



Model

## B20G-N

Marine Mast or Side Mount

Antenna, 3.4 metres tall

VHF 156 to 162 MHz

Full frequency range

5.1 dBi Gain

N-type female connector located at the base of the stainless steel mount tube

- ➔ Mounts to the mast of a vessel, or side mount to the wheelhouse or any other flat vertical surface.
- ➔ 50 Watts maximum input power.

## INSTALLATION GUIDE

[www.zcg.com.au](http://www.zcg.com.au)

### ANTENNA DESCRIPTION

**B20G-N** is a ground independent marine VHF antenna which delivers an omnidirectional radiation pattern and 5 dBi gain. Typical mounting points are to the mast of a vessel, the side of the wheelhouse or any other flat vertical surface.

All components used in construction are of the highest quality to ensure long term survival in the harsh marine environment. The antenna will deliver reliable performance for many years.

Rated for up to 50 watts input power, an N-type female connector is located at the base of the stainless steel mount section.

A detailed specification sheet is available to download from [www.zcg.com.au](http://www.zcg.com.au)

### TUNING

The antenna has been tuned in the factory to cover the full VHF Marine Band 156 ~ 162MHz, including the Marine Emergency Channel operating at 157MHz.

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.**

To broaden your choice of mounting positions, both mast mount or side mount clamps are available.

For mounting to a mast, **2 x EB1SS** stainless steel parallel clamps are recommended for a round mast between 20 mm and 50 mm in diameter. Take care not to over-tighten the clamps beyond reason.

For mounting to the side of a wheelhouse or any other vertical flat surface, use **2 x NSM-CL3642** nylon side mounts which include 1/2"-12BSW stainless steel fasteners.

Drill a 12.7 mm (1/2") diameter hole through the wall for the stainless steel bolt and then firmly secure each side mount in position. The antenna mount tube is held tightly by the 8 mm stainless steel clamp bolt.

### PREPARE THE FEEDER CABLE

RG58 low loss stranded cable or RG213 is recommended for use as a feeder cable. To reduce signal loss, the cable should be kept to the shortest length necessary.

The **7933** N-Male crimp connector is available to fit RG58 cable. The proper trim dimensions are shown on our website

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, then we highly recommend the stainless steel type 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 RADIO

Cut the cable to the shortest length necessary, prior to fitting the appropriate connector for your marine VHF radio.

If using our **7900** UHF male PL259 solder connector for RG58 to fit onto your device, carefully strip the end of the coaxial cable as shown in the diagram on our website.

- 
1. Fold back the uncovered braid over the outer jacket.
  2. Screw the UHF male connector over the braid until tight. Trim any exposed braid.
  3. Solder the centre core of the cable to the connector pin. Remove any excess solder.

### SEALING CONNECTIONS

**For the marine environment, it is vital that all connections be well sealed with at least two layers of self-amalgamating tape to prevent ingress of moisture. PVC or electrical tape will not be adequate.**

Attach the connector to your radio. The maximum input power rating is 50 watts.

**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.