

TME-20-2002V1
Transmitter Shelter O&M

TOC FIG TAB PROC

EQUIPMENT DESCRIPTION

FIGURE 01-01
Transmitter Shelter Unit 2 Major Components

FIGURE 01-02
Transmitter Shelter Major Ancillary Components Location

OPERATION

FIGURE 02-01-01
Transmitter Shelter Enclosure 2A1 Controls and Indicators(Sheet 1 of 3)

FIGURE 02-01-02
Transmitter Shelter Enclosure 2A1 Controls and Indicators(Sheet 2 of 3)

FIGURE 02-01-03
Transmitter Shelter Enclosure 2A1 Controls and Indicators(Sheet 3 of 3)

FIGURE 02-02
Intercom Station

FIGURE 02-03
Power Distribution Cabinet 2A6

FIGURE 02-04
Klystron Beam Power Compartment

FIGURE 02-05
Utility Power Compartment

FIGURE 02-06

1 GENERAL INFORMATION

1-1 REFERENCE INFORMATION

1-1-1 SCOPE

1-1-1.1 MANUAL SCOPE

1-1-1.2 RELATED SCOPE

1-1-2 EQUIPMENT SUPPLIED

1-1-3 EQUIPMENT DATA

1-1-4 RELATED TECHNICAL MANUALS

1-2 EQUIPMENT DESCRIPTION

1-2-1 EQUIPMENT PURPOSE, CAPABILITIES, AND FEATURES

1-2-1.1 EQUIPMENT PURPOSE

1-2-1.2 EQUIPMENT CAPABILITIES

1-2-1.3 EQUIPMENT FEATURES

1-2-2 MAJOR COMPONENTS OF TRANSMITTER SHELTER UNIT 2

1-2-2.1 TRANSMITTER SHELTER UNIT 2 MAJOR COMPONENTS

1-2-2.2 MAJOR COMPONENTS TRANSMITTER SHELTER 2A1

1-2-3 ELECTRICAL CONNECTIONS

1-2-3.1 I/O PANELS 2A1A2, 2A1A3, AND 2A1A4

1-2-3.2 TERMINAL PROTECTION DEVICES 2A7, 2A8, AND 2A9

1-2-4 POWER DISTRIBUTION CABINET 2A6

1-2-5 TRANSMITTER 2A2

1-2-6 MICROWAVE GROUP 2A3

1-2-7 COOLANT/CONTROL MANIFOLDS 2A10, 2A12, 2A13

1-2-8 TRANSMITTER CABLES

1-2-9 INTERCOM STATION 2A5

1-2-10 AIR CONDITIONER REMOTE CONTROL BOX 2A11

1-2-11 SPECIAL HANDLING EQUIPMENT

1-2-11.1 TUBE REMOVAL HOIST

1-2-11.2 OIL FILTER ASSEMBLY

1-2-11.3 AIR SKID

1-2-12 TRANSMITTER SHELTER 2A1

1-2-12.1 FIRE SUPPRESSION SYSTEM

NOTE
The Fire Suppression System described in this manual is the Italy Sites only. For the Greece, Portugal and Turkey Sites, refer to Country Specific Supplement Manuals.

Transmitter shelter enclosure	Power Distribution Cabinet
I/O panels	Oil Filter Assembly
Intercom station	Microwave Group
Terminal protection devices	Fire Suppression Tank
Hoist Equipment	

1-1-1.2 RELATED SCOPE

The interconnection of the units and system trouble shooting to the units are contained in the System Operation and Maintenance Manual (TME-20-1001V1). Information on how to set up and tear down the system is described in the System Setup and Teardown Manual (TME-20-1003).

1-1-2 EQUIPMENT SUPPLIED

The major components and assemblies supplied as part of Transmitter Shelter Unit 2 are listed in TABLE 1-1. The components and assemblies supplied as part of Transmitter Shelter Ancillary Equipment 2A1A1 are listed in TABLE 1-2.

1-1-3 EQUIPMENT DATA

Physical characteristics of the equipment are listed in TABLE 1-3.

1-1-4 RELATED TECHNICAL MANUALS

TABLE 1-4 lists the technical manuals that are referenced within this manual.

1-2 EQUIPMENT DESCRIPTION

1-2-1 EQUIPMENT PURPOSE, CAPABILITIES, AND FEATURES

1-2-1.1 EQUIPMENT PURPOSE

PREVENTIVE MAINTENANCE - Grounding Stick

- Turn power off in accordance with PROCEDURE 3.
- The grounding stick is located on the right-hand side panel of the modulator cabinet. Grasp its insulated handle and pull it from its retaining clips. Pull it out to extend its cable so that the stick can be used to reach inside the cabinet.

WARNING
Verify grounding-stick cable is connected to both stick and ground. Failure to observe precaution may result in injury or death.

- Open the upper right-hand door of modulator cabinet.
- Touch contact end of grounding stick to nut at center top of switch tube.
- Just to the left of the switch tube are upper and lower 6-inch connector rings. Remove ground stick from right hand side storage position inside cabinet and insert contact end inside hole in lower 6-inch connector ring. Leave stick in that position while performing step 6 and while working on equipment.
- Inside cabinet and at back of left-hand upper cabinet door, unscrew retaining pins that secure upper and lower latches in their closed positions. Release latches and open left-hand door. Retain pins.
- Extend grounding stick through lower opening into bottom of cabinet compartment. Touch contact end of grounding stick to terminal of each of two HV capacitors. Return grounding stick to storage position on outside of cabinet.
- Stow grounding stick in its proper location. Stow cable of grounding stick in its normal location.
- When working in other areas, discharge residual high voltage and power in a similar manner. Other areas to use grounding stick: a) Pulse transformer terminals E1 and E2; b) Screen power supply output resistor 2A2A3PS3-R27.

Address: http://srv16125.namsa.lu/TME/20-1000/viewer/Run_IETM.html

TME-20-2002V1
Transmitter Shelter O&M

TOC FIG TAB PROC

Major Components of Transmitter Shelter Unit 2

TABLE 01-06
Transmitter Shelter Major Ancillary Components 2A1

OPERATION

TABLE 02-01
Transmitter Shelter Enclosure 2A1 Controls and Indicators

TABLE 02-02
Intercom Station 2A5 Controls and Indicators

TABLE 02-03
Power Distribution Cabinet 2A6

TABLE 02-04
Power Distribution Cabinet 2A6, Klystron Beam Power Compartment

TABLE 02-05

TABLE 2-6. POWER DISTRIBUTION CABINET 2A6, EQUIPMENT POWER COMPARTMENT (Upper)

key	Control or indicator	Reference Designator	Function
1	OPERATION SHELTER 220 VAC	CB21	Provides input power protection for operations shelter equipment.
2	ANTENNA 220/380 VAC	CB19	Provides input power protection for antenna.
3	SUPPORT SHELTER 220/380 VAC	CB24	Provides input power protection for support equipment.
4	EQUIPMENT 115/200 VAC	CB5	Provides input power protection for 380/220 to 200/115 V ac transformer.
5	EQUIPMENT 220/380 VAC	CB2	Provides input power protection for radar system equipment.
6	115/200 VAC REGULATED	CB4	Provides input power protection for 115/200 V ac regulated power supply PS4.
7	KLYSTRON MAG		
8	PWR SPLY 1	CB13	Provides input power protection for klystron magnet power supply 1.
9	PWR SPLY 2	CB32	Provides input power protection for klystron magnet power supply 2.
10	ANT BSU 28 VDC PWR SPLY	CB17	Provides input power protection for antenna BSU +28 V dc.
11	RF DETECTOR	CB16	Provides input power protection for rf detector.
12	28 VDC PWR SPLY	CB15	Provides input power protection for +28 V dc power supply.
13	SUPPORT SHELTER OUTLET 115 VAC	CB25	Provides input power protection for support equipment shelter 115 V ac outlets.
14	XMTR CB OPEN	DS2	Indicates if any transmitter circuit breakers are open.
15	PHASE SEQ OR LOSS	DS1	Indicates incorrect phase sequence or phase failure.
16	XMTR ONFF	S5	Turns on +28 V dc power supply to power up transmitter.
17	EQPT PWR TIME	M1	Indicates ON TIME of +28 V dc, 60-Amp power supply PS3.
18	STATUS PNL PWR SPLY	CB14	Provides input power protection for status panel power supply.
19	SW TUBE BLOWER	CB10	Provides input power protection for switch tube filament seal blower.
20	CROWBAR PWR SPLY	CB12	Provides input power protection for crowbar power supply.
21	PLS XFMR RESET PWR SPLY	CB38	Provides input power protection for pulse transformer reset power supply.
22	KLYSTRON FILAMENT	CB6	Provides input power protection for klystron filaments.
23	POWER SUPPLY		
24	SW TUBE FIL	CB9	Provides input power protection for switch tube filament power supply.
25	SW TUBE GRID DRIVER	CB8	Provides input power protection for grid driver power supply.
26	SW TUBE SCRN	CB7	Provides input power protection for switch tube screen power supply.

TME-20-6401V1
HMD-22 Display Console O&M

TOC FIG TAB PROC

GENERAL INFORMATION

FIGURE 01-01-01
Display Console Major Components(Sheet 1 of 2)

FIGURE 01-01-02
Display Console Major Components(Sheet 2 of 2)

Display Console and Display

Control Panel (CSP) Indicators

Status Panel (VSP) Controls and Indicators

Keyboard (DEK) Indicators

Entry Panel (UAEP) Indicators

Display Console Miscellaneous Indicators

