

### AN/GRC-160 and AN/VRC-64 VEHICULAR RADIO SETS

Providing reliable VHF/FM two-way communications. Bases to vehicles, between vehicles, (personnel carriers and tanks included) and soldiers in the field.

Being adaptations of the tactical Radio, AN/PRC-77, operating in the 30-76 MHz range, the two Radio Sets are fully compatible with most military radios in the frequency range 30-76 MHz including AN/VRC-12 and VRC-43 through 49, PRC-68, VRC-54 and ARC-131, and others.

The **AN/VRC-64** is the vehicular version of the RT-841/PRC-77 portable Radio Set, consisting of: Receiver-Transmitter mounted on the Amplifier-Power Supply Group OA-3633/GRC. It also includes the AS-1729/VRC Vehicular Whip Antenna.

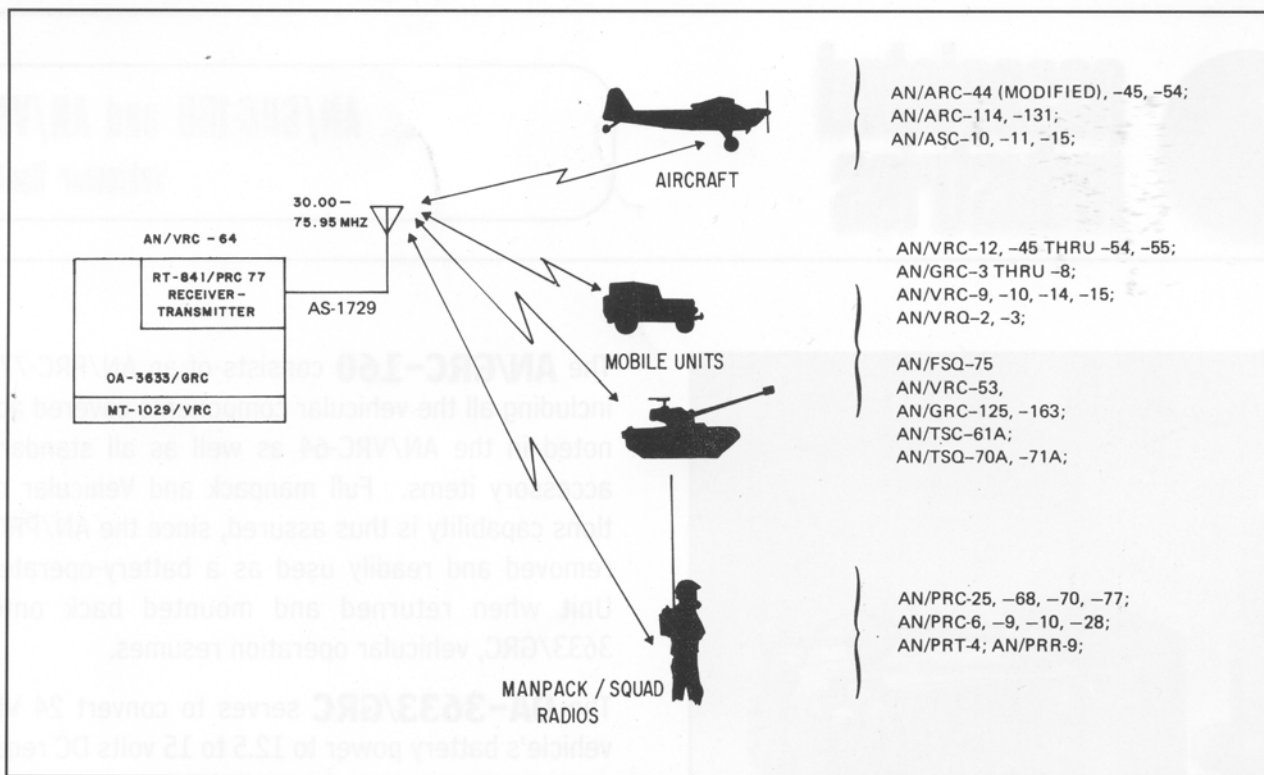
The **AN/GRC-160** consists of an AN/PRC-77 Radio Set, including all the vehicular components covered above and as noted in the AN/VRC-64 as well as all standard Manpack accessory items. Full manpack and Vehicular communications capability is thus assured, since the AN/PRC-77 can be removed and readily used as a battery-operated Manpack Unit/ when returned and mounted back onto the OA-3633/GRC, vehicular operation resumes.

The **OA-3633/GRC** serves to convert 24 VDC nominal vehicle's battery power to 12.5 to 15 volts DC required by the AN/PRC-77 Radio, and contains an audio amplifier for received signals. Manually selected Antenna matching circuit, a loudspeaker, connectors and operating controls built in.

The **AS-1729/VRC** Antenna center-fed whip can operate over the 30-76 MHz range, at power levels up to 70 watts. Its primary application is to replace Antenna AT-912/VRC in the following Radio Sets: AN/VRC-12 series, AN/VRC-53 or AN/VRC-64, and GRC-160. It can also extend the communication range in Radio Sets AN/PRC-25 and AN/PRC-77.

The **MT-1029/VRC** Vehicular Mount is used to mount the amplifier-power supply to the vehicle. The mount contains a junction box with connectors to provide distribution of power, control and signal voltages between the amplifier-power supply and other components in the system. A connector on the front of the junction box mates with a connector at the rear of the amplifier-power supply. Three additional connectors at the bottom of the junction box provide for connecting the system's power and control cables.

The **AM-4700 RF** Booster Amplifier is a linear Mode RF Booster Amplifier designed to operate with and attached mechanically to any Military VHF Transceiver. The RF Power Output is a nominal 50 Watts CW with a nominal gain of +13 dB operating into 50 Ohms (Pin - 2.5 Watts; Pout = 50 Watts) with +26 VDC applied. Because the basic amplifier design is linear, the unit will operate with input drive levels over the range of 1 Watt to 5 Watts while maintaining about 13 dB gain.



## BASIC SUPPLY SCOPE

AN/VRC-64: Transmitter-Receiver RT-841/PRC-77 (with CY-2562/PRC-25 Battery Box).  
Power Supply Group OA-3633/GRC with CX-4655/GRC Cable Assembly.  
Vehicular Mount MT-1029/VRC.  
Whip Antenna 3.04 meters AS-1729/VRC (10 Ft.) 70 watts RF power.

AN/GRC:160: Furnished with all vehicular components listed above, and with standard AN/PRC-77 Radio  
Accessories as follows: Handset H-189/GR.  
Whip Antenna 3-ft AT-892/PRC-25.  
Whip Antenna 6-ft. AT-271A/PRC-25.  
Antenna Support AB-591/PRC-25.  
Harness, Elec. Equipment ST-138/PRC-25.  
Bag, Canvas Carrying Case CW-503/PRC-25.

## BASIC CONFIGURATIONS

### AN/VRC-64

### AN/GRC-160

Standard OA-3633( )/GRC Amplifier Power Supply Group (consists of cable assembly and power supply) or optional AM-4700 Linear Mode RF

50-watt Amplifier .....	1	1
RT-841/PRC-77 Receiver/Transmitter with Battery Box CY-2562/PRC-25.....	1	1
Standard AS-1729/VRC Whip Antenna or optional AS-2731/GRC Whip Antenna.....	1	1
AT-892/PRC-25 Whip Antenna, 3 Foot - short range.....	0	1
AT-271A/PRC-25 Whip Antenna, 6 Foot Folding - Extended Range.....	0	1
AB-591/PRC Antenna Support.....	0	1
ST-138/PRC-25 Harness, Cotton Duck Backpack.....	0	1
CW-503/PRC-25 Bag, Canvas Carrying Case.....	0	1
H-189/GR Handset.....	0	1
MT-1029 Vehicular Mount.....	Optional	Optional

## ALL EQUIPMENT MEETS CURRENT U.S. MILITARY SPECIFICATIONS

**associated industries**