



AN/TRC-8

Figure 26. Radio Set AN/TRC-8, principal components.

Status: Substitute standard. *Stock No.:* 2S5002-8.1. *Reference:* TM 11-618.

Radio Set AN/TRC-8 consists of an f-m Radio Receiver R-48/TRC-8, an f-m Radio Transmitter T-30/TRC-8, Power Pack PP-115/TRC-8, two Antenna Assemblies AS-52/TRC-8, two 40-foot Antenna Supports AB-48/TRC-8, one Power Unit PE-75 and spare parts for maintenance.

Radio Set AN/TRC-8 is intended for point-to-point or radio-relay application to provide either single-channel or multichannel communication in both directions simultaneously. Spare components are not included in Radio Set AN/TRC-8 because the set is not intended for continuous uninterrupted operation.

Reliable range is 25 miles over flat terrain. Satisfactory communication can be attained as far as 100 miles when advantage is taken of high points in terrain and when a line of sight path exists between transmitter and receiver.

This equipment is intended for use as a fixed field station and not for mobile operation, but all components are transportable in a standard military $\frac{3}{4}$ -ton truck or 1-ton trailer.

This radio set may be installed by a crew of four men in approximately 1 hour after arrival at the operating site, if the equipment has previously been removed from packing cases.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE: 230 to 250 mc.

NUMBER OF CRYSTALS: None.

PRESET FREQUENCIES: None.

ANTENNA: Antenna Assembly AS-52/TRC-8. Half-wave dipole with 90° corner reflector, supported by 40-ft sectional mast. Antenna beam width 80°.

TYPE MODULATION: Receiver: frequency, ±100 kc deviation. Transmitter: frequency ±100 kc deviation (100% modulation).

FREQUENCY CONTROL: Tunable resonant line.

POWER SOURCE: Power Unit PE-75, or 120-v, 60-cycle commercial power.

POWER OUTPUT: 12 w.

RANGE: 25 to 100 mi, line of sight.

NUMBER OF TUBES: 23.

GENERAL APPLICATION

USE: To provide four-channel carrier telephone and telegraph service, or, single-channel, point-to-point radio-relay service. Used to extend wire lines where speed of movement prohibits line construction, and to bridge water gaps.

TO COMMUNICATE WITH: Radio Set AN/TRC-8, Radio Terminal Set AN/TRC-11, and Radio Relay Set AN/TRC-12.

INSTALLATION: Transported by truck or trailer. Installed and operated as fixed field station.

TYPE OF SIGNAL: Voice or multichannel telephone, telegraph, or facsimile f-m.

PRINCIPAL COMPONENTS

Name	Dimensions (in.)	Weight (lb)
1 Radio Receiver R-48/TRC-8, cased with tools and operating components	23 x 16 x 19	126
1 Radio Transmitter T-30/TRC-8, cased with Power Pack PP-115/TRC-8	17½ x 16 x 24½	135
2 Antenna Assemblies AS-52/TRC-8, cased	33½ x 14 x 24	110
1 Power Unit PE-75.....	36 x 19 x 27	325

WEIGHT AND VOLUME

	Unpacked	Domestic pack
Total weight (lb).....	1,237	1,250
Total volume (cu ft)		48
Ship tons		1.9