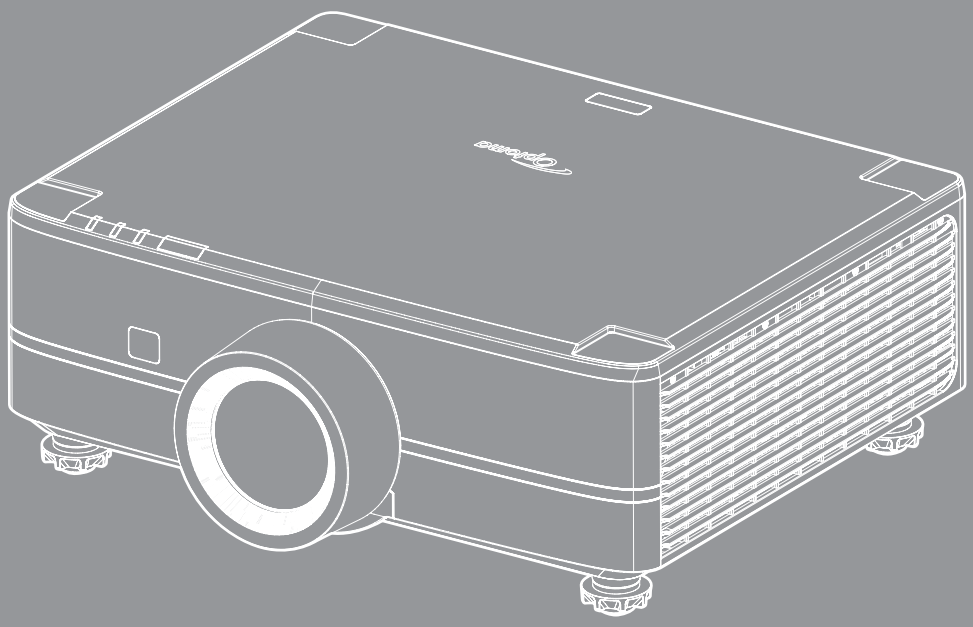
DLP® Projector



User manual

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SAFETY

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

Please follow all warnings, precautions and maintenance as recommended in this user 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 Optoma 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.

Laser Radiation Safety Information

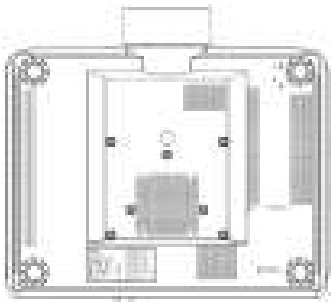
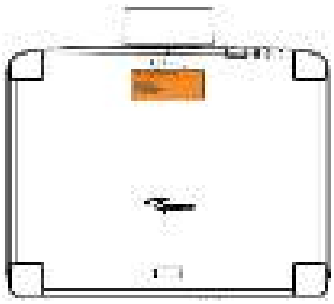
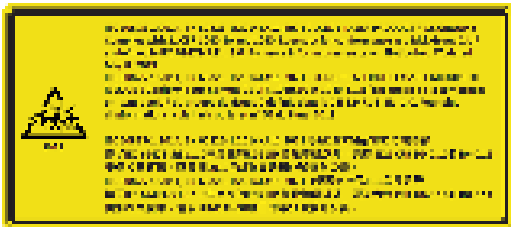
To ensure safe operation, read all laser safety precautions before installing and operating the projector.

- This projector is class 1 laser product of IEC/EN 60825-1:2014 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/EN 50689:2021 class 1 consumer 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

Light Beam Related Safety Labels and Location

Label Name	Label Image	Label Location
Specification Label	 **Note:** *Spec label varies by region (for reference only).*	
Warning Label	 "WARNING: MOUNT ABOVE THE HEADS OF CHILDREN." **Additional warning against eye exposure for close exposures less than 1 m.** "AVERTISSEMENT : INSTALLER AU-DESSUS DE LA TÊTE DES ENFANTS." Avertissement supplémentaire contre l'exposition oculaire pour des expositions à une distance de moins de 1 m. "警告：安装在高于孩童头顶处" 关于小于1 m近距离眼睛暴露的附加警告 「警告： 安裝在高於兒童頭部處」 針對 1 m 以下近距離眼睛接觸的額外警告	
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) lightheadedness; (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.

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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.

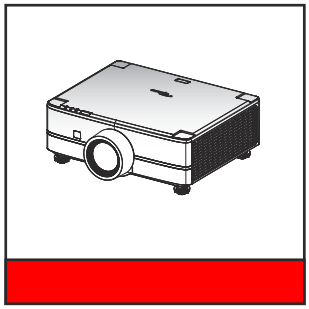
INTRODUCTION

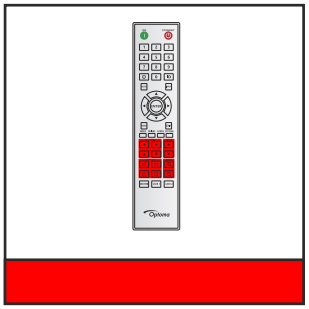
Package Overview

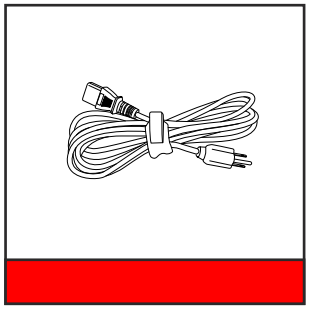
Carefully unpack and verify that you have the items listed below under standard accessories. Some of the items under optional accessories may not be available depending on the model, specification and your region of purchase. Please check with your place of purchase. Some accessories may vary from region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

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

Standard Accessories







☑ Warranty Card(**)
☑ Quick Start User Manual

Note:

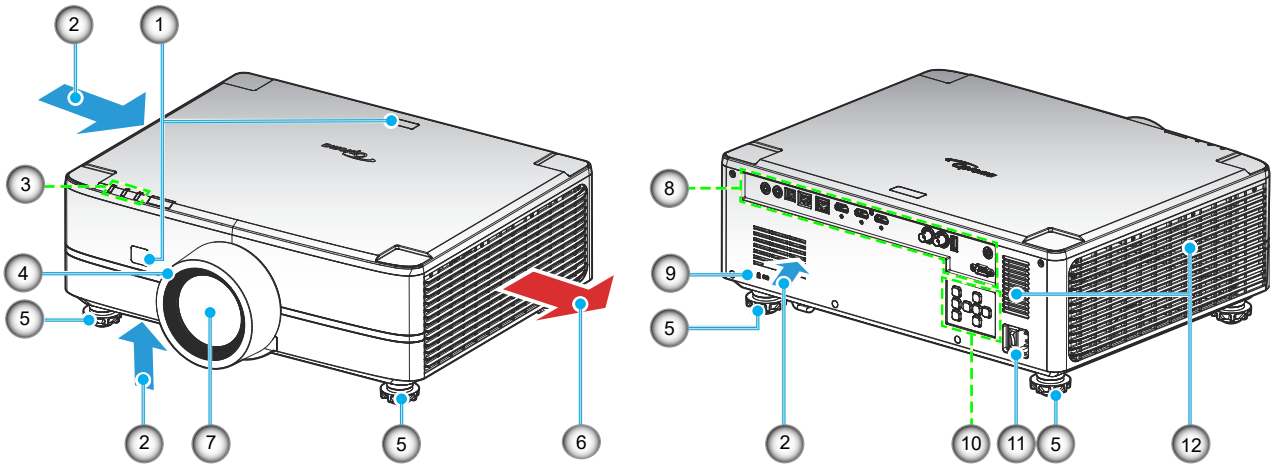
- *(*)The remote control requires two AAA batteries. See “Install / Replacing Remote Control Batteries” on page 24 for more information.*
- *(**) For European warranty Information, please visit www.optoma.com.*

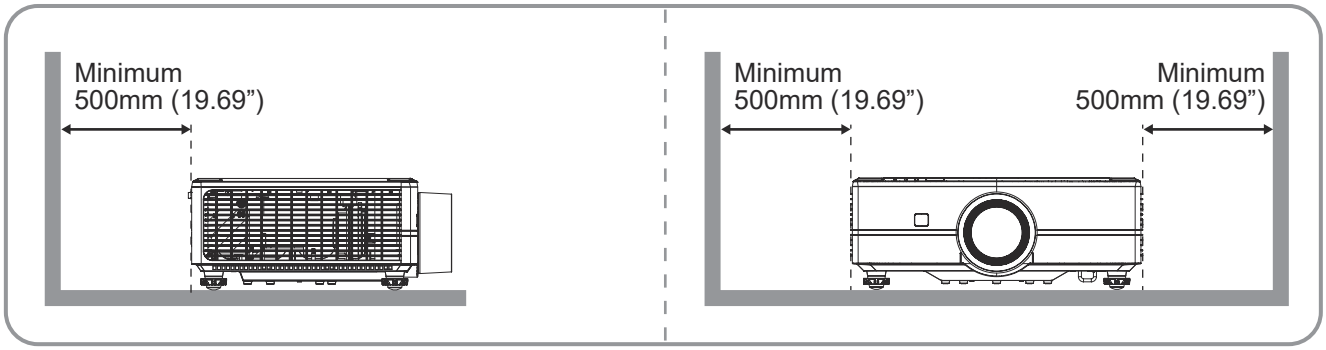
Please scan the OPAM warranty QR code or visit the following URL:
www.optomausa.com/OPAM/warranty

Please scan the Asia-Pacific QR code or visit the following URL:
https://www.optoma.com/support/download

INTRODUCTION

Product Overview





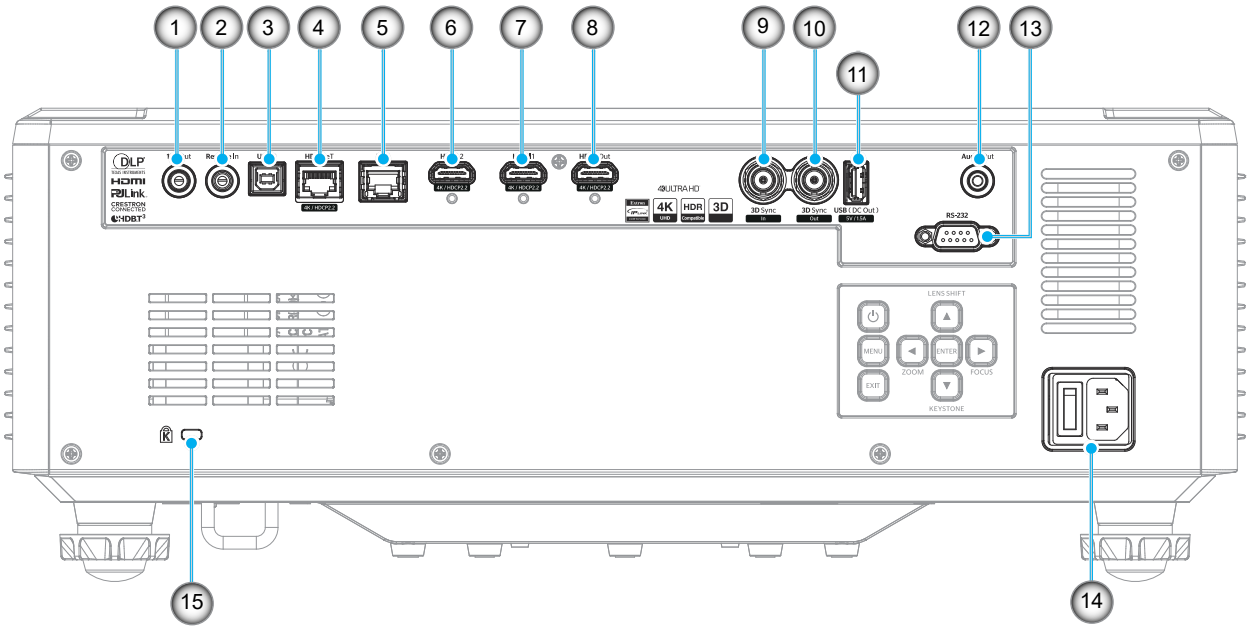
Note:

- *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.*

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

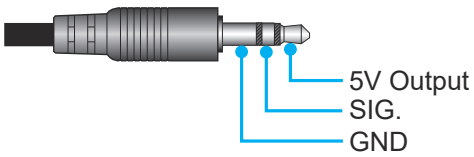
Connections



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:

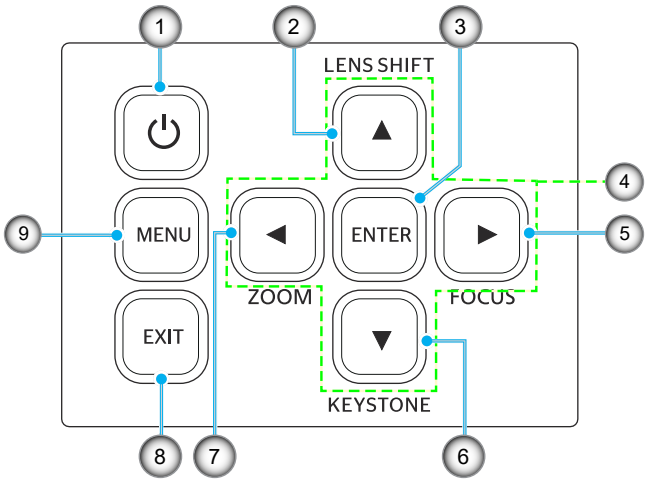
1. *These are just a few examples of what you can connect. There may be more options available for each port.*
2. *3.5mm TRS type.*



3. *Not recommended for charging a cell phone.*

INTRODUCTION

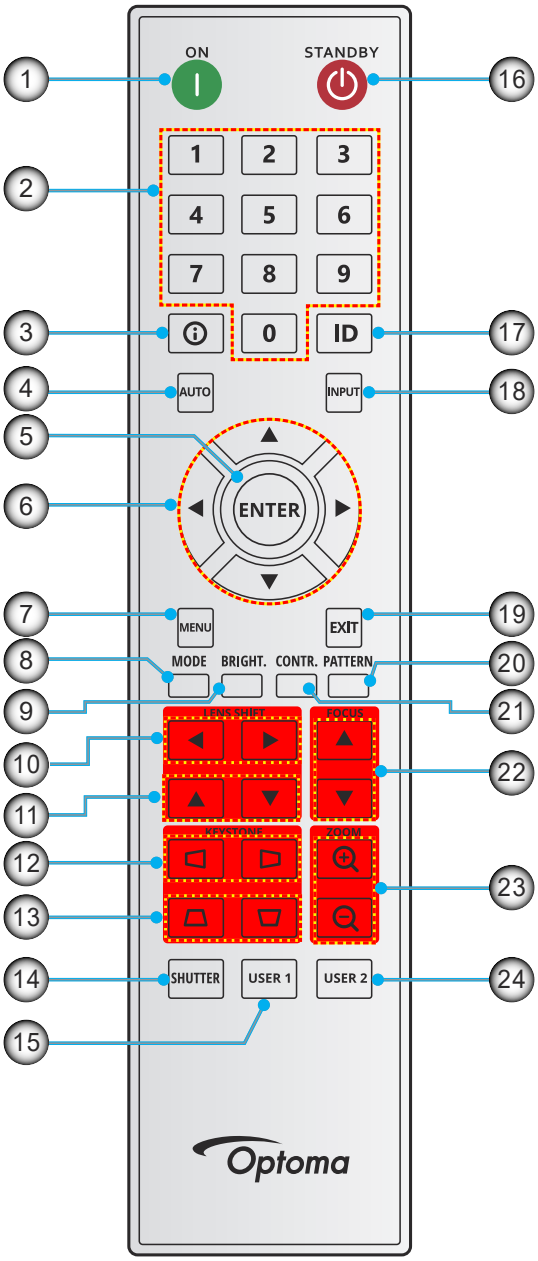
Keypad



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 On	Turn the projector on.
2.	Number Keys	Input numbers (0-9).
3.	Info	Display information on the screen image.
4.	Auto	Automatically synchronize the projector to an input source.
5.	Enter	Press to confirm the selection.
6.	Arrow Keys	Use arrow keys to navigate through the menu or select the appropriate settings.
7.	Menu	Show the main menu on the screen.
8.	Mode	Press to select the preset display mode.
9.	Brightness	Set the brightness of the image.

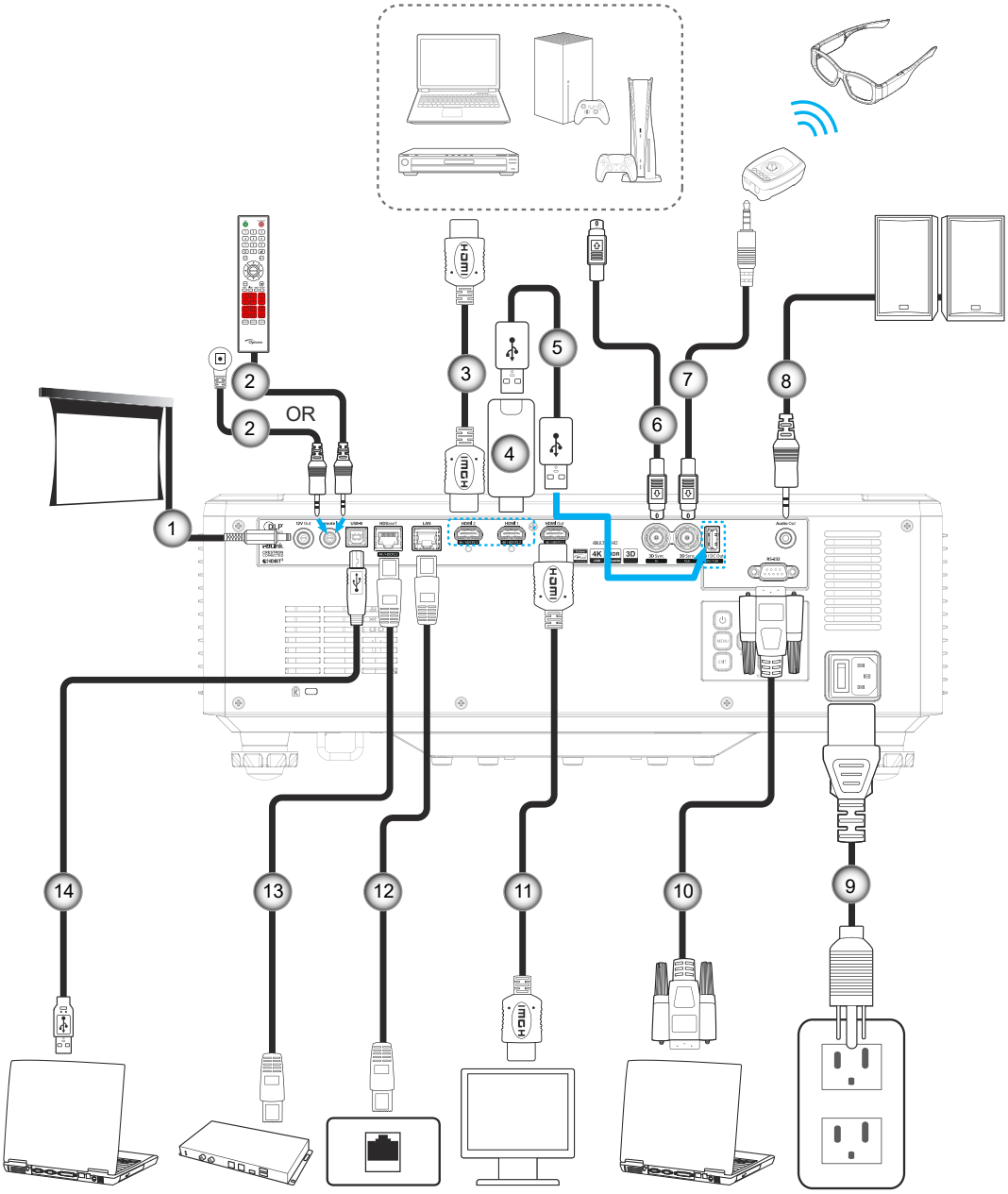
INTRODUCTION

10.	Lens Shift (Horizontal)	Adjust the image position horizontally.
11.	Lens Shift (Vertical)	Adjust the image position vertically.
12.	Keystone (Horizontal)	Adjust a horizontally keystone image.
13.	Keystone (Vertical)	Adjust a vertically keystone image.
14.	Shutter	Momentarily turn off/on the screen (AV Mute).
15.	User 1	Press to assign custom functions. See user guide for more info.
16.	Standby	Turn the projector off.
17.	ID	Set the projector address.
18.	Input	Select an input source manually.
19.	Exit	Back to previous menu.
20.	Pattern	Display test pattern.
21.	Contrast	Set the contrast of the image.
22.	Focus	Adjust the image focus.
23.	Zoom	Adjust the image size.
24.	User 2	Press to assign custom functions. See user guide for more info.

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

SETUP AND INSTALLATION

Connecting Sources to the Projector



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

6.	3D Sync Cable
7.	3D Emitter Cable
8.	Audio Out Cable
9.	Power Cord
10.	RS232 Cable

11.	HDMI Cable
12.	RJ-45 Cable
13.	RJ-45 Cable
14.	USB (A to B) Cable

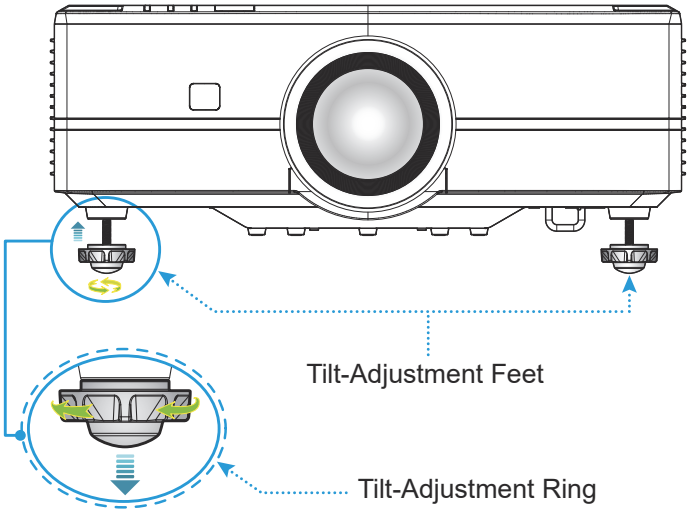
SETUP AND INSTALLATION

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.



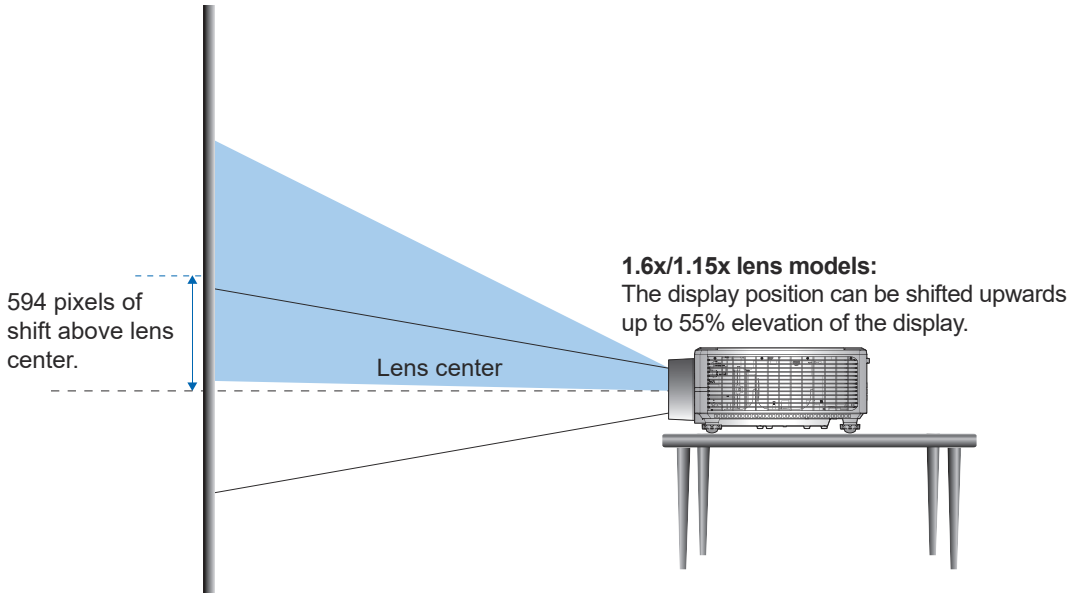
SETUP AND INSTALLATION

Adjusting the Projection Image Shift

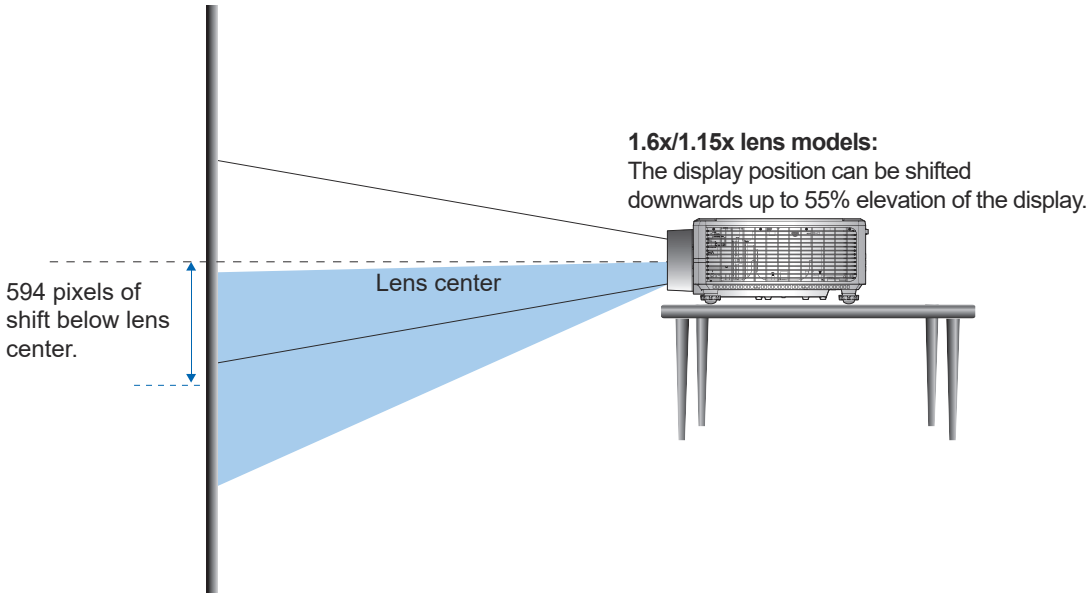
The projection lens can be moved up, down, right, and left with the motor-driven lens shift function. This function makes the positioning of images easy on the screen. Lens shift is generally expressed as a percentage of the image height or width, see below illustration.

Vertical / Horizontal Lens Shift

When the lens is shifted to top:

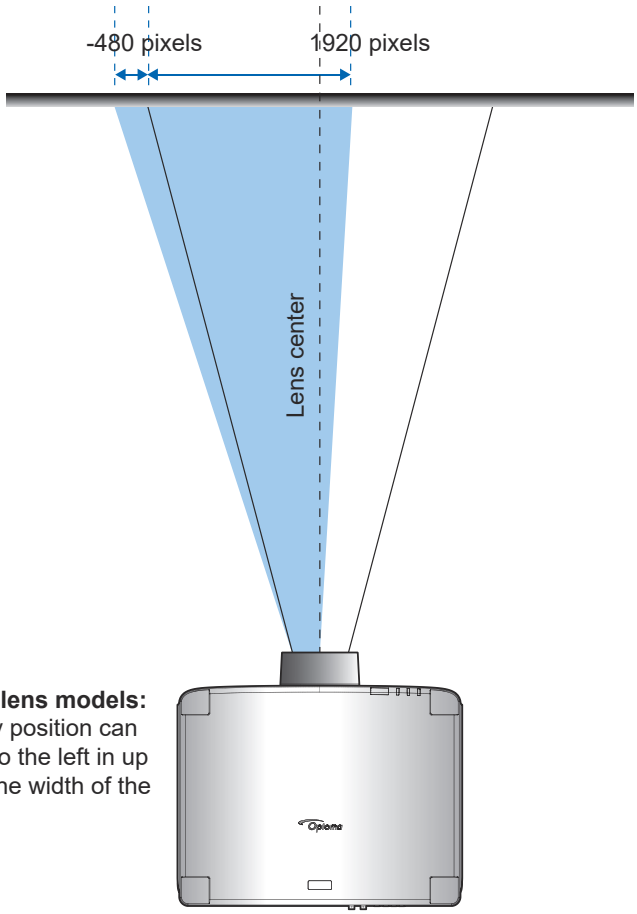


When the lens is shifted to bottom:



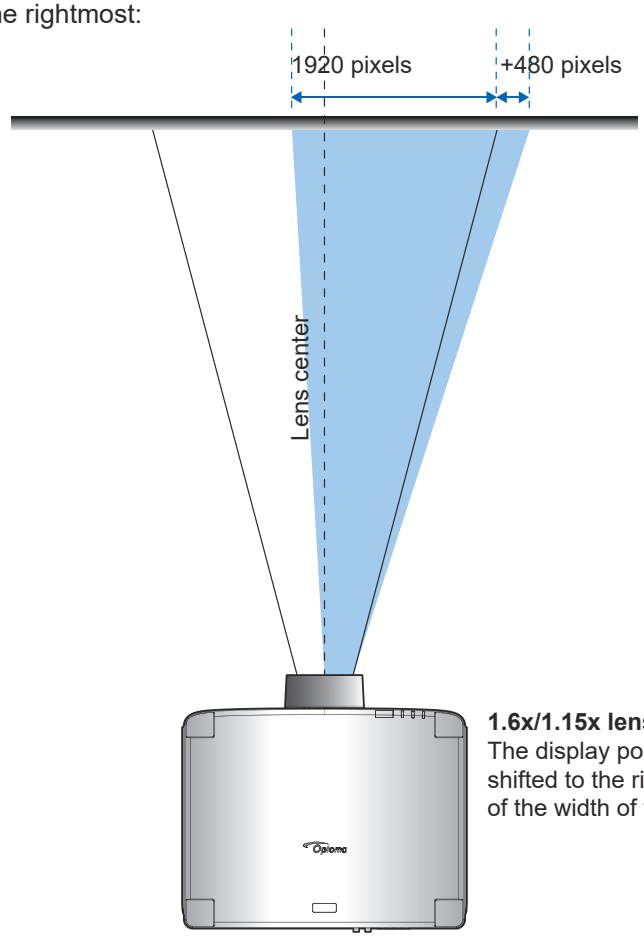
SETUP AND INSTALLATION

When the lens is shifted to the leftmost:



1.6x/1.15x lens models:
The display position can be shifted to the left in up to 25% of the width of the display.

When the lens is shifted to the rightmost:

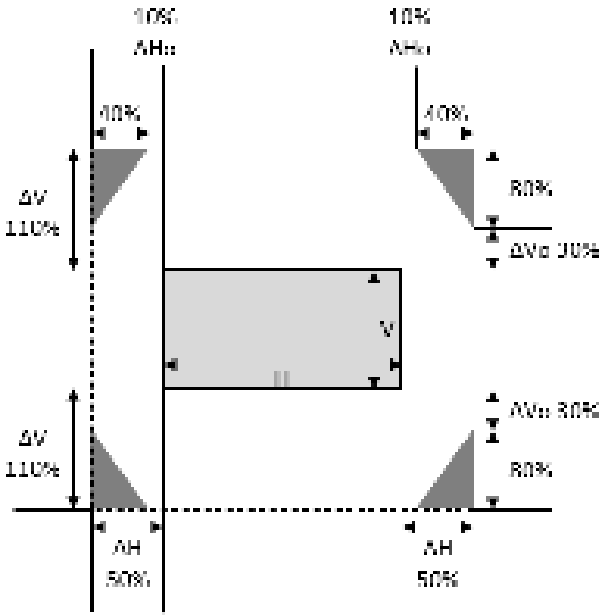


1.6x/1.15x lens models:
The display position can be shifted to the right in up to 25% of the width of the display.

SETUP AND INSTALLATION

Lens Shift Range

Lens Type	Lens Shift Range (1/2 image)			
	ΔH	ΔV	ΔHo	ΔVo
1.6x/1.15x lens models	50%	110%	10%	30%



Note:

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.*

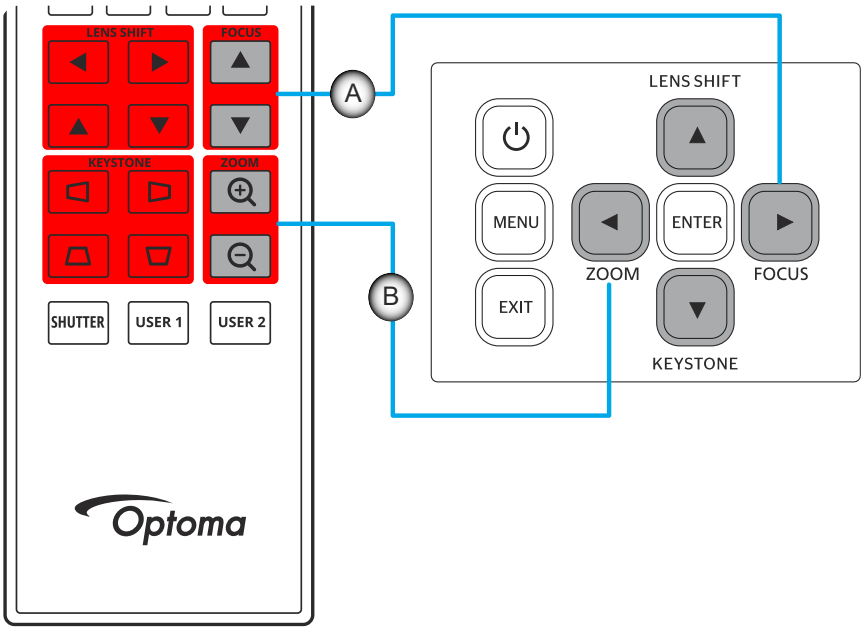
h) *When the lens is shifted beyond the described range of operation, screen edges may become darker or image may become out of focus.*

SETUP AND INSTALLATION

Adjusting the Projector's Zoom and Focus

Use the remote control or projector keypad to adjust the zoom and focus of the projected image.

- To adjust the image focus, press **Focus** and the ▲▼ buttons until the image is sharp and legible. (A)
- To adjust the image size, press **Zoom** and the 🔍+ 🔍− buttons on the remote control or ◀▶ on the keypad to get the required image size. (B)



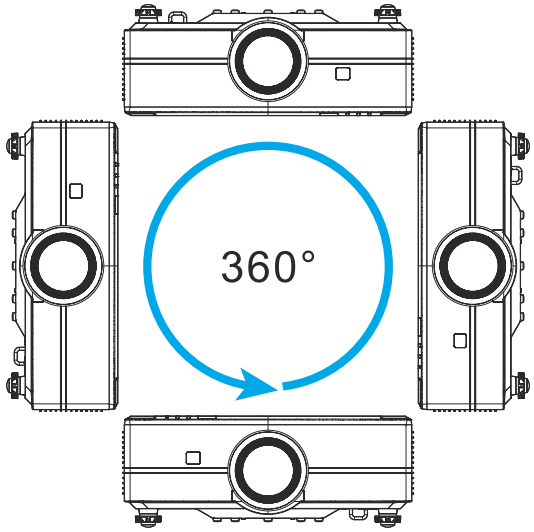
SETUP AND INSTALLATION

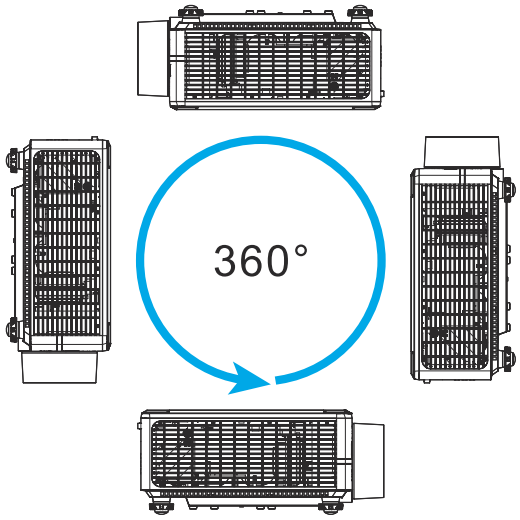
Adjusting the Projector Position

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/1.5x lens models projector (with the standard lens) must be at least 50 inch (1.6x: 1.33m/1.15x: 0.69m) 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: 1.25 ~ 2.0
  - 1.15x lens model: 0.65 ~ 0.75
- 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.

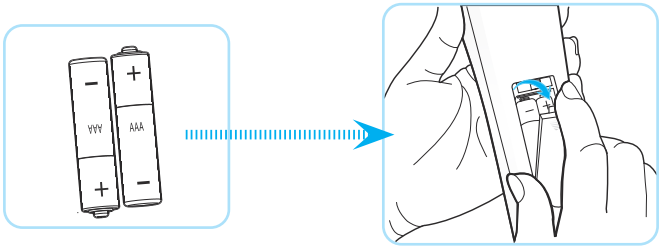
SETUP AND INSTALLATION

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.

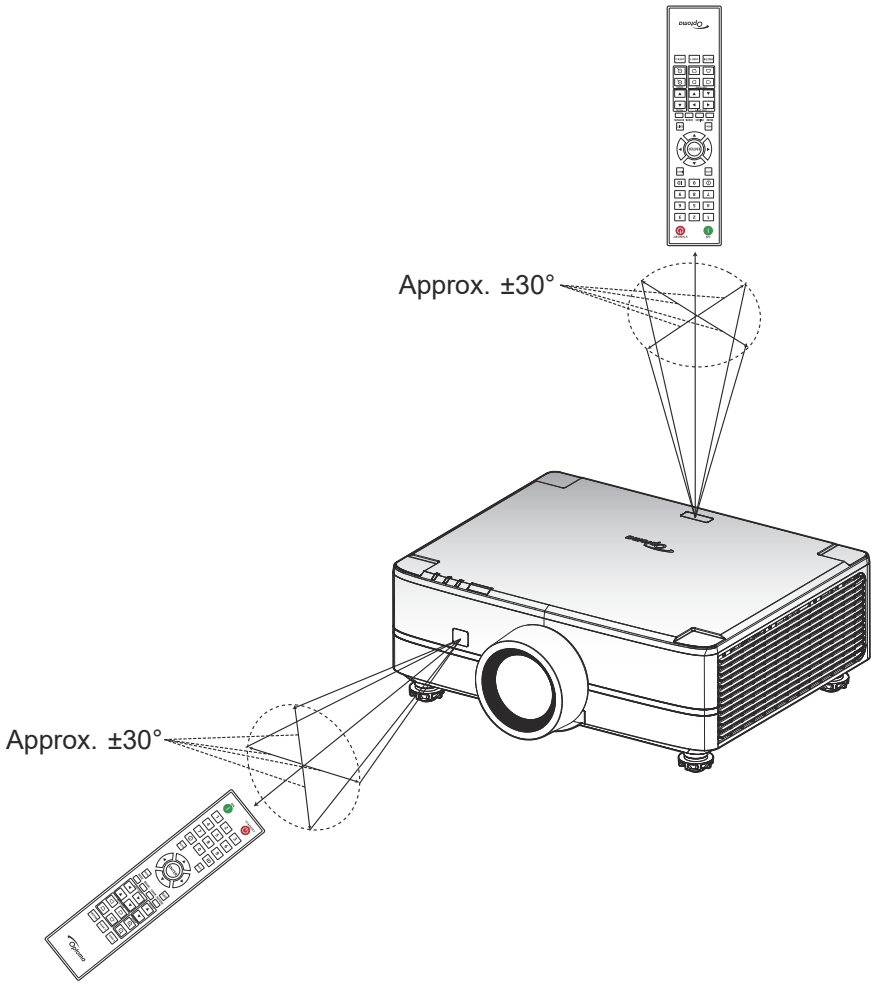
- Do not mix batteries of different types. Different types of batteries have different characteristics.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries or cause chemical leakage in old batteries.
- Remove batteries as soon as the are depleted. Chemicals 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.

SETUP 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.

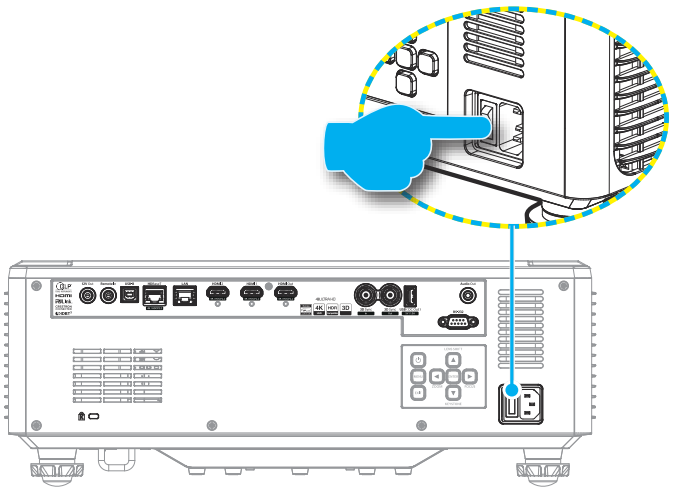


USING THE PROJECTOR

Powering On / Off the Projector

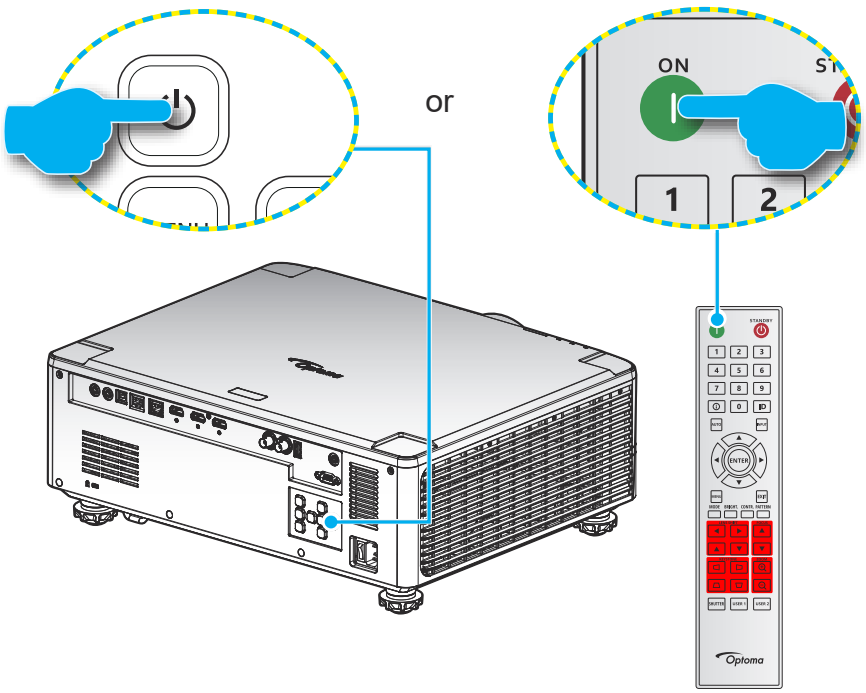
Powering On

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.



3. Turn on the projector by pressing the "⏻" button on the projector keypad or the " ▮ " on the remote control.

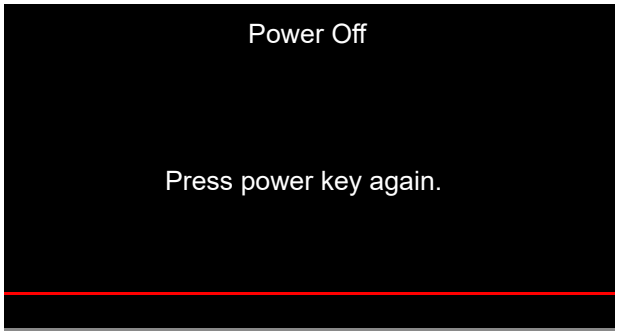
   During startup the power LED is flashing red and during normal operation, the power LED is solid green.



USING THE PROJECTOR

Powering Off

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



2. Press the ⏻ button again to confirm, otherwise the message will disappear after 15 seconds. When you press the ⏻ button for the second time, the projector will shut down.
3. 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 the "⏻" button on the projector keypad or the " ▮ " on the remote control again to turn on the projector.
4. Disconnect the power cord from the electrical outlet and the projector.

Note:

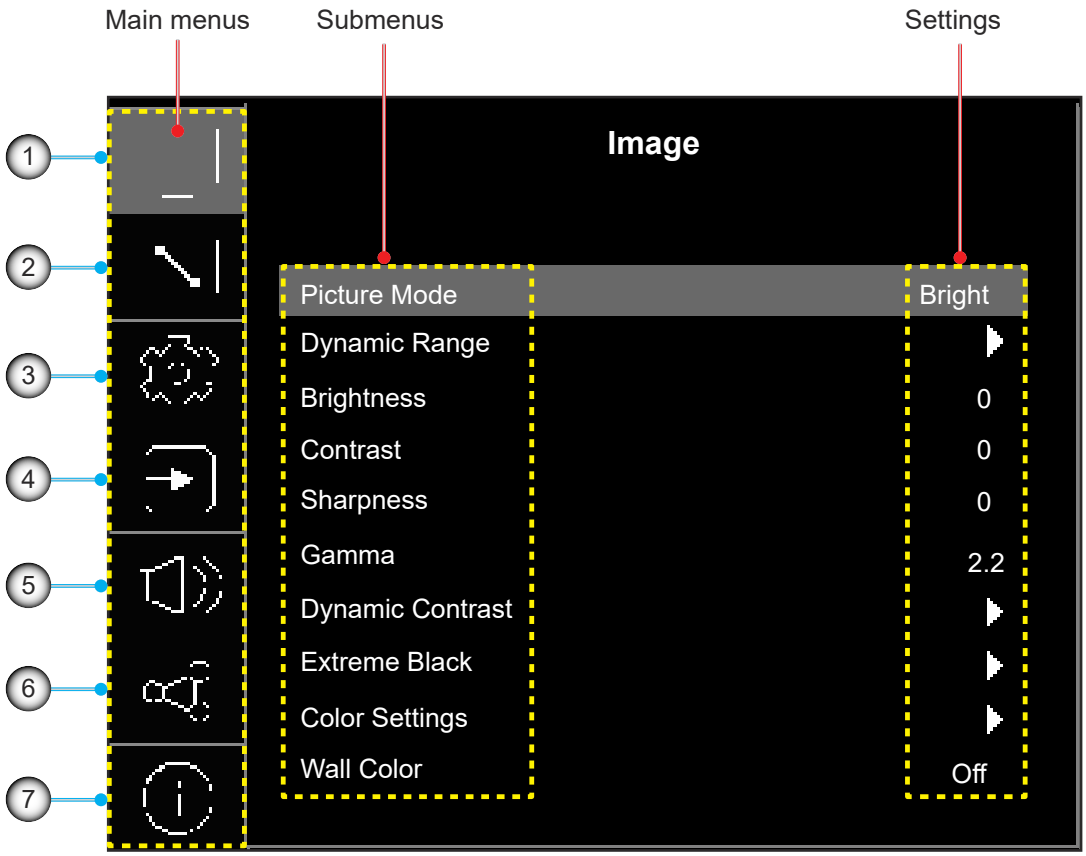
- *It is not recommended that the projector is turned on immediately, right after a power off procedure.*
- *By default, the projector turns off automatically after 20 minutes of inactivity. You can modify the idle time length in "Auto Power off (min.)" menu in "Device Setup → Power Settings". If you 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.

1. To open the OSD menu, press the **Menu** key on the remote control or projector keypad.
2. To select a main menu or sub menu, use the ▲▼ buttons to highlight it. Then, press the **Enter** button to enter the sub menu.
3. Press the **Exit** button to return to the previous menu or exit the OSD menu if at top level.
4. 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 ▲▼◀▶ 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		

USING THE PROJECTOR

OSD menu tree

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6	Values
Image	Picture Mode					Vivid
						HDR
						HLG
						Cinema
						sRGB
						Bright
						DICOM SIM.
						Blending
						3D
						High Frame Rate
						User
	Dynamic Range	HDR				Off
						Auto [default]
		HDR Picture Mode				0 ~ 10
	Brightness					0 ~ 100
	Contrast					0 ~ 100
	Sharpness					1 ~ 15
	Gamma					Film
						Graphics
						1.8
						2.0
						2.2
						2.4
						2.6
						Vivid
						3D
						Blackboard
						DICOM SIM.
	Dynamic Contrast	Dynamic Black				Off [default]
						On
		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 Signal Level				0 ~ 5 [default: 0]
	Color Settings	Color				0 ~ 100
		Tint				0 ~ 100
		BrilliantColor™				0 ~ 10
		Color Temperature				Warm
						Standard
						Cool
						Cold

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6	Values
Image	Color Settings	Color Matching	Red	Hue		0 ~ 254
				Saturation		0 ~ 254
				Luminance		0 ~ 254
				Reset		Yes
						Cancel [default]
			Green	Hue		0 ~ 254
				Saturation		0 ~ 254
				Luminance		0 ~ 254
				Reset		Yes
						Cancel [default]
			Blue	Hue		0 ~ 254
				Saturation		0 ~ 254
				Luminance		0 ~ 254
				Reset		Yes
						Cancel [default]
			Cyan	Hue		0 ~ 254
				Saturation		0 ~ 254
				Luminance		0 ~ 254
				Reset		Yes
						Cancel [default]
			Magenta	Hue		0 ~ 254
				Saturation		0 ~ 254
				Luminance		0 ~ 254
				Reset		Yes
						Cancel [default]
			Yellow	Hue		0 ~ 254
				Saturation		0 ~ 254
				Luminance		0 ~ 254
				Reset		Yes
						Cancel [default]
			White	Red		0 ~ 254
				Green		0 ~ 254
				Blue		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 (16 ~ 235)
						YUV

USING THE PROJECTOR

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6	Values
Image	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]
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					4:3
						16:9
						21:9
						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]

USING THE PROJECTOR

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6	Values
Display	Geometric Correction	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

USING THE PROJECTOR

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6	Values
Device Setup	Language					简体中文
						日本語
						한국어
						Русский
						Magyar
						ไทย
	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]
		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
						Active
						Communication [default]
		12V Trigger				Off [default]
						On
		Reset				Yes
						Cancel [default]

USING THE PROJECTOR

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6	Values
Device Setup	OMS					[Pop-up Binding Dialog box] [Display binding information]
	Shutter	Startup				Shutter Off [default]
						Shutter On
	Security	Security				Off [default]
						On
		Security Timer	Month			0 ~ 35 [default: 0]
			Day			0 ~ 29 [default: 0]
			Hour			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
						Logo
	User Data	Save All Settings				Memory 1 ~ Memory 5 [default: Memory 1]
		Load All Settings				Memory 1 ~ Memory 5 [default: Memory 1]
	System Update	Auto				Off [default]
						On
		Auto Download				Off
						On [default]
		Update				Yes
						Cancel [default]
	Device Reset	Reset OSD				Yes
						Cancel [default]
		Reset All Settings				Yes
						Cancel [default]
		Reset Selective	Image			Yes
						Cancel [default]
			Display			Yes
						Cancel [default]

USING THE PROJECTOR

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6	Values
Device Setup	Device Reset	Reset Selective	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				1.4
						2.0 [default]
		HDMI 2 EDID				1.4
						2.0 [default]
		HDBaseT EDID				1.4
						2.0 [default]
	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

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6	Values
Communication	Remote Settings	Remote Code				0 ~ 99 [default: 0]
		Quick Switch Code				Off [default]
						1 ~ 9
	Remote Settings	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
						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				---.---.---.--- [default: 192.168.0.100]
		Subnet Mask				---.---.---.--- [default: 255.255.255.0]
		Gateway				---.---.---.--- [default: 192.168.0.51]
		DNS 1				---.---.---.--- [default: 0.0.0.0]
		DNS 2				---.---.---.--- [default: 0.0.0.0]
		Apply				Yes
						Cancel [default]
		Reset				Yes
						Cancel [default]
	Control	Crestron				Off
						On [default]
		IP Address				---.---.---.--- [default: 192.168.0.2]
		IP ID				2 ~ 255 [default: 5]
		Port				0 ~ 65535 [default: 41794]

USING THE PROJECTOR

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6	Values
Communication	Control	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
						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.				

Main Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Sub Menu 5	Sub Menu 6	Values
Information	System Status	System Temp.				
	Control	Crestron				
		Extron				
		PJ Link				
		AMX				
		Telnet				
		HTTP				
	LAN	LAN Interface				
		MAC Address				
		Network Status				
		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.

Vivid

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 vivid 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 (Cinema, Reference, etc.) 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.

sRGB

Standardized accurate color.

Bright

This mode is suitable for environments where extra-high brightness is required, such as using the projector in well-lit rooms.

DICOM SIM.

This mode has been created for viewing greyscale images, perfect for viewing X-rays and scans during medical training.

Blending

When using multiple projectors, this mode can eliminate the visible banding and create a single bright, high resolution image across the screen.

3D

Optimized settings for watching 3D contentd.

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

High Frame Rate

High Frame Rate (HFR) refers to higher frame rates than typical prior practice.

Note:

- *The High Frame Rate mode only supports input resolutions of 1080P at 120/240Hz, with an output refresh rate of 240Hz.*
- *The system will automatically detect the input signal and switch to this mode. It is generally not available for manual use.*

User

Based on Vivid, users can adjust color settings and save them.

Note:

- *When 3D mode is selected, the Vivid, HDR, HLG, Cinema, sRGB, Bright, DICOM SIM., Blending, High Frame Rate, and User mode will be unavailable.*
- *When Blending mode is selected, the HDR, HLG, 3D, and High Frame Rate mode will be unavailable.*

HDR

Best for playing HDR videos.

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.

Graphics

Best for projecting photos from PC input.

1.8 / 2.0 / 2.2 / 2.4 / 2.6

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.

Vivid

Best for playing games. In this mode, color saturation and brightness are well-balanced.

3D

Best for playing 3D videos.

Blackboard

Best for projecting on to a blackboard.

DICOM SIM.

Best for projecting monochrome medical images, such as X-ray diagram.

Note: *When Blending mode is selected, only gamma 2.2 is supported.*

HDR

Best for playing HDR videos.

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 Settings

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 Warm, Standard, Cool, or Cold.

Color Matching

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 Setup

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.

USING THE PROJECTOR

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.*

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*

USING THE PROJECTOR

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 ◀ and ▶ buttons to adjust the projected image position horizontally.

Vertical

Use the ▲ and ▼ buttons to adjust the projected image position vertically.

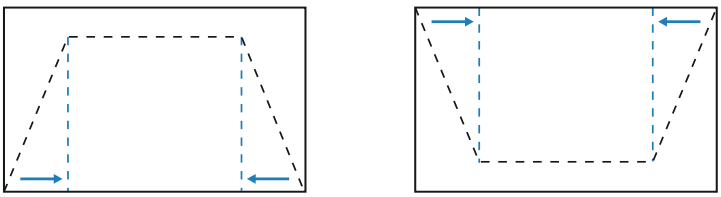
Note: *When 3D mode is selected, the Image Shift will be unavailable.*

Geometric Correction

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

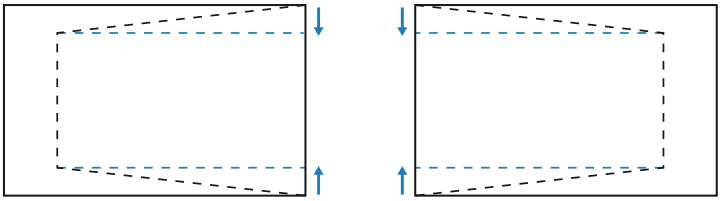
V Keystone

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.



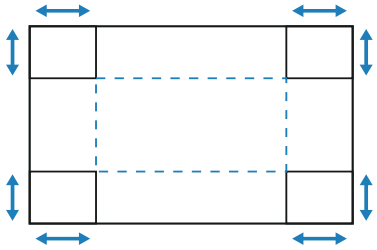
H Keystone

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.



4-Corner

Reshape the image by moving the 4 corners of the image to have it fit a specific projection surface.

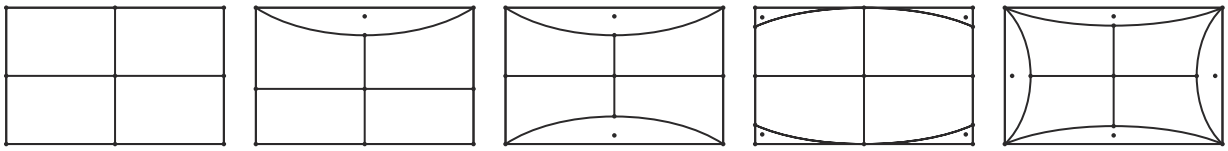


Warping

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.

USING THE PROJECTOR

Device Setup 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
- OMS
- Shutter
- 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 Settings

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.

USING THE PROJECTOR

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 the ▲ and ▼ buttons to adjust the focus of the projected image.

Zoom

Use the and buttons 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.

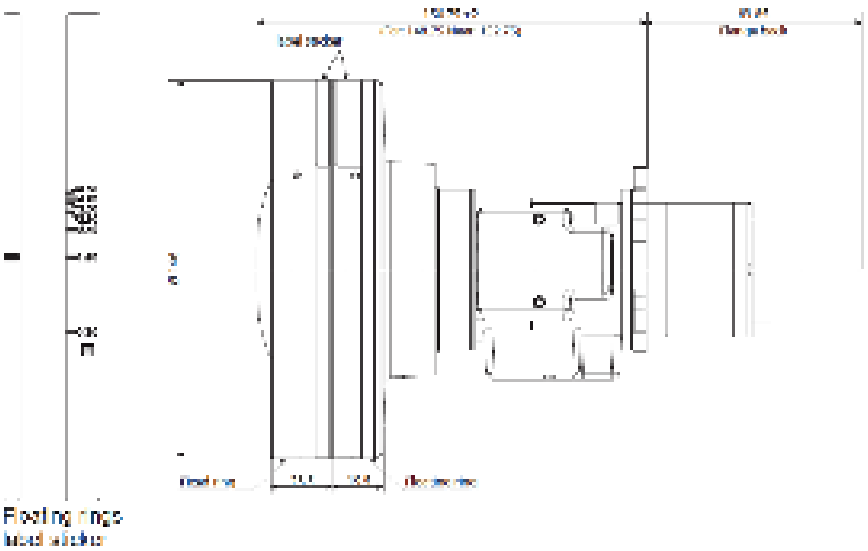
Note: *When Lens Function is turned on, the Focus, Zoom, Lens Shift, Lens Calibration, and Lens Shift Memory will be unavailable.*

Lens Shift

Use the ▲, ▼, ◄, ► right buttons to adjust the lens position to shift the projected area.

Note: *1.15x lens model floating ring*

- *For better optical performance, manually adjust the floating ring before adjusting Zoom & Focus.*
- *Floating ring's label scale shows the projection distance.*
- *The projection distance is from the projector lens to the screen. For example, if the distance between the screen and the projector lens is 1.4 m, adjust the floating ring scale to "1.40" for better performance.*



Lens Calibration

Calibrate the lens position to return it to the center.

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 ◀ and ▶ 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)

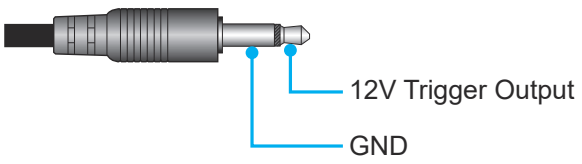
Setup the projector's standby mode.

- **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.

USING THE PROJECTOR

OMS (Optoma Management Suite)

Control the projector with OMS. For more information, please visit https://onlinemanual.optoma.com/.

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.

USING THE PROJECTOR

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 Resync

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.

USING THE PROJECTOR

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.

USING THE PROJECTOR

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

Configure the settings of the Infra-Red (IR) remote control.

Remote Code

Press and hold the remote control ID key. When all the key lights turn on, press the number key 00-99 to assign a number. When all key lights flash rapidly twice, the remote control code has been changed. At this time, release the remote control ID key.

Quick Switch Code

The IR receiving function of the projector can be temporarily deactivated by hot key (0 ~ 9) to avoid the IR interference between projectors. The remote ID needs to be set to All.

User 1 / User 2

Assign a function to the User 1 and User 2 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:

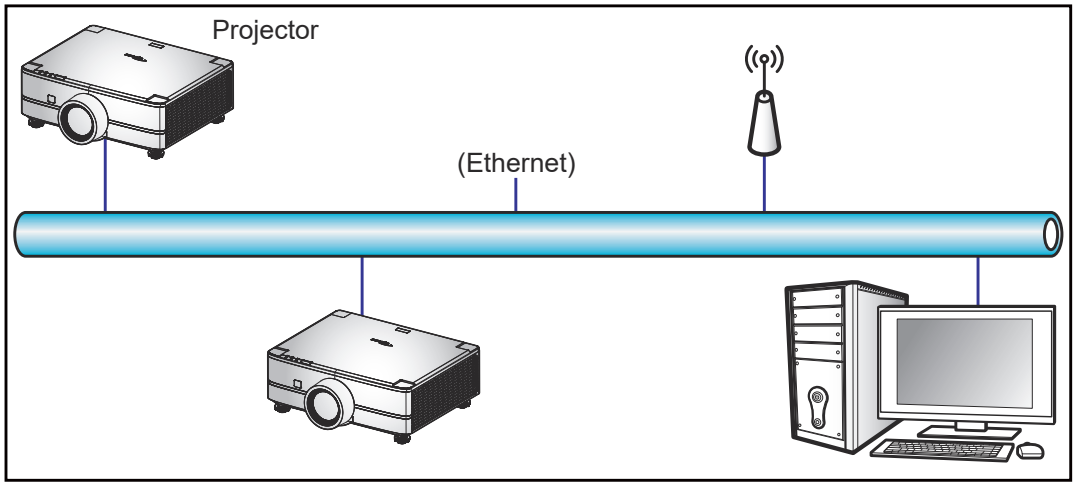
- *Crestron is a registered trademark of Crestron Electronics, Inc. of the United States.*
- *Extron is a registered trademark of Extron Electronics, Inc. of the United States.*
- *AMX is a registered trademark of AMX LLC of the United States.*
- *PJLink applied for trademark and logo registration in 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

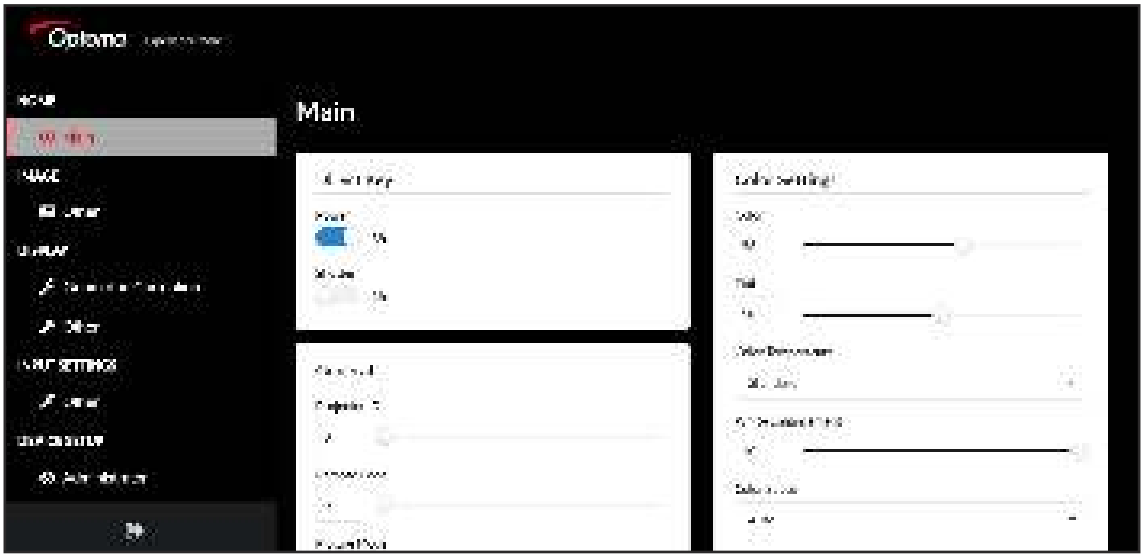
To use the web control panel, make sure your devices and software meet the minimum system requirements

- 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

Overview of the web control panel

Configure the projector settings using web browser.



Menu	Description
HOME	View the projector information and firmware version details.
IMAGE	To configure image settings.
DISPLAY	To configure the settings to properly project images according to your installation circumstances.
INPUT SETTINGS	To configure the projector input settings.
DEVICE SETUP	To configure the system settings for the projector.
COMMUNICATION	Communication menu is used to configure the settings that allow the projector to communicate with other projectors or control devices.
INFORMATION	View the projector information about its status and settings. The projector information is read only.

USING THE PROJECTOR

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**.

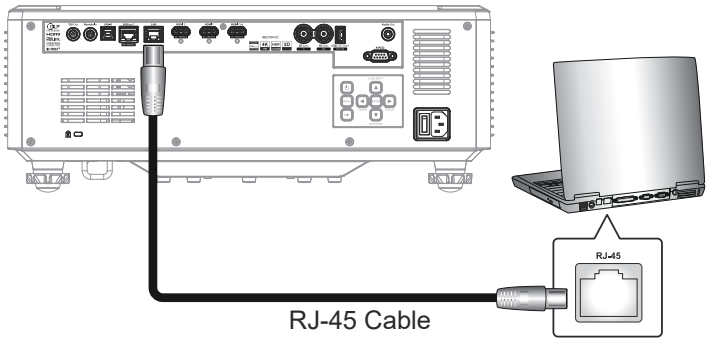
     Note: *Make sure DHCP is enabled.*
2. Open a web browser and type the projector address in the address bar.
3. The web page redirects to the web control panel.
4. In the Username field, type the username: admin (first time login).

   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.



1. 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 58.
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: TCP
- Telnet port: 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.

Baud 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.

Source

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.

ADDITIONAL INFORMATION

Compatible Resolutions

Digital

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

ADDITIONAL INFORMATION

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	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.*

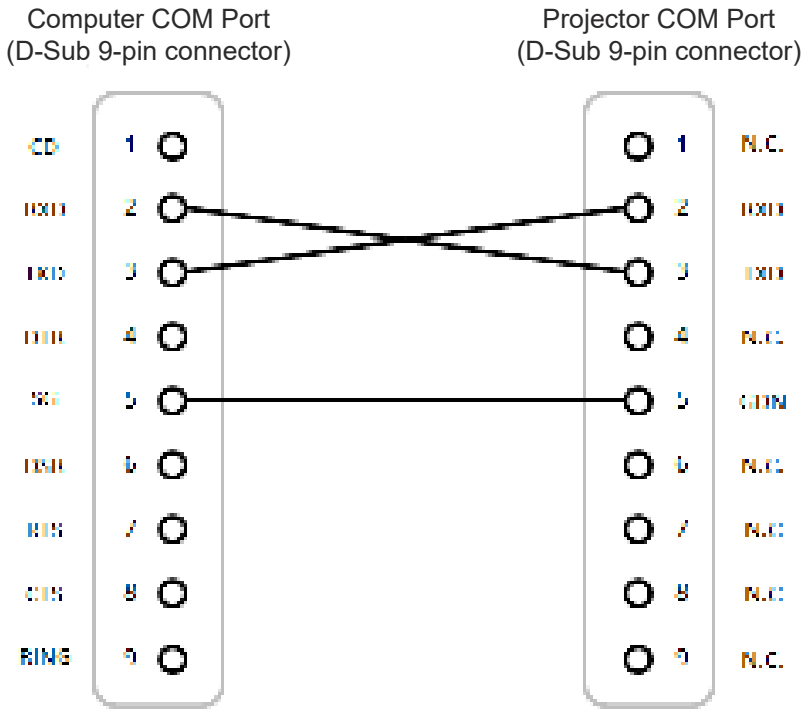
ADDITIONAL INFORMATION

RS232 Port Setting and Signals Connection

RS232 Port Setting

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

RS232 Signals Connection



Note: *RS232 shell is grounded.*

ADDITIONAL INFORMATION

Image Size and Projection Distance

1.6x lens model

The size of pojected images is 50 ~ 300 inches (1.36 ~ 13.35 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

1.15x lens model

The size of pojected images is 50 ~ 1000 inches (0.70 ~ 17.04 m)

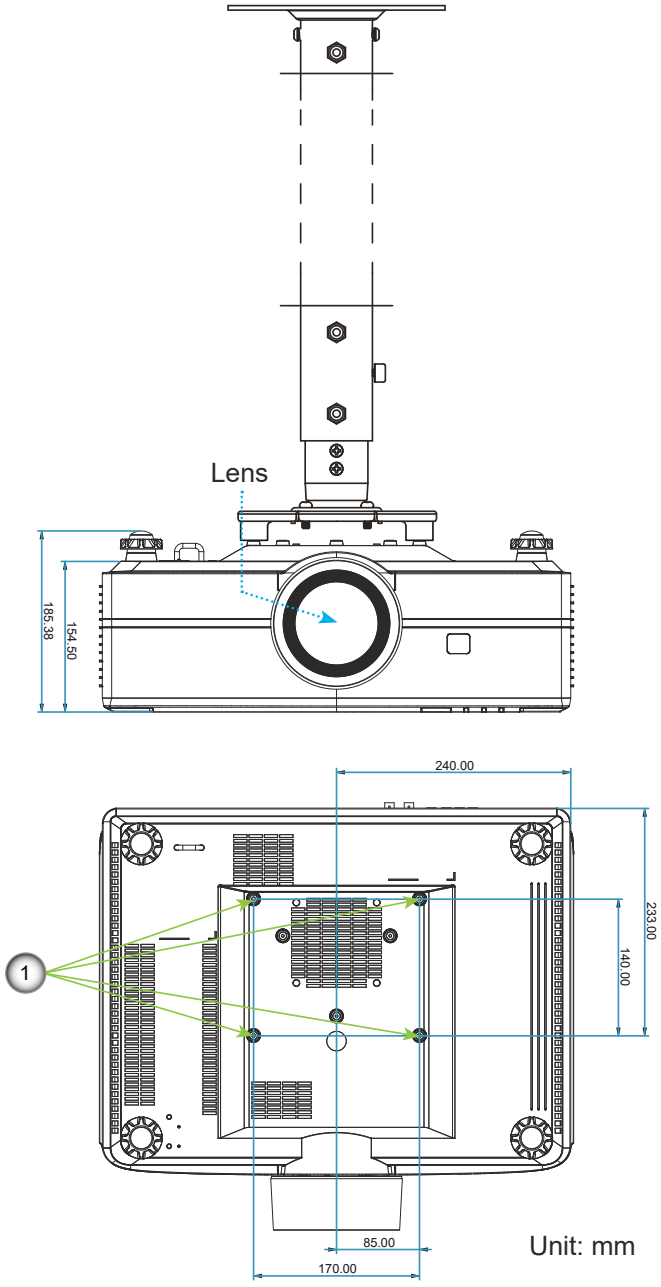
50	1.27	43.6	1.11	24.5	0.62	27.6	0.70	32.1	0.81
60	1.52	52.3	1.33	29.4	0.75	33.4	0.85	38.8	0.99
70	1.78	61.0	1.55	34.3	0.87	39.2	1.00	45.5	1.16
80	2.03	69.7	1.77	39.2	1.00	45.0	1.14	52.3	1.33
90	2.29	78.4	1.99	44.1	1.12	50.9	1.29	59.0	1.50
100	2.54	87.2	2.21	49.0	1.25	56.7	1.44	65.7	1.67
120	3.05	104.6	2.66	58.8	1.49	68.3	1.74	79.2	2.01
150	3.81	130.7	3.32	73.5	1.87	85.8	2.18	99.3	2.52
180	4.57	156.9	3.98	88.2	2.24	103.3	2.62	119.5	3.04
200	5.08	174.3	4.43	98.1	2.49	114.9	2.92	133.0	3.38
250	6.35	217.9	5.53	122.6	3.11	144.0	3.66	166.6	4.23
300	7.62	261.5	6.64	147.1	3.74	173.1	4.40	200.2	5.09
500	12.70	435.8	11.07	245.1	6.23	289.6	7.35	334.7	8.50
600	15.24	522.9	13.28	294.2	7.47	347.8	8.83	402.0	10.21
700	17.78	610.1	15.50	343.2	8.72	406.0	10.31	469.3	11.92
800	20.32	697.3	17.71	392.2	9.96	464.2	11.79	536.5	13.63
900	22.86	784.4	19.92	441.2	11.21	522.5	13.27	603.8	15.34
1000	25.40	871.6	22.14	490.3	12.45	580.7	14.75	671.0	17.04

ADDITIONAL INFORMATION

Ceiling Mount Installation

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

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

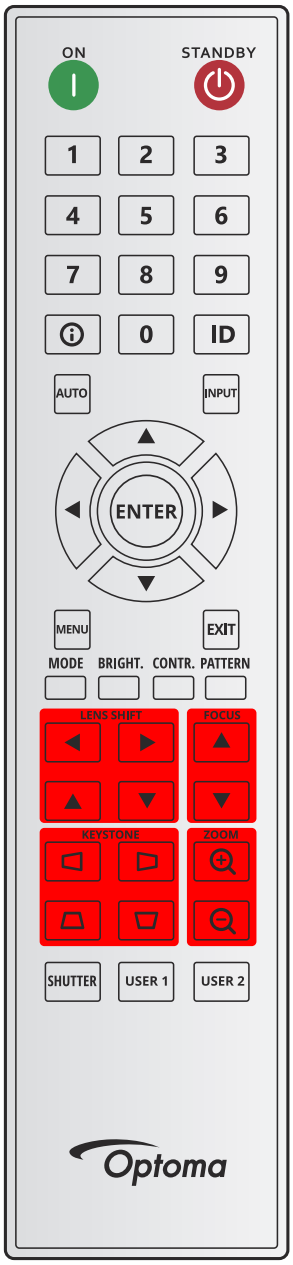


Note:

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

ADDITIONAL INFORMATION

IR remote codes



Key Legend	Key Position	Repeat Format	Address		Data		Description
			Byte 1	Byte 2	Byte 3	Byte 4	
ON (I)	1	F1	32	CD	2	FD	Press to turn on the projector.
OFF (⏻)	2	F1	32	CD	2E	D1	Press to turn off the projector.
1	3	F1	32	CD	72	8D	Use as numeric keypad number “1”.
2	4	F1	32	CD	73	8C	Use as numeric keypad number “2”.
3	5	F1	32	CD	74	8B	Use as numeric keypad number “3”.
4	6	F1	32	CD	75	8A	Use as numeric keypad number “4”.
5	7	F1	32	CD	77	88	Use as numeric keypad number “5”.
6	8	F1	32	CD	78	87	Use as numeric keypad number “6”.

ADDITIONAL INFORMATION

Key Legend	Key Position	Repeat Format	Address		Data		Description
			Byte 1	Byte 2	Byte 3	Byte 4	
7	9	F1	32	CD	79	86	Use as numeric keypad number “7”.
8	10	F1	32	CD	80	7F	Use as numeric keypad number “8”.
9	11	F1	32	CD	81	7E	Use as numeric keypad number “9”.
Info (ⓘ)	12	F1	32	CD	82	7D	Press to display source image information.
0	13	F1	32	CD	25	DA	Use as numeric keypad number “0”.
ID	14	F1	32	CD	A7	58	Press to set remote ID.
Auto	15	F1	32	CD	4	FB	Press to automatically synchronize the projector to the input source.
Input	16	F1	32	CD	18	E7	Press to select an input signal.
UP (▲)	17	F1	32	CD	0F	F0	Press to select items or make adjustments to our selection.
LEFT (◄)	18	F1	32	CD	11	EE	Press to select items or make adjustments to our selection.
Enter	19	F1	32	CD	14	EB	Press to confirm your item selection.
RIGHT (►)	20	F1	32	CD	10	EF	Press to select items or make adjustments to our selection.
DOWN (▼)	21	F1	32	CD	12	ED	Press to select items or make adjustments to our selection.
Menu	22	F1	32	CD	0E	F1	Press to display the on-screen display menus for projector.
Exit	23	F1	32	CD	2A	D5	Press to return to previous level or exit menus if at top level.
Mode	24	F1	32	CD	5	FA	Press to select the preset display mode.
Bright.	25	F1	32	CD	28	D7	Press to adjust amount of light in the image.
Contr.	26	F1	32	CD	29	D6	Press to adjust difference between dark and light.
Pattern	27	F1	32	CD	58	A7	Press to display a test pattern.
Lens Shift◄	28	F1	32	CD	41	BE	Press to adjust the position of the image horizontally.
Lens Shift ►	29	F1	32	CD	42	BD	
Focus ▲	30	F1	32	CD	86	79	Press to adjust focus to improve image clarity as desired.
Lens Shift ▲	31	F1	32	CD	34	CB	Press to adjust the position of the image vertically.
Lens Shift ▼	32	F1	32	CD	32	CD	Press to adjust the position of the image vertically.
Focus ▼	33	F1	32	CD	26	D9	Press to adjust focus to improve image clarity as desired.
Keystone	34	F1	32	CD	87	78	Press to adjust the horizontal keystone.
Keystone	35	F1	32	CD	51	AE	Press to adjust the horizontal keystone.
Zoom	36	F1	32	CD	52	AD	Press to adjust zoom to achieve a desired image size.
Keystone	37	F1	32	CD	53	AC	Press to adjust the vertical keystone.
Keystone	38	F1	32	CD	54	AB	Press to adjust the vertical keystone.
Zoom	39	F1	32	CD	55	AA	Press to adjust zoom to achieve a desired image size.
Shutter (AV Mute)	40	F1	32	CD	56	A9	Press to hide/unhide the screen picture.
User 1	41	F1	32	CD	57	A8	Press to assign user functions. Please refer to “Remote Setup” on page 24.
User 2	42	F1	32	CD	27	D8	Press to assign user functions. Please refer to “Remote Setup” on page 24.

ADDITIONAL INFORMATION

Troubleshooting

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

Image problems

No image appears on-screen

- Ensure all the cables and power connections are correctly and securely connected as described in the *Setup and Installation* section.
- Ensure the pins of connectors are not crooked or broken.
- Ensure that the Shutter (AV Mute) feature is not turned on.

Image is out of focus

- Press the **Focus ▲** or **Focus ▼** button on the remote control or projector keypad to adjust the focus until the image is sharp and legible.
- Make sure the projection screen is between the required distance from the projector. (Please refer to *Image size and projection distance* page *65*).

The image is stretched when displaying 16:10 DVD title

- When you play anamorphic DVD or 16:10 DVD, the projector will show the best image in 16:10 format on projector side.
- If you play 4:3 format DVD title, please change the format as 4:3 in projector OSD.
- Please setup the display format as 16:10 (wide) aspect ratio type on your DVD player.

Image is too small or too large

- Press the **Zoom** or **Zoom** button on the remote control or projector keypad to adjust the projected image size.
- Move the projector closer to or further from the screen.
- From the OSD menu, select **Display > Aspect Ratio** to change the aspect ratio.

Image has slanted sides:

- If possible, reposition the projector so that it is centered on the screen and below the bottom of the screen.
- Press the **Keystone** buttons on the remote control to adjust the screen shape.

Image is reversed

- From the OSD menu, select **Device Setup > Projection Orientation > Rear** to reverse the image so you can project from behind a translucent screen.

Other problems

The projector stops responding to all controls

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

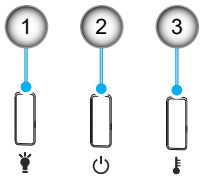
Remote control problems

If the remote control does not work

- Check that the operating angle of the remote control is pointed within ±30° to the IR receivers on the projector.
- Make sure there are not any obstructions between the remote control and the projector. Move to within 6 meters (19.7 feet) of the projector.
- Make sure batteries are inserted correctly.
- Replace batteries if they are exhausted.

ADDITIONAL INFORMATION

LED Indicators and Lightning Messages



1.	Light LED
2.	Power LED
3.	Temp LED

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)*

ADDITIONAL INFORMATION

Specifications

Optical	
Display resolution	4K UHD 3840 x 2160
Maximum resolution	3840 x 2160 @ 60Hz for HDMI
Lens	Throw ratio • 1.6x lens model: 1.25 ~ 2.0 • 1.15x lens model: 0.65 ~ 0.75 F-stop • 1.6x lens model: 2.0 ~ 2.4 • 1.15x lens model: 2.0 ~ 2.1 Focal length • 1.6x lens model: 18.72 ~ 29.59 • 1.15x lens model: 9.69 ~ 11.19
Offset	0
Image size	• 1.6x lens model: 50” ~ 300” (mechanical travel) (optimized@120”) • 1.15x lens model: 50” ~ 1000” (mechanical travel) (optimized@100”)
Projection distance	• 1.6x lens model: 1.33m ~ 13.06m (mechanical travel) • 1.15x lens model: 0.7m ~ 16.6m (mechanical travel)
Input Interface	• HDMI in 2.0 x 2 • HDBaseT x 1 • 3D Sync in x 1
Output Interface	• HDMI out 2.0 x 1 • USB type-A x 1 for power USB 5V/1.5A • 3D Sync out x 1 • Audio out x 1
Control Interface	• USB type-B x 1 for service • LAN x 1 • 12V Trigger x 1 • Wired Remote x 1 • RS232 control x 1
Colour	1073.4 Million color
Scan rate	• Horizontal scan rate: 15.375 ~ 91.146 KHz • Vertical scan rate: 24 ~ 85 Hz (120Hz for 3D feature)
Speaker	10W x 2
Power consumption	Normal mode (typical) • 530W ± 15% @ 110Vac • 520W ± 15% @ 220Vac ECO mode (typical) • 285W ± 15% @ 110Vac • 280W ± 15% @ 220Vac
Power requirement	AC 100 ~ 240V ±10%, 50/60Hz
Input current	6.5A
Installation orientations	Front, Rear, Ceiling, Rear-top

ADDITIONAL INFORMATION

Optical	
Dimensions (W x D x H)	1.6x lens model: • Without feet: 486 x 432.5 x 176 mm (19.1 x 17.0 x 6.9 inches) • With feet: 486 x 432.5 x 185.5 mm (19.1 x 17.0 x 7.3 inches) 1.15x lens model: • Without feet: 486 x 427.5 x 176 mm (19.1 x 16.8 x 6.9 inches) • With feet: 486 x 427.5 x 185.5 mm (19.1 x 16.8 x 7.3 inches)
Weight	• 1.6x lens model: 13.5 Kg ± 0.3 Kg (29.76 lbs ± 0.66 lbs) • 1.15x lens model: 13.2 Kg ± 0.3 Kg (29.10 lbs ± 0.66 lbs)
Environmental	Operating in 5 ~ 40°C, 10% to 85% humidity (non-condensing)

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

ADDITIONAL INFORMATION

RS232 protocol function list

Baud Rate : 115200

Data Bits: 8

Parity: None

Stop Bits: 1

Flow Control : None

UART16550 FIFO: Disable

■ Write Command

~	X	X	X	X	X		n	CR
Lead Code	Projector ID		Command			space	variable	carriage return
Prefix	00~99 (Default: 00)		000~999				0~9999	suffix

Pass: P

Fail: F

■ Read Command

~	X	X	X	X	X		n	CR
Lead Code	Projector ID		Command			space	variable	carriage return
Prefix	00~99 (Default: 00)		000~999				0~9999	suffix

Response Format

Pass:

O	k	n
		Variable

Fail: F

■ System Automatically Send

I	N	F	O	n
				Variable

Note: *There is a <CR> after all ASCII commands. 0D is the HEX code for <CR> in ASCII code.*

ADDITIONAL INFORMATION

Level 1	Level 2	Level 3	Level 4	Level 5	n value	Write Command: CMD	Write Command: Space	Write Command: Set Para.	Read Command: CMD	Read Command: CMD Value	Read Command: Pass
Image	Picture Mode	[None]							*XX123	1	OK 0
		Vivid				*XX20		16	*XX123	1	OK 16
		HDR				*XX20		21	*XX123	1	OK 21
		HLG				*XX20		25	*XX123	1	OK 25
		Cinema				*XX20		3	*XX123	1	OK 3
		sRGB				*XX20		4	*XX123	1	OK 4
		Bright				*XX20		2	*XX123	1	OK 2
		DICOM SIM.				*XX20		13	*XX123	1	OK 10
		Blending				*XX20		19	*XX123	1	OK 19
		3D				*XX20		9	*XX123	1	OK 9
		High Frame Rate				*XX20		18	*XX123	1	OK 18
		User				*XX20		5	*XX123	1	OK 5
	Dynamic Range	HDR	Off			*XX565		0	*XX291	1	OK 0
			Auto			*XX565		1	*XX291	1	OK 1
		HDR Brightness	0 ~ 10			*XX288		0~10			
	Brightness	0 ~ 100				*XX21		0~100	*XX125	1	OK 0~100
	Contrast	0 ~ 100				*XX22		0~100	*XX126	1	OK 0~100
	Sharpness	1 ~ 15				*XX23		1~15			
	Gamma	Film				*XX35		1			
		Graphics				*XX35		3			
		1.8				*XX35		5			
		2.0				*XX35		6			
		2.2				*XX35		7			
		2.4				*XX35		12			
		2.6				*XX35		8			
		Vivid				*XX35		21			
		3D				*XX35		9			
		Blackboard				*XX35		10			
		DICOM SIM.				*XX35		11			
		HDR									
	Dynamic Contrast	Dynamic Black	Off			*XX191		0			
			On			*XX191		1			
		Speed	1 ~ 160			*XX253		1~160			
		Strength	0 ~ 3			*XX254		0~3			
		Level	50% ~ 100%			*XX255		50~100			
		Extreme Black	Off			*XX218		0			
			On			*XX218		1			
		AV Mute Timer	0.0s ~ 10.0s			*XX256		0~20			
		Black Signal Level	0 ~ 5			*XX257		0~5			
	Color Settings	Color	0 ~ 100			*XX45		0~100	*XX292	1	OK 0~100
		Tint	0 ~ 100			*XX44		0~100	*XX293	1	OK 0~100
		BrilliantColor™	0 ~ 10			*XX34		1~10	*XX294	1	OK 0~10
		Color Temperature	Warm			*XX36		4	*XX128	1	OK 3
			Standard			*XX36		1	*XX128	1	OK 0
			Cool			*XX36		2	*XX128	1	OK 1
			Cold			*XX36		3	*XX128	1	OK 2
		Color Matching	Red	Hue	0 ~ 254	*XX327		0~254	*XX491	1	OK 0~254
				Saturation	0 ~ 254	*XX333		0~254	*XX491	2	OK 0~254
				Luminance	0 ~ 254	*XX339		0~254	*XX491	3	OK 0~254
				Reset							
			Green	Hue	0 ~ 254	*XX328		0~254	*XX492	1	OK 0~254
				Saturation	0 ~ 254	*XX334		0~254	*XX492	2	OK 0~254
				Luminance	0 ~ 254	*XX340		0~254	*XX492	3	OK 0~254
				Reset							
			Blue	Hue	0 ~ 254	*XX329		0~254	*XX493	1	OK 0~254
				Saturation	0 ~ 254	*XX335		0~254	*XX493	2	OK 0~254
				Luminance	0 ~ 254	*XX341		0~254	*XX493	3	OK 0~254
				Reset							
			Cyan	Hue	0 ~ 254	*XX330		0~254	*XX494	1	OK 0~254
				Saturation	0 ~ 254	*XX336		0~254	*XX494	2	OK 0~254
				Luminance	0 ~ 254	*XX342		0~254	*XX494	3	OK 0~254
				Reset							
			Magenta	Hue	0 ~ 254	*XX332		0~254	*XX495	1	OK 0~254
				Saturation	0 ~ 254	*XX338		0~254	*XX495	2	OK 0~254
				Luminance	0 ~ 254	*XX344		0~254	*XX495	3	OK 0~254
				Reset							
			Yellow	Hue	0 ~ 254	*XX331		0~254	*XX496	1	OK 0~254
				Saturation	0 ~ 254	*XX337		0~254	*XX496	2	OK 0~254
				Luminance	0 ~ 254	*XX343		0~254	*XX496	3	OK 0~254
				Reset							
			White	Red	0 ~ 254	*XX345		0~254	*XX497	1	OK 0~254
				Green	0 ~ 254	*XX346		0~254	*XX497	2	OK 0~254
				Blue	0 ~ 254	*XX347		0~254	*XX497	3	OK 0~254
				Reset							

Note: *Some commands are not supported, it depends on models.*

ADDITIONAL INFORMATION

						Write Command			Read Command		
						Command			Command		
Level 1	Level 2	Level 3	Level 4	Level 5	n value	CMD	Space	Set Para.	CMD	CMD Value	Pass
Image	Color Settings		Reset All (CLI Only)			*XX215		1			
		White Balance	Red Gain	0 ~ 100		*XX24		0~100	*XX498	1	O k 0~100
			Green Gain	0 ~ 100		*XX25		0~100	*XX498	2	O k 0~100
			Blue Gain	0 ~ 100		*XX26		0~100	*XX498	3	O k 0~100
			Red Offset	0 ~ 100		*XX27		0~100	*XX499	1	O k 0~100
			Green Offset	0 ~ 100		*XX28		0~100	*XX499	2	O k 0~100
			Blue Offset	0 ~ 100		*XX29		0~100	*XX499	3	O k 0~100
		Color Space (HDMI Input)	Auto			*XX37		1	*XX295	1	O k 1
			RGB (0-255)			*XX37		2	*XX295	1	O k 2
			RGB (16-235)			*XX37		4	*XX295	1	O k 4
			YUV			*XX37		3	*XX295	1	O k 3
	Wall Color	Off				*XX506		0	*XX296	1	O k 0
		BlackBoard				*XX506		1	*XX296	1	O k 1
		Light Yellow				*XX506		7	*XX296	1	O k 7
		Light Green				*XX506		3	*XX296	1	O k 3
		Light Blue				*XX506		4	*XX296	1	O k 4
		Pink				*XX506		5	*XX296	1	O k 5
		Gray				*XX506		6	*XX296	1	O k 6
	3D Setup	3D Mode	Off			*XX230		0	*XX297	1	O k 0
			Auto			*XX230		4	*XX297	1	O k 4
		3D Sync Type	DLP-Link			*XX230		1	*XX298	1	O k 1
			3D Sync			*XX230		3	*XX298	1	O k 3
		3D Format	Auto			*XX405		0			
			Frame Packing			*XX405		7			
			SBS			*XX405		1			
			Top and Bottom			*XX405		2			
			Frame Sequential			*XX405		3			
		3D Sync Invert	Off			*XX231		1			
			On			*XX231		0			
		3D Sync Out	To Emitter			*XX232		0			
			To Next Projector			*XX232		1			
		Reset				*XX234		1			
	Reset					*XX509		1			
Display	Light Source Settings	Light Source Mode	Normal			*XX110		1	*XX241	1	O k 1
			Eco Mode			*XX110		2	*XX241	1	O k 2
			Constant Luminance			*XX110		6	*XX241	1	O k 5
			Constant Power			*XX110		7	*XX241	1	O k 6
		Brightness Level	10%-100%			*XX326		10~100	*XX381	1	O k 10~100
	Gaming Mode	Off				*XX220		0	*XX133	1	O k 0
		On				*XX220		1	*XX133	1	O k 1
	Aspect Ratio	4:3				*XX60		1	*XX127	1	O k 1
		16:9				*XX60		2	*XX127	1	O k 2
		21:9				*XX60		16	*XX127	1	O k 16
		LBX				*XX60		5	*XX127	1	O k 5
		Auto				*XX60		7	*XX127	1	O k 7
		Native				*XX60		6	*XX127	1	O k 6
	Digital Zoom	80 ~ 180				*XX15		80~180	*XX543	9	O k 80~180
	Image Shift	Horizontal	0 ~ 100			*XX63		0~100	*XX543	1	O k 0~100
		Vertical	0 ~ 100			*XX64		0~100	*XX543	2	O k 0~100
	Geometric Correction	V Keystone	0 ~ 40			*XX66		0~40	*XX543	3	O k 0~40
		H Keystone	0 ~ 40			*XX65		0~40	*XX543	4	O k 0~40
		4-Corner	Top Left	right (0 ~ 1152)	0	*XX59		1	*XX58	1	O k 0~1152
				left (0 ~ 1152)	0	*XX59		2	*XX58	1	O k 0~1152
				up (0 ~ 648)	0	*XX59		3	*XX58	2	O k 0~648
				down (0 ~ 648)	0	*XX59		4	*XX58	2	O k 0~648
			Top Right	right (2688 ~ 3839)	3839	*XX59		5	*XX58	3	O k 2688~3839
				left (2688 ~ 3839)	3839	*XX59		6	*XX58	3	O k 2688~3839
				up (0 ~ 648)	0	*XX59		7	*XX58	4	O k 0~648
				down (0 ~ 648)	0	*XX59		8	*XX58	4	O k 0~648
			Bottom Left	right (0 ~ 1152)	0	*XX59		9	*XX58	5	O k 0~1152
				left (0 ~ 1152)	0	*XX59		10	*XX58	5	O k 0~1152
				up (1512 ~ 2159)	2159	*XX59		11	*XX58	6	O k 1512~2159
				down (1512 ~ 2159)	2159	*XX59		12	*XX58	6	O k 1512~2159
			Bottom Right	right (2688 ~ 3839)	3839	*XX59		13	*XX58	7	O k 2688~3839
				left (2688 ~ 3839)	3839	*XX59		14	*XX58	7	O k 2688~3839
				up (1512 ~ 2159)	2159	*XX59		15	*XX58	8	O k 1512~2159
				down (1512 ~ 2159)	2159	*XX59		16	*XX58	8	O k 1512~2159
		Warping	Off			*XX142		0	*XX380	1	O k 0
			On			*XX142		3	*XX380	1	O k 3
		Warping Adjustment	(Adjust Pattern)								
		Grid Color	Green			*XX143		1	*XX379	1	O k 1
			Magenta			*XX143		2	*XX379	1	O k 2
			Red			*XX143		3	*XX379	1	O k 3
			Cyan			*XX143		4	*XX379	1	O k 4
		Reset				*XX561		1			

Note: *Some commands are not supported, it depends on models.*

ADDITIONAL INFORMATION

						Write Command			Read Command		
						Command			Command		
Level 1	Level 2	Level 3	Level 4	Level 5	n value	CMD	Space	Set Para.	CMD	CMD Value	Pass
	Edge Mask	0 ~ 10				*XX61		0~10	*XX378	1	O k 0~10
	Freeze Screen (CLI Only)	Unfreeze				*XX004		0	*XX377	1	O k 0
		Freeze				*XX004		1	*XX377	1	O k 1
	Reset					*XX173		1			
Device Setup	Test Pattern	Off				*XX195		0			
		Green Grid				*XX195		3			
		Magenta Grid				*XX195		4			
		White Grid				*XX195		1			
		White				*XX195		2			
		Black				*XX195		11			
		Red				*XX195		5			
		Green				*XX195		6			
		Blue				*XX195		7			
		Yellow				*XX195		8			
		Magenta				*XX195		9			
		Cyan				*XX195		10			
		ANSI Contrast 4x4				*XX195		14			
		Color bar				*XX195		13			
		4K Full screen				*XX195		16			
	Projection Orientation	Ceiling	Auto			*XX523		3	*XX370	1	O k 3
			On			*XX523		1	*XX370	1	O k 1
			Off			*XX523		0	*XX370	1	O k 0
		Rear	Off			*XX524		0	*XX371	1	O k 0
			On			*XX524		1	*XX371	1	O k 1
	Language	English				*XX70		1	*XX299	1	O k 1
		Deutsch				*XX70		2	*XX299	1	O k 2
		Français				*XX70		3	*XX299	1	O k 3
		Italiano				*XX70		4	*XX299	1	O k 4
		Español				*XX70		5	*XX299	1	O k 5
		Português				*XX70		6	*XX299	1	O k 6
		Polski				*XX70		7	*XX299	1	O k 7
		Nederlands				*XX70		8	*XX299	1	O k 8
		Norsk				*XX70		10	*XX299	1	O k 10
		繁體中文				*XX70		13	*XX299	1	O k 13
		简体中文				*XX70		14	*XX299	1	O k 14
		日本語				*XX70		15	*XX299	1	O k 15
		한국어				*XX70		16	*XX299	1	O k 16
		Русский				*XX70		17	*XX299	1	O k 17
		Magyar				*XX70		18	*XX299	1	O k 18
		ไทย				*XX70		21	*XX299	1	O k 21
	Menu Settings	Menu Location	Top Left			*XX72		1			
			Top Right			*XX72		2			
			Center			*XX72		3			
			Bottom Left			*XX72		4			
			Bottom Right			*XX72		5			
		Menu Timer	Off			*XX515		0	*XX382	1	O k 0
			5s			*XX515		1	*XX382	1	O k 1
			10s			*XX515		3	*XX382	1	O k 3
			20s			*XX515		7	*XX382	1	O k 7
			30s			*XX515		5	*XX382	1	O k 5
			60s			*XX515		6	*XX382	1	O k 6
		Information Hide	Off			*XX102		0	*XX383	1	O k 0
			On			*XX102		1	*XX383	1	O k 1
	High Altitude	Off				*XX101		0	*XX150	22	O k 0
		On				*XX101		1	*XX150	22	O k 1
	Lens Settings	Focus	+			*XX308		1			
			-			*XX308		2			
		Zoom	+			*XX307		1			
			-			*XX307		2			
		Lens Function	Lock			*XX349		1	*XX545	4	O k 0
			Unlock			*XX349		2	*XX545	4	O k 1
		Lens Shift	Up			*XX84		3			
			Down			*XX84		4			
			Left			*XX84		5			
			Right			*XX84		6			
		Lens Calibration				*XX525		1			
		Lens Shift Memory	Save Memory	Memory 1 ~ Memory 5		*XX360		1~5			
			Apply Memory	Memory 1 ~ Memory 5		*XX359		1~5	*XX384	1	O k 1~5
			Clear Memory			*XX361		1			
		Reset				*XX175		1			
	Schedule (CLI Only)	Date and Time							*XX243	1	O K YYYYMMDDhhmm (202107051750)
		Schedule Mode	Off			*XX284		0	*XX244	1	O K 0
			On			*XX284		1	*XX244	1	O K 1
		View Today	Monday / Tuesday / Wednesday / Thursday / Friday / Saturday / Sunday						*XX243	2	O K d=2=Tuesday d=3=Wednesday d=4=Thursday d=5=Friday d=6=Saturday d=7=Sunday
		Reset Schedule				*XX284		9			
	Power Settings	Direct Power On	Off			*XX105		0	*XX385	1	O k 0
			On			*XX105		1	*XX385	1	O k 1
		Signal Power On	Off			*XX113		0	*XX385	2	O k 0
			On			*XX113		1	*XX385	2	O k 1
		Auto Power Off (min.)	0, 2 ~ 180			*XX106		0~180	*XX387	1	O k 0~180
		Sleep Timer (min.)	0 ~ 960			*XX107		0~960	*XX388	1	O k 0~960
		Power Mode (Standby)	Eco			*XX114		0	*XX150	16	O k 0
			Active			*XX114		1	*XX150	16	O k 1
			Communication			*XX114		3	*XX150	16	O k 3
		12V Trigger	Off			*XX192		0	*XX389	1	O k 0
			On			*XX192		1	*XX389	1	O k 1
		Reset				*XX177		1			
	DMS								*XX247	1	O k a=0 without bind a=1 Binded
	Shutter	Startup	Shutter Off			*XX269		0	*XX390	1	O k 0
			Shutter On			*XX269		1	*XX390	1	O k 1
	Security	Security	Off			*XX78		0~nnnn	*XX391	1	O k 0
			On			*XX78		1~nnnn	*XX391	1	O k 1
		Security Timer	Month	0 ~ 35		*XX537		00~35	*XX544	1	O k 00~35
			Day	0 ~ 29		*XX538		00~29	*XX544	2	O k 00~29
			Hour	0 ~ 23		*XX539		00~23	*XX544	3	O k 00~23
						*XX77		~MMDDHH			
		Change Password				*XX406		nnnn~nnnn			

Note: *Some commands are not supported, it depends on models.*

ADDITIONAL INFORMATION

						Write Command			Read Command		
						Command			Command		
Level 1	Level 2	Level 3	Level 4	Level 5	n value	CMD	space	Set Para.	CMD	CMD Value	Pass
Device Setup	Keypad Lock	Off				*XX103		0	*XX392	1	O k 0
		On				*XX103		1	*XX392	1	O k 1
	Keypad LED Settings	Off				*XX362		0	*XX393	1	O k 0
		On				*XX362		1	*XX393	1	O k 1
	Startup Logo	Change Logo	Default			*XX82		1	*XX395	1	O k 1
			Neutral			*XX82		3	*XX395	1	O k 3
	Background Color	None				*XX104		0	*XX396	1	O k 0
		Blue				*XX104		1	*XX396	1	O k 1
		Red				*XX104		3	*XX396	1	O k 3
		Green				*XX104		4	*XX396	1	O k 4
		Grey				*XX104		6	*XX396	1	O k 6
		White				*XX104		5	*XX396	1	O k 5
		Logo				*XX104		7	*XX396	1	O k 7
	User Data	Save all settings	Memory 1 ~ Memory 5			*XX258		1~5			
		Load all settings	Memory 1 ~ Memory 5			*XX259		1~5	*XX397	1	O k 1~5
	System Update	Auto	Off			*XX168		0	*XX158	1	O k 0
			On			*XX168		1	*XX158	1	O k 1
		Auto Download	Off			*XX168		3	*XX398	1	O k 0
			On			*XX168		4	*XX398	1	O k 1
		Update				*XX168		9			
	Device Reset	Reset OSD				*XX546		1			
		Reset All Settings				*XX112		1			
		Reset Selective	Image			*XX509		1			
			Display			*XX173		1			
			Setup			*XX179		1			
			Input			*XX178		1			
			Audio			*XX180		1			
			Communication			*XX181		1			
Input Setup	Auto Source	Off				*XX563		0	*XX372	1	O k 0
		On				*XX563		1	*XX372	1	O k 1
	Quick Resync	Off				*XX315		0	*XX373	1	O k 0
		On				*XX315		1	*XX373	1	O k 1
	Active Inputs	[None]							*XX121	1	O k 0
		HDMI 1				*XX12		1	*XX121	1	O k 7
		HDMI 2				*XX12		15	*XX121	1	O k 8
		HDBaseT				*XX12		21	*XX121	1	O k 16
	EDID Settings	HDMI 1 EDID	1.4			*XX236		1	*XX374	1	O k 1
			2			*XX236		2	*XX374	1	O k 2
		HDMI 2 EDID	1.4			*XX237		1	*XX375	1	O k 1
			2			*XX237		2	*XX375	1	O k 2
		HDBaseT EDID	1.4			*XX238		1	*XX376	1	O k 1
			2			*XX238		2	*XX376	1	O k 2
	HDMI Out	HDMI 1				*XX309		5			
		HDMI 2				*XX309		6			
	Reset					*XX178		1			
Audio	Volume	0 ~ 10				*XX81		0~10	*XX120	1	O k 0~10
	Mute	Off				*XX03		0	*XX356	1	O k 0
		On				*XX03		1	*XX356	1	O k 1
	Audio Output	Auto				*XX510		3	*XX399	1	O k 3
		Internal Speaker				*XX510		4	*XX399	1	O k 4
		Line Out				*XX510		5	*XX399	1	O k 5
	Reset					*XX180		1			
Communication	Device ID	0 ~ 99				*XX79		00~99	*XX558	1	O k 00~99
	IR Function	Front	Off			*XX11		4	*XX542	1	O k 0
			On			*XX11		5	*XX542	1	O k 1
		Top	Off			*XX11		6	*XX542	2	O k 0
			On			*XX11		7	*XX542	2	O k 1
		HDBaseT	Off			*XX11		10	*XX542	3	O k 0
			On			*XX11		9	*XX542	3	O k 1
	Remote Settings	Remote Code	0 ~ 99			*XX350		00~99	*XX138	1	O k 0~99
		Quick Switch Code	Off			*XX314		0	*XX138	3	O k 0
			1 ~ 9			*XX314		1~9	*XX138	3	O k 1~9

Note: *Some commands are not supported, it depends on models.*

ADDITIONAL INFORMATION

Level 1	Level 2	Level 3	Level 4	Level 5	n value	Write Command: Command: CMD	Write Command: Command: Space	Write Command: Command: Set Para.	Read Command: Command: CMD	Read Command: Command: CMD Value	Read Command: Pass
Communication	Remote Settings	User 1	HDMI 1			*XX117		8	*XX394	1	Ok 8
			HDMI 2			*XX117		9	*XX394	1	Ok 9
			Color Matching			*XX117		13	*XX394	1	Ok 13
			Color Temperature			*XX117		4	*XX394	1	Ok 4
			Projection Orientation			*XX117		14	*XX394	1	Ok 14
			Light Source Mode			*XX117		15	*XX394	1	Ok 15
			Freeze Screen			*XX117		17	*XX394	1	Ok 17
			Network setup			*XX117		20	*XX394	1	Ok 20
			Reset Selective			*XX117		21	*XX394	1	Ok 21
		User 2	HDMI 1			*XX118		8	*XX394	2	Ok 8
			HDMI 2			*XX118		9	*XX394	2	Ok 9
			Color Matching			*XX118		13	*XX394	2	Ok 13
			Color Temperature			*XX118		4	*XX394	2	Ok 4
			Projection Orientation			*XX118		14	*XX394	2	Ok 14
			Light Source Mode			*XX118		15	*XX394	2	Ok 15
			Freeze Screen			*XX118		17	*XX394	2	Ok 17
			Network setup			*XX118		20	*XX394	2	Ok 20
			Reset Selective			*XX118		21	*XX394	2	Ok 21
	LAN	LAN Interface	RJ-45			*XX460		1	*XX386	1	Ok 1
			HDBaseT			*XX460		2	*XX386	1	Ok 2
		Network Status	(read only) Connected						*XX87	1	Ok 1
			(read only) Disconnected						*XX87	1	Ok 0
		MAC Address	(read only)						*XX555	1	Ok nn:nn:nn:nn:nn:nn
		DHCP	Off			*XX461		0	*XX150	17	Ok 0
			On			*XX461		1	*XX150	17	Ok 1
		IP Address	- - - . - - - . - - - . - - -						*XX87	3	Ok nnn.nnn.nnn.nnn
		Subnet Mask	- - - . - - - . - - - . - - -						*XX87	4	Ok nnn.nnn.nnn.nnn
		Gateway	- - - . - - - . - - - . - - -						*XX87	5	Ok nnn.nnn.nnn.nnn
		DNS 1	- - - . - - - . - - - . - - -						*XX87	6	Ok nnn.nnn.nnn.nnn
		DNS 2	- - - . - - - . - - - . - - -						*XX87	7	Ok nnn.nnn.nnn.nnn
		Apply				*XX462		9			
		Reset				*XX462		1			
	Control	Crestron	Off			*XX454		0	*XX441	1	Ok 0
			On			*XX454		1	*XX441	1	Ok 1
		IP Address	- - - . - - - . - - - . - - -			*XX465		1 ~nnn.nnn.nnn.nnn	*XX441	2	Ok nnn.nnn.nnn.nnn
		IPID	2-255			*XX466		1 ~nnn	*XX441	3	Ok 2-255
		Port	0~65535			*XX467		1 ~nnnnn	*XX441	4	Ok 0~65535
		Crestron Setup Apply				*XX454		9			
		PJ Link	Off			*XX456		0	*XX440	2	Ok 0
			On			*XX456		1	*XX440	2	Ok 1
		Extron	Off			*XX455		0	*XX442	1	Ok 0
			On			*XX455		1	*XX442	1	Ok 1
		AMX	Off			*XX457		0	*XX444	1	Ok 0
			On			*XX457		1	*XX444	1	Ok 1
		Telnet	Off			*XX458		0	*XX445	1	Ok 0
			On			*XX458		1	*XX445	1	Ok 1
		HTTP	Off			*XX459		0	*XX446	1	Ok 0
			On			*XX459		1	*XX446	1	Ok 1
	Baud Rate	9600							*XX153	1	Ok 9600
		19200							*XX153	1	Ok 19200
		38400							*XX153	1	Ok 38400
		57600							*XX153	1	Ok 57600
		115200							*XX153	1	Ok 115200
	Reset					*XX181		1			
Information	Regulatory								*XX151	3	Ok nnnnnnnn
	Serial Number								*XX353	1	Ok nnnnnnnnnnnnnnn
	Source Info.	Source							*XX150	3	Ok nnn..nn (e.g. OkHDMI)
		Resolution							*XX150	4	Ok nnn..nn (e.g.Ok1920x1080)
		Signal Format							*XX150	5	Ok a=nnnnnnnnnnnn (eg. BT.2020 HDR)
		Pixel Clock							*XX150	6	Ok nnn..nn
		Refresh Rate							*XX150	19	Ok nnn..nn
		Color Bit Depth							*XX156	1	Ok a=nbit nnn (e.g. 8bit RGB)
		Color Gamut							*XX156	3	Ok a=string (e.g. BT.2020 HDR)
		Color Space							*XX295	1	Ok a=1 Auto a=2 RGB \ RGB (0-255)* a=3 YUV a=4 RGB(16 - 235)* a=5 Rec709 a=6 Rec601
		Picture Mode							*XX123	1	Ok a=0 None a = 1 Presentation a = 2 Bright a = 3 Cinema a = 4 sRGB(Reference/Standard) a = 5 User 1 a = 6 User 2 / 3D User a = 9 3D a = 10 DICOM SIM. a = 14 Vivid (Photo) a= 19 Blending a= 21 HDR a=25 HLG
	Light Source Mode										
	Device ID					*XX79		00~99	*XX558	1	Ok 00~99
	Remote Code					*XX350		00~99	*XX138	1	Ok 00~99
	System Status	Standby Mode							*XX150	16	Ok a=1 Active a=0 Eco. a=3 Communication
		Projection Hours							*XX150	21	Ok nnnnn (nnnnn= hour digits)
		Total Hours							*XX108	1	Ok nnnnn (nnnnn= hour digits)
		Normal							*XX108	3	Ok nnnnn (nnnnn= hour digits)
		Eco Mode							*XX108	4	Ok nnnnn (nnnnn= hour digits)
		Custom Power							*XX108	7	Ok nnnnn (nnnnn= hour digits)
		Ambient Temp.							*XX150	18	Ok nnn..nn (e.g. Ok48)
		System Temp.							*XX352	1	Ok nnn..nn (e.g. Ok48)
	Control	Crestron							*XX441	1	Ok a=0 off ; a=1 On
		Extron							*XX442	1	Ok a=0 off ; a=1 On
		PJ Link							*XX440	2	Ok a=0 off ; a=1 On
		AMX							*XX444	1	Ok a=0 off ; a=1 On
		Telnet							*XX445	1	Ok a=0 off ; a=1 On
		HTTP							*XX446	1	Ok a=0 off ; a=1 On
	LAN	LAN Interface							*XX386	1	Ok a=1 RJ45 ; a=2 HDBaseT
		MAC Address							*XX555	1	Ok nn:nn:nn:nn:nn:nn
		Network Status							*XX87	1	Ok a=0 Disconnected a=1 Connected
		DHCP							*XX150	17	Ok 0=off, 1=on
		IP Address							*XX87	3	Ok nn:nn:nn:nn:nn:nn
		Subnet Mask							*XX87	4	Ok nnn.nnn.nnn.nnn
		Gateway							*XX87	5	Ok nnn.nnn.nnn.nnn
		DNS 1							*XX87	6	Ok nnn.nnn.nnn.nnn
		DNS 2							*XX87	7	Ok nnn.nnn.nnn.nnn
	FW Version	Main Version							*XX122	1	Ok Pnn.nn.nn
		F-MCU Version									
		A-MCU Version									
		LAN Version									
		Formatter Version									
		HDBaseT Version									

Note: *Some commands are not supported, it depends on models.*

ADDITIONAL INFORMATION

						Write Command			Read Command		
						Command			Command		
Level 1	Level 2	Level 3	Level 4	Level 5	n value	CMD	Space	Set Para.	CMD	CMD Value	Pass
When projector in standby, RS232 have to support											
Power Off						*XX00		0	*XX124	1	O k 0
Power On						*XX00		1	*XX124	1	O k 1
Power On with password						*XX00		1 ~nnnn			
Information	Info String								*XX150	1	O k abbbbbccddddee (Note*1)
Light Source Hours									*XX108	1	O k nnnnn (nnnnn= hour digits)
Other Items											
Power Off						*XX00		0	*XX124	1	O k 0
Power On						*XX00		1	*XX124	1	O k 1
Power On with password						*XX00		1 ~nnnn			
Re-Sync						*XX01		1			
AV Mute	Off					*XX02		0	*XX355	1	O k 0
	On					*XX02		1	*XX355	1	O k 1
Mute	Off					*XX03		0	*XX356	1	O k 0
	On					*XX03		1	*XX356	1	O k 1
Freeze	Unfreeze					*XX04		0	*XX357	1	O k 0
	Freeze					*XX04		1	*XX357	1	O k 1
3D Sync Out	To Emitter					*XX232		0			
	To Next Projector					*XX232		1			
Output 3D state	2D								*XX130	1	O k 0
	3D								*XX130	1	O k 1
System Auto Send	Standby Mode										I N F O 0
	Warming up										I N F O 1
	Cooling Down										I N F O 2
	Out of Range										I N F O 3
	Over Temperature										I N F O 7
	Cover Open										I N F O 9
	Color Wheel Unexpected Stop										I N F O 12
	FAN 1 Lock										I N F O 14
	FAN 2 Lock										I N F O 15
	FAN 3 Lock										I N F O 16
	FAN 4 Lock										I N F O 17
	FAN 5 Lock										I N F O 18
	LD NTC (1) Over Temperature										I N F O 21
	LD NTC (2) Over Temperature										I N F O 22
	High Ambient Temperature										I N F O 23
	System Ready										I N F O 24
	FAN 6 Lock										I N F O 26
	FAN 7 Lock										I N F O 27
	FAN 8 Lock										I N F O 28
System Temperature Level	Green/Normal								*XX155	1	O k 1
	Orange/Notice								*XX155	1	O k 2
	Red/Warning. About to trigger shutdown								*XX155	1	O k 3
Fan Status Level	Green/Normal								*XX159	1	O k 1
	Orange/Notice								*XX159	1	O k 2
	Red/Warning. About to trigger shutdown								*XX159	1	O k 3
Device Type	Projector								*XX149	1	O k 1
Model Name	Optoma UHD								*XX151	1	O k 6
OSD Lock	On					*XX239		1 ~nnnn	*XX229	1	O k 1
	Off					*XX239		2 ~nnnn	*XX229	1	O k 0
Regulatory Model									*XX151	3	O k DAZKBGZT DAZKBGZTST
Software Version									*XX122	1	O k nnnnnnn (Software Version)
LAN FW version									*XX357	1	O k nnnnnnn (LAN FW version)
Fan Speed	Fan 1 Speed	0000~9999							*XX351	0	O k 0000~9999
	Fan 2 Speed	0000~9999							*XX351	1	O k 0000~9999
	Fan 3 Speed	0000~9999							*XX351	2	O k 0000~9999
	Fan 4 Speed	0000~9999							*XX351	3	O k 0000~9999
	Fan 5 Speed	0000~9999							*XX351	4	O k 0000~9999
	Fan 6 Speed	0000~9999							*XX351	5	O k 0000~9999
	Fan 7 Speed	0000~9999							*XX351	6	O k 0000~9999
	Fan 8 Speed	0000~9999							*XX351	7	O k 0000~9999
System Temperature									*XX352	1	O k 0000~9999
Information	Info String								*XX150	1	O k abbbbbccddddee (Note*1)
	Native Resolution								*XX150	2	O k nnn..nn (e.g. Ok1920x1080)
	Main Source								*XX150	3	O k nnn..nn (e.g. OkHDMI)
	- Resolution								*XX150	4	O k nnn..nn (e.g.Ok1920x1080)
	- Signal Format								*XX150	5	O k nnn..nn
	- Pixel Clock								*XX150	6	O k nnn..nn
	- Horz Refresh								*XX150	7	O k nnn..nn
	- Vert Refresh								*XX150	8	O k nnn..nn
	Light Source Mode								*XX150	15	O k nnn..nn
	Standby Power Mode	Active							*XX150	16	O k 1
		Eco.							*XX150	16	O k 0
		Communication							*XX150	16	O k 3
	DHCP	Off							*XX150	17	O k 0
		On							*XX150	17	O k 1
	System Temperature								*XX150	18	O k nnn..nn (e.g. Ok48)
	Refresh rate								*XX150	19	O k nnn..nn (e.g. Ok60Hz)
Source Lock	On					*XX100		0			
	Off					*XX100		1			
Display message on the OSD						*XX210		nn...n (50 charactors)			
Filter Wheel Index						*XX528		0000~9999	*XX530	1	O k 0000~9999
Phosphor Wheel Index						*XX529		0000~9999	*XX531	1	O k 0000~9999
Remote Control Simulation											
Power						*XX140		1			
Power Off						*XX140		2			
Up						*XX140		10			
Left						*XX140		11			
Enter (for projection MENU)						*XX140		12			
Right						*XX140		13			
Down						*XX140		14			
V Keystone +						*XX140		15			
V Keystone -						*XX140		16			
Brightness						*XX140		19			
Menu						*XX140		20			
AV Mute						*XX140		24			
Contrast						*XX140		28			
Zoom +						*XX140		32			
Zoom -						*XX140		33			
Focus +						*XX140		34			
Focus -						*XX140		35			
Mode						*XX140		36			
Info						*XX140		40			
Re-sync						*XX140		41			
HDMI 1						*XX140		42			
HDMI 2						*XX140		43			
Source						*XX140		47			
1						*XX140		51			
2						*XX140		52			
3						*XX140		53			
4						*XX140		54			
5						*XX140		55			
6						*XX140		56			
7						*XX140		57			
8						*XX140		58			
9						*XX140		59			
0						*XX140		60			
Gamma						*XX140		61			
Lens H(left)						*XX140		64			
Lens H(Right)						*XX140		65			
Lens V(left)						*XX140		66			
Lens V(Right)						*XX140		67			
H Keystone +						*XX140		68			
H Keystone -						*XX140		69			
Hot Key (user1)(F1)						*XX140		70			
Hot Key (user2)(F2)						*XX140		71			
Pattern						*XX140		73			
Exit						*XX140		74			
Mute						*XX140		77			
Return						*XX140		82			

Note: *Some commands are not supported, it depends on models.*

ADDITIONAL INFORMATION

Power	Light Source Life					Input Source		Firmware Version				Display Mode	
a	b	b	b	b	b	c	c	d	d	d	d	e	e
a=0 Power Off a=1 Power On	Light Source Life = nnnn Calucalte by each mode formula					cc=00 None cc=01 DVI cc=02 VGA1 cc=03 VGA2 cc=04 S-Video cc=05 Video cc=06 BNC cc=07 HDMI 1 cc=08 HDMI 2 cc=09 Wireless cc=10 Compnent cc=11 Flash drive cc=12 Network Display(Presenter) cc=13 USB Display cc=14 HDMI 3 cc=15 DisplayPort cc=16 HDBaseT cc=17 Multimedia cc=18 Android cc=19 Slot in PC cc=20 HDMI Front cc=21 USB Type C1 cc=22 3G-SDI cc=23 3G-SDI 2 cc=24 HDMI 4 cc=25 USB Type C2		#	#	#	#	ee=00 None ee=01 Presentation (Old: Cinema) ee=02 Bright ee=03 Cinema (Old: Movie/Photo) ee=04 sRGB\Reference\Standard ee=05 User(1) ee=06 User2 ee=07 Blackboard ee=08 Classroom ee=09 3D ee=10 DICOM SIM. ee=11 Film ee=12 Game ee=13 Cinema ee=14 Vivid ee=15 ISF Day ee=16 ISF Night ee=17 ISF 3D ee=18 Blending ee=21 HDR ee=22 HDR SIM. ee=23 Super Bright ee=24 (Alexa auto check 2D/3D User) ee=25 HLG	

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