ViewSonic®

LS800WU/LS800HD
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. VS17078/VS17079

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

CAN ICES-3 (B)/NMB-3(B)

CE Conformity for European Countries

The device complies with the EMC Directive 2014/30/EU and Low Voltage Directive 2014/35/EU.

Following information is only for EU-member states:

The mark is in compliance with the Waste Electrical and Electronic Equipment Directive 2012/19/EU (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.
5. 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 RoHS2 Compliance

This product has been designed and manufactured in compliance with Directive 2011/65/EU of the European Parliament and the Council on restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS2 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%
Mercury (Hg)	0.1%	< 0.1%
Cadmium (Cd)	0.01%	< 0.01%
Hexavalent Chromium (Cr^{6+})	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 III of the RoHS2 Directives as noted below:

Examples of exempted components are:

1. Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp):

    (1) Short length ($\leqq$500 mm): maximum 3.5 mg per lamp.

    (2) Medium length ($>$500 mm and $\leqq$1,500 mm): maximum 5 mg per lamp.

    (3) Long length ($>$1,500 mm): maximum 13 mg per lamp.

2. Lead in glass of cathode ray tubes.

3. Lead in glass of fluorescent tubes not exceeding 0.2% by weight.

4. Lead as an alloying element in aluminium containing up to 0.4% lead by weight.

5. Copper alloy containing up to 4% lead by weight.

6. Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead).

7. Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.

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Product Registration

To fulfill possible future product needs, and to receive additional product information as it becomes available, please visit your region section on ViewSonic's website to register your product online.

Registering your product will best prepare you for future customer service needs. Please print this user guide and fill the information in the "For Your Records" section. For additional information, please see the "Customer Support" section in this guide.

For Your Records	
Product Name:	LS800WU/LS800HD
	ViewSonic DLP Projector
Model Number:	VS17078/VS17079
Document Number:	LS800WU/LS800HD_UG_ENG Rev. 1B 07-23-18
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/eu/support/call-desk/

Taiwan: https://recycle.epa.gov.tw/

Table of contents

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

1.   **Please read this manual before you operate your projector.** Save it for future reference.
2.   **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 light source 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 light source, press BLANK on the remote control.
7.   Do not place this product on an unstable cart, stand, or table. The product may fall, sustaining serious damage.
8.   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.

     Under no circumstances should you ever undo or remove any other covers. Refer servicing only to suitably qualified professional service personnel.
9.   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).
10. 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.
11. Positioning:

     This projector can be installed 360° range.

12. 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.

13. 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.

14. This product is capable of displaying inverted pictures for ceiling mount installation.

⚠ **Use only qualified ceiling mount kit for mounting the projector and ensure it is securely installed.**

15. 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.

16. 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 recommend that you also purchase a separate security cable and attach it securely to both the anti-theft 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.

☞ **As with any bright light source, do not stare into the beam, RG2 IEC 62471-5:2015.**

Laser warning

	This symbol indicates that there is a potential hazard of eye exposure to laser radiation unless the instructions are closely followed.

Class 3R laser product

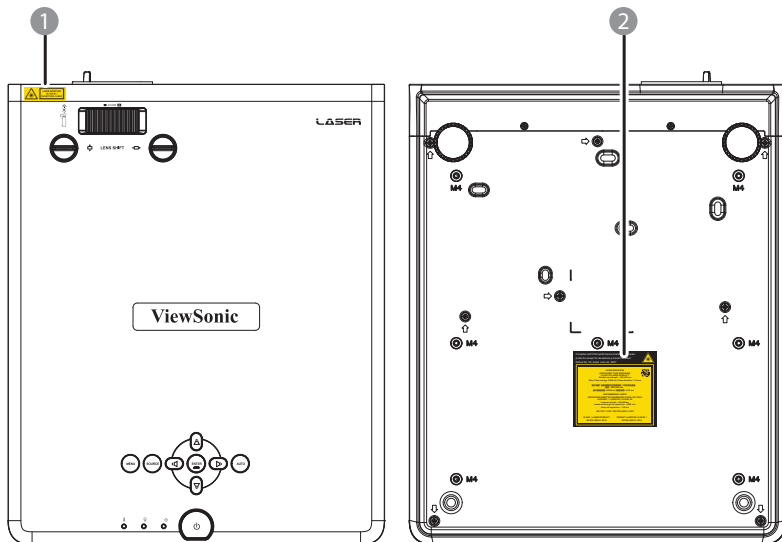|	This Laser Product is designated as Class 3R during all procedures of operation. LASER LIGHT - AVOID DIRECT EYE EXPOSURE.
	Do not point laser or allow laser light to be directed or reflected toward other people or reflective objects.
	Direct or scattered light can be hazardous to eyes and skin.
	There is a potential hazard of eye exposure to laser radiation if the included instructions are not followed.
	Caution – use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser parameters

- Wavelength: 450nm - 460nm (Blue)
- Mode of operation: Pulsed, due to frame rate
- Pulse width: 1.34ms
- Pulse repetition rate: 120Hz
- Maximum laser energy: 0.698mJ
- Total internal power: >100w
- Apparent source size: >10mm, at lens stop
- Divergence: >100 mili Radian

Product labels

Below drawing show the label's location.


1.   Hazard Warning Symbol and Aperture Label

LASER APERTURE
激光辐射窗口
OUVERTURE LASER

2.   Explanatory Label

Complies with FDA performance standards for laser
products except for deviations pursuant to Laser
Notice No. 50, dated June 24, 2007

LASER RADIATION
AVOID DIRECT EYE EXPOSURE
CLASS 3R LASER PRODUCT
Emitted wavelength : 450-460 nm
Max. Pulse energy: 0.698 mJ, Pulse duration: 1.34 ms

激光辐射　避免眼睛受到直接照射　3R类激光產品
波長 : 450-460 nm
最大脈衝能量: 0.698 mJ, 脈衝時間: 1.34 ms

RAYONNEMENT LASER
EXPOSITION DIRECTE DANGEREUSE POUR LES YEUX
APPAREIL ? LASER DE CLASSE 3R
longueur d'onde : 450-460nm
maximum énergie de impulsion : 0.698 mJ,
durée de impulsion : 1.34 ms

GB 7247.1-2012 / IEC/EN 60825-1:2007

CLASS 1 LASER PRODUCT   PRODUIT LASER DE CLASSE 1
IEC/EN 60825-1:2014   IEC/EN 60825-1:2014
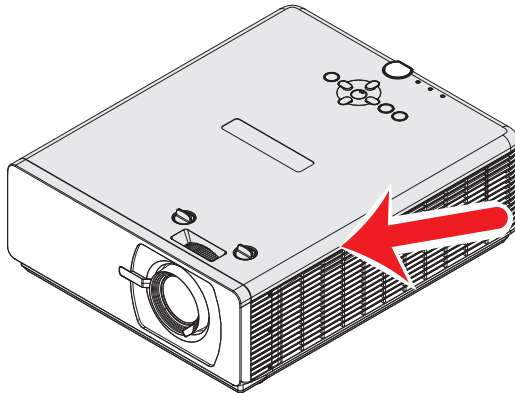
Location of laser aperture

Below drawing is the laser aperture location. Be careful not to let the eye see the light directly.
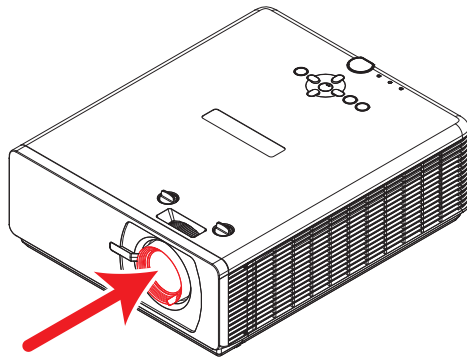
Laser aperture

Interlock switches

This machine has 1 (Top cover) Interlock switches to protect the laser light Leakage.

Will power-off the system individually when the top cover is removed.

Introduction

Projector features

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

The projector offers the following features.

- Power saving function decreasing the power consumption of the light source by up to 70% or 80% when no input signal can be detected for a set period of time
- Presentation timer for better control of time during presentations
- 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 modes providing choices for different projection purposes
- Selectable Smart Energy 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 DVD player device connected to the HDMI input of the projector

☞ **The apparent brightness of the projected image will vary depending on the ambient lighting conditions, selected input signal contrast/brightness settings, and is directly proportional to projection distance.**

☞ **The light source brightness will decline over time and may vary within the light source manufacturers specifications. This is normal and expected behavior.**
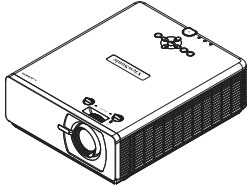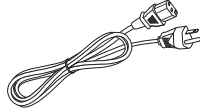
Shipping contents

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.
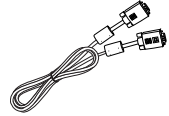
Standard accessories

The supplied accessories will be suitable for your region, and may differ from those illustrated.
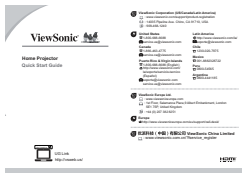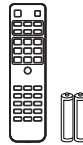
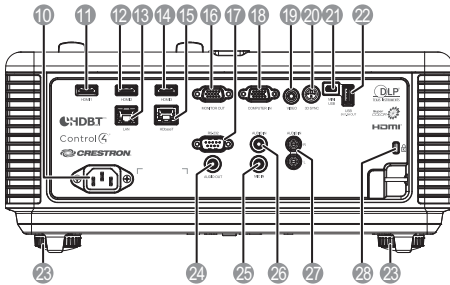|		
Projector	Power Cord	VGA Cable
Quick Start Guide	Remote Control & Batteries	

Projector exterior view
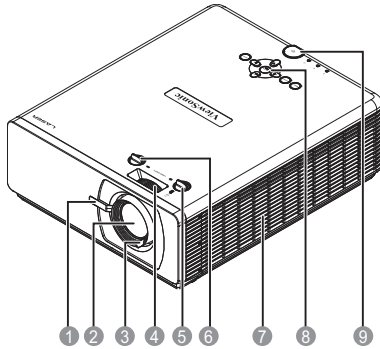
1. Front IR remote sensor
2. Projection lens
3. Focus ring
4. Zoom ring
5. LENS SHIFT UP/DOWN
6. LENS SHIFT RIGHT/LEFT
7. Vent (air inlet)
8. External control panel
   (See "Projector" on page 10 for details.)
9. Power button and top IR remote sensor
10. AC power cord inlet
11. HDMI 1 port
12. HDMI 2 port
13. LAN port
14. HDMI 3 port
15. HDBaseT port
16. Monitor out socket
17. RS232 control port
18. Computer In/Component video (YPbPr/YCbCr) signal input socket
19. Video input socket
20. 3D Sync port
21. Mini USB port
22. USB port (5V/1.5A out)
23. Adjuster foot
24. Audio signal output socket
25. Mic input socket
26. Audio signal input socket
27. Audio signal input L/R socket
28. Kensington lock

⚠ **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
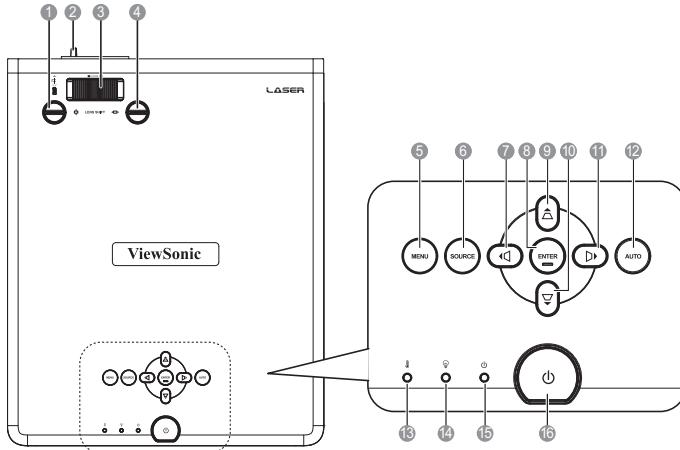
1. **LENS SHIFT UP/DOWN**

   Rotate to move lens up or down.

2. **Focus ring**

   Adjusts the focus of the projected image.

3. **Zoom ring**

   Adjusts the size of the projected image.

4. **LENS SHIFT RIGHT/LEFT**

   Rotate to move lens right or left.

5. **Menu**

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

6. **Source**

   Displays the source selection bar.

7. **◀ (Left)**

   Selects the desired menu items and makes adjustments.

   ◁ (Keystone key)

   Manually corrects distorted images resulting from an angled projection.

8. **Enter**

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

9. **▲ (Menu up)**

   Selects the desired menu items and makes adjustments.

   ◠ (Keystone key)

   Manually corrects distorted images resulting from an angled projection.

10. **▼ (Menu down)**

    Selects the desired menu items and makes adjustments.

    ◡ (Keystone key)

    Manually corrects distorted images resulting from an angled projection.

11. **▶ (Right)**

    Selects the desired menu items and makes adjustments.

    ▷ (Keystone key)

    Manually corrects distorted images resulting from an angled projection.

12. **Auto**

    Automatically determines the best picture timings for the displayed image.

13.   🌡 **Temperature indicator light**
Lights up red if the projector's temperature becomes too high.

14.   💡 **Light source indicator light**
Indicates the status of the light source. Lights up or flashes when the light source has developed a problem.

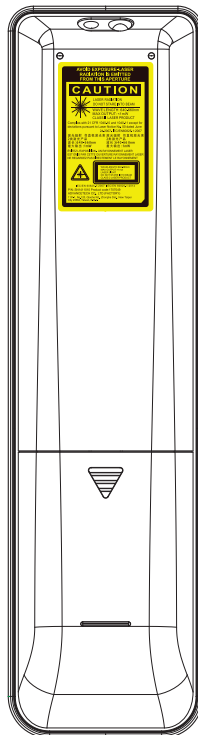15.   ⏻ **Power indicator light**
Lights up or flashes when the projector is under operation.

16.   ⏻ **Power**
Toggles the projector between standby mode and Power ON.

Remote control
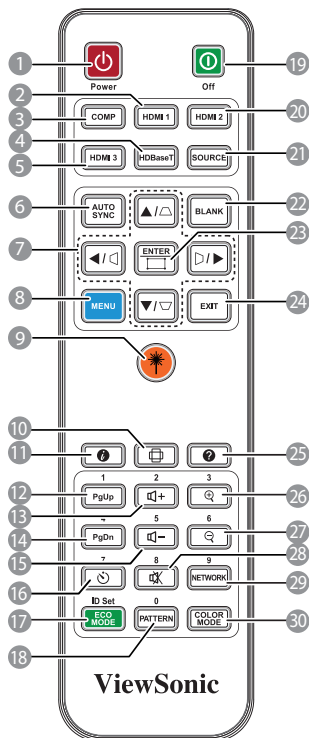
1. ⏻ **Power**

Toggles the projector between standby mode and Power ON.

2. HDMI 1

Selects **HDMI 1** source for display.

3. COMP

Selects **D-Sub / Comp.** source for display.

4. HDBaseT

Selects **HDBaseT** source for display.

5. HDMI 3

Selects **HDMI 3** source for display.

6. Auto Sync

Automatically determines the best picture timings for the displayed image.

7. ◻ / ◁ / △ / ▽ **(Keystone keys)**

Manually corrects distorted images resulting from an angled projection.

◀ **Left/** ▶ **Right/** ▲ **Up/** ▼ **Down**

Selects the desired menu items and makes adjustments.

8. Menu

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

9. Laser

Emits a visible laser pointer beam which can be used during presentations.

10. ⊞ **(Aspect ratio)**

Displays the aspect ratio selection bar.

11. ⓘ **(Information)**

Displays the Information menu.

12. **PgUp (Page Up)/1**

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

13. ◁+ **(Volume up)/2**

Increase the volume level.

14. **PgDn (Page Down)/4**

Operates your display software program (on a connected PC) which responds to page down commands (like Microsoft PowerPoint).

☞ **Only available when a PC input signal is selected.**

15. ◁− **(Volume down)/5**

Decrease the volume level.

16. ⏱ **(Presentation Timer)/7**

Brings up the Presentation Timer settings menu.

17. **Eco Mode/ID Set**

Selects a light source mode.

18. **Pattern/0**

Displays embedded test pattern.

19. **Power Off**

Turns the projector off.

20. **HDMI 2**

Selects **HDMI 2** source for display.

21. **Source**

Displays the source selection bar.

22. **Blank**

Hides the screen picture.

23. **Enter**

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

24. **Exit**

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

25. ❓ **(Help)**

Displays the HELP menu.

26. ⊕ **(Zoom in)/3**

Magnifies the projected picture size.

27. ⊖ **(Zoom out)/6**

Reduces the projected picture size.

28. 🔇 **(Mute)/8**

Toggles the projector audio between on and off.

29. **Network/9**

Selects Network Display source for display.

30. **Color Mode**

Selects an available picture setup mode.

Remote control code

The projector can be assigned to 8 different remote control codes, 1 to 8. 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 from among 1 to 8 in the **SYSTEM SETTING** > **Remote Control Code** menu.

To switch the code for the remote control, press **ID set** and the number button corresponding to the remote control code set in the projector OSD together for 5 seconds or more. The initial code is set to 1. When the code is switched to 8, the remote control can control every projector.
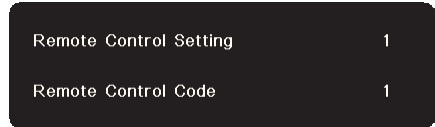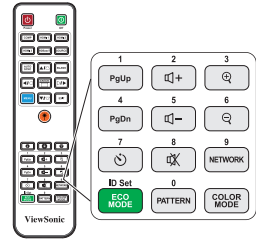
If different codes are set on the projector and remote control, there will be no response from the remote control. When that happens, a message will display to remind you to switch the code for the remote control.

Using the remote PgUp/PgDn function

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

1.   Set the input signal to a PC signal.
2.   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 or a monitor" on page 22 for details.
3.   To operate your display software program (on a connected PC) which responds to page up/down commands (like Microsoft PowerPoint), press **PgUp**/**PgDn**.

Remote control effective range

The Infra-Red (IR) remote control is located on the front and top 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.
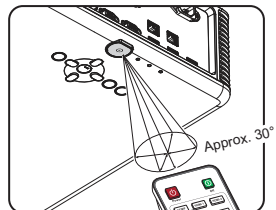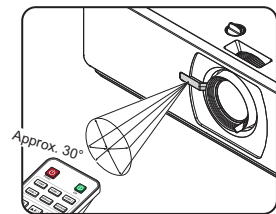
Replacing the remote control batteries

1. Remove the cover by sliding it in the direction indicated by the arrow.
2. Insert two new AAA batteries (check the polarity).
3. Replace the cover.
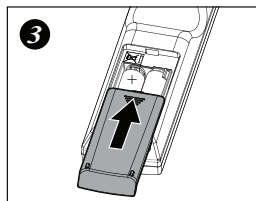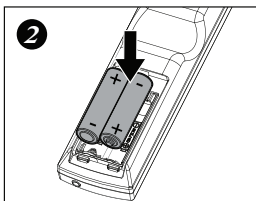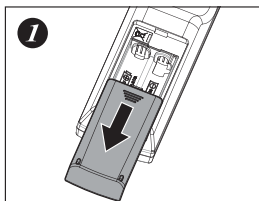
⚠ **WARNING**

- **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 drained 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.**

- **RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.**

- **DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.**

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 the following 4 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.
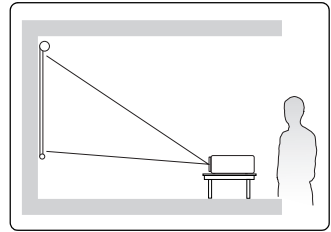
2.   Front Ceiling

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** > **Projector Position** menu after you turn the projector on.
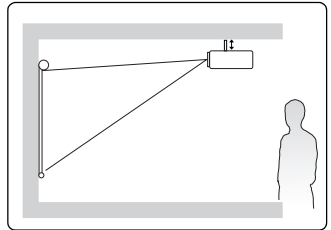
3.   Rear Ceiling

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** > **Projector Position** menu after you turn the projector on.
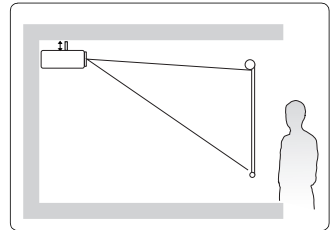
4.   Rear Table

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** > **Projector Position** menu after you turn the projector on.
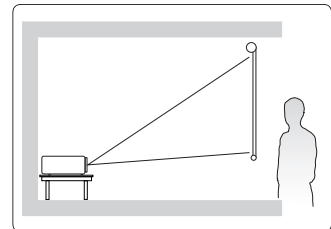
Projection dimensions

LS800HD (1080P)

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

• 16:9 image on a 16:9 screen
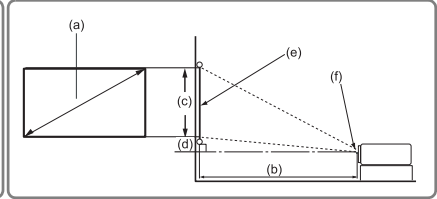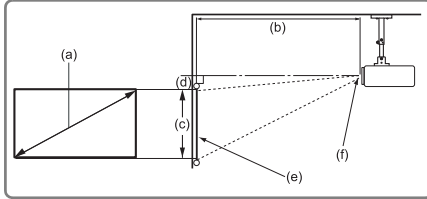
• 16:9 image on a 4:3 screen

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

(a) Screen Size		16:9 image on a 16:9 Screen									
		(b) Projection distance				(c) Image height		(d) Vertical offset			
		min.		max.				min.		max.	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
50	1270	50	1273	83	2103	25	623	5.5	140	5.5	140
60	1524	60	1528	99	2524	29	747	6.6	168	6.6	168
70	1778	70	1782	116	2944	34	872	7.7	196	7.7	196
80	2032	80	2037	132	3365	39	996	8.8	224	8.8	224
90	2286	90	2291	149	3786	44	1121	9.9	252	9.9	252
100	2540	100	2546	166	4206	49	1245	11.0	280	11.0	280
110	2794	110	2800	182	4627	54	1370	12.1	308	12.1	308
120	3048	120	3055	199	5047	59	1494	13.2	336	13.2	336
130	3302	130	3310	215	5468	64	1619	14.3	364	14.3	364
140	3556	140	3564	232	5889	69	1743	15.4	392	15.4	392
150	3810	150	3819	248	6309	74	1868	16.5	420	16.5	420
170	4318	170	4328	282	7151	83	2117	18.8	476	18.8	476
190	4826	190	4837	315	7992	93	2366	21.0	532	21.0	532

(a) Screen Size		16:9 image on a 4:3 Screen									
		(b) Projection distance				(c) Image height		(d) Vertical offset			
		min.		max.				min.		max.	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
54	1372	50	1262	82	2085	24	617	5.5	139	5.5	139
65	1651	60	1519	99	2510	29	743	6.6	167	6.6	167
76	1930	70	1776	116	2934	34	869	7.7	195	7.7	195
87	2210	80	2033	132	3359	39	994	8.8	224	8.8	224
98	2489	90	2290	149	3784	44	1120	9.9	252	9.9	252
109	2769	100	2547	166	4208	49	1246	11.0	280	11.0	280
120	3048	110	2804	182	4633	54	1372	12.2	309	12.2	309
131	3327	121	3061	199	5058	59	1497	13.3	337	13.3	337
142	3607	131	3318	216	5482	64	1623	14.4	365	14.4	365
153	3886	141	3575	233	5907	69	1749	15.5	393	15.5	393
163	4140	150	3809	248	6293	73	1863	16.5	419	16.5	419
185	4699	170	4323	281	7142	83	2115	18.7	476	18.7	476
207	5258	190	4837	315	7992	93	2366	21.0	532	21.0	532

LS800WU (WUXGA)

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

• 16:10 image on a 16:10 screen
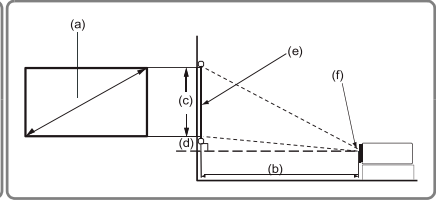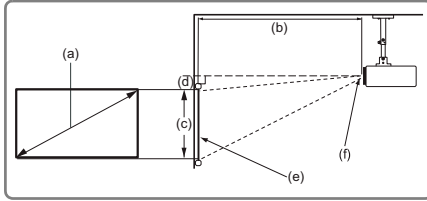
• 16:10 image on a 4:3 screen
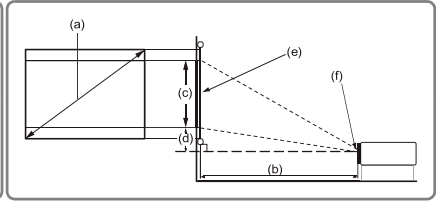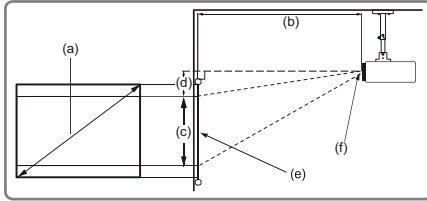
(e): Screen   (f): Center of lens

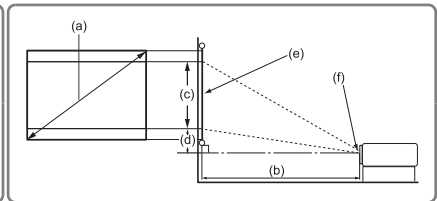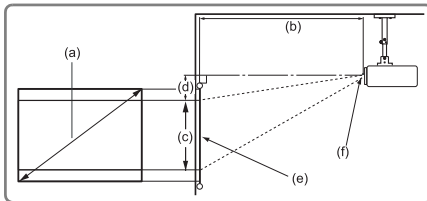| (a) Screen Size		16:10 image on a 16:10 Screen									
		(b) Projection distance				(c) Image height		(d) Vertical offset			
		min.		max.				min.		max.	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
50	1270	49	1239	81	2046	26	673	4.0	101	4.0	101
60	1524	59	1486	97	2455	32	808	4.8	121	4.8	121
70	1778	68	1734	113	2865	37	942	5.6	141	5.6	141
80	2032	78	1982	129	3274	42	1077	6.4	162	6.4	162
90	2286	88	2229	145	3683	48	1212	7.2	182	7.2	182
100	2540	98	2477	161	4092	53	1346	7.9	202	7.9	202
110	2794	107	2725	177	4502	58	1481	8.7	222	8.7	222
120	3048	117	2972	193	4911	64	1615	9.5	242	9.5	242
130	3302	127	3220	209	5320	69	1750	10.3	263	10.3	263
140	3556	137	3468	226	5729	74	1885	11.1	283	11.1	283
150	3810	146	3716	242	6139	79	2019	11.9	303	11.9	303
170	4318	166	4211	274	6957	90	2289	13.5	343	13.5	343
190	4826	185	4706	306	7776	101	2558	15.1	384	15.1	384

(a) Screen Size		16:10 image on a 4:3 Screen									
		(b) Projection distance				(c) Image height		(d) Vertical offset			
		min.		max.				min.		max.	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
54	1372	50	1262	82	2085	27	686	4.1	103	4.1	103
65	1651	60	1519	99	2510	33	826	4.9	124	4.9	124
76	1930	70	1776	116	2934	38	965	5.7	145	5.7	145
87	2210	80	2033	132	3359	44	1105	6.5	166	6.5	166
98	2489	90	2290	149	3784	49	1245	7.4	187	7.4	187
109	2769	100	2547	166	4208	55	1384	8.2	208	8.2	208
120	3048	110	2804	182	4633	60	1524	9.0	229	9.0	229
131	3327	121	3061	199	5058	66	1664	9.8	250	9.8	250
142	3607	131	3318	216	5482	71	1803	10.7	271	10.7	271
153	3886	141	3575	233	5907	77	1943	11.5	291	11.5	291
163	4140	150	3809	248	6293	82	2070	12.2	311	12.2	311
185	4699	170	4323	281	7142	93	2350	13.9	352	13.9	352
207	5258	190	4837	315	7992	104	2629	15.5	394	15.5	394

☞ **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 8). 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 22-25.
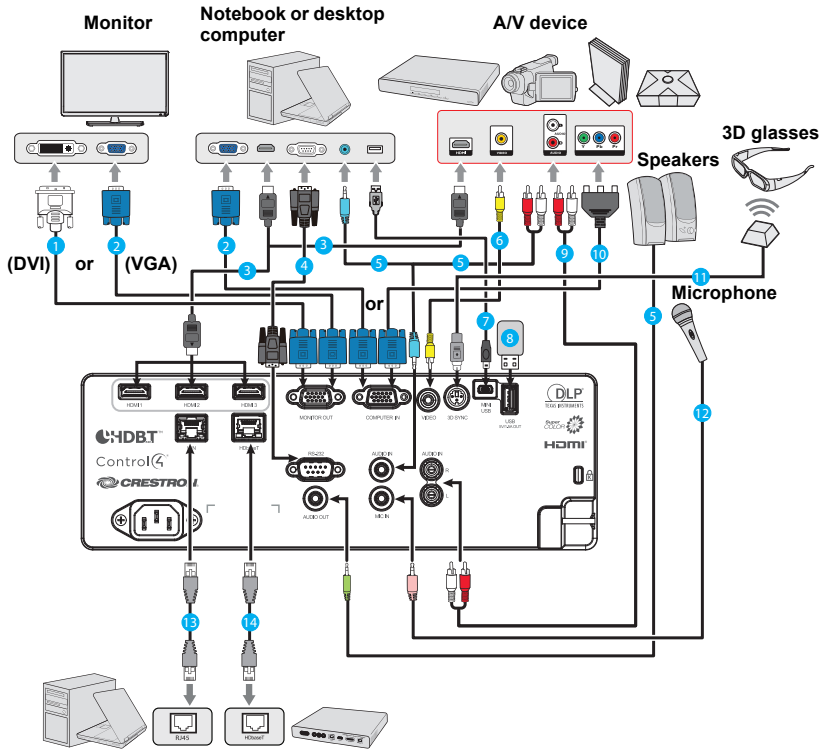
1.	VGA to DVI-A cable	9.	Audio L/R cable
2.	VGA cable	10.	Component Video to VGA (D-Sub) adapter cable
3.	HDMI cable		
4.	RS232 cable	11.	3D IR glasses transmitter unit
5.	Audio cable	12.	Microphone 3.5 mini jack cable
6.	Video cable	13.	LAN cable
7.	Mini USB cable	14.	Cat 5e/6 cable
8.	USB power supply 5V/1.5A		

Connecting a computer or a monitor

Connecting a computer

1. Take the supplied VGA cable and connect one end to the D-Sub output socket of the computer.
2. Connect the other end of the VGA cable to the **COMPUTER IN** signal input socket on the projector.

☞ **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:

1. Connect the projector to a computer as described in "Connecting a computer" on page 22.
2. 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 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 SOURCE > 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
*   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 an HDMI socket, you can enjoy uncompressed digital video quality.

See "Connecting an HDMI device" on page 23 for how to connect the projector to an 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 24 for how to connect the projector to a component 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 25 for how to connect the projector to a composite Video device.

Connecting audio

The projector has built-in stereo speaker(s) 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.

If you wish, you can make use of the projector speaker in your presentations, and also connect separate amplified speakers to the Audio Out socket of the projector. The audio output is a stereo 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 stereo audio projector.

Connecting an HDMI device

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

1. 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.

☞ **In the unlikely event that you connect the projector to a DVD player via the projector's HDMI input and the projected picture displays wrong colors, please change the color space to YUV. See "Changing HDMI input settings" on page 30 for details.**

☞ **The projector is capable of playing stereo audio. See "Connecting audio" on page 23 for details.**

Connecting a HDBaseT device

HDBaseT is a technology to transmit image signal use LAN function, RS-232 function and IR function through a LAN cable.

Connect Cat5e/Cat6 cable from HDBaseT TX Box for HDBaseT signal received.

Video Signal - Connect it to HDBaseT output equipment (Such as high-definition TV source, Blu-ray Player....etc).

LAN Function - Key in the correct IP Address or the computer host name which is the same as the projector's host name, then you can remote control the projector by internet.

RS-232 Function: When the projector connects to HDBaseT by RS-232 communication, the projector can be controlled with RS-232 commands from the computer. For details of RS-232 commands, refer to RS-232 Communication command table.

Please turn On the HDBaseT from **Network Settigs** and HDBaseT channel from **RS232 settings** in the OSD menu when using LAN function / RS232 function.

☞ **LAN port and RS-232C port are disabled when Network Settigs to the HDBaseT and RS232 settings to HDBaseT channel.**

Use LAN cables of up to 100m long. Exceeding this length, the image will be deteriorated, and can experience malfunction on LAN transmission.

☞ **HDBaseT BEST PRACTICE:**

i. **When In Doubt, Use Shielded Cat6 With Shielded Plugs.**

ii. **Use Proper Grounding.**

iii.**Isolate HDBaseT Cat Cables from Other Signal Types.**

HDBaseT control function table

Control Side	Function	Projector Mode			Remark
		Green Mode	Network Standby	Normal	
Projector	Front-IR(wireless)	O	O	O (Can disable by OSD)	
	Top-IR(wireless)	O	O	O (Can disable by OSD)	
	RS-232	O	O	O (Can disable by OSD)	
	LAN	X	O	O (Can disable by OSD)	
HDBaseT TX Box	HDBT-IR(wireless)	X	X	O	
	RS-232	X	X	O	
	LAN	X	X	O	

O : Enable X : Disable

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.

1. 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.
2. Connect the other end of the VGA (D-Sub)-Component adaptor cable (with a D-Sub type connector) to the **COMPUTER IN** 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.**

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.

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

☞ **You need only connect to this device using a composite Video connection if Component Video input is unavailable for use. See "Connecting Video source devices" on page 22 for details.**

Connecting a 3D Sync

Connect to 3D IR glasses transmitter unit.

Playing sound through the projector

You can make use of the projector speaker in your presentations, and also connect separate amplified speakers to the **AUDIO OUT** socket of the projector.

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 audio projector.

Once connected, the audio can be controlled by the projector On-Screen Display (OSD) menus. See "Adjusting the sound" on page 44 for details.

About the microphone input

- If you wish to use a microphone, connect a 3.5 mini jack cable microphone to the projector.
- There are one way to adjust microphone volumes.
    - Directly set microphone volume levels in the **Basic > Audio Setting > Microphone Volume** menu.
    - Set projector volume levels in the **Basic > Audio Setting > Audio Volume** menu, or press ⊲+ or ⊲− on the remote control. (The projector volume setting will affect the microphone volume.)
- To make the microphone input available when the projector is in standby mode, turn on the **Basic > Audio Setting > Microphone** menu.
- If the microphone is not working, check the volume setting and cable connection.
- You might get feedback noise from the microphone when you are too close to the speaker of the projector. Move the microphone away from the speaker of the projector. The greater volume you require, the greater distance you need to be away from the Speaker to prevent the noise.

Operation

Starting up the projector
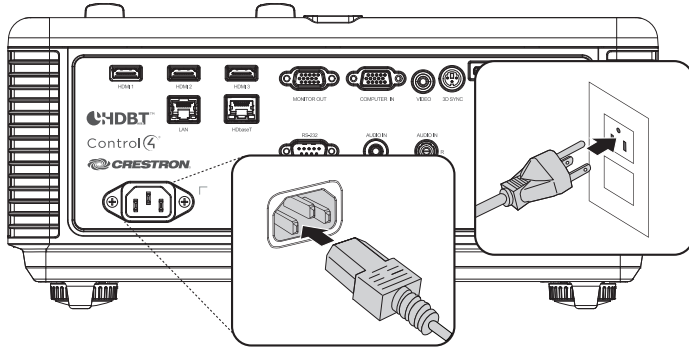
1.   Plug the power cord into the projector and into a wall socket. Turn on the wall socket switch (where fitted).
2.   (If available) Remove the lens cap.
3.   Press ⏻**Power** to start the projector. As soon as the light source lights up, a "Power On Ring Tone" will be heard. The **Power indicator light** stays blue when the projector is on.

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

☞ **If the projector is still working from previous activity, it will run the cooling fan for approximately 120 seconds before energizing the light source.**

☞ **To turn off the ring tone, see "Turning off the Power On/Off Ring Tone" on page 45 for details.**

4.   If the projector is activated for the first time, select your OSD language following the on-screen instructions.
5.   Switch all of the connected equipment on.
6.   The projector will start to search for input signals. The current input signal being scanned appears in the bottom right 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** to select your desired input signal. See "Switching input signal" on page 30 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 74 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.

Main menu icon

Highlight

Status

Sub-menu

Go to the previous page or to exit.

Current input signal
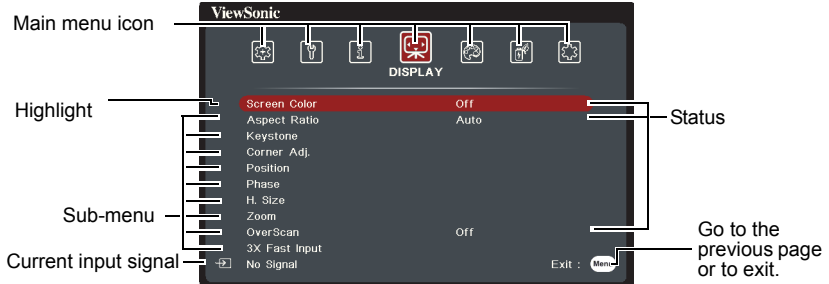
When projector is first time turned on after out of box, language selection will pop out automatically.

1. Press **Menu** to turn the OSD menu on.	3. Press ▼ to highlight **Language** and press **Enter**. Then press ▲ / ▼ / ◄ / ► to select a preferred language.
2. Use ◄ / ► to highlight the **SYSTEM** menu.	4. Press **Exit** twice* to leave and save the settings. ***The first press leads you back to the main menu and the second press closes the OSD menu.**
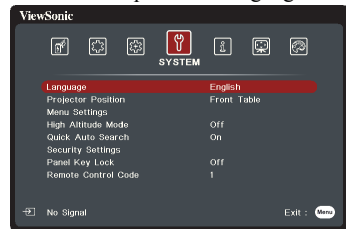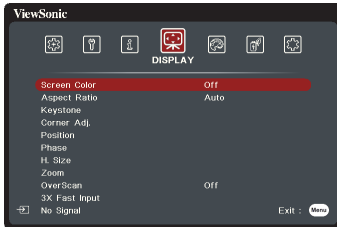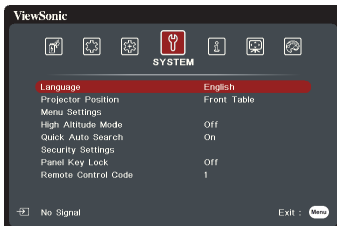
27

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 27.

You will be inconvenienced if you enable the password function yet forget the password somehow. Do make a note of your password, and keep the note in a safe place for later recall.

Setting a password

Once a password has been set and the power on lock is enabled, the projector cannot be used unless the correct password is entered every time the projector is started.

1. Open the OSD menu and go to the **SYSTEM** > **Security Settings** > **Change Password** menu.
2. Press **Enter** and the password dialog box is displayed.
3. Highlight **Power On Lock** and select **On** by pressing ◄ / ►.
4. 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.
5. Confirm the new password by re-entering the new password.

   Once the password is set, the OSD menu returns to the **Security Settings** page.
6. To leave the OSD menu, press **Exit.**

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 5 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 29 for details.
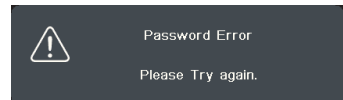
If you enter an incorrect password 5 times in succession, the projector will automatically shut down in a short time.

Entering the password recall procedure

1. Continuous press **Auto Sync** on the remote or **Auto** on the key pad for 8 times. The projector will display a coded number on the screen.
2. Write down the number and turn off your projector.
3. 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.
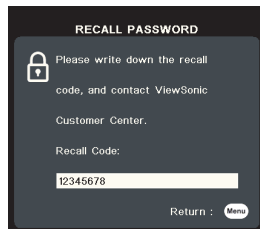
☞ **The "XXX" shown in the above screenshot are numbers that vary depending on different projector models.**

Changing the password

1. Open the OSD menu and go to the **SYSTEM** > **Security Settings** > **Change Password** menu.
2. Press **Enter**. 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 5 seconds, and the message **'INPUT CURRENT PASSWORD'** is displayed for your retry. You can press **Exit** to cancel or try another password.

4. Enter a new password.
5. Confirm the new password by re-entering the new password.
6. You have successfully assigned a new password to the projector. Remember to enter the new password next time the projector is started.
7. To leave the OSD menu, press **Exit.**

☞ **The digits being input will be displayed as asterisks on-screen. Do make a note of your password, and then keep the note in a safe place for later recall.**

Disabling the password function

1. Open the OSD menu and go to the **SYSTEM** > **Security Settings > Power On Lock** menu.
2. Press ◄ /► to select **Off**.
3. 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 5 seconds, and the message **'INPUT PASSWORD'** is displayed for your retry. You can press **Exit** to cancel 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 **SYSTEM** 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.

1. Press **Source**. A source selection bar is displayed.
2. Press ▲ / ▼ until your desired signal is selected and press **Enter**.

   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.
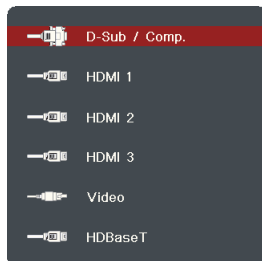
☞ **Please see "Projector specifications" on page 72 for the native display resolution of this projector. For best display picture results, you should select and use an input signal which outputs at this resolution. Any other resolutions will be scaled by the projector depending upon the 'aspect ratio' setting, which may cause some image distortion or loss of picture clarity. See "Selecting the aspect ratio" on page 36 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 **ADVANCED** > **HDMI Format Settings** menu.
2. Press **Enter**.
3. Highlight **HDMI Format Settings** 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 the input signal automatically.

4. Highlight **HDMI Range** and press ◄ / ► 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.

   • **Auto**: Sets the projector to detect the HDMI range of the input signal automatically.

☞ **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 and HDMI range settings.**

Adjusting the projected image

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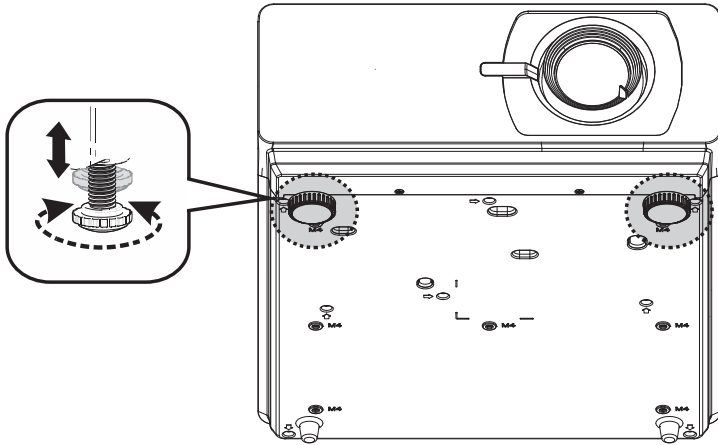
The projector is equipped with two adjuster foot. It changes the image height and vertical projection angle. Screw the adjuster foot to fine tune the angle until the image is positioned where you want it.

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 34 for details.

⚠ **Do not look into the lens while the light source is on. The strong light from the light source may cause damage to your eyes.**

Adjusting the vertical image position

The vertical image height can be adjusted around 14.7% for 1080P and 12% for WUXGA of offset position. Note that the maximum vertical image height adjustment can be limited by the horizontal image position. For example it is not possible to achieve the maximum vertical image position height detailed above if the horizontal image position is at maximum. Please consult the Shift Range diagram below for further clarification.

Adjusting the horizontal image position

With the lens horizontal image position can be adjusted to a maximum of 5% for 1080P and 5% for WUXGA of the image width. Note that the maximum horizontal image height adjustment can be limited by the vertical image position. For example it is not possible to achieve the maximum horizontal image position if the vertical image position is at maximum. Please consult the Shift Range diagram below for further clarification.

Lens Shift Range Diagram
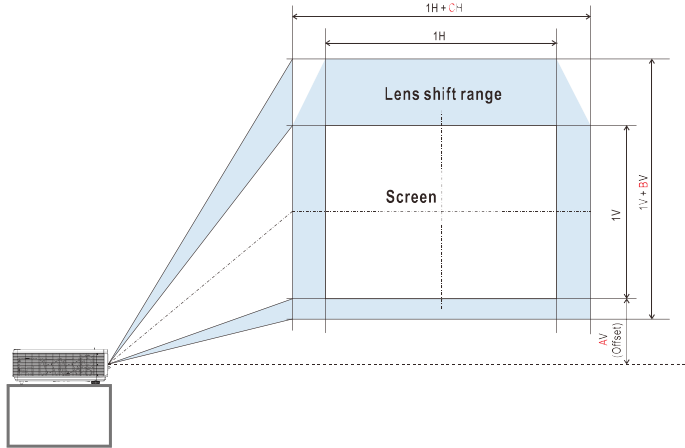
Signal	Offset (A)	Lens Shift V. (B)	Lens Shift H. (C)
1080P	45 %	14.7 %	5 %
WUXGA	30 %	12%	5 %

Adjusting projected image position using lens shift
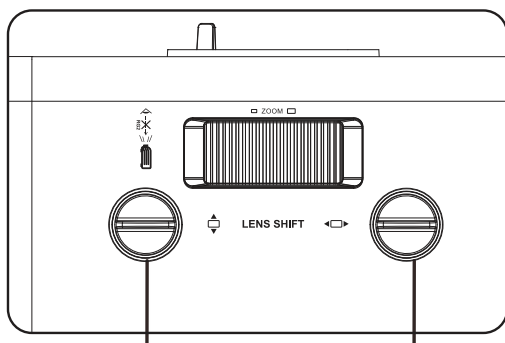
Vertical
Lens Shift Knob

Horizontal
Lens Shift Knob

The Lens Shift feature provides a lens shift function that can be used to adjust the position of the projected image either horizontally or vertically within the range detailed below.

Shift is a unique system that provides lens shift while maintaining a much higher ANSI contrast ratio than traditional lens shift systems.

Do not rotate lens shift knob further under click sound and lightly press the knob to rotate back.

Auto-adjusting the image

In some cases, you may need to optimize the picture quality. To do this, press **Auto Sync** on the remote control. Within 5 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 adjustment is functioning.

This function is only available when PC D-Sub input signal (analog RGB) is selected.

Fine-tuning the image clarity

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

2. If necessary, sharpen the image by rotating the focus ring.
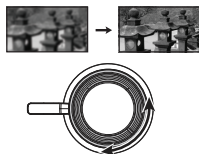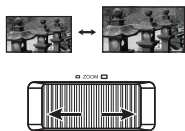
Correcting keystone

Keystoning refers to the situation where the projected image becomes a trapezoid due to angled projection.

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

1. Press ▷ / ◁ / △ / ▽ to display the Keystone correction page.

2. Press △ to correct keystoning at the top of the image. Press ▽ to correct keystoning at the bottom of the image.

Press ▽ / ▼   **Press △ / ▲**

3. Press ▷ to correct keystoning at the right of the image. Press ◁ to correct keystoning at the left of the image.

Press ▷ / ▶   **Press ◁ / ◀**

• Using the OSD menu

1. Open the OSD menu and go to the **DISPLAY > Keystone** menu.
2. Press **Enter**. 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.
4. Press ▷ to correct keystoning at the right of the image. Press ◁ to correct keystoning at the left of the image.

Adjusting 4 corners

Using the OSD menu

Open the OSD menu and go to the **DISPLAY > Corner Adj.** menu.

1. It will show 4 corner adjustmant OSD on screen.
2. To select the corner you want to adjust than the selected area will show gray color
3. Two degree selection couble be adjust
4. To save the settings before you want to close the OSD menu

How to reset the corner adj.:

• Press "**Auto**" to reset. The screen will show "Reset Notice: Do you want to reset? Reset / Cancel".
• Adjust the keystone and Aspect Ratio to reset. The screen will back to orignal angle automatically.

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

    • Press remote control (⊕ and ⊖) for screen zoom in or zoom out

• Using the OSD menu
1. Open the OSD menu and go to the **DISPLAY > Zoom** menu.
2. Press **Enter**. The Zoom bar is displayed.
3. To navigate the picture, press **Enter** to switch to the paning mode and press the directional arrows (◄ , ▲ , ▼ , ►) to navigate the picture.
4. To reduce size of the picture, press **Enter** to switch back to the zoom in/out functionality, and press ▼ repeatedly until it is restored to the original size. You can also press **Auto Sync** on the remote control to restore the picture to its original size.

☞ **The picture can only be navigated after it is magnified. You can further magnify the picture while searching for details.**

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

    • Press **Aspect** on the remote until your desired mode is selected.

• Using the OSD menu

1. Open the OSD menu and go to the **DISPLAY > Aspect Ratio** menu.
2. 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.

1. **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.

16:10 picture

16:9 picture
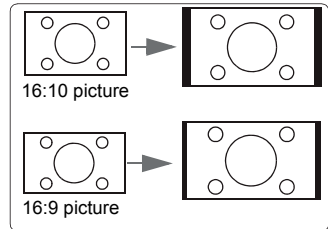
2. **4:3**: Scales an image so that it is displayed in the center of the screen with a 4:3 aspect ratio. This is most suitable for 4:3 images like computer monitors, standard definition TV and 4:3 aspect DVD movies, as it displays them without aspect alteration.

4:3 picture
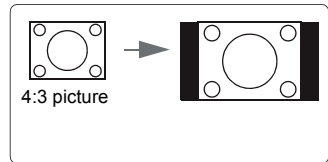
3. **16:9**: Scales an image so that it is displayed in the center of the screen with a 16:9 aspect ratio. This is most suitable for images which are already in a 16:9 aspect, like high definition TV, as it displays them without aspect alteration.

16:9 picture
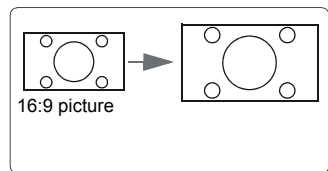
4. **16:10**: Scales an image so that it is displayed in the center of the screen with a 16:10 aspect ratio. This is most suitable for images which are already in a 16:10 aspect, as it displays them without aspect alteration.

16:10 picture
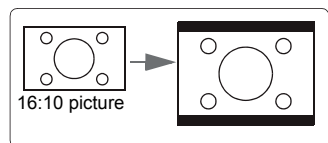
5. **Native**: The image is projected as its original resolution, and resized to fit within the display area. For input signals with lower resolutions, the projected image will display smaller than if resized to full screen. You could adjust the zoom setting or move the projector away from the screen to increase the image size if necessary. You may also need to refocus the projector after making these adjustments.

4:3 picture

16:9 picture

6. **2.35:1**: Scales an image so that it is displayed in the center of the screen with a 2.35:1 aspect ratio without aspect alteration.

2.35:1 picture
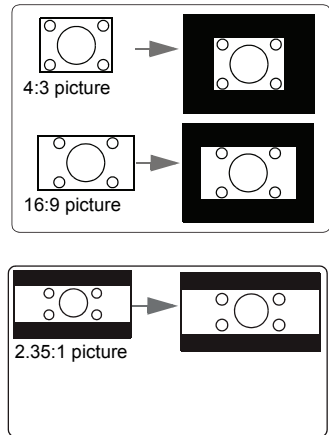
Optimizing the image

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 **Color Mode** on the remote control until your desired mode is selected.

• Go to the **IMAGE > Color Mode** menu and press ◄ / ► to select a desired mode.

Picture modes for different types of signals

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

1. **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.
2. **Presentation mode**: Is designed for presentations under daylight environment with high contrast ratio.
3. **Standard mode**: Is designed to represent vivid color performance.
4. **Photo mode**: Is designed for photo viewing.
5. **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.

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 ◄/► 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**. The effects of these settings may vary depending on different models.

☞ This function is only available when a PC or HDMI input signal is selected.

Fine-tuning the image quality in user modes

According to the detected signal type, there are some user-definable functions available. You can make adjustments to these functions based on your needs.

Adjusting Brightness

Go to the **IMAGE** > **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

Go to the **IMAGE** > **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

Go to the **IMAGE** > **ADVANCED** > **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.

☞ This function is only available when the input signal is Video, YPbPr or YCbCr.

Adjusting Tint

Go to the **IMAGE** > **ADVANCED** > **Tint** menu and press ◄/►.

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

☞ This function is only available when the input signal is Video, YPbPr or YCbCr.

Adjusting Sharpness

Go to the **IMAGE** > **ADVANCED** > **Sharpness** menu and press ◄/►.

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

☞ This function is only available when the input signal is Video, YPbPr or YCbCr.

Adjusting Brilliantcolor

Go to the **IMAGE** > **ADVANCED** > **Brilliantcolor** menu and press ◄ / ►.

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 a level that suits your need. If you don't need it, select **Off**.

Reducing image noise

Go to the **IMAGE** > **ADVANCED** > **Noise Reduction** menu and press ◄ / ►.

This function reduces electrical image noise caused by different media players. The higher the setting, the less the noise.

This function is only available when a PC, or Video input signal is selected.

Selecting a gamma setting

Go to the **IMAGE** > **ADVANCED** > **Gamma** menu and select a preferred setting by pressing ◄ / ►.

Gamma refers to the relationship between input source and picture brightness.

Selecting a Color Temperature

Go to the **IMAGE** > **Color Temp** menu and press ◄ / ►.

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

1. **Cool:** With the highest color temperature, **Cool** makes the image appear the most bluish white than other settings.
2. **Normal:** Maintains normal colorings for white.
3. **Warm:** Makes images appear reddish white.

Setting a preferred color temperature

1. Go to the **IMAGE** > **Color Temp** menu.
2. Press ◄ / ► to select **Cool**, **Normal** or **Warm** and press **Enter**.
3. Press ▲ / ▼ to highlight the item you want to change and adjust the values by

    pressing ◄ / ►.

    *   **Red Gain**/**Green Gain**/**Blue Gain**: Adjusts the contrast levels of Red, Green, and Blue.
    *   **Red Offset**/**Green Offset**/**Blue Offset**: Adjusts the brightness levels of Red, Green, and Blue.

This function is only available when a PC input signal is selected.

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. Open the OSD menu and go to the **IMAGE** > **ADVANCED** > **Color Management** menu.
2. Press **Enter** 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.
4. Press ▼ to highlight **Hue** and press ◄ /► to select its range. Increase in the range will include colors consisted of more proportions of its two adjacent colors.

   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.

5. 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.
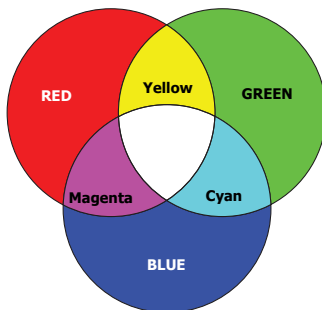
☞ Saturation is the amount of that color in a video picture. Lower settings produce less saturated colors; a setting of "0" removes that color from the image entirely. If the saturation is too high, that color will be overpowering and unrealistic.

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.
9. Press **Exit** 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:

1. Go to the **BASIC > Presentation Timer** menu.
2. Press **Enter** to display the **Presentation Timer** page.
3. 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 5-minute increments.

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

4. Press ▼ to highlight **Timer Display** and choose if you want the timer to show up on the screen by pressing ◄ /►.

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.

5. Press ▼ to highlight **Timer Position** and set the timer position by pressing ◄ /►.

> **Top-Left ➜ Bottom-Left ➜ Top-Right ➜ Bottom-Right**

6. Press ▼ to highlight **Timer Counting Direction** and select your desired counting direction by pressing ◄ /►.

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

7. 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.
8. To activate the presentation timer, press ▼ and press ◄ /► to highlight **Start Counting** and press **Enter**.
9. A confirmation message displays. Highlight **Yes** and press **Enter** 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:

1. Go to the **BASIC > Presentation Timer** menu.
2. Highlight **Off**. Press **Enter**. A confirmation message displays.
3. Highlight **Yes** and press **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 press **BLANK** 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 **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.

⚠️ **CAUTION**

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 ⏻ **Power**.

1. Go to the **SYSTEM > Panel Key Lock** menu.
2. Press ◄/► to select **On**.
3. A confirmation message is displayed. Select **Yes** to confirm.

You can also use the remote control to enter the **SYSTEM > 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 ⏻Power 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.**

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 5°C–25°C.

⚠️ **CAUTION**

Do not use the High Altitude Mode if your altitude is between 0 m and 1500 m and temperature is between 5°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**:

1. Open the OSD menu and go to the **SYSTEM** > **High Altitude Mode** menu.
2. Press ◄/► to select **On**. A confirmation message is displayed.
3. Highlight **Yes** and press **Enter**.

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.
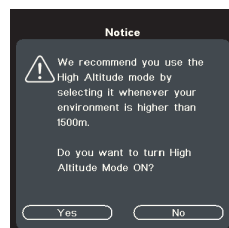
Using the CEC function

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. Open the OSD menu and go to the **POWER MANAGEMENT** > **Auto Power On** > **CEC** menu.
2. Press ◄ /► to select **All**.

In order for the CEC function to work properly, make sure that the device is correctly connected to the HDMI input of the projector via an HDMI cable, and its CEC function is turned 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:

1. Go to the **ADVANCED** > **3D Settings** menu.
2. Press **Enter**. The **3D Settings** page is displayed.
3. Highlight **3D Sync** and press **Enter**.
4. Press ▼ to select a **3D Sync** setting and then press **Enter** to confirm.

When the 3D Sync function is on:
*   **The brightness level of the projected image will decrease.**
*   **The Color Mode and Zoom function cannot be adjusted.**

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

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 **POWER MANAGEMENT** > **Standby Settings**, and the cable connections are correctly made. For the connection methods, see the Connection chapter.

Standy mode

☞ When HDBaseT switch on, Standby Settings mode will change to Normal.

Green mode

Power consumption <0.5w, when selected, switch **Off** following function: **VGA loop through**, **Audio Pass Through**, **Standby LAN Control** and **HDBaseT**.

Network standby

Power consumption < 2w, when selected, switch **On** following function: **Standby LAN Control** and switch OFF **VGA loop through**, **Audio Pass Through** and **HDBaseT**.

Normal

Allows all standby features switch **On**.

VGA loop through

Enable or Disable **VGA out loop through** function. When switch **On**, **Standby Settings** mode will change to **Normal**.

Audio Pass Through

Select **Audio Pass Through** from Audio in, Audio L/R, or Disable this function. When switch **On**, **Standby Settings** mode will change to **Normal**.

Adjusting the sound

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 21 for more details.

Muting the sound

1. Open the OSD menu and go to the **BASIC** > **Audio Settings** > **Mute** menu.
2. Press ◄/► to select **On**.

☞ If available, you can press 🔇 on the remote control to toggle the projector audio between on and off.

Adjusting the sound level

1. Open the OSD menu and go to the **BASIC** > **Audio Settings** > **Audio Volume** menu.
2. Press ◄/► to select a desired sound level.

☞ If available, you can press 🔊+ or 🔊− on the remote control to adjust the projector's sound level.

Microphone: On / Off

Enable or Disable microphone function.

☞ When microphone plugged in and auto detected, priority is higher than Audio In to Audio Out.

Microphone Volume

To adjust the microphone sound level,

1. Open the OSD menu and go to the **BASIC** > **Audio Settings**.
2. Press ▼ to highlight **Microphone Volume** and press ◄ / ► to select a desired sound level.

Turning off the Power On/Off Ring Tone

1. Open the OSD menu and go to the **BASIC** > **Audio Settings** > **Power On/Off Ring Tone** menu.
2. Press ◄ / ► to select **Off**.

☞ **The only way to change Power On/Off Ring Tone is setting On or Off here. Setting the sound mute or changing the sound level will not affect the Power On/Off Ring Tone.**

RJ45
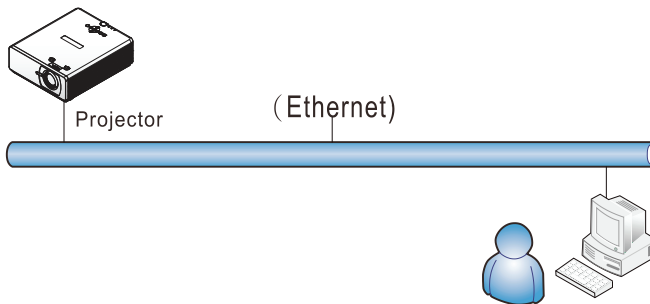
Wired LAN Terminal functionalites

Remote control and monitoring of a projector from a PC (or Laptop) via wired LAN is also possible. Compatibility with Crestron / AMX (Device Discovery) / Extron control boxes enables not only collective projector management on a network but also management from a control panel on a PC (or Laptop) browser screen.

*   Crestron is a registered trademark of Crestron Electronics, Inc. of the United States.
*   Extron is a registered trademark of Extron Electronics, Inc. of the United States.
*   AMX is a registered trademark of AMX LLC of the United States.
*   PJLink applied for trademark and logo registration in Japan, the United States of America, and other countries by JBMIA.

Supported External Devices

This projector is supported by the specified commands of the Crestron Electronics controller and related software (ex, RoomView®).

http://www.crestron.com/

This projector is supported by Control4 (SDDP).

http://www.control4.com/

This projector is supported by AMX (Device Discovery).

http://www.amx.com/

This projector is compliant to support Extron device(s) for reference.

http://www.extron.com/

This projector supports all commands of PJLink Class1 (Version 1.00).

http://pjlink.jbmia.or.jp/english/

For more detail of information about the diverse types of external devices which can be connected to the LAN/RJ45 port and remote/control the projector, as well as the related control commands supporting for each external device, kindly please get contact with the Support-Service team directly.

LAN_RJ45

1. Connect an RJ45 cable to RJ45 ports on the projector and the PC (Laptop).
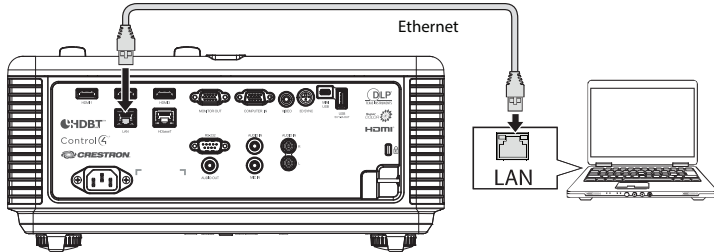
2. On the PC (Laptop), select **Start** > **Control Panel** > **Network and Internet**.
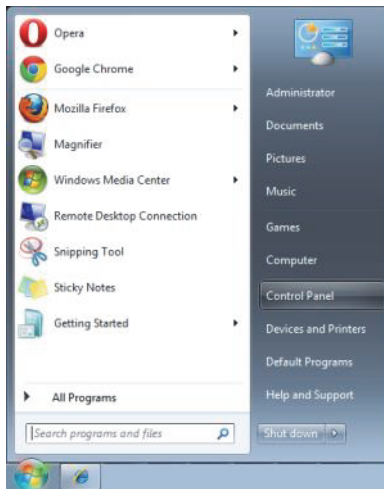
3.   Right-click on **Local Area Connection**, and select **Properties**.
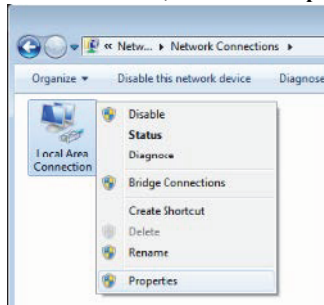
4.   In the **Properties** window, select the **Networking** tab, and select **Internet Protocol (TCP/IP)**.
5.   Click **Properties**.
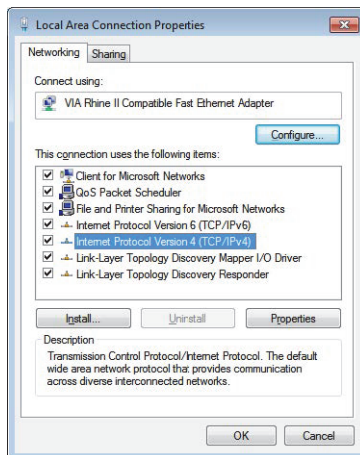
6.   Click **Use the following IP address** and fill in the IP address and Subnet mask, then click **OK**.
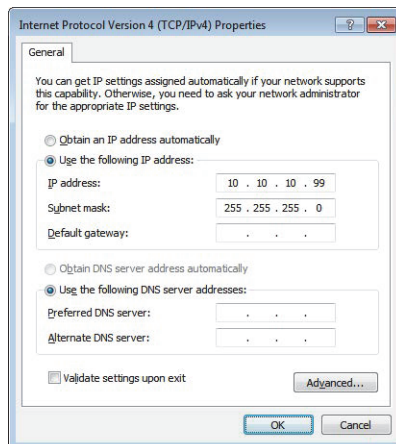
7. Press the **MENU** button on the projector.
8. Select **Advanced** > **Network Setting** > **Wired LAN**.
9. After getting into **Wired LAN**, input the following:

- DHCP: Off

- IP Address: 10.10.10.10

- Subnet Mask: 255.255.255.0

- Gateway: 0.0.0.0

- DNS Server: 0.0.0.0

10. Press **ENTER /▶**. to confirm settings.
    Open a web browser
    (for example, Microsoft Internet Explorer with Adobe Flash Player 9.0 or higher).
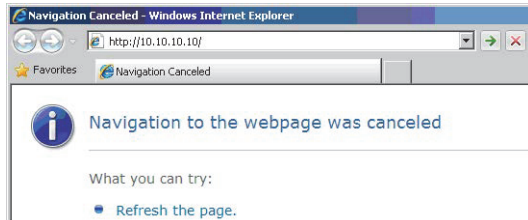
11. In the Address bar, input the IP address: 10.10.10.10.
12. Press **ENTER /▶**.
The projector is setup for remote management. The LAN/RJ45 function displays as follows.

Category	Item	Input Length
Crestron Control	IP Address	15
	IP ID	3
	Port	5
Projector	Projector Name	10
	Location	10
	Assigned To	10
Network Configuration	DHCP (Enabled)	(N/A)
	IP Address	15
	Subnet Mask	15
	Default Gateway	15
	DNS Server	15
User Password	Enabled	(N/A)
	New Password	10
	Confirm	10
Admin Password	Enabled	(N/A)
	New Password	10
	Confirm	10

more information, please visit http://www.crestron.com.

Preparing Email Alerts

1. Make sure that user can access the homepage of LAN RJ45 function by web browser (for ex-ample, Microsoft Internet Explorer v6.01/v8.0).
2. From the Homepage of LAN/RJ45, click **Alert Settings**.
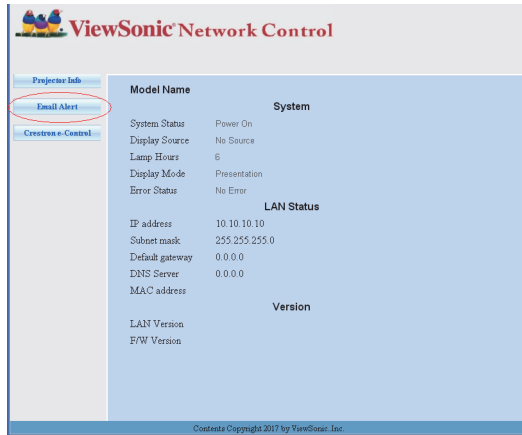
3. By default, these input boxes in **Alert Settings** are blank.
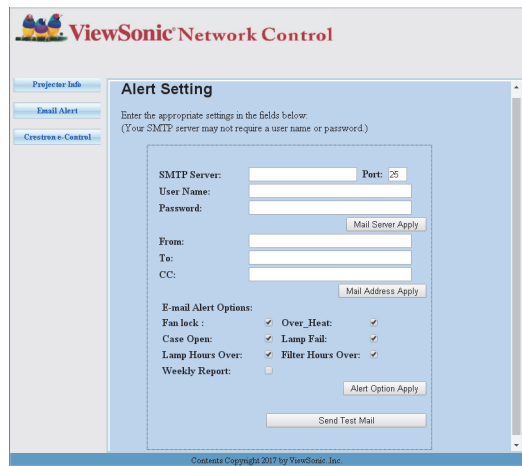
4. For Sending alert mail, input the following:

- The SMTP field is the mail server for sending out email (SMTP protocol). This is a required field.

- The To field is the recipient's email address (for example, the projector administrator). This is a required field.

- The Cc field sends a carbon copy of the alert to the specified email address. This is an optional field (for example, the projector administrator's assistant).

- The From field is the sender's email address (for example, the projector administrator). This is a required field.

Select the alert conditions by checking the desired boxes.

☞ **Fill in all fields as specified. User can click Send Test Mail to test what setting is correct. For successful sending an e-mail alert, you must select alert conditions and enter a correct e-mail address.**

RS232 by Telnet Function

Besides projector connected to RS232 interface with "Hyper-Terminal" communication by dedicated RS232 command control, there is alternative RS232 command control way, so called "RS232 by TELNET" for LAN/RJ45 interface.

Quick Start-Guide for "RS232 by TELNET"

1. Check and get the IP-Address on OSD of the projector.
2. Make sure that laptop/PC can access the web-page of the projector.
3. Make sure that "Windows Firewall" setting to be disabled in case of "TELNET" function filtering out by laptop/PC.
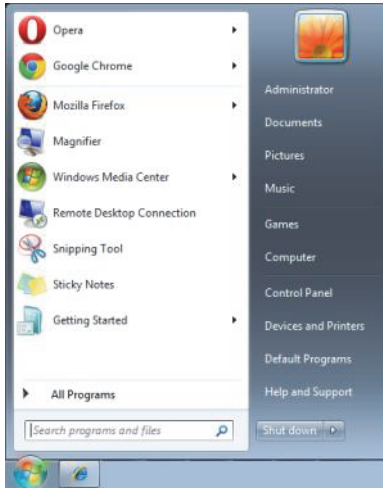
4. **Start** > **All Programs** > **Accessories** > **Command Prompt**.
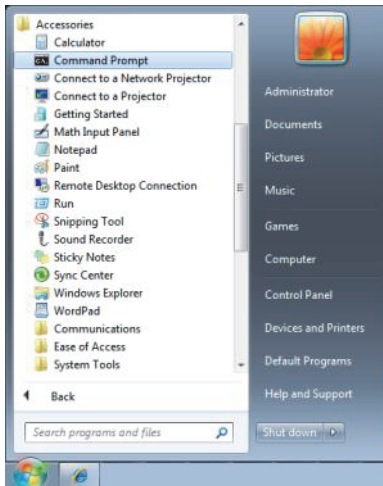
5. Input the command format like the below:
    telnet ttt.xxx.yyy.zzz 23 ("Enter" key pressed)

(**ttt.xxx.yyy.zzz**: IP-Address of the projector)

If Telnet-Connection ready, and user can have RS232 command input, then **Enter** key pressed, the RS232 command will be workable.

How to have TELNET enabled in Windows VISTA / 7 / 8 / 10

By default installation for Windows VISTA / 7 / 8 / 10, "TELNET" function is not included. But end-user can have it by way of "Turn Windows features On or Off" to be enabled.

1. Open **Control Panel** in Windows VISTA / 7 / 8 / 10.
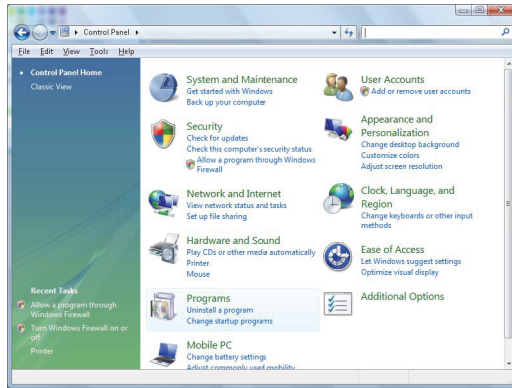
2. Open **Programs**.
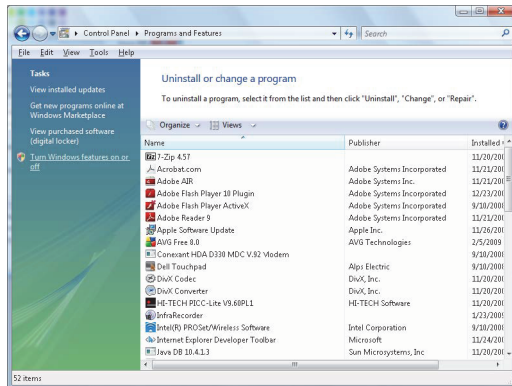
3. Select **Turn Windows features on or off** to open.
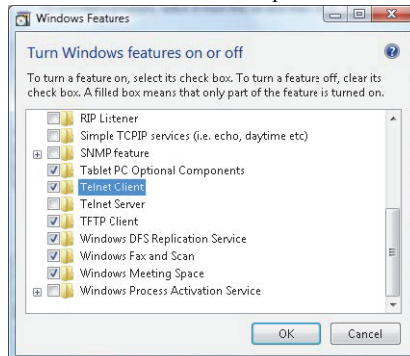
4. Have **Telnet Client** option checked, then press **OK** button.
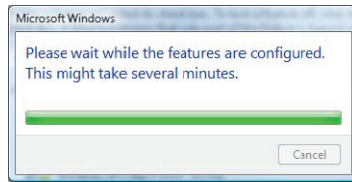
Specsheet for "RS232 by TELNET" :

1. Telnet: TCP.
2. Telnet port: 4661.
   (for more detail, kindly please get contact with the service agent or team)
3. Telnet utility: Windows "TELNET.exe" (console mode).
4. Disconnection for RS232-by-Telnet control normally: Close Windows Telnet utility directly after TELNET connection ready.
   Limitation 1 for Telnet-Control: there is less than 50 bytes for successive network payload for Telnet-Control application.
   Limitation 2 for Telnet-Control: there is less than 26 bytes for one complete RS232 command for Telnet-Control.
   Limitation 3 for Telnet-Control: Minimum delay for next RS232 command must be more than 200 (ms).
   (*, In Windows built-in "TELNET.exe" utility, "Enter" key pressed will have "Carriage-Return" and "New-Line" code.)

Shutting down the projector
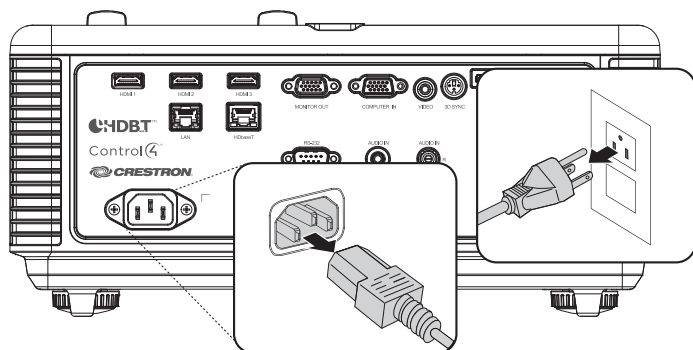
1. Press ⏻**Power** and a confirmation message is displayed prompting you.
   If you don't respond in a few seconds, the message will disappear.
2. Press ⏻**Power** a second time.
3. Once the cooling process finishes, a "Power Off Ring Tone" will be heard. Disconnect the power cord from the wall socket if the projector will not be used in an extended period of time.

☞ **To turn off the ring tone, see for details.**

⚠**CAUTION**
- **To protect the light source, the projector will not respond to any commands during the cooling process.**
- **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
1. DISPLAY	**Screen Color**		**Off/Blackboard/Greenboard/Whiteboard**
	Aspect Ratio		**Auto/4:3/16:9/16:10/Native/2.35:1**
	Keystone		**Vertical/Horizontal**
	Corner Adj.		**Top-Right/Top-Left/Bottom-Right/Bottom-Left**
	Position		
	Phase		
	H. Size		
	Zoom		
	OverScan		**Off/1/2/3/4/5**
	3X Fast Input		**Inactive/Active**
2. IMAGE	**Color Mode**		**Brightest/Presentation/Standard/Photo/Movie**
	Brightness		
	Contrast		
	Color Temp		**Warm/Normal/Cool**
			Red Gain
			Green Gain
			Blue Gain
			Red Offset
			Green Offset
			Blue Offset
	ADVANCED	**Color**	
		Tint	
		Sharpness	
		Gamma	**C1~C8/G1~G5/DICOM SIM/sRGB**
		Brilliantcolor	**Off/1/2/3/4/5/6/7/8/9/10**
		Noise Reduction	
		Color Management	**Primary Color**
			Hue
			Saturation
			Gain
	Reset Color Settings		**Reset/Cancel**

Main menu	Sub-menu		Options
3. POWER MANAGEMENT	**Auto Power On**	**Computer**	**Disable/Enable**
		HDMI	**Disable/Enable**
		CEC	**Disable/Enable**
		Direct Power On	**Off/On**
	Smart Energy	**Auto Power Off**	**Disable/10 min/20 min/30 min**
		Sleep Timer	**Disable/30 min/1 hr /2 hr/3 hr/ 4 hr/8 hr/12 hr**
		Power Saving	**Enable/Disable**
	Standby Settings	**Standby mode**	**Green Mode/Network Standby/Normal**
		VGA loop through	**On/Off**
		Audio Pass Through	**Off/Audio in/ Audio L/R**
4. BASIC	**Audio Settings**	**Mute**	**On/Off**
		Audio Volume	**0 ~ 20**
		Microphone	**On/Off**
		Microphone Volume	**0 ~ 10**
		Power On/Off Ring Tone	**On/Off**
	Presentation Timer	**Timer Period**	**1 ~ 240 min (1, 2, 3, 4, 5, 10, 15, 20, 60, …240)**
		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	**Yes/No**
	Blank Timer		**Disable/5 min/10 min/15 min/20 min/25 min/30 min**
	Message		**On/Off**
	Pattern		**On/Off**
	Splash Screen		**Black/Blue/ViewSonic/Off**

Main menu	Sub-menu		Options
5. ADVANCED	**3D Settings**	**3D Sync**	**Auto/Off/Frame Sequential/Frame Packing/Top-Bottom/Side-by-Side**
		3D Sync Invert	**Disable/Invert**
	HDMI Settings	**HDMI Format**	**Auto/RGB/YUV**
		HDMI Range	**Auto/Enhanced/Normal**
	Network Settings	**Wired LAN**	**DHCP/IP Address/Subnet Mask/ Gateway/DNS Server/Standby LAN Control/Apply**
		AMX Device Discovery	**On/Off**
		Control 4	**On/Off**
		HDBaseT	**On/Off**
	RS232 Settings	**Baud Rate**	**2400/4800/9600/14400/19200/38400/ 57600/115200**
		Channel	**Local/HDBaseT**
	Remote Sensor		**All/Front/Top/Off**
	Light Source Settings	**Light Source Mode**	**Normal/Eco/Custom**
		Light Source Power	**20-100%**
		Reset Light Source Hours	**Reset / Cancel**
		Light Source Hours	**Normal/Eco/Custom**
	Closed Caption	**Closed caption Enable**	**On/Off**
		Caption Version	**CC1/CC2/CC3/CC4**
	Reset Settings		**Reset/Cancel**

Main menu	Sub-menu		Options
6. SYSTEM	**Language**		**Multi-language OSD selection**
	Projector Position		**Front Table/Rear Table/ Rear Ceiling/Front Ceiling**
	Menu Settings	**Menu Display Time**	**5 sec/10 sec/15 sec/20 sec/ 25 sec/30 sec**
		Menu Position	**Center/Top-Left/Top-Right/ Bottom-Left/Bottom-Right**
	High Altitude Mode		**Off/On**
	Quick Auto Search		**Off/On**
	Security Settings	**Change Password**	
		Power on Lock	**Off/On**
	Panel Key Lock		**Off/On**
	Remote Control Code		**1/2/3/4/5/6/7/8**
7. INFORMATION	**Current System Status**		• **Source** • **Color Mode** • **Resolution** • **Color System** • **IP Address** • **MAC Address** • **Light Source Usage** • **Firmware Version** • **S/N**

Description of each menu

Function	Description
1. DISPLAY menu — **Screen Color**	See "Using Screen Color" on page 38 for details. ☞ **This function is only available when a PC input signal is selected.**
Aspect Ratio	See "Selecting the aspect ratio" on page 36 for details.
Keystone	See "Correcting keystone" on page 34 for details.
Corner Adj.	See "Adjusting 4 corners" on page 35 for the details.
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. ☞ **This function is only available when a PC input signal is selected.** ☞ **The adjustment range may vary under different timings.**
Phase	Adjusts the clock phase to reduce image distortion. ☞ **This function is only available when a PC input signal is selected.**
H. Size	Adjusts the horizontal width of the image. ☞ **This function is only available when a PC input signal is selected.**
Zoom	See "Magnifying and searching for details" on page 35 for details.
OverScan	Adjusts the overscan rate from 0% to 5%. ☞ **This function is only available when a Composite Video or HDMI input signal is selected.**
3X Fast Input	Selecting Active enables the function. This function is favorable to frame rate reducing. Quick response time in native timing can be achieved. When enabled, the following settings will return to factory preset values: **Aspect Ratio**, **Keystone**, **Corner**, **Position**, **Zoom**, **OverScan**. ☞ **This function is only available when a native timing input signal is selected.**

Function		Description
2. IMAGE menu	**Color Mode**	See "Selecting a picture mode" on page 37 for details.
	Brightness	See "Adjusting Brightness" on page 38 for details.
	Contrast	See "Adjusting Contrast" on page 38 for details.
	Color Temp	See "Selecting a Color Temperature" on page 39 and "Setting a preferred color temperature" on page 39 for details.
	ADVANCED	**Color** See "Adjusting Color" on page 38 for details. **Tint** See "Adjusting Tint" on page 38 for details. ☞ **The function is only available when Video input with NTSC system is selected.** **Sharpness** See "Adjusting Sharpness" on page 38 for details. **Gamma** See "Selecting a gamma setting" on page 39 for details. **Brilliantcolor** See "Adjusting Brilliantcolor" on page 39 for details. **Noise Reduction** See "Reducing image noise" on page 39 for details. **Color Management** See "Color Management" on page 40 for details.
	Reset Color Settings	Returns all color settings to the factory preset values.

62

Function		Description
3. POWER MANAGEMENT menu	**Auto Power On**	**Computer** Selecting **Enable** allows the projector to turn on automatically once the VGA signal is fed through the VGA cable. **HDMI** Selecting **Enable** allows the projector to turn on automatically once the HDMI signal is fed through the HDMI cable. **CEC** See "Using the CEC function" on page 43 for details. **Direct Power On** Selecting **On** allows the projector to turn on automatically once the power is fed through the power cord.
	Smart Energy	**Auto Power Off** See "Setting Auto Power Off" on page 68 for details. **Sleep Timer** See "Setting Sleep Timer" on page 68 for details. **Power Saving** See "Setting Power Saving" on page 69 for details.
	Standby Settings	See "Using the projector in standby mode" on page 44 for details.
4. BASIC menu	**Audio Settings**	See "Adjusting the sound" on page 44 for details.
	Presentation Timer	See "Setting the presentation timer" on page 41 for details.
	Blank Timer	See "Hiding the image" on page 42 for details.
	Message	Selecting **On** displays the current information on the screen when the projector is detecting or searching for a signal.
	Pattern	The projector can display grid test patterns. It helps you adjust the image size and focus and check that the projected image is free from distortion.
	Splash Screen	Allows you to select which logo screen will be displayed during projector start-up.

Function	Description
3D Settings	See "Using the 3D functions" on page 43 for details.
HDMI Format Settings	See "Changing HDMI input settings" on page 30 for details.
Network Settings	**Wired LAN** • **DHCP:** If the projector installation environment has the Dynamic Host Configuration Protocol server. You can set this function **ON** to let the projector get the auto ID from server. If no DHCP, even you set **ON** for this function. You still need to input the projector ID by yourself. • **IP Address:** If has DHCP server and the function is on. The ID address will auto display here , or you need to enter ID by yourself. • **Subnet Mask:** If has DHCP server and the function is on. The Subnet Mask address will auto display here , or you need to enter it value by yourself. • **Gateway:** If has DHCP server and the function is on. The Gateway address will auto display here , or you need to enter it value by yourself. • **DNS Server:** If has DHCP server and the function is on. The DNS Server address will auto display here , or you need to enter it value by yourself. • **Standby LAN Control:** When switch on, standby mode change to **Network Standby** or **Normal**. • **Apply:** Press **ENTER/▶** . to confirm settings. **AMX Device Discovery** When AMX Device Discovery is On, the projector can be detected by AMX controller. **Control4** If you network environment uses a Control4 or Control4 SDDP controller, turn on the Control4 setting to allow the projector to be detected. **HDBaseT** See "Connecting a HDBaseT device" on page 23 for the details.
RS232 Settings	**Baud Rate** Select RS232 Baud Rate. **Channel** Select RS232 control channel from **Local** or **HDBaseT**. ☞ **When select HDBaseT for RS232 control channel, change Baud rate to 9600**
Remote Sensor	Setting IR Remote Control Sensor from the projector that you prefer.

5. ADVANCED menu

Function	Description
5. ADVANCED menu — **Light Source Settings**	**Light Source Mode** • **Normal:** Brightness will be 100% when set to Normal mode. If the projection environment requires brighter picture, you can set the light source mode to Normal for the highest projection brightness. • **Eco:** When set to Eco mode, the brightness will be 80% of the normal brightness. • **Custom:** If the picture brightness at Eco mode is still too bright for you you can set it to custom to specify the power mode to make fine adjustments to the brightness of the projected picture. **Light Source Power** Only available when light source mode is under **Custom**. **Reset Light Source Hours** Service center shall reset light source hour after change light source parts. **Light Source Hours** Display light source usage hours.
Closed Caption	**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).
Reset Settings	Returns all settings to the factory preset values. ☞ **The following settings will still remain: Keystone, OverScan, Language, Projector Position, High Altitude Mode, Security Settings, Remote Control Code, Corner Adj., 3D Settings, Color mode.**

Function	Description
Language	Sets the language for the On-Screen Display (OSD) menus. See "Using the menus" on page 27 for details.
Projector Position	See "Choosing a location" on page 16 for details.
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** Sets the On-Screen Display (OSD) menu position.
High Altitude Mode	A mode for operation in high altitude areas.
Quick Auto Search	See "Switching input signal" on page 30 for details.
Security Settings	See "Utilizing the password function" on page 28 for details.
Panel Key Lock	See "Locking control keys" on page 42 for details.
Remote Control Code	See "Remote control code" on page 14 for details.
Current System Status	**Source** Shows the current signal source. **Color Mode** Shows the selected mode in the **IMAGE** menu. **Resolution** Shows the native resolution of the input signal. **Color System** Shows input system format. **IP Address** Shows the current IP address. **MAC Address** Shows the current MAC address. **Light Source Usage** Shows the Light Source Usage times. **Firmware Version** Shows the current firmware version. **S/N** Shows the project serial number.

The left side of the table contains two vertical section labels:
- **6. SYSTEM menu**
- **7. INFORMATION menu**

Maintenance

Care of the projector

You need to keep the lens and/or filter (optional accessory) clean on a regular basis.

Never remove any parts of the projector. Contact your dealer when any part of the projector needs 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.

⚠ **CAUTION**
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 56 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.

⚠ **CAUTION**
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 72 or consult your dealer about the range.
- Retract the adjuster foot.
- 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.

Light Source Hours information

Getting to know the light source hours

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

To obtain the light source hour information:

1. Open the OSD menu and go to the **ADVANCED > Light Source Setting** menu.
2. Press **Enter** and the **Light Source Settings** page is displayed.
3. You will see the **Light Source Hours** information on the menu.
4. To leave the menu, press **Exit**.

Extending light source life

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

Setting Light Source Mode

Setting the projector In **Eco**/**Custom** mode reduces system noise, power consumption and extends the light source operation life.

Light Source mode	Description
Normal	Provide 100% Light Source power.
ECO	Reduce light source power consumption by 20% and lower brightness to extend the light source life and decreases the fan noise.
Custom	Reduce light source power consumption by 0~ 80% adjustable by user and lower brightness to extend the light source life and decreases the fan noise.

To set the light source mode, go to the **ADVANCED > Light Source Setting** > **Light Source Mode** menu and press ◄ /► to select **Eco**.

Setting Auto Power Off

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

1. Open the OSD menu and go to the **POWER MANAGEMENT** > **Smart Energy** menu.
2. Press **Enter** and the **Smart Energy** page is displayed.
3. Highlight **Auto Power Off** and press ◄ /► .
4. If the preset time lengths are not suitable for your need, select **Disable**. The projector will not automatically shut down in a certain time period.

Setting Sleep Timer

This function allows the projector to turn off automatically after a set period of time to prevent unnecessary waste of light source life.

1. Open the OSD menu and go to the **POWER MANAGEMENT** > **Smart Energy** menu.
2. Press **Enter** and the **Smart Energy** page is displayed.
3. Highlight **Sleep Timer** and press ◄ /► .
4. If the preset time lengths are not suitable for your need, select **Disable**. The projector will not automatically shut down in a certain time period.

Setting Power Saving

The projector lowers the power consumption if no input source is detected after 5 minutes to prevent unnecessary waste of light source life. You can further decide if you would like the projector to turn off automatically after a set period of time.

1. Open the OSD menu and go to the **POWER MANAGEMENT** > **Smart Energy** menu.
2. Press **Enter** and the **Smart Energy** page is displayed.
3. Highlight **Power Saving** and press ◄/►.
4. When **Enable** is selected, the projector light source will be changed to **Eco** mode after no signal is detected for 5 minutes.

Indicators

Light			Status & Description
⏻ **Blue**	💡 **Red**	🌡 **Red**	
Power events			
ON	Off	Off	Light source Ready
Flashing	Off	Off	Start
Flashing	Off	Off	Cooling
7 blinks	Off	Off	Case Open
8 blinks	Off	Off	DMD Error
9 blinks	Off	Off	Color Wheel Error
9 blinks	1 blinks	Off	Phosphor wheel error
System events			
2 blinks	Off	Off	1W MCU detects scaler stops working
Thermal events			
Off	1 blinks	On	Over Temperature T1
Off	2 blinks	On	Over Temperature T2
Off	3 blinks	On	Over Temperature T3
Off	4 blinks	On	Over Temperature T4
Off	5 blinks	On	Over Temperature T5
4 blinks	Off	Off	Thermal Break Sensor Error
6 blinks	1 blinks	Off	Fan 1 Error
6 blinks	2 blinks	Off	Fan 2 Error
6 blinks	3 blinks	Off	Fan 3 Error
6 blinks	4 blinks	Off	Fan 4 Error
6 blinks	5 blinks	Off	Fan 5 Error
6 blinks	6 blinks	Off	Fan 6 Error

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 projector.	Stand within 8 meters (26 feet) from the projector.
The remote control code on the projector and that on the remote control are not consistent.	Adjust the remote control code.

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	**LS800HD:** 1920 x 1080 1080p **LS800WU:** 1920 x 1200 WUXGA
Display system	1-CHIP DMD
Light source	Laser Diode
Electrical	
Power supply	AC100–240V, 50–60 Hz (Automatic)
Power consumption	430 W (Max); < 0.5 W (Standby)
Mechanical	
Weight	11 Kg (24.25 lbs)
Input terminal	
Computer input	
RGB input	D-Sub 15-pin (female) x 1
Video signal input	
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 3
Audio signal input	Audio in jack x 1 Audio in jack L/R in x 1
Mic In	Audio jack x 1
3D Sync	x 1
HDbaseT	RJ45 x 1
HDMI input	x 3
Output terminal	
Audio signal output	Audio jack x 1
Speaker	5 watt x 2
USB Type A	DC5V/1.5A
Monitor out	D-Sub 15-pin (female) x 1
Control terminal	
RS-232 serial control	9 pin x 1
USB serial control	Type mini B
IR receiver	x 2 (Front and Top)
LAN	RJ45 x 1

Environmental Requirements	
Operating temperature	5°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 **High Altitude Mode** on)
Storage temperature	-10°C to +60°C
Storage humidity	10% to 85% Non-Condensing
Storage altitude	30°C@ 0 to 12200m above sea level

Dimensions

360 mm (W) x 169 mm (H) x 452 mm (D)
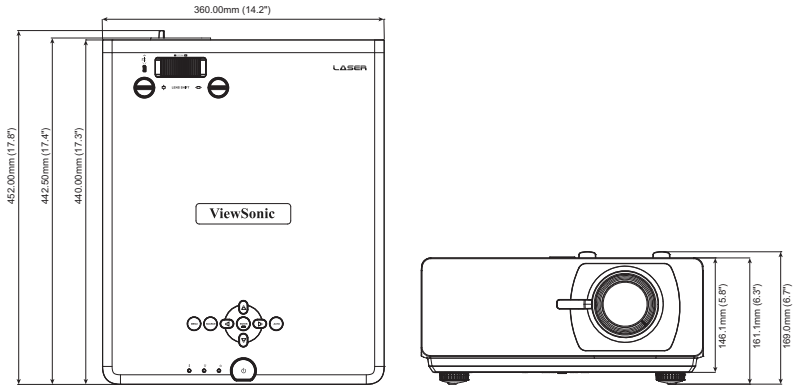
Ceiling mount installation
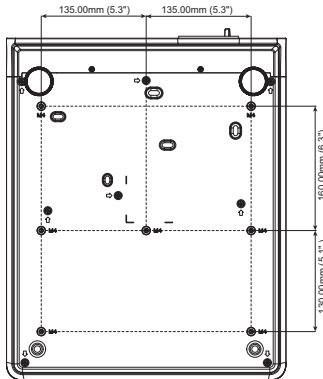
◎ Ceiling mount screws:
M4 x 12 (Max. L = 12 mm)

Unit: mm

Timing chart

Analog RGB			
Signal	Resolution (dots)	Aspect Ratio	Refresh Rate (Hz)
VGA	640 x 480	4:3	60/72/75/85
SVGA	800 x 600	4:3	60/72/75/85
XGA	1024 x 768	4:3	60/70/75/85
	1152 x 864	4:3	75
WXGA	1280 x 768	15:9	60
	1280 x 800	16:10	60/75/85
	1360 x 768	16:9	60
Quad-VGA	1280 x 960	4:3	60/85
SXGA	1280 x 1024	5:4	60
SXGA+	1400 x 1050	4:3	60
WXGA+	1440 x 900	16:10	60
UXGA	1600 x 1200	4:3	60
WSXGA+	1680 x 1050	16:10	60
HD	1280 x 720	16:9	60
MAC 13"	640 x 480	4:3	67
MAC 16"	832 x 624	4:3	75
MAC 19"	1024 x 768	4:3	75
MAC 21"	1152 x 870	4:3	75
HDTV (1080p)	1920 x 1080	16:9	60

HDMI			
Signal	Resolution (dots)	Aspect Ratio	Refresh Rate (Hz)
VGA	640 x 480	4:3	60
SVGA	800 x 600	4:3	60
XGA	1024 x 768	4:3	60
WXGA	1280 x 768	15:9	60
	1280 x 800	16:10	60
	1360 x 768	16:9	60
Quad-VGA	1280 x 960	4:3	60
SXGA	1280 x 1024	5:4	60
SXGA+	1400 x 1050	4:3	60
WXGA+	1440 x 900	16:10	60
WSXGA+	1680 x 1050	16:10	60
HDTV (1080p)	1920 x 1080	16:9	50 / 60
HDTV (1080i)	1920 x 1080	16:9	50 / 60
HDTV (720p)	1280 x 720	16:9	50 / 60
SDTV (480p)	720 x 480	4:3 / 16:9	60
SDTV (576p)	720 x 576	4:3 / 16:9	50
SDTV (480i)	720 x 480	4:3 / 16:9	60
SDTV (576i)	720 x 576	4:3 / 16:9	50

3D (HDMI signal included)			
Signal	Resolution (dots)	Aspect Ratio	Refresh Rate (Hz)
SVGA	800 x 600	4:3	60* / 120**
XGA	1024 x 768	4:3	60* / 120**
HD	1280 x 720	16:9	60* / 120**
WXGA	1280 x 800	16:9	60* / 120**
HDTV (1080p)	1920 x 1080	16:9	60*
for Video Signal			
Signal	Resolution (dots)	Aspect Ratio	Refresh Rate (Hz)
SDTV (480i)***	720 x 480	4:3 / 16:9	60
☞ *60Hz signals are supported for Side-by-Side, Top-Bottom, and Frame Sequential formats. ** 120 Hz signals are supported for Frame Sequential format only. *** Video signal (SDTV 480i) is supported for Frame Sequential format only.			

HDMI 3D			
In Frame packing format			
Signal	Resolution (dots)	Aspect Ratio	Refresh Rate (Hz)
1080p	1920 x 1080	16:9	23.98/24
720p	1280 x 720	16:9	50/59.94/60
In Side by side format			
Signal	Resolution (dots)	Aspect Ratio	Refresh Rate (Hz)
1080i	1920 x 1080	16:9	50/59.94/60
In Top and Bottom format			
Signal	Resolution (dots)	Aspect Ratio	Refresh Rate (Hz)
1080p	1920 x 1080	16:9	23.98/24
720p	1280 x 720	16:9	50/59.94/60

Component video			
Signal	Resolution (dots)	Aspect Ratio	Refresh Rate (Hz)
HDTV (1080p)	1920 x 1080	16:9	50 / 60
HDTV (1080i)	1920 x 1080	16:9	50 / 60
HDTV (720p)	1280 x 720	16:9	50 / 60
SDTV (480p)	720 x 480	4:3 / 16:9	60
SDTV (576p)	720 x 576	4:3 / 16:9	50
SDTV (480i)	720 x 480	4:3 / 16:9	60
SDTV (576i)	720 x 576	4:3 / 16:9	50

Composite video		
Signal	Aspect Ratio	Refresh Rate (Hz)
NTSC	4:3	60
PAL	4:3	50
PAL60	4:3	60
SECAM	4:3	50

Copyright information

Copyright

Disclaimer

Appendix

IR control table

Key (with Blue back light)	Format	Byte1	Byte2	Byte3	Byte4
Power On	NEC	X3	F4	4F	B0
Power Off	NEC	X3	F4	4E	B1
COMP	NEC	X3	F4	41	BE
HDMI	NEC	X3	F4	58	A7
HDMI2	NEC	X3	F4	59	A6
HDMI3	NEC	X3	F4	A2	5D
HDBaseT	NEC	X3	F4	A3	5C
Source	NEC	X3	F4	40	BF
Auto sync	NEC	X3	F4	08	F7
Up / V keystone +	NEC	X3	F4	0B	F4
Blank	NEC	X3	F4	07	F8
Left / H keystone -	NEC	X3	F4	0E	F1
Enter	NEC	X3	F4	15	EA
Right / H keystone +	NEC	X3	F4	0F	F0
Menu	NEC	X3	F4	30	CF
Down / V keystone -	NEC	X3	F4	0C	F3
Exit	NEC	X3	F4	28	D7
Information	NEC	X3	F4	97	68
Aspect ratio	NEC	X3	F4	13	EC
Help	NEC	X3	F4	21	DE
PgUp / ID 1	NEC	X3	F4	06	F9
Volume+ / ID 2	NEC	X3	F4	82	7D
Zoom + / ID 3	NEC	X3	F4	67	98
PgDn / ID 4	NEC	X3	F4	05	FA
Volume- / ID5	NEC	X3	F4	83	7C
Zoom - / ID 6	NEC	X3	F4	68	97
Presentation Timer / ID 7	NEC	X3	F4	27	D8
Mute / ID 8	NEC	X3	F4	14	EB
Network / ID 9	NEC	X3	F4	69	96
Eco mode / ID Set	NEC	X3	F4	2B	D4
Pattern / Number 0	NEC	X3	F4	55	AA
Color Mode	NEC	X3	F4	10	EF
Laser					

RS232 command table

<Pin assignment for this two end>

Pin	Description	Pin	Description
1	NC	2	RX
3	TX	4	NC
5	GND	6	NC
7	RTSZ	8	CTSZ
9	NC		

Deta carrier detect
Deta set ready
Receive data
Request to send
Transimit data
Clear to send
Data terminal ready
Ring indicatior
Signal ground
Protective ground

<Interface>

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

When select HDBaseT for RS232 control channel, change Baud rate to 9600.

<RS232 command table>

Function	Type	Action	Command
Power	Write	ON	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x00 0x00 0x5D
		OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x01 0x00 0x5E
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x00 0x5E
Reset All Settings	Write	Execute	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x02 0x00 0x5F
Reset Color Settings	Write	Execute	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x2A 0x00 0x87
Splash Screen	Write	Black	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0A 0x00 0x67
		Blue	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0A 0x01 0x68
		ViewSonic	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0A 0x02 0x69
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x0A 0x68
Quick Power Off	Write	OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0B 0x00 0x68
		ON	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0B 0x01 0x69
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x0B 0x69
High Altitude Mode	Write	OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0C 0x00 0x69
		ON	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x0C 0x01 0x6A
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x0C 0x6A
Light Source Mode	Write	Normal	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x10 0x00 0x6D
		Eco	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x10 0x01 0x6E
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x10 0x6E
Message	Write	OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x27 0x00 0x84
		ON	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x27 0x01 0x85
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x27 0x85

Function	Type	Action	Command
Projector Position	Write	Front Table	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x00 0x00 0x5E
		Rear Table	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x00 0x01 0x5F
		Rear Ceiling	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x00 0x02 0x60
		Front Ceiling	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x00 0x03 0x61
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x00 0x5F
3D Sync	Write	OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x20 0x00 0x7E
		Auto	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x20 0x01 0x7F
		Frame Sequential	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x20 0x02 0x80
		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	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x20 0x7F
3D Sync Invert	Write	OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x21 0x00 0x7F
		ON	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x21 0x01 0x80
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x21 0x80
Contrast	Write	Decrease	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x02 0x00 0x60
		Increase	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x02 0x01 0x61
	Read	Get Value	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x02 0x61
Brightness	Write	Decrease	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x03 0x00 0x61
		Increase	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x03 0x01 0x62
	Read	Get Value	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x03 0x62

Function	Type	Action	Command
Aspect ratio	Write	Auto	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x00 0x62
		4:3	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x02 0x64
		16:9	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x03 0x65
		16:10	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x04 0x66
		2.35:1	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x04 0x07 0x69
		Cycle	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x31 0x00 0x90
	Read	Get Value	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x04 0x63
Auto Adjust	Write	Execute	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x05 0x00 0x63
Horizontal position	Write	Shift Right	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x06 0x01 0x65
		Shift Left	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x06 0x00 0x64
	Read	Get Value	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x06 0x65
Vertical position	Write	Shift Up	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x07 0x00 0x65
		Shift Down	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x07 0x01 0x66
	Read	Get Value	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x07 0x66
Color temperature	Write	Warm	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x00 0x66
		Normal	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x01 0x67
		Cool	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x08 0x03 0x69
	Read	Get Value	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x08 0x67
Blank	Write	ON	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x09 0x01 0x68
		OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x09 0x00 0x67
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x09 0x68

Function	Type	Action	Command
Keystone-Vertical	Write	Decrease	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0A 0x00 0x68
		Increase	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0A 0x01 0x69
	Read	Get value	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x0A 0x69
Color mode	Write	Brightest	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0B 0x00 0x69
		Movie	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0B 0x09 0x72
		Standard	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0B 0x04 0x6D
		Cycle	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x33 0x00 0x92
		Photo	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0B 0x13 0x7C
		Presentation	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0B 0x14 0x7D
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x0B 0x6A
Primary Color	Write	R	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x10 0x00 0x6E
		G	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x10 0x01 0x6F
		B	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x10 0x02 0x70
		C	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x10 0x03 0x71
		M	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x10 0x04 0x72
		Y	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x10 0x05 0x73
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x10 0x6F
Hue	Write	Decrease	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x11 0x00 0x6F
		Increase	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x11 0x01 0x70
	Read	Get value	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x11 0x70

Function	Type	Action	Command
Saturation	Write	Decrease	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x12 0x00 0x70
		Increase	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x12 0x01 0x71
	Read	Get value	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x12 0x71
Gain	Write	Decrease	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x13 0x00 0x71
		Increase	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x13 0x01 0x72
	Read	Get value	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x13 0x72
Sharpness	Write	Decrease	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0E 0x00 0x6C
		Increase	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0E 0x01 0x6D
	Read	Get value	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x0E 0x6D
Freeze	Write	ON	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x00 0x01 0x60
		OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x00 0x00 0x5F
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x13 0x00 0x60
Source input	Write	D-Sub / Comp.	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x01 0x00 0x60
		HDMI 1	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x01 0x03 0x63
		HDMI 2	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x01 0x07 0x67
		HDMI 3	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x01 0x09 0x69
		Composite Video	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x01 0x05 0x65
		HDbaseT	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x01 0x0C 0x6C
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x13 0x01 0x61
Quick Auto Search	Write	ON	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x02 0x01 0x62
		OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x02 0x00 0x61
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x13 0x02 0x62

Function	Type	Action	Command
Mute	Write	ON	0x06 0x14 0x00 0x04 0x00 0x34 0x14 0x00 0x01 0x61
		OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x14 0x00 0x00 0x60
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x14 0x00 0x61
Volume	Write	Increse	0x06 0x14 0x00 0x04 0x00 0x34 0x14 0x01 0x00 0x61
		Decrese	0x06 0x14 0x00 0x04 0x00 0x34 0x14 0x02 0x00 0x62
		Write Value	0x06 0x14 0x00 0x04 0x00 0x34 0x13 0x2A 0x11 0x9A
	Read	Get Value	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x14 0x03 0x64
Language	Write	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
		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
		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

Function	Type	Action	Command
Language	Write	Čeština	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x0d 0x6E
		Português	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x0e 0x6F
		ไปรตุเกส	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
		Vie	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x00 0x15 0x76
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x15 0x00 0x62
Light Source Hours Reset	Write	Reset to ZERO	0x06 0x14 0x00 0x04 0x00 0x34 0x15 0x01 0x00 0x62
	Read	Get Usage Time	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x15 0x01 0x63
HDMI Format	Write	RGB	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x28 0x00 0x85
		YUV	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x28 0x01 0x86
		Auto	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x28 0x02 0x87
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x28 0x86
HDMI Range	Write	Enhanced	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x29 0x00 0x86
		Normal	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x29 0x01 0x87
		Auto	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x29 0x02 0x88
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x29 0x87

Function	Type	Action	Command
CEC	Write	OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x2B 0x00 0x88
		ON	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x2B 0x01 0x89
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x2B 0x89
Error status	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x0C 0x0D 0x66
Brilliant Color	Write	OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0F 0x00 0x6D
		Color 1	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0F 0x01 0x6E
		Color 2	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0F 0x02 0x6F
		Color 3	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0F 0x03 0x70
		Color 4	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0F 0x04 0x71
		Color 5	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0F 0x05 0x72
		Color 6	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0F 0x06 0x73
		Color 7	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0F 0x07 0x74
		Color 8	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0F 0x08 0x75
		Color 9	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0F 0x09 0x76
		Color 10	0x06 0x14 0x00 0x04 0x00 0x34 0x12 0x0F 0x0A 0x77
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x12 0x0F 0x6E
Remote Control Code	Write	code 1	0x06 0x14 0x00 0x04 0x00 0x34 0x0C 0x48 0x00 0xA0
		code 2	0x06 0x14 0x00 0x04 0x00 0x34 0x0C 0x48 0x01 0xA1
		code 3	0x06 0x14 0x00 0x04 0x00 0x34 0x0C 0x48 0x02 0xA2
		code 4	0x06 0x14 0x00 0x04 0x00 0x34 0x0C 0x48 0x03 0xA3
		code 5	0x06 0x14 0x00 0x04 0x00 0x34 0x0C 0x48 0x04 0xA4
		code 6	0x06 0x14 0x00 0x04 0x00 0x34 0x0C 0x48 0x05 0xA5

Function	Type	Action	Command
Remote Control code	Write	code 7	0x06 0x14 0x00 0x04 0x00 0x34 0x0C 0x48 0x06 0xA6
		code 8	0x06 0x14 0x00 0x04 0x00 0x34 0x0C 0x48 0x07 0xA7
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x0C 0x48 0xA1
Screen Color	Write	OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x32 0x00 0x8F
		Blackboard	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x32 0x01 0x90
		Greenboard	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x32 0x02 0x91
		Whiteboard	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x32 0x03 0x92
	Read	Status	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x32 0x90
Over Scan	Write	OFF	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x33 0x00 0x90
		Value 1	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x33 0x01 0x91
		Value 2	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x33 0x02 0x92
		Value 3	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x33 0x03 0x93
		Value 4	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x33 0x04 0x94
		Value 5	0x06 0x14 0x00 0x04 0x00 0x34 0x11 0x33 0x05 0x95
	Read	Get Value	0x07 0x14 0x00 0x05 0x00 0x34 0x00 0x00 0x11 0x33 0x91

Function	Type	Action	Command
Remote Key	Write	Menu	0x02 0x14 0x00 0x04 0x00 0x34 0x02 0x04 0x0F 0x61
		Exit	0x02 0x14 0x00 0x04 0x00 0x34 0x02 0x04 0x13 0x65
		Top	0x02 0x14 0x00 0x04 0x00 0x34 0x02 0x04 0x0B 0x5D
		Bottom	0x02 0x14 0x00 0x04 0x00 0x34 0x02 0x04 0x0C 0x5E
		Left	0x02 0x14 0x00 0x04 0x00 0x34 0x02 0x04 0x0D 0x5F
		Right	0x02 0x14 0x00 0x04 0x00 0x34 0x02 0x04 0x0E 0x60
		Source	0x02 0x14 0x00 0x04 0x00 0x34 0x02 0x04 0x04 0x56
		Enter	0x02 0x14 0x00 0x04 0x00 0x34 0x02 0x04 0x15 0x67
		Auto	0x02 0x14 0x00 0x04 0x00 0x34 0x02 0x04 0x08 0x5A
AMX	Write	AMX response	AMX

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 C = CHAT ONLINE	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= 1-866-463-4775	service.ca@viewsonic.com
Europe	www.viewsoniceurope.com	http://www.viewsoniceurope.com/eu/support/call-desk/	
Hong Kong	www.hk.viewsonic.com	T= 852 3102 2900	service@hk.viewsonic.com
India	www.in.viewsonic.com	T= 1800 419 0959	service@in.viewsonic.com
Korea	ap.viewsonic.com/kr/	T= 080 333 2131	service@kr.viewsonic.com
Latin America)	www.viewsonic.com/la/	C= http://www.viewsonic.com/ la/soporte/servicio-tecnico	soporte@viewsonic.com
Macau	www.hk.viewsonic.com	T= 853-2840-3687	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) C= http://www.viewsonic.com/ la/soporte/servicio-tecnico	service.us@viewsonic.com soporte@viewsonic.com
Singapore/ Malaysia/Thailand	www.ap.viewsonic.com	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= 1-800-688-6688	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:
   a. 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.
   c. 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.
   g. 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.
   j. Any other cause which does not relate to a product defect.
3. Removal, installation, and set-up service charges.

How to get service:
1. 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.
2. 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.
3. 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:
1. 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.

Projector Warranty Term Template In UG
VSC_TEMP_2005

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? _____
1. 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:
1. 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	
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