



# **EM7 CINE Underwater Monitor Housing**

*Setup, Use, and Care Guide*

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

[GatesHousings.com](http://GatesHousings.com)

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# 1: Introducing the EM7 CINE

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Congratulations on owning a new Gates product: the EM7 CINE Underwater Monitor Housing (EM7 CINE) for the SmallHD CINE 7 LCD. You've selected an underwater imaging tool that will provide years of value and reliable service.

Please read through this entire guide to learn about the EM7 CINE so you can get the most out of this imaging tool. In this section, we'll introduce you to the features of the monitor housing so you can get started.

## ***Features***

The EM7 CINE has several key features:

- ✓ **'Bulletproof' construction.** Gates legendary reliability is inherent in the EM7 CINE: machined aluminum shell, stainless hardware and reliable mechanical controls.
- ✓ **Designed specifically for the SmallHD CINE 7 LCD** to create the smallest, most compact and low-profile Underwater Monitor housing.
- ✓ **Bright 1800 nit LCD** readily viewed underwater.

## ***Warranty Disclaimer***

The EM7 CINE 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 monitor housing. Because we can only provide you with the information necessary to do so, Gates does not warrant the contents of your housing (e.g. electronics) under any circumstance.

We warrant the EM7 CINE as an image acquisition tool for a period of 2 years.

If you have any questions about the setup, use and care of the EM7 CINE, contact Gates directly. Details are in section 4.

## ***Unpacking the EM7 CINE***

After you remove the monitor housing from its shipping container, carefully inspect it for missing parts or damage that may have occurred during shipment. If you discover any discrepancies, contact Gates or your dealer immediately for assistance.

### *Standard Parts*

- ✓ **EM7 CINE External Monitor Housing**
- ✓ **EM7 CINE Shade**
- ✓ **Dovetail Swivel Mount.** May be attached to EM7 CINE
- ✓ **Spare O-Ring**
- ✓ **O-Ring Removal Tool**
- ✓ **D-Tap Power Adapter Cable**
- ✓ **Trim Float**

### *Optional Parts*

- ✓ **Shade Extension(s)** (*Additional Shade Extensions are stackable and available for purchase.*)
- ✓ **Extended Battery Shell.** To accommodate self-powering the CINE 7 LCD with 2x Sony L-Series batteries or equivalent.

## ***Cautions***

- ▶ **USER RESPONSIBILITY.** This Setup, Use and Care guide contains important detailed procedures for setup and use of the EM7 CINE. It is the user's responsibility to read, understand and employ these procedures. Failure to do so can result in poor or non-operation of the monitor housing and may void your warranty.

Contact Gates if you have questions regarding this manual or using the EM7 CINE.

## 2: EM7 CINE Setup

The EM7 CINE requires complete and thorough setup prior to use.

### ***Preparing the SmallHD CINE 7 LCD***

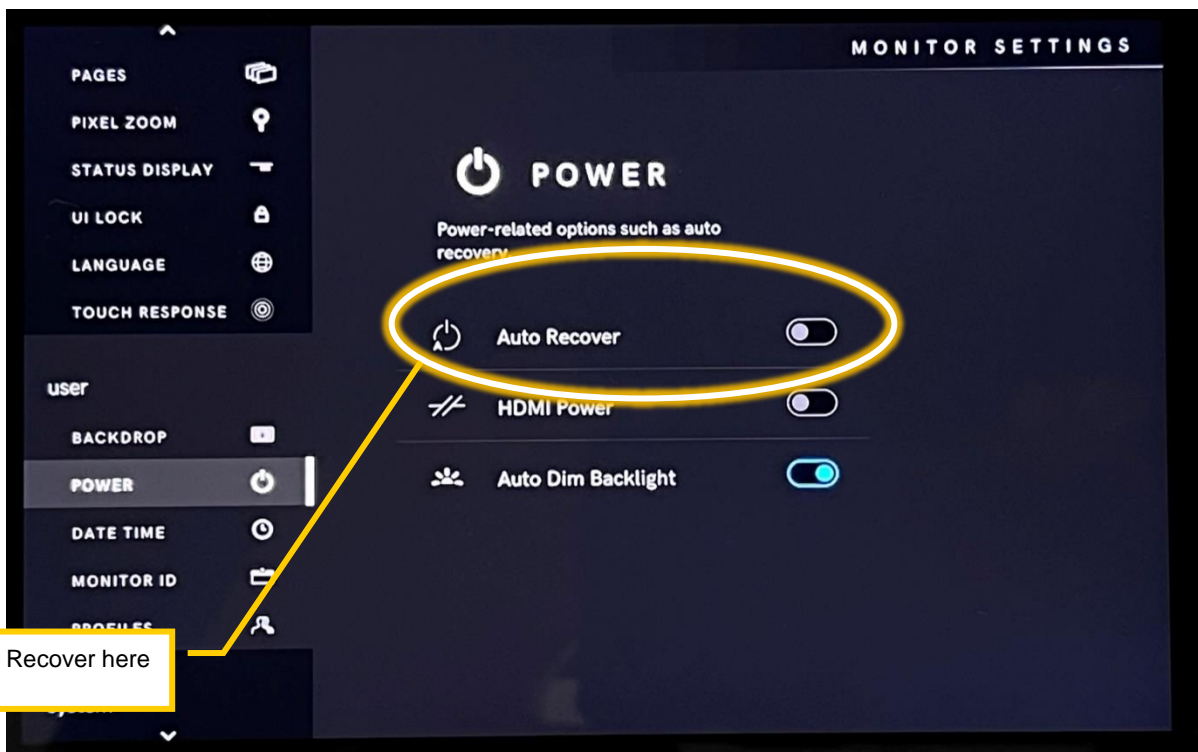
- ✓ **Auto boot.** Setup the CINE 7 LCD to boot when power is present at the rear connector.

**MENU → POWER → AUTO RECOVER → ON**

- ✓ **Pages.** Refer to the CINE 7 User Guide for details on the 'Pages' feature. The LCD will boot into a default page that must be set, as follows:

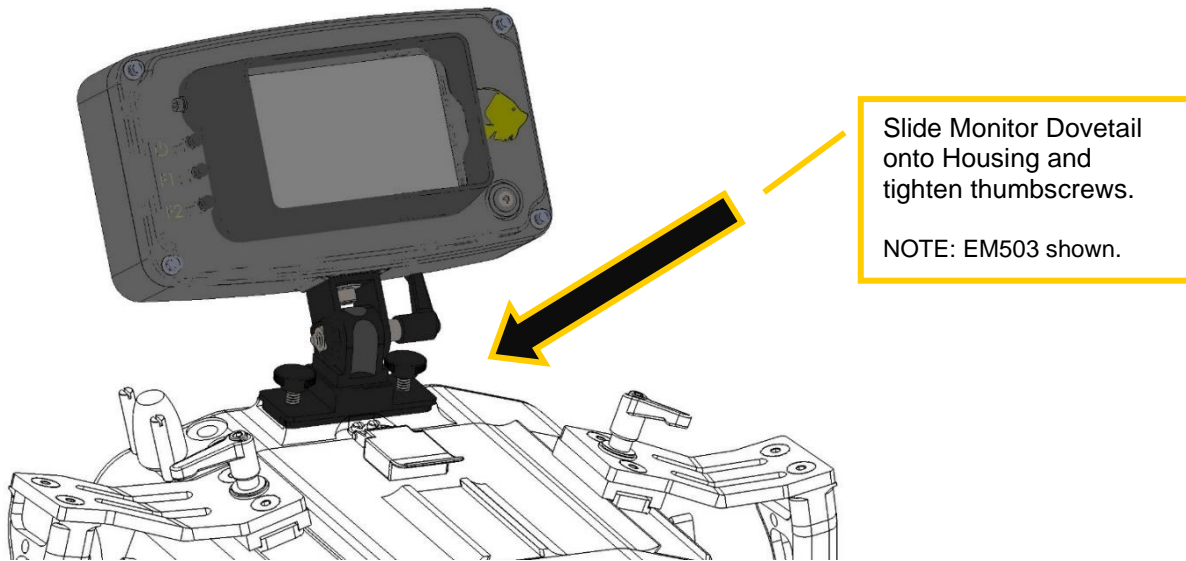
\* With the LCD on, navigate to the 'page' you wish to use as default with your Gates camera housing.

\* Turn off the LCD via the POWER button. Then power back on. This 'sets' this page as default for any auto boot.



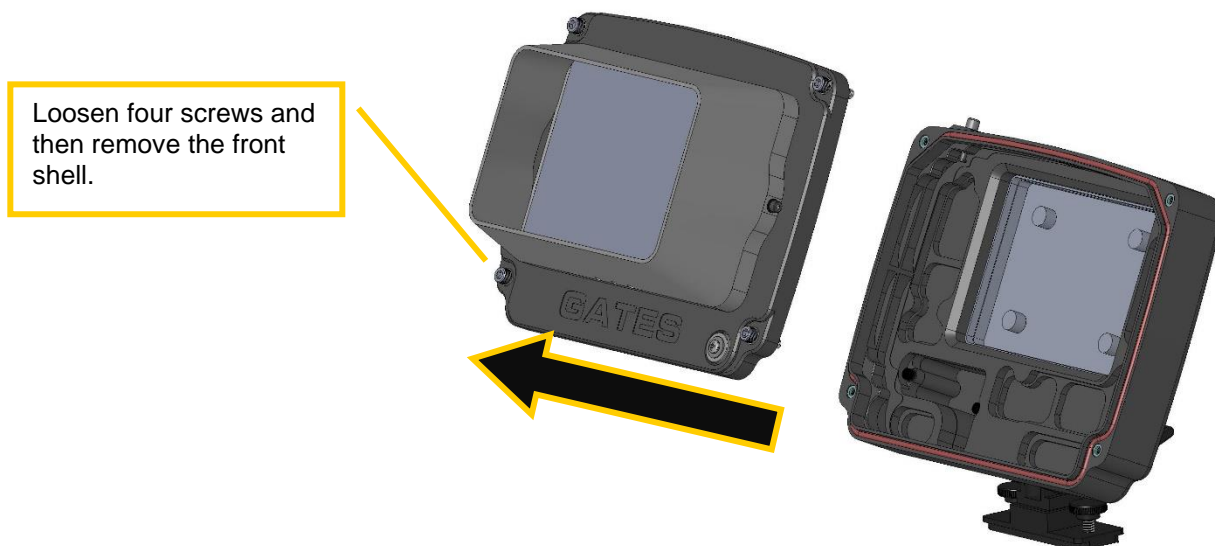
## Secure EM7 CINE to Camera Housing

- ✓ EM7 CINE Setup is best conducted with it secured to a camera housing.
- ✓ Refer to the image for a typical mounting of the EM7 CINE to a housing.



## Open the Housing Shell

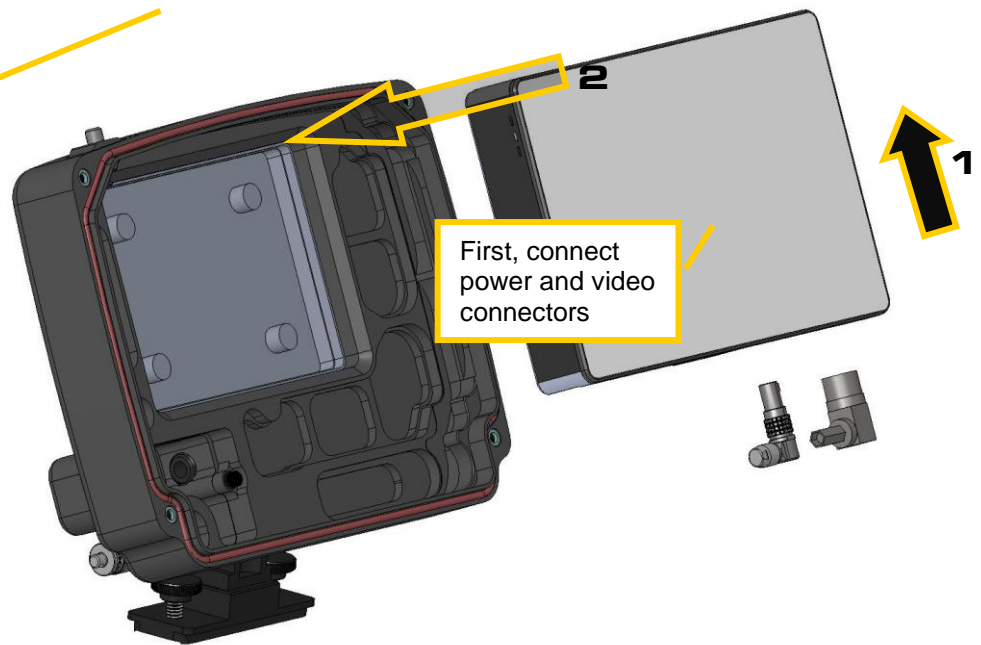
- ✓ Loosen four screws using the 5/32 ball driver. **These screws are captive** and will not remove. Refer to the image below.
- ✓ Remove the front shell to expose the LCD and power connector in the rear shell.



## Insert CINE 7 LCD into to Rear Shell

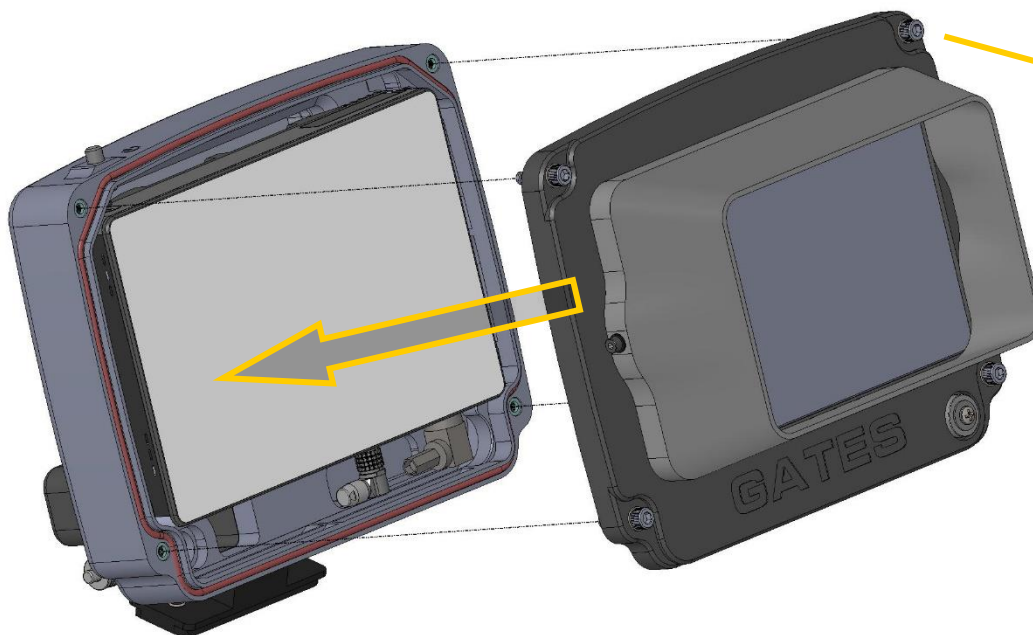
- ✓ **First, connect video and power connectors** as shown. Then seat into the rear shell.
- ✓ **Make a visual check to verify the orange o-ring** is clean and free of any foreign matter.
- ✓ **Install the front cover.**
- ✓ **Tighten fours screws** as shown in the image below. Use a cross-pattern, and **DO NOT OVERTIGHTEN.**

Then insert the CINE 7 LCD into the rear shell. It will mate flush. Inspect the o-ring is clean.



First, connect power and video connectors

Mate the front shell and tighten 4 screws. **DO NOT** overtighten.



## Visual Check

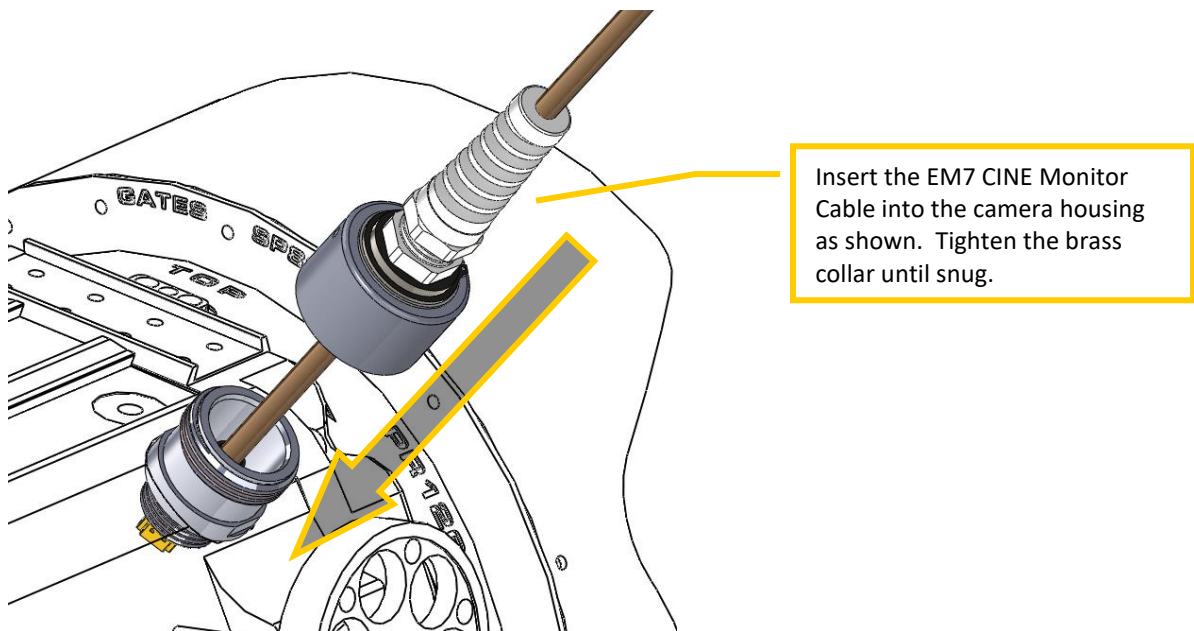
- ✓ **Inspect the gap where front and rear shells meet.** Ensure it is even all around. Refer to the image below, shown in highlight BLUE.



## Connect to Camera Housing

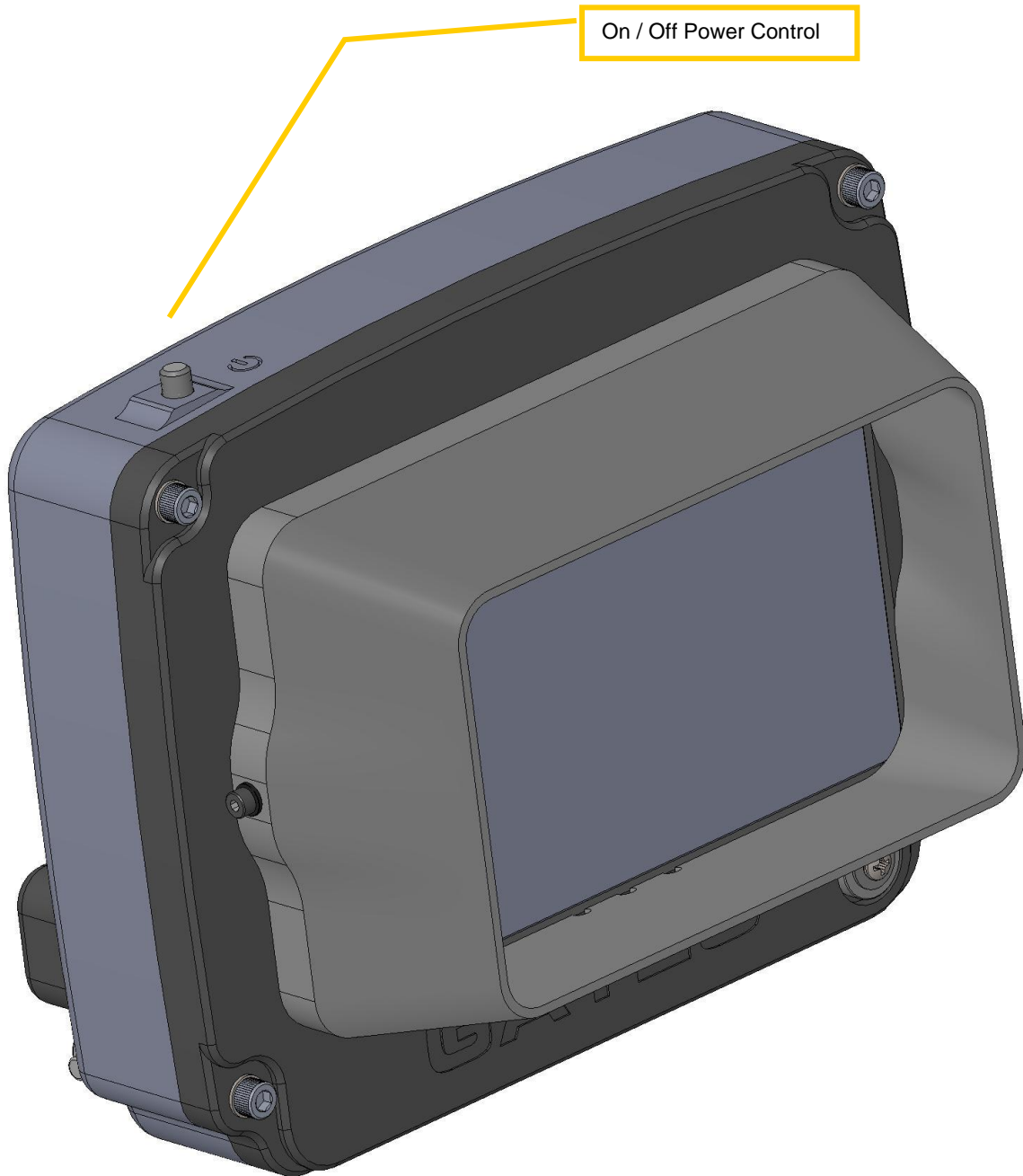
- ✓ **Insert the monitor cable** into the housing as shown below. Route the cable inside the main housing to connect with the camera.

Connect BNC connector to the camera SDI output. Then connect power via the D-Tap Power Adapter Cable (included) to an appropriate D-Tap output. Refer to your Gates housings SU&C Guide for more details on specific camera connections.



## ***EM7 CINE Controls***

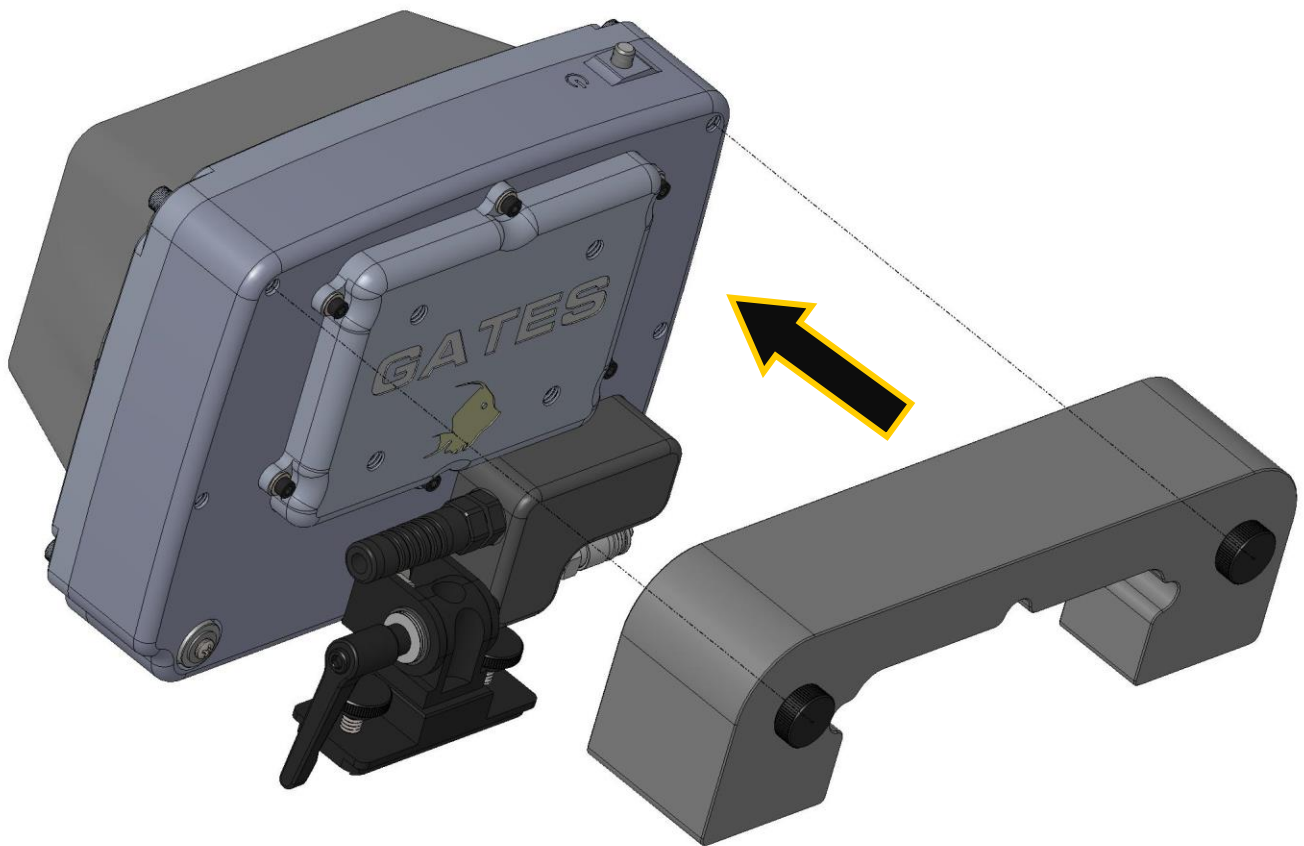
- ✓ **Power.** Located on the top left is the On / Off pushbutton. See previous section for setting up the EM7 CINE for booting into a default page.



## ***EM7 CINE Attaching Trim Float***

- ✓ EM7 CINE kit includes a trim float that, when installed, makes the entire EM7 CINE External Monitor neutrally buoyant. This applies only to the basic configuration shown (i.e., without the optional battery shell)

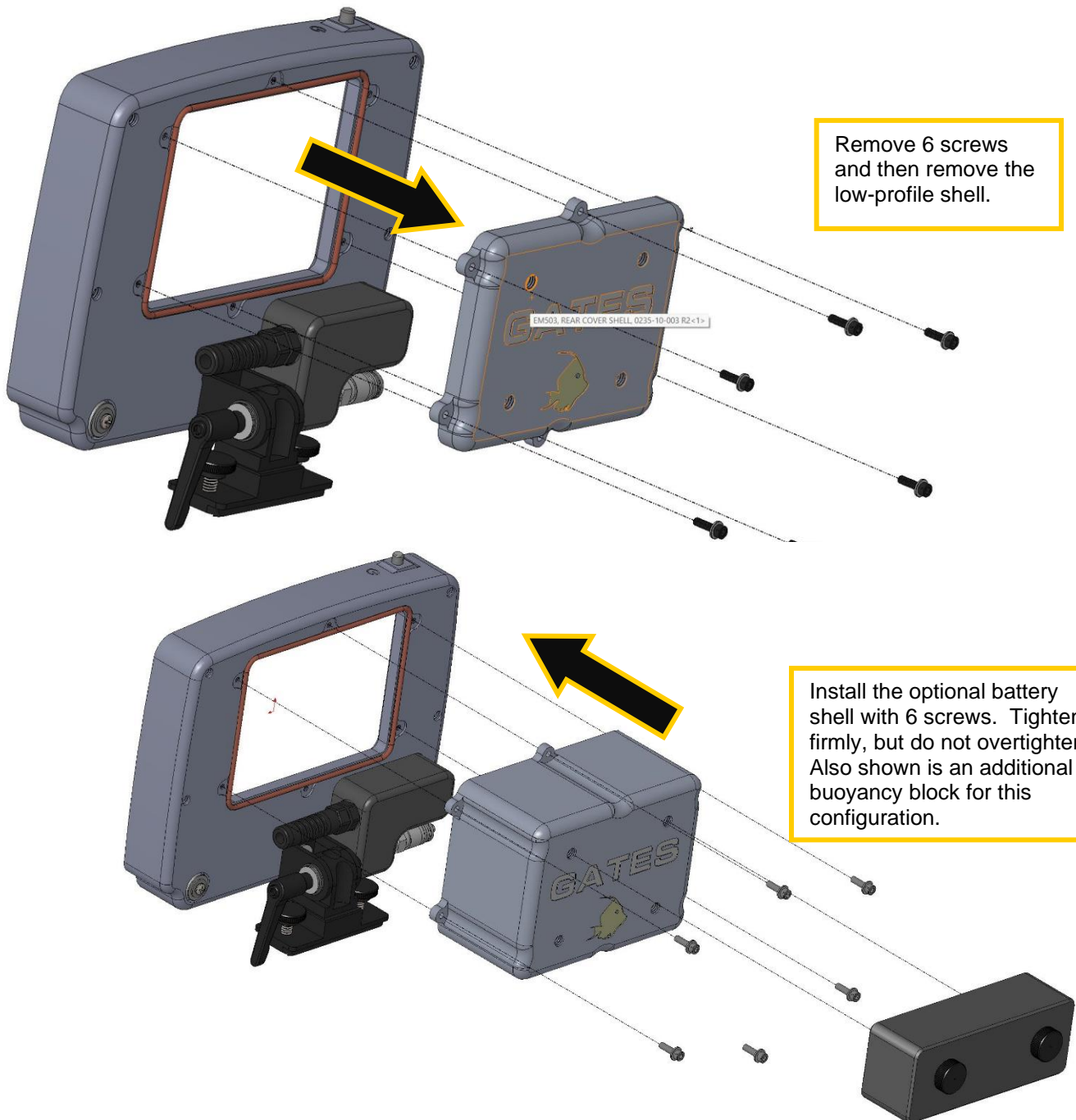
Tighten the screws until finger tight. Do not overtighten.



Attach the Trim Float with two thumbscrews.

## EM7 CINE Battery Shell Installation (Optional)

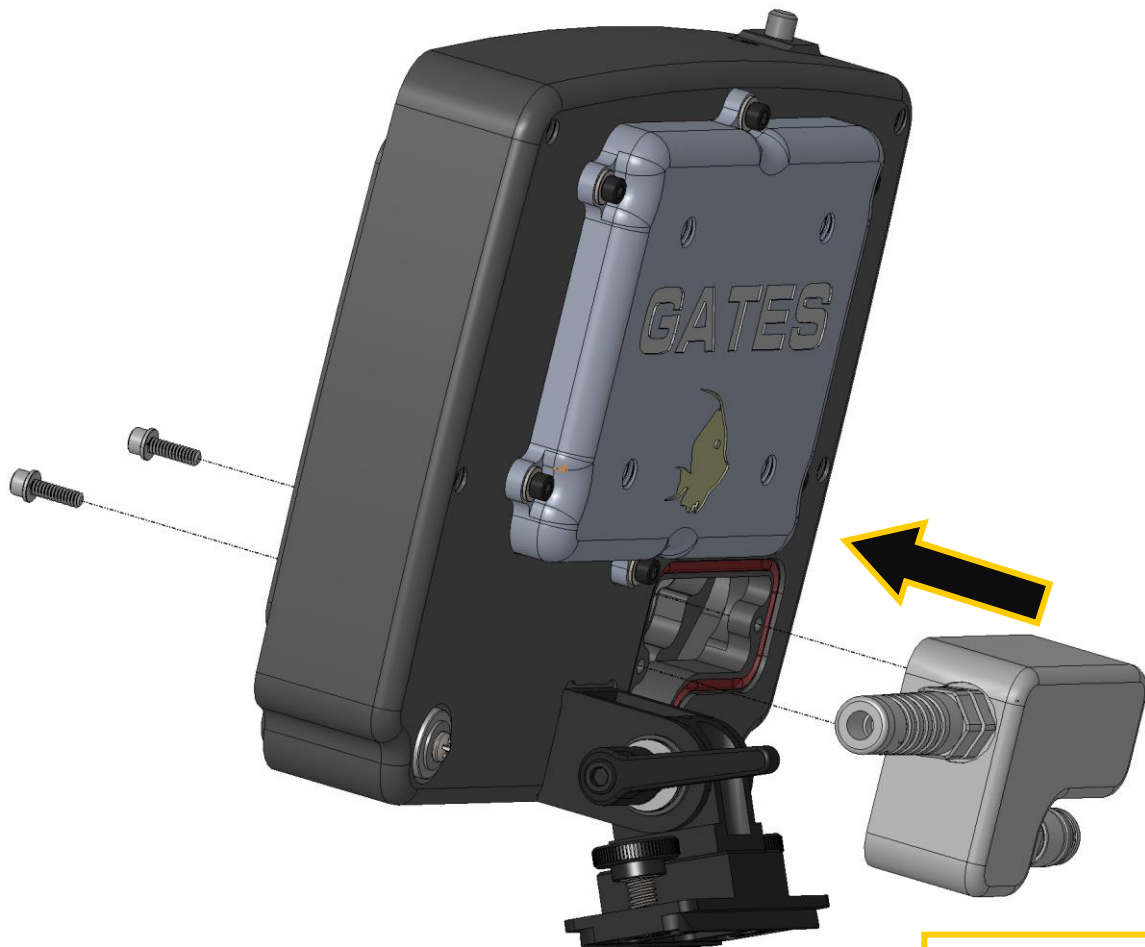
- ✓ EM7 CINE options include an extended battery shell to accommodate 2x Sony-type L-series batteries up to size NP-F970 or equivalent.
- ✓ To install, remove 6 screws on the low-profile shell as shown below, replace the shell with the larger battery shell, and secure with screws. Tighten firmly but do not overtighten. Also shown is an additional buoyancy float, included with the optional battery shell.



## EM7 CINE Cable Replacement

- ✓ Replacing the EM7 CINE cables is straightforward. Referring to the image below, use a 9/64 hex tool to remove 2 screws securing the Cable Shell to the housing shell. Carefully remove the cable with bulkhead adapter and replace with new.

Tighten the screws until snug. Do not overtighten.



EM7 CINE cable shell only shown for clarity.

## 3: EM7 CINE Maintenance

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### ***Housing Care and Maintenance***

Proper care of your Gates housing is important to provide you reliable operation and long life. You'll find all the guidelines in the "Housing Care and Maintenance" document included with your Gates housing. You can also find it on Gates web site at [www.GatesHousings.com](http://www.GatesHousings.com).

### ***O-Ring Care and Maintenance***

Your Gates EM7 CINE has 1 serviceable o-ring. It is located on the main housing the front shell mates. Its color is orange.

Servicing the o-rings is easy and covered in the "Housing Care and Maintenance" document in this package. It can also be found on the Gates website at [www.gateshousings.com](http://www.gateshousings.com).

- ▶ **CAUTION:** Do not lubricate the large orange o-ring! It is a special silicone o-ring and can be damaged by petroleum-based lubricants.
  
- ▶ **CAUTION:** Never use metal tools or objects for removing o-rings!

## 4: Customer Support

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Should you have any questions about the EM7 CINE and its operation, please contact Gates at the numbers below.

Email: [Customer.svc@GatesHousings.com](mailto:Customer.svc@GatesHousings.com)

Web: <https://www.gateshousings.com/contacts/>

Phone: 858.391.0052