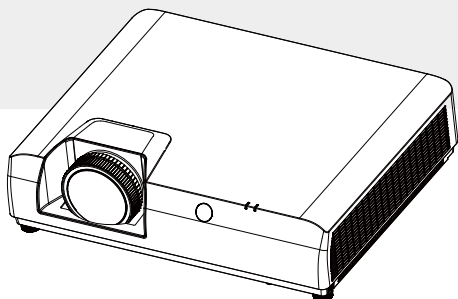
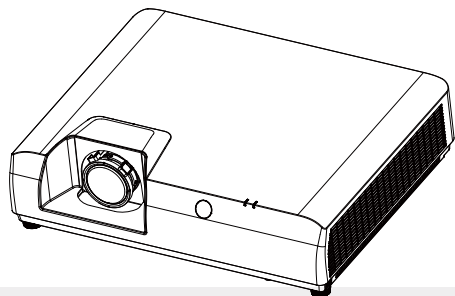


Operating Manual

Laser projector



- Thank you for purchasing this product.
- Before using this product, please read this manual carefully, and save this manual for future use.

HDMI®

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Important safety notice!

Warning : This equipment must be grounded.

Warning : To prevent damage that may result in fire or electric shocks, do not expose this appliance to rain or moisture.
This device cannot be used in a direct field of view in a visual display workplace.
To avoid causing disturbing reflections in the visual display workplace, it is strictly forbidden to place this device in the direct field of view.
According to ISO 7779, the sound pressure intensity at the operator's position is equal to or less than 70 dB (A).

Warning : 1. When not using the device for an extended period of time, be sure to disconnect the power plug from the power outlet.
2. To avoid electric shocks, do not open the cover. Please contact a qualified person for repairs.
3. Do not remove the grounding pin on the power plug . This device is equipped with a two-pin grounding type power plug. This plug will only fit a grounding-type power outlet. This is a security function. If you are unable to insert the plug into the outlet, contact an electrician. Do not defeat the purpose of the grounding plug.

Warning : This device complies with the Class A standard of CISPR32.
This is a Class A information technology equipment. When used in a residential environment, it may cause radio frequency interference. In this case, the user will be required to take some appropriate countermeasures.

Precautions: To assure continued compliance , follow the attached installation instructions. Including: When connecting to a computer or peripheral device, the attached power cord and shielded interface cables must be used. In addition, any unauthorized changes and modifications to this equipment could void the user's authority to operate this device.

Warning : To avoid fire or electric shocks, do not expose this product to rain or moisture.

Warning : Risk of electric shock, do not open



Marks on the projector



The lightning flash with arrowhead symbol, within an equilateral triangle on the projector is intended to alert the user to the presence of uninsulated [dangerous voltage] inside the product, which poses a risk of electric shock to persons.

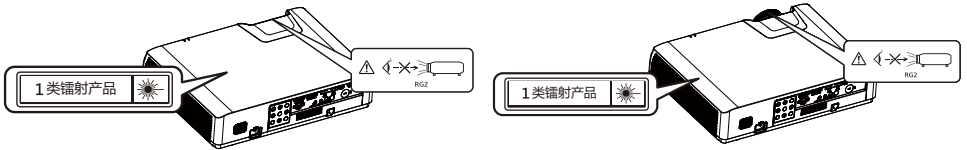


The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Warning: Do not look directly into the light emitted from the lens while using the projector.



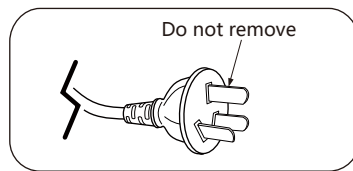
Laser statement: This projector falls into the Class I laser products of IEC/EN 60825-1:2014.
2.This projector is comply with Class II laser products of IEC 64271-5: 2015
3.According to GB72471-2012 "Safety of Laser Products Part 1: Classification of equipment, Requirements" this product comply with Class II laser products.



Precautions: Using control, adjustment, or executive programs other than those specified herein may result in the release of harmful radiation.

Precautions:

This device is equipped with a two-pin grounding type power plug. Do not remove the grounding pin on the power plug. This plug will only fit a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician. Do not defeat the purpose of the grounding plug.



Emergency treatment method:

To prevent damage to users and others and loss of life and property, if an abnormality occurs, immediately unplug the power plug and stop using it.

Taiwan-specific empty battery recycling logo



Recycle empty batteries



Warning: Power

The wall outlet or the circuit breaker shall be installed near the equipment and shall be easily accessible when problems occur.. If the following problems occur, cut off the power supply immediately.

Continued use of the projector in these conditions will result in fire or electric shocks or visual impairment.

If foreign objects or water gets inside the projector, cut off the power supply.

If the projector is dropped or the cabinet is damaged, cut off the power supply.

If you notice smoke, strange smell, or noise coming from the projector, cut off the power supply.

Please contact an Authorized Service Center for repairs. Do not attempt to repair the projector yourself.

During a thunderstorm, do not touch the projector and cables. Electric shocks can result.

Do not do anything that might damage the power cord or the power plug. If the power cord is used while damaged, electric shocks, short circuits, or fire will result.

Do not damage the power cord, make any modifications to it, bend it excessively, twist it, pull it, or wrap it into a bundle, or place it near any hot objects or place heavy objects on top of it.

Do not use the anything other than the provided power cord. Otherwise, it may result in electric shocks or fire.

Caution: If the device on the side of the power outlet is not grounded with the provided power cord, it may lead to electric shocks.

Insert the power plug securely into the wall outlet and ensure that the power connector is securely plugged into the projector.

If the plug is not inserted correctly, electric shocks or overheating will result.

Do not use a broken power plugs which are damaged or wall outlets which are coming loose from the wall.

When the hands are wet, do not touch the power plug or the power connector. Otherwise, it will easily lead to electric shocks.

Do not overload the wall outlet.

If the power supply is overloaded (for example: inserting too many power plugs), overheating may occur and fire will result..

Clean the power plug regularly to to prevent it from becoming covered in dust.. Failure to observe this will cause a fire.

If dust builds up on the power plug, the resulting humidity can damage the insulation.

On use/installation

Do not place the projector on soft materials such as carpets or sponge mats. Doing so will cause the projector to overheat, which can cause burns, fire, or damage to the projector.

Do not set up the projector in humid or dusty places, or in places where the projector may come into contact with oily smoke or steam.

Using the projector under such conditions will result in fire, electric shocks, or components deterioration. Oil may also deform the plastic and the projector may fall down, such as when mounted on the ceiling.

Do not install the projector in a place which is not strong enough to take the full weight of the projector or on top of a surface which is sloped or unstable. Failure to observe this will cause the projector to fall down or tip over the projector, and personal injury or equipment damage could result.

Do not install the projector in a place where people can pass.

People may bump into the projector or trip over the power cord, which may result in fire, electric shocks, or injury.

Warning:

Do not cover the air intake/ the air exhaust port. Doing so will cause the projector to overheat, which can cause fire or damage to the projector.

- Do not place the projector in narrow, badly ventilated places.
 - Do not place the projector on cloth or papers, as these materials could be easily drawn into the air intake port.
 - Keep at least 1m (39-3/8") between the air exhaust port and any wall or object, and keep at least 50cm (19-11/16") between the air intake port and any wall or object.
- Do not look or place your hands directly into the lights emitted from the lens, while the projector is being used.

Do not use optical devices such as magnifiers or mirrors to enter the projection beam.

Doing so can cause burns or impaired vision.

- Strong light is emitted from the projector's lens. Do not look or place your hands directly into this light.
 - Be especially careful not to let children look into the lens. In addition, turn off the power and disconnect the power plug when you are away from the projector.
- Never attempt to remodel or disassemble the projector.

High voltage can cause accidents such as fire or electric shocks.

- For any inspection, adjustment and repair work, please contact an Authorized Service Center.

Avoid metal objects, flammable materials or liquids entering into the projector.

Do not get the projector wet. Otherwise, it may cause a short circuit or excessive temperature, thus resulting in accidents such as fire, electric shocks, etc. or projector failure.

- Do not place liquid containers or metal objects near the projector.
- If liquid gets inside the projector, consult your distributor.
- Please pay special attention to children.

Use an authorized ceiling mount bracket.

Using an unauthorized ceiling mount bracket may cause the machine to fall.

- Install the attached safety cables on the ceiling mount bracket to avoid dropping of the

Important safety tips!

Installation work should only be carried out by a qualified technician, such as lifting the projector to the ceiling.

Improper fixing during installation may result in personal injury or electric shocks.

●Accessories

Do not use or handle the batteries improperly, and refer to the instructions below.

Failure to observe this will cause burns, batteries to leak, overheat, explode, or catch fire.

- Do not use unspecified batteries.
- Do not charge dry cell batteries.
- Do not disassemble dry cell batteries.
- Do not heat the batteries or place them into water or fire.
- Do not allow the + and - terminals of the batteries to come into contact with metallic objects such as necklaces or hairpins.
- Do not store or carry batteries with metallic objects.
- Store the batteries in a plastic bag and keep them away from metallic objects.
- Make sure the polarities (+ and -) are correct when inserting the batteries.
- Do not use a new battery together with an old battery or mix different types of batteries.
- Do not use batteries with the outer cover peeling away or removed.
If the battery fluid leaks, do not touch it with bare hands and take the following measures if necessary.
- Battery fluid on your skin or clothing could result in skin inflammation or injury. Rinse with clean water and seek medical advice immediately.
- Battery fluid coming in contact with your eyes could result in loss of sight. In this case, do not rub your eyes. Rinse with clean water and seek medical advice immediately.

Do not allow children to reach the batteries.

Accidental swallowing of accessories can harm your body.

- If swallowed, seek medical advice immediately.

Remove the empty batteries from the remote control immediately.

- If the empty batteries are left in the remote control, it may cause the batteries fluid to leak, the internal temperature to rise abnormally, or even explode.

Precautions

●Power

When disconnecting the power cord, hold the plug and power connector.

If the power cord is pulled, the lead will become damaged and fire, short circuits, or serious electric shocks will result.

When not using the projector for an extended period of time, disconnect the power plug from the wall outlet. Failure to observe this may result in fire or electric shocks.

Turn off the power and disconnect the power plug from the wall outlet before replacing the projector lens.

- Accidental projections may cause eye damage.

- If the projector lens is replaced without disconnecting the power plug, electric shocks will result.

Disconnect the power plug from the wall outlet before cleaning or replacing any components. Electric shocks can result if this is not done..

- On use/installation

Do not place any heavy objects on top of the projector. Otherwise, it may cause the projector to become unstable or fall, and result in personal injury or equipment damage, and the projector will be damaged or deformed.

Do not put your weight on the projector. You could fall or the projector could break, and personal injury will result.

- Do not allow children to stand or sit on the projector.

Do not place the projector in extremely hot locations. Doing so will cause the outer casing or internal components to deteriorate, or result in fire.

- Take particular care in locations exposed to direct sunlight or near electric heater accessories.

When moving the lens, do not put your hand into the opening next to the optical lens.

Doing so may result in injury.

Do not place the projector in locations that may be affected by salt or corrosive gases.

Failure to observe this may result in falling due to corrosion. In addition, corrosion can also cause failure.

When using the projector, do not stand in front of the lens. Doing so may cause damage and burn clothes.

- The projector lens emits strong light.

When using the projector, do not place objects in front of the lens. Do not place objects in front of the projector lens to avoid blocking the projection. Failure to observe this may result in fire or object damage and may cause projector failure.

- The projector lens emits strong light.

Unplug all cables from the projector before moving the projector. Moving the projector without unplugging the cables may damage the cables, thus resulting in fire or electric shocks.

When installing the projector on the ceiling, do not allow the mounting screws and power cord to come into contact with the metal components inside the ceiling. Contact with metal components inside the ceiling may result in electric shocks.

- **Accessories**

When not using the projector for an extended period of time, remove the batteries from the remote control. Failure to observe this will cause the batteries to leak, overheat, catch fire or explode, which may result in fire or contamination of the surrounding area.

NOTE :

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.

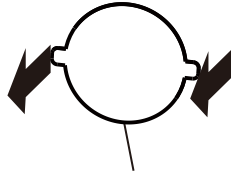
These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Lens protection material

To protect the projector lens from vibration during handling, the lens protection material has been covered to the product at the time of purchase. Remove the lens protection material before use and save it for future use. Move the lens to its original position and cover it with the lens protection material when handling.



Lens protection material

Handling precautions

- When handling the projector, hold the bottom of the projector to avoid excessive vibration and impact. This can damage internal components and result in malfunctions.
- When handling the projector, the front leg adjusters should be retracted, otherwise the front leg adjusters may be damaged.

Safety Precautions

- Do not set up the projector outdoors. The projector is designed for indoor use only.
- Avoid setting up the projector in the following places.
 - Places which are subject to vibration and shocks: For example, in a vehicle such as a car. Failure to observe this may damage internal parts or cause equipment failure.
 - Places close to the sea or where corrosive gases may be present. The projector may malfunction due to corrosion and the component life may be shortened, resulting in malfunctions.
 - Places near the air conditioning exhaust vent: Depending on the conditions of use, the image may be affected by the high temperature air discharged from the exhaust vent or the hot and cold air discharged from the air conditioner, and rare jitter occurs. Make sure that the exhaust from the projector or other equipment or the air from the air conditioner do not blow directly into the front of the projector.
 - Places which are subject to sudden temperature changes: For example, near the light source (the lamp). The service life of the light source may be shortened, or the projector may malfunction due to deformation caused by hot air. The operating ambient temperature of the projector should be followed.
 - Places near high voltage cables or near motors: The projector may be exposed to interference if doing so.
 - Installation work such as installing the projector to the ceiling should be done by a qualified technician or distributor. To ensure the performance and safety of the projector, when installing it to the ceiling or high, it should be done by a qualified technician or distributor.
 - Install the connection cable by a qualified technician or distributor. If the cable transmission characteristics cannot be achieved due to improper installation, image and sound interruption may occur.
 - If there are strong radio waves from radio stations or radios around, the projector may not function properly. If there are any facilities or equipment near the installation location that output strong

Precautions for use

radio waves, install the projector away from such radio sources. In addition, you can use a piece of metal foil or a metal conduit that is grounded at both ends to warp the regional network cable connected to the terminal

- **Lens focus adjustment**

The high clarity projector lens is easily affected by the light from the light source, making the focus unstable in the period just after switching on. It is recommended to adjust the lens focus after continuing to project the image for at least 30 minutes.

- Do not install the projector at an elevations 2,700M (8858") or higher above sea level.

- Do not use the projector in places where the ambient temperature is above 41°C (105.8°F). Using the projector in places where the altitude is too high or the operating environment is too hot may shorten the service life of the components or cause equipment failure.

Do not stack multiple projectors.

- Do not use the projector with the top as the support.
- Do not block the projector's ventilation openings (air intake and exhaust ports).
- Avoid blowing hot and cold air from the air conditioning system directly to the ventilation openings (air intake and exhaust ports) of the projector.
- Do not install the projector in a confined space.
If the projector must be installed in a confined space, air conditioning or ventilation should be installed separately. Accumulated waste heat may trigger the projector's protective circuit when ventilation is poor.
- The company shall not bear any responsibility for any damage to the product due to improper selection of the installation site, even if it is within the effective warranty period.

When using this product, take safety measures for the following events.

- Personal information being leaked via this product.
- Unauthorized operation of this product by a malicious third party.
- Interfering or stopping of this product by a malicious third party.
- Take adequate security measures.
- Try to set a password that is difficult to guess.
- Change the password regularly.
- The company and its affiliates do not directly inquire customers about passwords. Do not say the password when receiving such information.
- The connecting network must be secured by a firewall or other software.
- Set a password for network control and place restrictions on the users who can log in.

Disposal

When discarding the product, please contact your local authorities or distributor and ask for the correct product disposal method. In addition, do not disassemble this product when discarding it.

Storage

Store the projector in a dry room.

Precautions for use

- In order to get the picture quality
When you create a suitable environment, you can see excellent pictures with higher contrast ratio. Pull down the curtains or blinds and turn off any lights near the screen to prevent outside light or light from indoor lamps from shining onto the screen.
- Do not touch the surface of the projector lens with you bare hand.
If the surface of the projector lens becomes dirty from fingerprints or anything else, this will be magnified and projected onto the screen.
- LCD panel
LCD panels are precision-made, but in rare cases, pixels could be missing or always lit.

Please note that these phenomena are not failures.

In addition, when the same image is projected for long periods of time, the afterimage may remain on the LCD panel, in which case the entire white picture may appear for 1 hour or longer. Please note that the afterimage may not disappear completely.

Optical components




When used in environments with high ambient temperature or large amounts of dust or cigarette smoke, the replacement cycle of optical components such as LCD panels or polarizers may be reduced, even after less than one year of use. For more information, consult your distributor.

Light source

The light source of this projector is laser.

● **Computer and external device connection**

When connecting a computer or an external device, read this manual carefully for details on the use of the power cord and shielded cable.

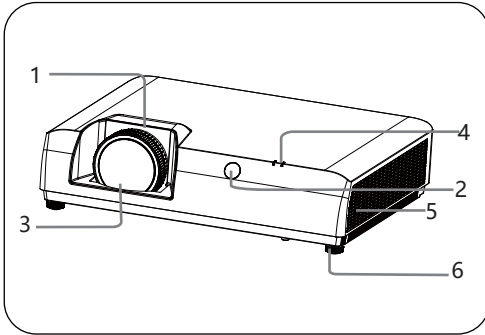
Information on Disposal in other Countries outside the European Union	
  EU 	Such symbols are valid only in the EU. If you wish to discard this product, contact your local authorities or distributor to get the proper disposal method.

● **Restricted substance content indication**

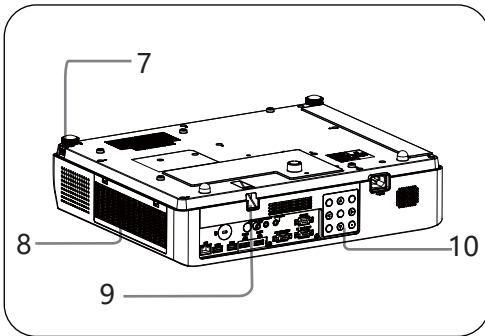
Unit	Restricted substances and their chemical symbols					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr ⁶⁺)	Polybrominated biphenyl (PBB)	Polybrominated diphenyl ether (PBDE)
Printed circuit board	—	○	○	○	○	○
Projection lens	—	○	○	○	○	○
Projection light source	○	○	○	○	○	○
Enclosure	○	○	○	○	○	○
Mechanical parts	—	○	○	○	○	○
Remote control	○	○	○	○	○	○
Other accessories	○	○	○	○	○	○

Remark 1. “○” only refers to the percentage of the restricted substance not exceeding the percentage content reference value.

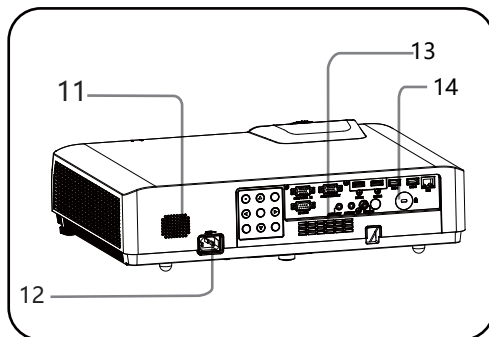
Remark 2. “—” only refers to that the restricted substance is excluded.



- ① Zoom ring
- ② Remote control window
- ③ Lens
- ④ Status indicator
- ⑤ Air outlet
- ⑥ Adjustable foot



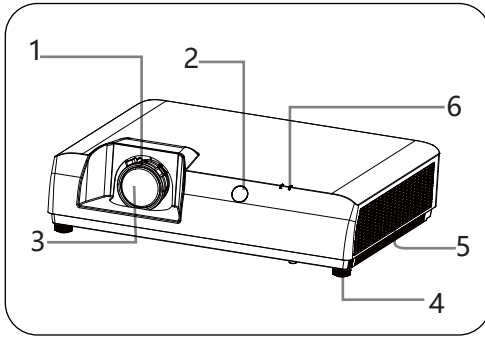
- ⑦ Adjustable foot
- ⑧ Air inlet
- ⑨ Safety bar
- ⑩ The rear control panel



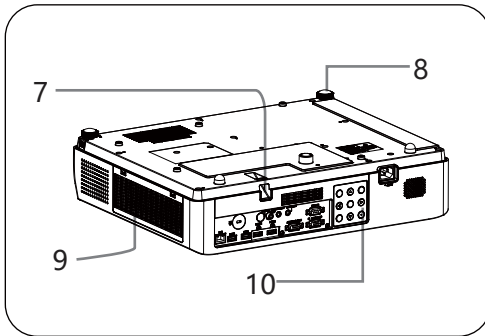
- ⑪ Horn hole
- ⑫ Power socket
- ⑬ Air inlet
- ⑭ Rear remote control window

Caution

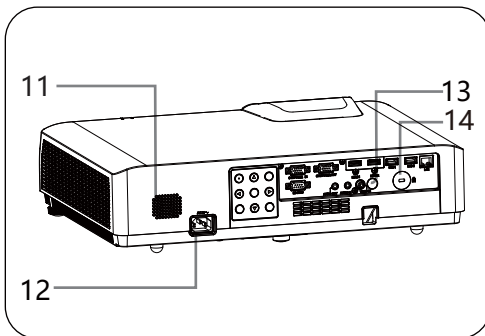
Do not place anything around the vents. Otherwise, it may cause internal heat accumulation. Do not place your hands or deformable items (plastic, etc.) near the vents or around the projector. Otherwise, it may result in damage or personal injury.



- ① Zoom ring
- ② Focusing ring
- ③ Remote control window
- ④ Lens
- ⑤ Adjustable foot
- ⑥ Air outlet
- ⑦ Status indicator



- ⑦ Safety bar
- ⑧ Adjustable foot
- ⑨ Air inlet
- ⑩ Control panel

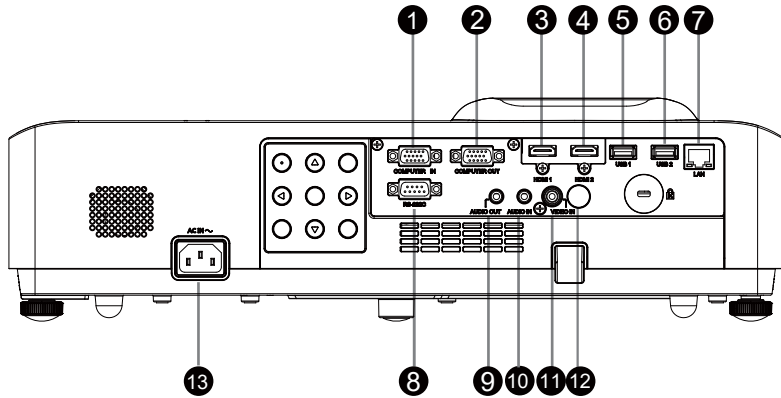


- ⑪ Horn hole
- ⑫ Power socket
- ⑬ Rear remote control window
- ⑭ Safety lock

Caution

Do not place anything around the vents. Otherwise, it may cause internal heat accumulation. Do not place your hands or deformable items (plastic, etc.) near the vents or around the projector. Otherwise, it may result in damage or personal injury.

Terminal panel



① COMPUTER IN

Connect the computer's RGB output signal to this terminal.

② COMPUTER OUT

— This terminal is used to output from the RGB analog signals input from VGA1 to other displays.

③ HDMI 1

Connect HDM-compatible video devices and computers.

④ HDMI 2

Connect HDM-compatible video devices and computers.

⑤ USB 1

When using the "USB Display" function, connect a USB storage device to this terminal.

⑥ USB 2

When using the "USB Display" function, connect a USB storage device to this terminal.

⑦ LAN

Connect a network cable.

⑧ RS-232C

RS-232C compatible control interface. Connect the RS-232C interface of the computer to the RS-232C straight-through cable.

⑨ AUDIO OUT

Connect an external audio amplifier to this terminal. This terminal outputs the sound from the AUDIO IN terminal.

⑩ AUDIO IN

Connect the audio output connecting the video device to this terminal.

⑪ VIDEO IN

Connect the video output signal or component video output to this terminal.

⑫ Remote control signal receiver

Receive remote control signals

⑬ AC IN (~) jack

Connect the power cord to this connector.

The rear control panel



① I/O

Turn the projector on or off.

② ▲▼◀▶ /VOL+,VOL-

- Select an item or adjust the data in the on-screen menu.
- Adjust the volume.

③ AUTO SETUP button

Perform various auto settings, including "Input Source Search" .

④ MENU button

Open or close the on-screen menu.

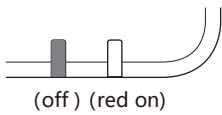
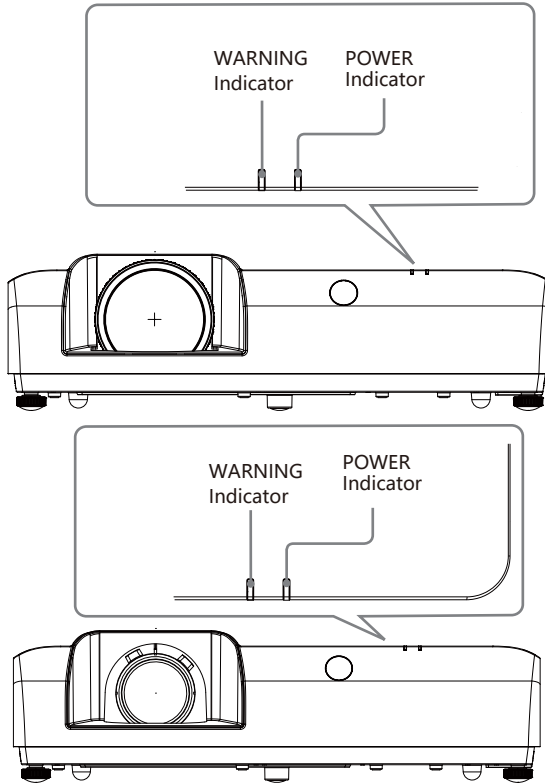
⑤ OK button

- Enter the menu operation.
- Execute the selected item.

⑥ INPUT button

Select the input source.

Indicator



Standby

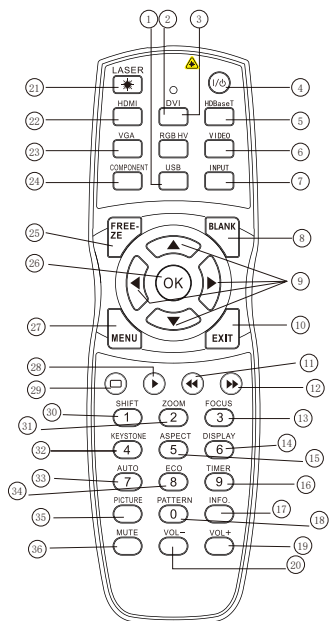
The projector is plugged in and in standby mode.



Power-on state

The projector is ready to project.

Remote control



- ① **USB**
USB input source selection button for reading USB storage. The content of the device, including pictures, videos, documents.
- ② **DVI**
DVI input source selection button.
- ③ **RGB HV**
RGBHV input source selection button.
- ④ **Power button**
Turn the projector on/off.
- ⑤ **HDBaseT**
HDBaseT input source selection button.
- ⑥ **VIDEO**
Video input source selection button.
- ⑦ **INPUT**
Input source selection button, enter the input source selection menu.
- ⑧ **BLANK**
One key to switch the black screen button, press once to enter the black screen, Press again to exit the black screen.

- ⑨ **▲ ▼ ◀ ▶**
Press the up, down, left and right keys to switch menu options or modify menu values.
- ⑩ **EXIT**
Exit button to exit the menu.
- ⑪ **◀◀**
Rewind button to play the video in reverse.
- ⑫ **▶▶**
Fast-forward button, fast-forward playback video.
- ⑬ **FOCUS**
Used for the picture focus function.
- ⑭ **DISPLAY**
Play button, used to play video.
- ⑮ **ASPECT**
Screen zoom mode button, you can set the screen zoom function. The options are general, full, 4:3, 16:9, panorama, original etc.
- ⑯ **TIMER**
Timer button for time setting.
- ⑰ **INFO.**
Information view button, you can view the projector status and other information.
- ⑱ **PATTERN**
Test pattern switch button, options include red/green/blue/White/Gray/Black/Grayscale/Grid.
- ⑲ **VOL+**
Volume up button.
- ⑳ **VOL-**
Volume down button.
- ㉑ **LASER**
Infrared irradiation keys.
- ㉒ **HDMI**
HDMI input source selection button.
- ㉓ **VGA**
VGA input source selection button.
- ㉔ **COMPONENT**
Component signal input selection button.
- ㉕ **FREEZE**
Screen freeze button, press once to freeze the screen, Press again to unfreeze the screen.
- ㉖ **OK**
Ok button to select a menu item.
- ㉗ **MENU**
Menu key to enter the menu.
- ㉘ **▶**
Play button to play the video.
- ㉙ **⏸**
Pause button to pause the playing video.
- ㉚ **SHIFT**
Lens shift key to enter the lens shift menu.
- ㉛ **ZOOM**
Lens zoom function key to zoom out or zoom in on the screen.
- ㉜ **KEYSTONE**
Keystone key to enter the keystone menu.
- ㉝ **AUTO**
Auto pc adjustment.
- ㉞ **ECO**
Laser mode selection key, adjust the laser mode, including Standard, Energy Saving 1, Energy Saving 2.
- ㉟ **PICTURE**
Image mode selection key, the options are Standard, Dynamic, Cinema, DICOM, User.
- ㊱ **MUTE**
Mute on/off key.

Remote control operation



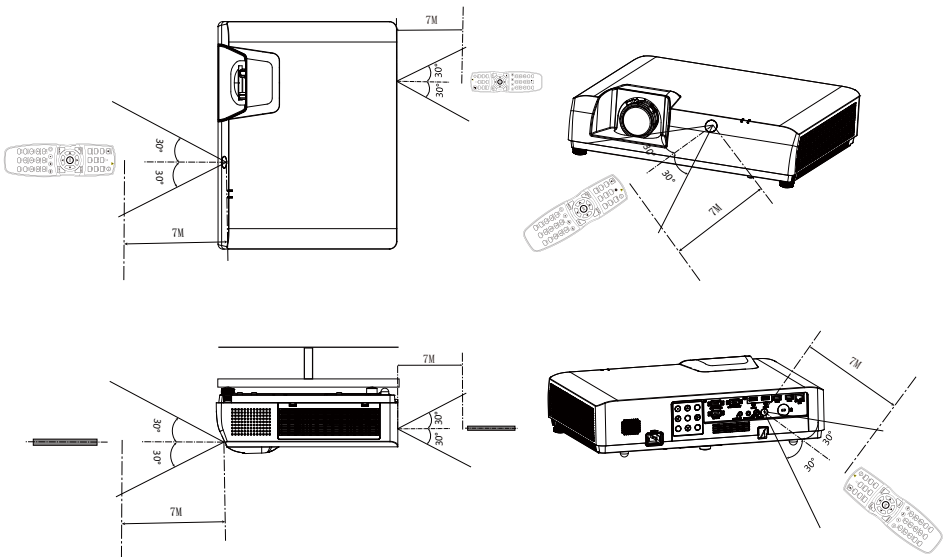
To ensure safe operation, observe the following :

- Use 2 AAA alkaline batteries.
- Replace two batteries at the same time.
- Do not use a new battery and an old battery at the same time.
- Avoid contact with water or other liquids.
- Do not place the remote control in a damp or hot environment.
- Do not drop the remote control.
- If battery fluid leaks in the remote control, carefully clean the battery box and then load a new one.
- There is a danger of explosion if you use a battery other than the one specified in this manual.
- Dispose of used batteries according to the instructions on the battery or local disposal regulations or instructions.
- Insert the battery and make sure that the polarity of the battery matches the (+) and (-) marks in the battery compartment.

Remote control operating range

When operating, point the remote control at the projector's sensing remote control window (front and back).

The maximum operating range of the remote control is 7 meters in front of and behind the projector and 30 degrees in angle.

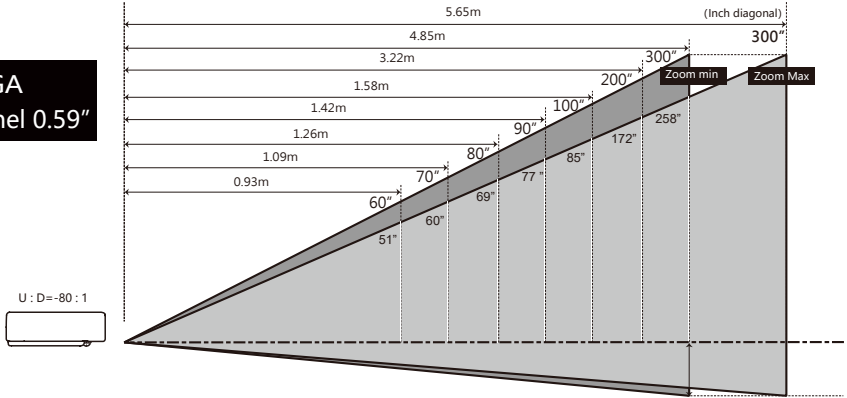


Placing the projector

- Since the brightness of the room can significantly affect the effect of the projected image, it is recommended to limit the indoor light in order to obtain the best picture.
- The approximate values shown in the figure below may differ from the actual size.

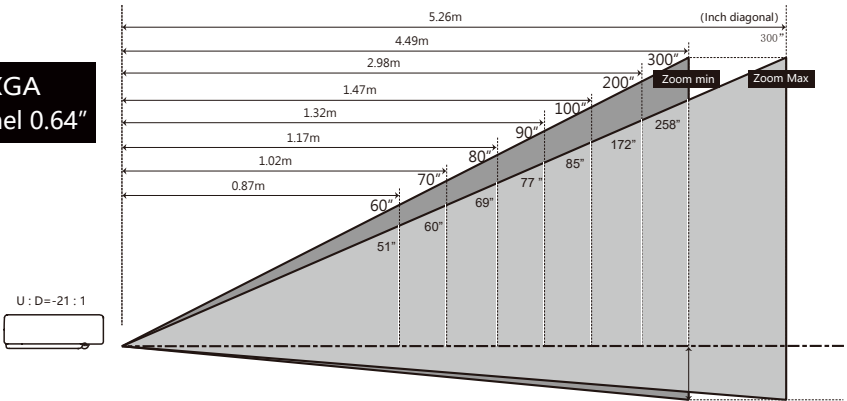
Throw distance table (0.68)

WXGA
LCD Panel 0.59"



Screen Size (W x H) m	60"	70"	80"	90"	100"	200"	300"
Zoom min	0.93 m	1.09 m	1.26 m	1.42 m	1.58 m	3.22 m	4.85 m
Zoom Max	1.10 m	1.30 m	1.48 m	1.67 m	1.86 m	3.75 m	5.65 m

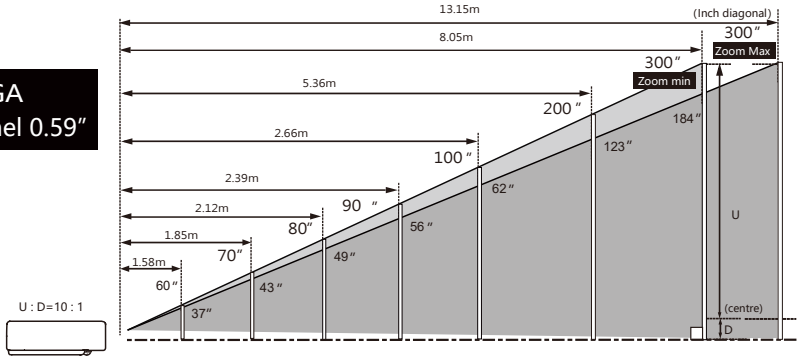
WUXGA
LCD Panel 0.64"



Screen Size (W x H) m	60"	70"	80"	90"	100"	200"	300"
Zoom min	0.87 m	1.02 m	1.17 m	1.32 m	1.47 m	2.98 m	4.49 m
Zoom Max	1.02 m	1.20 m	1.37 m	1.55 m	1.73 m	3.49 m	5.26 m

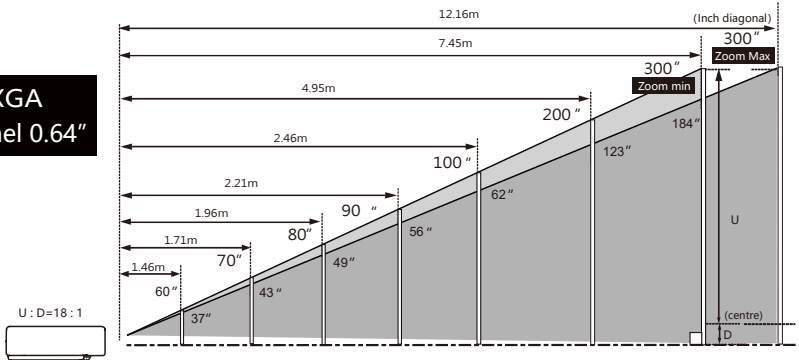
Throw distance table (long-focus)

**WXGA
LCD Panel 0.59"**



Screen Size (W x H) m	60"	70"	80"	90"	100"	200"	300"
		1.292 X 0.808	1.508 X 0.942	1.723 X 1.077	1.939 X 1.212	2.154 X 1.346	4.308 X 2.692
Zoom min	1.58 m	1.85 m	2.12 m	2.39 m	2.66 m	5.36 m	8.05 m
Zoom Max	2.58 m	3.02 m	3.46 m	3.90 m	4.34 m	8.75 m	13.15 m

**WUXGA
LCD Panel 0.64"**

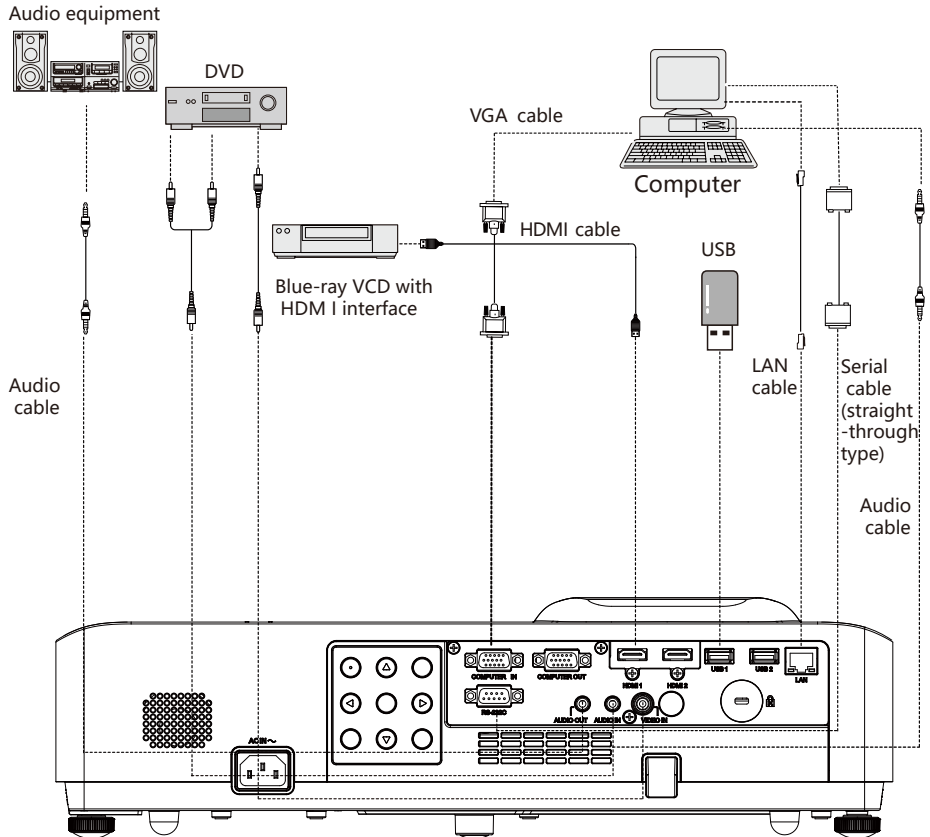


Screen Size (W x H) m	60"	70"	80"	90"	100"	200"	300"
		1.292 X 0.808	1.508 X 0.942	1.723 X 1.077	1.939 X 1.212	2.154 X 1.346	4.308 X 2.692
Zoom min	1.46 m	1.71 m	1.96 m	2.21 m	2.46 m	4.95 m	7.45 m
Zoom Max	2.39 m	2.79 m	3.20 m	3.61 m	4.02 m	8.09 m	12.16 m

Connection

Cable for connection

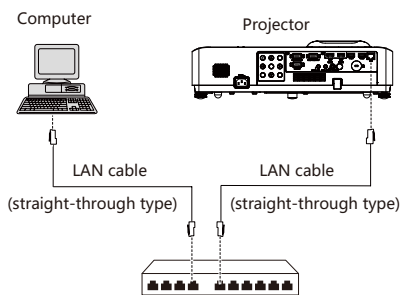
- RS232 serial interface cable*
 - HDMI cable*
 - USB storage device*
- (*: This projector is not equipped with this cable.)



When connecting the cable, unplug the power cord of the projector and external devices from the power outlet.

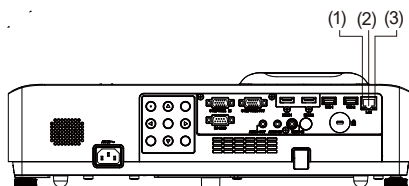
Network connection

- 1) Equipment: Computer, projector, cable for connection
- 2) Connection steps: Connect the projector to a LAN router or switch with a straight-through or crossover LAN cable. If the projector and computer are connected directly, use the straight-through LAN cable. If they cannot be connected, it is recommended to use a crossover LAN cable.
- 3) The indicator of the LAN interface and computer interface will flash continuously after restarting the computer and the projector is plugged in.



Names and functions of various parts of the network function

- (1) LAN LINK/ACT indicator (yellow)
Light up when connected.
Flash when sending and receiving data.
- (2) <LAN> interface
Connect the LAN cable.
- (3) LAN (green)



Caution

- A LAN cable is required for the network function.

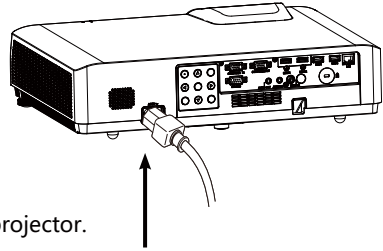
Tips

- When connecting the projector, use a standard network cable. It is recommended to use a Category V cable or a cable with an RJ-45 connector.
- Some network connection issues during setup can be resolved by resetting the router or modem. After connecting the projector to your home network, quickly cut off the power or disconnect the router and modem and then restart.
- When connecting the projector to a wireless router, make sure your router has the wireless function and it has been turned on.
- A 10 BASE-T port is required to connect the projector, and if your network service does not support it, you will not be able to connect to the projector.
- To connect the projector to a wireless router, verify the router's SSID and security settings. For the corresponding wireless router's SSID and security settings, refer to the user manual.
- When using Ad-Hoc (point-to-point) mode, it may not be able to connect to the appropriate device (such as a laptop).
- The connection methods between different wireless routers are different.

Connecting the AC power cord

The projector uses a standard voltage of 100-240V AC power, which automatically adapts to different input voltages. This unit uses a single-phase power system with a neutral grounding

To avoid the risk of electric shocks, do not use any other type of power system. If you are unsure of the type of power supply you are using, consult an authorized dealer or service station. First connect all peripherals before turning on the projector.



Connecting the AC power cord (equipped) to the projector.

⚠ Caution:

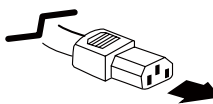
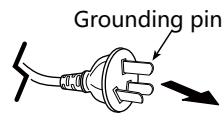
The AC power outlet should be close to the projector and easily plugged and unplugged.

☒ Caution:

For safety, when not using the projector, unplug the AC power cord. When connecting the projector to an outlet with the AC power cord, the projector is in standby mode and consumes a small amount of power.

Power cord precautions

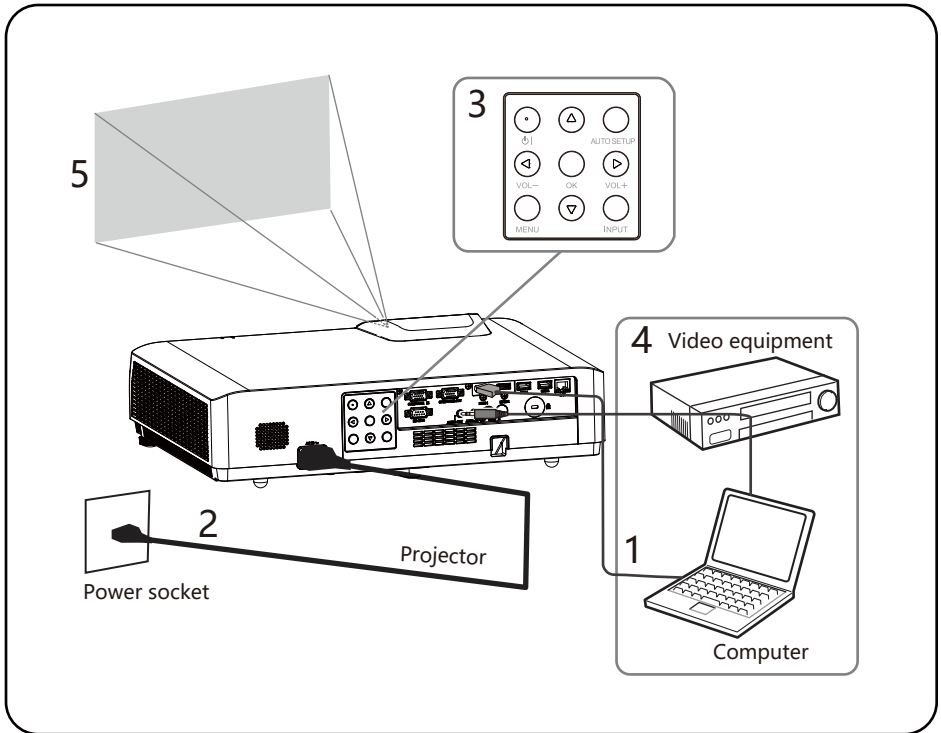
The AC power cord must meet the requirements of the country where the projector is used. Make sure that the AC power plug type is the same as the figure below and that the correct AC power cord must be used. If the provided AC power cord does not match the AC power outlet you are using, contact your distributor.


Projector side	Connect to the AC power socket
 <p>Connecting to the projector's power cord interface</p>	 <p>Connecting to an AC power outlet</p>

☒ Caution:

- Using incorrect cables may affect product performance and may even cause electric shocks, fire, etc. To ensure product performance and safety in use, use the same type of cable as the original cable.
- Commonly used connecting cables include AC power cord, audio cables, video cables, and serial interface control cables.

Turning on the projector



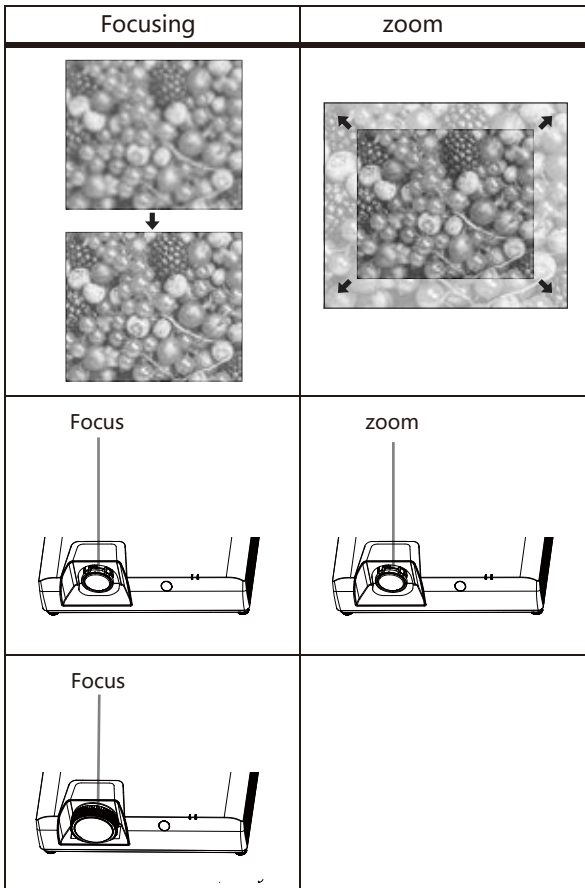
- 1 Before turning on the projector, first complete the connection of the external device.
- 2 Connect the projector's AC power cord to an AC power outlet. The power indicator lights up in red.
- 3 Press the  button to turn on the projector.
- 4 Turn on the connected device.
- 5 Select an input source.
Press the input selection button INPUT on the projector to display the input source switching menu on the screen. Press the OK button repeatedly to select the device channel you want to project.

-
-
- 6 When projecting a computer image, switch the computer output to an external display. Switching output methods vary depending on the type of computer.

(Example)

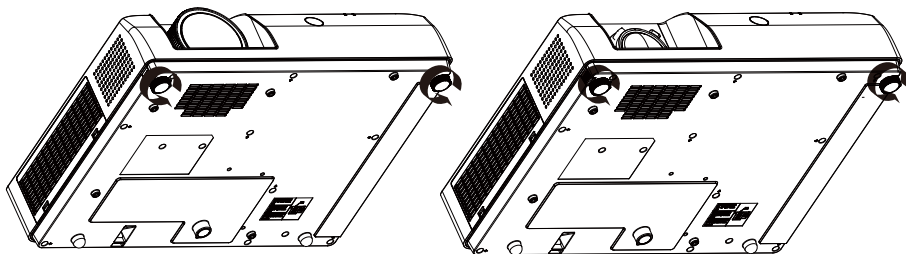


- 7 Adjust the focus and size of the projected image



Adjust the tilt of the projector by adjusting the front leg adjusters

Adjust the position of the projected image and change the angle by changing the tilt of the projector with the front leg adjusters.



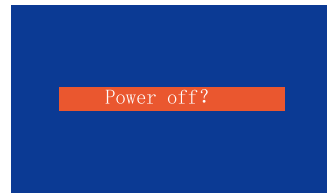
- Place the projector parallel to the screen and install it on a flat surface so that the screen appears as a rectangle.
- If the projector screen is tilted below the actual screen, unfold the front leg adjusters to present a rectangular screen.

Turn on the projector

- 1 Please complete the connection of the peripheral device first (with computer and video recorder, etc.) Before turning on the projector.
- 2 Connecting the projector's AC power cord to an AC outlet/socket, the power indicator lights up red, and then open the lens cover.
- 3 Please press the power button on the rear control panel or remote control, the power indicator lights up green, and the cooling fan starts to work. The Logo will appear on the screen. It disappears after 5 seconds.

Turn off the projector

Under normal working conditions, press the POWER button of the remote control or the rear control panel, "Power off?" will appear on the screen. Under the OSD display model, if you press the power button again, the projector will be turned off and switch to the standby mode.



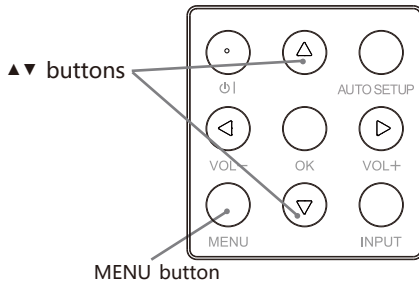
"Power off? "

Attention:

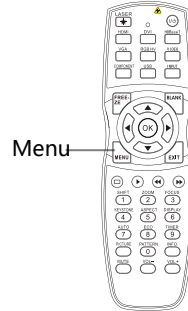
- If you select the "NO" button on boot screen in the menu, the boot screen image will not display on the screen.

How to operate the on-screen menu

You can adjust or set up the projector through the on-screen menu. The menu has a multi-layer structure, and each main menu is divided into a number of sub-menus, which are divided into a number of secondary sub-menus. For the steps of each adjustment and setting, refer to the corresponding section of this manual.



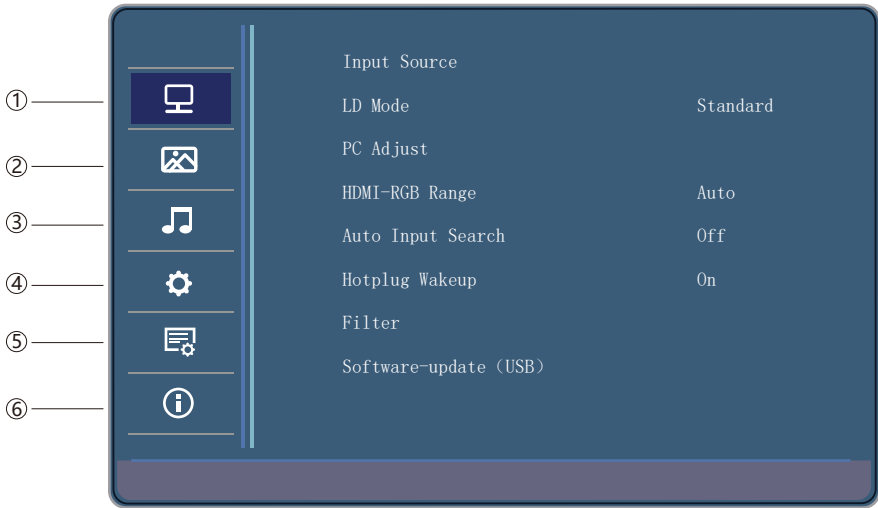
Remote control



Menu

- 1 Press the MENU button on the rear control panel, or directly press the menu button on the remote control to display the menu.
- 2 Press ▼ button or ok button to select the desired sub-menu item.
- 3 Press ▲ ▼ ◀ ▶ buttons to adjust the setting or switch between items.
- 4 Press the Menu button to return to the previous level.
- 5 Press the Exit button to exit the menu.

Menu Bar



① Display

It is used for setting Input Source, LD Mode, PC Adjust, HDMI-RGB Range, Auto Input Search, Access signal power on, Rosebox and Software-upgrade(USB).

② Image

It is used to set Picture Mode, Color Temperature and Noise Reduction.

③ Sound

It is used to set volume and mute.

④ Setups

It is used for setting Aspect Ratio, Flip, Keystone, Contrast Enhance, High altitude, Test Pattern and Serial Baud.

⑤ Advanced

It is used to set OSD Language, Auto Standby, Network, Power-on Mode, Standby mode, Boot Logo, Valid IR Code, Background color and Restore Factory Default.

⑥ Information

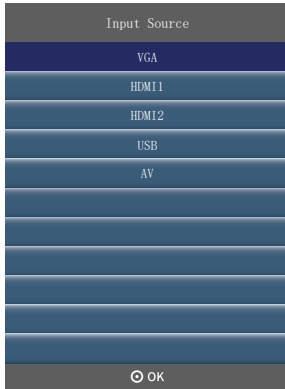
It is used to view Serial No., Software version, IP, Input Source, Signal information and Used Time.

Display Setup

1. Input source setting menu

Selectable input sources include VGA, HDMI1, HDMI2,USB,AV.

Note: When VGA OUT is input, VGA OUT has output.



2. LD Mode

This function is used to adjust the laser mode so that you can change the brightness of the screen.

Standard... Normal brightness.

ECO1... Lower brightness, it means power consumption is reduced and the service life of the laser is prolonged.

ECO2... Lower brightness, it means power consumption is reduced and the service life of the laser is prolonged.



3. PC Adjust

The "PC Adjust" function automatically adjusts horizontal position, vertical position, size adjustment, and phase adjustment to match the PC.



● Horizontal Position

If the relative position of the projector and screen is set correctly, the image position can be moved horizontally if the projection image position on the screen deviates.

(1) Press ▼ to select [Horizontal Pos.]

(2) Press the left/right key to adjust the horizontal image position, the adjustment range of which is from 0 to 100

● Vertical Position

The image position can be shifted vertically if the projection image position on the screen off, provided that the relative positions of the projector and screen are set correctly.

(1) Press ▼ to Select [Vertical Pos.]

(2) Press the left/right key to adjust the vertical image position. The adjustment range is 0 — 100.

● Size adjustment

Press the button to adjust the size of the image. The adjustment range is 0-100.

● Phase adjustment

In the event of image shake or blurred image outlines, adjustments can be made to obtain the best possible image.

(1) Press ▼ to Select [Phase]

(2) Press the left/right key to adjust the phase. The adjustment range is 0 - 100. Please adjust to a status where interference is minimal.

Notice:

1. PC adjustment can be made only when VGA is input;
2. The horizontal and vertical position of some PCs can be adjusted entirely by the automatic PC adjustment function. If the image is not correctly adjusted by this function, please adjust it by manual.

4. HDMI-RGB range

It is used to adjust the range selection of the HDMI input signal. The options include automatic, 16-235, and 0-255. Select the HDMI-RGB item and press OK key to switch options.

5. Auto input search

It is used for automatic search function for input signal sources, and it can be set on/off.

Notice

- (1) Only the last selected input source can be checked.
- (2) If you press the Input key on the top control panel or the input source key on the remote control while searching for an input source, the input source search stops and returns to the last used input signal.

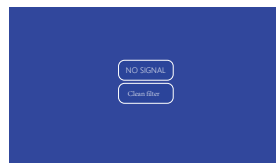
6. Hotplug Wakeup

Add "hotplug wakeup" in the menu, set on, access hdmi or vga signal, and the projector will automatically switch from standby to on. If the setting is off, the projector will not start automatically when the hdmi or vga signal is connected.



7. Filter

Add filter screen in the menu, click to enter the filter screen submenu to set the filter screen cleaning time. And reset the time after cleaning the filter screen. The prompt box is as shown in the figure after the cleaning cycle.



8. Software-update (USB)

It is used for software version updates.

Image settings

1. Picture Mode

The options include Standard, Vivid, Cinema, DICOM, Monitor and User.

Press OK key to enter the picture mode submenu, press the left/right key to switch picture modes, press ▼ to select Contrast, Brightness, Color, Sharpness, and Tint, and press the left/right key to adjust the set values.

Set different values according to your preferences. If you want to restore the initial settings, select Reset settings.



2. Color Temperature

You can choose Warm color, Standard color, Cool color and User. In user mode, the red, green and blue gains are adjustable.



Notice:

When the contrast enhancement function is turned on, the contrast, brightness, color and sharpness in the image mode can not be adjusted. Can be adjusted only in user mode.

Sound

1. Sound adjustment

Adjust the volume, and the adjustment range is 0-100.

2. Mute

The mute function is turned on or off.

If Mute is set to On, when you adjust the volume, mute is set to off by default.

Setup

1. Aspect Ratio

The projector has a function of resetting image screen size, which allows the user to display the desired image size.

Note: The Aspect Ratio can only be adjusted when the input image is displayed.

Aspect Ratio include Normal, Full, 4:3, 16:9, Zoom 1, Zoom 2, Panorama and Point To Point.

- Normal

Stretch to the maximum with width or height first.

- Full

In full screen mode, the image is evenly stretched to the full screen.

- 4:3

Stretch the image to the maximum width or height first in a 4:3 aspect ratio.

- 16:9

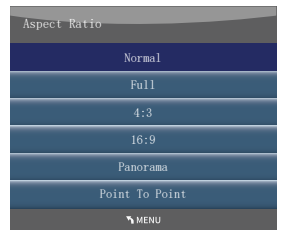
Stretch the image to the maximum width or height first in a 16:9 aspect ratio.

- Panorama

The projector display screen is displayed in panorama mode.

- Point To Point.

The way that the input signal of the projector corresponds to each pixel of the display screen one-to-one.



2. Flip

Front ... The projector can be placed on a table in front of the screen.

Front.Ceiling ... The projector can be mounted upside-down from the ceiling in front of the screen.

Rear ... The projector can be placed on a table behind the screen.

Rear.Ceiling ... The projector can be mounted upside-down from the ceiling behind the screen.



3. Keystone

If there is keystone distortion in the projected image, you can manually correct the image as follows.

Press the keystone button on the remote control or select "Keystone" in the menu, and press OK key to display the keystone correction prompt box (including: Up/Down, L/R, Corner Adjust, Rest). Press the left/right key to set the "Up/Down" / "L/R" ; press the OK key to enter "Corner Adjust" , the user can save the adjustment value of the keystone correction.

Keystone	
Up/Down	0
Left/Right	0
Corner Adjust	
Auto (V)	Off
Zoom	100
Shift	
Warping	3x3
Reset	
MENU	

- Up/Down

Vertical distortion correction.

- Left/Right

Horizontal distortion correction.

- Corner Adjust

—Select the four-corner correction, press the OK key to adjust the image, press the up, down, left/right key to select the angle to be adjusted, press the OK key to select the correction of the corner, the red triangle icon becomes a green triangle and the up, down, left and right triangle arrows are added, and then the corner can be corrected in a trapezoid to up, down, left and right directions. —When the correction is in progress, the arrow is white, or it's green.

—Press the menu key to return to the previous level.

—Press the exit key to exit the menu settings.

—The adjustable range is limited by the input signal.

- Zoom

Digital Zoom Range 50-100, default 100. When this option is selected, press the left and right keys to adjust the zoom value.

- Shift

Digital shift digital zoom adjustment, adjust the position of digital shift adjustment screen, select the column and press OK to enter the adjustment mode, then the next key adjustment.

- Warping

- options include 3x3(Surface Correction) , 5x5,9x9. After this option is selected, switch options around the key to determine the key to enter the corresponding adjustment mode.

- after entering warping mode, press up, down, left and right to select the points that need to be adjusted.

- Press OK, the selected point turns red, entering the adjustment state.

- press up, down, left and right to adjust the image.

-
-
- press OK to exit the current adjustment and repeat steps 5 and 6 to adjust the other points.
 - press the MENU, EXIT or Power key to EXIT the adjustment.
 - trapezoidal correction/quadrilateral correction/digital zoom/multipoint correction are all implemented by C788, functional and mutually exclusive. When one item is adjusted, the adjustment effect of the other items will be reset

● Rest

Restore all keystone correction settings to default.

4. Contrast Enhance

You can select whether the contrast of the picture needs to be enhanced. Set on/off.

5. High altitude

High altitude mode setting.

The projector offers fan control in the "Settings" menu.

Select the operating speed of the cooling fan based on the altitude status of the projector below.

Highlands Open Faster than "Off" mode. When using this projector at high altitudes, the fan cooling effect is reduced, please select this mode.

Highlands Off Normal speed. When using this projector, set this function to Off when the altitude of surroundings is not high.

6. Test Pattern

Select the test pattern, press OK key to switch the test pattern screen, and press the Exit key to exit the test pattern.

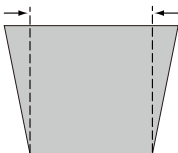
The test pattern includes red, green, blue, white, gray, black, grayscale 1, grayscale 2, grayscale 3, grayscale 4, and lattice.

Select a test mode to easily make various adjustments.

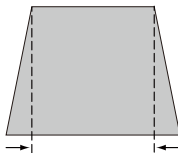
7. Serial Baud

Select the baud rate setting for the projector's serial port control.

Press ◀ point button
to reduce the width
of upper part.



Press ▶ point button
to reduce the width
of lower part.



Advanced

1. OSD language

You can select multiple languages, including Chinese, Traditional Chinese, English, Korean, etc.

2. Auto standby

Never Standby mode is off.

5 minutes.....No signal, no operation, projector will automatically shut down after 5 minutes, into standby mode.

30 minutes.....No signal, no operation, projector automatically shut down after 30 minutes, into standby mode.

60 minutes.....No signal, no operation, projector automatically shut down after 60 minutes, into standby mode.



3. Network

Function: This function is suitable for remote control of the projector from the PC in the LAN.

Preparation stage:

(1) Required equipment: projector, computer, network cable;

(2) Connection process: Connect the projector to a router or switch in the LAN with a direct or crossover network cable. To directly connect the projector and computer, it is not possible by using a direct network cable, and it is recommended to use a cross-over network cable;

(3) When the PC is turned on and the power cord is connected to the projector, the indicators of LAN interface and the PC interface will continue to flash.

Steps to use:

(1) Turn on the projector

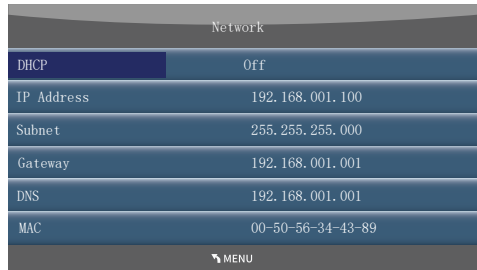
(2) Obtain the network address, set DHCP to On, and obtain the IP address automatically. (Personnel who are familiar with the network can set the IP address manually by setting DHCP to Off.)

(3) Enter the network menu settings

1. Press the MENU key on the remote control or control panel. Select the network icon.

2. Press the < OK > key to enter the Network Menu.

3. Press the left/right key to set DHCP to "On".



4. Power on mode

On Plug in the power source and then the projector will be turned on automatically.

Off Plug in the power source and then the projector's automatic starting function will be closed.

5. Standby mode

Standby mode can be used when the projector is operated via the network.

Network Power is provided to the network function even when the projector is turned off.

You can switch the projector on or off via the network, change the network environment, and receive an email about the status of the projector after the projector is turned off.

ECO You can select the economical model when you are not using the projector via the network. When the projector is turned off, its network function will be turned off.

6. Boot logo

None There will be no boot screen.

Default Boot screen's background color will be displayed.

User Boot screen will appear according to the user's customization.

7. Valid IR Code

(1) after the column is selected, press OK key, then left and right key to adjust the options, select and then press OK key again, the options take effect.

(2) the projector responds to the remote control when the remote control code (ID) is consistent with the "Effective remote control code" . Otherwise, the projector will not respond, but in the upper left corner of the screen the following prompt:



(3) mandatory matching: regardless of the value of the menu setting and the actual remote control ID, do the following operation to match the menu setting with the actual remote control-press the remote control key in turn, "Input, input, input, input, input, left, left, left, left, left" (five input sources, five left) , each keystroke less than one second. The operation is effective when the machine is turned on or on standby.

(4) multi-code Remote Control Factory when the default code 0(ID = 0) . Its switch ID method is as follows: at the same time press OK key and any number key for 3 seconds to switch to the number corresponding ID. Switch successfully the remote control top LED flashes twice.

8. Background color

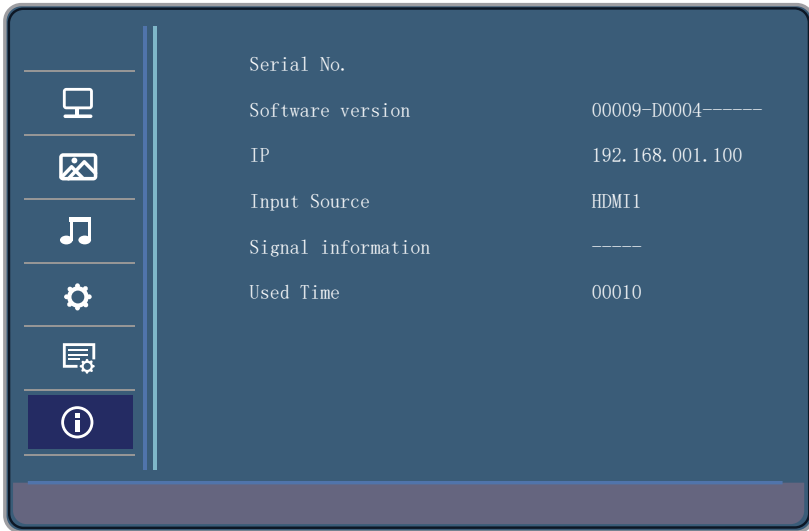
Can set the projector no signal when the screen background color, options: blue, black.

9. Restore Factory Default

The settings in the recovery menu are the initial default settings.

Information

It is used to view the projector's serial number, software information, IP address, input source, signal format and the used time of the projector.



USB menu operation

You can access pictures, music, videos, documents, and other contents in the external storage device by connecting to an external storage device.



1. When selecting a picture to play, press the OK key to enter the interface, and then select the storage device and press OK key to enter the selective picture items. If the picture is in a folder, select the folder first, then press OK key, select the picture you want to play, and press the OK key to play it. The play menu includes optional functions such as Pause, Previous, Next, Stop, Loop play, Shuffle play, etc.
2. When selecting music to play, press OK key to enter, and then select the storage device and press OK key to enter the selective music files. If the music is in a folder, select the folder first and then press OK key, select the music file you want to play, and press OK key to play it. The play menu includes optional functions such as Pause, Fast backward, Fast forward, Previous, Next, Stop, Loop play, Shuffle play, etc.
3. When selecting a video to play, press OK key to enter, and then select the storage device and press OK key to enter the selective video files. If the video is in a folder, select the folder first, then press OK key, select the video file you want to play, and press OK key to play it. When playing a video, press OK key to enter the video settings menu, which includes optional functions such as Pause, Fast backward, Fast forward, Previous, Next, Stop, Loop play, Shuffle play, etc.

Remote control shortcut command operation

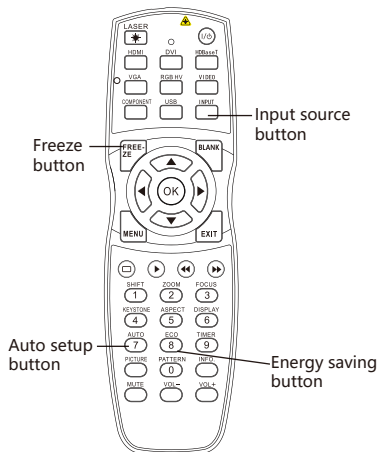
For some common operations, it is recommended to use the remote control to operate by pressing one button without the need to call the on-screen menu.

Freeze button

Press the Freeze button on the remote control to make the screen image still. To release the still function, press the Freeze button or any other button.

Input source button

Display input source information. Input source information includes video, HDMI1, HDMI2, VGA, USB.



Auto setup button

Press the Auto Setup button on the remote control to enter the auto search input source mode.

Caution:
For a description of other buttons, see the next page.

Energy saving button

Press the energy saving button on the remote control to select the laser mode to change the screen brightness.

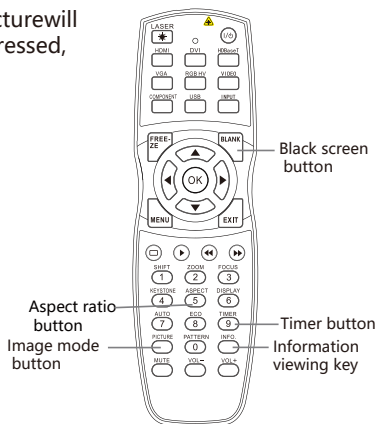
- Standard. Normal brightness.
- Energy saving 1 Lower brightness.
- Energy saving 2 Minimum brightness

Black screen button

Press the black screen button on the remote control, the picture disappears and a black screen appears. Press the black button again and the picture will return to normal. Each time the black button is pressed, the screen changes as follows:

Black screen → Normal → Black screen → Normal

Remote control



Timer button

Press the timer key to bring up the auto shutdown menu. options are:

- (1) never... No signal automatic shutdown function off.
- (2) 5 minutes... without signal input, the projector automatically shuts down and goes into standby mode.
- (3) 30 minutes... without signal input, the projector automatically shuts down and goes into standby mode.
- (4) 60 minutes... without signal input, the projector automatically shuts down and goes into standby mode.

⚠ Caution:

For a description of other buttons, see the previous page.

Image mode button

Press the image mode button on the remote control to select the desired image mode.

Aspect ratio button

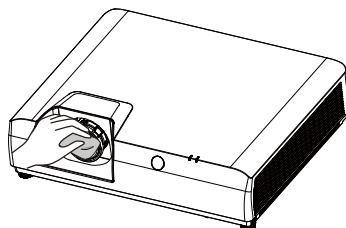
Choose 16:9 Screen Size, 4:3 Screen Size, Ori

Display button

Display input channel and resolution information.

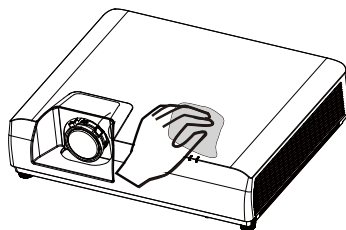
Cleaning the projector lens

Unplug the AC power cord before cleaning. Apply a non-abrasive lens cleaner to a clean cloth, then gently wipe the lens or use a lens cleaning paper or commercial hair dryer to clean the lens. Avoid using too much cleanser. Abrasive cleaner, solvent or other crude chemicals can scratch the lens.



Cleaning the projector enclosure

Unplug the AC power cord before cleaning. Gently wipe the surface of the projector with a soft, clean cloth. When it is severely dirty, apply a small amount of neutral detergent to a soft, clean cloth and wipe gently. Avoid using too much cleanser. Abrasive cleaners, solvents or other crude chemicals can scratch the surface of the case.



When not using the projector, put the projector in a carrying case to avoid dust accumulation or scratches.

Cleaning the screen

The filter is used to prevent dust accumulation on the surface of the projector's internal lens components. If the filter is blocked by dust, etc., it will reduce the effectiveness of cooling fans. Therefore, resulting in heat accumulation inside projector and shortening the service life of the projector. If there is the "Clean Filter" icon appears on the screen, please clean the filter or replace the filter immediately.

Please clean the filter according the following steps:

1. Turn off the projector and unplug the AC power cord from the power socket
2. Flip the projector and removing the filter.
3. Cleaning the filter with a brush
4. Reinstall the filter



Hook the strainer buckle with your finger and take out the strainer.

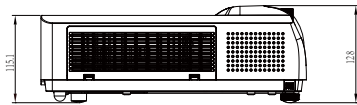
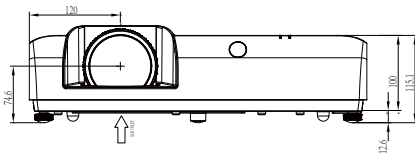
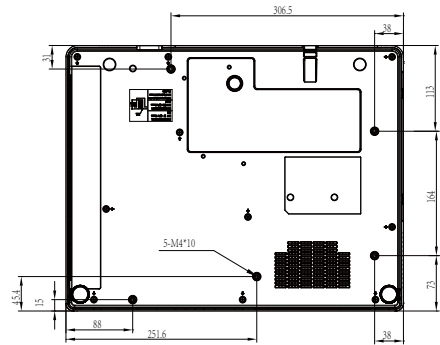
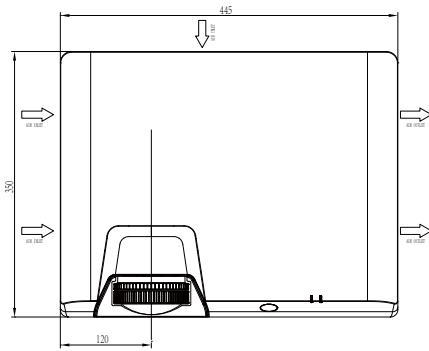


Caution

Do not operate the projector after removing the filter screen. Otherwise, dust will attach to the lens assembly, which will damage the image quality. Do not put small objects into the vent. Otherwise, the projector may fail.

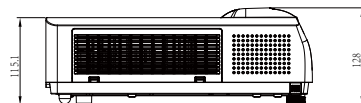
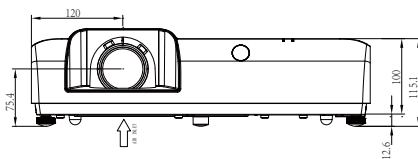
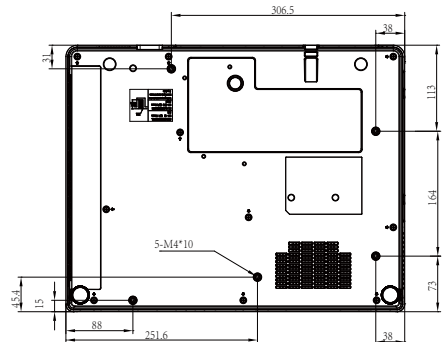
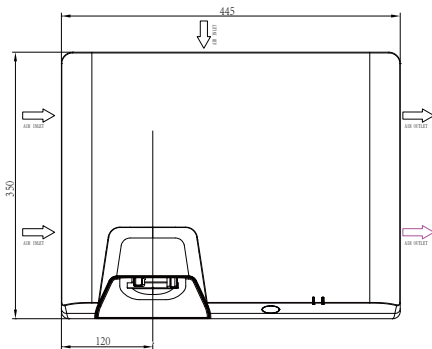
External size (0.68)

Unit: mm



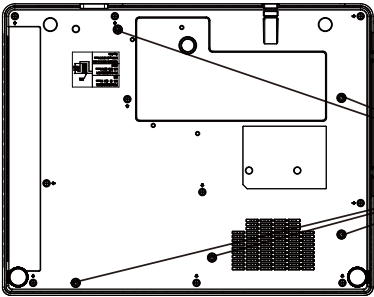
External size (long-focus)

Unit: mm

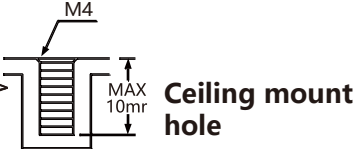


Safety measures for lifting brackets

- Installation of the lifting bracket should b
- The manufacturer shall not be responsible for the hazards and damage caused by the use of the lifting bracket that is not purchased from the franchisee even during the warranty period.
- Remove the unused lifting bracket immediately.
- Be sure to use a torque screwdriver and d
- For details, refer to the operating instructi
- The accessories and parts sold separately
- Make sure that the screws on the ceiling installation assembly do not come into contact with the metal parts(metal Flat noodles, wire or circuit board),Otherwise, it may cause fire.



Use a screw with a length of 8mm (minimum) to 10mm (maximum) for ceiling mounting.
Screw locking torque: (M4) 4 ± 0.5 N.m



Compatible input signal*1

Video signal

Specification			
Resolution	H-freq(KHz)	V-freq(Hz)	Pixel clock(MHz)
NTSC	15.734	59.940	13.50
NTSC-443	15.734	59.940	13.50
PAL-M	15.734	59.940	13.50
PAL60	15.734	59.940	13.50
PAL	15.630	50.000	13.50
PAL-N	15.630	50.000	13.50
SECAM	15.630	50.000	13.50

HDMI and DVI

Specification			
Resolution	H-freq(KHz)	V-freq(Hz)	Pixel clock(MHz)
1440x480i	15.734	59.940	27.000
1440x576i	15.625	50.000	27.000
720x480(480P)	31.469	59.940	27.000
720x576(576P)	31.250	50.000	27.000
1280x720(720/60P)	45.000	60.000	74.250
1280x720(720/60P)	44.655	59.940	74.176
1280x720(720/50P)	37.500	50.000	74.250
1920x1080i (1080/60i)	33.750	60.000	74.250
1920x1080i (1080/50i)	33.716	59.940	74.176
1920x1080i (1080/60i)	28.125	50.000	74.250
1920x1080(1080/24P)	27.000	24.000	74.250
	26.973	23.976	74.176
1920x1080(1080/25P)	28.125	25.000	74.250
1920x1080(1080/30P)	33.750	30.000	74.250
	33.716	29.976	74.176
1920x1080(1080/60P)	67.500	60.000	148.500
1920x1080(1080/60P)	67.433	59.940	148.352
1920x1080(1080/50P)	56.250	50.000	148.500
640x480	31.469	59.940	25.175
	35.000	66.667	30.240
	37.861	72.809	31.500
	37.500	75.000	31.500
	43.269	85.008	36.000

Specification			
Resolution	H-freq(KHz)	V-freq(Hz)	Pixel clock(MHz)
800x600	38.166	56.250	36.000
	37.879	60.317	40.000
	48.077	72.188	50.000
	46.875	75.000	49.500
	53.674	85.061	56.250
832x624	49.725	74.550	57.283
1024x768	48.363	60.004	65.000
	56.476	70.069	75.000
	60.023	75.029	78.750
	66.678	84.997	94.500
1152x864	67.500	75.000	108.000
1280x720	45.000	60.000	74.250
1280x768	47.776	59.870	79.500
	60.290	74.890	102.250
	68.630	84.840	117.500
1280x800	49.702	59.810	83.500
	62.795	74.934	106.500
	71.554	84.880	122.500
1280x960	60.000	60.000	108.000
1280x1024	63.981	60.020	108.000
	78.16	71.64	135.060
	79.977	75.025	135.001
	91.150	85.020	157.600
1366x768	47.712	59.790	85.600
	47.720	59.799	84.750
1400x1050	65.917	59.978	121.750
	82.278	74.857	156.000
1440x900	55.935	59.887	106.500
1600x900	60.000	60.000	108.000
1600x1200	75.000	60.000	162.000
1680x1050	65.290	59.954	146.250
1920x1080	67.500	60.000	148.500
1920x1200	74.038	59.950	154.000

Compatible input signal*2

VGA signal

Resolution	Specification		
	H-freq(KHz)	V-freq(Hz)	Pixel clock(MHz)
1440x480i	15.734	59.940	27.000
1440x576i	15.625	50.000	27.000
720x483(480P)	31.469	59.940	27.000
720x576(576P)	31.250	50.000	27.000
1280x720(720/60P)	45.000	60.000	74.250
1280x720(720/60P)	44.965	59.940	74.176
1280x720(720/50P)	37.500	60.000	74.250
1920x1080 i (1080/60i)	33.750	60.000	74.250
1920x1080 i (1080/50i)	33.716	59.940	74.176
1920x1080 i (1080/50i)	28.125	50.000	74.250
1920x1080(1080/24P)	27.000	24.000	74.250
1920x1080(1080/24P)	26.973	23.978	74.176
1920x1080(1080/25P)	28.125	25.000	74.250
1920x1080(1080/30P)	33.750	30.000	74.250
1920x1080(1080/30P)	33.716	29.970	74.176
1920x1080(1080/60P)	67.500	60.000	148.500
1920x1080(1080/60P)	67.433	59.940	148.352
1920x1080(1080/50P)	56.250	50.000	148.500
640x480	31.469	59.940	25.175
	35.000	66.667	30.240
	37.861	72.809	31.500
	37.500	75.000	31.500
	43.269	85.008	36.000














Resolution	Specification		
	H-freq(KHz)	V-freq(Hz)	Pixel clock(MHz)
800x600	35.156	56.250	36.000
	37.879	60.317	40.000
	48.077	72.188	50.000
	46.875	75.000	49.500
	53.674	85.061	56.250
832x624	49.725	74.550	57.283
1024x768	48.363	60.004	65.000
	56.476	70.069	75.000
	60.023	75.029	78.750
	66.678	84.997	94.500
1152x864	67.500	75.000	108.000
1280x720	45.000	60.000	74.250
1280x768	47.776	59.870	79.500
	60.290	74.890	102.250
	68.630	84.840	117.500
1280x800	49.702	59.810	83.500
	62.795	74.934	106.500
	71.554	84.880	122.500
1280x960	60.000	60.000	108.000
1280x1024	63.981	60.020	108.000
	79.977	75.025	135.001
	91.150	85.020	157.500
1366x768	47.712	59.790	85.500
	47.720	59.799	84.750
1400x1050	65.317	59.978	121.750
	82.278	74.867	156.000
1440x900	55.935	59.887	108.500
1600x900	60.000	60.000	108.000
1600x1200	75.000	60.000	162.000
1680x1050	65.290	59.954	146.250
1920x1080	67.500	60.000	148.500
1920x1200	74.038	59.950	154.000

Caution


- When inputting a signal that is not in the table, the image may not be displayed properly.
- When the screen resolution of the input signal is different from that of the panel, the signal will not be displayed at its initial resolution. Text and lines may be distorted.

Indicator and projector status

Check the indicators to find out the status of the projector.

Indicator		Projector status
POWER Green/red	WARNING Yellow	
		The projector is in "Off" state (the AC power cord
		The projector is in standby mode, press the standby button
		The projector is in the normal on state.
		The projector is cooling or ready to sleep, and the projector will not be turned on until it has cooled down completely and the power indicator has stopped flashing.
		The projector is in sleep state.
—		The yellow indicator of the projector flashes once for 2S, and the fan or color wheel is abnormal.
—		The yellow indicator of the projector flashes twice continuously and then it flashes twice for an interval of 2S, and the light switch is not turned off.
—		The projector temperature is abnormal.

 : Off

 : Red normally on

 : Flashing red

 : Green normally on

 : Green flashing

 : Yellow normally on

 : Yellow flashing

— : It has nothing to do with the status of the indicator.

RS232 control mode

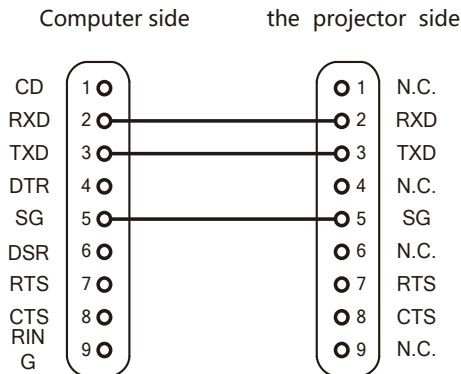
1. A serial port connection

1.1 Port setting item

Item	Set value
Communication method	asynchronous communication
Communication speed	Default 19200 (19200 or 115200 can be selected in Setups - Serial Baud)
Long digits	8 location
odd-even check	NO
stop bit	1
traffic control	NO

1.2 Wired way

can only use RS232 Serial cross cable connection PC and the projector.



1. A serial port command:

Case - sensitive, and each command [CR] (return key) For the end symbol.

order	option	order	option
C00	POWER ON	C13	DICOM
C01	POWER OFF	C14	The color board - red
C10	Image mode - standard	C15	The color board - green
C11	dynamic condition	C16	The color board - blue
C12	movie theatre	C17	The color board - yellow

Order	Options	Order	Options
C18	User	C4C	trellis diagram
C20	INPUT VGA	C52	Mute open
C22	INPUT HD BASET	C53	Mute off
C23	INPUT HDMI	C54	Screen frozen open
C24	INPUT DVI	C55	Screen freeze off
C25	INPUT VIDEO	C56	Automatic search signal adjustment
C26	INPUT USB	C57	volume +
C40	lateral view (blank screen) Exit	C58	volume -
C41	lateral view-red	C8D	KEystone zero
C42	lateral view-green	C8E	KEystone ↓
C43	lateral view -blue	C8F	KEystone ↑
C44	lateral view-white	C93	projective mode : self-motion
C45	lateral view - gray	C94	Lead is cast
C46	test pattern - black (blank screen)	C95	Front hanging cast
C47	colours BAR	C96	The rear is cast
C48	gray scale 1	C97	Lift the rear
C49	gray scale 2		
C4A	gray scale 3		
C4B	gray scale 4		

Failure detect

Check the following items again before requesting assistance from your distributor or service center:

Failure	Solution
Power does not turn on	<ul style="list-style-type: none"> - Insert the projector's power plug into an AC power outlet - Confirm whether the power indicator turns red. - Check the warning indicator. If the warning indicator turns orange, you will need to check the indicator, status indication. - Do not lock the projector's "Button Lock" function.
The input signal is automatically switched (or not automatically switched)	<ul style="list-style-type: none"> - Make sure the input source search function is properly adjusted.
Unclear image	<ul style="list-style-type: none"> - Adjust the focal distance of the projector. - Provide a suitable throw distance. - Check whether the projection lens needs cleaning. - Moving the projector from a colder temperature environment to a hotter temperature environment may cause moisture condensation on the projector lens. If this happens, you can turn on the projector until the condensation has disappeared.
The picture flips left/right The picture flips up/down	<ul style="list-style-type: none"> - Check the "ceiling/rear" function. - Check the "ceiling" function.
The picture is not bright enough	<ul style="list-style-type: none"> - Check whether the adjustment of contrast ratio or brightness is appropriate. - Check whether the image mode selection is appropriate. - Check whether the laser mode selection is appropriate.
No picture	<ul style="list-style-type: none"> - Check the connection of your computer or video device to the projector. - Check whether the input signal from the computer is correct. When connecting to some laptops, it is often necessary to change the settings of its monitor output. See the computer user manual for settings. - The image will be displayed approximately 30 seconds after the projector is turned on. - When using the no display function, the image cannot be displayed. <p>Press the black screen button or other button on the remote control.</p>

Color is abnormal	<ul style="list-style-type: none"> – Check the input signal, color system, video system or computer system mode. – Make sure the value of saturation in “Image Mode” is appropriate.
Auto computer adjustment function is invalid	– Check the input source signal. The auto computer adjustment function is invalid when selecting 480P, 576p, 720p, 480i, 576i, 1080P or 1080i.
Settings cannot be saved after power is turned off	– Make sure that Save is selected after adjusting the settings. Some settings cannot be saved without selecting "Save".
Auto setup does not work properly	<ul style="list-style-type: none"> – Make sure that Off is not selected for all functions of auto setup. – Make sure that the ceiling function is selected as On.
The picture is distorted or disappears	– Check and adjust the computer adjustment menu or on-screen menu.
A password prompt box appears after startup	– Password lock is set.
The remote control cannot operate	<ul style="list-style-type: none"> – Check the battery. – Make sure that there are no obstacles between the projector and the remote control. – Make sure that the remote control is not too far from the projector. The maximum operating range is 8 meters. – Make sure the remote control code is consistent with the projector code. – Release the button lock of the remote control in the setup menu.
Indicator Light is on or flashing	– Check the projector status according to the indicator and projector status.
The button board is invalid	– Make sure the button lock in the menu is not turned off.
Cannot unlock startup screen password lock, button lock and password lock	– Contact your distributor or service center.

- Make sure the projector is properly connected to the peripheral device.
- Make sure that all devices are connected to an AC power outlet and that the power is on.
- If the projector cannot project an image of the connected computer, restart the computer.



Warning:

This projector is operated under high voltage.

Do not open the case.

If the problem persists after following the above methods, contact your dealer or service center.

Inform the model and explain the problem.

We will tell you how to get repairs.