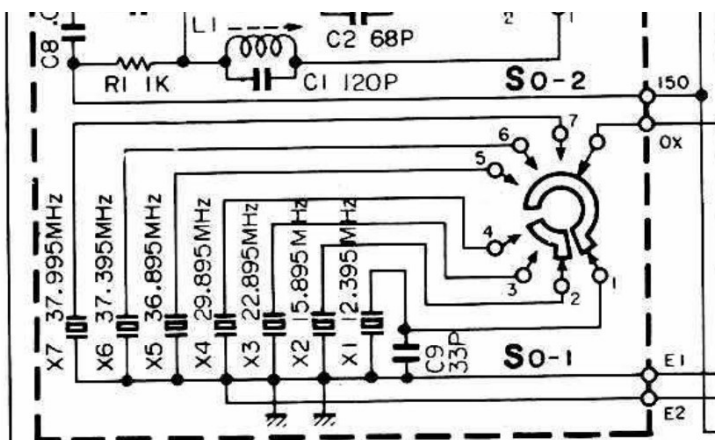


TS-511 WEAK RECEIVE

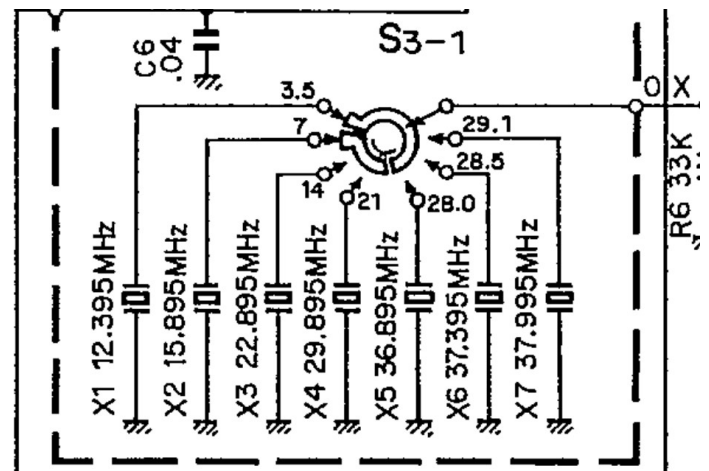
(Provided by Masa, AB9MQ)

There is another possibility of weak reception condition at higher band, which is local oscillator crystals. As you may already know, TS-511's local oscillator frequency of 80m - 10m are exactly the same as the ones of TS-520 and T-599 and R-599. They are interchangeable. If one of those crystal is weak, that band will have low sensitivity because of low level of oscillation. If you have junk or spare parts TS-520 radio etc, take stronger crystal and replace them. You will get better result as well. TS-511 unlike TS-520 or T/R-599 series, local oscillator is a tube circuit with 6AW8A. Usually you will get a good oscillation, but this tube's half is pentode and is used for mixing signal. When you have low level mixer output, it will result weaker reception. You may not notice at lower frequency such as 80m or 40m, low level of mixed signal at higher frequency usually cause the receiver to be insensitive. To correct this problem, the simplest solution is to (1) replace 6AW8A with better emission, (2) replace 0.01 uF bypass cap, and check cathode resistor value 330 ohm from pin 6 to ground and grid resistor 33K from pin 2 to ground. As to check the level of local oscillator, probe pin 2 via 0.001uf or some other value capacitor and see the sign wave form level with oscilloscope. You may notice quite a range of oscillation level difference depending on the band. (higher frequency is much lower).

I would recommend first the above replacement of 6AW8A (easy fix) before go through band switch cleaning (See #6 & #20 Back to Basics). Taking the band switch apart requires a lot of patience and high attention level. Never do this when you are tired or some other things need be done such as XYL's honey dues hi. You will need uninterrupted 3 - 4 hours of total isolation from outside world. You can reach the spiritual level of high monk or Budda !



TS-511



TS-520

