UNCLASSIFIED

TECHNICAL MANUAL

for

TRANSMITTING ANTENNA DISSIPATOR AND DUMMY LOAD

MODEL TER-3500/600B (DA-200/U)

MODEL TER-3500/70U

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, N.Y. OTTAWA, ONTARIO

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NOTICE

THE CONTENTS AND INFORMATION CONTAINED IN
THIS INSTRUCTION MANUAL IS PROPRIETARY
TO THE TECHNICAL MATERIEL CORPORATION
TO BE USED AS A GUIDE TO THE OPERATION
AND MAINTENANCE OF THE EQUIPMENT FOR
WHICH THE MANUAL IS ISSUED AND MAY NOT
BE DUPLICATED EITHER IN WHOLE OR IN
PART BY ANY MEANS WHATSOEVER WITHOUT
THE WRITTEN CONSENT OF THE TECHNICAL
MATERIEL CORPORATION.

THE TECHNICAL MATERIEL CORPORATION
COMMUNICATIONS ENGINEERS
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.

PROCEDURE FOR RETURN OF MATERIAL OR EQUIPMENT

Should it be necessary to return equipment or material for repair or replacement, whether within warranty or otherwise, a return authorization must be obtained from TMC prior to shipment. The request for return authorization should include the following information:

1. Model Number of Equipment.
2. Serial Number of Equipment.
3. TMC Part Number.
4. Nature of defect or cause of failure.
5. The contract or purchase order under which equipment was delivered.

PROCEDURE FOR ORDERING REPLACEMENT PARTS

When ordering replacement parts, the following information must be included in the order as applicable:

1. Quantity Required.
2. TMC Part Number.
3. Equipment in which used by TMC or Military Model Number.
4. Brief Description of the Item.
5. The *Crystal Frequency* if the order includes crystals.

PROCEDURE IN THE EVENT OF DAMAGE INCURRED IN SHIPMENT

TMC's Warranty specifically excludes damage incurred in shipment to or from the factory. In the event equipment is received in damaged condition, the carrier should be notified immediately. Claims for such damage should be filed with the carrier involved and not with TMC.

All correspondence pertaining to Warranty Claims, return, repair, or replacement and all material or equipment returned for repair or replacement, within Warranty or otherwise, should be addressed as follows:

THE TECHNICAL MATERIEL CORPORATION
Engineering Services Department
700 Fenimore Road
Mamaroneck, New York

RECORD OF CORRECTIONS MADE

Change No.	Date of Change	Date Entered	Entered By

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1. PURPOSE

Transmitting Antenna Dissipator and Dummy Load, Model TER-3500 (figure 1) is a flat resistive termination used at transmitting sites as a dummy load for routine off-the-air tuning of transmitters or for termination of Rhombic, Sloping Vee or other types of antennas requiring resistive termination.

2. DESCRIPTION

The TER-3500 is capable of dissipating RF energy in the order of 1750 watts average and 3500 watts peak, over a frequency range of 0 to 30 megacycles.

The TER-3500 consists of low-reactance glass resistors housed in a fiberglass reinforced plastic case.

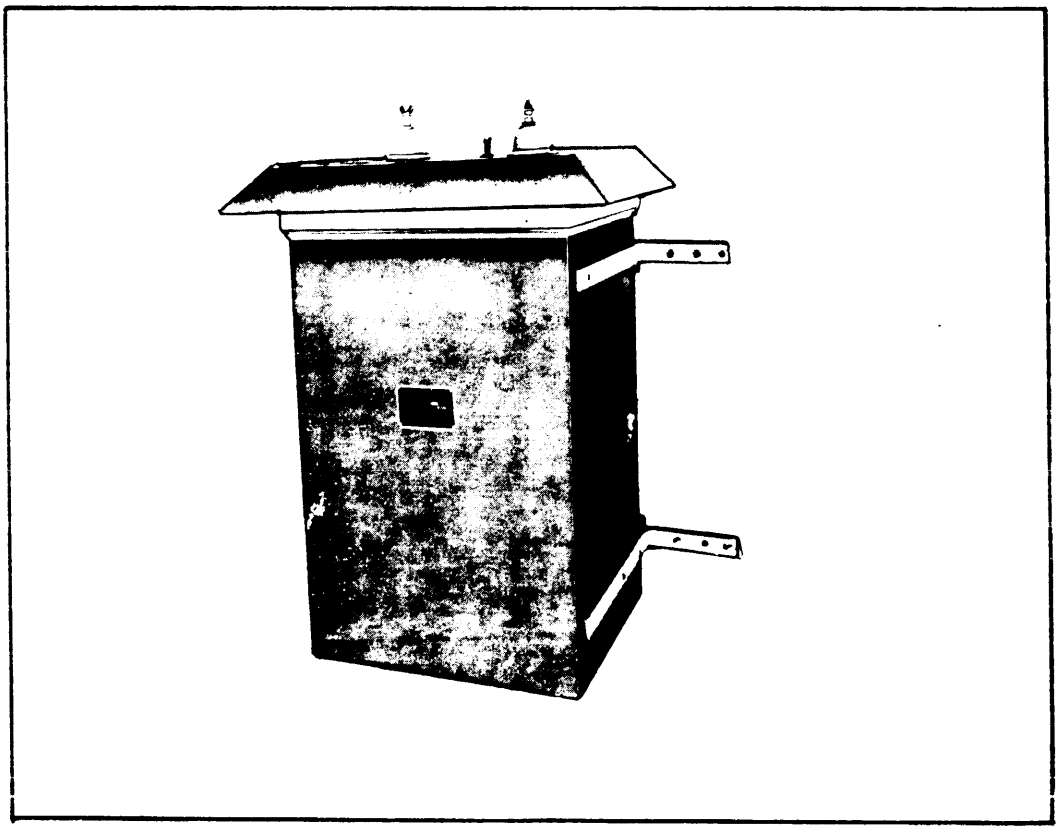

Figure 1. Transmitting Antenna Dissipator and Dummy Load, Model TER-3500

3. TECHNICAL SPECIFICATIONS

Frequency Range:	0 to 30 megacycles
Dissipation Rating:	1750 watts average. 3500 watts PEP
Impedance:	TER-3500/70U - 70 ohms unbalanced TER-3500/600B - 600 ohms balanced
Cooling:	Convection cooling by means of screened vent ports.
Input Terminals:	TER-3500/70U - Coaxial connector. AX-273 QDL, AX-287 LC. TER-3500/600B - 2 small Mykroy (1/4" rods) insulator bowl terminals.
Operating Temperature:	-40°C to +75°C ambient.
Resistors:	Special glass case cylinders with resistive element electrofused into surface. Baked silicone protective coating. Fired on silver bands to assure positive connection. Resistor spiral cut to insure even heat dissipation.
Dimensions:	28 inches high x 20-1 4 inches wide x 16 inches deep.
Weight:	25 lbs. approx.
Typical VSWR Ratio:	1.2 to 1 (TER-3500-600B) 1.15 to 1 (TER-3500-70U)
Mounting:	Fitted for pole, platform and tower mounting.
Components and Construction:	All equipment manufactured in accordance with JAN/MIL specifications wherever practicable.

4. UNPACKING AND INSTALLATION

When the unit is uncrated, it should be inspected for any damage that may have incurred in transit. Inspect all packing material for parts which may have been shipped as loose items.

With respect to damage to the equipment for which the carrier is liable, the Technical Materiel Corporation will assist in describing methods of repair and the furnishing of replacement parts.

The TER-3500 is shipped in one crate and is completely assembled at the time of delivery. Each unit has been factory tested and arrives ready for immediate installation. No preliminary adjustments are necessary other than the initial input and ground cable connections.

Dimensional and mounting details of the TER are shown in Figures 2 and 3. Table 1 lists the necessary mounting hardware supplied with each unit.

5. MAINTENANCE

The TER-3500 normally requires no maintenance other than a periodic cleaning of electrical connections and a check that all input and ground connections are secure.

Table 1. Mounting Hardware

DESCRIPTION	QTY. REQ'D.	TMC PART NO.
LAG BOLT	12	SC-112-2
FLAT WASHER	12	FW25HRN
MOUNTING BRACKET	4	FP-156

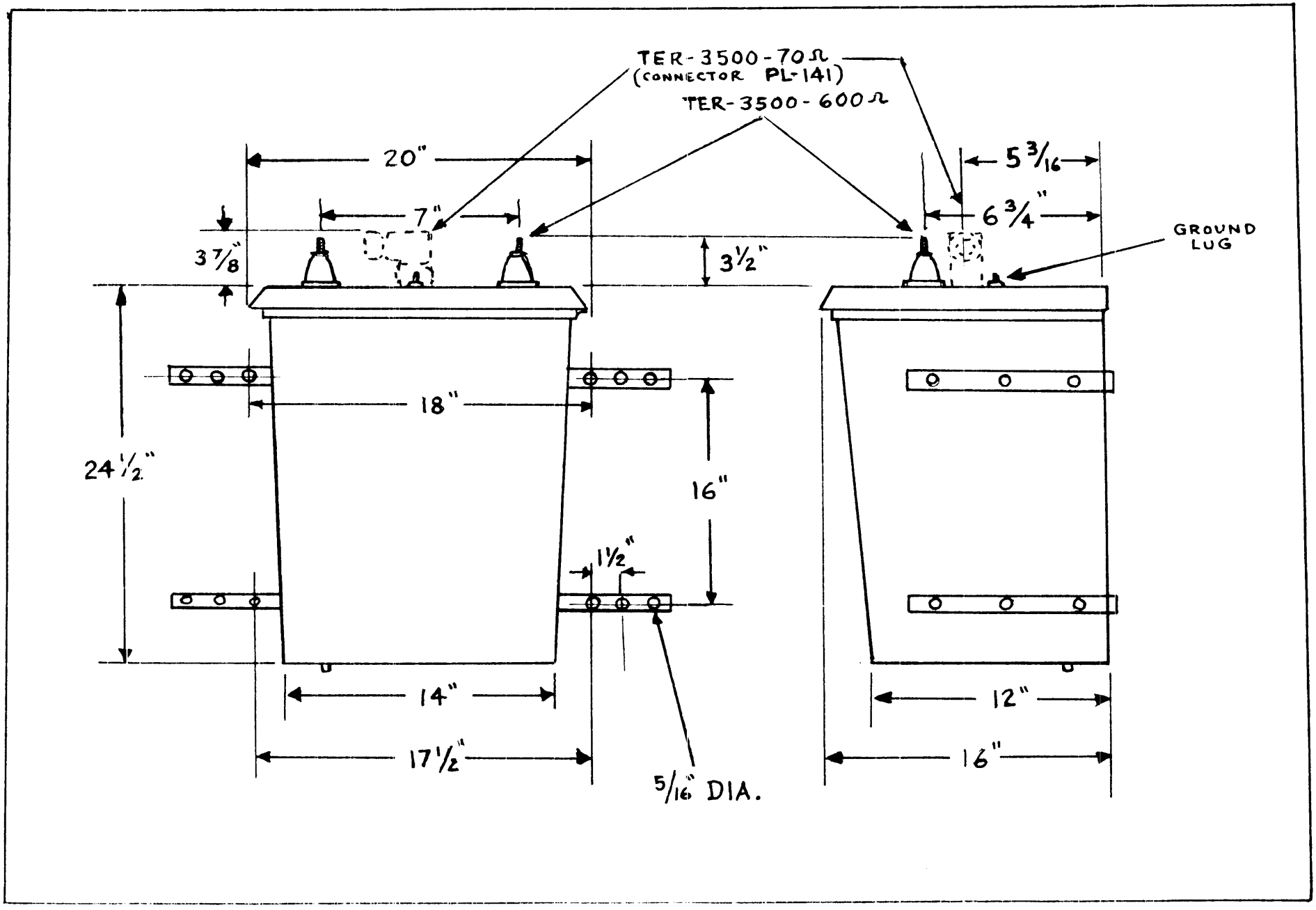

Figure 2 Model TER-3500, Dimensional Drawing

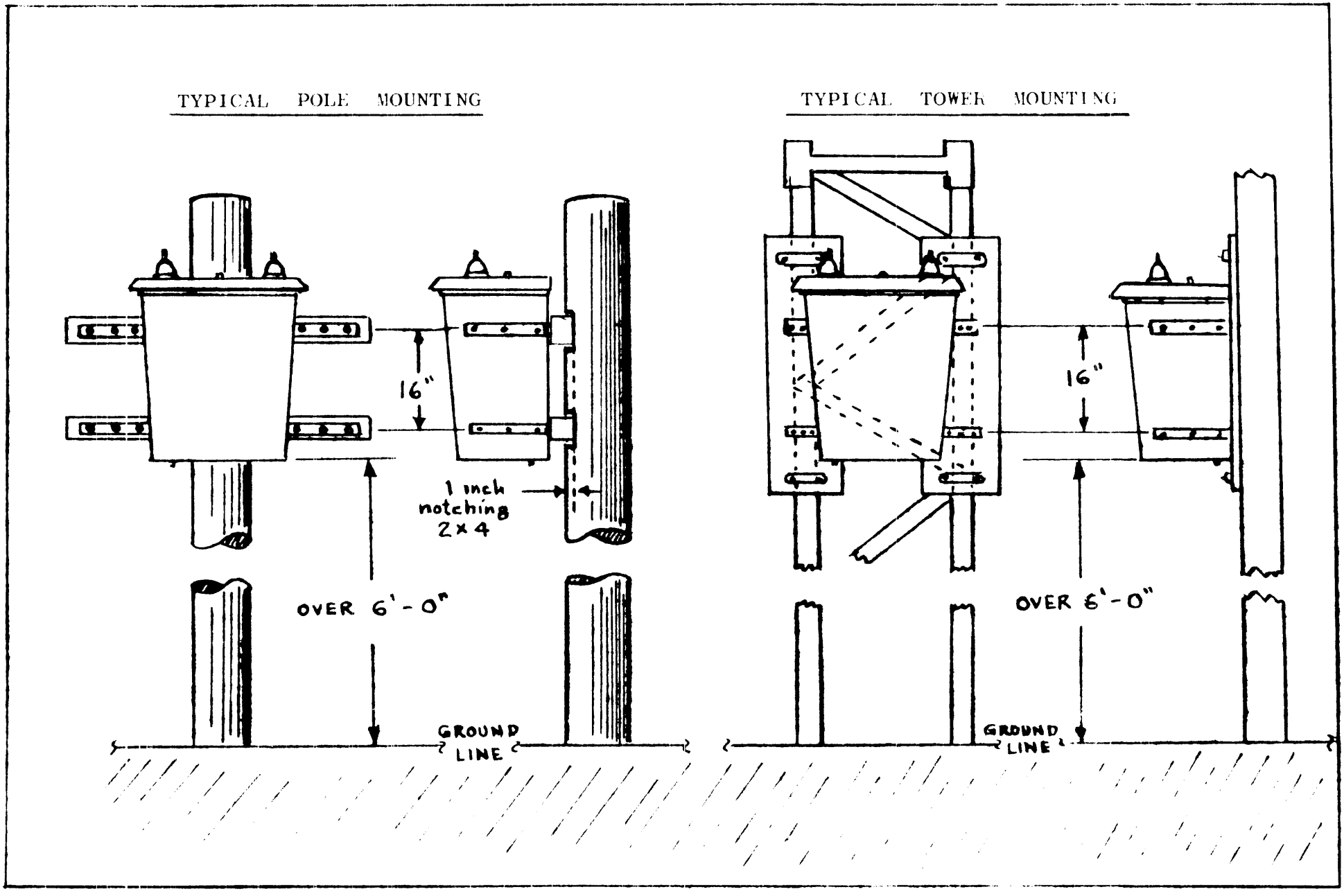

Figure Model TER-3500, Typical Pole and Tower Mounting

Table 2. Parts List, TER-3500/600 B.

REF SYMBOL	DESCRIPTION	EIMAC PART NUMBER
L1	COIL, RADIO FREQUENCY: fixed: 0.8 uh: copper tubing, silver plated: 1-5/8" I.D.	CL123
L2	Same as L1.	
L3	COIL, RADIO FREQUENCY: fixed: 1.25 uh: copper tubing, silver plated: 1-5/8" I.D.	CL124
R1	RESISTOR, FIXED, GLASS: 320 ohms, ±10%: 900 watts.	RR117-320
R2	Same as R1.	

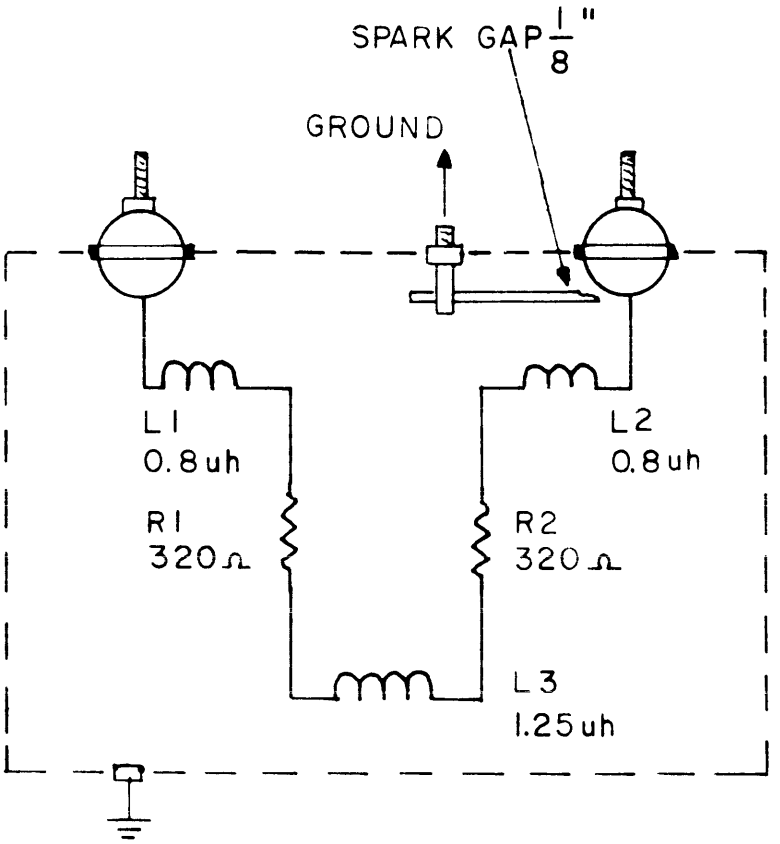

Figure 1. Schematic Diagram, TER-3500/600B.

TABLE 3. PARTS LIST, TER-3500/70U

REF SYMBOL	DESCRIPTION	[illegible]
R1	RESISTOR, FIXED, GLASS: 140 ohms, ±10%; 900 watts.	RR117-140
R2	Same as R1.	

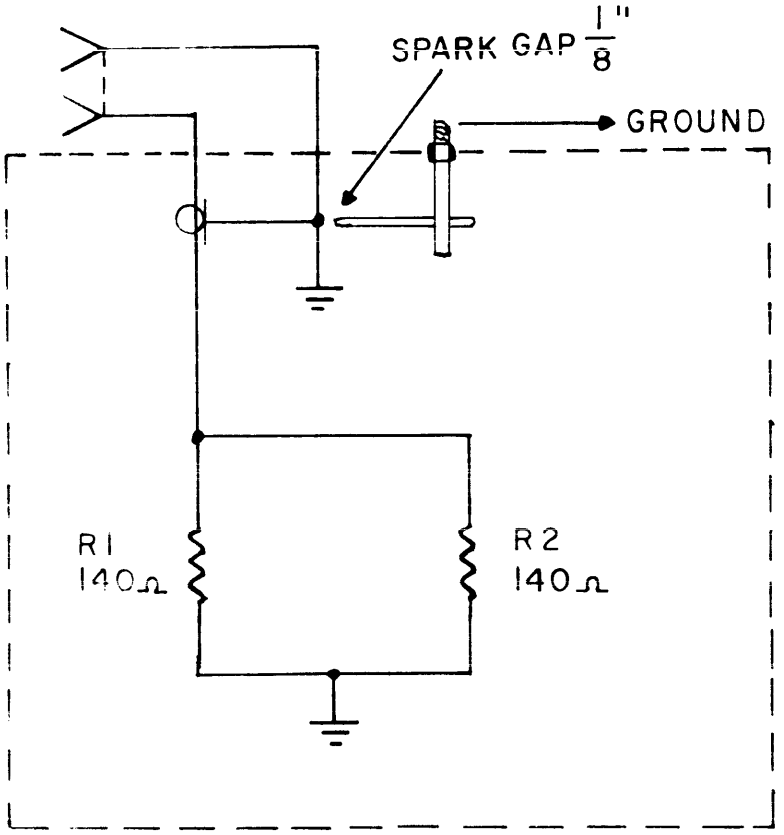

Figure 5. Schematic Diagram, TLR-3500/70U