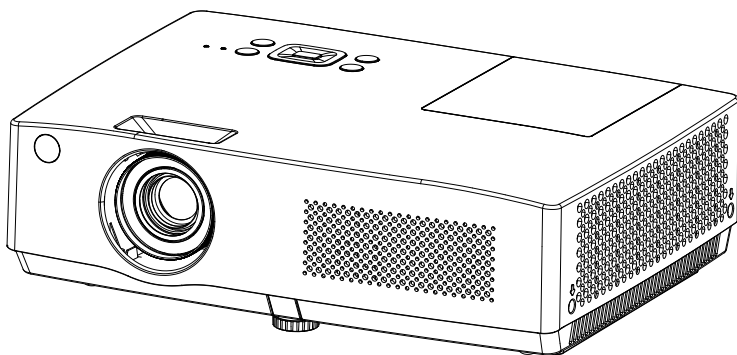




LCD Projector

**Model BD430
BD450
BD460
BD470**



Owner's Manual

P/N: 4100411501 Rev. B

www.lg.com

Safety Instructions

Please take note of the safety instructions to prevent any potential accident or misuse of the projector.

**WARNING/CAUTION**
AVERTISSEMENT
RISK OF ELECTRIC SHOCK, DO NOT OPEN.
RISQUE DE CHOC ÉLECTRIQUE, NE PAS OUVRIR.

 Warning: The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

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

WARNING/CAUTION

- TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

Read these instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

Indoor Installation

WARNING

- Do not place the projector in direct sunlight or near heat sources such as radiators, fires, stoves, etc.
 - This may cause a fire.
- Do not place flammable materials such as aerosols near the projector.
 - This may cause a fire.
- Do not allow your children to cling to or climb up to the projector.
 - The projector may fall down and cause personal injury or death.
- Do not place the projector directly on a carpet, rug or place where ventilation is restricted such as a book shelf or closet.
 - This may cause the projector’s internal temperature to rise and cause a fire.
- Do not place the projector close to sources of steam or oil such as a humidifier or kitchen counter.
 - This may cause a fire hazard or an electric shock
- Do not place the projector where it might be exposed to excessive dust.
 - This may cause a fire.
- Do not use the projector in a damp place such as a bathroom where it is likely to get wet.
 - This may cause a fire or an electric shock.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Wash hands after handling.

- Do not allow a tablecloth or curtain to block the vents.
- This may cause the internal temperature of the projector to rise and cause a fire.
- The distance between the projector and the wall should be more than 30 cm for ventilation purposes.
- Otherwise, this may cause the internal temperature of the projector to rise and cause a fire.

CAUTION

- When installing the projector on a table, be careful not to place it near the edge.
- The projector may fall causing injury to persons or damage to the projector. Make sure that you use a stand suitable for the size of projector.
- Turn off the projector, disconnect the power supply and remove all connections before moving the projector.
- A damaged cord may cause a fire or an electric shock.
- Do not install the projector on an unstable or vibrating surface such as a vibrating shelf or tilted surface.
- It may fall and cause injury.
- Be careful not to tip the projector over when connecting external devices to the projector.
- This may cause injury to persons or damage to the projector

POWER

WARNING

- The earth wire should be connected.
- Inappropriate earth grounding may cause damage to the projector or an electric shock when there is an electrical surge. If the projector must be installed at a place where earth grounding is not possible, purchase a circuit breaker and connect the projector to its wall outlet. Do not ground the projector to the gas pipe, water pipe, lightning rod, or telephone line, etc.
- The power plug should be fully inserted into the wall outlet.
- Unstable connection may cause a fire.
- Do not place heavy objects on the power cord or place the cord underneath the projector.- This may cause a fire or an electric shock.
- Never touch the power plug with a wet hand.
- This may cause an electric shock.
- Do not connect too many devices to the same power extension.
- Overheating may cause a fire.
- Remove dust or contaminants around power plug pins or wall outlets.
- This may cause a fire.
- To turn off the main power, remove the power plug, which should be positioned so it is easy to access for operation.

Safety Instructions

CAUTION

- Hold the plug firmly when unplugging.
- A broken wire in the cord may cause a fire.
- Ensure the power cord or plug is not damaged, modified, severely bent, twisted, pulled, sandwiched or heated. Do not use a loose wall outlet.
- This may cause a fire or an electric shock.
- Keep the power cord away from any heating devices.
- The cord coating may melt and cause an electric shock.
- Place the projector where people will not trip over or tread on the power cord or plug to protect the power cord and plug from any damage.
- This may cause a fire hazard or an electric shock.
- Do not turn the projector on or off by plugging in the power plug or unplugging it from the wall outlet.
(Do not use the power plug as a switch.)
- This may cause an electric shock or damage to the projector.
- Do not insert a conductor into the other side of the wall outlet while the power plug is inserted into the wall outlet. In addition, do not touch the power plug immediately after it is disconnected from the wall outlet.
- This may cause an electric shock.
- Use only the official power cord which is provided by LG Electronics, Inc. Do not use other power cords.
- This may cause a fire or an electric shock.

USING

WARNING

- Do not place anything containing liquid, such as a vase, flowerpot, cup, cosmetics, chemicals, decorations or candles, etc., on top of the projector.
- Possible fire, electric shock, or falling may cause physical injury.
- In the event that there is a big impact to the projector or the cabinet is damaged, switch it off, unplug it from the wall outlet and contact an authorized service center.
- Otherwise, this may cause a fire or an electric shock.
- Do not insert pieces of metal such as coins, hairpins or metal debris, nor flammable materials such as paper or matches into the projector.
- This may cause a fire or an electric shock.
- In the event that liquid or a foreign object falls into the projector, please switch it off and unplug it from the wall outlet and contact an LG Electronics Service Center.
- Otherwise, this may cause a fire or an electric shock.
- When replacing a battery of the remote control, make sure a child does not swallow the battery. Keep the battery out of reach of children.
- In the case of a battery being swallowed by a child, please consult a doctor immediately.
- Do not remove any covers except for the lens cap. There is a high risk of electric shock.
- Do not look directly into the lens when the projector is in use.

- When the lamp is on or has just been turned off, avoid touching the air vent or lamp because these will be very hot.
- If there is a gas leak, do not touch the wall outlet. Open the window for ventilation.
- A spark may cause a fire or burn.
- Always open the lens door and remove the lens cap when the projector lamp is on.
- Never touch the projector or power cord during thunder or lightning.
- This may cause an electric shock.
- Do not use the projector near an electronic device which generates a strong magnetic field.
- Store the vinyl envelope used to pack the projector in a safe place away from children.
- It could cause suffocation if used improperly.
- Do not keep your hand on the projector for a long time when it is running.
- When you play a game by connecting a game console to a projector, it is recommended that you maintain a distance of more than four times the diagonal length of the screen.
- Make sure that the length of connecting cable is long enough. Otherwise, the product may fall causing personal injury or damage to the product.

CAUTION

- Do not place a heavy object on the projector.
- It may fall down and cause physical injury.
- Be careful to prevent the lens from heavy impact during transportation.
- Do not touch the lens. The lens may be damaged.
- Do not use any sharp tools on the projector such as a knife or hammer, because this may damage the casing.
- In the event that no image appears on the screen, switch the projector off, unplug it from the wall outlet and contact an authorized service center.
- Otherwise, this may cause a fire or an electric shock.
- Do not drop an object onto the projector or apply heavy pressure to it.
- This may cause injury to persons or damage to the projector.
- The distance between your eyes and the screen must be around 5 - 7 times the diagonal length of the screen.
- If you watch the screen at a close distance for a long time, your eye sight may become worse.

Safety Instructions

Cleaning

WARNING

- Do not spray the projector with water when cleaning. Do not allow water to go into the projector or do not allow it to get wet.
- This may cause a fire or an electric shock.
- When there is smoke or a strange smell coming out from the projector or a foreign object falls into the projector, please switch it off and unplug it from the power outlet and contact an LG Electronics Service Center.
- If not, this may cause a fire or an electric shock.
- Use an air spray or soft cloth or cotton swab moistened with a lens cleaning chemical or alcohol to remove dust or stains on the front projection lens.

CAUTION

- Contact your seller or the Service Center once a year to clean the internal parts of the projector.
- If you do not clean the contaminated interior of the projector for a long time, there may be a fire or damage to the projector.
- When cleaning plastic parts such as the projector case, unplug the power first and wipe with a soft cloth. Do not spray with water or wipe with a wet cloth.
When cleaning the plastic parts, such as the projector case, do not use cleanser, automobile or industrial shiner, abrasive or wax, benzene, alcohol, etc., which can damage the product.
- This can cause fire, electric shock or product damage (deformation, corrosion and damage).

Others

WARNING

- Only a qualified technician can disassemble or modify the projector. For inspection, adjustment, or repair, contact your seller or the Service Center.
- Otherwise, this may cause a fire or an electric shock.
- Dispose of the used battery properly.
- Otherwise, this may result in explosion or fire.
- The correct method of disposal may vary depending on your country or region. Dispose of the battery pack according to the appropriate instructions.
- Do not throw or disassemble the battery.
- Otherwise, this may result in fire or explosion due to damage to the battery.
- Always use batteries approved and certified by LG Electronics.
- Otherwise, this may result in fire or explosion.
- Store the battery away from metallic objects, such as keys and paper clips.
- Excess current may cause a rapid increase in temperature, resulting in fire or burns.
- Do not store the battery near any heat source, such as a heater.
- This may result in fire or damage the product.
- Do not store it at temperatures higher than 60°C or in high humidity.

- Keep the battery out of reach of children.
- This may result in personal injury or damage to the product.
- Make sure that the battery is installed correctly.
- Incorrect battery replacement may cause fire.

CAUTION

- Do not mix new batteries with old batteries.
- This may cause a fire or an electric shock caused by overheating and leakage.
- Unplug the power cord if the projector is not used for a long period.
- Accumulated dust may cause overheating, an electric shock from corroded insulation and a fire from an electrical surge.
- Only use the specified type of battery.
- Otherwise, this may cause an electric shock caused by overheating and leakage.

FCC NOTICE

- **Warning** - Class B
(b) For a Class B Digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Safety Instructions

Disposal of your old appliance



1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream through designated collection facilities appointed by your government or your local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

Disposal of waste batteries/accumulators



1. When this crossed-out wheeled bin symbol is attached to batteries/accumulators of Your product it means they are covered by European Directive 2006/66/EC.
2. This symbol may be combined with chemical symbols for mercury(Hg), cadmium(Cd) or lead(Pb) if the battery Contains more that 0.0005% of mercury, 0.002% of cadmium or 0.004% of lead.
3. All batteries/accumulators should be disposed separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
4. The correct disposal of Your old batteries/accumulators will help to prevent potential negative consequences for the environment, animal and human health.
5. For more detailed information about disposal of Your old batteries/accumulators, please contact Your city office, waste disposal service or the shop where You purchased the product.

Licenses

Supported licenses may differ by model. For more information about licenses, visit www.lg.com.



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NOTE

- Image shown may differ from your projector.
- Your projector's OSD (On Screen Display) may differ slightly from that shown in this manual.

Table of Contents

Safety Instructions	2	Manual adjustment via PC	34
Licenses	9	Image select	35
Table of Contents	10	Image adjust	36
Statement	11	Screen size adjust	37
Part names and functions	12	Video Input	38
Front	12	Select input source	
Back	12	(HDMI/Component/S-video/Video)	38
Bottom	12	Video system select	39
Rear terminal	13	Image select	40
Top control and indicators	14	Image adjust	41
Remote control	15	Screen size adjust	42
Remote control battery installation		Option	43
	17	Option	43
Operation range	17	Information	51
Adjustable foot	17	Maintenance	52
Installation	18	POWER/TEMP indicator	52
Positioning the projector	18	Cleaning the filter	53
Connect to computer (Digital and analog RGB)	19	Attaching the Lens Cap	54
Connect to video equipment (Video, S-Video, Component, HDMI)	20	Cleaning the lens	54
Connecting to Audio equipment	21	Cleaning the projector's cabinet	54
Connecting to the AC power cord	22	Replacing the lamp	55
Basic operation	23	Appendix	57
Turning on the projector	23	Troubleshooting	57
Turning off the projector	24	Indicator and projector state	59
How to operate the On Screen Menu		Compatible Signal	60
	25	Configuration of terminals	61
Menu bar	26	Technical Specifications	62
Zoom and focus adjustment	27	Accessories	63
Auto setup function	27	Content of hazardous substances and elements	63
Keystone	27	Dimensions	64
Audio adjustment	28	PIN code memorandum	64
Remote control operation	29	RS232 Control Method	65
Computer input	31		
Select input source (RBG 1/RGB 2)	31		
Computer system select	32		
Auto PC adjustment	33		

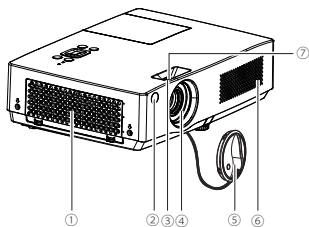
Statement

✓ **Note:**

- *The on screen menu and pictures in the manual may slightly differ from the real product.*
- *The manual is subject to change without prior notice.*

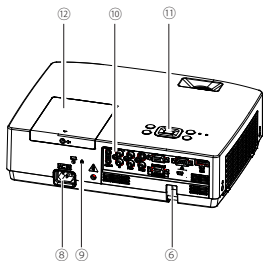
Part names and functions

Front



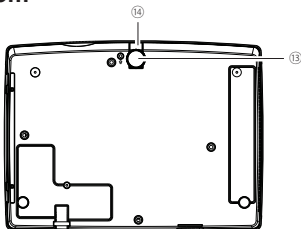
- ① Air filter cover
- ② Remote receiver
- ③ Zoom ring
- ④ Projector lens
- ⑤ Lens cap (with string)
- ⑥ Speaker
- ⑦ Focus ring

Back



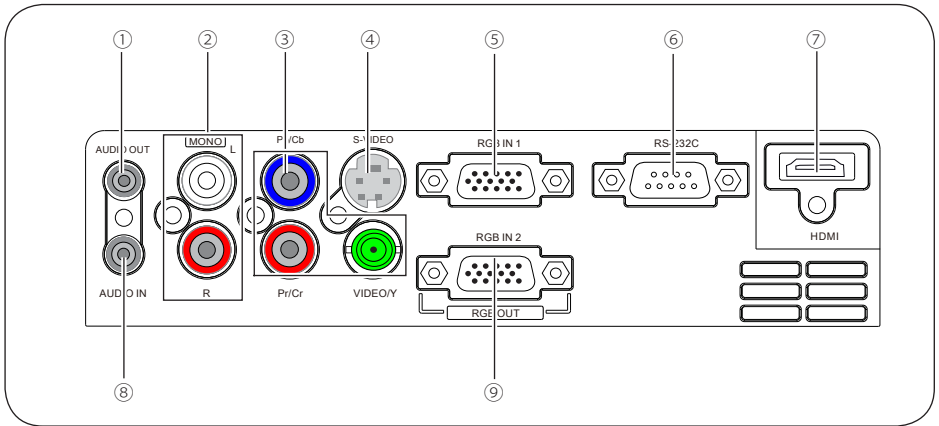
- ⑧ Power cord connector
- ⑨ Safety lock
- ⑩ Terminals and connectors
- ⑪ Top control and indicators
- ⑫ Lamp cover

Bottom



- ⑬ Adjustable foot
- ⑭ Foot adjusting Button

Rear terminal



① AUDIO OUT

- Connect to external audio amplifier.
- Connect the output audio signals from ②, ⑦ and ⑧ to this port.

Note: The resistance of the external audio amplifier should be over 47kΩ, or an earphone with lower resistance may cause audio distortion.

② AUDIO IN (Video Mono L/R)

- Connect the audio output signal from video equipment connected to ③ or ④ to this port.
- For a mono audio signal (a single audio jack), connect it to L(MONO) jack.

③ VIDEO/Y, Pb/Cb, Pr/Cr

- Connect the component signals to these jacks.
- Connect the composite signals to the VIDEO/Y jack.

④ S-VIDEO

Used to connect the S-video output of video equipment.

⑤ RGB IN 1

Used to connect a computer output.

⑥ RS-232C

When using RS-232C to control the projector, please connect the serial control line to this terminal.

⑦ HDMI

Used to connect the HDMI digital output.

⑧ AUDIO IN (PC)

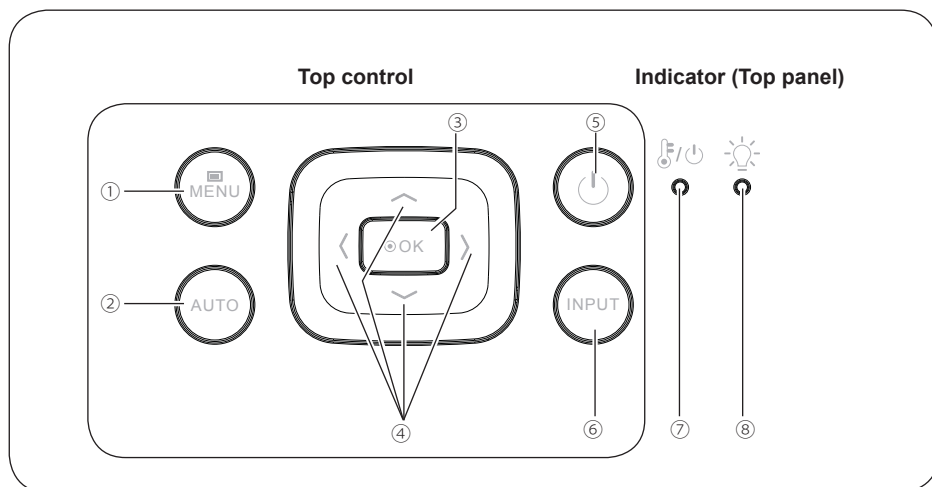
Connect the audio output signal from computer connected to ⑤ or ⑨ to this jack.

⑨ RGB IN 2/RGB OUT

- Used to connect the computer output.
- Used to output the analog signals from ⑤ (RGB IN 1) to the other monitor.

Part names and functions

Top control and indicators



① MENU button

To open or close the on screen menu.

② AUTO button

To perform various settings configured automatically, including the input source search function, auto keystone function and auto PC adjust function.

③ OK button

- Enter on screen menu.
- Execute the selected item.
- Expand or compress the image in the Digital Zoom Mode.

④ ▲▼◀▶ (VOLUME +/-) buttons

- Select an item or adjust the value in the on screen menu.
- Adjust the volume level (◀▶ buttons).
- Move the image in the Digital Zoom +/- mode.

⑤ POWER button

To turn on/off the projector.

⑥ INPUT button

To select an input source.

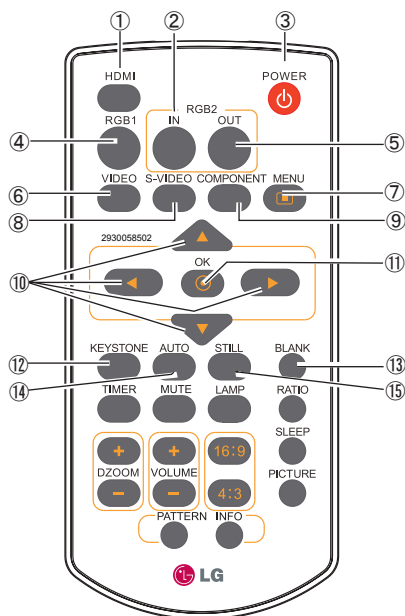
⑦ POWER/TEMP indicator

- Lights red when the projector is in stand-by mode.
- Lights green during operations.
- Blinks green in the Power management mode.
- Blinks orange while projector is cooling down after powered off.
- Lights orange when the internal temperature of projector is too high during operations.

⑧ LAMP REPLACE indicator

- Turns red when the life of the projection lamp draws to an end.
- Blinks red when lamp turning-on error.

Remote control



- ① **HDMI button**
Select HDMI input source.
- ② **RGB2 IN button**
Select RGB2 as RGB input.
- ③ **POWER button**
Turn the projector on or off .
- ④ **RGB1 button**
Select RGB1 input source.
- ⑤ **RGB2 OUT button**
Enable RGB2 as monitor out.
- ⑥ **VIDEO button**
Select VIDEO input source.
- ⑦ **MENU button**
Open or close the on screen menu.
- ⑧ **S-VIDEO button**
Select S-Video input source.
- ⑨ **COMPONENT button**
Select the component input source.
- ⑩ **▲▼◀▶ button**
 - Select an item or adjust the value in the on screen menu.
 - Move the image in Digital zoom + mode.
- ⑪ **OK button**
Access the menu or select an item in the menu.
- ⑫ **KEYSTONE button**
Calibrate keystone distortion.
- ⑬ **BLANK button**
Hide the on screen menu.
- ⑭ **AUTO button**
Enter the AUTO setup mode.
- ⑮ **STILL button**
Still the projected image.

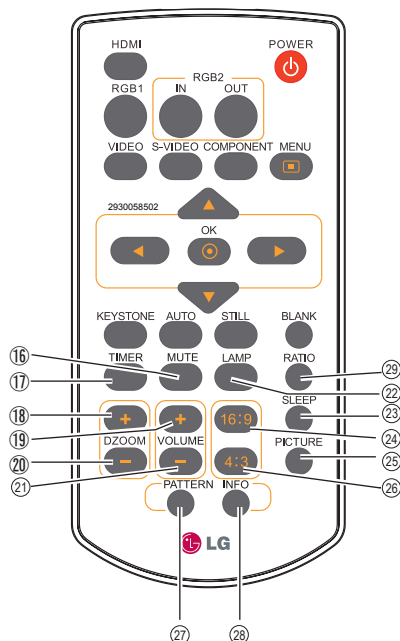


To ensure safe operation, observe the following precautions:

- Do not bend, drop or expose the remote control to moisture or heat.
- For cleaning, use a soft dry cloth. Do not apply benzene, thinner, splay, or any other chemicals.

Please refer to next page for other buttons.

Part names and functions



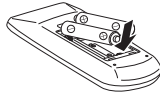
- ①⑥ **MUTE button**
Mute the sound.
- ①⑦ **TIMER button**
Enable the timer function.
- ①⑧ **DZOOM + button**
Select the digital zoom + mode.
- ①⑨ **VOLUME + button**
Increase the volume.
- ②⑩ **DZOOM - button**
Select the digital zoom - mode.
- ②① **VOLUME - button**
Decrease the volume.
- ②② **LAMP button**
Select a lamp mode.
- ②③ **SLEEP button**
Turn off the projector in a specified time.
- ②④ **16:9 button**
Select 16:9 on screen display.
- ②⑤ **PICTURE button**
Select image mode.
- ②⑥ **4:3 button**
Select 4:3 on screen display.
- ②⑦ **PATTERN button**
Select a test pattern picture.
- ②⑧ **INFO button**
Operate the information function.
- ②⑨ **RATIO button**
Select your required screen mode.

Remote control battery installation

1. Open the battery compartment lid.

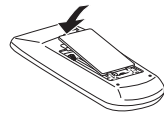


2. Install new batteries into the compartment.



For correct polarity (+ and –), be sure battery terminals are in contact with pins in the compartment

3. Re-cover the compartment lid.



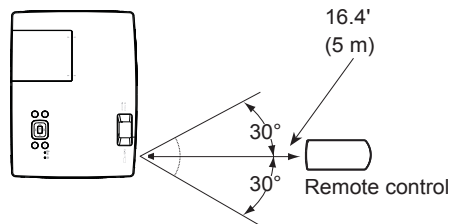
To ensure safe operation, please observe the following precautions:



- Use two (2) AAA or LR03 type alkaline batteries.
- Always replace batteries in sets.
- Do not use a new battery with a used battery.
- Avoid contacting with water or liquid matter.
- Do not expose the remote control to moisture or heat.
- Do not drop the remote control.
- If the battery has leaked on the remote control, carefully wipe the case clean and install new batteries.
- Risk of explosion if a battery is replaced by an incorrect type.
- Dispose of used batteries according to the instructions.

Operation range

Point the remote control toward the projector when pressing any button. The maximum operating range for the remote control is about 5 meters and 60 degrees.



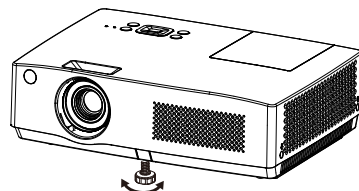
Adjustable foot

Projection angle can be adjusted up to 10.0 degree with the Adjustable foot.

Lift the fore body of the projector, and press the Foot adjusting Button on the front foot to release it.

Rotate the Adjustable foot to adjust the height and tilt angle.

Keystone distortion of projected image can be corrected by auto settings or manually remote control or menu operation.



Adjustable foot

Installation

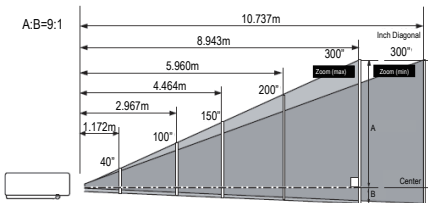
Positioning the projector

For projector positioning, see the figures below. The projector should be set perpendicularly to the plane of the screen.

√ *Note:*

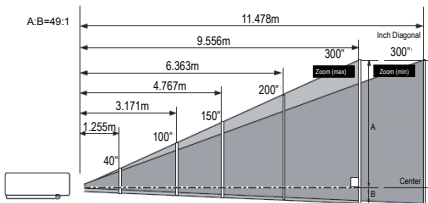
- *The brightness in the room has a great influence on picture quality. It is recommended to limit the ambient lighting in order to get the best image.*
- *All measurements are approximate and may vary from the actual sizes.*

For XGA models



Screen size (WxH)mm 4:3 aspect ratio	40"	100"	150"	200"	300"
Maximum	1.172m	2.967m	4.464m	5.960m	8.943m
Minimum	1.411m	3.567m	5.363m	7.159m	10.737m

For WXGA models



Screen size (WxH)mm 16:10 aspect ratio	40"	100"	150"	200"	300"
Maximum	1.255m	3.171m	4.767m	6.363m	9.556m
Minimum	1.511m	3.811m	5.728m	7.645m	11.478m

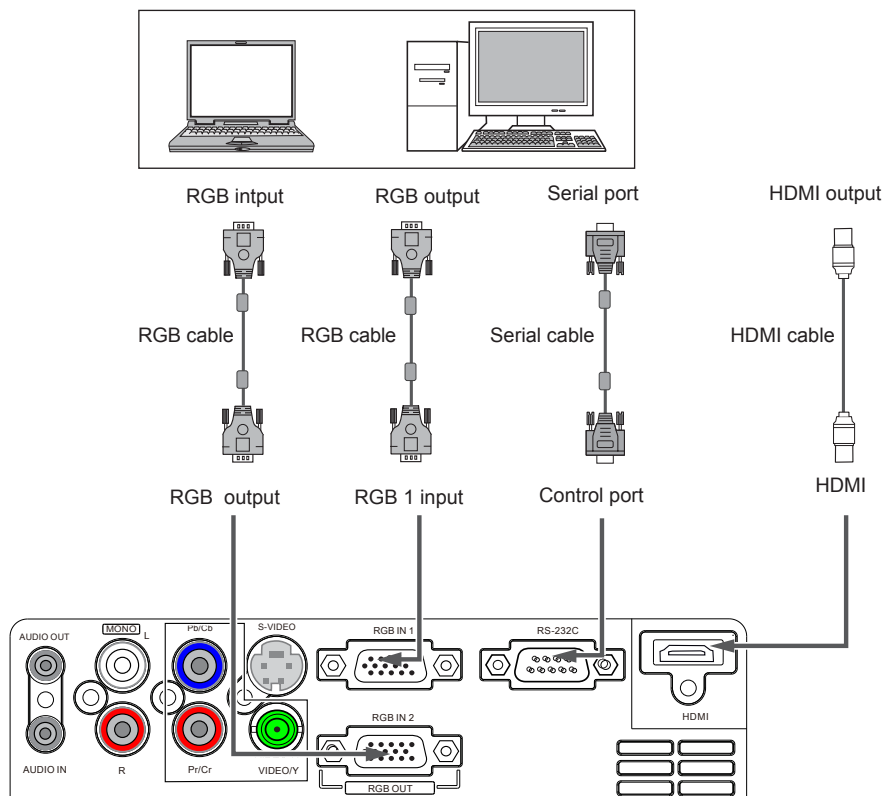
Connect to computer (Digital and analog RGB)

Cables used for connection (*Cables are not supplied with the projector.)

RGB cable (1)

Serial cable*

HDMI cable*



Unplug the power cords of both the projector and external equipment from the AC outlet before connecting the cables.

Installation

Connect to video equipment (Video, S-Video,Component,HDMI)

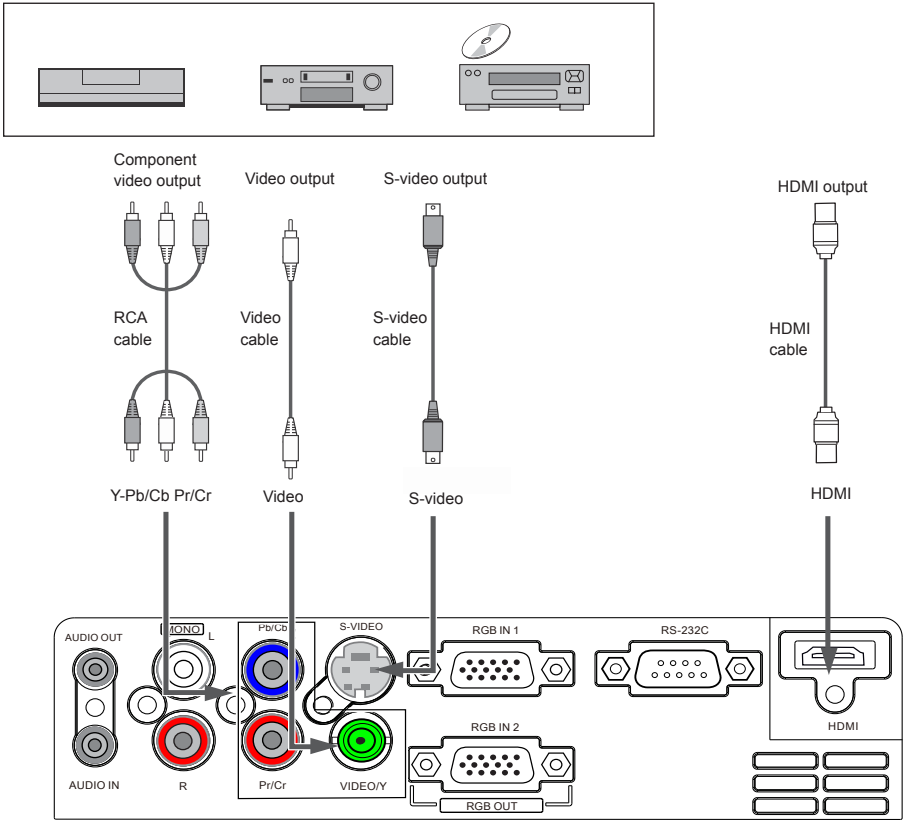
Cables used for connection (*Cables are not supplied with the projector.)

Video cable (RCA*1) *

S-Video cable *

HDMI cable *

Component cable(RCA*3) *

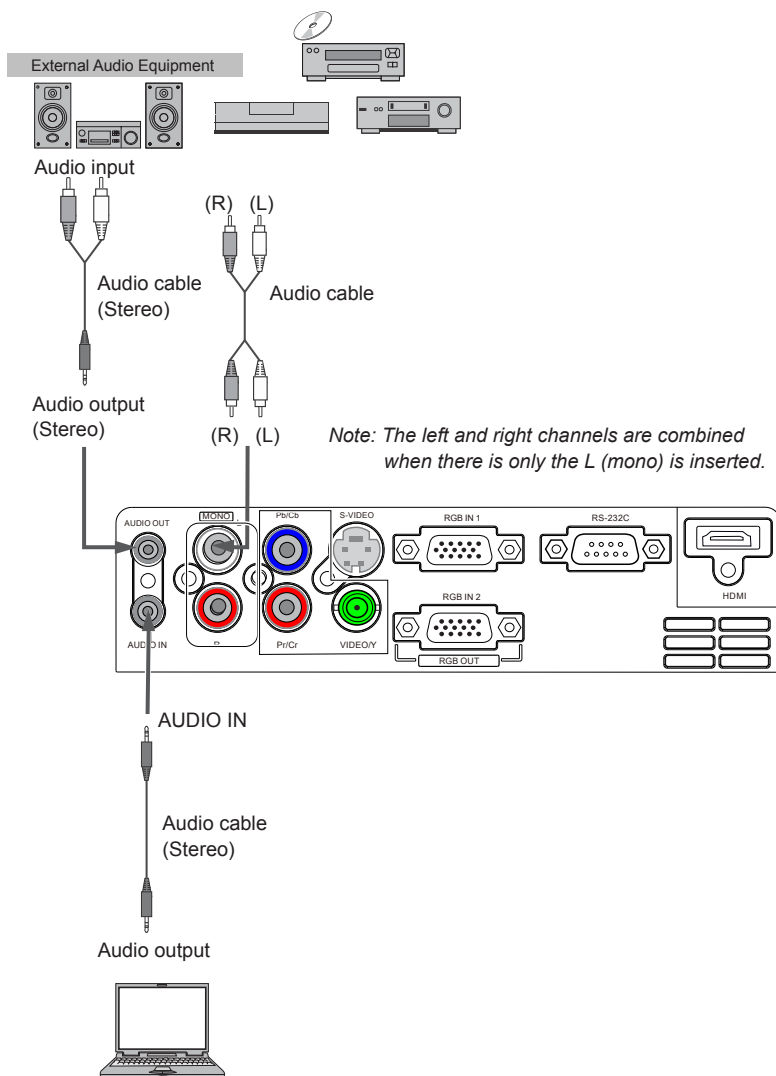


Unplug the power cords of both the projector and external equipment from the AC outlet before connecting the cables.

Connecting to Audio equipment

Cables used for connection (*Cables are not supplied with the projector.)

Audio cable*



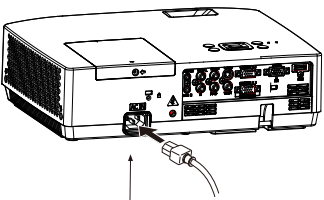
Unplug the power cords of both the projector and external equipment from the AC outlet before connecting the cables.

Installation

Connecting to the AC power cord

This projector uses nominal input voltages of 100-240 V AC and it automatically selects the correct input voltage. It is designed to work with a single-phase power system having a grounded neutral conductor. To reduce the risk of electrical shock, do not plug into any other type of power system. If you are not sure of the type of power being supplied, consult your authorized dealer or service center.

Connect the projector with all peripheral equipment before turning it on.



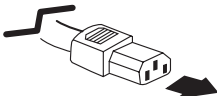
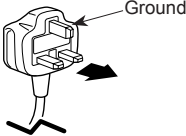
Connect the AC power cord (supplied) to the projector.



The AC outlet should be near this equipment and must be easily accessible.

√ Note:

Unplug the AC power cord when the projector is not in use. When the projector is connected to an outlet with AC power cord, it is in stand-by mode and consumes a little electric power.

Note on the power cord			
AC power cord must meet the requirements of the country where you use the projector. Confirm the AC plug type with the chart below and proper AC power cord must be used.			
Projector side	AC outlet side		
	For the U.S.A. and Canada	For Continental Europe	For the U.K.
 To power cord connector on your projector.	 To the AC outlet. (110 V AC)	 To the AC outlet. (200 - 240 V AC)	 To the AC outlet. (200 - 240 V AC)

√ Note:

- Using incorrect power cord may influence the product performance, or even cause hazards like an electric shock or fire. To ensure the product performance and security, please apply the cable of the same model with the original one.
- Common connecting cables include the AC power cord, various RGB cables, video cable, and serial control cable.

Basic operation

Turning on the projector

1. Complete peripheral connections (with a computer, VCR, etc.) before turning on the projector.
2. Connect the projector's AC power cord into an AC outlet. The POWER/TEMP indicator turns red. Open the lens cap.
3. Press the POWER button on the top control or on the remote control. The POWER/ TEMP indicator becomes green and the cooling fans start to work. The preparation display appears on the screen and the countdown starts.
4. If the projector is locked with a PIN code, a PIN code input dialog box appears. Enter the PIN code as instructed below.

√ **Note:**

- When the logo option is set to be "Off", the logo will not be displayed on the screen.
- When the display option is set to be "Off," the logo and countdown will not be displayed on the screen.
- During the countdown period, all operations are invalid except shutdown.

Enter a PIN code

Select a number by pressing the ▲▼ buttons, and then press the ► button to fix the number and move the cursor. The number changes to "***". If you fixed an incorrect number, move the cursor to the number you want to correct by pressing the ◀ button, and then select the correct number by pressing the ▲▼ buttons.

Repeat this step to complete entering a three-digit number.

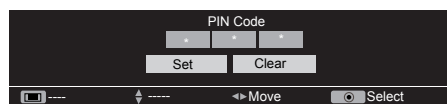
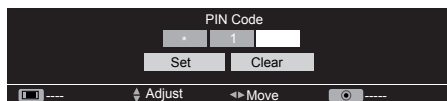
After entering the three-digit number, move the cursor to "Set", then you can start to operate the projector.

If you entered an incorrect PIN code, the "PIN code" and the number (***) turn red. Enter the correct PIN code all over again.

What is PIN code?

PIN (Personal Identification Number) code is a security code that allows the person who knows it to operate the projector. Setting the PIN code prevents unauthorized use of the projector.

A PIN code consists of a three-digit number. Refer to the PIN code lock function in the Option menu on pages 49 for locking operation of the projector with your PIN code.



Move the cursor to Set, and press OK.

√ **Note:**

The projector will automatically power off within 3 minutes while you input an incorrect PIN code or there is no any operation after turning on the projector.



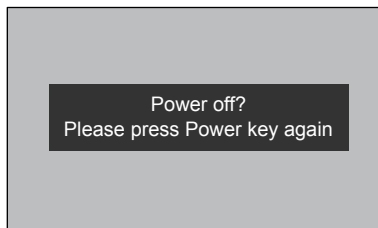
Caution on handling the PIN code

If you forget your PIN code, the projector can no longer be started. Take a special care in setting a new PIN code, write down the number in a column on page 64 of this manual and keep it at hand. Should the PIN code be missing or forgotten, consult your dealer or service center.

Basic operation

Turning off the projector

- 1 Press the POWER button on the top control or on the remote control, and “Power off? Please press Power key again” appears on the screen.
- 2 Press the POWER button again to turn off the projector. The POWER/TEMP indicator starts to flash orange, and the cooling fans keep running.
(You can select the fan's running speed.)
- 3 When the projector has cooled down enough to be turned on again, the POWER/TEMP indicator stops flashing.



“Power off? Please press Power key again” disappears after 4 seconds.



To maintain the lamp life, once you turn the projector on, wait at least 5 minutes before turning it off.



Do not operate the projector continuously without reset. Continuous use may result in shortening the lamp life. Turn off the projector and let it stand for about one hour in every 24 hours.

√ Note:

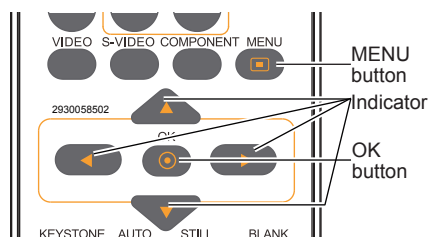
- When the **Auto Power** function is “On”, this projector is turned on automatically by connecting the AC power cord to AC outlet. (Page 47)
- The running speed of cooling fans is changed according to the temperature inside the projector.
- Do not put the projector in a case before the projector is cooled enough.
- If the POWER/TEMP indicator flashes or emits a red light, see “POWER/TEMP indicator”. (Page 52)
- While the POWER/TEMP indicator is flashing in orange, the lamp is cooling down and the projector cannot be turned on. Wait until the POWER/TEMP indicator turns red to turn on the projector again.
- The fan rotation will terminate directly if the AC power cord is unplugged immediately after the projector is turned off.
- The projector can be turned on after the POWER/TEMP indicator turns red. The waiting time to restart will be shortened when the normal power-off processing for fan cooling is completed, comparing with the time the AC power cord is immediately unplugged after the power-off.

How to operate the On Screen Menu

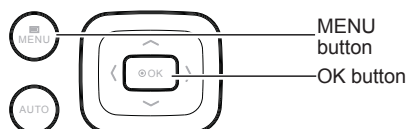
The projector can be adjusted or set via the on-screen menu.

Each main menu can be divided into several levels' submenus, which are further divided into other submenus. For each adjustment and setting procedure, refer to the respective sections in this manual.

Remote control



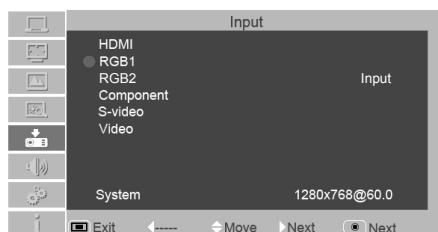
Top control



On screen menu

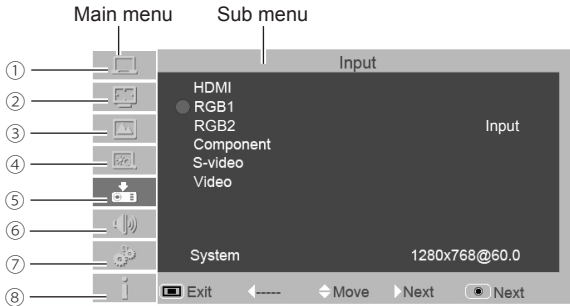
- 1 Press the MENU button on the top control or remote control to display the on screen menu.
- 2 Press ▲▼ buttons to select an entry in the main menu and then ► button to access the submenu.
- 3 Press the ▲▼ buttons to select your required entry, and then press OK or the ► button to set or enter the submenu
- 4 Press ▲▼◀▶ button to adjust settings or switch among the items. Press the OK button for corresponding operation and then return to the submenu.
- 5 Press the ◀ button to return to the previous menu. Press the MENU button on the remote control again to quit the on screen menu.

Input menu



Basic operation

Menu bar



① PC adjust menu

Used to adjust parameters: **Auto PC adj.**, **Phase**, **Total dots**, **H Postion**, **V Postion**, **Reset**, **Mode free**, **Store** to match with RGB input signal format.

② Screen menu

If a computer is selected as a signal source, the following setup options for the image size are available: **Normal**, **True,4:3**, **16:9**, **Custom** and **Digital zoom +/-**.

If video equipment is selected as a signal source, the following setup options for the image size are available: **Normal**, **16:9** and **Custom**.

③ Image select menu

The available image modes are: **Dynamic**, **Standard**, **Cinema**, **Blackboard (green)**, **Colorboard** and **User**.

④ Image adjust menu

If a computer is selected as a signal source, the following image adjusting options are available: **Contrast**, **Brightness**, **Color Temp.**, **Red**, **Green**, **Blue**, **Sharpness** and **Gamma**.

If video equipment is selected as a signal source, the following image adjusting options are available: **Contrast**, **Brightness**, **Color**, **Tint**, **Red**, **Green**, **Blue**, **Sharpness**, **Gamma**, **Noise reduction** and **Progressive**.

⑤ Input menu

Used to select input source: **HDMI**, **RGB 1**, **RGB 2**, **Component**, **S-video** or **Video**.

⑥ Audio menu

To adjust the volume level or mute the audio.

⑦ Option menu

Used to configure the projector operation settings.

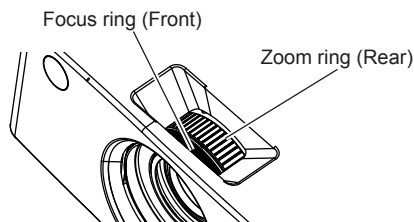
⑧ Information menu

Used to display information.

Zoom and focus adjustment

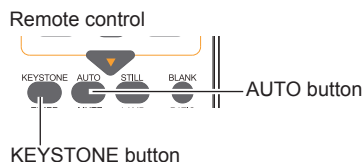
Rotate the zoom ring to zoom in or out.

Rotate the focus ring to adjust the focus of the projected image.



Auto setup function

This function is available just by pressing the AUTO button on the top control or on the remote control. The system then automatically performs various settings in the setup menu, including input source search, auto pc adjustment and auto keystone correction.



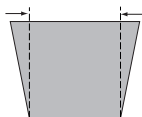
Top control



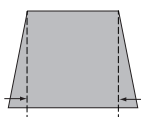
Keystone

If a projected picture has keystone distortion, correct the image with the Keystone function. Press the KEYSTONE button on the remote control. The keystone dialog box appears. Correct keystone distortion with ▲▼ buttons. Keystone adjustment can be stored.

Reduce the upper width with the ▲ button.



Reduce the lower width with the ▼ button.



- The arrows are white when there is no correction.
- The direction of the arrows which are being corrected turns red.
- The arrows disappear at the maximum correction.
- If you press the KEYSTONE button on the remote control once more while the keystone dialog box is being displayed, the keystone adjustment will be canceled.
- The adjustable range can be limited depending on the input signal.

Basic operation

Audio adjustment

Direct operation

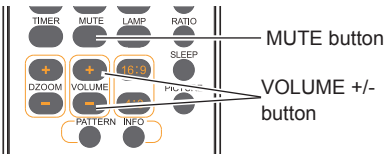
Volume

Press the VOLUME +/- button on the top control or on the remote control to adjust the volume.

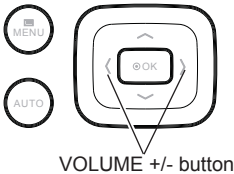
Mute

Press the MUTE button on the remote control and select **On** to turn off the audio temporarily. To restore the audio to its previous level, press the MUTE button again and select **Off** or press the VOLUME +/- buttons. Mute function is also effective for AUDIO OUT jack.

Remote control



Top control



Menu operation

- 1 Press the MENU button to display the on screen menu.
Press ▲ ▼ button to move the cursor to the Audio menu icon. Press OK or the ► button to enter the submenu entry.
- 2 Press ▲ ▼ button to move the cursor to the desired item, and then press the OK button.

Volume

Press ▲ to turn up the volume and ▼ to turn down the volume.(0 to 25)

Mute

Press the OK button to switch the mute function on/off.
After the audio is turned off, "on" is displayed. To restore the audio, press the OK button again.

Audio Menu



Remote control operation

Using the remote control for some frequently used operations is advisable. Just pressing one of the buttons enables you to make the desired operation quickly without calling up the on screen menu.

Direct INPUT buttons

Press the RGB 1, RGB2 IN, VIDEO, HDMI, S-VIDEO or COMPONENT button on remote control to select an input source.

STILL button

Press the STILL button to still the picture on the screen. To cancel the still function, press the STILL button again or press any other button.

DZOOM +/- button

Press the DZOOM +/- buttons and use the ▲ ▼ buttons to access the digital zoom mode.

PICTURE button

Press the PICTURE button on the remote control to select your required image mode.

BLANK button

Press the BLANK button to black out the image. To restore to normal, press the BLANK button again or press any other button. The screen changes each time you press the button as follows:
Black out → Normal → Black out → Normal.....

LAMP button

Press the LAMP button to select the lamp mode to change the brightness of the screen.

- 💡 NormalNormal brightness
- 💡 Eco.....Lower brightness reduces the lamp power consumption and extends the lamp life.

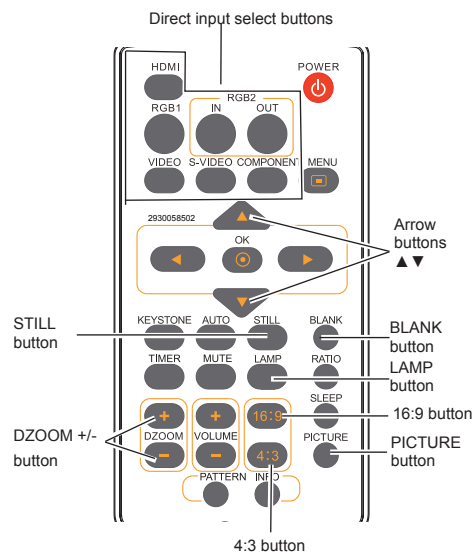
16:9 button

Select the width&height ratio of the screen as 16:9.

4:3 button

Select the width&height ratio of the screen as 4:3.

Remote control



"Blank Image" disappears after 4 seconds if there is no other button operation.

√ *Note:*

See the next page for the description of other buttons.

Basic operation

TIMER button

Press the TIMER button. The timer display “00:00” appears on the screen and the timer starts to count time (00:00–59:59).
To stop the Timer, press the TIMER button. Press the TIMER button again, and then the Timer display disappears.

MENU button

Press the MENU button on the remote control to display the on screen menu.

PATTERN button

Press the PATTERN button on the remote control to select a test pattern image.

KEYSTONE button

Press the KEYSTONE button on the remote control to Calibrate keystone distortion.

AUTO button

Press the AUTO button on the remote control to use the auto setup function.

INFO button

Press the INFO button on the remote control to use the information function.

RATIO button

Press the RATIO button on the remote control to select your required screen mode.

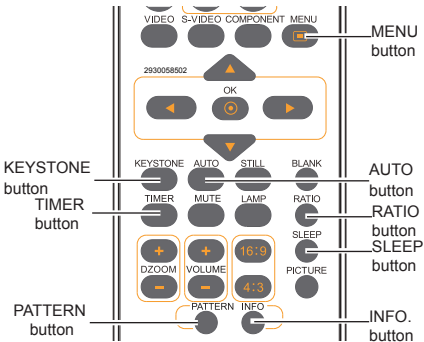
SLEEP button

Press the SLEEP button on the remote control to set a specified time to turn off the projector automatically.

Timer display



Remote control



√ Note:

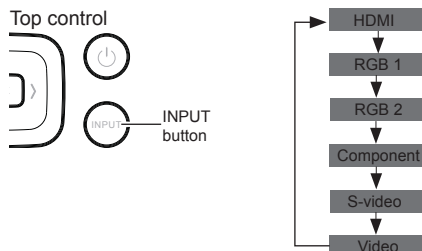
See the previous page for the description of other buttons.

Computer input

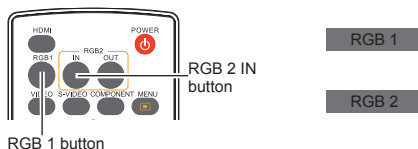
Select input source (RBG 1/RGB 2)

Direct operation

- Press the INPUT button on the top control.
- Press the RGB 1 or RGB 2 IN button on the remote control to select RGB 1 or RGB 2.



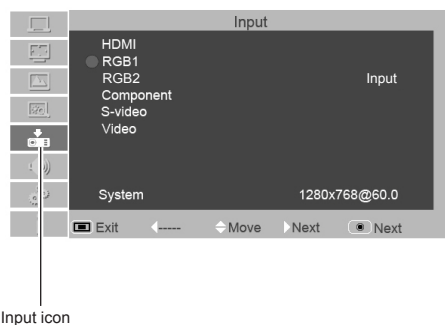
Remote control



Menu operation

- 1 Press the MENU button to display the on screen menu. Press ▲▼ button to select the input source icon and press the ► button or OK button.
- 2 Press ▲▼ button to select RGB 1 or RGB 2, and then press the OK button.

Input menu



√ Note:

If RGB2 can not be selected, Please refer to 47 page (Terminal).

Computer input

Computer system select

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.

Auto When the projector cannot recognize the connected signal conforming to the provided PC systems, Auto is displayed on the System Menu box and the Auto PC Adjustment function works to display proper images. If the image is not projected properly, a manual adjustment is required.

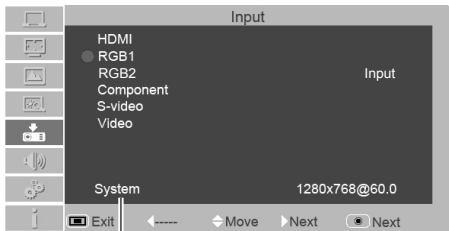
----- There is no signal input from computer. Check the connection between your computer and projector.

Select computer system manually

The system can also be selected manually.

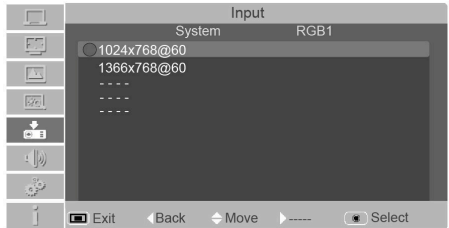
- 1 Press the MENU button to display the on screen menu. Use the ▲▼ buttons to select the input source icon,, and press the ► or OK button.
- 2 Use ▲▼ button to select System (Signal format), and press the ► or OK button.
- 3 Press ▲▼ button to select your required system, and then press the OK button.

RGB1 system menu



The PC system menu displays the selected system.

System option



Auto PC adjustment

Auto PC Adjustment function is provided to automatically adjust Phase, Total dots, H position and V position to conform to your computer.

Menu operation

Auto PC adjustment

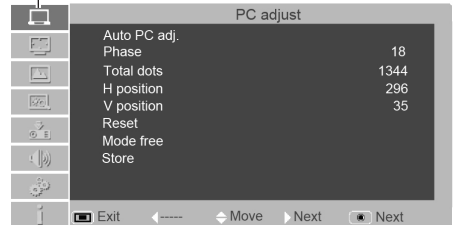
- 1 Press the MENU button to display the on screen menu. Use the ▲▼ buttons to select the PC adjust icon and press the ► button or OK button.
2. Press the ▲ ▼ buttons to select AUTO PC Adjustment, and then press the OK button.

To store the adjusted parameters

The system parameters adjusted in the Auto PC Adjustment can be stored in the projector.

PC adjust menu

PC adjust icon



√ Note:

- Phase, Total dots, H Position and V Position of some computers cannot be fully adjusted with this Auto PC adj. function. When the image is not provided properly with this operation, manual adjustments are required.
- Phase, Total dots, H and V Position are disabled when Pixel Clock is higher than 140MHz.
- The Auto PC adj. cannot be operated when 480i, 576i, 480p, 576p, 720p or 1080i is selected in the PC System Menu.

Computer input

Manual adjustment via PC

As some computer adopt special signal formats, the multi-purpose scanner of the projector may not detect them. To match the special-format signals, the projector offers function of manual adjustment, with which users can adjust the parameters. 5 independent memory sections is provided, where the manually adjusted parameters can be saved. In the case of specific computer, you can make use of the memory space to set up whenever necessary.

- 1 Press MENU button to display the on-screen menu. Press ▲▼ button to select the PC adjust icon and press ► or OK button.
- 2 Press ▲▼ button to select the item to be adjusted and then OK to pop up the corresponding dialog box. Press ◀▶ to set the value.

Phase

Press ◀▶ to adjust the value, eliminating a flicker from the image displayed (from 0 to 31).

Total dots

Press ◀▶ to adjust the total dots for a cycle so that it can match the image on computer.

H position

Press ◀▶ to adjust the horizontal position of the image.

V position

Press ◀▶ to adjust the vertical position of the image.

Reset

To re-set the adjusted data, you should select the initial state and then press OK. Click Yes when the dialogue box appears for confirmation and all adjusted value will return to the initial state.

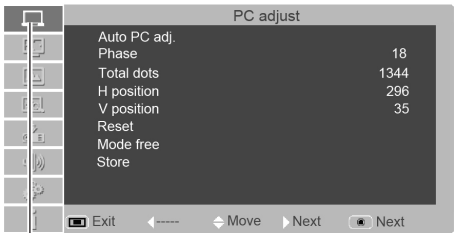
Mode free

To delete the saved data, you should select the Standby Mode, and press ► or OK button. The mode to be deleted will be highlighted, click Select.

Store

To save the adjusted data, you should select Save, and press ► or OK button. Then move the cursor to select the saving mode from the items 1-5. Finally click Select.

PC adjust menu



PC adjust icon

√ Note:

If you select 480i, 576i, 480p, 576p, 720p or 1080i from the system menu, the functions of horizontal position and vertical position will be disabled.

Image select

Direct selection

Use the PICTURE button on the remote control to select the image mode.

Menu selection

1. Press MENU button on the remote control to display the on screen menu. Press ▲▼ to select the image mode icon. Then press ► or press OK.
2. Press ▲▼ to select the desired item, and then press OK.

Dynamic

When the image is viewed in a bright room, select this mode.

Standard

This is the default image mode.

Cinema

This mode limited the brightness, and more detail can be seen. It is suitable for seeing a film in a dark environment.

Blackboard(Green)

This mode can be used to project the image on a green board to enhance the image quality. It mainly functions on a green board, not black board.

Colorboard

This mode is suitable for projecting the image onto the red, blue, yellow or green wallpaper.

Press OK to select Colorboard, and then press ► to enter the submenu.

Press ▲▼ to select wallpaper from Red, Blue, Yellow and Green.

User

This is the image mode pre-set by in the image adjustment menu.

Remote control

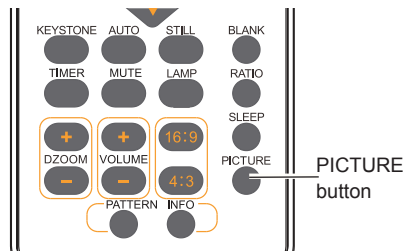
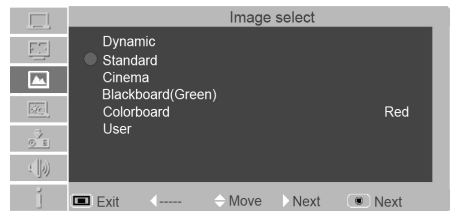


Image select menu



Computer input

Image adjust

1. Press Menu on the remote control to display the on-screen menu. Press ▲ ▼ to select the image adjust icon .Then press ► or press OK.
2. Press ▲ ▼ to select the item to be adjusted, and then press Select. At the time, the adjustment dialogue box will appear. Press ◀▶ to set the value.

Contrast

Press ◀ to decrease the contrast and press ► to increase it. (from 0 to 63)

Brightness

Press ◀ to decrease the brightness and press ► to increase it.(from 0 to 63)

Color Temp.

Press ◀▶ to select the desired color temperature (option are "Cool ", " Medium", " Warm")

Red(White balance)

Press ◀ to make the red color lighter and press ► to make it stronger.(from 0 to 63)

Green(White balance)

Press ◀ to make the green color lighter and press ► to make it stronger.(from 0 to 63)

Blue(White balance)

Press ◀ to make the blue color lighter and press ► to make it stronger.(from 0 to 63)

Sharpness

Press ◀ to soften the image and press ► to sharpen it.(from 0 to 15)

Gamma

Press ◀▶ to adjust the grey level to achieve better contrast and balance.(from 0 to 15)

Image adjust menu

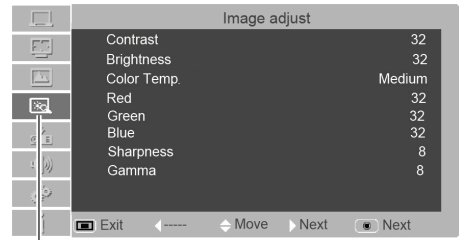


Image adjust icon

√ Note:

- After red(white balance),green(white balance) or blue(white balance) is adjusted, the image mode will change to "User".
- When colorboard is selected in the " Image select ", the color temperature will change to "colorboard".

Screen size adjust

The size of the screen can be reset to the value the user desires.

- 1 Press MENU button on the remote control to display the on screen menu. Press **▲▼** to select Screen icon and press **►** or OK.
- 2 Press **▲▼** to select your required item and then press OK.

Normal

This function will make the width-height proportion of the projected image consistent with the input signals.

True

This item provides the image with the original size. If the original image is larger than the screen (1024X768(BD430, BD450, BD470)/1280X800(BD460)), the projector will automatically enter the window moving mode for image display. The user can press **▲▼◀▶** to move the display image to adjust.

16:9

This item provides images with a width-height ratio of 16:9.

4:3

This item provides normal images with a width-height proportion 4:3.

Full

Full screen will be displayed.

Custom

This item can help users manually adjust the proportion and position of the screen.

Adjustable range depends on the input signal formats. Some have a limitation to adjust.

When this item is selected, press **►**. The indication of self-definition will appear on the screen. You can press **▲▼** to select the items to be adjusted.

Scale H/V: To adjust the horizontal/vertical proportion of the screen.

H&V: When this item is enabled, the width-height proportion will be locked. The vertical proportion is displayed in gray, meaning "disabled". You can adjust the horizontal proportion, and then modify the proportion of the screen on the basis of the width-height proportion. If you reset the H&V settings, then H&V data will be initialized.

Position H/V: To adjust the horizontal/vertical position of the screen.

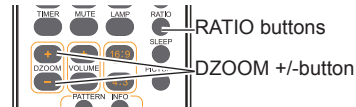
Apply to all inputs: Use this item to save input adjusted proportion. When you press Select at this item, a dialog box will pop up for confirmation. To save the proportion, press Select at Yes. If you select self-definition, the system will use the saved proportion.

Reset: This item allows you to reset the all adjusted values. In the initial state, press Select, and a dialog box will pop up for confirmation. To reset the parameters, press Select at Yes.

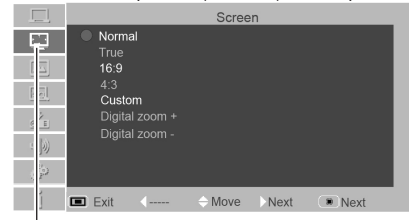
√ **Note:**

- To get the the best picture quality (BD430, BD450, BD470), you should adjust the resolution to XGA(1024x768).
- To get the the best picture quality (BD460), you should adjust the resolution to WXGA(1280x800).
- When True or 4:3 is selected, Digital zoom +/- will be disabled.
- True, Custom and Digital zoom +/- menus might be disabled when Pixel Clock is higher than 140MHz.
- True can not be selected when 480i, 576i, 480p, 576p, 720P50, 720P60, 1080i is selected in PC system menu.

Remote control

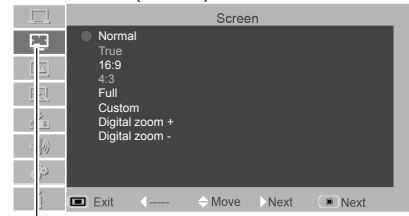


Screen Menu (BD430, BD450, BD470)



Screen icon

Screen Menu (BD460)



Screen icon

Digital zoom +

After you select the Digital zoom +, the on screen menu will disappear, while the information on Digital zoom + appears. You can press OK to zoom in the image size, and press **▲▼◀▶** to move the image horizontally and vertically.

The moving is effective only when the image is larger than the size of the screen.

You can also press DZOOM + or select on the remote control to zoom in the projected image.

Digital zoom -

After you select the Digital zoom -, the on screen menu will disappear, while the information on Digital zoom - appears. You can press OK to zoom out the image size. You can also press DZOOM - or select on the remote control to zoom out the projected image.

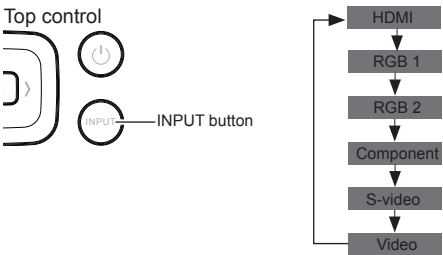
To exit the "Digital zoom +/-" mode, press any button except the DZOOM +/- and the OK button. To return to Normal size, select "Screen" in the menu to adjust screen size, or enter a new input source in the menu "Input". and press **▲▼◀▶** to move the image horizontally and vertically.

Video Input

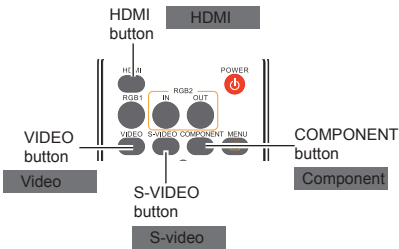
Select input source (HDMI/Component/S-video/Video)

Direct selection

- Press HDMI, COMPONENT, S-VIDEO or VIDEO button on the remote control.
- Press the INPUT button on the top control. if the INPUT button is pressed again, then the next input source will be displayed. The input source will be changed like as the flow chart.



Remote control



Menu operation

1. Press MENU button on the remote control to display the on screen Menu.
2. Press ▲▼ to select the icon for input source. Then press ► or press OK.
3. Press ▲▼ to select the input source and press OK.

HDMI

When input signal is connected to the HDMI jack, select HDMI.

Component

When input signal is connected to the Component jack, select Component .

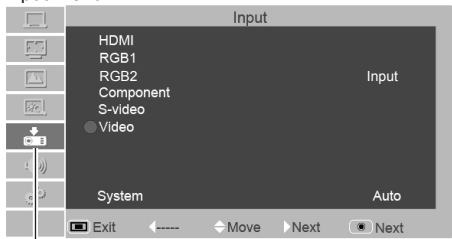
S-Video

When input signal is connected to the S-Video jack, select S-Video.

Video

When input signal is connected to the Videojack, select Video.

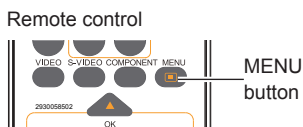
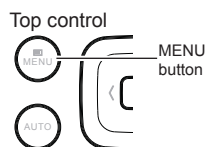
Input menu



Input icon

Video system select

1. Press MENU on the remote control to display the on-screen menu. Press ▲▼ to select the icon for input source. Then press ► or press OK.
2. Press ▲▼ to select "Component", "Video", or "S-video", and then press OK.
- 3 Press ▲▼ to select the system, and then press ► or press Select. Press ▲▼ to select the signal format, then press OK.



Video or S-video

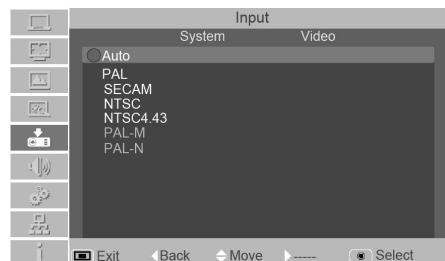
Auto

The projector can automatically detect the input video system.

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

The projector if can't reproduce the image, you should select a specific signal format from PAL, SECAM, NTSC, NTSC 4.43, PAL-M and PAL-N.

Video System Menu (Video or S-video)



Component

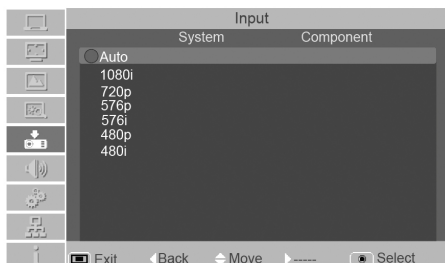
Auto

The projector can automatically detect the input video system and optimize its own state.

Component video signal format

If the projector can't reproduce the image, you should select a specific component video signal format from 480i, 576i, 480p, 576p, 720p and 1080i.

Video System Menu (Component)



√ Note:

- If HDMI is selected, Video system menu will be disabled.

Video Input

Image select

Direct selection

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

Menu selection

1. Press MENU button on the remote control to display the on screen menu. Press ▲▼ to select the "image select" icon. Then press ► or press OK.
2. Press ▲▼ to select the desired item, and then press OK.

Dynamic

When the image is viewed in a bright room, select this mode.

Standard

This is the default image mode.

Cinema

This mode limited the brightness, and more detail can be seen. It is suitable for seeing a film in a dark environment.

Blackboard(Green)

This mode can be used to project the image on a green board to enhance the image quality. It mainly functions on a green board, not black board.

Colorboard

This mode is suitable for projecting the image onto the red, blue, yellow or green wallpaper.

Press OK to select Colorboard , and then press ► to enter the submenu.

Press ▲▼ to select wallpaper from Red, Blue, Yellow and Green.

User

This is the image mode pre-set by in the image adjustment menu.

Remote control

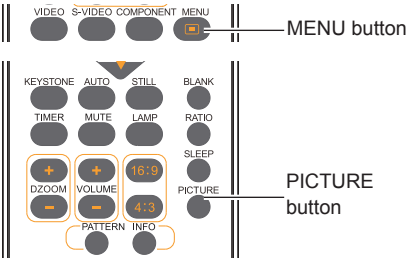


Image mode select menu

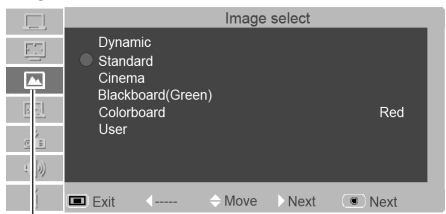


Image select icon

Image adjust

1. Press MENU button on the remote control to display the on-screen menu. Press ▲▼ to select the image adjust icon. Then press ► or press OK.
2. Press ▲▼ to select the item to be adjusted, and then press Select. At the time, the adjustment dialogue box will appear. Press ◀▶ to set the value.

Contrast

Press ◀ to decrease the contrast and press ► to increase it. (from 0 to 63)

Brightness

Press ◀ to decrease the Brightness and press ► to increase it. (from 0 to 63)

Color

Press ◀ to decrease the color gamut and press ► to increase it. (from 0 to 63).

Tint

Press ◀▶ to select the appropriate tone for the image. (from 0 to 63)

Red(White balance)

Press ◀ to make the red color lighter and press ► to make it stronger. (from 0 to 63)

Green(White balance)

Press ◀ to make the green color lighter and press ► to make it stronger. (from 0 to 63)

Blue(White balance)

Press ◀ to make the blue color lighter and press ► to make it stronger. (from 0 to 63)

Sharpness

Press ◀ to soften the image and press ► to sharpen it. (from 0 to 15)

Gamma

Press ◀▶ to adjust the grey level to achieve better contrast and balance. (from 0 to 15)

Noise reduction

Enable this item to reduce the snow interference and achieve more smooth and clear image.

Progressive

The interlaced video signal can be converted into images in a progressive manner. You can select one from the options below:

OFF: Disabled;

L1: Projecting dynamic image;

L2: Projecting still image;

Film: This item is used for watching films. When it is selected, This projector will restore the images with high quality to reduce image distortion.

Image adjust menu

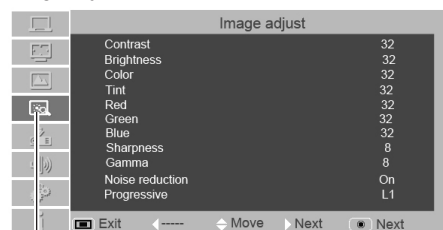


Image adjust icon

√Note:

- Noise reduction and Progressive can not be selected when 480p, 576p, 720p and 1080i signals are coming.
- NTSC and NTSC-4.43 Color standard system support this tint menu.

Video Input

Screen size adjust

The size of the screen can be reset to the value the user desires.

1. Press MENU button on the remote control to display the on screen menu. Press ▲▼ to select the screen. Then press ► or press OK.
2. Press ▲▼ to select the desired item, and then press OK.

Normal

This function will make the width-height proportion of the projected image consistent with the input signals.

4:3

This item provides normal images with a width-height proportion 4:3.

Full

Full screen will be displayed.

16:9

This item provides images with a width-height ratio of 16:9.

Natural wide

Center area image will be displayed more naturally on the 16:9 screen size.

Custom

This item can help users manually adjust the proportion and position of the screen.

Adjustable range depends on the input signal formats. Some have a limitation to adjust.

When this item is selected, press ►. The indication of self-definition will appear on the screen. You can press ▲▼ to select the items to be adjusted.

Scale H/V: To adjust the horizontal/vertical proportion of the screen.

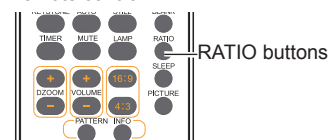
H&V: When this item is enabled, the width-height proportion will be locked. The vertical proportion is displayed in gray, meaning "disabled". You can adjust the horizontal proportion, and then modify the proportion of the screen on the basis of the width-height proportion. If you reset the H&V settings, then H&V data will be initialized.

Position H/V: To adjust the horizontal/vertical position of the screen.

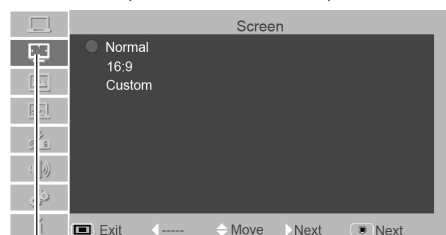
Apply to all inputs: Use this item to save input adjusted proportion. When you press Select at this item, a dialog box will pop up for confirmation. To save the proportion, press Select at Yes. If you select self-definition, the system will use the saved proportion.

Reset: This item allows you to re-set the adjusted values. In the initial state, press Select, and a dialog box will pop up for confirmation. To re-set the parameters, press Select at Yes.

Remote control

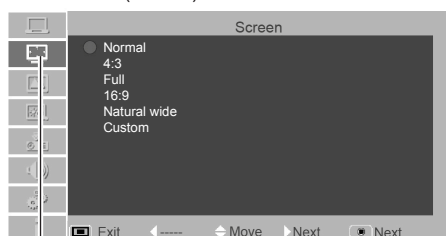


Screen menu(BD430,BD450,BD470)



Screen icon

Screen menu(BD460)



Screen icon

√Note:

- If no signal is detected, the items of the custom can not be selected, the related dialog box disappears.
- The horizontal/vertical proportion and the horizontal/vertical position should be adjusted according to the input signal.
- 16:9 doesn't work when 720p or 1080i is select in Component or HDMI input.
- Custom sub-menus are disabled when Pixel Clock higher than 140MHz.

Option

Option

You can use the option menu to configure the following functions.

1. Press MENU button on the remote control to display the on screen menu. Press ▲ ▼ to select Option. Then press ► or press OK to enter the submenu.
2. Press ▲ ▼ to select the desired item to be adjusted, and then press ► or press OK to reach the selected item.
3. Press ▲ ▼ to select the desired item and then press OK.

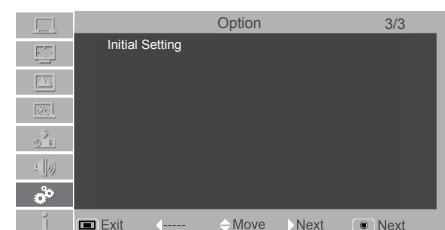
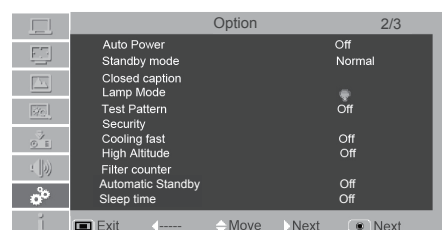
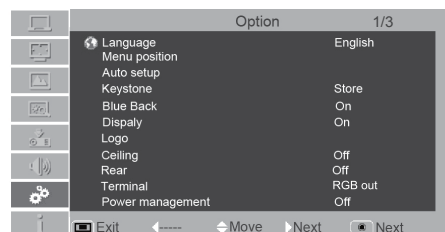
Language

Selects a desired Menu Language.

Menu position

You can use this function to change the position of on screen menu. To do that, select menu position and press OK. Each time you press OK, menu's position on the screen in the order below:
Upper left→Upper right→Center→ Lower left→
Lower right→Upper left→...

Option menu



Option

Auto setup

This function enables Input search, auto keystone and Auto PC adjustment by pressing the AUTO button on the top control or the on the remote control. Settings for those can be altered as follows:

Input search

This function detects the input signal automatically. When a signal is found, the search will stop. Use the Point ▲▼ buttons to select one of the following options.

Off Input search will not work.

On Active Input Sourcing function. It detects the input signal and search stops when the signal is found.

Auto PC Adjustment

On Press Auto Set button on the Top Control or remote control to enable Auto PC Adjustment function.

Off Disables Auto PC Adjustment.

Auto keystone

Auto Always works and corrects keystone distortion according to the projector's tilt.

Manual Activate this function by pressing Auto Set on the Top Control or the Remote Control.

Off Disables Auto Keystone.

Keystone

This function is used to store or reset the keystone correction when the AC power cord is unplugged. Use the Point ▲▼ buttons to switch between each option.

Store Keep the keystone correction even when the AC power cord is unplugged.

Reset Release the keystone correction when the AC power cord is unplugged.

To correct keystone distortion, press the OK button. Keystone appears on the screen. Use the Point ▲▼ buttons to correct keystone distortion.

Blue Back

You can use this item to set the background of The time when no signal is detected.

You can press ▲▼ to switch over between the items below:

On To enable the blue background for projection;

Off To disable the blue background.

√ Note:

- Only the last selected input source can be detected.
- If the INPUT button on the top control or the RGB 1/2 buttons, HDMI, VIDEO , S-VIDEO or COMPONENT buttons on the remote control is pressed during Input search is in progress, Input search will stop and go back to the previous input signal.
- Phase, Total dots, Horizontal and Vertical position of some computers cannot be fully adjusted with the Auto PC Adjustment function. When the image is not provided properly with this operation, manual adjustments are required.

Display

You can use this item to set whether the startup animation is displayed.

On Show startup screen.

Off Show the input image instead of the on-start screen.

Logo (Logo and Logo PIN code lock settings)

This function allows you to customize the screen logo with Logo select, Capture, Logo PIN code lock and Logo PIN code change functions.

√ *Note:*

When On is selected in the Logo PIN code lock function, Logo select and Screen Capture functions cannot be selected.

Logo select

This function decides on the starting-up display from among following options.

User Show the image you captured.

Default Show the factory-set logo.

Off Show the countdown display only.

Screen Capture

This function enables you to capture an image being projected to use it for a starting-up display or interval of presentations.

Select **Screen Capture** and press the OK button. A confirmation box appears and select **Yes** to capture the projected image.

After capturing the projected image, go to the Logo select function and set it to **User**. Then the captured image will be displayed the next time you turn on the projector.

√ *Note:*

- *Screen Capture can be operated on the resolutions from VGA(640x480) to XGA (1024x768) only. (BD430, BD450, BD470)*
- *Screen Capture can be operated on the resolutions from VGA(640x480) to WXGA (1280x800) only. (BD460)*

Logo PIN code lock

This function prevents an unauthorized person from changing the screen logo.

Off The screen logo can be changed freely from the Logo Menu.

On The screen logo cannot be changed without a Logo PIN code.

If you want to change the **Logo PIN code lock** setting, press the OK button and the Logo PIN code dialog box appears. Enter a Logo PIN code by following the steps below.

Option

Enter a Logo PIN code

Use the Point ▲▼ buttons to enter a number. Press the Point ► button to fix the number and move the red frame pointer to the next box. The number changes to "***". If you fixed an incorrect number, use the Point ◀ button to move the pointer to the number you want to correct, and then enter the correct number.

Repeat this step to complete entering a three-digit number.

After entering the three-digit number, move the pointer to Set. Press the OK button so that you can start to operate the projector.

If you entered an incorrect Logo PIN code, **Logo PIN code** and the number (***) will turn red for a moment. Enter the correct Logo PIN code all over again.

Logo PIN code change

Logo PIN code can be changed to your desired three- digit number. Press the OK button to select Logo PIN code change. Logo Pin code dialog box appears, use the Point ▲▼ buttons to enter the correct code. The New Logo PIN code input dialog box appears. Set a new Logo PIN code, confirmation box appears, choose yes to set the new Logo Pin code.

Be sure to note the new Logo PIN code and keep it on hand. If you lost the number, you could no longer change the Logo PIN code setting.

CAUTION:

WHEN YOU HAVE CHANGED THE LOGO PIN CODE, WRITE DOWN THE NEW PIN CODE IN COLUMN OF THE LOGO PIN CODE NO. MEMO ON PAGE 64, AND KEEP IT SECURELY. SHOULD THE LOGO PIN CODE BE LOST OR FORGOTTEN, THE LOGO PIN CODE SETTING CAN NO LONGER BE CHANGED.

Ceiling

This function is used to project the image from a ceiling mounted projector.

OffDisable this function.

Auto ...The picture will be top/bottom reversed automatically.

On.....The picture will be top/bottom reversed.

Rear

This function is used to project the image from rear of the screen.

OffDisable this function.

On.....The picture will be left/right reversed.

Terminal

The RGB IN 2/RGB OUT terminal on the back of the projector is switchable for computer input or monitor output(See page 13). Select RGB2 or RGB Out with ▲▼ buttons.

RGB2RGB2 Input.

RGB OutRGB output.

RGB Out is the same signal as RGB IN 1.

Power management

For reducing power consumption as well as maintaining the lamp life, the Power management function turns off the projection lamp when the projector is not operated for a certain period.

Select one of the following options:

ReadyWhen the lamp has been fully cooled down, the POWER/TEMP indicator changes to green blinking. In this condition, the projection lamp will be turned on if the input signal is reconnected or any button on the top control or remote control is pressed.

Shut down When the lamp has been fully cooled down, the power will be shut down.

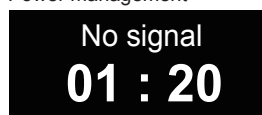
Off Power management function is off.

Timer If the input signal is interrupted and no button is pressed for more than 30 seconds, the timer display with No signal appears. It starts the countdown until the lamp is turned off. Press ▲▼ buttons to set the Timer(1~30min.)

√ *Note:*

Factory default is Ready: 5 Min.

Power management



Time left before Lamp is off.

Auto Power

This function enables projector auto power on with detection connection with AC power cord.

On Auto Power function is On.

Off Auto Power function is Off.

Standby mode

There are two standby modes in the projector.

Normal in this mode, RS-232C and RGB Out functions can be used.

Eco Low power standby mode, in this mode, RS-232C and RGB Out functions can not be used.

Option

Closed Caption

Closed Caption is a text version of the program sound or other information displayed on the screen.If the input signal contains closed captions, you can turn on the feature and switch the channels. Press the Point ▲▼ buttons to select Off, CC1, CC2, CC3 or CC4.

√ *Note:*

The Closed Caption is available only under the situation below.

- Only the NTSC 3.58 Color system of the Video and S-Video supports the closed caption.
- The icon of Closed Caption is displayed in gray while it is not available.
- The Closed caption is unavailable when on screen menu and Timer are displayed.

Lamp Mode

This function allows you to change brightness of the screen.

- 💡 **Normal** Normal brightness
- 💡 **Eco** Lower brightness reduces the lamp power consumption and extends the lamp life.

Test Pattern

This function enables you to test & set interior signals.There are 12 types of test pattern: gray scale,raster gray, color bar, red, green, blue, black, gray, white, cross hatch.

Security (Key lock and PIN code lock)

This function allows you to use the **Key lock** and **PIN code lock** function to set the security for the projector operation.

Key lock

This function locks the top control and remote control buttons to prevent operation by unauthorized persons. Select Key lock and then press the OK button, and select the desired item by pressing the Point ▲▼ buttons.



Off Unlocked.



Projector Lock the operation of the top control except the power button. To unlock, use the remote control.



Remote Control Lock the operation of the remote control except the power button. To unlock, use the top control.

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.

PIN code lock

This function prevents the projector from being operated by unauthorized persons and provides the following setting options for security.

OffUnlocked.

On Enter the PIN code every time turning on the projector.

Whenever you change the PIN code lock setting or the PIN code (the three-digit number), you are required to enter the PIN code. The "111" is set as the initial PIN code at the factory.

If you want to change the PIN code lock setting, Press OK button and the PIN code dialog box appears.

√ *Note:*

*The POWER button is enable even the "Projector" or "Remote control" of **Key lock** and **PIN code lock** are set.*

Enter a PIN code

Use the Point ▲▼ buttons to enter a number. Press the Point ► button to fix the number and move the red frame pointer to the next box. The number changes to "**". If you fixed an incorrect number, use the Point ◀ button to move the pointer to the number you want to correct, and then enter the correct number.

Repeat this step to complete entering a three-digit number.

After entering the three-digit number, move the pointer to "Set." Press OK button so that you can start to operate the projector.

If you entered an incorrect PIN code, PIN code and the number (***) will turn red for a moment. Enter the correct PIN code all over again.

PIN code change

The PIN code can be changed to your desired three-digit number. Press ▲▼ button to select PIN code change. Pin code dialog box appears, use the Point ▲▼ buttons to enter the correct code. The New PIN code input dialog box appears. Set a new PIN code.

CAUTION:

WHEN YOU HAVE CHANGED THE PIN CODE, WRITE DOWN THE NEW PIN CODE IN COLUMN OF THE PIN CODE NO. MEMO ON PAGE 64, AND KEEP IT SECURELY. IF YOU FORGET YOUR PIN CODE, THE PROJECTOR CAN NO LONGER BE STARTED.

Option

Cooling fast

There are the following options in the cooling fans operation when the projector is turned off.

On ... Faster and louder-sound than the normal operation, but it takes less time to cool the projector down.

Off ... Normal operation.

High Altitude

This projector provides Fan control function in the "Option" menu. Choose the running speed of cooling fans from the following options according to the ground elevation where you use the projector.

Off.....Normal speed.Set this function to "**Off**" when using the projector in non-high altitude environment.

On.....The fan runs faster than normal speed. When operated in high altitude area, the cooling fan will produce weaker effects. So you should select this item.

√ *Note:*

Change the High Altitude mode to On at above 2000 m.

Filter counter

This function is used to set a frequency for the filter cleaning.

When the projector reached a specified time between cleanings, a Filter warning icon appears on the screen, notifying the cleaning is necessary. After cleaning the filter, be sure to select RESET and set the timer. The Filter warning icon will not turn off until the filter counter is reset.

Filter counter.....Display the time that the filter is used. Ready only.

Timer.....Display the time to cleaning the filter.(Off/100h/200h/300h)

Filter counter reset.....Reset the filter counter after filter is cleaned.

Filter warning icon

Please clean the filter



Automatic Standby

This function is used to set a time to turn off the projector automatically if there is no any operation.

Off.....Disable the function.

4 Hr.....Turning off the projector automatically in 4 hours if there is no any operation.

6 Hr.....Turning off the projector automatically in 6 hours if there is no any operation.

8 Hr.....Turning off the projector automatically in 8 hours if there is no any operation.

Sleep time

This function is used to set a specified time to turn off the projector even if there is operation or signal input.

Press ► button to enter the sub menu and press ▲▼ buttons to select among Off, 10 min, 20 min, 30 min, 60 min, 90 min, 120 min and 240 min.

Initial Setting

This function returns all setting values except for the **User logo**, **PIN code lock**, **Logo PIN code lock**, **Lamp counter** and **Filter counter** to the factory default settings.

Information

Displaying input source

The information menu is used to detect signal of projected image and running state of the projector.

Direct operation

Press INFO button on the remote control and the information menu will appear on the screen. Shown as the right picture.

Menu operation

Press MENU button to display the screen menu. Press ▲▼ to select information icon, the information menu will appear and the information is displayed. Shown as the right picture

See below for displayed information.

Input

The selected input source is displayed.

H-sync freq .

The horizontal frequency of the input signal is displayed in KHz, or - - - KHz when no signal.

V-sync freq .

The vertical frequency of the input signal is displayed in Hz, or - - - Hz when no signal. Numbers of Hz doubles when during Interlace.

Screen

The selected screen size is displayed.

Language

The selected OSD language is displayed.

Lamp Mode

The selected lamp mode is displayed.

Lamp Time

The used time of the lamp is displayed.

Power management

Turns off the projection lamp when the projector is not operated for a certain period.

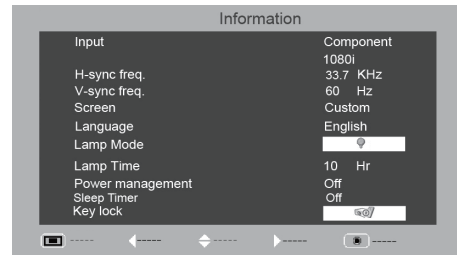
Sleep Timer

This function is used to set a specified time to turn off the projector even if there is operation or signal input.

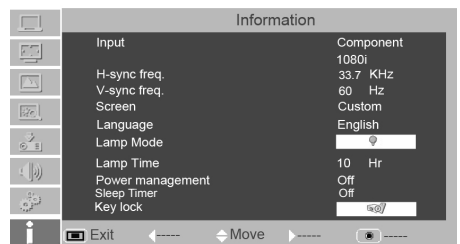
Key lock

The Key lock state is displayed. (Off, Remote Control or The projector)

Information menu



Information menu



Maintenance

POWER/TEMP indicator

The POWER/TEMP indicator tells in what protection state engaged. The user should check the POWER/TEMP indicator and power indicator to make sure they work.

Projector is in standby state, and POWER/TEMP indicator lights red.

When its internal temperature exceeds the normal value, it will be automatically powered off to protect the parts. When in a cooled state, the power indicator will blink. When it is cooled enough (restore the normal operating temperature), you can press the power key to start up the system.

Indicator



POWER/TEMP indicator lights red.

Check the items below:

- Whether the site where installed is well ventilated, and whether the vent is blocked.
- Whether installed near the vent of air conditioner. it can not be installed at that place.
- Whether the filter is clean. You should clean it regularly.

Projector is in OFF state, and POWER/TEMP indicator flashes red. When any abnormality is detected, The projector will be automatically powered off to protect its internal parts. At the time, the POWER/TEMP indicator will flash red. In this case, you should unplug the power cord and plug it again, then power on the projector again for check. If the projector is still in OFF state and POWER/TEMP indicator flashes red, you should unplug the power cord and contact the repair center for maintenance.



CAUTION:

When abnormality occurs, the user should cut off the AC power. Otherwise, it may lead to fire or electric shock.

Cleaning the filter

The filter prevents dust from accumulating on the surface of lens assembly. Should the filter become clogged with dust particles, it will reduce the cooling fan's effectiveness and may result in internal heat buildup and adversely affect the life of the projector. If a Filter warning icon appears on the screen, you should clean the filter immediately. To do that, follow the steps below:

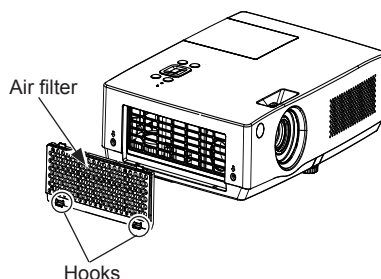
- 1 Turn off the projector, and unplug the AC power cord from the AC outlet.
- 2 Release the two hooks and remove the air filter.
- 3 Gently clean the filter with a brush.
- 4 Reinstall the filter into the projector properly.
Ensure that a clicking sound is heard to confirm the filter is completely installed.



Note:

Do not operate the projector when the filter is removed. Otherwise, dust will be accumulated on lens and thus affect the image quality.

Never attempt to place any objects to the air intake vents. Otherwise, the projector may malfunction.



Resetting the filter counter

1. Press Menu on the remote control to display the on screen menu. Press ▲▼ to select the icon for the option menu. Then press ► or press OK.
2. Press ▲▼ to select "Filter counter reset" , and then press ► or press Select. Press ▲▼ to select "Filter counter reset", then press OK.
At the time, you will see the prompt information "Reset the filter counter ?" displayed on the screen. Select Yes.
3. When another dialog box pops up, you should select Yes and reset the filter.

Note:

Keep from dust and smog. Otherwise, the image quality may deteriorate. When operated in an environment with dust and smog, the dust and dirt will accumulate on its lens, liquid crystal board or the lens assembly inside the projector. If that happens, you should contact the local distributor or repair center for correct cleaning.

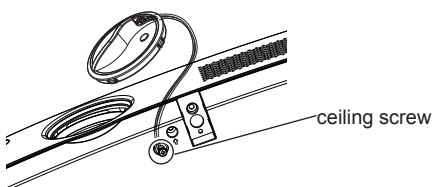
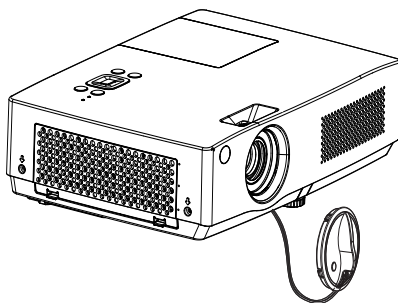
Maintenance

Attaching the Lens Cap

When moving the projector or not using it for a long period, cover the lens cap properly.

Attach the lens cap according to the following procedures.

1. Thread the string through the hole on the lens cap and then tie a knot in the string to secure it in place.
2. Loosen the ceiling screw on the bottom and tied the string on it, then tighten the screw.

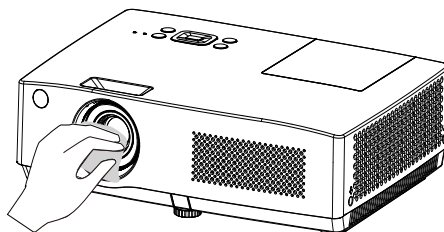


Cleaning the lens

Unplug the AC power cord before cleaning.

Apply some non-abrasive cleaning agent exclusively designed for cameras onto a piece of clean cloth, and then use it to wipe the lens gently. Or you can use cleaning paper or commercial blower to clean the lens.

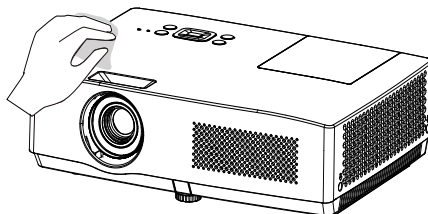
Avoid excessive use of cleaning agent. Abrasive cleaning agent, solvent or other coarse chemicals may scratch the lens.



Cleaning the projector's cabinet

Unplug the AC power cord before cleaning.

Use a piece of clean cloth to gently wipe the surface of projector. If the projector is quite polluted, you can apply some neutral cleaning agent onto a piece of clean cloth, and use it to wipe the shell. Avoid excessive use of cleaning agent. Abrasive cleaning agent, solvent or other coarse chemicals may scratch the lens.



When not used, you should put it into a box to avoid dust and scratch.

Replacing the lamp

When the service life of the projection lamp is over, the icon suggests that the lamp needed to be replaced will appear on the screen, and the LAMP indicator on the top control will lights red. In this case, you should immediately replace it with a new one of the same model. The lighting time of the LAMP indicator is subject to the lamp mode.

Top Control



LAMP REPLACE indicator lights red.

Lamp replacement icon

Replace the lamp



CAUTION

As temperature inside the projector is high, you should cool the projector for at least 45 minutes before you open the lamp cover.



CAUTION

When the lamp isn't illuminated, it may indicate that the lamp has been damaged. When you replace the lamp in a projector installed on the ceiling, you should stand beside the lamp cover but not under it; for the broken glass may fall down to hurt you. To do that, remove the lamp cover gently to avoid being hurt by the dropped glass. If glass drops into your eyes or mouth, you should see the doctor immediately.

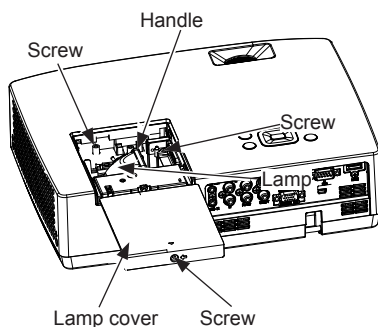


CAUTION

For the sake of safety, only use the lamp of the same model. Never drop the lamp onto the ground nor touch the glass bulb! The glass can shatter and hurt.

To replace the lamp, follow the steps below:

1. Power off the projector and unplug the power cord. Then let the project cool for at least 45 minutes.
2. Loosen the screws on the lamp cover and open the cover.
3. Loosen the two screws that secure the lamp. Lift the lamp out of the projector by using the handle.
4. Replace the lamp with a new one and secure the two screws.
Make sure that the lamp is set properly. Close the lamp cover and secure the screw.
5. Plug the AC power cord and power on the projector.



Maintenance

ORDER REPLACEMENT LAMP

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

Replacement Lamp Type No.:1300022500



LAMP HANDLING PRECAUTIONS

This projector uses a high-pressure lamp which must be handled carefully and properly. Improper handling may result in accidents, injury, or create a fire hazard.

- Lamp life may differ from lamp to lamp and according to the environment of use. There is no guarantee of the same life for each lamp. Some lamps may fail or terminate their life in a shorter period of time than other similar lamps.
- If the projector indicates that the lamp should be replaced, i.e., if the LAMP REPLACE indicator lights up, replace the lamp with a new one IMMEDIATELY after the projector has cooled down. (Follow carefully the instructions in the Lamp Replacement section of this manual.) Continuous use of the lamp with the LAMP REPLACE indicator lighted may increase the risk of lamp explosion.
- A Lamp may explode as a result of vibration, shock or degradation as a result of hours of use as its lifetime draws to an end. Risk of explosion may differ according to the environment or conditions in which the projector and lamp are being used.

IF A LAMP EXPLODES, THE FOLLOWING SAFETY PRECAUTIONS SHOULD BE TAKEN .

If a lamp explodes, disconnect the projector's AC plug from the AC outlet immediately. Contact an authorized service station for a checkup of the unit and replacement of the lamp. Additionally, check carefully to ensure that there are no broken shards or pieces of glass around the projector or coming out from the cooling air circulation holes. Any broken shards found should be cleaned up carefully. No one should check the inside of the projector except those who are authorized trained technicians and who are familiar with projector service. Inappropriate attempts to service the unit by anyone, especially those who are not appropriately trained to do so, may result in an accident or injury caused by pieces of broken glass.

Appendix

Troubleshooting

Before calling your dealer or service center for assistance, check the items below once again.

- Make sure you have properly connected the projector to peripheral equipment as described on pages (see page19-21).
- Make sure all equipment is connected to AC outlet and the power is turned on.
- When the projector does not project an image from the connected computer, restart the computer.

Failure	Solutions
The projector can't be powered on.	- Plug the power cord of the projector into the AC power outlet. - Check whether the power indicator turns red. - The projector can be turned on after the power indicator turns red. - Check the POWER/TEMP indicator. If it lights red, projector cannot be turned on. - Check the projection lamp
The initial display is not shown.	- Make sure both "Display" and "Logo select" functions are enabled.
Input signals are automatically switched.	-Adjust the search function of input source properly.
Input signal switches automatically.	- Make sure Input search function is adjusted properly.
When the projector is on, the filter warning icon appears.	- Clean the filter immediately.
When the projector is on, the lamp replacement icon appears.	- Replace the lamp immediately.
Image is out of focus.	- Adjust focus of the projector. - Provide proper distance between the projector and the projection screen. - Check the projection lens to see if it needs cleaning.
Image turns over leftward/rightward	- Check the function of "Rear" and adjust the image.
Image turns over upward/downward	- Check the function of "ceiling" and adjust the image.
Image not bright enough	- Check whether the "Contrast" or "Brightness" is adjusted correctly. - Check whether the "Image mode" is properly selected. - Check the function of the "Lamp Mode". - Check the lamp and replace it.
There is no image.	- Check the connection between your computer or video equipment and the projector. - Make sure the temperature is not out of the specified Operating Temperature (41°F–95°F [5°C–35°C]). - When BLANK is operating, the image cannot be displayed.

Appendix

Failure	Solutions
There is no sound.	- Check the audio cable connection from audio input source. - Press the Volume + button. - Press the Mute button. - When the AUDIO OUT is plugged-in, the projector's built-in speaker is not available.
The color of image is abnormal.	- Check whether the "Red" or "Green" or "Blue" is adjusted correctly. - Make sure the Blackboard(Green) is selected in the item "image select".
Auto PC adjust doesn't work.	- Check the signal of input source. Automatic adjustment through PC won't be effective when 480p, 576p, 720p, 480i, 576i or 1080i is selected.
Power management doesn't work.	- Power management function can not work while BLANK function is running.
The PIN code dialog box popes up in the startup process	- A PIN code is set for locking.
Remote control doesn't work.	- Check the battery of the remote control. - Make sure there is no obstacle between the projector and the remote control. - To use the remote control, keep it within 5 meters away from the projector. - The remote control is not available if the remote control is locked at Key lock under Security of Option section.
The indicator is illuminated or flashes	- Check the state of the projector according to the indicator.
The Top control panel doesn't work	- The Top control is not available if the top control is locked at Key lock under Security of Option section.
PIN code lock for startup animation, key lock and PIN code lock can't be unlocked.	- Contact the local distributor or the repair center.

Warning:

Is operated with high voltage. Do not open its casing!

If the problem still exists after you take the aforesaid measures, you should contact the local distributor or the repair center and tell the machine model. The projector will tell you how to handle the issue.

Indicator and projector state

Check the indicator to know about the state of projector.

Indicator		State of projector
POWER/TEMP (Green/Red/Orange)	LAMP (Red)	
		In power-off state (AC power cord not inserted).
		In normal working state.
		[In standby state] Standby state. Press POWER button to turn on the projector.
		[In power on state] Environmental temperature is higher than the set operating range (43°C~47°C). The projector will power off soon.
		The projector is in suspension state until the lamp is lit.
		The projector is preparing for stand-by or the projection lamp is being cooled down. The projector cannot be turned on until cooling is completed and the POWER/TEMP indicator is off.
		Can't be powered on because error is detected. You should unplug the power cord. Then insert it again and power on the projector. If the projector is powered off again, you should cut off the power and contact the local distributor or repair center. In this case, stop the projector. Otherwise, electric shock or fire may occur.
 or 		The service life of the lamp is over. You should replace it with a new one in time.
		Turning on the lamp error. LAMP indicator blinks red.

 ... green

 ... red

 ... orange

 ... off

 ... blinks green

 ... blinks red

 ... blinks orange

*When the projector lamp reaches its endurance, the indicator light will be yellow and you need to replace the lamp.

Appendix

Compatible Signal

Basically this projector can accept the signal with the V-,H-Frequency mentioned below:

No.	Specification				Proposed
	Resolution	H-freq(KHz)	V-freq(Hz)	Pixel clock(MHz)	
HDMI-DTV					
1	720*576	31.250	50	27	576P
2	720*480	31.47	59.94	27	480P
3	1280*720	37.50	50	74.25	720P
4	1280*720	45.00	60.00	74.25	720P
5	1280*720	44.96	59.94	74.175	720P
6	1920*1080	28.125	50	74.25	1080i
7	1920*1080	33.75	60.00	74.25	1080i
8	1920*1080	33.72	59.94	74.176	1080i
HDMI-PC/RGB-PC					
1	640*350	31.47	70.09	25.18	PC98
2	720*400	31.47	70.09	28.32	PC98
3	640*400	37.86	85.08	31.5	VGA
4	640*480	31.469	59.94	25.17	VGA
5	640*480	37.861	72.8	31.5	VGA
6	640*480	37.5	75	31.5	VGA
7	640*480	43.27	85.01	36	VGA
8	800*600	35.156	56.25	36	SVGA
9	800*600	37.879	60.32	40	SVGA
10	800*600	48.077	72.18	50	SVGA
11	800*600	46.875	75	49.5	SVGA
12	800*600	53.67	85.06	56.25	SVGA
13	1024*768	48.363	60	65	XGA
14	1024*768	56.476	70.07	75	XGA
15	1024*768	60.02	75.03	78.75	XGA
16	1024*768	68.68	85	94.5	XGA
17	1152*864	67.5	75	108	XGA+
18	1280*1024	63.981	60.02	108	SXGA
19	1280*1024	79.98	75.02	135	SXGA
20	1280*768	47.776	59.87	79.5	WXGA
21	1280*768	60.29	74.89	102.25	WXGA
22	1280*768	68.63	84.84	117.5	WXGA
23	1360*768	47.71	60.02	85.5	WXGA
24	1366*768	47.13	59.66	72.01	WXGA
25	1280*800	49.7	59.81	83.5	WXGA
26	1280*800	62.79	74.93	106.5	WXGA
27	1280*800	71.55	84.88	122.5	WXGA
28	1280*960	60	60	108	SXGA-
29	1400*1050	65.32	59.98	121.75	SXGA+
30*	1600*1200	75	60	162	UXGA
31*	1680*1050	65.29	59.95	146.25	WSXGA+

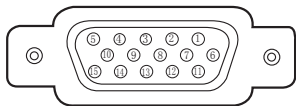
* RGB signal only.

√ Note:
The specification is subject to change without any prior notice.

No.	Specification				Proposed
	Resolution	H-freq(KHz)	V-freq(Hz)	Pixel clock(MHz)	
Component Video input (Y,Pb,Pr)					
1	720°576	15.625	50	13.5	SDTV 576i
2	720°480	15.735	59.94	13.5	SDTV 480i
3	720°576	31.250	50	27	EDTV 576P
4	720°480	31.47	59.94	27	EDTV 480P
5	1280°720	37.50	50	74.25	HDTV 720P/50Hz
6	1280°720	45.00	60.00	74.25	HDTV 720P/60Hz
7	1920°1080	28.125	50	74.25	HDTV 1080i/50Hz
8	1920°1080	33.75	60.00	74.25	HDTV 1080i/60Hz

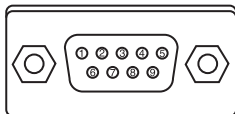
Configuration of terminals

RGB 1/RGB 2/RGB OUT (analog)
Terminal: Analog RGB (D-sub 15-pin)



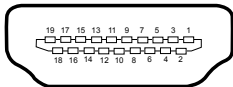
1	Red (Input/output)	9	-----
2	Green (Input/output)	10	Grounding (field synchronizing)
3	Blue (Input/output)	11	Grounding
4	-----	12	DDC data
5	Grounding (line synchronizing)	13	Horizontal synchronizing (compound sync.) input/output
6	Grounding (red)	14	Vertical synchronizing input/output
7	Grounding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

RS232C terminal (D-SUB-9-Pin)



1	-----
2	RXD
3	TXD
4	-----
5	GND
6	-----
7	-----
8	-----
9	-----

HDMI PORT terminal (HDMI Type A 19-Pin)



1	TMDS Data2+	11	TMDS Clock Shield
2	TMDS Data2 Shield	12	TMDS Clock-
3	TMDS Data2-	13	CEC
4	TMDS Data1+	14	Reserved (N.C. on device)
5	TMDS Data1 Shield	15	SCL
6	TMDS Data1-	16	SDA
7	TMDS Data0+	17	DDC/CEC Ground
8	TMDS Data0 Shield	18	+5V Power
9	TMDS Data0-	19	Hot Plug Detect
10	TMDS Clock+		

Appendix

Technical Specifications

Mechanical properties	
Dimensions (W×H×D)	327.4 mm x 241mm x 90.9mm (not including the adjustable feet)
Net Weight	2.9kg
Adjustable foot	10°
Monitor's resolution	
LCD system	0.63" TFT , active matrix, 3-panel (for BD430, BD450 and BD470) 0.59" TFT , active matrix, 3-panel (for BD460)
Monitor's resolution	1024 x 768 dots(for BD430, BD450 and BD470) 1280 x 800 dots(for BD460)
Compatible signals	
Color standard	PAL, SECAM, NTSC, NTSC4.43, PAL-M and PAL-N
HDTV signal	480i, 480p, 576i ,576p,720p and1080i
Scanning frequency	Horizontal frequency: 31kHz-80kHz, Vertical frequency: 56Hz-85Hz
Optical elements	
Image size (diagonal lines)	30"-300", adjustable
Projection distance	WIDE:0.875m~8.943m TELE:1.054m~10.737m(BD430,BD450,BD470) WIDE:0.936m~9.556m TELE:1.128m~11.478m(BD460)
Lens	F=2.1 ~2.3, 1.2x optics, f=18.82~22.60mm with manual zoom and focus.(BD430) F=1.58 ~1.75, 1.2x optics, f=18.85~22.63mm with manual zoom and focus. (BD450, BD460 and BD470)
Lamp power	230w
Terminal	
Component input terminal	RCA x 3
S-video input terminal	DIN 4-pin x 1
RGB IN 1 terminal	D-sub 15-pin x 1
RGB IN 2 / RGB OUT terminal	D-sub 15-pin x 1
VIDEO input terminal	RCA x 1
AUDIO IN L(MONO)/R terminal	RCA x 2
HDMI terminal	HDMI A interface 19-pin x 1
AUDIO IN terminal	Mini plug(stereo) x 1
AUDIO OUT terminal	Mini plug(stereo) x 1
RS-232C terminal	D-sub 9-pin x 1
Audio	
Internal audio amplifier	2W x 2 stereo
Built-in speaker	2W RMS 4Ω x 2
Power supply	
Voltage and power consumption	AC 100~240 V(Max. 3.8A),50/60 Hz
Operating environment	
Operating temperature	41°F~95°F (5°C~35°C)
Operating Humidity	0 ~ 80 %
Storage temperature	-4°F~140°F (-20°C~60°C)
Storage Humidity	0 ~ 85 %
Remote control	
Battery	AAA or LR03 1.5V alkali battery x 2
Effective area	16.4' (5 m)/±30
Dimensions	52mm (W) x 18mm (H) x 110mm (D)
Net weight	67g (including battery)

- 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.

Accessories	
User's Manual (CD ROM)	
AC power cord	
Remote control and battery	
RGB cable	
Lens Cover	
Lens cover string	
Ceiling screw	

Content of hazardous substances and elements

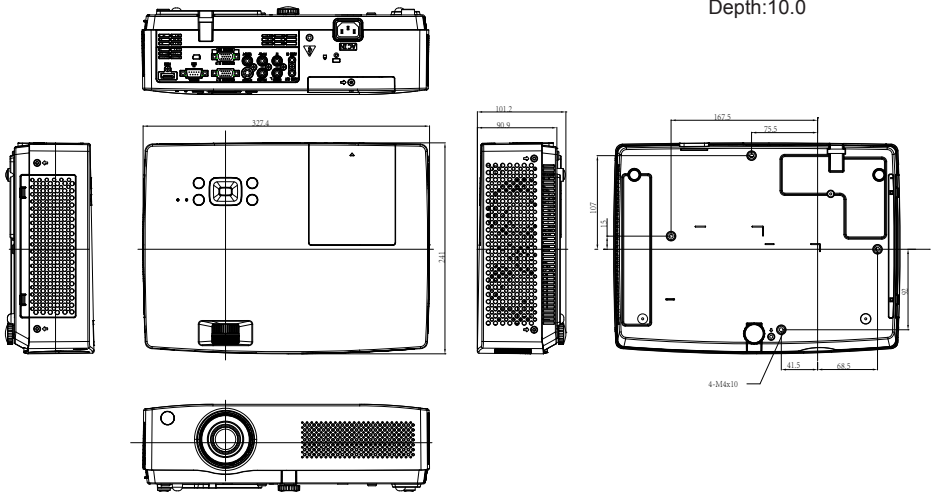
Name of parts		Hazardous substances and elements					
		Pb	Hg	Cd	Cr6+	PBB	PBDE
Body	Plastic parts	○	○	○	○	○	○
	Metal parts	○	○	○	○	○	○
	Optical parts	×	×	○	○	○	○
	PCB assembly	○	○	○	○	○	○
	Other parts	×	○	○	○	○	○
Accessorie	Remote control	×	○	○	○	○	○
	Cable	×	○	○	○	○	○
○: It means that contents of hazardous substances in all homogeneous materials in this part don't exceed "Required Limitations" specified in SJ/T11363-2006. ×: It means that contents of hazardous substances in at least one homogeneous material in this part exceed "Required Limitations" specified in SJ/T11363-2006.							

Appendix

Dimensions

Unit: mm

Screw hole used when
installed on the ceiling
Screw:M6
Depth:10.0



PIN code memorandum

Write down the PIN code in the blank below and keep it, please contact the repair center.

PIN code lock

Factory default PIN code 111*

--	--	--

Logo PIN code lock

Factory default PIN code 111*

--	--	--

*If this 3-digit number is changed,
the factory default number will be ineffective.

RS232 Control Method

NOTE: Connect the PC & projector with serial port cable (female-to-female pins) for projector computer control.

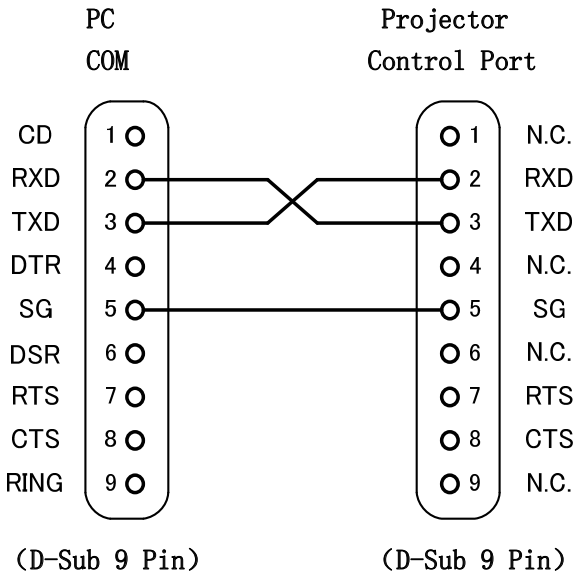
1. Connection

1.1 Port Setting

Item	Value
Method	Asynchronous communication
Bits per seconds	19200
Data bits	8
Parity	none
Stop bits	1
Flow control	none

1.1 Wiring

RS232 cross cable is used.



Appendix

2. Commands

Case sensitive, each command end by[CR](Carriage). The time out for each command is one second. If you want to cancel the time out setting temporarily. Please send "#!"[CR].(It should be sent within one second).

Command	Item	Command	Item
A00	POWER ON	A0C	Mute off
A01	POWER OFF (Power OFF immediately)	AW LAMPMODE NORMAL	Lamp mode normal
A02	POWER OFF	AW LAMPMODE ECO	Lamp mode eco
A05	RGB1	A30	Digital zoom +
A06	RGB2	A31	Digital zoom -
A07	Component	A09	Volume +
A33	Video	A0A	Volume -
A34	S-Video	AW SCREEN WIDE	16:9
A36	HDMI	AW SCREEN FULL	4:3
AW TERMINAL COMPUTER	RGB 2:Input	AW SCREEN NORMAL	Normal
AW TERMINAL MONITOR	RGB 2:Output	AW SCREEN CUSTOM	Custom
A8E	Keystone ↑	A19	Dynamic
A8F	Keystone ↓	A11	Standard(Image select)
A1C	Menu on	A12	Cinema
A1D	Menu off	A39	Colorboard
AR1	Input mode read	A3A	Navigation right
AW AUTOSETUP START	Auto setup	A3B	Navigation left
A43	Still on	A3C	Navigation up
A44	Still off	A3D	Navigation down
A0D	Blank on	A3F	Select
A0E	Blank off	AW SCREEN 1610FULL*	Full
A8A	Timer	AW SCREEN NATURAL WIDE*	Natural wide
A0B	Mute on	* For BD460 only.	

2.1 POWER ON

Command	"A00"[CR] (Hex:0x41 0x30 0x30 0x0d)	
Details	Power ON when projector standby	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.2 POWER OFF(Power OFF immediately)

Command	"A01"[CR] (Hex:0x41 0x30 0x31 0x0d)	
Details	Power OFF immediately	
Return	OK	"_" [CR]
	NG	"?" [CR]

2.3 POWER OFF

Command	"A02"[CR] (Hex:0x41 0x30 0x32 0x0d)	
Details	"Power off?" displays while send the command, just like press the "POWER"key.	
Return	OK	"_" [CR]
	NG	"?" [CR]

2.4 RGB 1

Command	"A05"[CR] (Hex:0x41 0x30 0x35 0x0d)	
Details	Change the input to "RGB1".	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.5 RGB 2

Command	"A06"[CR] (Hex:0x41 0x30 0x36 0x0d)	
Details	Change the input to "RGB2".	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.6 Component

Command	"A07"[CR] (Hex:0x41 0x30 0x37 0x0d)	
Details	Change the input to "Component".	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.7 Video

Command	"A33"[CR] (Hex:0x41 0x33 0x33 0x0d)	
Details	Change the input to "Video".	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.8 S-Video

Command	"A34"[CR] (Hex:0x41 0x33 0x34 0x0d)	
Details	Change the input to "S-Video".	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.9 HDMI

Command	"A36"[CR] (Hex:0x41 0x33 0x36 0x0d)	
Details	Change the input to "HDMI".	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.10 RGB 2:Input

Command	"AW TERMINAL COMPUTER"[CR] (Hex: 0x41 0x57 0x20 0x54 0x45 0x52 0x4D 0x49 0x4E 0x41 0x4C 0x20 0x43 0x4F 0x4D 0x50 0x55 0x54 0x45 0x52 0x0d)	
Details	Change to "RGB 2: Input".	
Return	OK	"000" [CR]
	NG	"?" [CR]

2.11 RGB 2:Output

Command	"AW TERMINAL MONITOR"[CR] (Hex: 0x41 0x57 0x20 0x54 0x45 0x52 0x4D 0x49 0x4E 0x41 0x4C 0x20 0x4D 0x4F 0x4E 0x49 0x54 0x4F 0x52 0x0d)	
Details	Change to "RGB 2: Output".	
Return	OK	"000" [CR]
	NG	"?" [CR]

Appendix

2.12 Keystone ↑

Command	"A8E"[CR] (Hex:0x41 0x38 0x45 0x0d)	
Details	Keystone ↑	
Return	OK	"_" [CR]
	NG	"?" [CR]

2.13 Keystone ↓

Command	"A8F"[CR] (Hex:0x41 0x38 0x46 0x0d)	
Details	Keystone ↓	
Return	OK	"_" [CR]
	NG	"?" [CR]

2.14 Menu on

Command	"A1C"[CR] (Hex:0x41 0x31 0x43 0x0d)	
Details	Open the on screen menu	
Return	OK	"_" [CR]
	NG	"?" [CR]

2.15 Menu off

Command	"A1D"[CR] (Hex:0x41 0x31 0x44 0x0d)	
Details	Close the on screen menu	
Return	OK	"_" [CR]
	NG	"?" [CR]

2.16 Input mode read

Command	"AR1"[CR] (Hex:0x41 0x52 0x31 0x0d)	
Details	Get the current input mode. 1-HDMI 2-RBG 1 3-RBG 2 4-Component 5-S-Video 6-Video	
Return	OK	1 [CR]:HDMI 2 [CR]:RGB 1 3 [CR]:RGB 2 4 [CR]:Component 5 [CR]:S-Video 6:[CR]:Video
	NG	"?" [CR]

2.17 Auto setup

Command	"AW AUTOSETUP START"[CR] (Hex: 0x41 0x57 0x20 0x41 0x55 0x54 0x4F 0x53 0x45 0x54 0x55 0x50 0x20 0x53 0x54 0x41 0x52 0x54 0x0d)	
Details	Start the auto setup function.	
Return	OK	"000" [CR]
	NG	"?" [CR]

2.18 Still on

Command	"A43"[CR] (Hex:0x41 0x34 0x33 0x0d)	
Details	Stil on.	
Return	OK	"_" [CR]
	NG	"?" [CR]

2.19 Still off

Command	"A44"[CR] (Hex:0x41 0x34 0x34 0x0d)	
Details	Still off.	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.20 Blank on

Command	"A0D"[CR] (Hex:0x41 0x30 0x44 0x0d)	
Details	Video mute.	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.21 Blank off

Command	"A0E"[CR] (Hex:0x41 0x30 0x45 0x0d)	
Details	Cancel the video mute.	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.22 Timer

Command	"A8A"[CR] (Hex:0x41 0x38 0x41 0x0d)	
Details	Start → Stop → Off → Start ...	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.23 Mute on

Command	"A0B"[CR] (Hex:0x41 0x30 0x42 0x0d)	
Details	Mute on.	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.24 Mute off

Command	"A0C"[CR] (Hex: 0x41 0x30 0x43 0x0d)	
Details	Mute off.	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.25 Lamp mode normal

Command	"AW LAMPMODE NORMAL"[CR] (Hex: 0x41 0x57 0x20 0x4C 0x41 0x4D 0x50 0x4D 0x4F 0x44 0x45 0x20 0x4E 0x4F 0x52 0x4D 0x41 0x4C 0x0d)	
Details	Change the lamp mode to "Normal".	
Return	OK	"000" [CR]
	NG	"?" [CR]

Appendix

2.26 Lamp mode eco

Command	"AW LAMPMODE ECO"[CR] (Hex: 0x41 0x57 0x20 0x4C 0x41 0x4D 0x50 0x4D 0x4F 0x44 0x45 0x20 0x45 0x43 0x4F 0x0d)	
Details	Change the input to "Eco".	
Return	OK	"000" [CR]
	NG	"?" [CR]

2.27 Digital Zoom +

Command	"A30"[CR] (Hex:0x41 0x33 0x30 0x0d)	
Details	Digital zoom +	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.28 Digital Zoom -

Command	"A31"[CR] (Hex:0x41 0x33 0x31 0x0d)	
Details	Digital zoom -	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.29 Volume +

Command	"A09"[CR] (Hex:0x41 0x30 0x39 0x0d)	
Details	Increased the volume.	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.30 Volume -

Command	"A0A"[CR] (Hex:0x41 0x30 0x41 0x0d)	
Details	Decreased the volume.	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.31 16:9

Command	"AW SCREEN WIDE"[CR] (Hex: 0x41 0x57 0x20 0x53 0x43 0x52 0x45 0x45 0x4E 0x20 0x57 0x49 0x44 0x45 0x0d)	
Details	Screen "16:9" size	
Return	OK	"000" [CR]
	NG	"?" [CR]

2.32 4:3

Command	"AW SCREEN FULL"[CR] (Hex: 0x41 0x57 0x20 0x53 0x43 0x52 0x45 0x45 0x4E 0x20 0x46 0x55 0x4C 0x4C 0x0d)	
Details	Screen "4:3" size.	
Return	OK	"000" [CR]
	NG	"?" [CR]

2.33 Normal

Command	"AW SCREEN NORMAL"[CR] (Hex: 0x41 0x57 0x20 0x53 0x43 0x52 0x45 0x45 0x4E 0x20 0x4E 0x4F 0x52 0x4D 0x4C 0x0d)	
Details	Screen "Normal" size.	
Return	OK	"000" [CR]
	NG	"?" [CR]

2.34 Custom

Command	"AW SCREEN CUSTOM"[CR] (Hex: 0x41 0x57 0x20 0x53 0x43 0x52 0x45 0x45 0x4E 0x20 0x43 0x55 0x53 0x54 0x4F 0x4D 0x0d)	
Details	Screen "Custom" size.	
Return	OK	"000" [CR]
	NG	"?" [CR]

2.35 Dynamic

Command	"A19"[CR] (Hex:0x41 0x31 0x39 0x0d)	
Details	Image select "Dynamic" mode.	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.36 Standard(Image select)

Command	"A11"[CR] (Hex:0x41 0x31 0x31 0x0d)	
Details	Image select "Standard" mode.	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.37 Cinema

Command	"A12"[CR] (Hex:0x41 0x31 0x32 0x0d)	
Details	Image select "Cinema" mode.	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.38 Colorboard

Command	"A39"[CR] (Hex:0x41 0x33 0x39 0x0d)	
Details	Image select "Colorboard" mode	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.39 Navigation ►

Command	"A3A"[CR] (Hex:0x41 0x33 0x41 0x0d)	
Details	►	
Return	OK	"-" [CR]
	NG	"?" [CR]

Appendix

2.41 Navigation ▲

Command	"A3C"[CR] (Hex:0x41 0x33 0x43 0x0d)	
Details	▲	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.42 Navigation ▼

Command	"A3D"[CR] (Hex:0x41 0x33 0x44 0x0d)	
Details	▼	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.43 Select

Command	"A3F"[CR] (Hex:0x41 0x33 0x46 0x0d)	
Details	Select	
Return	OK	"-" [CR]
	NG	"?" [CR]

2.44 Full

Command	"AW SCREEN 1610FULL"[CR] (Hex: 0x41 0x57 0x20 0x53 0x43 0x52 0x45 0x45 0x4E 0x20 0x01 0x06 0x01 0x00 0x46 0x55 0x4C 0x4C 0x0d)	
Details	Screen "Full" size.	
Return	OK	"000" [CR]
	NG	"?" [CR]

2. 45 Natural wide

Command	"AW SCREEN NATURAL WIDE"[CR] (Hex: 0x41 0x57 0x20 0x53 0x43 0x52 0x45 0x45 0x4E 0x20 0x4E 0x41 0x54 0x55 0x52 0x41 0x4C 0x20 0x57 0x49 0x44 0x45 0x0d)	
Details	Screen "Natural wide" size.	
Return	OK	"000" [CR]
	NG	"?" [CR]



Declaration of Conformity

Trade Name: LG
Mode: BD430, BD450, BD460, BD470
Responsible Party: LG Electronics Inc.
Address: 1000 Sylvan Ave.
Englewood Cliffs NJ 07632
U.S.A
TEL: 201-266-2534

The model and serial number of the projector is located on the back or bottom side of the projector.

Record it below should you ever need service.

MODEL _____

SERIAL _____