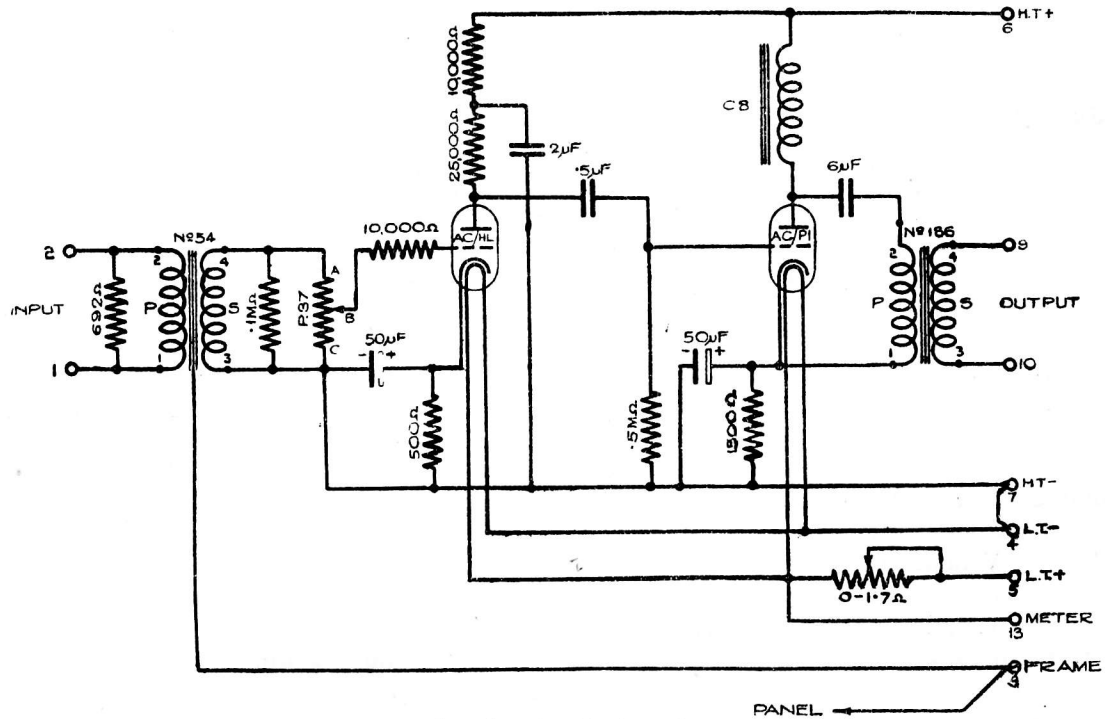


AMPLIFIER D/7



Drawing A.3444, Issue 3.

This amplifier is used at **Bangor, Glasgow (Queen Margaret College), and Swansea.**

Circuit

It is a two-stage amplifier with screened input transformer and resistance-capacity coupling between the stages. It has only one output and the valve in the second stage is choke-capacity coupled to the output transformer. Automatic grid bias is provided for both stages.

Impedances

Input impedance	.. .. .	(approx) 600 ohms
Output impedance	.. .. .	(approx) 340 ohms
Normal load impedance		
' B ' amplifier input	.. .. .	(approx) 600 ohms
' C ' and programme meter amplifier input	.. .. .	(approx) 3,500—8,000 ohms

Transformers

						Impedance	Turns
					Number	Ratio	Ratio
Input	..	..	..	..	54	1/10.9	1/3.31
Output	..	..	..	..	186	8.05/1	2.83/1

Volume Control

Type	Total Resistance	No. of Studs	Loss per Stud	Loss on Lowest Stud
P.37	100,000Ω	21	2 db.	Infinite

Supply Data

Stage	Valve	Automatic Grid Bias		Anode Current mA (approx)	Filaments	
		Volts negative			Volts	Amps
1	ACHL	1.75		3.5	4	1
2	ACP 1	30		20	4	1
<i>Total</i>				23.5		2
High Tension Supply		..	..	(approx) 250	volts rectified A.C.	
Low Tension Supply		..	..	(approx) 6	volts rectified A.C. (adjusted to 4V by a series resistance).	

600 Ohm Test Gain

Testing Conditions

Volume control set for maximum output

Loss Pads key set at 60 db.

T.M.S. sending level .. -10 db.

Gain at 1,000 c/s.	36 ± 2 db.	} Relative to gain at 1,000 c/s.
Gain at 50—5,000 c/s.	± 0.5 db.	}	
5,000—9,000 c/s.	± 1.0 db.		

Working Voltage Gain

Testing Conditions

Amplifier volume control set for maximum output

Output at approximately zero level.

Gain at 1,000 c/s.

Output loaded with 600 ohms .. .. .	..	..	36 ± 2 db.
Output loaded with 5,000 ohms .. .. .	..	..	39.5 ± 2 db.