Installation and Setup Guide

020-002158-01

# Christie Korus Series

CHRISTIE

# NOTICES

## COPYRIGHT AND TRADEMARKS

Copyright ©2025 Christie Digital Systems USA Inc. All rights reserved.

All brand names and product names are trademarks, registered trademarks or trade names of their respective holders.

## 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. Our centers of excellence for manufacturing in Kitchener, Ontario, Canada and in Shenzhen, China are ISO 9001:2015 Quality Management System-certified.

Christie is committed to making our documents free from language bias; however, we are not responsible for the language used on any linked or third-party documentation.

For the most current technical documentation and office contact information, visit *www.christiedigital.com*.

## WARRANTY

Products are warranted under Christie's standard limited warranty, the details of which are available at *https://www.christiedigital.com/help-center/warranties/* or by contacting your Christie dealer or Christie.

## PREVENTATIVE MAINTENANCE

Preventative maintenance is an important part of the continued and proper operation of your product. Failure to perform maintenance as required, and in accordance with the maintenance schedule specified by Christie, voids the warranty For preventative maintenance schedules, refer to *www.christiedigital.com*.

## REGULATORY (if applicable)

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. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## CAN ICES-3 (A) / NMB-3 (A)

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

## ENVIRONMENTAL

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.

If printing this document, consider printing only the pages you need and select the double-sided option.

Please help us to conserve the environment we live in!

## NOTATION

Learn the hazard and information symbols used in the product documentation.

**Danger!** If not avoided, the following could result in death or serious injury.

**Warning!** If not avoided, the following could result in death or serious injury.



**Caution!** If not avoided, the following could result in minor or moderate injury.

**Notice.** If not avoided, the following may result in equipment or property damage.

# Content





Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Introduction

This guide is intended for Christie-qualified installers and trained operators of the projector.

For complete Korus Series product documentation and technical support, go to *www.christiedigital.com*.

This projector is intended for use in a non-cinema environment.

## Models

The following models are supported for the Korus Series.

- 4K1400-KS
- 4K1400A-KS
- 4K1000-KS
- 4K1000A-KS

## Safety and warning guidelines

This projector must be operated in an environment that meets the operating range specification. Use only the attachments and/or accessories recommended by Christie. Use of others may result in the risk of fire, shock, or personal injury.

**Warning!** If not avoided, the following could result in death or serious injury.

- Do not expose the product to moisture.
- Do not operate the product without all of its covers in place.
- This product must be installed within a restricted access location not accessible by the general public.
- Only personnel who are trained on the precautions for the restricted access location can be granted entry to the area.
- FIRE HAZARD! Keep hands, clothes, and all combustible material away from the concentrated light beam of the projector.
- TRIP OR FIRE HAZARD! Position all cables where they cannot contact hot surfaces, be pulled, be tripped over, or damaged by persons walking on or objects rolling over the cables.
- SHOCK HAZARD! Disconnect the product from AC before installing, moving, servicing, cleaning, removing components, or opening any enclosure.
- A minimum of two people or appropriately rated lift equipment is required to safely lift, install, or move the product.
- OPTICAL RADIATION HAZARD! Disconnect the power plug from the AC outlet if the product is not being used for an extended period of time.
- Do not allow anything to rest on the power cord.
- Always provide proper ventilation for the product to prevent overheating.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

**Caution!** If not avoided, the following could result in minor or moderate injury.

- Only Christie-qualified technicians are permitted to open product enclosures.
- All procedures must be performed by Christie-qualified technicians.

**Notice.** If not avoided, the following may result in equipment or property damage.

- Always use a lens plug when installing or moving the product to prevent contaminants from entering the product.
- Only use cleaning solutions recommended by Christie. All other cleaning solutions may cause product damage and void the warranty.

## AC power precautions

Read all safety and warning guidelines before powering on the projector.

**Warning!** If not avoided, the following could result in death or serious injury.

- FIRE HAZARD! Do not use a power cord, harness, or cable that appears damaged.
- FIRE OR SHOCK HAZARD! Do not overload power outlets and extension cords.
- SHOCK HAZARD! Only use the AC power cord provided with the product or recommended by Christie.
- FIRE AND SHOCK HAZARD! Do not attempt operation unless the power cord, power socket, and power plug meet the appropriate local rating standards.
- SHOCK HAZARD! Do not attempt operation if the AC supply is not within the specified voltage and current, as specified on the license label.
- SHOCK HAZARD! The AC power cord must be inserted into an outlet with grounding.
- SHOCK HAZARD! Disconnect the product from AC before installing, moving, servicing, cleaning, removing components, or opening any enclosure.
- Install the product near an easily accessible AC receptacle.

## Installation safety and warning guidelines

Read all safety and warning guidelines before installing the projector.

**Warning!** If not avoided, the following could result in death or serious injury.

- High leakage current present when connected to IT power systems.

**Caution!** If not avoided, the following could result in minor or moderate injury.

- ELECTRICAL and BURN HAZARD! Use caution when accessing internal components.
- Only Christie-qualified technicians are authorized to use the tools provided in the toolbox.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Laser safety precautions

Read all safety and warning guidelines before installing or operating the projector.

**Warning!** If not avoided, the following could result in death or serious injury.

- LASER RADIATION HAZARD! This projector has a built-in Class 4 Laser module. Never attempt to disassemble or modify the laser module.
- Any operation or adjustment not specifically instructed in the documentation creates the risk of hazardous laser radiation exposure.
- Do not operate the product without all of its covers in place.
- Only Christie-qualified technicians who are knowledgeable about the hazards associated with laser use, high-voltage, and high temperatures generated by the product are authorized to assemble, install, and service the Christie laser projection system.
- Do not look directly into the lens when the light source is on. The extremely high brightness can cause permanent eye damage. Class 1 laser product of IEC/EN 60825-1:2014 and Risk Group 2 according to IEC 62471-5:2015.
- Install the product so users and the audience cannot enter the restricted area at eye level.
- LASER RADIATION! Do not look directly into the laser beam of the remote.
- Complies with 21 CFR 1040.10 and 1040.11 except for conformance as a Risk Group 2 LIP as defined in IEC 62471-5:2015. For more information see Laser Notice No. 57, dated May 8, 2019. IEC 60825-1:2014: CLASS 1 LASER PRODUCT - RISK GROUP 2.
- No direct exposure to the beam must be permitted, RG3 IEC 62471-5:2015 when installed with 2.4-4.8 lens (P/N:140-111104-XX) and 4.8-8.64 lens (P/N: 140-116109-XX).

# Light intensity hazard distance

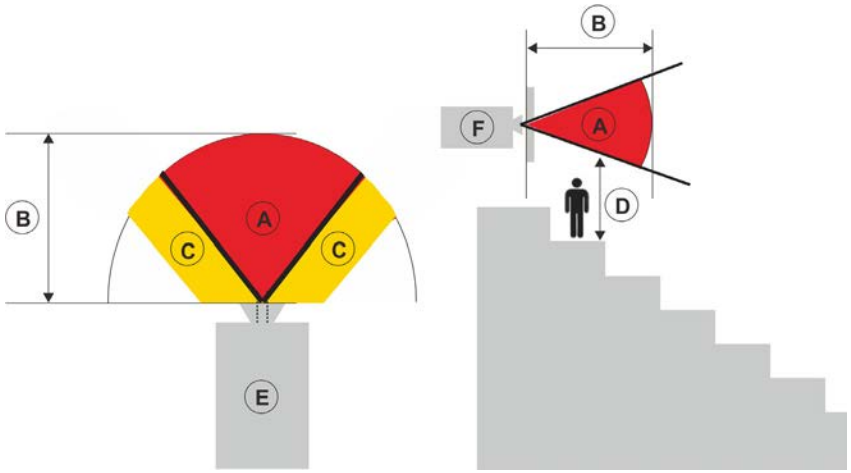
This projector has been classified as Risk Group 3 according to the IEC 62471-5:2015 standard due to possible hazardous optical and thermal radiation being emitted.

**Warning!** If not avoided, the following could result in death or serious injury.

- PERMANENT/TEMPORARY BLINDNESS HAZARD! No direct exposure to the beam must be permitted.
- PERMANENT/TEMPORARY BLINDNESS HAZARD! Operators must control access to the beam within the hazard distance or install the product at the height that prevents exposure of spectators' eyes within the hazard distance. The hazard and no access zones are based on the type of venue the projector is installed in. For restrained environments, the hazard zone must be no lower than 2.5 meters/8.2 feet (US installations) or 2.0 meters/6.6 feet (global installations) above any surface upon which any persons are permitted to stand and the horizontal clearance to the hazard zone must be a minimum 1.0 meters (3.3 feet). For unrestrained environments, the hazard zone must be no lower than 3.0 meters (9.8 feet) above the floor and the horizontal clearance to the hazard zone must be a minimum 2.5 meters (8.2 feet).
- EXTREME BRIGHTNESS! Do not place reflective objects in the product light path.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

The following diagram shows the zones for optical and skin hazard distances:




- A—Hazard zone. The region of space where the projection light from the projector is above emission limits for Risk Group 2. The light intensity may cause eye damage after a momentary or brief exposure (before a person can avert their eyes away from the light source). The light may cause skin burns to occur.
- B—Hazard distance. Operators must control access to the beam within the hazard distance or install the product preventing potential exposure of the spectators' eyes from being in the hazard distance.
- C—No access zone. The no access zone must be followed based on the type of venue the projector is installed in.
  - For restrained environments like theaters and facilities where the audience is controlled with formal structures, supervision, or physical constraints, the no access zone must be no less than 1.0 meters (3.3 feet).
  - For unrestrained environments like a concert venue or facility that has actions by individuals that are not controlled or guided by formal structures, supervision, or physical constraints and therefore may include unexpected actions that increase the likelihood of accidental hazardous exposure to optical radiation, the no access zone must be no less than 2.5 meters (8.2 feet).
- D—Vertical distance to hazard zone. The hazard zone above the floor must be followed based on the type of venue the projector is installed in.
  - For restrained environments like theaters and facilities where the audience is controlled with formal structures, supervision, or physical constraints, the hazard zone must be no lower than 2.5 meters/8.2 feet (US installations) or 2.0 meters/6.6 feet (global installations) above any surface upon which any persons are permitted to stand.
  - For unrestrained environments like a concert venue or facility that has actions by individuals that are not controlled or guided by formal structures, supervision, or physical constraints and therefore may include unexpected actions that increase the likelihood of accidental hazardous exposure to optical radiation, the hazard zone must be no lower than 3.0 meters (9.8 feet) above the floor.

  If the vertical distance to hazard zone requirement (Zone D) is satisfied, the horizontal clearance distance (Zone C) is not needed.
- E—Represents the top view of the projector.
- F—Represents the side view of the projector.

*For information detailing the hazard distance for each lens, refer to the Christie Korus Series User Manual (020-002159-XX).*


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

The following table lists the hazard distance for the Christie projector lens with the zoom adjusted to its most hazardous position.

US and International hazard distances based upon IEC 62471-5:2015, *Photobiological safety of lamps and lamp systems – Part 5: Image projectors*.

## 4K1400(A)-KS model

| Projection lens | Part number | Hazard distance (m) |
|---|---|---|
| 0.34-0.37:1 ultra-short throw lens | 140-164102-XX | N/A |
| 0.5-0.65:1 short throw lens | 140-166104-XX | N/A |
| 0.78-0.90:1 zoom lens | 140-144100-XX | N/A |
| 0.90-1.30:1 zoom lens | 140-159106-XX | N/A |
| 1.30-1.80:1 zoom lens | 140-158105-XX | N/A |
| 1.25-2.0:1 zoom lens | 140-165103-XX | N/A |
| 1.80-2.40:1 zoom lens | 140-110103-XX | N/A |
| 2.40-4.80:1 zoom lens | 140-111104-XX | 1.8 |
| 4.80-8.64:1 zoom lens | 140-116109-XX | 3.6 |

## 4K1000(A)-KS model

| Projection lens | Part number | Hazard distance (m) |
|---|---|---|
| 0.34-0.37:1 ultra-short throw lens | 140-164102-XX | N/A |
| 0.5-0.65:1 short throw lens | 140-166104-XX | N/A |
| 0.78-0.90:1 zoom lens | 140-144100-XX | N/A |
| 0.90-1.30:1 zoom lens | 140-159106-XX | N/A |
| 1.30-1.80:1 zoom lens | 140-158105-XX | N/A |
| 1.25-2.0:1 zoom lens | 140-165103-XX | N/A |
| 1.80-2.40:1 zoom lens | 140-110103-XX | N/A |
| 2.40-4.80:1 zoom lens | 140-111104-XX | 1.1 |
| 4.80-8.64:1 zoom lens | 140-116109-XX | 2.7 |

## For installations in the United States

The following must be in place for laser-illuminated projector installations in the United States:

- Any human access to the hazard zone, if applicable, must be restricted by barriers to enforce the no access zone.
- Permanent show installations containing Risk Group 3 laser-illuminated projectors must meet the following conditions:
    - Installed by Christie or by Christie-authorized and trained installers. Refer to the EXTERNAL - Laser safety awareness training (Course code: CS-ELSA-01) on the *http://www.christieuniversity.com* site.
    - Performed according to instructions provided by Christie.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

- Ensure the projection system is securely mounted or immobilized to prevent unintended movement or misalignment of the projections.

- Temporary show installations containing Risk Group 3 laser-illuminated projectors may be installed by Christie or sold or leased only to valid laser light show variance holders (laser light show manufacturers) for image projection applications. Such manufacturers may currently hold a valid variance for production of Class IIIb and IV laser light shows and/or for incorporation of the Risk Group 3 laser-illuminated projectors into their shows. This requirement applies also to dealers and distributors of these laser-illuminated projectors.
- For temporary installations, the FDA variance holder must maintain complete records of all show itineraries with dates, locations, operator name, and contact information clearly and completely identified.
- The Christie Laser Projection System Installation Checklist must be fully completed after the installation and sent to lasercompliance@christiedigital.com. A copy can remain on-site. This checklist can be found as a separate document in the accessory box with the manual.
- Certain US states have additional laser regulatory requirements. Contact *lasercompliance@christiedigital.com* for additional regulatory requirements.

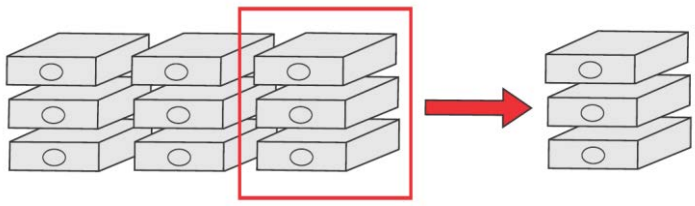
## Stacking projectors

When two or more projectors are stacked (projecting on the same surface), due to the overlap of the images, a system hazard distance may need to be applied instead of a single projector hazard distance. When projectors are being stacked in two-dimension (for example 2x2 or 3x3), only projectors stacked along one axis (horizontal or vertical) should be considered, taking the stacking direction with the shortest lens distance (center-to-center distance) to reduce to separate Nx1 systems.

The following information is required is:

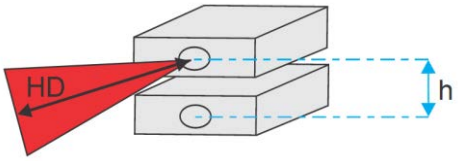
| | |
|---|---|
| HD | Hazard distance of a single projector with the given lens (center-to-center distance). |
| h | Distance between two adjacent projector lenses in the stack.<br>For three or more projectors, if the distance between the adjacent lenses is not the same, take the shortest distance. |
| N | Number of projectors (three or more). |

1. For 2D stacks, use the 1D stack with the shortest lens distance.

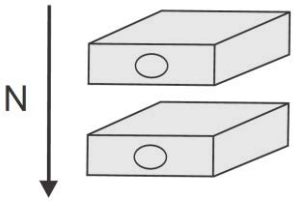



Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

2. Determine the hazard distance (HD) of a single projector with a given lens and the distance (h) between the adjacent lenses.




3. Determine the hazard distance for stacking two projectors:
   - If the single projector hazard distance is HD≥9xh, implement 1.15xHD for the hazard distance.
   - If the single projector hazard distance is HD<9xh, keep the original hazard distance and risk zone as per the projector.




   Where N is the number of projectors.

4. Determine the hazard distance for stacking three or more projectors along the same axis:
   - If the single projector hazard distance is HD≥12xh, implement (N/2+0.15) x HD for the system hazard distance.
   - If the single projector hazard distance is HD<12xh, keep the original hazard distance and risk zone as per the projector.
   - If the single projector hazard distance is 9xh≤HD<12xh, implement the hazard distance for two projectors.

# Product labels

Learn about the labels that may be used on the product. Labels on your product may be yellow or black and white.

## General hazards

Hazard warnings also apply to accessories once they are installed in a Christie product that is connected to power.

| **Fire and Shock Hazard** | |
|---|---|
|  | To prevent fire or shock hazards, do not expose this product to rain or moisture.<br>Do not alter the power plug, overload the power outlet, or use it with extension Cords.<br>Do not remove the product enclosure.<br>Only Christie qualified technicians are authorized to service the product. |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| Electrical Hazard | |
|---|---|
|  | Risk of electric shock.<br>Do not remove the product enclosure.<br>Only Christie qualified technicians are authorized to service the product. |


General hazard.


Electrocution hazard. To avoid personal injury, always disconnect all power sources before performing maintenance or service procedures.


Hot surface hazard. To avoid personal injury, allow the product to cool for the recommended cool down time before performing maintenance or service.


Burn hazard. To avoid personal injury, allow the product to cool for the recommended cool down time before performing maintenance or service.


Bright light hazard. To avoid personal injury, never look directly at the light source.


Moving parts hazard. To avoid personal injury, keep hands clear and loose clothing tied back.


Fan hazard. To avoid personal injury, keep hands clear and loose clothing tied back. Always disconnect all power sources before performing maintenance or service procedures.


Voltage hazard. To avoid personal injury, always disconnect all power sources before performing maintenance or service procedures.


Not for household use.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

## Mandatory action

Consult the service manual.

Disconnect all power sources before performing maintenance or service procedures.

## Electrical labels

Indicates the presence of an earth ground.

## Laser labels


No direct exposure to the beam shall be permitted, RG3 IEC 62471-5:2015.

This projector has been classified as Class 1 Laser Product-Risk Group 3 according to the IEC 60825-1:2014 and IEC 62471- 5:2015 standard.

Operators shall control access to the beam within the hazard distance or install the product at the height that will prevent exposures of spectators' eyes within the hazard distance.


IEC 60825-1:2014, EN 60825-1:2014+A11:2021, EN 50689:2021 CLASS 1 CONSUMER LASER

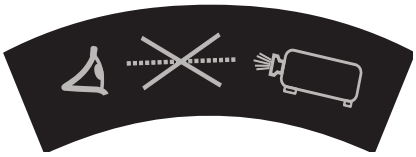
PRODUCT RISK GROUP 2, Complies with 21 CFR 1040.10 and 1040.11 except for conformance as a Risk Group 2 LIP as defined in IEC 62471-5:Ed.1.0. For more information see Laser Notice No. 57, dated May 8, 2019.


Mount above the heads of children. When within 1 m (3.3. feet) of the product, avoid eye exposure to avoid temporary or permanent eye damage.


The spec label is only for reference and the content is varied depending on regions and different models.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

### Additional safety hazard



Do not look directly into the lens. The extremely high brightness can cause permanent eye damage.

# Projector overview

The Korus Series is a high brightness, high-resolution video graphics one-chip laser-based projector. The projector is available in 4K 0.8" resolution and uses Digital Light Processing (DLP™) technology from Texas Instruments. It is primarily designed for fixed installation and secondary applications including rental-staging and LBE (Location Based Entertainment). This product is used for professional applications and is not for domestic use.

# Contact your dealer

Record the information about your projector and keep this information with your records to assist with the servicing of your projector. If you encounter a problem with your Christie projector, contact your dealer.

| **Purchase record** |
|---|
| Dealer: |
| Dealer or Christie Sales/Service contact phone number: |
| Projector serial number:<br>The serial number can be found on the license label located on the display panel |
| Purchase date: |
| Installation date: |

| **Ethernet settings** | |
|---|---|
| Default gateway: | |
| Projector IP address: | |
| Subnet mask: | |

# Key features

Understand the important features of the projector.

- 4K 0.8" 3840x2400 resolution
- High picture quality with superb brightness performance
- Lens suite options for installation flexibility
- Powered lens adjustment
- Projection lens compatibility:


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

    - 360 degrees projection
    - 3D blending and auto warping
    - Supports fog filter as an optional accessory
- Full HD 3D technology with frame sequential up to 120 Hz
- Christie Twist™ and Mystique™ allow for easy and quick blending and warping. Support for Mystique™ camera based alignment system (sold separately).
- A wide range of connectivity including HDMI, HDBaseT, and 3D inputs
- Integrated HDBaseT solution supports 4K video streaming through RJ45
- 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, the infrared (IR) remote keypad, a wired remote keypad, or a PC/device using serial communications (Ethernet or RS232)
    - A web page using Ethernet, or from a PC

# How the projector works

The Korus Series projectors accept a variety of input signals for a wide range of commercial projection applications.

Designed with solid-state illumination light sources and phosphor technology, the red, green and blue color elements are segmented through a phosphor wheel and modulated by one Digital Micro mirror Device (DMD) panel responding to incoming data streams of digitized red, green, and blue color information. As these digital streams flow from the source, light from the responding on pixels of the DMD panel is reflected, converged, and projected to the screen through projection lenses, where all pixel reflections are superimposed in sharp fullcolor images.

# List of components

Verify all components were received with the projector. If anything is missing, contact your dealer.

- AC power cord
- IR remote keypad
- Product Reference card

# Product documentation

For installation, setup, and user information, see the product documentation available on the Christie Digital Systems USA Inc. website at *www.christiedigital.com*. Read all instructions before using or servicing this product.

1. Access the documentation from the Christie website:


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

- Go to this URL: *http://bit.ly/4ntgjEq* or *https://www.christiedigital.com/products/projectors/all-projectors/korus-series/*
- Scan the QR code using a QR code reader app on a smartphone or tablet.

2. On the product page, select the model and switch to the **Downloads** tab.

## Related documentation

Additional information on the projector is available in the following documents.

- *Korus Series User Manual (P/N: 020-002159-XX)*
- *Korus Series Service Manual (P/N: 020-002160-XX)*
- *Korus Series Serial Commands Technical Reference (P/N: 020-104044-XX)*
- *Twist User Guide (P/N: 020-101380-XX)*
- *Mystique Operate Instruction Sheet (P/N: 020- 102382-XX)*

# Technical support

Technical support for Christie Enterprise products is available at:

- North and South America: +1-800-221-8025 or Support.Americas@christiedigital.com
- Europe, Middle East, and Africa: +44 (0) 1189 778111 or Support.EMEA@christiedigital.com
- Asia Pacific (support.apac@christiedigital.com):
  - China: +86 10 6561 0240 or tech-supportChina@christiedigital.com
  - India: +91 (80) 6708 9999 or tech-India@christiedigital.com
  - Japan: 81-3-3599-7481
  - Singapore: +65 6877-8737 or tech-Singapore@christiedigital.com
  - South Korea: +82 2 702 1601 or tech-Korea@christiedigital.com

# Lens types

The following lists the lens types for Korus Series.

| Projection lens P/N | Throw ratio | Projection lens | Zoom ratio |
|---|---|---|---|
| 140-164102-XX | 0.34 to 0.37 | Ultra-short throw | 1.1X |
| 140-166104-XX | 0.5 to 0.65 | Short throw | 1.3X |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| Projection lens P/N | Throw ratio | Projection lens | Zoom ratio |
|---|---|---|---|
| 140-144100-XX | 0.78 to 0.90 | Short throw | 1.15X |
| 140-159106-XX | 0.90 to 1.30 | Short throw | 1.44X |
| 140-158105-XX | 1.30 to 1.80 | Standard | 1.6X |
| 140-165103-XX | 1.25 to 2.0 | Long zoom | 1.38X |
| 140-110103-XX | 1.80 to 2.40 | Long zoom | 1.33X |
| 140-111104-XX | 2.40 to 4.80 | Ultra-long throw | 2X |
| 140-116109-XX | 4.80 to 8.64 | Ultra-long throw | 1.8X |

# Filter types

The following lists the filter accessory types for Korus Series.

| Part number | Filter accessory | Components | Replacement interval |
|---|---|---|---|
| 140-167105-XX | FILTER MODULE FRAME Korus | Frame for Korus Series filters | Replace only if damaged |
| 140-168106-XX | FOG FILTER Korus | Fog filters | 500 hours or when damaged |
| 140-169107-XX | DUST FILTER Korus | Dust filters | 4,000 hours or when damaged |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Installation and setup

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

## Site requirements

To safely install and operate the projector, the installation location must have restricted access for authorized personnel only and meet these minimum requirements.

### Physical operating environment

Provides specifications for the operating environment.

| Item | Specification |
|---|---|
| Ambient temperature (operating) | 0 to 45°C (32 to 113°F) for 0 to 762 meters (0 to 2500 feet) |
| | 0 to 40°C (32 to 104°F) for 762 to 1524 meters (2500 to 5000 feet) |
| | 0 to 35°C (32 to 95°F) for 1524 to 3048 meters (5000 to 10,000 feet) |
| Storage temperature range | -10 to 60°C (14 to 140°F) |
| Humidity range | 10% to 85% RH (maximum), non-condensing |
| Storage humidity range | 5% to 90% RH (maximum), non-condensing |
| Operating altitude | 3048 meters (10,000 feet) maximum |

### Power connection

The projector uses an AC power system allowing the projector to operate at full brightness with a power supply of 100 to 240 VAC. Operating the device outside of the voltage range may cause unsatisfactory operation or damage to the projector. To ensure safety operation, only use the AC power cord provided with the product or recommended by Christie.

| Item | Specification |
|---|---|
| 4K1400-KS, 4K1400A-KS | • 100 to 240 VAC<br>• 50/60 Hz<br>• 9 A |
| 4K1000-KS, 4K1000A-KS | • 100 to 240 VAC<br>• 50/60 Hz<br>• 7 A |

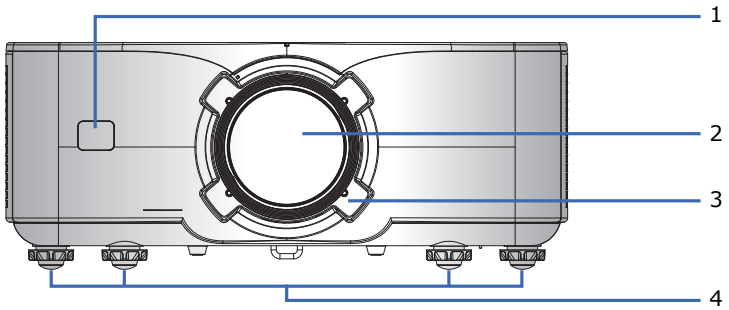

Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Projector components

Identify the main components of the projector.

## Front view

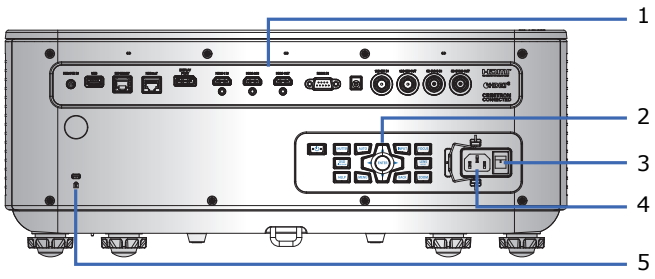
Identify the main components on the front of the projector.




| 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 | Rubber ring | Removable design to prevent dust, dirt, and foreign objects from entering. Due to limited space and narrow gaps, make sure to remove the rubber ring before assembling ultra-short throw lenses. Once finished using the ultra-short throw lens, the rubber ring can be reattached to the projector. Make sure it is fully pressed down and securely in place. |
| 4 | Adjustable feet | Raises or lowers the feet to level the projector. |

## Rear view

Identify the main components on the rear of the projector.



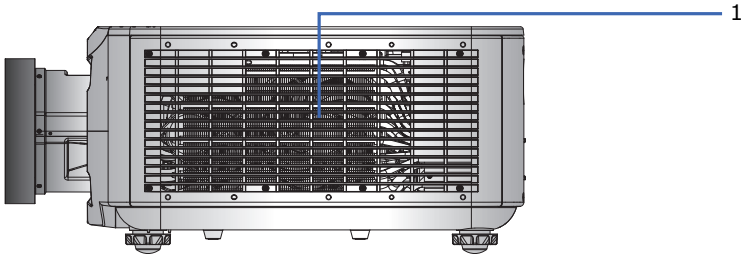

| ID | Part name | Description |
|---|---|---|
| 1 | Input/output (I/O) panel | Connects the projector to external devices. |
| 2 | Built-in keypad | Controls the projector. |
| 3 | Power button | Powers the projector on or off. |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| ID | Part name | Description |
|---|---|---|
| 4 | AC input | Connects to the supplied power adapter |
| 5 | Kensington lock | Secures the projector to counter tops, tables, and so on. |

## Left view

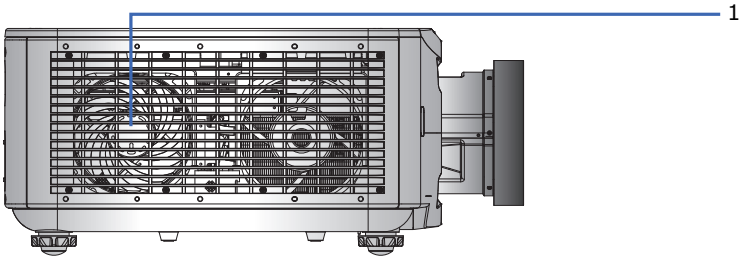
Identify the main components on the left side of the projector.




| ID | Part name | Description |
|---|---|---|
| 1 | Cooling air vents (exhaust) | 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.

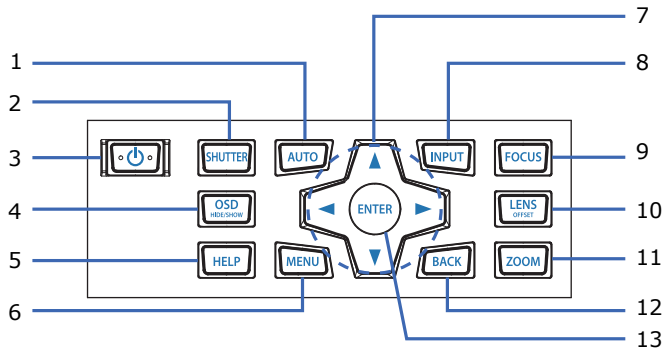



| ID | Part name | Description |
|---|---|---|
| 1 | Cooling air vent (intake) | Provides cooling to the projector. Keep these vents unobstructed to prevent the projector from overheating. |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Built-in keypad

The built-in keypad controls the projector.

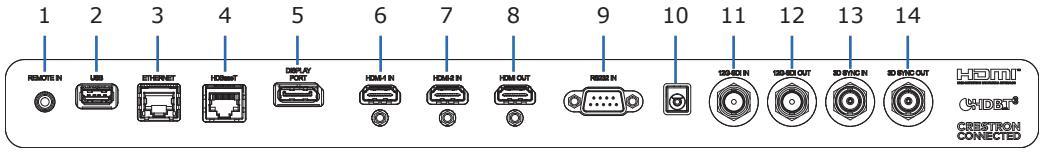



| ID | Button | Description |
|---|---|---|
| 1 | AUTO | Automatically optimizes an image. |
| 2 | SHUTTER | Displays or blanks the video image. |
| 3 | POWER | Turns the projector on or off. |
| 4 | OSD HIDE/SHOW | Hides or shows the on-screen display (OSD) menus. |
| 5 | HELP | Displays the instructions for source connection. |
| 6 | MENU | Displays the menus. |
| 7 | Arrow Keys | Adjusts a setting up or down, or navigate within a menu. |
| 8 | INPUT | Selects an input for the main image. |
| 9 | FOCUS | Adjusts the focus. |
| 10 | LENS OFFSET | Adjusts the lens vertical or horizontal offset setting. |
| 11 | ZOOM | Adjusts the zoom. |
| 12 | BACK | Returns to the previous level or exits the menus if at top level. |
| 13 | ENTER | Confirms the item selection. |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Input/output (I/O) panel

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



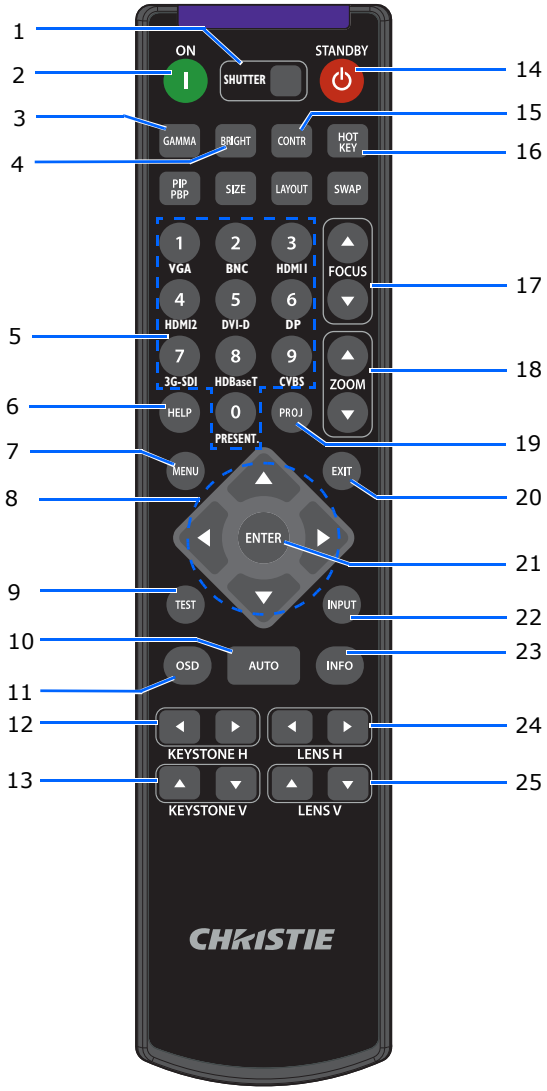

| ID | Connector name | ID | Connector name |
|---|---|---|---|
| 1 | REMOTE IN | 8 | HDMI OUT |
| 2 | USB (5V/1.5A) | 9 | RS232IN |
| 3 | ETHERNET (10/100 Mbps) | 10 | DC OUT 12V @ 0.35A |
| 4 | HDBaseT | 11 | 12G-SDI IN |
| 5 | DISPLAY PORT | 12 | 12G-SDI OUT |
| 6 | HDMI-1 IN | 13 | 3G-SDI IN |
| 7 | HDMI-2 IN | 14 | 3G-SDI OUT |

# IR remote keypad

The IR remote keypad communicates with the projector by way of wireless communications.

If you choose to use a cable, not supplied, it must be 20 m (65.6 feet) or less. If the length of cable exceeds 20 m (65.6 feet), the IR remote keypad may not work correctly.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.




| ID | Button | Description |
|---|---|---|
| 1 | SHUTTER | Displays or blanks the video image. |
| 2 | ON | Turns the projector on. |
| 3 | GAMMA | Adjusts the mid-range levels. |
| 4 | BRIGHT | Adjusts the amount of light in the image. |
| 5 | Number Keys | Enter a number, such as a channel, value, and so on. The on-screen display (OSD) indicates if a function is not supported. |
| 6 | HELP | Displays the instructions for source connection. |
| 7 | MENU | Displays the menus. |
| 8 | Arrow Keys | Adjusts a setting up or down to navigate within a menu. |
| 9 | TEST | Displays a test pattern. |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| ID | Button | Description |
|---|---|---|
| 10 | AUTO | Automatically optimizes an image. |
| 11 | OSD | Hides or shows OSD menus. |
| 12 | KEYSTONE H | Adjusts the horizontal keystone. |
| 13 | KEYSTONE V | Adjusts the vertical keystone. |
| 14 | STANDBY | Turns the projector off. |
| 15 | CONTR | Adjusts the difference between dark and light. |
| 16 | HOT KEY | Selects the preset key quickly. |
| 17 | FOCUS | Adjusts the focus to improve image clarity as required. |
| 18 | ZOOM | Adjusts the zoom to achieve a required image size. |
| 19 | PROJ | Changes the IR remote keypad ID.<br>• To assign an ID, select **PROJ** + <**1** to **9**>.<br>• To return to the universal IR remote ID, select **PROJ** + **0**. |
| 20 | EXIT | Returns to the previous level or exits menus if at the top level. |
| 21 | ENTER | Selects a highlighted menu item, or changes or accepts a value. |
| 22 | INPUT | Selects an input for the main image. |
| 23 | INFO | Displays the projector information. |
| 24 | LENS H | Adjusts the position of the image horizontally. |
| 25 | LENS V | Adjusts the position of the image vertically. |

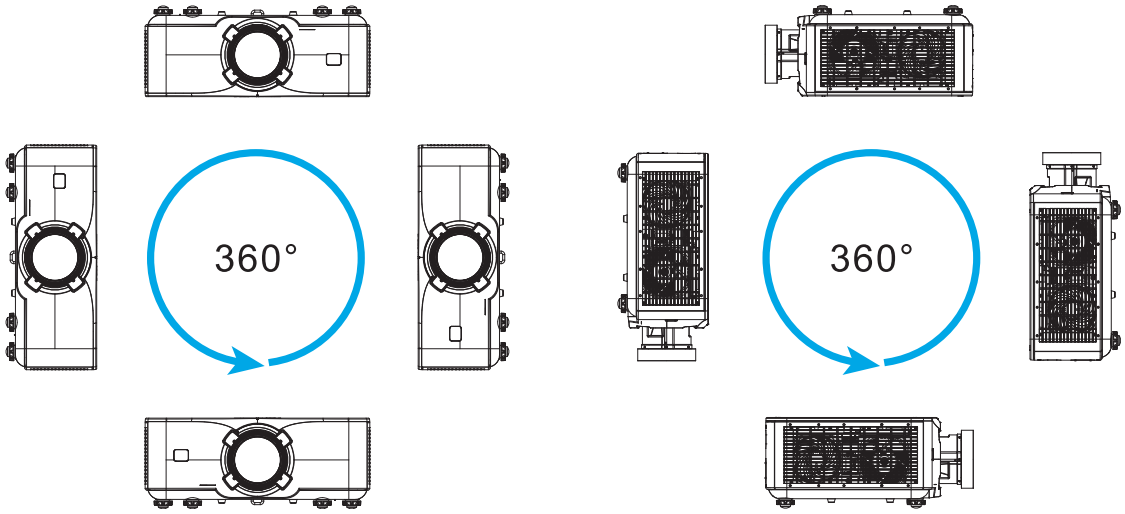
# Positioning the display

When selecting a position for the projector, consider the size and shape of the screen, the location of the 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 1.5 m (4.9 feet) 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.
  For more information detailing the throw ratio for each lens, refer to the *Korus Series Lens Throw Ratios Technical Reference (P/N: 020-104045-XX)*.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

- 360 degree free orientation operation




When installing the projector in portrait orientation, Christie recommends the built-in keypad and power inputs face upwards. This allows access to the built-in keypad and power connections during operation.

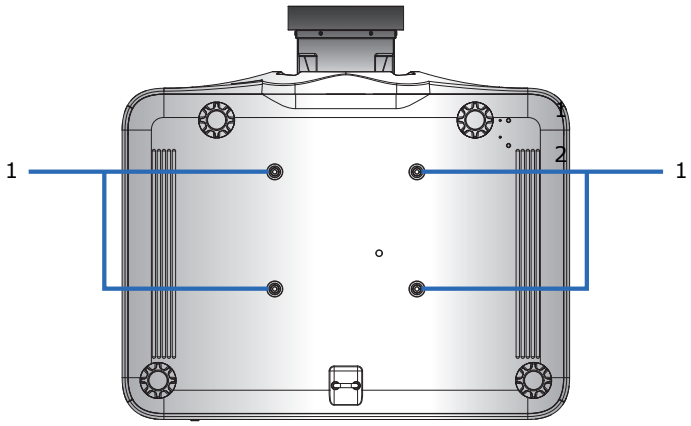
## Installing the ceiling mount

Mount the projector with a Christie-approved mount or rigging frame, such as One Mount (P/N: 108-506102-XX) or Christie One Aluminum Rigging Frame (P/N: 140-137102-XX) or Christie QwikRig Rigging Frame (P/N: 140-154101-XX), using the four mounting points on the underside of the projector.

**Warning!** If not avoided, the following could result in death or serious injury.

- When not mounted properly, the projector may fall.
- The warranty on this projector does not cover damage caused by the use of a non-recommended ceiling mount kit or installation of the ceiling mount kit in an improper location.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.



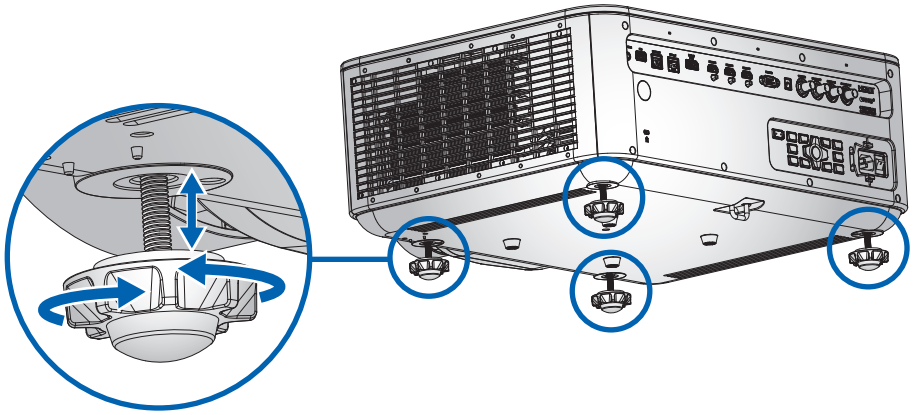

| ID | Description |
|---|---|
| 1 | Ceiling mount mounting point |

- Refer to the installation instructions and safety guidelines provided in the kit, such as Christie One Mount (P/N: 108-506102-XX), Christie One Aluminum Rigging Frame (P/N: 140-137102-XX), or Christie QwikRig Rigging Frame (P/N: 140-154101-XX).
- To use third-party mounting kits, make sure the screws used to secure the projector to the mount to meet the following specification:

  Screw type: Christie One Mount (P/N: 108-506102-XX), corresponding to M4, where length = 38 mm*4 pieces

## Leveling the projector

To adjust the vertical position of the projector, turn in or out of the adjustable feet on the bottom of the projector.




Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

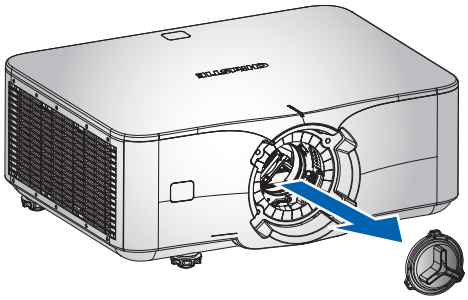
# Installing the projector lens

**Warning!** If not avoided, the following could result in death or serious injury.

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

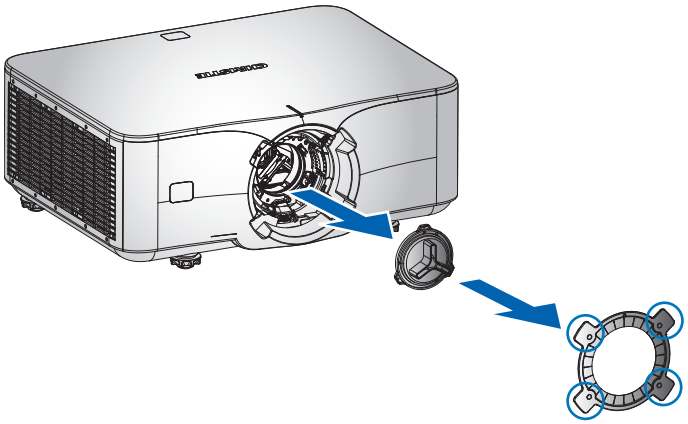
Only use the lens compatible with Korus Series projectors.

1. Remove the dust cover from the lens opening.



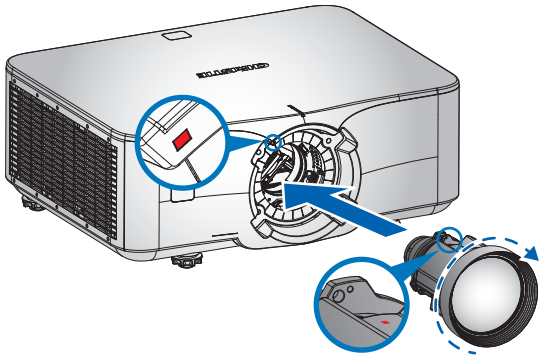
**Notice.** For ultra-short throw lenses, remove the dust cover and rubber ring before installing the lenses.

- To remove the rubber ring, gently detach the rubber ring starting from the four corners in sequence.
- The four corners are more firmly secured; do not pull on other parts of the rubber ring to avoid damage.




Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

2. Align the top of the lens with the red marker on front cover.



3. Insert the lens into the projector and rotate it clockwise until you hear a clicking sound.
4. To install ultra-short throw lenses, see to the 0.34-0.37 ultra-short throw lenses installation guide.

**Notice.** If not followed, the following could result in property damage.

- To avoid damage to the projector and lens, remove the rear lens cap before installing or replacing a lens.
- To prevent damage to the lens, remove the front lens cap before turning on the projector.
- When handling the projector after lens installation, make sure the front lens cap is placed on the lens to protect the lens surface from potential damage.
- When carrying or moving the projector, do not handle by the lens. This may damage the lens, the chassis, or other mechanical parts within the projector.

# Calibrating the lens motor

Ensure the lens motor is calibrated before using the projector. Failure to calibrate the lens motor properly may cause following implications. For ultra-short throw lenses calibrating, see the 0.34-0.37 ultra-short throw lenses installation guide.

- Inability to use the full range of the lens motor.
- Lens motor traveling beyond the lens shifting range.
- Damage to the projector.

Calibrate the lens motors when any of the following conditions are met:

- After a lens change.
- After the projector is moved.
- After any manual adjustment made to the zoom or focus.

To calibrate the lens motor:

1. Select **LENS** on keypad or **LENS H/LENS V** on remote control.

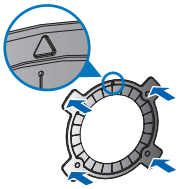
   You can also select **Menu** > **Configuration** > **Lens Settings** > **Lens Calibration**.
2. Select **ENTER**.
3. To start the lens calibration, select **OK**.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Installing the rubber ring

To safely install the rubber ring, complete the following steps.

1. Before installing the rubber ring, make sure the lens is in the HOME position.
2. Align the four corners according to the direction indicated by the arrow on the rubber ring (arrow pointing upward), then press downward firmly until it cannot be pressed any further to ensure proper installation and secure positioning.



3. Once the rubber ring is installed, proceed to install the lens (except for ultra-short throw lenses).

# Removing the projection lens

**Notice.** If not avoided, the following may result in equipment or property damage.

- Always use a lens plug when installing or moving the product. This prevents contaminants from entering the product.
- Do not operate the product without a lens installed.

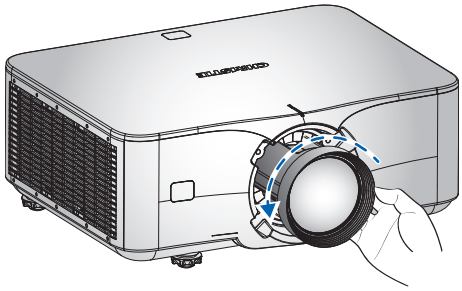
To safely remove the projection lens, complete the following steps. For removing ultra-short throw lenses, see the 0.34-0.37 ultra-short throw lenses installation guide.

1. Center the lens while the projector is switched on by selecting the **LENS H** or **LENS V** button and then selecting **ENTER**.

   Make sure the lens is at or near its center position. Attempting to remove the lens with a large offset may cause damage to the lens assembly.
2. Turn off the projector.
3. Allow the projector to cool down into standby mode before replacing the lens.
4. After the projector has cooled down and prior to replacing the lens, remove the power cord.
5. Push in and hold the lens release button.
6. Turn the lens counterclockwise by a quarter to release the lens.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

7. Gently pull the lens out of the lens holder.



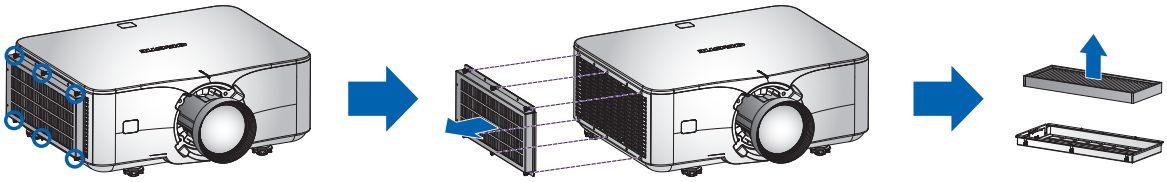
# Cleaning or installing the filter

Regularly clean or replace the filters in the projector to make sure dust and other foreign materials are kept out of the projector.

Do not re-use the fog filters as they clog up with oil and the projector overheats and shuts down.

1. Turn off the projector.
2. Remove the screws from the filter cover.

***Right side filter***



3. Remove the filter cover.
4. Remove the filter from its compartment.
5. Clean or replace the filter.
   - Fog filters must be replaced after each use of the projector, with a recommended maximum usage time of 500 hours.
   - The lifespan for fog filters is approximately 500 hours, although actual performance may vary based on environmental conditions.
   - Dust filters must be replaced after 4000 hours of use.
   - Fog and dust filters must be kept in sealed packaging until ready for use.

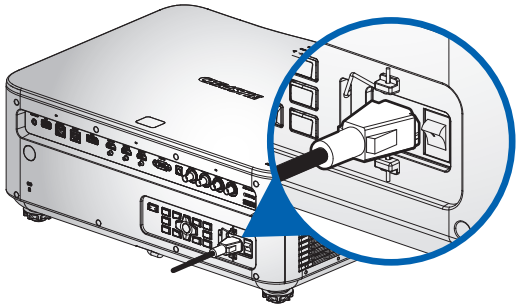

Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Connecting to AC power

To operate the projector at full brightness, make sure the power supply meets the power requirements for Korus Series projectors. See *Power connection* on page 19 for more information.

| Model name | Power requirements |
|---|---|
| 4K1400-KS, 4K1400A-KS | 100 to 240 VAC, 50/60 Hz, 9 A |
| 4K1000-KS, 4K1000A-KS | 100 to 240 VAC, 50/60 Hz, 7 A |

To ensure safe operation, only use the AC power cord provided with the product or recommended by Christie. Connect the AC power cord to the AC inlet on the projector.



# Turning on the projector

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

**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.
- Installing or replacing a lens must be done by a Christie-qualified service technician to avoid exposure to dangerous emission levels.

1. Plug the projector in to AC power.

   The Power button on the built in keypad is illuminated when the power cables are connected.
2. Make sure the lens has been installed in the projector by a Christie-qualified service technician.
3. Make sure no one or no objects are in the beam path before turning on the projector.
4. To turn on the projector, on the IR remote keypad or on the built-in keypad select ⏻.

   The status LED is green with a long blink.
5. To select an input source and turn it on, on the IR remote keypad select **INPUT**.

   Available input sources are HDMI1, HDMI2, Display Port, 12G-SDI, and HDBaseT.

   The projector detects the source selected and displays the image.
6. If using the projector for the first time, select a preferred language from the Main Menu after the startup screen is displayed.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Turning off the projector

Power off the projector in preparation for inspection or maintenance.

1. To turn off the projector, on the IR remote keypad or built-in keypad select ⏻.
2. At the confirmation prompt, select ⏻ again.

   If you do not select ⏻ again, the confirmation prompt disappears after three seconds and the projector remains on.

# LED status indicator

LED status indicator helps identify the projector state. LEDs are defined below.

## Status LED

Identify the LED state colors and meaning.

| LED status | Projector state |
|---|---|
| Off | AC power is off (without AC plugged in). |
| Green (flashing) | Projector is starting up. |
| Green (solid) | System is operating normally. |
| Blue (flashing) | Projector is cooling down. |
| Blue (solid) | Projector is in standby mode. |
| Yellow (flashing) | A problem exists with the projector that does not cause it to shut down.<br>Examples of warnings include: filter needs changing, one of the pumps is damaged, or a fan is operating at full speed due to over temperature of laser diode (LD) driver. |
| Yellow (solid) | The end user is turning off the projector while it is in a warning state. |
| Red (flashing) | An error with the projector exists causing it to shut down.<br>Examples of errors include: fan failure, over temperature, wrongly installed filter, or color wheel (CW) failure. |
| Red (solid) | The user is turning off the projector while it is in an error state. |
| White (flashing) | Projector is in Firmware Upgrade mode. |

## Shutter LED

Identify the shutter LED state colors and meaning.

| LED status | Projector state |
|---|---|
| Off | Projector is on and an image is displayed. Shutter is open. |
| Magenta (solid) | Projector is on and the image is blank. Shutter is closed. |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Setting up the projector lens

Set up the projector lens to adjust the image size, focus, and position.

**Notice.** If not followed, the following could result in property damage.

- For ultra-short throw lenses, see the 0.34-0.37 ultra-short throw lenses installation guide.

## Adjusting the zoom and focus

Make sure the image reflected from the digital micromirror device (DMD) is parallel and centered with the lens and screen.

1. Display an image or test pattern that can be used to analyze image focus and geometry.
2. Select **ZOOM** on keypad or remote control.

   You can also select **MENU** > **Configuration** > **Lens Settings** > **Zoom**.
3. Use the up and down arrow keys to zoom in or out of the image.
4. To exit the menu, select **EXIT**.
5. Select **FOCUS** on keypad or remote control.

   You can also select **MENU** > **Configuration** > **Lens Settings** > **Focus**.
6. Use the up and down arrow keys to adjust the focus of the image.
7. To exit the menu, select **EXIT**.
8. To refine your adjusts, repeat steps 2 to 7.

## Adjusting lens position

Shift the lens to the specific position.

1. Display an image or test pattern that can be used to analyze image location.
2. Select **LENS** on keypad or **LENS H/LENS V** on remote control.

   You can also select **MENU** > **Configuration** > **Lens Settings** > **Lens Shift**.
3. Use the arrow keys to adjust the lens position.

   For best lens performance, keep the shift values within the lens offset ranges. See *Calculating the lens offset* on page 35 for more information.
4. To exit the menu, select **EXIT**.

## Resetting the lens to home position

Set the lens offset back to the home position.

1. Select **LENS** on keypad or **LENS H/LENS V** on remote control.

   You can also select **MENU** > **Configuration** > **Lens Settings** > **Lens Calibration**.
2. Select **ENTER**.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

3. To start the lens calibration, select **OK**.

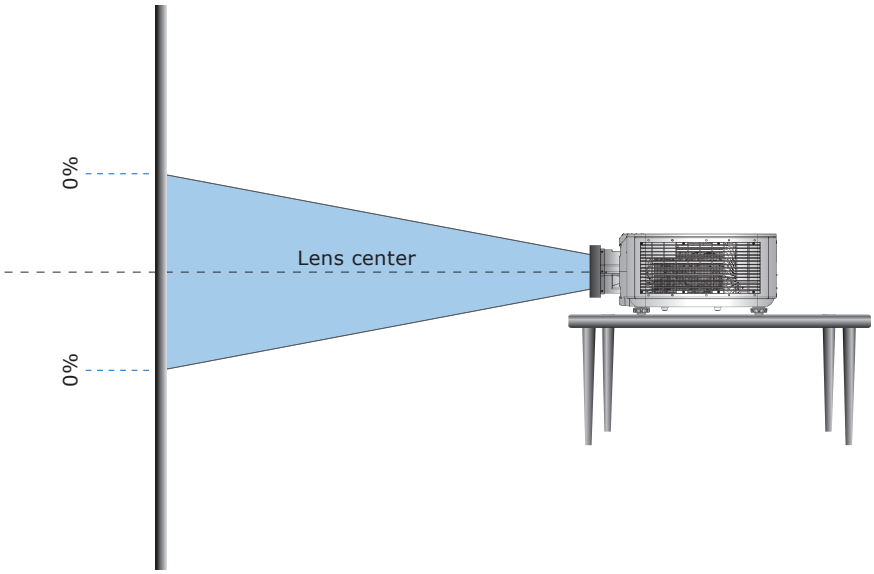
## Calculating the lens offset

Adjust the lens offset (shift) to align the image on the screen with half image size. To ensure optimal projector and lens performance, Christie recommends keeping the offset (shift) values within the ranges specified below.

- The vertical image offset (shift) range for the projector is up to +/-120%.
- The horizontal image offset (shift) range for the projector is up to +/-50%.
- The method for calculating lens offset complies with industry standards, with which the image offset is calculated by half image size. 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 of the image appears above the lens center.

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

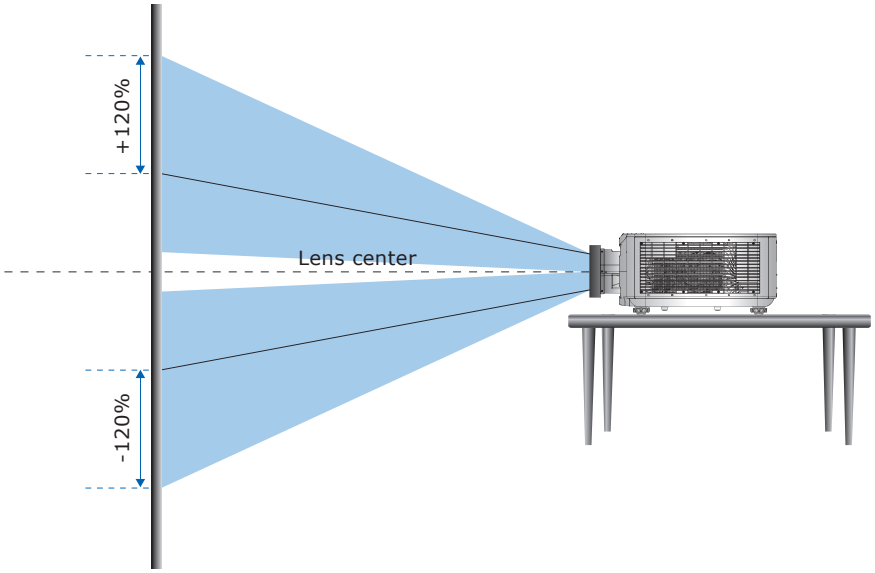
- Vertical image offset: 0%



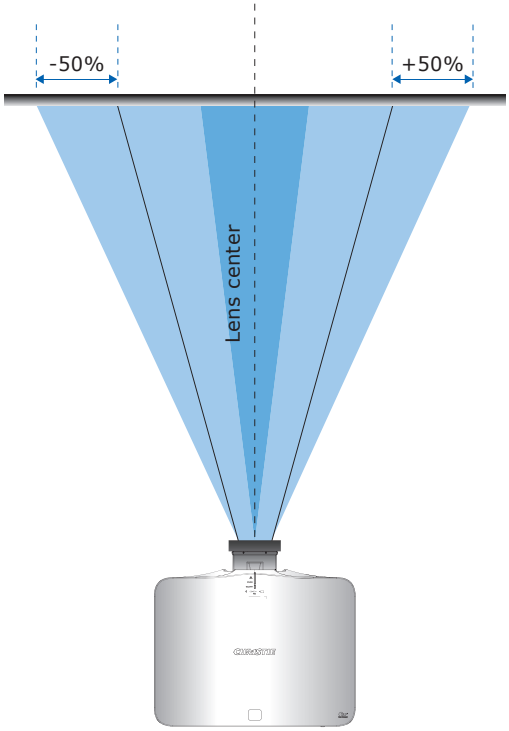


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

- Vertical image offset: +/-120%




- Horizontal image offset: +/-50%

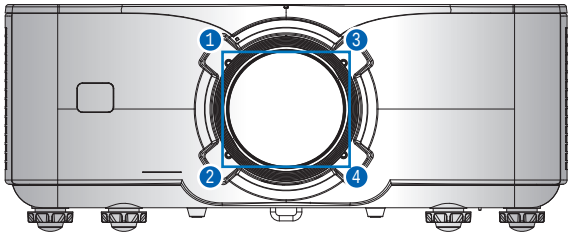




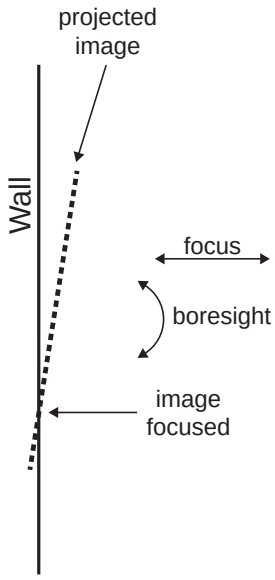

Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Boresight

Korus Series features a 4-point adjustment for boresight. If the image resolution is unclear after applying focus, adjust the boresight at 150 inches image size. If adjustments do not improve the image resolution, reset the boresight to its default settings.



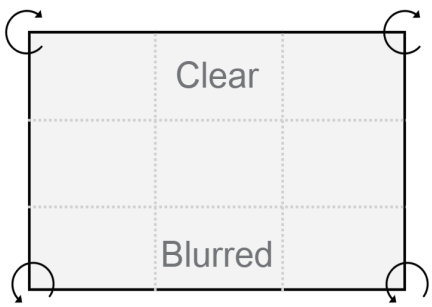

Boresight is fine-tuning keystone correction that ensures focus is even across the entire screen and ensures the prism, lens, and screen are aligned.




## Adjusting the vertical image resolution

The following steps outline the process of adjusting the vertical image resolution. See the image in *Boresight* on page 37 for the locations of screws 1, 2, 3, and 4.

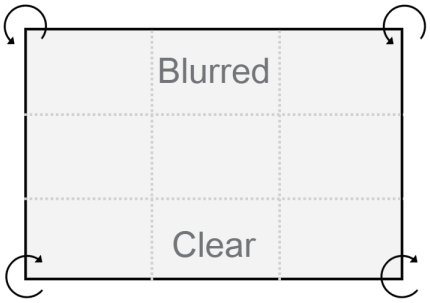
1. Turn screws 1 and 3 clockwise 1/8 turn and turn screws 2 and 4 counterclockwise 1/8 turn.





Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

2. Repeat step 1 until the image is clear on both the top and bottom of the screen.
3. Turn screws 1 and 3 counterclockwise 1/8 turn and turn screws 2 and 4 clockwise 1/8 turn.

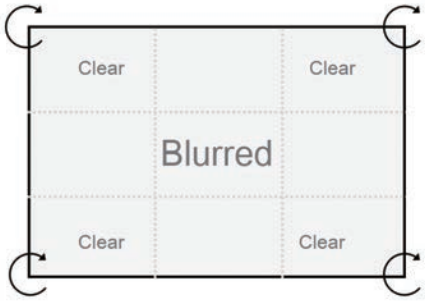



4. Repeat step 3 until the image is clear on both the top and bottom of the screen.

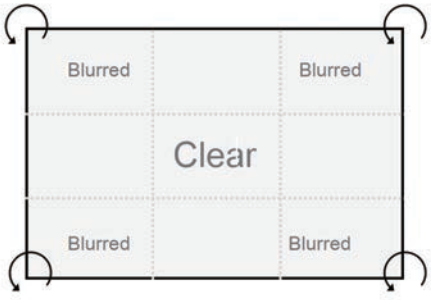
## Adjusting the center square image resolution

The following steps outline the process of adjusting the center square's image resolution. See the image in *Boresight* on page 37 for the locations of screws 1, 2, 3, and 4.

1. Roughly adjust screws 1, 2, 3 and 4 clockwise by 1/8 turn.
2. Finely adjust screws 1, 2, 3 and 4 clockwise by 1/16 turn.




3. Adjust until the entire screen is clear.
4. Roughly adjust screws 1, 2, 3 and 4 counterclockwise by 1/8 turn.
5. Finely adjust screws 1, 2, 3 and 4 counter clockwise by 1/16 turn.



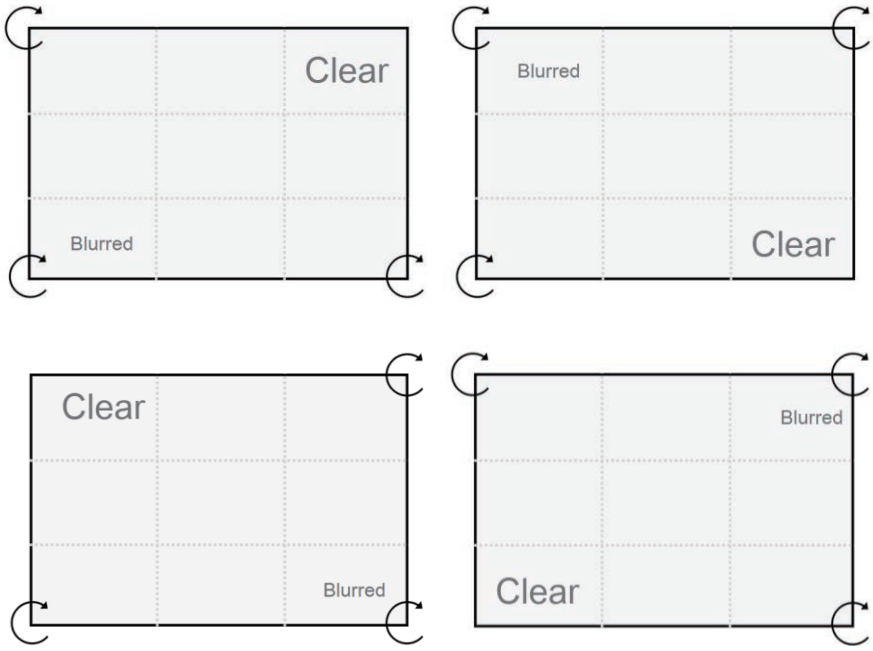

6. Adjust until the entire screen is clear.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Fine tuning the image resolution

The following steps outline the process of tuning image resolution after completing *Adjusting the vertical image resolution* on page 37 and *Adjusting the center square image resolution* on page 38. See the figure in *Boresight* on page 37 for the locations of screws 1, 2, 3, and 4.

1. Adjust the screw clockwise a 1/8 turn for the blurred area and 11/16 turn for the adjacent areas.
2. Adjust until the entire screen is clear.




3. If the image is still blurred after boresight adjustment is complete, proceed to *Resetting boresight* on page 39.

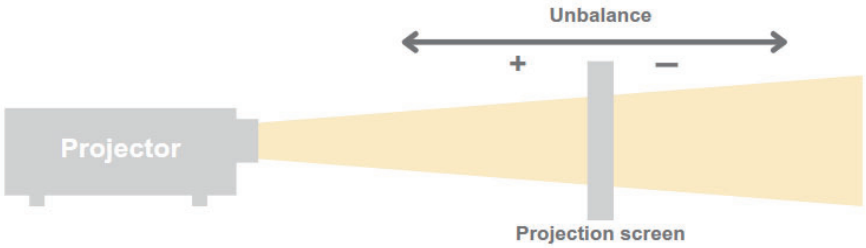
# Resetting boresight

The following steps outline the process of resetting boresight to default setting. See the figure in *Boresight* on page 37 for the locations of screws 1, 2, 3, and 4.

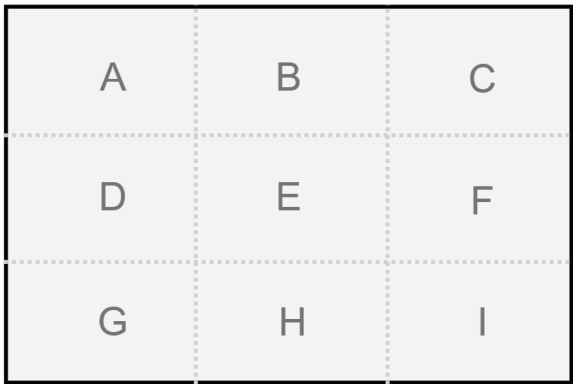
1. Mount the lens onto the lens shift module, and tighten the four boresight screws evenly counterclockwise.
2. Loosen the tightened screws by two turns in a clockwise direction.
3. To check for a screen unbalance, select and hold **Focus** until the first clear corner is identified.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

4. Adjust the boresight screw counterclockwise for negative unbalance and clockwise for positive unbalance (see the figure below).




5. For the left-right adjustment, follow these steps (see the figure in step 5e) for image zones.
   a. Approach the screen and if A, D, G is clear, examine C, F, I for unbalance (see the figure in step 4).
   b. Adjust the focus for C, F, I with a negative unbalance.
      1) Turn screws 1 and 2 clockwise a 1/8 turn, and screws 3 and 4 counterclockwise a 1/8 turn.
      2) Observe if the image is clear.
      3) If it is not clear, check the unbalance and clear the area.
   c. Adjust the focus for C, F, I with a positive unbalance.
   d. Turn the screws 1 and 2 a 1/8 turn, and screws 3 and 4 counterclockwise a 1/8 turn.
   e. Repeat steps a to d until the image is clear on both the left and right sides of the image.





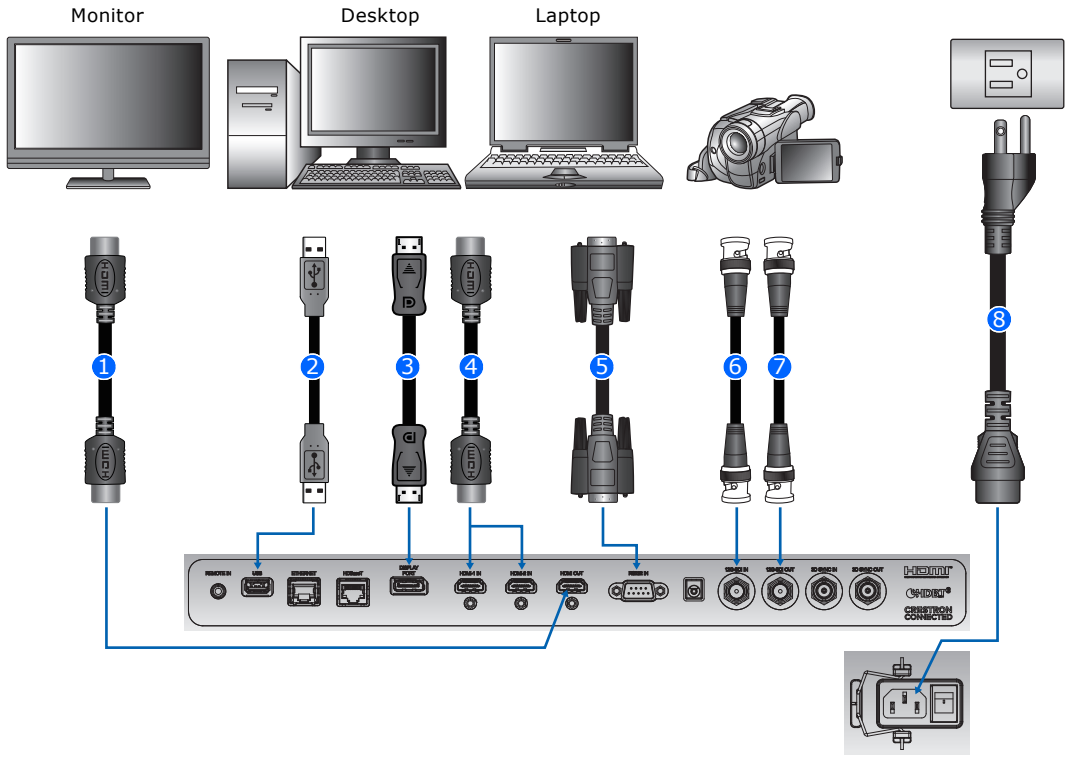
Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Connecting to devices

This section covers the information on connecting the Korus Series projector to a computer and video equipment.

## Connecting to a computer

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



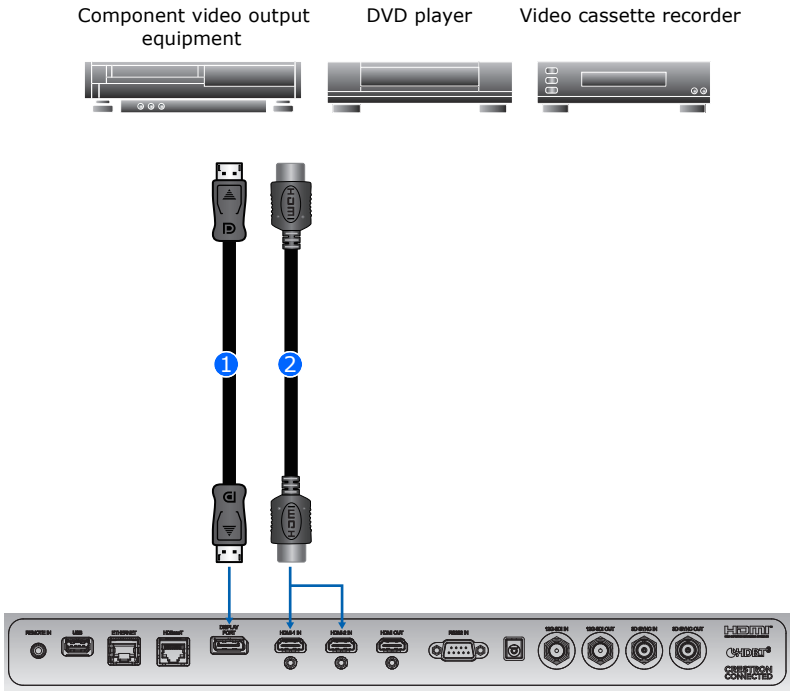

| ID | Connector name | ID | Connector name |
|---|---|---|---|
| 1 | HDMI cable | 5 | RS232 cable |
| 2 | USB type A cable | 6 | 12G-SDI in with BNC cable + camcorder |
| 3 | DisplayPort cable | 7 | 12G-SDI out with BNC cable + camcorder |
| 4 | HDMI cable | 8 | Power cord |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Connecting to video equipment

- After connecting the projector to an input device, the projector automatically detects the input source. You can also select an input source by selecting **INPUT**.
- Due to the difference in applications for each country, the accessories required in some regions may differ from those shown.
- The diagrams are for illustrative purposes only and do not indicate these accessories are supplied with the projector.

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




| ID | Connector name | ID | Connector name |
|---|---|---|---|
| 1 | DisplayPort cable | 2 | HDMI cable |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Configuring light settings

Learn how to configure the light settings.

## Setting light source mode

Set up light source mode depending the environment.

1. Select **Menu** > **Light Source** > **Light Source Mode**.
2. Select appropriate light source mode:
   - **Constant Power**—Enable Constant Power to set the projector brightness to a specific level controlled by the laser diode power. See *Adjusting the light power* on page 43 further details of setting the laser diode power.
   - **Constant Intensity**—After enabling Constant Power, select Constant Intensity to maintain current constant brightness and color settings. This function can remain at current setting for longer period of time than Constant Power mode and is used for longterm projecting or blending.
     Perform light sensor calibration before enabling Constant Intensity.
     When Constant Intensity is enabled, Dynamic Black and Real Black functions are automatically disabled.
     When Picture Settings is changed under Constant Intensity, the light source mode automatically changes back to Constant Power.
   - **ECO 1 (80%)**—Set the projector to 80% constant brightness and color settings.
   - **ECO 2 (50%)**—Set the projector to 50% constant brightness and color settings.
3. Select **ENTER**.

## Adjusting the light power

Set the value of the laser diode power. The power levels can be managed to obtain the brightest picture or longest light source life. The minimum setting of the light power is 10% brightness and color setting, and the maximum is 100% brightness and color setting.

1. Select **Menu** > **Light Source** > **Constant Power**.
2. Adjust the slider by arrow keys or select **ENTER** to input the value you selected.
3. After inputting the value, select **ENTER** to apply.


Copyright © 2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Configuring projector grouping

Learn how to set up and manage projector groups.

## Setting up the projector group

Set up a projector group to enable synchronized operation across multiple projectors.

1. Navigate to **Menu** > **Configuration** > **Grouping**.
2. To enable grouping, select **Group Enable**.
3. Select projectors for the group:
    a. Select **Projector Select** and select **Enter**.
    b. Select the boxes for up to eight projectors to include in the group.
    c. Refer to the Projector Status legend to identify available projectors:
        - **Leader (Normal)**—Displays as a star icon with network access.
        - **Follower**—Green circle indicates availability for selection.
    d. Avoid selecting projectors marked as **Occupied** (grey circle).
4. To confirm the selections, select **Apply**.
5. Select **Enter**.

## Configuring group functions

Some functions may be disabled based on the status of the selected projectors.

Once the projectors are grouped, you can enable specific functions to operate across the group.

1. Navigate to **Group Functions**.
2. Select the required functions by selecting the boxes:
    - Freeze
    - Shutter


Copyright © 2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

- Schedule
- Auto Focus
- Auto Color Matching

# Verifying the group configuration

After setting up the group, verify the configuration.

1. Navigate to **Group Status**.
2. Review the list of projectors in the group along with their IP addresses and roles.

# Resetting the group configuration

To clear all settings and start over, complete the following steps.

1. From the Grouping menu, select **Reset to Default**.
2. At the prompt, confirm the reset.


Copyright © 2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Configuring input settings

Learn how to configure the input source settings.

## Setting main input source

Set up the active input to be used as the main image.

1. Select **Menu** > **Input Switching** > **Main Input**.
2. To select the active input, select **ENTER**.

## Setting the timing detection mode

Set timing detection mode to enhanced or normal to support additional PC timings. When the projected picture is not completed, this function is used to adjust the picture.

1. Select **Menu** > **Input Switching** > **Auto Image Resync**.
2. Select the appropriate mode:
    - **Normal**—If the input signal source has been plugged to the same port on the projector and not been replugged, the projector can process the signal at a faster speed.
    - **Enhanced**—Every time the projector receives the signal, it analyzes the source signal and verifies the integrity of it. This ensures the optimal image quality but consumes more time.
3. To confirm the selection, select **ENTER**.

## Setting the input searching method

Set the most suited method for searching input source.

1. Select **Menu** > **Input Switching** > **Input key**.
2. Select the appropriate searching method:
    - **Change Sources**—Changes the source manually by selecting **INPUT** on the keypad or remote control.
    - **List all Sources**—Selects listing all the input sources available for selection.
    - **Auto Sources**—Automatically searches the source.
3. To confirm the selection, select **ENTER**.


Copyright © 2025 Christie Digital Systems USA Inc. All rights reserved.
If printed, please recycle this document after use.

# Setting up the backup input

Use the Backup Input function to set up two input sources with the same timing specification using the HDMI switch/splitter. Upon loss of one input source due to the damaged cable, the projector automatically switches to the other source. The switching time is less than one second.

- The supported sources are HDMI 1, HDMI 2, Display Port, and HDBaseT.
- Auto Source, 3D, and 120Hz timing conditions are not supported.
- The primary and secondary source must have the same Resolution, Horz Refresh/Frame Rate, and Color Space settings.

1. Select **Menu** > **Input Switching** > **Backup Input**.
2. Set up the appropriate setting:
    - **Auto Switch**—Automatically enables switching to backup input source when the current signal fails.
    - **Current Signal**—Shows the current active signal.
    - **First Input**—Selects the first input. When the selected source is activated, the on-screen display (OSD) menu displays the signal's Resolution, Horz Refresh, and Color Space.
    - **Second Input**—Selects the second input. When the selected source is activated, the OSD menu displays the signal's Resolution, Horz Refresh, and Color Space.

# Enabling low latency mode

Enable the Low Latency Mode to minimize the input lag. This function is used for live broadcasting, streaming media, and similar installations.

1. Select **Menu** > **Input Switching** > **Low Latency Mode**.
2. Select the appropriate mode.
    - **Normal**—No functional restrictions but longer delay time.
    - **Ultra**—Reduces latency in 2D mode but sets restrictions when warping the image. Ultra does not support 3D, input timings outside the range of 60fps, 120fps, and 240fps, and image freeze.
3. To confirm the selection, select **ENTER**.

# Configuring the EDID setting

Enable or disable the Extended Display Identification Data (EDID) for HDMI 2.0 to play videos from hardware devices, such as DVD players.

The most commonly used HDMI versions are HDMI 1.4 and 2.0, with differences in bandwidth. HDMI 1.4 has limited rate of 2K. Korus Series projectors are compatible with both HDMI 1.4 and HDMI 2.0.

When the projector is connected to a hardware device supporting HDMI 1.4 only, disable the EDID for HDMI 2.0 to play the videos properly.

1. Select **Menu** > **Input Switching** > **EDID**.


Copyright © 2025 Christie Digital Systems USA Inc. All rights reserved.
If printed, please recycle this document after use.

2. Select the **HDMI 1**, **HDMI 2**, or **HDBaseT** item where you want to enable EDID.
3. Set **1.4**, **2.0** or **Customized EDID**.
4. To confirm the setting, select **ENTER**.

# Configuring the HDMI output

Set the default HDMI output port.

If multiple projectors are connected to each other in a daisy chain, the HDR signal output is determined by the first projector and PC handshake.

1. Select **Menu** > **Input Switching** > **HDMI Out put**.
2. Select **HDMI 1** or **HDMI 2** as the HDMI output.
3. To confirm the setting, select **ENTER**.


Copyright © 2025 Christie Digital Systems USA Inc. All rights reserved.
If printed, please recycle this document after use.

# Signal connectivity specifications

Identify the signal connectivity specifications for Korus Series projectors.

The list of formats listed below are not exhaustive and other formats may be supported. For more information, contact Christie Technical Support.

## HDMI1/HDMI2 video formats

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10-bit | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| PC | VGA | 640x480 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | V |
| | XGA | 1024x768 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | V |
| | | | | | 70 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | | | | | 120 | V | V | V | V | V | V | V |
| | SXGA | 1152x864 | 1.33 | 4:3 | 75 | V | V | V | V | V | V | V |
| | | 1152x870 | 1.32 | 4:3 | 75 | V | V | V | V | V | V | V |
| | WXGA | 1280x768 | 1.67 | 5:3 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | | 1280x800 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | SXGA | 1280x960 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | | 1280x1024 | 1.25 | 5:4 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10-bit | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| PC | WXGA | 1360x765 | 1.78 | 16:9 | 60 | V | X | X | V | X | X | X |
| | | 1360x768 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | V |
| | | 1366x768 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | X |
| | SXGA+ | 1400x1050 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | V |
| | WXGA+ | 1440x900 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | WXGA++ | 1600x900 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | V |
| | UXGA | 1600x1200 | 1.33 | 4:3 | 50 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | WSXGA+ | 1680x1050 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | WUXGA RB | 1920x1200 RB | 1.6 | 16:10 | 50 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | X | X | V | X | X | V |
| | UWFHD | 2560x1080 | 2.37 | 21:9 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| TV | HDTV (1080i) | 1920x1080 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | EDTV (480p) | 720x480 | 1.5 | 3:2 | 60 | V | V | V | V | V | V | V |
| | EDTV (576p) | 720x576 | 1.25 | 5:4 | 50 | V | V | V | V | V | V | V |
| | HDTV (720p) | 1280x720 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | V | V | V | V | V | V |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10-bit | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| TV | HDTV (1080p) | 1920x1080 | 1.78 | 16:9 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 29.97 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | V | V | V | V | V | V |
| | 1920x1200 | 1920x1080 | 1.6 | 16:10 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 29.97 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | X | X | V | X | X | V |
| Mandatory 3D | Frame packing (1080p) | 1920x1080 | 1.78 | 16:9 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |
| | Frame packing (720p) | 1280x720 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | Side-by-side (1080i) | 1920x1080 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | Side-by-side (1080p) | 1920x1080 | 1.78 | 16:9 | 24 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 59.9 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | Top and bottom (720p) | 1280x720 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10-bit | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| Mandatory 3D | Top and bottom (1080p) | 1920x1080 | 1.78 | 16:9 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |
| | | | | | 59.9 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| Frame sequential 3D | XGA | 1024x768 | 1.33 | 4:3 | 120 | V | V | V | V | V | V | V |
| | HDTV | 1280x720 | 1.78 | 16:9 | 120 | V | V | V | V | V | V | V |
| | 1080p | 1920x1080 | 1.78 | 16:9 | 120 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | X |
| | WUXGA | 1920x1200 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | X | X | V | X | X | V |
| 4K | 3840x2400 | 3840x2400 | 1.6 | 16:10 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | X | X | V | X | X | V |
| | | | | | 60 | V | X | X | V | X | X | V |
| | 3840x2160 | 3840x2160 | 1.78 | 16:9 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | X | X | V | X | X | V |
| | | | | | 60 | V | X | X | V | X | X | V |
| | 4096x2160 SMPTE | 4096x2160 | 1.90 | 17:9 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | X | X | V | X | X | V |
| | | | | | 60 | V | X | X | V | X | X | V |
| Dual pipe | 1080p | 1920x1080 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | V |
| 4K 3D (passive 3D) | 3840x2160 | 3840x2160 | 1.78 | 16:9 | 60 | V | X | X | V | X | X | V |
| 4K 3D dual pipe (passive 3D) | 3840x2160 | 3840x2160 | 1.78 | 16:9 | 60 | V | X | X | V | X | X | V |
| High frame rate | 1080p | 1920x1080 | 1.78 | 16:9 | 240 | V | X | X | V | X | X | V |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# HDMI1/HDMI2 video formats

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10-bit | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| PC | VGA | 640x480 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | V |
| | XGA | 1024x768 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | V |
| | | | | | 70 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | | | | | 120 | V | V | V | V | V | V | V |
| | SXGA | 1152x864 | 1.33 | 4:3 | 75 | V | V | V | V | V | V | V |
| | | 1152x870 | 1.32 | 4:3 | 75 | V | V | V | V | V | V | V |
| | WXGA | 1280x768 | 1.67 | 5:3 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | | 1280x800 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | SXGA | 1280x960 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | | 1280x1024 | 1.25 | 5:4 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | WXGA | 1360x765 | 1.78 | 16:9 | 60 | V | X | X | V | X | X | X |
| | | 1360x768 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | V |
| | | 1366x768 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | X |
| | SXGA+ | 1400x1050 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | V |
| | WXGA+ | 1440x900 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | WXGA++ | 1600x900 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | V |
| | UXGA | 1600x1200 | 1.33 | 4:3 | 50 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | WSXGA+ | 1680x1050 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | WUXGA RB | 1920x1200 RB | 1.6 | 16:10 | 50 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | X | X | V | X | X | V |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10-bit | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| PC | UWFHD | 2560x1080 | 2.37 | 21:9 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| TV | HDTV (1080i) | 1920x1080 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | EDTV (480p) | 720x480 | 1.5 | 3:2 | 60 | V | V | V | V | V | V | V |
| | EDTV (576p) | 720x576 | 1.25 | 5:4 | 50 | V | V | V | V | V | V | V |
| | HDTV (720p) | 1280x720 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | V | V | V | V | V | V |
| | HDTV (1080p) | 1920x1080 | 1.78 | 16:9 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 29.97 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | V | V | V | V | V | V |
| | 1920x1200 | 1920x1080 | 1.6 | 16:10 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 29.97 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | X | X | V | X | X | V |
| Mandatory 3D | Frame packing (1080p) | 1920x1080 | 1.78 | 16:9 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10-bit | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| Mandatory 3D | Frame packing (720p) | 1280x720 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | Side-by-side (1080i) | 1920x1080 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | Side-by-side (1080p) | 1920x1080 | 1.78 | 16:9 | 24 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 59.9 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | Top and bottom (720p) | 1280x720 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | Top and bottom (1080p) | 1920x1080 | 1.78 | 16:9 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |
| | | | | | 59.9 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| Frame sequential 3D | XGA | 1024x768 | 1.33 | 4:3 | 120 | V | V | V | V | V | V | V |
| | HDTV | 1280x720 | 1.78 | 16:9 | 120 | V | V | V | V | V | V | V |
| | 1080p | 1920x1080 | 1.78 | 16:9 | 120 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | X |
| | WUXGA | 1920x1200 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | X | X | V | X | X | V |
| 4K | 3840x2400 | 3840x2400 | 1.6 | 16:10 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | X | X | V | X | X | V |
| | | | | | 60 | V | X | X | V | X | X | V |
| | 3840x2160 | 3840x2160 | 1.78 | 16:9 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | X | X | V | X | X | V |
| | | | | | 60 | V | X | X | V | X | X | V |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10-bit | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| 4K | 4096x2160 SMPTE | 4096x2160 | 1.90 | 17:9 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | X | X | V | X | X | V |
| | | | | | 60 | V | X | X | V | X | X | V |
| Dual pipe | 1080p | 1920x1080 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | V |
| 4K 3D (passive 3D) | 3840x2160 | 3840x2160 | 1.78 | 16:9 | 60 | V | X | X | V | X | X | V |
| 4K 3D dual pipe (passive 3D) | 3840x2160 | 3840x2160 | 1.78 | 16:9 | 60 | V | X | X | V | X | X | V |
| High frame rate | 1080p | 1920x1080 | 1.78 | 16:9 | 240 | V | X | X | V | X | X | V |

(V): Video format is supported.

(X): Video format is not supported.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# DisplayPort video formats

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10-bit | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| PC | XGA | 1024x768 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | X |
| | | | | | 70 | V | V | V | V | V | V | X |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | | | | | 120 | V | V | V | V | V | V | V |
| | SXGA | 1152x864 | 1.33 | 4:3 | 75 | V | V | V | V | V | V | V |
| | | 1152x870 | 1.32 | 4:3 | 75 | V | V | V | V | V | V | X |
| | WXGA | 1280x768 | 1.67 | 5:3 | 60 | V | V | V | V | V | V | X |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | X |
| | | 1280x800 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | SXGA | 1280x960 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | | 1280x1024 | 1.25 | 5:4 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | WXGA | 1360x765 | 1.78 | 16:9 | 60 | V | X | X | V | X | X | X |
| | | 1360x768 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | V |
| | | 1366x768 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | V |
| | SXGA+ | 1400x1050 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | X |
| | WXGA+ | 1440x900 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | X |
| | | | | | 75 | V | V | V | V | V | V | X |
| | | | | | 85 | V | V | V | V | V | V | V |
| | WXGA++ | 1600x900 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | V |
| | UXGA | 1600x1200 | 1.33 | 4:3 | 50 | V | V | V | V | V | V | X |
| | | | | | 60 | V | V | V | V | V | V | X |
| | WSXGA+ | 1680x1050 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | X |
| | WUXGA RB | 1920x1200 RB | 1.6 | 16:10 | 50 | V | V | V | V | V | V | X |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | X | X | V | X | X | V |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10-bit | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| TV | HDTV (1080i) | 1920x1080 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | X |
| | | | | | 59.94 | V | V | V | V | V | V | X |
| | | | | | 60 | V | V | V | V | V | V | V |
| | HDTV (720p) | 1280x720 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | V | V | V | V | V | V |
| | HDTV (1080p) | 1920x1080 | 1.78 | 16:9 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 29.97 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | V | V | V | V | V | V |
| | 1920x1200 | 1920x1200 | 1.6 | 16:10 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 29.97 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | X | X | V | X | X | V |
| Frame sequential 3D | XGA | 1024x768 | 1.33 | 4:3 | 120 | V | V | V | V | V | V | V |
| | HDTV | 1280x720 | 1.78 | 16:9 | 120 | V | V | V | V | V | V | V |
| | 1080p | 1920x1080 | 1.78 | 16:9 | 120 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | X |
| | WUXGA | 1920x1200 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | X | X | V | X | X | V |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10-bit | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| 4K | 3840x2400 | 3840x2400 | 1.6 | 16:10 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | X | X | V | X | X | V |
| | | | | | 60 | V | X | X | V | X | X | V |
| | 3840x2160 | 3840x2160 | 1.78 | 16:9 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | X | X | V | X | X | V |
| | | | | | 60 | V | X | X | V | X | X | V |
| | 4096x2160 SMPTE | 4096x2160 | 1.90 | 17:9 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | X | X | V | X | X | V |
| | | | | | 60 | V | X | X | V | X | X | V |
| 4K 3D (passive 3D) | 3840x2160 | 3840x2160 | 1.78 | 16:9 | 60 | V | X | X | V | X | X | V |
| 4K 3D dual pipe (passive 3D) | 3840x2160 | 3840x2160 | 1.78 | 16:9 | 60 | V | X | X | V | X | X | V |
| High frame rate | 1080p | 1920x1080 | 1.78 | 16:9 | 240 | V | X | X | V | X | X | V |

(V): Video format is supported.

(X): Video format is not supported.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# 12G-SDI video formats

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | YCbCr 4:2:2 (10-bit) |
|---|---|---|---|---|---|---|
| HD-SDI | HDTV (720p) | 1280x720 | 1.78 | 16:9 | 50 | V |
| | | | | | 59.94 | V |
| | | | | | 60 | V |
| | HDTV (1080i) | 1920x1080 | 1.78 | 16:9 | 50 | V |
| | | | | | 59.94 | V |
| | | | | | 60 | V |
| | HDTV (1080p) | 1920x1080 | 1.78 | 16:9 | 23.98 | V |
| | | | | | 24 | V |
| | | | | | 25 | V |
| | | | | | 29.97 | V |
| | | | | | 30 | V |
| 3GA-SDI | HDTV (1080p) | 1920x1080 | 1.78 | 16:9 | 50 | V |
| | | | | | 59.94 | V |
| | | | | | 60 | V |
| 12G-SDI (SMPTE ST-2082-10) | 3840x2160p | 3840x2160 | 1.78 | 17:9 | 24 | V |
| | | | | | 25 | V |
| | | | | | 30 | V |
| | | | | | 50 | V |
| | | | | | 60 | V |

(V): Video format is supported.

(X): Video format is not supported.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# HDBaseT video formats

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10 -it | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| PC | VGA | 640x480 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | V |
| | XGA | 1024x768 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | V |
| | | | | | 70 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | | | | | 120 | V | V | V | V | V | V | V |
| | SXGA | 1152x864 | 1.33 | 4:3 | 75 | V | V | V | V | V | V | V |
| | | 1152x870 | 1.32 | 4:3 | 75 | V | V | V | V | V | V | V |
| | WXGA | 1280x768 | 1.67 | 5:3 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | | 1280x800 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | SXGA | 1280x960 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | | 1280x1024 | 1.25 | 5:4 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | X | V |
| | WXGA | 1360x765 | 1.78 | 16:9 | 60 | V | X | X | V | X | X | X |
| | | 1360x768 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | V |
| | | 1366x768 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | V |
| | SXGA+ | 1400x1050 | 1.33 | 4:3 | 60 | V | V | V | V | V | V | V |
| | WXGA+ | 1440x900 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | | | | | 75 | V | V | V | V | V | V | V |
| | | | | | 85 | V | V | V | V | V | V | V |
| | WXGA++ | 1600x900 | 1.78 | 16:9 | 60 | V | V | V | V | V | V | V |
| | UXGA | 1600x1200 | 1.33 | 4:3 | 50 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | X | V |
| | WSXGA+ | 1680x1050 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | WUXGA RB | 1920x1200RB | 1.6 | 16:10 | 50 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | X | X | V | X | X | V |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10 -it | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| PC | UWFHD | 2560x1080 | 2.37 | 21:9 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| TV | HDTV (1080i) | 1920x1080 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | EDTV (480p) | 720x480 | 1.5 | 3:2 | 60 | V | V | V | V | V | V | V |
| | EDTV (576p) | 720x576 | 1.25 | 5:4 | 60 | V | V | V | V | V | V | V |
| | HDTV (720p) | 1280x720 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | V | V | V | V | V | V |
| | HDTV (1080p) | 1920x1080 | 1.78 | 16:9 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 29.97 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | V | V | V | V | V | V |
| | 1920x1200 | 1920x1200 | 1.6 | 16:10 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 29.97 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | X | X | V | X | X | V |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10 -it | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| Mandatory 3D | Frame packing (1080p) | 1920x1080 | 1.78 | 16:9 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |
| | Frame packing (720p) | 1280x720 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | Side-by-side (1080i) | 1920x1080 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | Side-by-side (1080p) | 1920x1080 | 1.78 | 16:9 | 24 | V | V | V | V | V | V | V |
| | | | | | 50 | V | V | V | V | V | V | V |
| | | | | | 59.9 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | Top and bottom (720p) | 1280x720 | 1.78 | 16:9 | 50 | V | V | V | V | V | V | V |
| | | | | | 59.94 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| | Top and bottom (1080p) | 1920x1080 | 1.78 | 16:9 | 23.98 | V | V | V | V | V | V | V |
| | | | | | 24 | V | V | V | V | V | V | V |
| | | | | | 59.9 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | V |
| Frame sequential 3D | XGA | 1024x768 | 1.33 | 4:3 | 120 | V | V | V | V | V | V | V |
| | HDTV | 1280x720 | 1.78 | 16:9 | 120 | V | V | V | V | V | V | V |
| | 1080p | 1920x1080 | 1.78 | 16:9 | 120 | V | V | V | V | V | V | V |
| | | | | | 60 | V | V | V | V | V | V | X |
| | WUXGA | 1920x1200 | 1.6 | 16:10 | 60 | V | V | V | V | V | V | V |
| | | | | | 120 | V | X | X | V | X | X | V |
| 4K | 3840x2400 | 3840x2400 | 1.6 | 16:10 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | X | X | V | X | X | V |
| | | | | | 60 | V | X | X | V | X | X | V |
| | 3840x2160 | 3840x2160 | 1.78 | 16:9 | 24 | V | V | V | V | V | V | V |
| | | | | | 25 | V | V | V | V | V | V | V |
| | | | | | 30 | V | V | V | V | V | V | V |
| | | | | | 50 | V | X | X | V | X | X | V |
| | | | | | 60 | V | X | X | V | X | X | V |


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

| Signal type | Signal format | Resolution | Aspect ratio | | V sync (Hz) | RGB | | | YCbCr 4:4:4 | | | YCbCr 4:2:2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 8-bit | 10 -it | 12-bit | 8-bit | 10-bit | 12-bit | 8-bit |
| 4K | 4096x2160 SMPTE | 4096x2160 | 1.90 | 17:9 | 24 | V | X | X | V | X | X | V |
| | | | | | 25 | V | X | X | V | X | X | V |
| | | | | | 30 | V | X | X | V | X | X | V |
| | | | | | 50 | V | X | X | V | X | X | V |
| | | | | | 60 | V | X | X | V | X | X | V |
| 4K 3D (passive 3D) | 3840x2160 | 3840x2160 | 1.78 | 16:9 | 60 | V | X | X | V | X | X | V |
| 4K 3D dual pipe (passive 3D) | 3840x2160 | 3840x2160 | 1.78 | 16:9 | 60 | V | X | X | V | X | X | V |
| High frame rate | 1080p | 1920x1080 | 1.78 | 16:9 | 240 | V | X | X | V | X | X | V |

(V): Video format is supported.

(X): Video format is not supported.


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

# Regulatory

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

## Safety

- IEC 62368-1:2018 - Audio/Video, Information And Communication Technology Equipment - Part 1: Safety Requirements
- EN/BS 62368-1:2014 + A11: 2017 - Audio/Video, Information And Communication Technology Equipment - Part 1: Safety Requirements
- UL 62368-1:2018 - Audio/Video, Information And Communication Technology Equipment - Part 1: Safety Requirements
- CSA CAN/CSA-22.2 No. 62368-1:2018 - Audio/Video, Information And Communication Technology Equipment - Part 1: Safety Requirements

## Laser safety

- IEC/EN 62471-5: 2015 - Photobiological safety of lamps and lamp systems - Part 5: Image projectors
- IEC/EN 60825-1: 2014 - Safety of Laser Products - Part 1: Equipment Classification and Requirements

## Electro-magnetic compatibility

### Emissions

- FCC CFR47, Part 15, Subpart B, Class A - Unintentional Radiators
- CAN ICES-003 (A) / NMB-003 (A)
- CISPR 32/EN 55032, Class A – Electromagnetic Compatibility of Multimedia Equipment – Emission Requirements
- IEC/EN 61000-3-2 - Limits for Harmonic Current Emissions
- IEC/EN 61000-3-3 - Limitations of Voltage Changes, Voltage Fluctuations, and Flicker


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.

## Immunity

- CISPR 35/EN 55035 Electromagnetic compatibility of multimedia equipment - Immunity requirements

## California law on security

- California Law Requiring Internet Connected Devices To Include Reasonable Security Features (California Civil Code Section 1798.91.04)

# Environmental

- EU Directive (2011/65/EU) on the restriction of the uses of certain hazardous substances (RoHS) in electrical and electronic equipment 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)
- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and the applicable official amendment(s)
- China Ministry of Information Industry (along with 7 other Government Agencies) Order No.32 (01/2016) on the control of pollution caused by electronic information products, hazardous substances concentration limits (GB/T 26572 - 2011), and the applicable product marking requirement (SJ/T 11364 - 2014)

# International packaging recycling mark requirements

- EU Directive (2012/19/EU) on waste and electrical and electronic equipment (WEEE) and the applicable official amendment(s).
- EU Directive (94/62/EC) on packaging and packaging waste
- China packaging recycling mark standard (GB18455-2001)


Copyright ©2025 Christie Digital Systems USA, Inc. All rights reserved.
If printed, please recycle this document after use.