



Type MD-G3

High Gain Broadband Collinear for marine or land VHF Marine Band communications

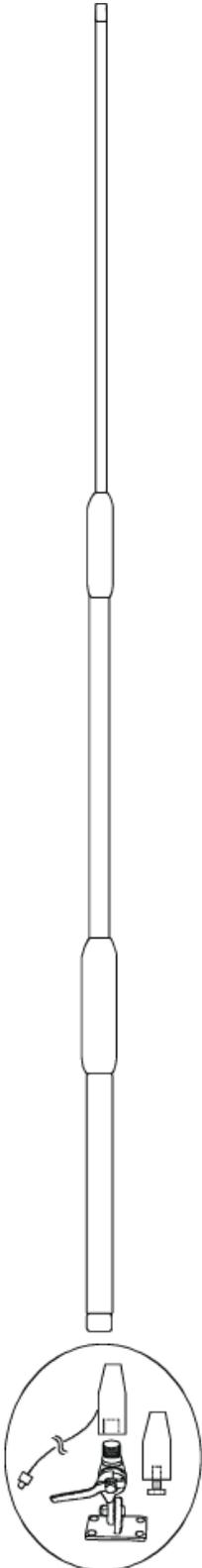
A rugged lightweight 5/8 wave ground independent collinear to give efficient and dependable performance.

The type MD-G3 has been designed as a robust, high gain antenna system and is ideally suited for base station and marine mobile use. It is constructed of marine grade, low corrosion, tempered aluminium alloy tubing which is finished with a high durability epoxy based coating, highly resistant to chemical attack, abrasion and the effects of ozone and ultra-violet radiation. All metal parts are at DC earth potential for static discharge and fittings are of nylon and chromed bronze.

Mounting is easily affected by way of nylon side mount insulators, (or by straps or clamps to mast or tower section), by 12mm metric base bolt or by a heavy duty stainless steel swingdown mount adjustable in two planes.

Specifications

Colour	Standard is Black. Optional White
VHF Band	150-170 MHz
Overall Length	2.78 metres (9.12 ft)
Base Section Diameter	22.24 (7/8 in)
Top Section Diameter	10 mm (0.4 in)
Pattern	Omnidirectional
Polarisation	Vertical
Frequency Range	Standard Version: full marine band 156-162 MHz
Bandwidth	7 MHz at <1.5:1 VSWR; 20 MHz at <2:1 VSWR
Gain	5 dBi
Impedance	50Ω nominal
Wind Loading	2.35 kg at 100 km/h (5.2 lbs at 60 mph) 3.56 kg at 120 km/h (7.8 lbs at 75 mph)
Power Capability	75 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, or heavy duty stainless steel hose clamps (recommended spacing not less than 25 cm (9.8 in) apart); stainless steel swingdown mount (1" thread) adjustable in both planes (not supplied); or base mounted 12mm metric bolt (not supplied).
Connection	5 metres RG58 coaxial cable with PL259 (UHF) connector; or female N Type connector permanently fitted in base of mounting tube (sidemount type)
Packed Weight	3 kg (6.6 lbs)



Specifications subject to change – Issued 07/13

Moonraker Australia Pty. Ltd. ABN 70 162 868 475
Tasmanian Technopark, Dowsing Point, Tasmania, Australia 7010

Website: www.moonraker.com.au Tel: 61 (0)3 6273 1533 Fax: 61 (0)3 6273 1749 Email: radiocom@moonraker.com.au





TYPE MD G3 INSTALLATION INSTRUCTIONS:

Mounting

By sidemount insulators, straps or clamps:

1. For sidemount insulators: slide the two mounts onto the mounting tube. Mounts should be spaced not less than 25cm (10 in.) apart.
2. Mark the positions and drill the holes for the sidemount set bolts
3. Use either hose or pipe type clamps around mounting tube and support pole.
4. Do not over tighten straps or clamps so as to damage the coating or crush mounting tube.
5. Keep antenna matching section (first "bulge") clear of support pole.

By swingdown mount:

1. Place the base plate of the mount 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.
4. Bolt the mount/antenna in place

By 12mm bolt base mount adaptor:

1. Mark the mounting position on a horizontal surface or mount and drill a 12mm 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 between inner and outer of coaxial cable.
4. Ensure coaxial connections are sealed against water ingress.
5. Do not allow the coaxial connector to take the cable strain. Secure cable with cable ties or tape.
6. When using a swingdown mount allow sufficient coaxial cable slack to permit antenna to swingdown without cable strain.

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