

COMMERCIAL KINKS

WIDE OR NARROW CW SWITCHING WITH THE TS-520S

It's always pleasing to get feedback on modifications published in Commercial Kinks. The wide / narrow CW switching for the TS-520 has proved useful to many amateurs but it seems that the modification is not directly transferable to the TS-520S. If you have tried without success here is the answer by Evan Jarmán, VK3ANI . . .

I was interested in the TS-520 modification in the June 1979 issue of AR and attempted to change a TS-520S believing the circuitry to be identical.

The modified unit did not work as expected, casting suspicion on the procedure. However, a difference in circuitry came to light after talking with Andrew VK3BHC and some additional changes were found necessary.

The problem is in the carrier oscillator switching.

There are two frequencies used for CW operation: One on receive (CWR = 3.3943 MHz), the other on transmit (CWT = 3.3950 MHz). These frequencies are obtained by diode switching using the Rx/Tx relay. In the TS-520, the tune position retains this rationale, but the TS-520S does not; CWT is used on both Rx and Tx. This modification restores the function switch rationale to that of the TS-520 to enable use of VK5TT's alteration.

S-3 is the mode switch and section 1 activates the CWT frequency. There are two wires connected to the tune position; one

black, the other red. The black wire is removed. This wire removal requires some care as it bridges two fairly inaccessible switch lugs. The red wire is disconnected at the switch and reconnected to the 9 volt terminal (marked 9) on the RF generator board. The wire now connects the 9 volt terminals of the RF and AF boards together.

A bridge connection is now soldered between the CW and tune lugs of the switch section.

Section 2 of S-3 activates the CWR frequency. On this section a bridging connection is soldered between the tune and CW lugs.

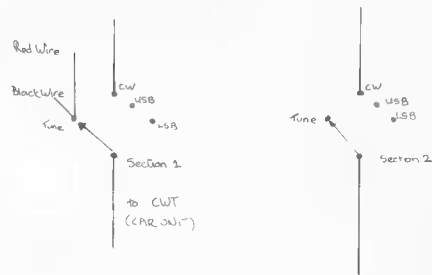
Sections 1 and 2 are located on the wafer closest to the front panel with section 1 being concealed.

Section 8, which selects the filter, is in the same position as with the TS-520S as in the TS-520 and can now be modified as per VK5TT's instructions. There is one slight difference still to be mentioned: the JJY/WWV has become the TS-520S's RF attenuator.

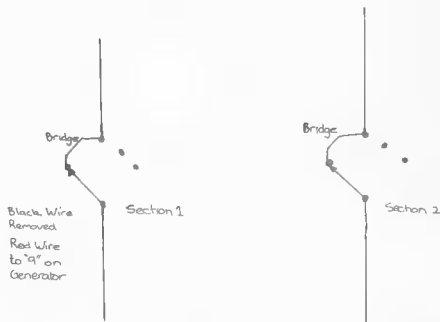
The modifications can be made "in situ" by removing the S meter but you have to be very careful.

The number of additional modifications required surprised me for what, I thought, were basically identical units. I am now quite wary of modifications for the TS-520 being used on the TS-520S, and vice versa.

Schematic diagram of modified switch S-3 on Kenwood TS-520S.



Switch S3 before Modification.



Switch S3 after Modification.