

Assembling the Christie One Rigging Frame V2

With the Christie One Rigging Frame V2 (P/N: 140-155102-XX), the projector can be secured to trusses or structures built for the purpose of positioning the projector.

With the frame:

- Up to three projectors can be stacked in landscape orientation.
- A single projector can be positioned in portrait mode but no stacking is permitted.

Christie ships the frame separately from the projector.

Affected products

The Christie One Rigging Frame V2 is designed for use with the following projectors.

Projector model		Compatible lenses
GS Series	DWU850-GS DWU880(A)-GS DWU1075-GS DWU1082-GS DWU8902-GS DWU1100(A)-GS DWU1400(A)-GS	0.37-0.4:1 zero offset L-shaped UST (P/N: 140-153100-XX, 900-300383-XX)* 0.65-0.75 zoom (P/N: 140-143109-XX) 0.75-0.95 zoom (P/N: 140-119102-XX) 0.95-1.22 zoom (P/N: 140-101103-XX) 1.22-1.52 zoom HP (P/N: 140-131106-XX) 1.52-2.89 zoom (P/N: 140-102104-XX) 2.9-5.50:1 zoom (P/N: 140-107109-XX) * Not compatible with DWU850-GS, DWU1075-GS and DWU1082-GS.
	DWU630-GS DWU6322-GS DWU7062-GS	0.65-0.75 zoom (P/N: 140-143109-XX) 0.75-0.95 zoom (P/N: 140-119102-XX) 0.95-1.22 zoom (P/N: 140-101103-XX) 1.22-1.53 zoom (P/N: 140-132107-XX) 1.22-1.53 zoom (P/N: 140-132107-XX) 1.52-2.89 zoom (P/N: 140-102104-XX) 2.9-5.50:1 zoom (P/N: 140-107109-XX)
Inspire Series	DWU760(A)-iS DWU860-iS DWU960-iS DWU960ST-iS 4K860(A)-iS	All projectors have a pre-existing lens installed that are compatible the V2 Rigging Frame.
HS Series	4K7-HS	0.38:1 fixed (P/N: 140-142108-XX, 900-300349-XX, 900-300413-XX)

Projector model		Compatible lenses
	4K10-HS	0.85-1.02:1 short throw zoom (P/N: 140-135100-XX) 1.20-1.73:1 zoom (P/N: 140-136101-XX) 1.7-2.12:1 zoom (P/N: 140-109101-XX) 2.12-2.83:1 zoom (P/N: 140-110103-XX) 2.83-5.66:1 zoom (P/N: 140-111104-XX) 5.66-10.18:1 zoom (P/N: 140-116109-XX)
	D13HD2-HS D13WU2-HS D16WU-HS D16HD-HS D20WU-HS D20HD-HS	0.38:1 fixed (P/N: 140-142108-XX, 900-300349-XX, 900-300413-XX) 0.65-0.75:1 zoom (P/N: 140-144100-XX) 0.84-1.02:1 zoom (P/N: 140-114107-XX) 1.02-1.36:1 zoom (P/N: 140-115108-XX) 1.2-1.50:1 zoom (P/N: 140-109101-XX) 1.5-2.0:1 zoom (P/N: 140-110103-XX) 2.0-4.0:1 zoom (P/N: 140-111104-XX) 4.0-7.2:1 zoom (P/N: 140-116109-XX) 7.2-10.8:1 zoom (P/N: 140-145101-XX)
	DWU15(A)-HS DWU19(A)-HS DWU23(A)-HS	0.38:1 fixed (P/N: 140-142108-XX, 900-300349-XX, 900-300413-XX) 0.65-0.75:1 zoom (P/N: 140-144100-XX) 0.84-1.02:1 zoom (P/N: 140-114107-XX) 1.02-1.36:1 zoom (P/N: 140-115108-XX) 1.2-1.50:1 zoom (P/N: 140-109101-XX) 1.5-2.0:1 zoom (P/N: 140-110103-XX) 2.0-4.0:1 zoom (P/N: 140-111104-XX) 4.0-7.2:1 zoom (P/N: 140-116109-XX) 7.2-10.8:1 zoom (P/N: 140-145101-XX)
	4K13(A)-HS 4K22(A)-HS	0.38:1 fixed (P/N: 140-142108-XX, 900-300349-XX, 900-300413-XX) 0.65-0.75:1 zoom (P/N: 140-144100-XX) 0.75-1.08 zoom (P/N: 140-159106-XX) 1.2-1.50:1 zoom (P/N: 140-109101-XX) 1.08-1.5 zoom (P/N: 140-158105-XX) 1.5-2.0:1 zoom (P/N: 140-110103-XX) 2.0-4.0:1 zoom (P/N: 140-111104-XX) 4.0-7.2:1 zoom (P/N: 140-116109-XX) 7.2-10.8:1 zoom (P/N: 140-145101-XX)
Jazz Series	DWU1800(A)-JS DWU2400(A)-JS 4K1600(A)-JS 4K2100(A)-JS	0.46:1 fixed (P/N: 140-142108-XX, 900-300413-XX) 0.78-0.90:1 zoom (P/N: 140-144100-XX) 0.90 -1.30 :1 zoom (P/N: 140-159106-XX) 1.3-1.8 :1 zoom (P/N: 140-158105-XX) 1.44-1.8:1 zoom (P/N:140-109101-XX) 1.8-2.4:1 zoom (P/N: 140-110103-XX) 2.4-4.8:1 zoom (P/N: 140-111104-XX) 4.8-8.64 :1 zoom (P/N: 140-116109-XX)

Projector model	Compatible lenses
	8.64-12.96:1 zoom (P/N: 140-145101-XX)

Safety warnings and guidelines

Read all safety and warning guidelines before starting this procedure.



Danger! If not avoided, the following results in death or serious injury.

- Do not stack the device unless specified in this manual.
- Do not stack more than three projectors in landscape orientation.
- The supporting structure must safely support the combined load of the product, all attached hardware, and components following all local safety standards and regulations.
- Use all mounting points, including the safety point, when installing the product overhead.
- Do not use vertical rigging points or the front and back bars when hoisting or securing the rigging frame.



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

- Only use this frame with the specified products.
- Safety straps must be used when stacking two or more rigging frames.
- Always install safety straps when the frame and projector are installed overhead.
- Do not stack empty frames.
- Projectors must be installed in frames before stacking.



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

- Use appropriate packaging when shipping the product installed in the frame.

Accessories and tools required

The following accessories and tools are required for installing the rigging frame.

GS Series accessories

- M6 x 45 screws and washers (quantity 4)—GS Series models with the lenses other than the 0.37-0.4:1 zero offset UST lens (P/N: 140-153100-XX), excluding 630-GS, DWU6322-GS, DWU7062-GS models
- M6 x 20 screws and washers (quantity 4)—GS Series models with the 0.37-0.4:1 zero offset UST lens (P/N: 140-153100-XX), excluding 630-GS, DWU6322-GS, DWU7062-GS models
- M6 x 35 screws and washers (quantity 4)—GS Series 630, DWU6322-GS, DWU7062-GS models only
- 20x7xH30 mm aluminum spacers (P/N: 012-104292-XX)—GS Series models with the lenses other than the 0.37-0.4:1 zero offset UST lens (P/N: 140-153100-XX), excluding 630-GS, DWU6322-GS, DWU7062-GS models
- 20x7xH15 mm aluminum spacers (P/N: 012-104293-XX)—GS Series 630, DWU6322-GS, DWU7062-GS models only

- 5 mm hex key

Inspire Series accessories

- M4 x 30 screws and washers (quantity 4)
- 20x5xH15 mm aluminum spacers (P/N: 012-104294-XX)
- 3 mm hex key

HS Series accessories

- M8 x 35 screws and washers (quantity 4)—HS Series 4K7-HS, 4K10-HS
- M8 x 40 mm screws and washers (quantity 4)—HS Series 4K13(A)-HS, 4K22(A)-HS, D13HD2-HS, D13WU2-HS, DWU15(A)-HS, D16WU-HS, D16HD-HS, DWU19(A)-HS, D20WU-HS, D20HD-HS, DWU23(A)-HS
- 19x8.5xH15 mm aluminum spacers (P/N: 012-103288-XX)
- 6 mm hex key

Jazz Series accessories

- M8x45 screws and washers (quantity 4)—DWU1800A-JS, DWU2400A-JS, 4K1600A-JS, 4K2100A-JS
- 4*23 MM spacers (P/N: 012-104390-XX)
- 6 mm hex key

Physical specifications

Learn the weight and physical dimensions of the Christie One Rigging Frame V2.

- Weight: 35 kg (77.2 lbs)
- Dimensions: 820 x 750 x 533 mm (32.3 x 29.5 x 21 inches)

Securing the projector to the stacking frame

Secure the projector to the stacking frame before stacking additional projectors.



Danger! If not avoided, the following results in death or serious injury.

- TIP HAZARD! Stacked frames must be secured together using all locking pins.
- Use all mounting points, including the safety point, when installing the product overhead.



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

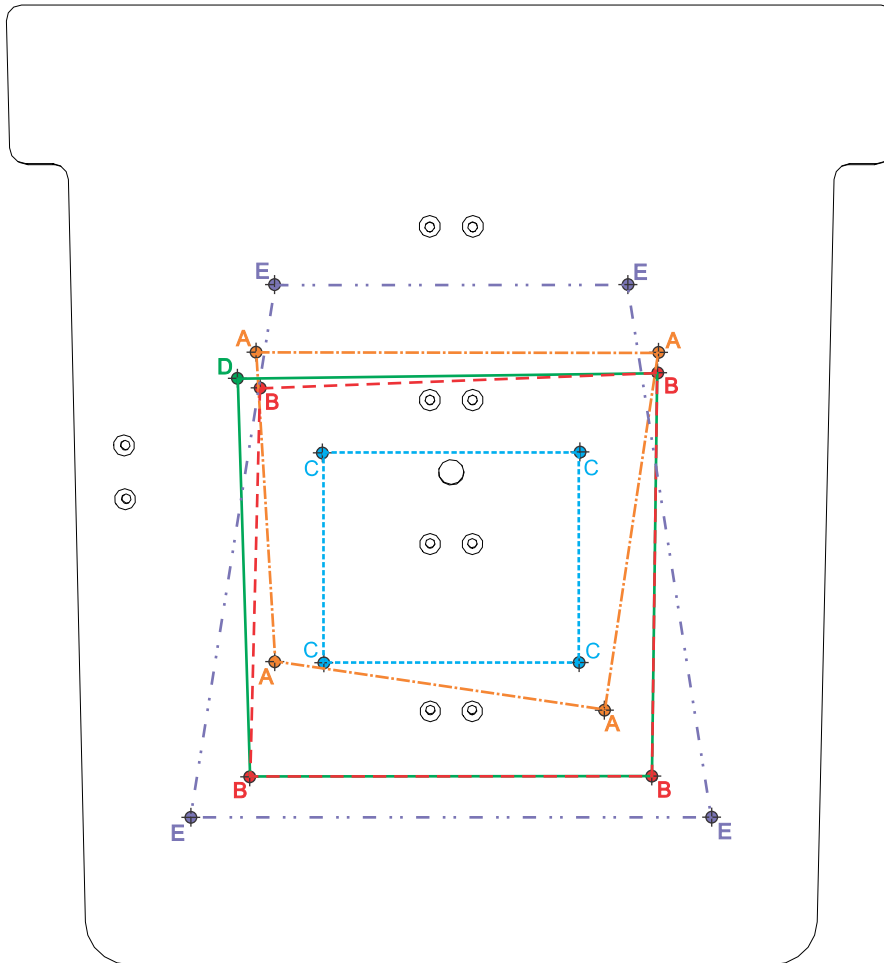
- A minimum of four people or appropriately rated lift equipment is required to safely lift, install, or move the product.
- The supporting structure must safely support the combined load of the product, all attached hardware, and components following all local safety standards and regulations.

1. Perform lens calibration for all lenses excluding the 0.37-0.4:1 zero offset UST (P/N: 140-153100-XX), 0.38:1 ultra short throw (P/N: 140-142108-XX), and 0.46:1 fixed (P/N: 140-142108-XX) lenses.
2. Turn off the light source and cool the projector for at least 15 minutes.
3. Turn off the projector and disconnect it from AC power.
4. Remove lens from projector, if installed.
5. Verify the base plate of the frame is in a flat position and is level.
6. Adjust the projector's feet so there is no extension.
The projector must sit flat on the base plate.
7. Prepare the base plate:
 - GS Series (DWU850-GS, DWU880(A)-GS, DWU1075-GS, DWU1082-GS, DWU8902-GS, DWU1100(A)-GS, DWU1400(A)-GS) with the lenses other than the 0.37-0.4:1 zero offset UST lens (P/N: 140-153100-XX)—Place the 30 mm spacer onto the base plate.
 - GS Series (DWU850-GS, DWU880(A)-GS, DWU1075-GS, DWU1082-GS, DWU8902-GS, DWU1100(A)-GS, DWU1400(A)-GS) with the 0.37-0.4:1 zero offset UST lens (P/N: 140-153100-XX)—Install the lens adapter plate (P/N: 140-156103-XX) and select the feet installation configuration of ceiling mount/system frame according to the *Installing the GS UST 0.37-0.4:1 Lens Instruction Sheet P/N: 020-103828-XX*.
 - GS Series (DWU630-GS, DWU6322-GS, DWU7062-GS)—Place the 15 mm spacer onto the base plate.
 - Inspire Series (DWU760(A)-iS, DWU860-iS, DWU960-iS, DWU960ST-iS, 4K860(A)-iS)—Place the 15 mm spacer onto the base plate.
 - HS Series (all models) with lenses other than 0.38:1 ultra short throw lens (P/N: 140-142108-XX) and (D13WU2-HS, D13HD2-HS, D16WU-HS, D16HD-HS, D20WU-HS, D20HD-HS) with the 0.38:1 ultra short throw lens (P/N: 140-142108-XX)—Place the 15 mm spacer onto the base plate.
 - HS Series (4K7-HS, 4K10-HS, 4K13(A)-HS, 4K22(A)-HS, DWU15(A)-HS, DWU19(A)-HS, DWU23(A)-HS) with the 0.38:1 ultra short throw lens (P/N: 140-142108-XX)—Install the UST lens stabilizer bracket (P/N: 003-006916-XX) by fastening the three M8x16 screws in the triangle center (4K7-HS, 4K10-HS) or the two outside M8 x 16 screws (4K13(A)-HS, 4K22(A)-HS, DWU15(A)-HS, DWU19(A)-HS, DWU23(A)-HS) according to the *Installing the Ultra Short Throw Lens Instruction Sheet (P/N: 020-103312-XX)*. Place the 15 mm spacer onto the base plate.
 - Jazz Series (DWU1800A-JS, DWU2400A-JS, 4K1600A-JS, 4K2100A-JS) with lenses other than 0.46:1 ultra short throw lens (P/N: 140-142108-XX)—Place the 23 mm spacer onto the base plate.
 - Jazz Series (DWU1800A-JS, DWU2400A-JS, 4K1600A-JS, 4K2100A-JS) with the 0.46:1 ultra short throw lens (P/N: 140-142108-XX)—Install the UST lens stabilizer bracket (P/N: 140-160108-XX) by fastening the three M8x16 screws in the center triangle according to the *Installing the Ultra Short Throw Lens Instruction Sheet (P/N: 020-104050-XX)*. Place the 23 mm spacer onto the base plate.
8. Carefully, insert the projector through the front or the rear of the rigging frame.
The projector should align with the mounting holes in the base plate.
 - For HS Series (D13WU2-HS, D13HD2-HS, D16WU-HS, D16HD-HS, D20WU-HS, D20HD-HS) with the 0.38:1 ultra short throw lens (P/N: 140-142108-XX), the UST lens stabilizer bracket (P/N: 003-006916-XX) must be inserted between the chassis of projector and the base plate of the rigging frame.

- For Jazz Series (DWU1800A-JS, DWU2400A-JS, 4K1600A-JS, 4K2100A-JS) with the 0.46:1 ultra short throw lens (P/N: 140-142108-XX), the UST lens stabilizer bracket (P/N: 140-160108-XX) must be inserted between the chassis of projector and the base plate of the rigging frame.

To make locating the mounting points of the projector easier, install a screw through one of the base plate's mounting holes.

9. Secure the projector to the correct mounting points, using four screws.
 - GS Series (DWU850-GS, DWU880(A)-GS, DWU1075-GS, DWU1082-GS, DWU8902-GS, DWU1100(A)-GS, DWU1400(A)-GS) with the lenses other than the 0.37-0.4:1 zero offset UST lens (P/N: 140-153100-XX)—Use M6-1.0, length = 45 mm, torque = 16 N.m.
 - GS Series (DWU850-GS, DWU880(A)-GS, DWU1075-GS, DWU1082-GS, DWU8902-GS, DWU1100(A)-GS, DWU1400(A)-GS) with the 0.37-0.4:1 zero offset UST lens (P/N: 140-153100-XX)—Use M6-1.0, length = 20 mm, torque = 16 N.m.
 - GS Series (DWU630-GS, DWU6322-GS, DWU7062-GS)—Use M6-1.0, length = 35 mm, torque = 16 N.m.
 - Inspire Series (DWU760(A)-iS, DWU860-iS, DWU960-iS, DWU960ST-iS, 4K860(A)-iS)—Use M4-0.7, length = 30 mm, torque = 16 Nm.
 - HS Series (HS Series 4K13(A)-HS, 4K22(A)-HS, D13HD2-HS, D13WU2-HS, DWU15(A)-HS, D16WU-HS, D16HD-HS, DWU19(A)-HS, D20WU-HS, D20HD-HS, DWU23(A)-HS)—Use M8-1.25, length = 40 mm, torque = 16 Nm.
 - HS Series (4K7-HS, 4K10-HS)—Use M8-1.25, length = 35 mm, torque = 16 Nm.
 - Jazz Series (DWU1800A-JS, DWU2400A-JS, 4K1600A-JS, 4K2100A-JS)—Use M8-1.25, length = 45 mm, torque = 16 Nm.



A	Orange	GS Series (DWU630-GS, DWU6322-GS, DWU7062-GS)
B	Red	GS Series (DWU850-GS, DWU880(A)-GS, DWU1075-GS, DWU1082-GS, DWU8902-GS, DWU1100(A)-GS, DWU1400(A)-GS) with the lenses other than the 0.37-0.4:1 zero offset UST lens (P/N: 140-153100-XX)
B+D	Green	GS Series (DWU850-GS, DWU880(A)-GS, DWU1075-GS, DWU1082-GS, DWU8902-GS, DWU1100(A)-GS, DWU1400(A)-GS) with the 0.37-0.4:1 zero offset UST lens (P/N: 140-153100-XX)
C	Blue	Inspire Series (DWU760(A)-iS, DWU860-iS, DWU960-iS, DWU960ST-iS, 4K860(A)-iS)
E	Purple	HS Series (HS Series 4K7-HS, 4K10-HS, 4K13(A)-HS, 4K22(A)-HS, D13HD2-HS, D13WU2-HS, DWU15(A)-HS, D16WU-HS, D16HD-HS, DWU19(A)-HS, D20WU-HS, D20HD-HS, DWU23(A)-HS) Jazz Series (DWU1800A-JS, DWU2400A-JS, 4K1600A-JS, 4K2100-JS) The two front holes in the front are shared with the UST lens stabilizer bracket (P/N: 003-006916-XX for HS Series and P/N: 140-160108-XX for Jazz Series).

10. Before adjusting the ultra short throw lens (P/N: 140-142108-XX for HS Series and Jazz Series), do the following:

- For HS Series, from the on-screen display menu navigate to **Main Menu > Configuration > Service > Lens Speed** and select **UST**.
For more details, see the *Installing the Ultra Short Throw Lens instruction sheet (P/N: 020-103312-XX)*.
- For Jazz Series, from the on-screen display menu navigate to **Main Menu > Configuration > Service > Lens Speed** and select **UST**.
For more details, see the *Installing the Jazz Series Ultra Short Throw Lens instruction sheet (P/N: 020-104050-XX)*.

Stacking multiple framed projectors

Up to three framed projectors can be stacked in landscape orientation only, and then rigged in an upright or inverted position. Stacking in portrait orientation is not permitted.



Danger! If not avoided, the following results in death or serious injury.

- TIP HAZARD! Stacked frames must be secured together using all locking pins.
- Do not stack the device unless specified in this manual.



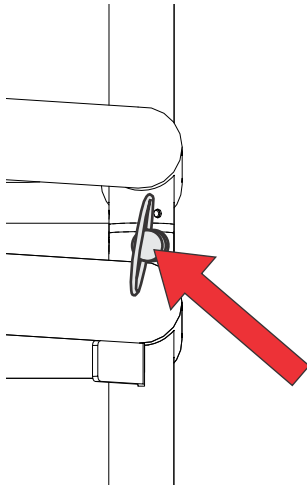
Warning! If not avoided, the following could result in death or serious injury.

- A minimum of four people or appropriately rated lift equipment is required to safely lift, install, or move the product.
- The supporting structure must safely support the combined load of the product, all attached hardware, and components following all local safety standards and regulations.
- Do not stack more than three projectors in landscape orientation.
- Do not stack empty frames.
- Projectors must be installed in frames before stacking.

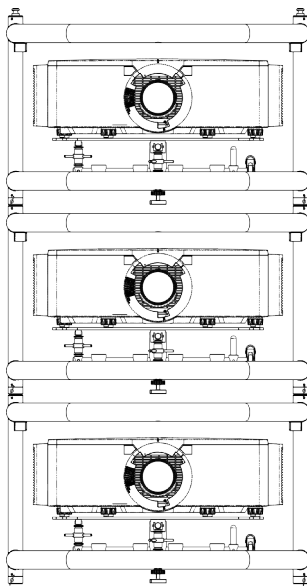
1. Remove the locking pins from each stacking leg.
2. With one person positioned on each side of the framed projector, lift the assembly and place it onto the bottom frame.

Stacking in portrait orientation is not permitted

3. Verify the four stacking legs of the upper assembly are securely seated on the bottom frame.
4. Insert a locking pin through each of the stacking legs to lock the frames together.
The steel ball on the end of the pin keeps the pin from releasing inadvertently.



5. Install safety straps (not included) between the frames. Safety straps must be adequately rated for the total load.
6. When stacking a third framed projector, repeat steps 1 to 4.



Aligning stacked projectors

Stacked projectors must be correctly aligned to one another to achieve an optimally displayed image.

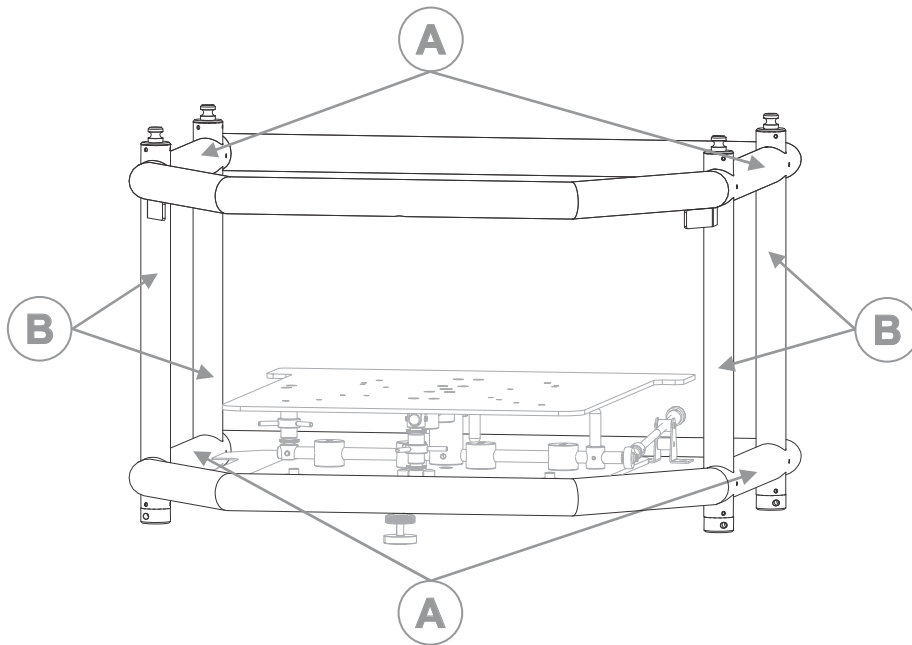


Warning! If not avoided, the following could result in death or serious injury.

- Do not use vertical rigging points or the front and back bars when hoisting or securing the rigging frame.

1. Hoist and secure a stack of projectors before aligning.

Only use the horizontal rigging points (A in the image below) on the rigging frame; do not use the vertical rigging points (B in the image below) or front and back bars when hoisting or securing the rigging frame.

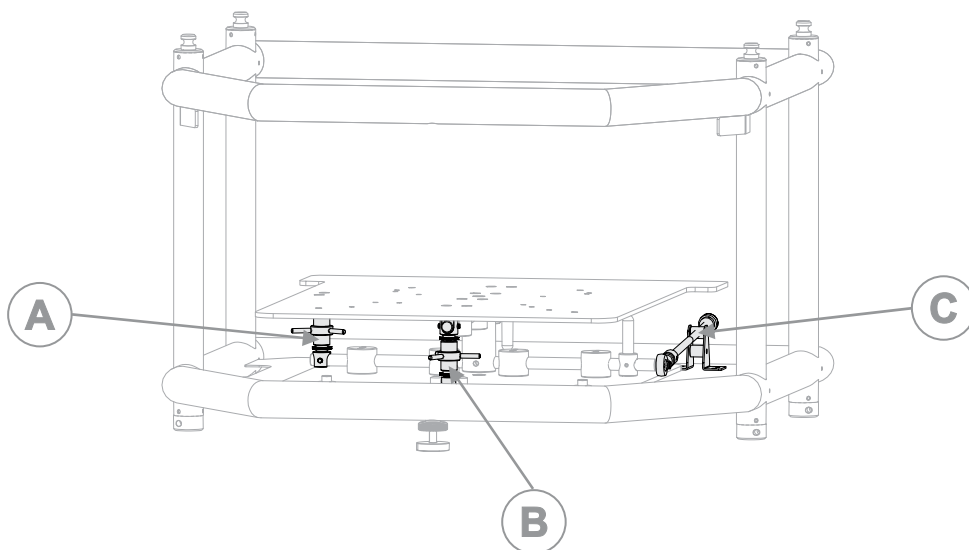


2. Loosen the locking screws on each adjustment knob.
3. Before adjusting the yaw, loosen the four screws on the base plate; otherwise, the adjustment knob can break during adjustment.



With the lens adapter plate (P/N: 140-156103-XX), the negative offset of the 0.37-0.4:1 ultra short throw lens (P/N: 140-153100-XX) is 13% in table mode. If the light path of the negative horizontal in table mode for the 0.38:1 (for HS series) and 0.46:1 (for JS series) ultra short throw lens (P/N: 140-142108-XX) is blocked (for example, by the projector), refer to the Christie website (www.christiedigital.com) for the detailed lens offset.

4. Adjust pitch, roll, or yaw until the image geometry is optimized.

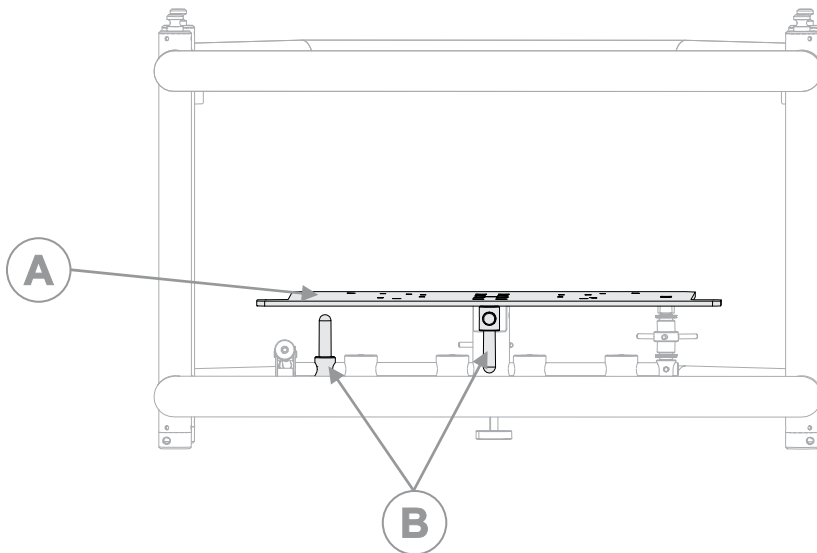


A	Roll—Rotates the image clockwise or counter-clockwise.
B	Pitch—Moves the image up and down.

C	Yaw—Moves the image to the left or right.
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5. For pitch and roll, make sure the gap between the pin (B) and the plate (A) is more than 0.5 mm.

The pin limits the adjustment within the useful range.



6. To lock adjustments, tighten the setscrews on each adjustment knob.

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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