

KNIGHT MODEL KN-1515



TRADE NAME	Knight Model KN-1515	
SUPPLIER	Allied Radio Corp., 100 N. Western Ave., Chicago 80, Illinois	
TYPE SET	AC Operated 2 Channel 30 Watt Audio Amplifier	
TUBES (Seven)	Type 6BH8 Right Channel AF Amp. -Phase Inv., (2)6BQ5/ EL84 Right Channel Output, 6BH8 Left Channel AF Amp. -Phase Inv., (2) 6BQ5/ E184 Left Channel Output, 5U4GB Rectifier	
POWER SUPPLY	105-130 Volts AC-50/ 60 Cycles	RATING 1.06 Amp. @ 117 Volts AC (110 Watts)

PARTS LIST AND DESCRIPTIONS TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	Right Channel AF Amp. - Phase Inv.	6BH8	V5	Left Channel Output	6BQ5/ EL84
V2	Right Channel Output	6BQ5/ EL84	V6	Left Channel Output	6BQ5/ EL84
V3	Right Channel Output	6BQ5/ EL84	V7	Rectifier	5U4GB
V4	Left Channel AF Amp. - Phase Inv.	6BH8			

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	Knight PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	40	450	①	AFH4-17	D0160	FP475.5	TMQ-17	Q-055	TVL-4771.3
B	10	450							
C	10	450							
D	10	450							
C2	8	450		PRS450V8	BR845	TC71	TD-8-450	MT-4508	TVA-1704
C3	35	50		PRS150V30	BR505	TC47	TD-50-50	MT-0550	TVA-1308

① In some versions C1B is 30mfd, and C1C & C1D are not used

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	Knight PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
C4	47			NPO-DI 47	DTZ-47	C10Q47C		5TCC-Q47	NPO 10%
C5	47			NPO-DI 47	DTZ-47	C10Q47C		5TCC-Q47	NPO 10%
C6	47			NPO-DI 47	DTZ-47	C10Q47C		5TCC-Q47	NPO 10%
C7	47			NPO-DI 47	DTZ-47	C10Q47C		5TCC-Q47	NPO 10%
C8	.047	600		P688N-047	DF-503	CUB6S47	GEM-6147	6TM-S47	
C9	.047	600		P688N-047	DF-503	CUB6S47	GEM-6147	6TM-S47	
C10	.047	600		P688N-047	DF-503	CUB6S47	GEM-6147	6TM-S47	
C11	.047	600		P688N-047	DF-503	CUB6S47	GEM-6147	6TM-S47	

CONTROLS

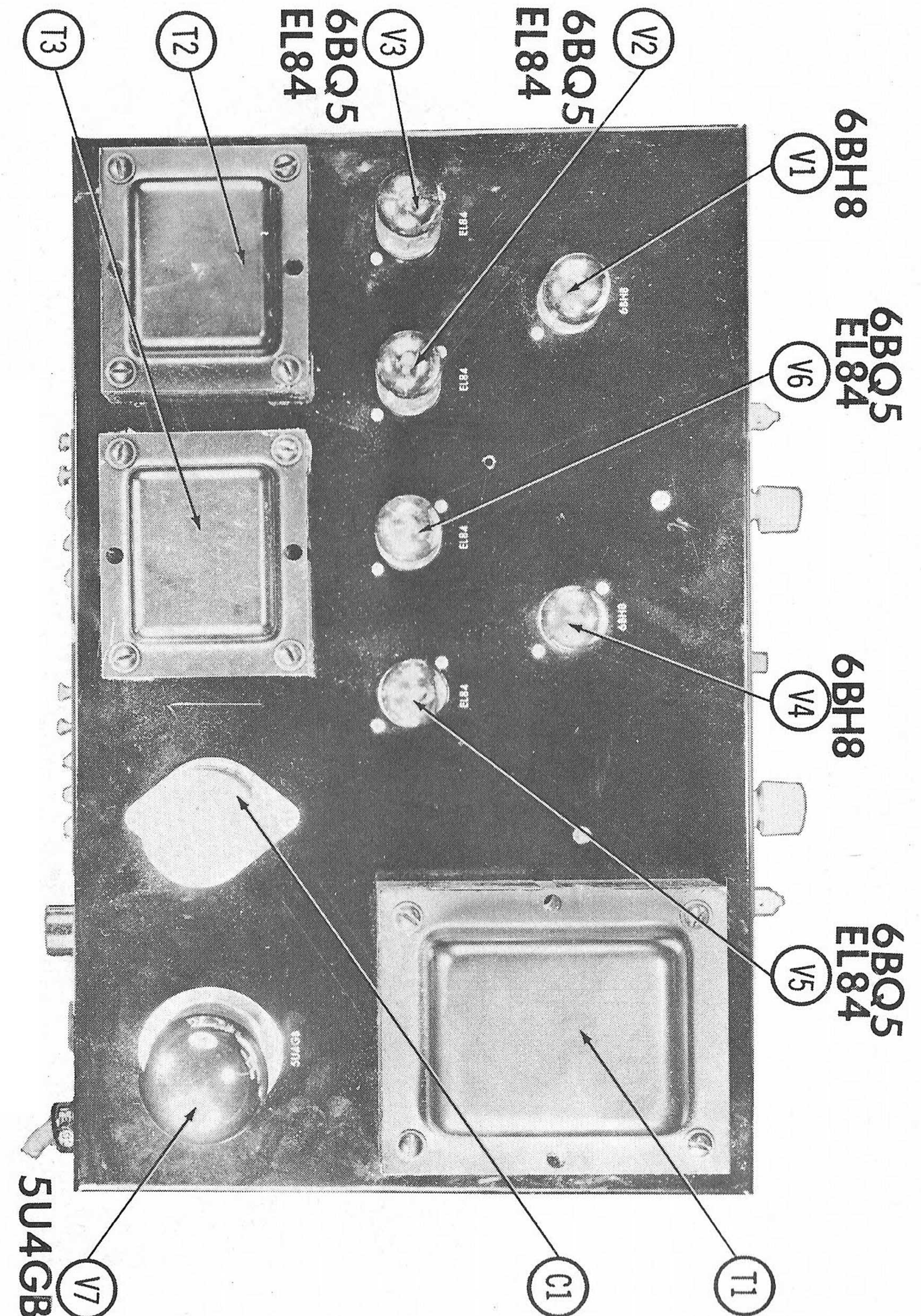
ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	Knight PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	500K	1/2	RP-504B-H	B-60	A47-500K-Z	Q13-133	U48	Left Channel
B	Shaft			Not req.	KSS-3	Not req.	Not req.	
R2A	500K	1/2	RP-504B-H	B-60	A47-500K-Z	Q13-133	U48	Right Channel
B	Shaft			Not req.	KSS-3	Not req.	Not req.	

RESISTORS

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

ITEM No.	RATING		Knight PART No.	NOTES	ITEM No.	RATING		Knight PART No.	NOTES
	OHMS	WATT				OHMS	WATT		
R3	100K				R15	15K	1		
R4	220K				R16	15K	1		
R5	220K				R17	100K			
R6	22K				R18	100K			
R7	680Ω				R19	100K			
R8	15K	1			R20	100K			
R9	15K	1			R21	30K 5%			
R10	100K				R22	30K 5%			
R11	220K				R23	10K	2		
R12	220K				R24	100Ω	2		
R13	22K				R25	22K			
R14	680Ω				R26	150Ω			

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)
TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA						
	PRI.	SEC. 1	SEC. 2	Knight PART No.	Halldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	117V @ 1.06A	580 VCT @ .160A Tap @	5V @ 2.5A	LP-0272						
	SEC. 3 6.3VCT @ 4A	13V @ .001A								

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA							NOTES
			Knight PART No.	Halldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
	PRI.	SEC.								
T2	4800Ω CT	32Ω Taps ^(a) 16Ω, 8Ω, 4Ω	LO-0158							
T3	4800Ω CT	32Ω Taps ^(a) 16Ω, 8Ω, 4Ω	LO-0158							

SELENIUM RECTIFIER

ITEM No.	RATING	REPLACEMENT DATA				NOTES
	CURRENT (Measured)	Knight PART No.	FEDERAL PART No.	INTERNATIONAL PART No.	SARKES TARZIAN PART No.	
M1	.001A		1159	D-5410	10	

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			Knight PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M2	3AG	3A - 125V - S/ B			313003. (3AG-3A - 125V-S/ B)	341001	MDX3	HKP

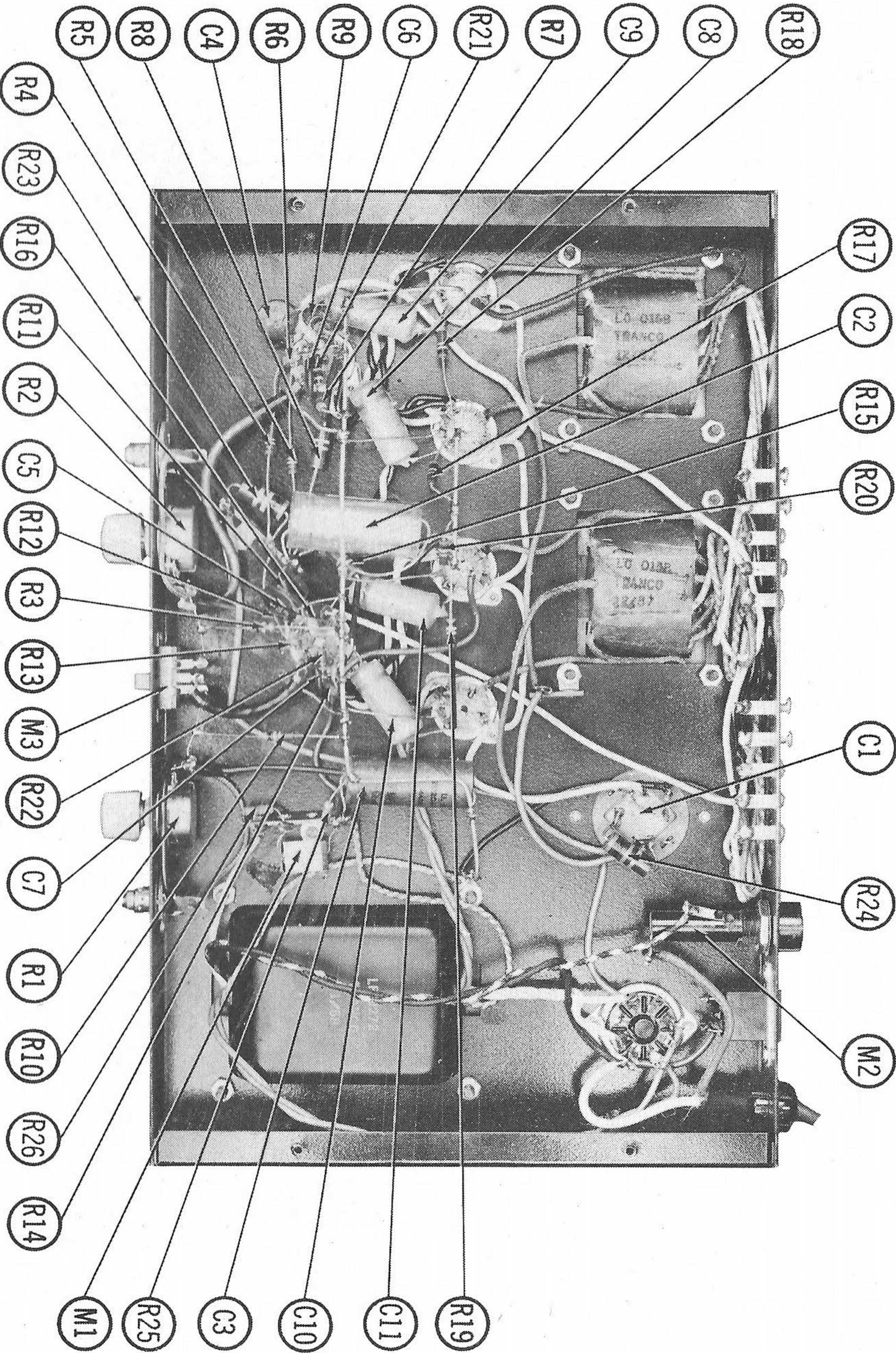
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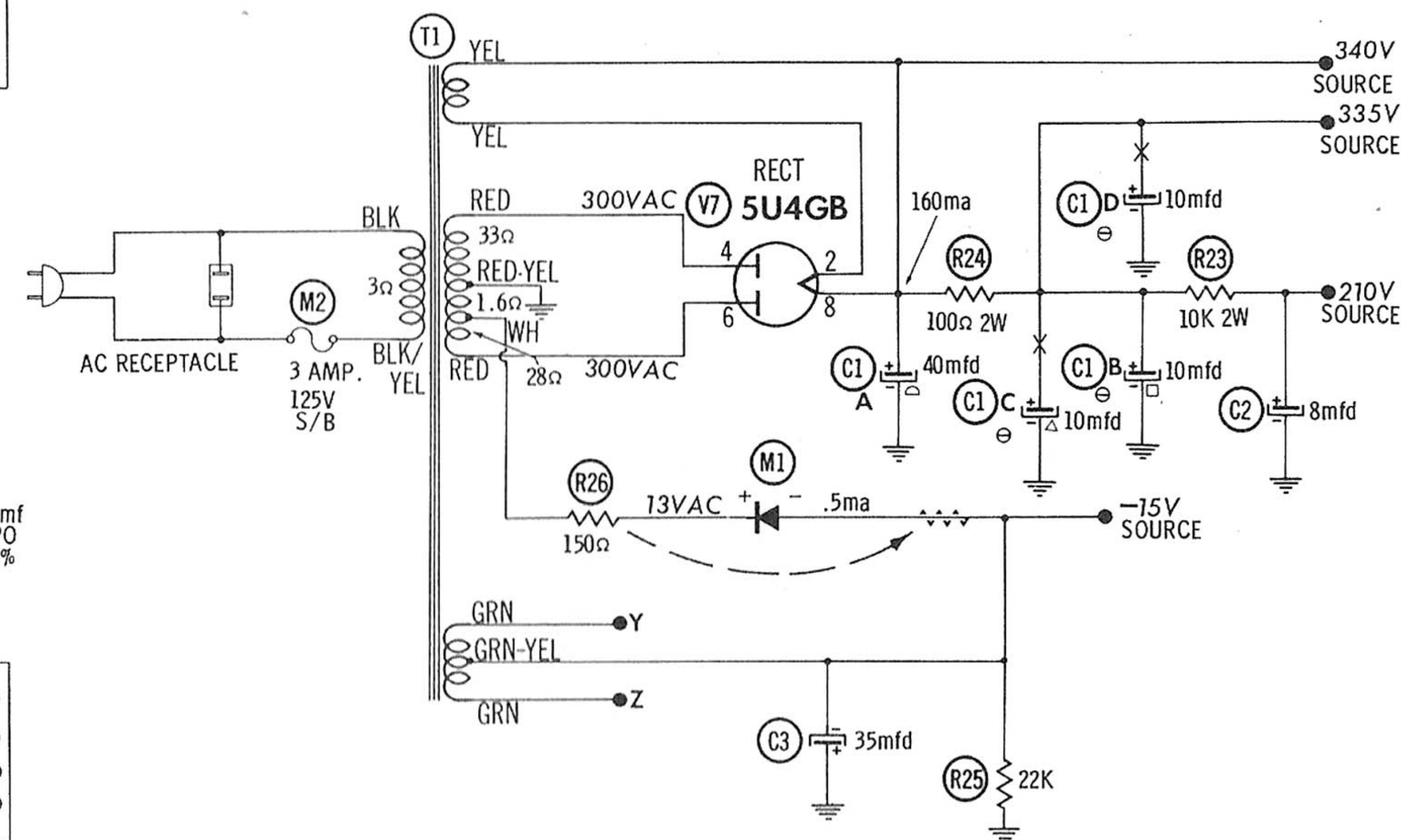
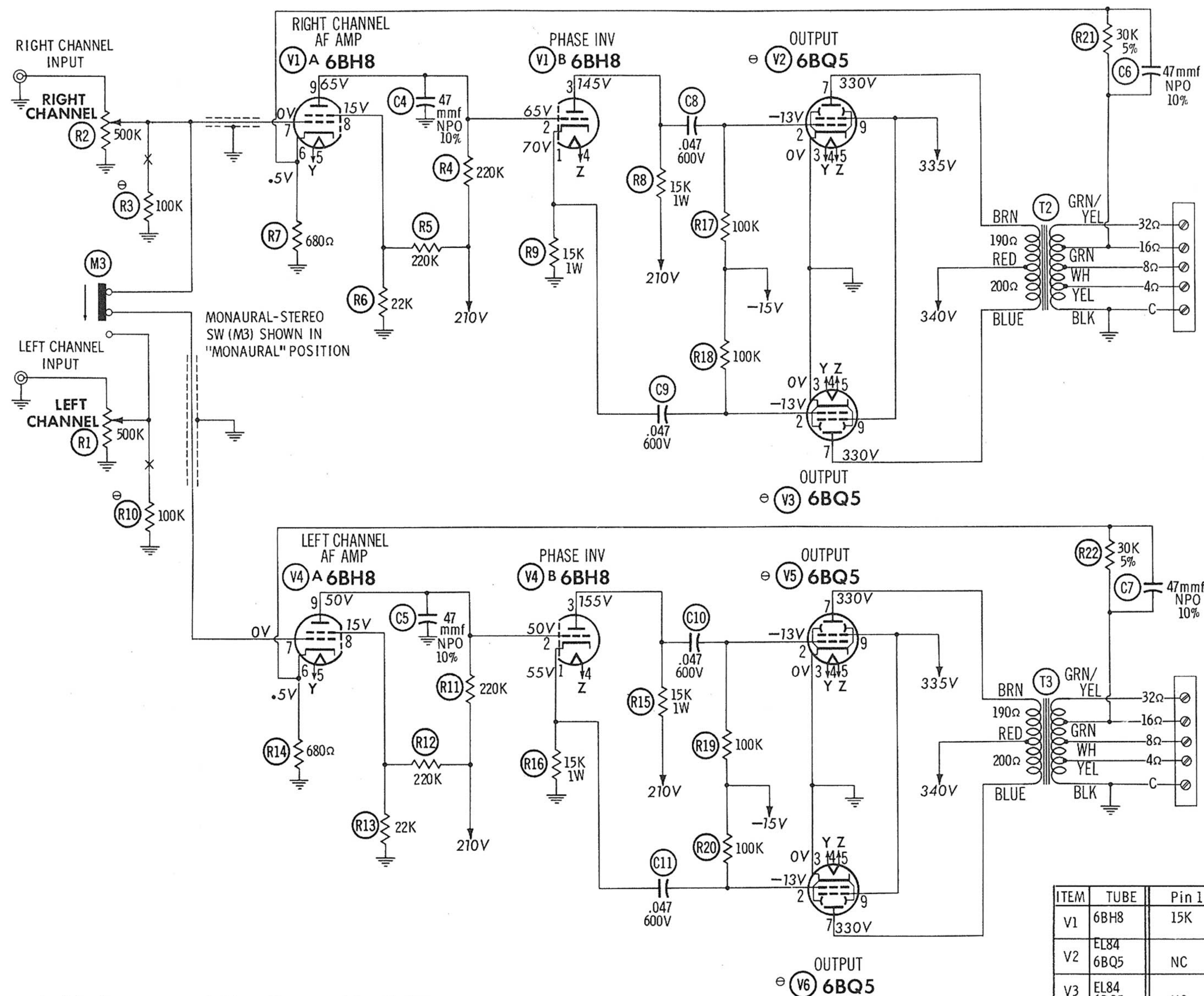
ITEM No.	PART NAME	Knight PART No.	NOTES
M3	Switch		Stereo-Monaural, SPDT, Slide Type

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)

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.

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6BH8	15K	† 230K	† 25K	■ .1Ω	■ .1Ω	680Ω	0Ω	18K	† 230K
V2	EL84 6BQ5	NC	120K	0Ω	■ .1Ω	■ .1Ω	NC	† 190Ω	NC	† 100Ω
V3	EL84 6BQ5	NC	120K	0Ω	■ .1Ω	■ .1Ω	NC	† 200Ω	NC	† 100Ω
V4	6BH8	15K	† 230K	† 25K	■ .1Ω	■ .1Ω	680Ω	0Ω	18K	† 230K
V5	EL84 6BQ5	NC	120K	0Ω	■ .1Ω	■ .1Ω	NC	† 190Ω	NC	† 100Ω
V6	EL84 6BQ5	NC	120K	0Ω	■ .1Ω	■ .1Ω	NC	† 200Ω	NC	† 100Ω
V7	5U4GB	NC	†	NC	33Ω	NC	29.6Ω	TP	†	

THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC CAPACITOR CONNECTED IN THE ASSOCIATED CIRCUIT.

† MEASURED FROM PIN 2 OF V7
 ■ MEASURED FROM NEGATIVE TERMINAL OF M1
 NC NO CONNECTION
 TP TIE POINT