TracVision® R5SL/R4SL RF PCB Replacement Instructions

The following instructions explain how to replace the RF PCB (printed circuit board) in a TracVision R5SL/R4SL.

IMPORTANT!

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

Tools Required

- #1 Phillips screwdriver
- #2 Phillips screwdriver
- 7/16" open-end wrench
- Needle-nose pliers
- PC with the latest version of the Flash Update Wizard installed

  TIP: *The Flash Update Wizard is now available to KVH-authorized dealers through the KVH Partner Portal at* ***www.kvh.com/partners****.*

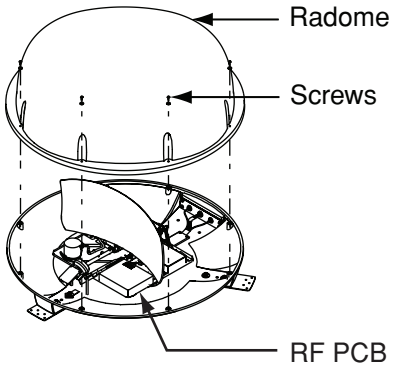
CAUTION

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

Step 1 - Replace the RF PCB

a. Using a #2 Phillips screwdriver, remove the eight #10-32 screws securing the radome to the baseplate. Remove the radome and set it aside in a safe place.

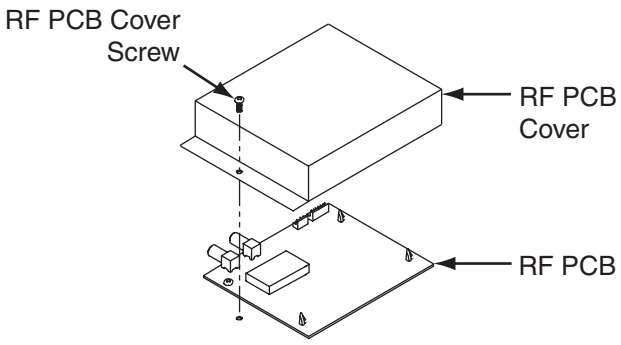
Figure 1 Radome Screws



b. Using a #1 Phillips screwdriver, remove the screw securing the RF PCB cover to the rotating plate. Then remove the cover.

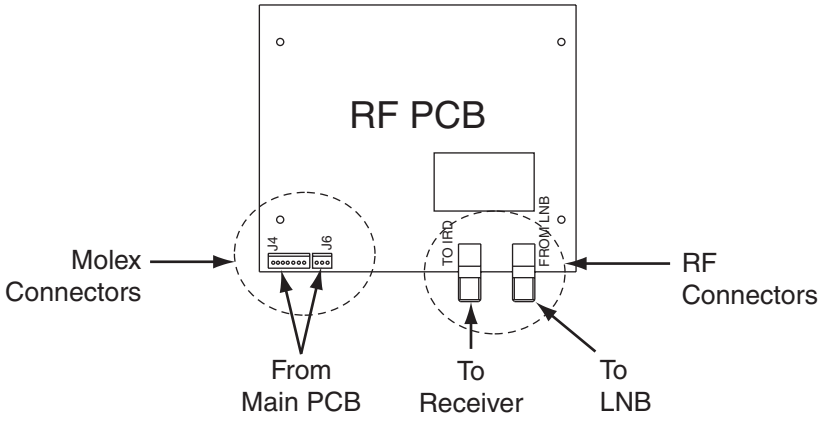
NOTE: *The RF PCB is static-sensitive. Ensure that you take the necessary grounding precautions before handling.*

Figure 2 RF PCB Cover



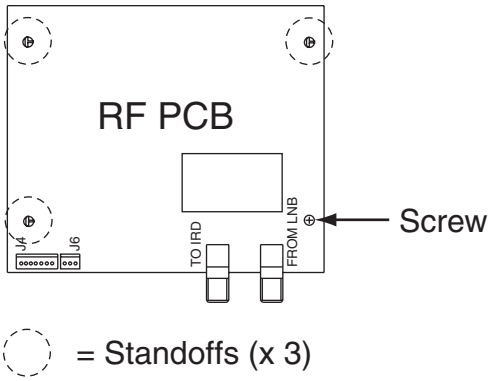
c. Disconnect the two Molex connectors from the RF PCB. Using a 7/16" open-end wrench, disconnect the two RF connectors from the RF PCB. Tag the RF cables first to ensure they are returned to the correct connectors on the new RF PCB.

Figure 3 RF PCB Connectors



d. Using a #1 Phillips screwdriver, remove the screw securing the RF PCB to the rotating plate.

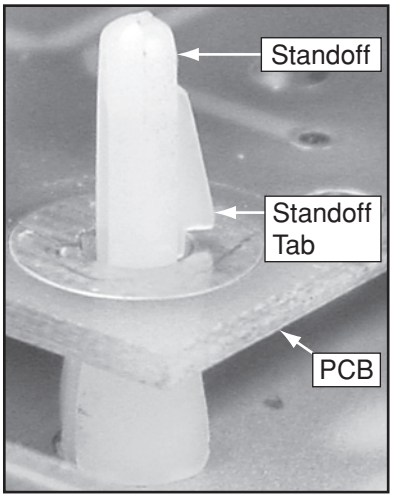
Figure 4 RF PCB Screw and Standoffs



e. Using needle-nose pliers, carefully depress the tab of one standoff, then carefully raise the PCB over the tab. Repeat this procedure for the other two standoffs.

NOTE: *Excessive force can damage the PCB standoffs. Be sure to gently depress the standoff tab, then carefully raise the PCB over the standoff tab.*

Figure 5 PCB Standoff



f. Remove the RF PCB.

g. Reverse this procedure to install the replacement RF PCB. Ensure that the cable connectors are returned to their original positions. Then reinstall the radome and reconnect power to the TracVision system.

Step 2 - Check the Main PCB Software Version

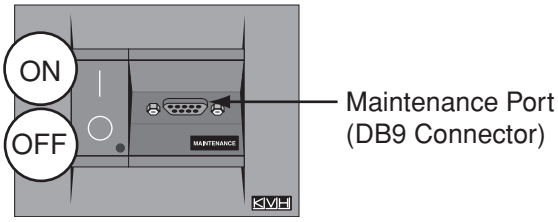
You might need to update the software in the TracVision system's main PCB, depending on its software version. The following instructions explain how to check the currently installed main PCB software version. This procedure requires a PC with the Flash Update Wizard installed.

a. Connect one end of a PC serial data cable to the DB9 maintenance port, located on the switchplate. Connect the other end of the data cable to the serial port on your computer.

TIP: *You can purchase a PC serial data cable from KVH (KVH Part #32-0628-06).*

TIP: *If your computer does not have a DB9 serial COM port, you can use a KVH-tested USB adapter. Refer to the Flash Update Wizard's Release Notes for more information.*

Figure 6 TracVision Switchplate



b. Double-click the KVH Flash Update Wizard shortcut on your PC's desktop to start the Flash Update Wizard.

TIP: *You do not need to flash the antenna; you will simply type commands in the Flash Update Wizard's "TracVision Antenna Comms" window.*

c. Set the switchplate's POWER switch to the on (up) position, then turn on the receiver(s). Wait one minute for system startup.

d. Type **HALT** then press Enter.

e. Type **VERSION** then press Enter. The antenna's main PCB software version will appear in the "TracVision Antenna Comms" window. Be sure to record the software version for later use.

f. Type **ZAP** then press Enter.

g. Click the Flash Update Wizard's "View Release Notes" button. Then click the "Flash File Log" link within the Release Notes. Ensure that your main PCB software version matches the version listed for your TracVision model.

h. **If your software version matches the software version listed in the Release Notes,** the procedure is complete! Be sure to return the old RF PCB to KVH.

   NOTE: *Before returning the RF PCB, be sure to obtain an RMA number from KVH Technical Support and write the number clearly on the outside of the box. Shipments received without an RMA number will be returned to you at your expense.*

   I**f your software version *does not* match the software version listed in the Release Notes,** proceed to ***"Step 3 - Flash the Main PCB (if required)."***

Step 3 - Flash the Main PCB (if required)

The main PCB now needs to be updated, or "flashed" to ensure compatibility with the new RF PCB. Flashing also allows the antenna to use the most current satellite configuration data available. Follow the Flash Update Wizard instructions to flash the main board only.

NOTE: *Only flash the main PCB if your software version does not match the software version listed in the Release Notes (see* ***"Step 2 - Check the Main PCB Software Version" on page 5****).*

The procedure is complete! Be sure to return the old RF PCB to KVH.

NOTE: *Before returning the RF PCB, be sure to obtain an RMA number from KVH Technical Support and write the number clearly on the outside of the box. Shipments received without an RMA number will be returned to you at your expense.*