

CHKISTIE°

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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.

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Introduction

This manual is intended for Christie-qualified installers and trained operators of the projector. For complete Jazz 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 Jazz Series.

- DWU2400-JS
- DWU2400A-JS
- DWU1800-JS
- DWU1800A-JS
- 4K2100-JS
- 4K2100A-JS
- 4K1600-JS
- 4K1600A-JS



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:
- Go to this URL: https://bit.ly/3LBTBIu or https://www.christiedigital.com/products/projectors/all-projectors/jazz-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.

- Jazz Series Installation and Setup Guide (P/N: 020-002121-XX)
- Jazz Series Service Manual (P/N: 020-002123-XX)
- Jazz Series Serial Commands Technical Reference (P/N: 020-103859-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):
 - Australia: +61 (0)7 3624 4888 or tech-Australia@christiedigital.com
 - China: +86 10 6561 0240 or tech-supportChina@christiedigital.com
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Adjusting the size and position

Adjust the projector's size and position. Christie recommends warming the lens before completing these procedures as focus may change as the lens warms.

Setting the image size preset

Set the image size preset to display the image in its native resolution or to resize by maximizing the height, width, both height and width, or to the maximum size while keeping the original aspect ratio.

- 1. Select Menu > Size & Position > Size Presets.
- 2. Select the appropriate size preset:
 - Auto—Displays with the detected size.
 - Native—Displays in its native resolution.
 - 4:3—Retains 4:3 aspect ratio.
 - **Letterbox**—Makes the active content enlarge to the full screen.
 - Full Size—Fills the screen, regardless of the source.
 - Full Width—Fills display width and keep aspect ratio.
 - Full Height—Fills display height and keep aspect ratio.
 - **Custom**—Stretches the display horizontally and vertically without cutting the image display.
 - **3D Mode**—Displays 3D content. All other items are grayed out, if 3D Mode is selected.
 - 21:9—Retains 21:9 aspect ratio.
- 3. To confirm the selection, select ENTER.



Setting the digital size of display image

These functions are similar technologies as in-camera image processing. Use Digital Horz Zoom or Digital Vert Zoom to enlarge or to compress the display image horizontally or vertically.

- 1. Select Menu > Size & Position > Digital Horz Zoom or Digital Vert Zoom.
- 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.

Setting the digital position of display image

Change the position of the projector's display image horizontally or vertically.



Digital Horz Shift is only available after adjusting the Digital Horz Zoom, and Digital Vert Shift is only available after adjusting the Digital Vert Zoom.

- 1. Select Menu > Size & Position > Digital Horz Shift or Digital Vert Shift.
- 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.

Geometry correction

Modify the geometry of the display image directly on the projector.

Connecting to Christie Twist™ and Mystique™ grays out the geometry correction settings on the projector. Uploading warp and blend from Twist and Mystique overwrites the currently applied geometry correction settings. See *Configuring warp and blend* on page 15 for more details.

Enabling geometry correction

Enable or disable the geometry correction function including Warp, Blend, Keystone, Pincushion, 4-Corner, Auto Warp Filter, and Manual Warp Filter.

- 1. Select Menu > Size & Position > Geometry Correction > Geometry Enable.
- 2. To enable the setting, select **ENTER**.

Saving geometry correction

Save the warp and blend settings to the projector memory. The blend memory saves the edge blend settings, while the warp memory saves the settings of Keystone, Pincushion, 4-Corner, Manual Warp Filter, and image warp.

- Select Menu > Size & Position > Geometry Correction > Warp Memory > Save Warp or Blend Memory > Save Blend.
- 2. To save the geometry setting, select a record.
 - One projector can save up to four warps and four blends.
- 3. To confirm the selection, select **ENTER**.



Applying geometry correction

Apply the previously saved geometry setting to the projector.

- 1. Before applying the previous geometry setting, save the geometry setting to the projector. See *Saving geometry correction* on page 10 for further information.
- Select Menu > Size & Position > Geometry Correction > Warp Memory > Apply Warp or Blend Memory > Apply Blend.
- 3. To apply the specific geometry setting, select the required record.
- 4. To confirm the selection, select **ENTER**.
- 5. To erase the applied geometry setting, select **Off**.

Enabling basic image blending

Configure blends directly on the projector to increase or decrease the borders of an individual image, so it blends with a neighboring image to create a single, seamless image.

You can set blends on a projector when not using Christie Twist and Mystique. Connecting to Twist and Mystique grays out the blend settings on the projector. Applying blends from Twist and Mystique overwrites the blends directly set on the projectors.

- 1. Select Menu > Size & Position > Geometry Correction > Blend Area.
- 2. Choose a side to blend in with the other projectors.
- 3. To set up the starting position, select **Start Pixel**.
- 4. Adjust the slider by arrow keys or select **ENTER** to input the starting position.
- After inputting the starting position, select ENTER.
- 6. To set up the size of blend area, select Pixel Height.
- 7. Adjust the slider by arrow keys or select **ENTER** to input the width of blend area.
- 8. After inputting the size of blend area, select **ENTER**.
- 9. To set the gamma value of the blend area, select **Blend Gamma**.
- 10. After selecting a gamma value, select ENTER.
- 11. To apply the settings, select **Enable**.
- 12. Select ENTER.
- 13. To save the blend setting, select Menu > Size & Position > Geometry Correction > Blend Memory > Save Blend.
- 14. To set up the other side of blend area, repeat step 2 to 13.



Blending multiple images

Use Christie Twist to manually configure edge blends and apply them to the projectors.

Christie Twist Premium and Twist Pro offer advanced blending options. Refer to the Christie website (www.christiedigital.com) for product information and documentation.

- 1. Connect the projector and computer to the same network and subnet.
- 2. To add a projector to a computer, from the Twist menu, select **Home > Add**.
 - To manually connect the projector with Twist, use port 3003.
 - Connecting to Twist grays out the Geometry Correction settings on the projector.
- 3. Select a record number to save the blend setting.

You can save up to four blend settings.

4. In Twist, configure edge blend settings.

Use the test patterns in Twist to assist in adjusting the blend area.

For more information about creating blend files in Twist, see the *Twist User Guide (P/N: 020-101380-XX)*.

- 5. To send the blend settings to the projector, on the canvas, right-click a projector window and select **Send Blend**.
- 6. Repeat step 2 to 5 for the remaining projectors.

For multiple projectors, use Twist to identify the projectors.

- 7. To save the warp file on the projector, select **File** > **Save** or **Save As**.
 - When removing the projector from Twist, or closing the program, the projector automatically saves the currently applied blend settings to its blend memory.
- 8. To change the name when saving blends on the projector, or update the memory location of the blend, select **Properties**.

The changed name shows on both Twist and the projector.

Downloading a blend from the projector memory

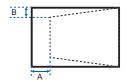
Use Twist to download the blend file saved on the projector memory.

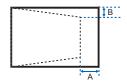
- 1. Before downloading the previous blend file, save the blend setting to the projector memory.
- 2. On the canvas, select a projector window.
- 3. Select File > Blend/Mask/B.U.
- 4. In the **Download Blend** dialog, select the required record.
- 5. To download the selected blend setting, select **OK**.
- 6. To apply the blend setting to the projector, on the canvas, right-click a projector window and select **Send Blend**.



Adjusting horizontal keystone

Use horizontal keystone to correct a keystoned image shape in which the left and right borders of the image are unequal in length, and the top and bottom are slanted to one of the sides.

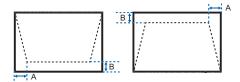




- 1. Select Menu > Size & Position > Geometry Correction > Keystone > Horz Keystone.
- 2. To adjust the horizontal keystone, adjust the slider by arrow keys or select **ENTER** to input the value you selected.
- 3. After inputting the value, select **ENTER** to apply.

Adjusting the vertical keystone

Use vertical keystone to correct a keystoned image shape in which the top and bottom borders of the image are unequal in length, and both sides of the image are inclined toward the top or bottom edge.

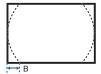


- 1. Select Menu > Size & Position > Geometry Correction > Keystone > Vert Keystone.
- 2. To adjust the vertical keystone, adjust the slider by arrow keys or select **ENTER** to input the value you selected.
- 3. After inputting the value, select **ENTER** to apply.

Adjusting horizontal pincushion

Use horizontal pincushion to correct a pinched image shape in which the horizontal straight lines are curved inwards or horizontal straight lines are curved outwards from the center.



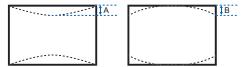


- 1. Select Menu > Size & Position > Geometry Correction > Pincushion > Horz Pincushion.
- 2. To adjust the horizontal pincushion, adjust the slider by arrow keys or select **ENTER** to input the value you selected.
- 3. After inputting the value, select **ENTER** to apply.



Adjusting vertical pincushion

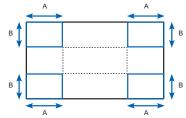
Use vertical pincushion to correct a pinched image shape in which the vertical straight lines are curved inwards or vertical straight lines are curved outwards from the center.



- 1. Select Menu > Size & Position > Geometry Correction > Pincushion > Vert Pincushion.
- 2. To adjust the vertical pincushion, adjust the slider by arrow keys or select **ENTER** to input the value you selected.
- 3. After inputting the value, select **ENTER** to apply.

Adjusting 4-corner

Use 4-corner to correct the four corners of the projector's display image.



- 1. Select Menu > Size & Position > Geometry Correction > 4-Corner.
- 2. Select the corner and the direction to adjust.
- 3. To move the corner, adjust the slider by arrow keys or select ENTER to input the value.
- 4. After inputting the value, select **ENTER** to apply.
- 5. To adjust the other corner or direction, repeat step 2 to 4.

Enabling auto warp filter

Improve the sharpness of the image and reduce the ghosting automatically after geometry correction, such as keystone, pincushion, 4-corner, and warping.

- 1. Select Menu > Size & Position > Geometry Correction > Auto Warp Filter.
- 2. To enable the setting, select **ENTER**.

Adjusting warp filter

Improve the sharpness of the image after geometry correction, such as keystone, pincushion, 4-corner, and warping. Adjust the warp filter manually to reduce the ghosting.

- 1. Select Menu > Size & Position > Geometry Correction > Manual Warp Filter.
- 2. To reduce the ghosting in different direction, select Horz Filter or Vert Filter.



- 3. Adjust the slider by arrow keys or select **ENTER** to input the value.
- 4. After inputting the value, select **ENTER** to apply.

Resetting geometry correction setting

Reset all geometry correction parameters back to default, including warp and blend settings.

- 1. Select Menu > Size & Position > Geometry Correction > Reset to Default.
- 2. Select ENTER.

Configuring warp and blend

By blending multiple images, you can combine several projectors to create a larger and seamless image. When the projection screen is not perfectly flat or rotated at an angle, warp the image to fit on the irregular surface.

Warping an image

Christie Twist offer various manual warping options to adjust the image shape with minimal performance impact. Refer to the Christie website (www.christiedigital.com) for product information and documentation.



Christie Twist can be upgraded to Twist Premium and Twist Pro that provides more advanced warping features. Refer to the Christie website (www.christiedigital.com) for product information and documentation.

- 1. Connect the projector and computer to the same network and subnet.
- To add a projector to a computer, from the Twist menu, select Home > Add.
 - To manually connect the projector with Twist, use port 3003.
 - Connecting to Twist grays out the Geometry Correction settings on the projector.
- 3. Select a record number to save the warp.

You can save up to four warp settings.

4. In Twist, configure warp settings.

Use the test patterns in Twist to help with image shaping.

For more information about creating warp files in Twist, see the *Twist User Guide (P/N: 020-101380-XX)*.

- 5. To send the warp settings to the projector, on the canvas, right-click a projector window and select **Send Warp**.
- 6. To save the warp settings on the projector, select **File** > **Save** or **Save As**.
 - When removing the projector from Twist, or closing the program, the projector automatically saves the currently applied warp settings to its warp memory.
- 7. To change the name when saving warps on the projector, or update the memory location of the warp, select **Properties**.

The changed name shows on both Twist and the projector.



Downloading a warp from the projector memory

Use Twist to download the warp file saved on the projector memory.

- 1. Before downloading the previous warp file, save the warp setting to the projector memory.
- 2. On the canvas, select a projector window.
- 3. Select **File > Warp**.
- 4. In the Download from Memory Location list, select the required record.
- 5. To download the selected warp setting, select **OK**.
- 6. To apply the warp setting to the projector, on the canvas, right-click a projector window and select **Send Warp**.

Performing auto warp and blend

Use Mystique (sold seperately) to perform automatic warp, blend, and more advanced geometry settings. Mystique is an automated camera-based alignment and recalibration solution that lets you quickly stage, install, align, calibrate, and maintain multi-projection systems.

Refer to the Christie website (www.christiedigital.com) for product information and documentation.

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Adjusting the image settings

Learn how to adjust the projector image.

Adjusting the brightness

Adjust the intensity of the image.

- 1. Select Menu > Image Settings > Brightness.
- 2. Adjust the slider by arrow keys or select **ENTER** to input the value.
- 3. After inputting the value, select **ENTER** to apply.

Adjusting the contrast

Adjust the degree of difference between the lightest and darkest parts of the image and changes the amount of black and white in the image.

- Select Menu > Image Settings > Contrast.
- 2. Adjust the slider by arrow keys or select **ENTER** to input the value.
- 3. After inputting the value, select **ENTER** to apply.

Adjusting the color space

Determine how the color components are decoded for accurate color in the display.

- 1. Select Menu > Image Settings > Color Space.
- 2. If projector does not detect the correct input signal while **Auto** is enabled, disable **Auto** by selecting **ENTER** to select color space manually.
- 3. To match up with the input signal, select appropriate color space:
 - Auto
 - RGB



- RGB Full
- RGB Limited
- YUV
- REC709
- REC601
- 4. To confirm the selection, select **ENTER**.

Adjusting the image sharpness

Adjust the edge clarity of the image.

- 1. Select Menu > Image Settings > Detail.
- 2. Select the sharpness:
 - Maximum
 - High
 - Normal
- 3. To confirm the selection, select **ENTER**.

Setting up 3D display

Use the functions in 3D Display menu to make the timing adjustment and environment necessary for displaying 3D images.

Setting 3D mode

Set up the 3D format according to the 3D input signal.

- 1. Select Menu > Image Settings > 3D Display > 3D Mode.
- 2. Select the appropriate 3D format:
 - Active 3D
 - Passive 3D
- 3. To confirm the selection, select **ENTER**.



Setting 3D format

Set up the 3D format according to the 3D input signal.



- Projecting the image in 4K 3D/4K 3D Dual Pipe format may display a few jitter effects. This is considered as a normal behavior.
- 4K 3D Dual Pipe has limited warping options when processing image distortion correction such as keystone and pincushion.
- 4K 3D/4K 3D Dual Pipe format is supported only with HDMI 1 and HDMI 2 sources.
- 1. Select Menu > Image Settings > 3D Display > 3D Enable.
- 2. Select the appropriate 3D format:
 - Auto
 - · Frame Packing
 - Side by Side
 - Top and Bottom
 - · Frame Sequential
 - Off
 - Dual Pipe (4K only)
 - 4K 3D (4K only)
 - 4K 3D Dual Pipe (4K only)
- 3. To confirm the selection, select **ENTER**.

Inverting 3D signal

3D images consist of a series of images (frames) that alternate quickly between two slightly different viewpoints, corresponding to our left and right eyes. When these frames are displayed fast enough and viewed with 3D glasses synchronized to the left/right (L/R) changes, the resulting image appears with the same depth and perspective that is sensed in the real world.

If the projector generates the sync internally and content is displayed without 3D sync in the cable connected to the projector, the content has a 50% chance of being displayed with the left/right eyes swapped. This function is used for swapping the sequence of the image to make the resulting image appear normally.

- 1. Select Menu > Image Settings > 3D Display > 3D Invert.
- 2. To swap, select **ENTER**.



Selecting the 3D sync input signal

This function is used for selecting the 3D sync input option.

- 1. Select Menu > Image Settings > 3D Display > 3D Sync In Select.
- 2. Select the appropriate 3D sync in setting.
 - **Auto**—If an external 3D sync input is detected, the projector uses automatically the external sync input. If no external sync input is detected, the projector uses the internal 3D sync to display the content.

 For multi-threaded applications, if the 3D enable function is set to Frame Sequential, Christie recommends to connect the source device to the projector using 3D Sync In
 - Christie recommends to connect the source device to the projector using 3D Sync In port. The Frame Delay function makes sure a synchronized display for multiple projectors.
 - Internal—The projector generates the 3D sync internally and content is displayed.
 - **External**—The projector uses an external 3D sync input to display the content.
- 3. To confirm the selection, select **ENTER**.

Setting the 3D sync output signal

This function is used for controlling and processing the 3D sync output signal.

- 1. Select Menu > Image Settings > 3D Display > 3D Sync Out.
- 2. Select the appropriate 3D sync out setting.
 - **To Emitter**—If the 3D sync out port is connected to an emitter, select **To Emitter** to transmit 3D signal to emitter and give to 3D glasses.
 - **To Next Projector**—Multiple projectors 3D application only. Select **To Next Projector** when the 3D sync out port is not connected to an emitter.
- 3. To confirm the selection, select **ENTER**.

Setting the frame delay

Adjust the frame delay output through the projector.

It will introduce some delay, typically used in multi-machine synchronization for delay alignment.

- 1. Select Menu > Image Settings > 3D Display > Frame Delay.
- 2. Adjust the slider by arrow keys or select **ENTER** to input the value.
- 3. After inputting the value, select **ENTER** to apply.



Setting the sync delay

Adjust the sync delay which eliminates the odd colors and cross talk caused by timing difference. Sync delay is the time difference between the first 3D signal being given and the result being executed from the current projector.

- 1. Select Menu > Image Settings > 3D Display > Sync Delay.
- 2. Adjust the slider by arrow keys or select **ENTER** to input the value.
- 3. After inputting the value, select **ENTER** to apply.

Configuring the video settings

Configure the video settings to optimize the image performance, such as applying color to black and white videos, reducing luminance component noise, and so on.

Adjusting black and white video

Adjust a video image from black and white to fully saturated color. This feature is for video sources only.

- 1. Select Menu > Image Settings > Video Options > Color.
- 2. Adjust the slider by arrow keys or select **ENTER** to input the value.
- 3. After inputting the value, select **ENTER** to apply.

Adjusting the color balance

Adjust the red-green color balance in NTSC video images. NTSC, named after the National Television System Committee, is the analog video color system used in North America and most of the South America countries. This feature is for NTSC video sources only.

- Select Menu > Image Settings > Video Options > Tint.
- 2. Adjust the slider by arrow keys or select **ENTER** to input the value.
- 3. After inputting the value, select **ENTER** to apply.

Configuring picture settings

Depending on display content, choose the most suitable picture settings. Different picture settings have different color temperature, brightness, and so on.

- 1. Select Menu > Image Settings > Picture Settings.
- Select the appropriate picture setting:
 - Video—Used for theater application. It sets the color temperature to 6000K with 70% of maximum brightness.
 - **Bright**—Used for large size or high brightness application. It sets the color temperature to 7500K with 100% brightness.



- **Enhanced**—Used for images with richly saturated and vivid color. It is based on brightness mode.
- **REC709**—Used for high-definition television. It sets the color temperature to 6500K with 80% of the maximum brightness.
- **DICOM SIM**—Used for high contrast content, such as X-ray diagram. It sets the color temperature to 7500K with 65% brightness.
- **Blending**—Used for multiple projector application. It sets the color temperature to 7000K with 85% of maximum brightness.
- **HDR**—Used for displaying high dynamic range content for deepest blacks, brightest whites, and vivid cinematic color using REC.2020 color gamut.
- **3D**—Used to display the 3D content. For more information on configuring 3D settings, see *Setting up 3D display* on page 18.
- **User**—Customized picture setting. See *Editing customized picture setting* on page 23 for further details of creating a customized picture setting.
- 3. Select ENTER.

Applying customized user configuration setting

Apply the previously saved user customized picture setting to the projector.

- 1. Before applying the customized picture setting, adjust the picture setting and save it using Menu > Image Settings > Picture Settings > User option.
- 2. Select Menu > Image Settings > Apply to User.
 - User Video
 - User Bright
 - User Enhanced
 - User REC709
 - User DICOM SIM
 - User Blending
 - User HDR
 - User 3D
 - User High Frame Rate
- 3. To apply the specific picture setting, select the required setting.
- 4. To confirm the selection, select **ENTER**.



Editing customized picture setting

Edit the previously saved customized picture setting.

- 1. Select Menu > Image Settings > Apply to User.
- 2. Select the customized image setting you want to modify:
 - User-Video
 - User-Bright
 - User-Enhanced
 - User-REC709
 - User-DICOM SIM
 - User-Blending
 - User-HDR
 - User-3D
 - · User-High Frame Rate
- 3. Select ENTER.

Setting the contrast ratio

Use contrast enhancement function to raise the contrast ratio.

- 1. Select Menu > Image Settings > Contrast Enhancement.
- 2. Select the appropriate calculation method for contrast ratio:
 - **Dynamic Black**TM—Adjusts the contrast ratio depending on the contents by minimizing the black levels in the projected image while electronically increasing the gain in the image. The result is enhanced detail and increased contrast ratio of 6500:1.
 - **Speed**—Adjusts the speed of the light source correction. The value ranges from 1 to 15. A lower value makes the correction slower and less aggressive while a higher value results in the faster correction.
 - **Strength**—Sets the strength of the dynamic contrast adjustment. The value ranges from 0 to 3, the higher the value the stronger the correction.
 - **Level**—Adjusts the light source when the brightness level of the current content gets lower than the set value. The value ranges from 50 to 100, indicating 50% to 100% of the constant brightness. The higher the value, the larger the range to adjust the light source.
 - **Real Black**—Turns off the laser light while projecting black content.
 - **Lights Out Timer**—Sets a timer for the laser light to turn off after detecting black content.



- **Lights Out Signal Level**—Sets a black level value as the threshold for the Real Black function. The value can be selected from 0 to 255, with 0 being the darkest black and 255 being the brightest.
- **Lights On Threshold**—Sets the lights on value to eliminate the Real Black effect. The function is activated when the screen brightness is higher than the value of both the Lights On Threshold and the Lights Out Signal Level. The Lights on Threshold value ranges from 0 to 127.
- Reset to Default—Resets all contract enhancement settings to the default factory defaults.
- 3. To confirm the selection, select **ENTER**.

Enabling the image freeze

Pause the display screen despite any change in the source device.

- 1. Select Menu > Image Settings > Image Freeze.
- 2. To pause the screen, select Image Freeze.
- 3. To unfreeze the screen, select any button on the keypad or remote control.
- Select Yes.

Setting the high dynamic range

High dynamic range (HDR) is set to increase the dynamic range which allows the full spectrum of the image to be seen. HDR significantly expands the range of contrast ratio and color to show a more realistic and natural image. After enabling this function, you can see details in the dark, at the same time, the bright part of the image is still visible.



- The HDR function only works when the projector is receiving signal from the HDMI input. You must set Picture Settings to Bright.
- Enabling HDR disables the picture in picture/picture by picture (PIP/PBP) function.
- 1. Select Menu > Image Settings > HDR.
- 2. Select appropriate setting for HDR:
 - Auto—Auto detect HDR content.
 - Level—Select an appropriate HDR effect.
 - **HDR1**—Low HDR effect, used for bright images to increase the color saturation.
 - **HDR2**—Medium HDR effect, used for standard images to make them look more realistic and natural.
 - HDR3—Medium HDR effect, used for video content to improve image details.
 - **HDR4**—Strong HDR effect, used to improve image details in dark scenes.
- 3. To confirm the selection, select **ENTER**.

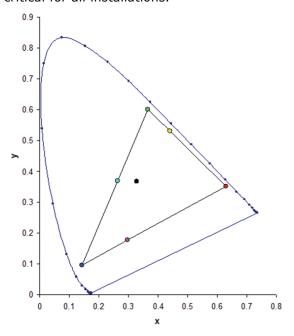


Adjust the color of the image

Calibrate the accuracy of primary colors and the wall color, which can change because of lighting and environmental factors. Lighting and other environmental factors may slightly change how these colors appear on your screen. While the change is negligible in most cases, you may prefer to recover the originally intended color performance before trying to match colors from several projectors.

Adjusting primary colors

To achieve consistency use a color meter to measure the native primary colors-red, green, blue, and white, as they appear on the screen. Use hue, saturation and gain (HSG) to adjust each color component to essentially calibrate a projector to its surroundings, compensating for factors such as screen type, lamp and/or ambient lighting, and improves color accuracy and consistency in a group of projectors. It ensures a good starting point for further customizing and matching; however, is not critical for all installations.



- 1. Select Menu > Image Settings > Color Matching > HSG Adjustment.
- 2. To view a specific color while adjusting, select **ENTER** to enable **Auto Test Pattern**.
- 3. Select one primary color (red, green, blue, cyan, magenta, or yellow).
- 4. To edit hue of the primary color, adjust the slider or enter the color values of the primary color component you selected until satisfied with the colors.
 - Hue values reflect the number of degrees of rotation around the wheel from the original color of the pixel. Increasing the value indicates counterclockwise rotation and decreasing the value indicates clockwise rotation.
- 5. To confirm the selection, select **ENTER**.



- 6. To edit saturation of the primary color, adjust the slider or enter the color values of the primary color component you selected until satisfied with the colors.
 - Saturation values reflect the color shifting away from the primary color or toward white.
- 7. To confirm the selection, select **ENTER**.
- 8. To edit gain of the primary, adjust the slider or enter the color values of the primary color component you selected until satisfied with the colors.
 - Increasing value indicates increasing the lightness, and decreasing the value indicates decreasing it to black.
- 9. To confirm your selection, select **ENTER**.
- 10. Repeat steps 3 to 9 for each primary color component, except white.
- 11. To edit the color of white by three components—red, blue and green—adjust the slider or enter the values until you are satisfied with the white.
- 12. To confirm your selection, select **ENTER**.
- 13. To reset the primary colors to their defaults, select **Reset to Default**.
- 14. To reset back to default setting, select ENTER.

Setting the wall color

Set the wall color so the projector can enhance the color performance customized for the specific wall.

- 1. Select Menu > Image Settings > Color Matching > Wall Color.
- 2. Select the preferred setting:
 - White
 - Gray 130
 - Light Yellow
- 3. Select ENTER.

Setting the wall color automatically

Set the wall color automatically so the projector can enhance the color performance customized for the specific wall.



- Auto wall color option is disabled and grayed out if the picture mode is set to 3D or High Frame Rate with the current source or change to no source status. The camera does not support 1x color wheel speed.
- Auto wall color option is also disabled and grayed out if the camera is not detected.
- 1. Select Menu > Image Settings > Color Matching > Auto Wall Color.
- Select ENTER.



Adjusting the image settings automatically

Adjust various image settings automatically, including focus, wall color, and color uniformity.

Adjusting the image with automatic focus

Adjust the image focus automatically with camera kit.



- Auto focus option is disabled and grayed out if the picture mode is set to 3D or High Frame Rate with the current source or change to no source status. The camera does not support 1x color wheel speed.
- Auto focus option is also disabled and grayed out if the camera is not detected or lens lock option is enabled.
- 1. Display an image or test pattern that can be used to analyze image focus.
- 2. Select Menu > Image Settings > Auto Image Settings > Auto Focus.
- Select ENTER.

Setting the wall color automatically

Set the wall color automatically so the projector can enhance the color performance customized for the specific wall.



- Auto wall color option is disabled and grayed out if the picture mode is set to 3D or High Frame
 Rate with the current source or change to no source status. The camera does not support 1x color
 wheel speed.
- Auto wall color option is also disabled and grayed out if the camera is not detected.
- 1. Select Menu > Image Settings > Auto Image Settings > Auto Wall Color.
- 2. Select ENTER.

Balancing the image color automatically

Balance the image color automatically with auto color uniformity.



- Image color calibration option is disabled and grayed out if the auto color uniformity option is disabled/unchecked and the picture mode is set to 3D or High Frame Rate with the current source or change to no source status. The camera does not support 1x color wheel speed.
- Target selection and reset options are disabled and grayed out if the auto color uniformity option is disabled/unchecked.
- Select Menu > Image Settings > Auto Image Settings > Auto Color Uniformity.
- 2. Select appropriate option for image color uniformity:
 - **Enable**—Enables or disables the auto color uniformity function.
 - Calibration—Starts adjusting the image color.
 - **Target Selection**—Selects a calibration target.
 - Reset—Restores factory settings.



3. Select ENTER.

Adjusting advanced image settings

Adjust the color value based on gamma, white peaking, color temperature, and save user settings for data recovery.

Adjusting the color value based on gamma setting

Adjust the color values to give a more detailed displayed image.

- 1. Select Menu > Image Settings > Advanced Image Settings > Gamma.
- 2. Select appropriate option:
 - Video
 - Film
 - Bright
 - CRT
 - DICOM
 - HDR—Only available if the picture mode is set to HDR.
- Select ENTER.

Adjusting the white peaking

Use white peaking to adjust the color of white. The maximum value of white peaking, 100, can increase the brightness of white to near 100%.

- 1. Select Menu > Image Settings > Advanced Image Settings > White Peaking.
- 2. Adjust the slider by arrow keys or select **ENTER** to input the value.
- 3. Select ENTER.

Adjusting the color temperature

Adjust the color temperature as expressed in degrees Kelvin.

- 1. Select Menu > Image Settings > Advanced Image Settings > Color Temperature.
- 2. Select appropriate color temperature:
 - Warmest—Sets the color temperature to 5500K.
 - **Warm**—Sets the color temperature to 6500K.
 - **Cool**—Sets the color temperature to 7500K.
- 3. Select ENTER.



Saving user settings for data recovery

Create a recovery copy of all the user data. This information can be used later to recover settings if necessary.

- 1. Select Menu > Image Settings > Advanced Image Settings > Backup Restore > Save.
- 2. To save the user data, select an empty record.
 - One projector can save up to five backups.
- 3. To confirm the selection, select **ENTER**.
- 4. Select Menu > Image Settings > Advanced Image Settings > Backup Restore > Restore.
- 5. To restore a specific backup, select the required record.
- 6. To start restoring data, select **ENTER**.



- The recovery copy does not include information about the source and functions that can be operated directly from the remote control and do not save the value after the next power on, for example, Image Freeze.
- All other function values are saved to the recovery copy, except for the following:
- Configuration > Lens Settings
- Configuration > Communications > LAN/WLAN
- Size & Position > Geometry Correction
- Configuration > Menu Preferences > PIN Protect
- Configuration > Date and Time
- Configuration > Schedule

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Configuring system settings

Learn how to configure the system settings.

Changing the language

Choose the language you want displayed on projector display panel and on-screen display.

- 1. Select Menu > Configuration > Language.
 - You can also select Menu > Language.
- 2. Select the appropriate language.
- 3. Select ENTER.

Adjusting lens settings

Adjust various lens settings including focus, zoom, lens position, memorizing lens position and locking the lens motors.

Viewing the lens type

View the projector lens type:

- · Undefined Lens
- TR 0.46
- TR 0.78 -0.9
- TR 0.9 1.3
- TR 1.3 1.8
- TR 1.44 1.8
- TR 1.8 2.4
- TR 2.4 4.8
- TR 4.8 8.64
- TR 8.64 12.64



Aligning the image with focus, zoom, and auto focus

Adjust the image focus automatically with camera kit.

- 1. Adjust the image focus automatically with camera kit.
- 2. Select **FOCUS** on keypad or remote control.

You can also select **Menu** > **Configuration** > **Lens Settings** > **Focus**.

- 3. Use the up and down arrow keys to adjust the focus of the image.
- 4. To exit the menu, select **EXIT**.
- To adjust the focus automatically, select Menu > Configuration > Lens Settings > Auto Focus.
- Select ENTER.
- 7. Select **ZOOM** on keypad or remote control.

You can also select **Menu** > **Configuration** > **Lens Settings** > **Zoom**.

- 8. Use the up and down arrow keys to zoom in or out of the image.
- 9. To refine your adjusts, repeat steps 2 to 8.
- 10. To exit the menu, select EXIT.

Adjusting the image with automatic focus

Adjust the image focus automatically with camera kit.



- Auto focus option is disabled and grayed out if the picture mode is set to 3D or High Frame Rate
 with the current source or change to no source status. The camera does not support 1x color wheel
 speed.
- Auto focus option is also disabled and grayed out if the camera is not detected or lens lock option is enabled.
- 1. Display an image or test pattern that can be used to analyze image focus.
- 2. Select Menu > Configuration > Lens Settings > Auto Focus.
- 3. Select ENTER.

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.
- 4. To exit the menu, select EXIT.



Saving lens setting

Save the lens position. One projector can save maximum up to five lens settings.

- Select Menu > Configuration > Lens Settings > Lens Shift Memory > Save Current Settings.
- 2. To save the lens setting, select an empty record.
- 3. To confirm the selection, select **ENTER**.

Applying the previous lens setting

Apply the previously saved lens setting to the projector.

- Before applying the previous lens setting, you need to save the lens setting.
 See Saving lens setting on page 32 for further details.
- 2. Select Menu > Configuration > Lens Settings > Lens Shift Memory > Apply Position.
- 3. To apply specific lens setting, select the required record.
- 4. To confirm the selection, select **ENTER**.

Locking the lens motor

Prevent all lens motors from moving. It disables the zoom, focus, and offset settings, locking out any changes and overriding all other lens features. This feature prevents accidental lens position changes in multiple projectors installations.

- 1. Select Menu > Configuration > Lens Settings > Lock all Lens Motors.
- 2. To enable locking of all lens motors, select **Locked**.
- 3. To unlock all lens motors, select **Allow**.
- 4. To confirm the selection, select **ENTER**.

Resetting the lens to home position

Set the lens offset back to the home position.



To make sure the lens shift is functioning properly, Christie recommends calibrating the lens every time the lens are changed.

1. Select Menu > Configuration > Lens Settings > Lens Calibration.

You can also select **LENS** on keypad or **LENS H/LENS V** on remote control.

- 2. Select ENTER.
- 3. To start the lens calibration, select **OK**.



Selecting screen image orientation

Specify the orientation to use for the image. The projector supports front projection, rear projection, front projection inverted, or rear projection inverted.

- 1. To invert the projection image, select **Menu** > **Configuration** > **Ceiling Mount**.
- 2. Select appropriate ceiling mount settings:
 - Off—Disables the ceiling mount setting.
 - On—Enables the ceiling mount setting.
 - Auto—Detects the orientation automatically.
- 3. To confirm the image orientation, select **ENTER**.
- 4. To do a rear projection, select **Menu** > **Configuration** > **Rear Projection**.
- To swap, select ENTER.

Adjusting on-screen display menus

Adjust various on-screen display (OSD) settings including the position, OSD transparency and timing for OSD to disappear.

Determining the on-screen display position

Adjust the location of the on-screen display (OSD) menus.

- Select MENU > Configuration > Menu Preferences > Menu Horz Offset or Menu Vert
 Offset.
- 2. To determine the location on the screen where you want the OSD to appear, adjust the slider by arrow keys or select **ENTER** to input the value.
- 3. After inputting the value, select **ENTER** to apply.

Showing messages

Enable or disable the on screen message dialogs. For example, input source, IP Address, Slot information, Gamma information, and so on.

- 1. Select Menu > Configuration > Menu Preferences > Show Messages.
- 2. To swap, select **ENTER**.

Setting the transparency of the on-screen display position

Change the on-screen display (OSD) menus background to be transparent. As the value increases, more of the image behind the menu is visible.



If the projector has not detected an input source, the Menu Transparency function is off.



- 1. Select MENU > Configuration > Menu Preferences > Menu Transparency.
- 2. Adjust the slider by arrow keys or select **ENTER** to input the value.
- 3. After inputting the value, select **ENTER** to apply.

Changing the splash screen

Select splash screen which is the screen with no source is displayed.

- 1. Select Menu > Configuration > Menu Preferences > Splash Screen Setup.
- 2. Select the appropriate splash screen:
 - Factory Logo
 - Blue
 - Black
 - White
- 3. Select ENTER.

Setting time out for on-screen display

Adjust the time for on-screen display to disappear.

- 1. Select Menu > Configuration > Menu Preferences > Menu Time Out.
- 2. Select the appropriate time:
 - Off
 - 1 Min
 - 3 Min
- Select ENTER.

Setting up password protection

Protect your projector with a password. Once enabled, you must enter the password before you can project an image.

- 1. Select Menu > Configuration > Menu Preferences > PIN Protect.
- 2. Enter a password by number keys.
- 3. To confirm the password, select **OK**.

Changing password

Change the current password to a new password.

- 1. Select Menu > Configuration > Menu Preferences > Change PIN.
- 2. Enter current password by number keys.
- 3. Select OK.
- 4. Enter new password by number keys.



- Select OK.
- 6. To confirm the password, enter new password again by number keys.
- 7. Select OK.

Adjusting Shutter Setting

Adjust various projector's shutter settings including the shutter duration for Fade In, Fade Out and Startup.

Setting the shutter duration

Adjust shutter setting for Fade In, Fade Out duration.

- 1. Select Menu > Configuration > Shutter Setting > Fade In/Fade Out.
- 2. Select the appropriate duration for Fade In/Fade out.
- 3. To confirm the selection, select **ENTER**.

Setting the shutter startup

Enable or disable to power on the projector with shutter.

- 1. Select Menu > Configuration > Shutter Setting > Startup.
- 2. To toggle, select **ENTER**.

Setting up power mode

Adjust various projector's power settings including the shutdown time, sleep timer, and standby mode.

Setting the standby mode

Determine which standby mode the projector is in when AC power on.



Communication mode is the projector's default standby mode. After performing factory reset, manually set the standby mode to 0.5W mode to have less power consumption (<0.5W).

- 1. Select Menu > Configuration > Power Management > Standby Mode.
- 2. Select the appropriate mode:
 - **0.5W mode**—Less power consumption which does not have the ability to monitor the projector over a network cable in standby mode.
 - **Communication mode**—More power consumption in standby mode which allows you to monitor the projector over a network cable.
- 3. Select ENTER.



Setting the AC power

Enable or disable to power on the projector directly.

- 1. Select Menu > Configuration > Power Management > AC Power On.
- 2. To toggle, select ENTER.

Setting the time for auto shutdown

Set up a time for automatically turns off the projector after no signal is detected for a preset number of minutes. If an active signal is received before the projector powers down, the image is displayed.

- 1. Select Menu > Configuration > Power Management > Auto Shutdown.
- 2. Select the appropriate time to automatically turn off the projector when there is no signal.
- 3. To confirm the selection, select **ENTER**.

Setting the sleep timer

Set up a time for automatically power off the projector, after it has been on for a specified amount of time.

- 1. Select Menu > Configuration > Power Management > Sleep Timer.
- 2. Select the appropriate time to automatically turn off the projector.
- 3. To confirm the selection, select **ENTER**.

Enabling high altitude setting

Enable high altitude mode when altitudes \geq 2000 m. The fan operates at high speed to ensure sufficient air flow for high altitudes; however, the noise level of the projector is increased.

- 1. Select Menu > Configuration > High Altitude.
- 2. To toggle, select **ENTER**.

Setting the projector communication

Enable the receivers and the wired keypad to communicate with the projector from the remote. The front and top IR sensors receive transmissions from the IR remote. Keep the transmission path to these sensors unobstructed for uninterrupted communications with the projector.

- 1. Select Menu > Configuration > IR Control.
- 2. To enable the top IR sensor, select **Top**.
- To confirm the selection, select ENTER.
- 4. To enable the front IR sensor, select Front.
- 5. To confirm the selection, select **ENTER**.



- 6. To enable the signal from the HDBaseT Box, select **HDBaseT.**
- 7. To confirm the selection, select **ENTER**.

Enabling the 12V Trigger

The 12V trigger is used for electrical projector screens. The projector screen is automatically lowered or raised when the projector is switched on or off.

- 1. Select Menu > Configuration > 12V Trigger.
- 2. To toggle, select **ENTER**.

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Configuring communications

Define and control how single or multiple projectors are linked with each other and with controlling device.

Setting network environment

Determine the communication settings such as network setup, serial port information, and so on.

Adjusting LAN setting

Set up network configuration for wire networking.

- 1. Select Menu > Configuration > Communications > LAN.
- 2. Set up the appropriate setting:
 - MAC Address—Displays the network MAC address value.
 - Network Status—Displays the network status
 - LAN Interface—Displays the LAN interface. Select either RJ-45 or HDBaseT and select ENTER to save.
 - **DHCP**—Enables or disables the DHCP to automatically get IP address, subnet mask, and so on.
 - IP Address—Assigns the network IP address.
 - **Subnet Mask**—Assigns the network subnet mask.
 - **Default Gateway**—Assigns the network default gateway.
 - Primary DNS—Assigns the primary DNS.
 - Secondary DNS—Assigns the secondary DNS.
- 3. To apply the LAN settings, select **Apply**.



Using the web interface

To control the projector through the web interface, do the following:

- 1. Start up the web browser on your computer or mobile devices.
- 2. Enter the IP address set on the projector into the URL of the web browser.
- 3. Enter the user name and password to login.
- 4. After a successful login, you can control the projector over the web interface.

Logging on to the web user interface

Log into to the web user interface by following the steps below.

- 1. Connect the projector to AC and power it on.
- 2. When the network is available, connect the projector and computer to the same network.
 - To check the projector address in a wired network, select Menu > Configuration > Communications > LAN > IP Address.
 - b. To check the projector address in a wireless network, select Menu > Configuration > Communications > WLAN > Default Gateway.
- 3. If the network is unavailable, connect the projector to the computer with an RJ45 cable.
 - a. Set the Default Gateway and Subnet Mask of the computer to match the projector.
 - b. Set the IP address of the computer to match the first three numbers of the projector. For example, if the projector IP address is 192.168.000.100, set the computer IP address to 192.168.000.xxx, where xxx is not 100.
- 4. Open a web browser and type the projector address in the browser address bar.
- 5. In the Username field, enter the username.
 - The default username is admin.
- 6. In the Password field, leave it blank (the default password is empty).
- 7. Select Login.
- 8. After logging in, update the Password to ensure security.



Setting the system notification

Configure the Simple Network Management Protocol (SNMP) settings for receiving notifications from the system directly to the email. SNMP provides network administrators with a common way to manage their network devices from a single remote location. Administrators can use the SNMP interface to query a number of devices to see their current status or configuration. Operators can change configuration values and configure trap notifications to be sent when certain events occur (for example, loss of signal, power state change, and so on).

Emails are sent to the mail server configured in the projector settings. Up to two user email accounts can be selected. Important information regarding the event is located in the body content of the email.

SNMP traps are notifications sent from the projector. They are only received by a trap receiver (MIB Browser) in the computer.

- 1. From the web user interface, select **Network** > **Notification**.
 - See *Using the web interface* on page 39 for further information.
- 2. Set up the appropriate SNMP setting:
 - **SNMP Read Community**—Plain text password that must also be entered in the MIB browser. This password allows various settings in the projector to be gueried.
 - **SNMP Location**—Use as a description to where a projector is located in a building. SNMP emails sent specify this location.
 - **Trap IP Address**—Fill in this field with the IP address of the computer, on which you want to view received traps from the projector.
 - **Sender Email**—Set the email account as the source of the system notifications.
 - **SMTP Server**—Enter the IP address of the mail server.
 - Recipient—Enter up to two email accounts to receive the system notification.
- 3. Set the SNMP actions for the system events:
 - **Disabled**—Disable email notification.
 - **SNMP Trap**—Send the notification to the trap receiver (MIB Browser).
 - **Email**—Send the notification to the email recipient.
 - **SNMP Trap and Email**—Send the notification to the trap receiver and the email recipient.
- 4. To apply the notification settings, select **Save**.

Using the RS232C interface

To control the projector through the RS232C interface, do the following:

- 1. Connect your computer and the projector directly using the RS232 cable.
- 2. Set the same baud rate in both your computer and projector. Use commands to control the projector.



Re-connecting the network

After the network is disconnected and timeout using RJ-45/HDBaseT/Wifi, the browser refreshes the page automatically and show HTTP404 (Not Found) error message.

If user wants to re-control the projector, the user must login in the control page with the account and password again.

Adjusting WLAN setting

Set up network configuration for wireless networking.

- 1. Select Menu > Configuration > Communications > WLAN.
- 2. Set up the appropriate setting:
 - **SSID**—Displays the SSID of the wireless network.
 - Enable—Enables or disables the wireless functionality.
 - **Start IP**—Assigns the start IP address of the wireless network.
 - **End IP**—Assigns the end IP address of the wireless network.
 - Subnet Mask—Assigns the subnet mask of the wireless.
 - **Default Gateway**—Assigns the gateway of the wireless.
- 3. To apply the WLAN settings, select **Apply**.

Adjusting network setting

Set up network configuration setting, such as reset back to default.

- 1. Select Menu > Configuration > Communications > Network.
- 2. Set up the appropriate network setting:
 - Show Network Message—Enables or disables to display of the network message.
 - **Reset to Default**—Resets the network configuration setting, including LAN setting and WLAN setting, to default.
- 3. To apply the network configuration, select **ENTER**.

Setting serial port baud rate

Select the serial port and baud rate.

- 1. Select Menu > Configuration > Communications > Serial Port Baud rate.
- 2. Set up the appropriate baud rate.
- 3. To confirm the selection, select **ENTER**.



Enabling serial port echo

Enable or disable to allow the command line interface (CLI) pass through.

- 1. Select Menu > Configuration > Communications > Serial Port Echo.
- 2. To swap, select **ENTER**.

Setting the projector address

Assign an address to the projector for IR remote connection.

- To set the projector address, select Menu > Configuration > Communications > Projector Address.
- 2. Select specific number for this projector from 0 to 9.
- 3. To match up with the projector address, select **PROJ** and specific number key. The projector responds to the IR remote set to the same address as the projector or to the IR remote set to address 0.

Adjusting the back light settings

Control the back light behavior and timeout setting for the keypad and status LED.

- 1. Select Menu > Configuration > Backlight Preferences > Keypad Backlight.
- 2. Select the appropriate setting for keypad backlight.
- To confirm the selection, select ENTER.
- 4. Select Menu > Configuration > Backlight Preferences > Status LED.
- 5. Select the appropriate setting for status LED.
- 6. To confirm the selection, select **ENTER**.



Setting the hot key

To directly call out a function without going through the layers of the on-screen display (OSD) menus, select a specific function for a hot key. To access this function, select **HOT KEY** on the remote control.



When the hot key is set to Disable Warp/Blend, selecting the hot key once disables the currently applied warp and blend. Selecting the hot key again enables the function and returns the warp and blend to the screen.

- 1. Select Menu > Configuration > Hot-Key Settings.
- 2. Select the one function for the hot key:
 - Size Presets
 - Picture Settings
 - Default Value
 - Detail
 - Contrast Enhancement
 - Light Source Mode
 - · Image Freeze
 - Information
 - Disable Warp/Blend
- 3. To set the selected function as the hot key, select **ENTER**.

Configuring date and time settings

Configure the date and time settings of the projector. Make sure these settings are accurate if you want to use the schedule feature.

- 1. Select Menu > Configuration > Date and Time.
- 2. Set up the appropriate setting:
 - Clock Mode—Sets the clock mode to Local or Network. A NTP Server is required if the clock mode is set to Network.
 - **Date**—Sets a date for the projector. The date format is Year/Month/Date.
 - **Time**—Sets the time for the projector.
 - Daylight Saving Time—Configures the daylight saving settings if required.
 - **NTP Server**—Selects a NTP Server for the network clock mode.
 - **Time Zone**—Selects an appropriate time zone for the network clock mode.
 - **Update Interval**—Sets the date and time update interval.
- 3. To apply the date and time settings, select **Apply**.



Scheduling events

Schedule feature allows you to schedule various projector functions at the given date and time.

- 1. Select Menu > Configuration > Schedule.
- 2. View or set up the appropriate setting:
 - **Date and Time**—Adjusts the date and time for the projector.
 - Schedule Mode

 Enables the schedule mode if you want to schedule projector functions.
 - View Today—Displays events scheduled for the current day.
 - Monday to Sunday—Sets up schedule for days of a week.
 - **Event 01-016**—See step 5 in *Setting up a schedule* on page 44 for a full list of available actions.
 - Copy Events To—If several days of a week have the same schedule, create a fully scheduled day, select Copy Events To, and select these days of the week where you want to copy the full schedule.
 - **Reset Schedule**—Resets all of the schedule settings to the factory defaults.

Setting up a schedule

- 1. Select Menu > Configuration > Schedule.
- 2. Select the appropriate day of the week when you want to schedule events and select **ENTER**. The schedule table for the selected day is shown.
- 3. Select the first event slot and select **ENTER**. The event submenu is shown.
- 4. Select the **Time** when the chosen event must occur, for example at 11 AM.
- 5. Select the appropriate action to take place:
 - Power Settings
 - Off/On
 - Power On
 - 0.5W Mode
 - · Communication Mode
 - Input Source
 - Off
 - HDMI1
 - HDMI2
 - Display Port
 - 3G-SDI
 - HDBaseT



- Light Source Mode
 - Off
 - Constant Power
 - Constant Intensity
 - ECO 1
 - ECO 2
- Shutter
 - Off
 - Shutter On
 - Shutter Off
- 6. To confirm the selection, select **ENTER**.
- 7. Select **EXIT** and return to the schedule table of the selected day.
- 8. Repeat steps 2 to 7 to schedule more events for the selected day.
- 9. You can schedule up to 16 events per day. To access the events on the next page, select the arrow keys.
- 10. To schedule events for other days, select **EXIT** to return to the main Schedule menu and repeat steps 2 to 8.

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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. Enable grouping:
 - Ensure Group Enable is turned on.
- 3. Select projectors for the group:
 - Highlight Projector Select and press Enter.
 - Check the boxes for up to 8 projectors to include in the group.
 - 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.
 - Avoid selecting projectors marked as **Occupied** (gray circle).
- 4. Scroll to the **Apply** button and press **Enter** to confirm your selections.



Configuring group functions

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

- 1. Navigate to **Group Functions**.
- 2. Select the desired functions by checking the boxes:
 - Freeze
 - Shutter
 - Schedule
 - Auto Focus
 - Auto Color Matching



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

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.
 - The list is read-only.

Resetting the group configuration

To clear all settings and start over:

- 1. Navigate to **Reset** within the **Grouping** menu.
- 2. Confirm the action to reset the group configuration.

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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 49 further details of setting the laser diode power.
 - If constant power is enabled in the projector then this function is activated when the voltage is below 140 VAC. For example, if constant power in DWU2400-JS/4K2100-JS is set to 70 then the projector keeps the laser diode power at 80% which is around \sim 1350W.
 - **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 long-term 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 30% 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.

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Diagnostic tools

Follow these procedures to help diagnose issues with the Jazz Series projectors.

Viewing projector information

View the status of the projector, source information, light source information, and communication information. The information is read-only.

- 1. To view the status of the projector, such as model name, serial number, and so on, select **Menu** > **Information** > **Status Info**.
- 2. To view source information, such as active source, signal format, and so on, select **Menu** > **Information** > **Source Info**.
- 3. To view backup input information, such as backup input status, backup input change, and so on, select **Menu** > **Information** > **Backup Input Info**.
- 4. To view the communication information, such as network status, projector's IP address, subnet, and so on, select **Menu** > **Information** > **Communications Info**.
- 5. To view the light source information, such as total projector hours and laser diode (LD) hours, select **Menu** > **Information** > **Light Source Info**.
- 6. To view the firmware information, such as firmware (FW) version, and so on, select **Menu** > **Information** > **Firmware Version Info**.

Selecting a test pattern

Use the projector's test patterns to assist with configuration of the projector and to diagnose any issues that may occur.

- 1. Select Test Pattern on remote control.
 - You can also select the test patterns from Menu > Test Pattern.
- 2. Scroll through the list of test patterns by left and right arrow keys on remote control.
- 3. Select the required test pattern.
- 4. To confirm your selection, select **ENTER**.



Restoring factory default settings

Restoring factory settings removes all custom device settings.



To avoid warranty violation, only Christie-qualified technicians can reset factory defaults.

- 1. Select **MENU** > **Configuration** > **Service**.
- 2. Enter the service password.
- 3. Select **Factory Reset**.

All customized settings are set to the default factory settings.

4. At the confirmation prompt, select **OK**.

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Configuring input settings

Learn how to configure the input source and picture in picture (PIP)/picture by picture (PBP) settings.

Setting main input source

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

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

Setting second input source

Select an active input to be used as the picture in picture (PIP)/picture by picture (PBP). Before setting the second input source, make sure to enable PIP/PBP; otherwise this item is disabled.

- 1. Select Menu > Input Switching & PIP > PIP/PBP Input.
- 2. To select another active input, select ENTER.

Enabling second input source

To activate the picture in picture (PIP)/picture by picture (PBP) setting, switch on this function.



To update the PIP/PBP mode, run the **Input Switching & PIP** > **Auto Image Resync** function. Auto Image Resync synchronizes the main input and the sub input sources simultaneously.

- 1. Select Menu > Input Switching & PIP > PIP/PBP Enable.
- 2. To swap, select **ENTER**.



Swapping main input and second input source

Switch the main input source with second input source. Before this action, make sure to enable picture in picture/picture by picture.

- 1. Select Menu > Input Switching & PIP > Swap.
- 2. To swap, select **ENTER**.

Setting the size of second input source

Set the size of picture in picture (PIP)/picture by picture (PBP). Before this action, make sure to enable PIP/PBP. See *Input sources layout and size* on page 53 for further details of the layout and size.

- 1. Select Menu > Input Switching & PIP > Size.
- 2. Select the appropriate size, small, medium or large, for PIP/PBP input source.
- 3. To confirm the selection, select **ENTER**.

Setting up the display layout with two input sources

Set the display location for main input source and second input source on the screen. Before this action, make sure to enable picture in picture (PIP)/picture by picture (PBP). See *Input sources layout and size* on page 53 for further details of the layout and size.

- 1. Select Menu > Input Switching & PIP > Layout.
- 2. Select the appropriate layout.
- 3. To confirm the selection, select **ENTER**.

Input sources layout and size

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

PIP/PBP layout	PIP/PBP size			
	Small	Medium	Large	
PBP, Main Left	Р	Р	*	
PBP, Main Top	P	P	*	



PIP/PBP layout	PIP/PBP size		
	Small	Medium	Large
PBP, Main Right	Р	P	*
PBP, Main Bottom	P	P	*
PIP, Sub Bottom Right	Р	Р	Р
PIP, Sub Bottom Left	P	P	P
PIP, Sub Top Left	P	P	P
PIP, Sub Top Right	P	P	P

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 & PIP > 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 & PIP > 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**.

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.
- PIP/PBP, 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 & PIP > Backup Input.
- 2. Set up the appropriate setting:
 - **Auto Switch**—Selects the checkbox to enable automatically switch 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.

Adjusting the sub image

Adjust the image related settings for the sub source in PIP mode.

- 1. Select Menu > Input Switching & PIP > Adjust Sub Image.
- 2. Set up the appropriate setting for sub source.

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 & PIP > 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, PIP/
 PBP mode, 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 WUXGA. Jazz 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 & PIP > EDID.
- 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 & PIP > HDMI Out put.
- 2. Select **HDMI 1** or **HDMI 2** as the HDMI output.
- 3. To confirm the setting, select **ENTER**.