

Boresight Alignment Instruction Sheet

Safety Warnings and Guidelines



Boresight alignment must be performed by qualified personnel.



Observe all electrostatic precautions.

Introduction

Use these instructions when adjusting boresight on any CT lens mount equipped projector.

Projector Model	Model Number
DS+8K-J	132-004206-XX, 132-004408-XX
Mirage DS+8K-J	132-004228-XX, 132-004420-XX
HD7K-J	132-005207-XX, 132-005409-XX
Mirage HD7K-J	132-005229-XX, 132-005421-XX
DS+10K-J	132-007209-XX, 132-007401-XX
HD9K-J	132-008200-XX, 132-008402-XX
Mirage WU7K-J	132-006220-XX, 132-006422-XX
Matrix WU7K-J	132-006231-XX, 132-006433-XX
Roadster S+14K-J	132-010214-XX, 132-006433-XX
Mirage S+14K-J	132-010225-XX, 132-010427-XX
Roadster HD14K-J	132-011215-XX, 132-011417-XX
Mirage HD14K-J	132-011226-XX, 132-011428-XX
Mirage WU14K-J	132-012227-XX, 132-012429-XX
Matrix WU14K-J	132-012238-XX, 132-012430-XX
Roadster S+18K-J	132-013217-XX, 132-013419-XX
Mirage S+18K-J	132-013228-XX, 132-013420-XX
Roadster HD16K-J	132-014218-XX, 132-014410-XX
Mirage HD16K-J	132-014229-XX, 132-014421-XX

Projector Model	Model Number
Roadster S+22K-J	132-016210-XX, 132-016412-XX
Mirage S+22K-J	132-016221-XX, 132-016423-XX
Roadster HD20K-J	132-017211-XX, 132-017413-XX
Mirage HD20K-J	132-017222-XX, 132-017424-XX
Roadster WU20K-J	132-018212-XX, 132-018414-XX
Mirage WU20K-J	132-018223-XX, 132-018425-XX
Matrix WU20K-J	132-018234-XX, 132-018436-XX
Matrix 4000	38-DSP104-XX
Matrix HD Series	104-016101-XX
Matrix S+ Series	38-DSP102-XX, 38-DSP104-XX
Mirage S+ Series	38-DSP102-XX, 38-DSP104-XX, 38-DSP106-XX, 38-DSP214-XX
Mirage HD Series	104-012101-XX, 104-013101-XX, 104-014101-XX
DLV1920-DX	104-017101-01
DLV1400-DX	38-DSP102-XX
Christie DS+5K/Kc	38-DSP104-XX
Christie DS+8K/Kc	38-DSP106-XX
Christie DW3K/Kc	38-DHD103-XX
Christie DW6K/Kc	38-DHD106-XX
Christie HD Series	104-006101-XX, 104-007101-XX, 104-008101-XX
Roadster S+ Series	38-DSP206-XX, 38-DSP210-XX, 38-DSP214-XX
Roadster HD12K	104-010101-01

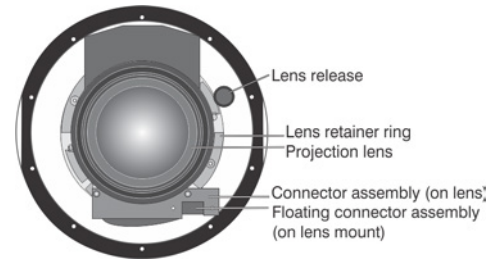
Tools Required

- Phillips screwdriver
- 5 mm hex driver
- 2.5 mm hex driver

Instructions

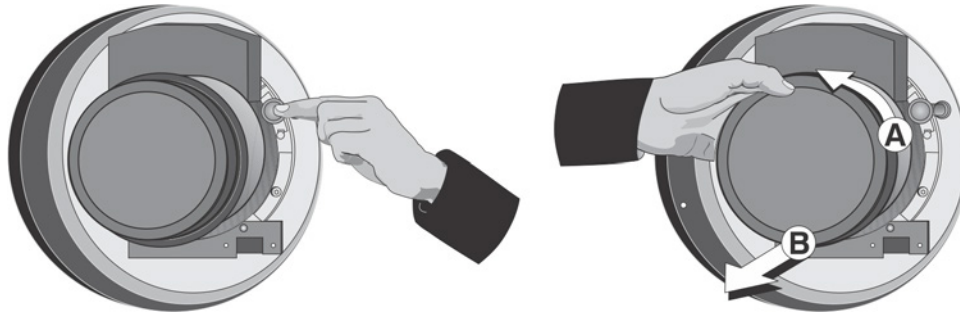
Remove the Projection Lens

1. Place a front lens cap over the front end of the lens to protect it from damage.
2. Press and hold the lens release button located on the top-right corner of the lens panel.
3. Grasp the lens barrel and turn it in a counter-clockwise direction until it stops.



The connector assembly moves as you turn the lens

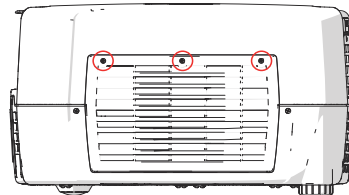
4. Pull the lens straight out of the lens mount.
5. Place the rear lens cap over the rear end of the lens to protect it from damage.



Access the Lens Mount

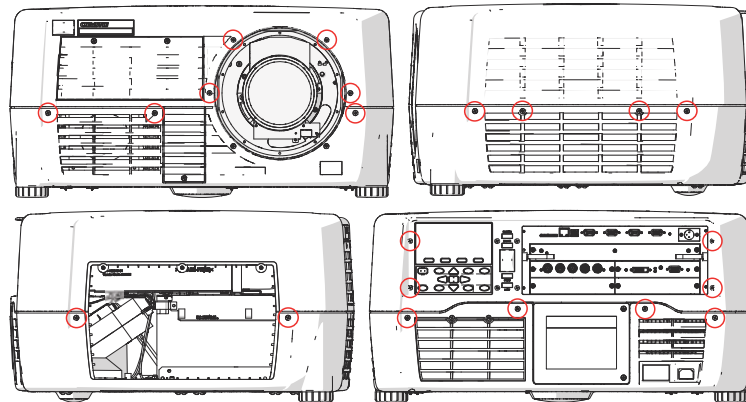
500W, 1000W and 1200W models

1. Remove the projection lens, as described in *Remove the Projection Lens* on page 3.
2. Remove the top cover:
 - a. Remove the 3 screws securing the left side filter door.



- b. Remove the filter door.

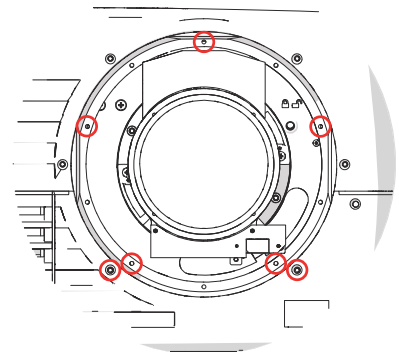
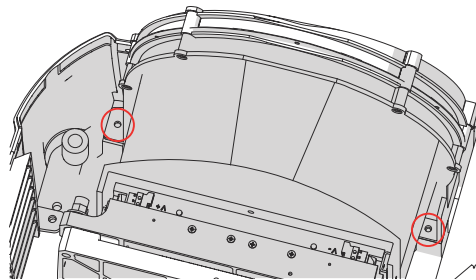
- c. Remove the 21 screws securing the top cover.



- d. Remove the top cover.

- 3. Remove the front lens bezel:

- a. Remove the 5 screws on the retaining ring securing the dust boot to the lens mount and the 2 screws securing the front lens bezel to the bottom cover.
- b. Remove the 2 screws securing the front lens bezel to the bottom chassis.



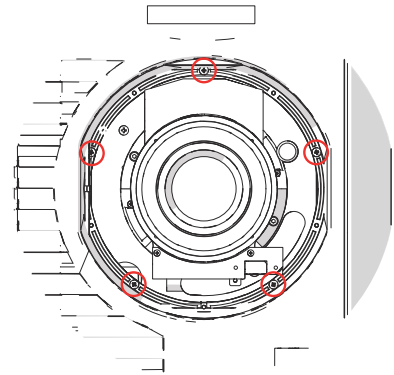
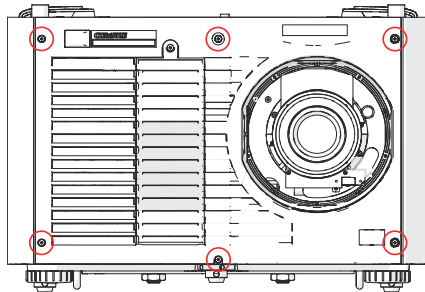
- c. Remove the lens bezel with the dust boot still attached.

- 4. Install the projection lens, as described in [Install the Projection Lens](#) on page 5.
- 5. Perform boresight alignment, as described in [Align Boresight](#) on page 6.

2.0kW, 2.4kW and 3.0kW models

- 1. Remove the projection lens, as described in [Remove the Projection Lens](#) on page 3.

2. Remove the front cover:
 - a. Remove the 5 screws on the retaining ring securing the dust boot to the lens mount.
 - b. Remove the 6 screws securing the front cover.



- c. Remove the front cover.
3. Install the projection lens, as described in *Install the Projection Lens* on page 5.
4. Perform boresight alignment, as described in *Align Boresight* on page 6.

Install the Projection Lens

1. Remove the rear lens cap from the lens.
2. Line up the lens connector with the lens mount connector at the bottom of the lens mount.
3. Insert the lens into the lens opening and make sure the mounts on the lens are lined up with the recessed plates on the lens mount.
4. With the lens fully inserted and connected, turn it clockwise until the lens release button pops out to indicate that the lens is locked in place.

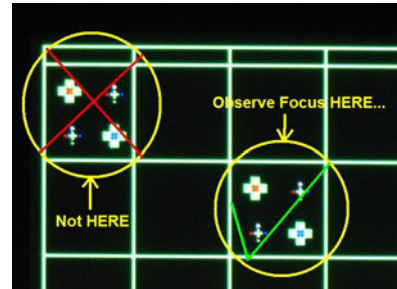
Special Considerations

When aligning boresight on the DLV1400-DX model, observe the following points:

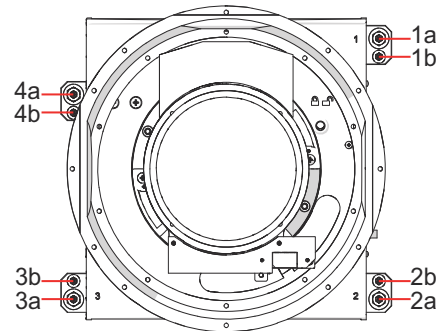
- Use a 1.2:1 fixed lens.
- Position the projector until the exit face of the lens is five feet from the wall.
- Focus the image. Boresight must be performed in this focal position.

Align Boresight

1. Display the **Grid** test pattern.
2. To display only green, using the remote, press **FUNC+6+2**.
3. Focus the lens on the screen at the correct size for the throw ratio of the lens (approximately the center of the focus range).
4. Adjust the lens offsets and the projector position until the image is centered on the lens and is aligned to the screen.
 - If unwanted vertical keystone is observed, adjust the projector feet until the projected image appears rectangular.
 - If unwanted horizontal keystone is observed, rotate the projector slightly until the projected image appears rectangular.



5. Loosen screws 1b, 2b, 3b, 4b, and 4a.
6. Adjust screws 1a, 2a, and 3a until the best focus is observed across the entire image.
 - To adjust focus on the top and bottom of the image, turn screw 1a clockwise or counter-clockwise.
 - To adjust focus on the sides of the image, turn screws 2a and 3a clockwise or counter-clockwise.



7. Tighten the screws in the order: 3b, 1b, 2b, 4b, and 4a.



Tighten each screw a little bit at a time, cycling through the screw order until all screws are tight. Make sure the image does not move and focus is maintained across the image.

8. Replace the parts removed while accessing the lens mount, in [Access the Lens Mount](#) on page 3.