

## 10m POLE SAFETY NOTE

DX Commander antenna components are designed for hobby radio amateurs by M0MCX. Radio Amateurs pass exams where health and safety is included in the syllabus. This device is no exception. Please be careful in your handling, erection and general usage of these parts so that neither yourself, any property or a third party in the vicinity of your antenna experiments remains safe. You must consider that all parts may have sharp edges. Inspect and finish to your satisfaction.

Please familiarise yourself with the fibreglass pole by carefully taking the rubber bung off the top and gradually teasing out the tip. You can do this by tilting the pole downwards, being careful not to allow all the sections to spill out. You can check the bottom end cap too by unscrewing it. Again, be careful all the sections do not spill out. Please be sympathetic to the plastic thread. When you screw the cap back on, you are advised to screw the cap initially anti-clockwise so you can feel precisely when the threads line up so you can engage the thread and screw the cap back on.

### Unpacking

The pole is around 9.5m long when extended. Please go outside with your pole to investigate the height fully. Tease out the smallest section and lock it into place by firmly tugging with a twisting motion to make a good fit. Repeat for all sections until fully extended. You will find that whilst you build your antenna, you may often wish to lower it horizontally to the ground. Try this yourself and get the feel of the weight of the pole as it lowers.

### Putting away

Rest the base on a hard surface, (with the screw cap attached) and grasp the second section firmly. Lift and tap the whole antenna pole onto the hard surface and the shock (together with your downward grasp) will free up this first friction section. Repeat until retracted. NOTE: For long term storage, you are advised to dismantle and dry each section carefully.

IMPORTANT: In the event, one or more of the top sections breaks free and falls into the base, do not attempt to force a section down on top of it. It is likely that you will not get a perfect telescopic fit. I speak from bitter experience since it is possible to "shred" a section that has lost it's "mate". In this scenario, it is best to unscrew the bottom base, pull all the sections out and carefully re-assemble them again.

### Mounting

I recommend either a nylon guy-point, immediately above the first join or by slipping a 44.5mm tube up the bottom of the pole and having this mounted perhaps on a vehicle drive-on base. The ideal length of tube to slip inside the DX Commander pole is around 35 – 40 cms long.

### Warranty

a) 12m back-to-base warranty for manufacturers defects and b) Antenna experimentation can lead to the odd disaster. Don't despair if you destroy a pole by accident, contact me for a returns number and I'll rebuild it for you, typically at 66% of new price. I will maintain that for the life of the product (whilst it is still manufactured).

### Single Quarter-wave

DX Commanders are ideally suited as a single-band quarter-wave vertical antenna. Just remove the sections you do not require to keep the height from being necessarily tall.

For the 40m band, cut a length of wire 11.06m long. Go up to the top of the pole and back down again to near the bottom of the second to last section.

Additionally, you will now have an excellent performer on the 15m band, tuning at around 21.100 MHz. If you want 15m band higher or lower, trim the "fold-over" to suit. This will hardly change the tuning of the 40m quarter-wave.

## **Radial numbers and Radial Length**

Much controversy, speculation and frankly utter nonsense is talked about when amateur radio operators talk about radials.

I believe I have nailed this subject in a straight-forward manner here:

<http://www.m0mcx.co.uk/wp-content/uploads/How-many-radials-do-I-need-for-a-vertical-antenna.pdf>

## **Plain copper - or insulated?**

Doesn't matter. For a permanent installation, cut the grass really tight in the early spring, lay any wire down and go out each night, making sure they are laying flat. By the end of the summer, they'll have disappeared. Just get some copper down, thick or thin.

## **Multi-Band?**

DX Commander specialises in Multi-Banding vertical antennas. See website for appropriate product.  
Callum, M0MCX November 2017