



## Type 12S/D

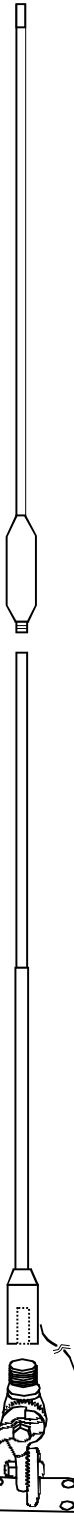
**Marine HF antenna for smaller vessels particularly of the trailed type where a swingdown facility is required**

Designed to permit easy adjustment of antenna angle and to provide high efficiency communications in both transmit and receive modes where antenna obstructions (bridges, etc.) may be encountered or deck level stowage is necessary or desirable.

The 12S/D, a 3.65m (12ft) whip, is quickly assembled from two 1.85m (6ft) sections which screw together on a self locking taper. The compact and sturdy stainless steel swingdown mount, which may be mounted unobtrusively on deck or cabin side, may be adjusted in 10° steps and is easily locked into position by a heavy duty ratchet and wing nut.

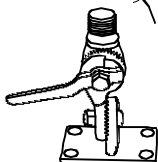
Construction is of lightweight marine grade tempered aluminium alloy tubing, providing a large low loss radiating surface, coated with PVC for maximum protection from the marine environment and ultra violet radiation. Fittings are of nylon, stainless steel and chromed bronze with low loss coils.

It is available unloaded or resonant at a single frequency (the highest to be used, normally 2.6, 4.6, 6.3, 8.3 or 10 MHz). For operation on frequencies lower than the resonant frequency, the difference is made up in the ATU.



### SPECIFICATIONS

<b>Colour</b>	Standard is Black. Optional White.
<b>HF Marine Band</b>	2-30 MHz
<b>Length</b>	3.65 metres (12 ft)
<b>Pattern</b>	Omnidirectional
<b>Polarisation</b>	Vertical
<b>Base Diameter</b>	35mm (1.375 in)
<b>Frequency Range</b>	Pre-tuned to frequency, or unloaded 2-30 MHz with suitable ATU
<b>Wind Loading</b>	2.54 kg at 100 km/h (5.6 lbs at 60 mph) 4.3 kg at 130 km/h (9.5 lbs at 81 mph)
<b>Power Capability</b>	400W PEP for unloaded top sections, 250W PEP for normal loaded top sections; higher power to order
<b>Mountings</b>	A nylon insulator mated to an adjustable angle, stainless steel alloy mount via a threaded 25.4mm (1 in) 14TPI stainless steel stud (supplied) and 4 x 6.4mm (¼ in) countersunk head screws (not supplied). May be cabin side or deck mounted.
<b>Connection</b>	Silicone insulated flexible cable tail 2m long (6.5 ft) 56/0.3 tinned copper; length should not exceed that provided for correct operation on the higher frequencies
<b>Packed Weight</b>	2.5 kg (5.5 lbs) with mountings



Specifications subject to change – Issued 07/13

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## TYPE 12S/D INSTALLATION INSTRUCTIONS:

### Assembly and Mounting

1. On permanent installations use locking compound such as Loctite on top section screw thread joint. Note that some grades of Loctite will not allow disassembly, we suggest 242 grade. Do not use silicone sealant or grease on this joint.
2. Use the mount as a template to mark the position of the mounting holes.
3. Drill 6.4 mm (1/4 in) holes in the marked position.
4. Reinforce thin decks with metal or wooden backing plate.
5. Bolt the mount in position.

### Important Factors

1. For best results the antenna should be mounted vertically (not sloping).
2. The length of lead supplied with the antenna should not be exceeded. Longer lead may be used if necessary, but antenna efficiency may decrease and series capacitance may be required to tune the higher frequencies.
3. Keep the lead clear of ship's wiring and other metallic objects and avoid running parallel to metal decks, etc. with less than 2 cm (3/4 in) clearance. We recommend Moonraker standoff and cable run insulators.
4. Lead should be run as short and direct as possible between the antenna and equipment.
5. If using deck feed through insulator, make sure the terminals are protected from salt spray, otherwise severe loss of power may result due to leakage across the wet insulator. Moonraker feed through insulators are recommended.
6. Earth leads should be connected directly to the ATU and kept as short as possible.
7. Copper strip at least 50 mm (2 in) wide is recommended for earth lead between equipment and Moonraker earth plate.



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