

AN/TRC-138A Radio Repeater Set

Status: STD-To be determined; NSN: 5820-01-161-9419

Reference: Not Available

11-5820-926-12-1 1-2

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 is also 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 terminal 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 the ATACS and TRI-TAC.

Major Components

3 Radio Sets AN/GRC-144(V)3	1 Digital Secure Voice Terminal
1 Cable Modem Drive MD-1024/G	TSEC/KY-68
1 Multiplexer TD-1237(P)/G	1 Loop Encryption Device
3 Digital Data Modems	TSEC/KG-84
MD-1026(P)/G	1 Intercommunications Station
1 Voice Encryption Device	LS-147F/FI
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-138 or AN/TRC-138

Orderwires:

Digital Voice-----16 kb/s

Analog Voice-----300 to 1800 Hz at 3 dB bandwidth points

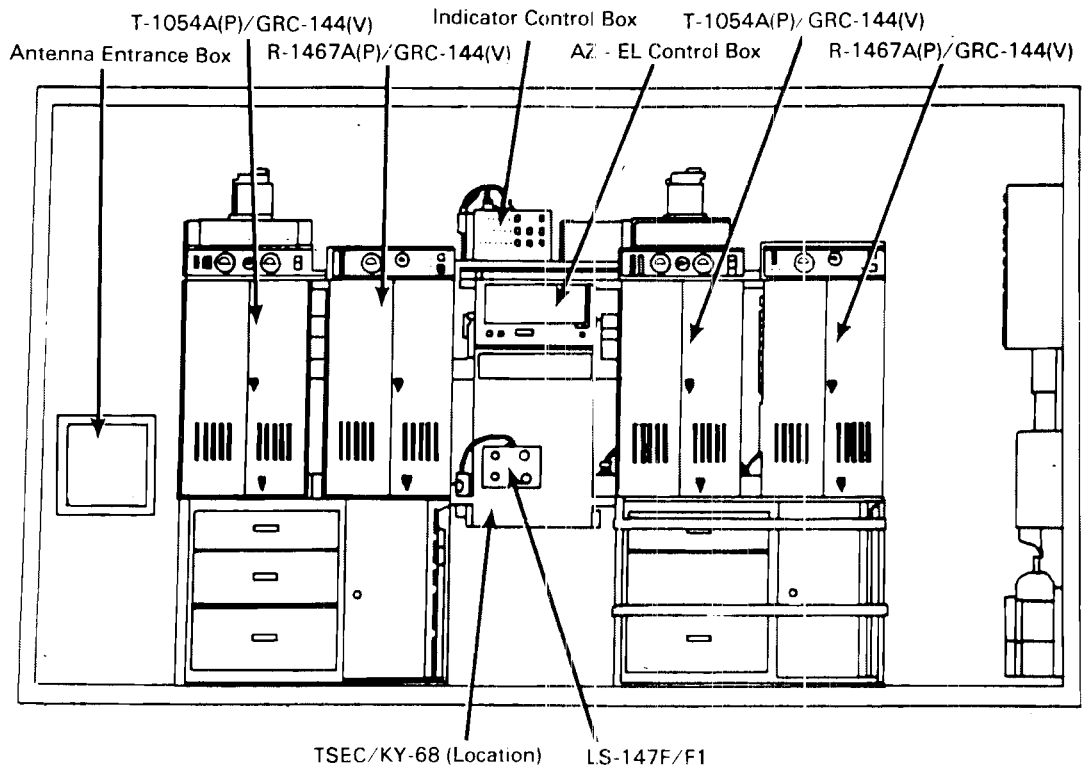
Weight-----2,424 kg (5,340 lb) including shelter

Power Requirement-----115 V AC \pm 6 volts, 50/60/400 Hz, 3-phase

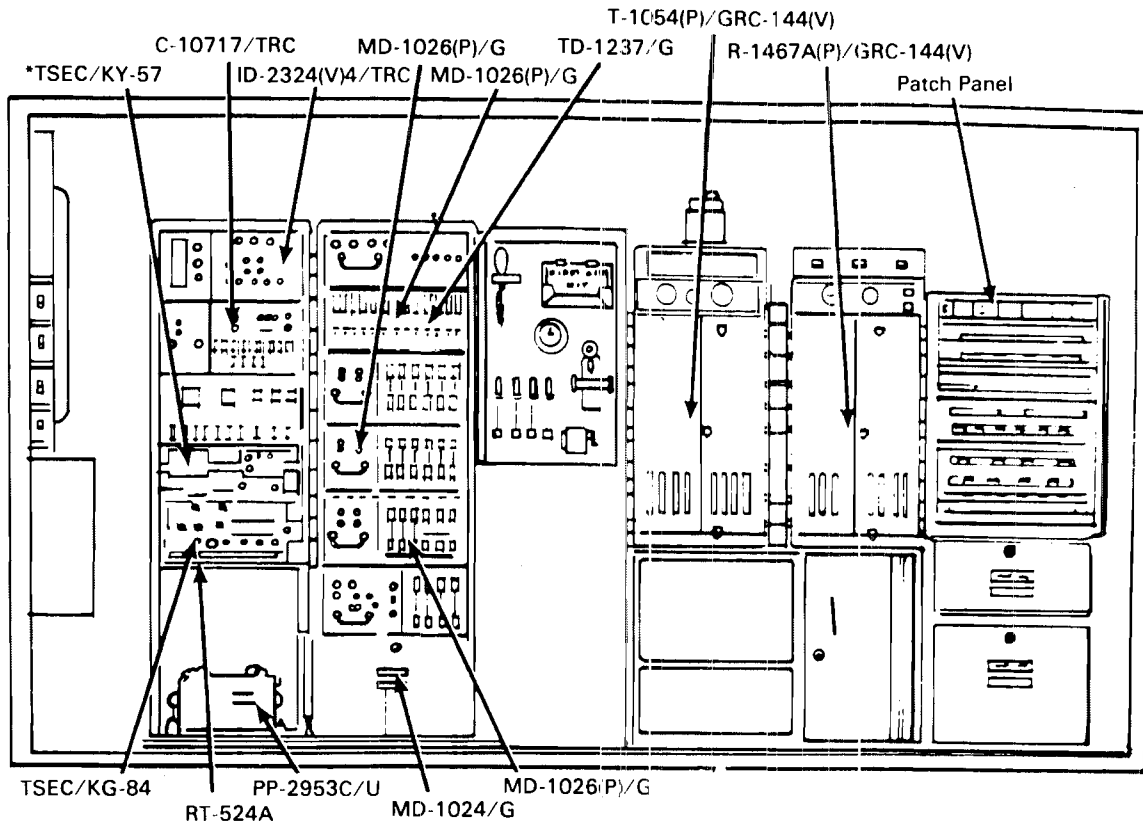
Power Unit-----PU-631

Mounting-----S-667 Shelter

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AN/TRC-138A Radio Repeater Set (continued)



*Changed from one position to another; used for line-up with RT-524A/VRC, then with OCU II for AVOW communication.