ZCG

Model

CLV3-150-scaled

Omnidirectional custom frequency VHF mast mount Collinear 3.3 metre

VHF Custom Tuned frequency 3 dBi Gain

- **Tuned for your specified frequency**
- **N-type female connector at base of mount section**
- **50 Watts maximum input power**

INSTALLATION GUIDE

www.zcg.com.au

ANTENNA DESCRIPTION

The CLV3-150-scaled is constructed of a white fibreglass tapered radome and mount tube standing 3.3 metres tall and delivers an effective 3 dBi gain. The N-type female connector located at the base of the mount section is rated for up to 50 Watts input power.

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

TUNING

The antenna tune has been optimised in the factory to your specified centre frequency, with 1 MHz bandwidth (500 kHz either side of centre frequency) at less than 1.5:1 VSWR.

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 360^{o} omni-directional pattern. At least 350 mm side clearance is desireable, preferably more.***
3. ***Mount the antenna vertical, not at an angle.***

GENERAL PRECAUTIONS

- At all times standard OH&S working conditions must be maintained. Use common sense during all installation work.
- Never install an antenna where contact with electrical power lines is possible. Serious injury or death may occur. Power lines, telephone lines and guy wires can look the same. Assume any wire or line can electrocute you.
- Always wear an approved safety harness when climbing an antenna mast or working on a raised platform where a fall could occur.

FEEDER CABLE and CONNECTORS

- Use a good quality low loss feeder cable and keep the cable run to the shortest length necessary to reduce signal loss. Refer to our product catalogue or website to compare the attenuation of various coaxial cables available.
- Cable preparation trim dimensions for numerous connectors can be found in our product catalogue. This information is also available to download from the “Connectors” page of our website.
- The antenna feeder cable should be secured so as no stress is placed upon any connections utilising strain loops of coaxial cable at the top and bottom of your cable route and appropriate coaxial cable clips (SKU: SHC series) used to reduce strain on your coaxial cable and connections.
- If using cable ties, then we highly recommend the 316 stainless steel type (SKU 8117 series) for the harsh marine environment. We recommend at minimum 1.0m spacings between cable ties to ensure adequate security and to reduce any strain on cable/connectors.
- Ensure that connector mating surfaces are not damaged and are clean and dry. The male connector pin should be set so as to not damage the female connector pin. Tighten the connectors firmly and make sure they are seated correctly. The connection should be sealed with two layers of self-amalgamating tape to prevent ingress of moisture and a top layer of uPVC tape. Silicone or uPVC tape on its own is not suffice as waterproofing.
- The feeder cable should be earthed to avoid a destructive power surge in the event of a lightning strike.

RETURN LOSS TEST

- Following installation of feeder cable, measure the return loss at the feeder cable input and check that there is no major departure from the factory specification.

INPUT POWER

- Only operate the antenna at the specified power levels. Exceeding the stated power levels will invalidate the warranty.

MAINTENANCE

- The antenna and it’s components have been designed for high reliability and low maintenance. A routine annual mechanical inspection of the antenna, connections and feeder cable together with a check of the return loss is all that is required.

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