



STROMBERG-CARLSON MODELS
ASE-8, ASP-80, ASR-8.80G



MODEL ASR-8.80G

STROMBERG-CARLSON MODELS
ASE-8, ASP-80, ASR-8.80G

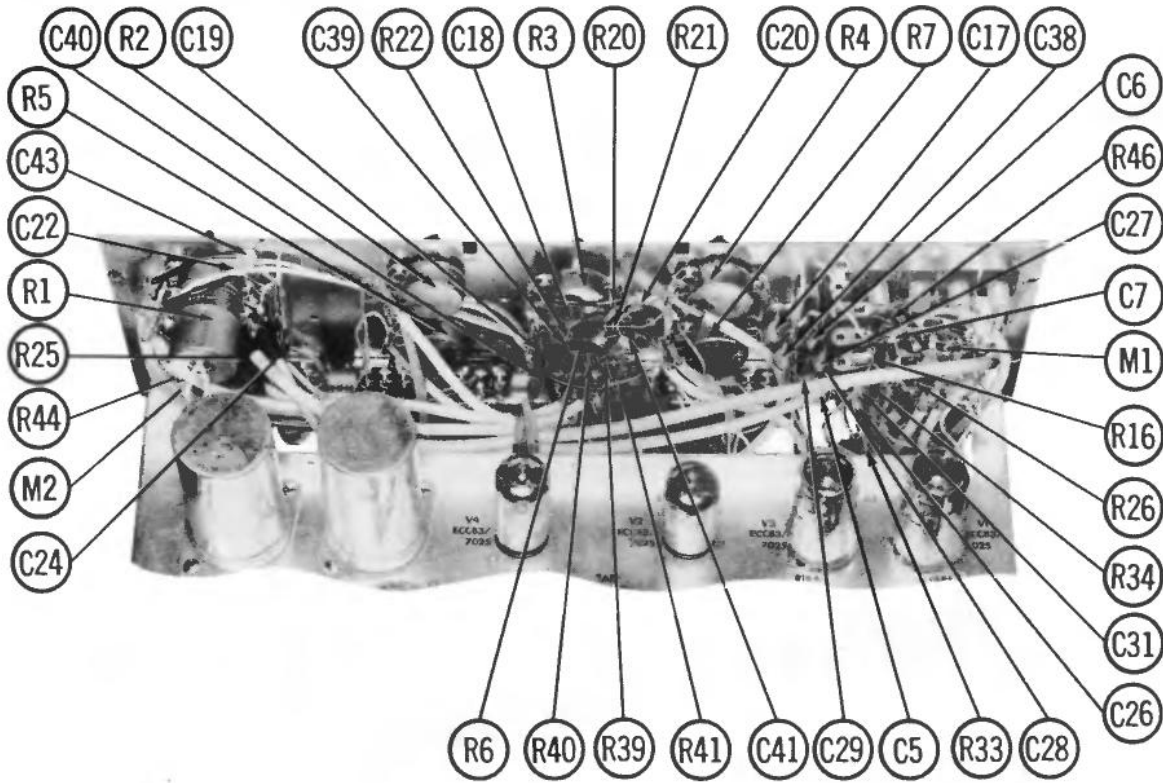
TRADE NAME	Stromberg-Carlson Model ASE-8 (Preampfier), ASP-80 (Amplifier), ASR-8.80G (Combined Preampfier and Amplifier)		
MANUFACTURER	Stromberg-Carlson Co., A Div. of General Dynamics Corp., Commercial Products Div., 1400 N. Goodman Street, Rochester 9, N. Y.		
TYPE SET	AC Operated 4 Tube Stereo Preampfier and 6 Tube Stereo Amplifier		
POWER SUPPLY	110 - 120 Volts AC, 60 Cycles	RATING	120 Watts, 1.25 Amp. @117 Volts AC

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

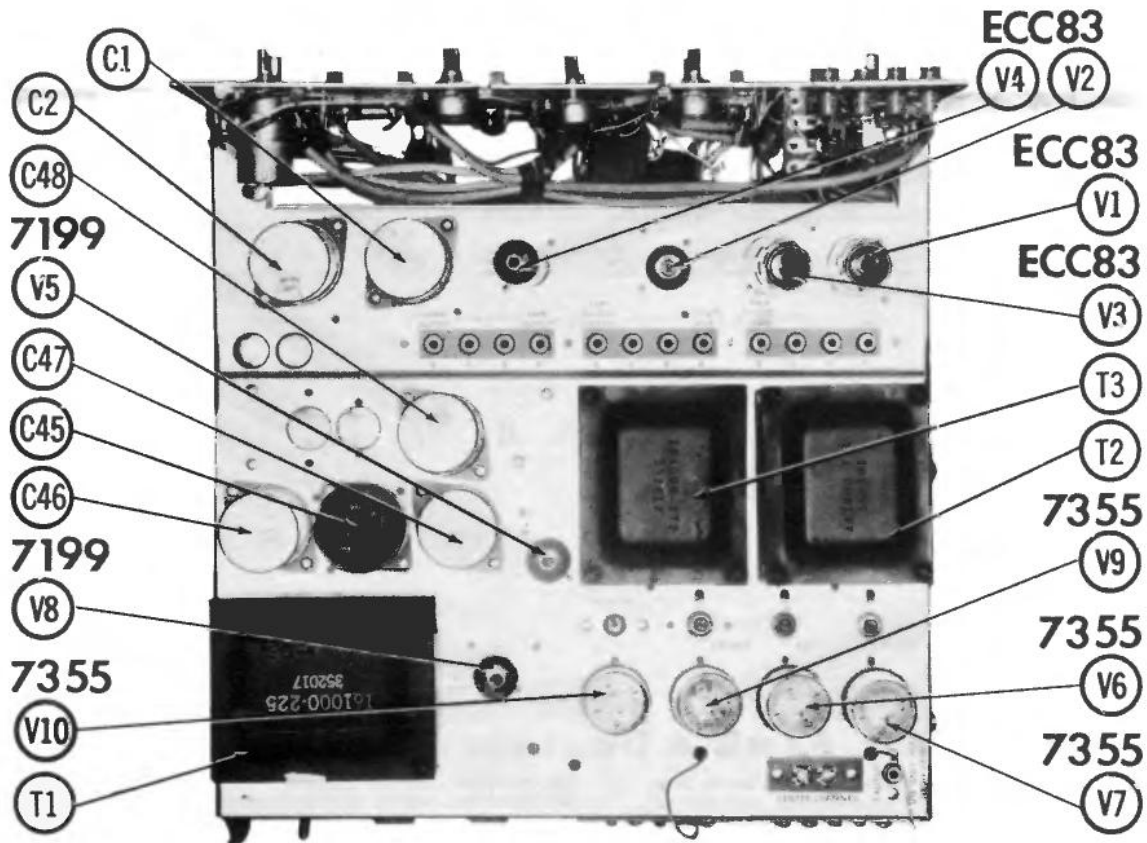


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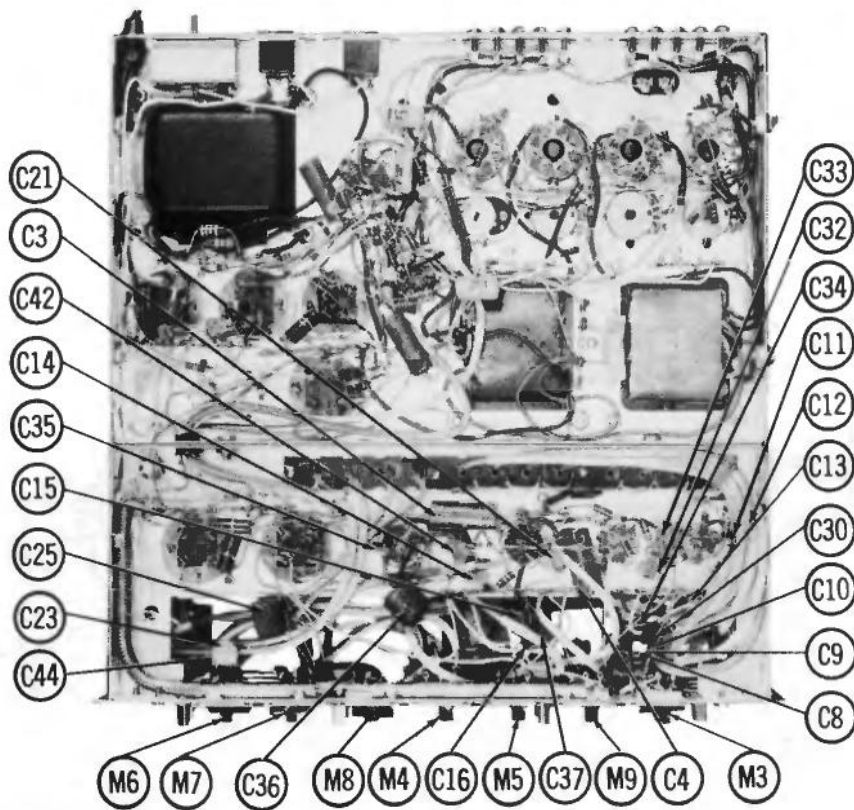
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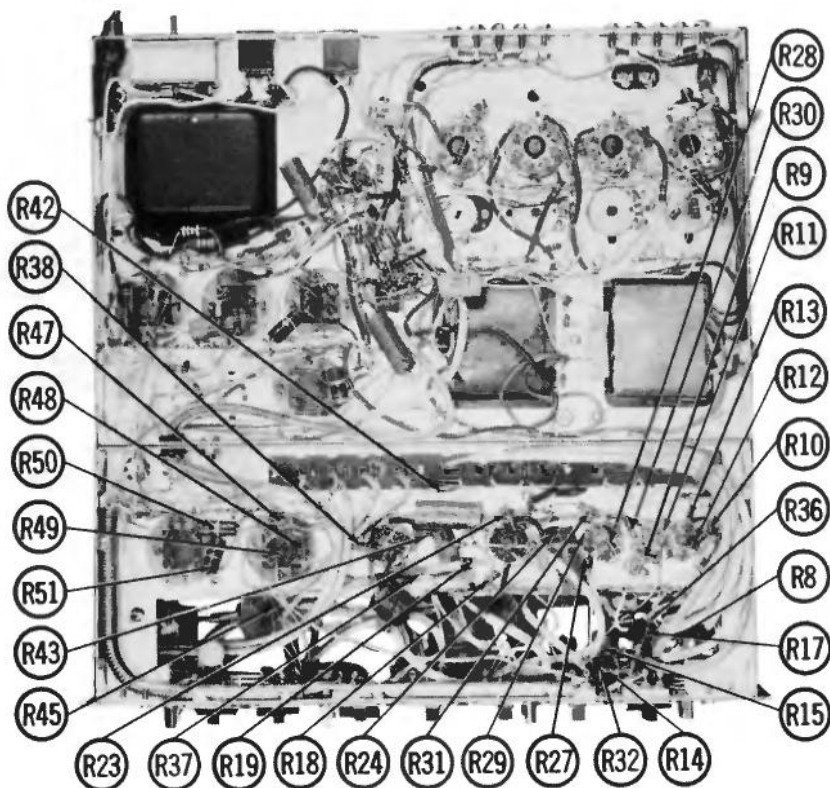
CONTROL PANEL-REAR VIEW



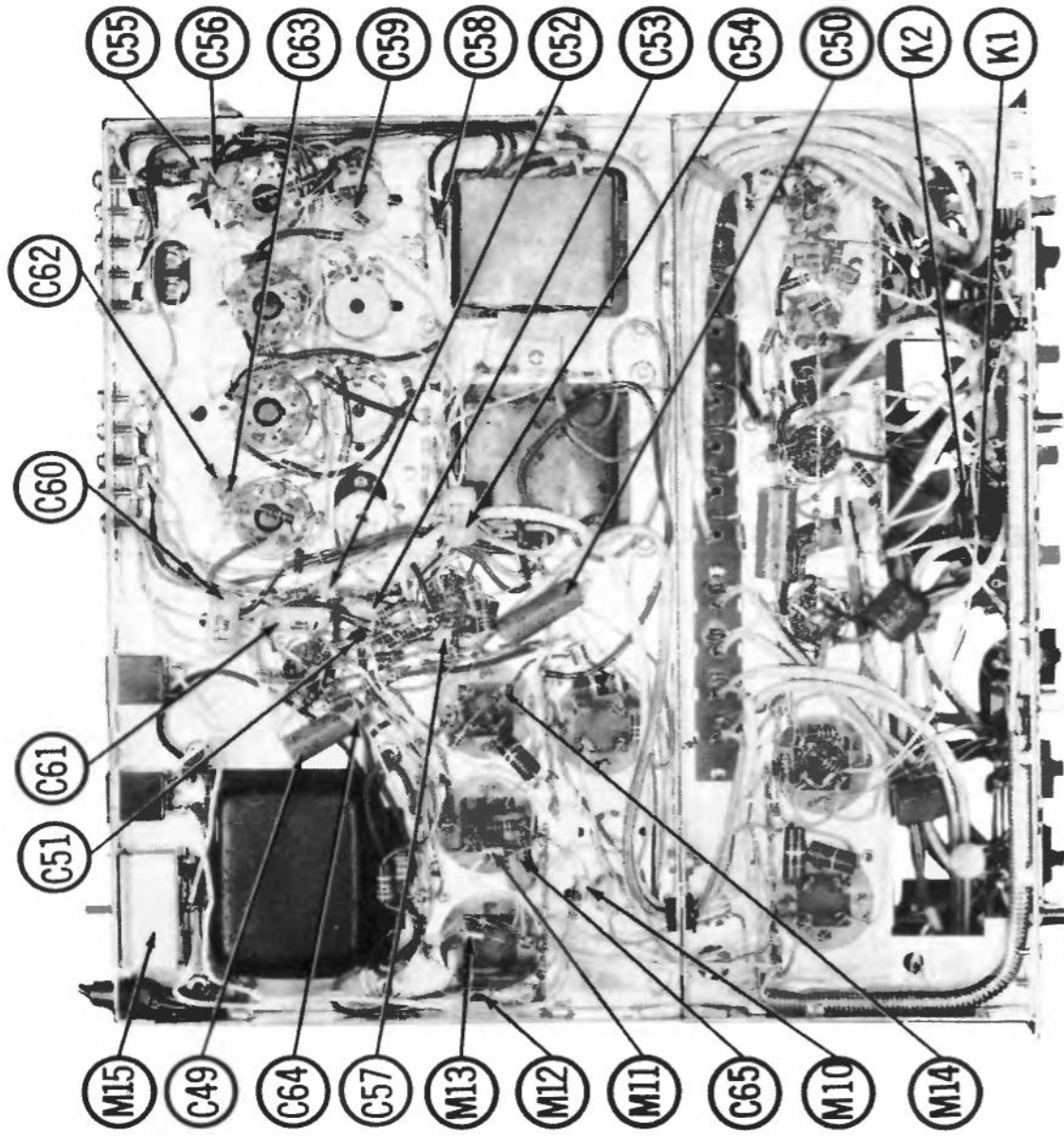
CHASSIS-TOP VIEW



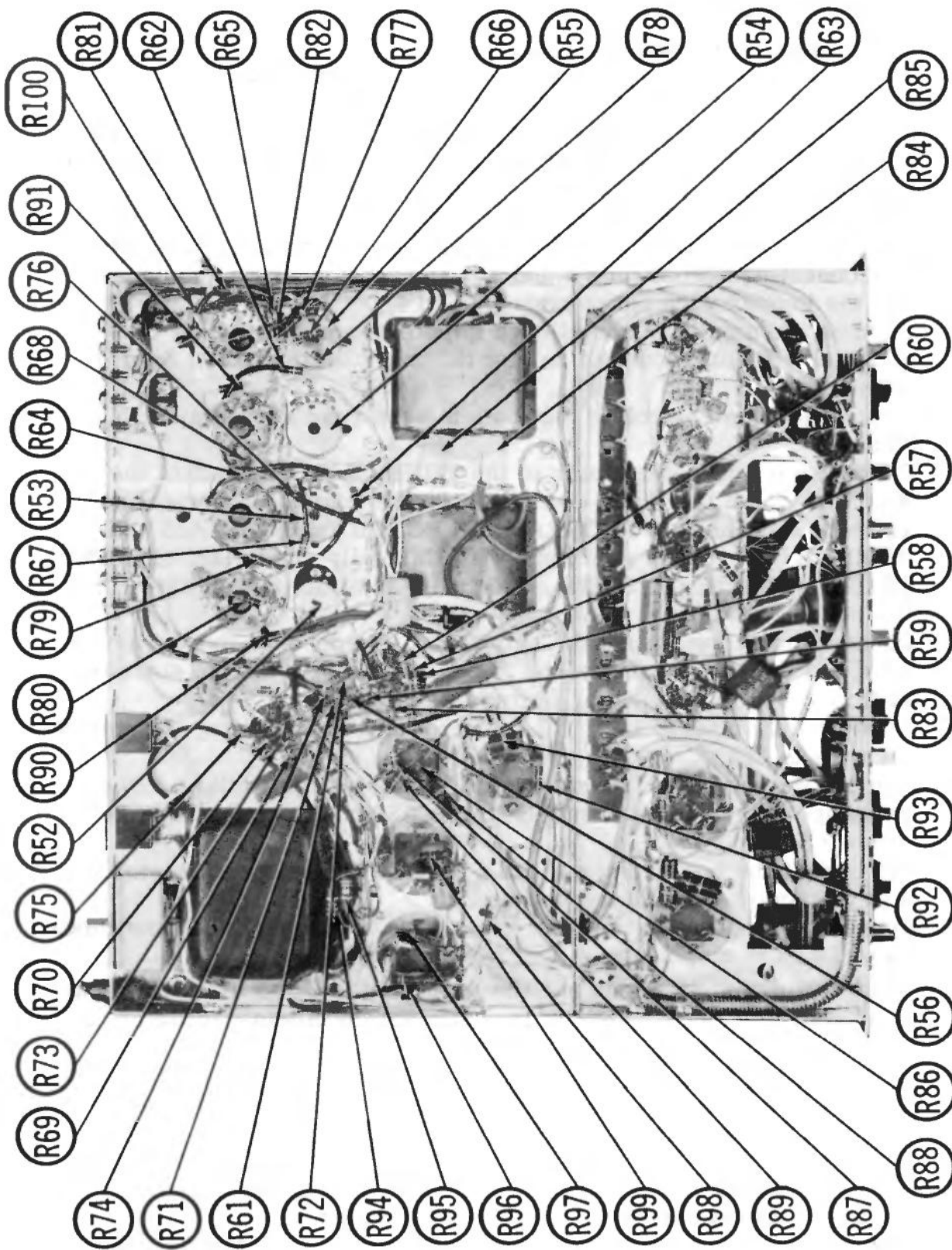
CHASSIS BOTTOM VIEW-PREAMP, CAPACITOR & MISC. IDENT.



CHASSIS BOTTOM VIEW-PREAMP, RESISTOR IDENT.



CHASSIS BOTTOM VIEW-AMP, CAPACITOR & MISC. IDENT.



CHASSIS BOTTOM VIEW -AMP, RESISTOR IDENT.

STROMBERG-CARLSON MODELS
 ASE-8, ASP-80, ASR-8.80G

BIAS AND BALANCE ADJUSTMENT

To properly make these adjustments, the following equipment is required.

- a. Two DC Milliammeters (0-100 ma).
- b. Audio-oscillator, sine-wave.
- c. Oscilloscope with linear sweep.
- d. Resistive load, 8 or 16 ohms, 50 watts non-inductive.

Procedure:

1. Connect one lead of the load to the OUTPUT A LO terminal of the amplifier. Connect the other lead to 8 for 8 ohm load; or 16 for 16 ohm load.
2. With the power turned off, connect the milliammeters in the plate circuits of the Channel A output tubes. This may be accomplished by connecting across pins 3 and 4 of the tube sockets and unsoldering the jumper wire between pins 3 and 4.
3. Turn on the amplifier and allow 5 minute warm up. Adjust the Channel A Balance control so that the two milliammeters read the same.
4. Adjust the Bias control so that both meters read approximately 34ma.
5. Connect the Audio-oscillator to the TUNER AUX. A input of the amplifier. Set the Audio-oscillator for 100 cycles. Operate the controls as follows: PROGRAM SELECTOR to AUX, BASS and TREBLE to center of rotation; VOLUME fully clockwise, CHANNEL SELECTOR to STEREO, all slide switches to the left and MASTER GAIN CONTROL to 8.
6. Connect the scope across the output load and observe the waveform. Increase the output level of the Audio-oscillator until the sinewave begins to appear clipped or flattens out as in Fig. 1.
7. Adjust the Channel A BALANCE control until the clipping is symmetrical as in Fig. 2.
8. Remove the signal and check the milliammeters. If either meter reads more than 37ma, readjust the BIAS control so that the meter reads 37ma.
9. Disconnect the power and meters. Restore the jumpers on pins 3 and 4 of Channel A Output tube sockets.
10. Connect the meters in the plate circuit of the Channel B Output tubes as outlined in step 2.
11. Connect the resistive load and the scope to the OUTPUT B terminals as in step 1. Connect the power. Connect the Audio-oscillator to TUNER AUX B and set for 100 cycles.
12. Observe the waveform and adjust the output of the audio-oscillator until the sinewave just begins to clip. Adjust the Channel B BALANCE control until the clipping is symmetrical.
13. Remove the signal and check the meters for a maximum reading of 37ma. Readjust the Bias control if necessary so that the maximum reading does not exceed 37ma. on either meter.
14. Restore the jumpers on pins 3 and 4 of the channel B Output tube sockets.

FIG. 1

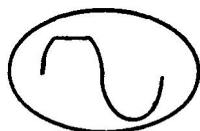
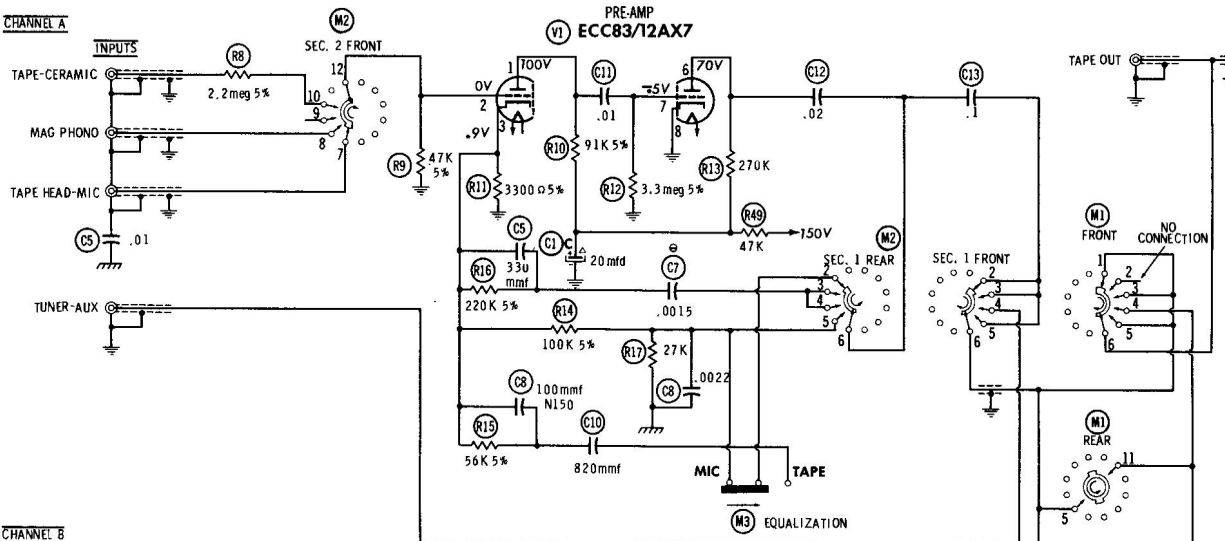


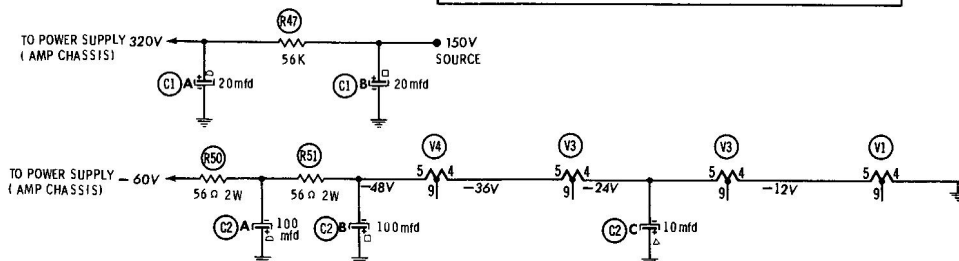
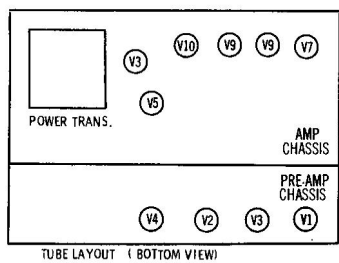
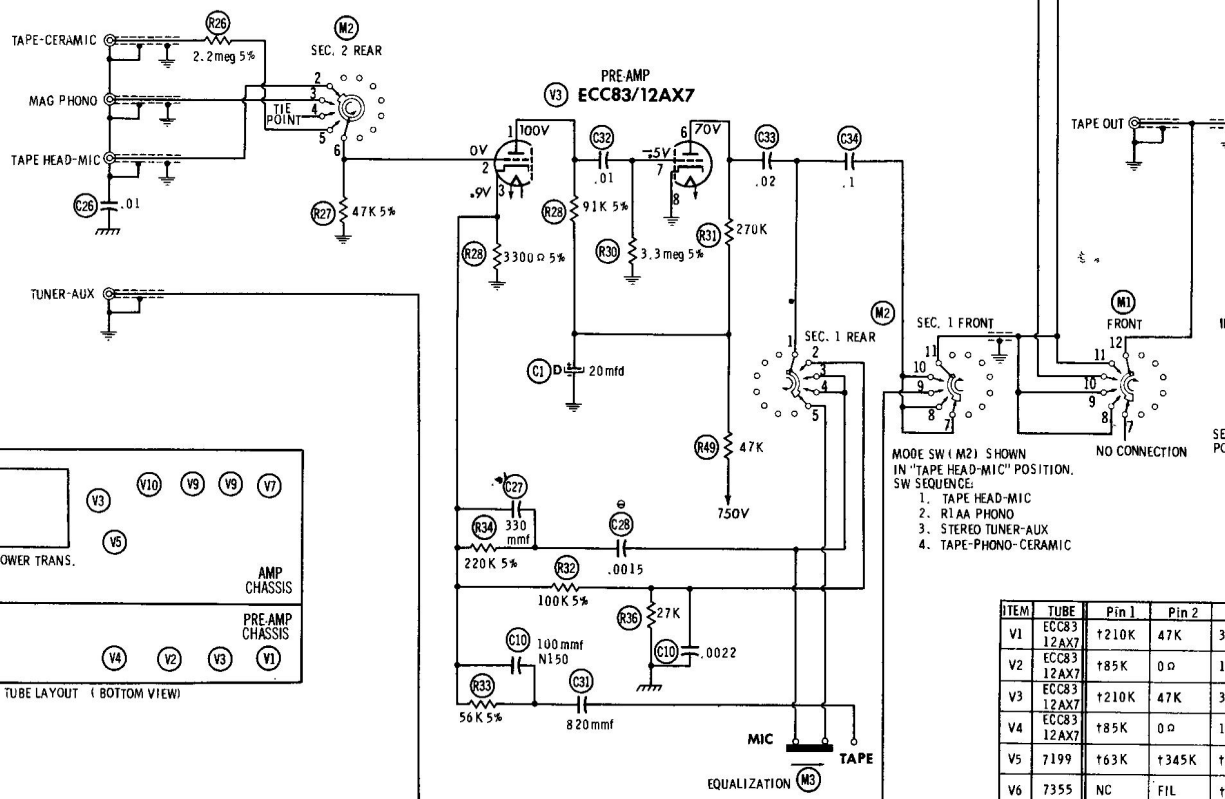
FIG. 2



CHANNEL A



CHANNEL B



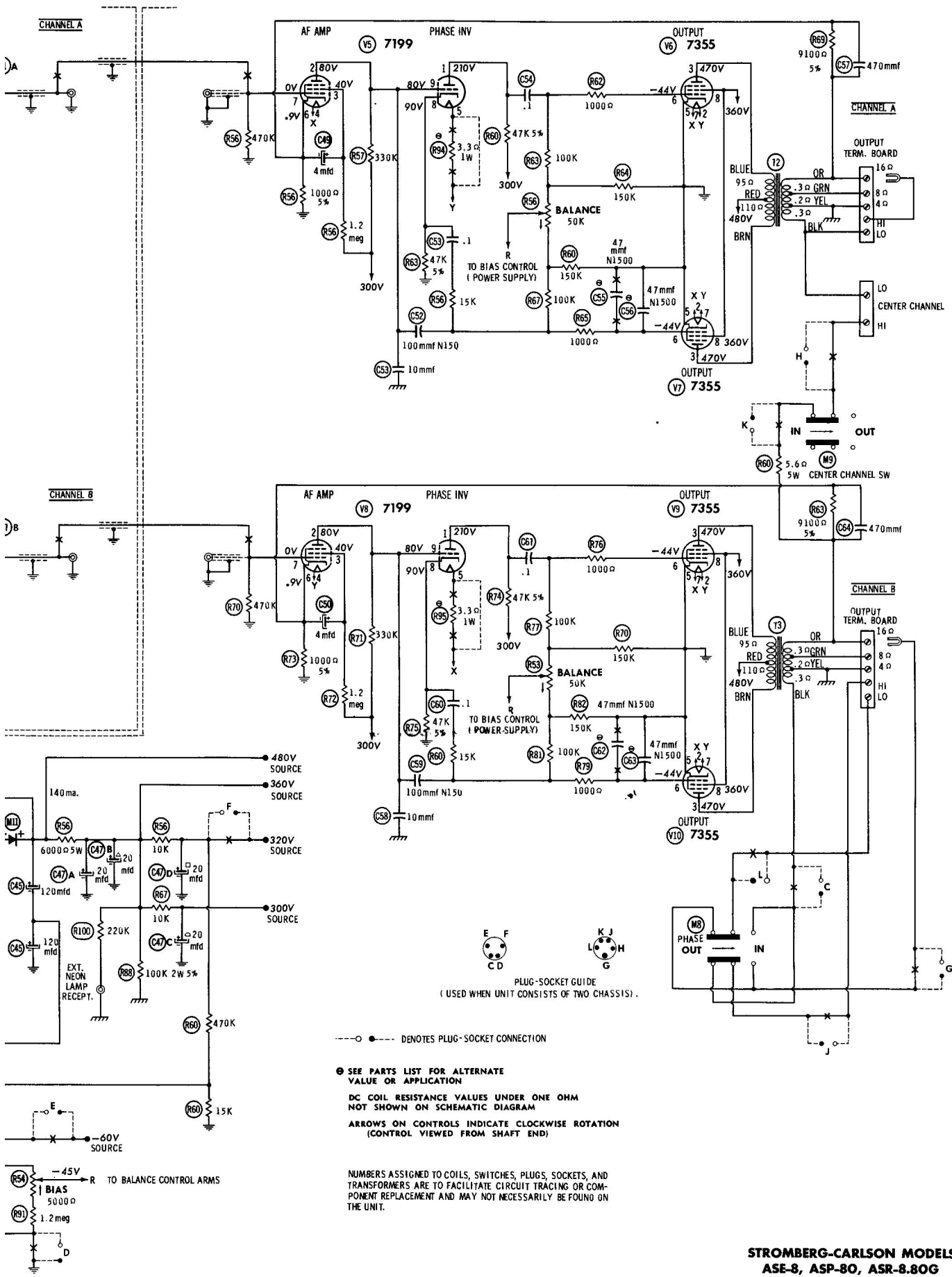
A PHOTOFACIT STANDARD NOTATION SCHEMATIC

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- 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 $\pm 1\%$ in voltage and resistance readings.
- All controls at minimum, proper output load connected.

ITEM	TUBE	Pin 1	Pin 2	
V1	ECC83 12AX7	+210K	47K	33
V2	ECC83 12AX7	+85K	0 Ω	10
V3	ECC83 12AX7	+210K	47K	33
V4	ECC83 12AX7	+85K	0 Ω	10
V5	7199	+63K	+345K	+1
V6	7355	NC	FIL	+1
V7	7355	TP	FIL	+1
V8	7199	+63K	+345K	+1
V9	7355	NC	FIL	+1
V10	7355	TP	FIL	+1

† MEASURED FROM OUTPUT OF M1.



PREAMP PARTS LIST AND DESCRIPTIONS

TUBES

• GENERAL ELECTRIC •		• RAYTHEON •		• SYLVANIA •	
ITEM No.	USE	ITEM No.	USE	ITEM No.	TYPE
V1	Channel A Preamp.	ECC83/12AX1 (7025)*	Channel B Preamp.	ECC83/12AX1 (7025)*	
V2	Channel A A.F. Amp.	ECC83/12AX1 (7025)*	Channel B A.F. Amp.	ECC83/12AX1 (7025)*	

* Alternate

ELECTROLYTIC CAPACITORS

REPLACEMENT DATA					
ITEM No.	RATING	REMARKS	CORNELL-DUBIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1A	20 450		XC4-49	FP376-5	TMQ-4616
C1B	20 450			TC75	
C1C	20 450				
C1D	20 450				
C2A	100 75				TVLPS-3360*
C2B	100 75				
C3	50 6		QTI-15	TC29	TD-50-6
C4	50 6		QTI-15	TC29	TD-50-6

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

FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBIER PART No.	ELEMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C33	.02 400V		P488N-02	DD-203	CUB4S2	4DP-2-203	GEM-412	4TM-820
C34	.1 400V		P488N-1	DD-472	CUB4P1	4DP-3-104	GEM-401	4TM-P10
C35	.0047	Note 1	P288N-25	DD-222	CUB4S2	CCD-4-254	B-247	5HK-D47
C36	.25 200V		P288N-25	DD-222	CUB4S2	2DP-4-254	GEM-2025	2TM-P25
C37	.0022		P288N-25	DD-222	CUB4S2	CCD-221	B-222	5HK-D22
C38	220 10%		P288N-25	DD-222	CUB4S2	L10732	GF322	107S-T22
C39	.0047 10%	Note 4	DI-4700	DD-221	PM6D47	CCD-472	JL-247	107S-D47
C40	.0047 10%	Note 4	DI-4700	DD-221	PM6D47	CCD-472	JL-247	107S-D47
C41	47 N1500	Note 2	DL-4700	TCL-47	CUB2P1	2DP-3-104	GEM-201	2TM-P10
C42	47 N1500	Note 2	DL-4700	TCL-47	CUB2P1	2DP-3-104	GEM-201	2TM-P10
C43	47 N1500	#552076-470	P288N-1	DD-472	BYA10D47M	CCD-472	B-247	5HK-D47
C44	.0047	#552076-470	P288N-1	DD-472	BYA10D47M	CCD-472	B-247	5HK-D47

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

* Stromberg-Carlson Part Number.

Note 1. Some versions of Model ASR-8, 80G may use .22mfd in this application.

Note 2. Some versions of Model ASR-8, 80G may use 400V unit in this application.

Note 3. Not used in later versions of Model ASR-8, 80G.

Note 4. Value changes to .01mfd when cable is used to connect the chassis.

CONTROLS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA						INSTALLATION NOTES		
			RESIST-ANCE	WATTS	Stromberg-Carlson Part No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.		MALLORY PART No.	
R1A	1meg 250K Tap		145000-023								
B	250K Tap										
C	Switch										
R2A	1meg		145000-072	B-70	A47-Imeg-Z	Q13-137	Not Req.	U53	Not Req.	Master Gain, Channel A	
R3A	500K Tap		145000-090	BT-71	A47FS-Imeg	Q13-137	Not Req.	UT-443	Not Req.	Master Gain, Channel B	
B	500K Tap										
R4A	1meg		145000-090	BT-71	A47FS-Imeg	Q13-137	Not Req.	UT-443	Not Req.	Volume, Channel A	
B	500K Tap										
R5A	1meg		145000-072	B-70	A47-Imeg-Z	Q13-137	Not Req.	U53	Not Req.	Volume, Channel B	
B	500K Tap										
R6A	500K Tap		145000-090	BT-71	A47FS-Imeg	Q13-137	Not Req.	UT-443	Not Req.	Volume, Channel B	
B	500K Tap										
R7A	1meg		145000-090	BT-71	A47FS-Imeg	Q13-137	Not Req.	UT-443	Not Req.	Volume, Channel B	
B	500K Tap										

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					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBIER PART No.	ELEMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C5	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C6	330		DI-330	DD-331	L10733	CCD-331	B-110	5HK-S10
C7	.0015	Note 3	BPD-0015	DD-152	BYA10D15	CCD-152	B-215	5HK-D15
C8	100 N150	#552076-101						
C9	.0022		BPD-0022	DD-222	BYA10D22	CCD-222	B-222	5HK-D22
C10	820		DI-820	DD-821	BYA10T82	CCD-821	B-222	5HK-D22
C11	.01 400V		P488N-01	D8-103	CUB4S1	4DP-1-103	GEM-411	4TM-S10
C12	.02 400V		P488N-02	DD-203	CUB4S2	4DP-2-203	GEM-412	4TM-S20
C13	.1 400V		P488N-1	DF-104	CUB4P1	4DP-1-103	GEM-401	4TM-P10
C14	.0047		BPD-0047	DD-472	BYA10D47M	CCD-472	B-247	5HK-D47
C15	.25 200V	Note 1	P288N-25	DD-222	CUB2P25	2DP-4-254	GEM-2025	2TM-P25
C16	.0022		BPD-0022	DD-222	BYA10D22	CCD-222	B-222	5HK-D22
C17	220 10%		DI-220	DD-221	L10732	CCD-221	GP222	107S-T22
C18	.0047 10%	Note 4	DI-4700	DD-472	PM6B47	CCD-472	JL-247	107S-D47
C19	.0047 10%	Note 4	DI-4700	DD-472	PM6B47	CCD-472	JL-247	107S-D47
C20	47 N1500	#552076-470						
C21	.1 200V	Note 2	P288N-1	TCL-47	CUB2P1	2DP-3-104	GEM-201	2TM-P10
C22	47 N1500	#552076-470						
C23	.0047		BPD-0047	DD-472	BYA10D47M	CCD-472	B-247	5HK-D47
C24	.01 200V		P288N-25	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C25	.25 200V		P288N-25	DD-103	CUB2P25	2DP-4-254	GEM-2025	2TM-P25
C26	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C27	330		DI-330	DD-331	L10733	CCD-331	B-333	107S-T33
C28	.0015		BPD-0015	DD-152	BYA10D15	CCD-152	B-215	5HK-D15
C29	100 N150	Note 3						
C30	.0022	#552076-101						
C31	820		BPD-0022	DD-222	BYA10D22	CCD-222	B-222	5HK-D22
C32	.01 400V		P488N-01	DD-821	BYA10T82	CCD-821	B-382	107S-T82
				D8-103	CUB4S1	4DP-1-103	GEM-411	4TM-S10

PREAMP PARTS LIST (Continued)

RESISTORS

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

ITEM No.	RATING	REPLACEMENT DATA		REPLACEMENT DATA	
		WORKMAN PART No.	REMARKS	IRC PART No.	WORKMAN PART No.
R8	2.2meg 5%				
R9	47K 5%				
R10	91K 5%				
R11	33000 5%				
R12	3.3meg 5%				
R13	270K				
R14	100K 5%				
R15	56K 5%				
R16	220K 5%				
R17	27K				
R18	15K				
R19	10000 5%				
R20	82K				
R21	82K				
R22	470K				
R23	150K				
R24	22000				
R25	47K				
R26	2.2meg 5%				
R27	47K 5%				
R28	91K 5%				
R29	33000 5%				

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	Stromberg-Carlson PART No.	REPLACEMENT DATA
K1	Rumble Filter Comp.	.01mf, .01mf, .01mf, 354K, 1.4meg, 1.4meg	179000-034	Centralab PC-402
K2	Rumble Filter Comp.	.01mf, .01mf, .01mf, 354K, 1.4meg, 1.4meg	179000-034	Centralab PC-402

MISCELLANEOUS

ITEM No.	PART NAME	Stromberg-Carlson PART No.	NOTES
M1	Switch	158000-152	Function Selector (Rotary Water Type)
M2	Switch	158000-151	Mode Selector (Rotary Water Type)
M3	Switch	158000-058	Equalization (DPDT, Slide Type)
M4	Switch	158000-058	Rumble Filter (DPDT, Slide Type)
M5	Switch	158000-058	Scratch Filter (DPDT, Slide Type)
M6	Switch	159000-058	Loudness Contour (DPDT, Slide Type)
M7	Switch	158000-058	Balance Signal (DPDT, Slide Type)
M8	Switch	158000-058	Phase (DPDT, Slide Type)
M9	Switch	158000-058	Cedex Channel (DPDT, 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

AMP PARTS LIST AND DESCRIPTIONS

TUBES

ITEM No.	USE	TYPE	RAYTHEON		SYLVANIA	
			ITEM No.	USE	ITEM No.	TYPE
V5	Channel A A F Amp. - Phase Inverter	7199	V8	Channel B A F Amp. - Phase Inverter		7199
V6	Channel A Output	7355	V9	Channel B Output		7355
V7	Channel A Output	7355	V10	Channel B Output		7355

ELECTROLYTIC CAPACITORS

ITEM No.	CAP.	VOLT.	REPLACEMENT DATA					
			Stromberg-Carlson PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLOY PART No.	SPRAGUE PART No.
C45	120	300	111000-083	AFHSL-36-05		XCI-21	FF149, TC76	
C46	120	300	111000-082	AFHSL-36-05		XCI-21	FF149, TC78	
C47A	20	450	111000-028	AFHSL-36		XC4-49	FF376.5 TC75	TMQ-4816
C47B	20	450		FRSL735				
C48A	100	75	111000-081					TVLPS-3360*
C48B	100	75						
C49	4	150	111000-050	FRSL400		QT1-2	TT150X4	TD-4-150
C50	4	150	111000-050	FRSL400		QT1-2	TT150X4	TD-4-150

* 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					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLOY PART No.	SPRAGUE PART No.
C51	10 N150	#552076-101	DI-10	DD-100	LI0Q1	CCD-100	GP410	IOTS-Q10
C52	100 N150		P488N-1	DF-104	CUB4P1	4DP-3-104	GEM-401	IOTCP-T10
C53	.1 400V		P488N-1	DF-104	CUB4P1	4DP-3-104	GEM-401	4TM-P10
C54	.1 400V	Note 1		TCL-47		*		
C55	47 N1500	Note 2		TCL-47		*		
C56	47 N1500		DI-470	DD-471	BYA10T47	CCD-471	B-347	IOTS-T47
C57	470		DI-10	DD-100	LI0Q1	CCD-100	GP410	IOTS-Q10
C58	100 N150	#552076-101	P488N-1	DF-104	CUB4P1	4DP-3-104	GEM-401	IOTCP-T10
C59	.1 400V	Note 1	P488N-1	DF-104	CUB4P1	4DP-3-104	GEM-401	4TM-P10
C60	.1 400V	Note 2		TCL-47		*		
C61	47 N1500		DI-470	DD-471	BYA10T47	CCD-471	B-347	IOTS-T47
C62	47 N1500		P688N-01	D6-103	CUB6S1	6DP-2-103	GEM-611	6TM-S10
C63	47 N1500							
C64	.01 600V							

Note 1. Not used in some versions.

Note 2. Some versions use 82mmf in this application (Part No. 557076-820).

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

Stromberg-Carlson Part Number.

AMP PARTS LIST AND DESCRIPTIONS (Continued)

CONTROLS

POWER RECTIFIERS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES	NOTES
	RESISTANCE	WATTS	Stromberg-Carlson PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.		
R52A	100Ω	2(W/W)	173853-000	WN-101	A43-100	W11-084	FL100P	
B Shaft			Not Req.	Not Req.	FKS-1/4	SK5	Not Req.	
R53A	50K	‡	145000-096	AB-31	A47-50K-S	Q11-123	SU-35	Hum Balance
B Shaft					FKS-1/4	Not Req.	Not Req.	Balance, Channel B
R54A	5000Ω	‡	145000-095	AB-10	A47-5000-S	Q11-114	SU-14	Bias
B Shaft					FKS-1/4	Not Req.	Not Req.	Balance, Channel A
R55A	50K	‡	145000-096	AB-31	A47-50K-S	Q11-123	SU-35	
B Shaft					FKS-1/4	Not Req.	Not Req.	

MISCELLANEOUS

ITEM No.	PART NAME	Stromberg-Carlson PART No.	NOTES
M15	Circuit Breaker	128000-040	

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)

RESISTORS

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

ITEM No.	RATING	REPLACEMENT DATA		RATING	REPLACEMENT DATA		REMARKS
		IRC PART No.	WORKMAN TV PART No.		IRC PART No.	WORKMAN TV PART No.	
R56	470K			1000Ω			
R57	330K			15K			
R58	1.2meg			100K			
R59	1000Ω 5%			150K			
R60	47K 5%			9100Ω 5%			
R61	47K 5%			5.6Ω 5W		PW5-5.6	
R62	1000Ω			6000Ω 5W		PW5-6000	
R63	100K			10K			
R64	150K			100K 2W 5%			
R65	1000Ω			470K			
R66	15K			15K			
R67	100K			1.2meg			
R68	150K			10K			
R69	1000Ω 5%			47Ω 2W			
R70	470K			3.3Ω 1W			
R71	30K			220K			
R72	1.2meg			220K			
R73	1000Ω 5%			220K			
R74	47K 5%			220K			
R75	47K 5%			220K			
R76	1000Ω			220K			
R77	100K			220K			
R78	150K			220K			

TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA		NOTES
		Stromberg-Carlson PART No.	Merit PART No.	
T1	117V ④ 1.25A 175V ④ .560A AC SEC. 3 58V ④ .150A DC	161000-225		

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA		NOTES
		Stromberg-Carlson PART No.	Merit PART No.	
T2	6500Ω CT 16Ω Tap ④ 8Ω, 4Ω	161000-172		
T3	6500Ω CT 8Ω, 4Ω	161000-172		

Note 1. Not used in later versions of Model ASR-8. 80G.