

Instructions

Congratulations on your purchase of a G4TPH QRP Mag-Loop, the answer to portable QRP operation, at a reasonable price.

The ML-40 consists of a tuning unit, a Loading unit and 12 lengths of Aluminium rails.

The ML-20 is the same but only uses 8 lengths of Aluminium rail. (The Tuning units and load units are different for each model so don't try using the ML-40 units with only 8 rails on the ML-20 bands with ML-40 gear: it won't work).

The following instructions outline the assembly instructions for the ML-40 and are basically the same for the ML-20 with the number rails for the ML-20 indicated in brackets

- ?? Using the wing nuts supplied, attach 1 rail to each of the bolts located on the back of the Tuning unit.
- ?? Attach 5 rails (3) to each of these rails to form a circle. You should now have 6 rails (4) coming from each side of the tuning unit. Use the spare washer between the rails before locating the bolts
- ?? Slide the load unit onto 1 of the last rails at the bottom and attach these rails to each other forming a circle.
- ?? Lay the completed Loop on the ground and adjust all rails as uniformly as possible to form a symmetrical circle.
- ?? Tighten all wing nuts firmly to insure the circle is symmetrically maintained when lifted into a vertical position. (The Q of the antenna will be affected if these wing nuts are not firmly tightened).
- ?? Using a non-conducting string or other means of holding the antenna up, place the antenna in a position so the bottom is approximately 1 foot off the ground. The antennas will also work very well in a Horizontal position.
- ?? Attach a coax cable to the BNC socket located on the bottom of the load unit and to your rig.

Tuning the G4TPH Mag-Loop

To tune the antenna adjust the tuning unit for maximum noise on receive for the band you wish to work. Key the transmitter and check the SWR. You may find that you will need to make small adjustments at first since your body capacitance will affect the tuning.

It is possible to obtain a 1.1:1 SWR on all sections of the band selected by re-adjusting the tuning unit. I use a small SWR/power meter between the rig and the antenna allowing me to adjust for best SWR. The antennas should handle 15 watts with no problem. Any more and you may get arching across the capacitor.. not good for your rig.

A picture, they say, is worth a thousand words so on the reverse are some pictures to help explain the above assembly instructions.

Happy QRP operating and Gud DX

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Top Left: G4TPH operating from Summerhouse using G4TPH Mag-Loop ML-40 and FT-817

Top Right: ML-20 Assembled

Middle Left: The Tuning and Load units

Middle Right: Rails onto Tune unit

Bottom Left: Rail connections

Bottom right: Mounting of the load unit with Attached BNC cable

