ULTRANERO4S

User Guide

SIM2 Multimedia Srl

SIM2 30 years of excellence
The new ULTRANERO4S

Thank you for choosing the SIM2 ULTRANERO4S as the partner for your cinema experience.
The success of the ULTRANERO4 platform has confirmed the validity of a project developed to deliver reference-level performance, reliability, and consistency in real-world installations. In a short time, it has become a benchmark for professionals and demanding users in multiple markets worldwide.
Building on this solid foundation, SIM2 initiated a focused research program to explore how far this platform could be taken, without altering its core identity. The objective was not to redefine ULTRANERO4, but to refine and elevate its capabilities through careful analysis, selection, and calibration.
After eight months of intensive development and validation, the ULTRANERO4 platform proved to be a mature and definitive solution, fully capable of meeting the highest expectations. At the same time, this process demonstrated that, through additional and highly selective investments, it was possible to push performance beyond the already exceptional level achieved, reaching a new reference of excellence reserved for a limited number of units.

Today, the ULTRANERO4S is introduced in a very limited number of markets. It represents the most advanced expression of the ULTRANERO4 platform, integrating everything that current technology allows, including:

- laser modules individually selected to ensure maximum brightness and long-term stability
- an HDR curve specifically calibrated to fully exploit these brightness levels
- updated software and additional options designed for complex installations, together with further refinements and optimizations

The ULTRANERO4S embodies SIM2's continuous pursuit of excellence, combining proven engineering with meticulous refinement.

Contents

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.

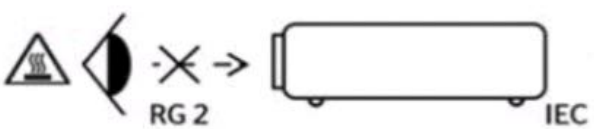
>When switching the projector off, please ensure the cooling cycle has been completed before disconnecting power. Allow 90 seconds for the projector to cool down.
>Turn off and unplug the power plug from the AC outlet before cleaning the product.
>Use a soft dry cloth with mild detergent to clean the 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

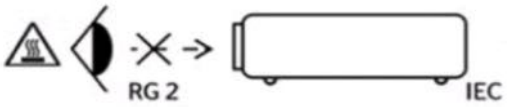
To ensure safe operation, read all laser safety precautions before installing and operating the professional projector.
>This projector is class 1 laser product of IEC 60825-1:2014/EN60825-1:2014+A11:2021 and risk group 2 with the requirements of IEC 62471-5:2015.
>Complies with 21 CFR 1040.10 and 1040.11 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

>Warning label



>Warning label

>3D Safety Information

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

WARNING

>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

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.

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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 numerique de la classe A est conforme a la norme NMB-003 du Canada.

Declaration of Conformity for EU countries

>EMC Directive 2014/30/EU (including amendments)
>Low Voltage Directive 2014/35/EU
>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

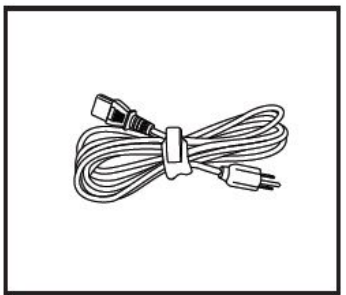
Package Overview

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

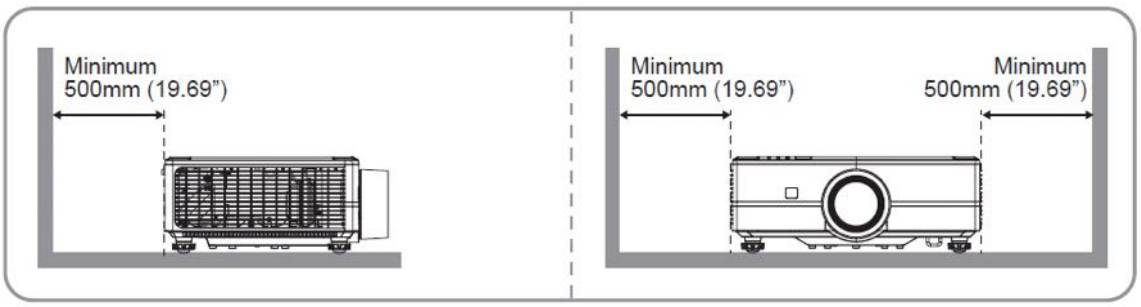

Projector


Remote control(*)


AC power cord

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

Product Overview



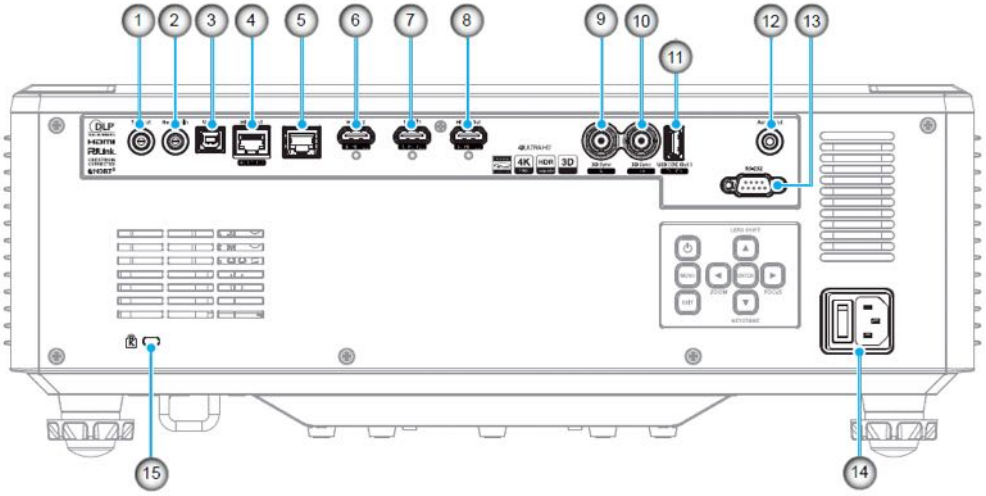
Note:
>Do not block projector intake and exhaust vents.
>When operating the projector in an enclosed space, allow at least 500mm (19.69") clearance around the intake and exhaust vents.

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



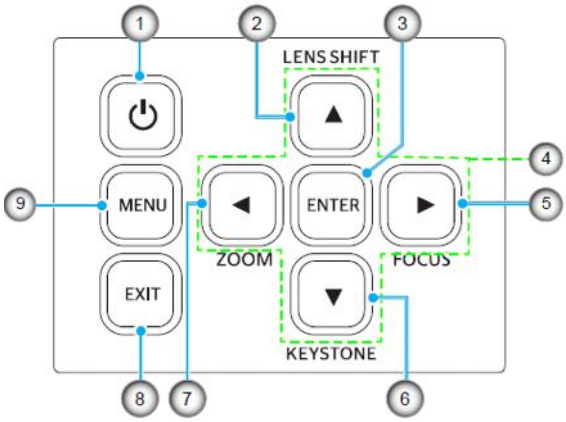
No.	Item	Cable	Example Connections[1]
1.	12V Out Connector	12V Trigger Cable	Motorized screen, Curtain, etc
2.	Remote In Connector	Wired Remote Control Cable or IR Receiver Cable (3.5mm TRS type[2])	RCU
3.	USB Connector	USB (A to B) Cable	Computer
4.	HDBaseT Connector	RJ-45 Cable	Media Play
5.	LAN Connector	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)[3]	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

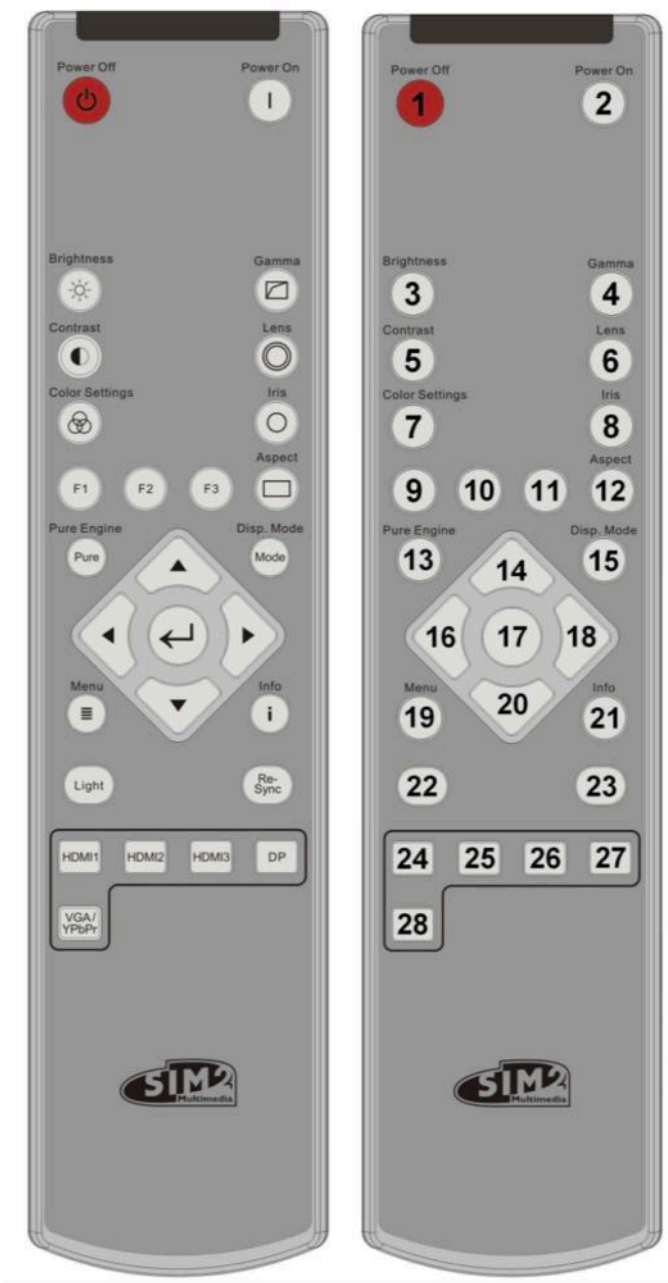
Keypad



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

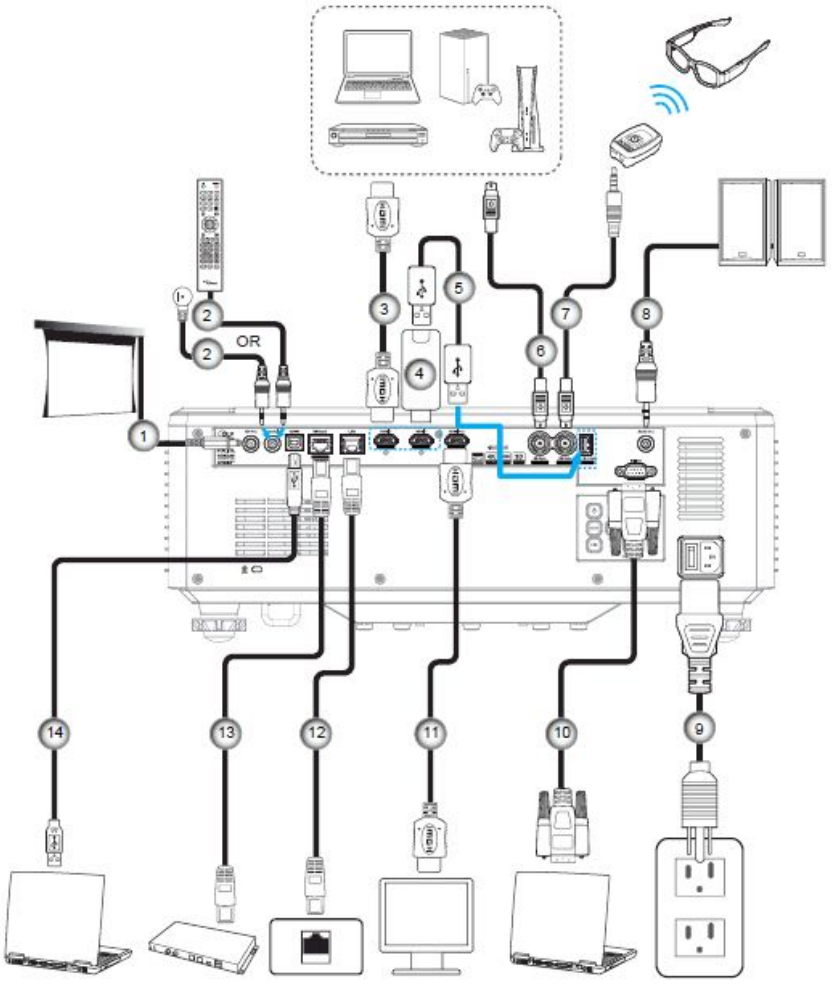


1	Power Off
2	Power On
3	Brightness
4	Gamma
5	Contrast
6	Lens Menu
7	Color Settings
8	Shutter OPEN/CLOSED (toggle)
9	F1 Functional Key_ZOOM by factory
10	F2 Functional Key_FOCUS by factory
11	F3 Functional Key_LENS Shift memory by factory
12	Aspect
13	Auto Adaptive Contrast
15	Display Mode
14,16,17, 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	TEST pattern for ZOOM/ FOCUS adjustment

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

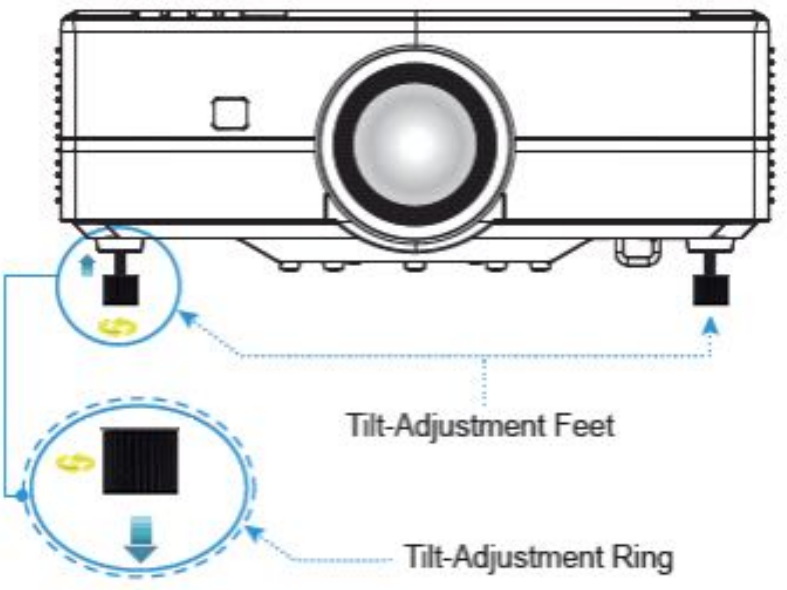
SET UP AND INSTALLATION

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.



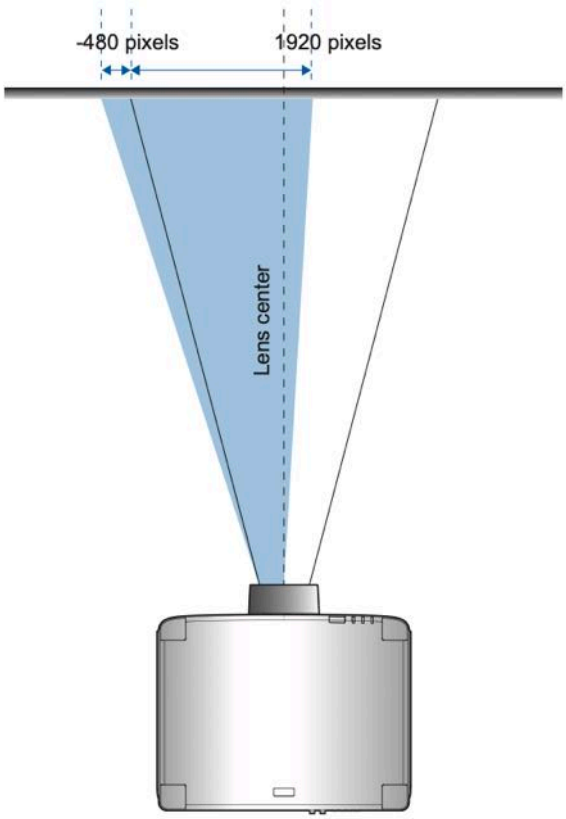
SET UP AND INSTALLATION

Adjusting the Projection Image Shift

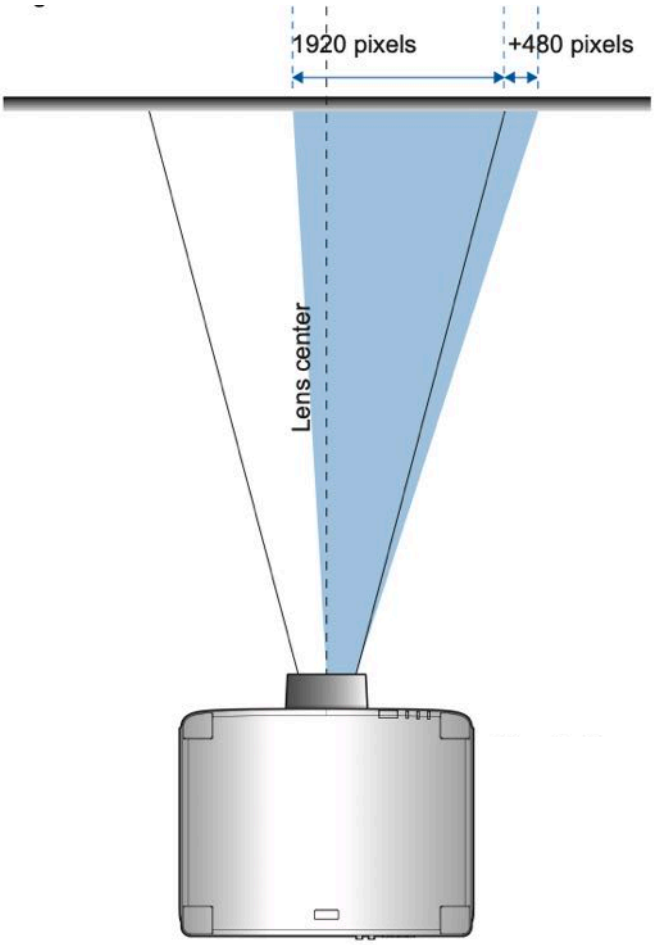
The projection lens can be moved up, down, right, and left with the motor-driven lens shift function. This function makes the positioning of images easy on the screen. Lens shift is generally expressed as a percentage of the image height or width, see below illustration.

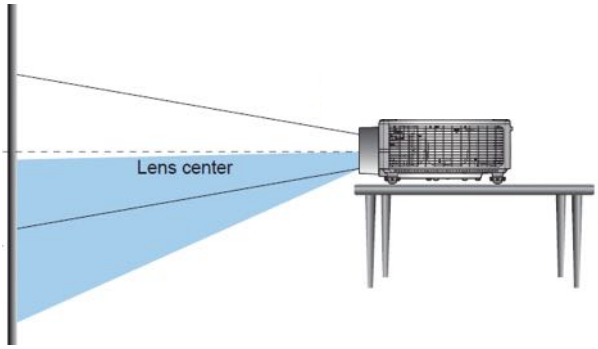
Vertical / Horizontal Lens Shift

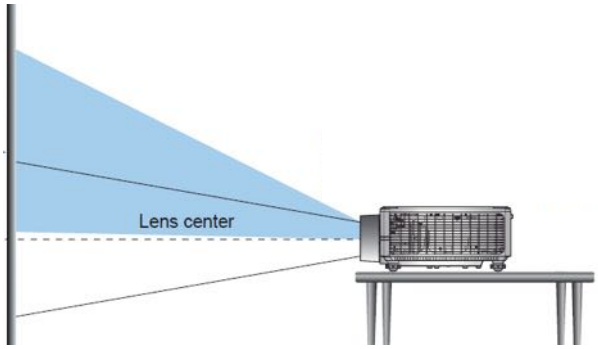
When the lens is shifted to the left most, Horizontal can be adjusted left/right +/- 22% and Vertical can be adjusted up/down +/- 50% :



When the lens is shifted to the rightmost:







Lens Shift Range

a) ΔH: The lens shift range in horizontal direction when the lens is at the center.

b) ΔV: The lens shift range in vertical direction when the lens is at the center.

c) ΔHo:The lens shift range without vignetting in horizontal direction when the lens is at the top center or the bottom center.

d) ΔVo:The lens shift range without vignetting in vertical direction when the lens is at the middle right or the middle left.

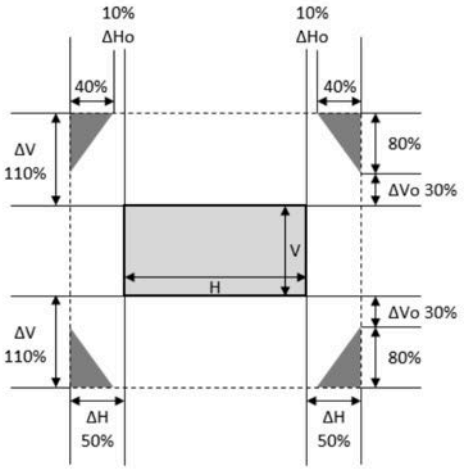
e) V: Height of the projected image.

f) H: Width of the projected image.

g) Projected image.

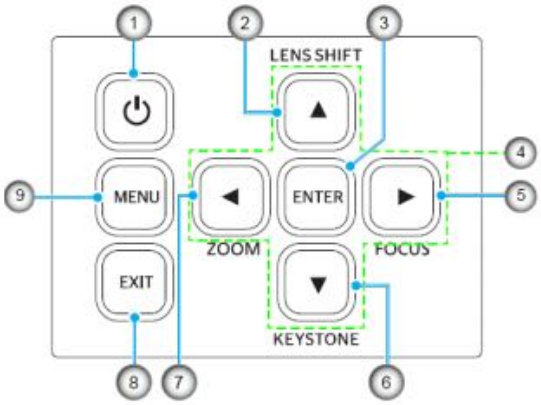
h) When the lens is shifted beyond the described range of operation, screen edges may become darker or image may become out of focus.

Lens Shift Range (1/2 image)			
ΔH	ΔV	ΔHo	ΔVo
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 ◀▶ 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:

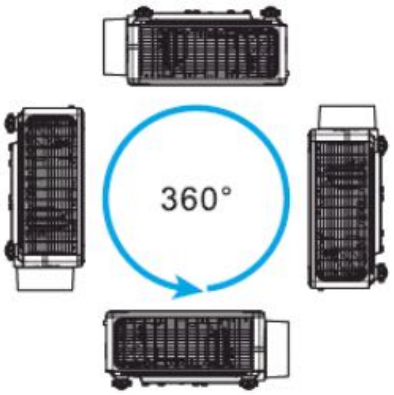
>Position the projector on a flat surface at a right angle to the screen. The 1.6x lens models projector must be at least 50 inch from the projection screen.

>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.

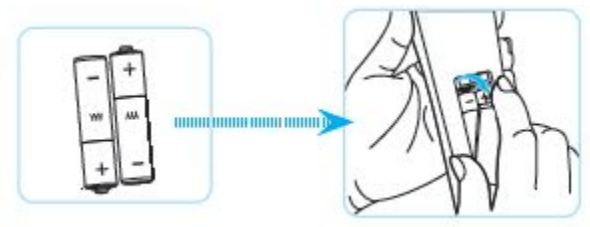
SET UP AND INSTALLATION

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 the are depleted. Chemicals that leak from batteries that come in contact with skin can cause a rash. If you find any chemical leakage, wipe thoroughly with a cloth.

>The batteries supplied with this product may have a shorter life expectancy due to storage conditions.

>If you will not be using the remote control for an extended period of time, remove the batteries.

>When you dispose of the batteries, you must obey the law in the relative area or country.

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.

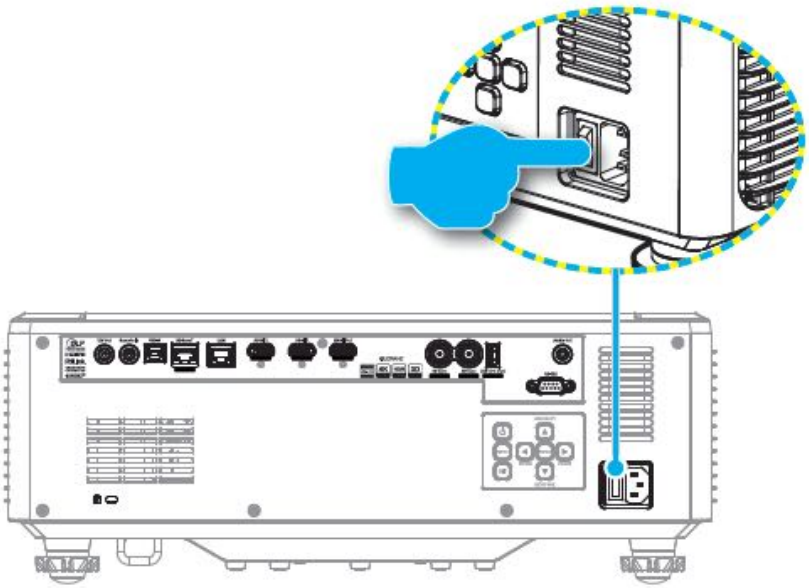
>When you aim at the screen, the effective distance is less than 5 m from the remote control to the screen and reflecting the IR beams back to the projector. However, the effective range might change according to screens.

USING THE PROJECTOR

Powering On / Off the Projector

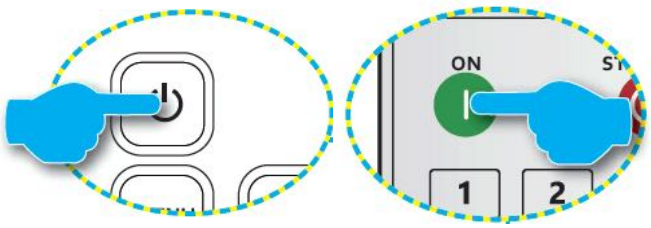
Powering On

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 **g** *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.

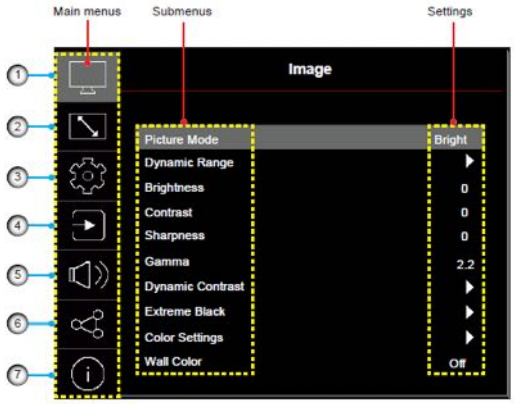
>Setting methods to adjust the function value or selection an option.

-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
					SIM2-1
					SIM2-2
	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			5
		Strength			0
		Level			100%
		Dynamic 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

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6 Values
			Luminance		0 ~ 254
			Reset		YES
					Cancel (default)
			Green		0 ~ 254
			Saturation		0 ~ 254
			Luminance		0 ~ 254
			Reset		YES
					Cancel (default)
			Blue		0 ~ 254
			Saturation		0 ~ 254
			Luminance		0 ~ 254
			Reset		YES
					Cancel (default)
			Cyan		0 ~ 254
			Saturation		0 ~ 254
			Luminance		0 ~ 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

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

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6 Values
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
				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]	
			Communication	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
	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
					Freeze Screen
					Network setup
					Reset Selective
	LAN	LAN Interface			RJ-45 [default]
					HDBaseT
		Network Status			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]
Input Settings		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
					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
			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.

>SIM2-1 and SIM2-2 are accurate colors set up by using SIM2 experience.

>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.*

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 home 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 indark 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.*

. ***Dynamic Black parameters can be saved separately for SDR and HDR input signal***

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.

. When Dynamic Black or Extreme Black options are ON, Light Source settings can not be adjusted.

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 normally use to achieve different image format.

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.

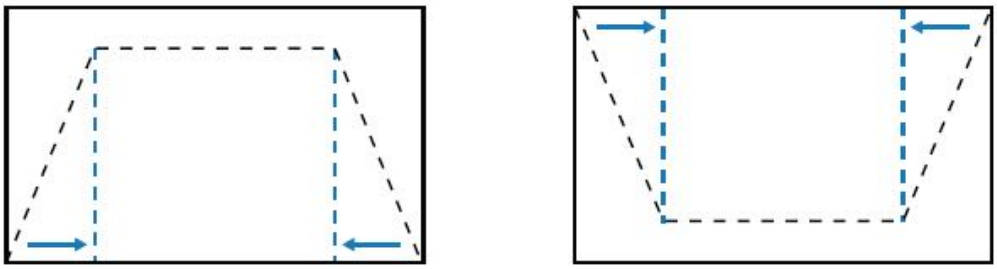
Note: *When 3D mode is selected, the Image Shift will be unavailable.*

GEOMETRIC CORRECTION

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

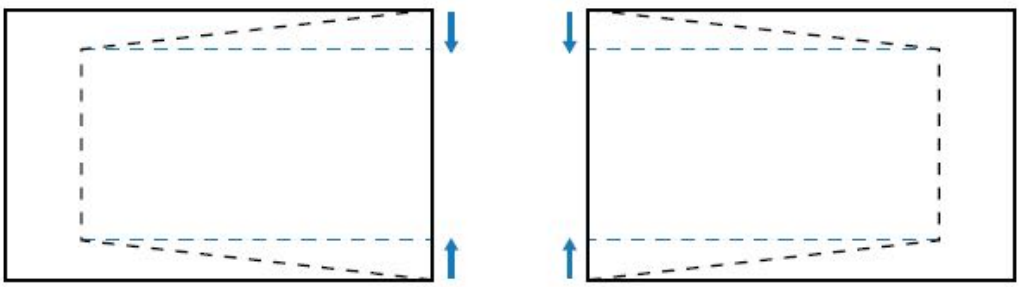
>V Keystone

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



>H Keystone

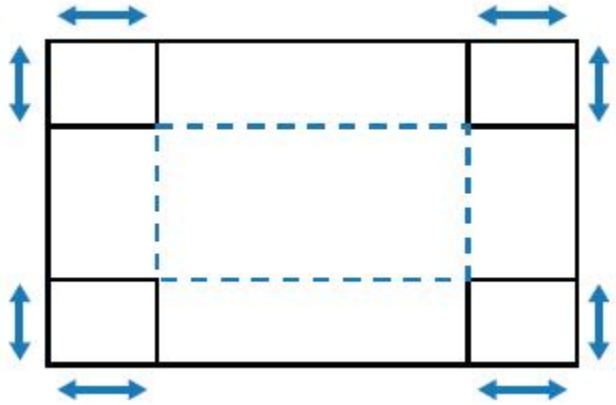
Adjust image distortion horizontally and make a squarer image. Horizontal keystone is used to correct a keystoned image shape in which the left and right borders of the image are unequal in length. This is intended for use with vertically on-axis applications.



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.**

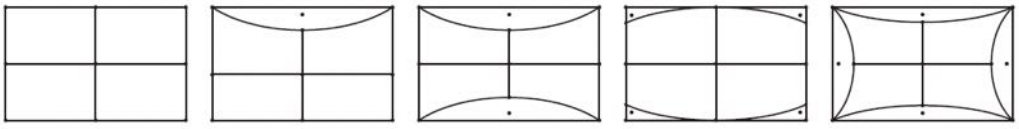
To centre the lens go to LENS SETTIGS-LENS CALIBRATION (this calibrates the lens position to return it to the centre)

>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.

>to have the best installation flexibility, Digital Zoom, Digital V/H shift, Digital Corners and Digital Keystone parameters can be adjusted independently;

>all values can be saved on lens memory (up to 5 different set-up) and recalled depending on the image in use.

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. The grid test pattern is available by pressing VGA key on remote control; it is still until you press VGA again.

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.

The correct orientation is automatically displayed according the position of projector (option factory enabled).

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; This is to ensure the image quality and prevent damage to the projector, when there is a high temperature, high humidity in the room, or when the projector is installed in a high altitude environment. High altitude mode is automatically ON when the projector is installed at more than 7.500 feet (2.280 meters) above the sea level.

When the projector is installed at an altitude up to 7.500 feet (2.280 meters), thanks to the new smart cooling management system, cooling fan speeds are modulated to have a more silent operation.

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. **On lens memory all digital set up described on previous chapter can be saved.**

>**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.

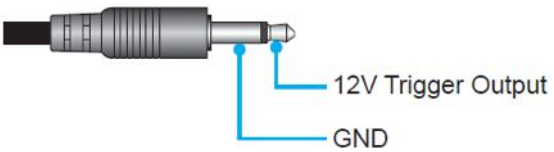
. **Eco:** Minimum power consumption (0.5 Watt) which does not allow network control.

. **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.

SHUTTER

Set up the shutter behavior.

Startup_ Select the shutter behavior when turning on the projector.

. **Shutter Off:** Projector projects images normally after being powered on.

. **Shutter On:** Projector automatically turns on shutter after being powered on

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 RESYNK

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 (default 0)

. 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

>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.

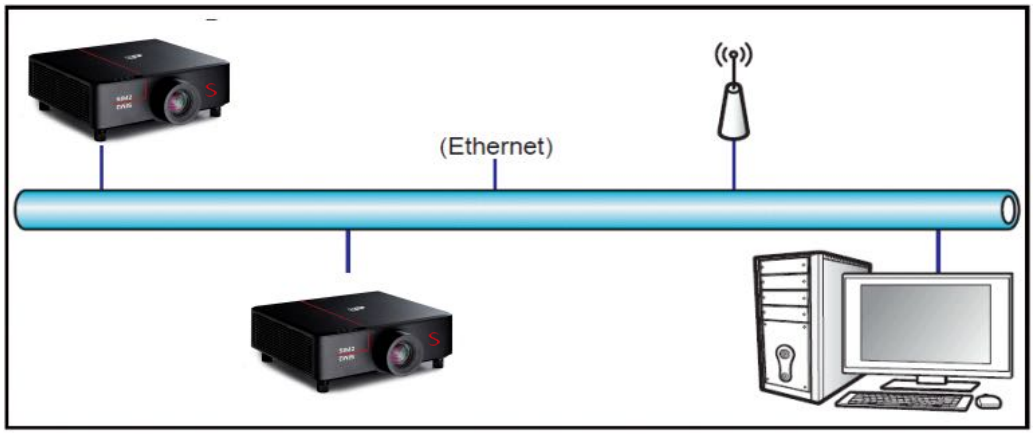
. For more information about the various types of external devices which can be connected to the LAN/ RJ45 port and remotely control the projector, as well as the supported commands for these external devices, please contact the Support-Service directly.

. 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).

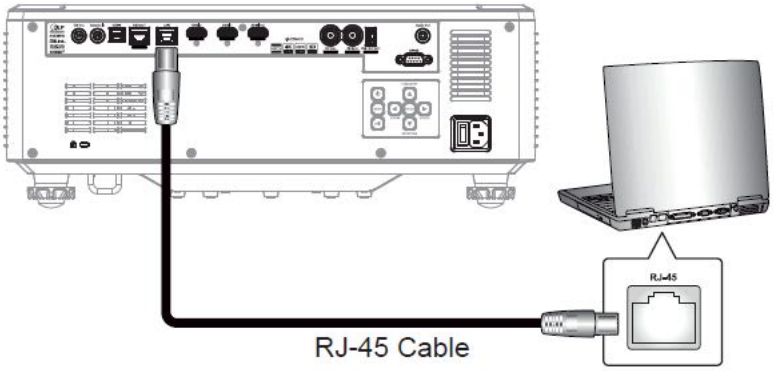
Note:

. *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

.HDR mastering Peak (only for HDR input signals)

>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

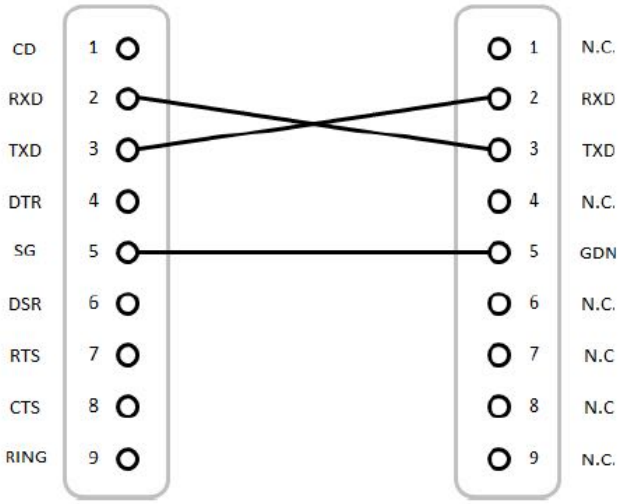
		Input timing	
Input Resolutions	HDMI 1.4a 3D Input	1280 x 720P @ 50Hz	Top and Bottom
		1280 x 720P @ 60Hz	Top and Bottom
		1280 x 720P @ 50Hz	Frame Packing
		1280 x 720P @ 60Hz	Frame Packing
		1920 x 1080P @ 24Hz	Top and Bottom
		1920 x 1080P @ 24Hz	Frame Packing
		1920 x 1080i @ 50Hz	Side by Side
		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.

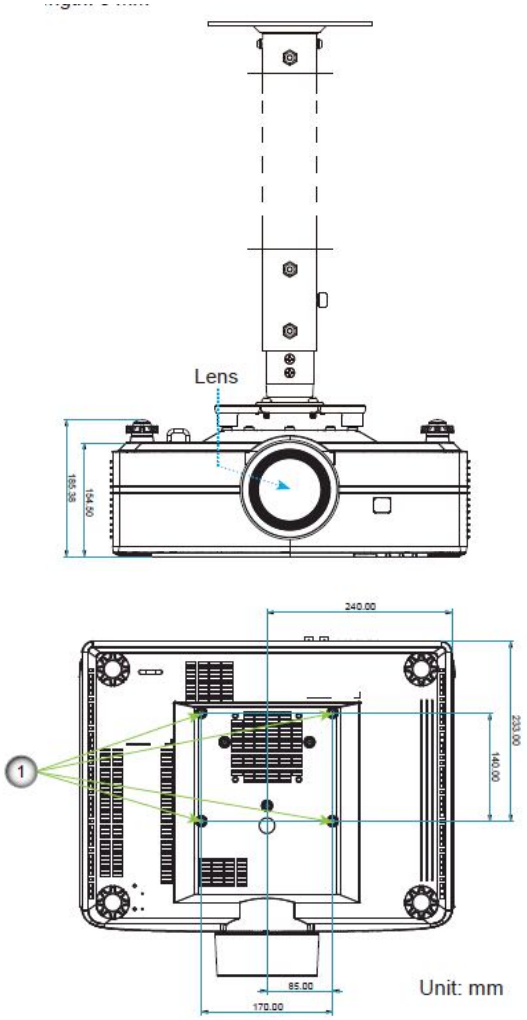
IMAGE SIZE AND PROJECTION DISTANCE

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

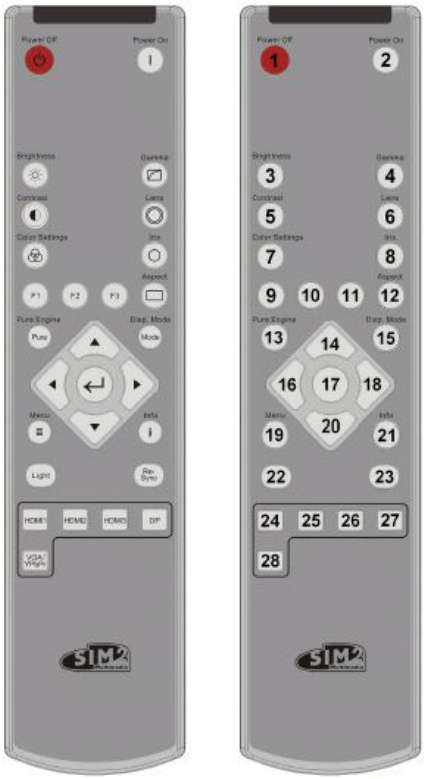


Note:

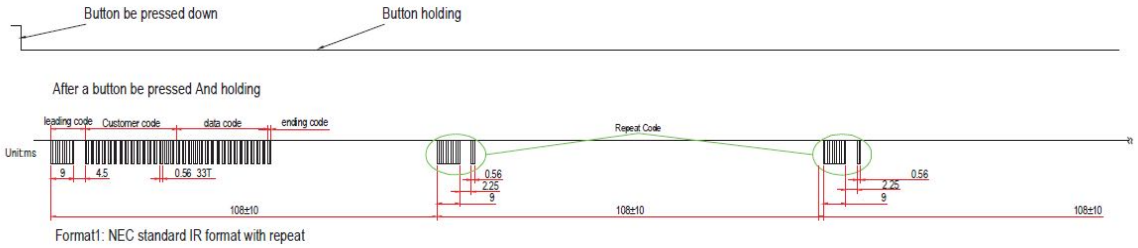
1. *Mounting holes for ceiling mount.*
2. *Please note that damage resulting from incorrect installation will void the warranty.*

IR REMOTE CODES

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

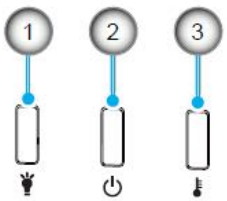


The IR formatting timing chart is conforming the NEC coding standard



Format1: NEC standard IR format with repeat

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, updated HDR modulation curve

Lens shift, Vertical and Horizontal, motorized with lens memory

Horizontal: ± 22%

Vertically: ± 50%

Digital H/V Keystone, independently adjustable by OSD

Digital Corners adjustment, independently adjustable by OSD

Digital warping adjustment, adjustable by OSD

Zoom and Focus motorized adjustable by OSD menu

Installation orientations Front, Rear, Ceiling, Rear-top

Light Source Hybrid laser life time > 20.000 hours individually selected to have higher efficency

Colour wheel

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

Inputs/Outputs

- HDMI-1 v.2.0/1.4a selectable by OSD
- 1 x HDMI out v.2.0/1.4a, loop through HDMI-1 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

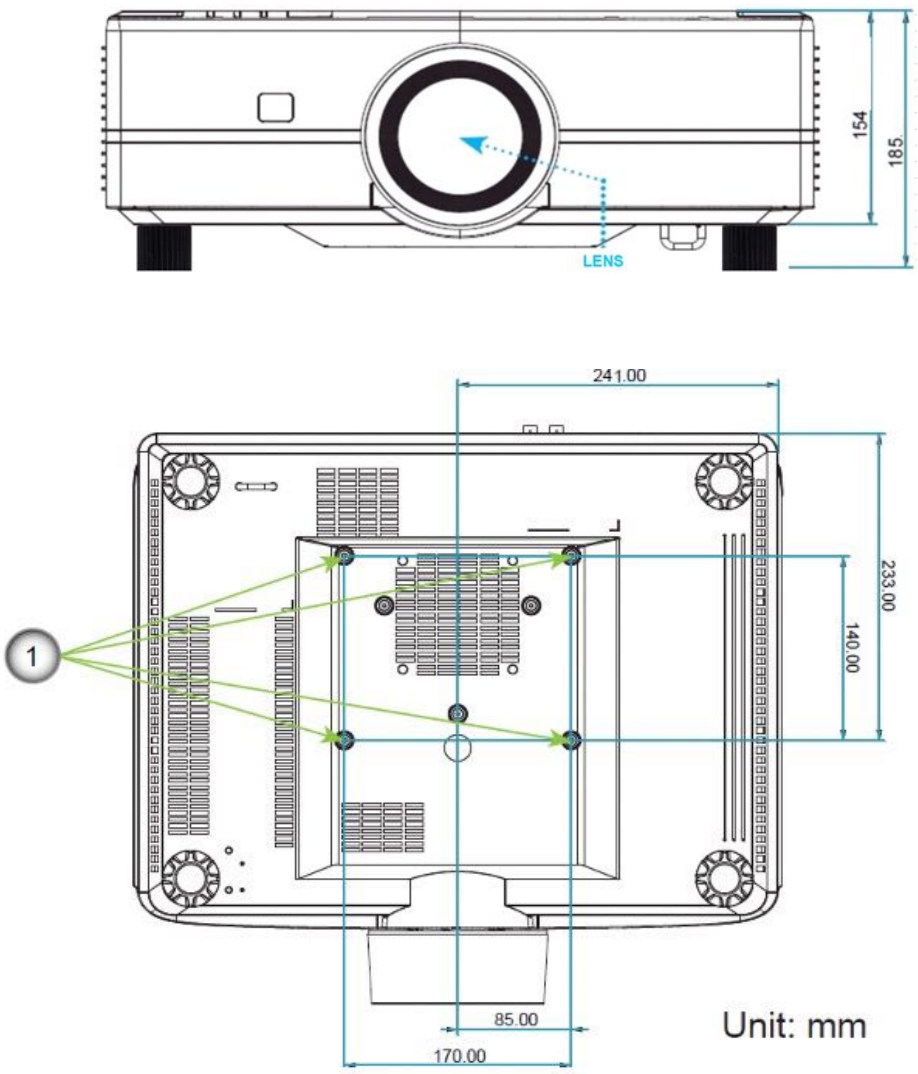
- Power consumption Normal mode (typical)
- 530W ± 15% @ 110Vac
- 520W ± 15% @ 220Vac
- Power consumption ECO mode (typical)
- 285W ± 15% @ 110Vac
- 280W ± 15% @ 220Vac
- Power requirement AC 100 ~ 240V ±10%, 50/60Hz Input current 6.5A

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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