

World's Leading Manufacturer Of Fibreglass Whip Antennas



SPECIALISTS FOR VERY HIGH FREQUENCY

AS-3900A/VRC Vehicular Antenna

NSN 5985-01-308-8988

THE AS-3900A/VRC IS A BROADBAND VEHICULAR WHIP ANTENNA SYSTEM DESIGNED TO PROVIDE VHF COMMUNICATIONS FOR A RANGE OF MILITARY VEHICLES AND CAN BE USED WITH ANY FREQUENCY AGILE RADIO THAT OPERATES WITHIN ITS 30-88 MHZ FREQUENCY BAND. THIS ANTENNA CAN BE USED AS A DIRECT REPLACEMENT FOR THE AS-1729/VRC AND THE AS-3684/VRC ANTENNA SYSTEMS.

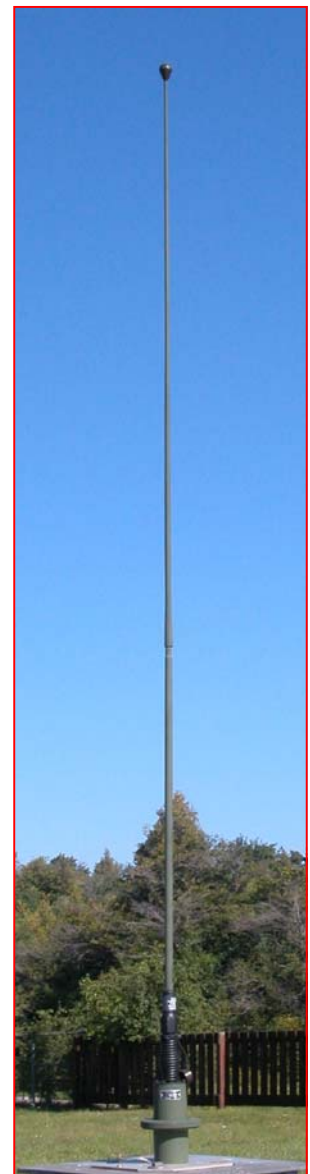
THE COMPLETE ANTENNA SYSTEM IS COMPRISED OF A CENTRE-FED WHIP ANTENNA AND AN IMPEDANCE MATCHING UNIT BASE. THE WHIP PORTION IS MADE UP OF TWO SECTIONS. THE LOWER SECTION ACTS AS A TRANSMISSION LINE TO APPLY THE INPUT POWER TO A POINT NEAR THE MIDDLE OF THE ANTENNA. THIS APPROACH COMPLIMENTS THE PERFORMANCE OF THE MATCHING UNIT TO PROVIDE BROADBAND OPERATION. THE TWO SECTIONS ARE ASSEMBLED TOGETHER BY HAND, WHICH THEN SCREW ONTO THE BASE TO COMPLETE THE SYSTEM.

THE BASE OF THE AS-3900A/VRC CONTAINS AN IMPROVED MATCHING UNIT TO HANDLE A HIGHER TRANSMITTING POWER LEVEL OF 150 WATTS WITH A MAXIMUM VSWR OF 3.5:1 OVER THE FREQUENCY BAND. THE GAIN OF THE ANTENNA SYSTEM VARIES FROM -7 TO -1 dB RELATIVE TO A RESONANT QUARTER-WAVE MONOPOLE.

EMP (ELECTROMAGNETIC PULSE) AND HIGH VOLTAGE PROTECTION ARE ALSO INCORPORATED INTO THE AS-3900A/VRC. THE UPPER WHIP SECTION PROVIDES HIGH VOLTAGE ISOLATION TO 20kVRMS PROVIDING SAFETY TO PERSONNEL AND EQUIPMENT IN THE CASE OF ACCIDENTAL STRIKE OF THE ANTENNA TO AN OVERHEAD POWERLINE. A MOULDED NEOPRENE RUBBER EYE PROTECTION DEVICE AT THE TIP OF THE ANTENNA PROVIDES FURTHER SAFETY TO THE USER.

FEATURES:

- BROADBAND
- EXTREMELY RUGGED AND RELIABLE
- BASE MOUNT FOR PLACEMENT FLEXIBILITY
- HIGH VOLTAGE ISOLATION FOR SAFETY
- EASY ASSEMBLY/DISASSEMBLY



AS-3900A/VRC

QUICK REFERENCE DATA

ELECTRICAL

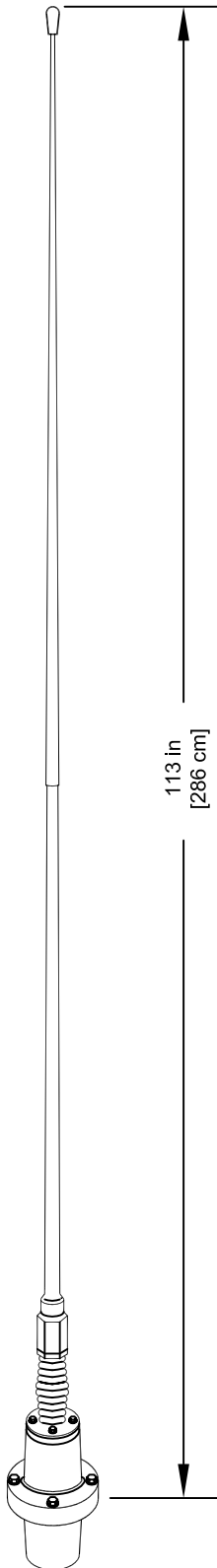
FREQUENCY RANGE	30-88 MHz
RADIATION PATTERN	OMNIDIRECTIONAL +/- 1dB
GAIN	-7.6 TO -1.1 db RELATIVE TO RESONANT QUARTER WAVE MONOPOLES OVER 30 TO 88 MHz
VSWR	3.5:1 MAXIMUM 2.5:1 AVERAGE
POLARIZATION	VERTICAL
POWER HANDLING	150 WATTS CONTINUOUS FOR 60 MIN
HIGH VOLTAGE PROTECTION	TOP ELEMENT: 20kVrms LOWER ELEMENT: 10 kVrms to MIL-STD-202
NOM INPUT IMPEDANCE	50 OHMS
INPUT CONNECTOR	BNC

MECHANICAL

WEIGHT	9.5 LBS (4.31KG)
HEIGHT	113 INCHES (2.86 M)

ENVIRONMENTAL

TEMPERATURE	-60°F TO +160°F (-51°C TO +71°C)
VIBRATION	MIL-STD-810D, METHOD 514.3 PROCEDURE 2, CATEGORY 3
WIND VELOCITY	50 MPH (80 KPH) OPERATING
ICE LOADING	1/2 INCH (13 MM) RADIAL
SHOCK	IMPACT-25 BLOWS AGAINST 4X4 OAK BEAM AT 25 MPH BALLISTIC SHOCK-MIL-S-901, TYPE A
FUNGUS	MIL-STD-810 METHOD 508.1 (28 DAYS)
IMMERSION	MIL-STD-810 METHOD 512.1
SALT FOG	MIL-STD-810 METHOD 509.1 (48 HR EXPOSURE)
RAIN	MIL-STD-810 METHOD 506.1 PROCEDURE I
HIGH VOLTAGE	MIL-STD-202 METHOD 301



BOTTOM VIEW

