MOONRAKER

HF ANTENNA SYSTEMS

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18SR

MARINE HF EMERGENCY ANTENNA MEETING GMDSS REQUIREMENTS FOR SHIPS

The type 18S/R demountable antenna system is a larger version of our very popular type 12S/R and 15S/R emergency antenna systems for yachts and trailed craft but designed to meet GMDSS requirements on ships where a wire to masthead system is used.

The antenna consists of two sections of 3.575 and 1.910m, which are easily stored below deck. The sections screw together on a self locking taper and then into a permanently deck mounted feedthrough 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 coated with high durability epoxy based coating, resistant to chemical attack, abrasion and the effects of ozone and ultra-violet radiation. Standard colour is black. The deckmount is of high density polypropylene with brass insert and stainless steel mounting bolt. Fittings are of nylon, stainless steel and brass with low loss coils (loaded top sections).

A backstay wire connection kit is available so that the deckmount may be used as a deck feedthrough insulator to feed the ship's main HF GMDSS antenna. If dismasted or the main antenna is lost, the backstay feed wire connection may be removed and the whip antenna screwed into the deckmount.

Each type 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 ▼

HF Marine Band	2-30 MHz
Length	5.5 metres (18 ft)
Pattern	Omnidirectional
Polarisation	Vertical
Base Diameter	80mm
Frequency Range	Pretuned to frequency, or unloaded 2-30 MHz with suitable ATU
Wind Loading	4.9 kg at 100 km/h 8.3 kg at 130 km/h
Power Capability	400W PEP for unloaded top sections, 250W PEP for normal loaded top sections; higher power to order
Mountings	One high density polyethylene deckmount 80mm diameter with brass insert and stainless steel mounting bolt, mounting hole 25mm, fitting decks to 19mm thick.
Connection	Under deck to lug on mounting bolt
Packed Weight	5 kg with mountings

18SR 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 243 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 and 5mm (for locking pin) 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 locking pin. Bolt the mount hard down using the bolt and insulating washer provided. Take care to locate the locking pin.
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 0 ring as these waterproofs the joint and prevents it working loose.

Important Factors:

1. For best result the antenna should be mounted vertically (not sloping).
2. The length of lead supplied with the antenna should not be exceeded. Long 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 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 0 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 is recommended for earth lead between equipment and Moonraker earth plate.

CONTACT DETAILS ▼

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Moonraker products represent the pinnacle of antenna design. With over 45 years' experience supplying Defence, Commercial and Recreational industries. Moonraker antennas are individually tuned and manufactured to our stringent extreme marine quality standards that ensure maximum performance and service life.

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