



# *ULTRANERO4* *2025-2028*

User Guide



SIM2 Multimedia Srl



# SIM2 30 years of excellence

## The new 2025-2028 product range

SIM2 is proud to present the fruits of a two-year study, research and refinement of a range of products dedicated to home cinema: SIM2 2025-2028 range.

In over 30 years of activity in this sector, SIM2 has developed an extraordinary expertise that ranges from the first DLP projector specifically developed and produced for home cinema to the most performing and compact 3-chip DLP projector, in addition to the development of High Dynamic Range (HDR) displays, either in the field of projection (with a Dual projector systems) and in reference monitors (purchased by the laboratories of the main global companies, such as integrated circuits, universities, movie companies and most of the major car manufacturers).

This expertise has allowed us to improve and refine the product range that SIM2 dedicates to home cinema and which will be the range of products for the entire 2025-2028 period and which will represent, as in the past, the reference for the market.

The **ULTRANERO4 25-28** has been designed either for home cinemas with large screens, as well as gaming and commercial applications where image quality (in particular video images) is important.

The **ULTRANERO4 25-28** features the advanced HDR video processing that made all the SIM2 projectors famous in the home cinema community.

For SIM2, Home Cinema is not only a business, but even more so a passion: it is what our company was founded on.

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# INTRODUCTION

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 manual.

## 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 overheating, 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 surface. 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 (41°F ~ 104°F)

- (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 could 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 SIM2 Multimedia local Dealer before you send the unit for repair.

> See projector enclosure for safety related markings.

>The unit should only be repaired by appropriate service personnel.

>Only use attachments/accessories specified by the manufacturer.

>Do not look straight into the projector lens during operation. The bright light may harm your eyes.

- >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 the AC outlet if the product will not be 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.

**WARNING:** Do not remove the earthing pin on the mains plugs. This apparatus is equipped with a three prong earthing type mains plug. This plug will only fit an earthing-type mains socket. This is a safety feature. If you are unable to insert the plug into the mains socket, contact an electrician. Do not defeat the purpose of the earthing plug.

**CAUTION:** This equipment is equipped with a three-pin grounding-type power plug. Do not remove the grounding pin on the power plug. This plug will only fit a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician. Do not defeat the purpose of the grounding plug.

>These requirements apply to consumer products containing button batteries or coin cells batteries. They do not apply to products that by virtue of their dedicated purpose and instructions are not intended to be used in locations where they may be accessed by children, such as products for dedicated professional use or commercial use in locations where children are not normally or typically present.

>Ground the power cord:

- This device is designed to be used with the power cord grounded. Failure to ground the power cord may result in electric shock. Ensure the power cord is properly grounded and directly connected to a wall outlet.

- Do not use a 2-pin adapter.

>Disclaimer: Operating this equipment in residential areas may cause radio interference.

**CAUTION Hot surface, Do not touch**

>Do not place your hands, face, or other objects in front of the projector lens while the projector is operating. Doing so can cause the object to get extremely hot, and possibly resulting in a fire or damage due to the heat emitted from the light output. Things placed in front of the lens may overheat and burn or start a fire.

>Do not spray flammable gas to get rid of dust and dirt that accumulate in the lens. Doing so could cause a fire.



## Laser Radiation Safety Information

To ensure safe operation, read all laser safety precautions before installing and operating the professional projector.

>This projector is class 1 laser product of IEC 60825-1:2014/EN60825-1:2014+A11:2021 and risk group 2 with the requirements of IEC 62471-5:2015.

>Complies with 21 CFR 1040.10 and 1040.11 except for conformance as a Risk Group 2 LIP as defined in IEC 62471-5:Ed.1.0. For more information see Laser Notice No. 57, dated May 8, 2019.

>IEC 60825-1:2014/EN 60825-1:2014+A11:2021 class 1 laser product, IEC 62741-5:2015 risk group 2.

>This product must not be used in residential areas.

>This product may cause interference if used in residential areas. Such use must be avoided unless the user takes special measures to reduce electromagnetic emissions to prevent interference to the reception of radio and television broadcasts.

>Possibly hazardous optical radiation emitted from this product.

>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 in the user manual creates the risk of hazardous laser radiation exposure.

>Do not open or disassemble the projector as this 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 and collateral radiation in excess of the accessible emission limits in Class 2.

>The Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulation.

>We recommend you install this projector above the reach of children.

>Notice is given to supervise children and to never allow them to stare into the projector beam at any distance from the projector.


>Notice is given to use caution when using the remote control for starting the projector while in front of the projection lens.

>Notice is given to the user to avoid the use of optical aids such as binoculars or telescopes inside the beam.

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

# Product Safety Labels and Location

## >Specification label





**SIM2 MULTIMEDIA S.R.L.**  
33170-PORDENONE-ITALY



DLP Projector / DLP投影机  
MODEL / 型号: ULTRANERO4  
100-240V~ 50/60Hz 6.5A  
CAN ICES-003(A) / NMB-003(A)



SIM2 MULTIMEDIA s.r.l.  
33170 Pordenone ITALY  
[www.sim2.com](http://www.sim2.com)


Cet appareil est conforme à la partie 15 des règles FCC.  
L'exploitation est soumise aux deux conditions suivantes : (1) Cet appareil ne doit pas provoquer d'interférences nuisibles. et (2) cet appareil doit accepter toute interférence reçue, y compris les interférences susceptibles de provoquer un fonctionnement indésirable.  
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.  
警告：在居住环境中运行此设备可能会造成无线电干扰。 产地：中国 MADE IN CHINA

DATE/生产日期: 24-11-29



Tested To Comply  
With FCC Standards

REAL PROFESSIONAL THEATER



## >Warning label

**WARNING: MOUNT ABOVE THE HEADS OF CHILDREN!**  
Do not look into the beam less than 1m.  
No direct eye exposure to the beam is permitted.

**"AVERTISSEMENT: INSTALLER AU-DESSUS DE LA TÊTE DES ENFANTS."**  
Avertissement supplémentaire contre l'exposition oculaire pour des expositions à une distance de moins de 1m.

「警告：安裝高於兒童頭頂！」  
請勿在距離小於1米的範圍內直視光束，嚴禁眼睛直接暴露於光束中。

「警告：安裝高於兒童頭頂！」  
請勿在距離小於1米的範圍內直視光束，嚴禁眼睛直接暴露於光束中。



## >Warning label

IEC 60825-1:2014, EN 60825-1:2014+A11:2021 CLASS 1 LASER PRODUCT RISK GROUP 2  
Complies with 21 CFR 1040.10 and 1040.11 except for conformance as a Risk Group 2 LIP  
as defined in IEC 62471-5:Ed. 1.0. For more information see Laser Notice No. 57, dated  
May 8, 2019.

IEC 60825-1:2014, EN 60825-1:2014+A11:2021 PRODUIT LASER DE CLASSE 1 GROUPE DE  
RISQUE 2 Conforme aux normes 21 CFR 1040.10 et 1040.11, à l'exception de la conformité  
en tant que LIP du groupe de risque 2 définie dans la CEI 62471-5: Ed. 1.0. Pour plus  
d'informations, voir l'avis au laser n° 57 du 8 mai 2019.

IEC 60825-1:2014, EN 60825-1:2014+A11:2021 等級1雷射產品RG2危險等級  
除了IEC 62471-5:Ed.1.0中定義的RG2 LIP危險等級以外，要符合21 CFR 1040.10和1040.11，  
更多相關資訊，請參閱2019年5月8日的第57號雷射公告。

IEC 60825-1:2014, EN 60825-1:2014+A11:2021 1級雷射產品RG2危險等級  
除了IEC 62471-5:Ed.1.0中定義的RG2 LIP危險等級以外，要符合21 CFR 1040.10和1040.11，  
更多相關資訊，請參閱2019年5月8日的第57號雷射公告。



## >3D Safety Information

Please follow all warnings and precautions as recommended before you or your child use the 3D function.



>Children and teenagers may be more susceptible to health issues associated with viewing in 3D and should be closely supervised when viewing these images.

## **Photosensitive Seizure Warning and Other Health Risks**

>Some viewers may experience an epileptic seizure or stroke when exposed to certain flashing images or lights contained in certain Projector pictures or video games. If you suffer from, or have a family history of epilepsy or strokes, please consult with a medical specialist before using the 3D function.

>Even those without a personal or family history of epilepsy or stroke may have an undiagnosed condition that can cause photosensitive epileptic seizures.

>Pregnant women, the elderly, sufferers of serious medical conditions, those who are sleep deprived or under the influence of alcohol should avoid utilizing the unit's 3D functionality.

>If you experience any of the following symptoms, stop viewing 3D pictures immediately and consult a medical specialist: (1) altered vision; (2) light-headedness; (3) dizziness; (4) involuntary movements such as eye or muscle twitching; (5) confusion; (6) nausea; (7) loss of awareness; (8) convulsions; (9) cramps; and/ or (10) disorientation. Children and teenagers may be more likely than adults to experience these symptoms. Parents should monitor their children and ask whether they are experiencing these symptoms.

>Watching 3D projection may also cause motion sickness, perceptual after effects, disorientation, eye strain and decreased postural stability. It is recommended that users take frequent breaks to lessen the potential of these effects. If your eyes show signs of fatigue or dryness or if you have any of the above symptoms, immediately discontinue use of this device and do not resume using it for at least thirty minutes after the symptoms have subsided.

>Watching 3D projection while sitting too close to the screen for an extended period of time may damage your eyesight. The ideal viewing distance should be at least three times the screen height. It is recommended that the viewer's eyes are level with the screen.

>Watching 3D projection while wearing 3D glasses for an extended period of time may cause a headache or fatigue. If you experience a headache, fatigue or dizziness, stop viewing the 3D projection and rest.

>Do not use the 3D glasses for any other purpose than for watching 3D projection.

>Wearing the 3D glasses for any other purpose (as general spectacles, sunglasses, protective goggles, etc.) may be physically harmful to you and may weaken your eyesight.

>Viewing in 3D projection may cause disorientation for some viewers. Accordingly, DO NOT place your 3D PROJECTOR near open stairwells, cables, balconies, or other objects that can be tripped over, run into, knocked down, broken or fallen over.

## **Cleaning the Lens**

>Before cleaning the lens, be sure to turn off the projector and unplug the power cord to allow it to completely cool down.

>Use a compressed air tank to remove the dust.

>Use a special cloth for cleaning lens and gently wipe the lens. Do not touch the lens with your fingers.

>Do not use alkaline/acid detergents or volatile solvents such as alcohol for cleaning lens. If the lens is damaged due to the cleaning process, it is not covered by the warranty.



## **Warning**

- >Do not use a spray containing flammable gases to remove dust or dirt from the lens. This may cause a fire due to excessive heat inside the projector.
- >Do not clean the lens if the projector is warming up as this may cause the lens' surface film to peel off.
- >Do not wipe or tap the lens with a hard object.

## **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.

## **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.

HDBaseT™ and the HDBaseT Alliance logo are trademarks of the HDBaseT Alliance.

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

## **FCC**

This Equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, 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 A digital apparatus complies with Canadian ICES-003.

Remarque à l'intention des utilisateurs canadiens.

Cet appareil numérique de la classe A est conforme à 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

>Radio Equipment Directive 2014/53/EU (if product has RF function)

>RoHS Directive 2011/65/EU



## 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.

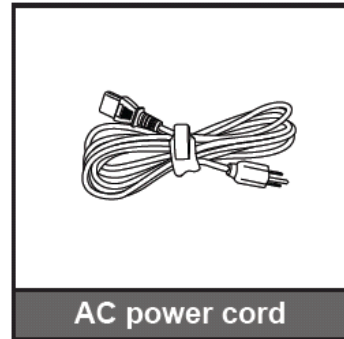
# INTRODUCTION

## 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.

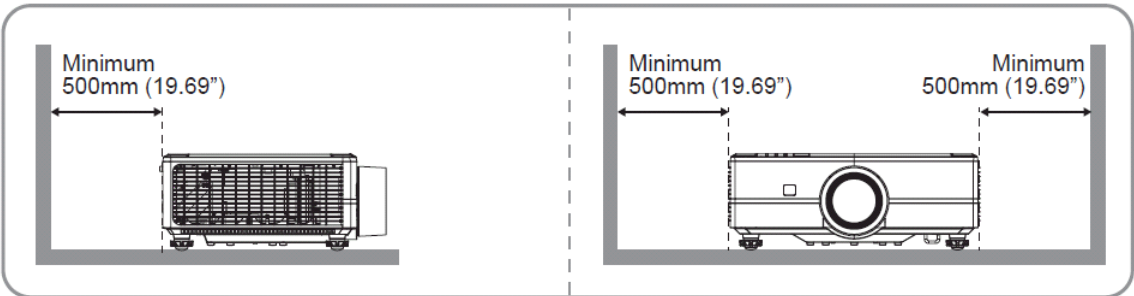
The warranty card is only supplied in some specific regions. Please consult your dealer for detailed information.

## Standard Accessories



**Note:** (\*)The remote control requires two AAA batteries. See "Install/Replacing Remote Control Batteries" on page 23 for more information.

# Product Overview



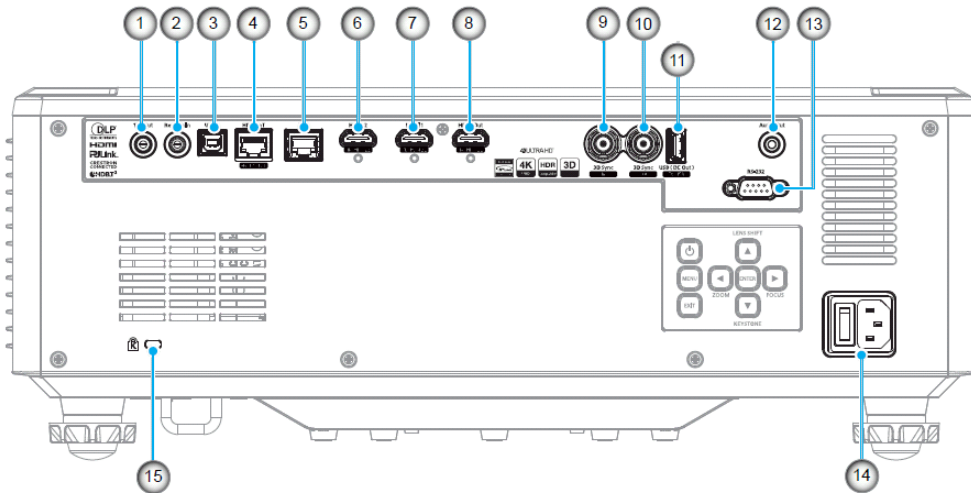
**Note:**  
>Do not block projector intake and exhaust vents.  
>When operating the projector in an enclosed space, allow at least 500mm (19.69 inches) clearance around the intake and exhaust vents.

## No. Item No. Item

No.	Item	No.	Item
1.	IR Receivers	7.	Projection Lens
2.	Ventilation (Inlet)	8.	Input / Output
3.	LED Indicators	9.	Kensington™ Lock Port
4.	Deco Ring (1.6x lens model)	10.	Control Panel
5.	Tilt-Adjustment Foot	11.	Power Socket / Power Switch
6.	Ventilation (Outlet)	12.	Speakers

# INTRODUCTION

## Connections



No.	Item	Cable	Example Connections <sup>1</sup>
1.	12V Out Connector	12V Trigger Cable	Motorized screen, Curtain, etc
2.	Remote In Connector	Wired Remote Control Cable or IR Receiver Cable (3.5mm TRS type <sup>2</sup> )	RCU
3.	USB Connector	USB (A to B) Cable	Computer
4.	HDBaseT Connector	RJ-45 Cable	Media Play
5.	LAN Connector	RJ-45 Cable	Local or Company Network
6.	HDMI 2 Connector	HDMI Cable	Computer, Game, Console, Media Play
7.	HDMI 1 Connector	HDMI Cable	Computer, Game, Console, Media Play
8.	HDMI Out Connector	HDMI Cable	Screen
9.	3D Sync In Connector	3D Sync Cable	Computer
10.	3D Sync Out Connector	3D Emitter Cable	3D Emitter
11.	USB Connector (Power 5V/1.5A) <sup>3</sup>	USB (A to A) Cable	USB 5V Out
12.	Audio Out Connector	Audio Out Cable	Speaker, Media Play
13.	RS-232C Connector	RS232 Cable	Computer
14.	Power Socket / Power Switch	Power Cord	Projector
15.	Kensington™ Lock Port	Protection Cable	Projector

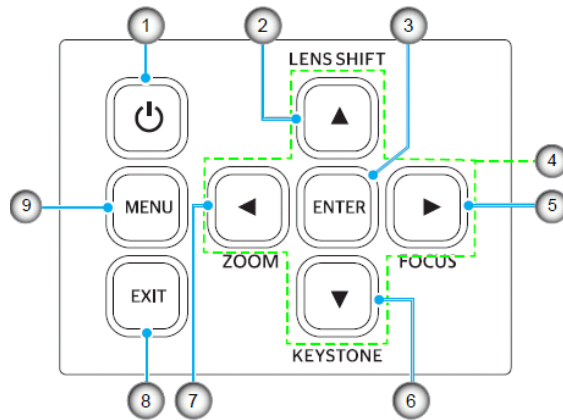
### Note:

1. These are just a few examples of what you can connect.
2. There may be more options available for each port. 3.5mm TRS type.
3. **Not recommended** for charging a cell phone.



# INTRODUCTION

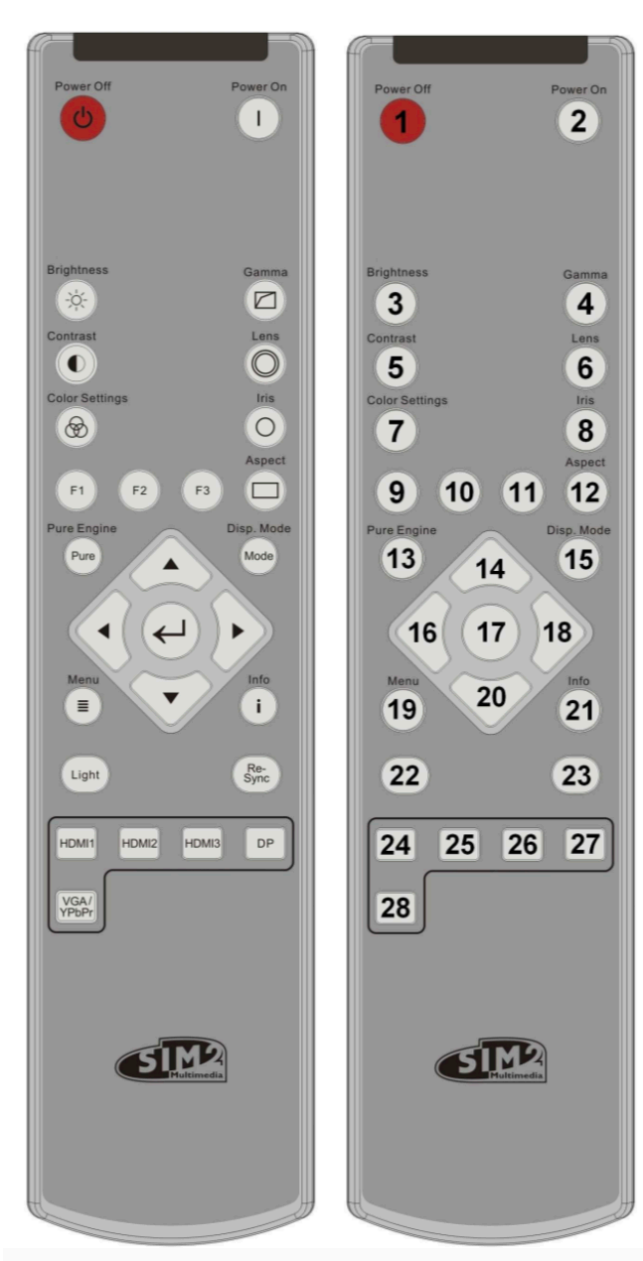
## Keypad



No.	Button	Function
1.	Power Button	Turns the projector on or off.
2.	Lens Shift	Adjust the lens vertical / horizontal position.
3.	Enter	Confirm the settings.
4.	Four Directional Select Keys	Navigation keys.
5.	Focus	Adjust the image focus.
6.	Keystone Correction	Adjust the keystone correction.
7.	Zoom	Adjust the image size.
8.	Exit	Returns to previous menu or exit menu if at top level.
9.	Menu	Shows the main menu on screen.

# INTRODUCTION

## Remote control

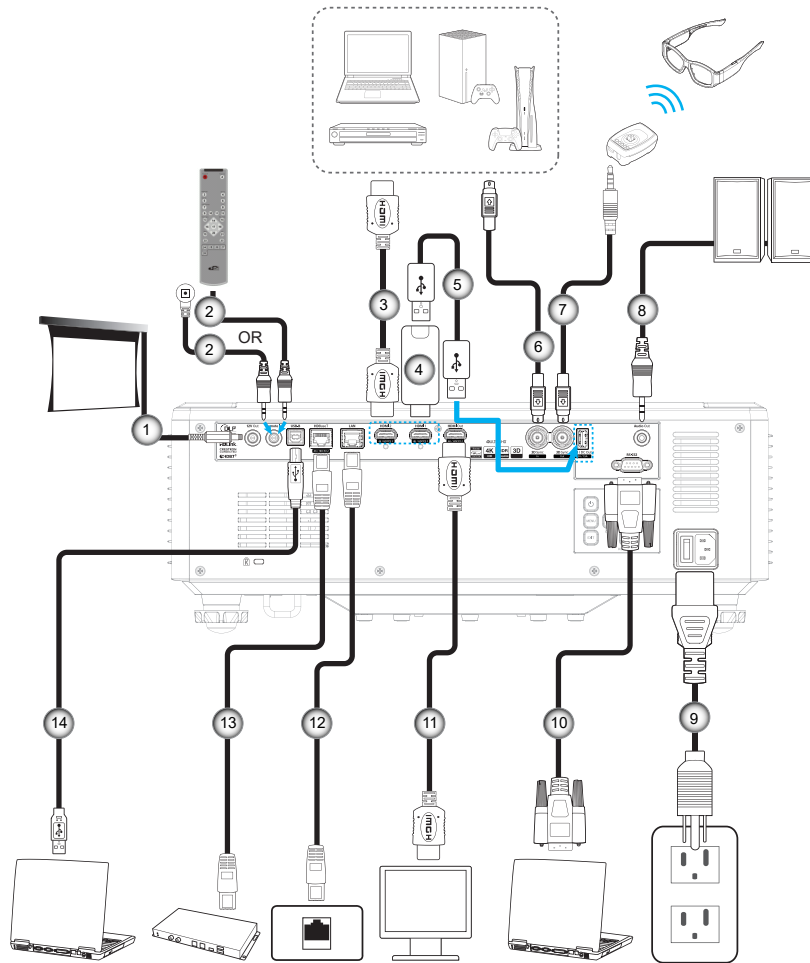


1	Power Off
2	Power On
3	Brightness
4	Gamma
5	Contrast
6	Lens Menu
7	Color Settings
8	Shutter OPEN/CLOSED (toggle)
9	F1 Functional Key
10	F2 Functional Key
11	F3 Functional Key
12	Aspect
13	Auto Adaptive Contrast
15	Display Mode
14,16,17, 18,20	Arrows for Menu
19	Menu
21	Info
22	Light
23	Re-Sync
24	HDMI 1
25	HDMI 2
26	Not used
27	HDbaseT input
28	Not used

# SET UP AND INSTALLATION

## Connecting Sources to the Projector

### Adjusting the Projector's Height



No.	Item
1.	12V DC Jack
2.	Wired Remote Control Cable or IR Receiver Cable (3.5mm TRS type)
3.	HDMI Cable
4.	HDMI Dongle
5.	USB (A to A) Cable

No.	Item
6.	3D Sync Cable
7.	3D Emitter Cable
8.	Audio Out Cable
9.	Power Cord
10.	RS232 Cable

No.	Item
11.	HDMI Cable
12.	RJ-45 Cable
13.	RJ-45 Cable
14.	USB (A to B) Cable



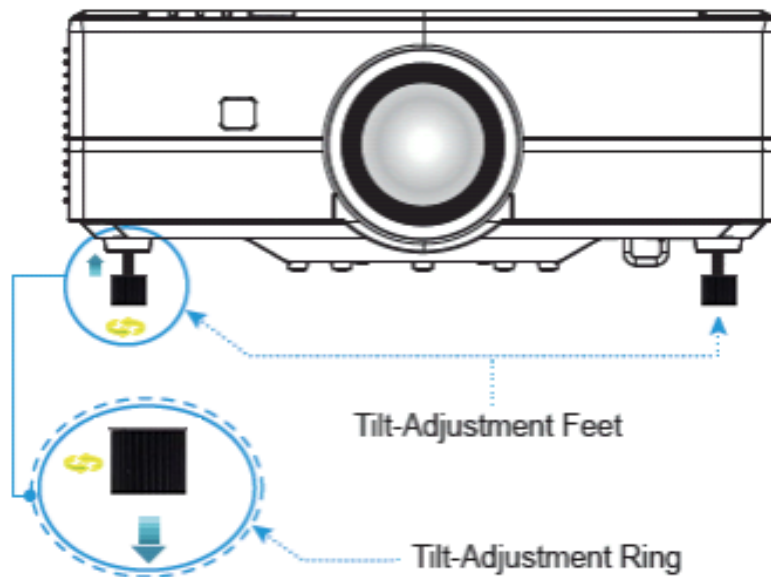
# SET UP AND INSTALLATION

## Adjusting the Projector Image

### Adjusting the Projector's 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.



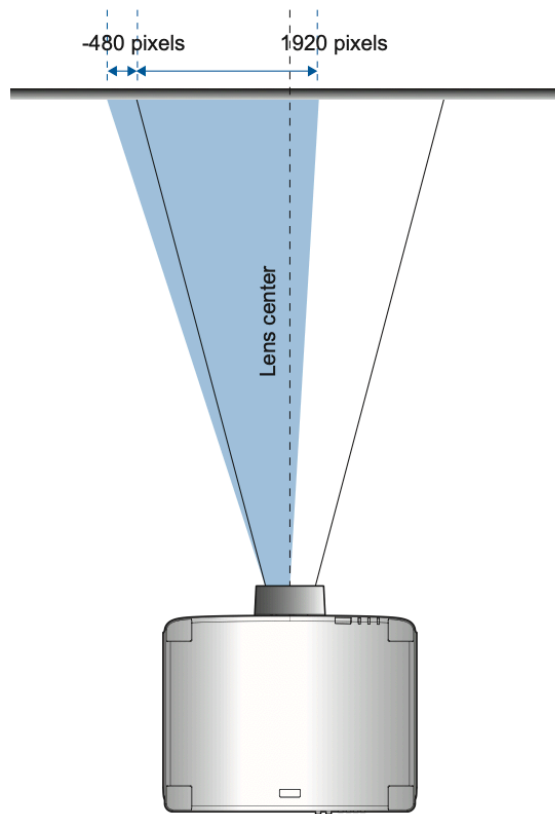
# SET UP AND INSTALLATION

## Adjusting the Projection Image Shift

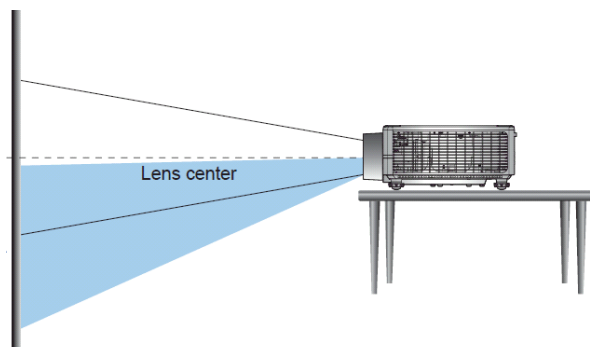
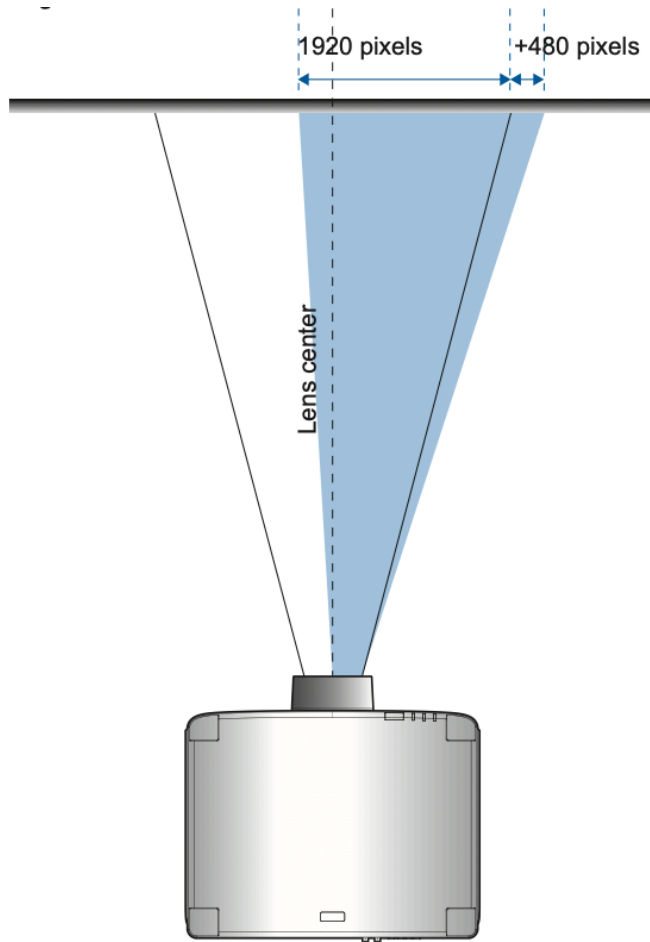
The projection lens can be moved up, down, right, and left with the motor-driven lens shift function. This function makes the positioning of images easy on the screen. Lens shift is generally expressed as a percentage of the image height or width, see below illustration.

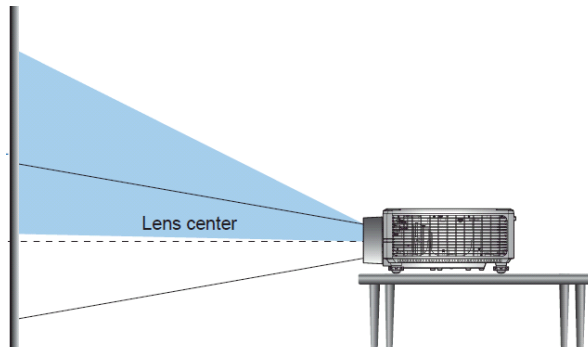
### Vertical / Horizontal Lens Shift

When the lens is shifted to the left most, Horizontal can be adjusted left/right +/- 22% and Vertical can be adjusted up/down +/- 50% :



When the lens is shifted to the rightmost:

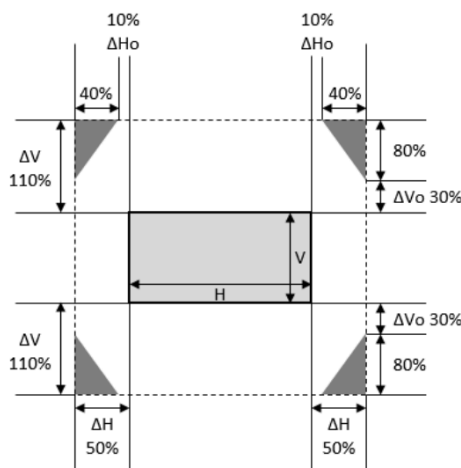




## Lens Shift Range

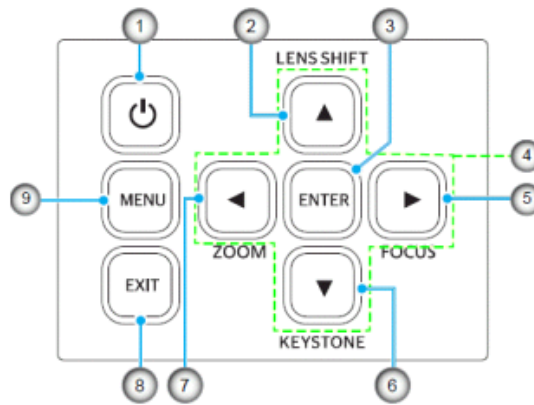
- a)  $\Delta H$ : The lens shift range in horizontal direction when the lens is at the center.
- b)  $\Delta V$ : The lens shift range in vertical direction when the lens is at the center.
- c)  $\Delta H_o$ : The lens shift range without vignetting in horizontal direction when the lens is at the top center or the bottom center.
- d)  $\Delta V_o$ : The lens shift range without vignetting in vertical direction when the lens is at the middle right or the middle left.
- e)  $V$ : Height of the projected image.
- f)  $H$ : Width of the projected image.
- g) Projected image.
- h) When the lens is shifted beyond the described range of operation, screen edges may become darker or image may become out of focus.

Lens Shift Range (1/2 image)			
$\Delta H$	$\Delta V$	$\Delta H_o$	$\Delta V_o$
50%	110%	10%	30%



# SET UP AND INSTALLATION

## Adjusting the Projector's Zoom and Focus



By using key 5 you can select the Focus menu

Press the ▲▼ buttons until the image is sharp and legible.

By using key 7 you can select the Zoom menu

Press the ◀▶ buttons until the image reaches the required size.

# SET UP AND INSTALLATION

## Adjusting the Projector Position

When you select a position for the projector, consider the size and shape of your screen, the location of your power outlets, and the distance between the projector and the rest of your equipment.

Follow these general guidelines:

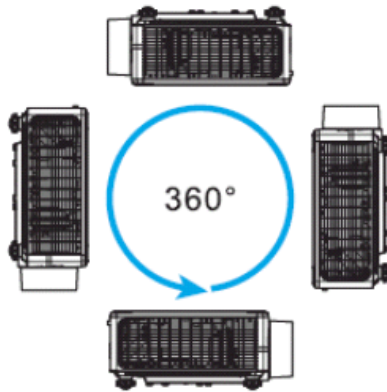
- >Position the projector on a flat surface at a right angle to the screen. The 1.6x lens models projector must be at least 50 inch from the projection screen.

- >Position the projector to the desired distance from the screen. The distance from the lens of the projector to the screen, the zoom setting, and the video format determine the size of the projected image.

- >Lens throw ratio:

- >1.6x lens model: 1.26 ~ 1.98

- >360 degrees free orientation operation.



When installing multiple projectors, keep at least 1000mm (39.4") space between the adjacent projectors.

- >For ceiling/wall mount installations, make sure to leave 15 mm (0.6") between the ceiling mount and the bottom intake vents of the projector.

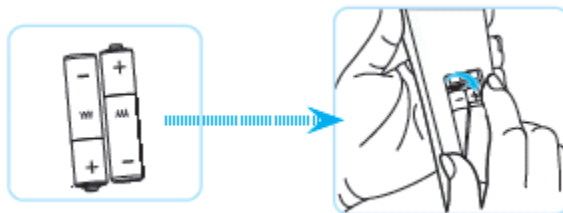
# SET UP AND INSTALLATION

## Remote Setup

### Install / Replacing Remote Control 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 they 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.

# SET UP AND INSTALLATION

## Remote Control Effective Range

Infra-Red (IR) remote control sensor is located on the top and front of the projector. Ensure to hold the remote control at an angle within 30 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) when holding not longer than 15 meters (49.2 feet) when aiming the sensor at 0°.

>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 projector/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.



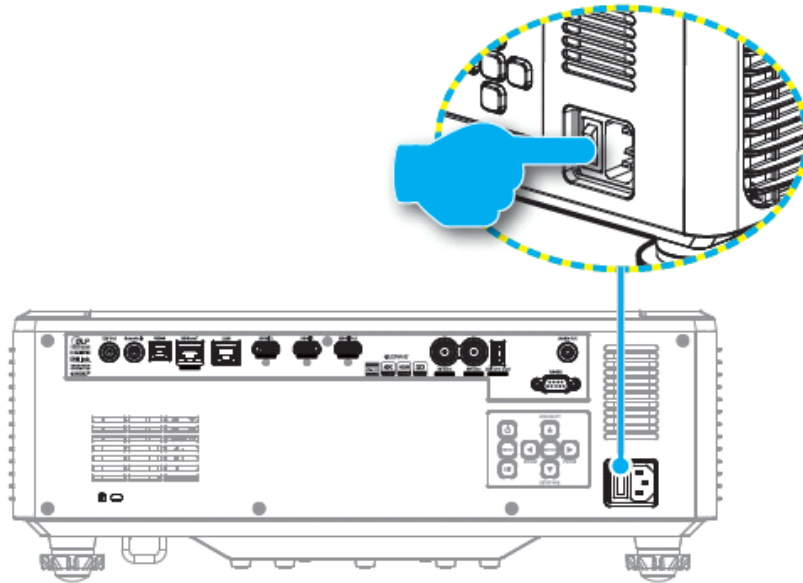


# USING THE PROJECTOR

## Powering On / Off the Projector

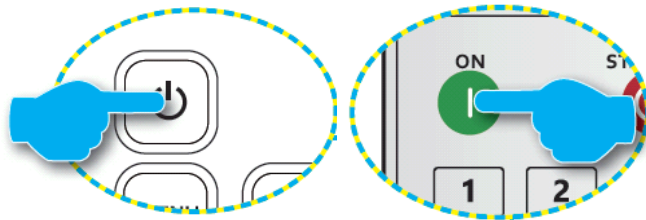
### Powering On

1. Securely connect the power lead and signal/source cable. When connected, the power LED will turn red.
2. Set the power switch to the " " (On) position and wait until the " " button on the projector keypad is solid red.



Turn on the projector by pressing  button on the projector keypad or the "I" on the remote control.

During start-up the power LED is flashing red and during normal operation, the power LED is solid green.





# USING THE PROJECTOR

## Powering Off


>Turn off the projector by pressing the  button on the projector keypad or remote control.

The following message will be displayed:



>Press  button again to confirm, otherwise the message will disappear after 15 seconds. When you press  button for the second time, the projector will shut down.

>During the cooling cycle, the power LED is flashing green. When the power LED 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  button on the projector keypad or the "I" on the remote control again to turn on the projector.

>Disconnect the power cord 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.*



*-By default, the projector turns off automatically after 20 minutes of inactivity. You can modify the idle time length in "Auto Power off (min.)" menu in "Device Setup > Power Settings". If you want the projector to enter standby mode instead, disable auto power off and set the sleep time interval in "Device Setup=> Power Settings => Sleep Timer (min.)".*

# USING THE PROJECTOR

## Menu navigation and features



The projector has multilingual on-screen display (OSD) menus that allow you to make image adjustments and change a variety of settings.

>To open the OSD menu, press the **Menu** key on the remote control or projector keypad.



>To select a main menu or sub menu, use the   buttons to highlight it. Then, press the **Enter** button to enter the sub menu.





>Press the **Exit** button to return to the previous menu or exit the OSD menu if at top level.

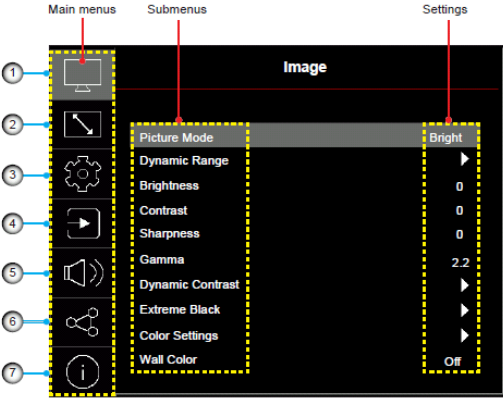
>Setting methods to adjust the function value or selection an option.

-To adjust the slide bar values, highlight the function, and use the   buttons to change value.

-To check or uncheck a checkbox, highlight the function, and press **Enter**.

-To input a number or symbol, highlight the number or symbol, and use the   buttons to make a selection. You can also use the number keys on the remote control or keypad.

-To select a function option, use the   or   buttons to make the selection. If no **Enter** icon shows at the navigation bar, the highlighted option is automatically applied. If there is an **Enter** icon at the navigation bar, press **Enter** to confirm your selection.



No	Item	No	Item
1.	Image menu	5.	Audio menu
2.	Display menu	6.	Communication menu
3.	Device setup menu	7.	Information menu
4.	Input settings menu		

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6 Values
IMAGE	PICTURE MODE				NATURAL
					HDR
					HLG
					CINEMA
					SPORT
					BRIGHT
					LCCI
					LCC2
		Dynamic Range HDR			OFF
					AUTO (default)
	HDR Brightness				0 to 10
	Brightness				0 to 100
	Contrast				0 to 100
	Sharpness				1 to 15
	Gamma				FILM
					Video (2.6)
					Graphics
					Standard (2.2)
					1.8/2.0/2.4 (selectable)
	AUTO ADAPTIVE CONTRAST	Dynamic Black			ON (default)
					OFF
		Speed			1 - 160 [default: 160]
		Strength			0 - 3 [default: 3]
		Level			50% - 100% [default: 100%]
		Extreme Black			Off [default]
					ON
		AV Mute Timer			0.0s - 10.0s [default: 0.0s]
		Black Level			0 - 5 [default: 0]
	Color Settings	Color			0 - 100
		Tint			0 - 100
		Brilliant Color			0 - 10
		Color Temperature			D55
					D65
					D75
					D85
	Color Settings	CMS	Red		0 - 254
			Saturation		0 - 254

Luminance	O ~ 254
Reset	YES
	Cancel (default)
Green	O ~ 254
Saturation	O ~ 254
Luminance	O ~ 254
Reset	YES
	Cancel (default)
Blue	O ~ 254
Saturation	O ~ 254
Luminance	O ~ 254
Reset	YES
	Cancel (default)
Cyan	O ~ 254
Saturation	O ~ 254
Luminance	O ~ 254
Reset	YES
	Cancel (default)

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6 Values
IMAGE cont.					
					Magenta
					0 ~ 254
					Saturation
					0 ~ 254
					Luminance
					0 ~ 254
					Reset
					YES
					Cancel (default)
					Yellow
					0 ~ 254
					Saturation
					0 ~ 254
					Luminance
					0 ~ 254
					Reset
					YES
					Cancel (default)
					White
					0 ~ 254
					Saturation
					0 ~ 254
					Luminance
					0 ~ 254
					Reset
					YES
					Cancel (default)
		White Balance	Red gain		0 ~ 100 [default: 50]
			Green gain		0 ~ 100 [default: 50]
			Blue Gain		0 ~ 100 [default: 50]
			Red Offset		0 ~ 100 [default: 50]
			Green Offset		0 ~ 100 [default: 50]
			Blue Offset		0 ~ 100 [default: 50]
		Color Space	HDMI Input		Auto [default]
					RGB (0 ~ 255)
					RGB (0 ~ 255)
					YUV
		Wall Color			Off [default]
					Blackboard
					Light Yellow
					Light Green
					Light Blue
					Pink
					Gray
3D Setup		3D Mode			Off [default]
					Auto
		3D Sync Type			DLP-link [default]
					3D Sync
		3D Format			Auto

					Frame Packing
					Side by Side
					Top and Bottom
					Frame Sequential
		3D Sync Invert			Off [default]
					On
		3D Sync Out			To Emitter [default]
					To Next Projector
		Reset			Yes
					Cancel [default]
Reset					Yes
					Cancel [default]

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6 Values
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Display	Light Source Settings	Light Source Mode	Normal [default]	
			Eco Mode	
			Constant Luminance	
			Constant Power	
		Brightness Level	10% ~ 100% [default:100%	
	Gaming Mode	Off [default]		
		On		
	Aspect Ratio	4.03		
		16.09		
		21.09		
		LBX		
		Auto [default]		
		Native		
	Digital Zoom	80 ~ 180 [default: 100]		
	Image Shift	Horizontal	0 ~ 100 [default: 50]	
		Vertical	0 ~ 100 [default: 50]	
	Geometric Correction	V Keystone	0 ~ 40 [default: 20]	
		H Keystone	0 ~ 40 [default: 20]	
		4-Corner	Top Left	
			Top Right	
			Bottom Left	
			Bottom Right	
		Warping	Off [default]	
			On	
		Warping Adjustment	(Adjust Pattern)	
		Grid Color	Green [default]	
			Magenta	
			Red	
			Cyan	
		Reset	Yes	
			Cancel [default]	
	Edge Mask	0 ~ 10 [default: 0]		
	Reset	Yes		
		Cancel [default]		



Device Setup	Test Pattern		Off [default]
			Green Grid
			Magenta Grid
			White Grid
			White
			Black
			Red
			Green
			Blue
			Yellow
			Magenta
			Cyan
			ANSI Contrast 4x4
			Color bar
			4K Full screen
	Projection Orientation	Ceiling	Auto [default]
			On
			Off
		Rear	Off [default]
			On
	Language		English [default]
			Deutsch
			Français
			Italiano
			Español
			Português
			Polski
			Nederlands
			Norsk
			繁體中文
			简体中文
			日本語
			한국어
			Русский
			Magyar
			ไทย

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6 Values	
Menu Settings	Menu Location	Top Left				
		Top Right				
		Center [default]				
		Bottom Left				
		Bottom Right				
	Menu Timer	Off				
		5s				
		10s [default]				
		20s				
		30s				
		60s				
	Information Hide	Off [default]				
		On				
	High Altitude	Off [default]				
		On				
Lens Settings	Focus	[Focus for adjust]				
	Zoom	[Zoom for adjust]				
	Lens Function	Lock				
		Unlock [default]				
	Lens Shift	[Pattern for adjust]				
	Lens Calibration	Yes				
		Cancel [default]				
	Lens Shift Memory	Save Memory	Memory 1 ~ Memory 5			
		Apply Memory	Memory 1 ~ Memory 5			
		Clear Memory	Yes			
Cancel [default]						

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6 Values
Device Setup		Reset		Yes	
				Cancel [default]	
	Power Settings	Direct Power On		Off [default]	
				On	
		Signal Power On		Off [default]	
				On	
		Auto Power Off (min.)		0, 2 - 180 [default: 20]	
		Sleep Timer (min.)		0 - 960 [default: 0]	
		Power Mode (Standby)		Eco (default)	
				Active	
				Communication	
		12V Trigger		Off [default]	
				On	
		Reset		Yes	
				Cancel [default]	
	Shutter			Shutter Off [default]	
				Shutter On	
	Security	Security		Off [default]	
				On	
		Security Timer	Month	0 - 35 [default: 0]	
			Day	0 - 29 [default: 0]	
			Hours	0 - 23 [default: 0]	
		Change Password			
	Keypad Lock			Off [default]	
				On	
	Keypad LED Settings			Off	
				On [default]	
	Startup Logo	Change Logo		Default	
				Neutral	
	Background Color			None	
				Blue	
				Red	
				Green	
				Grey	
				White	

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6 Values
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				Logo	
	User Data	Save All Settings		Memory 1 - Memory 5	
				[default: Memory 1]	
		Load All Settings		Load All Settings Memory 1 - Memory 5	
				[default: Memory 1]	
	Device Reset	Reset OSD		Yes	
				Cancel [default	
		Reset All Settings		Yes	
				Cancel [default	
		Reset Selective	Image	Yes	
				Cancel [default	
			Display	Yes	
				Cancel [default	
			Setup	Yes	
				Cancel [default]	
			Input	Yes	
				Cancel [default]	
			Audio	Yes	
				Cancel [default]	
			Communicati on	Yes	
				Cancel [default]	

Input Settings	Auto Source			Off	
				On [default]	
	Quick Resync			Off	
				On [default]	
	Active Inputs			HDMI 1 [default]	
				HDMI 2	
				HDBaseT	
	EDID Settings	HDMI 1 EDID		1.04	
				2.0 [default]	
		HDMI 2 EDID		1.04	
				2.0 [default]	
		HDBaseT EDID		1.04	
				2.0 [default]	

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6 Values
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	HDMI Out		HDMI 1 [default]		
			HDMI 2		
	Reset		Yes		
			Cancel [default]		
Audio	Volume		0 ~ 10 [default: 5]		
	Mute		Off [default]		
			On		
	Audio Output		Auto [default]		
			Internal Speaker		
			Line Out		
	Reset		Yes		
			Cancel [default]		
	Communication	Device ID		0 ~ 99 [default: 0]	
		IR Function	Front	Off	
On [default]					
Top		Off			
		On [default]			
HDBaseT		Off [default]			
		On			
Remote Settigs		Remote Code		0 ~ 99 [default: 0]	
	Quick Switch Code		Off [default]		
			1 ~ 9		
	User1			HDMI 1	
				HDMI 2	
				Color Matching	
				Color Temperature	
				Projection Orientation	
				Light Source Mode	
				Freeze Screen	
				Network setup	
				Reset Selective	
		User2			HDMI 1
			HDMI 2		
			Color Matching		
			Color Temperature		
			Projection Orientation		
			Light Source Mode		

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6 Values
Input Settings	LAN	LAN Interface			Freeze Screen
					Network setup
					Reset Selective
					RJ-45 [default]
					HDBaseT
					Connected [read only]
					Disconnected [read only]
					MAC Address
					[read only]
					DHCP
					Off [default]
					On
					IP Address
					[read only]
					Subnet Mask
					[read only]
					Gateway
					[read only]
					DNS 2
					[read only]
					Apply
					Yes
					Cancel [default]
					Reset
					Yes
					Cancel [default]
	Control	Crestron			Off
					On [default]
					IP Address
					[read only]
					IP ID
					2 ~ 255 [default: 5]
					Port
					0 ~ 65535 [default: 41794]
					Crestron Setup Apply
					Yes
					Cancel [default]
					PJ Link
					Off
					On [default]
					Extron
					Off
					On [default]
					AMX
					Off
					On [default]
					Telnet
					Off
					On [default]
					HTTP
					Off
					On [default]
	Baud Rate				9600
					19200

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6 Values
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					38400
					57600
					115200 [default]
	Reset				Yes
					Cancel [default]

Information	Regulatory	Serial Number	
		Source Info.	Source
			Resolution
			Signal Format
			Pixel Clock
			Refresh Rate
			Color Bit Depth
			Color Gamut
			Color Space
			Picture Mode
		Light Source Mode	
		Device ID	
		Remote Code	
		System Status	Standby Mode
			Projection Hours
			Total Hours
			Normal
			Eco Mode
			Custom Power
			Ambient Temp.
			System Temp.
		Control	Crestron
			Extron
			PJ Link
			AMX
			Telnet
			HTTP
		LAN	LAN Interface
			MAC Address
			Network Status

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6 Values
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DHCP

IP Address

Subnet Mask

Gateway

DNS 1

DNS 2

FW VERSION

Main Version

F-MCU Version

A-MCU Version

LAN Version

Formatter  
Version

HDBaseT  
Version



# USING THE PROJECTOR

## IMAGE MENU

Learn how to configure image settings.

### Submenus

- . Picture Mode
- . Dynamic Range
- . Brightness
- . Contrast
- . Sharpness
- . Gamma
- . Dynamic Contrast
- . Color Settings
- . Wall Color
- . 3D Setup

## PICTURE MODE

There are several predefined display modes that you can choose from to suit your viewing preference. Each mode has been fine-tuned by our expert colour team to ensure superior colour performance for wide range of content.

>**natural**\_In this mode, the color saturation and brightness are well-balanced. Choose this mode for playing games.

>**HDR / HLG**\_Decodes and displays High Dynamic Range (HDR) / Hybrid Log Gamma (HLG) content for the deepest blacks, brightest whites, and brilliant cinematic color using REC.2020 color gamut. This mode will be automatically enabled if HDR/HLG is set to Auto (and HDR/HLG Content is sent to projector – 4K UHD Blu-ray, 1080p/4K UHD HDR/HLG Games, 4K UHD Streaming Video). While HDR/HLG mode is active, other display modes cannot be selected as HDR/HLG delivers color that is highly accurate, exceeding the color performance of the other display modes.

>**cinema**\_Provides the best balance of detail and colors for watching movies.

>**LCC**\_Standardized accurate color by using LCC application (SIM2).

>**bright**\_This mode is suitable for environments where extra-high brightness is required, such as using the projector in well-lit rooms.

>**sport**\_This mode has been created for viewing greyscale images, perfect for sports contents.

>**3D**\_Optimized settings for watching 3D content.

**Note:** *To experience the 3D effect, you will need to have compatible DLP Link 3D glasses. See 3D section for more information.*

### Note:

. *When 3D mode is selected, all other Display modes will be unavailable.*

. *When LCC mode is selected, the HDR, HLG, 3D, and High Frame Rate mode will be unavailable.*

## DYNAMIC RANGE

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

### >HDR

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

-**Auto**: Auto detect HDR signal.

**HDR Brightness**\_Adjust the brightness of the HDR.

**Brightness**\_Adjust the luminous brightness of the projected image to adapt to different ambient light.

**Contrast**\_Adjust the contrast ratio of the projected image. The contrast controls the degree of difference between the lightest and darkest parts of the image.

**Sharpness**\_Adjust the clarity of details in the projected image to make the image clearer and sharper.

**Gamma**\_Select an appropriate gamma value to optimize the image conformance to different input sources.

### >Film

Best for Professional theater setting.

### >Video

Best for video setting

### >Graphics

Best for projecting photos from PC input.

>Standard

### >1.8 / 2.0 / 2.4

Select a preset gamma value to adjust the image performance. In general, the smaller the value, the brighter the dark areas of the image will become. The standard gamma value is 2.2.

# DYNAMIC CONTRAST

Set up the Dynamic Contrast to maximize the contrast for dark content.

**Dynamic Black\_** Enable this function to automatically adjust the contrast ratio for video sources. It improves the black level in dark scenes by reducing the light output.

**Speed\_** Adjust the speed of the light source correction. The value ranges from 1 to 160. A lower value makes the correction slower and less aggressive while a higher value results in the faster correction.

**Strength\_** Set the strength of the dynamic contrast adjustment. The value ranges from 0 to 3, the higher the value the stronger the correction.

**Level\_** Adjust the light source when the brightness level of the current content gets lower than the set value. The value ranges from 50% to 100%. The higher the value, the larger the range to adjust the light source.

**Extreme Black\_** Enable this function to automatically increase the contrast ratio by turning off the laser light when black image is detected.

**AV Mute Timer\_** Set a timer for the laser light to turn off after detecting black content. The set value ranges from 0s to 10s.

**Black Signal Level\_** Set a black level value as the threshold for the Real Black function. The value can be adjusted from 0% to 5%, with 0 being the darkest black and 5 being the brightest.

**Note:**

*. When Dynamic Black is turned on, the Extreme Black will be unavailable.*

*. When Extreme Black is turned on, the Dynamic Black will be unavailable.*

## COLOR SETTING

Configure the color settings of the projected image to improve the color performance.

**Color\_** Adjust the saturation of the selected color. The value indicates the color shifts from or towards the white in the center of the chromaticity diagram.

**Tint\_** Adjust the color balance of red and green in video images.

**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\_** Adjust the color temperature of the projected image. The available options are D55, D65, D75, D85.

**CMS\_** Change the color of a projected image by adjusting each color component in the image. The adjustable color includes Red, Green, Blue, Cyan, Yellow, and Magenta (R / G / B / C / Y / M).

. **Red / Green / Blue / Cyan / Magenta / Yellow:** Select a color for further adjustment.

± **Hue:** Adjust the hue of the selected color. The value reflects the number of degrees of rotation around the chromaticity diagram from the original color. Increasing value indicates counterclockwise rotation, and decreasing value, clockwise rotation.

± **Saturation:** Adjust the saturation of the selected color. The value indicates the color shifts from or towards the white in the center of the chromaticity diagram.

± **Luminance:** Adjust the luminance of the selected color. Increase the value to brighten the image (add white to a color) or decrease the value to darken the image (add black to a color).

± **Reset:** Reset the Red, Green, Blue, Cyan, Magenta, or Yellow color to factory default values.

. **White:** Adjust the white color performance via setting the Red, Green, and Blue values.

± **Red / Green / Blue:** Adjust the red, green, and blue colors to optimize the white color performance.

### >White Balance

Adjust the white balance of the projected image via gain and offset. Gain and offset are individual controls for each RGB channels used to set greyscale. The Gains calibrate the color of the dark parts and Bias calibrate the white parts.

. **Red / Green / Blue Gain:** Adjust the color of the image's bright areas.

. **Red / Green / Blue Offset:** Adjust the color of the image's dark areas.

### >Color Space

Select a color space that has been specifically tuned for the input signal. The available options are Auto (default), RGB (0 ~ 255), RGB (16 ~ 235), and YUV.

**Note:** When 3D, High Frame Rate, or Blending mode is selected, the Color Temperature will be unavailable.

## WALL COLOR

Set the wall color of the projector to achieve best color performance for a specific wall. The available options are Off, Blackboard, Light Yellow, Light Green, Light Blue, Pink, and Gray.

## 3D SET-UP

3D video file combines two slightly different images (frames) of the same scene representing the different views that the left and right eyes see. When these frames are displayed fast enough and viewed with 3D glasses synchronized with the left and right frames, the viewer's brain then assemble the separate images into a single 3D image. 3D Menu provides options to set up the 3D functions to correctly display 3D videos.

### >3D Mode

. **Off:** Select "Off" to turn off 3D mode.

. **Auto:** Select "Auto" to turn on 3D mode.

>**3D Sync Type**\_Select a proper 3D technology according to how the 3D sync signal is processed.

. **DLP-Link:** Select DLP-Link when the 3D sync signal is generated by the DLP Link technology built into the projector. DLP Link works only with the glasses that are compatible with DLP 3D technology and the 3D function is enabled.

. **3D Sync:** Select 3D Sync when the 3D sync out signal is sent to an emitter or another projector through the 3D sync out port.

**Note:** *3D Sync out does not support 3D frame delay.*

>**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.

. **Frame Packing:** Display 3D signal in "Frame Packing" format.

. **Side by Side:** 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.

>**3D Sync Invert**\_Use this option to enable/disable the 3D sync invert function.

>**3D Sync Out**\_Set up the transmission of the 3D sync output signal.

. **To Emitter:** Send the 3D sync signal to the emitter connected to the 3D sync out port.

. **To Next Projector:** Send the 3D sync signal to next projector when using multiple projectors.

>**Reset**\_Reset the function settings to factory default values.

### **Note:**

. *When Blending mode is selected, the 3D Sync Type, 3D Sync Invert, and 3D Sync Out will be unavailable.*

. *This projector is a 3D ready projector with DLP-Link 3D solution.*

. *Please ensure that 3D glasses are in use for DLP-Link 3D content before enjoying your video.*

. *This projector supports frame sequential (page-flip) 3D via HDMI1/HDMI2 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 note that 4K (3840x2160) resolution is not supported in 3D mode.*

### >Reset

Reset all the image settings to factory default values.

# DISPLAY MENU

Learn how to configure the settings to properly project images according to your installation circumstances.

## Submenus

- . Light Source Settings
- . Gaming Mode
- . Aspect Ratio
- . Digital Zoom
- . Image Shift
- . Geometric Correction
- . Edge Mask

# LIGHT SOURCE SETTINGS

Set up the light source to control the projector brightness.

## >Light Source Mode

Select a light source mode depending on the installation requirements. The available options are Normal, Eco Mode, Constant Luminance, and Constant Power.

## >Brightness Level

Adjust the brightness level from 10% to 100%.

### Note:

- . *Normal: Brightness Level is fixed at 100% and cannot be adjusted.*
- . *Eco Mode: Brightness Level is fixed at 50% and cannot be adjusted.*
- . *Constant Luminance: Brightness Level can only be adjusted from 50% to 80%.*
- . *Constant Power: Brightness Level can be adjusted from 10% to 100%.*

## >Gaming Mode

Enable this feature to reduce response times (input latency) during gaming to 4.5 ms (1080p120Hz). All geometric correction settings (example: Keystone, Four Corners) will be disabled when Gaming Mode is enabled. For more information is below.

### Note:

- . *The input lag by signals is described in the following table:*
- . *The values in the table can vary slightly.*

Source Timing	Gaming Mode	Output Resolution	Input Lag	Frame
1080p60	On	2160p	16.9 ms	~1 frame
1080p120	On	2160p	8.9 ms	~0.5 frame
1080p240	On	2160p	4.5 ms	~0.25 frame
4K60	On	2160p	16.8 ms	~1 frame
1080p60	Off	2160p	25.22 ms	~1.5 frame
1080p120	Off	2160p	12.8 ms	~0.8 frame
1080p240	Off	2160p	6.4 ms	~0.4 frame
4K60	Off	2160p	50.2 ms	~3 frame

## ASPECT RATIO

Set the aspect ratio of the projected image. The available options are 4:3, 16:9, 21:9, LBX, Auto, or Native. Select Auto to display the detected image size.

- . **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.
- . **21:9**: This format is for 21:9 input source, like HDTV and DVD enhanced for Wide screen TV.
- . **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.
- . **Auto**: Automatically selects the appropriate display format.
- . **Native**: This format displays the original image without any scaling.

**Note:** *Native setting is not available when the input resolution is lower than 1080p.*

## DIGITAL ZOOM


Use to reduce or magnify an image on the projection screen. Digital Zoom is not the same as optical zoom and can result in degradation of image quality.

**Note:** *Zoom settings are retained on power cycle of the projector.*


## IMAGE SHIFT

Adjust the projected image position.

### >Horizontal

Use the  buttons to adjust the projected image position horizontally.

### >Vertical

Use the  buttons to adjust the projected image position vertically.

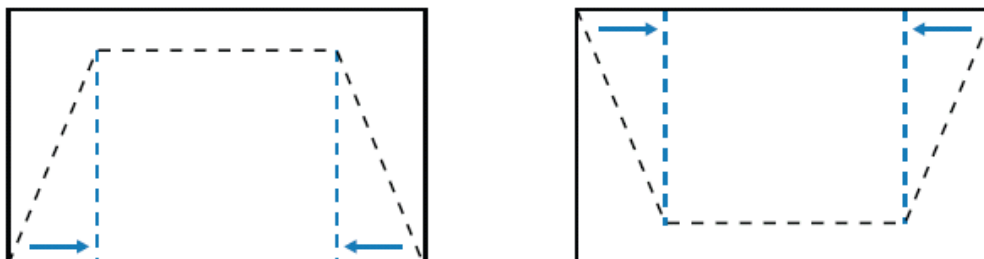
**Note:** *When 3D mode is selected, the Image Shift will be unavailable.*

# GEOMETRIC CORRECTION

Configure the geometric settings to reshape the image for different projection surfaces.

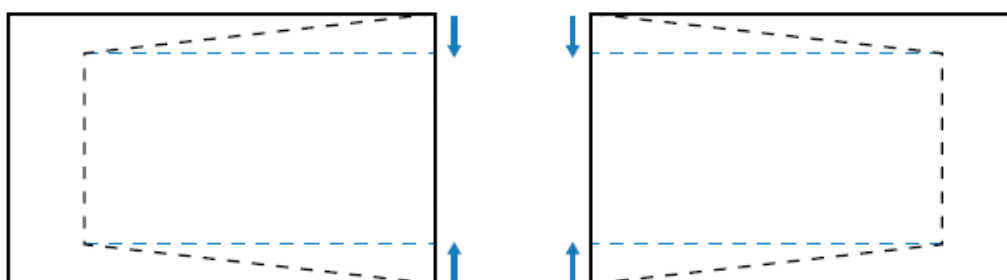
## >V Keystone

Adjust image distortion vertically and make a squarer image. Vertical keystone is used to correct a keystone 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.



## >H Keystone

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

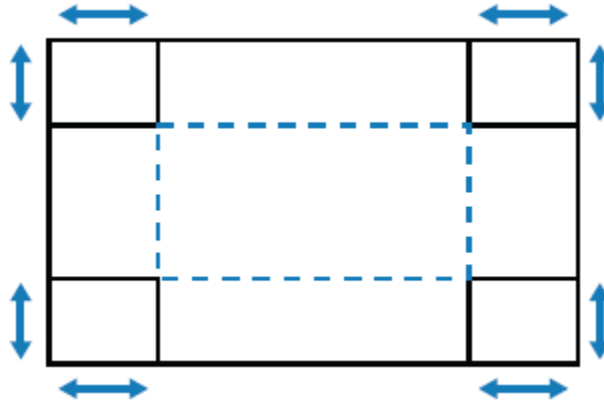


**NOTE:** For the best use of digital V and H digital keystone adjustment, projection lens Vertical and Horizontal shift must be set in the centre.

To centre the lens go to LENS SETTINGS-LENS CALIBRATION (this calibrates the lens position to return it to the centre)

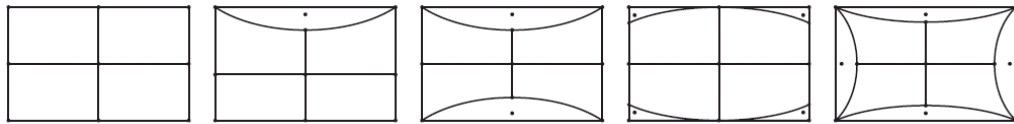


>**4-Corner\_Reshape** the image by moving the 4 corners of the image to have it fit a specific projection surface.



>**Warping\_Enable** or disable the warping function.

>**Warping Adjustment** Use warping to adjust the image to align with the border of the projection surface (screen) or to eliminate image distortion (caused by an uneven surface).



**Note:** *Warping adjustment only supports 5x3 grid points.*

>**Grid Color** Select a grid color for warp and blend pattern between Green, Magenta, Red, and Cyan.

>**Reset** Reset geometric correction settings to factory default values.

## EDGE MASK

The edge blending function allows you to hide one or multiple edges of the projected image. You can use this function to remove the video encoding noise on the edges of the video images.

**Note:** *When 3D mode is turned on, the Edge Mask will be unavailable.*

>**Reset** Reset all the display settings to factory default values.

# DEVICE SET-UP MENU

Learn how to configure the system settings for the projector.

## Submenus

- . Test Pattern
- . Projection Orientation
- . Language
- . Menu Settings
- . High Altitude
- . Lens Settings
- . Power Settings
- . Security
- . Keypad Lock
- . Keypad LED Settings
- . Startup Logo
- . Background Color
- . User Data
- . System Update

## TEST PATTERN

Select a test pattern. The available options are Off, Green Grid, Magenta Grid, White Grid, White, Black, Red, Green, Blue, Yellow, Magenta, Cyan, ANSI Contrast 4x4, Color bar, and 4K Full screen.

## PROJECTION ORIENTATION

Change the image direction by selecting a proper projection mode.

>**Ceiling\_**Enable the function for ceiling mount installation.

>**Rear\_**Check the function for rear projection.

## LANGUAGE

Select a language for the OSD menu. The available languages are English, German, French, Italian, Spanish, Portuguese, Polish, Dutch, Norwegian, Traditional Chinese, Simplified Chinese, Japanese, Korean, Russian, Hungarian, and Thai.

## MENU SETTING

>**Menu Location\_**Select the menu location from Top Left, Top Right, Center, Bottom Left, and Bottom Right.

**Note:** Due to the limitation of hardware, the update of Bottom Left & Right OSD will become slower.

- >**Menu Timer**\_Set the length of time the menu displays on the screen.
- >**Information Hide**\_Enable or disable the corner information messages, such as input source, IP address, and so on.

## HIGH ALTITUDE

Select On to increase the fan speed. To ensure the image quality and prevent damage to the projector, enable High Altitude mode in high temperature, high humidity, or high altitude environment.

## LENS SETTINGS

Configure the lens settings to adjust the image quality and position.

- >**Focus**\_Use it to adjust the focus of the projected image.
- >**Zoom**\_Use it to adjust the size of the projected image.
- >**Lens Function**\_Lock the lens to prevent the lens motors from moving, which disables all lens functions.  
**Note:** *When Lens Function is turned on, the Focus, Zoom, Lens Shift, Lens Calibration, and Lens Shift Memory will be unavailable.*
- >**Lens Shift**\_Use it to adjust the lens position to shift the projected area.
- >**Lens Calibration**\_Calibrate the lens position to return it to the centre.
- Lens shift memory**\_This projector can save up to five lens settings, which records the lens position.
  - >**Save Memory:** Select a record from 1 to 5 to save the current lens settings.
  - >**Apply Memory:** Select a record from 1 to 5 to apply the lens settings.
  - >**Clear Memory:** Clear the saved lens records.
- Note:**
  - . *Process the lens calibration before setup lens shift memory.*
  - . *Performing a lens calibration will clear the saved lens records.*
  - . *When the lens calibration is not completed, the lens shift memory will be unavailable.*
- >**Reset**\_Reset the lens settings to factory default values.

## POWER SETTINGS

Configure the projector's power settings.

- >**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**\_Turn on this function to have the projector automatically turning on when connected to HDMI input sources. It only applies to the standby projector set to Communication mode.
- >**Auto Power Off (min.)**\_Set an interval timer for the projector to automatically turn off if no signal is detected within the specified time period. Press the t and u buttons to add or reduce time, 1 minutes for each press.
- >**Sleep Timer (min.)**\_Set an interval timer for the projector to automatically turn off after operating for the specified amount of time.

>**Power Mode (Standby)**\_Setup the projector's standby mode.

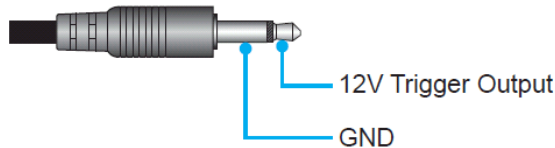
. **Eco:** Minimum power consumption (0.5 Watt) which does not allow network control.

. **Active:** Low power consumption (< 2 Watt) which allows the LAN module to enter sleep mode and supports to be woken by Wake on LAN (WoL). When the LAN module is woken by WoL, the projector is ready to receive commands over the network.

. **Communication:** More power consumption that allows controlling the projector over the network.

>**12V Trigger**\_Use this function to enable or disable the trigger.

**Note:** 3.5mm TS type mini jack that outputs 12V 200mA (max.) for relay system control.



>**Reset**\_Reset the power settings to factory default values.

## SECURITY

Set up security verification to protect the projector.

**Security**\_Select On to protect the projector with a password.

**Note:**

. For the first time use security function, please enter a password when security function turned on.

. Non first time use security function, please enter previous password to verify when security function turned on again.

>**Security Timer**\_Specify the length of time the projector can be used without the password. Once the timer counts to 0, the user must enter a password to use the projector. The timer restarts every time the projector is turned on.

>**Change Password**\_Change the projector password.

**Note:** In the last minute before reaching a specified timer, including Auto Power Off, Sleep Timer, and Security Timer, an on-screen message will pop up warning that the projector shuts down in 60 seconds. Press any button on the remote control or projector keypad to reset the timer and the projector remains on.

## 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.

## KEYPAD LED SETTINGS

Enable or disable the keypad LED.

## STARTUP LOGO

Set up the logo for the startup screen.

>**Change Logo\_**Change the logo for the startup screen. Apart from the Default logo, user can select from Default and Neutral.

. **Default:** The projector default logo.

. **Neutral:** The logo is not displayed on the startup screen.

## BACKGROUND COLOR

Set a background color to display when no input signal is detected. The available options are None, Blue, Red, Green, Grey, White, and Logo.

## USER DATA

User can save the projector settings as user data and reload the settings later.

>**Save All Settings\_**Save all of the projector settings as user data. User can save up to 5 records.

>**Load All Settings\_**Load the previously saved user data.

## SYSTEM UPDATE

Update the system automatically or manually.

>**Auto\_**System checks for new updates automatically every time it is connected to the Internet.

>**Auto Download\_**When both “Auto” and “Auto Download” are On, new updates will be downloaded automatically when the projector is restarted.

### Note:

1. When new updates are automatically downloaded, there will be no prompts.
2. When the Power Off button is pressed, if the download is complete, a prompt to update will pop up
3. Select the Update option to start the update.

>**Update\_**Manually update the system firmware.

## DEVICE RESET

Reset the settings to factory default values.

>**Reset OSD**\_Reset OSD settings to default values.

>**Reset All Settings**\_Reset all projector settings to default values.

>**Reset Selective**\_Reset the settings of one of the main menus. User can choose from Image, Display, Setup, Input, Audio, and Communication.

## INPUT SETTINGS MENU

Learn how to configure the projector input settings.

### Submenus

- . Auto Source
- . Quick Resync
- . Active Inputs
- . EDID Settings
- . HDMI Out

## AUTO SOURCE

When Auto Source is enabled, the projector automatically detects and selects the input signal. Once an input source is selected, press the Input button on the remote control or keypad to switch to other available sources. When the function is disabled, pressing Input will bring up the Active Inputs submenu.

## QUICK RESYNIK

Set the quick resync feature.

## ACTIVE INPUTS

Select an input signal from the source list. The available input sources are HDMI1, HDMI2, and HDBaseT.

## EDID SETTINGS

Set the EDID compatibility.

>**HDMI 1 EDID / HDMI 2 EDID**\_When receiving a HDMI signal, set the projector's EDID compatibility to display the signal correctly. Select 1.4 for the input devices with HDMI 1.4, or 2.0 for HDMI 2.0 devices.

>**HDBaseT EDID**\_When receiving a HDMI signal via HDBaseT, set the projector's EDID compatibility to display the signal correctly. Select 1.4 for the input devices with HDMI 1.4, or 2.0 for HDMI 2.0 devices.

>**HDMI Out**\_Set the HDMI 1 or HDMI 2 port to output the signal.

>**Reset**\_Reset all the input settings to factory default values.

## AUDIO MENU

Learn how to configure audio settings.

### Submenus

- . Volume

- . Mute

- . Audio Output

- >**Volume**\_Adjust the volume level.

- >**Mute**\_Turn off or turn on the projector sound.

- >**Audio Output**\_Select the audio output between Internal Speaker and Line Out.

- >**Reset**\_Reset all the audio settings to factory default values.

## COMMUNICATION MENU

Communication menu is used to configure the settings that allow the projector to communicate with other projectors or control devices.

### Submenus

- . Device ID

- . IR Function

- . Remote Settings

- . LAN

- . HDBaseT Control

- . Control

- . Baud Rate

## DEVICE ID

Assign an ID code for the projector from 00 to 99. Use this code as the projector ID when controlling the projector by RS232, Telnet or other control methods.

## IR FUNCTION

Set the remote receiver for the projector to control the communication between the projector and the IR remote.

>**Front\_**Enable or disable the front remote receiver.

>**Top\_**Enable or disable the top remote receiver.

>**HDBaseT\_**Select On to set the HDBaseT terminal as the remote receiver REMOTE SETTINGS

>**User 1 / User 2 / User 3\_**Assign a function to the User 1, User 2 and User 3 buttons on the remote control. It allows you to use the function easily without going through the OSD menus. The available functions are HDMI 1, HDMI 2, Color Matching, Color Temperature, Projection Orientation, Light Source Mode, Freeze Screen, Network, and Reset Selective.

## LAN

Configure the projector's network settings.

>**LAN Interface\_**To avoid clash, specify the LAN interface to RJ-45 or HDBaseT.

>**Network Status\_**Display the network connection status. (Read only)

>**MAC Address\_**Display the MAC address. (Read only)

>**DHCP\_**Turn on DHCP to automatically acquire IP address, subnet mask, gateway, and DNS.

>**IP Address\_**Assign the projector's IP address.

>**Subnet Mask\_**Assign the projector's subnet mask.

>**Gateway\_**Assign the projector's gateway.

>**DNS 1/DNS 2\_**Assign the projector's DNS 1/DNS 2.

>**Apply\_**Apply the wired network settings.

**Note:** *If you have adjusted the settings for DHCP, IP Address, Subnet Mask, Gateway, DNS1/2, please be sure to execute "Apply" so that the system will apply any changes to the network settings.*

>**Reset\_**Reset the network settings to default factory values.

## CONTROL

This projector can be controlled remotely by a computer or other external devices through wired network connection. It allows the user to control one or more projectors from a remote control center, such as powering the projector on or off, and adjusting the image brightness or contrast.

Use the Control submenu to select a control device for the projector.

>**Crestron\_**Control the projector with Crestron controller and related software (Port: 41794).

For more information, please visit <http://www.crestron.com>.

>**Crestron Setup:** Setup the Crestron IP Address, IPID, and Port. Then select Crestron Setup Apply to save the modifications.

**Note:** *Crestron settings on the OSD only support Crestron V1 functions. If you want to configure Crestron V2 functions or more detailed settings, you need to go to the web page to set them.*



>**PJ Link**\_Control the projector with PJLink Class2 commands (Port: 4352).

For more information, please visit <http://pjlink.jbmia.or.jp/english>.

>**Extron**\_Control the projector with Extron devices (Port: 2023).

For more information, please visit <http://www.extron.com>.

>**AMX**\_Control the projector with AMX devices (Port: 9131).

For more information, please visit <http://www.amx.com>.

**Note:** Only supports AMX Discovery function.

>**Telnet**\_Control the projector using RS232 commands though Telnet connection (Port: 23).

For more information, refer to "Using RS232 command by Telnet" on page 58.

>**HTTP**\_Control the projector with web browser (Port: 80).

For more information, refer to "Overview of the web control panel" on page 57.

**Note:**

. 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.

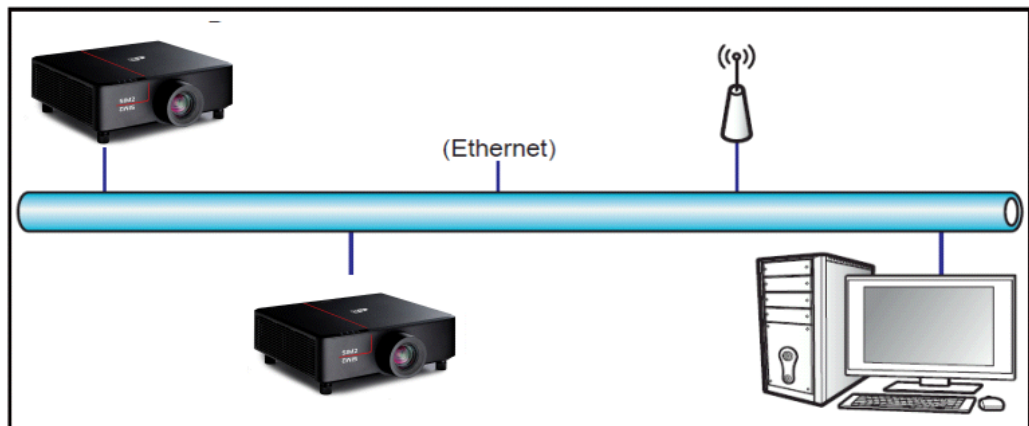
. For more information about the various types of external devices which can be connected to the LAN/ RJ45 port and remotely control the projector, as well as the supported commands for these external devices, please contact the Support-Service directly.

. Support OMSC and OMSL. For more information, please contact the Support-Service directly.

## SETUP NETWORK CONTROL

>**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.



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

**>Using the web control panel** The web control panel allows the user to configure various projector settings using a web browser from any personal computer or mobile devices.

**>System Requirements** To use the web control panel, make sure your devices and software meet the minimum system requirements

- RJ45 cable (CAT-5e)
- PC, laptop, mobile phone, or tablet installed with a web browser
- Compatible web browsers

± Microsoft Edge 40 or higher version

± Firefox 57 or higher version

± Chrome 63 or higher version

**>Accessing the web control panel** When network is available, connect the projector and the computer to the same network. Use the projector address as the web URL to open the web control panel in a browser.

1. Check the projector address using the OSD menu.

. Setup: **Control** → **LAN** → **IP Address**.

**Note:** Make sure DHCP is enabled.

2. Open a web browser and type the projector address in the address bar.

3. The web page redirects to the web control panel.

4. In the Username field, type the username: admin (first time login).

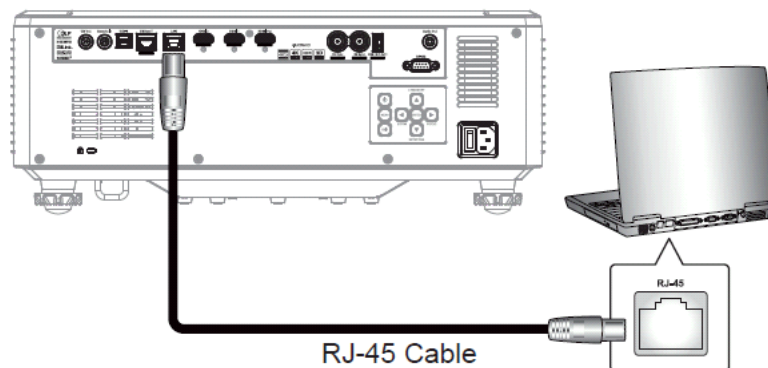
**Note:**

. When logging in for the first time, you don't need to enter a password.

. It is needed to change the username and password once you have logged in. It is also advised to use a strong password.

When network is not available, refer to "Directly connect the projector to a computer" on page 58.

**>Directly connect the projector to a computer** When network is not available, connect the projector to the computer directly using a RJ-45 cable, and configure the network settings manually.



Assign IP address to the projector

. From the OSD menu, select **LAN > DHCP**.

. Turn off DHCP, and manually set the projector's IP Address, Subnet Mask, and Gateway.

. Press **Enter** to confirm the settings.

2. Assign IP address to the computer

. Set the Default Gateway and Subnet Mask of the computer to match the projector.

. Set the IP address of the computer to match the first three numbers of the projector.

For example, if the projector IP address is 192.168.0.100, set the computer IP address to 192.168.0.xxx, where xxx is not 100.

3. Open a web browser and type the projector address in the address bar.

4. The web page redirects to the web control panel.

**>Using RS232 command by Telnet\_** This projector supports using RS232 commands through Telnet connection.

1. Set up a direct connection between the projector and computer. Refer to *Directly connect the projector to a computer* on page 64.

2. Disable the firewall on the computer.

3. Open the command dialogue on the computer. For Windows 7 operating system, select **Start > All>Programs > Accessories > Command Prompt**.

4. Input the command "telnet ttt.xxx.yyy.zzz 23".

Replace "ttt.xxx.yyy.zzz" with the projector IP address.

5. Press **Enter** on the computer keyboard.

#### **>Specification for RS232 by Telnet**

. Telnet: TCPport: 23 (contact service team for more details)

. Telnet utility: Windows "TELNET.exe" (console mode).

. Disconnection for RS232-by-Telnet control normally: Close

. Below are the limitations for using Windows Telnet utility directly after TELNET connection is ready:

± There is less than 50 bytes for successive network payload for Telnet-Control application.

± There is less than 26 bytes for one complete RS232 command for Telnet-Control.

± Minimum delay for next RS232 command must be more than 200 (ms).Information menu.

## **BAUDE RATE**

Set the baud rate for Serial Port In and Serial Port Out. The available options are 9600, 19200, 38400, 57600, and 115200 (default).

**>Reset\_**Reset all control settings to default factory values.

# INFORMATION MENU

View the projector information about its status and settings. The projector information is read only.

## Submenus

- . Regulatory
- . Serial Number
- . Source Info.
- . Light Source Mode
- . Device ID
- . Remote Code
- . System Status
- . Control
- . LAN
- . FW Version

>**Regulatory**\_Display the projector model name.

>**Serial Number**\_Display the projector serial number.

>**Source Info.** Display the current input signal of the projector.

. **Resolution**: Display the resolution of the current input signal source of the projector.

. **Signal Format**: Display the format of the current input signal source of the projector.

. **Pixel Clock**: Display the pixel clock of the projector's current input signal source.

. **Refresh Rate**: Display the horizontal and vertical refresh frequency of the projector's current input signal source.

. **Color Bit Depth**: Displays the color depth of the current input signal.

. **Color Gamut**: Displays the Color Gamut of the current input signal.

. **Color Space**: Display the color space of the projector's current input signal source.

. **Picture Mode**: Displays the Picture mode used by the projector's current input signal.

>**Light Source Mode**\_Display the current Light Source Mode setting of the projector.

>**Device ID**\_Display the current Device ID setting of the projector.

>**Remote Code**\_Display the current remote code setting of the projector.

>**System Status**\_Display the projector system status information.

>**Standby Mode**\_Display the current standby mode setting of the projector.

>**Projection Hours**\_Display the total projector usage hours.

>**Total Hours**\_Displays the total laser usage time of the projector in Normal, Eco and Custom Power modes.

-**Normal**\_Displays the total laser usage time of the projector in Normal mode.

-**Eco Mode**\_Displays the total laser usage time of the projector in Eco mode.

>**Custom Power**\_Displays the total laser usage time of the projector in Custom Power mode.

>**Ambient Temp.**\_Display the current ambient temperature of the projector.

>**System Temp.**\_Display the current system temperature of the projector.

## CONTROL

Display projector control setting information.

- >**Crestron\_**Display the current Crestron on or off setting of the projector.
- >**Extron\_**Display the current Extron on or off setting of the projector.
- >**PJLink\_**Display the current PJLink on or off setting of the projector.
- >**AMX\_**Display the current AMX on or off setting of the projector.
- >**Telnet\_**Display the current Telnet on or off setting of the projector.
- >**http\_**Display the current HTTP on or off setting of the projector.

## LAN

Display the projector network setting information.

- >**LAN Interface\_**Display the current LAN interface settings of the projector.
- >**MAC Address\_**Display the projector MAC address information.
- >**Network Status\_**Display the projector network connection status.
- >**DHCP\_**Display the projector DHCP settings.
- >**IP Address\_**Display the current IP address of the projector.
- >**Subnet Mask\_**Display the current Subnet Mask of the projector.
- >**Gateway\_**Display the current Gateway of the projector.
- >**DNS 1/ DNS 2\_**Display the current DNS1 and DNS2 address of the projector.

**FW Version\_**Display the projector Main, F-MCU, A-MCU, LAN, Formatter, HDBaseT firmware version information.

# COMPATIBLE RESOLUTION

## Digital

HDMI 2.0 / HDBaseT			
Established Timing	Standard Timing	Detail Timing	Supported Video Timing
1024x768 @60Hz	1024x768 @120Hz	3840x2160 @60Hz (Native)	1280x720 @50Hz
1024x768 @70Hz	1280x800 @75Hz	1920x1080 @60Hz	1280x720 @60Hz
1024x768 @75Hz	1280x1024 @60Hz	2560x1080 @60Hz	1280x720 @120Hz
1152x870 @75Hz	1360x765 @60Hz	1920x1080 @240Hz	1920x1080 @24Hz
1280x1024 @75Hz	1400x1050 @60Hz		1920x1080 @25Hz
	1600x1200 @60Hz		1920x1080 @50Hz
	1680x1050 @60Hz		1920x1080 @60Hz
	1920x1200 @60Hz		1920x1080i @50Hz
			1920x1080i @60Hz
			1920x1080 @120Hz
			2560x1080 @24Hz
			2560x1080 @25Hz
			2560x1080 @30Hz
			2560x1080 @50Hz
			2560x1080 @60Hz
			3840x2160 @24Hz
			3840x2160 @25Hz
			3840x2160 @30Hz
			3840x2160 @50Hz
			3840x2160 @60Hz
			4096x2160 @24Hz
			4096x2160 @25Hz
			4096x2160 @30Hz
			4096x2160 @50Hz

HDMI 1.4 / HDBaseT			
Established Timing	Standard Timing	Detail Timing	Supported Video Timing
1024x768 @60Hz	1024x768 @120Hz	720x480 @59Hz	1280x720 @50Hz
1024x768 @70Hz	1280x800 @75Hz	1366x768 @59Hz	1280x720 @60Hz
1024x768 @75Hz	1280x1024 @60Hz	1920x540 @60Hz	1280x720 @120Hz
1152x870 @75Hz	1360x765 @60Hz	1920x1080 @60Hz (Native)	1920x1080i @50Hz
1280x1024 @75Hz	1400x1050 @60Hz	1920x1200 @59Hz	1920x1080i @60Hz
	1600x1200 @60Hz	2560x1080 @60Hz	1920x1080 @24Hz
	1680x1050 @60Hz		1920x1080 @25Hz
	1920x1200 @60Hz		1920x1080 @50Hz
			1920x1080 @60Hz
			1920x1080 @120Hz
			2560x1080 @24Hz
			2560x1080 @25Hz
			2560x1080 @30Hz
			2560x1080 @50Hz
			2560x1080 @60Hz
			3840x2160 @24Hz
			3840x2160 @25Hz
			3840x2160 @30Hz
			4096x2160 @24Hz
			4096x2160 @25Hz
			4096x2160 @30Hz

## True 3D video compatibility

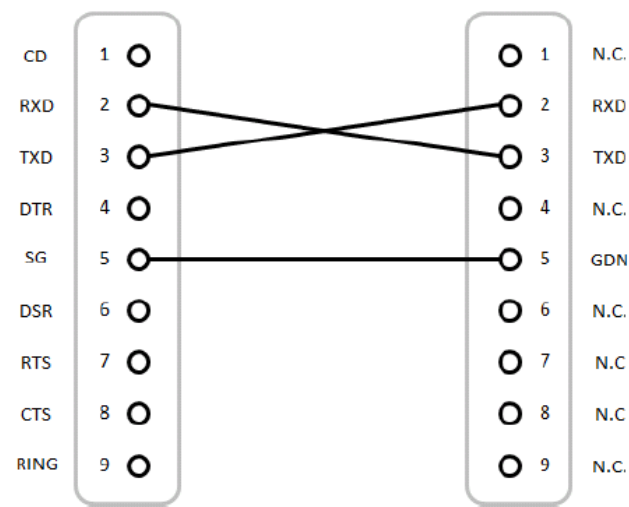
Input Resolutions	HDMI 1.4a 3D Input	Input timing	
		Resolution	Timing
		1280 x 720P @ 50Hz	Top and Bottom
		1280 x 720P @ 60Hz	Top and Bottom
		1280 x 720P @ 50Hz	Frame Packing
		1280 x 720P @ 60Hz	Frame Packing
		1920 x 1080P @ 24Hz	Top and Bottom
		1920 x 1080P @ 24Hz	Frame Packing
		1920 x 1080i @ 50Hz	Side by Side
		1920 x 1080i @ 60Hz	Side by Side
		800 x 600 @ 120Hz	Frame Sequential
		1024 x 768 @ 120Hz	Frame Sequential
		1280 x 720 @ 120Hz	Frame Sequential
		1280 x 800 @ 120Hz	Frame Sequential
		1920 x 1080P @ 60Hz	Frame Sequential
		1920 x 1080P @ 120Hz	Frame Sequential
		1920 x 1200 @ 60Hz	Frame Sequential

**Note:** If 3D input is 1080p@24Hz, the DMD should replay with integral multiple with 3D mode.

# RS232 SIGNALs CONNECTION

Computer COM Port  
(D-Sub 9-pin connector)

Projector COM Port  
(D-Sub 9-pin connector)



**Note:** RS232 shell is grounded.

# RS232 PORT SETTING AND SIGNAL CONNECTION

RS232 Port Setting

Items	Method
Communication Method	Asynchronous Communication
Baud Rate	115200
Data Bits	8 bits
Parity	None
Stop Bits	1
Flow Control	None

*For RS232 protocoll please contact your Dealer.*



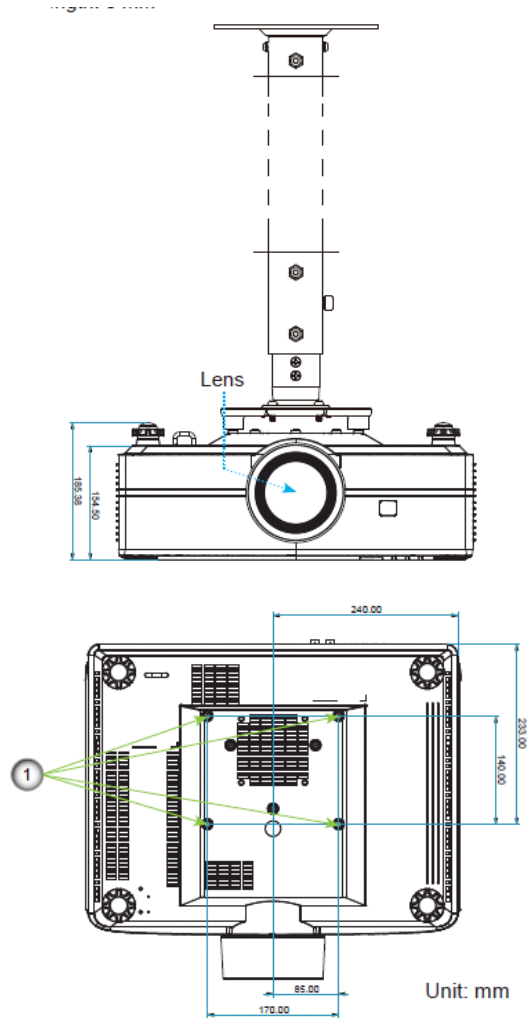
# IMAGE SIZE AND PROJECTION DISTANCE

The size of projected images is 50 ~ 300 inches (1.36 ~ 13.35 m)

Screen Size 16:9 (W x H)						Projector Distance			
Diagonal Length of Image		Width		Height		Wide		Tele	
inch	m	inch	m	inch	m	inch	m	inch	m
50	1.27	43.6	1.11	24.5	0.62	53.5	1.36	85.8	2.18
60	1.52	52.3	1.33	29.4	0.75	64.6	1.64	103.5	2.63
70	1.78	61.0	1.55	34.3	0.87	75.7	1.92	121.3	3.08
80	2.03	69.7	1.77	39.2	1.00	86.8	2.20	138.6	3.52
90	2.29	78.4	1.99	44.1	1.12	97.9	2.49	156.3	3.97
100	2.54	87.1	2.21	49.0	1.25	109.0	2.77	174.0	4.42
120	3.05	104.6	2.66	58.8	1.49	131.2	3.33	209.1	5.31
150	3.81	130.7	3.32	73.5	1.87	164.5	4.18	261.8	6.65
180	4.57	156.8	3.98	88.2	2.24	198.0	5.03	314.6	7.99
200	5.08	174.3	4.43	98.0	2.49	219.9	5.59	349.6	8.88
250	6.35	217.8	5.53	122.5	3.11	275.4	7.00	437.8	11.12
300	7.62	261.4	6.64	147.1	3.74	330.9	8.41	525.6	13.35

# CEILING MOUNT INSTALLATION

1. To prevent damage to your projector, please use the SIM2 ceiling mount, **ULTRANERO4 BRK-MB**.
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: M4\*4
  - Minimum screw length: 8 mm

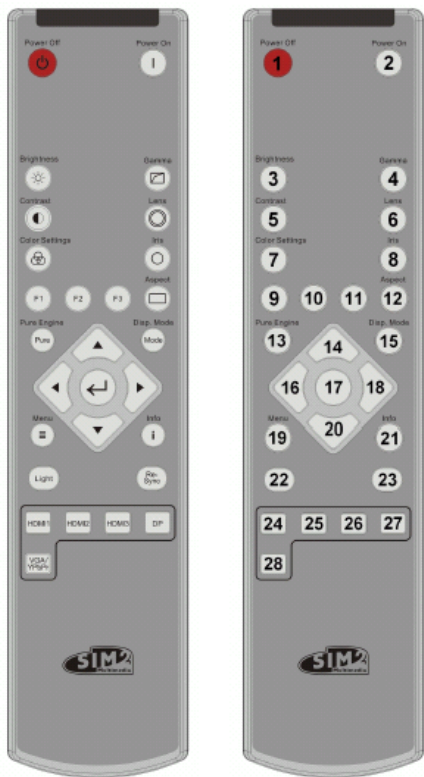


## Note:

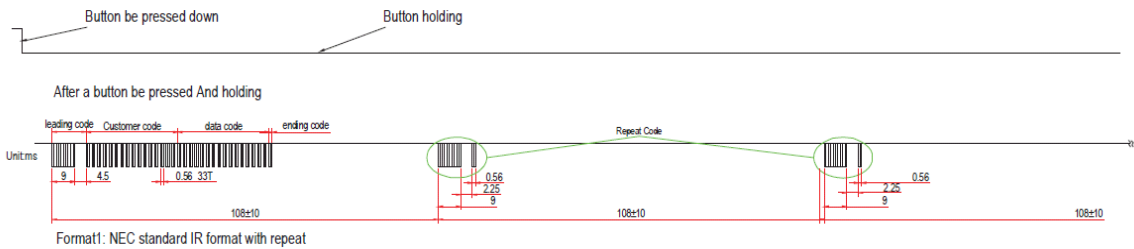
1. Mounting holes for ceiling mount.
2. Please note that damage resulting from incorrect installation will void the warranty.

# IR REMOTE CODES

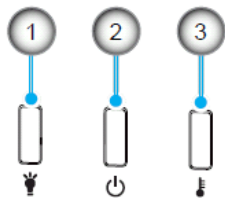
Rev.	Date	Software Version	Description of Change
1.0	18 December 2024		Initial version.



The IR formatting timing chart is conforming the NEC coding standard



# LED INDICATORS AND LIGHTING MESSAGES



No.	Item
1.	Light LED
2.	Power LED
3.	Temp LED

Status	Light LED	Power LED		Temp LED
	Red	Red	Green	Red
Standby	N/A	Steady light	N/A	N/A
Power On	N/A	N/A	Steady light	N/A
Warning Up Start	N/A	Flashing (1 sec off / 1 sec on)	N/A	N/A
Cooling Down Start	N/A	N/A	Flashing (0.5 sec off / 0.5 sec on)	N/A
AV Mute	Flashing (1 sec off / 1 sec on)	N/A	Steady light	N/A
Error (Power Failure)	Steady light	N/A	N/A	Steady light
Error (Fan Failure)	N/A	N/A	N/A	Flashing (3 sec on / 3 sec off)
Error (DIM Power)	N/A	N/A	N/A	Flashing (0.5 sec off / 0.5 sec on)
Error (Over Temp)	N/A	N/A	N/A	Steady light
Error (LD Over Temp)	N/A	N/A	N/A	Steady light
OPFU Mode	Steady light	Steady light	Steady light	Steady light

**Note:** The light off for 10min when projector into upgrade process and All LED Flashing (3 sec off/ 3 sec on)

# SPECIFICATIONS

## Optical

Projection Type Digital Light Processing (DLP Type 0.66 in.)

Projection Lens High-quality glass. TR Typical. 1.26 ÷ 1.98 :1

Zoom range (ratio): 1.6x

Throw Distance 1,4 Mt ÷ 13 Mt for focus range

F Number high efficiency

Image Resolution 4K UHD

Dynamic Range HDR and HLG compliant

Lens shift, Vertical and Horizontal, motorized with lens memory

Horizontal: ± 22%

Vertically: ± 50%

Digital H/V Keystone, adjustable by OSD

Digital Corners adjustment, adjustable by OSD

Digital warping adjustment, adjustable by OSD

Zoom and Focus motorized adjustable by OSD menu

Perfect-Fit Setup zoom, focus, lens shift (H,V) values in five different memories.

Installation orientations Front, Rear, Ceiling, Rear-top

Light Source Hybrid laser life time > 20.000 hours

Colour wheel

**New ceramic components** which allow exceptional results in terms of efficiency, colorimetry, stability, silence and durability

## Inputs/Outputs

- HDMI-I v.2.0/1.4a selectable by OSD
- 1 x HDMI out v.2.0/1.4a, loop through HDMI-I or HDMI-2 selectable by OSD
- 1 x HDBase-T
- 1 x 3D Synch IN
- USB type A for Fw upgrade
- 1 x RJ45 for control communications and internal web pages
- 1 x RS232 (D-sub 9 pin) for control communications
- 1 x Front IR receiver
- 1 x Top IR receiver
- 1 x 3.5mm TS type mini jack - 12V, 200mA ±10%, Triggers output
- 1 x Wired IR receiver

### Controls

- IR remote control
- Keypad on rear panel
- RS-232 Serial commands
- RJ45 ethernet commands and internal web pages

### Input Frequency

- Horiz. scan freq.: 15.375 ~ 91.146 KHz
- Vert. Scan freq.: 24 ~ 85 Hz (120Hz for 3D feature)
- Colour temperature: selectable

### Power

- Power consumption Normal mode (typical)
- 530W  $\pm$  15% @ 110Vac
- 520W  $\pm$  15% @ 220Vac
- Power consumption ECO mode (typical)
- 285W  $\pm$  15% @ 110Vac
- 280W  $\pm$  15% @ 220Vac
- Power requirement AC 100 ~ 240V  $\pm$ 10%, 50/60Hz Input current 6.5A

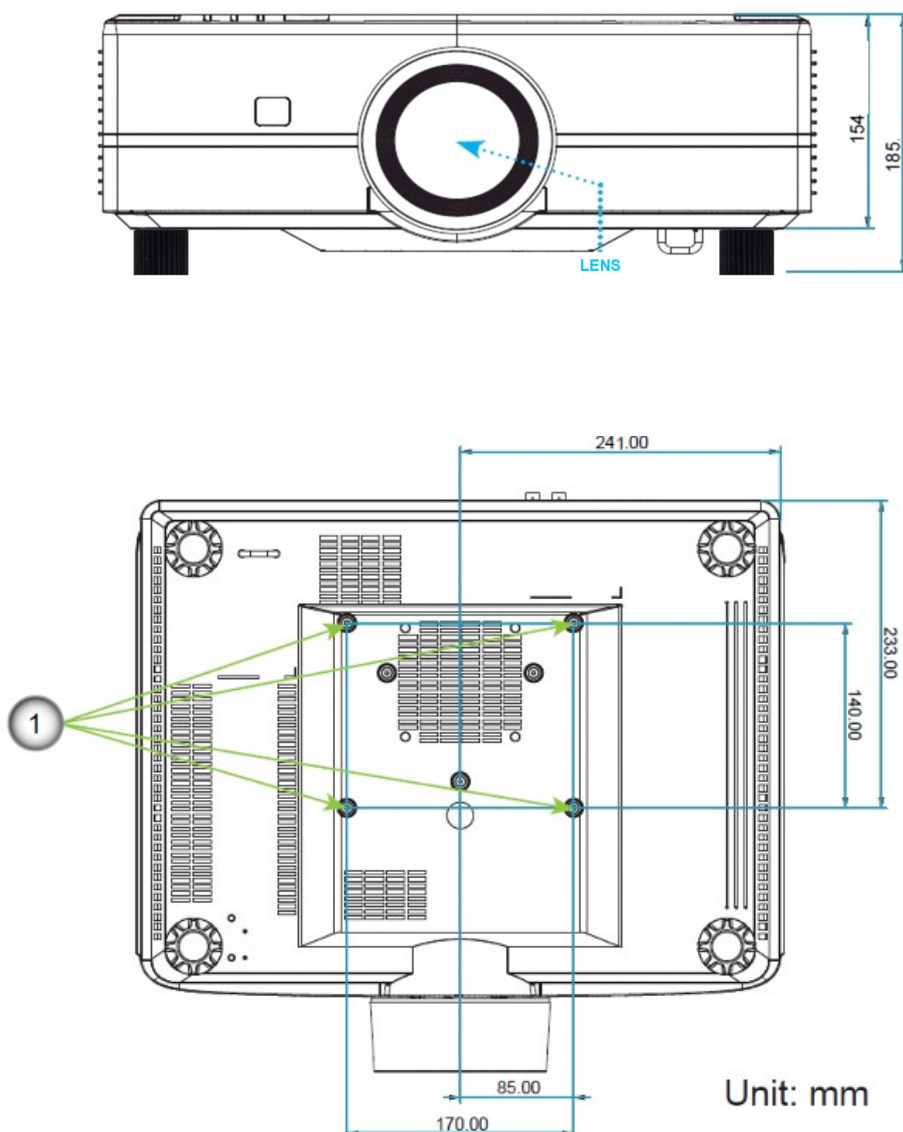
### Weight and Dimensions

- Dimensions (W x H x D): 483 x 178 x 433 mm
- Weight: 14,8 Kg
- Package type: double box with anti-shock filling for safe shipments

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

# MECHANICAL DRAWINGS

**Note:** Holes on point 1 are for ceiling installation; VESA 140X170.









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