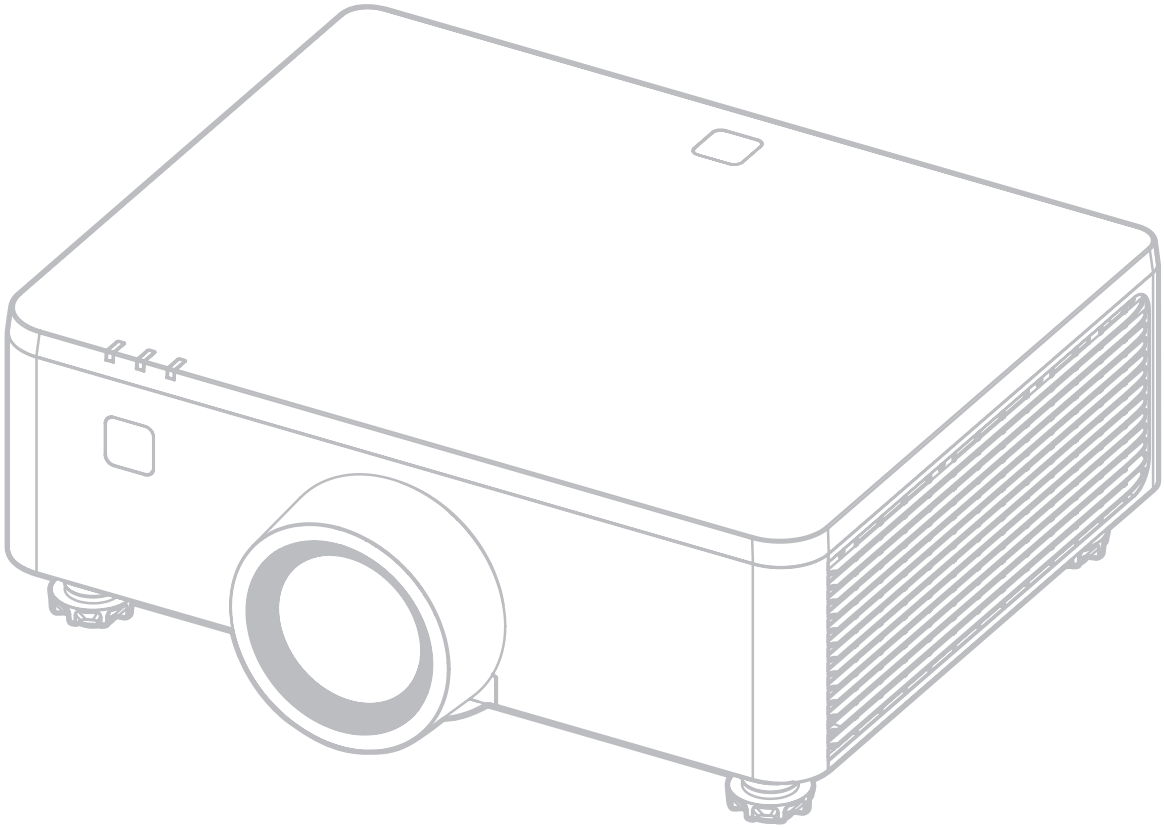
ViewSonic®

LS950WU
LS951WU
LS960WU

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 on our website.

Model No. LS950WU | LS951WU | LS960WU
P/N: VS20003 | VS20005 | VS20006

Thank you for choosing ViewSonic®

As a world-leading provider of visual solutions, ViewSonic® is dedicated to exceeding the world's expectations for technological evolution, innovation, and simplicity. At ViewSonic®, we believe that our products have the potential to make a positive impact in the world, and we are confident that the ViewSonic® product you have chosen will serve you well.

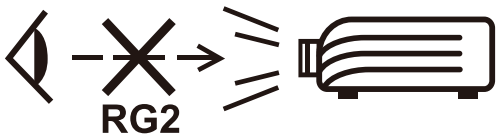
Once again, thank you for choosing ViewSonic®!

Safety Precautions

Please read the following **Safety Precautions** before you start using the projector.

- Keep this user guide in a safe place for later reference.
- Read all warnings and follow all instructions.
- Allow at least 20“ (50 cm) clearance around the projector to ensure proper ventilation.
- Place the projector in a well-ventilated area. Do not place anything on the projector that prevents heat dissipation.
- Do not place the projector on an uneven or unstable surface. The projector may fall over, causing personal injury or projector malfunction.
- Do not look straight at the projector lens during operation. The intense light beam may damage your eyes.
- Always open the lens shutter or remove the lens cap when the projector laser light source is on.
- Do not block the projection lens with any objects when the projector is under operation as this could cause objects to become heated and deformed or even cause a fire.
- Do not attempt to disassemble the projector. There are dangerous high voltages inside which may cause death if you should come into contact with live parts.
- When moving the projector, be careful not to drop or bump the projector on anything.
- Do not place any heavy objects on the projector or connection cables.
- Avoid exposing the projector to direct sunlight or other sources of sustained heat. Do not install near any heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that may increase the temperature of the projector to dangerous levels.
- 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 and call your local service center to have the projector serviced.
- When the projector is under operation, you may sense some heated air and odor from its ventilation grill. It is a normal operation and not a defect.
- Do not attempt to circumvent the safety provisions 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 and third blade are provided for your safety. If the plug does not fit into your outlet, obtain an adapter and do not attempt to force the plug into the outlet.

- When connecting to a power outlet, DO NOT remove the grounding prong. Please ensure grounding prongs are NEVER REMOVED.
- Protect the power cord from being treaded upon or pinched, particularly at the plug, and at the point where it emerges from the projector.
- In some countries, the voltage is NOT stable. This projector is designed to operate safely within a voltage between 100 to 240 volts DC, but could fail if power cuts or surges of ±10 volts occur. In areas where voltage may fluctuate or cut out, it is recommended that you connect your projector through a power stabilizer, surge protector, or uninterruptable power supply (UPS).
- If smoke, an abnormal noise, or a strange odor is present, immediately switch the projector off and call your dealer or ViewSonic®. It is dangerous to continue using the projector.
- Use only attachments/accessories specified by the manufacturer.
- Disconnect the power cord from the DC outlet if the projector is not being used for a long period of time.
- Refer all servicing to qualified service personnel.



CAUTION: Possibly hazardous optical radiation is emitted from this product. As with any bright light source, do not stare into the beam, RG2 IEC 62471-5:2015. Additional warning against eye exposure for close exposures less than 1 m.

Safety Precautions - Ceiling Mounting

Please read the following **Safety Precautions** before you start using the projector.

If you intend to mount the projector on the ceiling, it is strongly recommended 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.

Laser Warning

Mount this projector above the heads of children.

- Do not look into the beam less than 1m.
- No direct eye exposure to the beam is permitted.

Laser Caution

This product belongs to CLASS I laser product and complies with IEC 60825-1:2014, EN 60825-1:2014/A11:2021.

Above laser cautions are located on the bottom of this apparatus.

- Notice is given to supervise children and to never allow them to stare into the projector beam at any distance from the projector.
- Notice is given to use caution when using the remote control for starting the projector while in front of the projection lens.
- Notice is given to the user to avoid the use of optical aids such as binoculars or telescopes inside the beam.

Contents

Safety Precautions 3

Introduction 10

Package Contents - LS951WU 10
Package Contents - LS950WU / LS960WU 11
Product Overview 12
Projector 12
Keypad 13
Indicator Lights 13
I/O Ports 14
Remote Control 15

Initial Setup 20

Choosing a Location - Projection Orientation 20
Projection Dimensions - LS951WU 21
16:10 Image on a 16:10 Screen 21
Projection Dimensions - LS950WU / LS960WU 22
16:10 Image on a 16:10 Screen 22
Adjusting the Projection Image Shift 23
Vertical / Horizontal Lens Shift 23
Lens Shift Range 25
Mounting the Projector 26
Using the Security Bar 26

Making Connections 27

Connecting to Power 27
Connecting to External Devices 28
12V Out Connection 28
Wired Remote Connection 28
HDBaseT Connection 29
LAN Connection 30
HDMI Connection 31
VGA Connection 33
3D Sync Connection 34
USB Connection 36
Audio Connection 37
RS-232 Connection 39

Using the Projector 40
Starting Up the Projector 40
Selecting an Input Source 41
Adjusting the Projected Image 42
Adjusting the Projector's Height and Projection Angle 42
Adjusting the Keystone, Focus, Zoom, and Lens Shift 43
Shutting Down the Projector 44

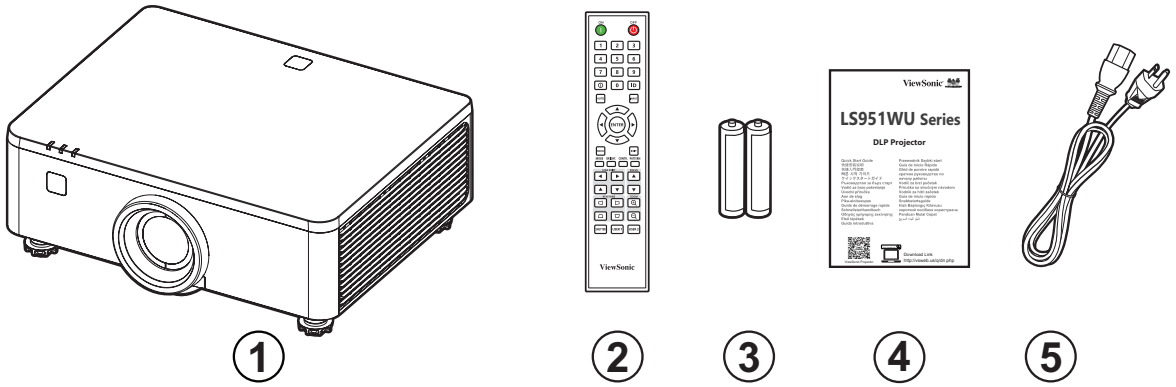
Operating the Projector 45
On-Screen Display (OSD) Menu 45
Menu Navigation 46
On-Screen Display (OSD) Menu Tree 47
Menu Operation 67
Image Menu 67
Display Menu 75
Extended Menu 82
Communication Menu 85
Controlling the Projector through a Network 89
Using the RS232 Command by Telnet 90
System Menu 91
Information Menu 95
Language Menu 96

Appendix 97
Specifications 97
Projector Dimensions 98
Timing Chart 99
3D Supported Timing 102
Troubleshooting 103
LED Indicators 105
Maintenance 106
General Precautions 106
Cleaning the Lens 106
Cleaning the Case 106
Storing the Projector 106

Regulatory and Service Information 107
Compliance Information 107
FCC Compliance Statement 107
Industry Canada Statement 107
CE Conformity for European Countries 108
Declaration of RoHS2 Compliance 109
Indian Restriction of Hazardous Substances 110
Product Disposal at End of Product Life 110
For EU users please contact us for any safety/accident issue experienced with this product: 110
Copyright Information 111
Customer Service 112
Limited Warranty 113
Mexico Limited Warranty 116

Introduction

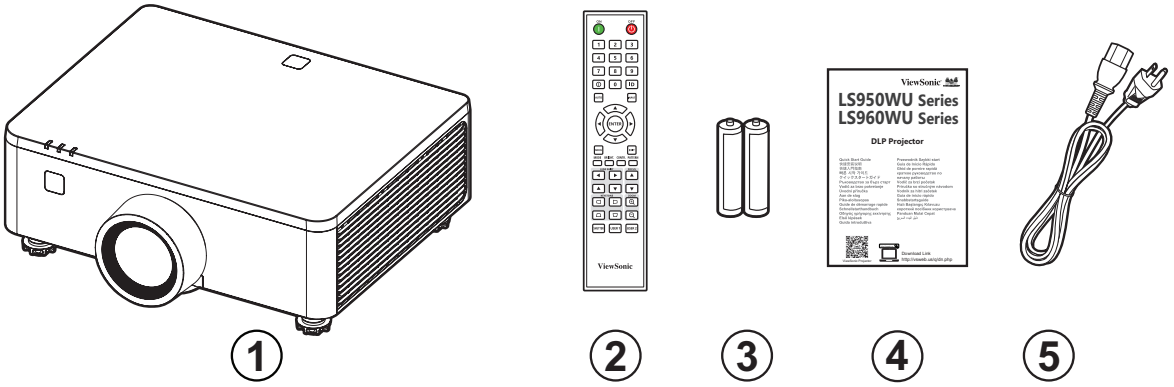
Package Contents - LS951WU



Number	Description
1	Projector
2	Remote Control
3	Batteries
4	Quick Start Guide
5	Power Cord

NOTE: The power cord and remote control included in your package may vary depending on your country. Please contact your local reseller for more information.

Package Contents - LS950WU / LS960WU



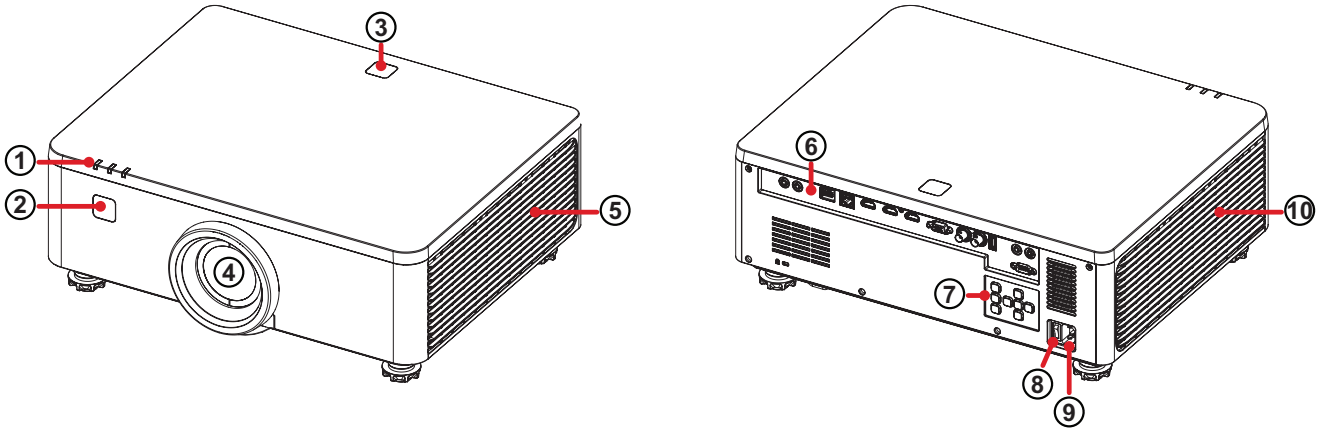
Number	Description
1	Projector
2	Remote Control
3	Batteries
4	Quick Start Guide
5	Power Cord

NOTE: The power cord and remote control included in your package may vary depending on your country. Please contact your local reseller for more information.

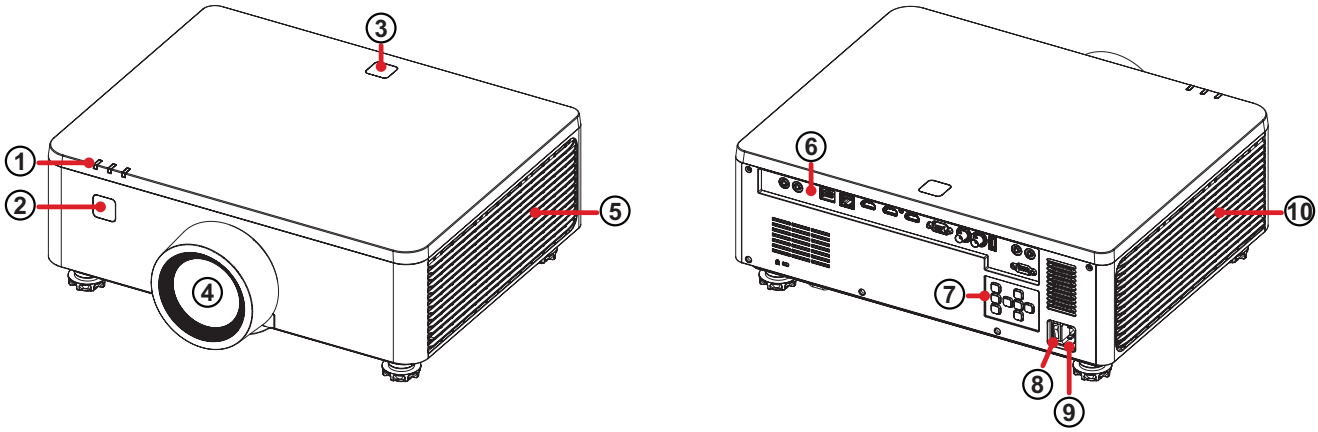
Product Overview

Projector

LS951WU



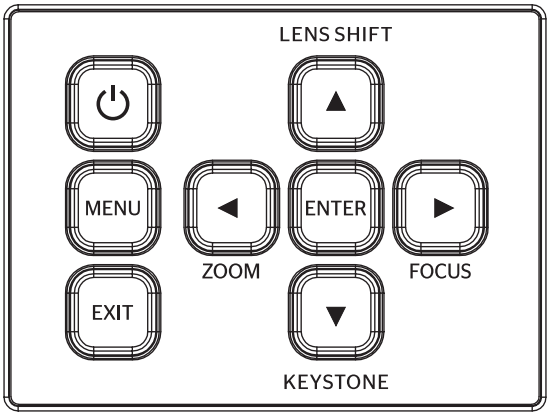
LS950WU / LS960WU



Number	Description
1	Indicator Lights
2	Front IR
3	Top IR
4	Lens
5	Vent (outlet)
6	I/O Ports
7	Keypad
8	Switch
9	AC In
10	Vent (inlet)

NOTE: Do not block projector intake and exhaust vents.

Keypad

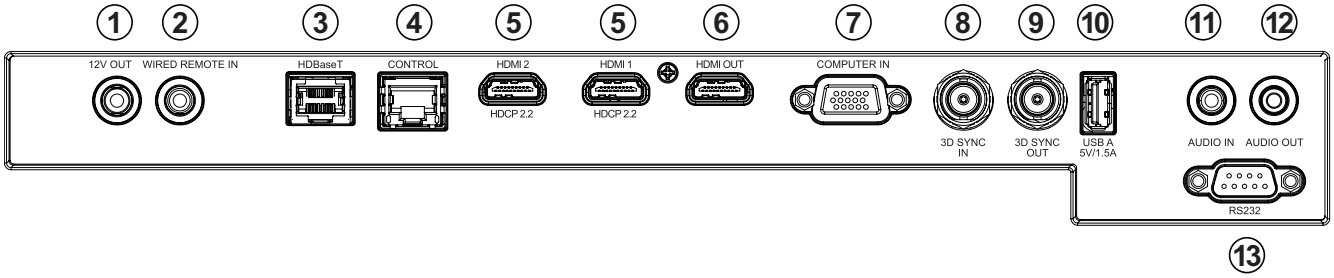


Key		Description
	Power	Toggles the projector between standby mode and Power On.
MENU	**Menu**	Opens the On-Screen Display (OSD) Menu.
EXIT	**Exit**	Returns to previous menu or exits the On-Screen Display (OSD) Menu.
ZOOM	**Zoom**	Manually corrects the image size.
FOCUS	**Focus**	Manually corrects the image focus.
LENS SHIFT	**Lens Shift**	Manually corrects the image position.
KEYSTONE	**Keystone**	Manually corrects distorted images resulting from an angled projection.
	Navigation	Selects the desired menu items and makes adjustments when the On-Screen Display (OSD) Menu is activated.
ENTER	**Enter**	Enacts the selected On-Screen Display (OSD) Menu item when the OSD Menu is activated.

Indicator Lights

Indicator Light	Description
	Light source indicator light
	Power indicator light
	Temperature indicator light

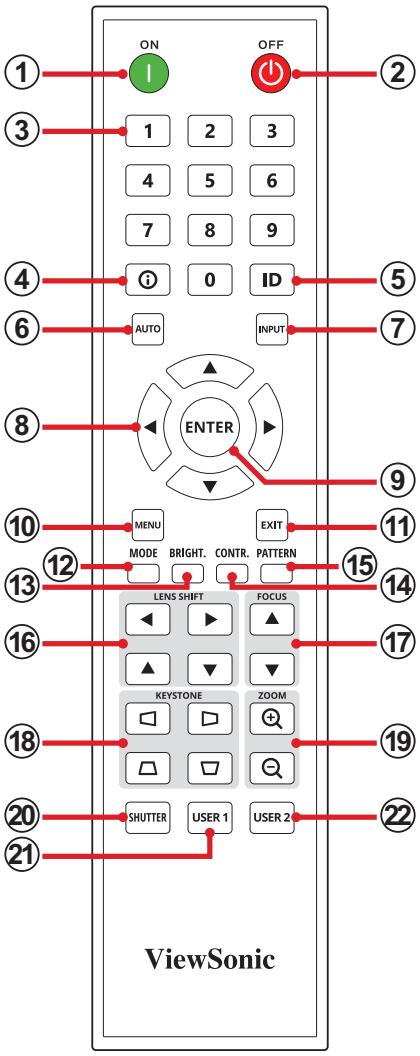
I/O Ports



Port		Description
1	**12V OUT**	12V output socket.
2	**WIRED REMOTE IN**[1]	Wired remote input socket.
3	**HDBaseT**[2]	HDBaseT port.
4	**CONTROL**	LAN control port.
5	**HDMI 1**[3]**/ HDMI 2**[3]	HDMI input ports.
6	**HDMI OUT**	HDMI output port.
7	**COMPUTER IN**	VGA In/YPbPr port.
8	**3D SYNC IN**[4]	3D sync input socket.
9	**3D SYNC OUT**[4]	3D sync output socket.
10	**USB A (5V/1.5A Out)**	USB Type A port for power.
11	**AUDIO IN**	Audio signal input socket.
12	**AUDIO OUT**	Audio signal output socket.
13	**RS232**	RS-232 control port.

[1] Phone jack type connector; [2] Supports HDBaseT 1.0; [3] Supports HDCP 2.2; [4] BNC type connector

Remote Control



Button			Description
1	Power On	ON	Turns the projector On
2	Power Off	OFF	Turns the projector Off
3	Number Buttons		Numeric keypad (0~9)
		1	When there is no Menu, it is VGA hotkey.
		2	When there is no Menu, it is HDMI 1 hotkey.
		3	When there is no Menu, it is HDMI 2 hotkey.
		4	When there is no Menu, it is HDBaseT hotkey.
4	Information		Displays the INFORMATION menu
5	ID	ID	Sets the remote ID. Refer to page 19.

Button			Description
6	Auto	AUTO	Automatically determines the best picture timings for the displayed image
7	Input	INPUT	Displays the Input Signal submeu
8	Navigation Buttons		Navigates and selects the desired menu items and make adjustments
9	Enter	ENTER	Confirms the selection
10	Menu	MENU	Turns the On-Screen Display (OSD) menu On
11	Exit	EXIT	• Turns the On-Screen Display (OSD) menu Off • Goes back to a previous OSD menu • Exits and Saves menu settings
12	Mode	MODE	Selects a preset color mode
13	Brightness	BRIGHT.	Adjusts the brightness of the image
14	Contrast	CONTR.	Adjusts the contrast of the image
15	Pattern	PATTERN	Displays the test pattern
16	Lens Shift		Manually corrects the image position
17	Focus		Manually corrects the image focus
18	Keystone		Manually corrects distorted images resulting from an angled projection
19	Zoom		Manually corrects the image size
20	Shutter	SHUTTER	Hides the screen picture and mutes volume (A/V mute)
21	User 1	USER 1	Sets a function as the hot key
22	User 2	USER 2	Sets a function as the hot key

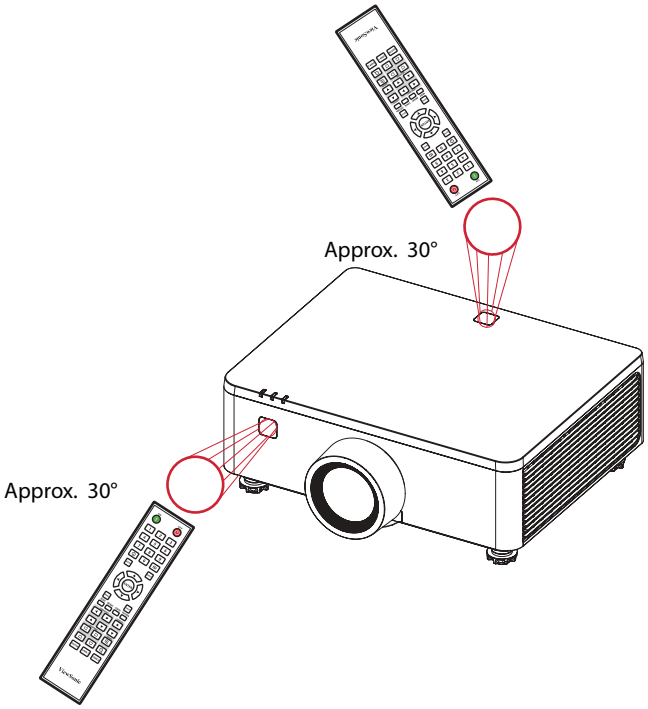
Remote Control - Receiver Range

To ensure proper function of the remote control follow the steps below:

1. The remote control must be held at an angle within 30° perpendicular to the projector's IR remote control sensor(s).

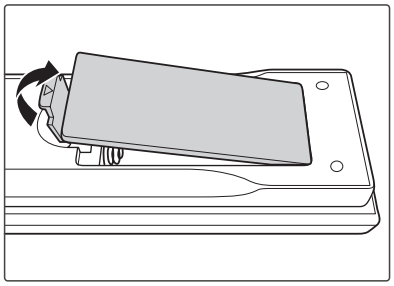
2. The distance between the remote control and the sensor(s) should not exceed 6 m (19 ft.)

NOTE: Refer to the illustration for the location of the infrared (IR) remote control sensor(s).



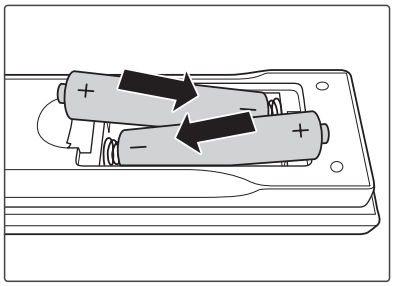
Remote Control - Replacing the Batteries

1. Remove the battery cover by pressing the finger grip and rotating the cover off.

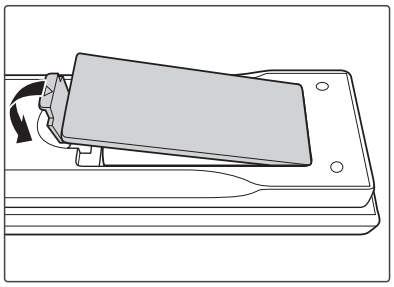


2. Remove any existing batteries (if necessary) and install two AAA batteries.

NOTE: Observe the battery's polarities as indicated.



3. Replace the battery cover by aligning it with the base and pushing it back into position.



NOTE:

- Avoid leaving the remote control and batteries in excessive heat or a humid environment.
- Replace only with the same or equivalent type recommended by the battery manufacturer.
- 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.
- Dispose of the used batteries according to the manufacturer's instructions and local environment regulations for your region.

Remote Control ID Setup

The Infra-Red (IR) remote control supports individual addressing of projectors. The remote receiver on the projector can be set with a specific number from **00** to **99**, and the projector only responds to the IR remote set to the same number. The default ID code of the IR remote is **00**, allowing it to control all projectors within its effective range.

To set up the ID code for the IR remote control, follow the steps below:

1. Press and keep holding the **ID** button until step 3.

2. When the backlight of the remote control turns on, enter the two-digit ID code from **00** to **99**. For example, "**03**".

3. Wait for the backlight to flash twice, then relese the **ID** button.

NOTE:

- If the ID setting of the remote control is not **00**, then change the projector's Remote Code to the same value as on the remote control in the **Communication > Remote Setup** menu on page 85.

Initial Setup

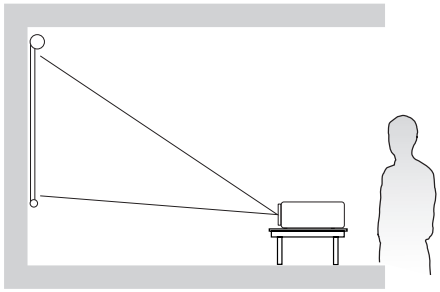
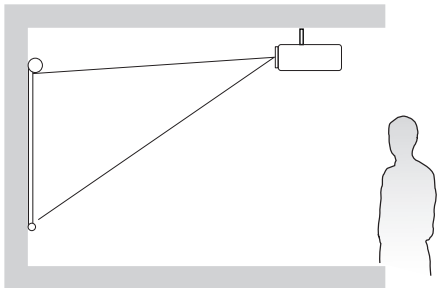
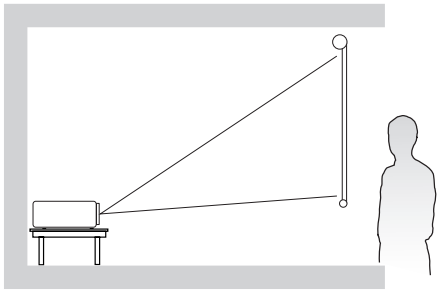
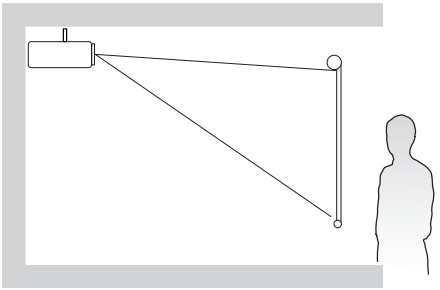
This section provides detailed instructions for the initial set up your projector.

Choosing a Location - Projection Orientation

Personal preference and room layout will decide the installation location. Consider the following:

- Size and position of your screen.
- Location of a suitable power outlet.
- Location and distance between the projector and other equipment.

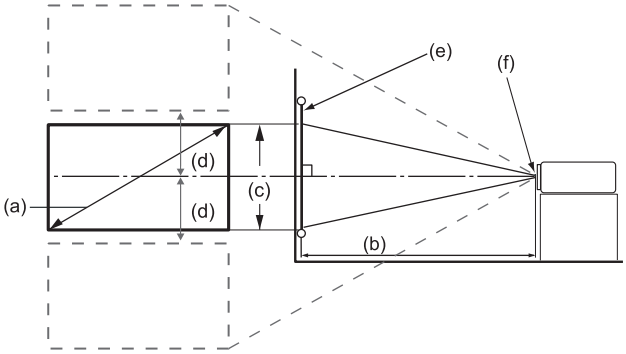
The projector is designed to be installed in one of the following locations:

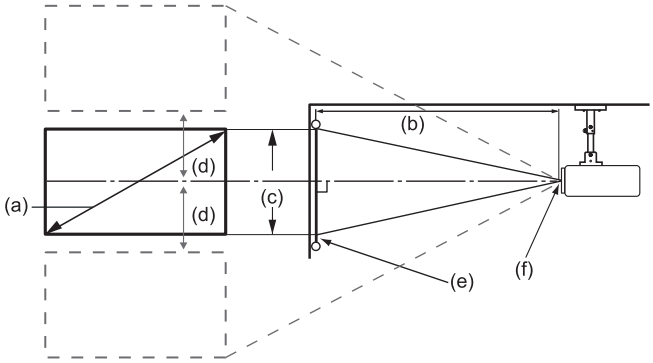
Location	
Desk Front The projector is placed near the floor in front of the screen.	
Ceiling Front The projector is suspended upside-down from the ceiling in front of the screen.	
Desk Rear[1] The projector is placed near the floor behind the screen.	
Ceiling Rear[1] The projector is suspended upside-down from the ceiling behind the screen.	

[1] A rear projection screen is required.

Projection Dimensions - LS951WU

16:10 Image on a 16:10 Screen





NOTE:

- (e) = Screen (f) = Center of Lens

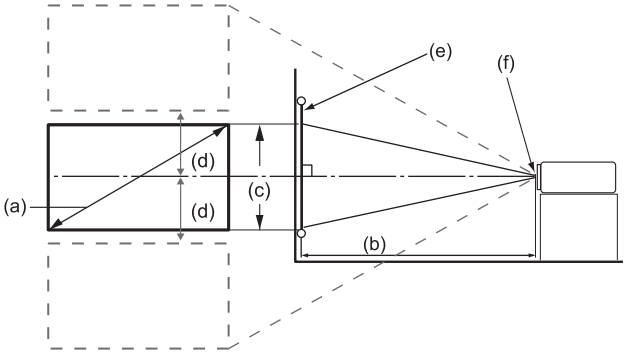
(a) Screen size		16:10 Image on a 16:10 screen							
		(b) Projection distance				(c) Image height		(d) Vertical offset	
		min.		max.				max.	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
50	1270	31.89	810	40.39	1026	26.50	673	13.25	337
60	1524	38.09	968	48.25	1226	31.72	806	15.86	403
70	1778	44.59	1133	56.48	1435	37.14	943	18.57	472
80	2032	50.79	1290	64.33	1634	42.36	1076	21.18	538
90	2286	57.28	1455	72.56	1843	47.78	1214	23.89	607
100	2540	63.48	1613	80.41	2043	53.00	1346	26.50	673
120	3048	76.48	1943	96.87	2461	63.64	1616	31.82	808
150	3810	95.37	2423	120.81	3069	79.50	2019	39.75	1010
180	4572	114.57	2910	145.12	3686	95.36	2422	47.68	1211
200	5080	127.26	3233	161.20	4095	106.00	2692	53.00	1346
250	6350	158.86	4035	201.22	5111	132.50	3365	66.25	1683
300	7620	190.75	4845	241.61	6137	159.00	4039	79.50	2019

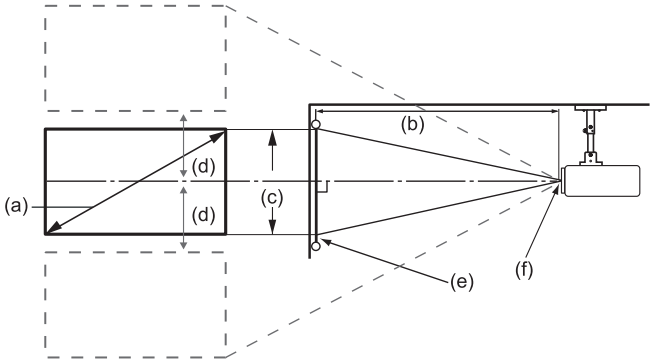
NOTE:

- These figures are for reference purposes only. Please refer to the actual projector for the precise dimensions.
- It is recommended that if you intend to permanently install the projector to physically test the projection size and distance using the actual projector before you permanently install it.

Projection Dimensions - LS950WU / LS960WU

16:10 Image on a 16:10 Screen





NOTE:

- (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.				max.	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
50	1270	52.25	1327	83.99	2133	26.50	673	14.57	370
60	1524	63.11	1603	101.19	2570	31.72	806	17.44	443
70	1778	73.97	1879	118.39	3007	37.14	943	20.43	519
80	2032	84.82	2155	135.59	3444	42.36	1076	23.30	592
90	2286	95.68	2430	152.79	3881	47.78	1214	26.28	668
100	2540	106.54	2706	169.99	4318	53.00	1346	29.15	740
120	3048	128.26	3258	204.39	5192	63.64	1616	35.00	889
150	3810	160.83	4085	255.99	6502	79.50	2019	43.72	1111
180	4572	193.40	4912	307.59	7813	95.36	2422	52.45	1332
200	5080	215.12	5464	341.99	8687	106.00	2692	58.30	1481
250	6350	269.41	6843	427.99	10871	132.50	3365	72.87	1851
300	7620	323.69	8222	513.99	13055	159.00	4039	87.45	2221

NOTE:

- These figures are for reference purposes only. Please refer to the actual projector for the precise dimensions.
- It is recommended that if you intend to permanently install the projector to physically test the projection size and distance using the actual projector before you permanently install it.

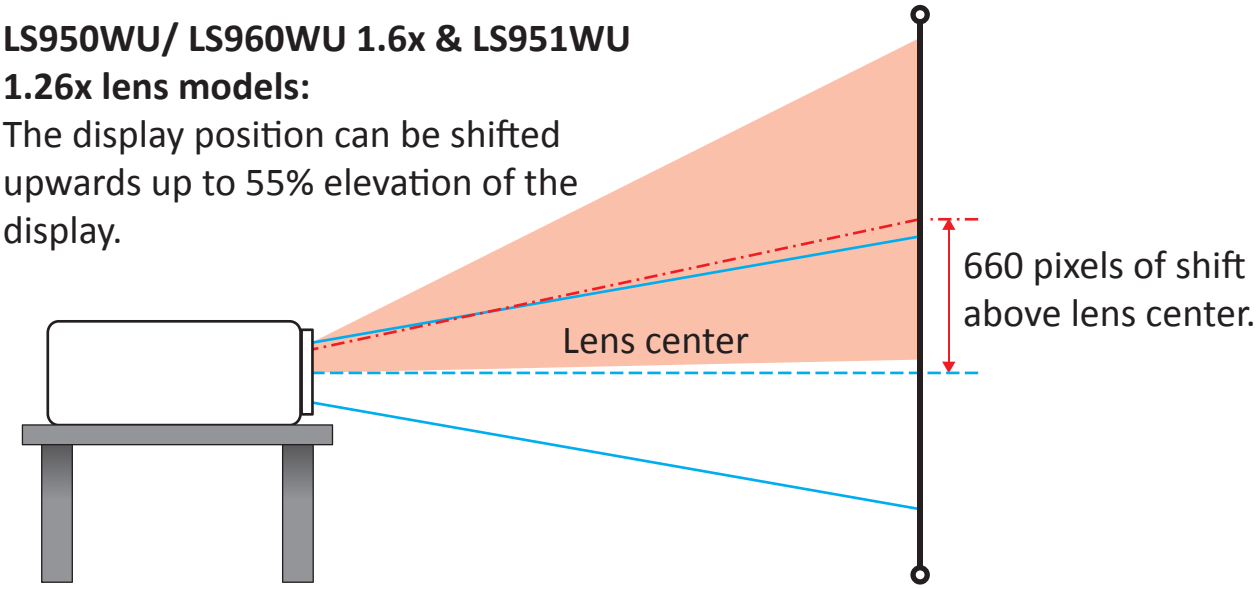
Adjusting the Projection Image Shift

The projection lens can be moved up, down, right, and left with the motor-driven lens shift function. This function makes the positioning of images easy on the screen. Lens shift is generally expressed as a percentage of the image height or width, see below illustration.

Vertical / Horizontal Lens Shift

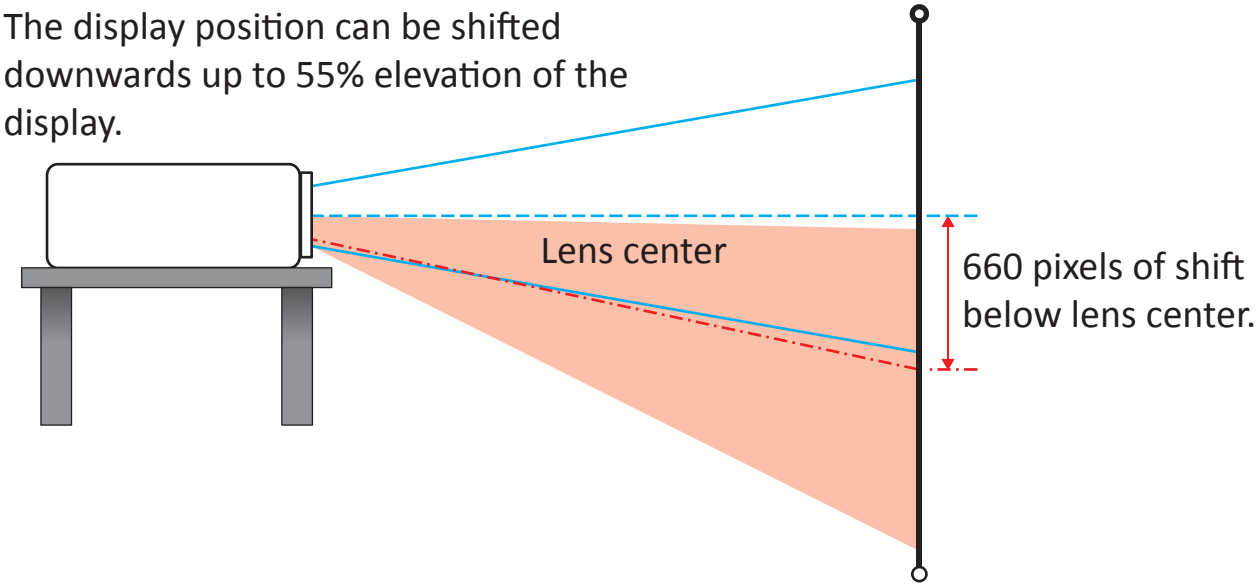
When the lens is shifted to top:

LS950WU/ LS960WU 1.6x & LS951WU 1.26x lens models:
The display position can be shifted upwards up to 55% elevation of the display.



When the lens is shifted to bottom:

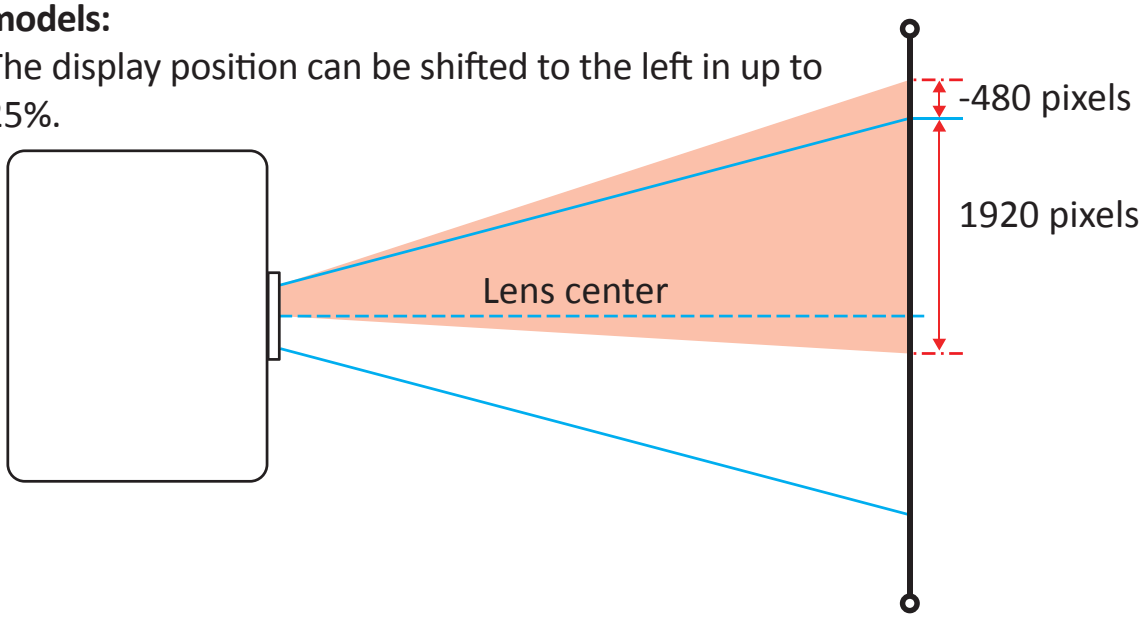
LS950WU/ LS960WU 1.6x & LS951WU 1.26x lens models:
The display position can be shifted downwards up to 55% elevation of the display.



When the lens is shifted to leftmost:

LS950WU/ LS960WU 1.6x & LS951WU 1.26x lens models:

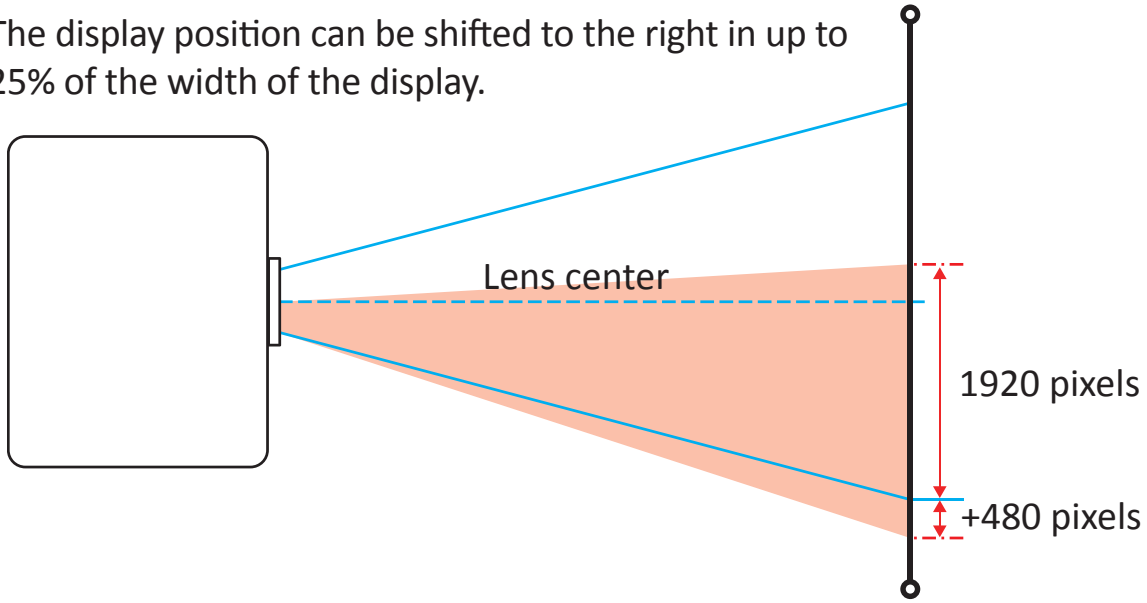
The display position can be shifted to the left in up to 25%.



When the lens is shifted to the rightmost:

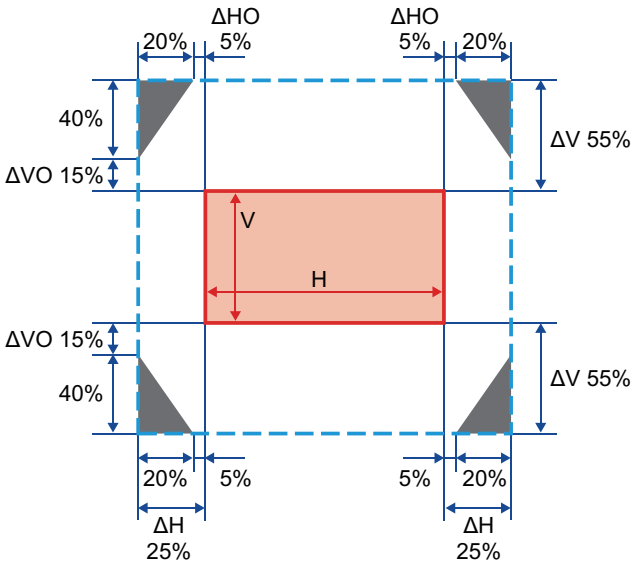
LS950WU/ LS960WU 1.6x & LS951WU 1.26x lens model:

The display position can be shifted to the right in up to 25% of the width of the display.

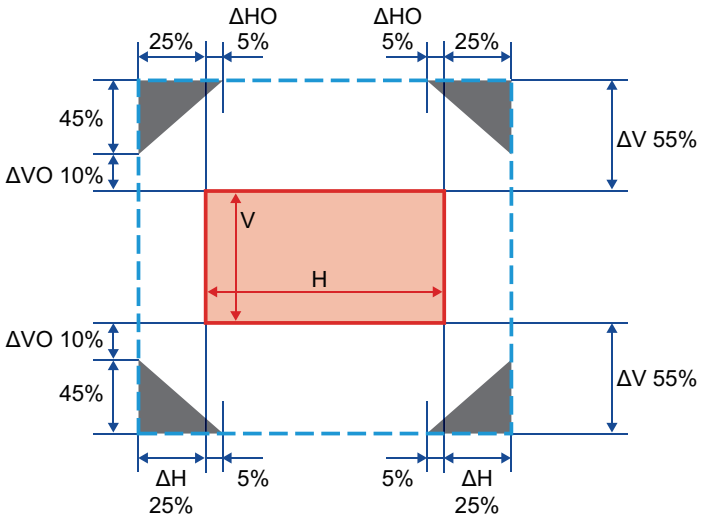


Lens Shift Range

LS950WU & LS960WU models



LS951WU model



NOTE:

- ΔH: The lens shift range in horizontal direction when the lens is at the center.
- ΔV: The lens shift range in vertical direction when the lens is at the center.
- ΔHO: The lens shift range without vignetting in horizontal direction when the lens is at the top center or the bottom center.
- ΔVO: The lens shift range without vignetting in vertical direction when the lens is at the middle right or the middle left.
- The calculations of ΔH, ΔV, ΔHO, and ΔVO are based on image width and image height.
- V: Height of the projected image.
- H: Width of the projected image.
- Projected image.
- When the lens is shifted beyond the described range of operation, screen edges may become darker or images may become out of focus.

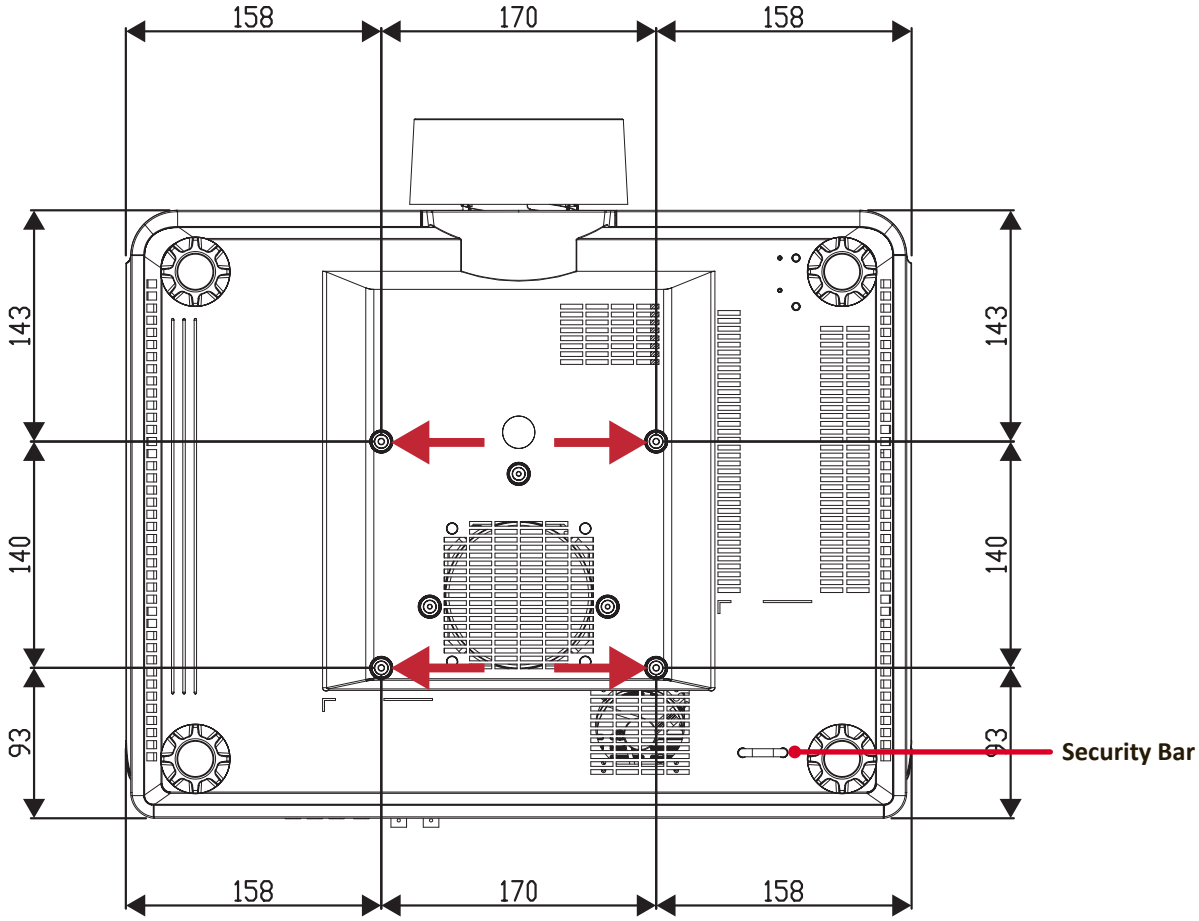
Mounting the Projector

NOTE: If you buy a third party mount, please use the correct screw size. Screw size can vary depending on the thickness of the mounting plate.

1. To ensure the most secure installation, please use a ViewSonic® wall or ceiling mount.

2. Ensure the screws used to attach the mount to the projector meet the following specifications:

- Screw type: M4 x 8 mm
- Maximum Screw Length: 8 mm



CAUTION:

- Avoid installing the projector near a heat source or air conditioner.
- Keep at least a 10 cm (3.9 in.) gap between the ceiling and the bottom of the projector.

Using the Security Bar

To help prevent the projector from being stolen, use a security slot locking device to secure the projector to a fixed object.

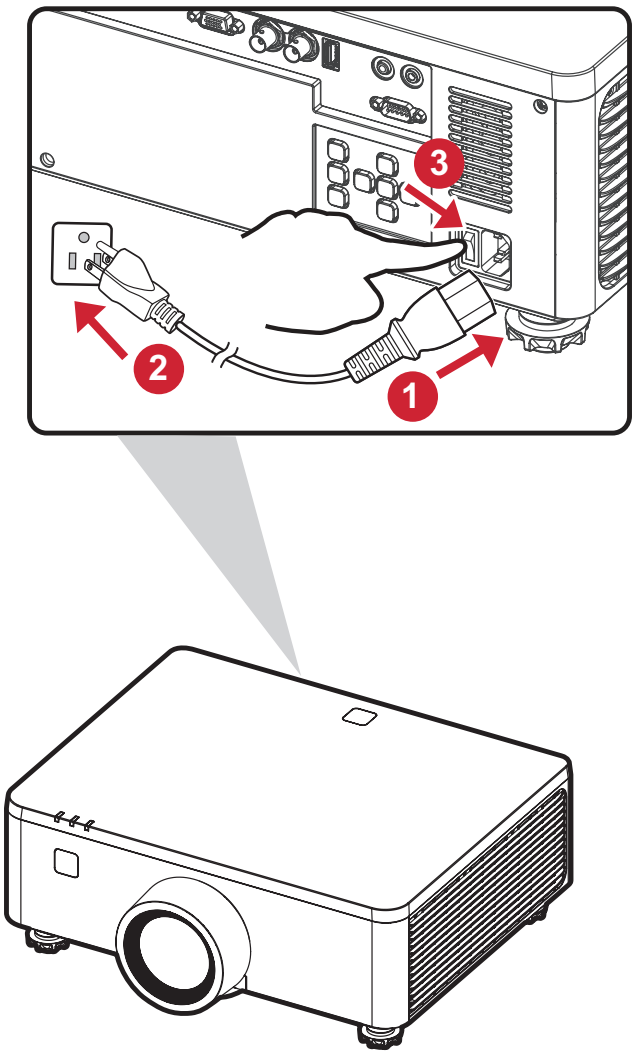
Making Connections

Connecting to Power

1. Connect the power cord to the AC IN jack at the rear of the projector.

2. Plug the power cord into a power outlet.

3. Press the power switch to the "**I**" (On) position.

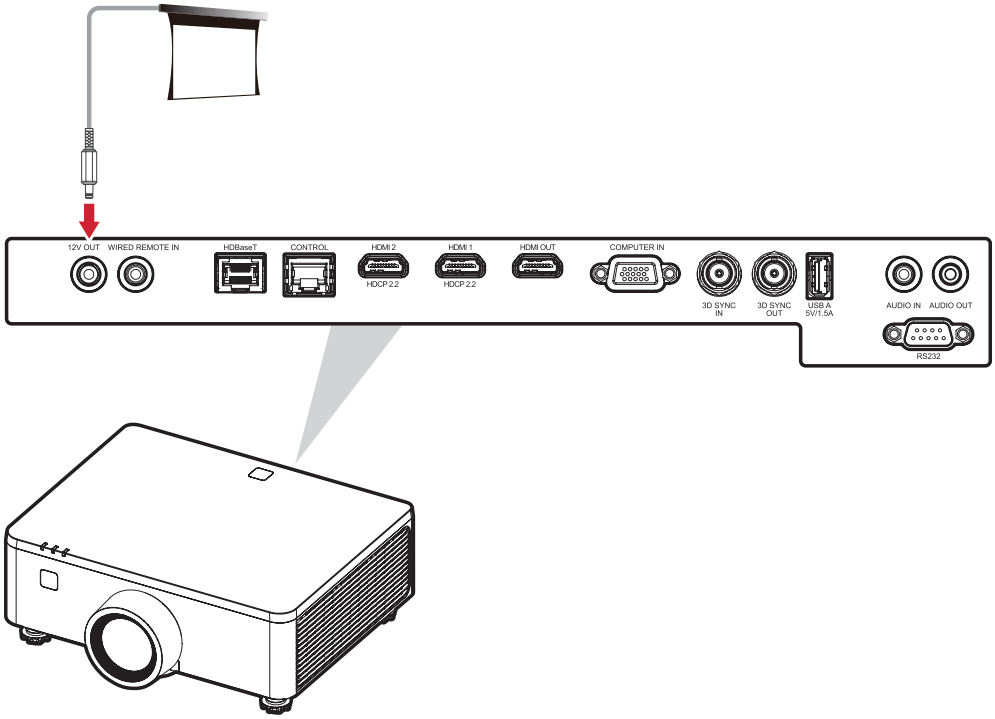


NOTE: When installing the projector, incorporate a readily accessible disconnect device in the fixed wiring, or connect the power plug to an easily accessible outlet near the unit. If a fault should occur during operation of the projector, use the disconnect device to switch off the power supply, or disconnect the power plug.

Connecting to External Devices

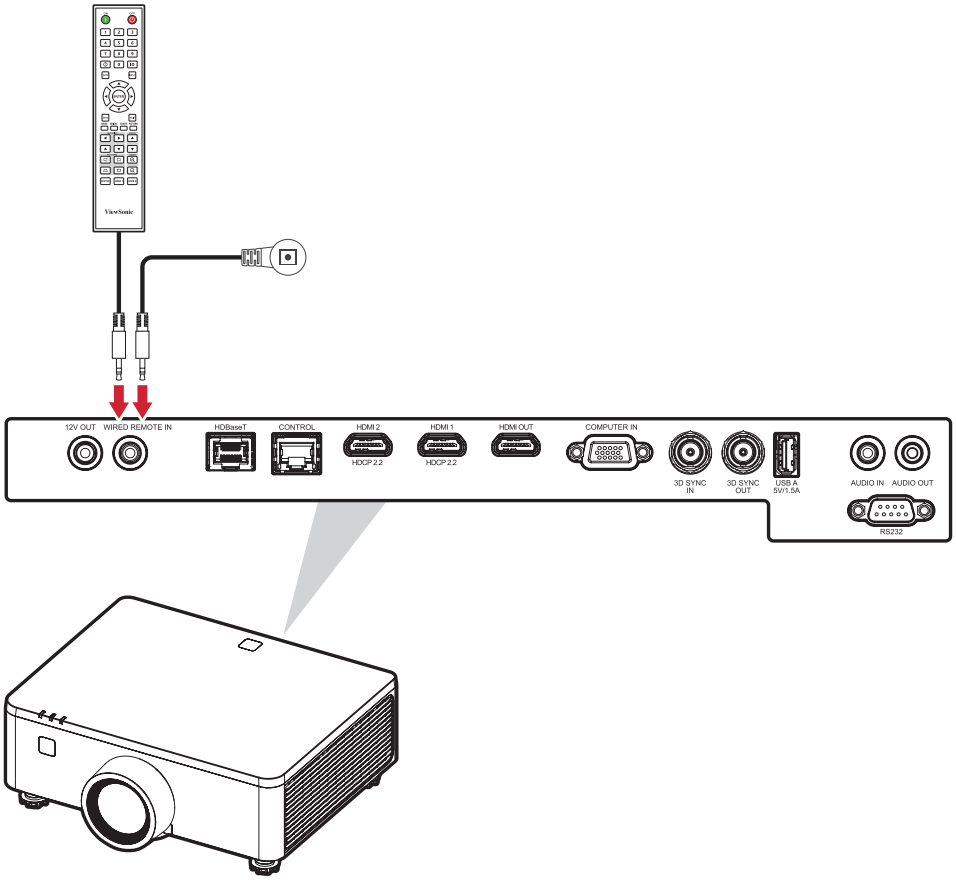
12V Out Connection

Connect the motorized screen or curtain to the **12V OUT** port of your projector.



Wired Remote Connection

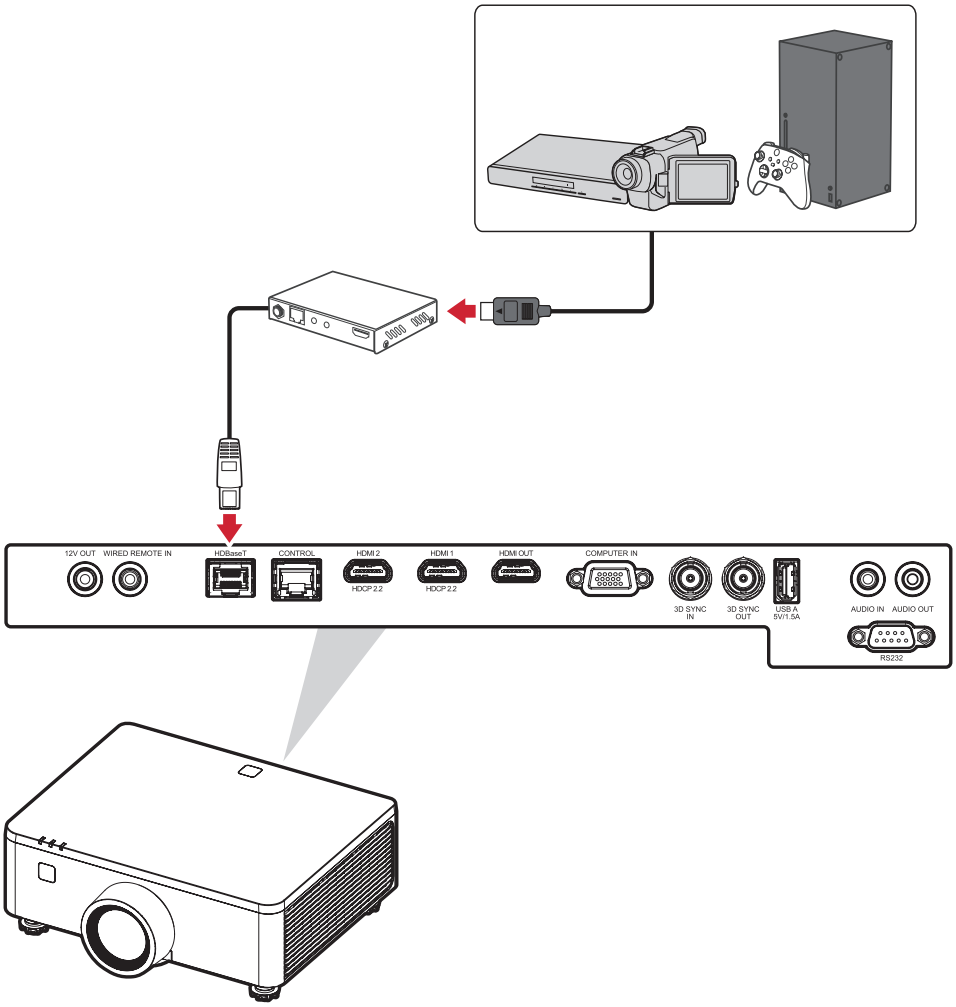
Connect the wired remote control or IR Receiver to the **WIRED REMOTE IN** port of your projector.



HDBaseT Connection

HDBaseT is a technology to transmit image signal through a LAN cable. Follow the steps below to complete the connection:

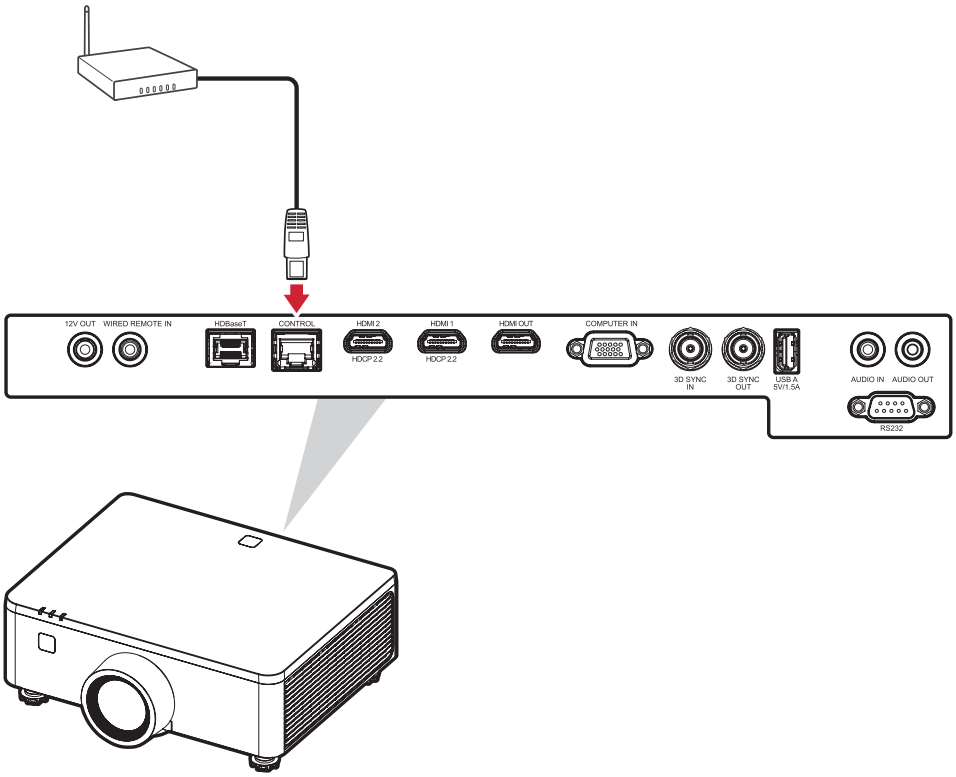
1. Connect one end of a HDMI cable to the HDBaseT output equipment, for example high-definition TV source, BLU-ray Player, and more. Then connect the other end of the cable to the HDBaseT transmitter (Tx) box.
2. Connect the Cat5e/Cat6 cable to the HDBaseT transmitter (Tx) box and the other end of the cable to the **HDBaseT** port of your projector.



NOTE: When the projector connects to HDBaseT by RS-232 communication, then the projector can be controlled with RS-232 commands from the computer. For details about the RS232 commands, refer to the RS-232 Communication command document.

LAN Connection

Plug the network cable into the **CONTROL** port for network connectivity.
The projector provides several networking and remote management features. The LAN /RJ45 function of the projector, through a network, can control the projector remotely.



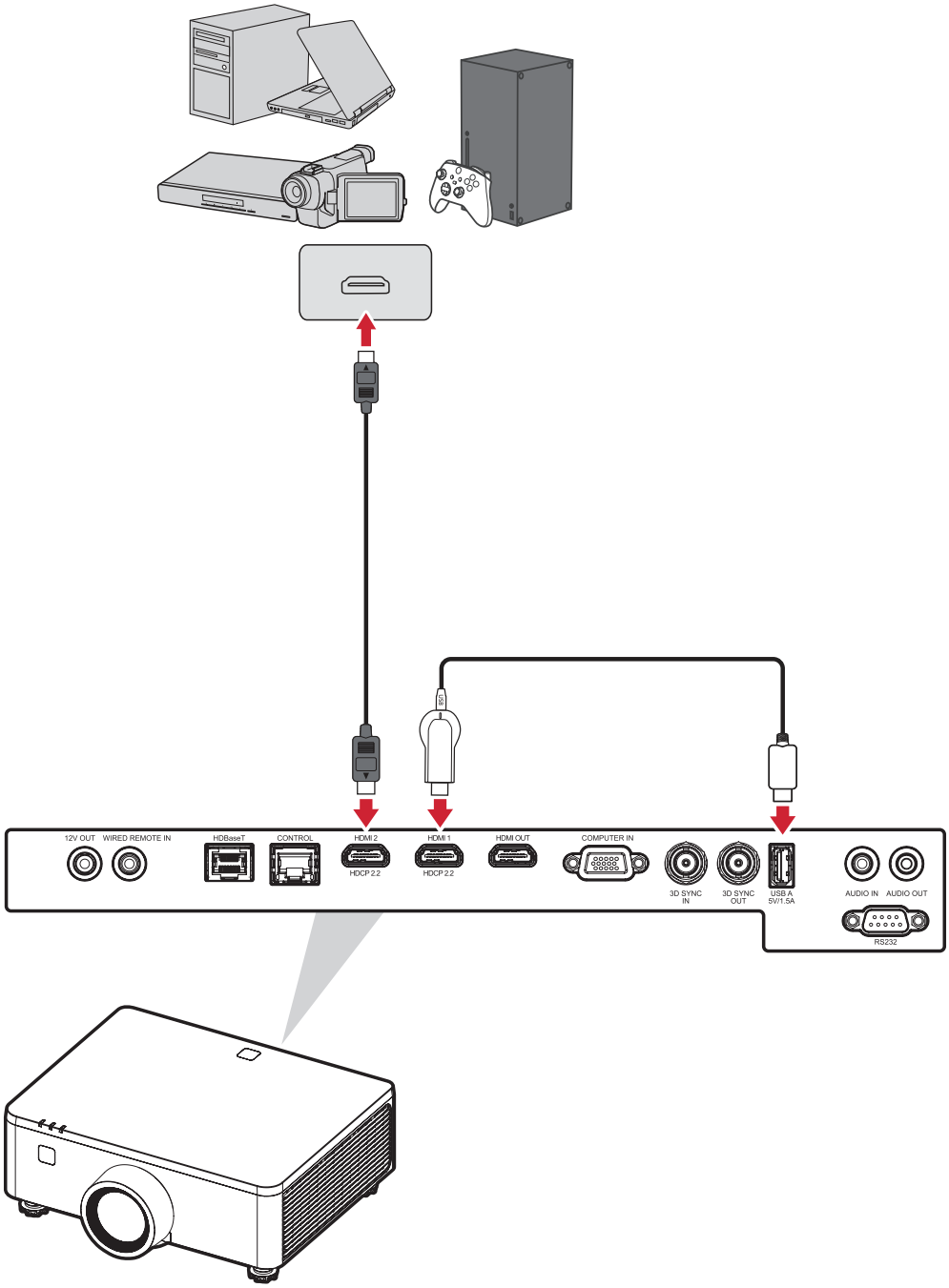
NOTE:

- LAN connection is required for updating projector's firmware.

HDMI Connection

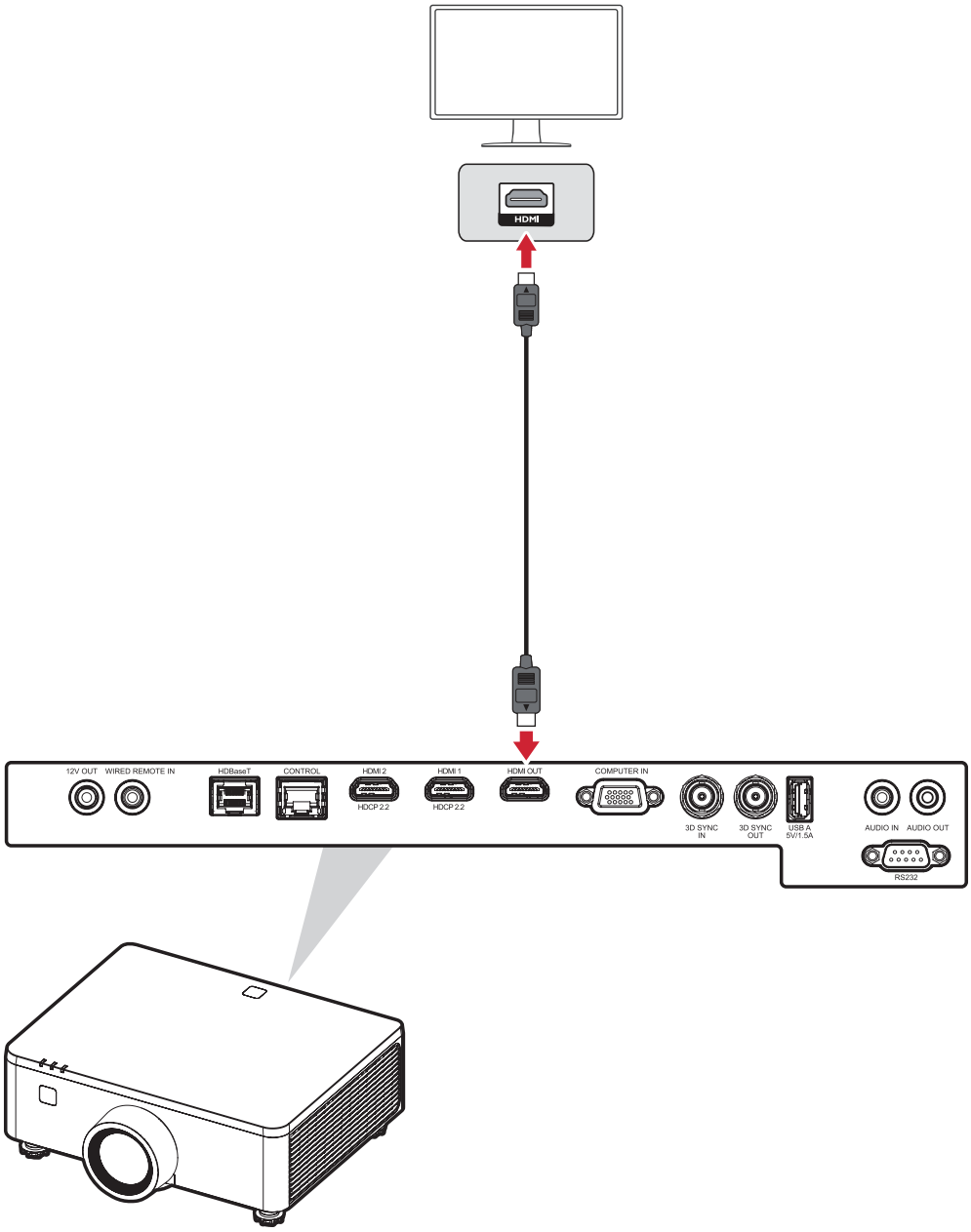
HDMI Input Connection

Connect one end of an HDMI cable to the HDMI port of your video device, PC, gaming console or other device and the other end of the cable to the **HDMI 1/2** port of your projector.



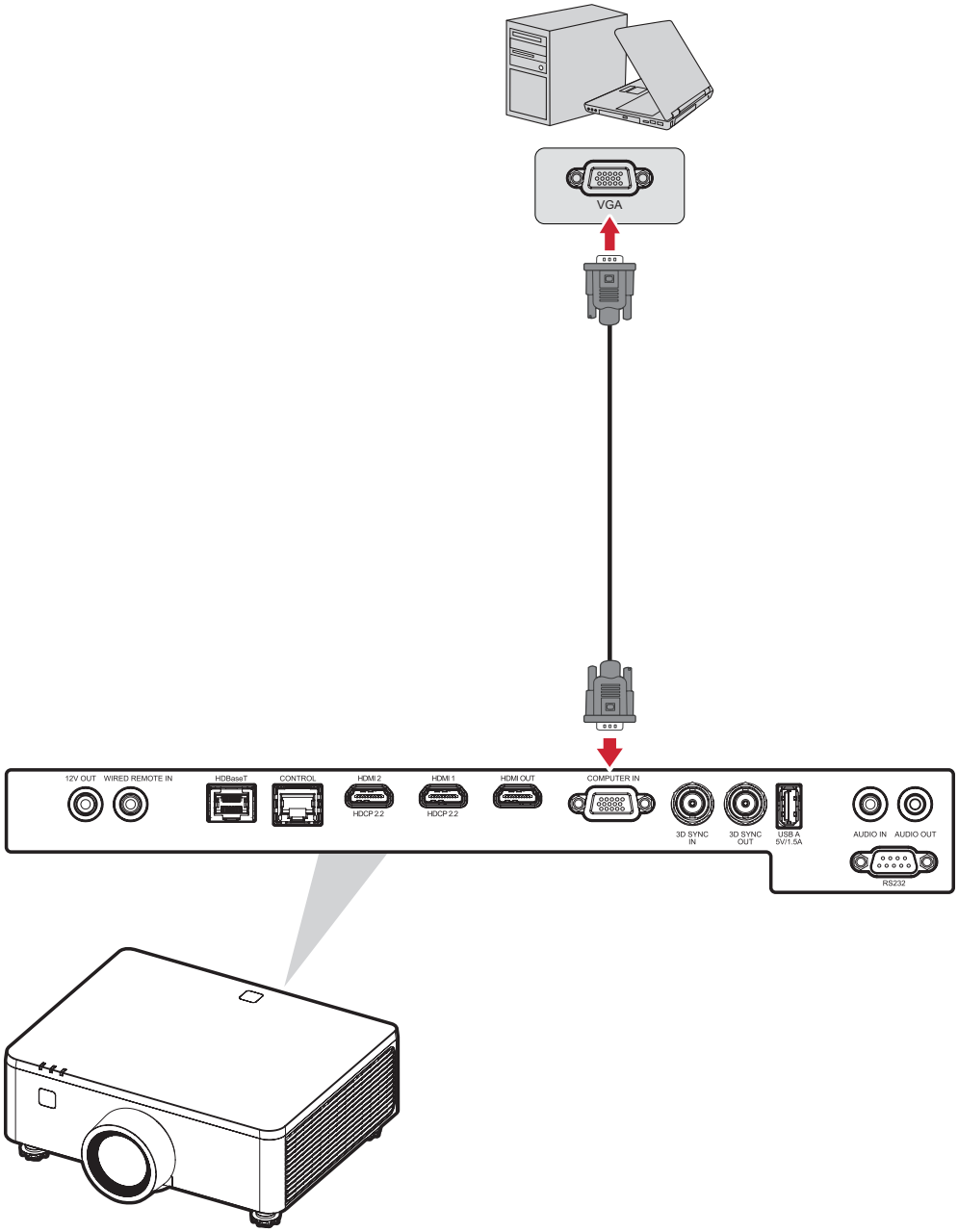
HDMI Output Connection

Connect one end of an HDMI cable to the HDMI port of your monitor or next projector and the other end of the cable to the **HDMI OUT** port of your projector.



VGA Connection

Connect one end of a VGA cable to the VGA port of your PC and the other end of the cable to the **COMPUTER IN** port of your projector.



NOTE: Some notebooks do not turn on their external displays automatically when connected to a projector. You may have to adjust your notebook's projection settings.

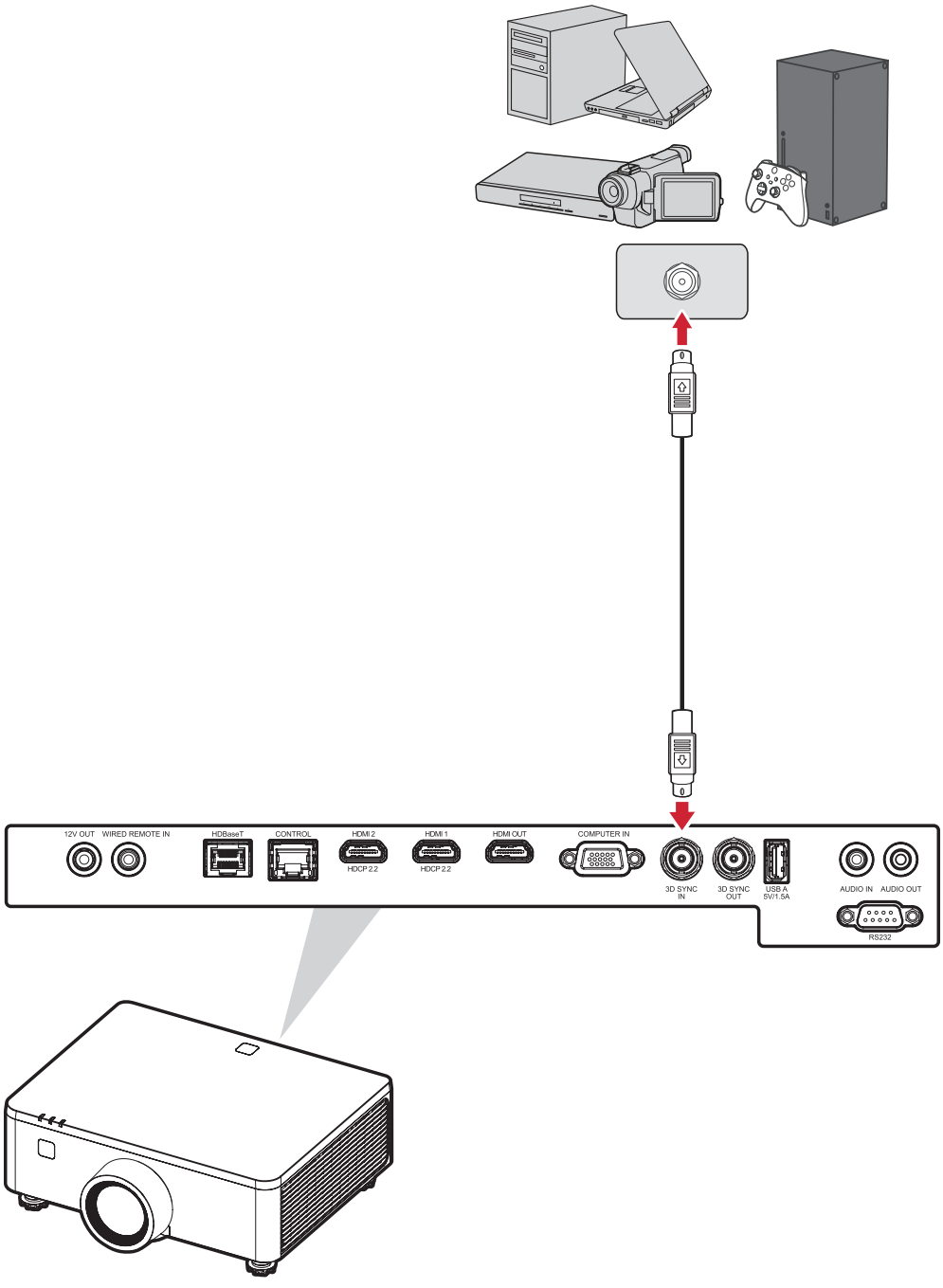
3D Sync Connection

3D Sync Input Connection

Connect one end of a 3D sync cable to the 3D sync output port of your device and the other end of the cable to the **3D SYNC IN** port of your projector.

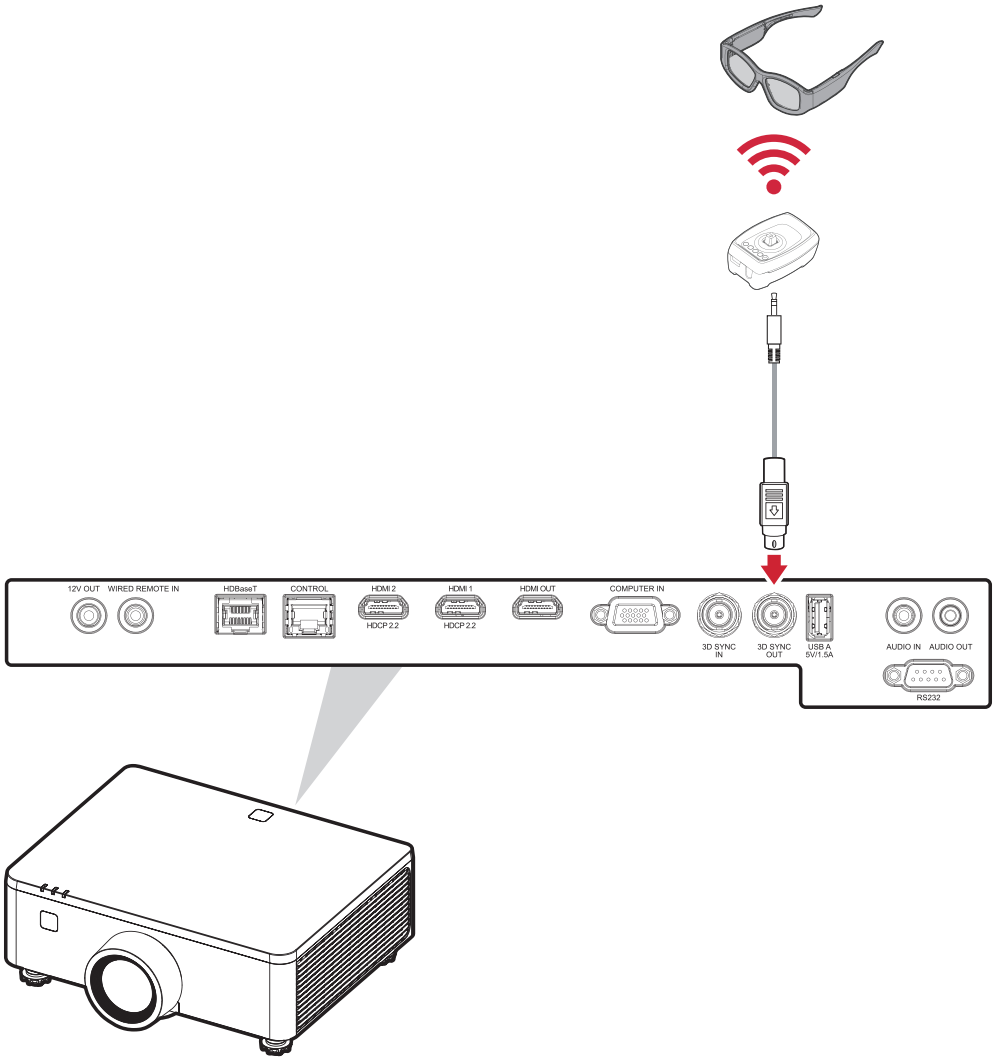
NOTE:

- To activate the 3D sync function, ensure the 3D technology setting is set to “3D Sync” in the **OSD > Image** > **Advanced Image** > **3D Tech** menu.
- To properly view 3D content, it is necessary to use 3D glasses equipped with an emitter that supports the 3D sync function.



3D Sync Output Connection

Connect one end of a 3D sync cable to the 3D sync port of your 3D emitter or next projector and the other end of the cable to the **3D SYNC OUT** port of your projector.



NOTE: If you need to connect multiple projectors to the 3D emitter, then follow the steps below:

a) In these projectors that will be connected to daisy chain, set the 3D Sync Out parameter to “To Next Projector” in the **OSD > Image > Advanced Image > 3D Setup** menus.
In the last projector that will be connected to the 3D emitter, set the 3D Sync Out parameter to “To Emitter” in the **OSD > Image > Advanced Image > 3D Setup** menu.

b) Connect one end of a 3D sync cable from the source to the **3D SYNC IN** port of your first projector and the other end of the cable to the **3D SYNC OUT** port of your second projector.

c) Connect one end of a 3D sync cable to the **3D SYNC IN** port of your second projector and the other end of the cable to the **3D SYNC OUT** port of your third projector.

d) Repeat steps “b”to “c” until all projectors are connected.

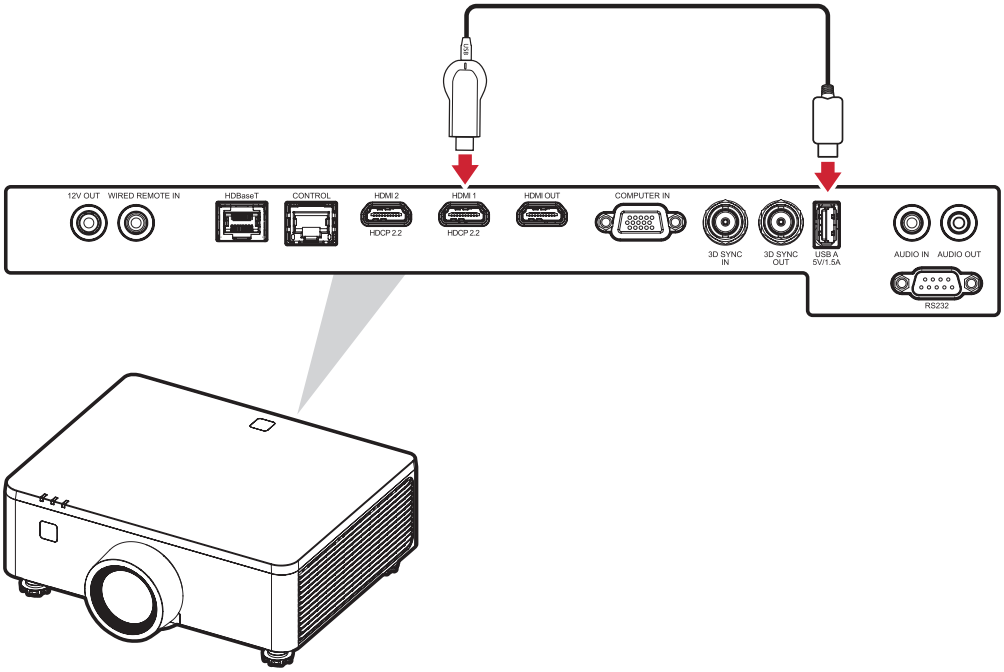
e) Finally, connect one end of a 3D sync cable to the **3D SYNC IN** port of your last projector and the other end of the cable to the 3D sync port of your 3D emitter.

USB Connection

USB Type A Connection

The USB port is for supplying power (e.g., dongles).

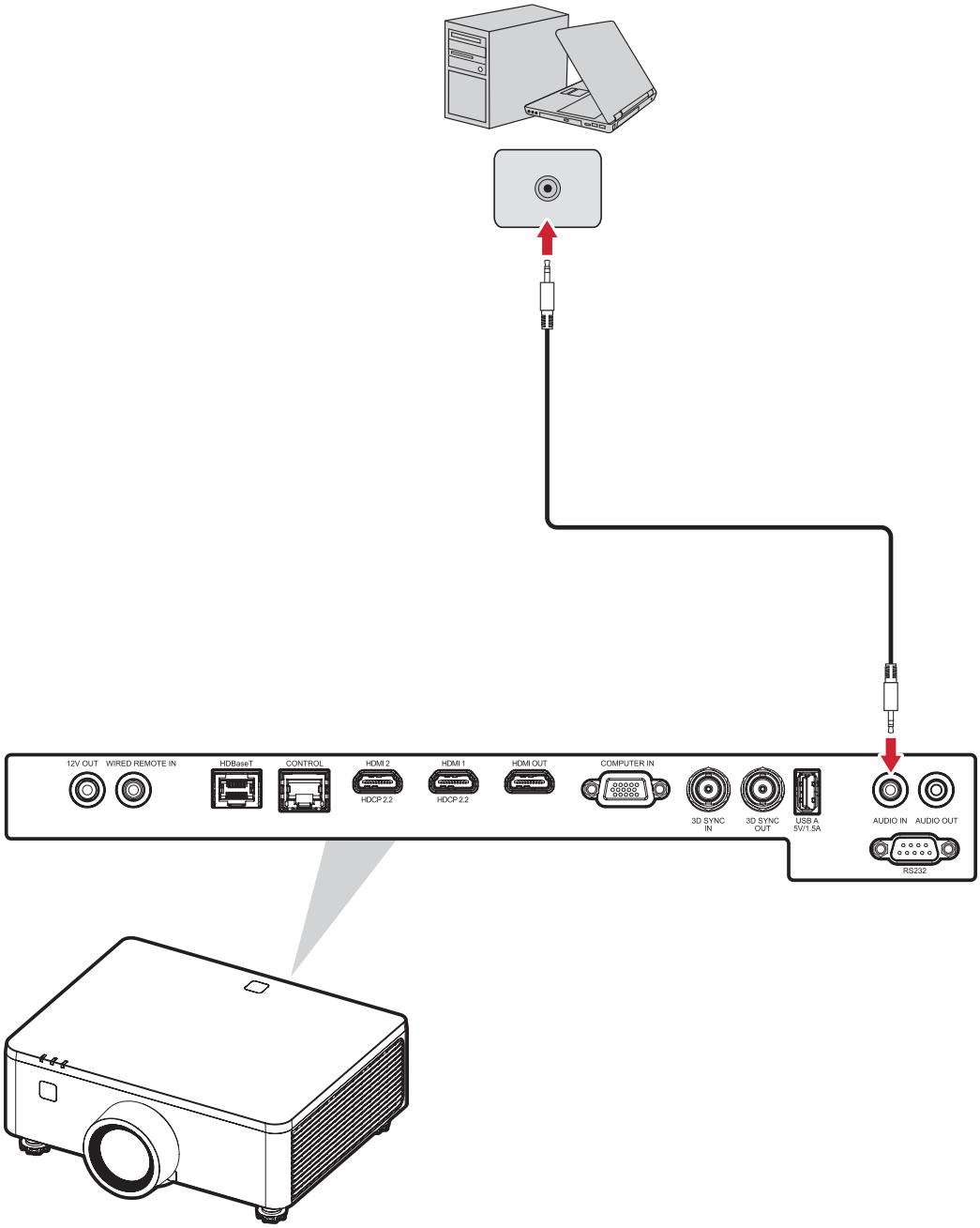
NOTE: The USB port does not supply power when the projector is in standby mode.



Audio Connection

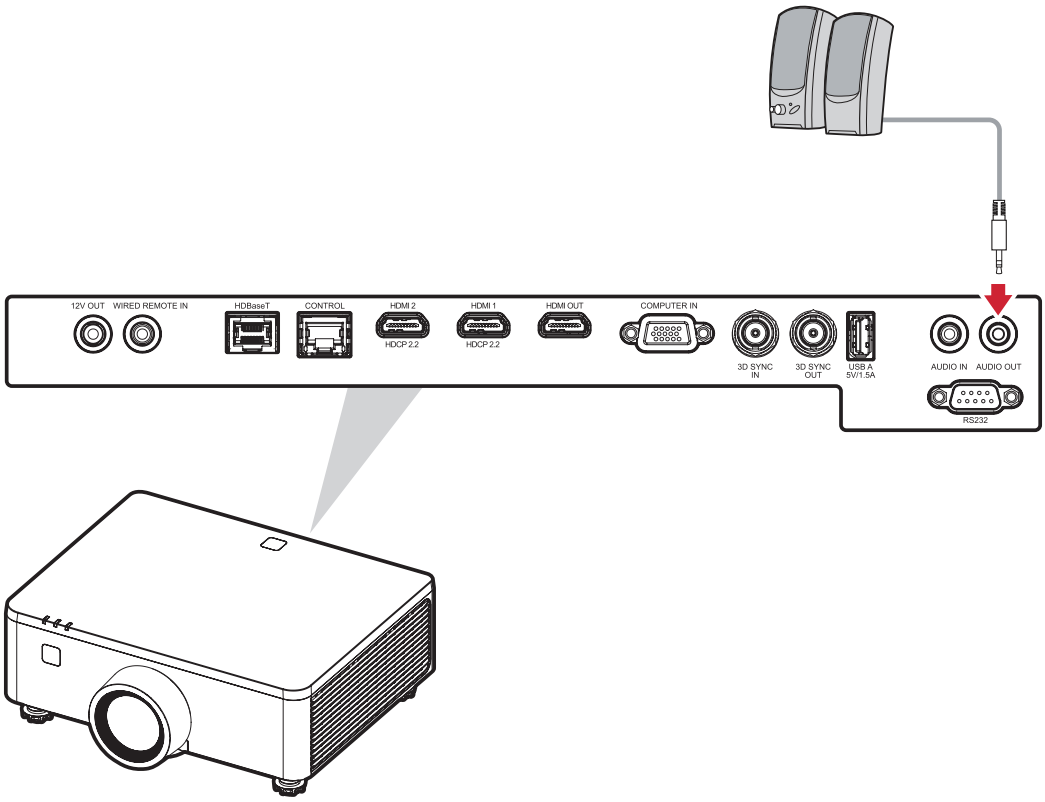
Audio Output Connection

To play audio from another device through the internal speakers of the projector, connect one end of an audio cable to your device, and the other end to the projector's **AUDIO IN** port.



Audio Output Connection

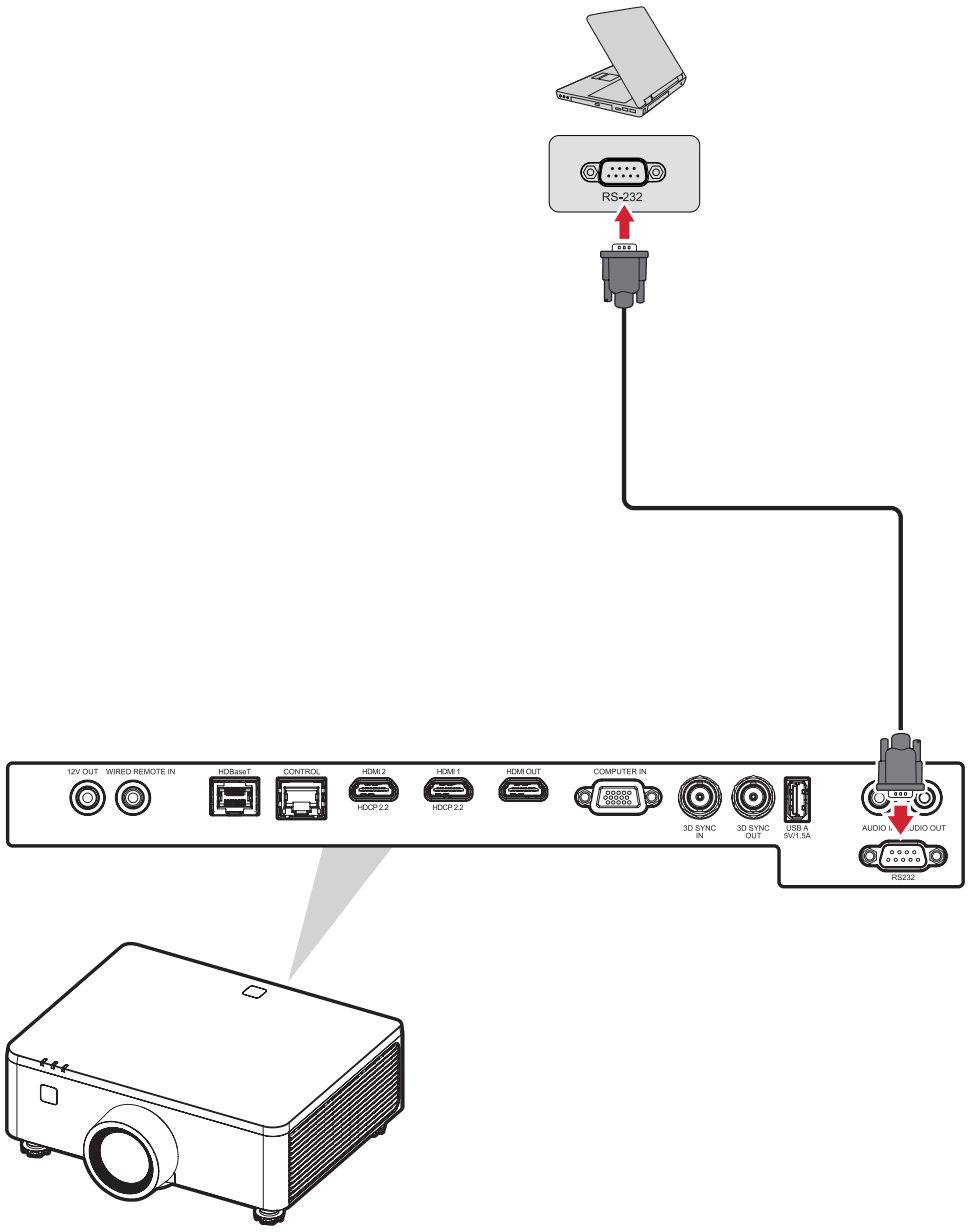
To play audio from the projector through an external speaker, connect one end of an audio cable to the external speaker, and the other end to the projector's **AUDIO OUT** port.



RS-232 Connection

When you use a RS-232 serial port cable to connect the projector to an external computer then certain functions can be controlled remotely by the PC, including Power On/Off, Volume adjustment, Input select, Brightness, and more.

Connect one end of a serial cable to the RS-232 port of your device and the other end of the cable to the **RS-232** port of your projector.

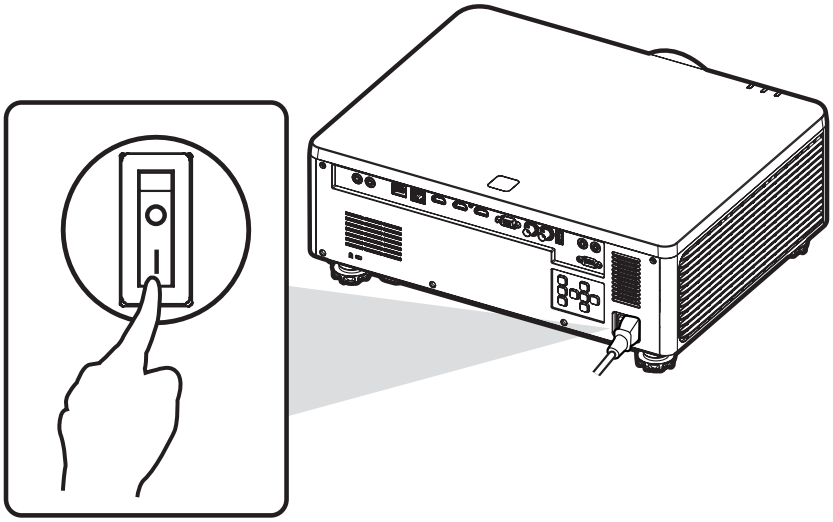


Using the Projector

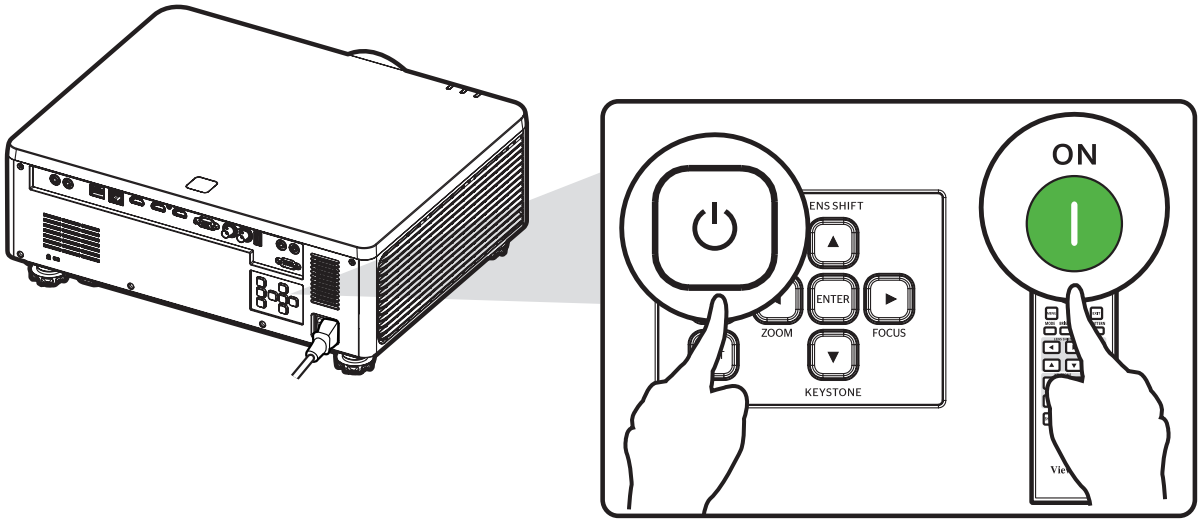
Starting Up the Projector

1. Ensure the projector's power cord is properly connected to a power outlet.

2. Press the power switch to the "**I**" (On) position and wait until the Power Indicator Light ⏻ on the projector becomes solid red.



3. Press the **Power** ⏻ button on the projector keypad or **Power On** ON I button on the remote control to turn on the projector.

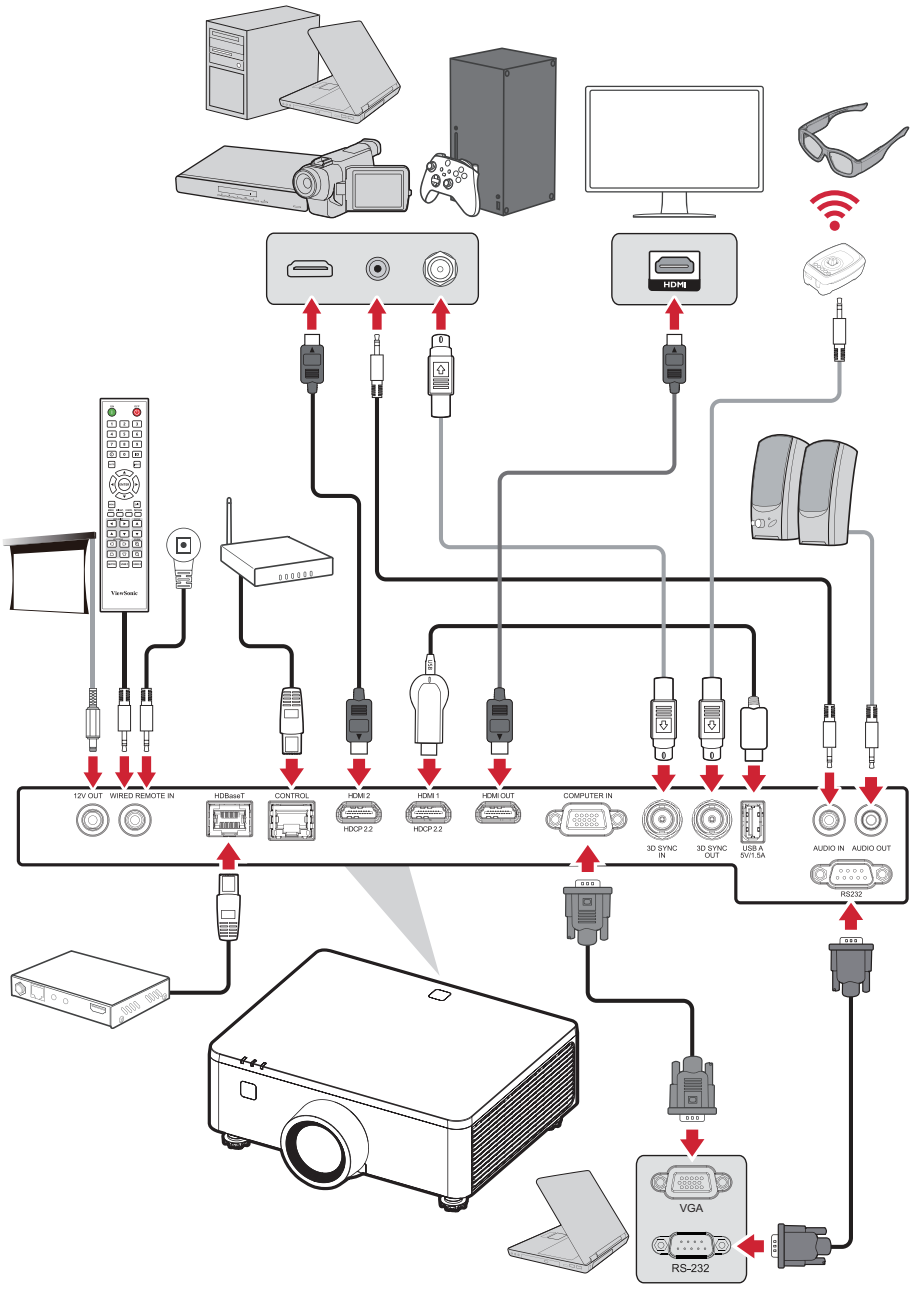


NOTE:

- The Power Indicator Light will be flashing red during startup.
- The first time the projector is turned on, you will be prompted to select the preferred language and projection orientation.
- If you have enabled the Fast Power On feature in the Power Settings menu, then the projector will skip the warming up state and will power on immediately.

Selecting an Input Source

The projector can be connected to multiple devices at the same time.



When **Auto Signal** is On, the projector will automatically search for input sources. If multiple sources are connected, press the **Input** button on the remote control to select the desired input.

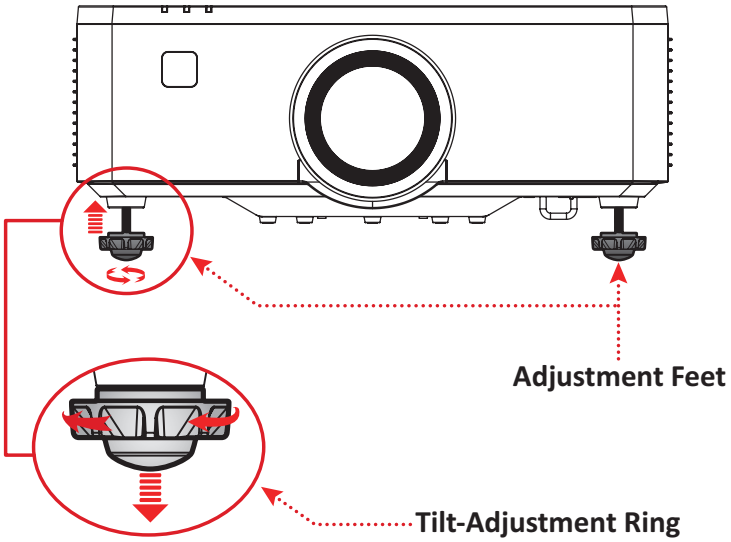
NOTE:

- Ensure the connected sources are also turned on.
- Auto Signal does not support PIP/PBP mode.

Adjusting the Projected Image

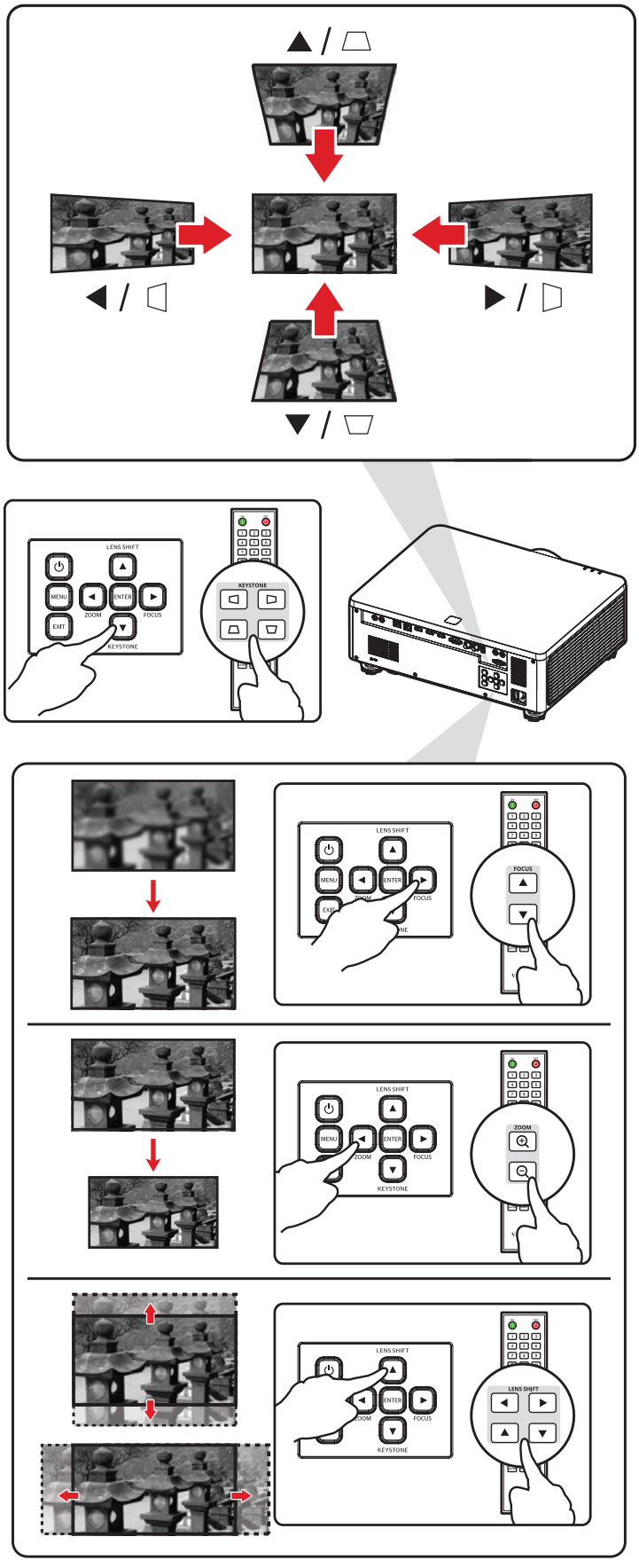
Adjusting the Projector's Height and Projection Angle

The projector is equipped with four (4) adjustment feet. Adjusting the feet will change the projector's height and the vertical projection angle.



Adjusting the Keystone, Focus, Zoom, and Lens Shift

You can improve and adjust the clarity, size, and position of the image by adjusting the **Keystone**, **Focus**, **Zoom**, or **Lens Shift** keys.



Shutting Down the Projector

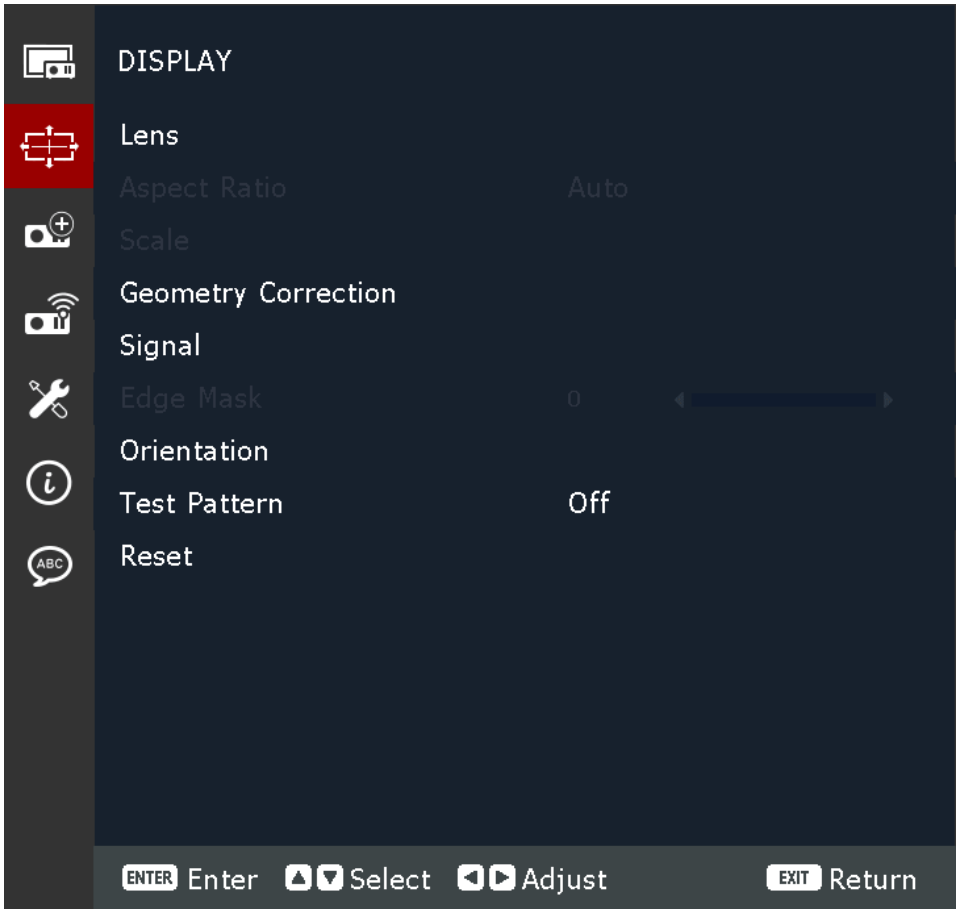
1. Press the **Power** button on the projector keypad or **Power Off** button on the remote control and a “power off message” will appear.
2. Press the **Power** button or **Power Off** button again on the projector or remote control respectively to confirm and shut down the projector.
3. The Power Indicator Light will turn solid red and enter standby mode.

NOTE: If you have enabled the Fast Power On feature in the Power Settings menu, then after pressing the **Power** button on the projector keypad or the **Power Off** button on the remote control twice, the Power Indicator Light will turn red but the system will keep operating.

Operating the Projector

On-Screen Display (OSD) Menu

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



Menu		Description
Image		Adjust Color Mode, Brightness, Contrast, Saturation, Tint, Sharpness, Gamma, White Balance, Advanced Color, and Advanced Image settings.
Display		Adjust Lens, Aspect Ratio, Scale, Geometry Correction, Signal, Edge Mask, Orientation, and Test Pattern settings.
Extended		Adjust On Screen Display, Logo Setup, and Schedule settings.
Communication		Adjust Remote Setup, Network Setup, Control, and Baud Rate settings.

Menu		Description
System		Adjust Date and Time, Standby Mode, Power Settings, Light Source Settings, A/V Mute, Security, 12V Trigger, High Altitude, Audio Settings, User Data, and Service settings.
Information		View projector information.
Language		Select the OSD language.

Menu Navigation

The projector has multilingual on-screen display menus that allow for image and settings adjustment.

1. To open the On-Screen Display (OSD) Menu, press the **Menu** button on the projector or the remote control.
2. When the OSD is displayed, use the **Navigation** buttons (▲▼◀▶) to select any item in the main menu. While making a selection on a particular page, press the **Enter** button on the projector or the remote control to enter a sub-menu.
3. Use the **Navigation** buttons (▲▼◀▶) to select the desired item in the sub-menu and then press **Enter** to view further settings. Adjust the settings by using the **Navigation** buttons (▲▼◀▶).
4. Select the next item to be adjusted in the sub-menu and adjust as described above.
5. Press **Enter** to confirm, and the screen will return to the main menu.
6. To exit, press the **Exit** button. The OSD menu will close and the projector will automatically save the new settings.

On-Screen Display (OSD) Menu Tree

Main Menu	Sub-menu	Menu Option				
Image	Color Mode	Presentation				
		Bright				
		Cinema				
		HDR				
		Sports				
		DICOM SIM.				
		Blending				
		3D				
		2D High Speed				
		User				
	Brightness	0~100				
	Contrast	0~100				
	Saturation	0~100				
	Tint	0~100				
	Sharpness	1~15				
	Gamma	1.8				
		1.9				
		2.0				
		2.1				
		2.2				
		2.3				
		2.4				
		DICOM SIM.				
		HDR				
		Cubic				
	White Balance	Color Temperature	Warm			
			Standard			
			Cool			
		Gain/Offset (RGB)				
		Red Gain	0~100			
		Green Gain	0~100			
		Blue Gain	0~100			
		Red Offset	0~100			
		Green Offset	0~100			
		Blue Offset	0~100			
		White peaking	0~100			

Main Menu	Sub-menu	Menu Option				
Image	White Balance	Reset	Yes			
			Cancel			
	Advanced Color	Color Space	Auto			
			RGB (0~255)			
			RGB (16~235)			
			REC709			
			REC601			
		Wall Color	Off			
			Blackboard			
			Light Yellow			
			Light Green			
			Light Blue			
			Pink			
			Gray			
		Color Matching	Auto Test Pattern	Checkbox		
			Color	Red		
				Green		
				Blue		
				Cyan		
				Magenta		
				Yellow		
				White		
			Hue (Red_ Green_ Blue_Cyan_ Magenta_ Yellow/ White)	0~254		
			Saturation (Red_Green_ Blue_Cyan_ Magenta_ Yellow/ White)	0~254		
			Gain (Red_Green_ Blue_Cyan_ Magenta_ Yellow/ White)	0~254		

Main Menu	Sub-menu	Menu Option				
Image	Advanced Color	Color Matching	Reset	Yes		
				Cancel		
	Advanced Image	Dynamic Contrast	Dynamic Black	Checkbox		
			Speed	1~160		
			Strength	0~3		
			Level	50%~100%		
			Extreme Black	Checkbox		
			Light Out Timer	0s~20s		
			Light Out Signal Level	0~5		
			Reset	Yes		
				Cancel		
		Dynamic Range	HDR	Off		
				Auto		
			HDR Picture Mode	HDR Low		
				HDR Standard		
				HDR Middle		
				HDR High		
		3D Setup	3D Mode	Off		
				On		
			3D Format	Auto		
				Frame Packing		
				Side by Side		
				Top and Bottom		
				Frame Sequential		
			3D Tech	DLP-link		
				3D Sync		
			3D Sync Out	To Emitter		
				To Next Projector		
			3D Sync Invert	Swap		
			Frame Delay	1~200		

Main Menu	Sub-menu	Menu Option				
Image	Advanced Image	3D Setup	Reset	Yes		
				Cancel		
		PIP/PBP	PIP/PBP	Off		
				PIP		
				PBP		
			Main Source	VGA		
				HDMI1		
				HDMI2		
				HDBaseT		
			Sub Source	VGA		
				HDMI1		
				HDMI2		
				HDBaseT		
			Swap Source			
			Sub Image Size	Small		
				Medium		
				Large		
			Sub Position	PBP, Main Left		
				PBP, Main Top		
				PBP, Main Right		
				PBP, Main Bottom		
				PIP, Bottom Right		
				PIP, Bottom Left		
				PIP, Top Left		
				PIP, Top Right		
			Sub Brightness	0~100		
			Sub Contrast	0~100		
			Sub Color Space	Auto		
				RGB (0-255)		
				RGB (16-235)		
				REC709		
				REC601		

Main Menu	Sub-menu	Menu Option				
Image	Advanced Image	Low Latency	Normal			
			Ultra			
	Save to User	Yes				
		Cancel				
	Apply to User	User-Presentation				
		User-Bright				
		User-Cinema				
		User-HDR				
		User-Sports				
		User-DICOM SIM.				
		User-Blending				
		User-3D				
		User-2D High Speed				
	Reset	Yes				
		Cancel				
Display	Lens	Focus	Focus In			
			Focus Out			
		Zoom	Zoom In			
			Zoom Out			
		Lens Shift	Up			
			Down			
			Right			
			Left			
		Lens Shift Memory	Save Memory	Memory 1		
				Memory 2		
				Memory 3		
				Memory 4		
				Memory 5		

Main Menu	Sub-menu	Menu Option				
Display	Lens	Lens Shift Memory	Apply Memory	Memory 1		
				Memory 2		
				Memory 3		
				Memory 4		
				Memory 5		
			Clear Memory	Yes		
				Cancel		
		Lens Calibration				
		Lens Lock	Checkbox			
		Reset	Yes			
			Cancel			
	Aspect Ratio	Auto				
		4:3				
		16:9				
		16:10				
		21:9				
		LBX				
		Native				
	Scale	Digital Zoom	Digital Zoom			
			Proportional	Checkbox		
			Horizontal	50%~400%		
			Vertical	50%~400%		
			Digital Shift			
			Horizontal	0~100		
			Vertical	0~100		
		Reset	Yes			
			Cancel			
	Geometry Correction	Warp Control	Basic			
			Advanced			

Main Menu	Sub-menu	Menu Option				
Display	Geometry Correction	Basic Warp	Keystone	Horizontal	0~40	
				Vertical	0~80	
			Pincushion	Horizontal	0~100	
				Vertical	0~100	
			4-Corner	Top Left	Horizontal	0~120
					Vertical	0~80
				Top Right	Horizontal	0~120
					Vertical	0~80
				Bottom Left	Horizontal	0~120
					Vertical	0~80
				Bottom Right	Horizontal	0~120
					Vertical	0~80
		Advanced Warp	Grid Points	2x2		
				3x3		
				5x5		
				9x9		
				17x17		
			Warp Inner	Off		
				On		
			Warp Sharpness	0~9		
			Grid Color	Green		
				Magenta		
				Red		
				Cyan		
			Grid Background	Black		
				Transparent		
			Blend Setting	Blend Width		
				Overlap Grid Number	4	
					6	
					8	
					10	
					12	

Main Menu	Sub-menu	Menu Option				
Display	Geometry Correction	Advanced Warp	Blend Setting	Gamma	1.8	
					1.9	
					2	
					2.1	
					2.2	
					2.3	
					2.4	
		Memory	Save Memory	Memory 1		
				Memory 2		
				Memory 3		
				Memory 4		
				Memory 5		
			Apply Memory	Memory 1		
				Memory 2		
				Memory 3		
				Memory 4		
				Memory 5		
			Clear Memory	Yes		
				Cancel		
		Reset	Yes			
			Cancel			
	Signal	Auto Signal	Checkbox			
		Input Signal	VGA			
			HDMI1			
			HDMI2			
			HDBaseT			
		VGA	Phase	0~100		
			H. Position	0~100		
			V. Position	0~100		
			Resolution	(read only)		

Main Menu	Sub-menu	Menu Option				
Display	Signal	HDMI	Output	HDMI 1		
				HDMI 2		
			EDID			
			HDMI1 EDID	1.4		
				2.0		
			HDMI2 EDID	1.4		
				2.0		
		Quick Resync	Checkbox			
	Edge Mask	0~10				
	Orientation	Ceiling Mount	Auto			
			On			
			Off			
		Front Projection	Checkbox			
		Rear Projection	Checkbox			
	Test Pattern	Off				
		Green Grid				
		Magenta Grid				
		White Grid				
		White				
		Black				
		Red				
		Green				
		Blue				
		Yellow				
		Magenta				
		Cyan				
		ANSI Contrast 4x4				
		Color Bar				
		Full Screen				
		ViewSonic Test Pattern				

Main Menu	Sub-menu	Menu Option				
Display	Reset	Yes				
		Cancel				
Extended	On Screen Display	Menu Location	Top Left			
			Top Right			
			Center			
			Bottom Left			
			Bottom Right			
		Menu Transparency	0~90			
		Menu Timer	Off			
			5s			
			10s			
			15s			
		Information Hide	Checkbox			
		Background Color	Blue			
			Black			
			White			
			Logo			
		Reset	Yes			
			Cancel			
	Logo Setup	Change Logo	Default Logo			
			Captured Logo			
			Custom Logo			
		Logo Capture	Yes			
			Cancel			
		Delete Logo	Captured Logo	Yes		
				Cancel		
			Custom Logo	Yes		
				Cancel		
	Schedule	Date and Time	--/--/-- --:--H320:H321			

Main Menu	Sub-menu	Menu Option				
Extended	Schedule	Schedule Mode	Off			
			On			
		View Today	Monday / Tuesday / Wednesday / Thursday / Friday / Saturday / Sunday			
		Monday / Tuesday / Wednesday / Thursday / Friday / Saturday / Sunday	Schedule Enable	Checkbox		
			Event 01-08 Event 09-16	Time	00:00~23:59	
				Function	Off	
					Power Settings	
					Input Source	
					Light Source Mode	
					A/V mute	
				Event	(Value Depend by Function)	
				(Function = Power Settings)	Off	
					Power On	
					Standby	
					Standby (Networks Standby)	
					Standby (Communica-tion)	
				(Function = Input Source)	Off	
					VGA	
					HDMI1	
					HDMI2	
					HDBaseT	
				(Function = Light Source Mode)	Off	
					Normal Mode	
					Eco Mode	
					Custom Brightness	

Main Menu	Sub-menu	Menu Option				
Extended	Schedule	Monday / Tuesday / Wednesday / Thursday / Friday / Saturday / Sunday	Event 01-08 Event 09-16	(Function = A/V mute)	Off	
					A/V mute On	
					A/V mute Off	
				Reset	Yes	
					Cancel	
			More Events / Previous Events	Event 01~16		
			Copy Events To	Monday		
				Tuesday		
				Wednesday		
				Thursday		
				Friday		
				Saturday		
				Sunday		
			Reset the Day	Yes		
				Cancel		
		Reset Schedule	Yes			
			Cancel			
Communi-cation	Remote Setup	Remote Code	0~99			
		Quick Key	0~9			
		Remote Receiver	Front	Checkbox		
			Top	Checkbox		
			HDBaseT	Checkbox		
		User 1	Freeze Screen			
			Blank Screen			
			PIP/PBP			
			Aspect Ratio			
			Color Matching			
			Light Source Mode			
			Audio Mute			
			Audio Volume			

Main Menu	Sub-menu	Menu Option				
Communi-cation	Remote Setup	User 2	Freeze Screen			
			Blank Screen			
			PIP/PBP			
			Aspect Ratio			
			Color Matching			
			Light Source Mode			
			Audio Mute			
			Audio Volume			
	Network Setup	Ethernet	LAN Interface	RJ-45		
				HDBaseT		
			MAC Address	(read only)		
			Network Status	(read only) Connected / Disconnected		
			DHCP	Checkbox		
			IP Address	---.---.---.---		
			Subnet Mask	---.---.---.---		
			Gateway	---.---.---.---		
			DNS	---.---.---.---		
			DNS2	---.---.---.---		
			Apply	Yes		
				Cancel		
		Network Reset	Yes			
			Cancel			
	Control	Crestron	Checkbox			
		Extron	Checkbox			
		PJ Link	Checkbox			
		AMX	Checkbox			
		Telnet	Checkbox			
		HTTP	Checkbox			

Main Menu	Sub-menu	Menu Option				
Communi-cation	Baud Rate	Serial Port In	1200			
			2400			
			4800			
			9600			
			19200			
			38400			
			57600			
			115200			
	Reset	Yes				
		Cancel				
System	Date and Time	Clock Mode	Use NTP Server			
			Manual			
		Date	2000~2037 (Year)			
			01~12 (Month)			
			01~31 (Day)			
		Time	00~23 (Hour)			
			00~59 (Minute)			
		Daylight Saving Time	Checkbox			
		NTP Server	time.google.com			
			asia.pool.ntp.org			
			europe.pool.ntp.org			
			north-america.pool.ntp.org			
		Time Zone	UTC+14:00			
			UTC+13:00			
			UTC+12:45			
			UTC+12:00			
			UTC+11:00			
			UTC+10:30			
			UTC+10:00			
			UTC+09:30			

Main Menu	Sub-menu	Menu Option				
Communi-cation	Date and Time	Time Zone	UTC+09:00			
			UTC+08:45			
			UTC+08:00			
			UTC+07:00			
			UTC+06:30			
			UTC+06:00			
			UTC+05:45			
			UTC+05:30			
			UTC+05:00			
			UTC+04:30			
			UTC+04:00			
			UTC+03:30			
			UTC+03:00			
			UTC+02:00			
			UTC+01:00			
			UTC+00:00			
			UTC-01:00			
			UTC-02:00			
			UTC-03:00			
			UTC-03:30			
			UTC-04:00			
			UTC-05:00			
			UTC-06:00			
			UTC-07:00			
			UTC-08:00			
			UTC-09:00			
			UTC-09:30			
			UTC-10:00			
			UTC-11:00			
			UTC-12:00			
		Update Interval	Hourly			
			Daily			
		Apply	Yes			
			Cancel			

Main Menu	Sub-menu	Menu Option				
Communi-cation	Standby Mode	Standby Mode				
		Network Standby Mode				
		Communica-tion Mode				
	Power Settings	Direct Power On	Checkbox			
		Fast Power On	Checkbox			
		Signal Power On	Checkbox			
		Auto Power Off	0~180 min			
		Sleep Timer	0~16 hour			
	Reset	Yes				
		Cancel				
	Light Source Settings	Light Source Mode	Normal			
			Eco Mode			
			Custom Mode			
		Custom Brightness	Brightness Level	30%-100%		
			Constant Brightness	Checkbox		
	A/V mute	Fade-In	0.5s~5s			
		Fade-Out	0.5s~5s			
		Startup	Checkbox			
	Security	Security	Checkbox			
		Security Timer	Month	0~12		
			Day	0~29		
			Hour	0~23		
		Set Password				
	12V Trigger	Checkbox				
	High Altitude	Checkbox				

Main Menu	Sub-menu	Menu Option				
Communi-cation	Audio Settings	Audio Mute	Checkbox			
		Audio Volume	0~20			
	User Data	Save all settings	Memory 1			
			Memory 2			
			Memory 3			
			Memory 4			
			Memory 5			
		Load all settings	Memory 1			
			Memory 2			
			Memory 3			
			Memory 4			
			Memory 5			
		Clear Memory	Yes			
			Cancel			
	Reset	Reset System Settings	Yes			
			Cancel			
		Reset Selective	IMAGE	Yes		
				Cancel		
			DISPLAY	Yes		
				Cancel		
			EXTENDED	Yes		
				Cancel		
			COMMUNI-CATION	Yes		
				Cancel		
			SYSTEM	Yes		
				Cancel		
			LANGUAGE	Yes		
				Cancel		
	Service					

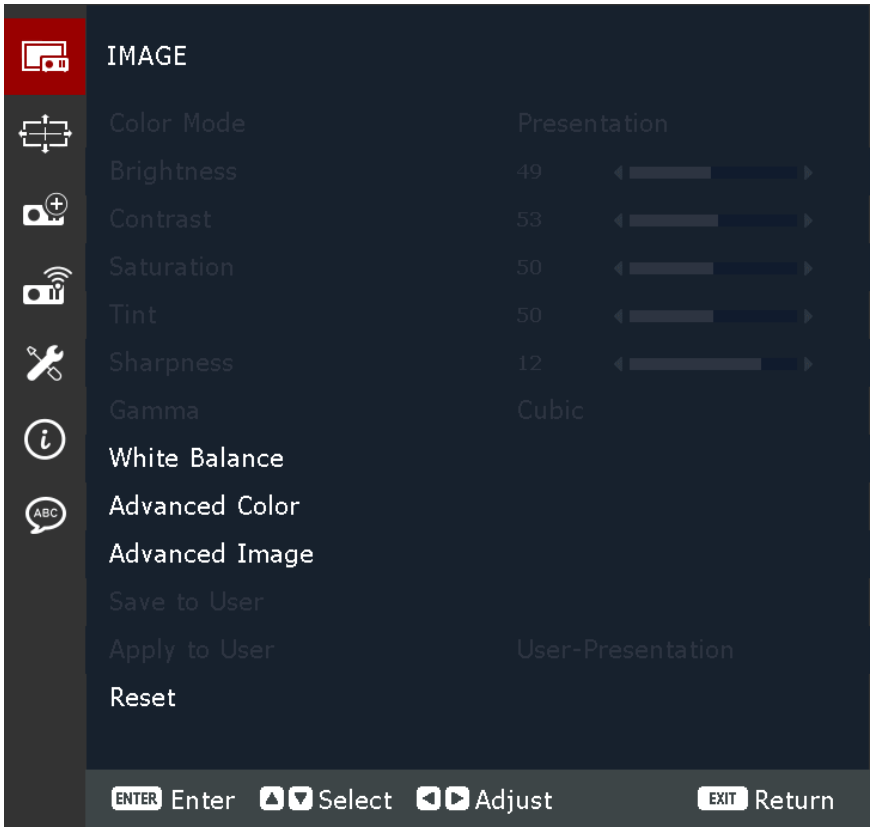
Main Menu	Sub-menu	Menu Option				
Information	Projector	Model Name				
		Serial Number				
	System Status	Standby Mode				
		Light Source Mode				
		Total Projector Hours				
		Light Source Hours				
		System Temperature				
	Communi-cation	Remote Code				
		Ethernet				
		LAN Interface				
		MAC Address				
		Network Status				
		DHCP				
		IP Address				
		Subnet Mask				
		Gateway				
		DNS				
		Control				
		Crestron				
		Extron				
		PJ Link				
		AMX				
		Telnet				
		HTTP				
	Signal	Input Signal				
		Resolution				
		Signal Format				
		Pixel Clock				
		Horz Refresh				

Main Menu	Sub-menu	Menu Option				
Information	Signal	Vert Refresh				
		Color Space				
		Second Signal				
		Resolution				
		Signal Format				
		Pixel Clock				
		Horz Refresh				
		Vert Refresh				
		Color Space				
	Firmware Version	Main Version				
		I-SCALER Version				
		F-MCU Version				
		A-MCU Version				
		LAN Version				
		Formatter Version				
		HDBaseT Version				
Language	English	Yes				
		Cancel				
	Simplified Chinese	Yes				
		Cancel				
	French	Yes				
		Cancel				
	German	Yes				
		Cancel				
	Italian	Yes				
		Cancel				
	Japanese	Yes				
		Cancel				
	Korean	Yes				
		Cancel				
	Russian	Yes				
		Cancel				
	Spanish	Yes				
		Cancel				

Main Menu	Sub-menu	Menu Option				
Language	Portuguese	Yes				
		Cancel				
	Indonesian	Yes				
		Cancel				
	Dutch	Yes				
		Cancel				
	Traditional Chinese	Yes				
		Cancel				
	Swedish	Yes				
		Cancel				
	Turkish	Yes				
		Cancel				
	Czech	Yes				
		Cancel				
	Thai	Yes				
		Cancel				
	Polish	Yes				
		Cancel				
	Finnish	Yes				
		Cancel				
	Vietnam	Yes				
		Cancel				
	Greek	Yes				
		Cancel				
	Hungarian	Yes				
		Cancel				
	Norsk	Yes				
		Cancel				
	Danish	Yes				
		Cancel				

Menu Operation

Image Menu



<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Color Mode</td><td>There are several predefined color modes that you can choose from to suit your viewing preference.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>Presentation</td><td>Suitable for most presenting needs for business and education environments.</td></tr>
<tr><td>Bright</td><td>Suitable for bright, well-lit environments.</td></tr>
<tr><td>Cinema</td><td>Provides the best balance of detail and colors for watching movies.</td></tr>
<tr><td>HDR</td><td>Best for displaying High Dynamic Range (HDR) content.</td></tr>
<tr><td>Sports</td><td>This mode is best for watching sports.</td></tr>
<tr><td>DICOM SIM.</td><td>Best for projecting monochrome medical images, such as X-ray diagram.</td></tr>
<tr><td>Blending</td><td>Best for multiple projector installations.</td></tr>
<tr><td>3D</td><td>Optimized for 3D content.
NOTE: 3D glasses are needed.</td></tr>
<tr><td>2D High Speed</td><td>Display the status of 2D High Speed mode.</td></tr>
<tr><td>User</td><td>User’s custom settings.</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Brightness</td><td>The higher the value, the brighter the image. Lower values will result in a darker image.</td></tr>
<tr><td>Contrast</td><td>Use this to set the peak white level after you have previously adjusted the Brightness setting to suit your selected input and viewing environment.</td></tr>
<tr><td>Saturation</td><td>Refers to the amount of that color in a video picture. Lower settings produce less saturated colors; in fact, a setting of “0” removes that color from the image entirely. If the saturation is too high, that color will be overpowering and unrealistic.</td></tr>
<tr><td>Tint</td><td>The higher the value, the more greenish the picture becomes. The lower the value, the more reddish the picture becomes.</td></tr>
<tr><td>Sharpness</td><td>A high value results in a sharper picture; a low value softens the picture.</td></tr>
<tr><td>Gamma</td><td>Reflect the relationship between input source and picture brightness.</td></tr>
<tr><td>White Balance</td><td>Color Temperature
Select from Warm, Standard, or Cool.

Gain/Offset (RGB)
Adjust the white balance of the projected image via gain and offset. Gain and offset are individual controls for each RGB channels used to set greyscale. The Gains calibrate the color of the dark parts and offsets calibrate the white parts.<table><tr><th>Mode</th><th>Description</th></tr><tr><td>Red / Green / Blue Gain</td><td>Adjust the color of the projected image’s bright areas.</td></tr><tr><td>Red / Green / Blue Offset</td><td>Adjust the color of the projected image’s dark areas.</td></tr></table>White Peaking
Increases the brightness of whites near 100%.

Reset
Return the white balance settings to their default values.</td></tr>
<tr><td>Advanced Color</td><td>Color Space
Select from Auto, RGB (0~255), RGB (16~235), REC709, and REC601 color space.

Wall Color
Select the wall color for the projector to achieve the best color performance for a specific wall. The options include Blackboard, Light Yellow, Light Green, Light Blue, Pink, Gray, or Off (disable the Wall Color feature).</td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Advanced Color</td><td>Color Matching
Only in permanent installations with controlled lighting levels such as: boardrooms, lecture halls, or home theaters should Color Matching be considered.

Color Matching 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 Matching menu to make adjustments.
<table><tr><th>Mode</th><th>Description</th></tr><tr><td>Auto Test Pattern</td><td>Enable the function to view a specific color pattern while adjusting.</td></tr><tr><td>Hue</td><td>Adjust hue for the selected color.</td></tr><tr><td>Saturation</td><td>Adjust saturation for the selected color.</td></tr><tr><td>Gain</td><td>Adjust gain for the selected color.</td></tr><tr><td>Reset</td><td>Return the Color Matching settings to their default values.</td></tr></table></td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Advanced Image</td><td>
<u>Dynamic Contrast</u>
Set up Dynamic Contrast to maximize the contrast for dark content.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>Dynamic Black</td><td>Enable this function to automatically adjust the contrast ratio for video sources. It improves the black level in dark scenes by reducing the light output.</td></tr>
<tr><td>Speed</td><td>Adjust the speed of the light source correction.</td></tr>
<tr><td>Strength</td><td>Set the strength of the dynamic contrast adjustment.</td></tr>
<tr><td>Level</td><td>Adjust the light source when the brightness level of the current content gets lower than the set value.</td></tr>
<tr><td>Extreme Black</td><td>Enable this function to automatically increase the contrast ratio by turning off the laser light when black image is detected.
NOTE: Due to hardware limitations, only RGB color space is supported and YUV is not.</td></tr>
<tr><td>Light Out Timer</td><td>Set a timer for the laser light to turn off after detecting black content.</td></tr>
<tr><td>Light Out Signal Level</td><td>Set a black level value as the threshold for the Extreme Black function.</td></tr>
<tr><td>Reset</td><td>Return the Dynamic Contrast settings to their default values.</td></tr>
</table>
<u>Dynamic Range</u>
Configure the HDR setting and its effect when displaying video from 2K Blu-ray players and streaming devices.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>HDR</td><td>Enable or disable HDR processing.</td></tr>
<tr><td>HDR Picture Mode</td><td>• HDR Low: Select this mode for more saturated colors.
• HDR Standard: Select this mode for natural looking images.
• HDR Middle: Select this mode for improved detail.
• HDR High: Select this mode for more detail in dark scenes.</td></tr>
</table>
</td></tr>
</table>

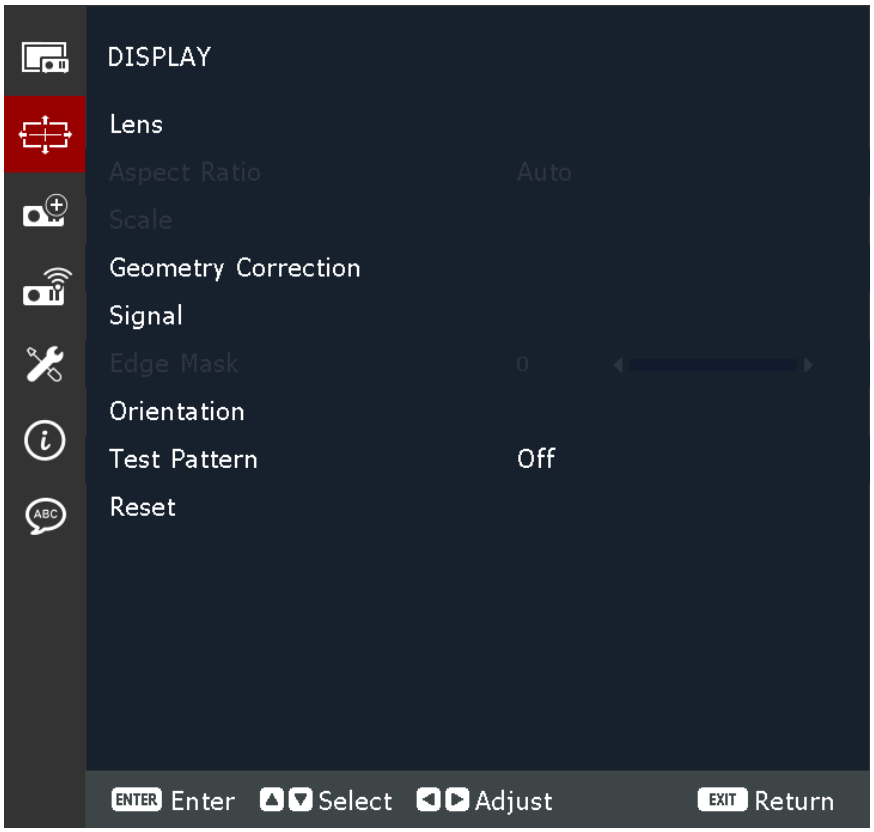
<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Advanced Image</td><td>
<u>3D Setup</u>
3D video file combines two slightly different images (frames) of the same scene representing the different views that the left and right eyes see. When these frames are displayed fast enough and viewed with 3D glasses synchronized with the left and right frames, the viewer’s brain then assemble the separate images into a single 3D image. 3D Menu provides options to set up the 3D functions to correctly display 3D videos.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>3D Mode</td><td>Enable or disable the 3D function.</td></tr>
<tr><td>3D Format</td><td>Select the 3D content format.
NOTE: A Blu-ray 3D source will be detected automatically, and options will not be selectable.
• Auto: When a 3D identification signal is detected, the 3D format is selected automatically.
• Frame Packing: Display in Frame Packing format.
• Side by Side: Display in Side-by-Side format.
• Top and Bottom: Display in Top and Bottom format.
• Frame Sequential: Display in Frame Sequential format.</td></tr>
<tr><td>3D Tech</td><td>Select a proper 3D technology according to how the 3D sync signal is processed.
• DLP-Link: Select DLP-Link when the 3D sync signal is generated by the DLP-Link technology built into the projector. DLP-Link works only with the glasses that are compatible with DLP 3D technology and the 3D function is enabled.
• 3D Sync: Select 3D Sync when the 3D sync out signal is sent to an emitter or another projector through the 3D sync out port.</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Advanced Image</td><td>
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>3D Sync Out</td><td>Set up the transmission of the 3D sync output signal.
To Emitter: Send the 3D sync signal to the emitter connected to the 3D sync out port.
To Next Projector: Send the 3D sync signal to next projector when using multiple projectors.</td></tr>
<tr><td>3D Sync Invert</td><td>When the 3D video does not appear correctly, use this function to invert the 3D left and right frames.</td></tr>
<tr><td>Frame Delay</td><td>Set a frame delay value for the projector to correct the time difference between the 3D signal being given and the result being executed. When performing 3D blending on multiple projectors, set the frame delay for each projector to correct the nonsynchronous images.</td></tr>
<tr><td>Reset</td><td>Return the 3D settings to their default values.</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Advanced Image</td><td>PIP/PBP
PIP/PBP (picture in picture/picture by picture) allows simultaneously displaying two images from two input sources.
NOTE:
In PIP/PBP mode, HDMI 2 will automatically switch to HDMI 1.4.
When using HDMI 1 and HDMI 2 for PIP/PBP, HDMI 2 supports resolutions up to 1920 x 1200@60Hz or 1600 x 1200@60Hz.
If the window shows a black screen, please check if the signal source exceeds the supported resolution.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>PIP/PBP</td><td>Select the appropriate PIP/PBP mode or disable the function.
Off: Disable PIP/PBP mode.
PIP: Display one input source on the main screen and the other input source in an inset window.
PBP: Display two images of the same size on the screen.</td></tr>
<tr><td>Main Source</td><td>Select an input source for the main image. The available input sources are VGA, HDMI1, HDMI2, and HDBaseT.</td></tr>
<tr><td>Sub Source</td><td>Select an input source for the second image. The available input sources are VGA, HDMI1, HDMI2, and HDBaseT.</td></tr>
<tr><td>Swap Source</td><td>Swap the main source and sub source.</td></tr>
<tr><td>Sub Image Size</td><td>Change the display size of the sub source in PIP mode.</td></tr>
<tr><td>Sub Position</td><td>Adjust the position of the sub image.</td></tr>
<tr><td>Sub Brightness</td><td>Adjust the brightness of the sub image.</td></tr>
<tr><td>Sub Contrast</td><td>Adjust the contrast of the sub image.</td></tr>
<tr><td>Sub Color Space</td><td>Adjust the color settings of the sub image.</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Advanced Image</td><td><u>Low Latency</u>
Use this function to enable/disable the system to reduce response times (input latency) during gaming.
NOTE: Low Latency does not support 3D, PIP/PBP, 4K, signals with vertical refresh rate below 30Hz, and Logo Capture feature.
<table><tr><th>Mode</th><th>Description</th></tr><tr><td>Normal</td><td>Without reducing the latency.</td></tr><tr><td>Ultra</td><td>Reduce the latency of image that can display image simultaneously.</td></tr></table></td></tr>
<tr><td>Save to User</td><td>Save the image settings to the User Mode.</td></tr>
<tr><td>Apply to User</td><td>Apply the selected User Mode parameters to the Image Settings.</td></tr>
<tr><td>Reset</td><td>Return the image settings to their default values.</td></tr>
</table>

Display Menu



<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Lens</td><td>
<u>Focus</u>
Use the ▲ and ▼ buttons to adjust the focus of the projected image.

<u>Zoom</u>
Use the ▲ and ▼ buttons to adjust the size of the projected image.

<u>Lens Shift</u>
Use the ◀▶▲ and▼ buttons to adjust the lens position to shift the projected area.

<u>Lens Shift Memory</u>
This projector can save up to five lens settings, which records the lens position. To record correct data, please perform lens calibration at first time processing lens memory.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>Save Memory</td><td>Select a record from 1 to 5 to save the current lens settings.</td></tr>
<tr><td>Apply Memory</td><td>Select a record from 1 to 5 to apply the lens settings.</td></tr>
<tr><td>Clear Memory</td><td>Clear the saved lens records.</td></tr>
</table>
<u>Lens Calibration</u>
Calibrate the lens position to return it to the center.
NOTE: After calibration, the Lens Shift Memory will be reset.

<u>Lens Lock</u>
Lock the lens to prevent the lens motors from moving, which disables all lens functions.

<u>Reset</u>
Return the lens settings to their default values.
</td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Aspect Ratio</td><td>Select the aspect ratio of the projected image.
<table>
<tr><th>Aspect Ratio</th><th>Description</th></tr>
<tr><td>Auto</td><td>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 4:3 nor 16:9 and you want to make the most use of the screen without altering the image’s aspect ratio.</td></tr>
<tr><td>4:3</td><td>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.</td></tr>
<tr><td>16:9</td><td>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.</td></tr>
<tr><td>16:10</td><td>Select this format to display the projected image in 16:10 format.</td></tr>
<tr><td>21:9</td><td>Select this format to display the projected image in 21:9 format.</td></tr>
<tr><td>LBX</td><td>For non-16:9 letterbox source and if want to display 2.35:1 aspect ratio in full resolution.</td></tr>
<tr><td>Native</td><td>Select this format to display the projected image without any scaling.</td></tr>
</table></td></tr>
<tr><td>Scale</td><td><u>Digital Zoom</u>
Digitally adjust the size of the projected image.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td colspan="2">Digital Zoom:</td></tr>
<tr><td>Proportional</td><td>Enable the function to have the image’s height and width changed at the same ratio.</td></tr>
<tr><td>Horizontal</td><td>Use the ◀ and ▶ buttons to change the width of the projected image.</td></tr>
<tr><td>Vertical</td><td>Use the ◀ and ▶ buttons to change the height of the projected image.</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Scale</td><td>
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td colspan="2">Digital Shift:</td></tr>
<tr><td>Horizontal</td><td>Use the ◀ and ▶ buttons to horizontally shift the image.</td></tr>
<tr><td>Vertical</td><td>Use the ◀ and ▶ buttons to vertically shift the image.</td></tr>
</table>
<u>Reset</u>
Return the scale settings to their default values.
</td></tr>
<tr><td>Geometry Correction</td><td>
<u>Warp Control</u>
Configure warp settings.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>Basic</td><td>Configure keystone, pincushion, 4-corner settings.</td></tr>
<tr><td>Advanced</td><td>Set the grid color and grid background, as well as configure warp and blend settings.</td></tr>
</table>
<u>Basic Warp</u>
Configure basic warp settings.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>Keystone</td><td>Keystone function is used to adjust the images in asymmetric rectangle shape.
• Horizontal: Adjust the left and right side of the projected image to make it an even rectangle. It is used for the images with unequal left and right sides.
• Vertical: Adjust the top and bottom side of the projected image to make it an even rectangle. It is used for the images with unequal top and bottom sides.</td></tr>
<tr><td>Pincushion</td><td>Pincushion function is used to adjust the image with barrel or pincushion distortion.
• Horizontal: Correct the projected image with horizontal barrel or pincushion distortion.
• Vertical: Correct the projected image with vertical barrel or pincushion distortion.</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Geometry Correction</td><td>
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>4-Corner</td><td>Adjust the keystone of the projector in both the vertical and horizontal plane by warping each corner of the projected image individually. This results in perfectly squared image.</td></tr>
</table>
<u>Advanced Warp</u>
Configure advanced warp settings.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>Grid Points</td><td>The grid number selection of warping control, 2x2 / 3x3 / 5x5 / 9x9 / 17x17.</td></tr>
<tr><td>Warp Inner</td><td>Turn on to adjust the inner grid, the function activates when exceeding 3x3 grid points.</td></tr>
<tr><td>Warp Sharpness</td><td>When the grid lines are warped from straight into curve, the grid lines will be distorted and become jagged.
To avoid the line jagging, adjust the warp sharpness to blur or sharpen the edge of the images.</td></tr>
<tr><td>Grid Color</td><td>Select a grid color for warp and blend pattern between Green, Magenta, Red, and Cyan.</td></tr>
<tr><td>Grid Background</td><td>Select the grid background between Black and Transparent.</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Geometry Correction</td><td>
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>Blend Setting</td><td>Configure the blend settings directly on the projector to merge two or more adjacent images into one larger and seamless image.
• Blend Width: Set the blend pattern width.
• Overlap Grid Number: The Blend Width area can be divided into up to 12-cell grid.
• Gamma: Select the gamma value of the blend area to adjust the curvature of the blending effect.</td></tr>
</table>
<u>Memory</u>
The projector allows the user to save up to five geometry memories, including the ones set directly on the projector and the ones configured via external software tools. The available options are Save Memory, Apply Memory, and Clear Memory.

<u>Reset</u>
Reset geometry correction settings to their default values.
</td></tr>
<tr><td>Signal</td><td><u>Auto Signal</u>
When Auto Signal is enabled, the projector automatically detects and selects the input signal. Once an input source is selected, press the Input button on the remote control to switch to other available sources. When the function is disabled, pressing Input will bring up the Input Signal submenu.

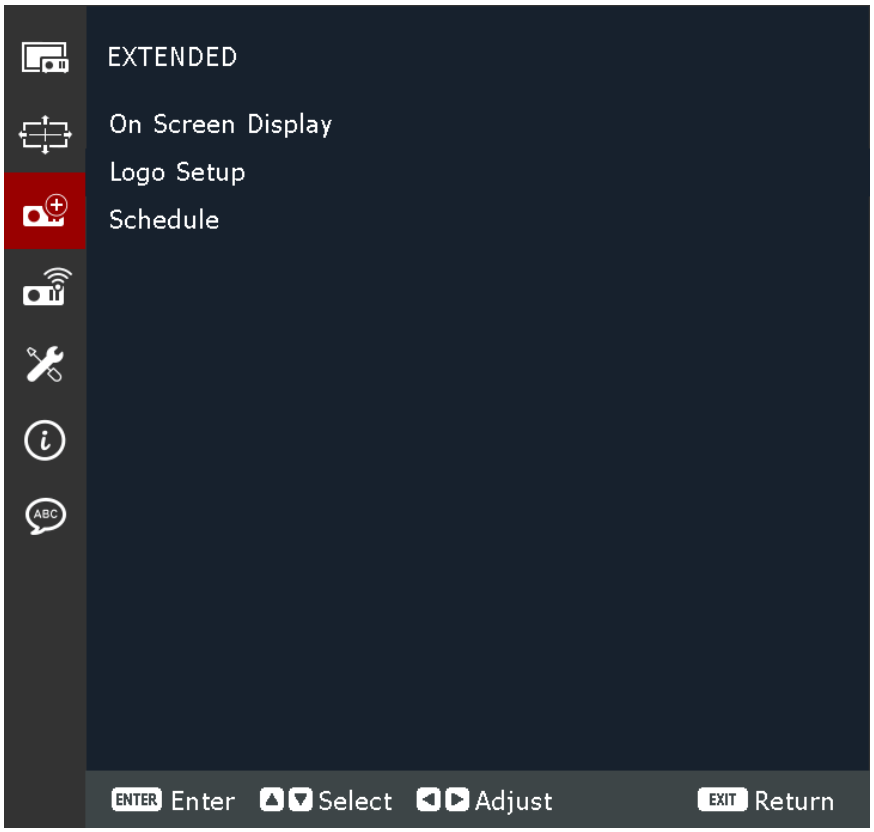
<u>Input Signal</u>
Select an input signal from the source list. The available input sources are VGA, HDMI 1, HDMI 2, and HDBaseT.

<u>VGA</u>
Setup the VGA source by selecting the proper Phase, H. Position, V. Position, and Resolution.

<u>HDMI</u>
Setup the projector’s HDMI ports.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>Output</td><td>Select a HDMI port to output the signal.</td></tr>
<tr><td>EDID</td><td>When receiving a HDMI signal, set the projector’s EDID compatibility to display the signal correctly. Select 1.4 for the input devices with HDMI 1.4, or 2.0 for HDMI 2.0 devices.</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Signal</td><td><u>Quick Resync</u>
Once enabled, the system will automatically synchronize the projector to the recent connected input source every time you switch the input source.</td></tr>
<tr><td>Edge Mask</td><td>The edge blending function allows you to hide one or multiple edges of the projected image. You can use this function to remove the video encoding noise on the edges of the video images.</td></tr>
<tr><td>Orientation</td><td>Select the preferred projection location.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>Ceiling Mount</td><td>Enable the function for ceiling mount installation. If you select “Auto”, then the projector orientation is determined by the G-sensor.</td></tr>
<tr><td>Front Projection</td><td>Select front projection when the image is projected straight on the screen.</td></tr>
<tr><td>Rear Projection</td><td>Select rear projection when image will appear reversed on the screen.</td></tr>
</table></td></tr>
<tr><td>Test Pattern</td><td>Select the test pattern from Green Grid, Magenta Grid, White Grid, White, Black, Red, Green, Blue, Yellow, Magenta, Cyan, ANSI Contrast 4x4, Color Bar, Full Screen, ViewSonic Test Pattern or disable this function (Off).</td></tr>
<tr><td>Reset</td><td>Return the display settings to their default values.</td></tr>
</table>

Extended Menu

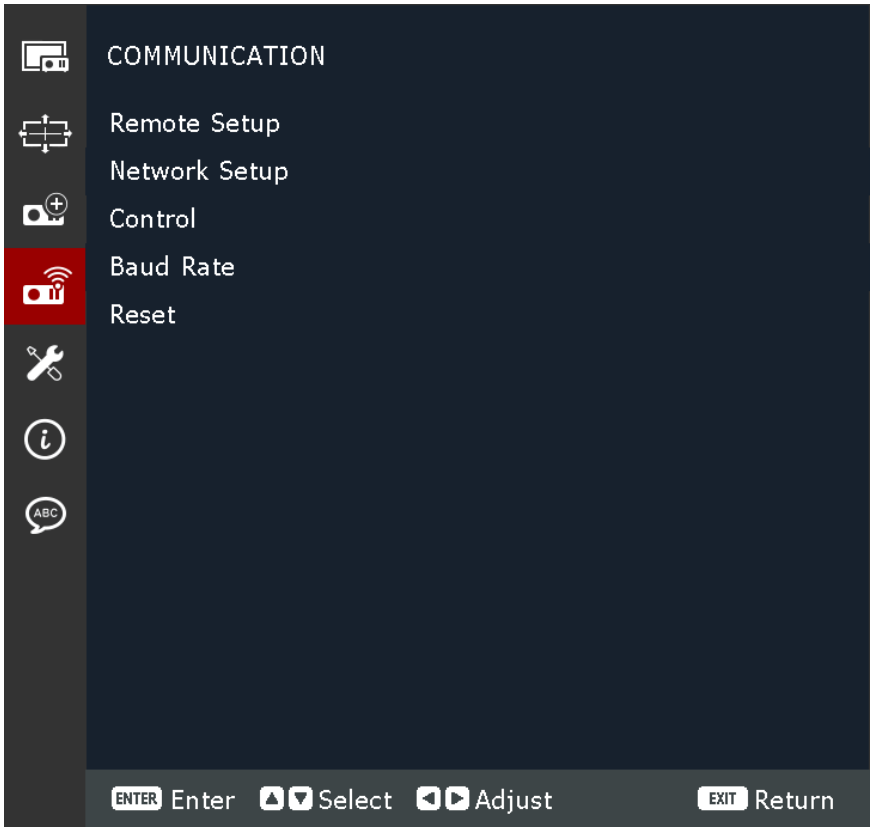


Menu	Description
On Screen Display	Menu Location Select the menu location from Top Left, Top Right, Center, Bottom Left, and Bottom Right. Menu Transparency Set the menu transparency level. Menu Timer Set the length of time the menu displays on the screen. Information Hide Enable or disable the corner information messages, such as input source, IP address, and so on. Background Color Set a background color to display when no input signal is detected. The available options are Blue, Black, White, and Logo. Reset Return the on screen display settings to their default values.

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Logo Setup</td><td>
<u>Change Logo</u>
Change the logo for the startup screen.
NOTE: If the Logo Capture function has not been used, then the projector displays the default logo.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>Default Logo</td><td>The projector default logo.</td></tr>
<tr><td>Captured Logo</td><td>The logo saved via the Logo Capture function.</td></tr>
<tr><td>Custom Logo</td><td>User customized logo.
NOTE:
• Logo image must be in PNG format.
• To upload via a web interface, provide two PNGs: 1920 x 1200 for 2D and 1280 x 800 for 3D.</td></tr>
</table>
<u>Logo Capture</u>
Capture part of the projected image and save it as a customized logo.
<u>Delete Logo</u>
Delete the saved customized logo, including the Captured Logo and Custom Logo.
</td></tr>
<tr><td>Schedule</td><td>
<u>Date and Time</u>
Before setting a schedule, setup the date and time settings. Refer to the System > Date and Time menu.
<u>Schedule Mode</u>
Enable or disable the schedule function.
<u>View Today</u>
View the event list scheduled for today.
NOTE: After the schedule is set up, ensure to save all the settings.
</td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Schedule</td><td>
<u>Monday to Sunday</u>
Set up the schedule for days of a week. On the Schedule menu page, select a day and configure the schedule settings.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>Schedule Enable</td><td>Enable or disable the schedule function for the selected day.</td></tr>
<tr><td>Event 01-08
Event 09-16</td><td>Select an event record number, and set up the schedule details.
Time: Set the time for the event.
Function: Select the function. The available functions are Power Settings, Input Source, Light Source Mode, and A/V Mute.
Event: Select a function for the event, which operates automatically at the set time.
Reset: Return the event settings to their default values.</td></tr>
<tr><td>More Events / Previous Events</td><td>Select more events or previous events.</td></tr>
<tr><td>Copy Events To</td><td>Copy the events setup for the day to another day.</td></tr>
<tr><td>Reset the Day</td><td>Reset the schedule settings for the day.</td></tr>
</table>
<u>Reset Schedule</u>
Return the schedule settings to their default values.
</td></tr>
</table>

Communication Menu



Menu	Description
Remote Setup	Remote Code Configure the settings of the Infra-Red (IR) remote control. Refer to page 19. **NOTE:** Ensure that the Remote Code matches with the ID code set on the remote control. Refer to page 19. Quick Key This function assigns a numeric key (1-9) as a shortcut to lock or unlock the OSD. Set to '0' to disable the shortcut. After pressing the assigned numeric key to lock the OSD, a key and number icon will appear on the screen.

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Remote Setup</td><td>
<u>Remote Receiver</u>
Set the remote receiver for the projector to control the communication between the projector and the IR remote.
<table>
<tr><th>Mode</th><th>Description</th></tr>
<tr><td>Front</td><td>Check the checkbox to enable the front remote receiver.</td></tr>
<tr><td>Top</td><td>Check the checkbox to enable the top remote receiver.</td></tr>
<tr><td>HDBaseT</td><td>Check the checkbox to use the HDBaseT terminal as the remote receiver.
NOTE: If you are using the HDBaseT terminal as the remote receiver, then ensure that the data transmission of all PDIF channels does not exceed the maximum bandwidth (approximately 3.2Mbps).</td></tr>
</table>
<u>User 1/ User 2</u>
Assign a function to the User 1 and User 2 buttons on the remote control. It allows you to use the function easily without going through the OSD menus. The available functions are Freeze Screen, Blank Screen, PIP/PBP, Aspect Ratio, Color Matching, Light Source Mode, Audio Mute, and Audio Volume.
</td></tr>
<tr><td>Network Setup</td><td>
<u>Ethernet</u>
Configure the projector’s Ethernet settings when connecting to a wired network using a RJ-45 cable.
<table>
<tr><th>Option</th><th>Description</th></tr>
<tr><td>LAN Interface</td><td>To avoid clash, specify the LAN interface to RJ-45 or HDBaseT.</td></tr>
<tr><td>MAC Address</td><td>Display the MAC address. (Read only)</td></tr>
<tr><td>Network Status</td><td>Display the network connection status. (Read only)</td></tr>
<tr><td>DHCP</td><td>Turn on DHCP to automatically acquire IP address, subnet mask, gateway, and DNS.</td></tr>
<tr><td>IP Address</td><td>Assign the projector’s IP address.</td></tr>
<tr><td>Subnet Mask</td><td>Assign the projector’s subnet mask.</td></tr>
<tr><td>Gateway</td><td>Assign the projector’s gateway.</td></tr>
<tr><td>DNS</td><td>Assign the projector’s DNS.</td></tr>
<tr><td>Apply</td><td>Apply the wired network settings.</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Network Setup</td><td>Network Reset
Return the network settings to their default values.</td></tr>
<tr><td>Control</td><td>This projector can be controlled remotely by a computer or other external devices through wired network connection. It allows the user to control one or more projectors from a distant control center, such as powering the projector on or off, and adjusting the image brightness or contrast.
Use the Control submenu to select a control device for the projector.
<table>
<tr><th>Option</th><th>Description</th></tr>
<tr><td>Crestron</td><td>Control the projector with Crestron controller and related software. (Port: 41794)
You can configure the IP Address, IPID, and Port for the network connection.
For more information, please visit http://www.crestron.com.</td></tr>
<tr><td>Extron</td><td>Control the projector with Extron devices.
For more information, please visit http://www.extron.com.</td></tr>
<tr><td>PJ Link</td><td>Control the projector with PJLink v1.0 commands.
You can configure the IP Address (Service) for the network connection.
For more information, please visit http://pjlink.jbmia.or.jp/english.</td></tr>
<tr><td>AMX</td><td>Control the projector with AMX devices.
For more information, please visit http://www.amx.com.</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Menu</th><th>Description</th></tr>
<tr><td>Control</td><td>
<table>
<tr><th>Option</th><th>Description</th></tr>
<tr><td>Telnet</td><td>Control the projector using RS232 commands through Telnet connection.
For more information, see the Using RS232 Command by Telnet section.</td></tr>
<tr><td>HTTP</td><td>Control the projector with web browser.</td></tr>
</table>
NOTE:

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.
For more information about the various types of external devices which can be connected to the LAN / RJ45 port and remotely control the projector, as well as the supported commands for these external devices, please contact the Support-Service directly.

</td></tr>
<tr><td>Baud Rate</td><td><u>Serial Port In</u>
Set the baud rate for Serial Port In and Serial Port Out. The available options are 1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200.</td></tr>
<tr><td>Reset</td><td>Return the communication settings to their default values.</td></tr>
</table>

Controlling the Projector through a Network

The projector provides diverse networking and remote management features. The LAN /RJ45 function of the projector, through a network, can remotely manage: Power On/Off, Volume adjustment, Input select, Brightness, and more.

NOTE: Please ensure **Communication** > **Control** > **HTTP** is enabled.

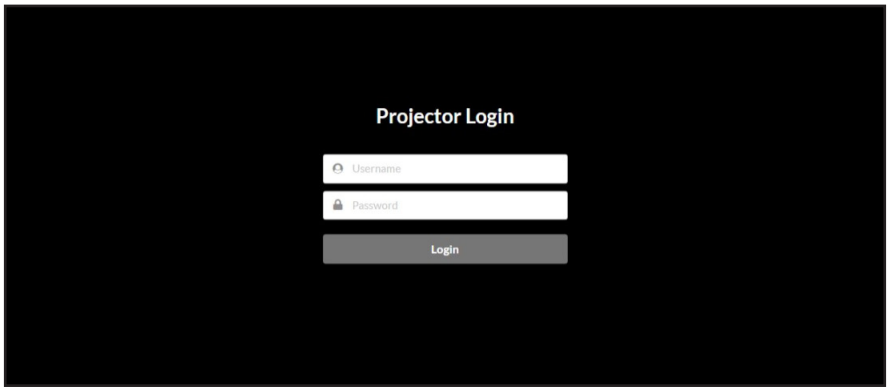
You can control this projector conveniently over internet using a web browser. The supported web browsers are listed below:

- Microsoft Edge
- Firefox
- Chrome

NOTE: Before using the remote management, ensure that the proejctor is connected to the network and all the required configurations are completed in the **Communication > Network Setup** and **Control** menus.

Log in

Enter the username and password. Then select “Login”.



NOTE:

- For the first login, you only need to enter the username “admin” or “user”, without a password. After the initial login, the projector will prompt you to set a password, and you will need to use the new password to log in again.
- Communication with the web server is not encrypted. Avoid using the same password as other information devices.

Using the RS232 Command by Telnet

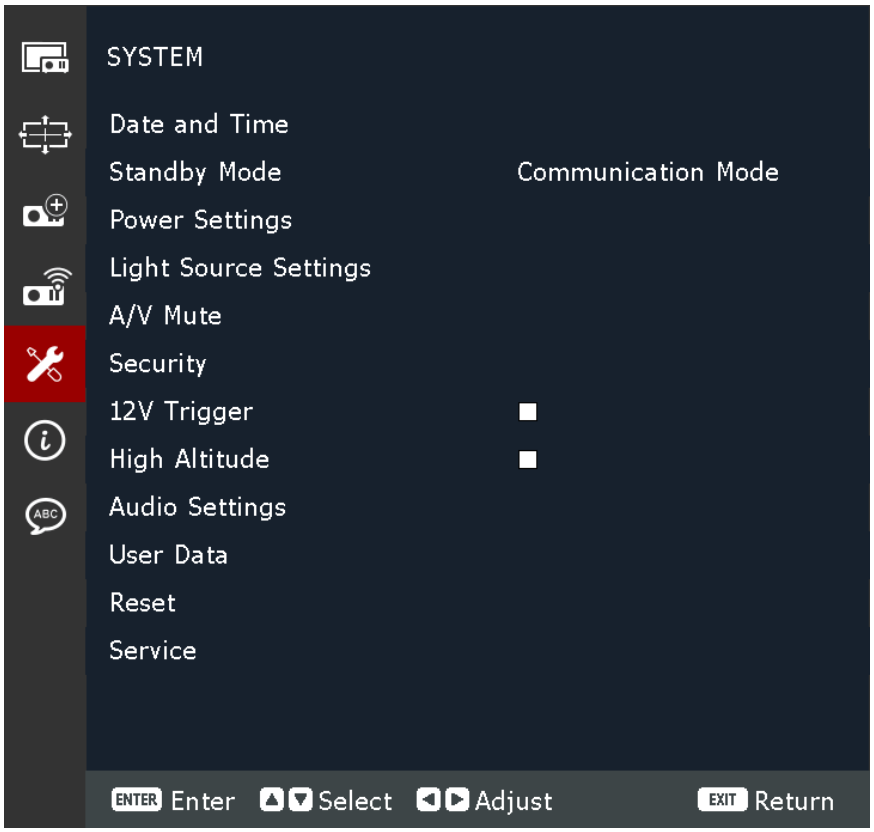
This projector supports using RS232 commands through Telnet connection.

1. Connect the projector directly to your computer via RJ-45 cable and complete the network configuration.
2. Disable the firewall on your computer (if applicable).
3. Open the command dialog box on your computer. For Windows 10, search for Command Prompt app and press ***Enter*** to open the app.
4. Input the command “telnet ttt.xxx.yyy.zzz 4661” without the quotation marks and replace the letters “ttt.xxx.yyy.zzz” with the projector’s IP address.
5. Press ***Enter*** on the computer keyboard.

Specification for RS232 by Telnet

- Telnet: TCP
- Telnet port: 4661 (contact service team for more details)
- Telnet utility: Windows “TELNET.exe” (console mode).
- Disconnection for RS232-by-Telnet control normally: Close
- Below are the limitations for using Windows Telnet utility directly after TELNET connection is ready:
  - » There is less than 50 bytes for successive network payload for Telnet-Control application.
  - » There is less than 26 bytes for one complete RS232 command for Telnet-Control.
  - » Minimum delay for next RS232 command must be more than 200 (ms). Information menu.

System Menu



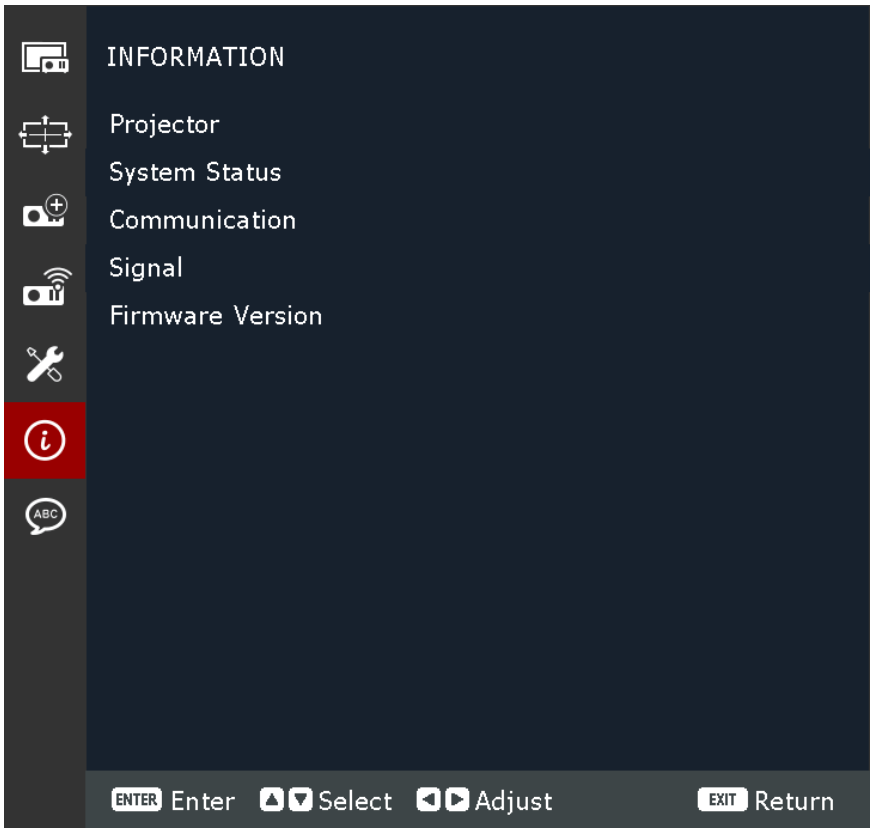
Menu	Description
Date and Time	Clock Mode Set the clock mode to use NTP server (network-based) or manual. **NOTE:** If you set the Clock Mode to use NTP server, then ensure that the projector has access to the internet. Date Set a date for the projector. The date format is in year/ month/date. Time Set the time for the projector. Daylight Saving Time Check the checkbox to enable the daylight saving time. NTP Server Select the NTP server for the network clock mode. Time Zone Select the time zone for the network clock mode. Update Interval Select the date and time update interval. Apply Apply date and time modifications.

Menu	Description
Standby Mode	Standby Mode Minimum power consumption (0.5 Watt) that does not allow network controlling. Network Standby Mode Low power consumption (< 2 Watt) which allows the LAN module to enter sleep mode and supports to be woken by Wake on LAN (WoL). When the LAN module is woken by WoL, the projector is ready to receive commands over the network. Communication Mode More power consumption that allows controlling the projector over the network.
Power Settings	Direct Power On Automatically power on the projector when AC power is supplied, without pressing the **Power** button on the projector or the **Power On** button on the remote control. Fast Power On Check the checkbox to turn on the fast power on function. If this feature is enabled, then: - After pressing the **Power** button on the projector or the **Power On** button on the remote control, the Power Indicator Light will turn green and the projector will power on immediately . The warming up state is skipped. - After pressing the **Power** button on the projector or the **Power Off** button on the remote control, the Power Indicator Light will turn red immediately without the cooling down state. The remaining system keeps operating and prepared to be powered on again. Signal Power On Automatically power on the projector when VGA/HDMI signal is detected, without pressing the **Power** button on the projector or on the remote control. **NOTE:** The projector will not power on automatically if HDMI (5V) source is already connected. Auto Power Off A countdown timer will start when there is no signal being sent to the projector. The projector will automatically power off when the countdown has finished (in minutes). Sleep Timer Set an interval timer for the projector to automatically turn off after operating for the specified amount of time (in hours). Reset Return the power settings to their default values.

Menu	Description
Light Source Settings	Light Source Mode Select a light source mode depending on the installation requirements. The available options are Normal, Eco Mode, and Custom Mode. Custom Brightness When the Light Source Mode is set to Custom Mode, set up the custom brightness level. Set up the Constant Brightness to maintain the image brightness at a specified level. A special algorithm is designed to compensate for the natural decay of brightness so that the image can be maintained at a fixed brightness level. • **Brightness Level**: Adjust the brightness level from 30% to 100%. • **Constant Brightness**: Enable to maintain the image brightness at the set brightness level. A special algorithm is designed to compensate for the natural decay of brightness so that the image can be maintained at a fixed brightness level.
A/V Mute	**NOTE:** • When the projector is in the A/V Mute mode, then the light source indicator starts flashing red and the power indicator turns solid green. • To continue with the presentation, press the **Shutter** SHUTTER button on the remote control. Fade-In This function allows the fading-in effect when using the A/V mute function. The length of the fading effect can be adjusted from 0s to 5s. Fade-Out This function allows the fading-out effect when using the A/V mute function. The length of the fading effect can be adjusted from 0s to 5s. Startup Check the checkbox to enable A/V mute when turning on the projector.

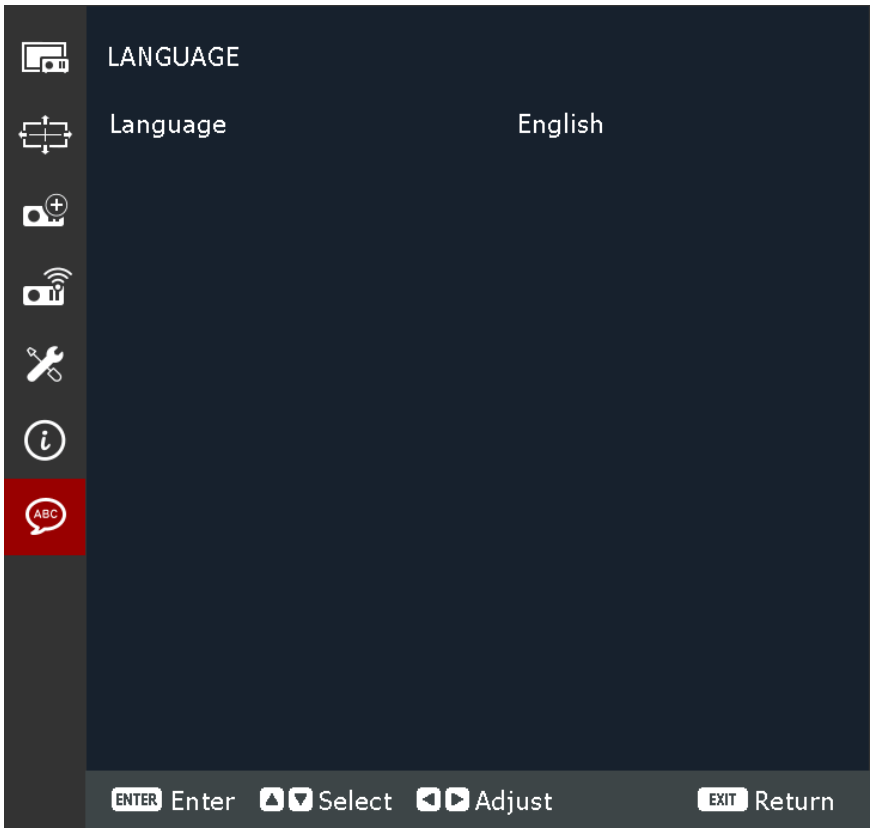
Menu	Description
Security	Security Enable or disable a password prompt before using the projector. Security Timer Set the amount of time the projector can be used. Once this time has elapsed you will be requested to enter your password again. Set Password Set or modify the password. **NOTE:** Please follow the OSD message to input the current password first, then enter a new password (security code). Confirm the new password by entering the new password again.
12V Trigger	When enabled, the projector screen is automatically raised or lowered when the projector is turned on or off. This function only works when the projector is connected to an electrical projector screen.
High Altitude	Check the checkbox to enable the function. When enabled, the fans will spin faster for better cooling and performance. This is useful for high altitude environments where the air is thin.
Audio Settings	Audio Mute Check the checkbox to temporarily turn off the sound. Audio Volume Adjust the volume level.
User Data	Save All Settings Save all of the projector settings as user data. User can save up to 5 records. Load All Settings Load the previously saved user data. Clear Memory Clear the previously saved user data.
Reset	Reset System Settings Reset the settings of the system menu to factory default values. Reset Selective Reset the settings of one of the main menus. User can choose from Image, Display, Extended, Communication, System, and Language.
Service	For service use only.

Information Menu



Menu	Description
Projector	View the model name and serial number.
System Status	View the standby mode, light source mode, total projector hours, light source hours, and system temperature.
Communication	View the remote code, Ethernet parameters, and control settings.
Signal	View information about the input signal.
Firmware Version	View the main, I-SCALER, F-MCU, A-MCU, LAN, formatter, and HDBaseT version.

Language Menu



Menu	Description
Language	Select the On-Screen Display (OSD) menu language.

Appendix

Specifications

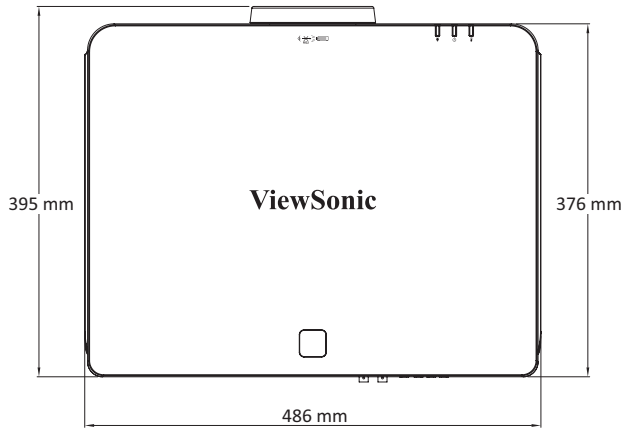
Item	Category	Specifications		
		LS950WU	LS960WU	LS951WU
Projector	Type	Laser		
	Display Size	50”~300”		
	Throw Ratio	1.25~2.0 (Wide 120”@3.26m)		0.75~0.95 (Wide 100”@1.61m)
	Lens	F=2.0~2.4, f=18.72~29.59mm		F=2.3~2.53, f=11.11~ 14.06mm
	Optical Zoom	1.6X		1.26X
	Display System	1-CHIP DMD		
Input Signal	HDMI (v. 2.0)	f_h: 15~135 kHz, f_v:23~120 Hz; Pixel rate: 600 Mhz		
	HDMI (v. 1.4)	f_h: 15~135 kHz, f_v:23~120 Hz; Pixel rate: 300 Mhz		
	VGA	f_h: 31~100 kHz, f_v:56~85 Hz; Pixel rate: 170 Mhz		
Resolution	Native	1920 x 1200		
Power	Input Voltage	AC 100~240V, 50/60 Hz		
Operating Conditions	Temperature	0°C to 40°C (32°F to 104°F)		
	Humidity	10% to 85% (non-condensing)		
	Altitude	0 to 760 m (0 to 2,500 ft.) at 0°C to 40°C (32°F to 104°F) 760 to 1,520 m (2,500 to 5,000 ft.) at 0°C to 35°C (32°F to 95°F) 1,520 to 3,050 m (5,000 to 10,000 ft.) at 0°C to 30°C (32°F to 86°F)		
Storage Conditions	Temperature	-10°C to 60°C (14°F to 140°F)		
	Humidity	5% to 90% (non-condensing)		
Dimensions	With Adjustment Feet (W x H x D)	486 x 186 x 433 mm (19.13” x 7.32” x 17.05”)		486 x 186 x 395 mm (19.13” x 7.32” x 15.55”)
	Without Adjustment Feet (W x H x D)	486 x 177 x 433 mm (19.13” x 6.97” x 17.05”)		486 x 177 x 395 mm (19.13” x 6.97” x 15.55”)
Weight	Physical	12.8 kg (28.22 lbs)	13.7 kg (30.20 lbs)	13.0 kg (28.66 lbs)
Power Consumption	On[1]	405W (Typical)	545W (Typical)	560W (Typical)
	Off	< 0.5W (Standby)		

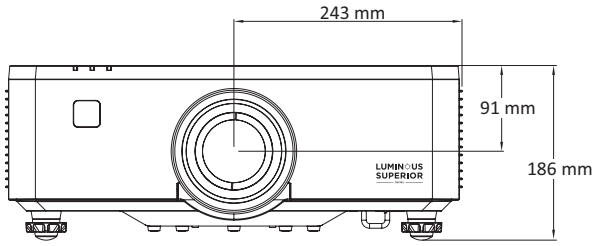
[1] The test condition follows EEI standards.

Projector Dimensions

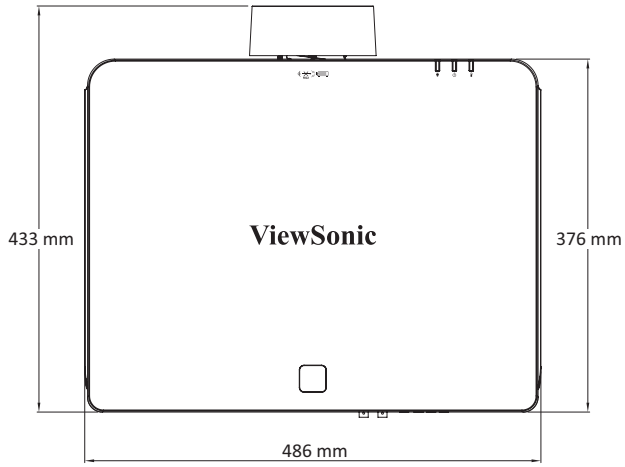
486 mm (W) x 186 mm (H) x 376 mm (D)

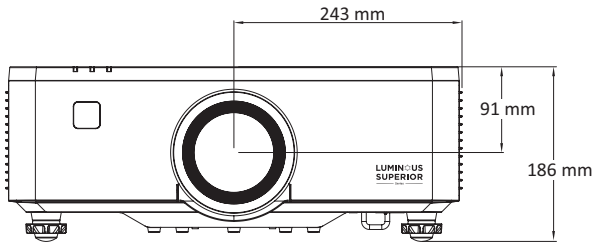
LS951WU





LS950WU / LS960WU





Timing Chart

VGA PC Timing

Mode	Resolution	Refresh Rate (Hz)
VGA	640 x 480	60 / 67 / 72 / 75
IBM	720 x 400	70
SVGA	800 x 600	56 / 60 / 72 / 75
MAC	832 x 624	75
XGA	1024 x 768	60 / 70 / 75
MAC	1152 x 870	75
SXGA	1280 x 1024	60 / 75
WXGA, max	1360 x 765	60
SXGA+	1400 x 1050	60
UXGA	1600 x 1200	60
Full HD	1920 x 1080	60
WUXGA	1920 x 1200 (Reduce Blanking)	60
WXGA	1280 x 800	75
WXGA+	1440 x 900	60 / 75
WSXGA+	1680 x 1050	60

VGA Video Timing

Mode	Resolution	Refresh Rate (Hz)
480i	720 x 480	60
576i	720 x 576	50
480p	720 x 480	60
576p	720 x 576	50
720p	1280 x 720	50 / 60
1080i	1920 x 1080	50 / 60
1080p	1920 x 1080	24 / 25 / 30 / 50 / 60

HDMI 1.4/HDBaseT PC Timing

Mode	Resolution	Refresh Rate (Hz)
VGA	640 x 480	60 / 67 / 72 /75
IBM	720 x 400	70
DVD (NTSC)	720 x 480	60
SVGA	800 x 600	56 / 60 / 72 / 75 / 120
MAC	832 x 624	75
XGA	1024 x 768	60 / 70 / 75 / 120
MAC	1152 x 870	75
SXGA	1280 x 1024	60 / 75
WXGA, max	1360 x 765	60
WXGA, max	1360 x 768	60
WXGA, max	1366 x 768	60
SXGA+	1400 x 1050	60
UXGA	1600 x 1200	60
Full HD	1920 x 1080	60
WUXGA	1920 x 1200 (Reduce Blanking)	60
WXGA	1280 x 800	75
WSXGA+	1680 x 1050	60
4K	3840 x 2160	24 / 25 / 30
	4096 x 2160	24

HDMI 1.4/HDBaseT Video Timing

Timing	Resolution	Refresh Rate (Hz)
Web 640x	640 x 480	60
480p	720 x 480	60
576p	720 x 576	50
720p	1280 x 720	50 / 60 / 120
1080i	1920 x 1080	50 / 60
1080p	1920 x 1080	24 / 25 / 50 / 60 / 120

HDMI 2.0 PC Timing

Mode	Resolution	Refresh Rate (Hz)
VGA	640 x 480	60 / 67 / 72 /75
IBM	720 x 400	70
DVD (NTSC)	720 x 480	60
SVGA	800 x 600	56 / 60 / 72 / 75 / 120
MAC	832 x 624	75
XGA	1024 x 768	60 / 70 / 75 / 120
MAC	1152 x 870	75
SXGA	1280 x 1024	60 / 75
WXGA, max	1360 x 765	60
SXGA+	1400 x 1050	60
UXGA	1600 x 1200	60
Full HD	1920 x 1080	60
WUXGA	1920 x 1200 (Reduce Blanking)	60
WXGA	1280 x 800	75
WSXGA+	1680 x 1050	60
4K	3840 x 2160	24 / 25 / 30
UW Full HD	2560 x 1080	24

HDMI 2.0 Video Timing

Timing	Resolution	Refresh Rate (Hz)
Web 640x	640 x 480	60
480p	720 x 480	60
576p	720 x 576	50
720p	1280 x 720	50 / 60 / 120
1080i	1920 x 1080	50 / 60
1080p	1920 x 1080	24 / 25 / 50 / 60 / 120
4K	3840 x 2160	24 / 25 / 50 / 60
	4096 x 2160	24 / 25 / 30 / 50 / 60
21:9	1680 x 720	30 / 60
	2560 x 1080	24 / 25 / 30 / 50 / 60

3D Supported Timing

HDMI 3D		
Frame Packing Format		
Mode	**Resolution**	**Refresh Rate (Hz)**
720p	1280 x 720	50 / 60
1080p	1920 x 1080	24
Side by Side Format		
Mode	**Resolution**	**Refresh Rate (Hz)**
1080i	1920 x 1080	50 / 60
Top and Bottom Format		
Mode	**Resolution**	**Refresh Rate (Hz)**
720p	1280 x 720	50 / 60
1080p	1920 x 1080	24
Frame Sequential Format		
Mode	**Resolution**	**Refresh Rate (Hz)**
720p	1280 x 720	120
1080p	1920 x 1080	120

Troubleshooting

This section describes some common problems that you may experience when using the projector.

Problem or Issue	Possible Solutions
The projector does not turn on	• Ensure the power cord is properly attached to the projector and to the power outlet. • If the cooling process has not completed, please wait until it has finished then try to turn on the projector again. • If the above does not work, try another power outlet or another electrical device with the same power outlet.
There is no picture	• Ensure the video source cable is connected properly, and that the video source is turned on. • If the input source is not selected automatically, press **Input** on the remote control and select your preferred source..
The image is blurred	• Adjusting focus will help correctly focus the projection lens. For more information, refer to page 43. • Ensure the projector and screen are aligned properly. If necessary, adjust the height of the projector as well as the projection angle and direction.
The image is reversed	• Open the OSD Menu and go to: **Display** > **Orientation** and adjust the projection option.
The image is stretched when projecting a 16:9 DVD	• When you play an anamorphic DVD or 16:9 DVD, the projector will show the best image in 16:9. • If you play a 4:3 format DVD title, please change the format as 4:3 in projector OSD Menu. • Please setup the display format as 16:9 (wide) aspect ratio on the DVD player.
The remote control does not work	• Ensure there are no obstacles between the remote control and projector; and that they are within range, 6m (19 ft.). • The batteries may be out of power, please check and replace if necessary.

Problem or Issue	Possible Solutions
The projector stops responding to all controls	• Turn off the projector and unplug the power cord. Wait at least 20 seconds then reconnect and try again.

LED Indicators

When the warning indicators (see below) light up or flash, the projector will automatically shutdown. Unplug the power cord from the projector, wait for 30 seconds and try again. If the warning indicators light up or flash, please contact your nearest service center for assistance.

Status and Description	Light Source Indicator Light	Power Indicator Light		Temperature Indicator Light
	Red	Red	Green	Red
Standby		ON		
Power On			ON	
Warming Up State		FLASH		
Cooling Down State			FLASH FAST	
Burnin On		FLASH	FLASH	
Burnin Off		FLASH	FLASH	
AV Mute	FLASH		ON	
OPFU Mode	ON	ON	ON	ON
ERROR STATUS				
POWERGOOD NG Error (Power Failure)	ON			ON
Fan Lock				FLASH SLOW
Overheat				ON
LD Overheat				ON

NOTE: Flashing periods:
- FLASH: 1s
- FLASH FAST: 500ms
- FLASH SLOW: 3s

Maintenance

General Precautions

- Make sure the projector is turned off and the power cable is unplugged from the power outlet.
- Never remove any parts from the projector. Contact ViewSonic® or a reseller when any part of the projector needs replacing.
- Never spray or pour any liquid directly onto the case.
- Handle the projector with care, as a darker-colored projector, if scuffed, may show marks more clearly than a lighter-colored projector.

Cleaning the Lens

- Use a canister of compressed air to remove dust.
- If the lens is still not clean, use lens-cleaning paper or moisten a soft cloth with lens cleaner and gently wipe the surface.

CAUTION: Never rub the lens with abrasive materials.

Cleaning the Case

- Use a soft, lint-free, dry cloth to remove dirt or dust.
- If the case is still not clean, apply a small amount of non-ammonia, non-alcohol based, mild non-abrasive detergent onto a clean, soft, lint-free cloth, then wipe the surface.

CAUTION: Never use wax, alcohol, benzene, thinner, or other chemical detergents.

Storing the Projector

If you intend to store the projector for an extended period of time:

- Ensure the temperature and humidity of the storage area are within the recommend range.
- Retract the adjuster foot completely.
- Remove the batteries from the remote control.
- Pack the projector in its original packaging or equivalent.

Disclaimer

- ViewSonic® does not recommend the use of any ammonia or alcohol-based cleaners on the lens or case. Some chemical cleaners have been reported to damage the lens and/or case of the projector.
- ViewSonic® will not be liable for damage resulting from use of any ammonia or alcohol-based cleaners.

Regulatory and Service Information

Compliance Information

This section addresses all connected requirements and statements regarding regulations. Confirmed corresponding applications shall refer to nameplate labels and relevant markings on the unit.

FCC Compliance 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.

Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de classe B est conforme à la norme NMB-003 du Canada.

CAN ICES (A) / NMB (A)

CE Conformity for European Countries

The device complies with the EMC Directive 2014/30/EU and Low Voltage Directive 2014/35/EU. Ecodesign Directive 2009/125/EC.

The following information is only for EU-member states:

The mark shown to the right is in compliance with the Waste Electrical and Electronic Equipment Directive 2012/19/EU (WEEE). The mark indicates the requirement NOT to dispose of the equipment as unsorted municipal waste, but use the return and collection systems according to local law.

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 ($Cr6^{+}$)	0.1%	< 0.1%
Polybrominated biphenyls (PBB)	0.1%	< 0.1%
Polybrominated diphenyl ethers (PBDE)	0.1%	< 0.1%
Bis (2-ethylhexyl) phthalate (DEHP)	0.1%	< 0.1%
Butyl benzyl phthalate (BBP)	0.1%	< 0.1%
Dibutyl phthalate (DBP)	0.1%	< 0.1%
Diisobutyl phthalate (DIBP)	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:

- Lead in glass of cathode ray tubes.
- Lead in glass of fluorescent tubes not exceeding 0.2% by weight.
- Lead as an alloying element in aluminum containing up to 0.4% lead by weight.
- Copper alloy containing up to 4% lead by weight.
- Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead).
- 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.

Indian Restriction of Hazardous Substances

Restriction on Hazardous Substances statement (India). This product complies with the “India E-waste Rule 2011” and prohibits use of lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers in concentrations exceeding 0.1 weight % and 0.01 weight % for cadmium, except for the exemptions set in Schedule 2 of the Rule.

Product Disposal at End of Product Life

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

USA & Canada:

https://www.viewsonic.com/us/go-green-with-viewsonic

Europe:

https://www.viewsonic.com/eu/environmental-social-governance/recycle

Taiwan:

https://recycle.moenv.gov.tw/

For EU users please contact us for any safety/accident issue experienced with this product:

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ENERGY STAR® is a registered trademark of the U.S. Environmental Protection Agency (EPA).

As an ENERGY STAR® partner, ViewSonic® Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

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In the interest of continuing product improvement, ViewSonic® Corporation reserves the right to change product specifications without notice. Information in this document may change without notice.

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Customer Service

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

NOTE: You will need the product's serial number.

Country/ Region	Website	Country/ Region	Website
Asia Pacific & Africa			
Australia	www.viewsonic.com/au/	Bangladesh	www.viewsonic.com/bd/
中国 (China)	www.viewsonic.com.cn	香港 (繁體中文)	www.viewsonic.com/hk/
Hong Kong (English)	www.viewsonic.com/hk-en/	India	www.viewsonic.com/in/
Indonesia	www.viewsonic.com/id/	Israel	www.viewsonic.com/il/
日本 (Japan)	www.viewsonic.com/jp/	Korea	www.viewsonic.com/kr/
Malaysia	www.viewsonic.com/my/	Middle East	www.viewsonic.com/me/
Myanmar	www.viewsonic.com/mm/	Nepal	www.viewsonic.com/np/
New Zealand	www.viewsonic.com/nz/	Pakistan	www.viewsonic.com/pk/
Philippines	www.viewsonic.com/ph/	Singapore	www.viewsonic.com/sg/
臺灣 (Taiwan)	www.viewsonic.com/tw/	ประเทศไทย	www.viewsonic.com/th/
Việt Nam	www.viewsonic.com/vn/	South Africa & Mauritius	www.viewsonic.com/za/
Americas			
United States	www.viewsonic.com/us	Canada	www.viewsonic.com/us
Latin America	www.viewsonic.com/la		
Europe			
Europe	www.viewsonic.com/eu/	France	www.viewsonic.com/fr/
Deutschland	www.viewsonic.com/de/	Қазақстан	www.viewsonic.com/kz/
Россия	www.viewsonic.com/ru/	España	www.viewsonic.com/es/
Türkiye	www.viewsonic.com/tr/	Україна	www.viewsonic.com/ua/
United Kingdom	www.viewsonic.com/uk/		

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 laser light source, three (3) years for labor, and one (1) year for the original laser light source from the date of the first professional projector 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 laser light source, one (1) year for labor, and ninety (90) days for the original laser light source from the date of the first professional projector purchase; Europe: One (1) year warranty for all parts excluding the laser light source, one (1) year for labor, and ninety (90) days for the original laser light source from the date of the first professional projector purchase. Other regions or countries: Please check with your local dealer or local ViewSonic® office for the warranty information. Laser light source warranty subject to terms and conditions, verification and approval. Applies to manufacturer's installed laser light source only. All accessory laser light sources purchased separately are warranted for 90 days.

Who the warranty protects:

This warranty is valid only for the first professional projector 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:
    - » Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
    - » Operation outside of product specifications.
    - » Operation of the product for other than the normal intended use or not under normal conditions.
    - » Repair or attempted repair by anyone not authorized by ViewSonic®.
    - » Any damage of the product due to shipment.
    - » Removal or installation of the product.
    - » Causes external to the product, such as electric power fluctuations or failure.
    - » Use of supplies or parts not meeting Viewsonic's specifications.
    - » Normal wear and tear.
    - » 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 the "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 state law:

This warranty gives you specific legal rights, and you may also have other rights which vary from local authority. Some local governments 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 at: http://www.viewsonic.com/eu/ under "Support/Warranty Information".

Mexico Limited Warranty

ViewSonic® Projector

What the warranty covers:

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

How long the warranty is effective:

3 years for all parts excluding the laser light source, 3 years for labor, 1 year for the original laser light source from the date of the first professional projector purchase.

Laser light source warranty subject to terms and conditions, verification and approval. Applies to manufacturer's installed laser light source only.

All accessory laser light sources purchased separately are warranted for 90 days.

Who the warranty protects:

This warranty is valid only for the first professional projector purchaser.

What the warranty excludes and does not cover:

1. Any product on which the serial number has been defaced, modified or removed.

2. Damage, deterioration, or malfunction resulting from:

- » 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.
- » Any damage of the product due to shipment.
- » Causes external to the product, such as electrical power fluctuations or failure.
- » Use of supplies or parts not meeting ViewSonic®'s specifications.
- » Normal wear and tear.
- » 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 Service" 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:

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