

Issue 2. December, 1944

<i>Component</i>	<i>Value or Type</i>	<i>Component</i>	<i>Value or Type</i>	<i>Component</i>	<i>Value or Type</i>
C1	0.5 μ F	L1	C8	R9	1,000 Ω
C2	2 μ F	L2	C8	R10	500 Ω
C3	50 μ F	R1	500 Ω	R11	250,000 Ω
C4	0.5 μ F	R2	200,000 Ω	R12	1,500 Ω
C5	2 μ F	R3	100,000 Ω	R13	500 Ω
C6	50 μ F	R4	20,000 Ω	R14	1,500 Ω
C7	6 μ F	R5	2,000 Ω	R15	500 Ω
C8	50 μ F	R6	100,000 Ω	R16	3,000 Ω
C9	6 μ F	R7	15,000 Ω	R17	3,000 Ω
C10	50 μ F	R8	10,000 Ω	R18	1.7 Ω

T1.	Turns Ratio 1/14.5	Type IT256.
T2.	Turns Ratio 2.83/1	No. 186.

AMPLIFIER A/10

Technical Instructions

Item 3(A/10)

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Circuit

The A/10 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, the modification being precisely the same as that outlined under A/9.

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
P10	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.250v	H.T.300v	H.T.250v	H.T.300v		
1	MH40	2	2.6	1.0	1.3	4	1
2	AC/P	8	10	8.2	10.0	4	1
3 (Main)	AC/P1	28	26	19	17.5	4	1
3 (Echo)	AC/P1	28	26	19	17.5	4	1
Total				47.2	46.3		4

High Tension Supply

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

(The resistances R16, R17 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).

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600 Ohm Test Gain

Volume control set for maximum output.

T.M.S. sending level	..	..	..	..	-40 db.
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Frequency Response 50—9,000 c/s ± 1 db. relative to 1,000 c/s.

Testing Conditions

Volume control set for maximum output.

Output loaded with 600 ohms and at approximately zero level.

Gain at 1,000 c/s	..	..	..	..	..	69.5±2 db.
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