

TracPhone® V7 Gyro Replacement Instructions

The following instructions explain how to replace the azimuth, elevation, or skew gyro 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. Also be sure to trim the excess portion of any tie-wraps you install and collect all tie-wrap trimmings from the antenna to avoid damage when the unit rotates.

IMPORTANT!

Gyros are sensitive to shock. Handle the gyro carefully to avoid damage.

Tools Required

- #2 Phillips screwdriver
- Cutting pliers
- 5/16" nut driver or wrench
- Electrical tape or heat shrink tubing/heat gun



CAUTION

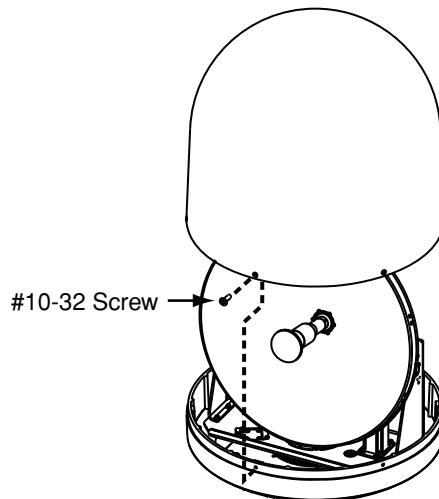
For your own safety, be sure to disconnect power from all wired components before performing this procedure.



Step 1 - Identify the Gyro Location

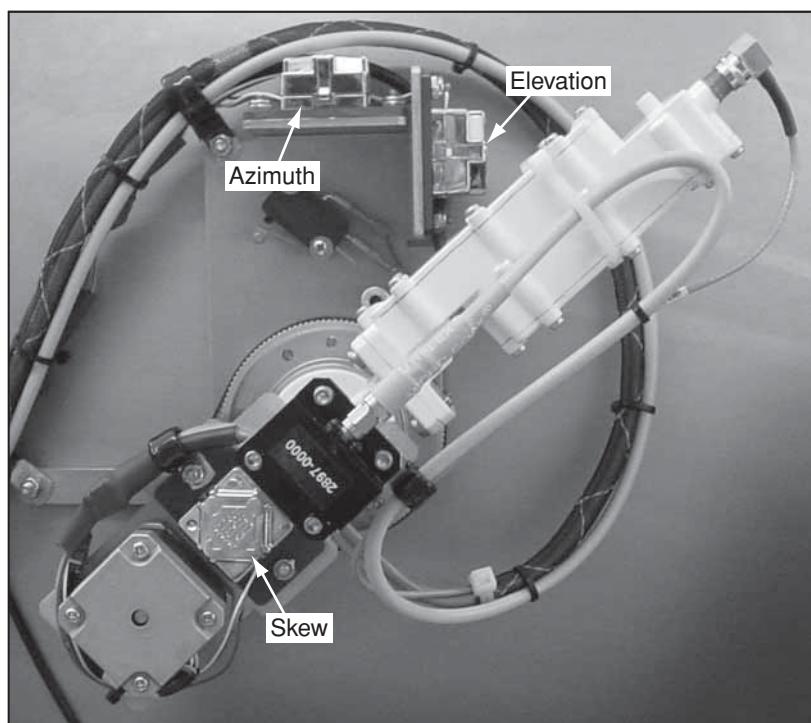
- a. Turn off and unplug the modem and control unit.
- b. Using a #2 Phillips screwdriver, remove the #10-32 screws securing the radome to the baseplate. Carefully lift the radome straight up until clear of the antenna assembly and set it aside in a safe place.

Figure 1 Removing the Radome



- c. Identify the location of the gyro you need to replace.

Figure 2 Gyro Locations



Step 2 - Replace the Gyro

The replacement process differs slightly for each gyro. Follow the associated steps for the gyro you need to replace:

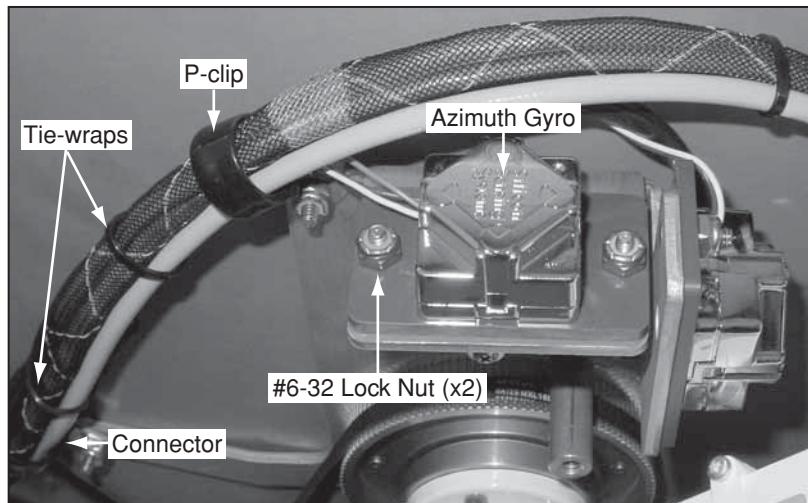
Gyro	Go to Page:
Azimuth	4
Elevation	5
Skew	6



Replacing the Azimuth Gyro

- a. Using a 5/16" nut driver or wrench, remove and save the P-clip securing the gyro wires to the cable bundle.

Figure 3 Removing the Azimuth Gyro

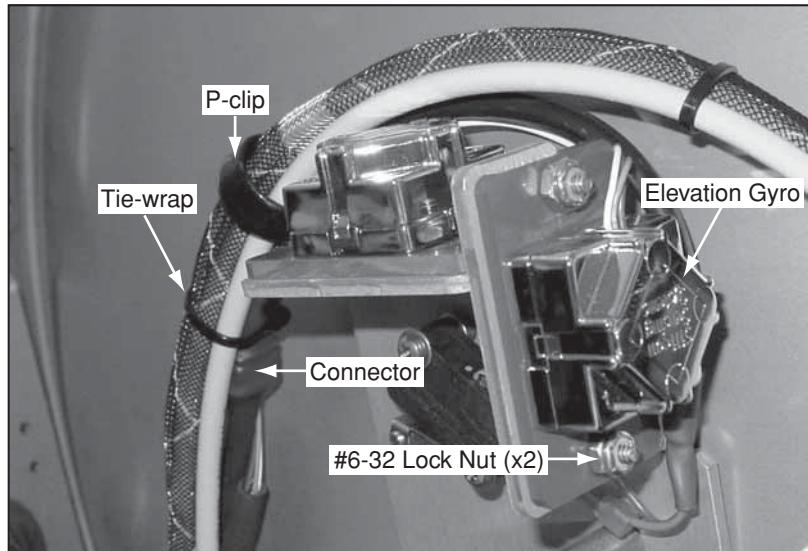


- b. Using cutting pliers, cut and remove the two tie-wraps securing the gyro wires to the cable bundle.
- c. Follow the gyro wires to find its heat-shrink-covered in-line connector. Carefully strip back and remove the heat shrink to access the connector.
- d. Disconnect the connector.
- e. Using a 5/16" nut driver or wrench, remove the two #6-32 lock nuts securing the gyro to the antenna bracket. Remove and discard the old gyro.
- f. Secure the replacement gyro to the antenna bracket using the two lock nuts you removed in the previous step.
- g. Connect the replacement gyro's connector at the in-line connection. Protect the connection with electrical tape or heat shrink.
- h. Secure the gyro wires to the cable bundle using the P-clip you removed earlier and two supplied tie-wraps.
- i. Reinstall the radome.

Replacing the Elevation Gyro

- a. Using a 5/16" nut driver or wrench, remove and save the P-clip securing the gyro wires to the cable bundle.

Figure 4 Removing the Elevation Gyro



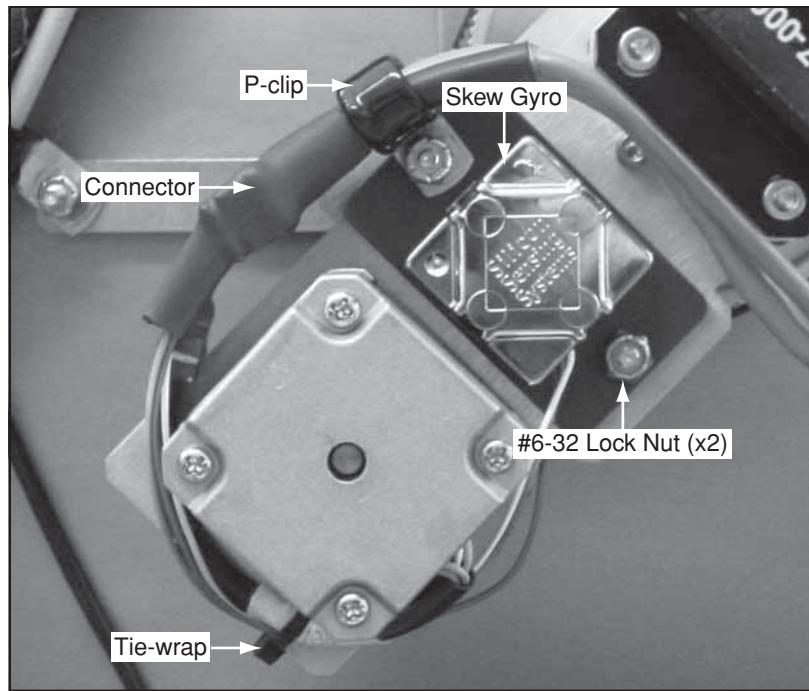
- b. Using cutting pliers, cut and remove the tie-wrap securing the gyro wires to the cable bundle.
- c. Follow the gyro wires to find its heat-shrink-covered in-line connector. Carefully strip back and remove the heat shrink to access the connector.
- d. Disconnect the connector.
- e. Using a 5/16" nut driver or wrench, remove the two #6-32 lock nuts securing the gyro to the antenna bracket. Remove and discard the old gyro.
- f. Secure the replacement gyro to the antenna bracket using the two lock nuts you removed in the previous step.
- g. Connect the replacement gyro's connector at the in-line connection. Protect the connection with electrical tape or heat shrink.
- h. Secure the gyro wires to the cable bundle using the P-clip you removed earlier and a supplied tie-wrap.
- i. Reinstall the radome.



Replacing the Skew Gyro

- a. Using a 5/16" nut driver or wrench, remove and save the P-clip securing the gyro wires to the cable bundle.

Figure 5 Removing the Skew Gyro



- b. Using cutting pliers, cut and remove the tie-wrap securing the gyro wires to the cable bundle.
- c. Follow the gyro wires to find its heat-shrink-covered in-line connector. Carefully strip back and remove the heat shrink to access the connector.
- d. Disconnect the connector.
- e. Using a 5/16" nut driver or wrench, remove the two #6-32 lock nuts securing the gyro to the antenna bracket. Remove and discard the old gyro.
- f. Secure the replacement gyro to the antenna bracket using the two lock nuts you removed in the previous step.
- g. Connect the replacement gyro's connector at the in-line connection. Protect the connection with electrical tape or heat shrink.
- h. Secure the gyro wires to the cable bundle using the P-clip you removed earlier and a supplied tie-wrap.
- i. Reinstall the radome.

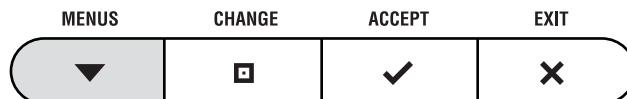
Step 3 - Calibrate the Gyro

Follow the steps below to calibrate the gyro for use within the customer's TracPhone V7 antenna.

IMPORTANT!

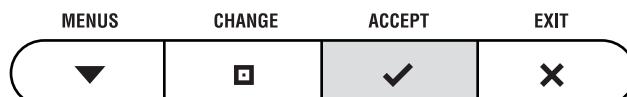
To perform this calibration, the vessel must remain stationary in calm seas.

- a. Plug in the modem and control unit and apply power.
- b. Turn on the system and wait five minutes for system startup.
- c. Using the control unit, press ▼MENUS until the display shows "DIAGNOSTICS."



DIAGNOSTICS
▼NEXT MENU ✓ACCEPT

- d. Press ✓ACCEPT to enter the Diagnostics menu.



ENTERING DIAGNOSTICS

CAL GYRO= NO
▼NEXT ITEM □CHANGE

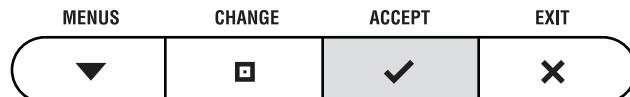
- e. Press □CHANGE until the display shows "CAL GYRO= YES."



CAL GYRO= YES?
□CHANGE ✓ACCEPT



- f. Press ✓ACCEPT to start gyro calibration.



**DO NOT MOVE VESSEL
DURING CALIBRATION**

**CALIBRATING GYROS
AZ : EL : SKEW :**

- g. 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**

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

The gyro replacement process is complete!