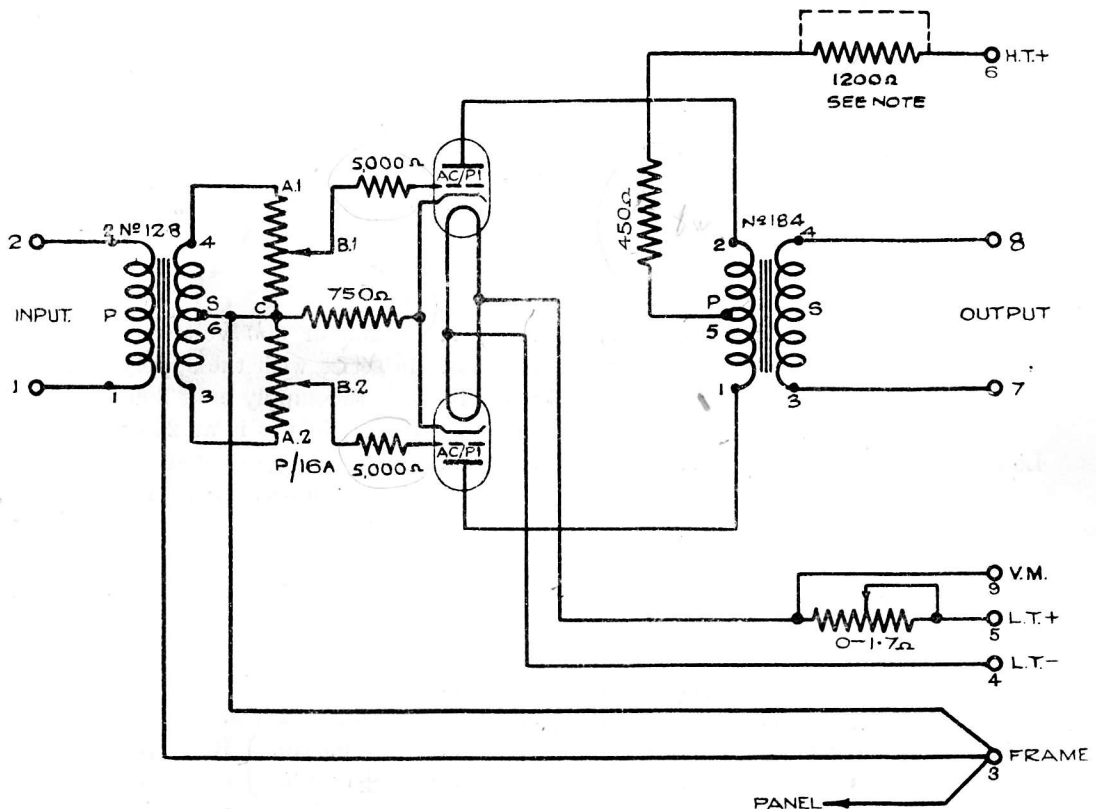


AMPLIFIER C/3



Drawing A.2817, Issue 5.

This amplifier is used at London (Maida Vale), Bangor, Glasgow (Queen Margaret College), Swansea, Daventry and Stagshaw.

Circuit

It is a single stage push-pull amplifier with input and output transformers and a balanced volume control. The grid bias is automatic.

Impedances

Input impedance	..	..	..	..	..	(approx)	12,500 ohms
Output impedance	..	..	..	..	..	(approx)	600 ohms
Normal load impedance	..	..	..	..	..	(approx)	600 ohms

Transformers

						Number	Impedance Ratio	Turns Ratio
Input	..	..	..	..	..	128	1/16	1/4
Output	..	..	..	..	..	184	7.94/1	2.82/1

AMPLIFIER C/3

Technical Instructions

Item 3(C/3). May, 1938

Volume Control

Type	Total Resistance	No. of Studs	Loss per Stud	Loss on Lowest Stud
P.16	200,000Ω	10	2 db.	Infinite

Supply Data

Stage	Valve	Automatic Grid Bias		Anode Current mA (approx)	Filaments	
		Volts	negative		Volts	Amps
1	2—ACP 1 (in push-pull)	30		40	4	2
High Tension Supply		..	..	..	250 or 300 volts (A 1,200Ω resistance in series with the supply lead should be in circuit when the supply is at 300 volts but should be shorted out when it is at 250 volts)	
Low Tension Supply		..	..	..	6 volts (adjusted to 4V by a series resistance)	

600 Ohm Test Gain

Testing Conditions

Volume control set for maximum output

Loss Pads key set at 30 db.

T.M.S. sending level	..	..	..	..	zero	
Gain at 1,000 c/s.	..	..	..	..	16.5 ± 1 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 db.	

Working Voltage Gain

Testing Conditions

Amplifier volume control set for maximum output

Output loaded with 600 ohms and at a level of approximately +10 db.

Gain at 1,000 c/s.	11 ± 1 db.
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