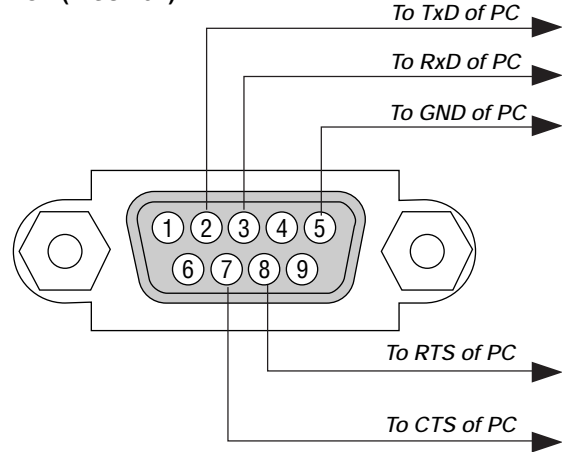
NOTE: Contact your local dealer for a full list of the PC Control Codes if needed.

Cable Connection

Communication Protocol

Baud rate: 38400 bps
 Data length: 8 bits
 Parity: No parity
 Stop bit: One bit
 X on/off: None
 Communications procedure: Full duplex

OPTION (D-SUB 9P)



NOTE: Pins 1, 4, 6 and 9 are used inside the projector.