

DATE 5/15/56
SH. 1 OF 8
COMPILED BY

TMC SPECIFICATION NO. S-294

TITLE: PRODUCTION TESTING OF MODEL RTM

JOB E271P

APPROVED

A.J.S.

Instructions for the
PRODUCTION TESTING
OF
MODEL RTM

DATE 5/15/56

SH. 2 OF 8

COMPILED BY

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WJ *AJJ*

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1. Purpose and Description:

See Instruction Book

2. Test Equipment Required:

- 1) VTVM, Heath Kit, Model V-6.
- 2) Ohmmeter, Simpson, Model 260 or equivalent.
- 3) Audio Generator, Heath Kit, Model AO-1
or Heath Kit, Model AG-8
- 4) Oscilloscope, DuMont, Model 304-H
or Equivalent.
- 5) Load Resistor 5,000 Ω , 20W, RW110-30
- 6) Test Switch, SPST, ST-11-A
- 7) Variac, Type V5 or equivalent.

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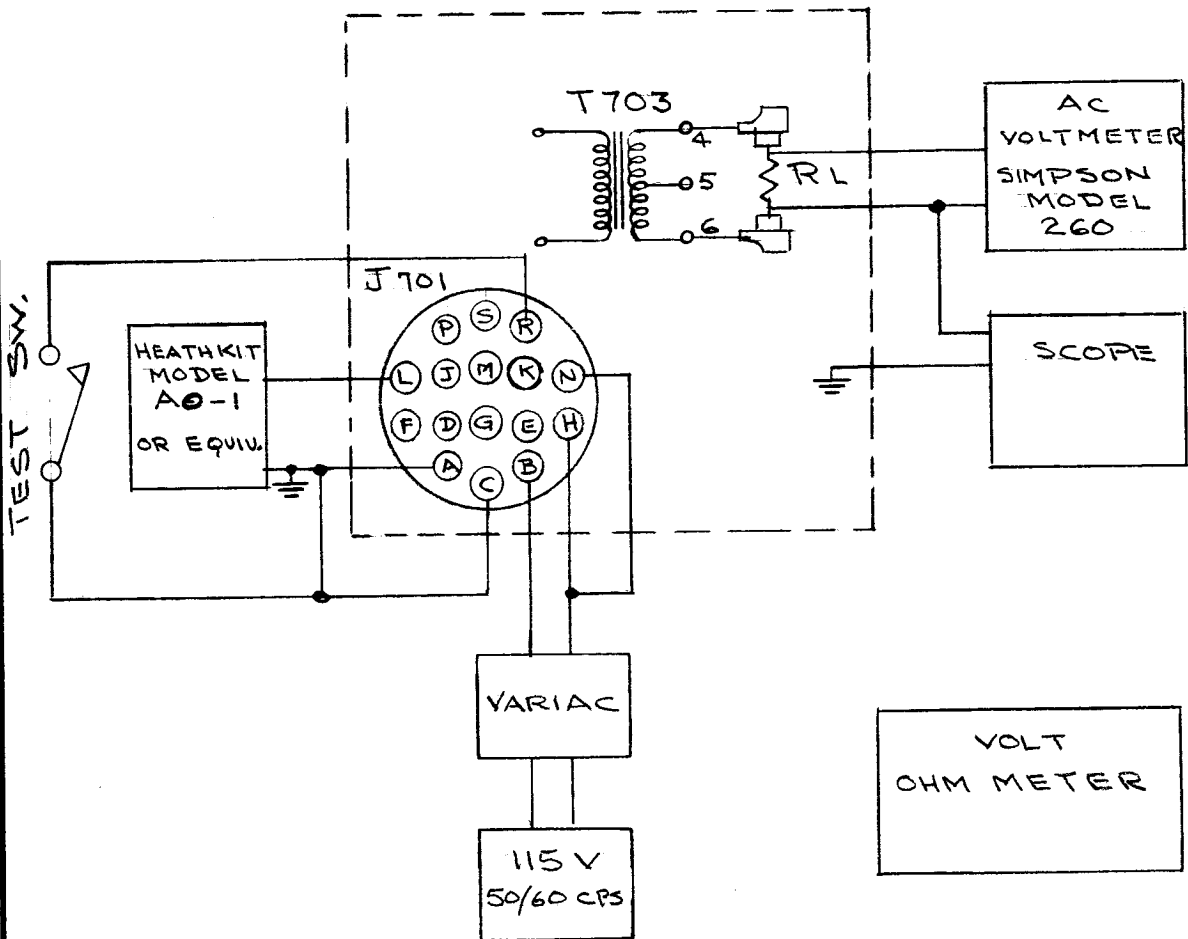
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3. General Instrument Layout:



REMOVE: V704 & V705
CONNECT THE LOAD RESISTOR

RL = 5K, 20W
TMC NO. RW-110-30

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4. Test Instructions:

- a) Proceed as outlined in Test Sequence and Procedure Paragraph 5 to follow.
- b) Fill in Blanks on Report Sheet, in the first part only, rejecting those units which do not meet the specifications stated herein.
- c) Sign Report Sheet and submit it to your supervisor.

5. Test Sequence and Procedure:

A. General Inspection

- a) Inspect the total unit for obvious mechanical imperfections.
- b) Inspect the total unit for obvious electrical imperfections. Be sure that R-711 is 5 K ohms.
- c) Carefully adjust the spark gap, using .203 inch gauge.
- d) Inspect the high voltage wiring: K-701, J-702, J-703, T-704, V-704, V-705. It must be in accordance with the schematic, CK-330 or CK-316.

B. Resistance Check

- a) Measure between the pins "P" and "S" of J-701: Resistance should be approximately .80 ohms.
- b) Measure for continuity between pin "F" of J701 and pin 2 of T-701.
- c) Measure resistance between pin "S" of J-701 and ground. Resistance must be 23 K-27 K ohms.

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C. Initial Rapid Check

- a) Connect the power, 115V at 60 cps, to pins "B" and "H and N", refer to General Instrument Layout, Paragraph 3A.
- b) Turn the power ON and observe if pilot light is on, voltage regulator operates and all filaments are being heated

D. Audio Amplifier and Modulator Drivers

- a) Connect the Audio Signal Generator to pins "A" and "L" of J-701, set at 1000 cps.
- b) Remove V-704 and V-705 from their sockets, (if any.)
- c) Connect 5,000 ohms, 20W Resistor to the grid connectors as shown in paragraph 3, General Instrument Layout.
- d) Connect Oscilloscope to one side of the load resistor, ground the other side of the scope.
- e) Connect the Simpson Model 260 A.C. Meter across the load.
- f) Turn the Level Control fully clockwise.
- g) Drive the Model RTM with .08 VRMS.
- h) Turn the Test Switch to ON position.
- i) The Output Voltage across the load should be approximately 220 VRMS. and the Relay K-701 must be in energized position.
- j) There should be no noticeable distortion (less than 5%) at the oscilloscope.

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E. Relay Test

- a) Place the Model RTM in its upright position.
- b) With the Test Switch in OFF position, measure for continuity between J-702 and J-703.
- c) With the Test Switch in ON position measure the resistance between J-702 and J-703. It must be 80 to 120 ohms.
- d) Set the variac for 100 VAC output to the Model RTM
- e) The VR tube must light.
- f) Adjust resistor R-708 for minimum current flow through the relay K-701, required to close it. Then flip the Test Switch ON and OFF a few times. The relay must have very little or no backlash.
- g) Disconnect the power.

Units which meet the specifications above are not ready for shipment. Final Test must be given in the assigned Cab/Frame as described in TMC Specification S-302.

One copy of report sheet must accompany each Model RTM.

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Test Report Sheet

MODEL RTM

PART I

ACCEPT

REJECT

TEST A, General Inspection

TEST B, Resistance Check

TEST C, Initial Rapid Check

TEST D, Audio Amplifier and
Modulator Drivers

TEST E, Relay Test

Serial Number _____

Accepted _____

Date _____

Rejected _____

Tested By _____

PART II

ACCEPT

REJECT

Power Output

Date _____

Tested By _____

MODEL RTM

REVISION SHEET

S-294

DATE	REV	PAGE	ITEM	DESCRIPTION	REMARKS	APP
7/27/56	A	3	7	Added	} <i>ajj</i>	
"	A	4	-	Variac added		
"	A	7	g	Added		
11/7/56	A	5	-	A. General Inspection, paragraph (b), Be sure that R-711 is 5 K ohms. added	} <i>ajj</i> <i>AJJ</i>	
11/7/56	A	5	-	B. Resistance Check, paragraph (c), Measure resistance between pin "S" of J-701 and ground. Resistance must be 23 K-27 K ohms. added		
12/9/56	B	5	-	Paragraph B of Test Instructions revised and retyped.	} <i>ajj</i> <i>AJJ</i>	
12/12/56	A	8	-	Part II added to test report sheet.		