

# User manual for DHN DW410ST laser projector

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Diheng Mercury series projectors are suitable.



# DHN<sup>®</sup>

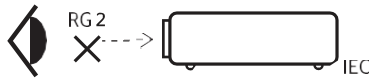
Before using this product, please carefully read **the important safety instructions in the blue section of this manual.**

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	<p>The lightning symbol with arrows inside the equilateral triangle is intended to alert users that there is an uninsulated "dangerous voltage" inside the product, which poses a risk of electric shock to personnel.</p>
	<p>The exclamation mark symbol inside the equilateral triangle is intended to alert users to pay attention to the important operation and maintenance (repair) instructions marked on the equipment.</p>

Please follow all warnings, preventive measures, and recommended maintenance instructions in this user guide.

## Important safety precautions



- Do not look directly at the beam, RG2.  
Like any bright light source, do not look directly at the beam RG2 IEC 62471-5:2015.
- Do not block any ventilation openings. To prevent the projector from overheating and ensure its reliability, it is recommended to install the projector in a well ventilated location. For example, do not place the projector on a messy coffee table, sofa, bed, etc. Do not place the projector in narrow spaces with poor air circulation, such as bookcases or closets.
- To reduce the risk of fire and/or electric shock, do not expose this projector to rain or moisture. Do not install near heat sources, such as radiators, heaters, stoves, or other devices that generate heat (such as amplifiers).
- Do not allow items or liquids to enter the projector. Otherwise, it may come into contact with dangerous voltage points and short-circuit components, leading to fire or electric shock.
- Do not use under the following conditions:
  - In environments with high, low, or extremely humid temperatures.
    - (i) Ensure that the indoor ambient temperature is **between 5 ° C and 40 ° C**
    - (ii) Relative humidity is 10%~85%
  - Areas susceptible to large amounts of dust and soil invasion.
  - Near any device that generates a strong magnetic field.
  - Direct sunlight exposure.
  - Do not use the projector in areas with flammable and explosive gases. During operation, the light bulbs inside the projector may become very hot, causing gas to burn and leading to a fire
- If the device is physically damaged or used improperly, do not continue to use the device. Physical damage/careless use includes (but is not limited to):
  - This machine has dropped.
  - The power cord or plug is damaged.
  - The liquid splashed onto the projector.
  - The projector is exposed to rain or moisture.
  - Foreign objects falling into the projector or internal components becoming loose.
- Do not place the projector on an unstable surface. The projector may fall and may cause injury to personnel or damage to the projector.
- Do not block the beam of light emitted by the projector lens during operation. A beam of light can cause objects to heat up and potentially melt, leading to burns or fires.

- Do not open or disassemble this projector to avoid electric shock.
- Do not attempt to self repair this machine. There may be dangerous voltage or other hazards when opening or removing the casing. Before sending this machine for repair, please contact our customer service first.
- Pay attention to the safety signs on the projector casing.
- This machine should only be repaired by authorized service personnel.
- Only use connectors/accessories specified by the manufacturer.
- Do not directly gaze at the projector lens during operation. Bright light may harm your eyes.
- This projector will self check the lifespan of its light source.
- When turning off the projector, make sure to complete the cooling process first, and then unplug the power cord. The projector requires 90 seconds of cooling time.
- Before cleaning the product, turn off the power and unplug the power cord from the AC power outlet.
- Use a soft dry cloth dipped in neutral detergent to wipe the outer shell of the host. Do not use cleaning agents, paraffin, or solvents to wipe the equipment.
- If this product is not used for a long time, unplug the power plug from the AC socket.
- Do not place the projector in a place that is prone to vibration or collision.
- Do not touch the lens directly with your hands.
- Before storage, remove the remote control battery. If the battery is left in the remote control for a long time, it may leak liquid.
- Do not use or store the projector in areas where there may be oil fumes or cigarette smoke, as this may affect the performance of the projector.
- Please use the correct method when installing the projector, non-standard installation may affect the performance of the projector.
- Use a power cord or surge protector. Power outage and low voltage can cause equipment damage.

## Cleaning the lens

- Before cleaning the lens, be sure to turn off the projector and unplug the power plug to allow it to cool down completely.
- Use a compressed air cylinder to remove dust.
- Gently wipe the lens with a specialized cloth for cleaning. Do not touch the lens with your fingers.
- Do not use alkaline/acidic detergents or volatile solvents (such as alcohol) to clean the lens. If the lens is damaged due to cleaning, it is not covered by the warranty.

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

Warning: If the projector is preheating, do not clean the lens as this may cause the film on the surface of the lens to peel off. Warning: Do not wipe or lightly tap the lens with hard objects.

- Do not install the projector in areas that may be subject to vibration or impact.
- Do not touch the lens directly with your hands
- Before storing, please remove the battery from the remote control. If the battery is left in the remote control for a long time, battery leakage may occur.
- Do not use or store the projector in areas with oil fumes or smoking, as it may have adverse effects on the projector's performance.
- Please install the projector in the correct direction, as non-standard installation may affect the performance of the projector.
- Please use a power board and/or surge protector. Because power outages and power outages may cause equipment damage.



## Laser safety information

- This product is classified as Class 1 laser product - Group 2 risk, with reference to IEC 60825-1:2014 standard
- Like any bright light source, do not look directly at the beam of light



- 3R class laser products - avoid direct eye exposure
- When turning on the projector, make sure that no one is watching the lens within the projection range.
- Do not place any items (magnifying glasses, etc.) in the light path of the projector. The light path projected from the lens is relatively wide, and if there are foreign objects in the light path that change the direction of the light emitted by the lens, it may lead to unpredictable consequences, such as fire or eye injury.
- If any operation or adjustment not explicitly stated in the user guide is carried out, it may cause dangerous exposure to laser radiation.
- Do not open or disassemble the projector, as it may be damaged due to exposure to laser radiation.
- When the projector is working, do not stare at the beam of light. Bright light

may cause permanent damage to the eyes. If control, adjustment, or operating procedures are not followed, damage may be caused by exposure to laser radiation.

# Copyright

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## Disclaimers

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## WEEE



Abandonment instructions

Do not dispose of this electronic device as regular waste when disposing of it. To reduce pollution and protect the Earth's environment to the greatest extent possible, please recycle it.

### Names and contents of toxic and harmful substances or elements

Component Name	Harmful substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Shell	×	○ ○	○ ○	○ ○	○ ○	○ ○
motherboard	×	○ ○	○ ○	○ ○	○ ○	○ ○
Engine module	×	○ ○	○ ○	○ ○	○ ○	○ ○
Laser light source module	×	○ ○	○ ○	○ ○	○ ○	○ ○
Fan	×	○ ○	○ ○	○ ○	○ ○	○ ○
Iron parts	×	○ ○	○ ○	○ ○	○ ○	○ ○
wire rod	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○
Remote control	×	○ ○	○ ○	○ ○	○ ○	○ ○
packing	○ ○	○ ○	○ ○	○ ○	○ ○	○ ○

This table is prepared in accordance with the provisions of SJ/T11364.

○: Indicates that the content of the hazardous substance in all homogeneous materials of the component is below the limit requirements specified in GB/T 26572.

X: indicates that the content of the hazardous substance in at least one homogeneous material of the component exceeds the limit requirements specified in GB/T 26572.

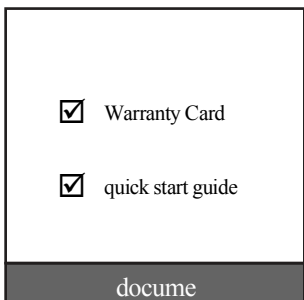
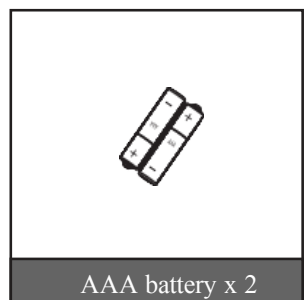
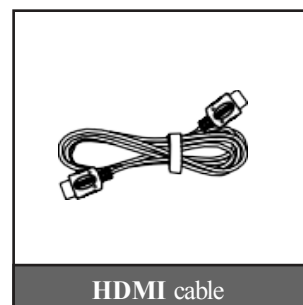
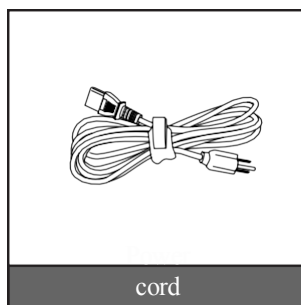
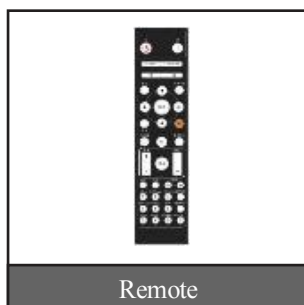
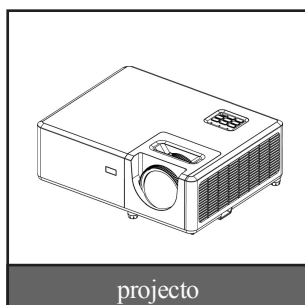
# Brief introduction

## Packaging Overview

Carefully open the packaging and check if the standard accessories listed below are complete. Due to differences in models, specifications, and purchasing regions, some optional accessories may not be provided. Please confirm your purchase location. Some attachments may vary depending on the region.

The warranty card is only available in certain specific regions. For more details, please consult your dealer.

## Standard attachments

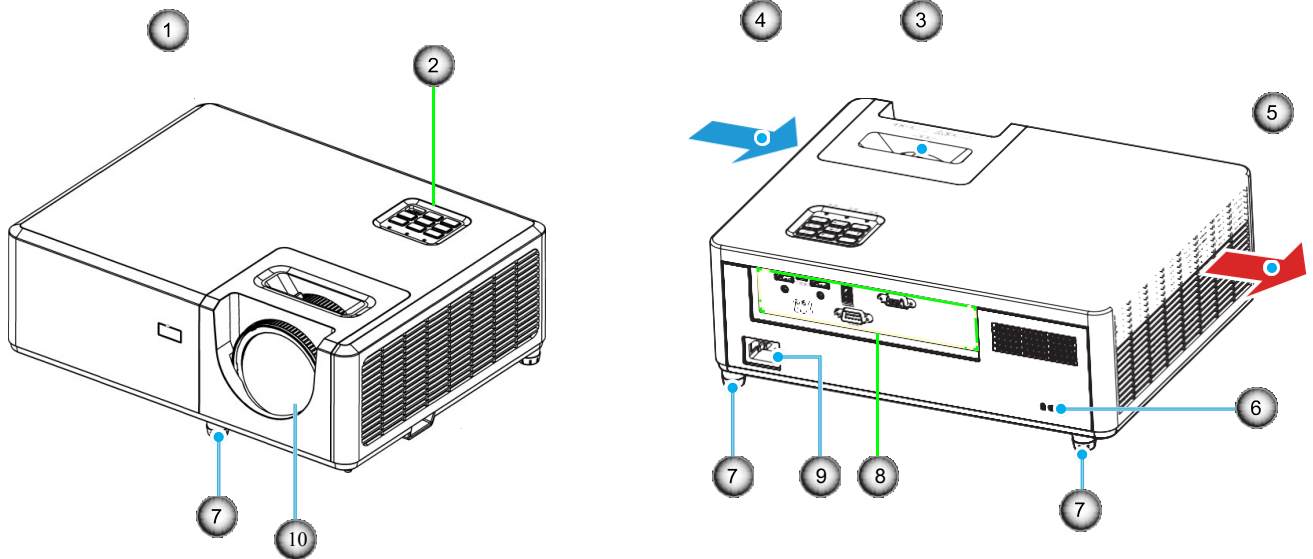




# Brief introduction

## Product Overview

### 1080p/WXGA Short Projection Model



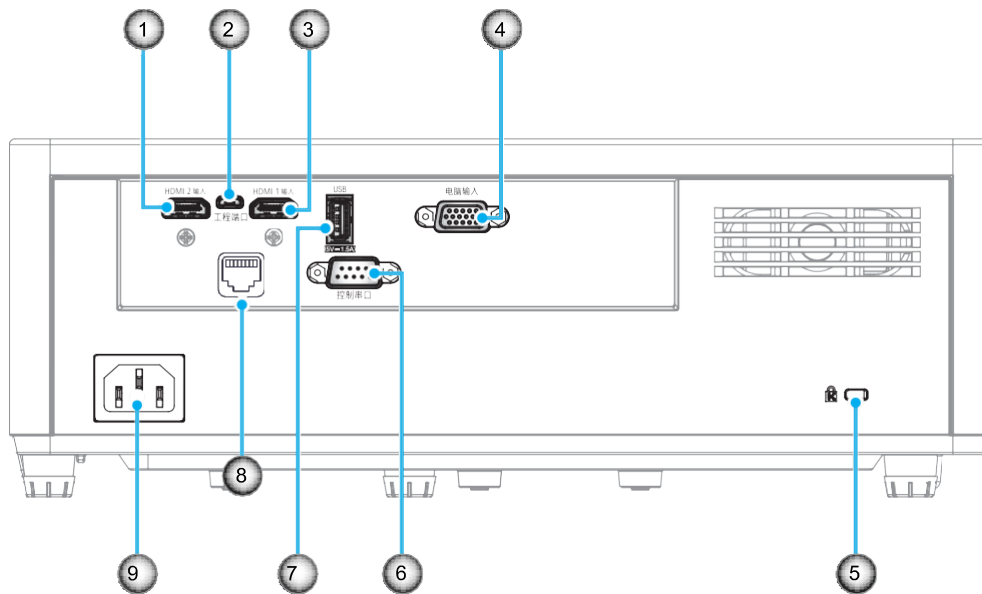
**Attention:**

- Do not block the air intake and exhaust ports of the projector.
- When using projectors in enclosed spaces, leave at least 30 cm of space around the air intake and exhaust ports.

numbe	proje	num	proje
1.	Infrared receiver	6.	Kensington™ Lock Port
2.	keyboard	7.	Tilt adjustment support feet
3.	Focusing ring/focusing rod	8.	Input/output
4.	Ventilation hole (air inlet)	9.	Power socket
5.	Ventilation hole (air outlet)	10.	Lens

# Brief introduction

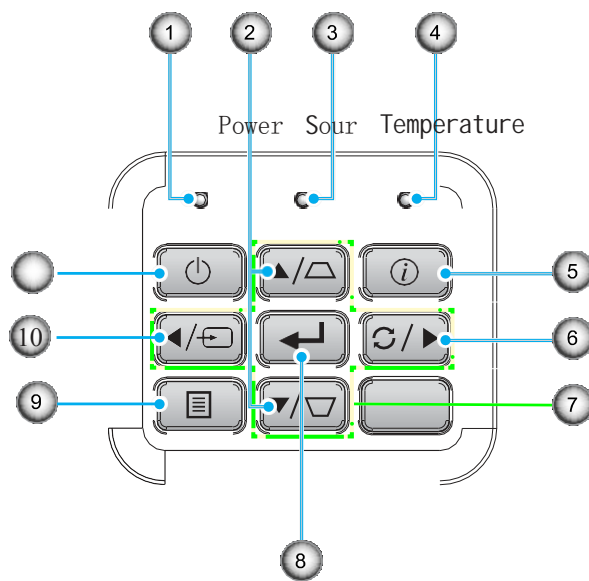
## Connect



numb	proje	numbe	proje
1.	HDMI 2 interface	7.	USB power output interface
2.	Micro USB interface	8.	RJ45 interface
3.	HDMI 1 interface	9.	Power socket
4.	VGA input interface		
5.	KensingtonTM Lock Port		
6.	RS-232 interface		

# Brief introduction

keyboard



No.	Project
1	Power LED
2	Trapezoidal correction
3	LED lights
4	Temperature LED
5	Information
6	Resynchronize

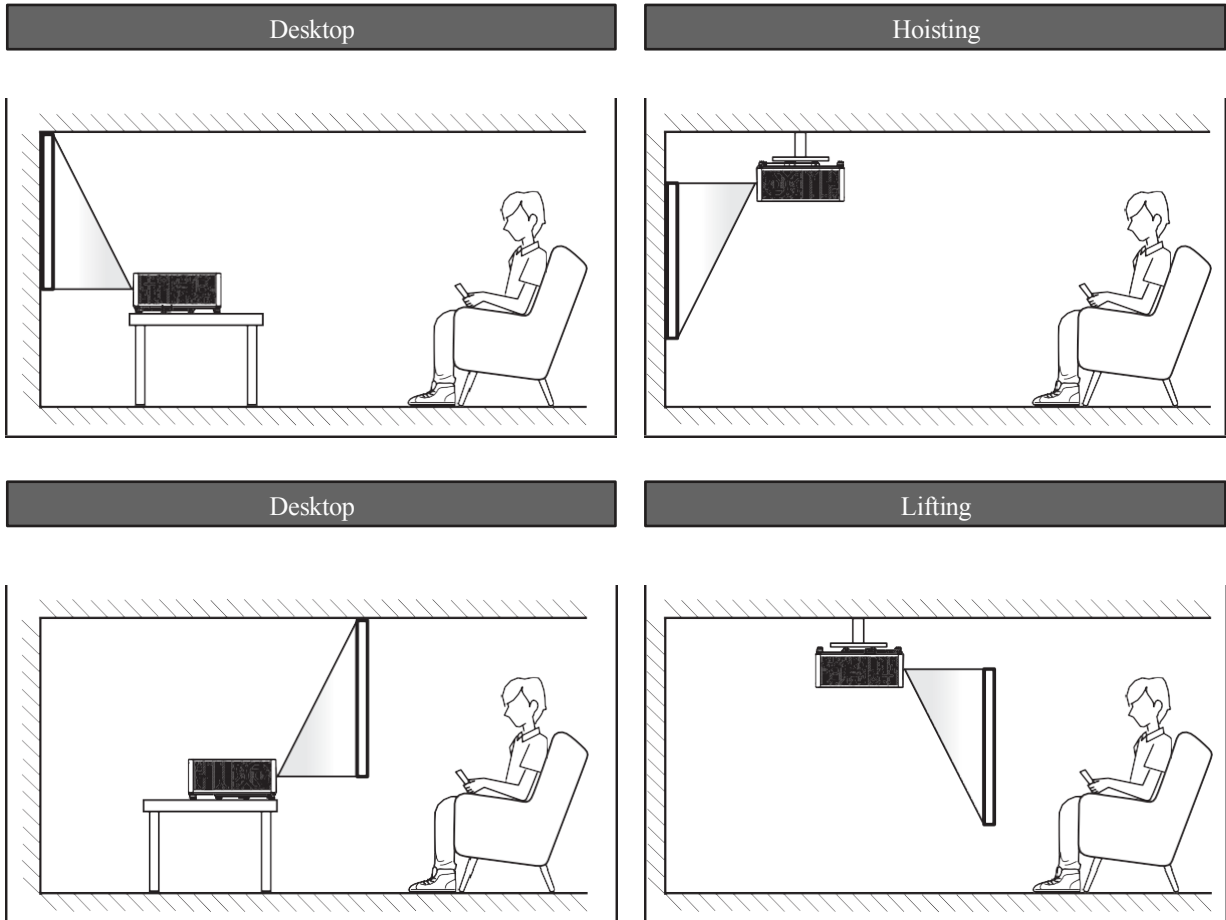
No.	Project
7	Four way selection key
8	Confirm
9	Menu
10	Signal source
11	Power supply

# Brief introduction

## Installing a projector

According to the design, this projector has four installation positions.

You can choose the installation location based on the room layout or personal preferences. The considerations include screen size and location, power outlet location, and the position and distance between the projector and equipment.



The projector should be placed flat on the countertop at a 90 degree angle/perpendicular to the screen.

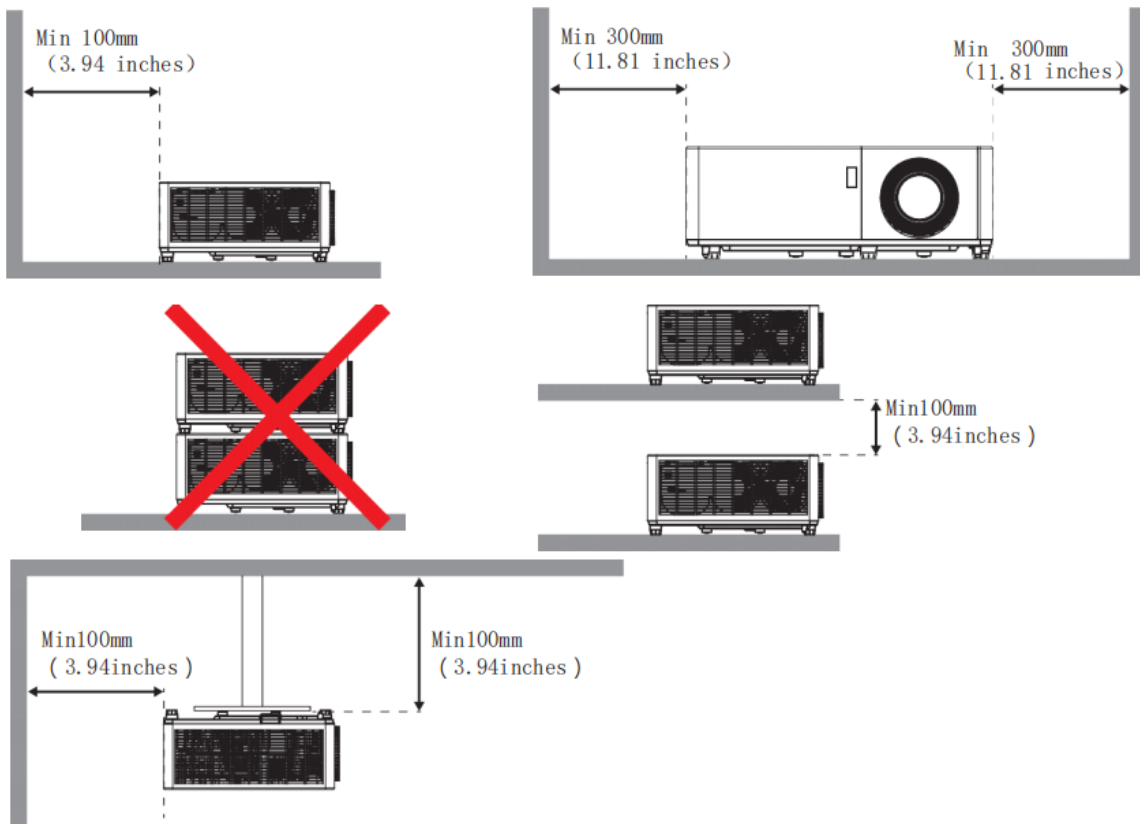
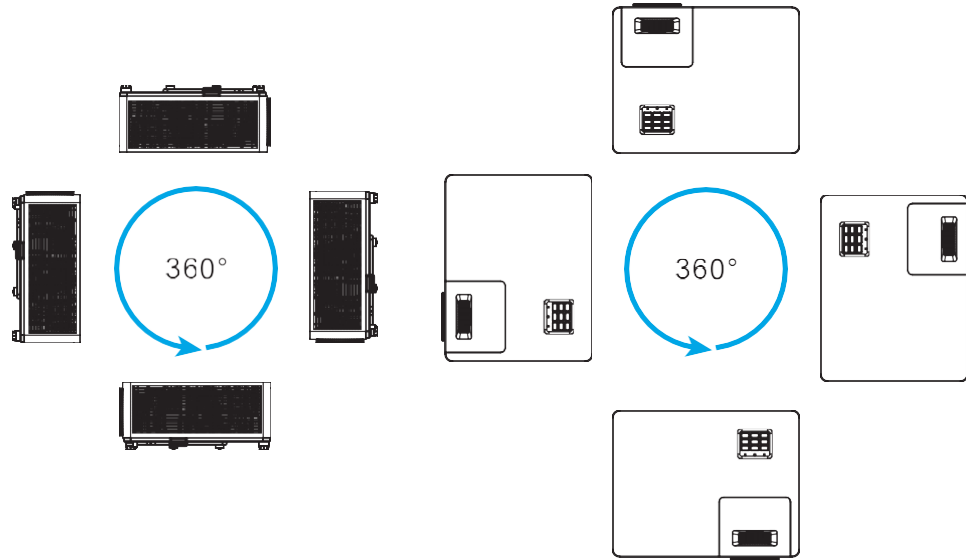
- For information on how to determine the projector position based on screen size, please refer to the distance table on page 25.
- For information on how to determine screen size based on distance, please refer to the distance table on page 25.

**Note:** As the distance from the projector to the screen increases, the size of the projected image increases and the vertical offset also increases.

# Placement and installation

## Projector installation precautions

- 360 degree operation in any direction



- Ensure that the hot air discharged from the exhaust port does not return to the intake port.
- When using a projector in a confined space, ensure that the ambient air temperature in the confined space does not exceed the operating temperature of the projector during operation, and that the air inlet and exhaust ports are kept unobstructed.
- All enclosed spaces should undergo a professional thermal assessment to ensure that the projector does not recycle the discharged air, otherwise even if the temperature of the enclosed space is within an acceptable operating temperature range, it may cause equipment shutdown.

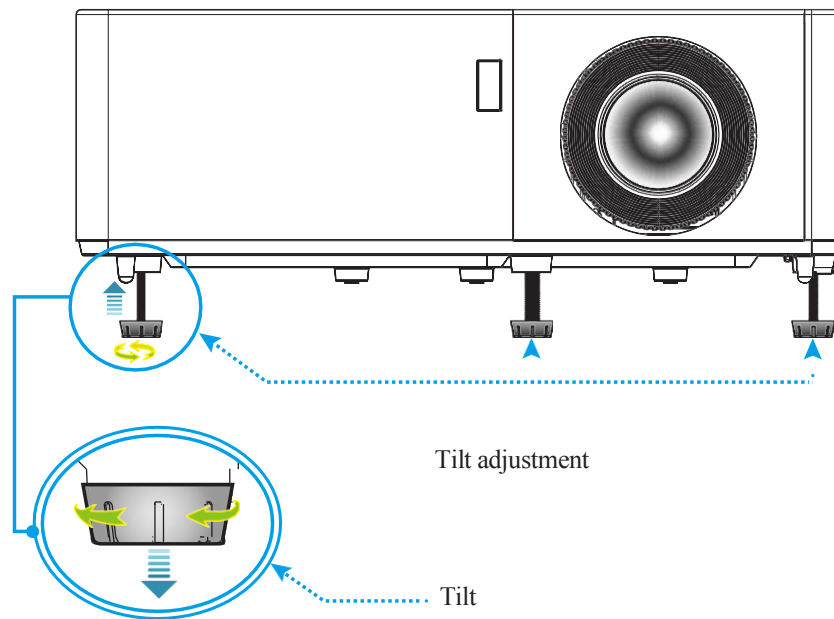
# Placement and installation

## Adjusting projected images

### Image height

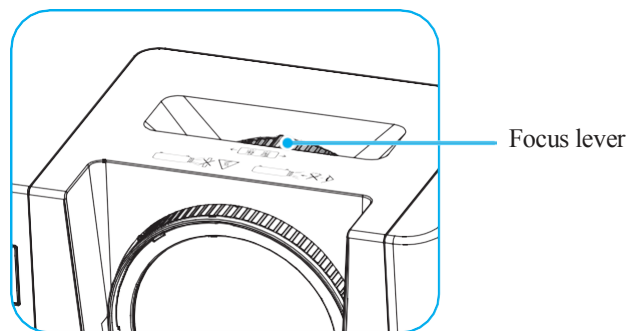
This projector is equipped with lifting feet for adjusting the height of the image.

1. Find the adjustable feet under the projector to adjust the height of the projector.
2. Rotate the adjustable feet clockwise or counterclockwise to raise or lower the projector.



### Focusing

- To adjust the focal length, turn the focusing ring/lever clockwise or counterclockwise until the image becomes clearer.

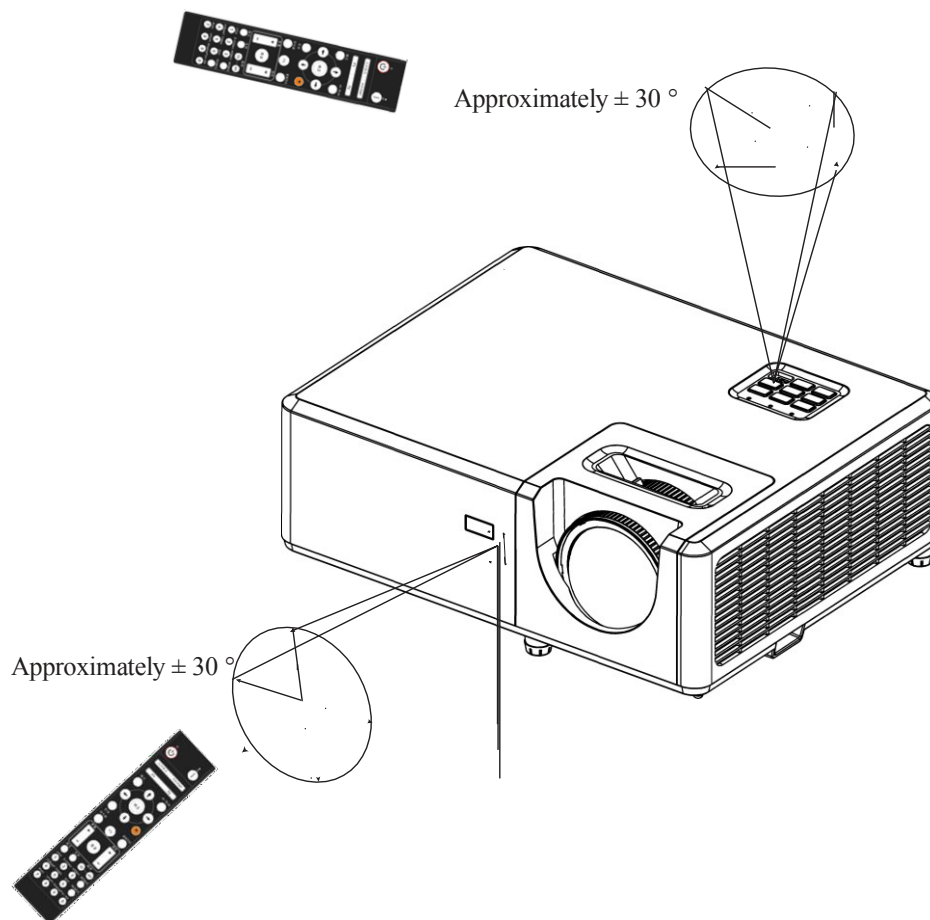


# Placement and installation

## Effective range

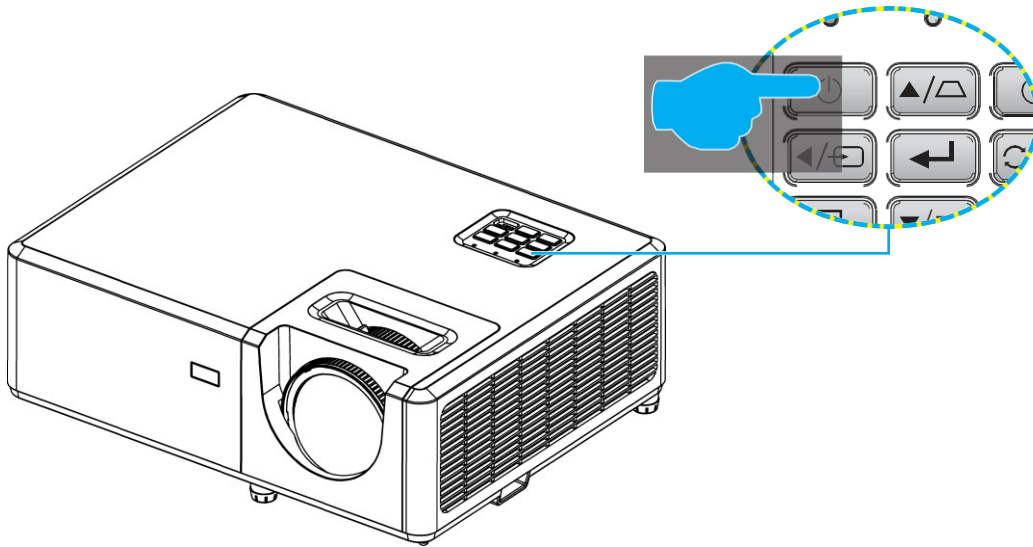
The infrared (IR) remote control sensor is located on the top and front of the projector. To ensure proper operation of the remote control, it should be located within a 60 degree angle range perpendicular to the projector remote sensor. The distance between the remote control and the sensor should not exceed 7 meters (22 feet).

- Ensure that there are no obstacles between the remote control and the IR sensor on the projector to avoid blocking the infrared beam.
- Do not allow sunlight or fluorescent lights to directly illuminate the IR transmitter of the remote control.
- Please keep the remote control at least 2 meters **away** from the fluorescent lamp, otherwise the remote control may not function properly.
- If the remote control is close to the inverter type fluorescent light bulb, it may often not work.
- If the remote control is too close to the projector, it may not work.
- When aiming at the screen, the distance between the remote control and the screen should be less than 5m to allow the IR beam to reflect back to the projector. However, the effective range may vary due to the screens vary.



# Using a projector

## Turn on/off projector power



### Power on

1. Safely connect the power cord and signal/input source cable. After connection, the power LED turns red.
2. Press the button on the projector keyboard or the power button on the remote control to turn on the projector.
3. The startup screen displays for about 10 seconds, and the power LED flashes blue.

### Shutdown

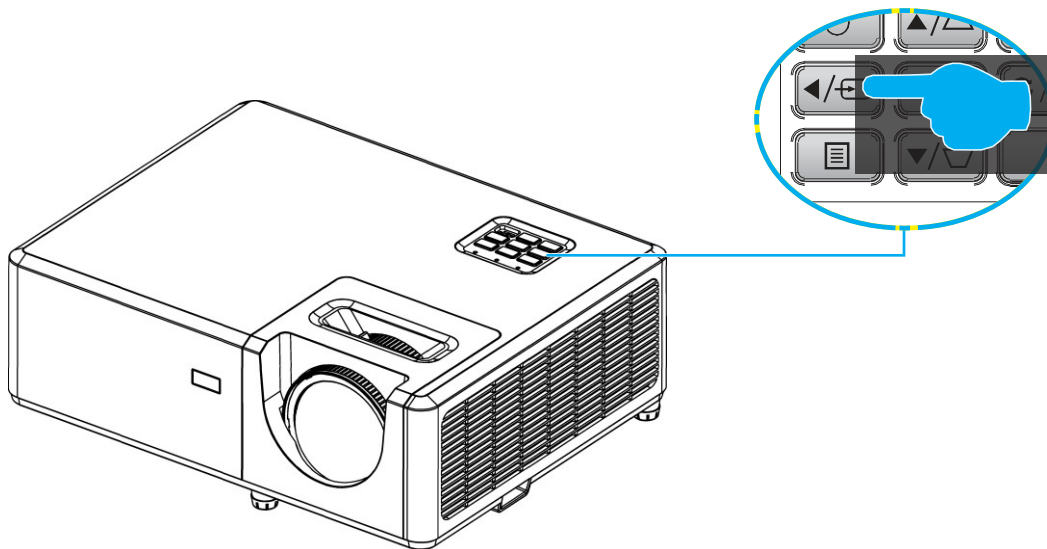
1. Press the power button on the projector keyboard or the standby button on the remote control to turn off the projector power.
2. Press the power button or standby button again to confirm, otherwise the message will disappear after 15 seconds. When you press the power button or standby button again, the projector will shut down.
3. The cooling fan continues to rotate for about 10 seconds to dissipate heat, and the power LED flashes blue. When the power LED stabilizes and displays red, it indicates that the projector has entered standby mode. If you want to restart the projector, you must wait for the projector to complete the cooling process and enter standby mode. When the projector is in standby mode, simply click the power button on the projector keyboard or the power button on the remote control to turn on the projector
4. Unplug the power cord from the power

**Note:** It is not recommended to turn on the projector immediately after turning off the power.




## Select input source

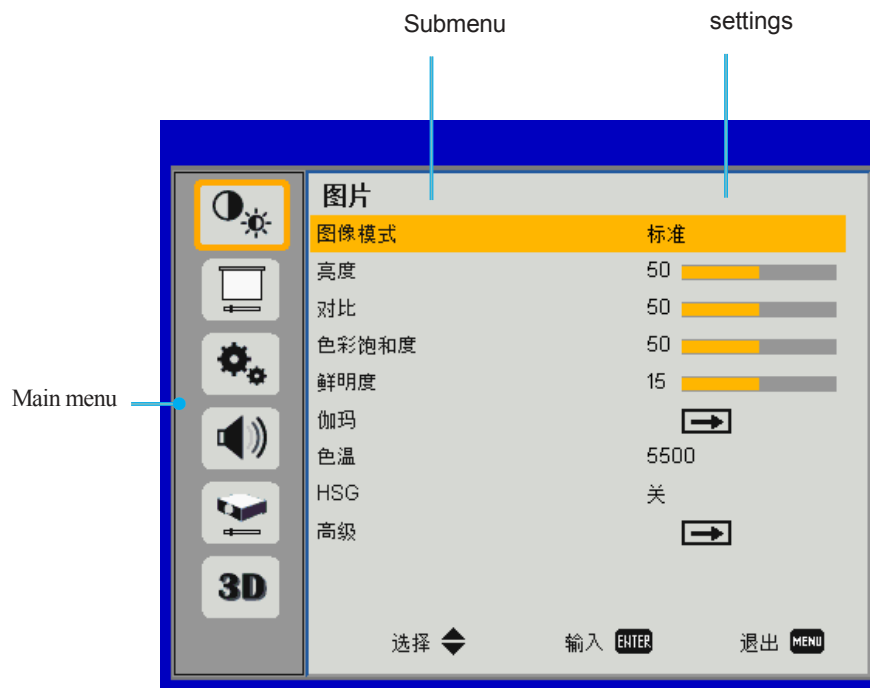
Turn on the power of the connected input source you want to display on the screen (such as a computer, laptop, video player, etc.). The projector will automatically detect the signal source projection display. If multiple input sources are connected, press the signal source button on the projector keyboard or the signal source button on the remote control to select the desired input.



## Menu navigation and functions

This projector has a Multilingual Screen Display (OSD) menu that allows you to adjust images and change multiple settings. The projector will automatically detect the input source.

1. To open the OSD menu, press the  button on the projector keyboard or the menu button on the remote control.
2. When OSD is displayed, use the menu keys to select items from the main menu. When making a selection on a specific page, please press the projector confirm button or the confirm button on the remote control to enter the submenu.
3. Use the arrow keys to select the desired item in the submenu, and then press the OK button to view more settings. Use the directional keys to adjust settings.
4. Select the next item to be adjusted in the submenu and make the adjustments as described above.
5. Press the OK button to confirm, and the screen will return to the main menu.
6. To exit, please press the menu button again. The OSD menu will close and the projector will automatically save new settings.



Navigation Guide

# Additional information

## Display Settings Menu

### display mode

For many types of images, projectors have many optimized factory presets.

- **Brightness:** A mode that emphasizes brightness.
- **Standard:** A mode that achieves the best balance between brightness and color reproduction.
- **Vivid:** A pattern that emphasizes color.
- **SRGB:** Standard color value.
- **DICOM simulation:** This mode is suitable for projecting monochromatic medical images, such as **X-ray radiography**, MRI, etc.

### brightness

Adjust the

brightness of the

image. contrast ratio

Contrast controls the degree of difference between the brightest and darkest parts of an image.

### Color Saturation

Adjust the color

saturation of the image.

### vividness

Adjust image sharpness.

### Gamma

Set the gamma curve type.

### Color temperature

Adjust the image

color temperature.

### HSG

Use this feature to enhance colors and reproduce vivid colors.

### senior

Perform advanced image settings

## Screen settings menu

### Screen settings

- **Aspect ratio:** adjusting the screen scale
- **Phase:** The signal timing between the synchronous projector and the computer graphics card. If the image is unstable or flickering, this function can be used to correct it.
- **Clock frequency:** Change the frequency of displayed data to match the frequency of the computer graphics card. Use this feature only when the image appears to flicker vertically.
- **Horizontal position:** Adjust the horizontal position of the image.
- **Vertical position:** Adjust the vertical position of the image.
- **Trapezoidal correction:** Adjusting image distortion caused by projector tilt.
- **Projection mode:** Set projection direction
- **Advanced:** Perform advanced screen settings.

# Additional information

## Settings menu

### Set settings

- Language: Select the operating language of the projector
- Automatic shutdown (minutes): Set the countdown interval (in minutes). When the projector does not receive any signal, the countdown starts immediately. At the end of the countdown, the projector will automatically shut down. When the countdown is set to "0", the automatic shutdown will be disabled.
- Network: Enable/disable network functionality.
- Network: Perform network settings.
- Password setting: Set the security password for the projector
- Menu position: Adjust menu display position
- Reset: Restores all adjustments and settings to their original factory default values. Select "OK" to set the display parameters (sleep mode settings, network) on all menus (Except for standby) and remote control ID, restore to factory preset settings.

## Audio Settings Menu

### Audio settings

- Mute: Temporarily turns off sound.
- Volume: Adjust the volume.

## Option Setting Menu

### Option settings

- Signal automatic search: When this function is set to "on", the projector will search for other signals when the current input signal is lost. When this function is set to When turned off, only the specified port will be searched.
- Input source: Use this option to enable/disable input sources. The projector will only search for enabled inputs.
- Laser settings: Use this option to view the usage status of the laser light source and set the power.
- High altitude: When selecting "on", the fan will accelerate its rotation. When using the projector at an altitude exceeding 2500 feet (750 meters), please set the high altitude mode to "on".
- Power setting: Use this option to set the power supply.
- Remote control ID: Set the control ID of the projector corresponding to the remote control
- Information: Display projector information.

## 3D Settings Menu

### 3D settings

- **3D synchronous inversion:** Use this option to enable/disable the 3D synchronous inversion function

Can.

- **3D image format:** Use this option to select the appropriate 3D format content.

### **Attention:**

- This projector is a 3D feature projector with DLP-Link 3D solution.
- Before watching the video, please ensure that your 3D eyes are usable for DLP-Link 3D.
- This projector supports frame order (page flipping) 3D via HDMI/VGA ports.
- To enable 3D mode, the input frame rate should only be set to 60Hz, and neither lower nor higher is supported.
- For optimal performance, it is recommended to use a resolution of 1920x1080. Please note that 4K (3840x2160) resolution is not supported in 3D mode.

# Additional information

## Volume resolution

simulation

Module native resolution: 1280x800@60Hz (WXGA); 1920x1080@60Hz (1080p); 1024x768@60Hz (XGA)

B0/Established timing	B0/Standard timing	B0/Detailed timing	B1/Video mode	B1/Detailed timing
720 x 400 @ 70Hz	1280 x 720 @ 60Hz	1920x1080@60Hz (Used for 1080p model)		1366x768 @ 60Hz
640 x 480 @ 60Hz	1280 x 800 @ 60Hz	1024x768@60Hz (Used for XGA models)		1280x800@120Hz (RB)
640 x 480 @ 67Hz	1280x1024 @ 60Hz	1280x800@60Hz (Used for WXGA models)		1920x1200@ 60Hz (RB)
640 x 480 @ 72Hz	1600X1200@60Hz			
640 x 480 @ 75Hz	1280X960@60Hz			
800 x 600 @ 56Hz	640x480@120Hz			
800 x 600 @ 60Hz	800x600@120Hz			
800 x 600 @ 72Hz	1024x768@120Hz			
800 x 600 @ 75Hz				
832 x 624 @ 75Hz				
1024 x 768 @ 60Hz				
1024 x 768 @ 70Hz				
1024 x 768 @ 75Hz				
1280 x 1024 @ 75Hz				
Manufacturer's timing:				
1152 x 870 @ 75Hz				

# Additional information

## Digital (HDMI 2.0)

Digital native resolution: 1280x800@60Hz (WXGA); 1920x1080@60Hz (1080p); 1024x768@60Hz (XGA)

Established timing	Standard timing	Describing timing - B0 (Detailed timing)	Support video mode	Describing Time Series B1 (Detailed timing)
720 x 400 @ 70Hz	1280 x 720 @ 60Hz	1920x1080@60Hz (Used for 1080p model)		1920x1080@120Hz (*)
640 x 480 @ 60Hz	1280 x 800 @ 60Hz	1024x768@60Hz (Used for XGA models)		1366x768@60Hz
640 x 480 @ 67Hz	1280x1024 @ 60Hz	1280x800@60Hz (Used for WXGA models)		1920x1200@ 60Hz (RB)
640 x 480 @ 72Hz	1600X1200@60Hz			
640 x 480 @ 75Hz			720 x 480p @ 60Hz 16:9	
800 x 600 @ 56Hz	640x480@120Hz		720 x 576p @ 50Hz 4:3	
800 x 600 @ 60Hz	800x600@120Hz		720 x 576p @ 50Hz 16:9	
800 x 600 @ 72Hz	1024x768@120Hz		1280 x 720p @ 60Hz 16:9	
800 x 600 @ 75Hz	1280x800@120Hz		1280 x 720p @ 50Hz 16:9	
832 x 624 @ 75Hz			1920 x 1080i @ 60Hz 16:9	
1024 x 768 @ 60Hz			1920 x 1080i @ 50Hz 16:9	
1024 x 768 @ 70Hz			1920 x 1080p @ 60Hz 16:9	
1024 x 768 @ 75Hz			1920 x 1080p @ 50Hz 16:9	
1280 x 1024 @ 75Hz			1920 x 1080p @ 24Hz 16:9	
			3840 x 2160 @ 24Hz	
			3840 x 2160 @ 25Hz	
			3840 x 2160 @ 30Hz	
			4096 x 2160 @ 24Hz	
Manufacturer's timing:			3840 x 2160 @ 50Hz	
1152 x 870 @ 75Hz			3840 x 2160 @ 60Hz	
			4096 x 2160 @ 50Hz	
			4096 x 2160 @ 60Hz	
			4096 x 2160 @ 25Hz	
			4096 x 2160 @ 30Hz	

(\*) 1920x1080p@120Hz Exceeding the bandwidth of DDP442X-HV, TI cannot guarantee the image quality of this sequence.

### TI suggestion:

Without a feasible solution, TI cannot support customer "dual" pixel inputs exceeding 141 MHz (effective 282 MHz) through DDP442xHV ASIC. For any high bandwidth video input, typically >141MHz (dual pixel input), TI's only recommendation is to reduce the input clock speed by reducing the fading (vertical and/or horizontal) of the relevant input sources. However, concealment still needs to exceed the minimum requirements of ASIC. Apart from reducing the frame rate, removing fading from the input source is the only way to lower the high-end input clock to 141 MHz or lower.

# Additional information

## Digital (HDMI2 1.4)

Digital native resolution: 1280x800@60Hz (WXGA); 1920x1080@60Hz (1080p); 1024x768@60Hz (XGA)

Established timing	Standard timing	Describing timing - B0 (Detailed timing)	Support video mode	Describing Time Series B1 (Detailed timing)
720 x 400 @ 70Hz	1280 x 720 @ 60Hz	1920x1080@60Hz (Used for 1080p model)	640 x 480p @ 60Hz 4:3	1920 x 1080p @ 60Hz
640 x 480 @ 60Hz	1280 x 800 @ 60Hz	1024x768@60Hz (Used for XGA models)	720 x 480i @ 60Hz 16:9	1366x768@60Hz
640 x 480 @ 67Hz	1280x1024 @ 60Hz	1280x800@60Hz (Used for WXGA models)	720 x 480p @ 60Hz 4:3	1920x1080@120Hz (*)
640 x 480 @ 72Hz	1600X1200@60Hz		720 x 480p @ 60Hz 16:9	1920x1200@60Hz Z (RB)
640 x 480 @ 75Hz			720 x 576i @ 50Hz 16:9	
800 x 600 @ 56Hz	640x480@120Hz		720 x 576p @ 50Hz 4:3	
800 x 600 @ 60Hz	800x600@120Hz		720 x 576p @ 50Hz 16:9	
800 x 600 @ 72Hz	1024x768@120Hz		1280 x 720p @ 60Hz 16:9	
800 x 600 @ 75Hz	1280x800@120Hz		1280 x 720p @ 50Hz 16:9	
832 x 624 @ 75Hz			1920 x 1080i @ 60Hz 16:9	
1024 x 768 @ 60Hz			1920 x 1080i @ 50Hz 16:9	
1024 x 768 @ 70Hz			1920 x 1080p @ 60Hz 16:9	
1024 x 768 @ 75Hz			1920 x 1080p @ 50Hz 16:9	
1280 x 1024 @ 75Hz			1920 x 1080p @ 24Hz 16:9	
			3840 x 2160 @ 24Hz	
			3840 x 2160 @ 25Hz	
			3840 x 2160 @ 30Hz	
			4096 x 2160 @ 24Hz	
Manufacturer's timing:				
				1152 x 870 @ 75Hz

# Additional information

## True 3D video compatibility

Input resolution	Input timing		
	HDMI 1.4a 3D input	1280 x 720P @ 50Hz	Up and down
1280 x 720P @ 60Hz		Up and down	
1280 x 720P @ 50Hz		Frame encapsulation	
1280 x 720P @ 60Hz		Frame encapsulation	
1920 x 1080i @ 50Hz		Side by side (half)	
1920 x 1080i @ 60Hz		Side by side (half)	
1920 x 1080P @ 24Hz		Up and down	
1920 x 1080P @ 24Hz		Frame encapsulation	
HDMI 1.3	1920 x 1080i @ 50Hz	Side by side (half)	SBS mode enabled
	1920 x 1080i @ 60Hz		
	1280 x 720P @ 50Hz		
	1280 x 720P @ 60Hz		
	800 x 600 @ 60Hz		
	1024 x 768 @ 60Hz		
	1280 x 800 @ 60Hz	Up and down	TAB mode enabled
	1920 x 1080i @ 50Hz		
	1920 x 1080i @ 60Hz		
	1280 x 720P @ 50Hz		
	1280 x 720P @ 60Hz		
	800 x 600 @ 60Hz		
	1024 x 768 @ 60Hz		
	1280 x 800 @ 60Hz		
480i	HQFS	The 3D image format is frame continuous	

### Attention:

- If the 3D input is 1080p@24Hz DMD should be replayed in 3D mode with integer multiples.
- 1080i@25Hz and 720p@50Hz Running at 100Hz; 1080p@24Hz Running at 144Hz; Other 3D timing runs at 120Hz.



# Additional information

## Image size and projection distance

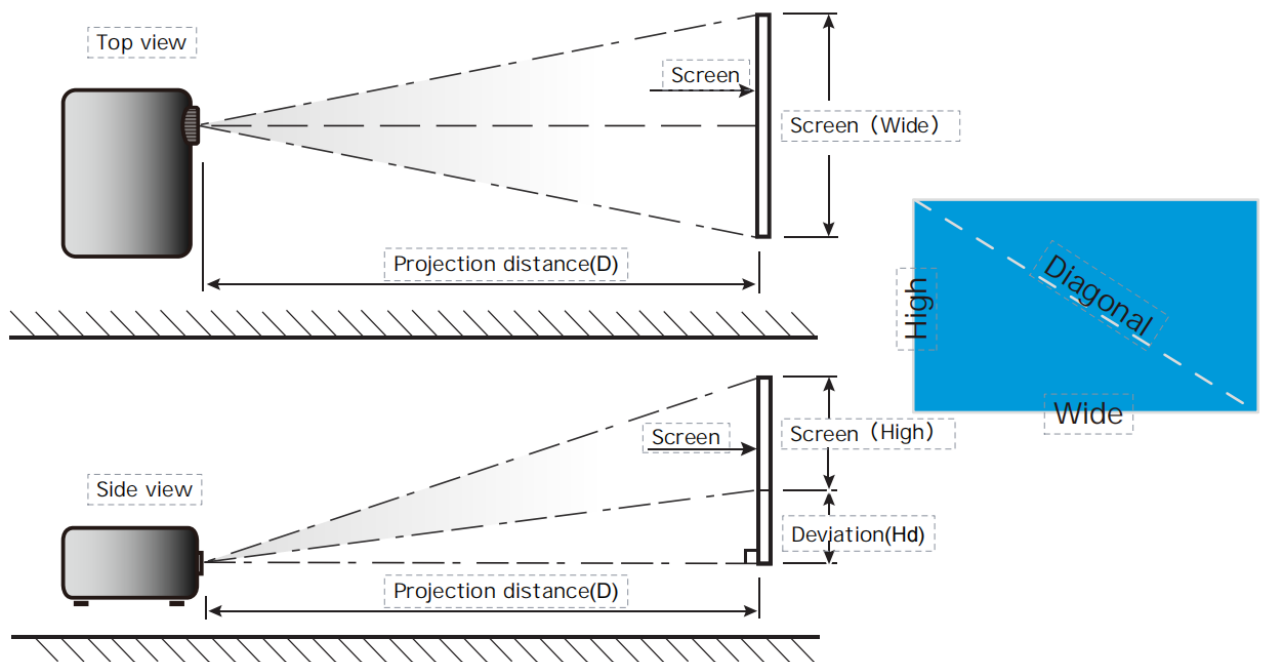
### WXGA Short Projection Model

WXGA (16:10) screen The diagonal length of the curtain	Screen size (W x H)				Projection distance (D)		Offset (Hd)	
	(meters)		(inches)		(meters)	(inches)	(meters)	(inches)
	width	height	width	height	Wide width	Wide width		
eighty	one point seven two	one point zero eight	sixty-seven point eight four	forty-two point four zero	zero point nine zero	thirty-five point three four	zero point one three	five point two six
ninety	one point nine four	one point two one	seventy-six point three two	forty-seven point zero	one point zero one	thirty-nine point seven six	zero point one five	five point nine one
one hundred	two point one five	one point three five	eighty-four point eight zero	fifty-three	one point one two	forty-four point one eight	zero point one seven	six point five seven
one hundred and ten	two point three seven	one point four eight	ninety-three point two eight	fifty-eight point three zero	one point two three	forty-eight point six zero	zero point one eight	seven point two three
one hundred and twenty	two point five eight	one point six two	one hundred and one point seven six	sixty-three point six zero	one point three five	fifty-three point zero two	zero point two zero	seven point eight nine
one hundred and thirty	two point eight zero	one point seven five	one hundred and ten point two four	sixty-eight point nine zero	one point four six	fifty-seven point four three	zero point two two	eight point five four

### 1080p Short Projection Model

1080P (16:9) screen Diagonal length of	Screen size (W x H)				Projection distance (D)		Offset (Hd)	
	(meters)		(inches)		(meters)	(inches)	(meters)	(inches)
	width	height	width	height	Wide width	Wide width		
eighty	one point seven seven	one	sixty-nine point seven three	thirty-nine point two two	zero point eight eight	thirty-four point five eight	zero point one six	six point two eight
ninety	one point nine nine	one point one two	seventy-eight point four four	forty-four point one two	zero point nine nine	thirty-eight point nine one	zero point one eight	seven point zero six
one hundred	two point two one	one point two five	eighty-seven point one six	forty-nine point zero	one point one zero	forty-three point two three	zero point two zero	seven point eight four

				three				
one hundred and ten	two point four four	one point three seven	ninety-five point eight seven	fifty-three point nine three	one point two one	forty-seven point five five	zero point two two	eight point six three
one hundred and twenty	two point six six	one point four nine	one hundred and four point five nine	fifty-eight point eight three	one point three two	fifty-one point eight eight	zero point two four	nine point four one
one hundred and thirty	two point eight eight	one point six two	one hundred and thirteen point three zero	sixty-three point seven three	one point four three	fifty-six point two zero	zero point two six	ten point two zero



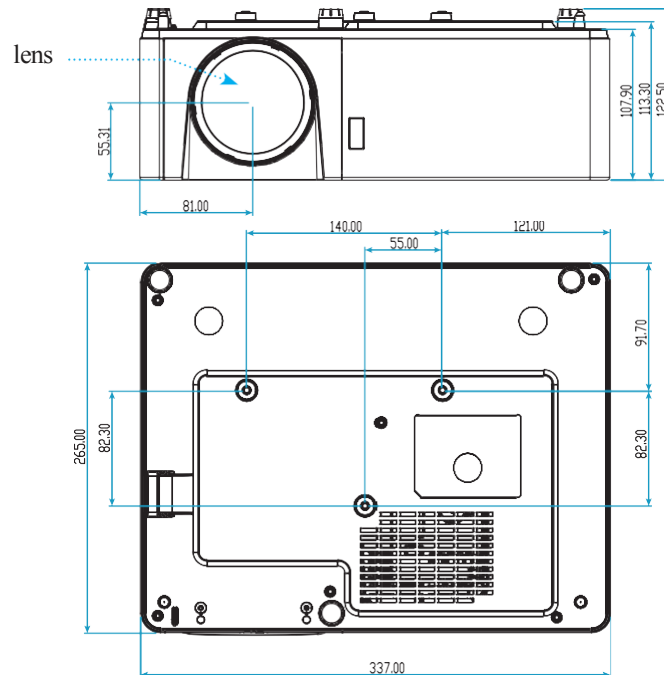
# Additional information

## Projector size and ceiling installation

If you wish to use a third-party lifting kit, please ensure that the screws used to secure the projector to the hanger meet the following specifications:

- Screw type: M4 \* 10
- Minimum screw size: 10mm

### 1080p/WXGA Short Projection Model



Unit: Millimeters

**Attention:** Damage caused by improper installation is not covered by the warranty.



# Additional information

## Fault handling

If you encounter problems while using the projector, please refer to the following information. If the problem cannot be solved, please contact your local dealer or repair center. Image issues

There is no image on the **s c r e e n** .

- Confirm that all cables and power connections are correctly and securely connected as described in the "Installation" section.
- Confirm that the connector pins are not bent or broken.
- Ensure that "mute" is not turned on.

Inaccurate **i m a g e f o c u s**

- Rotate the focusing ring/lever clockwise or counterclockwise until the image becomes clearer. (Please refer to page 14).
- Confirm that the projection screen and projector are within the required distance range. (Please refer to page 25).

Image stretched when **d i s p l a y i n g 16:9 DVD disc**

- When playing horizontally compressed DVDs or 16:9 DVDs, this projector displays the best image at a 16:9 image ratio on one end of the projector.
- If playing a DVD disc with LBX image ratio, please change the image ratio to LBX in the projector OSD.
- If playing a DVD disc with a 4:3 image ratio, please change the image ratio to 4:3 in the projector OSD.
- Set the display image ratio to 16:9 (width) aspect ratio on the DVD player.

**T h e i m a g e** is too small or too large.

- Increase or decrease the distance between the projector and the projection screen.
- Press "Menu" on the projector panel and go to "Display Settings ->Screen Aspect Ratio". Try other settings.

**T h e i m a g e h a s s l a n t e d e d g e s :**

- If possible, adjust the position of the projector to align it with the middle position of the screen and below the bottom edge of the screen.

**I m a g e r e v e r s a l**

- Select "Settings ->Projection Method" in OSD to adjust the projection direction.

# Additional information

## Other issues

The projector stops responding to all controls.

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

If the remote control does not work

- Check if the operating angle of the remote control is within  $\pm 30^\circ$  relative to the IR receiver of the projector.
- Ensure that there are no obstacles between the remote control and the projector. Move within 7 meters (22 feet) of the projector.
- Ensure that the battery is installed correctly.
- Replace the battery (if it is dead).

# Additional information

## Warning indicator light

When the warning indicator light (as described below) lights up or flashes, the projector will automatically shut down:

- The "Light" LED indicator light shows red, and if the "Power" indicator light flashes red.
- The "Temperature" LED indicator light shows red, and if the "Power" indicator light flashes red. This indicates that the projector is overheating. Under normal circumstances, the projector can be restarted.
- The "Temperature" LED indicator is flashing red, and if the "Power" indicator is flashing red.

Unplug the power cord from the projector, wait for 30 seconds, and then try again. If the warning indicator light is still on or flashing, please contact the nearby service center for assistance.

## LED lighting information

Information	Power LED	Temperature LED	LED lights
position in readiness (Input power cord)	red	(Blue)	red
Power on (preheating)	Stable lighting	Shiny (0.5 seconds off/0.5 seconds on)	
Power on and lights on	Stable lighting	Stable lighting	
Power off (cooling)	Stable lighting	Shiny (0.5 seconds off/0.5 seconds on) When the cooling fan is turned off Restore stable red color.	
Error (light malfunction)	Shiny		Stable lighting
Error (fan failure)	Shiny	Shiny	
Error (temperature too high)	Shiny	Stable lighting	