

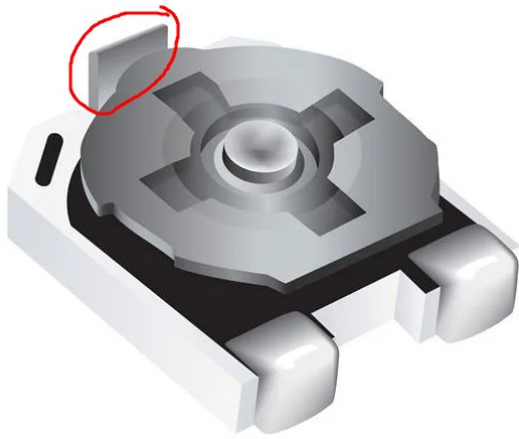
CFT1 5-Band CW Field Transceiver

Troubleshooting and Common Issues

This will be updated as we find common issues people experience and how to fix them!

Issue: Trimpot RV1, RV2, RV4 or RV5 continuously spins without resistance.

Fix: There is a small metal tab near the wiper of these pots that acts as a stop. Use a small flat head screwdriver to bend it inwards to fix!



Issue: One or two of the bands does not output RF.

Fix: The output low pass filter is split into 3 banks. One for 40/30 meters, another for 20/17 meters and one for 15 meters. If one of these sets is not putting out power, it is likely the filter is shorted to ground, likely by a capacitor. Set the radio to the band in question and check the relevant toroids (L18 and L23 for 40/30, L19 and L21 for 20/17, L20 and L22 for 15) to see if there is continuity to ground. If there is, use the schematic to find and remove the short.

Often, the short will either be a solder bridge, or part of a capacitor touching another component connected to ground.

Issue: Trimpot RV1, RV2, RV4 or RV5 is broken!

Fix: You can replace the trimpot using the following part numbers. They are available on Digikey or Mouser. If you want a proper replacement, you can contact RadioDan for a quote for repair.

RV2: 5k, Bourns TC33X-2-502E Digikey: TC33X-502ECT-ND

RV1, RV4, RV5: 10k, Bourns TC33X-2-103E Digikey: TC33X-103ECT-ND

Alternate Through Hole version (kludge solution):

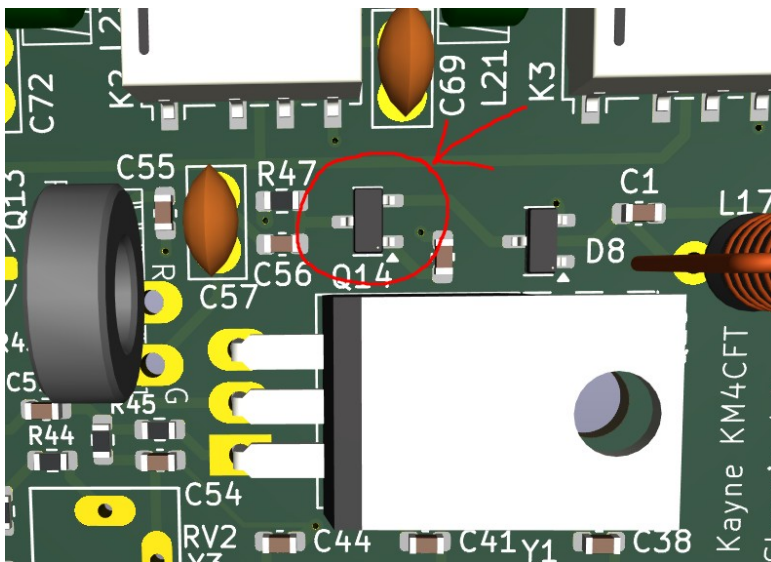
RV2: 5k, Nidec CT-6EP502 Digikey: 563-CT-6EP502-ND

RV1, RV4, RV5: 10k, Nidec CT-6EP103 Digikey: 563-CT-6EP103-ND

Issue: All bands output very little RF, and back of radio get extremely hot while transmitting.

Fix: Hook the radio up to an ammeter and check how much current the radio draws on receive. A normal radio will draw 95mA or less, but this issue often will cause the radio to draw approximately 150mA. Further, if you have a thermal camera, remove the back plate and observe the radio to see if Q14 (transmit/receive MOSFET) glows.

If you observe this issue, you will need to replace Q14. The part is a BSS123, such as Digikey part number BSS123NCT-ND.



Updated May 29, 2026