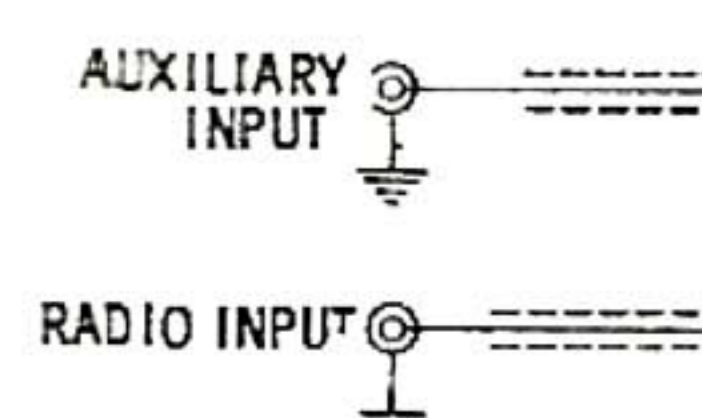
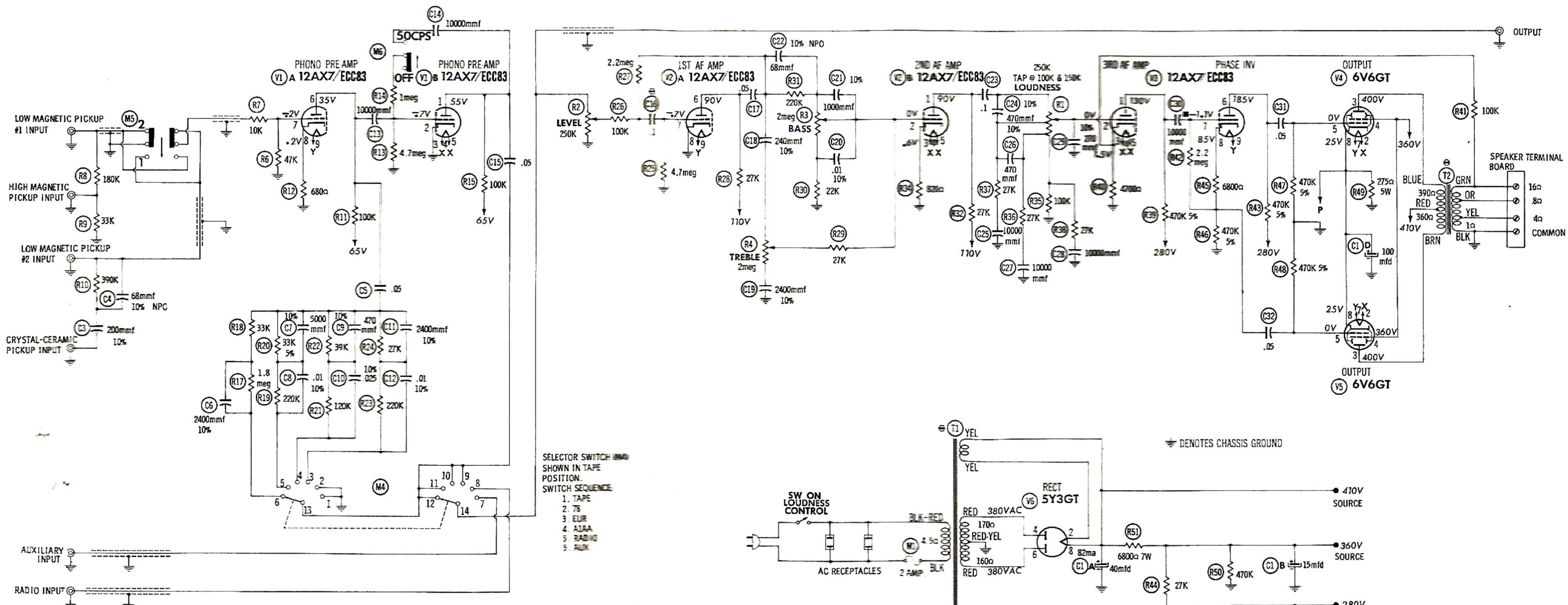


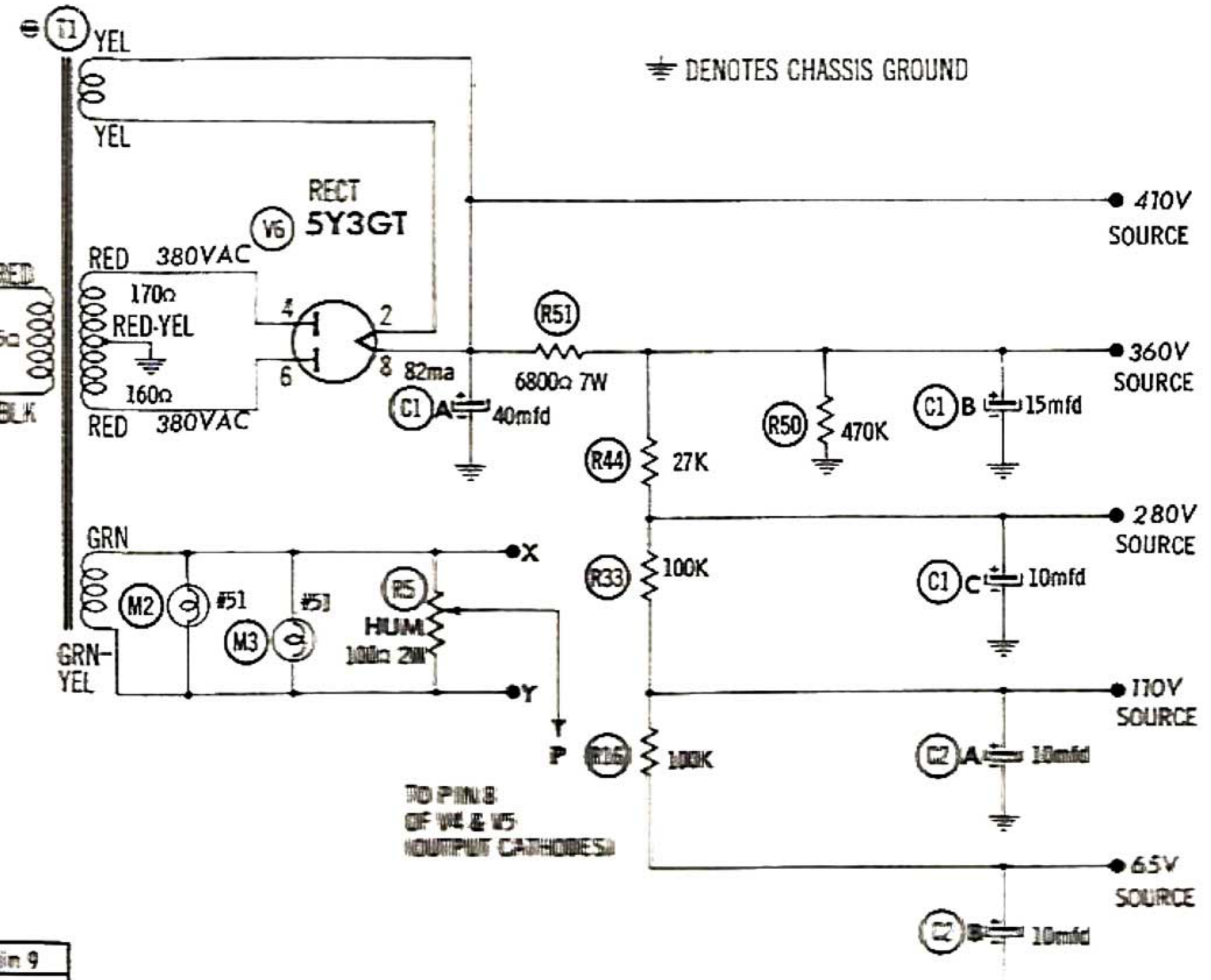
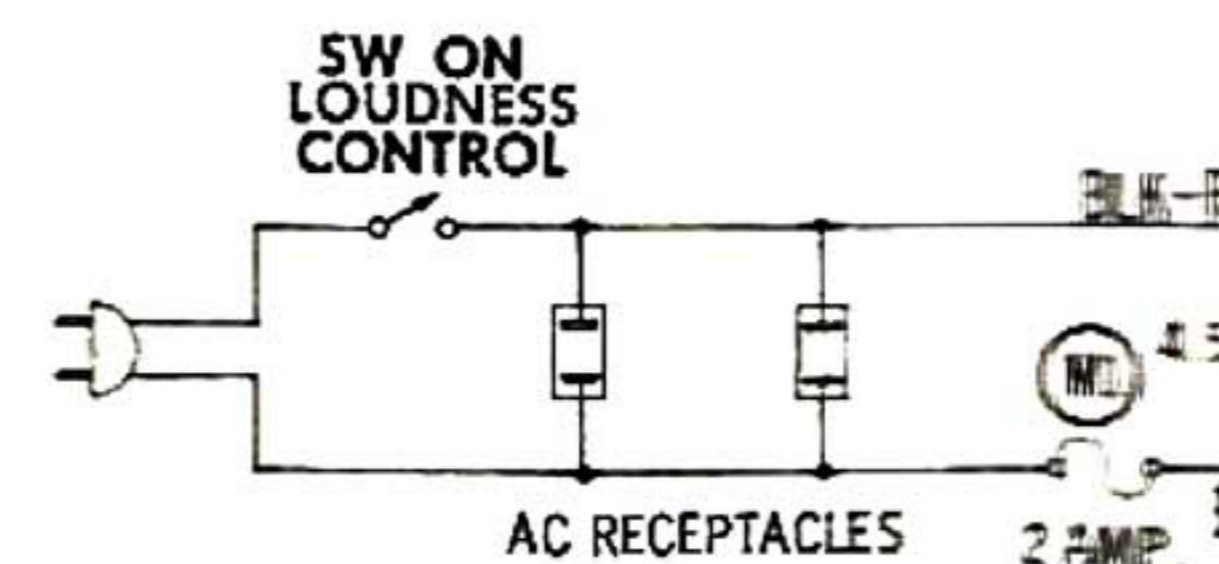
**BELL SOUND
MODEL 2315**



TRADE NAME	Bell Sound Model 2315	
MANUFACTURER	Bell Sound Systems, Inc., 555 Marion Road, Columbus 7, Ohio	
TYPE SET	AC Operated 6 Channel 12 Watt Audio Amplifier	
TUBES (Six)	Types 12AX7/ECC83 Phono Preamplifier, 12AX7/ECC83 AF Amplifier, 12AX7/ECC83 AF Amp. - Phase Inv., (2) 6V6GT Output, 5Y3GT Rectifier	
POWER SUPPLY	110-120 Volts AC -60 Cycles	RATING .74 Amp. @ 117 Volts AC (75 Watts)



SELECTOR SWITCH (M4)
SHOWN IN TAPE
POSITION.
SWITCH SEQUENCE
1. TAPE
2. 75
3. EUR
4. ALMA
5. RADIO
6. AUX



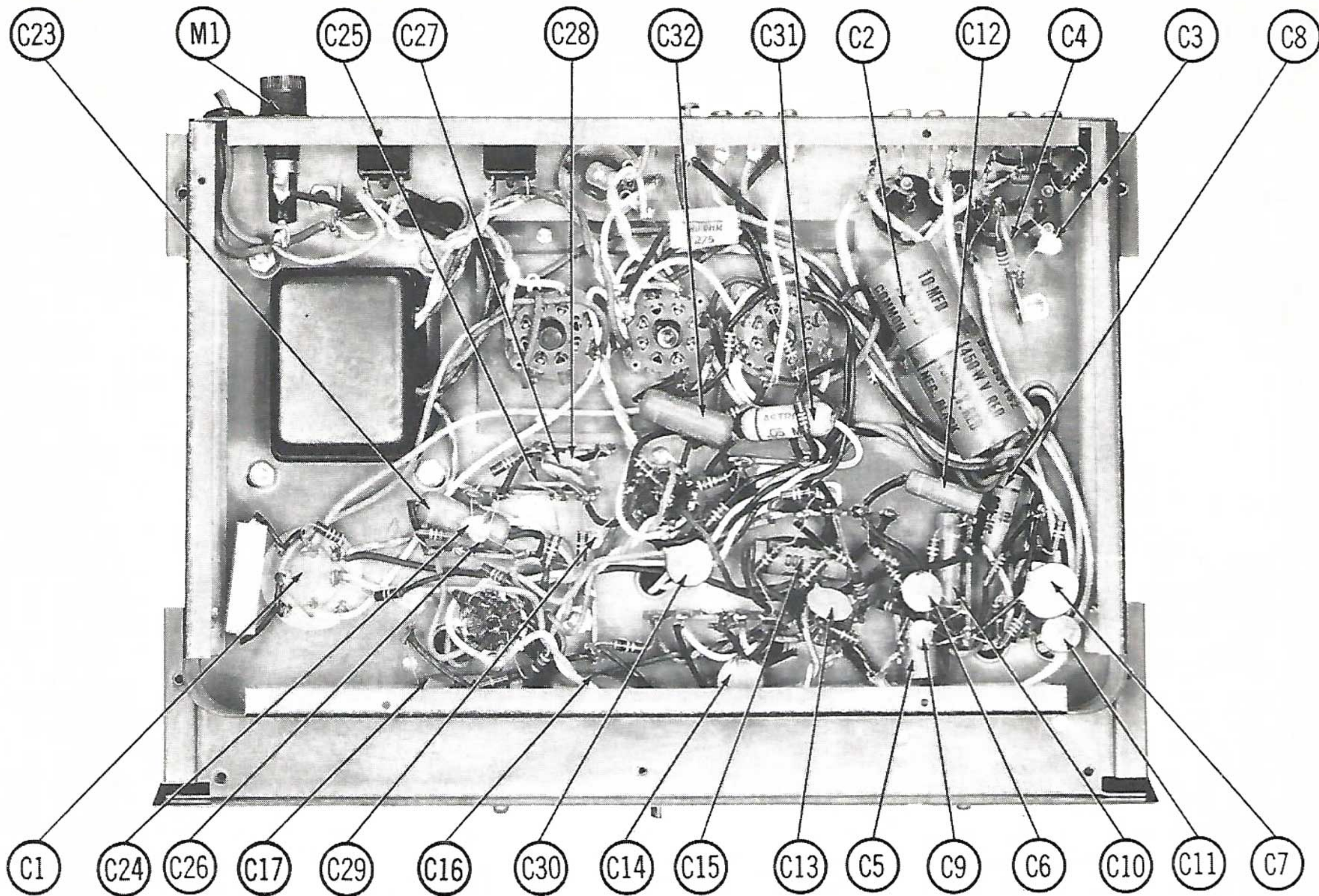
- DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common negative.
- Line voltage maintained at 117 volts for voltage readings.
- Nominal tolerance of component values makes possible a variation of ±15% in voltage and resistance readings.
- All controls at minimum, proper output load connected.

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

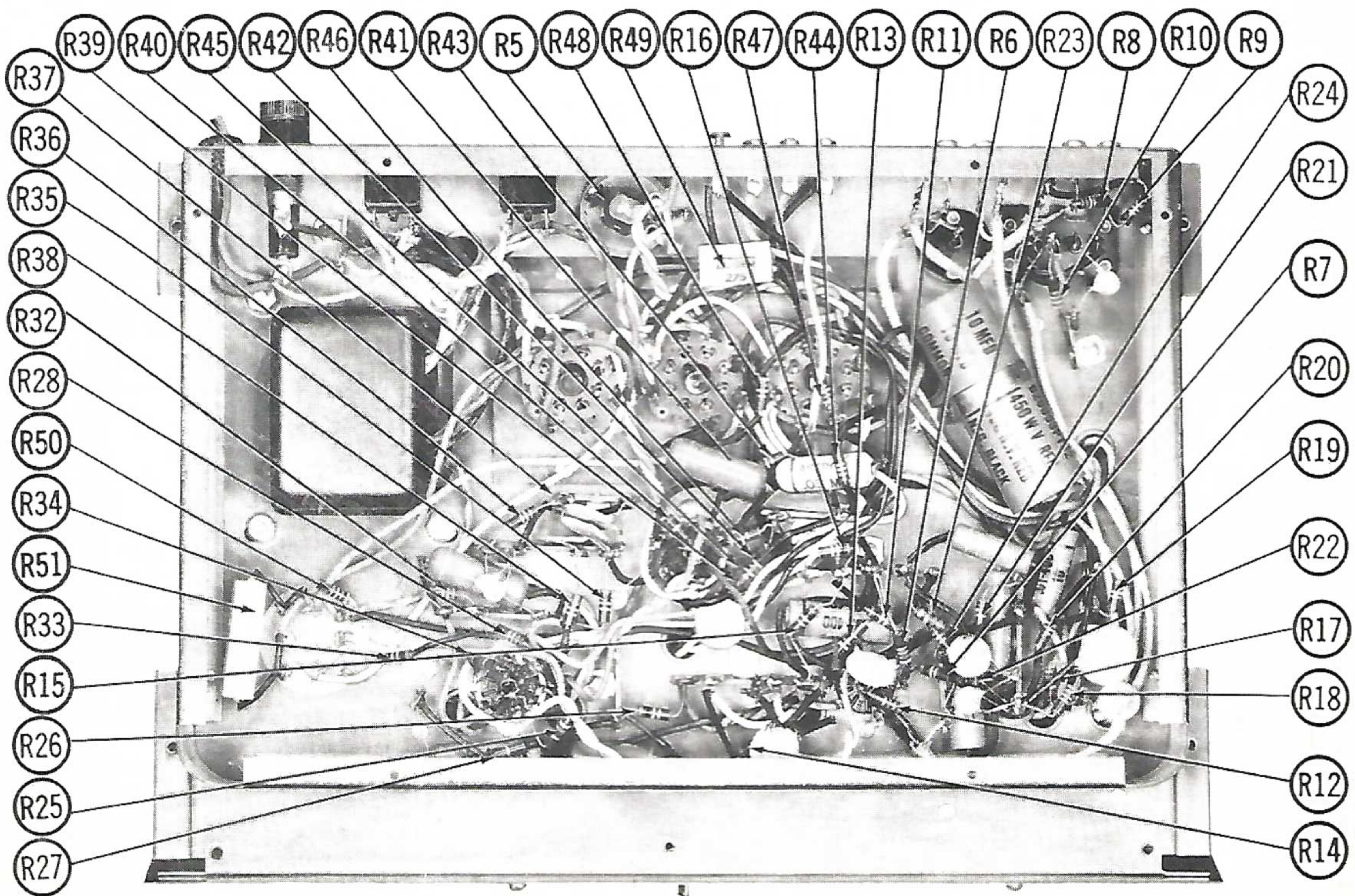
RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12AX7	100K	4.7meg	0Ω	300Ω	300Ω	† 330K	47K	680Ω	300Ω
V2	12AX7	100K	22K	820Ω	300Ω	300Ω	† 160K	4.7meg	0Ω	300Ω
V3	12AX7	100K	100K	4200Ω	300Ω	300Ω	† 500K	2.7meg	470K	300Ω
V4	6V6GT	TP	300Ω	† 390Ω	† 6800Ω	470K	TP	300Ω	275Ω	
V5	6V6GT	TP	300Ω	† 360Ω	† 6800Ω	470K	NC	300Ω	275Ω	
V6	6V6GT	NC	20K(10m)	NC	170Ω	NC	160Ω	NC	20K(10m)	

† MEASURED FROM PIN 8 OF V6
 † MEASURED FROM PIN 8 OF V3
 NC NO CONNECTION
 TP TIE POINT



CHASSIS BOTTOM VIEW CAPACITOR AND MISCELLANEOUS IDENTIFICATION



CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE
V1	Phono Preamplifier	12AX7/ECC83
V2	AF Amplifier	12AX7/ECC83
V3	AF Amp. - Phase Inv.	12AX7/ECC83

ITEM No.	USE	TYPE
V4	Output	6V6GT
V5	Output	6V6GT
V6	Rectifier	5Y3GT

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	BELL SOUND PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	▲40	450							R2555 *
B	■15	450							
C	▲10	450							
D	100	50							
C2A	10	450		PRS450V1010	BBRT11145	TCD72	TDLD-26	MTD-4510	TVA-2722
B	10	450							

* 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.	BELL SOUND PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C3	200				TCZ-200	L10T2	ED-200	MCB237	MS-32	10%
C4	68				TCZ-68	C10Q68C	TCO-68		5TCC-Q68	10% NPO
C5	.05	400		P488N-05	DF-503	CUB4S5		GEM-415	4TM-S5	
C6	2400					IR5D24	CY20C242J		MS-224	10%
C7	5000					IR5D5		MCB465	MS-25	10%
C8	.01	400						GEM-1611		10%
C9	470				D6-471	5R5T47	ED-470		MS-324	10%
C10	.025	400								10%
C11	2400					IR5D24	CY20C242J		MS-224	10%
C12	.01	400						GEM-1611		10%
C13	10000			BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C14	10000			BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C15	.05	400		P488N-05	DF-503	CUB4S5		GEM-415	4TM-S5	
C16	.1	200		P288N-1	DF-104	CUB2P1		GEM-201	2TM-P1	①
C17	.05	400		P488N-05	DF-503	CUB4S5		GEM-415	4TM-S5	
C18	240				D6-241	L10T24	ED-240		MS-324	10%
C19	2400					IR5D24	CY20C242J		MS-224	10%
C20	.01	400						GEM-1611		10%
C21	1000					IR5D1	ED-1000	MCB255	MS-21	10%
C22	68			NPO-DI 68	TCZ-68	C10Q68C	TCO-68		5TCC-Q68	10% NPO
C23	.1	200		P288N-1	DF-104	CUB2P1		GEM-201	2TM-P1	
C24	470				D6-471	5R5T47	ED-470		MS-347	10%
C25	10000			BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C26	470				D6-471	5R5T47	ED-470		MS-347	10%
C27	10000			BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C28	10000			BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C29	270				D6-271	L10T27	ED-270		MS-327	10%
C30	10000			BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C31	.05	400		P488N-05	DF-503	CUB4S5		GEM-415	4TM-S5	
C32	.05	400		P488N-05	DF-503	CUB4S5		GEM-415	4TM-S5	

Note 1. Some versions may use .01mfd in this application.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	BELL SOUND PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	250K	1/2	B-20086184					Loudness, Tap @ 100K & 150K
B	Switch							
R2A	250K	1/2	B-20086P162	B-50	A47-250K-S	Q11-130	U46	Level
B	Shaft			Not Req.	FS-3	Not Req.	Not Req.	
R3A	2meg	1/2	B-20086P159	B-76	A47-2meg-Z	Q13-139	U55	Bass
B	Shaft			Not Req.	FS-3	Not Req.	Not Req.	

PARTS LIST AND DESCRIPTIONS (Continued)

CONTROLS (cont)

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	BELL SOUND PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R4A	2meg	1/2	B-20066P159	B-76	A47-2meg-Z	Q13-139	U55	Treble
B	Shaft			Not Req.	FS-3	Not Req.	Not Req.	
R5A	100Ω	2	B-20066P141	WN-101	A43-100		C100P *	Hum (Wire Wound)
B	Shaft			Not Req.	FKS-1/4		Not Req.	

* Use #203 & #212 Fiber Insulating Washers.

RESISTORS

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

ITEM No.	RATING		BELL SOUND PART No.	NOTES	ITEM No.	RATING		BELL SOUND PART No.	NOTES
	OHMS	WATT				OHMS	WATT		
R6	47K				R29	27K			
R7	10K				R30	22K			
R8	180K				R31	220K			
R9	33K				R32	27K			
R10	390K				R33	100K			
R11	100K				R34	820Ω			
R12	680Ω				R35	100K			
R13	4.7meg				R36	27K			
R14	1meg				R37	27K			
R15	100K				R38	27K			
R16	100K				R39	470K 5%			
R17	1.8meg				R40	4700Ω			
R18	33K				R41	100K			
R19	220K				R42	2.2meg			
R20	33K 5%				R43	470K 5%			
R21	120K				R44	27K			
R22	39K				R45	6800Ω			
R23	220K				R46	470K 5%			
R24	27K				R47	470K 5%			
R25	4.7meg				R48	470K 5%			
R26	100K				R49	275Ω	5		
R27	2.2meg				R50	470K			
R28	27K				R51	6800Ω	7		

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA						
	PRI.	SEC. 1	SEC. 2	BELL SOUND PART No.	Haldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	117V ② .74A	740VCT ② .082A	5V ② 2A	B20368 ①	P9311 ②			PM8409 ②	24R04 ②	R-11B ②
	SEC. 3	SEC. 4	SEC. 5							
	6.3V ② 2.2A									

① Part #B20368 used for 50v operation.

② Tape center tap on 6.3V winding.

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES	
			BELL SOUND PART No.	Halldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.		Triad PART No.
	PRI.	SEC.								
T2	7600Ω CT	16Ω Tap ② 8Ω, 4Ω	32B8 ①							① Alternate Part #B20370

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			BELL SOUND PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	3AG	2A 250V			312002. (3AG 2A 250V)	342001	AGC2	HKP

MISCELLANEOUS

ITEM No.	PART NAME	BELL SOUND PART No.	NOTES
M2	Pilot Lamp		#51
M3	Pilot Lamp		#51
M4	Switch		Selector (Rotary Wafer Type)
M5	Switch		Input (Slide Type DPDT)
M6	Switch		Filter (Slide Type DPDT)

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 (6 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)