

## **Modifications for CW-Keying**

AF/CW osc/2 tone osc.

At higher speed (more than 20 wpm) the relation between time of dot and space changes in such a way that the space disappears.

The following has been changed:

C1 was 1uF and should be 0.47uF or less  
C4 should be removed.

A check of rise and decay times of a dot will still be OK.

As far as I can see the keying is taken from JP4 pin 6 (on the Controller board). Why it is a high current output I do not know. That output gives a +12V when keyed. Examining the keying circuit, it can be seen that keying will be done if "KEY" is grounded.

To overcome that minor mistake a BC547 or equal has been added to invert the keying signal from the Controller board.

Collector to "KEY"

Emitter to Ground

Basis via a 10k resistor to JP4 pin 6 (Controller board)

+12VCW is grabbed from JP4 pin 2 (Controller board)

The speed regulation works also. I am just not totally satisfied because the regulation is done in too large steps. If 24 wpm has been set – the next higher step is 30 wpm. This is a too big step for me. For QRS (slow speed) the steps are OK.