


DATE <u>11-27-61</u>		TMC SPECIFICATION NO. S 619	A
SHEET <u>1</u> OF <u>6</u>			
O.P. COMPILED	CHECKED	TITLE: TESTING OF THE LFA-2	
 APPROVED			

COMPLETE TEST INSTRUCTIONS
FOR THE
TECHNICAL MATERIEL CORPORATION
MODEL LFA-2

DATE 11-27-61

SHEET 2 OF 6

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TEST EQUIPMENT REQUIRED

1. Distortion analyzer Model LP-1A.
2. Hewlett Packard VTVM Model 410B.
3. Oscilloscope.
4. 50 ohm 20W load.
5. ~~2~~ each, signal generators.

A. General Inspection

1. Inspect the unit for mechanical imperfections: knobs, switches, shafts etc.
2. Inspect the unit for electrical imperfections: wiring, cables, tubes etc.
3. Check for proper placement of tubes.

B. B+ Check

1. Connect power.
2. Turn on power and B+ switch.
3. Observe if all tubes are lit and measure B+ voltage at pin 3 and pin 7 of V3006 and at pin 3 and pin 7 of V3005.

C. Alignment of T-3004

1. Connect signal generator set to 1.7V at 1 MCS to J3001.
2. Connect RF VTVM to pin 1 of V3002.
3. Tune both slugs of T3004 for maximum output.
4. Connect RF VTVM to pin 5 of V3002.
5. Retune both slugs of T3004 for maximum output and lock the slugs.
6. The voltage of pin 5 of V3002 must be approximately .6V, record the voltage on the report sheet.

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D. Overall Gain Measurement

1. Connect load to J3003.
2. Connect second signal generator to J3002 set at 2V and 2.5MCS.
3. Turn the output control fully clockwise.
4. Observe the output meter, it should read approximately 6.5 divisions. Enter the number on the report sheet.
5. Connect VTVM to the load. The voltage must be approximately 16V. Enter the voltage into the report sheet.
6. If difficulties are encountered, make gain measurements of individual stages using Charts 1 and 2.
7. Connect oscilloscope to J3004. The scope must show no visible harmonic distortion or clipping of the sinewave.

NOTE: This unit is not ready for shipment. See S-620

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VOLTAGE CHART 1

FREQ. = 500KC
INPUT = 1 tone 2V
OUTPUT = 5 watts (16 volts)
TERMINATION = 50 ohms

1 MC INPUT---1.7V

SYMBOL	TUBE	VOLTAGE	VOLTAGE CHART 1										
			1	2	3	4	5	6	7	8	9		
V3001	6AB4	AC DC	2.45 83.0				6.3			1.65 -1.9			
V3002	6BE6	AC DC	2.85 -2.5	0.6 0.78			6.3	6.0 220.0		92.0		0.4 -0.1	
V3003	6C4	AC DC	0.35 175.0				6.3			0.1		2.5	
V3004	12AT7	AC DC	3.6 200.0	0.23		1.5	6.3	6.3		3.0 220.0		0.22 1.5	
V3005	6GK6	AC DC	13.0	4.6			6.3					82.0 305.0	305.0 13.0
V3006	6GK6	AC DC	13.0	4.8			6.3					82.0 305.0	305.0 13.0
V3007	5R4GTB	DC AC		320.0 170.0			-2.5 440.0			-2.5		170.0	320.0

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VOLTAGE CHART 2

INPUT = No Signal
 OUTPUT = No Signal

SYMBOL	TUBE	VOLTAGE	1 2 3 4 5 6 7 8 9											
V3001	6AB4	DC AC	58.0				6.3			-24				
V3002	6BE6	DC AC		0.9			6.3	220.0		72.0				
V3003	6C4	DC AC	180.0				6.3				2.8			
V3004	12AT7	DC AC	208.0			1.5	6.3	6.3		205.0			1.5	
V3005	6GK6	DC AC	15.0				6.3				305.0	305.0	305.0	15.0
V3006	6GK6	DC AC	15.0				6.3				305.0	305.0	305.0	15.0
V3007	5R4GTB	DC AC		320.0 170.0			-2.0 440.0			-2.0 440.0			320.0 170.0	

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TEST REPORT SHEET

ACCEPT

- A. General inspection _____
- B. B+ Check _____
- C. a) Alignment of T-3004 _____
- D. b) Voltage of pin 5 of V-3002 _____ V
- D. Overall gain _____
- 4. Output meter reading _____
- 5. Output voltage reading _____ V
- 7. Harmonic distortion _____

Serial No. _____

Date _____

Tested by _____

