

PCB Module Replacement Instructions for TracVision® M9

These instructions explain how to replace the PCB module in a TracVision M9 antenna.

IMPORTANT!

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.

Installation Steps

1. Remove the Radome, 2
2. Replace the PCB Module, 2
3. Configure the Antenna, 4
4. Reinstall Satellites, 5

Tools Required

This procedure requires the following tools:

- Phillips screwdrivers
- Cutting pliers
- 7/16" open-end wrench
- PC with latest version of the Flash Update Wizard installed
- Digital level (or equivalent)

Technical Support

If you need technical assistance, please contact KVH Technical Support:

N. America, S. America, Australia:

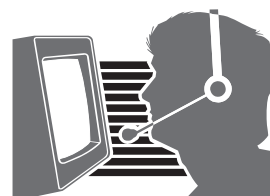
Phone: +1 401 847-3327

E-mail: techs@kvh.com

Europe, Middle East, Asia:

Phone: +45 45 160 180

E-mail: support@kvh.dk



Step 1 - Remove the Radome

Follow the steps below to remove the radome.



CAUTION

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

- a. Disconnect power from the TracVision system and any connected receivers and/or multiswitch.
- b. Remove the eight Phillips screws securing the radome (see Figure 1). Then remove the radome and set it aside in a safe place.

Figure 1 Radome Screws

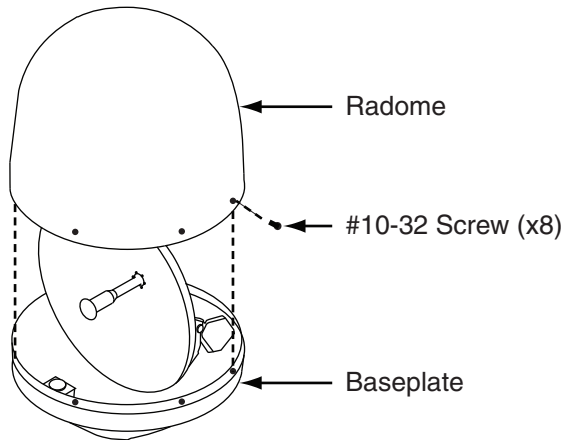
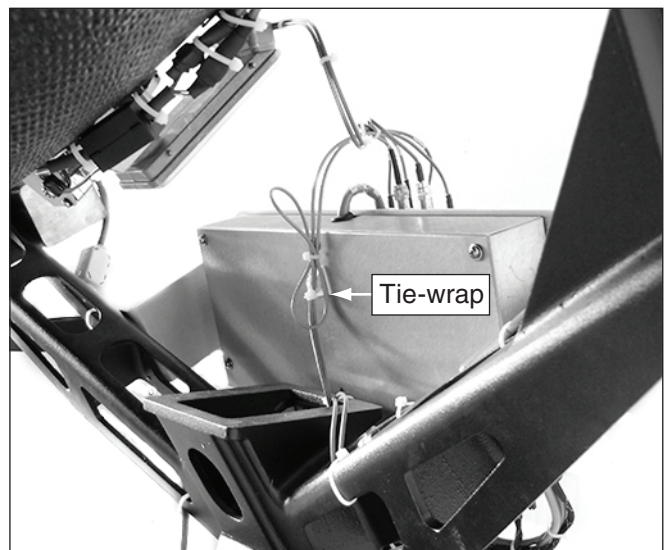


Figure 2 Tie-wrap on PCB Module



Step 2 - Replace the PCB Module

Follow the instructions below to replace the PCB module.

- a. Using cutting pliers, cut and remove the tie-wrap securing the cables to the back of the PCB module (see Figure 2).

- b. Apply labels to the RF cables connected the RF PCB (see Figure 3). You will need to connect each cable to the same connector on the new unit later.
- c. Using a 7/16" open-end wrench, disconnect the RF cables connected to the RF PCB (see Figure 3).
- d. If your system includes an inverter PCB, use a screwdriver to loosen the two Phillips screws securing the inverter PCB to the RF PCB. You do not need to disconnect any cables.
- e. Disconnect all of the connectors from the bottom of the PCB module. You will need to connect each cable to the same connector on the new unit later. Refer to the connector key and label the cables as necessary.
- f. Using a screwdriver, loosen the four Phillips screws securing the PCB module to the antenna frame.
- g. Remove the PCB module.
- h. Reverse these instructions to install the new PCB module. Then proceed to "Step 3 - Configure the Antenna" on page 4.

NOTE: Leave the radome off for now. You will reinstall the radome later.

Figure 3 RF PCB Connections

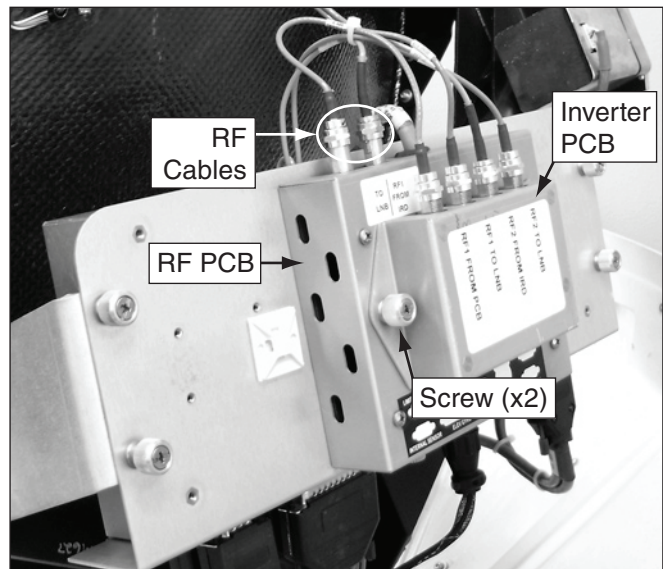
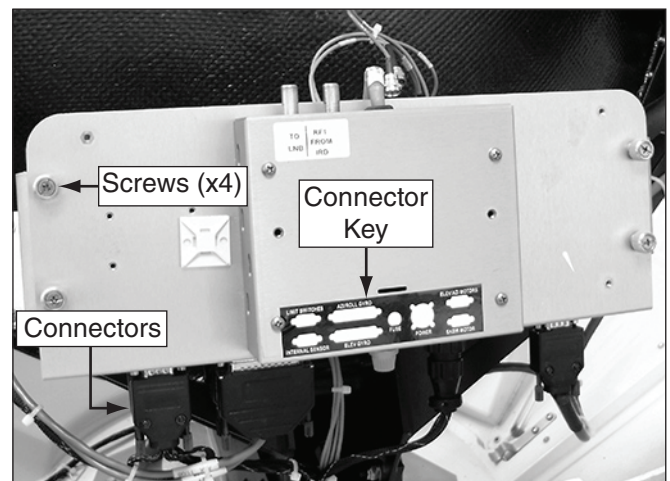


Figure 4 PCB Module Screws/Connectors



Step 3 - Configure the Antenna

Follow the steps below to configure the antenna to use the new PCB module. This procedure requires a PC with the latest version of the Flash Update Wizard installed.

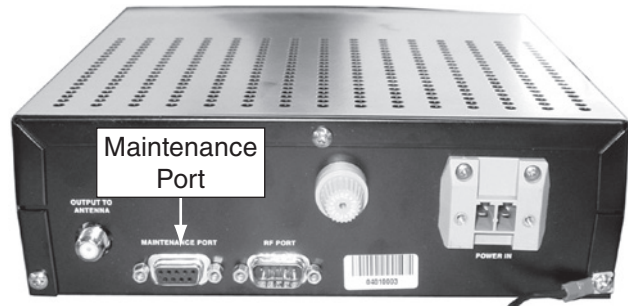
***NOTE:** If you do not have the KVH Flash Update Wizard installed, you can use Windows[®] HyperTerminal instead. Be sure to establish the following settings: bits per second: 9600, data bits: 8, parity: none, stop bits: 1, flow control: none.*

- a. Connect one end of a PC data cable to the maintenance port on the rear of the MCU (see Figure 5). Connect the other end to your PC.

***NOTE:** If your computer does not have a DB9 connector, you can use the following USB-to-RS232 adapters: Belkin part # F5U409 or # F5U109, or IOGear part # GUC232A.*

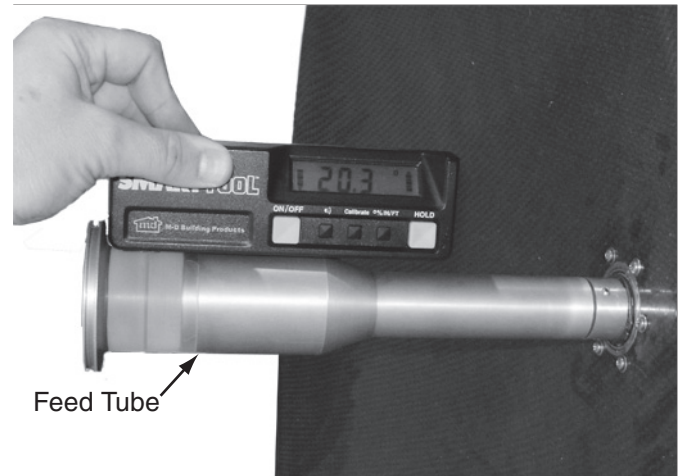
- b. Apply power to the TracVision system.
- c. Open the KVH Flash Update Wizard. You will type the following commands into the Flash Update Wizard's "command" box.
- d. Type **HALT** then press Enter.
- e. Type **DEBUGON** then press Enter
- f. Type **=TVM9** then press Enter.
- g. Type **ZAP** then press Enter to restart the system.
- h. Wait two minutes for system startup.
- i. Type **HALT** then press Enter.
- j. Type **DEBUGON** then press Enter.
- k. Type **EL,300** then press Enter.

Figure 5 MCU Maintenance Port



- l. Using a digital level, measure and record the angle of the feed tube, as shown in Figure 6.
- m. Type **=CALUP,XX.X** where xx.x is the number you recorded in Step l.
- n. Type **=CALGYRO** then press Enter. Wait two minutes while the azimuth and elevation gyros calibrate.
- o. Type **ZAP** then press Enter to restart the system.
- p. Reinstall the radome.

Figure 6 Measuring the Feed Tube



Step 4 - Reinstall Satellites

The TracVision M9 system must now be set to track the satellites of your choice. Follow the instructions provided in the TracVision M9 User's Guide to set the system to track your selected satellites.

The procedure is complete!