



Model

SG600

Omnidirectional UHF Collinear
Base Station Antenna
80 cm tall

600 - 650 MHz
5.1 dBi

- Black, White or Brown fibreglass radome.
- 5 metres RG58 low loss solid core cable.
- N-Female connector fitted. (*Or other as specified.*)
- 30 watts maximum input power.
- Aluminium mount ferrule, stud, nut and spring washer.
- Mounts into any 12.7 mm (½") minimum diameter hole.
- Optional mounting accessories available include "L" bracket, mast mount adaptor, parallel mast clamp and stainless steel barrel spring base for mobile use on a vehicle bull bar.

INSTALLATION GUIDE

www.zcg.com.au

ANTENNA DESCRIPTION

The SG600 collinear UHF base station antenna offers fine performance combined with our robust tried and true ZCG quality construction, all at an economical price.

Suitable for low power transmit and receive applications, features include :

- 50 MHz bandwidth.
- Modest size at 80 cm tall with an effective 4 dBd gain.
- Omnidirectional radiation pattern.
- Completely ground independent, mount anywhere, no metal groundplane is necessary.
- Rugged fibreglass radome available in Black, White or Brown.

RG58 low loss solid core feeder cable side exits from the aluminium mount ferrule.

An N-Female connector is fitted as standard, although other connector options can be ordered as required.

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

TUNING

The antenna has been tuned in the factory to cover the full UHF frequency range 600 to 650 MHz at better 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° omnidirectional pattern. At least 350 mm side clearance is desirable, preferably more.**
3. **Mount the antenna properly vertical, not at an angle.**

MOUNTING OPTIONS

The stud, washer and nut at the antenna base permits these versatile mounting options :

1. Simply secure the antenna into any 12.7 mm (½") minimum diameter hole, route the cable and connect to your radio.
2. Fit an "L" bracket, such as our stainless steel model "GM1", to any vertical panel or fascia board. Insert the antenna, thread the washer back onto the stud from underneath, tighten the nut and route the cable.
3. Order our model "4266" threaded aluminium mast mount adaptor, screw in the antenna and secure to a mast or hockey stick bracket with the "UB3SS" stainless steel parallel clamp. Alternatively, use hose clamps.
4. For mobile use on a vehicle with bull bar, order the "1269" stainless steel barrel spring with stud, nut and spring washer to fit into any bracket with 12.7 mm (½") minimum diameter hole.

INSTALLATION GUIDE

IMPORTANT : *Leave some slack in the cable at the point where the cable exits the mount ferrule so as not to place any undue tension on the cable.*

Route the RG58 low loss cable carefully. 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 connector into your radio. The maximum input power is 30 watts.

Measure the return loss at the feeder cable input and check that there is no major departure from the factory specification of less than 1.5:1.

Installation is now complete.

The antenna and its components have been designed for high reliability and low maintenance. We recommend that you conduct a routine annual mechanical inspection of the antenna, connections and feeder cable, together with a check of the return loss.