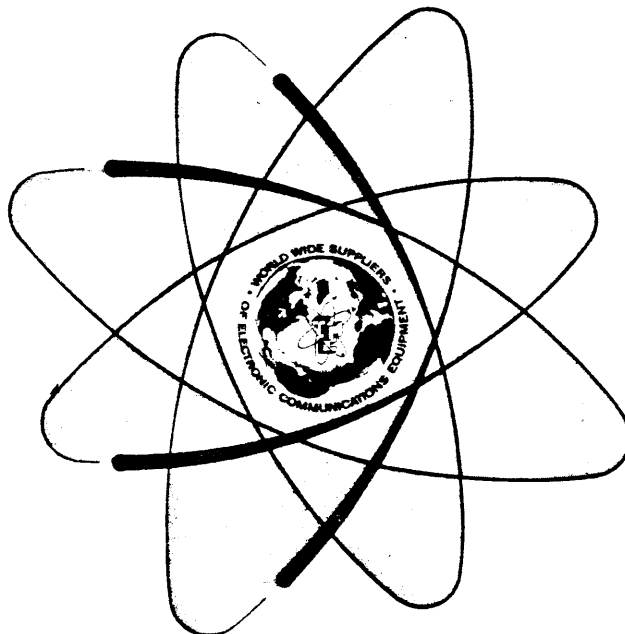


TECHNICAL INFORMATION

for

MODEL TER-1800-300U



THE TECHNICAL MATERIEL CORPORATION  
MAMARONECK, N.Y.

OTTAWA, ONTARIO

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# THE TECHNICAL MATERIEL CORPORATION

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.

## W a r r a n t y

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



## TECHNICAL BULLETIN NUMBER 8009A

Antenna Terminators and Dummy loads

TMC Models TER

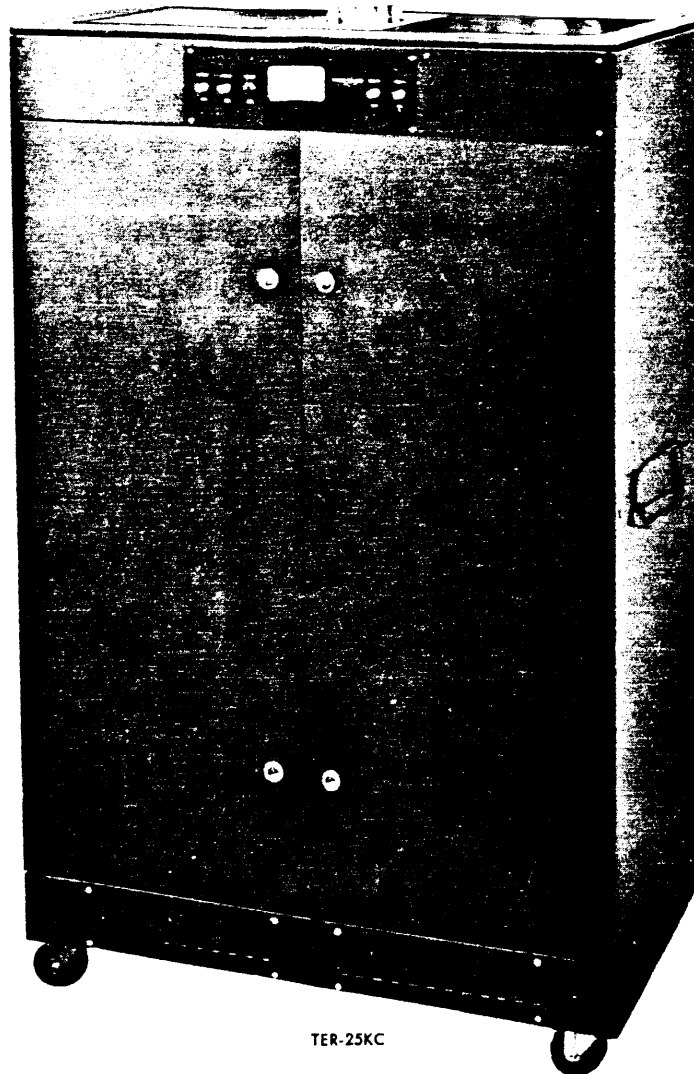
DA-199/U

DA-200/U

DA-210/U

DA-201/U

DA-209/U



TER-25KC

TMC Models TER are a series of RF Antenna Terminators and Dummy Loads, available in a wide range of power dissipation from 250 watts to 50 kilowatts peak power in either balanced or unbalanced operation.

Models TER are used at transmitting sites for routine off-the-air tuning of transmitters and for termination of Rhombic, Sloping Vee, or other types of antennas requiring resistive termination.

Models TER are housed in rugged weatherproof cases easily installed on poles or platforms and require a minimum of maintenance. The special glass resistors used afford a minimum of reactance and may be instantly brought to full rated power in a  $-40^{\circ}$  C. ambient. Models

## Antenna Terminators and Dummy Loads

TER-25K dissipators include filtered forced air cooling, forward and reflected power metering to compute VSWR. Casters for mobility and transmit interlock connections for personnel and equipment safety are included on all TER-25K and TER-18K (less TER-18K-600BF). Casters can be locked for permanent installations.

A wide variety of RF fittings are available to mate the TER series to many standard transmission systems, as featured in TMC's Connector Products Catalog. As an example: to order a TER 5000-70U with an L. C. coupling connector, order TER 5000-70U/AX-287-( )\*.

All TER-18K and TER-25K unbalanced units are provided with 3/8" EIA flanges. All Models TER of either 300 or 600 ohm impedances are provided with bowl insulators.

For models available and individual specifications, see accompanying Chart.

### GENERAL TECHNICAL SPECIFICATIONS, Models TER:

FREQUENCY RANGE:	DC to 30 megacycles, except as noted in Chart.
DISSIPATION RATINGS:	250 w to 50 kw (refer to Chart)
IMPEDANCE:	See Chart. First group of figures in TMC Model number indicates power dissipation, and second group of figures shows input impedance. Last letter indicates whether termination is balanced or unbalanced.  Example: Model TER-500-600B is a 500 watt average dissipator with 600 ohm balanced input terminals.
COOLING:	1. Convection cooling by means of screened vent ports. 2. Filtered air blower system for TER-25K series, by means of 4 base mounted fans.
INPUT TERMINALS:	Insulator bowls on balanced units, 12" on center. Insulator bowls or coaxial connectors on unbalanced units. (See Chart.)
OPERATING TEMPERATURE:	-40°C. to +75°C. ambient.
RESISTORS:	Special glass cylinders with resistive element electro-fused into surface. Baked silicone protective coating. Fired on silver bands to assure positive connection. Resistor spiral cut to insure even heat dissipation.

For matching RF fittings see TMC Connector Products Catalog.

TMC MODEL NUMBER	MILITARY NOMENCLATURE	FREQUENCY RANGE	TYPICAL VSWR RATIO TO UNITY	AVERAGE POWER (In watts)	PEAK ENVELOPE POWER (In watts)	TYPE OF CASE (refer to notes)	DIRECTIONAL COUPLER AND METER	LIGHTNING SPARK GAP PROTECTION	INSTALLATION DATA				SHIPPING DATA		MOUNTING PLATE CONNECTOR ASSEMBLIES *										BOWL ASSEMBLIES		LOGISTICS DATA		TMC MODEL NUMBER								
									HEIGHT (in.)	WIDTH (in.)	DEPTH (in.)	WEIGHT (lbs.) (APPROX.)	VOLUME (cu. ft.) (APPROX.)	WEIGHT (lbs.) (APPROX.)	AX-271 (70Ω) 1 3/8" EIA Flange	AX-272 (50Ω) 1 3/8" EIA FLANGE	AX-273 QDL	AX-278 (50Ω) 3 1/8" to 1 3/8" Reducer	AX-279 (70Ω) 3 1/8" to 1 3/8" Reducer	AX-281 UHF.	AX-285 HN	AX-286 C	AX-287 LC	AX-289 QDS	3 1/8" EIA (50Ω) Flange	3 1/8" EIA (70Ω) Flange	2 SMALL MYKROY (1/4" RODS)	1 SMALL MYKROY (1 1/4" RODS)		1 Layer Porcelain (1/2" RODS)	2 Layer Porcelain (1/2" RODS)	FSN W/SPARES	FSN W/O SPARES				
TER-250-300 U		DC to 30 mc	1.2	250	500	1		X	14	9	5	25	3	42																							TER-250-300 U
TER-500-70 U		DC to 30 mc	1.2	500	1000	2		X	28	20 1/4	16	21	11	100	X							X	X	X	X	X										TER-500-70 U	
TER-500-600 B	DA-199/U	DC to 30 mc	1.2	500	1000	2		X	28	20 1/4	16	21	"	100																			F5985-682-2711 w/o		TER-500-600 B		
TER-1800-300 U		DC to 30 mc	1.15	1800	3600	2		X	28	20 1/4	16	25	"	104																						TER-1800-300 U	
TER-3500-70 U		DC to 30 mc	1.15	1750	3500	2		X	28	20 1/4	16	25	"	104											X										TER-3500-70 U		
TER-3500-600 B	DA-200/U	DC to 30 mc	1.2	1750	3500	2		X	28	20 1/4	16	25	"	104																			F5985-624-0400 w/o		TER-3500-600 B		
TER-5000-50U	DA-209/U	DC to 30 mc	1.1	5000	10,000	2		X	63 1/2	47	27	125	60	275			X																		TER-5000-50U		
TER-5000-70 U	DA-210/U	DC to 30 mc	1.2	5000	10,000	2		X	63 1/2	47	27	125	60	275			X																F5820-799-8438 w/o		TER-5000-70 U		
TER-5000-300 U		2-30 mc	1.5	5000	10,000	2		X	63 1/2	47	27	125	60	275																					TER-5000-300 U		
TER-5000-600 B	DA-201/U	DC to 30 mc	1.2	5000	10,000	2		X	63 1/2	47	27	125	60	275																					TER-5000-600 B		
TER-18KA-50 U		DC to 30 mc	1.15	18,000	36,000	3			70	44	22	410	60	615			X																		TER-18KA-50 U		
TER-18KC-50 U		DC to 30 mc	1.15	18,000	36,000	3	X		"	"	"	415	85	620			X																		TER-18KC-50 U		
TER-18KA-70 U		"	1.1	18,000	36,000	3			"	"	"	410	"	615							X														TER-18KA-70 U		
TER-18KC-70 U		"	1.1	18,000	36,000	3	X		"	"	"	415	"	620							X														TER-18KC-70 U		
TER-18K-600 B		4-28 mc	1.5	18,000	36,000	3			"	"	"	410	"	615																					TER-18K-600 B		
TER-18K-600 BF		4-28 mc	1.5	18,000	36,000	2		X	70	47	26	285	90	425																					TER-18K-600 BF		
TER-25KA-50 U		DC to 30 mc	1.15	25,000	50,000	3			70	44	22	420	"	625			X																		TER-25KA-50 U		
TER-25KC-50 U		"	1.15	25,000	50,000	3	X		"	"	"	425	"	630			X																		TER-25KC-50 U		
TER-25KA-70 U		"	1.1	25,000	50,000	3			"	"	"	420	"	625							X														TER-25KA-70 U		
TER-25KC-70 U		"	1.1	25,000	50,000	3	X		"	"	"	425	"	630							X														TER-25KC-70 U		
TER-25K-600 B		4-28 mc	1.5	25,000	50,000	3			"	"	"	420	85	625																					TER-25K-600 B		

For companion RF Broadband Transformers refer to Technical Bulletin #8015.

\* Supplied angle or straight. Refer to Connector Products Catalog. Priced separately.

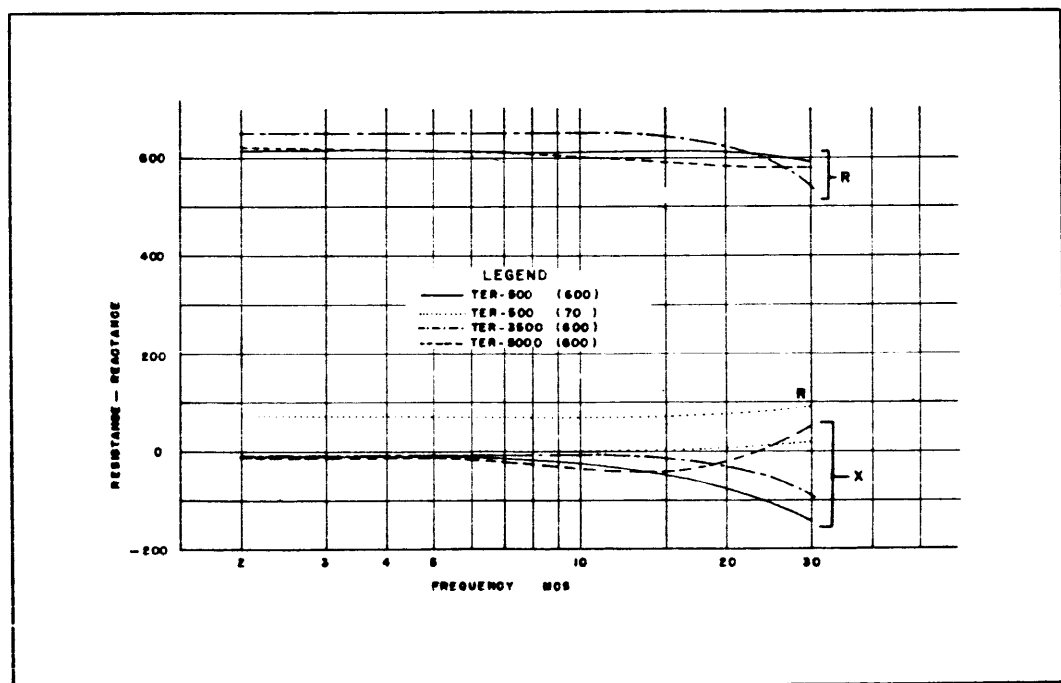
NOTES:

1. Stress relieved cast aluminum case.
2. Fiberglass reinforced plastic case.

3. Heavy gauge steel case with interlocks for connection to transmitter provided.

Indicates Standard Mounting Plate Connector Assembly Provided. When other assemblies are desired please use appropriate AX number. Example: TER-3500-70U/AX-287

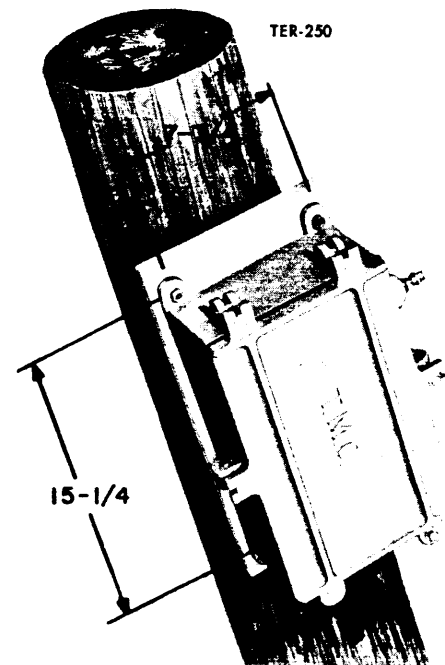
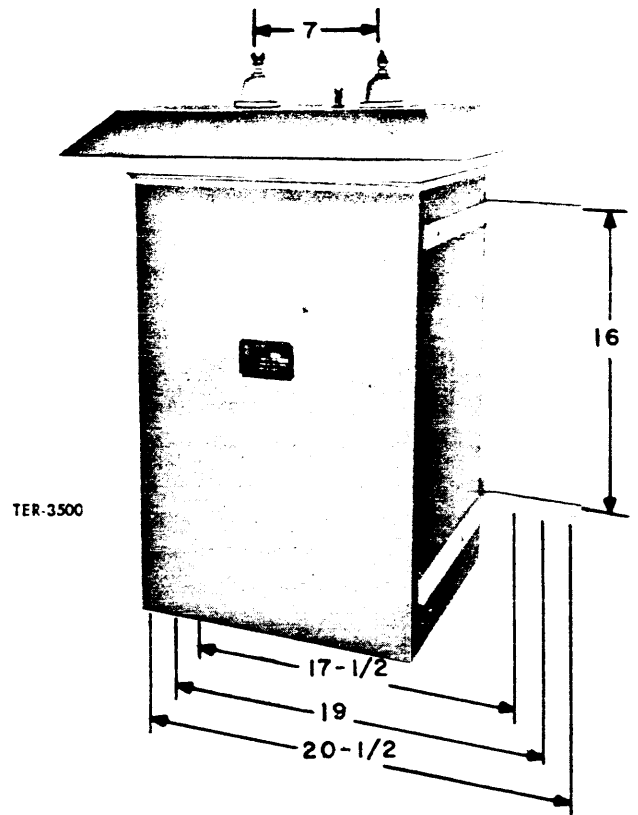
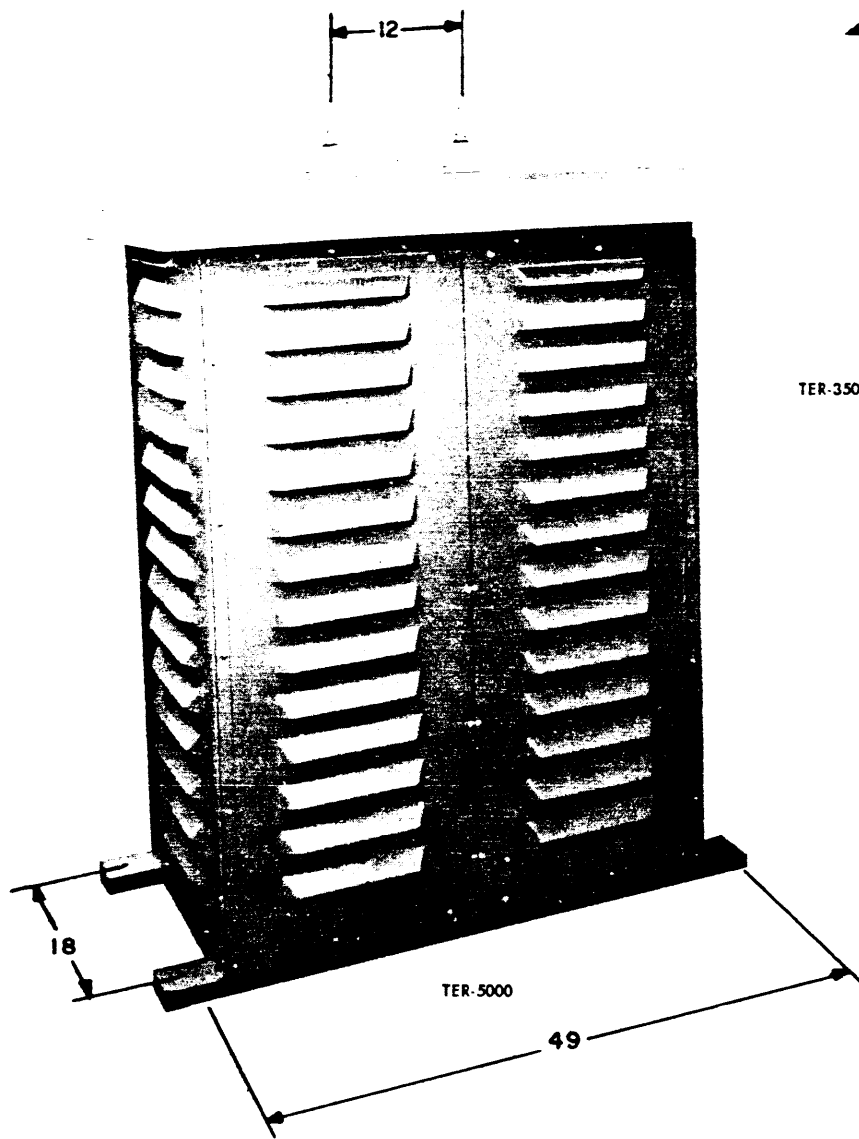
CENTER TAP:	Furnished on 600 ohm units.
PROTECTION:	Internal spark gaps for lightning protection.
CASE MATERIAL:	Refer to Chart.
SIZE:	See Chart.
MOUNTING:	All outdoor units fitted for pole or platform mounting. (See Back Page for mounting details).
WEIGHT:	See Chart.
AC POWER REQUIREMENTS: (For TER-25K series)	115/230 v, 1 $\phi$ , 50-60 cps Approx. 400 watts.
COMPONENTS AND CONSTRUCTION:	All equipment manufactured in accordance with JAN/MIL specifications wherever practicable.
OPTIONAL EQUIPMENT:	See Chart.
SHIPPING DATA:	See Chart.



Typical Impedance Characteristics.



Model TER



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# THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, NEW YORK

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