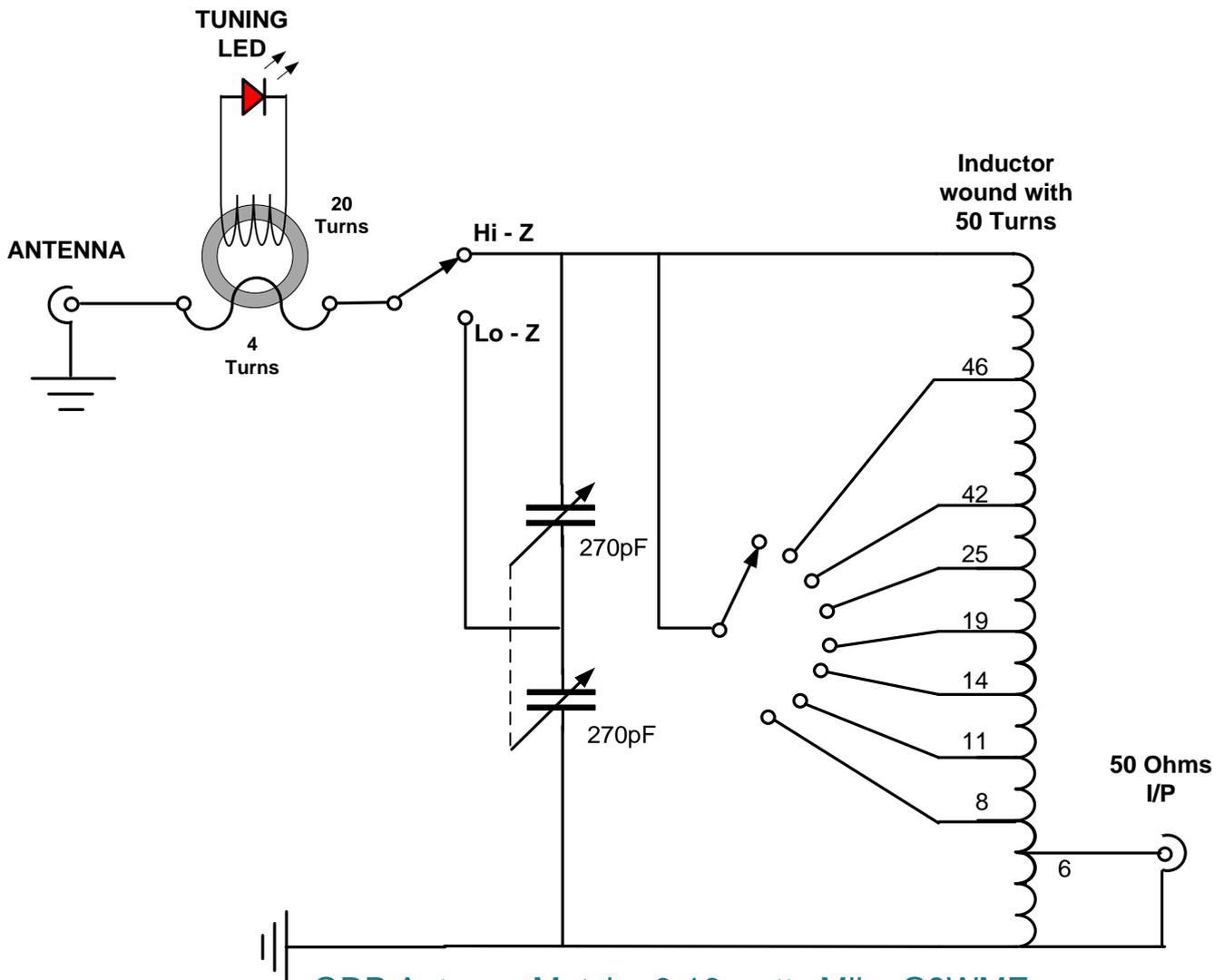


QRP HF ANTENNA MATCH – G3WME (160m-6m)



QRP Antenna Match was originally designed for an FT-817 Transceiver



QRP Antenna Match 0-10 watts Mike G3WME

NOTES

The tuned circuit inductor is a T130-red toroid core. This is close wound with 50 turns 20 gauge enamelled wire. The 50 ohm feed point is tapped at 6 turns, with additional switched taps at 8, 11, 14, 19, 25, 42 and 46 turns. The tuning capacitors are small varicon 270+270 pF.

The RF current sensor is a smaller T50-red toroid core with 20 turns fine enamelled wire for directly powering the red LED. The 4-turn antenna coupling uses plastic coated wire. With 5 Watts applied, the 5:1 ratio makes the LED glow brightly when ATU is matched.

"The QRP Antenna match will tune a 132ft doublet on 160m-6m, using a balun at the ATU output, and will also tune a 130ft inverted "L" antenna."

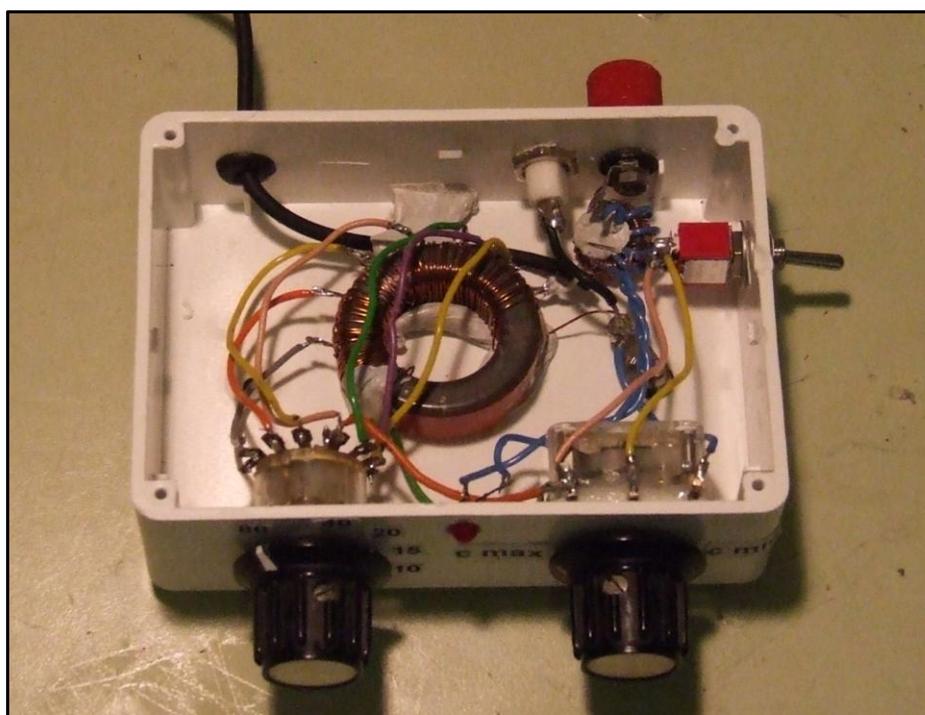
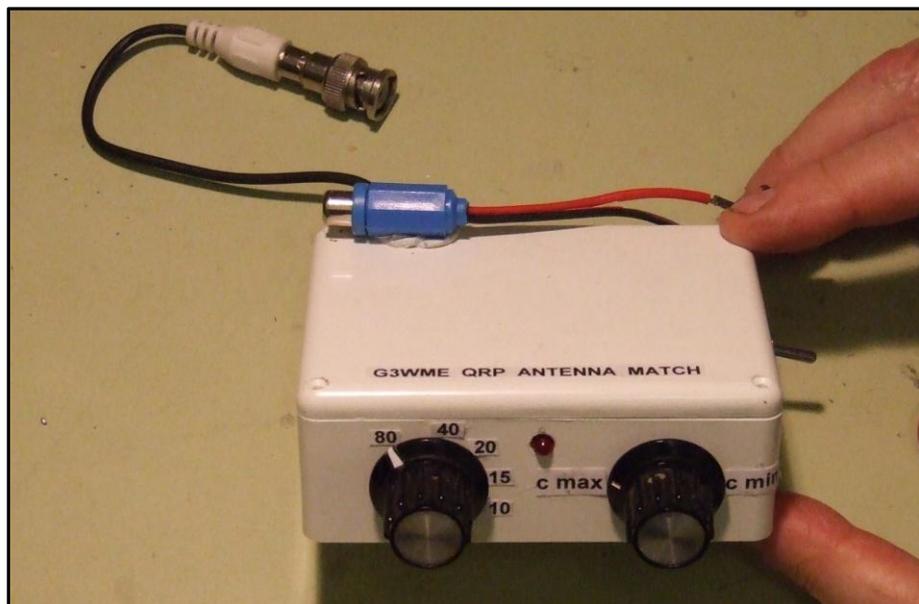
The RF earth used consists of two 4ft pipes 6 inches apart and linked together, connected to two 10m insulated wire counterpoise wires running along the wall of the house in opposite directions. This earth was essential when using my previously rigged 130ft inverted L end fed wire.

The QRP ATU was set up and tested using The ICOM 735 on 5 Watts, I also checked that it would handle 10 watts safely before using it with the FT817.

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Photographs showing the final assembly



NOTES

The top photo shows the Phono-BNC converter lead and the front controls of the assembled matcher. The left hand control is marked out 80m -10m for the HF amateur radio bands.

The bottom photo shows the inside of the Plastic case. The inductor was secured inside the box using White-Tack putty and the small switch is a sealed unit. The Hi /Lo impedance switch is a single pole toggle switch mounted on the right hand side of the box. The transceiver input is via an audio phono socket mounted at the rear. All the coloured insulated wires are 7/0.2 overall diam 1.2mm.