



Figure 31. Radio Set AN/VRC-1, prepared for mobile operation.

Status: Standard. Stock No.: 2S4502-1. Reference: TM 11-277.

Radio Set AN/VRC-1 is a combination h-f and v-h-f radio set designed for installation in truck, 1/4-ton, 4 x 4, and for operation from a 12-volt vehicular storage battery.

The h-f section uses Radio Set SCR-193; the v-h-f section uses Radio Set SCR-542. Both sections are mounted in Cabinet CH-217.

Radio Set AN/VRC-1 is designed for use by United States Air Force ground organizations in the control of tactical aircraft. The h-f section is normally used for communication within a ground point-to-point net, although use as a beacon for compass-equipped aircraft and for communication with h-f equipped aircraft is also practicable.

The v-h-f section is normally used for ground-air communication with aircraft fitted with v-h-f equipment.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE: 3.0 to 6.2 mc and 100 to 156 mc.
NUMBER OF CRYSTALS: Radio Set SCR-542: 8 crystal units DC-11.

PRESET FREQUENCIES:

- Radio Set SCR-193:
 - Radio Transmitter BC-191: 1.
 - Radio Receiver BC-312: 1.
- Radio Set SCR-542:
 - Radio Transmitter BC-625: 4.
 - Radio Receiver BC-624: 4.

ANTENNA: Vertical rod type, 15-ft whip MS-116 to MS-118 inclusive or Radio Transmitter BC-191 3-ft whip MS-118.

TYPE MODULATION: Amplitude.

FREQUENCY CONTROL: Radio Transmitter BC-191: Mo. Radio Transmitter BC-625: Crystal.

POWER SOURCE: 12-v vehicular storage batteries and dynamotors. H-f section—

- Radio Transmitter BC-191: Dynamotor BD-77. Radio, Receiver BC-312: Dynamotor DM-21. V-h-f section—
- Radio Set SCR-542: Dynamotor PE-98.

POWER OUTPUT: H-f section: Radio Transmitter BC-191—40 to 75 w. V-h-f section: Radio Transmitter BC-625—8 to 9 w.

RANGE: Variable, dependent upon frequency used and ionospheric conditions.

NUMBER OF TUBES:

- Radio Set SCR-193: 13.
- Radio Set SCR-542: 18.

GENERAL APPLICATION

USE: Ground-to-air and ground-to-ground communication.

TO COMMUNICATE WITH: Radio Sets AN/TRC-7, AN/VRC-1, SCR-177, SCR-188, SCR-193, SCR-399, SCR-499, SCR-506, SCR-511, SCR-536, SCR-543, SCR-593, and SCR-694.

INSTALLATION: Ground, mobile; installed and operated in vehicle.

TYPE OF SIGNAL: C-w, tone, voice.

PRINCIPAL COMPONENTS

Name	Dimensions (in.)	Weight (lb)
Radio Set SCR-193:		
Radio Transmitter BC-191	21 $\frac{3}{8}$ x 23 $\frac{1}{2}$ x 9 $\frac{5}{8}$	55
Radio Receiver BC-312	10 x 9 $\frac{1}{8}$ x 18 $\frac{1}{8}$	58
Dynamotor BD-77.		
Radio Set SCR-542:		
Radio Transmitter BC-625	16 $\frac{5}{8}$ x 10 $\frac{1}{8}$ x 12 $\frac{5}{8}$	7
Radio Receiver BC-624	8 $\frac{3}{4}$ x 5 $\frac{7}{8}$ x 15 $\frac{3}{8}$	7
Rack FT-244	2 x 12 $\frac{1}{2}$ x 16	2.5
Dynamotor PE-98	6 $\frac{1}{4}$ x 8 $\frac{3}{8}$ x 12 $\frac{3}{8}$	37
Radio Control Box BC-602	2 $\frac{1}{2}$ x 5 $\frac{1}{8}$ x 7 $\frac{1}{8}$	2.5

WEIGHT AND VOLUME

	Unpacked	Domestic pack
Total weight (lb)	343	475
Total volume (cu ft)		22
Ship tons		0.6