



Type 18S/D

**HF antenna for vessels over 9 metres (30 feet)
where higher efficiency combined with swingdown facility is required**

Designed to permit easy adjustment of antenna angle and to provide higher efficiency communications for the professional user in transmit and receive modes. The antenna utilises our heavy duty swingdown mount and our 'Gate End' side mount 600mm (2ft) up from the base insulator. This allows easy lowering where antenna obstructions (bridges, etc.) may be encountered or deck level stowage is necessary or desirable.

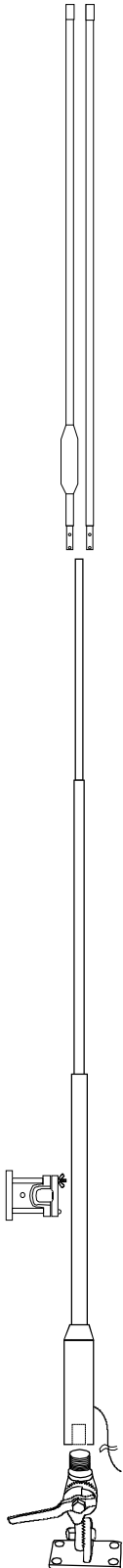
The 18S/D, a 5.5m (18ft) whip, is quickly assembled from two sections [top: 1.85m (6ft); base: 3.65m (12ft)], which slip together and fasten with two stainless steel self tapping screws. The compact and sturdy stainless steel swingdown mount, which may be mounted unobtrusively on deck or cabin side, is adjustable in 10° steps and easily locked into position by a heavy duty ratchet and handle.

Construction is of marine grade tempered aluminium alloy tubing, providing a large, low loss radiating surface, fully protected by a high durability epoxy based coating resistant to chemical attack, abrasion and the effects of ozone and ultra-violet radiation. Fittings are of nylon and stainless steel 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), or resonant at two frequencies (8.3 and 12.4 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	5.5 metres (18 ft)
Pattern	Omnidirectional
Polarisation	Vertical
Base Diameter	35mm (1.375 in): insulator
Frequency Range	Pre-tuned to frequency or frequencies required, or unloaded 2-30 MHz with suitable ATU
Wind Loading	4.9 kg at 100 km/h (10.8 lbs at 60 mph) 8.3 kg at 130 km/h (18.3 lbs at 81 mph)
Power Capability	800W PEP for unloaded top sections, 600W PEP for normal loaded top sections; 400W PEP for trapped top sections; higher power to order
Mountings	A nylon insulator mated to an adjustable angle, stainless steel mount via a threaded 25.4mm (1 in) 14TPI stainless steel stud (supplied) and 4 x 6.4mm (¼ in) countersunk head screws (not supplied). May be cabin side or deck mounted. Gate end (opening) sidemount above. Minimum mount spacing 60cm (2ft).
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	4 kg (8.8 lbs) with mountings



Specifications subject to change – Issued 01/09/13

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TYPE 18S/D INSTALLATION INSTRUCTIONS:

Assembly and Mounting

1. Remove the joint screws from the top section of the antenna.
2. Apply a thin layer of grease to the bare aluminium section of the top section slip joint and slide it inside the top of the base section.
3. N.B. This grease will greatly assist with future disassembly of the joint.
4. Replace the joint screws and tighten firmly by hand only.
5. Use the mounts as a template to mark the position of the mounting holes. Minimum spacing between mounts is 600mm (24 in.)
6. Drill 6.4mm (1/4 in) holes in the marked position.
7. Reinforce thin decks with a metal or wooden backing plate to spread the load.
8. Bolt the mounts into position.

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 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.
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 equipment and Moonraker earth plate.
8. If the top section is removed when trailing, make sure you replace it tightly when using the antenna again.