



TracPhone® V7 PCB Replacement Instructions

The following instructions explain how to replace the PCB in a TracPhone V7.

IMPORTANT!

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

IMPORTANT!

Be sure to avoid causing sharp bends in cables when securing or routing cables in the following procedure. Sharp bends or kinks in cables can degrade antenna performance.

IMPORTANT!

The PCB is static-sensitive. Be sure to take proper grounding precautions before handling (for example, use an ESD wrist strap).

Tools Required

- #2 Phillips screwdriver
- 7/64" allen wrench or hex driver
- 3/8" nut driver or wrench
- 7/16" open-end wrench



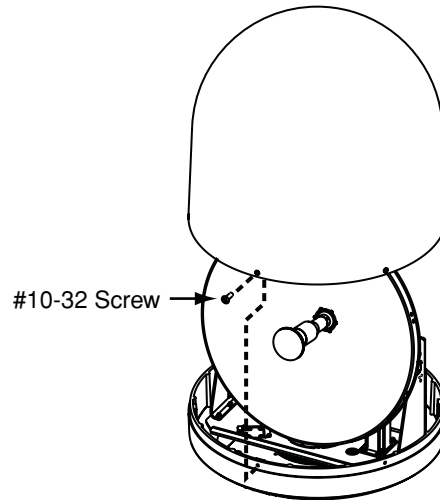
CAUTION

For your own safety, be sure to disconnect power from all wired components before performing this procedure.

Step 1 - Replace the PCB

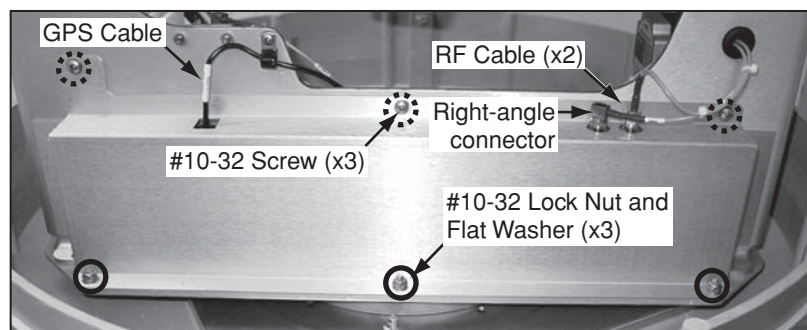
- a. Turn off and unplug the modem and control unit.
- b. Using a #2 Phillips screwdriver, remove the #10-32 screws securing the radome to the baseplate. Carefully lift the radome straight up until clear of the antenna assembly and set it aside in a safe place.

Figure 1 Removing the Radome



- c. Using a 7/16" open-end wrench, carefully disconnect the two RF cables from the PCB. To avoid stressing the cables, hold the top of the connector while loosening.

Figure 2 Detaching the PCB Cover



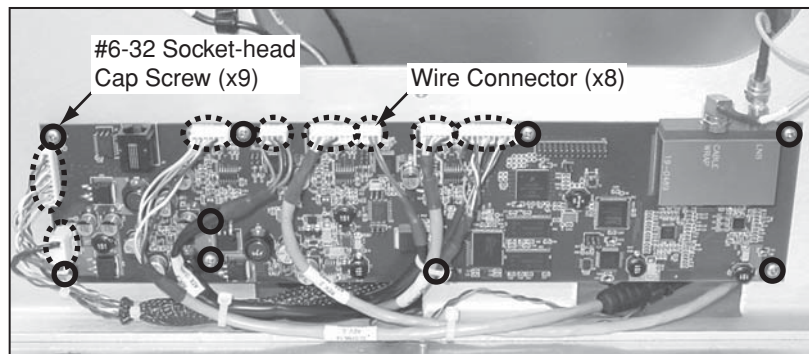
- d. Disconnect the GPS cable (RJ11) from the PCB.
- e. Using a #2 Phillips screwdriver, remove the three #10-32 screws securing the top of the PCB cover to the antenna frame.

- f. Using a 3/8" nut driver or wrench, remove the three #10-32 lock nuts and flat washers securing the bottom of the PCB cover to the antenna frame. Remove the cover.

***NOTE:** Be sure to handle the cover carefully to avoid damaging or dislodging PCB components.*

- g. Carefully disconnect the eight wire connectors from the PCB.

Figure 3 Removing the PCB



- h. Using a 7/64" allen wrench or hex driver, remove the nine #6-32 socket-head cap screws securing the PCB to the antenna frame (see Figure 3). Remove the PCB.
- i. Attach the replacement PCB with nine new #6-32 screws (supplied in the kit).
- j. Reconnect all eight wire connectors.
- k. Carefully reattach the PCB cover.
- l. Reconnect the GPS and RF cables. Be sure to connect the cable with the right-angle connector to the left-hand connector on the PCB (see [Figure 2 on page 2](#)).
- m. Reinstall the radome.
- n. Plug in the modem and control unit.

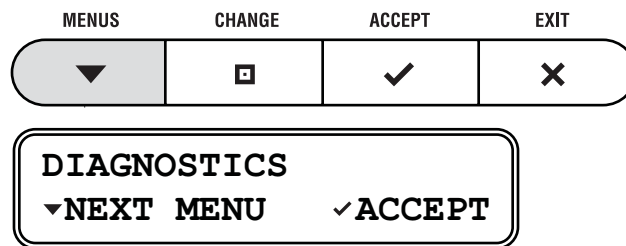
Step 2 - Calibrate the Gyro

Follow the steps below to calibrate the gyros for use with the new PCB.

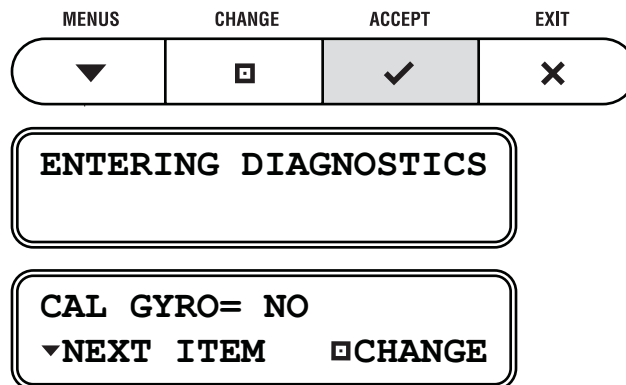
IMPORTANT!

To perform this calibration, the vessel must remain stationary in calm seas.

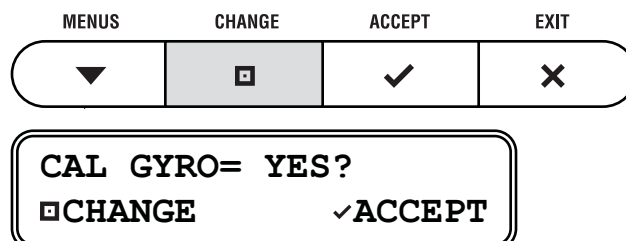
- Apply power to the TracPhone V7 modem and control unit and turn on the system. Wait five minutes for system startup.
- Using the control unit, press ▼MENUS until the display shows "DIAGNOSTICS."



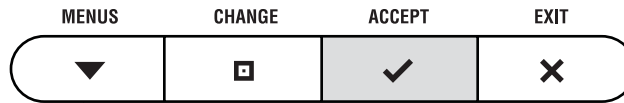
- Press ✓ACCEPT to enter the Diagnostics menu.



- Press □CHANGE until the display shows "CAL GYRO= YES."



- e. Press ✓ ACCEPT to start gyro calibration.



**DO NOT MOVE VESSEL
DURING CALIBRATION**

CALIBRATING GYROS
AZ: EL: SKEW:

- f. Verify that the azimuth (AZ), elevation (EL), and skew gyros all pass ("P"). If any gyro fails ("F"), retry the calibration. If it continues to fail, please contact KVH Technical Support.

CALIBRATING GYROS
AZ:P EL:P SKEW:P

- g. Once the gyros are calibrated, the antenna restarts. Wait five minutes for system startup.

The PCB replacement process is complete!