

DATE <u>9/6/62</u>		TMC SPECIFICATION NO. S - 715	A
SHEET <u>1</u> OF <u>4</u>			
RK COMPILED	<i>RK</i> CHECKED	TITLE:	
APPROVED <i>BP</i>			

HSP-2 TEST PROCEDURE

DATE <u>9/6/62</u>		TMC SPECIFICATION NO. S - 715	A
SHEET <u>2</u> OF <u>4</u>			
RK COMPILED	<i>RK NP</i> CHECKED	TITLE: HSP-2 Test Procedure	
APPROVED			

I. INTRODUCTION: The HSP-2 is an audio switching & filter panel for use in DDR-5 type receiver systems. The unit provides selection of 2 audio outputs at 4 ohms to be fed to a speaker panel and includes volume controls for each. The unit also provides RF filtering for the 600 ohm ODBM lines of each receiver of a diversity or dual configuration. In addition, the HSP-2 has a front panel switch for combining the AGC lines of two receivers when in diversity.

II. EQUIPMENT REQUIRED:

1. Multimeter, Simpson 260 or equivalent.
2. Speaker or Speaker Panel, 4 ohms nominal impedance.
3. Audio Signal Generator, Hewlett Packard Mo. 200 AB or equivalent.
4. 600 ohm resistors, 1/2 watt - 4 required.
5. Audio VTVM, Heathkit Mo. AV-3 or equivalent.

III. PROCEDURE:

1. Plug in the audio Signal Generator and allow it to warm up. Adjust the output frequency to 1KC.
2. Set the AGC switch on the HSP-2 to the SEPARATE position.
3. Set both volume controls on the HSP-2 maximum clockwise.
4. Set both CHANNEL selectors on the HSP-2 to OFF.
5. On the rear of the HSP-2 are three terminal strips; one labeled RECEIVER 1, one labeled RECEIVER 2, and one unlabeled save for the connections. Below is a resistance chart. The terminals on the strips are numbered left to right looking at the rear of the chassis.

<u>FROM</u>	<u>TO</u>	<u>RESISTANCE</u>
Strip RECEIVER 1 terminal 9	RECEIVER 2 terminal 9	0
Strip RECEIVER 1 terminal 11	Strip RECEIVER 2 terminal 11	0
Strips RECEIVER 1 & 2 terminals 4,8,10	GND	0
Strip RECEIVER 1 terminal 13 (AGC)	Strip RECEIVER 2 terminal 13 (AGC)	open circuit

Record on Test Data Sheet.

- 5(a) Set the AGC switch on the HSP-2 to COMBINED.

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5(a) Cont'd

<u>FROM</u>	<u>TO</u>	<u>RESISTANCE</u>
Strip RECEIVER 1 terminal 13 (AGC)	Strip RECEIVER 2 terminal 13 (AGC)	Approx. 0.5 ohms

Record on Test Data Sheet.

6. Connect the speaker between terminals 16 and 12 on strip RECEIVER 1.
7. Connect the signal generator between terminal 14 and ground, RECEIVER 1.
8. Set the CHANNEL selector corresponding to RECEIVER 1 to 'A' position. An audio note should be heard. Record on Test Data Sheet.
9. Turn the VOLUME control for RECEIVER 1 counter-clockwise. The volume should decrease. Reset to maximum volume. Record on Test Data Sheet.
10. Connect the signal generator between terminal 15, RECEIVER 1, and ground.
11. Set the CHANNEL selector corresponding to RECEIVER 1 to 'B' position. An audio note should be heard. Record on test data sheet.
12. Turn the VOLUME control for RECEIVER 1 counterclockwise. The volume should decrease. Reset to maximum volume. Record on Test Data Sheet.
13. Repeat steps 6 through 12 using the strip marked RECEIVER 2. Record on Test Data Sheet.
14. Connect a 600 ohm resistor between terminals 2 & 4, 6 & 8, 10 & 12, 14 & 16 on the unmarked strip.
15. Connect a VTVM across terminals 2 & 4 on the same strip.
16. Connect the signal generator between terminals 1 & 3 on the strip marked RECEIVER 2. A voltage equal to the generator output should appear on the VTVM. Record on Test Data Sheet.
17. Connect the signal generator between terminals 5 & 7 on the strip marked RECEIVER 2. A voltage equal to the generator output should appear across terminals 6 & 8 on the unmarked strip. Record on Test Data Sheet.
18. Repeat steps 15 thru 17 using the strip marked RECEIVER 1. The generator voltage will appear across terminals 10 & 12, and 14 & 16 respectively. Record on Test Data Sheet.

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NP COMPILED	<i>RK N.P.</i> CHECKED	TITLE: <u>HSP-2 T st Proc dure</u>	
APPROVED			

THE TECHNICAL MATERIEL CORP.

MAMARONECK, N.Y.

HSP-2 TEST DATA SHEET

SERIAL NO.: _____

MFG. NO.: _____

- III. 5. Resistance measurements-----OK
 - 5(a). AGC line-----ohms
 - 8. RECEIVER 1, CHANNEL A position-----OK
 - 9. RECEIVER 1, VOLUME control action-----OK
 - 11. RECEIVER 1, CHANNEL B position-----OK
 - 12. RECEIVER 1, VOLUME control action-----OK
 - 13. RECEIVER 2, A & B positions & control
action-----OK
 - 16. RECEIVER 2, CHANNEL A 600 ohm line-----OK
 - 17. RECEIVER 2, CHANNEL B 600 ohm line-----OK
 - 18. RECEIVER 2, CHANNEL A & B 600 ohm lines--OK

DATE: _____

TESTER: _____

