

Section VI. Line-of-Sight Multichannel Radio Terminals

AN/TRC-190(V)

Line-of-Sight Multichannel Radio Terminal

NSN: 5820-01-247-0981 (AN/TRC-190(V)1)
 5820-01-247-0979 (AN/TRC-190(V)2)
 5820-01-247-0982 (AN/TRC-190(V)3)
 5820-01-247-0980 (AN/TRC-190(V)4)

Reference: TM 11-5820 -1023-13-1

General Information

There are four versions of the AN/TRC-190(V) LOS multichannel radio assemblage. The differences between the versions are the MSE assemblage they support and the number of LOS radios and antenna masts they contain, as shown below. All versions of the LOS radio assemblage consist of an S-2500/G shelter transported on an M-1037 HMMWV.

Versions

- (V)1 Supports RAU/SEN switch—consists of 2 radios, 1 antenna mast.
- (V)2 Supports NATO analog interface (NAI)—consists of 2 radios, 1 antenna mast.
- (V)3 Supports NC switch—consists of 4 radios, 3 antenna masts.
- (V)4 Supports LEN switch—consists of 2 radios, 2 antenna masts.

Technical Characteristics

Power Requirements 115 V AC, 50 or 60 Hz,
 single phase or 28 V DC
 Frequency Range 225 to 400 MHz or 1350 to 1850 MHz LOS;
 14.50 to 15.35 DTH
 Transmission Range (Planning) 30 km or 183 mi LOS; 2 to 5 km
 1.2 to 3.1 mi DTH
 Type of Modulation Group Data FSK

FM 24-24

Major Components

AN/TRC-190(V)1

- 1 Utility Truck M-1037
- 1 Generator PU-751M, 5 kW
- 1 AC Power Cable, 15 feet
- 1 AC Power Cable, 35 feet
- 1 Shelter S-250()/G
- 1 DC Power Cable
- 1 Antenna Mast AB-1339, 15 meters
- 1 Antenna, Band I
- 1 Antenna, Band III
- 1 Antenna Feed Horn, Band III
- 2 Antenna Cables, 45 feet
- 1 Antenna Cable, 65 feet
- 1 CX-11230 Cable, 1/4 mile
- 1 COMSEC TSEC/KY-57
- 1 Communication Modem MD-1270
- or
- Digital Data Modem MD-1231 (III Corps Only)
- and
- 1 Orderwire Control Unit C-11878/T (III Corps Only)
- 1 Electronic Transfer Device KYK- 13
- 2 RF Amplifiers AM-7345/GRC-226
- 1 SHF Radio Set GRC-224 (if equipped)
- 1 RF Unit, Band I RT-1537/GRC-225
- 1 RF Unit, Band III RT-1538/GRC-226
- 2 Intermediate Frequency (IF) Cable Assemblies
- 2 Data Cable Assemblies

AN/TRC-190(V)2

- 1 Utility Truck M-1037
- 1 Generator PU-751, 5 kW
- 1 AC Power Cable, 15 feet
- 1 AC Power Cable, 35 feet
- 1 Electrical Shelter S-250
- 1 DC Power Cable
- 1 Antenna Mast AB-1339, 15 meters
- 1 Antenna, Band I
- 1 Antenna, Band III
- 1 Feed Horn Antenna, Band III
- 2 Antenna Cables, 45 feet

**Major Components
(Cont.)**

- 1 Antenna Cable, 65 feet
- 1 26-Pair NAI Cable, 250 feet
- 1 NATO Analog Interface CV-4002
- 1 Communications Modem MD-1270
- or
- 1 Multiplexer TD-1426 (HI Corps Only)
- and
- 1 Orderwire Control Unit C-11878/T (III Corps only)
- 1 COMSEC TSEC/KY-57
- 1 Trunk Encryption Device TSEC/KG-194A
- 1 Electronic Transfer Device KYK-13
- 2 RF Amplifier AM-7345/GRC-226
- 1 RF Unit, Band I RT-1537/GRC-226
- 2 IF Cable Assembly
- 2 Data Cable Assembly
- 1 RF Unit, Band III RT-1538/GRC-226

AN/TRC-190(V)3

- 1 Utility Truck M-1037
- 1 Generator PU-751/M, 5 kW
- 1 AC Power Cable, 15 feet
- 1 AC Power Cable, 35 feet
- 1 Electrical Shelter S-250
- 1 DC Power Cable
- 3 Antenna Mast AB-1339, 15 meters
- 2 Feed Horn Antennas, Band III
- 2 Antenna, Band I AS-3875/GRC-226
- 2 Antenna, Band III AS-3876/GRC-226
- 6 Antenna Cable, 45 feet
- 3 Antenna Cable, 65 feet
- 1 CX-11230 Cable, 1/4 mile
- 1 Transmission Group Multiplexer/Demultiplexer (TC-MD)
- 1 Power Supply, +5 V
- 1 COMSEC, TSEC/KY-57

FM 24-24

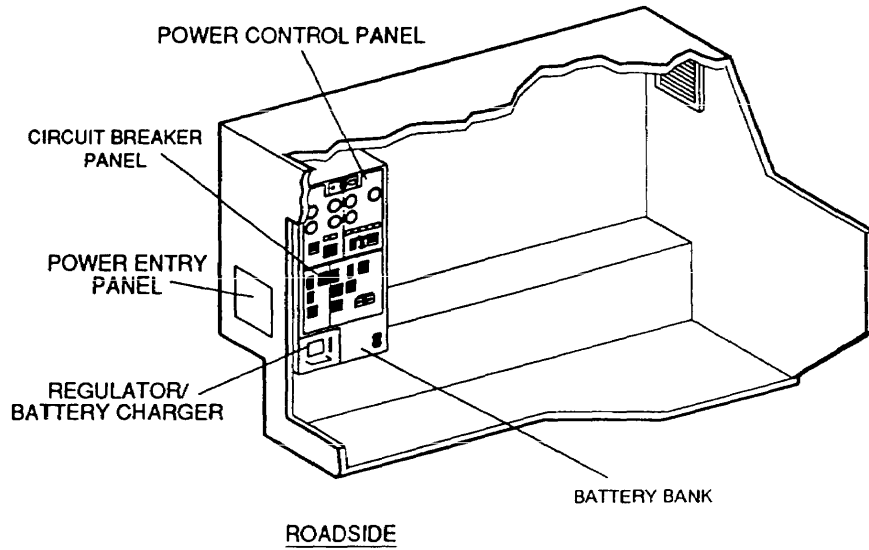
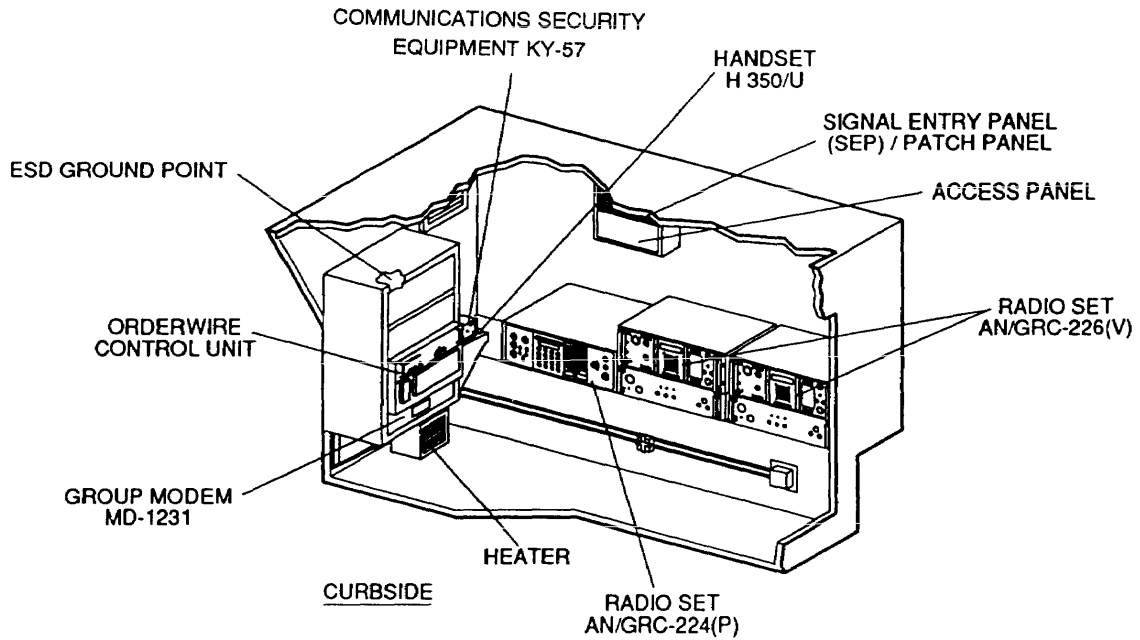
**Major Components
(Cont.)**

- 1 Communications Modem MD-1270
or
- 1 Orderwire Control Unit C-11878/T (III Corps Only)
- 3 RF Amplifier AM-7345/GRC-226
- 1 SHF Radio Set GRC-224 (if equipped)
- 1 Electronic Transfer Device KYK-13
- 2 RF Unit, Band I RT-1537/GRC-226
- 2 RF Unit, Band III RT-1538/GRC-226
- 3 IF Cable Assembly
- 3 Data Cable Assembly

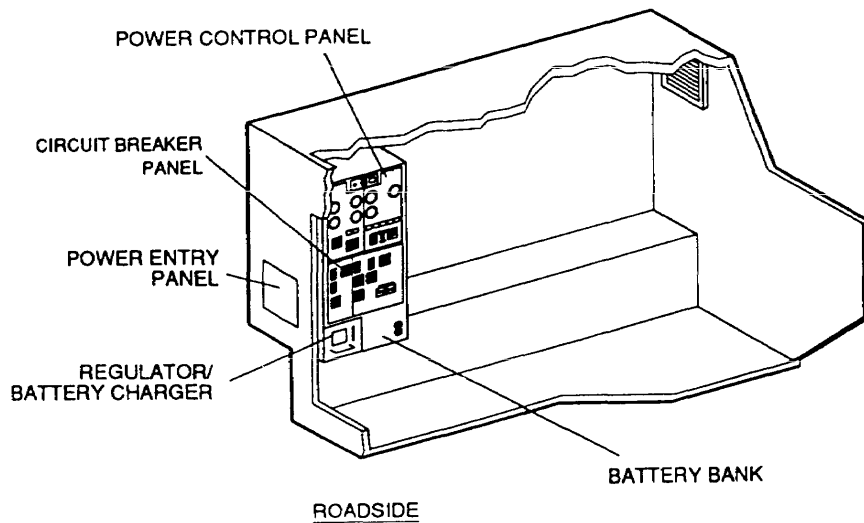
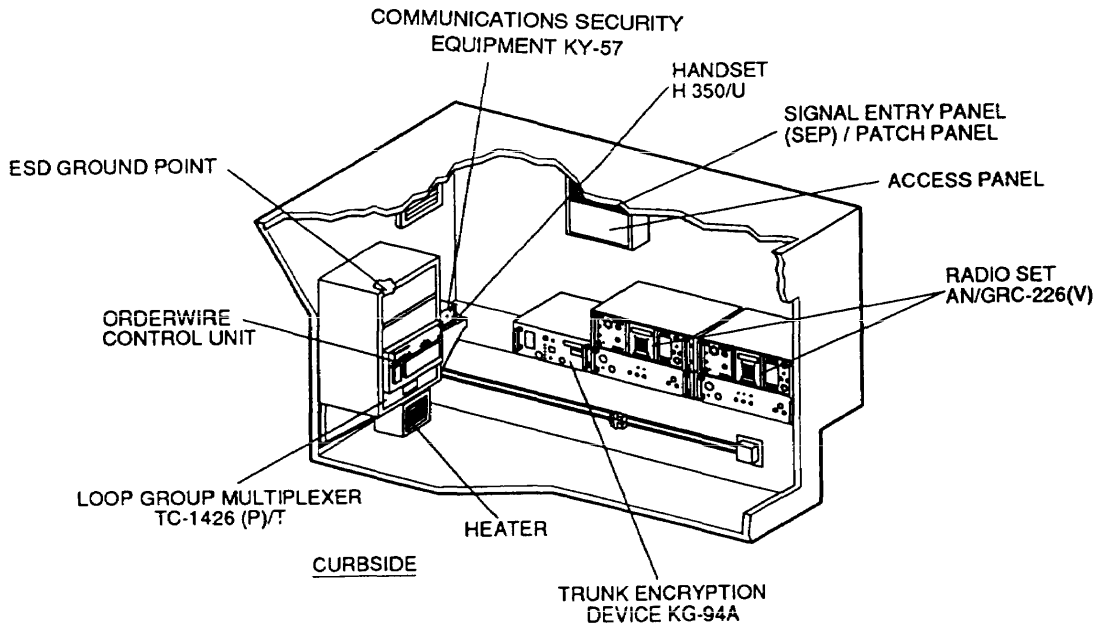
AN/TRC-190(V)4

- 1 Utility Truck M-1037
- 1 Generator PU-751/M, 5 kW
- 1 AC Power Cable, 15 feet
- 1 AC Power Cable, 35 feet
- 1 Electrical Shelter S-250
- 1 DC Power Cable
- 2 Antenna Mast, 15 meters
- 4 Antenna Cable, 45 feet
- 1 Antenna, Band I AS-3875/GRC-226
- 1 Antenna, Band III AS-3876/GRC-226
- 2 Antenna Cables, 65 feet
- 2 CX-11230 Cables, 1/4 mile
- 1 Communication Modem MD-1270
or
- 1 Digital Data Modem MD-1231 (III Corps Only)
and
- 1 Orderwire Control Unit C-11878/T (III Corps Only)
- 1 Electronic Transfer Device KYK-13
- 2 RF Amplifiers AM-7345/GRC-226
- 2 SHF Radios AN/GRC-224
- 1 COMSEC TSEC/KY-57
- 1 RF Unit, Band I RT-1537/GRC-226
- 1 RF Unit, Band III RT-1538/GRC-226
- 2 IF Cable Assembly
- 2 Data Cable Assernbly

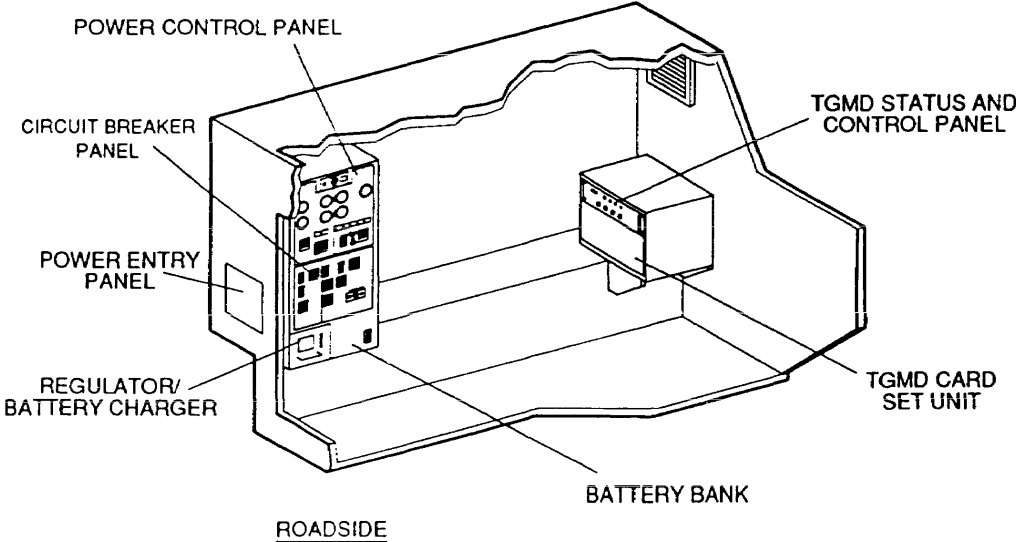
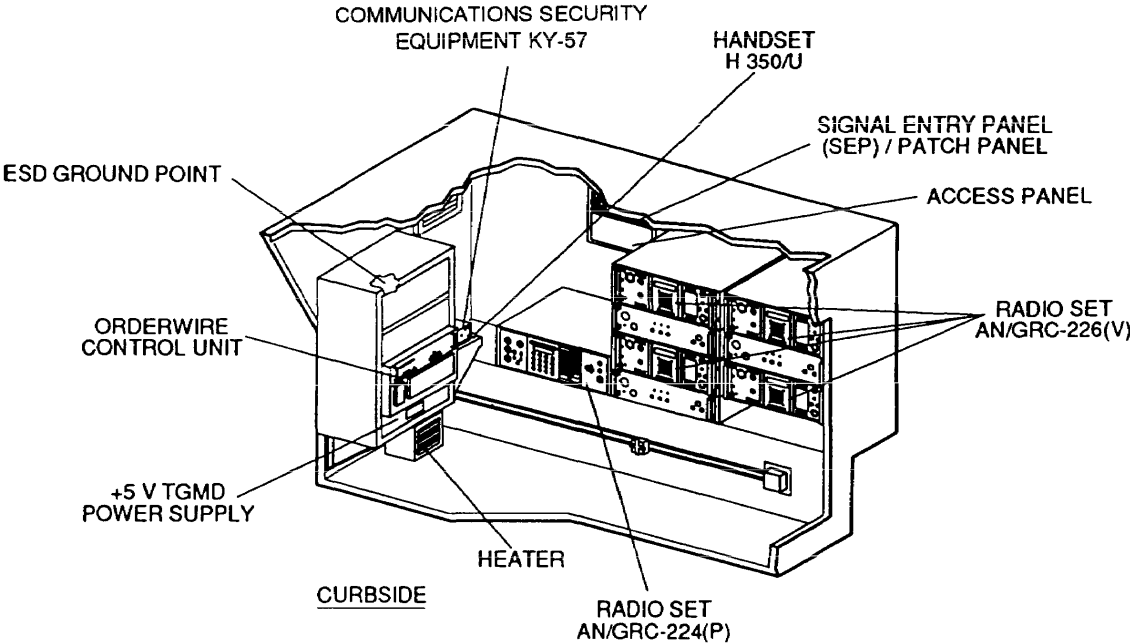
AN/TRC-190(V)1 Multichannel Radio Terminal



AN/TRC-190(V)2 Multichannel Radio Terminal



AN/TRC-190(V)3 Multichannel Radio Terminal



AN/TRC-190(V)4 Multichannel Radio Terminal

