Antenna Mounting Brackets

27MHz ANTENNA RANGE		
Code	Type	Length (mm)
AE240	Braided	600
AE242	Braided	900
AE243	Braided	1200
AEZ39	Heavy Duty Braided	1000
AET49	Heavy Duty Braided	1300
AEZ59	Heavy Duty Braided	1500
AE2001	Flexible	320
AE2006	Helical	600
AE2014	Helical	1000
AE2018	Helical	1500
AE2007/8	Stainless Steel	1200
AE220	Braided	1100
AE225	Helical	1810

477MHz ANTENNA RANGE		
Code	Type	Length (mm)
AE4001	2.1dB	150
AE4002	2.1dB	150
AE4005	3dB	370
AE4003	4.5dB	570
AE4007/8	4.5dB	600
AE4012/7	4.5dB	600
AE4018	4.5dB	640
AE4012/7K1	4.5dB	780
AE4012/7K2	4.5dB	860
AE4018K1	4.5dB	980
AE409L	6/9dB	830/1230
AE4006	6dB	1200
AE4701	2.1dB	580
AE4702	4.5dB	1040
AE4703	4.5dB	1100
AE4705	4.5dB	1200
AE4706	6dB	2100
AE410 ★	6dB	2100
AE410F	6dB (Foam Filled)	2100
AE4011 ★	6dB	1800

★ *Antenna whip also available in brown colour.*

☐ *Indicates antenna is Ground Plane Independent.*

CELLULAR AND AM/FM ANTENNA RANGE		
Code	Type	Length (mm)
AEM3P	AM/FM Receiver Only	800
AEM2P	AM/FM Receiver Only	1560
AT4DG	3dB Digital Telephone	400
AT6AM	3dB CDMA Telephone	460
AT6AN	4dB CDMA Telephone	800
AT6DG	4dB Digital Telephone	800

ANTENNA MOUNTING BRACKET RANGE		
Code	Type	Material
MB001	Ford AU Left Rear	2mm Mild Steel
MB002	Ford AU Right Rear	2mm Mild Steel
MB401SS	Mirror Mount	2.5mm Stainless Steel
MB402SS	Angled to Suit Station Wagons	1.5mm Stainless Steel
MB403SS	'L' Shaped Universal	1.5mm Stainless Steel
MB404SS	Holden VS Bracket	1.5mm Stainless Steel
MB405SS	'L' Shaped	2.5mm Stainless Steel
MB406SS	VT Gutter Bracket	1.5mm Stainless Steel
MB407	Bonnet/Boot 'Z'	1.5mm Mild Steel
MB407SS	Bonnet/Boot 'Z'	1.5mm Stainless Steel
MB408B	Bull Bar Antenna Mounting	3mm Black Mild Steel
MB408SS	Bull Bar Antenna Mounting	3mm Stainless Steel
MB03	Adjustable Gutter Mount	Die Cast Aluminium
MB14	Fold Down Gutter Mount	Stainless Steel

ANTENNA SPRINGS AND BASES	
Code	Description
AB001	27/477MHz Base. (5/16" TPI Thread)
ABL001	27/477MHz Base and Lead. (5/16" TPI Thread)
ABL002	Elevated Feed with 4.5m Lw Loss Foam Coax. (BSW Thread)
ABL004	S0239 Cntr. with 4.5m Lw Loss Foam Coax. (Suit 4700 Series)
ABL007	Magnetic Base/Lead Assembly. (S0239)
AB406	Magnetic Base/Lead Assembly. (5/16" TPI Thread)
AS001	Light Duty Parallel Spring. (BSW Thread)
AS002	Medium Duty Barrel Spring. (BSW Thread)
AS003	Medium Duty Parallel Spring. (BSW Thread)
AS004	Heavy Duty Barrel Spring. (Suit AE4705/6)
AS005	Heavy Duty Barrel Spring. (BSW Thread)
CA201	Medium Duty Aerial Spring. (Suit 5/16")
CA202	Heavy Duty Aerial Spring. (Suit 5/16")

GME Electrophone

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DEALER:

GME Electrophone

LAND MOBILE ANTENNAS

477MHz

27MHz

Cellular

The antenna is the most important piece of equipment in an RF communication system. It does not matter how powerful the transmitter or how sensitive the receiver, without a good antenna the propagation and collection of signals will suffer and hence limit the communication range.

GME Electrophone

...Antennas that go the distance...

GME Electrophone offers a wide range of 27MHz, 477MHz and Cellular antennas. Manufactured to exacting high standards to suit its range of market leading transceivers, GME Electrophone has utilised its experience and expertise in RF design to bring a range of antennas to suit all applications offering exceptional performance, reliability and value.

Two important factors when choosing an antenna are the **mounting position** and the desired **radiating patterns** for the terrain the antenna is intended to be used in.

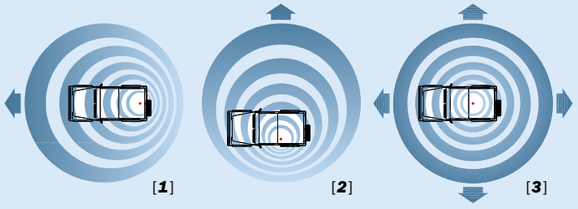
Mounting Positions

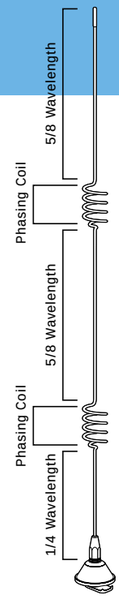
An antenna needs a large uniform metal surface beneath the radiating elements to perform correctly. This is referred to as "ground plane". Therefore the best position to install an antenna is in the centre of a metal roof, however, this is not always possible i.e. installation on a bull bar or mirror mount. In this case a "Ground Independent" antenna should be used to give the antenna its desired radiating pattern without metal beneath.

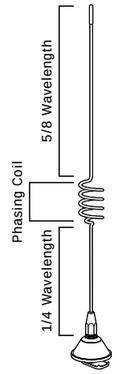
Radiating Pattern on Flat Metal Surface

The direction of a "Non Ground Independent" antenna radiation pattern varies with the vehicle mounting position.

- [**1**] **Rear** - Strongest to the front, weak to the rear.
- [**2**] **Left** - Strongest to the right, weaker to the left. *(Antenna Right - Vice Versa)*
- [**3**] **Centre** - All directions equal *(best)*



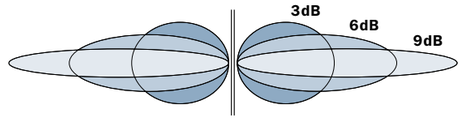


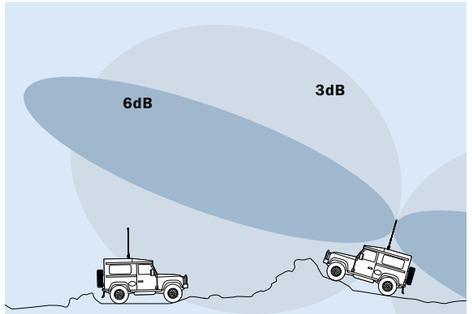


*Shown left are two examples of the electrical construction of antennas. **High Gain** antennas (typical 6 to 9dB) are usually longer than **Low Gain** antennas (typical 4.5 to 6dB)*

Radiating Patterns

It is also important to understand the relation of an antenna's gain to its radiating pattern. The diagram below shows the radiating pattern of different gain antennas. As the electrical design of the antenna is modified to increase the gain, the omnidirectional pattern is squashed in a vertical plane, therefore furthering the signal's coverage. A high gain antenna will therefore give increased coverage on flat terrain but the elevation will be limited making it unsuitable in mountainous country.

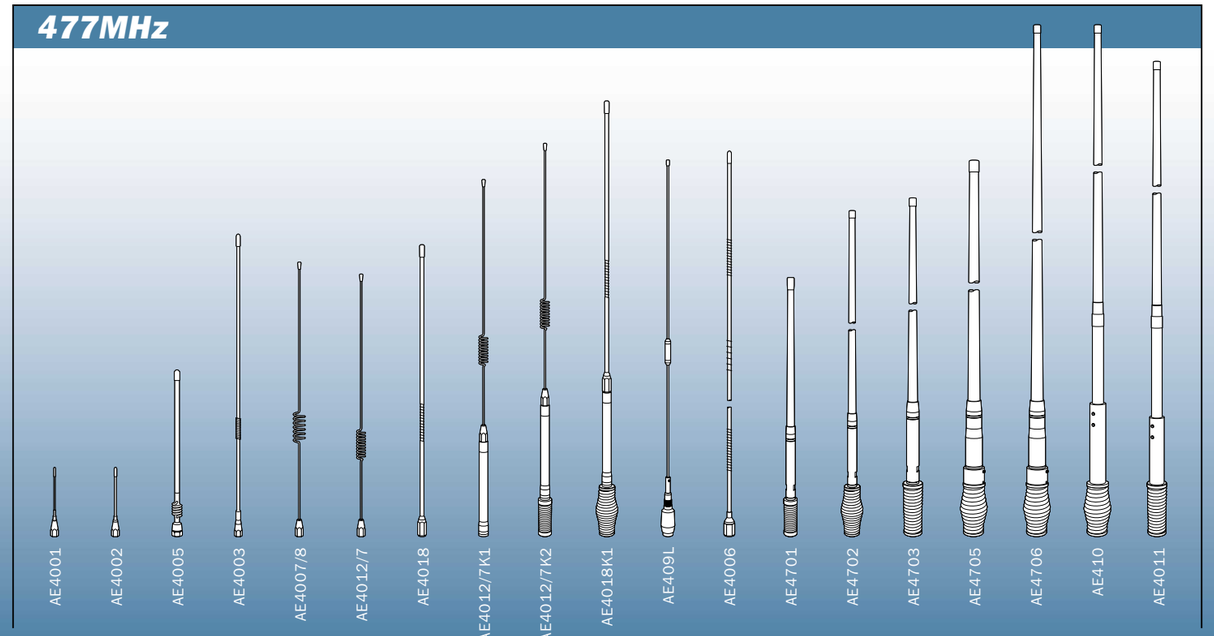




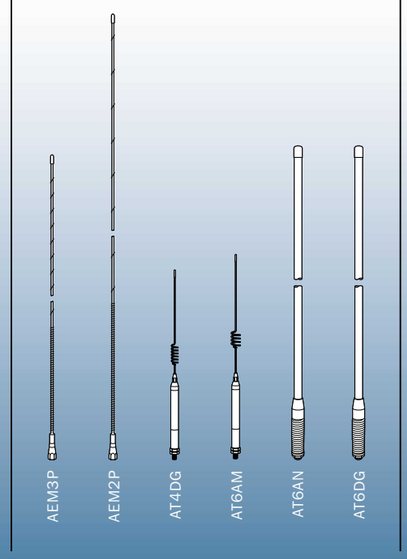
Lower gain antennas are more suited for hilly terrain where reception does not depend on the angle of the antenna.

27MHz

477MHz



Cellular & AM/FM



The AE4700 Series* of Interchangeable Bull Bar Antennas

The AE4700 Series of bull bar antennas is the most diverse and adaptable range of large vehicle mount antennas on the market today. Engineered with the co-ax termination protected inside the spring assembly and easy screw down fitment of the whip, the antenna can easily be changed for different gain and lengths to suit operating conditions. This is really beneficial when coming in from the bush where a 2 metre high gain antenna was needed compared to driving in the city where a lower gain and a shorter length is required to get into those low parking stations.

* *Patent Pending*

To the right it can be seen that any of the whips in the AE4700 Range can be effortlessly interchanged without changing the AE4705/6 spring base. The AE409L ground independent steel whip will also fit onto the spring base which offers an alternative to thicker radomes.

Antenna Accessories