



AS-1729/VRC VEHICULAR ANTENNA

THE **AS-1729/VRC** Vehicular Antenna is a center-fed whip antenna that operates in the frequency range of 30-76 MHz. The primary application and use of this antenna is to replace the Antenna AT-912/VRC and operate as a vehicular antenna in the following radio sets: AN/VRC-12 through AN/VRC-49, AN/VRC-53, AN/VRC 64, AN/VRC-65, AN/VRC-6550, and AN/GRC-160, as well as many other VHF Radio Sets that require vehicular installation.

In addition the AS-1729/VRC Antenna can be used to extend the communication range in radio sets: An/PRC-25, AN/PRC-77, and AN/PRC-1177, as well as many other UHF radio sets operating in the 30-76 MHz frequency range.

The AS-1729/VRC is an omnidirectional antenna assembly built to MIL-A-55288C (CR) specifications. The antenna is vertically polarized and centerfed, operating in the 30-76 MHz range, with 10 frequency band segments. Band switching is automatic if the antenna is connected to a compatible transceiver with automatic antenna switching capabilities. The band switching may be exercised manually by operating the control located at the base of the matching unit if the antenna is connected to other receivers and transceivers.

The AS-1729/VRC consists of three units: MX-6707 Base Matching unit with spring and cable assembly; AS-1730 Lower Antenna element; and AT-1095 Upper element. The based matching unit is interfaced to the vehicle with four bolts and a gasket provided with the hardware kit. Electrical connections consist of an RF input connector for connection to the RF outputs on the transmitter/transceiver; automatic band switching control for connection to transmitters/transceivers with automatic band switching characteristics; and a ground stud which electrically grounds the base matching unit to the vehicle.

The AS-1730 lower antenna element and AT-1095 upper antenna element are fastened together by tapered lock ferrules, and then installed on top of the base matching unit providing a complete 30-76 MHz antenna system.

The AS-1729/VRC is designed for use on the outside of jeeps, tanks, armored-personnel carriers, weapons carriers, or crew served weapons.



FEATURES OF THE AS-1729/VRC

Wide coverage: Operates over 30 to 76 MHz range in 10 band segments

Automatic Tuning: Any one of 10 segments automatically selected by a solenoid-driven switch in the matching unit; solenoid is controlled from receiver-transmitter RT-246/VRC or RT-524/VRC, or from amplifier power supply OA-3633/GRC.

Manual Override: Band segments can be manually selected on the antenna base assembly.

Reliable: Operates under extreme environmental conditions; meets U.S. military specifications; assures trouble-free communication under severe combat conditions; flexible base spring permits bending and prevents breakage (tie-down kit allows antenna to be bent and tied to vehicle).

SPECIFICATIONS

Frequency Range:	30-76 MHz.
Band Segments:	10.
Tuning:	Automatic & manual.
Solenoid Operating Voltage:	24 Vdc nominal.
Input Impedance:	50 ohms.
VSWR:	3 : 1 maximum.
Power Handling:	70 W maximum.
Operating Temperature Range:	-40°C to +65°C, -40°F to +150°F.
Overall Length:	10-1/2 feet (3-1/4 meters).
Components:	Antenna Element AT-1095/VRC (upper section). Antenna Element AS-1730/VRC (lower section). Matching Unit-Base. MX-6707/VRC.
Weight:	8-3/4 lbs (4 kg).

A complete line of vehicular antennas are available through Associated Industries as listed below:

ASSOCIATED INDUSTRIES PART NUMBER	DESCRIPTION
4231	AS-1729/VRC 30-76 MHz.
4331AA	Standard 4331 30-88 MHz.
4331AH	4331 with 20,000 VAC RMS high voltage protection.
4331AE	4331 with EMP protection.
4331AHE	4331 with 20,000 VAC RMS high voltage protection with EMP protection.
4332AB	Standard 4332 AS-3885 30-88 MHz.
4332AH	4332 with 20,000 VAC RMS high voltage protection.
4332AE	4332 with EMP protection.
4332AHE	4332 with 20,000 VAC RMS high voltage protection and EMP protection.
4334AA	Standard 4334 30-108 MHz.
4334AH	4334 with 20,000 VAC RMS high voltage protection.
4334AHE	4334 with 20,000 VAC RMS high voltage and EMP protection.
4340AB	AS-3900 SINGARS with 20,000 VAC RMS high voltage and EMP protection.

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