# M O O N R A K E R



HF ANTENNA SYSTEMS

www.cbgsystems.com

# 15B

## MARINE HF ANTENNA FOR VESSELS OVER 9 METRES (30 FEET)

A 4.6 metre (15ft) heavy duty whip, similar to type 15W, designed to provide highly efficient communications in the HF Band range from 2-30 MHz, both in the transmit and receive modes, where deck mounting is required.

Specially suitable for large vessels, the 15B is neatly mounted by means of a nylon base insulator with powder coated bronze flange support and stainless steel bolt deck feed through insulator [fits decks to 19mm thick], which allows direct under deck connection.

Powder coated tempered aluminium alloy tubing provides a large low loss radiating surface protected from the marine environment and ultra violet radiation. To facilitate transport, the antenna breaks down into two sections [base: 2.7m; top: 1.85m], which slip together and fasten with 2 stainless steel self tapping screws.

It is available unloaded, resonant at a single frequency (the highest to be used, normally 2.6, 4.6, 6.3, 8.3 or 10 MHz) or specially tuned to either 2182 or 2187 KHz for watch keeping receivers. 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 4.6 metres (15 ft)
Pattern Omnidirectional

Polarisation Vertical Base Diameter 12.7cm

Frequency Range Pre-tuned to frequency or frequencies required, or unloaded 2-30 MHz

with suitable ATU; also 2182 or 2187 KHz for receiving

Wind Loading 4.0 kg at 100 km/h

6.8 kg at 130 km/h

Power Capability 800W PEP for unloaded top sections, 600W PEP for normal loaded top

sections Higher power to order

Mountings One integral base insulator and 12.7cm powder coated bronze flange with

'O' ring seal between insulator and flange, and 4 x 6.75mm mounting holes

(bolts not supplied). Centre feed through hole 15.8mm dia.

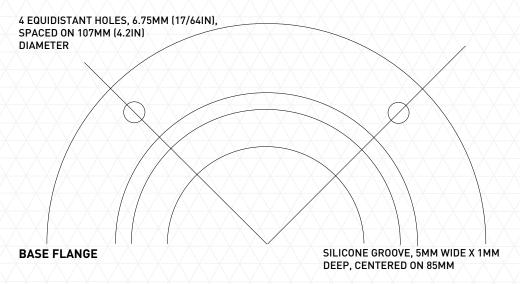
**Connection** Under deck to lug on feedthrough bolt

Packed Weight 5 kg with mountings









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### **Assembly and Mounting:**

- 1. Drill a 16mm hole through deck or cabin top in most suitable position for the antenna.
- 2. Temporarily locate the antenna base and flange over the hole.
- 3. Mark the position of the four flange bolt holes and drill.
- 4. For ease of maintenance lightly smear the top section slip joint with grease and push firmly together.
- 5. Tighten screws firmly and lightly smear joint with neutral clear silicone.
- 6. Place sealing compound between the flange and deck and around feed through hole.
- 7. Erect antenna and fasten flange mounting bolts.
- 8. From underside of deck, using sealing compound, screw up feed through washer and connection bolt. (This bolt is not designed to support the antenna as the flange mounting bolts do this).

#### **Important Factors:**

- Deck should be strong enough to support antenna and should be strengthened if necessary.
- 2. For best results the antenna should be mounted vertically (not sloping).
- 3. For correct operation of dual resonant top sections, no more than 1 metre of lead to the ATU should be used.
- 4. 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 clearance.
- 5. Lead should be run as short and direct as possible between the antenna and equipment.
- 6. Earth leads should be connected directly to the ATU and kept as short as possible.
- 7. Copper strip at least 50mm wide is recommended for earth lead between equipment and Moonraker earth plate.

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.

