User Instruction

[MMR Series Magnetic Mount]

Introduction

The MMR magnetic mount is a rugged, heavy duty type with a moulded 5m RG58 coaxial cable. It has a modular stud fitting and is suitable for use with all Panorama Antennas VHF and UHF modular antennas.
The mount has been satisfactorily tested with a 1m long antenna whip at speeds in excess of 100mph (160kmh)

Preparation and Selecting Location

Check that the vehicle has a steel roof – mount will not work on plastic or alloy bodies
The mount has a neoprene scratch resistant pad which is suitable for contact direct with the roof – no other material should be placed under the mount as this will affect the magnetic adhesion.
The antenna should ideally be located on the roof of the vehicle and in the centre of a suitable groundplane area, with a ¼ wave radius of **cms (see table below for recommended area)
If the antenna is fitted on a boot lid, consideration should be given to any hazard this may present when the boot is opened.
The antenna location should be a minimum of 30 cm from the fuel filler cap.

Approximate Frequency to wavelength conversion			
Band Name	**Frequency (MHz)**	**Wavelength (cm)**	**1/4 Wavelength (cm)**
Band 1	50	600	150
Low Band	80	375	94
VHF High	150	200	50
Band 3	200	150	38
Tetra	400	75	19
UHF	450	66	17
GSM900	900	33	8
GSM1800	1800	16.5	4
UMTS/3G	2100	14	3.5

Fitting the Antenna

Fit the selected antenna to the mount, tightening locking screw with supplied hex key.
Ensure the body panel in the selecting mounting area is clean and that there is no dirt or metallic swarf on the underside of the mount.
Place the mount on the roof and adjust the angle of the antenna if necessary to get vertical.

Routing and terminating coaxial cable

Consider carefully the route of the coaxial cable to the radio equipment - try to achieve a "drip loop" before the cable enters via a door as this will help to stop water entry into the vehicle.
Select the entry point to reduce wear on the cable from opening/closing of door.
Ensure that the cable does not present a hazard to vehicle users.

***** The cable must not be routed in front of any airbag device*****

The cable may already be fitted with a fme jack – a suitable adaptor can be fitted to this, alternatively, fit suitable coaxial connector to cable as required.

Commission and Test

It is recommended that a VSWR check is carried out - less than 2.0:1 across the band should usually be achievable, dependant on antenna type and groundplane size.