

Ten-Tec 253 Automatic Antenna Coupler Intermittent Keying Loop

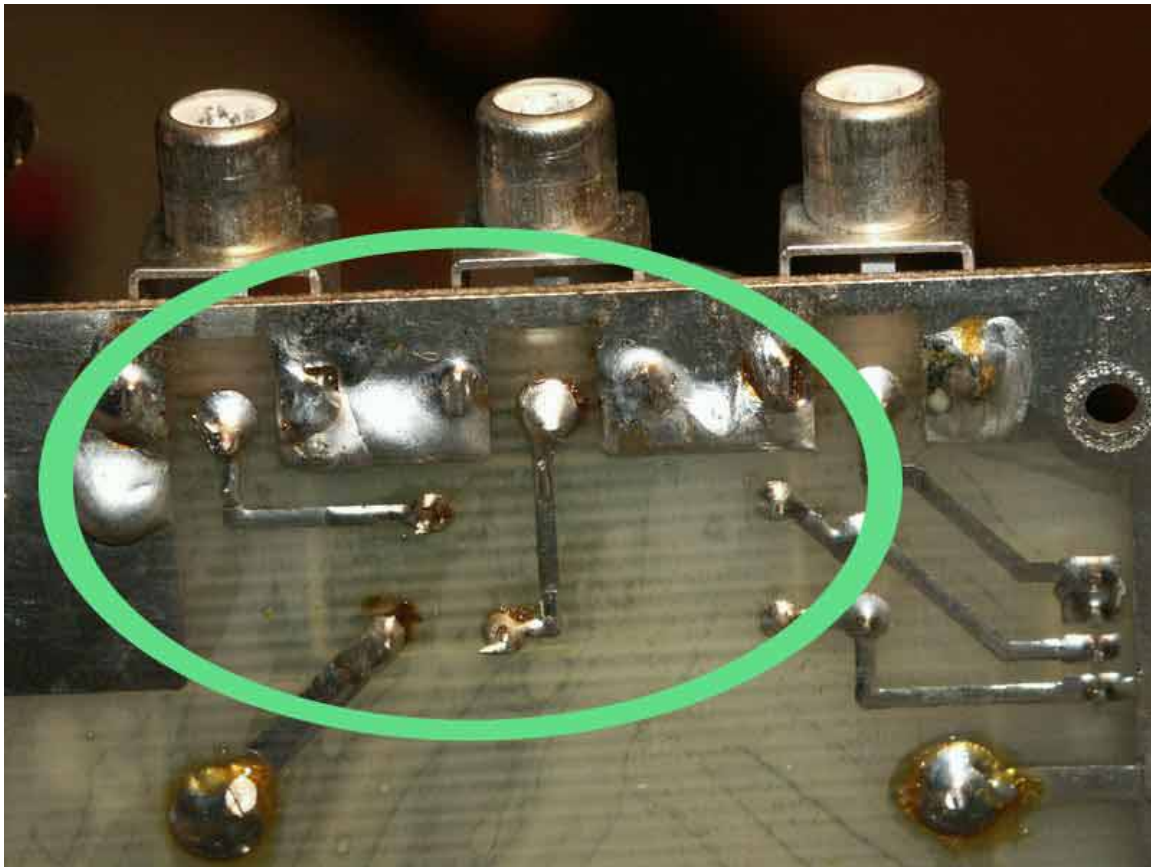
In recent months I had periodic failures of the 253 keying loop. This occurred even with the antenna coupler in bypass. I immediately thought it was a faulty cable in the keying loop and replaced both cables.

The problem went away. Then after a few weeks it reappeared. It seemed to reappear whenever I got near the T-T 253 **Exciter Out** or **Exciter In** RCA connectors.

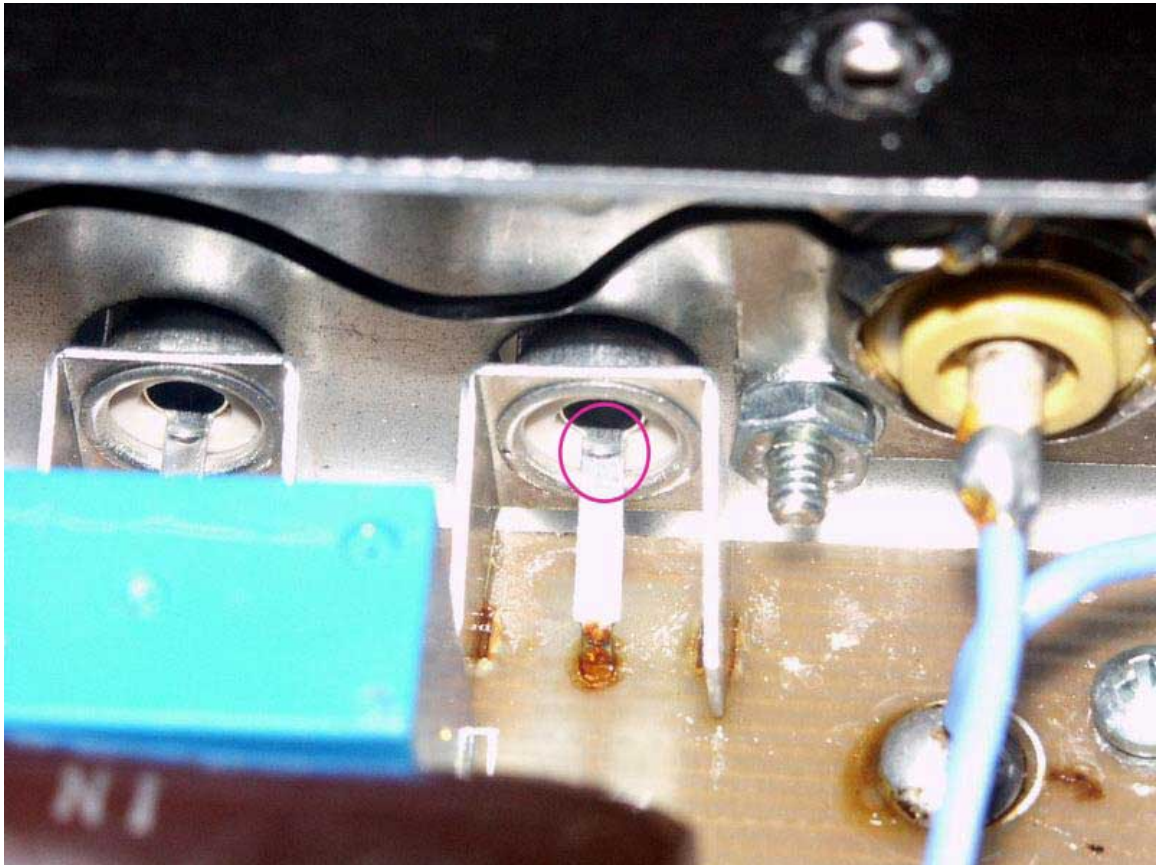
I looked over the **KW Bridge Pad Board** schematic (Figure 4-7) and it was obvious that my problem involved the RCA jacks and/or relay K6.

I removed the 253 case, SO-239 for the RF Input, all plug-in connections (32, 31, 22, 21, 12 and 29) and the 4 screws holding the board in place. With some inter-board RF cables still soldered in place, I was able to manoeuvre the board and examine the **Exciter** RCA jacks.

The connections didn't look that bad BUT I resoldered the jacks and the relay contacts.



As I was reassembling the 253 I inserted RCA plugs in the sockets and measured the resistance. All was well BUT the plugs felt *sloppy*. To resolve this issue (it may have been the main culprit) I built up the inner contact of both the RCA jacks with some solder (See the circled area in the figure below) to make the connection somewhat more secure. (**Note:** There's a fine line between more secure and blocking the jack so be sure to test the fit prior to buttoning up the 253.)



I put the T-T 253 back into service and it has run flawlessly since. A simple fix but an annoying problem seems to have been solved.

73,
Rick
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(September 2007)