



# SMC

## NVIS Mobile Loop Antenna

The Motorised Loop antenna has been designed and manufactured to meet the requirements of NVIS HF mobile communications for both on-road and off-road vehicles, and has been designed to meet the requirements of Mil-810 C, D, and E.



### Simple Operation

Just press the green 'Up' button to deploy the Loop into its 90° vertical position for use. To retract the Loop, reverse the operation with the red 'Down' button.

- Frequency Range: 3.0 - 15.0 MHz
- Fitted Weight: 23kg
- Length: 1.7m
- Width: 1.1m
- Height Deployed: 1.1m
- Height Retracted: 0.35m
- Max. TX power; 200W PEP (80W Data/CW)
- Number of operating channels: unlimited
- Input Impedance Range: 45-55 ohms
- VSWR: Typically less than 2:1 when tuned, (3:1 max)
- DC Operating Range: +10.0V to 15.6V DC, (+13.8V DC nominal)
- DC Current 4A typical when deploying/retracting, 230mA typical when in on-air use
- Tuner response time (for initial memory setting only): Typically less than 2 sec per channel (20 secs max)
- Recurrent tuning response time (for on-air use inc. freq hopping): 10mS typical
- Temperature: -35° to +70°C



*The Future Never Sounded So Good...*

Vertical NVIS Position

Horizontal Transit Position



High conductivity copper tubing is used in the loop element to provide high communication efficiency, and a custom-modified electronic tuner is used to provide a 50 ohm nominal termination impedance at all operating frequencies. The termination arrangement is hermetically sealed to IP66 specifications. Following initialization, where the tuner unit memorizes each operating frequency used by the HF transceiver, each subsequent tune operation is completed within 10 mS. As such, it is inherently compatible with virtually any HF transceiver over the operational frequency range and power rating with no separate channel control required to the antenna. The loop antenna assembly has been designed to be fitted to either vehicle roof bars, or if required it may be directly bolted to the roof of the supporting vehicle.

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