



AN/TRC-1(18)

Figure 22. Radio Receiver R-19/TRC-1, mounted on Radio Transmitter T-14/TRC-1 (components of Radio Set AN/TRC-1).

Status: Standard. *Stock No.:* 2S5002-1. *Reference:* TM 11-2601

Radio Set AN/TRC-1(*) represents Radio Sets AN/TRC-1, -1A, -1B, -1C, -1D, -1E, -1F, and -1G, Radio Set AN/TRC-1(*) consists of Radio Receiver R-19/TRC-1(*), Radio Transmitter T-14/TRC-1(*), three Antenna Systems AS-19/TRC-1(*), (two in use, one spare), Power Unit PE-75, and accessory components.

Radio Set AN/TRC-1(*) is a ground transportable set, and is intended for either point-to-point or radio relay application. It provides single-channel communication in both directions simultaneously (duplex operation), or single-channel communication in one direction at a time (simplex operation).

Radio Set AN/TRC-1(*) may also be used with telephone carrier terminal equipment to provide multichannel communication when continuous service is not required.

Continuous 24-hour service is not intended for this radio set; therefore no spare transmitters or receivers are provided, and the maintenance equipment is limited in extent.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE: 70 to 100 mc (300 channels).
NUMBER OF CRYSTALS: Bank of 16 per set (in each transmitter and receiver).
PRESET FREQUENCIES: 1 receiving and 1 transmitting.
ANTENNA: 3-element directional array (included in Antenna System AS-19/TRC-1(*)).
TYPE MODULATION: Frequency (receiver and transmitter).
FREQUENCY CONTROL: Crystal (receiver and transmitter).
POWER SOURCE: 115-v, 60-cyc, a-c commercial power or Power Unit PE-75.
POWER OUTPUT: High power: 50 w. Low power: 10 w.
RANGE: 25 mi (line of sight).
NUMBER OF TUBES: 17 in receiver. 11 in transmitter.

GENERAL APPLICATION

USE: for either point-to-point or radio-relay application. Used with Carrier Equipment CF-1 and CF-2 to provide multichannel service.
TO COMMUNICATE WITH: Radio Set AN/TRC-1(*), Radio Terminal Set AN/TRC-3(*), and Radio Relay Set AN/TRC-4(*).
INSTALLATION: Transported by vehicle. Installed and operated on ground.
TYPE OF SIGNAL: Voice (f-m):
 Microphone channel: 250 to 2,500 cyc.
 High fidelity channel: 2,500 to 12,000 cyc.

PRINCIPAL COMPONENTS

Name	Dimensions (in.)	Weight (lb)
1 Radio Receiver R-19/TRC-1(*)	8 x 19 $\frac{1}{8}$ x 12 $\frac{3}{4}$	43
1 Radio Transmitter T-14/TRC-1(*)	10 $\frac{3}{4}$ x 19 $\frac{1}{8}$ x 12 $\frac{3}{4}$	66
1 Antenna System AS-19/TRC-1(*), packed in:		
3 cases CY-29/TRC-1(*)		
(two in use, one spare)	13 $\frac{1}{4}$ x 72 x 17 $\frac{1}{2}$	380 ea
3 Cases CY-30/TRC-1(*)		
(two in use, one spare)	13 $\frac{1}{8}$ x 33 $\frac{1}{2}$ x 16	90 ea
(Radio Sets AN/TRC-1F and -1G use a re-designed antenna packed in Case CY-443/TRC-1(*), Bag BG-102, and Carrying Frame CY-445/TRC 1(*)).		
1 Antenna Extension Kit MX-141/TRC-1(*)		14
1 Power Unit PE-75	26 $\frac{1}{2}$ x 36 x 19 $\frac{1}{2}$	330

WEIGHT AND VOLUME

	Unpacked	Export pack
Total weight (lb)	1,435	2,000
Total volume (cu ft)		78
Ship tons		2.0