

FM 24-24

AN/TSC-85A, AN/TSC-85B(V)1 and AN/TSC-85B(V)2 Satellite Communications Terminals

NSN: 5895-01-113-5343 (AN/TSC-85A)
5895-01-284-8308 (AN/TSC-85B)

Reference: TM 11-5895-845-14 (AN/TSC-85(V)2)

General Information

The AN/TSC-85 contains equipment to receive, transmit, and process low, medium and high capacity multiplexed voice, data, and teletypewriter signals. Using encryption devices, they will process secure and nonsecure traffic. The terminals are intended for either point-to-point or multipoint operation in tactical communications systems. They can transmit one and receive up to four high data rate carriers. The AN/TSC-85(V)2 requires an external multiplex shelter to terminate the circuits. The AN/TSC-85A has its own multiplex equipment in the shelter, however, it may use an external multiplex shelter (for 96-channel capability) if the mission requires it. The terminals include modulation and demodulation equipment and a specialized PCM signal processor. The terminals have external connections for an intercommunications set, field telephones, wideband 70 MHz, and chemical, biological, radiological (CBR) alarm.

Major Components

| | 85A | 85(V)2 |
|---|-----|--------|
| Receiver-Transmitter Orderwire RT-1287/TSC | 1 | 1 |
| Radio Frequency Amplifier AM-6701/TSC | 2 | 2 |
| Power Supply PP-7086/TSC | | 2 |
| Power Supply PP-7712(V)2/TSC | 2 | |
| Frequency Converter CV-3198A/TSC | 2 | 2 |
| Multiplexer/Demultiplexer Tactical Satellite Signal Processor (TSSP) TD-1147/TSC | | 2 |
| Multiplexer/Demultiplexer TSSP TD-1337/(V)1/G | | 2 |
| Frequency Converter CV-3201/TSC | 6 | 5 |
| Digital Data Modem MD-945/TSC | 5 | 5 |
| Telephone Set TA-312/PT | 1 | 1 |
| Intercommunications Station LS-147F/FI 1 | | 1 |
| Antenna AS-3036A/TSC | 1 | 1 |
| Antenna Control C-10237/TSC | 1 | |
| Antenna Control C-10348/TSC | | 1 |

**Major Components
(Cont.)**

| | 85A | 85(V)2 |
|--|-----|--------|
| Multiplexer TD-1069/G (not basic issue) | 4 | |
| Security Device TSEC/KG-27 (not basic issue) | 4 | |
| Echo Suppressor MX-9635A/TSC | 4 | |
| Fault Alarm BZ-236A/TSC | 1 | 1 |
| Multiplexer TD-660B/G | 4 | |
| High Speed Data Buffer TD-1065 | 4 | |
| Group Modem MD-1026 | 1 | |
| Telephone Signal Converter CV-1548A/G | 4 | |
| Shelter S-250 | | |
| Shelter S-280 | 1 | |

Technical Characteristics

Frequency Range:

Receive 7250 to 7750 MHz

Transmit 7900 to 8400 MHz

Power Output 500 W (nominal) at antenna

Operation:

Single Channel (digital voice) 16/32 kb/s

Multichannel 6, 12, 24, 18-96 channels (48 kb/s per channel at true multiplex data rates)

Power Requirements:

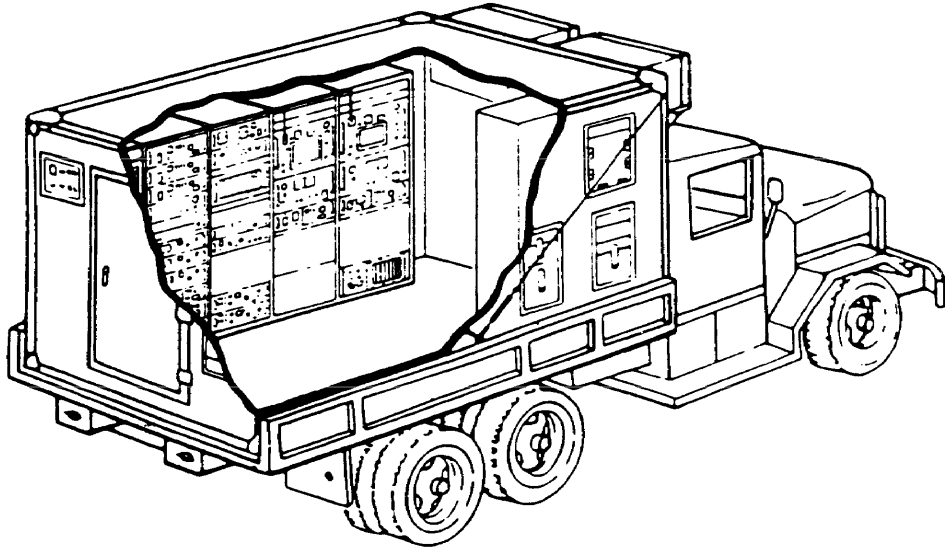
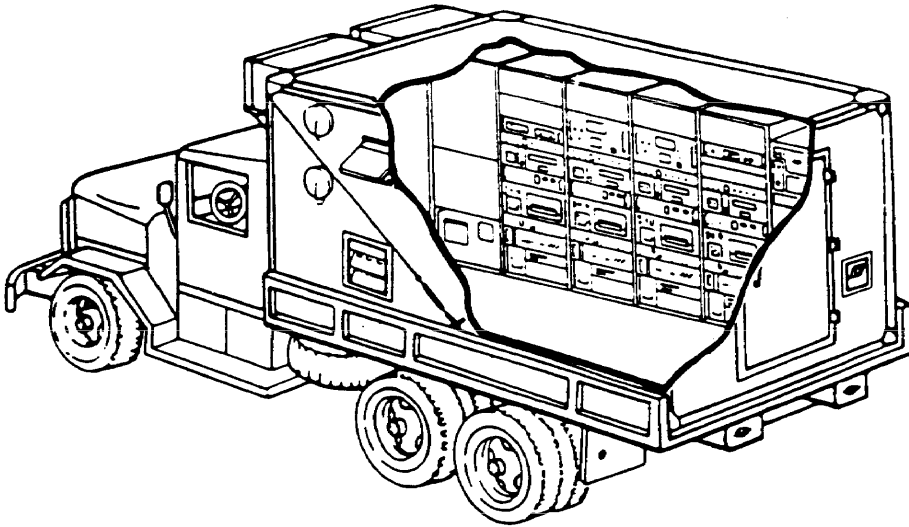
AN/TSC-85(V)2 115 V AC 10%, 50/60 Hz, single phase

AN/TSC-85A V AC 10%, 50/60 Hz, 3-phase, 5-wire

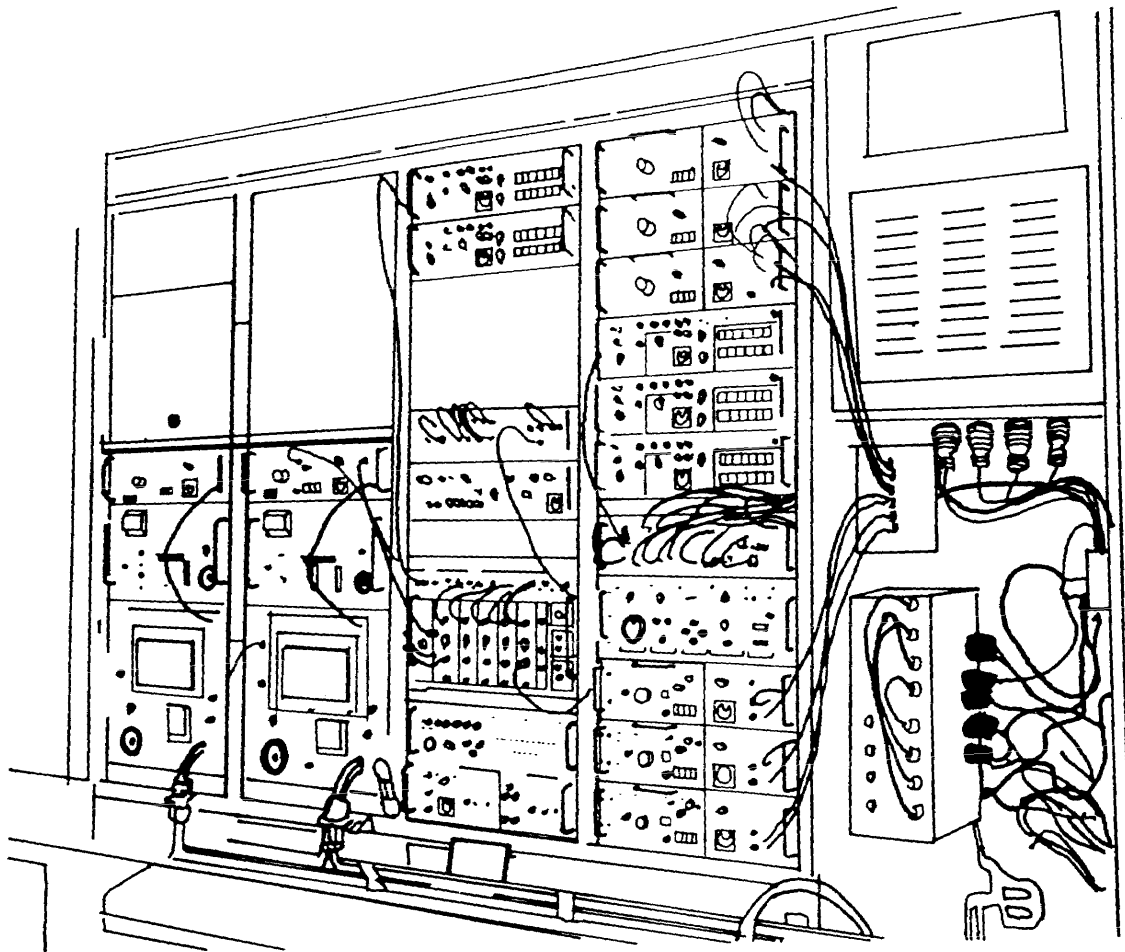
NOTE: Major Technical Characteristics exist between Satellite Communications Terminals AN/TSC-85B(V)1 and AN/TSC-85B(V)2. Consult TM 11-5895-1433-12-1 for additional information.

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AN/TSC-85A Satellite Communications Terminal

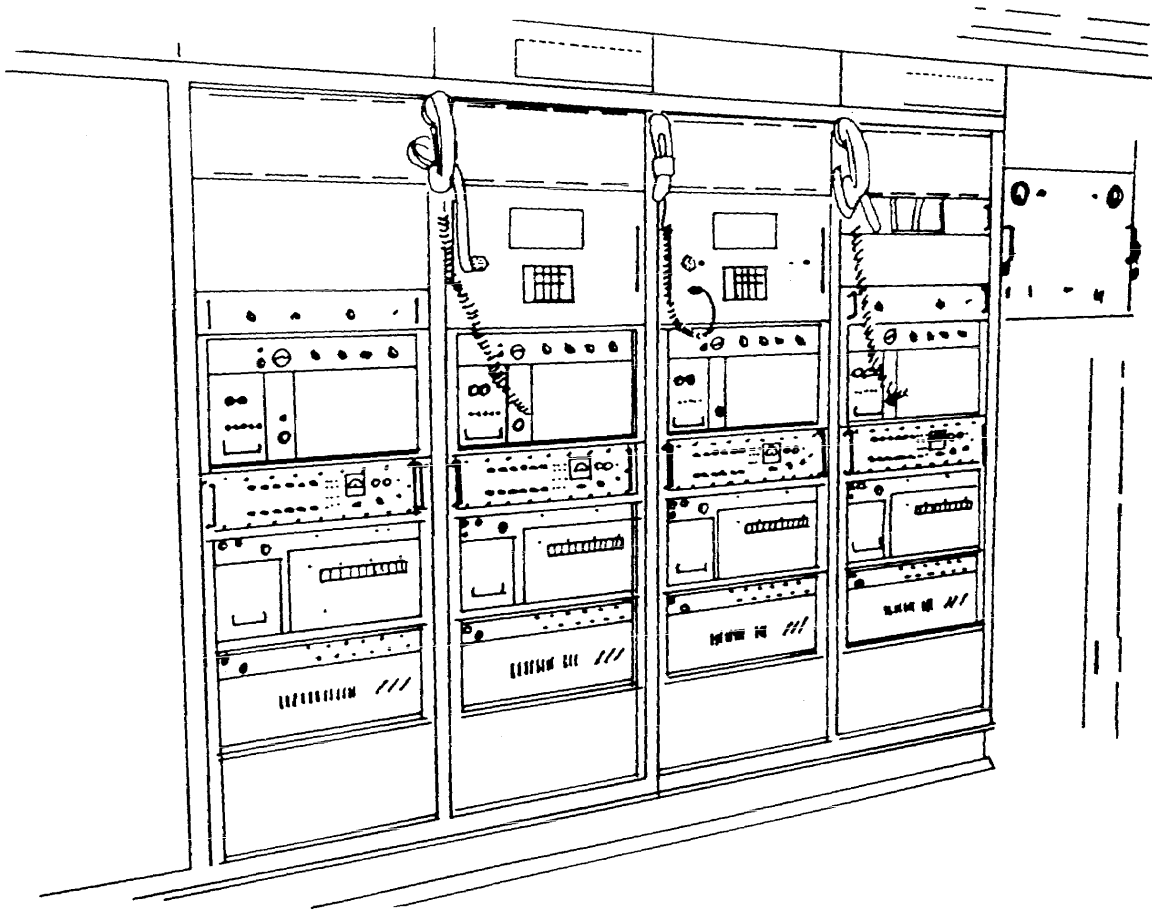


AN/TSC-85(V)2 Satellite Communications Terminal



ROADSIDE WALL

AN/TSC-85(V)2 Satellite Communications Terminal (Cont.)



CURBSIDE WALL