

5.4 Transmitter R.F. Tune-Up Procedure

1. Remove 6 screws from transmitter. Break seal on case and remove PC assembly. Put PC assembly on bench, component side up.
2. Refer to transmitter schematic Figure 5.2.2.
Soften bee's wax on cores in L11, L12, L13 and L14.
Using oscilloscope with small 50 ohm loop, starting at L11, adjust these cores for maximum oscilloscope reading.
Repeat this tuning sequence until no further increase in oscilloscope reading can be obtained.
3. The MOD. IN input latch at 0 volt. Observe frequency counter. Adjust the small ceramic trimmer capacitor on the PC assembly so that output frequency is exactly 1.8 KHz higher than the channel frequency.
4. The MOD. IN input latch at 9.6 Volt.
Adjust the small trimmer resistor on PC assembly so that output frequency is exactly 1.8 KHz lower than channel frequency for the module.
5. Repeat step 2.
Repeat step 3 and 4.
6. Using spectrum analyzer with small 50 ohm loop, verify that sub harmonic and harmonic components are at least 50dB below carrier component. Pay special attention to 90MHz and 144 MHz components.
7. Remove PC assembly from Transmitter. Reapply bee's wax to L11, L12, L13 and L14. Put PC assembly back into its case, replace the four screws and re-seal opposite edge.