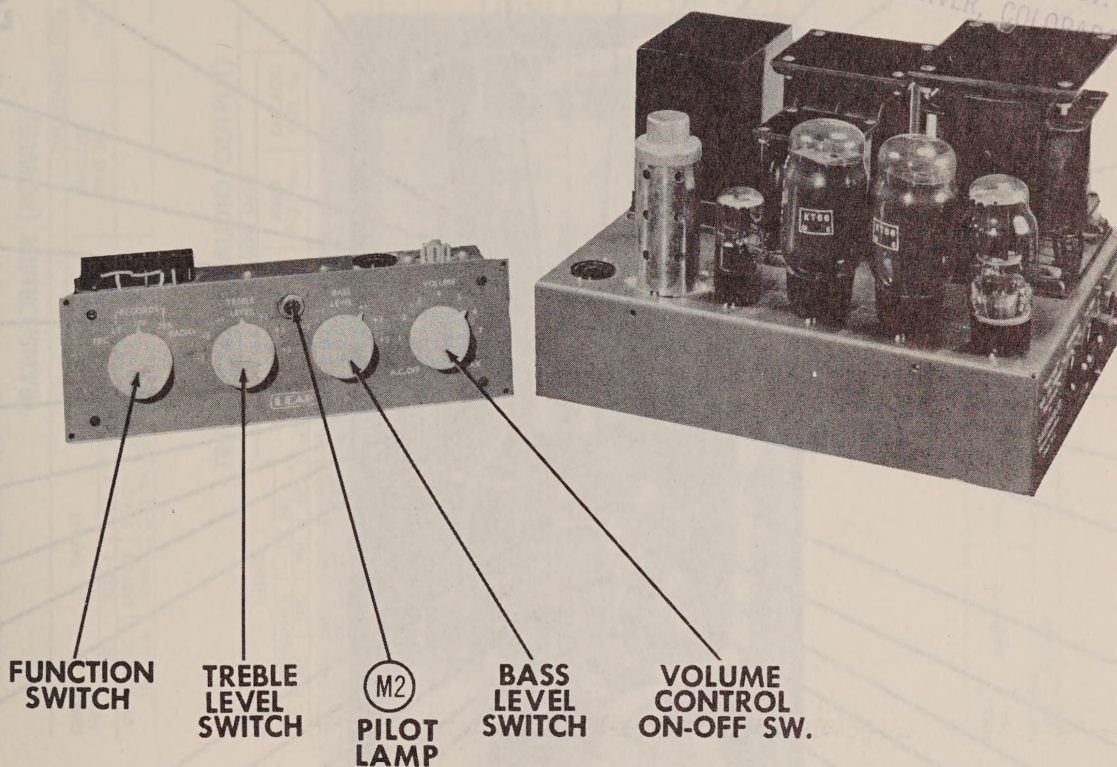




LEAK
MODEL RC/PA/U, TL/12



LEAK
MODEL RC/PA/U, TL/12

TRADE NAME	Leak Model RC/PA/U, TL/12
MANUFACTURER	H. J. Leak & Co., Ltd., London, England
TYPE SET	AC Operated 3 Channel Audio Amplifier
TUBES (Six)	Types ECC40 Pre Amp. -Tone Amp., EF36, AF Amp., ECC33 Phase Inv., (2) KT66 Audio Output GZ32 Rectifier
POWER SUPPLY	105-120 Volts AC
RATING	1.3 Amp. @ 117 Volts AC

HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

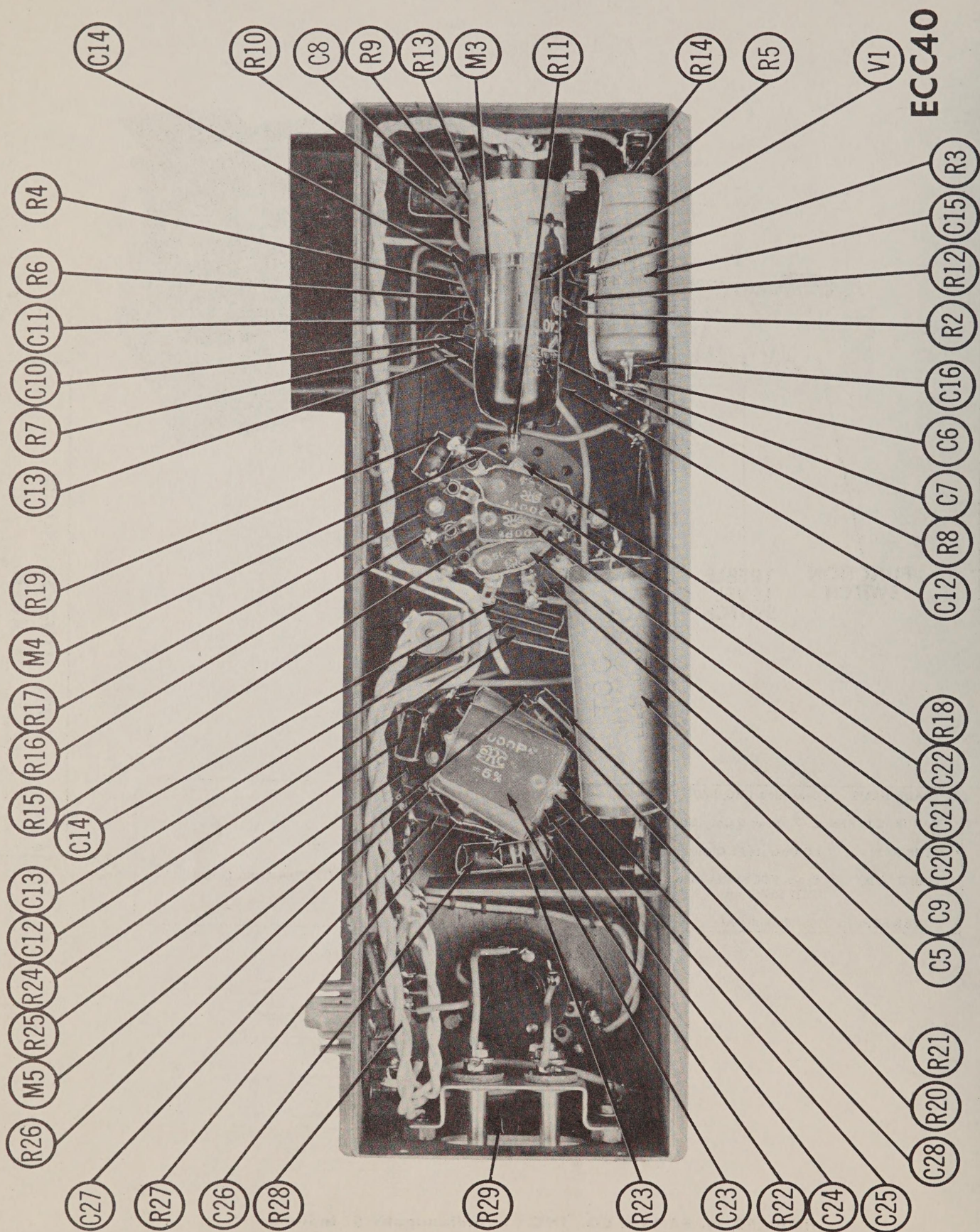
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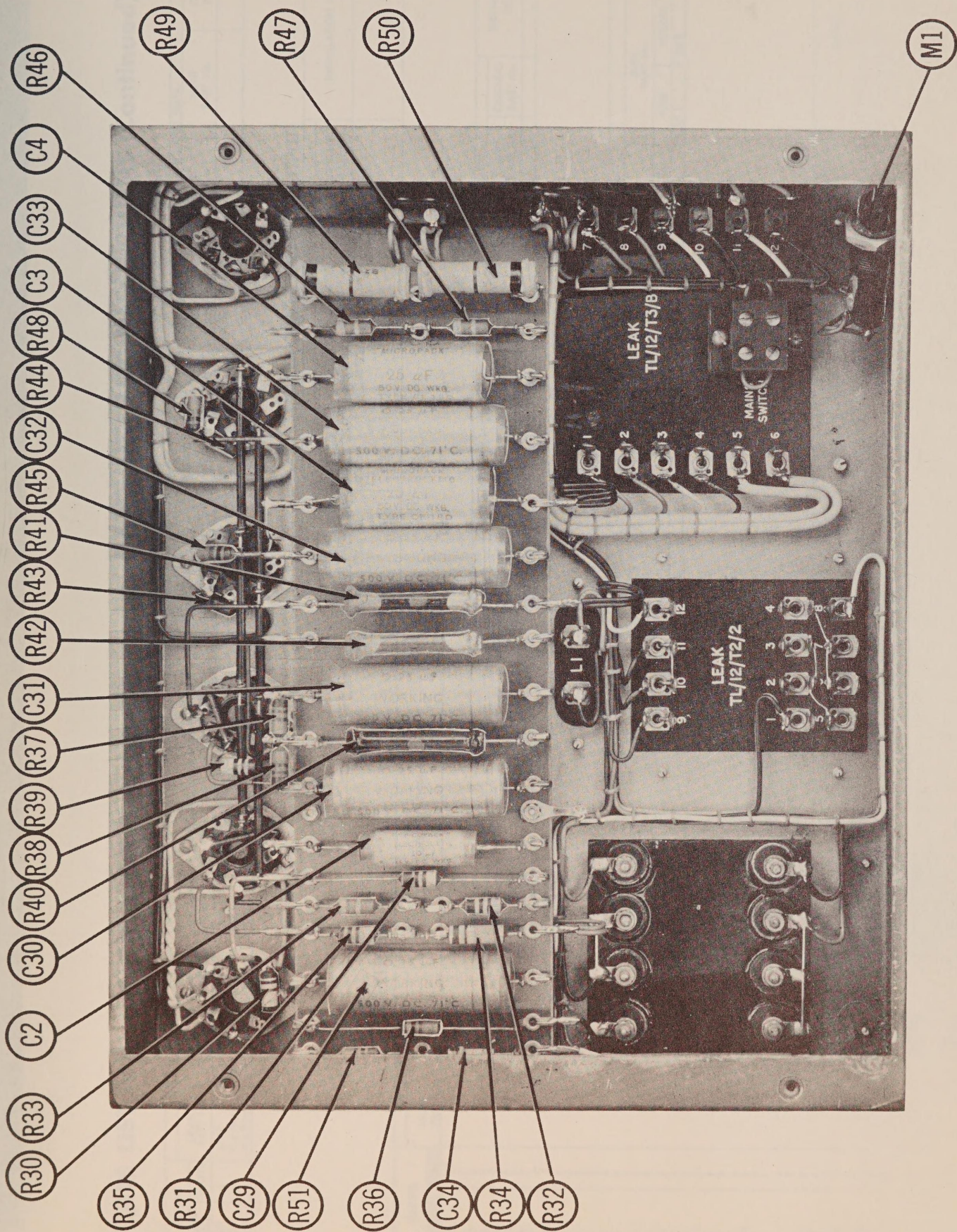
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DATE 5-52

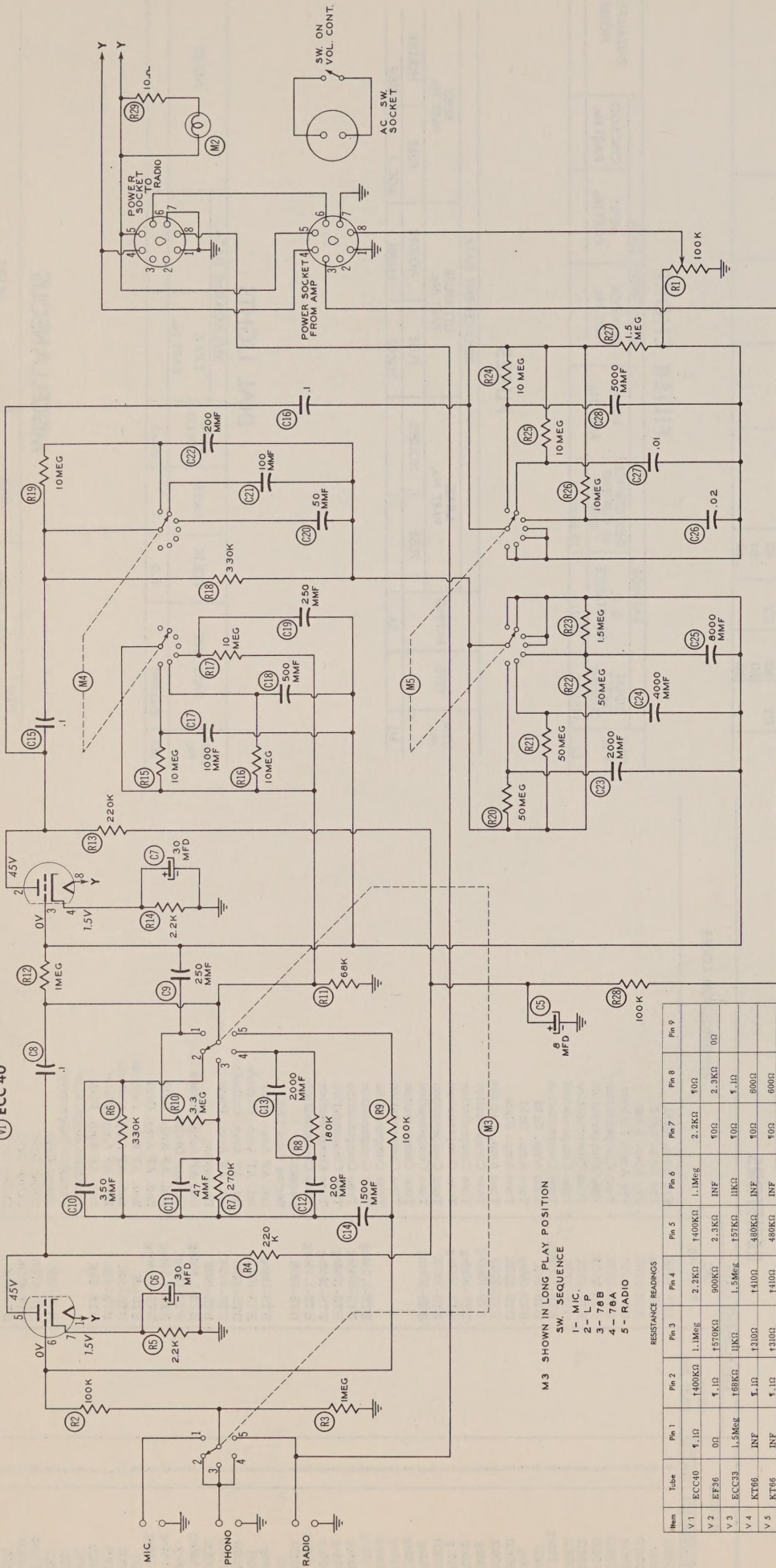
SET 166

FOLDER 12





PRE-AMP-TONE AMP
V1 ECC 40

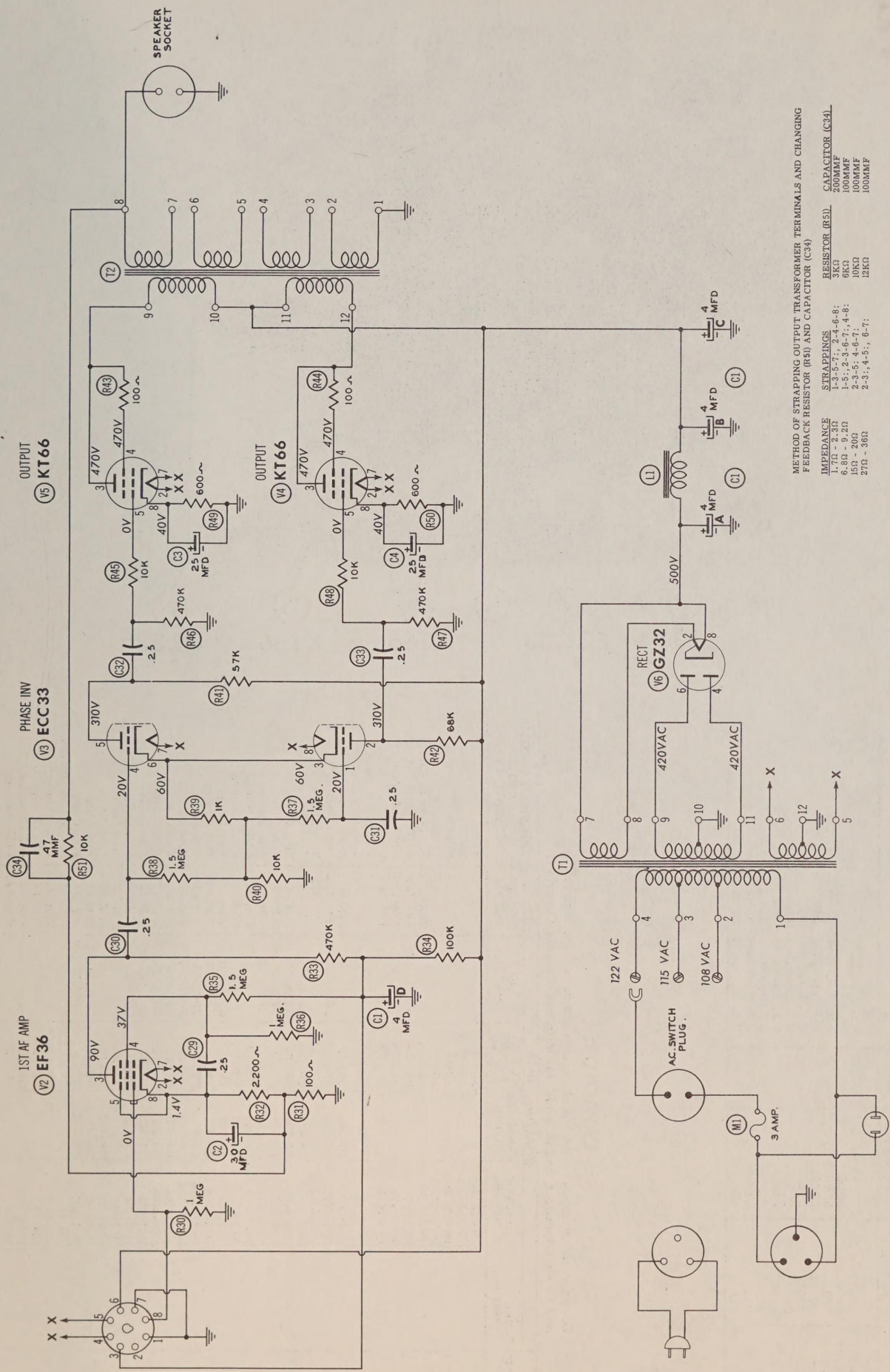


M3 SHOWN IN LONG PLAY POSITION
SW. SEQUENCE
1- MIC.
2- L.P.
3- 78 B
4- 78 A
5- RADIO

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	ECC40	5.10	1400KΩ	1.1MEG	2.2KΩ	1400KΩ	1.1MEG	2.2KΩ	100	
V2	EF36	0Ω	5.10	1570KΩ	900KΩ	2.3KΩ	INF	100	2.3KΩ	0Ω
V3	ECC33	1.5MEG	168KΩ	1KΩ	1.5MEG	157KΩ	1KΩ	100	5.10	
V4	KT66	INF	5.10	1310Ω	140Ω	480KΩ	INF	100	600Ω	
V5	KT66	INF	5.10	1310Ω	140Ω	480KΩ	INF	100	600Ω	
V6	GZ32	INF	330KΩ	INF	100Ω	INF	330KΩ	INF	330KΩ	

M3 IN "MIC" POSITION
M4 & M5 IN "LEVEL" POSITION
M6 & M7 IN "VOL. CONT." POSITION
1 MEASURED FROM PIN 7 OF V5

- 1 - DC Voltage measurements are at 20,000 ohms per volt, AC Voltages measured at 1000 ohms per volt.
- 2 - Socket connections are shown as bottom views.
- 3 - Measured values are from socket pin to common negative.
- 4 - Line voltage maintained at 117 volts for voltage readings.
- 5 - Nominal tolerance on component values makes possible a variation of $\pm 15\%$ in voltage and resistance readings.
- 6 - Proper output load connected



METHOD OF STRAPPING OUTPUT TRANSFORMER TERMINALS AND CHANGING FEEDBACK RESISTOR (R5) AND CAPACITOR (C34)

IMPEDANCE	STRAPPINGS	RESISTOR (R5)	CAPACITOR (C34)
1-7Ω - 2.3Ω	1-3-5-7; 2-4-6-8;	3KΩ	200MMF
6.8Ω - 9.2Ω	1-5; 2-3-6-7; 4-8;	6KΩ	100MMF
15Ω - 20Ω	2-3-5; 4-6-7;	10KΩ	100MMF
27Ω - 36Ω	2-3; 4-5; 6-7;	12KΩ	100MMF

PARTS LIST AND DESCRIPTIONS TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	NOTES
		LEAK PART No.	STANDARD REPLACEMENT		
V1	Pre Amplifier - Tone Amplifier	ECC40	ECC40		
V2A	1st. AF Amplifier	EF36	EF36		U.S. Equivalent - 6J7
B	1st. AF Amplifier	EF37	EF37		U.S. Equivalent - 6SN7
V3	Phase Inverter	ECC33	ECC33		U.S. Equivalent - 5881
V4A	Audio Output	KT66	KT66		U.S. Equivalent - 6L6
B	Audio Output	EL37	EL37		U.S. Equivalent - 5881
V5A	Audio Output	KT66	KT66		U.S. Equivalent - 6L6
B	Audio Output	EL37	EL37		U.S. Equivalent - 5881
V6A	Rectifier	GZ32	GZ32		U.S. Equivalent - 5U4G
B	Rectifier	U52	U52		U.S. Equivalent - 5U4G

CAPACITORS

Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING CAP. VOLT	REPLACEMENT DATA				IDENTIFICATION CODES AND INSTALLATION NOTES	
		LEAK PART No.	AEROVOX PART No.	CORNEILL CENTRALAB PART No.	SPRAGUE PART No.	Erie PART No.	
C1A	4 600		PRVC600/4	KR604			Filter
B	4 600		PRVC600/4	KR604			Filter
C	4 600		PRVC600/4	KR604			Filter
D	4 600		PRVC600/4	KR604			Filter
C2	30 15		PRS25/25	BR502A			Decoupling
C3	25 50		PRS50/25	BR255A			1st. AF Amp. Cathode
C4	25 50		PRS50/25	BR255A			Audio Output Cathode
C5	8 350		PRS350/8	BR835A			Audio Output Cathode
C6	30 15						Decoupling
C7	30 15						Pre Amp. Cathode
C8	1 500		P888-1	PT66P1			Tone Comp.
C9	250 350		1468-00025	5W5T25			Audio Coupling
C10	350 350		1468-00035				Audio Coupling
C11	47 350		SI47				Tone Comp.
C12	200 350		1468-0002	5W5Q5			Tone Comp.
C13	2000 350		1467-002	5W5T2			Tone Comp.
C14	1500 350		1467-0015	1W5D15			Tone Comp.
C15	1 350		P488-1	PT64P1			Tone Comp.
C16	1 350		P488-1	PT64P1			Tone Comp.
C17	1000 350		1468-001	1W5D1			Audio Coupling
C18	500 350		1468-0005	5W5T5			Tone Comp.
C19	250 350		1468-00025	5W5T5			Tone Comp.
C20	50 350		1468-00005	5W5Q5			Tone Comp.
C21	100 350		1468-0001	5W5T1			Tone Comp.
C22	200 350		1468-0002	5W5T2			Tone Comp.
C23	2000 350		1467-002	1W5D2			Tone Comp.
C24	4000 350		1467-004	1W5D4			Tone Comp.
C25	8000 350		1467-008	1W5D8			Tone Comp.
C26	.02 350		1468-002	PT64S2			Tone Comp.
C27	.01 350		P488-01	PT64S1			Tone Comp.
C28	5000 350		1467-005	1W5D5			Tone Comp.
C29	25 500		584-25	6TM-P25			Tone Comp.
C30	25 500		584-25	6TM-P25			1st. AF Amp. Screen
C31	25 500		584-25	6TM-P25			Audio Coupling
C32	25 500		584-25	6TM-P25			2nd. AF Amp. Grid
C33	25 500		584-25	6TM-P25			Audio Coupling
C34	47			6TM-P25			Tone Comp.

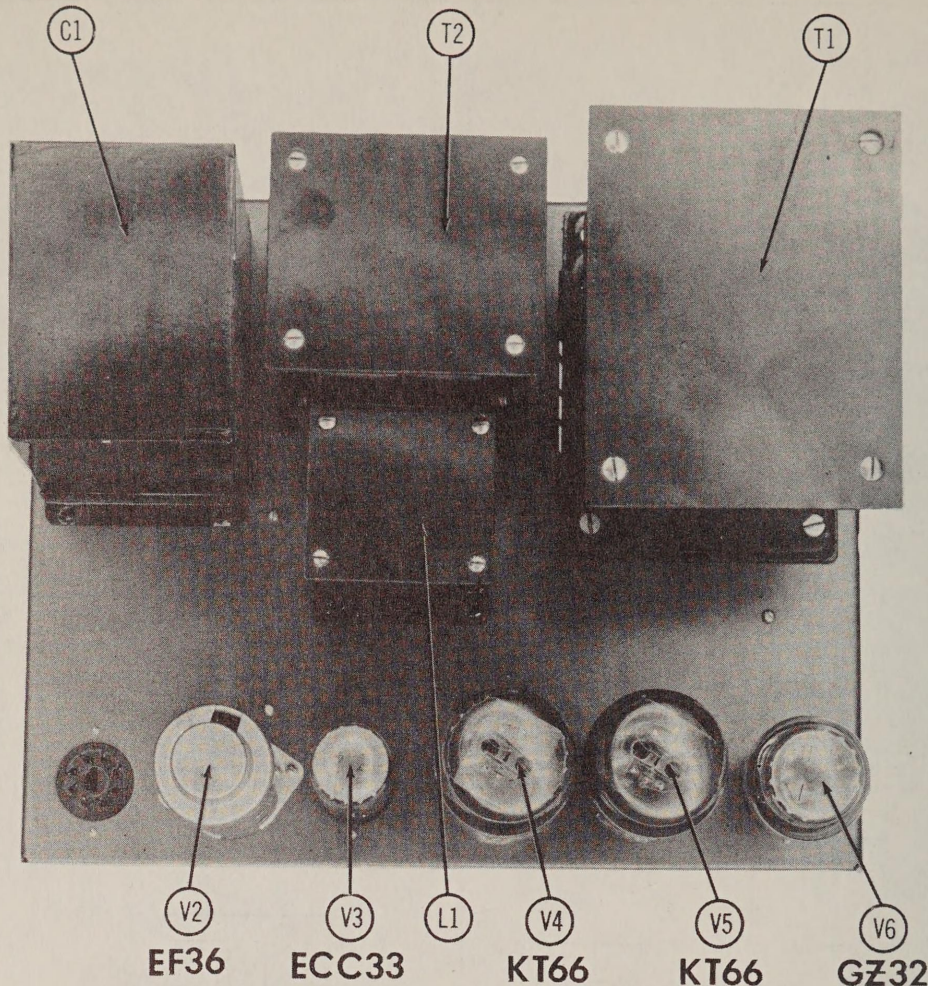
† Some Models use 50MFD @ 12VDC in this application

† Some Models use 100MMF in this application

† The valve of this item depends on the load impedance of the output transformer.

Replace with unit of like value.

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

CONTROLS

ITEM No.	RATING			REPLACEMENT DATA		INSTALLATION NOTES
	RESIST-ANCE	WATTS		LEAK PART No.	CLAROSTAT PART No.	
RIA	100KΩ			10410	AN-41	Volume Control Attach to RIA per instructions Attach to RIA per instructions
B	10KΩ	1		Not Req.	AG-51-Z	
C	Switch			Not Req.	RS-2	
					SWB	K-155

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA		
	PRI	SEC. 1	SEC. 2	SEC. 3	LEAK PART No.	STANCOR PART No.	CHICAGO PART No.
T1	117VAC @ 1.3A	880VCT .145ADC @ 2.0A	5VAC	6.3VAC @ 4.0A	TL/12/T3/B		

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA		
	IMPEDANCE		DC RES.		LEAK PART No.		INSTALLATION NOTES
	PRI	SEC.	PRI	SEC.	STANCOR PART No.	CHICAGO PART No.	
T2	5KΩ CT	8Ω	320Ω CT	.4Ω	TL/12/T2/2		
		8Ω		.4Ω			
		8Ω		.4Ω			

FILTER CHOKE

ITEM No.	TOTAL CURRENT	RATINGS		REPLACEMENT DATA			INSTALLATION NOTES
		D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 G)	LEAK PART No.	STANCOR PART No.	CHICAGO PART No.	
L1	.145ADC	150Ω	10 Henries				

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA			
			LEAK PART No.	FUSE	HOLDER	BUSS PART No.
M1		3A.		312003	341001	AGC 3
						HKP

DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	REPLACEMENT DATA		NOTES
				BEAD COLOR	LEAK PART No.	
M2	Bayonet	6.5	.3	Black		

MISCELLANEOUS

ITEM No.	PART NAME	LEAK PART No.	NOTES
M3	Switch		Selector Switch
M4	M4 Switch		
M5	M5 Switch		

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	LEAK PART No.	IRC PART No.	
R2	100KΩ			BTS-100K	Pre Amp. Grid
R3	1Meg			BTS-1Meg	Pre Amp. Grid
R4	220KΩ			BTS-220K	Pre Amp. Plate
R5	2200Ω			BTS-2200	Pre Amp. Cathode
R6	330KΩ			BTS-330K	Tone Compensation
R7	270KΩ			BTS-270K	Tone Compensation
R8	180KΩ			BTS-180K	Tone Compensation
R9	100KΩ			BTS-100K	Tone Compensation
R10	3.3Meg			BTS-3.3Meg	Tone Compensation
R11	68KΩ			BTS-68K	Tone Amp. Grid
R12	1Meg			BTS-1Meg	Tone Amp. Grid
R13	220KΩ			BTS-220K	Tone Amp. Plate
R14	2200Ω			BTS-2200	Tone Amp. Cathode
R15	10Meg			BTS-10Meg	Tone Compensation
R16	10Meg			BTS-10Meg	Tone Compensation
R17	10Meg			BTS-10Meg	Tone Compensation
R18	330KΩ			BTS-330K	Tone Compensation
R19	10Meg			BTS-10Meg	Tone Compensation
R20	50Meg				Tone Compensation
R21	50Meg				Tone Compensation
R22	50Meg				Tone Compensation
R23	1.5Meg			BTS-1.5Meg	Tone Compensation
R24	10Meg			BTS-10Meg	Tone Compensation
R25	10Meg			BTS-10Meg	Tone Compensation
R26	10Meg			BTS-10Meg	Tone Compensation
R27	1.5Meg			BTS-1.5Meg	Tone Compensation
R28	100KΩ			BTS-100K	Decoupling
R29	10Ω				Series Pilot Light
R30	1Meg			BTS-1Meg	1st. AF Amp. Grid
R31	100Ω			BTS-100	1st. AF Amp. Cathode
R32	2200Ω			BTS-2200	1st. AF Amp. Cathode
R33	470KΩ			BTS-470K	1st. AF Amp. Plate
R34	100KΩ			BTS-100K	Decoupling
R35	1.5Meg			BTS-1.5Meg	1st. AF Amp. Screen
R36	1Meg			BTS-1Meg	Voltage Divider
R37	1.5Meg			BTS-1.5Meg	2nd. AF Amp. Grid
R38	1.5Meg			BTS-1.5Meg	2nd. AF Amp. Grid
R39	1KΩ			BTS-1K	2nd. AF Amp. Cathode
R40	10KΩ			BTA-10K	2nd. AF Amp. Cathode
R41	57KΩ			BTA-56K	2nd. AF Amp. Plate
R42	68KΩ			BTA-68K	2nd. AF Amp. Plate
R43	100Ω				Parasitic Suppressor
R44	100Ω				Output Grid
R45	10KΩ			BTS-10K	Output Grid
R46	470KΩ			BTS-470K	Output Grid
R47	470KΩ			BTS-470K	Output Grid
R48	10KΩ			BTS-10K	Output Cathode - Wire Wound
R49	600Ω			1 3/4A-600	Output Cathode - Wire Wound
R50	600Ω			1 3/4A-600	Feedback Network
R51	10KΩ			BTS-10K	