



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

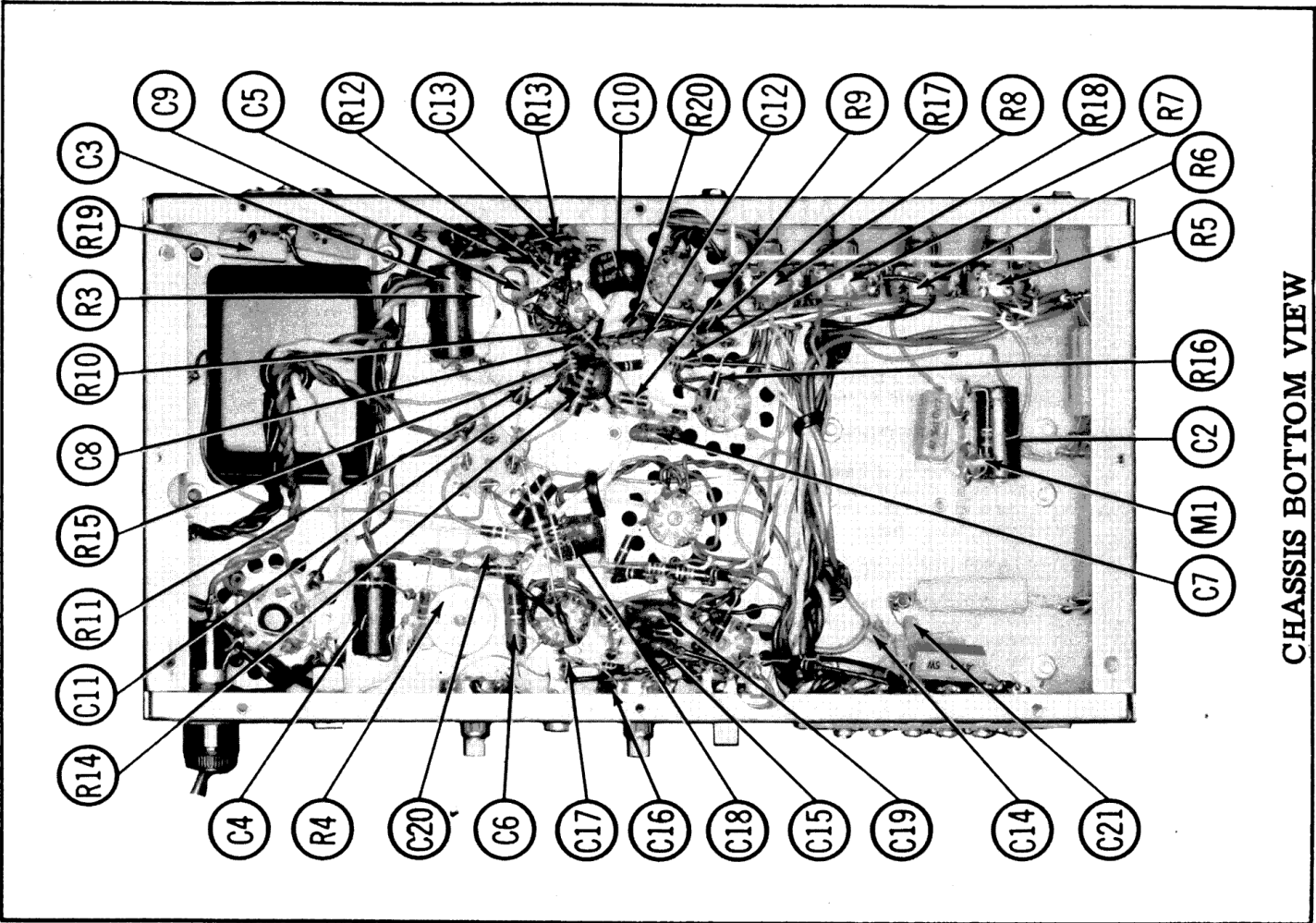
This adjustment should be performed using an Intermodulation or Harmonic Distortion Analyzer. In this case, use normal adjustment procedure. If these instruments are not available, a close approximation may be made by setting the controls at center of rotation.

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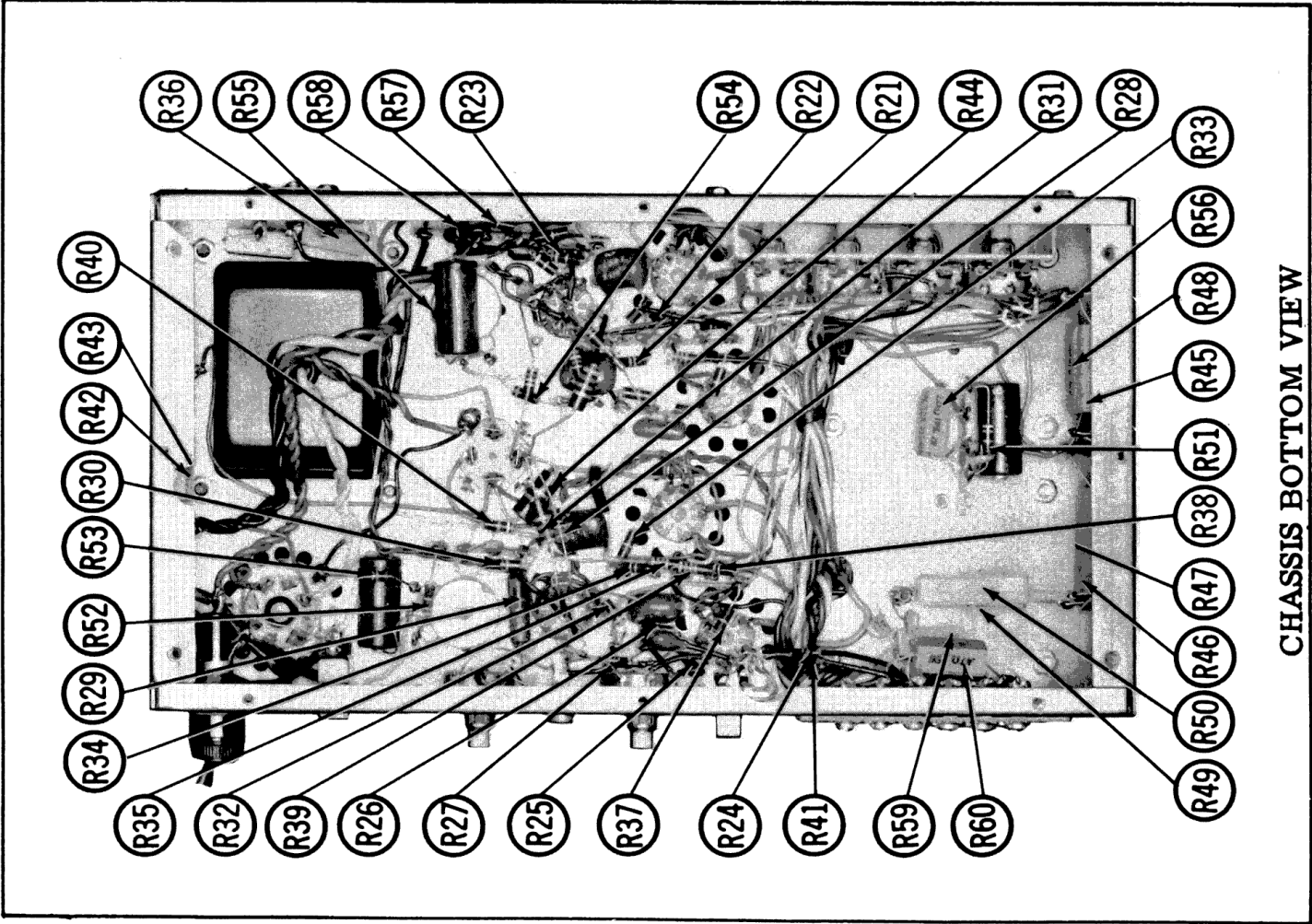


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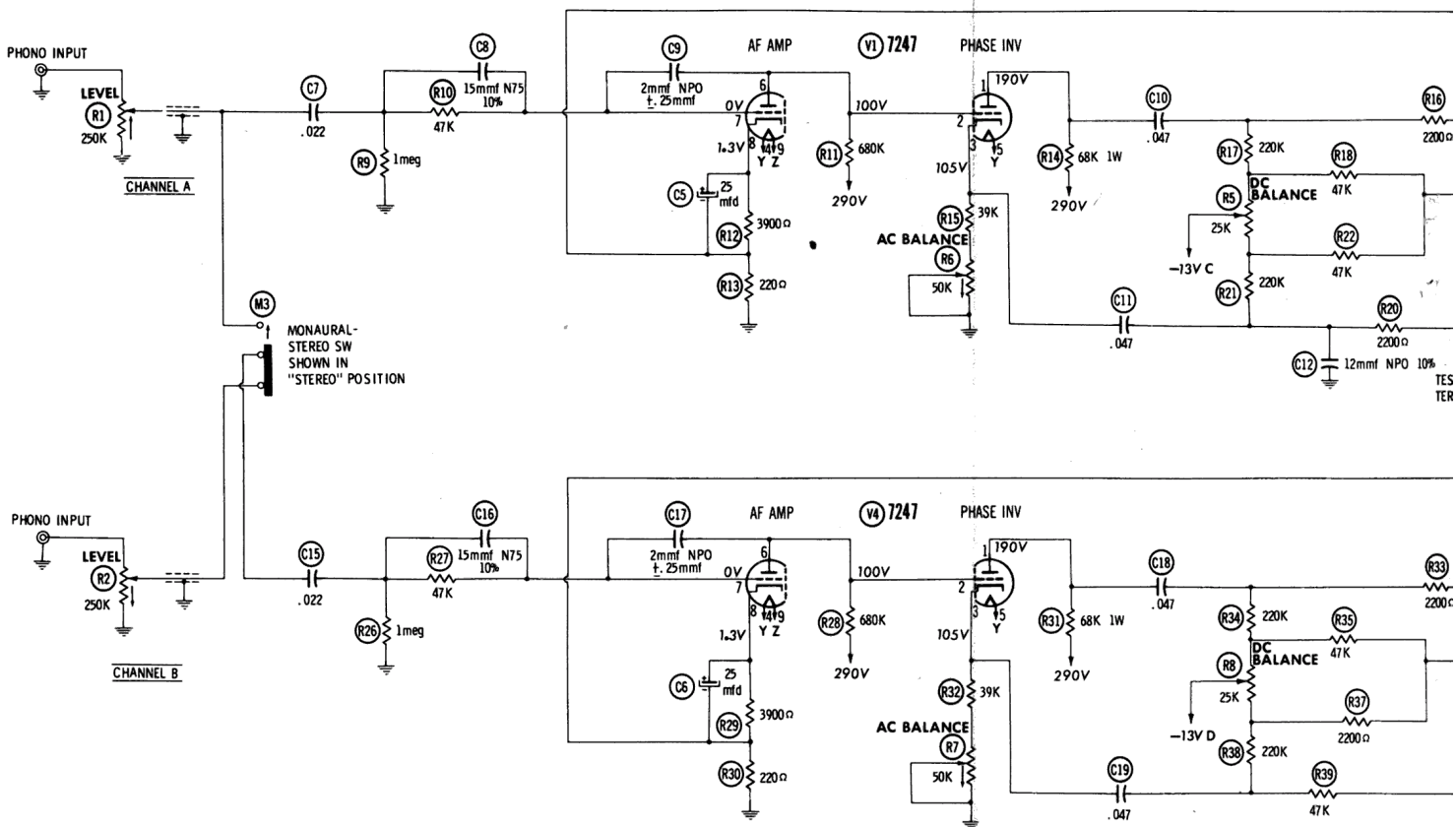
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CHASSIS BOTTOM VIEW



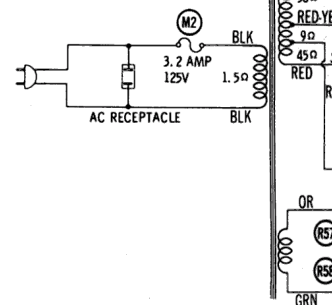
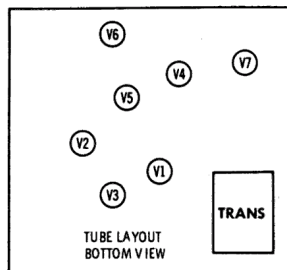
CHASSIS BOTTOM VIEW



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.



# PARTS LIST AND DESCRIPTIONS TUBES

ITEM No.	USE	TYPE	GENERAL ELECTRIC		RAYTHEON		SYLVANIA	
			ITEM No.	USE	ITEM No.	USE	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.

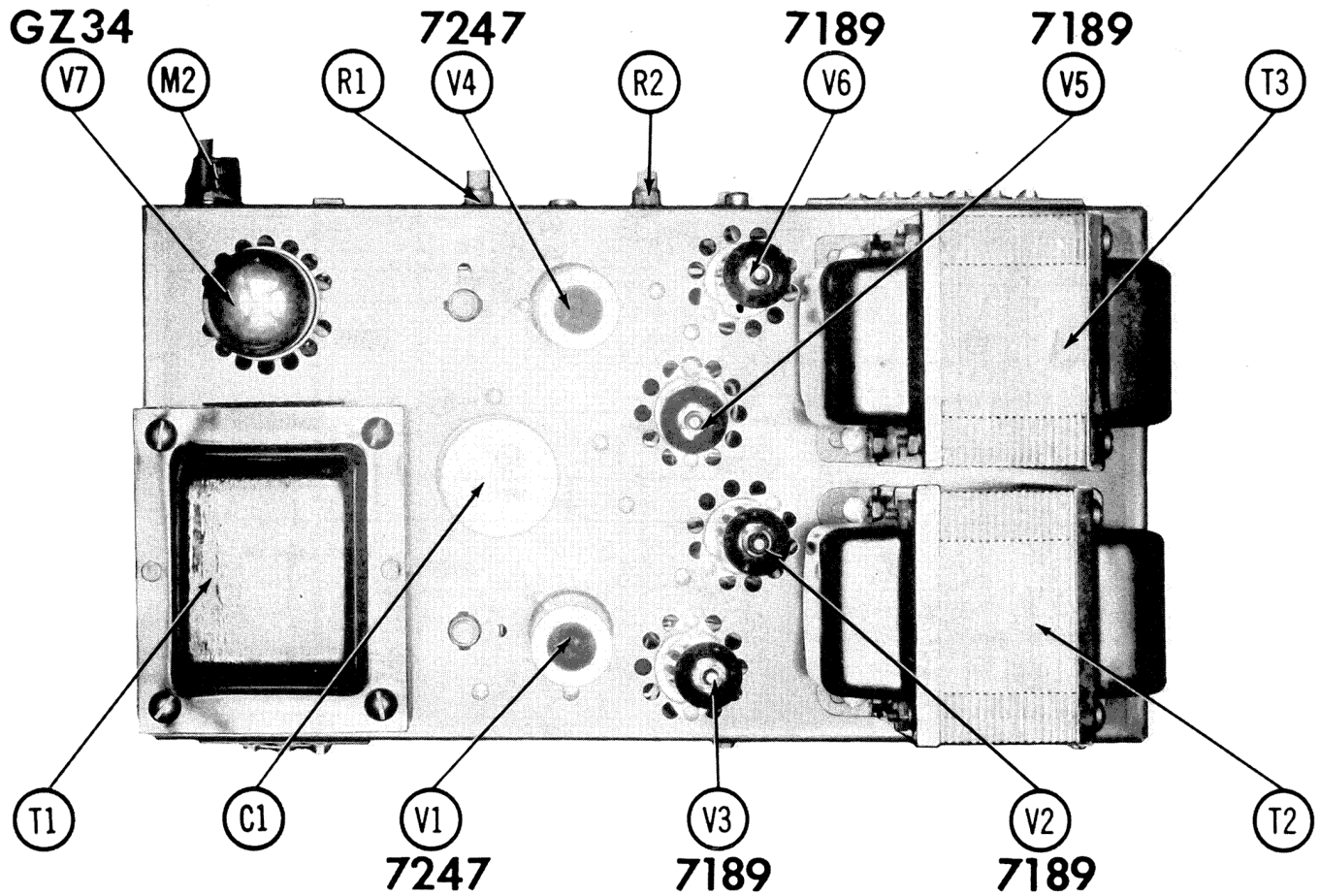
ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.
C7	.022	250V	P488N-022	DD-203	CUB4S22	4DP-2-223	GEM-4122	4TM-S22
C8	15	N75 10%	NPO-D12.2		C10V2C			
C9	2	NPO ±.25mmfd	P488N-047	DD-503	CUB4S47	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		TCZ-12	C10Q2C	CC-TO-120	CNO-412	10TCC-Q12
C12	12	NPO 10%	DI-270	DD-271	L10T27	CCD-271	GP327	10TS-T27
C13	270	10%	DI-330	DD-331	L10T33	CCD-331	GP327	10TS-T33
C14	330	10%	P488N-022	DD-203	CUB4S47	4DD-2-223	GEM-4122	4TM-S22
C15	.022	250V						
C16	15	N75 10%	NPO-D12.2		C10V2C			
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	DI-270	DD-271	L10T27	CCD-271	GP327	10TS-T27
C20	270	10%	DI-330	DD-331	L10T33	CCD-331	GP327	10TS-T33
C21	330	10%						

## CONTROLS

#Fisher Part Number

ITEM No.	RATING	REPLACEMENT DATA						INSTALLATION NOTES
		RESIST. ANCE	WATTS	FISHER PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	
R1A	250K	1/2	R50103-1	AB-50	A47-250K-S	Q11-130	SU-46	Level, Channel A
R1B	250K	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	25K	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	BX-10	A47-5000-S	Q11-114	U14	Bias, Channel B
R4B	5000Ω	1/2	R50103-4	BX-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	AK-1	FKS-1/4	Q11-120	Not Req.	DC Balance, Channel A
R6A	50K	1/2	R50103-3	BX-31	A47-50K-S	Q11-123	SU-35	AC Balance, Channel A
R6B	50K	1/2	R50103-3	BX-31	A47-50K-S	Q11-123	Not Req.	AC Balance, Channel A
R7A	50K	1/2	R50103-3	Not Req.	Not Req.	Q11-123	SU-35	AC Balance, Channel B
R7B	50K	1/2	R50103-3	Not Req.	Not Req.	Q11-123	Not Req.	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	AK-1	FKS-1/4	Q11-120	Not Req.	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.	BUSS PART No.	Holder	
M2	3AG	3.2A 125V S/B	F3319	31303.2 (3.2A 125V S/B)	342001	MDX3 2/10	HOLDER 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 (7 1/2 Ft. Length)