



## Type 12S/R

**Marine HF antenna for vessels  
where permanent mounting is not possible or not required**

Easily and quickly assembled or removed, this demountable whip is especially suitable for trailed craft or as an emergency antenna where a wire to masthead system is used, such as a backstay on yachts. Two sections of 1.85m (6ft) which may be easily stored below deck, screw together on a self locking taper and then into a permanently deck mounted feed through insulator to provide instant, efficient communications in the HF Band range from 2-30 MHz.

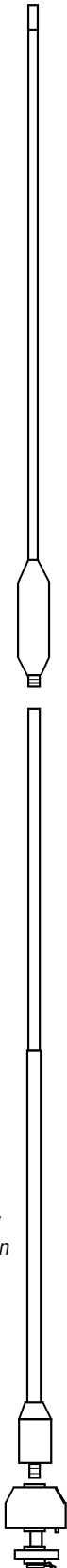
Antenna construction comprises light-weight marine grade tempered aluminium alloy tubing PVC coating for maximum protection from the marine environment and ultra violet radiation. The deckmount is of high density polyethylene with chromed bronze insert and stainless steel mounting bolt. Fittings are of nylon, stainless steel and chromed bronze with low loss coils.

A backstay connection kit is available so that the deckmount may be used as a deck feed through insulator to feed a backstay antenna. If dismasted, the backstay connection may be removed and the whip antenna screwed into the deckmount. 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>	70mm (2.75 in)
<b>Frequency Range</b>	Pre-tuned to frequency, or unloaded 2-30 MHz with suitable ATU
<b>Wind Loading</b>	2.6 kg at 100 km/h (5.7 lbs at 60 mph) 4.4 kg at 130 km/h (9.7 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>	One high density polyethylene deckmount 70mm diameter (2.75 in) with chromed bronze insert and stainless steel mounting bolt, mounting hole 9.5mm (3/8 in), fitting decks to 25mm (1 in) thick.
<b>Connection</b>	Under deck to lug on mounting bolt
<b>Packed Weight</b>	2.5 kg (5.5 lbs) with mountings

*Backstay  
Connection  
Kit*



Specifications subject to change – Issued 01/09/13

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# 12S/R INSTALLATION INSTRUCTIONS

## Assembly

1. Screw the top and base sections together. Tighten hard down by **HAND**, so that it locks firmly on the taper. Do not use tools.
2. On permanent installations **ONLY** 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.
3. If the top section is removed, make sure to replace it tightly when using the antenna again.

## Mounting

1. Drill a 25 mm (1 in) and 5mm (3/16in.) (for anti-turn spigot) hole through the deck in the location required and mount the deck mount using a packing wedge if necessary to keep the antenna vertical.
2. Use a little silicone sealant under the mount to keep the joint waterproof and drill a small hole to accommodate the anti-twist peg. Bolt the mount hard down using the bolt and insulating washer provided. Take care to locate the anti-turn spigot.
3. Reinforce thin decks with a metal or wooden plate to prevent deck fracture.
4. Connect the antenna lead to the lug provided on the mounting bolt.
5. Screw the antenna hard down on the mount, otherwise it may work on the threaded section and eventually fracture. Do not use without the neoprene O ring as this waterproofs the joint and prevents it working loose. Spare O rings are available from us or from engineering supply houses. The size is 7/8 in x 1/8 in.

## Important Factors

1. For best result the antenna should be mounted vertically (not sloping).
2. The 2 metre recommended length of antenna lead 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 or other metallic objects and avoid running parallel to metal decks, etc., with less than 2 cm (3/4 in) clearance. The use of Moonraker silicone antenna feed line and cable run insulators is recommended.
4. Make sure the antenna is always erected with the neoprene O ring to protect the connection from salt spray; otherwise the antenna may work loose.
5. Earth leads should be connected directly to the ATU and kept as short as possible.
6. Copper strip at least 50 mm (2 in) wide is recommended for earth lead between equipment and Moonraker earth plate.