90B - 90B/S

HIGH POWER CAPABILITY BASE MOUNTED MARINE HF WHIP ANTENNA FOR VESSELS OVER 40 METRES (130 FEET) AND BASE STATIONS

90 Series whips are 9 metre (29.5 ft), heavy duty free standing whip antenna with a continuous power capability of 1 kW in the frequency range 1.6 to 30 MHz, designed to provide efficient and reliable communications for the professional services.

This antenna system is essentially a short version (9m) of the 107 (10.7 metre) Series antennas which have the NATO Stock No.s: 5985-66-137-0889 base feed, 5985-66-137-0890 side feed.

The antenna is base mounted and designed to withstand wind speeds of up to 240 km/h without permanent deformation. Construction is of heavy gauge marine grade aluminium alloy tubing, which provides a large low loss surface area for maximum radiating efficiency.

The radiator and base flange are finished with a high durability epoxy based coating, highly resistant to chemical attack, abrasion and the effects of ozone and ultra-violet radiation.

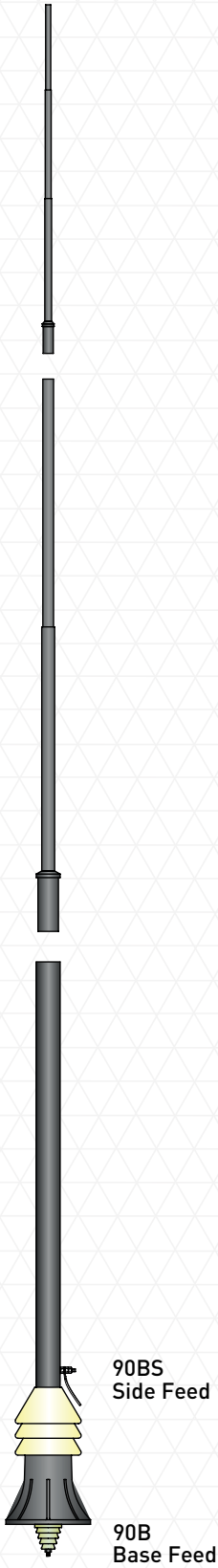
A high reliability corona shield forms part of the base insulator. This reduces the effects of flashover caused by rain and saltwater spray and permits a rapid recovery from saltwater induced short circuits caused by splashing.

The corona shield neither burns nor leaves tracks even when subject to severe surface arcing. It is made from a flexible modified polymer moulded over the antenna base insulator and is consequently impact resistant. The physical shape of the shield is arranged to provide a long and broken path to further assist with low leakage of RF energy.

For ease of transport, the antenna breaks down into three sections which slip together on "O" ring seals and are secured by three stainless steel locking set screws. Joint sealing kits and special grease are provided to prevent corrosion of the joint.

SPECIFICATIONS ▼

Colour	Windspray Grey
HF Marine Band	1.6-30 MHz
Length	9 metres (29.5 ft)
Pattern	Omnidirectional
Polarisation	Vertical
Frequency Range	Unloaded, 1.6-30 MHz with suitable ATU
Wind Loading	Antenna survival : 240 km/h, 65 m/sec
Power Capability	1 kW continuous
Tip Deflection	4 m at 200 km/h, 55m/sec
Power Capability	1.0 kW PEP
Construction of Radiator	Aluminium 3 sections: 3.1m, 3.6m and 2.3m approx.
Base Mounting	Aluminium casting with 8 equally spaced securing holes on 273mm diameter
Feed Connection	Upper side feed above corona shield (90B/S), or lower feed below through deckmount 90B)
Packed Weight	83 kg
	Antenna and base unpacked 45 kg



ANTENNA JOINT SEALING KIT

The kit will consist of the following:

1 x upper joint shroud - small
1 x lower joint shroud - large
1 x container of special grease - antenna joint
Roll of special tape - antenna joint
O-ring - large

Other items required but not supplied:

1 x pair scissors
1 x Philips head screw driver
Rags - lint free
Cleaning fluid (general purpose)
Lubricant (detergent and water)

Instructions - Antenna Section joining:

The object of this procedure is to exclude moisture from the joints of the antenna. **Strict adherence** to the instructions will prolong service life and ease disassembly of the antenna in years to come.

> **Note:** When handling antenna ensure that hands and tools are clean. Wipe any dirt, grease etcetera from antenna using clean rag soaked in cleaning fluid.

Ensure antenna sections are adequately supported and are not knocked or scraped against any hard surfaces. If necessary place protective wrapping around antenna to prevent damage to surface finish

The following instructions apply to both joints. We suggest assembly of bottom joint first.

Joint Sealing:

1. Remove fixing screws from joint section.
2. Lightly lubricate the external surface of the joint section with detergent and water (or similar).
3. Carefully slide the joint shroud over the antenna to the upper section of the joint to a point approximately 200mm (8 in) above the joint.
4. Roll larger diameter section of joint shroud back over itself until the shroud is the length of the smaller diameter section.
5. Thoroughly clean mating surfaces of the joint and remove the detergent and water using rag and cleaning fluid and allow drying. Ensure no dust or residue is left on surfaces.
6. Install "O" ring on upper section of joint in the "O" ring groove provided. (Base to mid section only) Use normal precautions observed for "O" rings to prevent damage such as nicks and abrasions.
7. Apply the conductive grease to both surfaces of joint using special grease supplied in jointing kit. Work grease around "O" ring.
8. Carefully insert upper section into lower section, gently rotate upper section to ensure even distribution of jointing grease.
9. Align joint fixing holes, insert fixing screws with internal star washers (base to mid section only) and tighten firmly.
10. Thoroughly clean excess grease from external surfaces of antenna using rag and cleaning fluid - allow drying.
11. Wind the special tape supplied firmly (without stretching) once around antenna immediately below fixing screws and then spirally wind tape towards antenna joint, keeping tape firm. Each winding should step up by half the tape width until a position just above the joint is reached.
    Proper adherence to this procedure will ensure that the screws and joint are properly sealed.
12. Slide down and manipulate the shroud over the upper section of the joint. Roll the larger diameter section over lower section of joint. Manipulate the shroud until it is fully home on both diameters.
13. Thoroughly clean all excess lubricant from antenna using a dry rag.

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.

CONTACT DETAILS ▼

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