

VG4 Antenna Installation Manual

VG4 antenna is a 4-band GP type and is made of aluminum alloy with anti-oxidation surface. It is light and solid, and is easy to install and erect, with good outdoor weather ability. After the normal installation, it can resist about level 12 strong wind (It needs no wind cable for fastening).

I. Antenna Parameters

Use frequency band: 7/14/21/28MHz (40m/20m/15m/10m)

Axial length: about 7.8m; Radial length: About 2.7m

Maximum power handling: 1000W PEP (CW)

Antenna impedance: 50 Ω

VSWR: <1.5:1

Antenna bandwidth: 40m: 150kHz / 20m: 450kHz / 15m: 800kHz / 10m: 1000kHz

Rated wind speed: 35 m/s

Antenna interface type: SL16-K

Weight: about 7.0kg

Erection height: the distance from the ground is more than 3m

II. List of Components

Component	Specification (mm)	Quantity
Main support	450*45*41	1
Main counterpoise	1300	6
Main rod A	1300*33*30	1
Main rod B	1300*29.5*26	1
Main rod C	1300*26*23	1
Main rod D	350*26*23	1
Main rod E	350*26*23	1
20m capacitor cap	500	2
40m capacitor cap	1200	4
Main rod F	1250*12.8*10	1
Main rod G	1300*10*8	1
Matching box		1
Main support set plate		1
U clamp		4
7# sleeve		1
10# wrench		1
13# wrench		1
M4 Allen wrench		1

III. Installation Instructions

3.1 Notes

- The antenna can be installed on a reliable fixed support or on the wall with expansion bolts. The installation clearance above the ground shall be greater than 3m.

- The antenna installation environment shall be as open as possible and away from some important equipment & facilities, power transmission & transformation equipment, medical equipment and other sensitive electronic instruments or equipment, and public radio & television tower or other high-power radio transmission antenna system.

- In case of high erection position, please take measures for lightning protection and grounding.

- After the antenna test is completed, it is recommended to apply waterproof and UV resistant silicone rubber at the antenna feeder joint, to wrap the whole connection part.

- When the surrounding environment is safe, it is not recommended to use wind cable to reinforce the antenna.
- In case of extreme weather condition, it is recommended to put down the antenna and reinforce it in advance.

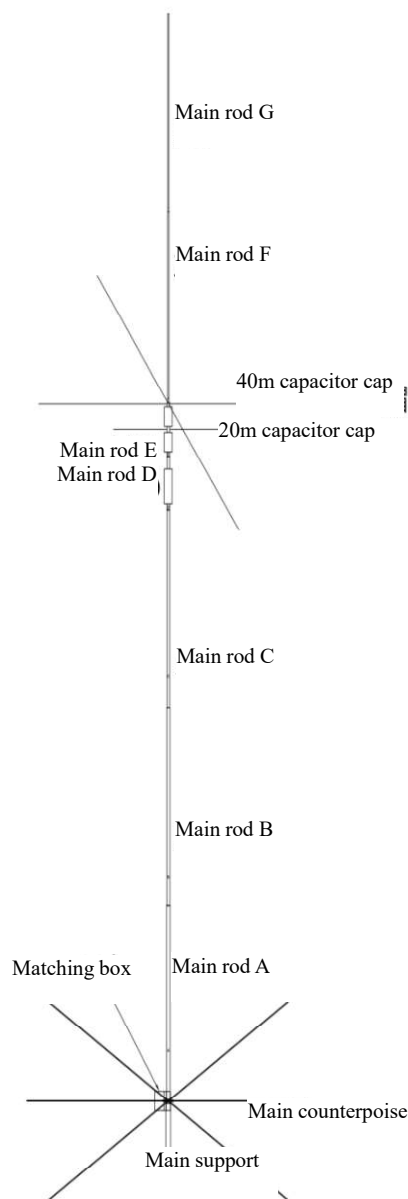
3.2 Installation Step

1) Install each component from bottom to top as shown in the right Figure. Fasten the hose clamp, after each main rod component is socketed.

2) It is recommended to install the main counterpoise at last. 20m and 40m capacitor caps shall be installed when main rod D and main rod F are being installed. The length of the two capacitor caps is different, so pay attention to distinguish them.

3) Install the matching box at the position of main support & main rod joint, and fasten it with screws.

4) Please make sure that each main rod is connected and fastened well; otherwise the overall strength of the antenna shall be affected.



3.3 Commissioning Step

1) Adjust main rod A, B and C, or may adjust the center frequency point of 10m band.

2) Adjust main rod D, or may adjust the center frequency point of 15m.

3) Adjust main rod E, or may adjust the center frequency point of 20m.

4) Adjust main rod F and G length, or may adjust the center frequency point of 40m.

5) The rough center frequency point of each band is as follows:

40m: 7.05MHZ

15 m: 21.3MHZ

20 m: 14.2MHZ

m: 28.5MHZ

6) Due to the influence of installation environment, if there is any deviation, please adjust it appropriately according to

■ VG4 antenna can be adjusted to frequency band center frequency point that we need. During the adjustment, the adjustment of the high frequency band shall affect the low frequency band, while the adjustment of the low frequency band shall not affect the high frequency band. Therefore, the adjustment sequence is: to adjust from 10m of high frequency band to 40m of low frequency band. Generally, only 40m frequency band needs appropriate adjustment.



Xiegu Technology devotes itself to designing and manufacturing excellent professional and amateur radio communication devices, so as to help Chinese manufacturing go global.