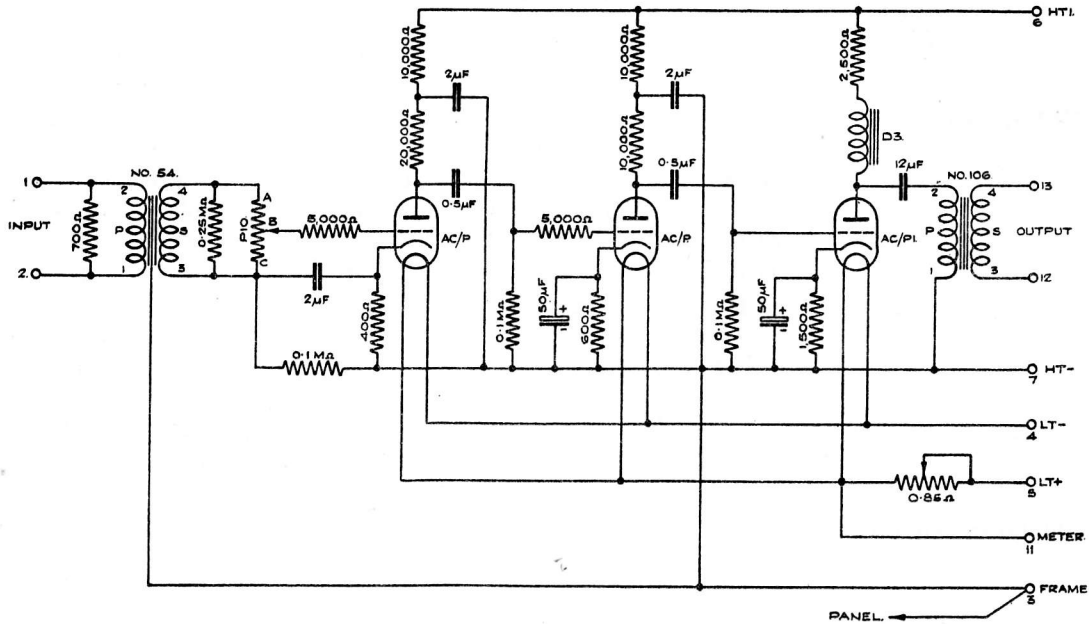


AMPLIFIER B/4A



Drawing A.4960. Issue 1.

This amplifier is used at **Edinburgh**. It is normally operated with an output volume of + 10 db.

Circuit

It is a three-stage amplifier with screened input transformer and resistance-capacity coupling between stages. The output stage is choke-capacity coupled to the output transformer. The volume control operates in the input to the first stage and the grid bias for all stages is automatic.

Impedances

Input impedance	(approx) 600 ohms
Output impedance	(approx) 300 ohms
Normal load impedance	(approx) 6,000 ohms

Transformers

	Number	Impedance Ratio	Turns Ratio
Input	54	1/10.9	1/3.31
Output	106	10/1	3.16/1

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 Technical Instructions
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Volume Control

Type	Total Resistance	No. of Studs	Loss per Stud	Loss on Lowest Stud
P.10	100,000 Ω	10	4 db	Infinite

Supply Data

Stage	Valve	Automatic	Anode Current	Filament	
		Grid Bias		Volts	Amps
		Volts negative	mA (approx)		
1	ACP	3	8	4	1
2	ACP	6	10	4	1
3	ACP 1	28.5	19	4	1
			—	—	—
		<i>Total</i>	37		3
	High Tension Supply	.. .. .	300 volts		
	Low Tension Supply	.. .. .	6 volts (adjusted to 4 V by a series resistance)		

600 Ohm Test Gain

Testing Conditions

Volume control for maximum output.

Loss Pads key set at 60 db.

T.M.S. sending level	.. .. .	.. .. .	.. .. .	.. .. .	- 20 db.	
Gain at 1,000 c/s.	.. .. .	.. .. .	.. .. .	.. .. .	42 \pm 2 db.	} Relative to gain at 1,000 c/s.
Gain at 50—5,000 c/s.	.. .. .	.. .. .	.. .. .	.. .. .	\pm0.5 db.	
5,000—9,000 c/s.	.. .. .	.. .. .	.. .. .	.. .. .	\pm1.0 db.	

Working Voltage Gain

Testing Conditions

Volume control set for maximum output

Output loaded with 6,000 ohms and at a level
of + 10 db.

Gain at 1,000 c/s.	45 \pm 2 db.
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