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PROJECTOR OWNER'S MANUAL

Optoma

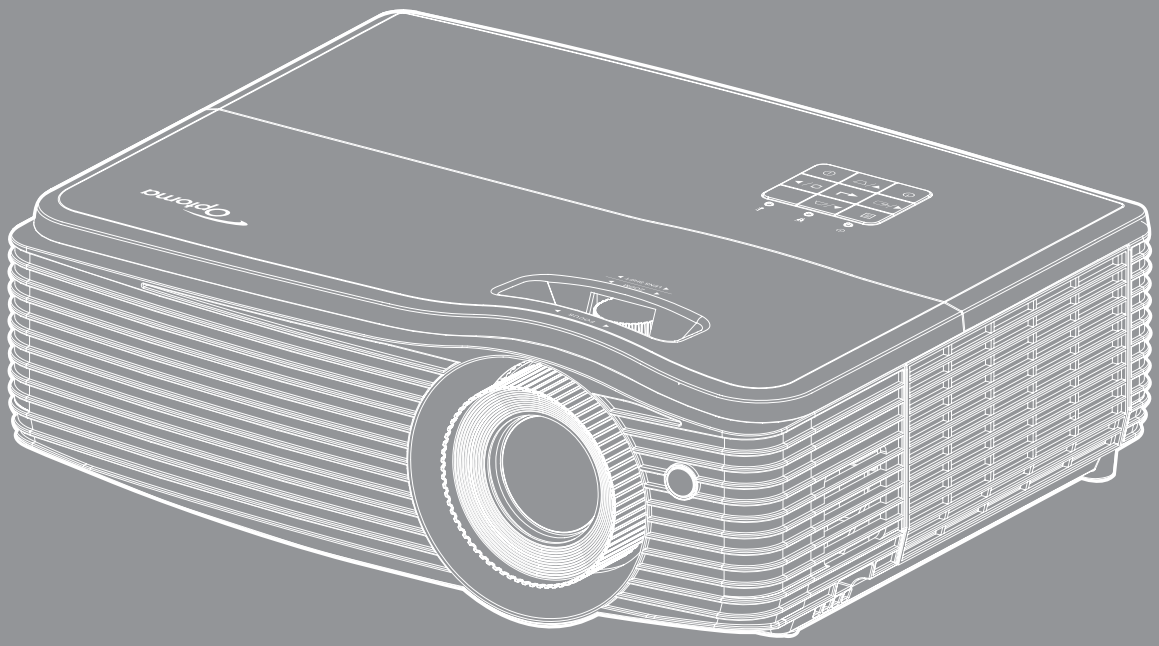
EH512

Need a replacement lamp for this projector?

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DLP® Projector



User manual

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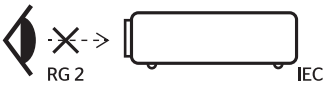
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SAFETY

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

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

Important Safety Instruction



- Do not stare into the beam, RG2.
  As with any bright source, do not stare into the direct beam, RG2 IEC 62471-5:2015.
- Do not block any ventilation openings. To ensure reliable operation of the projector and to protect from over heating, it is recommended to install the projector in a location that does not block ventilation. As an example, do not place the projector on a crowded coffee table, sofa, bed, etc. Do not put the projector in an enclosure such as a book case or a cabinet that restricts air flow.
- To reduce the risk of fire and/or electric shock, do not expose the projector to rain or moisture. Do not install near heat sources such as radiators, heaters, stoves or any other apparatus such as amplifiers that emits heat.
- Do not let objects or liquids enter the projector. They may touch dangerous voltage points and short out parts that could result in fire or electric shock.
- Do not use under the following conditions:
  - In extremely hot, cold or humid environments.
    (i) Ensure that the ambient room temperature is within 5°C ~ 40°C
    (ii) Relative humidity is 10% ~ 85%
  - In areas susceptible to excessive dust and dirt.
  - Near any appliance generating a strong magnetic field.
  - In direct sunlight.
- Do not use the projector in places where flammable gases or explosives gases may be present in the atmosphere. The lamp inside the projector becomes very hot during operation and the gases may ignite and result in a fire.
- 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 into straight into the projector lens during operation. The bright light may harm your eyes.
- When replacing the lamp, please allow the unit to cool down. Follow instructions as described on pages *54-55*.
- This projector will detect the life of the lamp itself. Please be sure to change the lamp when it shows warning messages.
- Reset the "Lamp Reset" function from the on-screen display "Setup lamp settings" menu after replacing the lamp module.
- 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.
- When the lamp is approaching to the end of its life time, the message "Lamp life exceeded." will show on the screen. Please contact your local reseller or service center to change the lamp as soon as possible.
- Turn off and unplug the power plug from the AC outlet before cleaning the product.
- Use a soft dry cloth with mild detergent to clean the display housing. Do not use abrasive cleaners, waxes or solvents to clean the unit.
- Disconnect the power plug from AC outlet if the product is not being used for a long period of time.

Note: *When the lamp reaches the end of its life, the projector will not turn back on until the lamp module has been replaced. To replace the lamp, follow the procedures listed under "Replacing the Lamp" section on pages 54-55.*

- 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.

3D Safety Information

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

Warning

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

Photosensitive Seizure Warning and Other Health Risks

- Some viewers may experience an epileptic seizure or stroke when exposed to certain flashing images or lights contained in certain Projector pictures or video games. If you suffer from, or have a family history of epilepsy or strokes, please consult with a medical specialist before using the 3D function.
- Even those without a personal or family history of epilepsy or stroke may have an undiagnosed condition that can cause photosensitive epileptic seizures.
- Pregnant women, the elderly, sufferers of serious medical conditions, those who are sleep deprived or under the influence of alcohol should avoid utilizing the unit's 3D functionality.

- If you experience any of the following symptoms, stop viewing 3D pictures immediately and consult a medical specialist: (1) altered vision; (2) light-headedness; (3) dizziness; (4) involuntary movements such as eye or muscle twitching; (5) confusion; (6) nausea; (7) loss of awareness; (8) convulsions; (9) cramps; and/ or (10) disorientation. Children and teenagers may be more likely than adults to experience these symptoms. Parents should monitor their children and ask whether they are experiencing these symptoms.
- Watching 3D projection may also cause motion sickness, perceptual after effects, disorientation, eye strain and decreased postural stability. It is recommended that users take frequent breaks to lessen the potential of these effects. If your eyes show signs of fatigue or dryness or if you have any of the above symptoms, immediately discontinue use of this device and do not resume using it for at least thirty minutes after the symptoms have subsided.
- Watching 3D projection while sitting too close to the screen for an extended period of time may damage your eyesight. The ideal viewing distance should be at least three times the screen height. It is recommended that the viewer's eyes are level with the screen.
- Watching 3D projection while wearing 3D glasses for an extended period of time may cause a headache or fatigue. If you experience a headache, fatigue or dizziness, stop viewing the 3D projection and rest.
- Do not use the 3D glasses for any other purpose than for watching 3D projection.
- Wearing the 3D glasses for any other purpose (as general spectacles, sunglasses, protective goggles, etc.) may be physically harmful to you and may weaken your eyesight.
- Viewing in 3D projection may cause disorientation for some viewers. Accordingly, DO NOT place your 3D PROJECTOR near open stairwells, cables, balconies, or other objects that can be tripped over, run into, knocked down, broken or fallen over.

Copyright

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Disclaimer

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Trademark Recognition

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

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

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

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

FCC

This device has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and receiver.
- Connect the device into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Notice: Shielded cables

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

Caution

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

Operation Conditions

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

1. This device may not cause harmful interference and

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

Notice: Canadian users

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

Remarque à l'intention des utilisateurs canadiens

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

Declaration of Conformity for EU countries

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

WEEE



Disposal instructions

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

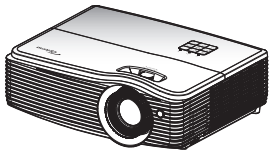
INTRODUCTION

Package Overview

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

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

Standard accessories



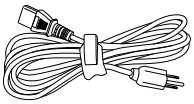
Projector



Remote Control



2x AAA batteries



Power cord

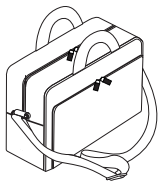
- ☑ CD User Manual *(1)
- ☑ Warranty Card *(2)
- ☑ Basic User Manual

Documentation

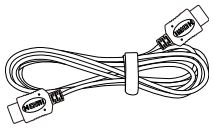
Note:

- *The remote control is shipped with the batteries.*
- **(1) For European User Manual please visit www.optomaeurope.com.*
- **(2) For European warranty information please visit www.optomaeurope.com.*

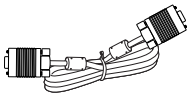
Optional accessories



Carry bag



HDMI cable



VGA cable

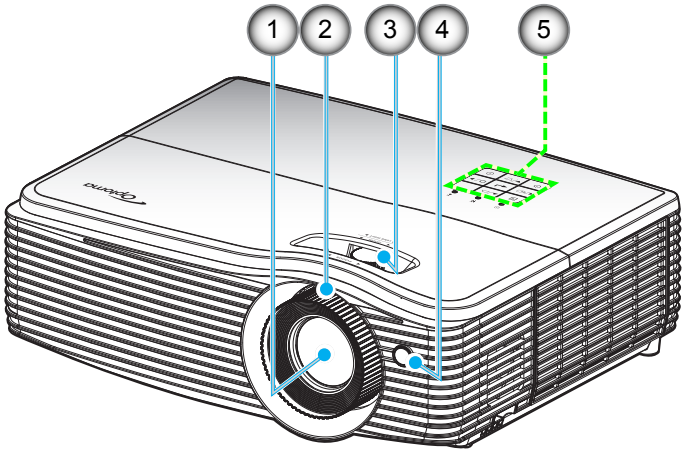


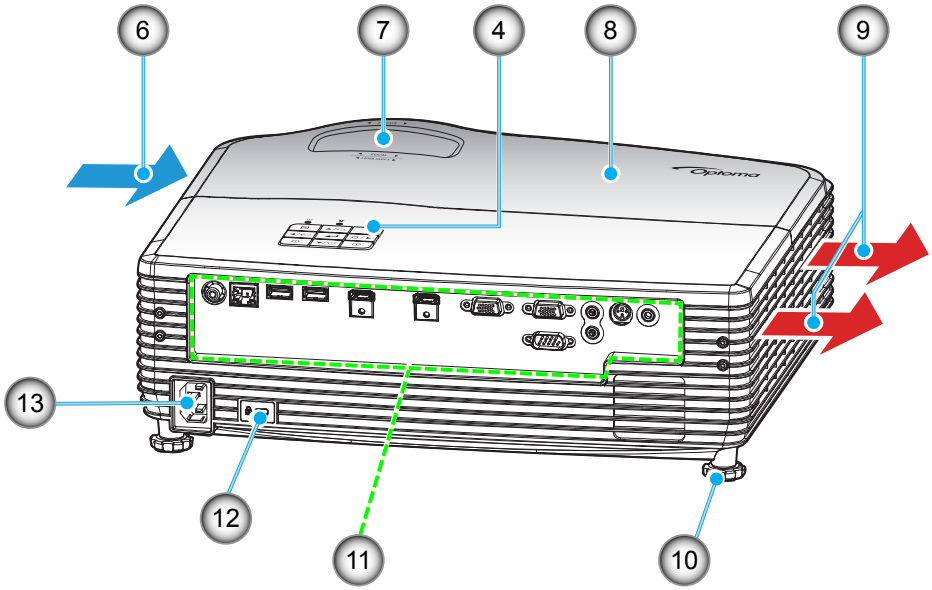
Lens cap

Note: *Optional accessories vary depending on model, specification and region.*

INTRODUCTION

Product Overview



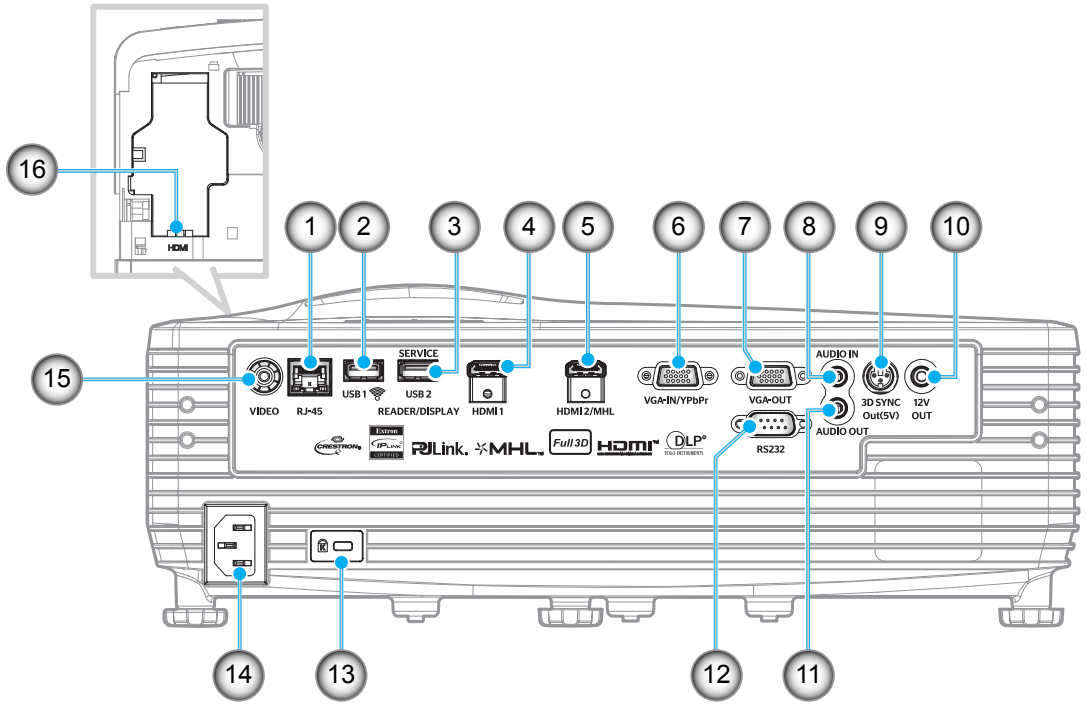


Note: *Do not block projector inlet or outlet air vents.*

No	Item	No	Item
1.	Lens	8.	Lamp Cover
2.	Focus Ring	9.	Ventilation (outlet)
3.	Lens Shift (vertical)	10.	Tilt-Adjustment Foot
4.	IR Receiver	11.	Input/Output Connectors
5.	Keypad	12.	Kensington™ Lock
6.	Ventilation (inlet)	13.	Power Socket
7.	Zoom Lever		

INTRODUCTION

Connections



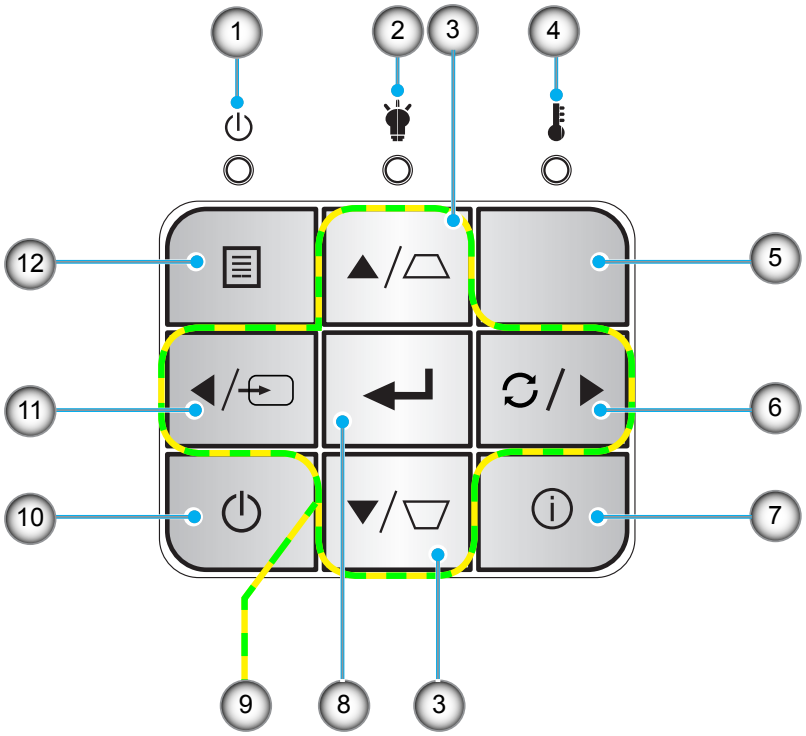
No	Item	No	Item
1.	RJ-45 connector	9.	3D Sync out (5V) connector
2.	USB Type A connector (Wi-Fi ready)	10.	12V Out connector
3.	USB Type A connector (USB display/USB reader/USB control)	11.	Audio-Out connector
4.	HDMI1 connector	12.	RS232 connector
5.	HDMI2 / MHL connector	13.	Kensington Lock
6.	VGA-In / YPbPr connector	14.	Power socket
7.	VGA-Out connector	15.	Video connector
8.	Audio-In connector	16.	HDMI3 connector

Note:

- *Remote mouse requires special remote.*
- *Availability of HDMI3 connector depends on models.*

INTRODUCTION

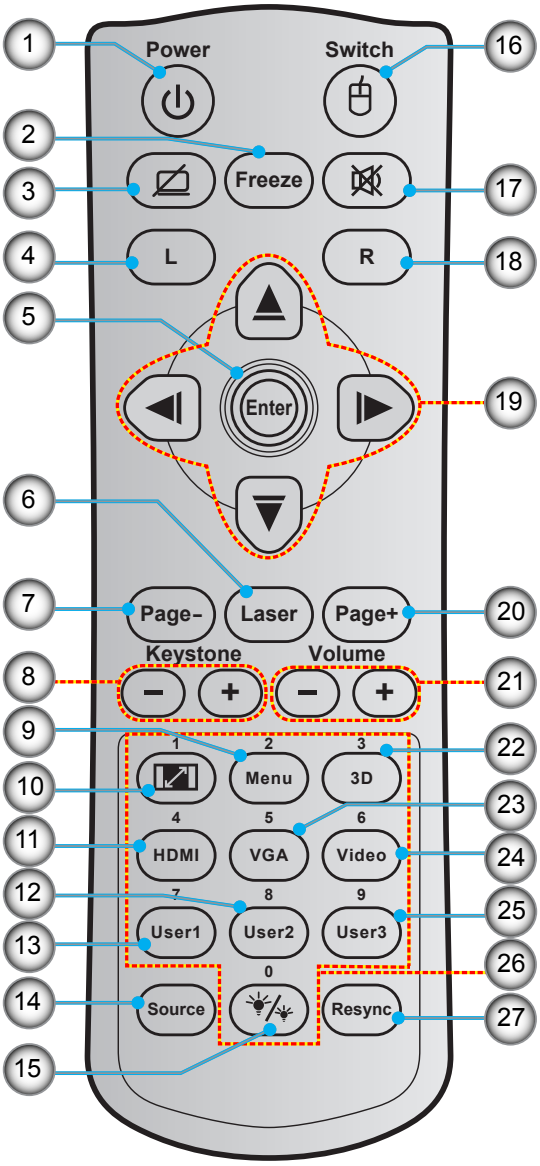
Keypad



No	Item	No	Item
1.	On / Standby LED	7.	Information
2.	Lamp LED	8.	Enter
3.	Keystone Correction (vertical)	9.	Four Directional Select Keys (▲, ►, ▼, ◄)
4.	Temp LED	10.	Power
5.	IR Receiver	11.	Source
6.	Re-Sync	12.	Menu

INTRODUCTION

Remote control



No	Item	No	Item
1.	Power On / Off	15.	Brightness Mode
2.	Freeze	16.	Mouse On / Off
3.	Display Blank / Audio Mute	17.	Mute
4.	Mouse Left Click	18.	Mouse Right Click
5.	Enter	19.	Four Directional Select Keys
6.	Laser	20.	Page +
7.	Page -	21.	Volume - / +
8.	Keystone - / +	22.	3D Menu On / Off
9.	Menu	23.	VGA
10.	Aspect Ratio	24.	Video
11.	HDMI	25.	User 3
12.	User 2	26.	Numeric Keypad (0-9)
13.	User 1	27.	Resync
14.	Source		

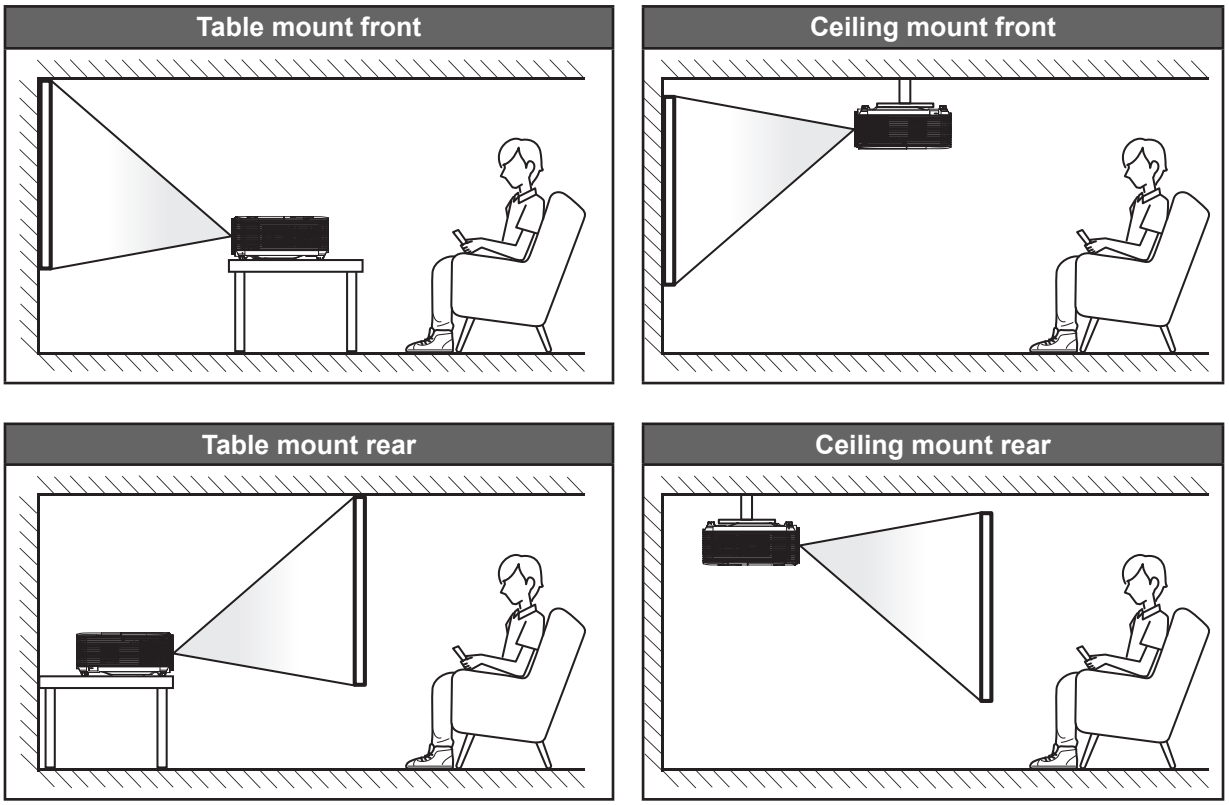
Note: *Some keys may have no function for models that do not support these features.*

SETUP AND INSTALLATION

Installing the projector

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

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



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

- How to determine projector location for a given screen size, please refer to distance table on pages *59~61*.
- How to determine screen size for a given distance, please refer to distance table on pages *59~61*.

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

IMPORTANT!

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

SETUP AND INSTALLATION

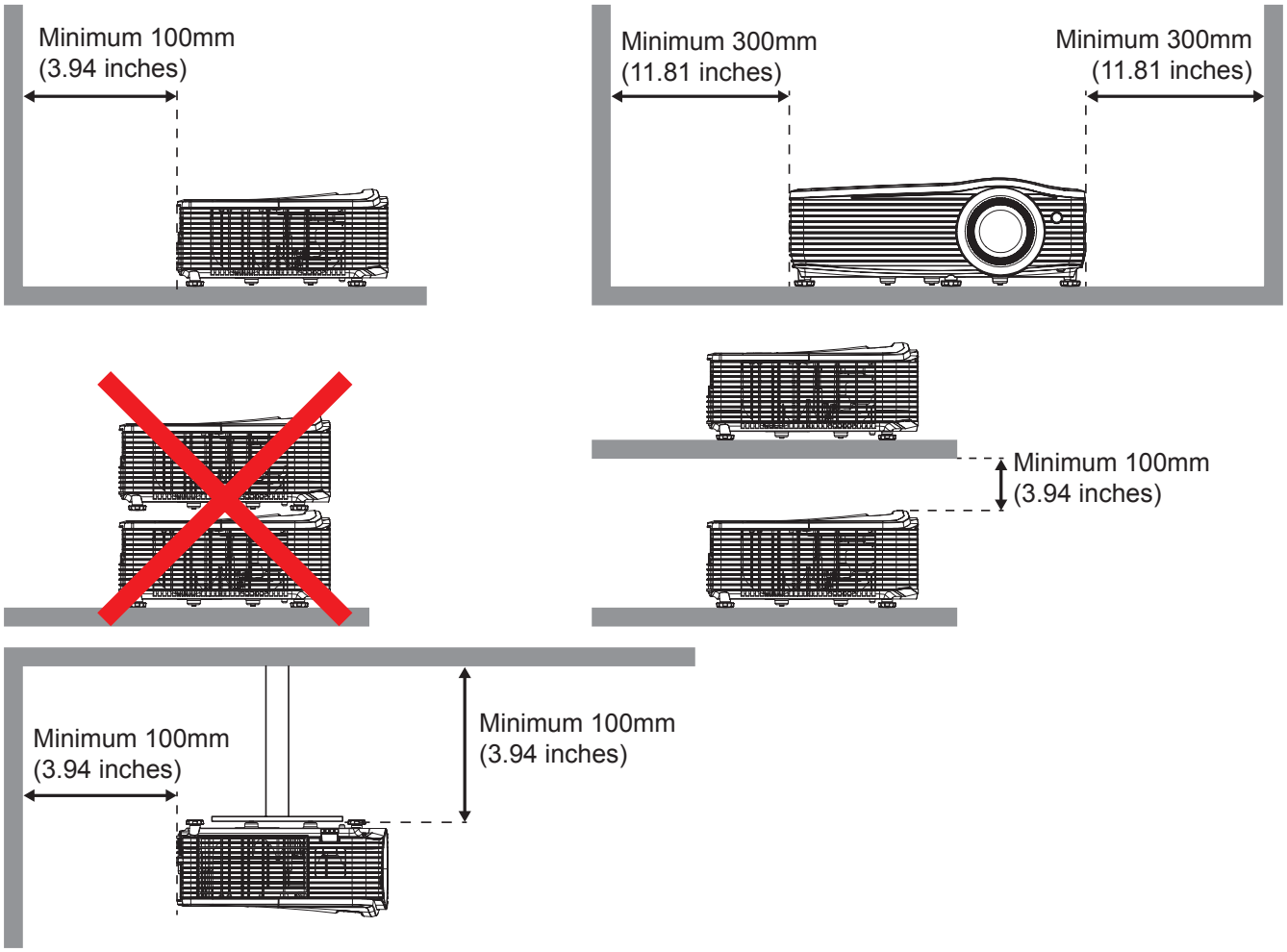
Projector installation notice

- Place the projector in a horizontal position.

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



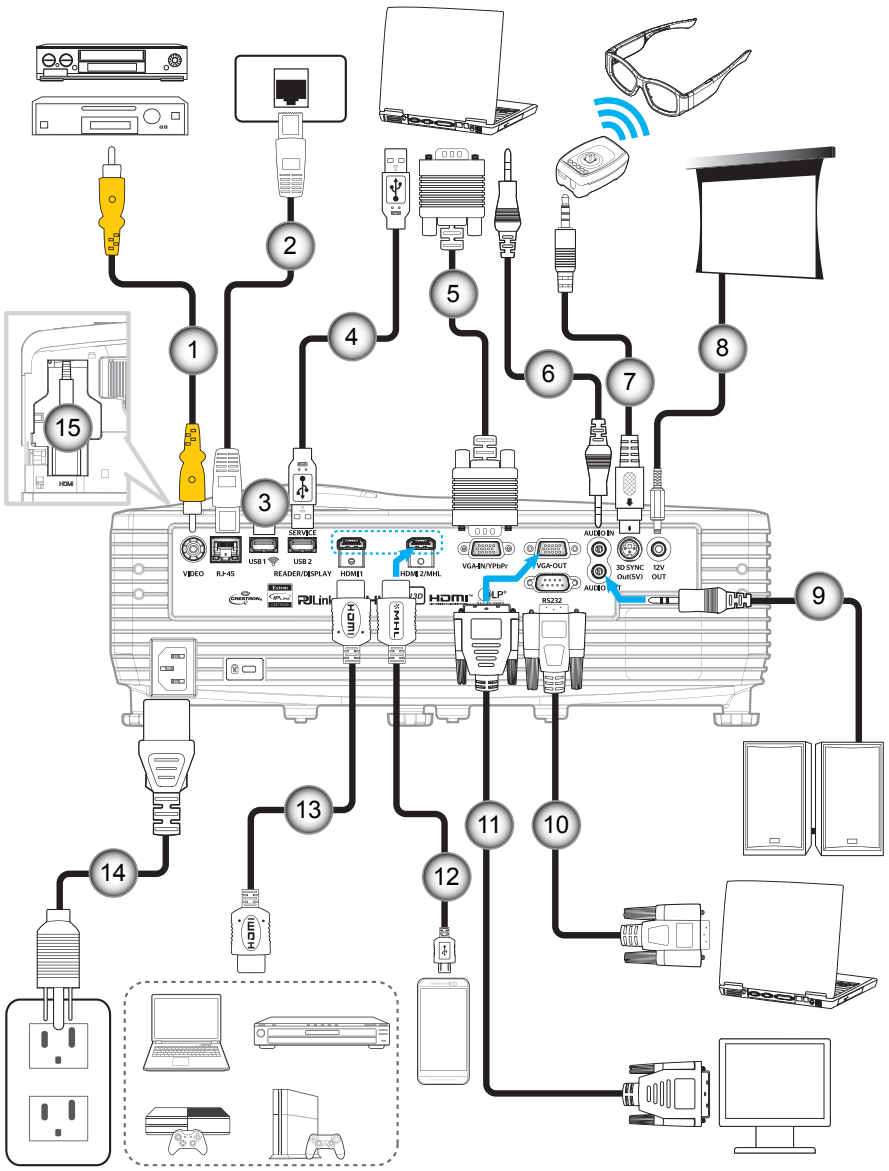
- Allow at least 30 cm clearance around the exhaust vent.



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

SETUP AND INSTALLATION

Connecting sources to the projector



No	Item	No	Item
1.	Video cable	9.	Audio Out cable
2.	RJ-45 cable	10.	RS232 cable
3.	Wi-Fi dongle	11.	VGA-Out cable
4.	USB cable	12.	MHL cable
5.	VGA-In cable	13.	HDMI cable
6.	Audio-In cable	14.	Power cord
7.	3D emitter cable	15.	HDMI dongle (*)
8.	12V DC Jack		

Note:

- *Due to size limit, we recommend using MHL powered HDMI dongles that are equal to or smaller than 87 x 35 x 10mm. However, if you are using both MHL and HDMI ports simultaneously, the MHL powered dongles should be equal to or smaller than 48 x 35 x 10mm.*
- *Alternatively, if your MHL powered dongle is larger than the dimensions suggested, use the extra HDMI port found on the back panel along with the USB port to power the dongle.*
- *(*) Availability of HDMI3 connector depends on models.*

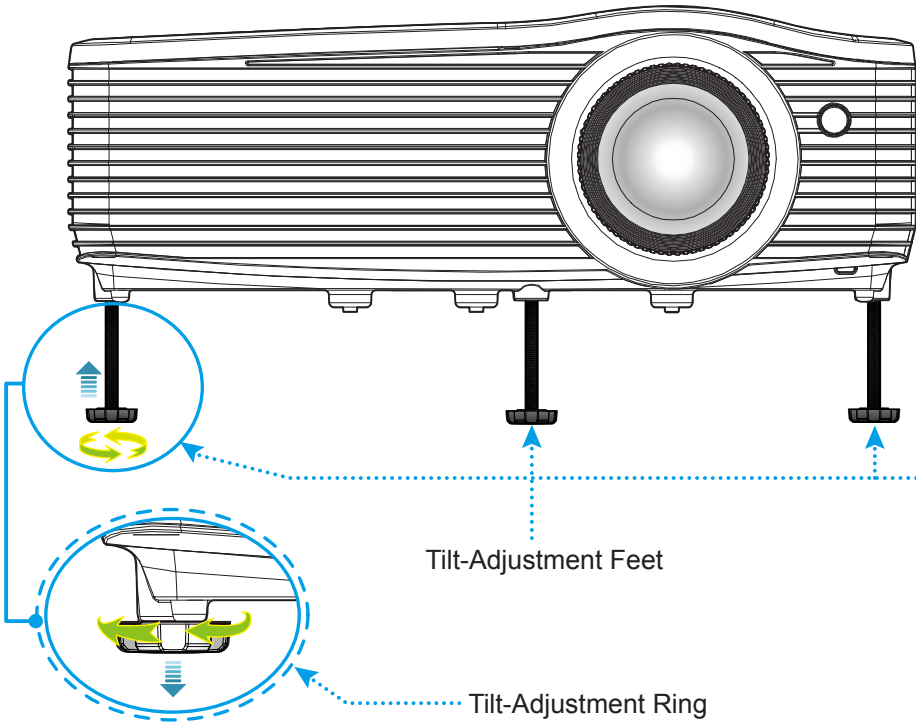
SETUP AND INSTALLATION

Adjusting the projector image

Image height

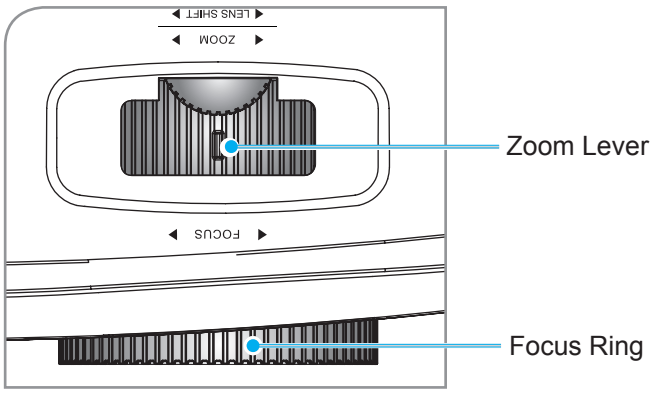
The projector is equipped with elevator feet for adjusting the image height.

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



Zoom and focus

- To adjust the image size, turn the zoom lever clockwise or counter-clockwise to increase or decrease the projected image size.
- To adjust the focus, turn the focus ring clockwise or counter-clockwise until the image is sharp and legible.



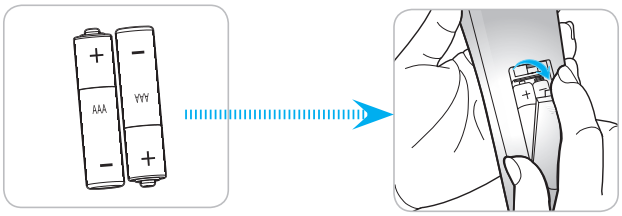
SETUP AND INSTALLATION

Remote setup

Installing / replacing the batteries

Two AAA size batteries are supplied for the remote control.

1. Remove the battery cover on the back of the remote control.
2. Insert AAA batteries into 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.

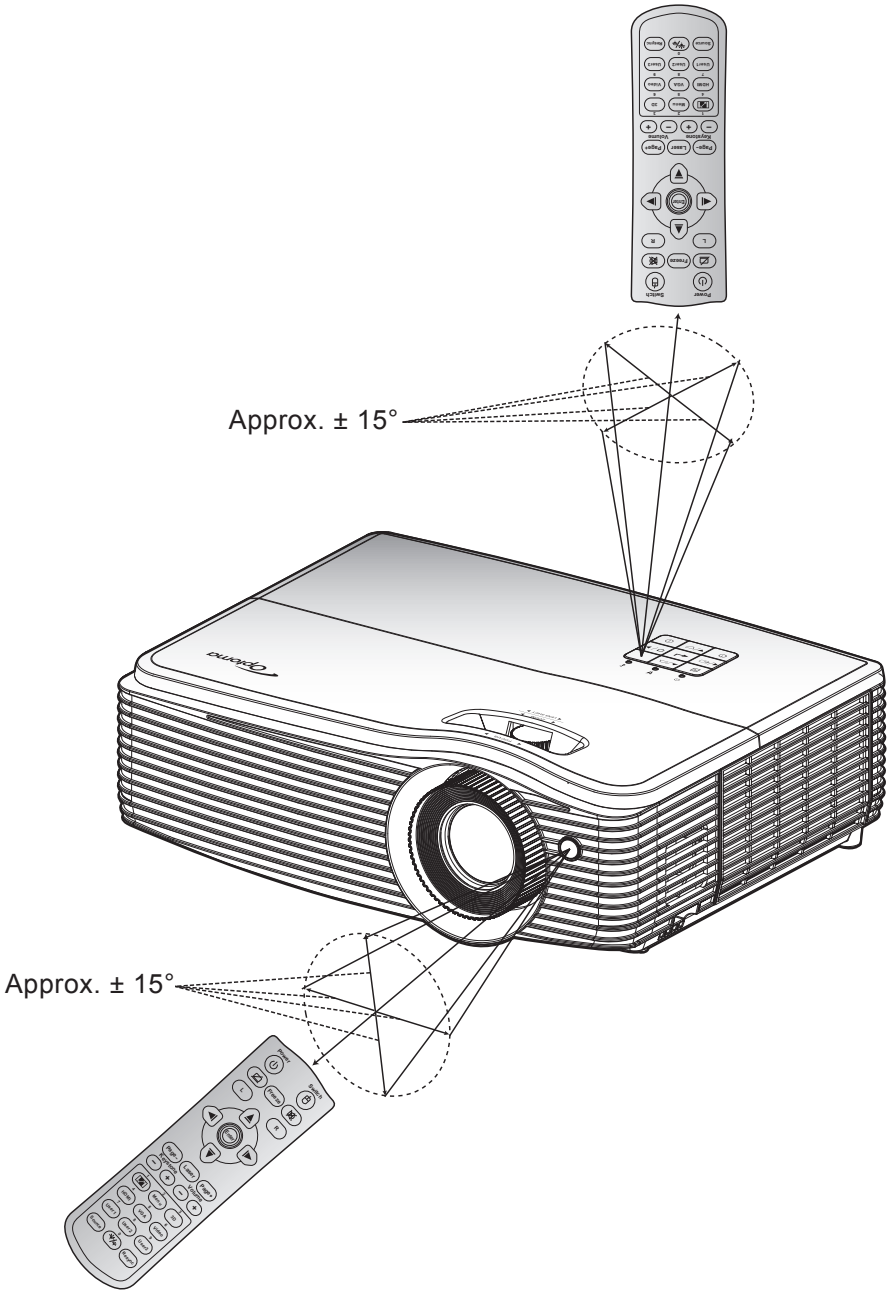
Effective range

Infra-Red (IR) remote control sensor is located on the top and front sides of the projector. Ensure to hold the remote control at an angle within 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 6 meters (~ 20 feet).

Note: *When pointing the remote control directly (0 degrees angle) on the IR sensor, the distance between the remote control and the sensor should not be longer than 8 meters (~ 26 feet).*

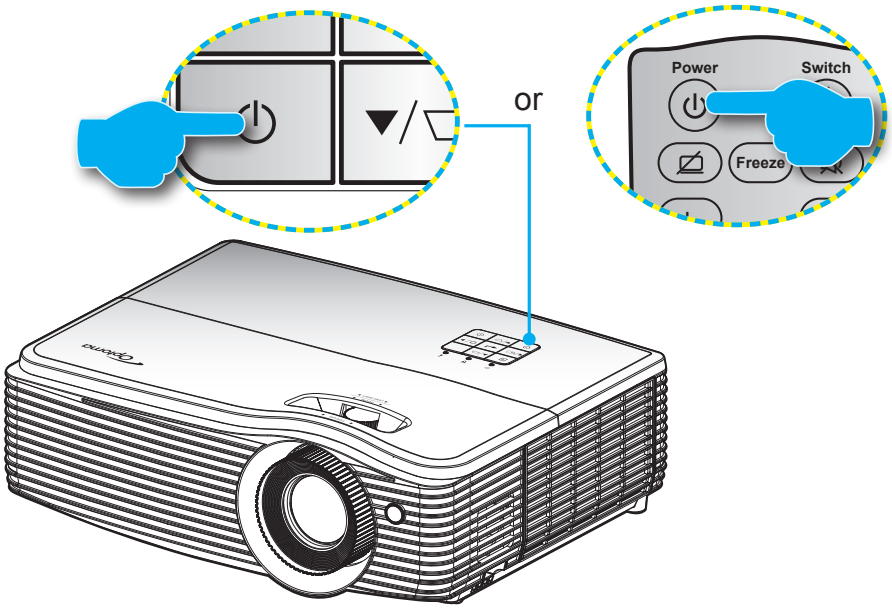
- Make sure that there are no obstacles between the remote control and the IR sensor on the projector that might obstruct the infra-red beam.
- Make sure the IR transmitter of the remote control is not being shined by sunlight or fluorescent lamps directly.
- Please keep the remote controller away from fluorescent lamps for over 2m or the remote controller might become malfunction.
- If the remote control is too 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 5m 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.

SETUP AND INSTALLATION



USING THE PROJECTOR

Powering on / off the projector



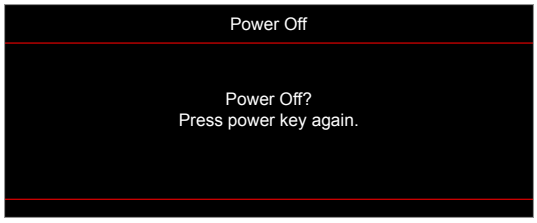
Powering on

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

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

Powering off

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



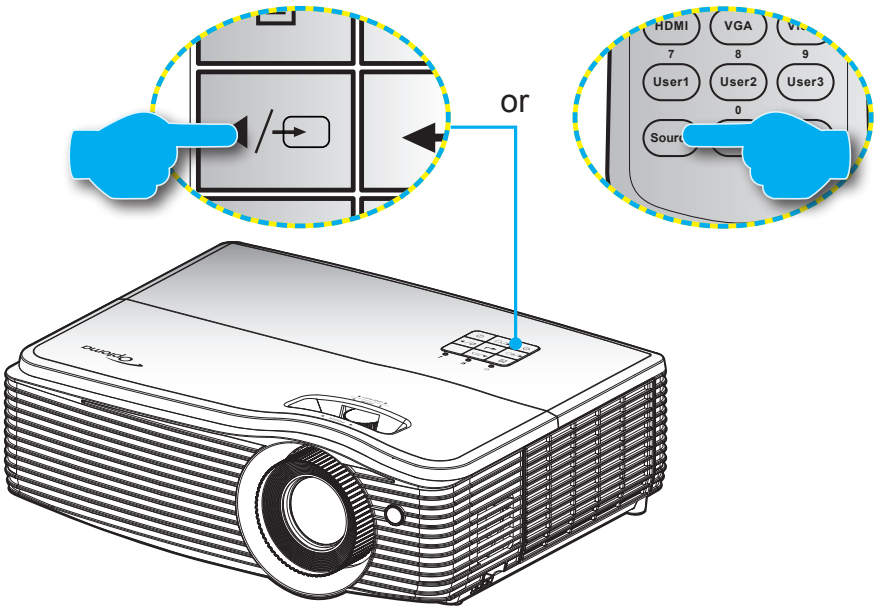
3. Press the "⏻" button again to confirm, otherwise the message will disappear after 15 seconds. When you press the "⏻" button for the second time, the projector will shut down.
4. The cooling fans will continue to operate for about 10 seconds for the cooling cycle and the On/Standby LED will flash blue. When the On/Standby 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 again to turn on the projector.
5. Disconnect the power lead from the electrical outlet and the projector.

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

USING THE PROJECTOR

Selecting an input source

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

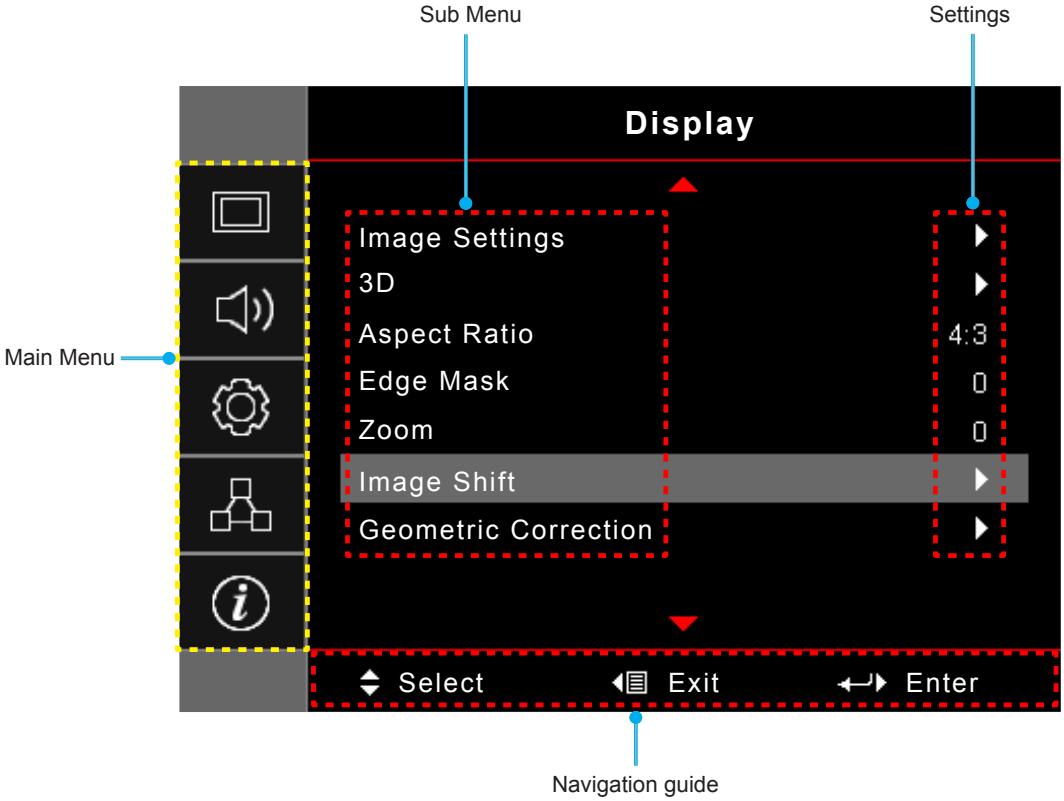


USING THE PROJECTOR

Menu navigation and features

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

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



USING THE PROJECTOR

OSD Menu tree

Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Values
Display	Image Settings	Display Mode			Presentation
					Bright
					Cinema
					Game
					sRGB
					DICOM SIM.
					User
					3D
		Wall Color			Off [Default]
					Blackboard
					Light Yellow
					Light Green
					Light Blue
					Pink
					Gray
		Brightness			-50~50
		Contrast			-50~50
		Sharpness			1~15
		Color			-50~50
		Tint			-50~50
		Gamma	Film		
			Video		
			Graphics		
			Standard(2.2)		
			1.8		
			2.0		
			2.4		
			2.6		
		Color Settings	BrilliantColor™		1~10
			Color Temperature		Warm
					Standard
					Cool
					Cold
			Color Matching	Color	R [Default]
					G
					B
					C
					Y
					M
					W
				Saturation	-50~50
				Hue	-50~50

Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Values
Display	Image Settings	Color Settings	Color Matching	Gain	-50~50
				Reset	Cancel [Default]
					Yes
				Exit	
			RGB Gain/Bias	Red Gain	-50~50
				Green Gain	-50~50
				Blue Gain	-50~50
				Red Bias	-50~50
				Green Bias	-50~50
				Blue Bias	-50~50
				Reset	Cancel [Default]
					Yes
				Exit	
			Color Space [Not HDMI Input]		Auto [Default]
					RGB
					YUV
			Color Space [HDMI Input]		Auto [Default]
					RGB(0~255)
					RGB(16~235)
					YUV
			White Level		0~31 (depends on signal)
			Black Level		-5~5 (depends on signal)
			IRE		0
					7.5
		Signal	Automatic		Off
					On [Default]
			Frequency		-50~50 (depends on signal) [Default: 0]
			Phase		0~31 (depends on signal) [Default: 0]
			H. Position		-50~50 (depends on signal) [Default: 0]
			V. Position		-50~50 (depends on signal) [Default: 0]
		Brightness Mode			Bright
					Eco.
					Dynamic
					Eco+
		Reset			

USING THE PROJECTOR

Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Values
Display	3D	3D Mode			Off
					DLP-LINK [Default]
					IR
		3D→2D			3D [Default]
					L
					R
		3D Format			Auto [Default]
					SBS
					Top and Bottom
					Frame Sequential
		3D Sync Invert			On
					Off [Default]
	Aspect Ratio				4:3
					16:9
					16:10
					LBX
					Native
					Auto
	Edge Mask				0~10 [Default: 0]
	Zoom				-5~25 [Default: 0]
	Image Shift	H			-100~100 [Default: 0]
		V			-100~100 [Default: 0]
	Geometric Correction	Four Corner Adjustment			
		H Keystone			-20~20 [Default: 0]
		V Keystone			-20~20 [Default: 0]
		Auto Keystone			Off [Default]
					On
		Reset			
Audio	Mute				Off [Default]
					On
	Volume				0-10 [Default: 5]
	Audio Out (Standby)				Off [Default]
					On
Setup	Projection				Front
					Rear
					Ceiling-top [Default]
					Rear-top
	Screen Type				16:9
					16:10 [Default]

USING THE PROJECTOR

Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Values
Setup	Lamp Settings	Lamp Reminder			Off
					On [Default]
		Lamp Reset			Cancel [Default]
					Yes
	Filter Settings	Optional Filter Installed			Yes
					No [Default]
		Filter Usage Hours			(Read only)
		Filter Reminder			Off
					300hr
					500hr [Default]
					800hr
					1000hr
		Filter Reset			Cancel [Default]
					Yes
	Power Settings	Direct Power On			Off [Default]
					On
		Signal Power On			Off [Default]
					On
		Auto Power Off (min)			0~180 (5 min increments) [Default: 20]
		Sleep Timer (min)			0~990 (30 min increments) [Default: 0]
			Always On		No [Default]
					Yes
		Quick Resume			Off [Default]
					On
		Power Mode (Standby)			Active
					Eco [Default]
		USB			Off
					On
					Auto [Default]
	Security	Security			Off
					On
		Security Timer		Month	
				Day	
				Hour	
		Change Password			
	HDMI Link Settings	HDMI Link			Off
					On

USING THE PROJECTOR

Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Values
Setup	Test Pattern				Green Grid
					Magenta Grid
					White Grid
					White
					Off
	Remote Settings [depends on remote]	IR Function			On
					Off
		User1			HDMI 2
					Test Pattern
					LAN
					Brightness
					Contrast
					Sleep Timer
					Color Matching
					Color Temp
					Gamma
					Projection
					Lamp Settings
					Zoom
					Freeze
					MHL
		User2			HDMI 2
					Test Pattern
					LAN
					Brightness
					Contrast
					Sleep Timer
					Color Matching
					Color Temp
					Gamma
					Projection
					Lamp Settings
					Zoom
					Freeze
					MHL

Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Values
Setup	Remote Settings [depends on remote]	User3			HDMI 2
					Test Pattern
					LAN
					Brightness
					Contrast
					Sleep Timer
					Color Matching
					Color Temp
					Gamma
					Projection
					Lamp Settings
					Zoom
					Freeze
					MHL
	Projector ID				0~99
	12V Trigger				Off
					On
	Options	Language			English [Default]
					Deutsch
					Français
					Italiano
					Español
					Português
					Polski
					Nederlands
					Svenska
					Norsk/Dansk
					Suomi
					ελληνικά
					繁體中文
					简体中文
					日本語
					한국어
					Русский
					Magyar
					Čeština
					عـربي
					ไทย
					Türkçe
					فارســی
					Tiếng Việt
					Bahasa Indonesia
					Română
					Slovenčina

Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Values
Setup	Options	Closed Captioning			CC1
					CC2
					Off [Default]
		Menu Settings	Menu Location		Top left 
					Top right 
					Center  [Default]
					Bottom left 
					Bottom right 
			Menu Timer		Off
					5sec
					10sec [Default]
		Auto Source			Off [Default]
					On
		Input Source			HDMI1
					HDMI2/MHL
					VGA
					Video
					Network Display
					USB Display
					USB Reader
		Input Name	HDMI1		Default [Default]
					Custom
			HDMI2/MHL		Default [Default]
					Custom
			VGA		Default [Default]
					Custom
			Video		Default [Default]
					Custom
			Network Display		Default [Default]
					Custom
			USB Display		Default [Default]
					Custom
			USB Reader		Default [Default]
					Custom
		High Altitude			Off [Default]
					On
		Display Mode Lock			Off [Default]
					On
		Keypad Lock			Off [Default]
					On

Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Values
Setup	Options	Information Hide			Off [Default]
					On
		Background Color			None [Default]
					Blue
					Red
					Green
					Grey
					Logo
	Reset	Reset OSD			Cancel [Default]
					Yes
		Reset to Default			Cancel [Default]
					Yes
Network	LAN	Network Status			(read only)
		MAC Address			(read only)
		DHCP			Off [Default]
					On
		IP Address			192.168.0.100 [Default]
		Subnet Mask			255.255.255.0 [Default]
		Gateway			192.168.0.254 [Default]
		DNS			192.168.0.51 [Default]
		Reset			
	Control	Crestron			Off
					On [Default] **Note:** *Port 41794.*
		Extron			Off
					On [Default] **Note:** *Port 2023.*
		PJ Link			Off
					On [Default] **Note:** *Port 4352*
		AMX Device Discovery			Off
					On [Default] **Note:** *Port 9131*
		Telnet			Off
					On [Default] **Note:** *Port 23*
		HTTP			Off
					On [Default] **Note:** *Port 80*

USING THE PROJECTOR

Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Sub Menu 4	Values
Information	Regulatory				
	Serial Number				
	Source				
	Resolution				00x00
	Refresh Rate				0.00Hz
	Display Mode				
	Power mode (Standby)				
	Lamp Hours	Bright mode			0 hr
		Eco mode			0 hr
		Dynamic mode			0 hr
		Eco+ mode			0 hr
		Total hours			
	Network Status				
	IP Address				
	Projector ID				00~99
	Filter Usage Hours				
	Brightness Mode				
	FW Version	System			
		LAN			
		MCU			
		AM			

USING THE PROJECTOR

Display menu

Display image settings menu

Display Mode (Data mode)

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

- **Presentation**: This mode is suitable for showing PowerPoint presentations when the projector is connected to the PC.
- **Bright**: Maximum brightness from PC input.
- **Cinema**: Select this mode for home theater.
- **Game**: Select this mode to increase the brightness and response time level for enjoying video games.
- **sRGB**: Standardized accurate color.
- **DICOM SIM.**: This mode can project a monochrome medical image such as an X ray radiography, MRI, etc.
- **User**: Memorize user's settings.
- **3D**: To experience the 3D effect, you need to have 3D glasses. Make sure your PC/portable device has a 120 Hz signal output quad buffered graphics card and a 3D Player installed.

Wall Color

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

Brightness

Adjust the brightness of the image.

Contrast

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

Sharpness

Adjust the sharpness of the image.

Color

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

Tint

Adjust the color balance of red and green.

Gamma

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

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

USING THE PROJECTOR

Color Settings

Configure the color settings.

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



- **Color Space (non-HDMI input only)**: Select an appropriate color matrix type from the following: AUTO, RGB, or YUV.
- **Color Space (HDMI input only)**: select an appropriate color matrix type from the following: Auto, RGB(0-255), RGB(16-235), and YUV.
- **White Level:** Allow user to adjust White Level when inputting Video signals.
  Note: *White level can only be adjusted for Video input sources.*
- **Black Level:** Allow user to adjust Black Level when inputting Video signals.
  Note: *Black level can only be adjusted for Video input sources.*
- **IRE:** Allow user to adjust IRE value when inputting Video signals.
  Note:
  - *IRE is only available with NTSC video format.*
  - *IRE can only be adjusted for Video input sources.*

Signal

Adjust the signal options.

- **Automatic**: Configure automatically the signal (the frequency and phase items are grayed out). If automatic is disabled, the frequency and phase items will appear for tuning and saving the settings.
- **Frequency**: Change the display data frequency to match the frequency of your computer's graphic card. Use this function only if the image appears to flicker vertically.
- **Phase**: Synchronize the signal timing of the display with the graphic card. If the image appears to be unstable or flickers, use this function to correct it.
- **H. Position**: Adjust the horizontal positioning of the image.
- **V. Position**: Adjust the vertical positioning of the image.

Note: *Signal can only be adjusted for RGB/Component input sources.*

Brightness Mode

Adjust the brightness mode settings for lamp-based projectors.

- **Bright**: Choose "Bright" to increase the brightness.
- **Eco.**: Choose "Eco." to dim the projector lamp which will lower power consumption and extend the lamp life.
- **Dynamic**: Choose "Dynamic" to dim the lamp power which will be based on brightness level of the content and adjust lamp power consumption between 100% and 30% dynamically. The lamp life will be extended.
- **Eco+**: When Eco+ mode is activated, the brightness level of the content is automatically detected to significantly reduced lamp power consumption (up to 70%) during periods of inactivity.

Reset

Return the factory default settings for color settings.

Display 3D menu

3D Mode

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

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

3D → 2D

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

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

Note: *When changing the input source from 3D to 2D, make sure the **3D Mode** setting is set to **Off**. Otherwise, 2D input source will appear distorted (dual image).*

3D Format

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

- **Auto**: When a 3D identification signal is detected, the 3D format is selected automatically.
- **SBS**: Display 3D signal in "Side-by-Side" format.

- **Top and Bottom**: Display 3D signal in “Top and Bottom” format.
- **Frame Sequential**: Display 3D signal in “Frame Sequential” format.

3D Sync Invert

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

Display aspect ratio menu

Aspect Ratio

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

- **4:3**: This format is for 4:3 input sources.
- **16:9**: This format is for 16:9 input sources, like HDTV and DVD enhanced for Wide screen TV.
- **16:10**: This format is for 16:10 input sources, like widescreen laptops.
- **LBX**: This format is for non-16x9, letterbox source and if you use external 16x9 lens to display 2.35:1 aspect ratio in full resolution.
- **Native**: This format displays the original image without any scaling.
- **Auto**: Automatically selects the appropriate display format.

Note:

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

XGA scaling table:

Source	480i/p	576i/p	1080i/p	720p
4x3	Scale to 1024x768.			
16x9	Scale to 1024x576.			
Native	No scaling will be made; the image is displayed with the resolution based on the input source.			
Auto	• If source is 4:3, the screen type will be scaled to 1024x768. • If source is 16:9, the screen type will be scaled to 1024x576. • If source is 15:9, the screen type will be scaled to 1024x614. • If source is 16:10, the screen type will be scaled to 1024x640.			

USING THE PROJECTOR

XGA auto mapping rule:

Auto	Input resolution		Auto/Scale	
	H-resolution	V-resolution	1024	768
4:3	640	480	1024	768
	800	600	1024	768
	1024	768	1024	768
	1600	1200	1024	768
Wide Laptop	1280	720	1024	576
	1280	768	1024	614
	1280	800	1024	640
SDTV	720	576	1024	576
	720	480	1024	576
HDTV	1280	720	1024	576
	1920	1080	1024	576

WXGA scaling table (screen type 16x10):

Note:

- *Supported screen type 16:9 (1280x720), 16:10 (1280x800).*
- *When screen type is 16:9, the 16x10 format becomes unavailable.*
- *When screen type is 16:10, the 16x9 format becomes unavailable.*
- *If you select auto option, then the display mode will be also automatically changed.*

16 : 10 screen	480i/p	576i/p	1080i/p	720p	PC
4x3	Scale to 1066x800.				
16x10	Scale to 1280x800.				
LBX	Scale to 1280x960, then get the central 1280x800 image to display.				
Native mode	1:1 mapping centered.		1:1 mapping display 1280x800.	1280x720 centered.	1:1 mapping centered.
Auto	• Input source will be fit into 1280x800 display area and be kept its original aspect ratio. • If source is 4:3, the screen type will be scaled to 1066x800. • If source is 16:9, the screen type will be scaled to 1280x720. • If source is 15:9, the screen type will be scaled to 1280x768. • If source is 16:10, the screen type will be scaled to 1280x800.				

USING THE PROJECTOR

WXGA auto mapping rule (screen type 16x10):

Auto	Input resolution		Auto/Scale	
	H-resolution	V-resolution	1280	800
4:3	640	480	1066	800
	800	600	1066	800
	1024	768	1066	800
	1280	1024	1066	800
	1400	1050	1066	800
	1600	1200	1066	800
Wide Laptop	1280	720	1280	720
	1280	768	1280	768
	1280	800	1280	800
SDTV	720	576	1280	720
	720	480	1280	720
HDTV	1280	720	1280	720
	1920	1080	1280	720

WXGA scaling table (screen type 16x9):

16 : 9 screen	480i/p	576i/p	1080i/p	720p	PC
4x3	Scale to 960x720.				
16x9	Scale to 1280x720.				
LBX	Scale to 1280x960, then get the central 1280x720 image to display.				
Native mode	1:1 mapping centered.		1:1 mapping display 1280x720.	1280x720 centered.	1:1 mapping centred.
Auto	• If this format is selected, the screen type will automatically become 16:9 (1280x720). • If source is 4:3, the screen type will be scaled to 960x720. • If source is 16:9, the screen type will be scaled to 1280x720. • If source is 15:9, the screen type will be scaled to 1200x720. • If source is 16:10, the screen type will be scaled to 1152x720.				

WXGA auto mapping rule (screen type 16x9):

Auto	Input resolution		Auto/Scale	
	H-resolution	V-resolution	1280	720
4:3	640	480	960	720
	800	600	960	720
	1024	768	960	720
	1280	1024	960	720
	1400	1050	960	720
	1600	1200	960	720
Wide Laptop	1280	720	1280	720
	1280	768	1200	720
	1280	800	1152	720

USING THE PROJECTOR

Auto	Input resolution		Auto/Scale	
	H-resolution	V-resolution	1280	720
SDTV	720	576	1280	720
	720	480	1280	720
HDTV	1280	720	1280	720
	1920	1080	1280	720

1080P scaling table:

Note:

- *Supported screen type 16:9 (1280x720), 16:10 (1280x800).*
- *When screen type is 16:9, the 16x10 format becomes unavailable.*
- *When screen type is 16:10, the 16x9 format becomes unavailable.*
- *If you select auto option, then the display mode will be also automatically changed.*

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

1080P auto mapping rule:

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

USING THE PROJECTOR

WUXGA scaling table (screen type 16x10):

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

WUXGA auto mapping rule (screen type 16x10):

Auto	Input resolution		Auto/Scale	
	H-resolution	V-resolution	1920	1200
4:3	640	480	1600	1200
	800	600	1600	1200
	1024	768	1600	1200
	1280	1024	1600	1200
	1400	1050	1600	1200
	1600	1200	1600	1200
Wide Laptop	1280	720	1920	1080
	1280	768	1920	1152
	1280	800	1920	1200
SDTV	720	576	1500	1200
	720	480	1800	1200
HDTV	1280	720	1920	1080
	1920	1080	1920	1080

WUXGA scaling table (screen type 16x9):

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

WUXGA auto mapping rule (screen type 16x9):

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

Display edge mask menu

Edge Mask

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

Display zoom menu

Zoom

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

Display image shift menu

Image Shift

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

Display geometric correction menu

Four Corner Adjustment

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

H Keystone

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

V Keystone

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

Auto Keystone

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

Reset

Return the factory default settings for Geometric Correction menu settings.

Audio menu

Audio mute menu

Mute

Use this option to temporarily turn off the sound.

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

Note:

- *“Mute” function affects both internal and external speaker volume.*
- *When an external speaker is connected, the internal speaker is automatically muted.*

Audio volume menu

Volume

Adjust the audio volume level.

Audio audio out (standby) menu

Audio Out (Standby)

Enable or disable audio output when the projector is in standby mode.

Setup menu

Setup projection menu

Projection

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

Setup screen type menu

Screen Type

Choose the screen type (16:9 or 16:10).

The available options of the Aspect ratio setting (on page 34) are depending on the selected screen type.

Setup lamp settings menu

Lamp Reminder

Choose this function to show or to hide the warning message when the changing lamp message is displayed. The message will appear 30 hours before suggested replacement of lamp.

Lamp Reset

Resets the lamp hour counter after replacing the lamp.

USING THE PROJECTOR

Setup filter settings menu

Optional Filter Installed

Set the warning message setting.

- **Yes:** Display warning message after 500 hours of use.

Note: *"Filter Usage Hours / Filter Reminder / Filter Reset" will only appear when "Optional Filter Installed" is "Yes".*

- **No:** Turn off warning message.

Filter Usage Hours

Display the filter time.

Filter Reminder

Choose this function to show or hide the warning message when the changing filter message is displayed. The available options include Off, 300hr, 500hr, 800hr, and 1000hr.

Filter Reset

Reset the dust filter counter after replacing or cleaning the dust filter.

Setup power settings menu

Direct Power On

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

Signal Power On

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

Note:

- *If the "Signal Power On" option is turned "On", the power consumption of the projector in standby mode will be over 3W.*
- *"Signal Power On" can support VGA (RGB signal) and HDMI.*

Auto Power Off (min)

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

Sleep Timer (min)

Configure the sleep timer.

- **Sleep Timer (min):** Sets the countdown timer interval. The countdown timer will start, with or without a signal being sent to the projector. The projector will automatically power off when the countdown has finished (in minutes).

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

Quick Resume

Set the quick resume setting.

- **On:** If the projector is accidentally turned off, this feature allows the projector to be instantly powered on again, if selected within a period of 100 seconds.
- **Off:** The fan will start cooling the system after 10 seconds when user turns off the projector.

USING THE PROJECTOR

Power Mode (Standby)

Set the power mode setting.

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

Note: *The fans will still run in active standby if “Signal Power On” is enabled.*

USB

Set the USB power settings.

- **On:** The projector is always powered on by a USB power source.
- **Off:** The USB Power function is off.
- **Auto:** The projector is automatically powered on by a USB power source.

Setup security menu

Security

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

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

Security Timer

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

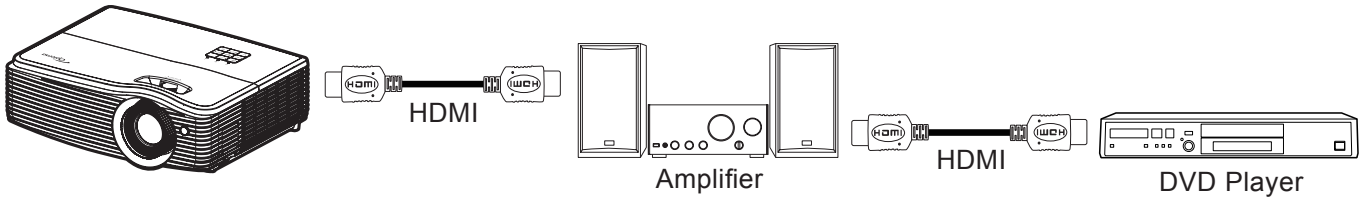
Change Password

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

Setup HDMI link settings menu

Note:

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



HDMI Link

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

USING THE PROJECTOR

Setup test pattern menu

Test Pattern

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

Setup remote settings menu

IR Function

Set the IR function setting.

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

User1/ User2/ User3

Assign the default function for User1, User2, or User3 between HDMI 2, Test Pattern, LAN, Brightness, Contrast, Sleep Timer, Color Matching, Color Temp, Gamma, Projection, Lamp Settings, Zoom, Freeze, or MHL.

Setup projector ID menu

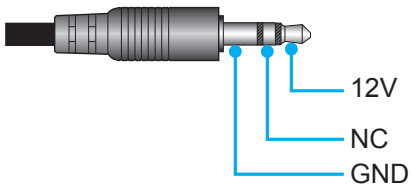
Projector ID

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

Setup 12V trigger menu

12V Trigger

Use this function to enable or disable the trigger.



- **On**: Choose “On” to enable the trigger.
- **Off**: Choose “Off” to disable the trigger.

USING THE PROJECTOR

Setup options menu

Language

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

Closed Captioning

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

Note: *Closed Captioning is only available for Video NTSC.*

Menu Settings

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

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

Auto Source

If you set this option “On” and press the button on the projector keypad or button on the remote control then the next available input source is selected automatically. Set “Off” to disable auto source function.

Input Source

Select the input source between HDMI1, HDMI2/MHL, VGA, Video, Network Display, USB Display, and USB Reader.

Input Name

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

High Altitude

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

Display Mode Lock

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

Keypad Lock

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

Information Hide

Enable this function to hide the information message.

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

Background Color

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

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

USING THE PROJECTOR

Setup reset menu

Reset OSD

Return the factory default settings for OSD menu settings.

Reset to Default

Return the factory default settings for Setup menu settings.

Network menu

Network LAN menu

Network Status

Display the network connection status (read-only).

MAC Address

Display the MAC address (read-only).

DHCP

Use this option to enable or disable the DHCP function.

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

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

IP Address

Display the IP address.

Subnet Mask

Display subnet mask number.

Gateway

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

DNS

Display the DNS number.

How to use web browser to control your projector

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

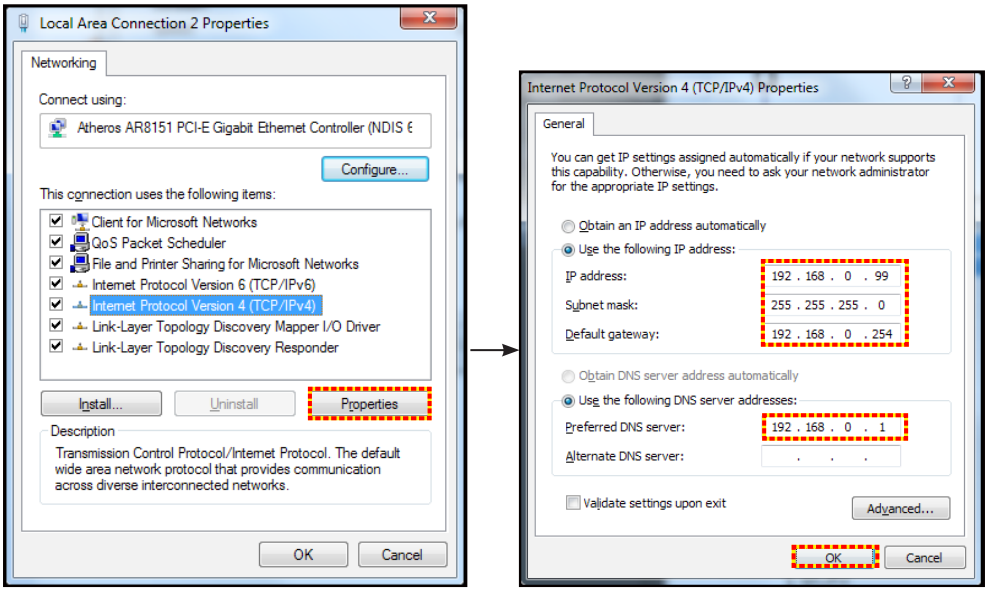
Note:

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

USING THE PROJECTOR

Making a direct connection from your computer to the projector*

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



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

Reset

Reset all values for LAN parameters.

Network control menu

Crestron

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

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

Extron

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

PJ Link

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

AMX Device Discovery

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

Telnet

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

HTTP

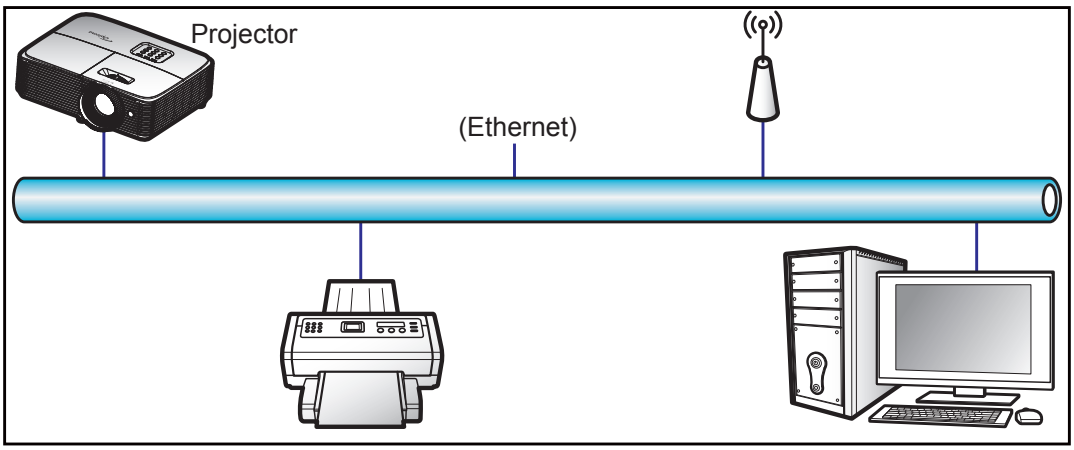
Use this function to select the network function (port: 80).

USING THE PROJECTOR

Setup network control settings menu

LAN_RJ45 function

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



Wired LAN terminal functionalities

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

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

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

http://www.crestron.com/

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

http://www.extron.com/

This projector is supported by AMX (Device Discovery).

http://www.amx.com/

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

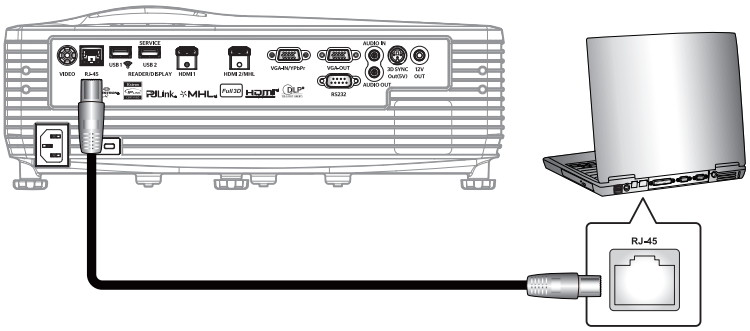
http://pjlink.jbmia.or.jp/english/

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

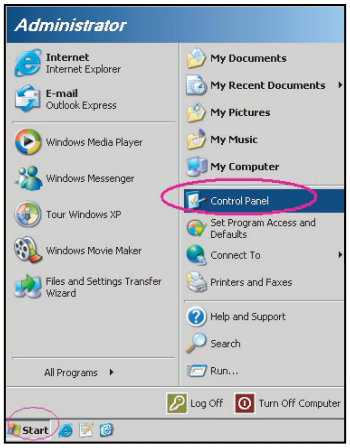
USING THE PROJECTOR

LAN RJ45

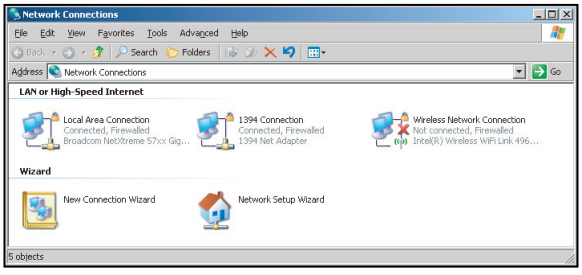
1. Connect an RJ45 cable to RJ45 ports on the projector and the PC (laptop).



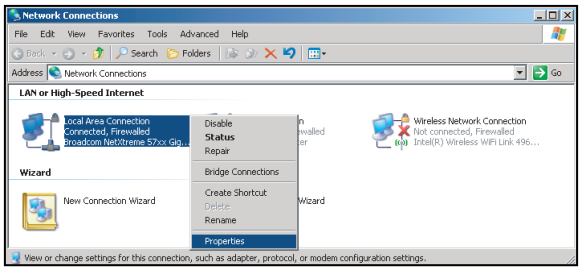
2. On the PC (Laptop), select **Start** > **Control Panel** > **Network Connections**.



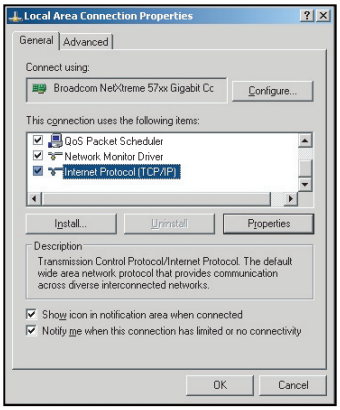
3. Right-click on the L**ocal Area Connection**, and select **Property**.



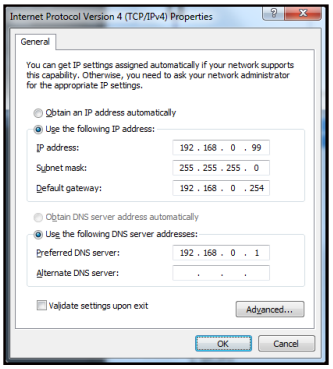
4. In the **Properties** window, select the **General tab**, and select **Internet Protocol (TCP / IP)**.



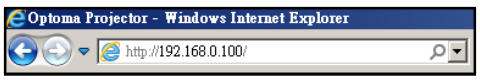
5. Click “Properties”.



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

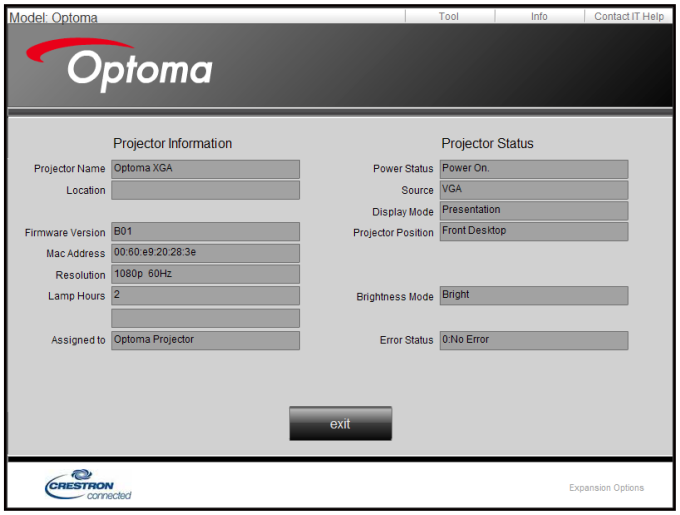


7. Press the “Menu” button on the projector.
8. Open on projector **Network** > **LAN**.
9. Enter the following connection parameters:
   - DHCP: Off
   - IP Address: 192.168.0.100
   - Subnet Mask: 255.255.255.0
   - Gateway: 192.168.0.254
   - DNS: 192.168.0.1
10. Press “Enter” to confirm settings.
11. Open a web browser, for example Microsoft Internet Explorer with Adobe Flash Player 9.0 or higher installed.
12. In the Address bar, input the projector’s IP address: 192.168.0.100.



13. Press “Enter”.
The projector is setup for remote management. The LAN / RJ45 function displays as follows:

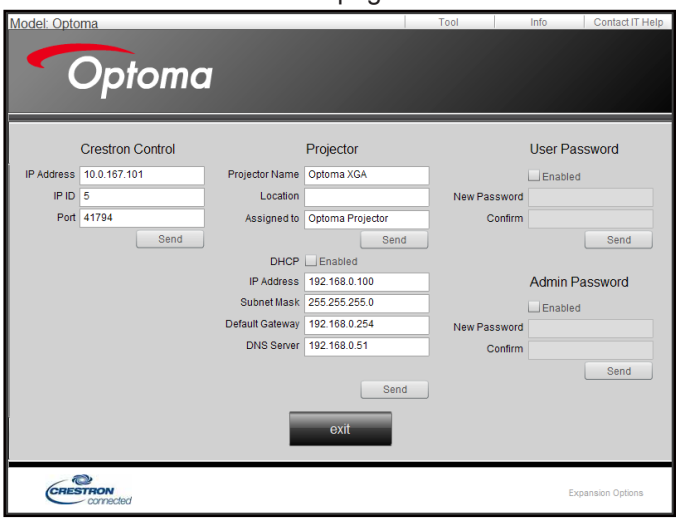
Information page



Main page



Tool page



Contact IT helpdesk



USING THE PROJECTOR

RS232 by Telnet Function

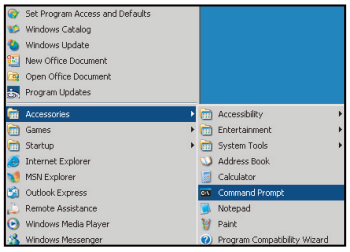
There is alternative RS232 command control way, in projector so called “RS232 by TELNET” for LAN / RJ45 interface.

Quick Start-Guide for “RS232 by Telnet”

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



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



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

Specification for “RS232 by TELNET”:

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

USING THE PROJECTOR

Info menu

Info menu

View the projector information as listed below:

- Regulatory
- Serial Number
- Source
- Resolution
- Refresh Rate
- Display Mode
- Power Mode (Standby)
- Lamp Hours
- Network Status
- IP Address
- Projector ID
- Filter Usage Hours
- Brightness Mode
- FW Version

USING THE PROJECTOR

3D Setup

1. Turn on your projector.
2. Connect your 3D source. For example, 3D Blu ray, Games console, PC, Set top box, etc.
3. Ensure you have inserted 3D content or selected the 3D channel.
4. Turn on your 3D glasses. Please refer to the 3D glasses user manual on how to operate the 3D glasses.
5. Your projector will automatically display 3D from a 3D Blu-ray. For 3D via a set top box or PC, you will be required to adjust the settings in the 3D menu.

For 3D via Blu ray

3D will automatically be displayed. Depending on the 3D glasses you have you will either need to select DLP Link or IR in the menu. IR 3D glasses come with an emitter that must be connected to the 3D Sync port of the projector. Please refer to page *15*.

- Menu > “Display” > “3D” > “3D Mode” > “DLP-LINK”
- Menu > “Display” > “3D” > “3D Mode” > “IR”

For 3D via a PC or Set top box

3D will not be displayed automatically. Depending on the 3D content the image will either be displayed side by side or top and bottom. Please refer to the following table.

SBS	SBS

Top and bottom
Top and bottom

- For side by side images, select “SBS” in the menu. Menu > “Display” > “3D” > “3D Format” > “SBS”.
- For top and bottom images, select “top and bottom” in the menu. Menu > “Display” > “3D” > “3D Format” > “Top and Bottom”.

  If the 3D image does not look correct, you may also be required to adjust the 3D sync invert. Turn this on if the image looks odd. Menu > “Display” > “3D” > “3D Sync Invert” > “On”.

Note: *If input video is normal 2D, please press “3D” and switch to “Auto”. If “SBS” mode is active, 2D video content will not be displayed correctly. Please change back to “Auto” when 3D via a PC only works with certain resolutions. Please check the compatibility on page 58.*

MAINTENANCE

Replacing the lamp

The projector automatically detects the lamp life. When the lamp life is nearing the end of use, a warning message will appear on the screen.



When you see this message, please contact your local reseller or service center to change the lamp as soon as possible. Make sure the projector has been cooled down for at least 30 minutes before changing the lamp.



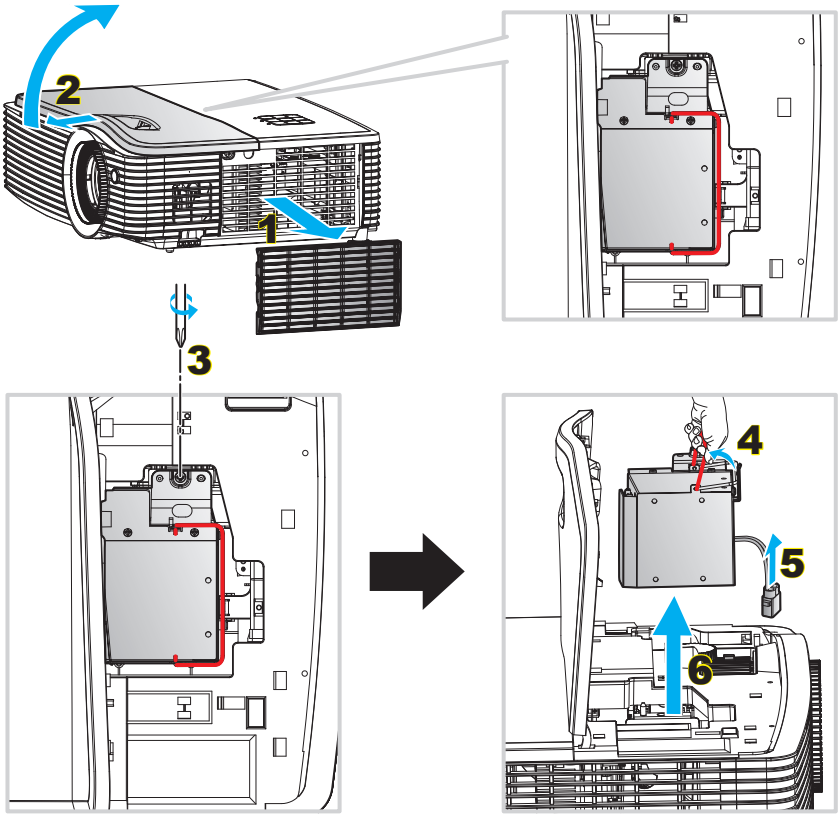
Warning: If ceiling mounted, please use caution when opening the lamp access panel. It is recommended to wear safety glasses if changing the bulb when ceiling mounted. Caution must be used to prevent any loose parts from falling out of projector.

Warning: Lamp compartment is hot! Allow it to cool down before changing lamp!

Warning: To reduce the risk of personal injury, do not drop the lamp module or touch the lamp bulb. The bulb may shatter and cause injury if it is dropped.

MAINTENANCE

Replacing the lamp (continued)



Procedure:

1. Switch off the power to the projector by pressing the "⏻" button on the projector keypad or the remote control.
2. Allow the projector to cool down for at least 30 minutes.
3. Disconnect the power cord.
4. Remove the dust filter. 1
5. First slide and then lift the top cover. 2
6. Unscrew the screw on the side panel. 3
7. Lift up the lamp handle. 4
8. Remove the lamp cord. 5
9. Remove the lamp module carefully. 6
10. To replace the lamp module, reverse the previous steps.
11. Turn on the projector and reset the lamp timer.
12. Lamp Reset: (i) Press "Menu" → (ii) Select "Setup" → (iii) Select "Lamp Settings" → (iv) Select "Lamp Reset" → (v) Select "Yes".

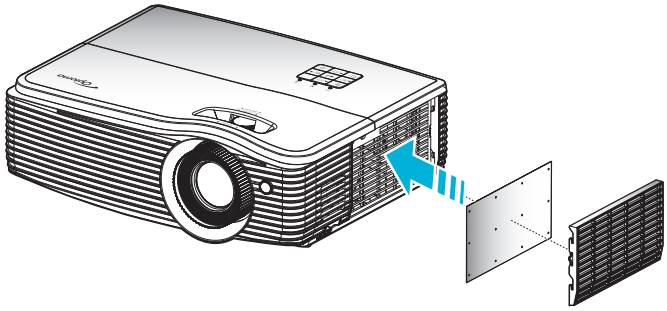
Note:

- *The projector cannot be turned on if the lamp cover has not been placed back on the projector.*
- *Do not touch the glass area of the lamp. Hand oil can cause the lamp shatter. Use a dry cloth to clean the lamp module if it was accidentally touched.*

MAINTENANCE

Installing and cleaning the dust filter

Installing the dust filter



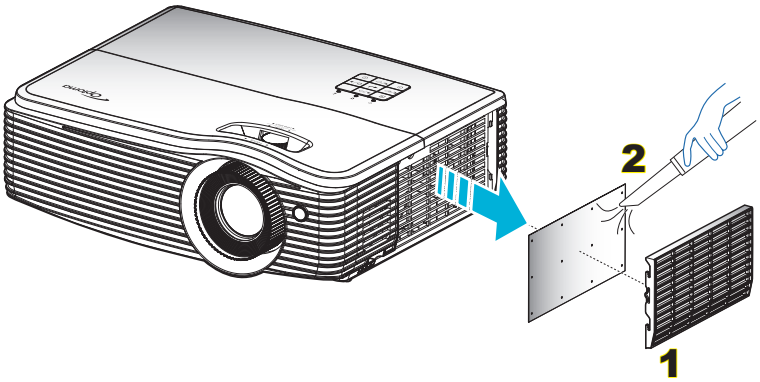
Note: *Dust filters are only required / supplied in the selected regions with excessive dust.*

Cleaning the dust filter

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

Procedure:

1. Switch off the power to the projector by pressing the "⏻" button on the projector keypad or the remote control.
2. Disconnect the power cord.
3. Remove the dust filter carefully. 1
4. Clean or replace the dust filter. 2
5. To install the dust filter, reverse the previous steps.



ADDITIONAL INFORMATION

Compatible resolutions

Digital compatibility

B0/Established Timing	B0/Standard Timing	B0/Detail Timing	B1/Video Mode	B1/Detail Timing
720x400 @ 70Hz	XGA/WXGA:	Native timing:	640x480p @ 60Hz	1366x768 @ 60Hz
640x480 @ 60Hz	1440x900 @60Hz	XGA: 1024x768 @ 60Hz	720x480p @ 60Hz	1920x1080 @ 60Hz
640x480 @ 67Hz	1024x768 @120Hz	WXGA: 1280x800 @ 60Hz	1280x720p @ 60Hz	1920x1200 @ 60Hz(RB)
640x480 @ 72Hz	1280x800 @60Hz	1080p: 1920x1080 @ 60Hz	1920x1080i @ 60Hz	
640x480 @ 75Hz	1280x1024 @ 60Hz	WUXGA: 1920x1200 @ 60Hz(RB)	720(1440)x480i @ 60Hz	
800x600 @ 56Hz	1680x1050 @ 60Hz		1920x1080p @ 60Hz	
800x600 @ 60Hz	1280x720 @ 60Hz		720x576p @ 50Hz	
800x600 @ 72Hz	1280x720 @ 120Hz		1280x720p @ 50Hz	
800x600 @ 75Hz	1600x1200 @ 60Hz		1920x1080i @ 50Hz	
832x624 @ 75Hz	1080p/WUXGA:		720(1440)x576i @ 50Hz	
1024x768 @ 60Hz	1280x720 @ 60Hz		1920x1080p @ 50Hz	
1024x768 @ 70Hz	1280x800 @ 60Hz		1920x1080p @ 24Hz	
1024x768 @ 75Hz	1280x1024 @ 60Hz		1920x1080p @ 30Hz	
1280x1024 @ 75Hz	1400x1050 @ 60Hz			
1152x870 @ 75Hz	1600x1200 @ 60Hz			
	1440x900 @60Hz			
	1280x720 @ 120Hz			
	1024x768 @ 120Hz			

Analog compatibility

B0/Established Timing	B0/Standard Timing	B0/Detail Timing	B1/Detail Timing
720x400 @ 70Hz	XGA/WXGA:	Native timing:	1366x768 @ 60Hz
640x480 @ 60Hz	1440x900 @ 60Hz	XGA: 1024x768 @ 60Hz	1920x1080p @ 60Hz
640x480 @ 67Hz	1024x768 @ 120Hz	WXGA: 1280x800 @ 60Hz	1920x1200 @ 60Hz(RB)
640x480 @ 72Hz	1280x800 @ 60Hz	1080p: 1920x1080 @ 60Hz	
640x480 @ 75Hz	1280x1024 @ 60Hz	WUXGA:1920x1200 @ 60Hz(RB)	
800x600 @ 56Hz	1680x1050 @ 60Hz		
800x600 @ 60Hz	1280x720 @ 60Hz		
800x600 @ 72Hz	1280x720 @ 120Hz		
800x600 @ 75Hz	1600x1200 @ 60Hz		
832x624 @ 75Hz	1080p/WUXGA:		
1024x768 @ 60Hz	1280x720 @ 60Hz		
1024x768 @ 70Hz	1280x800 @ 60Hz		
1024x768 @ 75Hz	1280x1024 @ 60Hz		
1280x1024 @ 75Hz	1400x1050 @ 60Hz		
1152x870 @ 75Hz	1600x1200 @ 60Hz		
	1440x900 @ 60Hz		
	1280x720 @ 120Hz		
	1024x768 @ 120Hz		

ADDITIONAL INFORMATION

True 3D video compatibility

Input resolution	HDMI 1.4a 3D Input	Input timing		
		1280x720P @ 50Hz	Top-and-Bottom	
		1280x720P @ 60Hz	Top-and-Bottom	
		1280x720P @ 50Hz	Frame packing	
		1280x720P @ 60Hz	Frame packing	
		1920x1080i @ 50 Hz	Side-by-Side(Half)	
		1920x1080i @ 60 Hz	Side-by-Side(Half)	
		1920x1080P @ 24 Hz	Top-and-Bottom	
		1920x1080P @ 24 Hz	Frame packing	
	HDMI 1.3	1920x1080i @ 50Hz	Side-by-Side(Half)	SBS mode is on
		1920x1080i @ 60Hz		
		1280x720P @ 50Hz		
		1280x720P @ 60Hz		
		800x600 @ 60Hz		
		1024x768 @ 60Hz		
		1280x800 @ 60Hz		
		1920x1080i @ 50Hz	Top-and-Bottom	TAB mode is on
		1920x1080i @ 60Hz		
		1280x720P @ 50Hz		
		1280x720P @ 60Hz		
		800x600 @ 60Hz		
		1024x768 @ 60Hz		
		1280x800 @ 60Hz		
		480i	HQFS	3D format is Frame sequential Only supports Composite Video

Note:

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

ADDITIONAL INFORMATION

Image size and projection distance

XGA

Desired Image Size						Projection Distance (C)			
Diagonal		Width		Height		Wide		Tele	
m	inch	m	inch	m	inch	m	feet	m	feet
0.76	30	0.61	24	0.46	18	/	/	1.2	3.94
1.02	40	0.81	32	0.61	24	1.1	3.61	1.5	4.92
1.27	50	1.02	40	0.76	30	1.4	4.59	1.9	6.23
1.52	60	1.22	48	0.91	36	1.7	5.58	2.3	7.55
1.78	70	1.42	56	1.07	42	2.0	6.56	2.7	8.86
2.03	80	1.63	64	1.22	48	2.3	7.55	3.1	10.17
2.29	90	1.83	72	1.37	54	2.5	8.20	3.5	11.48
2.54	100	2.03	80	1.52	60	2.8	9.19	3.9	12.80
3.05	120	2.44	96	1.83	72	3.4	11.15	4.6	15.09
3.81	150	3.05	120	2.29	90	4.2	13.78	5.8	19.03
4.57	180	3.66	144	2.74	108	5.1	16.73	7.0	22.97
5.08	200	4.06	160	3.05	120	5.7	18.70	7.7	25.26
6.35	250	5.08	200	3.81	150	7.1	23.29	9.7	31.82
7.62	300	6.10	240	4.57	180	8.5	27.89	11.6	38.06

Note: *Zoom ratio is 1.36x.*

WXGA

Desired Image Size						Projection Distance (C)			
Diagonal		Width		Height		Wide		Tele	
m	inch	m	inch	m	inch	m	feet	m	feet
0.76	30	0.65	25.44	0.4	15.9	/	/	1.5	4.92
1.02	40	0.86	33.92	0.54	21.2	1.3	4.27	2.0	6.56
1.27	50	1.08	42.4	0.67	26.5	1.6	5.25	2.5	8.20
1.52	60	1.29	50.88	0.81	31.8	1.9	6.23	3.0	9.84
1.78	70	1.51	59.36	0.94	37.1	2.2	7.22	3.5	11.48
2.03	80	1.72	67.84	1.08	42.4	2.6	8.53	4.1	13.45
2.29	90	1.94	76.32	1.21	47.7	2.9	9.51	4.6	15.09
2.54	100	2.15	84.8	1.35	53	3.2	10.50	5.1	16.73
3.05	120	2.58	101.76	1.62	63.6	3.8	12.47	6.1	20.01
3.81	150	3.23	127.2	2.02	79.5	4.8	15.75	7.6	24.93
4.57	180	3.88	152.64	2.42	95.4	5.7	18.70	9.1	29.86
5.08	200	4.31	169.6	2.69	106	6.4	21.00	10.1	33.14
6.35	250	5.38	212	3.37	132.5	8.0	26.25	12.7	41.67
7.62	300	6.46	254.4	4.04	159	9.6	31.50	15.2	49.87

Note: *Zoom ratio is 1.6x.*

ADDITIONAL INFORMATION

1080p

Desired Image Size						Projection Distance (C)			
Diagonal		Width		Height		Wide		Tele	
m	inch	m	inch	m	inch	m	feet	m	feet
0.76	30	0.66	26.15	0.37	14.71	/	/	1.5	4.92
1.02	40	0.89	34.86	0.5	19.6	1.2	3.94	2.0	6.56
1.27	50	1.11	43.58	0.62	24.5	1.6	5.25	2.5	8.20
1.52	60	1.33	52.29	0.75	29.4	1.9	6.23	3.0	9.84
1.78	70	1.55	61.01	0.87	34.3	2.2	7.22	3.5	11.48
2.03	80	1.77	69.73	1	39.2	2.5	8.20	4.0	13.12
2.29	90	1.99	78.44	1.12	44.1	2.8	9.19	4.5	14.76
2.54	100	2.21	87.16	1.25	49	3.1	10.17	5.0	16.40
3.05	120	2.66	104.59	1.49	58.8	3.7	12.14	6.0	19.69
3.81	150	3.32	130.74	1.87	73.5	4.7	15.42	7.4	24.28
4.57	180	3.98	156.88	2.24	88.2	5.6	18.37	8.9	29.20
5.08	200	4.43	174.32	2.49	98.1	6.2	20.34	9.9	32.48
6.35	250	5.53	217.89	3.11	122.6	7.8	25.59	12.4	40.68
7.62	300	6.64	261.47	3.74	147.1	9.4	30.84	14.9	48.88

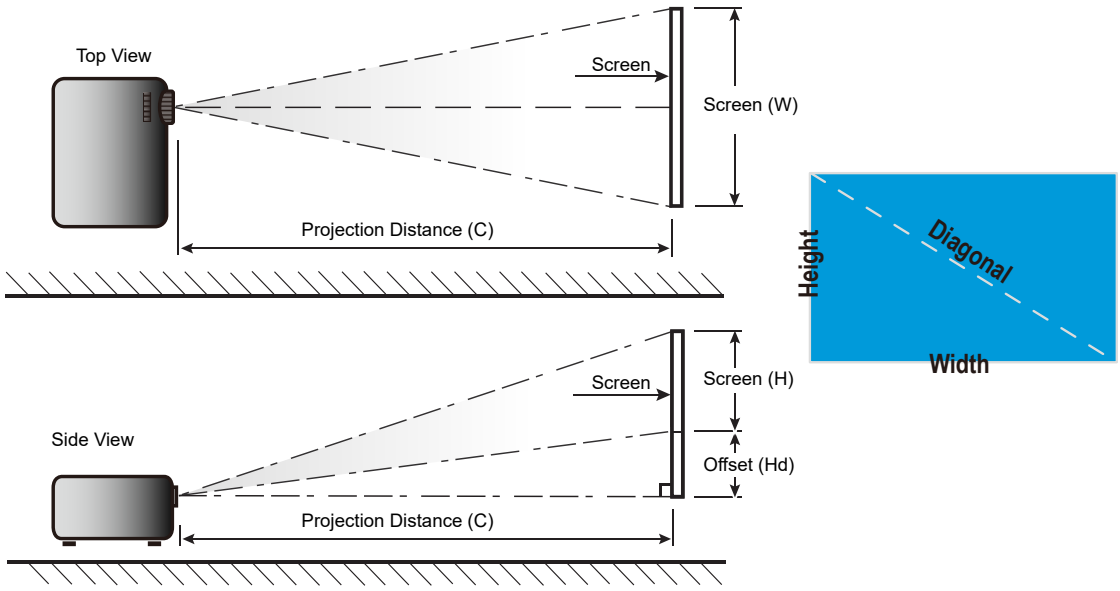
Note: *Zoom ratio is 1.6x.*

WUXGA

Desired Image Size						Projection Distance (C)			
Diagonal		Width		Height		Wide		Tele	
m	inch	m	inch	m	inch	m	feet	m	feet
0.76	30	0.65	25.44	0.4	15.9	/	/	1.4	4.59
1.02	40	0.86	33.92	0.54	21.2	1.2	3.94	1.9	6.23
1.27	50	1.08	42.4	0.67	26.5	1.5	4.92	2.4	7.87
1.52	60	1.29	50.88	0.81	31.8	1.8	5.91	2.9	9.51
1.78	70	1.51	59.36	0.94	37.1	2.1	6.89	3.4	11.15
2.03	80	1.72	67.84	1.08	42.4	2.4	7.87	3.9	12.80
2.29	90	1.94	76.32	1.21	47.7	2.7	8.86	4.3	14.11
2.54	100	2.15	84.8	1.35	53	3.0	9.84	4.8	15.75
3.05	120	2.58	101.76	1.62	63.6	3.6	11.81	5.8	19.03
3.81	150	3.23	127.2	2.02	79.5	4.6	15.09	7.2	23.62
4.57	180	3.88	152.64	2.42	95.4	5.5	18.04	8.7	28.54
5.08	200	4.31	169.6	2.69	106	6.1	20.01	9.6	31.50
6.35	250	5.38	212	3.37	132.5	7.6	24.93	12.1	39.70
7.62	300	6.46	254.4	4.04	159	9.1	29.86	14.5	47.57

Note: *Zoom ratio is 1.6x.*

ADDITIONAL INFORMATION



ADDITIONAL INFORMATION

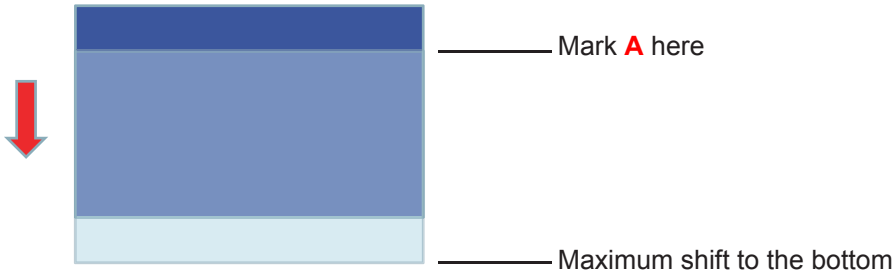
Determining the lens shift center position

Vertical Lens Shift Center

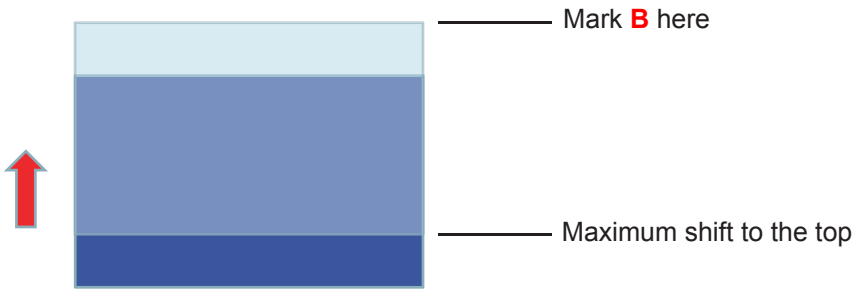
1. Image must be at the center of its Horizontal shift before adjusting the image to the center of its Vertical shift.



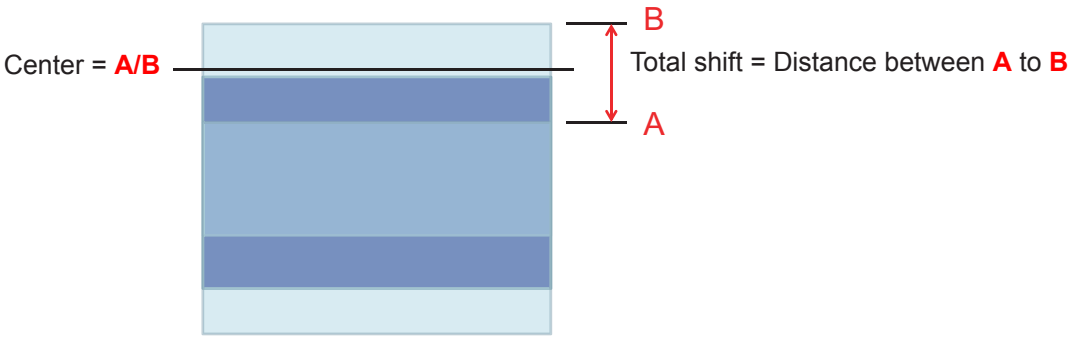
2. Adjust the V. Shift until the image reaches the maximum shift range towards the bottom.



3. Adjust the V. Shift until the image reaches the maximum shift range to the top.



4. Measure the distance between Mark **A** and Mark **B**, then divide it by 2 and position the image back to Mark **A / B** to the bottom. The image will be at the center of its Vertical shift.

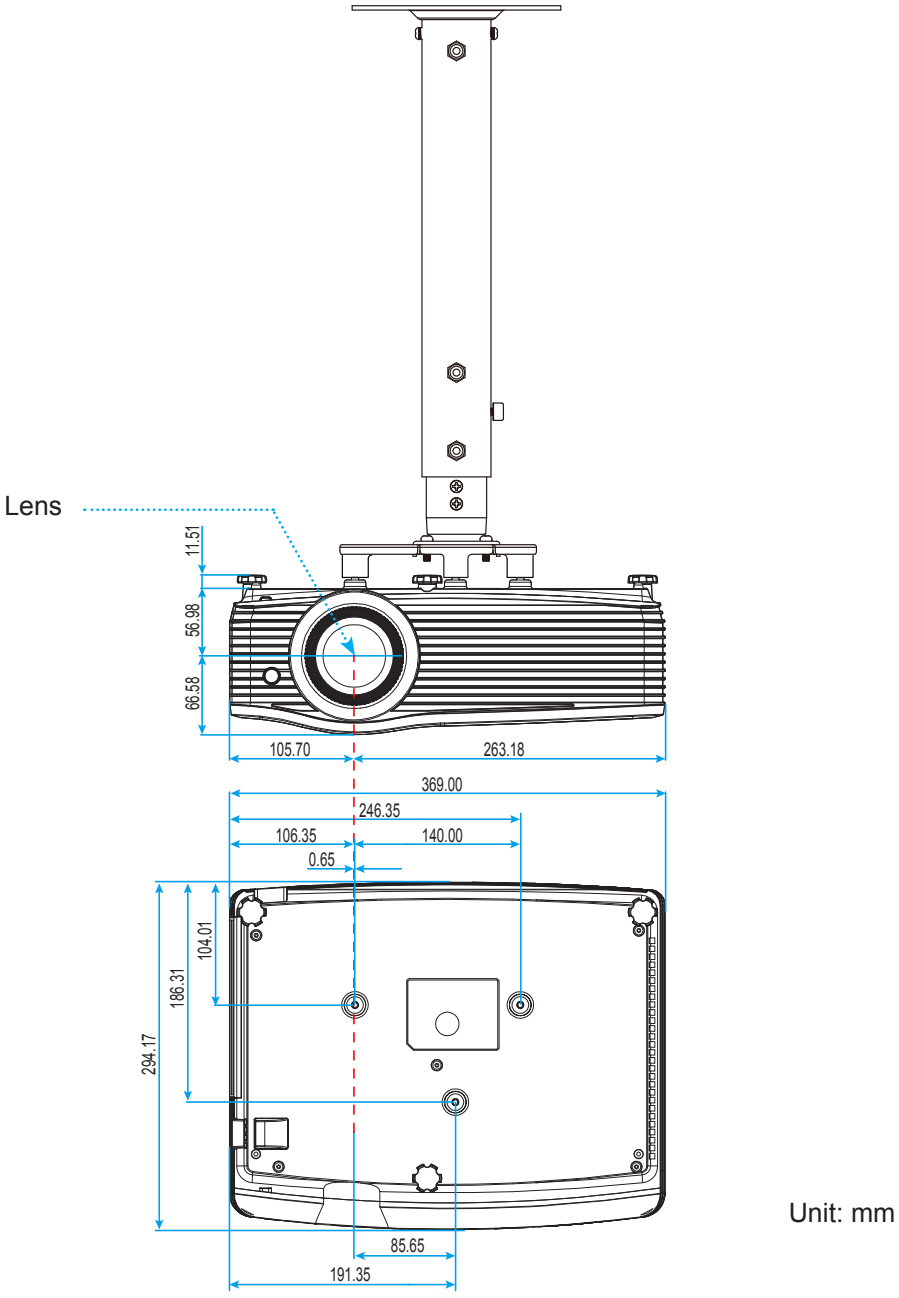


ADDITIONAL INFORMATION

Projector dimensions and ceiling mount installation

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

- Screw type: M4*3
- Minimum screw length: 10mm



Unit: mm

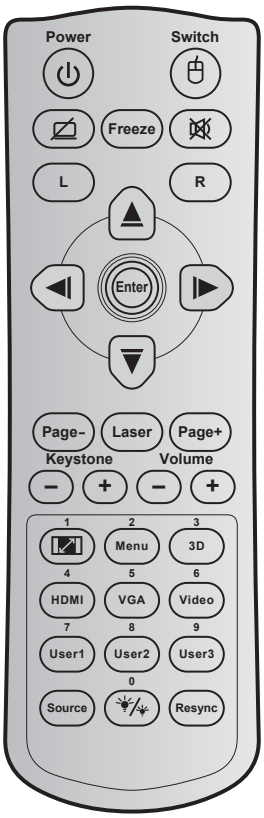
Note: *Please note that damage resulting from incorrect installation will void the warranty.*

Warning:

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

ADDITIONAL INFORMATION

IR remote codes



Key		Key code	Printing-key definition	Description
Power	⏻	81	Power on / off	Press to turn on / off the projector.
Switch	🖱	3E	Switch	Press to switch the USB mouse on / off.
Display blank / audio mute		8A		Press to hide / unhide the screen picture and turn off / on audio.
Freeze		8B	Freeze	Press to freeze the projector image.
Mute		92		Press to momentarily turn off / on the audio.
Mouse left click	L	CB	L	Use as mouse left click.
Mouse right click	R	CC	R	Use as mouse right click.
Four directional select keys		C6	Up arrow	Use ▲ ▼ ◀ ▶ to select items or make adjustments to your selection.
		C8	Left arrow	
		C9	Right arrow	
		C7	Down arrow	
Enter		C5	Enter	Confirm your item selection.
		CA	Enter	
Page -		C2	Page-	Press to page down.
Laser		N/A	Laser	Use as laser pointer.
Page +		C1	Page+	Press to page up.

ADDITIONAL INFORMATION

Key		Key code	Printing-key definition	Description
Keystone	⊖ ⊕	85	Keystone+	Press to adjust image distortion caused by tilting the projector.
		84	Keystone-	
Volume	⊖ ⊕	8C	Volume +	Press to adjust to increase / decrease the volume.
		8F	Volume -	
Aspect ratio / 1		98	/ 1	• Press to change aspect ratio of a displayed image. • Use as numeric keypad number "1".
Menu / 2		88	Menu / 2	• Press to display or exit the on-screen display menus for projector. • Use as numeric keypad number "2".
3D / 3		93	3D/3	• Press to manually select a 3D mode that matches your 3D content. • Use as numeric keypad number "3".
HDMI / 4		86	HDMI/4	• Press to choose HDMI source. • Use as numeric keypad number "4".
VGA / 5		D0	VGA/5	• Press to choose VGA source. • Use as numeric keypad number "5".
Video / 6		D1	Video/6	• Press to choose composite video source. • Use as numeric keypad number "6".
User1 / 7; User2 / 8; User3 / 9		D2	User 1/7	• User defined keys. Please see page *43* to setup. • Use as numeric keypad numbers "7", "8", and "9" accordingly.
		D3	User 2/8	
		D4	User 3/9	
Source		C3	Source	Press to select an input signal.
Brightness mode / 0		96	/ 0	• Press to automatically adjust the picture brightness to give an optimum contrast performance. • Use as numeric keypad number "0".
Re-sync		C4	Re-Sync	Press to automatically synchronize the projector to the input source.

Note:

- *If the projector supports Dynamic Eco / Image Care features and AV Mute is pressed, the power consumption of the lamp becomes 30%.*

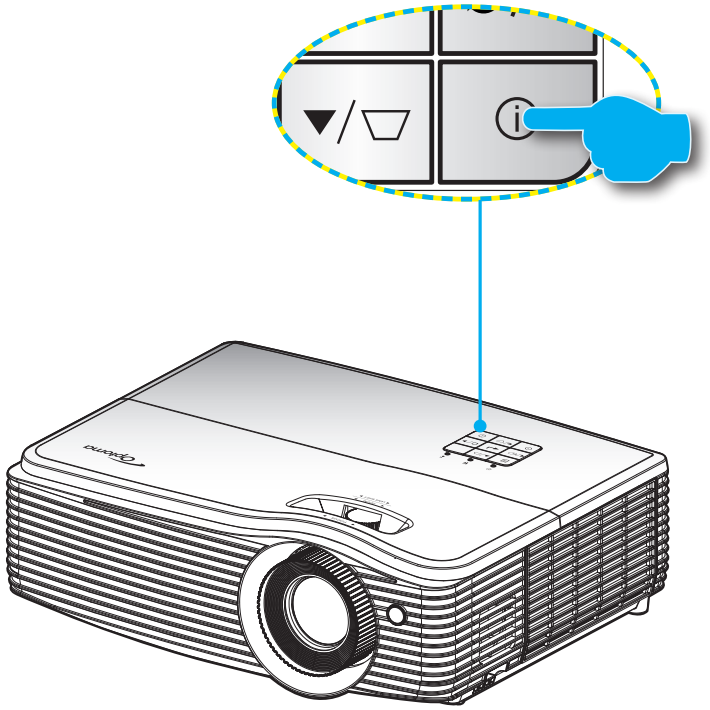
Remote mouse feature simulation specification

- The remote mouse feature is supported only when a computer source is selected, for example VGA or HDMI.
- If you press the “Switch” key on the remote control, you will see the cursor being displayed on the right top corner of the screen for 15 seconds.
- In remote mouse mode the cursor should move smoothly and continuously on the screen.

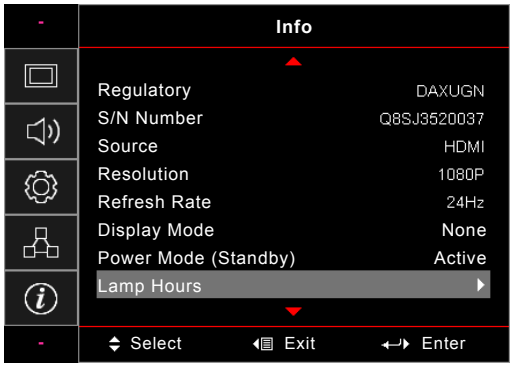
ADDITIONAL INFORMATION

Using the Information button

The Information function ensures easy setup and operation. Press the “**i**” button on the keypad to open the Information menu.



- **Information** button functions only when no input source is detected.



ADDITIONAL INFORMATION

Troubleshooting

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

Image problems

No image appears on-screen

- Ensure all the cables and power connections are correctly and securely connected as described in the "Installation" section.
- Ensure the pins of connectors are not crooked or broken.
- Check if the projection lamp has been securely installed. Please refer to the "Replacing the Lamp" section.
- Ensure that the "Mute" feature is not turned on.

Image is out of focus

- Adjust the Focus Ring on the projector lens.
- Make sure the projection screen is between the required distance from the projector. (Please refer to pages *59-61*).

The image is stretched when displaying 16:9 DVD title

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

Image is too small or too large

- Adjust the Zoom Lever on the top of the projector.
- Move the projector closer to or further from the screen.
- Press "Menu" on the projector panel, go to "Display → Aspect Ratio". Try the different settings.

Image has slanted sides:

- If possible, reposition the projector so that it is centered on the screen and below the bottom of the screen.
- Use "Display → Geometric Correction → V Keystone" from the OSD to make an adjustment.

Image is reversed

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

Blurry double image

- Press "3D" button and switch to "Auto" to avoid normal 2D image is blurry double image.

ADDITIONAL INFORMATION

Two images, side-by-side format

- Press "3D" button and switch to "SBS" for input signal is HDMI 1.3 2D 1080i side-by-side.

Image does not display in 3D

- Check if the battery of 3D glasses is drained.
- Check if the 3D glasses is turned on.
- When the input signal is HDMI 1.3 2D (1080i side-by-side half), press "3D" button and switch to "SBS".

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.

Lamp burns out or makes a popping sound

- When the lamp reaches its end of life, it will burn out and may make a loud popping sound. If this happens, the projector will not turn on until the lamp module has been replaced. To replace the lamp, follow the procedures in the "Replacing the Lamp" section on pages *54-55*.

Remote control problems

If the remote control does not work

- Check the operating angle of the remote control is pointed within ±15° to the IR receiver on the projector.
- Make sure there are not any obstructions between the remote control and the projector. Move to within 6 m (20 ft) of the projector.
- Make sure batteries are inserted correctly.
- Replace batteries if they are exhausted.

ADDITIONAL INFORMATION

Warning indicators

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

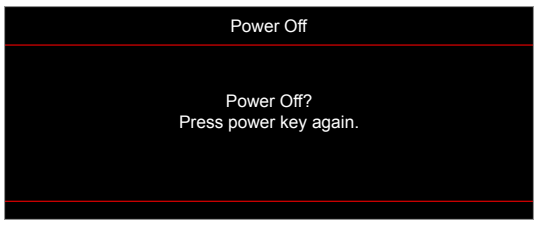
- "LAMP" LED indicator is lit red and if "On/Standby" indicator flashes red.
- "TEMP" LED indicator is lit red and if "On/Standby" indicator flashes red. This indicates the projector has overheated. Under normal conditions, the project can be switched back on.
- "TEMP" LED indicator flashes red and if "On/Standby" indicator flashes red.

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

LED lightning messages

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

- Power off:



- Lamp warning:

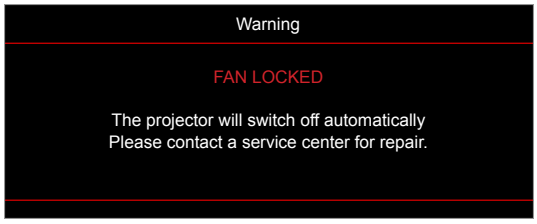


ADDITIONAL INFORMATION

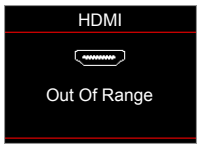
- Temperature warning:



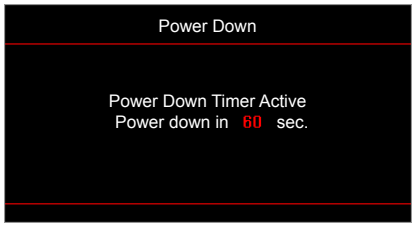
- Fan failed:



- Out of display range:



- Power down warning:



- Security timer alarm:



ADDITIONAL INFORMATION

Specifications

Optical	Description
Native resolution	XGA / WXGA / 1080p / WUXGA
Maximum resolution	1080p / 75Hz (max bandwidth: 225MHz) for HDMI
Lens	• XGA: 2.51 (Wide) ~ 2.93 (Tele) • WXGA / 1080p / WUXGA: 2.5 (Wide) ~ 3.25 (Tele)
Image size (diagonal)	• XGA: 33.6”~300.9” (focus range with optimized@60’’) • WXGA: 25.66”~301.15” (focus range with optimized@60’’) • 1080p: 26.2”~301.1” (focus range with optimized@60’’) • WUXGA: 26.94”~302.9” (focus range with optimized@60’’)
Projection distance	• XGA: 1.3m~8.5m (focus range with optimized@1.69m) • WXGA: 1.3m~9.6m (focus range with optimized@1.913m) • 1080p: 1.3m~9.4m (focus range with optimized@1.873m) • WUXGA: 1.3m~9.2m (focus range with optimized@1.822m)

Electrical	Description
Inputs	• HDMI 1.4a • HDMI 1.4a + MHL (v2.2) • VGA In (YPbPr) • Video (Composite - RCA connector (Y)) • Audio In (3.5mm) • USB Type A (x2) – USB1: Wi-Fi ready – USB2: USB display (Mobile only), USB reader (Office viewer, jpeg reader)
Outputs	• VGA Out • Audio Out (3.5mm) • 12V trigger • USB1 and USB2 power charging (5V/1A)
Control	• RS232 • RJ45 • 3D Sync VESA • USB2 (USB control-FW upgrade, remote mouse, page up/down)
Color reproduction	1073.4 Million color
Scan rate	• Horizontal Scan rate: 15.375 ~ 91.146 KHz • Vertical Scan rate: 24~ 85 Hz (120Hz for 3D feature)
Sync compatibility	Separate Sync
Built-in speaker	Yes, 10W
Power requirement	100 - 240V AC 50 / 60Hz
Input current	4.5 A

ADDITIONAL INFORMATION

Electrical	Description
Power Consumption	• Bright mode: – Typical 405W Max. 445W@110VAC – Typical 390W Max. 430W@220VAC • Eco mode: – Typical 315W Max. 347W@110VAC – Typical 305W Max. 336W@110VAC

Mechanical	Description
Installation orientation	Front, Rear, Ceiling-Top, Rear-Top
Dimensions	• 369 mm (W) x 295 mm (D) x 123 mm (H) (w/o feet) • 369 mm (W) x 295 mm (D) x 135 mm (H) (w/ feet)
Weight	4.6 +5% kg
Environmental conditions	Operating in 5 ~ 40°C, 10% to 85% humidity (non-condensing)

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

ADDITIONAL INFORMATION

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