

End-Fed Dipol Antenna

EGA40LV (Light-Version)

40/20/10m

Technical Data „EGA40LV“:

- Length 11.9 m / 39 ft
- Connector PL/SO-239
- Max Power 50 Watt CW
- V.S.W.R: 40 m: $\leq 1,2:1$
- V.S.W.R: 20 m: $\leq 1,4:1$
- V.S.W.R: 17 m: ATU
- V.S.W.R: 12 m: ATU
- V.S.W.R: 10 m: $\leq 1,1:1$
- Antenna wire with PE jacket made of hard drawn copper \varnothing ca. 0,3mm² (6x0,25mm)
- Amidon/Fair-Rite toroid
- Waterproof housing
- Weight approx 300g / 10 oz

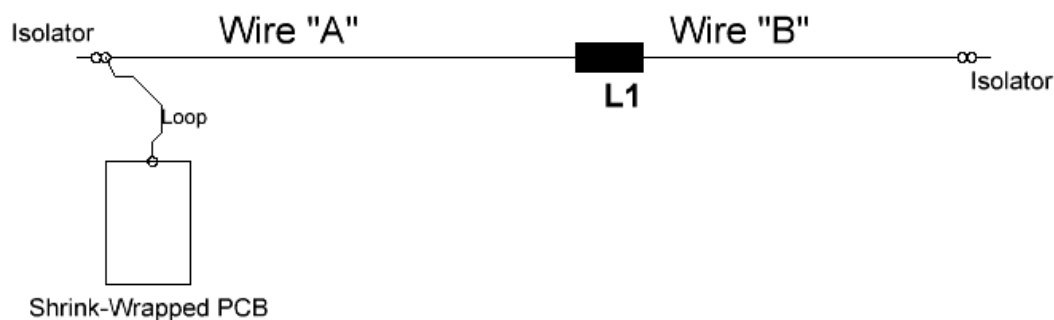
The EGA40LV Antenna is an easy to handle end-fed dipole for 40/20/10m not requiring a tuner. Build as a lambda/2 antenna no counterpoise or radials are needed.

Mounting:

With proper mounting no antenna tuner should be required. The V.S.W.R. values can vary, based on the environment. The length of 11.9 m is ideal for cramped places. Please use guy ropes for mounting.

Tuning:

The antenna is delivered resonant. The resonant frequency is at the beginning of each band. Normally there should be no tuning required. However, based on influences of the environment, a small adjustment may be needed.



Ho To Tune:

Start with the 20 m band. Change the length of the antenna wire „A“ between matchbox and coil. Tune your TRX to your preferred frequency, for example 14.060 kHz, and watch the VSWR. Is the resonance frequency below this, you have to shorten this wire. Shortening of the wire should proceed in small steps with approximately 2 cm. A change of 2 cm in length changes the frequency by approx. 30 kHz. The wire loop between the isolator at the PCB wrapped in shrinking tube can be made longer, or shorter, for small changes of the resonant frequency. For bigger changes the wire must be cut and re-attached to the cable lug.

As soon as the 20 m band is tuned properly, the 10 m band is automatically resonant as well.

To change the resonant frequency of the 40 m band, part „B“ of the antenna, the wire between coil and isolator, must be changed.

Tune your TRX to your preferred frequency for 40 m, for example 7.060 kHz, and watch the VSWR. Is the resonance frequency below this, you have to shorten this wire. A change of the length changes the frequency for approx. 25 kHz. Loosen the clamp and slide the wire through the isolator to change the overall length. Don't cut the wire, just put it along the remaining wire and fixate it with cable tie or tape.

If the wire is not cut the antenna can be tuned for other locations or you can do changes at a later point if needed.

Mounting Options:

You can mount this antenna in several ways:

- Sloper
- Vertical
- Horizontal
- Inverted-Vee

Please contact us if you need any further information or help: „service@labshack.de“

Good luck and best DX!