ZCG

Model

ZN6-157-25

Omnidirectional VHF collinear with heavy-duty barrel spring 2.5 metres

VHF 156-162MHz

Recommended for a vehicle bull bar or heavy-duty mounting hole.

- Full coverage across VHF 156-162MHz
- Mounts into any bracket/hole with minimum 12.7 mm (½") diameter hole.
- 4.5 metres of white RG58A/U coaxial cable.
- BNC male fitted for ease of installation.

INSTALLATION GUIDE

www.zcg.com.au

ANTENNA DESCRIPTION

Standing 2.5 metres tall, the **ZN6-157-25** VHF 'barrel' spring base collinear antenna is designed to mount to a heavy-duty vehicle bull bar or truck bull bar and has been optimised for VHF applications within the 156-162MHz frequency range.

Due to size, mounting this antenna to a vehicles guard, boot or mirror is not practical.

High quality components are used to ensure long term survival in any harsh environment.

The white tapered fibreglass radome, chrome mount ferrule fitted onto a a heavy-duty polished 304 stainless steel 'barrel' spring will ensure the antenna stays in the optimum vertical position maximising performance and signal propogation.

4.5 metres of white RG58A/U coaxial cable side exits from the chrome ferrule, terminated with an BNC male connector for ease of installation, simply plug-and-play. Alternate terminations can be fitted upon request, consult ZCG for more information.

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

TUNING

The antenna has be tuned for VHF applications utilising the 156-162MHz frequency range.

This tuning cannot be altered.

MOUNTING POSITION

No metal ground plane is necessary for the antenna to operate effectively.

The mounting position for this antenna is to your vehicle bull bar using a bracket with minimum 12.7mm (½") diameter hole.

If required, the **BBM-SS** stainless steel bull bar bracket is available to order separately, other mounting options are available, consult ZCG for more information or a custom mounting setup.

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

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 distortion of the 360^{o} omnidirectional pattern and interference. At least 350 mm side clearance is desireable, preferably more.***
3. ***Mount the antenna vertical, not at an angle.***

INSTALLATION GUIDE

Remove the bolt and washer from the base of the 'barrel' spring. From underneath, insert the bolt and washer through the hole of your mounting bracket/hole. Screw the bolt into the thread of the spring. Tighten the bolt to firmly secure the antenna + spring to your bracket/hole.

IMPORTANT : <u>Leave some slack</u> in the cable at the point where the cable exits the chromed brass ferrule. This will allow the antenna to flex in the usual manner during travel without placing unnecessary tension on the cable.

Route the RG58A/U coaxial cable carefully to your device. Ensure that the cable is not stretched excessively and there are no sharp kinks. Avoid areas of high heat such as engine components or electrical interference such as electric fans or batteries.

Use cable ties/cable clips to secure your coaxial cable along route, 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.

MAINTENANCE

ZCG design and manufacture our RF antenna solutions to be low maintenance, reliable with a long service life.

We recommend at minimum a yearly complete inspection and evaluation/testing of your RF antenna, coaxial cable, termiantions and device systems to ensure they are performing to stated specifications.

A yearly inspection of your coaxial cable to ensure no abrasions, cuts, tears, gouging or squashing to outer jacket shielding has occured. All the above <u>damage will cause high VSWR and possible failure to your system.</u>

A yearly inspection of your terminations will ensure tight fitment and no damage/abrasian has occured, <u>which can lead to high VSWR and disconnect or failure of your system.</u>

ZCG recommend water-sealing all terminations where dust/water or contaminants may be present utilising a layer of amalgamation butyl rubber tape and one layer of PVC electrical insulation tape. This will reduce the possibility of water or dust ingress into your termination/s.

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