NEC

LCD Projector

NP3150/NP2150/NP1150 NP3151W

User's Manual

Information on USB Wireless LAN:
The NP3150/NP2150/NP1150/NP3151W series projectors distributed in some areas and countries do not come standard with the USB Wireless LAN Unit.
If you purchase the projector without the USB Wireless LAN Unit installed and need to present to the projector via a wireless connection, the optional USB Wireless LAN Unit must be installed.
The model without the USB wireless unit has a dummy cover.

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NOTES

(1) The contents of this guide may not be reprinted in part or whole without permission.

(2) The contents of this guide are subject to change without notice.

(3) Great care has been taken in the preparation of this manual; however, should you notice any questionable points, errors or omissions, please contact us.

(4) Notwithstanding article (3), NEC will not be responsible for any claims on loss of profit or other matters deemed to result from using the Projector.

Important Information

Safety Cautions

Precautions

Please read this manual carefully before using your NEC NP3150/NP2150/NP1150/NP3151W projector and keep the manual handy for future reference. Your serial number is located on the bottom of your projector. 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.
THERE ARE HIGH-VOLTAGE COMPONENTS INSIDE.
REFER SERVICING TO QUALIFIED 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 PLUG WITH AN EXTENSION CORD OR IN AN OUTLET UNLESS ALL THE PRONGS CAN BE FULLY INSERTED.

DOC Compliance Notice (for Canada only)

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

Acoustic Noise Information Ordinance-3. GSGV (for Germany only):

The sound pressure level is less than 70 dB (A) according to ISO 3744 or ISO 7779.

This label is on the side of the remote control.   This mark is on the top of the remote control.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION

Do not look into the laser pointer while it is on and do not point the laser beam at a person. Serious injury could result.

CAUTION

Avoid displaying stationary images for a prolonged period of time.
Doing so can result in these images being temporarily sustained on the surface of the LCD panel.
If this should happen, continue to use your projector. The static background from previous images will disappear.

WARNING TO CALIFORNIA RESIDENTS:

Handling the cables supplied with this product will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm. *WASH HANDS AFTER HANDLING.*

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Disposing of your used product

EU-wide legislation as implemented in each Member State requires that used electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. This includes projectors and their electrical accessories or lamps. When you dispose of such products, please follow the guidance of your local authority and/or ask the shop where you purchased the product.

After collecting the used products, they are reused and recycled in a proper way. This effort will help us reduce the wastes as well as the negative impact such as mercury contained in a lamp to the human health and the environment at the minimum level.

The mark on the electrical and electronic products only applies to the current European Union Member States.

RF Interference (for USA only)

WARNING

The Federal Communications Commission does not allow any modifications or changes to the unit EXCEPT those specified by NEC Display Solutions of America, Inc. 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.

For UK only: 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.

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

- Do not place the projector in the following conditions:
    - on an unstable cart, stand, or table.
    - near water, baths or damp rooms.
    - in direct sunlight, near heaters or heat radiating appliances.
    - in a dusty, smoky or steamy environment.
    - on a sheet of paper or cloth, rugs or carpets.
- If you wish to have the projector installed on the ceiling:
    - Do not attempt to install the projector yourself.
    - The projector must be installed by qualified technicians in order to ensure proper operation and reduce the risk of bodily injury.
    - In addition, the ceiling must be strong enough to support the projector and the installation must be in accordance with any local building codes.
    - Please consult your dealer for more information.

Place the projector in a horizontal position

The tilt angle of the projector should not exceed 10 degrees, nor should the projector be installed in any way other than the desktop and ceiling mount, otherwise lamp life could decrease dramatically.

⚠ Fire and Shock Precautions ⚡

- Ensure that there is sufficient ventilation and that vents are unobstructed to prevent the build-up of heat inside your projector. Allow at least 4 inches (10cm) of space between your projector and a wall.
- Do not try to touch the ventilation outlet on the left front (when seen from the front) as it can become heated while the projector is turned on.
- 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 project. If something should fall into your projector, disconnect it immediately and have the object removed by a qualified service personnel.
- Do not place any objects on top of the projector.
- Do not touch the power plug during a thunderstorm. Doing so can cause electrical shock or fire.
- The projector is designed to operate on a power supply of 100-240V AC 50/60 Hz. Ensure that your power supply fits this requirement before attempting to use 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 black 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.
- Do not place any objects, which are easily affected by heat, in front of the projector lens or a projector exhaust vent.
  Doing so could lead to the object melting or getting your hands burned from the heat that is emitted from the light output and exhaust.
- Handle the power cable carefully. A damaged or frayed power cable can cause electric shock or fire.
  - Do not use any power cables than the supplied one.
  - Do not bend or tug the power cable excessively.
  - Do not place the power cable under the projector, or any heavy object.
  - Do not cover the power cable with other soft materials such as rugs.
  - Do not heat the power cable.
  - Do not handle the power plug with wet hands.
- Turn off the projector, unplug the power cable and have the projector serviced by a qualified service personnel under the following conditions:
  - When the power cable or plug is damaged or frayed.
  - If liquid has been spilled into the projector, or if it has been exposed to rain or water.
  - If the projector does not operate normally when you follow the instructions described in this user's manual.
  - If the projector has been dropped or the cabinet has been damaged.
  - If the projector exhibits a distinct change in performance, indicating a need for service.
- Disconnect the power cable and any other cables before carrying the projector
- Turn off the projector and unplug the power cable before cleaning the cabinet or replacing the lamp.
- Turn off the projector and unplug the power cable if the projector is not to be used for an extended period of time.
- When using a LAN cable:
  For safety, do not connect to the connector for peripheral device wiring that might have excessive voltage.

CAUTION
- Always carry your projector by the carrying handle. Before doing so, be sure to lock the carrying handle in place.
  To lock the carrying handle, see "To lock the carrying handle" on page 6.
- Do not use the tilt-foot for purposes other than originally intended. Misuses such as using the tilt foot to carry or hang (from the wall or ceiling) the projector can cause damage to the projector.
- Do not send the projector in a soft case by parcel delivery service or cargo shipment. The projector inside the soft case could be damaged.
- Select [HIGH] in Fan mode if you continue to use the projector for consecutive days. (From the menu, select [SETUP - OPTIONS] → [FAN MODE] → [HIGH].)
- Before using Direct Power Off, be sure to allow at least 20 minutes immediately after turning on the projector and starting to display an image.
- Do not unplug the power cable from the wall outlet or projector when the projector is powered on. Doing so can cause damage to the AC IN connector of the projector and (or) the prong plug of the power cable.
  To turn off the AC power supply when the projector is powered on, use a power strip equipped with a switch and a breaker.
- The projector can be unplugged during its cool down period after it is turned off.
  Do not try to touch the ventilation outlet on the left front (when seen from the front) as it can become heated while the projector is turned on and immediately after the projector is turned off.
- Do not turn off the AC power for 60 seconds after the lamp is turned on and while the POWER indicator is blinking green. Doing so could cause premature lamp failure.

Caution on Handling the Optional Lens

When shipping the projector with the optional lens, remove the optional lens before shipping the projector. The lens and the lens shift mechanism may encounter damage caused by improper handling during transportation.
Do not hold the lens part when carrying the projector.
Doing so could cause the focus ring to rotate, resulting in accidental dropping of the projector.

⚠ Remote Control Precautions

- Handle the remote control carefully.
- If the remote control gets wet, wipe it dry immediately.
- Avoid excessive heat and humidity.
- Do not heat, take apart, or throw batteries into fire.
- If you will not be using the remote control for a long time, remove the batteries.
- Ensure that you have the batteries' polarity (+/–) aligned correctly.
- Do not use new and old batteries together, or use different types of batteries together.
- Dispose of used batteries according to your local regulations.

Lamp Replacement

- To replace the lamp, follow all instructions provided on page 124.
- 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 dealer for lamp replacement.

A Lamp Characteristic

The projector has a high-pressure mercury lamp as a light source.
A lamp has a characteristic that its brightness gradually decreases with age. Also repeatedly turning the lamp on and off will increase the possibility of its lower brightness.

⚠ **CAUTION:**

When removing the lamp from a ceiling-mounted projector, make sure that no one is under the projector. Glass fragments could fall if the lamp has been burned out.

About High Altitude mode

- Set [FAN MODE] to [HIGH ALTITUDE] when using the projector at altitudes approximately 5500 feet/1600 meters or higher.
  Using the projector at altitudes approximately 5500 feet/1600 meters or higher without setting to [HIGH ALTITUDE] can cause the projector to overheat and the protector could shut down. If this happens, wait a couple minutes and turn on the projector.

- Using the projector at altitudes less than approximately 5500 feet/1600 meters and setting to [HIGH ALTITUDE] can cause the lamp to overcool, causing the image to flicker. Switch [FAN MODE] to [AUTO].

- Using the projector at altitudes approximately 5500 feet/1600 meters or higher can shorten the life of optical components such as the lamp.

USB Wireless LAN Unit

Cautions on Usage

⚠️ **Warning**

- The USB Wireless LAN Unit is not meant for use with facilities or equipment involving the safeguard of human life, such as medical equipment, nuclear facilities or equipment, aeronautical or space equipment, transportation facilities or equipment, etc., or with facilities or equipment requiring high levels of reliability. Do not use the USB Wireless LAN Unit in such cases.

- Do not use the USB Wireless LAN Unit near cardiac pacemakers.

- Do not use the USB Wireless LAN Unit near medical equipment. Doing so may cause electromagnetic interference with the medical equipment, possible leading to death.

- Do not disassemble or modify the USB Wireless LAN Unit in any way. Doing so could lead to fire or electric shock.

- Do not use the USB Wireless LAN Unit in wet or moist places, such as in bathrooms or near humidifiers. Doing so could lead to fire, electric shock or malfunction.

⚠️ **Caution**

To prevent damage due to static electricity, eliminate any static electricity from your body before touching the USB Wireless LAN Unit.

- Static electricity from the human body may damage the USB Wireless LAN Unit. Before touching the USB Wireless LAN Unit, touch an aluminum sash, a door knob, or some other metal object around you to eliminate the static electricity.

⚠️ **Caution**

The radio waves used by the USB Wireless LAN Unit pass through the wood or glass used in normal homes (but not through window panes with built-in metallic mesh).

The radio waves do not pass through iron reinforcing bars, metal or concrete, however, so the USB Wireless LAN Unit cannot be used for communicating through walls or floors made with these materials.

FCC Compliance

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

This equipment has been tested and found to comply with the limits for a Class B Personal Computer and Peripheral, 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.

This equipment has been tested to comply with the limits for a Class B personal computer and peripheral, pursuant to Subpart B of Part 15 of FCC Rules. Only peripherals (computer input/output devices, terminals, printers, etc.) certified (DoC) or verified to comply with Class B limits may be attached to this equipment. Operation with non-certified (DoC) or non-verified personal computer and/or peripherals is likely to result in Interference to radio and TV reception.

The connection of a unshielded equipment interface cable to this equipment will invalidate the FCC Certification of this device and may cause interference levels which Exceed the limits established by FCC for equipment.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Regulatory Information/Disclaimers

Installation and use of this Wireless LAN device must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device, or the substitution of the connecting cables and equipment other than manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment. Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from failing to comply with these guidelines.

CAUTION

To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 7.87"/20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

SAR compliance has been established in typical laptop computer(s) with USB slot, and product could be used in typical laptop computer with USB slot. Other application like handheld PC or similar device has not been verified and may not compliance with related RF exposure rule and such use shall be prohibited.

Usage restrictions in North America

The following channels can be used indoors only.

- In the United States and Canada: 36, 40, 44, and 48 channels
- In Mexico: 149, 153, 157, 161, and 165 channels

The other channels can be used both indoors and outdoors.

> This Class B digital apparatus complies with Canadian RSS-210.
> Cet appareil numerique de la Classe B est conforme a la norme CNR-210 du Canada.

To comply with Canada RSS-210(Issue 7) section A9.4(b)(ii); this radio product will not transmit on any channels operating in the exclusion band of 5600 - 5650MHz. All channels in the 5600 - 5650MHz band will be disabled by factory firmware and is not user changeable.

Regulatory Statement:

Operation of this device is subjected to the following National regulations and may be prohibited to use if certain restriction should be applied.

France:

Outdoor use limited to 10mW e.i.r.p. within the band 2454 – 2483.5 MHz. Derogation in French overseas departments of Guyane and La Reunion: outdoor use not allowed in band 2400 - 2420 MHz.

Hereby, NEC Display Solutions, Ltd. declares that this USB Wireless LAN Unit (Model: NP01LM) is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Cautions on security when using wireless LAN products

With a wireless LAN, radio waves are used instead of LAN cables for the exchange of data between the wireless access points (computers, etc.), offering the advantage that LAN connections can be made freely within the range of the radio waves.

On the other hand, the radio waves reach all points within this range, regardless of walls or other obstacles, possibly resulting in the problems described below if the proper security measures are not taken.

- **Contents of transmissions may be intercepted**

  Malicious third parties may purposely intercept the radio waves and steal information contained in the transmissions, including such personal information as ID numbers, passwords, credit card numbers, e-mail messages, etc.

- **Improper intrusions**

  Malicious third parties may without permission access the personal or company network and steal personal or confidential information, pretend to be someone else and leak incorrect information, rewrite information that has been intercepted, introduce computer viruses or otherwise damage data or the system, etc.

Wireless LAN cards and wireless access points generally include security measures for dealing with these problems. Making the proper security settings before using the products can reduce the risk of such problems arising.

We recommend that you fully understand the problems that can arise when using the products without making the security settings, then that you make the security settings based on your own decision and at your own discretion.

Operation of the USB Wireless LAN Unit is subjected to the regulations of the countries listed below, and may be prohibited to use outside the country where you purchased. If you need to use the projector outside the country where you purchased, you must remove the USB Wireless LAN Unit from the projector before exporting.

Table of Contents

1. Introduction

❶ 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 Projector.

Projector
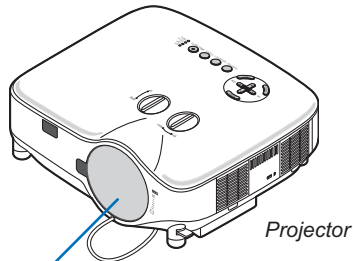
Lens cap
(24FT9741)
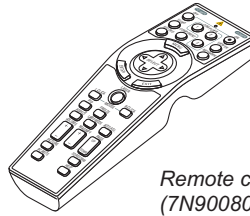
Remote control
(7N900801)
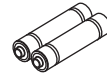
Batteries (AA x 2)
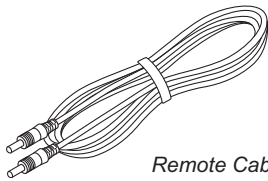
Remote Cable
(7N520019)
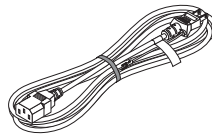
Power cable
(7N080204) US
(7N080011) EU
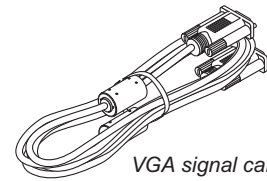
VGA signal cable
(7N520052)
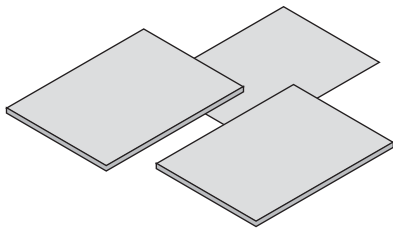
- *Important Infomation (7N8P8211)*
- *Quick Setup Guide (7N8P8201)*
- *Wired and Wireless Network Setup Guide*
  (7N8P8221)

For North America only
Registration card
Limited warranty

For Europe only
Guarantee policy
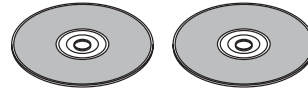
CD-ROM
User's manual and User Supportware 5
(7N951141)/(7N951133)

- *Security sticker*

- *Anti-theft screw for lens x 1*
  (24V00841)

Installed USB wireless LAN unit
North America: NP01LM3 (7N970062)
Europe: NP01LM2 (7N970061)
Joint module (9N999080)

1

❷ Introduction to the Projector

This section introduces you to the NP3150/NP2150/NP1150/NP3151W projector and describes key features and controls.

Congratulations on Your Purchase of the Projector

The NP3150/NP2150/NP1150 is a sophisticated XGA projector that produces an enhanced display. NP3151W is a WXGA projector. With the NP3150/NP2150/NP1150/NP3151W you will be able to project images up to 500" (measured diagonally). Enjoy crisp and sharp large screen display from your PC, workstation or Macintosh computer, DVD player, VCR, satellite hookup, HDTV source, as well as images from your USB storage device. The NP3150/NP2150/NP1150/NP3151W provides for enhanced security options to help deter projector theft and provides for full projector control through the PC control port (D-Sub 9 Pin) and LAN support. With input and output flexibility, long lamp life and a full function remote, the NP3150/NP2150/NP1150/NP3151W lets you enjoy larger than life viewing from a compact and easy to setup and use projector.

Features you'll enjoy :

- **LCD projector with high resolution and high brightness**

    High resolution display - up to UXGA compatible, XGA native resolution.

- **WXGA 1280x800 native resolution (NP3151W only)**

    The NP3151W with WXGA (1280x800) native resolution was designed with the future in mind by supporting emerging wide screen resolutions being used in more of today's computers and SD signals along with the ever increasing demands for HD signals.

- **Extensive optional lens**

    One standard lens and five types of optional lenses are available

- **Lens shift mechanism offers installation flexibility**

    Manual lens shift that can be adjusted by turning dials on the top of the projector

- **Direct Power Off & Auto Start**

    The projector has a feature called "Direct Power Off". This feature allows the projector to be turned off (even when projecting an image) using a power strip equipped with a switch and a breaker.

    NOTE: Before using Direct Power Off, be sure to allow at least 20 minutes immediately after turning on the projector and starting to display an image.
    Also, the power cable can be removed immediately after turning off the projector.

    Auto Start eliminates the need to always use the POWER (ON/STANDBY) button on the remote control or projector cabinet.

- **Integrated RJ-45 connector for wired networking capability along with wireless networking capabilities**

    An RJ-45 connector and a USB Wireless LAN unit are equipped as standard features*.
    Present from anywhere in the room when using as a wireless LAN projector and software contained on the supplied User Supportware 5 CD-ROM, no physical signal cable connection to a PC is required.

    NOTE: The NP3150/NP2150/NP1150/NP3151W series projectors distributed in some areas and countries do not come standard with the USB Wireless LAN Unit.
    If you purchase the projector without the USB Wireless LAN Unit installed and need to present to the projector via a wireless connection, the optional USB Wireless LAN Unit must be installed.

- **Windows Vista standard functions Network Projector and Remote Desktop can be used**

    A Windows Vista-based computer can be operated using the projector over a network.

    The projector supports the Network Projector function and the Remote Desktop function of Windows Vista.

- **A variety of input ports and a comprehensive array of system control interfaces**

    This projector supports input signals on the following ports: BNC, DVI-D, 15pin D-Sub, component, composite and S-video.

- **Wall Color Correction**

  Built-in Wall Color Correction presets provide for adaptive color correction when projecting onto non-white screen material (or a wall).

- **Six picture preset modes for user adjustable picture and color settings**

  Each picture preset mode can be customized and memorized according to your preference.

- **Preventing unauthorized use of the projector**

  Enhanced smart security settings for password protection, cabinet control panel lock, and USB memory protection key to help prevent unauthorized access, adjustments and theft deterrence.

About this user's manual

The fastest way to get started is to take your time and do everything right the first time. Take a few minutes now to review the user's manual. This may save you time later on. At the beginning of each section of the manual you'll find an overview. If the section doesn't apply, you can skip it.

❸ Part Names of the Projector

Front/Top

Lens Shift Dial (Right / Left, Up / Down)
(→ page 27)

Focus Ring
(→ page 28)

Remote Sensor
(→ page 10)

LENS RELEASE Button
(→ page 130)

Lens

Zoom Lever
(→ page 28)

Lens Cap

Controls
(→ page 7)

Ventilation (inlet) / Filter
(→ page 122)

Built-in Security Slot (🔒)*

Ventilation (inlet) / Filter
(→ page 122)

Adjustable Tilt Foot Lever
(→ page 29)

Adjustable Tilt Foot
(→ page 29)

Rear

Stereo Speaker (5W x 2)

USB Wireless LAN unit
The model without the USB
wireless LAN unit has a dummy
cover here.

Terminal Panel
(→ page 8)

Main Power Switch
When you plug the supplied power cable into an active
wall outlet and turn on the Main Power switch, the POW-
ER indicator turns orange and the projector is in standby
mode.
(→ page 23)

Ventilation (outlet)
Heated air is exhausted from
here.

Lamp Cover
(→ page 124)

Remote Sensor
(→ page 10)

AC Input
Connect the supplied power cable's three-pin plug here,
and plug the other end into an active wall outlet.
(→ page 22)

NOTE:
The USB Wireless LAN Unit emits weak radio waves when the projector is in standby* mode or turned on.
If you use the projector with the USB Wireless LAN Unit in the area where the use of wireless LAN equipment is prohibited, re-
move the USB Wireless LAN Unit from the projector. (→ page 148)
* To stop emitting radio waves from the USB Wireless LAN Unit during standby mode, select [POWER-SAVING] from [STANDBY
   MODE].

Bottom

Anti-theft Screw for Lens
(→ page 131)
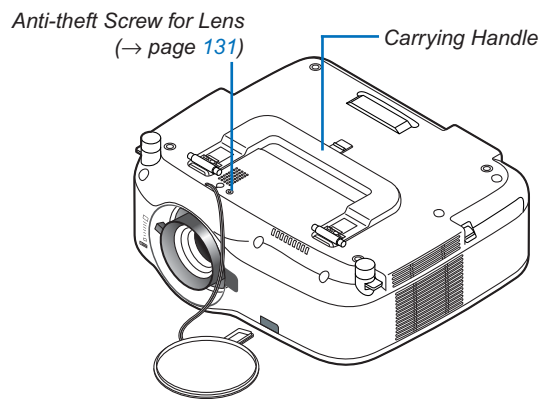
Carrying Handle

Carrying the Projector

E

W

NOTE: To stand the projector on its end, do so by holding the cabinet, not by holding the carrying handle.
Doing so can cause damage to the carrying handle.
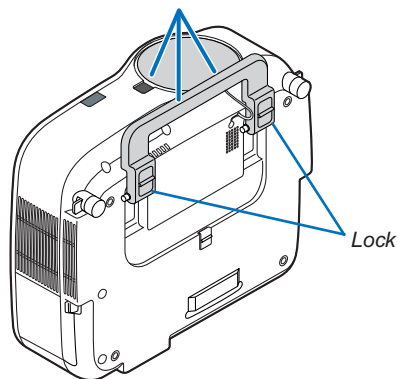
Lock

To lock the carrying handle

1. *Carefully place the projector on its end.*
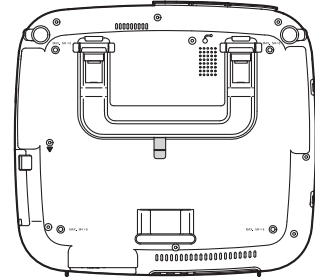
2. *Pull up the carrying handle with the catch pressed down.*
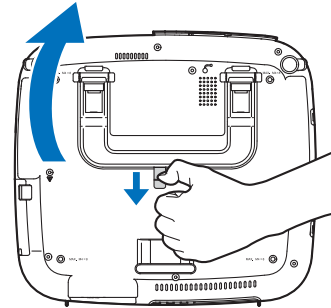
3. *Press down the left and right locks to set the carrying handle in place.*

6
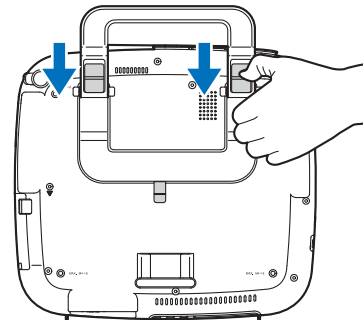
Top Features
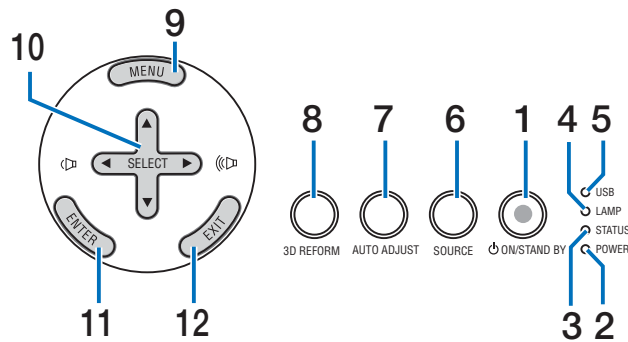
1. POWER Button (⏻) (ON / STAND BY) (→ page 23, 34)

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

2. POWER Indicator (→ page 23, 34, 132)

3. STATUS Indicator (→ page 132)

4. LAMP Indicator (→ page 124, 132)

5. USB Indicator

   NOTE: The USB indicator will not light when non-USB storage devices such as USB mouse devices are inserted.

6. SOURCE Button

7. AUTO ADJUST Button (→ page 32)

8. 3D REFORM Button (→ page 30, 40)

9. MENU Button

10. SELECT ▲▼◀▶ / Volume Buttons

11. ENTER Button

12. EXIT Button

Terminal Panel Features
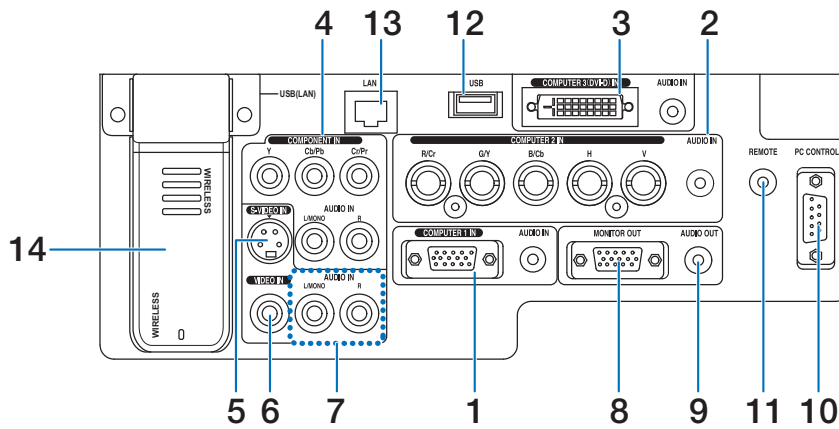
1. COMPUTER 1 IN/Component Connector (Mini D-Sub 15 Pin) (→page 14, 16)
   AUDIO IN (Stereo Mini Jack) (→page 14, 15, 17)

2. COMPUTER 2 IN/Component (R/Cr, G/Y, B/Cb, H, V) Connectors (BNC x 5) (→page 14)
   AUDIO IN (Stereo Mini Jack) (→page 14)

3. COMPUTER 3 (DVI-D) IN Connector (24 Pin) (HDCP compatible) (→page 15)
   AUDIO IN (Stereo Mini Jack) (→page 15)

4. COMPONENT IN (Y, Cb/Pb, Cr/Pr) Connectors (RCA) (→page 17)
   AUDIO L/MONO, R (RCA) (→page 17)

5. S-VIDEO IN Connector (Mini DIN 4 Pin) (→page 18)

6. VIDEO IN Connector (RCA) (→page 18)

7. VIDEO/S-VIDEO AUDIO L/MONO, R (RCA) (→page 18)

8. MONITOR OUT Connector (Mini D-Sub 15 Pin) (→page 16)

9. AUDIO OUT (Stereo Mini Jack) (→page 16)

10. PC CONTROL Port (D-Sub 9 Pin) (→page 146, 147)

    P

    R
                                        P

              RO   P
                                            P
                      P

11. Remote Jack (Stereo Mini Jack) (→page 11)

    NOTE: Connecting the remote cable to the REMOTE mini jack on the terminal panel will make the wireless operation unavailable.

12. USB Port (Type A) (→page 37)

13. LAN Port (RJ-45) (→page 19, 105)

14. USB Wireless LAN unit (→page 148)

    NOTE: A dummy cover is provided on this location of the projector without the USB Wireless LAN Unit.

❹ Part Names of the Remote Control

1. Laser Pointer

⚠ CAUTION:
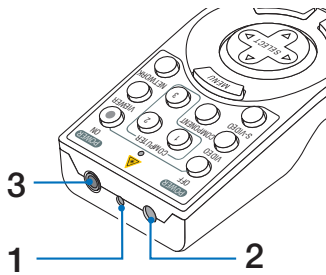
2. Infrared Transmitter

3. Remote jack (→ page 11)

4. LED

5. POWER ON Button (→ page 23)
   NOTE: To turn on the projector, press and hold the POWER ON button for a minimum of two seconds.

6. POWER OFF Button (→ page 34)
   NOTE: To turn off the projector, press the POWER OFF button twice.

7. COMPUTER 1 Button (→ page 25)

8. COMPUTER 2 Button (→ page 25)

9. COMPUTER 3 Button (→ page 25)

10. VIDEO Button (→ page 25)

11. S-VIDEO Button (→ page 25)

12. COMPONENT Button (→ page 25)

13. VIEWER Button (→ page 25, 65)

14. NETWORK Button (→ page 25)

15. MENU Button

16. SELECT ▲▼◀▶ Button

17. ENTER Button

18. EXIT Button

19. LASER Button (→ page 33)

20. MOUSE R-CLICK Button (→ page 39)

21. MOUSE L-CLICK Button (→ page 39)

22. FREEZE Button (→ page 35)

23. PIP Button (→ page 43)

24. ASPECT Button (→ page 84)

25. VOLUME +/– Buttons (→ page 32)

26. PICTURE Button (→ page 79, 81)

27. PIC-MUTE Button (→ page 35)

28. MAGNIFY +/– Buttons (→ page 35)

29. LAMP MODE Button (→ page 36)

30. AUTO ADJ. Button (→ page 32)

31. PAGE UP/DOWN Buttons (→ page 39)

32. 3D REFORM Button (→ page 30, 40)

33. HELP Button (→ page 36)

9
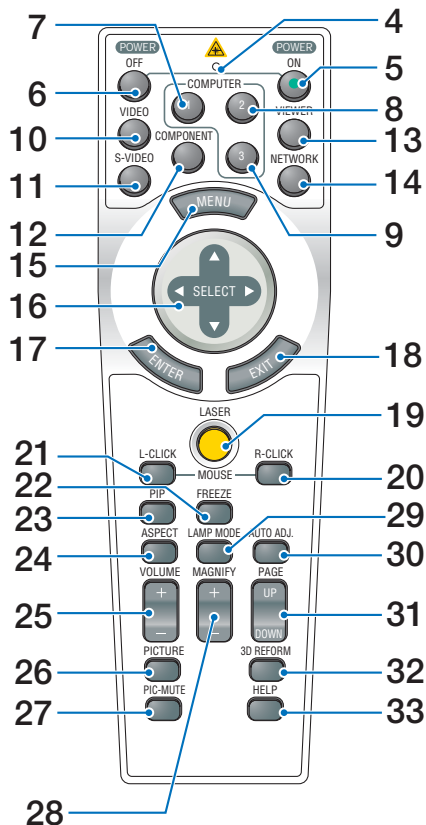
Battery Installation

1 P

2 E

3
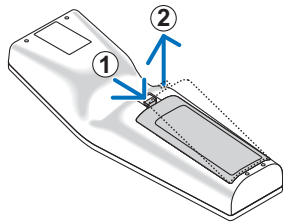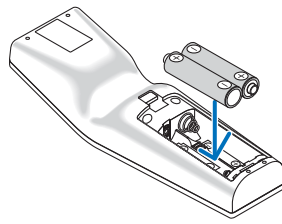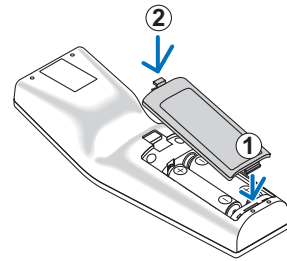
Operating Range for Wireless Remote Control

Remote sensor on projector cabinet
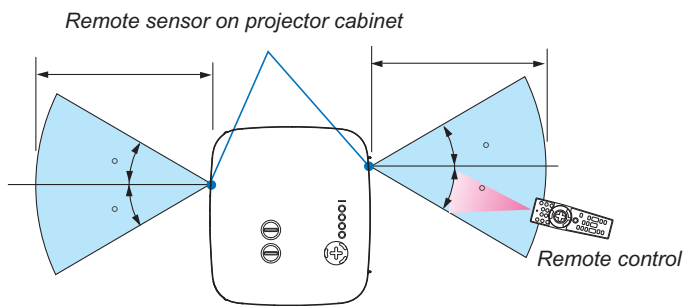
Remote control

NOTE: Actual operating range may differ slightly from that shown in the drawing.

TIP: You can determine which remote sensor on the projector is enabled in wireless mode. The options are: front, rear or both. ($\rightarrow$ page 114)

W

Remote Control Precautions

E

Using the Remote Control in Wired Operation

RE O E

NOTE: Connecting the remote cable to the REMOTE mini jack on the terminal panel will make the wireless operation unavailable.

RE O E

11
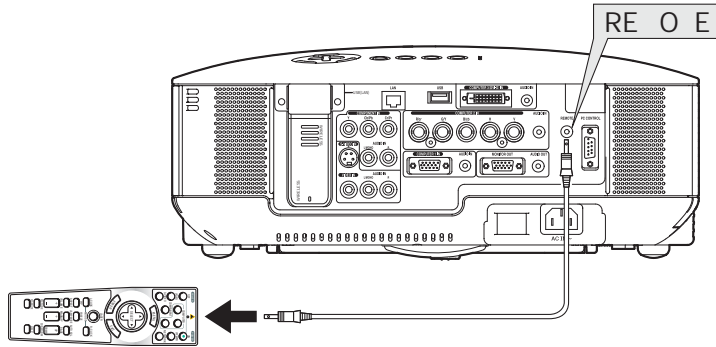
2. Installation and Connections
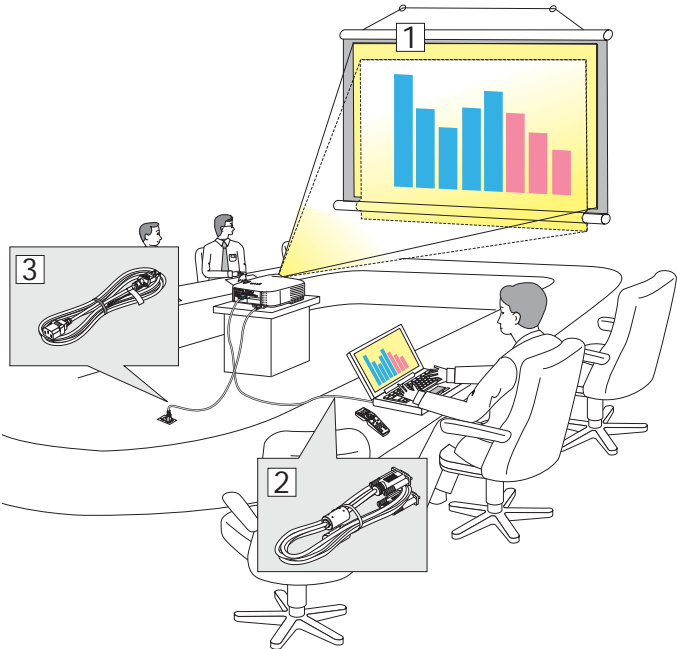
P

1

2

3

NOTE: Ensure that the power cable and any other cables are disconnected before moving the projector. When moving the projector or when it is not in use, cover the lens with the lens cap.

❶ Setting Up the Screen and the Projector
Selecting a Location [NP3150/NP2150/NP1150]

Selecting a Location [NP3151W]
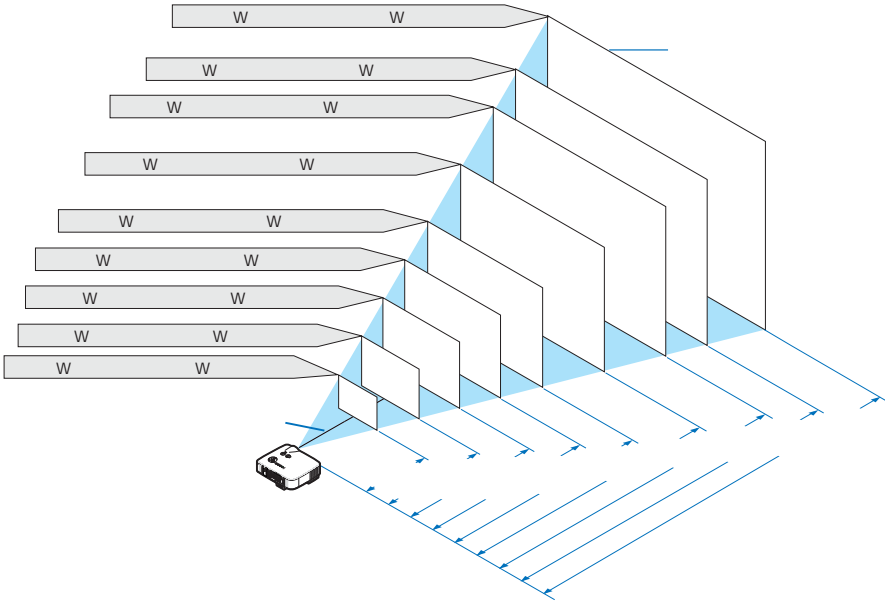
TIP: The screen sizes above are intermediate values between tele (minimum display area) and wide (maximum display area) when the standard lens is used. Image size can be adjusted with the zoom adjustment up to a maximum of 15%.
For optional lenses, see page 128.

❷ Making Connections

Connecting Your PC or Macintosh Computer

NOTE: When using with a notebook PC, be sure to connect the projector and notebook PC while the projector is in standby mode and before turning on the power to the notebook PC.
In most cases the output signal from the notebook PC is not turned on unless connected to the projector before being powered up.
* *If the screen goes blank while using your remote control, it may be the result of the computer's screen-saver or power management software.*

Enabling the computer's external display

P

W   P

E

NOTE: The COMPUTER 1 IN connector supports Plug & Play (DDC2).

O P ER

O P ER

BNC X 5 cable (not supplied)

Audio cable (not supplied)

Audio cable (not supplied)

VGA signal cable (supplied)
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 one supplied.

PHONE

IBM VGA or Compatibles (Notebook type) or Macintosh (Notebook type)

NOTE: For older Macintosh, use a commercially available pin adapter (not supplied) to connect to your Mac's video port.

NOTE: The NP3150/NP2150/NP1150/NP3151W is not compatible with video decoded outputs of either the NEC ISS-6020 and ISS-6010 switchers.

NOTE: An image may not be displayed correctly when a Video or S-Video source is played back via a commercially available scan converter. This is because the projector will process a video signal as a computer signal at the default setting. In that case, do the following.
* *When an image is displayed with the lower and upper black portion of the screen or a dark image is not displayed correctly:*
  Project an image to fill the screen and then press the AUTO ADJ button on the remote control or the AUTO ADJUST button on the projector cabinet.
* *When noise appears on the sides of the screen:*
  Use the Overscan feature to display the image correctly.
  Be sure to change the Overscan to 0% before pressing the AUTO ADJ or AUTO ADJUST button, otherwise an image may be displayed with its sides cut off.

When Viewing a DVI Digital Signal

P

P   O   P   ER

P

P

P

NOTE:
- *Use a DVI-D cable compliant with DDWG (Digital Display Working Group) DVI (Digital Visual Interface) revision 1.0 standard. The DVI-D cable should be within 10 m (394") long.*
- *The DVI (DIGITAL) connector (COMPUTER 3 (DVI-D) IN) accepts VGA (640x480), SVGA (800x600), 1152x864, XGA (1024x768), SXGA (1280x1024 @ up to 60Hz) and SXGA+ (1400x1050 @ up to 60Hz).*

(DVI-D connector with HDCP)

DVI-D cable (not supplied)

Audio cable (not supplied)

IBM VGA or Compatibles or Macintosh
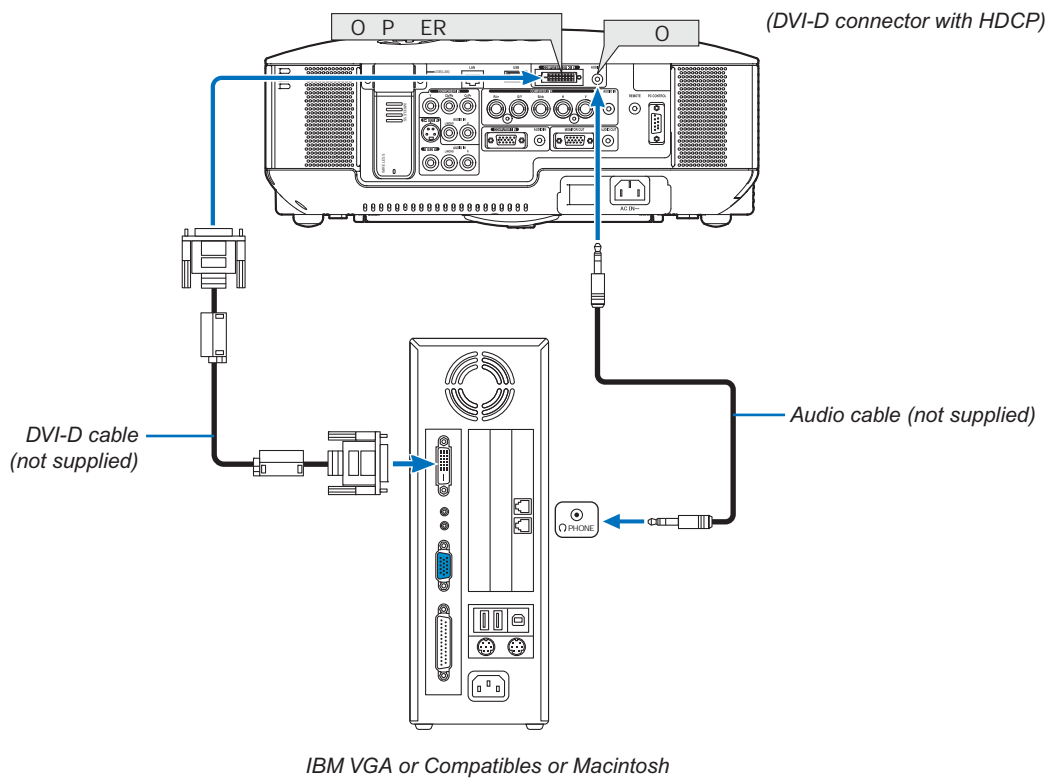
What is HDCP/HDCP technology?

P   P   P

P

W   P   P

P   P

15

Connecting an External Monitor

Audio cable (not supplied)

VGA signal cable (not supplied)

Audio cable (not supplied)

VGA signal cable (supplied)
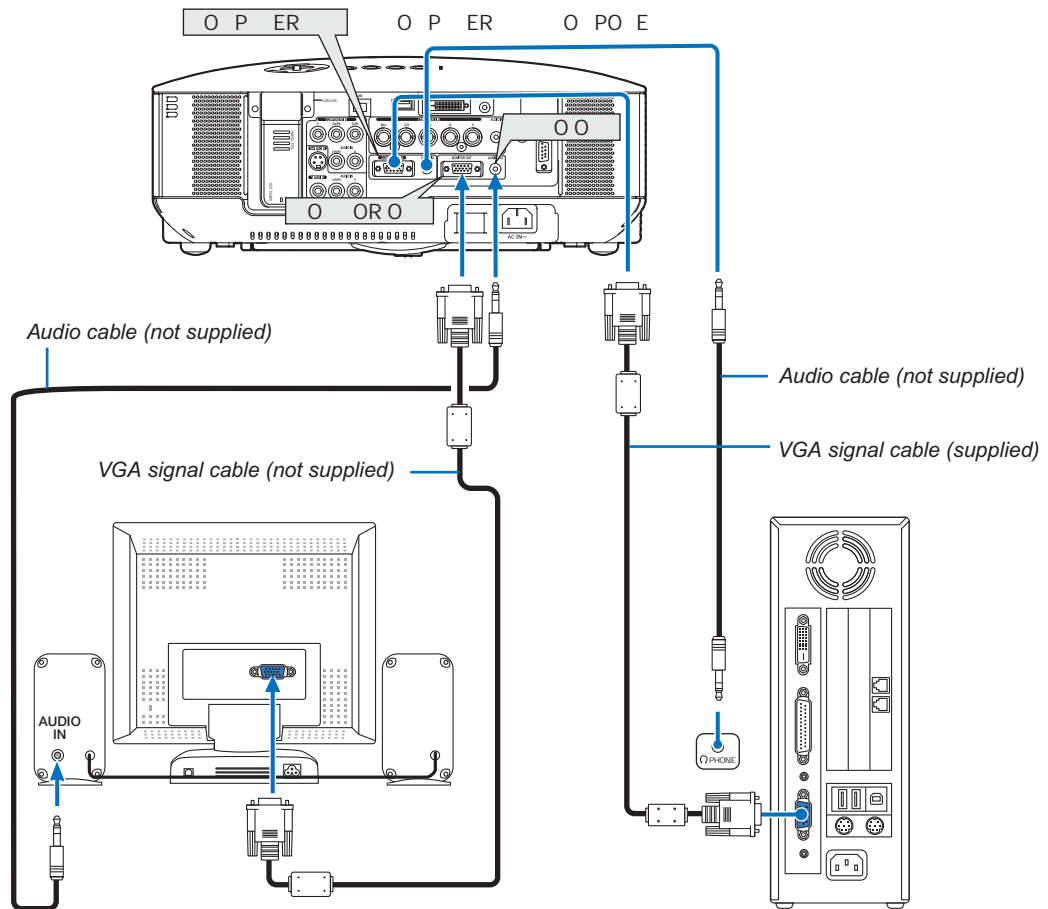
NOTE:
- *Daisy chain connection is not possible.*
- *The MONITOR OUT connector will output no video signal (Digital signal) from the COMPUTER 3 (DVI-D) IN connector.*
- *When audio equipment is connected, the projector speaker is disabled.*
- *When [NORMAL] is selected from [STANDBY MODE], the MONITOR OUT connector outputs the last displayed video signal and the AUDIO OUT jack outputs the last audio signal. The sound level remains the same as the last one.*
- *Selecting [POWER-SAVING] in [STANDBY MODE] stops outputting a video signal from the MONITOR OUT connector during standby mode. This causes the AUDIO OUT jack to stop outputting sound.*

Connecting Your DVD Player with Component Output

Component video RCA × 3 cable (not supplied)

Audio Equipment

DVD player

Audio cable (not supplied)
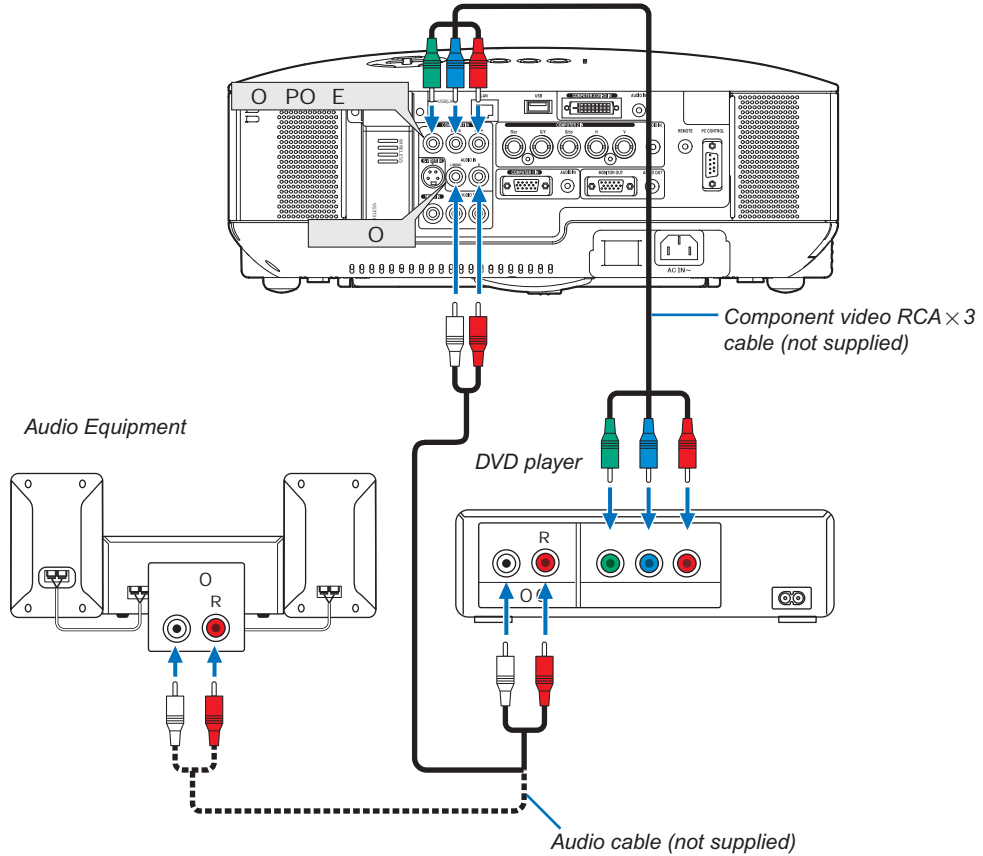
TIP: A component signal will be automatically displayed. If not, from the menu, select [SETUP] → [OPTIONS] → [SIGNAL SE-LECT] → [COMPUTER 1 (or 2)] → [COMPONENT].

NOTE: Refer to your DVD player's owner's manual for more information about your DVD player's video output requirements.

Connecting Your VCR

S-Video cable (not supplied)

Video cable (not supplied)

Audio equipment

VCR

Audio cable (not supplied)
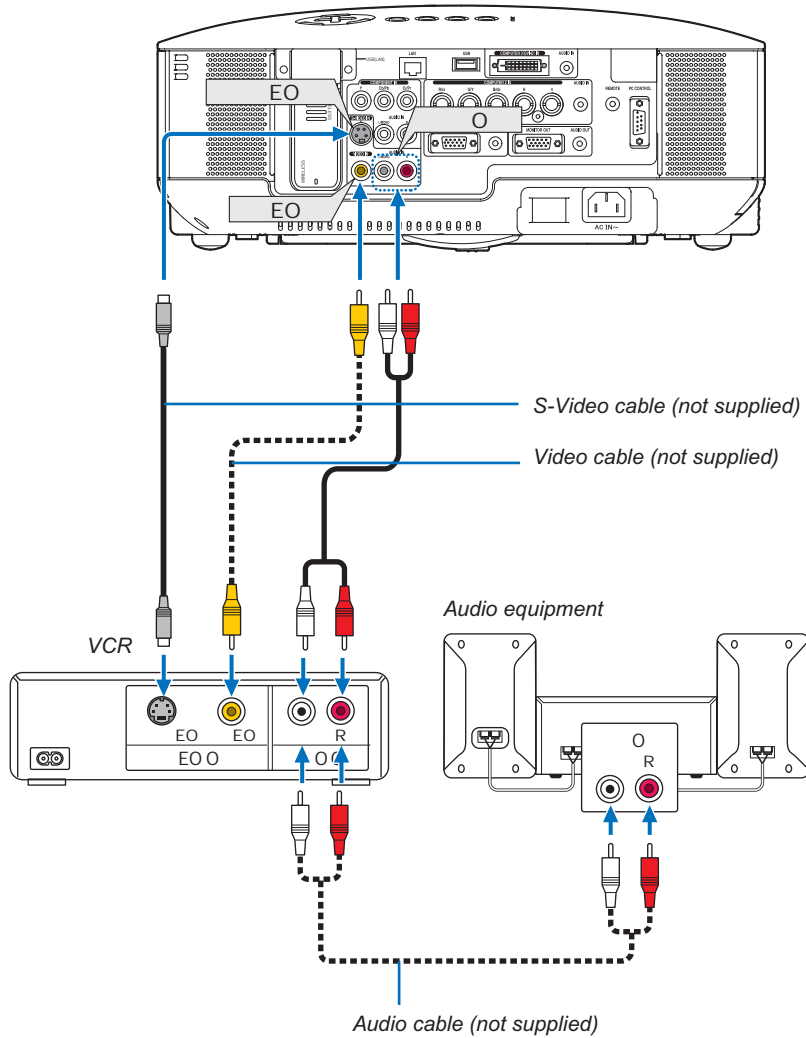
NOTE: Refer to your VCR owner's manual for more information about your equipment's video output requirements.

NOTE: An image may not be displayed correctly when a Video or S-Video source is played back in fast-forward or fast-rewind via a scan converter.

Connecting to a Network

P   P   P   P   W   R

W

P   E WOR

E   P →   O → E WOR   E

NOTE: Some projectors may not have the USB Wireless LAN Unit. If you own a projector without the USB Wireless LAN Unit in-stalled and need to present to the projector via a wireless connection, the optional USB Wireless LAN Unit must be installed.

W   P   P

Projector control feature

W

P   →

P   RO

E   RO

Picture transmission feature (Using WindowsVista)

W

P   R   W   →

Picture transmission feature (Using User Supportware 5 CD-ROM)

W

E   RO

P   E   RO

W   W   P

RO

TIP: Five Windows software programs (Image Express Utility 2.0, Desktop Control Utility 1.0, Ulead Photo Explorer 8.0, Viewer PPT Converter and PC Control Utility 3.0) and a Macintosh software program (Image Express Utility 2 for Mac OS X) are con-tained on the supplied Projector User Supportware 5 CD-ROM. For their functions and operations, see the user's guides (PDF) contained on the same CD-ROM.

W

W

Example of LAN connection

E
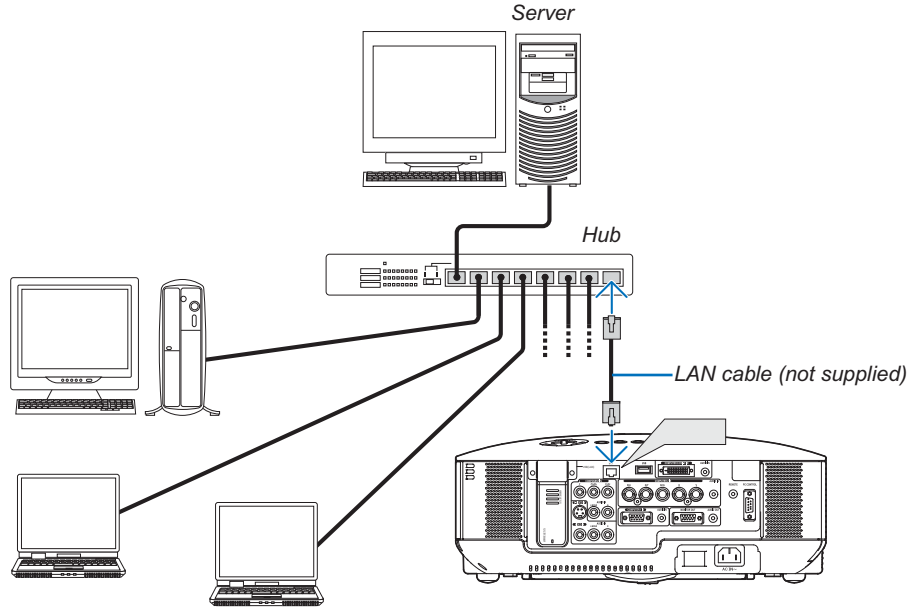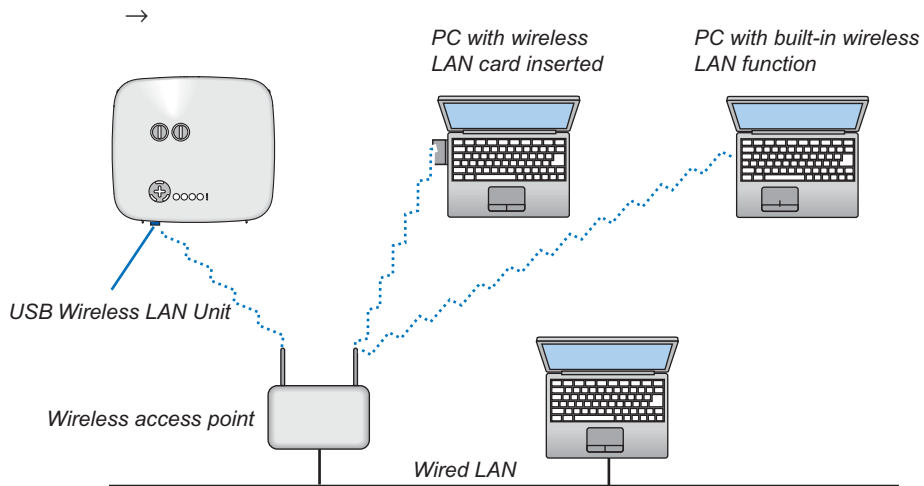
Server

Hub

LAN cable (not supplied)

E

→

*PC with wireless
LAN card inserted*

*PC with built-in wireless
LAN function*

USB Wireless LAN Unit

Wireless access point

Wired LAN

E P → O → E WOR E → W RE E → E
→ O E O → E WOR PE → R R RE

E   →

USB Wireless LAN Unit

PC with wireless
LAN card inserted

PC with built-in wireless
LAN function

E   P →   O   →   E WOR   E   → W RE E   →   E
→   O   E   O   →   E WOR   PE →   O

E E E
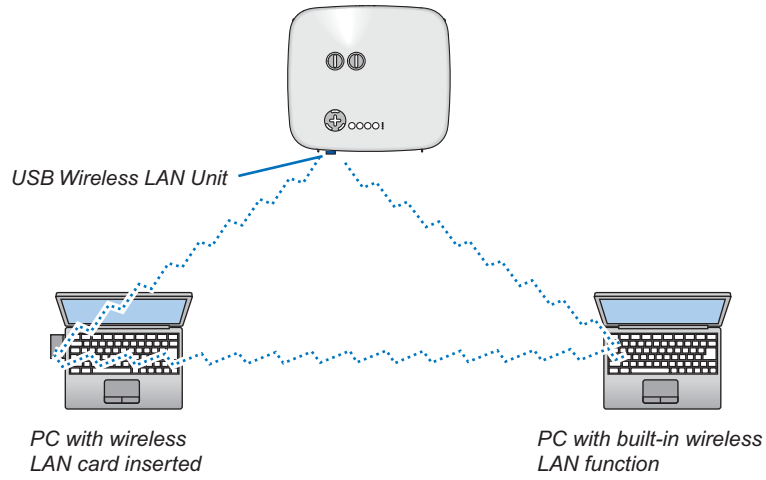
Connecting the Supplied Power Cable
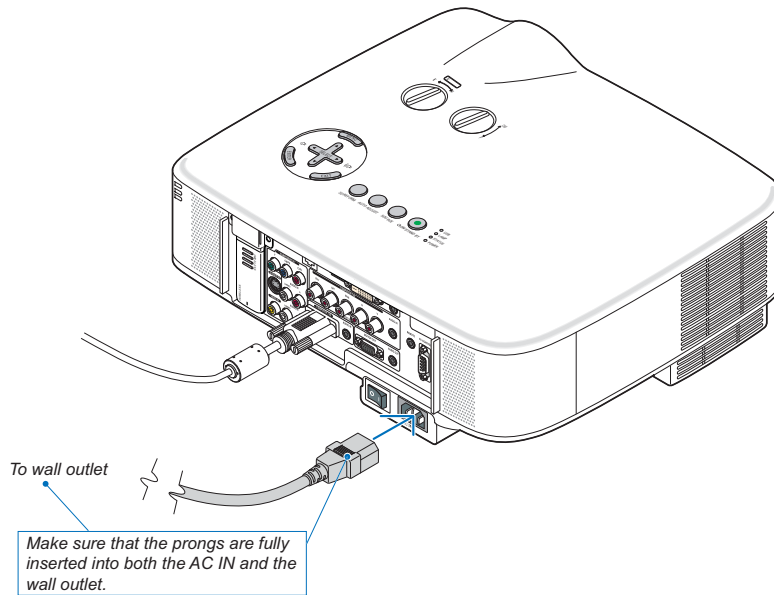
To wall outlet

Make sure that the prongs are fully inserted into both the AC IN and the wall outlet.

About Direct Power Off

P   O

NOTE: Before using Direct Power Off, be sure to allow at least 20 minutes immediately after turning on the projector and starting to display an image.

⚠ CAUTION:

⚠ CAUTION:

TIP: To turn off the AC power supply when the projector is powered on, use a power strip equipped with a switch and a breaker.

TIP: The projector can be unplugged during its cool down period after it is turned off.

3. Projecting an Image (Basic Operation)

❶ Turning on the Projector

NOTE:
- *The projector has two power switches: a main power switch and a POWER (ON/STAND BY) button (POWER ON and OFF on the remote control).*
- *When plugging in or unplugging the supplied power cable, make sure that the main power switch is pushed to the off (○) position. Failure to do so may cause damage to the projector.*
- *The projector has a feature to prevent itself from being used by unauthorized individuals. To use this feature, register a keyword. (→ page 45)*

1. Remove the lens cap.

2. To turn on the main power to the projector, press the Main Power switch to the on position (I).

W
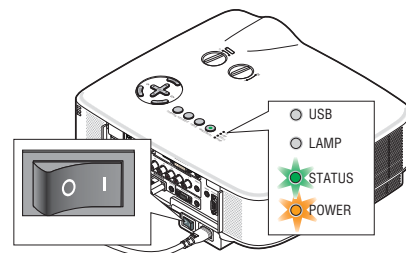
POWER

3. After making sure that the projector is in standby mode, press the POWER (ON/STAND BY) or POWER (ON) button for a minimum of 2 seconds when the STATUS indicator goes off and the POWER indicator starts blinking.
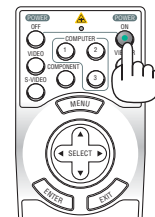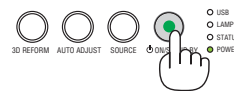
When the POWER indicator turns a steady green, and the projector is ready to use.

P   O

P

P

P

P

→
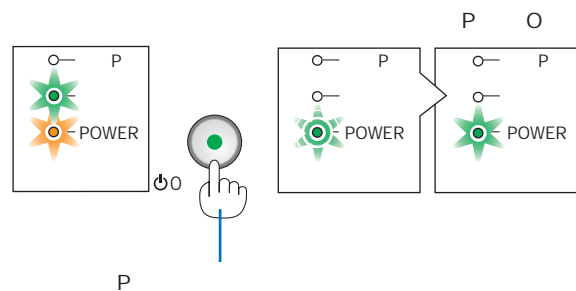
NOTE: When no signal is available, a blue, black or logo screen is displayed.

23

Note on Startup screen (Menu Language Select screen)

W

To select a menu language, follow these steps:

1. Use the SELECT ▼ button to select one of the 21 languages for the menu.
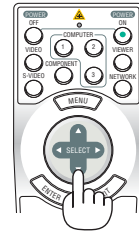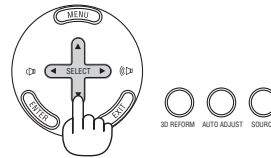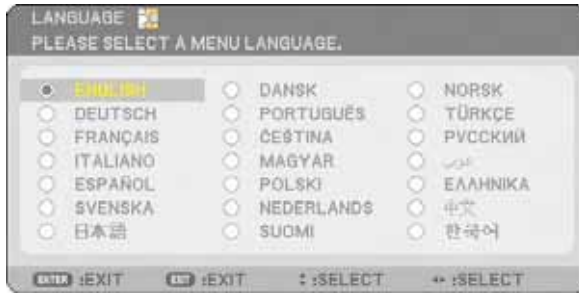
2. Press the ENTER button to execute the selection.

E   →
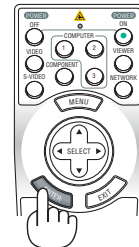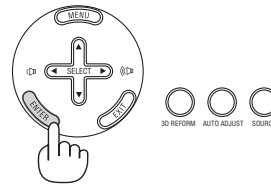
NOTE:
* *The projector cannot be turned off for 60 seconds after the lamp is turned on and while the POWER indicator is blinking green.*
* *If you turn on the projector immediately after the lamp is turned off or when the ambient temperature is high, the cooling fans will run for a moment and then you will get an image on the screen.*
* *Immediately after turning on the projector, screen flicker may occur. This is normal. Wait 3 to 5 minutes until the lamp lighting is stabilized.*

W   E

W
→

NOTE: Turning the Main Power Switch Off then Back On
Allow a minimum of one second between turning off the main power switch and turning it back on again.
The same will be applied when a power strip equipped with a switch and a breaker is used.
Failing to do so could result in no power to the projector. (There will be no stand-by LED)
Should this happen, unplug the power cable and plug it in again. Turn on the main power switch.

❷ Selecting a Source

Selecting the computer or video source

Selecting from Source List
P   O R E
          E   O R E
                    O P ER   O PO E   EO   R
     EO   EWER   E WOR
R
                              E   ER

SOURCE

- COMPUTER1
- COMPUTER2
- COMPUTER3
- COMPONENT
- VIDEO
- S-VIDEO
- VIEWER
- NETWORK

ENTER   EXIT
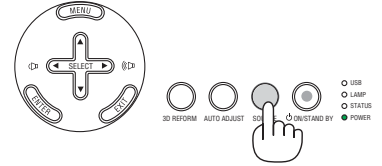
Detecting the Signal Automatically
P   O R E
                              E
 O R E

 O P   ER → O P ER → O P   ER → O PO E   →   EO
→   EO →   EWER →   O P   ER →

                              W

Using the Remote Control
P   O P   ER   O PO E   EO   EO
  EWER   E WOR

25
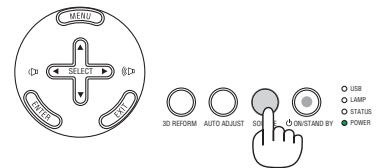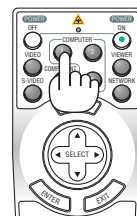
❸ Adjusting the Picture Size and Position
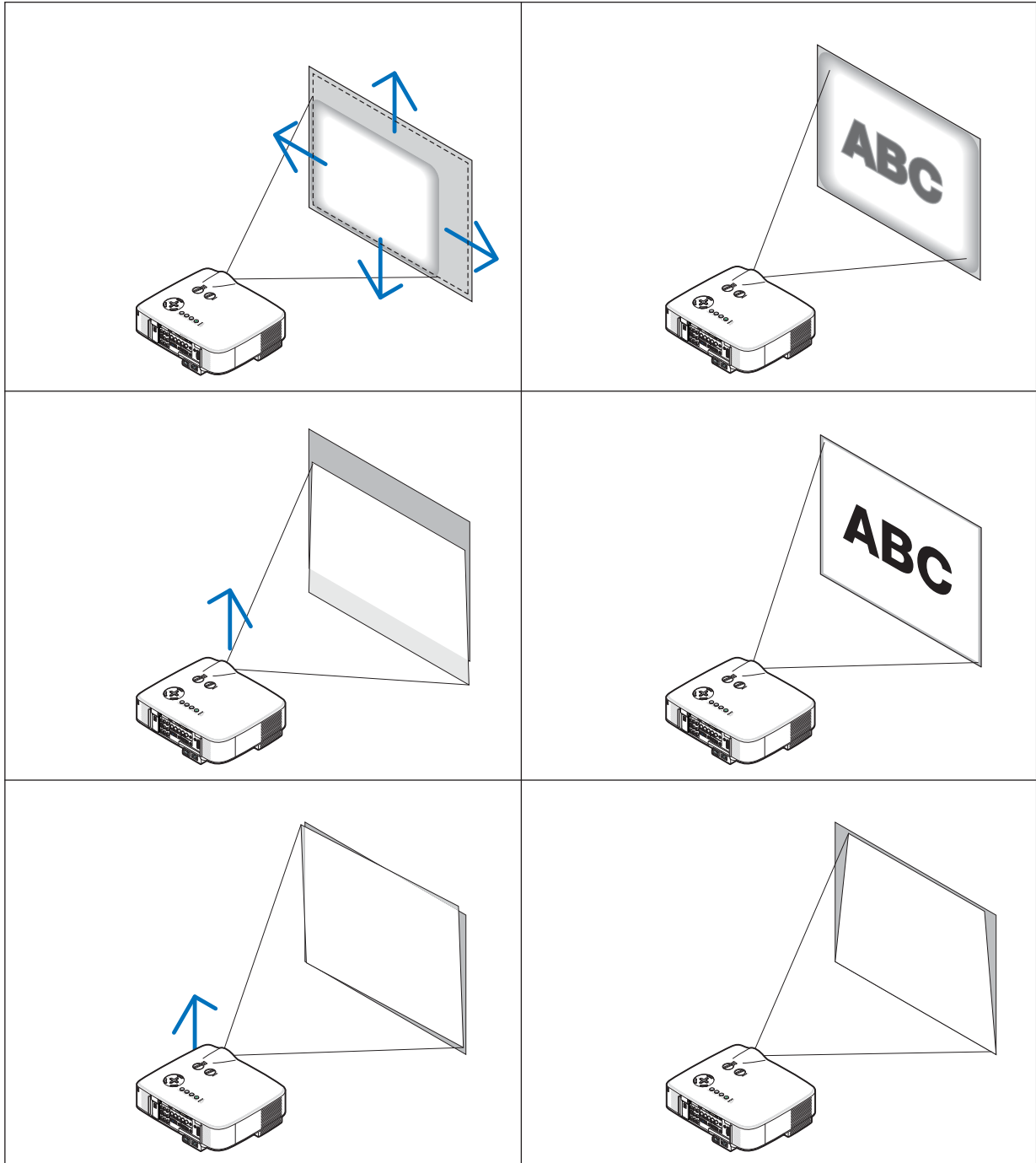
*NOTE*1: Adjust the throw angle (the height of an image) when the image position is higher than the lens shift adjustable range.*
*NOTE*2: See "❹ Correcting Keystone Distortion" on page 30 for Keystone.*
* In the above drawings, cables are omitted for clarity.

Adjusting the position of a projected image

- *Rotate the lens shift dial.*
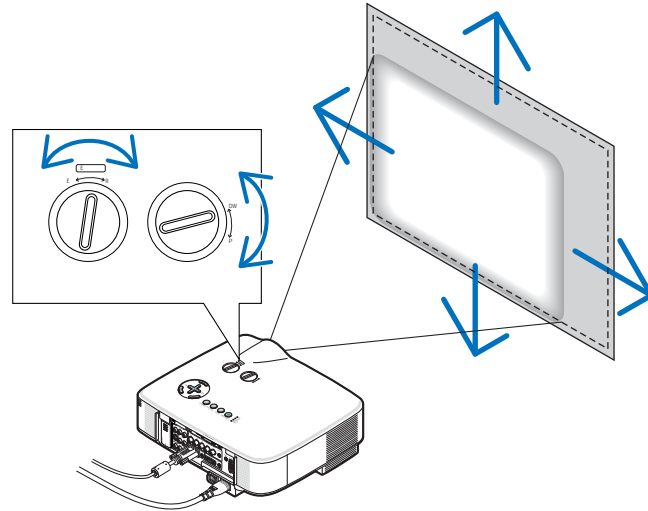
NOTE: The lens shift dial for LEFT-RIGHT cannot be rotated one-half turn or more.
Do not over rotate it or it may break.

NOTE: Shifting the lens to the maximum in two directions combined will cause the edges of the image to become dark or will cause some shadows.

TIP: The lens shift dial for UP-DOWN can be rotated one turn or more, but not beyond the adjustable range defined below.

NOTE: Lens shift is not available with the NP01FL optional lens. The NP01FL should be used only for "zero degree" applications.
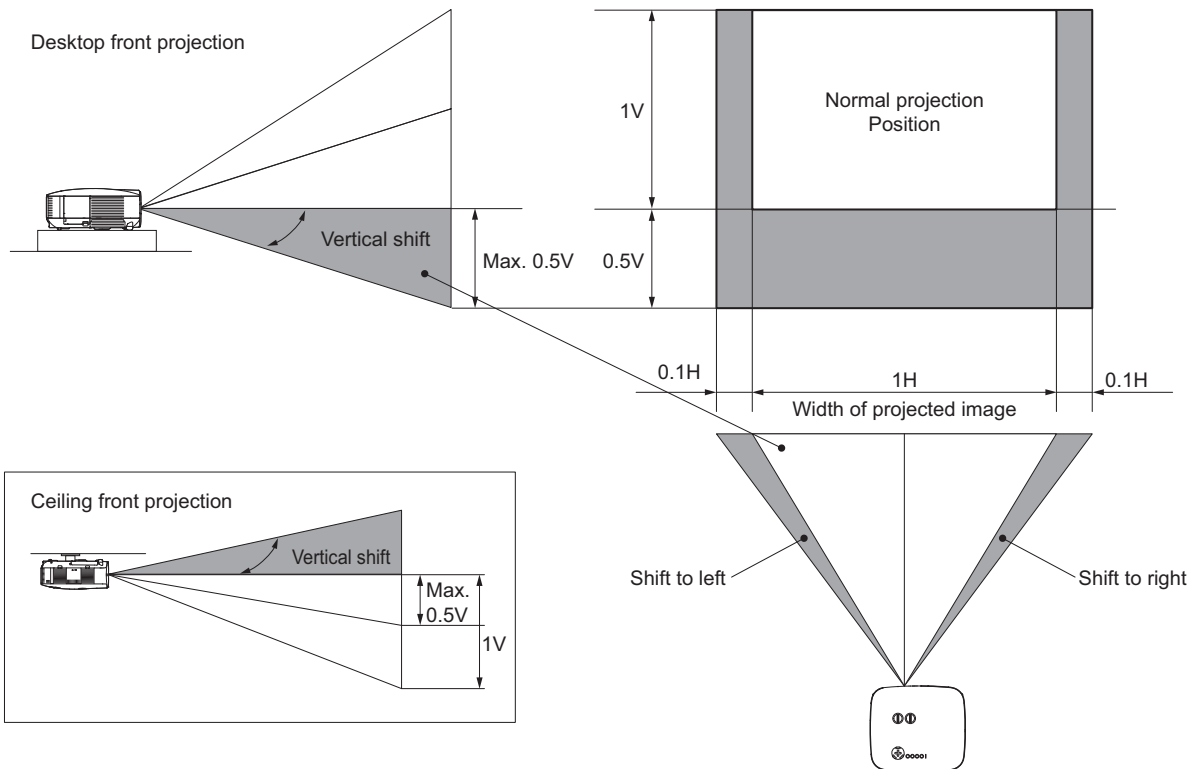
Adjusting the focus (Focus ring)

• *Rotate the focus ring to make focus adjustment.*
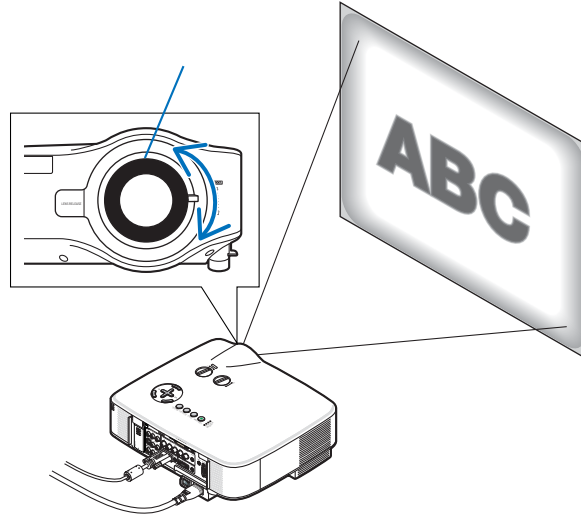
Finely adjusting the size of an image (Zoom lever)

• *Rotate the zoom lever to adjust the image size on the screen.*
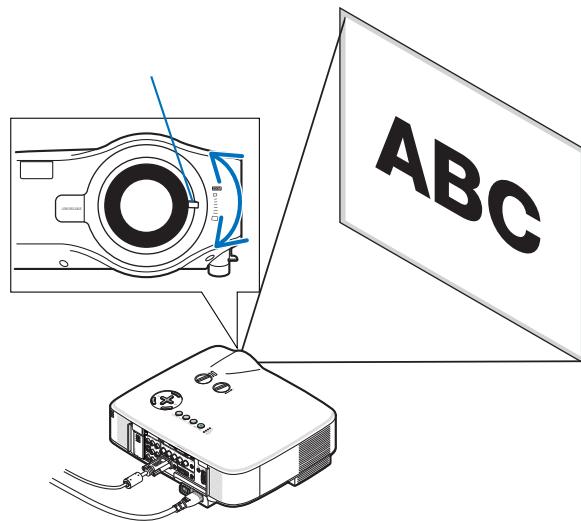
Adjusting the Tilt Foot

1. Lift the front edge of the projector.

⚠ **CAUTION:**

2. Push up the Adjustable Tilt Foot Levers on the right and left sides of the projector to extend the adjustable tilt feet (maximum height).

3. Lower the front of the projector to the desired height.

4. Release the Adjustable Tilt Foot lever to lock the Adjustable tilt foot.

There is approximately 10 degrees (up) of adjustment for the front of the projector.

TIP: For operating the [KEYSTONE] screen, see "❹ Correcting Keystone Distortion" on page 30.

NOTE: Your "Keystone" correction data can be reset by pressing and holding the 3D REFORM button for a minimum of 2 seconds.

⚠ **CAUTION:**

Adjustable Tilt Foot Lever

Adjustable Tilt Foot

Adjustable Tilt Foot Lever
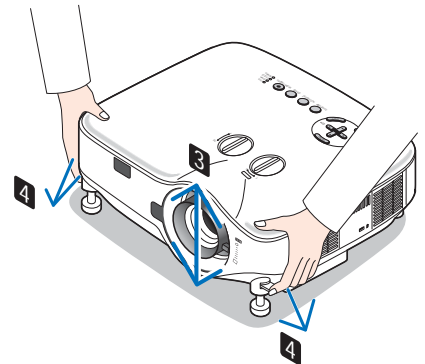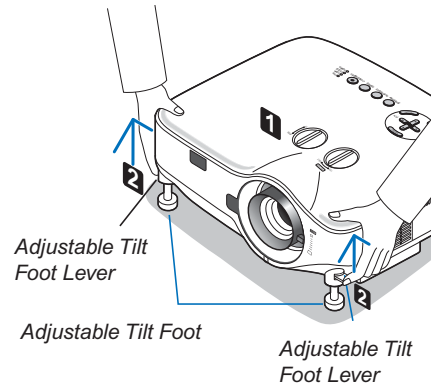
❹ Correcting Keystone Distortion

W

E   O E

W
W

1. Press the 3D REFORM button on the remote control or the projector cabinet.

The Keystone screen will be displayed on the screen.

Screen frame

Projected area

2. Press the SELECT ▼ button to select [VERTICAL] and then use the SELECT ◀ or ▶ so that the left and right sides of the projected image are parallel.

* Adjust the vertical keystone distortion.
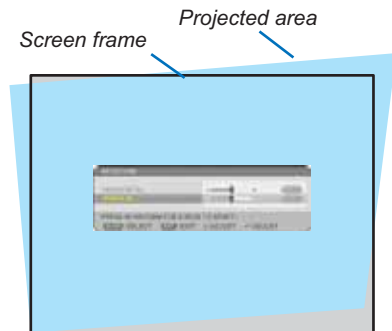
3. Align the left (or right) side of the screen with the left (or right) side of the projected image.

- *Use the shorter side of the projected image as the base.*
- *In the right example, use the left side as the base.*

Align left side
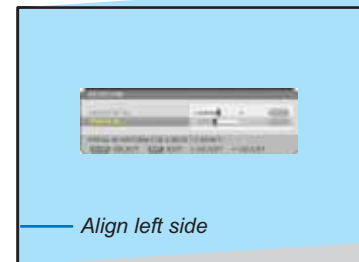
4. Press the SELECT ▲ button to select [HORIZONTAL] and then use the SELECT ◀ or ▶ so that the top and bottom sides of the projected image are parallel.

- *Adjust the horizontal keystone distortion.*

30
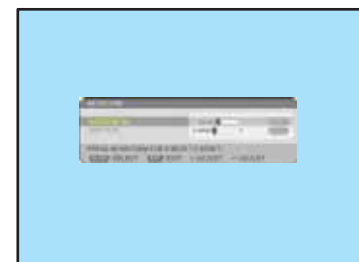
5. Repeat steps 2 and 4 to correct keystone distortion.

6. After completing Keystone correction, press the EXIT button.

The Keystone screen will disappear.

- To perform Keystone correction again, press the 3D REFORM button to display the Keystone screen and repeat above steps 1 to 6.
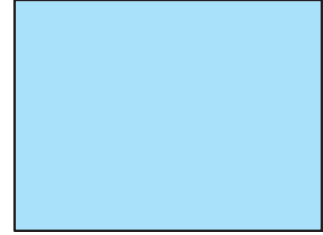
NOTE:
- *If the projection angle is the same as in the last use, the previous correction setting values are retained in the memory.*
- *When doing Step 2, adjust the position of image so that the screen is smaller than the area of the projected area.*
- *To reset the 3D Reform correction setting values, press and hold the 3D REFORM button for a minimum of 2 seconds.*
- *Each time the 3D REFORM button is pressed, the item will change as follows: KEYSTONE → CORNERSTONE → None → KEY-STONE → ...*

For information on [CORNERSTONE], see "Correcting Horizontal and Vertical Keystone Distortion (Cornerstone)" on page 40.

- *The Cornerstone adjustment will not be available during the Keystone adjustment. To perform the Cornerstone adjustment, press and hold the 3D REFORM button for a minimum of 2 seconds to reset the Keystone correction setting values. The Key-stone adjustment will not be available during the Cornerstone adjustment. To perform the Keystone adjustment, press and hold the 3D REFORM button for a minimum of 2 seconds to reset the Cornerstone correction setting values.*
- *The 3D Reform feature can cause an image to be slightly blurred because the correction is made electronically.*

❺ Optimizing an RGB Image Automatically

Adjusting the Image Using Auto Adjust

O   R
P   O   R

[Poor picture]

[Normal picture]
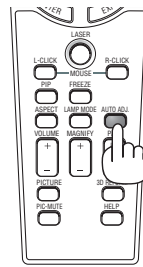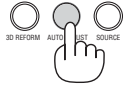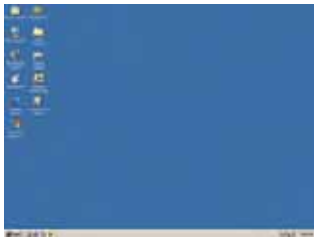
NOTE:
- *Some signals may take time to display or may not be displayed correctly.*
- *The Auto Adjust function does not work for component, video signals.*
- *If the Auto Adjust operation cannot optimize the RGB signal, try to adjust Clock and Phase manually. (→ page 82)*

---

❻ Adjusting Volume Up & Down

O O

→   O   →   O   E
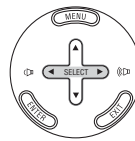
NOTE:
- *Volume control is not available with the SELECT ◄ or ► button when an image is enlarged by using the MAGNIFY (+) button or when the menu is displayed.*

Increase volume

Decrease volume
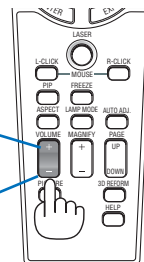
❼ Using the Laser Pointer

⚠️ CAUTION:
• Do not look into the laser pointer while it is on.
• Do not point the laser beam at a person.
• Do not allow children to use the laser pointer.

P   ER
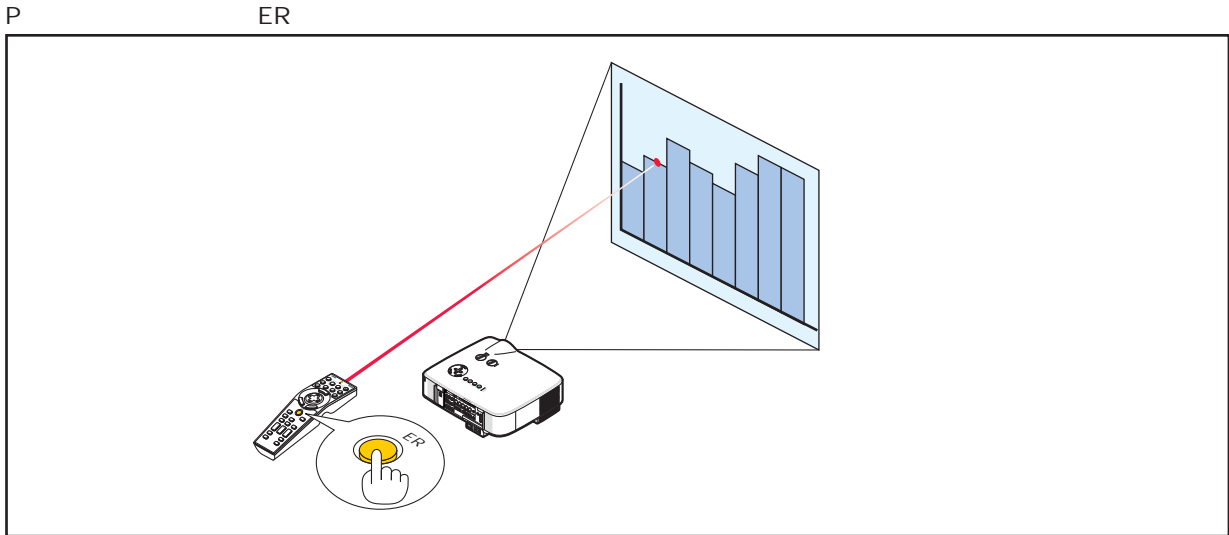
Setting the function switch

O
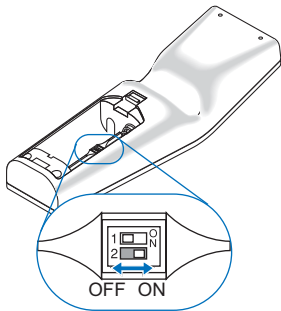
ON .... Enabled (the laser lights when the LASER button is pressed) [Factory default]
OFF .... Disabled (the laser does not light even when the LASER button is pressed)

❽ Turning off the Projector

To turn off the projector:

1. Press the POWER (ON/STAND BY) button on the projector cabinet or the POWER OFF button on the remote control. The [POWER OFF / ARE YOU SURE?] message will appear.

POWER OFF
ARE YOU SURE ?

YES   NO
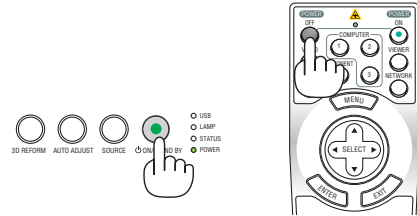
2. Press the ENTER button

W   POWER
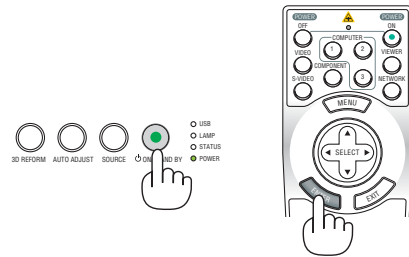
3. After making sure that the projector is in standby mode, turn off the Main Power switch. The power indicator will go out.

About Direct Power Off

P   O

NOTE: Before using Direct Power Off, be sure to allow at least 20 minutes immediately after turning on the projector and starting to display an image.
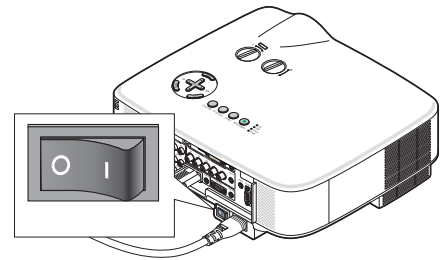
CAUTION

TIP: The projector can be unplugged during its cool down period after it is turned off.

❾ After Use

Preparation:

1. Unplug the power cable.

2. Disconnect any other cables.

3. Retract adjustable tilt feet if extended.

4. Cover the lens with the lens cap.

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4. Convenient Features

❶ Turning Off the Image and Sound

P   P   E
     P

NOTE: Even though the image is turned off, the menu still remains on the screen.
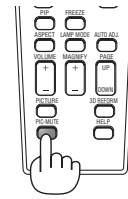
❷ Freezing a Picture

P   REE E   P

NOTE: The image is frozen but the original video is still playing back.
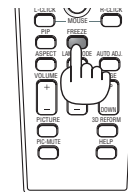
❸ Enlarging and Moving a Picture

To do so:

1. Press the MAGNIFY (+) button.

Each time the MAGNIFY (+) button is pressed, the image is magnified.

* Image can be magnified up to 400%
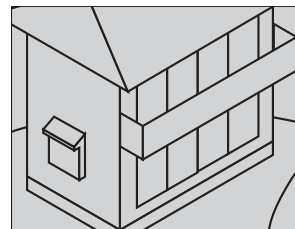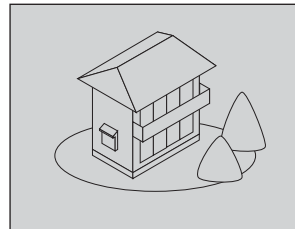
2. Press the SELECT ▲▼◀▶ button.

The area of the magnified image will be moved

3. Press the MAGNIFY (-) button.

Each time the MAGNIFY (-) button is pressed, the image is reduced.
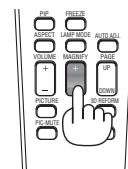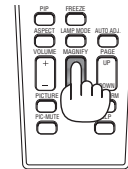
❹ Changing Lamp Mode

E

E O

1. **Press the LAMP MODE button to display [LAMP MODE] screen.**
2. **Use the SELECT ▲ or ▼ button to select [ECO] mode.**
3. **Press the ENTER button.**

   To cancel it, press the EXIT button.

   To change from [ECO] to [NORMAL], Go back to Step 2 and select [NORMAL]. Re-peat Step 3.
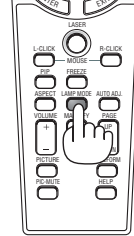
		P
OR O E		O
E O O E		
	P P W	
	P P	

NOTE:
- *The projector is always in [NORMAL MODE] for one minute after the lamp is turned on and while the POWER indicator is blinking green. The lamp condition will not be affected even when [LAMP MODE] is changed.*
- *After a lapse of one minute from when the projector displays a blue, black or logo screen, [LAMP MODE] will automatically switch to [ECO MODE].*
  The projector will return to the [NORMAL MODE] once a signal is accepted.

❺ Getting Integrated Help

E

1. **Press the HELP button on the remote control.**

   W

   W
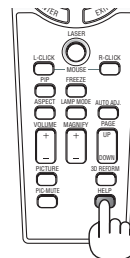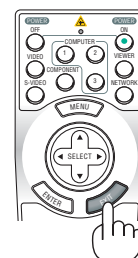
Display Help   *Exit Help*

2. **Use the SELECT ▲ or ▼ button to scroll the view-ing area.**

3. **Press the EXIT button.**

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❻ Using a USB Mouse
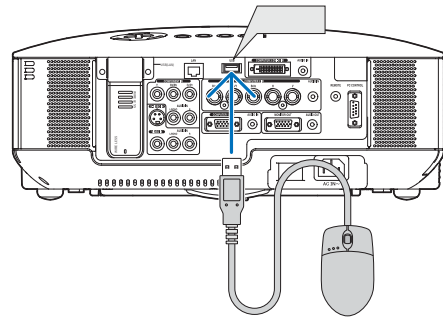
```
 EWER
  E WOR
E   R
 OO
  E   R    E
  E WOR   E
  OR  ER  O  E
```

NOTE: We do not warrant that the USB port of the projector will support all USB mouse devices in the market.

NOTE: Do not try to insert the plug of your USB mouse into the LAN port (LAN) of the projector.
Doing so can cause damage to the LAN port.

Operate the Menus using the USB mouse

W

W

NETWORK

IMAGE EXPRESS UTILITY DESKTOP CONTROL UTILITY NETWORK PROJECTOR REMOTE DESKTOP CONNECTION

ENTER:SELECT :MOVE :MOVE

```
          E    E PRE  E
          E  WOR    E              →
          O   E
```

37
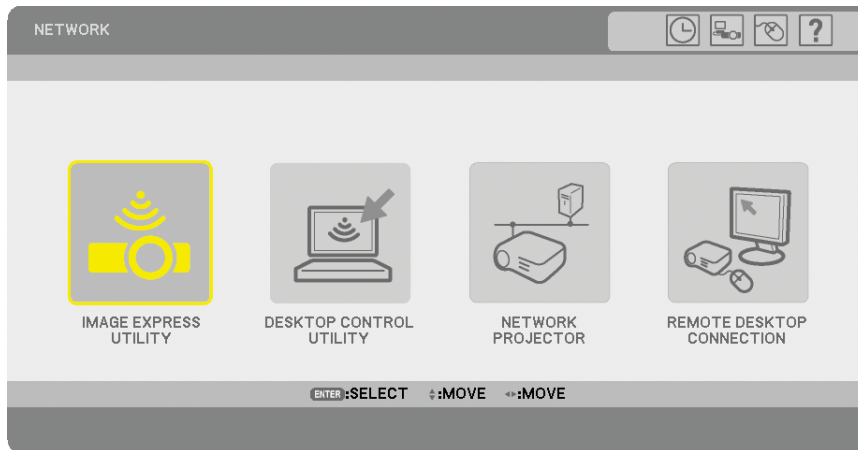
❼ Using the Optional Remote Mouse Receiver (NP01MR)

Connecting the remote mouse receiver to your computer

NOTE: Depending on the type of connection or OS installed on your computer, you may have to restart your computer or change your computer settings.

Computer

Remote mouse receiver

To USB port of PC or Macintosh
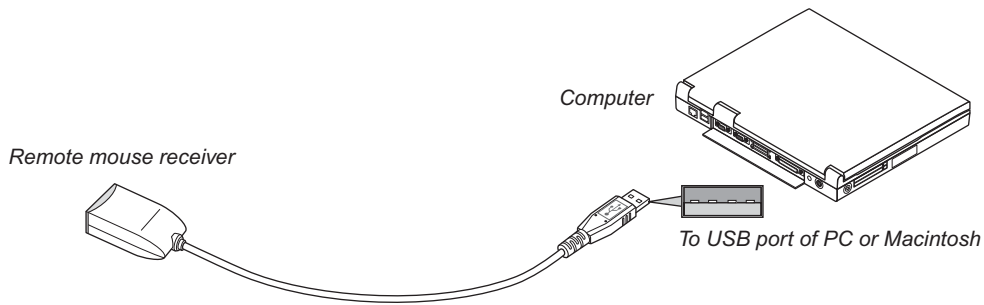
When operating a computer via the remote mouse receiver

7m/22 feet

30

30

Remote sensor on the remote mouse receiver
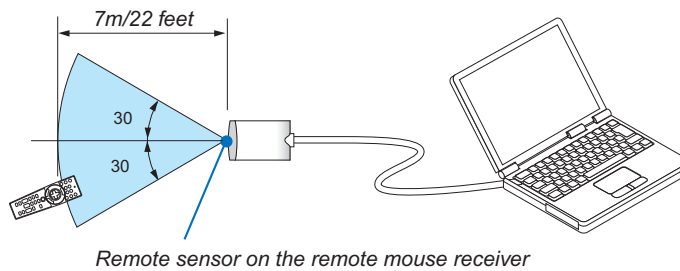
When connecting using the USB port

| P | | W | | P | W | | W |

O

* NOTE: In SP1 or older version of Windows XP, if the mouse cursor will not move correctly, do the following:
Clear the Enhance pointer precision check box underneath the mouse speed slider in the Mouse Properties dialog box [Pointer Options tab].

NOTE: Wait at least 5 seconds after disconnecting the mouse receiver before reconnecting it and vice versa. The computer may not identify the mouse receiver if it is repeatedly connected and disconnected in rapid intervals.

Operating your computer's mouse from the remote control

PAGE UP/DOWN Button...................scrolls the viewing area of the window or to move to the previous or next slide in Power-
Point on your computer.

SELECT ▲▼◄► Button ....moves the mouse cursor on your computer.

MOUSE L-CLICK Button ....works as the mouse left button.

MOUSE R-CLICK Button ....works as the mouse right button.

NOTE:
* *When you operate the computer using the SELECT ▲▼◄► button with the menu displayed, both the menu and the mouse pointer will be affected. Close the menu and perform the mouse operation.*
* *The PAGE UP and DOWN buttons do not work with PowerPoint for Macintosh.*

About Drag Mode:

O E R

E E ▲▼◄►
O E R O E R

TIP: You can change the Pointer speed on the Mouse Properties dialog box on the Windows. For more information, see the user documentation or online help supplied with your computer.

❽ Correcting Horizontal and Vertical Keystone Distortion (Cornerstone)

R

Cornerstone

1. **Press and hold the 3D REFORM button for a minimum of 2 seconds to reset current adjustments.**

   Current adjustments for [KEYSTONE] or [CORNERSTONE] will be cleared.

2. **Project an image so that the screen is smaller than the area of the raster.**

3. **Pick up any one of the corners and align the corner of the image with a corner of the screen.**

Projected image

The drawing shows the upper right corner.
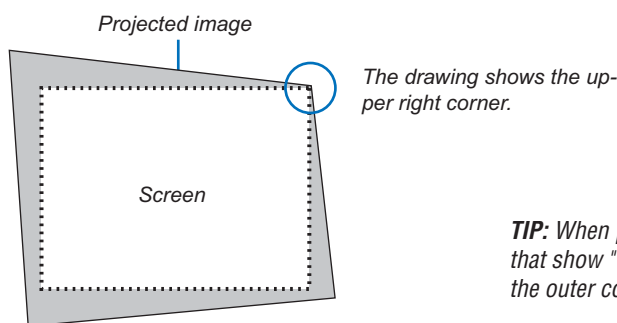
Screen

TIP: When [WIDE SCREEN] is selected from [SCREEN TYPE], lines that show "16:9" will be displayed both at the top and bottom. Click the outer corners.

4. **Press the 3D REFORM button twice.**

   The Cornerstone adjustment screen is displayed.

The drawing shows the upper left icon (▼) is selected.

TIP: If you are adjusting [KEYSTONE], [CORNERSTONE] will not be available. If this happens, press and hold the 3D REFORM button for a minimum of 2 seconds to reset the [KEYSTONE] adjustments.

5. **Use the SELECT ▲▼◀▶ button to select one icon (▲) which points in the direction you wish to move the projected image frame.**

6. **Press the ENTER button.**

7. Use the SELECT ▲▼◀▶ button to move the projected image frame as shown on the example.
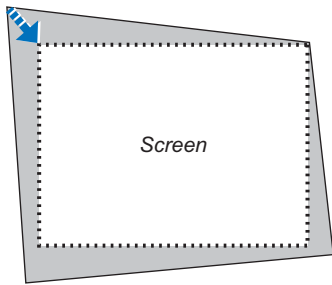
Screen

8. Press the ENTER button.
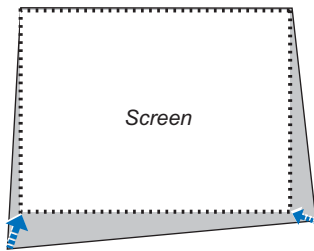
Screen

9. Use the SELECT ▲▼◀▶ button to select another icon which points in the direction.

On the Cornerstone adjustment screen, select [EXIT] or press the EXIT button on the remote control.
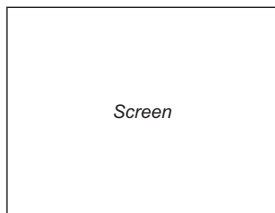
Screen

The confirmation screen is displayed.

CORNERSTONE

EXIT ADJUSTMENT MODE.

(OK) (CANCEL) (RESET) (UNDO)

SELECT ENTER EXIT

10. Press the SELECT ◀ or ▶ button to highlight the [OK] and press the ENTER button.

```
        E
   RE  E
        O
```

NOTE: To reset the 3D Reform correction setting values, press and hold the 3D REFORM button for a minimum of 2 seconds.

NOTE: During 3D Reform adjustment, [ASPECT RATIO] and [SCREEN] may not be available. Should this happen, first reset the 3D Reform data and then do each setting. Second repeat the 3D Reform adjustment. Changing [ASPECT RATIO] and/or [SCREEN] setting can limit [3D REFORM] in its adjustable range.

The adjustable ranges for 3D Reform are as follows:

	OR O	ER
OR ER O E		
E O E		

W
W
W

W

NOTE:
- *If the Cornerstone screen is unavailable (grayed), press and hold the 3D REFORM button for a minimum of 2 seconds to reset the current correction data. The Cornerstone function becomes available.*
- *Turning on the projector will reset the previous correction setting values and correct distortion anew if the projection angle is changed from the last use.*
  If the projection angle is the same as in the last use, the previous correction setting values are retained in the memory.

NOTE: Using 3D Reform correction can cause the image to be slightly blurred because the correction is made electronically.

❾ Using Picture in Picture (PIP) Function

P

P   P P

From the menu you can select [SETUP] → [BASIC] → [PIP].

NOTE:
- *Adjusting for picture and sound is available for the main picture only.*
- *To turn on PIP mode while in Picture Mute or Freeze, Picture Mute and Freeze will be applied simultaneously to both the main and sub pictures.*
- *The main picture signal supports the COMPUTER 1 and 2 inputs.*
  The sub picture signal supports the VIDEO input only.

PIP POSITION

E E   ▲   ▼   E   ER

NOTE:
- *The default setting is [BOTTOM-RIGHT].*

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Viewing a sub picture in the main picture

P P

1. Press the PIP button on the remote control.

The sub picture will be displayed in the main picture.

Sub picture
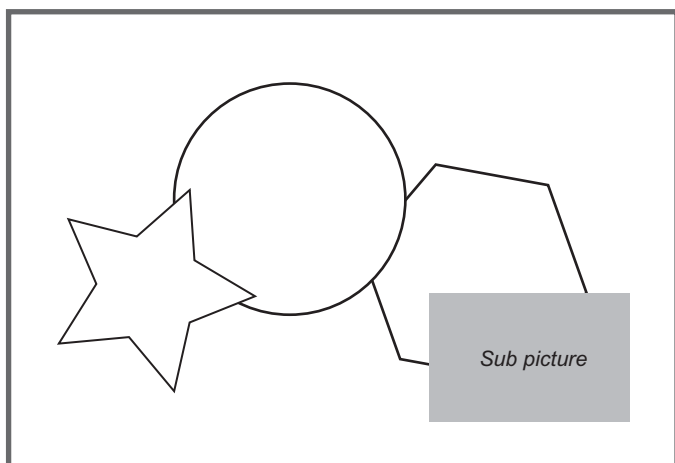
2. Press the PIP button again to display the main picture only.
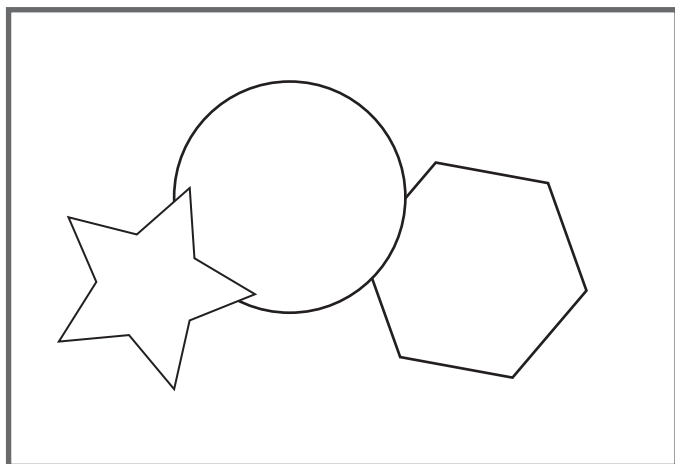
NOTE: The main picture's sound will be output.

❿ Preventing Unauthorized Use of the Projector

Turning on the Security function by assigning a keyword for the first time

1. Press the MENU button.

   The menu will be displayed.

2. Press the SELECT ▶ button to highlight the [SETUP] submenu and press the ENTER button.

   The page tab [BASIC] will be highlighted.

3. Press the SELECT ▶ button twice to highlight the page tab [INSTALLATION].

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4. Press the SELECT ▼ button three times to highlight [SECURITY SETTINGS].

5. Press the ENTER button to display the SECURITY SETTINGS menu.

6. Press the SELECT ▼ button four times to highlight [SECURITY-SETTINGS] and press the ENTER button.
   The Security screen will be displayed.
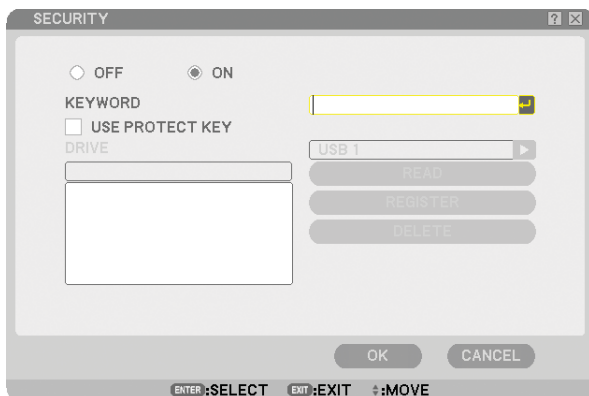
7. Press the SELECT ▼ button once to highlight the Keyword entry box and press the ENTER button.
   The Software keyboard will be displayed.

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8. *Enter an alphanumeric keyword using the Software keyboard.*

   For example, to enter "1234", follow the steps 8-1 to 8-4 below.

NOTE:
- *When using your USB mouse, click each number or alphabet.*
  BS: Delete the character before the cursor or highlight.
  ◻: Confirm the keyword and close the Software keyboard.
- *The keyword must be 1 to 10 characters long.*
- *Please make a note of your keyword.*

   Enter a keyword by using the remote control.

   8-1. *Press the MENU button and the AUTO.ADJ. button to enter "1".*

   The asterisk "✻" will be displayed in the keyword entry box.

   8-2. *Press the MENU button and the SELECT ▲ button to enter "2".*

   The asterisk "✻✻" will be displayed in the keyword entry box.

   8-3. *Press the MENU button and the SELECT ▼ button to enter "3".*

   The asterisk "✻✻✻" will be displayed in the keyword entry box.

   8-4. *Press the MENU button and the SELECT ▶ button to enter "4".*

   The asterisk "✻✻✻✻" will be displayed in the keyword entry box.

   8-5. *Press the ENTER button.*

9. *Press the SELECT ▲ button once to highlight [OFF] and press the SELECT ▶ button to highlight [ON].*
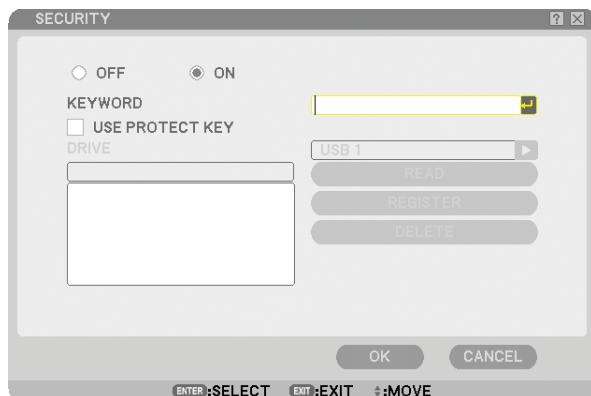
10. Press the SELECT ▼ button to highlight [OK] and press the ENTER button.

The confirmation screen will be displayed.

> ⚠ SECURITY FUNCTION WILL BE ENABLED.
> ARE YOU SURE ?
>
> YES   NO
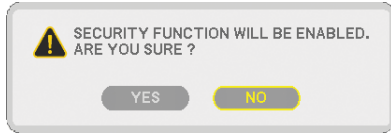
11. Press the SELECT ◀ or ▶ button to highlight [YES] and press the ENTER button.

The Security Function will take effect when the projector is turned on next time.

Checking If Security is enabled

1. Press the POWER (ON/STANDBY) button.

The [POWER OFF / ARE YOU SURE?] message will appear.

Press the ENTER button or the POWER (ON/STANDBY) or the POWER OFF button again.

The lamp lights off and the POWER indicator flashes orange. Please wait until the POWER indicator changes from flashing to steady light.

2. When the POWER indicator lights steady orange, push the Main POWER switch to the off position (O).

The projector will turn off.

3. Push the Main POWER switch to the on position (I).

The POWER indicator lights orange. The projector is in standby condition.

4. Press and hold the POWER (ON/STANDBY) button for a minimum of two seconds.

The projector will turn on. The [PROJECTOR IS LOCKED! ENTER YOUR KEYWORD.] message will be displayed at the bottom of the screen.

5. Press the MENU button.

The Keyword entry screen will be displayed
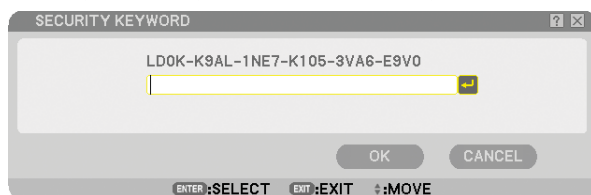
> SECURITY KEYWORD   ? ✕
>
> LD0K-K9AL-1NE7-K105-3VA6-E9V0
>
> [   ] ↵
>
> OK   CANCEL
>
> ENTER:SELECT   EXIT:EXIT   ↕:MOVE

6. Press the ENTER button.

The Software keyboard will be displayed.

7. Use the same procedures as steps 1 to 8 described in the "Assigning a Keyword for the first time" section to enter "1234".

Each time one number is entered, an "❋" (asterisk) will appear. Keyword appears as asterisks so the real keyword is hidden.

8. After entering your keyword, highlight [OK] and press the ENTER button.

The Software keyboard will disappear. This will allow you to operate the projector.

Disabling the Security

1. Press the MENU button.

The menu will be displayed.

NOTE: Immediately after the projector has been turned on and the "Projector is locked! Enter your keyword." message is displayed at the bottom of the screen, pressing the MENU button will display the Keyword entry will be displayed. At this time, pressing the MENU button will display the menu.

2. Press the SELECT ▶ button to highlight [SETUP] and press the ENTER button.

The page tab [BASIC] will be highlighted.

3. Press the SELECT ▶ button twice to highlight the page tab [INSTALLATION].

4. Press the SELECT ▼ button three times to highlight [SECURITY SETTINGS] and press the ENTER button.

5. Press the SELECT ▼ button four times to highlight [SECURITY] - [SETTINGS] and press the ENTER button.

The Keyword entry screen will be displayed
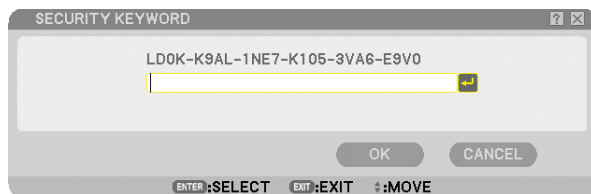
6. Press the ENTER button.

The Software keyboard will be displayed.

7. Use the same procedures as steps 1 to 8 described in the "Assigning a Keyword for the first time" section to enter "1234".

Each time one number is entered, an "✳" (asterisk) will appear. Keyword appears as asterisks so the real keyword is hidden.

8. After entering your keyword, highlight [OK] and press the ENTER button.

The Software keyboard will disappear. The Security screen will be displayed.

9. Highlight [ON] and press the SELECT ◀ button to highlight [OFF].

10.Press the SELECT ▼ button to highlight [OK] and press the ENTER button.

The Security Function will be disabled when the projector is turned on next time.

NOTE: Do not forget your keyword. However, if you forget your keyword, NEC or your dealer will provide you with your Release Code upon proof of ownership.

⓫ Limiting Access Level to Available Menu Items

E

ADVANCED menu .. This is the menu that contains all the available menus and commands. Users with an ADMINISTRATOR or ADVANCED account can access the ADVANCED menu.

BASIC menu .... This is the basic menu that contains minimum essentials of menus and commands. Users with a BASIC account can access the BASIC menu.

E

NOTE:
- *A user with an ADMINISTRATOR account that has no password set is registered at the factory.*
  This will allow the user to access the ACCOUNT items without password entry.

Logging On

W   O   O

NOTE: If one user logs on to the projector, any other user cannot log on.

1. Enter a user name.

2. Enter the registered password if you have it.

3. Select [OK].

NOTE: Do not forget your password. If you forget your password, ask your administrator. If your administrator forget the password, ask NEC or your dealer. NEC or your dealer will provide you with your Release Code (24 character length) upon proof of ownership.

Logging Off

1. From the menu, select [SETUP] → [BASIC] → [LOGOFF].

2. Select [YES].

Creating or Adding a User

1. *From the menu, select [SETUP] → [INSTALLATION] → [SECURITY SETTINGS].*

2. *Select [ACCOUNT]-[SETTINGS].*

   The [ACCOUNT] setting screen will be displayed.
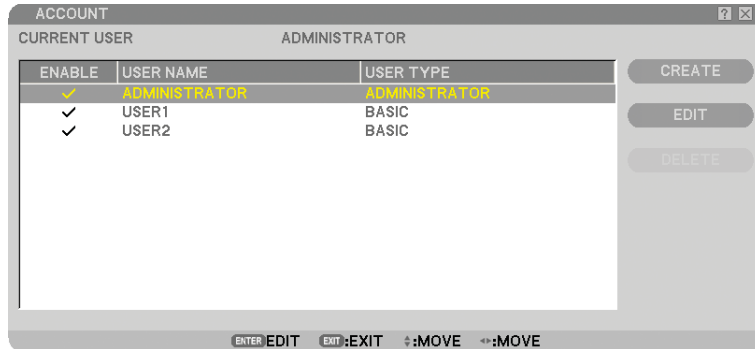
3. *Select [CREATE].*

   The [ACCOUNT] create screen will be displayed.
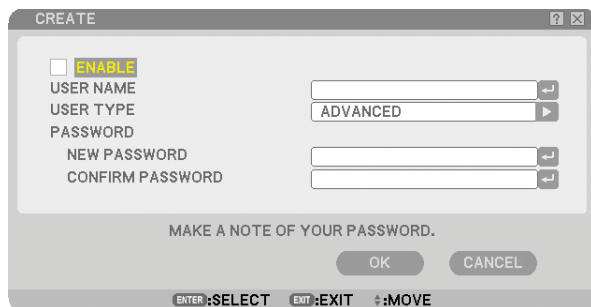
4. *Enter a user name, user type, and password.*

   E

   EW P   WOR

   A password must be 10 alphanumeric characters or less. If no password is set, the user is registered without a password.

   O   R   P   WOR

5. *Place a checkmark on [ENABLE].*

   The account will be made available.

6. *Select [OK].*

   This will complete adding a user.

NOTE: Up to 12 user names can be created.

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Editing a User (Changing Account Settings)

1. From the menu, select [SETUP] → [INSTALLATION] → [SECURITY SETTINGS].

NOTE: A user with an ADMINISTRATOR account is recommended to change the account settings.

2. Select [ACCOUNT]-[SETTINGS].

The [ACCOUNT] setting screen will be displayed.

3. Select a user name you wish to edit.

4. Select [EDIT].

The [EDIT] screen will be displayed.
Enter your password and press the ENTER button.
If no password is set, simply press the ENTER button without entering any password.

5. Change the settings and select [OK].

Deleting a User

1. From the menu, select [SETUP] → [INSTALLATION] → [SECURITY SETTINGS].

NOTE: A user with an ADMINISTRATOR account is recommended to delete the account settings.

2. Select [ACCOUNT]-[SETTINGS].

The [ACCOUNT] setting screen will be displayed.

3. Select a user name you wish to delete.

4. Select [DELETE].

The [DELETE] screen will be displayed.
Enter your password and press the ENTER button.
The confirmation screen will be displayed.

5. Select [YES].

This will complete deleting the user.

NOTE: Do not forget your password. If you forget your password, ask your administrator. If your administrator forget the password, ask NEC or your dealer. NEC or your dealer will provide you with your Release Code (24 character length) upon proof of ownership.

⑫ Operation Using an HTTP Browser

Overview

P
P   E

P

P
P
R
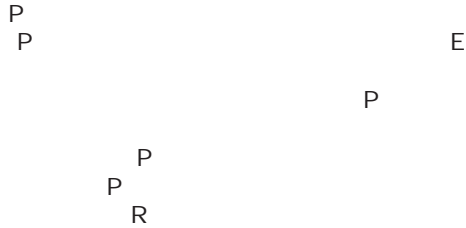
NOTE:
- *The display's or button's response can be slowed down or operation may not be accepted depending the settings of your net-work. Should this happen, consult your network administrator.*
  The projector may not respond if its buttons are repeatedly pressed in rapid intervals. Should this happen, wait a moment and repeat. If you still can't get any response, turn off and back on the projector.
- *Do not use the HTTP Server functions and PC Control Utility 3.0 included on the supplied CD-ROM. Using both at the same time may result in a connection failure or slow response.*

Preparation Before Use

→   E WOR   E
O

Handling of the Address for Operation via a Browser

R   R
                                                                                    P

              P   O

E   W

                                                    R
E   W   P
          P

                                        R
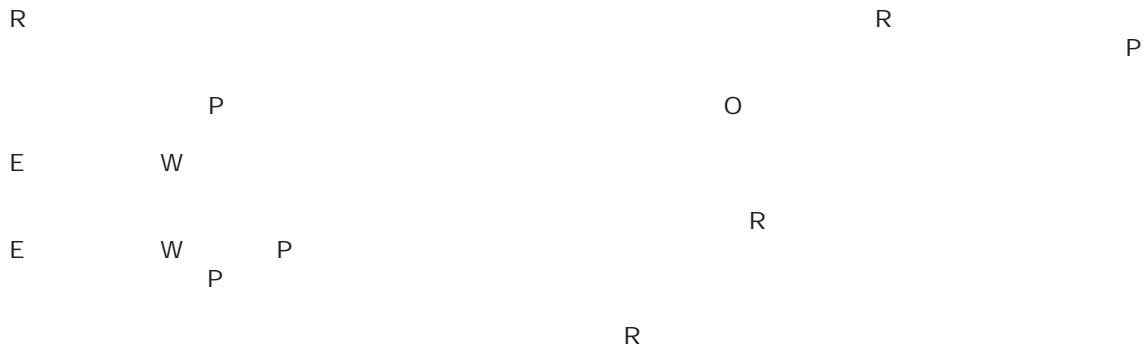
Structure of the HTTP Server
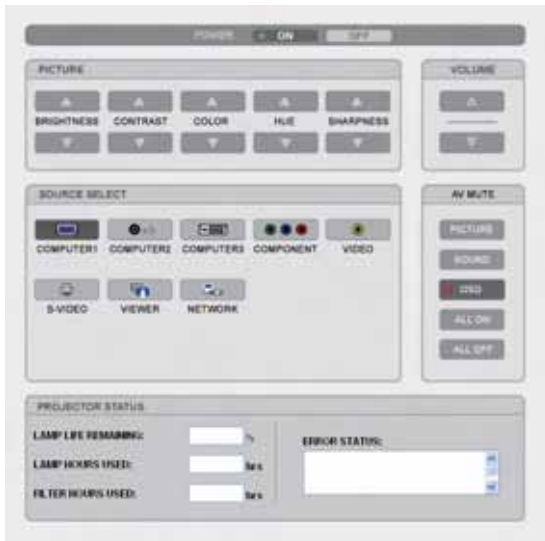
POWER
O   P
O   P

O   E
▲
▼

        E
P   RE O
P   RE O
 O   O
 O   O
O   O
O   O
     O
     O

P   RE
  R   E   ▲
  R   E   ▼
  O   R   ▲
  O   R   ▼
  O OR ▲
  O OR ▼
   E ▲
   E ▼
     RP E   ▲
     RP E   ▼

→

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O R E E E
 O P   ER   O P   ER
 O P   ER   O P   ER
 O P   ER   O P   ER
 O PO E   O PO E
   EO   EO
     EO   EO
 EWER
 E WOR

PRO E   OR
      P   E RE
      P   O R   E
      ER   O R   E
 ERROR

⓭ Projecting Your Computer's Screen Image from the Projector via a Network [NETWORK PROJECTOR]
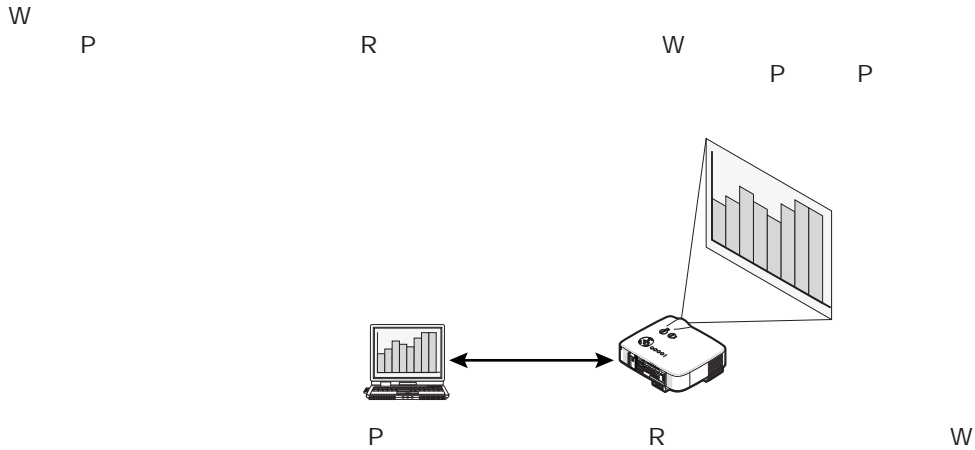
Operation Environment

O	W P
	W
	W
	W E
	(Note) These functions are not available on Windows Vista Home Basic.
	W
E	W P P

Setting the Projector to Network Projector Input Mode

1. With the projector turned on, press the SOURCE button.

The input selection window appears.

Another way to display the input selection window is to press the NETWORK button on the remote control. The NETWORK screen will be displayed. Go to step 3.

SOURCE

COMPUTER1
COMPUTER2
COMPUTER3
COMPONENT
VIDEO
S-VIDEO
VIEWER
NETWORK

2. *Press the SELECT ▼ or ▲ button to select [NETWORK] and press the ENTER button.*

   In the screen, the [NETWORK] menu is displayed.

3. *From the [NETWORK] menu, select [NETWORK PROJECTOR].*

   The [PROJECTOR NAME/DISPLAY RESOLUTION/PASSWORD/URL] will be displayed.
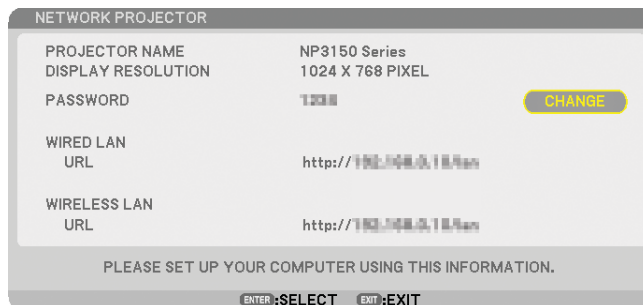
TIP:
* *To change the default password "1234", select [CHANGE] and press the ENTER button.*
  The [ENTER PASSWORD] screen will be displayed, Enter a numeric password. The password must be eight characters or less.
  The changed password stored in the projector will be displayed in the [NETWORK PROJECTOR] screen next time.

Changing the resolution of Windows Vista screen to the information on [DISPLAY RESOLUTION] in the NETWORK PROJECTOR screen.

1. *Click [Start] from the desktop of Windows Vista.*
2. *Click [Control Panel].*
3. *Click [Adjust screen resolution] displayed under [Appearance and Personalization].*

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4. Operate [Resolution] slide bar to change the resolution to the resolution displayed on [DISPLAY RESO-LUTION] in the NETWORK PROJECTOR screen.

5. Click [OK].

The message "Do you keep this screen setting?" is displayed.

6. Click [Yes].

The resolution of Windows Vista screen is changed to the resolution displayed on [DISPLAY RESOLUTION] in the NETWORK PROJECTOR screen.

Projecting the Image with Network Projector

1. Click [Start] from the desktop of Windows Vista.

2. Click [All Programs].

3. Click [Accessories].

4. Click [Connect to a Network Projector].

When the [Permission Connect to a Network Projector] window appears,click [Yes.].

The "Connect to a Network Projector" window appears.
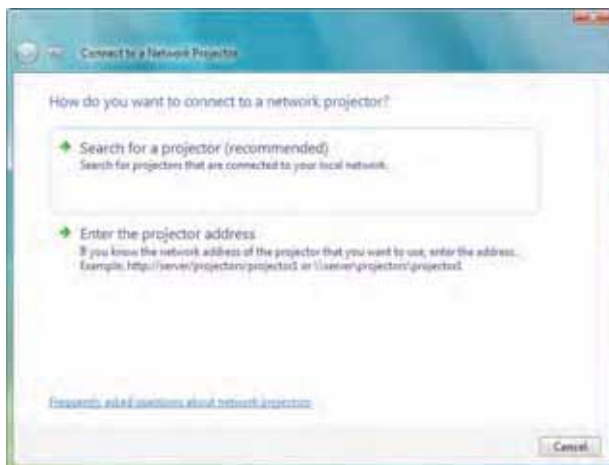
5. Click [→ Search for a projector (recommended)].

In the "Available projectors" box, "NP3150 Series" is displayed.

6. Click [NP3150 Series].

The message "Enter the password for the projector that you selected." is displayed at the bottom of the window.

7. Check the password displayed in the screen projected by the projector.

8. Input the password to the password input box displayed by the operation at Step 7.
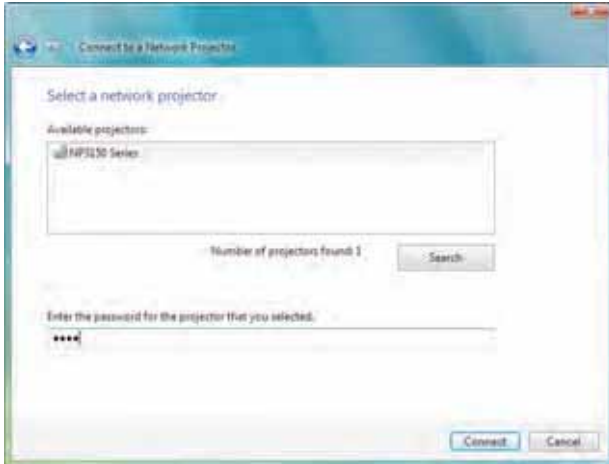
9. Click [Connect].

The network projector function works and the screen of Windows Vista is projected from the projector.

NOTE: When the network projector function works, the background color of the desktop changes to black. When the network projector function is stopped, the original background color is restored.

Reference: If the projector cannot be found at Step 5, click [→ Enter the projector address]. Then, input the "Network address" (Input example: http://10.32.97.61/lan) and "Projectorpassword" (Input example: 82291627) displayed in the screen projected from the projector.

Exiting the Network Projector Operation

1. Click [Projecting: NP3150 Series] in the Windows Vista task bar.
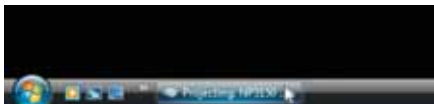
2. Click [Disconnect].

The Network Projector function is stopped.

3. Press the MENU button of the projector to display the menu. From the menu, select an input terminal other than [NETWORK].

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⓮ Using the Projector to Operate Your Computer via a Network [REMOTE DESKTOP]

P P

W P

W R P
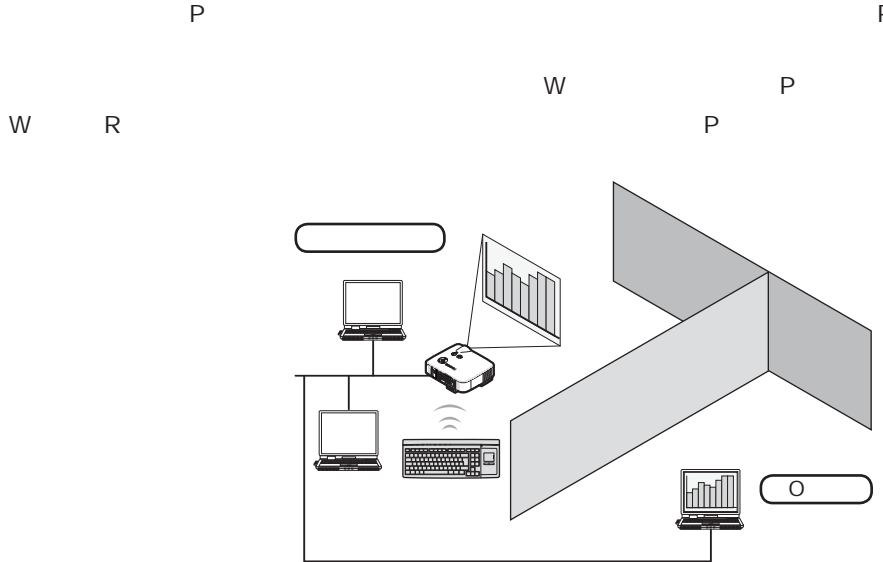
NOTE:
- *Available versions of Windows Vista are provided on page 56.*
- *In this user's manual this feature is described using Windows Vista as an example, but Windows XP will also work with this feature.*
  Windows XP Professional Service Pack 2 or later
- *A keyboard is required to use the Remote Desktop function.*
- *The Remote Desktop function can be operated with a keyboard only. Using a wireless mouse with a wireless keyboard is more useful for operating.*
  Use a commercially available wireless keyboard, a wireless mouse, and a USB wireless receiver.

P

NOTE: We do not warrant that the USB port of the projector will support all USB devices in the market.

60
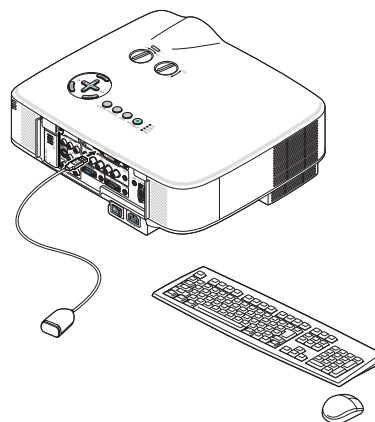
Setting the password to the user account of Windows Vista

TIP: If a password has been set for an account, the steps 1 to 9 can be skipped.

1. **Click [Start] from the desktop of Windows Vista.**

2. **Click [Control Panel].**

3. **Click [Add or remove user accounts] displayed under [User Accounts].**

4. **When the [User Account Control] confirmation window appears, click [Continue].**

5. **Click [Administrator].**

6. **Click [Create a password].**

7. **Input the password to the [New password] box.**

8. **Input the same password as that at Step 7 to the [Confirm new password] box.**

9. **Click [Create a password].**

   The Administrator is changed to [Password Protection].

Setting the Remote Access

1. **Click [Start] from the desktop of Windows Vista.**

2. **Click [Control Panel].**

3. **Click [System and Maintenance].**

4. **Click [Allow remote access] displayed under [System].**

5. **When the [User Account Control] confirmation window appears, click [Continue].**

   The [System Properties] window appears.

6. **Click [Allow connections from computers running any version of Remote Desktop (less secure)] in the Remote Desktop box and click [OK].**

Checking the IP address on Windows Vista

1. **Click [Start] from the desktop of Windows Vista.**

2. **Click [Control Panel].**

3. **Click [View network status and tasks] displayed under [Network and Internet].**

4. Click [View status] displayed in blue on the right of [Local Area Connection] in the window.

The [Local Area Connection Status] window appears.
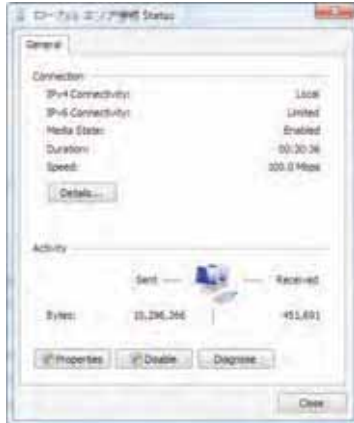
5. Click [Details...].

Write down the value for "IPv4 IP Address" (xxx.xxx.xxx.xxx) displayed.

6. Click [Close].

7. Click [X] at the upper right of the window.

The system goes back to the desktop.

Starting the Remote Desktop

1. With the projector turned on, press the SOURCE button.

The input selection window appears.

Another way to display the input selection window is to press the NETWORK button on the remote control. The NETWORK screen will be displayed. Go to step 3.

2. **Press the SELECT ▼ or ▲ button to select [NETWORK] and press the ENTER button.**

   The [NETWORK] menu will be displayed.

3. **From the [NETWORK] menu, use the wireless keyboard to select [REMOTE DESKTOP CONNECTION].**

   The [Remote Desktop Connection] window appears.

TIP:
Setting [OPTIONS] in REMOTE DESKTOP
Clicking [OPTIONS] displays the [PERFORMANCE] screen.
Making settings to [OPTIONS] will allow you to display the desktop background, or to enable the window animation function during the Remote Desktop operation. However, doing this will cause the display's or mouse's response to slow down.
If the display's or mouse's response is slowed down, try one or more of the following:

```
 E    OP      RO
 E       W   OW         O
  E E
  OW  O  E    O  W   OW W   E  R
```

4. **Operate the wireless keyboard to input the IP address of Windows Vista and click [CONNECT].**

   The log-on screen of Windows Vista is displayed in the screen projected by the projector.

5. **Operate the wireless keyboard to input the user's password and press [Enter].**

   The remote desktop function is started.

   Windows Vista desktop is displayed in the screen projected by the projector.

   Log out the computer.

   Use the wireless keyboard connected to the projector to operate Windows Vista.

   NOTE: When the projection is made with the remote desktop function, the background color of the desktop is changed to black.

Exiting the Remote Desktop

1. Operate the wireless keyboard to click [Start] from the desktop screen projected by the projector.

2. Click [X] on the right of the start menu.

The remote desktop function is stopped.

3. Press the SOURCE button of the projector to select an input terminal other than [NETWORK].

When using the remote control, press a button other than the NETWORK button.

5. Using the Viewer

❶ Making the Most out of the Viewer Function

Features

E

Easy to use

P

E

R

Simple utility software (for computer)

P E E

TIP:
- *To use the Viewer, first you need to create presentation materials on your PC (JPEG, BMP, GIF*¹, PNG*¹, Index*² files).*
  For creating presentation materials using the Ulead Photo Explorer 8.0, see the supplied "User Supportware 5 User's Guide" or On-line help in Ulead Photo Explorer 8.0.
  *¹Both PNG and GIF format support non-interlaced images only.
  *²"Index" file is a file created using the Ulead Photo Explorer 8.0 contained on the supplied NEC User Supportware 5 CD-ROM.
  See the supplied "User Supportware 5 User's Guide" for installing the Ulead Photo Explorer 8.0 on your computer.

NOTE:
- *Use commercially available USB memory devices.*
- *We do not warrant that the USB port of the projector will support all USB memory devices in the market.*
- *The projector does not support NTFS formatted USB memory device.*
  Be sure to use a USB memory device formatted with the FAT32, FAT16 or FAT file system.
  To format your USB memory device in your computer, refer to the document or help file that comes with your Windows.

❷ Saving data to a USB memory device

Using Ulead Photo Explorer 8.0

P E RO P

E

P E PP P

P E W W

O P RO P E

Using Windows Explorer to save files

PE P P

❸ Operating the Viewer Function from the Projector (playback)

Projecting slides (Viewer)

P   PE   P   PE   P   P
          P
                      O   R   E   EWER   →

              EWER   EWER

Operating Viewer Menu

1. *Insert a USB memory into the USB port of the projector.*

   The USB indicator lights.

2. *Press the VIEWER button on the remote control or select the [VIEWER] from the source list.*

   An image stored in the USB memory will be displayed.

   NOTE: When [SHOW THUMBNAILS] is turned on in the OPTIONS menu, the thumbnail screen will be displayed. (→ page 68)

   NOTE: Pressing the EXIT button during slide playback will display the thumbnail screen.

Slide and Thumbnail
W   EWER
O

[SLIDE]   [THUMBNAILS]

TIP: To switch from [SLIDE] to [THUMBNAILS], press the EXIT button.

The Control Bar
P   E
     P   E

Selects the currently displayed image for your background logo.

Advances to the next image.

Quits slide playback and then returns to the thumb-nail screen.

Returns to the pre-vious image.

Rotates the image 90 degrees counterclockwise.

Plays back slides.
Stops Auto Play while you are playing back slides.

Rotates the image 90 degrees clockwise.

Thumbnail screen

List of folders

Highlight

Cursor (yellow)

Information

Scroll bar

Thumbnail/file name

Number of files

Highlight	Indicates the selected folder or drive.
List of folders	Indicates folders contained on a USB memory.
Information	Indicates information of the selected file or folder.
	Folder: folder name, number of files, creation date (month/day/year), creation time (hour:minute:second).
	File: file name, slide number/number of displayable slides in a folder, creation date (month/day/year), creation time (hour:minute:second), file size.
Number of files	Indicates number of displayable slides in the selected folder. The maximum number of images recognized as slides within one directory is about 250.
Thumbnail/file name	Indicates thumbnails and names contained in a folder.
Cursor	Indicates the selected slide.
Scroll bar	Used to view folders or files not visible in the window.

Setting Option for Viewer

P   O E

MANUAL................ Views a slide manually when the Viewer source is selected.

AUTO .... Plays back slides automatically when the Viewer source is selected.

ER

R

OW

O

O

R

NOTE: This setting is not available for the following folders:
* Folders created with the "Output Viewer" feature of Ulead Photo Explorer 8.0 or with Viewer PPT Converter 3.0

O

O   O   E   ER
O   E   E   ER

THUMBNAILS menu

E
E
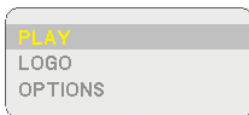
Play.................... Plays back automatically or manually depending on the setting in Options. This allows you to move on to the next slide when [MANUAL] is selected in the [PLAY MODE].

Logo .... Replace the default background logo with another logo in JPEG, BMP, non-interlaced GIF or non-interlaced PNG format.

Options .... Displays the Viewer setting options.

Exiting Viewer

E WOR

P   O P ER   O P ER   O P ER   O PO E   EO   EO   E WOR

P   E   P   E

 O R E

W   R

E   W   R

EWER

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

❹ Changing Background Logo

NOTE: File size must be 256KB or less. Maximum file resolution is 1024 x 768 for NP3150/NP2150/NP1150 and 1280 x 800 for NP3151W. File formats other than JPEG, BMP, non-interlaced GIF or non-interlaced PNG are not available.

P   PE   P   PE   P   P

NOTE: To change highlight from the Thumbnails screen (right window) to a directory tree (left window) , press the EXIT button. To return highlight to the Thumbnails screen, press the ENTER button.

1. Use the SELECT ▲▼◀▶ button to select a file (slide) for your background logo when displaying the Thumbnail screen.

2. Press the MENU button to display the THUMBNAILS menu.
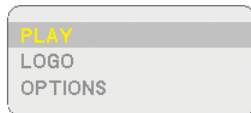
3. Use the SELECT ▼ button to select [LOGO] and then press the ENTER button.

A confirmation dialog box will be displayed.

4. Use the SELECT ◀ button to select [YES] and press the ENTER button. This completes changing a logo for the background.

O   E
                    RE   E   E
    E   RO   P   P   P
                P   W

70

6. Using On-Screen Menu

❶ Using the Menus

1. Press the MENU button on the remote control or the projector cabinet to display the menu.

NOTE: The commands such as ◀▶, ENTER, EXIT in the bottom show available buttons for your operation.

2. Press the SELECT ◀▶ buttons on the remote control or the projector cabinet to display the submenu.

3. Press the ENTER button on the remote control or the projector cabinet to highlight the top item or the first tab.

4. Use the SELECT ▲▼ buttons on the remote control or the projector cabinet to select the item you want to adjust or set.

You can use the SELECT ◀▶ buttons on the remote control or the projector cabinet to select the tab you want.

5. Press the ENTER button on the remote control or the projector cabinet to display the submenu window.

6. Adjust the level or turn the selected item on or off by using the SELECT ▲▼◀▶ buttons on the remote control or the projector cabinet.

7. Repeat steps 2 -6 to adjust an additional item, or press the EXIT button on the remote control or the projector cabinet to quit the menu display.

NOTE: When a menu or message is displayed, several lines of information may be lost, depending on the signal or settings.

8. Press the MENU button to close the menu.

To return to the previous menu, press the EXIT button.

Using ADVANCED menu and BASIC menu

E

ADVANCED menu .. This is the menu that contains all the available menus and commands. Users with an ADMINISTRAOR or ADVANCED account can access the ADVANCED menu.

BASIC menu .... This is the basic menu that contains minimum essentials of menus and commands. Users with a BASIC account can access the BASIC menu.

E

NOTE:
- *A user with an ADMINISTRATOR account that has no password set is registered at the factory.*
  This will allow the user to access the ACCOUNT items without password entry.
- *When using your USB mouse, click each number or alphabet.*
  BS: Delete the character before the cursor or highlight.
  OK/[ ]: Confirm the keyword and close the Software keyboard.

Entering alphanumeric characters by using Software Keyboard

[IP ADDRESS, PASSWORD]   [USER NAME, PROJECTOR NAME]   [PASSWORD OR KEYWORD]

1 to 0 and Characters

.... Use to type in password or keyword.

MODE .... Selects one of three modes for numbers, alphabet and special characters.

SP......................... Inserts a space

BS......................... Deletes one character backward

<< .... Returns to the previous

>> .... Advances to the next

OK......................... Executes the selection

CANCEL .... Cancels the selection

When using the remote control:

1. Press the MENU, AUTO ADJ, SELECT ▲, SE-LECT ▼, SELECT ▶ or SELECT ◀ button to select a character in the row.

Example: To enter "C", press the SELECT ▲ button.

2. Press the MENU, AUTO ADJ, SELECT ▲, SE-LECT ▼, SELECT ▶ or SELECT ◀ button to select a character in the column.

Example: To enter "C", press the MENU button.

EXIT .... Deletes a character.

ENTER .... Makes your input take effect and closes the input screen.

When using the mouse:

P

[BS] .... Deletes a character.

[ ] .... Makes your input take effect and closes the input screen.

❷ Menu tree

Menu			Item			
SOURCE			COMPUTER 1, COMPUTER 2, COMPUTER 3, COMPONENT, VIDEO, S-VIDEO, VIEWER, NETWORK, ENTRY LIST			
ADJUST	PICTURE		MODE	STANDARD, PROFESSIONAL		
			PRESET	1 to 6		
				DETAIL SETTINGS	GENERAL	REFERENCE	HIGH-BRIGHT, PRESENTATION, VIDEO, MOVIE, GRAPHIC, sRGB
						GAMMA CORRECTION	DYNAMIC, NATURAL, BLACK DETAIL
						COLOR TEMPERATURE	5000, 6500, 7800, 8500, 9300, 10500
					WHITE BALANCE		CONTRAST RGB, BRIGHTNESS RGB
			CONTRAST			
			BRIGHTNESS			
			SHARPNESS			
			COLOR			
			HUE			
			RESET			
	IMAGE OPTIONS		CLOCK			
			PHASE			
			HORIZONTAL POSITION			
			VERTICAL POSITION			
			OVERSCAN	0%, 5%, 10%		
			ASPECT RATIO	RGB	5:4, 4:3, 16:9, 16:10, 15:9	
				4:3 SCREEN (COMPONENT)/VIDEO/S-VIDEO	4:3, LETTERBOX, WIDE SCREEN, ZOOM	
				WIDE SCREEN (COMPONENT)/VIDEO/S-VIDEO	4:3 WINDOW, LETTERBOX, WIDE SCREEN, 4:3 FILL	
			RESOLUTION	AUTO, NATIVE		
	VIDEO		NOISE REDUCTION	RANDOM NR, MOSQUITO NR, BLOCK NR		
			DEINTERLACE	AUTO, VIDEO, FILM		
			3D Y/C SEPARATION	OFF, ON		
			CONTRAST ENHANCEMENT			
	SOUND			VOLUME, BASS, TREBLE, BALANCE, 3D SURROUND (OFF, ON)		
SETUP	BASIC		KEYSTONE	HORIZONTAL, VERTICAL		
			CORNERSTONE			
			PIP	PIP POSITION: TOP-LEFT, TOP-RIGHT, BOTTOM-LEFT, BOTTOM-RIGHT		
			WALL COLOR	OFF, BLACKBOARD, BLACKBOARD (GRAY), LIGHT YELLOW, LIGHT GREEN, LIGHT BLUE, SKY BLUE, LIGHT ROSE, PINK		
			LAMP MODE	NORMAL, ECO		
			OFF TIMER	OFF, 0:30, 1:00, 2:00, 4:00, 8:00, 12:00, 16:00		
			TOOLS	PROGRAM TIMER, CORNERSTONE, ENTRY LIST, [DATE, TIME PRESET], [MOUSE], [HELP]		
			LOGOFF			
			LANGUAGE	ENGLISH, DEUTSCH, FRANÇAIS, ITALIANO, ESPAÑOL, SVENSKA, SUOMI, NORSK, NEDERLANDS, TÜRKÇE, POLSKI, РУССКИЙ, ΕΛΛΗΝΙΚΑ, MAGYAR, PORTUGUÊS, ČEŠTINA, عربي, DANSK, 日本語, 한국어, 中文		
	MENU		COLOR SELECT	COLOR, MONOCHROME		
			SOURCE DISPLAY	ON, OFF		
			MESSAGE DISPLAY	ON, OFF		
			TIME DISPLAY	ON, OFF		
			MENU DISPLAY TIME	MANUAL, AUTO 5 SEC, AUTO 15 SEC, AUTO 45 SEC		
			BACKGROUND	BLUE, BLACK, LOGO		
			FILTER MESSAGE	OFF, 100[H], 200[H], 500[H], 1000[H]		

Menu		Item		
SETUP	INSTALLATION	ORIENTATION	DESKTOP FRONT, CEILING REAR, DESKTOP REAR, CEILING FRONT	
		SCREEN	SCREEN TYPE: 4:3 SCREEN, WIDE SCREEN[*1] / POSITION[*2]	
		SECURITY SETTINGS	CONTROL PANEL LOCK, BACKGROUND LOCK, ACCOUNT LOCK, ACCOUNT, SECURITY, PJLink	
		NETWORK SETTINGS	GENERAL:	PROJECTOR NAME, WIRED LAN, WIRELESS LAN
			WIRED:	PROFILES, DHCP, IP ADDRESS, SUBNET MASK, GATEWAY, DNS CONFIGURATION, RECONNECT
			WIRELESS:	PROFILES, DHCP, IP ADDRESS, SUBNET MASK, GATEWAY, DNS CONFIGURATION, ADVANCED, RECONNECT
			DOMAIN:	HOST NAME, DOMAIN NAME
			MAIL:	ALERT MAIL, SENDER'S ADDRESS, SMTP SERVER NAME RECIPIENT'S ADDRESS 1-3, TEST MAIL
		COMMUNICATION SPEED	4800bps, 9600bps, 19200bps, 38400bps	
		REMOTE SENSOR	FRONT / BACK, FRONT, BACK	
		STANDBY MODE	NORMAL/POWER-SAVING	
	OPTIONS	AUTO ADJUST	OFF, NORMAL, FINE	
		AUTO START	OFF, ON	
		POWER MANAGEMENT	OFF, 0:05, 0:10, 0:20, 0:30	
		FAN MODE	AUTO, HIGH, HIGH ALTITUDE	
		DEFAULT SOURCE SELECT	LAST, AUTO, COMPUTER1, COMPUTER2, COMPUTER3, COMPONENT, VIDEO, S-VIDEO, VIEWER, NETWORK	
		SIGNAL SELECT	COMPUTER1	RGB/COMPONENT, RGB, COMPONET
			COMPUTER2	RGB/COMPONENT, RGB, COMPONET
		COLOR SYSTEM	VIDEO, S-VIDEO	
		OUT TERMINAL	LAST, COMPUTER1, COMPUTER2, COMPONENT	
INFORMATION	USAGE TIME	LAMP LIFE REMAINING, LAMP HOURS USED, FILTER HOURS USED		
	SOURCE (1)	INPUT TERMINAL, SIGNAL TYPE, VIDEO TYPE, SOURCE NAME, ENTRY NO.		
	SOURCE (2)	HORIZONTAL FREQUENCY, VERTICAL FREQUENCY, SYNC TYPE, SYNC POLARITY, SCAN TYPE		
	WIRED LAN	IP ADDRESS, SUBNET MASK, GATEWAY, MAC ADDRESS		
	WIRELESS LAN (1)	IP ADDRESS, SUBNET MASK, GATEWAY, MAC ADDRESS		
	WIRELESS LAN (2)	SSID, NETWORK TYPE, WEP/WPA, CHANNEL, SIGNAL LEVEL		
	VERSION (1)	PRODUCT, SERIAL NUMBER, LAN UNIT TYPE, LAN UNIT VERSION		
	VERSION (2)	FIRMWARE, DATA, FIRMWARE2, DATA2		
RESET		CURRENT SIGNAL, ALL DATA, ALL DATA (INCLUDING ENTRY LIST), CLEAR LAMP HOURS, CLEAR FILTER HOURS		

NOTE:
*1 Default SCREEN TYPE is 4:3 SCREEN for NP3150/NP2150/NP1150 and WIDE SCREEN for NP3151W.
*2 POSITION is not available with NP3151W.
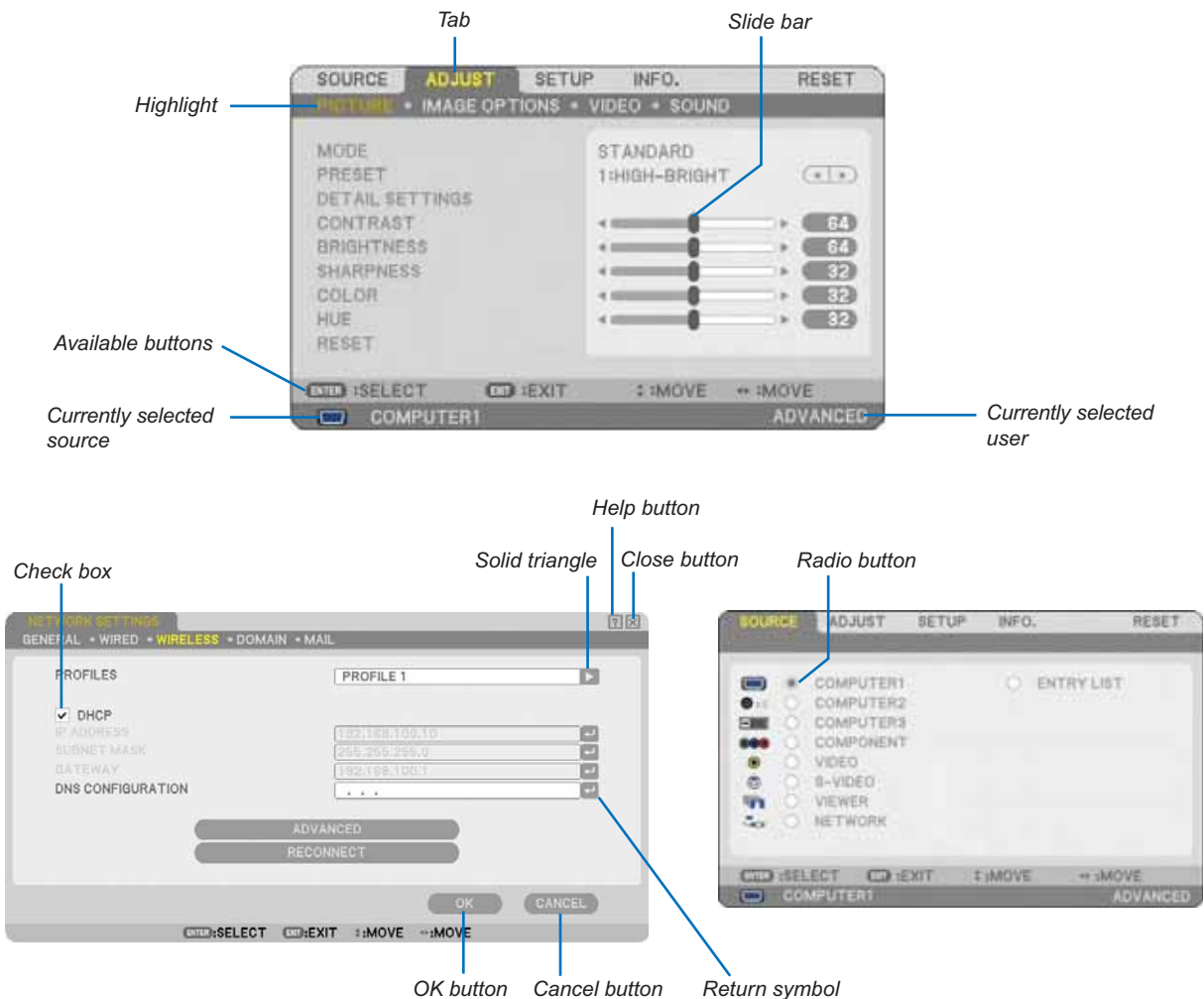
❸ Menu Elements

Menu windows or dialog boxes typically have the following elements:

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.

Close button .... Click to close the window and saving changes (USB mouse only).

Help button .... Indicates that help about that feature is available (USB mouse only). Press the HELP button on the remote control to display help.

Return symbol .... Indicates the software keyboard is available.

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❹ Menu Descriptions & Functions [SOURCE]

COMPUTER 1 and 2

O P ER   O P ER

NOTE: An optional component cable (Component V or ADP-CV1 cable) is needed for a component signal.

COMPUTER 3 (RGB Digital)

O P ER

COMPONENT

O PO E   P   P

VIDEO

EO   R

S-VIDEO

EO   R

NOTE: A frame may freeze for a brief period of time when a video is played back in fast-forward or fast-rewind with a Video or S-Video source.

VIEWER

P   E   E   RO   E W
W   P   E   E

NETWORK

R
W   E WOR

ENTRY LIST

→

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[ENTRY LIST]

Using the Entry List

W   E
                                                    E
                                                    E   W
E

Entering the Currently Projected Signal into the Entry List

1. **Display the Entry List.**

2. **Use the SELECT ▲ or ▼ button on your remote control or the projector cabinet to select any number.**

3. **Use the SELECT ▶ button to select [STORE] and press the ENTER button.**

E   R

LOAD .... Enables you to select a signal from the list.

STORE .... Enables you to store the currently projected signal.

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 "clipboard" to any other line of the list.

EDIT....................... Enables you to change SOURCE NAME, INPUT TERMINAL, LOCK, and SKIP.

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```
EDIT                                                    ? ☒

    ENTRY NO.              1
    SOURCE NAME           │1024x768 50Hz              ↵
    SIGNAL TYPE           DIGITAL
    INPUT TERMINAL        COMPUTER3
    HORIZONTAL FREQUENCY   39.63 [KHz]
    VERTICAL FREQUENCY     49.97 [Hz]
    SYNC TYPE             ---
    SYNC POLARITY         ---
    SCAN TYPE             ---
    ☐🔒 LOCK
    ☐✖ SKIP

                              OK        CANCEL

        ENTER:SELECT   EXIT:EXIT   ↕:MOVE
```
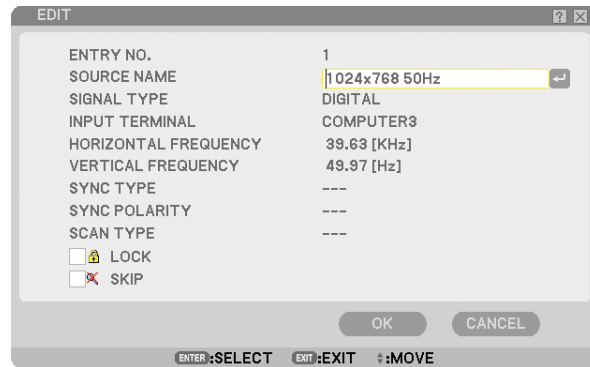
SOURCE NAME:

Enter a signal name. Up to 18 alphanumeric characters can be used.

INPUT TERMINAL:

Change the input terminal.

LOCK:

Set so that the selected signal cannot be deleted when [ALL DELETE] is executed. After executing [LOCK], the changes cannot be saved.

SKIP:

Set so that the selected signal will be skipped during auto search.

When complete, select OK and press ENTER. To exit without storing the setting, select Cancel. Select [SOURCE NAME] and press ENTER to display the Source Name Edit window. You can change source name on this window. Press ↵ to display the software keyboard, which you can enter alphanumeric characters.

ALL DELETE........... This feature enables you to delete all the registered signals in the Entry List.

PAGE UP/ PAGE DOWN... Enables you to go to the next page or the previous page.

```
        P    E          E   R
   P    ER              E   R   E
```

NOTE: When all the signals in the [ENTRY LIST] are deleted, the currently projected signal will be also deleted except locked signals.

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❺ Menu Descriptions & Functions [ADJUST]

[PICTURE]
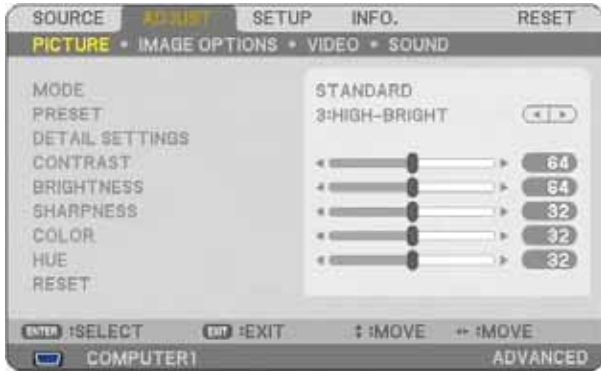
[MODE]

        E   E   PRE E

STANDARD .... Saves settings for each item of [PRESET] (Preset 1 through 6)
PROFESSIONAL..... Saves all the settings of [PICTURE] for each input.

[PRESET]

[DETAIL SETTINGS]

DETAIL SETTINGS
GENERAL • WHITE BALANCE

REFERENCE	HIGH-BRIGHT	
GAMMA CORRECTION	DYNAMIC	◄ ►
COLOR TEMPERATURE	5000	◄ ►

:SELECT   :EXIT   :MOVE   :MOVE

E ER

R   RE ERE E

HIGH-BRIGHT .... Recommended for use in a brightly lit room.
PRESENTATION . Recommended for making a presentation using a PowerPoint file.
VIDEO .... Recommended for typical TV program viewing.
MOVIE................ Recommended for movies.
GRAPHIC .... Recommended for graphics.
sRGB.................. Standard color values.

ORRE   O

E

DYNAMIC........... Creates a high-contrast picture.
NATURAL........... Natural reproduction of the picture.
BLACK DETAIL ... Emphasizes detail in dark areas of the picture.

O OR E PER   RE

NOTE:
- *When [PRESENTATION] or [HIGH-BRIGHT] is selected in [REFERENCE], this function is not available.*
- *When [WHITE BALANCE] settings has been changed, the color temperature value on screen does not reflect the real color temperature.*

W   E   E

W   W E   E
R
R

80

[CONTRAST]

[BRIGHTNESS]

[SHARPNESS]

R

[COLOR]

R

[HUE]

R

R R					

[RESET]

P   RE
P   RE ERE   E   E   E   R   O E
                          E   E   PRE E

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[IMAGE OPTIONS]
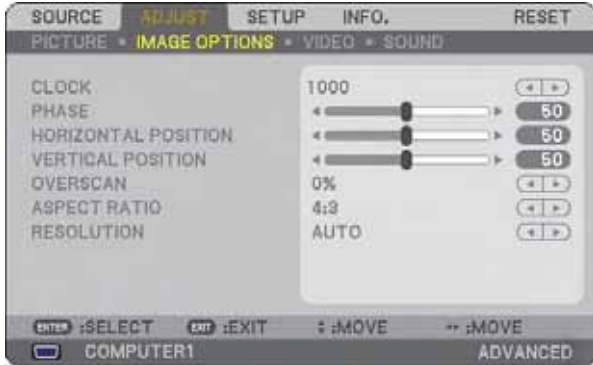
Adjusting Clock and Phase [CLOCK/PHASE]

O   P   E
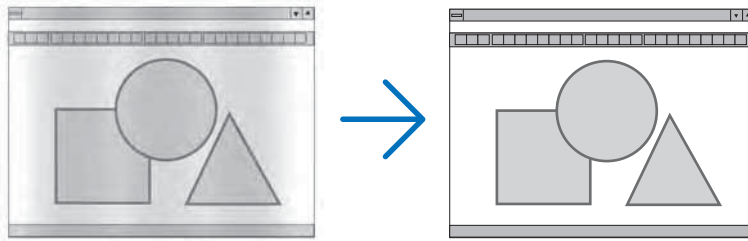
CLOCK .... Use this item to fine tune the computer image or to remove any vertical banding that might appear. This function adjusts the clock frequencies that eliminate the horizontal banding in the image.

This adjustment may be necessary when you connect your computer for the first time.
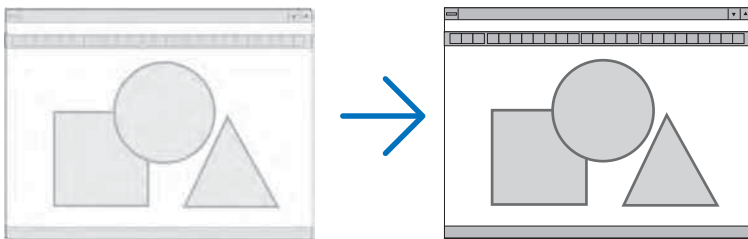
PHASE .... Use this item to adjust the clock phase or to reduce video noise, dot interference or cross talk. (This is evident when part of your image appears to be shimmering.)

Use [PHASE] only after the [CLOCK] is complete.

Adjusting Horizontal/Vertical Position [HORIZONTAL/VERTICAL POSITION]
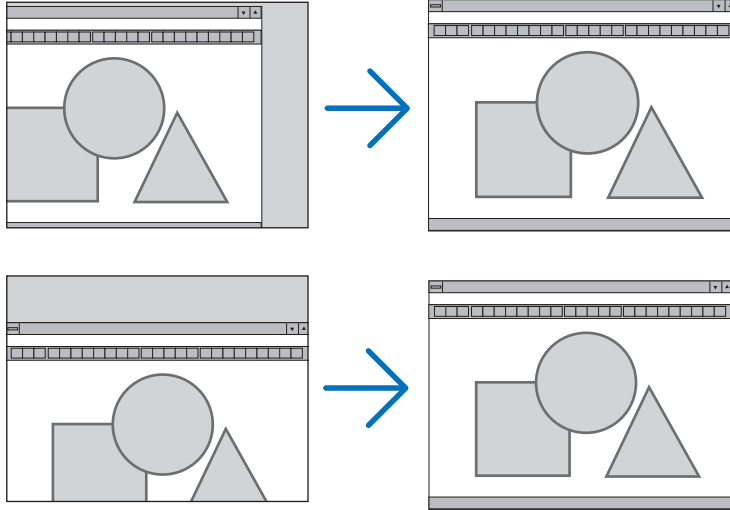
Selecting Overscan Percentage [OVERSCAN]

Projected image

Overscaned by 10%
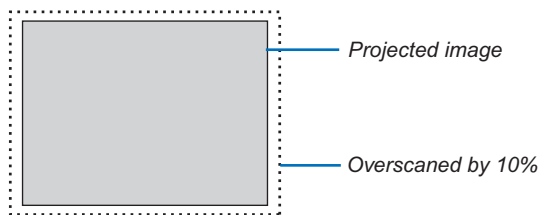
NOTE: When [NATIVE] is selected in [RESOLUTION], [OVERSCAN] is not available.

Selecting Aspect Ratio [ASPECT RATIO]

Screen Type 4:3 SCREEN (VIDEO)   Screen Type WIDE SCREEN (VIDEO)   RGB

R
W   REE
For VIDEO

4:3 .... Standard 4:3 aspect

LETTERBOX........... Reduced to display the true aspect with black borders on top and bottom

WIDE SCREEN....... Left & Right stretched with black borders on top and bottom

ZOOM .... Left & Right stretched. Left & Right sides cut. Available for 4:3 only.

W   W   E   REE
For VIDEO

4:3 WINDOW .... Reduced to display the true aspect with black borders on right and left

LETTERBOX........... Standard 16:9 aspect

WIDE SCREEN....... Left and right stretched to display the true aspect

4:3 FILL .... Stretched to display in 16:9 aspect ratio

For RGB

4:3 .... For a video signal with an aspect ratio of 4:3

5:4 .... For a video signal with an aspect ratio of 5:4

16:9 .... For a video signal with an aspect ratio of 16:9

16:10 .... For a video signal with an aspect ratio of 16:10

15:9 .... For a video signal with an aspect ratio of 15:9

NOTE:
• You can adjust image position vertically for a source with black borders on top and bottom. (→ page 99)
• When [NATIVE] is selected in [RESOLUTION], [ASPECT RATIO] is not available.

NOTE: Please note that using this projector for the purpose of commercial gain or the attraction of public attention in a venue such as a coffee shop or hotel and employing compression or expansion of the screen image with a [ASPECT RATIO] or [SCREEN] setting may raise concern about the infringement of copyrights which are protected by copyright law.

P　　P　　P
EO

INPUTSIGNAL	4:3	SQUEEZE		LETTERBOX
ASPECT RATIO / 4:3 SCREEN	4:3	WIDE SCREEN	ZOOM	LETTERBOX
ASPECT RATIO / WIDE SCREEN	4:3 WINDOW	4:3 FILL	WIDE SCREEN	LETTERBOX

R

INPUTSIGNAL	4:3	5:4			
ASPECT RATIO / 4:3 SCREEN	4:3		16:9		
ASPECT RATIO / WIDE SCREEN	4:3		16:9		

P　　W
EO

INPUTSIGNAL	4:3	LETTERBOX	SQUEEZE	4:3
ASPECT RATIO / 4:3 SCREEN	4:3	LETTERBOX	WIDE SCREEN	ZOOM	4:3
ASPECT RATIO / WIDE SCREEN	4:3	LETTERBOX	WIDE SCREEN	ZOOM	4:3 FILL

R

INPUT SIGNAL	4:3	5:4	16:9	16:10	15:9

ASPECT RATIO	4:3	5:4	16:9	16:10	15:9
4:3 SCREEN					

ASPECT RATIO	4:3	5:4	16:9	16:10	15:9
WIDE SCREEN					

S   R   RES LU I N
    O   R   P   P   P
                E   R
E   W   P

        E   O

        1024   1024

768   800   768
        600

    W   E   O ER   PE   R   O

    RE O   O

    W   REE   PE

    W   R

    W

[VIDEO]

Using Noise Reduction [NOISE REDUCTION]

RANDOM NR .... Reduces flickering random noise in an image.

MOSQUITO NR ...... Reduces mosquito noise that appears around the edges of an image during DVD playback.

BLOCK NR .... Reduces block noise or mosaic-like patterns by selecting ON.

Selecting Interlaced Progressive Conversion Process Mode [DEINTERLACE]

AUTO .... Determines an appropriate interlaced-to-progressive conversion process automatically.

VIDEO .... Applies a normal interlaced-to-progressive conversion process.

FILM .... Applies the automatic detection mode for telecine signals. This option is recommended for a

NOTE: This function is not available with RGB signals.

Turning On or Off the 3D Dimensional Separation [3D Y/C SEPARATION]
W   EO   O

OFF .... Turns off the 3 dimensional separation feature.

ON .... Turns on the 3 dimensional separation feature.

NOTE: Only available for NTSC 3.58 video signals.

Adjusting Contrast Enhancement [CONTRAST ENHACEMENT]

[SOUND]

Controlling Sound [VOLUME/BASS/TREBLE/BALANCE]

○ ○

Enabling 3D Surround [3D SURROUND]

○ ○

○

❻ Menu Descriptions & Functions [SETUP]

[BASIC]

Selecting Keystone Mode [KEYSTONE]

→

NOTE: When [CORNERSTONE] is selected, [KEYSTONE] is not available.

Selecting Cornerstone Mode [CORNERSTONE]

$\rightarrow$

NOTE: When [KEYSTONE] is selected, [CORNERSTONE] is not available.

Using the PIP Function

P P PO   O

$\rightarrow$

Using the Wall Color Correction [WALL COLOR]

Setting Lamp Mode to Normal or Eco [LAMP MODE]

		E
	E	E

		P
		O
E		
	P P W	
P P		

NOTE: If the projector is overheated in Normal mode, there may be a case where the Lamp mode will be forced into the Eco mode to protect the projector. This mode is called "forced Eco mode".
When the projector is in forced Eco mode, the picture brightness decreases. The LAMP indicator's steady green light indicates the lamp is in Eco mode.
When the projector comes back to normal temperature, the Lamp mode returns to Normal mode.
In the forced Eco mode, changing [LAMP MODE] setting in the menu will not affect the actual lamp mode.

Using Off Timer [OFF TIMER]

1. Select your desired time between 30 minutes and 16 hours: OFF, 0:30, 1:00, 2:00, 4:00, 8:00, 12:00, 16:00.

2. 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.

NOTE:
- *To cancel the preset time, set [OFF] for the preset time or turn off the power.*
- *When the remaining time reaches 3 minutes before the projector is turned off, the [THE PROJECTOR WILL TURN OFF WITHIN 3 MINUTES] message will be displayed on the bottom of the screen.*

[TOOLS]

Using Program Timer [PROGRAM TIMER]
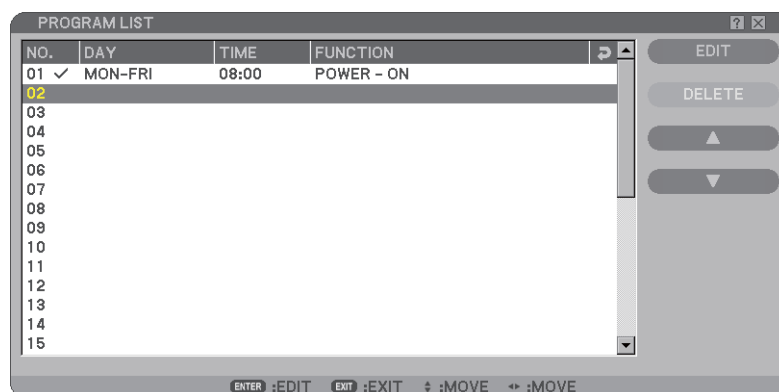
NOTE:
- *Before setting the Program Timer, make sure that the [DATE, TIME PRESET] feature is set. (→ page 95)*
- *Make sure that the projector is in the stand by condition with the Main Power Switch on.*
- *The projector has a built-in clock. The clock will keep working for about two weeks after the main power is turned off. If the main power is not supplied to the projector for two weeks or more, the built-in clock stops working.*

Setting a new program timer

1. On the PROGRAM TIMER screen, use the SELECT ▲ or ▼ button to select [SETTINGS] and press the EN-TER button.
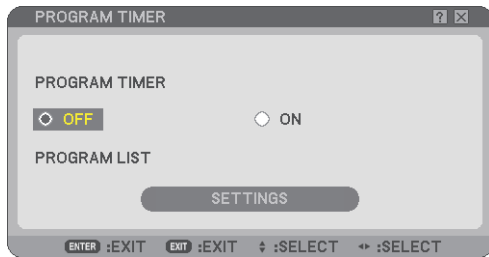
PRO R

NOTE: When the Program Timer is turned on, the [PROGRAM LIST] cannot be edited.

2. Select a blank program number and press the ENTER button.
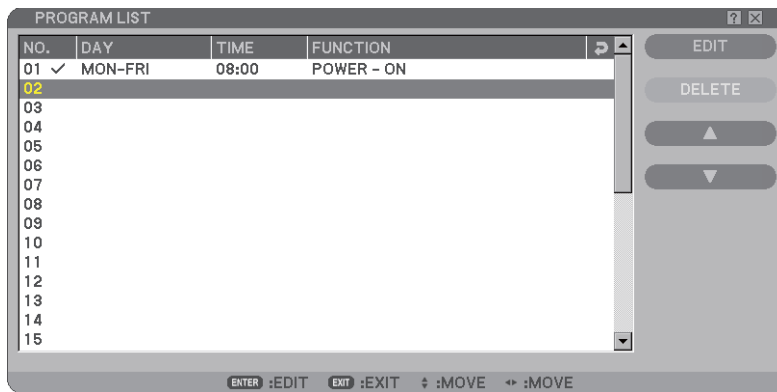
E

3. Make settings for each item as required.
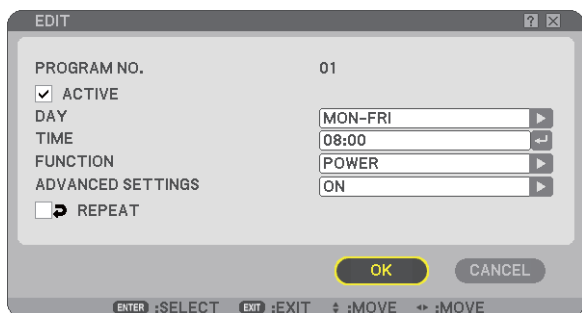
ACTIVE.............................Place a check mark to enable the program.

DAY..................................Select days of the week for the program. To execute the program from Monday to Friday, select [MON-FRI].To execute the program in everyday basis, select [EVERYDAY].

TIME ....Set the time to execute the program. Enter time in 24-hour format.

FUNCTION ....Select a function to be executed. Selecting [POWER] will allow you to turn on or off the projector by setting [ADVANCED SETTINGS]. Selecting [SOURCE] will allow you to select a video source by setting [ADVANCED SETTINGS].

ADVANCED SETTINGS......Select power on/off or a type of video source for the selected item in [FUNCTION].

REPEAT............................Place a check mark to repeat the program continuing basis. To use the program this week only, clear the check mark.

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4. Select [OK] and press the ENTER button.
   This will complete the settings.
   You will be returned to the [PROGRAM LIST] screen.

NOTE:
- Up to 30 different timer settings can be programmed.
- When [PROGRAM TIMER] is turned on, the [STANDBY MODE] setting is ignored.
- The Program Timer is executed on a set time basis, not in a program basis.
- Once the program not marked with a check in [REPEAT] has been executed, the check mark in the [ACTIVE] check box will be cleared automatically and the program will be disabled.
- When the on-time and the off-time are set for the same time, the off-time setting will take preference.
- Two different sources are set for the same time, the larger program number will take preference.
- The on-time setting will not be executed while the cooling fans are running or an error is occurring.
- If the off-time setting is expired under the condition in which the power off is not possible, the off-timer setting will not be executed until the power off becomes possible.
- Programs not marked with a check mark in [ACTIVE] of the [EDIT] screen will not be executed even if the Program Timer is enabled.
- When the projector is turned on by using the program timer and if you want to turn off the projector, set the off-time or do it manually so as not to leave the projector on for a long period of time.

Activating the program timer

1. Select [ON] on the [PROGRAM TIMER] screen and press the ENTER button.
   The [ON] will be activated.

2. Press the EXIT button.
   The [PROGRAM TIMER] screen will be changed to the [TOOL] screen.

NOTE:
- Selecting [OFF] will disable the Program Timer even when a program is marked with a check mark on [PROGRAM LIST] screen.
- When the [ON] is turned on, the [PROGRAM LIST] cannot be edited. To edit the programs, select [OFF] to turn off the Program Timer.

Changing the programmed settings

1. On the [PROGRAM LIST] screen, select a program you want to edit and press the ENTER button.

2. Change the settings on the [EDIT] screen.

3. Select [OK] and press the ENTER button.
   The programmed settings will be changed.
   You will be returned to the [PROGRAM LIST] screen.

Changing the order of programs

1. On the [PROGRAM LIST] screen, select a program whose order you want to change and press the SELECT ▶ button.

2. Press the SELECT ▼ button to select [▲] or [▼].

3. Press the ENTER button a few times to select a row to which you wish to move the program.
   The order of the programs will be changed.

Deleting the programs

1. On the [PROGRAM LIST] screen, select a program number you want to delete and press the SELECT ▶ button.

2. Press the SELECT ▼ button to select [DELETE].

3. Press the ENTER button.

4. Select [YES] and press the ENTER button.
   The program will be deleted.

Using [CORNERSTONE]
→

Using [ENTRY LIST]
→

Setting the Current Date and Time [DATE, TIME PRESET]

NOTE: The projector has a built-in clock. The clock will keep working for about 2 weeks after the main power is turned off. If the main power is off for 2 weeks or more, the built-in clock will cease. If the built-in clock ceases, set the date and time again. The built-in clock will not cease while in the standby mode.

E O E

                E P
ER E   E ER ER P   W

P   E
   P   E   ER E   E ER ER

Setting Mouse Pointer, Button and Sensitivity [MOUSE]

   MOUSE BUTTON ... [RIGHT HAND] or [LEFT HAND]
   MOUSE SENSITIVITY.. [FAST], [MEDIUM] or [SLOW]

Using [HELP]
→

Logging Off Your Projector [LOGOFF]

1. Press the MENU button and use the SELECT ▶ button to highlight [SETUP].

2. Use the SELECT ▼ or the ENTER button to highlight [BASIC].

3. Use the SELECT ▼ button to highlight [LOGOFF], and press the ENTER button.

The [LOG OFF PROJECTOR /ARE YOU SURE?] message will be displayed.

4. Select [YES] and press the ENTER button to log off your projector and close the menu, and then the LOGON screen will be displayed.

NOTE:
• When selecting [NO] and press the ENTER button, you will return to the Logoff screen in Step 2.

To log on your projector, select a user name, then enter your password and select [OK] and press the ENTER button.

The LOGON screen will close. Logging on your projector is done.

NOTE:
The default LOGON screen will be shown as follows:
USER NAME → ADMINISTRATOR
PASSWORD → No setting
See "Limiting Access Level to Available Menu Items" on page 51 for entering a user name and assigning a password.

Selecting Menu Language [LANGUAGE]

[MENU]

```
SOURCE    ADJUST    SETUP    INFO.           RESET
BASIC  •  MENU  •  INSTALLATION  •  OPTIONS

COLOR SELECT              COLOR
SOURCE DISPLAY            OFF
MESSAGE DISPLAY          ON
TIME DISPLAY             OFF
MENU DISPLAY TIME        AUTO 5 SEC
BACKGROUND              BLUE
FILTER MESSAGE          OFF


ENTER :SELECT    EXIT :EXIT    ↕ :MOVE    ◄► :MOVE
▭  COMPUTER1                              ADVANCED
```

Selecting Menu Color [COLOR SELECT]

Turning On / Off Source Display, Message and Time [SOURCE DISPLAY], [MESSAGE DISPLAY], [TIME DISPLAY]

SOURCE DISPLAY ....This option turns on or off input name display such as Computer 1, Computer 2, Computer 3, Component, Video, and No Input to be displayed on the top right of the screen.

MESSAGE DISPLAY ....This option turns on or off messages. Even though selecting [OFF], the following message will appear.

• "Projector is locked". When the projector security is unlocked, the message will disappear.

TIME DISPLAY .... This option turns on or off the current time displayed on the top left of the screen.

NOTE: The source and current time will be displayed for the time specified in [MENU DISPLAY TIME]. When [MANUAL] is selected in [DISPLAY TIME], the source and current time will be always displayed.

Selecting Menu Display Time [MENU DISPLAY TIME]

O   E   O   E   O   E   O   E

Selecting a Color or Logo for Background [BACKGROUND]

→

NOTE:
- *When the DVI [COMPUTER 3(DVI-D) IN] input is selected with no signal, the blueback is displayed in regardless of the setting [LOGO].*
- *When the BACKGROUND LOCK in [SECURITY SETTINGS] is turned on, the background cannot be changed.*
- *Your setting will not be affected even when [RESET] is done from the menu.*

Selecting Interval Time for Filter Message [FILTER MESSAGE]

P   →
O

NOTE: The message for filter cleaning will be displayed for one minute when the projector is turned on or off. To cancel the message, press any button on the projector cabinet or the remote control.

NOTE: Your setting will not be affected even when [RESET] is done from the menu.

[INSTALLATION]

Selecting Projector Orientation [ORIENTATION]
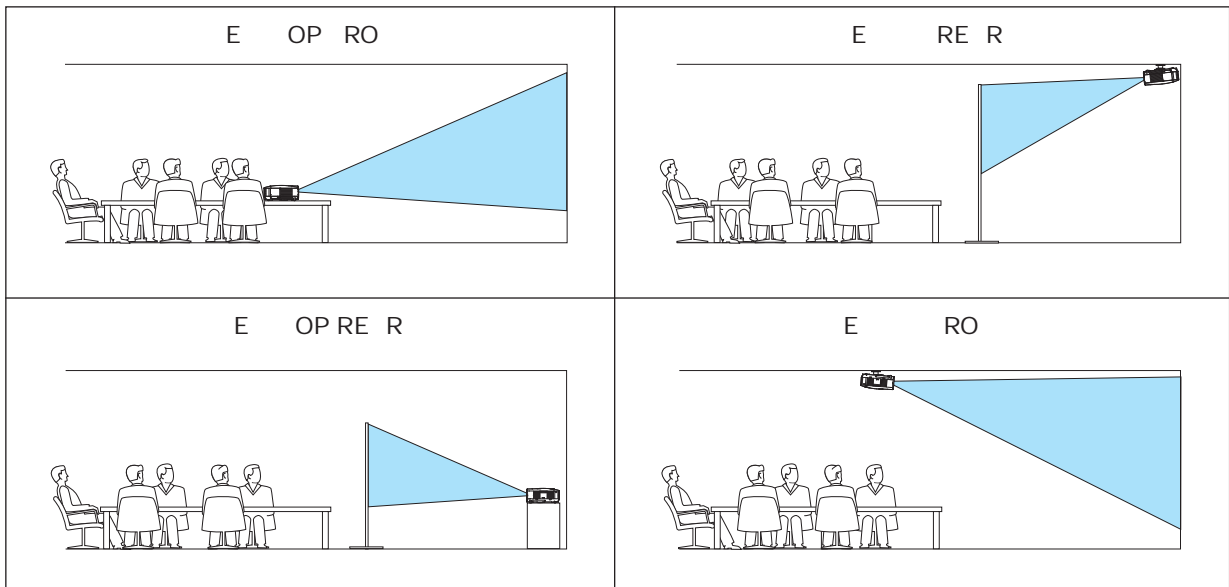
Selecting Aspect Ratio and Position for Screen [SCREEN]

SCREEN TYPE .... Select one of two options: 4:3 SCREEN or WIDE SCREEN for the screen to be used. See also [ASPECT RATIO].

(→ page 84)

POSITION .... This feature allows you to adjust the vertical position of the image when WIDE SCREEN has been selected
(not available   for the screen type.
on NP3151W)   When WIDE SCREEN has been selected there is no-signal area above and below the image.

no-signal area
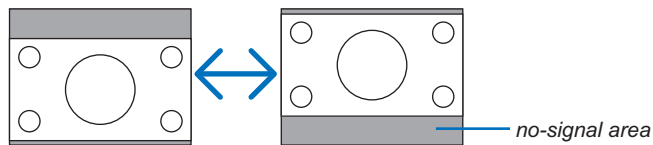
NOTE: This option is available only when [WIDE SCREEN] is selected in [SCREEN TYPE].

NOTE:
* *After changing the screen type, check the setting of [ASPECT RATIO] in the menu. (→page 84)*
* *[POSITION] is not available when [4:3 SCREEN] is selected for [SCREEN TYPE] or when [LETTERBOX] is selected for [ASPECT RATIO].*

Setting Security [SECURITY SETTINGS]

Disabling the Cabinet Buttons [CONTROL PANEL LOCK]

P

NOTE:
- *This Control Panel Lock does not affect the remote control functions.*
- *When the control panel is locked, pressing and holding the EXIT button on the projector cabinet for about 10 seconds will change the setting to [OFF].*

Setting a Password [BACKGROUND LOCK]

W   RO   O   P

NOTE: When [BACKGROUND LOCK] is turned on, [BACKGROUND] cannot be selected from the menu.

[ENTRY]

NOTE: Up to 10 alphanumeric characters can be assigned.

1. **Type a password.**

   Select the [ENTER PASSWORD] entry box and press the ENTER button. (→ page 72)

   An asterisk will be displayed.

   The Software keyboard appears. Use the Software keyboard to type a password on the [ENTER PASS-WORD] screen and press the ENTER button.

   The [CONFIRM PASSWORD] screen will be displayed.

2. Type the same password again and press the ENTER button.
   Your password will be assigned.

[DELETE]

1. Select [DELETE PASSWORD] and press the ENTER button.

2. Enter your password.

   An asterisk will be displayed.

3. Press the ENTER button.

   Your password will be deleted.

NOTE:
• Do not forget your password. However, if you forget your keyword, consult with your dealer.
• The [BACKGROUND LOCK] will not be affected even when [RESET] is done from the menu.

ACCOUNT LOCK

W	O	O	O	O
W	O	O	O	O

	O		O	O	O

NOTE: If you forget your password, consult with your administrator.

ACCOUNT

[SECURITY]

O

→

```
SECURITY                                    ? ⊠

      ○ OFF        ○ ON
   KEYWORD                  [              ] ↵
   □ USE PROTECT KEY
   DRIVE              [ USB 1          ] ▶
   [            ]          READ
   [            ]          REGISTER
                          DELETE


                      [  OK  ]   [ CANCEL ]

         ENTER:SELECT  EXIT:EXIT  ↕:MOVE  ↔:MOVE
```
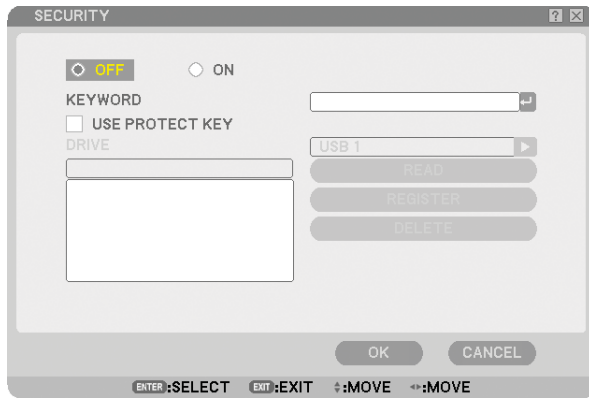
W

ON/OFF .... This turns the Security function on or off. This setting will take effect when the projector is turned on next time.

KEYWORD .... Enter an appropriate keyword when you use the Security function. (Up to 10 characters can be used.) The Security function is available only when your password is entered.

USE PROTECT KEY.. Check this box to lock your projector when using a USB memory. To use a keyword without a USB memory, do not check this box.

READ .... Reads data from a USB memory.

REGISTER.............. Registers data from the USB memory. The Security function is not available unless at least one USB memory is registered. (if the [USE PROTECT KEY] check box is selected) Up to 5 USB memory devices can be registered.

DELETE.................. Deletes data of a registered USB memory.

To set up a keyword to enable the Security function without using a registered USB memory.

1. Use the SELECT ▲ or ▼ button to select [PASSWORD] and use the software keyboard to enter a keyword.

NOTE: Please make a note of your password.

2. Use the SELECT ▲ or ▼ button to select [OFF] and then use the SELECT ◀ or ▶ to select [ON].

3. Use the SELECT ▲ or ▼ button to select [OK] , then press the ENTER button.
   The [ARE YOU SURE?] message will appear.

4. Use the SELECT ◀ or ▶ button to select [YES] and press the ENTER button.

To register a USB memory device as a protect key.

Preparation:

1. **Use the SELECT ▲ or ▼ button to select [USE PROTECT KEY] and press the ENTER button.**
2. **Use the SELECT ▲ or ▼ button to select [READ] and press the ENTER button.**
   Data of the USB memory will be read into the projector.
3. **Use the SELECT ▲ or ▼ button to select [REGISTER] and press the ENTER button.**
   Downloaded data will be registered and be displayed in the list window.
4. **Use the SELECT ▲ or ▼ button to select [KEYWORD] and use the software keyboard to enter a password.**

NOTE: Please make a note of your password.

5. **Use the SELECT ▲ or ▼ button to select [OFF] and then use the SELECT ◀ or ▶ to select [ON].**
6. **Use the SELECT ▲ or ▼ button to select [OK] , then press the ENTER button.**
   The [ARE YOU SURE?] message will appear.
7. **Use the SELECT ◀ or ▶ button to select [YES] and press the ENTER button.**
   The Security function takes effect.

To turn on the projector when Security is enabled (when using your password only).

1. **Press and hold the POWER button for a minimum of two seconds.**
   The projector will be turned on and a message to the effect that the projector is security-protected will be displayed.
2. **Press the MENU button.**
   The Release Code input screen will be displayed.
3. **Enter your keyword in the Release Code input screen.**
   You can view the projected image.

NOTE: Do not forget your password. However, if you forget your keyword, NEC or your dealer will provide you with your Release Code. See more information at the end of this section.

To turn on the projector when Security is enabled (when using USB memory device as a protect key).

Preparation:
P   POWER
                                        O

- *The projector does not support NTFS formatted USB memory device.*
  Be sure to use a USB memory device formatted with the FAT32, FAT16 or FAT file system.
  To format your USB memory device in your computer, refer to the document or help file that comes with your Windows.
- *We do not warrant that the USB port of the projector will support all USB memory devices in the market.*
- *When the projector is turned on, if the registered USB memory device is not inserted into the projector, no signal will be displayed with a message to the effect that the projector is security-protected. To turn off the security protection, insert the registered USB memory device into the projector.*

- _The security disable mode is maintained until the main power is turned off (by setting the main power switch to "O" or unplugging the power cord). In the following cases you will be asked to check the protect key or input the password:_

   (1)When [OK] is selected at an image for which security is set and the power is turned off then back on

   (2)When the main power is turned off then back on while the security function is enabled

   (3)When you attempt to display an image for which security is set while the security function is enabled

- _Blanks (spaces) cannot be used in the Keyword section._

To delete USB memory data you registered.

1. Use the SELECT ▲ or ▼ button to select [DELETE] and use the SELECT ◀ button to select the list window.

2. Use the SELECT ▲ or ▼ button to select the information on the USB memory device you wish to delete.

3. Press the SELECT ▶ button to select [DELETE] and press the ENTER button.

If you've lost your registered USB memory, proceed as follows:

1. Press and hold the POWER button for a minimum of two seconds.

   The projector will be turned on and display a message to the effect that the projector is security-protected.

2. Press the MENU button.

   The Release Code input screen will be displayed as well as your Request Code (24 alphanumeric characters).

NOTE: NEC or your dealer will provide you with your Release Code in exchange for your registered password and Request Code. See more information at the end of this section.

3. Enter your Release Code in the Release Code Input screen.

   The security protection will be turned off.

NOTE:
- _Some brands of USB memory devices cannot be used as a protect key._
- _You should register one or more USB memory devices in case your registered USB memory device is damaged or stolen. Up to 5 pieces can be registered._
- _Once the registered USB memory device has been formatted, the USB memory device cannot be recognized as your registered protect key._

RE E

NOTE:
For additional information visit:
US : http://www.necdisplay.com/
Europe : http://www.nec-display-solutions.com/
Global : http://www.nec-pj.com/

Setting a Password for PJLink [PJLink]

P

P   E

RO   O

104

NOTE: What is PJLink?
PJLink is a standardization of protocol used for controlling projectors of different manufacturers. This standard protocol is established by Japan Business Machine and Information System Industries Association (JBMIA) in 2005.
The projector supports all the commands of PJLink Class 1.
Setting of PJLink will not be affected even when [Reset] is done from the menu.

[NETWORK SETTINGS]

CAUTION

      P   P   P   P   W
            W
                 W
                  W
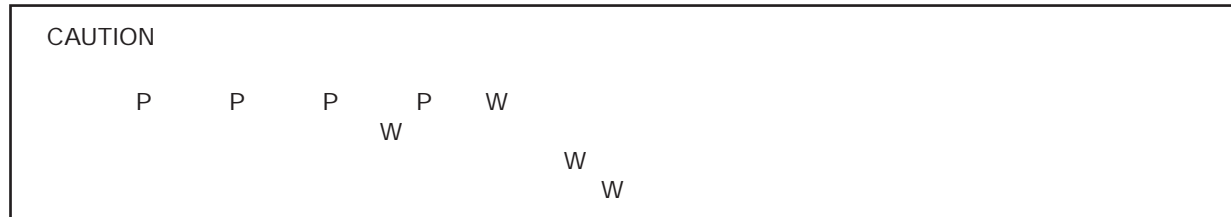
Hints on How to Set Up LAN Connection

        R   W

1. **Select the [WIRED] tab for the LAN port (RJ-45) or the [WIRELESS] tab for the Wireless LAN Unit.**

2. **On the [WIRED] tab or the [WIRELESS] tab, select a number from the [PROFILES] list for your LAN settings.**

   Two settings can be stored in memory for each the LAN port and the Wireless LAN Unit respectively.

3. **On the [WIRED] tab or the [WIRELESS] tab, turn on or off [DHCP], specify IP address, Subnet Mask, Gateway and DNS Configuration. Select [OK] and press the ENTER button.**

   (→ page 108, 109)
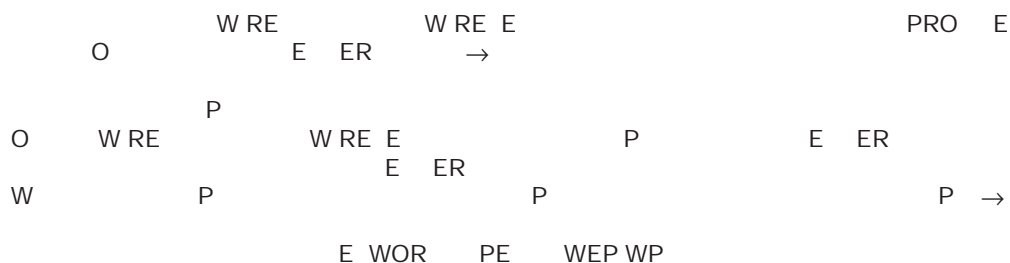
      W RE   W RE E   PRO   E
    O   E ER   →

        P
O   W RE   W RE E   P   E ER
              E ER
W   P   P   P →

      E WOR   PE   WEP WP

1. **On the [WIRELESS] tab, select [PROFILES] and then select [PROFILE 1] or [PROFILE 2].**

2. **On the [WIRELESS] tab, select [ADVANCED] and press the ENTER button. The [ADVANCED] menu will be displayed.**

   (→ page 110, 111)

1. **On the [WIRELESS] tab, select [PROFILES] and then select [PROFILE 1] or [PROFILE 2].**

2. **On the [WIRELESS] tab, select [ADVANCED] and press the ENTER button.**

3. **On the Advanced menu, select [CONNECTION] → [SITE SURVEY] and press the ENTER button.**

4. **Select an SSID which you can access.**

   To select an SSID, highlight [SSID] and use the SELECT ▶ to select [OK] and press the ENTER button. When you do not use [SITE SURVEY], simply enter an SSID and [INFRASTRUCTURE] or [AD HOC]. (→ page 110)

105

1. **On the [MAIL] tab, select [ALERT MAIL] and press the ENTER button. A check mark will be placed.**

2. **Set [SENDER'S ADDRESS], [SMTP SERVER NAME] and [RECIPIENT'S ADDRESS]. Select [OK] and press the ENTER button.**

   (→ page 113)

NOTE: This function can be used when Windows XP is used as the OS and when you have a "Computer Administrator" privilege. If the OS is Windows Vista, input of logon password as "Administrator" may be prompted.

[GENERAL]

[PROJECTOR NAME]

P

O   E   ER

NOTE: The [PROJECTOR NAME] will not be affected even when [RESET] is done from the menu.

Using Software Keyboard
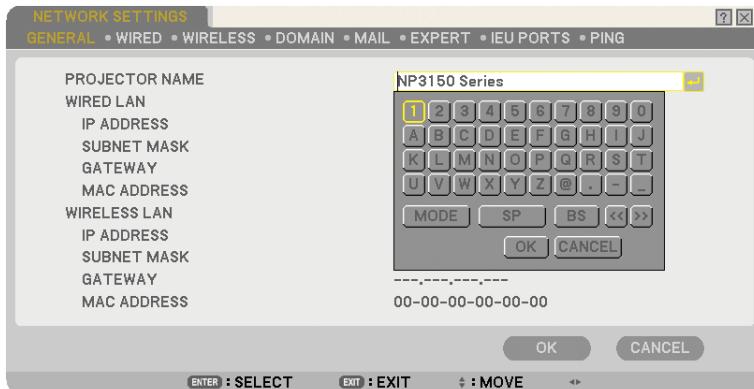
1 to 0 and
　Characters .... Use to type in password or keyword.
MODE .... Selects one of three modes for numbers, alphabet and special characters.
SP .... Inserts a space
BS .... Deletes one character backward
<< .... Returns to the previous
>> .... Advances to the next
OK .... Executes the selection
CANCEL .... Cancels the selection
(→ page 72)

[WIRED]

P   R
                              R
      PRO   E   PRO   E   P
                   O   E   ER
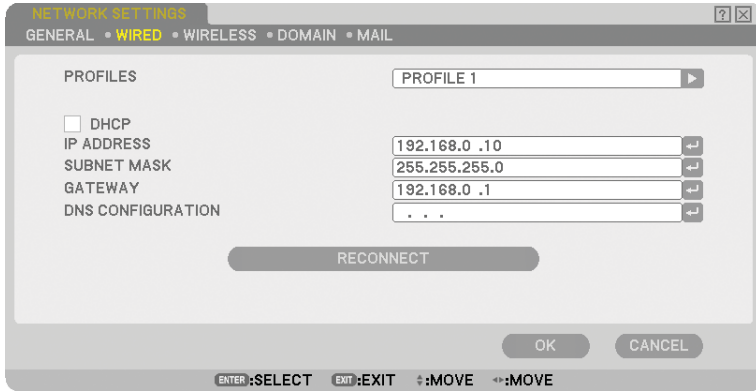
             W RE   PRO   E   PRO   E   PRO   E
       O   E   ER

     P
E   P   P
                              P

IP ADDRESS .... Set your IP address. Press ⏎ to display the software keyboard and type in 12 numeric characters.

SUBNET MASK ...... Set your subnet mask number. Press ⏎ to display the software keyboard and type in 12 numeric characters.

GATEWAY .... Set the default gateway of the network connected to the projector. Press ⏎ to display the software keyboard and type in 12 numeric characters.

DNS CONFIGURATION.. Type in the IP address of DNS server on the network connected to the projector. 12 numeric characters are used.

RECONNECT .... Use this button to retry to connect the projector to a network. Try this if you have changed [PROFILES].

[WIRELESS]

IP ADDRESS .... Set your IP address. Press ↵ to display the software keyboard and type in 12 numeric characters.

SUBNET MASK ...... Set your subnet mask number. Press ↵ to display the software keyboard and type in 12 numeric characters.

GATEWAY .... Set the default gateway of the network connected to the projector. Press ↵ to display the software keyboard and type in 12 numeric characters.

DNS CONFIGURATION .. Type in the IP address of DNS server on the network connected to the projector. Twelve numeric characters are used.

ADVANCED .... Displays the Advanced menu which includes various setting for wireless LAN connection (NETWORK TYPE and SECURITY). See the Advanced menu later on.

RECONNECT .... Use this button to retry to connect the projector to a network. Try this if you have changed [PROFILES].

NOTE: If you select [EASY CONNECTION] from [PROFILES], you cannot make settings to DHCP and its following items except [CHANNEL] in [ADVANCED].

[ADVANCED] menu
[CONNECTION] (required for wireless only)

```
 ADVANCED                                    [?][X]
 CONNECTION  • SECURITY

                              SITE SURVEY

  SSID                NECPJ                     ↵
  NETWORK TYPE        INFRASTRUCTURE            ▶
  CHANNEL             AUTOMATIC                 ▶




                              OK        CANCEL

          ENTER:SELECT  EXIT:EXIT  ↕:MOVE  ◄►:MOVE
```

E   R E

E E   ▶   O   E ER

W

P

WEP   WP
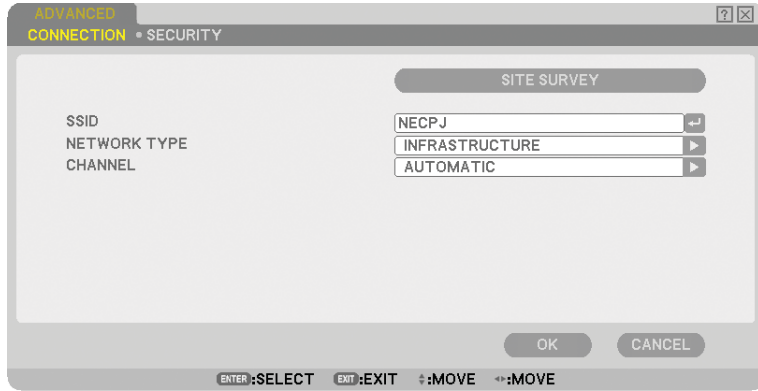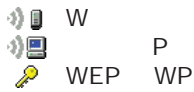
E   R   R   RE   O   E WOR
PE

E WOR   PE

INFRASTRUCTURE.. Select this option when communicating with one or more equipment connected to the wireless or wired LAN network via a wireless access point.

AD HOC .... Select this option when using the wireless LAN to directly communicate with a computer in peer-to-peer mode. This is a method that meets the IEEE802.11 wireless standard.

NOTE: When in Ad Hoc mode, only 802.11b is available for communication method.
Data transmission speed in Ad Hoc mode is limited up to 11Mbps.

E

TIP: *When you select [INFRASTRUCTURE], make sure that the projector and your access point are on the same channel; when you select [AD HOC], make sure that the projector and your computer are on the same channel.*

110

[SECURITY] (required for wireless only)
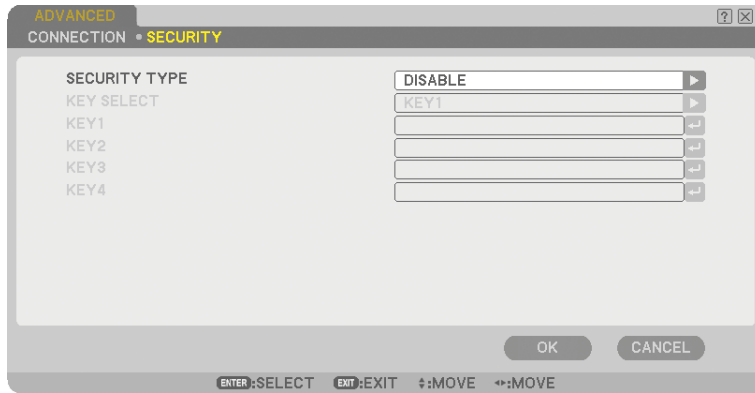
SECURITY TYPE

W   WEP   E   E   R   PE

                                    WEP W   E   P

                WEP

DISABLE .... Will not turn on the encryption feature. Your communications may be monitored by someone.

WEP(64bit) .... Uses 64-bit datalength for secure transmission.

WEP(128bit) .... Uses 128-bit datalength for secure transmission. This option will increase privacy and security when compared to use of 64-bit datalength encryption.

WPA-PSK .... Uses WPA-PSK encryption mode for more secure transmission than WEP.

WPA2-PSK .... Uses WPA2-PSK encryption mode for more secure transmission than WPA.

NOTE:
- _The WEP settings must be the same as communication devices such as PC or access point in your wireless network._
- _When you use WEP, your image transmission speed will slow down._
- _[WPA-PSK] and [WPA2-PSK] are not available when [AD HOC] is selected from [NETWORK TYPE]._

    E   E E

                                                            E   R   PE

    E
E   E   R   PE

P   E
      E
    E

      W

Using Software Keyboard to enter an encryption key

1. Select one of [KEY 1], [KEY 2], [KEY 3] and [KEY 4] and press the ENTER button.

The software keyboard will be displayed.

2. Use the SELECT ▲▼◄► button to select one key and press the ENTER button.

3. After finishing entering the WEP key, use the SELECT ▲▼◄► button to select [OK] and press the EN-TER button.

The software keyboard will disappear.

W   WP P   WP   P   E   R   PE

WPA-PSK............... Uses WPA-PSK encryption mode for more secure transmission than WEP.
WPA2-PSK............. Uses WPA2-PSK encryption mode for more secure transmission than WPA.

 WP P   P   WEP
                              WP   P   P   W P   P
                    P

E   R P   O   PE   P   E
 E   E   WP P   WP P   E
                          R   PE
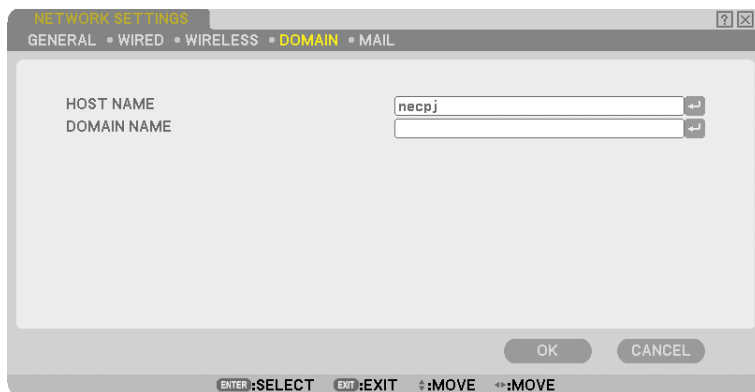
[DOMAIN]

HOST NAME .... Type in a hostname. Up to 15 alphanumeric characters can be used.
DOMAIN NAME...... Type in domain name of the network connected to the projector. Up to 60 alphanumeric characters can be used.

6. Using On-Screen Menu

[MAIL]

NETWORK SETTINGS   ?✕
GENERAL • WIRED • WIRELESS • DOMAIN • MAIL

  ☐ ALERT MAIL
SENDER'S ADDRESS
SMTP SERVER NAME
RECIPIENT'S ADDRESS 1
RECIPIENT'S ADDRESS 2
RECIPIENT'S ADDRESS 3

TEST MAIL

OK   CANCEL

ENTER:SELECT EXIT:EXIT ↕:MOVE ◂▸:MOVE

ER

The lamp is at the end of its usable life. Please replace the lamp.

Projector Name: X X X X

Lamp Hours Used: xxxx [H]

E ER   RE

P ER ER   E
      P

RE P E   RE

E

NOTE:
* *If you entered an incorrect address in a test, you may not receive an Alert mail. Should this happen, check if the Recipient's Address is correctly set.*
* *Unless any one of the [SENDER'S ADDRESS], [SMTP SERVER'S NAME] or [RECIPIENT'S ADDRESS 1-3] is selected, [TEST MAIL] is not available.*
* *Be sure to highlight [OK] and press the ENTER button before executing [TEST MAIL].*

NOTE: To use the Mail Alert feature on wireless LAN connection, select [INFRASTRUCTURE] for [NETWORK TYPE].

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Selecting Communication Speed [COMMUNICATION SPEED]

P   P

RE E

Turning On or Off Remote Sensor [REMOTE SENSOR]

Selecting Power-saving in [STANDBY MODE]

OR   POWER

P

NOTE:
• The HTTP server functions are not available during POWER-SAVING mode.
• The MONITOR OUT function is not available during POWER-SAVING mode.
• Control through the PC Control connector and LAN mode is not available during POWER-SAVING mode. For PC control and LAN mode of the projector it is recommended to leave the projector in the Normal mode.
• When [PROGRAM TIMER] is turned on, the [STANDBY MODE] setting is ignored.
• Your setting will not be affected even when [RESET] is done from the menu.

NORMAL .... Power indicator: Orange light/Status indicator: Green light
POWER-SAVING .... Power indicator: Orange light/Status indicator: Off

[OPTIONS]
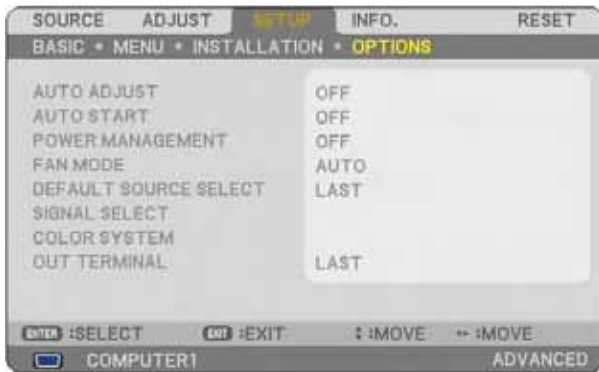
Setting Auto Adjust [AUTO ADJUST]

R

OR   E

OFF .... The RGB image will not be automatically adjusted.
You can manually optimize the RGB image.

NORMAL................ Default setting. The RGB image will be automatically adjusted. Normally select this option.

FINE....................... Select this option if fine adjustment is needed. It takes more time to switch to the source than when [NORMAL] is selected.

Enabling Auto Start [AUTO START]

POWER O

O

Enabling Power Management [POWER MANAGEMENT]

W

Enabling High Speed Fan Mode [FAN MODE]

AUTO .... The built-in fans automatically run at a variable speed according to the internal temperature.

HIGH...................... The built-in fans run at high speed.

HIGH ALTITUDE..... The built-in fans run at a high speed. Select this option when using the projector at altitudes approximately 5500 feet/1600 meters or higher.

W

NOTE:
- *It is recommended that you select High speed mode if you use the projector non-stop for consecutive days.*
- *Using the projector at altitudes approximately 5500 feet/1600 meters or higher without setting to [HIGH ALTITUDE] can cause the projector to overheat and the protector could shut down. If this happens, wait a couple minutes and turn on the projector.*
- *Using the projector at altitudes less than approximately 5500 feet/1600 meters and setting to [HIGH ALTITUDE] can cause the lamp to overcool, causing the image to flicker. Switch [FAN MODE] to [AUTO].*
- *Your setting will not be affected even when [RESET] is done from the menu.*

Selecting Default Source [DEFAULT SOURCE SELECT]

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 COMPUTER1 → COMPUTER2 → COMPUTER3 → COMPONENT → VIDEO → S-VIDEO → VIEWER → COMPUTER1 and displays the first found source.

COMPUTER 1 .... Displays the RGB source from the COMPUTER 1 IN connector every time the projector is turned on.

COMPUTER 2 .... Displays the RGB source from the COMPUTER 2 IN connector every time the projector is turned on.

COMPUTER 3 .... Displays the RGB source from the COMPUTER 3(DVI-D) IN connector every time the projector is turned on.

COMPONENT......... Displays the component source from the COMPONENT IN connector every time the projector is turned on.

VIDEO .... Displays the Video source from the VIDEO IN connector every time the projector is turned on.

S-VIDEO .... Displays the Video source from the S-VIDEO IN connector every time the projector is turned on.

VIEWER .... Displays slides from the USB memory device every time the projector is turned on.

NETWORK .... Displays a signal from LAN port (RJ-45) or the USB Wireless LAN Unit.

Selecting Signal Format [SIGNAL SELECT]

O P   ER

O P   ER   O P ER   R

R

R   O PO E

Selecting [COLOR SYSTEM]

O

Setting MONITOR OUT Connector [OUT TERMINAL]

R   O   OR O

LAST...................... The signal from the last COMPUTER 1, COMPUTER 2 or COMPONENT input will be output to the MONI-TOR OUT connector.

COMPUTER 1, 2 .... The signal from the COMPUTER 1 or COMPUTER 2 input will be output to the MONITOR OUT connector.

COMPONENT......... The signal from the COMPONENT input will be output to the MONITOR OUT connectors.

116

❼ Menu Descriptions & Functions [INFO.]

E WOR

O

[USAGE TIME]

P   E RE
P O R   E
ER   O   R   E

NOTE: The progress indicator shows the percentage of remaining lamp life. The value informs you of the amount of lamp and filter usage respectively.
- *When the remaining lamp time reaches 0, the Lamp Life Remaining bar indicator changes from 0% to 100 Hours and the countdown starts.*
  If lamp life remaining time reaches 0 hours, the projector will not turn on regardless of whether the lamp mode is set to Normal or Eco.
- *The message to the effect that the lamp should be replaced will be displayed for one minute when the projector is turned on or off. To dismiss this message, press any button on the projector or the remote control.*

OR	E O

[SOURCE (1)]


```
  P     ER                      PE
    EO   PE                O   R  E    E
E    R    O
```

[SOURCE (2)]


```
OR  O      RE   E       ER        RE   E
         PE                   PO    R
         PE
```

[WIRED LAN]

R

IP ADDRESS .... Indicates the IP address of the projector when the LAN port (RJ-45) is used.

SUBNET MASK ...... Indicates the subnet mask of the projector when the LAN port (RJ-45) is used.

GATEWAY .... Indicates the gateway of the network connected to the projector when the LAN port (RJ-45) is used.

MAC ADDRESS...... Indicates the MAC address of the LAN port (RJ-45).

[WIRELESS LAN (1)]

W

IP ADDRESS .... Indicates the IP address of the projector when the USB Wireless LAN unit is used.

SUBNET MASK ...... Indicates the subnet mask of the projector when the USB Wireless LAN unit is used.

GATEWAY .... Indicates the gateway of the network connected to the projector when the USB Wireless LAN unit is used.

MAC ADDRESS...... Indicates the MAC address of the USB Wireless LAN unit.

[WIRELESS LAN (2)]

WEP

SSID .... Indicates the identifier (SSID) for your wireless LAN.

NETWORK TYPE.... Indicates that [EASY CONNECTION], [INFRASTRUCTURE] or [AD HOC] is selected for your communication method.

WEP/WPA.............. Indicates your selected datalength encryption: On or Off

CHANNEL .... Indicates the channel you selected in the [SITE SURVEY]. The channel must match for all wireless devices communicating on your wireless LAN.

SIGNAL LEVEL....... Indicates receiving condition of radio signal level while you are using a wireless LAN connection.

[VERSION (1)]

[VERSION (2)]

PRO

  ER   ER

     PE

    ER O

R W RE

R W RE

120

❽ Menu Descriptions & Functions [RESET]

Returning to Factory Default

R

[CURRENT SIGNAL]

R

[ALL DATA]

R

[ALL DATA (INCLUDING ENTRY LIST)]

R

NOTE: Locked signals in Entry List cannot be reset.

Clearing Lamp Hour Meter [CLEAR LAMP HOURS]

R

NOTE: Elapsed time of the lamp use will not be affected even when [RESET] is done from the menu.

NOTE: The projector will turn off and go into standby mode when you continue to use the projector for another 100 hours after the lamp has reached the end of its life. In this condition you cannot clear the lamp hour meter on the menu. If this happens, press the HELP button on the remote control for 10 seconds to reset the lamp clock back to zero. Do this only after replacing the lamp.

Resetting the Filter Usage Hours [CLEAR FILTER HOURS]

R

NOTE: Elapsed time of the filter use will not be affected even when [RESET] is done from the menu.

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7. Maintenance

❶ Cleaning or Replacing the Filter

NOTE: The message for filter cleaning will be displayed for one minute when the projector is turned on or off.
To cancel the message, press any button on the projector cabinet or the remote control.

CAUTION

O

To clean the air-filter:
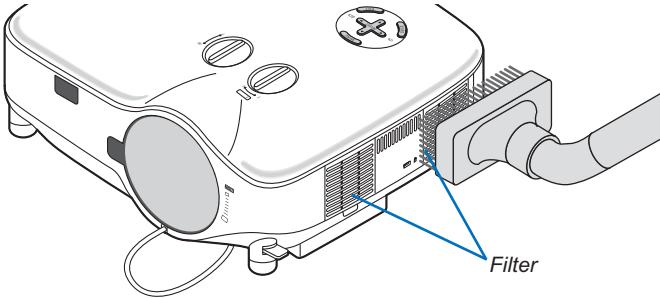
Filter

RE E → E R ER O R

→

To replace the filter (sponge):

CAUTION
R

W

R

Preparation: R

NOTE: When you replace the lamp, it is also wise to replace the filter. The filter comes in the same package with your replacement lamp.

1. Pull to remove the filter cover.
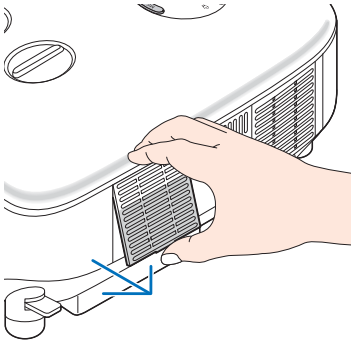
2. Gently peel off the filter (sponge) and replace it with the new one.
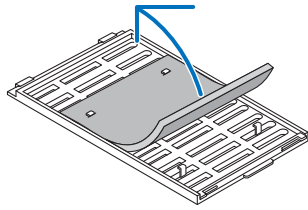
The filter is attached with self-adhesive tape. Peel off the release paper before use.

3. Reinstall the new filter cover.
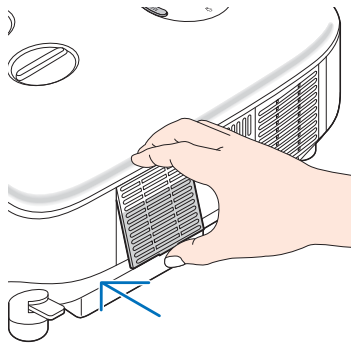
4. Connect the supplied power cable, turn on the Main Power switch and turn on the projector.

5. Finally, select the menu → [RESET] → [CLEAR FILTER HOURS] to reset the filter usage hours.

(→ page 121 for resetting the filter usage time)

❷ Cleaning the Cabinet and the Lens

1. Turn off 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.
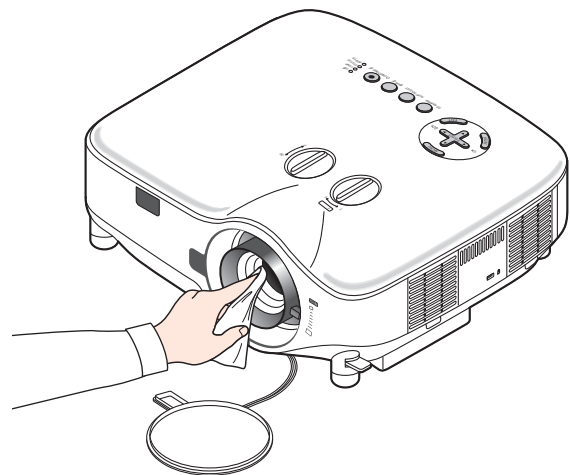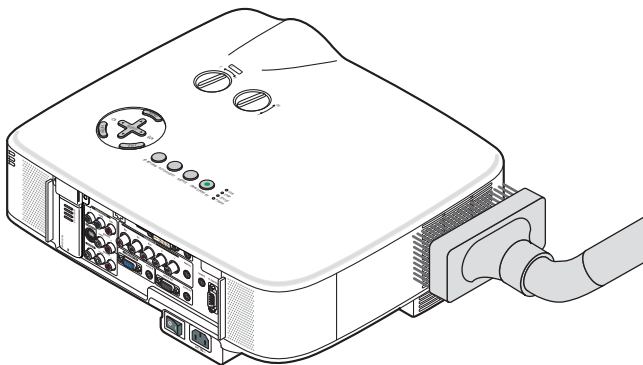
❸ Replacing the Lamp

W   P   E

                              →

CAUTION

    O   O   O   E   P

    O   O   RE   O   E   REW

                                                                                        E

To replace the lamp:
 O

    R   P   P

    P

1. Use a Philips screwdriver to push and release the tab.

   Push and pull to remove the lamp cover.
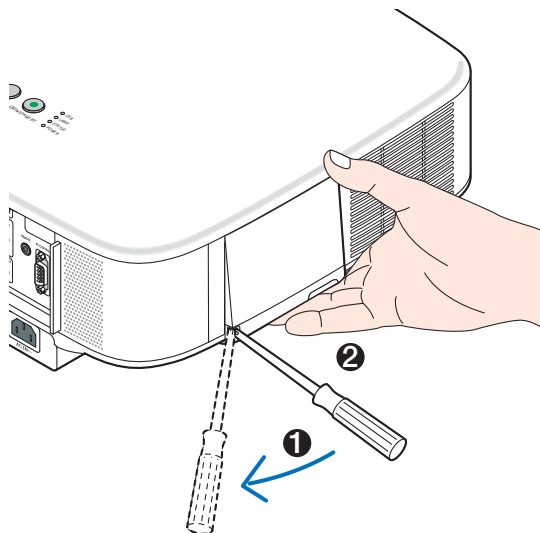
2. Loosen the two screws securing the lamp housing until the phillips screwdriver goes into a freewheeling condition. The two screws are not removable.

Remove the lamp housing by holding it.
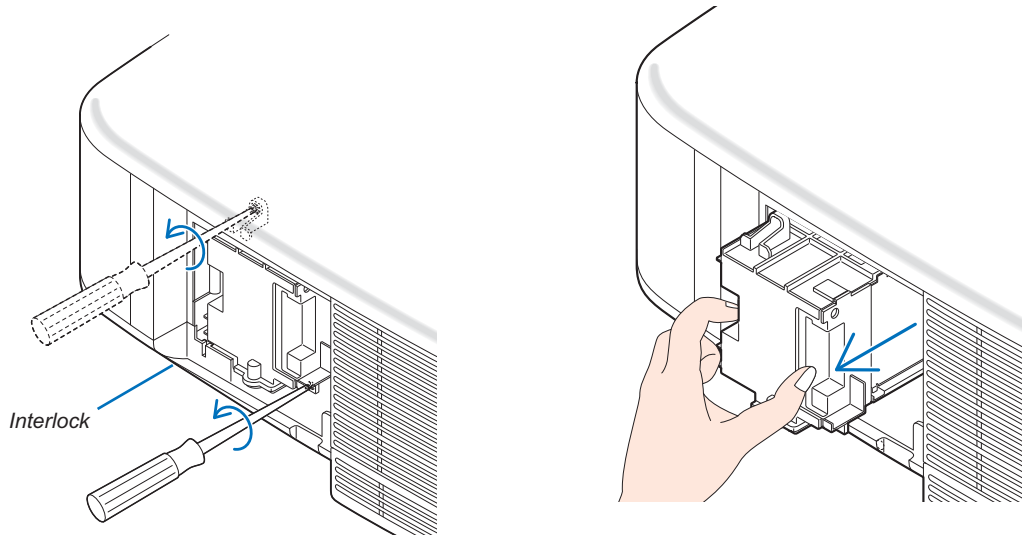
Interlock

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
E P P
O E

Secure it in place with the two screws.

Be sure to tighten the screws.
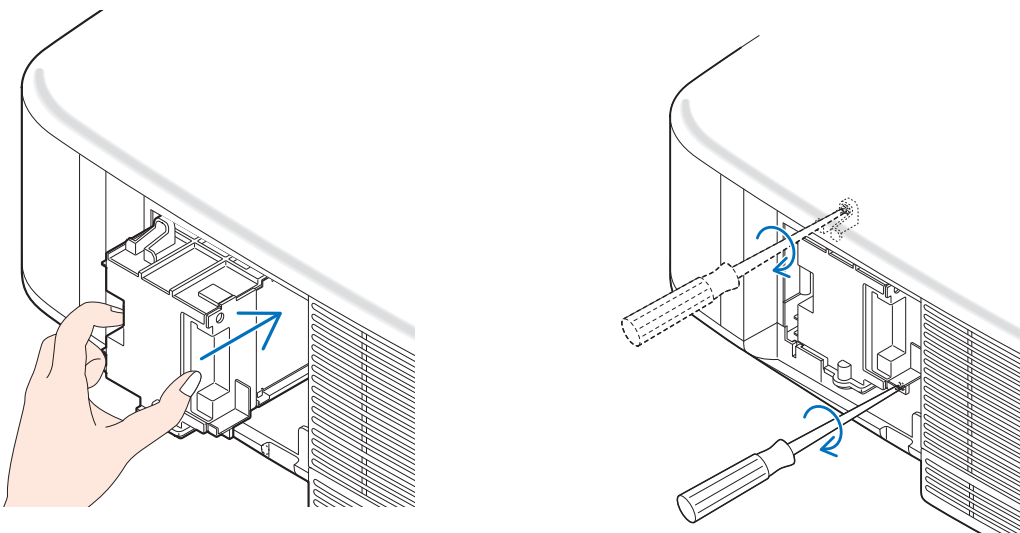
**4. Reattach the lamp cover.**

   Slip the lamp cover back until it snaps into place.
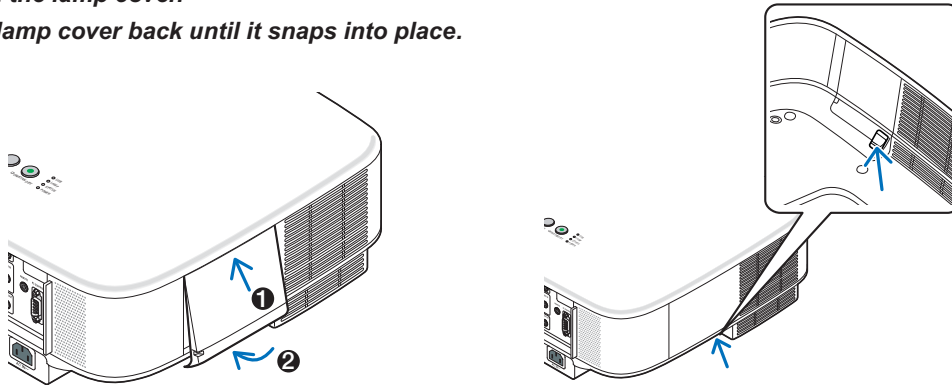
5. Connect the supplied power cable, turn on the Main Power switch and turn on the projector.

6. Finally, select the menu → [RESET] → [CLEAR LAMP HOURS] to reset the lamp life remaining and lamp usage hours.

NOTE: When you continue to use the projector for another 100 hours after the lamp has reached the end of its life, the projector cannot turn on and the menu is not displayed.
If this happens, press the HELP button on the remote control for 10 seconds to reset the lamp clock back to zero.
When the lamp time clock is reset to zero, the LAMP indicator goes out.

Note for US Residents

                                        P

8. Using Optional Lenses

❶ Table of Throw Distances and Screen Sizes for Optional Lenses
[NP3150/NP2150/NP1150]

	R	P	P	P	P	P
	−		−	−	−	−

		×		×
P		×		
P		×		×
P		×		×
P		×		×
P		×		×

NP04ZL (H X 3.0) - (H X 4.8)

STANDARD (H X 1.5) - (H X 2.0)

NP01FL (H X 0.8)

NP02ZL (H X 1.2) - (H X 1.5)

NP03ZL (H X 1.9) - (H X 3.1)

NP05ZL (H X 4.7) - (H X 7.2)

Example: Distance from a 100" screen with the lens NP03ZL
R

          ×   ×

127

NOTE: Distances may vary +/-5%

[NP3151W]

		R	P		P		P		P		P	
			–			–		–		–		–

P   ×   ×

P   ×

P   ×   ×

P   ×   ×

P   ×   ×

P   ×   ×

NP04ZL (H X 3.0) - (H X 4.8)

STANDARD (H X 1.5) - (H X 2.0)

NP01FL (H X 0.8)

NP02ZL (H X 1.2) - (H X 1.5)

NP03ZL (H X 1.9) - (H X 3.1)

NP05ZL (H X 4.7) - (H X 7.2)

Example: Distance from a 100" screen with the lens NP03ZL
R

     ×   ×

NOTE: Distances may vary +/-5%

❷ Lens Shift Adjustable Range

NOTE: Lens shift is not available with the NP01FL optional lens. The NP01FL should be used only for "zero degree" applications.

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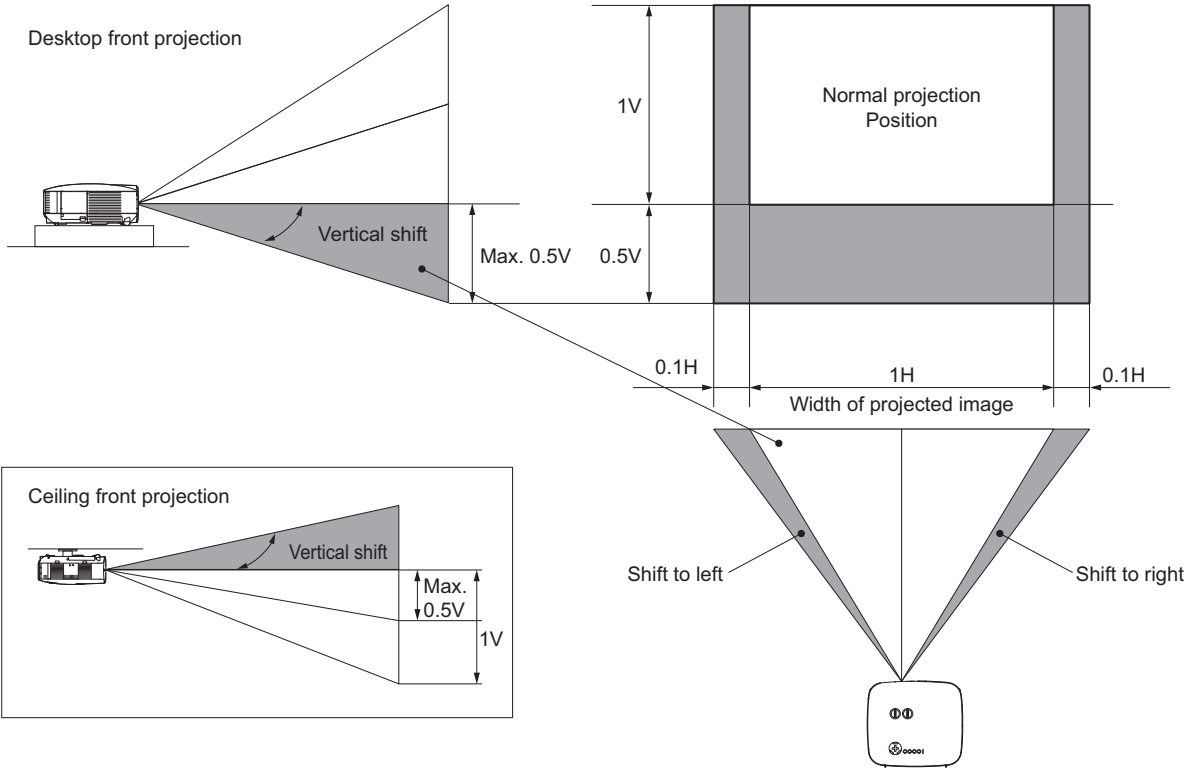
❸ Replacing with Optional Lens

CAUTION

W

W

P   P   P   P   P   W

W

                           P   P   P   P   W
    P   P   P   P   W

Remove the existing lens from the projector.

LENS RELEASE Button

1. Rotate the lens counterclockwise while strongly pushing the LENS RELEASE button all the way in.

NOTE: If the lens cannot be removed even by using the LENS RELEASE button, the anti-theft screw for lens may be used to secure the lens.
If such is the case, remove the anti-theft screw first. (→ page 131)

2. Pull out the existing lens slowly.

130
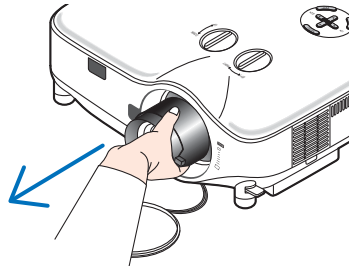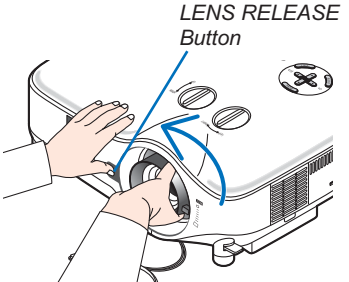
Install the new lens

1. **Insert the lens with the yellow protrusion on top.**

Yellow Protrusion
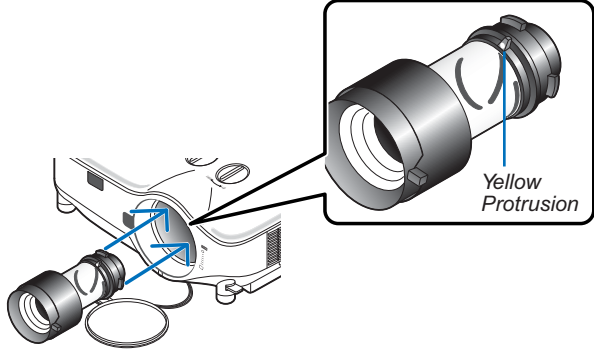
2. **Rotate the lens clockwise.**

R
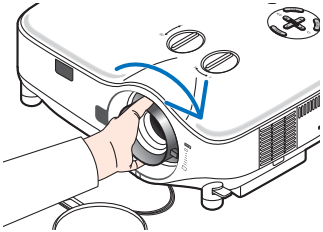
Using the anti-theft screw to prevent theft of the lens
Tighten the supplied anti-theft screw on the front bottom.

Hole of anti-theft screw for lens unit

---

9. Appendix

❶ Troubleshooting

Indicator Messages

Power Indicator

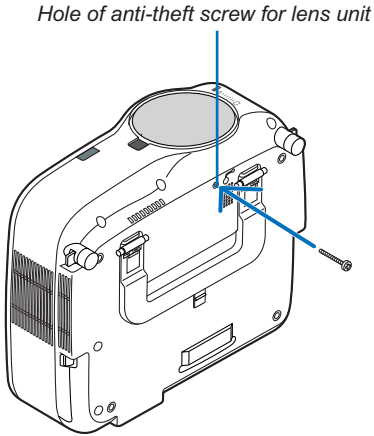| Indicator Condition			Projector Condition	Note
Off			The main power is off	–
Blinking light	Green	0.5 sec On, 0.5 sec Off	The projector is getting ready to turn on.	Wait for a moment.
		2.5 sec On, 0.5 sec Off	Off Timer (Off Time) is activated.	–
	Orange	0.5 sec On, 0.5 sec Off	The projector is cooling down.	Wait for a moment.
		2.5 sec On, 0.5 sec Off	The Program Timer is activated.	–
Steady light	Green		The projector is turned on.	–
	Orange		The projector is in Standby.	–

Status Indicator

Indicator Condition			Projector Condition	Note
Off			Normal	–
Blinking light	Red	1 cycle (0.5 sec On, 2.5 sec Off)	Lamp cover error	Reattach the lamp cover correctly. (→ page 126)
		2 cycle (0.5 sec On, 0.5 sec Of)	Temperature error	The projector is overheated. Move the projector to a cooler location.
		4 cycle (0.5 sec On, 0.5 sec Off)	Fan error	Fans will not work correctly.
		6 cycle (0.5 sec On, 0.5 sec Off)	Lamp error	Lamp fails to light. Wait a full minute and then turn on again.
	Green		Re-firing the lamp	The projector is re-firing.
	Orange	1 cycle (0.5 sec On, 2.5 sec Off)	Network conflict	Both the built-in wired LAN and the wireless LAN cannot be connected to the same network at the same time. To use both built-in wired LAN and wireless LAN at the same time, connect them to different networks. (→ page 108, 109)
Steady light	Orange		Control Panel Lock is on	You have pressed cabinet button when Control Panel Lock is on. (→ page 100)
	Green		The projector is in Standby.	–

Lamp Indicator

Indicator Condition		Projector Condition	Note
Off		Normal	–
Blinking light	Red	Lamp has reached its end of life. Lamp replacement message will be displayed.	Replace the lamp. (→ page 124)
Steady light	Red	Lamp has been used beyond its limit. The projector will not turn on until the lamp is replaced.	Replace the lamp. (→ page 124)
	Green	Lamp is in Eco mode	–

Over-Temperature Protection

O   O

W

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Common Problems & Solutions → P

Problem	Check These Items
Does not turn on	• Check that the power cable is plugged in and that the power button on the projector cabinet or the remote control is on. (→ page 22, 23) • Ensure that the lamp cover is installed correctly. (→ page 126) • Check to see if the projector has overheated. If there is insufficient ventilation around the projector or if the room where you are presenting is particularly warm, move the projector to a cooler location. • Check to see if you continue to use the projector for another 100 hours after the lamp has reached the end of its life. If so, replace the lamp. After replacing the lamp, reset the lamp hours used. (→ page 121) • The lamp may fail to light. Wait a full minute and then turn on the power again. • Set [FAN MODE] to [HIGH ALTITUDE] when using the projector at altitudes approximately 5500 feet/1600 meters or higher. Using the projector at altitudes approximately 5500 feet/1600 meters or higher without setting to [HIGH ALTITUDE] can cause the projector to overheat and the projector could shut down. If this happens, wait a couple minutes and turn on the projector. (→ page 115) Also when the lamp is turned off, the projector internal temperature is hot. If the power is turned on before the projector has cooled down, the fan will run a short time before the lamp will turn on.
Will turn off	• Ensure that the Power Management, Off Timer is off. (→ page 92, 115)
No picture	• Use the SOURCE button on the projector cabinet or the VIDEO, the S-VIDEO, the COMPUTER 1, the COMPUTER 2, the COMPUTER 3, the COMPONENT, the VIEWER or the NETWORK button on the remote control to select your source. (→ page 25) • Ensure your cables are connected properly. • Use menus to adjust the brightness and contrast. (→ page 81) • Check to see if the image is muted. (→ page 35) • Remove the lens cap. • Reset the settings or adjustments to factory preset levels using the Reset in the Menu. (→ page 121) • Enter your registered keyword if the Security function is enabled. (→ page 45) • Be sure to connect the projector and notebook PC while the projector is in standby mode and before turning on the power to the notebook PC. In most cases the output signal from the notebook PC is not turned on unless connected to the projector before being powered up. * If the screen goes blank while using your remote control, it may be the result of the computer's screen-saver or power management software. • See also the next page.
Color tone or hue is unusual	• Check if an appropriate color is selected in [WALL COLOR]. If not, select an appropriate option. (→ page 91) • Adjust [HUE] in [ADJUST]. (→ page 81)
Image isn't square to the screen	• Reposition the projector to improve its angle to the screen. (→ page 26) • Use the 3DReform function to correct the trapezoid distortion. (→ page 30)
Picture is blurred	• Adjust the focus. (→ page 28) • Reposition the projector to improve its angle to the screen. (→ page 26) • Ensure that the distance between the projector and screen is within the adjustment range of the lens. (→ page 127, 129) • Condensation may form on the lens if the projector is cold, brought into a warm place and is then turned on. Should this happen, let the projector stand until there is no condensation on the lens.
Flicker appears on screen	• Set [FAN MODE] to other than [HIGH ALTITUDE] mode when using the projector at altitudes approximately 5500 feet/1600 meters or lower. Using the projector at altitudes less than approximately 5500 feet/1600 meters and setting to [HIGH ALTITUDE] can cause the lamp to overcool, causing the image to flicker. Switch [FAN MODE] to [AUTO]. (→ page 115)
Image is scrolling vertically, horizontally or both	• Use the SOURCE button on the projector cabinet or the VIDEO, the S-VIDEO, the COMPUTER 1, the COMPUTER 2, the COMPUTER 3, the COMPONENT, the VIEWER or the NETWORK button on the remote control to select your source (Video, S-Video, Computer, Component, Viewer or NETWORK). (→ page 25) • Adjust the computer image manually with the [CLOCK]/[PHASE] in [ADJUST] → [IMAGE OPTIONS]. (→ page 82)
Remote control does not work	• Install new batteries. (→ page 10) • Make sure there are no obstacles between you and the projector. • Stand within 22 feet (7 m) of the projector. (→ page 10) • Check if one or more remote sensors are enabled. Select [SETUP] → [INSTALLATION] → [REMOTE SENSOR] from the menu. See page 114. • If the remote control cable plug is inserted into the REMOTE mini jack, the remote control does not function wirelessly. See page 11.
Indicator is lit or blinking	• See the POWER/STATUS/LAMP Indicator. (→ page 132)
Vertical stripes in RGB mode	• Press the AUTO ADJUST button on the projector cabinet or the AUTO ADJ. button on the remote control. (→ page 32) • Adjust the computer image manually with the [CLOCK]/[PHASE] in [ADJUST] → [IMAGE OPTIONS]. (→ page 82)
USB mouse does not work	• Make sure that your USB mouse is properly connected to the projector. (→ page 37) The projector may not support some brands of a USB mouse. • Some menu items cannot be operated with a USB mouse.

If there is no picture, or the picture is not displayed correctly.

P   P
                            P
            P
                        P

NOTE: You can check the horizontal frequency of the current signal in the projector's menu [SOURCE(2)] under Information. If it reads "0kHz", this means there is no signal being output from the computer. See page 118 or go to next step.

E
                        P
    W   P
                E

                    P
                        P
E   P
        R

W   P

                                    P
                                    P
                            P

NOTE: A Video Adapter cable manufactured by Apple Inc. is needed for a PowerBook which does not have a mini D-Sub 15-pin connector.

        P
    W   P
        P   R

→

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❷ Specifications

P   P   P   P   W

Optical
    P   P   P   P

                    P   W

R   P   P   P   ✕

                              ✕

                    P   W

                    P   P   W   W   W   E
                    P   P   W   W   E
    O   P   E
                    P   E
                    P   E
                    P   W   E
    R   P   P   P
                    P   W

    O   P
                              P
                              P
                              P
                              P

Electrical
                              R   P   R   R
                    ✕   R   P   P   P
                R   ✕   P   O P ER
                                              P   R
                R   R
                    R   P
                    P   P   P
O
P
    P
    P   R
W
                              P   P   P   P   E

                    P
    R   R

    R
    R   R
        R   P   P   P   P
                    E
                    R   ✕
E   R   R

                    W ✕
P   R
                    P   P   W
                    P   P
135

P

P   P   W   W
P   P   W
P   P   W P   P   W   E   W
                          W P

E

Mechanical

O   R   R
W $\times$ $\times$
W $\times$ $\times$

W
E
O

E

R

O

PR

E   E   E   E
E
E

CE

E

USB Wireless LAN Unit

P   P
O

R
W   EEE   EEE   EEE
         P   P O
E

EEE		
R		
O		
	O	O
R		

EEE		
R		
O		
R		

136

EEE

R

O

O O

R

W

W
E

O

P P
O

R
W EEE EEE EEE
P P O
E

EEE

R

O

O O

R
EEE

R

O

R
EEE

R

O

O O

R

W

W
E

O

137

O　　　　　　W

　　　　　　　　　　　　　W

P	
P	E 　　　P　　　P　　　R
P	

　　　　　　P　　　　E
　　　　P
　　　　　P
　　　　　　P
　　　　　　　P　　P
　　　　　P　　　P
　　　　　P

Обозначения сертификатов и коды серии NP01LM　Russian
NP01LM

P	CE ①
P	R　P　E　P

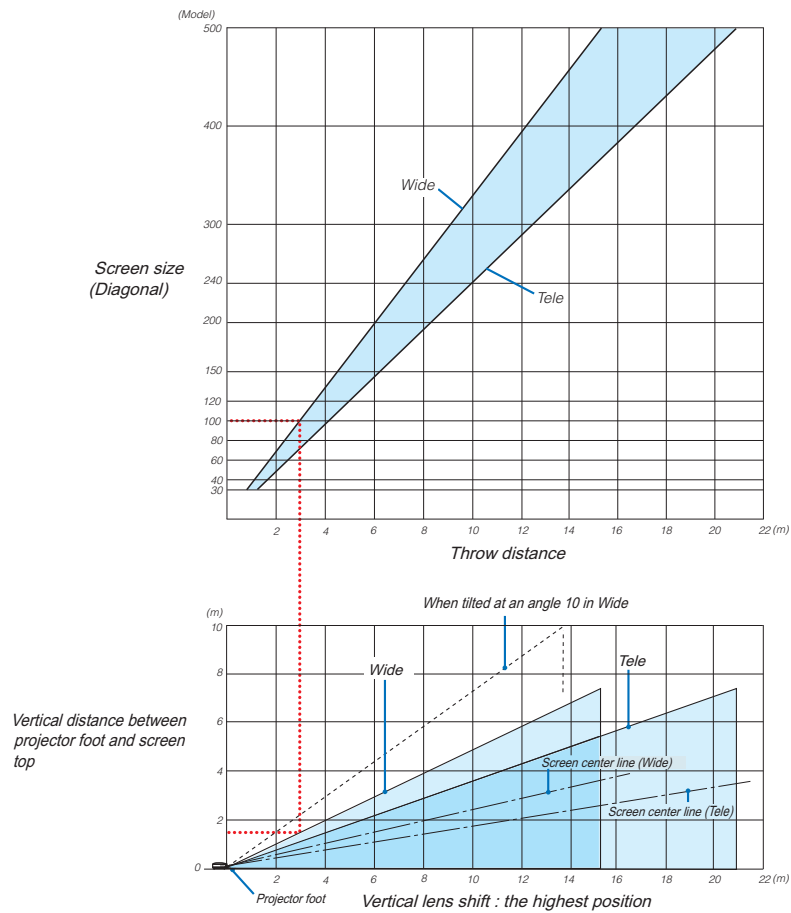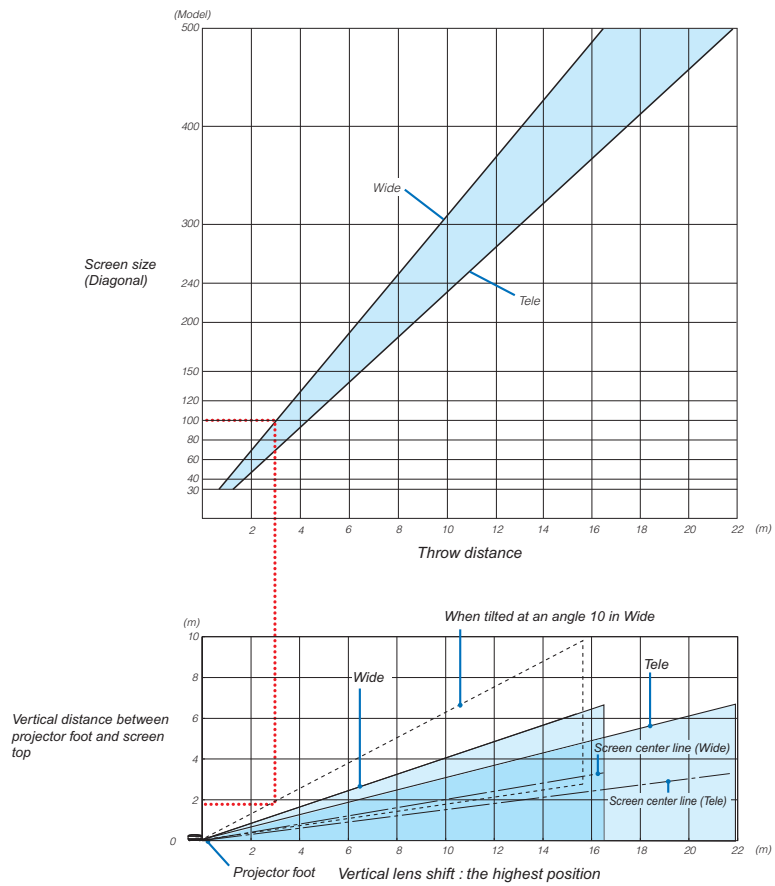|	E　　　　　　　　　　　　W 　　　　　P　　　　　　　E		
P	E　　　　　　　　　W 　　P　　　　　　　　　E		
	E W　　　　　P 　　E		
	E W　　　　　P 　　　　　　　R E		
	E 　　W　　　　　P E		
	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ NEC Display Solutions, Ltd. ΔΗΛΩΝΕΙ ΟΤΙ USB Wireless LAN Unit (Model: NP01LM) ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑ ΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.		

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❸ Cabinet Dimensions
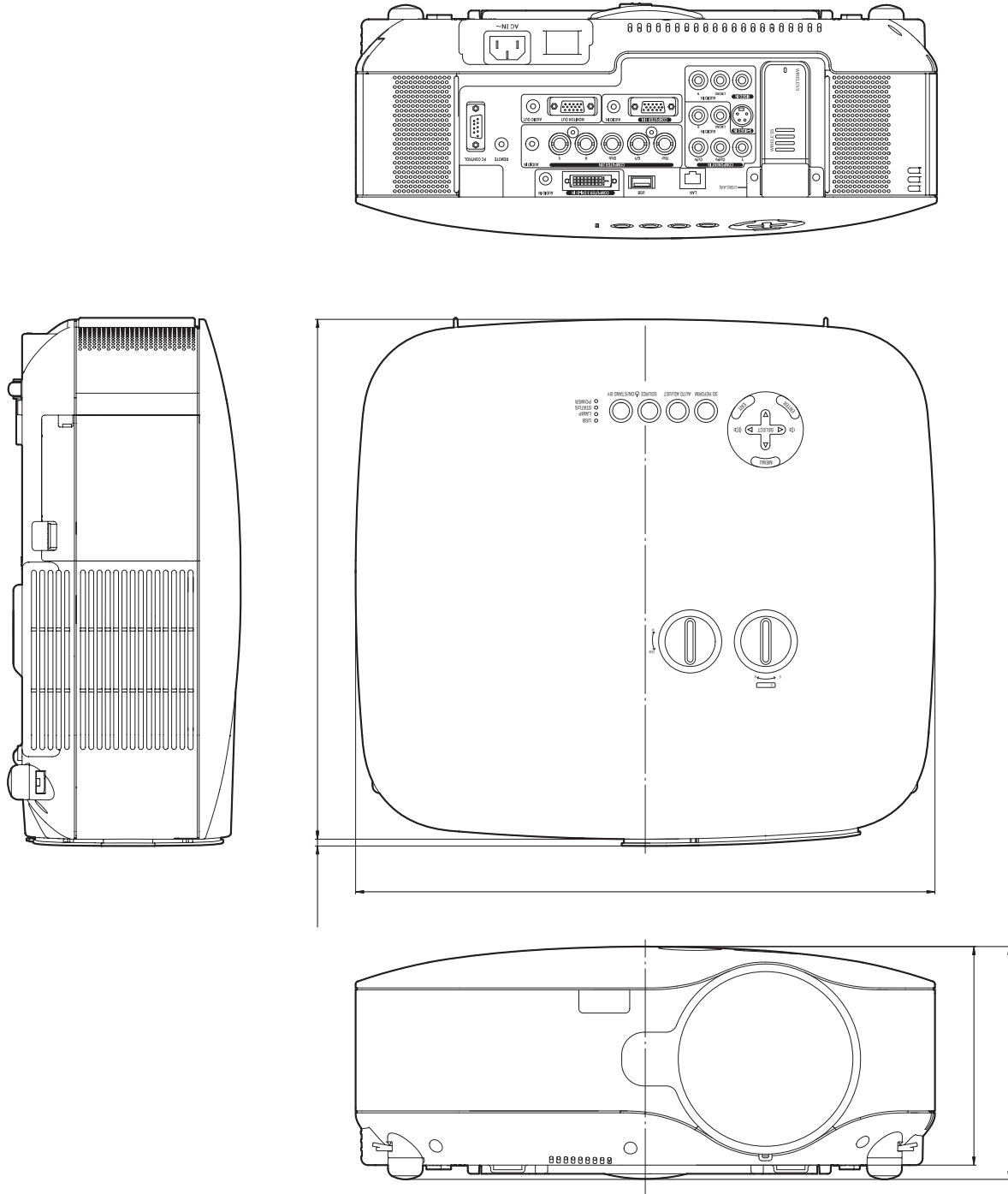
❹ Screen Size and Projection Distance
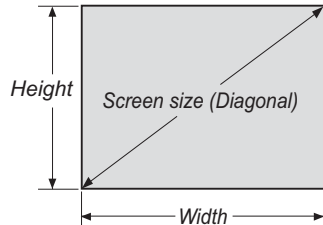
[NP3150/NP2150/NP1150]

Using the Chart
E

[NP3151W]

(Model)

Screen size (Diagonal)

Wide

Tele

Throw distance

Vertical distance between projector foot and screen top

When tilted at an angle 10 in Wide

Wide

Tele

Screen center line (Wide)

Screen center line (Tele)

Projector foot

Vertical lens shift : the highest position

Using the Chart

E

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[NP3150/NP2150/NP1150]

List of Screen Sizes

Screen size	Width (H)		Height (V)	
	m	inch	m	inch
30"	0.6	24.0	0.46	18.0
40"	0.8	31.5	0.6	23.6
60"	1.2	47.2	0.9	35.4
80"	1.6	63.0	1.2	47.2
100"	2.0	78.7	1.5	59.1
120"	2.4	94.5	1.8	70.9
150"	3.0	118.1	2.3	90.6
200"	4.1	161.4	3.0	118.1
250"	5.1	200.8	3.8	149.6
300"	6.1	240.2	4.6	181.1
400"	8.1	318.9	6.1	240.2
500"	10.2	401.6	7.6	299.2

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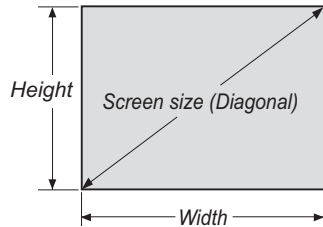Screen height V (inch)=Screen size x 3/5

Screen Size and Projection Distance for Desktop when the standard lens is used

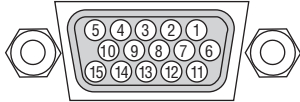| Screen size (diagonal)	STANDARD			
	Projection Distance (L)		(H1)	
	(m)	(inches)		
	Wide - Tele	Wide - Tele	(cm)	(inches)
30"	0.89 - 1.20	35.1 - 47.3	0-23	0-9.0
40"	1.20 - 1.62	47.4 - 63.8	0-30	0-12.0
60"	1.83 - 2.45	72.2 - 96.6	0-46	0-18.0
67"	2.05 - 2.75	80.8 - 108.2	0-51	0-20.1
72"	2.21 - 2.96	87.0 - 116.4	0-55	0-21.6
80"	2.46 - 3.29	96.9 - 129.5	0-61	0-24.0
84"	2.59 - 3.46	101.8 - 136.1	0-64	0-25.2
90"	2.78 - 3.71	109.3 - 146.0	0-69	0-27.0
100"	3.09 - 4.13	121.6 - 162.4	0-76	0-30.0
120"	3.72 - 4.96	146.3 - 195.3	0-91	0-36.0
150"	4.66 - 6.21	183.4 - 244.6	0-114	0-45.0
180"	5.60 - 7.47	220.5 - 294.0	0-137	0-54.0
200"	6.23 - 8.30	245.3 - 326.9	0-152	0-60.0
210"	6.54 - 8.72	257.6 - 343.3	0-160	0-63.0
240"	7.49 - 9.97	294.7 - 392.6	0-183	0-72.0
250"	7.80 - 10.39	307.1 - 409.1	0-191	0-75.0
270"	8.43 - 11.23	331.8 - 442.0	0-206	0-81.0
300"	9.37 - 12.48	368.9 - 491.3	0-229	0-90.0
400"	12.51 - 16.66	492.5 - 655.8	0-305	0-120.0
500"	15.65 - 20.83	616.2 - 820.2	0-381	0-150.0
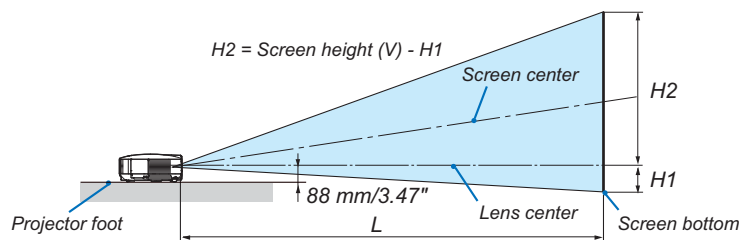
H2 = Screen height (V) - H1

88 mm/3.47"

NOTE: Distances may vary +/-5%.

[NP3151W]

Height / Screen size (Diagonal) / Width

List of Screen Sizes

Screen size	Width (H)		Height (V)	
	m	inch	m	inch
30"	0.6	25.4	0.4	15.9
40"	0.7	33.9	0.5	21.2
60"	1.3	50.9	0.8	31.8
80"	1.7	67.8	1.1	42.4
100"	2.2	84.8	1.3	53.0
120"	2.6	101.8	1.6	63.6
150"	3.2	127.2	2.0	79.5
200"	4.3	169.6	2.7	106.0
250"	5.4	212.0	3.4	132.5
300"	6.5	254.4	4.0	159.0
400"	8.6	339.2	5.4	212.0
500"	10.8	424.0	6.7	265.0

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

Screen Size and Projection Distance for Desktop when the standard lens is used

Screen size (diagonal)	STANDARD			
	Projection Distance (L)		(H1)	
	(m)	(inches)		
	Wide - Tele	Wide - Tele	(cm)	(inches)
30"	0.94 - 1.27	37.0 - 49.8	0-20.2	0-7.9
40"	1.27 - 1.71	50.0 - 67.1	0-26.9	0-10.6
60"	1.93 - 2.58	76.0 - 101.7	0-40.4	0-15.9
67"	2.16 - 2.89	85.1 - 113.8	0-45.1	0-17.8
72"	2.33 - 3.11	91.6 - 122.5	0-48.5	0-19.1
80"	2.59 - 3.46	102.0 - 136.3	0-53.8	0-21.2
84"	2.72 - 3.64	107.2 - 143.2	0-56.5	0-22.3
90"	2.92 - 3.90	115.0 - 153.6	0-60.6	0-23.8
100"	3.25 - 4.34	128.0 - 170.9	0-67.3	0-26.5
120"	3.91 - 5.22	154.0 - 205.5	0-80.8	0-31.8
150"	4.90 - 6.54	193.0 - 257.4	0-101.0	0-39.7
180"	5.89 - 7.85	232.0 - 309.2	0-121.2	0-47.7
200"	6.55 - 8.73	258.0 - 343.8	0-134.6	0-53.0
210"	6.88 - 9.17	271.0 - 361.1	0-141.4	0-55.6
240"	7.87 - 10.49	310.0 - 413.0	0-161.5	0-63.6
250"	8.20 - 10.93	323.0 - 430.3	0-168.3	0-66.2
270"	8.87 - 11.81	349.0 - 464.9	0-181.7	0-71.5
300"	9.86 - 13.12	388.0 - 516.7	0-201.9	0-79.5
400"	13.16 - 17.52	518.0 - 689.6	0-269.2	0-106.0
500"	16.46 - 21.91	648.0 - 862.6	0-336.5	0-132.5

H2 = Screen height (V) - H1
Screen center
H2
88 mm/3.47"
Projector foot
Lens center
Screen bottom
H1
L

NOTE: Distances may vary +/-5%.

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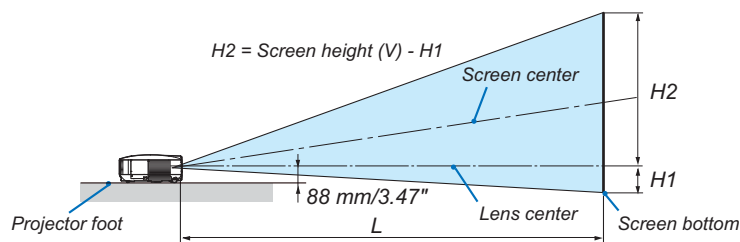
❺ Pin Assignments of D-Sub COMPUTER 1 Input Connector

Mini D-Sub 15 Pin Connector

Pin No.	RGB Signal (Analog)	YCbCr Signal
	R	
	R	

❻ Compatible Input Signal List

	R		R	R
P				
P				
E				
E	×			
	×			
	×			
E	×			
E	×			
	×			
E	×			
E	×			
E	×			
E	×			
E	×			
E	×			
	×			
E	×			
E	×			
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E	×			
E	×			
	×			
	×			
E	×			
E	×			
E	×			
E	×			
	×			
	×			
	×		P	
	×		P	
			P	
			P	

NOTE:
- *An image with higher or lower resolution than the projector's native resolution (NP3150/NP2150/NP1150: 1024 x 768, NP3151W: 1280 x 800) will be displayed with scaling technology.*
- *Some composite sync signals may not be displayed correctly.*
  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.

❼ PC Control Codes and Cable Connection

PC Control Codes

Function	Code Data										
POWER ON	02H	00H	00H	00H	00H	02H					
POWER OFF	02H	01H	00H	00H	00H	03H					
INPUT SELECT COMPUTER 1	02H	03H	00H	00H	02H	01H	01H	09H			
INPUT SELECT COMPUTER 2	02H	03H	00H	00H	02H	01H	02H	0AH			
INPUT SELECT COMPUTER 3	02H	03H	00H	00H	02H	01H	1AH	22H			
INPUT SELECT COMPONENT	02H	03H	00H	00H	02H	01H	10H	18H			
INPUT SELECT VIDEO	02H	03H	00H	00H	02H	01H	06H	0EH			
INPUT SELECT S-VIDEO	02H	03H	00H	00H	02H	01H	0BH	13H			
INPUT SELECT 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					
ASPECT RATIO (4:3 Screen)											
4:3	03H	10H	00H	00H	05H	18H	00H	00H	00H	00H	30H
LETTERBOX	03H	10H	00H	00H	05H	18H	00H	00H	01H	00H	31H
WIDESCREEN	03H	10H	00H	00H	05H	18H	00H	00H	02H	00H	32H
ZOOM	03H	10H	00H	00H	05H	18H	00H	00H	03H	00H	33H
ASPECT RATIO (16:9 Screen)											
4:3 WINDOW	03H	10H	00H	00H	05H	18H	00H	00H	00H	00H	30H
LETTERBOX	03H	10H	00H	00H	05H	18H	00H	00H	01H	00H	31H
WIDESCREEN	03H	10H	00H	00H	05H	18H	00H	00H	02H	00H	32H
4:3 FILL	03H	10H	00H	00H	05H	18H	00H	00H	04H	00H	34H
AUTO ADJUST	02H	0FH	00H	00H	02H	05H	00H	18H			

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

Cable Connection

P

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

NOTE: Depending on the equipment, a lower baud rate may be recommended for long cable runs.

PC Control Connector (D-SUB 9P)

To TxD of PC

To RxD of PC

To GND of PC

① ② ③ ④ ⑤
⑥ ⑦ ⑧ ⑨

To RTS of PC

To CTS of PC
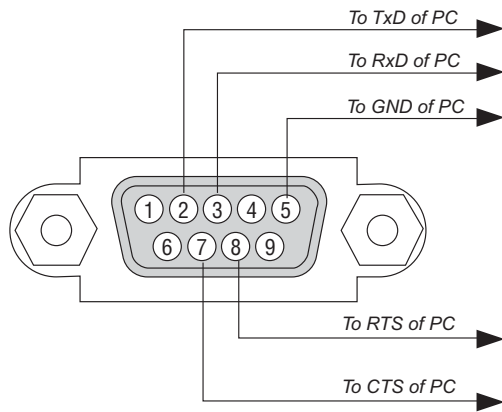
NOTE 1: Pins 1, 4, 6 and 9 are no used.

NOTE 2: Jumper "Request to Send" and "Clear to Send" together on both ends of the cable to simplify cable connection.

*NOTE 3: For long cable runs it is recommended to set communication speed within projector menus to 9600 bps.*
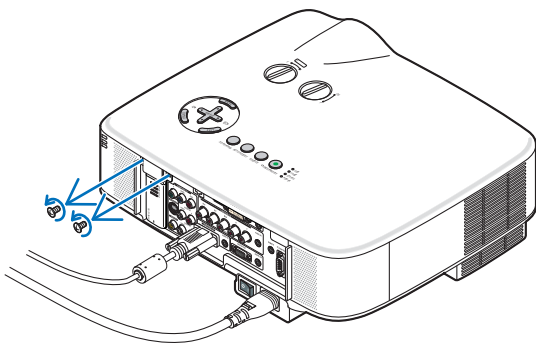
❽ Removing and Attaching the USB Wireless LAN Unit

Important
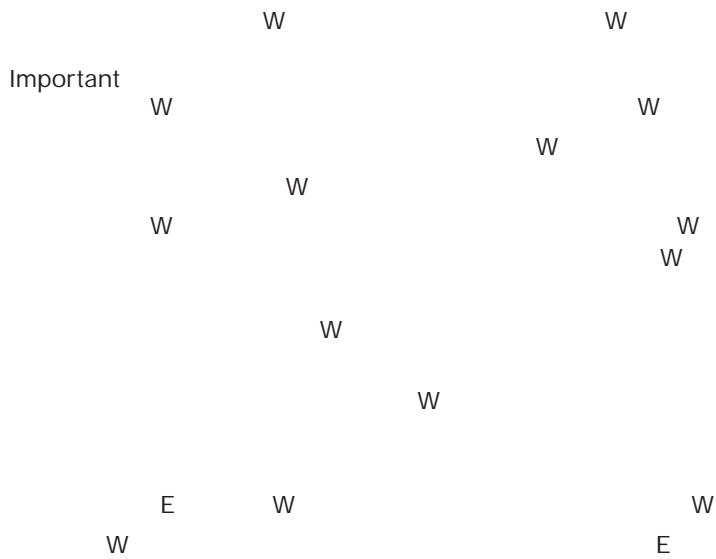
To attach the optional USB Wireless LAN Unit to the USB Wireless LAN unit port, follow the instructions below.

1. Press POWER ON/STAND BY button to set the projector to Stand-by mode, then press the "O (off)" side of the main power switch of the projector.
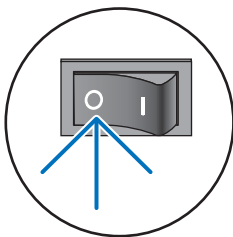
2. Loosen and remove two screws.

3. Slowly remove the dummy case or the current attached USB Wireless LAN Unit.
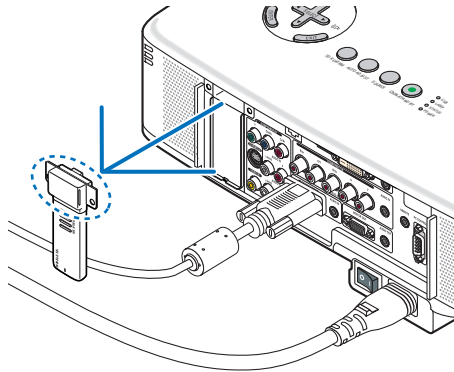
4. Slowly remove the dummy case or the Wireless LAN module from the joint module.
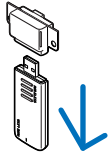
5. Slowly insert the USB Wireless LAN module into the joint module.
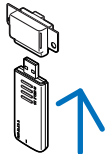
6. Insert the USB Wireless LAN Unit slowly into the USB port on the rear panel of the projector.

NOTE: After inserting, make sure the bottom of the USB Wireless LAN unit is firmly seated against the cabinet.
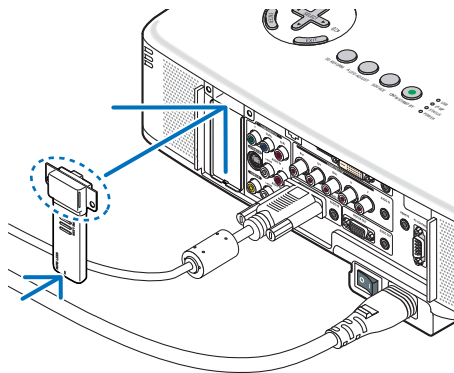
7. Tighten the two screws.

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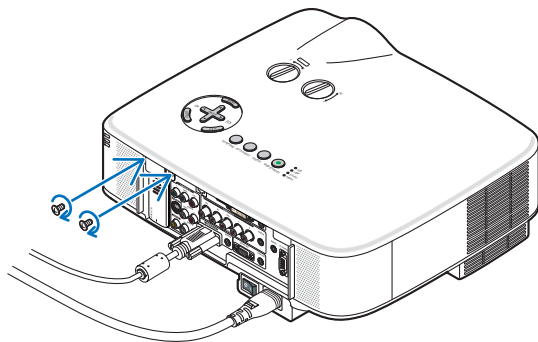
❾ Troubleshooting Check List

P

Frequency of occurrence ☐ always ☐ sometimes (How often?_____) ☐ other (_____)

Power

☐ No power (POWER indicator does not light green)   See also "Status Indicator (STATUS)".
   ☐ Power cable's plug is fully inserted into the wall outlet.
   ☐ Main power switch is pressed to the ON position.
   ☐ Lamp cover is installed correctly .
   ☐ Lamp Hours Used (lamp operation hours) was cleared after lamp replacement.
   ☐ No power even though you press and hold the POWER button for a minimum of 2 seconds.

☐ Shut down during operation.
   ☐ Power cable's plug is fully inserted into the wall outlet.
   ☐ Lamp cover is installed correctly .
   ☐ Power Management is turned off (only models with the Power Management function).
   ☐ Off Timer is turned off (only models with the Off Timer function).

Video and Audio

☐ No image is displayed from your PC or video equipment to the projector.
   ☐ Still no image even though you connect the projector to the PC first, then start the PC.
   ☐ Enabling your notebook PC's signal output to the projector.
      • *A combination of function keys will enable/disable the external display. Usually, the combination of the "Fn" key along with one of the 12 function keys turns the external display on or off.*
   ☐ No image (blue background, logo, no display).
   ☐ Still no image even though you press the AUTO ADJUST button.
   ☐ Still no image even though you carry out [RESET] in the projector's menu.
   ☐ Signal cable's plug is fully inserted into the input connector
   ☐ A message appears on the screen.
      (_____)
   ☐ The source connected to the projector is active and available.
   ☐ Still no image even though you adjust the brightness and/or the contrast.
   ☐ Input source's resolution and frequency are supported by the projector.
☐ Image is too dark.
   ☐ Remains unchanged even though you adjust the brightness and/or the contrast.
☐ Image is distorted.
   ☐ Image appears to be trapezoidal (unchanged even though you carry out the [KEYSTONE] or [3D REFORM] adjustment).

☐ Parts of the image are lost.
   ☐ Still unchanged even though you press the AUTO ADJUST button.
   ☐ Still unchanged even though you carry out [RESET] in the projector's menu.
☐ Image is shifted in the vertical or horizontal direction.
   ☐ Horizontal and vertical positions are correctly adjusted on a computer signal.
   ☐ Input source's resolution and frequency are supported by the projector.
   ☐ Some pixels are lost.
☐ Image is flickering.
   ☐ Still unchanged even though you press the AUTO ADJUST button.
   ☐ Still unchanged even though you carry out [RESET] in the projector's menu.
   ☐ Image shows flickering or color drift on a computer signal.
   ☐ Still unchanged even though you change [FAN MODE] from [HIGH ALTITUDE] to [AUTO].
☐ Image appears blurry or out of focus.
   ☐ Still unchanged even though you checked the signal's resolution on PC and changed it to projector's native resolution.
   ☐ Still unchanged even though you adjusted the focus.
☐ No sound.
   ☐ Audio cable is correctly connected to the audio input of the projector.
   ☐ Still unchanged even though you adjusted the volume level.
   ☐ AUDIO OUT is connected to your audio equipment (only models with the AUDIO OUT connector).

Other

☐ Remote control does not work.
   ☐ No obstacles between the sensor of the projector and the remote control.
   ☐ Projector is placed near a fluorescent light that can disturb the infrared remote controls.
   ☐ Batteries are new and are not reversed in installation.
   ☐ If present on the remote control, projector selector switch is not used.

☐ Buttons on the projector cabinet do not work (only models with the Control Panel Lock function).
   ☐ Control Panel Lock is not turned on or is disabled in the menu.
   ☐ Still unchanged even though you press and hold the EXIT button for a minimum of 10 seconds.

In the space below please describe your problem in detail.

```



```

Information on application and environment where your projector is used

Projector
 Model number:
 Serial No.:
 Date of purchase:
 Lamp operating time (hours):
 Lamp Mode: ☐ Normal ☐ Eco
 Information on input signal:
   Horizontal synch frequency   [   ] kHz
   Vertical synch frequency   [   ] Hz
   Synch polarity   H ☐ (+) ☐ (−)
                                V ☐ (+) ☐ (−)
   Synch type   ☐ Separate ☐ Composite
                                ☐ Sync on Green
 STATUS Indicator:
   Steady light   ☐ Orange ☐ Green
   Flashing light   [   ] cycles
 Remote control model number:

Installation environment
 Screen size: inch
 Screen type: ☐ White matte ☐ Beads ☐ Polarization
                 ☐ Wide angle ☐ High contrast
 Throw distance: feet/inch/m
 Orientation: ☐ Ceiling mount ☐ Desktop
 Power outlet connection:
   ☐ Connected directly to wall outlet
   ☐ Connected to power cord extender or other (the
     number of connected equipment_____)
   ☐ Connected to a power cord reel or other (the num-
     ber of connected equipment_____)

Computer
 Manufacturer:
 Model number:
 Notebook PC ☐ / Desktop ☐
 Native resolution:
 Refresh rate:
 Video adapter:
 Other:

Projector   *PC*
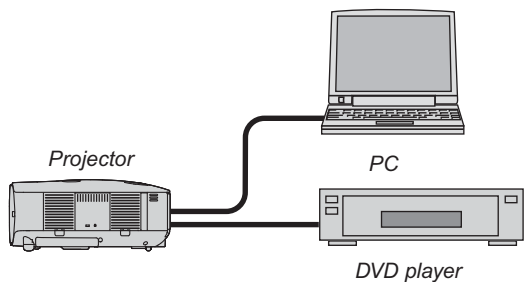
DVD player

Signal cable
 NEC standard or other manufacturer's cable?
   Model number: Length: inch/m
 Distribution amplifier
   Model number:
 Switcher
   Model number:
 Adapter
   Model number:

Video equipment
 VCR, DVD player, Video camera, Video game or other
 Manufacturer:
 Model number:

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❿ TravelCare Guide

TravelCare - a service for international travelers

E

P

Services offered with TravelCare

E   E

O

1 Repair services

2 Replacement product rental service

P   O

Term of warranty

a. Upon presentation of the warranty or receipt received upon purchase:

   Valid for the term indicated on the warranty or the normal term of warranty for the country of purchase.

b. When only the product is brought in:

   Valid for a period of within 14 months of the date of manufacture indicated by the serial number attached to the product.

W
R

1) If the term of warranty, model name, serial number and name of the store of purchase are not indicated on the warranty or have been altered.

2) Problems or damage caused by dropping or shocks during shipment or movement by the customer or by improper handling by the customers.

3) Problems or damage caused by improper usage or unwarrantable alterations or repairs by the customer.

4) Problems or damage caused by fire, salt damage, gas damage, earthquakes, lightning damage, storm or flood damage or other natural disasters or such external factors as dust, cigarette smoke, abnormal voltage, etc.

5) Problems or damage caused by use in hot or humid places, in vehicles, boats or ships, etc.

6) Problems or damage caused by expendable supplies or devices connected to the product other than those designated by NEC.

7) Problems caused by natural consumption, wear or deterioration of parts under normal usage conditions.

8) Problems or damage to lamps and other expendable supplies, included parts or optional parts.

9) Other conditions stipulated in the warranty included with the product also apply.

NOTE: *The product can be used overseas with voltages of 100 to 120V and 200 to 240V by using a power cable suited for the standards and power source voltage of the country in which the product is being used.*

List of TravelCare Outlets

O

O   E

In Europe
E   E   E
                        P

E   R
WE

 R
E

          P
EE

In North America
E
          P

E
WE

 R

In Oceania
E   P

      W
          R   R   W

          R

      P   W   W

          R   W   E

          R

      R   R
W
          O   P   W

WE

R

In Asia and Middle East
E
O
E

R

E
WE
R
R

E
R R
PR

E
WE
R

E

E
WE
R

E
E R
R O

E
WE
R

E P
P

E
WE
R

E
O P R

E
WE
R

E
R

R

E
WE
R

E
R

E
R PO
E

E
R
E

P
PO

E
R
PO R

E

PO

E
R

NOTE: *In countries designated with an asterisk(*), replacement product rental service are offered.*

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P

TO: NEC or NEC's Authorized Service Station:
FM:

P

R

Application Sheet for TravelCare Service Program

P	
P	
P	
P	
P	
R	R R
R	
P	

Condition of your TravelCare Service Program

E

P

1. Service Options:

E

R   R

E

R   R

E

E

E

E   E

E

O

E

2. Warranty Exclusions:

P

E

E

E

P

E

3. Charges for Warranty Exclusions and Out of Warranty Case:

O

W   E

E

4. Dead on Arrival (DOA):

E

E   O   W

O

5. Loan Service Charges and Conditions:

E   P

E

P

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