

## PJD6235/PJD6245/PJD6543w DLP Projector User Guide

IMPORTANT: Please read this User Guide to obtain important information on installing and using your product in a safe manner, as well as registering your product for future service. Warranty information contained in this User Guide will describe your limited coverage from ViewSonic Corporation, which is also found on our web site at http://www.viewsonic.com in English, or in specific languages using the Regional selection box in the upper right corner of our website. "Antes de operar su equipo lea cu idadosamente las instrucciones en este manual"

Model No. VS14931/VS14933/VS14934

## **Compliance Information**

#### **FCC Statement**

This device complies with part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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.

**Warning:** You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

#### For Canada

- This Class B digital apparatus complies with Canadian ICES-003.
- Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

### **CE Conformity for European Countries**

The device complies with the EMC Directive 2004/108/EC and Low Voltage Directive 2006/95/EC.

### Following information is only for EU-member states:

The mark is in compliance with the Waste Electrical and Electronic Equipment Directive 2002/96/EC (WEEE).



The mark indicates the requirement NOT to dispose the equipment including any spent or discarded batteries or accumulators as unsorted municipal waste, but use the return and collection systems available.

If the batteries, accumulators and button cells included with this equipment, display the chemical symbol Hg, Cd, or Pb, then it means that the battery has a heavy metal content of more than 0.0005% Mercury or more than, 0.002% Cadmium, or more than 0.004% Lead.



## Important Safety Instructions

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- Do not use this unit near water.
- 6. Clean with a soft, dry cloth.
- 7. Do not block any ventilation openings. Install the unit in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade and the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord from being walked on or pinched particularly at plugs. Convenience receptacles and the point where they exit from the unit. Be sure that the power outlet is located near the unit so that it is easily accessible.
- 11. Only use attachments/accessories specified by the manufacturer.
- 12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the unit. When a cart is used, use caution when moving the cart/unit combination to avoid injury from tipping over.



- 13. Unplug this unit when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the unit has been damaged in any way, such as: if the power-supply cord or plug is damaged, if liquid is spilled onto or objects fall into the unit, if the unit is exposed to rain or moisture, or if the unit does not operate normally or has been dropped.

## **Declaration of RoHS Compliance**

This product has been designed and manufactured in compliance with Directive 2002/95/EC of the European Parliament and the Council on restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Directive) and is deemed to comply with the maximum concentration values issued by the European Technical Adaptation Committee (TAC) as shown below:

Substance	Proposed Maximum Concentration	Actual Concentration			
Lead (Pb)	0.1%	< 0.1%			
Cadmium (Cd)	0.01%	< 0.01%			
Hexavalent Chromium (Cr <sup>6+</sup> )	0.1%	< 0.1%			
Polybrominated biphenyls (PBB)	0.1%	< 0.1%			
Polybrominated diphenyl ethers (PBDE)	0.1%	< 0.1%			

Certain components of products as stated above are exempted under the Annex of the RoHS Directives as noted below:

Examples of exempted components are:

- 1. Lead in glass of cathode ray tubes, electronic components, fluorescent tubes, and electronic ceramic parts (e.g. piezoelectronic devices).
- Lead in high temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead).
- Lead as an allotting element in steel containing up to 0.35% lead by weight, aluminium containing up to 0.4% lead by weight and as a cooper alloy containing up to 4% lead by weight.

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## **Product Registration**

To meet your future needs, and to receive any additional product information as it becomes available, please register your product on the Internet at: www.viewsonic.com. The ViewSonic<sup>®</sup> Wizard CD-ROM also provides an opportunity for you to print the registration form, which you may mail or fax to ViewSonic.

	For Your Records
Product Name:	PJD6235/PJD6245/PJD6543w
	ViewSonic DLP Projector
Model Number:	VS14931/VS14933/VS14934
Document Number:	PJD6235/PJD6245/PJD6543w_UG_ENG Rev. 1A 12-04-12
Serial Number:	
Purchase Date:	

#### Product disposal at end of product life

The lamp in this product contains mercury which can be dangerous to you and the environment. Please use care and dispose of in accordance with local, state or federal laws.

ViewSonic respects the environment and is committed to working and living green. Thank you for being part of Smarter, Greener Computing. Please visit ViewSonic website to learn more.

USA & Canada: http://www.viewsonic.com/company/green/recycle-program/

Europe: http://www.viewsoniceurope.com/uk/support/recycling-information/

Taiwan: http://recycle.epa.gov.tw/recycle/index2.aspx

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## Important safety instructions

Your projector is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that you follow the instructions mentioned in this manual and marked on the product.

### **Safety Instructions**

- Please read this manual before you operate your projector. Save it for future reference.
- Do not look straight at the projector lens during operation. The intense light beam may damage your eyes.
- 3. Refer servicing to qualified service personnel.
- 4. Always open the lens shutter or remove the lens cap when the projector lamp is on.
- 5. In some countries, the line voltage is NOT stable. This projector is designed to operate safely within a mains voltage between 100 to 240 volts AC, but could fail if power cuts or surges of ±10 volts occur. In areas where the mains voltage may fluctuate or cut out, it is recommended that you connect your projector through a power stabilizer, surge protector or uninterruptible power supply (UPS).
- 6. Do not block the projection lens with any objects when the projector is under operation as this could cause the objects to become heated and deformed or even cause a fire. To temporarily turn off the lamp, press BLANK on the projector or remote control.
- The lamp becomes extremely hot during operation. Allow the projector to cool for approximately 45 minutes prior to removing the lamp assembly for replacement.
- 8. Do not operate lamps beyond the rated lamp life. Excessive operation of lamps beyond the rated life could cause them to break on rare occasions.
- Never replace the lamp assembly or any electronic components unless the projector is unplugged.
- Do not place this product on an unstable cart, stand, or table. The product may fall, sustaining serious damage.
- 11. Do not attempt to disassemble this projector. There are dangerous high voltages inside which may cause death if you should come into contact with live parts. The only user serviceable part is the lamp which has its own removable cover.
  - Under no circumstances should you ever undo or remove any other covers. Refer servicing only to suitably qualified professional service personnel.
- 12. Do not place this projector in any of the following environments.
  - Space that is poorly ventilated or confined. Allow at least 50 cm clearance from walls and free flow of air around the projector.
  - Locations where temperatures may become excessively high, such as the inside of a car with all windows rolled up.
  - Locations where excessive humidity, dust, or cigarette smoke may contaminate optical components, shortening the projector's life span and darkening the picture.
  - Locations near fire alarms
  - Locations with an ambient temperature above 40°C / 104°F
  - Locations where the altitudes are higher than 3000 m (10000 feet).

- Do not block the ventilation holes. If the ventilation holes are seriously obstructed, overheating inside the projector may result in a fire.
  - Do not place this projector on a blanket, bedding or any other soft surface.
  - Do not cover this projector with a cloth or any other item.
  - Do not place inflammables near the projector.
- 14. Always place the projector on a level, horizontal surface during operation.
  - Do not use if tilted at an angle of more than 10 degrees left to right, nor at angle of more than 15 degrees front to back. Using the projector when it is not fully horizontal may cause a malfunction of, or damage to, the lamp.
- 15. Do not stand the projector on end vertically. Doing so may cause the projector to fall over, causing injury or resulting in damage to the projector.
- 16. Do not step on the projector or place any objects upon it. Besides probable physical damage to the projector, doing so may result in accidents and possible injury.
- 17. Do not place liquids near or on the projector. Liquids spilled into the projector may cause it to fail. If the projector does become wet, disconnect it from the power supply's wall socket and call your local service center to have the projector serviced.
- 18. This product is capable of displaying inverted pictures for ceiling mount installation.
- 19. When the projector is under operation, you may sense some heated air and odor from its ventilation grill. It is a normal phenomenon and not a product defect.
- Do not use the Security bar for transporting or installation. It should be used with a
  commercially available theft prevention cable.

# Safety instructions for ceiling mounting of the projector

We want you to have a pleasant experience using your projector, so we need to bring this safety matter to your attention to prevent damage to person and property.

If you intend to mount your projector on the ceiling, we strongly recommend that you use a proper fitting projector ceiling mount kit and that you ensure it is securely and safely installed.

If you use an inappropriate projector ceiling mount kit, there is a safety risk that the projector may fall from the ceiling due to an improper attachment through the use of the wrong gauge or length screws.

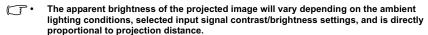
You can purchase a projector ceiling mount kit from the place you purchased your projector. We recommends that you also purchase a separate Kensington lock compatible security cable and attach it securely to both the Kensington lock slot on the projector and the base of the ceiling mount bracket. This will perform the secondary role of restraining the projector should its attachment to the mounting bracket become loose.

## **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.

- Dynamic PC and Dynamic Movie functions adjusting the power consumption of the lamp according to the brightness of the image being projected
- DynamicEco Timer function decreasing the power consumption of the lamp by up to 30% when no input signal can be detected for a set period of time.
- Presentation timer for better control of time during presentations
- · LAN Settings allowing management of projector status from a remote computer
- Supports 3D display
- Color Management allowing color adjustments to your liking
- Less than 0.5W power consumption when power saving mode is turned on
- Screen Color correction allowing projection on surfaces of several predefined colors
- · Quick auto search speeding up the signal detecting process
- Color and Reference modes providing choices for different projection purposes
- Selectable quick power off function
- One-key auto-adjustment to display the best picture quality
- Digital keystone correction to correct distorted images
- · Adjustable color management control for data/video display
- Ability to display 1.07 billion colors
- Multi-language On-Screen Display (OSD) menus
- · Switchable normal and economic modes to reduce the power consumption
- Component HDTV compatibility (YPbPr)
- HDMI CEC (Consumer Electronics Control) function allows synchronized power ON/ OFF operation between the projector and a CEC-compatible device connected to the HDMI input of the projector



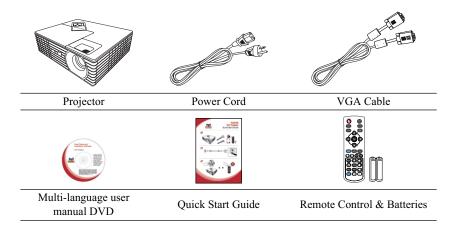
 The lamp brightness will decline over time and may vary within the lamp manufacturers specifications. This is normal and expected behavior.

## **Shipping contents**

Carefully unpack and verify that you have all of the items shown below. If any of these items are missing, please contact your place of purchase.

### Standard accessories

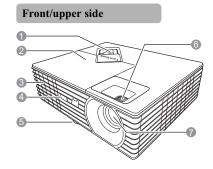
The supplied accessories will be suitable for your region, and may differ from those illustrated.

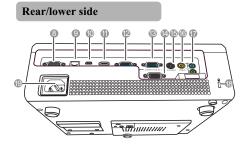


## **Optional accessories**

- 1. Replacement lamp
- 2. Soft carry case
- 3. VGA-Component adapter

## **Projector exterior view**





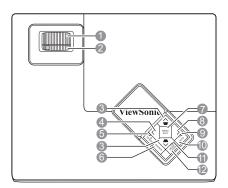
- External control panel
   (See "Projector" on page 7 for
   details.)
- 2. Lamp cover
- 3. Vent (heated air exhaust)
- 4. Front IR remote sensor
- 5. Adjuster foot
- 6. Focus and Zoom rings
- 7. Projection lens
- 8. RS-232 control port
- 9. RJ45 LAN input port
- 10. Type B USB port
- 11. HDMI port
- RGB (PC)/Component video (YPbPr/YCbCr) signal input socket-2
- RGB (PC)/Component video (YPbPr/YCbCr) signal input socket-1
- 14. RGB signal output socket
- 15. S-Video input socket
- 16. Video input socket
- 17. Audio signal input socket Audio signal output socket
- 18. Kensington anti-theft lock slot
- 19. AC power cord inlet

### ( Warning

- . THIS APPARATUS MUST BE EARTHED.
- When installing the unit, incorporate a readily accessible disconnect device in the fixed wiring, or connect the power plug to an easily accessible socket-outlet near the unit. If a fault should occur during operation of the unit, operate the disconnect device to switch the power supply off, or disconnect the power plug.

### **Controls and functions**

## **Projector**



#### 1. Focus ring

Adjusts the focus of the projected image.

#### 2. Zoom ring

Adjusts the size of the image.

#### 

Manually corrects distorted images resulting from an angled projection.

#### 4. < Left/Blank

Hides the screen picture.

#### 5. POWER indicator light

Lights up or flashes when the projector is under operation.

#### (I) POWER

Toggles the projector between standby mode and on.

#### 6. SOURCE

Displays the source selection bar.

#### 7. MENU/EXIT

Turns on the On-Screen Display (OSD) menu. Goes back to previous OSD menu, exits and saves menu settings.

#### 8. > Right

Activates panel key lock.

When the On-Screen Display (OSD) menu is activated, the #3, #4, and #8 keys are used as directional arrows to select the desired menu items and to make adjustments.

#### 9. LAMP indicator light

Indicates the status of the lamp. Lights up or flashes when the lamp has developed a problem.

#### 10. AUTO

Automatically determines the best picture timings for the displayed image.

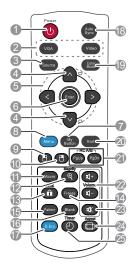
#### 11. TEMPerature indicator light

Lights up red if the projector's temperature becomes too high.

#### 12. MODE/ENTER

Selects an available picture setup mode. Enacts the selected On-Screen Display (OSD) menu item.

### Remote control



To use the remote mouse control keys (Page Up, Page Down, 

"Using the remote mouse control" on page 10 for details.

#### 1. (1) POWER

Toggles the projector between standby mode and on.

2. Source selection keys (VGA/Video)

Selects an input source for display.

VGA

Selects **D-Sub / Comp. 1** or **D-Sub / Comp. 2** source for display.

Video

Selects Video (HDMI/Video/S-Video) source for display.

3. Source

Displays the source selection bar.

4. Keystone keys ( ▼ / ▲ )

Manually corrects distorted images resulting from an angled projection.

5. </^/>/>

Selects the desired menu items and makes adjustments.

#### 6. Enter

Enacts the selected On-Screen Display (OSD) menu item.

#### 7. My Button

Allows user to define a short cut key on the remote control, and the function item is selected in OSD menu.

#### 8. Menu

Turns on the On-Screen Display (OSD) menu.

9.

Performs the same function as the left mouse button when the mouse mode is activated.

10.

Performs the same function as the right mouse button when the mouse mode is activated.

#### 11. Mouse

Switches between the normal and mouse modes.

Page Up, Page Down, <sup>□</sup>, <sup>□</sup>: active after pressing Mouse. An icon appears on the screen to indicate the activation of the mouse mode.

#### 12. Magnify

Displays the zoom bar that magnifies or reduces the projected picture size.

#### 13. Lock

Activates or deactivates panel key lock.

#### 14. Freeze

Freezes the projected image.

#### 15. Pattern

Displays embedded test pattern.

#### 16. Blank

Hides the screen picture.

#### 17. DynamicEco<sup>TM</sup>

Decreases the power consumption of the lamp by up to 30%.

It takes some time to initiate this function. Make sure the projector has been turned on for more than 4 minutes. If the projector is resumed by using the Smart Restart feature, this function can be executed immediately.

#### 18. Auto Sync

Automatically determines the best picture timings for the displayed image.

#### 19. Color Mode

Selects an available picture setup mode.

#### 20. Exit

Goes back to previous OSD menu, exits and saves menu settings.

#### 21. PgUp (Page Up)/PgDn (Page Down)

Operates your display software program (on a connected PC) which responds to page up/down commands (like Microsoft PowerPoint) when the mouse mode is activated.

#### 22. Volume keys (+, -)

Magnifies or reduces the volume level.

## 23.

Toggles the projector audio between on and off.

#### 24. Aspect

Selects the display aspect ratio.

#### 25. Timer

Displays the presentation timer settings menu.

#### Remote control code

The projector can be assigned to two different remote control codes, A or B. When several adjacent projectors are in operation at the same time, switching the remote control codes can prevent interference from other remote controls. Set the remote control code for the projector first before changing that for the remote control.

To switch the code for the projector, select A or B in the SYSTEM SETTING: ADVANCED > Remote Control Code menu.

To switch the code for the remote control, press **PgUp** and **PgDn** buttons on the remote control together for 5 seconds or more. The initial code is set to A.

If different codes are set on the projector and remote control, there will be no response from the remote control. When that happens, switch the code for the remote control again.

### Using the remote mouse control

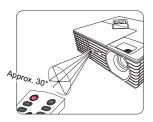
The capability of operating your computer with the remote control gives you more flexibility when delivering presentations.

- Connect the projector to your PC or notebook with a USB cable prior to using the remote control in place of your computer's mouse. See "Connecting a computer" on page 16 for details.
- 2. Set the input signal to **D-Sub / Comp. 1**, **D-Sub / Comp. 2**.
- 3. Press **Mouse** on the remote control to switch from the normal mode to the mouse mode. An icon appears on the screen to indicate the activation of the mouse mode.
- 4. Perform the desired mouse controls on your remote control.
  - To move the cursor on the screen, press ⟨/∧/√/⟩.
  - To left-click, press .
  - To right-click, press .
  - To operate your display software program (on a connected PC) which responds to page up/down commands (like Microsoft PowerPoint), press PgUp/PgDn.
  - To return to the normal mode, press Mouse again or other keys except for the mouse related multi-function keys.

### Remote control effective range

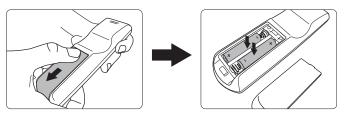
The Infra-Red (IR) remote control is located on the front of the projector. The remote control must be held at an angle within 30 degrees perpendicular to the projector's IR remote control sensor to function correctly. The distance between the remote control and the sensor should not exceed 8 meters (~ 26 feet).

Make sure that there are no obstacles between the remote control and the IR sensor on the projector that might obstruct the infra-red beam.



### Replacing the remote control batteries

- To open the battery cover, turn the remote control over to view its back, push on the finger grip on the cover and slide it in the direction of the arrow as illustrated. The cover will slide off.
- 2. Remove any existing batteries (if necessary) and install two AAA batteries observing the battery polarities as indicated in the base of the battery compartment. Positive (+) goes to positive and negative (-) goes to negative.
- Refit the cover by aligning it with the base and sliding it back down into position. Stop when it clicks into place.





- Avoid leaving the remote control and batteries in an excessive heat or humid environment like the kitchen, bathroom, sauna, sunroom or in a closed car.
- · Replace only with the same or equivalent type recommended by the battery manufacturer.
- Dispose of the used batteries according to the manufacturer's instructions and local environment regulations for your region.
- · Never throw the batteries into a fire. There may be danger of an explosion.
- If the batteries are dead or if you will not be using the remote control for an extended period of time, remove the batteries to avoid damage to the remote control from possible battery leakage.

## Positioning your projector

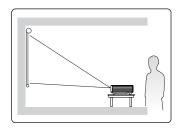
## **Choosing a location**

Your room layout or personal preference will dictate which installation location you select. Take into consideration the size and position of your screen, the location of a suitable power outlet, as well as the location and distance between the projector and the rest of your equipment.

Your projector is designed to be installed in one of four possible installation locations:

#### 1. Front Table

Select this location with the projector placed near the floor in front of the screen. This is the most common way to position the projector for quick setup and portability.

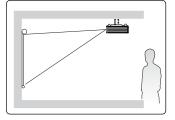


#### 2. Front Ceiling

Select this location with the projector suspended upside-down from the ceiling in front of the screen.

Purchase the projector ceiling mount kit from your dealer to mount your projector on the ceiling.

Set Front Ceiling in the SYSTEM SETTING: BASIC > Projector Position menu after you turn the projector on.

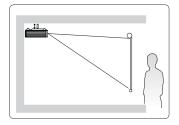


#### 3. Rear Ceiling

Select this location with the projector suspended upside-down from the ceiling behind the screen.

Note that a special rear projection screen and the projector ceiling mounting kit are required for this installation location.

Set **Rear Ceiling** in the **SYSTEM SETTING: BASIC** > **Projector Position** menu after you turn the projector on.

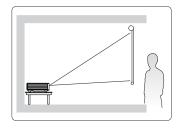


#### 4. Rear Table

Select this location with the projector placed near the floor behind the screen.

Note that a special rear projection screen is required.

Set **Rear Table** in the **SYSTEM SETTING: BASIC** > **Projector Position** menu after you turn the projector on.



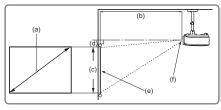
## **Projection dimensions**

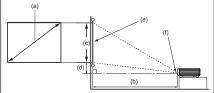
Refer to "Dimensions" on page 67 for the center of lens dimensions of this projector before calculating the appropriate position.

The "screen" mentioned below refers to the projection screen usually consisting of a surface and a support structure

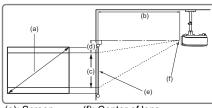
### PJD6235/PJD6245

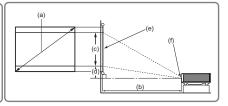
4:3 image on a 4:3 screen





16:9 image on a 4:3 screen



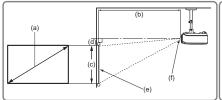


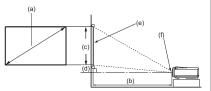
(e): Screen (f): Center of lens

(-) C		4:3 image on a 4:3 Screen									16:9 image on a 4:3 Screen							
Si	finch (m)] distance [m (inch)]		height offs		/ertical ffset	(b) Projection distance [m (inch)]			(c) Image height		(d) Vertical offset							
•	( /2	m	nin.	m	ах.	[cm (inch)]		[cm (inch)]		min.		max.		[cm (inch)]		[cm (	inch)]	
30	(8.0)	1.1	(45)	1.2	(49)	46	(18)	5	(1.8)	1.1	(45)	1.2	(49	34	(14)	10.3	(4.1)	
40	(1.0)	1.5	(59)	1.7	(65)	61	(24)	6	(2.4)	1.5	(59)	1.7	(65)	46	(18)	13.7	(5.4)	
50	(1.3)	1.9	(74)	2.1	(82)	76	(30)	8	(3.0)	1.9	(74)	2.1	(82)	57	(23)	17.1	(6.8)	
60	(1.5)	2.3	(89)	2.5	(98)	91	(36)	9	(3.6)	2.3	(89)	2.5	(98)	69	(27)	20.6	(8.1)	
70	(1.8)	2.6	(104)	2.9	(114)	107	(42)	11	(4.2)	2.6	(104)	2.9	(114)	80	(32)	24.0	(9.5)	
80	(2.0)	3.0	(119)	3.3	(131)	122	(48)	12	(4.8)	3.0	(119)	3.3	(131)	91	(36)	27.4	(10.8)	
90	(2.3)	3.4	(134)	3.7	(147)	137	(54)	14	(5.4)	3.4	(134)	3.7	(147)	103	(41)	30.9	(12.2)	
100	(2.5)	3.8	(149)	4.2	(163)	152	(60)	15	(6.0)	3.8	(149)	4.2	(163)	114	(45)	34.3	(13.5)	
120	(3.0)	4.5	(178)	5.0	(196)	183	(72)	18	(7.2)	4.5	(178)	5.0	(196)	137	(54)	41.1	(16.2)	
150	(3.8)	5.7	(223)	6.2	(245)	229	(90)	23	(9.0)	5.7	(223)	6.2	(245)	171	(68)	51.4	(20.3)	
200	(5.1)	7.5	(297)	8.3	(327)	305	(120)	30	(12.0)	7.5	(297)	8.3	(327)	229	(90)	68.6	(27.0)	
250	(6.4)	9.4	(371)	10.4	(409)	381	(150)	38	(15.0)	9.4	(371)	10.4	(409)	286	(113)	85.7	(33.8)	
300	(7.6)	11.3	(446)	12.5	(490)	457	(180)	46	(18.0)	11.3	(446)	12.5	(490)	343	(135)	102.9	(40.5)	

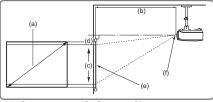
### PJD6543w

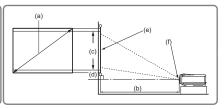
16:10 image on a 16:10 screen





16:10 image on a 4:3 screen





(e): Screen (f): Center of lens

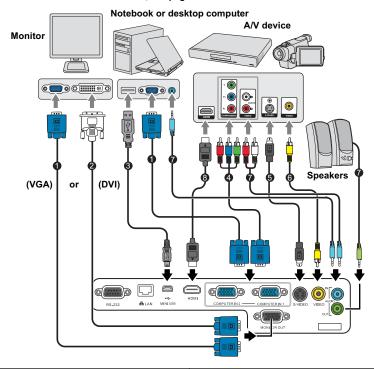
( ) 0		16:10 image on a 16:10 Screen									16:10 image on a 4:3 Screen								
Si	creen ze (m)]	(b) Projection distance [m (inch)]				mage ight	(d) Vertical (		(b) Projection distance [m (inch)]			(c) Image height		(d) Vertical offset					
[	()	m	in.	ma	ax.	[cm (inch)]		[cm (inch)]		min.		max.		[cm (inch)]		[cm (inch)]			
30	(0.8)	0.97	(38)	1.06	(42)	40	(16)	0	(0.0)	0.91	(36)	1.00	(40)	38	(15)	3.8	(1.5)		
40	(1.0)	1.29	(51)	1.42	(56)	54	(21)	0	(0.0)	1.22	(48)	1.34	(53)	51	(20)	5.1	(2.0)		
50	(1.3)	1.61	(64)	1.77	(70)	67	(26)	0	(0.0)	1.52	(60)	1.67	(66)	64	(25)	6.4	(2.5)		
60	(1.5)	1.94	(76)	2.13	(84)	81	(32)	0	(0.0)	1.83	(72)	2.01	(79)	76	(30)	7.6	(3.0)		
70	(1.8)	2.26	(89)	2.48	(98)	94	(37)	0	(0.0)	2.13	(84)	2.34	(92)	89	(35)	8.9	(3.5)		
80	(2.0)	2.58	(102)	2.84	(112)	108	(42)	0	(0.0)	2.43	(96)	2.68	(105)	102	(40)	10.2	(4.0)		
90	(2.3)	2.90	(114)	3.19	(126)	121	(48)	0	(0.0)	2.74	(108)	3.01	(119)	114	(45)	11.4	(4.5)		
100	(2.5)	3.23	(127)	3.55	(140)	135	(53)	0	(0.0)	3.04	(120)	3.35	(132)	127	(50)	12.7	(5.0)		
120	(3.0)	3.87	(152)	4.26	(168)	162	(64)	0	(0.0)	3.65	(144)	4.02	(158)	152	(60)	15.2	(6.0)		
150	(3.8)	4.84	(191)	5.32	(210)	202	(79)	0	(0.0)	4.56	(180)	5.02	(198)	191	(75)	19.1	(7.5)		
200	(5.1)	6.45	(254)	7.10	(279)	269	(106)	0	(0.0)	6.09	(240)	6.70	(264)	254	(100)	25.4	(10.0)		
250	(6.4)	8.06	(318)	8.87	(349)	337	(132)	0	(0.0)	7.61	(300)	8.37	(329)	318	(125)	31.8	(12.5)		
300	(7.6)	9.68	(381)	10.65	(419)	404	(159)	0	(0.0)	9.13	(359)	10.04	(395)	381	(150)	38.1	(15.0)		

There is 3% tolerance among these numbers due to optical component variations. It is recommended that if you intend to permanently install the projector, you should physically test the projection size and distance using the actual projector in situ before you permanently install it, so as to make allowance for this projector's optical characteristics. This will help you determine the exact mounting position so that it best suits your installation location.

## Connection

When connecting a signal source to the projector, be sure to:

- 1. Turn all equipment off before making any connections.
- 2. Use the correct signal cables for each source.
- 3. Ensure the cables are firmly inserted.
- - In the connections shown below, some cables may not be included with the projector (see "Shipping contents" on page 5). They are commercially available from electronics stores.
  - The connection illustrations below are for reference only. The rear connecting jacks available on the projector vary with each projector model.
  - · For detailed connection methods, see pages 16-19.



- VGA cable
- 2. VGA to DVI-A cable
- 3. USB cable
- 4. Component Video to VGA (D-Sub) adapter cable
- S-Video cable
- 6. Video cable
- 7. Audio cable
- 8. HDMI cable

## Connecting a computer or monitor

### Connecting a computer

The projector provides two VGA input sockets that allow you to connect them to both IBM® compatibles and Macintosh® computers. A Mac adapter is needed if you are connecting legacy version Macintosh computers.

#### To connect the projector to a notebook or desktop computer:

- Take the supplied VGA cable and connect one end to the D-Sub output socket of the computer.
- Connect the other end of the VGA cable to the COMPUTER IN 1 or COMPUTER IN 2 signal input socket on the projector.
- 3. If you wish to use the remote paging function, take a USB cable and connect the larger end to the USB port of the computer, and smaller end to the MINI USB socket on the projector. See "Using the remote mouse control" on page 10 for details.
- Many notebooks do not turn on their external video ports when connected to a projector.

  Usually a key combo like FN + F3 or CRT/LCD key turns the external display on/off. Locate a function key labeled CRT/LCD or a function key with a monitor symbol on the notebook. Press FN and the labeled function key simultaneously. Refer to your notebook's documentation to find your notebook's key combination.

### Connecting a monitor

If you want to view your presentation close-up on a monitor as well as on the screen, you can connect the **MONITOR OUT** signal output socket on the projector to an external monitor with a VGA cable following the instructions below:

#### To connect the projector to a monitor:

- Connect the projector to a computer as described in "Connecting a computer" on page 16.
- Take a suitable VGA cable (only one supplied) and connect one end of the cable to the D-Sub input socket of the video monitor.
  - Or if your monitor is equipped with a DVI input socket, take a VGA to DVI-A cable and connect the DVI end of the cable to the DVI input socket of the video monitor.
- 3. Connect the other end of the cable to the **MONITOR OUT** socket on the projector.
- The MONITOR OUT output only works when COMPUTER IN 1 connection is made to the projector.
  - To use this connection method when the projector is in standby mode, turn on the Active VGA Out function under the SYSTEM SETTING: BASIC > Standby Settings menu.

## **Connecting Video source devices**

You can connect your projector to various Video source devices that provide any one of the following output sockets:

- HDMI
- Component Video
- S-Video
- Video (composite)

You need only connect the projector to a Video source device using just one of the above connecting methods, however each provides a different level of video quality. The method you choose will most likely depend upon the availability of matching terminals on both the projector and the Video source device as described below:

#### Best video quality

The best available video connection method is HDMI. If your source device is equipped with a HDMI socket, you can enjoy uncompressed digital video quality.

See "Connecting an HDMI device" on page 18 for how to connect the projector to a HDMI source device and other details.

If no HDMI source is available, the next best video signal is Component video (not to be confused with composite video). Digital TV tuner and DVD players output Component video natively, so if available on your devices, this should be your connection method of choice in preference to (composite) video.

See "Connecting a Component Video source device" on page 18 for how to connect the projector to a component video device.

#### Better video quality

The S-Video method provides a better quality analog video than standard composite Video. If you have both composite Video and S-Video output terminals on your Video source device, you should elect to use the S-Video option.

See "Connecting an S-Video source device" on page 19 for how to connect the projector to an S-Video device.

#### Least video quality

Composite Video is an analog video and will result in a perfectly acceptable, but less than optimal result from your projector, being the least video quality of the available methods described here.

See "Connecting a composite Video source device" on page 19 for how to connect the projector to a composite Video device.

### Connecting audio

The projector has one built-in mono speaker which is designed to provide basic audio functionality accompanying data presentations for business purposes only. It is not designed for, nor intended for stereo audio reproduction use as might be expected in home theater or home cinema applications. Any stereo audio input (if provided), is mixed into a common mono audio output through the projector speaker.

If you wish, you can make use of the projector (mixed mono) speaker in your presentations, and also connect separate amplified speakers to the Audio Out socket of the projector. The audio output is a mixed mono signal and controlled by the projector Volume and Mute settings.

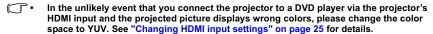
If you have a separate sound system, you will most likely want to connect the audio output of your Video source device to that sound system, instead of to the mono audio projector.

### Connecting an HDMI device

You should use an HDMI cable when making connection between the projector and HDMI devices.

#### To connect the projector to an HDMI device:

- Take an HDMI cable and connect one end to the HDMI output port of the video device.
- 2. Connect the other end of the cable to the **HDMI** input port on the projector.



 The projector is only capable of playing mixed mono audio, even if a stereo audio input is connected. See "Connecting audio" on page 17 for details.

## Connecting a Component Video source device

Examine your Video source device to determine if it has a set of unused Component Video output sockets available:

- If so, you can continue with this procedure.
- If not, you will need to reassess which method you can use to connect to the device.

#### To connect the projector to a Component Video source device:

- Take a VGA (D-Sub)-Component adaptor cable and connect the end with 3 RCA type connectors to the Component Video output sockets of the Video source device. Match the color of the plugs to the color of the sockets; green to green, blue to blue, and red to red.
- Connect the other end of the VGA (D-Sub)-Component adaptor cable (with a D-Sub type connector) to the COMPUTER IN 1 or COMPUTER IN 2 socket on the projector.
- The projector is only capable of playing mixed mono audio, even if a stereo audio input is connected. See "Connecting audio" on page 17 for details.
  - If the selected video image is not displayed after the projector is turned on and the correct video source has been selected, check that the Video source device is turned on and operating correctly. Also check that the signal cables have been connected correctly.
  - VGA-Component adapter (ViewSonic P/N: CB-00008906)

### Connecting an S-Video source device

Examine your Video source device to determine if it has an unused S-Video output socket available:

- If so, you can continue with this procedure.
- If not, you will need to reassess which method you can use to connect to the device.

### To connect the projector to an S-Video source device:

- Take an S-Video cable and connect one end to the S-Video output socket of the Video source device.
- 2. Connect the other end of the S-Video cable to the S-VIDEO socket on the projector.



- If the selected video image is not displayed after the projector is turned on and the correct video source has been selected, check that the Video source device is turned on and operating correctly. Also check that the signal cables have been connected correctly.
- If you have already made a Component Video connection between the projector and this S-Video source device using Component Video connections, you need not connect to this device using an S-Video connection as this makes an unnecessary second connection of poorer picture quality. See "Connecting Video source devices" on page 17 for details.

### Connecting a composite Video source device

Examine your Video source device to determine if it has a set of unused composite Video output sockets available:

- If so, you can continue with this procedure.
- If not, you will need to reassess which method you can use to connect to the device.

#### To connect the projector to a composite Video source device:

- 1. Take a Video cable and connect one end to the composite Video output socket of the Video source device.
- Connect the other end of the Video cable to the **VIDEO** socket on the projector.



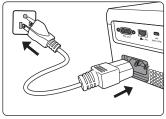
- The projector is only capable of playing mixed mono audio, even if a stereo audio input is connected. See "Connecting audio" on page 17 for details.
- If the selected video image is not displayed after the projector is turned on and the correct video source has been selected, check that the Video source device is turned on and operating correctly. Also check that the signal cables have been connected correctly.
- You need only connect to this device using a composite Video connection if Component Video and S-Video inputs are unavailable for use. See "Connecting Video source devices" on page 17 for details.

## **Operation**

## Starting up the projector

- Plug the power cord into the projector and into a wall socket. Turn on the wall socket switch (where fitted).
- Press POWER on the projector or remote control to start the projector. The POWER indicator light stays blue when the projector is on.

(If necessary) Rotate the focus ring to adjust the image clearness.



- If the projector is still hot from previous activity, it will run the cooling fan for approximately 60 seconds before energizing the lamp.
  - To maintain the lamp life, once you turn the projector on, wait at least 5 minutes before turning it off.
  - If the projector is activated for the first time, select your OSD language following the on-screen instructions.
  - 4. Switch all of the connected equipment on.
  - 5. The projector will start to search for input signals. The current input signal being scanned appears in the upper left corner of the screen. If the projector doesn't detect a valid signal, the message 'No Signal' will continue to be displayed until an input signal is found.

You can also press **SOURCE** on the projector or remote control to select your desired input signal. See "Switching input signal" on page 25 for details.

If the frequency/resolution of the input signal exceeds the projector's operating range, you will see the message 'Out of Range' displayed on a blank screen. Please change to an input signal which is compatible with the projector's resolution or set the input signal to a lower setting. See "Timing chart" on page 68 for details.

## Using the menus

The projector is equipped with On-Screen Display (OSD) menus for making various adjustments and settings.

The OSD screenshots below are for reference only, and may differ from the actual design.

Below is the overview of the OSD menu.



To use the OSD menus, please set them to your familiar language first.

 Press MENU/EXIT on the projector or Menu on the remote control to turn the OSD menu on.



Press ✓ to highlight
 Language and press </>

 to select a preferred language.



2. Use ⟨/⟩ to highlight the **SYSTEM SETTING: BASIC** menu.



 Press MENU/EXIT twice\* on the projector or Exit on the remote control to leave and save the settings.

> \*The first press leads you back to the main menu and the second press closes the OSD menu.



## Utilizing the password function

For security purposes and to help prevent unauthorized use, the projector includes an option for setting up password security. The password can be set through the On-Screen Display (OSD) menu. For details of the OSD menu operation, please refer to "Using the menus" on page 21.

You will be inconvenienced if you activate the password functionality and subsequently forget the password. Print this user manual (if necessary) and write the password you used in this manual, and keep it in a safe place for later use.

### Setting a password

- Open the OSD menu and go to the SYSTEM SETTING: ADVANCED > Security Settings menu. Press MODE/ENTER on the projector or Enter on the remote control. The Security Settings page is displayed.
- 2. Highlight **Power On Lock** and select **On** by pressing  $\langle \rangle$ .
- As pictured to the right, the four arrow keys
   (⟨, ∧, ∨, ⟩) respectively represent 4 digits
   (1, 2, 3, 4). According to the password you desire
   to set, press the arrow keys to enter six digits for
   the password.



- 4. Confirm the new password by re-entering the new password.
  - Once the password is set, the OSD menu returns to the Security Settings page.
- To leave the OSD menu, press MENU/EXIT on the projector or Exit on the remote control.



- Once a password has been set, the projector cannot be used unless the correct password is entered every time the projector is started.

## If you forget the password

If the password function is activated, you will be asked to enter the six-digit password every time you turn on the projector. If you enter the wrong password, the password error message as pictured to the right is displayed lasting for three seconds, and the message 'INPUT PASSWORD' follows. You can retry by



entering another six-digit password, or if you did not record the password in this user manual, and you absolutely do not remember it, you can use the password recall procedure. See "Entering the password recall procedure" on page 23 for details.

If you enter an incorrect password 5 times in succession, the projector will automatically shut down in a short time.

## Entering the password recall procedure

- Open the OSD menu and go to the SYSTEM SETTING: ADVANCED > Security Settings > Change Password menu.
- Press MODE/ENTER on the projector or Enter on the remote control. The message 'INPUT CURRENT PASSWORD' is displayed.

RECALL PASSWORD

- Press and hold AUTO on the projector or Auto Sync on the remote control for 3 seconds. The projector will display a coded number on the screen.
- 4. Write down the number and turn off your projector.
- Seek help from the local service center to decode the number. You may be required to provide proof of purchase documentation to verify that you are an authorized user of the projector.

## Changing the password

- Open the OSD menu and go to the SYSTEM SETTING: ADVANCED > Security Settings > Change Password menu.
- Press MODE/ENTER on the projector or Enter on the remote control. The message 'INPUT CURRENT PASSWORD' is displayed.
- 3. Enter the old password.
  - If the password is correct, another message 'INPUT NEW PASSWORD' is displayed.
  - If the password is incorrect, the password error message is displayed lasting for three seconds, and the message 'INPUT CURRENT PASSWORD' is displayed for your retry. You can press MENU/EXIT on the projector or Exit on the remote control to cancel the change or try another password.
- 4. Enter a new password.
- 5. Confirm the new password by re-entering the new password.
- You have successfully assigned a new password to the projector. Remember to enter the new password next time the projector is started.
- To leave the OSD menu, press MENU/EXIT on the projector or Exit on the remote control.

The digits being input will be displayed as asterisks on-screen. Write your selected password down here in this user manual in advance or right after the password is entered so that it is available to you should you ever forget it.							
Password:							
Keep this user manual in a safe place.							

### Disabling the password function

To disable password protection, go back to the **SYSTEM SETTING: ADVANCED** > **Security Settings** > **Power On Lock** menu after opening the OSD menu system. Select **Off** by pressing  $\langle \rangle$ . The message **'INPUT PASSWORD'** is displayed. Enter the current password.

- If the password is correct, the OSD menu returns to the Security Settings page
  with 'Off' shown in the row of Power On Lock. You will not have to enter the
  password next time you turn on the projector.
- If the password is incorrect, the password error message is displayed lasting for three seconds, and the message 'INPUT PASSWORD' is displayed for your retry. You can press MENU/EXIT on the projector or Exit on the remote control to cancel the change or try another password.

Though the password function is disabled, you need to keep the old password in hand should you ever need to re-activate the password function by entering the old password.

## Switching input signal

The projector can be connected to multiple devices at the same time. However, it can only display one full screen at a time.

Be sure the **Quick Auto Search** function in the **SOURCE** menu is **On** if you want the projector to automatically search for the signals.

You can also manually select the desired signal by pressing one of the source selection keys on the remote control, or cycle through the available input signals.

- Press SOURCE on the projector or remote control. A source selection bar is displayed.
- Press ∧ / ∨ until your desired signal is selected and press MODE/ENTER on the projector or Enter on the remote control.
   Once detected, the selected source information will be displayed on the screen for seconds. If there are multiple devices connected to the projector, repeat steps 1-2 to search for another signal.

- <b>i</b>	D-Sub / Comp. 1
— <b>(i</b> )	D-Sub / Comp. 2
	HDMI
-4-15-	Video
	S-Video



- The brightness level of the projected image will change accordingly when you switch between different input signals. Data (graphic) "PC" presentations using mostly static images are generally brighter than "Video" using mostly moving images (movies).
- The input signal type effects the options available for the Color Mode. See "Selecting a picture mode" on page 31 for details.
- Please see "Projector specifications" on page 65 for the native display resolution of this
  projector. For best display picture results, you should select and use an input signal
  which outputs at this resolution. Any other resolutions will be scaled by the projector
  depending upon the 'aspect ratio' setting, which may cause some image distortion or loss
  of picture clarity. See "Selecting the aspect ratio" on page 28 for details.

### **Changing HDMI input settings**

In the unlikely event that you connect the projector to a device (like a DVD or Blu-ray player) via the projector's **HDMI** input and the projected picture displays wrong colors, please change the color space to an appropriate one that fits the color space setting of the output device.

#### To do this:

- 1. Open the OSD menu and go to the **SOURCE** menu.
- 2. Press ∨ to highlight **HDMI Format** and press ⟨/⟩ to select a suitable color space according to the color space setting of the output device connected.
  - **RGB**: Sets the color space as RGB.
  - YUV: Sets the color space as YUV.
  - Auto: Sets the projector to detect the color space setting of input signal automatically.
- 3. Press ✓ to highlight **HDMI Range** and press </br>

  √ > to select a suitable HDMI color range according to the color range setting of the output device connected.
  - Enhanced: Sets the HDMI color range as 0 255.

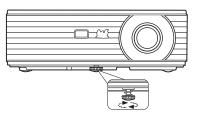
- Normal: Sets the HDMI color range as 15 235.
- This function is only available when the HDMI input port is in use.
  - · Refer to the documentation of the device for information on the color space setting.

## Adjusting the projected image

### Adjusting the projection angle

The projector is equipped with an adjuster foot. It changes the image height and vertical projection angle. Screw the adjuster foot to fine tune the angle until the image is positioned where you want it.

If the projector is not placed on a flat surface or the screen and the projector are not perpendicular to each other, the projected image becomes trapezoidal. To correct this situation, see "Correcting keystone" on page 27 for details.



Oo not look into the lens while the lamp is on. The strong light from the lamp may cause damage to your eyes.

### Auto-adjusting the image

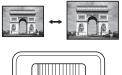
In some cases, you may need to optimize the picture quality. To do this, press **AUTO** on the projector or **Auto Sync** on the remote control. Within 3 seconds, the built-in Intelligent Auto Adjustment function will re-adjust the values of Frequency and Clock to provide the best picture quality.

The current source information will be displayed in the upper left corner of the screen for 3 seconds.

- The screen will be blank while AUTO is functioning.
  - · This function is only available when PC signal (analog RGB) is selected.

## Fine-tuning the image clarity

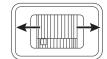
1. Adjust the projected image to the size 2. that you need using the zoom ring.





If necessary, sharpen the image by rotating the focus ring.





### **Correcting keystone**

Keystoning refers to the situation where the projected image is noticeably wider at either the top or bottom. It occurs when the projector is not perpendicular to the screen.

To correct this, besides adjusting the height of the projector, you will need to manually correct it following one of these steps.

· Using the remote control

Press \(\blue{N}\) \( \blue{\text{m}} \) on the projector or remote control to display the Keystone correction page. Press \(\blue{\text{to}}\) to correct keystoning at the top of the image. Press \(\blue{\text{to}}\) to correct keystoning at the bottom of the image.



- · Using the OSD menu
- Press MENU/EXIT on the projector or Menu on the remote control and then press
   until the DISPLAY menu is highlighted.
- Press 
   ✓ to highlight Keystone and press MODE/ENTER on the projector or Enter
   on the remote control. The Keystone correction page is displayed.
- 3. Press to correct keystoning at the top of the image or press to correct keystoning at the bottom of the image.

## Magnifying and searching for details

If you need to find the details on the projected picture, magnify the picture. Use the direction arrow keys for navigating the picture.

- · Using the remote control
- 1. Press **Magnify** on the remote control to display the Zoom bar.
- 2. Press \( \simes \) repeatedly to magnify the picture to a desired size.
- To navigate the picture, press MODE/ENTER on the projector or Enter on the remote control to switch to the paning mode and press the directional arrows (⟨⟨, ∧, ∨, ⟩) to navigate the picture.
- 4. To reduce size of the picture, press MODE/ENTER on the projector or Enter on the remote control to switch back to the zoom in/out functionality, and press AUTO/Auto Sync to restore the picture to its original size. You can also press ✓ repeatedly until it is restored to the original size.
- · Using the OSD menu
- Press MENU/EXIT on the projector or Menu on the remote control and then press
   until the DISPLAY menu is highlighted.
- 3. Repeat steps 2-4 in the section of Using the remote control above.
- The picture can only be navigated after the picture is magnified. You can further magnify the picture while searching for details.
  - Images can only be magnified up to 120% when the aspect ratio is Wide or Anamorphic.

## Selecting the aspect ratio

The 'aspect ratio' is the ratio of the image width to the image height. Most analog TV and computers are in 4:3 ratio, and digital TV and DVDs are usually in 16:9 ratio.

With the advent of digital signal processing, digital display devices like this projector can dynamically stretch and scale the image output to a different aspect than that of the image input signal.

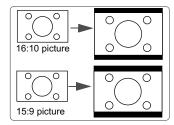
To change the projected image ratio (no matter what aspect the source is):

- Using the remote control
- 1. Press **Aspect** to show the current setting.
- Press Aspect repeatedly to select an aspect ratio to suit the format of the video signal and your display requirements.
- · Using the OSD menu
- Press MENU/EXIT on the projector or Menu on the remote control and then press
   ⟨/⟩ until the DISPLAY menu is highlighted.
- 2. Press ∨ to highlight **Aspect Ratio**.
- 3. Press ⟨/⟩ to select an aspect ratio to suit the format of the video signal and your display requirements.

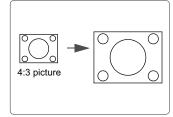
### About the aspect ratio

In the pictures below, the black portions are inactive areas and the white portions are active areas. OSD menus can be displayed on those unused black areas.

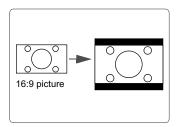
 Auto: Scales an image proportionally to fit the projector's native resolution in its horizontal width. This is suitable for the incoming image which is neither in 4:3 nor 16:9 and you want to make most use of the screen without altering the image's aspect ratio.



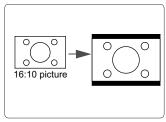
 4:3: Scales an image so that it is displayed in the center of the screen with a 4:3 aspect ratio. This is most suitable for 4:3 images like computer monitors, standard definition TV and 4:3 aspect DVD movies, as it displays them without aspect alteration.



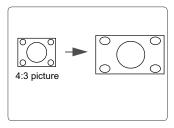
3. **16:9**: Scales an image so that it is displayed in the center of the screen with a 16:9 aspect ratio. This is most suitable for images which are already in a 16:9 aspect, like high definition TV, as it displays them without aspect alteration.



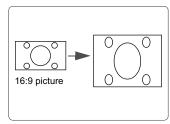
4. 16:10 (PJD6543w only): Scales an image so that it is displayed in the center of the screen with a 16:10 aspect ratio. This is most suitable for images which are already in a 16:10 aspect, as it displays them without aspect alteration



 Wide (PJD6543w only): Scales a 4:3 aspect image vertically and horizontally in a non-linear manner so that it fills the screen with a 16:9 aspect ratio.



6. **Anamorphic (PJD6235/PJD6245 only):** Scales a 16:9 aspect image vertically and horizontally in a non-linear manner so that it fills the screen with a 4:3 aspect ratio.



## Optimizing the image

## Selecting a picture mode

The projector is preset with several predefined picture modes so that you can choose one to suit your operating environment and input signal picture type.

To select an operation mode that suits your need, you can follow one of the following steps.

- Press MODE/ENTER on the projector or Color Mode on the remote control repeatedly until your desired mode is selected.
- Go to the **PICTURE** > **Color Mode** menu and press  $\langle / \rangle$  to select a desired mode.

#### Picture modes for different types of signals

The picture modes available for different types of signals are listed below.

#### PC input signals: D-Sub / Comp. 1/2 (analog RGB)

- Brightest mode: Maximizes the brightness of the projected image. This mode is suitable for environments where extra-high brightness is required, such as using the projector in well lit rooms.
- PC mode: Is designed for presentations under daylight environment to match PC and notebook coloring.
- ViewMatch mode: Switches between high brightness performance and accurate color performance.
- Movie mode: Is appropriate for playing colorful movies, video clips from digital cameras or DVs through the PC input for best viewing in a blackened (little light) environment.
- Dynamic PC mode: Is designed for presentations under daylight environment to match PC and notebook coloring. In addition, the projector will optimize the image quality using the dynamic PC function in accordance with the projected contents.
- It takes some time to initiate this function. Make sure the projector has been turned on for more than 4 minutes.

  If the projector is resumed by using the Smart Restart feature, this function can be executed immediately.
  - 6. Dynamic Movie mode: Is appropriate for playing colorful movies, video clips from digital cameras or DVs through the PC input for best viewing in a blackened (little light) environment. In addition, the projector will optimize the image quality using the dynamic Movie function in accordance with the projected contents.
- It takes some time to initiate this function. Make sure the projector has been turned on for more than 4 minutes.

  If the projector is resumed by using the Smart Restart feature, this function can be executed immediately.
  - 7. **User 1/User 2 mode**: Recalls the settings customized based on the current available picture modes. See "Setting the User 1/User 2 mode" on page 32 for details.

#### Video input signals: S-Video, Video, D-Sub / Comp. 1/2 (YPbPr) / HDMI

- Brightest mode: Optimized for daylight viewing, with living room level ambient brightness.
- Gaming mode: Suitable for all types of entertainment media, including gaming and movies.
- ViewMatch mode: Switches between high brightness performance and accurate color performance.

- Movie mode: Is suitable for enjoying dark movies or DVD movies best viewed in a blackened (little light) home cinema or lounge room environment.
- 5. Dynamic Movie mode: Is suitable for enjoying dark movies or DVD movies best viewed in a blackened (little light) home cinema or lounge room environment. In addition, the projector will optimize the image quality using the dynamic Movie function in accordance with the projected contents.
- It takes some time to initiate this function. Make sure the projector has been turned on for more than 4 minutes.

  If the projector is resumed by using the Smart Restart feature, this function can be executed.

If the projector is resumed by using the Smart Restart feature, this function can be executed immediately.

6. **User 1/User 2 mode**: Recalls the settings customized based on the current available picture modes. See "Setting the User 1/User 2 mode" on page 32 for details.

### Setting the User 1/User 2 mode

There are two user-definable modes if the current available picture modes are not suitable for your need. You can use one of the picture modes (except the **User 1/User 2**) as a starting point and customize the settings.

- Press MENU/EXIT on the projector or Menu on the remote control to open the On-Screen Display (OSD) menu.
- Go to the PICTURE > Color Mode menu.
- 3. Press  $\langle \rangle$  to select User 1 or User 2.
- Press ✓ to highlight Reference Mode.
- This function is only available when User 1 or User 2 mode is selected up in the Color Mode sub-menu item.
  - 5. Press  $\langle \rangle$  to select a picture mode that is closest to your need.
  - 6. Press ✓ to select a sub-menu item to be changed and adjust the value with 〈/〉. See Fine-tuning the image quality in user modes below for details.
  - When all settings have been done, highlight Save Settings and press MODE/ENTER
    on the projector or Enter on the remote control to store the settings.
  - 8. The confirmation message 'Setting Saved' is displayed.

## **Using Screen Color**

In the situation where you are projecting onto a colored surface such as a painted wall which may not be white, the **Screen Color** feature can help correct the projected picture's colors to prevent possible color difference between the source and projected pictures.

To use this function, go to the **DISPLAY** > **Screen Color** menu and press  $\langle / \rangle$  to select a color which is closest to the color of the projection surface. There are several precalibrated colors to choose from: **Whiteboard**, **Greenboard**, and **Blackboard**.

## Fine-tuning the image quality in user modes

According to the detected signal type, there are some user-definable functions available when **User 1** or **User 2** mode is selected. You can make adjustments to these functions based on your needs.

When you are done making adjustments, remember to go to the PICTURE > Save Settings menu and press MODE/ENTER to save your settings.

#### **Adjusting Brightness**

Highlight the **PICTURE** > **Brightness** menu and press </>>.

The higher the value, the brighter the image. And the lower the setting, the darker the image. Adjust this control so the black areas of the image appear just as black and that detail in the dark areas is visible.







#### **Adjusting Contrast**

Highlight the **PICTURE** > **Contrast** menu and press </>>.

The higher the value, the greater the contrast. Use this to set the peak white level after you have previously adjusted the **Brightness** setting to suit your selected input and viewing environment.







#### **Adjusting Color**

Highlight the **PICTURE** > **Color** menu and press </>>.

Lower setting produces less saturated colors. If the setting is too high, colors on the image will be overpowering, which makes the image unrealistic.

#### **Adjusting Tint**

Highlight the **PICTURE** > **Tint** menu and press </>>.

The higher the value, the more reddish the picture becomes. The lower the value, the more greenish the picture becomes.

## **Adjusting Sharpness**

Highlight the **PICTURE** > **Sharpness** menu and press </>>.

The higher the value, the sharper the picture becomes. The lower the value, the softer the picture becomes.

### **Adjusting Brilliant Color**

Highlight the **PICTURE** > **Brilliant Color** menu and press  $\langle / \rangle$ .

This feature utilizes a new color-processing algorithm and system level enhancements to enable higher brightness while providing truer, more vibrant colors in the projected picture. It enables a greater than 50% brightness increase in mid-tone images, which are common in video and natural scenes, so the projector reproduces images in realistic and true colors. If you prefer images with that quality, select **On**. If you don't need it, select **Off**.

When **Off** is selected, the **Color Temperature** function is not available.

#### **Selecting a Color Temperature**

Highlight the PICTURE > Color Temperature menu and press </>>.

The options available for color temperature\* settings vary according to the signal type selected.

- T1: With the highest color temperature, T1 makes the image appear the most bluish white than other settings.
- 2. **T2:** Makes images appear bluish white.
- 3. **T3:** Maintains normal colorings for white.

4. **T4:** Makes images appear reddish white.

#### \*About color temperatures:

There are many different shades that are considered to be "white" for various purposes. One of the common methods of representing white color is known as the "color temperature". A white color with a low color temperature appears to be reddish white. A white color with a high color temperature appears to have more blue in it.

### **Color Management**

Only in permanent installations with controlled lighting levels such as boardrooms, lecture theaters, or home theaters, should color management be considered. Color management provides fine color control adjustment to allow for more accurate color reproduction, should you require it.

If you have purchased a test disc which contains various color test patterns and can be used to test the color presentation on monitors, TVs, projectors, etc., you can project any image from the disc on the screen and enter the **Color Management** menu to make adjustments.

#### To adjust the settings:

- 1. Go to the **DISPLAY** menu and highlight **Color Management**.
- Press MODE/ENTER on the projector or Enter on the remote control and the Color Management page is displayed.
- 3. Highlight **Primary Color** and press ⟨/⟩ to select a color from among Red, Yellow, Green, Cyan, Blue, or Magenta.

Please refer to the illustration to the right for how the colors relate to each other

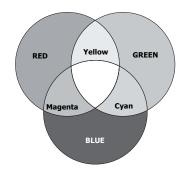
For example, if you select Red and set its range at 0, only pure red in the projected picture will be selected. Increasing its range will include red close to yellow and red close to magenta.

Press 

 to highlight Saturation and adjust its values to your preference by pressing 

 ∴ Every adjustment made will reflect to the image immediately.

For example, if you select Red and set its value at 0, only the saturation of pure red will be affected.



- Saturation is the amount of that color in a video picture. Lower settings produce less saturated colors; a setting of "0" removes that color from the image entirely. If the saturation is too high, that color will be overpowering and unrealistic.
  - 6. Press ∨ to highlight **Gain** and adjust its values to your preference by pressing </
    - >. The contrast level of the primary color you select will be affected. Every adjustment made will reflect to the image immediately.
  - 7. Repeat steps 3 to 6 for other color adjustments.
  - 8. Make sure you have made all of the desired adjustments.
  - Press MENU/EXIT on the projector or Exit on the remote control to exit and save the settings.

# Setting the presentation timer

Presentation timer can indicate the presentation time on the screen to help you achieve better time management when giving presentations. Follow these steps to utilize this function:

- Press Timer on the remote control to access the Presentation Timer menu or go to the SYSTEM SETTING: ADVANCED > Presentation Timer menu and press MODE/ENTER to display the Presentation Timer page.
- Highlight Timer Period and decide the time period by pressing ⟨/⟩. The length of time can be set from 1 to 5 minutes in 1-minute increments and 5 to 240 minutes in 5minute increments.

#### If the timer is already on, the timer will restart whenever the Timer Period is reset.

3. Press  $\vee$  to highlight **Timer Display** and choose if you want the timer to show up on the screen by pressing  $\langle \rangle$ .

Selection	Description
Always	Displays the timer on screen throughout the presentation
	time.
1 min/2 min/3 min	Displays the timer on screen in the last 1/2/3 minute(s).
Never	Hides the timer throughout the presentation time.

4. Press  $\vee$  to highlight **Timer Position** and set the timer position by pressing  $\langle \rangle$ .

Selection	Description	
Count Up	Increases from 0 to the preset time.	
Count Down	Decreases from the preset time to 0.	

- 6. Press ✓ to highlight **Sound Reminder** and decide if you want to activate sound reminder by pressing ⟨/⟩. If you select **On**, a double beep sound will be heard at the last 30 seconds of counting down/up, and a triple beep sound will be produced when the timer is up.
- 7. To activate the presentation timer, press ✓ and press </br>
  /> and press 
  Counting and press MODE/ENTER.
- 8. A confirmation message displays. Highlight Yes and press MODE/ENTER on the projector or remote control to confirm. You will see the message "Timer is On" displaying on the screen. The timer starts counting when the timer is on.

#### To cancel the timer, perform the following steps:

- Go to the SYSTEM SETTING: ADVANCED > Presentation Timer menu and highlight Off. Press MODE/ENTER. A confirmation message displays.
- 2. Highlight **Yes** and press **MODE/ENTER** to confirm. You will see the message "**Timer is Off**" displaying on the screen.

# Hiding the image

In order to draw the audience's full attention to the presenter, you can use  $\langle$  on the projector or **Blank** on the remote control to hide the screen image. Press any key on the projector or remote control to restore the image. The word '**BLANK**' appears at the lower right corner of the screen while the image is hidden.

You can set the blank time in the **SYSTEM SETTING: BASIC > Blank Timer** menu to let the projector return the image automatically after a period of time when there is no action taken on the blank screen.

Once Blank is pressed, the projector enters Economic mode automatically.



Do not block the projection lens from projecting as this could cause the blocking object to become heated and deformed or even cause a fire.

## **Locking control keys**

With the control keys on the projector locked, you can prevent your projector settings from being changed accidentally (by children, for example). When the **Panel Key Lock** is on, no control keys on the projector will operate except (<sup>1</sup>) **POWER**.

- 1. Press > on the projector or Lock 1 on the remote control, or go to the SYSTEM SETTING: BASIC > Panel Key Lock menu, and select On by pressing
- 2. A confirmation message is displayed. Select **Yes** to confirm.

To release panel key lock, press and hold > on the projector or Lock \( \begin{align\*} \hat{\line{0}} \) on the remote control for 3 seconds.

You can also use the remote control to enter the **SYSTEM SETTING: BASIC** > **Panel Key Lock** menu and press </> to select **Off**.

- Keys on the remote control are still functional when panel key lock is enabled.
  - If you press OPOWER to turn off the projector without disabling panel key lock, the
    projector will still be in locked status the next time it is turned on.

## Freezing the image

Press **Freeze** on the remote control to freeze the image. The word '**FREEZE**' will be displayed in the upper left corner of the screen. To release the function, press any key on the projector or remote control.

Even if an image is frozen on the screen, the pictures are running on the video or other device. If the connected devices have active audio output, you will still hear the audio even though the image is frozen on screen.

# Operating in a high altitude environment

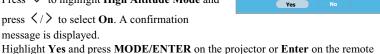
We recommend you use the **High Altitude Mode** when your environment is between 1500 m–3000 m above sea level, and temperature is between 0°C–35°C.

/ CAUTION

Do not use the High Altitude Mode if your altitude is between 0 m and 1500 m and temperature is between 0°C and 35°C. The projector will be over cooled, if you turn the mode on under such a condition.

To activate the High Altitude Mode:

- Press MENU/EXIT on the projector or Menu on the remote control and then press  $\langle \rangle$  until the SYSTEM SETTING: ADVANCED menu is highlighted.
- 2. Press ✓ to highlight High Altitude Mode and press  $\langle \rangle$  to select **On**. A confirmation message is displayed.



Notice

control.

Operation under "High Altitude Mode" may cause a higher decibel operating noise level because of increased fan speed necessary to improve overall system cooling and performance.

If you use this projector under other extreme conditions excluding the above, it may display auto shut-down symptoms, which is designed to protect your projector from over-heating. In cases like this, you should switch to **High Altitude Mode** to solve these symptoms. However, this is not to state that this projector can operate under any and all harsh or extreme conditions.

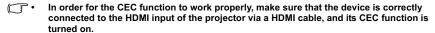
# Using the CEC function

3.

This projector supports CEC (Consumer Electronics Control) function for synchronized power on/off operation via HDMI connection. That is, if a device that also supports CEC function is connected to the HDMI input of the projector, when the projector's power is turned off, the power of the connected device will also be turned off automatically. When the power of the connected device is turned on, the projector's power will be turned on automatically.

To turn on the CEC function:

- 1. Press MENU/EXIT on the projector or Menu on the remote control to open the On-Screen Display (OSD) menu.
- Go to the **SYSTEM SETTING: BASIC** > **CEC** menu. 2.
- 3 Press  $\langle \rangle$  to select **On**.



Depending on the connected device, the CEC function may not work.

## Using the 3D functions

This projector features 3D function which enables you to enjoy 3D movies, videos, and sporting events in a more realistic way by presenting the depth of the images. You need to wear a pair of 3D glasses to view 3D images.

If the 3D signal is input from an HDMI 1.4a compatible device, the projector detects the signal for 3D Sync information and once detected, it projects images in 3D format automatically. In other cases, you may need to manually select a 3D Sync format for the projector to project 3D images correctly.

To select a **3D Sync** format:



- Press MENU/EXIT on the projector or Menu on the remote control and then press
   until the DISPLAY menu is highlighted.
- Press 
   ✓ to highlight 3D Settings and press MODE/ENTER on the projector or
   Enter on the remote control.
- Press 
   ✓ to highlight 3D Sync and press MODE/ENTER on the projector or Enter
   on the remote control.
- Press 
   ✓ to select a 3D Sync setting according to the table below and then press
   MODE/ENTER on the projector or Enter on the remote control to confirm.

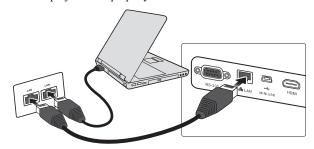
#### When the 3D Sync function is on:

- The brightness level of the projected image will decrease.
- · The Color Mode cannot be adjusted.
- The Zoom can only magnify the pictures to limited sizes.

If you discover the inversion of the 3D image depth, set the 3D Sync Invert function to "Invert" to correct the problem.

# Controlling the projector through a LAN environment

The projector supports Crestron<sup>®</sup> software. With correct settings for the **LAN Control Settings** menu, you can manage the projector from a computer using a web browser when the computer and the projector are properly connected to the same local area network.



(An example of connection)

## **Configuring the LAN Control Settings**

#### If you are in a DHCP environment:

- Take a RJ45 cable and connect one end to the RJ45 LAN input jack of the projector and the other end to the RJ45 port.
- Press 

  to highlight LAN Control Settings and press MODE/ENTER on the projector or Enter on the remote control. The LAN Control Settings page is displayed.
- 4. Press  $\vee$  to highlight **DHCP** and press  $\langle \rangle$  to select **On**.
- Please wait for around 15 20 seconds, and then re-enter the LAN Control Settings
  page. The Projector IP Address, Subnet Mask, Default Gateway, and DNS Server
  settings will be displayed. Note down the IP address displayed in the Projector IP
  Address row.
- If the Projector IP Address still does not appear, contact your network administrator.
  - If the RJ45 cables are not properly connected, the Projector IP Address, Subnet Mask, Default Gateway, and DNS Server settings will display 0.0.0.0. Make sure the cables are properly connected and perform the procedures above again.
  - If you need to connect to the projector in its standby mode, set Power Saving to Off.

#### If you are in a non-DHCP environment:

- 1. Repeat steps 1-3 above.
- 2. Press  $\checkmark$  to highlight **DHCP** and press  $\langle / \rangle$  to select **Off**.
- Contact your ITS administrator for information on the Projector IP Address, Subnet Mask, Default Gateway, and DNS Server settings.

- 5. Press  $\langle \rangle$  to move the cursor and the press  $\wedge \rangle$  to enter the value.
- To save the settings, press MODE/ENTER on the projector or Enter on the remote control. If you do not want to save the settings, press MENU/EXIT on the projector or Menu on the remote control.
- Press 

   to highlight Apply and press MODE/ENTER on the projector or Enter on the remote control.
- If the RJ45 cables are not properly connected, the Projector IP Address, Subnet Mask, Default Gateway, and DNS Server settings will display 0.0.0.0. Make sure the cables are properly connected and perform the procedures above again.
  - If you wish to connect to the projector in its standby mode, be sure you have selected RJ45 and obtained the Projector IP Address, Subnet Mask, Default Gateway, and DNS Server information when the projector is on.

#### Controlling the projector through a web browser

Once you have the correct IP address for the projector and the projector is on or in standby mode, you can use any computer that is on the same local area network to control the projector.

- If you are using Microsoft Internet Explorer, make sure it is version 7.0 or higher.
  - The screen shots in this manual are for reference only, and may differ from the actual design.
  - 1. Enter the address of the projector in the address bar of your browser and press **Enter**.



2. The main page of the Network Control appears.



- CF Accessing to Network Settings or Email Alert page requires Administrator password. The default password is "0000".
  - This page allows you to make adjustments to the AMX and SNMP settings. In the AMX device discover row, when ON is selected, the projector can be detected by

controllers of AMX connected to the same network. For the Details of AMX Device Discovery, visit the AMX web site at http://www.amx.com/.



4. If your projector is connected to a network which supports Simple Mail Transfer Protocol (SMTP), you can configure it to alert you via email on significant events.



5. The Crestron (e-Control) page displays the Crestron e-Control user interface. See "About Crestron e-Control®" on page 42 for details.

Please pay attention to the limitation of input length (including space and other punctuation keys) in the list blow:

Category Item		Input Length	Maximum Number of Characters
	Network	DHCP/Manual	(N/A)
		IP Address	XXX.XXX.XXX
		Subnet Mask	XXX.XXX.XXX
		Gateway	XXX.XXX.XXX
		DNS Server	XXX.XXX.XXX
Network Settings		AMX device discovery	(N/A)
Network Settings	Password	Administrator	(N/A)
		New Password	4
		Confirm Password	4
		SysLocation	22
	SNMP	SysName	22
		SysContact	22

	Email Setting	То	40
		Сс	40
		Subject	40
		From	40
		Server	30
	SMTP Setting	User Name	21
Email Alert		Password	14
	Alert Condition	Fan Error	(N/A)
		Lamp Error	(N/A)
		Over Temperature	(N/A)
		Lamp Time Alert	(N/A)
		Submit	(N/A)
		Issue Test Mail	(N/A)

/> < \$ % + \ ' " are prohibited.</pre>

## **About Crestron e-Control®**

1. The Crestron e-Control® page provides a variety of virtual keys to control the projector or adjust the projected pictures.



- i. These buttons function the same as the ones on the OSD menus or remote control. See "2. PICTURE menu" on page 52 and "Projector" on page 7 for details.
- ii. To switch between input signals, click on your desired signal.
- The Menu button can also be used to go back to previous OSD menus, exit and save menu settings.
  - · The source list varies according to the connectors available on the projector.
  - When you use the projector control panel or remote control to change the OSD menu settings, it may take a while for the web browser to synchronize these changes with the projector.

2. The tools page allows you to manage the projector, configure the LAN control settings and secure access of remote network operation on this projector.



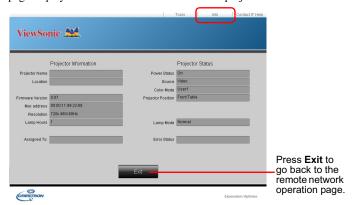
- i. This section is only used with the Crestron Control System. Please contact Creston or refer to its user manual for setup information.
- You can name the projector, keep track of its location and the person in charge of it.
- iii. You can adjust the LAN Control Settings.
- Once set, access to the remote network operation on this projector has been password-protected.
- v. Once set, access to the tools page has been password-protected.
- To prevent errors, only input the English alphabet and digits on the tools page.
  - After making the adjustments, press the Send button and the data will be saved for the projector.
    - vi. Press Exit to go back to the remote network operation page.

Please pay attention to the limitation of input length (including space and other punctuation keys) in the list blow:

Category Item	Input Length	Maximum Number of Characters
	IP Address	16
Crestron Control	IP ID	4
	Port	5
	Projector Name	32
Projector	Location	32
	Assigned To	32
	DHCP (Enabled)	(N/A)
	IP Address	16
Network Configuration	Subnet Mask	16
	Default Gateway	16
	DNS Server	16

	Enabled	(N/A)
User Password	New Password	26
	Confirm	26
	Enabled	(N/A)
Admin Password	New Password	26
	Confirm	26

3. The info page displays the information and status of this projector.



 After pressing the button "Contact IT Help", the HELP DESK window will appear in the upper right corner of the screen. You will be able to deliver messages to RoomView<sup>TM</sup> software administrators/users who connect to the same local area network.

For more information, visit http://www.crestron.com & www.crestron.com/getroomview.

#### \*\*Crestron RoomView

On the "Edit Room" page, enter the IP Address (or hostname) as shown on the projector's on-screen display (OSD) menu, and "02" for IPID, "41794" for the reserved Crestron control port.



About Crestron RoomView<sup>TM</sup> setting and command method, please access below website to get RoomView<sup>TM</sup> User Guide and more information:

http://www.crestron.com/products/roomview\_connected\_embedded\_projectors\_devices/resources.asp

## PJLink<sup>TM</sup>, SNMP, AMX and Xpanel formats supported

This projector is PJLink™, SNMP V.1, AMX or Xpanel V1.10 compliant. For details, please follow its user guide or website respectively to control and manage projectors.

# Using the projector in standby mode

Some of the projector functions are available in standby mode (plugged in but not turned on). To use these functions, be sure you have turned on the corresponding menus under **SYSTEM SETTING: BASIC** > **Standby Settings**, and the cable connections are correctly made. For the connection methods, see the Connection chapter.

#### **Power Saving**

Less than 0.5W power consumption when **Power Saving** mode is turned on.

When Power Saving is On, the network function is not available when the projector is in standby mode.

#### Active VGA Out

Selecting **On** outputs a VGA signal when the **COMPUTER IN 1** and **COMPUTER OUT** sockets are correctly connected to devices. The projector outputs the signal received only from **COMPUTER IN 1**.

#### Active Audio Out

Selecting On outputs an audio signal when the AUDIO IN and AUDIO OUT sockets are correctly connected to devices.

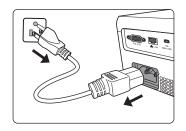
#### **Quick Power Off**

Selecting **On** enables the function and the projector will not enter the cooling process after being shut down. Selecting **Off** disables the function and the projector will enter normal cooling process after being shut down.

- If you attempt to restart the projector right after it's been turned off, it may not be turned on successfully and will rerun its cooling procedure.
  - When Off is selected, the Smart Restart function will be automatically turned off.

# Shutting down the projector

- Press POWER and a confirmation message is displayed prompting you.
   If you don't respond in a few seconds, the message will disappear.
- 2. Press (1) **POWER** a second time.
- Disconnect the power cord from the wall socket if the projector will not be used in an extended period of time.



### /!\CAUTION

- To protect the lamp, the projector will not respond to any commands during the cooling process.
- To shorten the cooling time, you can also activate the Quick Power Off function. See "Quick Power Off" on page 45 for details.
- Do not unplug the power cord before the projector shutdown sequence is complete.

# Menu operation

## Menu system

Please note that the on-screen display (OSD) menus vary according to the signal type selected.

The menu items are available when the projector detects at least one valid signal. If there is no equipment connected to the projector or no signal detected, limited menu items are accessible.

Main menu	Sub-menu		Options
	Screen Color		Off/Blackboard/Greenboard/ Whiteboard
	Aspect Ratio		Auto/4:3/16:9/ 16:10 (PJD6543w only)/Wide (PJD6543w only)/Anamorphic (PJD6235/PJD6245 only)
	Keystone		
	Position		
4	Phase		
T.	H. Size		
DISPLAY	Zoom		
	3D Settings	3D Sync	Auto/Off/Frame Sequential/ Frame Packing/Top-Bottom/ Side-by-Side
		3D Sync Invert	Disable/Invert
		Primary Color	R/G/B/C/M/Y
	Color	Hue	
	Management	Saturation	
		Gain	
	Color Mode	PC/Dynamic Movie/	ntest/Gaming/ViewMatch/Movie/
	Reference Mode	PC/Dynamic Movie	st/PC/ViewMatch/Movie/Dynamic ntest/Gaming/ViewMatch/Movie/
2. PICTURE	Brightness		
INTOKE	Contrast		
	Color		
	Tint		
	Sharpness		
	<b>Brilliant Color</b>		On/Off
	Color Temperatur	re	T1/T2/T3/T4
	Save Settings		

Main menu	Sub-menu		Options
	Quick Auto Searc	h	Off/On
	HDMI Format		RGB/YUV/Auto
	HDMI Range		Enhanced/Normal
	DynamicEco Time	er	Disable/5 min/10 min/15 min/30 min
3. SOURCE	Smart Restart		Off/On
	Pattern		Off/01/02/03/04/05
	My Button	DCR/Closed Caption/A	osition)/3D Sync/Lamp Mode/ uto Off (Auto Power Off)/ /CEC/Auto Search (Quick Auto
	Language		Multi-language OSD selection
	Projector Position	1	Front Table/Rear Table/Rear Ceiling/Front Ceiling
	Auto Power Off		Disable/5 min/10 min/20 min/30 min/40 min/50 min/60 min
	Timer	Blank Timer	Disable/5 min/10 min/15 min/20 min/25 min/30 min
		Sleep Timer	Off/30 min/1 hour/2 hours/3 hours/4 hours/8 hours/12 hours
4.	Panel Key Lock		On/Off
SYSTEM	Splash Screen		Black/Blue/ViewSonic/Off
SETTING:	Message		On/Off
BASIC		DHCP	On/Off
DAGIC		Projector IP Address	
	LAN Control	Subnet Mask	
	Settings	Default Gateway	
		DNS Server	
		Apply	
	Cton dhu Cottin no	Power Saving	On/Off
		Active VGA Out	On/Off
	Standby Settings	Active Audio Out	On/Off
		Quick Power Off	On/Off

	High Altitude Mode		On/Off
	DCR		On/Off
	Audia Cattinga	Mute	On/Off
	Audio Settings	Volume	
		Menu Display Time	5 sec/10 sec/15 sec/20 sec/25 sec/30 sec
	Menu Settings	Menu Position	Center/Top-Left/Top- Right/Bottom-Left/ Bottom-Right
	Classed Continu	Closed Caption Enable	On/Off
	Closed Caption	Caption Version	CC1/CC2/CC3/CC4
	Lamp Settings	Lamp Mode	Normal/Economic
5.		Reset Lamp Timer	
SYSTEM		<b>Equivalent Lamp Hour</b>	
SETTING:	Presentation Timer	Timer Period	1~240 minutes
ADVANCED		Timer Display	Always/1 min/2 min/3 min/ Never
		Timer Position	Top-Left/Bottom-Left/Top- Right/Bottom-Right
		Timer Counting Direction	Count Down/Count Up
		Sound Reminder	On/Off
		Start Counting/Off	
	Security Settings	Change Password	
	Security Settings	Power On Lock	On/Off
	Remote Control Code		A/B
	Reset Settings	Reset All Settings	Reset/Cancel
	reset octaligs	Reset Color Settings	

Main menu	Sub-menu	Options
6. INFORMATION	Current System Status	<ul> <li>Source</li> <li>Color Mode</li> <li>Resolution</li> <li>Color System</li> <li>Equivalent Lamp Hour</li> <li>MAC Address</li> </ul>

# Description of each menu

	Function Description			
	Screen Color	Corrects the projected picture's color when the projection surface is not white. See "Using Screen Color" on page 32 for details.		
	Aspect Ratio	There are several options to set the image's aspect ratio depending on your input signal source. See "Selecting the aspect ratio" on page 28 for details.		
	Keystone	Corrects any keystoning of the image. See "Correcting keystone" on page 27 for details.		
1. DISI	Position	Displays the position adjustment page. To move the projected image, use the directional arrow keys. The values shown on the lower position of the page change with every key press you made until they reach their maximum or minimum.		
DISPLAY menu	Phase	Adjusts the clock phase to reduce image distortion.		
	H. Size	Adjusts the horizontal width of the image.		
	Zoom	Magnifies or reduces the projected image. See "Magnifying and searching for details" on page 27 for details.		
	3D Settings	See "Using the 3D functions" on page 37 for details.		
	Color Management	See "Color Management" on page 34 for details.		

	Function	Description
	Color Mode	Pre-defined picture modes are provided so you can optimize your projector image set-up to suit your program type. See "Selecting a picture mode" on page 31 for details.
	Reference Mode	Selects a picture mode that most suits your need for the image quality and further fine-tune the image based on the selections listed on the same page below. See "Setting the User 1/User 2 mode" on page 32 for details.
	Brightness	Adjusts the brightness of the image. See "Adjusting Brightness" on page 33 for details.
2. PI	Contrast	Adjusts the degree of difference between dark and light in the image. See "Adjusting Contrast" on page 33 for details.
2. PICTURE menu	Color	Adjusts the color saturation level the amount of each color in a video image. See "Adjusting Color" on page 33 for details.
Æ m	Tint	Adjusts the red and green color tones of the image. See "Adjusting Tint" on page 33 for details.
nu		The function is only available when Video or S-Video with NTSC system is selected.
	Sharpness	Adjusts the image to make it look sharper or softer. See "Adjusting Sharpness" on page 33 for details.
	<b>Brilliant Color</b>	Adjusts white peaking while maintaining correct color presentation. See "Adjusting Brilliant Color" on page 33 for details.
	Color Temperature	See "Selecting a Color Temperature" on page 33 for details.
	Save Settings	Saves the settings made for the <b>User 1</b> or <b>User 2</b> mode.

	Function	Description	
	Quick Auto Search	See "Switching input signal" on page 25 for details.	
	HDMI Format	Co. Well-series HDMT involved to the control of the least	
	HDMI Range	See "Changing HDMI input settings" on page 25 for details.	
63	DynamicEco Timer	Allows the projector to decrease the power consumption automatically if no input signal is detected after a set period of time.	
3. SOURCE menu		It takes some time to initiate this function. Make sure the projector has been turned on for more than 4 minutes.	
	Smart Restart	Selecting <b>On</b> enables you to restart the projector immediately within 150 seconds after turning it off. After 150 seconds, if the projector is not turned on again, it will directly enter the standby mode.	
		•It takes some time to initiate this function. Make sure the projector has been turned on for more than 4 minutes. If the projector is resumed by using the Smart Restart feature, this function can be executed immediately.	
		<ul> <li>When On is selected, the Quick Power Off function will be automatically set to "On".</li> </ul>	
	Pattern	The projector can display several test patterns. It helps you adjust the image size and focus and check that the projected image is free from distortion.	
	My Button	Sets a hotkey on remote control.	

	Function	Description		
	Language	Sets the language for the On-Screen Display (OSD) menus. See "Using the menus" on page 21 for details.		
	Projector Position	The projector can be installed on a ceiling or behind a screen, or with one or more mirrors. See "Choosing a location" on page 12 for details.		
	Auto Power Off	Allows the projector to turn off automatically if no input signal is detected after a set period of time. See "Setting Auto Power Off" on page 58 for details.		
4. SYSTEM SETTING: BASIC menu	Timer	Blank Timer  Sets the image blank time when the Blank feature is activated, on elapsed the image will return to the screen. See "Hiding the image on page 36 for details.  Sleep Timer  Allows the projector to turn off automatically after a set period of time if the incoming signal is present or not.		
NG: BAS	Panel Key Lock	Disables or enables all panel key functions except ( POWER on the projector and keys on the remote control. See "Locking control keys" on page 36 for details.		
IC me	Splash Screen	Allows you to select which logo screen will be displayed during projector start-up.		
ňu	Message	Selecting <b>On</b> displays the current information on the screen when the projector is detecting or searching for a signal.		
	LAN Control Settings	See "Controlling the projector through a LAN environment" on page 39 for details.		
	Standby Settings	See "Using the projector in standby mode" on page 45 for details.		
	CEC	See "Using the CEC function" on page 37 for details.		

	Function	Description		
	High Altitude Mode	A mode for operation in high altitude areas. See "Operating in a high altitude environment" on page 36 for details.		
5. s;	DCR	Enables or disables the DCR (Dynamic Contrast Ratio) function.  Selecting On enables the function and the projector will automatically switch the lamp mode between normal and economic modes according to the input image detected.  This function is only available when a PC source is in use.  After enabling DCR, frequent lamp mode switching may shorten lamp life and noise level will vary during operation.		
	Audio Settings	The sound adjustments made as below will have an effect on the projector speaker. Be sure you have made a correct connection to the projector audio input/output jacks. See "Connection" on page 15 for more details.  Mute  Mutes the sound received from AUDIO IN.		
STEV		Volume Adjusts the sound level received from AUDIO IN.		
M SETTING	Menu Settings	Menu Display Time Sets the length of time the OSD will remain active after your last key press. The range is from 5 to 30 seconds in 5-second increments.  Menu Position		
A		Sets the On-Screen Display (OSD) menu position.		
5. SYSTEM SETTING: ADVANCED menu	Closed Caption	Closed Caption Enable Activates the function by selecting On when the selected input signal carries closed captions.  Captions: An on-screen display of the dialogue, narration, and sound effects of TV programs and videos that are closed captioned (usually marked as "CC" in TV listings).		
		This function is only available when a Composite video or S-Video input signal is selected and its system format is NTSC.		
		Caption Version Selects a preferred closed captioning mode. To view captions, select CC1, CC2, CC3, or CC4 (CC1 displays captions in the primary language in your area).		
	Lamp Settings	Lamp Mode See "Setting Lamp Mode as Economic" on page 58 for details.  Reset Lamp Timer See "Resetting the lamp timer" on page 62 for details.  Equivalent Lamp Hour		
		See "Getting to know the lamp hour" on page 58 for details on how the total lamp hour is calculated.		

	Function	Description	
5. SYSTE	Presentation Timer	Reminds the presenter to finish the presentation within a certain time frame. See "Setting the presentation timer" on page 35 for details.	
	Security Settings	See "Utilizing the password function" on page 22 for details.	
/ SETTI	Remote Control Code	See "Remote control code" on page 9 for details.	
SYSTEM SETTING: ADVANCED menu	Reset Settings	Reset All Settings Returns all settings to the factory preset values.  The following settings will still remain: Keystone, Language, Projector Position, High Altitude Mode, Security Settings, Remote Control Code.  Reset Color Settings Returns all color settings to the factory preset values.	
6. INFORMATION menu	Current System Status	Source Shows the current signal source.  Color Mode Shows the selected mode in the PICTURE menu.  Resolution Shows the native resolution of the input signal.  Color System Shows input system format, NTSC, PAL, SECAM, or RGB.  Equivalent Lamp Hour Displays the number of hours the lamp has been used.  MAC Address Shows the MAC Address of your projector.  MAC Address stands for Media Access Control Address, which is a physical layer address used to uniquely identify a network node.	

# Care of the projector

Your projector needs little maintenance. The only thing you need to do on a regular basis is to keep the lens clean.

Never remove any parts of the projector except the lamp. Contact your dealer if other parts need replacing.

## Cleaning the lens

Clean the lens whenever you notice dirt or dust on the surface.

- Use a canister of compressed air to remove dust.
- If there is dirt or smears, use lens-cleaning paper or moisten a soft cloth with lens cleaner and gently wipe the lens surface.



Never rub the lens with abrasive materials.

## Cleaning the projector case

Before you clean the case, turn the projector off using the proper shutdown procedure as described in "Shutting down the projector" on page 46 and unplug the power cord.

- To remove dirt or dust, wipe the case with a soft, lint-free cloth.
- To remove stubborn dirt or stains, moisten a soft cloth with water and a neutral pH detergent. Then wipe the case.



Never use wax, alcohol, benzene, thinner or other chemical detergents. These can damage the case.

## **Storing the projector**

If you need to store the projector for an extended time, please follow the instructions below:

- Make sure the temperature and humidity of the storage area are within the recommended range for the projector. Please refer to "Specifications" on page 65 or consult your dealer about the range.
- Retract the adjuster feet.
- Remove the battery from the remote control.
- Pack the projector in its original packing or equivalent.

## Transporting the projector

It is recommended that you ship the projector with its original packing or equivalent.

## Lamp information

## Getting to know the lamp hour

When the projector is in operation, the duration (in hours) of lamp usage is automatically calculated by the built-in timer.

To obtain the lamp hour information:

- Press MENU/EXIT on the projector or Menu on the remote control and then press
   until the SYSTEM SETTING: ADVANCED menu is highlighted.
- 3. You will see the **Equivalent lamp hour** information on the menu.
- To leave the menu, press MENU/EXIT on the projector or Exit on the remote control.

You can also get the lamp hour information on the INFORMATION menu.

## **Extending lamp life**

The projection lamp is a consumable item. To keep the lamp life as long as possible, you can do the following settings via the OSD menu.

#### **Setting Lamp Mode as Economic**

Using **Economic** mode reduces system noise and power consumption by 20%. If the **Economic** mode is selected, the light output will be reduced and result in darker projected pictures.

Setting the projector in **Economic** mode also extends the lamp operation life. To set **Economic** mode, go into the **SYSTEM SETTING: ADVANCED** > **Lamp Settings** > **Lamp Mode** menu and press  $\langle \rangle$ .

#### **Setting Auto Power Off**

This function allows the projector to turn off automatically if no input source is detected after a set period of time to prevent unnecessary waste of lamp life.

To set **Auto Power Off**, go into the **SYSTEM SETTING: BASIC** > **Auto Power Off** menu and press  $\langle \rangle$ . If the preset time lengths are not suitable for your presentation, select **Disable**. The projector will not automatically shut down in a certain time period.

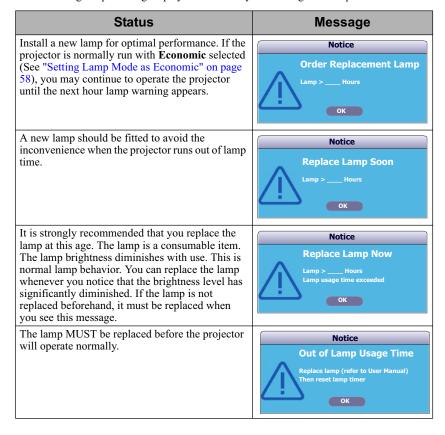
## Timing of replacing the lamp

When the **LAMP indicator light** lights up red or a message appears suggesting it is time to replace the lamp, please install a new lamp or consult your dealer. An old lamp may cause a malfunction in the projector and in some instances the lamp may explode.

#### / CAUTION

The LAMP indicator light and TEMPerature indicator light will light up if the lamp becomes too hot. Turn the power off and let the projector cool for 45 minutes. If the LAMP or TEMP indicator still lights up after turning the power back on, please contact your dealer. See "Indicators" on page 63 for details.

The following lamp warning displays will remind you to change the lamp.



## Replacing the lamp

To prepare a new lamp, contact your dealer and tell the lamp type number.

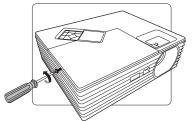
**Type number: RLC-078 (PJD6235/PJD6245)** 

Type number: RLC-085 (PJD6543w)

/ WARNING

# Hg - Lamp contains mercury. Manage in accordance with local disposal laws. See www.lamprecycle.org

- · Be careful of broken glass when replacing the lamp.
- · Please wear eye protection and gloves when performing overhead installation.
- To reduce the risk of electrical shock, always turn the projector off and disconnect the power cord before changing the lamp.
- To reduce the risk of severe burns, allow the projector to cool for at least 45 minutes before replacing the lamp.
- To reduce the risk of injuries to fingers and damage to internal components, use caution when removing lamp glass that has shattered into sharp pieces. Before replacing the lamp, clean the lamp compartment and dispose of cleaning materials. Be careful of sharp edges in the lamp compartment. Wash hands after lamp replacement.
- Only ViewSonic certified lamps are tested with this projector. Use of other lamps may cause electrical shock and fire.
- Turn the power off and disconnect the projector from the wall socket. If the lamp is hot, avoid burns by waiting for approximately 45 minutes until the lamp has cooled.
- Loosen the screws that secure the lamp cover on the both sides of the projector until the lamp cover loosens.

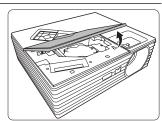


3. Remove the lamp cover from the projector.

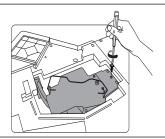
#### /!\WARNING

- Do not turn the power on with the lamp cover removed.
- Do not insert your fingers between the lamp and the projector. The sharp edges inside the projector may cause injuries.

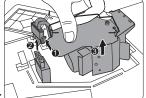
Remove and dispose of the lamp protection film.



4. Loosen the screw that secures the lamp.

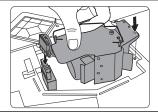


 Disconnect the lamp's wire connector from the projector, and then lift the handle so that it stands up. Use the handle to slowly pull the lamp out of the projector.



### / CAUTION

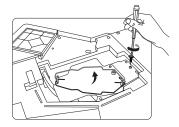
- Pulling it too quickly may cause the lamp to break and scatter broken glass in the projector.
- Do not place the lamp in locations where water might splash on it, children can reach it, or near flammable materials.
- Do not insert your hands into the projector after the lamp is removed. If you touch the optical components inside, it could cause color unevenness and distortion of the projected images.
- Insert the new lamp into the lamp compartment and make sure it fits in the projector. Connect the new lamp's wire connector to the projector.



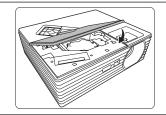
7. Tighten the screw that secures the lamp.

### /!\CAUTION

- Loose screw may cause a bad connection, which could result in malfunction.
- · Do not over tighten the screw.
- 8. Ensure the handle is fully laid flat and locked in place.



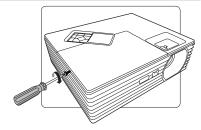
- Place the lamp protection film supplied with the new lamp on the lamp compartment.
- 10. Replace the lamp cover on the projector.



11. Tighten the screws that secure the lamp cover.



- Loose screw may cause a bad connection, which could result in malfunction.
- · Do not over tighten the screws.



12. Restart the projector.



Do not turn the power on with the lamp cover removed.

#### Resetting the lamp timer

- After the startup logo, open the On-Screen Display (OSD) menu.
- 14. Go to the SYSTEM SETTING: ADVANCED > Lamp Settings menu. Press MODE/ENTER on the projector or ENTER on the remote control. The Lamp Settings page is displayed.
- 15. Press to highlight Reset lamp timer and press MODE/ENTER on the projector or ENTER on the remote control. A warning message is displayed asking if you want to reset the lamp timer.
- 16. Highlight Reset and press MODE/ENTER on the projector or ENTER on the remote control. The lamp time will be reset to '0'.



Do not reset if the lamp is not new or replaced as this could cause damage.



# **Indicators**

Light			Status & Description	
POWER	TEMP	LAMP		
	Power events			
Blue Flashing	Off	Off	Stand-by mode	
Blue	Off	Off	Powering up	
Blue	Off	Off	Normal operation	
Blue Flashing	Off	Off	Normal power-down cooling	
Lamp events				
Blue Flashing	Off	Red	The projector needs <b>60</b> seconds to cool down.	
Off	Off	Red	The projector has shut down automatically. If you try to re-start the projector, it will shut down again. Please contact your dealer for assistance.	
Blue	Off	Red	CW start fail (30sec)	
Thermal events				
Off	Red	Off	The projector has shut down automatically. If you try	
Off	Red	Red	to re-start the projector, it will shut down again.	
Purple	Red	Red	Please contact your dealer for assistance.	

# **Troubleshooting**

## ? The projector does not turn on.

Cause	Remedy
There is no power from the power cord.	Plug the power cord into the AC inlet on the projector, and plug the power cord into the power outlet. If the power outlet has a switch, make sure that it is switched on.
Attempting to turn the projector on again during the cooling process.	Wait until the cooling down process has completed.

## ? No picture

Cause	Remedy
The video source is not turned on or connected correctly.	Turn the video source on and check that the signal cable is connected correctly.
The projector is not correctly connected to the input signal device.	Check the connection.
The input signal has not been correctly selected.	Select the correct input signal with the SOURCE key on the projector or remote control.

## **?** Blurred image

Cause	Remedy
The projection lens is not correctly focused.	Adjust the focus of the lens using the focus ring.
The projector and the screen are not aligned properly.	Adjust the projection angle and direction as well as the height of the projector if necessary.

### ? Remote control does not work

Cause	Remedy
The battery is out of power.	Replace the battery with a new one.
There is an obstacle between the remote control and the projector.	Remove the obstacle.
You are too far away from the	Stand within 8 meters (26 feet) of the
projector.	projector.

# **Specifications**

# **Projector specifications**

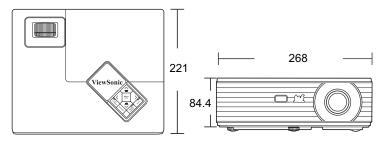
- All specifications are subject to change without notice.
  - · Not all models can be purchased in your region.

General		
Product name	DLP Projector	
Optical		
Resolution	<b>PJD6235/PJD6245</b> : 1024 x 768 XGA	
	<b>PJD6543w</b> : 1280 x 800 WXGA	
Display system	1-CHIP DMD	
Lamp	190 W lamp	
Electrical		
Power supply	AC100–240V, 50-60 Hz (Automatic)	
Power consumption	250 W (Max); < 0.5W (Standby)	
Mechanical		
Weight	2.1 Kg (4.63 lbs)	
Input terminal		
Computer input		
RGB input	D-Sub 15-pin (female) x 2	
Video signal input		
S-VIDEO	Mini DIN 4-pin port x 1	
VIDEO	RCA jack x 1	
SD/HDTV signal input		
Analog –	D-Sub <-> Component RCA jack x 3 (through RGB input)	
Digital –	HDMI V1.4a x 1	
Audio signal input	PC audio jack x 1	

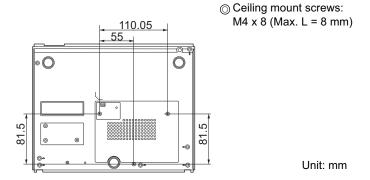
Output terminal		
RGB output D-Sub 15-pin (female) x 1		
Audio signal output	PC audio jack x 1	
Speaker	2 watt x 1	
Control terminal		
RS-232 serial control	9 pin x 1	
LAN	RJ45 x 1	
USB serial control	Type mini B	
IR receiver	x 1 (Front)	
Environmental Requirements		
Operating temperature	0°C-40°C at sea level	
Operating relative humidity	10%–90% (without condensation)	
Operating altitude	• 0–1499 m at 5°C–35°C	
	• 1500–3000 m at 5°C–25°C (with <b>High Altitude Mode</b> on)	

# **Dimensions**

268 mm (W) x 84.4 mm (H) x 221 mm (D) (Excluding extrusions)



# Ceiling mount installation



## **Timing chart**

## Supported timing for PC input

		Vertical	Horizontal	Pixel
Resolution	Mode	Frequency	Frequency	Frequency
			(kHz)	(MHz)
720 x 400	720x400_70	70.087	31.469	28.3221
	VGA_60**	59.940	31.469	25.175
640 x 480	VGA_72	72.809	37.861	31.500
040 X 400	VGA_75	75.000	37.500	31.500
	VGA_85	85.008	43.269	36.000
	SVGA_60**	60.317	37.879	40.000
	SVGA_72	72.188	48.077	50.000
800 x 600	SVGA_75	75.000	46.875	49.500
000 x 000	SVGA_85	85.061	53.674	56.250
	SVGA_120* (Reduce Blanking)	119.854	77.425	83.000
	XGA_60**	60.004	48.363	65.000
	XGA_70	70.069	56.476	75.000
1024 x 768	XGA_75	75.029	60.023	78.750
1024 x 700	XGA_85	84.997	68.667	94.500
	XGA_120* (Reduce Blanking)	119.989	97.551	115.500
1280x720	1280x720_120*	120	90.000	148.500
	WXGA_60**	59.810	49.702	83.500
1280 x 800	WXGA_75	74.934	62.795	106.500
	WXGA_85	84.880	71.554	122.500
	SXGA_60**	60.020	63.981	108.000
1280 x 1024	SXGA_75	75.025	79.976	135.000
	SXGA_85	85.024	91.146	157.500
1280 x 960	1280 x 960_60**	60.000	60.000	108
1400X1050	SXGA+_60**	59.978	65.317	121.750
1600x1200	UXGA**	60.000	75.000	162.000
640x480@67Hz	MAC13	66.667	35.000	30.240
832x624@75Hz	MAC16	74.546	49.722	57.280
1152x870@75Hz	MAC21	75.06	68.68	100.00

<sup>\*</sup>Supported timing for 3D signal with Frame Sequential format.

 <sup>\*\*</sup>Supported timing for 3D signal with Frame Sequential, Top-Bottom, and Side-by-Side formats.

## Supported timing for Component-YPbPr input

		Horizontal	Vertical	Dot Clock
Timing	Resolution	frequency	Frequency	Frequency
		(KHz)	(Hz)	(MHz)
480i*	720 x 480	15.73	59.94	13.5
480p*	720 x 480	31.47	59.94	27
576i*	720 x 576	15.63	50	13.5
576p*	720 x 576	31.25	50	27
720/50p	1280 x 720	37.5	50	74.25
720/60p	1280 x 720	45.00	60	74.25
1080/50i	1920 x 1080	28.13	50	74.25
1080/60i	1920 x 1080	33.75	60	74.25
1080/50P	1920 x 1080	56.25	50	148.5
1080/60P	1920 x 1080	67.5	60	148.5

<sup>\*</sup>Supported timing for 3D signal with Frame Sequential format.

## Supported timing for Video and S-Video inputs

Video mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Color sub-carrier Frequency (MHz)
NTSC*	15.73	60	3.58
PAL*	15.63	50	4.43
SECAM*	15.63	50	4.25 or 4.41
PAL-M*	15.73	60	3.58
PAL-N*	15.63	50	3.58
PAL-60*	15.73	60	4.43
NTSC4.43*	15.73	60	4.43

<sup>\*</sup>Supported timing for 3D signal with Frame Sequential format.

## **Supported timing for HDMI input**

		Horizontal	Vertical	Dot Clock
Video Mode	Resolution	frequency	Frequency	Frequency
		(KHz)	(Hz)	(MHz)
480i*	720(1440) x 480	15.73	59.94	27
480p****	720 x 480	31.47	59.94	27
576i*	720(1440) x 576	15.63	50	27
576p****	720 x 576	31.25	50	27
720/50p***	1280 x 720	37.5	50	74.25
720/60p***	1280 x 720	45.00	60	74.25
1080/50i****	1920 x 1080	28.13	50	74.25
1080/60i****	1920 x 1080	33.75	60	74.25
1080/24P**	1920 x 1080	27	24	74.25
1080/50P	1920 x 1080	56.25	50	148.5
1080/60P	1920 x 1080	67.5	60	148.5

<sup>\*</sup>Supported timing for 3D signal with Frame Sequential format.

 <sup>\*\*</sup>Supported timing for 3D signal with Frame Packing and Top-Bottom formats.

<sup>\*\*\*</sup>Supported timing for 3D signal with Frame Sequential, Frame Packing, and Top-Bottom formats

 <sup>\*\*\*\*</sup>Supported timing for 3D signal with Side-by-Side format.

\*\*\*\*\*Supported timing for 3D signal with Frame Sequential and Top-Bottom formats.

		Vertical	Horizontal	Pixel
Resolution	Mode	Frequency	Frequency	Frequency
		(Hz)	(kHz)	(MHz)
720 x 400	720x400 70	70.087	31.469	28.3221
	VGA_60**	59.940	31.469	25.175
040 400	VGA 72	72.809	37.861	31.500
640 x 480	VGA_75	75.000	37.500	31.500
	VGA_85	85.008	43.269	36.000
	SVGA_60**	60.317	37.879	40.000
	SVGA_72	72.188	48.077	50.000
800 x 600	SVGA_75	75.000	46.875	49.500
000 X 000	SVGA_85	85.061	53.674	56.250
	SVGA_120* (Reduce Blanking)	119.854	77.425	83.000
	XGA_60**	60.004	48.363	65.000
	XGA_70	70.069	56.476	75.000
1024 x 768	XGA_75	75.029	60.023	78.750
1024 X 700	XGA_85	84.997	68.667	94.500
	XGA_120* (Reduce Blanking)	119.989	97.551	115.500
1280x720	1280x720_120*	120	90.000	148.500
	WXGA_60**	59.810	49.702	83.500
1280 x 800	WXGA_75	74.934	62.795	106.500
	WXGA_85	84.880	71.554	122.500
	SXGA_60**	60.020	63.981	108.000
1280 x 1024	SXGA_75	75.025	79.976	135.000
	SXGA_85	85.024	91.146	157.500
1280 x 960	1280 x 960_60**	60.000	60.000	108
1400X1050	SXGA+_60**	59.978	65.317	121.750
1600x1200	1600x1200 UXGA**		75.000	162.000
640x480@67Hz	MAC13	66.667	35.000	30.240
832x624@75Hz	MAC16	74.546	49.722	57.280
1152x870@75Hz	MAC21	75.06	68.68	100.00

<sup>\*</sup>Supported timing for 3D signal with Frame Sequential format.

 <sup>\*\*</sup>Supported timing for 3D signal with Frame Sequential, Top-Bottom, and Side-by-Side formats.

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# Appendix

## IR control table

## Code A

Key	Format	Byte1	Byte2	Byte3	Byte4
Power	NEC	83	F4	17	E8
Auto Sync	NEC	83	F4	08	F7
VGA	NEC	83	F4	41	BE
Video	NEC	83	F4	52	AD
Source	NEC	83	F4	04	FB
Color Mode	NEC	83	F4	10	EF
Up / KeyS +	NEC	83	F4	0B	F4
Left	NEC	83	F4	0E	F1
Enter	NEC	83	F4	15	EA
Right	NEC	83	F4	0F	F0
Down / KeyS -	NEC	83	F4	0C	F3
Menu	NEC	83	F4	30	CF
My Button	NEC	83	F4	56	A9
Exit	NEC	83	F4	28	D7
Mouse L key	NEC	83	F4	36	C9
Mouse R key	NEC	83	F4	37	C8
PgUp	NEC	83	F4	05	FA
PgDn	NEC	83	F4	06	F9
Mouse	NEC	83	F4	31	CE
Magnify	NEC	83	F4	32	CD
Volume +	NEC	83	F4	82	7D
Volume -	NEC	83	F4	83	7C
Panel Key Lock	NEC	83	F4	57	A8
Freeze	NEC	83	F4	03	FC
Pattern	NEC	83	F4	55	AA
Blank	NEC	83	F4	07	F8
Mute	NEC	83	F4	14	EB
DynamicEco™	NEC	83	F4 2B 0		D4
Timer	NEC	83	F4	27	D8
Aspect	NEC	83	F4	13	EC



## Code B

Key	Format	Byte1	Byte2	Byte3	Byte4
Power	NEC	83	F4	60	9F
Auto Sync	NEC	83	F4	63	9C
VGA	NEC	83	F4	64	9B
Video	NEC	83	F4	66	99
Source	NEC	83	F4	7D	82
Color Mode	NEC	83	F4	9E	61
Up / KeyS +	NEC	83	F4	67	98
Left	NEC	83	F4	69	96
Enter	NEC	83	F4	6B	94
Right	NEC	83	F4	6A	95
Down / KeyS -	NEC	83	F4	68	97
Menu	NEC	83	F4	6C	93
My Button	NEC	83	F4	6D	92
Exit	NEC	83	F4	6E	91
Mouse L key	NEC	83	F4	38	C7
Mouse R key	NEC	83	F4	39	C6
PgUp	NEC	83	F4	5C	A3
PgDn	NEC	83	F4	5D	A2
Mouse	NEC	83	F4	9B	64
Magnify	NEC	83	F4	99	66
Volume +	NEC	83	F4	5A	A5
Volume -	NEC	83	F4	5B	A4
Panel Key Lock	NEC	83	F4	5E	A1
Freeze	NEC	83	F4	61	9E
Pattern	NEC	83	F4	7E	81
Blank	NEC	83	F4	62	9D
Mute	NEC	83	F4	9D	62
DynamicEco™	NEC	83	F4	7F	80
Timer	NEC	83	F4	9C	63
Aspect	NEC	83	F4	9A	65



## **RJ45** response table

Status	Response	Response Code
	Normal => ACK	0x03 0x14 0x00 0x00 0x00 0x14
Write	Incorrect => ERROR ACK	0x00 0x14 0x00 0x00 0x00 0x14
	Timeout (>100ms)	N/A

Status	Response Code									
	BYTE0	BYTE1	BYTE2	BYTE3	BYTE4	BYTE5	BYTE6	BYTE7~N	BYTE	E N+1
	0x05	0x05						ksum		
Read	Ex1. Read power status: 0x05 0x14 0x00 0x03 0x00 0x00 0x00 0x01 0x18 = 0							= On		
1.100.0	Ex2. Read brightness: 0x05 0x14 0x00 0x04 0x00 0x00 0x00 0x32 0x00 0x4A = 5						= 50			
	Ex3. Read lamp hours: 0x05 0x14 0x00 0x06 0x00 0x00 0x00 0x28 0x00 0x00 0x00 0x42 = 40									

<sup>•</sup> The RJ45 commands can only be received via TCP port 4661.

## RS232 command table

## <Pin assignment for this two end>

Pin	Description	Pin	Description	
1	NC	2	RX	10 Data carrier detect Data set ready
3	TX	4	NC	20 Receive data 70 Request to send 30 Transmit data
5	GND	6	NC	40 Data terminal ready
7	RTSZ	8	CTSZ	50 Signal ground Protective ground
9	NC			Trococaro ground

## <Interface>

RS-232 protocol				
Baud Rate 115200 bps (default)				
Data Length	8 bit			
Parity Check	None			
Stop Bit	1 bit			
Flow Control	None			

## <RS232/RJ45 command table>

Function	Status	Action	cmd
	Write Turn on		0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x00 0x00 0x5D
Power		Turn off	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x01 0x00 0x5E
Read	Power status (on/off)	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x00 0x5E	
Reset	Execute		0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x02 0x00 0x5F
Reset Color Settings	Execute		0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x2A 0x00 0x87

<sup>•</sup> Please refer to the below RS232 command table for the commands.

	Write	Splash Screen Black	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0A 0x00 0x67	
		Splash Screen Blue	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0A 0x01 0x68	
Splash Screen		Splash Screen ViewSonic	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0A 0x02 0x69	
		Splash Screen Off	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0A 0x04 0x6B	
	Read	Splash Screen status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x0A 0x6	
	Write	Quick Power Off Off	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0B 0x00 0x68	
Quick Power Off	VVIILE	Quick Power Off On	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0B 0x01 0x69	
	Read	Quick Power Off status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x0B 0x69	
	Write	High Altitude Mode Off	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0C 0x00 0x69	
High Altitude Mode	vvrite	High Altitude Mode On	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0C 0x01 0x6A	
	Read	High Altitude Mode status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x0C 0x6A	
	Write	Lamp Mode Normal	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x10 0x00 0x6D	
Lamp Mode		Lamp Mode Economic	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x10 0x01 0x6E	
	Read	Lamp Mode status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x10 0x6E	
Message	Write	Message Off	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x27 0x00 0x84	
		Message On	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x27 0x01 0x85	
	Read	Message status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x27 0x85	
		Front Table	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x00 0x00 0x5E	
	Write	Rear Table	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x00 0x01 0x5F	
Projector	Write         Message Off         0x06 0x14 0x0           Message On         0x06 0x14 0x0           Read         Message status         0x07 0x14 0x00           Front Table         0x06 0x14 0x0           Rear Table         0x06 0x14 0x0           Rear Ceiling         0x06 0x14 0x0           Front Ceiling         0x06 0x14 0x0	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x00 0x02 0x60		
Position		Front Ceiling	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x00 0x03 0x61	
	Read		0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x00 0x5F	
		OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x20 0x00 0x7E	
		Auto	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x20 0x01 0x7F	
3D Sync Write		Frame Sequential	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x20 0x02 0x80	
3D Sync		Frame Packing	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x20 0x03 0x81	
		Top-Bottom	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x20 0x04 0x82	
		Side-by-Side	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x20 0x05 0x83	
	Read	3D Sync Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x20 0x7F	
	Write	Off	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x21 0x00 0x7F	
3D Sync Invert		On	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x21 0x01 0x80	
-2 cyo mvort	Read	3D Sync Invert Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x21 0x80	
	Write	Contrast decrease	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x02 0x00 0x60	
Contrast		Contrast increase	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x02 0x01 0x61	
	Read	Contrast ratio	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x02 0x61	
		•		

		Databases			
	Write	decrease	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x03 0x00 0x61		
Brightness		### Arite Brightness increase   0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x03 0x14 0x15 0x00 0x04 0x00 0x34 0x12 0x03 0x15 0x00 0x34 0x15 0x00 0x12 0x04 0x00 0x04 0x00 0x34 0x12 0x04 0x16 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x17 0x16 0x16 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x16 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x16 0x16 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x16 0x16 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x16 0x14 0x00 0x04 0x00 0x34 0x12 0x05 0x16 0x14 0x00 0x04 0x00 0x34 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x07 0x14 0x00 0x04 0x00 0x34 0x00 0x00 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x07 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x12	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x03 0x01 0x62		
	Read	Brightness	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x03 0x62		
			0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x00 0x62		
Brightness   Write   Brightness   Singhtness   Singhtne	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x02 0x64				
	Write		0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x03 0x65		
Aspect ratio		Brightness increase	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x04 0x66		
		Wide/	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x06 0x68		
	Read	Aspect ratio	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x04 0x63		
Auto Adjust	E	xecute	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x05 0x00 0x63		
	Write	position shift	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x06 0x01 0x65		
			0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x06 0x00 0x64		
	Read		0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x06 0x65		
Vertical	Write		0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x07 0x00 0x65		
	vvnte		0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x07 0x01 0x66		
	Read		0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x07 0x66		
			0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x00 0x66		
	Write		0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x01 0x67		
	VVIIIC		0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x02 0x68		
			0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x03 0x69		
	Read	temperature	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x08 0x67		
	Write	Blank on	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x09 0x01 0x68		
Blank		Blank off	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x09 0x00 0x67		
	Read	Blank status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x09 0x68		
K. d	\A/=:4=	Decrease	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0A 0x00 0x68		
	vviile	Increase	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0A 0x01 0x69		
	Read	Keystone status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x0A 0x69		

	Delebast	000 044 000 004 000 024 042 00D 000 000
		0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0B 0x00 0x69 0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0B 0x01 0x6A
		0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0B 0x01 0x6A
		0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0B 0x02 0x6B
Write		0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0B 0x03 0x6C
		0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0B 0x04 0x0B
		0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0B 0x05 0x6F
	,	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0B 0x07 0x70
Read	status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x0B 0x6A
	Primary color R	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x10 0x00 0x6E
	Primary color G	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x10 0x01 0x6F
Write	Primary color B	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x10 0x02 0x70
Color mode  PC / Gaming  ViewMatch  Dynamic PC  Dynamic Movie  Read  Preset mode status  Primary color R  Primary color G	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x10 0x03 0x71	
	Primary color M	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x10 0x04 0x72
	· ·	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x10 0x05 0x73
Read		0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x10 0x6F
\\/rito	Hue decrease	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x11 0x00 0x6F
vviile	Hue increase	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x11 0x01 0x70
Read	Hue	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x11 0x70
144.5		0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x12 0x00 0x70
vviite		0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x12 0x01 0x71
Read	Saturation	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x12 0x71
\\/rito	Gain decrease	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x13 0x00 0x71
vviile	Gain increase	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x13 0x01 0x72
Read	Gain	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x13 0x72
\\/rito	Freeze on	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x00 0x01 0x60
vviite	Freeze off	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x00 0x00 0x5F
Read	Freeze status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x13 0x00 0x60
		0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x01 0x00 0x60
		0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x01 0x08 0x68
Write		0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x01 0x05 0x65
		0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x01 0x06 0x66
		0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x01 0x03 0x63
Read	Source	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x13 0x01 0x61
		0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x02 0x01 0x62
146.21	Search on	
Write	Quick Auto	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x02 0x00 0x61
	Read Write Read Write Read Write Read Write Read Write Read Write Read	Write         User 1

		RGB	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x28 0x00 0x85		
HDMI Format  HDMI Range  Mute  Volume	Write	YUV	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x28 0x01 0x86		
		Auto	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x28 0x02 0x87		
	Read	HDMI Format status 0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x28 0x			
	Write	Enhanced	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x29 0x00 0x86		
HDMI Range	vviile	Normal	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x29 0x01 0x87		
ŭ	Read	HDMI Range status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x29 0x87		
	Write	Mute on	0x06 0x14 0x00 0x04 0x00 0x34 0x14 0x00 0x01 0x61		
Mute		Mute off	0x06 0x14 0x00 0x04 0x00 0x34 0x14 0x00 0x00 0x60		
	Read	Mute status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x14 0x00 0x61		
	Write	Increase Volume	0x06 0x14 0x00 0x04 0x00 0x34 0x14 0x01 0x00 0x61		
Volume		Decrease Volume	0x06 0x14 0x00 0x04 0x00 0x34 0x14 0x02 0x00 0x62		
	Read	Volume	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x14 0x03 0x64		
		ENGLISH	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x00 0x61		
		FRANÇAIS	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x01 0x62		
		DEUTSCH	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x02 0x63		
		ITALIANO	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x03 0x64		
	Write	ESPAÑOL	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x04 0x65		
		РУССКИЙ	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x05 0x66		
		繁體中文	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x06 0x67		
		简体中文	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x07 0x68		
		日本語	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x08 0x69		
Language		한국어	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x09 0x6A		
		Svenska	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x0a 0x6B		
		Nederlands	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x0b 0x6C		
		Türkçe	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x0c 0x6D		
		Čeština	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x0d 0x6E		
		Português	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x0e 0x6F		
		โปรคุเกส	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x0f 0x70		
		Polski	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x10 0x71		
_		Suomi	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x11 0x72		
		العربية	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x12 0x73		
		Indonesian	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x13 0x74		
		हिन्दी	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x14 0x75		
	Read	Language	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x15 0x00 0x62		
Lamp Time	Write	Reset Lamp usage hour	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x01 0x00 0x62		
Lamp Time	Read	Lamp usage hour	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x15 0x01 0x63		
Error status	Read	Read error status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x0C 0x0D 0x66		

CEC Brilliant Color	Write	Off	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x2B 0x00 0x88
		On	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x2B 0x01 0x89
	Read	CEC status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x2B 0x89
	Write	Brilliant Color Off	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0F 0x00 0x6D
Brilliant Color		Brilliant Color On	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0F 0x01 0x6E
	Read	Brilliant Color status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x0F 0x6E
	Write	Remote Control code A	0x06 0x14 0x00 0x04 0x00 0x34 0x0C 0x48 0x00 0xA0
Remote Control code	vviite	Remote Control code B	0x06 0x14 0x00 0x04 0x00 0x34 0x0C 0x48 0x01 0xA1
	Read	Remote Control code status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x0C 0x048 0xA1

## **Customer Support**

For technical support or product service, see the table below or contact your reseller.

Note: You will need the product serial number.

Country/Region	Website	T = Telephone F = FAX	Email
Australia/New Zealand	www.viewsonic.com.au	AUS= 1800 880 818 NZ= 0800 008 822	service@au.viewsonic.com
Canada	www.viewsonic.com	T (Toll-Free)= 1-866-463-4775 T (Toll)= 1-424-233-2533 F= 1-909-468-3757	service.ca@viewsonic.com
Europe	www.viewsoniceurope.	www.viewsoniceurope.com/uk/su	upport/call-desk/
Hong Kong	www.hk.viewsonic.com	T= 852 3102 2900	service@hk.viewsonic.com
India	www.in.viewsonic.com	T= 1800 266 0101	service@in.viewsonic.com
Korea	www.kr.viewsonic.com	T= 080 333 2131	service@kr.viewsonic.com
Latin America (Argentina)	www.viewsonic.com/la/	T= 0800-4441185	soporte@viewsonic.com
Latin America (Chile)	www.viewsonic.com/la/	T= 1230-020-7975	soporte@viewsonic.com
Latin America (Columbia)	www.viewsonic.com/la/	T= 01800-9-157235	soporte@viewsonic.com
Latin America (Mexico)	www.viewsonic.com/la/	T= 001-8882328722	soporte@viewsonic.com
Electroser, Av Reforma	No. 403Gx39 y 41, 97000	PUEBLA, PUE. Tel: 01.222.891. Mérida, Yucatán. Tel: 01.999.925 com/la/soporte/index.htm#Mexico	.19.16
Latin America (Peru)	www.viewsonic.com/la/	T= 0800-54565	soporte@viewsonic.com
Macau	www.hk.viewsonic.com	T= 853 2870 0303	service@hk.viewsonic.com
Middle East	ap.viewsonic.com/me/	Contact your reseller	service@ap.viewsonic.com
Puerto Rico & Virgin Islands	www.viewsonic.com	T= 1-800-688-6688 (English) T= 1-866-379-1304 (Spanish) F= 1-909-468-3757	service.us@viewsonic.com soporte@viewsonic.com
Singapore/Malaysia/ Thailand	www.viewsonic.com.sg	T= 65 6461 6044	service@sg.viewsonic.com
South Africa	ap.viewsonic.com/za/	Contact your reseller	service@ap.viewsonic.com
United States	www.viewsonic.com	T (Toll-Free)= 1-800-688-6688 T (Toll)= 1-424-233-2530 F= 1-909-468-3757	service.us@viewsonic.com

## Limited Warranty ViewSonic® Projector

## What the warranty covers:

ViewSonic warrants its products to be free from defects in material and workmanship, under normal use, during the warranty period. If a product proves to be defective in material or workmanship during the warranty period, ViewSonic will, at its sole option, repair or replace the product with a like product. Replacement product or parts may include remanufactured or refurbished parts or components.

## Limited Three (3) year General Warranty

Subject to the more limited one (1) year warranty set out below, North and South America: Three (3) years warranty for all parts excluding the lamp, three (3) years for labor, and one (1) year for the original lamp from the date of the first consumer purchase.

Other regions or countries: Please check with your local dealer or local ViewSonic office for the warranty information.

## Limited One (1) year Heavy Usage Warranty:

Under heavy usage settings, where a projector's use includes more than fourteen (14) hours average daily usage, North and South America: One (1) year warranty for all parts excluding the lamp, one (1) year for labor, and ninety (90) days for the original lamp from the date of the first consumer purchase; Europe: One (1) year warranty for all parts excluding the lamp, one (1) year for labor, and ninety (90) days for the original lamp from the date of the first consumer purchase. Other regions or countries: Please check with your local dealer or local ViewSonic office for the warranty information.

Lamp warranty subject to terms and conditions, verification and approval. Applies to manufacturer's installed lamp only. All accessory lamps purchased separately are warranted for 90 days.

### Who the warranty protects:

This warranty is valid only for the first consumer purchaser.

## What the warranty does not cover:

- 1. Any product on which the serial number has been defaced, modified or removed.
- 2. Damage, deterioration, failure, or malfunction resulting from:
  - Accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, improper maintenance, unauthorized product modification, or failure to follow instructions supplied with the product.
  - b. Operation outside of product specifications.
  - Operation of the product for other than the normal intended use or not under normal conditions.
  - d. Repair or attempted repair by anyone not authorized by ViewSonic.
  - e. Any damage of the product due to shipment.
  - f. Removal or installation of the product.
  - q. Causes external to the product, such as electric power fluctuations or failure.
  - h. Use of supplies or parts not meeting ViewSonic's specifications.
  - i. Normal wear and tear.
  - i. Any other cause which does not relate to a product defect.
- 3. Removal, installation, and set-up service charges.

### How to get service:

- For information about receiving service under warranty, contact ViewSonic Customer Support (please refer to "Customer Support" page). You will need to provide your product's serial number.
- To obtain warranted service, you will be required to provide (a) the original dated sales slip, (b) your name, (c) your address, (d) a description of the problem, and (e) the serial number of the product.
- Take or ship the product freight prepaid in the original container to an authorized ViewSonic service center or ViewSonic.
- 4. For additional information or the name of the nearest ViewSonic service center, contact ViewSonic.

## Limitation of implied warranties:

There are no warranties, express or implied, which extend beyond the description contained herein including the implied warranty of merchantability and fitness for a particular purpose.

## Exclusion of damages:

ViewSonic's liability is limited to the cost of repair or replacement of the product. ViewSonic shall not be liable for:

- Damage to other property caused by any defects in the product, damages based upon inconvenience, loss of use of the product, loss of time, loss of profits, loss of business opportunity, loss of goodwill, interference with business relationships, or other commercial loss, even if advised of the possibility of such damages.
- 2. Any other damages, whether incidental, consequential or otherwise.
- 3. Any claim against the customer by any other party.

#### Effect of local law:

This warranty gives you specific legal rights, and you may also have other rights which vary from local authority. Some local governances do not allow limitations on implied warranties and/or do not allow the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

## Sales outside the U.S.A. and Canada:

For warranty information and service on ViewSonic products sold outside of the U.S.A. and Canada, contact ViewSonic or your local ViewSonic dealer.

The warranty period for this product in mainland China (Hong Kong, Macao and Taiwan Excluded) is subject to the terms and conditions of the Maintenance Guarantee Card.

For users in Europe and Russia, full details of warranty provided can be found in www. viewsoniceurope.com under Support/Warranty Information.

## **Mexico Limited Warranty**

## ViewSonic® Projector

### What the warranty covers:

ViewSonic warrants its products to be free from defects in material and workmanship, under normal use, during the warranty period. If a product proves to be defective in material or workmanship during the warranty period, ViewSonic will, at its sole option, repair or replace the product with a like product. Replacement product or parts may include remanufactured or refurbished parts or components & accessories.

## How long the warranty is effective:

3 years for all parts excluding the lamp, 3 years for labor, 1 year for the original lamp from the date of the first consumer purchase.

Lamp warranty subject to terms and conditions, verification and approval. Applies to manufacturer's installed lamp only.

All accessory lamps purchased separately are warranted for 90 days.

### Who the warranty protects:

This warranty is valid only for the first consumer purchaser.

### What the warranty does not cover:

- 1. Any product on which the serial number has been defaced, modified or removed.
- 2. Damage, deterioration or malfunction resulting from:
  - a. Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, unauthorized attempted repair, or failure to follow instructions supplied with the product.
  - b. Any damage of the product due to shipment.
  - c. Causes external to the product, such as electrical power fluctuations or failure.
  - d. Use of supplies or parts not meeting ViewSonic's specifications.
  - e. Normal wear and tear.
  - f. Any other cause which does not relate to a product defect.
- 3. Any product exhibiting a condition commonly known as "image burn-in" which results when a static image is displayed on the product for an extended period of time.
- 4. Removal, installation, insurance, and set-up service charges.

#### How to get service:

For information about receiving service under warranty, contact ViewSonic Customer Support (Please refer to the attached Customer Support page). You will need to provide your product's serial number, so please record the product information in the space provided below on your purchase for your future use. Please retain your receipt of proof of purchase to support your warranty claim.

For Your Records		
Product Name:	Model Number:	
Document Number:	Serial Number:	
Purchase Date:	Extended Warranty Purchase?	(Y/N
	If so, what date does warranty expire?	

- To obtain warranty service, you will be required to provide (a) the original dated sales slip, (b) your name, (c) your address, (d) a description of the problem, and (e) the serial number of the product.
- 2. Take or ship the product in the original container packaging to an authorized ViewSonic service center.
- 3. Round trip transportation costs for in-warranty products will be paid by ViewSonic.

### Limitation of implied warranties:

There are no warranties, express or implied, which extend beyond the description contained herein including the implied warranty of merchantability and fitness for a particular purpose.

#### **Exclusion of damages:**

ViewSonic's liability is limited to the cost of repair or replacement of the product. ViewSonic shall not be liable for:

- Damage to other property caused by any defects in the product, damages based upon inconvenience, loss of use of the product, loss of time, loss of profits, loss of business opportunity, loss of goodwill, interference with business relationships, or other commercial loss, even if advised of the possibility of such damages.
- 2. Any other damages, whether incidental, consequential or otherwise.
- 3. Any claim against the customer by any other party.
- 4. Repair or attempted repair by anyone not authorized by ViewSonic.

#### Contact Information for Sales & Authorized Service (Centro Autorizado de Servicio) within Mexico:

#### Name, address, of manufacturer and importers:

México, Av. de la Palma #8 Piso 2 Despacho 203, Corporativo Interpalmas,

Col. San Fernando Huixquilucan, Estado de México

Tel: (55) 3605-1099 http://www.viewsonic.com/la/soporte/index.htm

#### NÚMERO GRATIS DE ASISTENCIA TÉCNICA PARA TODO MÉXICO: 001.866.823.2004

#### Hermosillo:

Distribuciones y Servicios Computacionales

SA de CV.

Calle Juarez 284 local 2 Col. Bugambilias C.P: 83140

E-Mail: disc2@hmo.megared.net.mx

#### Villahermosa:

Compumantenimietnos Garantizados, S.A. de C.V.

AV. GREGORIO MENDEZ #1504

COL, FLORIDA C.P. 86040

Tel: 01 (993) 3 52 00 47 / 3522074 / 3 52 20 09 E-Mail: compumantenimientos@prodigy.net.mx

### Puebla, Pue. (Matriz):

Tel: 01-66-22-14-9005

RENTA Y DATOS, S.A. DE C.V. Domicilio:

29 SUR 721 COL. LA PAZ 72160 PUEBLA, PUE.

Tel: 01(52).222.891.55.77 CON 10 LINEAS E-Mail: datos@puebla.megared.net.mx

#### Veracruz, Ver.:

CONEXION Y DESARROLLO, S.A DE C.V. Av. Americas # 419

ENTRE PINZÓN Y ALVARADO Fracc. Reforma C.P. 91919

Tel: 01-22-91-00-31-67 E-Mail: gacosta@qplus.com.mx

#### Chihuahua

Soluciones Globales en Computación C. Magisterio # 3321 Col. Magisterial

Chihuahua, Chih. Tel: 4136954

E-Mail: Cefeo@soluglobales.com

#### Cuernavaca

Compusupport de Cuernavaca SA de CV Francisco Levva # 178 Col. Miguel Hidalgo C.P. 62040. Cuernavaca Morelos

Tel: 01 777 3180579 / 01 777 3124014

E-Mail: aquevedo@compusupportcva.com

#### Distrito Federal:

QPLUS, S.A. de C.V. Av. Coyoacán 931

Col. Del Valle 03100. México. D.F. Tel: 01(52)55-50-00-27-35

E-Mail: gacosta@qplus.com.mx

## Guadalajara, Jal.:

SERVICRECE, S.A. de C.V. Av. Niños Héroes # 2281 Col. Arcos Sur. Sector Juárez 44170, Guadalaiara, Jalisco Tel: 01(52)33-36-15-15-43

E-Mail: mmiranda@servicrece.com

## Guerrero Acapulco

GS Computación (Grupo Sesicomp) Progreso #6-A, Colo Centro 39300 Acapulco, Guerrero

Tel: 744-48-32627

### Monterrey: Global Product Services

Mar Caribe # 1987, Esquina con Golfo Pérsico

Fracc. Bernardo Reyes, CP 64280 Monterrey N.L. México

Tel: 8129-5103

E-Mail: aydeem@gps1.com.mx

## MERIDA:

FLECTROSER

Av Reforma No. 403Gx39 v 41 Mérida, Yucatán, México CP97000

Tel: (52) 999-925-1916 E-Mail: rrrb@sureste.com

## Oaxaca, Oax.:

CENTRO DE DISTRIBUCION Y SERVICIO, S.A. de C.V.

Murguía # 708 P.A., Col. Centro, 68000, Oaxaca Tel: 01(52)95-15-15-22-22

Fax: 01(52)95-15-13-67-00 E-Mail. gpotai2001@hotmail.com

## Tijuana:

Av Ferrocarril Sonora #3780 L-C

Tijuana, Mexico

Col 20 de Noviembre

### FOR USA SUPPORT:

ViewSonic Corporation

381 Brea Canyon Road, Walnut, CA. 91789 USA

Tel: 800-688-6688 (English): 866-323-8056 (Spanish):

Fax: 1-800-685-7276

E-Mail: http://www.viewsonic.com

Projector Mexico Warranty Term Template In UG VSC TEMP 2006

