

FM 24-24

**AN/TRC-170(V)
Radio Terminal Set**

NSN: 5820-01-148-3977

Reference: TM 11-5820-934-13-1-1

General Information

The AN/TRC-170(V) provides tactical multichannel digital troposcatter or LOS systems for transmission of analog and digital traffic. It can terminate one system. It is deployed at hybrid nodes for internodal and extended range (skip node) communications. The AN/TRC-170(V)2 replaces the AN/TRC-132 troposcatter radio set. The AN/TRC-170(V)3 replaces the AN/TRC-11 2/121 troposcatter radio sets.

Major Components

- 1 Radio Set AN/GRC-197
- 1 DSVT KY-68
- 1 Digital Data Group Modem MD-10260(P)/G
- 1 VINSON TSEC/KY-58
- 1 Electronic Transfer Device (ETD) KYK-13
- 2 Loop Group Multiplexer TD-1235()/TTC
- 1 (or QRA) Antenna System 3 meters
- 1 Trunk Group Multiplexer TD-1236()/G
- 1 Voice Orderwire Control Unit C-10602/TRC-170
- 1 Low Speed Cable Driver Modem MD-10230)/G
- 2 High Power Amplifiers (2 kW) ((V)2)
- 1 High Power Amplifier (2 kW) ((V)3)
- 1 Environmental Control Unit
- 1 Tropospheric Scatter Modem OM-61/TRC-170
- 2 Trunk Encryption Devices TSEC/KG-81
- 2 Synthesizers SN-531/TRC-170 ((V)2)
- 1 Synthesizer SN-531/TRC-170 ((V)3)
- 2 Dedicated Loop Encryption Devices TSEC/KG-84
- 1 High Wind Kit 951-211-1

Technical Characteristics

Number of Channels	8 to 144
Data Rates	128 to 4,096 kb/s
Frequency Range	4 to 5.0 GHz
Power Output	2 kW
Diversity	(V)2: Quad or Dual (V)3: Dual Bandwidth (V)2: 3.5 or 6 MHz (V)3: 3.5 or 7 MHz
Range	(V)2: 241 km (150 mi) (V)3: 161 km (100 mi)
Power Requirement	120/208 V AC, 50/60/400 Hz
Weight	(V)2: 3,859 kg (8,500 lb) (with shelter) (V)3: 2,656 kg (5,850 lb)(with shelter)
Shelter	(V)2: Modified S-280 (V)3: Modified S-250

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