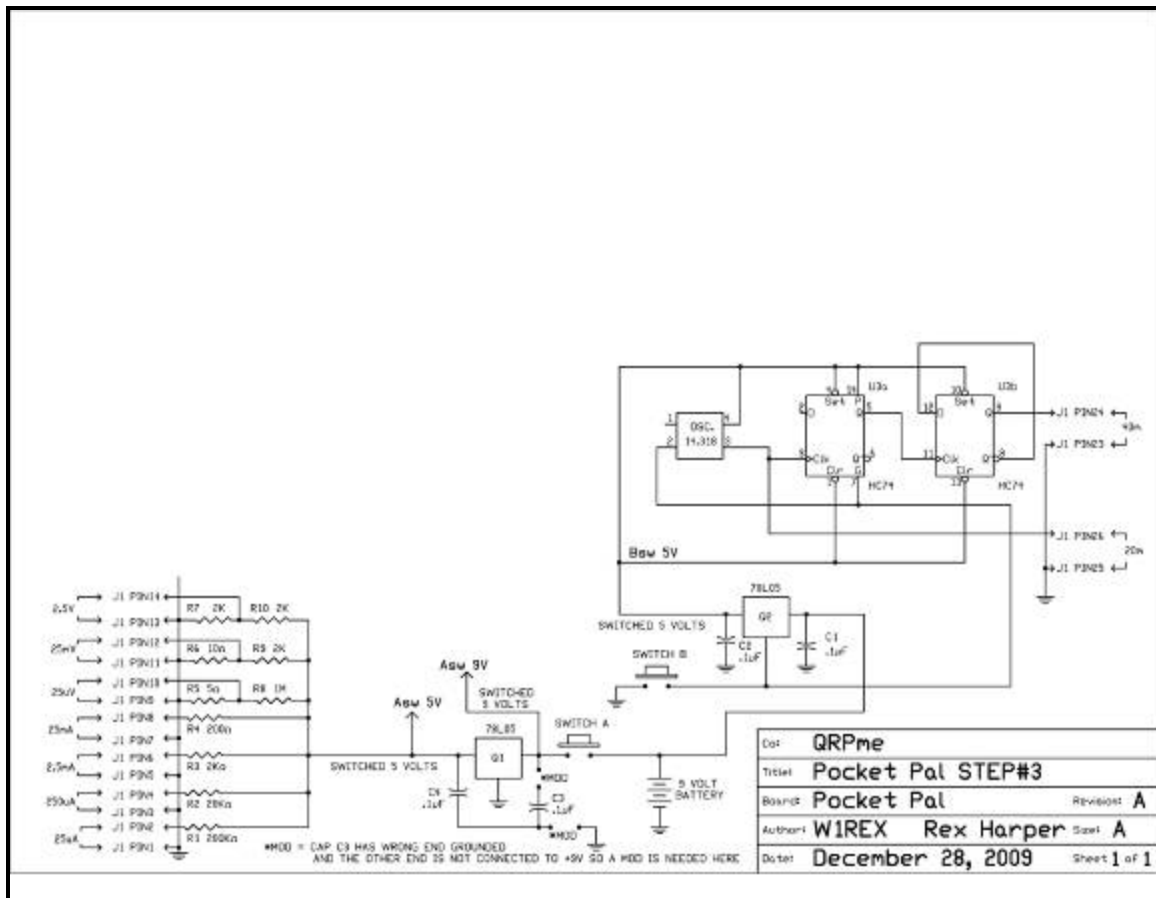


Pocket PAL STEP#3



OK. Now we can move on to build the 20m/40m oscillator circuit. You can use the outputs of the oscillator to test frequency counters or receivers etc. Press pushbutton B to power up the oscillator and divide by 2 circuit and the 20m output, 14.31818Mhz, is available on connector pins 25-26 with the ground side of the signal on pin25. The 40m signal, 7.15909Mhz, is available on pins 23-24 with the ground side on pin23.

ASSEMBLY

The oscillator circuitry is over on the leftmost side of the Pocket PAL board. The parts required to assemble the oscillator circuitry are:

C1, C2 are .01uf

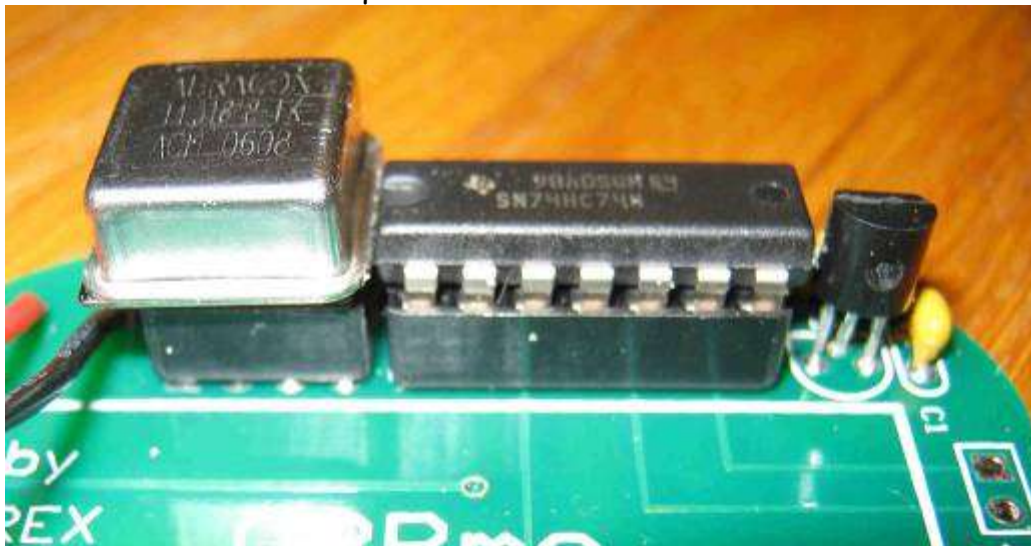
U3 is a SN74HC74 installed IN a 14 pin DIP socket

Q2 is a 78L05 voltage regulator

OSC is a 14.31818 $\frac{1}{2}$ size oscillator can (optionally installed in an 8 pin socket)

SW B is a tact normally open pushbutton

A slight problem in this circuitry is that the clearance between the oscillator can and the 14 pin socket is a little too close. Install the socket first and then the oscillator. You will probably have to install the can at a slight angle to get it in the holes. Make sure you have the oscillator can oriented properly (test on can reads same as circuit board) before attempting to install it in the holes. I installed my oscillator can in an 8 pin socket and dry fit BOTH sockets before soldering. You can see from the assembly picture below, the fit is a little tight but now I can change out the oscillator for different frequencies.



OPERATION

Press Switch B to provide a ground to voltage regulator Q2 which powers up the oscillator. Insert the test leads in connector J1 pins 25-26 to get the 20m signal and pins 23-24 to get the 40m signal.