

AN/VRC-111 20 Watt Vehicle Adapter Amplifier for the AN/PRC-148 JEM and PRC6809 Radios

Alternative to
Existing SINCGARS
Vehicle Installations



AN/VRC-111 20 Watt Vehicle Adapter Amplifier



The AN/VRC-111 20 Watt Vehicle Adapter Amplifier (VAA) combines the functionality of the AN/PRC-148 JEM or PRC6809 handheld radio and the 20 Watt Vehicle Adapter into a system that offers an alternative to existing SINCGARS vehicular installations. The AN/VRC-111 20 Watt VAA consists of two handheld radios, two vehicle adapters, and an electrical/mechanical interface tray that facilitates direct installation into military vehicles outfitted with SINCGARS Installation Kits (IKs) utilizing Mounting Base MT-6352. The VAA, when installed in combination with a SINCGARS IK, enables power amplified (20 Watt per Vehicle Adapter), co-site filtered, SINCGARS performance as well as operation with the SINCGARS IKs audio devices and vehicular intercom systems such as the VIC-3. Rapid, cable-free radio dismount in less than 2 seconds is enabled with single push-button action. Capability beyond basic SINCGARS functionality is available through replacement of the standard antenna provided in the SINCGARS IK 30–512 MHz broadband antenna. The VAA is rugged, and constructed to withstand harsh weather conditions and ballistic shock.

Technical Specifications

Key Features

- Contiguous 30-512 MHz Coverage
- 20 Watt RF Output (50 Watt Version also Available)
- Installs onto Existing MT-6352 Mounting Tray
- Powered Through Existing SINCGARS Mounting Tray
- No Additional RF or Power Cable Installation Required
- Compatible with Existing SINCGARS Vehicle Antennas (Provide Separately)
- Supports and Maintain All Functionality of Configurations of the PRC-148 JEM or the PRC6809 Handheld Radio

Physical Parameters

Height: 8.47 inches (21.51 cm)

Width: 15.23 inches (38.68)

Depth: 15.10 inches (38.35)

Weight: 38 pounds (608 g)

Environmental Specifications

Operating Temperature: -31° to +60° C

Storage Temperature: -33° to +71° C

Humidity: 95% Non-condensing

Rain, Shock/Vibration, Sand and Dust, Salt Fog: MIL-STD-810G

Altitude: 30,000 feet, MIL-STD-810G

RF Specifications

RF Interface: 50 Ohms

FM Receive Sensitivity: Typical -115 dBm

Receive Spurious: > 50 dB

Output RF Power: FM 5 and 20 watts; PSK 5 and 20 watts; AM 20 watts

Harmonic Suppression: > 45 dBc

Co-site: > 35 dB attenuation at 15% frequency separation

EMI Compliance: EMI/EMC: MIL-STD-461C

TEMPEST Compliance: NSTISSAM TEMPEST/1-92, level II; NACSEM 5112

Spurious Suppression: > 56 dBc

Transmit Duty Cycle: 50:50 transmit at 20 watts

Power Input

12 to 32 VDC

Installations

Adheres to the AN/VRC-92 footprint

Installs onto existing SINCGARS MT-6352

Electrical Interfaces

AN/VIC-1, AN/VIC-3, LS-671, MT-6352

Power, RS-232 data

Mechanical Interfaces

MT-6352, MT-6352A

Specifications are subject to change without notice.

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2106:062020:V14

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