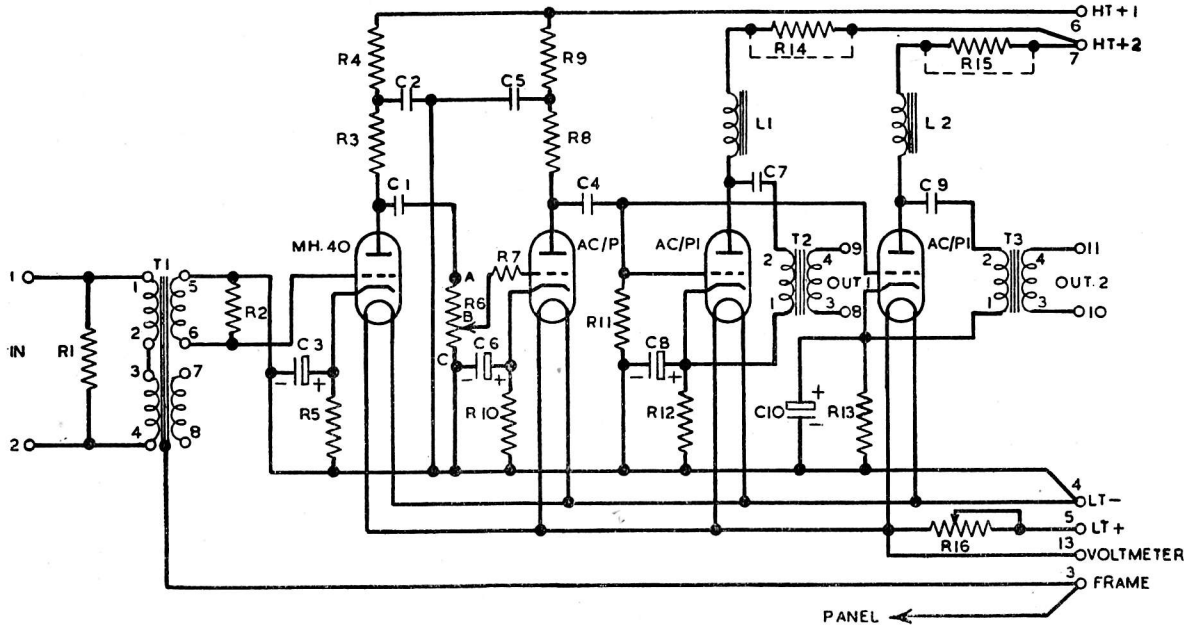


AMPLIFIERS A/8 and A/8A



Components Table

Component	Value or Type	Component	Value or Type	Component	Value or Type
C1	0.5 μ F	L1	C6	R9	10,000 Ω
C2	2 μ F	L2	C6	R10	1,000 Ω
C3	50 μ F	R1	500 Ω *	R11	250,000 Ω
C4	0.5 μ F	R2	150,000 Ω *	R12	1,500 Ω
C5	2 μ F	R3	100,000 Ω	R13	1,500 Ω
C6	50 μ F	R4	10,000 Ω	R14	3,000 Ω
C7	4 μ F	R5	2,000 Ω	R15	3,000 Ω
C8	50 μ F	R6	100,000 Ω	R16	0.85 Ω
C9	4 μ F	R7	500 Ω		
C10	50 μ F	R8	15,000 Ω		

* For Type IT256. In the case of Type CA4201-23, R1=400 Ω R2=250,000 Ω .

Transformers

- T1. Turns Ratio 1/14.5 Type IT265 or CA4201-23.
 T2. Turns Ratio 4.47/1 No. 105.
 T3. Turns Ratio 4.47/1 No. 105.

AMPLIFIERS A/8 & A/8A

Technical Instructions

Item 3(A/8)

Issue 2. December, 1944

Circuit

The A/8 is a three-stage amplifier with a screened input transformer and two output stages, output No. 2 providing a source of echo. Resistance-capacity coupling is used between the stages and the output stages are choke-capacity coupled to their output transformers. The volume control operates in the input to the second stage, and the grid bias is automatic.

Ribbon-microphone frequency correction has recently been removed from this amplifier in precisely the same way as indicated under amplifier A/4A.

The amplifier A/8A is identical to A/8 except that the input transformer is insulated from the frame and connected to -L.T.

Impedances

Input impedance	(approx) 300 ohms
Output impedance (Nos. 1 & 2)	(approx) 300 ohms
Normal load impedance	(approx) 600 ohms

Volume Control

Type	Total Resistance	No. of Studs	Loss per Stud	Loss on Lowest Stud
P.10	100,000 Ω	10	4 db.	Infinite

Supply Data

Stage	Valve	Automatic Grid Bias		Anode Current		Filaments	
		Volts negative		mA (approx)		Volts	Amps
		H.T.250	H.T.300	H.T.250	H.T.300		
1	MH.40	2	2.6	1.0	1.3	4	1
2	AC/P	6	7.5	6.0	7.5	4	1
3 (Main)	AC/P1	30	29	20	19.5	4	1
3 (Echo)	AC/P1	30	29	20	19.5	4	1
<i>Total</i>				47.0	47.8		4

High Tension Supply

H.T.+1 (Stages 1 & 2)	250 rectified A.C. or 300 volts battery
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H.T.+2 (Output Stages) 250 rectified A.C. or 300
volts battery

(The resistances R14, R15 in series with the supply leads to the output stages 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 4 V.
by a series resistance)

600 Ohm Test Gain

Testing Conditions

Volume control set for maximum output

Loss Pads key at 60 db.

T.M.S. sending level -40 db.

Gain at 1,000 c/s (outputs 1 & 2) 66.3 ± 2 db.

Frequency Response 50—9,000 c/s ± 1 db. relative to 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 (outputs 1 & 2) 69.5 ± 2 db.