



Type 15S/D

**Marine HF antenna for vessels over 5.5 metres (18 feet)
where higher efficiency combined with 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 15S/D, a 4.6m (15ft) whip, is quickly assembled from two sections [base: 2.7m (9ft); top: 1.85m (6ft)], which slip together and fasten with two stainless steel self tapping screws. 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.

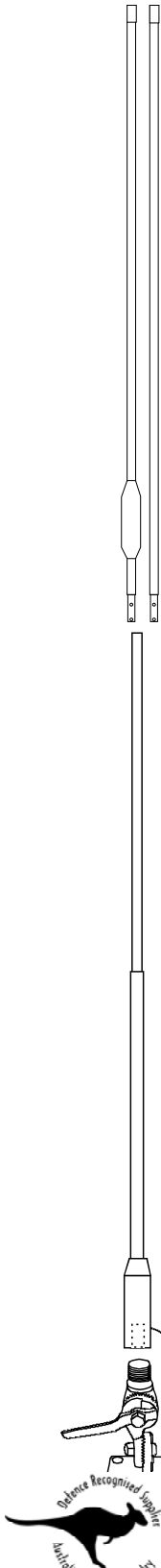
Construction is of marine grade tempered aluminium alloy, which provides a large low loss radiating surface, fully protected by a high durability epoxy based coating resistant to chemical attack, abrasion and the effects of ultra-violet radiation. Fittings are of nylon and stainless steel with low loss 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

Colour	Black is Standard. Optional White.
HF Marine Band	2-30 MHz
Length	4.6 metres (15 ft)
Pattern	Omnidirectional
Polarisation	Vertical
Base Diameter	35mm (1.375 in)
Frequency Range	Pre-tuned to frequency, or unloaded 2-30 MHz with suitable ATU
Wind Loading	3.5 kg at 100 km/h (7.7 lbs at 60 mph) 5.9 kg at 130 km/h (13 lbs at 81 mph)
Power Capability	500W PEP for unloaded top sections, 300W PEP for normal loaded top sections; higher power to order
Mountings	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.
Connection	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
Packed Weight	3 kg (6.6 lbs) with mountings

Specifications subject to change – Issued 07/13



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TYPE 15S/D INSTALLATION INSTRUCTIONS:

Assembly and Mounting

1. Remove the joint screws from the top section of the antenna.
2. Apply a thin layer of grease to the bare aluminium section of the top section slip joint and slide it inside the top of the base section.

N.B. This grease will greatly assist with future disassembly of the joint.
3. Replace the joint screws and tighten firmly by hand only.
4. Use the mount as a template to mark the position of the mounting holes.
5. Drill 6.4mm (1/4 in) holes in the marked position.
6. Reinforce thin decks with a metal or wooden backing plate.
1. 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 2cm (3/4 in) clearance. We recommend Moonraker stand off 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 50mm (2 in) wide is recommended for earth lead between equipment and Moonraker earth plate.
8. If the top section is removed when trailing, make sure to replace it tightly when using the antenna again.



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