

DATE 3/13/57
SH. 1 OF 7
COMPILED BY
O. I. P.

TMC SPECIFICATION NO. S-320

TITLE: PRODUCTION TESTING OF THE MODEL TTU

JOB

APPROVED W.P. A. J. J.

COMPLETE INSTRUCTIONS
FOR THE
PRODUCTION TESTING
OF THE
MODEL TTU

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TMC SPECIFICATION NO. S-380

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[Signature] A. J. J.

1. TEST EQUIPMENT REQUIRED

1. Power supply Model PS-2 or equivalent.
2. TRU Test Unit.
3. 600 ohm resistor $\frac{1}{2}$ W.
4. Simpson Model 260 voltohmmeter or equivalent.
5. Oscilloscope.
6. AC VTVM, Heathkit Model AV-2 or equivalent.
7. Counter Barkley Model 5500 or equivalent.

2. TEST INSTRUCTIONS

Proceed as outlined in paragraph 4, Test Sequence and Procedure ..
Fill in the blank spaces on the report sheet and submit them
to your supervisor.

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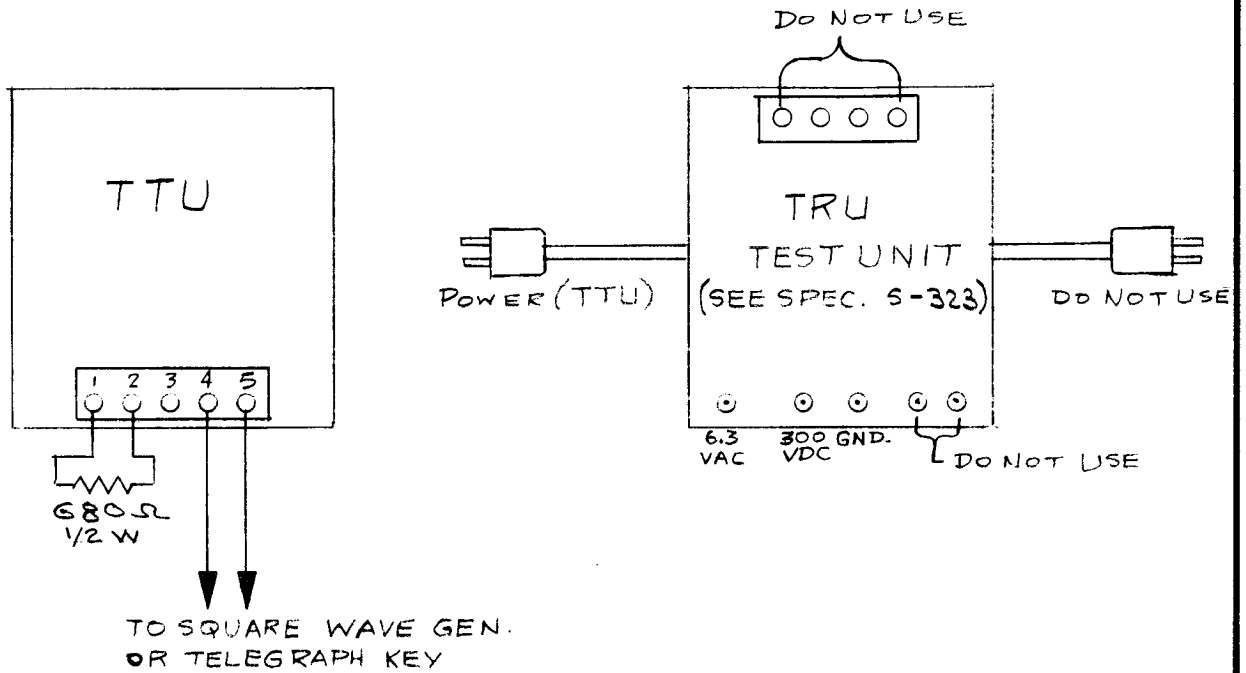
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3. GENERAL INSTRUMENT LAYOUT



VOLT
OHM METER
SIMPSON
MODEL 260

AC
VT VM
HEATHKIT

SCOPE

COUNTER

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4. TEST SEQUENCE AND PROCEDURE

A. GENERAL AND VISUAL INSPECTION

1. Inspect the unit for obvious mechanical and electrical errors.
2. Be sure that all screws are tight.

B. RESISTANCE TEST

1. Measure resistance to ground at the following locations:

Pin 1 of E 201	570 ohms - 730 ohms
Pin 1 of E 202	55 K - 71 K
Pin 6 of J 201	40 K - 40 K
Pin 5 of J 201	140 K - 180 K
Pin 5 of V 203	350 K - 450 K

C. OUTPUT TEST AND FREQUENCY ADJUSTMENT

1. Connect the unit to power supply using TRU Test Unit as described in paragraph 2, General Instrument Layout.
2. Rotate the Output Control (R211) fully clockwise for maximum output.
3. Rotate the Line Current Control (R220) fully clockwise.
4. Attach jumpers on E 202 for contact keying. Refer to schematic CK-259.
5. Connect 600 ohm load to terminals 1 and 2 of E 201.
6. Turn on the power.
7. Connect scope and AC Voltmeter across the load. The output voltage must exceed 2.0 volts R.M.S., and there must be no noticeable distortion at the scope.
- 7.1 Connect counter across the load & adjust C203 to the specified frequency.
8. Lift the key. The output, including hum must be down at least 50 db.
9. Turn off the power.

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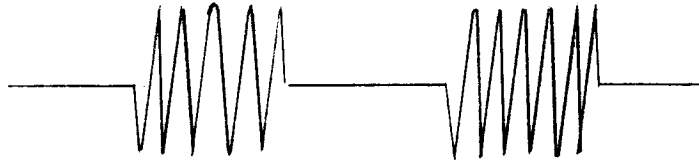
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D. BALANCE AND NEGATIVE KEYING

1. Place jumpers at E 202 for negative keying. Refer to CK-259.
2. Key the unit with a square wave generator set a 25 cps.
3. Turn on the power.
4. Observe the output waveforms and slowly adjust the balance control, R208, until the waveforms will appear as illustrated.



5. Turn off the power.

E. POSITIVE KEYING

1. Place jumpers at E 202 for positive keying. Refer to CK-259.
2. Reverse the leads from the square wave generator.
3. Turn on the power.
4. The output wave form must be exactly the same as observed during the negative keying.

The unit which has met the specifications above must be placed in its final form with cover plates on etc. and prepared for shipment. One copy of the Report Sheet must accompany the unit. Submit the other copy of the Report Sheet to your supervisor.

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SAMPLE
TEST REPORT SHEET
MODEL TTU

	<u>ACCEPT</u>	<u>REJECT</u>
A. GENERAL AND VISUAL INSPECTION	_____	_____
B. RESISTANCE TEST	_____	_____
C. OUTPUT TEST	_____	_____
D. BALANCE AND NEGATIVE KEYING	_____	_____
E. POSITIVE KEYING	_____	_____

SERIAL NUMBER _____

DATE _____

ACCEPTED _____

TESTED BY _____