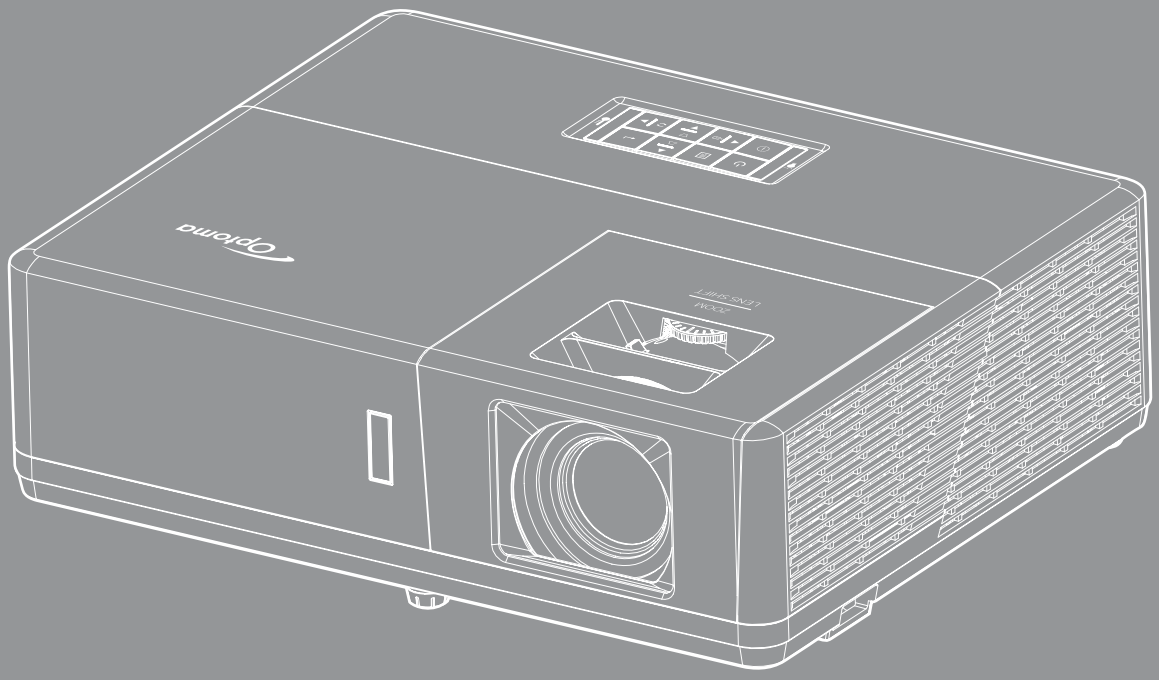
UniKomp.pl
Nowe Technologie IT

ul. Dworcowa 8
43-200 Pszczyna
sklep@unikomp.pl
www.wyswietlanie.pl

Telefony
(32) 210 22 11
(32) 326 33 00
(32) 212 88 22

Optoma

# DLP® Projector



User manual

4K COMPATIBLE HDR COMPATIBLE Full 3D MHL HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE DLP TEXAS INSTRUMENTS

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# SAFETY

| | |
|---|---|
|  | The lightning flash with arrow head within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons. |
|  | The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance. |

Please follow all warnings, precautions and maintenance as recommended in this user's guide.

## Important Safety Instruction




- Do not stare into the beam, RG2.
  As with any bright source, do not stare into the direct beam, RG2 IEC 62471-5:2015.
- Do not block any ventilation openings. To ensure reliable operation of the projector and to protect from over heating, it is recommended to install the projector in a location that does not block ventilation. As an example, do not place the projector on a crowded coffee table, sofa, bed, etc. Do not put the projector in an enclosure such as a book case or a cabinet that restricts air flow.
- To reduce the risk of fire and/or electric shock, do not expose the projector to rain or moisture. Do not install near heat sources such as radiators, heaters, stoves or any other apparatus such as amplifiers that emits heat.
- Do not let objects or liquids enter the projector. They may touch dangerous voltage points and short out parts that could result in fire or electric shock.
- Do not use under the following conditions:
  – In extremely hot, cold or humid environments.
    (i) Ensure that the ambient room temperature is within 5°C ~ 40°C
    (ii) Relative humidity is 10% ~ 85%
  – In areas susceptible to excessive dust and dirt.
  – Near any appliance generating a strong magnetic field.
  – In direct sunlight.
- Do not use the unit if it has been physically damaged or abused. Physical damage/abuse would be (but not limited to):
  – Unit has been dropped.
  – Power supply cord or plug has been damaged.
  – Liquid has been spilled on to the projector.
  – Projector has been exposed to rain or moisture.
  – Something has fallen in the projector or something is loose inside.
- Do not place the projector on an unstable surface. The projector may fall over resulting in injury or the projector may become damaged.
- Do not block the light coming out of the projector lens when in operation. The light will heat the object and may melt, cause burns or start a fire.
- Please do not open or disassemble the projector as this may cause electric shock.
- Do not attempt to service the unit yourself. Opening or removing covers may expose you to dangerous voltages or other hazards. Please call Optoma before you send the unit for repair.
- See projector enclosure for safety related markings.

- The unit should only be repaired by authorized service personnel.
- Only use attachments/accessories specified by the manufacturer.
- Do not look into straight into the projector lens during operation. The bright light may harm your eyes.
- This projector will detect the life of the light source itself.
- When switching the projector off, please ensure the cooling cycle has been completed before disconnecting power. Allow 90 seconds for the projector to cool down.
- Turn off and unplug the power plug from the AC outlet before cleaning the product.
- Use a soft dry cloth with mild detergent to clean the display housing. Do not use abrasive cleaners, waxes or solvents to clean the unit.
- Disconnect the power plug from AC outlet if the product is not being used for a long period of time.
- Do not setup the projector in places where it might be subjected to vibration or shock.
- Do not touch the lens with bare hands.
- Remove battery/batteries from remote control before storage. If the battery/batteries are left in the remote for long periods, they may leak.
- Do not use or store the projector in places where smoke from oil or cigarettes may be present, as it can adversely affect the quality of the projector performance.
- Please follow the correct projector orientation installation as non standard installation may affect the projector performance.
- Use a power strip and or surge protector. As power outages and brown-outs can KILL devices.

## Laser Radiation Safety Information

- This product is classified as CLASS 1 LASER PRODUCT - RISK GROUP 2 of IEC60825-1 : 2014 and also complies with 21 CFR 1040.10 and 1040.11 as a Risk Group 2, LIP (Laser Illuminated Projector) as defined in IEC 62471:2006 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.




**Failure to comply with the following could result in death or serious injury.**

- This projector has built-in Class 4 laser module. Disassembly or modification is very dangerous and should never be attempted.
- Any operation or adjustment not specifically instructed by the user's guide creates the risk of hazardous laser radiation exposure.
- Do not open or disassemble the projector as htis may cause damage by the exposure of laser radiation.
- Do not stare into beam when the projector is on. The bright light may result in permanent eye damage.
- When turning on the projector, make sure no one within projection range is looking at the lens.
- Without following the control, adjustment or operation procedure may cause damage by the exposure of laser radiation.
- Adequate instructions for assembly, operation, and maintenance, including clear warnings concerning precautions to avoid possible exposure to laser.

## Copyright

This publication, including all photographs, illustrations and software, is protected under international copyright laws, with all rights reserved. Neither this manual, nor any of the material contained herein, may be reproduced without written consent of the author.

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## Disclaimer

The information in this document is subject to change without notice. The manufacturer makes no representations or warranties with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. The manufacturer reserves the right to revise this publication and to make changes from time to time in the content hereof without obligation of the manufacturer to notify any person of such revision or changes.

## Trademark Recognition

Kensington is a U.S. registered trademark of ACCO Brand Corporation with issued registrations and pending applications in other countries throughout the world.

HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

DLP®, DLP Link and the DLP logo are registered trademarks of Texas Instruments and BrilliantColor™ is a trademark of Texas Instruments.

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

All other product names used in this manual are the properties of their respective owners and are Acknowledged.

## FCC

This device 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 device 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 device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on 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 device and receiver.
- Connect the device into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

**Notice: Shielded cables**

All connections to other computing devices must be made using shielded cables to maintain compliance with FCC regulations.

**Caution**

Changes or modifications not expressly approved by the manufacturer could void the user's authority, which is granted by the Federal Communications Commission, to operate this projector.

**Operation Conditions**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference and

2. This device must accept any interference received, including interference that may cause undesired operation.

**Notice: Canadian users**

This Class B digital apparatus complies with Canadian ICES-003.

Remarque à l'intention des utilisateurs canadiens

Cet appareil numerique de la classe B est conforme a la norme NMB-003 du Canada.

## Declaration of Conformity for EU countries

- EMC Directive 2014/30/EU (including amendments)
- Low Voltage Directive 2014/35/EU
- RED 2014/53/EU (if product has RF function)

## WEEE



**Disposal instructions**

Do not throw this electronic device into the trash when discarding. To minimize pollution and ensure utmost protection of the global environment, please recycle it.

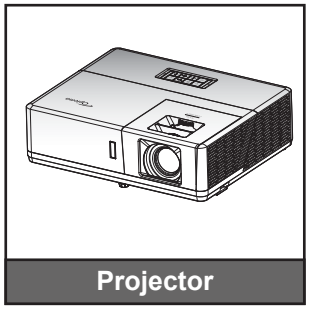
# INTRODUCTION

## Package Overview

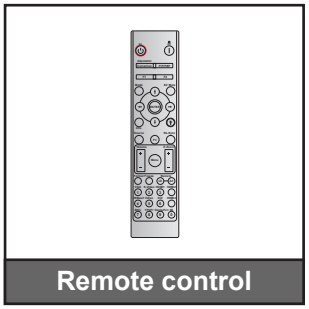
Carefully unpack and verify that you have the items listed below under standard accessories. Some of the items under optional accessories may not be available depending on the model, specification and your region of purchase. Please check with your place of purchase. Some accessories may vary from region to region.

The warranty card is only supplied in some specific regions. Please consult your dealer for detailed information.

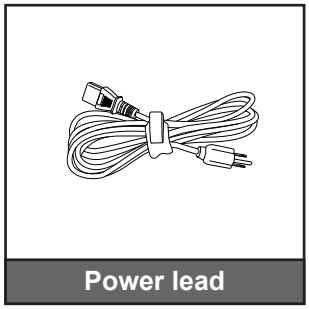
## Standard accessories



Projector



Remote control



Power lead

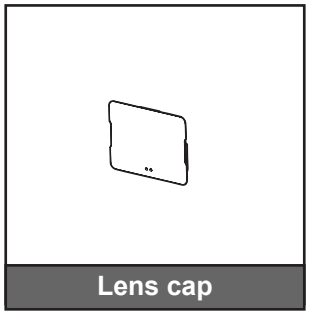
- ☑ Warranty Card*(1)
- ☑ Basic User Manual
- ☑ Paper UM*(2)

Documentation

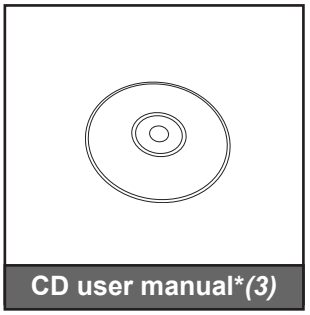
**Note:**

- *The remote control is shipped with the battery.*
- **(1) For European warranty Information, please visit www.optoma.com.*
- **(2) Available only for Asian region.*

## Optional accessories



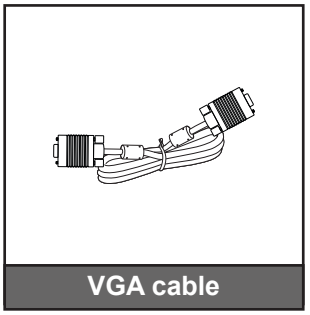
Lens cap



CD user manual*(3)*



Carry bag



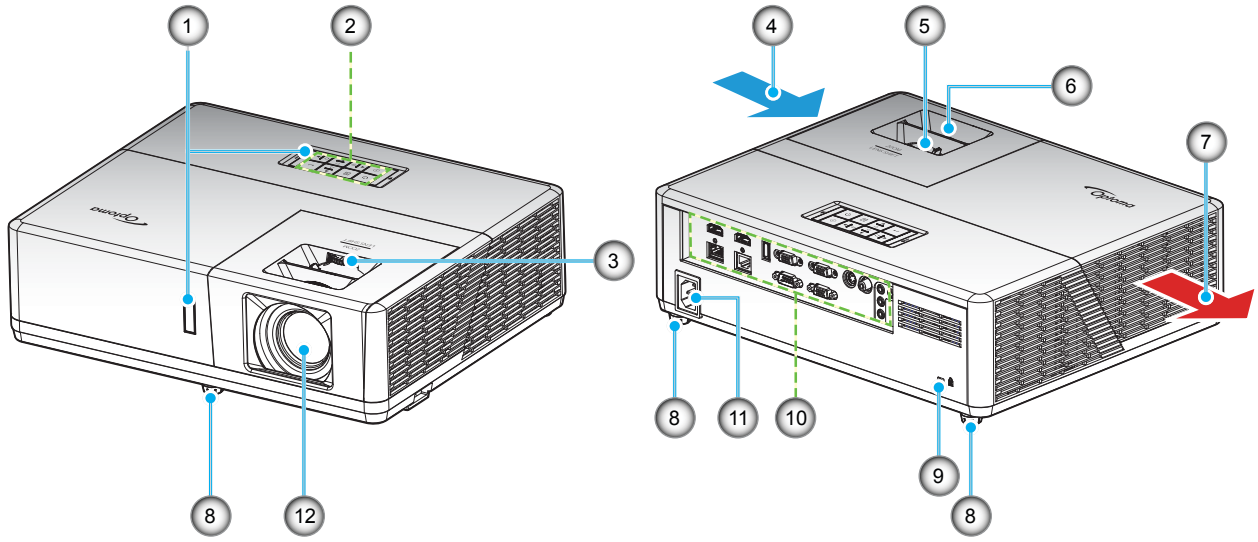
VGA cable

**Note:**

- *Optional accessories vary depending on model, specification and region.*
- **(3) Available only for USA and Asian regions.*

# INTRODUCTION

## Product Overview




**Note:**

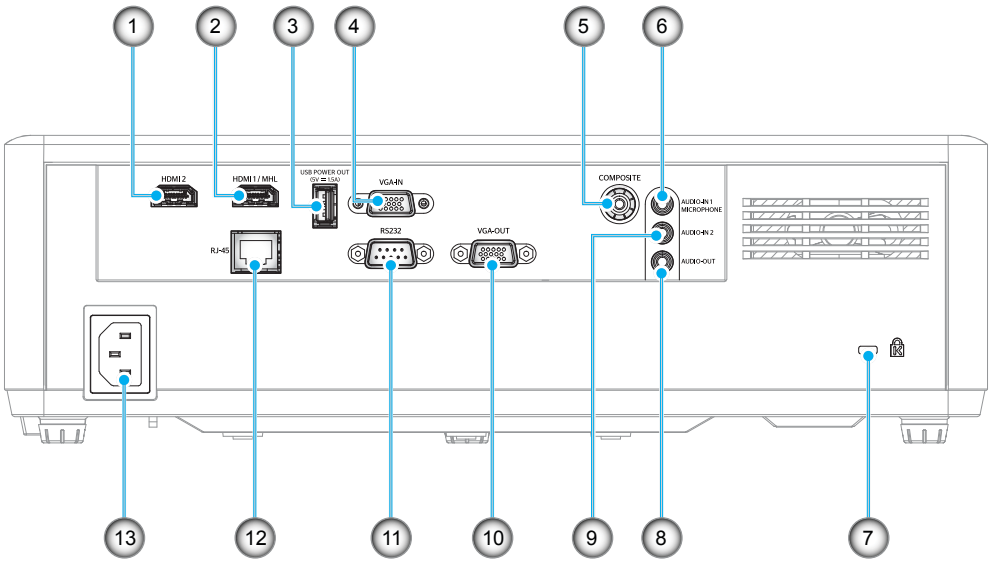
- *Do not block projector intake and exhaust vents.*
- *When operating the projector in an enclosed space, allow at least 30 cm clearance around the intake and exhaust vents.*

| No | Item | No | Item |
|---|---|---|---|
| 1. | IR Receivers | 7. | Ventilation (outlet) |
| 2. | Keypad | 8. | Tilt-Adjustment Feet |
| 3. | Lens Shift Dial | 9. | Kensington™ Lock Port |
| 4. | Ventilation (inlet) | 10. | Input / Output |
| 5. | Zoom Lever | 11. | Power Socket |
| 6. | Focus Ring | 12. | Lens |

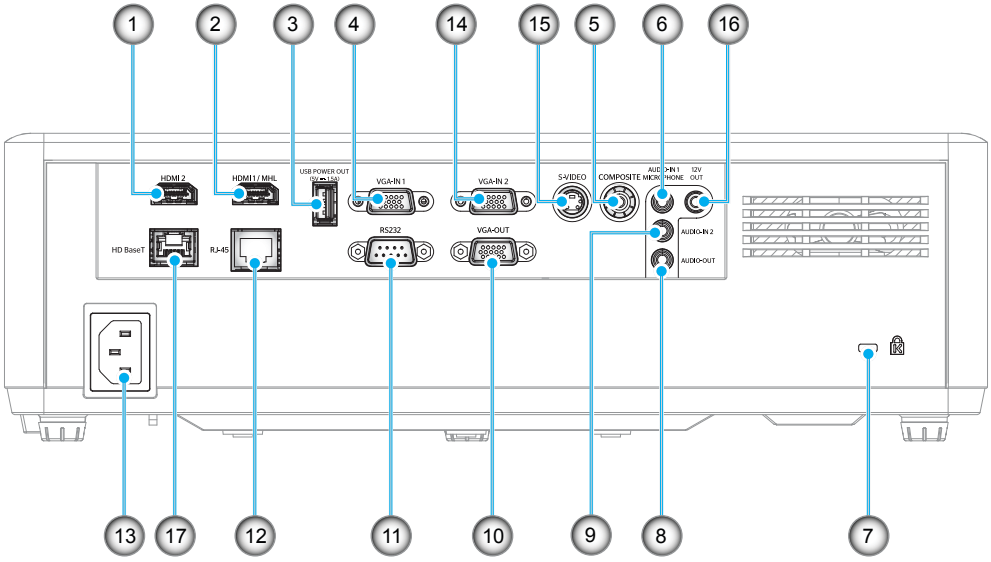
# INTRODUCTION

## Connections

### Type 1 (11 IO)




### Type 2 (15 IO)



# INTRODUCTION

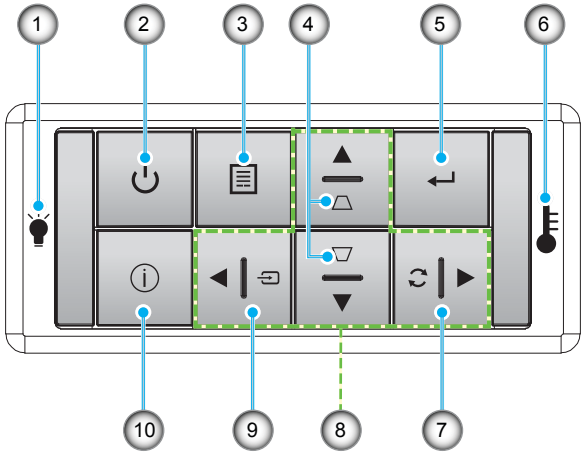
| No | Item | Type 1 (11 IO) | Type 2 (15 IO) |
|---|---|---|---|
| 1. | HDMI 2 Connector | √ | √ |
| 2. | HDMI 1 / MHL Connector | √ | √ |
| 3. | USB Power Out (5V⎓1.5A) Connector | √ | √ |
| 4. | VGA In / VGA In 1 Connector | √ | √ |
| 5. | Composite Connector | √ | √ |
| 6. | Audio In 1 / Microphone Connector | √ | √ |
| 7. | Kensington™ Lock Port | √ | √ |
| 8. | Audio Out Connector | √ | √ |
| 9. | Audio In 2 Connector | √ | √ |
| 10. | VGA Out Connector | √ | √ |
| 11. | RS232 Connector | √ | √ |
| 12. | RJ-45 Connector | √ | √ |
| 13. | Power Socket | √ | √ |
| 14. | VGA In 2 Connector | N/A | √ |
| 15. | S-Video Connector | N/A | √ |
| 16. | 12V Out Connector | N/A | √ |
| 17. | HDBaseT Connector | N/A | √ |
| **Note:** *"√" means the item is supported, "N/A" means the item is not available.* | | | |

**Note:**

- *USB Type A supports mouse / service capability.*
- *Remote mouse requires special remote control.*

# INTRODUCTION

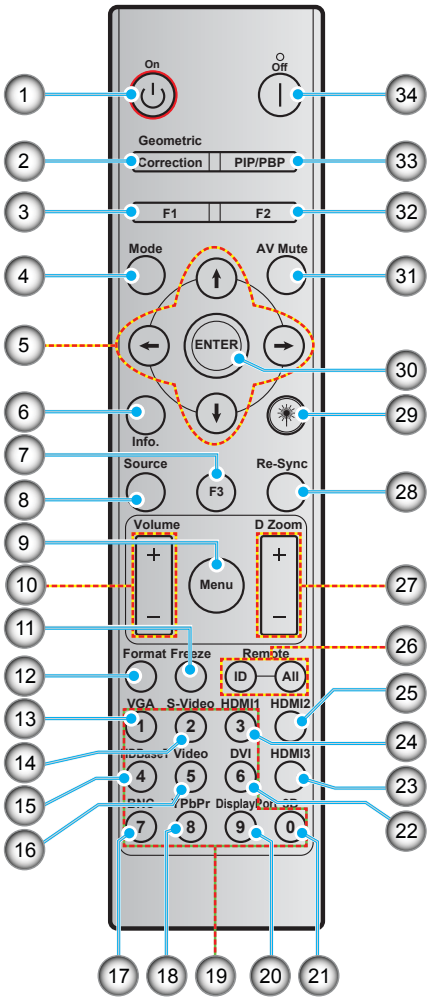
## Keypad




| No | Item | No | Item |
|---|---|---|---|
| 1. | Lamp LED | 6. | Temp LED |
| 2. | Power and Power LED | 7. | Re-Sync |
| 3. | Menu | 8. | Four Directional Select Keys |
| 4. | Keystone Correction | 9. | Source |
| 5. | Enter | 10. | Information |

# INTRODUCTION

## Remote control




| No | Item | No | Item |
|---|---|---|---|
| 1. | Power on | 18. | YPbPr (not supported) |
| 2. | Geometric Correction | 19. | Numeric keypad (0-9) |
| 3. | Function button (F1) (Assignable) | 20. | Display port (not supported) |
| 4. | Mode | 21. | 3D |
| 5. | Four directional select keys | 22. | DVI (not supported) |
| 6. | Information | 23. | HDMI3 (not supported) |
| 7. | Function button (F3) (Assignable) | 24. | HDMI1 |
| 8. | Source | 25. | HDMI2 |
| 9. | Menu | 26. | Remote ID / Remote all |
| 10. | Volume - / + | 27. | Digital Zoom - / + |
| 11. | Freeze | 28. | Re-sync |
| 12. | Format (Aspect Ratio) | 29. | Laser (not supported) |
| 13. | VGA | 30. | Enter |
| 14. | S-Video | 31. | AV Mute |
| 15. | HDBase-T | 32. | Function button (F2) (Assignable) |
| 16. | Video | 33. | PIP/PBP (not supported) |
| 17. | BNC (not supported) | 34. | Power off |

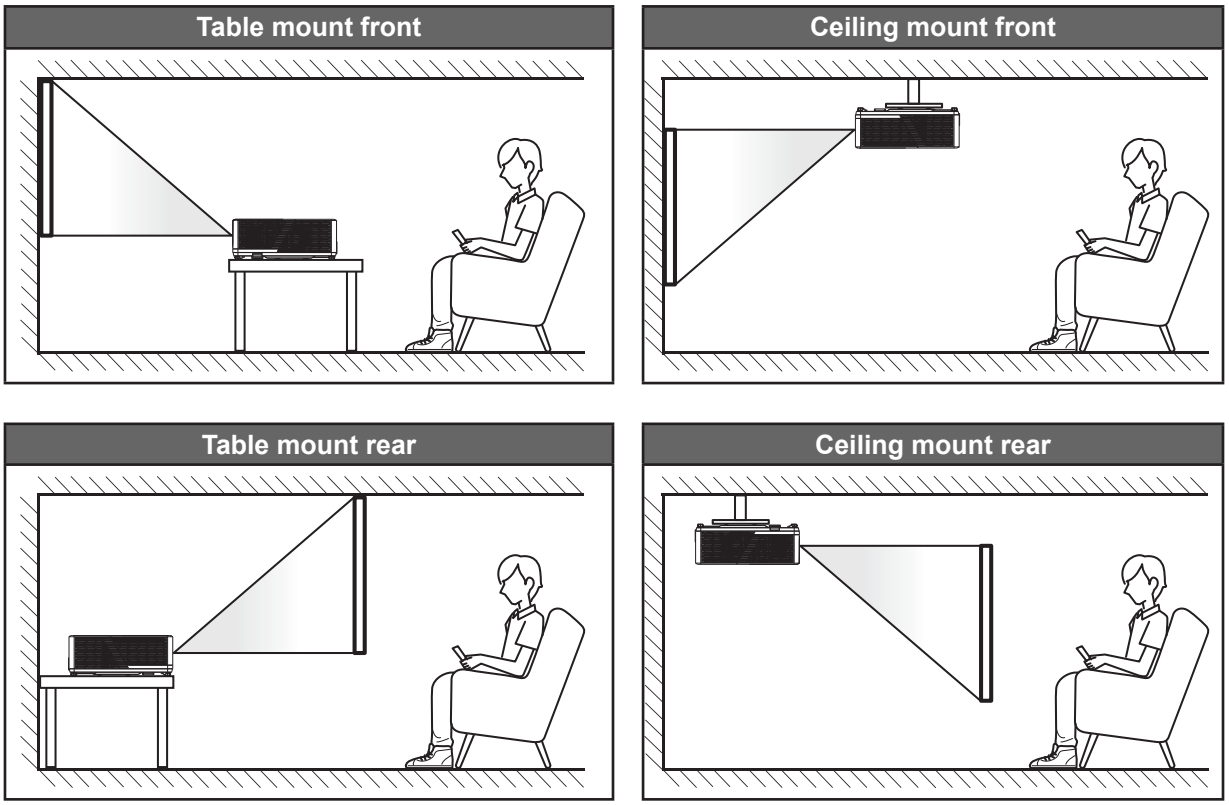
**Note:** *Some keys may have no function for models that do not support these features.*

# SETUP AND INSTALLATION

## Installing the projector

Your projector is designed to be installed in one of four possible positions.

Your room layout or personal preference will dictate which installation location you select. Take into consideration the size and position of your screen, the location of a suitable power outlet, as well as the location and distance between the projector and the rest of your equipment.




Projector should be placed flat on a surface and 90 degrees / perpendicular to the screen.

- How to determine projector location for a given screen size, please refer to distance table on pages *58-60*.
- How to determine screen size for a given distance, please refer to distance table on pages *58-60*.

**Note:** *The further away the projector is placed from the screen the projected image size increases and vertical offset also increases proportionally.*

**IMPORTANT!**

*Do not operate the projector in any orientation other that table top or ceiling mount. The projector should be horizontal and not tilted either forwards/backwards or left/right. Any other orientation will invalidate the warranty and may shorten the lifetime of the projector light source or the projector itself. For none standard installation advise please contact Optoma.*

# SETUP AND INSTALLATION

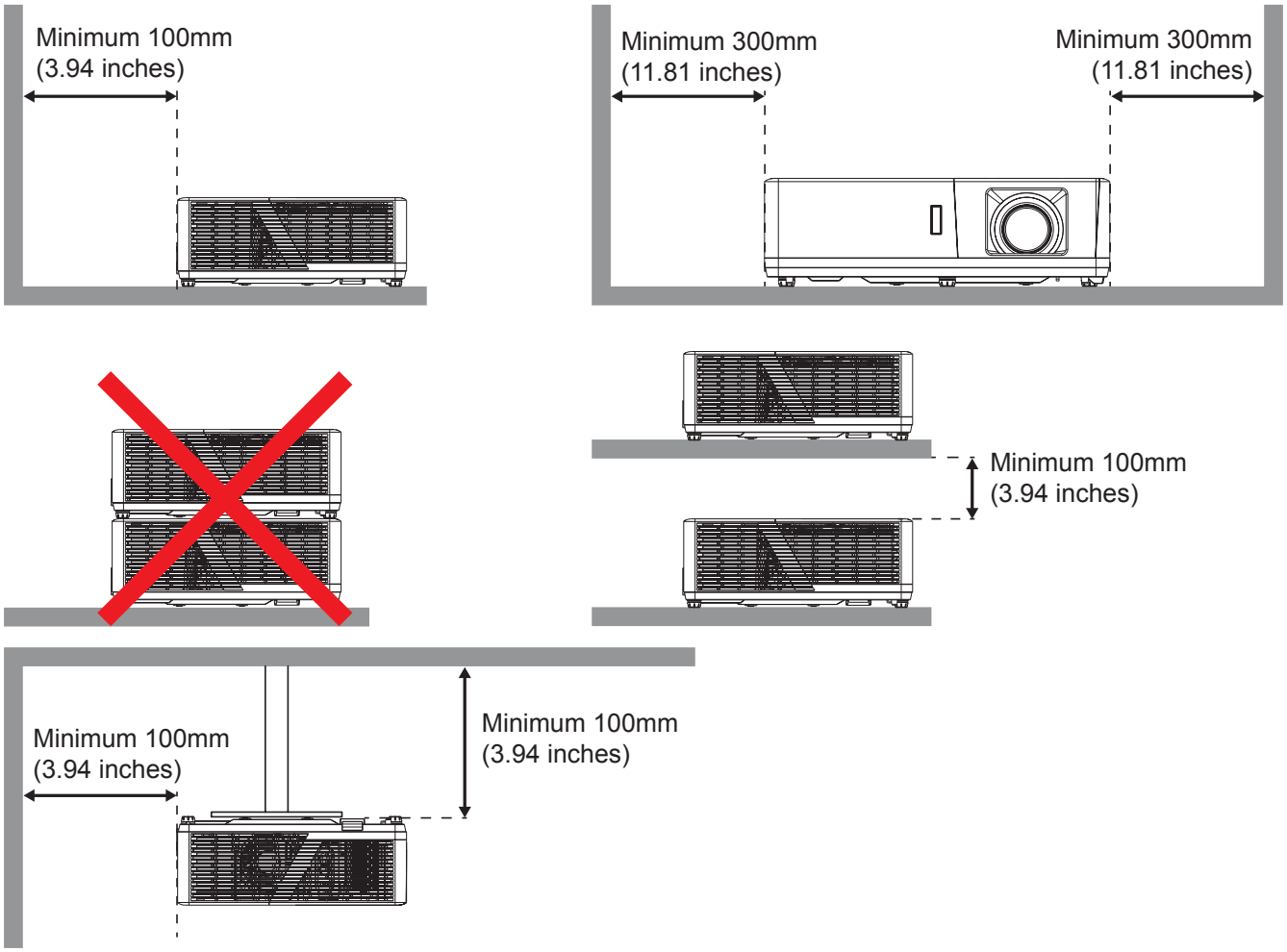
**Projector installation notice**

- Place the projector in a horizontal position.

  **The tilt angle of the projector should not exceed 15 degrees**, nor should the projector be installed in any way other than the desktop and ceiling mount, otherwise lamp life could decrease dramatically, and may lead to other **unpredictable damages**.




- Allow at least 30 cm clearance around the exhaust vent.

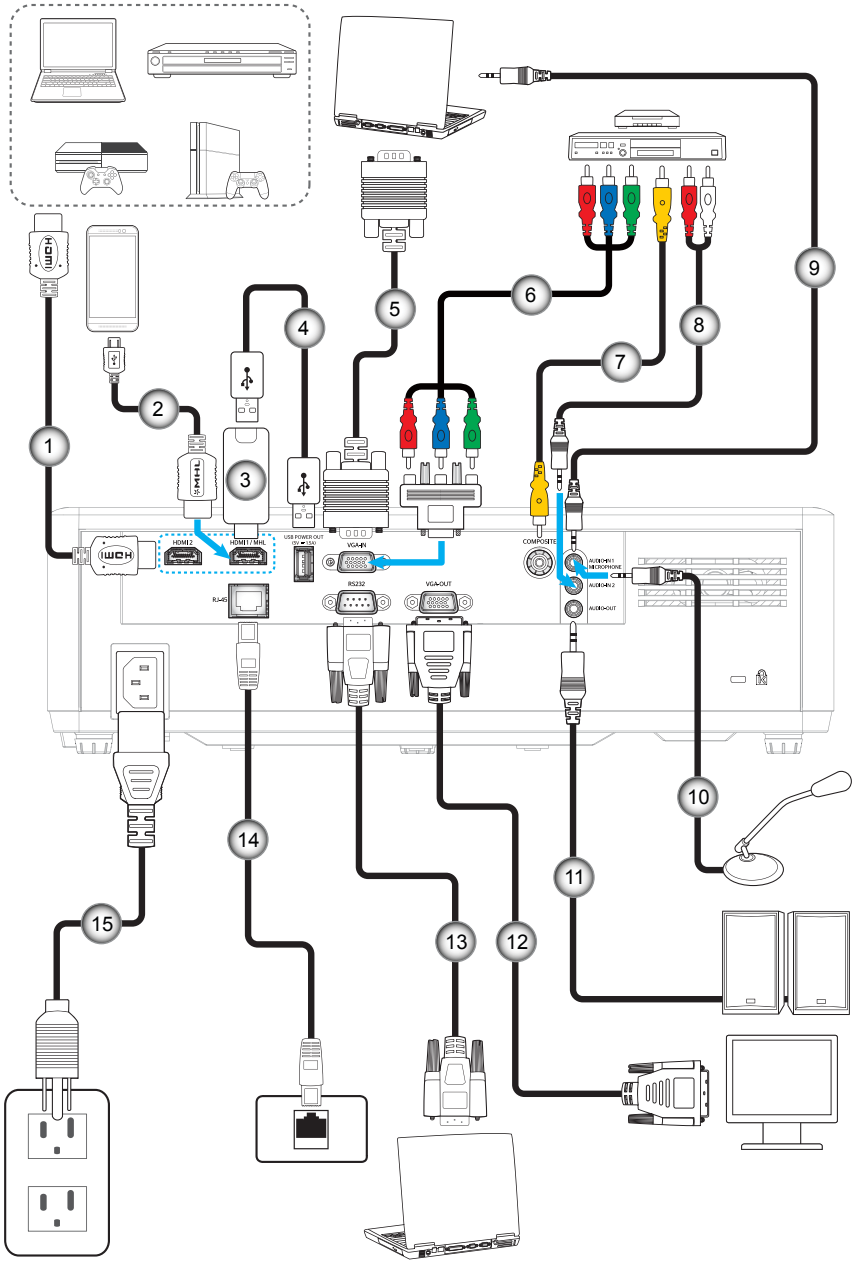



- Ensure that the intake vents do not recycle hot air from the exhaust vent.
- When operating the projector in an enclosed space, ensure that the surrounding air temperature within the enclosure does not exceed operation temperature while the projector is running, and the air intake and exhaust vents are unobstructed.
- All enclosures should pass a certified thermal evaluation to ensure that the projector does not recycle exhaust air, as this may cause the device to shutdown even if the enclosure temperature is with the acceptable operation temperature range.

# SETUP AND INSTALLATION

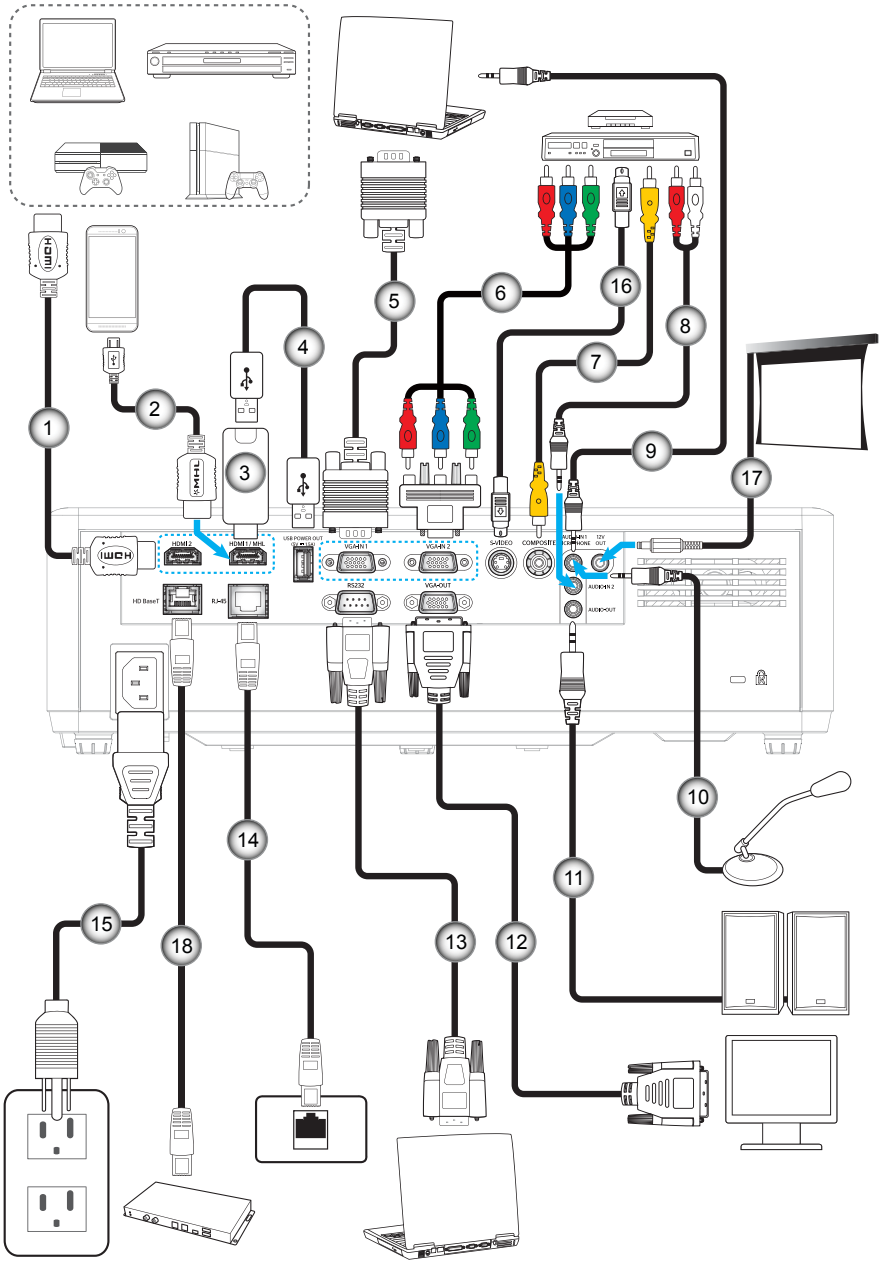
## Connecting sources to the projector

### Type 1 (11 IO)



# SETUP AND INSTALLATION

**Type 2 (15 IO)**



# SETUP AND INSTALLATION

| No | Item | Type 1 (11 IO) | Type 2 (15 IO) |
|---|---|---|---|
| 1. | HDMI Cable | √ | √ |
| 2. | MHL Cable | √ | √ |
| 3. | HDMI Dongle | √ | √ |
| 4. | USB Power Cable | √ | √ |
| 5. | VGA In Cable | √ | √ |
| 6. | RCA Component Cable | √ | √ |
| 7. | Video Cable | √ | √ |
| 8. | Audio In Cable | √ | √ |
| 9. | Audio In Cable | √ | √ |
| 10. | Microphone Cable | √ | √ |
| 11. | Audio Out Cable | √ | √ |
| 12. | VGA Out Cable | √ | √ |
| 13. | RS232 Cable | √ | √ |
| 14. | RJ-45 Cable | √ | √ |
| 15. | Power Cord | √ | √ |
| 16. | S-Video Cable | N/A | √ |
| 17. | 12V DC Jack | N/A | √ |
| 18. | RJ-45 Cable (Cat5 Cable) | N/A | √ |
| **Note:** *"√" means the item is supported, "N/A" means the item is not available.* | | | |

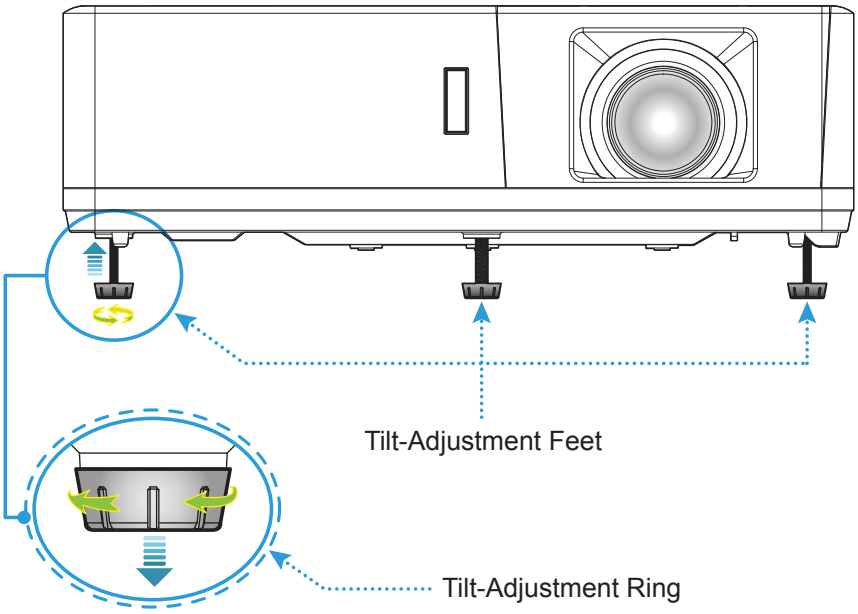
# SETUP AND INSTALLATION

## Adjusting the projector image

### Image height

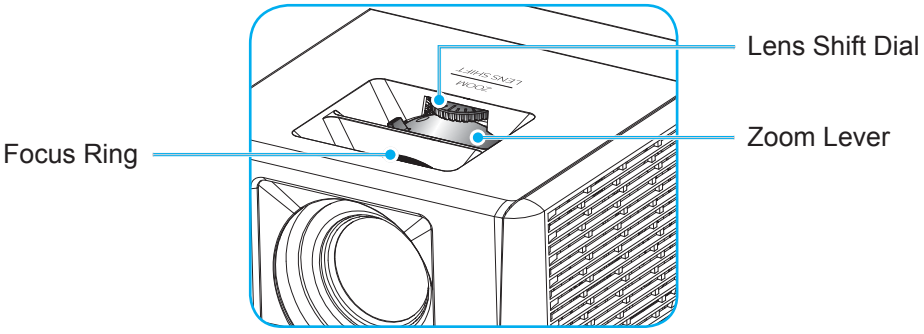
The projector is equipped with elevator feet for adjusting the image height.

1. Locate the adjustable foot you wish to adjust on the underside of the projector.
2. Rotate the adjustable foot clockwise or counterclockwise to raise or lower the projector.




### Zoom, lens shift, and focus

- To adjust the image size, turn the zoom lever clockwise or counterclockwise to increase or decrease the projected image size.
- To adjust the image position, turn the lens shift dial clockwise or counterclockwise to adjust the position of the projected image vertically.
- To adjust the focus, turn the focus ring clockwise or counterclockwise until the image is sharp and legible.




**Note:** *The projector will focus at a distance of 1.3m to 9.4m.*

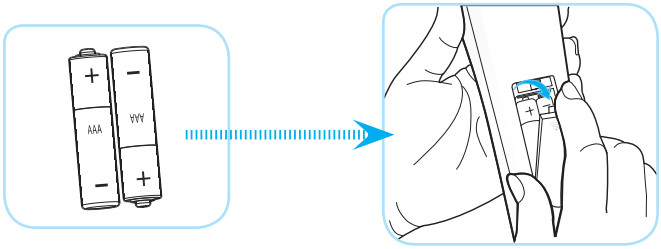
# SETUP AND INSTALLATION

## Remote setup

**Installing / replacing the batteries**

Two AAA size batteries are supplied for the remote control.

1. Remove the battery cover on the back of the remote control.
2. Insert AAA batteries in the battery compartment as illustrated.
3. Replace back cover on remote control.



**Note:** *Replace only with the same or equivalent type batteries.*

***CAUTION***

Improper use of batteries can result in chemical leakage or explosion. Be sure to follow the instructions below.

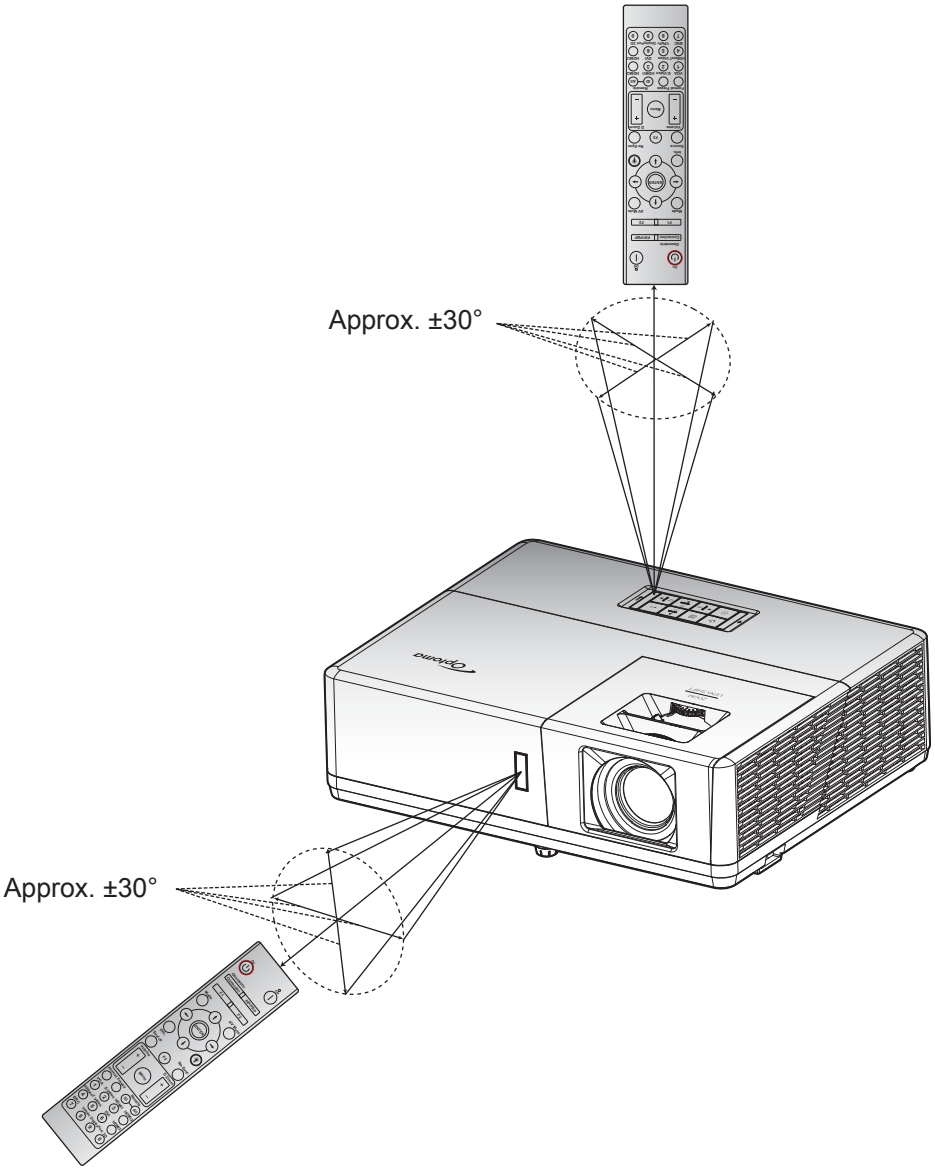
- Do not mix batteries of different types. Different types of batteries have different characteristics.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries or cause chemical leakage in old batteries.
- Remove batteries as soon as the are depleted. Chemicals that leak from batteries that come in contact with skin can cause a rash. If you find any chemical leakage, wipe thoroughly with a cloth.
- The batteries supplied with this product may have a shorter life expectancy due to storage conditions.
- If you will not be using the remote control for an extended period of time, remove the batteries.
- When you dispose of the batteries, you must obey the law in the relative area or country.

# SETUP AND INSTALLATION

**Effective range**

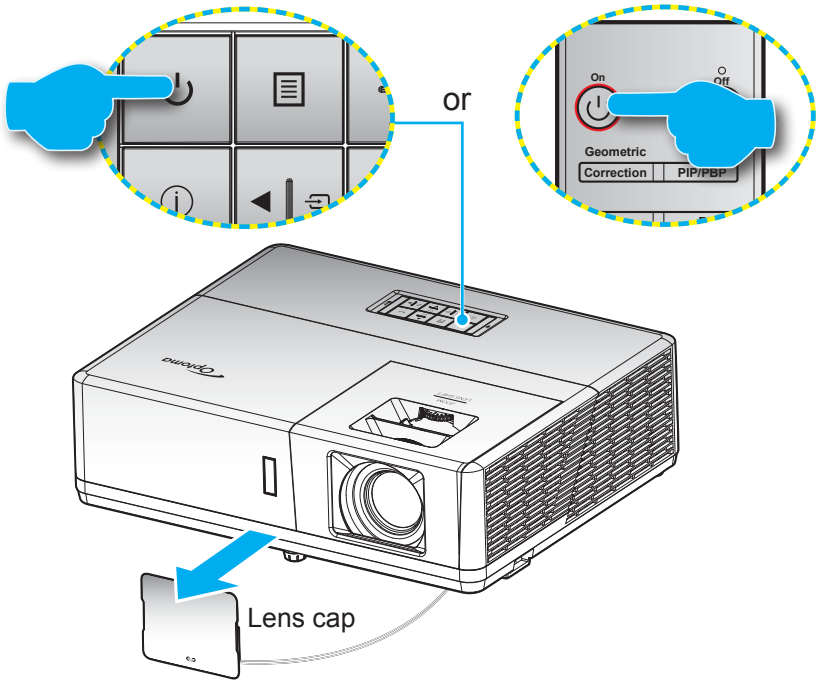
Infra-Red (IR) remote control sensor is located on the top and front sides of the projector. Ensure to hold the remote control at an angle within 60 degrees perpendicular to the projector's IR remote control sensor to function correctly. The distance between the remote control and the sensor should not be longer than 12 meters (39.4 feet).

- Make sure that there are no obstacles between the remote control and the IR sensor on the projector that might obstruct the infra-red beam.
- Make sure the IR transmitter of the remote control is not being shined by sunlight or fluorescent lamps directly.
- Please keep the remote controller away from fluorescent lamps for over 2 m or the remote controller might become malfunction.
- If the remote control is close to Inverter-Type fluorescent lamps, it might become ineffective from time to time.
- If the remote control and the projector are within a very short distance, the remote control might become ineffective.
- When you aim at the screen, the effective distance is less than 5 m from the remote control to the screen and reflecting the IR beams back to the projector. However, the effective range might change according to screens.



# USING THE PROJECTOR

## Powering on / off the projector



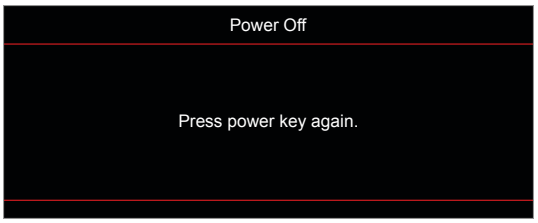

### Powering on

1. Remove the lens cap.
2. Securely connect the power lead and signal/source cable. When connected, the Power LED will turn red.
3. Turn on the projector by pressing the ⏻ button on the projector keypad or remote control.
4. A start up screen will display in approximately 10 seconds and the Power LED will be flashing blue.

**Note:** *The first time the projector is turned on, you will be prompted to select the preferred language, projection orientation, and other settings.*

### Powering off

1. Turn off the projector by pressing the ⏻ button on the projector keypad or the | button on the remote control.
2. The following message will be displayed:



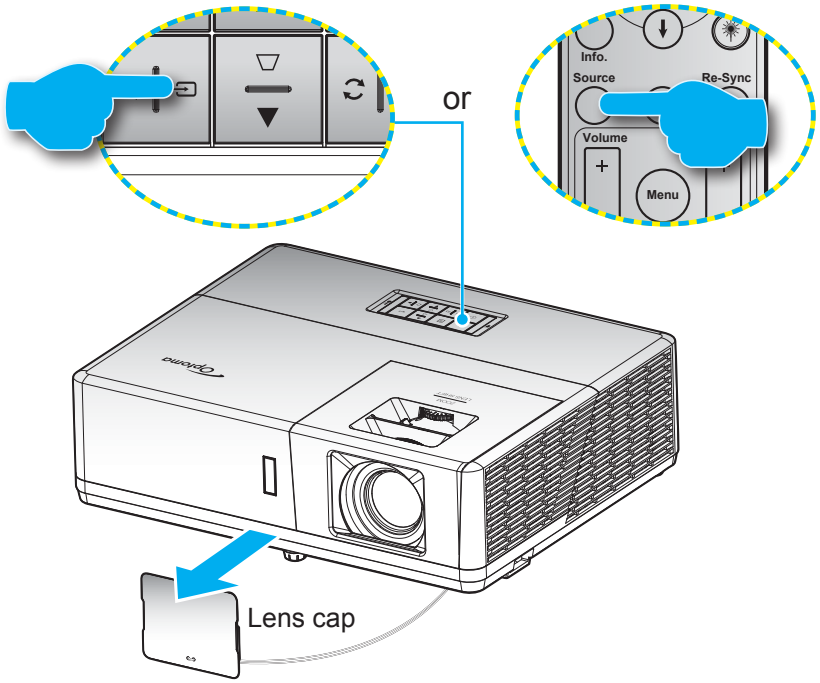

3. Press the ⏻ or | button again to confirm, otherwise the message will disappear after 15 seconds. When you press the ⏻ or | button for the second time, the projector will shut down.
4. The cooling fans will continue to operate for about 10 seconds for the cooling cycle and the Power LED will flash blue. When the Power turns solid red, this indicates the projector has entered standby mode. If you wish to turn the projector back on, you must wait until the cooling cycle has finished and the projector has entered standby mode. When the projector is in standby mode, simply press the ⏻ button again to turn on the projector.
5. Disconnect the power lead from the electrical outlet and the projector.

**Note:** *It is not recommended that the projector is turned on immediately, right after a power off procedure.*

# USING THE PROJECTOR

## Selecting an input source

Turn on the connected source that you want to display on the screen, such as computer, notebook, video player, etc. The projector will automatically detect the source. If multiple sources are connected, press the ⇨ button on the projector keypad or the **Source** button on the remote control to select the desired input.

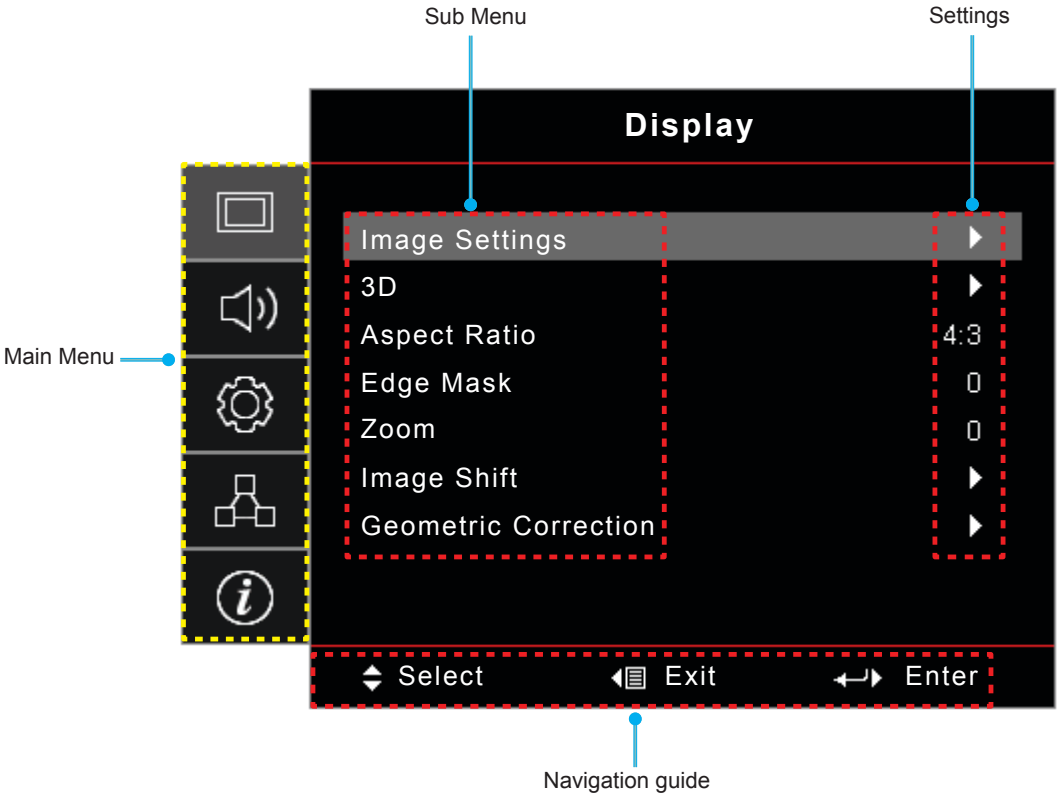


# USING THE PROJECTOR

## Menu navigation and features

The projector has multilingual on-screen display menus that allow you to make image adjustments and change a variety of settings. The projector will automatically detect the source.

1. To open the OSD menu, press the ☰ button on the projector keypad or the **Menu** button on the remote control.
2. When OSD is displayed, use ▲▼ keys to select any item in the main menu. While making a selection on a particular page, press the ↵ button on the projector keypad or the **Enter** button on the remote control to enter sub menu.
3. Use ◀▶ keys to select the desired item in the sub menu and then press the ↵ or **Enter** button to view further settings. Adjust the settings by using ◀▶ keys.
4. Select the next item to be adjusted in the sub menu and adjust as described above.
5. Press press the ↵ or **Enter** button to confirm, and the screen will return to the main menu.
6. To exit, press the ☰ or **Menu** button again. The OSD menu will close and the projector will automatically save the new settings.



# USING THE PROJECTOR

## OSD Menu tree

| Main Menu | Sub Menu | Sub Menu 2 | Sub Menu 3 | Sub Menu 4 | Values |
|---|---|---|---|---|---|
| Display | Image Settings | Display Mode | | | Presentation |
| | | | | | Bright |
| | | | | | HDR SIM. |
| | | | | | Cinema |
| | | | | | Game |
| | | | | | sRGB |
| | | | | | DICOM SIM. |
| | | | | | User |
| | | | | | 3D |
| | | Wall Color | | | Off [Default] |
| | | | | | Blackboard |
| | | | | | Light Yellow |
| | | | | | Light Green |
| | | | | | Light Blue |
| | | | | | Pink |
| | | | | | Gray |
| | | Dynamic Range | HDR | | Off |
| | | | | | Auto [Default] |
| | | | HDR Picture Mode | | Bright |
| | | | | | Standard [Default] |
| | | | | | Film |
| | | | | | Detail |
| | | | | | SMPTE 2084 |
| | | | HDR Demo Mode | | Off [Default] |
| | | | | | On |
| | | Brightness | | | -50 ~ 50 |
| | | Contrast | | | -50 ~ 50 |
| | | Sharpness | | | 1 ~ 15 |
| | | Color | | | -50 ~ 50 |
| | | Tint | | | -50 ~ 50 |
| | | Gamma | Film | | |
| | | | Video | | |
| | | | Graphics | | |
| | | | Standard(2.2) | | |
| | | | 1.8 | | |
| | | | 2.0 | | |
| | | | 2.4 | | |
| | | | 2.6 | | |
| | | | 3D | | |
| | | | Blackboard | | |
| | | | DICOM SIM. | | |
| | | Color Settings | BrilliantColor™ | | 1 ~ 10 |

# USING THE PROJECTOR

| Main Menu | Sub Menu | Sub Menu 2 | Sub Menu 3 | Sub Menu 4 | Values |
|---|---|---|---|---|---|
| Display | Image Settings | Color Settings | Color Temperature | | Warm |
| | | | | | Standard |
| | | | | | Cool |
| | | | | | Cold |
| | | | Color Matching | Color | Red [Default] |
| | | | | | Green |
| | | | | | Blue |
| | | | | | Cyan |
| | | | | | Yellow |
| | | | | | Magenta |
| | | | | | White(*) |
| | | | | Hue / R(*) | -50 ~ 50 [Default: 0] |
| | | | | Saturation / G(*) | -50 ~ 50 [Default: 0] |
| | | | | Gain / B(*) | -50 ~ 50 [Default: 0] |
| | | | | Reset | Cancel [Default] |
| | | | | | Yes |
| | | | | Exit | |
| | | | RGB Gain/Bias | Red Gain | -50 ~ 50 |
| | | | | Green Gain | -50 ~ 50 |
| | | | | Blue Gain | -50 ~ 50 |
| | | | | Red Bias | -50 ~ 50 |
| | | | | Green Bias | -50 ~ 50 |
| | | | | Blue Bias | -50 ~ 50 |
| | | | | Reset | Cancel [Default] |
| | | | | | Yes |
| | | | | Exit | |
| | | | Color Space [Not HDMI Input] | | Auto [Default] |
| | | | | | RGB |
| | | | | | YUV |
| | | | Color Space [HDMI Input] | | Auto [Default] |
| | | | | | RGB(0~255) |
| | | | | | RGB(16~235) |
| | | | | | YUV |
| | | | White Level | | -50 ~ 50 (depends on signal) |
| | | | Black Level | | -50 ~ 50 (depends on signal) |
| | | | Saturation | | -50 ~ 50 |
| | | | Hue | | -50 ~ 50 |
| | | | IRE | | 0 |
| | | | | | 7.5 |
| | | Signal | Automatic | | Off |
| | | | | | On [Default] |
| | | | Frequency | | -50 ~ 50 (depends on signal) [Default: 0] |
| | | | Phase | | 0~31 (depends on signal) [Default: 0] |

# USING THE PROJECTOR

| Main Menu | Sub Menu | Sub Menu 2 | Sub Menu 3 | Sub Menu 4 | Values |
|---|---|---|---|---|---|
| Display | Image Settings | Signal | H. Position | | -50 ~ 50 (depends on signal) [Default: 0] |
| | | | V. Position | | -50 ~ 50 (depends on signal) [Default: 0] |
| | | Brightness Mode | | | DynamicBlack |
| | | | | | Power (Power = 100%/ 95%/ 90%/ 85%/ 80%/ 75%/ 70%/ 65%/ 60%/ 55%/ 50%) |
| | | Reset | | | |
| | 3D | 3D Mode | | | Off [Default] |
| | | | | | DLP-Link |
| | | | | | IR |
| | | 3D → 2D | | | 3D [Default] |
| | | | | | L |
| | | | | | R |
| | | 3D Format | | | Auto [Default] |
| | | | | | SBS |
| | | | | | Top and Bottom |
| | | | | | Frame Sequential |
| | | | | | Frame Packing |
| | | 3D Sync Invert | | | On |
| | | | | | Off [Default] |
| | Aspect Ratio | | | | 4:3 |
| | | | | | 16:9 |
| | | | | | 16:10 |
| | | | | | LBX |
| | | | | | Native |
| | | | | | Auto |
| | Edge Mask | | | | 0 ~ 10 [Default: 0] |
| | Zoom | | | | -5 ~ 25 |
| | Image Shift | H | | | -100 ~ 100 [Default: 0] |
| | | V | | | -100 ~ 100 [Default: 0] |
| | Geometric Correction | Four Corners | | | |
| | | H Keystone | | | -40 ~ 40 [Default: 0] |
| | | V Keystone | | | -40 ~ 40 [Default: 0] |
| | | Auto Keystone | | | Off |
| | | | | | On [Default] |
| | | Reset | | | |
| Audio | Mute | | | | Off [Default] |
| | | | | | On |
| | Volume | | | | 0 ~ 10 [Default: 5] |
| | Mic Volume | | | | 0 ~ 10 [Default: 5] |

# USING THE PROJECTOR

| Main Menu | Sub Menu | Sub Menu 2 | Sub Menu 3 | Sub Menu 4 | Values |
|---|---|---|---|---|---|
| Audio | Audio Input | HDMI1/MHL | | | Audio 1 |
| | | | | | Audio 2 |
| | | | | | Default [Default] |
| | | HDMI2 | | | Audio 1 |
| | | | | | Audio 2 |
| | | | | | Default [Default] |
| | | VGA | | | Audio 1 |
| | | | | | Audio 2 |
| | | Component | | | Audio 1 |
| | | | | | Audio 2 |
| | | Video | | | Audio 1 |
| | | | | | Audio 2 |
| Setup | Projection | | | | Front [Default] |
| | | | | | Rear |
| | | | | | Ceiling-top |
| | | | | | Rear-top |
| | Screen Type | | | | 16:9 |
| | | | | | 16:10 [Default] |
| | Power Settings | Direct Power On | | | Off [Default] |
| | | | | | On |
| | | Signal Power On | | | Off [Default] |
| | | | | | On |
| | | Auto Power Off (min.) | | | 0 ~ 180 (5 min increments) [Default: 0] |
| | | Sleep Timer (min.) | | | 0 ~ 990 (30 min increments) [Default: 0] |
| | | | Always On | | No [Default] |
| | | | | | Yes |
| | | Power Mode (Standby) | | | Active |
| | | | | | Eco [Default] |
| | | USB Power (Standby) | | | Off [Default] |
| | | | | | On |
| | Security | Security | | | Off |
| | | | | | On |
| | | Security Timer | Month | | |
| | | | Day | | |
| | | | Hour | | |
| | | Change Password | | | [Default: 1234] |
| | HDMI Link Settings | HDMI Link | | | Off [Default] |
| | | | | | On |
| | | Inclusive of TV | | | No [Default] |
| | | | | | Yes |

| Main Menu | Sub Menu | Sub Menu 2 | Sub Menu 3 | Sub Menu 4 | Values |
|---|---|---|---|---|---|
| Setup | HDMI Link Settings | Power On Link | | | Mutual [Default] |
| | | | | | PJ → Device |
| | | | | | Device → PJ |
| | | Power Off Link | | | Off [Default] |
| | | | | | On |
| | Test Pattern | | | | Green Grid |
| | | | | | Magenta Grid |
| | | | | | White Grid |
| | | | | | White |
| | | | | | Off |
| | Remote Settings [depends on remote] | IR Function | | | On [Default] |
| | | | | | Off |
| | | Remote Code | | | 00~99 |
| | | F1 | | | Test Pattern |
| | | | | | Brightness |
| | | | | | Contrast |
| | | | | | Sleep Timer [Default] |
| | | | | | Color Matching |
| | | | | | Color Temp |
| | | | | | Gamma |
| | | | | | Projection |
| | | F2 | | | Test Pattern |
| | | | | | Brightness |
| | | | | | Contrast |
| | | | | | Sleep Timer |
| | | | | | Color Matching [Default] |
| | | | | | Color Temp |
| | | | | | Gamma |
| | | | | | Projection |
| | | F3 | | | Test Pattern [Default] |
| | | | | | Brightness |
| | | | | | Contrast |
| | | | | | Sleep Timer |
| | | | | | Color Matching |
| | | | | | Color Temp |
| | | | | | Gamma |
| | | | | | Projection |
| | Projector ID | | | | 00 ~ 99 |
| | Options | Language | | | English [Default] |
| | | | | | Deutsch |
| | | | | | Français |
| | | | | | Italiano |
| | | | | | Español |
| | | | | | Português |

# USING THE PROJECTOR

| Main Menu | Sub Menu | Sub Menu 2 | Sub Menu 3 | Sub Menu 4 | Values |
|---|---|---|---|---|---|
| Setup | Options | Language | | | Polski |
| | | | | | Nederlands |
| | | | | | Svenska |
| | | | | | Norsk/Dansk |
| | | | | | Suomi |
| | | | | | ελληνικά |
| | | | | | 繁體中文 |
| | | | | | 簡体中文 |
| | | | | | 日本語 |
| | | | | | 한국어 |
| | | | | | Русский |
| | | | | | Magyar |
| | | | | | Čeština |
| | | | | | عـربي |
| | | | | | ไทย |
| | | | | | Türkçe |
| | | | | | فارســی |
| | | | | | Tiếng Việt |
| | | | | | Bahasa Indonesia |
| | | | | | Română |
| | | | | | Slovenčina |
| | | Closed Captioning | | | CC1 |
| | | | | | CC2 |
| | | | | | Off [Default] |
| | | Menu Settings | Menu Location | | Top left |
| | | | | | Top right |
| | | | | | Center [Default] |
| | | | | | Bottom left |
| | | | | | Bottom right |
| | | | Menu Timer | | Off |
| | | | | | 5sec |
| | | | | | 10sec [Default] |
| | | Auto Source | | | Off [Default] |
| | | | | | On |
| | | Input Source | | | HDMI1/MHL |
| | | | | | HDMI2 |
| | | | | | VGA |
| | | | | | Component |
| | | | | | Video |

# USING THE PROJECTOR

| Main Menu | Sub Menu | Sub Menu 2 | Sub Menu 3 | Sub Menu 4 | Values |
|---|---|---|---|---|---|
| Setup | Options | Input Name | HDMI1/MHL | | Default [Default] |
| | | | | | Custom |
| | | | HDMI2 | | Default [Default] |
| | | | | | Custom |
| | | | VGA | | Default [Default] |
| | | | | | Custom |
| | | | Component | | Default [Default] |
| | | | | | Custom |
| | | | Video | | Default [Default] |
| | | | | | Custom |
| | | VGA Out | | | Auto [Default] |
| | | | | | VGA1 |
| | | | | | VGA2 |
| | | High Altitude | | | Off [Default] |
| | | | | | On |
| | | Display Mode Lock | | | Off [Default] |
| | | | | | On |
| | | Keypad Lock | | | Off [Default] |
| | | | | | On |
| | | Information Hide | | | Off [Default] |
| | | | | | On |
| | | Logo | | | Default [Default] |
| | | | | | Neutral |
| | | | | | User |
| | | Background Color | | | None |
| | | | | | Blue [Default] |
| | | | | | Red |
| | | | | | Green |
| | | | | | Gray |
| | | | | | Logo |
| | Reset | Reset OSD | | | Cancel [Default] |
| | | | | | Yes |
| | | Reset to Default | | | Cancel [Default] |
| | | | | | Yes |
| Network | LAN | Network Status | | | (read only) |
| | | MAC Address | | | (read only) |
| | | DHCP | | | Off [Default] |
| | | | | | On |
| | | IP Address | | | 192.168.0.100 [Default] |
| | | Subnet Mask | | | 255.255.255.0 [Default] |
| | | Gateway | | | 192.168.0.254 [Default] |
| | | DNS | | | 192.168.0.51 [Default] |
| | | Reset | | | |

# USING THE PROJECTOR

| Main Menu | Sub Menu | Sub Menu 2 | Sub Menu 3 | Sub Menu 4 | Values |
|---|---|---|---|---|---|
| Network | Control | Crestron | | | Off |
| | | | | | On [Default]<br>**Note:** *Port 41794* |
| | | Extron | | | Off |
| | | | | | On [Default]<br>**Note:** *Port 2023* |
| | | PJ Link | | | Off |
| | | | | | On [Default]<br>**Note:** *Port 4352* |
| | | AMX Device Discovery | | | Off |
| | | | | | On [Default]<br>**Note:** *Port 9131* |
| | | Telnet | | | Off |
| | | | | | On [Default]<br>**Note:** *Port 23* |
| | | HTTP | | | Off |
| | | | | | On [Default]<br>**Note:** *Port 80* |
| Info | Regulatory | | | | |
| | Serial Number | | | | |
| | Source | | | | |
| | Resolution | | | | 00x00 |
| | Refresh Rate | | | | 0.00Hz |
| | Display Mode | | | | |
| | Color Depth | | | | |
| | Color Format | | | | |
| | Power Mode (Standby) | | | | |
| | Light Source Hours | | | | 0 hr |
| | Remote Code | | | | 00 ~ 99 |
| | Remote Code(Active) | | | | 00 ~ 99 |
| | Network Status | | | | |
| | IP Address | | | | |
| | Projector ID | | | | 00 ~ 99 |
| | Brightness Mode | | | | |
| | FW Version | System | | | |
| | | LAN | | | |
| | | MCU | | | |

# USING THE PROJECTOR

## *Display menu*

### Display image settings menu

**Display Mode**

There are many factory presets optimized for various types of images.

- **Presentation**: This mode is suitable for showing in front of public in connection to the PC.
- **Bright**: Maximum brightness from PC input.
- **HDR SIM.**: Enhances non-HDR content with simulated High Dynamic Range (HDR). Choose this mode to enhance gamma, contrast, and color saturation for non-HDR content (720p and 1080p Broadcast/Cable TV, 1080p Blu-ray, non-HDR Games, etc). This mode can ONLY be used with non-HDR content.
- **Cinema**: Provides the best colors for watching movies.
- **Game**: Select this mode to increase the brightness and response time level for enjoying video games.
- **sRGB**: Standardized accurate color.
- **DICOM SIM.**: This mode can project a monochrome medical image such as an X ray radiography, MRI, etc.
- **User**: Memorize user's settings.
- **3D**: To experience the 3D effect, you need to have 3D glasses, make sure your PC/portable device has a 120 Hz signal output quad buffered graphics card and have a 3D Player installed.

**Wall Color**

Use this function to obtain an optimized screen image according to the wall color. Select between off, blackboard, light yellow, light green, light blue, pink, and gray.

**Dynamic Range**

Configure the High Dynamic Range (HDR) setting and its effect when displaying video from 4K Blu-ray players and streaming devices.

**Note:** *HDMI1 and VGA do not support Dynamic Range.*

➤ **HDR**

- **Off**: Turn off HDR Processing. When set to Off, the projector will NOT decode HDR content.
- **Auto**: Auto detect HDR signal.

➤ **HDR Picture Mode**

- **Bright**: Choose this mode for brighter more saturated colors.
- **Standard**: Choose this mode for natural looking colors with a balance of warm and cool tones.
- **Film**: Choose this mode for improved detail and image sharpness.
- **Details**: The signal comes from OETF conversion to achieve the best color matching.
- **SMPTE 2084**: HDR ETOF follows SMPTE 2084 specification.

➤ **HDR Demo Mode**

- This feature enables you to see the difference in the image quality between the raw unprocessed image and the image processed as processed by the HDR.

**Brightness**

Adjust the brightness of the image.

**Contrast**

The contrast controls the degree of difference between the lightest and darkest parts of the picture.

**Sharpness**

Adjust the sharpness of the image.

**Color**

Adjust a video image from black and white to fully saturated color.

**Tint**

Adjust the color balance of red and green.

**Gamma**

Set up gamma curve type. After the initial setup and fine tuning is completed, utilize the Gamma Adjustment steps to optimize your image output.

- **Film**: For home theater.
- **Video**: For video or TV source.
- **Graphics**: For PC / Photo source.
- **Standard(2.2)**: For standardized setting.
- **1.8 / 2.0 / 2.4 / 2.6**: For specific PC / Photo source.

**Note:**

- *These options are only available if the 3D mode function is disabled, the **Wall Color** setting is not set to **Blackboard**, and the **Display Mode** setting is not set to **DICOM SIM.**.*
- *In 3D mode, user can only select **3D** for **Gamma** setting.*
- *If the **Wall Color** setting is set to **Blackboard**, user can only select **Blackboard** for **Gamma** setting.*
- *If the **Display Mode** setting is set to **DICOM SIM.**, user can only select **DICOM SIM.** for **Gamma** setting.*

**Color Settings**

Configure the color settings.

- **BrilliantColor™**: This adjustable item utilizes a new color-processing algorithm and enhancements to enable higher brightness while providing true, more vibrant colors in picture.
- **Color Temperature**: Select a color temperature from Warm, Standard, Cool, or Cold.
- **Color Matching**: Select the following options:
  - Color: Adjust the red, green, black, cyan, yellow, magenta, and white level of the image.
  - Hue / R(red)*: Adjust the color balance of red and green.
    **Note:** **If the **Color** setting is set to **White**, you can adjust the red color setting.*
  - Saturation / G(green)*: Adjust a video image from black and white to fully saturated color.
    **Note:** **If the **Color** setting is set to **White**, you can adjust the green color setting.*
  - Gain / B(blue)*: Adjust the image brightness.
    **Note:** **If the **Color** setting is set to **White**, you can adjust the blue color setting.*
  - Reset: Return the factory default settings for color matching.
  - Exit: Exit the “Color Matching” menu.
- **RGB Gain/Bias:** This settings allows to configure the brightness (gain) and contrast (bias) of an image.
  - Reset: Return the factory default settings for RGB gain/bias.
  - Exit: Exit the “RGB Gain/Bias” menu.

- **Color Space (non-HDMI input only)**: Select an appropriate color matrix type from the following: AUTO, RGB, or YUV.
- **Color Space (HDMI input only)**: select an appropriate color matrix type from the following: Auto, RGB(0-255), RGB(16-235), and YUV.
- **White Level:** Allow user to adjust White Level when inputting Video signals.
  **Note:** *White level can only be adjusted for Video/S-Video input sources.*
- **Black Level:** Allow user to adjust Black Level when inputting Video signals.
  **Note:** *Black level can only be adjusted for Video/S-Video input sources.*
- **Saturation:** Adjust a video image from black and white to fully saturated color.
  **Note:** *Saturation is only supported for VGA source (480i/480p 576i/675p 720P 1080i/1080p).*
- **Hue:** Adjust the color balance of red and green.
  **Note:** *Hue is only supported for VGA source (480i/480p 576i/675p 720P 1080i/1080p).*
- **IRE:** Allow user to adjust IRE value when inputting Video signals.
  **Note:**
  - *IRE is only available with NTSC video format.*
  - *IRE can only be adjusted for Video/S-Video input sources.*

**Signal**

Adjust the signal options.

- **Automatic**: Configure automatically the signal (the frequency and phase items are grayed out). If automatic is disabled, the frequency and phase items will appear for tuning and saving the settings.
- **Frequency**: 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.
- **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.
- **H. Position**: Adjust the horizontal positioning of the image.
- **V. Position**: Adjust the vertical positioning of the image.

**Note:** *This menu is only available if the input source is RGB/Component.*

**Brightness Mode**

Adjust the brightness mode settings.

- **DynamicBlack**: Use to automatically adjust the picture brightness in order to give optimum contrast performance.
- **Power**: Choose the power percentage for brightness mode.

**Reset**

Return the factory default settings for color settings.

# USING THE PROJECTOR

## Display 3D menu

**Note:**

- *This projector is a 3D ready projector with DLP-Link 3D solution.*
- *Please make sure your 3D glasses are use for DLP-Link 3D before enjoy your video.*
- *This projector supports frame sequential (page-flip) 3D via HDMI1/HDMI2/VGA ports.*
- *To enable 3D mode, the input frame rate should be set to 60Hz only, lower or higher frame rate is not supported.*
- *To reach the best performance, resolution 1920x1080 is recommended, please be noted that 4K (3840x2160) resolution is not supported in 3D mode.*

**3D Mode**

Use this option to disable the 3D function or select the appropriate the 3D function.

- **Off**: Select “Off” to turn off 3D mode.
- **DLP-Link**: Select to use optimized settings for DLP 3D Glasses.
- **IR**: Select “IR” to use optimized setting for IR 3D Glasses.

**Note:** *If the 2D and 3D sources enter PJ at the same time, if the ghosting image appears in the 2D source, make sure to manually turn off the 3D function.*

**3D → 2D**

Use this option to specify how the 3D content should appear on the screen.

- **3D:** Display 3D signal.
- **L (Left):** Display the left frame of 3D content.
- **R (Right):** Display the right frame of 3D content.

**3D Format**

Use this option to select the appropriate 3D format content.

- **Auto**: When a 3D identification signal is detected, the 3D format is selected automatically.
- **SBS**: Display 3D signal in “Side-by-Side” format.
- **Top and Bottom**: Display 3D signal in “Top and Bottom” format.
- **Frame Sequential**: Display 3D signal in “Frame Sequential” format.
- **Frame Packing**: Display 3D signal in “Frame Packing” format.

**3D Sync Invert**

Use this option to enable/disable the 3D sync invert function.

# USING THE PROJECTOR

## Display aspect ratio menu

**Aspect Ratio**

Select the aspect ratio of the displayed image between the following options:

- **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** (for WUXGA model only): This format is for 16:10 input sources, like widescreen laptops.
- **LBX**: This format is for non-16x9, letterbox source and if you use external 16x9 lens to display 2.35:1 aspect ratio in full resolution.
- **Native**: This format displays the original image without any scaling.
- **Auto**: Automatically selects the appropriate display format.

**Note:**

- *Detailed informations about LBX mode:*
  - *Some Letter-Box Format DVDs are not enhanced for 16x9 TVs. In this situation, the image will not look right when displaying image in 16:9 mode. In this situation, please try to use the 4:3 mode to view the DVD. If the content is not 4:3, there will be black bars around the image in 16:9 display. For this type of content, you can use LBX mode to fill the image on the 16:9 display.*
  - *If you use an external anamorphic lens, this LBX mode also allows you to watch a 2.35:1 content (include Anamorphic DVD and HDTV film source) that supports anamorphic wide is enhanced for 16x9 Display in a wide 2.35:1 image. In this case, there are no black bars. Light source power and vertical resolution are fully utilized.*
- *To use the superwide format, do the following:*
  - *a) Set the screen aspect ratio to 2.0:1.*
  - *b) Select "Superwide" format.*
  - *c) Align the projector image correctly on the screen.*

**1080p scaling table**:

| 16:9 screen | 480i/p | 576i/p | 1080i/p | 720p | PC |
|---|---|---|---|---|---|
| 4x3 | Scale to 1440x1080. | | | | |
| 16x9 | Scale to 1920x1080. | | | | |
| LBX | Scale to 1920x1440, then get the central 1920x1080 image to display. | | | | |
| Native mode | - 1:1 mapping centered.<br>- No scaling will be made; the image is displayed with the resolution based on input source. | | | | |
| Auto | - If auto format is selected, the screen type will automatically become16:9 (1920x1080).<br>- If source is 4:3, the screen type will be scaled to 1440 x1080.<br>- If source is 16:9, the screen type will be scaled to 1920x1080.<br>- If source is 16:10, the screen type will be scaled to 1920x1200 and cut 1920x1080 area to display. | | | | |

# USING THE PROJECTOR

**1080p auto mapping rule**:

| Auto | Input resolution | | Auto/Scale | |
|---|---|---|---|---|
| | H-resolution | V-resolution | 1920 | 1080 |
| 4:3 | 640 | 480 | 1440 | 1080 |
| | 800 | 600 | 1440 | 1080 |
| | 1024 | 768 | 1440 | 1080 |
| | 1280 | 1024 | 1440 | 1080 |
| | 1400 | 1050 | 1440 | 1080 |
| | 1600 | 1200 | 1440 | 1080 |
| Wide Laptop | 1280 | 720 | 1920 | 1080 |
| | 1280 | 768 | 1800 | 1080 |
| | 1280 | 800 | 1728 | 1080 |
| SDTV | 720 | 576 | 1350 | 1080 |
| | 720 | 480 | 1620 | 1080 |
| HDTV | 1280 | 720 | 1920 | 1080 |
| | 1920 | 1080 | 1920 | 1080 |

**WUXGA scaling table for 1920 x 1200 DMD (screen type 16:10)**:

**Note:**

- *Supported screen type 16:10 (1920 x 1200), 16:9 (1920x1080).*
- *When screen type is 16:9, the16x10 format becomes unavailable.*
- *When screen type is 16:10, the 16x9 format becomes unavailable.*
- *If you select auto option then the display mode will be also automatically changed.*

| 16 : 10 screen | 480i/p | 576i/p | 1080i/p | 720p | PC |
|---|---|---|---|---|---|
| 4x3 | Scale to 1600x1200. | | | | |
| 16x9 | Scale to 1920x1080. | | | | |
| 16x10 | Scale to 1920x1200. | | | | |
| LBX | Scale to 1920x1440, then get the central 1920x1200 image to display. | | | | |
| Native mode | - 1:1 mapping centered.<br>- No scaling will be made; the image is displayed with the resolution based on input source. | | | | |
| Auto | - If this format is selected, the screen type will automatically become 16:10 (1920x1200).<br>- If source is 4:3, the screen type will be scaled to 1600x1200.<br>- If source is 16:9, the screen type will be scaled to 1920x1080.<br>- If source is 16:10, the screen type will be scaled to 1920x1200. | | | | |

# USING THE PROJECTOR

**WUXGA auto mapping rule (screen type 16:10)**:

| Auto | Input resolution | | Auto/Scale | |
|---|---|---|---|---|
| | H-resolution | V-resolution | 1920 | 1200 |
| 4:3 | 640 | 480 | 1600 | 1200 |
| | 800 | 600 | 1600 | 1200 |
| | 1024 | 768 | 1600 | 1200 |
| | 1280 | 1024 | 1600 | 1200 |
| | 1400 | 1050 | 1600 | 1200 |
| | 1600 | 1200 | 1600 | 1200 |
| Wide Laptop | 1280 | 720 | 1920 | 1080 |
| | 1280 | 768 | 1920 | 1152 |
| | 1280 | 800 | 1920 | 1200 |
| SDTV | 720 | 576 | 1350 | 1080 |
| | 720 | 480 | 1620 | 1080 |
| HDTV | 1280 | 720 | 1920 | 1080 |
| | 1920 | 1080 | 1920 | 1080 |

**WUXGA scaling table (screen type 16:9)**:

| 16 : 9 screen | 480i/p | 576i/p | 1080i/p | 720p | PC |
|---|---|---|---|---|---|
| 4x3 | Scale to 1440x1080. | | | | |
| 16x9 | Scale to 1920x1080. | | | | |
| LBX | Scale to 1920x1440, then get the central 1920x1080 image to display. | | | | |
| Native mode | - 1:1 mapping centered.<br>- No scaling will be made; the image is displayed with the resolution based on input source. | | | | |
| Auto | - If this format is selected, the screen type will automatically become 16:9 (1920x1080).<br>- If source is 4:3, the screen type will be scaled to 1440x1080.<br>- If source is 16:9, the screen type will be scaled to 1920x1080.<br>- If source is 16:10, the screen type will be scaled to 1920x1200 and cut 1920x1080 area to display. | | | | |

**WUXGA auto mapping rule (screen type 16:9)**:

| Auto | Input resolution | | Auto/Scale | |
|---|---|---|---|---|
| | H-resolution | V-resolution | 1920 | 1080 |
| 4:3 | 640 | 480 | 1440 | 1080 |
| | 800 | 600 | 1440 | 1080 |
| | 1024 | 768 | 1440 | 1080 |
| | 1280 | 1024 | 1440 | 1080 |
| | 1400 | 1050 | 1440 | 1080 |
| | 1600 | 1200 | 1440 | 1080 |
| Wide Laptop | 1280 | 720 | 1920 | 1080 |
| | 1280 | 768 | 1800 | 1080 |
| | 1280 | 800 | 1728 | 1080 |
| SDTV | 720 | 576 | 1350 | 1080 |
| | 720 | 480 | 1620 | 1080 |
| HDTV | 1280 | 720 | 1920 | 1080 |
| | 1920 | 1080 | 1920 | 1080 |

## Display edge mask menu

**Edge Mask**

Use this function to remove the video encoding noise on the edge of video source.

## Display zoom menu

**Zoom**

Use to reduce or magnify an image on the projection screen.

## Display image shift menu

**Image Shift**

Adjust the projected image position horizontally (H) or vertically (V).

## Display geometric correction menu

**Four Corners**

Allow the image to be squeezed to fit an area defined by moving each of the four corners' x and y position.

**H Keystone**

Adjust image distortion horizontally and make a squarer image. Horizontal keystone is used to correct a keystoned image shape in which the left and right borders of the image are unequal in length. This is intended for use with horizontally on-axis applications.

**V Keystone**

Adjust image distortion vertically and make a squarer image. Vertical keystone is used to correct a keystoned image shape in which the top and bottom are slanted to one of the sides. This is intended when for use with vertically on-axis applications.

**Auto Keystone**

Correct keystone digitally to fit the projected image on the area on which you are projecting.

**Note:**

- *The image size will reduce slightly when adjusting the horizontal and vertical keystone.*
- *When the Auto Keystone is used, the Four Corner Adjustment function will be disabled.*

**Reset**

Resets the lamp hour counter after replacing the lamp.

## *Audio menu*

### Audio mute menu

**Mute**

Use this option to temporarily turn off the sound.

- **On:** Choose “On” to turn mute on.
- **Off:** Choose “Off” to turn mute off.

**Note:** *“Mute” function affects both internal and external speaker volume.*

### Audio volume menu

**Volume**

Adjust the volume level.

### Audio mic volume menu

**Mic Volume**

Adjust the microphone volume level.

### Audio audio input menu

**Audio Input**

Select the audio input port for the video sources as follows:

- **HDMI1/MHL:** Audio 1, Audio 2, or Default.
- **HDMI2:** Audio 1, Audio 2, or Default.
- **VGA:** Audio 1 and Audio 2.
- **Component:** Audio 1 and Audio 2.
- **Video:** Audio 1 and Audio 2.

# USING THE PROJECTOR

## *Setup menu*

### Setup projection menu

**Projection**

Select the preferred projection between front, rear, ceiling-top, and rear-top.

### Setup screen type menu

**Screen Type (for WUXGA model only)**

Choose the screen type from 16:9 and 16:10.

### Setup power settings menu

**Direct Power On**

Choose “On” to activate Direct Power mode. The projector will automatically power on when AC power is supplied, without pressing the “Power” key on the projector keypad or on the remote control.

**Signal Power On**

Choose “On” to activate Signal Power mode. The projector will automatically power on when a signal is detected, without pressing the “Power” key on the projector Keypad or on the remote control.

**Note:** *If the “Signal Power On” option is turned “On”, the power consumption of the projector in standby mode will be over 3W.*

**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).

**Sleep Timer (min.)**

Configure the sleep timer.

- **Sleep 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).

  **Note:** *The Sleep Timer is reset every time when the projector is powered off.*
- **Always On:** Check to set the sleep timer always on.

**Power Mode (Standby)**

Set the power mode setting.

- **Active:** Choose “Active” to return to normal standby.
- **Eco:** Choose “Eco.” to save power dissipation further < 0.5W.

**USB Power (Standby)**

Enable or disable the USB power function when the projector is in standby mode.

# USING THE PROJECTOR

## Setup security menu

**Security**

Enable this function to prompt for a password before using the projector.

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

**Security Timer**

Can be select the time (Month/Day/Hour) function to set the number of hours the projector can be used. Once this time has elapsed you will be requested to enter your password again.

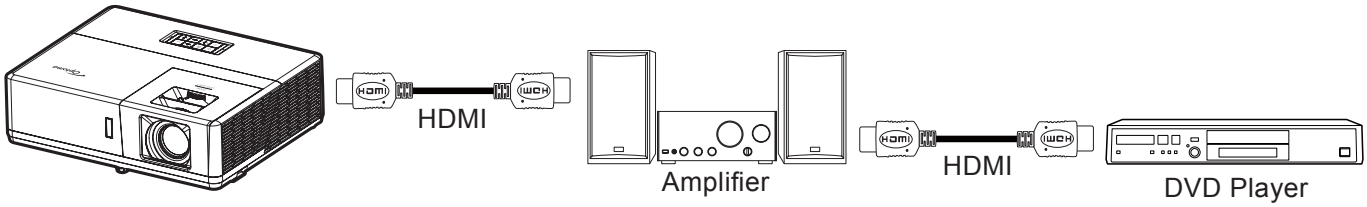
**Change Password**

Use to set or modify the password that is prompted when turning the projector on.

## Setup HDMI link settings menu

**Note:**

- *When you connect HDMI CEC-compatible devices to the projector with HDMI cables, you can control them on the same power on or power off status using the HDMI Link control feature in the projector’s OSD. This lets one device or multiple devices in a group power on or power off via HDMI Link Feature in a typical configuration, your DVD player may be connected to the projector through an amplifier or home theater system.*




**HDMI Link**

Enable/disable the HDMI Link function. The inclusive TV, power on link, and power off link options will only available if the setting is set to “On”.

**Inclusive of TV**

Set to “Yes” if you prefer both TV and projector to be automatically turned off at the same time. To prevent both devices to be turned off at the same time, set the setting to “No”.

**Power On Link**

CEC power on command.

- **Mutual:** Both projector and CEC device will be turned on simultaneously.
- **PJ → Device:** The CEC device will be turned on only after the projector is switched on.
- **Device → PJ:** The projector will be switched on only after the CEC device is turned on.

**Power Off Link**

Enable this function to let both HDMI Link and projector to be automatically turned off at the same time.

# USING THE PROJECTOR

## Setup test pattern menu

**Test Pattern**

Select the test pattern from green grid, magenta grid, white grid, white, or disable this function (off).

## Setup remote settings menu

**IR Function**

Set the IR function setting.

- **On:** Choose “On”, the projector can be operated by the remote control from the top and front IR receivers.
- **Off:** Choose “Off”, the projector can’t be operated by the remote control. By selecting “Off”, you will be able to use the Keypad keys.

**Remote Code**

Set the remote custom code by pressing the remote ID button for 3 seconds and you will notice the remote indicator (above the Off button) starts blinking. Then, input a number between 00-99 using the keyboard numbered keys. After inserting the number, the remote indicator blinks twice quickly indicating that the remote code has changed.

**F1/F2/F3**

Assign the default function for F1, F2, or F3 between Test Pattern, Brightness, Contrast, Sleep Timer, Color Matching, Color Temp, Gamma, or Projection.

## Setup projector ID menu

**Projector ID**

ID definition can be set up by menu (range 0-99), and allow user control an individual projector by using RS232 command.

## Setup options menu

**Language**

Select the multilingual OSD menu between English, German, French, Italian, Spanish, Portuguese, Polish, Dutch, Swedish, Norwegian/Danish, Finnish, Greek, traditional Chinese, simplified Chinese, Japanese, Korean, Russian, Hungarian, Czechoslovak, Arabic, Thai, Turkish, Farsi, Vietnamese, Indonesian, Romanian, and Slovakian.

**Closed Captioning**

Closed Captioning is a text version of the program sound or other information displayed on the screen. If the input signal contains closed captions, you can turn on the feature and watch the channels. The available options include “Off”, “CC1”, and “CC2”.

**Menu Settings**

Set the menu location on the screen and configure menu timer settings.

- **Menu Location**: Select the menu location on the display screen.
- **Menu Timer**: Set the duration where the OSD menu stays visible on the screen.

**Auto Source**

Choose this option to let the projector automatically find an available input source.

# USING THE PROJECTOR

**Input Source**

Select the input source between HDMI1/MHL, HDMI2, VGA, Component, and Video.

**Input Name**

Use to rename the input function for easier identification. The available options include HDMI1/MHL, HDMI2, VGA, Component, and Video.

**VGA Out**

Specify which the VGA Out connector to be used to connect the projector with the external display device.

**High Altitude**

When “On” is selected, the fans will spin faster. This feature is useful in high altitude areas where the air is thin.

**Display Mode Lock**

Choose “On” or “Off” to lock or unlock adjusting display mode settings.

**Keypad Lock**

When the keypad lock function is “On”, the Keypad will be locked. However, the projector can be operated by the remote control. By selecting “Off”, you will be able to reuse the Keypad.

**Information Hide**

Enable this function to hide the information message.

- **Off:** Choose “Off” to show the “searching” message.
- **On:** Choose “On” to hide the info message.

**Logo**

Use this function to set the desired startup screen. If changes are made, they will take effect the next time the projector is powered on.

- **Default:** The default startup screen.
- **Neutral:** Logo is not displayed on startup screen.
- **User:** Use the stored picture as the startup screen.

**Background Color**

Use this function to display a blue, red, green, gray color, none, or logo screen when no signal is available.

**Note:** *If the background color is set to “None”, then the background color is black.*

## Setup reset OSD menu

**Reset OSD**

Return the factory default settings for OSD menu settings.

**Reset to Default**

Return the factory default settings for all settings.

# USING THE PROJECTOR

## *Network menu*

### Network LAN menu

**Network Status**

Display the network connection status (read-only).

**MAC Address**

Display the MAC address (read-only).

**DHCP**

Use this option to enable or disable the DHCP function.

- **Off**: To assign IP, subnet mask, gateway, and DNS configuration manually.
- **On**: Projector will obtain an IP address automatically from your network.

**Note:** *Exiting OSD will automatically apply the entered values.*

**IP Address**

Display the IP address.

**Subnet Mask**

Display subnet mask number.

**Gateway**

Display the default gateway of the network connected to the projector.

**DNS**

Display the DNS number.

#### How to use web browser to control your projector

1. Turn “On” the DHCP option on projector to allow a DHCP server to automatically assign an IP address.
2. Open the web browser in your PC and type in the projector’s IP address (“Network > LAN > IP Address”).
3. Enter the user name and password, and click “Login”.
   The projector’s configuration web interface opens.

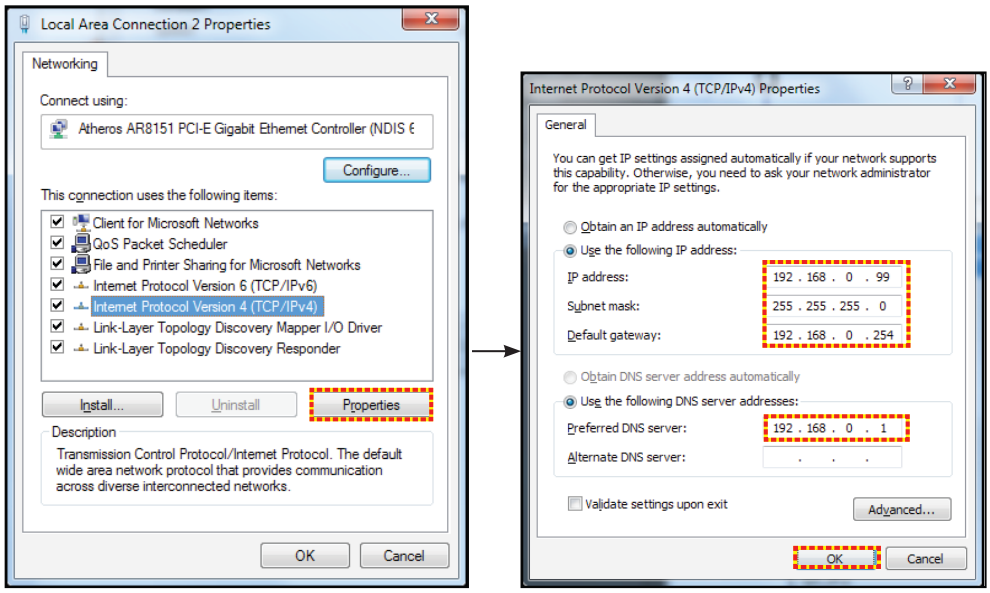
**Note:**

- *The default user name and password is “admin”.*
- *The steps in this section is based on Windows 7 operating system*.

# USING THE PROJECTOR

## Making a direct connection from your computer to the projector*

1. Turn “Off” the DHCP option on the projector.
2. Configure the IP address, Subnet Mask, Gateway, and DNS on projector (“Network > LAN”).
3. Open ***Network and Sharing Center*** page on your PC, and assign the identical network parameters to your PC as set on projector. Click “OK” to save the parameters.




4. Open the web browser on your PC and type in to the URL field the IP address, assigned in step 3. Then press “Enter” key.

**Reset**

Reset all values for LAN parameters.

## Network control menu

**Crestron**

Use this function to select the network function (port: 41794).

For more information, please visit http://www.crestron.com and www.crestron.com/getroomview.

**Extron**

Use this function to select the network function (port: 2023).

**PJ Link**

Use this function to select the network function (port: 4352).

**AMX Device Discovery**

Use this function to select the network function (port: 9131).

**Telnet**

Use this function to select the network function (port: 23).

**HTTP**

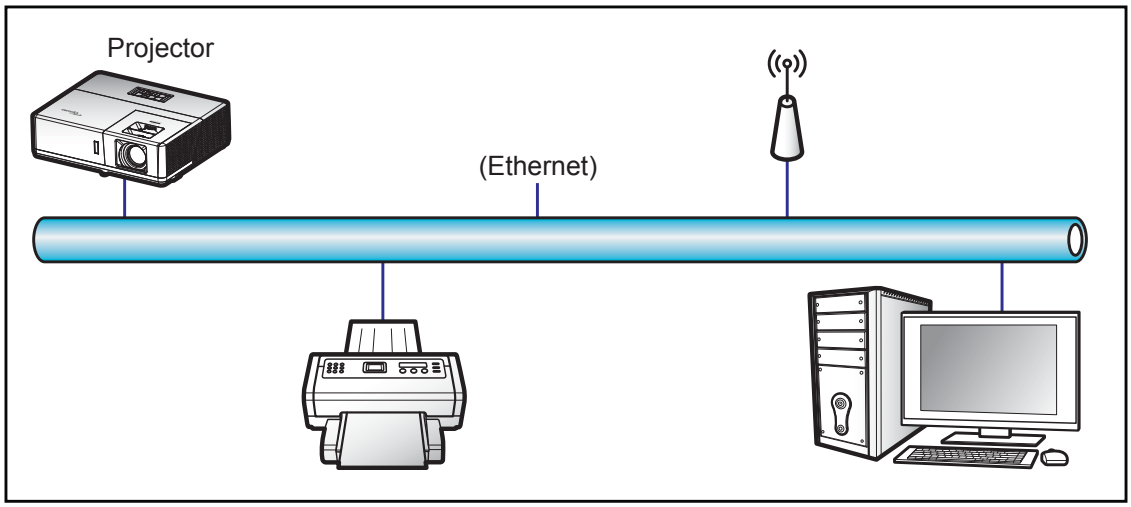
Use this function to select the network function (port: 80).

# USING THE PROJECTOR

## Setup network control settings menu

**LAN_RJ45 function**

For simplicity and ease of operation, the projector provides diverse networking and remote management features. The LAN / RJ45 function of the projector through a network, such as remotely manage: Power On / Off, brightness, and contrast settings. Also, you can view the projector status information, such as: Video- Source, Sound-Mute, etc.




**Wired LAN terminal functionalities**

This projector can be controlled by using a PC (laptop) or other external device via LAN / RJ45 port and compatible with Crestron / Extron / AMX (Device -Discovery) / PJLink.

- Crestron is a registered trademark of Crestron Electronics, Inc. of the United States.
- Extron is a registered trademark of Extron Electronics, Inc. of the United States.
- AMX is a registered trademark of AMX LLC of the United States.
- PJLink applied for trademark and logo registration in Japan, the United States of America, and other countries by JBMIA.

The projector is supported by the specified commands of the Crestron Electronics controller and related software, for example RoomView®.

http://www.crestron.com/

This projector is compliant to support Extron device(s) for reference.

http://www.extron.com/

This projector is supported by AMX ( Device Discovery ).

http://www.amx.com/

This projector supports all commands of PJLink Class1 (Version 1.00).

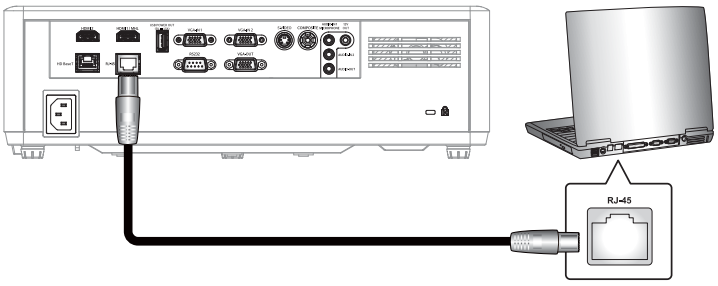
http://pjlink.jbmia.or.jp/english/

For more detailed information about the various types of external devices which can be connected to the LAN / RJ45 port and remote control the projector, as well as the supported commands for these external devices, please contact the Support-Service directly.

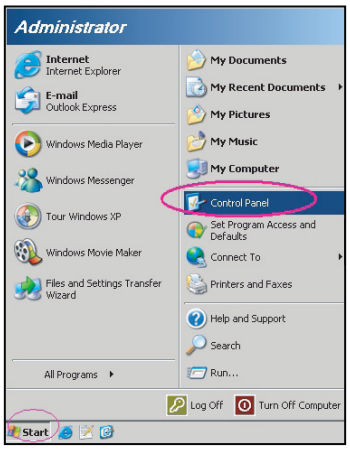
# USING THE PROJECTOR

## LAN RJ45

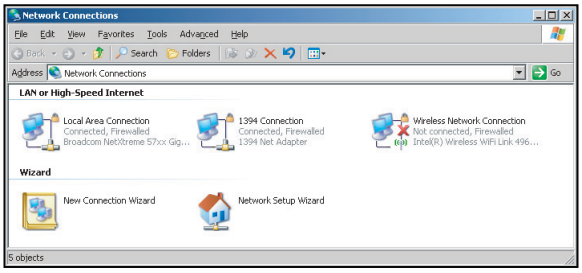
1. Connect an RJ45 cable to RJ45 ports on the projector and the PC (laptop).



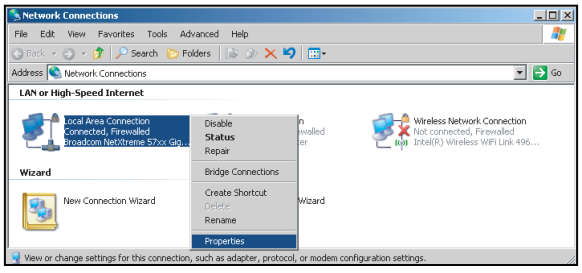

2. On the PC (Laptop), select **Start** > **Control Panel** > **Network Connections**.



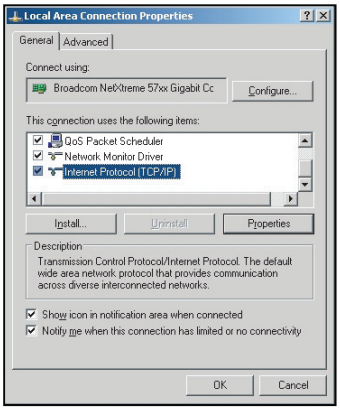

3. Right-click on the L**ocal Area Connection**, and select **Property**.



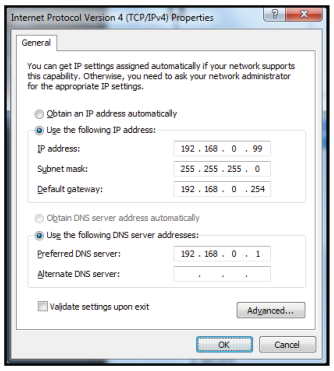

4. In the **Properties** window, select the **General tab**, and select **Internet Protocol (TCP / IP)**.



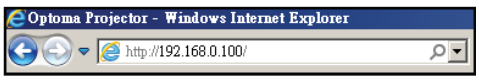
5. Click “Properties”.




6. Type in the IP address and Subnet mask, then press “OK”.




7. Press the “Menu” button on the projector.
8. Open on projector **Network** > **LAN**.
9. Enter the following connection parameters:
   – DHCP: Off
   – IP Address: 192.168.0.100
   – Subnet Mask: 255.255.255.0
   – Gateway: 192.168.0.254
   – DNS: 192.168.0.51
10. Press “Enter” to confirm settings.
11. Open a web browser, for example Microsoft Internet Explorer with Adobe Flash Player 9.0 or higher installed.
12. In the Address bar, input the projector’s IP address: 192.168.0.100.

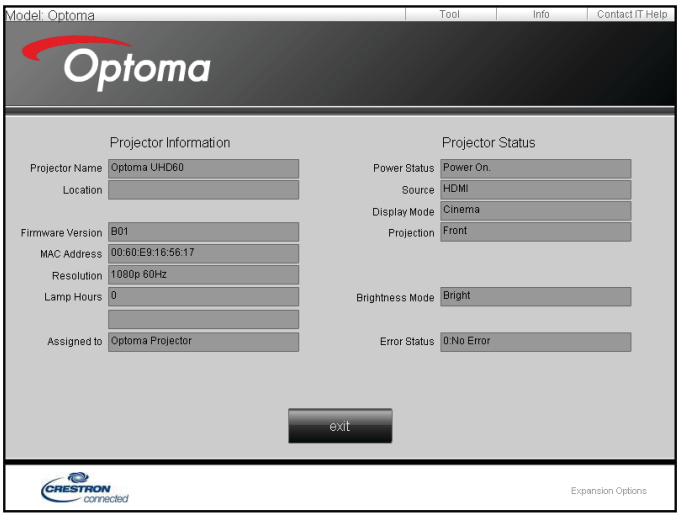



13. Press “Enter”.

# USING THE PROJECTOR

The projector is setup for remote management. The LAN / RJ45 function displays as follows:

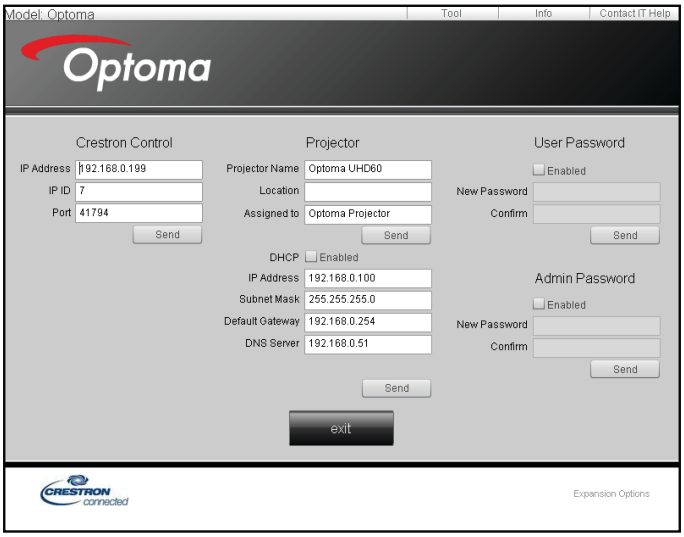
Information page




Main page




Tool page




Contact IT helpdesk



# USING THE PROJECTOR

## RS232 by Telnet Function

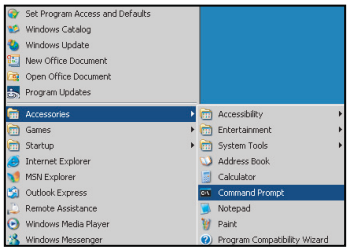
There is alternative RS232 command control way, in projector so called “RS232 by TELNET” for LAN / RJ45 interface.

## Quick Start-Guide for “RS232 by Telnet”

- Check and get the IP address on OSD of the projector.
- Make sure that the PC / laptop can access the web-page of the projector.
- Make sure that “Windows Firewall” setting is set disabled in case of “TELNET” function filtering out by PC / laptop.




1. Select **Start** > **All Programs**.> **Accessories** > **Command Prompt**.




2. Input the command format as follows:
   – telnet ttt.xxx.yyy.zzz 23 (“Enter” key pressed)
   – (ttt.xxx.yyy.zzz: IP-Address of the projector)
3. If Telnet-Connection ready, and user can have RS232 command input, then “Enter” key pressed, the RS232 command will be workable.

## Specification for “RS232 by TELNET”:

1. Telnet: TCP.
2. Telnet port: 23 (for more detail, kindly please get contact with the service agent or team).
3. Telnet utility: Windows “TELNET.exe” (console mode).
4. Disconnection for RS232-by-Telnet control normally: Close
5. Windows Telnet utility directly after TELNET connection ready.
   – Limitation 1 for Telnet-Control: there is less than 50 bytes for successive network payload for Telnet-Control application.
   – Limitation 2 for Telnet-Control: there is less than 26 bytes for one complete RS232 command for Telnet-Control.
   – Limitation 3 for Telnet-Control: Minimum delay for next RS232 command must be more than 200 (ms).

# USING THE PROJECTOR

## *Info menu*

### Info menu

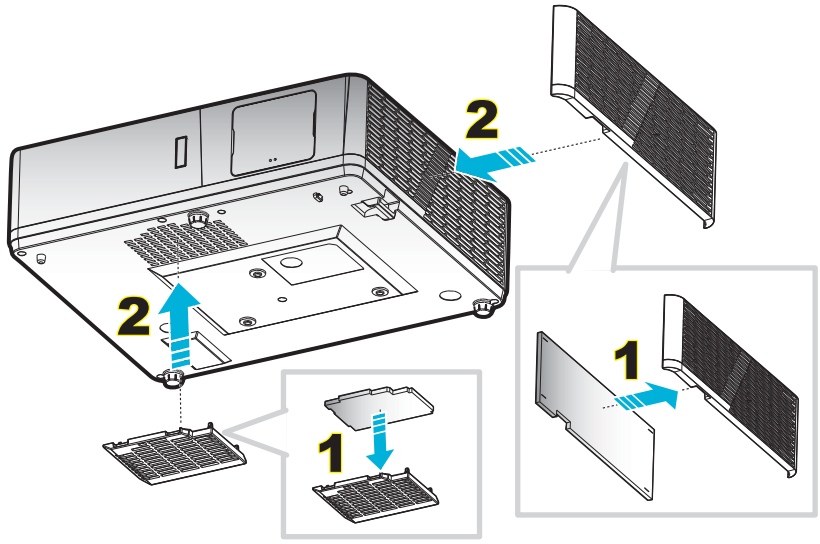
View the projector information as listed below:

- Regulatory
- Serial Number
- Source
- Resolution
- Refresh Rate
- Display Mode
- Color Depth
- Color Format
- Power Mode (Standby)
- Light Source Hours
- Remote Code
- Remote Code(Active)
- Network Status
- IP Address
- Projector ID
- Brightness Mode
- FW Version

# MAINTENANCE

## Installing and cleaning the dust filter

### Installing the dust filter



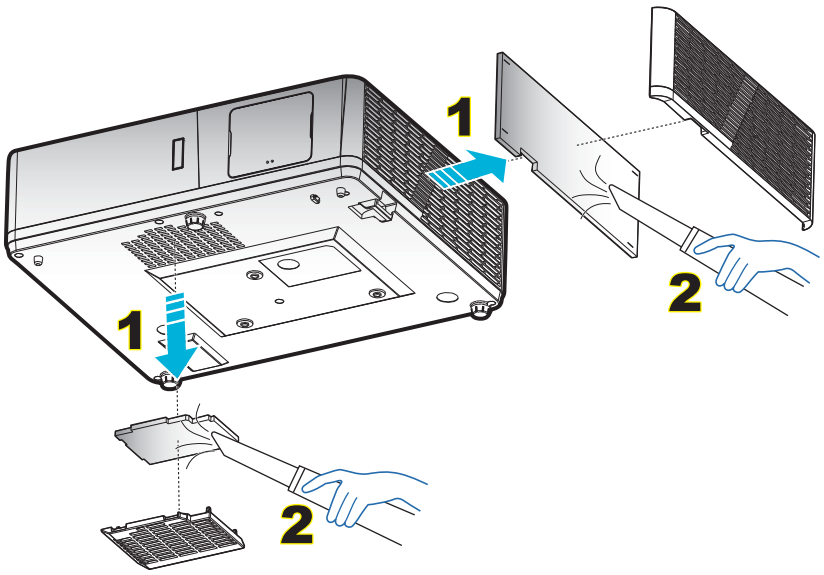

**Note:** *Dust filters are only required/supplied in the selected regions with excessive dust.*

### Cleaning the dust filter

We recommend you to clean the dust filter every three months. Clean it more often if the projector is used in a dusty environment.

Procedure:

1. Switch off the power to the projector by pressing the "⏻" button on the projector keypad or the "ⓘ" button on the remote control.
2. Disconnect the power cord.
3. Pull the dust filter compartment downwards to remove it out from the bottom of the projector. 1
4. Carefully remove the air filter. Then clean or replace the dust filter. 2
5. To install the dust filter, reverse the previous steps.



# ADDITIONAL INFORMATION

## Compatible resolutions

***Digital compatibility***

| B0 / Established Timing | B0 / Standard Timing | B0 / Detail Timing | B1 / Video Mode | B1 / Detail Timing |
|---|---|---|---|---|
| 720 x 400 @ 70Hz | SVGA: | Native timing: | 640 x 480p @ 60Hz | 720 x 480p @ 60Hz |
| 640 x 480 @ 60Hz | 800 x 600 @120Hz | XGA: | 720 x 480p @ 60Hz | 1280 x 720p @ 60Hz |
| 640 x 480 @ 67Hz | 1024 x 768 @120Hz | 1024 x 768 @60Hz | 1280 x 720p @ 60Hz | 1366 x 768 @ 60Hz |
| 640 x 480 @ 72Hz | 1280 x 800 @60Hz | WXGA: | 1920 x 1080i @ 60Hz | 1920 x 1080i @ 50Hz |
| 640 x 480 @ 75Hz | 1280 x 1024 @60Hz | 1280 x 800 @60Hz | 720(1440) x 480i @ 60Hz | 1920 x 1080p @ 60Hz |
| 800 x 600 @ 56Hz | 1680 x 1050 @60Hz | 1280 x 720 @60Hz | 1920 x 1080p @ 60Hz | |
| 800 x 600 @ 60Hz | 1280 x 720 @60Hz | 1080p: | 720 x 576p @ 50Hz | |
| 800 x 600 @ 72Hz | 1280 x 720 @120Hz | 1920 x 1080 @60Hz | 1280 x 720p @ 50Hz | |
| 800 x 600 @ 75Hz | 1600 x 1200 @60Hz | WUXGA: | 1920 x 1080i @ 50Hz | |
| 832 x 624 @ 75Hz | XGA/WXGA: | 1920x1200 @60Hz | 720(1440) x 576i @ 50Hz | |
| 1024 x 768 @ 60Hz | 800 x 600 @120Hz | | 1920 x 1080p @ 50Hz | |
| 1024 x 768 @ 70Hz | 1440 x 900 @60Hz | | 1920 x 1080p @ 24Hz | |
| 1024 x 768 @ 75Hz | 1024 x 768 @120Hz | | 1920 x 1080p @ 30Hz | |
| 1280 x 1024 @ 75Hz | 1280 x 800 @60Hz | | | |
| 1152 x 870 @ 75Hz | 1280 x 1024 @60Hz | | | |
| | 1680 x 1050 @60Hz | | | |
| | 1280 x 720 @60Hz | | | |
| | 1280 x 720 @120Hz | | | |
| | 1600 x 1200 @60Hz | | | |
| | 1080p/WUXGA: | | | |
| | 1280 x 720 @ 60Hz | | | |
| | 1280 x 800 @ 60Hz | | | |
| | 1280 x1024 @ 60Hz | | | |
| | 1400 x 1050 @ 60Hz | | | |
| | 1600 x 1200 @ 60Hz | | | |
| | 1280 X 768 @ 60Hz | | | |
| | 1440 x 900 @60Hz | | | |
| | 1280 x 720 @ 120Hz | | | |
| | 1024 x 768 @ 120Hz | | | |

# ADDITIONAL INFORMATION

***Analog compatibility***

| B0 / Established Timing | B0 / Standard Timing | B0 / Detail Timing | B1 / Detail Timing |
|---|---|---|---|
| 720 x 400 @ 70Hz | SVGA: | Native timing: | 1366 x 768 @ 60Hz |
| 640 x 480 @ 60Hz | 800 x 600 @120Hz | XGA: | |
| 640 x 480 @ 67Hz | 1024 x 768 @120Hz | 1024 x 768 @60Hz | |
| 640 x 480 @ 72Hz | 1280 x 800 @60Hz | WXGA: | |
| 640 x 480 @ 75Hz | 1280 x 1024 @60Hz | 1280 x 800 @60Hz; | |
| 800 x 600 @ 56Hz | 1680 x 1050 @60Hz | 1280 x 720 @60Hz | |
| 800 x 600 @ 60Hz | 1280 x 720 @60Hz | 1080p: | |
| 800 x 600 @ 72Hz | 1280 x 720 @120Hz | 1920 x 1080 @60Hz | |
| 800 x 600 @ 75Hz | 1600 x 1200 @60Hz | WUXGA: | |
| 832 x 624 @ 75Hz | XGA/WXGA: | 1920x1200 @60Hz | |
| 1024 x 768 @ 60Hz | 800 x 600 @120Hz | | |
| 1024 x 768 @ 70Hz | 1440 x 900 @60Hz | | |
| 1024 x 768 @ 75Hz | 1024 x 768 @120Hz | | |
| 1280 x 1024 @ 75Hz | 1280 x 800 @60Hz | | |
| 1152 x 870 @ 75Hz | 1280 x 1024 @60Hz | | |
| | 1680 x 1050 @60Hz | | |
| | 1280 x 720 @60Hz | | |
| | 1280 x 720 @120Hz | | |
| | 1600 x 1200 @60Hz | | |
| | 1080p/WUXGA: | | |
| | 1280 x 720 @ 60Hz | | |
| | 1280 x 800 @ 60Hz | | |
| | 1280 x1024 @ 60Hz | | |
| | 1400 x 1050 @ 60Hz | | |
| | 1600 x 1200 @ 60Hz | | |
| | 1280 X 768 @ 60Hz | | |
| | 1440 x 900 @60Hz | | |
| | 1280 x 720 @ 120Hz | | |
| | 1024 x 768 @ 120Hz | | |

# ADDITIONAL INFORMATION

***True 3D video compatibility***

| | | | | |
|---|---|---|---|---|
| ***Input resolutions*** | HDMI 1.4a 3D Input | Input timing | | |
| | | 1280 x 720P @ 50Hz | Top-and-Bottom | |
| | | 1280 x 720P @ 60Hz | Top-and-Bottom | |
| | | 1280 x 720P @ 50Hz | Frame packing | |
| | | 1280 x 720P @ 60Hz | Frame packing | |
| | | 1920 x 1080i @ 50Hz | Side-by-Side(Half) | |
| | | 1920 x 1080i @ 60Hz | Side-by-Side(Half) | |
| | | 1920 x 1080P @ 24Hz | Top-and-Bottom | |
| | | 1920 x 1080P @ 24Hz | Frame packing | |
| | HDMI 1.3 | 1920 x 1080i @ 50Hz | Side-by-Side(Half) | SBS mode is on |
| | | 1920 x 1080i @ 60Hz | | |
| | | 1280 x 720P @ 50Hz | | |
| | | 1280 x 720P @60Hz | | |
| | | 800 x 600 @ 60Hz | | |
| | | 1024 x 768 @ 60Hz | | |
| | | 1280 x 800 @ 60Hz | | |
| | | 1920 x 1080i @ 50Hz | Top-and-Bottom | TAB mode is on |
| | | 1920 x 1080i @ 60Hz | | |
| | | 1280 x 720P @ 50Hz | | |
| | | 1280 x 720P @60Hz | | |
| | | 800 x 600 @ 60Hz | | |
| | | 1024 x 768 @ 60Hz | | |
| | | 1280 x 800 @ 60Hz | | |
| | | 480i | HQFS | 3D format is Frame sequential |

**Note:**

- *If 3D input is 1080p@24Hz, the DMD should replay with integral multiple with 3D mode.*
- *Support NVIDIA 3DTV Play if there is no patent fee from Optoma.*
- *1080i@25Hz and 720p@50Hz will run in 100Hz; 1080p@24Hz will run in 144Hz; other 3D timing will run in 120Hz.*

# ADDITIONAL INFORMATION

## Image size and projection distance

**1080P**

| Desired Image Size | | | | | | Projection Distance (C) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Diagonal | | Width | | Height | | Wide | | Tele | |
| m | inch | m | inch | m | inch | m | feet | m | feet |
| 0.91 | 36 | 0.80 | 31.38 | 0.45 | 17.65 | 1.1 | 3.66 | 1.8 | 5.86 |
| 1.02 | 40 | 0.89 | 34.86 | 0.50 | 19.61 | 1.2 | 4.07 | 2.0 | 6.51 |
| 1.27 | 50 | 1.11 | 43.58 | 0.62 | 24.51 | 1.5 | 5.08 | 2.5 | 8.13 |
| 1.52 | 60 | 1.33 | 52.29 | 0.75 | 29.42 | 1.9 | 6.10 | 3.0 | 9.76 |
| 1.78 | 70 | 1.55 | 61.01 | 0.87 | 34.32 | 2.2 | 7.12 | 3.5 | 11.39 |
| 2.03 | 80 | 1.77 | 69.73 | 1.00 | 39.22 | 2.5 | 8.13 | 4.0 | 13.02 |
| 2.29 | 90 | 1.99 | 78.44 | 1.12 | 44.12 | 2.8 | 9.15 | 4.5 | 14.64 |
| 2.54 | 100 | 2.21 | 87.16 | 1.25 | 49.03 | 3.1 | 10.17 | 5.0 | 16.27 |
| 3.05 | 120 | 2.66 | 104.59 | 1.49 | 58.83 | 3.7 | 12.20 | 6.0 | 19.52 |
| 3.81 | 150 | 3.32 | 130.74 | 1.87 | 73.54 | 4.6 | 15.25 | 7.4 | 24.40 |
| 4.57 | 180 | 3.98 | 156.88 | 2.24 | 88.25 | 5.6 | 18.30 | 8.9 | 29.28 |
| 5.08 | 200 | 4.43 | 174.32 | 2.49 | 98.05 | 6.2 | 20.34 | 9.9 | 32.54 |
| 6.35 | 250 | 5.53 | 217.89 | 3.11 | 122.57 | 7.7 | 25.42 | / | / |
| 7.62 | 300 | 6.64 | 261.47 | 3.74 | 147.08 | 9.3 | 30.51 | / | / |

| Lens Shift Range | | | | | |
|---|---|---|---|---|---|
| PJ lens Center to top of image | | | | Image Shift Range | |
| Vertical + | Vertical - | Vertical Shift Range | Vertical range at any Horizontal position | Horizontal + | Horizontal - |
| (Max) (A) | (Min) (B) | | | (Right) | (Left) |
| cm | cm | cm | cm | cm | cm |
| 53.2 | 46.4 | 6.7 | N/A | 0 | 0 |
| 59.1 | 51.6 | 7.5 | N/A | 0 | 0 |
| 73.8 | 64.5 | 9.3 | N/A | 0 | 0 |
| 88.6 | 77.4 | 11.2 | N/A | 0 | 0 |
| 103.4 | 90.3 | 13.1 | N/A | 0 | 0 |
| 118.2 | 103.2 | 14.9 | N/A | 0 | 0 |
| 132.9 | 116.1 | 16.8 | N/A | 0 | 0 |
| 147.7 | 129.0 | 18.7 | N/A | 0 | 0 |
| 177.2 | 154.8 | 22.4 | N/A | 0 | 0 |
| 221.5 | 193.5 | 28.0 | N/A | 0 | 0 |
| 265.8 | 232.2 | 33.6 | N/A | 0 | 0 |
| 295.4 | 258.0 | 37.4 | N/A | 0 | 0 |
| 369.2 | 322.5 | 46.7 | N/A | 0 | 0 |
| 443.1 | 387.0 | 56.0 | N/A | 0 | 0 |

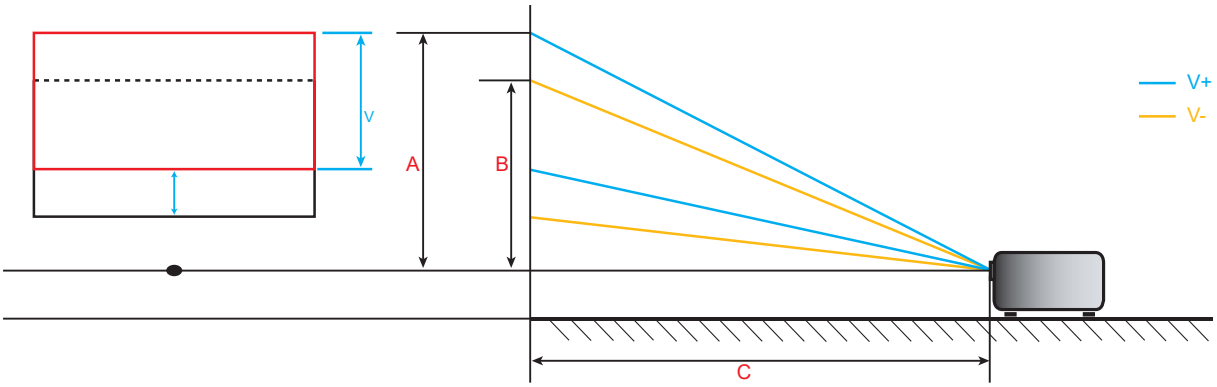
# ADDITIONAL INFORMATION

**WUXGA**

| Desired Image Size | | | | | | Projection Distance (C) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Diagonal | | Width | | Height | | Wide | | Tele | |
| m | inch | m | inch | m | inch | m | feet | m | feet |
| 0.91 | 36 | 0.78 | 30.53 | 0.48 | 19.08 | 1.1 | 3.56 | 1.7 | 5.70 |
| 1.02 | 40 | 0.86 | 33.92 | 0.54 | 21.20 | 1.2 | 3.96 | 1.9 | 6.33 |
| 1.27 | 50 | 1.08 | 42.40 | 0.67 | 26.50 | 1.5 | 4.95 | 2.4 | 7.91 |
| 1.52 | 60 | 1.29 | 50.88 | 0.81 | 31.80 | 1.8 | 5.94 | 2.9 | 9.50 |
| 1.78 | 70 | 1.51 | 59.36 | 0.94 | 37.10 | 2.1 | 6.93 | 3.4 | 11.08 |
| 2.03 | 80 | 1.72 | 67.84 | 1.08 | 42.40 | 2.4 | 7.91 | 3.9 | 12.66 |
| 2.29 | 90 | 1.94 | 76.32 | 1.21 | 47.70 | 2.7 | 8.90 | 4.3 | 14.25 |
| 2.54 | 100 | 2.15 | 84.80 | 1.35 | 53.00 | 3.0 | 9.89 | 4.8 | 15.83 |
| 3.05 | 120 | 2.58 | 101.76 | 1.62 | 63.60 | 3.6 | 11.87 | 5.8 | 19.00 |
| 3.81 | 150 | 3.23 | 127.20 | 2.02 | 79.50 | 4.5 | 14.84 | 7.2 | 23.74 |
| 4.57 | 180 | 3.88 | 152.64 | 2.42 | 95.40 | 5.4 | 17.81 | 8.7 | 28.49 |
| 5.08 | 200 | 4.31 | 169.60 | 2.69 | 106.00 | 6.0 | 19.79 | 9.6 | 31.66 |
| 6.35 | 250 | 5.38 | 212.00 | 3.37 | 132.50 | 7.5 | 24.73 | / | / |
| 7.62 | 300 | 6.46 | 254.40 | 4.04 | 159.00 | 9.0 | 29.68 | / | / |

| Lens Shift Range | | | | | |
|---|---|---|---|---|---|
| PJ lens Center to top of image | | | | Image Shift Range | |
| Vertical + | Vertical - | Vertical Shift Range | Vertical range at any Horizontal position | Horizontal + | Horizontal - |
| (Max) (A) | (Min) (B) | | | (Right) | (Left) |
| cm | cm | cm | cm | cm | cm |
| 51.9 | 47.5 | 4.4 | N/A | 0 | 0 |
| 57.6 | 52.8 | 4.8 | N/A | 0 | 0 |
| 72.0 | 66.0 | 6.1 | N/A | 0 | 0 |
| 86.4 | 79.2 | 7.3 | N/A | 0 | 0 |
| 100.8 | 92.3 | 8.5 | N/A | 0 | 0 |
| 115.2 | 105.5 | 9.7 | N/A | 0 | 0 |
| 129.6 | 118.7 | 10.9 | N/A | 0 | 0 |
| 144.0 | 131.9 | 12.1 | N/A | 0 | 0 |
| 172.9 | 158.3 | 14.5 | N/A | 0 | 0 |
| 216.1 | 197.9 | 18.2 | N/A | 0 | 0 |
| 259.3 | 237.5 | 21.8 | N/A | 0 | 0 |
| 288.1 | 263.9 | 24.2 | N/A | 0 | 0 |
| 360.1 | 329.8 | 30.3 | N/A | 0 | 0 |
| 432.1 | 395.8 | 36.3 | N/A | 0 | 0 |

# ADDITIONAL INFORMATION

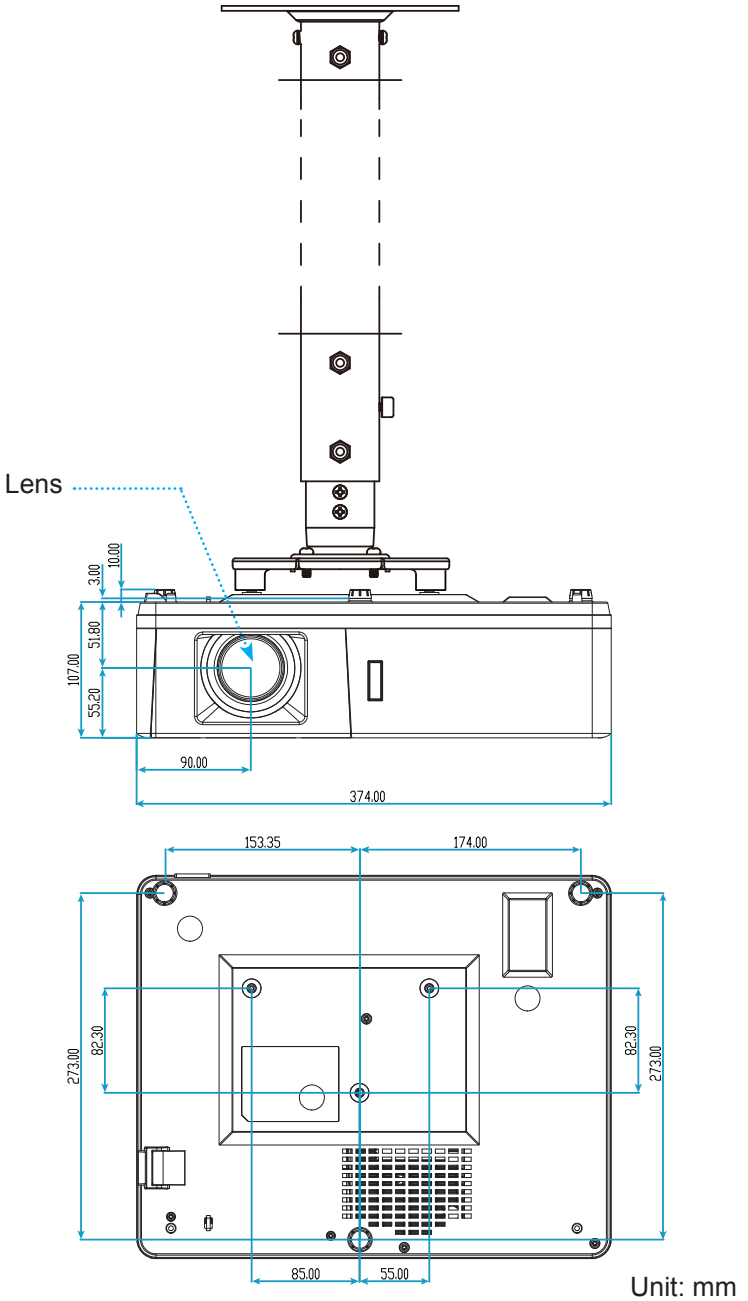


# ADDITIONAL INFORMATION

## Projector dimensions and ceiling mount installation

1. To prevent damage to your projector, please use the Optoma ceiling mount.
2. If you wish to use a third party ceiling mount kit, please ensure the screws used to attach a mount to the projector meet the following specifications:

- Screw type: M6*10
- Minimum screw length: 10mm




Unit: mm

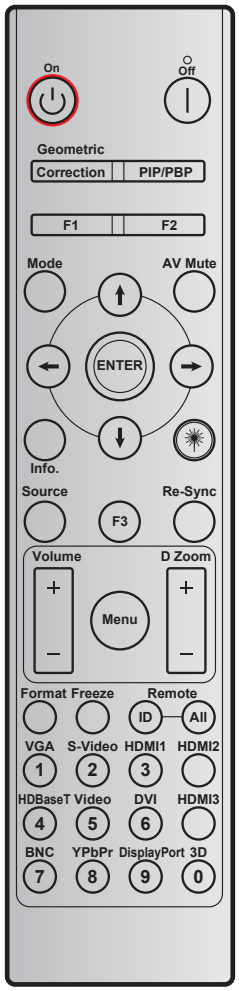
**Note:** *Please note that damage resulting from incorrect installation will void the warranty.*

Warning:

- If you buy a ceiling mount from another company, please be sure to use the correct screw size. Screw size will vary depending on the thickness of the mounting plate.
- Be sure to keep at least 10 cm gap between the ceiling and the bottom of the projector.
- Avoid installing the projector near a heat source.

# ADDITIONAL INFORMATION

## IR remote codes




| Key | Printing-key definition | Key code | | | | Repeat |
|---|---|---|---|---|---|---|
| | | BYTE1 | BYTE2 | BYTE3 | BYTE4 | |
| | | customer 0 | customer 1 | data 0 | data 1 | |
| Power On ⏻ | On | 32 | CD | 02 | #BYTE3 | F2 |
| Power Off \| | Off | 32 | CD | 2E | #BYTE3 | F2 |
| Geometric Correction | Geometric Correction | 32 | CD | 96 | #BYTE3 | F2 |
| PIP/PBP | PIP/PBP | 32 | CD | 78 | #BYTE3 | F2 |
| F1 | F1 | 32 | CD | 26 | #BYTE3 | F2 |
| F2 | F2 | 32 | CD | 27 | #BYTE3 | F2 |
| Mode | Mode | 32 | CD | 95 | #BYTE3 | F2 |
| Four directional select keys (↑/↓/←/→) | Up arrow | 32 | CD | C6 | #BYTE3 | F2 |
| | Down arrow | 32 | CD | C7 | #BYTE3 | F2 |
| | Left arrow | 32 | CD | C8 | #BYTE3 | F2 |
| | Right arrow | 32 | CD | C9 | #BYTE3 | F2 |
| Enter | Enter | 32 | CD | C5 | #BYTE3 | F2 |
| AV Mute | AV Mute | 32 | CD | 03 | #BYTE3 | F2 |
| Information | Info. | 32 | CD | 25 | #BYTE3 | F2 |

# ADDITIONAL INFORMATION

| Key | Printing-key definition | Key code | | | | Repeat |
|---|---|---|---|---|---|---|
| | | BYTE1 | BYTE2 | BYTE3 | BYTE4 | |
| | | customer 0 | customer 1 | data 0 | data 1 | |
| Laser ✷ | Laser | N/A | N/A | N/A | N/A | N/A |
| Source | Source | 32 | CD | 18 | #BYTE3 | F2 |
| F3 | F3 | 32 | CD | 66 | #BYTE3 | F2 |
| Re-Sync | Re-Sync | 32 | CD | 04 | #BYTE3 | F2 |
| Volume | Volume + | 32 | CD | 09 | #BYTE3 | F2 |
| | Volume - | 32 | CD | 0C | #BYTE3 | F2 |
| D Zoom | D Zoom + | 32 | CD | 08 | #BYTE3 | F2 |
| | D Zoom - | 32 | CD | 0B | #BYTE3 | F2 |
| Menu | Menu | 32 | CD | 88 | #BYTE3 | F2 |
| Format | Format | 32 | CD | 15 | #BYTE3 | F2 |
| Freeze | Freeze | 32 | CD | 06 | #BYTE3 | F2 |
| Remote | Remote ID | 3201~ 3299 | | | N/A | |
| | Remote All | 32CD | | | N/A | |
| VGA / 1 | 1/VGA | 32 | CD | 8E | #BYTE3 | F2 |
| S-Video / 2 | 2/S-Video | 32 | CD | 1D | #BYTE3 | F2 |
| HDMI1 / 3 | 3/HDMI1 | 32 | CD | 16 | #BYTE3 | F2 |
| HDMI2 | HDMI2 | 32 | CD | 9B | #BYTE3 | F2 |
| HDBaseT / 4 | 4/HDBaseT | 32 | CD | 70 | #BYTE3 | F2 |
| Video / 5 | 5/Video | 32 | CD | 1C | #BYTE3 | F2 |
| DVI / 6 | 6/DVI | 32 | CD | 19 | #BYTE3 | F2 |
| HDMI3 | HDMI3 | 32 | CD | 98 | #BYTE3 | F2 |
| BNC / 7 | 7/BNC | 32 | CD | 1A | #BYTE3 | F2 |
| YPbPr / 8 | 8/YPbPr | 32 | CD | 17 | #BYTE3 | F2 |
| Display Port / 9 | 9/DisplayPort | 32 | CD | 9F | #BYTE3 | F2 |
| 3D / 0 | 0/3D | 32 | CD | 89 | #BYTE3 | F2 |

# ADDITIONAL INFORMATION

## Troubleshooting

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

**Image problems**

*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.
- Ensure that the "Mute" feature is not turned on.

*Image is out of focus*

- Turn the focus ring clockwise or counterclockwise until the image is sharp and legible. (Please see page *19)*.
- Make sure the projection screen is between the required distance from the projector. (Please refer to pages *58-60*).

*The image is stretched when displaying 16:9 DVD title*

- When you play anamorphic DVD or 16:9 DVD, the projector will show the best image in 16: 9 format on projector side.
- If you play the LBX format DVD title, please change the format as LBX in projector OSD.
- If you play 4:3 format DVD title, please change the format as 4:3 in projector OSD.
- Please setup the display format as 16:9 (wide) aspect ratio type on your DVD player.

*Image is too small or too large*

- Turn the zoom lever clockwise or counterclockwise to increase or decrease the projected image size. (Please see page *19)*.
- Move the projector closer to or further from the screen.
- Press "Menu" on the projector panel, go to "Display → Aspect Ratio". Try the different settings.

*Image has slanted sides:*

- If possible, reposition the projector so that it is centered on the screen and below the bottom of the screen.

*Image is reversed*

- Select "Setup → Projection" from the OSD and adjust the projection direction.

# ADDITIONAL INFORMATION

### Other problems

*The projector stops responding to all controls*

- If possible, turn off the projector, then unplug the power cord and wait at least 20 seconds before reconnecting power.

### Remote control problems

*If the remote control does not work*

- Check the operating angle of the remote control is pointed within ±30° to the IR receiver on the projector.
- Make sure there are not any obstructions between the remote control and the projector. Move to within 12 m (39.4 ft) of the projector.
- Make sure batteries are inserted correctly.
- Replace batteries if they are exhausted.

# ADDITIONAL INFORMATION

## Warning indicators

When the warning indicators (see below) light up or flash, the projector will automatically shutdown:

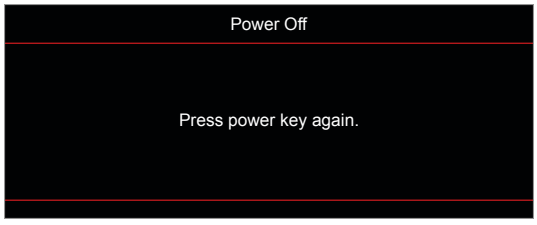
- "Lamp" LED indicator is lit red and if "Power" indicator flashes red.
- "Temp" LED indicator is lit red and if "Power" indicator flashes red. This indicates the projector has overheated. Under normal conditions, the project can be switched back on.
- "Temp" LED indicator flashes red and if "Power" indicator flashes red.

Unplug the power cord from the projector, wait for 30 seconds and try again. If the warning indicator light up or flash, please contact your nearest service center for assistance.

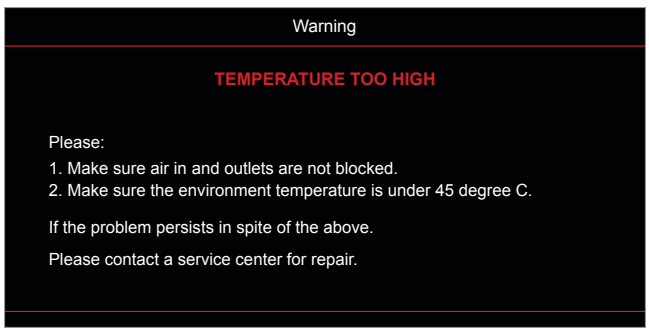
**LED lightning messages**

| Message | Power LED | | Temp LED | Lamp LED |
|---|---|---|---|---|
| | (Red) | (Blue) | (Red) | (Red) |
| Standby state (Input power cord) | Steady light | | | |
| Power on (Warming) | | Flashing (0.5 sec off / 0.5 sec on) | | |
| Power on and Lamp lighting | | Steady light | | |
| Power off (Cooling) | | Flashing (0.5 sec off / 0.5 sec on). Back to red steady light when cooling fan turns off. | | |
| Quick Resume(100 secs) | | Flashing (0.25 sec off / 0.25 sec on) | | |
| Error (Lamp failure) | Flashing | | | Steady light |
| Error (Fan failure) | Flashing | | Flashing | |
| Error (Over temp.) | Flashing | | Steady light | |

- Power off:




- Temperature warning:



# ADDITIONAL INFORMATION

## Specifications

| Optical | Description |
|---|---|
| Maximum resolution | 1920x1200@60Hz(RB) |
| Native resolution | • 1080p<br>• WUXGA |
| Lens | Manual zoom and manual focus |
| Image size (diagonal) | • 1080p: 26.2”~301.1”<br>• WUXGA: 27”~309” |
| Projection distance | 1.3m~9.4m (focus range with optimized@1.873m) |

| Electrical | Description |
|---|---|
| Inputs | • HDMI 1.4a<br>• HDMI 2.0b / MHL 2.2<br>• VGA In (VGA In 2 connector, for 15 IO type only)<br>• Composite (RCA connector (Y))<br>• Audio In 3.5mm<br>• Audio In 3.5mm, with Microphone<br>• USB Type-A for power USB 5V/1.5A<br>• S-Video (for 15 IO type only) |
| Outputs | • VGA Out<br>• Audio Out 3.5mm<br>• 12V Trigger (for 15 IO type only) |
| Control | • USB Type A for mouse<br>• RS232<br>• RJ-45 (support web control)<br>• RJ-45 for HDBaseT (for 15 IO type only) |
| Color reproduction | 1073.4 Million color |
| Scan rate | • Horizontal scan rate: 15.375~91.146 KHz<br>• Vertical scan rate: 50~ 85 Hz (120Hz for 3D feature projector) |
| Built-in speaker | Yes, 10W |
| Power requirement | 100 - 240V ±10%, AC 50/60Hz |
| Input current | 3.8A |

| Mechanical | Description |
|---|---|
| Installation orientation | Front, Rear, Ceiling-top, Rear-top |
| Dimensions | • 374.0mm (W) x 302mm (D) x 107mm (H) (without feet)<br>• 374.0mm (W) x 302mm (D) x 117mm( H) (with feet) |
| Weight | 5.5 ±0.5kg |
| Environmental conditions | Operating in 5 ~ 40°C , 10% to 85% humidity (non-condensing) |

**Note:** *All specifications are subject to change without notice.*

# ADDITIONAL INFORMATION

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