



DEEP WEAPON – RAPTOR Upgrade

Setup, Use, and Care Guide ADDENDUM

For using with RED DSMC3 V-RAPTOR Camera

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

[Gates Underwater Products](#)

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Table of Contents

	Setup, Use, and Care Guide ADDENDUM	1
1:	Introduction.....	4
	Scope of this document	4
	Warranty Disclaimer	4
	RED Items Required.....	4
	Unpacking DEEP WEAPON – RAPTOR (DW-R) Upgrade Kit	4
2:	Preparing the V-RAPTOR Camera	5
3:	V-RAPTOR Install.....	6
	Power, Record, and GCC cable connections	8
	GCC Module setup with V-RAPTOR.....	10
	Mount Lens and V-Lock battery.	11
	Functional Test.....	11
	Cable Management / Housing Closure	13
	DW-R Setup	13
4:	Conversion for DSMC2 Use.....	14
	User 1 / User 2 Control	14
	RAPTOR ADAPTOR	14
	Power Control.....	15
	REDMOTE CONTROLLER	15
5:	Customer Support	16

1: Introduction

The DEEP WEAPON - RAPTOR Upgrade allows the use of the RED DSMC3 V-RAPTOR Camera. After upgrade, DEEP WEAPON – RAPTOR remains backward compatible with RED DSMC2 and RED DSMC cameras. Refer to the DEEP WEAPON SU&C Guide for more details.

Scope of this document

This SU&C Guide addresses only the changes to your DEEP WEAPON-RAPTOR housing to accommodate V-RAPTOR camera installation and operation. Refer to the original SU&C Guides for complete setup, use and care details:

[DEEP DRAGON Setup, Use and Care Guide](#)
[DEEP WEAPON Upgrade Setup, Use and Care Guide](#)

Warranty Disclaimer

It is your responsibility to learn the proper setup, use and care of the DEEP WEAPON-RAPTOR Upgrade. [Gates Warranty](#) for parts provided with the DEEP WEAPON-RAPTOR Upgrade hardware for a period of 2 years, and electronics / cables / connectors for one 1 year. If you have any questions about this accessory kit, contact Gates directly. Details are in section 5.

RED Items Required

The following user supplied items are required to operate DEEP WEAPON – RAPTOR upgrade

- ✓ **DSMC3 V-RAPTOR Camera.**
- ✓ **V-Lock battery**
- ✓ **Media**
- ✓ **Lens of Choice**

Unpacking DEEP WEAPON – RAPTOR (DW-R) Upgrade Kit

The items listed below are installed in your upgraded DEEP WEAPON housing. This list is provided for reference purposes only.

Kit Components

- ✓ **RAPTOR ADAPTER Camera mount**
- ✓ **REC Control Head, right side**
- ✓ **Gates COMMAND / CONTROL Module, DW-R**
- ✓ **REC Control Head, left side**

2: Preparing the V-RAPTOR Camera

The V-RAPTOR camera must be stripped down to the bare body prior to use in DW-R.

- ✓ **Remove any accessories from V-RAPTOR** such as handles, frames, etc.
- ✓ **Unmount and set aside any lens** that is mounted into V-RAPTOR. This is necessary to avoid interferences when installing V-RAPTOR to DW-R
- ✓ **Remove both V-RAPTOR antennas.**
- ✓ **Insert media** at this time.
- ✓ **Turn Wi-Fi OFF.** In certain circumstances it may be desired to connect to V-RAPTOR with RED CONTROL App. In such case, leave Wifi ON.

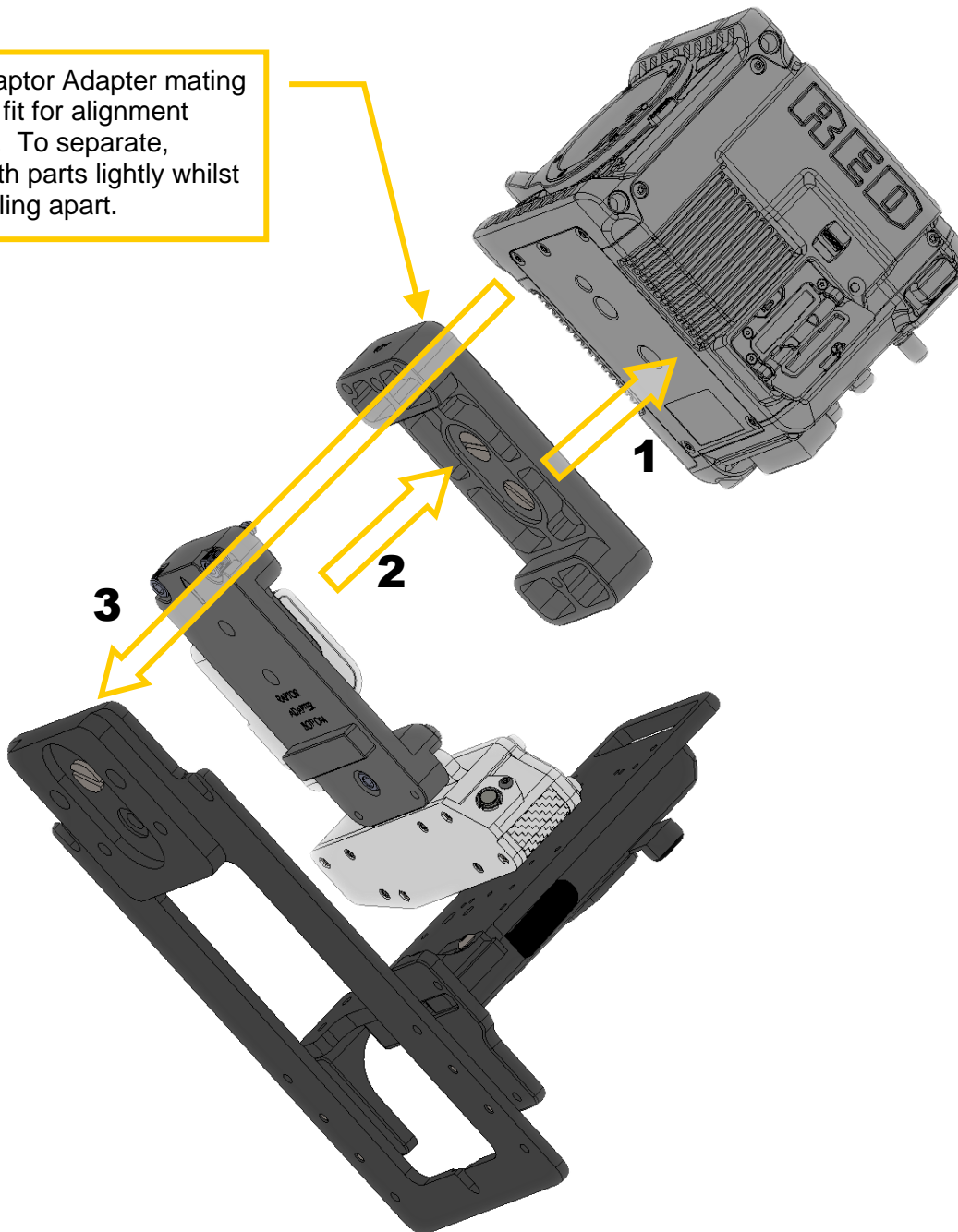


3: V-RAPTOR Install

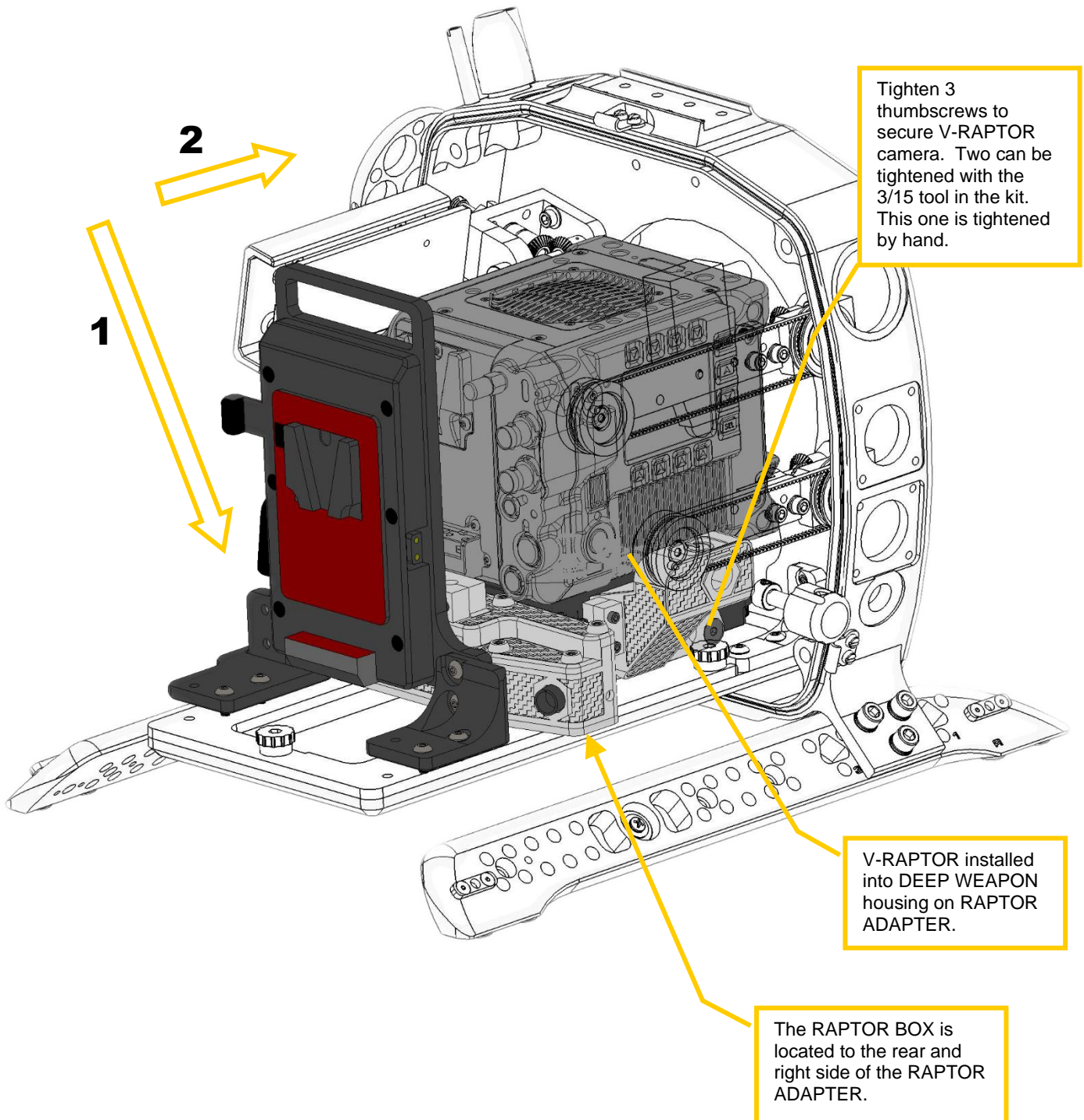
After stripping down the V-RAPTOR Camera to just the camera body

- ✓ **Mount RAPTOR ADAPTER upper plate** to camera. Secure 3/8-16 captive screws firmly using the RED Sidewinder tool or wide blade screwdriver.
- ✓ **Mount RAPTOR ADAPTER bottom plate** to upper plate. Use 3/16 ball driver included in your original DEEP WEAPON tool kit, and secure firmly.
- ✓ **Install V-RAPTOR Camera to DW-R camera tray.** Secure camera to housing tray using 3/8-16 captive screws and RED Sidewinder tool or wide blade screwdriver.

NOTE: Raptor Adapter mating is a close fit for alignment purposes. To separate, wiggle both parts lightly whilst gently pulling apart.



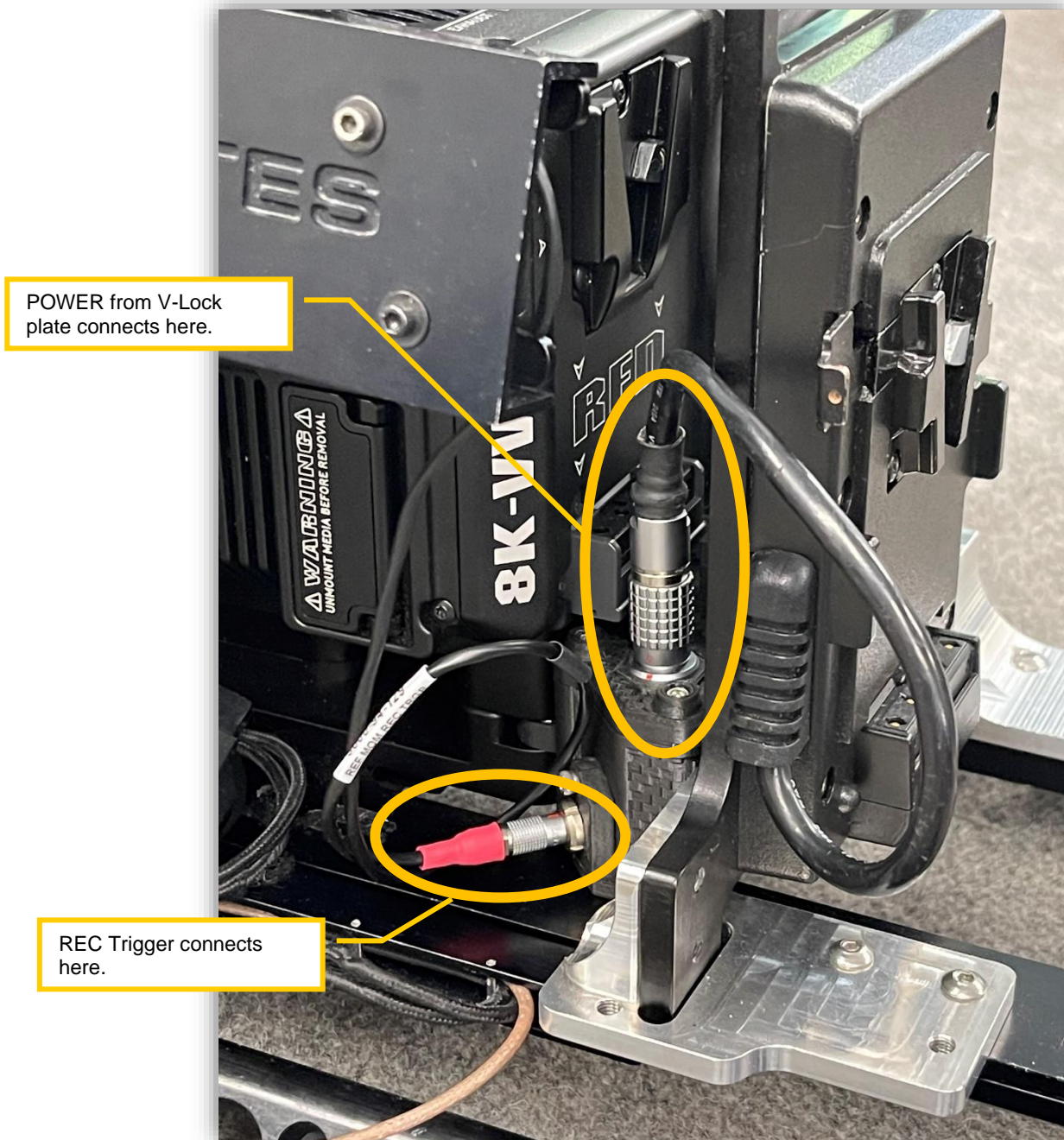
- ✓ **Mount V-RAPTOR / Cam Tray assembly** into housing. Set Camera Tray assembly onto cradle, then slide forward until it stops on thumbscrews. Use 3/16 ball driver included in your original DEEP WEAPON tool kit to secure 3 thumbscrews.



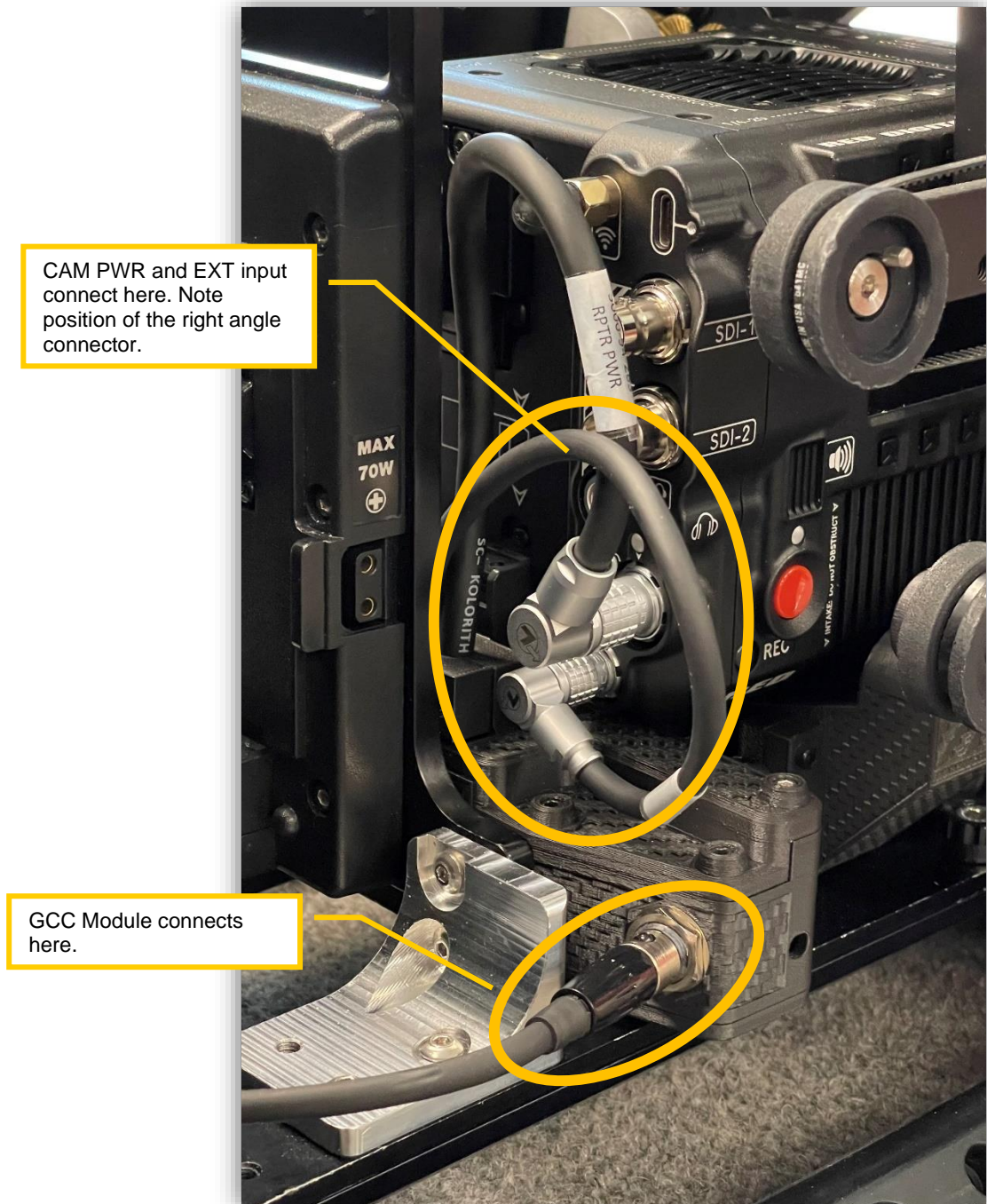
Power, Record, and GCC cable connections

Three cables will plug into the RAPTOR BOX and two cable will plug into V-RAPTOR from the RAPTOR BOX.

- ✓ **V-Lock Power.** Connect the LEMO power cable from the V-Lock plate to system power with cable.
- ✓ **Record Trigger.** On the left side of the housing, exiting the rear of the PCB base is a cable marked 5000-94-129. Plug this into the RAPTOR BOX at the location shown in the image below. The cable is identified with a RED collar.



- ✓ **GCC input.** The GCC cable (part number 5000-94-298) originates at the GCC module in the rear shell. It plugs into the RAPTOR BOX at the location shown in the image blow.
- ✓ **RAPTOR Power.** On the right side, plug into the camera cable marked 5000-94-283. Refer to image below.
- ✓ **EXT input.** Also plugging into the camera on the right side, cable marked 5000-94-284 is connected to the EXT port on V-RAPTOR. Refer to image below.



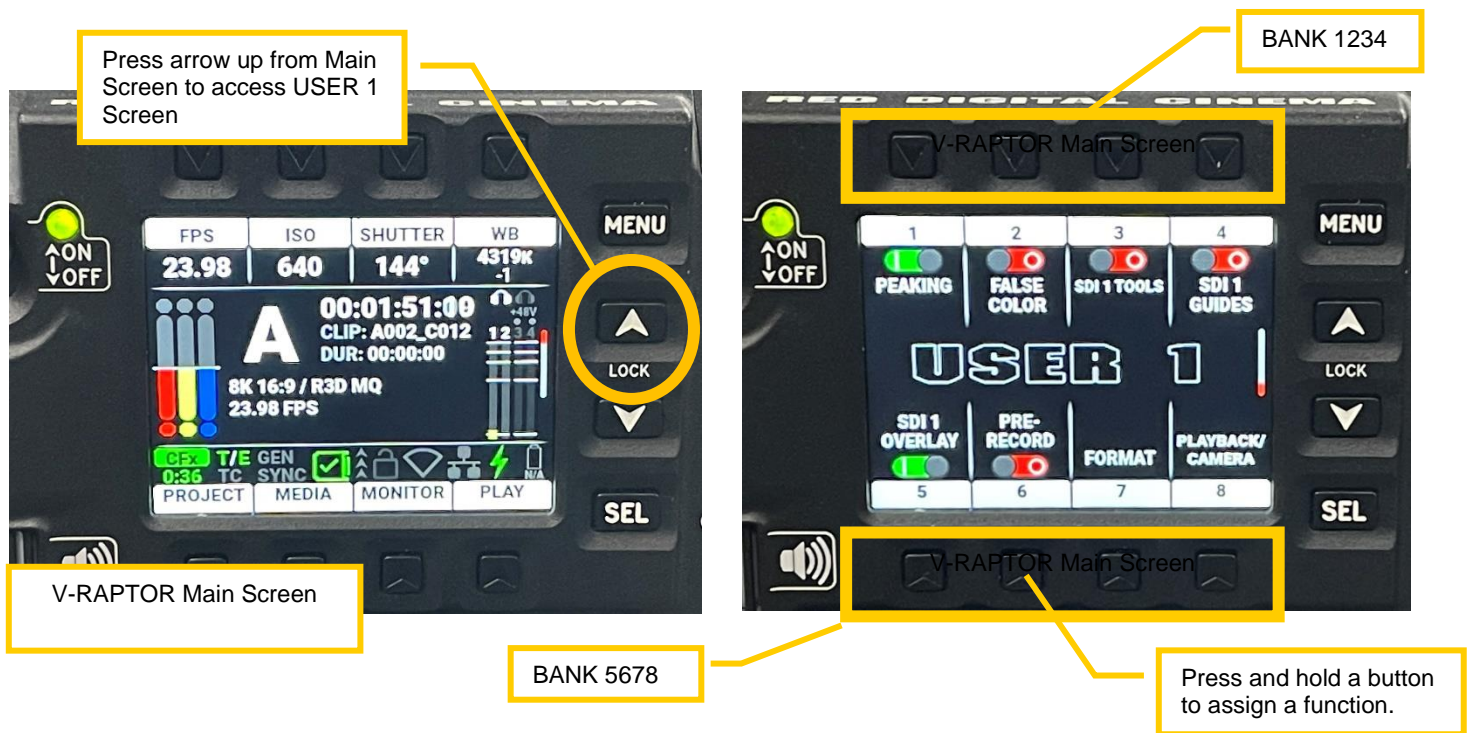
GCC Module setup with V-RAPTOR

The GCC module has 10 buttons and 1 rotary control. The keymap for all controls is found on page 12.

Four of the GCC buttons on the bottom row are assignable. They are labeled A,B,C and D. These four buttons require special setup to mirror 8 'SLOT' functions on V-RAPTOR. To assign these buttons:

MAIN MENU → ↑ (UP) SEL BUTTON → USER 1 PAGE

From this page, press and hold each SLOT button to access the list of functions available (Future versions of V-RAPTOR firmware may have more functions). Note that the top row is considered BANK 1 by GCC, and the lower row BANK 2.



Once assigned, the GCC will display the active BANK 1-2-3-4 or 5-6-7-8. To toggle between BANKS, press and hold assign button A. The GCC display will confirm BANK switch.

At idle, the GCC will show which BANK is assigned. Also displayed is DC voltage level, and Communication status (green LED = power).



Two other V-RAPTOR settings are necessary to communicate with GCC:

BAUD RATE. MENU → COMMUNICATION → SERIAL → BAUD → **1000000**

IP ADDRESS. MENU → COMMUNICATION → SERIAL → IP ADDRESS → **169.254.1.1** (This is the camera default).



Mount Lens and V-Lock battery.

Secure a lens to V-RAPTOR and a V-Lock battery to the mount prior to the next step, Functional Test.

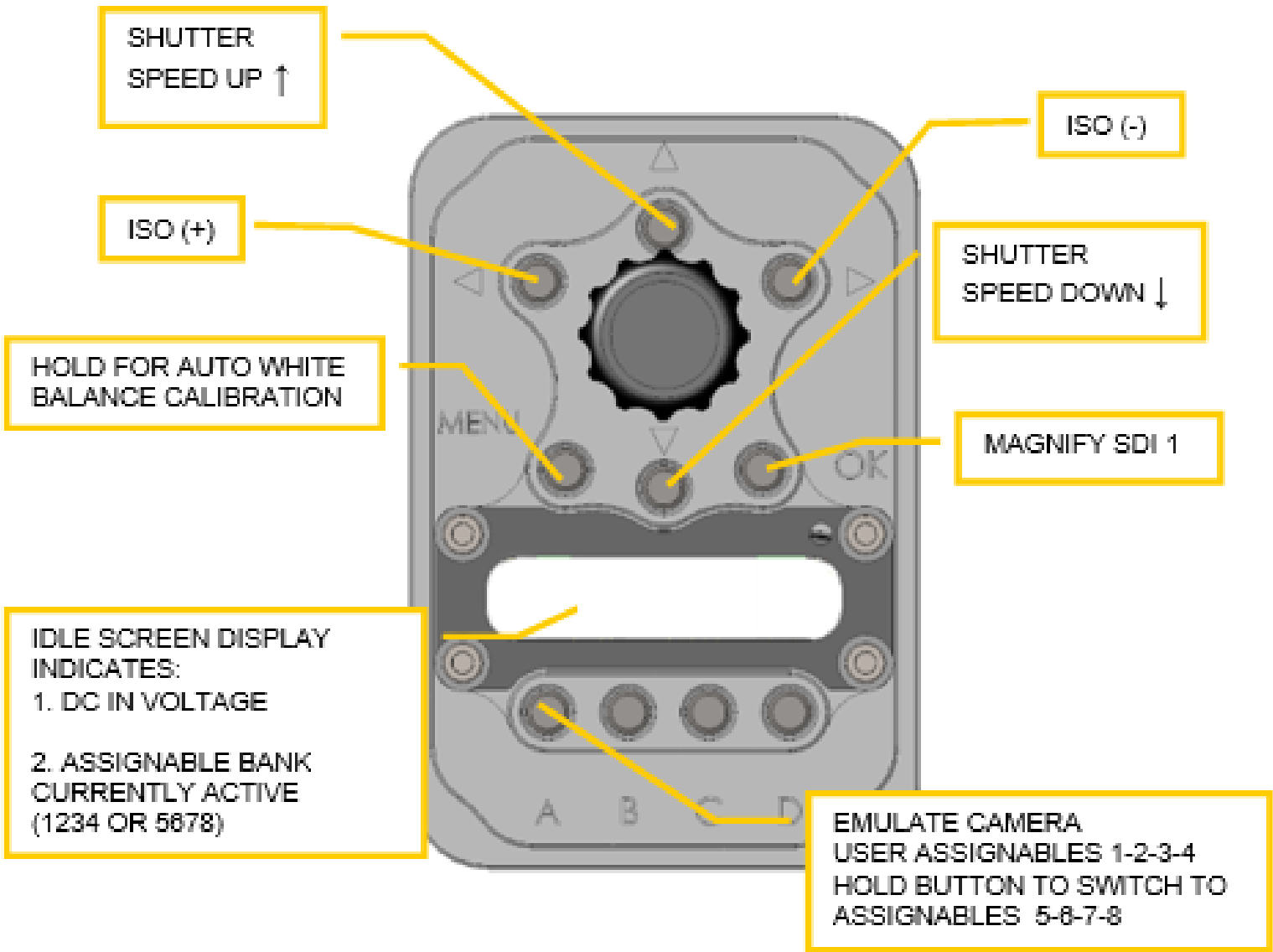
Functional Test

At this time, perform a system functional test. Press the Power button, lower right side, and wait a few seconds for V-RAPTOR and GCC to boot.

- ✓ **Verify the Record Trigger input is working** (switch is located upper right side).
- ✓ **Check GCC communication with V-RAPTOR**, and is responsive to **GCC** inputs.

If either function is not operable, check cables and connectors as noted in previous sections.

GCC Module Keymap for DW-R



Cable Management / Housing Closure

Prior to housing closure, check all cables are well routed inside the housing to clear the DW-R rear shell when mated to the front bulkhead.

Several cables inside the housing are unused with DW-R. Organize them in a coiled, compact manner (small cable ties or wraps are useful) and tucked out of the way inside the housing.

- ✓ **CAUTION: Unused cables must be clear of main housing seal when mating shells. Failure to do so can lead to a compromised seal and wet camera.**



Cable Management is critical.

DW-R Setup

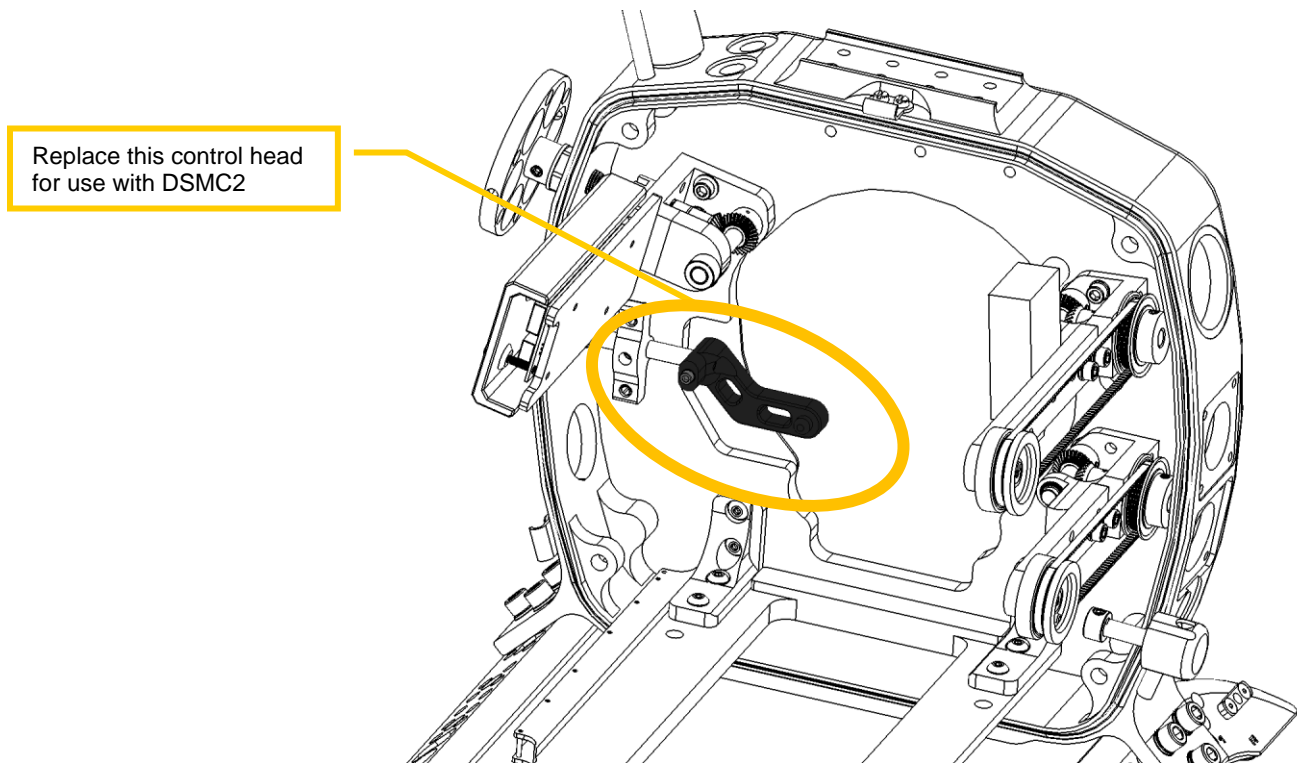
At this time, continue setup of DW-R as found in the manuals referenced in Section 1, page 4.

4: Conversion for DSMC2 Use

The following steps are required to convert DW-R back for use with DSMC2 camera. If upgraded from DEEP WEAPON, these parts will be included with the DW-R housing. If you purchased DEEP WEAPON-RAPTOR as a standalone housing, then these parts will be purchased separately.

User 1 / User 2 Control

The front left control head is changed out to access User 1 / User 2 buttons on DSMC2.

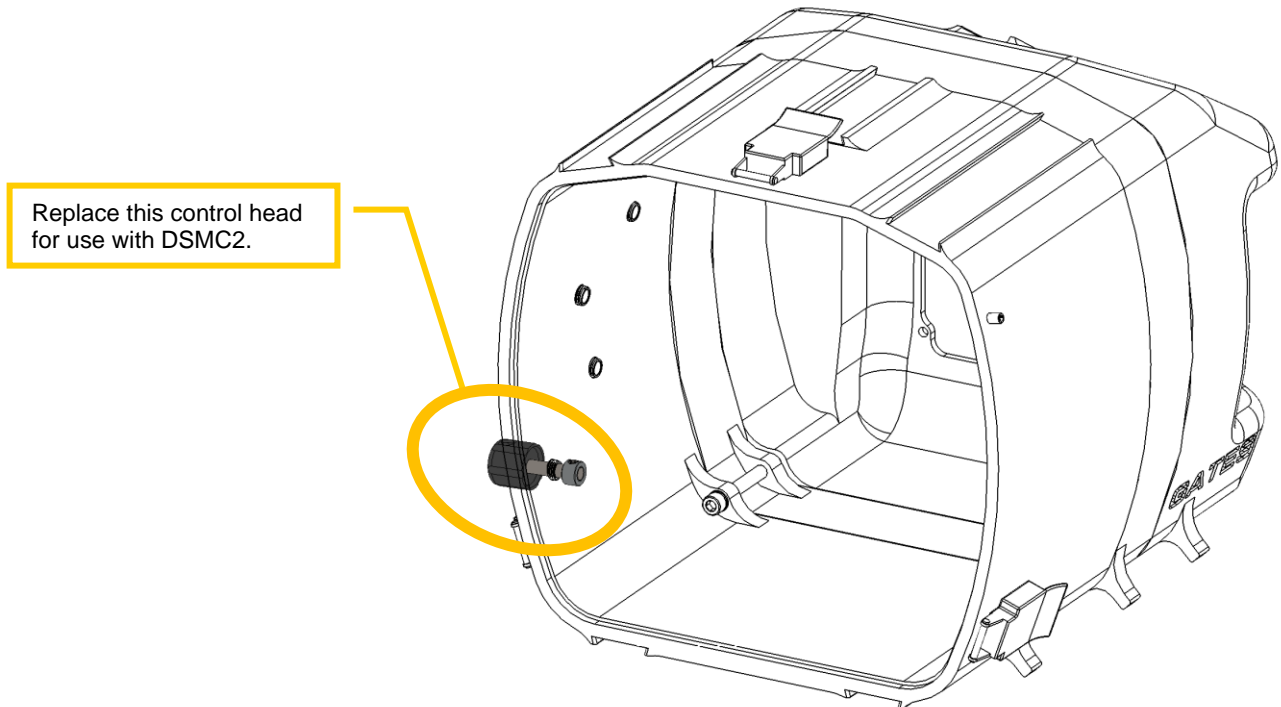


RAPTOR ADAPTOR

This item is not needed for DSMC2.

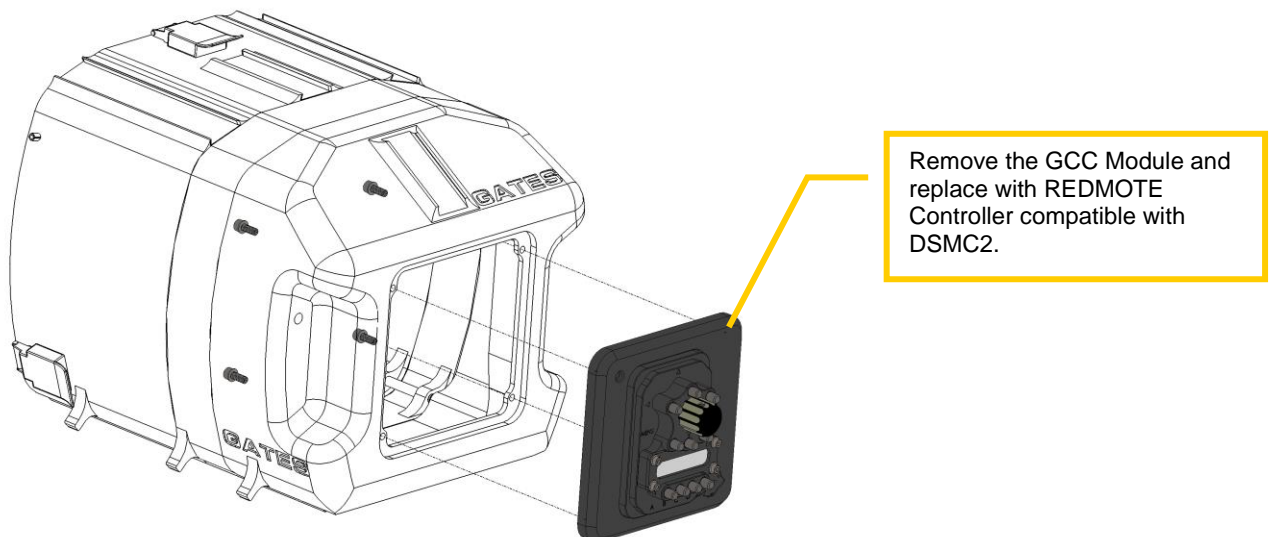
Power Control

The entire Power Control assembly is removed completely, and replaced with DSMC2 compatible version.



REDMOTE CONTROLLER

The Gates COMMAND / CONTROL Module is changed to either REDMOTE CONTROLLER (if carried over from an upgrade) or GCC-DW (REDMOTE CONTROLLER replacement) which is compatible with DSMC2. Use the 5/32 tool in your tool kit to remove 4 screws inside. Remove GCC Module and replace with REDMOTE Controller.



5: Customer Support

Should you have any questions about the DEEP WEAPON – RAPTOR Upgrade, please contact Gates at the numbers below.

Email: Customer.svc@GatesHousings.com
Web: www.GatesHousings.com
Phone: +1-858.391.0052