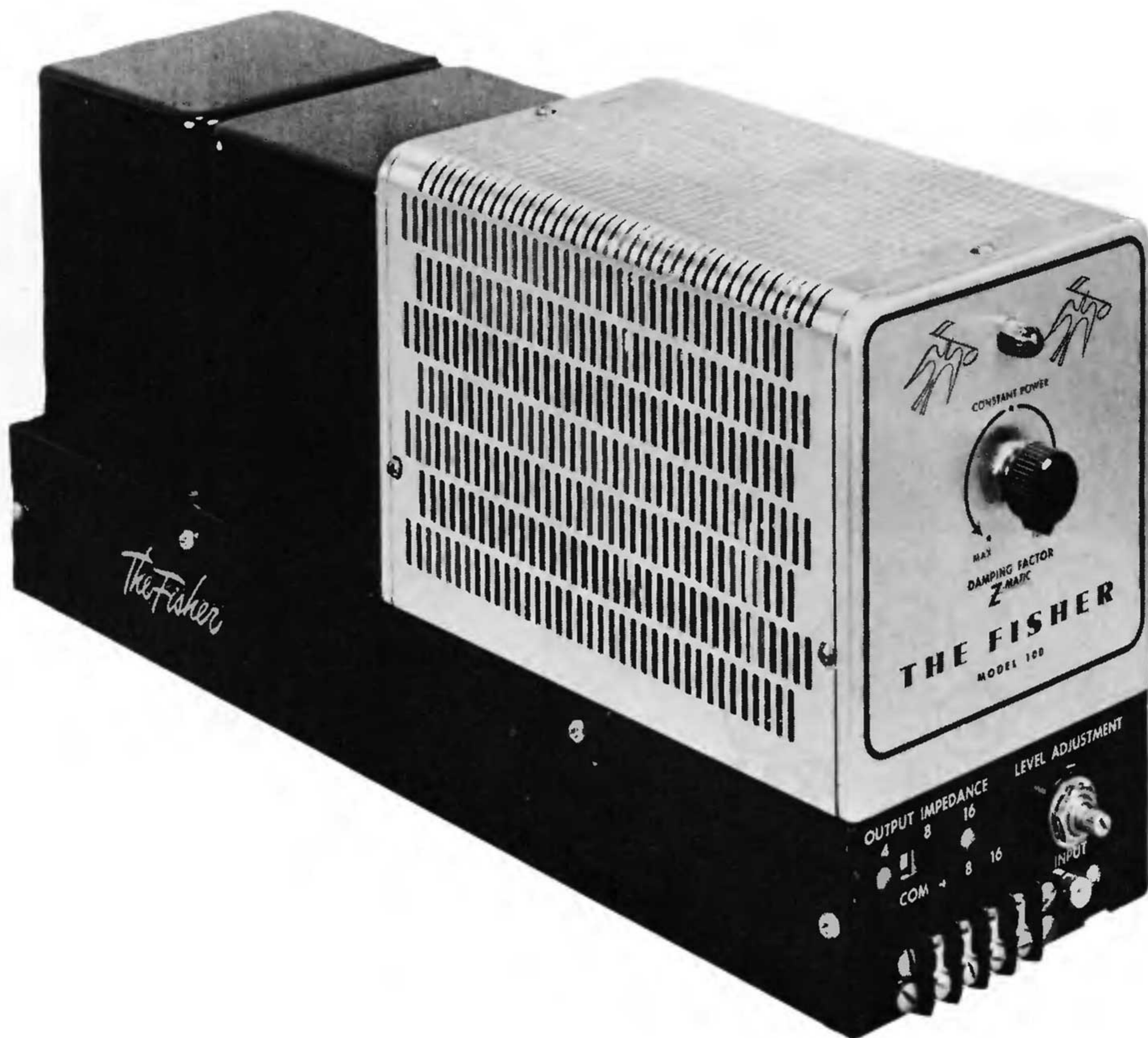


# FISHER MODEL 100

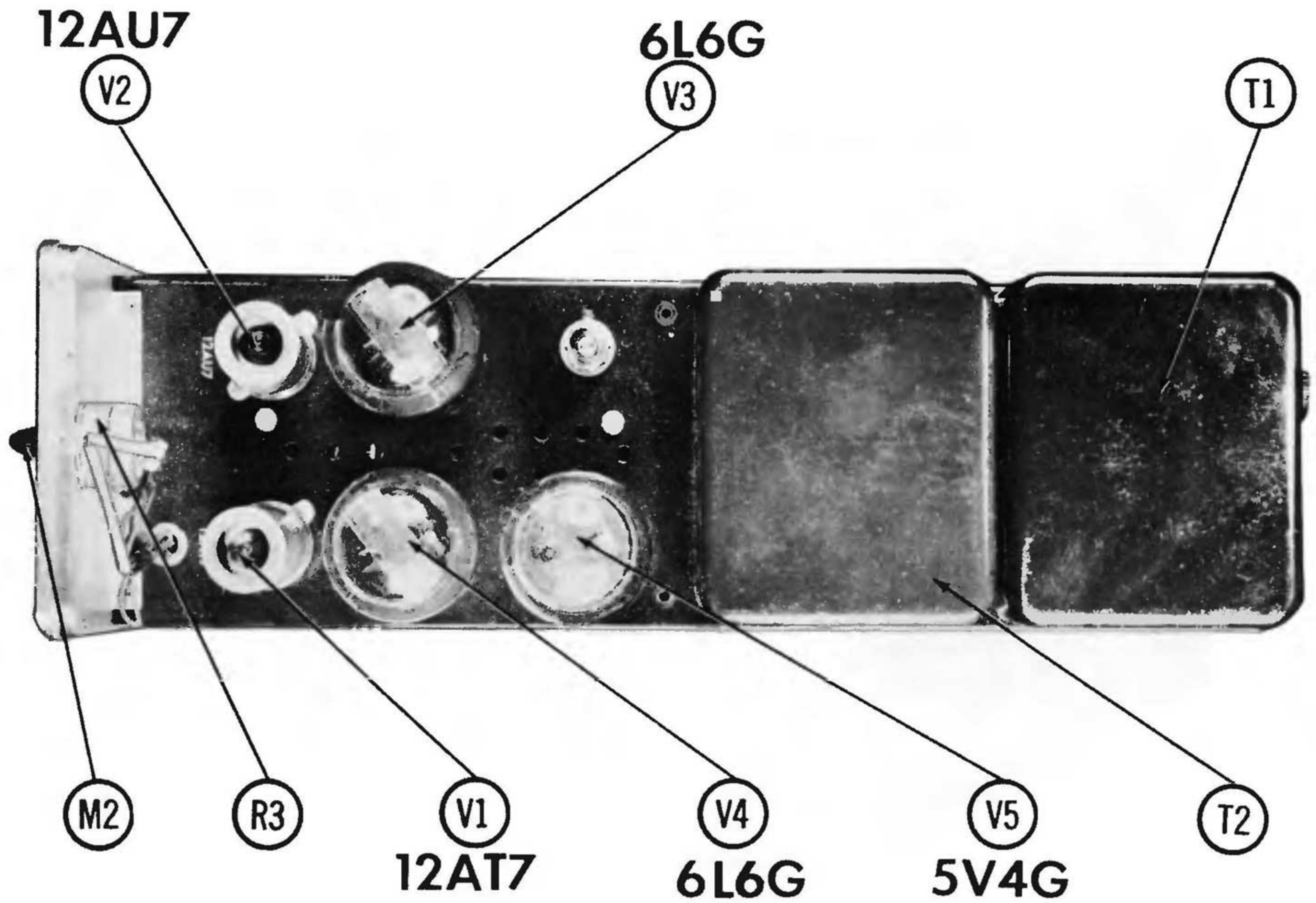


TRADE NAME	Fisher Model 100 (Serial #10001-19999 Inclusive)		
MANUFACTURER	Fisher Radio Corp., 21-21 44th Drive, Long Island City 1, N. Y.		
TYPE SET	AC Operated Audio Amplifier		
TUBES	Five		
POWER SUPPLY	105-125 Volts AC, 50-60 Cycles	RATING	124 Watts, 1.24 Amp. @117 Volts AC



# PARTS LIST AND DESCRIPTIONS TUBES (GENERAL ELECTRIC, PENNSYLVANIA)

# CHASSIS—TOP VIEW



ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	AF Amp. -Phase Inv. Driver	12AT7/ ECC81	V4	Output Rectifier	6L6G/EL37
V2	Output	12AU7/ ECC82	V5		5V4G
V3		6L6G/ EL37			

Note 1. Some versions may use 5881 in this application. V3 & V4 must be the same type.

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA					SPRAGUE PART No.	
	CAP.	VOLT.	FISHER PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.		SANGAMO PART No.
C1A	40	500	C-522-114	AFH2-72	B0530	FP288	TMD-62	D-265	TVL-2940
C1B	40	500							
C2A	40	450	C-1798	AFH2-57	B0450	FP238	TMD-54	D-235	TVL-2764
C2B	40	450							
C3	50	50	C-508-115	PRS50V50	BR505	TC39	TD-50-50	MT-0550	TVA-1308

## 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.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
C4	.22	200	C69P224V2	P288N-22	CUB2P22	GEM-2022	2TMP22	
C5	300		CC21GP30IK5	NPO-S1120	L10T13	CN0-312	5TCC-T12	10%
C6	120		CC21GP12IK5	P488N-022	L10T12	GEM-4122	4TM-S22	10%
C7	.022	400	C68P223M4	P488N-022	CUB4S22	GEM-4122	4TM-S22	
C8	.022	400	C68P223M4	P488N-022	CUB4S22	GEM-4122	4TM-S22	
C9	.047	400	C68P473M4	P488N-047	CUB4S47	GEM-4147	4TM-S47	
C10	.047	400	C68P473M4	P488N-047	CUB4S47	GEM-4147	4TM-S47	
C11	500			BPD-0005	L10T5	B-350	5GA-T5	Note 1
C12	.01	600	C-2747	P688N-01	CUB6S1	GEM-611	6TM-S1	

Note 1. Not used in some versions.

## CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES
	RESISTANCE	WATTS	FISHER PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	
R1A	500K	1/2	R-2815-9	AB-59	A47-500K-S	Q11-133	U50
R2A	50K	1/2	R-50000-5	AK-1	FKS-1/4	RQ	Not Req.
R3A	1000Ω	1/2	R-557-126	AK-5	A47-50K-S	Q11-123	U35
R4	500K	1/2		AK-8	FCS-1/4	RQ	Not Req.
R5	500K	1/2		*KRB-3orKR-3	A47-1000-S		U4
R6	500K	1/2			RS-3/16		Not Req.
R7	500K	1/2			SWE-21		US-28

\* Use KR with CRL "Red Label" controls and KB with "Blue Label" controls.  
† Use Terminals which are closed (switch on) in maximum CCW position.

## 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		
R4	220K		RC20BF224K		R16	68Ω		RC20BF680K	
R5	330K		RC20BF334K		R17	470K		RC20BF474K	
R6	1500Ω		RC20BF152K		R18	68Ω		RC20BF680K	
R7	4700Ω		RC20BF472K		R19A	240Ω	10		
R8	100K		RC20BF104K		B 1Ω		5	R-649-117	
R9	82K		RC20BF823K		C 1Ω		5		
R10	470K		RC20BF474K		D 100Ω		10		
R11	150K		RC20BF154K		R20	2200Ω		RC20BF222K	
R12	2700Ω		RC20BF272K		R21	330Ω		RC20BF331K	
R13	470K		RC20BF474K		R22	.82Ω		R-557-140	
R14	150K		RC20BF154K		R23	10K	1	RC30BF103K	
R15	470K		RC20BF474K		R24	10K	1	RC30BF103K	



# PARTS LIST AND DESCRIPTIONS (Continued)

## TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA						
	PRI.	SEC. 1	SEC. 2	FISHER PART No.	Halldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
		SEC. 3	SEC. 4							
T1	117V @ 1.24A	780VCT @ .150A	5V @ 2A	T-649-114						
	6.3VCT @ 3A									

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES	
	PRI.	SEC.	FISHER PART No.	Halldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.		Triad PART No.
		CT								
T2	5000Ω	18Ω Tap	T-557-145							
	3000Ω	CT @ 8Ω 4Ω								

## 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	X-1036	312003. (3AG 3A 250V)	342001	AGC3	HKP

## MISCELLANEOUS

ITEM No.	PART NAME	FISHER PART No.	NOTES
M2	Lamp	1-557-144	#NE2
M3	Switch	S-557-138	Impedance Matching (3 Position, Slide Type).

## CABINETS & CABINET PARTS

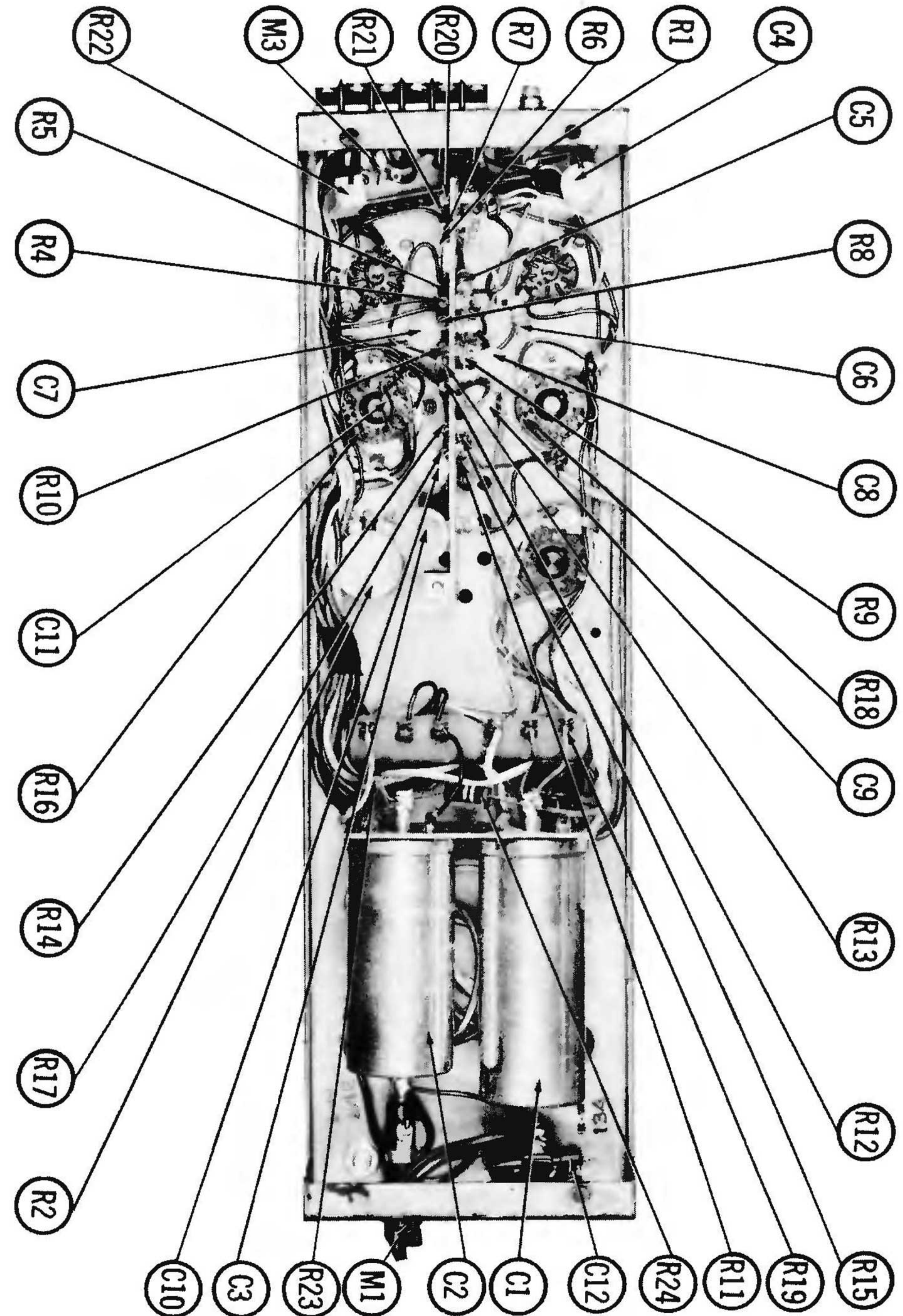
(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

NAME	PART NO.	DESCRIPTION
Knob	E-557-127	Z-Matic Control Perforated, Brass
Cover	A-557-107	
Control Panel	AS-649-103	

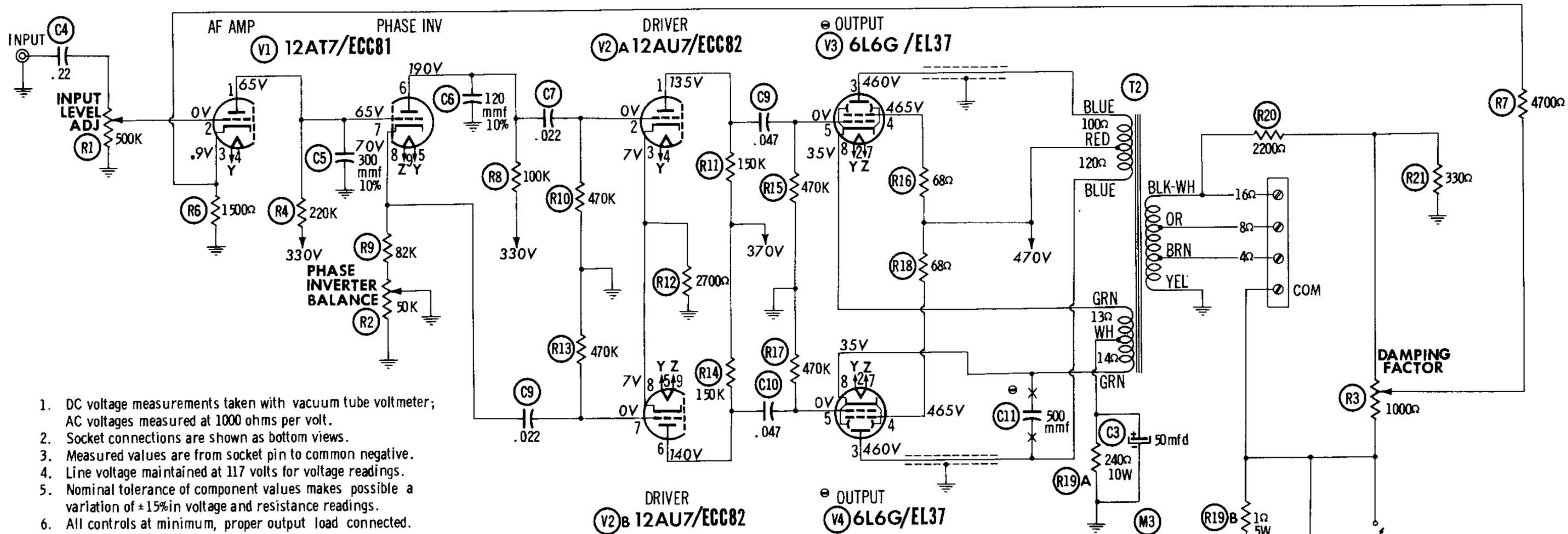
## WIRING DATA

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. 1785-B (6 Ft. Length)  
1725-K (7½ Ft. Length)

# CHASSIS—BOTTOM VIEW







1. DC voltage measurements taken with vacuum tube voltmeter; 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 of component values makes possible a variation of  $\pm 15\%$  in voltage and resistance readings.
6. All controls at minimum, proper output load connected.

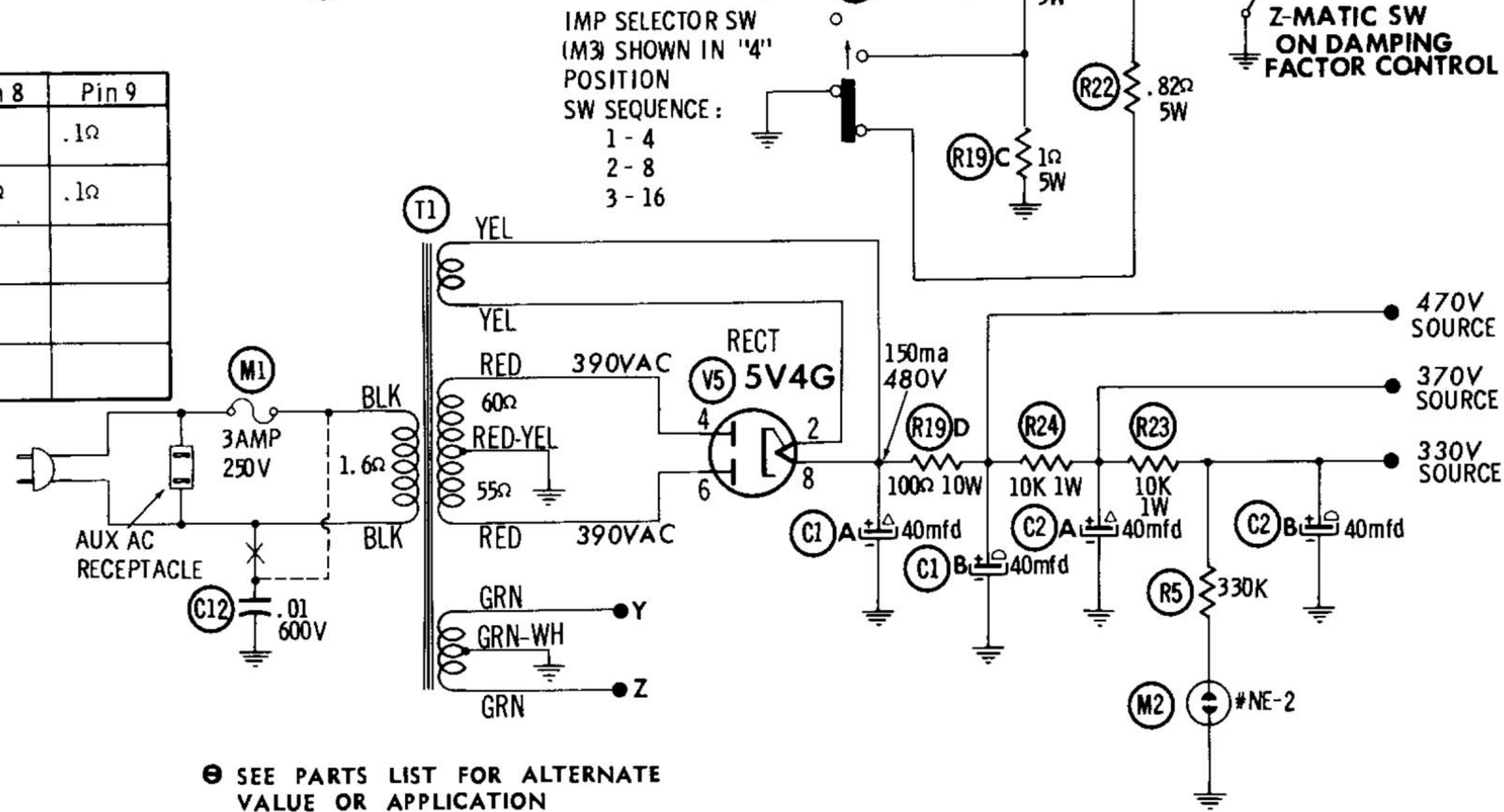
#### RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12AT7 ECC81	† 240K	0 $\Omega$	4300 $\Omega$	.1 $\Omega$	.1 $\Omega$	† 120K	† 240K	90K	.1 $\Omega$
V2	12AU7 ECC82	† 160K	470K	2700 $\Omega$	.1 $\Omega$	.1 $\Omega$	† 160K	470K	2700 $\Omega$	.1 $\Omega$
V3	6L6G EL37	NC	.1 $\Omega$	† 200 $\Omega$	† 168 $\Omega$	470K	TP	.1 $\Omega$	255 $\Omega$	
V4	6L6G EL37	NC	.1 $\Omega$	† 220 $\Omega$	† 168 $\Omega$	470K	TP	.1 $\Omega$	255 $\Omega$	
V5	5V4G	NC	9	NC	60 $\Omega$	NC	55 $\Omega$	NC	9	

9 THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC CAPACITOR CONNECTED IN THE ASSOCIATED CIRCUIT.  
 † MEASURED FROM PIN 8 OF V5.  
 NC NO CONNECTION  
 TP TIE POINT

#### Phase Inverter Balance Adjustment (R2)

- This adjustment should not be attempted without the proper equipment.
1. Connect an accurate audio generator to the amplifier input.
  2. Connect a 16 $\Omega$  load resistor to the amplifier output (16 $\Omega$  & Com) Connect a harmonic or intermodulation distortion analyzer across the resistor.
  3. Set Impedance switch to 16 $\Omega$ ; Z-Matic control to "off".
  4. Allow all equipment to warm up for 30 minutes.
  5. Adjust the generator to 1KC with an output slightly below the clipping point (approx. 1db) of the amplifier. This output must be held constant.
  6. Adjust R2 for minimum distortion as indicated on the analyzer.



SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM