



# MOONRAKER BLUE WATER TWINS

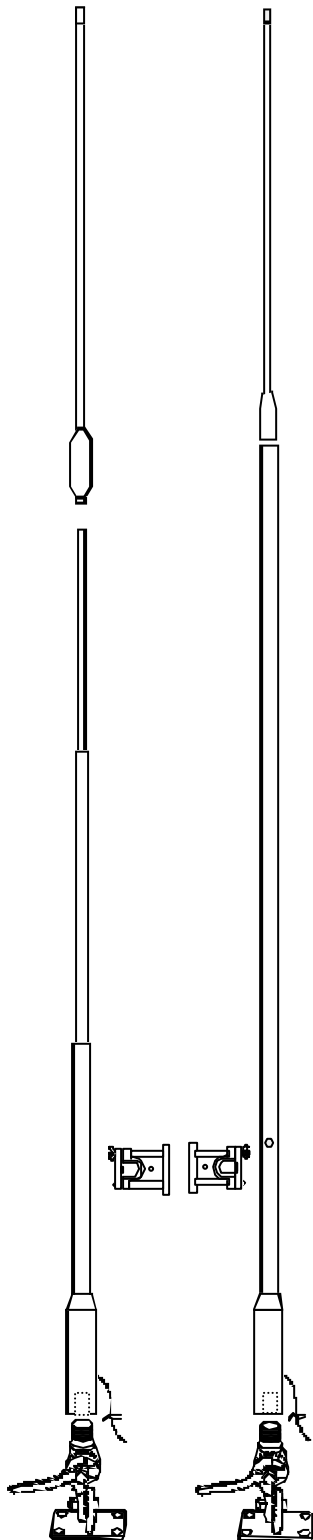
**5.5 metre (18 feet) matched pair of HF and VHF swingdown antennas  
for vessels over 9 metres (30 feet)**

Specifically designed for flybridge cruisers where a matched pair of HF and VHF antennas will compliment the vessels style. The "Twins" are a combination of our high efficiency 5.5m 18 Series HF and matching type MD VHF antennas.

The *lookalike* pair are constructed of marine grade tempered aluminium alloy, providing a large low loss radiating surface coated with white PVC for maximum protection from the marine environment and precipitation static. (Black colour is available on request.) Each antenna is in two easily assembled sections for ease of transportation.

Fittings are of nylon, stainless steel, marine grade aluminium and chromed bronze. The HF antenna is available loaded or unloaded with the VHF antenna pretuned to the marine band.

Mounting may be by way of continuously adjustable heavy duty stainless steel swing down mounts with an additional supporting gate end mount fitted approximately 600mm (2ft) above.



## SPECIFICATIONS

	HF	VHF
<b>Frequency Range</b>	Pretuned to frequency or frequencies required, or unloaded 2-30 MHz with suitable ATU	VHF Marine Band 156.050-157.425MHz
<b>Length</b>	5.5 metres (18 ft)	5.5 metres (18 ft)
<b>Pattern</b>	Omnidirectional	Omnidirectional maximum radiation 90° to radiator
<b>Polarisation</b>	Vertical	Vertical
<b>Bandwidth</b>	-	7MHz at 1.5 SWR points
<b>Gain</b>	-	2.2dBi
<b>Impedance</b>	-	50 ohms (nominal)
<b>Wind Loading</b>	4.9kg at 100 km/h (10.8 lbs at 60 mph); 18.3 lbs at 81 mph	8.3kg at 130 km/h
<b>Power Capability</b>	600W PEP loaded 800W PEP unloaded	80 Watts
<b>Connection</b>	2 Metres of silicone insulated flexible cable	5m (16.4ft) of RG58 coaxial cable with PL259 connector
<b>Mounting</b>	Nylon insulator mated to an adjustable angle stainless steel mount via a 25.4mm (1 in) x 14TPI stainless steel stud (supplied) and 4 x 6.4mm (1/2 in) countersunk head screws (not supplied); may be cabin side or deck mounted. Gate end mount (opening) above.	
<b>Packed Weight</b>	10kg	

Specifications subject to change 10/02

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# BLUE WATER TWINS INSTALLATION INSTRUCTIONS

## Antenna Assembly

**HF** Screw the top and base sections together. Tighten hard down by **HAND**, so that it locks firmly on the taper. Do not use tools. On permanent installations use locking compound such as loctite on screw threads. Note that some grades of Loctite do not allow disassembly, we suggest 242 grade. Do not use silicone sealant or grease on this joint.

**VHF** Remove the three self tapping screws fitted to the base section of the antenna. Use of a smear of grease on the bare aluminium before assembly will aid future disassembly. Insert the antenna into the mounting pole and replace the three self tapping screws.

## Mounting

1. Use the mounts as a template to mark the position of the mounting holes. Minimum spacing between mounts is 600mm (24 in.)
2. Drill 6.4mm (1/4 in) holes in the marked position.
3. Reinforce thin decks with a metal or wooden backing plate to spread the load.
4. Bolt the mounts into position.

## Important Factors

### HF

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 wherever the lead passes through the cabin or deck.
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 the ATU and earth. A Moonraker earth plate should be used on wooden and fibreglass vessels.
8. If the top section is removed when transporting the vessel on land, make sure you replace it tightly when using the antenna again.

### VHF

1. The antenna should be mounted clear of nearby metal objects which may affect antenna tuning, and for best results should be vertical, not sloping.
2. Note that due to inbuilt static discharge capability, this antenna will exhibit a short circuit if tested with an ohm meter or DC circuit tester.
3. Allow sufficient free cable for antenna to swingdown.