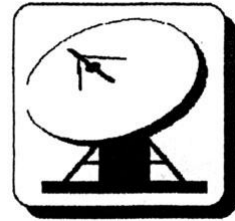


Hibiscus Coast Amateur Radio Club (Inc.)

Branch 80 N.Z.A.R.7.

Callsign, ZL1FU
Packet BBS, ZL1FU-1 on 144.650 MHz
AREC Callsign, ZL6EC

Clubroom - 479/1 Whangaparaoa Rd.
WHANGAPARAOA 1463



Code Practice Oscillator - Construction Notes

This was originally supplied as a kitset complete with P/C board, components listed below (without speaker or earphones), metal box, and mounted Morse key.

Before commencing assembly, the P/C board should be inspected for any breaks in the copper track, and in accordance with good solid-state assembly practice, all resistors, capacitors, fly leads etc. should be soldered in before fitting the IC 555.

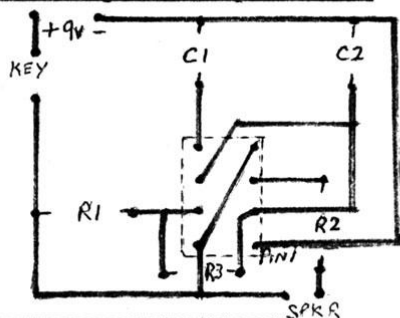
Resistors R1 & R2 can be replaced by miniature pre-set potentiometers to allow variation of pitch & volume, or if the unit is fitted in a case, front panel controls can be used with fly leads to the P/C board. The value of such controls should be R1, 22k & R2, 250 ohms.

Speaker or earphone impedance can be anything from 3 ohms to 2k ohms or more, but if low impedance loads are used, it is wise to use the maximum value resistor, consistent with sufficient volume, in series with the speaker or earphones to limit pin 3 current of the IC to a safe value. No switch is needed, as the Morse key, being directly in the battery circuit, takes care of this.

It is suggested that the P/C board be mounted on a simple base, along with the battery, Morse key and speaker (if used) as this will help eliminate the constant braking of leads that could otherwise occur. It would be more professional to mount the P/C board, battery and speaker in a small metal box with phone sockets to allow connection of the Morse key & earphones. A suitable phone plug would be one which automatically disconnects the speaker when the earphones are plugged in, thus making for domestic harmony. Resistors R1 & R2 could then be replaced with variable controls mounted on the front panel and so be adjustable by external knobs.

Finally, when the assembly is complete, and before connecting the battery, make sure there are no solder bridges between close spaced points such as IC pins.

Circuit Diagram - Component Side



Project 1-780, by
Trevor ZL1FU (now silent)
presumed date July 1980

Parts List

R1	10k ohms
R2	120 ohms
R3	3k3 ohms
C1	0.1mfd or omit
C2	.047 to 0.1mfd
IC	LM555
Spkr. or earpiece	3 to 2k ohms