DATE 8/10/62 SHEET 1 OF 5	TMC SPECIFICATION NO. S 674	D
ARF COMPILED / N.P. CHECKED	TITLE:	
APPROVED BF		

HAF-1 TEST PROCEDURE

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 459M

DATE 5-10-62 SHEET 2 OF 5	TMC SPECIFICATION NO. S 674	D.
ARF COMPILED / N.P. CHECKED	TITLE: HAF-1 TEST PROCEDURE	
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I TEST EQUIPMENT

A. Counter, Berkeley Model 5500 (or equivalent)
B. AC VTVM, Ballantine Model 300H. (or equivalent)
C. Audio Generator, Hewlett Packard 200AB. (or equivalent)
D. Resistors ($\frac{1}{2}$ watt), 1.5K, 2.2K, 810, and 1K.

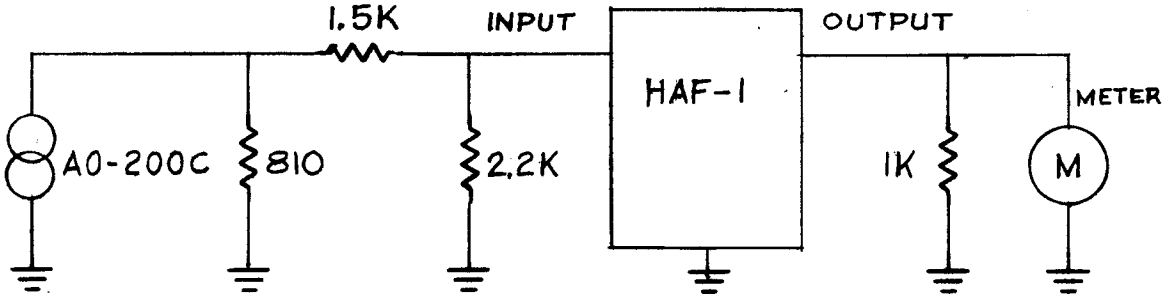
II PRELIMINARY

A. Check for mechanical defects, such as ganged switch alignment, loose couplings, etc.
B. Insure all knobs are located in their first position, (i.e. low-cut off in OUT position and high cut-off in .1KC position and their respective switch wafers are in the first position.

III TEST SET-UP

A. Connect audio input from the pad to the channel A audio input jack, J-7200; the load and metered output to J-7201 as in figure 1.

FIGURE: 1



B. Set all four front panel switches to OUT position, and the audio generator to 1KC at 1.0 volt (0 db reference point) across the 1K load resistor.

C. After setting the 0 db reference point as in III B measure the input voltage to the HAF-1. (After the Pad). Both voltages should be the same.

D. Place the Channel A High Cut-Off switch to the 5KC position. There should be practically no change in voltage. Less than .2DB. This is the insertion loss. Record on test data sheet.

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IV TESTING OF THE HIGH CUT-OFF FILTERS

A. Place the Channel A High Cut-Off switch to the .1KC position. Starting at the first peak below the reference frequency (see chart), vary the audio signal generator through the switch frequency. Record the 3 db drop off point on the test data sheet. Should be within 30% of the indicated switch frequency. Continue variation of the audio signal generator to the 60 db drop off point to insure a continuous decline in attenuation of the higher frequencies beyond the 3 db drop off point.

B. Repeat IV (A) with the remaining positions on this switch, then return to the OUT position.

C. Repeat IV (A & B) with the Channel B High Cut-Off switch, but using the Channel B input and output jacks, J-7202 and J-7203, respectively.

V TESTING OF THE LOW CUT-OFF FILTERS

A. Place the channel "B" low cut off switch to the .1KC position. Starting at the first peak above the reference frequency (see chart), vary the audio oscillator through the switch frequency. Record the 3db drop off point on the test data sheet. Should be within 30% of the indicated switch frequency. Continue variation of the audio signal generator to the 60 db drop off point to insure a continuous decline in attenuation of the lower frequencies beyond the 3 db drop off points.

B. Repeat V (A) with the remaining positions on this switch, then return to the OUT position.

C. Repeat V (A & B) with the Channel A Low Cut-Off switch, but using the Channel A input and output jacks, J-7200 and J-7201, respectively.

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MAMARONECK, N.Y.

HAF-1 TEST DATA SHEET #1

SERIAL NO._____
MFG. NO._____

A. MECHANICAL_____OK

B. INSERTION LOSS LESS THAN .2db_____OK

C. Below is a chart with the 3db drop-off points on the different switches in their respective positions.

SWITCH POS IN KCS		REFERENCE FREQUENCY KC	CHANNEL B HIGH CUT-OFF -3db POINT
.1		.070	CPS
.25		.100	CPS
.5		.300	CPS
1		.600	CPS
2.5		1.0	CPS
5		3.0	CPS
10		8.0	CPS
			CHANNEL B LOW CUT-OFF -3db POINT
.1		.130	CPS
.25		.400	CPS
.5		.600	CPS
1		1.4	CPS
2.5		3.5	CPS
5		6.0	CPS
10		12.0	CPS

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HAF-1 TEST DATA SHEET #2

SWITCH POS IN KCS		[redacted] FREQUENCY KC	CHANNEL A HIGH CUT-OFF -3db POINT -3
.1		.070	CPS
.25		.100	CPS
.5		.300	CPS
1		.600	CPS
2.5		11.0	CPS
5		3.0	CPS
10		8.0	CPS
			CHANNEL A LOW CUT-OFF -3db POINT
.1		.130	CPS
.25		.400	CPS
.5		.600	CPS
1		1.4	CPS
2.5		3.5	CPS
5		6.0	CPS
10		12.0	CPS

DATE _____

TESTER _____

REVISION SHEET

THE TECHNICAL MATERIEL CORP.
MAMARONECK NEW YORK

S-674

MODEL HAF-1 PROJECT NO. _____

DATE	REV.	PAGE	EMN #	DESCRIPTION	CHK.	APP.
8/17/62	A	4	7109	Chg. Tolerance Cycle: from: ±100,±200,±300,±500,±1000		
				to: ±200,±300,±700,±1000,±2000		
		5		On Channel "B" HIGH CUT OFF, Chg. Tolerance		
				from: ±100,±200,±300,±500		
				to: ±200,±300,±700,±1000		
				On Channel "B" LOW CUT OFF, Chg. Tolerance		
				from: ±100,±200,±300,±500,±200		
				to: ±200,±300,±700,±1000,±2000		
10/15/62	B	2	7477	Dele. Sentence; "It should be less than 1 db"		
		4&5		Dele. "Tolerance Cycles" column		
5/25/64	C	-----	11453	Revised Shts. 2,3,4,5 per EMN		
7/21/64	D	4,5	11869	Revised shts. 4,5 per EMN		