

DATE 3/27/58
SHEET 1 OF 4

TMC SPECIFICATION NO. S-605

D

LB
COMPILED

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CHECKED

TITLE: TEST PROCEDURE TER-25~~KA~~50 & TER-25KC-50

JR
APPROVED

TEST PROCEDURE
~~TER-25KA-50 &~~
TER-25~~KA~~50

DATE 10/12/61
SHEET 2 OF 4

TMC SPECIFICATION NO. S-605

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TITLE: TEST PROCEDURE TER-25KA-50

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TER-25KA-50 & TER-25KC-50

A. General

The TER-25K(-)50 is a dummy load capable of dissipating 25 Kilowatts of energy over the range of DC to 30 mc. With an input of 25 Kilowatts average power, the peak input must not exceed 50 KW peak to peak. Input power and reflected power are monitored with a 0-60KW directional radio-frequency wattmeter with an accuracy of ± 5 (five) % (per/cent);

Basically, the TER-25K(-)50 consists of 6 (six) 300 ohm, 3 Kilowatt, ± 5 (five) % (per/cent) resistors. The resistors are special glass cylinders with a resistive element electro-fused into the glass. The protective coating is a baked on silicone film. Electrical connections are made positive by fired-on silver bands.

Operation above 18 Kilowatts requires cooling which is provided by 4 fans mounted in the base of the unit.

B. Mechanical Inspection:

1. Inspect for any damage incurred during installation.
2. Inspect straps holding resistors to see that they are tight enough to prevent movement.
3. Check tightness of all other nuts and screws.
4. Check fuses for proper value (2 amps).

C. Electrical inspection:

1. Check all solder connections.
2. Inspect resistor contacts for good electrical connection.
3. Measure D.C. resistance of resistor from center connector of output termination to ground (should be $\pm 5\%$ 50 ohms).
4. Measure interlock circuit continuity at the interlock connector; check switches S101, S102, and S103 for proper performance.
5. Check meter pilot light continuity through interlock indicator.
6. Apply 110VAC, 60CPS to AC connector, turn AC power switch on, and check fans for correct direction of (Air Flow) rotation.

D. Adjustment and SWR Measurements

Equipment required

1. GPT-40K Transmitter

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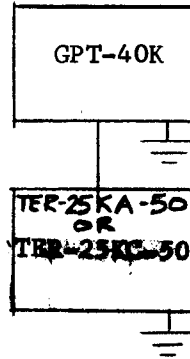
COMPILED

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TITLE: TEST PROCEDURE ~~TER-25K(-)50~~

APPROVED

TER-25KA-50 & TER-25KC-50



TEST PROCEDURE FOR ADJUSTMENT AND SWR MEASUREMENTS

E. Procedure:

1. Test set up.
2. Set capacitor plate distance 16 inches from front edge of frame.
3. Connect the input of the ~~TER-25K(-)50~~ to the output of the GPT-40K. At half power and 24MC tune the capacitor plate for minimum SWR using the SWR meter on the GPT-40K.
4. After tuning for minimum SWR at 24MC, check to see that the SWR at 4, 16, 24, and 28MC is under 1.2:1.

F. Power Check:

Turn Base fans on and check operation. Connect input of TER-25K(-)50 to output of GPT-40K. Drive output of transmitter to full power two tones. Check operation of Directional wattmeter at any test frequency if the ~~TER-25K(-)50~~ is supplied with one. Check power consumption for at least ten minutes. Check operation of all control circuits.

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TITLE: TEST PROCEDURE TER-25A-50

APPROVED

TER-25KA-50 & TER-25KC-50

TER-25KA-50 OR
TER-25KC-50

CHECK OFF SHEET

- (A) _____ (1) Mechanical Connections Secure.
_____ (2) All straps connected in proper position.
_____ (3) Proper fuses in fuseholders.
- (B) _____ (1) Wire connections mechanically strong with no cold solder joints.
_____ (2) DC Resistance _____ (must be between 47.5 and 52.5 ohms.)
_____ (3) Interlocks working properly.
_____ (4) Switch performing correctly.
_____ (5) Pilot light continuity.
_____ (6) Airflow in correct direction (up).
- (C) _____ (1) Adjustment and SWR Measurements

FREQUENCY (MCS) SWR ((Under 1.2:1)

4 _____
16 _____
24 _____
28 _____

- (D) _____ (1) Power Check

REVISION SHEET

**THE TECHNICAL MATERIEL CORP.
MAMARONECK NEW YORK**

TER-25KC-50

MODEL TER-25KC-50

PROJECT NO. _____

DATE	REV.	PAGE	EMN #	DESCRIPTION	CHK.	APP.
10/18/61	A	3	5740	Add Letter F, Power Check	}	15
		4		Add Letter D-1, Power Check		
3/16/62	B	2	6530	Chg. Freq. Res. to Adj. & SWR Meas. Del. Equip. Req.	}	16
				Add GPT-40K Transmitter		
		3		Revised and rewritten.		
		4		On check off sheet section, delete 8		
				Chg. letter C to D. On frequency change 16 to 24, delete 8. Chg. resistance to SWR chart. Delete reactance chart.		
3/23/62	C	2	6558	Chg. letter D Freq. Response to Adjustment & SWR Measurement. Dele. Equip. Req. add item 1 GPT-40K Transmitter.	}	16
		3		Chg. title from Test Procedure for Bridge Meas. to Test Procedure for Adj. & SWR Measurements. On No. 4 Chg. 2MC & 30MC to 16, 24, & 28MC.		
		4		On Check Off Sheet, Dele. items 1 & 2 under letter C. Add Adj. and SWR measurements to letter C. Chg. Power Check to letter D. On letter C Chg. Freq. + RESISTANCE to Freq. (MCS) + SWR (Under 1.2:1), Chg. Freq. from 2, 24, 30 to 4, 16, 24, 28. Delete Reactance chart.		
9-13-63	D	1,2,3,4	9991	Revised Sheets 1,2,3,4 per EMN		16