



Model

TC1600-D

High gain 4G mobile
phone heavy-duty
parallel spring antenna

2.2 metres

4G and ISM

890-960 MHz

- Recommended for a vehicle bull bar
for heavy-duty applications
- Lower 4G mobile phone and ISM 900 MHz compatible
 - Mounts into any bracket with minimum 12.7 mm ($\frac{1}{2}$ " diameter hole.
 - 5 metres of RG58 low loss stranded cable.
 - FME female fitted for ease of installation.

INSTALLATION GUIDE

www.zcgc.com.au

ANTENNA DESCRIPTION

Standing 2.2 metres tall, the **TC1600-A** lower 4G mobile phone and ISM 900 MHz antenna is designed to mount to a heavy-duty vehicle/truck bull bar or in a fixed position and has been optimised to improve both mobile phone/wireless data transmit and receive reception.

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 fibreglass radome, chrome mount ferrule fitted onto our heavy duty stainless steel parallel spring will ensure the antenna stays in the optimum vertical position, maximising transmit and receive performance and signal propagation. The TC1600-A is best suited for flat terrain where undulations in terrain are minimum.

5 metres of MIL-SPEC RG58 low loss coaxial cable side exits from the chrome brass ferrule, fitted with an FME female termination 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.zcgc.com.au

TUNING

The antenna has been tuned for the lower 4G mobile phone frequency and ISM900 frequency compatible 890-960 MHz.

The ISM band utilises 902-928 MHz.

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 ($\frac{1}{2}$ " 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° omnidirectional pattern and interference. At least 350 mm side clearance is desirable, preferably more.**
3. **Mount the antenna vertical, not at an angle.**

INSTALLATION GUIDE

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

IMPORTANT : Leave some slack 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 MIL-SPEC RG58 low loss coaxial cable carefully to your device. Ensure that the cable is not stretched excessively and there are no sharp kinks.

Use cable ties, 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.



An FME female is fitted as standard. ZCG can terminate the cable tail with any termination suitable for your application or device. Please consult ZCG for more information and listing of available terminations/connectors.

MAINTENANCE

Our TC1600-D is constructed of robust UV rated external materials and high quality internal radiating components to ensure a long, reliable service life with minimum maintenance.

We recommend a full system visual inspection of your antenna, mount base, coaxial cable route and termination security, yearly to ensure your system is performing adequately.

We also recommend a complete system check prior to any remote expedition where communications coverage may be diminished

A regular check of your receive device performance should also be undertaken as per the manufacturers guidance.