FCC Notice

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 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, detectable by turning the equipment in question 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 distance between the equipment and the receiver
- Connect the equipment to an outlet on a different circuit than that which the receiver is connected to
- Or consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to following two conditions:

- 1. This device may not cause harmful interference, and
- 2. This device must accept any interference that may cause undesired operation.

Safety Instructions

Read all of these instructions before you operate your projector and save for future reference.

- Read instructions
 All the safety and operating instructions should be read before the appliance is
 operated.
- 2. Notes and warnings All notes and warnings in the operating instructions should be adhered to.
- 3. Cleaning

Unplug the projector from the wall socket before cleaning. Use a damp cloth for cleaning the projector housing. Do not use liquid or aerosol cleaners.

4. Accessories Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product. Keep the plastic packing materials (from the projector, accessories and optional parts) out of the reach of children as these bags may result in death by

suffocation. Be particularly careful around the small children.

5. Ventilation

The projector is equipped with ventilation holes (intake) and ventilation holes (exhaust). Do not block or place anything near these slots, or internal heat build-up may occur, causing picture degradation or damage to the projector.

- Power sources Check that the operating voltage of your unit is identical with the voltage of your local power supply.
- 7. Servicing

Do not attempt to service this projector yourself. Refer all servicing to qualified service personnel.

- Replacement parts When replacement parts are required, be sure that the replacement parts are specified by the manufacture. Unauthorized substitutions may result in fire, electric shock or other hazards.
- 9. Moisture Condensation Never operate this projector immediately after moving it from a cold location to a warm one. When the projector is exposed to such a change in temperature, moisture may condense on the lens and the crucial internal parts. To prevent the unit from possible damage, do not use the projector for at least 2 hours when there is an extreme or sudden change in temperature.

Notes on the AC Power Cord

AC Power Cord must meet the requirement of countries where you use this projector. Please confirm your AC plug type with the graphics below and ensure that the proper AC Power Cord is used. If the supplied AC Power Cord does not match your AC outlet, please contact your sales dealer. This projector is equipped with a grounding type AC line plug. Please ensure that your outlet fits the plug. Do not defeat the safety purpose of this grounding type plug. We highly recommend using a video source device also equipped with a grounding type AC line plug to prevent signal interference due to voltage fluctuations.



For Australia and Mainland China



For Continental Europe



For the U.S.A. and Canada



For the U.K.

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Introduction

Projector Features

The projector integrates high-performance optical engine projection and a user - friendly design to deliver high reliability and ease of use. The projector offers the following features:

- Single chip 0.55" Texas Instruments DLP[®] technology
- XGA (1024 x 768 pixels)
- Auto image re-sizing (Auto-Sync.) to 1024 x 768 full screen with scaling compression compatibility for VGA, SVGA, XGA and SXGA*
- Compatibility with Macintosh[®] computers
- Compatibility with NTSC, PAL, SECAM and HDTV
- D-Sub 15-pin terminal for analog video connectivity
- User-friendly, multi-language on-screen display
- Advanced electronic keystone correction



* means compressed.

Package Contents

When you unpack the projector, make sure you have all these components:



Contact you dealer immediately if any items are missing, appear damaged, or if the unit does not work.



Caution

- Avoid using the projector in dust environment.
- Leave the power cable plug-in for 5-10 minutes until projector adjust to room temperature before using.
- Save the original shipping carton and Packing material; they will come-in handy if you ever to ship your unit. for maximum protection, repack your unit as it was originally packed at the factory.

Projector Overview

Front View



- Tilt-adjustment feet
- 2 Lens cap
- O Projection lens
- Front IR remote control sensor
- 6 Speaker

Caution

Do not touch the lamp cover and exhaust vents during projector usage to prevent from possible burning.

6

9

Zoom ring

6 Focus ring

Control panel

Ventilation holes ((intake)

- Do not looking into the lens or vents while the lamp is on. Strong light ray may be harmful to eyes.
- Do not carry the projector by solely handling the adjustment feet. Projector may drop and be damaged.

Rear View



- Security lock
- Kensington lock
- AC power socket
- Connection ports
- Ventilation holes (exhaust)

Bottom View



- Ceiling mount
- Tilt-adjustment feet
- a Lamp cover

NO



Contact your dealer for information to mount the projector on a ceiling.

Using the Product

LED



- Lamp (Lamp LED indicator)
 Refer to "LED Indicator Messages".
- Performance Temp (Temperature LED indicator) Refer to "LED Indicator Messages".
- Power LED Refer to "LED Indicator Messages".

Button Function

Four directional buttons

Use four directional buttons to select items or make adjustments to your selection.

Resync

Resynchronize the projector to the input signal from a computer.

6 MENU

- Display or exit the on-screen display menus.
- Enter to sub-menu and confirm the menu selection. Activate in Color Setting, Lamp Hours Reset and Factory Default menu operations.
- (Power)

Turn the projector on or off.

Source

Manually select an input source.

Connection Ports



0 RS232

Reserved for installation control and firmware upgrades.

O COMPUTER IN

Connect image input signal (analog RGB or component) to this jack.

VIDEO

Connect composite video output from video equipment to this jack.

AUDIO IN

Connect an audio output from video equipment to this jack.

AUDIO OUT

Connect to a speaker or other audio input equipment.

6 S-VIDEO

Connect S-Video output from video equipment to this jack.

MONITOR OUT

Connect to a computer display, etc.

Remote Control



color spectrum that delivers enhanced color saturation for bright, true-to-life images. Activate this function for most computer sources.

BLANK

Cut off the screen temporarily. Press again to cancel the blank function.

ASPECT

Press this button to switch the image aspect ratio from 4:3 to 16:9.



Keystone+ / -

Adjust image distortion caused by tilting the projector.

FREEZE

Press "FREEZE" to pause the screen image. Press again to cancel the freeze function.

10

9

8

7

Replacing the Battery

For the first time use:

Remove the transparent insulation tape by pulling it before use.

For battery change:

1. Push the catch to the left and remove the battery holder.

- Remove the old Lithium coin cell and install new one (CR2025). Ensure that the side with the mark "+" is up.
- 3. Push the battery holder back into the remote control until you feel a click.
 - Risk of explosion if battery is replaced by an incorrect type.

Caution

- Dispose of used batteries according to the instructions.
- Make sure the plus and minus terminals are correctly aligned when loading a battery.
 - Keep the battery out of the reach of children.
 - Do not recharge the battery or expose the battery to fire or water.
 - Do not dispose the used battery along with household waste. Dispose used batteries according to local regulations.
 - Danger of explosion may happen if batteries are incorrectly replaced. Replace only with the same type recommended by the manufacturer.
 - Battery should not be in or near to fire or water, keep batteries in a dark, cool and dry place.
 - If suspect battery leakage, wipe out the leakage and then replace a new battery. If the leakage adheres to your body or clothes, rinse well with water immediately.









Remote Control Operation

Point the remote control at the infrared remote sensor and press a button.

 Operating the projector from the front





Installation

Connecting the Projector

- RS-232 Cable
- VGA Cable (D-Sub to D-Sub)
- Omposite Video Cable

- Audio Cable
- S-Video Cable
- 6 VGA (D-Sub) to HDTV (RCA) Cable



When connecting cable, power cords of both projector and external equipment should be disconnected from AC outlet.
 The figure above is a sample connection. This does not mean that all of these devices can or must be connected simultaneously.
 The cables that come with the projector may differ from the above illustration. The included cables are based on actual shipment delivery.

Powering On/Off the Projector

Powering On the Projector:

- 1. Remove the projector lens cap.
- 2. Complete the AC power cord and peripheral signal cable(s) connections.
- Press (b) button on the control panel or the **POWER** button on the remote control to turn on the projector.

The projector takes a minute or so to warm up.

- Turn on your source (computer, notebook, DVD, etc.). The projector automatically detects your source.
 - If you are connecting multiple sources to the projector simultaneously, press the left button on the control panel or the Source button on the remote control.

Warning

■ Remove the lens cap first before powering on.

- Never look into the lens when the lamp is on. This can damage your eyes.
- This focal point concentrates high temperature. Do not place any object near it to avoid possible fire hazard.

Powering Off the Projector:

- 1. Press 🕐 button on the control panel or the **POWER** button on the remote control to turn off the projector lamp. You will see a message "Power off? Press Power again" appear on the screen.
- 2. Press () button on the control panel or the **POWER** button on the remote control again to confirm.
 - The cooling fans continue to operate for cooling cycle.
 - When the Lamp LED begins flashing, the projector has entered stand-by mode.
 - If you want to turn the projector back on, you must wait until the projector has completed the cooling cycle and has entered stand-by mode. Once in stand-by mode, simply press (b) button on the control panel or the **POWER** button on the remote control to restart the projector.
- 3. Disconnect the AC power cord from the electrical outlet and the projector.
- 4. Do not turn on the projector right after power off.

Adjusting the Projector Adjusting the Projector Height



The projector is equipped with two tilt-adjustment feet to adjust the image height. To level the image on the screen, turn the tilt-adjustment feet to fine-tune the height.



To avoid damaging the projector, make sure that the tilt-adjustment feet are fully retracted before placing the projector in its carrying case.

Adjusting the Projector Zoom and Focus



- 1. Focus the image by rotating the focus ring. A still image is recommended for focusing.
- 2. Adjust the image by sliding the zoom ring.

Adjusting Projection Image Size

Refer to the graphic and table below to determine the screen size and projection distance.



•	4 : 3 Screen				
Screen SizeDiagonal (Inch)	Wide			Tele	
	Projection Distance		Proje	Projection Distance	
(,	m	inch	m	inch	
40	1.60	63.04	1.76	69.12	
50	2.00	78.80	2.19	86.40	
60	2.40	94.56	2.63	103.68	
70	2.80	110.32	3.07	120.96	
80	3.20	126.08	3.51	138.24	
90	3.60	141.84	3.95	155.52	
100	4.00	157.60	4.39	172.80	
120	4.80	189.12	5.27	207.36	
150	6.00	236.40	6.58	259.20	
200	8.01	315.20	8.78	345.60	
250	10.01	394.00	10.97	432.00	
300	12.01	472.80	13.17	518.40	



- Position the projector in a horizontal position; other positions can cause heat build-up and damage to the projector.
- Keep a space of 30 cm or more between the sides of the projector.
- Do not use the projector in a smoky environment. Smoke residue may buildup on critical parts and damage the projector or its performance.
- Consult with your dealer for special installation such as suspending from a ceiling.

Menu Operation

The projector has multilingual on-screen display menus that allow you to make image adjustments and change a variety of settings.

Picture	Brightnore	0 100	
1 ICIUI 6	Contract	0 100	
	Color Settian	Color Temp	Red Green Blue
		LOW, MID, HIGH, User	
	Keystone	-35-+35	
	Aspect Ratio	4:3, 16:9	
	Image	PC, Movie, sRGB, User, White Board, Black Board, Green Board	
	White Intensity	0 - 10	
	Gamma	0 - 6	
Computer Image	Frequency*1	-50 - 50	
	Tracking*1	0 - 31	
	H Position*1	-10 - 10	
	V Position*1	-10 - 10	
Video Image	Saturation	0 - 100	
	Sharpness	0 - 31	
	Tint	0 - 100	
Sound	Volume	0 - 100	
	Mute	On, Off	
Setting	Menu Position		
	Projection		
	Signal Type	RGB, YCbCr/YPbPr	
	Lamp Hours		
	Lamp Hours Reset	Yes, No	
	Power Saving	No, 5 Min., 15 Min., 30 Min. 45 Min. 60 Min.	
	Auto Source	On, Off	
	ECO Mode	On, Off	
	High Altitude	On, Off	
	OSD Timeout	5, 15, 30, 45, 60 Sec	
Option	Blank Screen	Black,Blue,Gray,Red,Green Yellow,Cyan,Magenta,White	
	Password +	Input Password	Yes, No
	Brilliant Color™	On, Off	
Language	English, Deutsch, Français, Español	I, Italiano,	
	Русский, 한국어, ไทย, Português 简体中文、繁鬱中文, Svenska	ŝ.	
	Nederlands, Polski, Česky, 日本語,	Türkçe	
Factory Default	Yes, No		

^{*1} Adjustable range and default setting vary depending on signal type.

How to operate

- 1. Press the **MENU** button to open the OSD menu.
- 2. When OSD is displayed, use ▲ / ▼ to select any feature in the main menu.
- After selecting the desired main menu feature, press ► to enter sub-menu for feature setting.
- Adjust the settings with ◀ / ►.
- 5. Press the **MENU** button, the screen will return to the main menu.
- To exit OSD, press the **MENU** button again. The OSD menu will close and the projector will automatically save the new settings.

Picture (Computer / Video Mode)

Brightness

Brighten or darken the image.

Contrast

Set the difference between light and dark areas.

Color Setting

Adjust the color temperature. At higher temperature the screen looks colder; at lower temperature, the screen looks warmer. If you select "User", then you can change the intensity of each of 3 color (Red,Green,Blue) to customize user color temperature.

Keystone

Correct the keystone distortion.

Aspect Ratio

Select how the picture fits on the screen:

- 4:3 : The input source will be scaled to fit the projection screen.
- 16:9 : The input source will be scaled to fit the width of the screen.

Image

There are many factory presets optimized for various types of images.

- PC : For computer or notebook.
- Movie : For home theater.
- sRGB : For PC standard color.
- User : Memorize user's settings.
- White Board : For white projection screen type.
- Black Board : For black projection screen type.
- Green Board: For green projection screen type.

White Intensity

Increase the brightness of white areas.

Gamma

Effect the represent of dark scenery. With greater gamma value, dark scenery will look brighter.

Computer Image (Computer Mode)

Frequency

Adjust the timing of the projector relative to the computer.

Tracking

Adjust the phase of the projector relative to the computer.

H Position (Horizontal Position)

Adjust the image left or right within the projection area.

V Position (Vertical Position)

Adjust the image up or down within the projection area.

Video Image (Video Mode)

Saturation

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

Sharpness

Sharpen or soften the image.

Tint

Shift colors toward red or green.

Sound (Computer / Video Mode)

Volume

Adjust the volume level.

Mute

Mute the sound.

Setting (Computer / Video Mode)

Menu Position

Choose the menu location on the display screen.

Projection

Adjust the picture to match the orientation of the projector: upright or upside-down, in front of or behind the screen. Invert or reverse the image accordingly.

Signal Type

Specify the source to the Computer In terminal that you wish to project.

- RGB: For VGA signal
- YCbCr/YPbPr: For Component I, P signal

Lamp Hours

Display the lamp's elapsed operating time (in hours).

Lamp Hours Reset

Reset the lamp Hour to 0 hours.

Power Saving

If no operation is performed for a specific period of time, projector will automatically turn off.

Auto Source

Automatically scan through all the input source.

ECO Mode

Use this function to dim the projector lamp light output which will lower power consumption and increase lamp life.

High Altitude

Use this function to allow the fans operates at full speed continuously to achieve proper high altitude cooling of the projector.

OSD Timeout

Duration of OSD menu display countly starts (at idle state by second).

Option (Computer / Video Mode)

Blank Screen

Blank the screen temporarily, and select the screen color when this function is active.

Password

Set or change the password. When the password function is added, image projection will require to input the preset password when turning on the projector.

Brilliant Color™

Produce an expanded on-screen color spectrum that delivers enhanced color saturation for bright, true-to-life images. Suggesting to turn Off for most video sources and On for most computer sources.

Language (Computer / Video Mode)

Select the language used by the on-screen menu.

Factory Default (Computer / Video Mode)

Restore settings to factory default .

Maintenance

The projector needs proper maintenance. You should keep the lens clean as dust, dirt or spots will project on the screen and diminish image quality. If any other parts need replacing, contact your dealer or qualified service personnel. When cleaning any part of the projector, always switch off and unplug the projector first.



Warning

Never open any of the covers on the projector. Dangerous electrical voltages inside the projector can cause severe injury. Do not attempt to repair this product by yourself. Refer all servicing to qualified service personnel.

Cleaning the Lens

Gently wipe the lens with lens cleaning paper. Do not touch the lens with your hands.

Cleaning the Projector Housing

Gently wipe with a soft cloth. If dirt and stains are not easily removed, use a soft cloth damped with water, or water and neutral detergent, and wipe dry with a soft, dry cloth.



- Make sure the lens is cool before cleaning.
- Do not use detergents or chemicals other than those noted above. Do not use benzene or thinners.
- Do not use chemical sprays.
- Use a soft cloth or lens paper only.

Replacing the Lamp

As the projector operates over time, the brightness of the projector lamp gradually decreases and the lamp becomes more susceptible to breakage. We recommend replacing the lamp if a warning message is displayed. Do not attempt to replace the lamp yourself. Contact the qualified service personnel for replacement.



- 1. Turn off the projector.
- 2. Unplug the power cord.
 - If the projector is installed in a ceiling mount, remove it from the mount. Place a protective sheet (cloth) beneath the projector. Turn the projector over so you can access the lamp cover.
- 3. Loosen the screw in the lamp cover and remove the cover.
- 4. Loosen the two screws from the lamp module.
- 5. Pull up the handle, and then pull out the lamp unit by the handle.
- 6. Insert a new lamp module into the projector and tighten the screws.
- 7. Replace the lamp cover and tighten the screw.



- 8. Turn on the projector. If the lamp does not turn on after the warm-up period, try reinstalling the lamp.
- 9. Reset the lamp hour. Refer to the Setting (Computer / Video Mode) menu.



Specifications

Display Type	Single 0.55" DLP panel
Resolution (Pixels)	XGA (1024 × 768)
Brightness	2000 ANSI Lumens
Lens	Manual Zoom (1.1x)
Screen Size	30" – 300"
Lamp	180W
Input Source	D-Sub 15 pin, composite video, RS232, Audio input (stereo phone jack), S-video
Output Source	Audio output (stereo phone jack), D-Sub 15 pin
Video Compatibility	NTSC 3.58, NTSC4.43 PAL-60, M, N SECAM, HDTV (480i/p, 576i/p, 720p, 1080i)
Scanning Frequency	
Horizontal Freq.	31 - 79 KHz
Vertical Freq	50 - 85 Hz
Voltiour i roq.	00 00 112
Speaker	2W x 1
Speaker Environment	2W x 1 Operating: Temperature: 5°C to 35°C Humidity: 30%-80% Storage: Temperature: -20°C to 60°C Humidity: 30%-85%
Speaker Environment	2W x 1 Operating: Temperature: 5°C to 35°C Humidity: 30%-80% Storage: Temperature: -20°C to 60°C Humidity: 30%-85% AC 100 - 240 V, 50 - 60 Hz, 2.5A
Speaker Environment Power Requirement Power Consumption	2W x 1 Operating: Temperature: 5°C to 35°C Humidity: 30%-80% Storage: Temperature: -20°C to 60°C Humidity: 30%-85% AC 100 - 240 V, 50 - 60 Hz, 2.5A 240 W
Power Requirement Power Consumption Dimension (W x D x H)	2W x 1 Operating: Temperature: 5°C to 35°C Humidity: 30%-80% Storage: Temperature: -20°C to 60°C Humidity: 30%-85% AC 100 - 240 V, 50 - 60 Hz, 2.5A 240 W 274 x 216 x 105 mm

Note: Design and Specifications are subject to change without prior notice.

Appendix

LED Indicator Messages

Lamp LED	Temp LED	Power LED	Meaning
Off	Off	100% blinking blue	Stand-by mode
Off	Off	Solid blue	The projector is in good condition. When the power button is pressed, the brightness is 100%. After 30 seconds, it turns into 20%.
Solid red	Solid red	20% solid blue	The projector is shutting and the fan is cooling the lamp for shutdown.
Solid red	Solid red	100% solid blue	The lamp is going to reach its end of lifetime and must be changed soon.
Solid red	Blinking red	20% solid blue	The fan has a breakdown.
Blinking red	Off	100% solid blue	Temperature is too high. The lamp will turn off. The fan is cooling the lamp.
Solid red	Solid red	Off	The lamp ignition failed.

Compatibility Modes

Computer:

Compatibility	Resolution	H-Sync [KHz]	V-Sync [Hz]
VGA	640 x 480	31.5	59.9
		37.9	72.8
		37.5	75.0
		43.3	85.0
SVGA	SVGA 800 x 600	35.2	56.3
		37.9	60.3
		48.1	72.2
		46.9	75.0
		53.7	85.1
XGA	XGA 1024 x 768	48.4	60.0
		56.5	70.1
		60.0	75.0
		68.7	85.0
SXGA	1152 x 864	67.5	75.0
	1280 x 960	60.0	60.0
	1280 x 1024	64.0	60.0

Video:

Signal	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
480i	15.8	60
480p	31.5	60
576i	15.6	50
576p	31.3	50
720p	45.0	60
720p	37.5	50
1080i	33.8	60
1080i	28.1	50

Troubleshooting

Refer to the symptoms and measures listed below before sending the projector for repairs. If the problem persists, contact your local reseller or service center. Please refer to "LED Indicator Messages" as well.

Start-up problems

If no lights turn on:

- Be sure that the power cord is securely connected to the projector and the other end is plugged into an outlet with power.
- Press the power button again.
- Unplug the power cord and wait for a short while, then plug it in and press the power button again.

Image problems

If the searching source is displayed:

- Press the Source button on the control panel or the SOURCE button on the remote control one or more times to select another active input source.
- Be sure the external source is turned on and connected.
- For a computer connection, ensure your notebook computer's external video port is turned on. Refer to the computer manual.

If the image is out of focus:

- Be sure the lens cover is removed.
- While displaying the on-screen menu, adjust the focus ring. (The image size should not change; if it does, you are adjusting the zoom, not the focus.)
- Check the projection lens to see if it needs cleaning.

If the image is flickering or unstable for a computer connection:

- Press the Resync button on the control panel or the RESYNC button on the remote control.
- Press the MENU button, go to Computer Image and adjust Frequency or Tracking.

Remote control problems

If the remote control does not operate:

- Be sure nothing is blocking the remote control receiver on the front of the projector. Use the remote control within the effective range.
- Aim the remote control at the screen or at the front of the projector.
- Move the remote control so it is more directly in front of the projector and not as far to the side.