

# SIDEMOUNT DIPOLE BASE STATION ANTENNA INSTALLATION GUIDE



**NOTE : The installation, performance testing and maintenance of this antenna must be undertaken by experienced personnel only. ZCG disclaims any liability or responsibility for any event whatsoever which occurs as a result of improper or unsafe installation practices.**

## Delivery

- ☞ Upon delivery, unpack the antenna carefully and **check the contents** against the packing slip. It is most important to inspect the antenna to ensure that no damage has occurred in transit and that all items ordered are present.
- ☞ **If there is any damage or any item is missing**, advise the cartage contractor and make appropriate notes on the delivery docket before signing. If possible, any damaged items should be photographed. Then contact ZCG immediately via email to [sales@zcg.com.au](mailto:sales@zcg.com.au) or phone **+61 (03) 5157 1203 (9am-5pm AEST Monday-Friday)**.
- ☞ Store the antenna in a safe location away from vehicular traffic. Ensure materials are kept dry, and if necessary cover materials with a water proof cover to prevent water ingress and damage.

## Model and Frequency

- ☞ The model will be marked on the label to be found adhered to the antenna mounting section.
- ☞ This label will also state the frequency range for which your antenna has been tuned as well as build serial number. Please record this information and report to ZCG.
- ☞ A detailed specification sheet is available to download from [www.zcg.com.au](http://www.zcg.com.au)

## 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 is live and can electrocute you.
- ☞ Always wear an approved safety PPE when climbing an antenna mast or working on a raised platform where a fall could occur.
- ☞ Always take heed of all RF Electromagnetic Radiation Hazard Warning Signs which appear at the installation site. Never work where contact with live antennas is possible.

## Installation

- ☞ The antenna must be mounted clear of other antennas and any metallic objects which may cause interference or distortion of the radiation pattern. The spacing from other antennas or metallic objects will depend on your installation site. ZCG recommend mounting as far away from other metallic objects or antennas. Mounting off from your structure/tower will be determined by pattern requirements. The standard mounting for ZCG is 50-100mm from rear of mount handle to begging of mounting clamp/s.
- ☞ The antenna should be secured using ZCG recommended clamps, or an equivalent. Take care not to over-tighten the clamps beyond reason and crush the mount section. Ensure the drain hole (located in the bend of the dipole) are facing downwards so as the dipole does not fill with water.

## Cable and Connectors

- ☞ The antenna feeder coaxial cable should be secured so as no stress is placed upon any connections. With a strain relief and water drip slight curve.
- ☞ Ensure that the 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 followed by a layer of UV stabilised PVC tape to prevent ingress of moisture.
- ☞ The feeder cable should be earthed at multiple points along run to avoid a destructive power surge in the event of a lightning strike. ZCG recommend the usage of a surge arrester at your transmitter end of coaxial cable.

## Return Loss Test

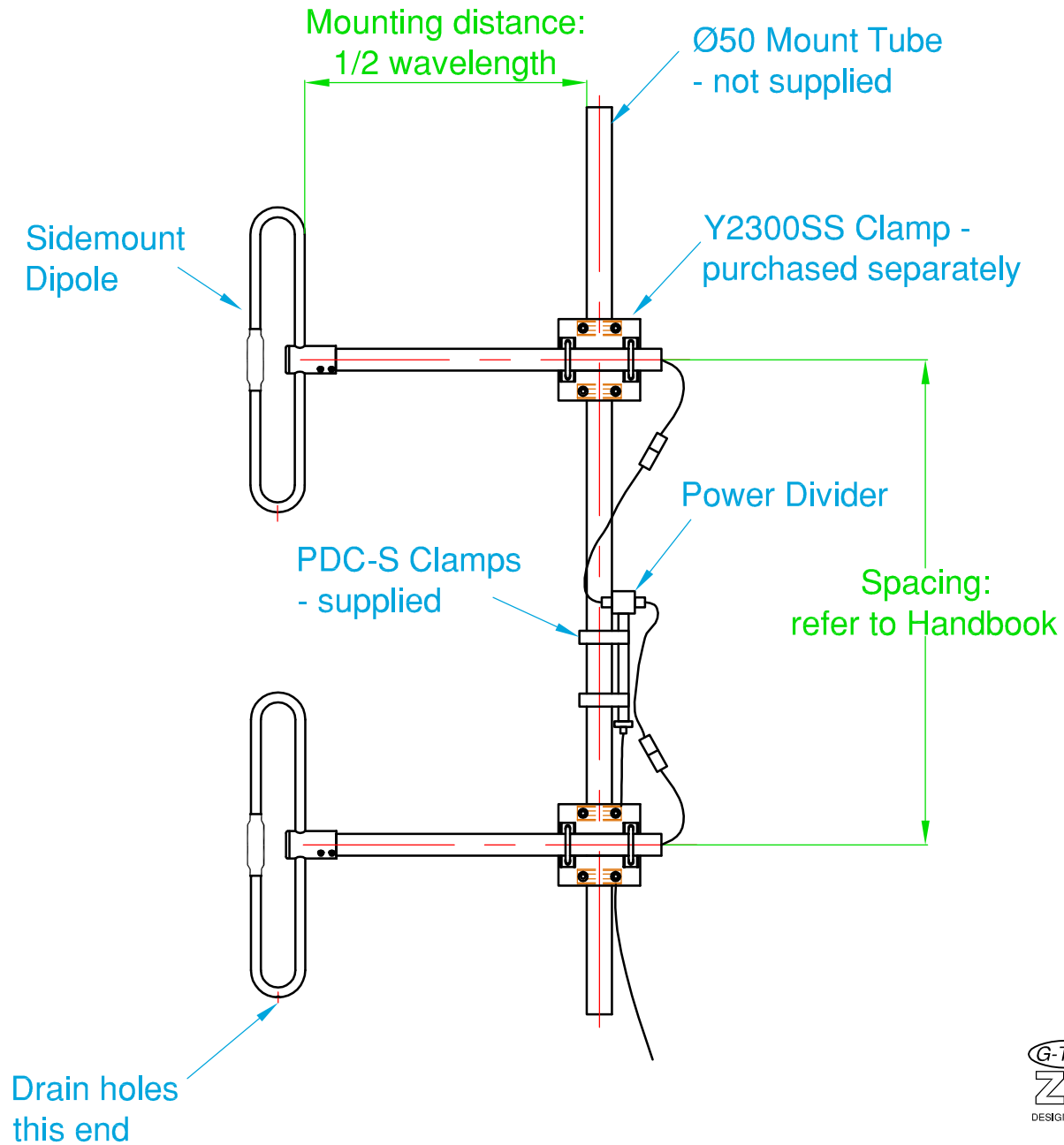
- ☞ Following installation of feeder cable, measure the return loss at the feeder cable input and check that there is no major departure from the factory specification.

## Power Up

- ☞ Commence the power up by applying low power to the antenna. Monitor the forward and reflected power at the transmitter. Progressively increase the power to full power and monitor the forward and reflected levels.
- ☞ Only operate the antenna at the specified power levels. Exceeding the stated power levels will invalidate the warranty.
- ☞ **REMOVE TRANSMITTER POWER IMMEDIATELY IF ANY ADVERSE CONDITIONS ARE DETECTED.**

## Maintenance

- ☞ The antenna and its components have been designed for high reliability and low maintenance. We recommend a routine annual mechanical inspection of the antenna, connections and feeder cable, together with a check of the return loss.
- ☞ ZCG guarantee our sidemount dipole range for a warranty period of minimum 1 year for non-broadcast and 2 years for broadcast solutions. See our terms and conditions for more information.



**Assembly Sketch**

**SIDEMOUNT DIPOLE ANTENNA ARRAY**

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