

DATE 26 June 1964  
SHEET 1 OF 4

TMC SPECIFICATION NO. S 833

A

NAB  
COMPILED

JSL  
CHECKED

TITLE:

APPROVED



TEST PROCEDURE  
for  
BSP-1A, 2A, and 3A

DATE 26 June 1964  
SHEET 2 OF 4

# TMC SPECIFICATION NO. S-833

A

COMPILED

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TITLE: TEST PROCEDURE FOR BSP-1A, 2A and 3A

APPROVED

A. TEST EQUIPMENT REQUIRED

1. Audio Signal Generator - Hewlett-Packard Model 200 CD or equivalent.
2. Distortion Meter - Barker-Williamson Model 410 or equivalent.
3. Ballantine Model 314 AC Voltmeter.
4. Three 12 ohm, 1 watt, 5% resistors.

B. PRELIMINARY

1. Remove cover(s), (depending on which model BSP is being tested) by removing four screws (2 each on front and rear) of amplifier.
2. Inspect unit for obvious mechanical defects.

C. PROCEDURE

1. Turn all gain controls fully counter-clockwise.
2. Disconnect speaker from equipment under test.
3. Connect Dummy Load (three 12 ohm, 2 watt resistors in parallel) to terminals 9 and 10 of terminal board.
4. Connect Signal Generator to outside lugs of volume control potentiometer. "Hiside" to red lead.
5. Connect distortion meter to outside lugs of volume control potentiometer, observing polarity.
6. Set distortion meter controls as follows:  

DISTORTION FREQUENCY to	VOLTS
RANGE to	1 VOLT
7. Adjust Signal Generator for 400 cps and a zero dbm, or .79V indication on distortion meter.
8. Disconnect distortion meter from volume control; re-connect to dummy load "Hiside" to red lead.
9. Turn RANGE switch to 3 volts.

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10. Adjust volume control of BSP for a 2 volt indication on distortion meter. Record on test data sheet.
11. Turn DISTORTION FREQUENCY switch to 200 to 2K position.
12. Turn RANGE switch to 100%.
13. Adjust FREQUENCY AND AMPLITUDE COARSE controls for a dip.
14. Turn RANGE switch to 30%.
15. Repeat Step 13 above.
16. Turn RANGE switch to 10%.
17. Adjust FREQUENCY AND AMPLITUDE fine controls for a dip.
18. Turn RANGE switch to 3%.
19. Repeat Step 17 above.
20. Turn RANGE switch to -10 CAL.
21. Adjust CALIBRATE control for 3V on 3V scale.
22. Return RANGE switch to 3%.
23. Adjust FREQUENCY AND AMPLITUDE fine controls again for a dip. Record on Test Data Sheet. Must be less than 2%.
24. Return RANGE switch to 1 volt position.
25. Return DISTORTION FREQUENCY switch to VOLTS position.
26. Observe reading on distortion meter. Should still be 2 volts.
27. Vary signal generator from 300 cps to 6000 cps. Should not vary more than  $\pm 2$ db from 2 volt indication. Record on test data sheet.
28. Reduce signal generator frequency to 200 cps. Must be at least 3db down from 2 volt indication. Record on test data sheet.
29. Disconnect distortion meter leads from dummy load. Connect Ballantine across dummy load.
30. Remove signal generator input. Observe hum level by turning range knob on Ballantine meter to successively lower scale until a reading is observed. Must be at least -40db. Record on test data sheet.

DATE 8/13/64  
SHEET 4 OF 4

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

## BSP TEST DATA SHEET

B.2.	MECHANICAL	1. _____	2. _____	3. _____
C.10.	GAIN AT 400cps AT LEAST 2 VOLTS	_____ V	_____ V	_____ V
C.23.	DISTORTION AT 400cps 1 WATT OUTPUT, MUST BE LESS THAN 2%	_____ %	_____ %	_____ %
C.27.	FREQUENCY RESPONSE 300cps to 6000cps $\pm 2$ db FROM 1 WATT OUTPUT AT 400 cps.	_____ db	_____ db	_____ db
C.28.	FREQUENCY RESPONSE AT 200cps. MUST BE AT LEAST 3db DOWN FROM 1 WATT OUTPUT AT 400cps.	_____ db	_____ db	_____ db
C.30.	HUM LEVEL AT 1 WATT OUTPUT	_____ db	_____ db	_____ db

