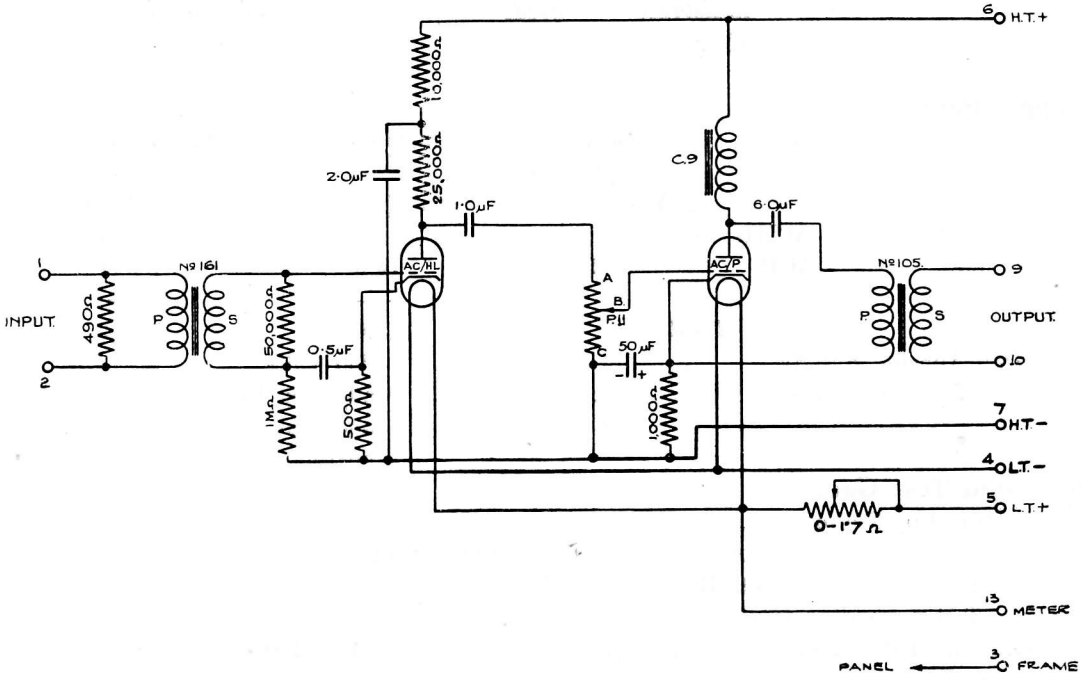
AMPLIFIER A/5



Drawing A.2436, Issue 9.

This amplifier is used at **Droitwich, Lisnagarvey, Burghead, Daventry** and **Stagshaw.**

Circuit

It is a two-stage amplifier with an input transformer and only one output. Resistance-capacity coupling is used between the stages and the output stage is choke-capacity coupled to the output transformer. The volume control operates in the input to the second stage and the grid bias is automatic.

In the amplifier supplied to **Droitwich** the H.T. is applied by means of an external relay which is caused to operate by a DLS.1 (thermal delay switch) in the amplifier.

Impedances

Input impedance	(approx)	300 ohms
Output impedance	(approx)	260 ohms
Normal load impedance	(approx)	600 ohms

Transformers

	Number	*Impedance Ratio*	*Turns Ratio*
Input	161	1/65.8	1/8.1
Output	105	20/1	4.47/1

Volume Control

Type	*Total Resistance*	*No. of Studs*	*Loss per Stud*	*Loss on Lowest Stud*
P.11	100,000Ω	10	2 db.	Infinite

Supply Data

Stage	*Valve*	*Automatic Grid Bias* Volts negative	*Anode Current* mA (approx)	*Filaments* Volts	Amps
1	ACHL	2	3.5	4	1
2	ACP	14	14.0	4	1
	Total		17.5		2

High Tension Supply .. .. 200 volts
Low Tension Supply .. .. adjusted by a series resistance to 4 volts on the heaters.

600 Ohm Test Gain

Testing Conditions

Amplifier volume control set for maximum output
Loss Pads key at **60 db.**

T.M.S. sending level .. .. −20 db.
Gain at 1,000 c/s. .. .. **41 ± 2 db.**
Gain at 50—5,000 c/s. .. .. ±0.5db } Relative to gain
5,000—9,000 c/s. .. .. ±1.0db } at 1,000 c/s.

Working Voltage Gain

Testing conditions

Volume control set for maximum output
Output loaded with 600 ohms and at approximately zero level.

Gain at 1,000 c/s. .. .. **45.5 ± 2 db.**