

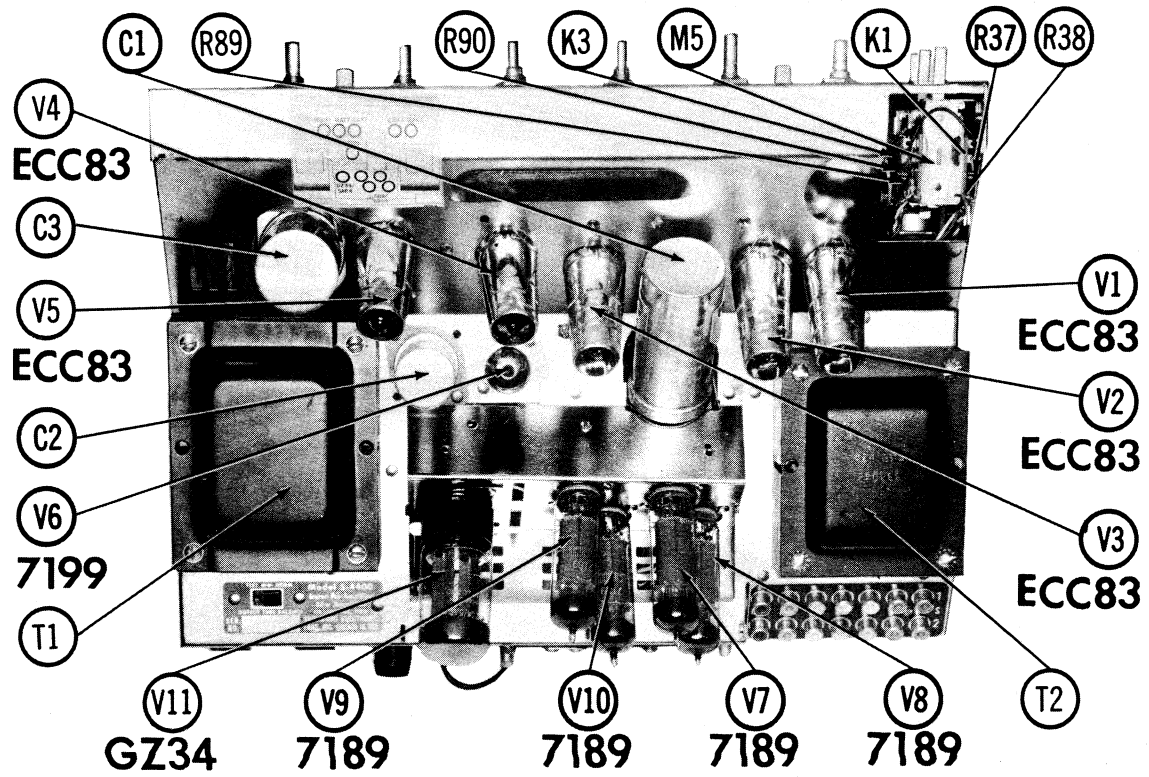
**SHERWOOD
MODEL S-4400**

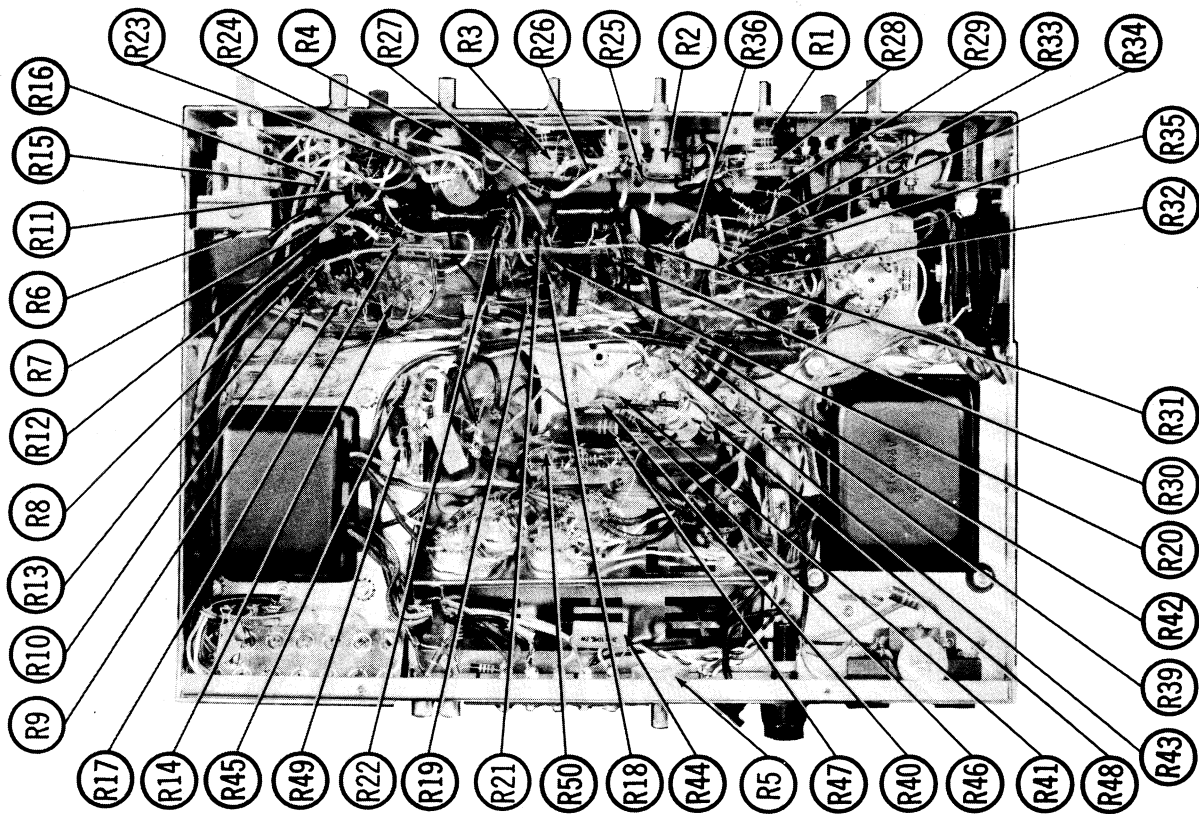
**SHERWOOD
MODEL S-4400**



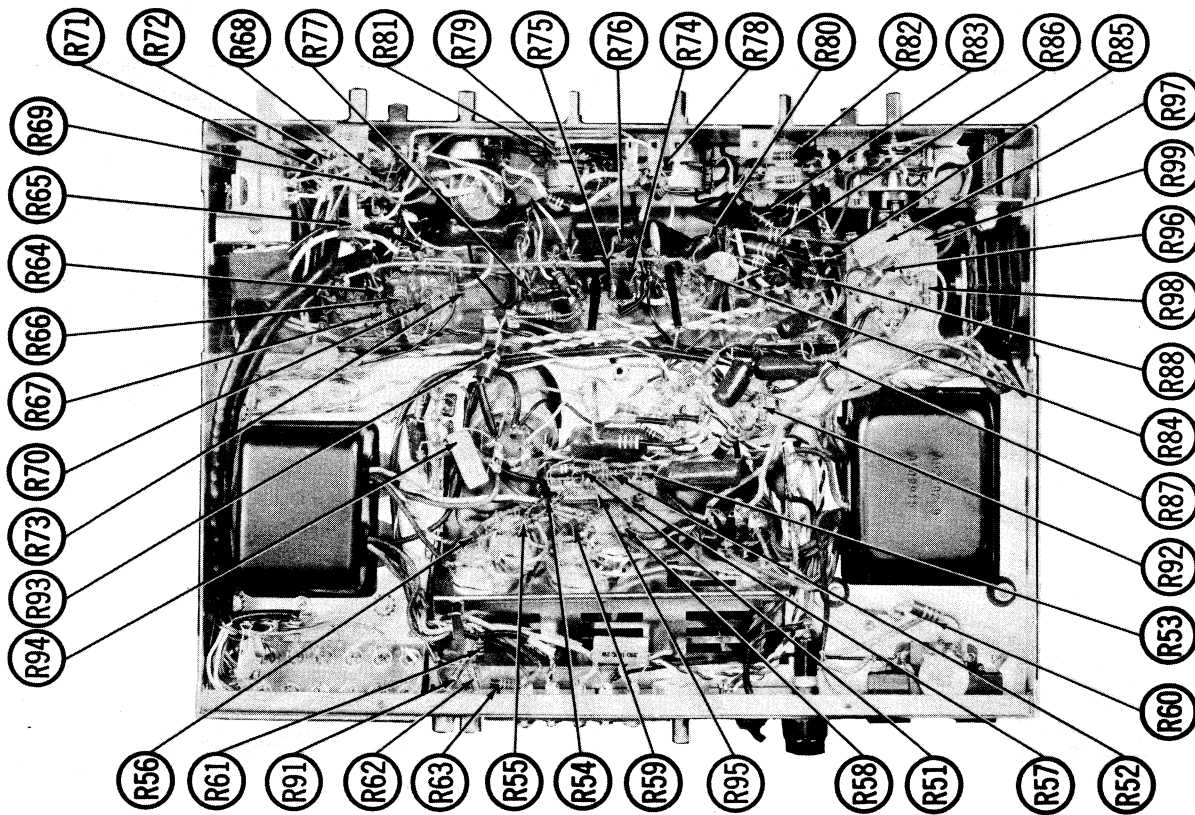
TRADE NAME	Sherwood Model S-4400		
MANUFACTURER	Sherwood Electronic Laboratories, Inc., 4300 N. California Ave., Chicago 18, Illinois		
TYPE SET	AC Operated 11 Tube Stereo Preamplifier With Monaural Amplifier		
POWER SUPPLY	110-120 Volts AC, 60 Cycles	RATING	110 Watts, .95 Amp. @117 Volts AC

**SHERWOOD
MODEL S-4400**

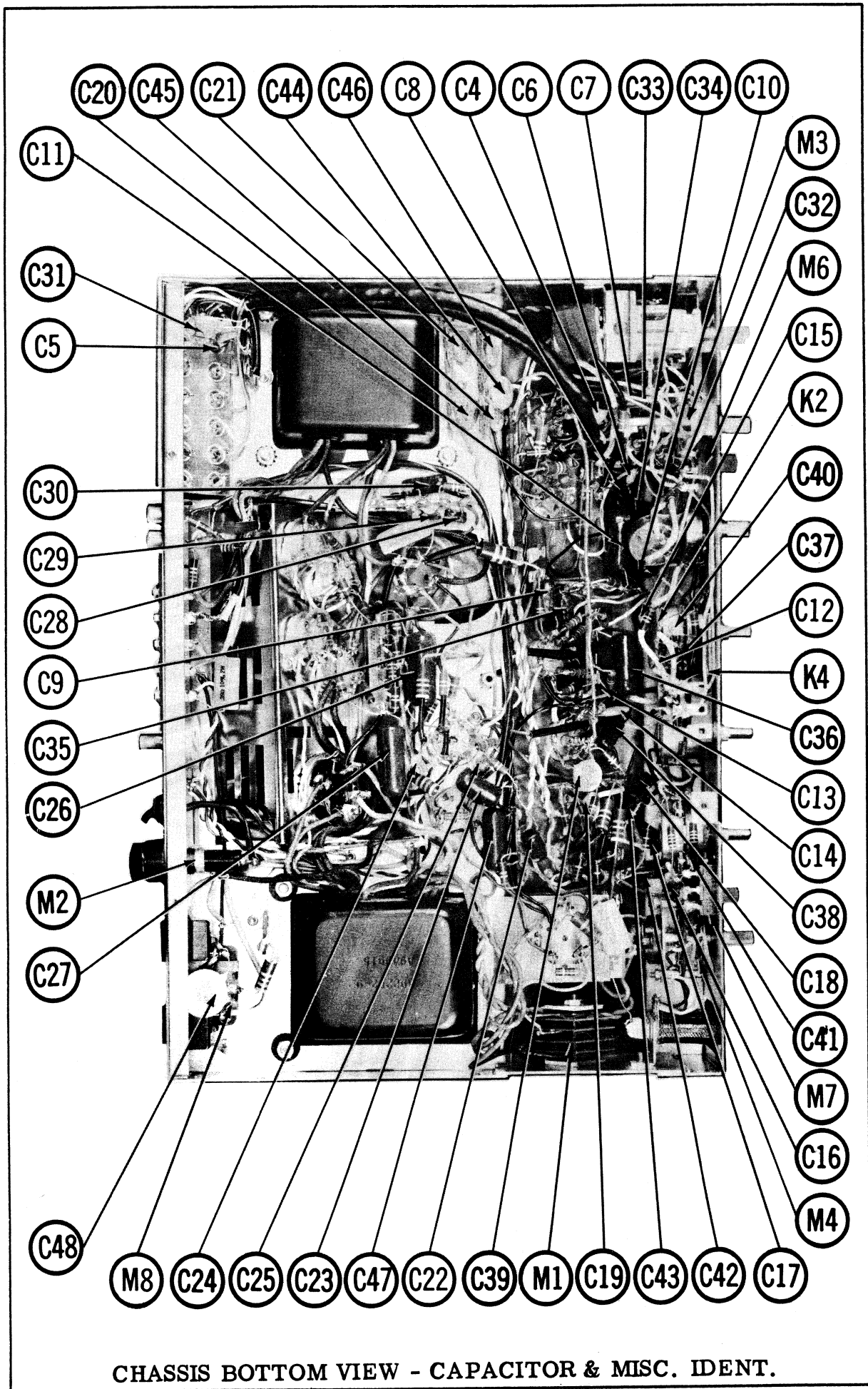




CHASSIS-BOTTOM VIEW-RESISTOR IDENTIFICATION



CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION



CHASSIS BOTTOM VIEW - CAPACITOR & MISC. IDENT.

PARTS LIST AND DESCRIPTIONS

FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					SPRAGUE PART No.
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENC0 PART No.	MALLORY PART No.	
C33	1500 10%		DL-1500	DD-152	PM6D15	CCD-152	GP215	1075-D15
C34	.047 400V		P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-547
C35	.01 400V		P488N-01	DD-103	CUB4S1	2DP-3-103	GEM-411	4TM-510
C36	.15 200V		P288N-15		CUB4S15	CM-19B-181K	GEM-2015	2TM-215
C37	180 10%		1469-00018	TCZ-180	22R5718		CNO-318	MS-318
C38	1.047 400V		P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-547
C39	50000		BPD-05	DD-503	H-0585	IDP-2-503	GP150	5HK-550
C40	220 10%		DL-220	DD-221	L10722	CCD-221	GP222	1075-T22
C41	66 10%		1469-00068	TCZ-66	22R5Q68	CM-19B-680K	CNO-468	MS-468
C42	.082 200V		P288N-082	DD-203	CUB4S22	4DP-2-223	GEM-4168	4TM-522
C43	.022 400V		P488N-022	DD-203	CUB4S22	4DP-2-223	GEM-4122	4TM-522
C44	2200 10%		DL-2200	DD-503	PM6D22	CCD-222	GP222	1075-D22
C45	50000		BPD-05	DD-503	H-0585	IDP-2-503	GP150	5HK-550
C46	1200 10%		DL-1200	DD-122	DPMS6D12	CCD-122	GP212	1075-T12
C47	.047 400V		P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-547
C48A	2000 1400V		BPD-2X002	DD3-202	EYD6DD2	3CCD-202	B2KX20	5HK-2D2
B	2000 1400V							

Note 1. Not used in some versions.
Note 2. C26 and C27 are matched within 3%.

CONTROLS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					INSTALLATION NOTES
			SHERWOOD PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R1A	600K		A67038-2					Loudness, Right Channel
B	75K Tap		A67032					Loudness, Left Channel
R2A	500K							Treble, Right Channel
B	250K Tap							Treble, Left Channel
R3A	Imeg		A670J3					Bass, Right Channel
B	Imeg		A671J2-1					Bass, Left Channel
R4A	5000K							Balance
B	Switch							Push-Pull Off-On
R5A	15K		A670B8					Bias Balance
B	Shaft							Phono Level, Right Channel
R6A	500K		A670J4					Phono Level, Left Channel

RESISTORS (IRC or EQUIVALENT)

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

ITEM No.	RATING	REMARKS	REPLACEMENT DATA			REMARKS
			ITEM No.	RATING	REMARKS	
R7	47K		R22	1.5meg		
R8	47K		R23	470K		
R9	270K 1W		R24	470K		
R10	150K		R25	33K		
R11	100K		R26	180K		
R12	470K		R27	82K		
R13	15000K		R28	330K		
R14	220K		R29	3300K		
R15	56K		R30	150K		
R16	100K		R31	1200K		
R17	27000		R32	Imeg		
R18	470K		R33	82K 1W		
R19	27K		R34	12K		
R20	680K		R35	2200K		
R21	18K		R36	2200K		

TUBES

GENERAL ELECTRIC			RAYTHEON			SYLVANIA		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	Left Channel Preamp.	ECC83/12AX7	V5	Left Channel AF Amp.	ECC83/12AX7			
V2	Right Channel Preamp.	ECC83/12AX7	V6	Right Channel AF Amp.	ECC83/12AX7			
V3	Left Channel Preamp.	ECC83/12AX7	V7	Left Channel Phase Inv.	7199			
V4	Right Channel Preamp.	ECC83/12AX7	V8	Left Channel Output	7189 (EL84/6B4S) *			
	Left Channel AF Amp.	ECC83/12AX7	V9	Left Channel Output	7189 (EL84/6B4S) *			
	Right Channel AF Amp.	ECC83/12AX7	V10	Left Channel Output	7189 (EL84/6B4S) *			
			V11	Rectifier	GZ34/5AR4			

* Alternate

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					NOTES
			SHERWOOD PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	
C1A	20		AL20B9-1					
B	500							
C	500							
D	350							
C2A	50 400		AL20J2-1					
B	400							
C3A	150 50		AL20A8B10					
B	250							
C	50							
C4	50 6							

* 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	REMARKS	REPLACEMENT DATA					SPRAGUE PART No.
			AEROVOX PART No.	CORNELL-DUBILIER PART No.	ELMENC0 PART No.	MALLORY PART No.	SPRAGUE PART No.	
C5	100 10%		1469-0001	TCZ-100	C-M-19B-101K	CCD-861	MCB235	MS-31
C6	680 10%		DL-560	DD-661	CCD-661	GP368	GP368	1075-T68
C7	1500 10%		P488N-047	DD-152	CCD-152	GP215	GP215	1075-D15
C8	.047 400V		P288N-01	DD-503	4DP-3-473	GEM-4147	GEM-4147	4TM-547
C9	.01 400V		P288N-01	DD-103	4DP-1-103	GEM-411	GEM-411	4TM-510
C10	.15 200V		P288N-15		2DP-3-154	GEM-2015	GEM-2015	2TM-215
C11	180 10%		1469-00018	TCZ-180	C-M-19B-181K	GEM-318	GEM-318	MS-318
C12	1.047 400V		P488N-047	DD-503	4DP-3-473	GEM-4147	GEM-4147	4TM-547
C13	50000		BPD-05	DD-503	IDP-2-503	GP150	GP150	5HK-550
C14	220 10%		DL-220	DD-221	L10722	CCD-221	CCD-221	1075-T22
C15	220 10%		1469-00068	TCZ-66	C-M-19B-680K	CNO-468	CNO-468	MS-468
C16	68 10%		P288N-068	DD-203	CUB4S68	GEM-4168	GEM-4168	4TM-568
C17	.068 200V		P488N-068	DD-203	CUB4S68	GEM-4168	GEM-4168	4TM-568
C18	.022 400V		P488N-022	DD-203	CUB4S22	GEM-4122	GEM-4122	4TM-522
C19	2200 10%		DL-2200	DD-503	PM6D22	CCD-222	GP222	1075-D22
C20	50000		BPD-05	DD-503	H-0585	IDP-2-503	GP150	5HK-550
C21	1200 10%		DL-1200	DD-122	DPMS6D12	CCD-122	GP212	1075-T12
C22	.015 400V 10%	Note 1	V94C4S15-10%	DD-303	PM4S15	4DP-1-153	GEM-4133	6TM-515
C23	.033 400V		P488N-033	DD-303	CUB4S33	GEM-4133	GEM-4133	4TM-533
C24	15 NPO 10%		NPO-DI 25	TCZ-27	CCCTO-270	CNO-427	CNO-427	1075C-Q27
C25	.068 600V 10%	Note 2	V94C6S68-10%	DD-4-683	6DP-4-683	6TM-568	6TM-568	6TM-568
C26	.068 600V 10%	Note 2	V94C6S68-10%	DD-4-683	6DP-4-683	6TM-568	6TM-568	6TM-568
C27	120 5%		1469-00012	TCZ-120	C-M-19B-121J	CNO-312	CNO-312	MS-312
C28	33 5%		1469-00033	TCZ-33	C-M-19B-330J	CNO-433	CNO-433	MS-433
C29	33 5%		1469-00033	TCZ-33	C-M-19B-330J	CNO-433	CNO-433	MS-433
C30	.022 400V		P488N-022	DD-203	4DP-2-223	GEM-4122	GEM-4122	4TM-522
C31	100 10%		1469-0001	TCZ-100	C-M-19B-101K	MCB235	MCB235	MS-31
C32	680 10%		DL-680	DD-661	CCD-661	GP368	GP368	1075-T68

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS (IRC or EQUIVALENT) (cont)

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	RATING	REMARKS
R52	47K		R84	1200Ω			
R53	150K		R85	1meg			
R54	1000Ω		R86	47K 1W			
R55	1000Ω		R87	12K			
R56	220Ω		R88	2200Ω			
R57	1000Ω		R89	220K			
R58	1000Ω		R90	1meg			
R59	220Ω		R91	1.5meg			
R60	6.8K 1W		R92	56K			
R61	18K		R93	10K 2W			
R62	1800Ω		R94	4700Ω 5W			IRC#PW5-4700Ω
R63	18K		R95	33Ω 5W			IRC#PW5-33Ω
R64	47K		R96	2200Ω 1W			
R65	47K		R97	47Ω 5W			IRC#PW5-47Ω
R66	270K 1W		R98	8200Ω			
R67	150K		R99	5.1Ω 5W			IRC#PW5-5.1Ω

Note 1. Not used in some versions.

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	SHERWOOD PART No.	REPLACEMENT DATA
K1	Scratch Filter Comp.	270mmf, 390mmf, 470mmf, 6800mmf, 150K, 1meg, 10meg, 22meg	B680B1	Sprague TC-26
K2	Tone Comp.	3300mmf, 3300mmf, 100K, 150K, 270K	A680B2	Sprague TC-27
K3	Scratch Filter Comp.	270mmf, 390mmf, 470mmf, 6800mmf, 150K, 1meg, 10meg, 22meg	B680B1	Sprague TC-26
K4	Tone Comp.	3300mmf, 3300mmf, 100K, 150K, 270K	A680B1	Sprague TC-27

TRANSFORMER (POWER)

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	PR1	SEC. 1	SHERWOOD PART No.	Merit PART No.	Stanco PART No.	
T1	117V @ .95A	5V @ 1.9A	A822B2-9			
	SEC. 3	SEC. 4				
	6.3VCT @ 4.5A	50VCT @ .160A				

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PR1	SEC.	SHERWOOD PART No.	Merit PART No.	Stanco PART No.	
T2	5200Ω CT	16Ω Tap @ 500Ω CT	B820B2			

RECTIFIERS

ITEM No.	CURRENT (measured)	REPLACEMENT DATA				NOTES
		SHERWOOD PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SARKES TARTAN PART No.	
M1	.160A				2S33-2CN1-RV	Bridge Type

FUSES

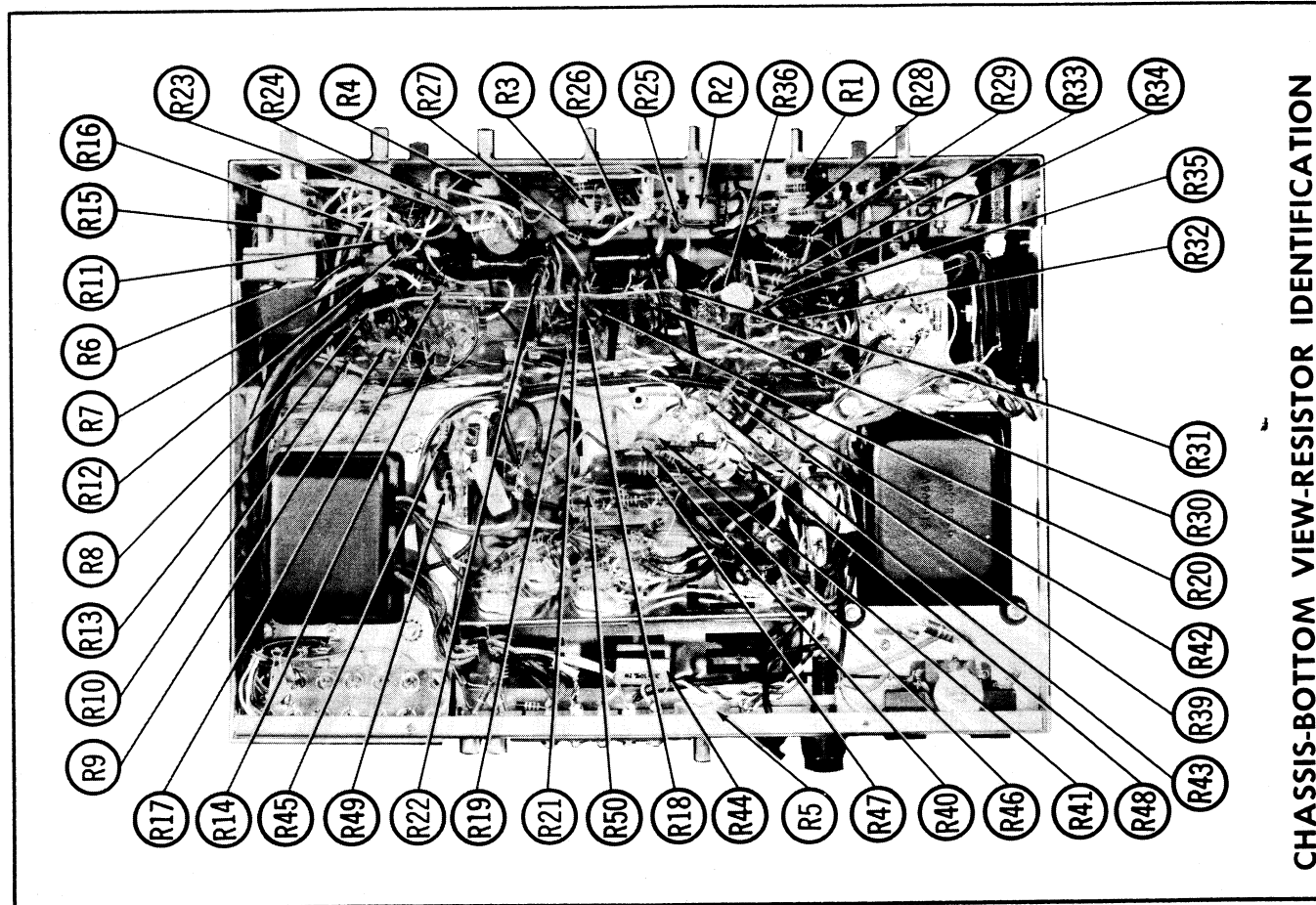
ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			SHERWOOD PART No.	HOLDER	LITTELFUSE PART No.	BUSS PART No.		
M2	3AG	1½A 125V S/B			31301.5 (3AG 1½A 125V S/B)	342001	MD L 1½	HKP

MISCELLANEOUS

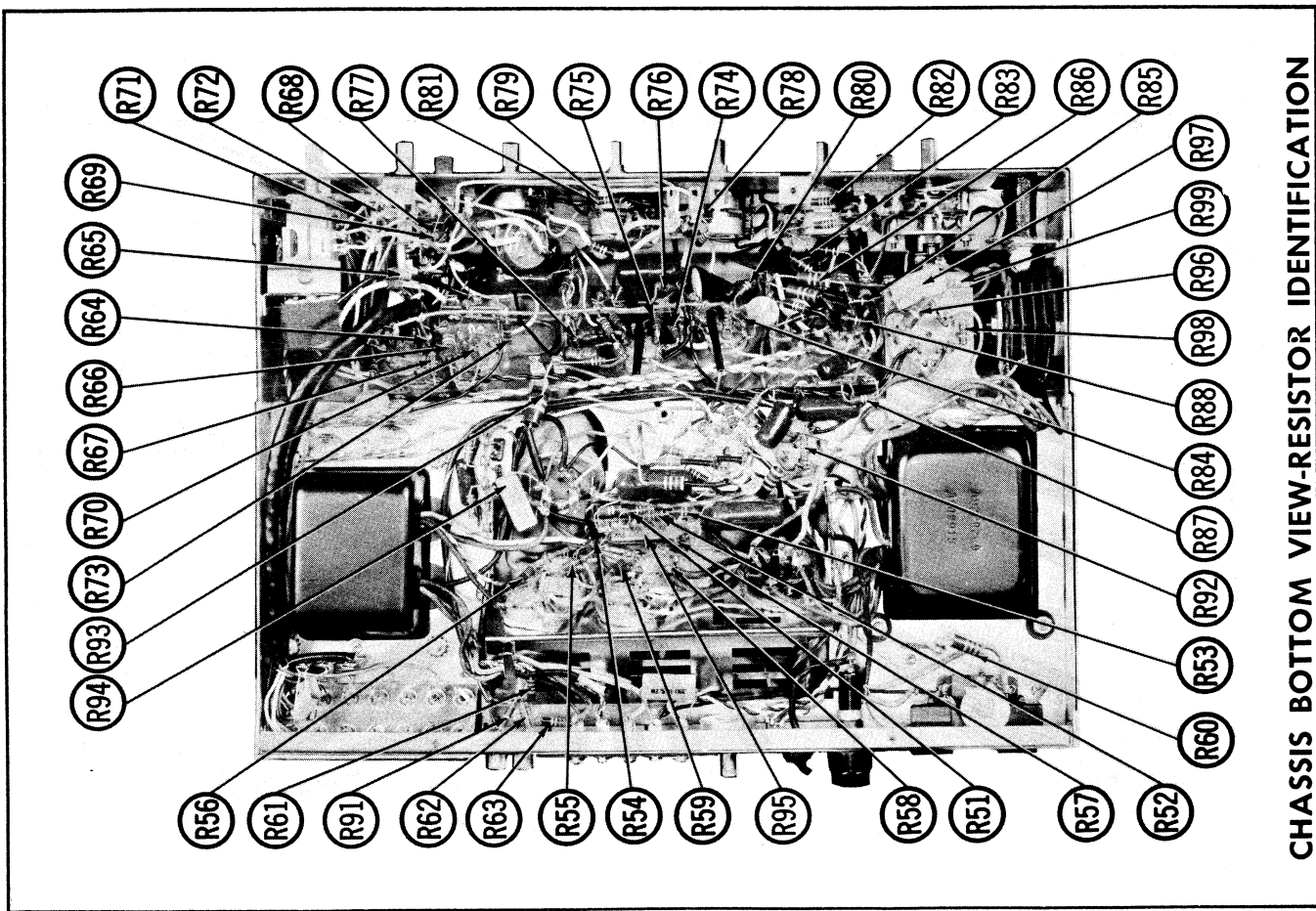
ITEM No.	PART NAME	SHERWOOD PART No.	NOTES
M3	Switch		Input Selector (Rotary Wafer Type) Function Selector (Rotary Wafer Type) Pushbutton Type (Includes Presence, Scratch Filter and Rumble Filter) Normal-Monitor (DPDT Slide Type) Loudness, In-Out (DPDT Slide Type) Output Tube Balance (SPDT Slide Type), Test-Normal
M4	Switch		
M5	Switch		
M6	Switch		
M7	Switch		
M8	Switch		

WIRING DATA

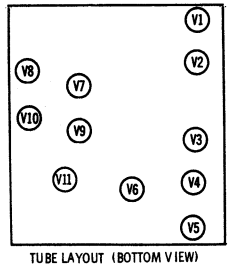
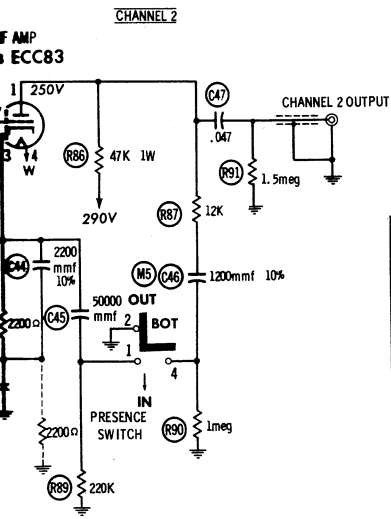
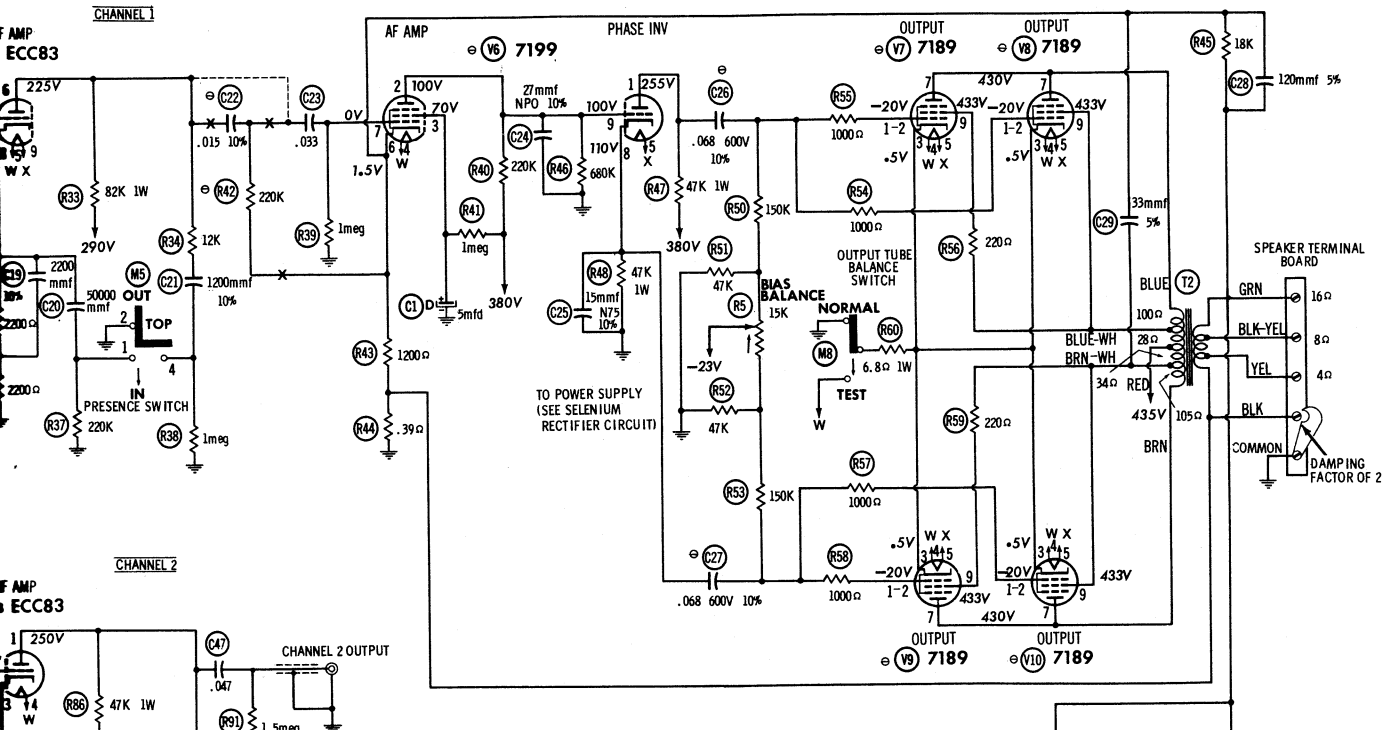
General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
8524 (Stranded) Available in Ten Colors
Power Cord Use BELDEN No. 1765-B (6 Ft. Length)
1725-K (7½ Ft. Length)



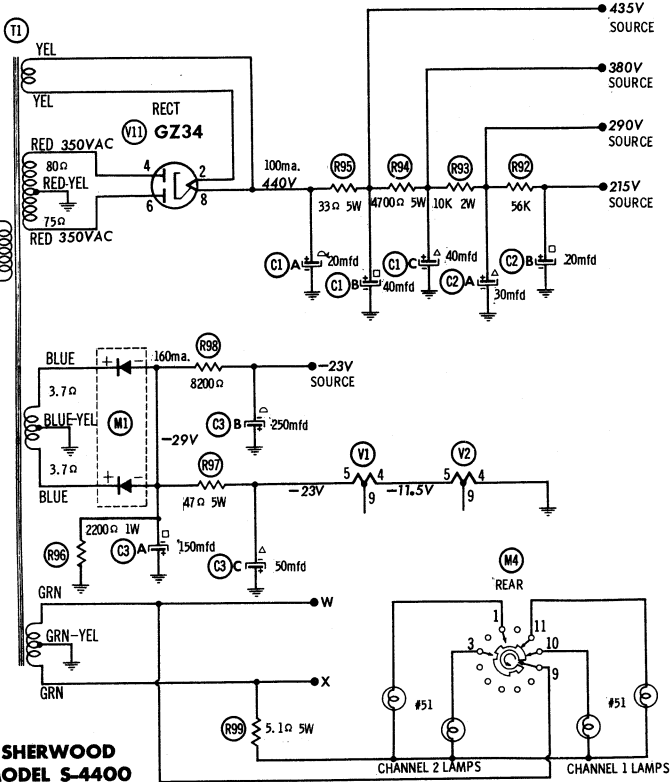
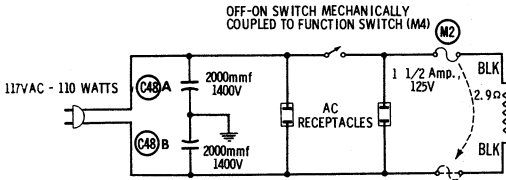
CHASSIS-BOTTOM VIEW-RESISTOR IDENTIFICATION



CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION

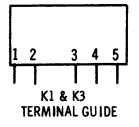
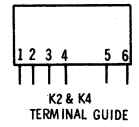
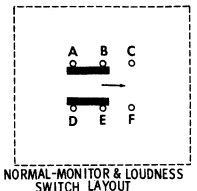
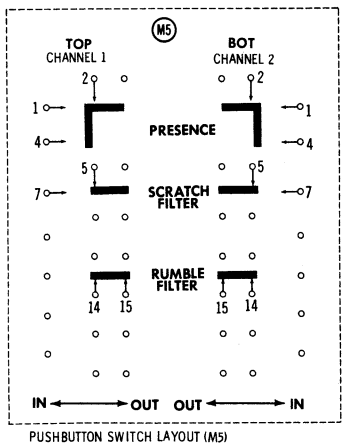
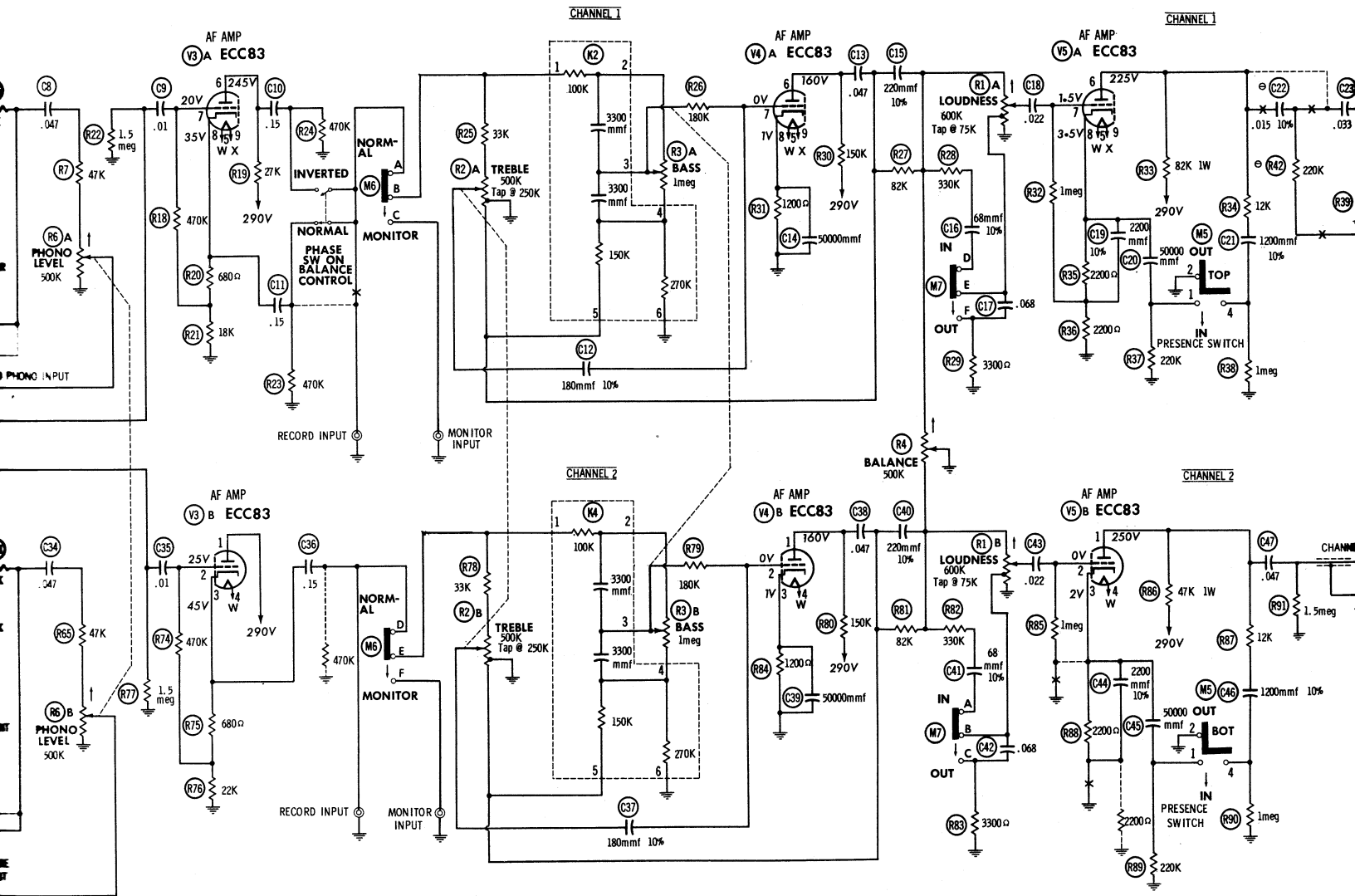


1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured with 1000 ohm per volt voltmeter.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common ground.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance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



PLUGS, SOCKETS, AND POINT TRACING OR NECESSARILY BE FOUND ON

ONE OHM
CLOCKWISE ROTATION



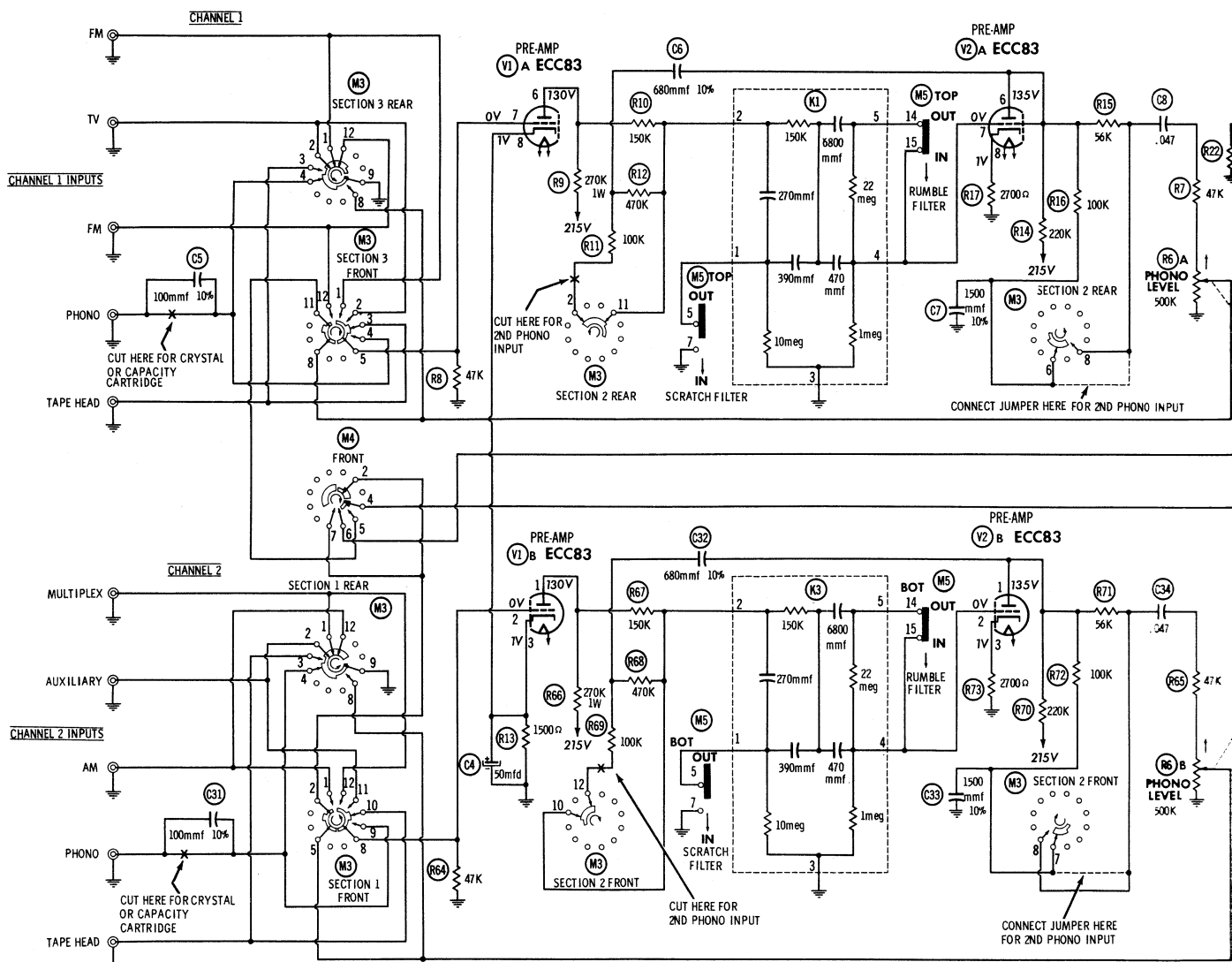
NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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

ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION (CONTROL VIEWED FROM SHAFT END)

117VAC - 110 WATTS



INPUT SELECTOR SWITCH (M3) SHOWN IN "TAPE" POSITION.
 SWITCH SEQUENCE:
 1. TAPE
 2. PHONO
 3. FM-AM
 4. MULTIPLEX-FM
 5. AUXILIARY-TV

FUNCTION SWITCH (M4) SHOWN IN "POWER OFF" POSITION.
 SWITCH SEQUENCE:
 1. POWER OFF
 2. NORMAL
 3. STEREO REVERSE
 4. MONAURAL - S1
 5. S2
 6. S1 & S2

● SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION
 DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM
 ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION (CONTROL VIEWED FROM SHAFT END)

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	ECC83 12AX7	+340K	47K	1500Ω	9Ω	18Ω	+340K	47K	1500Ω	NC
V2	ECC83 12AX7	+290K	1meg	2700Ω	0Ω	9Ω	+290K	1meg	2700Ω	NC
V3	ECC83 12AX7	+14K	500K	22K	.1Ω	.1Ω	+42K	490K	18K	.1Ω
V4	ECC83 12AX7	+165K	600K	1200Ω	.1Ω	.1Ω	+165K	600K	1200Ω	.1Ω
V5	ECC83 12AX7	+62K	1meg	2200Ω	.1Ω	.1Ω	+96K	1meg	4400Ω	.1Ω
V6	7199	+50K	+225K	1meg	.1Ω	.1Ω	1200Ω	1meg	47K	+225K
V7	7189	NC	165K	6.8Ω	.1Ω	.1Ω	NC	+160Ω	NC	+280Ω
V8	7189	NC	165K	6.8Ω	.1Ω	.1Ω	NC	+160Ω	NC	+60Ω
V9	7189	NC	165K	6.8Ω	.1Ω	.1Ω	NC	+170Ω	NC	+285Ω
V10	7189	NC	165K	6.8Ω	.1Ω	.1Ω	NC	+170Ω	NC	+70Ω
V11	GZ34 5AR4	NC	1	NC	80Ω	NC	75Ω	NC	1	

1 THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
 † MEASURED FROM PIN 8 OF V11. NC NO CONNECTION