

DATE 2/24/64

SHEET 1 OF 5

TMC SPECIFICATION NO. S-819

A

RGE
COMPILED

TRG
CHECKED

TITLE:

APPROVED *RH*

TEST PROCEDURE FOR MSA-1
AUDIO MODULE
AX-469

DATE 2/24/64
SHEET 2 OF 5

TMC SPECIFICATION NO. S -819

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TITLE: TEST PROCEDURE FOR MSA-1 AUDIO MODULE

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1. EQUIPMENT REQUIRED

- A. Test Jig
- B. LAMBDA PWR supply Model #25 or equivalent.
- C. R.F. Signal Generator measurements Model #82 or equivalent.
- D. VTVM Heath V-7A or equivalent.

2. PRELIMINARY CONNECTIONS

- A. Connect a ground buss between one of the 6.3 VAC terminals, 200-325 VDC minus terminal and the ground terminal on the power supply.
- B. Connect the Brown/White wire to the ungrounded 6.3 VAC terminal. Connect the Black wire to the grounded 6.3 VAC terminal.
- C. Connect the Red wire to the 200-325 VDC plus terminal. Connect the Black wire to the grounded 200-325 VDC minus terminal.
- D. Connect the 15 Pin connector to the Printed Circuit Board. (Note: the connector can not be attached the wrong way because of the attached metal flange.)
- E. Connect the Co-Axial Connector from the test jig to J-202 on the Audio Module.
- F. Connect a Co-Axial Cable from the Output of the RF Signal Generator to J-201 on the Audio Module.

3. PRELIMINARY ADJUSTMENTS

- A. Turn on the LAMBDA Power Supply. Adjust B+ to 200 VDC with DC Output Voltage Control. After 30 seconds, when the tubes on the Audio Module have warmed up, turn on the B+.
- B. Adjust frequency on the RF Signal Generator to 251.0 kilo cycles per second. Turn on RF Signal Generator and adjust Output Voltage to 12 millivolts. (Note: modulation should be turned OFF.)
- C. Turn knob on Test Jig fully counter-clockwise.

4. TEST PROCEDURE

- A. Adjust Output of RF Signal Generator until meter on Test Jig indicates 0 VU.
- B. Turn OFF B+ Switch on Power Supply.
- C. Attach the ground lead of the VTVM to the Buss Bar on the Audio Module. Attach the AC-OHMS Lead to PIN 1 of XV 201. Set the VTVM to the AC VOLTS Position and the Range Switch to the 1.5 Volt Full Scale position.
- D. Turn ON B+ Switch on Power Supply.
- E. Using an alignment tool, adjust L-201 on the Audio Module for the minimum indication. (Note: make sure that it is possible to get a null indication by approaching the null from both extremes.)

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F. Disconnect both VTVM Leads.

G. Rotate the knob on the Test Jig clockwise until the Line on the knob is pointing straight up. Adjust the Output of the RF Signal Generator until meter on the Test Jig indicates 0 VU. The Output of the Generator should be between 12 millivolts and 15 millivolts.

H. The indicator light on the Test Jig should be ON. Rotate the knob on the Test Jig clockwise. When the line on the knob is pointing to the Right the light should go off and the meter indication should drop to zero.

I. Rotate the knob counter-clockwise until the light goes back on and the meter again indicates 0 VU. The turn OFF and turn ON Points on the knob should be very close together.

J. Any variation in performance as listed in Steps 4.A through 4.J indicates malfunctioning of the Audio Module. (Note: the attached voltage chart indicates the proper voltages and may be used for trouble-shooting.)

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VOLTAGE CHART FOR AUDIO MODULE

B+ = 200 VDC FIL = 6.3 AC measured with Heath V-7A
VTVM

Output set for 0 DBM K-201 Energized.

PIN	1	2	3	4	5	6	7	8	9
V-201 DC	150	0	7			200	0	7	
(5814) AC				0	0				6.3
V-202 DC	62	-5	135			.15	5.5	6	115
(GEV8) AC				6.3	0				
V-203 DC	200	6.5	14.5			88	0	3.5	
(5814) AC				0	0				6.3
V-204 DC	85	0	3.5			190	0	9.5	
(5814) AC				0	0				6.3
V-205 DC	195	0	6.5			195	0	6.5	
(5814) AC				0	0				6.3

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TECHNICAL MATERIEL CORPORATION
MAMARONECK, N.Y.

TEST PROCEDURE AUDIO MODULE
AX-469

SERIAL NO. _____

MFG. NO. _____

1. Mechanical Check _____ ok.
2. Wiring Check _____ ok.
3. B+ should be 200V D.C.

4. L 201 Null _____ ok.
5. Signal Generator Input for OVU
on Test Jig _____ millivolts.
6. Indicator Light Test _____ ok.

DATE _____

TESTER _____

