

User Manual

020-001162-03

GS Series **DHD599-GS/DWU599-GS**

CHRISTIE®

The CD included with this printed manual contains an electronic copy in English. Please read all instructions before using or servicing this product.

手册中包含的光盘，带有着中文的电子副本，使用或维修本产品前，请仔细查阅所有的指示。

Le DC fourni avec ce manuel imprimé contient une copie électronique en français. S'il vous plaît lire toutes les instructions avant d'utiliser ou de réparer ce produit.

Das CD, das mit diesem gedruckten Handbuch eingeschlossen ist, enthält eine elektronische Kopie auf in deutscher Sprache. Vor der Anwendung oder der Instandhaltung dieses Produktes lesen Sie bitte alle Anweisungen.

Il CD fornito con il manuale stampato contiene una copia elettronica in lingua italiano. Si prega di leggere tutte le istruzioni prima di utilizzare o riparare questo prodotto.

この印刷されたマニュアルに同梱されております CD には、日本語での説明書が入っております。この製品を使用あるいは修理点検される際に、ご参照下さい。

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Поставляемый в комплекте с документацией компакт-диск (CD) содержит электронную копию руководства пользователя на русском языке. Перед началом использования изделия или проведения сервиса пожалуйста прочтите все инструкции изложенные в руководстве.

El DC incluido con este manual impreso contiene una copia electrónica en español. Por favor, lea todas las instrucciones antes de usar o dar servicio a este producto.

Компакт диск, що постачається з цим друковане керівництво містить електронну копію українською мовою. Будь ласка, прочитайте всі інструкції перед використанням або обслуговуванням цього продукту.

O CD incluído com o impresso livro contém um eletrônico cópia em Português. Por favor lido todas as instruções antes de usar ou prestando serviço esse resultado.

NOTICES

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REGULATORY

The product has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the product is operated in a commercial environment. The product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of the product in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at the user's own expense.

WARNING! Changes or modifications not expressly approved by Christie could void the user's authority to operate the product.

FOR COMMERCIAL USE ONLY - POUR USAGE COMMERCIAL UNIQUEMENT

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING 2 CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING ANY INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

THIS CLASS A DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.


CET APPAREIL NUMÉRIQUE DE CLASSE A EST CONFORME AUX NORMES DÉFINIES DANS LES RÉGLEMENTATIONS CANADIENNES SUR LES APPAREILS CAUSANT DES INTERFÉRENCES RADIO (CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS, ICES-003, CLASS A).

声明 此为 A 级产品，在生活环境中，该产品可能会造成无线干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。

이 기기는 업무용 (A 급) 으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이점을 주의하시기 바라며, 가정 외의 지역에서 사용하는 것을 목적으로 합니다.

GENERAL

Every effort has been made to ensure accuracy, however in some cases changes in the products or availability could occur which may not be reflected in this document. Christie reserves the right to make changes to specifications at any time without notice. Performance specifications are typical, but may vary depending on conditions beyond Christie's control such as maintenance of the product in proper working conditions. Performance specifications are based on information available at the time of printing. Christie makes no warranty of any kind with regard to this material, including, but not limited to, implied warranties of fitness for a particular purpose. Christie will not be liable for errors contained herein or for incidental or consequential damages in connection with the performance or use of this material.

The product is designed and manufactured with high-quality materials and components that can be recycled and reused. This symbol  means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from regular waste. Please dispose of the product appropriately and according to local regulations. In the European Union, there are separate collection systems for used electrical and electronic products. Please help us to conserve the environment we live in!

Canadian manufacturing facility is ISO 9001 and 14001 certified.

GENERAL WARRANTY STATEMENTS

For complete information about Christie's limited warranty, please contact your Christie dealer. In addition to the other limitations that may be specified in Christie's limited warranty, the warranty does not cover:

- a. Damage occurring during shipment, in either direction.
- b. Problems caused by combination of the product with non-Christie equipment, such as distribution systems, cameras, video tape recorders, etc., or use of the product with any non-Christie interface device.
- c. Damage caused by misuse, improper power source, accident, fire, flood, lightning, earthquake or other natural disaster.
- d. Damage caused by improper installation/alignment, or by product modification, if by other than a Christie authorized repair service provider.
- e. For LCD projectors, the warranty period specified applies only where the LCD projector is in "normal use". "Normal use" means the LCD projector is not used more than 8 hours a day, 5 days a week. For any LCD projector where "normal use" is exceeded, warranty coverage under this warranty terminates after 6000 hours of operation.
- f. Failure due to normal wear and tear.

PREVENTIVE MAINTENANCE

Preventive maintenance is an important part of the continued and proper operation of your product. Please see the Maintenance section for specific maintenance items as they relate to your product. Failure to perform maintenance as required, and in accordance with the maintenance schedule specified by Christie, will void the warranty.

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Safety

Read through this document in its entirety and understand all warnings and precautions before attempting to operate the projector.



Warning! Failure to comply with the following could result in death or serious injury.

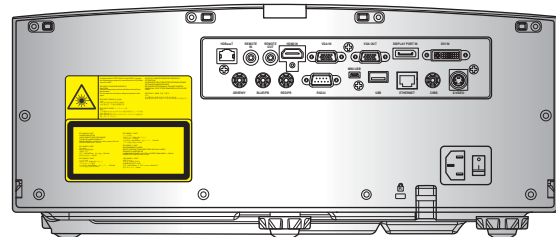
- Do not look into the projector lens when the laser is on. The bright light may result in permanent eye damage.
- To reduce the risk of fire or electric shock, do not expose this projector to rain or moisture.
- Do not open or disassemble the projector as this may cause electric shock.
- When you turn the projector off, wait 180 seconds for the projector to cool down before you disconnect the projector from power.
- All installation and maintenance procedures must be performed by a Christie accredited service technician.
- Keep all combustible material away from the concentrated light beam of the projector.
- Position all cables where they cannot contact hot surfaces or be pulled or tripped over.
- Always power down the projector and disconnect all power sources before servicing or cleaning.
- Use a soft cloth moistened with a mild detergent to clean the display housing.
- Disconnect the power plug from the AC outlet if the product is not being used for an extended period of time.
- Use only the AC power cord supplied. Do not attempt operation if the AC supply and cord are not within the specified voltage and power range for your region.
- Remove the lens plug from the lens opening in the projector before installing the lens. Retain the lens plug to protect the optical components from dust and debris during transport.
- Do not block the ventilation slots and openings on the projector.
- Do not use abrasive cleaners, waxes or solvents to clean the projector.
- Do not allow anything to rest on the power cord.

Laser safety warnings

This projector is a Class 3R laser device that complies with IEC 60825-1:2007, CFR 1040.10 and 1040.11. This projector is classified as Risk Group 2 according to IEC 62471:2006.



Laser warning label is located at the rear side of the projector as shown in the illustration below.



Laser aperture warning:



Laser aperture warning label is located on top of the projector as shown in the illustration below.





Warning! Failure to comply with the following could result in death or serious injury.

- CLASS 3R LASER PRODUCT-AVOID DIRECT EYE EXPOSURE
- When turning on the projector, make sure no one within projection range is looking at the lens.
- Keep any items (magnifying glass etc.) out of the light path of the projector. The light path being projected from the lens is extensive, therefore any kind of abnormal objects that can redirect light coming out of the lens, can cause an unpredictable outcome such as a fire or injury to the eyes.
- Any operation or adjustment not specifically instructed by the user's guide creates the risk of hazardous laser radiation exposure.
- Do not open or disassemble the projector as this may cause damage by the exposure of laser radiation.
- Do not stare into beam when the projector is on. The bright light may result in permanent eye damage.
- Follow the control, adjustment or operation procedures to avoid damage or injury from exposure of laser radiation.



Introduction

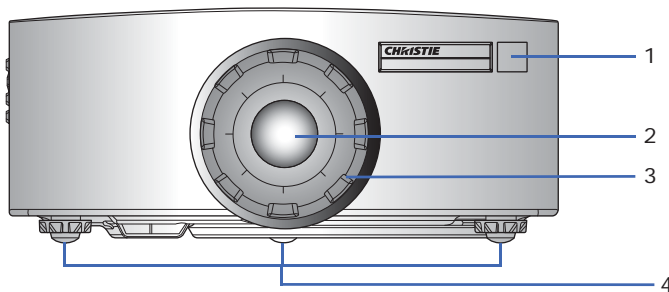
The product specified in this document is a high brightness, high-resolution video/graphics 1-chip laser based projector. The projector is available in HD and WUXGA resolutions. The projector utilizes Digital Light Processing (DLP®) technology from Texas Instruments. It is primarily designed for fixed installation markets.

Projector components

Identify the main components of the projector.

Front view

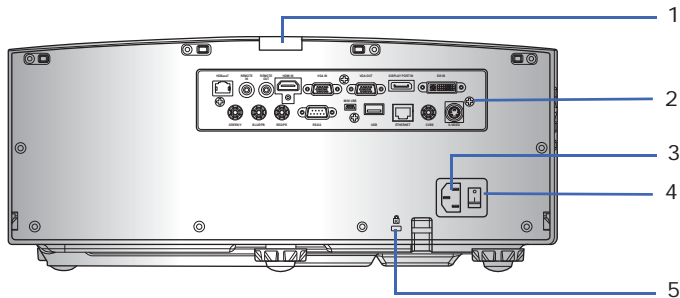
Identify the main components on the front of the projector.



ID	Part name	Description
1	Front IR sensors	Receives signals from the IR remote keypad. Keep the signal path to the sensor unobstructed for uninterrupted communication with the projector.
2	Projection lens	Allows automated lens control and adjustment: vertical and horizontal offsets, zoom, and focus.
3	Lens ring	Protects the lens motors and mechanism. Remove in order to insert or remove the lens.
4	Adjustable feet	Raises or lowers the feet to level the projector.

Rear view

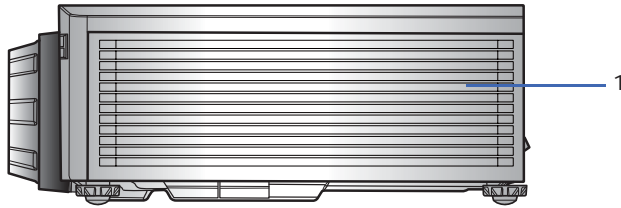
Identify the main components on the rear of the projector.



ID	Part name	Description
1	Rear IR sensor	Receives signals from the IR remote keypad. Keep the signal path unobstructed for uninterrupted communication with the projector.
2	Input/Output (I/O) panel	Connects the projector to external devices.
3	AC input	Connects to the supplied power adapter (100-240V~).
4	Power button	Powers the projector on or off.
5	Kensington lock	Secures the projector to counter tops, tables, and so on.

Left view

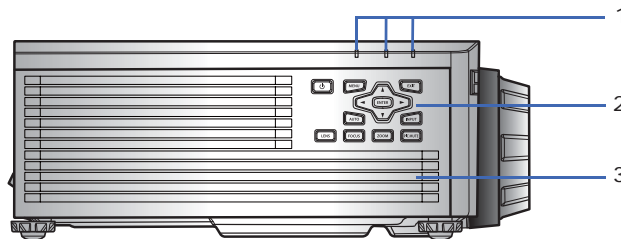
Identify the main components on the left side of the projector.



ID	Part Name	Description
1	Cooling air vents (intake)	Provides cooling to the projector. Keep these vents unobstructed to prevent the projector from overheating.

Right view

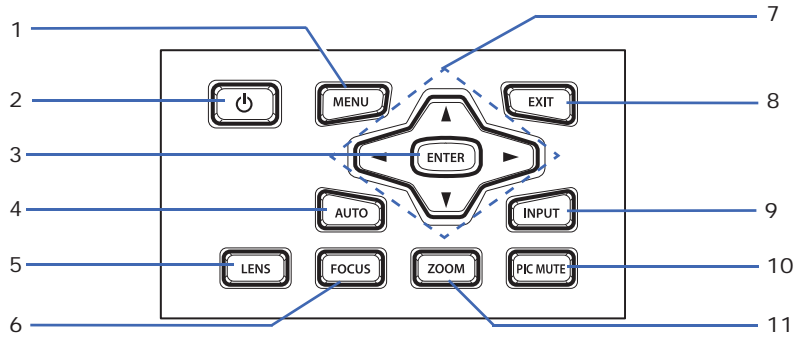
Identify the main component on the right side of the projector.



ID	Part Name	Description
1	LED Status Indicators	Displays the status of the projector. They are (from left to right): LASER, STATUS, and PIC MUTE.
2	Built-in keypad	Controls the projector.
3	Cooling air vents (exhaust)	Provides cooling to the projector. Keep these vents unobstructed to prevent the projector from overheating.

Built-in keypad

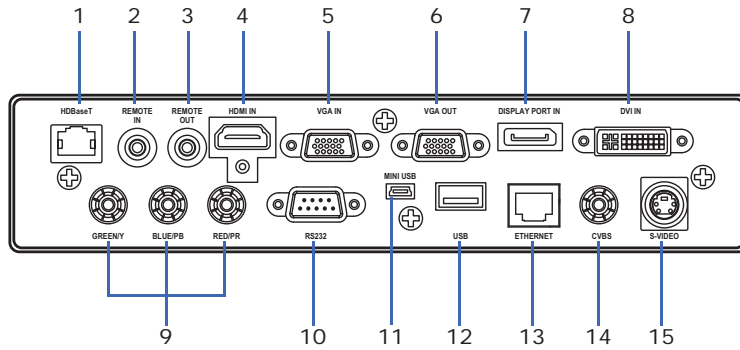
The built-in keypad controls the projector.



ID	Part Name	Description
1	Menu	Displays the menus.
2	Power	Turns the projector on or off.
3	Enter	Confirms a selection.
4	Auto	Automatically optimizes an image.
5	Lens	Adjusts the lens vertical or horizontal offset setting.
6	Focus	Adjusts the focus.
7	Arrow keys	Adjusts a setting up or down, or navigate within a menu.
8	Exit	Returns to the previous level or exits the menus if at top level.
9	Input	Selects an input for the main or PIP/PBP image.
10	Picture mute	Displays or blanks the video image.
11	Zoom	Adjusts the zoom.

Input/Output (I/O) panel

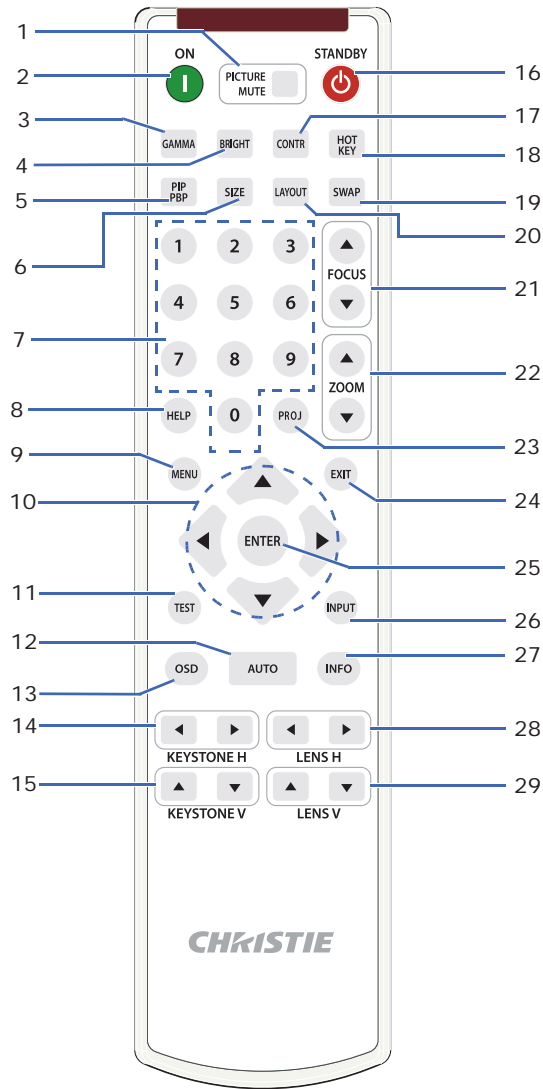
Identify the components of the Input/Output (I/O) panel.



ID	Connector name	ID	Connector name
1	HDBaseT	9	COMPONENT IN (YPbPr)
2	REMOTE IN	10	RS232
3	REMOTE OUT	11	MINI USB
4	HDMI IN	12	USB
5	VGA IN	13	ETHERNET
6	VGA OUT	14	CVBS
7	DISPLAY PORT IN	15	S-VIDEO
8	DVI IN		

IR remote keypad

The IR remote keypad communicates with the projector by way of wireless communications. Use a cable length of 20 m or less. If the length of cable exceeds 20 m, the IR remote keypad may not work correctly.



ID	Part Name	Description
1	SHUTTER	Displays or blanks the video image.
2	Power on	Turns the projector on.
3	Gamma	Adjusts the mid-range levels.
4	Bright	Adjusts the amount of light in the image.
5	PIP/PBP	Turns PIP/PBP on or off.

ID	Part Name	Description
6	Size	Adjusts the PIP/PBP size.
7	Number Keys	Enter a number, such as a channel, value, and so on. The on-screen display indicates if a function is not supported.
8	Help	Displays the instructions for source connection.
9	Menu	Displays the menus.
10	Arrow Keys	Adjusts a setting up or down to navigate within a menu.
11	Test	Displays a test pattern.
12	Auto	Automatically optimizes an image.
13	OSD	Use to hide or show on-screen display (OSD) menus.
14	Keystone H	Adjusts the horizontal keystone.
15	Keystone V	Adjusts the vertical keystone.
16	Standby	Turns the projector off.
17	Contrast	Adjusts the difference between dark and light.
18	Hot key	Selects your preset key quickly.
19	Swap	Swaps the main and PIP/PBP images.
20	Layout	Adjusts the PIP/PBP layout.
21	Focus	Adjusts the focus to improve image clarity as required.
22	Zoom	Adjusts the zoom to achieve a required image size.
23	Proj	Changes the IR remote keypad ID. <ul style="list-style-type: none"> • To assign an ID, press Proj + <1 to 9>. • To return to the universal IR remote ID, press Proj + 0.
24	Exit	Returns to previous level or exit menus if at top level.
25	Enter	Selects a highlighted menu item, or changes or accepts a value.
26	Input	Selects an input for the main or PIP/PBP image.
27	Info	Displays the source image information.
28	Lens H	Adjusts the position of the image horizontally.
29	Lens V	Adjusts the position of the image vertically.

LED status indicators

LEDs are defined below.

Laser LED

Identify the laser diode state colors and meaning.

LED Status	Projector State
Red (flashing)	Projector has lost over 60% initial luminance.
Orange (solid)	Laser diode time has expired.
Green (solid)	Laser diode is on and operating correctly.
Off	Laser diode is off.

Status LED

Identify the LED state colors and meaning.

LED Status	Projector State
Off	AC power is off (without AC plugged in).
Off, but keypad LED is on	AC has been applied, projector is in standby mode. NOTE: Status LED cannot be flashing red, as this is reserved for an error condition. Status LED is off but keypad LED will indicate Standby Mode.
Green (solid)	Projector is powered up and operating normally.
Green (flashing)	Projector communications.
Orange (flashing)	Projector is in cool down mode or startup mode.
Green (flashing) / Orange (solid)	Projector is in flash update state.
Red (solid)	Over-temperature.
Red (flashing)	Fan failure.

Picture Mute LED

Identify the picture mute LED state colors and meaning.

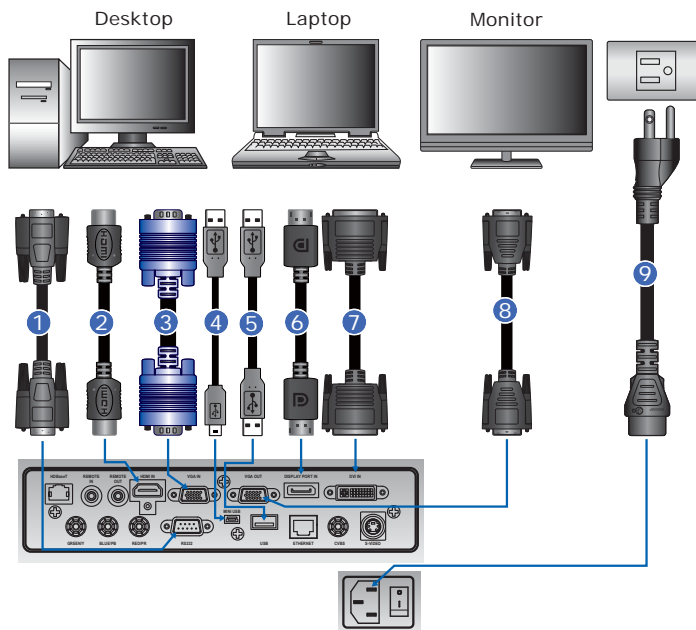
LED Status	Projector State
Green (solid)	Light is on and an image is displayed.
Orange (solid)	Light is on and the image is blank.

Installation

Learn how to install, connect, and optimize the projector display.

Connecting to a computer

Learn what cables/connectors that may be used to connect to various devices.



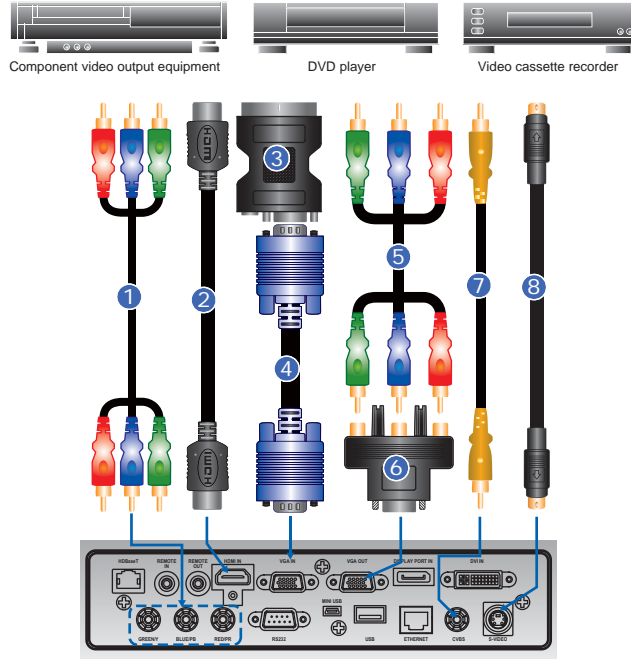
ID	Connector name	ID	Connector name	ID	Connector name
1	RS232 cable	4	USB type B Mini cable	7	DVI-D in cable
2	HDMI cable	5	USB type A cable	8	VGA out cable
3	VGA in cable	6	Display Port cable	9	Power cord



- Due to the difference in applications for each country, the accessories required in some regions may differ from those shown.
- This diagram is for illustrative purposes only, and does not indicate that these accessories are supplied with the projector.

Connecting to video equipment

Learn what cable/connectors may be used to connect to various devices..



ID	Connector name	ID	Connector name	ID	Connector name
1	Component (YPbPr) cable	4	VGA in cable	7	CVBS cable
2	HDMI cable	5	3 RCA Component cable	8	S-Video cable
3	VGA to Component	6	15-pin to 3 RCA Component/HDTV Adapter		



- Due to the difference in applications for each country, the accessories required in some regions may differ from those shown.
- This diagram is for illustrative purposes only, and does not indicate that these accessories are supplied with the projector.

Turning the projector on

The projector cables must be securely connected before turning the power on.





Warning! Failure to comply with the following could result in death or serious injury.


- Do not look into the projector lens when the laser is on. The bright light may result in permanent eye damage

1. Ensure that the power cord and signal cable are securely connected.

The Power button on the built in keypad is illuminated.

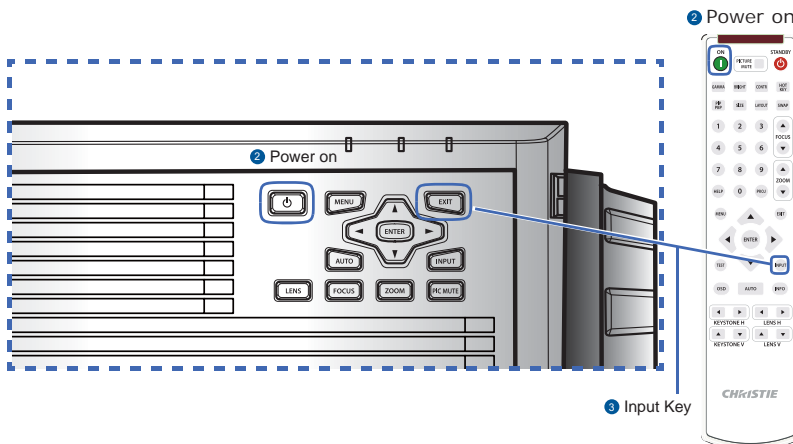
2. Ensure that no one or no objects are in the beam path before turning on the projector.
3. Turn on the projector by pressing  on the remote control or pressing  on the built-in keypad.

The status LED is orange with a long blink. 

4. Turn on the source. Press the **Input** button on the remote control to select an input source. 

Available input sources are VGA, BNC, HDMI, Component, S-Video, and Composite Video.

The projector detects the source you selected and displays the image.



The first time the projector is used, select the preferred language from the Main Menu after the startup screen is displayed.

Turning the projector off

Power off the projector in preparation for inspection or maintenance.

1. Press **⏻** on the built-in keypad or on the remote control to turn off the projector.

A warning message appears on the displayed image.

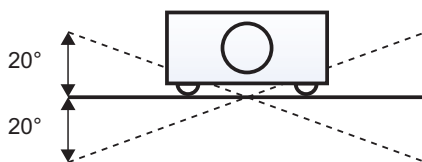
2. Press **⏻** again to confirm your selection.

If you do not press **⏻** again, the warning message disappears after 10 seconds and the projector remains on.

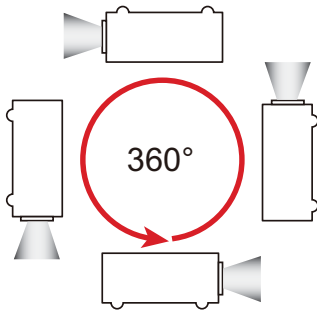
Adjusting the projector position

When you select a position for the projector, consider the size and shape of your screen, the location of your power outlets, and the distance between the projector and the rest of your equipment. Follow these general guidelines:

- Position the projector on a flat surface at a right angle to the screen. The projector (with the standard lens) must be at least 3 feet (0.9 m) from the projection screen.
- Position the projector to the required distance from the screen. The distance from the lens of the projector to the screen, the zoom setting, and the video format determine the size of the projected image.
- Determine the lens throw ratio:
 - Lens 1.22~1.53 (WU/HD)
 - Lens 0.95~1.22 (WU/HD)
 - Lens 1.52~2.89 (WU/HD)
 - Lens 0.75~0.95 (WU/HD)
 - Lens 2.90~5.50 (WU/HD)
- Do not roll the projector more than 20 degrees from side to side.



- 360 degree operation (along the widest axis)

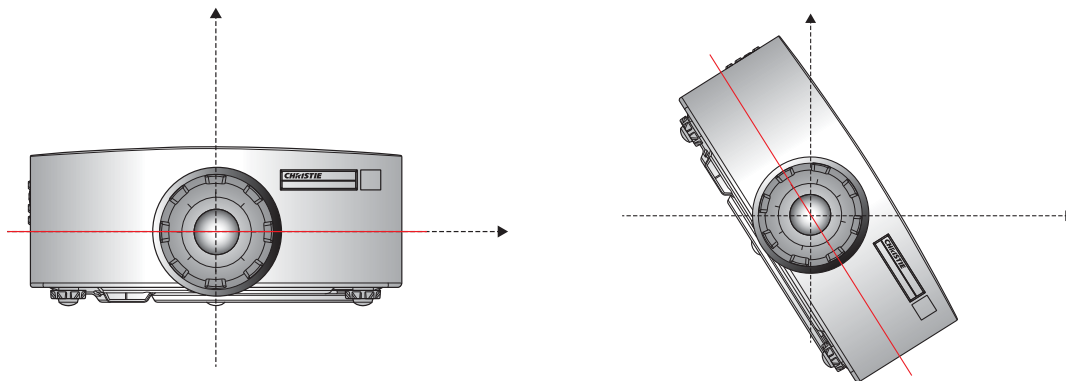


Portrait Mode

- The projector is in portrait mode when the viewing angle is from 60° to 120° as illustrated below.



Warning! In portrait orientation, the Portrait Side Cover must be installed on the side of the projector which is now the lower side. Portrait orientation is not allowed with the opposite side facing down.

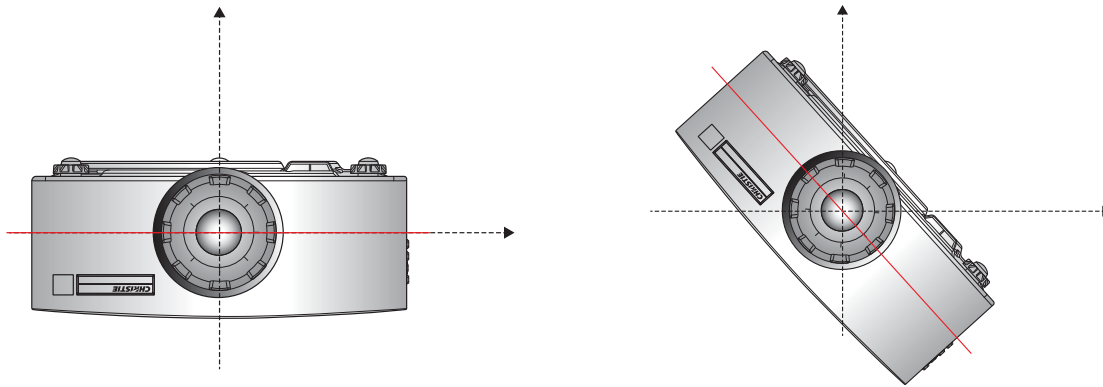


Non-Portrait Mode

- The projector is in non-portrait mode when the viewing angle is 240° to 300° as illustrated below.
- The "orange" status LED on projector lights on.

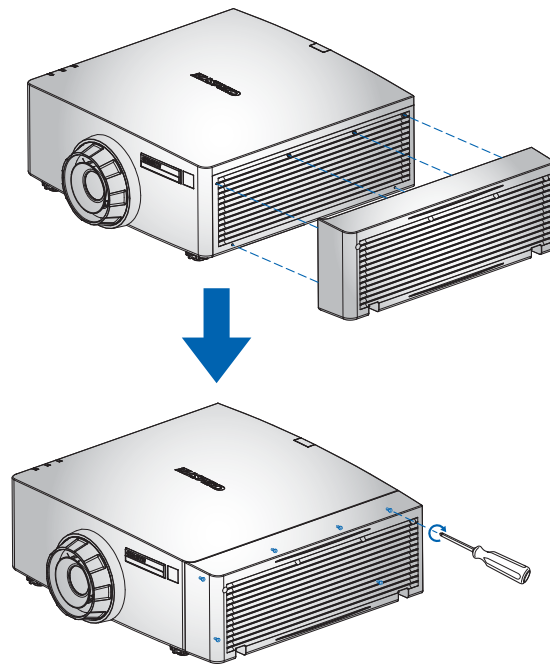


Warning! The projector should not be operated in Non-Portrait Mode.

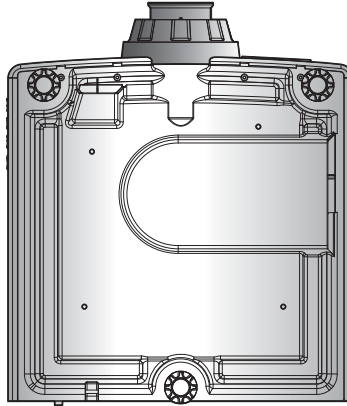


Portrait cover installation

1. Attach the Portrait cover to the left side of the projector and secure with six M3 screws.



2. Mount the projector in an appropriate mounting kit, using the 4 mounting points on the underside of the projector.

**Warning!**

- Mount with the portrait cover side facing downwards.
- The projector must not stand on a table top on the portrait cover.

Calculating the lens offset

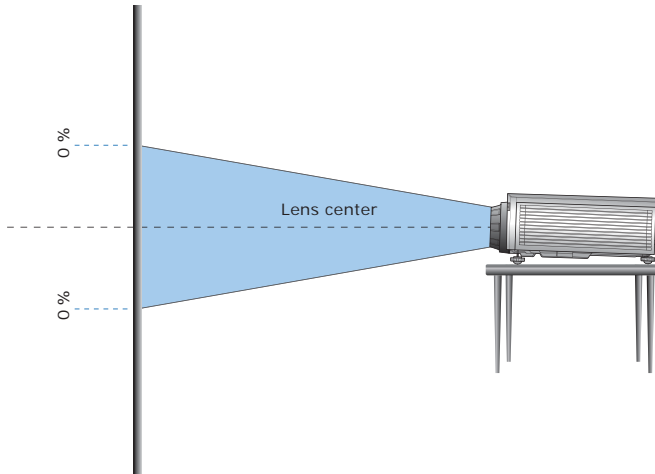
Adjust the offset to align the image on the screen with half image size.

- The vertical image offset (shift) ranges for the projector are +/-100% (WUXGA) and +/-120% (HD).
- The horizontal image offset (shift) range for the projector are +/-30% (HD/WUXGA).
- The method for calculating lens offset complies with industry standards. For example for Vertical lens offset:
 - At 0% offset (or on axis), the center of the image is on the lens center, so half of the image appears above and half appears below the lens center.
 - At +100% offset, all (or 100%) of the image will appear above the lens center.
 - The percentage (%) offset is calculated as the ratio of the number of pixels shifted up or down to half image size.

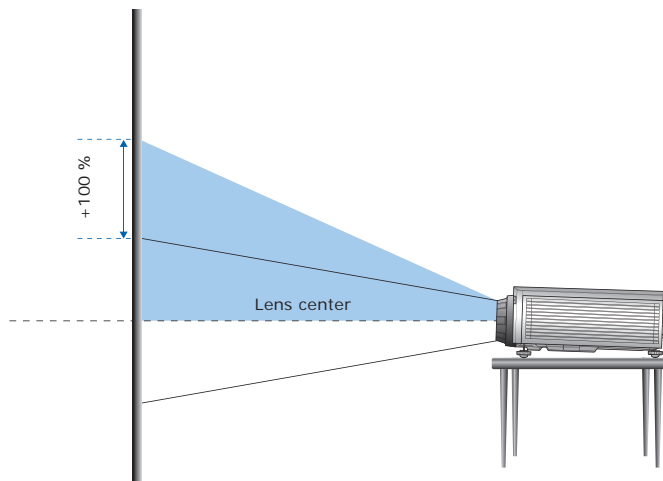
WUXGA projectors

The following show vertical and horizontal image offsets for the WUXGA projectors:

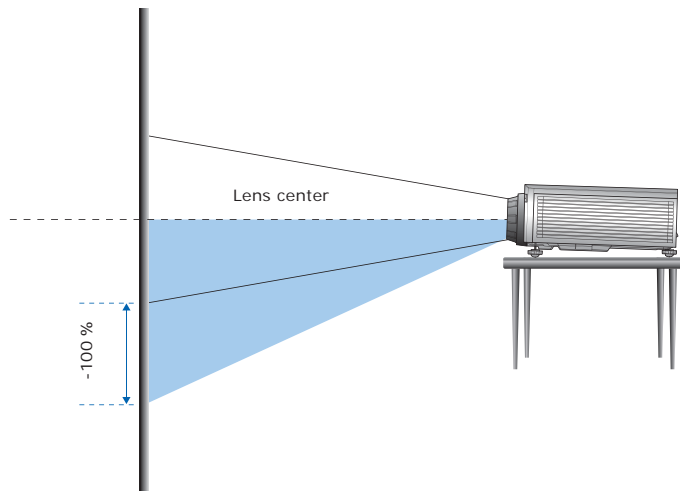
- Vertical image offset: 0%



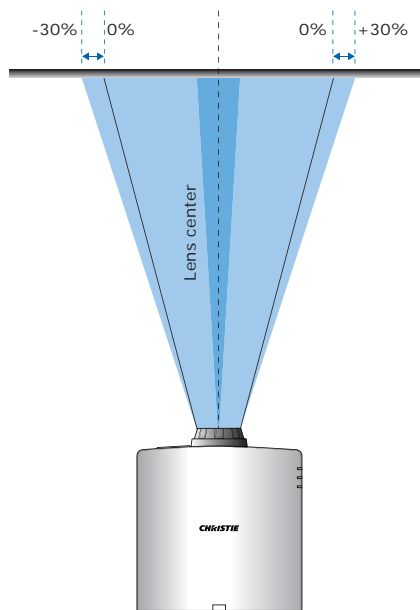
- Vertical image offset: +100%



- Vertical image offset: -100%



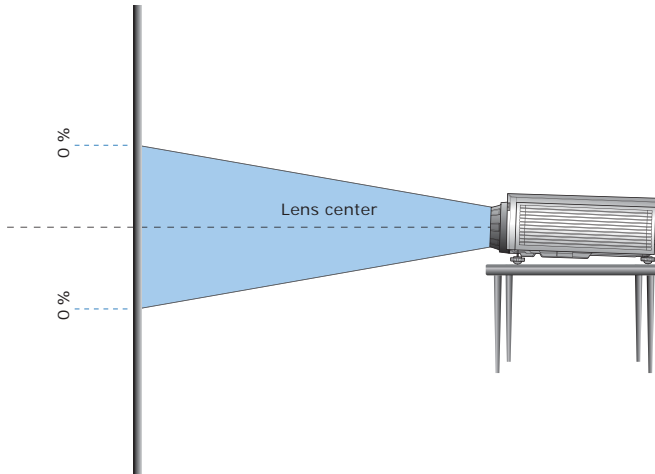
- Horizontal image offset: +/-30%



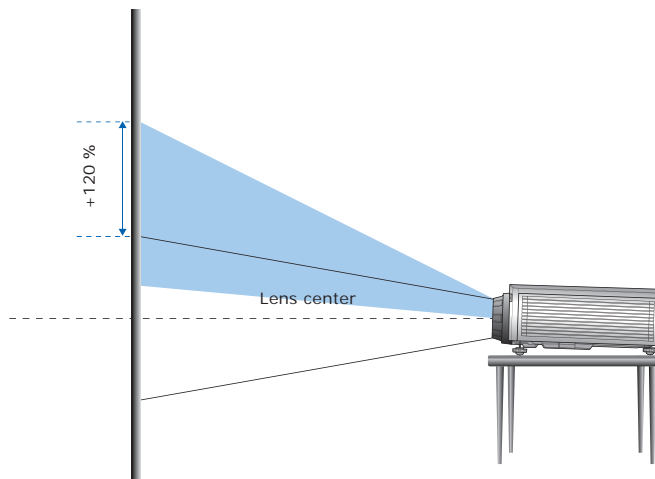
HD Projectors

The following show vertical and horizontal image offset for HD projectors:

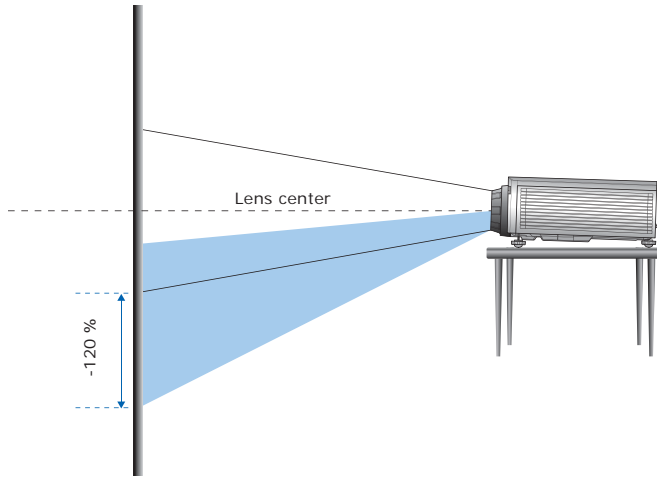
- Vertical image offset: 0%



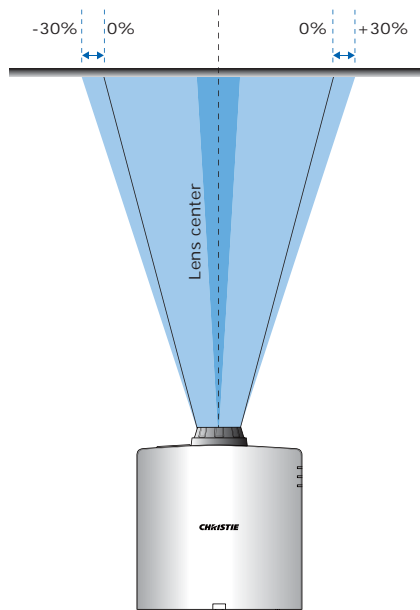
- Vertical image offset: +120%



- Vertical image offset: -120%



- Horizontal image offset: +/-30%



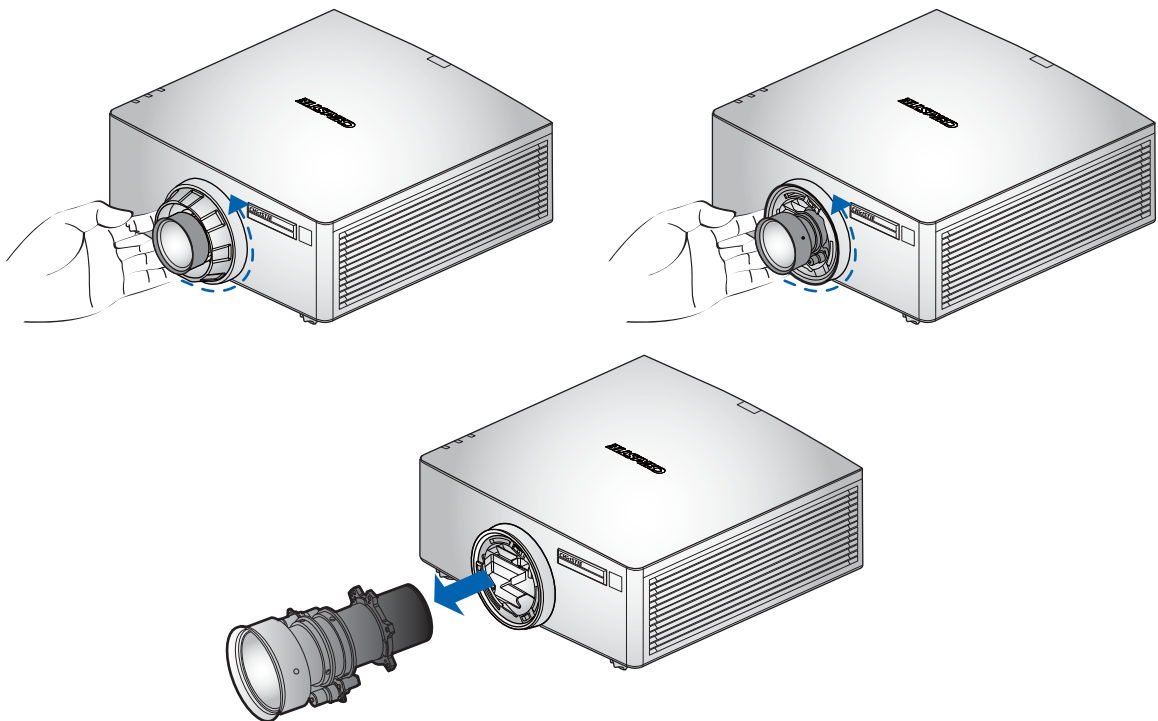
Removing and installing the lens



Warning! Failure to comply with the following could result in death or serious injury.

- Turn off the projector and remove the power cord, before installing or replacing a lens.

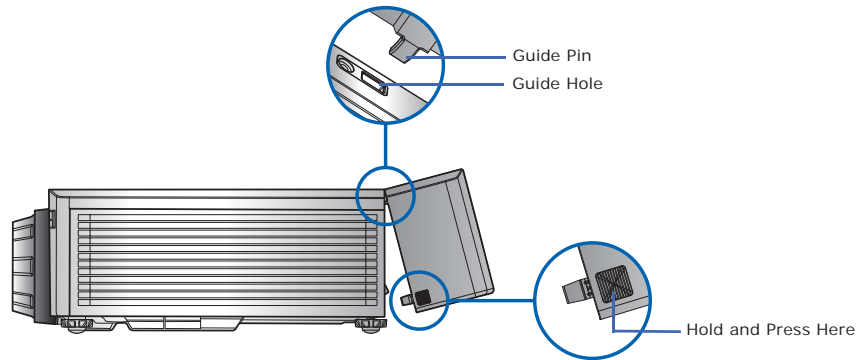
1. **Center the lens:** Ensure that the lens is at or near its center position. Attempting to remove the lens when at a large offset may cause damage to the lens assembly. Center the lens while the projector is switched on by pressing the lens horizontal or vertical button and then pressing Enter.
2. **Turn Off the projector:** Turn the projector OFF.
3. **Wait for projector to cool down:** Allow the projector to cool down into standby mode before replacing the lens. Remove power cord after the projector has cooled down and prior to replacing the lens.
4. **Remove the lens:** Remove the lens ring cover. Rotate the lens counter-clockwise by a quarter to release the lock. Remove the lens through the front of the projector.



5. **Install the new lens:** Fully insert the lens assembly straight into the lens mount without turning. Rotate the lens cap clockwise to lock the lens in place.

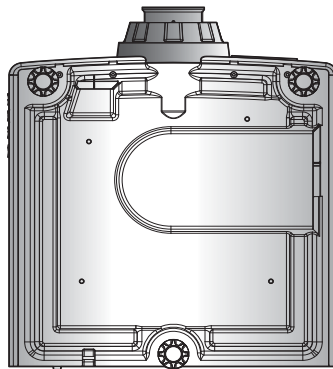
Installing the cable cover

1. Rotate the cable cover and insert the two guide pins into the guide holes.
2. Press and hold both lower corners of the cable cover while inserting the sheet clips into the projector casing.



Installing the ceiling mount

Mount the projector with a Christie-approved mount (such as the Christie One Mount, P/N: 108-506102-XX), using the four mounting points on the underside of the projector.

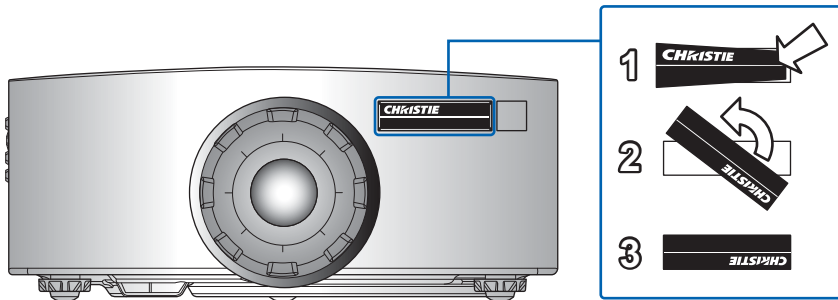


1. Refer to the installation instructions and safety guidelines provided in the kit (such as the Christie One Mount, P/N: 108-506102-XX).

Rotating the Christie badge

The Christie magnetic badge on the front panel of the projector can be rotated for inverted installation.

1. Push on the edge of the badge to release it from its slot on the front panel.
2. Rotate the badge 180 degrees.
3. Push the badge back into its slot on the front panel. Make sure the badge is properly seated inside the slot.

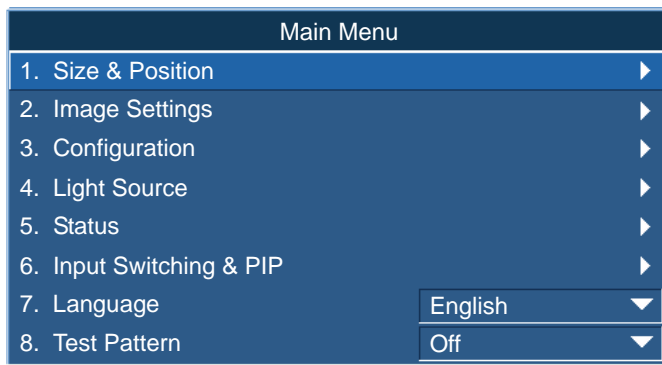


Operation

The projector has multilingual on-screen display (OSD) menus so you can make image adjustments and change a variety of settings.

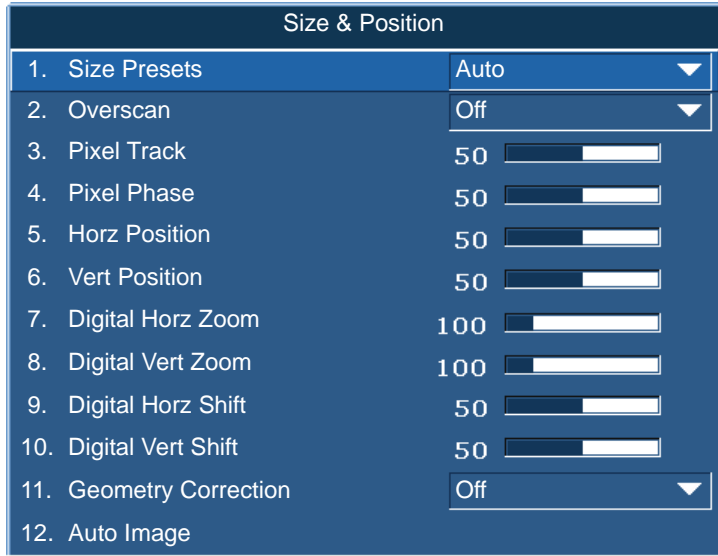
Most of the projector controls are accessed from within the projector menu system. Several groups of related functions are selectable from the Main Menu as shown below.

- To display the Main Menu, on the IR remote keypad or on the built-in keypad on the rear of the projector, press **MENU**.
- To navigate within the menu and adjust a setting up or down, use the arrow keys.
- To select a highlighted menu item or use it to change or accept a value, press **ENTER**.
You can then select the next item that you want to adjust in the menu and adjust it.
- To return to the previous menu or exit menus if at top level, press **EXIT**.



Size and Position menu

The Size and Position menu determines the size and position of the image on the screen.



Menu item	Description	Options
Size Presets	Displays an image with the detected size, or resizes the image by maximizing either the height, width, both, or resizes to the maximum size possible while keeping the original aspect ratio.	<ul style="list-style-type: none"> • Auto—Displays with the detected size. • Native—Displays in its native resolution. • 4:3—Retains 4:3 aspect ratio. • Letterbox—Make the active content enlarge to the full screen. • Full Size—Fills the screen (regardless of the source). • Full Width—Fills display width and keep aspect ratio. • Full Height—Fills display height and keep aspect ratio. • Custom—Stretches the display horizontally or vertically without cutting the image display.
Overscan	Removes noise around the image.	<ul style="list-style-type: none"> • Overscan Zoom enlarges image 6% from the original size.
Pixel Track	Steady flickering or several soft vertical stripes or bands across the entire image indicates poor pixel tracking. Proper pixel tracking ensures that the image quality is consistent across the screen, the aspect ratio is maintained, and that the pixel phase can be optimized. (Analog RGB signals only.)	

Menu item	Description	Options
Pixel Phase	Adjust the pixel phase when the image shows shimmer or noise after pixel tracking is optimized. Pixel phase can adjust the phase of the pixel-sampling clock relative to the incoming signal. (Analog RGB signals only.)	
Horz Position	Moves the image right or left within the area of available pixels.	
Vert Position	Moves the image up or down within the area of available pixels.	
Digital Horz Zoom	Changes the size of projector's display area horizontally. If the display area has been resized by this setting, it can be moved by changing the Digital Horz Shift and Digital Vert Shift settings.	
Digital Vert Zoom	Changes the size of projector's display area vertically. If the display area has been resized by this setting, it can be moved by changing the Digital Horz Shift and Digital Vert Shift settings.	
Digital Horz Shift	Moves the display area horizontally if its size has been changed by the Digital Zoom setting.	
Digital Vert Shift	Moves the display area vertically if its size has been changed by the Digital Zoom setting.	
Geometry Correction	Provides several ways for warping control. For more information on geometry correction, see Geometry correction on page 36.	<ul style="list-style-type: none"> • Off—No Geometric correction is applied to the image. • Horz Keystone—Adjusts the keystone horizontally and make a more square image • Vert Keystone—Adjusts the keystone vertically and make a more square image. • Horz Pincushion—Adjusts the pincushion horizontally and make a more square image. • Vert Pincushion—Adjusts the pincushion vertically and make a more square image. • Pincushion/Barrel—Allows for correction for slight curved distortion from the lens or projection surface. • 4-Corner—Allows the image to be squeezed to fit an area defined by moving each of the four corners' x and y position. • Curve—Allows to modify individually the four sides of the projected image. • Rotation—Allows an image to be rotated – most commonly to level the image.
Auto Image	Forces the projector to reacquire and lock to the input signal. This is useful when signal quality is marginal.	<ul style="list-style-type: none"> • Normal mode—Supports all of the 4:3 input sources. • Wide mode—Supports all of the 16:9 input source and most of the 4:3 input source. For the 4:3 input sources not recognized by Wide mode (for example, 1400 x 1050), perform Auto Image using Normal mode.

Geometry correction

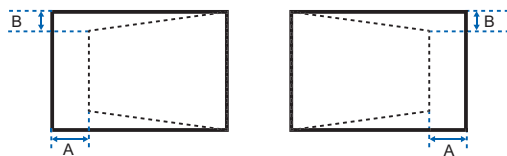
The "Geometry Correction" can be controlled with the options in the drop-down list: "Off/Basic" when optional Dual Processor Warp Module is not installed, and "Off/Basic/Curve/Rotate" when optional Dual Processor Warp Module is installed.

The following table provides information about the geometry correction feature compatibility:

Warp Function	4-Corner	Keystone	Pincushion	Pincushion and Barrel	Rotation
4-Corner	--	✓	✓	✓	✓
Curved Surface(2x2)	✓	--	X	X	X
Keystone	✓	X	--	✓	X
Pincushion and Barrel	✓	X	✓	--	X
Pincushion	✓	X	X	X	--

Horz Keystone

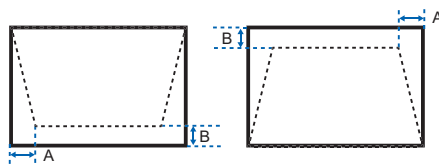
Adjust the keystone horizontally and make a more square image. Horizontal keystone is used to correct a keystoneed image shape in which the left and right borders of the image are unequal in length, and the top and bottom are slanted to one of the sides. This is intended for use with horizontally on-axis applications. For horizontally offset applications, you must use 4-Corner correction using the optional Dual Processor Warp Module.



Ind.	1080P	WUXGA
A	10.00%	7.20%
B	6.50%	5.30%

Vert Keystone

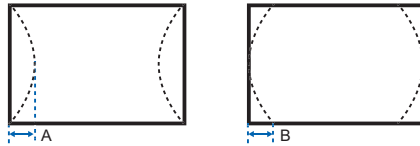
Adjust the keystone vertically and make a more square image. Vertical keystone is used to correct a keystoneed image shape in which the left and right borders of the image are unequal in length, and the top and bottom are slanted to one of the sides. This is intended when for use with horizontally on-axis applications. For horizontally offset images, you must use 4-Corner correction using the optional Dual Processor Warp Module.



Ind.	1080P	WUXGA
A	4.40%	3.41%
B	8.93%	5.46%

Horz Pincushion

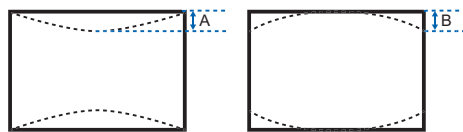
Adjust the pincushion horizontally and make the image more square.



Ind.	1080P	WUXGA
A	10.90%	6.40%
B	10.90%	6.50%

Vert Pincushion

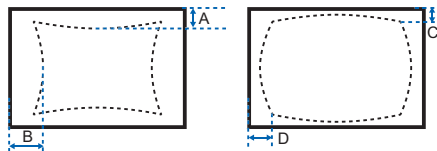
Adjust the pincushion vertically and make the image more square.



Ind.	1080P	WUXGA
A	10.00%	9.30%
B	10.00%	9.30%

Pincushion/Barrel

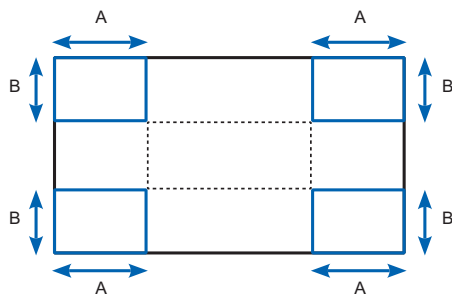
Allow for correction for slight curved distortion from the lens or projection surface.



Ind.	1080P	WUXGA
A	8.61%	8.44%
B	4.16%	4.66%
C	6.50%	6.60%
D	6.60%	6.60%

4-Corner

Allow the image to be squeezed to fit an area defined by moving each of the four corners' x and y position.



Ind.	1080P	WUXGA
A	7.30%	7.30%
B	7.40%	6.70%

Curve

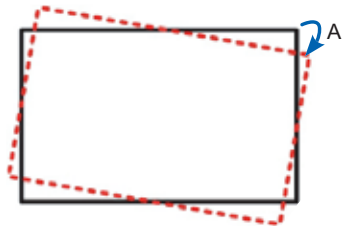
Modify individually the right arc, left arc, top arc, and bottom arc to correct the curved distortion from the lens or projection surface.



Ind.	1080P	WUXGA
A	10.90%	6.40%
B	10.90%	6.50%

Rotation

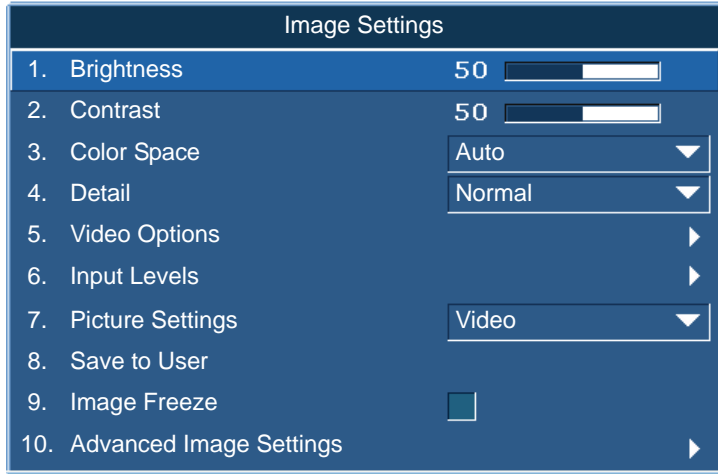
Allow an image to be rotated – most commonly to level the image. While the image is rotated, the software can crop any content that begins to fall off the panel. The function will not automatically scale the image down to prevent cropping. If scaling is required, the digital zoom function can be used, independently of the rotation function.



Ind.	1080P	WUXGA
A	±7.9°	±7.9°

Image Settings menu

The Image Settings menu sets the brightness, contrast, and other settings for images.



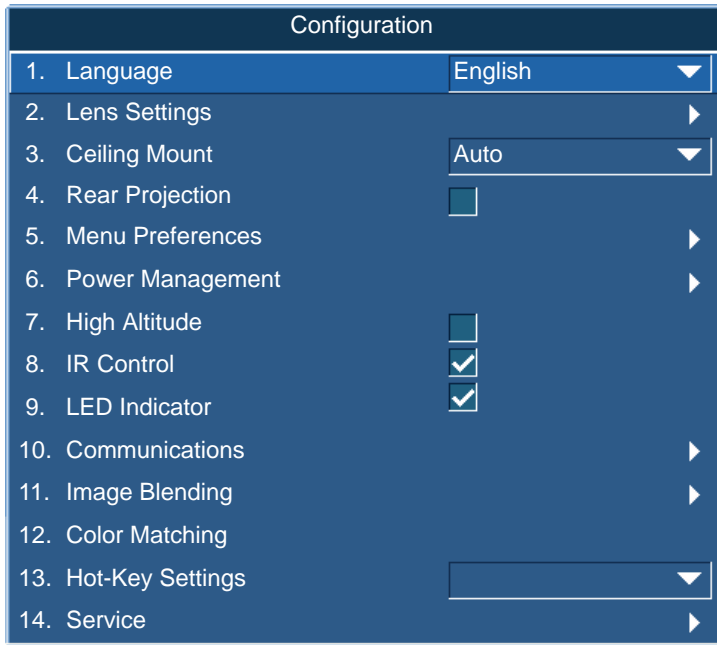
Menu item	Description	Options
Brightness	Adjusts the intensity of the image.	—
Contrast	Adjusts the degree of difference between the lightest and darkest parts of the image and changes the amount of black and white in the image.	—
Color Space	Selects a color space specifically tuned for the input signal. Only useful for analog signals and certain digital sources.	—
Detail	Selects the edge clarity of the image.	—
Video Options	Applies only to video sources.	<ul style="list-style-type: none"> • Color—Adjusts a video image from black and white to fully saturated color. The color setting applies to video sources only. • Tint—Adjusts the red-green color balance in the image of NTSC video images. The tint setting applies to NTSC video sources only. • Noise Reduction—Reduces temporal or spatial noise in the image. • Flesh Tone Correction—Controls the amount of flesh tone correction applied to the image. • Video Black Level—Analyzes the current input image and calculate an offset value which is then added to the analog to digital converter black level value. This ensures optimum black level for each analog source.

Menu item	Description	Options
Video Options (continue)		<ul style="list-style-type: none"> • Detect Film—Controls film mode detection and determine whether the original source of the input video was film or video. • Closed Captions—Controls closed caption display while audio is not muted. If this setting is not off, audio is not muted, the source is NTSC and contains captions on the selected channel, then the projector must display caption text overlaid on the image.
Input Levels	Applies to VGA or component signals only.	<ul style="list-style-type: none"> • Gain—Adjusts the gain of the red, green, or blue channel of the image. It affects the black and white. • Offset—Adjusts the offset of the red, green, or blue channel of the image. It affects the black and white. • Sync Threshold—Helps to sync when connecting to the projector, if a hardware device, such as a DVD player, is not syncing properly with the projector. (Progressive signals only.)
Picture Settings	<p>Optimizes the projector for displaying images under certain conditions, such as:</p> <ul style="list-style-type: none"> • Presentation • Video • Bright • Real • DICOM SIM • Blending • User <p>It affects the following:</p> <ul style="list-style-type: none"> • Gamma • Sharpness • White Peaking • Overscan • Brightness • Contrast • Color • Tint • Red Gain • Green Gain • Blue Gain • Red Offset • Green Offset • Blue Offset 	—

Menu item	Description	Options
Save to User	<p>Saves the user settings.</p> <p>Adjust the image settings and Select Save to User as a picture setting. To recall these settings in the future, select the User in the Picture Settings menu.</p> <p>You can save the following settings:</p> <ul style="list-style-type: none"> • Brightness • Contrast • Color • Tint • Red Gain • Green Gain • Blue Gain • Red Offset • Green Offset • Blue Offset • Color Temperature • Gamma • Detail • White Peaking • Overscan 	—
Image Freeze	Pauses the screen image.	—
Advanced Image Settings	Provides access to advanced image settings such as gamma, white peaking, and so on.	<ul style="list-style-type: none"> • Gamma—Selects the appropriate gamma from Video, Film, Bright, CRT, and DICOM. • White Peaking—Increases the brightness of whites near 100%. (Video source only.) • Color Temperature—Changes the intensity of the colors. Select a listed relative warmth value. • Edge Enhancement—Applies the edge enhancement process. • Color Enhancement—The Color Enhancement control can improve the picture quality of pictures with a high saturation of color. • Christie RealBlack—Allows displaying black with a high contrast ratio 750,000: 1.

Configuration Menu

The Configuration menu sets the language, projection orientation, power usage, and other preferences for the projector.



Menu item	Description	Options
Language	Selects an available language for the on-screen display.	<ul style="list-style-type: none"> • English • French • German • Italian • Spanish • Chinese (Simplified) • Japanese • Korean • Russian
Lens Settings	Adjusts the lens.	<ul style="list-style-type: none"> • Focus and Zoom—Adjusts the focus and zoom the image in or out. • Lens Shift—Shifts the lens up and down, or left and right. • Lock All Lens Motors—Selects this function to prevent all lens motors from moving. It will disable the Zoom, Focus, Horizontal and Vertical Position settings, effectively locking out any changes and overriding all other lens features. This is particularly useful to prevent accidental lens position changes in multi-projector installations. • Lens Center Calibration—Calibrates the lens center.
Ceiling Mount	Turns the image upside down for ceiling-mounted projection.	—

Menu item	Description	Options
Rear Projection	Reverse the image so you can project from behind a translucent screen.	—
Menu Preferences	Sets the on-screen display menu preferences, and the password for the projector.	<ul style="list-style-type: none"> • Menu Horz Offset—Changes the horizontal position of the on-screen display. • Menu Vert Offset—Changes the vertical position of the on-screen display. • Show Messages—Displays status messages on the screen. • Menu Transparency—Changes the on-screen display menu background to be transparent. As the value increases, more of the image behind the menu is visible. • Splash Screen Setup—Selects the splash screen. • PIN Protect—Protects your projector with a password. Once enabled, you must enter the password before you can project an image. • Change PIN—Allows you to change the password.
Power Management	Determines the power modes for the projector.	<ul style="list-style-type: none"> • Standby Mode—Determines if the projector is in standby mode when connected to AC power (<0.5 W). • AC Power On—Automatically turns the projector on when electrical power is connected. • Auto Shutdown—Automatically turns the projector off after no signals are detected for a preset number of minutes. If an active signal is received before the projector powers down, the image is displayed. • Sleep Timer—Allows the projector to automatically power off after it has been on for a specified amount of time (two, four, or six hours).
High Altitude	Enables or disables high altitude mode.	<ul style="list-style-type: none"> • On—Enables high altitude mode for altitudes \geq 2000 m. The fan operates at high speed to ensure sufficient air flow for high altitudes. • Off—Disables high altitude mode. For altitudes below 2000 m.
IR Control	Enable or disable IR control.	—
LED Indicator	Enable or disable displaying status LED and keypad LED.	—

Menu item	Description	Options
Communications	Determines the communication settings such as network setup, serial port information, and so on.	<p>LAN: Configure the local area network (LAN) settings.</p> <ul style="list-style-type: none"> • DHCP—Turns the DHCP on or off. • IP Address—Assigns the network IP address. • Subnet Mask—Assign Network Subnet Mask • Default Gateway—Assigns the network default gateway. • MAC Address—Displays the network MAC address value. <p>WLAN: Configure the wireless local area network (WLAN) settings.</p> <ul style="list-style-type: none"> • Enable: Enable/Disable WLAN. • Start IP: Start of IP Address. • End IP: End of IP Address. • Subnet Mask—Assign Network Subnet Mask • Default Gateway: Assign Network Default Gateway. • MAC Address: Display network MAC Address value. • SSID: Assign Network Service Set Identifier. <p>Network: Configure the general network settings.</p> <ul style="list-style-type: none"> • Projector Name: Display the projector hostname for Network. • Show Network Messages: Enable or disable to display of the network message. • Restart Network...—Restarts the network. • Network Factory Reset...—Restart the network and set the projector name, LAN, and WLAN configuration to the default values. For the details, refer to "Network". <p>Serial Port Baud Rate—Selects the serial port and baud rate.</p> <p>Serial Port Echo—Controls whether the serial port echoes characters.</p> <p>Serial Port Path—Sets the serial port path to RS232 or HDBaseT.</p> <p>Projector Address—Sets the projector address (0 to 9). The projector responds to the IR remote set to the same address as the projector or to the IR remote set to address 0.</p>
Image Blending	<p>Adjusts blend widths and settings to left, right, top and/or bottom sides to create a seamless multi-projector stitched image.</p> <p>For more information on color matching, see Image blending on page 47.</p>	—

Menu item	Description	Options
Color Matching	<p>Enables the selected method (Manual Adjustment or HSG) to define the precise hue of each primary color component (red, green, blue and white).</p> <p>When one method is enabled, the other method is automatically disabled. For both methods, if Auto Test Pattern is enabled, the solid colored test pattern can be displayed according to the menu item on which you are positioned.</p> <p>For more information on color matching, see Color matching on page 48.</p>	<ul style="list-style-type: none"> • Manual Adjustment—Manually defines the precise hue of each primary color component. • HSG Adjustment—Adjusts the hue, saturation, and gain (HSG) of the projected image. The HSG function independently controls each of the color regions R, G, B, C, M, Y, and W.
Hot Key Settings	<p>Assigns a different function to the hot key on the IR remote keypad by highlighting the function in the list and pressing ENTER.</p> <p>Choose a function that does not already have a dedicated button, and assign the hot key to that function, allowing you to quickly and easily use the chosen function.</p>	—

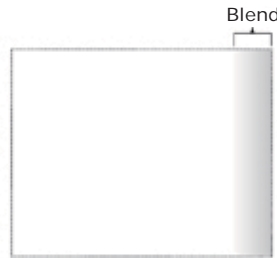
Menu item	Description	Options
Service	Displays projector information, sets test patterns, error logs, and high temperature warnings.	<ul style="list-style-type: none"> • Projector Info—Displays the current projector settings. (Read-only) • Factory Reset...—Restores all settings to their default value. It does not reset network but it resets RS232. • Test Pattern—Sets the required internal test pattern to display. To turn off a test pattern, select Off. • Phosphor Index—Phosphor index are to make the phosphor wheel, filter wheel & DMD synchronized. The index is to define how long should be delayed according to DMD. When adjust the Phosphor index, it will impact R/G/B gray level smoothly and contouring. • Filter Index—Filter index are to make the phosphor wheel, filter wheel & DMD synchronized. The index is to define how long should be delayed according to DMD. When adjust the filter index, it will make the white color space more smooth without contouring, very similar to phosphor index behavior. • Error Log—Shows the projector error log for debug. • Mode Adjustment—Fine tunes the horizontal (H) and vertical (V) start position for a signal in the EDID timing table and record the values in the system to override the timing table. To keep the settings, before exiting the menu, select Saved to Record. To revert to original timing table settings, manually clear each setting. Factory Defaults do not clear these override settings. • Laser Diode Info—Displays the current laser banks status and temperature information.

Image blending

Adjust blend widths and settings to left, right, top and/or bottom sides to create a seamless multi-projector stitched image. (Available only when optional Dual Processor Warp Module is installed.)

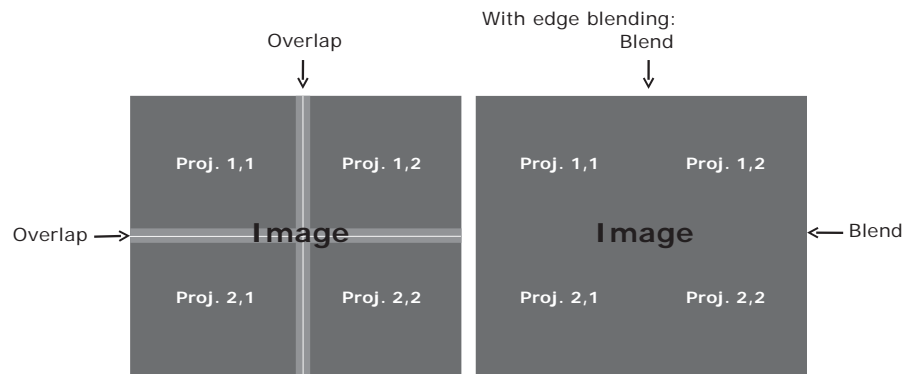
What is a Blend?

In simple terms, a blend appears as a gradient strip along an edge of a projected image. It is darkest along the extreme edge of the image, and lightens nearer to the rest of the image (see below).



How are Blends used?

In multiple-projector wall, complementary blends between neighboring images can compensate for the extra “brightness” or intensity where these edges overlap. By controlling blend width and other properties, you can achieve uniformity across the group of images. Visible overlaps will disappear, as shown below.



Blending regions can be defined on all sides – left, right, top and bottom. The same gamma curve is used for all blending regions.

Color matching

You may require a unique color gamut (range) for a single projector or application, or you may need to precisely match colors across multiple adjacent displays. Use color matching by Manual Adjustment or HSG to define the precise hue of each primary color component (red, green, blue and white).

HSG

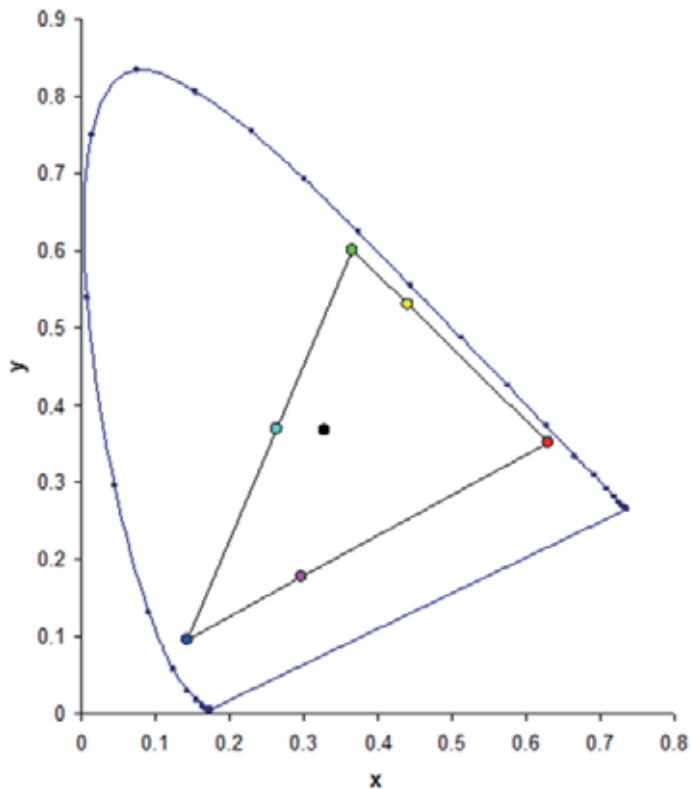
Hue, Saturation, and Gain (HSG) software controls the color regions R, G, B, C, M, Y, and W independently.

1. Select HSG, select **Color Matching > HSG**.

Hue

Note the following about adjusting hue:

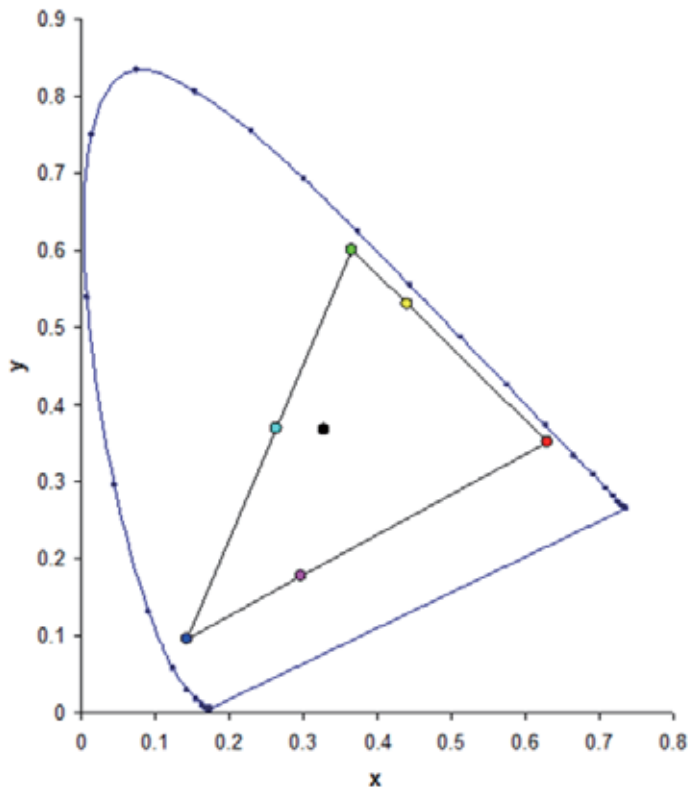
- Adjust the hue independently for each color (R,G,B,C,M, and Y).
- White does not have a hue input.
- A negative hue input provides a clockwise rotation of the color's hue.
- A positive hue input provides a counter-clockwise rotation of the color's hue.
- A zero input does not change the hue of the color.



Saturation

Note the following about adjusting saturation:

- The saturation can be adjusted independently for each color (R,G,B,C,M, and Y).
- A saturation level of 0 removes all color from that region.
- A saturation level of 254 sets the color region to have maximum color.
- A saturation level of 127 does not change the saturation.



Gain

Note the following about adjusting gain:

- The gain can be adjusted independently for each color (R,G,B,C,M,Y, and W).
- The range of input is 0 to 254.
- The gain changes the intensity level of the respective color.
- A gain level of 127 disables the HSG controls for that color.
- A gain level less than 127 darkens the respective color.
- A gain level of 254 sets the color region to have maximum gain; however, clipping occurs on the signal.
- A gain of 127 is the nominal setting.
- White provides three gain level controls, one each for the R,G,B component of white.

Light Source menu

The Light Source menu sets the light source mode and power preferences.



Menu item	Description	Options
Light Source Mode	Sets the light source mode.	<ul style="list-style-type: none"> • Constant Power • Constant Intensity • ECO mode
Constant Power	Sets the value of the laser diode power.	—
Constant Intensity	<p>Sets the value for the Constant Intensity mode to maintain constant brightness.</p> <p>The light sensor will monitor the light level and will apply more power as the laser brightness decays naturally over time. When the laser setting reaches maximum power of 405W, it will remain at this setting. Note that the light sensor needs to be calibrated for Constant Intensity mode to work properly. Calibration should be performed again after every laser diode change.</p>	—
Total Projector Hours	Displays the current total number of hours the projector has been used.	—
Light Sensor	Calibrates the light sensor.	—

Status menu

The read-only Status menu lists a variety of details about the standard and optional components currently detected in the projector.

For DHD models

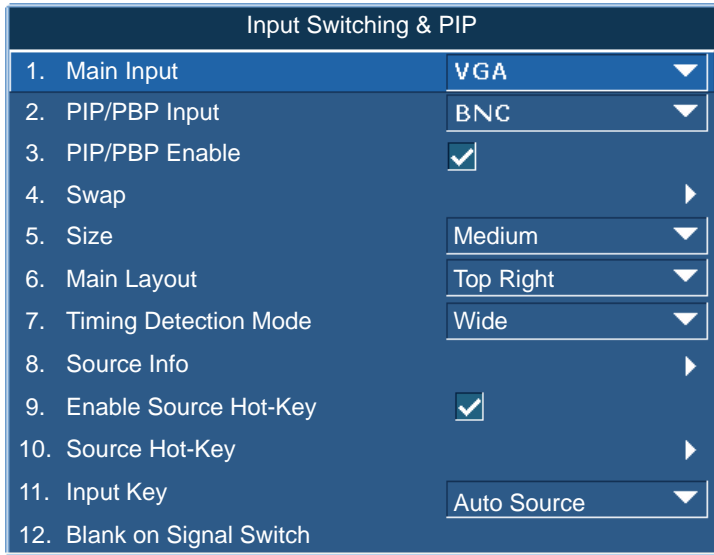
Status	
Model Name	DHD599-GS
Serial Number	G6YYWW000
Native Resolution	1920 × 1080
Firmware	V03, A01, N01
Main Input	VGA
Main Signal Format	720p
Main Pixel Clock	74.256MHz
Main Sync Type	Sync On Green
Main Horz Refresh	45.10kHz
Main Vert Refresh	60.0Hz
PIP/PBP Input	-
PIP/PBP Signal Format	-
PIP/PBP Pixel Clock	-
PIP/PBP Sync Type	-
PIP/PBP Horz Refresh	-
PIP/PBP Vert Refresh	-
Light Source Power	405 W
Total Projector Hours	70
Standby Mode	0.5 W Mode
Lens Lock Settings	Allow
IP Address	192.168.0.100
DHCP	No
System Temperature	38°C

For DWU models

Status	
Model Name	DWU599-GS
Serial Number	G6YYWW000
Native Resolution	1920 × 1080
Firmware	V03, A01, N01
Main Input	VGA
Main Signal Format	720p
Main Pixel Clock	74.256MHz
Main Sync Type	Sync On Green
Main Horz Refresh	45.10kHz
Main Vert Refresh	60.0Hz
PIP/PBP Input	-
PIP/PBP Signal Format	-
PIP/PBP Pixel Clock	-
PIP/PBP Sync Type	-
PIP/PBP Horz Refresh	-
PIP/PBP Vert Refresh	-
Light Source Power	405 W
Total Projector Hours	70
Standby Mode	0.5 W Mode
Lens Lock Settings	Allow
IP Address	192.168.0.100
DHCP	No
System Temperature	38°C

Input Switching & PIP menu

The Input Switching & PIP menu determines how the main and PIP/PBP inputs are handled.






Menu item	Description	Options
Main Input	Selects an active input to be used as the main image.	—
PIP/PBP Input	Selects an active input to be used as the PIP/PBP.	—
PIP/PBP Enable	Toggles between displaying two sources at once (main and PIP/PBP images) or one source only. Refer to <i>Inputs</i> on page 79 and <i>PIP/PBP compatibility</i> on page 83.	<ul style="list-style-type: none"> Selected checkbox—Turns the PIP/PBP source on. Cleared checkbox—Turns the PIP/PBP source off.
Swap	Changes the main image to PIP/PBP, and the PIP/PBP to main image. Swapping is available only when PIP/PBP is enabled.	—
Size	Selects the PIP/PBP size to small, medium, or large.	—
Main Layout	Sets the location of the PIP/PBP image on the screen.	—

Menu item	Description	Options
Timing Detection Mode	Sets timing detection mode to wide or normal to support additional PC timings. When the projected picture is not completed, this function is used to adjust the picture. For 4:3 input sources not recognized by Wide mode (for example 1400 x 1050), perform Auto Image using Normal mode.	<ul style="list-style-type: none"> • Normal mode—Supports 4:3 input sources. • Wide mode—Supports the 16:9 input source and most 4:3 input sources.
Source Info	Displays the current source settings. (Read-only)	—
Enable Source Hot-Key	Toggles the check box to enable or disable the main source hot-key.	—
Source Hot-Key	Allows you to assign a different source to the hot-key. Highlight an input and press ENTER to choose a different one.	—
Input Key	Lists or changes the sources.	—
Blank on Signal Switch	Blanks the screen before timing is stable when changing the source.	<ul style="list-style-type: none"> • Off—Disables blanking the screen. • On—Blanks the screen before timing is stable when changing source.

PIP/PBP layout and size

A P indicates the primary source region (lighter color) and an asterisk (*) indicates both regions are the same size.

PIP/PBP Layout	PIP/PBP Size		
	Small	Medium	Large
PBP, Main Left			
PBP, Main Top			
PBP, Main Right			
PBP, Main Bottom			
PIP-Bottom Right			
PIP-Bottom Left			
PIP-Top Left			

PIP/PBP Layout	PIP/PBP Size		
	Small	Medium	Large
PIP-Top Right			

Language menu

Select an available language for the on-screen display.

Language
1. English
2. 简体中文
3. Français
4. Deutsch
5. Italiano
6. 日本語
7. 한국어
8. Русский
9. Español

Test Pattern menu

Choose the required internal test pattern to display, or select **Off** to turn off a test pattern.

Test Pattern
1. Off
2. Grid
3. White
4. Black
5. Checkerboard
6. Color Bars

Web user interface

The web user interface provides an alternate way to access the menu functionality on the projector.

Logging on to the web user interface

Log onto the web user interface by following the steps below.

1. Open a web browser and type the IP address (in the address bar) assigned to your projector.



The screenshot shows the Christie Projector Web Management login interface. At the top is the Christie logo. Below it is the heading "Welcome to Projector Web Management" and a note "Compatible with Internet Explorer 8 or higher". The form contains the following fields and controls:

- Projector model name: DHD599-GS
- Access Type: A dropdown menu with "user" selected.
- Password: An empty text input field.
- Language: A dropdown menu with "English" selected.
- A "Login" button.
- A "Christie Presenter" button.
- A "Download" button.

At the bottom of the page, there is a copyright notice: "Copyright © 2014 Christie Digital Systems. All rights reserved."

2. From the Access type list, select the log in level.
3. In the Password field, type the password.
4. From the Language list, select the appropriate language.
5. To access the Main window, click **Login**.

Main tab-General

Displays information about the projector, its power status, and what is selected for the main and PIP/PBP input sources.



Panel	Description
Control	Selects main source/PIP source, enables or disables PIP/PBP, changes the layout or PIP size, swap, and change the test pattern.
Projector Information	Check the projector information for power status, Pic mute status, on-screen display status, IP address, and MAC address.
Switch	Switches the on or off status of Power, Pic Mute, and on-screen display.

Main tab-Status

Displays the current status of light source, cooling (fans), version numbers and signal (source) information.



Main tab-Lens

Controls the focus, lens shift, and zoom adjustments for the lens.



Network

If you change a setting, the network subsystem of the projector may restart, and you may be logged off.



Panel	Description
Restart Network	Execute a network restart. This does not change any of the network settings.

Panel	Description
Network Factory Reset	<p>Execute a network factory reset. Network settings may be reset to the following default values.</p> <p>Projector Name = Christie@ + Serial Number</p> <p>Show Network Messages = ON</p> <p>LAN settings:</p> <ul style="list-style-type: none"> • Manual • IP Address = 192.168.0.100 • = 255.255.255.0 • Default Gateway = 192.168.0.100 <p>WLAN settings:</p> <ul style="list-style-type: none"> • Enabled • Start IP = 192.168.1.100 • End IP = 192.168.1.120 • = 255.255.255.0 • Default Gateway = 192.168.1.100 <p>SNMP settings:</p> <ul style="list-style-type: none"> • SNMP Read Community = private • Trap IP Address = 0.0.0.0 • SMTP IP Address = 0.0.0.0 • All other settings are cleared or blanked <p>Trap Configuration:</p> <ul style="list-style-type: none"> • All items = SNMP Trap + Email
LAN Setting Panel	<ul style="list-style-type: none"> • Sets if the projector must obtain an automatically assigned IP address through DHCP or if the user sets the address manually. • For the TCP/IP setting, enter the IP address, netmask, and default gateway address.
WLAN Setting Panel	<ul style="list-style-type: none"> • Enables or disables the wireless LAN of the projector. • Enter the IP address range, netmask, and default gateway for the wireless LAN.

Panel	Description
SNMP Panel	<p>Provides network administrators with a common way to manage their network devices from a single remote location. Administrators can use the Simple Network Management Protocol (SNMP) interface to query a number of devices to see their current status or configuration. Operators can change configuration values and configure trap notifications to be sent when certain events occur (for example, loss of signal, power state change, and so on).</p> <p>Emails are sent to the mail server configured in the projector settings. Up to two user email accounts can be selected. Important information regarding the event is located in the body content of the email.</p> <p>SNMP Traps are notifications that are sent from the projector. They are only received by a trap receiver (MIB Browser) in the computer.</p> <ul style="list-style-type: none"> • SNMP Read Community (default setting: private)—Plain text password that must also be entered in the MIB browser. This password allows various settings in the projector to be queried. • SNMP Location (default setting: blank)—Use as a description to where a projector is located in a building. SNMP emails sent specify this location. • Trap IP Address (default setting: 0.0.0.0)—Fill in this field with the IP address of the computer, on which you want to view received traps from the projector. • Trap Email 1/2 (default setting: Blank)—Set the Trap Email 1 and 2 to an email address configured under the mail server entered in the SMTP Server IP Address field. • Email from Address (default setting: blank)—Set the name of the source of the SNMP emails. • SMTP Server IP Address (default setting: 0.0.0.0)—Enter the IP address of the mail server.
Trap Configuration Panel	<p>Set the SNMP actions for the system events. The options are:</p> <ul style="list-style-type: none"> • SNMP Trap • + Email • Email • SNMP Trap • Disabled
Crestron Control System Panel	<p>Enter the IP address, IP ID, and port of Crestron device for the connection.</p>

Tools

Use the Tools pages to control size & position, image settings, configuration, light source, input switching, PIP, and test patterns.



Administrator Page

Add or delete a user or change password.



About Page

The About page provides version and license information about GS Series.



Tab	Description
Version	Views the main firmware version, network firmware version, projector model name, and projector serial number.
License	Displays the license information of the computer program.

Christie Presenter

The Christie Presenter application allows a remote desktop from a host PC to be displayed on the network display through Ethernet or wireless transports. It can adapt to different network settings (DHCP, fixed IP, and direct link by Ethernet cable).

Download Christie Presenter from the Christie website or from the web page of the projector.

Connecting to the Projector

Before using Christie Presenter, you must connect to the projector.

1. Connect to the projector using WiFi or Ethernet.

Ethernet connection:

- a. To determine the projector's IP address, select **Main Menu > Configuration > Communications > LAN**.

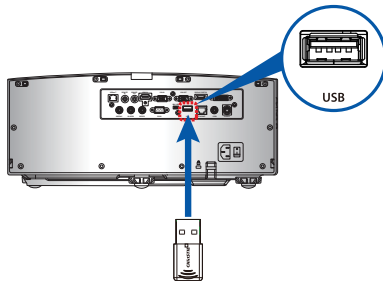
LAN	
1. DHCP	<input type="checkbox"/>
2. IP Address	192.168.0.100
3. Subnet Mask	255.255.255.0
4. Default Gateway	192.168.0.254
5. MAC Address	00:00:18:00:35:18

- b. Configure your PC IP address to be on the same network as the projector.
- c. The projector and computer must be connected directly or over the network using Ethernet.

WiFi Wireless connection:

- a. Insert the WiFi USB dongle (1DWUSB-BGN) into the USB port on the projector input panel.

For more information about the WiFi USB dongle, see [page 85](#).



- b. Power on the projector.
- c. Obtain the WiFi SSID from **Main Menu > Configuration > Communications > WLAN**.

- d. Connect your PC device to the wireless SSID for the selected projector, for example: Christie@0111000123.



Installing the Christie Presenter software

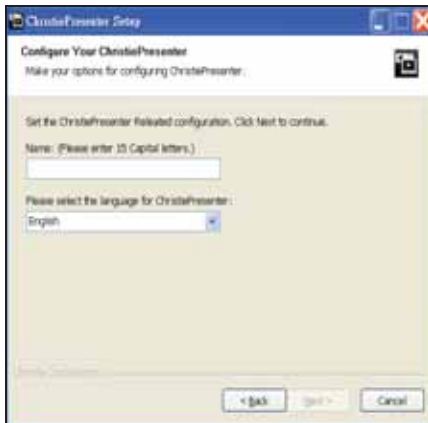
Install and configure the Christie Presenter software.

1. In a web browser, connect to the projector's network address.
The default address is 192.168.1.100.
2. Download and install the Christie Presenter software.



3. Configure the Christie Presenter software.

The name entered identifies all computers connected to the projector by the Christie Presenter software—either wired or wireless connections. The **Network Display Management > Device Management** tab shows all current connections.









Using the Christie Presenter

1. To pause or play the USB display, in the system tray, press **Autorun**.




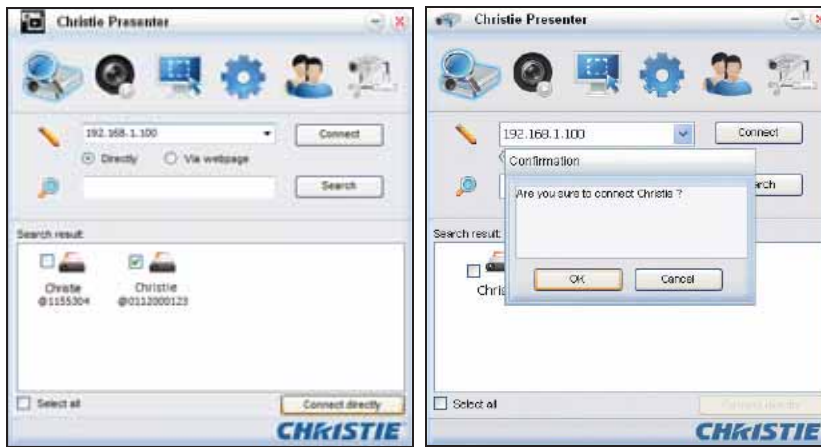
After starting the Christie Presenter application, the main window appears.



Icon	Description
	Connects and searches the network display.
	Stops or starts displaying desktop contents to the connected network display.
	Selects a display region.
	Configures Christie Presenter.
	Manages all connected network displays.
	Disconnects all connections.

Connecting and searching the network display

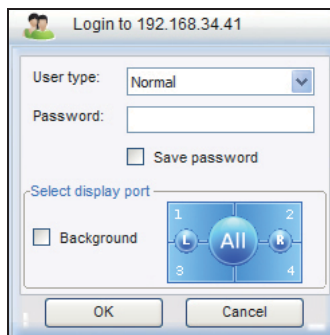
1. To enter into the connection menu section, click .
2. If the IP address of the projector is known, type the IP address and click **Connect**.
3. If the IP address is not known:
 - a. To search for the projector on the network, click **Search**.
 - b. Select the projector to which you want to connect.
 - c. To access the Login dialog, click **Connect directly**.



4. In the Login dialog, select the user type and type the password.


The default password for the Normal user is left blank. If the password was previously set, it appears in the bottom-left corner of the on-screen display. The default password for the Admin user is **admin**.

5. In the Select display port window, select the display port.



Selecting the display region

When the connection is set up, you must select the display region.


1. To select the size of the projection region, click  and select an option: FullScreen, FixedSize, or Alterable.

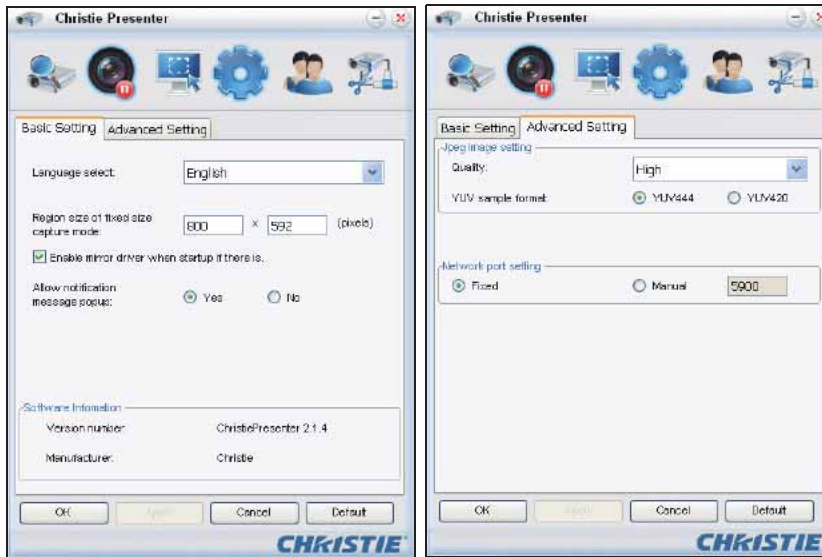


Tab	Description
FullScreen	Turns the default capture mode to full screen when the program is launched. If screen capture starts, the image of the entire screen is transferred to a remote network display.
FixedSize	Transfers on the image enclosed inside the frame (after a user places a frame on the desktop) to remote network display.
Alterable	Encloses only the captured region by the frame. To enlarge or downsize the region, drag the eight small black squares scattered on eight edges of the frame.

Configuring Christie Presenter

Set the language for Christie Presenter, the region size of fixed size capture mode, if a notification message dialog is allowed, the quality of JPEG images, YUV sample formats, and the network port setting.


1. To configure Christie Presenter for basic and advanced settings, click  .












Tab	Description
Basic Setting	Selects the language, changes the region size of fixed size capture mode, and selects if a notification message dialog is allowed.
Advanced Setting	Selects the quality of JPEG image, YUV sample formats and the network port setting. The fixed port is port 5900.

Managing all connected network displays

You can manage all connected network displays and users at the same time.

1. To control all users connected to the same projector, click .



Icon	Description
	Indicates the administrator is logged in.
	Indicates a normal user logged in.
	Indicates the device is connected.
	Indicates the device is not connected.
	Shows the current status and display position of the local screen on the network display. Click to change the display position. A dialog appears.
	Changes the password to the target network display. Only an Administrator user can change the password.
	Does not require a response. If user logs in as Admin, the key icon is displayed and the Presenter password can be changed. If user log in as Normal, the lock icon is displayed and the Presenter password cannot be changed.
	Disconnects from the target network display.
	Connects to a target network display using a web page.

Operating the card reader

The Card Reader application has four available operation modes:

- USB Flash Devices Detection screen
- Thumbnail Display mode
- Images Display mode
- Images Slide Show mode

USB Flash Device Detection screen

In this mode, the Card Reader application detects any USB flash devices hot-plug events and displays the flash device icon. When the flash device is removed from USB, the icon disappears. Christie recommends removing the USB flash devices only when the Card Reader is changed to the USB Flash Devices Detection Screen state.



Thumbnail Display mode

1. To access the Thumbnail Display mode, press the **Enter**.
Different photos in different folders can be chosen.
2. To access the Card Reader operation UI, press **Menu**.



3. Operate the Card Reader application with the **Enter**, **Left**, **Right**, **Up**, and **Down** keys.

The following buttons are supported in the user interface:

Button	Description
Previous	Moves the selected item left or goes to previous page when this is the left-most item.

Button	Description
Next	Moves the selected item right or goes to next page when this is the right most item.
Display	Displays the selected image or folder.
Thumbnail	Enter the Thumbnail Display mode.
SlideShow	Enter the Slide Show mode.
NameOrder	Sorts files and folders by name.
ExtendOrder	Sorts files and folders by extended order.
SizeOrder	Sorts files and folders by size.
TimeOrder	Sorts files and folders by time.
EXIF ON/OFF	Enables or disables the auto image rotate accordingly to EXIF information.
FileName ON/OFF	Enables or disables the filename display in Thumbnail Display mode.

Image Display mode

1. In the Thumbnail Display mode, to enter the Image Display mode, press **ENTER**.
2. To display the last or next image in the Image Display mode, use the **Left** and **Right** keys.
3. To exit Image Display mode and return to Thumbnail Display mode, press **ENTER**.



4. To display an image in the Image Display mode use the operation UI.

The following operations are supported in the operation UI.

Button	Description
Display	Enter the Image Display mode.
Thumbnail	Enter the Thumbnail Display mode.
SlideShow	Enter the Slide Show mode.
Actual Size	Displays the image in actual size.
Best Fit	Display the image in a size that best fits the screen.
EXIFDisp OFF/On	Enables or disables the EXIF information display.
+90deg	Rotates the image 90 degrees.
-90deg	Rotates the image -90 degrees.

Image Slide Show mode

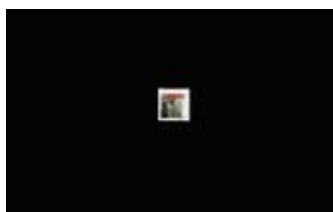
1. In the Thumbnail Display mode, to enter the Slide Show mode, press **SlideShow**.
2. In the Slide Show mode, to enter the Image Display Mode, press **ENTER**.
3. To display an image in the Slide Show mode use the operation UI.



The following operations are supported in the Slide Show Mode operation UI.

Button	Description
Stop	Stops Slide Show mode.
Next	Displays the next image.
Previous	Displays the previous image.
Delay 3/4/5	Sets a slide show delay in seconds.
Slide Effect	Supports for the following slide effects: <ul style="list-style-type: none"> • Slide Right • Blocks • RightDown • XLines • Slide Up • Ylines
Repeat ON/OFF	Enables or disables Slide Show Repeat mode.

When the image cannot be displayed due to a memory limitation or an unsupported image format, the specific image is displayed on the center of the screen.



Troubleshooting

If you cannot resolve an issue using the information provided in this section, contact your reseller or service center.

No image appears on screen

The image does not appear on the screen.

Resolution

- Make sure all the cables and power connections are correctly and securely connected.
See *Installation* on page 19 for more details.
- Check if the Light Status LED is in Green.
- Make sure you have removed the lens cap and the projector is switched on.

Incorrectly displayed image

The image is partial, is scrolling, or is otherwise incorrectly displayed.

Resolution

If using a PC (for Windows 95, 98, 2000, XP, Windows 7):

1. On control panel or IR remote keypad, press **AUTO**.
2. Select **My Computer > Control Panel**.
3. Double-click **Display**.
4. Select the **Settings** tab.
5. Verify your display resolution setting is lower than or equal to WUXGA (1920 × 1200).
6. Click **Advanced Properties**.
7. If the projector is still not projecting the entire image, change the monitor display:
 - a. Verify the resolution setting is lower than or equal to WUXGA (1920 × 1200).
 - b. Switch to the **Monitor** tab.

- c. Click **Change**.
- d. Click **Show all devices**.
- e. Under the SP box, select **Standard monitor types**.
- f. Under the Models box, select the appropriate resolution mode.
- g. Verify that the resolution setting of the monitor display is lower than or equal to WUXGA (1920 × 1200).

If using a Notebook:

1. On control panel or IR remote keypad, press **AUTO**.
2. Adjust resolution of the computer.
3. To send signal out from notebook to projector, press the keys listed below for your Notebook manufacturer (for example, [Fn]+[F4]):

Notebook brand	Function keys
Acer	[Fn]+[F5]
Asus	[Fn]+[F8]
Dell	[Fn]+[F8]
Gateway	[Fn]+[F4]
IBM/Lenovo	[Fn]+[F7]
HP/Compaq	[Fn]+[F4]
NEC	[Fn]+[F3]
Toshiba	[Fn]+[F5]
Mac Apple	System Preference > Display > Arrangement > Mirror display

4. If you experience difficulty changing resolutions or your monitor freezes, restart all equipment including the projector.

Presentation is not displayed

The screen of the Notebook or PowerBook computer is not displaying your presentation.

Details

Some Notebook PCs may deactivate their own screens when a second display device is in use. Each has a different method of reactivation.

Resolution

Refer to your computer manual for information on changing the method of reactivation.

Unstable or flickering images

The image is unstable or is flickering when projected.

Resolution

- To correct the pixels, use Pixel Track and Pixel Phase.
- Change the monitor color setting on your computer.

Vertical flickering bar

The image has a vertical, flickering bar when projected.

Resolution

- To make an adjustment, use **Auto Image**.
- Check and reconfigure the display mode of your graphic card to make it compatible with the projector.

Image is out of focus

The image is out of focus on the screen.

Resolution

- Make sure both lens caps (front and back) are removed.
- Adjust the lens focus to fit the screen.
- Make sure the projection screen is between the required distance.

Image is stretched

The image is stretched when displaying a 16:9 DVD title.

Details

When you play anamorphic DVD or 16:9 DVD, the projector shows the best image if the projector display mode is set to 16:9 in the on-screen display.

Resolution

- If you play 4:3 format DVD titles, change the format to 4:3 in the projector on-screen display.
- If the image is still stretched, adjust the aspect ratio by setting the display format as 16:9 (wide) aspect ratio type on your DVD player. For more details, see [Size and Position menu](#) on page 34.

Image is not the correct size

The image is too small or too large.

Resolution

- Adjust the lens zoom to fit.
- Verify you are using the correct lens.
- Change the position of the projector.

Specifications

Learn about the product specifications. Due to continuing research, specifications are subject to change without notice.

Inputs

The following table details the inputs for GS Series. RB in the Resolution column indicates reduced blanking.

Signal Type	Resolution	Frame rate (Hz)	HDMI	VGA	DisplayPort	DVI	Component	S-Video	CVBS
PC	640x350	85	•		•				
	640x400	85	•	•		•			
	640x480	59	•						
	640x480	60	•	•	•	•			
	640x480	72	•	•		•			
	640x480	75	•	•	•	•			
	640x480	85	•	•	•	•			
	720x400	85	•	•		•			
	768x480	60	•						
	768x480	75	•						
	768x480	85	•						
	800x600	50	•		•				
	800x600	56	•	•		•			
	800x600	60	•	•	•	•			
	800x600	72	•	•		•			
	800x600	75	•	•	•	•			
	800x600	85	•	•	•	•			
	848x480	50	•						
	848x480	60	•						
	848x480	75	•						

Signal Type	Resolution	Frame rate (Hz)	HDMI	VGA	DisplayPort	DVI	Component	S-Video	CVBS
PC	848x480	85	•						
	960x600	50	•						
	960x600	60	•		•				
	960x600	75	•						
	960x600	85	•						
	1024x768	60	•	•	•	•			
	1024x768	75	•	•	•	•			
	1024x768	85	•	•	•	•			
	1064x600	50	•						
	1064x600	60	•						
	1064x600	75	•		•				
	1064x600	85	•		•				
	1152x720	50	•						
	1152x720	60	•						
	1152x720	75	•						
	1152x720	85	•		•				
	1152x864	60	•	•			•		
	1152x864	70	•	•			•		
	1152x864	75	•	•			•		
	1152x864	85	•	•			•		
	1280x720	50	•			•			
	1280x720	60	•	•	•	•	•		
	1280x720	75	•	•	•	•	•		
	1280x720	85	•	•	•	•	•		
	1280x768	60	•	•			•		
	1280x768	75	•	•			•		
	1280x768	85	•	•			•		
	1280x800	50	•	•	•	•	•		
	1280x800	60	•	•	•	•	•		
	1280x800	75	•	•			•		
	1280x800	85	•	•			•		
	1280x960	60	•	•			•		
	1280x960	75	•	•			•		
1280x960	85	•	•			•			

Signal Type	Resolution	Frame rate (Hz)	HDMI	VGA	DisplayPort	DVI	Component	S-Video	CVBS
PC	1280x1024	50	•		•				
	1280x1024	60	•	•	•	•			
	1280x1024	75	•	•	•	•			
	1280x1024	85	•	•	•	•			
	1360x768	50	•						
	1360x768	60	•						
	1360x768	75	•						
	1360x768	85	•						
	1366x768	60	•	•	•	•			
	1400x900	60	•	•	•	•			
	1400x1050	50	•		•				
	1400x1050	60	•	•	•	•			
	1400x1050	75	•	•		•			
	1440x900	60	•	•		•			
	1440x900	75	•						
	1600x900	60	•						
	1600x1200	50	•						
	1600x1200	60	•	•	•	•			
	1680x1050	50	•		•				
	1680x1050	60	•	•	•	•			
	1680x1050	75	•						
	1704x960	50	•						
	1704x960	60	•						
	1728x1080	50	•						
	1728x1080	60	•						
	1864x1050	50	•						
	1864x1050	60	•						
	1920x1080	50	•			•			
	1920x1080	60	•	•			•		
	1920x1200RB	60	•	•	•	•			
1920x1200RB	50	•	•	•	•				
NTSC	NTSC (M, 4.43)	60						•	•

Signal Type	Resolution	Frame rate (Hz)	HDMI	VGA	DisplayPort	DVI	Component	S-Video	CVBS
PAL	PAL (B,G,H,I)	50						•	•
	PAL (N)	50						•	•
	PAL (M)	60						•	•
SECAM	SECAM (M)	50						•	•
SDTV	480i	60	•	•		•	•		
	576i	50	•	•		•	•		
EDTV	480p	60	•	•		•	•		
	576p	50	•	•		•	•		
HDTV	1080i	25	•	•		•	•		
	1080i	29	•	•		•	•		
	1080i	30	•	•		•	•		
	720p	50	•	•		•	•		
	720p	59	•	•		•	•		
	720p	60	•	•		•	•		
	1080s	23	•				•		
	1080s	24	•				•		
	1080p	23	•	•		•	•		
	1080p	24	•	•		•	•		
	1080p	25	•	•		•	•		
	1080p	29	•	•		•	•		
	1080p	30	•	•		•	•		
	1080p	50	•	•		•	•		
	1080p	59	•	•		•	•		
1080p	60	•	•		•	•			

PIP/PBP compatibility

The following table details the PIP/PBP compatibility.

PIP/PBP Matrix	HDMI	VGA	Component	CVBS	S-Video	HDBaseT	Display Port	USB A	USB MINI-B	RJ45	DVI-D
HDMI	-	-	-	-	-	-	•	•	•	•	•
VGA	-	-	-	-	-	-	•	•	•	•	•
Component	-	-	-	-	-	-	•	•	•	•	•
CVBS	-	-	-	-	-	-	•	•	•	•	•
S-Video	-	-	-	-	-	-	•	•	•	•	•
HDBaseT	-	-	-	-	-	-	•	•	•	•	•
DisplayPort	•	•	•	•	•	•	-	-	-	-	-
USB A	•	•	•	•	•	•	-	-	-	-	-
USB MINI-B	•	•	•	•	•	•	-	-	-	-	-
RJ45	•	•	•	•	•	•	-	-	-	-	-
DVI-D	•	•	•	•	•	•	-	-	-	-	-

- Dot (•): PIP/PBP combinations are enabled.
- Dash (-): PIP/PBP combinations are disabled.

Key features

- HD 0.65" 1920 × 1080 resolution or WUXGA 0.67" 1920 × 1200 resolution
- Projection lens compatibility:
 - Horizontal offset ranges: +/-30%
 - Vertical offset ranges: +/-100% (WUXGA) and +/-120% (HD)
Measurements are based on industry standards where offset is calculated as a ratio of the number of pixels shifted up/ down to half the image size.
- Dual Processing Warp Module for edge blending and geometric correction (optional)
- Wireless desktop display using wireless dongle (optional)
- SNMP traps and email notifications
- 10-bit image processor electronics with modular design
- All video formats can be resized to full screen either horizontally or vertically while maintaining aspect ratio
- The projector can be operated using any of the following:
 - The built-in keypad, an infrared (IR) remote control, a wired remote control, a PC/device using serial communications (Ethernet or RS232)
 - A Web page via Ethernet or from a PC/device via a wireless USB dongle (optional)
- Weight:
 - Maximum product weight (with lens removed): 16.5 kg (36 lbs.)
- Built-In keypad

List of components

This projector comes with all the items listed below. Check to make sure your package is complete. If anything is missing, contact your dealer.

- IR remote control (P/N: 003-004468-01)
- Power cords supplied with the projector:
 - UK/Korea/Russia
 - North America
 - Europe
 - Australia/New Zealand
 - Japan
 - India
- DVI to HDMI dongle
- User manual (CD)

Due to the difference in applications for each country, some regions may have different accessories.

The following accessories are available for the projector:

- Cable Cover GS White (P/N: 140-106108-XX)
- Cable Cover GS Black (P/N: 140-106119-XX)
- Standard Lens 1.22 - 1.53 (P/N: 140-132107-XX)
- Optional Lens 0.95 - 1.22 (P/N: 140-101103-01)
- Optional Lens 1.52 - 2.89 (P/N: 140-102104-01)
- Optional Lens 0.75 - 0.95 (P/N: 140-119102-XX)
- Optional Lens 2.90 - 5.50 (P/N: 140-107109-XX)
- Optional Lens 1.22-1.52 (P/N: 140-131106-XX)
- Optional Lens 1.22-1.53 (P/N: 140-100102-XX)
- 1DWUSB-BGN / Wireless dongle (optional accessory) (P/N: 133-113106-XX)
- Dual Processor Warp Module (optional accessory) (P/N: 133-111104-XX)
- Christie One Mount (P/N: 108-506102-XX)
- One Mount Extender Rod (P/N: 121-125109-XX)
- One Mount Rigging Kit (P/N: 121-126100-XX)

Physical specifications

Learn the dimensions and weight of the projector.

Description	Dimensions
Projector size	
Overall size (L x W x H) (excluding lens, feet)	456 mm (18.0 in) x 505 mm (19.9 in) x 190 mm (7.5 in)
Overall size, shipping without lens (L x W x H) (includes packaging)	596 mm (23.5 in) x 626 mm (24.6 in) x 341 mm (13.4 in)
Projector Weight	
Without lens	16.5 kg (36 lbs)
Shipping without lens (includes packaging)	22.3 kg (49.2 lbs)
Operating position	
360 degree front to back and portrait capable	Portrait mode (with left side down, with tilt between 60° to 120° from horizontal)

Physical operating environment

Provides specifications for the operating environment.

- Operating: 5°C to 40°C
 - 5 to 40 degrees C (0 to 2500 ft)
 - 5 to 35 degrees C (2500 to 5000 ft)
 - 5 to 30 degrees C (5000 to 10000 ft)
- Storage temperature range: -10°C to 60°C
- Humidity range: 10% to 85% RH (maximum), non condensing
- Storage humidity range: 5% to 90% RH (maximum), non condensing
- Operating altitude: 10,000 ft maximum

Power requirements

Learn the power requirements for the projector.

Parameter	Requirement
Rated voltage	
Input	100-240V
Rated current	
Input	6A
Line frequency	50/60Hz
AC input coupler	
Inrush current	70A max
Maximum power consumption	
Input	633W
Maximum power consumption, ECO mode	
Input	322W
Maximum power consumption, WLAN mode	
Input	< 8.0W
Maximum power consumption, Standby mode	
Input	< 0.5W

Regulatory

This product conforms to the following regulations related to product safety, environmental requirements and electromagnetic compatibility (EMC).

Safety

- CSA C22.2 No. 60950-1
- UL 60950-1
- IEC 60950-1
- EN 60950-1

Laser Safety

- IEC 60825-1
- IEC 62471
- FDA CDRH CFR 1040.10

- FDA CDRH CFR 1040.11

Electro-Magnetic Compatibility

Emissions

- FCC CFR47, Part 15, Subpart B/ANSI C63.4, Class A - Unintentional Radiators
- CISPR 22/EN55022 Class A - Information Technology Equipment
- ICES/NMB003 (A) - Information Technology Equipment

Immunity

- CISPR 24/EN55024 EMC Requirements - Information Technology Equipment

Environmental

- The product conforms to:
 - EU Directive (2011/65/EU) on the restriction of the use of certain hazardous substances (RoHS) in electrical and electronic equipment and the applicable official amendment(s).
 - EU Regulation (EC) No. 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH) and the applicable official amendment(s).
 - EU Directive (2012/19/EU) on waste and electrical and electronic equipment (WEEE) and the applicable official amendment(s).
 - China Ministry of Information Industry Order No.39 (02/2006) on the control of pollution caused by electronic information products, the hazardous substances concentration limits (SJ/T11363-2006), and the applicable product marking requirement (SJ/T11364-2006).

Marking

- This product conforms to all relevant Canadian, US, and European directives, standards, safety, health and environmental concerns. International packaging recycling marks conform to:
 - EU Directive (2012/19/EU) on waste and electrical and electronic equipment (WEEE).
 - EU Directive (94/62/EC) on packaging and packaging waste.
 - China packaging recycling mark standard (GB18455-2001).

Federal Communications Commission (FCC) warning

- A shielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.
- Use only shielded signal cables to connect I/O devices to this equipment.

On-screen display tree

The following table provides the on-screen display menu tree.

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default
Size & Position	Size Presets	Auto				Auto
		Native				
		4:3				
		Letterbox				
		Full Size				
		Full Width				
		Full Height				
		Custom				
	Overscan	Off				By source set
		Zoom				
		Only				
	Pixel Track	0 - 100				50
	Pixel Phase	0 - 100				50
	Horz Position	0 - 100				50
	Vert Position	0 - 100				50
	Digital Horz Zoom	50%~400%				100
	Digital Vert Zoom	50%~400%				100
	Digital Horz Shift	0 - 100				50
	Digital Vert Shift	0 - 100				50
	Geometry Correction	Basic	Off			
Horz Keystone			0 - 100 (0-20 for GEO model)			50 (10 for GEO model)
Vert Keystone			0 - 100 (0-20 for GEO model)			50 (10 for GEO model)
Horz Pincushion			0 - 100			50
Vert Pincushion			0 - 100			50

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default
Size & Position	Geometry Correction	Basic	Pincushion/ Barrel	0 - 20		10
			4-Corner	Top Left Horz adjust.	0 - 140	0
				Top Left Vert adjust.	0 - 80	0
				Top Right Horz adjust.	0 - 140	0
				Top Right Vert adjust.	0 - 80	0
				Bottom Left Horz adjust.	0 - 140	0
				Bottom Left Vert adjust.	0 - 80	0
				Bottom Right Horz adjust.	0 - 140	0
				Bottom Right Vert adjust.	0 - 80	0
		Curve	4-Corner	Top Left Horz adjust.	0 - 140	0
				Top Left Vert adjust.	0 - 80	0
				Top Right Horz adjust.	0 - 140	0
				Top Right Vert adjust.	0 - 80	0
				Bottom Left Horz adjust.	0 - 140	0
				Bottom Left Vert adjust.	0 - 80	0
				Bottom Right Horz adjust.	0 - 140	0
				Bottom Right Vert adjust.	0 - 80	0
			Curve	Top Arc	0 - 300	150
				Bottom Arc	0 - 300	150
				Left Arc	0 - 300	150
Right Arc	0 - 300	150				

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default	
Size & Position	Geometry Correction	Rotate	4-Corner	Top Left Horz adjust.	0 - 140	0	
				Top Left Vert adjust.	0 - 80	0	
				Top Right Horz adjust.	0 - 140	0	
				Top Right Vert adjust.	0 - 80	0	
				Bottom Left Horz adjust.	0 - 140	0	
				Bottom Left Vert adjust.	0 - 80	0	
				Bottom Right Horz adjust.	0 - 140	0	
				Bottom Right Vert adjust.	0 - 80	0	
	Rotation		0-16		8		
	Auto Image						
Image settings	Brightness	0 - 100				50	
	Contrast	0 - 100				By source set	
	Color Space	Auto					Auto
		RGB	RGB				RGB
			RGB Video				
			REC709				
		YUV	REC709				REC709
	REC601						
	Detail	Maximum					By source set
		High					
		Normal					
		Low					
		Minimum					
	Video Options	Color	0 - 100				50
Tint		0 - 100				50	
Noise Reduction		0 - 100				0	
Flesh Tone Correction		0 - 100				0	

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default	
Image settings	Video Options	Video Black Level					
		Detect Film	Off			Off	
			On				
		Closed captions	Off			Off	
			cc1				
			cc2				
	Input Levels	Red Gain	0 - 100				50
		Green Gain	0 - 100				50
		Blue Gain	0 - 100				50
		Red Offset	0 - 100				50
		Green Offset	0 - 100				50
		Blue Offset	0 - 100				50
		Sync Threshold	0 - 100				50
	Picture Settings	Reset RGB Gain/Offset					
		Presentation					By source set
		Video					
		Bright					
		Real					
		DICOM SIM					
		Blending					
	User						
	Save to User						
	Image Freeze	Off					Off
		On					
	Advanced Image Settings	Gamma	Video				By source set
			Film				
			Bright				
			CRT				
			DICOM				
		White Peaking	0 - 100				By source set
Color Temperature		Warmest				By source set	
		Warm					
	Cool						

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default	
Image settings	Advanced Image Settings	Color Temperature	Bright			By source set	
		Edge Enhancement	Off			Off	
			Normal				
			Maximum				
		Color Enhancement	Off			CE1	
			CE1				
			CE2				
		Christie RealBalck	Off			On	
			On				
		Language					English
	Lens Settings	Focus	Command				
		Zoom	Command				
		Lens Shift	Command				
		Lock All Lens Motors	Allow			Allow	
			Locked				
	Lens Calibration	Command					
	Ceiling Mount	Off				Auto	
		On					
		Auto					
	Rear Projection	Off				Off	
		On					
	Menu Preferences	Menu Horz Offset	0 - 100				0
		Menu Vert Offset	0 - 100				0
		Show Messages	Off				On
			On				
		Menu Transparency	0 - 90				0
		Splash Screen Setup	Factory Logo				Factory Logo
			Blue				
			Black				
	PIN Protect	Command					
Change PIN	Command						

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default	
Configuration	Power Management	Standby Mode	0.5W mode			Communication mode	
			Communication mode				
		AC Power On	Off			Off	
			On				
		Auto Shutdown	Never			20 Mins	
			5 Mins				
			10 Mins				
			15 Mins				
			20 Mins				
			25 Mins				
		Sleep Timer	Off			Off	
			2 Hrs				
			4 Hrs				
	6 Hrs						
	High Altitude	Off			Off		
		On					
	IR Control	Off			On		
		On					
	LED Indicator	Off			On		
		On					
	Communications	LAN		DHCP			By set
				IP Address			
				Subnet Mask			
Default Gateway							
MAC Address							
WLAN			Enable			By set	
			Start IP				
			End IP				
			Subnet Mask				
			Default Gateway				
			MAC Address				

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default	
Configuration	Communications	WLAN	SSID			By set	
		Network	Projector Name				By set
			Show Network Messages				
			Restart Network...				
			Network Factory Reset...				
		Serial Port Baud Rate	2400				115200
			4800				
			9600				
			14400				
			19200				
			38400				
			57600				
			115200				
		1200					
	Serial Port Echo	Off				Off	
		On					
	Serial Port Path	RS232				RS232	
		HDBaseT					
	Projector Address	0 - 9				0	
	Image Blending	Blending	On				Off
			Off				
		Marker	On				Off
			Off				
		Grid	Off				Off
			White				
			Red				
			Green				
Blue							
Solid Color		Off				Off	
		White					
		Red					

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default
Configuration	Image Blending	Solid Color	Green			Off
			Blue			
		Overlap	TOP	0... ½ Output Height(Pixel)		0
			Bottom	0... ½ Output Height		
			Left	0... ½ Output Width		
			Right	0... ½ Output Width		
		Bright Adj.	Blending Area offset	0-2000		1000
			non- Blending Area Offset	0-2000		1000
		Drop Off Curve	70-300			100
		Image Gamma	1.8			2.2
			2.0			
			2.2			
	2.4					
	2.6					
	Color Matching	Manual Adjustment	Enable	On		Off
				Off		
			Auto Test Pattern	On		On
				Off		
			Red Part of Red	0-1000		1000
			Green Part of Red	0-1000		0
			Blue Part of Red	0-1000		0
			Green Part of Green	0-1000		1000
	Red Part of Green	0-1000		0		
Blue Part of Green	0-1000		0			

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default	
Configuration	Color Matching	Manual Adjustment	Blue part of Blue	0-1000		1000	
			Red Part of Blue	0-1000		0	
			Green Part of Blue	0-1000		0	
			Red Part of White	0-1000		1000	
			Green Part of White	0-1000		1000	
			Blue Part of White	0-1000		1000	
			Reset to Default	Yes			
			No				
		HSG Adjustment	HSG Enable	On			Off
				Off			
			Auto Test Pattern	On			On
				Off			
			Red	Hue	0 to 254	127	
				Saturation			
				Gain			
			Green	Hue	0 to 254	127	
				Saturation			
				Gain			
			Blue	Hue	0 to 254	127	
				Saturation			
				Gain			
			Cyan	Hue	0 to 254	127	
				Saturation			
				Gain			
Magenta	Hue		0 to 254	127			
	Saturation						
	Gain						
Yellow	Hue	0 to 254	127				
	Saturation						
	Gain						

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default		
Configuration	Color Matching	HSG Adjustment	White Gain	Red	0 to 254	127		
				Green				
				Blue				
			Reset to Default	Yes				
				No				
	Hot Key Settings	Blank Screen						
		Aspect Ratio						
		Freeze Screen						
		Projector Info						
		Overscan						
		Closed Captions						
	Service	Projector Info	Model Name					
			Serial Number					
			Native Resolution					
			Firmware					
			Configuration					
			Boot Code					
			Standby Mode					
			Lens Lock Settings					
			Wheel Index					
		FactoryReset...						
		Test Pattern	Off					
			Grid					
White								
Black								
Checkerboard								
Color Bars								
Red								
Green								
Blue								
Yellow								
Magenta								
Cyan								

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default
Configuration	Service	Phosphor Index				
		Filter Index				
		Error Log	Show Log			
			Clear Log			
		Mode Adjustment				
		Laser Diode Info	LD1 Voltage			
			LD2 Voltage			
			LD3 Voltage			
			LD4 Voltage			
			LD5 Voltage			
			Blank1 temperature			
High ambient temperature warning	On				On	
	Off					
Light Source	Light Source Mode	Constant Power				Constant Power
		Constant Intensity				
		ECO mode				
	Constant Power	243-405				243, 259, 275, 292, 308, 324, 340, 356, 373, 389, 405
	Constant Intensity	0-10				7
	Total Projector Hours					
	Light Sensor	Light Sensor Calibration				
Calibrated?		(Display Yes/No)				

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default
Status	Model Name					
	Serial Number					
	Native Resolution					
	Firmware					Vxx, Ayy, Bzz
	Main Input					
	Main Signal Format					
	Main Pixel Clock					
	Main Sync Type					
	Main Horz Refresh					
	Main Vert Refresh					
	PIP/PBP Input					
	PIP/PBP Signal Format					
	PIP/PBP Pixel Clock					
	PIP/PBP Sync Type					
	PIP/PBP Horz Refresh					
	PIP/PBP Vert Refresh					
	Light Source Power					
	Total Projector Hours					
	Standby Mode					
	Lens Lock Settings					
	IP Address					
DHCP						
System Temperature						

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default	
Input Switching & PIP	Main Input	SPEC define					
	PIP/PBP Input	SPEC define					
	PIP/PBP Enable	OFF				OFF	
		ON					
	Swap						
	Size	(Small/Medium/Large)					
	Main Layout	(PBP, Main Left/ PBP, Main Top/ PBP, Main Right/ PBP, Main Bottom/PIP- Bottom Right/ PIP-Bottom Left/ PIP-Top Left/ PIP-Top Right)					
	Timing Detection Mode	Normal				Wide	
		Wide					
	Source Info	Active Source					
		Signal Format					
		Aspect Ratio					
		Resolution					
		Vert Refresh					
		Horz Refresh					
		Pixel Clock					
		Sync Type					
		Color Space					
		PIP/PBP		(When PIP/PBP active)			
		<PIP/PBP source lines>		(When PIP/PBP active)			
Enable source Hot-Key	ON				ON		
	OFF						

Level 1	Level 2	Level 3 (Or List)	Level 4 (Or List)	Level 5 (Or List)	Level 6 (Or List)	Default
Input Switching & PIP	Source Hot-Key	VGA				Key number 1
		HDMI				Key number 2
		DVI-D				Key number 3
		Display Port				Key number 4
		Component				Key number 5
		S-Video				Key number 6
		Composite				Key number 7
		Christie Presenter				Key number 8
		Card Reader				Key number 9
		Mini USB				Key number 0
	HDBaseT					
	Input key	Change Sources				Auto Source
		List All Sources				
		Auto Source				
Blank on Signal Switch	OFF				OFF	
	ON					
Language					English	
Test pattern	Off					
	Grid					
	White					
	Black					
	Checkerboard					
	Color Bars					

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