THE INFAMOUS C100

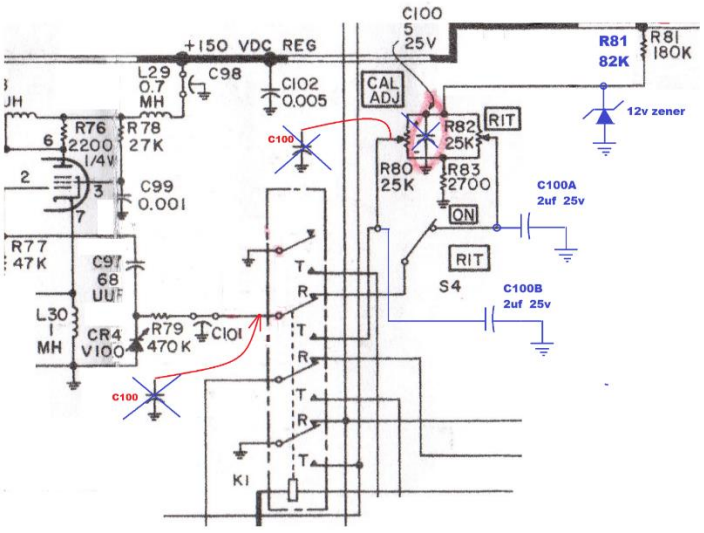
The infamous C100, It migrates all around the RIT circuit. Hallicrafters could not decide where they wanted to put it. It did not work connected to the tie-point of R81 and R80. It can be located at C101. Sometimes it is on the wiper of R80 the RIT control. Sometimes it is on the wiper of R82. RED IN DRAWING BELOW

PROBLEM: In its original placement, high V side of CAL and RIT pots to gnd, it did not eliminate the stray pick up by wiring running from the front panel to the relay and on to the VFO. Placing it on the wire connecting the relay to C101 works great on SSB. But if operating CW, break-in keying, with the RIT turned on, the first dit or dash has a chirp.

The reason they wanted it in there was to decouple the line that feeds the VFO diode CR4. The wires run all over under the chassis and pick up a lot of noise, which would cause FMing of the VFO.

They tried different locations on the SR-160, SR-150, Cyclone, Cyclone II, 400A and the SR-2000.

I have found the best solution is a zener diode mod to the RIT circuit and splitting C100 between R80 and R82. BLUE IN DRAWING BELOW

Adding a zener diode at the junction of R80 and R82 provides a stable reference voltage for the bias divider. More importantly, the zener establishes an extremely low impedance to gnd for any ac or rf induced into the wiring. The zener mod is in the sr-150 repair manual on https://wd0gof.com . Look for section 3-3-2.

This information also applies to the SR-400 and the SR-2000.