



Type MD

For marine or land communications in the VHF Band

A half wave dipole radiator, designed to give efficient VHF performance in both transmit and receive modes.

The MD is lightweight, unobtrusive and easily mounted, being constructed of marine grade, low corrosion, tempered aluminium tubing. The radiator is completely finished with a high durability epoxy based coating, highly resistant to chemical attack, abrasion and the effects of ozone and ultra-violet radiation. Standard colour is black with option of white. All metal parts are at DC earth potential for static discharge and fittings are of nylon and stainless steel.

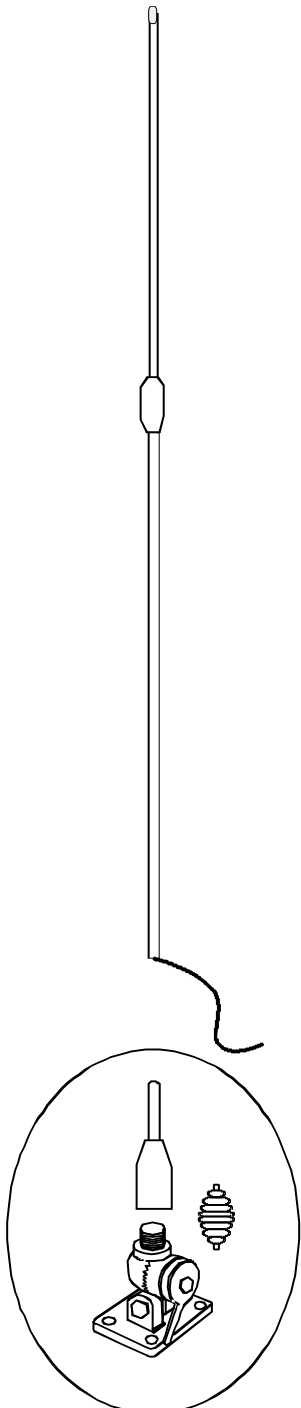
Mounting may be affected either by two nylon clamp type insulators, 12 mm metric bolt, or by a swingdown mount with base adapter. Other methods, such as stainless steel hose clamps, may be used provided that the mounting tube is not damaged. A stainless steel spring mount is also available as an option for landing barges and vessels negotiating overhanging branches in small rivers and creeks.

It may be supplied tuned to any frequency in the VHF High or Low/Mid Bands. If required for marine use, it is normally supplied resonant at 156.8 MHz (Channel 16). A collapsible portable version is also available on special order for emergency services (type MD Portable).

Specifications

Colour	Standard is Black.	Optional White
VHF Band	High Band: 146-180 MHz	Low/Mid Band: 40-145 MHz
Overall Length	1.59metres (5.48 ft), approx	2.54 metres (8.3 ft), approx
Radiator Length	0.9 metres (3 ft), approx	1.73 metres (5.6 ft), approx
Radiator Diameter	12.7mm (0.5 in)	12.7mm (0.5 in)
Mounting Tube Length	0.53 metres (1.75ft)	
Mounting Tube Dia	23mm (0.88 in)	
Pattern	Omnidirectional, maximum radiation 90° to radiator	
Polarisation	Vertical	
Frequency Range	Pretuned to specified VHF band frequency. Normally 156.8 MHz (Channel 16) or 77 MHz. Other frequencies to order.	
Bandwidth	7 MHz	
VSWR	Better than 1.2:1 at centre frequency	
Gain	2.2 dBi	
Impedance	50Ω nominal	
Wind Loading	1.64 kg at 100 km/h (3.6 lbs at 60 mph); 3 kg at 130 km/h (6.6 lbs at 81 mph)	
	2.3 kg at 100 km/h (5 lbs at 60 mph); 4.17 kg at 130 km/h (9.2 lbs at 81 mph)	
	Wind Survival 175 km/h (110 mph)	
Power Capability	80 watts	
Mountings	Either: two 63 mm (2.5 in) nylon clamp type insulators, 35 mm diameter (1 3/8 in), threaded to take M10 set screw ; stainless steel swingdown mount (1" thread) adjustable in both planes; or 12mm metric bolt (not supplied)	
Connection	5 metres RG58 co-axial cable with PL259 (UHF) plug, UHF or N Type female connector fitted in base of mounting tube (specify)	
Packed Weight	2 kg (4.4 lbs)	

Specifications subject to change – Issued 07/13



Mounting options





TYPE MD INSTALLATION INSTRUCTIONS:

Mounting

By sidemount insulators:

1. Slide the two mounting insulators on the mounting tube, being careful not to damage the plastic coating. Mounts may be opened by reversing the clamp screw, placing a coin or similar in the slot behind the screw and using the screw to force the slot apart.
2. Mounts should be spaced not less than 30cm (12 in.) apart.

By swingdown mount:

1. Place the base plate in the desired position and use it as a template.
2. Mark the position of the mounting holes.
3. Drill 4 x 6.4mm (1/4 in) dia holes.

By 12mm Bolt:

1. Mark the mounting position on a horizontal surface or mount and drill a 12mm clearance hole in the marked position.
2. Using a 12mm (metric thread) stainless steel or galvanised bolt, fasten antenna down firmly.

Important Factors

1. The mounting tube must not be drilled or damaged in any way.
2. The antenna should be mounted as high as possible and kept clear of nearby metal objects which may affect antenna tuning, and for best results, should be vertical, not sloping.
3. Note that due to the internal arrangements in this antenna it will exhibit a short circuit if tested with an Ohmmeter or DC circuit tester.
4. When using a swingdown mount allow sufficient coaxial cable to permit antenna to swing down without cable strain.



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