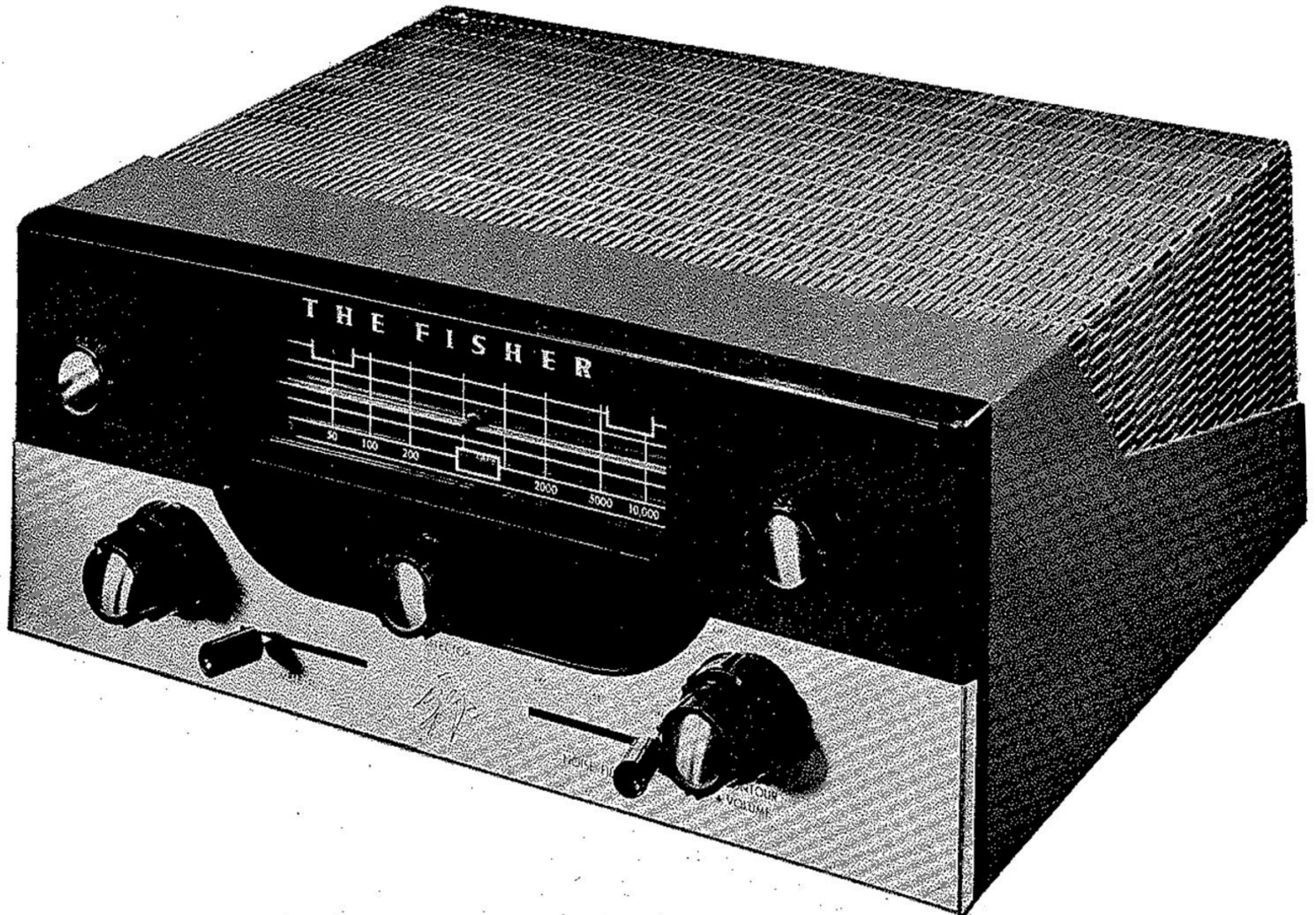


**FISHER
MODEL CA-40**



Fisher Model CA-40

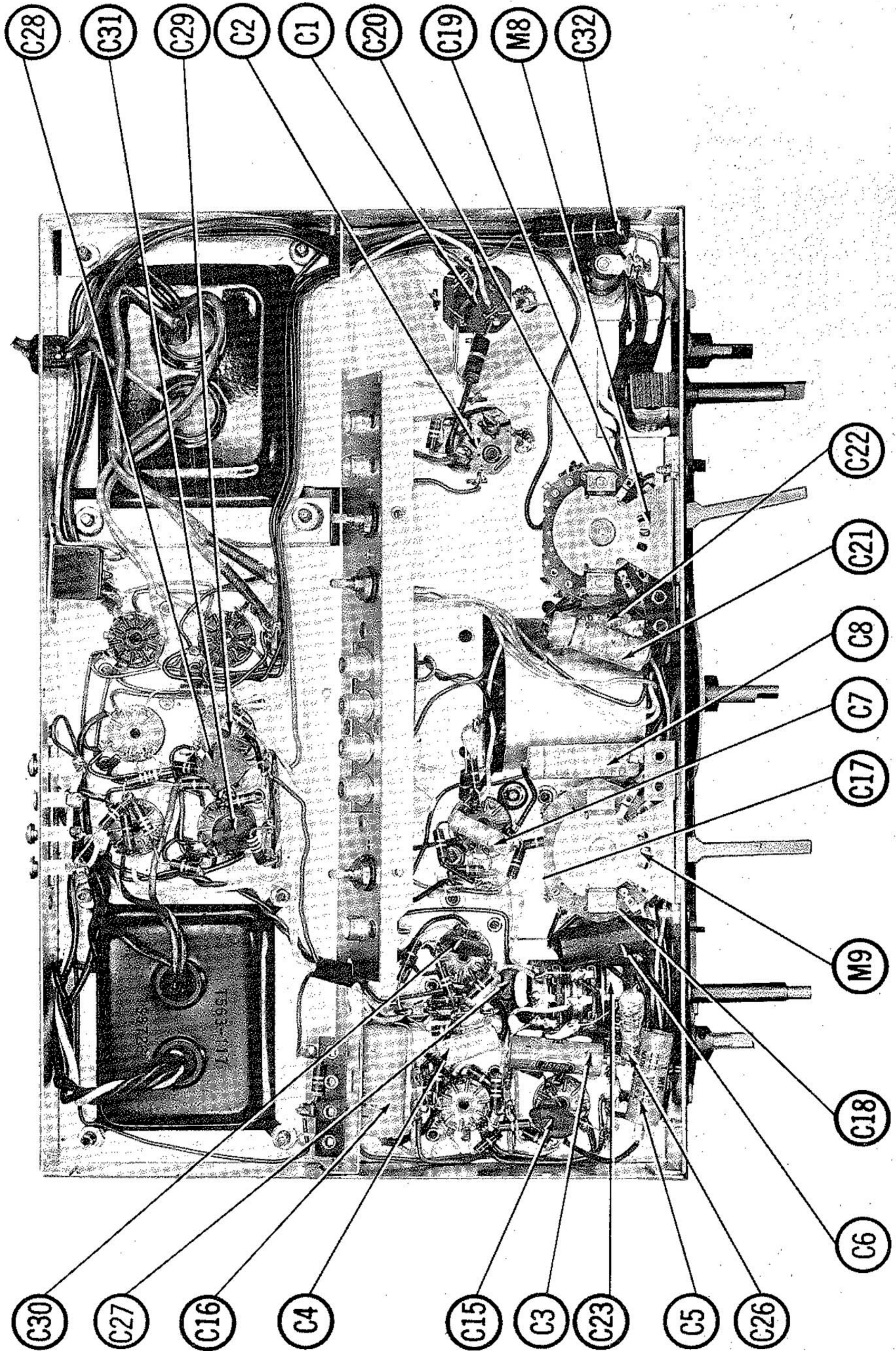
Fisher Radio Corp., 21-21 44th Drive, Long Island City 1, N. Y.

AC Operated 6Channel 25 Watt Audio Amplifier

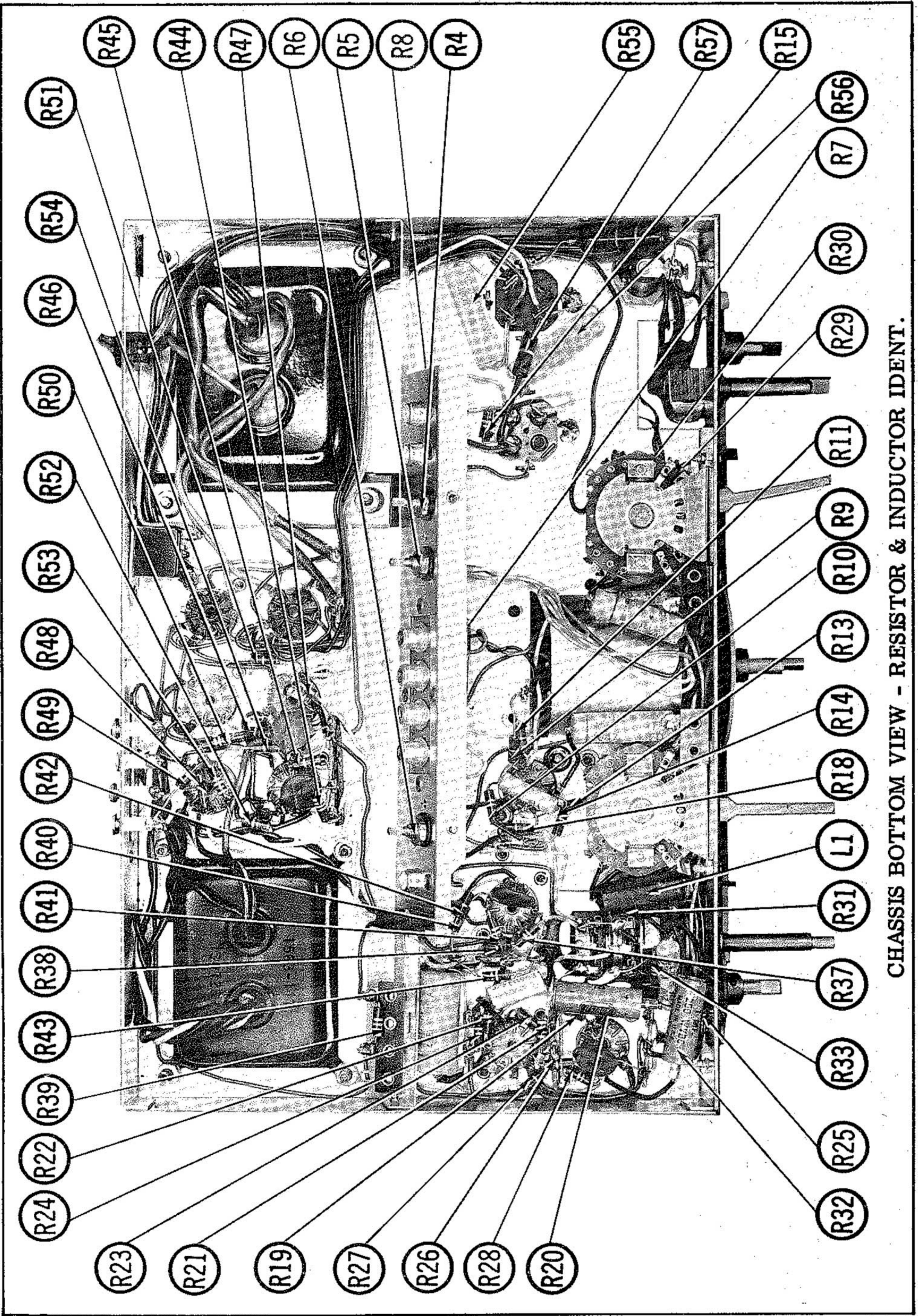
**Types 12AX7 Preamplifier, 12AU7 Cathode Follower, 12AX7 AF Amplifier, 12AX7
AF Amp. -Phase Inv., (4) 6BQ5/EL84 Output, (2) 6BW4 Rectifier**

105-125 Volts AC-50/60 Cycles

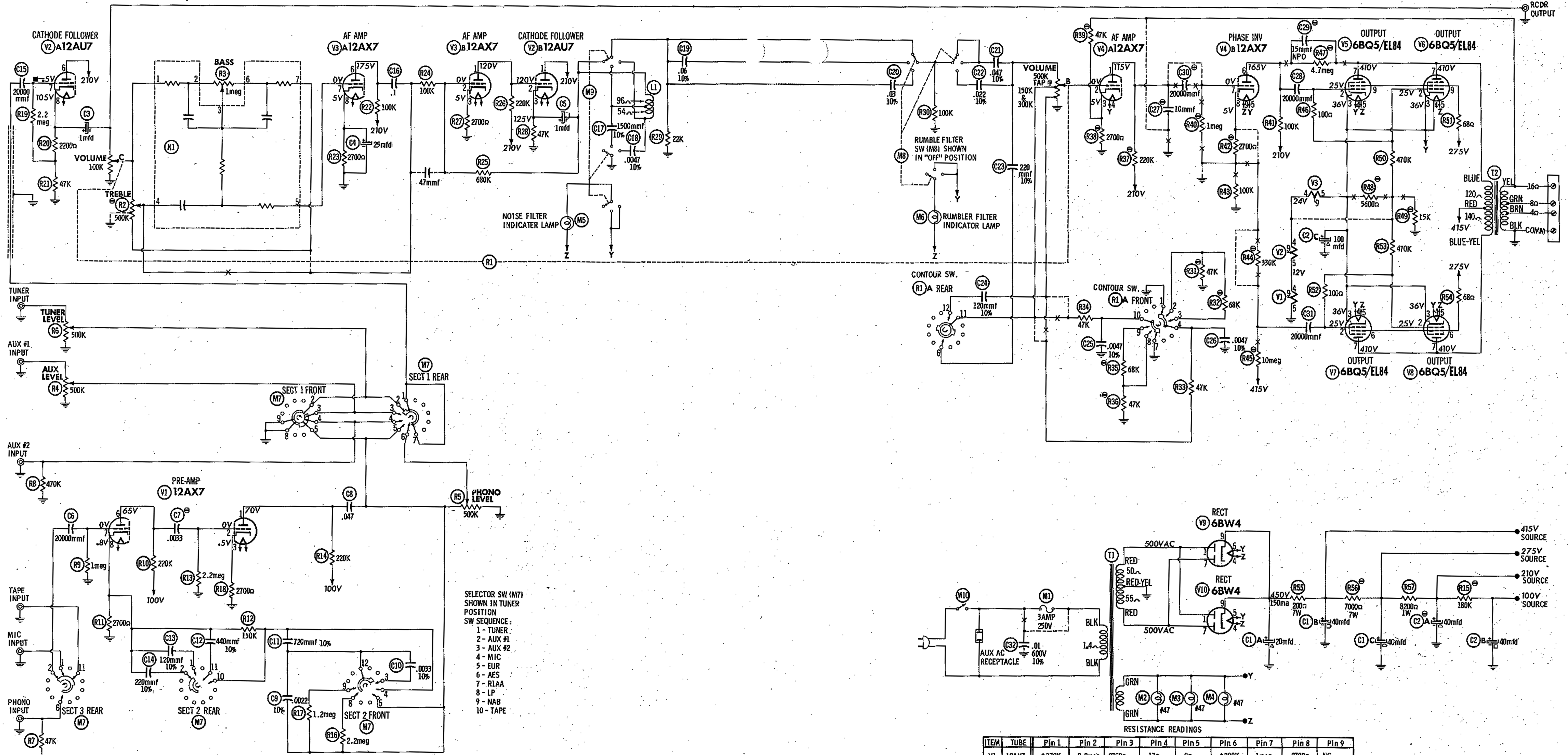
RATING 1.1 Amp. @117 Volts AC (120Watts)



CHASSIS BOTTOM VIEW - CAPACITOR & MISC. IDENT.



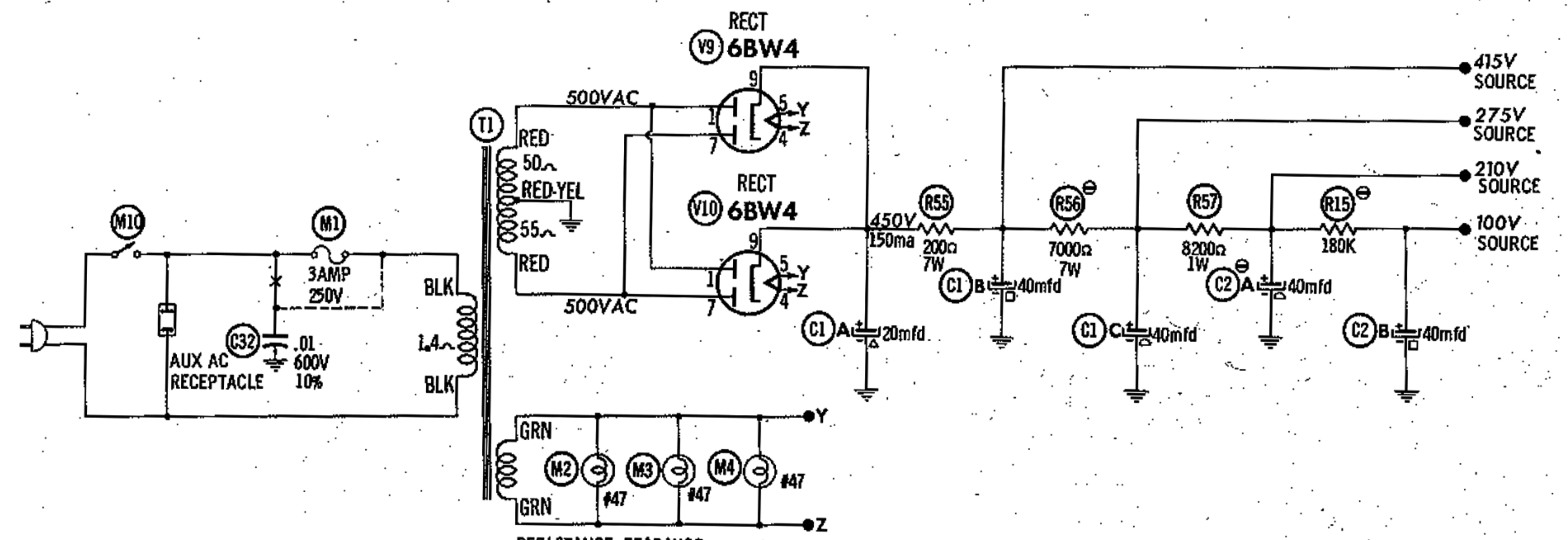
CHASSIS BOTTOM VIEW - RESISTOR & INDUCTOR IDENT.



- DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common negative.
- Line voltage maintained at 117 volts for voltage readings.
- Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
- Volume control at maximum, no signal applied for voltage measurements.

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION
DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM.

SELECTOR SW (M7) SHOWN IN TUNER POSITION
SW SEQUENCE:
1 - TUNER
2 - AUX #1
3 - AUX #2
4 - MIC
5 - EUR
6 - AES
7 - RIAA
8 - LP
9 - NAB
10 - TAPE



RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12AX7	†370K	2.2meg	2700Ω	17Ω	0Ω	†380K	1meg	2700Ω	NC
V2	12AU7	†16k	†220K	47K	28Ω	16Ω	†16K	2.2meg	90K	NC
V3	12AX7	†300K	250K	2700Ω	28Ω	43Ω	†120K	400K	2700Ω	NC
V4	12AX7	†220K	72Ω	2600Ω	42Ω	42Ω	†110K	†1.4meg	100K	42Ω
V5	6BQ5/EL84	NC	460K	42Ω	42Ω	42Ω	NC	†320Ω	NC	†7200Ω
V6	6BQ5/EL84	NC	460K	42Ω	42Ω	42Ω	NC	†320Ω	NC	†7200Ω
V7	6BQ5/EL84	NC	460K	42Ω	42Ω	42Ω	NC	†215Ω	TP	†7200Ω
V8	6BQ5/EL84	NC	460K	42Ω	42Ω	42Ω	NC	†215Ω	TP	†7200Ω
V9	6BW4	50Ω	NC	NC	42Ω	42Ω	NC	55Ω	NC	20K(MIN)
V10	6BW4	50Ω	NC	NC	42Ω	42Ω	NC	55Ω	NC	20K(MIN)

† MEASURED FROM PIN 9 OF V10
‡ MEASURED FROM PIN 8 OF V2
NC NO CONNECTION
TP TIE POINT

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE
V1	Preamplifier	12AX7
V2	Cathode Follower	12AU7
V3	AF Amplifier	12AX7
V4	AF Amp. -Phase Inv.	12AX7
V5	Output	6BQ5/ EL84

ITEM No.	USE	TYPE
V6	Output	6BQ5/ EL84
V7	Output	6BQ5/ EL84
V8	Output	6BQ5/ EL84
V9	Rectifier	6BW4
V10	Rectifier	6BW4

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	FISHER PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	▲ 20	450	C-563-127	AFH3-43-50	B0450	FP376.9	TMT-39	D-235	TVL-3786
B	■ 40	450			BR2045			MT-4520	
C	▲ 40	450							
C2A	▲ 40	450	C-563-128A①	AFH3-142-80	B0450	FP238	TMD-54	D-235	TVL-3755
B	■ 40	450			BR1005	TC3501	TD-100-50	MTH-5010	
C	▲ 100	50							
C3	1	250	C-546-126	PRS450VI	BR145	TT250X1		MMT-4501	R2605 *
C4	25	6	C-556-137	XPP6025	BBR25-6	TT6X25	ML30-6	MMT-625	TE-1091
C5	1	250	C-546-126	PRS450VI	BR145	TT250X1		MMT-4501	R2605 *

① In some versions C2C is 50mfd (C2 Part # C-563-128)

* Non Catalog Item

FIXED CAPACITORS

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

ITEM No.	RATING		REPLACEMENT DATA					NOTES	
	CAP.	VOLT	FISHER PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.		SPRAGUE PART No.
C6	20000		C-556-122	BPD-02	DD-203	BYB6S2		5HK-S2	
C7	.0033	200	C68P332K2	P288N-0033	D6-332	CUB6D33	GEM-6233	6TM-D33	10%①
C8	.047	400	C68P473M4	P488N-047	DF-503	CUB4S47	GEM-4147	4TM-S47	
C9	.0022	200	C68P222K2						10%
C10	.0033	200	C68P332K2				GEM-16233		10%
C11	720		CC21GP721K5						10%
C12	440		CC21GP441K5						10%
C13	120		CC21GP121K5		D6-121	L10T12		MS-312	10%
C14	220		CC21GP221K5		D6-221	L10T22		MS-322	10%
C15	20000		C-556-122	BPD-02	DD-203	BYB6S2		5HK-S2	
C16	.1	400	C68P104M4	P488N-1	DF-104	CUB4P1	GEM-401	4TM-P1	
C17	1500		CC26GP152K5			1R5D15	MCB456	MS-215	10%
C18	.0047	200	C68P472K2				GEM-16247		10%
C19	.06	200	C68P603K2						10%
C20	.03	200	C68P303K2						10%
C21	.047	200	C68P473M2	P288N-047	DF-503	CUB2S47	GEM-4147	2TM-S47	
C22	.022	200	C68P223K2						10%
C23	220		CC21GP221K5		D6-221	L10T22		MS-322	10%
C24	120		CC21GP121K5		D6-121	L10T12		MS-312	10%
C25	.0047	200	C68P472K2				GEM-16247		10%
C26	.0047	200	C68P472K2				GEM-16247		10%
C27	10			SI10	D6-100	LT6Q1	UC-541	5GA-Q1	②
C28	20000			BPD-02	DD-203	BYB6S2		5HK-S2	
C29	15			NP0-SI15	TCZ-15	CTA6Q15C	ZT-5415	5TCC-Q15	NP0③
C30	20000			BPD-02	DD-203	BYB6S2		5HK-S2	③
C31	20000			BPD-02	DD-203	BYB6S2		5HK-S2	10%
C32	.01	600	C-2747				GEM-1611		

① Some versions may use 10000mmf in this application (Part# CK62GP103V6)

② Some versions may use 33mmf in this application (Part # CC21G330M5)

③ Not used in some versions.

PARTS LIST AND DESCRIPTIONS (Continued)

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	FISHER PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	Switch		RS-563-124					Contour Switch Volume, Tap@150K & 300K Volume Treble Note 1. Bass Aux 1 Level Phono Level Tuner Level
B	500K	1/2						
C	100K							
R2A	500K		R-563-126	AB-59	A47-500K-S	Q11-133	U50	
B	Shaft			AK-9 *	RS-2 *	PQ *	Not Req.	
R3A	1meg	1/2	R-563-125	AB-69	A47-1meg-S	Q11-137	U54	
B	Shaft			AK-9*	RS-2 *	PQ *	Not Req	
R4	500K	1/2	R-520-139	JP-504				
R5	500K		R-520-139	JP-504				
R6	500K		R-520-139	JP-504				

Note 1 Tap not used.

* File flat as needed to fit knob.

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING		FISHER PART No.	NOTES	ITEM No.	RATING		FISHER PART No.	NOTES
	OHMS	WATT				OHMS	WATT		
R7	47K		RC20BF473K		R33	47K		RC20BF473K	
R8	470K		RC20BF474K		R34	47K		RC20BF473K	
R9	1meg		RC20BF105K		R35	68K		RC20BF683K	③
R10	220K		RC20BF224K		R36	47K		RC20BF473K	②
R11	2700Ω		RC20BF272K		R37	220K		RC20BF224K	④
R12	150K		RC20BF154K		R38	2700Ω		RC20BF272K	⑤
R13	2.2meg		RC20BF225K		R39	47K		RC20BF473K	⑥
R14	220K		RC20BF224K		R40	1meg		RC20BF105K	⑦
R15	180K		RC20BF184K	①	R41	100K		RC20BF104K	
R16	2.2meg		RC20BF225K		R42	2700Ω		RC20BF272K	①
R17	1.2meg		RC20BF125K		R43	100K		RC20BF104K	
R18	2700Ω		RC20BF272K		R44	330K		RC20BF334K	⑦
R19	2.2meg		RC20BF225K		R45	10meg		RC20BF106K	⑦
R20	2200Ω		RC20BF222K		R46	100Ω		RC20BF101K	
R21	47K		RC20BF473K		R47	4.7meg		RC20BF475K	⑦
R22	100K		RC20BF104K		R48	5600Ω		RC20BF562K	⑦
R23	2700Ω		RC20BF272K		R49	15K		RC20BF153K	⑦
R24	100K		RC20BF104K		R50	470K		RC20BF474K	
R25	680K		RC20BF684K		R51	68Ω		RC20BF680K	
R26	220K		RC20BF224K		R52	100Ω		RC20BF101K	
R27	2700Ω		RC20BF272K		R53	470K		RC20BF474K	
R28	47K		RC20BF473K		R54	68Ω		RC20BF680K	
R29	22K		RC20BF223K		R55	200Ω	7	R-539-120	
R30	100K		RC20BF104K		R56	7000Ω	7		⑧
R31	47K		RC20BF473K	②	R57	8200Ω	1	RC30BF822K	
R32	68K		RC20BF683K	③					

Note 1. Some versions may use 10K in this application (RC20BF103K)

Note 2. Some versions may use 68K in this application (RC20BF683K)

Note 3. Some versions may use 47K in this application (RC20BF473K)

Note 4. Some versions may use 470K in this application (RC20BF474K)

Note 5. Some versions may use 680Ω in this application (RC20BF681K)

Note 6. Some versions may use 15K in this application (RC20BF153K)

Note 7. Not used in some versions.

Note 8. Some versions may use 2200Ω 7W in this application (R-563-148)

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA						
	PRI.	SEC. 1	SEC. 2	FISHER PART No.	Haldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	117V ① 1. LA	760VCT ② .150A	6.3V 5.8A	T-563-116				PM8411		R-18B

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES	
			FISHER PART No.	Haldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.		Triad PART No.
	PRI.	SEC.								
T2	4300Ω CT	16Ω Tap @ 8Ω, 4Ω	T-563-117							

COILS

ITEM No.	USE	REPLACEMENT DATA					NOTES
		FISHER PART No.	Meissner PART No.	Merit PART No.	Miller PART No.	Ram PART No.	
L1	Tone Choke	L-563-129					1 Henry.

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	FISHER PART No.	REPLACEMENT DATA
K1	Tone Compensation		PC-552-105	

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			FISHER PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	3AG	3A 250V	F-3000		312003. (3A 250V)	342003	AGC3	

MISCELLANEOUS

ITEM No.	PART NAME	FISHER PART No.	NOTES
M2	Pilot Lamp	I-50009-1	#47
M3	Pilot Lamp	I-50009-1	#47
M4	Pilot Lamp	I-50009-1	#47
M5	Indicator Lamp	I-563-145	Filter
M6	Indicator Lamp	I-563-145	Filter
M7	Switch	S-563-121	Selector (Rotary Wafer Type)
M8	Switch	S-563-122	Rumble Filter (Rotary Wafer Type)
M9	Switch	S-563-122	Noise Filter (Rotary Wafer Type)
M10	Switch	S-563-149	Power On-Off (Leaf Type)
	Glass	A-563-138	Tonescope

CABINETS & CABINET PARTS

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

NAME	PART NO.	DESCRIPTION
Knob	E-50049-1	Bass, Treble, Selector
Knob	E-563-173	Rumble filter noise filter switch
Knob	E-50049-3	Power On-Off
Knob	E-50049-4	Loudness
Knob	E-50049-2	Volume

WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in Ten Colors 8524 (Stranded) Available in Ten Colors
Power Cord	Use BELDEN No. 1765-B (8 Ft. Length) 1725-K (7½ Ft. Length)
Low-Loss Shielded Lead (Interconnecting)	Use BELDEN No. 8401
Phono Pick-up Arm Cable	Use BELDEN No. 8430 (Two Conductor - Twisted)