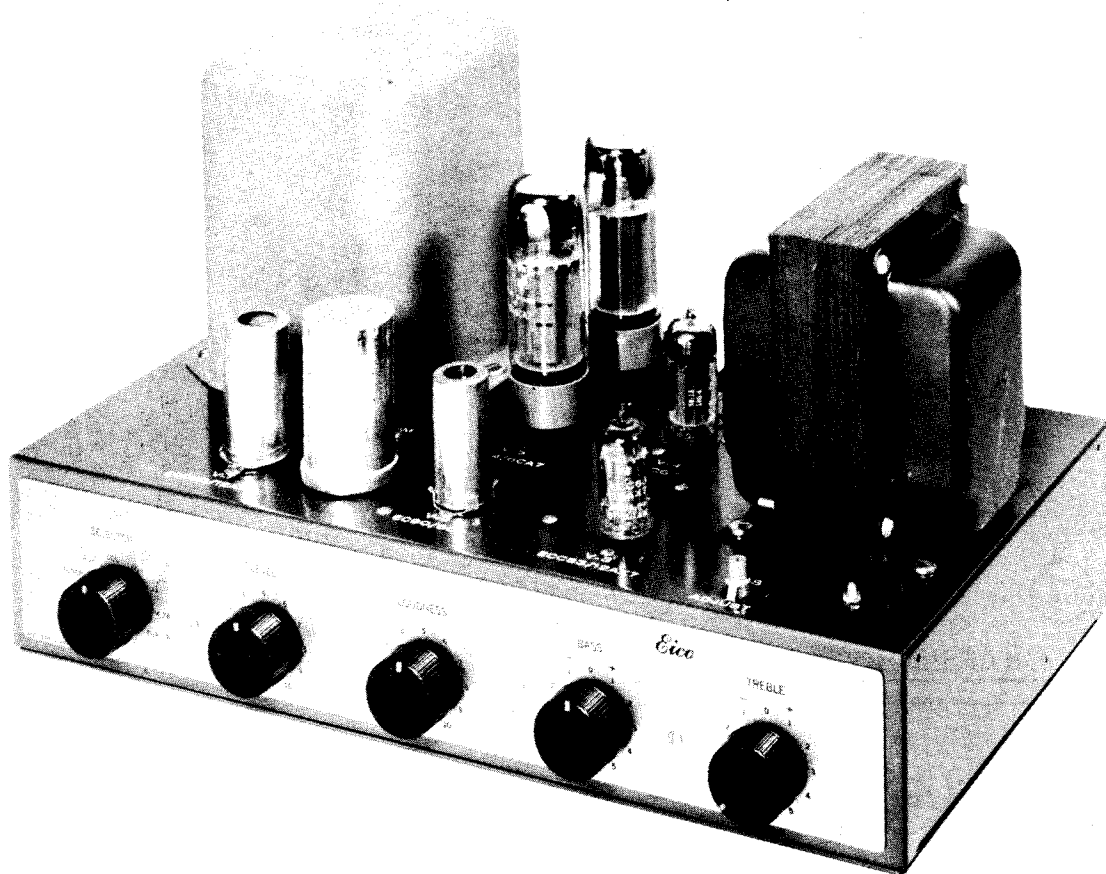




EICO
MODEL HF-52



EICO
MODEL HF-52

TRADE NAME	Eico Model HF-52		
MANUFACTURER	Electronic Instrument Co., Inc., 33-00 Northern Blvd., Long Island City 1, N. Y.		
TYPE SET	AC Operated 7 Tube Audio Amplifier		
POWER SUPPLY	110-120 Volts AC, 60 Cycles	RATING	150 Watts, 1.45 Amp. @ 117 Volts AC

ADJUSTMENTS

BIAS ADJUSTMENT

Connect DC probe of VTVM to point A Common to chassis. Adjust Bias (R6) for -47 volts on VTVM.

BALANCE ADJUSTMENT

Connect VTVM across meter jacks on rear apron. Use lowest DC scale. Adjust Balance (R5) for zero or MINIMUM deflection.

FINAL BIAS ADJUSTMENT

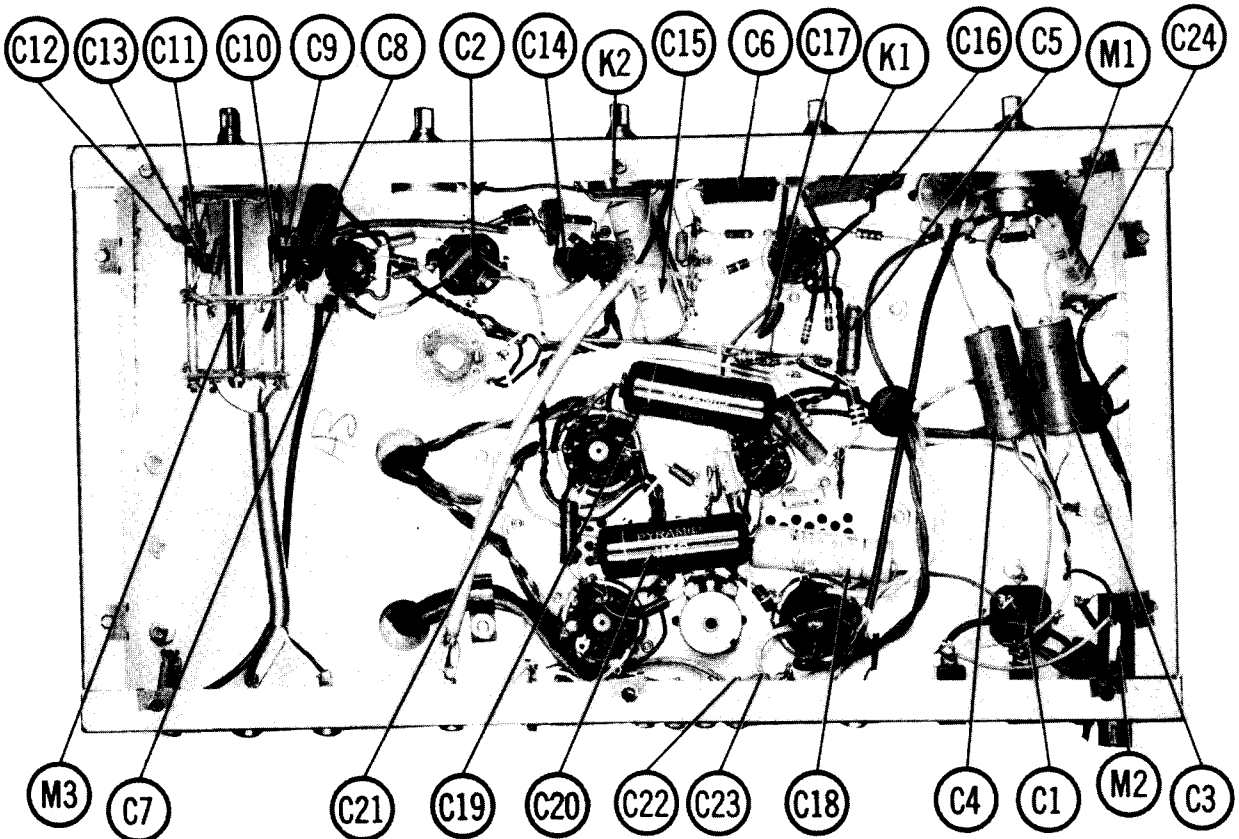
Connect DC probe of VTVM to either meter jack. Common to chassis. Adjust Bias (R6) for .65 volts.

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

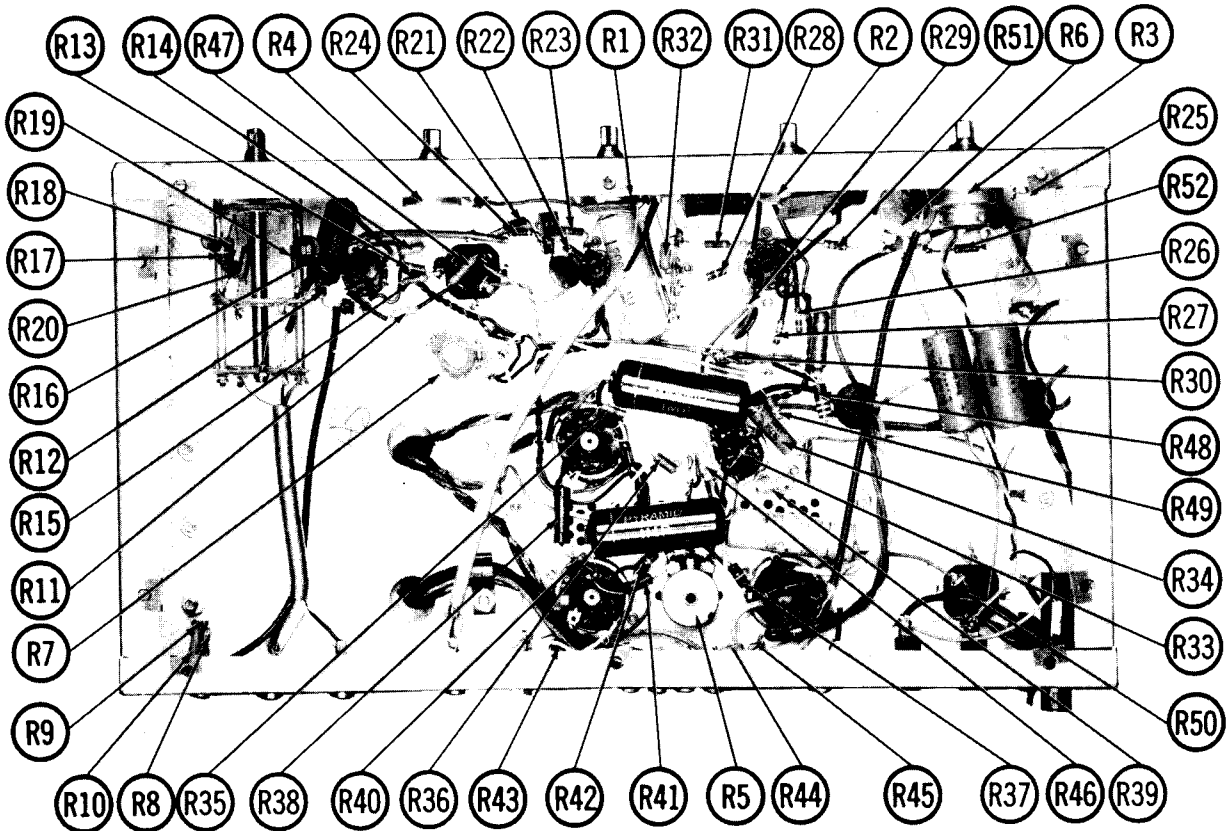


The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of JX632

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CHASSIS BOTTOM VIEW - CAPACITOR & MISC. IDENT.



CHASSIS BOTTOM VIEW - RESISTOR IDENT.

PARTS LIST AND DESCRIPTIONS TUBES

CHASSIS—TOP VIEW

CBS		GENERAL ELECTRIC		RAYTHEON		SYLVANIA	
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE		
V1	Phono Pre-amplifier	ECC83 (12AX7) *	V5	Output	EL34 (6CA7) *		
V2	AF Amplifier	EC90 (6C4) *	V6	Output	EL34 (6CA7) *		
V3	AF Amplifier	ECC83 (12AX7) *	V7	Rectifier	GZ34 (5AR4) *		
V4	AF Amp. - Phase Inverter	6CG7					

* Alternate

ELECTROLYTIC CAPACITORS

RATING		REPLACEMENT DATA	
ITEM No.	CAP. VOLT.	EICO PART No.	CORNELL-DUBILIER PART No.
C1A	.40 500	24003	B0510
C1B	.25 500		FP284
C2A	.20 450		TC22
C2B	.20 450		FP474.5
C3	.10 350		TC49
C4	.50 150		TC49
C5	.10 25		TC22
C6	.10 25		TC29

① Alternate 20mfd @ 500V, 40mfd @ 500V may be used in some versions (Part #24008).

FIXED CAPACITORS

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

RATING		REPLACEMENT DATA	
ITEM No.	REMARKS	AEROVOX PART No.	CORNELL-DUBILIER PART No.
C7	10000	BFD-01	DD-103
C8	.1 400V	P488N-1	DF-104
C9	850 10%	DI-820	DD-821
C10	3300 10%	DI-3300	DD-501
C11	5000 10%	DI-5000	DD-2700
C12	500 10%	DI-500	V84C4P25-10%
C13	2700 10%	DI-2700	V84C4P1 - 10%
C14	25000		P488N-25
C15	.25 400V 10%		V84C6P25-10%
C16	.1 400V 10%		V84C6P25-10%
C17	100 N220 5%		DI-751
C18	.25 400V 10%		DD-501
C19	.25 600V 10%		DD-221
C20	.25 600V 10%		DD-221
C21	.25 600V 10%		DD-221
C22	750 1000V 10%		P668N-03
C23	225 10%		
C24	.03 600V		

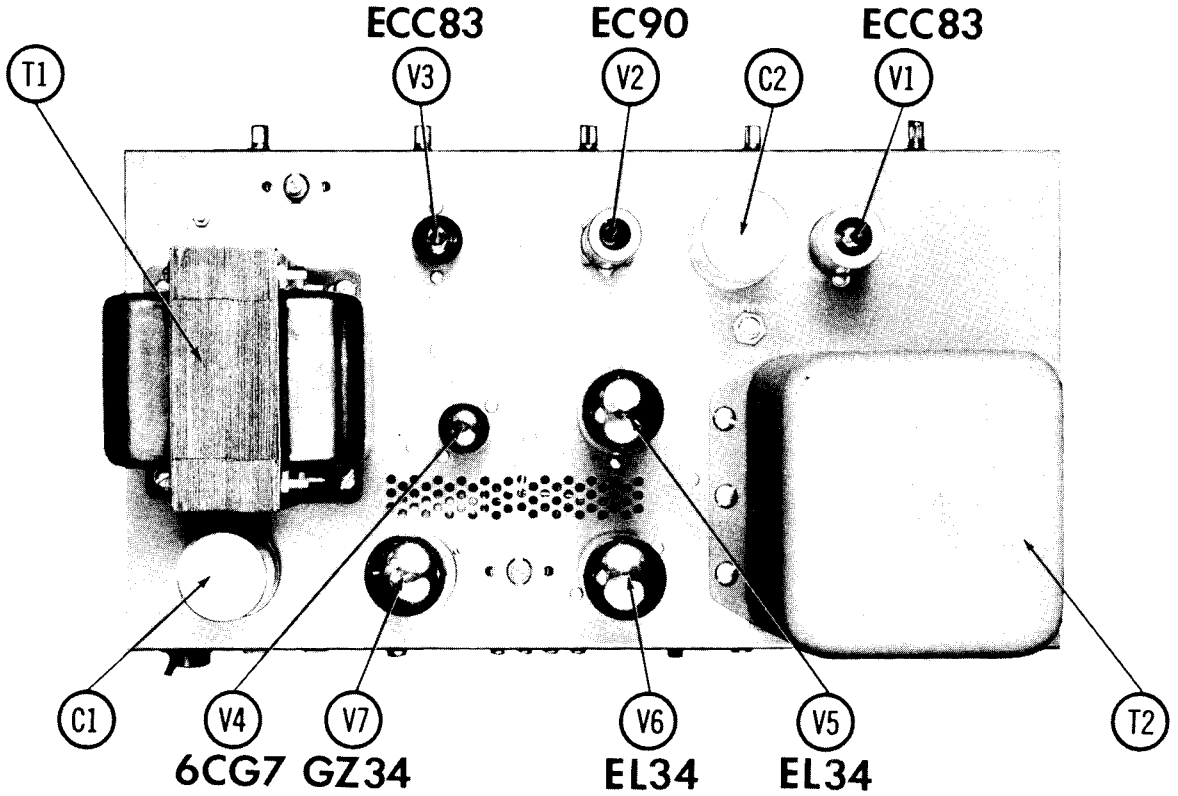
* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

CONTROLS

RATING		REPLACEMENT DATA	
ITEM No.	RESIST. ANCE	EICO PART No.	CENTRALAB PART No.
R1A	500K *	18021	C1-60 †
R1B	Shaft	18020	Not Req.
R2A	1Meg	18008	B-69
R3A	500K		Not Req.
R3B	250K tap		Not Req.
R4	Switch		Not Req.
R4A	100K		ER-1
R5	50K		B-41
R6A	10K		Not Req.
R7A	100Ω		Not Req.
R7B	Shaft		Not Req.

* Taps @ 150K, 300K.

† Includes K2.



B	Shalt	Not Req.	SKI	Not Req.	
B-69	1m5g	Not Req.	Q11-137	US4	Base
B	Shalt	Not Req.	KSS-3	Not Req.	
B-500K	500K	Not Req.	A47F5-500K	Q19-133X	T-tube
B	250K tap	Not Req.	KSS-3	Not Req.	
B	Shalt	Not Req.	SWE-12	76-1	Power Off-On
C	Switch	Not Req.	B-41	Q13-128	Level
R-4	100K	Not Req.	KSS-3	Not Req.	
R-5	50K	Not Req.	E47-50K-S	PTA-54L	Balance Adjust
R-6	10K	Not Req.	E47-10K-S	U20	Bias Adjust
B	Shalt	Not Req.	AK-1	Not Req.	
R-7A	100Ω	Not Req.	A43-100	W11-094	Bum Adjust
B	Shalt	Not Req.	F K3-1/4	H100L	
	2(W/W)			Not Req.	

* Taps ⊕ 150K, 300K.

† Includes K2.

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
R8	68K		R23	2200Ω		R38	10Ω 1% 1W	
R9	120K		R24	47K		R39	33K 5%	
R10	68K		R25	100K		R40	1000Ω	
R11	200K 5%		R26	100K		R41	180K 5%	
R12	1800Ω		R27	3800Ω		R42	100K 5%	
R13	2.2meg		R28	4700Ω		R43	10Ω 1% 1W	
R14	200K 5%		R29	220K		R44	3000Ω 5%	
R15	2200Ω		R30	3800Ω		R45	3000Ω 5%	
R16	90K 5%		R31	1000Ω		R46	18K 5% 1W	
R17	100K 5%		R32	100Ω 5%		R47	68K	
R18	4.7meg 5%		R33	1m5g		R48	33K 1W	
R19	590K 5%		R34	28.75K 5% 1W		R49	150K	
R20	2.2meg 5%		R35	1000Ω		R50	15K 1W	
R21	2.2meg		R36	180K 5%		R51	33K	
R22	1m5g		R37	100K 5%		R52	22K	

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	EICO PART No.	REPLACEMENT DATA
K1	Tone Compensator	330muf, 4700muf, 4700muf, 1000Ω, 100K, 100K, 120K 100muf, 200muf, 4500muf, 4900muf, 50K, 50K	29751	Sprague TC-24 Aerovox PA-682 Centralab PC-294 Sprague TC-4
K2	Loudness Compensator		(Part of R1)	

TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA								
		EICO PART No.	Halderson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thornderson PART No.	Triod PART No.		
T1	125V ⊕ L15A TAPOLIV ⊕ L15A SEC. 3 ⊕ 4.2A	780VCT -A0A 150V -A05A SEC. 4	SEC. 2 5V 1.9A	30020	24R38 ⊕			P-4004 ⊕	24R38 ⊕	

⊕ Parallel and phase 6.3V Filament Windings. Tape and ignore 2.5V and center tap on 5V and 6.3V Windings.

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TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES	
	PRI.	SEC.	EICO PART No.	Halderson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thornderson PART No.		Triod PART No.
T2	4500Ω	16Ω	32007							
	CT Tap ⊕ Screen RT, 4Ω Tap ⊕ 800Ω CT									

RECTIFIERS

ITEM No.	RATING	REPLACEMENT DATA						NOTES
		EICO PART No.	INTERNATIONAL PART No.	ITT PART No.	SARKES TAZZIAN PART No.	SYLVANIA PART No.		
M1	.005A	98003 *	RS050 *	1284AH *	50 *			* Selenium Type

FUSES

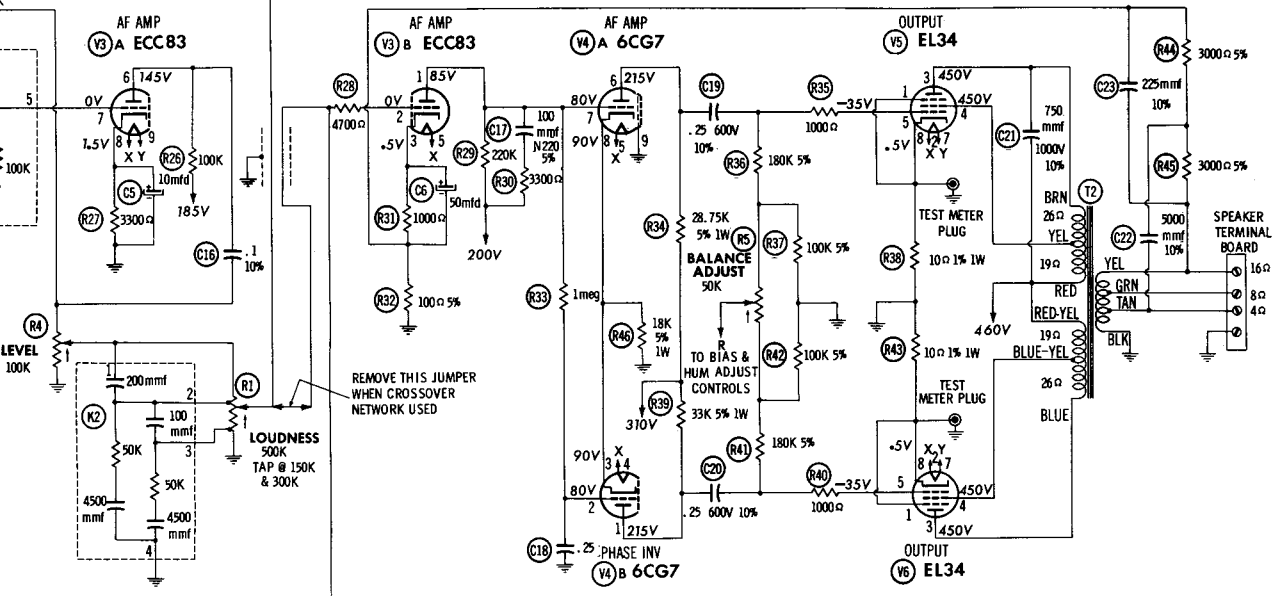
ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			FUSE PART No.	HOLDER PART No.	FUSE PART No.	HOLDER PART No.	FUSE PART No.	HOLDER PART No.
M2	3AG	3A	91005	97800	312003	342001	AGC 3	HXP
		250V			(3AG 3A 250V)			

MISCELLANEOUS

ITEM No.	PART NAME	EICO PART No.	NOTES	
M3	Switch	60038	Selector (Rotary Water Type)	

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)



FOR ALTERNATE CONNECTION

RESISTANCE VALUES UNDER ONE OHM SCHEMATIC DIAGRAM

CONTROLS INDICATE CLOCKWISE ROTATION (VIEWED FROM SHAFT END)

Measurements taken with vacuum tube voltmeter, 1000 ohms per volt.

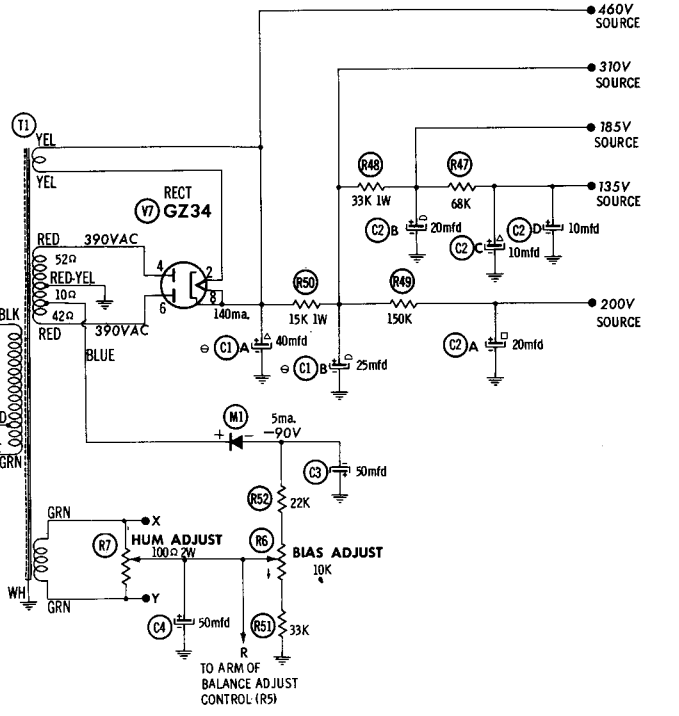
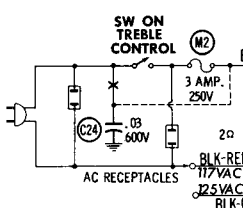
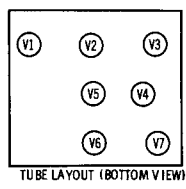
Resistances are shown as bottom views.

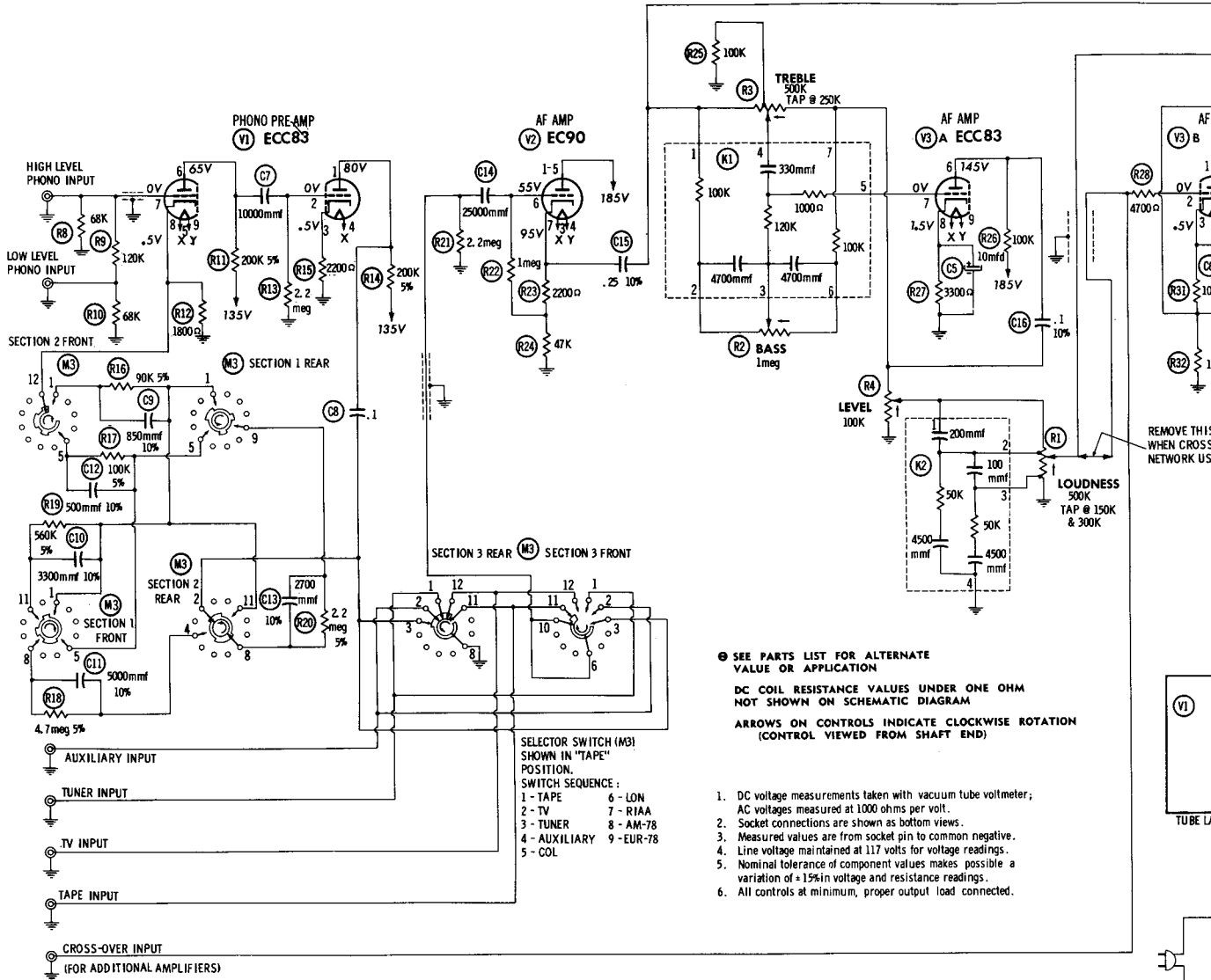
Capacitors are from socket pin to common negative.

Resistors are listed at 117 volts for voltage readings.

Component values makes possible a wide range of voltage and resistance readings.

For proper output load connected.





RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	ECC83	†315K	2.2meg	2200Ω	25K	25K	†315K	55K	1800Ω	25K
V2	EC90	†48K	NC	25K	25K	†48K	1meg	49K		
V3	ECC83	†385K	4700Ω	1100Ω	25K	25K	†148K	270K	3300Ω	25K
V4	6CG7	†48K	†1.3meg	18K	25K	25K	†44K	†385K	18K	NC
V5	EL34	10Ω	25K	†45Ω	†19Ω	220K	TP	25K	10Ω	
V6	EL34	10Ω	25K	†45Ω	†19Ω	220K	TP	25K	10Ω	
V7	GZ34	NC	†	52Ω	NC	52Ω	NC	†		

† MEASURED FROM PIN 8 OF V7.
 NC NO CONNECTION
 TP TIE POINT