

3028-900

CHELTON

HF NVIS Antenna System

Key features:

- **Lightweight compact kit**
- **Near Vertical Incidence Skywave propagation**
- **Tuning characteristics similar to 5m whip**
- **Power handling 1 kW**
- **Vehicle or ground mounted**

The 3028-900 HF Antenna System is a lightweight, quick to erect, NVIS (Near Vertical Incident Skywave) antenna system that can be deployed as a stand-alone or vehicle mounted system.

Packed in a small canvas carrying bag, the 3028-900 antenna system can be rapidly erected to provide an HF tactical antenna solution for troublesome communication ranges.

The system produces high angle radiation that is suited to short range ionospheric propagation (for example, over mountain ranges).

Operating up to a maximum of 1 kW, the antenna is suitable for use across the 2.5 MHz to 30 MHz band when used in conjunction with an HF antenna tuner. NVIS propagation is normally dependent on local and seasonal ionospheric conditions below 12 MHz.



EQUIPMENT	QTY	PART NUMBER
Head Assembly	1	3028-001-01
Base Adaptor Assembly	1	3028-002-01
Mast Tube Assembly	7	3028-003-03
Element Assembly (short)	2	3028-004-01
Element Assembly (long)	2	3028-005-01
Ground Anchor (12 inch)	4	3028-019-01
Bag	1	3028-014-01
Packing List	1	3028-016-01
Handbook	1	3028-300-01

The antenna system is supplied with a seven-section support pole to which four radial elements are attached. The impedance presented at the base of the system is similar to that obtained from a conventional HF whip that is impedance matched using an HF antenna tuner.

The system is supported using the combination of the upper radiating elements and adjustable insulated ropes attached to light duty ground anchors.

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ELECTRICAL

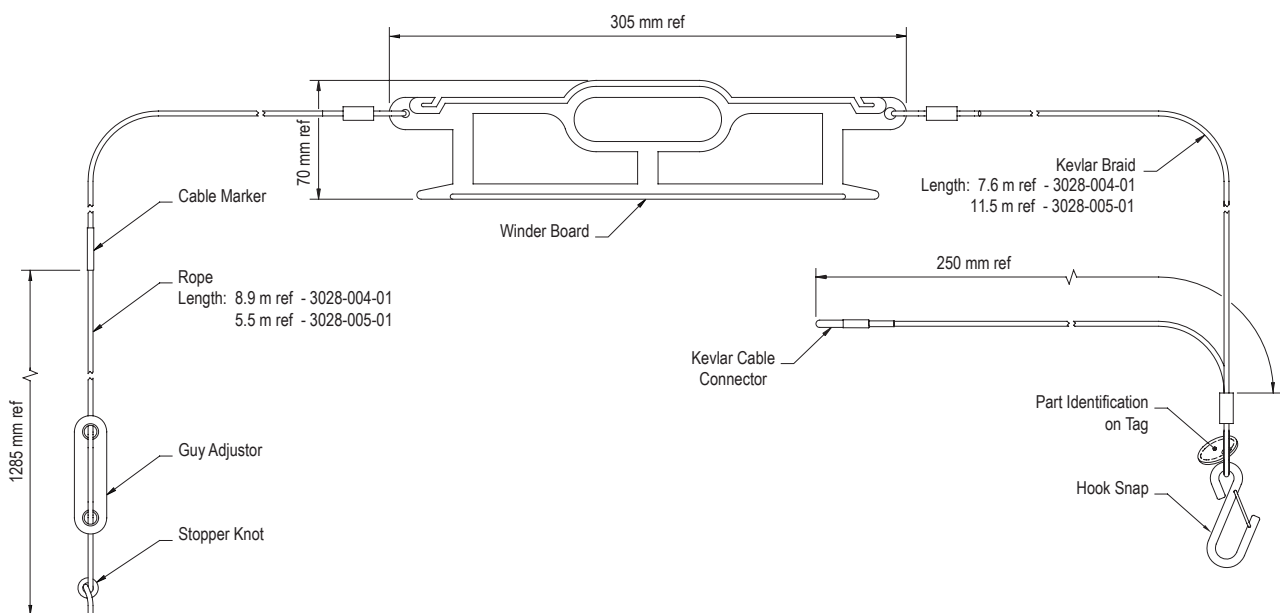
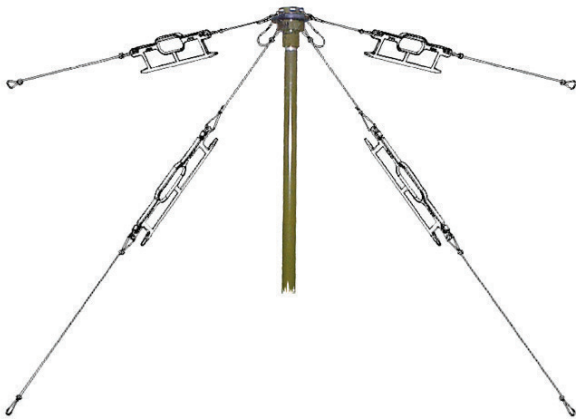
Frequency	2.5 MHz - 30 MHz
Polarisation	Mainly horizontal for high angle radiation
Power Rating	1 kW PEP (maximum)
Impedance	Details available on request
VSWR	Dependent on tuner characteristics
Radiation Pattern	Omni-directional in azimuth Near vertical incidence in elevation
Connectors	Special adaptor to 3/8 -16 imperial thread

MECHANICAL

Deployed Dimensions	Height: 4.6 m above base Width: 26 m (typical)
Packed Dimensions	725 mm x 230 mm x 120 mm
Weight of kit	5.5 kg (maximum)
Mounting Configuration	Ground or vehicle mounting hardware available on request

ENVIRONMENTAL

Temperature	Operational: -40°C to +55°C Storage: -55°C to +85°C
Humidity	Up to 95% RH up to 55°C
Wind	Subject to mounting arrangement
Erection Time	Less than 5 minutes by 2 persons



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