



Model

MAG-M90T900

Magnetic base mobile
phone/wireless data
improvement

Lower 4G &
ISM 900 MHz
890-960 MHz
5 dBi Gain

- 3 metre RG58 low loss cable with connectors fitted.
- FME female connector attaches into magnetic base.
- SMA male connector attaches into the GSM modem or cellular mobile phone.

INSTALLATION GUIDE

www.zcgg.com.au

ANTENNA DESCRIPTION

The MAG-M90T900 antenna with magnetic base is intended for use for lower 4G cellular improvement or ISM 900 MHz telemetry applications operating in the frequency range 890 - 960 MHz.

Ideal for indoor use or temporary exterior mounting, the magnetic base mounts simply onto any flat metal surface. Easy to set-up, easy to remove and the detachable whip makes the antenna easy to store when not required.

This compact portable model stands 325mm tall and delivers 5 dBi gain at < 1.5:1 VSWR.

The 40mm diameter magnetic base is manufactured from moulded palstic with nickel plated brass fittings. A FME male connector is embedded inside the base, The black powder coated detachable stainless steel whip fits onto the 6mm x 26 TPI thread.

The antenna is supplied with a 3 metre MIL-SPEC RG58 low loss solid core cable set with connectors fitted.

- The FME female connector attaches into the antenna base.
- The SMA male connector attaches to a 4G or ISM 900 MHz device. This connector can be altered to suit your modem if required.

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

TUNING

The antenna is tuned in the factory for the lower 4G cellular mobile phone network and/or ISM 900 MHz frequency allocation.

VSWR has been optimised to better than 2.0:1 across the full frequency range 890 to 960 MHz.

This tuning cannot be altered.

SELECTING THE MOUNTING POSITION

Typical mounting positions for this antenna are to your vehicle roof or boot. The antenna can also be mounted in locations other than on a vehicle.

A metal ground plane is necessary for the antenna to operate effectively.

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 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.**

ANTENNA INSTALLATION

Ensure your magnetic base installation location is clean and free from debris. Route your cable along path ensuring to not kink/excessive bend your coaxial cable as this will cause failure of your system. Avoid high heat areas in the engine bay.

Ensure the SMA male (or specified connector) reaches your intended equipment without tension applied to your connector or cable - this may require adjustment of position of the antenna magnetic base mount.

For longer-term installations, we recommend securing your coaxial cable with uPVC cable ties. Do not overtighten as this will cause high VSWR and failure of your system.

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

Connect the SMA male connector (or specified connector) to your device and ensure performance matches the stated levels.

MAINTENANCE

The MAG-M90T900 is manufactured of the highest quality materials for a reliable, low maintenance service life. We recommended a yearly inspection of your entire system to check for damage and signal performance.

For short-term installations we recommend full system inspection prior to re-installation.