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UNCLASSIFIED

TECHNICAL MANUAL

*for*

TRANSMITTING ANTENNA

DISSIPATOR AND DUMMY LOAD

MODEL TER-18K-600BF



THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, N.Y.

OTTAWA, ONTARIO

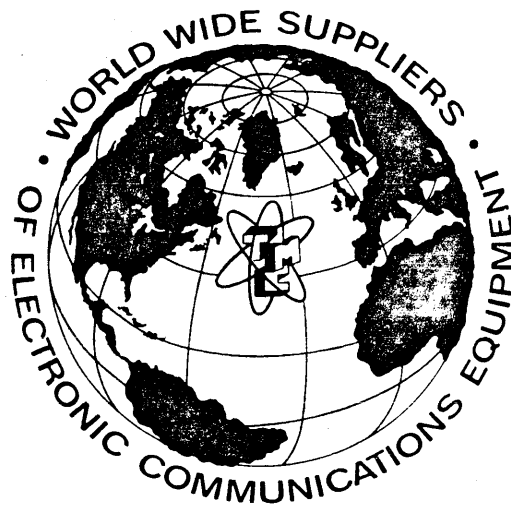
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C O M M U N I C A T I O N S   E N G I N E E R S

700 FENIMORE ROAD

MAMARONECK, N. Y.

## 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.



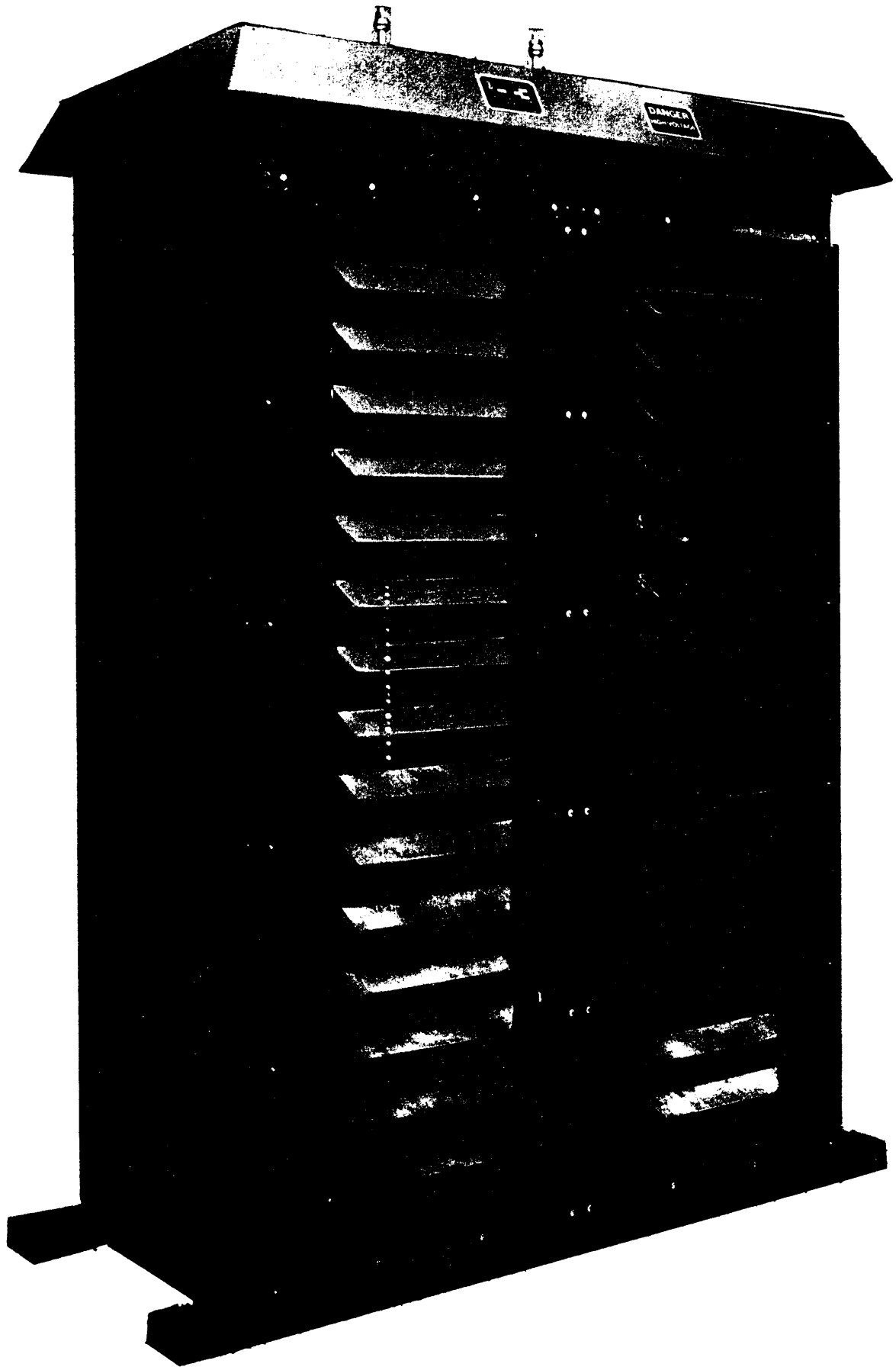


Figure 1. Transmitting Antenna Dissipater and Dummy Load, Model TER-18K-600BF

## 1. PURPOSE

Transmitting Antenna Dissipator and Dummy Load, Model TER-18K-600BF ( 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-18K-600BF is capable of dissipating RF energy in the order of 18 kilowatts average and 36 kilowatts peak, over a frequency range of 4 to 28 megacycles.

The TER-18K-600BF consists of two low-reactance glass resistors with two RF coil assemblies housed in a fiberglass reinforced plastic case.

## 3. TECHNICAL SPECIFICATIONS

FREQUENCY RANGE.	4 to 28 megacycles
AVERAGE POWER DISSIPATION.	18000 watts
PEAK POWER DISSIPATION.	36000 watts
INPUT IMPEDANCE.	600 ohms balanced
VSWR RATIO.	1.5 to 1
COOLING.	Convection cooling by means of screened vent ports.
INPUT TERMINALS:	2 large porcelain bowls.
OPERATING TEMPERATURE:	-40 <sup>o</sup> C. to +75 <sup>o</sup> C.
RESISTORS:	Special glass cyclinders 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.
PROTECTION:	Internal spark gaps for lightning protection.



### 3. TECHNICAL SPECIFICATIONS (Cont)

CASE MATERIAL:	Fiberglass reinforced plastic.
DIMENSIONS:	70 inches high by 47 inches wide by 26 inches deep.
WEIGHT:	285 lbs (Approx.)
VOLUME:	90 cubic ft. (Approx.)
COMPONENTS AND CONSTRUCTION:	All equipment manufactured in accordance with JAN/MIL specifications wherever practicable.

### 4. UNPACKING

When the TER 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 Material Corporation will assist in describing methods of repair and the furnishing of replacement parts.

### 5. INSTALLATION

The TER-18K-600BF is shipped in one crate and is completely assembled at the time of delivery. Each unit has been factory tested and arrives ready to be placed directly into service. No preliminary adjustments are necessary.

### 6. MAINTENANCE

The TER-18K-600BF normally requires no maintenance other than a periodic cleaning of electrical connections and a check that all external and internal connections are securely connected.

See Figure 2 for an inside view of the TER-18K-600BF.

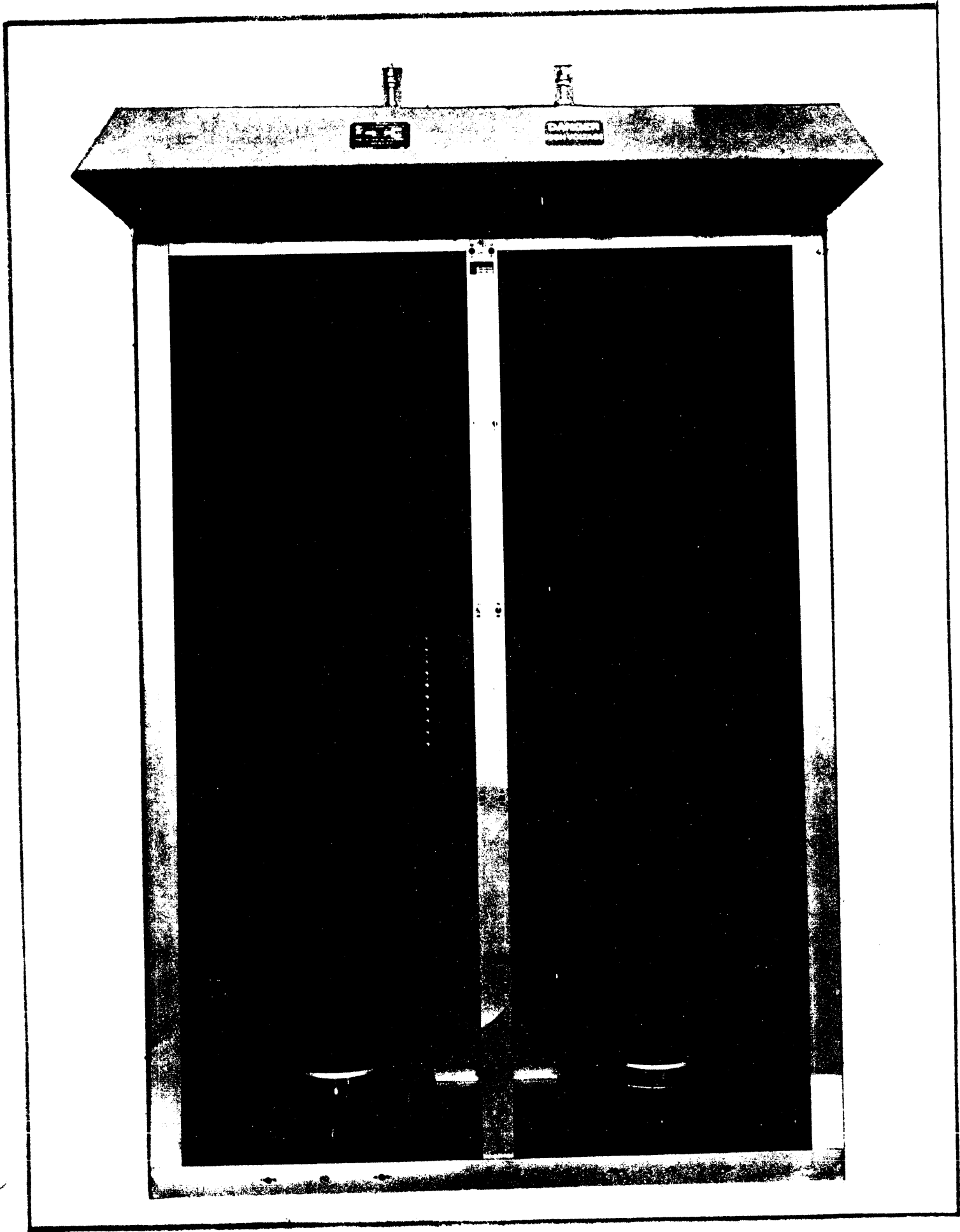


Figure 2. Model TER-18K-600BF, Inside View.