

# TracPhone® V30/TracNet™ H30

## IMU Replacement Instructions



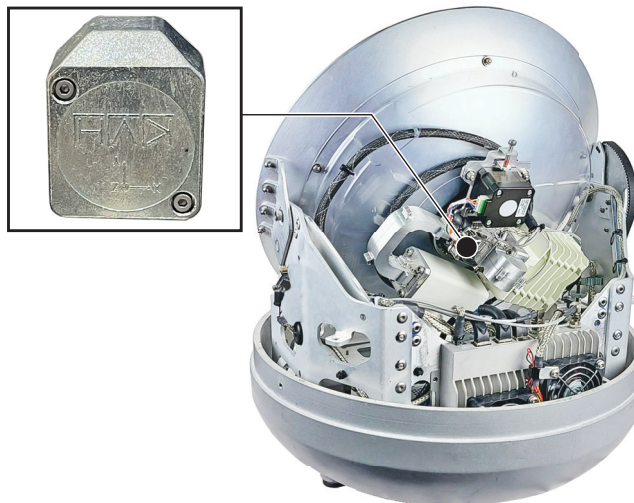
The following instructions explain how to replace the IMU in a V30/H30 antenna.

*NOTE: Your antenna might have parts that differ from those pictured in this document. Such differences have no bearing on the instructions unless noted otherwise.*

## Table of Contents

Remove the Radome.....	2
Replace the IMU.....	2
Access the Web Interface .....	3
Update the System Software .....	3
Calibrate the IMU .....	4

Figure 1: IMU Location



## Tools Required

This procedure requires the following tools:

- #2 Phillips screwdriver
- 1.5 mm hex key
- 1.5 mm hex torque screwdriver set to 3 in-lbs
- Laptop PC with the latest V30 or H30 system software downloaded from the KVH Partner Portal ([www.kvh.com/partners](http://www.kvh.com/partners))

### IMPORTANT!

To perform the calibration step at the end of this procedure, the vessel must remain stationary in calm seas.

## Technical Support

Within Continental U.S.A.: 1 866 701-7103

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Email: [mvbsupport@kvh.com](mailto:mvbsupport@kvh.com)

## Remove the Radome

Follow the steps below to disconnect power and remove the radome from the antenna.

1. Power off and unplug the below-deck unit (BDU) – VSAT-Hub, Hub+, or Hub – to disconnect power from the antenna.



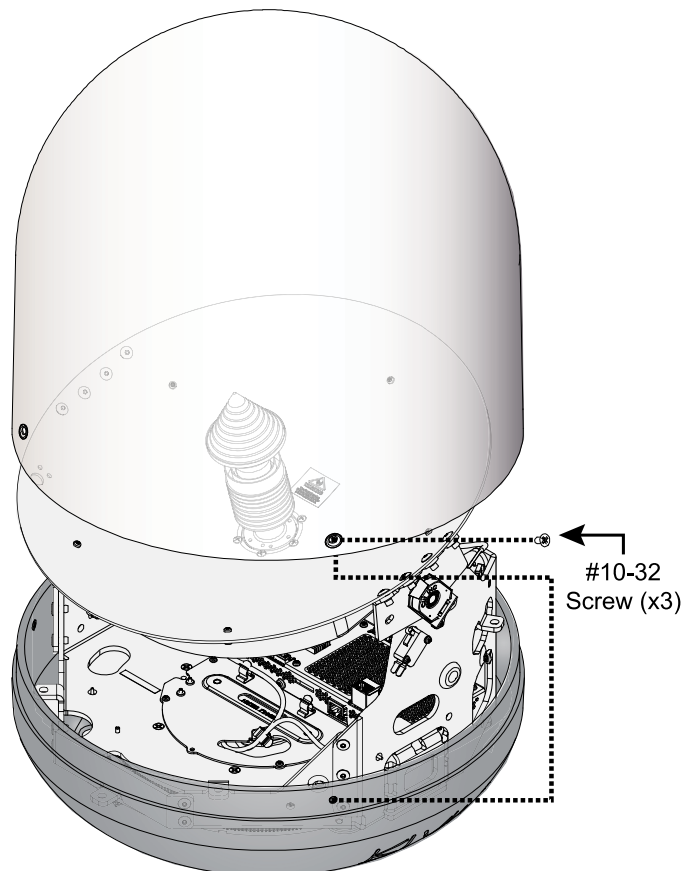
### CAUTION

To prevent injury, be sure to disconnect all power from the antenna before proceeding. Power must remain disconnected for the duration of this procedure.

2. Remove and discard the three #10-32 screws securing the radome to the baseplate (see Figure 2). Carefully lift the radome straight up until clear of the antenna assembly and set it aside in a safe place.

*NOTE: If you keep the radome topside, secure it with a lanyard to prevent it from falling overboard. Also, do not place the radome on a hot steel deck – the heat may warp the radome.*

Figure 2: Radome Screws



## Replace the IMU

Follow the steps below to replace the IMU.

1. Using a 1.5 mm hex key, remove and discard the two M2 screws securing the IMU to the OMT (see Figure 3 or Figure 4). The antenna may have either an old or new version of the IMU installed. If you are replacing a new version IMU, be careful not to drop the backing plate that rests between the IMU and the OMT (see Figure 5 on page 3).

Figure 3: IMU Installed - New Version

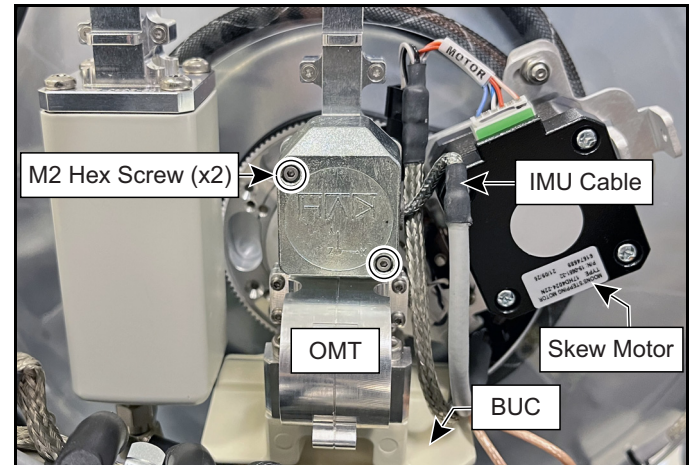
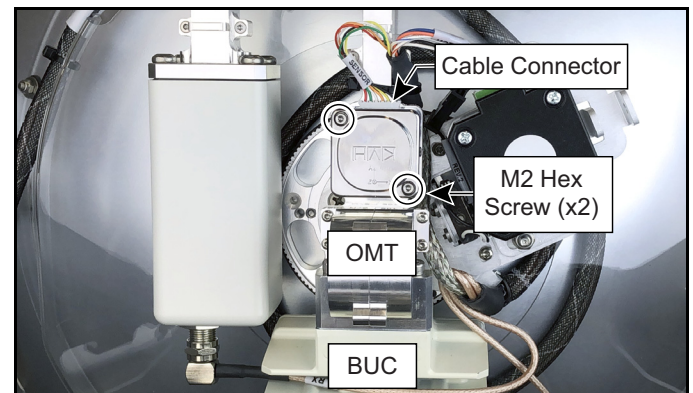


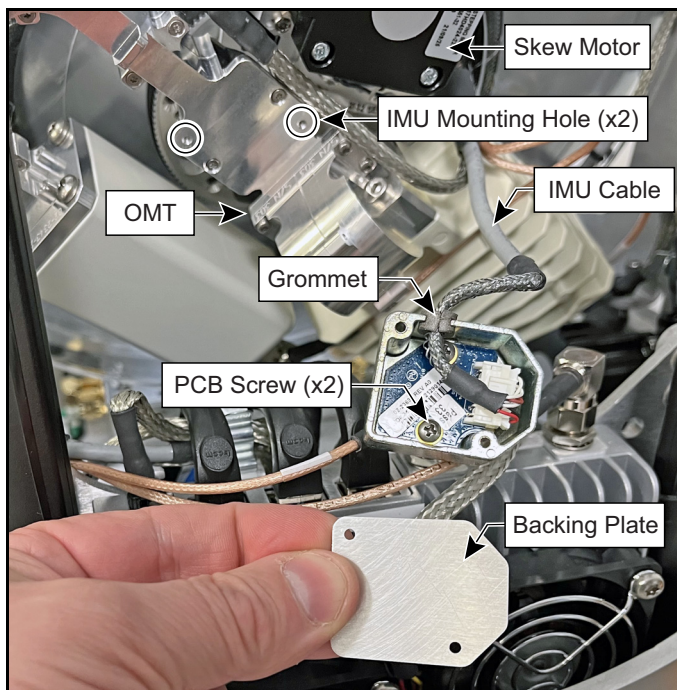
Figure 4: IMU Installed - Old Version



2. If you are replacing an old version IMU, disconnect the cable from the top of the IMU's housing (see Figure 4). **Be sure to disconnect from the connector body; do not pull on the wires.**

3. If you are replacing a new version IMU, disconnect the cable from the IMU's PCB (printed circuit board). If the connector is located at the end of the PCB, as shown in Figure 5, you will first need to detach the PCB from the IMU housing to access it (remove the two Phillips screws). **Be sure to disconnect the cable from the connector body; do not pull on the wires.**

Figure 5: New Version IMU Detached



4. Discard the defective IMU.
5. Connect the IMU cable to the new IMU's PCB. If the cable has a rubber grommet, fit it into the notch in the IMU housing (see Figure 5).

**IMPORTANT!**

Be careful not to pinch the IMU cable/wires between the housing and the backing plate.

6. Position the backing plate over the base of the IMU housing, aligning the two screw holes and ensuring the cable is seated within the notch of the housing. While holding the backing plate in place, attach the IMU and backing plate to the mounting holes on the OMT using two new M2 screws (*supplied in kit*). The cable should face the skew motor (see [Figure 3 on page 2](#)). Tighten the screws to 3 in-lbs of torque.
7. Inspect the inside of the antenna to make sure you have not left any tools or debris inside.
8. Reinstall the radome onto the antenna and secure it with three new #10-32 screws (*supplied in kit*). Tighten the screws to 5 in-lbs of torque.
9. Reconnect power to the BDU.

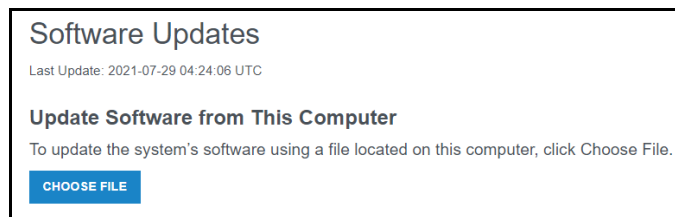
## Access the Web Interface

1. Activate Technician Mode: momentarily press the **Reset** button on the rear panel of the BDU. As an alternative, if the BDU is a Hub+, you could instead go to the Config page of the Hub+ touchscreen and tap the QR code five times.
2. Connect your laptop directly to an available Ethernet port on the BDU.
3. Start a web browser and enter **<https://kvhonboard.com>**. (If the login page does not appear, try <https://192.168.5.1>, which is the default IP address of the BDU.)
4. At the login page, enter the following credentials:
  - Username: **tech**
  - Password: **<BDU serial number>**

## Update the System Software

At the Software Updates page of the web interface, upload the latest system software that you downloaded from the KVH Partner Portal.

Figure 6: Software Update Page



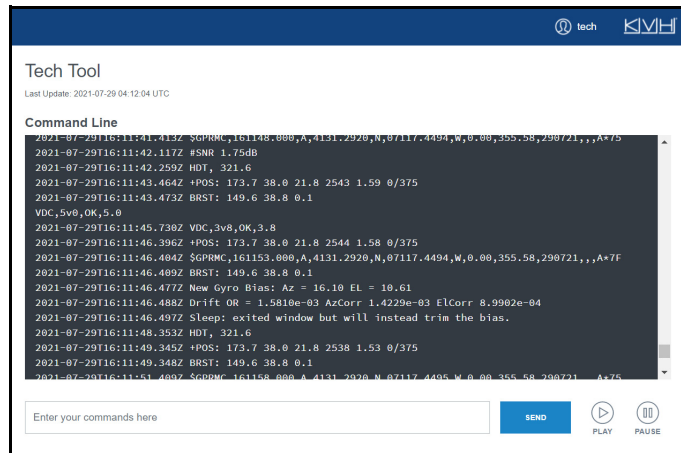
**NOTE:** For details on updating the software, refer to the system's *Help*.

# Calibrate the IMU

Follow these steps to calibrate the gyros in the new IMU.

1. At the Tech Tool page of the web interface, enter each antenna command below. To enter a command, type the command in the text box then click **Send** (see Figure 7).

Figure 7: Tech Tool Page

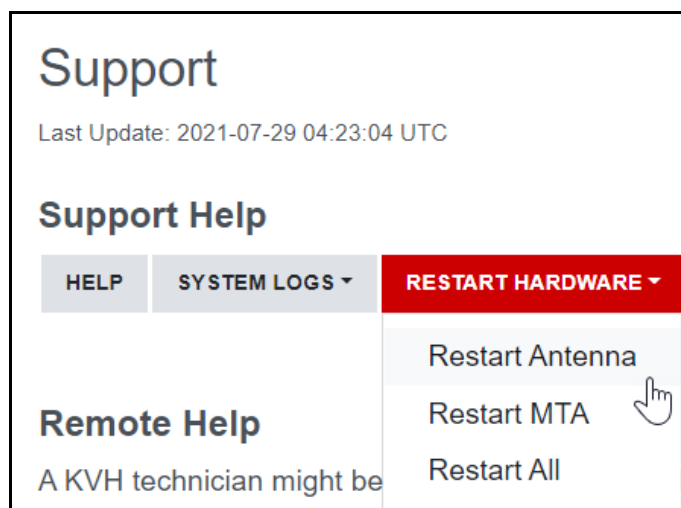


- **HALT**
- **DEBUGON**
- **EEUNLOCK**
- **=CALNEWGYRO**

Verify that the gyro calibration passes.

2. At the Support page of the web interface, select **Restart Hardware > Restart Antenna**.

Figure 8: Restart Antenna from Support Page



3. Test the system for normal operation. If the problem persists, contact KVH Technical Support.

The replacement procedure is complete!