



Model

# ZN2-77-06

Collinear Base Station Antenna

2.5 metres tall

**477 MHz UHF CB Radio**  
**8.1 dBi Gain**

**N-Female connector located at base of the stainless steel mount tube**

- ↳ Mounts to a mast using 2 stainless steel parallel clamps (available separately).
- ↳ 100 watts maximum input power.

## INSTALLATION GUIDE

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

### ANTENNA DESCRIPTION

The **ZN2-77-06** omnidirectional collinear is perfect for use as a UHF CB radio base station antenna. Constructed with aluminum internals and a machined marine grade aluminum mounting tube, the antenna delivers high 8.1 dBi gain.

Standing 2.5 metres tall, the antenna can be mounted to a mast, building or other structure.

An N-Female connector rated for up to 100 watts input power is located at the base of the mount tube.

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 for 477 MHz UHF CB Radio communications.

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.**
3. **For optimum performance the antenna must be mounted in a vertical position, not at an angle.**

For mounting to a mast, **2 x EB1SS** stainless steel parallel clamps are recommended and will suit a round mast between 20 mm and 50 mm in diameter.

Alternatively, a single **UB3SS** stainless steel parallel clamp is another mounting option available.

Take care not to over-tighten the clamps beyond reason.

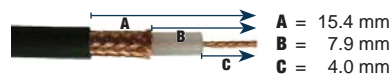
### MAINTENANCE

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.

### 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 "7937" N-Male crimp connector is available to fit RG213 cable. The proper trim dimensions are :



Attach the N-Male connector to the antenna's N-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.

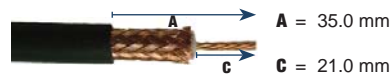
**IMPORTANT : Secure the cable properly so as it does not flap in the wind and no stress is placed upon any connections.**

Use cable ties, but do not pull them 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 UHF CB radio. Usually this will be a UHF male. There are various UHF male connectors available for RG213 cable.

If using our "7910" UHF male crimp connector for RG213, carefully strip the end of the coaxial cable as shown in the diagram.



### SEALING CONNECTIONS

**IMPORTANT : 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.**

### RETURN LOSS TEST

Following installation of the feeder cable, connect an SWR meter between the antenna cable and your radio. Tune your radio to 477 MHz and set the SWR meter to the correct frequency and power ranges.

Press and hold the transmit button on the microphone of your radio and check the SWR reading on the meter. The return loss should be better than 1.5:1, as per the factory specification.

Disconnect the SWR meter and attach the feeder cable to your radio.

**Installation is now complete.**