DATE 19 January 1965	TMC SPECIFICATION NO. S - 837	0
SHEET 1 OF 6		
R.DeV COMPILED / CHECKED	TITLE:	
APPROVED	Typed by mtp	

TEST PROCEDURE

for

BSP-4 & -5

DATE 19 January 1965 SHEET 2 OF 6	TMC SPECIFICATION NO. S - 837	0
R. DeV. COMPILED / CHECKED	TITLE: TEST PROCEDURE FOR BSP-5 & -5	
APPROVED	Typed by mtp	

A. TEST EQUIPMENT REQUIRED

1. Audio Signal Generator - Hewlett-Packard Model 200CD or equivalent.
2. Distortion Meter - Barker-Williamson Model 410 or equivalent.
3. Wave Analyzer - Hewlett-Packard Model 302A or equivalent.
4. 47 ohm, 2 watt, composition resistor.

B. PRELIMINARY

1. Inspect unit for obvious mechanical defects.

C. PROCEDURE

1. Turn all gain controls fully counter-clockwise.
2. Disconnect speaker from equipment under test.
3. Substitute Dummy Load (47 ohms, 2 watts) for loudspeaker.
4. Connect signal generator to 600 ohm terminals of terminal board.
5. Connect wave analyzer to outside lugs of volume control potentiometer, (ground connection to braided side).
6. Set analyzer controls as follows:

MAX INPUT VOLTAGE to	1
VOLTS RANGE to	1
MODE SELECTOR to	NORMAL
FREQUENCY to	1 KC

7. Set signal generator for 1000 cps at approximately .5 volts (scale division 20 on amplitude control).
8. Adjust ZERO set on wave analyzer carefully for a peak.
9. Adjust signal generator for a -6 db or .4 V indication on analyzer meter.
10. Disconnect analyzer from volume control potentiometer.
11. Apply power to equipment under test by plugging in line cord. This applies power to all units if more than one is on panel.

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12. Re-connect wave analyzer to dummy load, insuring that "hi-side" is on terminal of dummy load with green lead, and that ground is on terminal of dummy load with black lead.

13. Turn MAX INPUT VOLTAGE control on wave analyzer to 10.

14. Adjust volume control of equipment under test for a 6.7 V (1 watt) indication on wave analyzer. Record on Test Data Sheet.

15. Disconnect signal generator. Observe 60 cps hum level by turning FREQUENCY control on wave analyzer to approximately 60 cps. Vary control around 60 cps. If no indication is seen, go to next lower range on RANGE VOLTS control; again vary FREQUENCY control. Continue this process until an indication is seen on meter. Record on test data sheet. Must be at least 40 db down from original 2 volt signal.

16. Disconnect wave analyzer.

17. Re-connect signal generator.

18. Connect distortion meter to outside lugs of volume control potentiometer, observing polarity as in Step 5 above.

19. Set distortion meter controls as follows:

DISTORTION FREQUENCY to	VOLTS
RANGE to	1 VOLT

20. Adjust signal generator for 400 cps and -6 dbm or 0.4 V indication on distortion meter.

21. Disconnect distortion meter from volume controls; re-connect to dummy load observing polarity as in Step 12 above.

22. Turn RANGE switch to 10 volts.

23. Adjust volume control of BSP for a 6.7 V indication on distortion meter.

24. Turn DISTORTION FREQUENCY switch to 200 to 2K position.

25. Turn RANGE switch to 100%.

26. Adjust FREQUENCY AND AMPLITUDE COARSE controls for a dip.

27. Turn RANGE switch to 30%.

28. Repeat Step 26 above.

29. Turn RANGE switch to 10%.

30. Adjust FREQUENCY and AMPLITUDE fine controls for a dip.

31. Turn RANGE switch to 3%.

32. Repeat Step 30 above.

33. Turn RANGE switch to -10 CAL.

34. Adjust CALIBRATE control for 10 V on 10 V scale.

35. Return RANGE switch to 3%.

36. Adjust FREQUENCY and AMPLITUDE fine controls again for a dip. Record on test data sheet. Must be less than 2%.

37. Return RANGE switch to 1 volt position.

38. Return DISTORTION FREQUENCY switch to VOLTS position.

39. Remove distortion meter leads from dummy load. Re-connect to volume control as in Step 18 above.

40. Adjust generator for 200 cps at -6 dbm or .4 V on distortion meter.

41. Remove distortion meter leads from volume control and re-connect as in Step 18.

42. Turn RANGE switch on distortion meter to 10 V position.

43. Turn volume control fully clockwise. Distortion meter must read more than 4.8 volts. Record on test data sheet.

44. Adjust signal generator for 1000 cps. Distortion meter must read more than 6.7 volts (1 watt). Record on test data sheet.

45. Repeat above procedures, 1 through 44, for each amplifier if more than one is mounted on panel.

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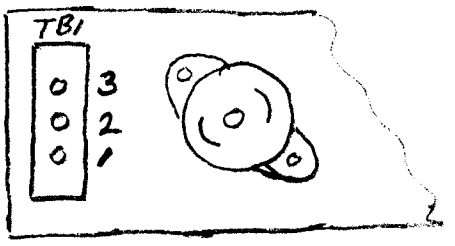
FIGURE 1



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THE TECHNICAL MATERIEL CORP.
700 FENIMORE RD.
MAMARONECK, N.Y.

TEST DATA SHEET FOR BSP

SER. NO.: _____

MFG. NO.: _____

		1	2
A.	MECHANICAL	___	___
B.	HUM LEVEL AT 1-WATT OUTPUT	___DB___	___DB___
C.	DISTORTION, 400 CPS, 1-WATT OUTPUT	___%	___%
D.	RESPONSE, LESS THAN 3 DB DOWN FROM FULL OUTPUT, AT 200 CPS	___DB	___DB
E.	OUTPUT AT 200 CPS	___VOLTS	___VOLTS
F.	OUTPUT @ 1000 CPS WITH -6 DBM IN (.40 VRMS) AT LEAST 1 WATT OUTPUT (6.7 VOLTS).	___VOLTS	___VOLTS

TESTED BY: _____

DATE: _____

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REVISION SHEET

THE TECHNICAL MATERIEL CORP.
MAMARONECK NEW YORK

S-837 0
LIST NO.

DATE	REV.	SHEET	EMN #	DESCRIPTION	APP.
1/19/65		1 of	6	O=ORIGINAL RELEASE FOR PRODUCTION.	