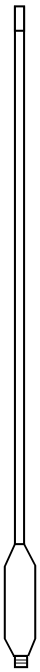
MOONRAKER

Type 12W

Marine HF antenna for smaller marine vessels particularly those capable of high speeds

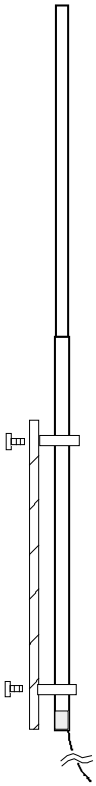


Designed to promote maximum efficiency in communications, whether transmitting or receiving, for the smaller vessel where antenna length is limited.

The 12W, a highly compact whip of 3.65m (12ft) breaks down into two easily transportable and assembled sections of 1.85m (6ft) which screw together on a self locking taper.

The light-weight marine grade tempered aluminium alloy tubing provides a large low loss radiating surface, and PVC coating ensures 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

Colour	Standard is Black. Optional White.
HF Marine Band	2-30 MHz
Length	3.65 metres (12 ft)
Pattern	Omnidirectional
Polarisation	Vertical
Base Diameter	17mm (0.625 in)
Frequency Range	Pre-tuned to frequency, or unloaded 2-30 MHz with suitable ATU
Wind Loading	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)
Power Capability	400W PEP for unloaded top sections, 250W PEP for normal loaded top sections; higher power to order
Mountings	Two 50mm (2 in) nylon clamp type insulators, 30mm (1 3/16 in) diameter, threaded to take ¼ inch UNC Whitworth bolt (not supplied); insulator spacing not less than 38cm (1.25 ft)
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	2 kg (4.4 lbs) with mountings

Specifications subject to change – Issued 01/09/13

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12W INSTALLATION INSTRUCTIONS

Assembly

1. **When fitting the side mounting insulators, slide them on the base section before assembling, 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. **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.**

3. **Screw the top and base sections together. Tighten hard down by HAND, so that it locks firmly on the taper. Do not use tools.**

4. **If the top section is removed when trailing, make sure to replace it tightly when using the antenna again.**

Mounting

1. **Make sure the mounting bolts are long enough to use the full length of thread in the insulators, but not so long that they bottom in the hole.**

2. **Mounting insulators should be spaced not less than 38 cm (15 in) apart.**

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.**