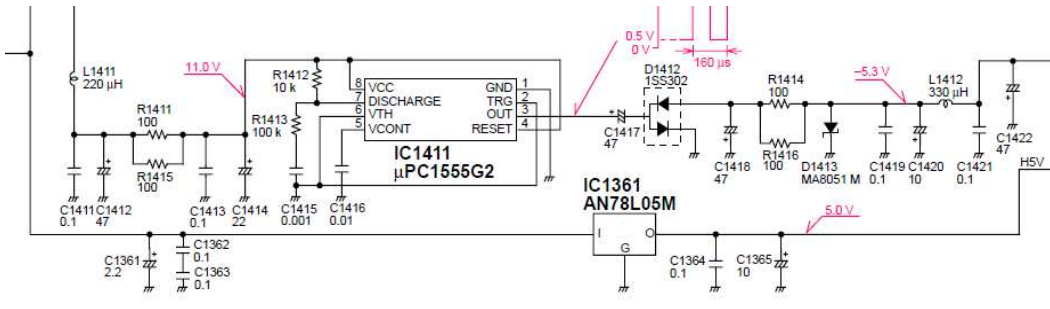


Icom R-75 Common Problem

Two Icom R-75 general coverage receivers, one purchased new in 2007 (s/n 0203933) and the other purchased used in 2008 (s/n 02280), with identical problem. After receiver has been turned off for a while and then turned on, it is dead but after 10 minute warm-up it squeals and motorboats for up to another 15-20 minutes. After that, the receiver works fine but with what seems to be slightly weak audio output. The problem gets progressively worse over time. For example, one receiver would start to squeal almost immediately after turned on and require only a few minutes to start working but when tried a month or two later, it would require up to 30 minutes to start working.

The problem was traced to bad electrolytic capacitors C1412, C1417, C1418 and C1422 in the -5 V converter circuit (IC1411 in schematic below). The -5 V is used by many sub-circuits in the R-75.



These are SMD capacitors that have the same part number and require about 1 h to replace. The replacement part number is different than the original part number:

- ✓ Original Icom p/n 4510004640: Panasonic p/n ECEV1CA470SP, 47 µF, 16 V, 85 °C electrolytic
- ✓ Replacement Icom p/n 4510008520: Panasonic p/n EEE1CA470SP, 47 µF, 16 V, 85 °C electrolytic

The capacitors are on the Main Unit PCB near the back close to the EXT SP and REMOTE jacks (see layout right). C1417 and C1418 are inside the converter shield and C1412 and C1422 are outside adjacent to the shield.

