



Model

# ZM09-CELL

Mobile phone collinear  
Telstra, Optus & Vodafone  
4G & 3G

825-960MHz &  
1710-2190MHz

6.2 dBi Gain

- Mounts to MM1 or MM2 using 1"-14 UNS thread
- 5 metres of white RG58 stranded cable.
- FME female connector fitted.

## INSTALLATION GUIDE

[www.zcg.com.au](http://www.zcg.com.au)

### ANTENNA DESCRIPTION

Standing 900mm tall, The ZM09-CELL mobile phone antenna provides multiband coverage of the Telstra, Optus & Vodafone 4G and 3G networks combined, with an effective 6.2 and 3dBi gain.

5 metres of white RG58 low loss stranded cable side exits from the aluminium mount ferrule. An FME female connector is fitted to the cable as standard for easy installation.

This ZM09-CELL model is identical in height and appearance to the other ZM09 marine antennas.

A detailed specification sheet is available to download from our website [www.zcg.com.au](http://www.zcg.com.au)

### TUNING

The antenna has been tuned in the factory to cover the Telstra, Optus & Vodafone 4G and 3G mobile phone networks combined. VSWR has been optimised to less than 1.6:1 across the full frequency range 825-960MHz and 1710-2190MHz.

This tuning cannot be altered.

### SELECTING THE MOUNTING POSITION

No 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 interference and distortion of the 360° omnidirectional pattern. At least 350 mm side clearance is desirable, preferably more.**
3. **For optimum performance the antenna must be in a vertical position, not at an angle.**

### FOLD DOWN SWIVEL BASE (not included)

You can choose between the MM1 plastic fold down mount or MM2 316 grade stainless steel fold down base. Both of these bases include a 1"-14 UNS thread on the top which mates with the thread in the chrome mount ferrule of your antenna.

Alternatively black versions of both the MM1 and MM2 are available.

Both of these fold down mounts are adjustable in two directions and also swivels in the opposite plane by loosening the stainless steel pivot bolt. This versatility allows the antenna to be mounted in a variety of positions on any flat surface and at any angle using four screws or bolts.

Use the base as a template to mark the position of the 4 holes required to secure the deck mount base.

ZCG recommend using high quality stainless steel fastening screws or bolts, depending on your mounting surface.

### ROUTING THE CABLE

**IMPORTANT :** *Leave some slack in the cable at the point where the cable exits the aluminium ferrule. This will allow the antenna to be folded down flat without placing tension on the cable.*

Route the RG58 low loss stranded cable carefully to your phone. Ensure that the cable is not stretched excessively and there are no sharp kinks.

**If using cable ties, then we highly recommend the stainless steel type for the harsh marine environment.**

Do not pull the cable ties so tight as to crush the cable. A damaged feeder cable is a cause of high VSWR and reduced performance.

Insert the FME female connector into your mobile phone.

**Installation is now complete.**



*The 5 metre cable may be cut shorter if desired. However, a new connector will then need to be fitted using proper tools.*

*If the FME female connector fitted to the cable does not suit your mobile phone, then any other connector which is suitable for RG58 cable can be fitted.*

*Alternatively use a suitable adaptor, or a patch lead.*

### SEALING CONNECTIONS

**For the marine environment, it is vital that all connections be well sealed with at least two layers of self-amalgamating tape to prevent ingress of moisture. PVC or electrical tape will not be adequate.**

### MAINTENANCE

This antenna has been designed for high reliability and low maintenance.

We recommend that you conduct a routine annual mechanical inspection of the antenna, feeder cable and connections.

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