

# G4TPH Manually Tuned ML40HP mk11 Magloop Instructions

The Manually tuned G4TPH Magloop is the ideal solution for portable operating. It weighs less than 1 Kg

Another feature that most Magloop antennas do not have is the ability to cover the whole of the band of choice without having to re-tune every 10-20Khz. This is one of the major improvements in the G4TPH Magloops through the development of the inductive loading units.

## To summarize:

- Portable and light weight
- No ATU, counterpoise or ground needed
- Excellent SWR figures
- QRP and up to 100 Watts
- Half the price of other Magloop antennas

## The Antenna consists of the following items:

- 10 aluminium Rails (using 7 rails it will cover 12 & 10 metres)
- Load unit
- Hardware pack of bolts, washers, nuts and Rail corner brackets

## Optional items available

- 3m Fly lead for connection to rig (BNC –PL259)

### Construction of the antenna

Locate the 2 rails with the blue spots. These 2 rails with the blue spot have 4mm drilled holes at one end and 6mm holes drilled at the other end. All other rails have only 6mm holes.

Attach 4 rails using the 6mm bolts, nuts and rail corner brackets to the other end of the rails with the blue spots

Slide the load unit onto the 5th rail on either side and connect these 2 rails. You should now have a completed loop. Attach the Manual Tune unit at the top to the rails with the blue spots & the load unit at the bottom.

The Rail corner brackets will hold the antenna uniformly round.

### Tuning the Manual Tune antenna

The Manual tune control has a Red Tuning knob on the front. (Note that the capacitor revolves around 360° thus at some point the frequency will drop to the highest or lowest frequency).

Using the Red knob tune for maximum noise on receive in the centre or part of the band you wish to work. Key the transmitter and note the SWR. Small adjustments using the Red Tuning knob either left or right should help reduce the SWR.

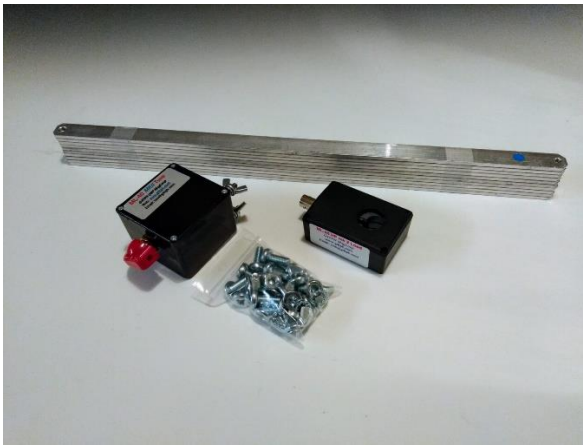
Very small adjustments can alter the SWR considerably but once the right spot is found the SWR should be below 1.5:1 or better across the whole of the band.

### Power handling of the ML40HP mk11

The ML40HP mk11 will hand 100 Watts SSB, 50 Watts CW and 35 Watts data modes. Should you find the load unit getting hot reduce power, let the load unit cool and recheck the SWR. There are various things that can affect the SWR such as steel girders and electrical wiring. This may mean that the powers listed are too high for your installation

### Frequency covered of the ML40HP mk11

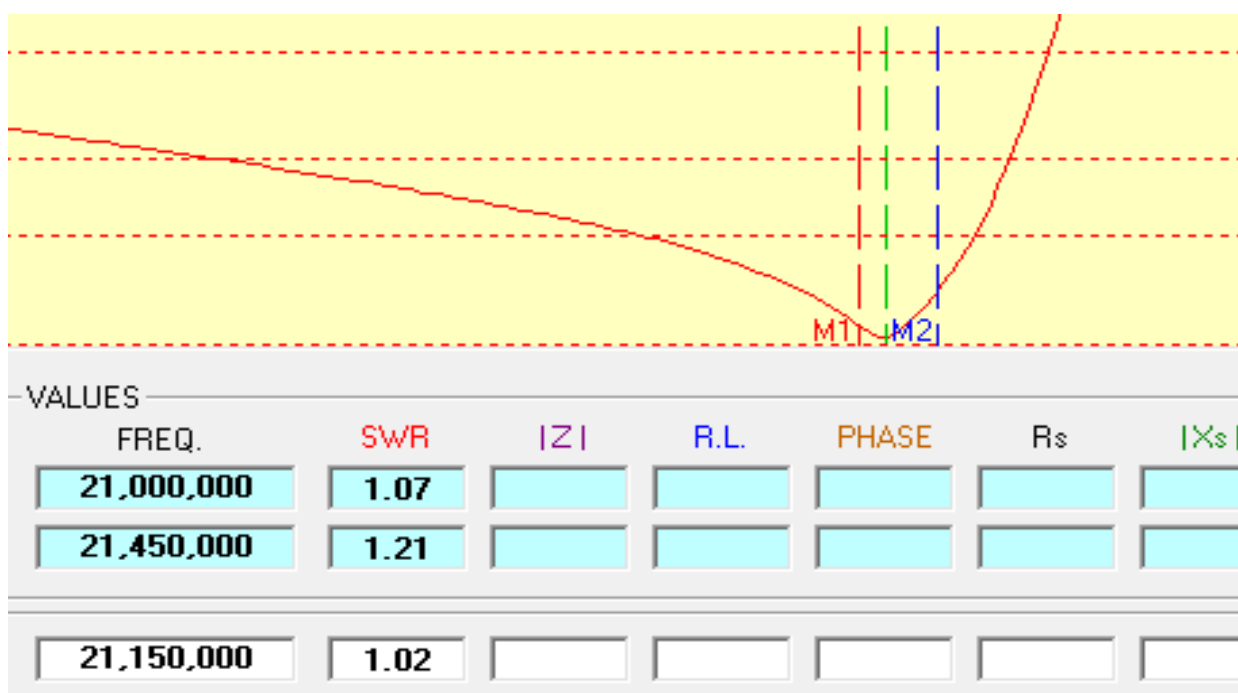
The Antenna will cover all bands from 40metres through 15 metres (using 7 rails it will cover 12 & 10 metres. If using only 7 rails the rail corner brackets will not work since the angles are only for the 10 rail set-up. To help the antenna using only 7 rails use the washers between the rails)



The Remote antenna as supplied



The Rail corner Brackets



15m SWR plot on MiniVNA

I hope you enjoy using your G4TPH Magloop

73's and GUD DX

Tom G4TPH

[www.g4tph.com](http://www.g4tph.com)

[tom@g4tph.com](mailto:tom@g4tph.com)