Shoestring MW Radio – On A Budget

The medium Wave Radio circuit diagram of Fig.2 uses relatively few components but delivers 500mW (0.5W) into an 8 ohm loudspeaker. In Cape Town, with high selectivity selected, the radio picks up the *Voice of America* clearly after dark.

In the circuit, coil L1 is 80 turns of approx. 30 s.w.g. enameled copper wire, close-wound on a 5cm (2in.) diameter piece of PVC piping. A center tap at 40 turns provides greater selectivity and may be selected with switch S1. The value of tuning capacitor VC1 is not critical.

The Volume control VR1 controls the gain in preamplifier IC1. The output of IC1 is fed, via treble control/low pass filter capacitors C4 and C5, to a standard LM380 audio amplifier IC.

A good aerial and earth are essential. The aerial may be attached to a metal window frame or a long wire. The earth connection may be a metal spike sunk into the ground.

Experimenters could try using a crystal earpiece wired between diode D1 cathode (k) and 0V, which may give fair listening volume even with the battery (B1) disconnected.

Rev. Thomas Scarborough
Cape Town
Republic of South Africa

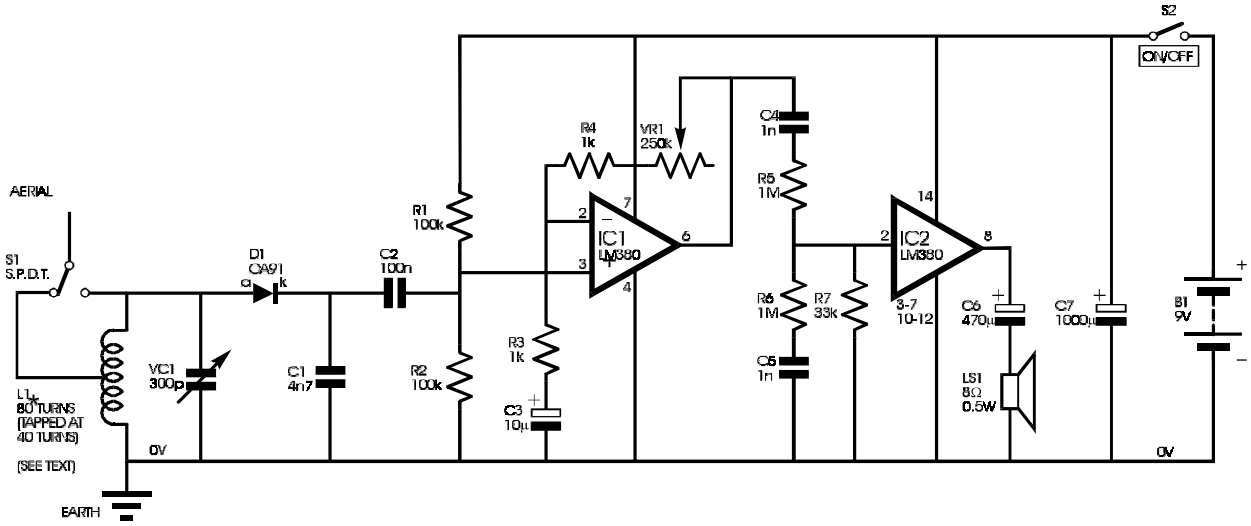

Fig.2. Circuit Diagram for the Shoestring MW Radio.

Go to next section