• DLP, BrilliantColor, and DLP Link are trademarks of Texas Instruments.
• Macintosh, Mac OS X, iMac, and PowerBook are trademarks of Apple Inc., registered in the U.S. and other countries.
• Microsoft, Windows, Windows Vista, Internet Explorer, and NET Framework are either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.
• MicroSaver is a registered trademark of Kensington Computer Products Group, a division of ACCO Brands in the U.S. and other countries.
• Virtual Remote Tool uses WinI2C/DDC library, © Nicomsoft Ltd.
• The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

MHL, Mobile High-Definition Link and the MHL Logo are trademarks or registered trademarks of the MHL, LLC.

• Blu-ray is a trademark of Blu-ray Disc Association.
• Trademark PJLink is a trademark applied for trademark rights in Japan, the United States of America and other countries and areas.
• CRESTRON and ROOMVIEW are registered trademarks of Crestron Electronics, Inc. in the United States and other countries.
• Other product names and logos mentioned in this user’s manual may be the trademarks or registered trademarks of their respective holders.

NOTES
(1) The contents of this user’s manual may not be reprinted in part or whole without permission.
(2) The contents of this user’s manual are subject to change without notice.
(3) Great care has been taken in the preparation of this user’s 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 projector and keep the manual handy for future reference.

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 complies with Canadian ICES-003.

Machine Noise Information Regulation - 3. GPSGV,
The highest sound pressure level is less than 70 dB (A) in accordance with EN ISO 7779.

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.

For EU: The crossed-out wheeled bin implies that used batteries should not be put to the general household waste. There is a separate collection system for used batteries, to allow proper treatment and recycling in accordance with legislation.

According the EU directive 2006/66/EC, the battery can’t be disposed improperly. The battery shall be separated to collect by local service.

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.
Important Information

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 cord with moulded plug has a Black (five Amps) fuse installed for use with this equipment. If a power cord 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, cloth, rugs, carpets, or any objects which are damaged or affected by heat.
- 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.

**WARNING**
- Do not use any other object than the projector’s lens cover to cover the lens while the projector is on. Doing so can cause the object to get extremely hot, and possibly resulting in a fire or damage 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. Doing so could lead to the object melting from the heat that is emitted from the light output.
Important Information

Place the projector in a horizontal position
The tilt angle of the projector should not exceed 5 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 exhaust vent as it can become heated while the projector is turned on and immediately after the projector is turned off.

![HOT]

- Prevent foreign objects such as paper clips and bits of paper from falling into your projector. Do not attempt to retrieve any objects that might fall into your projector. Do not insert any metal objects such as a wire or screwdriver into your projector. If something should fall into your projector, disconnect it immediately and have the object removed by a qualified 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.

![Lamp]

- Keep any items (magnifying glass etc.) out of the light path of the projector. The light path being projected from the lamp is extensive, therefore any kind of abnormal objects that can redirect light coming out of the lamp, can cause unpredictable outcome such as a fire or injury to the eyes.
- Do not block the light path between the light source and the lamp with any objects. Doing so could cause the object to catch on fire.
- Do not place any objects, which are easily affected by heat, in front of the projector lamp 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 cord carefully. A damaged or frayed power cord can cause electric shock or fire.
  - Do not use any power cord other than the one supplied.
  - Do not bend or tug the power cord excessively.
  - Do not place the power cord under the projector, or any heavy object.
  - Do not cover the power cord with other soft materials such as rugs.
  - Do not heat the power cord.
  - Do not handle the power plug with wet hands.
- Turn off the projector, unplug the power cord and have the projector serviced by a qualified service personnel under the following conditions:
  - When the power cord 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 cord and any other cables before carrying the projector.
- Turn off the projector and unplug the power cord before cleaning the cabinet or replacing the lamp.
- Turn off the projector and unplug the power cord 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.

!! 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 short, heat, or take apart batteries.
- Do not 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
- Use the specified lamp for safety and performance.
- To replace the lamp, follow all instructions provided on pages 84-85.
- Be sure to replace the lamp when the message [THE LAMP LIFE EXCEEDED] 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 discharge lamp for special purposes 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. The actual lamp life may vary depending upon the individual lamp, the environmental conditions and usage.

!! CAUTION:
- DO NOT TOUCH THE LAMP immediately after it has been used. It will be extremely hot. Turn the projector off and then disconnect the power cord. Allow at least one hour for the lamp to cool before handling.
- 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.

Note for US Residents
The lamp in this product contains mercury. Please dispose according to Local, State or Federal Laws.
Important Information

About High Altitude mode

• Set [FAN MODE] to [HIGH ALTITUDE] when using the projector at altitudes approximately 2500 feet/760 meters or higher.
• Using the projector at altitudes approximately 2500 feet/760 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 2500 feet/760 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 2500 feet/760 meters or higher can shorten the life of optical components such as the lamp.

About Copyright of original projected pictures:

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 the following functions may raise concern about the infringement of copyrights which are protected by copyright law. [ASPECT RATIO], [KEYSTONE], Magnifying feature and other similar features.

Note for Canadian Environmental Protection Act, 1999

The lamp in this product contains mercury. Please dispose according to your local authority low.

FOR MORE INFORMATION, CONTACT:
NEC Display Solutions of America, Inc.
500 Park Boulevard, Suite 1100
Itasca, Illinois 60143-1248
TELEPHONE 800-836-0655
www.necdisplay.com

⚠️ Health precautions to users viewing 3D images

• Before viewing, be sure to read health care precautions that may be found in the user’s manual included with your LCD shutter eyeglasses or your 3D compatible content such as DVDs, video games, computer’s video files and the like.
To avoid any adverse symptoms, heed the following:
- Do not use LCD shutter eyeglasses for viewing any material other than 3D images.
- Allow a distance of 2 m/7 feet or greater between the screen and a user. Viewing 3D images from too close a distance can strain your eyes.
- Avoid viewing 3D images for a prolonged period of time. Take a break of 15 minutes or longer after every hour of viewing.
- If you or any member of your family has a history of light-sensitive seizures, consult a doctor before viewing 3D images.
- While viewing 3D images, if you get sick such as nausea, dizziness, queasiness, headache, eyestrain, blurry vision, convulsions, and numbness, stop viewing them. If symptoms still persist, consult a doctor.

english_v
[NOTE] Power management function
The projector has power management functions. To reduce power consumption, the power management functions (1 and 2) are factory-preset in the following way. To control the projector via a LAN or serial cable connection, use the on-screen menu to change the settings for 1 and 2.

1. STANDBY MODE (Factory preset: NORMAL)
To control the projector from an external device, select [NETWORK STANDBY] for [STANDBY MODE]. When [NORMAL] is selected for [STANDBY MODE], the following connectors and functions will not work:
- PC CONTROL connector, MONITOR OUT connector, AUDIO OUT connector, LAN functions, Mail Alert function

2. AUTO POWER OFF (Factory default: 60 minutes)
To control the projector from an external device, select [0] for [AUTO POWER OFF (MIN)].
-When [60] is selected for [AUTO POWER OFF], you can enable the projector to automatically turn off in 60 minutes if there is no signal received by any input or if no operation is performed.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Contents</td>
<td>1</td>
</tr>
<tr>
<td>Usage Notice</td>
<td>2</td>
</tr>
<tr>
<td>Precautions</td>
<td>2</td>
</tr>
<tr>
<td>Introduction</td>
<td>4</td>
</tr>
<tr>
<td>Product Features</td>
<td>4</td>
</tr>
<tr>
<td>Package Overview</td>
<td>5</td>
</tr>
<tr>
<td>Product Overview</td>
<td>6</td>
</tr>
<tr>
<td>Projector</td>
<td>6</td>
</tr>
<tr>
<td>Ports</td>
<td>7</td>
</tr>
<tr>
<td>Control Panel</td>
<td>8</td>
</tr>
<tr>
<td>Remote Control</td>
<td>10</td>
</tr>
<tr>
<td>Quick Key Activate Behavior</td>
<td>13</td>
</tr>
<tr>
<td>Battery Installation</td>
<td>14</td>
</tr>
<tr>
<td>Using the Downloadable Software</td>
<td>15</td>
</tr>
<tr>
<td>Viewing 3D Images</td>
<td>24</td>
</tr>
<tr>
<td>Installation</td>
<td>25</td>
</tr>
<tr>
<td>Connecting the Projector</td>
<td>25</td>
</tr>
<tr>
<td>Connect to Computer/Notebook</td>
<td>25</td>
</tr>
<tr>
<td>Connect to Video Sources</td>
<td>27</td>
</tr>
<tr>
<td>Powering On/Off the Projector</td>
<td>29</td>
</tr>
<tr>
<td>Powering On the Projector</td>
<td>29</td>
</tr>
<tr>
<td>Powering Off the Projector</td>
<td>30</td>
</tr>
<tr>
<td>Warning Indicator</td>
<td>31</td>
</tr>
<tr>
<td>Adjusting the Projected Image</td>
<td>32</td>
</tr>
<tr>
<td>Adjusting the Height of Projection Image</td>
<td>32</td>
</tr>
<tr>
<td>Adjusting the Projector’s Focus</td>
<td>33</td>
</tr>
<tr>
<td>Adjusting Projection Image Size (Diagonal)</td>
<td>34</td>
</tr>
<tr>
<td>User Controls</td>
<td>37</td>
</tr>
<tr>
<td>On Screen Display</td>
<td>37</td>
</tr>
<tr>
<td>How to operate</td>
<td>37</td>
</tr>
<tr>
<td>Menu Tree</td>
<td>38</td>
</tr>
<tr>
<td>IMAGE</td>
<td>GENERAL</td>
</tr>
<tr>
<td>IMAGE</td>
<td>ADVANCED</td>
</tr>
<tr>
<td>SCREEN</td>
<td>GENERAL</td>
</tr>
<tr>
<td>SCREEN</td>
<td>3D SETTINGS</td>
</tr>
<tr>
<td>SETTING</td>
<td>SIGNAL</td>
</tr>
<tr>
<td>SETTING</td>
<td>ADVANCED</td>
</tr>
<tr>
<td>SETTING</td>
<td>ADVANCED</td>
</tr>
<tr>
<td>SETTING</td>
<td>ADVANCED</td>
</tr>
<tr>
<td>OPTIONS</td>
<td>GENERAL</td>
</tr>
<tr>
<td>OPTIONS</td>
<td>LAMP SETTINGS</td>
</tr>
<tr>
<td>OPTIONS</td>
<td>INFORMATION</td>
</tr>
<tr>
<td>OPTIONS</td>
<td>ADVANCED</td>
</tr>
<tr>
<td>Appendices</td>
<td>78</td>
</tr>
<tr>
<td>Troubleshooting</td>
<td>78</td>
</tr>
<tr>
<td>Replacing the lamp</td>
<td>84</td>
</tr>
<tr>
<td>Cleaning procedure for the lens</td>
<td>86</td>
</tr>
<tr>
<td>Specifications</td>
<td>87</td>
</tr>
<tr>
<td>Compatibility Modes</td>
<td>91</td>
</tr>
<tr>
<td>VGA Analog</td>
<td>91</td>
</tr>
<tr>
<td>HDMI Digital</td>
<td>93</td>
</tr>
<tr>
<td>Ceiling Mount Installation</td>
<td>96</td>
</tr>
<tr>
<td>Cabinet Dimensions</td>
<td>97</td>
</tr>
<tr>
<td>Pin Assignments of D-Sub COMPUTER Input Connector</td>
<td>98</td>
</tr>
<tr>
<td>PC Control Codes and Cable Connection</td>
<td>99</td>
</tr>
<tr>
<td>Troubleshooting Check List</td>
<td>100</td>
</tr>
<tr>
<td>REGISTER YOUR PROJECTOR!</td>
<td>102</td>
</tr>
</tbody>
</table>
Precautions

Follow all warnings, precautions and maintenance as recommended in this user’s guide to maximize the life of your unit.

■ Warning- This projector will detect the life of the lamp itself. Please be sure to change the lamp when it shows warning messages.

■ Warning- Reset the “CLEAR LAMP HOURS” function from the on-screen display “OPTIONS | LAMP SETTINGS” menu after replacing the lamp module. Please see the page 73.

■ Warning- When switching the projector off, please ensure the cooling cycle has been completed before disconnecting power.

■ Warning- Turn on the projector first and then the signal sources.

■ Warning- When the lamp reaches the end of its life, it will burn out and may make a loud popping sound. If this happens, the projector will not turn back on until the lamp module has been replaced. To replace the lamp, follow the procedures listed under “Replacing the Lamp”.

Turkish RoHS information relevant for Turkish market EEE Yönetmeliğine Uygundur.

This device is not intended for use in the direct field of view at visual display workplaces. To avoid incommoding reflections at visual display workplaces this device must not be placed in the direct field of view.

High gain type screens are not optimal for use with this projector. The lower the screen gain (i.e., screen gain on the order of 1), the better the appearance of the projected image.
Usage Notice

Do:

- Turn off the product before cleaning.
- Use a soft cloth moistened with mild detergent to clean the display housing.
- Disconnect the power plug from AC outlet if the product is not being used for a long period of time.
- If the lens is soiled, use a commercially available cleaning cloth for lens.

Do not:

- Use abrasive cleaners, waxes or solvents to clean the unit.
- Use under the following conditions:
  - Extremely heat, cold or humidity.
  - In areas susceptible to excessive dust and dirt.
  - In direct sunlight.
  - Outdoors.
  - Move the projector by holding the cable cover.
  - Hang from the projector in a ceiling or wall mounted installation.
  - Apply excessively strong pressure against the lens.
  - Keep finger prints off the lens surface.
  - Bring the projector using the Security Lock Hunger
- Install and store in the following conditions:
  - In powerful magnetic fields.
  - In corrosive gas environment.
Introduction

Product Features

■ High resolution
   Full HD (1920 x 1080) support.

■ 0.5 W in standby condition with energy saving technology
   Selecting [NORMAL] for [STANDBY MODE] from the menu can put the projector in power-saving mode that consumes only 0.5 W.

■ Two HDMI input ports provide digital signal
   The two HDMI inputs provide HDCP compatible digital signals. The HDMI input also supports audio signal.

■ Quick Power Off, Direct Power Off
   The projector can be put away immediately after the projector is powered on. No cool down period is required after the projector is turned off from the remote control or cabinet control panel.
   The projector has a feature called “Direct Power Off”. This feature allows the projector to be turned off (even when projecting an image) by using the Main Power Switch or disconnecting the AC power supply. To turn off the AC power supply when the projector is powered on, use a power strip equipped with a switch and a breaker.

■ 8 W speaker for an integrated audio solution
   Powerful 8 watt stereo speakers provide volume need for large rooms.

■ 3D features supported
   The projector can support following format by DLP® Link.
   - HDMI 3D
   - HQFS 3D

■ Integrated RJ-45 connector for wired networking capability
   The customer can control the projector by own computer via Wired LAN.

■ Preventing unauthorized use of the projector
   Enhanced smart security settings for keyword protection, cabinet control panel lock, security slot, and security chain opening to help prevent unauthorized access, adjustments and theft deterrence.
Package Overview

This projector comes with all the items shown below. Check to make sure your unit is completed. Contact your dealer immediately if anything is missing.

- Projector
- Lens Cap (79TCB121)
- Remote Control (P/N: 7N901052)
- Batteries (AAAx2)
- Power Cord x1
- US (P/N: 79TC5021)
- EU (P/N: 79TC5031)
- Computer Cable (VGA) (P/N: 7N520087)
- Security Label

Note: Due to the difference in applications for each country, some regions may have different accessories.

Documentation:
- NEC Projector CD-ROM (P/N: 7N952172)
- Quick Setup Guide (P/N: 7N8N5831)
- Important Information (For North America: 7N8N5812)
- Important Information (For Other countries than North America: 7N8N5812 and 7N8N5822)

For North America:
- Limited Warranty

For Europe:
- Guarantee Policy
  For customers in Europe: You will find our current valid Guarantee Policy on our Web Site: www.nec-display-solutions.com
Introduction

Product Overview

Projector

1. Exhaust Vent
2. Focus Ring
3. Control Panel
4. Zoom Lever
5. Intake Vent
6. Security Lock Hunger
7. Remote Control Sensor
8. Lens
9. Tilt Foot
10. Lens Cap
11. Ports
12. Tilt Foot
13. Kensington™ Lock Port
14. Monaural Speaker (8W)
15. Lamp Cover
1. SERVICE Port (for service purpose only)
2. LAN Port (RJ-45)
3. HDMI 2 IN Port
4. HDMI 1/MHL IN or HDMI 1 Port
5. COMPUTER IN Port
6. MONITOR OUT Port (separate sync signal only)
7. PC CONTROL Port
8. VIDEO IN Port
9. AUDIO IN L/R Port
10. AUDIO IN Jack (3.5mm mini jack)
11. Kensington™ Lock Port
12. AUDIO OUT Port
13. AC IN Terminal
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VOLUME -</td>
<td>Decrease speaker volume.</td>
</tr>
<tr>
<td>2</td>
<td>Four Directional Select Keys</td>
<td>-Use ▲, ▼, ◀ or ▶ to select items or make adjustments to your selection. -Use as Quick Keys. Please see the page 13.</td>
</tr>
<tr>
<td>3</td>
<td>VOLUME +</td>
<td>Increase speaker volume.</td>
</tr>
<tr>
<td>4</td>
<td>LAMP LED</td>
<td>Indicate the projector’s lamp status.</td>
</tr>
<tr>
<td>5</td>
<td>STATUS LED</td>
<td>Indicate the projector’s various status.</td>
</tr>
<tr>
<td>6</td>
<td>POWER LED</td>
<td>Indicate the projector’s status.</td>
</tr>
<tr>
<td>7</td>
<td>POWER</td>
<td>Turn the projector on/off. Refer to the “Power On/Off the Projector” section on pages 29-30.</td>
</tr>
<tr>
<td>8</td>
<td>EXIT</td>
<td>Press to exit the OSD menu.</td>
</tr>
<tr>
<td>9</td>
<td>SOURCE</td>
<td>Press “SOURCE” to select an input signal.</td>
</tr>
<tr>
<td>10</td>
<td>MENU</td>
<td>Press “MENU” to launch the Onscreen display (OSD), back to the top level of OSD for the OSD main menu operation.</td>
</tr>
<tr>
<td>11</td>
<td>KEYSTONE Correction</td>
<td>Adjust the image to compensate for distortion caused by tilting the projector (vertical ± 40 degrees).</td>
</tr>
<tr>
<td>12</td>
<td>ENTER</td>
<td>Confirm your section of items in sub menu operation.</td>
</tr>
</tbody>
</table>

- For controlling the speaker volume, use ◀ or ▶.

NP-V332X, NP-332W, and NP-V302H also support horizontal keystone correction. Use ▼ button for adjusting horizontal keystone.
Remote Control

1  POWER ON
   Power on the projector. Please see the “Power On/Off the Projector” section on pages 29-30.

2  POWER OFF
   Power off the projector. Please see the “Power On/Off the Projector” section on pages 29-30.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>COMPUTER 1</td>
<td>Press “1” to choose Computer IN connector.</td>
</tr>
<tr>
<td>4</td>
<td>COMPUTER 2</td>
<td>No function.</td>
</tr>
<tr>
<td>5</td>
<td>HDMI 1</td>
<td>Press “4” to choose HDMI 1/ MHL IN connector (*1) or HDMI1 connector (*2).</td>
</tr>
<tr>
<td>6</td>
<td>VIDEO</td>
<td>Press “VIDEO” to choose VIDEO IN connector.</td>
</tr>
<tr>
<td>7</td>
<td>USB A</td>
<td>No function.</td>
</tr>
<tr>
<td>8</td>
<td>ID SET</td>
<td>Press ID SET for indicating the ID number.</td>
</tr>
<tr>
<td>9</td>
<td>AV-MUTE</td>
<td>Momentarily turn off/on the audio and video.</td>
</tr>
<tr>
<td>10</td>
<td>MENU</td>
<td>Press “MENU” to launch the Onscreen display (OSD), back to the top level of OSD for the OSD main menu operation</td>
</tr>
<tr>
<td>11</td>
<td>D-ZOOM</td>
<td>Zoom in/out the projected image.</td>
</tr>
<tr>
<td>12</td>
<td>KEYSTONE Correction</td>
<td>Adjust the image to compensate for distortion caused by tilting the projector.</td>
</tr>
<tr>
<td>13</td>
<td>ECO</td>
<td>Dim the projector lamp which will lower power consumption and extend the lamp life. Please see the page 72.</td>
</tr>
<tr>
<td>14</td>
<td>HELP</td>
<td>This function ensures easy setup and operation.</td>
</tr>
<tr>
<td>15</td>
<td>FOCUS/ ZOOM</td>
<td>No function.</td>
</tr>
<tr>
<td>16</td>
<td>SOURCE</td>
<td>Press “SOURCE” to select the desired input source.</td>
</tr>
<tr>
<td>17</td>
<td>AUTO ADJ.</td>
<td>Automatically synchronize the projector to the input source.</td>
</tr>
</tbody>
</table>

*1: Supported in NP-V332X, NP-V332W, and NP-V302H models.

*2: Supported in NP-V302X and NP-V302W models.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>HDMI 2</td>
<td>Press “5” to choose HDMI 2 IN connector.</td>
</tr>
<tr>
<td>19</td>
<td>DISPLAY PORT</td>
<td>No function.</td>
</tr>
<tr>
<td>20</td>
<td>USB B</td>
<td>No function.</td>
</tr>
<tr>
<td>21</td>
<td>Number Button</td>
<td>No function.</td>
</tr>
<tr>
<td>22</td>
<td>LAN</td>
<td>No function.</td>
</tr>
<tr>
<td>23</td>
<td>CLEAR</td>
<td>Clear the password while you input the password.</td>
</tr>
<tr>
<td>24</td>
<td>FREEZE</td>
<td>Freeze To pause the screen image. Press again to resume the screen image.</td>
</tr>
<tr>
<td>25</td>
<td>EXIT</td>
<td>Exit the settings.</td>
</tr>
<tr>
<td>26</td>
<td>ENTER</td>
<td>Confirm your section of items in sub menu operation.</td>
</tr>
<tr>
<td>27</td>
<td>Four Directional Select Buttons</td>
<td>- Use ▲ or ▼ or ◀ or ▶ button to select items or make adjustments to your selection. When the image is magnified by using the D-ZOOM + button, the ▲, ▼, ◀, or ▶ button moves the image. - Use as Quick Keys. Please see the page 13.</td>
</tr>
<tr>
<td>28</td>
<td>PAGE</td>
<td>No function.</td>
</tr>
<tr>
<td>29</td>
<td>PICTURE Mode</td>
<td>Select the Picture mode from PRESENTATION, HIGH-BRIGHT, VIDEO, MOVIE, sRGB, BLACKBOARD, USER1, and USER2.</td>
</tr>
<tr>
<td>30</td>
<td>VOL. +/-</td>
<td>Increase/decrease speaker volume.</td>
</tr>
<tr>
<td>31</td>
<td>ASPECT</td>
<td>Use this function to choose your desired aspect ratio. Please see the page 49.</td>
</tr>
</tbody>
</table>
Quick Key Activate Behavior

Quick keys are available when no OSD is displayed. The Quick Keys can be accessed on Control Panel or remote control (LTE). The behavior of the Quick Keys is as described in the following tables.

### NP-V302X/NP-V302W

<table>
<thead>
<tr>
<th>Quick Key</th>
<th>Function</th>
<th>Activate Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEFT (◄)/RIGHT (►)</td>
<td>Pop Volume OSD and allow user to adjust.</td>
<td>No OSD Display.</td>
</tr>
<tr>
<td>UP (▲)/DOWN (▼)</td>
<td>Pop Vertical Keystone OSD and allow user to adjust.</td>
<td></td>
</tr>
</tbody>
</table>

### NP-V332X/NP-V332W/NP-V302H

<table>
<thead>
<tr>
<th>Quick Key</th>
<th>Function</th>
<th>Activate Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEFT (◄)/RIGHT (►)</td>
<td>Pop Volume OSD and allow user to adjust.</td>
<td></td>
</tr>
<tr>
<td>UP (▲)</td>
<td>No function.</td>
<td>No OSD Display.</td>
</tr>
<tr>
<td>DOWN (▼)</td>
<td>Pop Horizontal + Vertical Keystone OSD allow user to choose adjust horizontal or vertical keystone. Use the ▼ button on the control panel or the KEYSTONE button on the remote control</td>
<td></td>
</tr>
</tbody>
</table>

... English
Battery Installation

1. Press firmly and slide the battery cover off.

2. Install new batteries (AAA). Ensure that you have the batteries’ polarity (+/-) aligned correctly.

3. Slip the cover back over the batteries until it snaps into place. Do not mix different types of batteries or new and old batteries.

Note

The infrared signal operates by line-of-sight up to a distance of about 22 feet/7 m and within a 60-degree angle of the remote sensor on the projector cabinet.

The projector will not respond if there are objects between the remote control and the sensor, or if strong light falls on the sensor. Weak batteries will also prevent the remote control from properly operating 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 place the battery upside down.
• Replace only with the same or equivalent type recommended by the manufacturer.
• Dispose of used batteries according to your local regulations.
Using the Downloadable Software

**Operating the Projector Via the LAN (Virtual Remote Tool)**

Using the utility software “Virtual Remote Tool” that you can download from our web site (http://www.nec-display.com/dl/en/index.html), Virtual Remote screen (or toolbar) can be displayed on your computer screen. This will help you perform operations such as projector’s power on or off and signal selection via a LAN connection.

![Virtual Remote screen](image1)

This section provides an outline of preparation for use of Virtual Remote Tool.

For information on how to use Virtual Remote Tool, see Help of Virtual Remote Tool. Please refer to page 19.

Step 1: Install Virtual Remote Tool on the computer. Please refer to page 16.

Step 2: Connect the projector to a LAN. Please refer to page 17.


**TIP:**

- Virtual Remote Tool can be used also with a serial connection.
- For update information on Virtual Remote Tool, visit our website: http://www.nec-display.com/dl/en/index.html
Introduction

Step 1: Install Virtual Remote Tool on the computer

• Supported OS

<table>
<thead>
<tr>
<th>Operating Systems</th>
</tr>
</thead>
</table>

*1: To run Virtual Remote Tool, “Microsoft .NET Framework Version 2.0” is required. The Microsoft .NET Framework Version is available from Microsoft’s web page. Install the Microsoft .NET Framework Version 2.0, 3.0 or 3.5 on your computer.

1 Download the updated VRT exe file from our web site (http://www.nec-display.com/dl/en/index.html).

2 Double-click the VRT. exe icon.

The Installer will start and the Wizard screen will appear.

3 Click “Next”.

“END USER LICENSE AGREEMENT” screen will be displayed.
Read “END USER LICENSE AGREEMENT” carefully.

4 If you agree, click “I accept the terms in the license agreement” and then click “Next”.

Follow the instructions on the installer screens to complete the installation.

After the installation is completed, the shortcut icon for Virtual Remote Tool.

**TIP: Uninstalling Virtual Remote Tool**

- **Preparation**
  
  Exit Virtual Remote Tool before uninstalling. To uninstall Virtual Remote Tool, the Windows user account must have “Administrator” privilege (Windows 8.1, Windows 8, Windows 7 and Windows Vista) or “Computer Administrator” privilege (Windows XP).

- **For Windows 8.1/Windows 8/Windows 7/Windows Vista**
  
  1. Click “Start” and then “Control Panel”. The Control Panel window will be displayed.
  2. Click “Uninstall a program” under “Programs”. The “Programs and Features” window will be displayed.
  3. Select Virtual Remote Tool and click it.
  4. Click “Uninstall/Change” or “Uninstall”. When the “User Account Control” window is displayed, click “Continue”. Follow the instructions on the screens to complete the uninstallation.

- **For Windows XP**
  
  1. Click “Start” and then “Control Panel”. The Control Panel window will be displayed.
  2. Double-click “Add / Remove Programs”. The Add / Remove Programs window will be displayed.
  3. Click Virtual Remote Tool from the list and then click “Remove”. Follow the instructions on the screens to complete the uninstallation.

**Step 2: Connect the projector to a LAN**

Connect the projector to the LAN by following the instructions in “Connecting the Projector” on pages 25-26 and “How to use web browser to control your projector” in pages 64-68.
Step 3: Start Virtual Remote Tool

Start using the shortcut icon

Start from the Start menu


When Virtual Remote Tool starts for the first time, “Easy Setup” window will be displayed.

The “Easy Setup” feature is not available on this model. Click “Close Easy Setup”.

Closing the “Easy Setup” window will display the “Projector List” window. Click “Close”. This will display the Virtual Remote screen. To connect the projector, register an IP address manually.

TIP:
- The Virtual Remote Tool screen (or Toolbar) can be displayed without displaying “Easy Setup” window. To do so, click to place a check mark for “Do not use Easy Setup next time” on the screen.
Exiting Virtual Remote Tool
1 Click the Virtual Remote Tool icon on the Taskbar. The pop-up menu will be displayed.

2 Click “Exit”. The Virtual Remote Tool will be closed.

Viewing the help file of Virtual Remote Tool
Displaying the help file using the taskbar
1 Click the Virtual Remote Tool icon on the taskbar when Virtual Remote Tool is running. The pop-up menu will be displayed.

2 Click “Help”. The Help screen will be displayed.

Displaying the help file using the Start Menu.
Click “Start” -> “All programs” or “Programs” -> “NEC Projector User Supportware” -> “Virtual Remote Tool Help” and then “Virtual Remote Tool Help” in this order. The Help screen will be displayed.
Controlling the Projector over a LAN
(PC Control Utility Pro 4 for Windows/PC Control Utility Pro 5 for Mac OS)

[Using on Windows]
Using the utility software “PC Control Utility Pro 4” that you can download from our web site
(http://www.nec-display.com/dl/en/index.html), the projector can be controlled from a computer over a LAN.

Control Functions
Power On/Off, signal selection, picture freeze, picture mute, audio mute, adjusting, error message notification, event schedule.

Screen of PC Control Utility Pro 4
This section provides an outline of preparation for use of PC Control Utility Pro 4. For information on how to use PC Control Utility Pro 4, see Help of PC Control Utility Pro 4.

• Step 1: Install PC Control Utility Pro 4 on the computer. Please see the page 21.
• Step 2: Connect the projector to a LAN. Please see the page 22.
• Step 3: Start PC Control Utility Pro 4. Please see the page 22.

TIP:
• PC Control Utility Pro 4 can be used also with a serial connection.
• For update information on PC Control Utility Pro 4, visit our website:
Step 1: Install PC Control Utility Pro 4 on the computer

- Supported OS - PC Control Utility Pro 4 will run on the following operating systems.

| Windows XP Home Edition *1, Windows XP Professional *1 |

*1: To run PC Control Utility Pro 4, “Microsoft .NET Framework Version 2.0” is required. The Microsoft .NET Framework Version is available from Microsoft’s web page. Install the Microsoft .NET Framework Version 2.0, 3.0 or 3.5 on your computer.

1 Connect your computer to the Internet and download the updated PCCUP4 exe file from our web site (http://www.nec-display.com/dl/en/index.html).

2 Double-click the PCCUP4.exe icon.

The Installer will start and the Wizard screen will appear.

3 Click “Next”.

“END USER LICENSE AGREEMENT” screen will be displayed.
Read “END USER LICENSE AGREEMENT” carefully.

If you agree, click “I accept the terms in the license agreement” and then click “Next”.

Follow the instructions on the installer screens to complete the installation.

TIP: Uninstalling PC Control Utility Pro 4

- To uninstall PC Control Utility Pro 4, do the same procedures stated as in “Uninstalling Virtual Remote Tool”. Read “Virtual Remote Tool” as “PC Control Utility Pro 4”

Step 2: Connect the projector to a LAN

Connect the projector to the LAN by following the instructions in “Connecting the Projector” on pages 25-26 and “How to use web browser to control your projector” in pages 64-65.

Step 3: Start PC Control Utility Pro 4

- Click “Start” -> “All programs” or “Programs” -> “NEC Projector User Supportware” -> “PC Control Utility Pro 4” -> “PC Control Utility Pro 4”.

TIP: Viewing the Help of PC Control Utility Pro 4

- Displaying the Help file of PC Control Utility Pro 4 while it is running. Click “Help (H)” -> “Help (H)” of window of PC Control Utility Pro 4 in this order.
  The pop-up menu will be displayed.
- Displaying the help file using the Start Menu. Click “Start” -> “All programs” or “Programs” -> “NEC Projector User Supportware” -> “PC Control Utility Pro 4” -> “PC Control Utility Pro 4 Help”.
  The Help screen will be displayed.

PC Control Utility Pro 5 for Mac OS

Step 1: Install PC Control Utility Pro 5 on the computer

1 Connect your computer to the Internet and visit our website (http://www.nec-display.com/dl/en/index.html).
2 Download the updated PC Control Utility Pro 5 from our website.
3 In Finder, control-click (“control” + click) or right click the PC Control Utility Pro 5.pkg.
4 Select “Open” from the top of contextual menu that appears.
Introduction

5 Click “Open” in the dialog box. If prompted, enter an administrator name and password.
The installer will start.
6 Click “Next”.
“END USER LICENSE AGREEMENT” screen will be displayed.
7 Read “END USER LICENSE AGREEMENT” and click “Next”.
The confirmation window will be displayed.
8 Click “I accept the terms in the license agreement”.
Follow the instructions on the installer screens to complete the installation.

Step 2: Connect the projector to a LAN
Connect the projector to the LAN by following the instructions in “Connecting the Projector”. Please see pages 25-26.

Step 3: Start PC Control Utility Pro 5
1. Open your Applications folder in Mac OS.
2. Click the “PC Control Utility Pro 5” folder.
3. Click the “PC Control Utility Pro 5” icon.
PC Control Utility Pro 5 will start.

TIP: Viewing the Help of PC Control Utility Pro 5
- Displaying the Help file of PC Control Utility Pro 5 while it is running.
- From the menu bar, click “Help” → “Help” in this order.
The Help screen will be displayed
- Displaying the Help using the Dock
  1. Open “Application Folder” in Mac OS.
  2. Click the “PC Control Utility Pro 5” folder.
  3. Click the “PC Control Utility Pro 5 Help” icon.
The Help screen will be displayed.

TIP: Uninstalling a software program
1. Put the “PC Control Utility Pro 5” folder to the Trash icon.
2. Put the configuration file of PC Control Utility Pro 5 to the Trash icon.
- The configuration file of PC Control Utility Pro 5 is located in “/Users/<your user name>/Application Data/NEC Projector User Supportware/PC Control Utility Pro 5”.

Note
- For the Schedule function of the PC Control utility Pro 5 to work, you must have your computer running and not in sleep mode. Select “Energy Saver” from the “System Preferences” in Mac and disable its sleep mode before running the scheduler.
- When [NORMAL] is selected for [STANDBY MODE] from the menu, the projector cannot be turned on via the network.
Viewing 3D Images

The projector provides 3D images to a user wearing commercially available LCD shutter eyeglasses.

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
</table>
| Health precautions  
Before viewing, be sure to read health care precautions that may be found in the user’s manual included with your LCD shutter eyeglasses or your 3D compatible content such as DVDs, video games, computer’s video files and the like.  
To avoid any adverse symptoms, heed the following:  
- Do not use LCD shutter eyeglasses for viewing any material other than 3D images.  
- Allow a distance of 2 m/7 feet or greater between the screen and a user. Viewing 3D images from too close a distance can strain your eyes.  
Avoid viewing 3D images for a prolonged period of time. Take a break of 15 minutes or longer after every hour of viewing.  
- If you or any member of your family has a history of light-sensitive seizures, consult a doctor before viewing 3D images.  
- While viewing 3D images, if you get sick such as nausea, dizziness, queasiness, headache, eyestrain, blurry vision, convulsions, and numbness, stop viewing them. If symptoms still persist, consult a doctor.  
- View 3D images from the front of the screen. Viewing from an angle may cause fatigue or eyestrain.  

LCD shutter eyeglasses  
- Use commercially available 3D eyeglasses which meet the following requirements:  
  - DLP® Link compatible  
  - Support vertical refresh rate up to 144 Hz.  

Steps for viewing 3D images on the projector  
1. Connect the projector to your video equipment.  
2. Turn on the projector, display the on-screen menu.  
3. Select [3D SETTINGS] from [SCREEN] tab and then select [ON] for [3D].  
   - Set for [3D INVERT] and [3D STRUCTURE] as necessary. Please see the page 51.  
4. Play your 3D compatible content and use the projector to display the image.  
5. Put on your LCD shutter eyeglasses to view 3D images.  
Also refer to the user’s manual accompanied with your LCD shutter eyeglasses for more information.
Connecting the Projector

Connect to Computer/Notebook

NP-V332X, NP-V332W, NP-V302H

Note

- Make sure that the power plug is fully inserted into both the projector AC IN terminal and the wall outlet.
- The MONITOR OUT connector supports Separate sync signal only.

1. Power cord (supplied)
2. HDMI cable
3. Computer cable (VGA) (supplied)
4. RS232 cable
5. Audio cable
6. Audio output cable
7. VGA output cable
8. RJ45 cable
1. Power cord (supplied)
2. HDMI cable
3. Computer cable (VGA) (supplied)
4. RS232 cable
5. Audio cable
6. Audio output cable
7. VGA output cable
8. RJ45 cable
Due to the difference in applications for each country, some regions may have different accessories.

When Deep Color is set to ON on your HDMI equipment, video or audio noise may be generated depending on the equipment or cable being used. Should this happen, set Deep Color to OFF (8 bit).

**Note**

- Make sure that the power plug is fully inserted into both the projector AC IN terminal and the wall outlet.

**Note**

- Due to the difference in applications for each country, some regions may have different accessories.

To the wall outlet

**Connect to Video Sources**

NP-V332X, NP-V332W, NP-V302H

1. Power cord (supplied)
2. HDMI cable*
3. 15-Pin to 3 RCA Component/HDTV Adaptor
4. Audio Cable/RCA
5. Audio Cable/RCA
6. Audio Cable/RCA
7. Composite video cable

*HDMI cable: Use High Speed HDMI® Cable.
1. Power cord (supplied)
2. HDMI cable*
3. 15-Pin to 3 RCA Component/HDTV Adaptor
4. Audio Cable/RCA
5. Audio Cable/RCA
6. Composite video cable

*HDMI cable: Use High Speed HDMI® Cable.
Powering On/Off the Projector

Powering On the Projector

1. Securely connect the power cord and signal cable. When connected, the POWER/STANDBY LED will turn Red or Orange (*).

2. Turn on the projector by pressing “POWER” on the remote control or \( \text{ } \) on the control panel. At this moment, the POWER/STANDBY LED will now turn Green. 

The startup screen will display in approximately 10 seconds. The first time you use the projector, you will be asked to select the preferred language and power saving mode.

3. Turn on your source (computer, notebook, video player, etc.) The projector will detect your source automatically.

If you connect multiple sources at the same time, press the “SOURCE” button on the control panel or direct source keys on the remote control to switch between inputs.

(*)When “Normal” is selected for “Standby Mode”, the Power LED indicator will turn red; when “Network standby” is selected for “Standby Mode”, the Power LED indicator will turn orange.

Turn on the projector first and then the signal sources.
Powering Off the Projector

1. Press the “POWER OFF” button on the remote control or the \( \text{\textbullet} \) button on the control panel to turn off the projector lamp, you will see a message as below on the on-screen display.

2. Press the “POWER OFF” button again to confirm.

3. Disconnect the power cord from the electrical outlet and the projector. If you disconnect the power cord while viewing the picture and connect the power cord again, wait for at least one second until you connect the power cord again.

\[ \text{Note} \]
While the POWER LED indicator is blinking green in short cycles, the power cannot be turned off by using the power button.
Warning Indicator

- When the “STATUS” LED indicator flashes red, it indicates the projector has overheated. The projector will automatically shut itself down.

<table>
<thead>
<tr>
<th>WARNING! TEMPERATURE TOO HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MAKE SURE AIR IN AND OUTLETS ARE NOT BLOCKED.</td>
</tr>
<tr>
<td>2. MAKE SURE THE ENVIRONMENT TEMPERATURE IS UNDER 40 DEGREE C</td>
</tr>
</tbody>
</table>

- When the “LAMP” LED indicator turns red and the message below displays on-screen, the projector has detected that the lamp is approaching its end of life. When you see this message, change the lamp as soon as possible.

<table>
<thead>
<tr>
<th>WARNING! LAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAMP WARNING</td>
</tr>
<tr>
<td>LAMP LIFE IS ABOVE LIMIT TIME. LAMP OFF!</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WARNING! LAMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAMP WARNING</td>
</tr>
<tr>
<td>LAMP LIFE EXCEEDED.</td>
</tr>
</tbody>
</table>

- When the “STATUS” LED indicator flashes red and the message below displays on-screen, it indicates the fan failed. Stop using the projector and disconnect the power cord from the electrical outlet, then contact your local dealer or our service center.

<table>
<thead>
<tr>
<th>WARNING! FAN LOCKED</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE PROJECTOR WILL SWITCH OFF AUTOMATICALLY.</td>
</tr>
</tbody>
</table>

For more information on STATUS LED indicator, please see the page 81-82.
Adjusting the Projected Image

Adjusting the Height of Projection Image

The projector is equipped with the tilt foot for adjusting the image height.

1. Press the tilt foot release button. ①
   Keep to press the tilt foot release button for raising or lowering the projector, then lock the button by releasing it. ②
2. Rotate the rear feet counter clockwise to raise the projector or clockwise to lower it. ③

Note:
Two tilt foot at the rear side will be screwed off if these are rotated too much.
Adjusting the Projector’s Focus

To focus the image, rotate the focus ring until the image is clear. To zoom the image, turn the zoom lever in or out.
Adjusting Projection Image Size (Diagonal)

Projection Image Size from 30” to 300” (0.76 to 7.62 meters).
Models: NP-V332X, NP-V302X

### Screen Size

<table>
<thead>
<tr>
<th>Diagonal (A)</th>
<th>Width</th>
<th>Height</th>
<th>(B)</th>
<th>(C)</th>
<th>D (WIDE)</th>
<th>α α</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 inch</td>
<td>762</td>
<td>24</td>
<td>610</td>
<td>18</td>
<td>457</td>
<td>12</td>
</tr>
<tr>
<td>40 inch</td>
<td>1016</td>
<td>32</td>
<td>813</td>
<td>24</td>
<td>610</td>
<td>16</td>
</tr>
<tr>
<td>60 inch</td>
<td>1524</td>
<td>48</td>
<td>1219</td>
<td>36</td>
<td>914</td>
<td>23</td>
</tr>
<tr>
<td>70 inch</td>
<td>1778</td>
<td>56</td>
<td>1422</td>
<td>42</td>
<td>1067</td>
<td>27</td>
</tr>
<tr>
<td>80 inch</td>
<td>2032</td>
<td>64</td>
<td>1626</td>
<td>48</td>
<td>1219</td>
<td>31</td>
</tr>
<tr>
<td>90 inch</td>
<td>2286</td>
<td>72</td>
<td>1829</td>
<td>54</td>
<td>1372</td>
<td>35</td>
</tr>
</tbody>
</table>

B = Vertical distance between lens center and screen center.
C = Throw distance.
D = Vertical distance between lens center and bottom of screen (top of screen for ceiling application).
α = Throw angle.
# Installation

## Screen Size

<table>
<thead>
<tr>
<th>Diagonal (A)</th>
<th>Width (B)</th>
<th>Height (C)</th>
<th>D (WIDE)</th>
<th>α α</th>
</tr>
</thead>
<tbody>
<tr>
<td>inch</td>
<td>mm</td>
<td>inch</td>
<td>mm</td>
<td>inch</td>
</tr>
<tr>
<td>100</td>
<td>2540</td>
<td>80</td>
<td>2032</td>
<td>60</td>
</tr>
<tr>
<td>120</td>
<td>3048</td>
<td>96</td>
<td>2438</td>
<td>72</td>
</tr>
<tr>
<td>150</td>
<td>3810</td>
<td>120</td>
<td>3048</td>
<td>90</td>
</tr>
<tr>
<td>180</td>
<td>4572</td>
<td>144</td>
<td>3658</td>
<td>108</td>
</tr>
<tr>
<td>200</td>
<td>5080</td>
<td>160</td>
<td>4064</td>
<td>120</td>
</tr>
<tr>
<td>240</td>
<td>6096</td>
<td>192</td>
<td>4877</td>
<td>144</td>
</tr>
<tr>
<td>270</td>
<td>6858</td>
<td>216</td>
<td>5486</td>
<td>162</td>
</tr>
<tr>
<td>300</td>
<td>7620</td>
<td>240</td>
<td>6096</td>
<td>180</td>
</tr>
</tbody>
</table>

* This table is for user’s reference only.
* The values in the tables are design values and may vary.

Projection Image Size from 30” to 300” (0.76 to 7.62 meters).
Models: NP-V332W, NP-V302W
## Installation

<table>
<thead>
<tr>
<th>Screen Size</th>
<th>(B)</th>
<th>(C)</th>
<th>D (WIDE)</th>
<th>αα</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Width</td>
<td>Height</td>
<td>Wide</td>
<td>Tele</td>
</tr>
<tr>
<td>Diagonal (A)</td>
<td>inch</td>
<td>mm</td>
<td>inch</td>
<td>mm</td>
</tr>
<tr>
<td>240</td>
<td>6096</td>
<td>204</td>
<td>5169</td>
<td>127</td>
</tr>
<tr>
<td>270</td>
<td>6858</td>
<td>229</td>
<td>5816</td>
<td>143</td>
</tr>
<tr>
<td>300</td>
<td>7620</td>
<td>254</td>
<td>6462</td>
<td>159</td>
</tr>
</tbody>
</table>

* This table is for user’s reference only.
* The values in the tables are design values and may vary.

Projection Image Size from 40” to 300” (1.02 to 7.62 meters).
Model: NP-V302H

<table>
<thead>
<tr>
<th>Screen Size</th>
<th>(B)</th>
<th>(C)</th>
<th>D (WIDE)</th>
<th>αα</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Width</td>
<td>Height</td>
<td>Wide</td>
<td>Tele</td>
</tr>
<tr>
<td>Diagonal (A)</td>
<td>inch</td>
<td>mm</td>
<td>inch</td>
<td>mm</td>
</tr>
<tr>
<td>40</td>
<td>1016</td>
<td>35</td>
<td>886</td>
<td>20</td>
</tr>
<tr>
<td>60</td>
<td>1524</td>
<td>52</td>
<td>1328</td>
<td>29</td>
</tr>
<tr>
<td>70</td>
<td>1778</td>
<td>61</td>
<td>1550</td>
<td>34</td>
</tr>
<tr>
<td>80</td>
<td>2032</td>
<td>70</td>
<td>1771</td>
<td>39</td>
</tr>
<tr>
<td>90</td>
<td>2286</td>
<td>78</td>
<td>1992</td>
<td>44</td>
</tr>
<tr>
<td>100</td>
<td>2540</td>
<td>87</td>
<td>2214</td>
<td>49</td>
</tr>
<tr>
<td>120</td>
<td>3048</td>
<td>105</td>
<td>2657</td>
<td>59</td>
</tr>
<tr>
<td>150</td>
<td>3810</td>
<td>131</td>
<td>3321</td>
<td>74</td>
</tr>
<tr>
<td>180</td>
<td>4572</td>
<td>157</td>
<td>3985</td>
<td>88</td>
</tr>
<tr>
<td>200</td>
<td>5080</td>
<td>174</td>
<td>4428</td>
<td>98</td>
</tr>
<tr>
<td>240</td>
<td>6096</td>
<td>209</td>
<td>5313</td>
<td>118</td>
</tr>
<tr>
<td>270</td>
<td>6858</td>
<td>235</td>
<td>5977</td>
<td>132</td>
</tr>
<tr>
<td>300</td>
<td>7620</td>
<td>261</td>
<td>6641</td>
<td>147</td>
</tr>
</tbody>
</table>

* This table is for user’s reference only.
* The values in the tables are design values and may vary.
User Controls

On Screen Display

The Projector has a multilingual On Screen Display that allows you to make image adjustments and change a variety of settings.

How to operate

1. To open the OSD, press the MENU button on the Remote Control.
2. When OSD is displayed, use the buttons to select any item in the main menu. While making a selection on a particular page, press the button to enter sub menu.
3. Use the buttons to select the desired item in the sub menu and adjust the settings by using the or button.
4. Select the desired item in the sub menu and press the ENTER button to enter another sub menu. Press the MENU button to close the sub menu after adjustment.
5. After adjusting the settings, press the MENU or EXIT button go back to the main menu.
6. To exit, press the MENU button again. The OSD will be closed and the projector will automatically save the new settings.

If no button operation is made for 30 seconds, the OSD will be closed automatically.

![Diagram of On Screen Display menu structure]
## User Controls

### Menu Tree

<table>
<thead>
<tr>
<th>MAIN MENU</th>
<th>SUB MENU</th>
<th>SETTINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENERAL</strong></td>
<td>PICTURE MODE</td>
<td>PRESENTATION/HIGH-BRIGHT/VIDEO/ MOVIE/RGB/BLACKBOARD/USER1/ USER2</td>
</tr>
<tr>
<td></td>
<td>WALL COLOR</td>
<td>OFF/RED/GREEN/BLUE/CYAN/ MAGENTA/YELLOW</td>
</tr>
<tr>
<td></td>
<td>BRIGHTNESS</td>
<td>0~100</td>
</tr>
<tr>
<td></td>
<td>CONTRAST</td>
<td>0~100</td>
</tr>
<tr>
<td></td>
<td>SHARPNESS</td>
<td>0~31</td>
</tr>
<tr>
<td></td>
<td>SATURATION</td>
<td>DEPEND ON SOURCE FORMAT</td>
</tr>
<tr>
<td></td>
<td>HUE</td>
<td>DEPEND ON SOURCE FORMAT</td>
</tr>
<tr>
<td><strong>IMAGE</strong></td>
<td>GAMMA</td>
<td>FILM/VIDEO/GRAPHICS/PC/ BLACKBOARD</td>
</tr>
<tr>
<td></td>
<td>BRILLIANTCOLOR™</td>
<td>0~10</td>
</tr>
<tr>
<td><strong>ADVANCED</strong></td>
<td>COLOR TEMP.</td>
<td>LOW/MEDIUM/HIGH</td>
</tr>
<tr>
<td></td>
<td>DYNAMIC CONTRAST</td>
<td>ON/OFF</td>
</tr>
<tr>
<td></td>
<td>COLOR</td>
<td>RED GAIN/GREEN GAIN/BLUE GAIN/ CYAN GAIN/MAGENTA GAIN/YELLOW GAIN/RED BIAS/GREEN BIAS/BLUE BIAS/RESET</td>
</tr>
<tr>
<td></td>
<td>COLOR SPACE</td>
<td>AUTO/RGB/YUV</td>
</tr>
<tr>
<td><strong>SCREEN</strong></td>
<td>ASPECT RATIO</td>
<td>4:3/16:9/16:10/15:9/5:4/NATIVE/AUTO</td>
</tr>
<tr>
<td></td>
<td>OVERSCAN</td>
<td>0%/5%/10%</td>
</tr>
<tr>
<td></td>
<td>V KEYSTONE</td>
<td>-30~+30 (NP-V302H, NP-V332W, and NP-V332X)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-40~+40 (NP-V302W, NP-V302X)</td>
</tr>
<tr>
<td><strong>3D SETTINGS</strong></td>
<td>3D</td>
<td>ON/OFF</td>
</tr>
<tr>
<td></td>
<td>3D INVERT</td>
<td>ON/OFF</td>
</tr>
<tr>
<td></td>
<td>3D STRUCTURE</td>
<td>AUTO/FRAME PACKING/TOP-AND-BOTTOM/SIDE-BY-SIDE/FRAME SEQUENTIAL</td>
</tr>
<tr>
<td>MAIN MENU</td>
<td>SUB MENU</td>
<td>SETTINGS</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>ORIENTATION</td>
<td>DESKTOP FRONT/DESKTOP REAR/CEILING FRONT/CEILING REAR</td>
</tr>
<tr>
<td></td>
<td>HDMI SETTINGS</td>
<td>(NP-V302H, NP-V332W, and NP-V332X) - VIDEO LEVEL (AUTO/NORMAL/ENHANCED)/ AUDIO SELECT (HDMI1 and MHL/COMPUTER), OR HDMI2/COMPUTER (NP-V302W and NP-V302X) - VIDEO LEVEL (AUTO/NORMAL/ENHANCED)/ AUDIO SELECT (HDMI1/COMPUTER), OR HDMI2/COMPUTER</td>
</tr>
<tr>
<td></td>
<td>MUTE</td>
<td>ON/OFF</td>
</tr>
<tr>
<td></td>
<td>VOLUME</td>
<td>0~20</td>
</tr>
<tr>
<td></td>
<td>SIGNAL</td>
<td>DEPEND ON SOURCE FORMAT</td>
</tr>
<tr>
<td></td>
<td>PHASE</td>
<td>DEPEND ON SOURCE FORMAT</td>
</tr>
<tr>
<td></td>
<td>CLOCK</td>
<td>DEPEND ON SOURCE FORMAT</td>
</tr>
<tr>
<td></td>
<td>H.POSITION</td>
<td>DEPEND ON SOURCE FORMAT</td>
</tr>
<tr>
<td></td>
<td>V.POSITION</td>
<td>DEPEND ON SOURCE FORMAT</td>
</tr>
<tr>
<td></td>
<td>ADVANCED</td>
<td>ON/OFF</td>
</tr>
<tr>
<td></td>
<td>LOGO</td>
<td>NETWORK STATUS/DHCP/IP ADDRESS/SUBNET MASK/GATEWAY/APPLY</td>
</tr>
<tr>
<td></td>
<td>CLOSED CAPTION</td>
<td>OFF/CC1/CC2/CC3/CC4/T1/T2/T3/T4</td>
</tr>
<tr>
<td></td>
<td>SECURITY</td>
<td>SECURITY/SECURITY TIMER/CHANGE PASSWORD</td>
</tr>
<tr>
<td></td>
<td>TEST PATTERN</td>
<td></td>
</tr>
</tbody>
</table>
## User Controls

<table>
<thead>
<tr>
<th>MAIN MENU</th>
<th>SUB MENU</th>
<th>SETTINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>INPUT SEARCH</td>
<td>ON/OFF</td>
</tr>
<tr>
<td></td>
<td>INPUT</td>
<td>(NP-V302H, NP-V332W, and NP-V332X) - COMPUTER/HDMI1 and MHL/HDMI2, VIDEO (NP-V302W and NP-V302X) - COMPUTER/HDMI1/HDMI2, VIDEO</td>
</tr>
<tr>
<td></td>
<td>FAN MODE</td>
<td>AUTO/HIGH ALTITUDE</td>
</tr>
<tr>
<td></td>
<td>INFORMATION HIDE</td>
<td>ON/OFF</td>
</tr>
<tr>
<td></td>
<td>ID DISPLAY</td>
<td>ON/OFF</td>
</tr>
<tr>
<td></td>
<td>BACKGROUND COLOR</td>
<td>BLACK/BLUE</td>
</tr>
<tr>
<td></td>
<td>RESET</td>
<td>YES/NO</td>
</tr>
</tbody>
</table>

## GENERAL

| LAMP SETTINGS | LAMP LIFE REMAINING |
|               | LAMP HOURS USED     |
|               | ECO MODE            | OFF/ECO |
|               | LAMP LIFE REMINDER  | ON/OFF |
|               | CLEAR LAMP HOURS    | YES/NO |

## OPTIONS

<table>
<thead>
<tr>
<th>INFORMATION</th>
<th>MODEL NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SERIAL NUMBER</td>
</tr>
<tr>
<td></td>
<td>SOURCE</td>
</tr>
<tr>
<td></td>
<td>RESOLUTION</td>
</tr>
<tr>
<td></td>
<td>SOFTWARE VERSION</td>
</tr>
<tr>
<td></td>
<td>CONTROL ID</td>
</tr>
</tbody>
</table>

## ADVANCED

<table>
<thead>
<tr>
<th>ADVANCED</th>
<th>STANDBY MODE</th>
<th>NORMAL/NETWORK STANDBY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DIRECT POWER ON</td>
<td>ON/OFF</td>
</tr>
<tr>
<td></td>
<td>AUTO POWER OFF (MIN)</td>
<td>0~180</td>
</tr>
<tr>
<td></td>
<td>OFF TIMER (MIN)</td>
<td>0~995</td>
</tr>
<tr>
<td></td>
<td>CONTROL PANEL LOCK</td>
<td>ON/OFF</td>
</tr>
<tr>
<td></td>
<td>CONTROL ID</td>
<td></td>
</tr>
</tbody>
</table>
**User Controls**

**IMAGE | GENERAL**

**PICTURE MODE**

There are many factory presets optimized for various types of images. Use the ◄ or ► button to select the item.

- **PRESENTATION**: For computer or notebook.
- **HIGH-BRIGHT**: Maximum brightness from PC input.
- **VIDEO**: This mode is recommended for typical TV program viewing.
- **MOVIE**: For home theater.
- **sRGB**: Standardized accurate color.
- **BLACKBOARD**: This mode should be selected to achieve optimum color settings when projecting onto a blackboard (green).
- **USER1/USER2**: Memorize user’s settings.

---

**PICTURE MODE**

- PRESENTATION
- HIGH-BRIGHT
- VIDEO
- MOVIE
- sRGB
- BLACKBOARD
- USER1
- USER2
**User Controls**

---

**WALL COLOR**

Use this function to choose a proper color according to the wall. It will compensate the color deviation due to the wall color to show the correct image tone.

![WALL COLOR menu](image)

---

**BRIGHTNESS**

Adjust the brightness of the image.

- Press the button to darken image.
- Press the button to lighten the image.

![BRIGHTNESS control](image)

---

**CONTRAST**

The contrast controls the degree of difference between the lightest and darkest parts of the picture. Adjusting the contrast changes the amount of black and white in the image.

- Press the button to decrease the contrast.
- Press the button to increase the contrast.

![CONTRAST control](image)
**User Controls**

---

**SHARPNESS**
Adjust the sharpness of the image.
- Press the button to decrease the sharpness.
- Press the button to increase the sharpness.

---

**SATURATION**
Adjust a video image from black and white to fully saturated color.
- Press the button to decrease the amount of saturation in the image.
- Press the button to increase the amount of saturation in the image.

---

**HUE**
Adjust the color balance of red and green.
- Press the button to increase the amount of green in the image.
- Press the button to increase the amount of red in the image.

---

**Input signal**

<table>
<thead>
<tr>
<th>Input signal</th>
<th>BRIGHTNESS</th>
<th>CONTRAST</th>
<th>SHARPNESS</th>
<th>SATURATION</th>
<th>HUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPUTER/ HDMI (RGB)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>COMPUTER/ HDMI (COMPONENT)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>VIDEO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

*Yes=Adjustable, No=Not adjustable*
**User Controls**

**IMAGE | ADVANCED**

---

### GAMMA

This allows you to choose a gamma table that has been fine-tuned to bring out the best image quality for the input.

- **FILM**: for home theater.
- **VIDEO**: for video or TV source.
- **GRAPHICS**: for image source.
- **PC**: for PC or computer source.
- **BLACKBOARD**: for displaying on the blackboard.

---

**Note**

- The Color Temp is not available when “HIGH-BRIGHT” or “sRGB” is selected for “PICTURE MODE”.

---
**BrilliantColor™**
This adjustable item utilizes a new color-processing algorithm and system level enhancements to enable higher brightness while providing true, more vibrant colors. The range is from “0” to “10”. If you prefer a stronger enhanced image, adjust toward the maximum setting. For a smoother, more natural image, adjust toward the minimum setting.

**COLOR TEMP.**
Adjust the color temperature. At higher temperature, the screen looks colder; at lower temperature, the screen looks warmer.

**DYNAMIC CONTRAST**
Turning this item on allows the contrast ratio to be adjusted to the proper level.
COLOR
Press ENTER into the next menu as below and then use the ▲ or ▼ button to select item.

- RED GAIN

- GREEN GAIN

- BLUE GAIN

- CYAN GAIN
User Controls

- **MAGENTA GAIN**

- **YELLOW GAIN**

- **RED BIAS**

- **GREEN BIAS**

- **BLUE BIAS:**

  - Use the ◀ or ▶ button to select RED, GREEN, BLUE, CYAN, MAGENTA AND YELLOW COLORS.
User Controls

- **RESET**: Choose “YES” to return the factory default settings for color adjustments.

```
RESET

- NO
- YES

ENTER    EXIT
```

**COLOR SPACE**
Select an appropriate color matrix type from AUTO, RGB or YUV.

```
COLOR SPACE

- AUTO
- RGB
- YUV

ENTER    EXIT
```
### ASPECT RATIO

Use this function to choose your desired aspect ratio.

- **4:3**: This format is for 4×3 input sources.
- **16:9**: This format is for 16×9 input sources, like HDTV and DVD enhanced for Wide screen TV.
- **16:10**: This format is for 16×10 input sources, like widescreen laptops.
- **15:9**: This format is for 15×9 input sources.
- **5:4**: This format is for 5×4 input sources.
- **NATIVE**: This format displays the original image without any scaling.
- **AUTO**: Automatically selects the appropriate display format.
**User Controls**

---

**OVERSCAN**
Overscan function removes the noise in a video image. Overscan the image to remove video encoding noise on the edge of video source.

![OVERSCAN](image)

- Each I/O has different setting of “OVERSCAN”.

---

**KEYSTONE (NP-V332W, NP-V332X, NP-V302H)**
Press the ◀ or ▶ button to adjust image distortion vertically (V Keystone) or horizontally (H Keystone).

![KEYSTONE](image)

- Please see more information on Keystone and Quick Keys on page 13.

---

**V KEYSTONE (NP-V302X, NP-V302W)**
Press the ◀ or ▶ button to adjust image distortion vertically. If the image looks trapezoidal, this option can help make the image rectangular.

![V KEYSTONE](image)
SCREEN | 3D SETTINGS

**Note**

- “3D INVERT” and “3D STRUCTURE” only available when 3D is enabled.
- Compatible 3D source, 3D content and active shutter glasses are required for 3D viewing.

---

**3D**

Choose “ON” to turn this item on for 3D images. (default: OFF)

---

**3D INVERT**

- Choose “ON” to invert left and right frame contents.
- Choose “OFF” for default frame contents.
3D STRUCTURE
Adjust the 3D format to display 3D content correctly.

**TIP:** 3D supported signal

- For PC Signal:
  - 1024x768@60/120Hz
  - 1280x720@60Hz
  - 1280x800@60/120Hz
  - 1920x1080@60Hz
- For Video Signal:
  - 480i@60Hz
- For HDMI Signal:
  - 720p (Frame Packing) 1280 x 720@50/60/59.94
  - 1080p (Frame Packing) 1920 x 1080@23.98/24
  - 720p (Top and Bottom) 1280 x 720@50/60/59.94* (*Select manually)
  - 1080p (Top and Bottom) 1920 x 1080@23.98/24
  - 1080i (Side by Side (Half)) 1920 x 1080@50/60/59.94* (*Select manually)
User Controls

SETTING | GENERAL

LANGUAGE
Choose the multilingual OSD menu. Press the ◄ or ► button into the sub menu and then use the ▲ or ▼ button to select your preferred language. Press ENTER to finalize the selection.

ORIENTATION

- DESKTOP FRONT:
  When selected, the image is projected straight on the screen.

- DESKTOP REAR:
  When selected, the image will appear reversed.
User Controls

- **CEILING FRONT:**
  
  When selected, the image will turn upside down.

- **CEILING REAR**

  This is the default selection. The image will appear reversed in upside down position.

**ORIENTATION**

- DESKTOP FRONT
- DESKTOP REAR
- CEILING FRONT
- CEILING REAR

- **HDMI SETTINGS**

  Use this feature to set HDMI1/MHL or HDMI2

**VIDEO LEVEL:**

Select “AUTO” to automatically detect video level. If automatic detection may not work well, select “NORMAL” to disable the “ENHANCED” feature of your HDMI equipment or select “ENHANCED” to improve image contrast and increase detail in the dark areas.
User Controls

- AUDIO SELECT: Use this function to select the audio source from “HDMI1/MHL”, “HDMI2” or “COMPUTER”.

- MUTE
  - Choose “ON” to turn mute on.
  - Choose “OFF” to turn mute off.

- VOLUME
  - Press the button to decrease the volume.
  - Press the button to increase the volume.
**User Controls**

**SETTING | SIGNAL**

*Note*

- “SIGNAL” is only supported in Analog VGA (RGB) signal.

**PHASE**

Synchronize the signal timing of the display with the graphic card. If the image appears to be unstable or flickers, use this function to correct it.

**CLOCK**

Change the display data frequency to match the frequency of your computer’s graphic card. Use this function only if the image appears to flicker vertically.
**User Controls**

---

**H. POSITION**
- Press the **button to move the image left.**
- Press the **button to move the image right.**

---

**V. POSITION**
- Press the **button to move the image down.**
- Press the **button to move the image up.**
User Controls

SETTING | ADVANCED

LOGO
Use this function to display the startup screen (NEC logo).
- ON: Displays the NEC logo.
- OFF: Not display the NEC logo.

NETWORK
Please see the pages 64-68.

CLOSED CAPTION
Use this function to enable closed caption and activate the closed caption menu. Select an appropriate closed captions option: OFF, CC1, CC2, CC3, CC4, T1, T2, T3 and T4.
User Controls

SECURITY

- OFF: Choose “OFF” to be able to switch on the projector without password verification.
- ON: Choose “ON” to use security verification when turning on the projector.

**First Time:**
1. The default password: ▲▼▼▼▼
2. Use the remote to enter your password, and then press ENTER to confirm your password.

The available test pattern is GRID.

TEST PATTERN

Press ENTER to make the selection. Then press MENU or EXIT to close the sub menu.
User Controls

SETTING | ADVANCED | SECURITY

SECURITY TIMER
Use this function to set how long (MONTH/DAY/HOUR) the projector can be used. Once this time has elapsed you will be requested to enter your password again.

The “SECURITY TIMER” will restart to count down when the projector is turned off and then turned back on.

CHANGE PASSWORD
1. Press ENTER to enter SECURITY KEYWORD setting.
2. The password has to be combination of , , direction keys and must include 4 to 10 characters.
   - Current password
3. Use number buttons on the remote control, to enter your old password and then press ENTER to confirm your password.
   - Input new password

The default password is (first time).
4. Use direction keys, to enter your new password and then press ENTER to confirm your password.
   - Confirm new password

5. Enter the new password again and press ENTER to confirm.
   - If the incorrect password is entered 3 times, the projector will automatically shut down. (When turn on the projector.)
   - If you have forgotten your password, please contact your local office for support.
**NETWORK STATUS**
Display the network connection status. (default: DISCONNECT)

**DHCP**
Use this function to select your desired startup screen. If you change the setting from one to another, when you exit the OSD menu, the new setting will take effect on next open.

- **ON**: Assign an IP address to the projector from an external DHCP server automatically.
- **OFF**: Assign an IP address manually.

**IP ADDRESS**
Select an IP address.
### SUBNET MASK
Select subnet mask number.

<table>
<thead>
<tr>
<th>SUBNET MASK</th>
</tr>
</thead>
<tbody>
<tr>
<td>255 . 255 . 255 . 0</td>
</tr>
</tbody>
</table>

**USER KEYS**
- ENTER : SELECT
- EXIT : EXIT
- ADJUST : ADJUST
- MOVE : MOVE

### GATEWAY
Select the default gateway of the network connected to the projector.

<table>
<thead>
<tr>
<th>GATEWAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>192 . 168 . 0 . 1</td>
</tr>
</tbody>
</table>

**USER KEYS**
- ENTER : SELECT
- EXIT : EXIT
- ADJUST : ADJUST
- MOVE : MOVE

### APPLY
Press ENTER to apply the selection.
How to use web browser to control your projector

1. Turn on DHCP to allow the DHCP server to automatically assign an IP, or manually enter the required network information.

2. Then choose apply and press ENTER button to complete the configuration process.

3. Open your web browser and type in from the OSD LAN screen then the web page will display as below:

- **When you used the projector IP address, you can not link to your service server.**
- **PJLink**: Set a password for 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.
- **AMX BEACON**: Turn on or off for detection from AMX Device Discovery when connecting to the network supported by AMX's NetLinx control system.
- **CRESTRON ROOM-VIEW compatibility**: The projector supports CRESTRON ROOMVIEW, allowing multiple devices connected in the network to be managed and controlled from a computer or a controller. For more information, visit [http://www.crestron.com](http://www.crestron.com)
4. Open “Projector Status and Control” to control your projector.

When making a direct connection from your computer to the projector
Step 1: Find an IP Address (default:192.168.0.10) from LAN function of projector.

Step 2: Select apply and press the ENTER button on the remote control or the control panel to submit function or press the MENU button on the remote control or the control panel to exit.

Step 3: To open Network Connections, click Start, click Control Panel, click Network and Internet Connections, and then click Network Connections. Click the connection you want to configure, and then, under Network Tasks , click Change settings of this connection.
Step 4: On the **General** tab, under **This connection uses the following items**, click **Internet Protocol (TCP/IP)**, and then click “Properties.”

![Image of Internet Protocol settings](Image)

Step 5: Click **Use the following IP address**, and type in as below:
1) **IP address**: 192.168.0.20
2) **Subnet mask**: 255.255.255.0
3) **Default gateway**: 192.168.0.1

![Image of IP settings](Image)

Step 6: To open Internet Options, click IE web browser, click Internet Options, click the **Connections** tab and click “LAN Settings…”
Step 7: The **Local Area Network (LAN) Setting** dialog box appears, In the **Proxy Server area**, cancel the **Use a proxy server for your LAN check box**, then click “OK” button twice.

Step 8: Open your IE and type in the IP address of 192.168.0.10 in the URL then press the ENTER button key.
Step 9: Open “Projector Status and Control” to control your projector.
**OPTIONS | GENERAL**

**INPUT SEARCH**
- **ON**: The projector will search for other signals if the current input signal is lost.
- **OFF**: The projector will only search current input connection.

**INPUT**
Use this option to enable / disable input sources. Press ENTER to enter the sub menu and select which sources you require. Press the ENTER button to finalize the selection. The projector will not search for inputs that are not selected.

**NP-V332X, NP-V332W, NP-V302H**
User Controls

NP-V302X, NP-302W

**FAN MODE**

- **AUTO**: The built-in fans automatically run at a variable speed according to the internal temperature.
- **HIGH ALTITUDE**: The built-in fans run at high speed. Select this option when using the projector at altitudes approximately 2500 feet/760 meters or higher.

**INFORMATION HIDE**

- **ON**: Choose “ON” to hide the info message.
- **OFF**: Choose “OFF” to show the “SEARCHING” message.

**ID DISPLAY**

Use this feature to display the ID number which is displayed when the "ID SET" button is pressed on the remote control.
User Controls

BACKGROUND COLOR

Use this feature to display a “BLACK” or “BLUE” screen when no signal is available.

RESET

Choose “YES” to return the display parameters on all menus to the factory default settings.

Note: Except “LANGUAGE”, “LOGO”, “NETWORK”, “SECURITY”, “FAN MODE”, “BACKGROUND COLOR”, “LAMP LIFE REMAINING”, “LAMP HOURS USED”, and “STANDBY MODE”.

(*)
OPTIONS | LAMP SETTINGS

**LAMP LIFE REMAINING**
Showing the Lamp life.

**LAMP HOURS USED**
Display the projection time.

**ECO MODE**
Choose “ECO” to dim the projector lamp which will lower power consumption and extend the lamp life. Choose “OFF” to return to normal mode.
**User Controls**

**LAMP LIFE REMINDER**
Choose this function to show or to hide the warning message when the changing lamp message is displayed. The message will appear when the lamp has reached the end of its life.

![LAMP LIFE REMINDER](image)

**CLEAR LAMP HOURS**
Reset the lamp hour counter after replacing the lamp.
### INFORMATION

To display the projector information for model no., serial number, source, resolution, and software version on the screen.
**User Controls**

**OPTIONS | ADVANCED**

**STANDBY MODE**
- NETWORK STANDBY: Choose “NETWORK STANDBY” to save power dissipation further < 0.5W.
- NORMAL: Choose “NORMAL” to return to normal standby.

**DIRECT POWER ON**
Choose “ON” to activate Direct Power mode. The projector will automatically power on when AC power is supplied, without pressing the button on the projector control panel or the POWER ON button on the remote control.
**User Controls**

**AUTO POWER OFF (MIN)**
Sets the countdown timer interval. The countdown timer will start, when there is no signal being sent to the projector. The projector will automatically power off when the countdown has finished (in minutes).

![AUTO POWER OFF (MIN)](image)

**OFF TIMER (MIN)**
Sets the countdown timer interval. The countdown timer will start, with or without a signal being sent to the projector. The projector will automatically power off when the countdown has finished (in minutes).

![OFF TIMER (MIN)](image)

**CONTROL PANEL LOCK**
When the keypad lock function is “ON”, the control panel will be locked however, the projector can be operated by the remote control. By selecting “OFF”, you will be able to reuse the control panel. Press and hold the EXIT button on the projector cabinet for about 10 seconds to turn off “CONTROL PANEL LOCK”.

Even when “NORMAL” mode is selected for “STANDBY MODE” and “ON” is selected for “CONTROL PANEL LOCK”, the POWER button on the cabinet can be used to turn on the power.

![CONTROL PANEL LOCK](image)
CONTROL ID

Use this feature to display the ID number of the projector when the "ID SET" button is pressed on the remote control.

CONTROL ID NUMBER

CONTROL ID NUMBER

CONTROL ID (ACTIVE)

CONTROL ID

CONTROL ID WILL BE ENABLED

ARE YOU SURE?

YES NO

CONTROL ID

CONTROL ID IS DISABLED!
Troubleshooting

If you experience trouble with the projector, refer to the following information. If the problem persists, please contact your local dealer or service center.

Problem: No image appears on screen

- Ensure all the cables and power connections are correctly and securely connected as described in the “Installation” section.
- Ensure the pins of connectors are not crooked or broken.
- Check if the projection lamp has been securely installed. Please refer to the “Replacing the lamp” section.
- Make sure the projector is switched on.
- Ensure that the “AV-MUTE” feature is not turned on.

Problem: Partial, scrolling or incorrectly displayed image

- Press “AUTO ADJ.” on the remote control.
- If you are using a PC:
  For Windows Vista:
  1. From the “My Computer” icon, open the “Control Panel” folder, and double click the “Appearance and Personalization”
  2. Select “Personalization”
  3. Click “Adjust screen resolution” to display “Display Settings”.
     Click on the “Advanced Settings”.
  For Windows 7:
  1. From “Start” menu, open “Control Panel”.
  2. From drop-down menu select “Display”.
  3. Click “Adjust resolution”.

If the projector is still not projecting the whole image, you will also need to change the monitor display you are using. Refer to the following steps.

4. Verify the resolution setting is less than or equal to 1280 x 1024 resolution.
5. Select the “Change” under the “Monitor” tab.

6. Click on “Show all devices”. Next, select “Standard monitor types” under the SP box; choose the resolution mode you need under the “Models” box.

- If you are using a Notebook:
  1. First, follow the steps above to adjust resolution of the computer.
  2. Press the toggle output settings. 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 gets the external display to come on or off. For example, NEC notebook PCs use Fn + F3, While Dell notebook PCs use Fn + F8 key combination to toggle through external display selection.

- If you experience difficulty changing resolutions or your monitor freezes, restart all equipment including the projector.

**Problem: The screen of the Notebook or PowerBook computer is not displaying a presentation**

- If you are using a Notebook PC:
  Some Notebook PCs may deactivate their own screens when a second display device is in use. Each has a different way to be reactivated. Refer to your computer’s documentation for detailed information.

**Problem: Image is unstable or flickering**

- Adjust the “PHASE” to correct it. Refer to the “SETTING” section for more information.
- Change the monitor color setting from your computer.

**Problem: Image has vertical flickering bar**

- Use “CLOCK” to make an adjustment.
- Check and reconfigure the display mode of your graphic card to make it compatible with the product.
Problem: Image is out of focus
- Adjust the Focus Lever on the projector lens.
- Make sure the projection screen is between the required distance from the projector. Please see the pages 32-33).

Problem: The image is stretched when displaying 16:9 DVD
The projector automatically detects 16:9 DVD and adjusts the aspect ratio by digitizing to full screen with 4:3 default setting.

If the image is still stretched, you will also need to adjust the aspect ratio by referring to the following:
- Please select 4:3 aspect ratio type on your DVD player if you are playing a 16:9 DVD.
- If you can’t select 4:3 aspect ratio type on your DVD player, please select 4:3 aspect ratio in the on screen menu.

Problem: Image is reversed
- Select “SETTING | GENERAL-->ORIENTATION” from the OSD and adjust the projection direction.

Problem: Lamp burns out or makes a popping sound
- When the lamp reaches its end of life, it will burn out and may make a loud popping sound. If this happens, the projector will not turn on until the lamp module has been replaced. To replace the lamp, follow the procedures in the “Replacing the Lamp”.

Appendices
### POWER LED Indicator

<table>
<thead>
<tr>
<th>Indicator Condition</th>
<th>Projector Condition</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>The main power is off.</td>
<td>Without connecting power cable.</td>
</tr>
<tr>
<td>Blinking light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GREEN 0.5sec ON / 0.5sec OFF</td>
<td>The projector is getting ready to turn on.</td>
<td>--</td>
</tr>
<tr>
<td>GREEN 2.5sec ON / 0.5sec OFF</td>
<td>Off Timer is working.</td>
<td>--</td>
</tr>
<tr>
<td>ORANGE 0.5sec ON / 0.5sec OFF</td>
<td>Cooling</td>
<td>--</td>
</tr>
<tr>
<td>Steady light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GREEN</td>
<td>Power on mode</td>
<td>--</td>
</tr>
<tr>
<td>ORANGE</td>
<td>Network Standby mode</td>
<td>Connecting power cable.</td>
</tr>
<tr>
<td>RED</td>
<td>Normal Standby mode</td>
<td>Connecting power cable.</td>
</tr>
</tbody>
</table>

### STATUS LED Indicator

<table>
<thead>
<tr>
<th>Indicator Condition</th>
<th>Projector Condition</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Normal Condition</td>
<td>--</td>
</tr>
<tr>
<td>Blinking light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RED 2cycle (0.5sec ON / 0.5sec OFF)</td>
<td>Temperature error</td>
<td>--</td>
</tr>
<tr>
<td>RED 3cycle (0.5sec ON / 0.5sec OFF)</td>
<td>Power error</td>
<td>Power unit is not working properly. Contact your dealer.</td>
</tr>
<tr>
<td>RED 4cycle (0.5sec ON / 0.5sec OFF)</td>
<td>Fan error</td>
<td>--</td>
</tr>
<tr>
<td>RED 6cycle (0.5sec ON / 0.5sec OFF)</td>
<td>Lamp error</td>
<td>--</td>
</tr>
<tr>
<td>GREEN 0.5sec ON / 0.5sec OFF</td>
<td>Re-firing the lamp (The projector is cooling down)</td>
<td>--</td>
</tr>
<tr>
<td>Steady light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORANGE</td>
<td>Control Panel Lock is working</td>
<td>You have pressed cabinet button when Control Panel Lock is on.</td>
</tr>
<tr>
<td>CONTROL ID error</td>
<td>Remote control ID and projector ID are not matched.</td>
<td></td>
</tr>
</tbody>
</table>
### LAMP LED Indicator

<table>
<thead>
<tr>
<th>Indicator Condition</th>
<th>Projector Condition</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Normal Condition</td>
<td>--</td>
</tr>
<tr>
<td>Blinking light</td>
<td>RED</td>
<td>Lamp has reached its end of life.</td>
</tr>
<tr>
<td></td>
<td>0.5sec ON / 0.5sec OFF</td>
<td>--</td>
</tr>
<tr>
<td>Steady light</td>
<td>RED</td>
<td>Lamp has been used beyond its limit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The projector will not turn on until the lamp is replaced.</td>
</tr>
<tr>
<td>GREEN</td>
<td>[ECO MODE] is set to [ECO]</td>
<td></td>
</tr>
</tbody>
</table>
Problem: Message Reminders

- Over temperature - the projector has exceeded its recommended operating temperature and must be allowed to cool down before it may be used.
  
  **WARNING! TEMPERATURE TOO HIGH**
  1. MAKE SURE AIR IN AND OUTLETS ARE NOT BLOCKED.
  2. MAKE SURE THE ENVIRONMENT TEMPERATURE IS UNDER 40 DEGREE C

- Replacing the lamp - the lamp is about to reach its maximum lifetime. Prepare to replace it soon.
  
  **WARNING! LAMP**
  LAMP WARNING
  LAMP LIFE IS ABOVE LIMIT TIME. LAMP OFF!

  **WARNING! LAMP**
  LAMP WARNING
  LAMP LIFE EXCEEDED.

  **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.

  If this happens, after replacing the lamp, connect the power cord and then press and hold the HELP button on the remote control at least 10 seconds. This will allow you to turn on the projector. Clear the lamp hours by selecting “OPTIONS” -> “LAMP SETTINGS” -> “CLEAR LAMP HOURS” from the menu.

- Fan failed - the system fan is not working.
  
  **WARNING! FAN LOCKED**
  THE PROJECTOR WILL SWITCH OFF AUTOMATICALLY.
Replacing the lamp

Optional lamp

NP35LP (for NP-V332X / NP-V332W / NP-V302H)
NP36LP (for NP-V302X / NP-V302W)

The time to replace the lamp is differed from models.
On NP-V302X, and NP-V302W, the projectors will detect the lamp life at 4500 hours in ECO Mode Off (6000 hours in ECO Mode) On NP-V332X, NP-V332W, and NP-V302H, the projectors will detect the lamp life at 3500 hours in ECO Mode Off (6000 hours in ECO Mode). When the “POWER” LED indicator flashes red and the message below displays on-screen, the projector has detected that the lamp is approaching its end of life. Please see the page 72-73. It will show you a warning message:

When you see this message, change the lamp as soon as possible. Make sure the projector has been cooled down for at least 60 minutes before changing the lamp.
Warning: To reduce the risk of personal injury, do not drop the lamp module or touch the lamp bulb. The bulb may shatter and cause injury if it is dropped.

Do not break the glass on the lamp module. Keep finger prints off the glass surface on the lamp module. Leaving finger prints on the glass surface might cause an unwanted shadow and poor picture quality.

Be sure to tighten the screws after replacing the lamp module.

**Lamp Replacing Procedure:**

1. Switch off the power to the projector by pressing the POWER OFF button on the remote control or the button on the control panel.
2. Allow the projector to cool down at least 60 minutes.
3. Disconnect the power cord.
4. Use a screwdriver to loosen the screw on the lamp cover.  
5. Slide and remove the cover.  
6. Loosen the screw on the lamp module.  
7. Lift the handle.  
8. Pinch the arrow marked positions on the connector housing and pull the housing upward for removing the connector.  
9. Pull out the lamp module.  
10. Install the new lamp module by reversing the previous steps.  

Note: Make sure to align the positioning holes over the positioning protrusions for installing the lamp module.  
11. After replacing the lamp, turn on the power, and select the [MENU] button -> OPTIONS | LAMP SETTINGS -> CLEAR LAMP HOURS to reset the lamp usage hours. Please see page 73.
Cleaning procedure for the lens

If the projection lens is dusty or blemished, please clean the lens as following procedure:

1. Turn off the projector and cool projector down for a while.
2. Unplug the power cord from outlet.
3. Blow the dust by blower for cameras which you could buy from camera shops. Wipe the lens gently using a cleaning cloth.

⚠️ CAUTION:

• Always wipe the lens with a cleaning cloth.
• Please do not wipe the lens hard because that may cause serious damage on the lens surface.
• Wiping might scratch the lens. Optical performance of the projector will thus be impacted if the lens is scratched after wiping. Optical performance impact will be dependent on the scratch condition on it.
• Do not use liquid cleaners or chemicals on the cloth because it may contaminate the cloth and cause serious damage on the surface of lens.
• Do not use a spray containing flammable gas to get rid of accumulated dust on the lens. It may cause of fire.
### Specifications

<table>
<thead>
<tr>
<th></th>
<th>NP-V302X</th>
<th>NP-V302W</th>
<th>NP-V332X</th>
<th>NP-V332W</th>
<th>NP-V302H</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Optical</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Projection System</td>
<td>Single DLP® chip (0.55&quot;, Aspect ratio 4:3)</td>
<td>Single DLP® chip (0.65&quot;, Aspect ratio 16:10)</td>
<td>Single DLP® chip (0.55&quot;, Aspect ratio 4:3)</td>
<td>Single DLP® chip (0.65&quot;, Aspect ratio 16:10)</td>
<td>Single DLP® chip (0.65&quot;, Aspect ratio 16:9)</td>
</tr>
<tr>
<td>Resolution (pixels) *1</td>
<td>1024x768 (XGA)</td>
<td>1280x800 (WXGA)</td>
<td>1024x768 (XGA)</td>
<td>1280x800 (WXGA)</td>
<td>1920x1080 (1080P)</td>
</tr>
<tr>
<td></td>
<td>F=2.41-2.55</td>
<td>F=2.50-2.67</td>
<td>F=2.41-2.55</td>
<td>F=2.50-2.67</td>
<td>F=2.55-2.85</td>
</tr>
<tr>
<td></td>
<td>f=21.8-24.0mm</td>
<td>f=21.8-24.0mm</td>
<td>f=21.8-24.0mm</td>
<td>f=21.8-24.0mm</td>
<td>f=22.4-26.8mm</td>
</tr>
<tr>
<td><strong>Lamp</strong></td>
<td>195W AC (160W in ECO mode)</td>
<td>218W AC (170W in ECO mode)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>**Light Output <em>2 <em>3</em></em></td>
<td>3000 lumens</td>
<td>3000 lumens</td>
<td>3300 lumens</td>
<td>3300 lumens</td>
<td>3000 lumens</td>
</tr>
<tr>
<td></td>
<td>Approx. 85% in ECO mode</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*<em>Contrast Ratio <em>3</em></em> (with DYNAMIC CONTRAST ON)</td>
<td>10000:1</td>
<td>10000:1</td>
<td>10000:1</td>
<td>10000:1</td>
<td>8000:1</td>
</tr>
<tr>
<td><strong>Image Size (Diagonal)</strong></td>
<td>30&quot; to 300&quot;</td>
<td>0.76 to 7.6 m (4:3)</td>
<td>0.76 to 7.6 m (4:3)</td>
<td>0.76 to 7.6 m (4:3)</td>
<td>0.76 to 7.6 m (4:3)</td>
</tr>
<tr>
<td></td>
<td>40&quot; to 300&quot;</td>
<td>1.19 to 11.89m</td>
<td>0.99 to 10.01m</td>
<td>1.19 to 11.89m</td>
<td>1.32 to 9.96m</td>
</tr>
<tr>
<td><strong>Projection Distance</strong></td>
<td>wide</td>
<td>47&quot; to 468&quot; (1.19 to 11.89m)</td>
<td>39&quot; to 394&quot; (0.99 to 10.01m)</td>
<td>47&quot; to 468&quot; (1.19 to 11.89m)</td>
<td>39&quot; to 394&quot; (0.99 to 10.01m)</td>
</tr>
<tr>
<td></td>
<td>tele</td>
<td>52&quot; to 516&quot; (1.32 to 13.11m)</td>
<td>43&quot; to 432&quot; (1.09 to 10.97m)</td>
<td>52&quot; to 516&quot; (1.32 to 13.11m)</td>
<td>43&quot; to 432&quot; (1.09 to 10.97m)</td>
</tr>
<tr>
<td><strong>Projection Angle</strong></td>
<td>wide</td>
<td>14.0°</td>
<td>14.2°</td>
<td>14.0°</td>
<td>14.2°</td>
</tr>
<tr>
<td></td>
<td>tele</td>
<td>12.8°</td>
<td>13.0°</td>
<td>12.8°</td>
<td>13.0°</td>
</tr>
</tbody>
</table>

*1 Effective pixels are more than 99.99%.

*2 This is the light output value (lumens) when [PICTURE MODE] is set to [HIGH-BRIGHT] in the menu.

If any other mode is selected as [PICTORUE MODE], the light output value may drop slightly.

*3 Compliance with ISO21118-2012
<table>
<thead>
<tr>
<th>Electrical</th>
<th>NP-V302X</th>
<th>NP-V302W</th>
<th>NP-V332X</th>
<th>NP-V332W</th>
<th>NP-V302H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inputs</td>
<td>1 x VGA and Y/Pb/Pr, 2 x HDMI *4 (Standard HDMI connector), 1 x VGA Audio (Stereo mini jack), 1 x Composite Video (RCA (yellow)), 2 x Composite Audio (RCA for both left and right)</td>
<td>1 x VGA and Y/Pb/Pr, 2 x HDMI *4 (Standard HDMI connector and one with MHL function support), 1 x VGA Audio (Stereo mini jack), 1 x Composite Video (RCA (yellow)), 2 x Composite Audio (RCA for both left and right)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outputs</td>
<td>1 x VGA (D-sub female 15 pin connector) (Separate sync signal only), 1 x Audio (Stereo mini jack(green))</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC Control</td>
<td>1 x PC Control Port (D-Sub 9 Pin)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wired LAN Port</td>
<td>1 x RJ-45 (10/100 BASE-T/100 BASE-TX)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Port</td>
<td>Mini USB type B (for FW download)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color Reproduction</td>
<td>1.07 billion colors simultaneously with 10-bit signal processing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horizontal Resolution</td>
<td>540 TV lines: NTSC/NTSC4.43/PAL/PAL-M/PAL-N/PAL60</td>
<td>300 TV lines: SECAM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scan Rate</td>
<td>Hsync Frequency: 24kHz ~ 102kHz</td>
<td>Vsync Frequency: 48kHz ~ 120 Hz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sync Compatibility</td>
<td>Separate Sync</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Built-in Speaker</td>
<td>8W</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Requirement</td>
<td>100 - 240V AC 50/60Hz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input Current</td>
<td>2.5-1.0 A</td>
<td>2.5-1.0 A</td>
<td>2.7-1.1 A</td>
<td>2.8-1.1 A</td>
<td>2.8-1.2A</td>
</tr>
<tr>
<td>Power Consumption (Typical value)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network Stand-by</td>
<td>1.6W (*6) / 1.8W (*7)</td>
<td>1.5W (*6) / 1.8W (*7)</td>
<td>1.6W (*6) / 1.8W (*7)</td>
<td>1.5W (*6) / 1.8W (*7)</td>
<td>1.6W (*6) / 1.8W (*7)</td>
</tr>
<tr>
<td>Normal Stand-by</td>
<td>0.22W (*6) / 0.37W (*7)</td>
<td>0.23W (*6) / 0.38W (*7)</td>
<td>0.23W (*6) / 0.35W (*7)</td>
<td>0.22W (*6) / 0.35W (*7)</td>
<td>0.22W (*6) / 0.35W (*7)</td>
</tr>
</tbody>
</table>
**Appendices**

*4 HDMI® (Deep Color, Lip Sync) with HDCP

What is HDCP/HDCP technology?

HDCP is an acronym for High-bandwidth Digital Content Protection. High bandwidth Digital Content Protection (HDCP) is a system for preventing illegal copying of video data sent over a High-Definition Multimedia Interface (HDMI).

If you are unable to view material via the HDMI input, this does not necessarily mean the projector is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community (Digital Content Protection, LLC).

Video: Deep Color; 8/10/12-bit, LipSync

*5 **NP-V302X, NP-V332X:**

An image with higher or lower resolution than the projector’s native resolution (1024 × 768) will be displayed with scaling technology.

**NP-V302W, NP-V332W:**

An image with higher or lower resolution than the projector’s native resolution (1280 × 800) will be displayed with scaling technology.

**NP-V302H:**

An image with higher or lower resolution than the projector’s native resolution (1920 × 1080) will be displayed with scaling technology.

*6 100V - 130VAC

*7 200V - 240VAC
## Appendices

<table>
<thead>
<tr>
<th>Mechanical</th>
<th>NP-V302X</th>
<th>NP-V302W</th>
<th>NP-V332X</th>
<th>NP-V332W</th>
<th>NP-V302H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation Orientation</td>
<td>Desktop/Front, Desktop/Rear, Ceiling/Front, Ceiling/Rear</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>12.8”(W) x 3.5” (H) x 9.8” (D) / 324 mm (W) x 88 mm (H) x 250 mm (D) (not including protrusions)</td>
<td>12.8”(W) x 4.0”(H) x 9.8”(D) / 324 mm(W) x 101 mm(H) x 250 mm(D) (including protrusions)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>2.7 kg/6.0lbs</td>
<td>2.8 kg/6.2lbs</td>
<td>2.9 kg/6.4lbs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Conditions *8</td>
<td>Operational Temperatures: 41° to 104° (5°C to 40°C) 20% to 80% humidity (non-condensing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Storage Temperatures: 14° to 122° F (-10°C to 50°C) 20% to 80% humidity (non-condensing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulations</td>
<td>UL/C-UL Approved (UL 60950-1, CSA 60950-1)</td>
<td>Meets DOC Canada Class B requirements</td>
<td>Meets FCC Class B requirements</td>
<td>Meets AS/NZS CISPR.22 Class B</td>
<td>Meets EMC Directive (EN55022, EN55024, EN61000-3-2, EN61000-3-3)</td>
</tr>
</tbody>
</table>

*8 Operational temperatures
- 0 to 2500 feet/760 m in the range of 41° to 104°F (5° to 40°C)
- 2500 feet/760m to 5000 feet/1500 m in the range of 41° to 95°F (5° to 35°C)
- 5000 feet/1500 m to 10000 feet/3000 m in the range of 41° to 86°F (5° to 30°C)
- Set [FAN MODE] to [HIGH ALTITUDE] when using the projector at altitudes approx. 2500 feet/760 m or higher.
## Compatibility Modes

### VGA Analog

(1) VGA Analog - PC Signal

<table>
<thead>
<tr>
<th>Modes</th>
<th>Resolution (dots)</th>
<th>V.Frequency [Hz]</th>
<th>H.Frequency [KHz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>VGA</td>
<td>640x480</td>
<td>60</td>
<td>31.47</td>
</tr>
<tr>
<td>VGA</td>
<td>640x480</td>
<td>72</td>
<td>37.86</td>
</tr>
<tr>
<td>VGA</td>
<td>640x480</td>
<td>75</td>
<td>37.5</td>
</tr>
<tr>
<td>VGA</td>
<td>640x480</td>
<td>85</td>
<td>43.27</td>
</tr>
<tr>
<td>SVGA</td>
<td>800x600</td>
<td>56</td>
<td>35.2</td>
</tr>
<tr>
<td>SVGA</td>
<td>800x600</td>
<td>60</td>
<td>37.88</td>
</tr>
<tr>
<td>SVGA</td>
<td>800x600</td>
<td>72</td>
<td>48.08</td>
</tr>
<tr>
<td>SVGA</td>
<td>800x600</td>
<td>75</td>
<td>46.88</td>
</tr>
<tr>
<td>SVGA</td>
<td>800x600</td>
<td>85</td>
<td>53.67</td>
</tr>
<tr>
<td>XGA</td>
<td>1024x768</td>
<td>60</td>
<td>48.36</td>
</tr>
<tr>
<td>XGA</td>
<td>1024x768</td>
<td>70</td>
<td>56.48</td>
</tr>
<tr>
<td>XGA</td>
<td>1024x768</td>
<td>75</td>
<td>60.02</td>
</tr>
<tr>
<td>XGA</td>
<td>1024x768</td>
<td>85</td>
<td>68.67</td>
</tr>
<tr>
<td>XGA+</td>
<td>1152x864</td>
<td>75</td>
<td>67.5</td>
</tr>
<tr>
<td>SXGA</td>
<td>1280x1024</td>
<td>60</td>
<td>63.98</td>
</tr>
<tr>
<td>SXGA</td>
<td>1280x1024</td>
<td>72</td>
<td>77.9</td>
</tr>
<tr>
<td>SXGA</td>
<td>1280x1024</td>
<td>75</td>
<td>79.98</td>
</tr>
<tr>
<td>SXGA</td>
<td>1280x1024</td>
<td>85</td>
<td>91.15</td>
</tr>
<tr>
<td>Quad VGA</td>
<td>1280x960</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Quad VGA</td>
<td>1280x960</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>SXGA+</td>
<td>1400x1050</td>
<td>60</td>
<td>65.32</td>
</tr>
<tr>
<td>UXGA</td>
<td>1600x1200</td>
<td>60</td>
<td>75</td>
</tr>
<tr>
<td>Mac OS X</td>
<td>640x480</td>
<td>60</td>
<td>31.5</td>
</tr>
<tr>
<td>Mac OS X</td>
<td>640x480</td>
<td>66.6(67)</td>
<td>35</td>
</tr>
<tr>
<td>Mac OS X</td>
<td>800x600</td>
<td>60</td>
<td>37.88</td>
</tr>
<tr>
<td>Mac OS X</td>
<td>1024x768</td>
<td>60</td>
<td>48.36</td>
</tr>
<tr>
<td>Mac OS X</td>
<td>1152x870</td>
<td>75</td>
<td>68.68</td>
</tr>
<tr>
<td>Mac OS X</td>
<td>1280x960</td>
<td>75</td>
<td>75.2</td>
</tr>
</tbody>
</table>
### (2) VGA Analog - Extended Wide timing

<table>
<thead>
<tr>
<th>Modes</th>
<th>Resolution (dots)</th>
<th>V.Frequency [Hz]</th>
<th>H.Frequency [KHz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>HD</td>
<td>1280x720</td>
<td>60</td>
<td>44.8</td>
</tr>
<tr>
<td>WXGA</td>
<td>1280x768</td>
<td>60</td>
<td>47.78</td>
</tr>
<tr>
<td>WXGA</td>
<td>1280x768</td>
<td>75</td>
<td>60.29</td>
</tr>
<tr>
<td>WXGA</td>
<td>1280x768</td>
<td>85</td>
<td>68.63</td>
</tr>
<tr>
<td>WXGA</td>
<td>1280x800</td>
<td>60</td>
<td>49.6</td>
</tr>
<tr>
<td>WXGA</td>
<td>1366x768</td>
<td>60</td>
<td>47.71</td>
</tr>
<tr>
<td>WXGA+</td>
<td>1440x900</td>
<td>60</td>
<td>55.9</td>
</tr>
<tr>
<td>WSXGA</td>
<td>1680x1050</td>
<td>60</td>
<td>65.3</td>
</tr>
<tr>
<td>Full HD</td>
<td>1920x1080</td>
<td>60</td>
<td>67.5</td>
</tr>
<tr>
<td>WUXGA</td>
<td>1920x1200</td>
<td>60</td>
<td>74.0</td>
</tr>
</tbody>
</table>

### (3) VGA Analog - Component Signal

<table>
<thead>
<tr>
<th>Modes</th>
<th>Resolution (dots)</th>
<th>V.Frequency [Hz]</th>
<th>H.Frequency [KHz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>480i</td>
<td>720x480</td>
<td>59.94 (29.97)</td>
<td>27</td>
</tr>
<tr>
<td>480p</td>
<td>720x480</td>
<td>59.94</td>
<td>31.47</td>
</tr>
<tr>
<td>576i</td>
<td>720x576</td>
<td>50 (25)</td>
<td>27</td>
</tr>
<tr>
<td>576p</td>
<td>720x576</td>
<td>50</td>
<td>31.25</td>
</tr>
<tr>
<td>720p</td>
<td>1280x720</td>
<td>60</td>
<td>45</td>
</tr>
<tr>
<td>720p</td>
<td>1280x720</td>
<td>50</td>
<td>37.5</td>
</tr>
<tr>
<td>1080i</td>
<td>1920x1080</td>
<td>60 (30)</td>
<td>33.75</td>
</tr>
<tr>
<td>1080i</td>
<td>1920x1080</td>
<td>50 (25)</td>
<td>33.75</td>
</tr>
<tr>
<td>1080p</td>
<td>1920x1080</td>
<td>60</td>
<td>67.5</td>
</tr>
<tr>
<td>1080p</td>
<td>1920x1080</td>
<td>50</td>
<td>56.25</td>
</tr>
</tbody>
</table>
## Appendices

### HDMI Digital

<table>
<thead>
<tr>
<th>Signal</th>
<th>Resolution (dots)</th>
<th>Aspect Ratio</th>
<th>Refresh Rate [Hz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>VGA</td>
<td>640x480</td>
<td>4:3</td>
<td>59.94/60</td>
</tr>
<tr>
<td>SVGA</td>
<td>800x600</td>
<td>4:3</td>
<td>60</td>
</tr>
<tr>
<td>XGA</td>
<td>1024x768 *1</td>
<td>4:3</td>
<td>60</td>
</tr>
<tr>
<td>XGA</td>
<td>1280x768</td>
<td>15:9</td>
<td>60</td>
</tr>
<tr>
<td>WXGA</td>
<td>1280x800 *2</td>
<td>16:10</td>
<td>60</td>
</tr>
<tr>
<td>WXGA</td>
<td>1366x768 *4</td>
<td>16:9</td>
<td>60</td>
</tr>
<tr>
<td>SXGA</td>
<td>1280x1024</td>
<td>5:4</td>
<td>60</td>
</tr>
<tr>
<td>SXGA+</td>
<td>1400x1050</td>
<td>4:3</td>
<td>60</td>
</tr>
<tr>
<td>WXGA+</td>
<td>1440x900</td>
<td>16:10</td>
<td>60</td>
</tr>
<tr>
<td>WXGA++</td>
<td>1600x900</td>
<td>16:9</td>
<td>60</td>
</tr>
<tr>
<td>WSXGA+</td>
<td>1680x1050</td>
<td>16:10</td>
<td>60</td>
</tr>
<tr>
<td>UXGA</td>
<td>1600x1200</td>
<td>4:3</td>
<td>60</td>
</tr>
<tr>
<td>Full HD</td>
<td>1920x1080 *3</td>
<td>16:9</td>
<td>60</td>
</tr>
<tr>
<td>HDTV (1080p)</td>
<td>1920x1080</td>
<td>16:9</td>
<td>23.98/24/50/59.94/60</td>
</tr>
<tr>
<td>HDTV(1080i)</td>
<td>1920x1080</td>
<td>16:9</td>
<td>50/59.94/60</td>
</tr>
<tr>
<td>HDTV (720p)</td>
<td>1280x720</td>
<td>16:9</td>
<td>50/59.94/60</td>
</tr>
<tr>
<td>SDTV (480p)</td>
<td>720x480</td>
<td>4:3/16:9</td>
<td>59.94/60</td>
</tr>
<tr>
<td>SDTV (576p)</td>
<td>720x576</td>
<td>4:3/16:9</td>
<td>50</td>
</tr>
<tr>
<td>SDTV (480i)</td>
<td>720(1440)x480</td>
<td>4:3/16:9</td>
<td>59.94/60</td>
</tr>
<tr>
<td>SDTV (576i)</td>
<td>720(1440)x576</td>
<td>4:3/16:9</td>
<td>50</td>
</tr>
</tbody>
</table>

*1 XGA Model Real Resolution
*2 WXGA Model Real Resolution
*3 1080p Model Real Resolution
*4 The projector may fail to display these signals correctly when [AUTO] is selected for [ASPECT RATIO] in the on-screen menu.

The factory default is [AUTO] for [ASPECT RATIO]. To display these signals, select [16:9] for [ASPECT RATIO].
## Appendices

(1) HDMI - 3D Timing

<table>
<thead>
<tr>
<th>Signal</th>
<th>Resolution (dots)</th>
<th>Aspect Ratio</th>
<th>Refresh Rate [Hz]</th>
</tr>
</thead>
<tbody>
<tr>
<td>For PC Signal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XGA</td>
<td>1024x768 *1</td>
<td>4:3</td>
<td>60/120 *5</td>
</tr>
<tr>
<td>1280x720</td>
<td>1280x720</td>
<td>16:9</td>
<td>60/120 RB *5</td>
</tr>
<tr>
<td>WXGA</td>
<td>1280x800 *2</td>
<td>16:10</td>
<td>60/120 RB *5</td>
</tr>
<tr>
<td>Full HD</td>
<td>1920x1080 *3</td>
<td>16:9</td>
<td>60</td>
</tr>
<tr>
<td>For Video Signal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDTV (480i)</td>
<td>720x480</td>
<td>4:3/16:9</td>
<td>60</td>
</tr>
<tr>
<td>For HDMI 3D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>720p (Frame Packing)</td>
<td>1280x720</td>
<td>16:9</td>
<td>50/60/59.94</td>
</tr>
<tr>
<td>1080p (Frame Packing)</td>
<td>1920x1080</td>
<td>16:9</td>
<td>23.98/24</td>
</tr>
<tr>
<td>1080i (Side by Side (Half))</td>
<td>1920x1080</td>
<td>16:9</td>
<td>50/60/59.94</td>
</tr>
<tr>
<td>1080P (Side by Side (Half))</td>
<td>1920x1080</td>
<td>16:9</td>
<td>50/60/59.94 *6</td>
</tr>
<tr>
<td>720p (Top and Bottom)</td>
<td>1280x720</td>
<td>16:9</td>
<td>50/60/59.94</td>
</tr>
<tr>
<td>1080p (Top and Bottom)</td>
<td>1920x1080</td>
<td>16:9</td>
<td>23.98/24</td>
</tr>
</tbody>
</table>

*1 XGA Model Real Resolution  
*2 WXGA Model Real Resolution  
*3 1080p Model Real Resolution  
*4 The projector may fail to display these signals correctly when [AUTO] is selected for [ASPECT RATIO] in the on-screen menu. The factory default is [AUTO] for [ASPECT RATIO]. To display these signals, select [16:9] for [ASPECT RATIO].  
*5 The 120 Hz signals are support frame sequential format only.  
*6 Select manually.
(2) MHL Signal

<table>
<thead>
<tr>
<th>Signal</th>
<th>Resolution (dots)</th>
<th>Aspect Ratio</th>
<th>Refresh Rate (Hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VGA</td>
<td>640x480</td>
<td>4:3</td>
<td>59.94/60</td>
</tr>
<tr>
<td>HDTV (1080p)</td>
<td>1920x1080</td>
<td>16:9</td>
<td>23.97/24/50/59.94/60</td>
</tr>
<tr>
<td>HDTV (1080i)</td>
<td>1920x1080</td>
<td>16:9</td>
<td>50/59.94/60</td>
</tr>
<tr>
<td>HDTV (720p)</td>
<td>1280x720</td>
<td>16:9</td>
<td>50/59.94/60</td>
</tr>
<tr>
<td>SDTV (480p)</td>
<td>720x480</td>
<td>4:3/16:9</td>
<td>59.94/60</td>
</tr>
<tr>
<td>SDTV (576p)</td>
<td>720x576</td>
<td>4:3/16:9</td>
<td>50</td>
</tr>
<tr>
<td>SDTV (480i)</td>
<td>720 x 480(1440x480i)</td>
<td>4:3/16:9</td>
<td>59.94/60</td>
</tr>
<tr>
<td>SDTV (576i)</td>
<td>720 x 576(1440x576i)</td>
<td>4:3/16:9</td>
<td>50</td>
</tr>
</tbody>
</table>

**TIP:**
- An image with higher or lower resolution than the projector’s native resolution will be displayed with scaling technology.
- Sync on Green and Composite sync signals are not supported.
- 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.
Ceiling Mount Installation

1. To refuse the projector from damage, please use the ceiling mount kit for ceiling mount installation.
2. If you buy a ceiling mount from another company, please be sure to use the screw in correct size. Screw size is vary depending on the thickness of the mounting plate.

- Screw type: M4*4
- Maximum screw length: 8mm
- Minimum screw length: 6mm

Warning:
1. Be sure to keep at least 10 cm gap between the ceiling and the bottom of the projector.
2. Avoid installing the projector near a heat source.

Note
Please note that damage resulting from incorrect installation will invalidate the warranty.
Appendices

Cabinet Dimensions

Unit: mm (inch)

- 250,00 (9.84")
- 103,00 (4.06")
- 324,00 (12.76")
- 43,41 (1.71")
- 59,00 (2.32")
- 57,89 (2.28")
- 250,00 (9.84")
- 88,00 (3.46")
- 9,80 (0.39")
- 91,50 (3.60")
Pin Assignments of D-Sub COMPUTER Input Connector

Mini D-Sub 15 Pin Connector

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>RGB Signal (Analog)</th>
<th>YCbCr Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Red</td>
<td>Cr</td>
</tr>
<tr>
<td>2</td>
<td>Green</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>Blue</td>
<td>Cb</td>
</tr>
<tr>
<td>4</td>
<td>Ground</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Ground</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Red Ground</td>
<td>Cr Ground</td>
</tr>
<tr>
<td>7</td>
<td>Green Gro</td>
<td>Y Ground</td>
</tr>
<tr>
<td>8</td>
<td>Blue Ground</td>
<td>Cb Ground</td>
</tr>
<tr>
<td>9</td>
<td>No Connection</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Sync Signal Ground</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>No Connection</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Bi-directional DATA (SDA)</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Horizontal Sync or Composite Sync</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Vertical Sync</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Data Clock</td>
<td></td>
</tr>
</tbody>
</table>

Signal Level
Video signal: 0.7Vp-p (Analog)
Sync signal: TTL level
PC Control Codes and Cable Connection

## PC Control Codes

<table>
<thead>
<tr>
<th>Function</th>
<th>Code Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER ON</td>
<td>02H 00H 00H 00H 00H 02H</td>
</tr>
<tr>
<td>POWER OFF</td>
<td>02H 01H 00H 00H 00H 03H</td>
</tr>
<tr>
<td>INPUT SELECT COMPUTER</td>
<td>02H 03H 00H 00H 02H 01H 01H 09H</td>
</tr>
<tr>
<td>INPUT SELECT HDMI 1</td>
<td>02H 03H 00H 00H 02H 01H A1H A9H</td>
</tr>
<tr>
<td>INPUT SELECT HDMI 2</td>
<td>02H 03H 00H 00H 02H 01H A2H AAH</td>
</tr>
<tr>
<td>INPUT SELECT VIDEO</td>
<td>02H 03H 00H 00H 02H 01H 06H 0EH</td>
</tr>
<tr>
<td>PICTURE MUTE ON</td>
<td>02H 10H 00H 00H 00H 12H</td>
</tr>
<tr>
<td>PICTURE MUTE OFF</td>
<td>02H 11H 00H 00H 00H 13H</td>
</tr>
<tr>
<td>SOUND MUTE ON</td>
<td>02H 12H 00H 00H 00H 14H</td>
</tr>
<tr>
<td>SOUND MUTE OFF</td>
<td>02H 13H 00H 00H 00H 15H</td>
</tr>
</tbody>
</table>

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

## Cable Connection

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

## PC Control Connector (D-SUB 9P)

- To TxD of PC
- To RxD of PC
- To GND of PC
- 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.
## Troubleshooting Check List

Before contacting your dealer or service personnel, check the following list to be sure repairs are needed also by referring to the “Troubleshooting” section in your user’s manual. This checklist below will help us solve your problem more efficiently.

* Print the following pages.

### Frequency of occurrence

<table>
<thead>
<tr>
<th>Always</th>
<th>Sometimes (How often?)</th>
<th>Other</th>
</tr>
</thead>
</table>

### Power

- No power (POWER indicator does not light green).
- Power cable's plug is fully inserted into the wall outlet.
- 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 1 second.

- 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).

### 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).
- 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] 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.
- 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.
- The throw distance is within 47" to 516" / 1189 mm to 13105 mm (NP-V332X & NP-V302X), 39" to 432" / 1002 mm to 10985 mm (NP-V332W & NP-V302W), 52" to 471" / 1328 mm to 11955 mm (NP-V302H)
- 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.

### 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.

- Buttons on the projector cabinet do not work.
- [CONTROL PANEL LOCK] is not turned on in the menu.
  Still unchanged even though you press and hold the EXIT button for 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):
- Eco Mode: Off 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
  - Blinking 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 number of connected equipment)

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

**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:
REGISTER YOUR PROJECTOR!
(for residents in the United States, Canada, and Mexico)

Please take time to register your new projector. This will activate your limited parts and labor warranty and InstaCare service program.

Visit our web site at www.necdisplay.com, click on support center/register product and submit your completed form online.

Upon receipt, we will send a confirmation letter with all the details you will need to take advantage of fast, reliable warranty and service programs from the industry leader, NEC Display Solutions of America, Inc.