



Model B13

Omni-directional VHF collinear - 3.0 metres

Specify C/F + 3% bandwidth
VHF 70-118 MHz
0dBd Gain

N-type Female connector located at base of the mount tube

- ➔ Mounts to a mast using 2 EB1-SS or 1 x UB3-SS (available separately).
- ➔ 100 Watts maximum input power.
- ➔ Anodised aluminium mount section

INSTALLATION GUIDE

www.zcg.com.au

ANTENNA DESCRIPTION

The B13SS VHF mast mount scaled collinear is constructed from an anodised aluminium mount section and a white fibreglass radome with high quality aluminium and coaxial cable internals to ensure long term survival in the harsh environment and will deliver reliable performance for many years.

Standing 3.0 metres tall at 70MHz (height will reduce at higher frequencies), the antenna delivers a 360° omni-directional radiation pattern with unity 0dBd gain.

The N-type female connector located at the base of the mount section is rated for up to 100 watts input power.

A detailed specification sheet is available to download from www.zcg.com.au

TUNING

The collinear has been tuned in the factory for the 3% bandwidth or transmit and receive frequencies you specified within the VHF frequency range 70-136MHz.

VSWR has been optimised to better than 1.5:1.

This tuning cannot be altered.

SELECTING THE MOUNTING POSITION

To achieve best performance from your antenna, these are the important principles you should consider when selecting the mounting point:

1. **Mount the antenna in as high a place as possible.**
2. **Mount the antenna as far away from other antennas and metallic objects as possible to avoid interference and distortion of the radiation pattern. At least 350 mm side clearance is desirable, preferably more.**
3. **For optimum performance the antenna must be in a vertical position, not at an angle.**

For mounting to a mast, 2 x EB1-SS or 1 x UB3-SS stainless steel parallel mount clamps or 2 x RB8 galvanised steel or 1 x UB2-SS right-angle mount clamps are recommended and will suit a round mast between 20-50mm in diameter.



EB1-SS



UB3-SS



RB8



UB2-SS

PREPARE THE FEEDER CABLE

RG213 is recommended for use as a feeder cable. To reduce signal loss, the cable should be kept to the shortest length necessary.

The 17937" N-type Male crimp connector is available to fit RG213 cable. The proper trim dimensions can be found on our website www.zcg.com.au

Attach the N-type Male connector to the antenna's N-type Female connector located at the base of the mount tube.

Route the feeder cable to your radio. Ensure that the cable is not stretched excessively and there are no sharp kinks.

If using cable ties, ZCG highly recommend the use of 316 stainless steel cable ties for the harsh marine environment.

Do not pull the cable ties so tight as to crush the cable. A damaged feeder cable is a cause of high VSWR and reduced performance.

CONNECT YOUR EQUIPMENT

Cut the cable to the shortest length necessary, prior to fitting the appropriate connector to suit your devices termination. Once the cable has been constructed, ensure all termination points are clean from debris or possible interference.

Connect your cable to your equipment and power on. Note the performance of your system. If any issues occur power down immediately and check entire system for faults.

SEALING CONNECTIONS

It is vital that all connections be well sealed with at least two layers of self-amalgamating butyl rubber tape + PVC tape to prevent ingress of moisture. PVC or electrical tape will not be adequate.

Installation is now complete.

MAINTENANCE

This antenna has been designed for high reliability and low maintenance. We recommend that you conduct a routine annual mechanical inspection of the antenna, feeder cable and connections for bird damage, lightning damage or possible broken components.