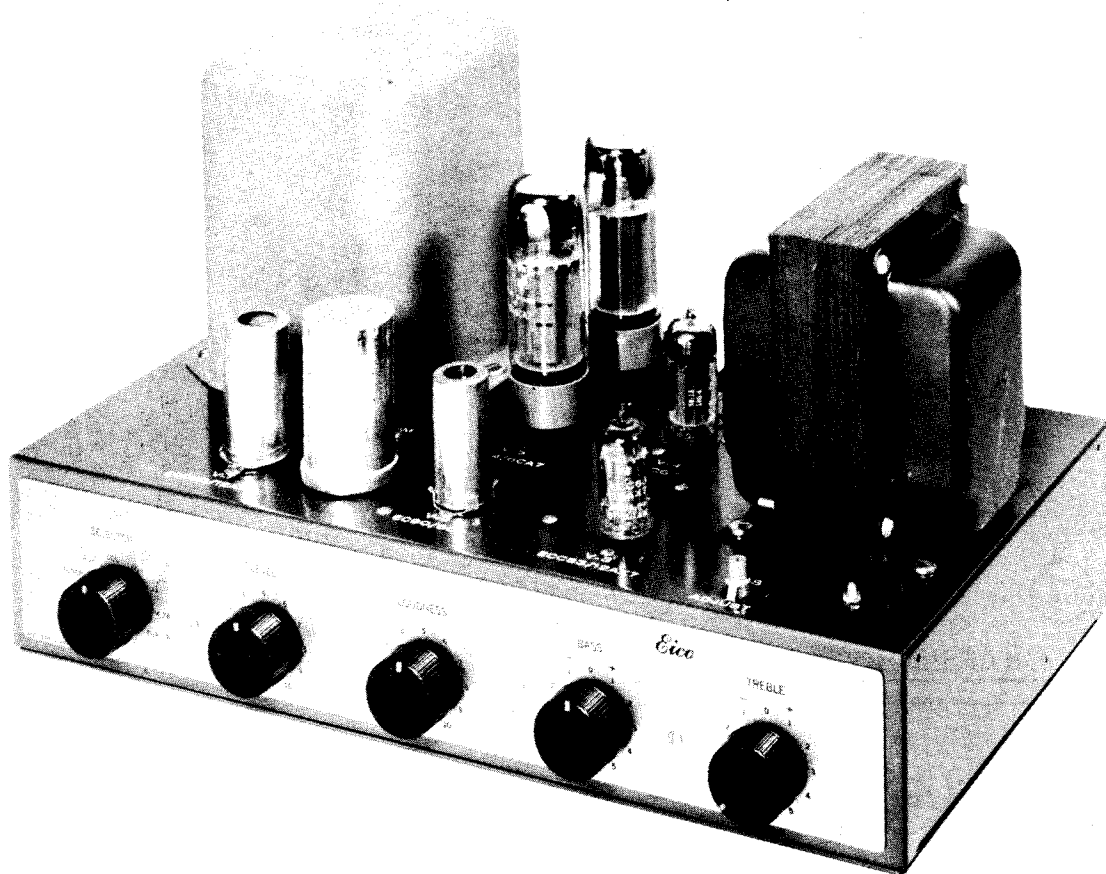




EICO
MODEL HF-52



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

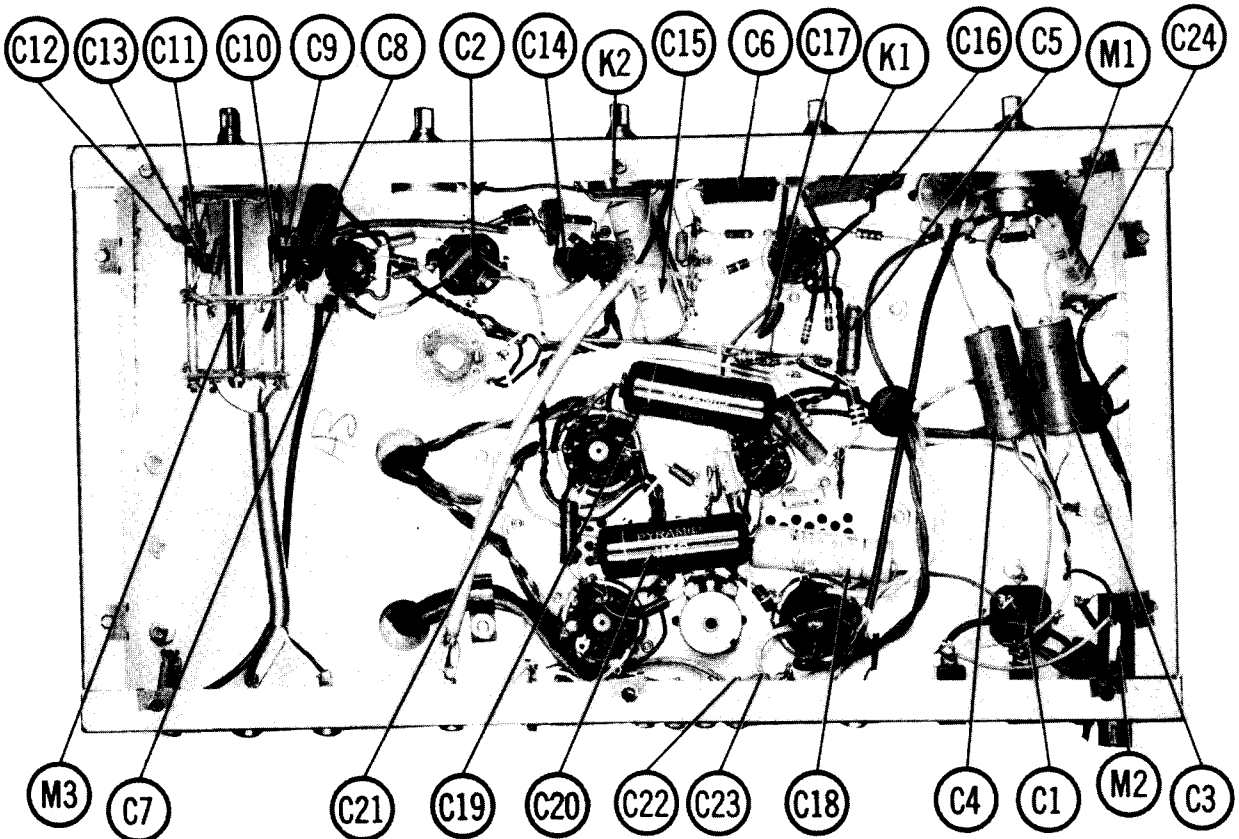
Connect DC probe of VTVM to either meter jack. Common to chassis. Adjust Bias (R6) for .65 volts.

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

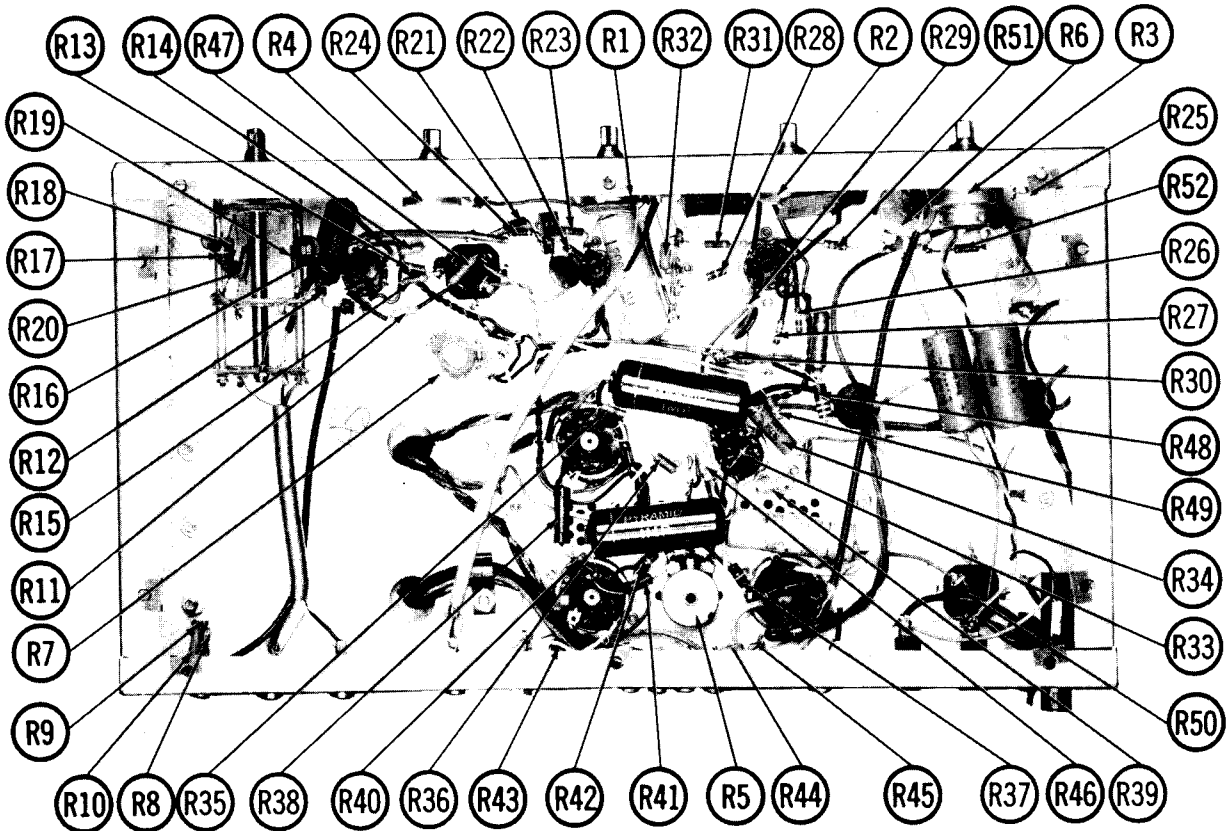


The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W.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

the particular type of replacement part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. © 1960 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U.S. of America



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.	REPLACEMENT DATA
C1A	.40 500	24003	FR284
C1B	.25 500		TC22
C2A	.20 450		FP474.5
C2B	.20 450		
C2C	.10 350		
C2D	.10 350		
C3	50 150		TC49
C4	50 150		TC49
C5	10 25		MLW10-25
C6	10 25		TC22
			TD-50-25
			TE-1209

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.	CAP. VOLT.	REMARKS	REPLACEMENT DATA
C7	10000		CORNELL DUBILIER PART No.
C8	.1 400V		ELMENCO PART No.
C9	850 10%		MALLORY PART No.
C10	3300 10%		SPRAGUE PART No.
C11	5000 10%		
C12	500 10%		
C13	2700 10%		
C14	25000		
C15	.25 400V 10%		
C16	.1 400V 10%		
C17	100 N220 5%		
C18	.25 400V 10%		
C19	.25 600V 10%		
C20	.25 600V 10%		
C21	750 1000V 10%		
C22	500 10%		
C23	225 10%		
C24	.03 600V		

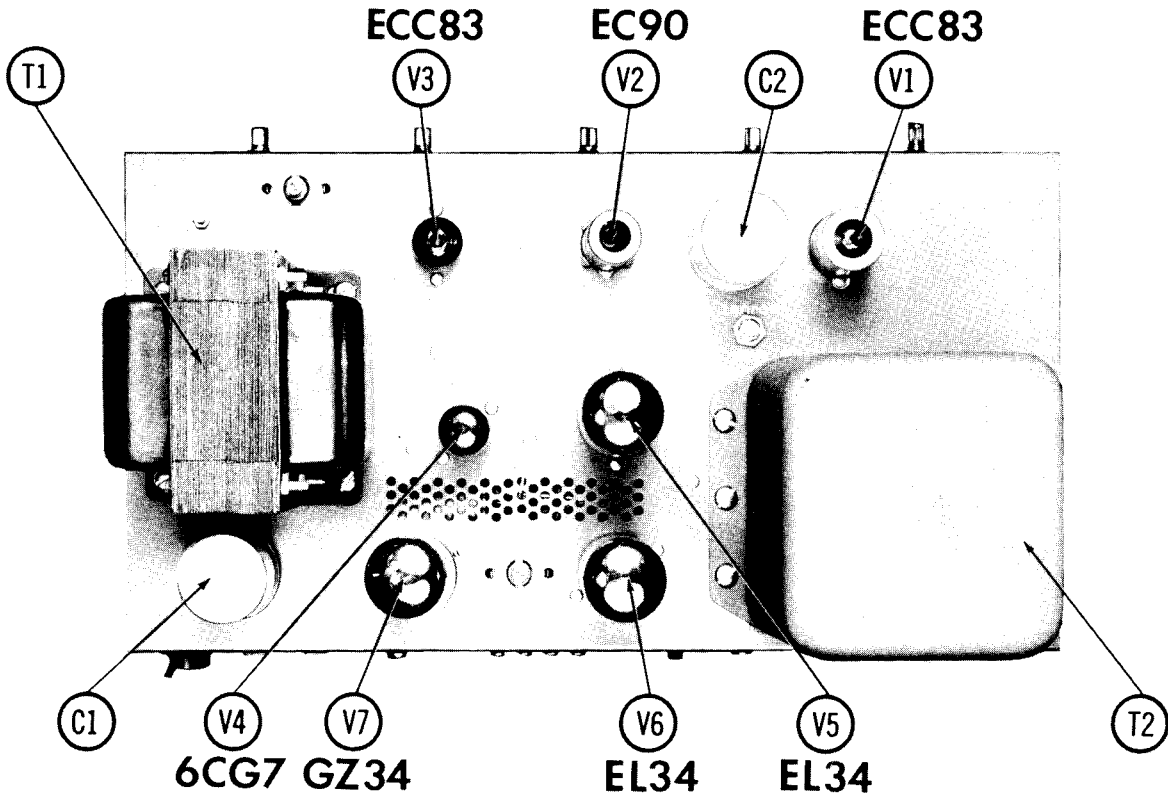
* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

CONTROLS

RATING		REPLACEMENT DATA	
ITEM No.	RESIST. ANCE	REMARKS	REPLACEMENT DATA
R1A	500K *		CENTRALAB PART No.
R1B	Shaft		EICO PART No.
R2A	1Meg		CLAROSTAT PART No.
R2B	Shaft		CTS-IRC PART No.
R3A	500K		MALLORY PART No.
	250K tap		INSTALLATION NOTES
B	Switch		Loudness
C	Switch		Bass
R4A	100K		Treble
R5	50K		Power Off-On Level
R6A	10K		Balance Adjust
R6B	10K		Bias Adjust
R7A	100Ω		Hum Adjust
B	Shaft		

* Taps @ 150K, 300K.

† Includes K2.



B	Shalt	Not Req.	SKI	Not Req.	
B-69	1m5g	Not Req.	Q11-137	US-4	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.	KSS-3	Not Req.	
B	Switch	Not Req.	SWE-12	76-1	Power Off-On
C	Switch	Not Req.	A47-100K-Z	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-5A	10K	Not Req.	E47-10K-S	U29	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.	FKS-1/4	SK3	

* 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.					
T1	125V ① L15A ② L15A ③ L15A ④ L15A ⑤ L15A ⑥ L15A ⑦ L15A ⑧ L15A ⑨ L15A ⑩ L15A	SEC. 1 780VCT ① .40A ② .005A ③ .005A ④ .005A ⑤ .005A ⑥ .005A ⑦ .005A ⑧ .005A ⑨ .005A ⑩ .005A	SEC. 2 5V ① 1.9A	30020	24R38 ①	Merit PART No.	Ram PART No.	Stancor PART No.	Thornderson PART No.	Triod PART No.
	① Parallel and phase 6.3V Filament Windings. Tape and ignore 2.5V and center tap on 5V and 6.3V Windings.							P-4004 ①	24R38 ①	

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 CT Tap ① Screen RT, 4Ω Tap ② 800Ω CT	32007							

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	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M2	3AG	3A 250V	91005	97800	312003	342001	AGC 3	HXP

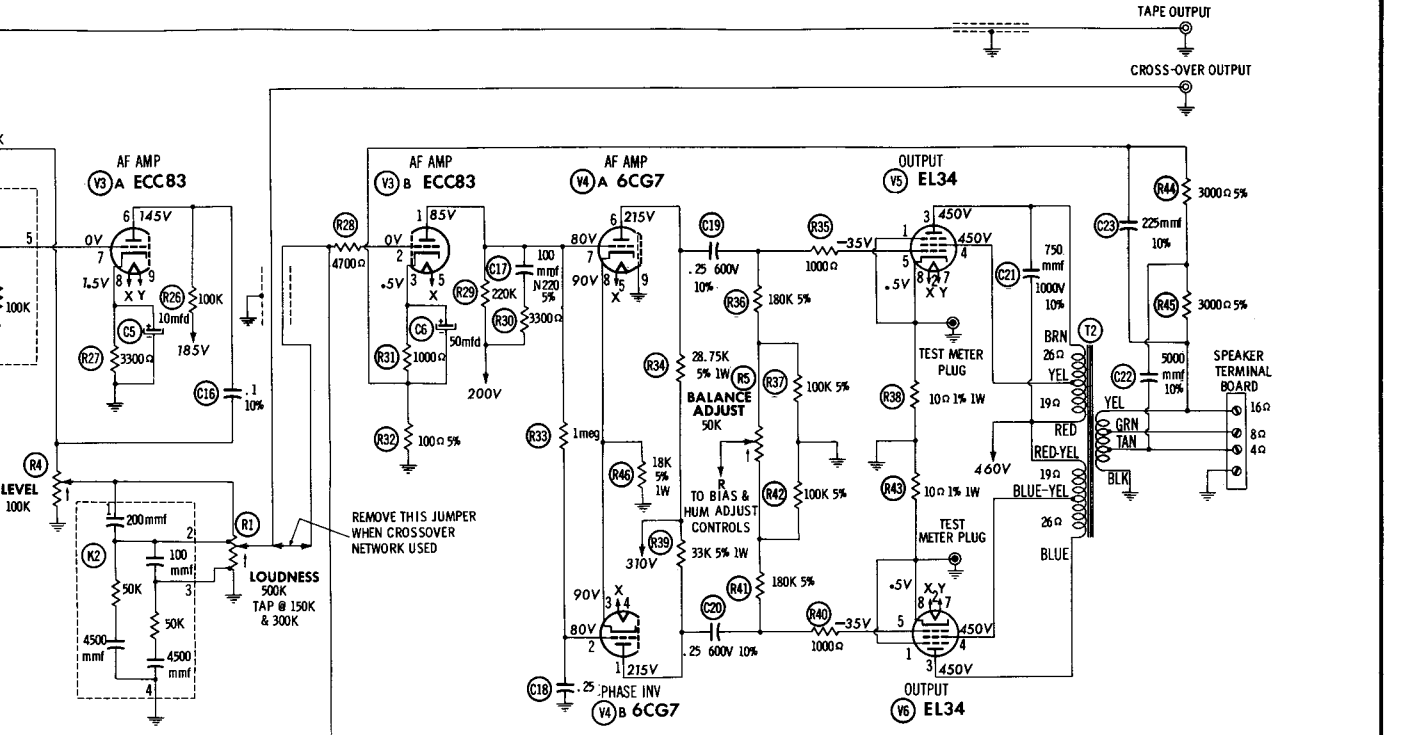
MISCELLANEOUS

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

WIRING DATA

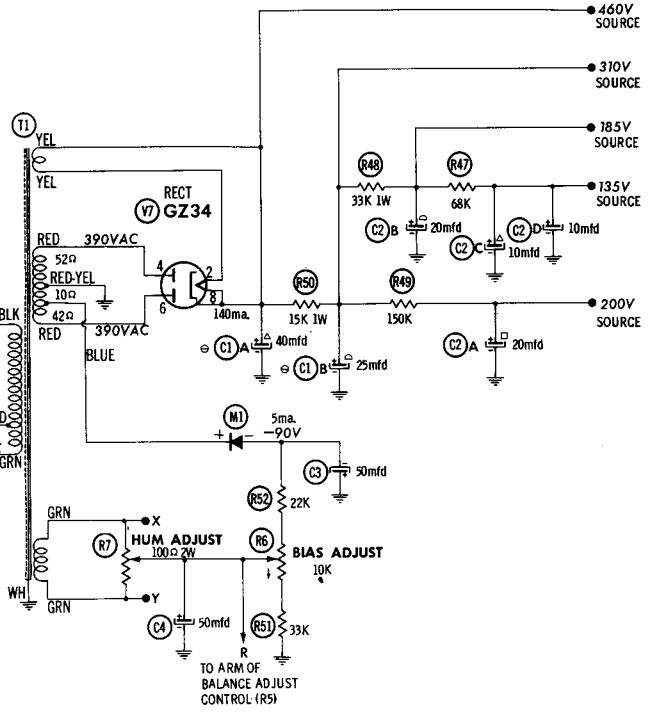
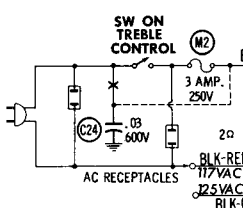
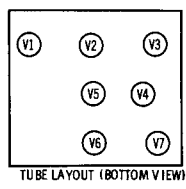
General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
8524 (Stranded) Available in Ten Colors
Power Cord Use BELDEN No. 1765-B (6 Ft. Length)
1725-K (7 1/2 Ft. Length)

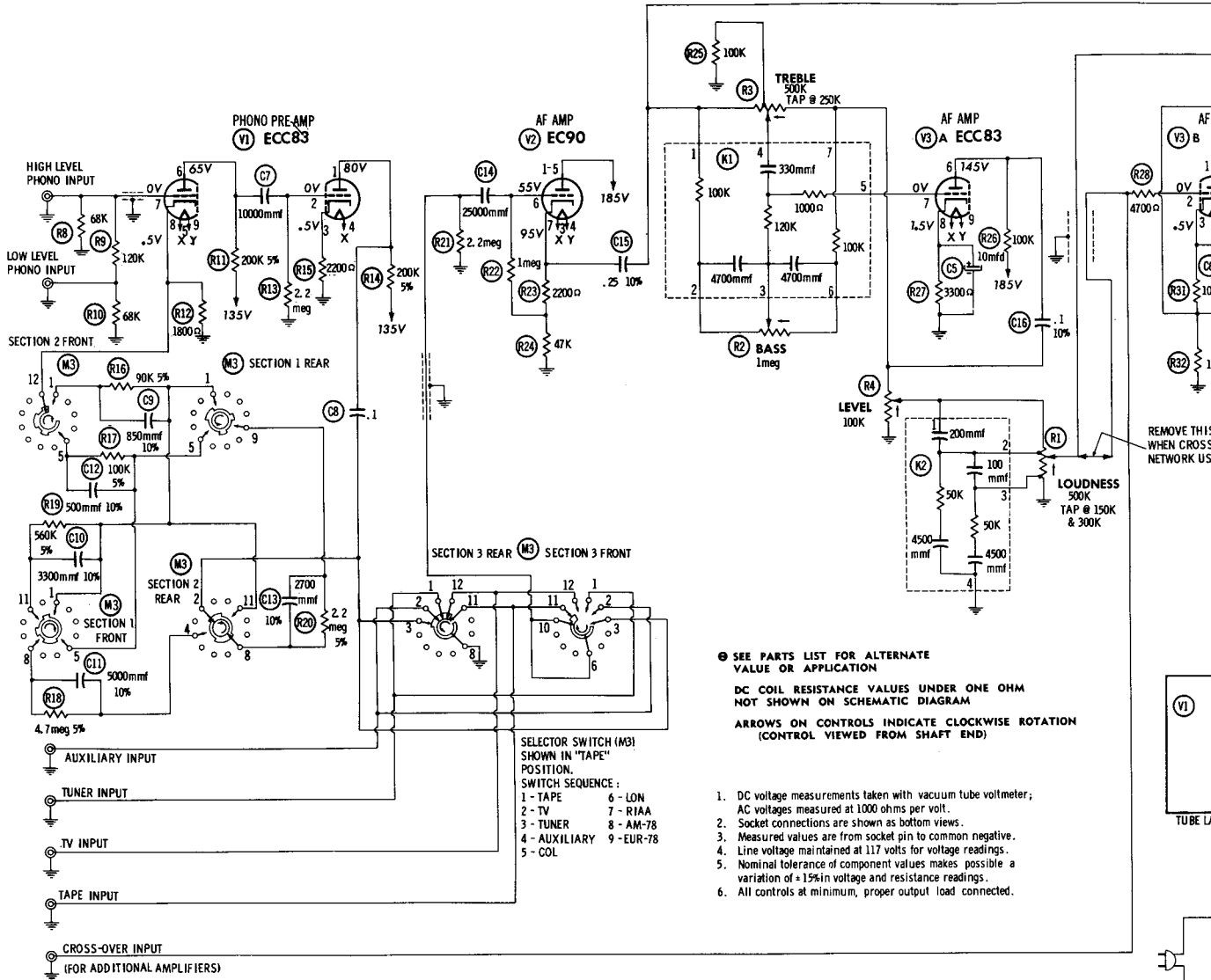
12



FOR ALTERNATE
 CONNECTION
 RESISTANCE VALUES UNDER ONE OHM
 SCHEMATIC DIAGRAM
 CONTROLS INDICATE CLOCKWISE ROTATION
 (VIEWED FROM SHAFT END)

Measurements taken with vacuum tube voltmeter,
 and at 1000 ohms per volt.
 Values are shown as bottom views.
 Readings are from socket pin to common negative.
 Readings are at 117 volts for voltage readings.
 Component values makes possible a
 wide range of voltage and resistance readings.
 For 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)

- 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.