

PHOTOFACT® Folder



HARMAN-KARDON  
MODEL A500

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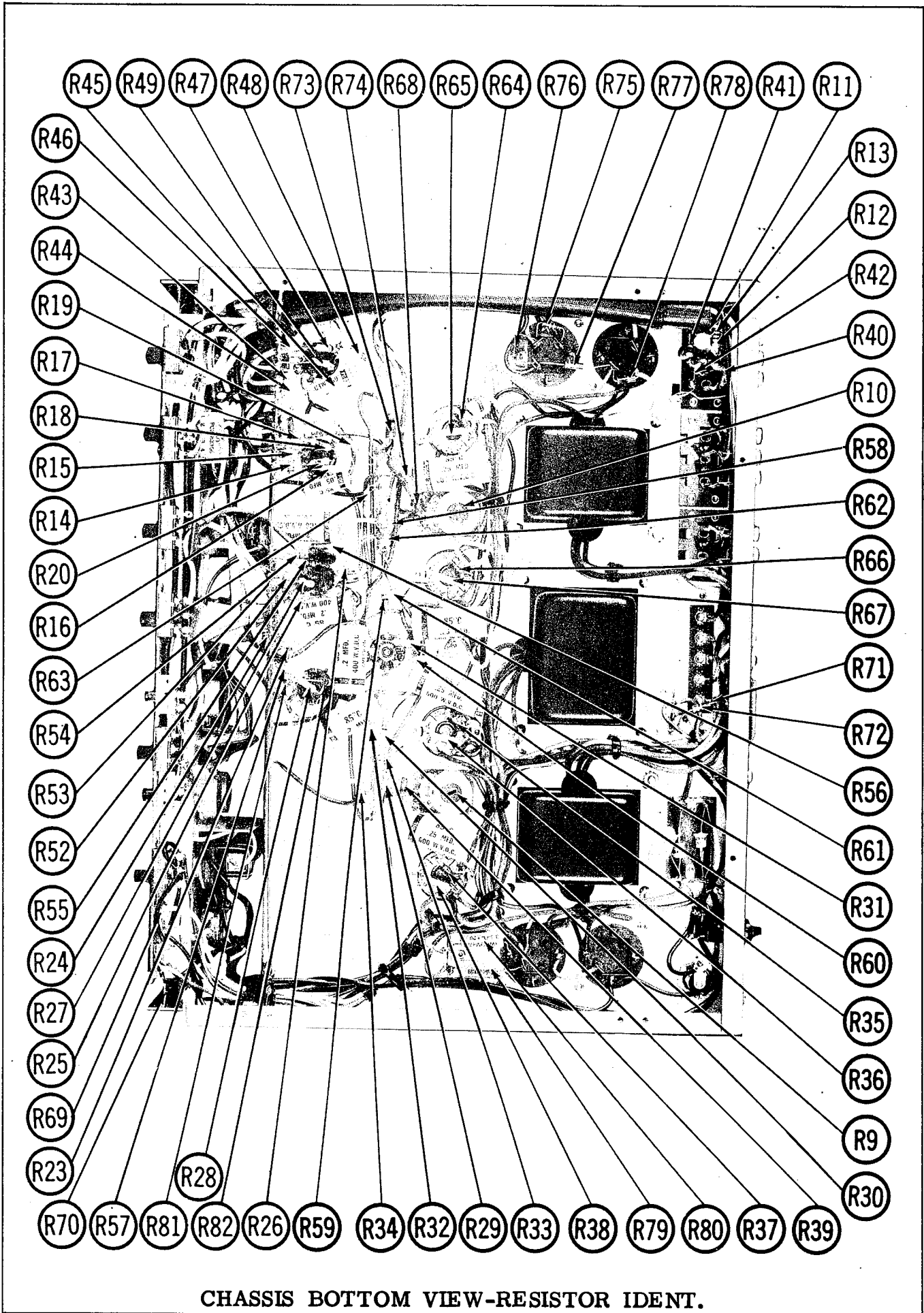
TRADE NAME	Harman-Kardon Model A500		
MANUFACTURER	Harman-Kardon, Inc., Ames Court, Plain View L. I., N. Y.		
TYPE SET	AC Operated 9 Tube Stereo Amplifier		
POWER SUPPLY	105 - 125 Volts AC, 60 Cycles	RATING	120 Watts, 1.2 Amp. @117 Volts AC

**HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana**

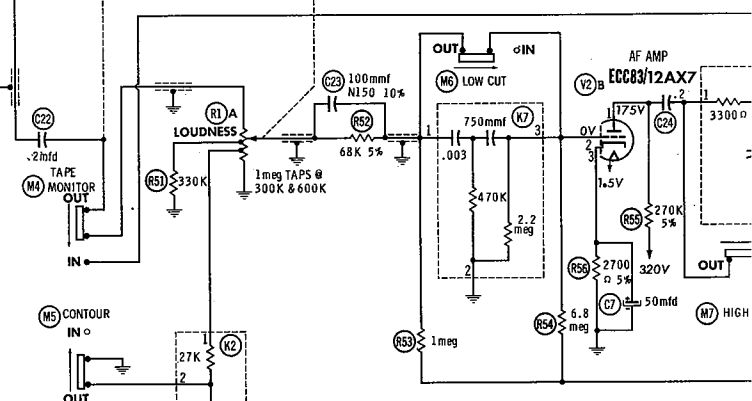
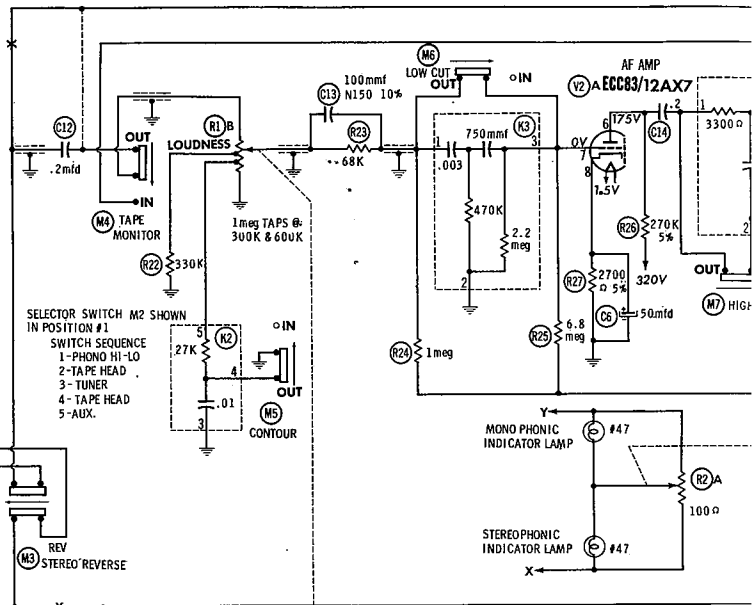
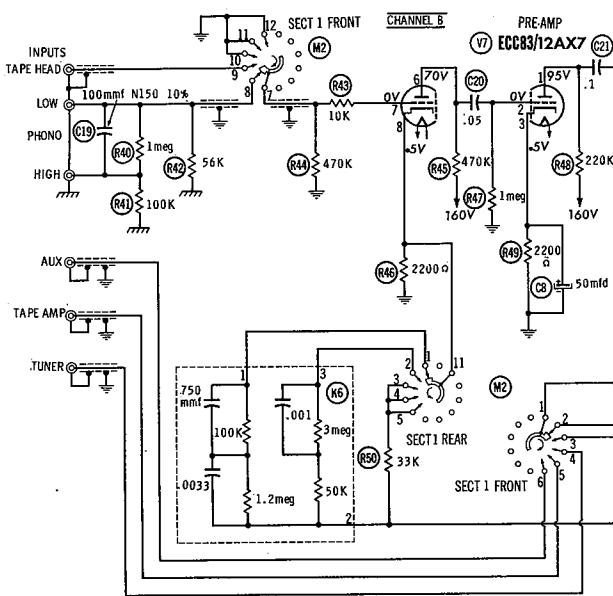
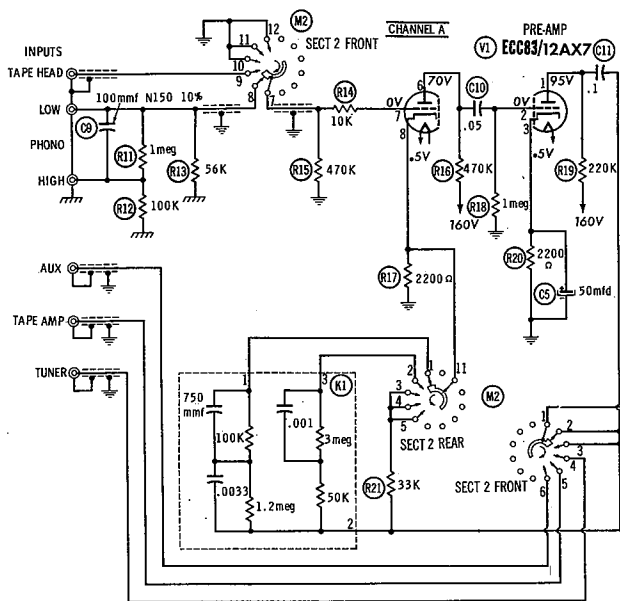


The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of LV177

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CHASSIS BOTTOM VIEW-RESISTOR IDENT.



DENOTES CHASSIS  
 DENOTES GROUND

RESISTANCE READINGS

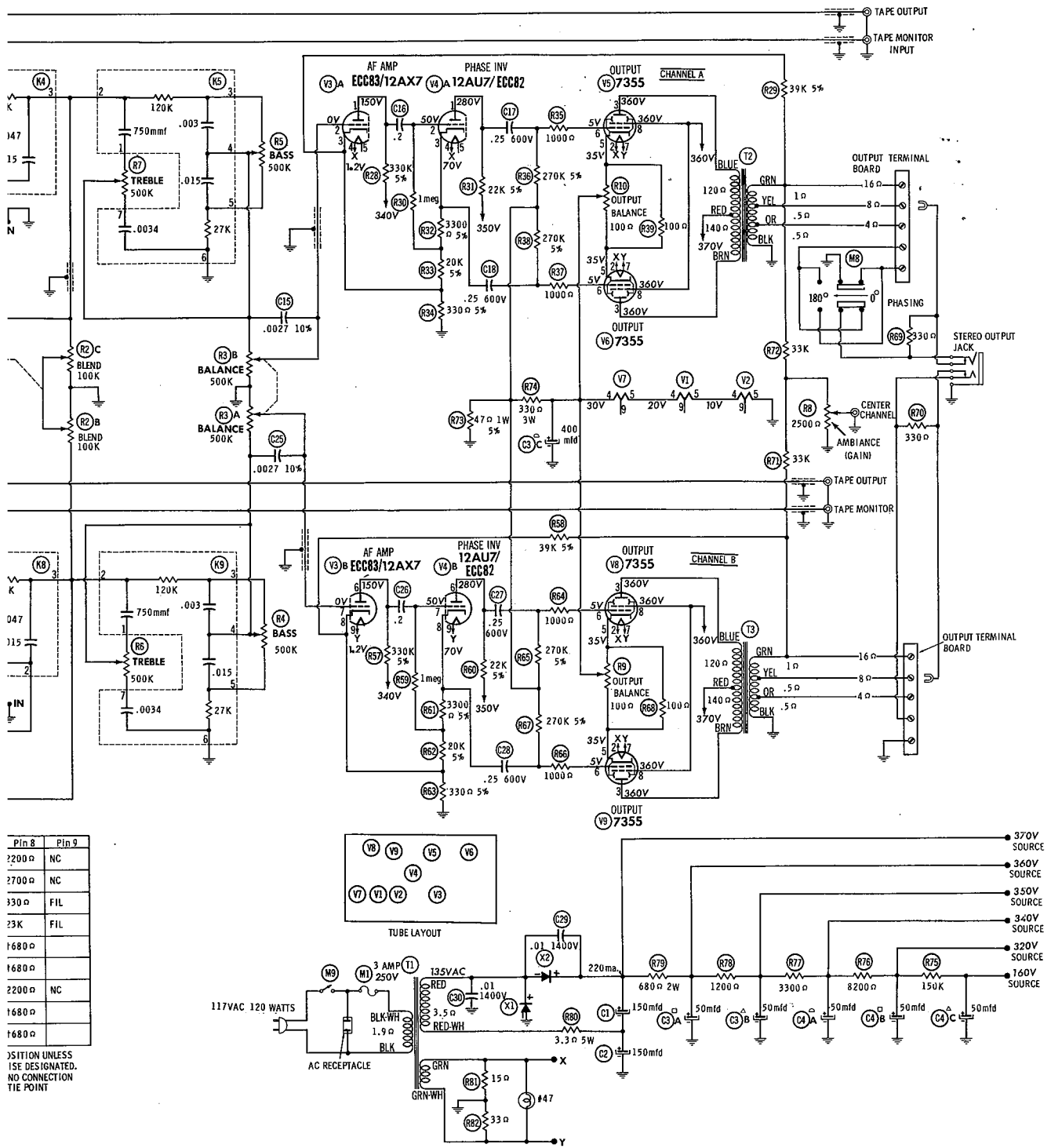
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	ECC83 12AX7	†380K	1meg	2200Ω	35Ω	18Ω	†630K	60K =10K
V2	ECC83 12AX7	†280K	68K =1.8meg	2700Ω	18Ω	0Ω	†280K	68K =1.8Ω
V3	ECC83 12AX7	†335K	100K	330Ω	FIL	FIL	†335K	100K
V4	12AU7 ECC82	†23K	1meg	23K	FIL	FIL	†24K	1meg
V5	7355	TP	FIL	†120Ω	TP	100Ω	270K	FIL
V6	7355	TP	FIL	†140Ω	TP	100Ω	270K	FIL
V7	ECC83 12AX7	†380K	1meg	2200Ω	50Ω	35Ω	†630K	60K =10K
V8	7355	TP	FIL	†120Ω	TP	100Ω	270K	FIL
V9	7355	TP	FIL	†140Ω	TP	100Ω	270K	FIL

NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

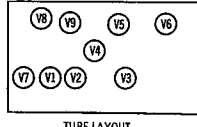
- DC voltage measurements taken with vacuum tube voltmeter;
- AC voltages measured with 1000 ohm per volt voltmeter.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common ground.
- Line voltage maintained at 117 volts for voltage readings.
- Nominal tolerance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

A PHOTOFAC STANDARD NOTATION SCHEMATIC  
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ALL MEASUREMENTS MADE IN "PHONO" POSITION WITH ALL SLIDE SWITCHES IN "OUT" POSITION.  
 ▲ MEASURED WITH "LOW-CUT" IN.  
 ■ MEASURED IN "TUNER", "TAPE AMP.", OR "AUXILIARY" POSITION.  
 † MEASURED FROM OUTPUT OF X2.

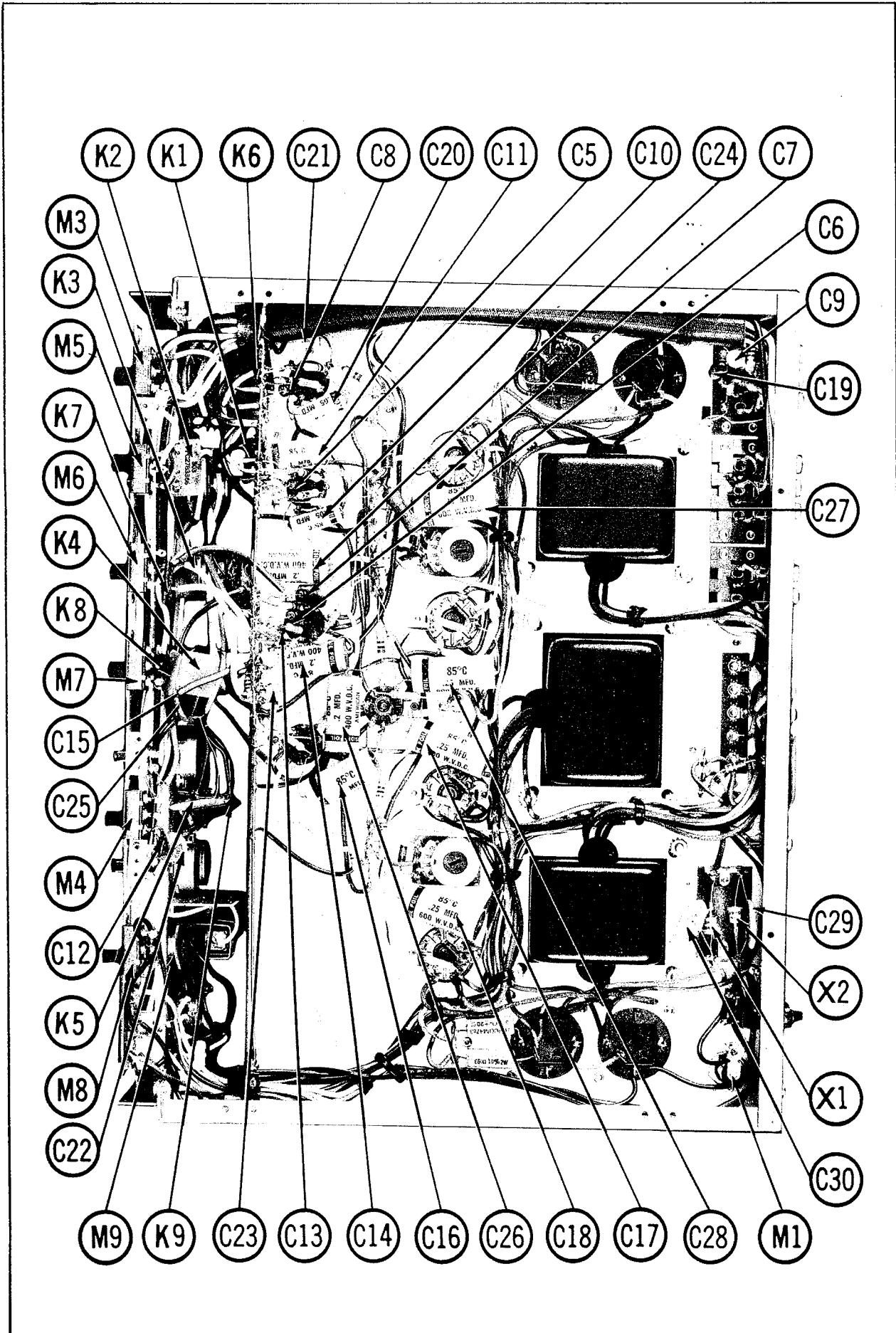


Pin 8	Pin 9
2200 $\Omega$	NC
2700 $\Omega$	NC
330 $\Omega$	FIL
23K	FIL
1680 $\Omega$	
1680 $\Omega$	
2200 $\Omega$	NC
1680 $\Omega$	
1680 $\Omega$	



POSITION UNLESS OTHERWISE DESIGNATED. NO CONNECTION TIE POINT

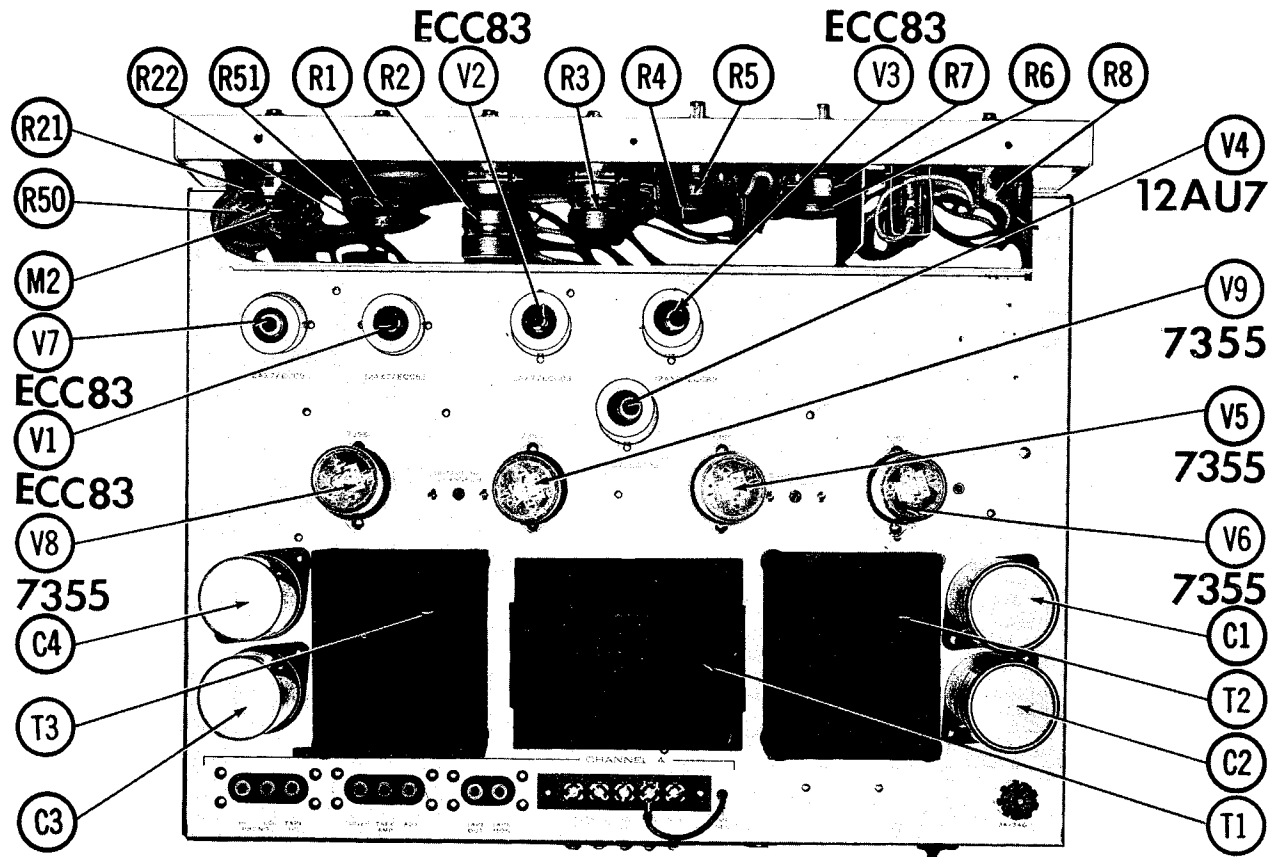
HARMAN-KARDON  
MODEL A500



CHASSIS BOTTOM VIEW-CAPACITOR & MISC. IDENT.

# PARTS LIST AND DESCRIPTIONS TUBES

# CHASSIS—TOP VIEW



GENERAL ELECTRIC		RAYTHEON		SYLVANIA	
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	Channel A Preamp.	ECC83/12AX7	V5	Channel A Output	7355
V2	Channel A AF Amp.	ECC83/12AX7	V6	Channel A Output	7355
V3	Channel B AF Amp.	ECC83/12AX7	V7	Channel B Preamp.	ECC83/12AX7
V4	Channel B AF Amp.	ECC83/12AX7	V8	Channel B Output	7355
	Channel A Phase Inv.	12AU7/ECC82	V9	Channel B Output	7355
	Channel B Phase Inv.				

## POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	CURRENT RATING (Measured)	RECTIFIERS			DIODES		NOTES
		ORIGINAL Part or Type No.	SARKES RCA PART No.	TARZIAN PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	
X1	.220A	ZCOM4735	IN1763	50H			(8D95A)
X2	.220A	ZCOM4735	IN1763	50H			(SD95A)

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP. VOLTI.	REPLACEMENT DATA							
		Harman-Kardon PART No.	AEROVOX PART No.	CORNELL-DUBIERRE PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	
C1	150	JE3594176	AFH1-31-75	XA0315	XCI-19	FP140.6	TMS-1480	TVL-1540	
C2	150	JE3594176	AFH1-31-75	XA0315	XCI-19	FP140.6	TMS-1480	TVL-1540	
C3A	50	JE3894926	AFR2-59	B0450	XC2-33	QTI-31	TMD-2655	TVL-2767	
C3B	400				PR31390	BRH5000	TD-300-1B0	TVA-1915	
C4	50								
C5A	50	JE3894675	AFR4-53	B0450	XC2-33	QTI-16	TMD-2655	TVL-2767	
C5B	350						TD-50-450	TVA-1713	
C6	50								
C7	50	JE3594255	PTT29	NLW 50-10	MTI-15	TT6X50	MLV50-6	TE-100	
C8	50	JE3594255	PTT29	NLW 50-10	MTI-15	TT6X50	MLV50-6	TE-100	
C9	50	JE3594255	PTT29	NLW 50-10	MTI-15	TT6X50	MLV50-6	TE-100	

## FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBIERRE PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C9	100 N150 10%		P488N-05	DD-503	CUB485	* 4DF-3-503	GEM-415	10TCP-T10
C10	.05 400V		P488N-1	DF-104	CUB485	4DF-3-104	GEM-415	4TM-550
C11	.1 400V			UK10-204	CUB485	4DF-3-104	GEM-401	4TM-P10
C12	.2mf 10V							HY-325
C13	100 N150 10%							10TCP-T10
C14	.2 400V		P488N-2		CUB422	4DF-5-204	GEM-402	4TM-P20
C15	.0027 10%		DI-2700		DPMS8D27	CCD-272	GEM-402	10TS-D27
C16	.2 400V		P488N-2		CUB422	4DF-5-204	GEM-402	4TM-P20
C17	.25 600V		P688N-25		CUB6225	6DF-5-254	GEM-6025	6TM-P25
C18	.25 600V		P688N-25		CUB6225	6DF-5-254	GEM-6025	6TM-P25
C19	100 N150 10%		P488N-05	DD-503	CUB485	4DF-3-503	GEM-415	4TM-550
C20	.05 400V		P488N-1	DF-104	CUB485	4DF-3-104	GEM-401	4TM-P10
C21	.1 400V			UK10-204	CUB485	4DF-3-104	GEM-401	HY-325
C22	.2mf 10V							10TCP-T10
C23	100 N150 10%		P488N-2		CUB422	4DF-5-204	GEM-402	4TM-P20
C24	.2 400V		DI-2700		DPMS8D27	CCD-272	GEM-402	10TS-D27
C25	.0027 10%		P488N-2		CUB422	4DF-5-204	GEM-402	4TM-P20
C26	.25 600V		P688N-25		CUB6225	6DF-5-254	GEM-6025	6TM-P25
C27	.25 600V		P688N-25		CUB6225	6DF-5-254	GEM-6025	6TM-P25
C28	.01 1400V		DAC-27	DD16-103	HVE16SI	16DP-3-103	UAC-110	BL-S10
C29	.01 1400V		DAC-27	DD16-103	HVE16SI	16DP-3-103	UAC-110	BL-S10
C30	.01 1400V		DAC-27	DD16-103	HVE16SI	16DP-3-103	UAC-110	BL-S10

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

# PARTS LIST AND DESCRIPTIONS (Continued)

## COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	REPLACEMENT DATA		REPLACEMENT DATA
			Harman-Kardon PART No.	Harman-Kardon PART No.	
K1	Equalization Comp.	750mmfd, .001mfd, .0033mfd, 50K, 100K, 1.2meg, 3meg	PC3824700	PC3824700	Sprague TC-28
K2	Contour Comp.	(2) .01mfd, (2) 27K	PC2783366	PC2783366	
K3	Low Filter Comp.	750mmfd, .003mfd, 470K, 2.2meg	PC3584185	PC3584185	
K4	High Filter Comp.	.0015mfd, .0047mfd, 33000, 27K	PC3584184	PC3584184	
K5	Tone Comp.	750mmfd, .003mfd, .0034mfd, .015mfd, 27K, 120K	PC2492902	PC2492902	
K6	Equalization Comp.	750mmfd, .001mfd, .0033mfd, 50K, 100K, 1.2meg, 3meg	PC3824700	PC3824700	
K7	Low Filter Comp.	750mmfd, .003mfd, 470K, 2.2meg	PC3584185	PC3584185	
K8	High Filter Comp.	.0015mfd, .0047mfd, 33000, 27K	PC3584184	PC3584184	
K9	Tone Comp.	750mmfd, .003mfd, .0034mfd, .015mfd, 27K, 120K	PC2492902	PC2492902	

## CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA					
			Harman-Kardon PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R1A	Loudness, Channel B	1meg*	RV3824678					
R2A	Blend, Pilot Light	100K	RV3824943					
R3A	Blend, Channel B	100K		B-60, SR-613 or (AB-60, SR-613, AK-7)				EA55A, RU55R, CS9500
R4	Balance, Channel A	500K			A47-500K-Z/ KSS-3	Q13-133 or (BU, CF25, SSI, DC)†	U48	
R5	Base, Channel B	500K			A47-500K-Z/ KSS-3	Q13-133 or (BU, CF25, SSI, DC)†	U48	
R6	Base, Channel A	500K			A47-500K-Z/ KSS-3	Q13-133 or (BU, CF25, SSI, DC)†	U48	
R7	Treble, Channel B	500K			A47-500K-Z/ KSS-3	Q13-133 or (BU, CF25, SSI, DC)†	U48	
R8	Treble, Channel A	500K			A47-500K-Z/ KSS-3	Q13-133 or (BU, CF25, SSI, DC)†	U48	
R9	Ambiance (Gain)	25000			A47-2500-S/ KSS-3	BL-111, SK1	U8	
R9	Output Balance, Ch. B	100K	RYCOM2568					RUI2L, SL37
R10	Output Balance, Ch. A	100K	RYCOM2568					RUI2L, SL37

\* Taps @ 300K & 600K.

† "SNAPTROL"

## TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA				NOTES
		Harman-Kardon PART No.	Meritt PART No.	Stancor PART No.	Thordarson PART No.	
T1	SEC. 1 117V @ 1.2A SEC. 2 140V @ .740A SEC. 3 6.3V @ 4.2A AC	FT3824925				

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA				NOTES
		Harman-Kardon PART No.	Meritt PART No.	Stancor PART No.	Thordarson PART No.	
T2	40000 CT 16Ω Tap @ 8Ω, 4Ω SEC.	FT3824638				
T3	40000 CT 16Ω Tap @ 8Ω, 4Ω SEC.	FT3824638				

## FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA			
			Harman-Kardon PART No.	Holder	Fuse	Notes
M1	3AG	3A 250V				

## RESISTORS

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

ITEM No.	RATING	REPLACEMENT DATA		REMARKS
		IRC PART No.	WORKMAN PART No.	
R47	1meg			
R48	220K			
R49	22000			
R50	33K			
R51	330K			
R52	68K 5%			
R53	1meg 5%			
R54	6.8meg 5%			
R55	270K 5%			
R56	27000 5%			
R57	39K 5%			
R58	39K 5%			
R59	1meg			
R60	22K 5%			
R61	33000 5%			
R62	20K 5%			
R63	3300 5%			
R64	10000			
R65	270K 5%			
R66	10000			
R67	270K 5%			
R68	1000			
R69	3300			
R70	3300			
R71	33K			
R72	33K			
R73	470.1W 5%			
R74	3300 3W			
R75	150K			
R76	82000			
R77	32000			
R78	12000			
R79	6600 2W			
R80	3.3K 5W			
R81	15K			
R82	33K			

# PARTS LIST AND DESCRIPTIONS (Continued)

## MISCELLANEOUS

ITEM No.	PART NAME	Hartman-Kardon PART No.	NOTES
M2	Switch	ER3824677	Function Selector (Rotary Water Type)
M3	Switch	ESCOM3852	Stereo Reverse (DPDT Slide Type)
M4	Switch	ESCOM3852	Tape Monitor (DPDT Slide Type)
M5	Switch	ESCOM3852	Contour (DPDT Slide Type)
M6	Switch	ESCOM3852	Low Cut (DPDT Slide Type)
M7	Switch	ESCOM3852	High Cut (DPDT Slide Type)
M8	Switch	ESCOM3852	Phasing (DPDT Slide Type)
M9	Switch	EP3424603	Power Off-On (pushbutton Type)

## CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	F3894983	Loudness, Balance, Blend, Ambiance
Knob	F3824894	Base, Prehale
Knob	F3825004	Function

## WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors
Power Cord	8524 (Stranded) Available in 12 Colors
Power Cord (Interlock Type)	17106 (Plastic) or 17126 (Rubber) - 6 Ft.
	17109 (Plastic) or 17129 (Rubber) - 9 Ft.
	Use BELDEN No. 8874 (Rubber) or 8895 (Plastic)