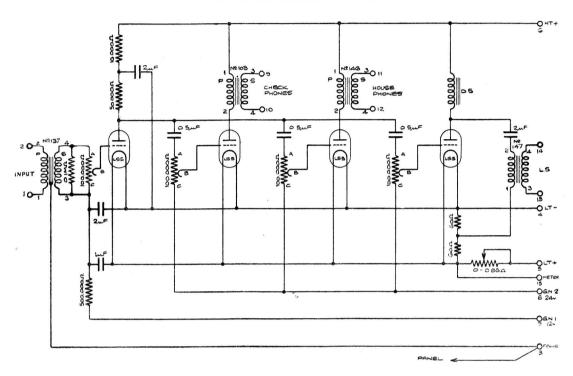
AMPLIFIER TV/5



Drawing A.1707, Issue 4

This trap valve amplifier is connected in the output circuit of the 'B' amplifier and is used at Belfast, Birmingham, Bristol, Cardiff, Edinburgh, Leeds and Newcastle. It has three independent outputs which feed checkphone, housephone, and loudspeaker circuits respectively. The maximum load for which each of these circuits is designed is as follows:—

Checkphones	 	 	4 pairs of headphones.
Housephones	 	 	20 ,, ,, ,,
Loudspeakers	 	 	30 LSM/1 or LSM/3 amplifiers.

Circuit

It is a two-stage amplifier with three output stages fed in parallel, via a resistance-capacity coupling, from the output of the first stage. Simple transformer coupling is used in two of the output stages which feed the checkphone and housephone circuits, but in the other output stage which feeds the loudspeaker circuits the output of the valve is choke-capacity coupled to the output transformer.

AMPLIFIER TV/5

Technical Instructions

Item 3 (TV/5). July, 1938

Impedances						
Input impedances	 			 (approx)	14,000	ohms.
Output impedances						
C.P. Output	 			 (approx)	500	ohms
H.P. "	 			 (approx)	50	ohms
L.S. "	 	• •	٠	 (approx)	55	ohms

Transformers

				Impedance	Turns
			Number	Ratio	Ratio
Input	 	 	137	1/4	1/2
C.P. Output	 	 	103	12/1	3.46/1
H.P. ,,	 	 	146	120/1	11/1
L.S. ,,	 	 	147	120/1	11/1

Volume Control

Continuously variable potentiometer of resistance 100,000 ohms.

Supply Data

Stage Valve		Valve	Grid Bias			Anode	e Cur	rent	Filaments		
	· · · · · ·		Vol	ts nega	tive	mA	(appr	cox.)	Volts	Amps	
	1	LS 5		12			3.0		5	0.8	
	2 (Each)	${ m LS}~5$		24		2	4.0		5	0.8	
						_					
			Tot	tal		7	5.0			3.2	
Hi	gh Tension Su	upply						volts			
Lo	w Tension Su	pply	• •	• •	• •		6		djusted 1 resistance	to 5V by a e).	

Working Voltage Gain

Testing Conditions

Volume control set for maximum output

Gain at 1,000 c/s.

C.P. Output (loaded with 1,000 ohms and at a	
level of approx. $+10$ db.)	16 ± 2 db.
H.P. Output (loaded with 100 ohms and at	
approximately zero level)	6 ± 2 db.
L.S. Output (loaded with 100 ohms and at a	
level of approx. $+ 1$ db.)	6 ± 2 db.