

AN/TRC-138A Radio Repeater Set

NSN: 5820-01-161-9419

Reference: TM 11-5820-926-12-1

General Information

The AN/TRC-138A is a tactical communications assemblage with multiple system deployment. The primary purpose is to provide a 576-channel system SRWBR link between the radio park (top of the hill) and the Radio Terminal Set AN/TRC-175 (bottom of the hill). It also is used as a radio repeater to provide LOS a (40 km (25 mi) maximum) microwave link (24/144 channel) between two external AN/TRC-138As, and is used as a radio/cable terminal to terminate up to 72/144 low-speed channel systems (30 mi maximum). The AN/TRC-138A can terminate three PCM or DGM systems, or eleven PCM/DGM systems. It is compatible with TRI-TAC.

Major Components

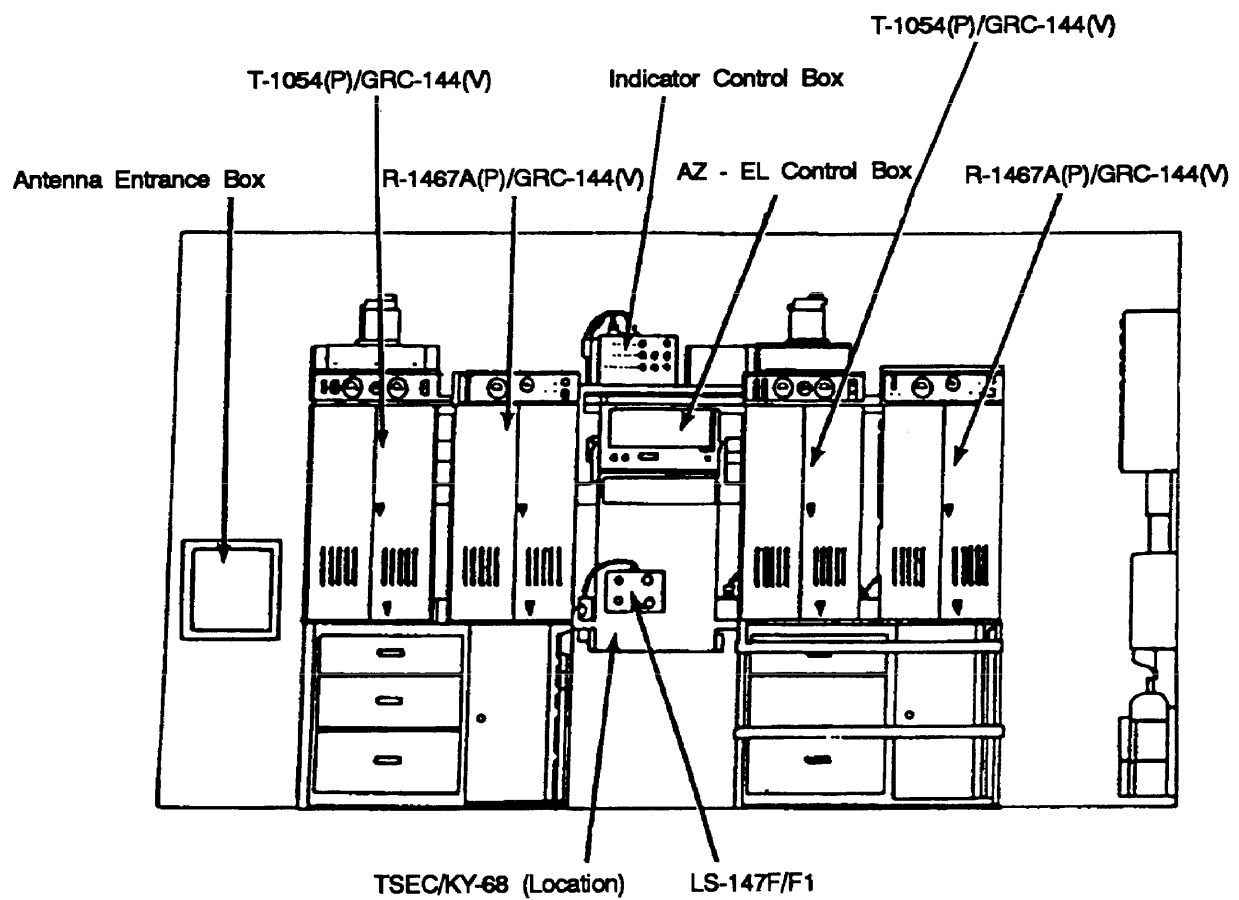
- 3 Radio Sets AN/GRC-222
- 1 DSVT TSEC/KY-68
- 1 Cable Modem Driver MD-1024/G
- 1 Multiplexer TD-1237(P)/G
- 1 Loop Encryption Device TSEC/KG-84
- 3 Digital Data Modems MD-1026 (P)/G
- 1 Intercommunications Station LS-147F/FI
- 1 Voice Encryption Device TSEC/KY-57
- 1 Shelter S-667/TRC-138A

Technical Characteristics

Frequency Range	4.4 to 5.0 GHz
Transmission Range:	
LOS	Up to 40 km (25 mi)
SRWBR	8 km (5 mi)
Cable Driver Modem	8 km (5 mi) with repeaters
RF Output	250 mW
Channelization	TDM
Number of Channels	SRWBR 576 channel link (from AN/TRC-175) 24/144 channel link (node-to-node) from another AN/TRC-138A or AN/TRC-175
Orderwires:	
Digital Voice	16 kbls
Analog Voice	300 to 1800 Hz at 3 dB bandwidth points
Weight	2,424 kg (5,340 lb) including shelter
Power Requirement	115 V AC \pm 6 volts, 50/60/400 Hz, 3-phase
Power Unit	PU-631
Mounting	S-667 Shelter

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Roadside



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Curbside

