



DEEP EPIC – Nikonos RS Adapter Kit

Setup, Use, and Care Guide ADDENDUM

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This manual and current revision is available in 8.5 x 11 size and full color at

<http://www.gateshousings.com/documentation.html>

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1: Introduction

The Nikonos RS Kit allows you to utilize Nikonos RS lenses with DEEP EPIC.

Warranty Disclaimer

The Nikonos RS Kit is an accessory item for DEEP EPIC. It is a tool that, like any tool, requires knowledge and understanding to be effective.

Your responsibility is to learn the proper setup, use and care of the Nikonos RS Kit

We warrant Nikonos RS Kit as an image acquisition tool for a period of 2 years.

Gates does not warrant optical performance or image quality.

If you have any questions about this accessory kit, contact Gates directly. Details are in section 3.

Unpacking the Nikonos RS Kit

The items included in your kit are listed below. If you discover any discrepancies, contact Gates or your dealer immediately for assistance.

Kit Components

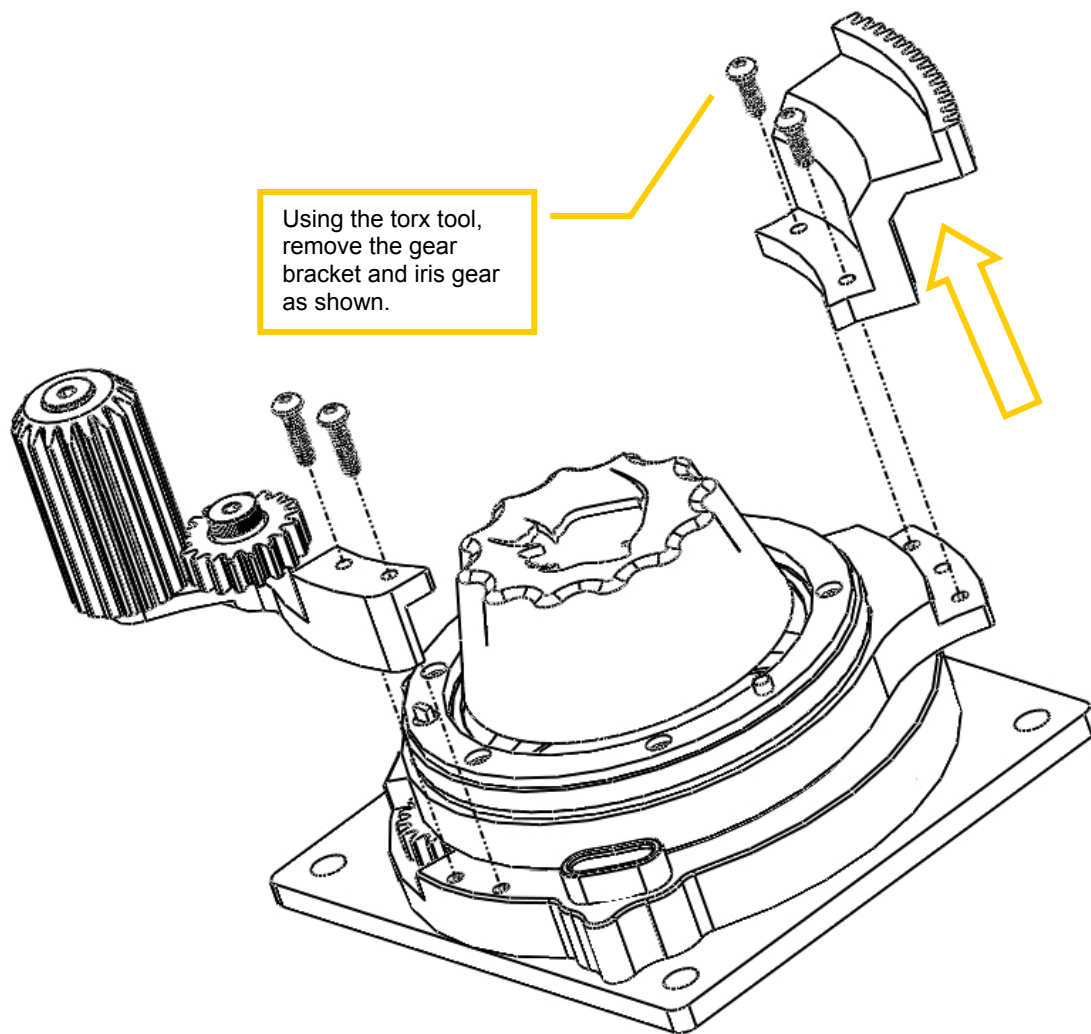
- ☐ Nikonos RS Lens Mount Adapter for RDC Epic cameras (1ea)
- ☐ Nikonos RS Lens Mount screws M4 x 5mmL (4ea)
- ☐ Lens Mount Adapter body cap (1ea)
- ☐ Bulkhead Cover (1ea)
- ☐ Alignment Guide & 1/4-20 mount screws (3 ea)
- ☐ Guide Bars 1.25" long (2ea)
- ☐ Drive Shafts 1.25" long (2ea)
- ☐ Torx Tool size 1.3 (1ea)
- ☐ Spare screw kit M2 x 6mmL (8ea)
- ☐ Spare Bulkhead Cover o-ring (1 ea)
- ☐ This instruction manual

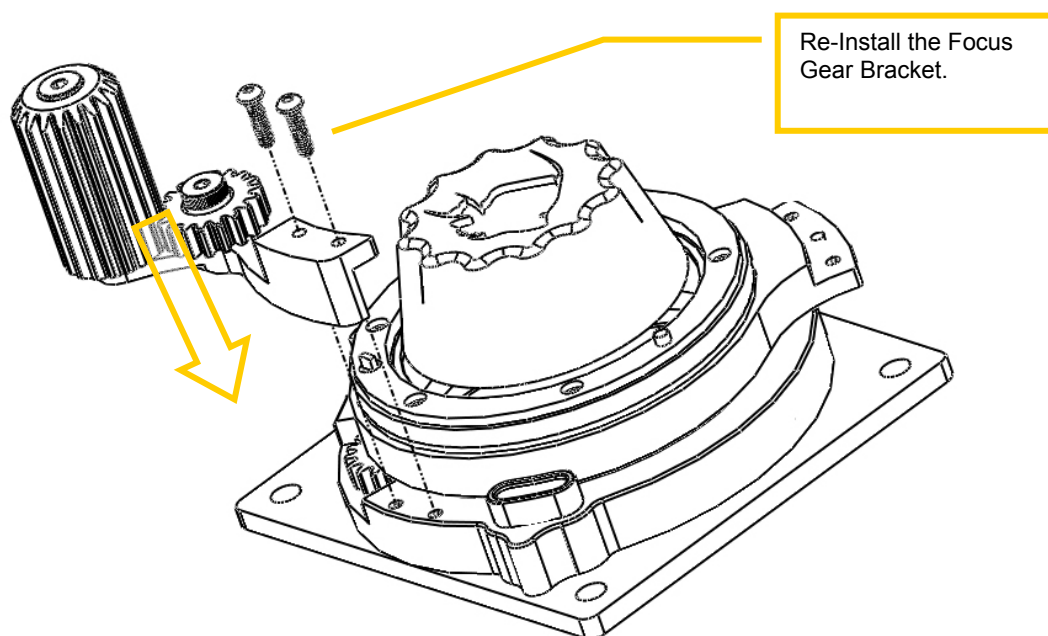
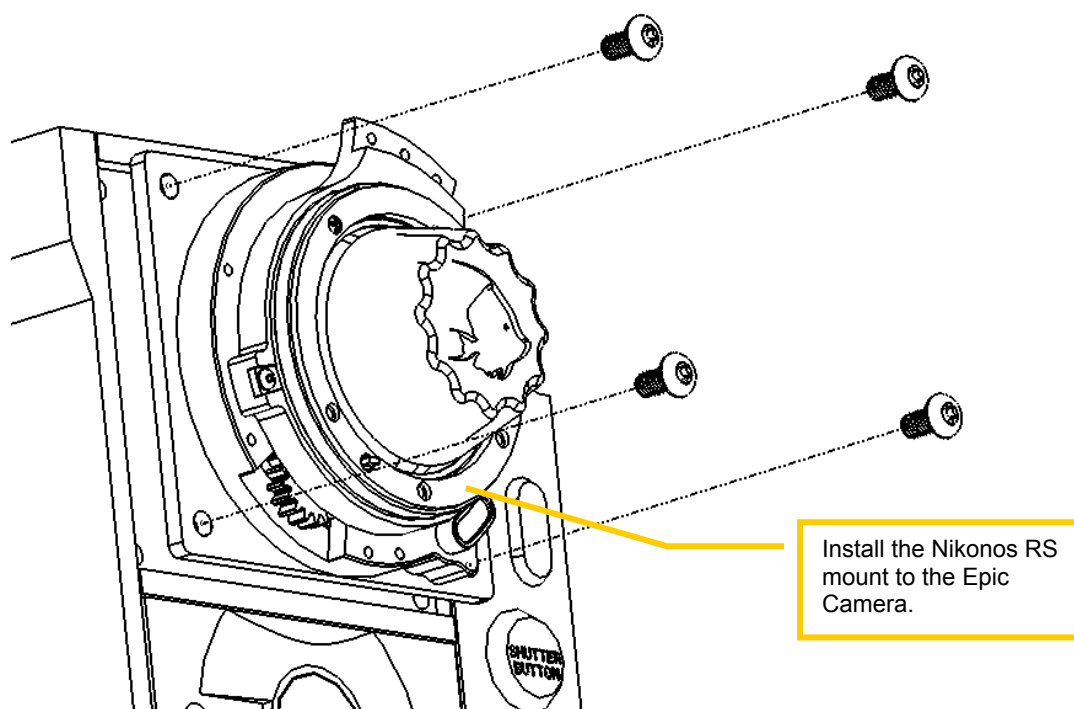
2: Setup

These instructions are an addendum to the setup section in the DEEP EPIC Setup, Use and Care Guide. Familiarity with the basic setup of DEEP EPIC is a prerequisite for these instructions.

Nikonos RS Mount Adapter

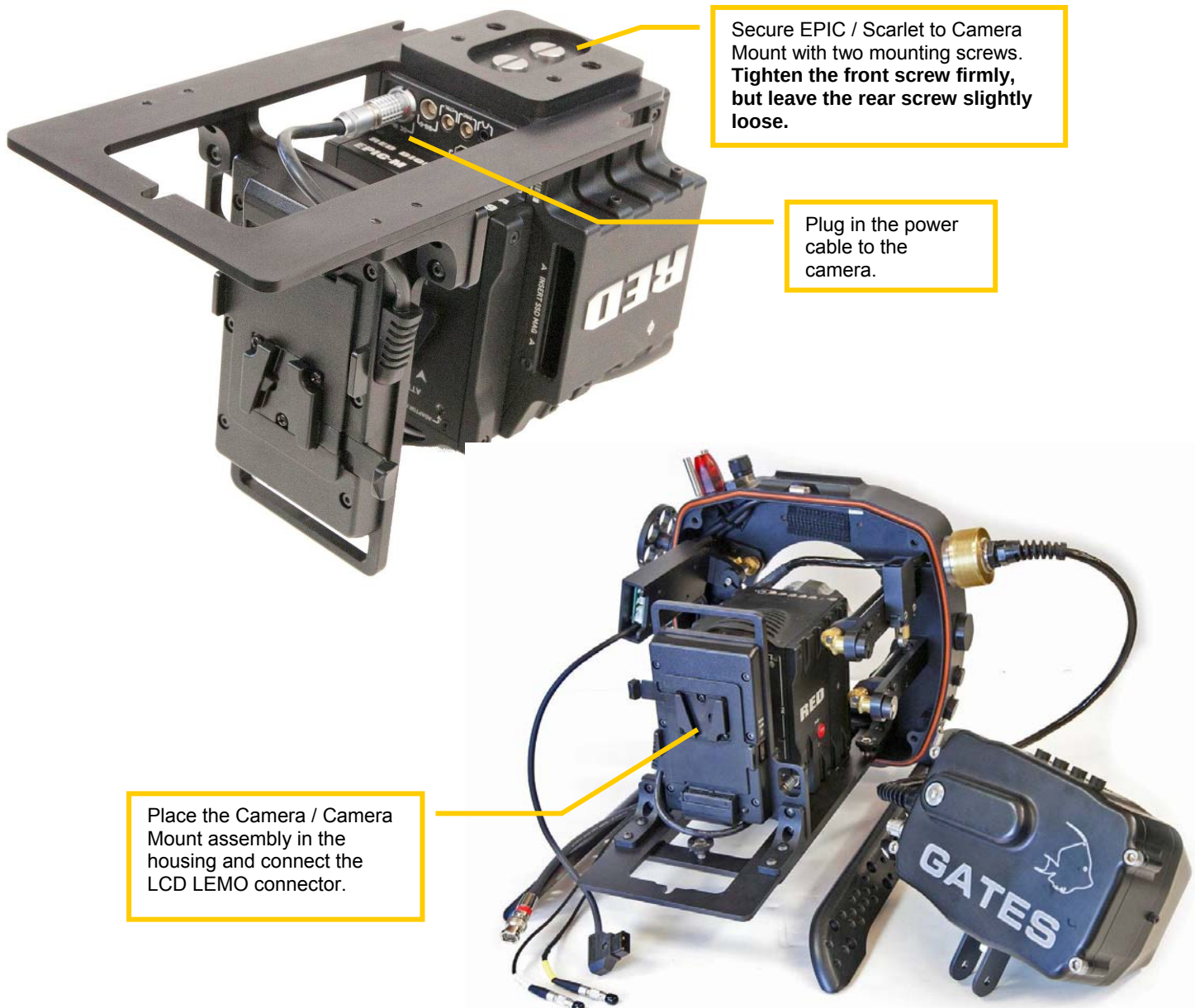
- ❑ **Remove the Iris Gear and Focus Gear on Bracket** as shown in the image.
- ❑ **Install the Nikonos RS Mount** to the Epic camera.
- ❑ **Re-install the Focus Gear Bracket to the Nikonos RS Mount.**





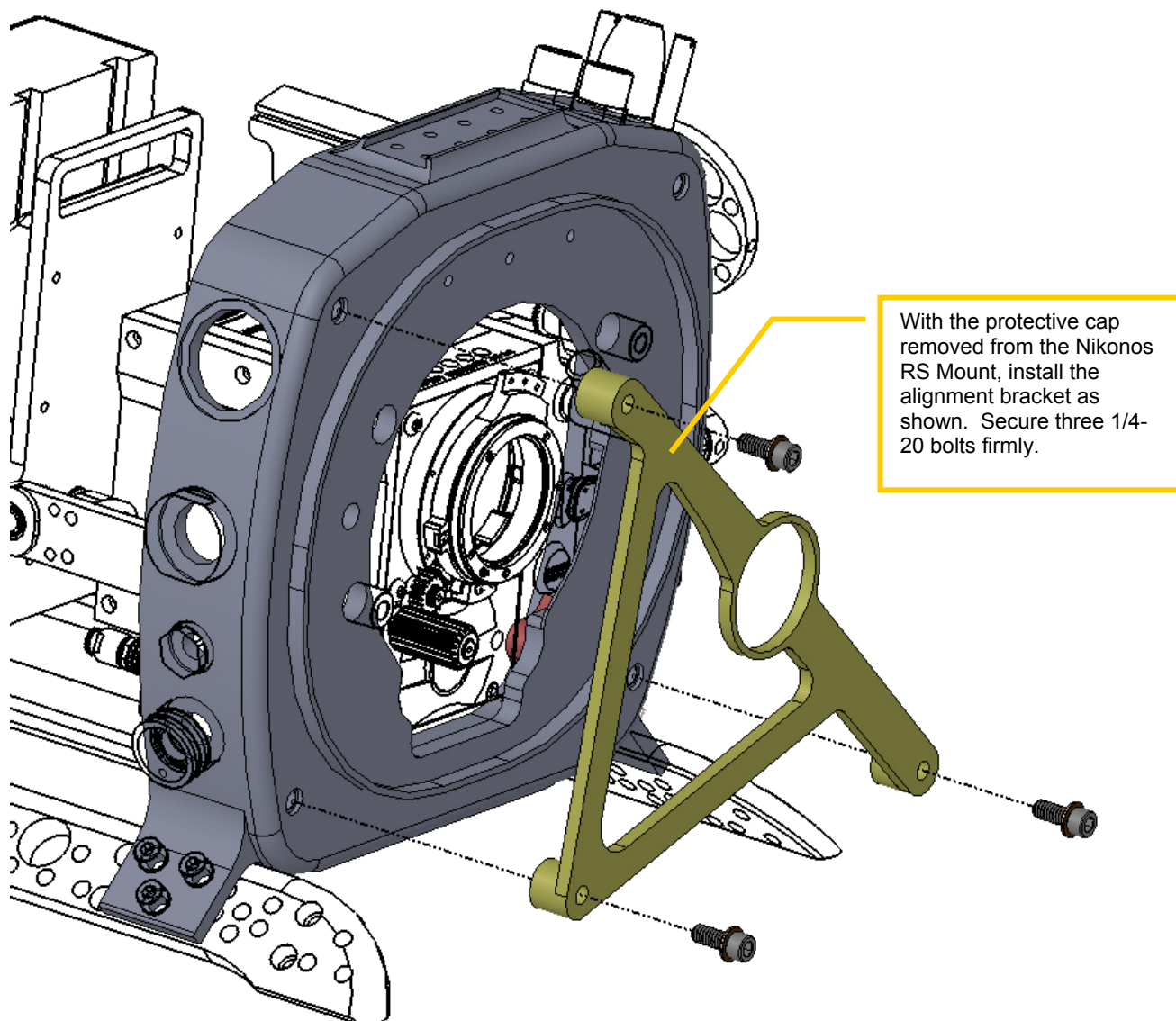
Camera Installation

- ❑ **Secure the Epic camera to the Camera Mount.** Tighten the forward 3/16-18 screw very firmly, but leave the rear screw slightly loose. This measure will allow fine adjustment to alignment later.
- ❑ **Install the camera to DEEP EPIC housing** and connect the LCD LEMO connector and Power Cable as shown. Details on this procedure are found in the DEEP EPIC guide, page 16.
- ❑ **DO NOT FULLY ENGAGE THE CAMERA** forward into the housing at this time.

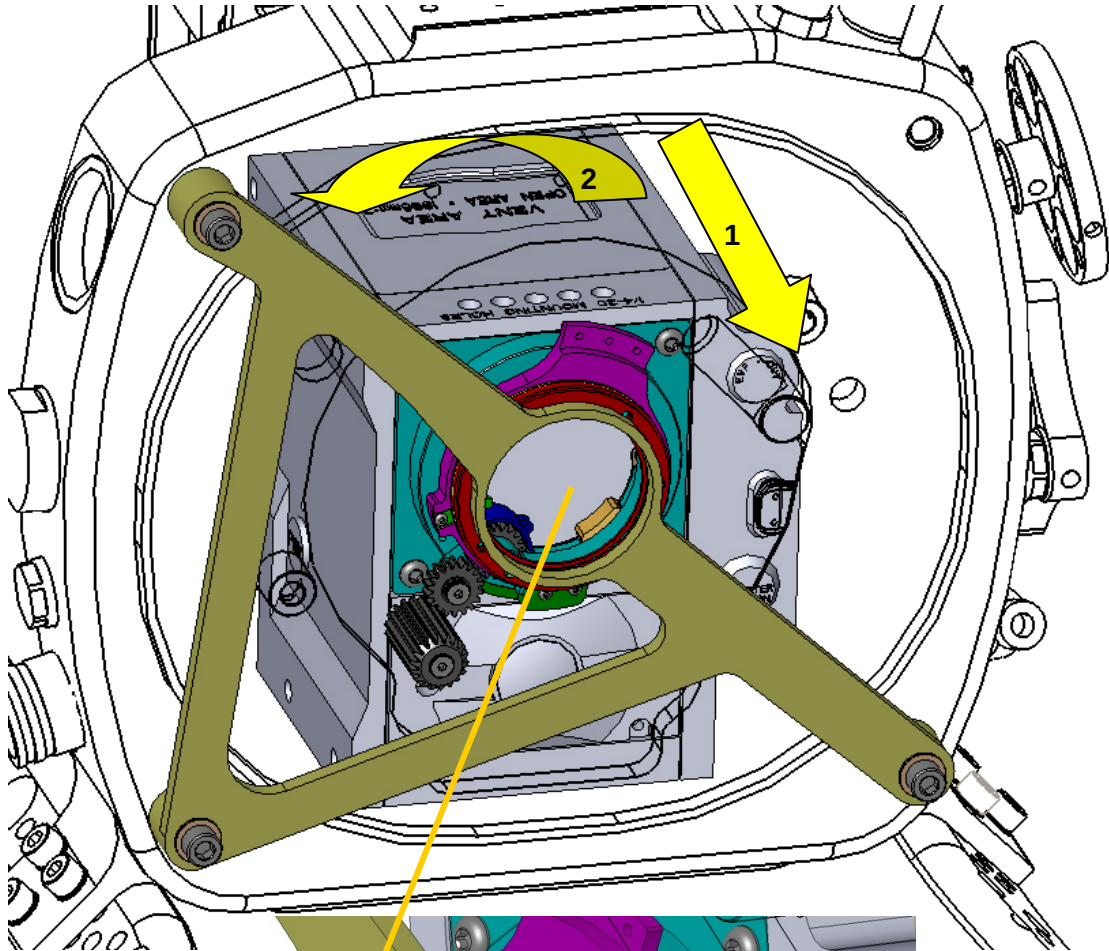


Camera Alignment

- ❑ Remove the protective body cap from the Nikonos RS mount.
- ❑ Secure the Alignment Guide to the front bulkhead as shown.

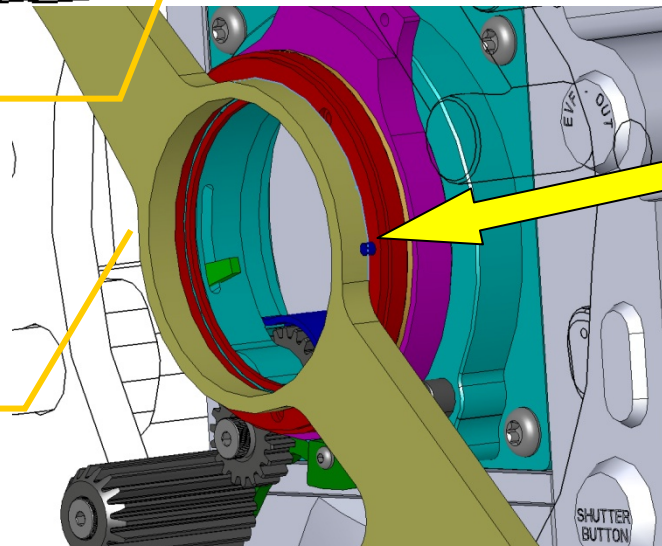


- **Slide the camera gently forward** until the Nikonos RS mount mates with the alignment guide.
- **Align the camera to the guide.** Move the rear of the camera slightly left or right so the Nikonos **RS flange mount is flush with the alignment guide**. Visually inspect this mating area for gaps – there should be none.

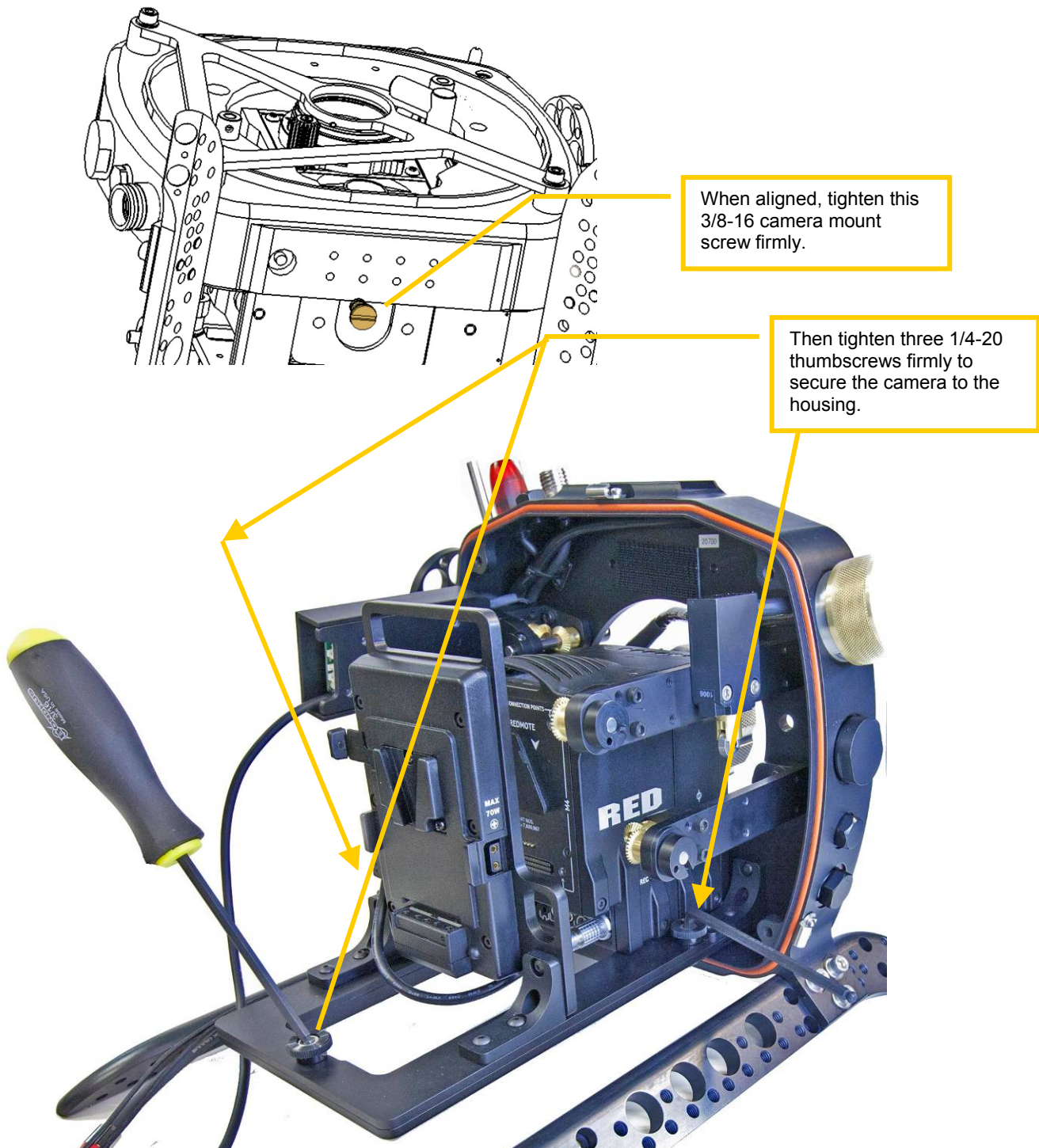


Gently slide the camera forward until it mates with the alignment guide. Then move the rear of the Epic camera left / right until the Nikonos RS mount flange is flush with the alignment guide.

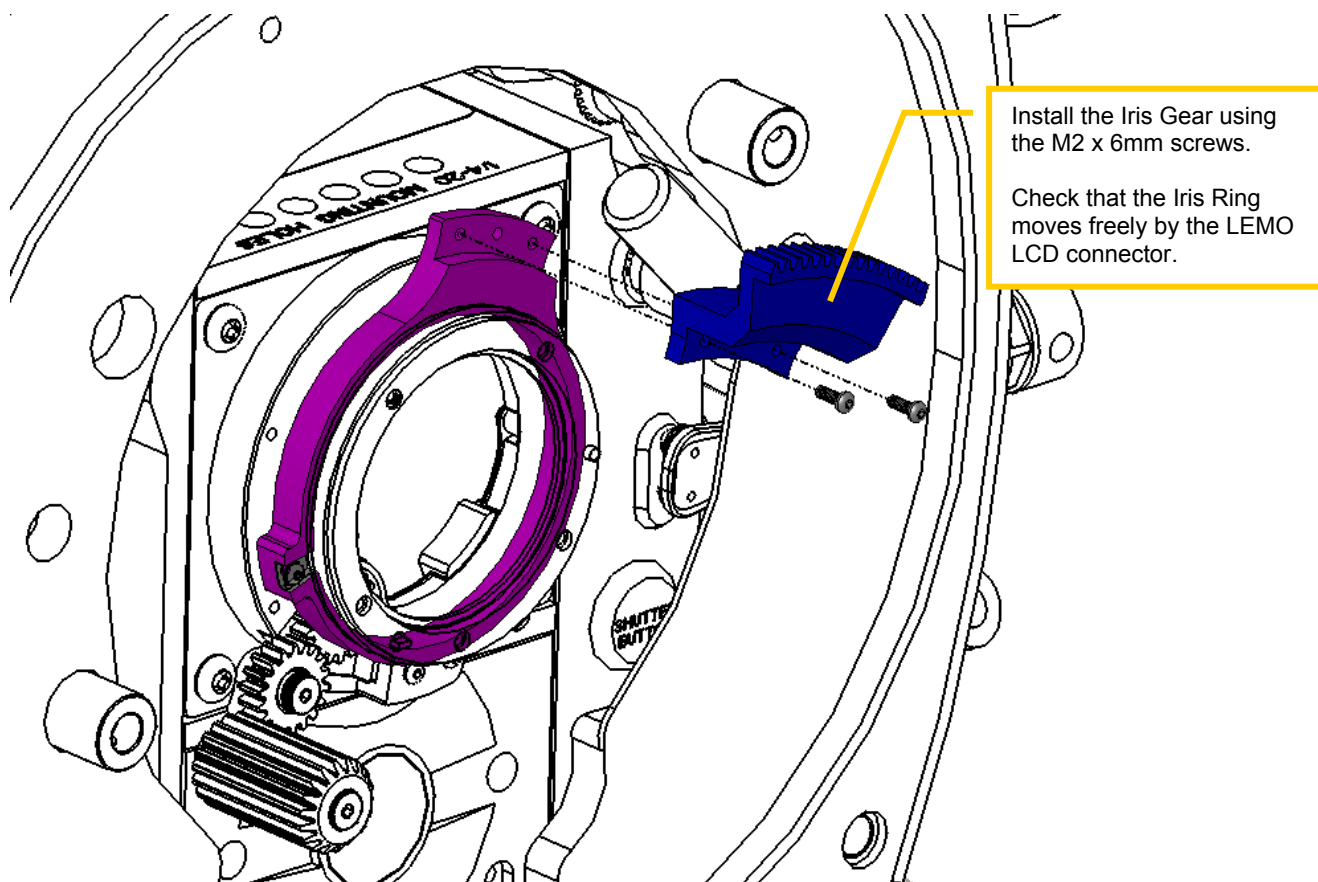
When aligned, there are no gaps between Nikonos RS Mount flange and the alignment guide.



- ❑ **Secure the Epic camera to the Camera Mount.** Once the camera and guide are aligned, tighten rear 3/8-16 mount screw below the camera mount.
- ❑ **Secure the Camera Mount to the housing.** Now tighten three 1/4-20 thumbscrews that secure the Camera Mount to the housing.
- ❑



- **Remove the alignment guide.**
- **Install the Iris Gear as shown.** Once installed, check that the Iris Ring moves freely around the LEMO LCD connector.

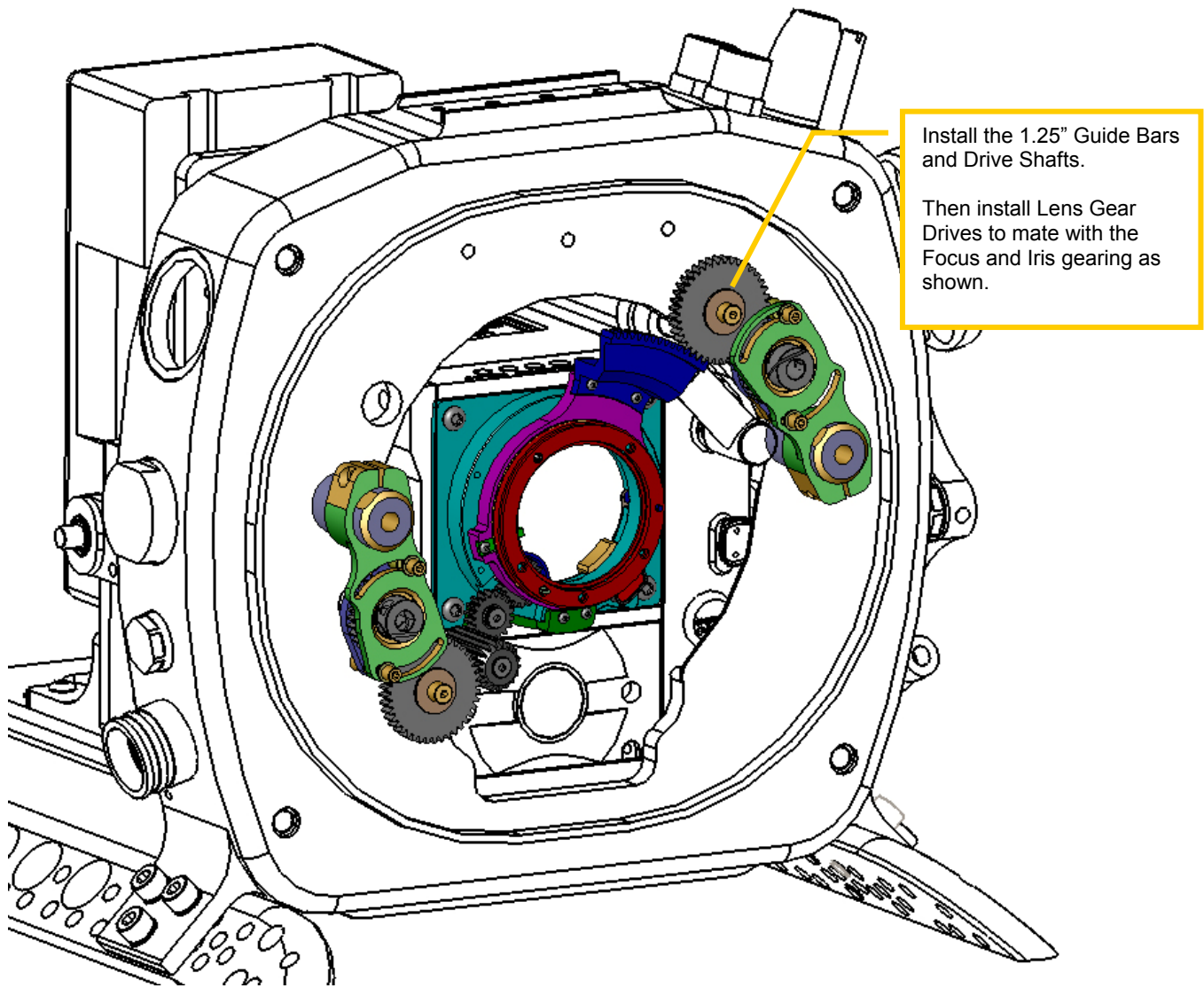


Lens Mounting

- ❑ **Install 1.25" Guide Bars and 1.25" Drive Shafts.**
- ❑ **Install Lens Gear Drives (LGD's).** The procedure for installation follows that found in the DEEP EPIC SU&C Guide. Refer to that document for specifics.

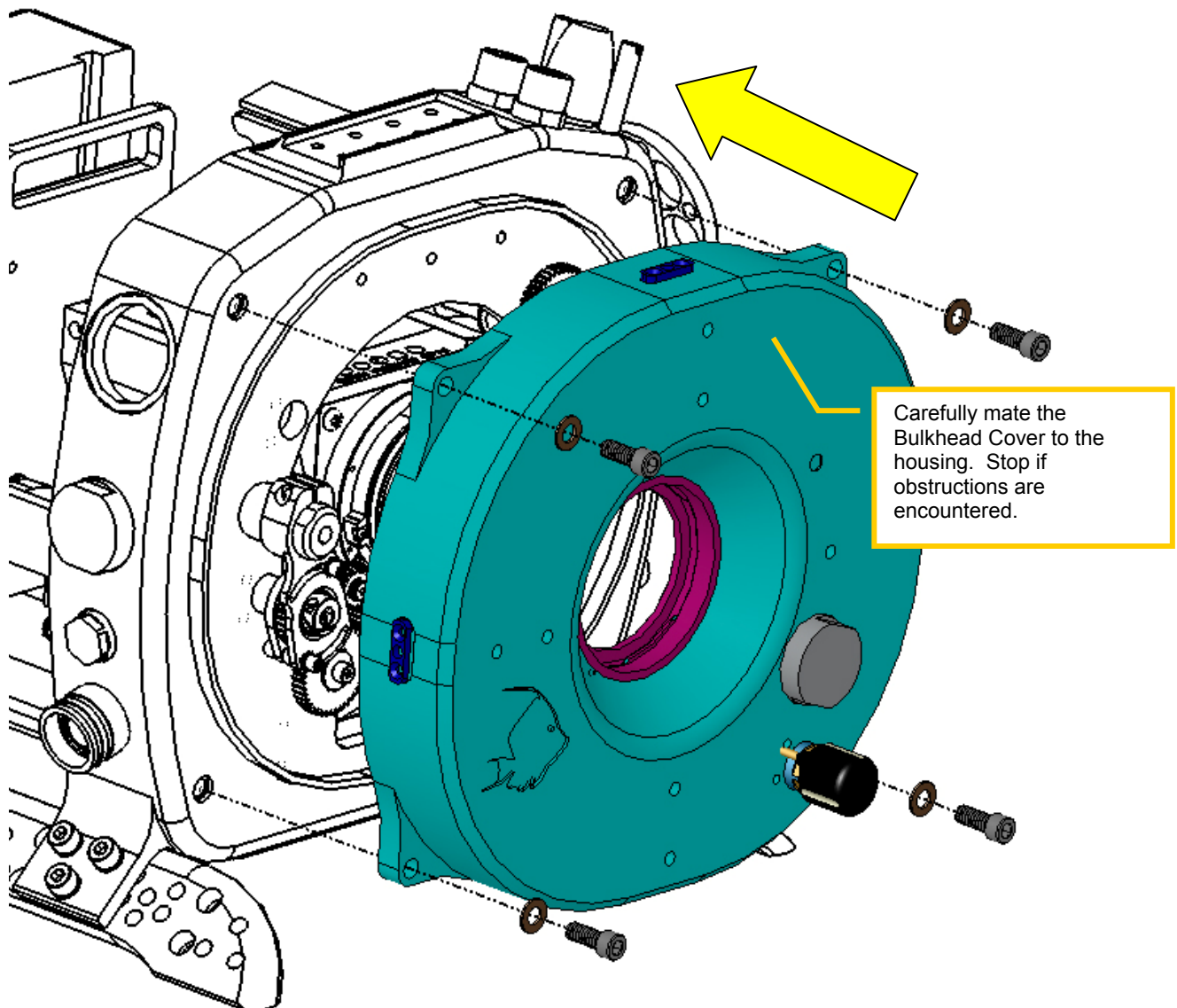
The focus LGD mates with the gearing on the lower left side of the Nikonos RS Mount.

The iris LGD mates with the Iris Gear installed in the previous steps.



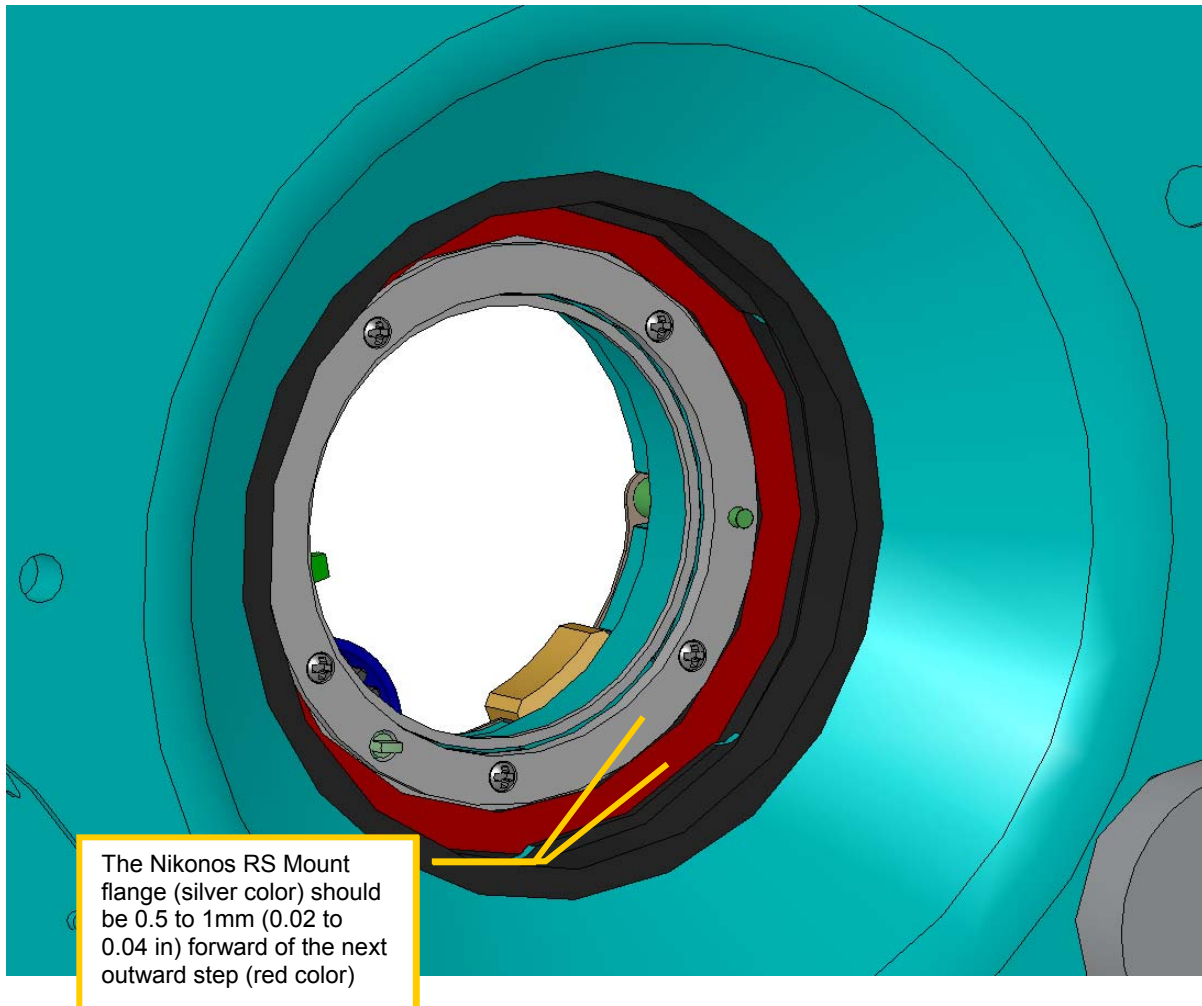
- ❑ **Carefully mate the Bulkhead Cover** to the main housing shell. The cover will mate OVER the Nikonos RS Mount flange.
- ❑ **Visually inspect the perimeter of the Bulkhead Cover** for any gaps or interference. If you find any, stop and determine the problem.
- ❑ **Tighten the Bulkhead Cover screws** evenly in a cross-pattern. Tighten firmly.

CAUTION: Use care when mating the Bulkhead Cover to the Nikonos RS Mount. Failure to do so could result in damage.



- **Visually Check the Nikonos RS Mount and Bulkhead Cover mate.** The Nikonos RS Mount flange (the innermost ring of silver color) – should be ~ 0.5 to 1mm (0.02 to 0.04 in) forward of the next step on the Bulkhead Cover (shown in red color). It should also be an even step around the perimeter.

If you see more then 0.5 to 1mm difference or uneven step, stop and determine the cause.

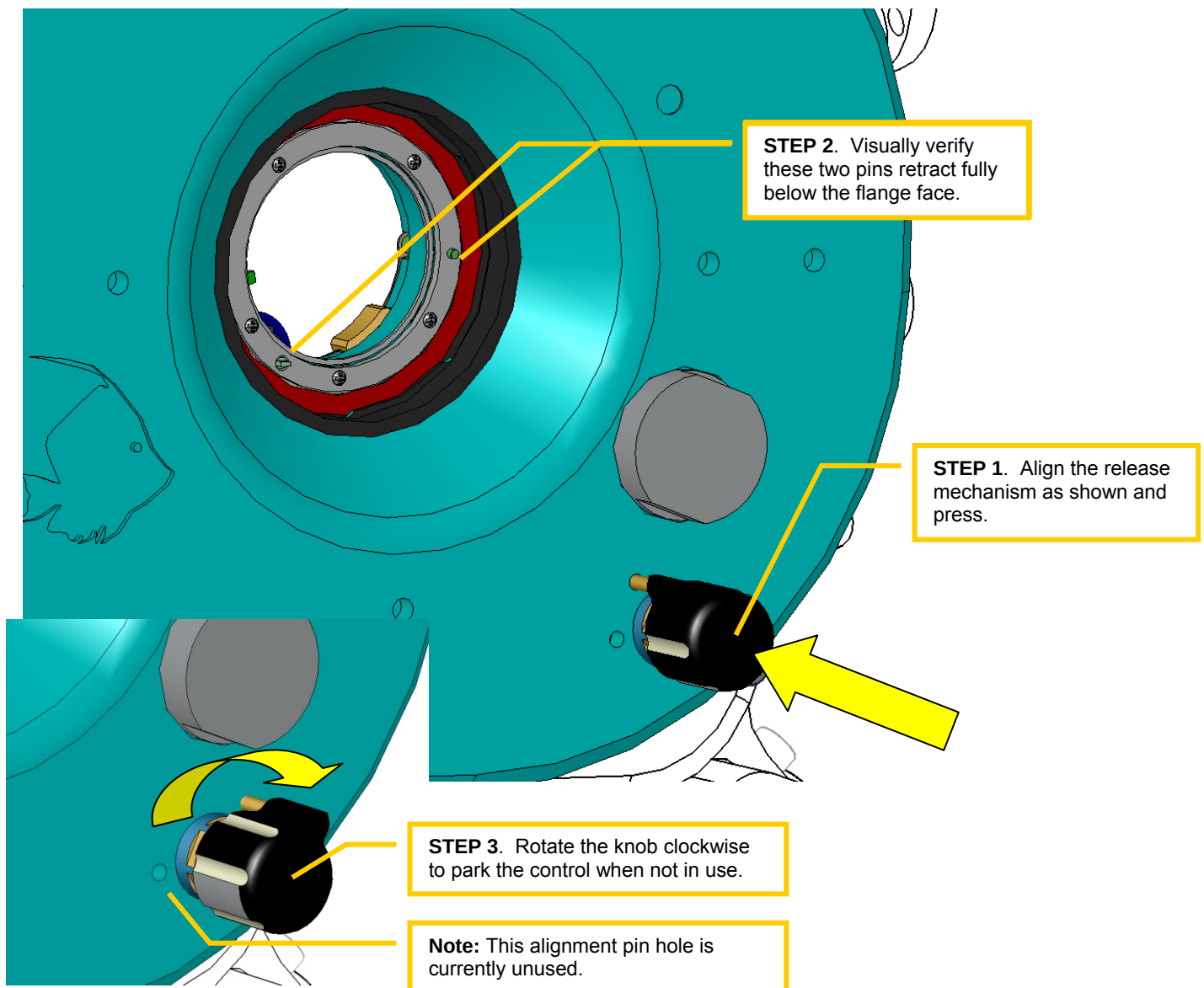


- ❑ **Test the Lens Release Mechanism.** Move the release button to the position shown and press.

You should see two pins on the Nikonos RS Mount flange retract. BE SURE the pins retract below the level of the flange. This is required for full disengagement of the lens.

CAUTION: FAILURE TO CHECK THE RELEASE MECHANISM FOR PROPER OPERATION CAN RESULT IN A LENS THAT WILL NOT UNMOUNT FROM THE HOUSING.

- ❑ **Verify again that the release mechanism is working reliably.**
- ❑ **Park the Release Control** in the position shown when not in use.

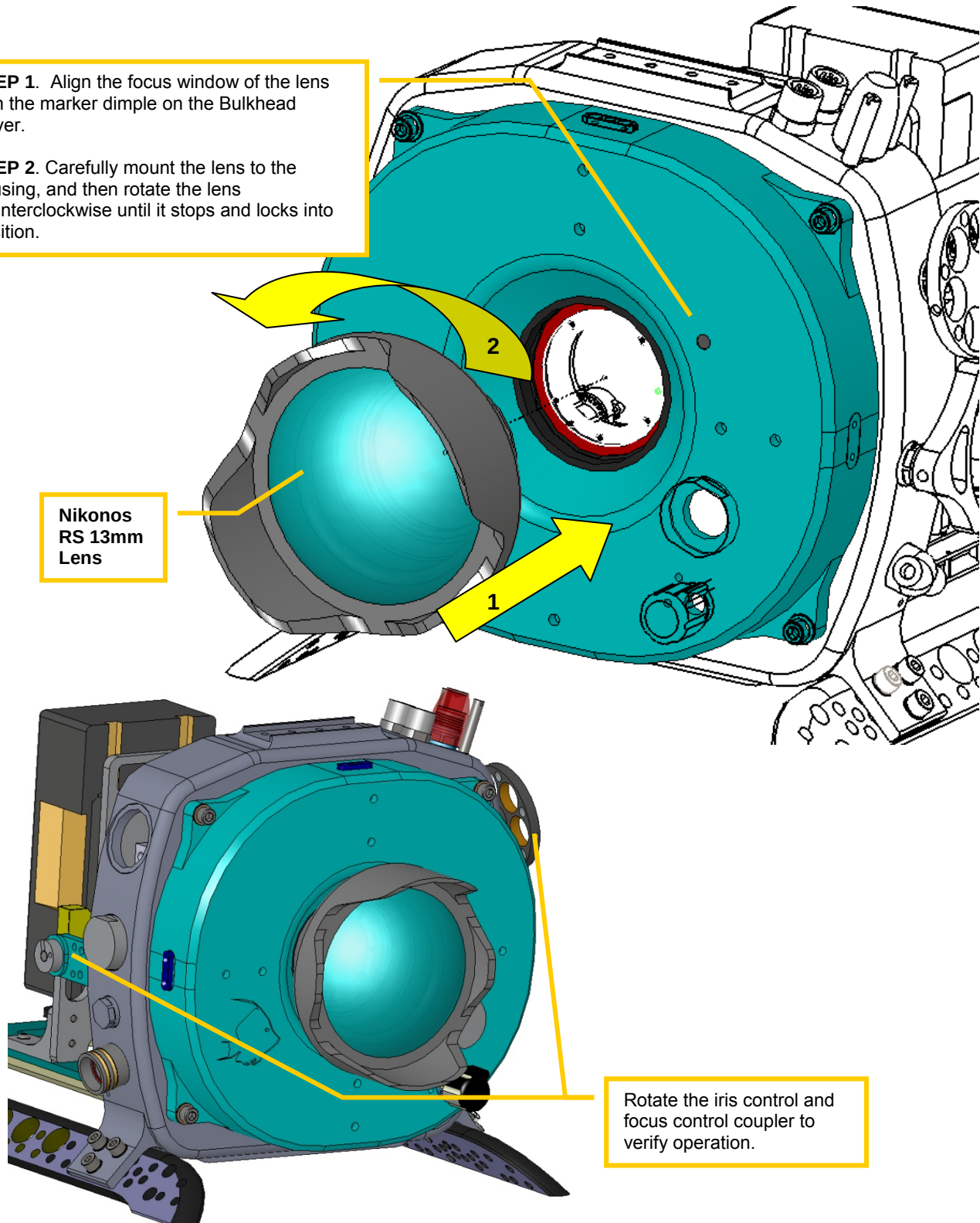


- ❑ **Bayonet mount a lens.** Shown in the photo is the Nikonos RS 13mm lens. Look closely at the lens base to ensure an orange silicone o-ring is present.
- ❑ **Verify Focus and Iris Operation.** Rotate the Iris knob and verify the iris inside the lens fully opens and closes. Similarly, rotate the focus control coupler (see image) and view proper operation in the lens window of the lens.

STEP 1. Align the focus window of the lens with the marker dimple on the Bulkhead Cover.

STEP 2. Carefully mount the lens to the housing, and then rotate the lens counterclockwise until it stops and locks into position.

Nikonos
RS 13mm
Lens



Rotate the iris control and focus control coupler to verify operation.

- **Continue housing setup.** From this point the remaining setup of DEEP EPIC is found in the DEEP EPIC Setup, Use and Care Guide.
- **A note about SEAL CHECK.** When using this Nikonos RS Mount kit, draw a vacuum of about 100 millibars or 3in Hg (depending on your Seal Check model).

Post Dive Procedures.

- **Blow off excess water.** Using compressed air and / or a dry cloth, clean water away from the mate between Nikonos RS lens and Bulkhead Cover.
- **Release vacuum.** Before removing a Nikonos RS lens, ***the vacuum must be fully released.***

CAUTION: FAILURE TO FULLY RELEASE HOUSING VACUUM MAY RESULT IN WATER BEING DRAWN INTO THE EPIC CAMERA SENSOR AREA.

- **Release the lens.** As noted on page 15, the lens can be removed by aligning the Release Control knob to the position pointing directly at the lens, and then press.

While holding, rotate the lens clockwise ~30 degrees until it comes free of the housing.

- **Dissassembly.** Follow the procedures in this manual in reverse to break down the Nikonos RS kit.

3: Customer Support

Should you have any questions about this Nikonos RS Adapter Kit, please contact Gates at the numbers below.

Email: Customer.srvc@GatesHousings.com

Web: www.GatesHousings.com

Phone: 858.391.0052

Fax: 858.391.0053