

“GRASSHOPPER I and II” HFV-21 MULTI-BAND PORTABLE VERTICALS

Designed to be a non-resonant portable, light-weight, easy up and down multi-band vertical yet strong and durable. It is great for taking to the field, CC&Rs or other permanent installations.

- 21 feet tall at fullest designed height
- Light-weight: ~ 4.5 lbs.
- Multi-band with wide-range antenna tuner (manual or automatic)
 - 80–10 meters with < 2.0 SWR, less than 1.5 SWR on most bands
 - 80 meters depends on tuner & antenna configuration (ground system)
 - Works without radials if you have a good ground system (ground rod)
- For more efficiency add radials
 - A minimum 8 radials that are at least 14 feet long is recommended
 - Note: 32 radials is considered the “point of diminishing returns”
- Handles 300 watts continuous, 500 watts P.E.P.
 - GRASSHOPPER II rated at 1.0 KW continuous 1.5 KW P.E.P.
- Spec'd for 70 MPH winds un-guyed (no ice)
- Collapses (telescopes down) to ~ 75”
- 6063 and 6061 aluminum
- All stainless steel hardware
- Recommended mounting system pipe is 1” to 1.5”

PORTABLE ANTENNA MOUNTING PLATFORM

Designed for ease of installing the vertical antennas, especially useful for portable operations but great for permanent installations as well.

- 16” x 16” x 1/4” Aluminum plate for the mounting platform
- Aluminum mast hub
- 12” Aluminum 1” Nipple
- All stainless steel hardware
 - 1/4” bolts as radial mounting points at the base of the mast hub
 - Wing nuts for ease of mounting the radials
- 1/2” holes at the corners of the mounting platform for staking the plate

LNM RADIAL KIT

Each kit includes 8 14-foot radials. The radials are paired together (4 pair)

- 14 gauge stranded and sheathed (UV Resistant) wire
 - Stranded and sheathed to prevent kinking
- 1/4” Stud Ring Terminals on one end of each pair of radials for mounting at the base of the vertical
- #6 Stud Ring Terminals on the other other end of each radial to accommodate stapling the guys to the ground

LNM PORTABLE ANTENNA MOUNTING PLATFORM STAKE KIT

- 4 - 10 inch aluminum stakes with stainless steel washers