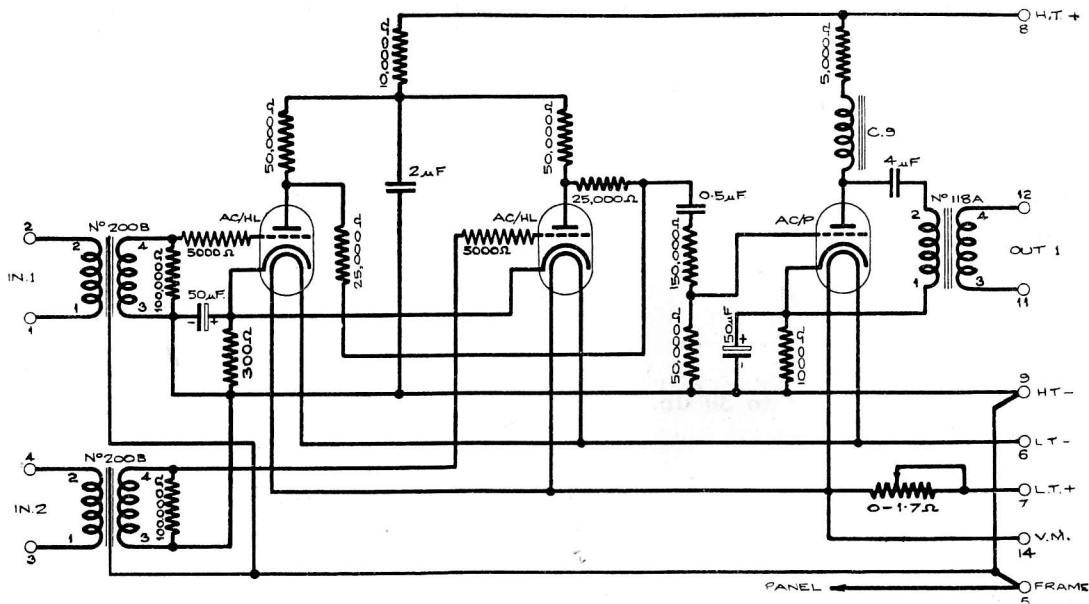


AMPLIFIER ECA/2



Drawing A.3494. Issue 2

This amplifier is used at **Belfast** and **Glasgow** (Queen Margaret College) in conjunction with Dramatic Control Unit DC/7.

Circuit

It is a two-stage amplifier with two input stages, one associated with each of the two groups of D.C. input channels in the output of the echo group mixer. A stabilising resistance is included in series with the grid in each of the input stages, and the grid bias for both valves is obtained from a resistance in the common H.T. return lead. Resistance-capacity coupling is used between the stages, the anodes of the two input stages being connected in parallel, via individual 25,000 ohm decoupling resistances and a common coupling condenser, to a fixed potentiometer in the input to the second stage, which is choke-capacity coupled to the output transformer.

Impedances

Input impedance (either stage)	..	..	..	..	(approx)	15,000 ohms
Output impedance	..	..	..	..	(approx)	600 ohms
Normal load impedance	..	..	..	..	(approx)	2,400 ohms

Transformers

				<i>Number</i>	<i>Impedance</i>	<i>Turns</i>
					<i>Ratio</i>	<i>Ratio</i>
Input (both stages)	200B	1/4.4	1/2.1
Output	118B	8.3/1	2.89/1

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 Technical Instructions
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Supply Data

Stage	Valve	Automatic		Anode Current	Filaments	
		Grid Bias	Volts negative		mA approx.	Volts
1 (each stage)	ACHL		1.5	2.5	4	1
2	ACP		13.0	13.0	4	1
				18.0		3
	<i>Total</i>					
High Tension Supply	.. .. .	.. .. .	.. .. .	.. .. .	300 Volts	
Low Tension Supply	.. .. .	.. .. .	(approx)	.. .. .	6 Volts (adjusted to 4 V by a series resistance)	

600 Ohm Test Gain

Testing Conditions

Loss Pads key set to **30 db.**

T.M.S. sending level - 20 db.

Gain at 1,000 c/s. **27 ± 2 db.**

Gain at 50—5,000 c/s. ± 0.5db } Relative to gain

Gain at 5,000—9,000 c/s. ± 1.0db } at 1,000 c/s.

Working Voltage Gain

Testing Conditions

Output loaded with 2,400 ohms and at approxi-
mately - 5 db.

Gain at 1,000 c/s. **25 ± 2 db.**