

LOW POWER IN CW MODE

There are several faults that can cause low power in CW and TUNE modes when you have normal power in USB and LSB.

First is L15 and L16 alignment (8-10 in the factory manual).

The second is VFO off set alignment (8-8-D in the factory manual).

The third is the CW shift of the USB oscillator. To test this, connect a frequency counter to pin 3 or 4 of T4. Power up in receive mode, turn all the gain controls to minimum, leave the high voltage off, USB mode. Adjust C139 for exactly 1651.550KHz. Switch to tune, the oscillator should shift a minimum of 50 Hz. I prefer a shift of 150Hz. The amount of shift is determined by C135, 33pf. I have replaced that cap with an 8-50pf ceramic NPO variable capacitor so I can set it precisely to the amount of shift I want.

Finally; You have done the 1650 alignment by the book. Your VFO is working perfectly, and the CW and TUNE modes still suffer from low power. Tune up in CW or TUNE mode. Then adjust the USB tuning capacitor in the carrier oscillator (C139) for max power out in CW or TUNE mode. Unkey and check the frequency of the carrier osc in the usb mode. If the oscillator is not more than 500Hz off frequency you can use the system in that configuration. You will have to remember to re-CAL when operating on USB. LSB will not be affected by the offset.

THE PROBLEM IS: You have a component in the 1650 filter subsystem that has gone south. The possible offenders are, L15, L16, FL1, C59, C60, C61, C62 and C63.