

## The WM11 Antenna Range Installation Guide

### Introduction

The WM11 range of high gain, directional antennas provide a simple, cost effective way of improving the performance of a UMTS or GSM device. For best results, the antenna should be fitted externally in an elevated position.

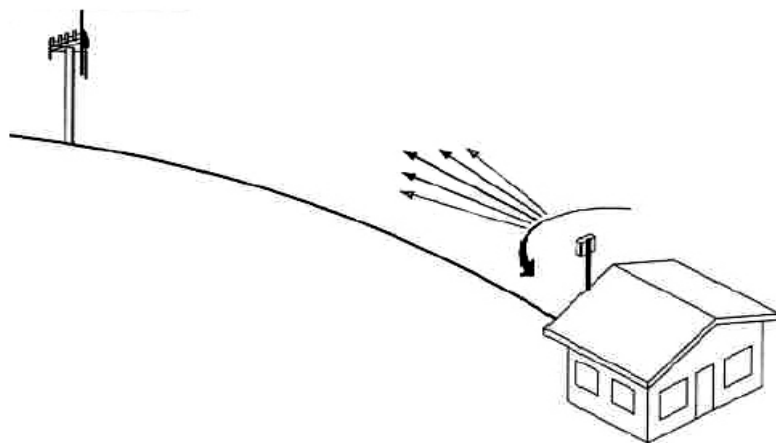
### Determine a suitable Mounting Location

For a good installation the antenna should be directed towards the strongest network signal to achieve this follow the guide below.

1. Connect the antenna to your data card or modem with the antenna adapter and coaxial cable provided.
2. Ensure that your device is connected to the network and displaying the signal strength indicator.
3. With the antenna at selected location, rotate it in approximately 45 degree steps – in each position, you may need to wait for up to one minute to allow the signal strength indicator to update.

**Note:** Signal strength indication may be displayed either as:

- a. Graphically with bars, (where more bars is a better signal), or
- b. As a signal level value in dBm (e.g. -80) - in this case, the lower the number, the better the signal, (i.e. -71 is stronger signal than -83).



### Mounting the Antenna Externally

Ensure that the selected mounting location can be safely accessed with the equipment that you have available and mount the antenna so that it has at least 1 metre of clearance from all obstructions if possible.

### Mount the antenna

The antenna is supplied with weatherproof mounting hardware for wall or mast mounting and should be fitted with the cable entry at the bottom.

**Mast mounting:** The clamp assembly allows fitting to masts of between 20-50mm diameter.

**Wall mounting:** The wall mount bracket can be used to mount the WM11 antenna to walls or other secure flat surfaces. Suitable screws and wall plugs (if required) should be sourced locally.

### Secure the antenna in place and waterproof the exposed connections

Fully tighten the mounting hardware, ensuring the antenna direction is correct.

If exposed the RF connector joint should be waterproofed with a weatherproof electrical tape (self amalgamating type is recommended) allowing a significant overlap of each turn and ensuring that the overlap is in the opposite direction to predicted water fall.

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## Installation Guide

### Using the Antenna Internally

When using the antenna internally, take care to ensure that the antenna or cables do not cause a trip hazard. The antenna can be fitted to the supplied desk stand for internal use.

Optimum performance will be achieved with the antenna facing a window in the direction of best network signal strength.

### Mounting and dismounting the antenna to the desk stand

Once you have determined the desired mounting location and orientation you can mount and unmount the antenna to the supplied desk stand following the steps below.

#### Mounting the antenna



Hold the antenna cable securely upwards against the back of the antenna.

Push the mounting foot of the antenna down into the groove in the base so that the mounting holes sit flush with the pegs in the base as shown.

Holding the antenna and base securely push the antenna back into the base until the pegs locate.

#### Dismounting the antenna



Grip the base securely from below and the antenna at the top edge.

Pull the top of the antenna away from the base stand whilst lightly squeezing the base in order to pivot the foot of the antenna out of the trough in the desk stand as shown.

Once the foot of the antenna is unlocked from the desk stand pull the antenna forwards and upwards from the base freeing the antenna from the mounting pegs.

### Important Safety Information

**RF Safety Note** – Ensure that the antenna is mounted in such a way that no person is likely to be within a distance of 1 metre from the front of the antenna during use.

**Electrical Caution** – Parts of this antenna are an electrical conductor. Contact with power lines can result in death or serious injury. The antenna and supporting mast must not be close to any power lines during installation, use or removal.