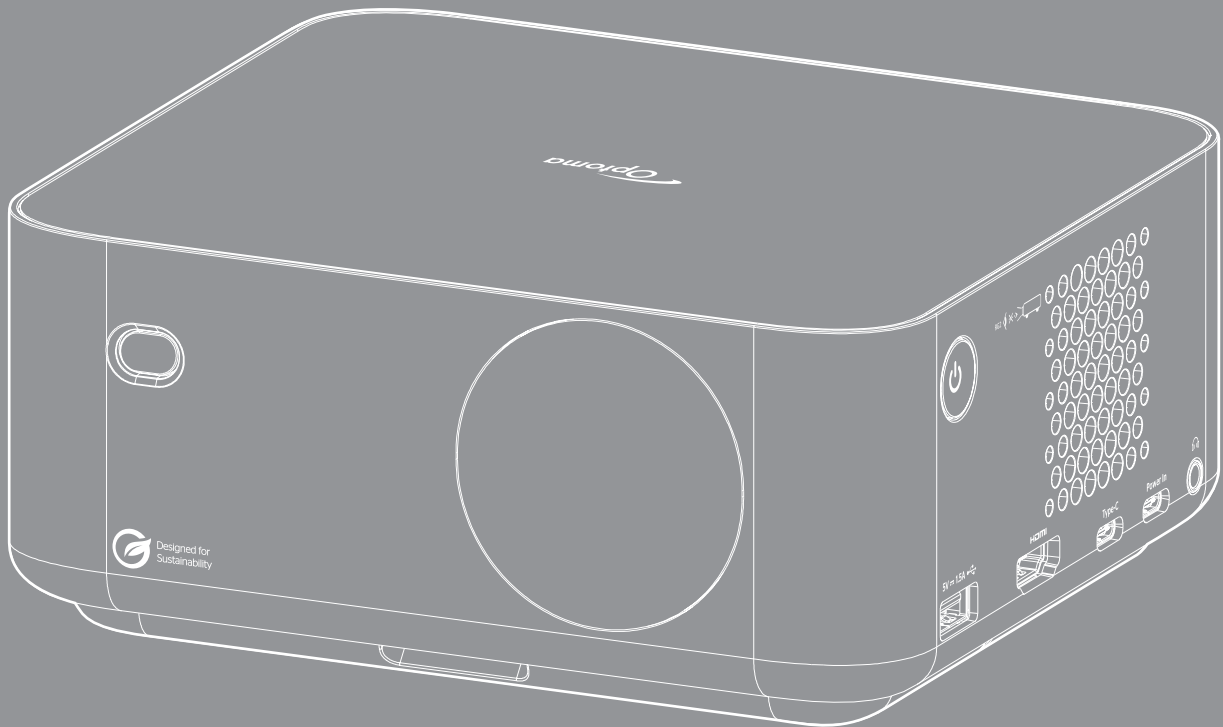


# DLP® Projector



# TABLE OF CONTENTS



<b>SAFETY</b> .....	<b>4</b>
<i>Important Safety Instruction</i> .....	4
<i>Laser Radiation Safety Information</i> .....	5
<i>Copyright</i> .....	7
<i>Disclaimer</i> .....	7
<i>Trademark Recognition</i> .....	7
<i>FCC</i> .....	7
<i>Declaration of Conformity for EU countries</i> .....	8
<i>WEEE</i> .....	8
<i>Cleaning the Lens</i> .....	8
<b>INTRODUCTION</b> .....	<b>9</b>
<i>Package Overview</i> .....	9
<i>Standard accessories</i> .....	9
<i>Optional accessories</i> .....	9
<i>Product Overview</i> .....	10
<i>Connections</i> .....	11
<i>Remote control</i> .....	12
<b>SETUP AND INSTALLATION</b> .....	<b>13</b>
<i>Installing the projector</i> .....	13
<i>Connecting sources to the projector</i> .....	16
<i>Adjusting the projector image</i> .....	17
<i>Installing / replacing the battery</i> .....	19
<b>USING THE PROJECTOR</b> .....	<b>21</b>
<i>Powering on / off the projector</i> .....	21
<i>Selecting an input source</i> .....	22
<i>Launcher screen overview</i> .....	23
<i>System date and time</i> .....	23
<i>Control menu</i> .....	23
<i>Menu navigation and features</i> .....	26
<i>OSD Menu tree</i> .....	27
<i>Image settings picture mode menu</i> .....	31
<i>Image settings dynamic range menu</i> .....	31
<i>Image settings brightness menu</i> .....	31
<i>Image settings contrast menu</i> .....	32
<i>Image settings sharpness menu</i> .....	32
<i>Image settings gamma menu</i> .....	32
<i>Image settings dynamic contrast menu</i> .....	32
<i>Image settings PureMotion menu</i> .....	32
<i>Image settings tint menu</i> .....	32
<i>Image settings color temperature menu</i> .....	32

<i>Image settings saturation menu</i> .....	32
<i>Image settings color space menu</i> .....	32
<i>Image settings reset menu</i> .....	32
<i>Display Focus Setting menu</i> .....	33
<i>Display geometric correction menu</i> .....	34
<i>Display projection location menu</i> .....	34
<i>Display projection orientation menu</i> .....	34
<i>Display digital zoom menu</i> .....	35
<i>Display aspect ratio menu</i> .....	35
<i>Display eye protection sensor menu</i> .....	35
<i>System auto source menu</i> .....	36
<i>System direct power on menu</i> .....	36
<i>System signal power on menu</i> .....	36
<i>System auto power off menu</i> .....	36
<i>System digital signage menu</i> .....	36
<i>System light source mode menu</i> .....	36
<i>System high altitude menu</i> .....	36
<i>System HDMI CEC settings menu</i> .....	37
<i>System reset all settings menu</i> .....	37
<i>Audio volume menu</i> .....	37
<i>Audio mute menu</i> .....	37
<i>Audio mode menu</i> .....	37
<i>Information menu</i> .....	38
<i>Android settings menu</i> .....	39
<i>Selecting an input source manually</i> .....	46
<i>Selecting an app</i> .....	46

## **ADDITIONAL INFORMATION..... 49**

<i>Compatible solutions</i> .....	49
<i>Supported formats for multi-media</i> .....	52
<i>Supported formats for digital signage</i> .....	53
<i>Image size and projection distance</i> .....	53
<i>Projector dimensions and ceiling mount installation</i> .....	55
<i>IR remote codes</i> .....	56
<i>Troubleshooting</i> .....	57
<i>Warning indicators</i> .....	59
<i>Specifications</i> .....	60
<i>Optoma global offices</i> .....	61

# 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 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 0°C ~ 40°C
    - (ii) Relative humidity is 10% ~ 85%
  - In areas susceptible to excessive dust and dirt.
  - Near any appliance generating a strong magnetic field.
  - In direct sunlight.
- Do not use the unit if it has been physically damaged or abused. Physical damage/abuse would be (but not limited to):
  - Unit has been dropped.
  - Power supply cord or plug has been damaged.
  - Liquid has been spilled on to the projector.
  - Projector has been exposed to rain or moisture.
  - Something has fallen in the projector or something is loose inside.
- Do not place the projector on an unstable surface. The projector may fall over resulting in injury or the projector may become damaged.
- Do not block the light coming out of the projector lens when in operation. The light will heat the object and may melt, cause burns or start a fire.
- Please do not open or disassemble the projector as this may cause electric shock.
- Do not attempt to service the unit yourself. Opening or removing covers may expose you to dangerous voltages or other hazards. Please call Optoma before you send the unit for repair.
- See projector enclosure for safety related markings.
- The unit should only be repaired by authorized service personnel.
- Only use attachments/accessories specified by the manufacturer.
- Do not look into straight into the projector lens during operation. The bright light may harm your eyes.
- This projector will detect the life of the light source itself.

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

## Laser Radiation Safety Information

- IEC 60825-1:2014, EN 60825-1:2014+A11:2021, EN 50689:2021 CLASS 1 CONSUMER LASER PRODUCT - RISK GROUP 2, Complies with 21 CFR 1040.10 and 1040.11 except for conformance as a Risk Group 2 LIP as defined in IEC 62471-5:Ed. 1.0. For more information see Laser Notice No. 57, dated May 8, 2019.
- The product's intended use as a consumer laser product and compliant with EN 50689: 2021.

IEC 60825-1:2014, EN 60825-1:2014+A11:2021, EN 50689:2021 CLASS 1 CONSUMER LASER PRODUCT RISK GROUP 2, Complies with 21 CFR 1040.10 and 1040.11 except for conformance as a Risk Group 2 LIP as defined in IEC 62471-5:Ed.1.0. For more information see Laser Notice No. 57, dated May 8, 2019.  
 IEC 60825-1:2014 等級1雷射產品RG2危險等級 IEC 60825-1:2014 1類激光產品RG2危險等級



- Do not stare into the beam, RG2.
- As with any bright source, do not stare into the direct beam, RG2 IEC 62471-5:2015.
- This projector is class 1 laser product of IEC 60825-1:2014, EN 60825-1:2014+A11:2021 and risk group 2 with the requirements of IEC 62471-5:2015.
- Additional instructions to supervise children, no staring, and not use optical aids.
- Notice is given to supervise children and to never allow them to stare into the projector beam at any distance from the projector.
- This projector has built-in Class 4 laser module. Disassembly or modification is very dangerous and should never be attempted.
- Any operation or adjustment not specifically instructed by the user's guide creates the risk of hazardous laser radiation exposure.
- Notice is given to use caution when using the remote control for starting the projector while in front of the projection lens.
- Notice is given to the user to avoid the use of optical aids such as binoculars or telescopes inside the beam.
- When turning on the projector, make sure no one within projection range is looking at the lens.
- Keep any items (magnifying glass etc.) out of the light path of the projector. The light path being projected from the lens is extensive, therefore any kind of abnormal objects that can redirect light coming out of the lens, can cause an unpredictable outcome such as a fire or injury to the eyes.

- Any operation or adjustment not specifically instructed by the user's guide creates the risk of hazardous laser radiation exposure.
- Do not open or disassemble the projector as this may cause damage by the exposure of laser radiation.
- Do not stare into beam when the projector is on. The bright light may result in permanent eye damage.
- Without following the control, adjustment or operation procedure may cause damage by the exposure of laser radiation.

## Copyright

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

©Copyright 2023

## Disclaimer

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

## Trademark Recognition

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

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

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

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 numérique de la classe B est conforme à la norme NMB-003 du Canada.

## Declaration of Conformity for EU countries

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

## Cleaning the Lens

- Before cleaning the lens, be sure to turn off the projector and unplug the power cord to allow it to completely cool down.
- Use a compressed air tank to remove the dust.
- Use a special cloth for cleaning lens and gently wipe the lens. Do not touch the lens with your fingers.
- Do not use alkaline/acid detergents or volatile solvents such as alcohol for cleaning lens. If the lens is damaged due to the cleaning process, it is not covered by the warranty.



Warning: Do not use a spray containing flammable gases to remove dust or dirt from the lens. This may cause a fire due to excessive heat inside the projector.



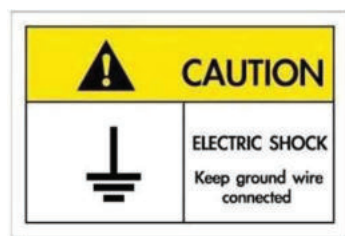
Warning: Do not clean the lens if the projector is warming up as this may cause the lens' surface film to peel off.



Warning: Do not wipe or tap the lens with a hard object.



Warning: Mount above the heads of children. The use of a ceiling mount is recommended with this product to place it above the eyes of children.



To avoid electric shock, the unit and its peripherals must be properly grounded (earthed).



# INTRODUCTION

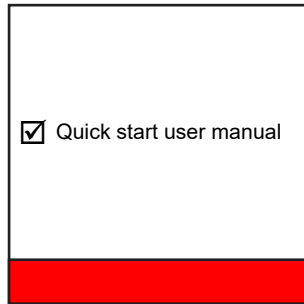
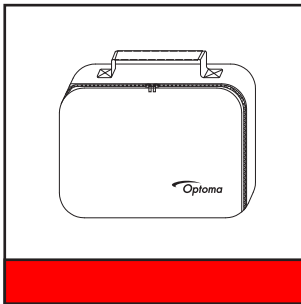
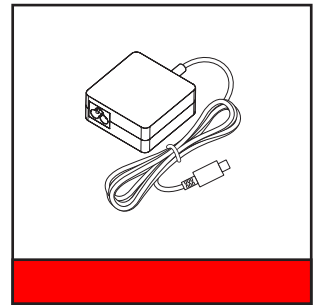
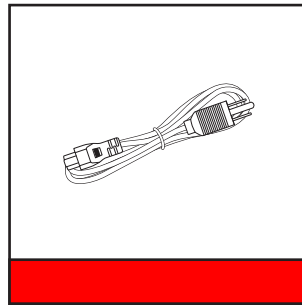
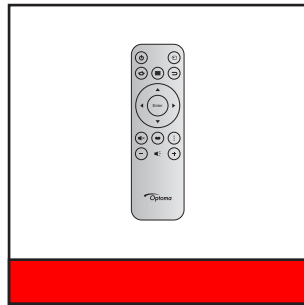
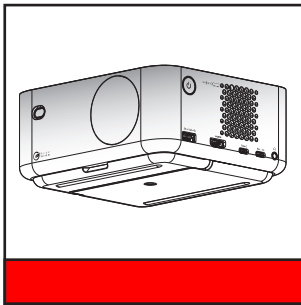
Thank you for purchasing an Optoma laser projector. For full list of features please visit the product page on our website, where you will also find additional information and documentation such as FAQs.

## Package Overview

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

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

## Standard accessories

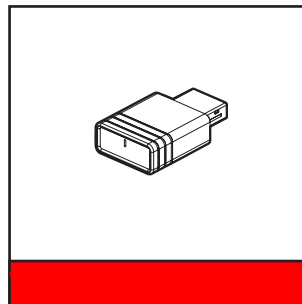
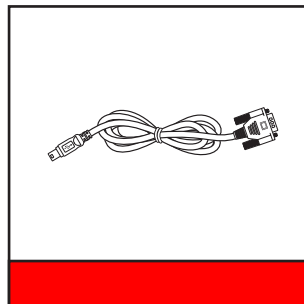
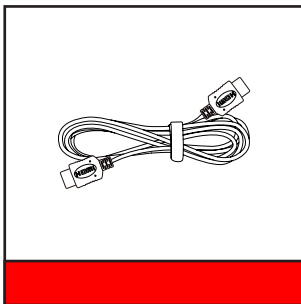


### Note:

- For access to the setup information, user manual, warranty information, and product updates – please scan the QR Code or visit the following URL:  
<https://www.optoma.com/support/download>
- Power cable and optional accessories may vary by country.



## Optional accessories

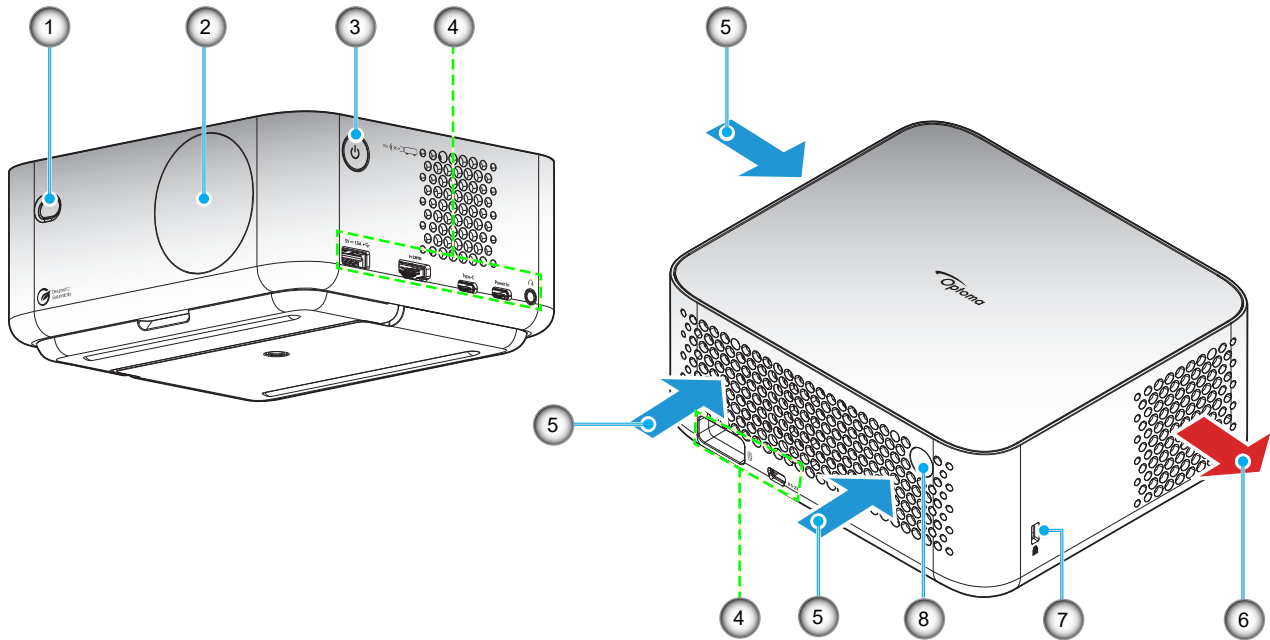


### Note:

- The optional accessories may vary depending on the region and the purchased projector model.
- \*Please use “Ultra High Speed HDMI Cable” with HDMI 2.1a certification.

# INTRODUCTION

## Product Overview



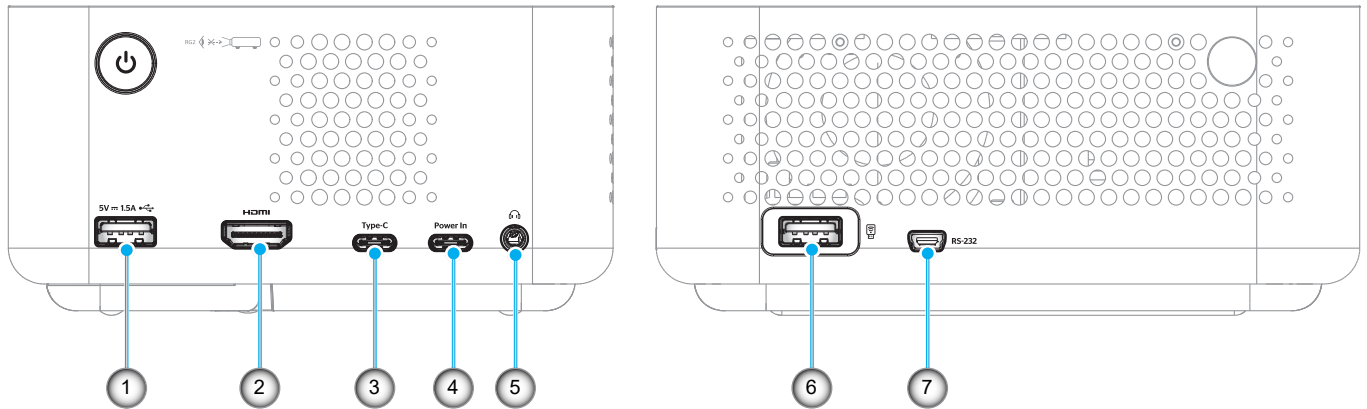
### Note:

- Do not block projector intake and exhaust vents.
- When operating the projector in an enclosed space, allow at least 15 cm clearance around the intake and exhaust vents.

1.	ToF Lens	5.	Ventilation (inlet)
2.	Lens	6.	Ventilation (outlet)
3.	Power Button	7.	Kensington™ Lock Port
4.	Input / Output	8.	IR Receiver

# INTRODUCTION

## Connections



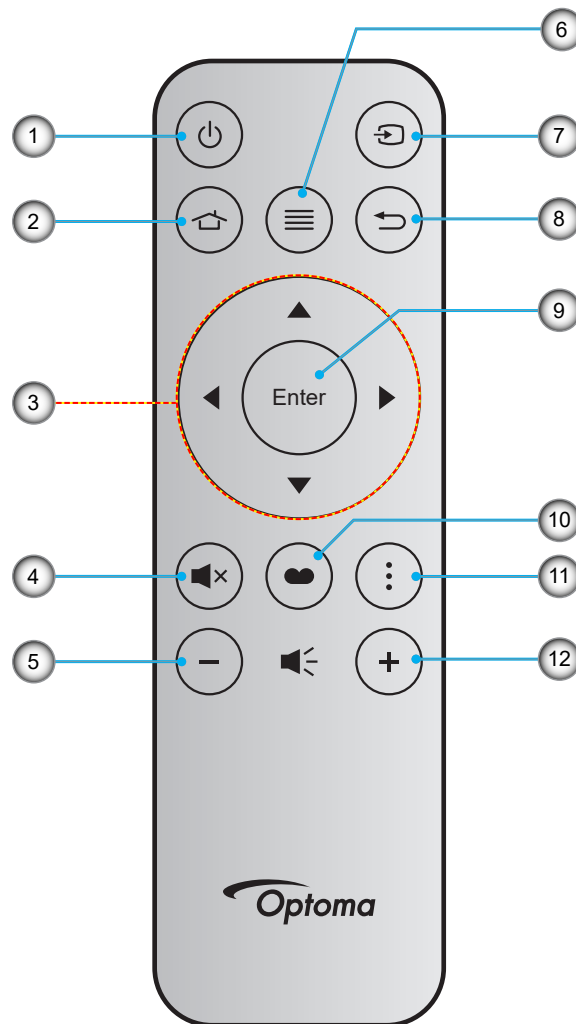
1.	USB Type-A Power Out (5V/1.5A) (For multi-media pen drive, 4K/60Hz; FW upgrade.)	5.	Audio Out Connector (DC Jack 3.5mm, for speaker and headphone)
2.	HDMI 2.1 Connector (4K/120Hz)	6.	USB Type-A Power Out (5V/0.5A) (For WiFi dongle / multi-media pen drive)
3.	USB Type-C Connector (For image display, 4K/60Hz) Note*2	7.	Mini USB Connector (For RS232)
4.	USB Type-C Connector (For Power input)		

### Note:

1. Signal mode support varies from different model in each sales region.
2. USB Type-C connector (No.3): For image display only, not for power input.

# INTRODUCTION

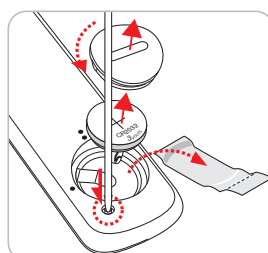
## Remote control



1.	Power On / Off	7.	Source
2.	Home	8.	Return
3.	Four Directional Select Keys	9.	Enter
4.	Mute	10.	Display Mode
5.	Volume -	11.	APP menu
6.	Menu	12.	Volume +

### Note:

- Some keys may have no function for models that do not support these features.
- Before using the remote control for the first time, remove the transparent insulation tape. For more information on battery installation, refer to page 19.



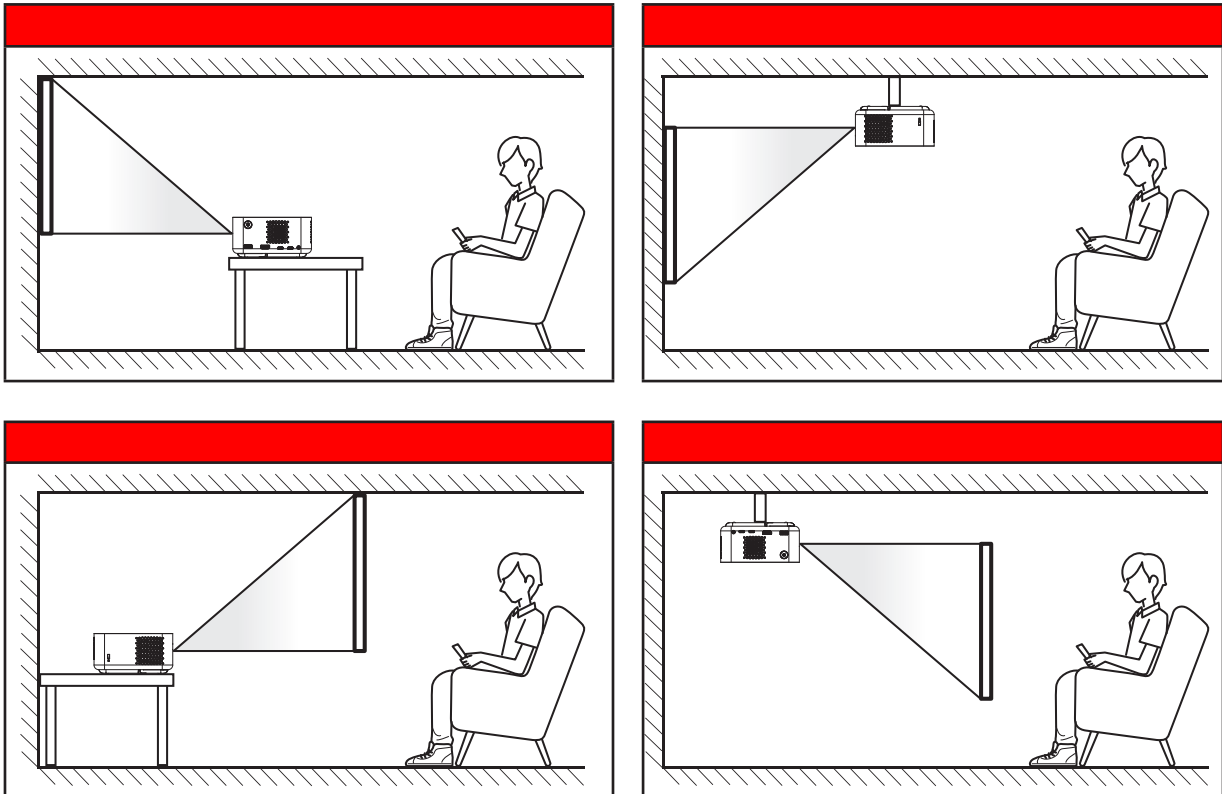
- The inclusion of the battery for the remote control may vary depending on the region.

# 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.

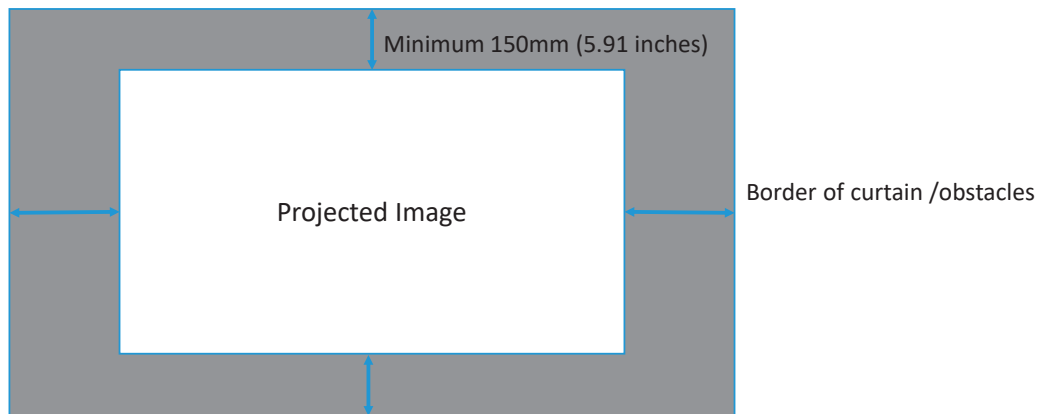
- How to determine projector location for a given screen size, please refer to distance table on pages 53 - 54.
- How to determine screen size for a given distance, please refer to distance table on pages 53 - 54.

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

# SETUP AND INSTALLATION

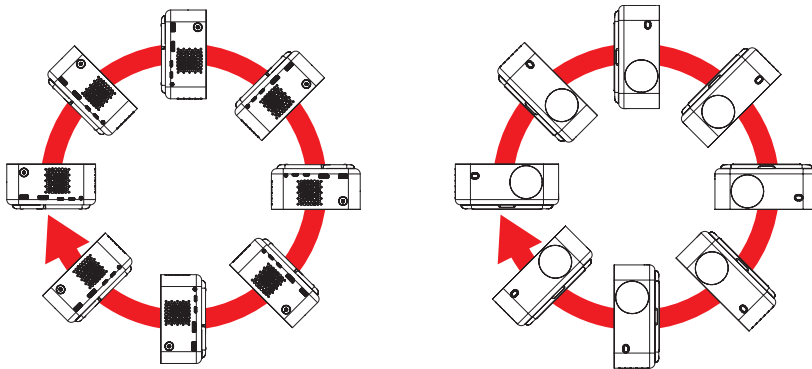
## Note:

- Ensure that the projector is positioned at the following specifications:
  - a. The projected surface is flat and perpendicular to the ground.
  - b. The projector is placed at 80-350 cm away from the projected surface.
  - c. Horizontal and vertical keystone correction and projection angle is within  $\pm 20$  - degree range.
  - d. The further away the projector is placed from the screen the projected image size increases and vertical offset also increases proportionally.
  - e. Keep at least 15 cm clearance of the projected image from the border of the ally curtain or obstacles.



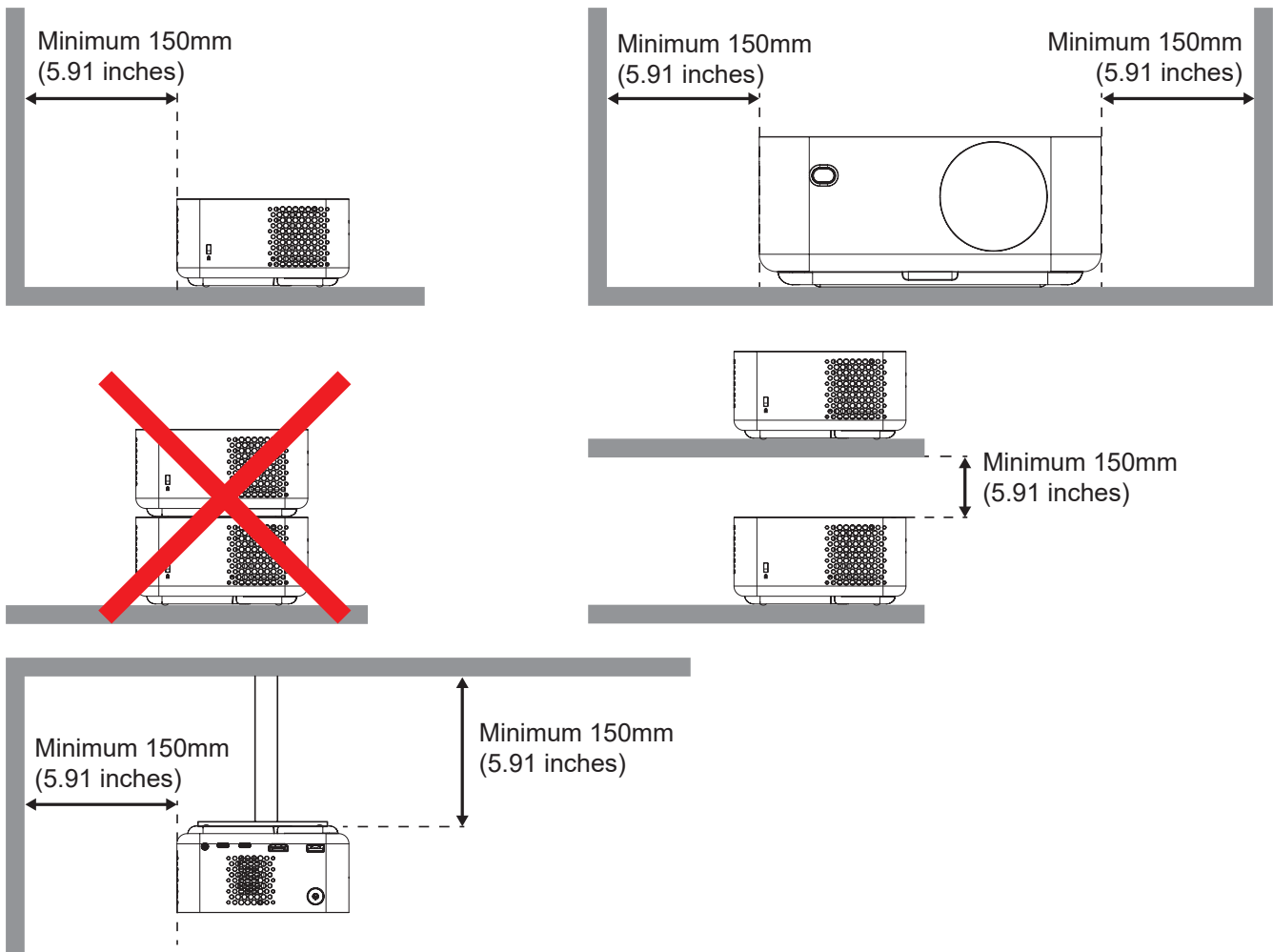
## Projector installation notice

- 360° free orientation operation



# SETUP AND INSTALLATION

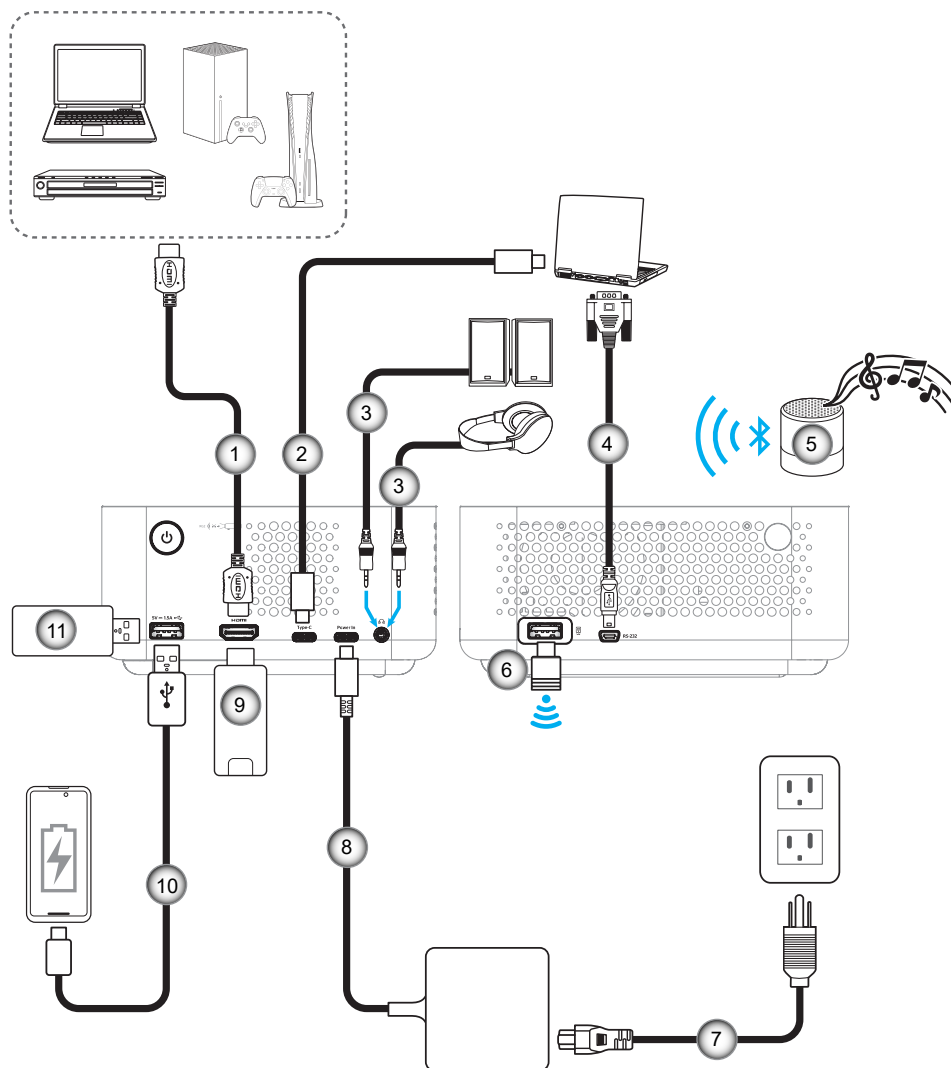
- Allow at least 15 cm clearance around the exhaust vent.



- 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 within the acceptable operation temperature range.

# SETUP AND INSTALLATION

## Connecting sources to the projector



1.	HDMI Cable	7.	Power Cable
2.	USB-C Cable	8.	Power Adapter
3.	Audio Headphone	9.	HDMI Dongle
4.	Mini USB-B to RS232 Cable	10.	USB Power Cable
5.	Bluetooth Speaker	11.	Flash Disk
6.	WiFi Dongle		

**Note:** To ensure the best image quality and avoid connection errors, we recommend the use of “Ultra High Speed HDMI Cable” with HDMI 2.1a certification up to 5 meters.



# SETUP AND INSTALLATION

## Adjusting the projector image

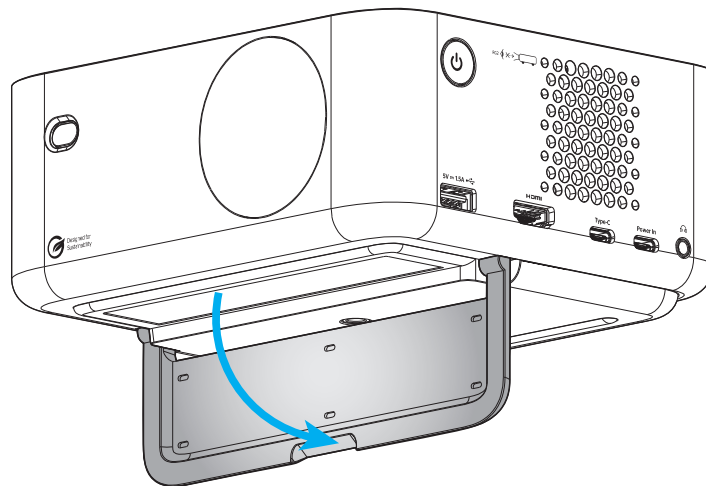
### Install the projector

Ensure that the projector is positioned at the following specifications:

- The projector is placed on a flat surface and parallel to the ground.
- The projected surface is flat and perpendicular to the ground.

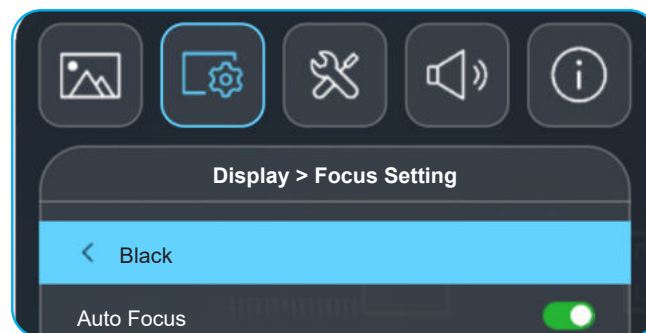
### Image height

The projector is equipped with a kickstand. Open the kickstand to adjust the image height from 0 to 90°.



### Auto focus and auto keystone

- Make sure the Auto Focus function is On in the Display menu to automatically adjust image distortion caused by tilting and moving the projector.

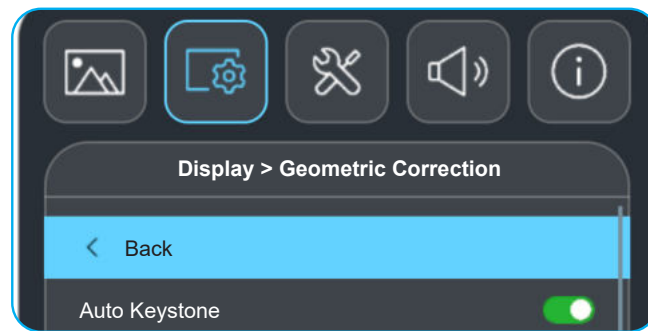


### Note:

- Ensure that the projector is positioned at the following specifications:
  - The projected surface is flat and perpendicular to the ground.
  - The projector is placed at 80-350 cm away from the projected surface.
  - Horizontal and vertical keystone correction and projection angle is within  $\pm 20$  - degree range.

# SETUP AND INSTALLATION

- Make sure the Auto Keystone function is On in the Display > Geometric Correction menu to vertically adjust image distortion caused by tilting or moving the projector.



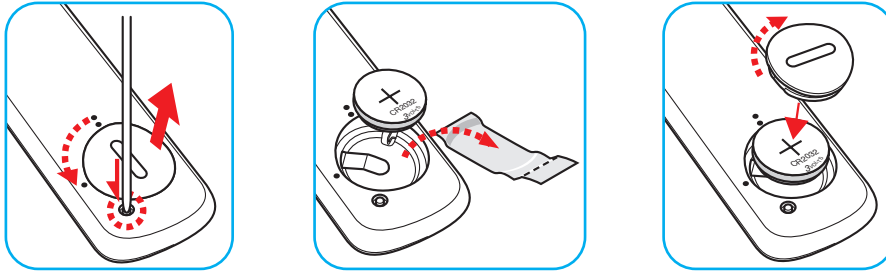
**Note:**

- *Ensure that the projector is positioned at the following specifications:*
  - a. The projected surface is flat and perpendicular to the ground.*
  - b. The projector is placed at 80-350 cm away from the projected surface.*
  - c. Horizontal and vertical keystone correction is within  $\pm 20$  - degree range.*

# SETUP AND INSTALLATION

## Installing / replacing the battery

1. Push the button and unscrew the battery cover. Use a coin to turn the battery cover counterclockwise until the cover opens.
2. Install new battery into the compartment.  
Remove the old battery and install new one (CR2032). Ensure that the side with a "+" is facing up.
3. Put the cover back. Then use a coin to turn the battery cover clockwise to lock it in place.



### CAUTION:

To ensure safe operation, please observe the following precautions:

- Use CR2032 type battery.
- Avoid contact with water or liquid.
- Do not expose the remote control to moisture or heat.
- Do not drop the remote control.
- If the battery has leaked in the remote control, carefully wipe the case clean and install new battery.
- Risk of an explosion if battery is replaced by an incorrect type.
- Dispose of used battery according to the instructions.

Warning: Do not ingest battery, Chemical Burn Hazard.



- This product contains a coin / button cell battery. If the coin / button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.

Warning: Keep new and used batteries away from children.



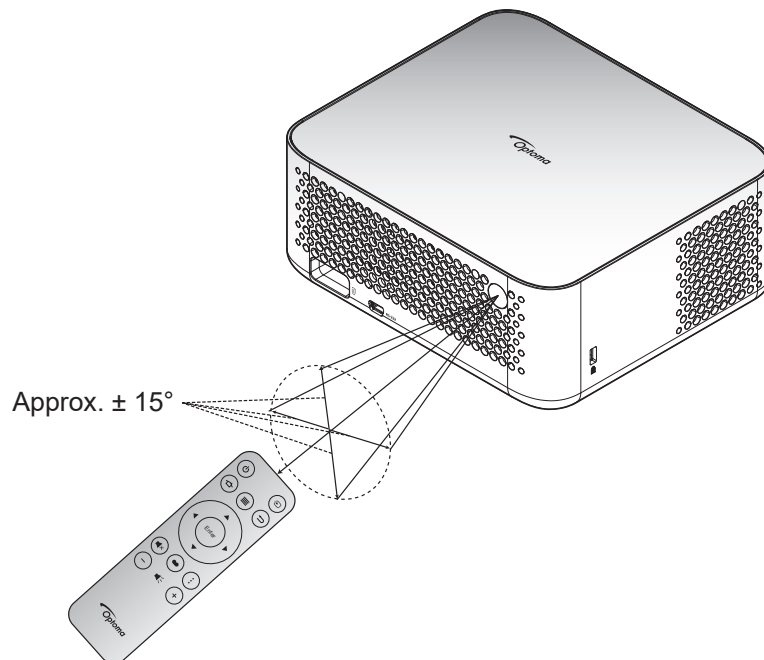
- If the battery compartment does not close securely, stop using the product and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

# SETUP AND INSTALLATION

## Effective range

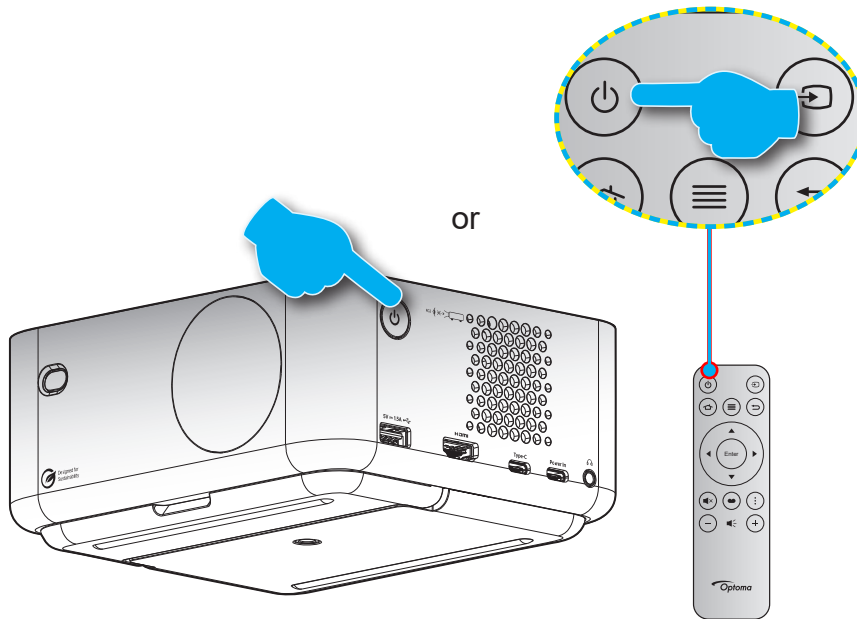
Infra-Red (IR) remote control sensor is located on the rear sides of the projector. Ensure that the remote control is held at an angle 15 degrees perpendicular to the projector's IR remote control sensor to ensure correct functionality. The distance between the remote control and the sensor should not be longer than 6 meters (19.7 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 on directly by sunlight or fluorescent lamps.
- Please keep the remote controller at least 2m away from fluorescent lamps or it may malfunction.
- If the remote control is close to Inverter-Type fluorescent lamps, it might become ineffective from time to time.
- If the remote control and the projector are within a very short distance of one another, the remote control might become ineffective.



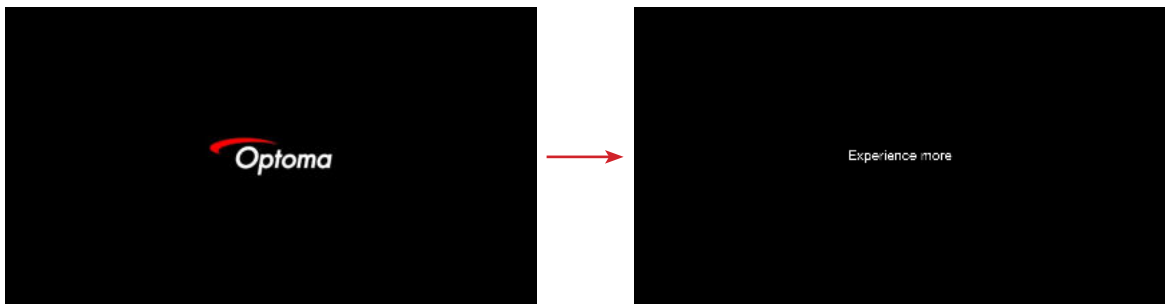
# USING THE PROJECTOR

## Powering on / off the projector

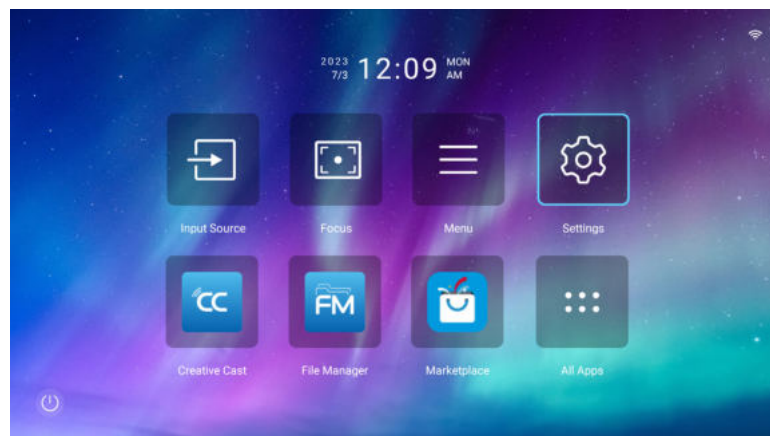


### Powering on

1. Securely connect the power lead and signal/source cable. When connected, the Power LED will start breathing white light.
2. Turn on the projector by pressing the “⏻” button on the projector or on the remote control. The Power LED will start flashing white. The Optoma boot logo and then animation are displayed on the screen.



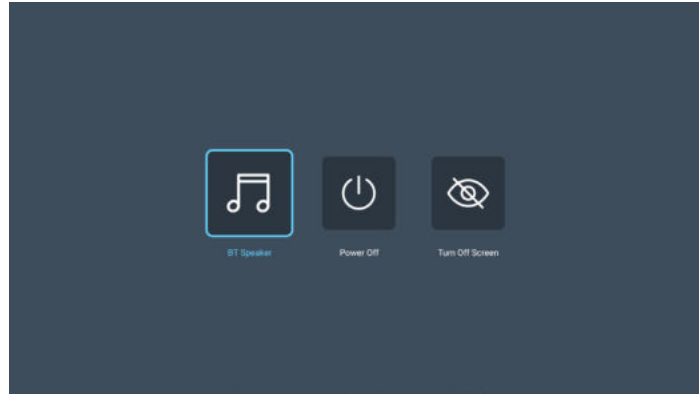
3. A launcher screen will display in approximately 10 seconds and the Power LED will turn steady white.




# USING THE PROJECTOR

## Powering off

1. Select one of the following methods to power off the projector:
  - Press the “⏻” button twice on the remote control.
  - Press the “⏻” button on the projector or on the remote control. The Control menu will open:



Select  **Power Off** to power off the projector.

2. The cooling fans will continue to operate for about 3 seconds for the cooling cycle and the Power LED will be flashing red. When the Power LED starts breathing white light, this indicates the projector has entered standby mode.
3. 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.

## Selecting an input source

Turn on the connected source that you want to display on the screen, such as computer, notebook, video player, etc. Press the “⏻” button on the remote control to select the desired input.

**Note:** If Auto Source is enabled in the OSD menu, then the projector will detect the source automatically.




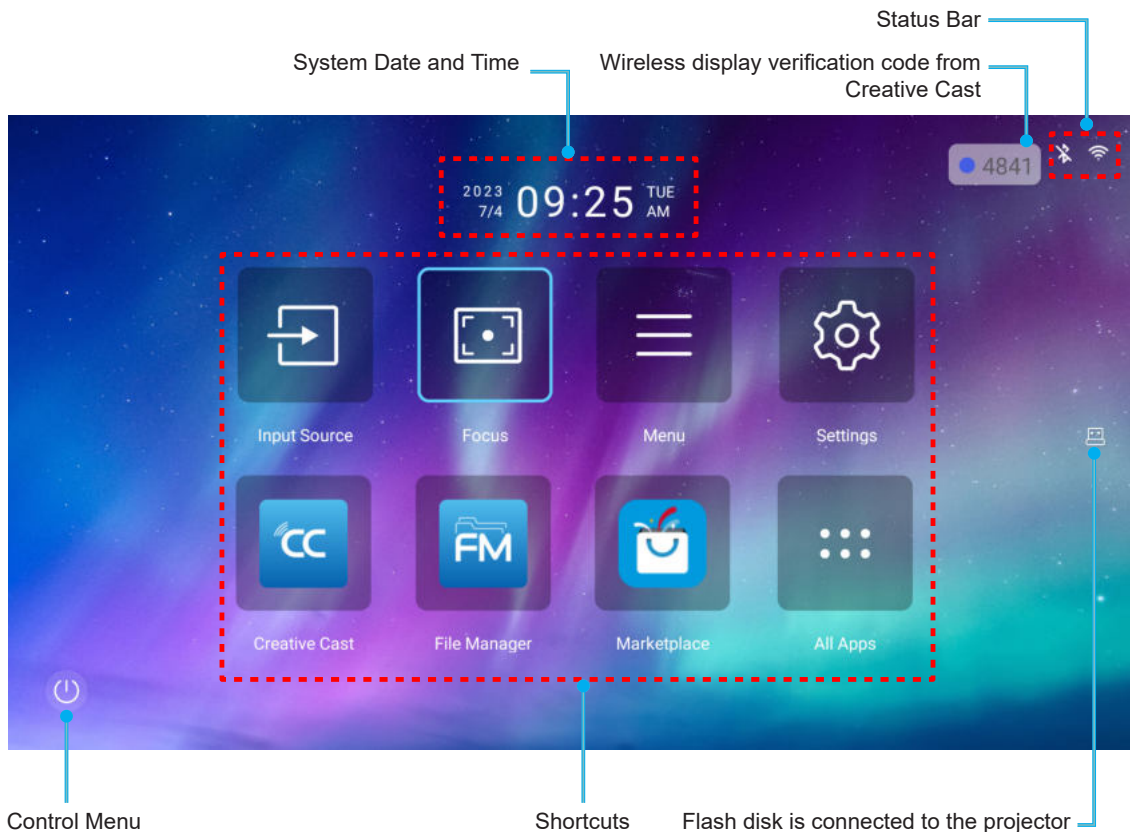
# USING THE PROJECTOR

## Launcher screen overview

The Launcher screen is the Home page to start the projector. It contains system date and time, system status, shortcuts to access various apps, and more.

To navigate the Launcher screen, simply use the buttons on the remote control.

You can return to the Home screen at any time by pressing “” on the remote control, regardless of your position in the user interface.



### Note:

- The selected menu or item is highlighted in light blue color, for example “Settings” on the image above.
- New “Display Share” & “File Manager” apps will be available by 2024/1/M. To use these new apps, you need to upgrade projector’s firmware.

## System date and time

Date and time is displayed on the Home screen if the projector is connected to the network. The default setting is 10:00am, 2023/01/01. AM/PM will appear only if the 24-hour format is off.

To modify date and time parameters, select the respective field on the screen. The Date and Time settings page opens automatically. Then perform the modifications.

## Control menu



Select  to open the Control menu. Then select any of the following:

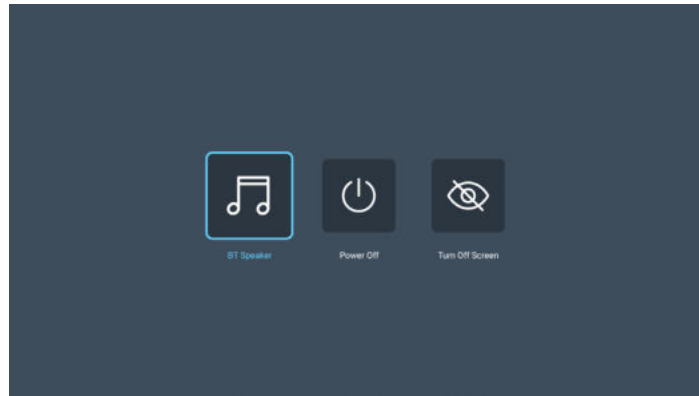
- **BT Speaker:** Play music from your smartphone via Bluetooth. Refer to page 24.
- **Power Off:** Power off the projector. Refer to page 22.
- **Turn Off Screen:** Turn off the screen backlight. Press any button on the remote control to turn the screen backlight on again.

# USING THE PROJECTOR

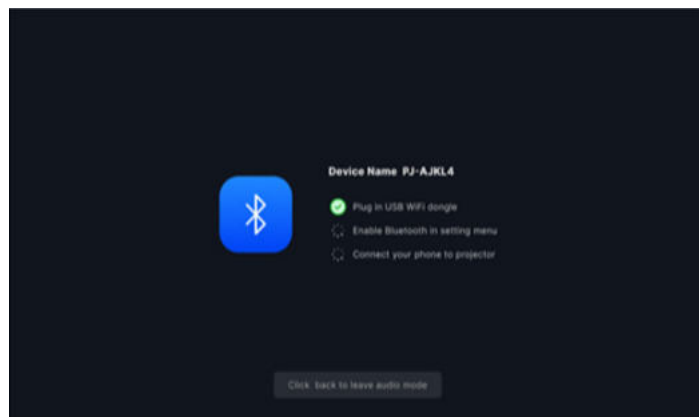
## Audio mode

To play music from your smartphone or from the flash disk, do the following:

1. Connect the WiFi dongle to the projector. Refer to page 16.
2. Enable Bluetooth on your smartphone and projector.
3. Press the “” button on the remote control or select  on the Home page.
4. Select **BT Speaker**.



5. Select your smartphone in the list of detected Bluetooth devices to start the pairing process.



**Note:** If Bluetooth is not enabled and/or WiFi dongle is not connected to the projector, then the projector will display the below error message. Repeat steps 1 to 4 and try again to connect the projector to your smartphone.





# USING THE PROJECTOR

6. Upon successful Bluetooth pairing, the projector will display a countdown message and the screen will turn off after 10 seconds.



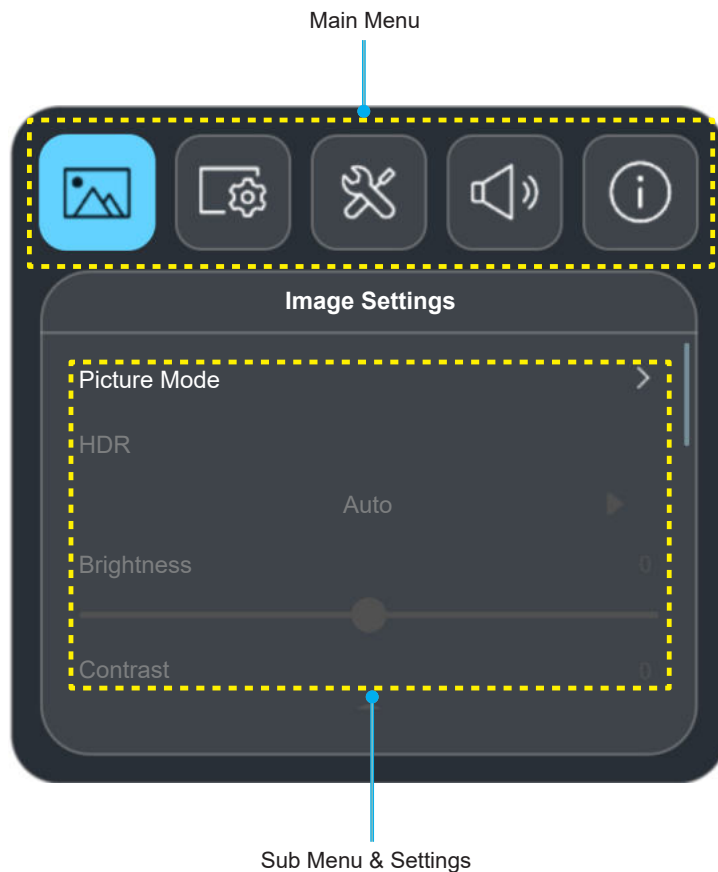
7. While in BT Speaker mode and the screen is turned off, press any of the following remote control buttons:
  - **“Volume +/Volume-”**: Adjust the playback sound.
  - **“Mute”**: Mute the playback.
  - **“Return”**: Exit the BT Speaker mode.
  - **“Power On / Off”, “Source”, “Home”, “Menu”, “Four directional select keys”, “Display mode”, “APP menu”**: Turn on the screen and after 3 seconds display the countdown message.

# USING THE PROJECTOR

## Menu navigation and features

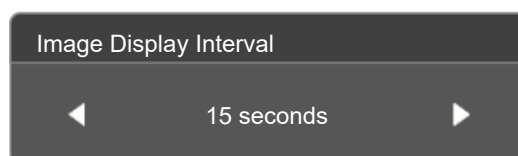
Press “≡” on the remote control or on the Home screen, select the OSD menu “☰” to review projector information or manage various settings related to the image, display, system, and audio.

1. When OSD is displayed, use the up and down navigation buttons to select any item in the main menu. While making a selection on a particular page, press “Enter” to enter submenu.
2. Press the “◀” and “▶” button to select the desired menu item. Then press “Enter” to open its sub menu.
3. Press the “▲” and “▼” button to select the desired item in the sub menu.
4. Press the “Enter” button to enable or disable a setting or press the “◀” and “▶” button to adjust a value.
5. Select the next item to be adjusted in the sub menu and modify as described above.
6. To exit, press “↵” (repeatedly if necessary). The OSD menu will close and the projector will automatically save the new settings.



### Floating menu

Floating menu is displayed automatically if you select certain menu items. Press the “◀” and “▶” button to select the setting or adjust the value. Then press “↵” to return to the main OSD menu.





# USING THE PROJECTOR

## OSD Menu tree

**Note:** The OSD menu tree items and features are subject to models and region. Optoma reserve the right to add or remove items to improve product performance without notice.

Image Settings	Picture Mode				Vivid
					HDR [for HDMI 2.0 models]
					HLG [for HDMI 2.0 models]
					Cinema
					Game
					Bright
					WCG
					AI-PQ
				Presentation	
	HDR				Auto
					Off
	Brightness				-50 ~ 50
	Contrast				-50 ~ 50
	Sharpness				0 ~ 15
	Gamma				Film
					Graphics
					1.8
					2.0
					Standard (2.2)
					2.4
	Dynamic Contrast				Off
					On
	PureMotion				Off
					1
					2
					3
	Tint				-50 ~ 50
	Color Temperature				Standard
					Cool
					Cold
	Saturation				-50 ~ 50
	Color Space				Auto
					Full
				Limited	
Reset				No	
				Yes	

# USING THE PROJECTOR

Display	Focus Setting	Auto Focus			Off
					On
		Focus			
		Auto Focus Adjustment			
	Geometric Correction	Auto Keystone			On
					Off
		V. Keystone			-40 ~ 40
		H. Keystone			-40 ~ 40
		Rotation			-15 ~ 15
		Four Corner Adjustment			
		Reset			No
				Yes	
	Projection Location				Front
					Rear
	Projection Orientation				Auto
					Desktop 
					Ceiling 
	Digital Zoom				-50 ~ 0
	Gaming Mode				ALLM
					On
	Aspect Ratio				Auto
					4:3
					16:9
				16:10	
				Native	
Eye protection sensor				Off	
				On	
System	Auto Source				Off
					On
	Direct Power On				Off
					On
	Signal Power On				Off
					On
	Auto Power Off				Off
					20 minutes
					30 minutes
					1 hour
					2 hours
					3 hours
					4 hours
					8 hours
			12 hours		

# USING THE PROJECTOR

System	Digital Signage	Digital Signage			Off	
					On	
		Image Display Interval				5 seconds
						10 seconds
						15 seconds
						20 seconds
						25 seconds
						30 seconds
						35 seconds
						40 seconds
						45 seconds
						50 seconds
						55 seconds
						60 seconds
		Image Display Effect				Off
						Fade In/Out
						Slide Right
						Slide Left
	Light Source Mode				Bright	
					Eco	
					Eco Plus	
	High Altitude				Off	
					On	
	HDMI CEC Settings	HDMI Link			Off	
					On	
		Power On Link				Mutual
						PJ → Device
		Power Off Link				Device → PJ
						Mutual
	Reset All Settings				PJ → Device	
					Device → PJ	
	Audio	Volume				0 ~ 100
Mute					Off	
					On	
Audio Mode					Auto	
					Standard	
					Movie	
				Game		

# USING THE PROJECTOR

Information	About	Regulatory			
		Serial Number			
		FW Version			
	Source				
	Source Info.				
	Color Info.	Color Bit Depth			
		Color Gamut			
		Color Space			
	Projection Hours				
	Light Source Hours				
	Light Source Mode				

# USING THE PROJECTOR

## Image settings menu

### Image settings picture mode menu

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

- **Vivid:** In this mode, the color saturation and brightness are well-balanced. Choose this mode for playing games.
- **HDR / HLG:** Decodes and displays High Dynamic Range (HDR) / Hybrid Log Gamma (HLG) content for the deepest blacks, brightest whites, and vivid cinematic color using REC.2020 color gamut. This mode will be automatically enabled if HDR/HLG is set to Auto (and HDR/HLG Content is sent to projector – 4K UHD Blu-ray, 1080p/4K UHD HDR/HLG Games, 4K UHD Streaming Video). While HDR/HLG mode is active, other display modes (Cinema, Reference, etc.) cannot be selected as HDR/HLG delivers color that is highly accurate, exceeding the color performance of the other display modes.  
**Note:** *This option is only available for 1080p model.*
- **Cinema:** Provides the best balance of detail and colors for watching movies.
- **Game:** Optimises your projector for maximum contrast and vivid colours allowing you to see shadow detail when playing video games.
- **Bright:** This mode is suitable for environments where extra-high brightness is required, such as using the projector in well-lit rooms.
- **Wide color gamut (WCG):** Provides a wider range of colors.
- **AI-Picture Quality (AI-PQ):** Real-time face and scene recognition using the integrated AI processing units for the best visual experience. The AI-PQ optimizes the image quality on all screens simultaneously.
- **Presentation:** This mode is suitable for most presenting needs for business and education environments.

### Image settings dynamic range menu

#### HDR

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

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

### Image settings brightness menu

Adjust the brightness of the image.

# USING THE PROJECTOR

## Image settings contrast menu

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

## Image settings sharpness menu

Adjust the sharpness of the image.

## Image settings gamma menu

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.
- **Graphics:** For PC / Photo source.
- **1.8 / 2.0 / Standard (2.2) / 2.4:** For specific PC / Photo source.

## Image settings dynamic contrast menu

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

## Image settings PureMotion menu

Using sophisticated frame-interpolation technology, PureMotion eliminates motion blurring or image judder, even in high-speed action sequences. Select between Off, 1, 2, 3 for the varying levels on motion smoothing.

## Image settings tint menu

Adjust the color balance of red and green.

## Image settings color temperature menu

Select a color temperature from Standard, Cool, or Cold.

## Image settings saturation menu

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

## Image settings color space menu

Select an appropriate color matrix type from Auto, Full, or Limited.

## Image settings reset menu

Return the factory default settings for image settings.



# USING THE PROJECTOR

## Display menu

### Display Focus Setting menu

Ensure that the projector is positioned at the following specifications:

- The projector is placed on a flat surface and parallel to the ground.
- The projected surface is flat and perpendicular to the ground.

#### Auto Focus

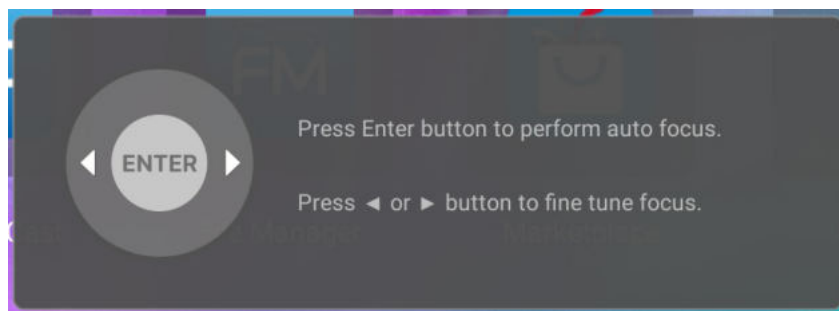
Ensure that the projector is positioned at the following specifications:

- The projected surface is flat and perpendicular to the ground.
- The projector is placed at 80-350 cm away from the projected surface.
- Horizontal and vertical projection angle is within  $\pm 20$  - degree range.

#### Focus

Select "Focus" then pop-up power focus OSD.

- Press ◀ and ▶ to manually adjust focus.
- Press "ENTER" to execute auto focus.

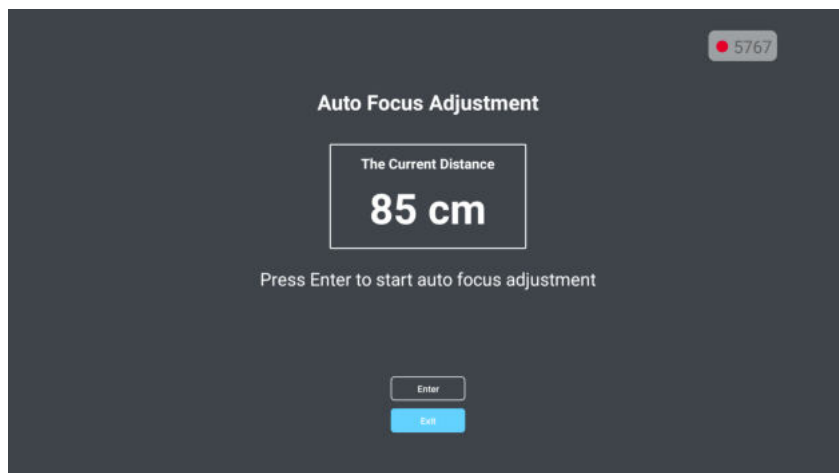


#### Auto Focus Adjustment

You can adjust and utilize the auto-focus function if the projected image appears blurry due to being out of focus.

#### **Note:**

- Ensure that the projector is positioned at the following specifications:*
  - The projector is placed on a flat surface and parallel to the ground.*
  - The projected surface is flat. The projector, projected surface and ground are perpendicular to each other.*
  - The projector is placed at 80-150 cm away from the projected surface.*



# USING THE PROJECTOR

## Display geometric correction menu

### Auto Keystone

When Auto Keystone is enabled, the image is automatically adjusted keystone correction once titling or moving the projector.

#### **Note:**

- *The image size will reduce slightly when adjusting the horizontal and vertical keystone.*
- *When the Auto Keystone is used, the Four Corner Adjustment function will be disabled.*
- *Ensure that the projector is positioned at the following specifications:*
  - a. The projected surface is flat.*
  - b. The projector is placed at 80-350 cm away from the projected surface.*
  - c Horizontal and vertical keystone correction is within a  $\pm 20$  - degree range.*

### V. Keystone

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

### H. Keystone

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

### Rotation

Rotate the projected image.

### Four Corner Adjustment

This setting allows the projected image to be adjusted from each corner to make a square image when the projection surface is not level.

### Reset

Return the factory default setting for geometric correction settings.

## Display projection location menu

Select the preferred projection location between front and rear.

## Display projection orientation menu

Select the preferred projection orientation between auto (automatic detection), desktop, or ceiling.

# USING THE PROJECTOR

## Display digital zoom menu

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

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

## Display aspect ratio menu

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

- **Auto:** Automatically selects the appropriate display format.
- **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.
- **Native:** This format displays the original image without any scaling.

### 1080p scaling table:

4x3	Scale to 2880x2160.
16x9	Scale to 3840x2160.
21x9	Scale to 3840x1644.
32x9	Scale to 3840x1080.
V-Stretch	Scale to 3840x1620, then get the central 3840x2160 image to display.
Full screen	Scale to 5068x2852 (132% enlarged), then get the central 3840x2160 image to display.
Auto	If source is 4:3, then auto resize to 2880x2160.

### 1080p auto mapping rule:

4:3	800	600	2880	2160
	1024	768	2880	2160
	1280	1024	2880	2160
	1400	1050	2880	2160
	1600	1200	2880	2160
Wide Laptop	1280	720	3840	2160
	1280	768	3600	2160
	1280	800	3456	2160
SDTV	720	576	2700	2160
	720	480	3240	2160
HDTV	1280	720	3840	2160
	1920	1080	3840	2160

## Display eye protection sensor menu

Enable eye protection sensor to temporarily dim the brightness when objects are too close to the projector beam.

# USING THE PROJECTOR

## *System menu*

### **System auto source menu**

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

### **System direct power on menu**

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.

### **System signal power on menu**

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.

### **System auto power off menu**

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.*

### **System digital signage menu**

Enable or disable the digital signage feature and configure its settings.

- **Digital Signage:** Enable or disable digital signage.
- **Image Display Interval:** Select the image display interval.
- **Image Display Effect:** Select the image display effect.

### **System light source mode menu**

Select a light source mode depending on the installation requirements.

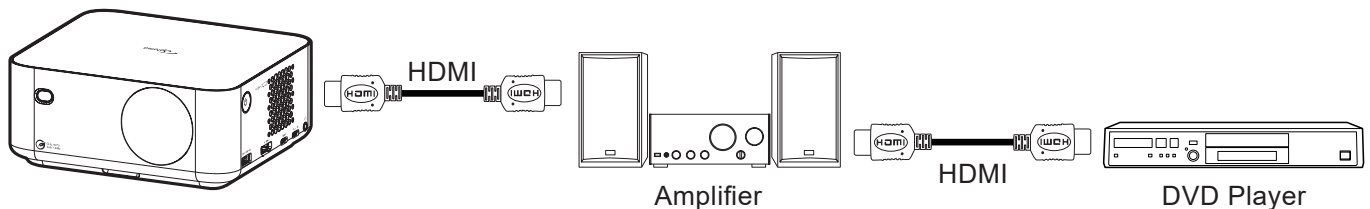
### **System high altitude menu**

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

# USING THE PROJECTOR

## System HDMI CEC 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.

### Power On Link

CEC power on command.

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

### Power Off Link

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

## System reset all settings menu

Return the factory default settings for all settings.

## Audio menu

### Audio volume menu

Adjust the volume level.

### Audio mute menu

Use this option to temporarily turn off the sound.

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

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

### Audio mode menu

Select the appropriate BT speaker.

# USING THE PROJECTOR

## *Information menu*


### **Information menu**

View the projector information as listed below:

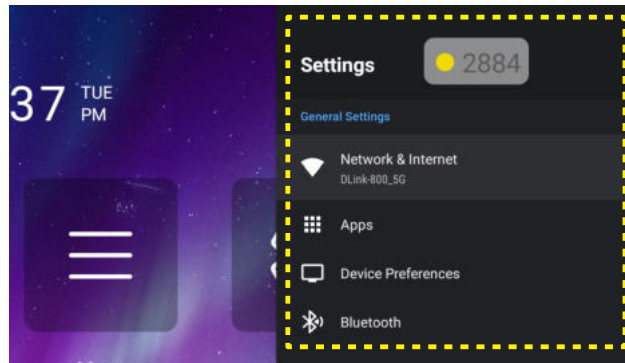
- About
- Source
- Source Info.
- Color Info.
- Projection Hours
- Light Source Hours
- Light Source Mode

# USING THE PROJECTOR

## Android settings menu

On the Launcher screen, select the Settings menu “” to configure various system settings.

### General menu navigation



1. When system settings menu is displayed, use the “▲” and “▼” navigation buttons to select an item in the Settings menu. While making a selection on a particular page, press the “Enter” or the “▶” button on the remote control to enter the submenu.
2. Press the “◀” and “▶” button to select the desired menu item. Then press “Enter” to open its sub menu.
3. Press the “▲” and “▼” button to select the desired item in the sub menu.
4. Press the “Enter” or “▶” button to access the selected sub menu item settings.
5. Press the “▲”, “▼”, “◀”, or “▶” button to select the setting or press the “◀” and “▶” button to adjust the value (if necessary).
6. Press “Enter” to confirm the setting.
7. Select the next item to be adjusted in the sub menu and modify as described above.
8. To exit, press “↶” (repeatedly if necessary). The settings menu will close and the projector will automatically save the new settings.

# USING THE PROJECTOR

## Settings menu tree

Network & Internet	Wi-Fi	On				
		Off				
	Available Networks SSID (when WiFi is On)	Internet connection				
		IP address				
		MAC address				
		Signal strength				
		Proxy settings	None			
			Manual			Proxy hostname
						Proxy port
					Bypass proxy for	
		IP settings	DHCP			
			Static			IP address
					Gateway	
					Network prefix length	
					DNS 1	
				DNS 2		
		Forget network				
	Other Options	Add New Network				
		Portable Hotspot	On			
			Off			
Hotspot Name						
Security					None	
					WPA2 PSK	
Hotspot password						
Apps	Recently opened apps	Version				
		Open				
		Force stop	OK			
			Cancel			
		Storage used				
		Clear data	OK			
			Cancel			
		Clear cache	OK			
			Cancel			
	Clear defaults	OK				
		Cancel				
	Notification	OK				
		Cancel				
	Permissions					
	Permissions	App permissions	Body Sensors			
Calendar						
Call logs						
Camera						
Contacts						
Location						
Microphone						
Phone						



# USING THE PROJECTOR

Apps	Permissions	App permissions	SMS		
			Storage		
		Special app access	Energy optimization		
			Usage access		
			Notification access		
			Display over other apps		
			Modify system settings		
			Directory access		
Device Preferences	About	System update			
		Device name	Device name (Rename Dialog)		
		Status	IP address		
			MAC address		
			Bluetooth address		
			Device MAC address		
			Up time		
		Legal information	Open source licenses		
	System WebView licenses				
	Date & Time	Set time zone	Midway, Honolulu, Anchorage, Los Angeles, Tijuana, Chihuahua, Denver, Phoenix, Chicago, Costa Rica, Mexico City, Regina, Bogota, New York, Barbados, Caracas, Halifax, Manaus, St. Johns, Buenos Aires, Montevideo, Nuuk, Recife, Santiago, Sao Paulo, South Georgia, Azores, Cape Verde, Casablanca, Coordinated Universal Time, London, Amsterdam, Belgrade, Brazzaville, Brussels, Madrid, Sarajevo, Amman, Athens, Beirut, Cairo, Harare, Helsinki, Jerusalem, Windhoek, Baghdad, Istanbul, Kuwait, Minsk, Moscow, Nairobi, Tehran, Baku, Dubai, Tbilisi, Yerevan, Kabul, Karachi, Oral, Yekaterinburg, Colombo, Kolkata, Kathmandu, Almaty, Yangon, Bangkok, Jakarta, Krasnoyarsk, Hong Kong, Irkutsk, Kuala Lumpur, Perth, Shanghai, Taipei, Seoul, Tokyo, Yakutsk, Darwin, Brisbane, Guam, Vladivostok, Adelaide, Hobart, Magadan, Noumea, Sydney, Majuro, Auckland, Fiji, Tongatapu		
			Use 24-hour format	On	
			Of		
	Language	Deutsch			
		English			
		Español			
		Français			
		Italiano			
		Português			
		Русский			
		한국어			
中文(簡體)					
中文(繁體)					
日本語					
Keyboard	Current keyboard				
	[Keyboard name] Settings				

# USING THE PROJECTOR

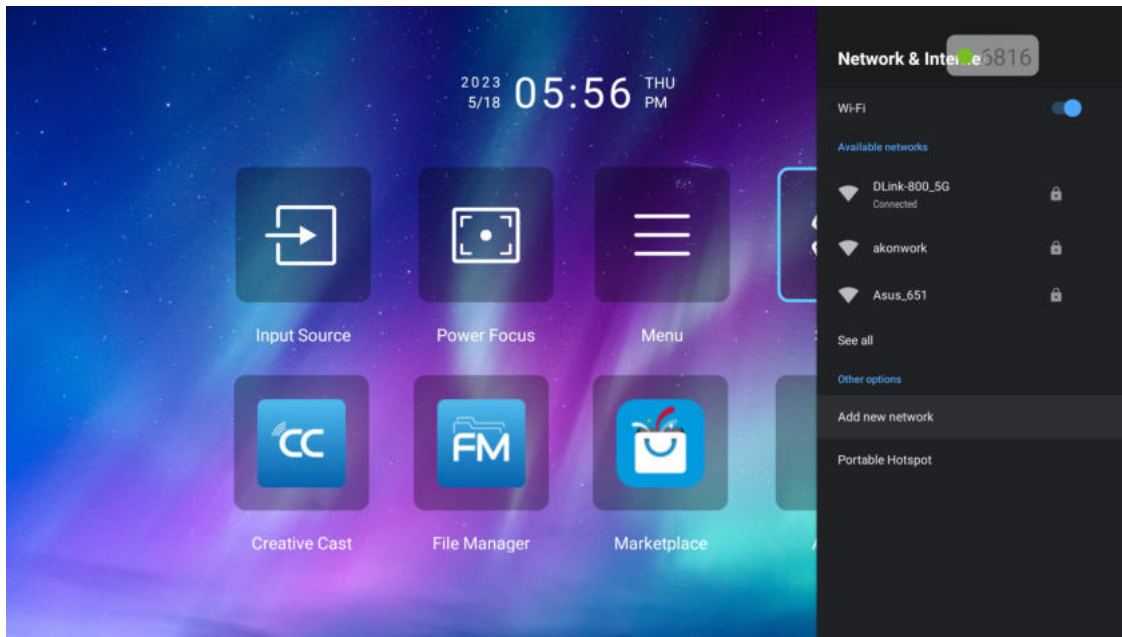
Device Preferences	Keyboard	Manage keyboards	(Available virtual keyboard list)	
	Storage	Internal shared storage	Apps	
			Photos & videos	
			Audio	
			Downloads	
			Cached data	
			Misc.	
			Available	
	USB (if any)			
	Reset to default	(Use original turkey message)		
Bluetooth	Add accessory	Bluetooth	On	
			Off	
		(Available devices)		
	(Paired Devices)	Change name		
		Unpair		

**Note:**

- *Functions vary depending on model definition.*
- *All specifications are subject to change without notice.*

# USING THE PROJECTOR

## Network & Internet menu



**Note:** Please plug in the WiFi dongle before configuring the network settings and connecting to the Internet.

### Wireless

Configure wireless network settings.

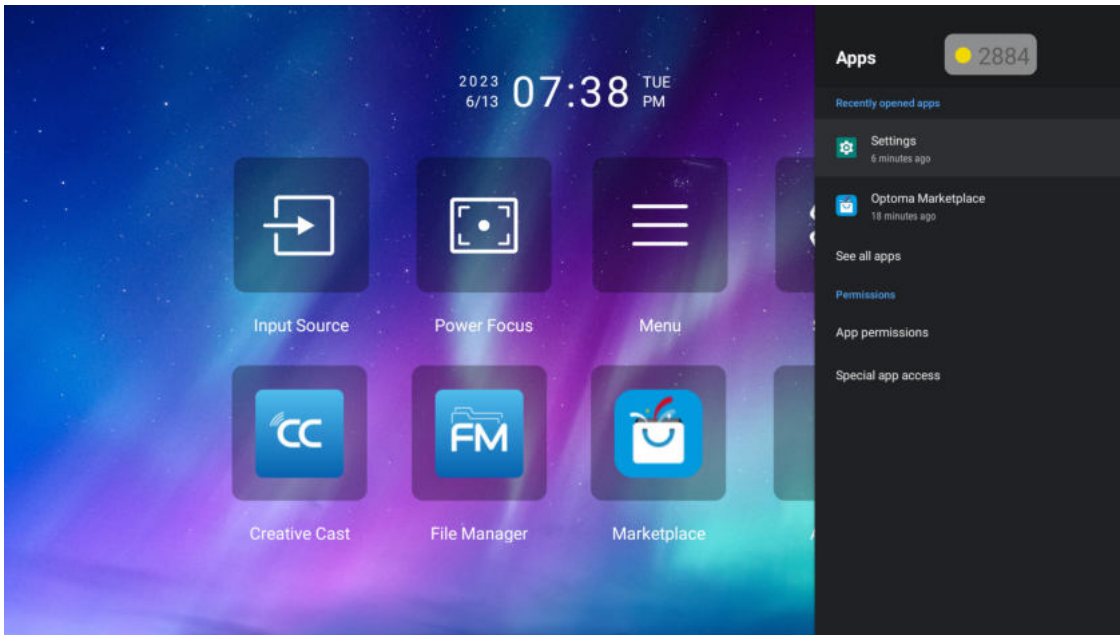
- **Wi-Fi:** Set the Wi-Fi option to “On” to enable wireless network feature.
- **Available networks:** Select your desired wireless access point and enter or configure the necessary connection parameters (if required), for example password, proxy settings, and IP address. For information, you can review the signal strength.

**Note:** Whenever you need to input symbols, the system will automatically pop-up an onscreen keyboard.

- **Other options:** Configure advanced wireless network settings, such as “Add New Network” (manually enter network name), and “Portable Hotspot” (configure the projector to behave as a wireless access point for other devices).

# USING THE PROJECTOR

## Apps menu



### Recently opened apps

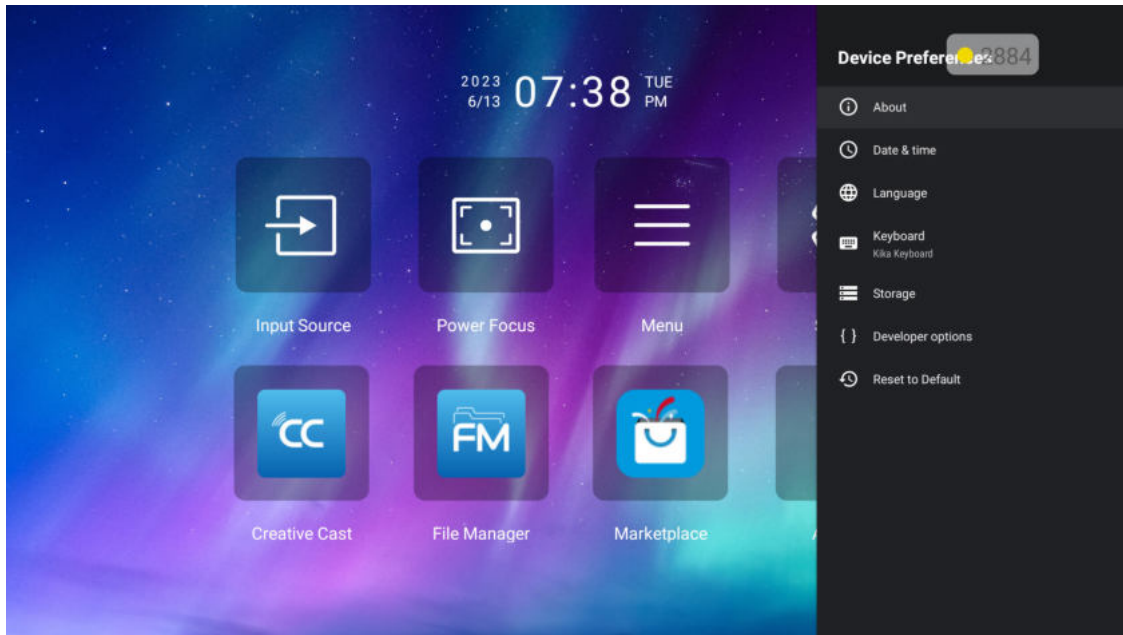
Select an app to open, view app version, force stop it, view how much storage it takes up, clear data/cache, reset to defaults, enable or disable the app to send notifications, and configure permissions.

### Permissions

Configure app permissions and access.

# USING THE PROJECTOR

## Device Preferences menu



### **About**

Check for firmware upgrades and update the system, view and rename the device, view device status, and legal information

### **Date & Time**

Set the time zone and enable or disable 24-hour format when displaying time.

### **Language**

Select the system language.

### **Keyboard**

Manage on-screen keyboard settings.

### **Storage**

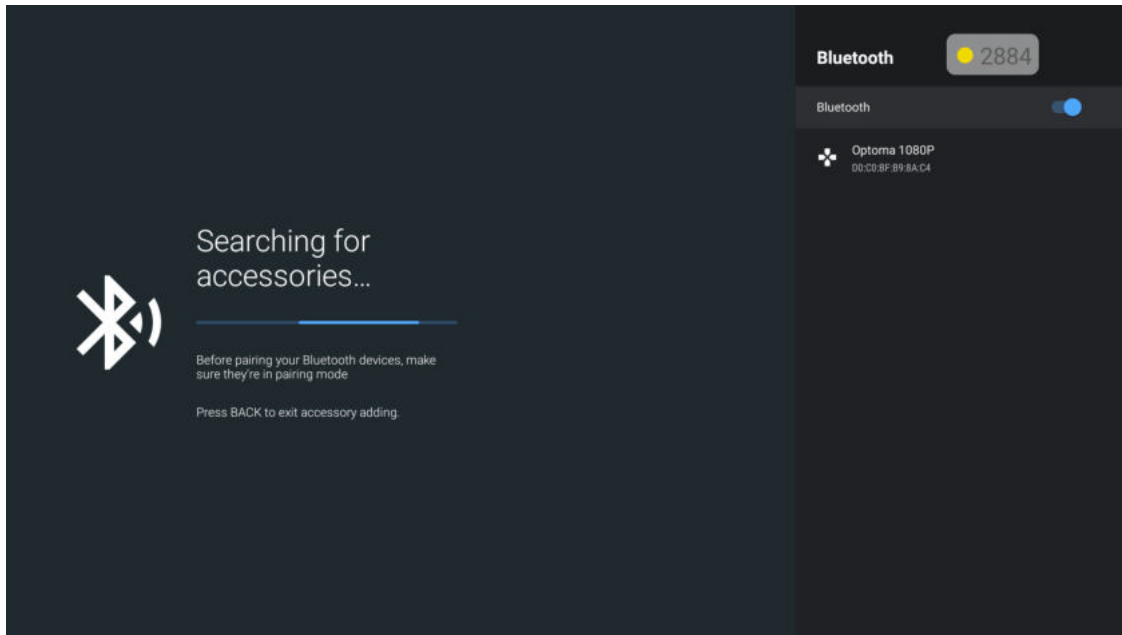
View and manage storage.

### **Reset to default**

Reset system settings to their default values.

# USING THE PROJECTOR



## Bluetooth menu

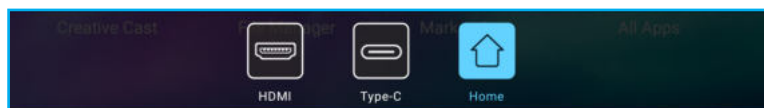


### Add accessory

Enable or disable the Bluetooth function. If enabled, connect to other Bluetooth devices.

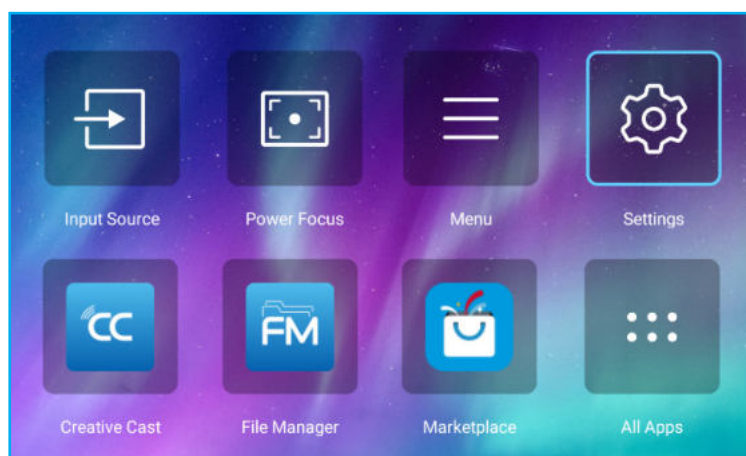
## Selecting an input source manually


If the Auto Source function is off, select **Input Source**  on the Home screen or press the  button on the remote control and then select your preferred input source.



## Selecting an app

You can select any app directly on the Home screen using an app shortcut.



**Note:** If the desired app is not visible on the Home screen, select **All Apps**  to view all installed apps. Then select your desired app.

# USING THE PROJECTOR

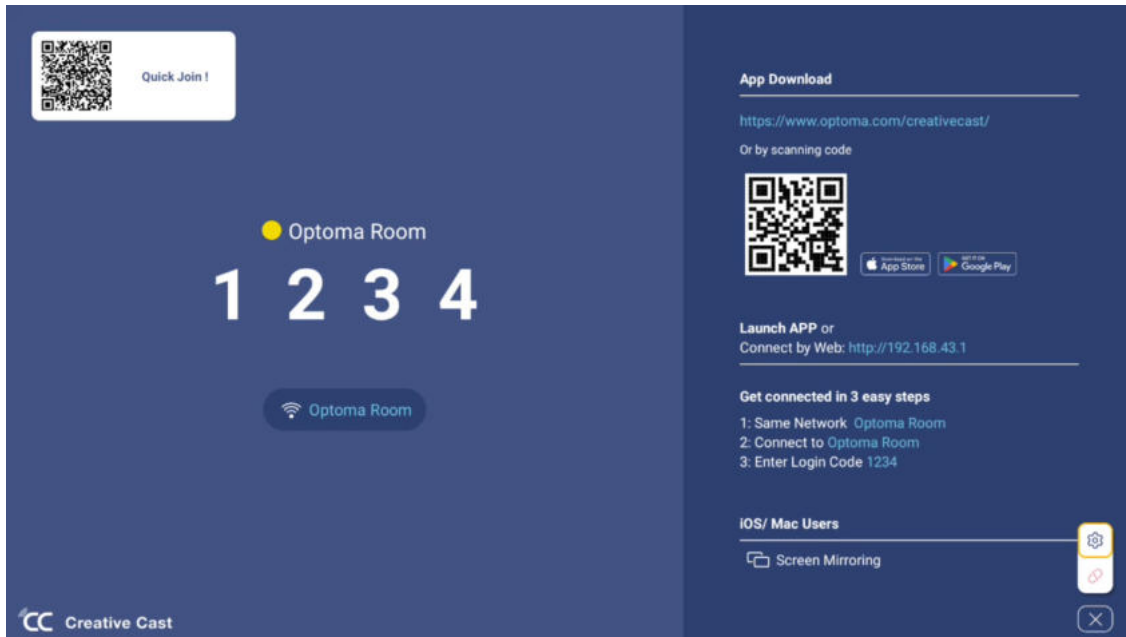
## Creative Cast

To get the App, you can do either of the following:

- if you are using the mobile device, scan the QR code on the screen.
- if you are using the computer, simply go to the link.

Then install the Creative Cast app in your computer or mobile device.

Before you get started, make sure to connect your computer or mobile device to the same Wi-Fi as the projector. Then follow the on-screen instructions to operate the App.



### Note:

- *For initial activation of the iOS screen mirroring function, please ensure the projector is connected to the internet, then launch the Creative Cast app. You are only required to perform this initial step once and after the initial connection is established, the Creative Cast app does not need to be open for future use of the iOS screen mirroring function.*
- *New “Display Share” & “File Manager” apps will be available by 2024/1/M. To use these new apps, you need to upgrade projector’s firmware.*

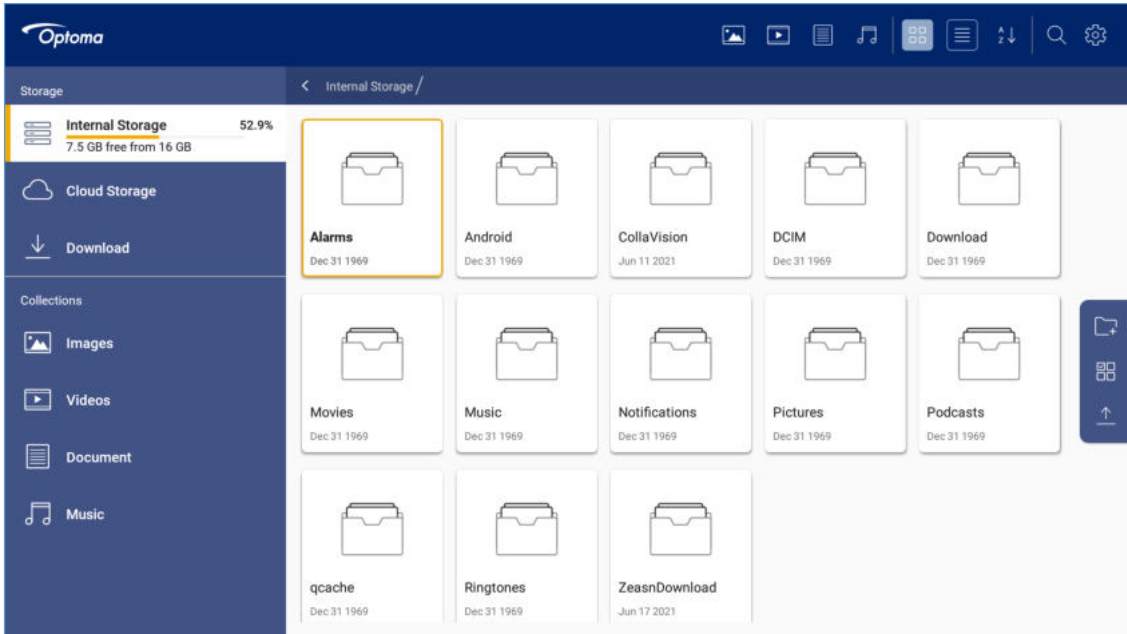
# USING THE PROJECTOR

## Optoma Marketplace

With the Optoma Marketplace app, you can search and install any App.

## File Manager

With the File Manager app, you can manage the files stored in the internal storage, external storage, and cloud storage.





# ADDITIONAL INFORMATION

## Compatible solutions

<b>HDMI 1.4 (2K)</b>
LPCM(IEC 60958 PCM[30,31])

### EDID (Digital)

HDMI 1.4 (2K)				
720 x 400 @70/31.5Hz	1280 x 1024 @60Hz 5:4	1920 x 1080 @60Hz	640 x 480p 4:3 @60Hz	N/A
640 x 480 @60/31.5Hz	1280 x 720 @120Hz 16:9		720(1440) x 576i 4:3 @50Hz	
640 x 480 @67/34.9Hz	1600 x 1200 @60Hz 4:3		720(1440) x 576i 16:9 @50Hz	
640 x 480 @72/37.9Hz	1280 x 720 @60Hz 16:9		720(1440) x 480i 4:3 @60Hz	
640 x 480 @75/37.5Hz	1024 x 768 @120Hz 4:3		720(1440) x 480i 16:9 @60Hz	
800 x 600 @56/35.1Hz	1280 x 800 @60Hz 16:10		720 x 576p 4:3 @50Hz	
800 x 600 @60/37.9Hz			720 x 576p 16:9 @50Hz	
800 x 600 @72/48.1Hz			720 x 480p 4:3 @60Hz	
800 x 600 @75/46.9Hz			720 x 480p 16:9 @60Hz	
1024 x 768 @60/48.4Hz			1280 x 720p 16:9 @50Hz	
1024 x 768 @70/56.5Hz			1280 x 720p 16:9 @60Hz	
1024 x 768 @75/60Hz			1920 x 1080i 16:9 @60Hz	
1280 x 1024 @75/80Hz			1920 x 1080i 16:9 @50Hz	
1152 x 870 @75/67.6Hz			1920 x 1080p 16:9 @24Hz	
			1920 x 1080p 16:9 @30Hz	
			1920 x 1080p 16:9 @50Hz	
			1920 x 1080p 16:9 @60Hz	
			3840 x 2160p 16:9 @24Hz	
			3840 x 2160p 16:9 @25Hz	
			3840 x 2160p 16:9 @30Hz	
			4096 x 2160p 256:135 @24Hz	
			4096 x 2160p 256:135 @30Hz	
			1920 x 1080p 16:9 @25Hz	
			1920 x 1080p 16:9 @120Hz	

# ADDITIONAL INFORMATION

## HDMI 2.1 (4K)

LPCM(IEC 60958 PCM[30,31])

## HDMI 2.1 (4K)

720 x 400 @70/31.5Hz	1280 x 1024 @60Hz 5:4	1920 x 1080 @60Hz	640 x 480p 4:3 @60Hz	1920 x 1080 @240Hz
640 x 480 @60/31.5Hz	1280 x 720 @120Hz 16:9		720(1440) x 576i 4:3 @50Hz	2560 x 1440 @120Hz
640 x 480 @67/34.9Hz	1600 x 1200 @60Hz 4:3		720(1440) x 576i 16:9 @50Hz	
640 x 480 @72/37.9Hz	1280 x 720 @60Hz 16:9		720(1440) x 480i 4:3 @60Hz	
640 x 480 @75/37.5Hz	1024 x 768 @120Hz 4:3		720(1440) x 480i 16:9 @60Hz	
800 x 600 @56/35.1Hz	1280 x 800 @60Hz 16:10		720 x 576p 4:3 @50Hz	
800 x 600 @60/37.9Hz			720 x 576p 16:9 @50Hz	
800 x 600 @72/48.1Hz			720 x 480p 4:3 @60Hz	
800 x 600 @75/46.9Hz			720 x 480p 16:9 @60Hz	
1024 x 768 @60/48.4Hz			1280 x 720p 16:9 @50Hz	
1024 x 768 @70/56.5Hz			1280 x 720p 16:9 @60Hz	
1024 x 768 @75/60Hz			1920 x 1080i 16:9 @60Hz	
1280 x 1024 @75/80Hz			1920 x 1080i 16:9 @50Hz	
1152 x 870 @75/67.6Hz			1920 x 1080p 16:9 @24Hz	
			1920 x 1080p 16:9 @30Hz	
			1920 x 1080p 16:9 @50Hz	
			1920 x 1080p 16:9 @60Hz	
			3840 x 2160p 16:9 @24Hz	
			3840 x 2160p 16:9 @25Hz	
			3840 x 2160p 16:9 @30Hz	
			3840 x 2160p 16:9 @50Hz	
			3840 x 2160p 16:9 @60Hz	
			4096 x 2160p 256:135 @24Hz	
			4096 x 2160p 256:135 @30Hz	
			4096 x 2160p 256:135 @50Hz	
			4096 x 2160p 256:135 @60Hz	
			1920 x 1080p 16:9 @120Hz	
			3840 x 2160 16:9 @120Hz	
			4096 x 2160 256:135 @120Hz	
			1920 x 1080p 16:9 @25Hz	

# ADDITIONAL INFORMATION

## USB-C (HDMI 2.0) (4K)

LPCM(IEC 60958 PCM[30,31])

## USB-C (HDMI 2.0) (4K)

720 x 400 @70/31.5Hz	1280 x 1024 @60Hz 5:4	1920 x 1080 @60Hz	640 x 480p 4:3 @60Hz	N/A
640 x 480 @60/31.5Hz	1280 x 720 @120Hz 16:9		720(1440) x 576i 4:3 @50Hz	
640 x 480 @67/34.9Hz	1600 x 1200 @60Hz 4:3		720(1440) x 576i 16:9 @50Hz	
640 x 480 @72/37.9Hz	1280 x 720 @60Hz 16:9		720(1440) x 480i 4:3 @60Hz	
640 x 480 @75/37.5Hz	1024 x 768 @120Hz 4:3		720(1440) x 480i 16:9 @60Hz	
800 x 600 @56/35.1Hz	1280 x 800 @60Hz 16:10		720 x 576p 4:3 @50Hz	
800 x 600 @60/37.9Hz			720 x 576p 16:9 @50Hz	
800 x 600 @72/48.1Hz			720 x 480p 4:3 @60Hz	
800 x 600 @75/46.9Hz			720 x 480p 16:9 @60Hz	
1024 x 768 @60/48.4Hz			1280 x 720p 16:9 @50Hz	
1024 x 768 @70/56.5Hz			1280 x 720p 16:9 @60Hz	
1024 x 768 @75/60Hz			1920 x 1080i 16:9 @60Hz	
1280 x 1024 @75/80Hz			1920 x 1080i 16:9 @50Hz	
1152 x 870 @75/67.6Hz			1920 x 1080p 16:9 @24Hz	
			1920 x 1080p 16:9 @30Hz	
			1920 x 1080p 16:9 @50Hz	
			1920 x 1080p 16:9 @60Hz	
			3840 x 2160p 16:9 @24Hz	
			3840 x 2160p 16:9 @25Hz	
			3840 x 2160p 16:9 @30Hz	
			3840 x 2160p 16:9 @50Hz	
			3840 x 2160p 16:9 @60Hz	
			4096 x 2160p 256:135 @24Hz	
			4096 x 2160p 256:135 @30Hz	
			4096 x 2160p 256:135 @50Hz	
			4096 x 2160p 256:135 @60Hz	
			1920 x 1080p 16:9 @120Hz	
			1920 x 1080p 16:9 @25Hz	

## MAC

640 x 480	60
720 x 576	50
800 x 600	60
1024 x 768	60/120
1280 x 720p	60/120
1920 x 1080p	24/25/30/50/60/120
3840 x 2160	24/25/30
4096 x 2160	24/30

# ADDITIONAL INFORMATION

## Supported formats for multi-media

### Video formats

H.263	FLV, MP4, MOV, 3GPP, 3GP, AVI, MKV
H.264	FLV, MP4, MOV, 3GPP, 3GP, MPEG transport stream (.ts / .trp / .tp ), ASF, WMV, AVI, MKV
HEVC/H.265	MP4, MOV, 3GPP, 3GP, MPEG transport stream (.ts / .trp / .tp ), MKV
MPEG1/2	MPEG program stream (.DAT / .VOB / .MPG / .MPEG ), MPEG transport stream (.ts / .trp / .tp ), MP4, MOV (MPEG1), 3GPP, 3GP, AVIMKV
MPEG4	MP4, MOV, 3GPP, 3GP, AVI, MKV
Motion JPEG	AVI, 3GPP, 3GP, MP4, MOV, MKV
Sorenson H.263	AVI, FLV
VP8	MKV, WebM, MP4
VP9	MKV, WebM, MP4
AVS	3GPP, 3GP, MP4, MOV, MPEG transport stream (.ts / .trp / .tp )
AVS+	3GPP, 3GP, MP4, MOV, MPEG transport stream (.ts / .trp / .tp )
AVS2	3GPP, 3GP, MP4, MOV, MPEG transport stream (.ts / .trp / .tp )
VC1	MPEG transport stream (.ts / .trp / .tp ), ASF, WMV, AVI, MKV
AV1	MP4 (.mp4), MOV (.mov), 3GPP (.3gpp, .3gp ), MKV (.mkv)

### Audio formats

MPEG1/2 Layer1	MP3, AVI, ASF, Matroska (MKV, MKA), 3GPP, 3GP, MP4, MOV, M4A, MPEG transport stream (.ts / .trp / .tp ), MPEG program stream (.DAT / .VOB / .MPG / .MPEG ), FLV, WAV
MPEG1/2 Layer2	MP2, MPA, AVI, ASF, Matroska (MKV, MKA), 3GPP, 3GP, MP4, MOV, M4A, MPEG transport stream (.ts / .trp / .tp ), MPEG program stream (.DAT / .VOB / .MPG / .MPEG ), FLV, WAV
MPEG1/2/2.5 Layer3	MP3, AVI, ASF, Matroska (MKV, MKA), 3GPP, 3GP, MP4, MOV, M4A, MPEG transport stream (.ts / .trp / .tp ), MPEG program stream (.DAT / .VOB / .MPG / .MPEG ), FLV, WAV
AAC, HEAAC, AAC-LC	AAC, AVI, Matroska (MKV, MKA), DivX, 3GPP, 3GP, MP4, MOV, M4A, MPEG transport stream (.ts / .trp / .tp ), MPEG program stream (.DAT / .VOB / .MPG / .MPEG ), FLV, WAV
VORBIS	Matroska (MKV, MKA), WebM, 3GPP, 3GP, MP4, MOV, M4A, OGG
LPCM	WAV, AVI, Matroska (MKV, MKA), 3GPP, 3GP, MP4, MOV, M4A, MPEG transport stream (.ts / .trp / .tp ), MPEG program stream (.DAT / .VOB / .MPG / .MPEG )
IMA-ADPCM MS-ADPCM	WAV, AVI, Matroska (MKV, MKA), 3GPP, 3GP, MP4, MOV, M4A
G711 A/mu-law	WAV, AVI, Matroska (MKV, MKA), 3GPP, 3GP, MP4, MOV, M4A
FLAC	Matroska (MKV, MKA)
DRA	MPEG transport stream (.ts / .trp )
OPUS	Matroska (MKV, MKA)

### Image formats

JPEG	Base-line (1920x 1080 ), Progressive (1024 x 768 )
PNG	non-interlace (1920 x 1080 ), interlace ( 1920 x 1080 )
BMP	15360 X 8640 ( The limitaion of max resolution depends on DRAM size )

# ADDITIONAL INFORMATION

## Supported formats for digital signage

Image	jpg/jpeg, .png, .bmp
Audio	m4a, .mp3, .wav, .aac
Video	mkv, .webm, .mp4, .mov, .3gpp, .3gp, .ts, .trp, .tp, .mkv, .DAT, .VOB, .MPG, .MPEG, .avi, .flv, .asf, .wmv

## Image size and projection distance

### Standard Throw

60	1.33	0.75	52.29	29.42	1.60	63.12	-0.037~0.037	-1.46~1.46
70	1.55	0.87	61.01	34.32	1.87	73.57	-0.044~0.044	-1.73~1.73
80	1.77	1.00	69.73	39.22	2.13	84.04	-0.050~0.050	-1.97~1.97
90	1.99	1.12	78.44	44.12	2.40	94.50	-0.056~0.056	-2.20~2.20
100	2.21	1.25	87.16	49.03	2.67	104.95	-0.062~0.062	-2.44~2.44
120	2.66	1.49	104.59	58.83	3.20	125.87	-0.075~0.075	-2.95~2.95
150	3.32	1.87	130.74	73.54	3.99	157.25	-0.093~0.093	-3.66~3.66

### Short Throw

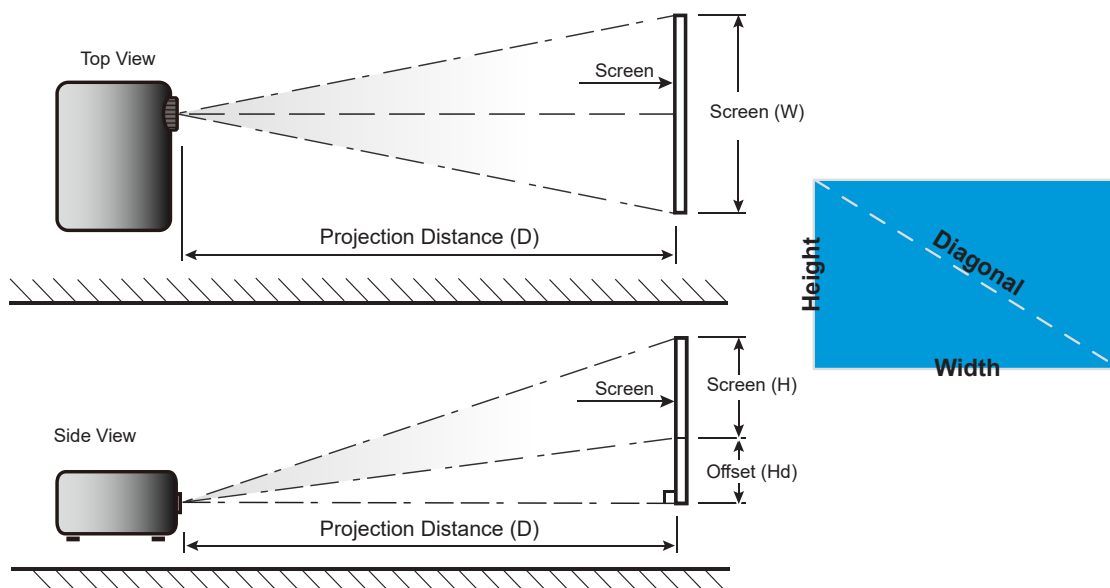
60	1.33	0.75	52.29	29.42	1.04	40.91	-0.037~0.037	-1.46~1.46
70	1.55	0.87	61.01	34.32	1.21	47.70	-0.044~0.044	-1.73~1.73
80	1.77	1.00	69.73	39.22	1.38	54.50	-0.050~0.050	-1.97~1.97
90	1.99	1.12	78.44	44.12	1.56	61.30	-0.056~0.056	-2.20~2.20
100	2.21	1.25	87.16	49.03	1.73	68.10	-0.062~0.062	-2.44~2.44
120	2.66	1.49	104.59	58.83	2.08	81.94	-0.075~0.075	-2.95~2.95
150	3.32	1.87	130.74	73.54	2.60	102.34	-0.093~0.093	-3.66~3.66

### Note:

- The projection distance ( $D$ ) is the distance from the lens to the wall.
- ( $H_d$ ) is the vertical distance from the bottom of the screen to the center of the lens.
- Auto focus, auto keystone, and eye protection functions depend on the screen size. Please refer to the below table for more details:

Optimized	70"	70"
Power focus	30"~150"	30"~150"
Auto Focus	60"~100"	60"~100"
Auto Keystone	60"~100"	60"~100"
Eye protection	30"~70"	30"~100"

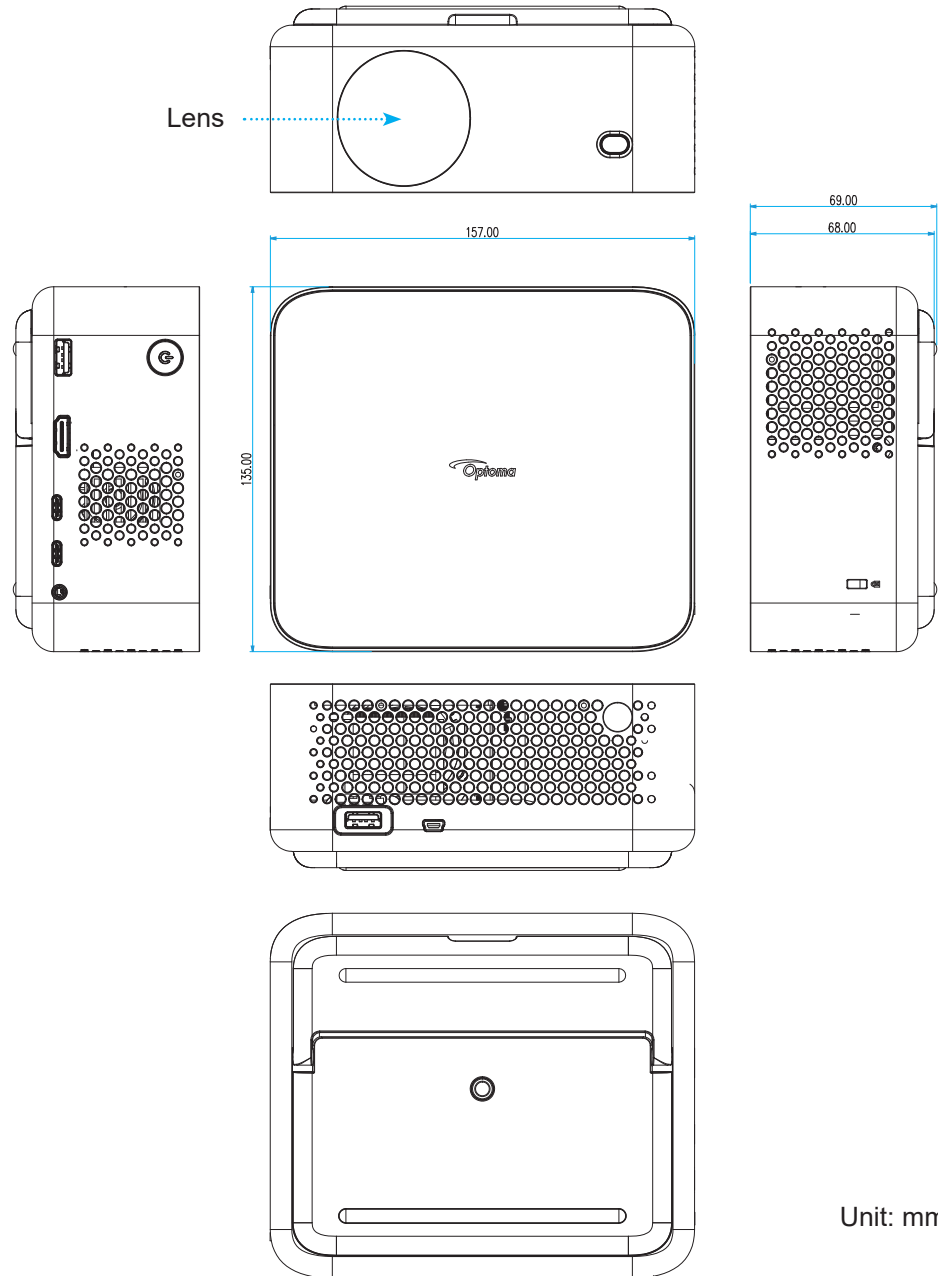
# ADDITIONAL INFORMATION



# ADDITIONAL INFORMATION

## Projector dimensions and ceiling mount installation

- Screw type: 1/4"-20
- Minimum screw length: 1/4"



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



Warning:

- Be sure to keep at least 15 cm gap between the ceiling and the bottom of the projector.
- Avoid installing the projector near a heat source.

# ADDITIONAL INFORMATION

## IR remote codes



Power on / off		K12	04	F1	32	CD	71	8E	Refer to the "Powering on / off the projector" on page 21".
Source		K3	11	F1	32	CD	18	E7	Press  to select an input signal.
Home		K13	03	F1	32	CD	92	6D	Press  to return to the Home screen.
Menu		K8	17	F1	32	CD	0E	F1	Press  to launch the on-screen display (OSD) menu. To exit OSD, press  again.
Return		K4	10	F1	32	CD	86	79	Press  to return to the previous page.
Up		K7	18	F2	32	CD	11	EE	Use     to select items or make adjustments to your selection.
Left		K14	02	F2	32	CD	10	EF	
Right		K5	09	F2	32	CD	12	ED	
Down		K2	19	F2	32	CD	14	EB	
Enter	<b>ENTER</b>	K9	16	F1	32	CD	0F	F0	Confirm your item selection.
Mute		K15	01	F1	32	CD	52	AD	Press  to turn off/on the projector built-in speaker.
Display Mode		K10	15	F1	32	CD	91	6E	Press  to display the Display Mode menu. To exit the Display Mode menu, press  again.
APP menu		K6	08	F1	32	CD	25	DA	Press  to open the APP menu.
Volume -		K11	12	F2	32	CD	0C	F3	Press  to decrease the volume.
Volume +		K1	05	F2	32	CD	09	F6	Press  to increase the volume.









# ADDITIONAL INFORMATION

## Troubleshooting

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

### Image problems

-  *No image appears on-screen*
- Ensure all the cables and power connections are correctly and securely connected as described in the "Installation" section.
  - Ensure the pins of connectors are not crooked or broken.
  - Ensure that the "Mute" feature is not turned on.
-  *Image is out of focus*
- Make sure the auto focus function is enabled. (Please see page 17).
  - If the projected image appears blurry after performing auto focus function, you can adjust it by manual focus.
  - Ensure that the projector is positioned at the following specifications:
    - a. The projector is placed on a flat surface and parallel to the ground.
    - b. The projected surface is flat and perpendicular to the ground.
    - c. The projector is placed at 80-350 cm away from the projected surface.
    - d. Horizontal and vertical projection angle is within  $\pm 20$  - degree range.
-  *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 V-Stretch format DVD title, please change the format as V-Stretch 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*
- Make sure the digital zoom function is enabled. (Please see page 35).
  - Move the projector closer to or further from the screen.
  - Press "Menu" on the projector panel, go to "Display → Aspect Ratio". Try the different settings.
-  *Image has slanted sides:*
- If possible, reposition the projector so that it is centered on the screen and below the bottom of the screen.
-  *Image is reversed*
- Select "Display → Projection Orientation" from the OSD and adjust the projection direction.

# ADDITIONAL INFORMATION



## *Image / keystone is distorted*

- Ensure that the projector is positioned at the following specifications:
  - a. The projector is placed on a flat surface and parallel to the ground.
  - b. The projected surface is flat.
  - c. The projector is placed at 80-350 cm away from the projected surface.
  - d. Horizontal and vertical keystone correction is within a  $\pm 20$  - degree range.

## **Other problems**



## *The projector stops responding to all controls*

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

## **Remote control problems**



## *If the remote control does not work*

- Check the operating angle of the remote control is pointed within  $\pm 15^\circ$  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 (19.7 ft) of the projector.
- Make sure batteries are inserted correctly.
- Replace batteries if they are exhausted.

# ADDITIONAL INFORMATION

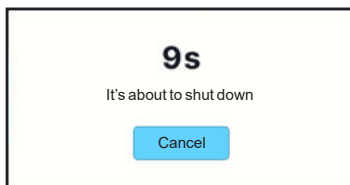
## Warning indicators

If an error occurs, unplug the power cord from the projector, wait for 30 seconds and try again. If the warning indicator lights up or flashes, please contact your nearest service center for assistance.

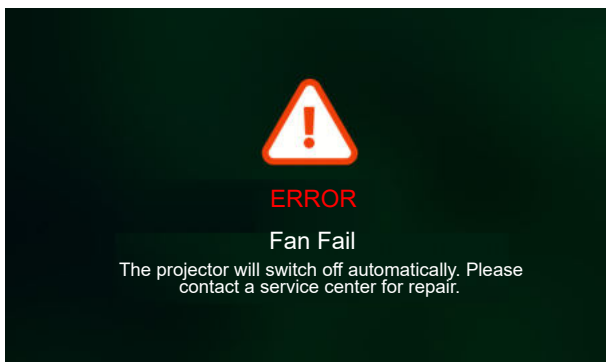
### LED lightning messages

		(Red)
Standby state (Input power cord)	Breathing light	
Power on (Warming)	Flashing (0.5 sec off / 0.5 sec on)	
Power on and Lamp lighting	Steady light	
Power off (Cooling)		Flashing (0.5 sec off / 0.5 sec on)
Error (Over temp.)	Flashing (0.5 sec off / 0.5 sec on)	Flashing (1 sec off / 3 sec on)
Error (Fan failure)	Flashing (0.5 sec off / 0.5 sec on)	Flashing (0.5 sec off / 2 sec on)
Error (CW failure)	Steady light	Flashing (0.5 sec off / 0.5 sec on)
Error (LD failure)	Flashing (0.5 sec off / 0.5 sec on)	Steady light

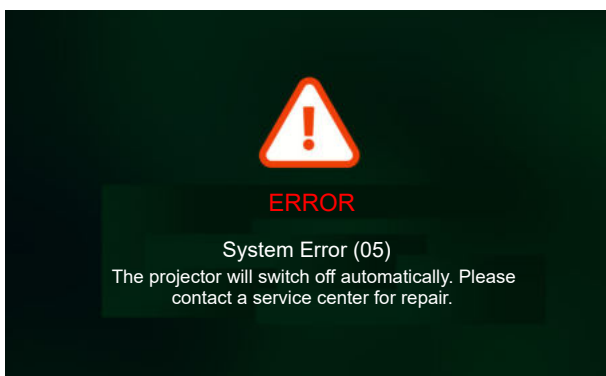
- Power off:



- Fan warning:



- System warning:



# ADDITIONAL INFORMATION

## Specifications

Item		
Technology	Texas Instrument DMD, 0.23" 1080p DMD	
Native Resolution	1920 x 1080 (W/i actuator)	
Lens	Throw ratio <ul style="list-style-type: none"> <li>• Regular throw: TR1.2 (tolerance <math>\pm 3\%</math>)</li> <li>• Short throw: TR0.78 (tolerance <math>\pm 3\%</math>)</li> </ul>	
	F-stop <ul style="list-style-type: none"> <li>• Regular throw: 2.1</li> <li>• Short throw: 1.9</li> </ul>	
	Focal length	N/A
	Zoom range	Fixed Zoom
Offset	100% $\pm 5\%$	
Image size	<ul style="list-style-type: none"> <li>• 30"~ 150" (Optimized @70", by manual power focus)</li> <li>• 60" ~ 100" (Optimized @70", by auto focus)</li> </ul>	
Projection distance	<ul style="list-style-type: none"> <li>• Regular throw: 1594 mm ~ 2657 mm</li> <li>• Short throw: 1036 mm ~ 1727 mm</li> </ul>	
I/Os	<ul style="list-style-type: none"> <li>• HDMI 2.1 x1 (4K/120Hz);</li> <li>• USB C x2;               <ul style="list-style-type: none"> <li>#1: dedicated for Power input from Adapter/Power Bank (65W/20V/3.25A)</li> <li>#2: dedicated for image display (4K/60Hz)</li> </ul> </li> <li>• USB Type-A x2;               <ul style="list-style-type: none"> <li>#1: 5V/1.5A, dedicated for power Out (5V/1.5A), multi-media pen drive (4K/60Hz) and FW upgrade.</li> <li>#2: 5V/0.5A, dedicated for USB Wi-Fi dongle (EZC-5201BS)</li> </ul> </li> <li>• Audio Out x1; <math>\varnothing 3.5</math>mm phone Jack</li> <li>• RS232 x1; use a mini USB connector</li> </ul>	
Colour	1073.4 Million color	
Scan rate	<ul style="list-style-type: none"> <li>• Horizontal scan rate: 15 KHz ~ 140 KHz</li> <li>• Vertical scan rate: 24~240 Hz, 240 Hz for 1080P</li> </ul>	
Speaker	3Wx1 <ul style="list-style-type: none"> <li>• Monophonic, speakers with sound box.</li> <li>• Maximum Driver output 2W at FULL/ECO mode; 1W at ECO+ mode.</li> </ul>	
Power consumption	Maximum (Bright mode): <ul style="list-style-type: none"> <li>• 57W (typical) @110VAC</li> <li>• 56W (typical)@220VAC</li> </ul> Maximum (ECO mode): <ul style="list-style-type: none"> <li>• 45W (typical) @110VAC</li> <li>• 44W (typical) @220VAC</li> </ul> Maximum (ECO+ mode): <ul style="list-style-type: none"> <li>• 31.5W (typical)@110VAC</li> <li>• 31.4W (typical)@220VAC</li> </ul>	
Input current	AC $\leq 1.7A$ @100Vac, 240Vac / max. load	
Installation orientations	360° projection + portrait	
Dimensions (W x D x H)	<ul style="list-style-type: none"> <li>• Without feet: 157(W) x 135(D) x 68(H) mm (6.18 x 5.31 x 2.72 inches)</li> <li>• With feet: 157(W) x 135(D) x 69(H) mm (6.18 x 5.31 x 2.68 inches)</li> </ul>	
Weight	0.9 kg $\pm 0.05$ kg	
Environmental	Operating in 0°~40°C, 10% to 85% humidity (non-condensing)	

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




# ADDITIONAL INFORMATION

## Optoma global offices

For service or support, please contact your local office.




### USA

Optoma Technology, Inc.  
47697 Westinghouse Drive.  
Fremont, Ca 94539

 888-289-6786  
 510-996-4794  
 [services@optoma.com](mailto:services@optoma.com)




### Canada

Optoma Technology, Inc.  
47697 Westinghouse Drive.  
Fremont, Ca 94539

 888-289-6786  
 510-996-4794  
 [services@optoma.com](mailto:services@optoma.com)




### Latin America

Optoma Technology, Inc.  
47697 Westinghouse Drive.  
Fremont, Ca 94539

 888-289-6786  
 510-996-4794  
 [services@optoma.com](mailto:services@optoma.com)



### Europe

1 Bourne End Mills  
Hemel Hempstead  
Hertfordshire  
HP1 2UJ  
United Kingdom  
[www.optoma.eu](http://www.optoma.eu)  
Service Tel : +44 (0)1923 691865

 +44 (0) 1923 691 800  
 +44 (0) 1923 691 888  
 [service@tsc-europe.com](mailto:service@tsc-europe.com)




### Benelux BV

Optoma Benelux BV  
Europalaan 770 D  
1363BM Almere  
The Netherlands  
[www.optoma.nl](http://www.optoma.nl)

 +31 (0) 36 8200 250  
 +31 (0) 36 548 9052



### France

Bâtiment E  
81-83 avenue Edouard Vaillant  
92100 Boulogne Billancourt, France

 +33 1 41 46 12 20  
 +33 1 41 46 94 35  
 [savoptoma@optoma.fr](mailto:savoptoma@optoma.fr)




### Spain

C/ José Hierro,36 Of. 1C 28529  
Rivas VaciaMadrid, Spain

 +34 91 499 06 06  
 +34 91 670 08 32




### Deutschland

Am Nordpark 3  
41069 Mönchengladbach  
Deutschland

 +49 (0) 2161 68643 0  
 +49 (0) 2161 68643 99  
 [info@optoma.de](mailto:info@optoma.de)

### Scandinavia

Postboks 9515 Askollen  
Kniveveien 29  
Drammen  
3036  
Norway

 +47 32 98 89 90  
 +47 32 98 89 99  
 [info@optoma.no](mailto:info@optoma.no)

### Korea

<https://www.optoma.com/kr/>

### Japan



<https://www.optoma.com/jp/>

### Taiwan

<https://www.optoma.com/tw/>

### China

Room 2001, 20F, Building 4,  
No.1398 Kaixuan Road,  
Changning District  
Shanghai, 200052, China

 +86-21-62947376  
 +86-21-62947375  
[www.optoma.com.cn](http://www.optoma.com.cn)

### Australia

<https://www.optoma.com/au/>

