ZCG

Model

SGL900

Ground independent ISM, LoRa or Telemetry parallel spring base collinear - 800mm

UHF

918-928 MHz

6.2dBi Gain

Suitable for light-duty vehicles or fixed position mounting

- Mounts into any bracket with minimum 16 mm diameter hole.
- 5 metres of RG58A/U stranded core, solid PE dielectric cable.
- SMA male connector fitted to the cable.
- 30 Watts maximum input power.

INSTALLATION GUIDE

www.zcg.com.au

ANTENNA DESCRIPTION

For a light-duty ISM or telemetry parallel spring base antenna specifically intended for mounting to the light-duty vehicle or fixed position mounting, look no further than this **SGL900** model.

With 6.2dBi gain, this is an ideal light duty omni-directional solution to cover the 918-928MHz frequeuncy range.

The high quality stainless steel parallel spring dampens vibrations while travelling and ensures the antenna stays in the optimal vertical polarisation.

5 metres of RG58A/U stranded core, solid PE dielectric coaxial cable bottom exits through the spring and mount ferrule.

A SMA male connector is fitted to the cable for easy installation.

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

TUNING

The antenna has been tuned in the factory to cover the 918-928 MHz frequency range.

VSWR has been optimised to better than 1.6:1 across the full frequency range 918-928 MHz.

This tuning cannot be altered.

SELECTING THE MOUNTING POSITION

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

The typical mounting position for this antenna is to a light-duty vehicle bullbar, guard, boot of a sedan or a light-duty truck mirror using the appropriate bracket with minimum 16mm diameter hole.

This model can also be mounted in a fixed position utilising an appropriate mounting bracket such as an A-6211.

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 350mm side clearance is desireable, preferably more.***
3. ***Mount the antenna in a vertical orientation to ensure a true 360^{o} omni-directional signal propogation. Do not mount on an angle, this will greatly diminish signal propogation.***

INSTALLATION GUIDE

Remove the nut and washer from the threaded base and slip them off over the cable. Pass the cable through the hole of your mounting bracket. Next, thread the washer and then the nut back up the cable and onto the threaded base. From underneath, tighten the nut to secure the antenna firmly to the bracket.

IMPORTANT : <u>Leave some slack</u> in the cable at the point where the cable exits through the spring base. This will allow the antenna to flex in the usual manner during travel or if contact occurs.

Route the RG58 low loss stranded cable carefully. Avoid high heat areas such as hot components within an engine bay. Ensure that the cable is not stretched excessively and there are no sharp kinks. Use cable ties, but do not pull so tight as to crush the cable. A damaged feeder cable is a cause of high VSWR and reduced performance.

Insert the SMA male connector onto your device. The maximum input power is **30 Watts.**

Installation is now complete.

The cable may be cut shorter if desired. However, a new connector will then need to be fitted using proper tools.

If the SMA male connector fitted to the cable does not suit your requirements, then any other connector which is suitable for RG58 cable can be fitted upon request during manufacture. Otherwise use a suitable adaptor, or a patch leadz.

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