

# End-Fed Dipol Antenna EGA30LV (Light-Version) 30/17/12m

## Technical Data „EGA30LV“:

- Length 6.6 m / 22 ft
- Connector PL/SO-239
- Max Power 50 Watt CW
- V.S.W.R: 30 m:  $\leq 1,3:1$
- V.S.W.R: 17 m:  $\leq 1,8:1$
- V.S.W.R: 12 m:  $\leq 1,1:1$
- V.S.W.R: 15 m: ATU
- V.S.W.R: 10 m: ATU
- Antenna wire with PE jacket made of hard drawn copper  $\varnothing$  ca. 0,3mm<sup>2</sup> (6x0,25mm)
- Amidon/Fair-Rite toroid
- Waterproof housing
- Weight approx 140 g / 5 oz

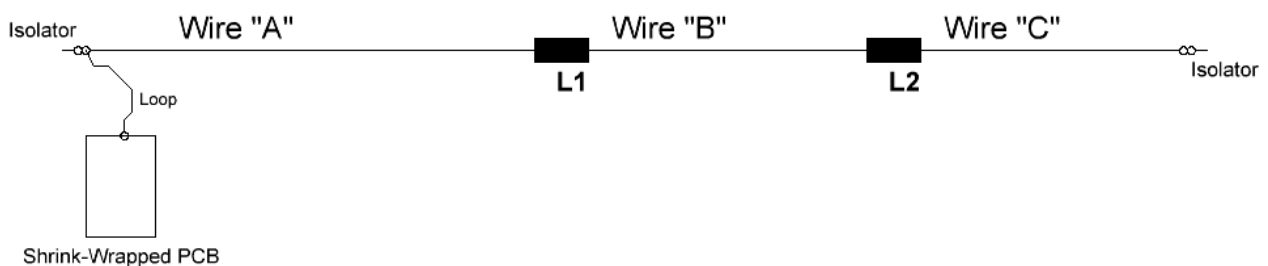
The EGA30LV Antenna is an easy to handle end-fed dipole for 30/17/12m not requiring a tuner. Build as a lambda/2 antenna no counterpoise or radials are needed.

## 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 6.6 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 12m band. Change the length of the antenna wire „A“ between matchbox and coil. Tune your TRX to your preferred frequency, for example 24.906 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 matchbox and the wing-nut 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 wing-nut.

To change the resonant frequency of the 30m band, part „C“ of the antenna must be changed.

Tune your TRX to your preferred frequency for 30 m, for example 10.116 kHz, and watch the VSWR. Is the resonance frequency below this, you have to shorten this wire. A change of the length by 0.5cm 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.

The 17m and 30m band of the antenna is interlocked. Any change to the 30m resonant frequency also changes the 17m band. You cannot change the length of antenna part „B“, but it is possible to get the antenna resonant on both band in parallel.

### **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](mailto:service@labshack.de)“

Good luck and best DX!