EIKI

Touchboards

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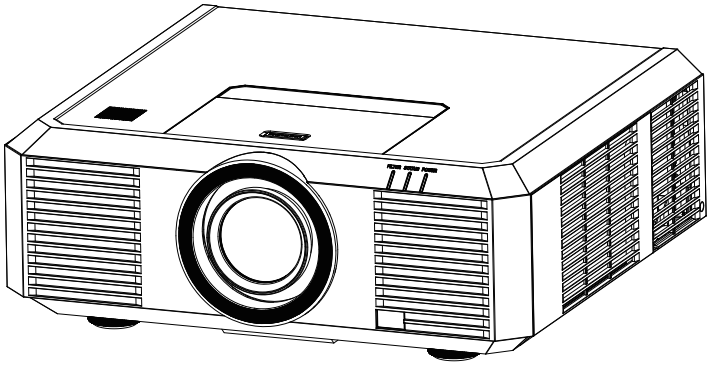
Owner's manual



Multimedia Projector

EK-500U

EK-500UL*

*Projection lens is optional

Features and Design

This Projector is designed with the most advanced technology for portability, durability, and ease of use. This projector utilizes built-in multimedia features, a palette of 16.77 million colors, and matrix liquid crystal display (LCD) technology.

Simple Computer System Setting

The projector has the Multi-scan system to conform to almost all computer output signals quickly. Up to WUXGA resolution can be accepted.

Useful Functions for Presentations

- The digital zoom function allows you to focus on the crucial information during a presentation.
- The 10W audio output allows you to make a presentation without any external audio equipment.

Lamp Control

Brightness of the projection lamp can be selected.

Logo Function

The Logo function allows you to customize the screen logo.

Multilanguage Menu Display

The screen menu of the projector is available in 19 languages: English, French, Spanish, Portuguese, German, Italian, Simple Chinese, Japanese, Korean, Russian, Finnish, Dutch, Thai, Vietnamese, Turkish, Afrikaans, Indonesian, Farsi and Arabic.

Helpful Maintenance Functions

Lamp and filter maintenance functions provide for better and proper maintenance of the projector.

Security Function

The Security function helps you to ensure security of the projector. With the Key lock function, you can lock the operation on the control panel or remote control. PIN code lock function prevents unauthorized use of the projector.

LAN Network Function

This projector is loaded with the wired LAN network function. You can operate and manage the projector via network.
(Pages 62-65.)

Auto Setup Function

This function enables input source search, auto pc adjust and auto focus by simple pressing the AUTO button on the remote control.

Colorboard Function

At the time of simple projection on the colored wall, you can get the close color image to the color image projected on a white screen by selecting the similar color to the wall color from the preset four colors.

Power Management

The Power management function reduces power consumption and maintains the lamp life.

Closed Caption

This is a printed version of the program sound or other information displayed on the screen. You can turn on the feature and switch the channels.

✓*Note:*

- The screen menu and images in the manual may slightly differ from the real product.

- The manual is subject to change without prior notice.

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Safety operation guideline

Safety instructions

This document and your projector employ certain symbols to illustrate how to use your projector safely. They are described below: Please get yourself familiar with them before going through this document.

Caution	Ignoring messages indicated by this symbol may lead to personal injuries or deaths due to human errors.
Note	Ignoring messages indicated by this symbol may lead to personal injuries or property damage.
	High voltage inside with risks of electric shock.

Please read this manual carefully before installing and operating your projector.

Your projector comes with a lot of convenient features and functions. You may make the most of these features and keep your projector in good working conditions by using it correctly. Invalid operation of your projector may not only shorten its life cycle but also may lead to product failure, fire, or other incidents.

In case of any operation abnormality, refer to this manual to check your operation and connections and try solutions given in the “Troubleshooting” section at end of this manual. If the problem persists, call your dealer or our service center.

Your projector’s lamp is a consumable and will get dimmer after long-term use. It’s normal for an older lamp to be dimmer than a newer one. Please power on and off your projector by strictly following steps given in “Power on your projector” and “Power off your projector” section of this manual. Execute regular maintenance and cleaning according to instructions set forth in “Maintaining and cleaning your projector” section of this manual. Fail to do so may shorten life cycle of your projector and its lamps sharply or even damage your projector and its lamps before long.

Caution

Danger of electric shock
DO NOT open this.

Note: DO NOT remove the casing (or back cover) as this may result in electric shock. Users shall not execute any maintenance work on components within your projector except replacing lamps. Call qualified maintenance personnel in case of any maintenance requirements.

High voltage inside with risks of electric shock.

Operation and maintenance tips about these components.

Safety operation guideline

Notes

Caution

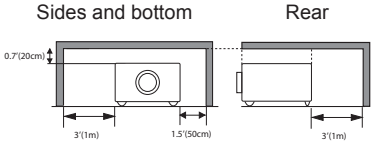
Safety precautions:

- GROUND your projector.
- Lens of your projector projects strong light. DO NOT look at the light beam directly. You may get your eyesight hurt. This is especially the case with children.
- Unplug the AC power plug if your projector will not be used for long time.
- DO NOT overload the socket of power cord as it may lead to fire or electric shock. DO NOT subject the power cord to any object. DO NOT place your projector in locations where its power cord may become damaged by treading by passersby.
- Disconnect the power plug before cleaning your projector. DO NOT apply liquid or sprays to your projector. DO NOT wipe your projector with wet cloth.
- Please follow warnings and instructions given in labels attached to your projector. Unplug your projector when your projector is exposed to thunderstorm weather, is unmanned, or not in use for long periods to prevent damage caused by lightning and power surges.
- DO NOT use accessories without recommendation by the manufacturer as it may result in potential risks.

Caution

Precautions on air outlet:

- Keep adequate clearance around your projector for its ventilation and cooling. See figure below for the least clearance requirements. The least clearance is a MUST when your projector is placed within a cabinet or other closed environment.



- DO NOT cover the air outlet of your projector. Poor ventilation not only shorten life cycle of your projector but also may lead to risks.
- Slots and openings at rear and bottom of your projector are designed for ventilation. Keep your projector from overheated to ensure its steady operation.
- DO NOT cover the air outlet with cloth or other objects. DO NOT place your projector on the surface of bed, sofa, carpets, or similar object as this may block the air outlets at its bottom.
- DO NOT place your projector in closed environment, e.g. a bookcase, unless it is well ventilated.
- Keep any matter from falling in your projector through the air outlets as they may touch high voltage parts and lead to fire or electric shock by short circuits. DO NOT splash liquid to your projector.

Safety operation guideline

Note:

Precautions on location of your projector:

- Place your projector in a proper location or it may result in fire.
- DO NOT expose your projector in rain or high humidity environments or it may result in fire or electric shock. DO NOT your projector near water or splashing water. DO NOT place any water container, e.g. flower vase, atop your projector.
- DO NOT place your projector in environments of soot, moisture or smoke, e.g. your kitchen, or it may lead to product failure or accidents. Your projector may be damaged by contact with oil or chemicals.
- DO NOT place your projector near exhaust pipe or air conditioning equipment.
- DO NOT place your projector near radiator or heating pipes.
- DO NOT place your projector atop unstable truck, rack, or table. It may fall of the surface and lead to personal injuries and property damages. Please use cart or rack recommended by the manufacturer or included with your product. Please follow steps given in installation guideline included with the wall and ceiling mount racks for installation. Use installation components approved by the manufacturer.
- Be careful when moving your projector with cart. Abrupt stops, pushing too hard and rugged surfaces may topple your projector and the cart together.

FOR EU USERS

The symbol mark and recycling systems described below apply to EU countries and do not apply to countries in other areas of the world.
Your product is designed and manufactured with high quality materials and components which can be recycled and/or reused.
The symbol mark means that electrical and electronic equipment, batteries and accumulators, at their end-of-life, should be disposed of separately from your household waste.
Note:
If a chemical symbol is printed beneath the symbol mark, this chemical symbol means that the battery or accumulator contains a heavy metal at a certain concentration.
This will be indicated as follows: Hg: mercury, Cd: cadmium, Pb: lead In the European Union there are separate collection systems for used electrical and electronic equipment, batteries and accumulators.
Please, dispose of them correctly at your local community waste collection/recycling centre.
Please help us to conserve the environment we live in!

Caution:

Contains mercury
For more information on safe handling procedures, the measures to be taken in case of accidental breakage and safe disposal options visit: ec.gc.ca/mercure-mercury/
Dispose of or recycle in accordance with applicable laws.

Safety operation guideline

Note:

Precautions on using your projector:

- DO NOT project the same image for long time as residual images may be left in the panel. This is a property of LCD panel.
- Use power as indicated in tags attached to your projector. If you have doubts over available power type, consult your dealer or local power company first.
- DO NOT open or remove the casing for maintenance as this may lead to electric shock or other damages. Call qualified maintenance personnel in case of any maintenance requirements.
  - In case of the following, unplug the power cord and call qualified maintenance personnel for service immediately:

  a. Damaged or broken power cord or plug

  b. Liquid splashed in your projector

  c. Your projector exposed to rain or water

  d. If your projector fails to work as expected by following operation instructions, adjust it according to given instructions. Other invalid operations may damage your projector, which requires the technician to spend more time before returning it back to normal.

  e. The projector falls off to ground or its casing is damaged.

  f. In case of any abnormal change in your projector during its use, then maintenance services would be required.
- In case components replacement is required, make sure the replacements have been approved by the manufacturer and features the same with the one being replaced. Use of unauthorized parts may lead to fire, electric shock or personal injury.
- After the completion of maintenance or repair work, get the maintenance personnel to run routine safety check to ensure your projector's safety operation status.

Information for users in the European Union

This is a device to project images onto a screen, etc., and is not intended for use as indoor lighting in a domestic environment. Directive 2009/125/EC.

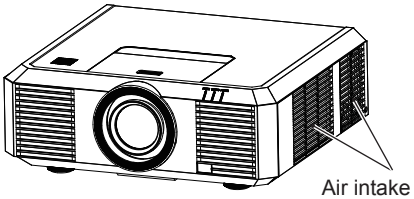
NOTE FOR CUSTOMERS IN THE US

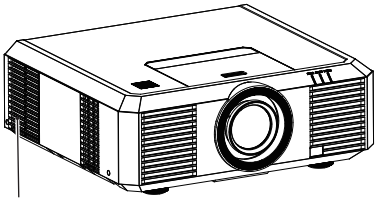
(Hg) LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL STATE OR FEDERAL LAWS.

Safety operation guideline

Air ventilation

Openings in the casing are designed for ventilation and overheating prevention. DO NOT block or cover these openings to keep your projector in normal operation and from overheating.





Note:

Heat exhaust at the air outlet Keep the following in mind when using or installing your projector:

- DO NOT place flammable materials or sprayers near your projector.
- Keep the air outlet one meter away from other objects.
- DO NOT touch the area close to the air outlet especially the metal components, e.g. screws. This area and parts will get very hot once your projector starts operating.
- DO NOT place any object atop your projector. They may not only be damaged but also lead to fire after being overheated.

Cooling fans are designed for cooling your projector. Fan speed is auto adjusted subject to internal temperature of your projector.

Safety operation guideline

Place your projector correctly

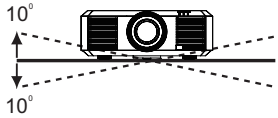
Use your projector at specified location in correct way. Invalid projector location may shorten life-cycle of lamps or even lead to severe incidents or fire.

Note:

•Enable the “Ceiling” function if flip over screen is required.

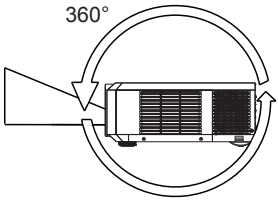
■DO NOT install your projector in ways as illustrated below.

•DO NOT incline your projector more than ±10 degrees.



•DO NOT place your projector as illustrated above.

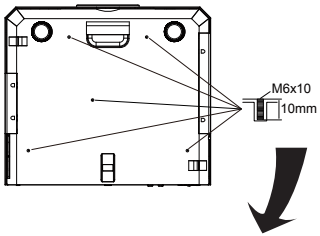
■The projector supports 360° projection in Vertical.

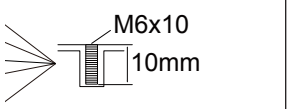


Note:

Precautions on ceiling mount racket installation:

- Get qualified technician to install the ceiling mount racket.
- Warranty of your projector does not cover hazards and damage caused by using ceiling mount rackets provided by unauthorized dealers.
- Remove the ceiling mount racket when it is not in use.
- Apply torque driver instead of power driver or impact driver in your projector.





Safety operation guideline

Moving your projector

When moving your projector close its adjustment legs as they may damage the lens and casing. Keep your projector in suitable box when it is not to be used for a long time.

Note:

Precautions on moving or shipping your projector:

- DO NOT drop or impact your projector as it may get damaged or failed in operation.
- Please employ proper container for movement.
- Prohibit express or other shipping service provider personnel from shipping your projector with improper boxes. Your projector may become damaged. Please consult your dealers for shipping your projector by express or other shipping service providers.
- Place your projector in box only after it has been fully cooled down.

Precautions on dealing with your projector:

DO NOT lift or move your projector by holding the lens or projecting decoration ring as it may damage the lens and your projector.

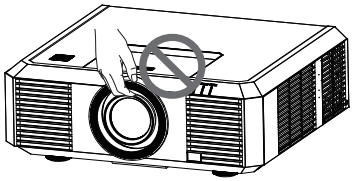
Be careful when handling your projector. DO NOT drop it, subject it to external forces, or place objects atop it.

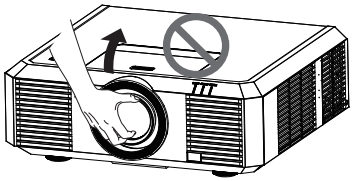
Note:

Lens or your projector is electric powered.

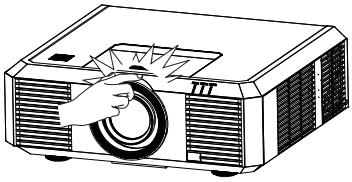
Precautions on using your projector:

- DO NOT touch the lens when it is working as your fingers may get hurt.
- DO NOT let children touch the lens.





DO NOT hold the lens or area around it.



Compliance

FCC Caution

Declaration of Conformity
This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
To assure continued compliance, follow the attached installation instructions and do not make any unauthorized modifications.

CAUTION:
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.

Model Number : EK-500U
Trade Name : EIKI
Responsible party : EIKI International, Inc.
Address : 30251 Esperanza Rancho Santa Margarita CA 92688-2132
Telephone No. : 800-242-3454 (949-457-0200)

AC Power Cord Requirement

The AC Power Cord supplied with this projector meets the requirement for use in the country you purchased it.

AC Power Cord for the United States and Canada:
AC Power Cord used in the United States and Canada is listed by the Underwriters Laboratories (UL) and certified by the Canadian Standard Association (CSA).
AC Power Cord has a grounding-type AC line plug. This is a safety feature to be sure that the plug will fit into the power outlet. Do not try to defeat this safety feature. Should you be unable to insert the plug into the outlet, contact your electrician.

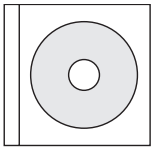
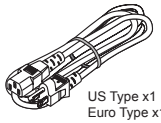
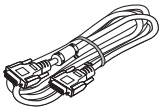
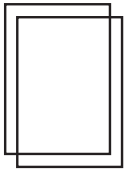
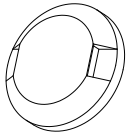
AC Power Cord for the United Kingdom:
This cord is already fitted with a moulded plug incorporating a fuse, the value of which is indicated on the pin face of the plug. Should the fuse need to be replaced, an ASTA approved BS 1362 fuse must be used of the same rating, marked thus ⟡. If the fuse cover is detachable, never use the plug with the cover omitted. If a replacement fuse cover is required, ensure it is of the same colour as that visible on the pin face of the plug (i.e. red or orange). Fuse covers are available from the Parts Department indicated in your User Instructions.
If the plug supplied is not suitable for your socket outlet, it should be cut off and destroyed.
The end of the flexible cord should be suitably prepared and the correct plug fitted.
WARNING : A PLUG WITH BARED FLEXIBLE CORD IS HAZARDOUS IF ENGAGED IN A LIVE SOCKET OUTLET.
The Wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow	Earth
Blue	Neutral
Brown.	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.
WARNING: THIS APPARATUS MUST BE EARTHED.

THE SOCKET-OUTLET SHOULD BE INSTALLED NEAR THE EQUIPMENT AND EASILY ACCESSIBLE.

Accessories

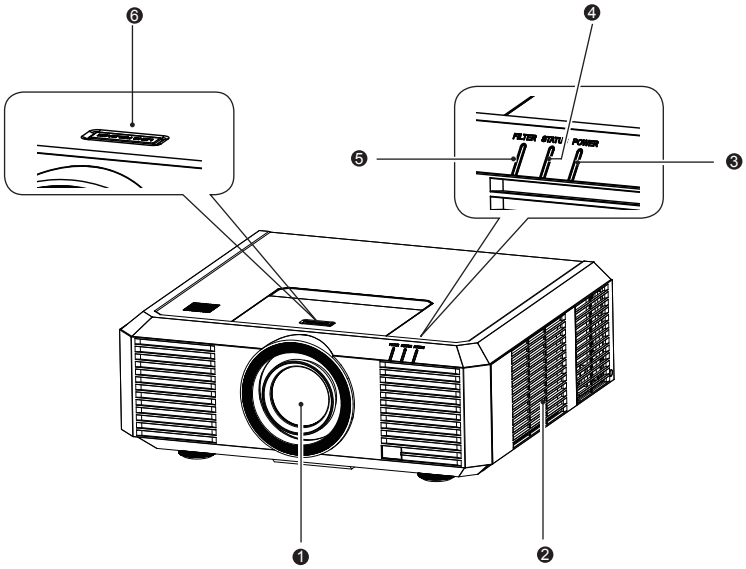
Owner's Manual(CD)	AC Power cord	Remote control with batteries (AA or LR6)
	 US Type x1 Euro Type x1	
VGA cable	Quick start guide	Lens Cover
		

Overview

This chapter presents names and functions of individual component.

Name and function of your projector

Front/top



❶ Projection lens

❷ Air intake with filter

❸ POWER indicator (Refer to Page 73)
– The power indicator turns steady red when your projector is in standby mode
– It turns steady green when your projector is in normal operation

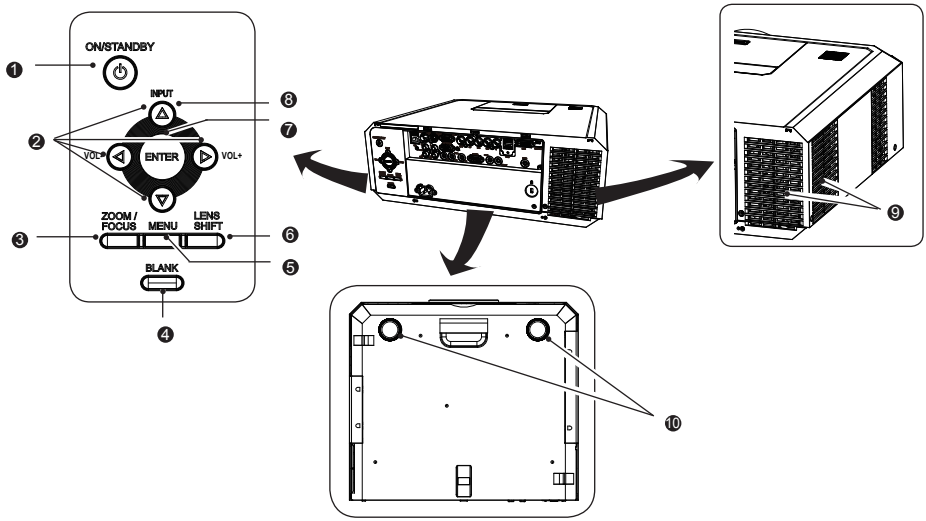
❹ STATUS indicator (Refer to Page 73)
It flashes red when internal temperature of your projector is out of operation range

❺ FILTER indicator (Refer to Page 73)
It turns red when the filter needs be replaced

❻ Lens release button

Name and function of your projector

Rear



❶ ON/STAND-BY
Power on or off your projector

❷ Arrow ▲▼◀▶
– Select items or adjust values in the OSD menu.
– Select display area in digital zoom+ mode
– Adjust the volume.

❸ ZOOM/FOCUS
– Enter the optical zoom adjustment mode
– Enter the focus adjustment mode

❹ BLANK
Dark out screen images temporarily

❺ MENU
Open or close the OSD menu

❻ LENS SHIFT
Enter the lens moving mode

❼ ENTER
Enter the OSD menu or select options in a menu

❽ INPUT
Select source of input

❾ Air exhaust

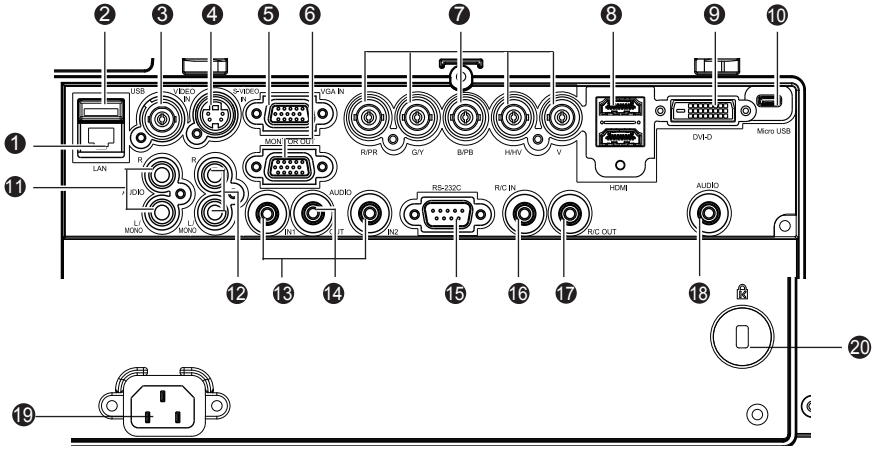
❿ Adjustment pad

⚠ Note:

Air outlet emits hot air. DO NOT place heat sensitive objects near it.

Name and function of your projector

Terminal



❶ LAN
Connect network cable to this port for controlling and operating your projector via network.

❷ USB
When using the Memory Viewer function, insert the USB memory directly to this terminal.

❸ VIDEO IN
Connect video output signal to this terminal.

❹ S-VIDEO IN
Connect S-VIDEO output signal of video device to this terminal.

❺ VGA IN
Connect output signal from computer to this terminal.

❻ MONITOR OUT
Transmit signals from ❺ to other displays when your projector is acting as a display output.

❼ R(PR)/G(Y)/B(PB)/H(HV)/V
– Connect RGBHV format (5-core) signals to R/G/B/HS/VS terminal respectively.
– Connect component signals to Y, Pb, Pr terminal respectively.

❽ HDMI
Connect HDMI digital output signals to this terminal.

❾ DVI-D IN(HDCP)
Connect DVI digital output signals to this terminal.

❿ Micro-USB
The terminal is to use the USB display function, when connecte the projector to computer with USB cable

⓫ AUDIO (Video)
Connect audio signal from ❸ to this terminal.

⓬ AUDIO (S-Video)
Connect audio signal from ❹ to this terminal.

⓭ AUDIO IN1/AUDIO IN2
– Connect audio signals for device ❺ to AUDIO IN1
– Connect audio signals for device ❼ to AUDIO IN2

⓮ AUDIO OUT
Output audio signals to amplifier or other audio equipment.

⓯ SERIAL
Connect serial cable to this terminal when using RS232 device to control or operate your projector.

⓰ REMOTE IN
Connect wired remote controller to this terminal. Connection of a wired remote controller will disable the wireless one.

⓱ REMOTE OUT
Transmit wired remote controller signals of ⓰ to another projector when a wired remote controller is used.

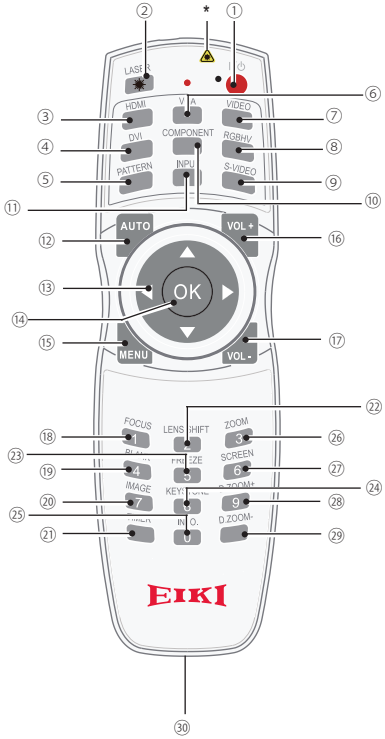
⓲ AUDIO/DVI-D
Connect audio signals of DVI equipment to this terminal.

⓳ Power cord connector

⓴ Anti-theft slot

Name and function of your projector

Remote controller



* Laser Transmitting Window:
Laser beam will emit from this window while pressing LASER button during the projection to use the remote controller as a laser pointer.

Do not stare directly at the laser transmitting window or aim the window at human body, to avoid any physical injury.

① POWER
Power on or off your projector.

② LASER
Press the LASER button during presentation to use the remote controller as laser pointer

③ HDMI
Select HDMI input source

④ DVI
Select DVI input source

⑤ PATTERN
Select built-in test pattern of your projector

⑥ VGA
Select VGA input source

⑦ VIDEO
Select VIDEO input source

⑧ RGBHV
Select RGBHV input source

⑨ S-VIDEO
Select S-VIDEO input source

⑩ COMPONENT
Select Component input source

⑪ INPUT
Open or close the INPUT menu

⑫ AUTO
Enter auto adjustment mode

⑬ Arrow ▲▼◀▶
– Select items or adjust values in the OSD menu
– Select display area in digital zoom+ mode

⑭ OK
Enter the OSD menu or select options in it

⑮ MENU
Open or close the OSD menu

⑯ VOLUME +
Increase volume

⑰ VOLUME -
Decrease volume

⑱ FOCUS
Enter the focus adjustment mode

⑲ BLANK
Dark out screen images temporarily

⑳ IMAGE
Select image mode

Name and function of your projector

㉑ TIMER
Enable the timer function

㉒ LENS SHIFT
Enter the lens moving mode

㉓ FREEZE
Freeze projected images

㉔ KEYSTONE
Keystone calibration
The keystone calibration mode changed as: H/V Keystone -> Corner Keystone -> H/V Keystone -> ....

㉕ INFO.
Display current status information of your projector

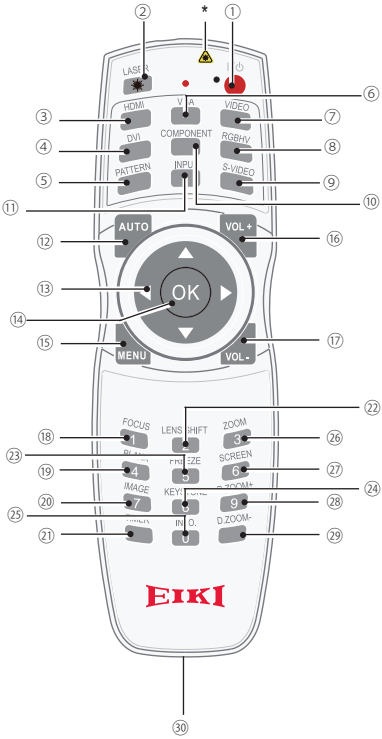
㉖ ZOOM
Enter the zooming mode

㉗ SCREEN
Select screen size

㉘ D.ZOOM+
Zoom in projected image

㉙ D.ZOOM-
Zoom out projected image

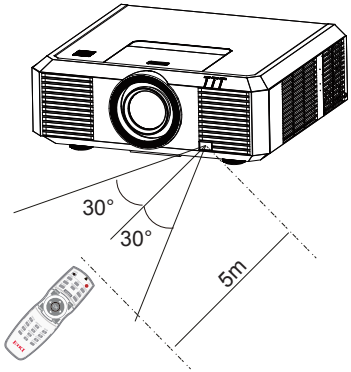
㉚ Wired remote controller output terminal
Connect cable of wired remote controller to this port while operating the projector by wired remote control



Remote controller operation range

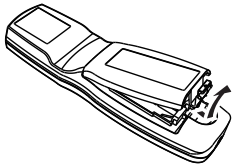
Point your remote controller to the IR receiver of your projector

Maximum operation range of your remote controller is an area of radius 5 meters and arc 60° in front of and behind your projector

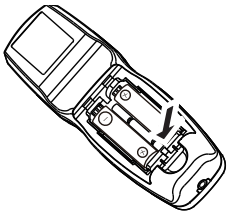


Install battery of remote controller

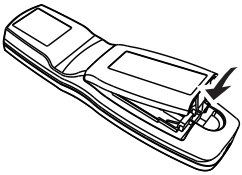
❶ Open the battery cover.



❷ Insert a new battery in it.
Two AA batteries
Place your batteries with its anode and cathode (+ and -) in correct direction. Keep both poles in good connection to the contacts within the compartment.



❸ Put the cover back.



Please follow the following rules for safety operation:

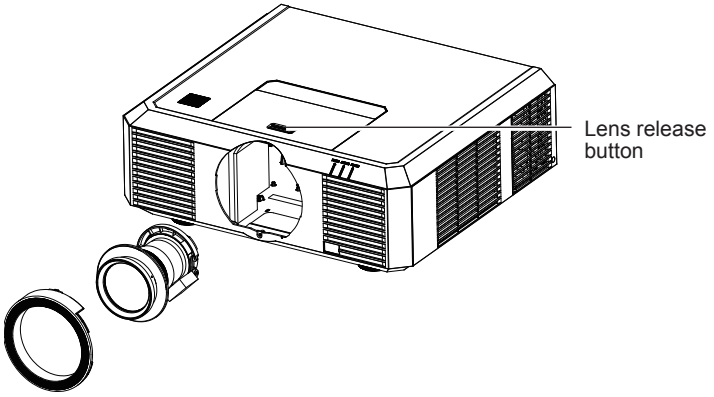
- Use two of AA or LR6 alkaline batteries.
- Replace both batteries at the same time.
- Do not mix new and old batteries as one pair.
- Keep your remote controller away from water or other liquids.
- Do not expose your remote controller to environments with high humidity or temperature.
- Do not drop your remote controller.
- In case of any battery solution leaking in the compartment, clear it thoroughly before placing new batteries in it.
- Using battery of other types than what specified on this manual may lead to risks of explosion.
- Please dispose your old battery by following instructions given in tag of the battery or local regulations.

Installation

This chapter introduces the information of install.

Lens installation

Please follow steps given below to install lens after its replacement or when optional ones are employed. Please consult your dealers for details on optional lenses.



Remove the lens

1 Center the lens with its movement function. (Hold 5 sec. on Lens Shift button. Refer to the Page 30).
2 Power off your projector and unplug the AC power cord.
3 Remove the decoration ring by turn it counterclockwise.
4 Press and hold the lens release button at top of the casing. Turn it counterclockwise until it sticks, and then pull it out of your projector gently.

Note:
Be careful in removing the lens. Do not drop it.

Installing lens

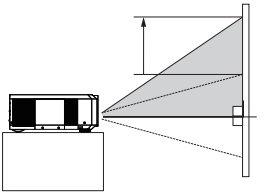
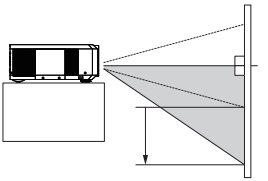
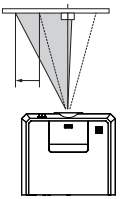
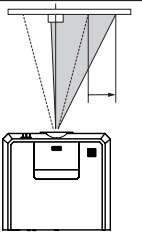
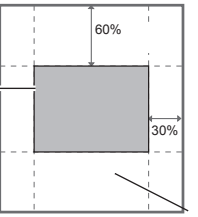
1 Turn the lens counterclockwise and remove its decoration ring.
2 Align the red mark on your lens and your projector and insert the lens in the latter.
3 Turn the lens clockwise slowly until you hear a click. Make sure the lens is fully inserted in your projector.
4 Turn the lens decoration ring clockwise to replace it.

Note:
Do not press and hold the lens release button when installing it.

- Do not touch or remove any other component except the lens and parts related to it. Otherwise, you may experience product failure, electric shock, fire, or other incidents.
- Make sure model of the lens is compatible with your projector before installing it.
- For details on lens and its installation, please call local dealers.

Lens shift adjustment

The electric lens shift function may adjust your lens in all four directions.
This function enables easy image position adjustment.

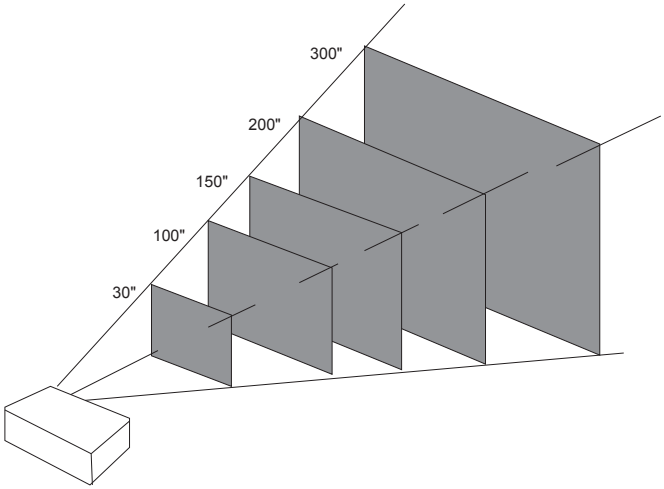
The projection location of your image may be moved upward a distance up to 60% of the length of the image.	Move lens to it top position 
The projection location of your image may be moved downward a distance up to 60% of the length of the image.	Move lens to it bottom position 
The projection location of your image may be moved leftward a distance up to 30% of the width of the image.	Move lens to it leftmost position 
The projection location of your image may be moved rightward a distance up to 30% of the width of the image.	Move lens to it rightmost position 
Scope of lens shift adjustment	Center the lens  Lens shift range

***This table is measured with standard lens.**

***When the setting of LENS SHIFT as the maximum position, the corner of projection image might be darker.**

Set up your projector

- Ambient brightness may affect your projection image quality. For the optimal image effect, it is recommended to control brightness in your environment.
- Values shown in figure below are approximates only. They may differ from the actual ones.



EK-500U(16:10) Unit:cm

Lens Model No.			AH-E22010	AH-E22020		AH-E21010		AH-E23010		AH-E23020	
Screen size	Width	Height	Distance	Wide	Tele	Wide	Tele	Wide	Tele	Wide	Tele
30 inch	64	40	50	68	97	89	164	151	271	256	452
100 inch	215	134	166	244	332	307	557	537	927	898	1541
150 inch	323	202	244	371	478	462	838	820	1395	1356	2312
200 inch	431	269	332	498	644	618	1119	1093	1863	1815	3093
300 inch	646	404	488	751	996	929	1681	1639	2800	2732	4654

Installation

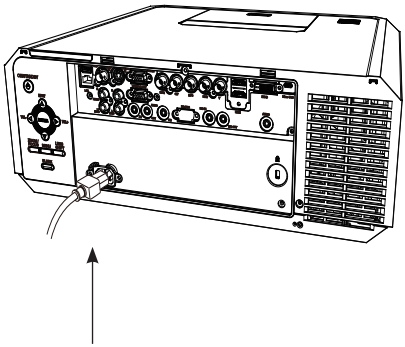
Connect the AC power cord

Standard voltage employed by your projector is AC 100-240V. It adapts to different input voltage automatically. Your projector employs 2-phase power cord with neutral ground cable.

Do not use any other type of power cords or you may face the risks of electric shock. In case you have any doubt on type of power cord you are using, please call authorized dealer or service center for help. Before powering on your projector, get all external equipment connected in advance.

Note:

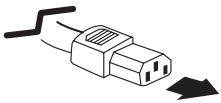
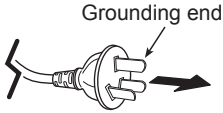
Keep your AC power socket close to your projector for easy plugging and unplugging.



Connect included AC power cord to your projector.

✓ Note:
For safety reasons, unplug the AC power cord when your projector is not in use. Your projector will consume a small amount of power when it is connected to AC grid power and in standby mode.

Precautions on power cord
Your AC power cord should meet regulations of the country/district where your projector is used.
Please make sure the type of the power plug is compliant with those given in figure below.
Make sure you are using a valid AC power cord.
In case the included AC power cord does not comply with the AC power socket in your location, call your dealer for replacement.

The projector side	Connect to the AC power socket
 Connect to power cord connector of your projector	 Connect to AC power socket

✓ Note:
- Use of invalid power cord may hamper product performance or even lead to electric shock, fire, and other incidents. Please use power cord compliant with the included one to ensure product performance and operation safety.
- The frequently used cables are: AC power cord, VGA cable, audio cable, video cable, and RS232 control cable.

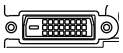
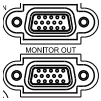
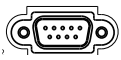
Connection to equipment

Connection to computer

Cables for connection:

- VGA cable
- DVI cable*
- RS232 control cable*
- BNC cable*
- HDMI cable*

(* This cable is optional.)

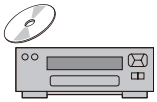
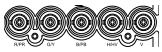
Ports on your projector	Connection cable	Equipment
DVI-D(HDCP) 	DVI cable	
HDMI	HDMI cable	
R(PR) / G(Y) / B(PB) / H(HV) / V	BNC cable	
VGA IN MONITOR OUT 	VGA cable	
RS232C 	RS232 control cable	

Connect to video equipment

Cables for connection:

- S-VIDEO cable*
- VIDEO cable*
- BNC cable*

(* This cable is optional.)

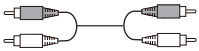
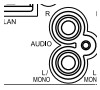
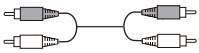
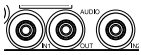
Ports on your projector	Connection cable	Equipment
S-VIDEO IN	S-VIDEO cable	
VIDEO IN	VIDEO cable	
R(PR) / G(Y) / B(PB) / H(HV) / V 	BNC cable	

Unplug power cords of your projector and all external equipment before connecting any cable to them.

Connection to equipment

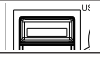
Connection to audio equipment

Cables for connection:
• Audio cable*
(* This cable is optional.)

Ports on your projector	Connection cable	Equipment
MONO L/R	Audio cable 	
AUDIO IN 	Audio cable 	
AUDIO IN / OUT 	Audio cable	
AUDIO DVI-D		
REMOTE IN/OUT	Audio cable	

Connection to USB equipment

Cables for connection:
• USB cable*
(* This cable is optional.)

Ports on your projector	Connection cable	Equipment
USB 	Appareil USB-A	
Micro USB	Câble USB	

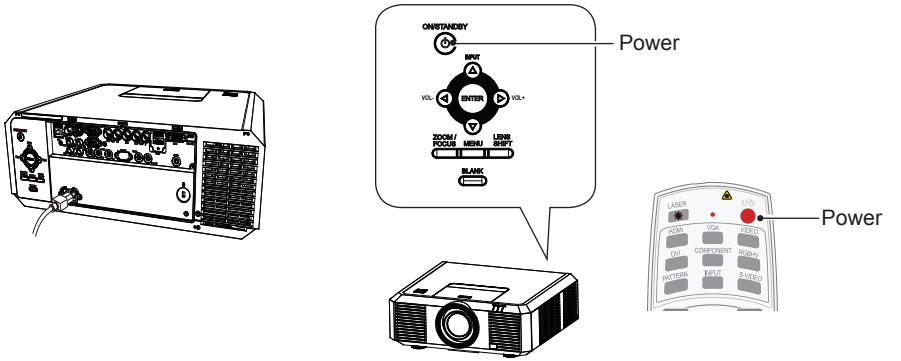
Unplug power cords of your projector and all external equipment before connecting any cable to them.

Operation

This chapter introduces you to basic operation of your projector.

Basic operation

Power on your projector



1. Connect all external equipment to your projector (e.g. computer or camera) before powering it on.
2. Connect AC power cord of your projector to an AC power socket. The Power indicator turns on in red.
3. Press the Power button on the rear control panel or the remote controller.
   The Power indicator lights in green and the cooling fan starts running.
4. If your projector is setting as password protected, the password dialog box displays. Enter your password as instructed below.

   Enter password (PIN)
   Press ▲▼ button to select a number, press ▶ button to enter it and move the cursor. The number you typed is displayed as "*". To edit number you have entered, press ◀ button to move the cursor to the number you want to change, press ▲▼ button to select the correct one.

   Repeat this step to type in a 3-digit number.

   Move the cursor to OK after you have typed the 3-digit number. Press the ENTER button and now you are ready to use your projector.

   If the password is invalid, the password displayed as "***" will be in red. Please try again with a valid one.

✓ Note:
- In case the "Logo Select" option is set to OFF, then no welcome image will display in screen.
- You can do nothing but powering off your projector during the welcome image is displaying.

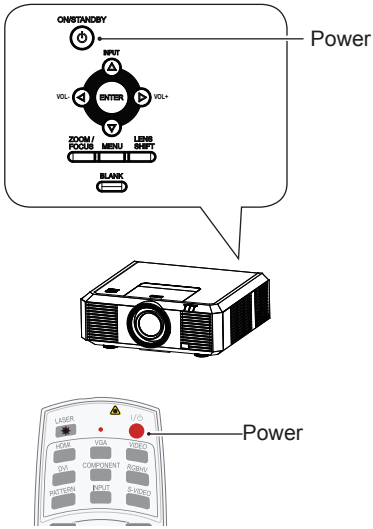
What is a password (PIN)?
A password (PIN) is an ID code for identifying people with knowledge about it to operate your projector. A password (PIN) setting may help preventing your projector from unauthorized use.

You password (PIN) code is a 3-digit number. To find out more about protecting your projector with a password (PIN), please refer to the PIN Code Lock function in the Setup menu on Page 54 for details.

Precautions on password (PIN) operation
You cannot operate a password (PIN) protected projector without correct password (PIN) Please set up a new password (PIN) and keep your operation manual in safe place. In case the password (PIN) is lost or forgotten, call your dealer or service center.

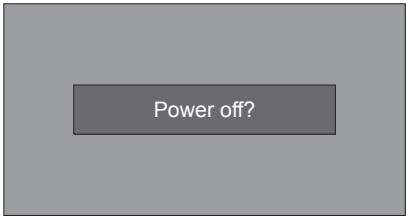
Power off your projector

1. Press the Power button at the rear control panel or the remote controller, the “Power off?” message displays.
2. Press the Power button again in 4 seconds after the “Power off?” message prompted to you. The POWER indicator flashes red while the cooling fan continues running. (You may set up noise level and speed of the fan.) Unplug the power cord until the fan stops running. Failure to do so may shorten life cycle of your projector or lead to power on failures or operation abnormalities.
3. The POWER indicator stops flashing once the projector has been cooled down to ready for power on again.



To maintain the life cycle of the lamp, power off your projector after it has been turn on for at least five minutes.

Do not use your projector without stop. As it may hurt the life cycle of your lamp. Power off your projector at least once every 24 hours and have it idle for an hour.

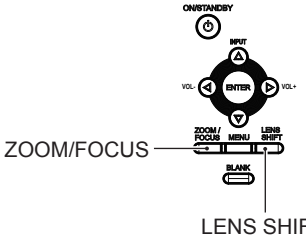


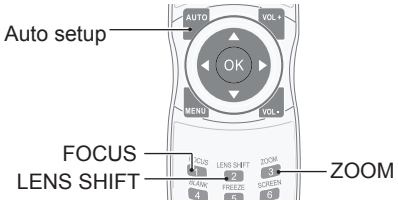
“Power off?” message disappears in 4 seconds.

✓ Note:

- If the “On Start” function is set to “On”, your projector will power on once it is connected to an AC power socket. (Refer to page 53)
- Speed of the cooling fan varies with internal temperature of your projector.
- Do not place your projector in any box before it is fully cooled down.
- In case the POWER indicator flashes or turns red, refer to the “Light indicator status” for instructions. (Refer to page 69)
- The POWER indicator flashes when the lamp is cooling down. Do not power on your projector at this time. Power on your projector only after the POWER indicator turns red.
- Unplug the power cord after your projector has been turned off. The fan stops running.
- The POWER indicator turns red when your projector is ready for power on again. It takes less time to restart your projector after it was powered off in the standard power off procedure than that of the non-standard one.

Basic operation

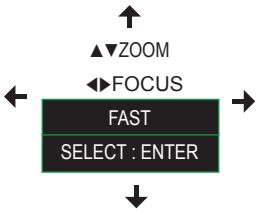




Zoom /focus function

1. Press the ZOOM / FOCUS button on the rear control panel or remote controller for zooming and focusing.
2. Press ▲▼ button to zoom in and out. Press ◀▶ button to change focus of image. Default adjustment speed is set to FAST. You may press the ENTER button, select STEP for speed fine-tuning.

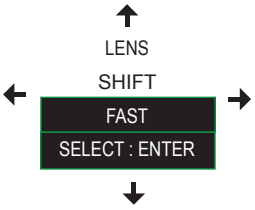
Zoom / focus



Lens movement adjustment

1. Press the LENS SHIFT on the rear control panel or remote controller to adjust position of the lens. Default adjustment speed is set to FAST. You may press the ENTER button, select STEP for speed fine-tuning.
2. Movement of the lens is shown on the screen. Press ▲▼◀▶ button to move the screen to required location without any image distortion. Range of screen movement - Upward or downward from the lens movement axis: 60%. Leftward or rightward: 30%.
3. Press and hold the LENS SHIFT button on the rear control panel or remote controller for 5 seconds to home it to the center position.

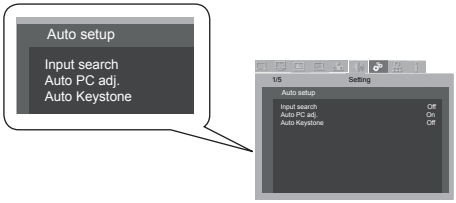
Lens movement



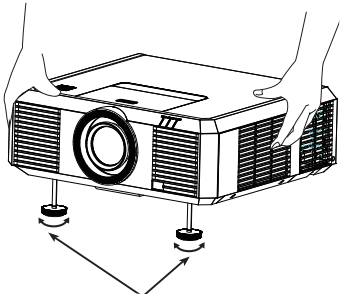
✓ Note:
The arrow mark displays in black when the lens is not moved. It turns red once the lens is moved for adjustment.

Auto setup function

Press the AUTO button on your remote controller to auto execute settings given in the Auto Setup menu (including Auto Searching, Auto PC Adjusting and Auto Keystone).



Adjustment pad



You may use the adjustment leg to raise your projector up to 5.0 degree.

Turn the pad to tilt your projector to required height. To raise your projector, turn both pads clockwise.

To lower down your projector or close the pad, turn both pads counterclockwise.

You may use the auto setup function to adjust your projector's keystone distortion automatically or do this with the remote controller or OSD menu manually.

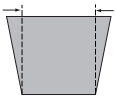
Keystone adjustment

You may adjust keystone distortion of image in your projector with the V keystone adjustment.

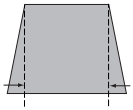
Follow steps below to adjust keystone distortion of projected image manually.

Press the KEYSTONE button on your remote controller. The keystone adjustment dialog box displays, press ▲▼ button to adjust keystone distortion. You may save your settings for keystone adjustment.

Press ▲ button to narrow upper part of the image



Press ▼ button to narrow lower part of the image

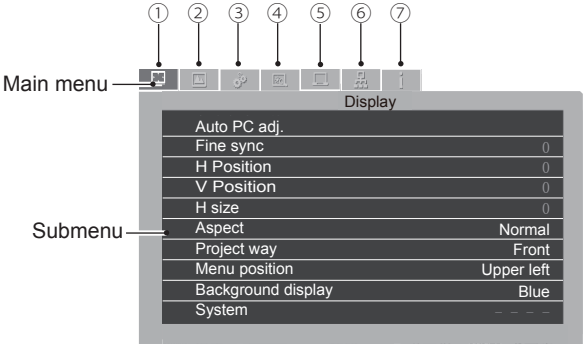


Keystone adjustment ▲▼

- The arrow mark looks white when there is no keystone adjustment in existence.
- The arrow mark indicating the adjustment direction turns red.
- The arrow mark disappears when the maximum adjustment limit reaches.
- The keystone adjustment will be canceled if you press the keystone adjustment button when it is displaying.
- The adjustable range is subject to source of signal input.

Basic operation

Menu item overview



① Display
Select Auto PC Adjust, Fine sync., H Position, V Position, H size, Aspect, Project way, Menu position, Background display, System to align each parameter with VGA input signal format.

② Color adjust
The color adjust options are: Image mode (Cinema/ Blackboard(Green)/ Colorboard/ User Image/ Dynamic/ Standard), Contrast, Brightness, Color temp., Red, Green, Blue and sharpness.

③ Setting
For computer input the setting options are: On start, Standby mode, High land, Lamp control, Cooling fast, Key lock, Iris and Sound.
For video input the setting options are: On start, Standby mode, High land, Lamp control, Cooling fast, Closed caption, Key lock, Iris and Sound.
For HDMI input the setting options are: On start, Standby mode, High land, Lamp control, Cooling fast, Key lock, Iris, Sound and HDMI setup.

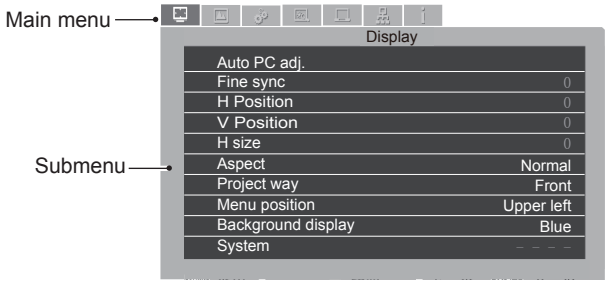
④ Expend
Setting the Language, Auto setup (Input search/ Auto PC adj./ Auto keystone), Keystone, Logo, Security, Power management, Filter counter, Test pattern, Remote control and Factory default function as you need.

⑤ Memory Viewer
Setting the display method of Memory Viewer page as Set slide, Slide transition effect, Sort order, Rotate, Best fit, Repeat and Apply.

⑥ Network
Network function menu.

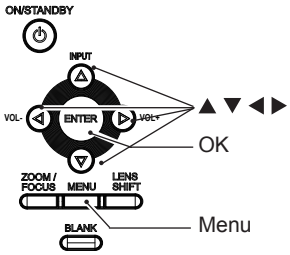
⑦ Information
Display information about the projector.

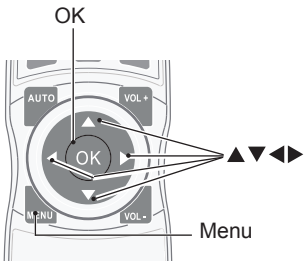
How to use the OSD



Menu operation

1. Press the MENU button on the rear control panel or remote controller and the OSD displays.
2. Press ◀▶ button to act on or select one main menu item. Press ▼ button or OK button to enter a submenu.
3. Press ▲▼ button to select required sub-menu, then press OK button or ▶ button to set up or enter an option.
4. Press ▲▼◀▶ button to select settings or navigate options, then press OK button to act on the item and exit.
5. Press ▲ button to return to mainmenu. Press the MENU button on remote controller or control panel to exit the OSD.





Remote controller operation

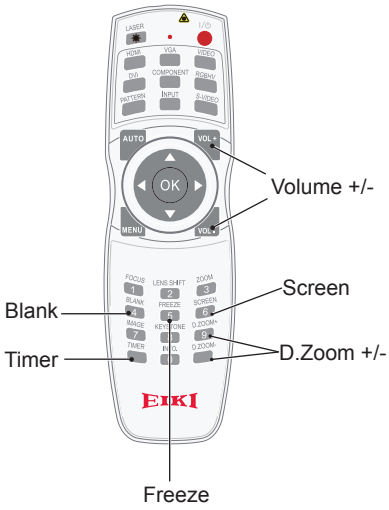
Use your remote controller for common operations.

Screen size selection (SCREEN)
Press the SCREEN button on remote controller to select required screen size mode.

Digital Zoom (D.ZOOM+/-)
Press the D.ZOOM+/- button on remote controller to enter the Digital Zoom mode.
*Only for input as VGA, RGBHV, and the screen size setting as Normal or Wide.

Volume +/- (VOLUME +/-)
Increase or decrease volume.

Timer (TIMER)
Press the TIMER button on remote controller. A timer animation (00:00) displays and starts timing in format of (00:00-59:59).
Press the TIMER button again to stop timing.
Press the TIMER button again to disable the timing function.

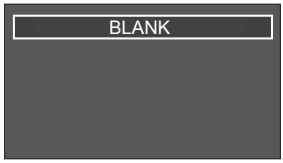


Timer display

Freeze (FREEZE)
Press the FREEZE button on remote controller to freeze image on the screen. Press the FREEZE button or any button to cancel the freeze function.

Blank (BLANK)
Press the BLANK button on remote controller; a blank screen displays to replace existing image. Press the BLANK button or any other button to restore the image.
Press the BLANK to toggle switch your screen as shown below:

BLANK → Normal → BLANK → Normal → .....



The BLANK screen disappears if no buttons are pressed in 4 seconds.

Input selection

Input select

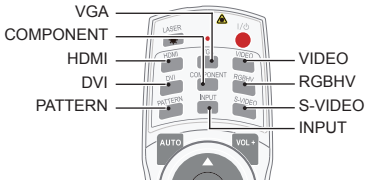
Direct Operation
Press HDMI, VGA, VIDEO, DVI, COMPONENT, RGBHV, USB or S-VIDEO on the remote control as input source.

Menu operation
1 Press INPUT button on the top control to display the input select menu.

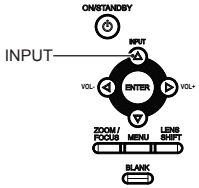
2 Press ▲▼ button to select VGA, RGBHV, HDMI 1, HDMI 2(MHL), DVI, Component, Video, S-viedo, Memory Viewer, Network or USB Display, then press the OK button.

VGA	When input source is from computer connected to VGA terminal with VGA cable, please select "VGA".
RGBHV	When input source is from BNC connected to RGBHV terminal with BNC*5 cable, please select "RGBHV".
HDMI 1	When input source is from equipment connected to HDMI terminal with HDMI cable, please select "HDMI".
HDMI 2(MHL)	When input source is from equipment connected to HDMI terminal with HDMI cable, please select "HDMI 2".
DVI	When input source is from equipment connected to DVI terminal with DVI cable, please select "DVI".
Component	Select it when the input source is from the video equipment connected to YCbCr terminal.
Video	Select it when the video input signal is connected to VIDEO IN terminal.
S-video	Select it when the video input signal is connected to S-VIDEO IN terminal.

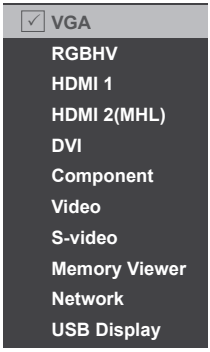
Remote control



Control Panel



Input select menu



✓*Note:*
- When the "Input search" function is set to "On" in the "Auto setup" function, the input signal will be searched automatically.

Input selection

Memory Viewer

When input source is from device connected to USB-A terminal, please select "Memory Viewer".

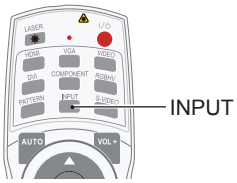
Network

When input source is from network connected to LAN terminal with LAN cable, please select "Network".

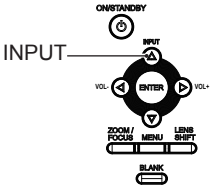
USB Display

When input source is from device connected to Micro-USB terminal, please select "USB Display".

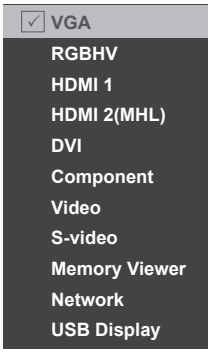
Remote control



Control Panel



Input select menu



✓*Note:*

- *When the "Input search" function is set to "On" in the "Auto setup" function, the input signal will be searched automatically.*
- *When signal is in "USB Display","Memory Viewer" and "Network", FREEZE, ASPECT, IMAGE, AUTO SETUP and SCREEN function cannot work.*

Input selectiong

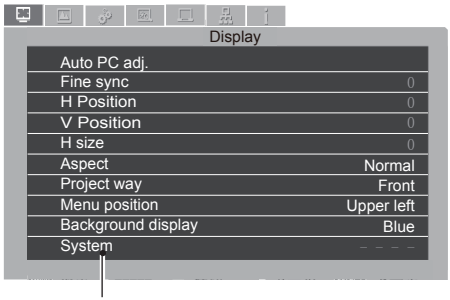
System selection

The scanning system and auto computer adjustment function may detect scores of signal format. If a PC is selected as the input signal source, your projector will detect and adapt to its signal format automatically. Correct image can be displayed without any setup operation.

Your projector will display one of the following:

Auto	If your projector failed to identify signals not shown in the signals format table, the “Auto” message will display in the System Signal Format menu. The Auto PC Adjusting function will make necessary adjustment to your projector to project valid images. If images are displayed incorrectly, adjust it manually.
-----	No PC signals detected. Check the connection between PC and your projector.

OSD menu



The selected system displays in the PC system menu.

Select the computer system manually.

1 Press the MENU button on remote controller and the OSD displays. Press ◀▶ button to point to the Display icon, press ▼ button or OK button and the Display menu displays.

2 Press ▲▼ button to select System Signal Format, then press OK button.

3 Press ▲▼ button to select required system signal format, then press OK button to confirm your selection.

✓ Note:
Your projector may save data generated by the Auto PC Adjusting function.

✓ Note:
The computer system menu will be disabled once HDMI or DVI has been selected.

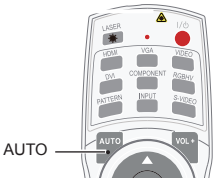
OSD Setting-Display

Auto PC Adjusting

The Auto PC Adjusting function may get Total Dots, Horizontal and Vertical position, Display area H, and Display area V aligned with computer input.

Direct Operation

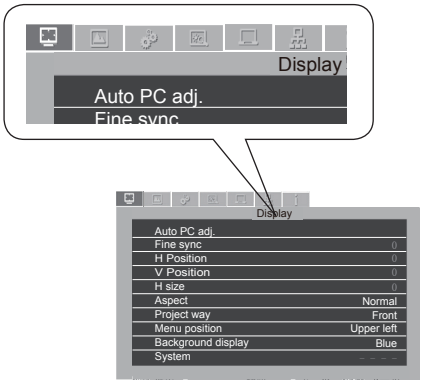
Press Auto button on the remote control to launch the Auto PC Adj. function.



Menu Operation

1 Press the MENU button on remote controller and the OSD displays. Press ◀▶ button to select Display icon. Press ▼ button or OK button and the Display menu displays.

2 Press ▲▼ button to point to Auto PC Adj. option, press OK button to confirm your choice.



✓ Note:

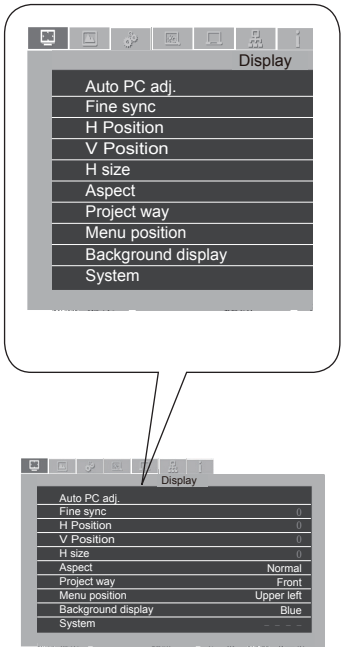
- Fine sync, H and V position and H Size of certain computers may be fully adjusted by the Auto PC Adjusting function. In case the post-adjustment image still looks incorrect, adjust it again manually.
- The Auto PC Adjusting function will be disabled once 480i, 575i, 480p, 575p, 720p, 1035i or 1080i has been selected in the system menu.

OSD Setting-Display

Manual computer adjustment

The scan system of your projector may fail to detect signal format used by certain computers as they opted some special signal format. The manual computer adjustment function of your projector enables you to adjust individual parameter to align with most special signal format. Your projector comes with up to storage area to keep parameters manually adjusted by you. You may save preferred settings for certain computers as required.

1 Press MENU button on the remote controller and the OSD displays. Press ◀▶ button to select Display icon, press ▼ button or OK button to confirm your selection.
2 Press ▲▼ button to select items for adjustment, press ▶ button or OK button to confirm your selection. Press ▲▼ button to adjust settings.



Auto PC adj.
Adjust [Fine sync], [H Position], [V Position] and [H Size] automatically.

Fine Sync
Eliminate flashes in image. Press ▲▼ button to adjust Total Dots.

H Position
Press ▲▼ button to adjust horizontal position of image.

V Position
Press ▲▼ button to adjust vertical position of image.

H size
Adjust and minimize the effect of interference caused by projection of patterns consisting of vertical stripes.

Aspect
Press ▲▼ button to select the item to set the screen size to fit the image while maintaining the aspect ratio of the input signal.

Normal... Projects the image at the maximum size while maintaining the aspect ratio of the input signal.
Wide.... Projects the image at 16:9 aspect ratio.

OSD setting-Display

Project way

Press ▲▼ button to select the project way.

Front ..... Projects to front screen when projector is front standing.

Rear ..... Projects to rear screen when projector is front standing.

Ceiling/Front ..... Projects to front screen when projector is in ceiling state.

Ceiling/Rear ..... Projects to rear screen when projector is in ceiling state.

Auto Ceiling/Front: Projects to front screen when projector is in ceiling state automatically.

Auto Ceiling/Rear: Projects to rear screen when projector is in ceiling state automatically.

Menu position

Press▲▼ button to select the position of the on screen menu.

Upper left .... Menu locates on upper left of the screen.

Upper right .. Menu locates on upper right of the screen.

Center ..... Menu locates at the center of the screen.

Lower left .... Menu locates on lower left of the screen.

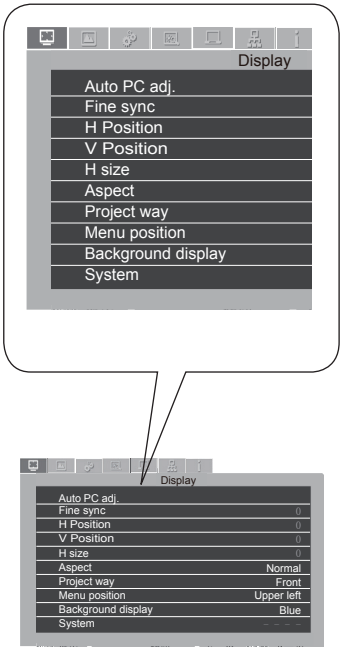
Lower right .. Menu locates on lower right of the screen.

Background display

Press ▲▼ button to select thescreen background of the projector when there is no signal detected.

Black .... Select black background.

Blue ..... Select blue background.



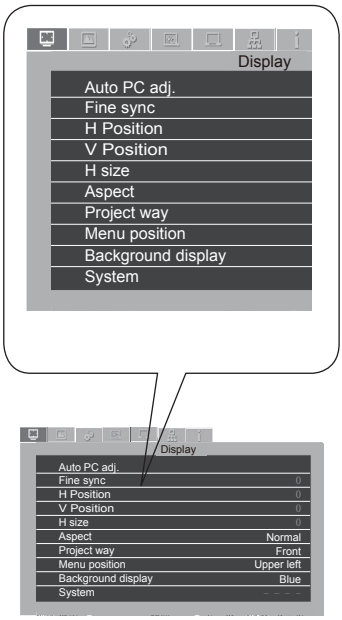
✓ Note:

- The Fine Sync, Total Dots and Clamp function will be disabled if 480i, 576i, 480p, 576p, 720p, 1035i or 1080i has been selected in the system menu.

OSD setting-Display

System

The projector automatically tunes to various types of computers with its function of Multi-scan system and Auto PC Adjustment. If a computer is selected as a signal source, the projector automatically detects the signal format and tunes to project proper images without any additional setting.



One of the following messages may appear when input source as computer:

Auto	When the projector cannot recognize the connected signal conforming to the provided computer system, Auto is displayed on the System menu box and the Auto PC Adj. function works to display proper images. If the image is not projected properly, a manual adjustment is required.
-----	There is no signal input from computer. Check the connection between your computer and projector.

When input source as VIDEO or S-Video

Auto

Your projector may auto detect the input video system and adjust to the optimum status. For PAL-M or PAL-N video system, select the system manually.

PAL/SECAM/NTSC/NTSC4.43/PAL-M/PAL-N

If image cannot be displayed correctly, you may need to select one from PAL, SECAM, NTSC, NTSC 4.43, PAL-M and PAL-N for playing.

When input source as Component

Auto

Your projector may auto detect the input component video signal and adjust to the optimum status.

Component video signal format

If image cannot be displayed correctly, you may need to select one signal format from 480i, 576i, 480p, 576p, 720p, 1035i and 1080i.

✓ Note:
- When HDMI is selected, System menu for computer is disable.

OSD setting-Color Adjust(Computer signals)

Color Adjust

Menu operation

1 Press the MENU button on remote controller and the OSD displays. Press ◀▶ button select Color Adjust icon , press ▼ button or OK button to confirm your selection.
2 Press ▲▼ button to point to required item and press OK button to confirm your selection.

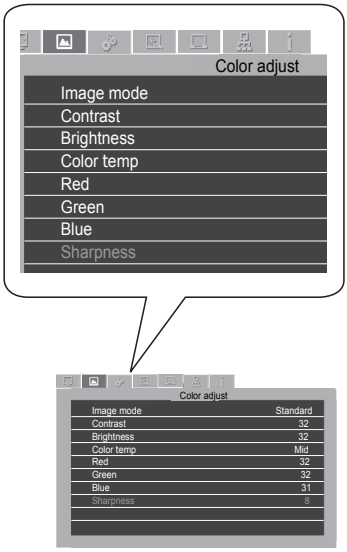


Image mode
Switch image mode to fit the image source and the projector.

Dynamic....The light output is maximized for use in bright areas.
Standard....The picture becomes suitable for moving images in general.
Cinema.....Enriched grayscale for viewing movies.
Blackboard (Green)....An image mode designed for displaying on a blackboard (Green). It boosts quality of image projected on blackboard (Green). This is designed for a board in green rather than black as indicated by its name.
Colorboard.. image mode suitable for image projecting on surface of wall in red, blue, yellow or green.
User Image..Default image mode set by users in the Image Adjust menu.

Contrast
Press ▼ button to decrease contrast, press ▲ button to increase contrast.

Brightness
Press ▼ button to decrease brightness, press ▲ button to increase brightness

Color Temp.
Press ▲▼ button to select required color temperature (Cold, Mid. and Warm)

Red
Press ▼button to lighten red tint and ▲ button to darken it.

Green
Press ▼ button to lighten green tint and ▲ button to darken it.

Blue
Press ▼ button to lighten blue tint and ▲ button to darken it.

Sharpness
Press ▼ button to soften image and▲ button to sharpen it.

OSD setting-Color Adjust(Video signals)

Color Adjust

Menu operation

1 Press the MENU button on remote controller and the OSD displays. Press ◀▶ button select Color Adjust icon , press ▼ button or OK button to confirm your selection.
2 Press ▲▼ button to point to required item and press OK button to confirm your selection.

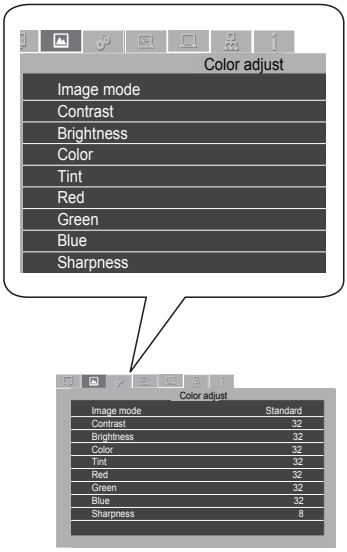


Image mode
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Dynamic....The light output is maximized for use in bright areas.
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Colorboard.. image mode suitable for image projecting on surface of wall in red, blue, yellow or green.
User Image..Default image mode set by users in the Image Adjust menu.

Contrast
Press ▼ button to decrease contrast, press▲ button to increase contrast.

Brightness
Press ▼ button to decrease brightness, press ▲ button to increase brightness

Color
Press ▼ to decrease the chroma and ▲to increase it.

Tint
Press ▲▼ to select the appropriate tone for the image.

Red
Press ▼ button to lighten red tint and ▲ button to darken it.

Green
Press ▼ button to lighten green tint and ▲ button to darken it.

Blue
Press ▼ button to lighten blue tint and ▲ button to darken it.

Sharpness
Press ▼ button to soften image and ▲ button to sharpen it.

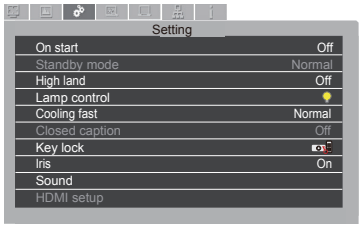
OSD setting-Setting

Setting

Your projector comes with screen size adjustment function for you to display required image size.

1 Press the MENU button on remote controller and the OSD displays. Press ◀▶ button to select Setting icon, press ▼ button or OK button to confirm your selection.

2 Press ▲▼ button to point to required item and press OK button to confirm your selection.



On start

Setting the projector to be turned on automatically just by connecting the AC power cord.

On ..... Start the projection immediately, enter countdown display.

Off ..... Start up in the standby mode.

Standby mode

Press▲▼ button to select the item below:

Eco..... Restrict some functions in the standby mode to reduce power consumption. In this case, you cannot use network functions and some RS-232C commands.

Normal ... Do not restrict network function and serial communication function even in the standby mode.

High land

Control the fan through the Setting menu.

Off ..... Normal speed. Set it so if the projector is operated at a lower altitude.

On ..... Faster than Off. Set it so if the projector is operated at a higher altitude because fans will produce weaker effects.

Lamp control

Change the brightness of the screen.

Normal .... Normal brightness.

Eco ..... Lower brightness, reducing power consumption and extending the lamp life.

Cooling fast

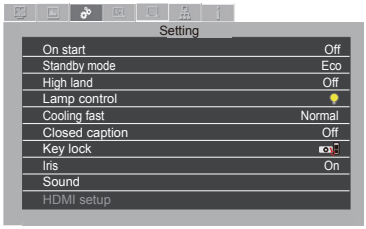
provides the following options in the cooling fans' operation after turning off the projector.

60 sec ... Faster and lounder and cooling time is shorter.

0 sec ..... Enable you directly unplug the AC power cord after turning off the projector, no need waiting for cooling. select required items.

Closed caption (Video signal only)

Allows the subtitle to be displayed for the audio contents or other information. If the input source contains closed caption, you can enable this function and change the channel. Press ▲▼ to select Off, CC1, CC2, CC3 or CC4.



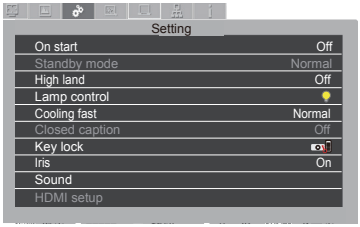
OSD setting-Setting

Keylock

security for the projector operation.
Off ..... Unlock.

Projector ..... Lock the operation of the control panel.
To unlock, use the remote control.

Remote Control ..... Lock the operation of the remote control.
To unlock, use the control panel.



✓ Note:

- If the top control accidentally becomes locked and you do not have the remote control nearby or there is something wrong with your remote control, contact the dealer where you purchased the projector or the service center.

Iris

Increase the contrast of the image.
On .... Enable Iris function, increase the contrast of the image.
Off .... Disable Iris function.

Sound

Adjust the volume.
Sound ... Press ▲ button to increase the volume, press ▼ button to decrease the volume.
Mute ..... Press ▲▼ button to switch mute function. (On/Off)

HDMI setup (HDMI only)

Switch the settings of "Image" or "Sound" in "HDMI setup" menu, if the image is not projected properly.

Image

64-940 .....For the video device.
0-1023 .....For the computer device.
✓*Note:*
The optimal setting varies depending on the output setting of the connected external device. Refer to the operation instruction of the external device regarding the output of the external device.

Sound

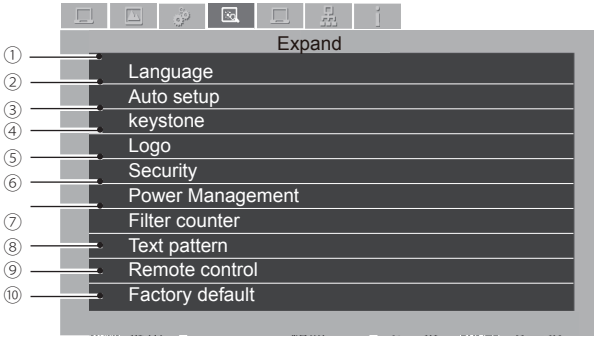
HDMI ..... The image and audio are transmitted.
Computer ... The audio signal is input by "AUDIO IN" terminal.

OSD setting-Expand

Expand

Select the Expend menu to set up other functions of your projector.

1. Press the MENU button on remote controller and the OSD displays. Press ◀▶ button to select Expand icon, press ▼ button or OK button to enter the submenu.
2. Press ▲▼ button to point to required item, press ▶ button or OK button to confirm your selection.
3. Press ▲▼ button to point to required item, press OK button to confirm your selection.



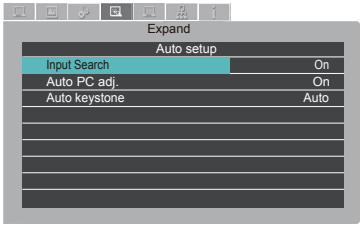
① Language

Your projector comes with multiple language support. You may select required one from them.

OSD setting-Expand

② Auto Setup

Press the AUTO button on your remote controller to execute functions including Auto Searching, Auto PC Adjusting, and Auto Keystone. These function settings may convert according to steps shown below:



Input Search

Select this function to auto detect input signal. Stop searching after valid signal was found.

Press ▲▼ button to select the following options:

Off.....Disable the input search function.

On.....Enable the input search function. This function detects input signals automatically and stops searching after any successful detection.

Auto PC Adjusting

On.....Press the AUTO button on remote controller to enable the Auto PC Adjusting function.

Off.....Disable the Auto PC Adjusting function.

Auto Keystone

Off.....Disable the Auto Keystone function.

Auto .....Execute auto keystone adjustment according to inclination of your projector.

Manual.....Press the AUTO button on remote controller to enable this function.

✓ Note:

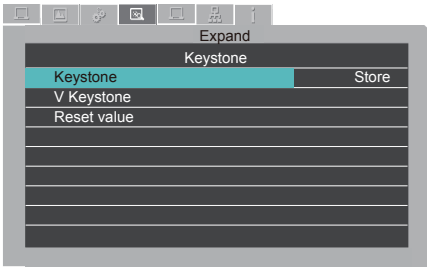
– Your projector detects only the input source you selected last time.
– Press the INPUT button on the control panel during input source searching, then the latter stops and the input signal you used last time will be selected.
– You cannot disable Input Search and Auto PC Adjusting concurrently.
– Fine Sync, Total Dots, Horizontal and Vertical position of certain computers may be fully adjusted by the Auto PC Adjusting function. In case the post-adjustment image still looks incorrect, adjust it again manually.

OSD setting-Expand

③ Keystone

Select this function to save or reset keystone adjustment of projection after your projector is disconnected from AC power. Press ▲▼◀▶ button to navigate available options.

Keystone..... Store / Reset
V Keystone ..... Press ▲▼ button to adjust vertical keystone.
Reset Value ..... To reset the adjusted data.



④ Logo

Logo Select
Select this to set up the logo screen when power on your projector:

Default .....Display factory default logo screen.
User..... Use the logo that user captured.
Off.....Power on without logo screen.

Logo PIN Code Lock
This function helps preventing unauthorized personnel from operating your projector and provides the following options:

You have to provide the old password if you want to change the PIN Code Lock settings or its code. The factory default PIN Code Lock is “111”. To change the logo screen password protection, press ENTER button and the Logo PIN Code change pop-up dialog box prompts.

Enter the code

Press ▲▼ button to select a number, press ▶ button to enter it and move the cursor. The number you typed is displayed as “*”. To edit number you have entered, press ◀ button to move the cursor to the number you want to change, press ▲▼ button to select the correct one.

Repeat this step to type in a 3-digit number.

Move the cursor to OK after you have typed the 3-digit number. Press the ENTER button and now you are ready to use your projector.

If the password is invalid, the password displayed as “***” will be in red. Please try again with a valid one.

Logo PIN Code change
You may change the Logo PIN Code to any 3-digit number you like. Press ENTER button to select Logo PIN Code change. The Logo PIN Code change dialog box prompts, press ▲▼ button to give a valid new code. The New Logo PIN Code dialog box prompts. Start setting up a new Logo PIN Code.

✓ Note:
Please note down your new password and keep it safe after changing to a new one.
You cannot power on your projector without the password.

OSD setting-Expand

⑤ Security

Provides PIN Code Lock to ensure your projector's operation safety.

PIN Code Lock

This function helps preventing unauthorized personnel from operating your projector and provides the following options:

Off.....Without locking

On.....A password is required every time your projector is powered on.

You have to provide the old password if you want to change the PIN Code Lock settings or its code. The factory default PIN Code Lock is "111". To change the logo screen password protection, press ENTER button and the Logo PIN Code change pop-up dialog box prompts.

Enter the code

Press ▲▼ button to select a number, press ▶ button to enter it and move the cursor. The number you typed is displayed as "∗". To edit number you have entered, press ◀ button to move the cursor to the number you want to change, press ▲▼ button to select the correct one.

Repeat this step to type in a 3-digit number.

Move the cursor to OK after you have typed the 3-digit number. Press the ENTER button and now you are ready to use your projector.

If the password is invalid, the password displayed as "∗∗∗" will be in red. Please try again with a valid one.

PIN Code change

You may change the Logo PIN Code to any 3-digit number you like. Press ENTER button to select Logo PIN Code change. The Logo PIN Code change dialog box prompts, press ▲▼ button to give a valid new code. The New Logo PIN Code dialog box prompts. Start setting up a new Logo PIN Code.

⑥ Power Management

To reduce power consumption and maintain life cycle of lamp, the power management function will turn off the projection lamp after your projector has been idle for a period of time. Available options are:

Ready ..... The POWER light indicator flashes green after the lamp is fully cooled down. The lamp turns on again if an input signal is connected or any key on the rear panel and remote controller is pressed during this period of time.

Power off ..... The projector shut down after the lamp is fully cooled down.

Off..... Disable the power management function.

Timer ..... Once the input signal is interrupted and no button has been pressed for 30 seconds afterwards, the "No signal" message displays in the timer. The timer counts down until the lamp turns off. Press ▲▼ button to set up the timer in range of 1~30 minutes.

Ready countdown.....Set up the interval from ready mode change to standby (0 to 30 minutes) automatically. A setting of zero minute keeps your projector from auto transition. Press the Power button to change your projector from ready to standby mode and any other button to power it on.

OSD setting-Expand

⑦ Filter counter

Set up cleaning interval of the filter.

A filter warning message displays to remind you cleaning the filter when the cleaning time is due. Please reset and set up the timer after the filter is cleaned. The filter warning message closes only after the filter counter is reset.

Filter counter.....Time the filter has been in service.
Timer.....Filter cleaning cycle.
Filter counter reset....Reset the filter counter after is has been cleaned.

⑧ Test pattern

Select this function to test your projector with built-in signal.

⑨ Remote Control

Remote Control

Select this function to prevent one remote controller from interfering multiple projectors.

Your projector comes with 10 remote controller code (0-9) with default code at “0”.

Your projector and the remote controller must be paired with the same code. For example: For a projector set to be operated by code 7, then the remote controller for controlling it needs be set to code 7 as well.

Change code of your projector:
Select Remote Control in the Setup menu.

Change code on remote controller:
Press and hold the OK button and one of the number button for 5 seconds to set the code to that number. The code is set successfully when the light indicator on the remote controller flashed.

Sensor for the remote controller

Set up the sensor when operating your projector with remote controller.

Front.....Select the front sensor.
Rear.....Select the rear sensor.
Both.....Select the front and rear sensors.

✓ Note:

- No control operation is available if your projector and the remote controller is in different remote control code. You may have to change the remote control code on both devices to pair with each other in case like this.
- The remote control code will be reset if battery of the remote controller is removed for long time.

⑩ Factory Default

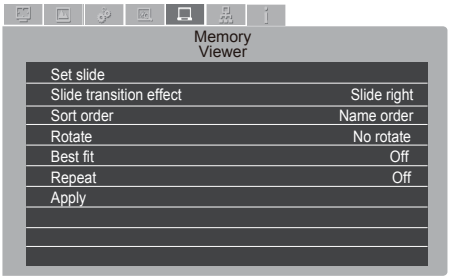
This function resets all your settings to Factory Default except the user Logo screen, PIN Code lock, lamp use time and filter counter.

OSD setting-Memory Viewer

Memory Viewer

Project the pictures which are stored in the USB memory when the USB memory is inserted into the projector

1. Press the MENU button on remote controller and the OSD displays. Press ◀▶ button to select Memory Viewer icon, press ▼ button or OK button to enter the submenu.
2. Press ▲▼ button to point to required item, press ▶ button or OK button to confirm your selection.
3. Press ▲▼ button to point to required item, press OK button to confirm your selection.



Set slide

Start the slide show.

Slide transition effect

Set the slide transition effect when the slide show image is switching.

Slide down ... Switch the image from the top to the bottom.

Slide right ....Switch the image from the left to the right.

Sort order

Set the sort order of the slide show.

Extend Order ..... Sort files or folders in extended order.

Size Order ..... Sort files or folders in amount of data order.

Time Order ..... Sort files or folders in stored time order.

Name Order ..... Sort files or folders in name order.

✓ *Note:*

- *The "Memory Viewer" menu is available when input the "Memory Viewer" signal.*
- *The menu except for "Set Slide" which setting have been changed is not yet effective before the "Apply" is not executed.*

Rotate

Set the rotate direction of image.

No Rotate ..... Rotate is disabled.

270 Degrees ..... Rotate 270 degrees in anti-clockwise direction.

180 Degrees ..... Rotate 180 degrees.

90 Degrees ..... Rotate 90 degrees in anticlockwise direction.

Best fit

Set the image whether or not to fit with the projected screen.

On ..... Display the image to fit with the aspect of the projected screen.

Off ..... Display in the normal pixels of the image. Set whether or not to play the slide show repeatly.

OSD setting-Memory Viewer

Repeat

Set whether or not to play the slide show repeatly.

On ..... Repeat broadcast the first file after the last file is broadcasted.

Off ..... Return to the thumbnail display after the last file is broadcasted.

Apply

Execute the setting in slide show.

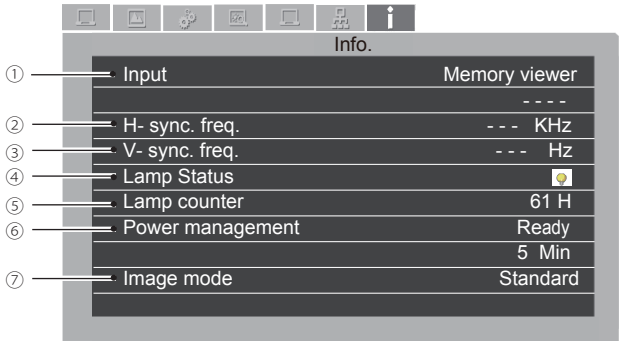
The projected content of Memory Viewer function

Memory Viewer function supports the following picture files.

	Extension name	Format	Description
Picture	Jpg / jpeg	Baseline encoder 24 Progressive RGB 24 bit	Max resolution: 10000x10000 Max resolution: Panel Resolution
	bmp	1.4.8 bit palette-based RGB 24,32 bit	Max resolution: 1280x800
	png	24, 48-bit True Color	-24-Bit color palette space Max resolution: 1024x768
	gif	1,4,8-bit palette-based	Max resolution: 800x600

OSD setting-Info.

Select this function to detect projection image signal and operation status of your projector.
Press ◀▶ button to select the Info. icon. The Information menu displays.
See below for messages shown in the menu.



① Input	Display selected input and current signal format.
② H- sync. Freq.	Display horizontal frequency of input signal in unit of KHz. Show “---KHz” when no signals are in existence.
③ V- sync. Freq.	Display vertical frequency of input signal in unit of Hz. Show “---Hz” when no signals are in existence. The frequency (Hz) doubles in case of progressive display.
④ Lamp status	Display selected lamp mode.
⑤ Lamp counter	Display time of the lamp in service.
⑥ Power management	Display selected power management mode.
⑦ Image mode	Display selected image mode.

Description on using useful function

Description on network control operation

Network control operation

Function: This function is designed to remote control computer in the same LAN.

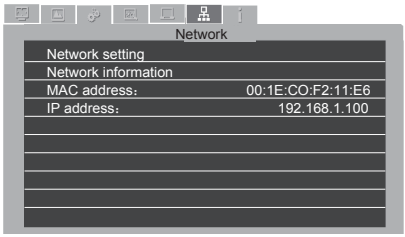
Preparation

1 Required equipment: Projector, connection, network cable
2 Connection:
Connect your projector to a router or switch in the LAN with normal or jumper network cable. In case a normal network cable failed to connect successfully, use a jumper cable instead.
3 Turn on the computer. The LAN port and computer port of your projector flashes after it is powered on.

Operation steps

1 Power on your projector.
2 Acquire the IP address, with DHCP set to on and auto IP allocation set to On. (You may set DHCP to Off and set up IP address manually if you are somehow familiar with networking.)
3 Enter the network setup menu

(1) Press MENU button on remote controller or top of the control panel, press ▲▼ button to select network icon.

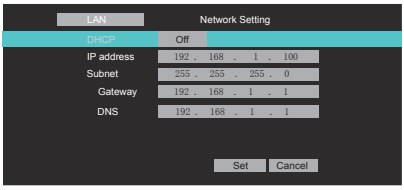


(2) Press ENTER button or ▶ button and the network menu displays.

(3) Press ▲▼ button select network settings and press ENTER to confirm.

(4) Press ▲▼ button to set DHCP On and press OK button to confirm.

(5) Press ▲▼ button to select Set, press OK button to wait until the “Please wait..” message disappears.



Description on network control operation

Enter through a Web browser

1) Start the computer's Web browser.
2) Enter the IP address on the projector set in the URL input field of the Web browser.
3) Click [Login], and enter the password in the [Password].
   "* "the factory default setting is the user name: "admin" (administrator privileges), password: "admin".

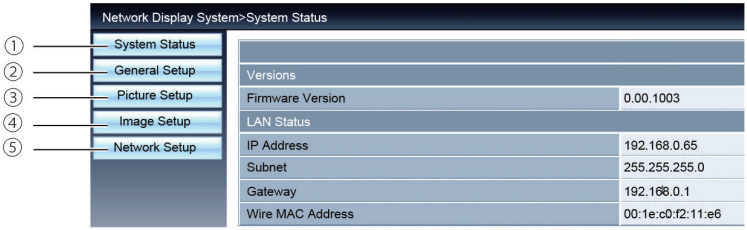
4) Click the [Login]

NOTE:
Users can click on the top right corner of the Web browser screen to select the display language.

Do not start multiple Web browser settings or control. Do not use more than one computer set or control the projector.

Please change your password.

If the network does not appear on screen controls, please consult your network administrator. Description of each option

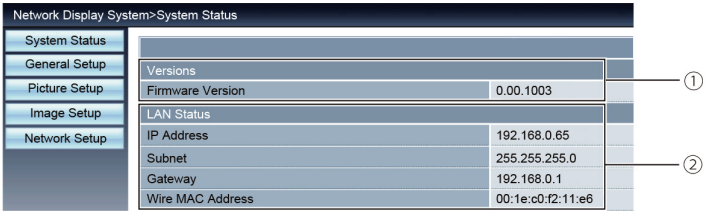


① System Status: Click this option to display the [System status] page.
② General Setup: Click this option to display the [General Setup] page.
③ Picture Setup: Click this option to display the [Picture Setup] page.
④ Image Setup: Click this option to display the [Image Setup] page.
⑤ Network Setup: Click this option to display [Network Setup] page.

[System Status] page

Display the mode of the projector for the following items.

Description on network control operation

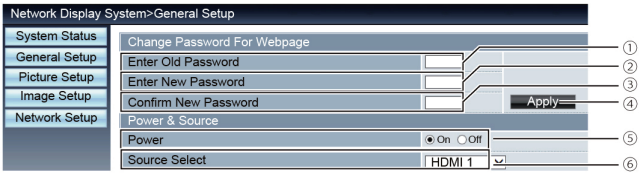


① Versions: Displays the firmware version of the projector.

② LAN Status: Displays the connection status of LAN.

[General Setup] page

Display [Set Webpage Password] page.



① Enter old password: Enter the password for the configuration.

② Enter new password: Enter a new password.

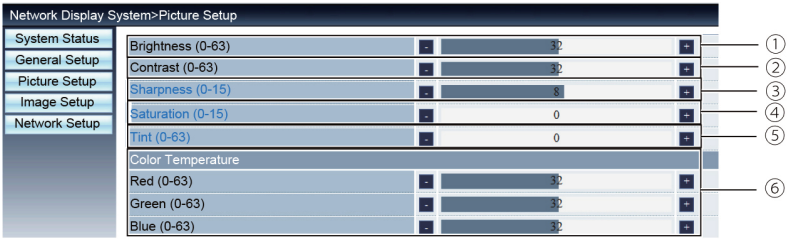
③ Confirm new password: Re-enter the new password required to confirm.

④ Power & Source: Update settings.

⑤ Power: Switch on the power of the projector on / off.

⑥ Source select: Switch the input source of the projector.

[Picture Setup] page



① Brightness: Adjust the brightness of the projected image.

② Contrast: Adjust the contrast of the projected image.

③Sharpness: Adjust the sharpness of the projected image.

④ Saturation:Adjusts color saturation of the projected image.

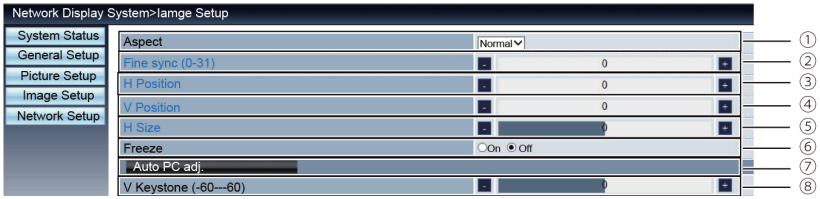
⑤ Tint: Adjusts the tint of the projected image.

⑥ Color Temperature: Adjust the color temperature of the projected image.

Description on network control operation

[Image Setup] page

Display [Set Webpage Password] page.



① Aspect: Switch the aspect of the projected image.

② Fine sync: Adjust the phase of the projected image.

③ H Position: Adjust the horizontal position of the projected image.

④ V Position: Adjust the vertical position of the projected image.

⑤ H Size: Adjust the horizontal dimension of the projected image.

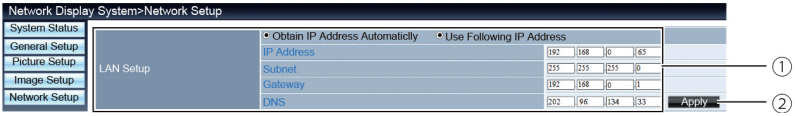
⑥ Freeze: Select the function to switch the screen freeze on and off.

⑦ Auto PC adj.: Select the function to adjust the PC automaticlly.

⑧ V Keystone: Select the function to correct the distortion in the vertical direction.

[Network Setup] page

Display the mode of the projector for the following items.



① Network Setup

If you want to enable the DHCP client, select the IP address automatically.

IP address:

Please enter the IP address when you do not use the DHCP server.

Subnet :

Please enter a subnet shield,when you do not use the DHCP server .

Gateway:

Please enter the gateway ,when you do not use the DHCP server.

DNS:

Please enter the DNS address, when you do not use the DHCP server.

Available characters : digital (0 - 9), a period (.)

(For example: 192.168.0.253)

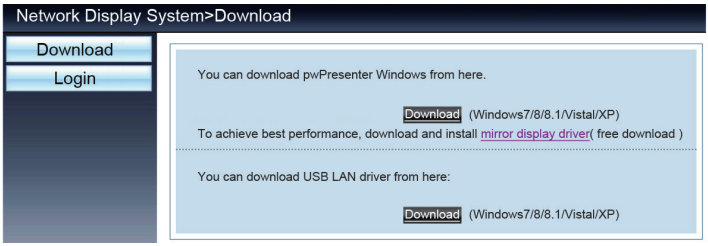
② Application

Update settings.

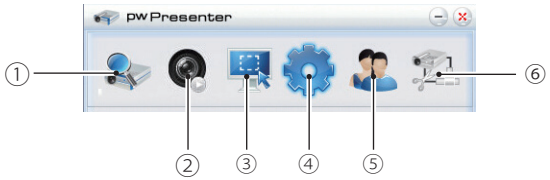
Description on network control operation

5) PwPresenter Software: when the input signal source is chosen as the network, the network will be used to project computer image.

After entering the IP address of the projector in the web page to the main interface, click "Download", and download the corresponding PwPresenter software with your projector.



6 Click the icon to enter into pwPresenter software.

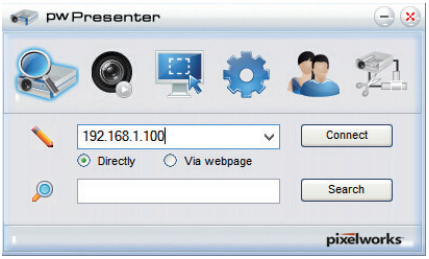


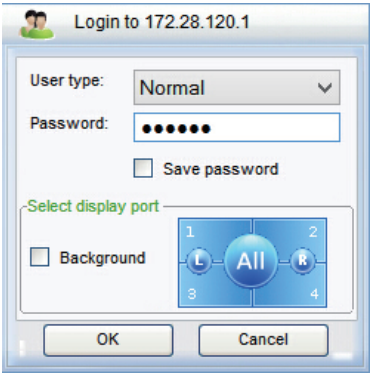
① Search and connect projector

Click to enter to search, select the needed projector and connect it . Set the same IP address (for example: 192.168.1.100) as the projector in pwPresenter software ,and set user type as "average user", and the password is "admin".

✓**NOTE**

• Before using the pwPresenter search, please switch to network signal source.





② Play or stop

Play or stop projec the selected pictures.

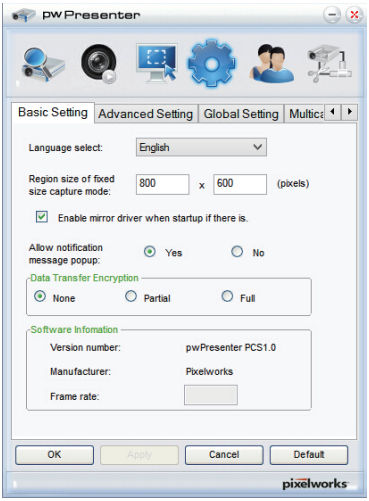
③ Select screenshot mode .

Select screenshot mode from the "full range", "fixed size" or "variable size" and

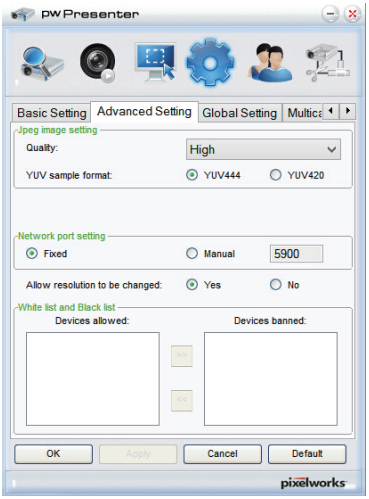
Description on network control operation

④ Parameter Setting

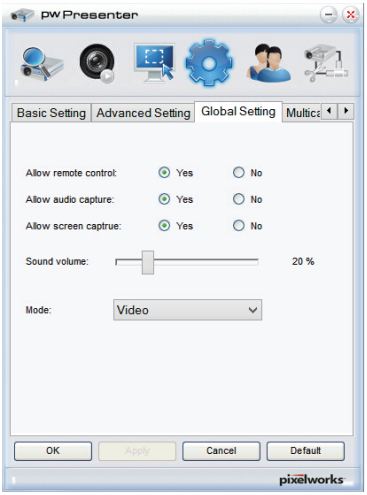
Basic setting: Language, Capture region size etc.



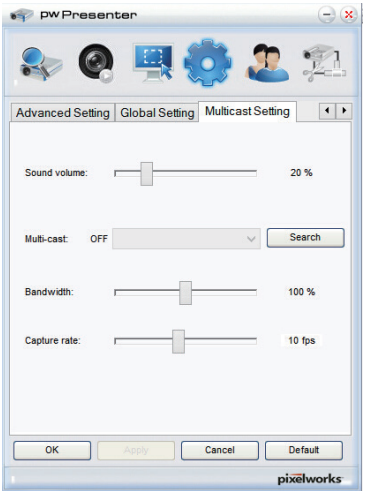
Advanced setting: JPEG image setting, Network port setting, White list and Black list etc.



Global setting: Remote control setting, Sound capture and Screen capture, etc.

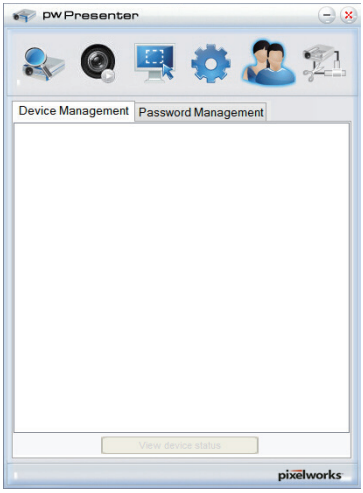


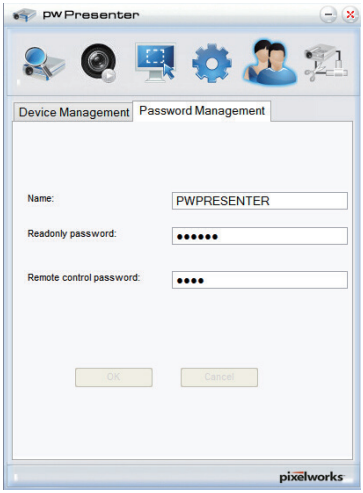
Multicast setting: Volume setting, Bandwidth, Sampling frequency, etc.



Description on network control operation

⑤ Network Projector Management
Set pwPresenter network user name and password etc.





⑥ Cut off projector connection.

Description on using USB display function

The USB Display function is used to project the image from the computer which is connected to Micro USB(DISPLAY) terminal of the projector by a USB converting cable.

■ When using Windows

Windows operation environment

OS	Windows Vista 32 bit, Windows 7 32/64 bit, Windows 8 32/64 bit
CPU	Intel Core 2 Duo 2.0 GHz or faster, the compatible processor
Amount of memory	256 MB or more (Recommended : 512 MB or more)
Hard-disk free space	20 MB or more
Display	Resolution 640 x 480 or more, 1 600 x 1 200 or less

● There is no guarantee for all computers that meet the above conditions will operate properly.

Projecting the USB Display

1. Connect the Micro USB terminal of the projector to a computer with a USB converting cable.
2. Press the INPUT button on the remote control or switch the input source to USB Display.

- Press the INPUT button on the control panel and select the input source in the Input menu.
- The startup screen will be displayed automatically due to the driver which is built-in the projector, and excutes the installation according to the instructions of the screen. The displaying of the auto installation screen depends on the setting of computer. At this time, please select "Run autorun.exe". Please double-click "autorun.exe" in the folder of the USB Display when the automatical startup is disabled.
- The image on the computer screen is projected.

3. Click the driver icon in the task bar of computer and select one item in Pop-up menu.

- Pop-up menu is only displayed in English.
- The item which is displayed in gray is unavailable.

Active audio/ Disable audio	Set whether to output the audio from the computer.
Play video/ Pause video	Switch between play and pause the image.
Start/Stop	Set whether to display the image from the computer.
Exit	Exit USB Display.

✓*Note:*

- *The driver is not installed in your computer, and it will be removed from the computer when disconnecting the USB cable.*
- *It will take a while when you want to project the computer screen.*
- *Connect a USB cable directly to the USB connector of a computer. It will not work when connecting through a USB hub.*

Termination of the USB display

When terminate the USB display, remove the USB cable directly. There is no need to follow "Remove hardware safely" when a USB cable is disconnected.

Description on using USB display function

■ When using Mac OS

Mac OS operating environment

OS	Mac OS X 10.5, 10.6, 10.7
CPU	Power PC G4 1GHz or faster
Amount of memory	512 MB or more
Hard-disk free space	20 MB or more
Display	Resolution 640 x 480 or more, 1 600 x 1 200 or less

● There is no guarantee for all computers that meet the above conditions will operate properly.

Projecting the USB Display

1. Connect the Micro USB terminal of the projector to a computer with a USB converting cable.
2. Press the INPUT button on the remote control or switch the input source to USB Display.

   ● Press the INPUT button on the control panel and select the input source in the Input menu.
   ● The image on the computer screen is projected.

3. Double-click "Monitor.app" in the virtual disk that has been mounted.

4. Right-click the driver icon in the dock of computer and select one item in Pop-up menu.

   ● Pop-up menu is only displayed in English.
   ● The item which is displayed in gray is unavailable.

Active audio/ Disable audio	Set whether to output the audio from the computer.
Play video/ Pause video	Switch between playing and pausing the image.
Start/Stop	Set whether to display the image from the computer.
Quit	Terminate the USB Display.

✓*Note:*

- It will take a while when you want to project the computer screen.

- Connect a USB cable directly to the USB connector of a computer. It will not work when connecting through a USB hub.

Termination of the USB display

When terminate the USB display, remove the USB cable directly.

Maintenance

This chapter describes the regular maintenance procedure of your projector to ensure its optimal operation status for long.

Regular maintenance

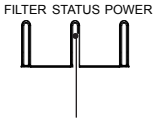
Status light indicator

The status light indicator shows status of projector protection function. Check status and POWER light indicator for good maintenance operation.

Note:
Unplug the AC power cord in case of any abnormality as it may lead to fire or electric shock.

The projector turns off and the status light indicator flashes red.

Your projector powers off automatically to protect components within it when it is overheated. The POWER indicator flashes when your projector is cooling down. Press the STANDBY button to power your projector on again when it is cooled down to normal operation temperature.



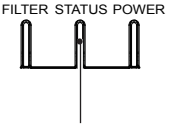
The status indicator flashing red

✓ Note:
The POWER indicator stops flashing when your projector's internal temperature cooled down to normal and it is powered on again.

Check the following:
– Is adequate clearance provided for your projector's ventilation? Check the installation status and any air outlet block.
– Is your projector installed at location close to outlet of air conditioning equipment? Keep your projector away from air outlet of air conditioning equipment.
– Is the filter in clean condition? Please clean the filter regularly.

Your projector powers off and the status light indicator turns red.

The STATUS indicator turns red and your projector powers off to protect its internal components whenever an abnormality is detected. Unplug the AC power cord and connect again. Restart your projector and run checkup routine. If the problem persists, unplug the AC power cord and call your service center for checkup and maintenance.



The status indicator turns red

Regular maintenance

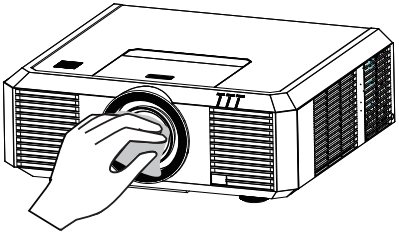
Clean your projector when it is contaminated by foreign matter or its display effects are getting worse.

Note:
Unplug the AC power cord before any cleaning operation.

Clean the lens

Wipe the lens with clean cloth dampened with non-abrasive camera lens cleaner or clean it with lens cleaning paper or air blower.

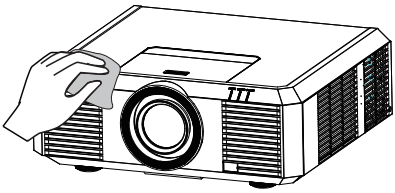
Do not over apply cleaner to the lens. Abrasive cleaner, solution, or other rough chemical may scratch the lens.



Clean casing of your projector

Wipe the casing surface with clean and soft cloth. Gently wipe the casing with clean and soft cloth dampened with small amount of neutral detergent to remove heavy dirt. Do not over apply cleaner to the casing. Abrasive cleaner, solution, or other rough chemical may scratch the casing surface.

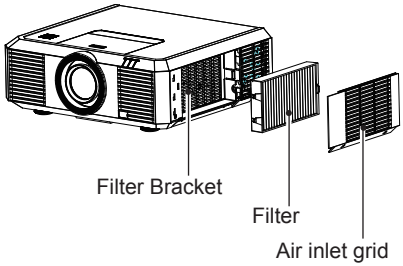
Place your projector in proper container after use to protect it from dirt and dust and being scratched.



Clear the filter

The filter is designed to keep dust from entering in your projector, which may lead to dusts accumulated on surface of internal components. Clogged filter may reduce cooling fan effects, which, in turn, will overheat your projector and shorten its life cycle. Clean the filter immediately whenever the Filter Warning icon displays.
Please follow these steps to clean your filter:

1 Power off your projector and unplug from AC power source.
2 Remove the filter.
3 Gently clean it with a brush.
4 Replace the filter. Make sure it has been fully inserted.

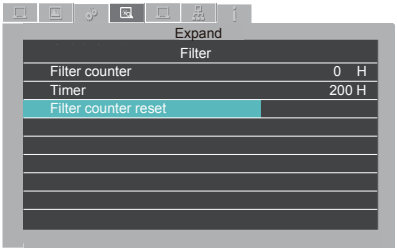


Note:
Do not operate your projector after its filter is removed. Dust may attach to the lens assembly and deteriorate image quality.
Do not insert any small object in the air outlet. It may fail your projector.

Regular maintenance

Reset the filter counter

1 Press MENU button and the OSD displays. Press ◀▶ button to select Setup menu, press ▶ button or OK.
2 Press ▲▼ button to select "Filter Counter", press ▶ button or OK. Press ▲▼ button to select “Reset the filter counter” and press OK. The “Reset filter counter?” message displays. Select Yes to proceed.
3 In another pop-up dialog box, select Yes to reset the filter counter.



■ Recommendations

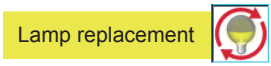
Please do not use your projector at place of dust and smoke. This may affects image quality. Using your projector in place of dust and smoke may lead to piling dusts on lens, LCD panel, and lens components within it. In case like this, call your dealer or service center for correct cleaning.

Note:
Reset the filter counter after its cleaning or replacement.

Lamp replacement

The lamp replacement icon displays when its use life dues. Please replace it with a new one of the same model immediately.

The lamp replacement icon



Note:
Do not replace the lamp after it went dark as it may be broken. Always assume the lamp of a ceiling mount your projector is broken when replacing it. Stand beside the lamp cover instead of below it. Remove the lamp cover gently. Small piece of glass debris may fall off when opening the lamp cover. Consult with a doctor immediately if there is any glass debris fell in your eyes or mouth.

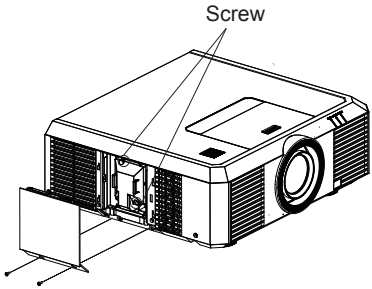
Note:
Let your projector cool for at least 45 minutes before opening the lamp cover, as temperature within your projector is high.

Note:
Replace the lamp with a new one of the same model just in case. Do not drop or touch the lamp! It may break and lead to personal injuries.

Regular maintenance

Follow steps below to replace the lamp:

1. Power off your projector and unplug the AC power cord. Let it cool down for at least 45 minutes.
2. Open the lamp cover after removing screws holding the cover.
3. Loose all screws fixing the lamp. Remove the lamp by holding its handle.
4. Replace with a new lamp and tighten all screws. Make sure the lamp has been installed correctly. Close the lamp cover and tighten the screw.
5. Connect your projector to an AC power source and power it on.



Replacement lamp can be ordered through your dealer. When ordering a projection lamp, give the following information to the dealer.

Replacement Lamp Model No.: 23040051

Precautions on lamp operation

Your projector employs high voltage lamp, which requires careful and correct operation. Fail to do so may lead to accidents, personal injuries, or fire.

- Life cycle of lamp varies with environment it is in service. Life cycle of lamp varies. That is, some lamps may last longer than their counterparts.
- If your projector prompts you to replace lamp (by showing a lamp replacing icon) then replace it with a new one after powering it off and it is fully cooled down. (Please replace lamp by strictly following steps given in this manual.)
  If you keep on using the lamp after being prompted to replace it then you are exposed to greater risks of lamp explosion.
- Lamp may explode due to external impact and shock. Risks of explosion vary with projector and use environment and status of the lamp.

In case of lamp explosion, take the following safety measures:
Disconnect your projector from power source immediately in case of lamp explosion. Call authorized service center to inspect your projector and replace lamp. Make a thorough inspection to ensure every piece of debris after explosion has been removed. Remove every piece of debris after explosion. No one else may inspect the internal of your projector except those authorized and well trained technician who also are familiar with its maintenance. Or we shall not be held liable for the consequences.

Appendix

Appendix

Troubleshooting

Check the following before calling your dealer or service center:

Troubleshooting	Solution
Power on failure	– Plug the power cord of your projector in an AC socket. – Make sure the POWER light indicator turns red. – Restart your projector until the POWER light indicator turns red. It indicates your projector is ready for power on again. – Check the lamp. – Disable the Key Lock function of your projector.
Logo screen display failure	– Make sure the Off and Countdown Off is selected in the Display function.
The Logo screen differs from the standard settings.	– Make sure you did not select User or Off in the Logo Screen.
Input signal switch (or do not switch) automatically.	– Make sure you have correctly set up the Input Search function.
Press INPUT button during power on and a non-input mode icon displays.	– This is a filter or lamp replacement alerts.
A non-input or lamp mode icon displays.	– This is a filter replacement alerts.
Image looks fuzzy	– Adjust focus of your projector. – Provide proper projection distance. – The projection lens requires cleaning. – Moving your projector from a colder environment to a hotter one may result in condensing on the lens. If this is the case, wait until the condensing water evaporated before powering on your projector.
Image mirror reflected Image turns upside down	– Check the Ceiling and Rear settings. – Check the Ceiling settings.
Image looks dim	– Check for contrast and brightness settings. – Check for correct image mode settings – Check for lamp brightness settings. – Check for lamp replacement alert. The lamp replacement alert suggests the lamp is reaching the end of its life cycle. Please replace it with a new one of the same model immediately.

No image displays	– Check for the connection between your projector and computer or image equipment. – Check for correct input signal from computer. Connection with certain notebook computer may mandate changes to its display output settings. See the user manual included with the computer for details on settings. – It takes about 30 seconds for your projector to show the first image. – Check for mode of signal, color system, image system, or computer system. – Make sure the ambient temperature is within given range (41˚F–95˚F; 5˚C–35˚C). – Image does not display in BLANK mode. The BLANK button or other buttons on the remote controller.
Abnormal color	– Check for mode of signal, color system, image system, or computer system. – Make sure Blackboard mode is not selected in Image Select.
Some operations are invisible	– Check the display function.
Auto PC Adjusting function failure	– Check input signal. Auto PC Adjusting function in unavailable in 480p, 576p, 720p, 480i, 576i, 1080i or 1080p mode.
Settings do not save after power off	– Make sure you have selected Store after settings adjustment. Certain settings do not keep without selecting Store.
Power management failure	– In case of Freeze or Blank operation, the power management function does not work.
Auto Setting does not work	– Make sure it is not set to "Off" in each setup menu. – Make sure "On" is not set in Ceiling function.
Image distorted or disappeared	– Check and revise the PC Adj. menu or Screen menu.
A password prompt displays after power on	– You have set up the Logo PIN Code lock function
Remote controller does not work	– Check the battery. – Make sure there is no obstacles stand in between your projector and the remote controller. – Make sure the remote controller is not too far away from your projector. The maximum operation range is 5m. – Make sure the remote controller and your projector are paired with the same remote control codes. – Disable the key lock of the remote controller in the Setup menu.
Light indicator turns on or flashes	– Check status of your projector according to the light indicator status.

Appendix

Exclamation mark displays	– Invalid operation, please operate your projector correctly.
Control panel does not function	– Disable the key lock on control panel function in the Safety option of the Setup menu.
Cannot remove the Logo Select password, Key Lock, and PIN Code lock	– Please call your dealer or service center.

– Make sure your projector is correctly connected to external equipment.
– Make sure all devices have plugged in an AC power source and have been powered on.
– If your projector fails to project image of the connected computer, restart the computer.

Warning:
Your projector employs high voltage power for operation. Do not open its casing.
If the problem persists, call your dealer or service center. Along with model number of your projector and a description to your problem. You will be advised on getting our services.

Appendix

Light indicator status

Check light indicator to learn status of your projector.

Light indicator			Status of your projector
POWER	STATUS	FILTER	
			Your projector is in Off status (without AC power supply).
			Your projector is in standby status. Press Standby button to turn it on.
			Your projector is in normal status.
			It is ready for standby or the lamp is cooling. You may power on your projector only after the lamp is fully cooled and the POWER light indicator stops flashing.
			Your projector is in Ready mode.
			Your projector detects abnormal situation and cannot power on. Unplug the AC power cord and connect it again before powering on your projector. If it powers off again, please unplug the cord and call your dealer or service center for maintenance or inspection. Do not let it continue operating as this may lead to electric shock or fire.
			Your projector detects lamp abnormality and cools down.
			Your projector detects lamp abnormality and switches into standby mode.
			Your projector cannot power on, as its internal temperature is too high. You may power it on after it is fully cooled, temperature backs to normal, and the POWER light indicator turns red.
			You may power is fully cooled with temperature backs to normal.
			The lamp cover is not fully closed.
			The filter requires cleaning

.....Green

.....Red

.....Turns on

.....Off

.....Flashing green

.....Flashing red

.....Flashing

Appendix

Compatible computer screen

Your projector is designed to accept every analog computer signal below Dot Clock 160MHz and digital computer signal below Dot Clock 140MHz.
See table below for details on resolution and relevant frequency.

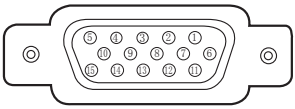
Input	Signal format	Resolution	Frequency (Hz)
PC	VGA	640x480	60
		640x480	67
		640x480	72
		640x480	75
		640x480	85
	SVGA	800x600	56
		800x600	60
		800x600	72
		800x600	75
		800x600	85
	MAC 16	832x624	75
	XGA	1024x768	60
		1024x768	70
		1024x768	75
		1024x768	85
	MXGA	1152x864	70
		1152x864	75
	WXGA	1280x768	60
		1280x768	75
		1280x768	85
		1280x800	50
		1280x800	60
		1280x800	75
		1280x800	85
		1366x768	50
		1366x768	60
	MSXGA	1280x960	60
	SXGA	1280x1024	60
		1280x1024	72
		1280x1024	75
		1280x1024	85
	SXGA+	1400x900	60
		1400x1050	60
		1400x1050	75
	UXGA	1600x1200	60
	WSXGA+	1600x900	50
		1600x900	60
		1680x1050	60
	WUXGA	1920X1200	60
Component	480i	720x480i	60
	576i	720x576i	50
	480p	720x480p	60
	576p	720x576p	50
	720p	1280x720p	50
	720p	1280x720p	60
	1080i	1920x1080i	50
	1080i	1920X1080i	60
	1080p	1920x1080p	50
	1080p	1920X1080p	60

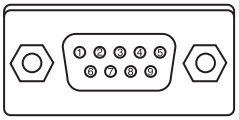
Input	Signal format	Resolution	Frequency (Hz)
HDMI	VGA	640x480	60
		640x480	67
		640x480	72
		640x480	75
		640x480	85
	SVGA	800x600	56
		800x600	60
		800x600	72
		800x600	75
		800x600	85
	MAC 16	832x624	75
	XGA	1024x768	60
		1024x768	70
		1024x768	75
		1024x768	85
	MXGA	1152x864	70
		1152x864	75
	WXGA	1280x768	60
		1280x768	75
		1280x768	85
		1280x800	50
		1280x800	60
		1280x800	75
		1280x800	85
		1366x768	50
		1366x768	60
	MSXGA	1280x960	60
	SXGA	1280x1024	60
		1280x1024	72
		1280x1024	75
		1280x1024	85
	SXGA+	1400x900	60
		1400x1050	60
		1400x1050	75
	UXGA	1600x1200	60
	WSXGA+	1600x900	50
		1600x900	60
		1680x1050	60
	WUXGA	1920X1200	60
Video/S-video	NTSC	NTSC	-
	PAL	PAL	-
	SECAM	SECAM	-
	NTSC4.43	NTSC4.43	-
	PAL-60	PAL-60	-
	PAL-N	PAL-N	-
	PAL-M	PAL-M	-

✓ Note:
Changes to this manual may be made without notice.

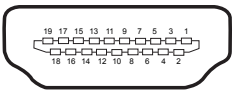
Appendix

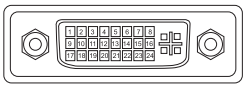
Terminal configuration

VGA IN / MONITOR OUT Terminal (D-sub 15)				
	1	Red (Input/output)	9	-----
	2	Green(Input/output)	10	Grounding (field synchronizing)
	3	Blue(Input/output)	11	Grounding
	4	-----	12	DDC data
	5	Grounding (line synchronizing)	13	Horizontal synchronizing (compound sync.)input/output
	6	Grounding(red)	14	Vertical synchronizing input/ output
	7	Grounding(green)	15	DDC Clock
	8	Grounding(blue)		

SERIAL Terminal(D-SUB 9)				
	1	-----	6	-----
	2	RXD	7	-----
	3	TXD	8	-----
	4	-----	9	-----
	5	GND		

LAN Terminal				
	1	TX +	5	-----
	2	TX -	6	-----
	3	-----	7	RX +
	4	-----	8	RX -

HDMI Terminal (HDMI Type A 19)				
	1	TMDS Data2+	11	TMDS Clock Shield
	2	TMDS Date2 Shield	12	TMDS Clock-
	3	TMDS Date2-	13	CEC
	4	TMDS Date1+	14	Reserved (N.C. on device)
	5	TMDS Date1 Shield	15	SCL
	6	TMDS Date1-	16	SDA
	7	TMDS Date0+	17	DDC/CEC Ground
	8	TMDS Date0 Shield	18	+5V Power
	9	TMDS Date0-	19	Hot Plug Detect
	10	TMDS Clock+		

DVI Terminal (DVI-D,24)				
	1	TMDS Date 2-	13	-----
	2	TMDS Date 2+	14	+5V Power
	3	TMDS Date 2 Shield	15	Ground (for +5V)
	4	-----	16	Hot Plug Detect
	5	-----	17	TMDS Data 0-
	6	DDC Clock	18	TMDS Data 0+
	7	DDC Date	19	TMDS Date 0 Shield
	8	-----	20	-----
	9	TMDS Date 1-	21	-----
	10	TMDS Date 1+	22	TMDS Clock Shield
	11	TMDS Date 1 Shield	23	TMDS Clock +
	12	-----	24	TMDS Clock -

Appendix

Menu Tree

Menu	Submenu	Selection / Value	Selection / Value
Display	Auto PC adj.(VGA only)		
	Fine sync(VGA only)	0-31	
	H Position(VGA only)	-5 - 5	
	V Position(VGA only)	-5 - 2	
	H. Size(VGA only)	-15 - 15	
	Aspect	Normal / Wide	
	Project way	Front	
		Rear	
		Ceiling/Front	
		Ceiling/Rear	
		Auto ceiling/Front	
		Auto ceiling/Rear	
	Menu position	Upper left	
		Upper right	
		Center	
		Lower right	
		Lower left	
	Background display	Blue / Black	
	System		
Color adjust	Image mode	Cinema	
		Blackboard(Green)	
		Colorboard	
		User Image	
		Dynamic	
		Standard	
	Contrast	0-63	
	Brightness	0-63	
	Color temp.	High	
		Mid	
		Low	
	Red	0-63	
	Green	0-63	
	Blue	0-63	
	Sharpness	0-15	
Setting	On start	On / Off	
	Standby mode	Normal, Eco	
	High land	On / Off	
	Lamp control	Normal, Eco	
	Cooling fast	Normal, 60 Sec	
	Closed caption(Video ONLY)	Off	
		CC1	
		CC2	
		CC3	
		CC4	
	Key lock		
	Iris	On / Off	
	Sound	Volume	0-25
		Mute	On / Off
	HDMI setup(HDMI ONLY)	Image	0-1023 / 64-940
		Sound	HDMI / Computer

Appendix

Expand	Language	26 languages provided	
	Auto setup	Input Search	On / Off
		Auto PC adj.	On / Off
		Auto Keyston	Auto / Off / Manual
	Keystone	Keystone	Store / Reset
		V Keystone	
		Reset value	
	Logo	Logo select	Off / Default
		Logo PIN code lock	
		Logo PIN code change	
	Security	PIN code lock	
		PIN code change	
	Power management	Ready	
		Shut down	
		Off	
		Timer	1-30 Min
		Ready countdown	0-30 Min
	Filter counter	Filter counter	
		Timer	Off / 100H / 200H / 300H
		Filter counter reset	
	Test pattern		
	Remote control	Remote Control	Code 0 - Code 9
		RC sensor	Both / Front / Back
	Factory default		
Memory Viewer	Set slide		
	Slide transition effect	Slide down	
		Slide right	
	Sort order	Extend order	
		Size order	
		Time order	
		Name order	
	Rotate	No rotate	
		270 Degree	
		180 Degree	
		90 Degree	
	Best fit	On/Off	
	Repeat	On/Off	
	Apply		
Network	Network setting		
	Network information		
	MAC address:		
	IP address:		
Info.	Input		
	H-sync freq.		
	V-sync freq.		
	Lamp status		
	Lamp counter		
	Power management		
	Image mode		

Appendix

Technical Specifications

Mechanical properties	
Dimensions (W×H×D)	481mmx179mmx418mm
Net Weight	9.98Kg
Adjustable foot	5˚
LCD resolution	
LCD system	0.76" TFT, active matrix, 3-panel
LCD resolution	1920X1200
Compatible signals	
Color standard	PAL, SECAM, NTSC, NTSC4.43, PAL-M and PAL-N
HDTV signal	480i, 480p, 576i, 576p, 720p, 1080p and 1080i
Scanning frequency	Horizontal frequency: 15–100 KHz; Vertical frequency: 48–85 Hz
Optical elements	
Image size (diagonal lines)	40"-300", adjustable
Projection distance	Wide :1.212m ~9.413m
(with Standard Lens)	Tele : 2.222m~17.044m
Lens (Standard Lens)	F = 1.8~2.58/ f =23.98~43.18mm; Zoom times: 1.8
Lamp power	350W (Normal)/264W(ECO)
Contrast Ratio	2500:1 with IRIS @ lens shift 1:1
Aspect Ratio	16:10 (Standard) / 4:3 (Compatible)
Terminal	
S-Video	S-Video Mini Din 4pin x1
BNC/VIDEO	BNC x 5 (G or Video/Y, B or Pb/Cb, R or Pr/Cr, HV and V)
VGA IN	Mini D-sub 15 pin x1
MONITOR OUT	Mini D-sub 15 pin x1
DVI	Digital (DVI-D) 24 pin x1
HDMI	HDMI A type 19 pin x2
USB connector	USB-A x1, Micro-USB x1
AUDIO IN	3.5mm Mini Type Stereo x3
Wired remote control input terminal/	Mini Jack, 3.5mm x1
Wired remote control output terminal	Mini Jack, 3.5mm x1
CONTROL terminal	D-sub 9 pin x1
LAN terminal	100 Base-TX (100Mbps)/10 Base-T (10Mbps), RJ45
Power	
Voltage and power consumption	AC 100–240 V (Max 5.4A), 50/60 Hz
Fuse	10A/250V
Internal speaker	10W RMS 8ohm, *1
Operating Environment	
Operating temperature	41˚F-104˚F (5˚C-40˚C)
Storage Temperature	14˚F-140˚F (-10˚C-60˚C)
High land	2000 m
Remote control	
Battery	AA or LR6 1.5V ALKALINE TYPE x 2
Operating Range	16.4' (5 m)/±30
Dimensions	48mm (W) x 26mm (H) x 160mm (D)
Net Weight	67g (including batteries)
Accessories	
Owner's Manual(CD)	
Quick Start Guide	
Remote control and batteries	
AC power cord (US Type x 1 / Euro Type x 1)	
VGA cable	

- *The aforesaid specification is subject to change without prior notice.*
- *Liquid crystal panel is made on the basis of high standard, where 99.99% of the pixels are effective. Due to the nature of the liquid crystal panel, a fraction of the pixels (0.01% or less) may be ineffective.*

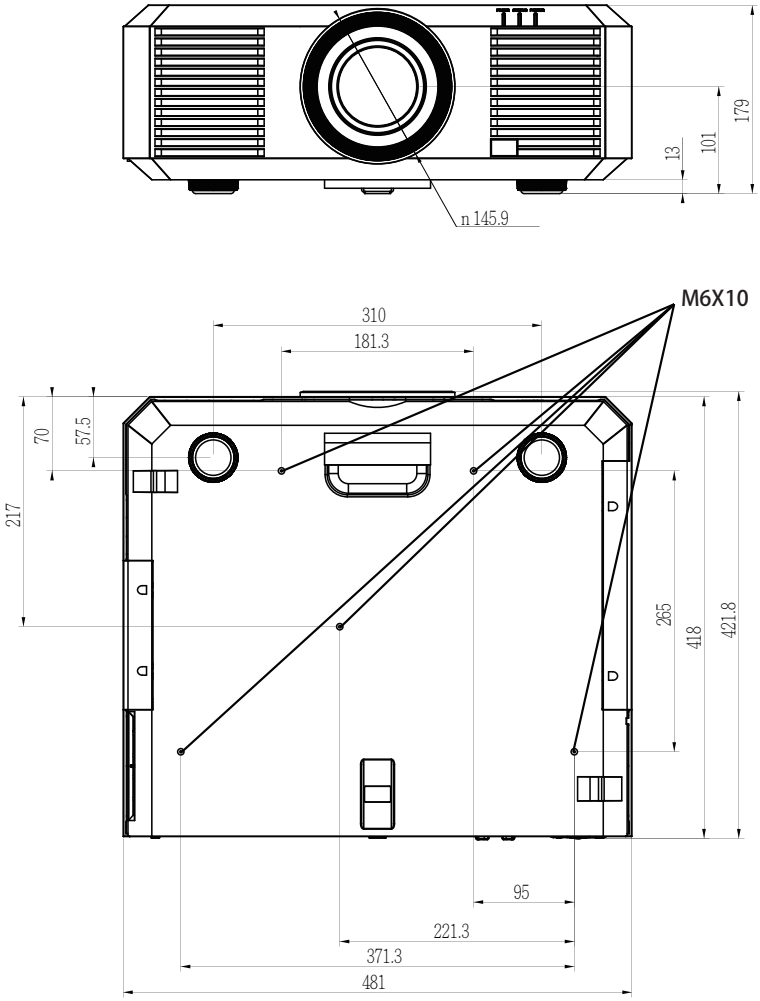
Appendix

Type	Short Lens	Short Zoom Lens	Standard Lens	Long Zoom Lens	Long Zoom Lens
Model Number	AH-E22010	AH-E22020	AH-E21010	AH-E23010	AH-E23020
Zoom	Fixed	x1.3 Power zoom	x1.8 Power zoom	x1.35 Power zoom	x1.36 Power zoom
Iris (F)	1.8	2.0 - 2.6	1.8 - 2.6	2.2 - 2.8	2.2 - 2.8
Focal Length (f)	12.414	19.3 - 24.9	24.0 - 43.2	45.6 - 73.8	70.3 - 119.5
Throw ratio	0.8:1	1.2 - 1.5:1	1.5 - 2.7:1	2.6 - 4.4:1	4.3 - 7.3:1

Dimensions

Unit: mm

↘Screw Holes for Ceiling Mount
Screw: M6
Depth: 10.0



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