

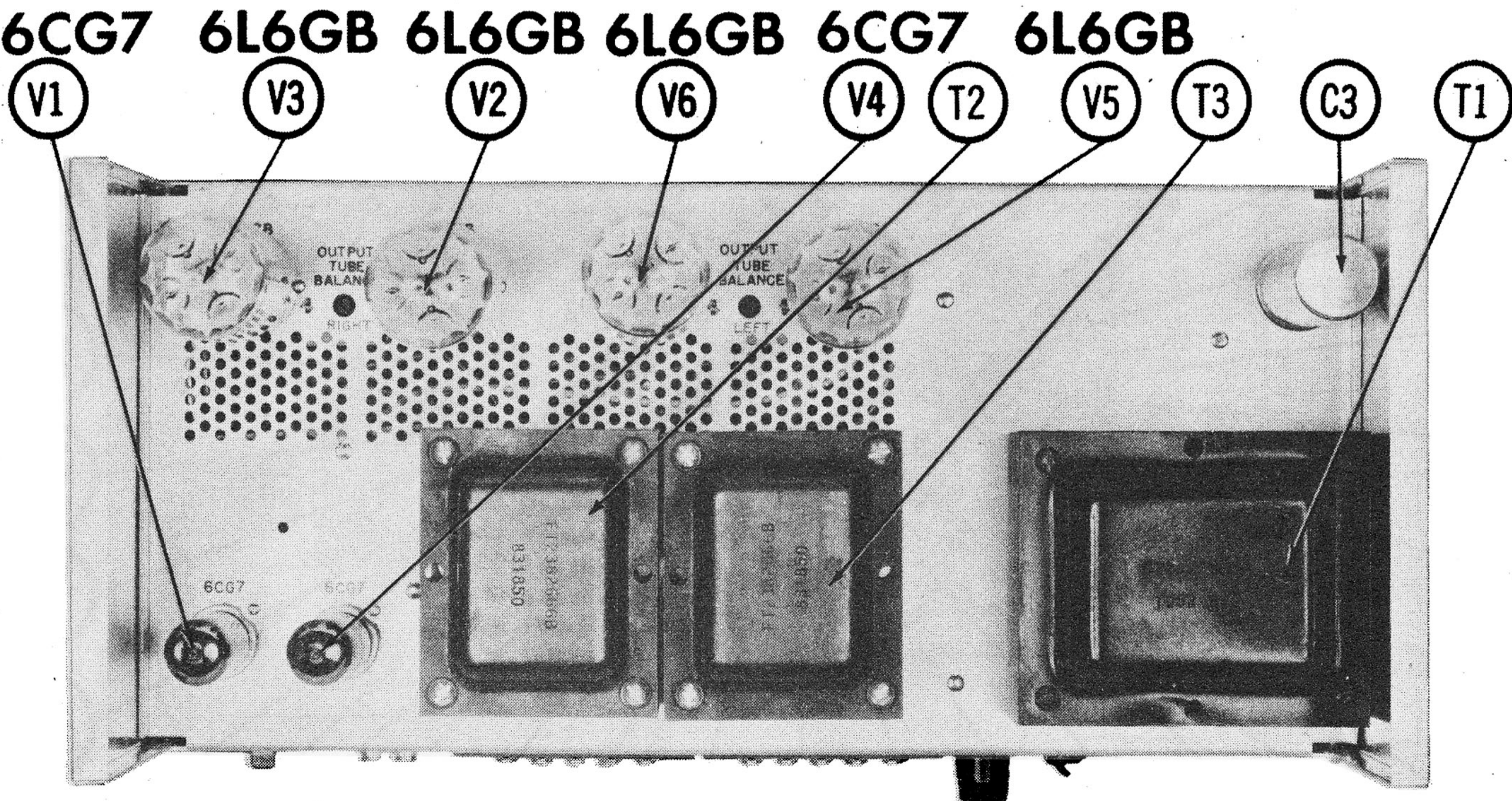
**HARMAN-KARDON
MODEL HK-250**

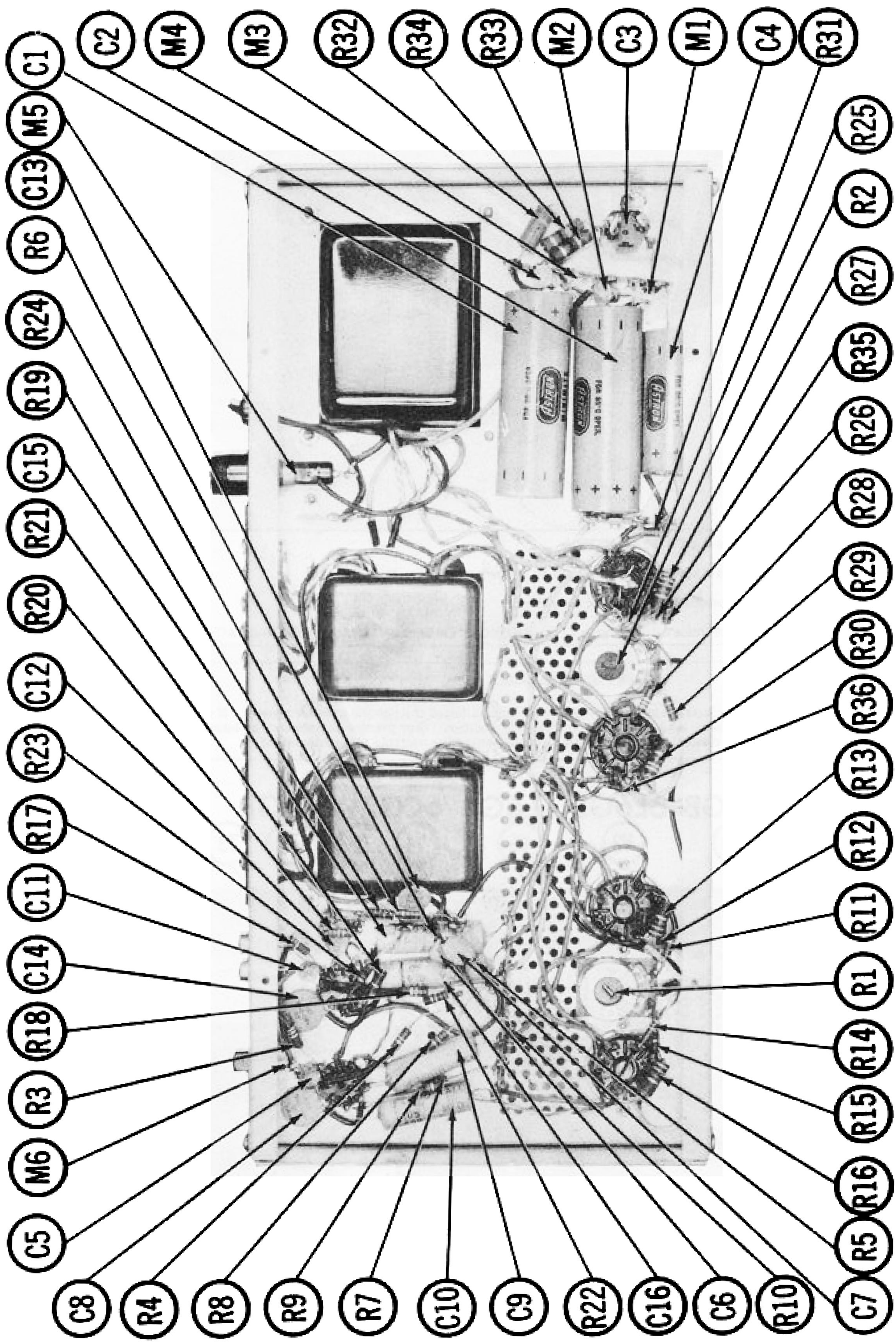


TRADE NAME	Harman-Kardon Model HK250		
MANUFACTURER	Harman-Kardon, Inc., 520 Main St., Westbury, L. I., N. Y.		
TYPE SET	AC Operated 6 Tube Stereo Amplifier		
POWER SUPPLY	110 - 120 Volts AC, 60 Cycle	RATING	120 Watts, 1.26 Amp. @117 Volts AC

OUTPUT TUBE BALANCE ADJUSTMENT (R1, R2)

Adjust each Balance control for minimum hum as heard through the speaker system. If no hum is audible, set the controls to their mid-position. For precise adjustment, an inter-modulation distortion meter should be used, setting the controls for minimum IM.





PARTS LIST AND DESCRIPTIONS

TUBES

* CBS *			GENERAL ELECTRIC			* RAYTHEON *			SYLVANIA		
ITEM No.	USE		TYPE			ITEM No.	USE		TYPE		
V1	Right Channel AF Amp. - Phase Inv.		6CG7			V4	Left Channel AF Amp. - Phase Inv.		6CG7		
V2	Right Channel Output		6L6GB			V5	Left Channel Output		6L6GB		
V3	Right Channel Output		6L6GB			V6	Left Channel Output		6L6GB		

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	Harman-Kardon PART No.	AEROVOX PART No.	CORNELL- DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	NOTES
C1	125	250	JE2382720	AFH3-166	BBRTTV4125	FP387.1	TMS-55	TVAS-1524*	
C2	125	250	JE2382720		BBRTTV4125			TVAS-1524*	
C3A	20	450	JE2382669		C1300			TVL-1714	
B	150	50						TVA-1311	
C4A	8	450	JE2483007		BBRD8D45			TVA-2720	
B	8	450		PRS460V8-8	TCD71	TD-150-50	TDLD-24		

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

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	TOL	Harman-Kardon PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
C5	100		N150		BPD-00033	DD-331	L10T33	B-333	5GA-T33	
C6	330				BPD-0047	DD-472	BYA10D47M	B-247	5HK-D47	
C7	4700				BPD-02	DD-203	BYB6S2	B-120	5HK-S2	
C8	20000				P688N-05	DF-503	CUB6S5	GEM-615	6TM-S5	
C9	.05	600			P688N-05	DF-503	CUB6S5	GEM-615	6TM-S5	
C10	.05	600								
C11	100		N150		BPD-00033	DD-331	L10T33	B-333	5GA-T33	
C12	330				BPD-0047	DD-472	BYA10D47M	B-247	5HK-D47	
C13	4700				BPD-02	DD-203	BYB6S2	B-120	5HK-S2	
C14	20000				P688N-05	DF-503	CUB6S5	GEM-615	6TM-S5	
C15	.05	600			P688N-05	DF-503	CUB6S5	GEM-615	6TM-S5	
C16	.05	600								

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESIST-ANCE	WATTS	Harman-Kardon PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1	100Ω	1/2	RVCOM2569	B-1 *			U-1 *	Balance, Right Channel
R2	100Ω	1/2	RVCOM2569	B-1 *			U-1 *	Balance, Left Channel

* Enlarge mounting hole.

RESISTORS

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

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R3	330K		R15	180Ω		R27	330Ω 1W	
R4	56K		R16	330Ω 1W		R28	330K	
R5	820Ω		R17	330K		R29	180Ω	
R6	12K		R18	56K		R30	330Ω 1W	
R7	1meg		R19	820Ω		R31	4700Ω	
R8	22K	Note 1	R20	12K		R32	6800Ω 2W	
R9	1000Ω		R21	1meg		R33	68Ω 1W	
R10	22K	Note 1	R22	22K	Note 1	R34	68Ω 1W	
R11	330K		R23	1000Ω		R35	68Ω	
R12	180Ω		R24	22K	Note 1	R36	68Ω	
R13	330Ω 1W		R25	330K				
R14	330K		R26	180Ω				

Note 1. R8, R10, R22 & R24 matched within 2%.

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA						
				Harman-Kardon PART No.	Hollderson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thorderson PART No.	Triod PART No.
	PRI.	SEC. 1	SEC. 2							
T1	117V @ 1.25A	150V @ .720A (AC)	6.3V @ 4.5A	FT2382665						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
			Harman-Kardon PART No.	Hollderson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thorderson PART No.	
T2	7000Ω CT	32Ω Taps @ 16Ω, 8Ω, 4Ω	FT2382666						
T3	7000Ω CT	32Ω Taps @ 16Ω, 8Ω, 4Ω	FT2382666						

RECTIFIERS

ITEM No.	RATING	REPLACEMENT DATA					NOTES
	CURRENT (Measured)	Harman-Kardon PART No.	FEDERAL PART No.	INTERNATIONAL PART No.	SARKES TARZIAN PART No.	SYLVANIA PART No.	
M1	.165A	Z2382924 ①	HA504 ①	SD-500 ①	40K ①	SR500 ①	① Silicon Type
M2	.165A	Z2382924 ①	HA504 ①	SD-500 ①	40K ①	SR500 ①	
M3	.165A	Z2382924 ①	HA504 ①	SD-500 ①	40K ①	SR500 ①	
M4	.165A	Z2382924 ①	HA504 ①	SD-500 ①	40K ①	SR500 ①	

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			Harman-Kardon PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M5	3AG	4A			312004. (3AG 4A 250V)	342001	AGC 4	HKP

MISCELLANEOUS

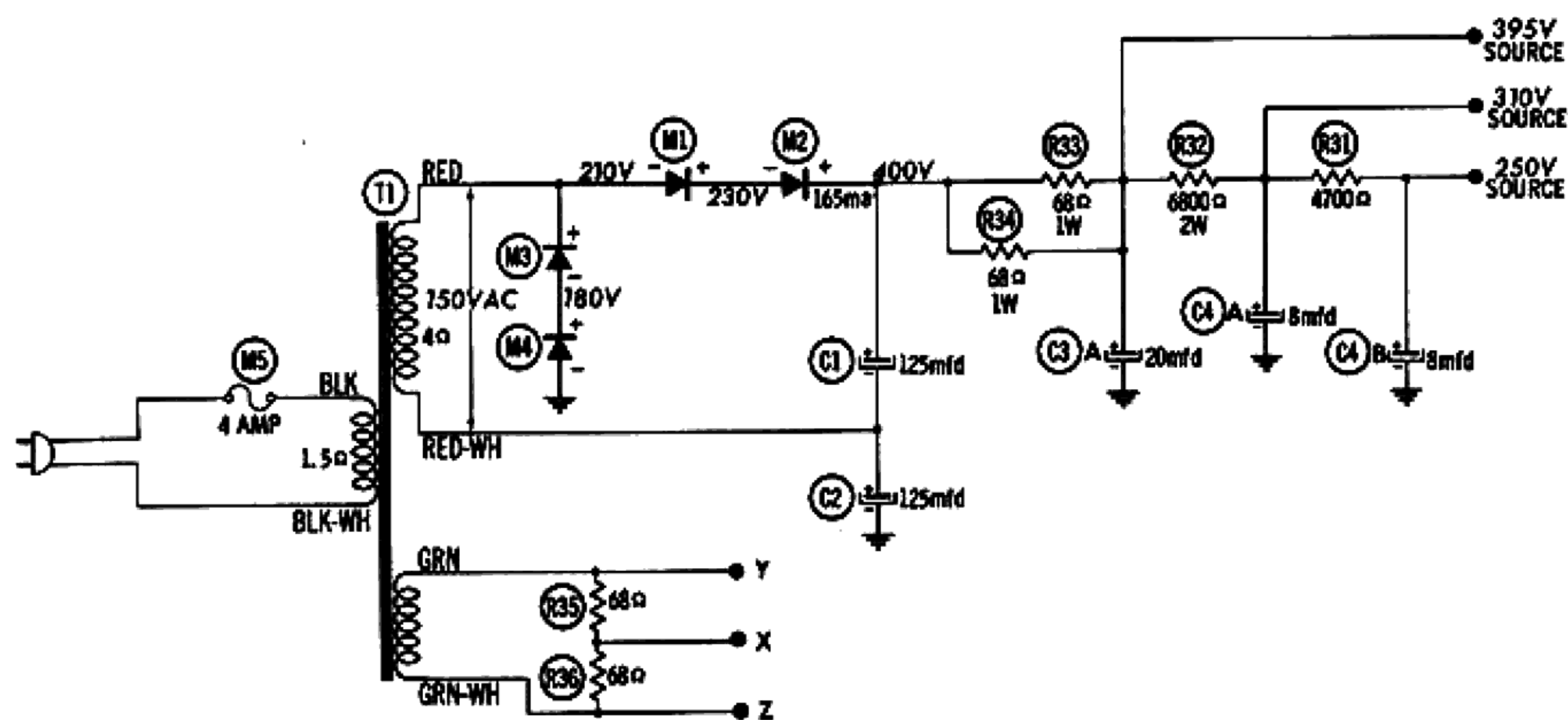
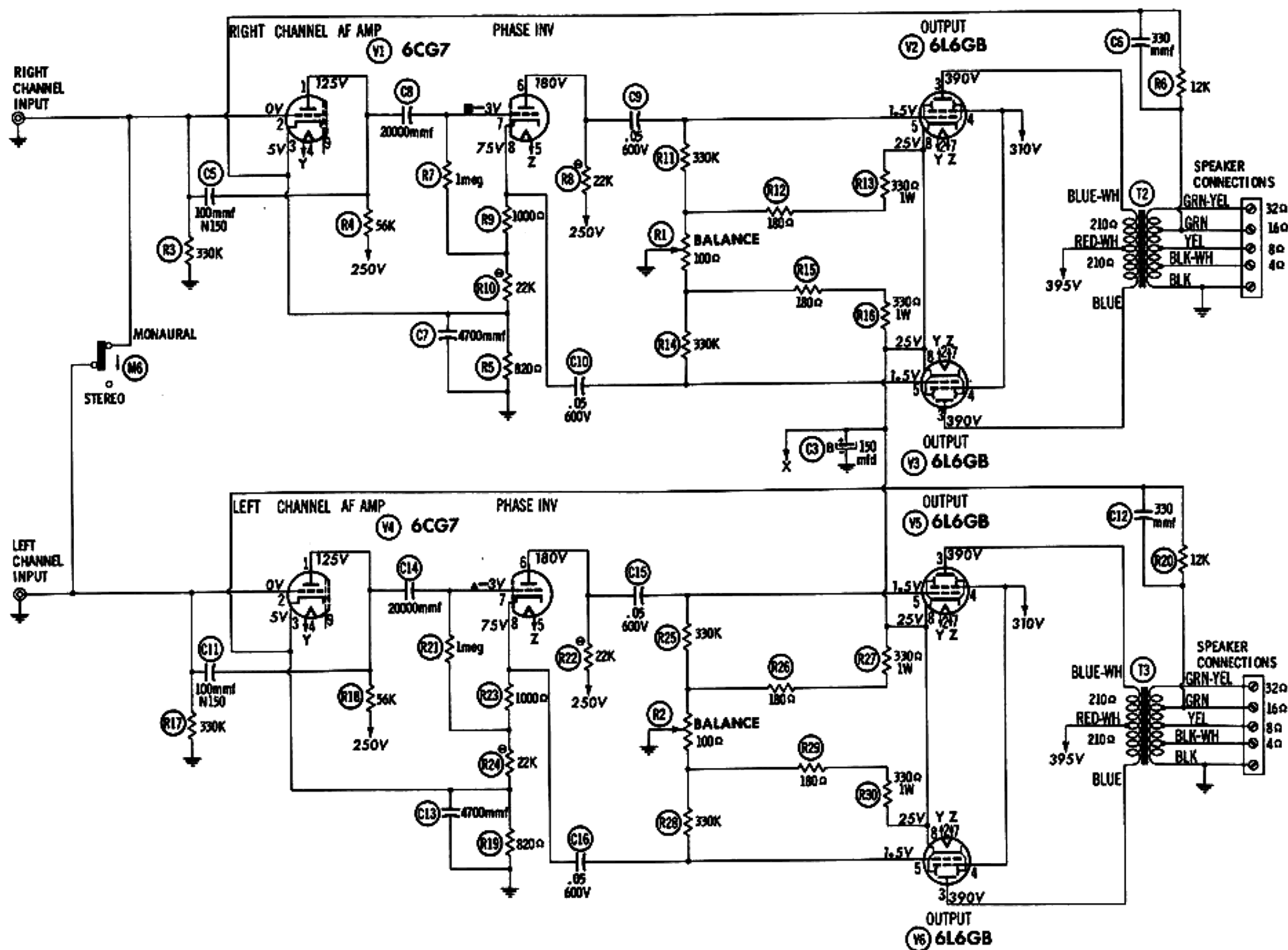
ITEM No.	PART NAME	Harman-Kardon PART No.	NOTES
M6	Switch	EST771372	Mon-Stereo (SPDT, Slide Type)

CABINETS & CABINET PARTS

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

WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8538 (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)



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	6CG7	167K	330K	820Ω	180Ω	180Ω	133K	1meg	24K	180Ω
V2	6L6GB	TP	180Ω	1245Ω	16800Ω	330K	TP	180Ω	150Ω	
V3	6L6GB	TP	180Ω	1245Ω	16800Ω	330K	TP	180Ω	150Ω	
V4	6CG7	167K	330K	820Ω	180Ω	180Ω	133K	1meg	24K	180Ω
V5	6L6GB	TP	180Ω	1245Ω	16800Ω	330K	TP	180Ω	150Ω	
V6	6L6GB	TP	180Ω	1245Ω	16800Ω	330K	TP	180Ω	150Ω	

- 1 MEASURED FROM OUTPUT OF M1
- MEASURED FROM PIN 8 OF V1
- MEASURED FROM PIN 8 OF V4
- TP TIE POINT

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MODEL HK-250**