



TRADE NAME	Fisher Model SA-100 (Serial #10001-19999)
MANUFACTURER	Fisher Radio Corp., 21-21 44th Drive, Long Island City 1, N. Y.
TYPE SET	AC Operated 7 Tube Stereo Amplifier
POWER SUPPLY	105-120 Volts AC, 50-60 Cycles RATING 155 Watts, 1.5 Amp @ 117 Volts AC (Measured with -11V output tube grid bias)

ADJUSTMENTS

BIAS ADJUSTMENT

Connect speakers (or equivalent load resistors) to speaker terminals strip for each channel.
Remove the link from test point terminals on the front panel. Connect the DC probe of VTVM to channel "A" test terminal. Turn the channel "A" Bias Adjustment located on top of chassis for a meter reading of .6 volts. Repeat the procedure for channel "B". Reconnect links to test terminal strip.

DC BALANCE ADJUSTMENT

Connect the AC probe of a sensitive VTVM across the 16 ohm terminals of the Channel "A" speaker terminal strip. Adjust the Channel "A" DC Balance control for MINIMUM deflection of the VTVM. This reading should be .4 volts or less. Repeat this procedure for Channel "B".

AC BALANCE ADJUSTMENT

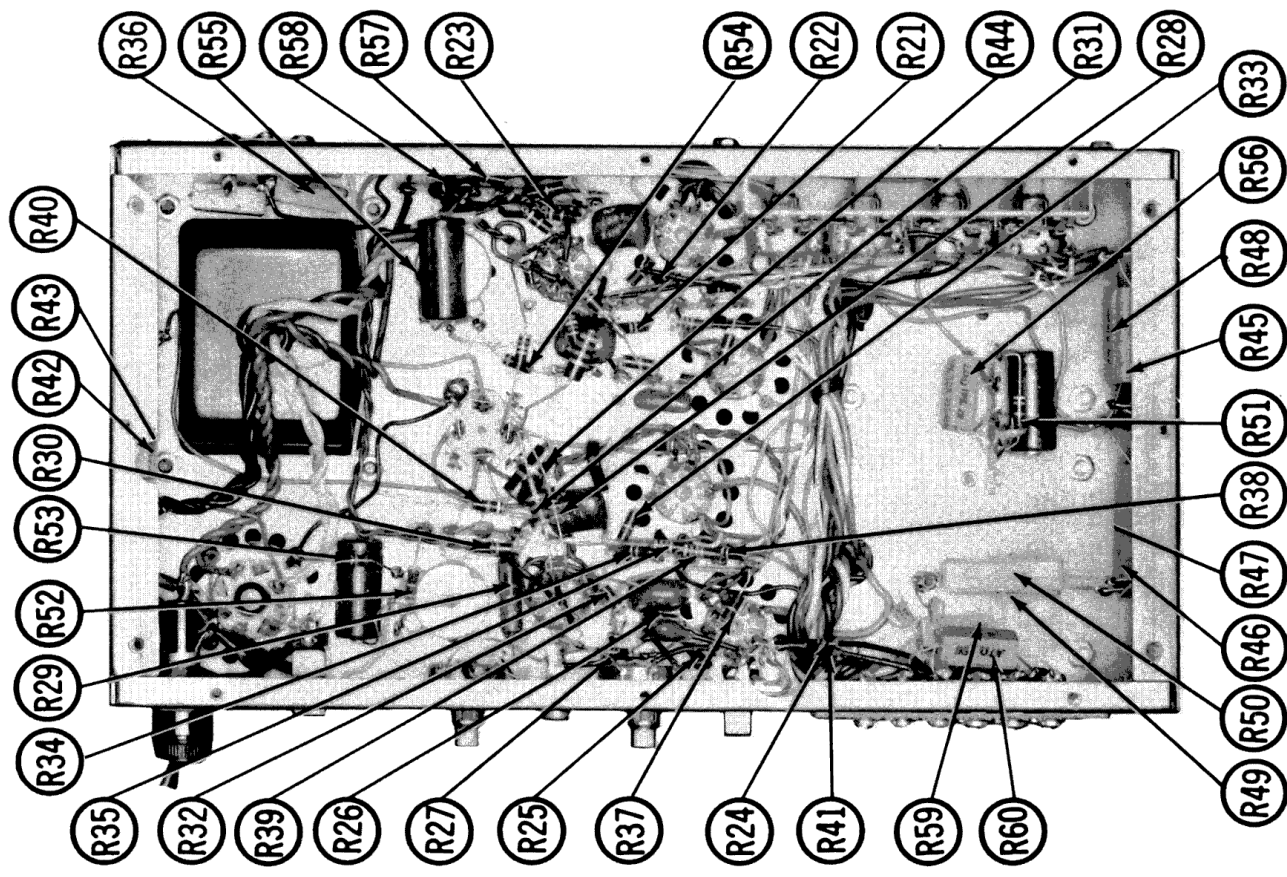
This adjustment should be performed using an Intermodulation or Harmonic Distortion Analyzer. In this case, use normal adjustment procedure. If these instruments are not available, a close approximation may be made by setting the controls at center of rotation.

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

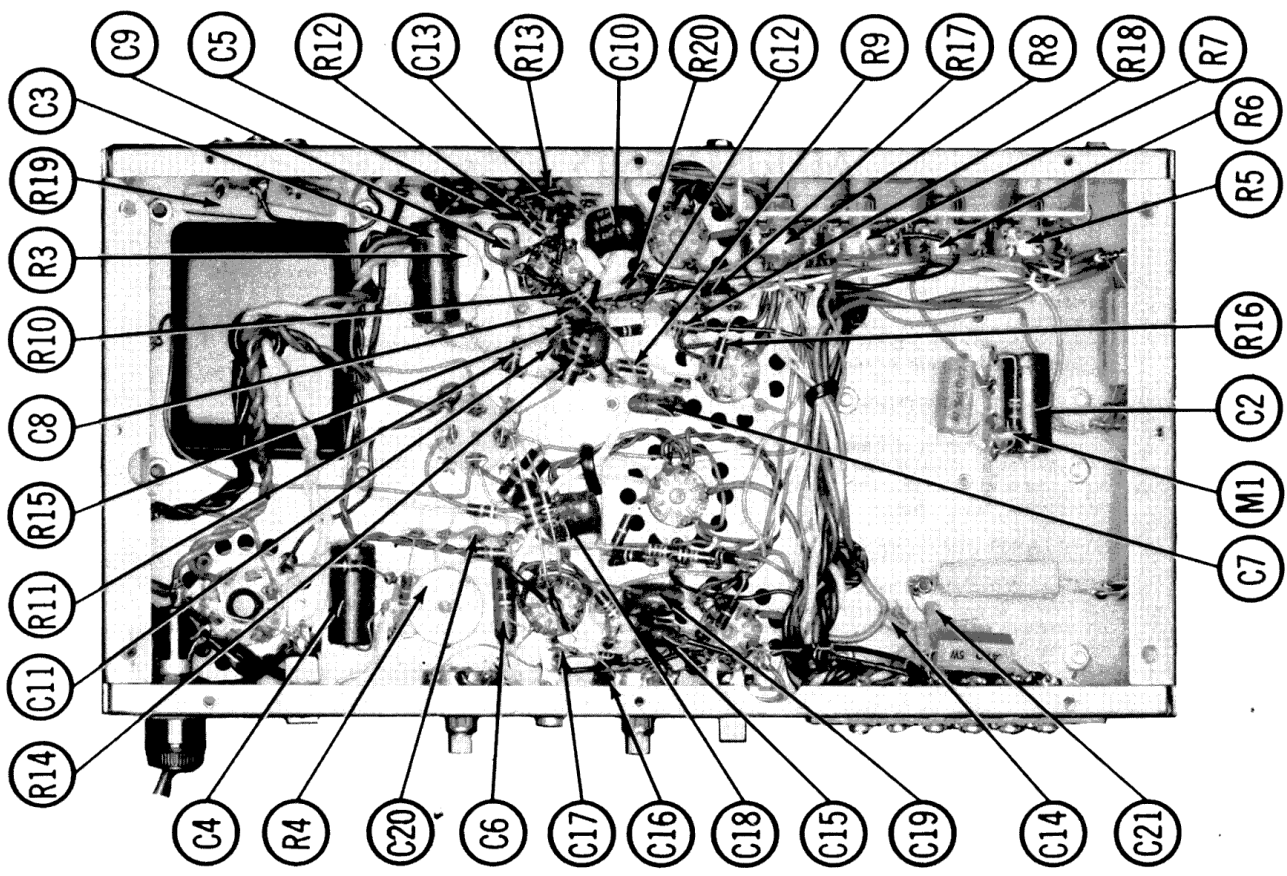


The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of JV977

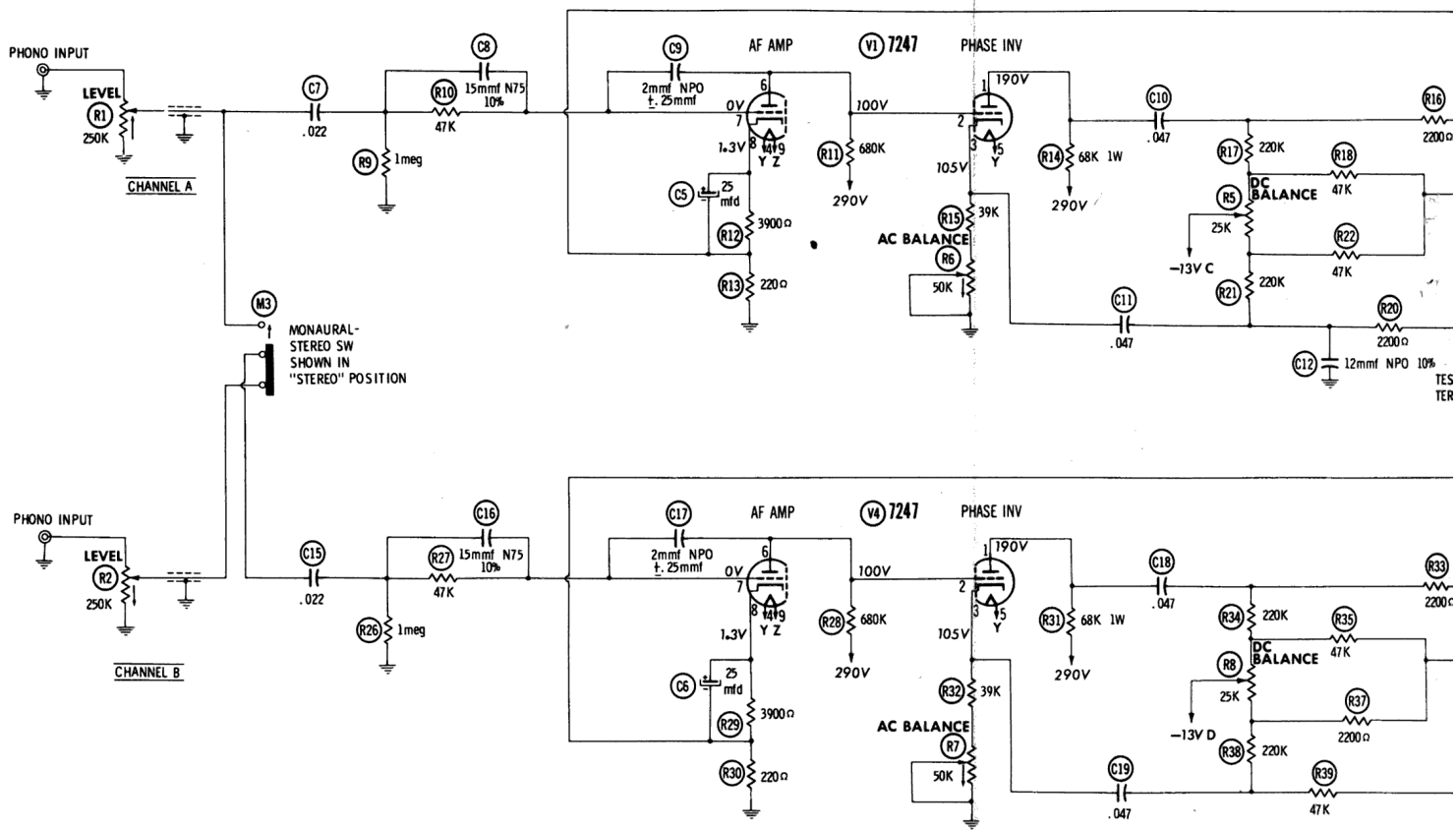
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CHASSIS BOTTOM VIEW



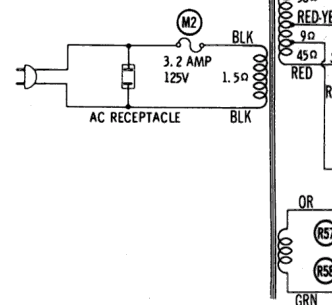
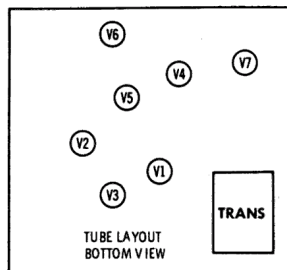
CHASSIS BOTTOM VIEW



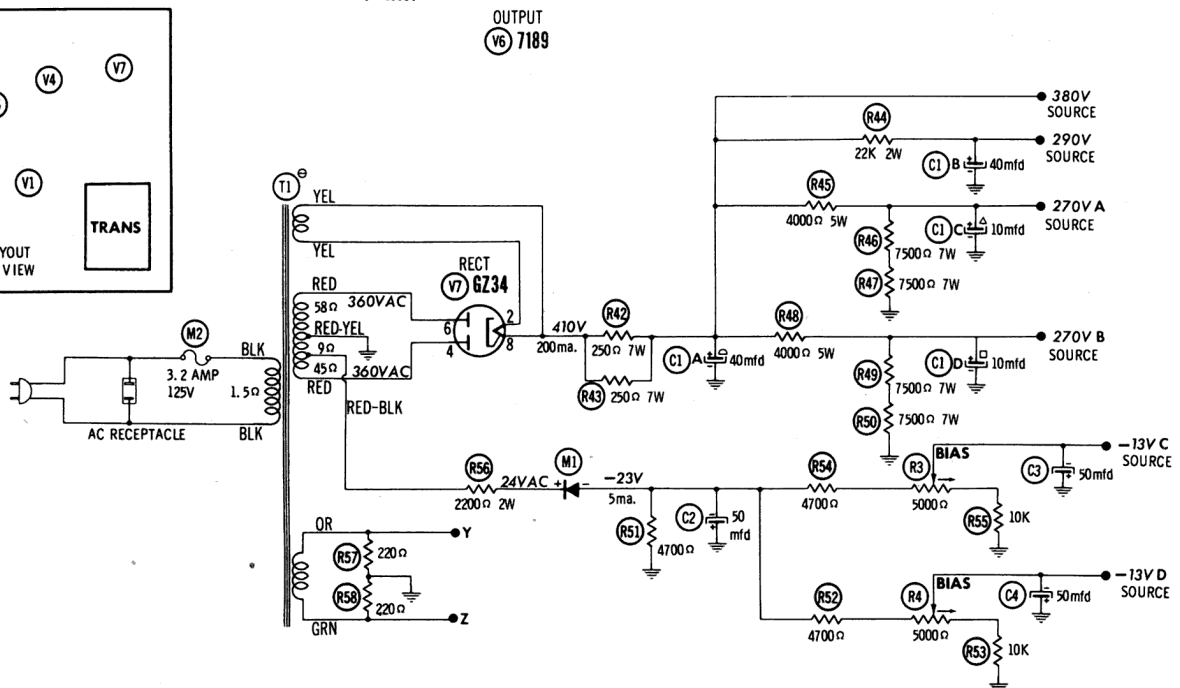
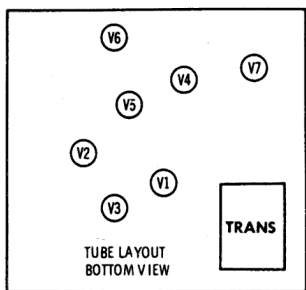
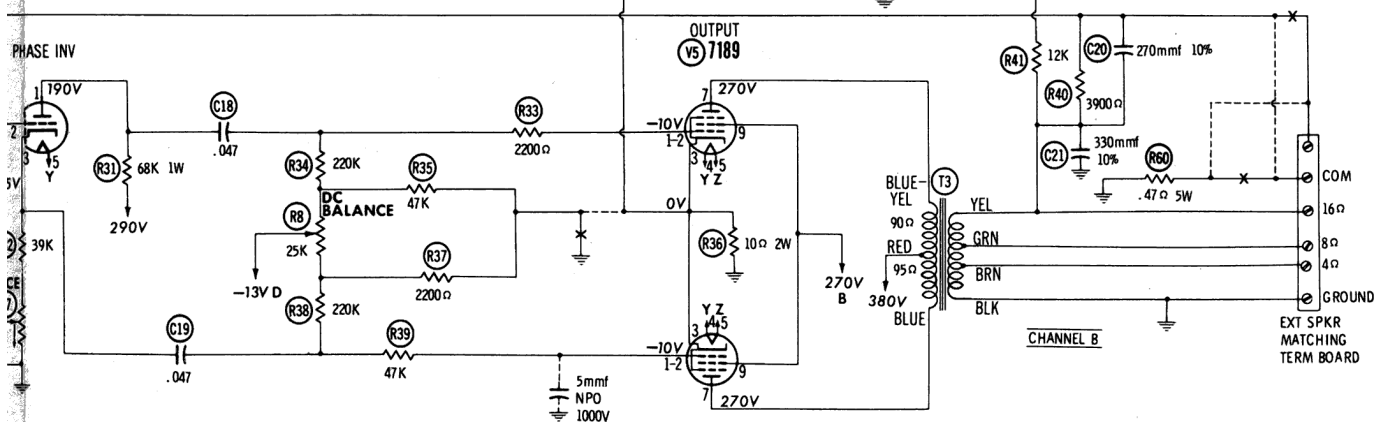
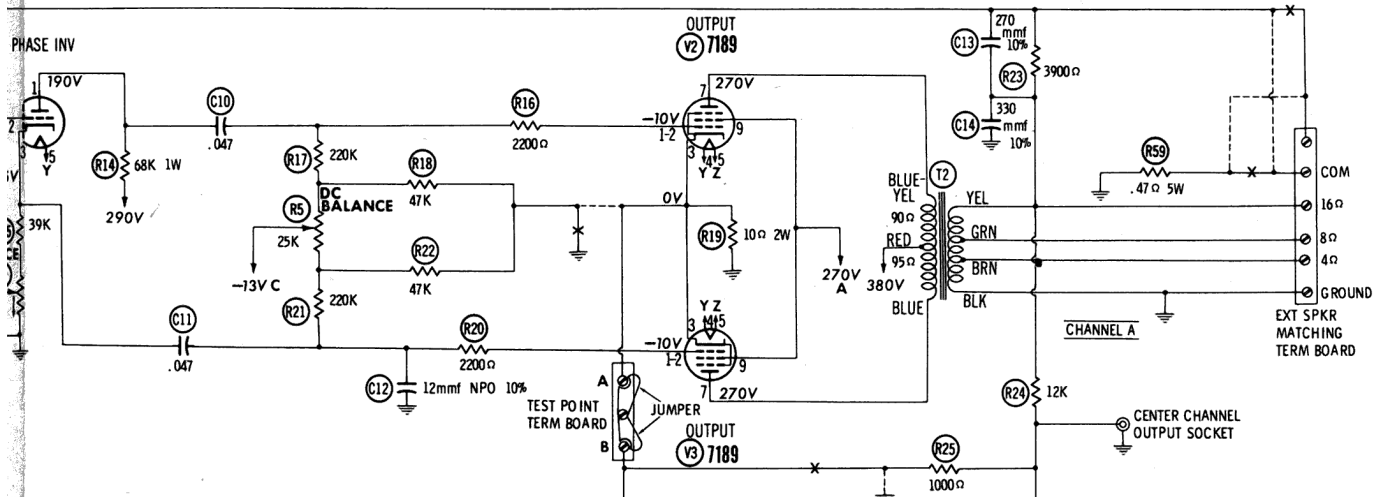
RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	7247	† 88K	† 700K	60K	110Ω	110Ω	† 700K	1meg	4100Ω	110Ω
V2	7189	250K	250K	10Ω	110Ω	110Ω	NC	† 215Ω	NC	† 3600Ω
V3	7189	250K	250K	10Ω	110Ω	110Ω	NC	† 220Ω	NC	† 3600Ω
V4	7247	† 88K	† 700K	60K	110Ω	110Ω	† 700K	1meg	4100Ω	110Ω
V5	7189	250K	250K	10Ω	110Ω	110Ω	NC	† 215Ω	NC	† 3600Ω
V6	7189	250K	250K	10Ω	110Ω	110Ω	NC	† 220Ω	NC	† 3600Ω
V7	CZ34 5AR4	NC	†	NC	54Ω	NC	58Ω	NC	†	

† THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
 † MEASURED FROM PIN 8 OF V7. NC NO CONNECTION



- DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common negative.
- 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.



⊕ 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)

PARTS LIST AND DESCRIPTIONS TUBES

ITEM No.	USE	TYPE	GENERAL ELECTRIC		RAYTHEON		SYLVANIA	
			ITEM No.	USE	ITEM No.	TYPE	ITEM No.	TYPE
V1	Channel A AF Amp - Phase Inverter	7247	V4	Channel B AF Amp Phase Inverter		7247		
V2	Channel A Output	7189	V5	Channel B Output		7189		
V3	Channel A Output	7189	V6	Channel B Output		7189		
			V7	Rectifier		GZ34/5AR4		

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						NOTES	
		CAP.	VOLT.	FISHER PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.		PYRAMID PART No.
C1A	40	450	C50180-10	AFH4-18-10	DO171	FP446	TMQ-18	TVL-4940	
C1B	40	450							
C1C	10	450							
C2	50	50	C782-119	PRS1350	BR505	TC39	TD-50-50	TE-1307	
C3	50	50	C782-119	PRS1350	BR505	TC39	TD-50-50	TE-1307	
C4	50	50	C782-119	PRS1350	BR505	TC39	TD-50-50	TE-1307	
C5	25	6	C639-114	XPP-6025	NLW25-6	TT6X25	ML30-6	TE-1091	
C6	25	6	C639-114	XPP-6025	NLW25-6	TT6X25	ML30-6	TE-1091	

FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

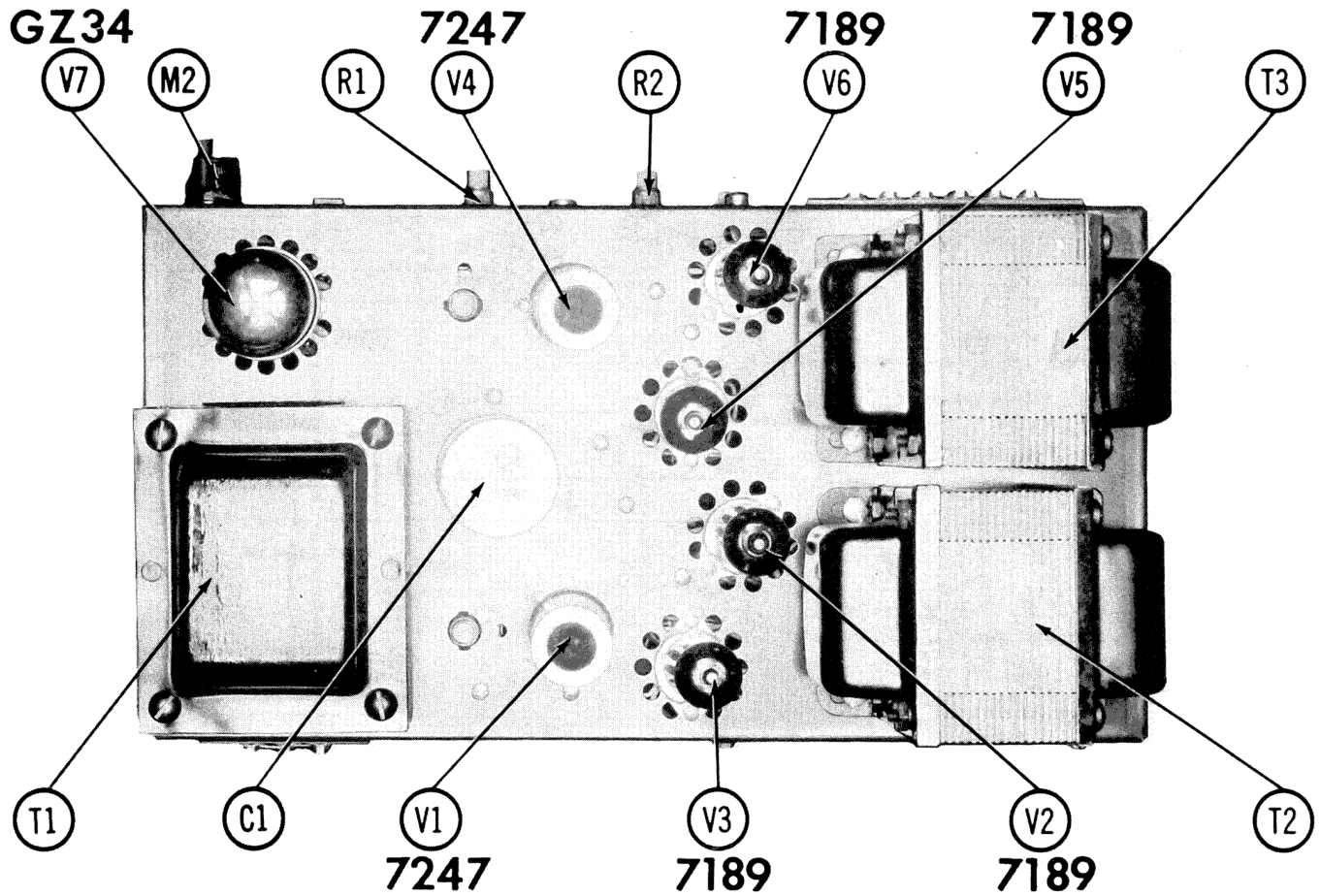
ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.
C7	.022	250V	P488N-022	DD-203	CUB4S22	4DP-2-223	GEM-4122	4TM-S22
C8	15	N75 10%	NPO-D12.2	DD-503	C10V2C	4DP-3-473	GEM-4147	4TM-S47
C9	2	NPO ± 25mmfd	P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-S47
C10	.047	400V	P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-S47
C11	.047	400V	P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-S47
C12	12	NPO 10%	DI-270	TCZ-12	C10Q2C	CCD-271	CNO-412	10TCC-Q12
C13	270	10%	DI-330	DD-271	L10T27	CCD-331	GP327	10TS-T27
C14	330	10%	DI-330	DD-271	L10T33	CCD-331	GP327	10TS-T33
C15	.022	250V	P488N-022	DD-203	CUB4S47	4DD-2-223	GEM-4122	4TM-S22
C16	15	N75 10%	NPO-D12.2	DD-503	C10V2C	4DP-3-473	GEM-4147	4TM-S47
C17	2	NPO ± 25mmfd	P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-S47
C18	.047	400V	P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-S47
C19	.047	400V	P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-S47
C20	270	10%	DI-270	DD-271	L10T27	CCD-271	GP327	10TS-T27
C21	330	10%	DI-330	DD-271	L10T33	CCD-331	GP327	10TS-T33

#Fisher Part Number

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA						INSTALLATION NOTES
	RESIST. ANCE	WATTS	FISHER PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.		
R1A	250K	1/2	R50103-1	AB-50	A47-250K-S	Q11-130	SU-46	Level, Channel A	
R1B	50K	1/2	R50103-1	AK-1	FKS-1/4	Q11-130	Not Req.	Level, Channel B	
R2A	25K	1/2	R50103-1	AB-50	A47-250K-S	Q11-130	SU-46	Level, Channel B	
R2B	50K	1/2	R50103-1	AK-1	FKS-1/4	Q11-130	Not Req.	Level, Channel B	
R3A	5000Ω	1/2	R50103-4	EX-10	A47-5000-S	Q11-114	U14	Bias, Channel A	
R3B	5000Ω	1/2	R50103-4	EX-10	A47-5000-S	Q11-114	U14	Bias, Channel B	
R4A	5000Ω	1/2	R50103-4	EX-10	A47-5000-S	Q11-114	U14	Bias, Channel B	
R4B	5000Ω	1/2	R50103-4	EX-10	A47-5000-S	Q11-114	U14	Bias, Channel B	
R5A	25K	1/2	R50103-2	AB-26	A47-25K-S	Q11-120	SU-29	DC Balance, Channel A	
R5B	25K	1/2	R50103-2	AB-26	A47-25K-S	Q11-120	SU-29	DC Balance, Channel A	
R6A	50K	1/2	R50103-3	EX-31	A47-50K-S	Q11-123	SU-35	AC Balance, Channel A	
R6B	50K	1/2	R50103-3	EX-31	A47-50K-S	Q11-123	SU-35	AC Balance, Channel A	
R7A	50K	1/2	R50103-3	EX-31	A47-50K-S	Q11-123	SU-35	AC Balance, Channel B	
R7B	50K	1/2	R50103-3	EX-31	A47-50K-S	Q11-123	SU-35	AC Balance, Channel B	
R8A	25K	1/2	R50103-2	AB-26	A47-25K-S	Q11-120	SU-29	DC Balance, Channel B	
R8B	25K	1/2	R50103-2	AB-26	A47-25K-S	Q11-120	SU-29	DC Balance, Channel B	

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R9	1meg		R45	4000Ω 5W		R45	4000Ω 5W	
R10	47K		R46	7500Ω 7W		R46	7500Ω 7W	
R11	680K		R47	7500Ω 7W		R47	7500Ω 7W	
R12	3900Ω		R48	4000Ω 5W		R48	4000Ω 5W	
R13	220Ω		R49	7500Ω 7W		R49	7500Ω 7W	
R14	68K 1W		R50	7500Ω 7W		R50	7500Ω 7W	
R15	39K		R51	4700Ω		R51	4700Ω	
R16	2200Ω		R52	4700Ω		R52	4700Ω	
R17	220K		R53	10K		R53	10K	
R18	47K		R54	4700Ω		R54	4700Ω	
R19	10Ω	2W	R55	10K		R55	10K	
R20	2200Ω		R56	2200Ω 2W		R56	2200Ω 2W	
R21	220K		R57	220Ω		R57	220Ω	
R22	47K		R58	220Ω		R58	220Ω	
R23	3900Ω		R59	.47Ω 5W		R59	.47Ω 5W	
R24	12K		R60	.47Ω 5W		R60	.47Ω 5W	
R25	1000Ω							
R26	1meg							

TRANSFORMER (POWER)

ITEM No.	RATING		REPLACEMENT DATA						
	PRI.	SEC.	FISHER PART No.	Haldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordorson PART No.	Triod PART No.
T1	117V ④ 1.5A	720VTC ③ 200A tap 1.9A ② 65V ⑤ .005A	T782-115B ①						
	SEC. 3 6.3V ③ 4.1A	SEC. 4 SEC. 5							

① Alternate Part #T782-115

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA					NOTES	
		FISHER PART No.	Haldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.		Thordorson PART No.
T2	6500Ω 16Ω tap CT ② 80, 40	T782-116-1	22S68				22S68	
T3	6500Ω 16Ω tap CT ② 80, 40	T782-116-2	22S68				22S68	

RECTIFIERS

ITEM No.	RATING CURRENT (Measured)	REPLACEMENT DATA				NOTES	
		FISHER PART No.	INTERNATIONAL PART No.	ITT PART No.	SARKES TARZIAN PART No.		SYLVANIA PART No.
M1	.005A	SR782-117 ①	2E4 ①	HA154 ①	K200 ①	SR200 ①	① Silicon Type

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA				
			FISHER PART No.	LITTELFUSE PART No.	FUSE HOLDER	BUSS PART No.	
M2	3AG	3.2A 125V S/B	F3319	31303.2 (3.2A 125V S/B)	342001	MDX3 2/10	HKP

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)