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TECHNICAL MANUAL

for

TRANSMITTING ANTENNA DISSIPATOR
MODEL TER-2500/300U



THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, N.Y. OTTAWA, ONTARIO

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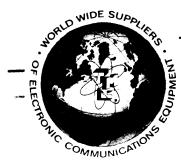


THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, N.Y.

OTTAWA, CANADA

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C O M M U N I C A T I O N S E N G I N E E R S

700 FENIMORE ROAD

MAMARONECK, N. Y.

Warranty

The Technical Materiel Corporation, hereinafter referred to as TMC, warrants the equipment (except electron tubes, fuses, lamps, batteries and articles made of glass or other fragile or other expendable materials) purchased hereunder to be free from defect in materials and workmanship under normal use and service, when used for the purposes for which the same is designed, for a period of one year from the date of delivery F.O.B. factory. TMC further warrants that the equipment will perform in a manner equal to or better than published technical specifications as amended by any additions or corrections thereto accompanying the formal equipment offer.

TMC will replace or repair any such defective items, F.O.B. factory, which may fail within the stated warranty period, PROVIDED:

- 1. That any claim of defect under this warranty is made within sixty (60) days after discovery thereof and that inspection by TMC, if required, indicates the validity of such claim to TMC's satisfaction.
- 2. That the defect is not the result of damage incurred in shipment from or to the factory.
- 3. That the equipment has not been altered in any way either as to design or use whether by replacement parts not supplied or approved by TMC, or otherwise.
- 4. That any equipment or accessories furnished but not manufactured by TMC, or not of TMC design shall be subject only to such adjustments as TMC may obtain from the supplier thereof.

Electron tubes furnished by TMC, but manufactured by others, bear only the warranty given by such other manufacturers. Electron tube warranty claims should be made directly to the manufacturer of such tubes.

TMC's obligation under this warranty is limited to the repair or replacement of defective parts with the exceptions noted above.

At TMC's option any defective part or equipment which fails within the warranty period shall be returned to TMC's factory for inspection, properly packed with shipping charges prepaid. No parts or equipment shall be returned to TMC, unless a return authorization is issued by TMC.

No warranties, express or implied, other than those specifically set forth herein shall be applicable to any equipment manufactured or furnished by TMC and the foregoing warranty shall constitute the Buyers sole right and remedy. In no event does TMC assume any liability for consequential damages, or for loss, damage or expense directly or indirectly arising from the use of TMC Products, or any inability to use them either separately or in combination with other equipment or materials or from any other cause.

*Electron tubes also include semi-conductor devices.

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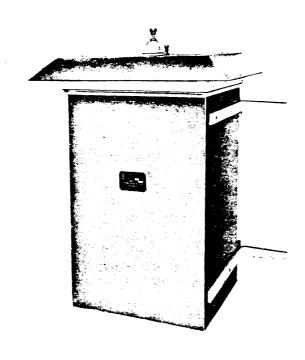


Figure 1. Transmitting Antenna Dissipator, Model TER-2500/300U

1. DESCRIPTION

Transmitting Antenna Dissipator, Model TER-2500/300U (figure 1), is a terminating device for sloping vee and monopole rhombic antennas. The TER comprises two low-reactance film resistors and three reactance-compensating coils (refer to figure 2). The components are housed in a rugged weatherproof case which is provided with suitable brackets (refer to figure 3) for tower or pole mounting; most installations require two TER units.

The TER presents a maximum VSWR of 1.15:1, referenced to 300 ohms throughout the frequency range of d-c to 30 megacycles. The special glass resistors of the TER may be instantly brought to full rated power in a -40° C ambient.

2. TECHNICAL SPECIFICATIONS

FREQUENCY RANGE:

DC to 30 mc.

DISSIPATION:

2500 watts (ICAS).

IMPEDANCE:

300 ohm, unbalanced.

COOLING:

Convection cooling.

INPUT TERMINAL:

Insulator bowl.

OPERATING TEMPERATURE:

 -40° C to $+75^{\circ}$ C ambient.

RESISTORS:

Special glass resistors with resistive element electrofused into surface, with baked silicone pro-

tective coating.

CASE:

Fiberglass-reinforced plastic case.

DIMENSIONS:

Height Width 28 inches 20 1/4 inches

Depth

16 inches

WEIGHT:

25 pounds

3. UNPACKING AND INSTALLATION

When the TER-2500/300U is received, uncrate the unit carefully and inspect for damage that may have occurred during transit. With respect to damage to the equipment for which the carrier is liable, The Technical Material Corporation will assist in describing methods of repair and the furnishing of replacement parts.

Each unit is tested at the factory before shipment, and is therefore ready for installation and operation. Preliminary adjustments are not necessary.

The TER is provided with sturdy mounting brackets (refer to figure 3) that facilitate mounting the unit (vertically) on a tower or pole.

4. MAINTENANCE

Since there are no moving parts in the TER only minimum maintenance is required. Periodically check for dirt or salt deposits on the bowl insulator (input terminal); ensure that cable connections at the input and ground terminals are secure.

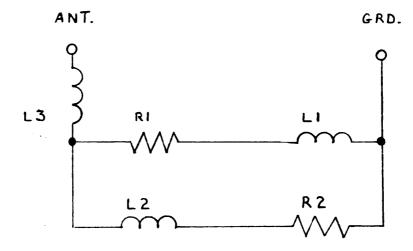


Figure 2. Schematic Diagram, TER

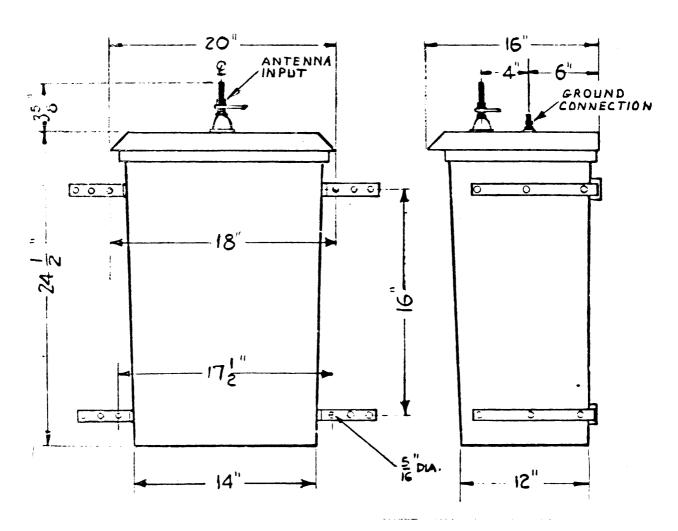


Figure 3. Mounting Dimensions, TER

5. PARTS LIST.

The parts list presented in this section is a cross-reference list of parts identified by reference designation and TMC part number. In most cases, parts appearing on schematic diagrams are assigned reference designations in accordance with MIL-STD-16. Wherever practicable, the reference designation is marked on the equipment, close to the part it identifies. In most cases, mechanical and electro-mechanical parts have TMC part numbers stamped on them.

To expedite delivery when ordering any part, specify the following:

- a. Generic name.
- b. Reference designation.
- c. TMC part number.
- d. Model and serial numbers of the equipment containing the part being replaced; this can be obtained from the equipment nameplate.

For replacement parts not covered by warranty (refer to the warranty sheet in front of manual), address all purchase orders to:

The Technical Materiel Corporation Attention: Sales Department 700 Fenimore Road Mamaroneck, New York

PARTS LIST, TER-2500/300U

SYMBOL	DESCRIPTION	TMC PART NO.
L1	COIL, FIXED; 3.90 μh.	CL-266
L2	COIL, FIXED; 3.32 μh.	CL-267
L3	COIL, FIXED; 2.85 μh.	CL-268
Rl	RESISTOR, FIXED; Film, 600 ohms, 900 watts.	RR-117-600
R2	Same as R1.	