

**From:** [kc3vo@a...](mailto:kc3vo@a...)

**Date:** Fri Oct 10, 2003 3:02 pm

**Subject:** Re: [FT817] Re: finals-THE FIX!!!

**To:** [FT817@yahoogroups.com](mailto:FT817@yahoogroups.com)

I have discovered that under some conditions, the FT-817 may be susceptible to an INTERNAL OSCILLATION of the final and driver stages, which will result in excess current being drawn, and POSSIBLE damage to the affected stages.

I ALSO have determined that this problem can be solved by simply REVERSING the PHASE of the drive signal to the input of the final output board, and this is one by un-soldering and reversing the shielded cable from the driver stage output balun, at the input to the final board.

It DOES take a good eye, steady and, proper tools, and a little skill to SAFELY and properly accomplish. (You simply swap the shield and center conductor connections of the input coax to the final board)--Do this at ONLY the final board end. The coax COLOR on the correct balun is grey/white-NOT the blue one!

Once the modification is complete, as further insurance, I advise checking the final stage IDLING BIAS current. This may be done by un-soldering the 13.8 volt bare wire power jumper from the P.A.(final) board, and connecting a milliamperemeter in series, to read the idling current. The radio should be connected to an EXTERNAL power source of 13.8 volts D.C. and operated in the SSB mode with NO AUDIO input (Turn SSB mike gain menu to ZERO)-When you energize the PTT circuit, in SSB mode, with no audio, you SHOULD see a current of 70 to 90 milliamperes, and if you adjust the bias pots, one at a time, COUNTERCLOCKWISE on the final board, each pot should take it DOWN to approximately 1/2 the value previously noted. (35 to 45 milliamperes each),for the TOTAL of 70 to 90 ma. (If all is normal, RETURN the pots to their original setting. Do NOT exceed 100 milliamperes when adjusting!)

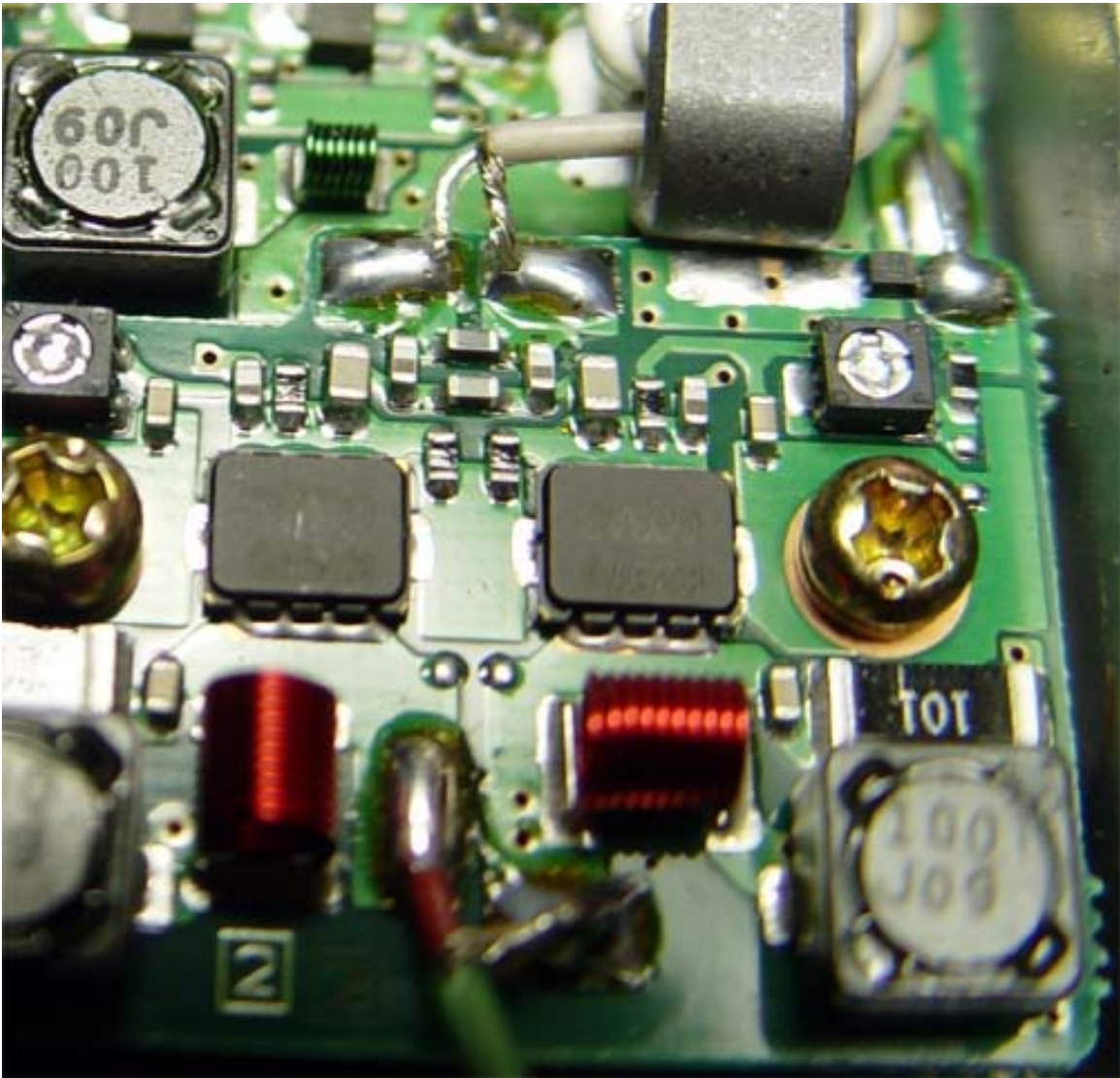
After this simple, no-parts fix, you will ALSO likely note that the "Ferrite Bead" on the external power cable is NO LONGER NEEDED! Be certain, however, that the top cover screws are properly secured before using the front BNC antenna jack, or you could induce feedback via this route.

Hopefully this will put an END to the mysterious "Finals Blowing"

Lastly a word of WARNING. If you are not sure, or do not fully UNDERSTAND this procedure, or do not have proper tools and skill, seek qualified assistance! Failure to do so MAY result in DAMAGE to your transceiver!

73, and good DX! KC3VO, Bob Curry.

Here is a picture of my FT-817 PA board before the mod. Note the grey wire coming out of the Balun and which wire goes where



Here is a picture of my FT-817 PA board after the mod. Again, note the grey wire coming out of the Balun and which wire goes where

