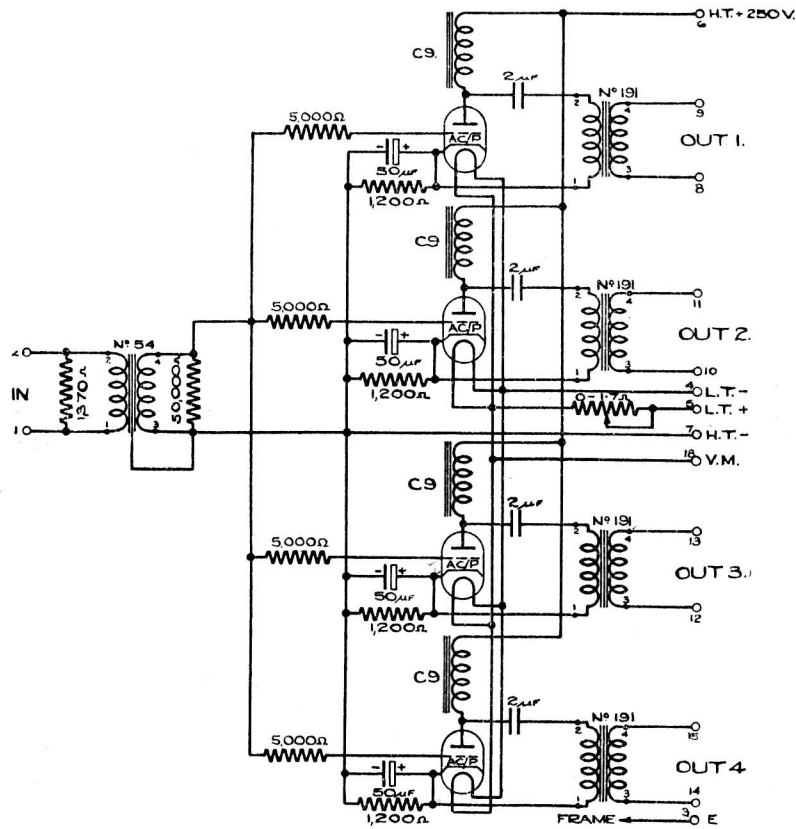


# TRAP VALVE AMPLIFIER TV/12



Drawing A.4133, Issue 3

These amplifiers are used in the control room at London (Maida Vale) as recording supply amplifiers for terminating the music lines incoming from Broadcasting House carrying the National, Regional and Empire programmes, and each provides four independent outputs. The amplifiers normally work in parallel pairs which thus provide eight outputs from a single incoming music line, for distribution to the various recording rooms so that the programme will be 'on tap' at all times.

## Circuit

It is a single-stage amplifier with four identical stages connected in parallel across a common input transformer, each choke-capacity coupled to a separate output transformer. The grid bias is automatic but is individual to each stage.

## Impedances

Input impedance	..	..	..	..	..	(approx) 1,200 ohms
Output impedance	..	..	..	..	..	(approx) 60 ohms
Normal load impedance	..	..	..	..	..	(approx) 300 ohms

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Technical Instructions

Item 3 (TV/12). July, 1938

## Transformers

					<i>Number</i>	<i>Impedance Ratio</i>	<i>Turns Ratio</i>
Input	..	..	..	..	54	1/10.9	1/3.31
Output (each stage)	..	..	..	..	191	90.5/1	9.525/1

## Supply Data

	<i>Valve</i>	<i>Automatic Grid Bias</i>	<i>Anode Current</i>	<i>Filaments</i>	
		Volts negative	mA (approx)	Volts	Amps.
Each Stage	ACP	15	12	4	1
		<i>Total</i>	48		4
High Tension Supply	..	..	..	(approx) 250 V	
Low Tension Supply	..	..	..	(approx) 6 V (adjusted to 4V by a series resistance)	

## Working Voltage Gain

Testing Conditions

Output loaded with 300 ohms and at a level of approximately + 4 db. .. .. .

Gain at 1,000 c/s. .. .. . **8 ± 1 db.**