

**PARTS LIST AND DESCRIPTION (CONTINUED)**

(When ordering parts, state Model, Part Number, and Description.)

**TRANSFORMER (Power)**

ITEM No.	RATING			REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	120V AC @ 1.6A AC	47.8V AC CT @ 2.5A DC	36.0V AC @ .12A DC	4-2519-23670			
	SEC. 3						
	5.80V AC @ 1.9A AC						

**FUSE DEVICES**

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER	
F1	3A @ 125V Slow-blow	FL51313-34	4-2359-21110	MDX3	HTA	313003	342001	
F2	2A @ 125V Slow-blow	FL51313-2	4-2359-21110	MDL2	HTA	313002	342001	
F3	2A @ 125V Slow-blow	FL51313-2	4-2359-21110	MDL2	HTA	313002	342001	

**MISCELLANEOUS**

ITEM No.	PART NAME	PART No.	NOTES
M1	Meter	4511920650	Tuning
M2	Meter	4511920640	Channel Center
S1	Switch	4231934080	Function (Rotary)
S2	Switch	4231934020	Speaker (Rotary)
S3	Switch	4231923901	Power (On/Off)
S4	Switch	4231934070	Loudness Contour
S5	Switch	4231934070 (1)	Tape Monitor
S6	Switch	4231934070 (1)	Mono/Mode
S7	Switch	4231934070 (1)	High Filter
20240	Filter	4227920240	Ceramic (10.7MHz)
20310	Filter	4227920310	Ceramic (10.7MHz)
20320	Filter	4227920320	Low Pass
	Printed Circuit Board	4125920370	Front End
	Printed Circuit Board	1310400172110	RF-IF-MPX
	Printed Circuit Board	1310400172120	EQ
	Printed Circuit Board	1310400172211	Tone
	Printed Circuit Board	1310400172152	Power Amp
	Printed Circuit Board	1310400172140	Power Supply
	Printed Circuit Board	1310400172161	Dial Lamp

(1) Part of S4.

**CABINETS & CABINET PARTS (When ordering specify model, chassis & color)**

ITEM	PART No.	ITEM	PART No.
Cabinet Assembly	1310110108600	Panel Assembly	1310101622701
Knob, Balance/Bass/Function/Speaker/Treble/Volume	1310100135800	Pointer, Dial	1312410118300

**WIRING DATA**

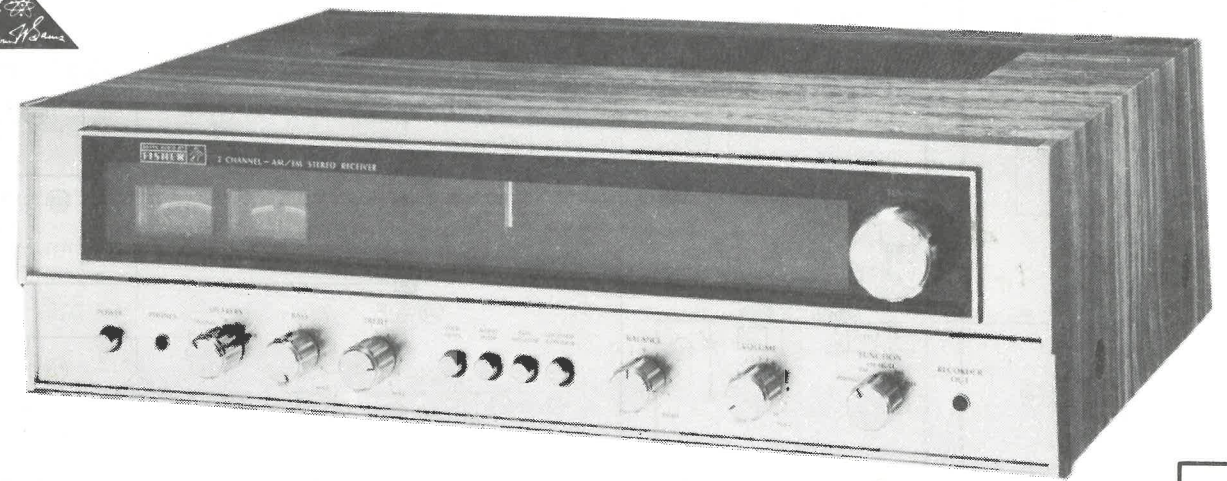
General-use Unshielded Hook-up Wire .....	Use BELDEN No. 8528 (Solid) Available in 13 Colors
Power Cord .....	Use BELDEN No. 8522 (Stranded) Available in 13 Colors
Low-loss Shielded Lead (Interconnecting) .	Use BELDEN No. 17106 (Plastic) -6 Ft.
Phono Pick-up Arm Cable .....	Use BELDEN No. 17109 (Plastic) -9 Ft.
	Use BELDEN No. 8401 or 8421
	Use BELDEN No. 8430 (Two-Conductor-Unshielded)
	Use BELDEN No. 8429 (Two-Conductor-Shielded)
	Use BELDEN No. 8419 (Three-Conductor-Shielded)

SET 1663 FOLDER 3

**PHOTOFACT® Folder** with CIRCUITRACE™

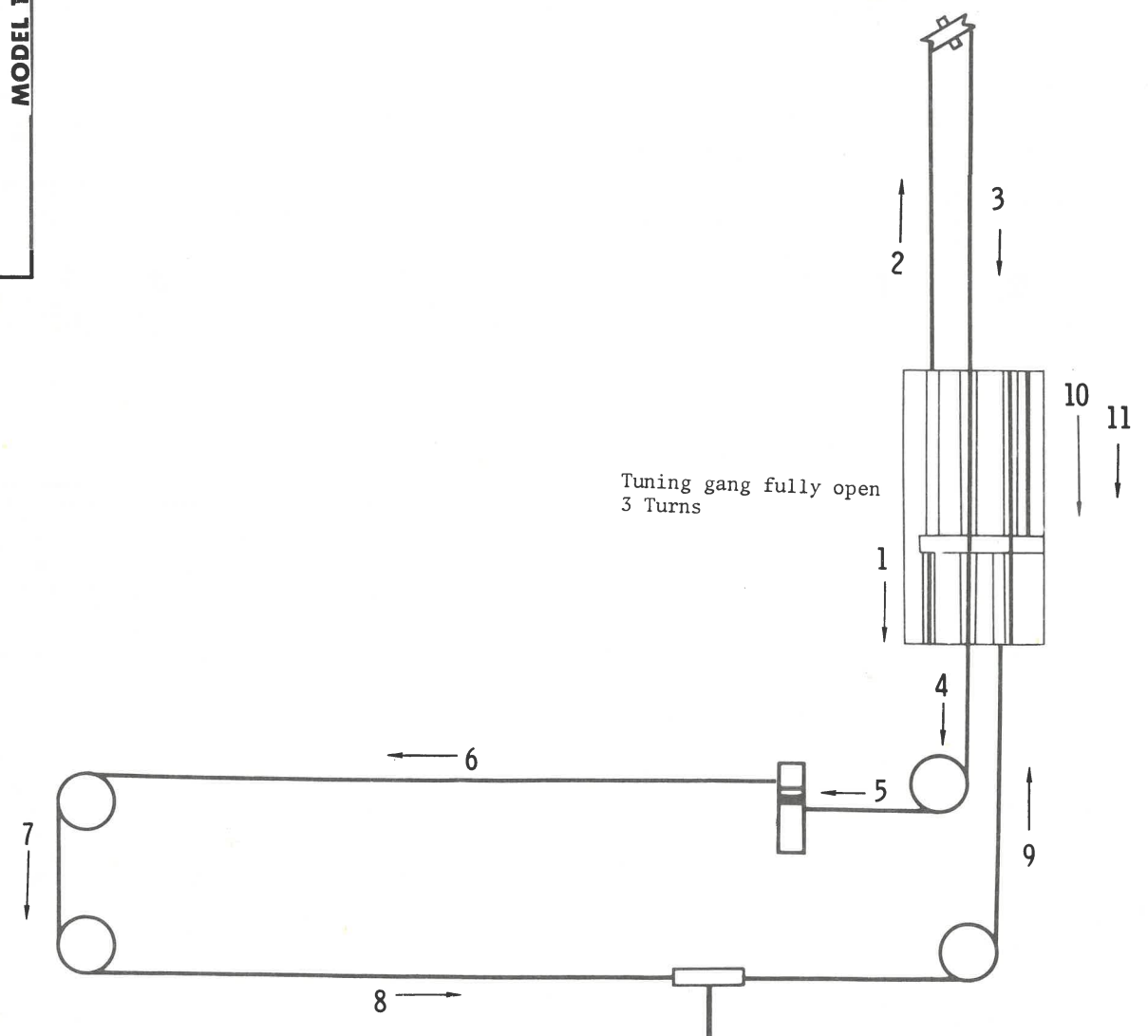
**SEARS MODEL 143.92531600**

For Supplier Address See PHOTOFACT Index



SEARS MODEL 143.92531600

SEARS MODEL 143.92531600



Tuning gang fully open  
3 Turns

**HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206**

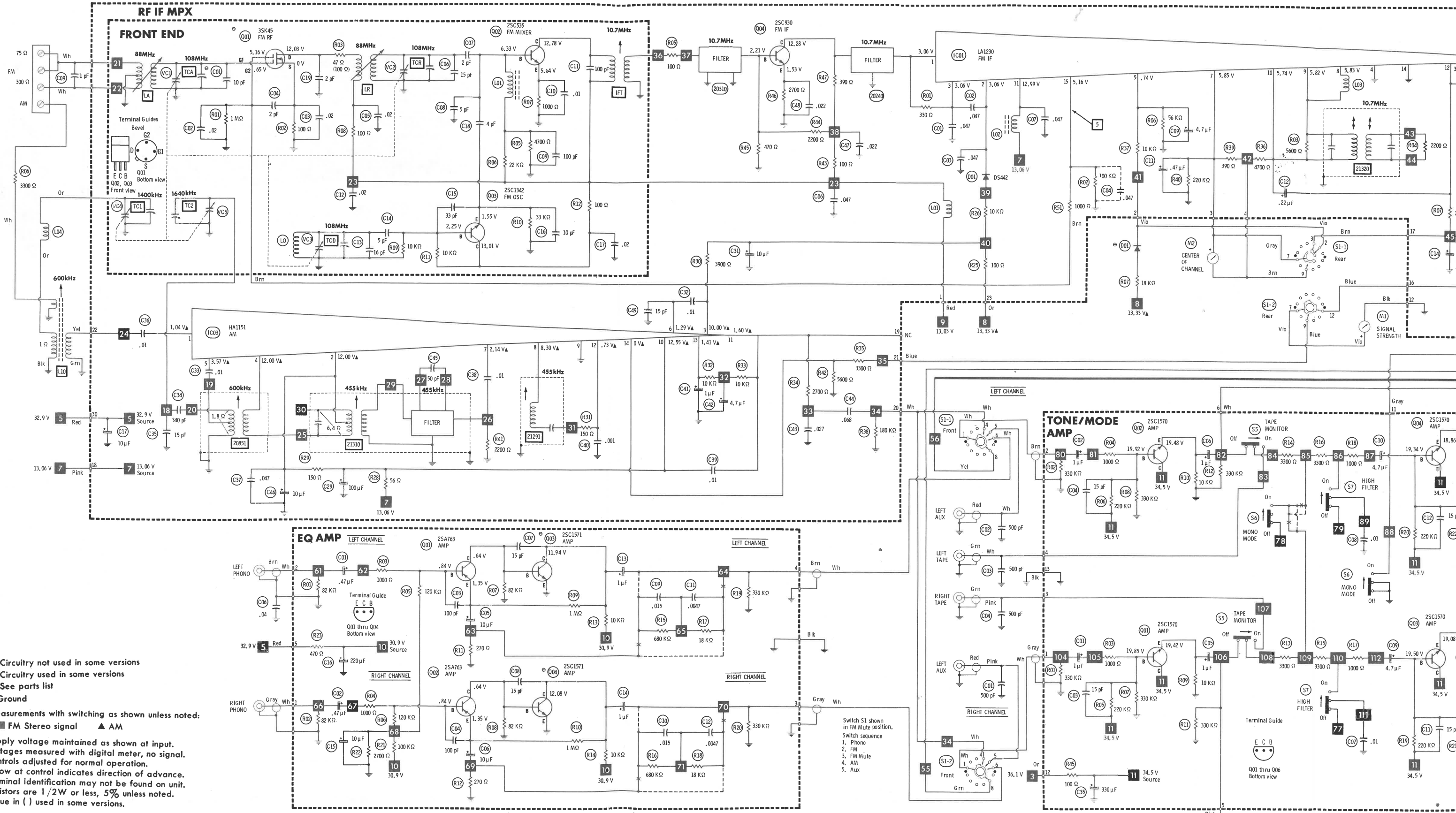


The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. 7PN1799

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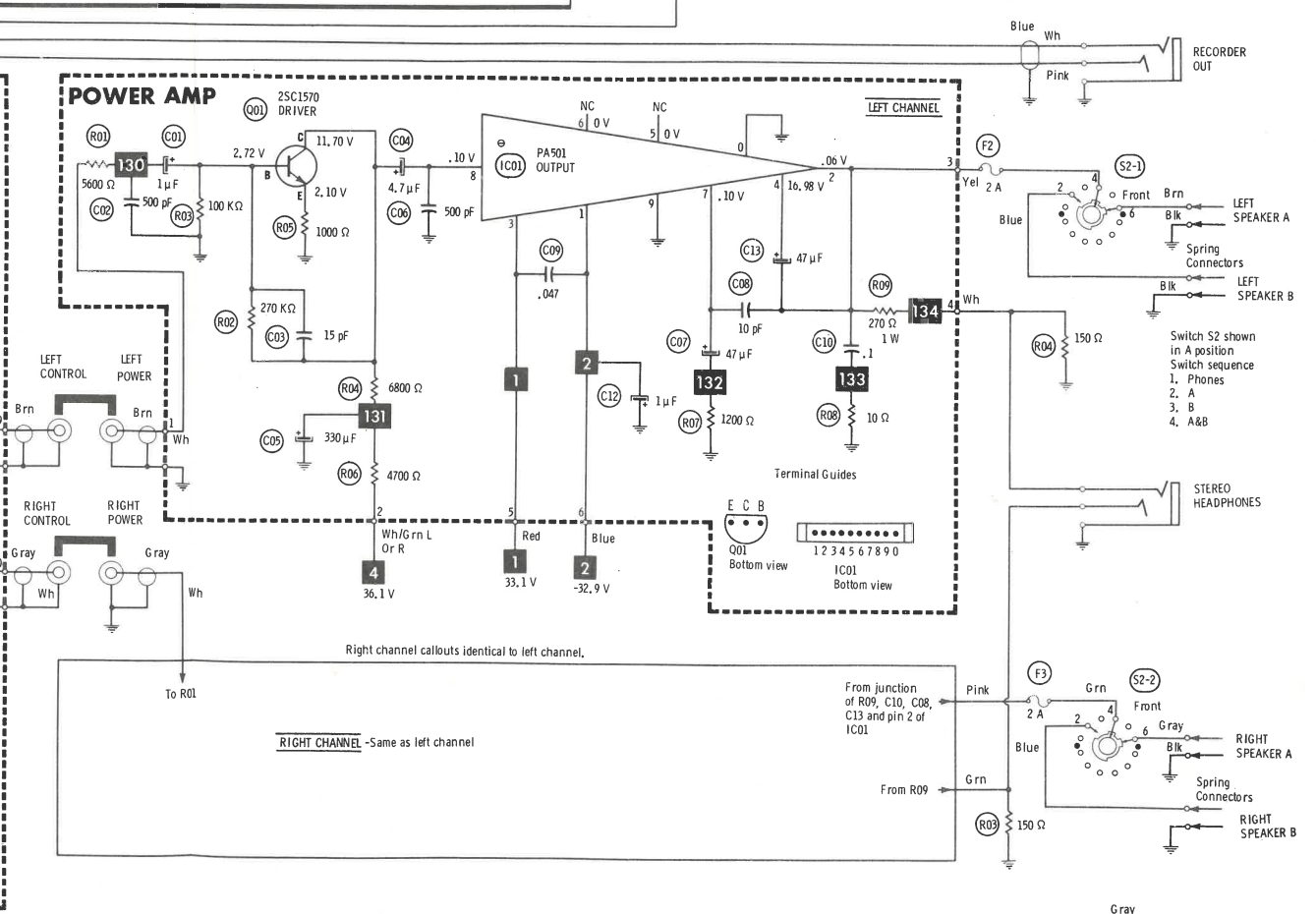
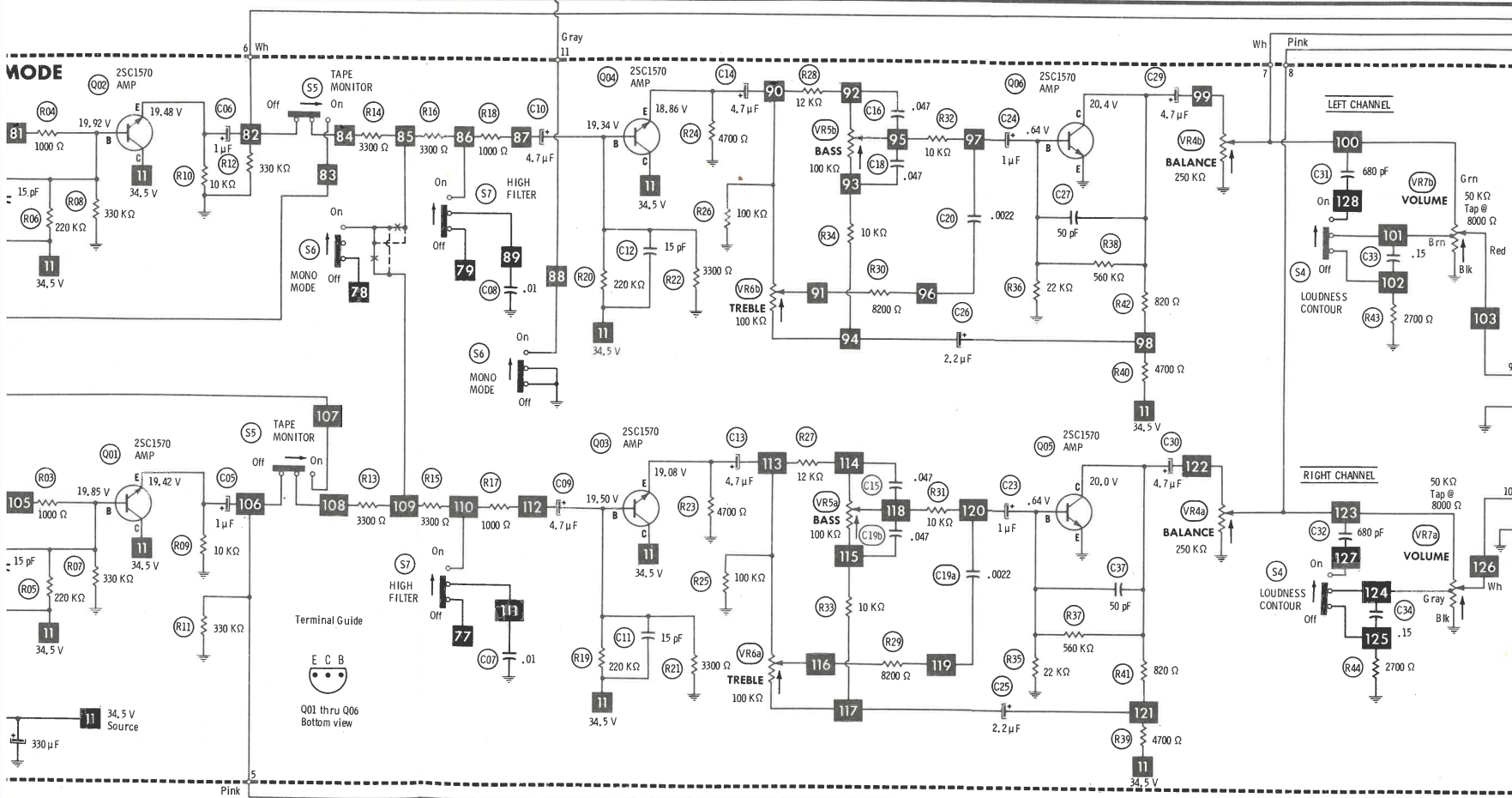
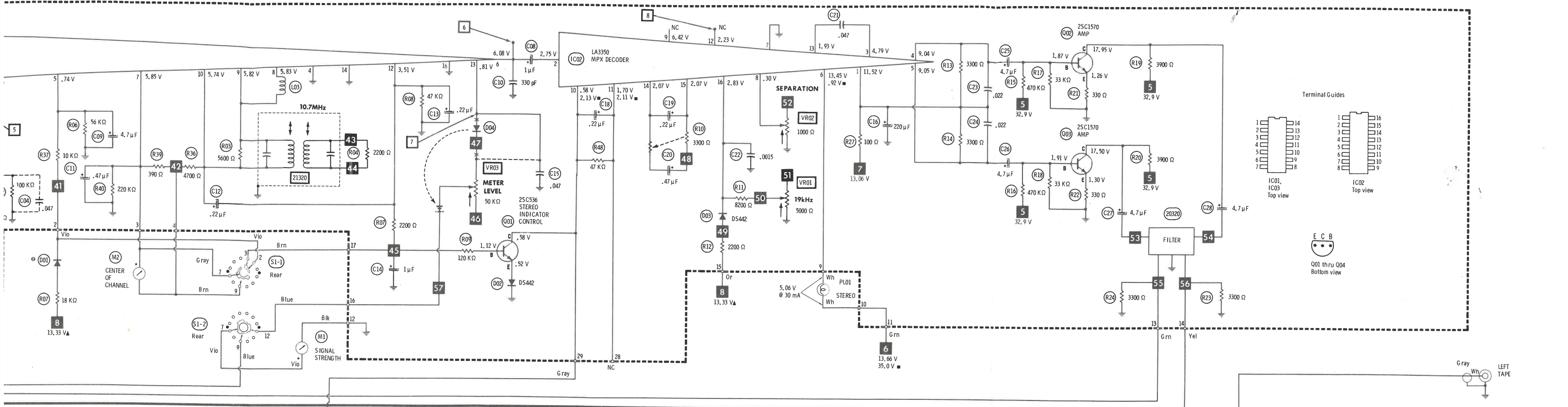
DATE 7-77 SET 1663 FOLDER 3





\* Circuitry not used in some versions  
 --- Circuitry used in some versions  
 e See parts list  
 ⊕ Ground  
 Measurements with switching as shown unless noted:  
 ■ FM Stereo signal ▲ AM  
 Supply voltage maintained as shown at input.  
 Voltages measured with digital meter, no signal.  
 Controls adjusted for normal operation.  
 Arrow at control indicates direction of advance.  
 Terminal identification may not be found on unit.  
 Resistors are 1/2W or less, 5% unless noted.  
 Value in ( ) used in some versions.

Switch S1 shown in FM Mute position.  
 Switch sequence  
 1. Phono  
 2. FM  
 3. FM Mute  
 4. AM  
 5. Aux



**PARTS LIST AND DESCRIPTION (CONTINUED)**

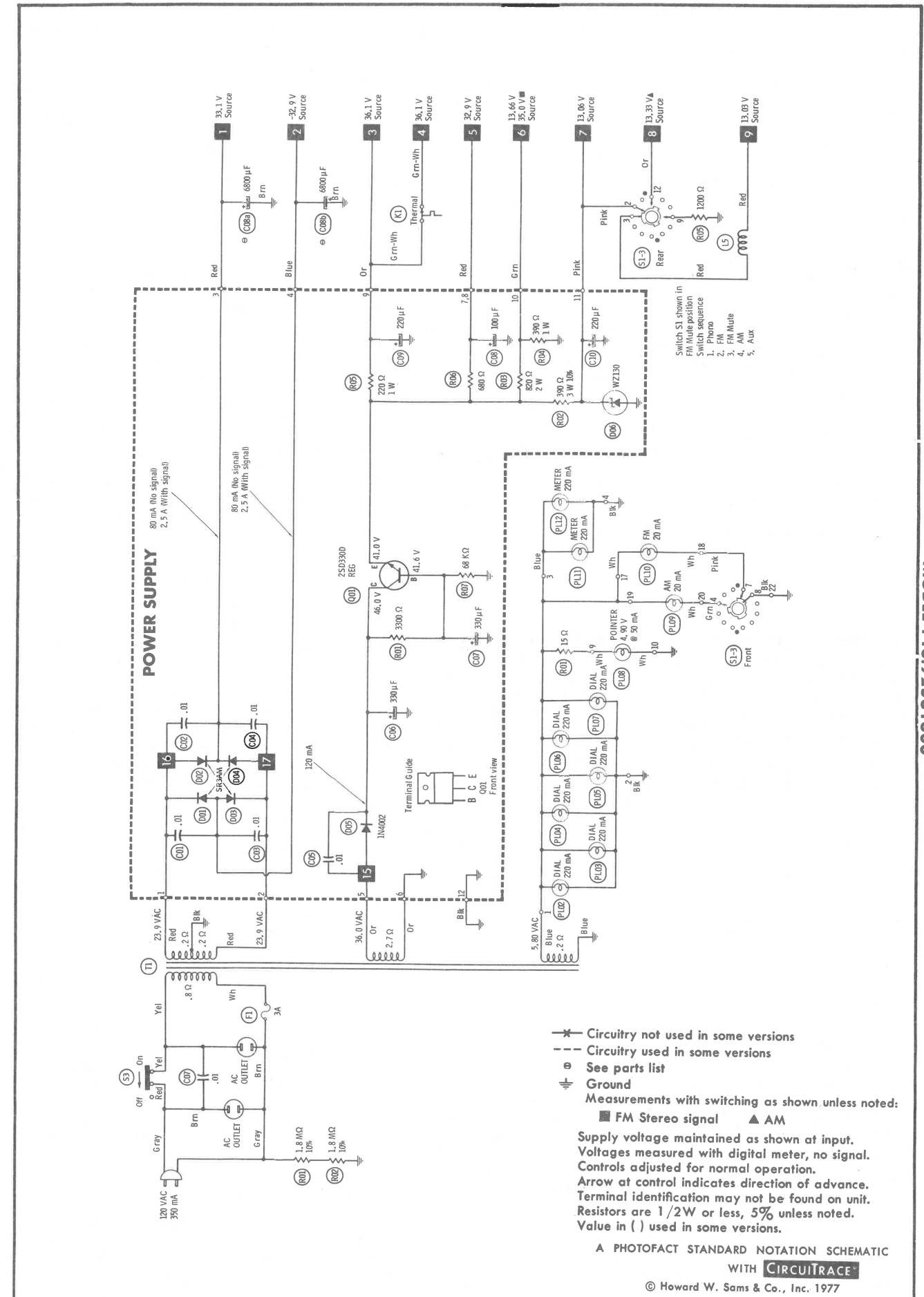
(When ordering parts, state Model, Part Number, and Description.)

**ELECTROLYTIC CAPACITORS**

ITEM No.	RATING	REPLACEMENT DATA				
		MFG. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
<b>RF-IF-MPX BOARD</b>						
C08	1 16V	CS22340-5	PC1-50	VTT1A50	QV1-9	EV-1315
C09	4.7 25V	CE1252515	PC5-50	VTT4R7B50	QV1-27	EV-1319
C11	.47 16V	CS22340-4	PC1-50	VTR47A63	QV1-3	EV-1610
C12	.22 16V	CS22340-2				
C13	.22 16V	CS22340-2				
C14	1 50V	CE0252611	PC1-50	VTT1A50	QV1-11	EV-1615
C16	220 16V	CE22342-15	PC250-25	VTT220H16	QV1-117	EV-1240
C17	10 35V	CE22342-28	PC10-50	VTT10063	QV1-45	EV-1622
C18	.22 16V	CS22340-2				
C19	.22 16V	CS22340-2				
C20	.47 16V	CS22340-4	PC1-50	VTR47A63	QV1-3	EV-1610
C25	4.7 16V	CS22340-6	PC5-50	VTT4R7B50	QV1-27	EV-1319
C26	4.7 16V	CS22340-6	PC5-50	VTT4R7B50	QV1-27	EV-1319
C27	4.7 35V	CL22305-14		TDC475M035FL		SD35-4R79
C28	4.7 35V	CL22305-14		TDC475M035FL		SD35-4R79
C29	100 16V	CE22342-11	WBR50-150	TVA-1343	QV1-41	EV-1222
C31	10 16V	CE1252521	PC10-25	VTT10825	QV1-9	EV-1315
C41	1 16V	CS22340-5	PC1-50	VTT1A50	QV1-9	EV-1319
C42	4.7 16V	CE1252515	PC5-50	VT14R7B50	QV1-27	EV-1319
C46	10 16V	CE1252521	PC10-25	VTT10825	QV1-41	EV-1222
<b>EQ AMP BOARD</b>						
C01	.47 25V	CS22340-5	PC1-50	VTR47A63	QV1-3	EV-1610
C02	.47 25V	CS22340-5	PC1-50	VTR47A63	QV1-3	EV-1610
C05	10 25V	CE1252621	PC10-25	VTT10825	QV1-43	EV-1322
C06	10 25V	CE1252621	PC10-25	VTT10825	QV1-43	EV-1322
C13	1 35V	CL22305-3		TDC105M035EL		SD35-19
C14	1 35V	CL22305-3		TDC105M035EL		SD35-19
C15	10 35V	C1YTRM06A	WBR250-50	TC106M035FL	QV1-123	EV-1540
C16	220 50V	CE22342-26		VTT220M50		
<b>tone-MODE AMP BOARD</b>						
C01	1 35V	CL22305-3		TDC105M035EL		SD35-19
C02	1 35V	CL22305-3		TDC105M035EL		SD35-19
C05	1 35V	CL22305-3		TDC105M035EL		SD35-19
C06	1 35V	CL22305-3		TDC105M035EL		SD35-19
C09	4.7 35V	CL22305-14		TDC475M035FL		SD35-4R79
C10	4.7 35V	CL22305-14		TDC475M035FL		SD35-4R79
C13	4.7 35V	CL22305-14		TDC475M035FL		SD35-4R79
C14	4.7 35V	CL22305-14		TDC475M035FL		SD35-4R79
C23	1 25V	CS22340-5	PC1-50	VTT1A50	QV1-9	EV-1315
C24	1 25V	CS22340-5	PC1-50	VTT1A50	QV1-9	EV-1315
C25	2.2 35V	CL22305-11		TDC225M035FL		SD35-2R29
C26	2.2 35V	CL22305-11		TDC225M035FL		SD35-2R29
C29	4.7 35V	CL22305-14		TDC475M035FL		SD35-4R79
C30	4.7 35V	CL22305-14		TDC475M035FL		SD35-4R79
C35	330 50V	CE22342-27	WBR350-150	VTT330N50	QV1-141	EV-1545
<b>POWER AMP BOARD</b>						
C01	1 35V	CL22305-3		TDC105M035EL		SD35-19
C04	4.7 35V	CL22305-14		TDC475M035FL		SD35-4R79
C05	330 50V	C1HRB-337A	WBR350-150	VTT330N50	QV1-141	EV-1545
C07	47 16V	CE1252515	PC50-16	VTT47D16	QV1-73	EV-1226
C12	1 50V	CE22342-2	PC1-50	VTT1A50	QV1-11	EV-1615
C13	47 25V	CE0252625	PC50-25	VTT47E25	QV1-75	EV-1326
<b>POWER SUPPLY BOARD</b>						
C06	330 50V	CE22342-27	WBR350-150	VTT330N50	QV1-141	EV-1545
C07	330 50V	CE22342-27	WBR350-150	VTT330N50	QV1-141	EV-1545
C08	100 50V	CE22342-9	PC100-50	VTT100K50	QV1-99	EV-1530
C09	220 50V	CE22342-26	WBR250-50	VTT220M50	QV1-123	EV-1540
C10	220 25V	CE22342-14	PC250-25	VTT220K25	QV1-119	EV-1340
<b>CHASSIS</b>						
C08(a,b)	6800 35V	4223920980				
C08	4700 35V					

**CAPACITORS**

ITEM No.	RATING	MFG. PART No.	REPLACEMENT DATA				
			CENTRALLAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
<b>FRONT END</b>							
C01	10		DTZ-10	NP010	CN0410	QCC-157	10TCC-Q10
C02	.02		DC-203	MGP02	TA120	QC2-157	TG-520
C03	.02		DC-203	MGP02	TA120	QC2-157	TG-520
C04	2		DC-203	WMFTW2	EWFA20	QC2-157	156P20504
C05	.02		DC-203	MGP02	TA120	QC2-157	TG-520

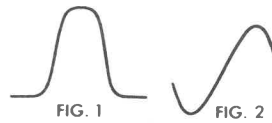


SEARS  
MODEL 14392531600

FOLDER 3

## ALIGNMENT INSTRUCTIONS

CAUTION: Use isolation transformer or observe polarity when connecting test equipment. Connect low sides of generator and indicator to ground unless specified otherwise. Maintain line voltage at 120V AC. Allow a 15-minute warm-up period. Use only enough generator output to obtain a suitable indication. Suggested Alignment Tools: GC ELECTRONICS: IFT, 21320 ..... 9296 21310, 21291, 20851 ..... 9293



### AM ALIGNMENT—SELECTOR IN AM POSITION

Connect generator across loop fashioned of several turns of wire. Set volume at maximum.

GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
455kHz 400-hertz Modulation	Tuning gang fully open	Output meter across voice coil	(1) 21310, 21291	Adjust for maximum. Repeat until no further improvement is noted.
600kHz	600kHz	"	20851,L10	Adjust for maximum.
1640kHz	1640kHz	"	TC2	Adjust for maximum.
1400kHz	1400kHz	"	TC1	Adjust for maximum. Repeat AM alignment until no further improvement is noted.

### FM IF ALIGNMENT USING FM SIGNAL GENERATOR—SELECTOR IN FM POSITION

High side of generator thru .001uF to test point 5. Use 60-hertz, frequency-modulated signal, 450kHz sweep. Use 60-hertz sawtooth voltage in scope for horizontal deflection.

GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
10.7MHz 450kHz Sweep	Point of non-interference	Vert input of scope to test point 7.	(1) IFT	Adjust for maximum gain and symmetry of response similar to Fig. 1.
"	"	Vert input of scope to test point 6.	21320	Adjust 21320 for maximum amplitude and straightness of line, similar to Fig. 2.

### FM RF ALIGNMENT—SELECTOR IN FM POSITION

Connect generator across antenna terminals with 120-ohm carbon resistor in series with each lead. Adjustment of coils by bending should not be attempted unless the coil is deformed or replaced.

GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
88MHz Unmodulated	88MHz	AC probe of VTVM to speaker terminal.	LR,LA	Adjust for maximum.
108MHz Unmodulated	108MHz	"	TCD,TCR,TCA	Adjust for maximum. Repeat FM RF steps until no further improvement is noted.

(1) Before adjusting, vary generator frequency slightly. Maximum output indicates exact IF.

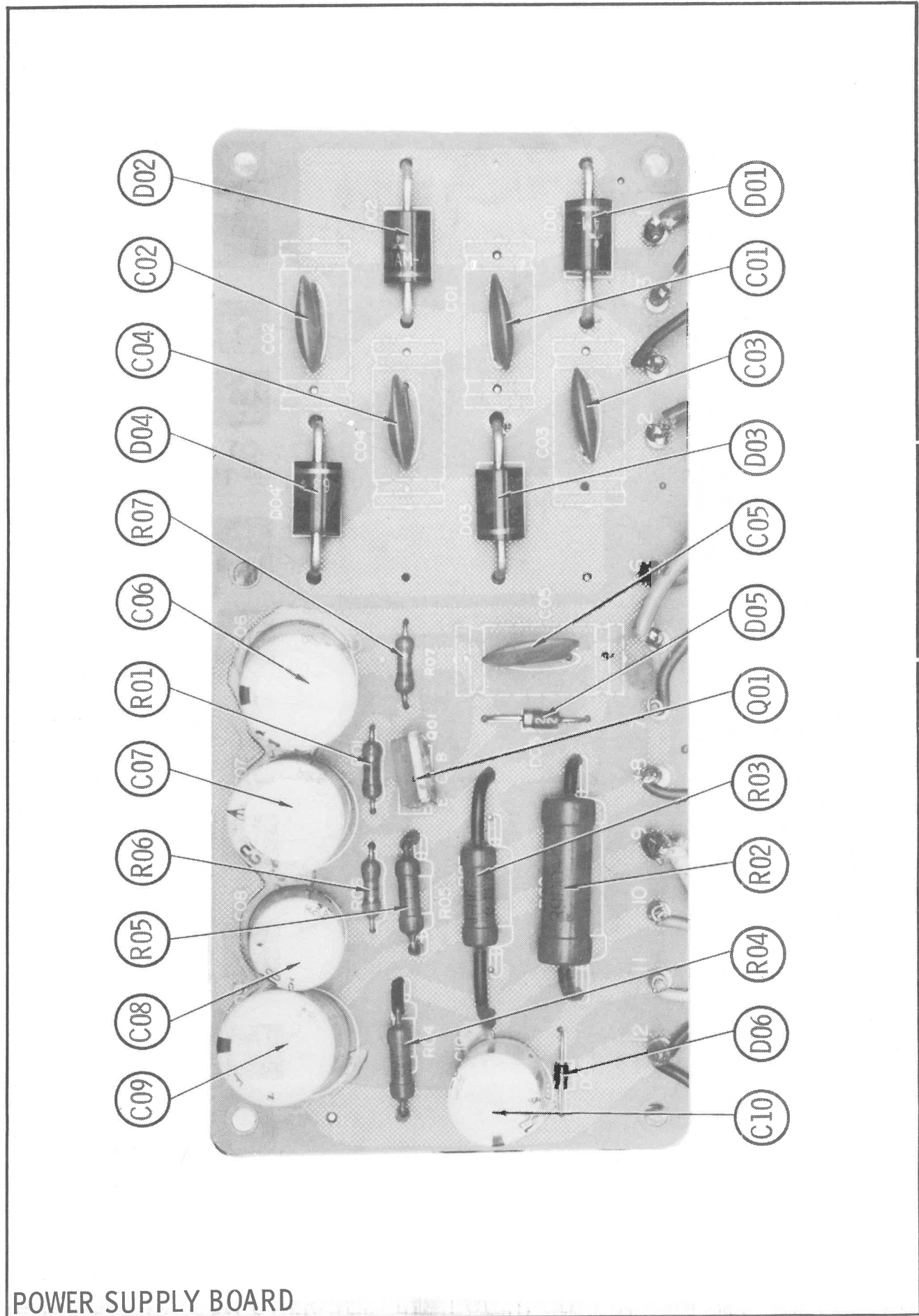
## PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

### SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	IR WORKMAN PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
<b>POWER AMP BOARD</b>										
IC01	PA501	TR09024	GE-723							ECG1090
Q01	PA501X 2SC1570G 2SC1570LH	TR2SC1570LH	GE-723 GE-212 GE-212	TR-24 * TR-24 *	PTC133 * PTC133 *	HEPS0015 HEPS0015	RE 13 RE 13	SK3124 SK3124	RT-108A RT-108A	ECG1090 ECG123A ECG123A
<b>CHASSIS</b>										
D01	DS442	TRDS442	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D02	DS442	TRDS442	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D03	DS442	TRDS442	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D04	DS442	TRDS442	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
IC01	LA1230	TRLA1230	GEIC-76							
IC02	LA3350	TRLA3350	GEIC-154							
IC03	HA1151	TRHA1151	GE-212	(1R)2SC536	PTC121 *	HEPS0016 *	RE 192	SK3124	RT-107A	ECG199
Q01	2SC536E	TR2SC536E	GE-212	TR-24 *	PTC133 *	HEPS0015 *	RE 13 *	SK3124	RT-108A *	ECG123A
Q02	2SC1570G 2SC1570LH	TR2SC1570LH	GE-212	TR-24 *	PTC133 *	HEPS0015 *	RE 13 *	SK3124	RT-108A *	ECG123A
Q03	2SC1570G 2SC1570LH	TR2SC1570LH	GE-212	TR-24 *	PTC133 *	HEPS0015 *	RE 13 *	SK3124	RT-108A *	ECG123A
Q04	2SC930D 2SC930D	TR2SC930D	GE-60 *	(1R)2SC772	PTC132 *	HEPS0016 *	RE 9	SK3039 *	RT-308	ECG229 *
<b>EQ AMP BOARD</b>										
Q01	2SA763WL 2SA763	TR2SA763	GE-65	WEP495 *	PTC103 *	HEPS0031 *	RE 193	SK3247	RT-126A *	ECG234
Q02	2SA763WL 2SA763	TR2SA763	GE-65	WEP495 *	PTC103 *	HEPS0031 *	RE 193	SK3247	RT-126A *	ECG234
Q03	2SC1571 2SC1570LH	TR2SC1570LH	GE-212	TR-24 *	PTC133 *	HEPS0015 *	RE 13	SK3124	RT-108A *	ECG123A
Q04	2SC1571 2SC1570LH	TR2SC1570LH	GE-212	TR-24 *	PTC133 *	HEPS0015 *	RE 13	SK3124	RT-108A *	ECG123A
	2SC1570	TR2SC1570LH	GE-212	TR-24 *	PTC133 *	HEPS0015 *	RE 13	SK3124	RT-108A *	ECG123A
<b>POWER SUPPLY BOARD</b>										
D01	SR3AM-4 SR3AM	TRSR3AM	GE-510	R210	PTC205		RE 51	SK3051	RT-201	ECG125
D02	SR3AM-4 SR3AM	TRSR3AM	GE-510	R210	PTC205		RE 51	SK3051	RT-201	ECG125
D03	SR3AM-4 SR3AM	TRSR3AM	GE-510	R210	PTC205		RE 51	SK3051	RT-201	ECG125
D04	SR3AM-4 SR3AM	TRSR3AM	GE-510	R210	PTC205		RE 51	SK3051	RT-201	ECG125
D05	1N4002	TR1N4002	GE-504A	5A4D	1N4002	HEPR0052	RE 49	SK3030	RT-213	ECG116
D06	WZ-130	TRWZ130	GEZD-13	WEP605	ZB13A	HEPZ0416	RE 119	SK3054	RT-244	ECG143
Q01	2SD330 2SD330E	TR2SD330E	GE-66	TR-76	PTC167	HEPS5027	RE 21	SK3054	RT-154	ECG152
<b>FRONT END</b>										
Q01	2SK45B 2SK45 (1) 33K59 (1)		GE-FET-2 GE-FET-2 GE-FET-2	FE-100 FE-100 FE-100	PTC161 PTC161 PTC161	HEPF0021 HEPF0021 HEPF0021	RE 45 RE 45 RE 45	SK3116 SK3116 SK3116	RT-175 RT-175 RT-175	ECG312 ECG312 ECG312
Q02	2SC535 2SC535B(1)		GE-86 GE-86	(1R)2SC535B (1R)2SC535B	PTC132 * PTC132 *	HEPS0016 * HEPS0016 *	RE 9 * RE 9 *	SK3018 * SK3018 *	RT-134 RT-134	ECG229 * ECG229 *
Q03	2SC1342B 2SC1342(1)		GE-61 * GE-61 *	TR-24 * TR-24 *	PTC136 * PTC136 *	HEPS0014 * HEPS0014 *	RE 9 * RE 9 *	SK3018 * SK3018 *	RT-108A * RT-108A *	ECG229 * ECG229 *
<b>TONE-MODE AMP BOARD</b>										
Q01	2SC1570G 2SC1570LH	TR2SC1570LH	GE-212 GE-212	TR-24 * TR-24 *	PTC133 * PTC133 *	HEPS0015 * HEPS0015 *	RE 13 * RE 13 *	SK3124 SK3124	RT-108A * RT-108A *	ECG123A * ECG123A *
Q02	2SC1570G 2SC1570G	TR2SC1570LH	GE-212 GE-212	TR-24 * TR-24 *	PTC133 * PTC133 *	HEPS0015 * HEPS0015 *	RE 13 * RE 13 *	SK3124 SK3124	RT-108A * RT-108A *	ECG123A * ECG123A *
Q03	2SC1570G 2SC1570LH	TR2SC1570LH	GE-212 GE-212	TR-24 * TR-24 *	PTC133 * PTC133 *	HEPS0015 * HEPS0015 *	RE 13 * RE 13 *	SK3124 SK3124	RT-108A * RT-108A *	ECG123A * ECG123A *
Q04	2SC1570G 2SC1570LH	TR2SC1570LH	GE-212 GE-212	TR-24 * TR-24 *	PTC133 * PTC133 *	HEPS0015 * HEPS0015 *	RE 13 * RE 13 *	SK3124 SK3124	RT-108A * RT-108A *	ECG123A * ECG123A *
Q05	2SC1570G 2SC1570LH	TR2SC1570LH	GE-212 GE-212	TR-24 * TR-24 *	PTC133 * PTC133 *	HEPS0015 * HEPS0015 *	RE 13 * RE 13 *	SK3124 SK3124	RT-108A * RT-108A *	ECG123A * ECG123A *
Q06	2SC1570G 2SC1570LH	TR2SC1570LH	GE-212 GE-212	TR-24 * TR-24 *	PTC133 * PTC133 *	HEPS0015 * HEPS0015 *	RE 13 * RE 13 *	SK3124 SK3124	RT-108A * RT-108A *	ECG123A * ECG123A *

\* Lead configuration may vary from original.  
(1) Used in some versions.



POWER SUPPLY BOARD

**ALIGNMENT INSTRUCTIONS (Continued)**

**FM STEREO ADJUSTMENT**

Tune receiver for a stereo signal. Adjust Separation control VR02 for best separation.

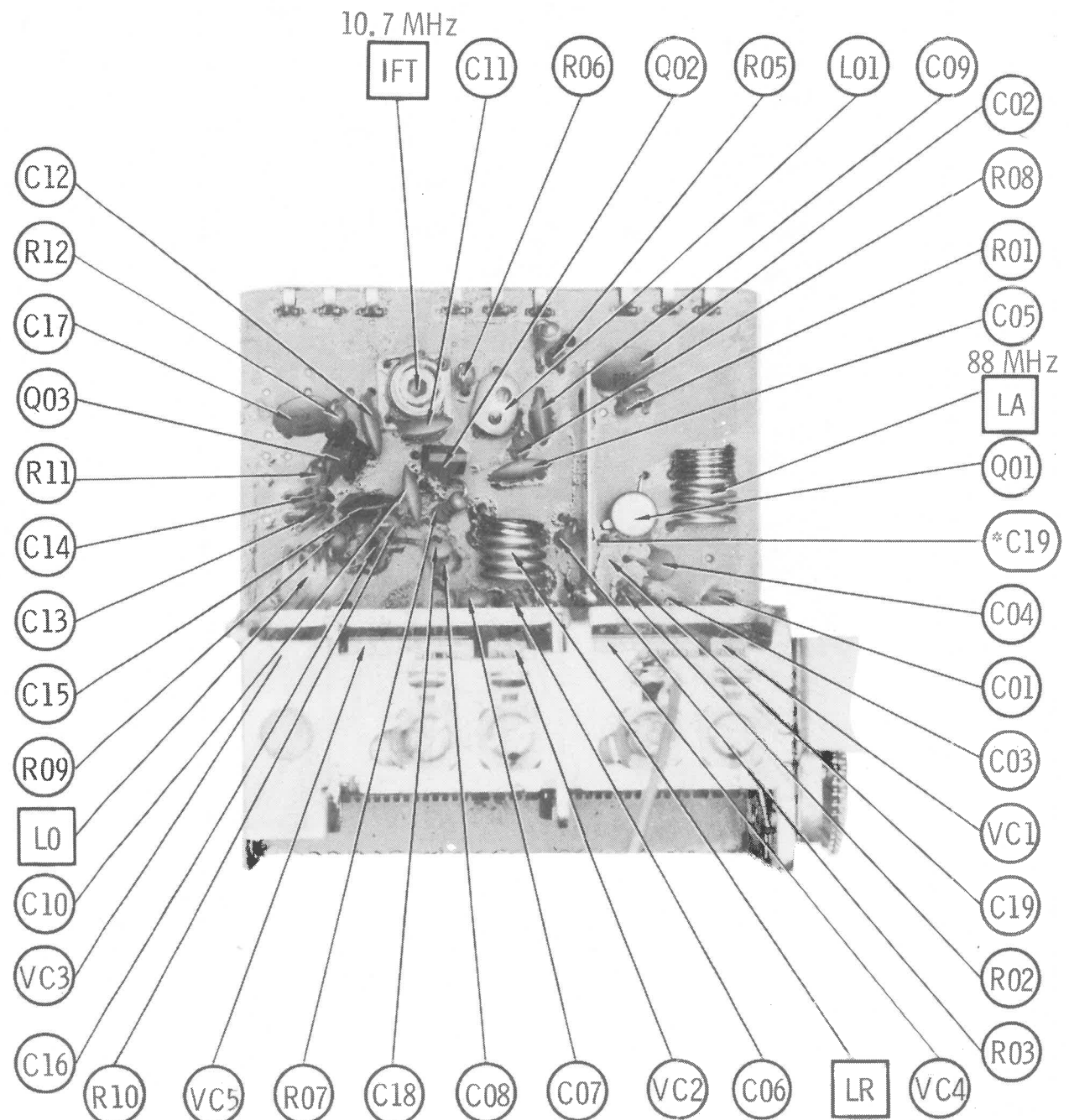
**FM STEREO ALIGNMENT USING AUDIO GENERATOR**

Ground test point 6.

	INDICATOR	ADJUST	REMARKS
	Frequency counter to test point 8.	VR101	Adjust VR01 for 19kHz, $\pm 20$ Hz.

**METER LEVEL**

Tune receiver for strongest stereo signal. Adjust VR03 for 100 indication on the signal strength meter.



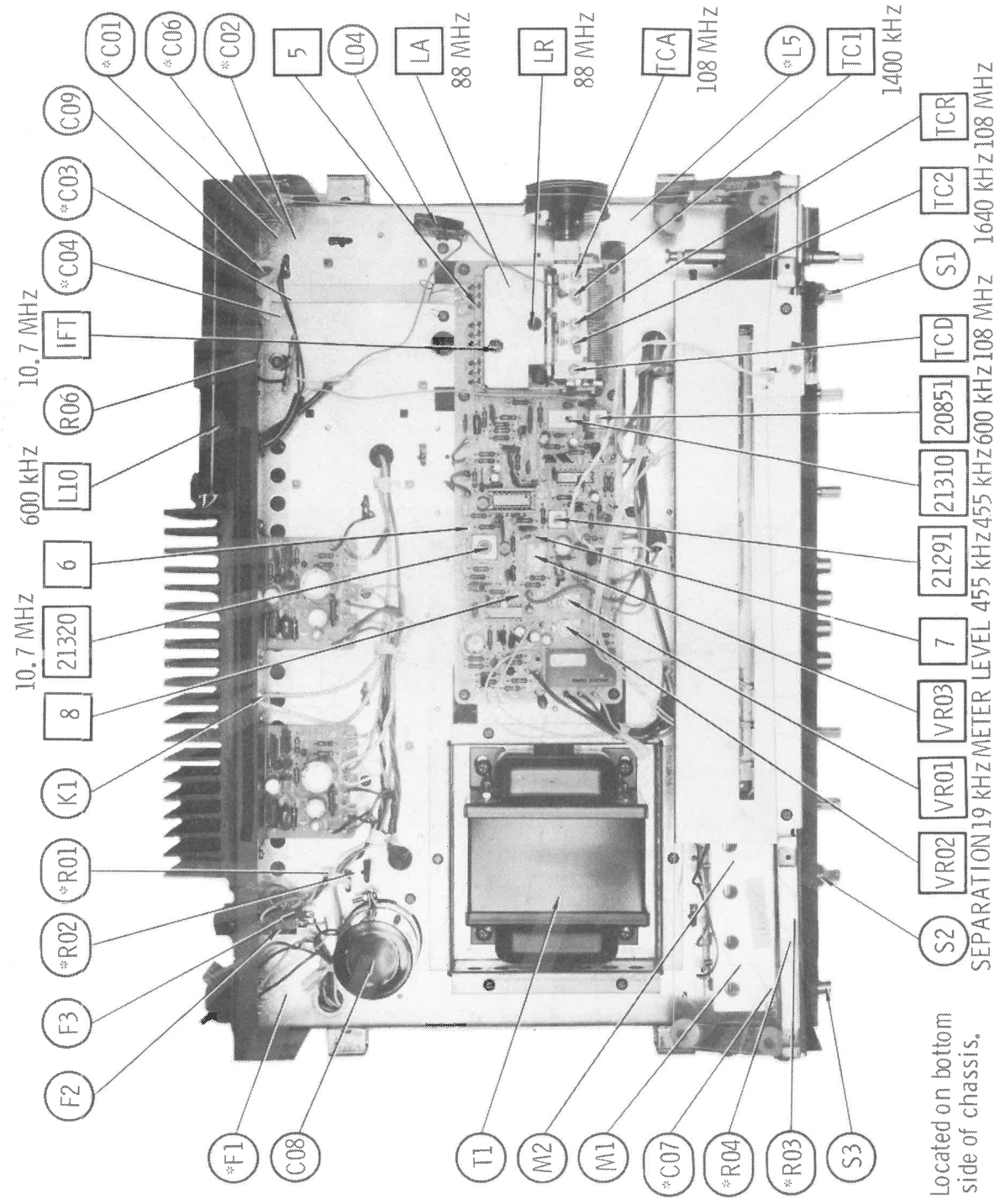
\* Located on bottom side of board

88 MHz

FRONT END BOARD

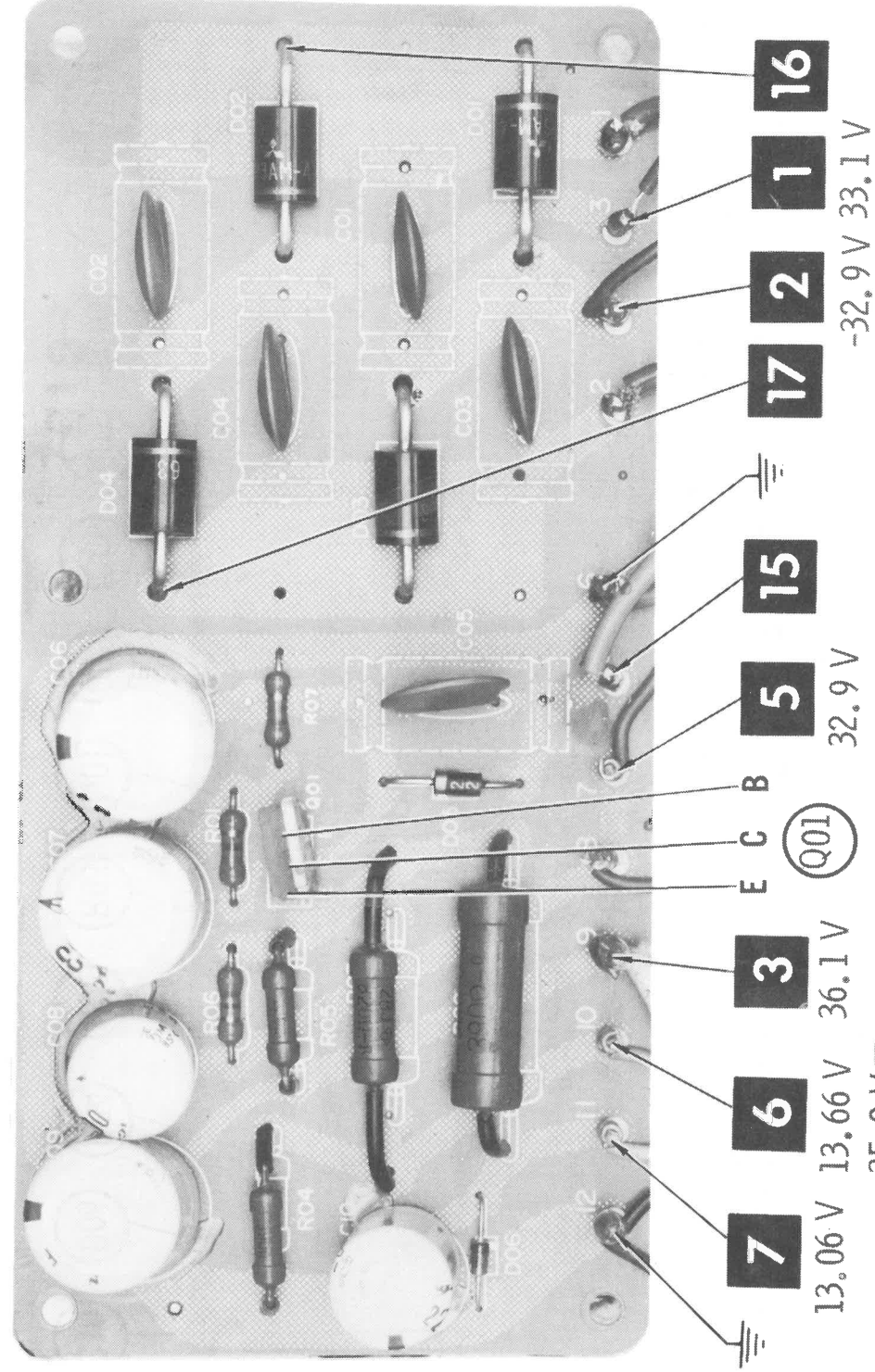
SEARS  
MODEL 143.92531600

CHASSIS



\* Located on bottom side of chassis.

SEPARATION 19 KHZ METER LEVEL 455 KHZ 455 KHZ 600 KHZ 108 MHZ 1640 KHZ 108 MHZ

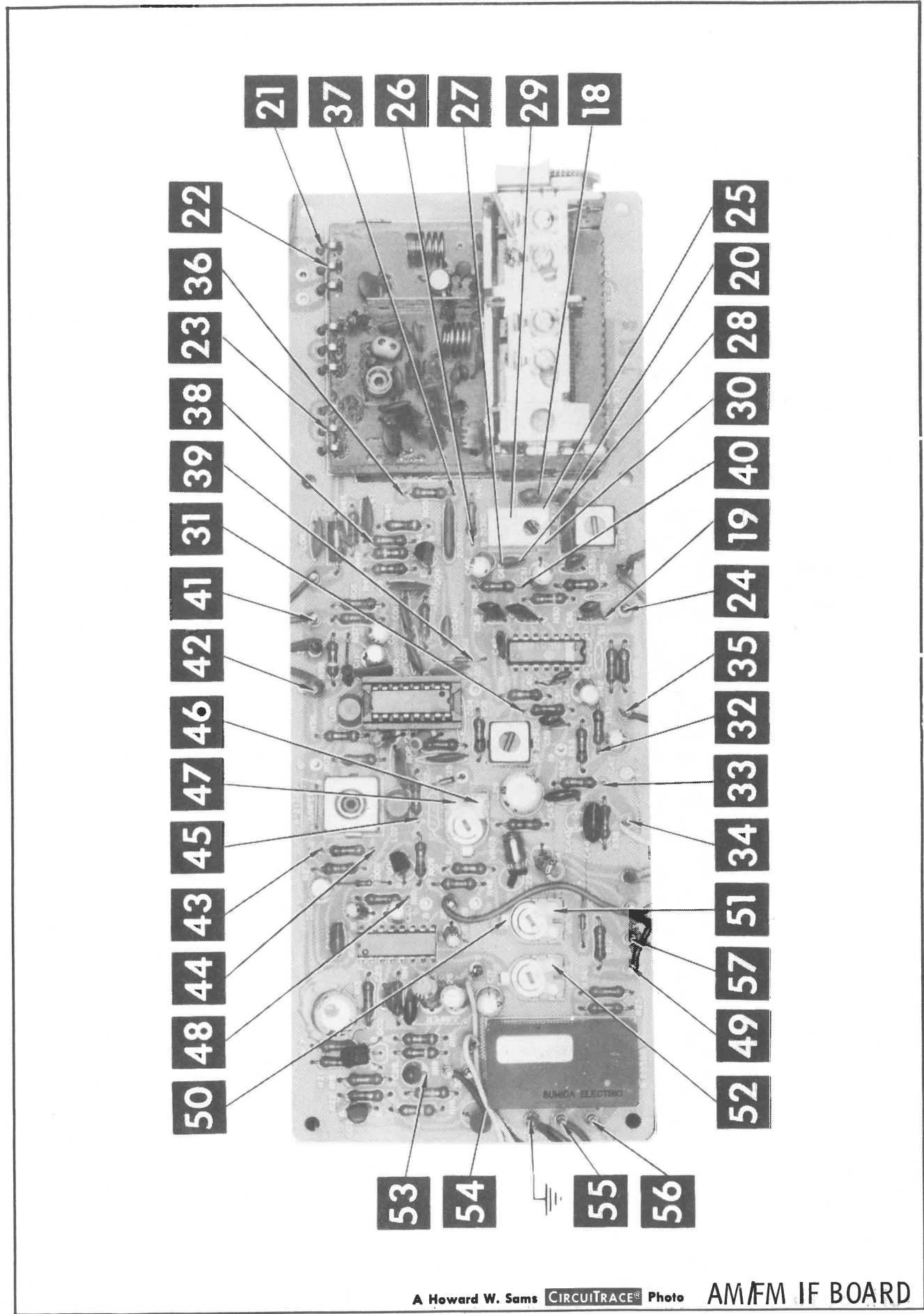
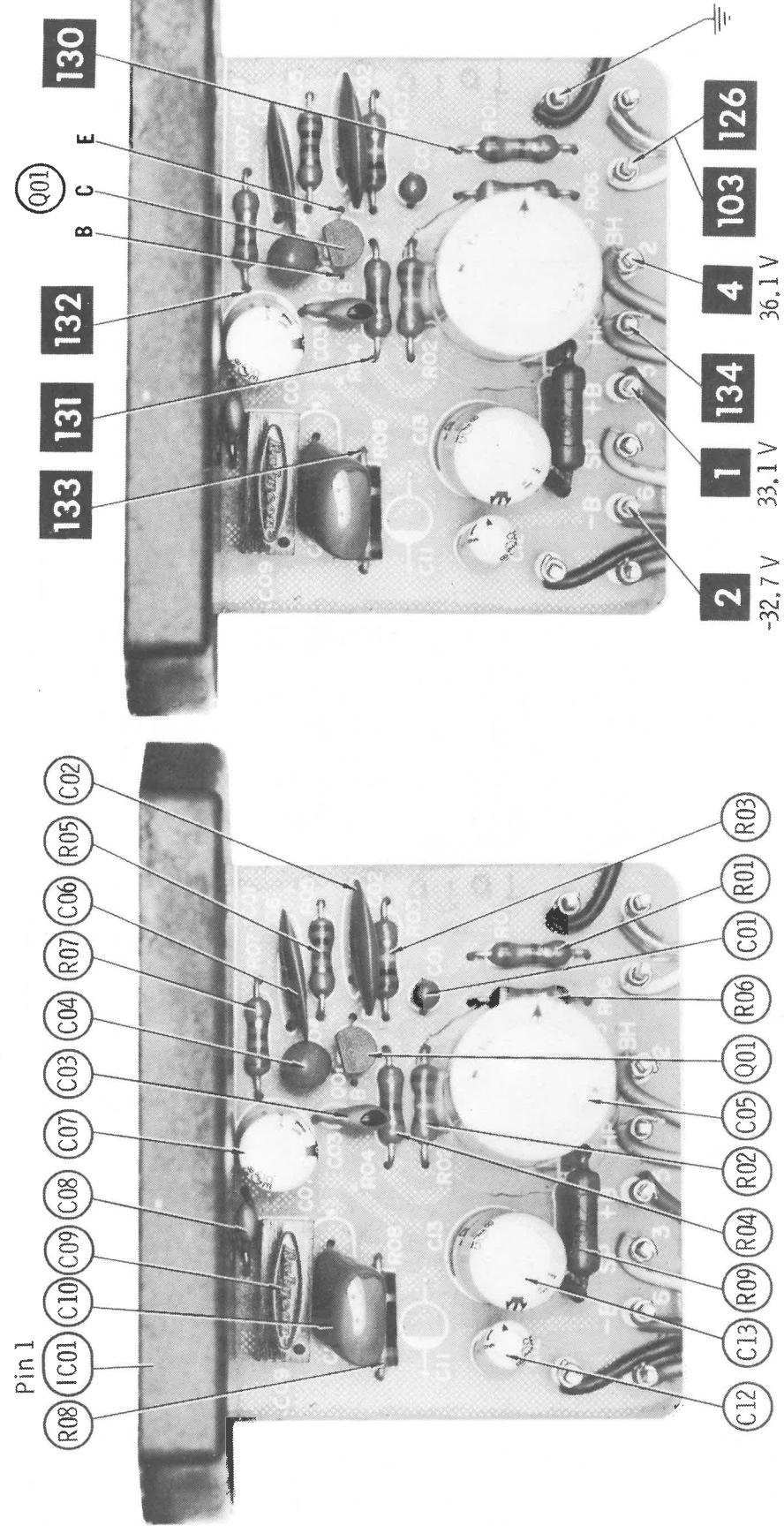


■ FM Stereo Broadcast

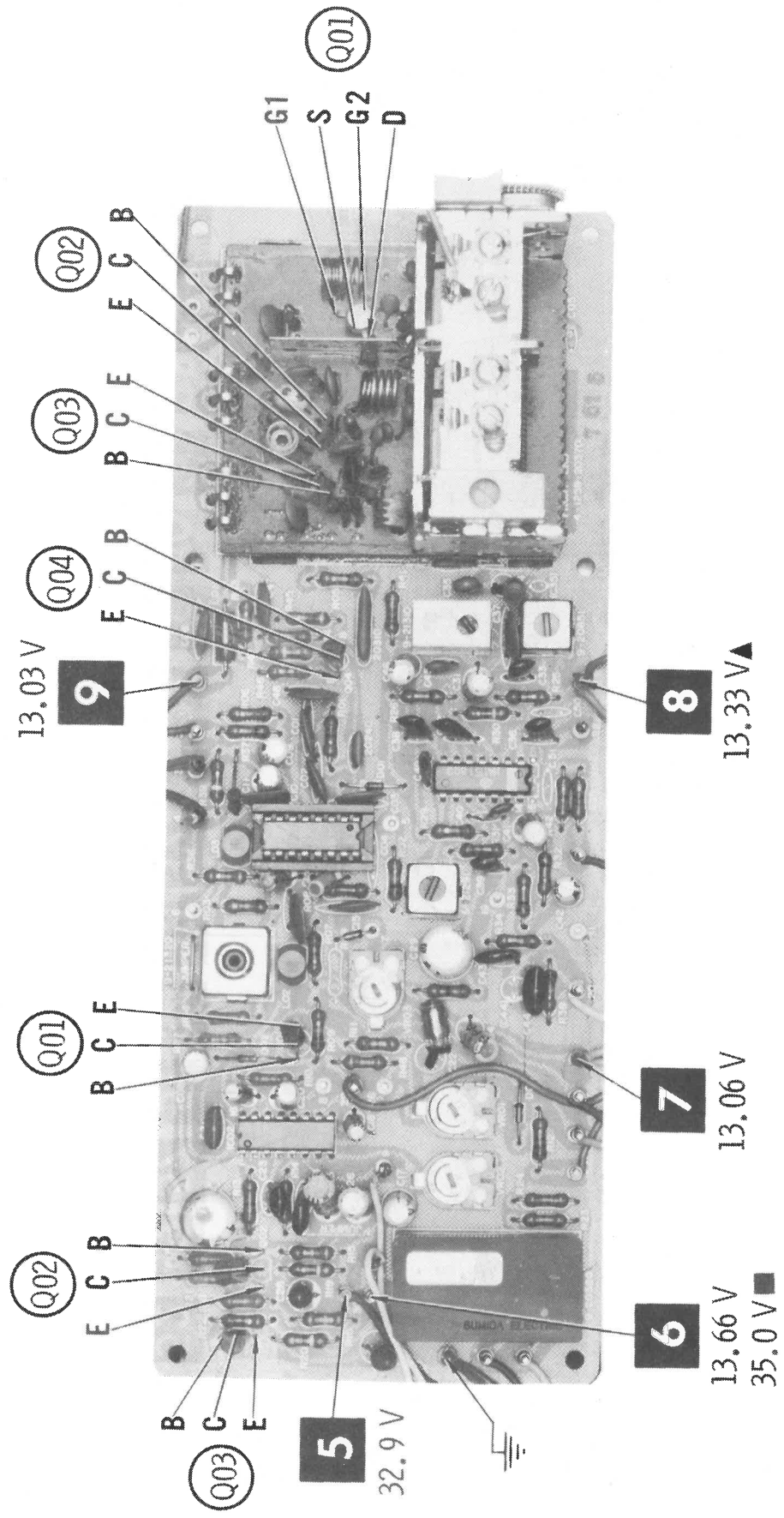
A Howard W. Sams CIRCUITRACE® Photo POWER SUPPLY BOARD



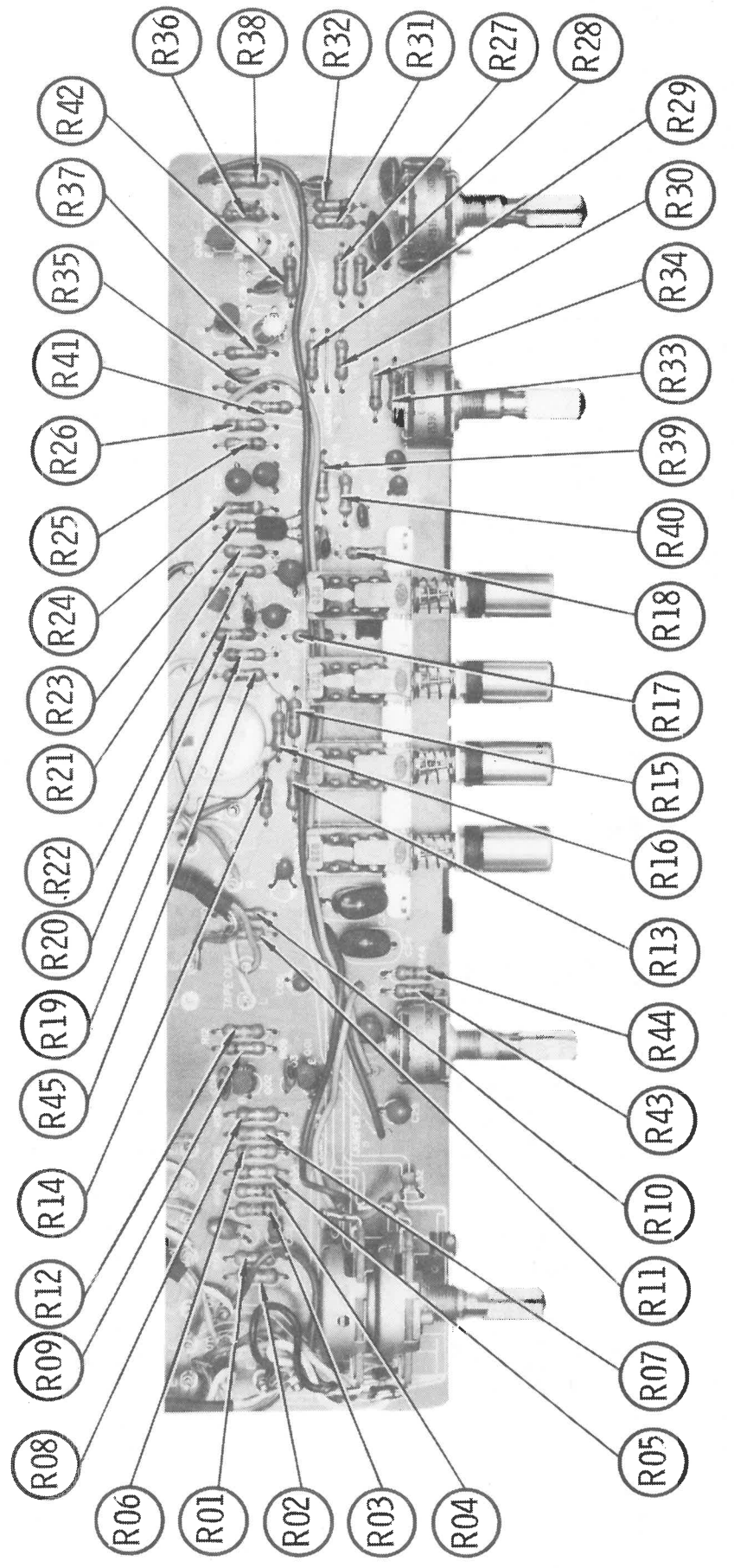
POWER AMP BOARD: A Howard W. Sams CIRCUITRACE® Photo



A Howard W. Sams CIRCUITRACE® Photo AM/FM IF BOARD

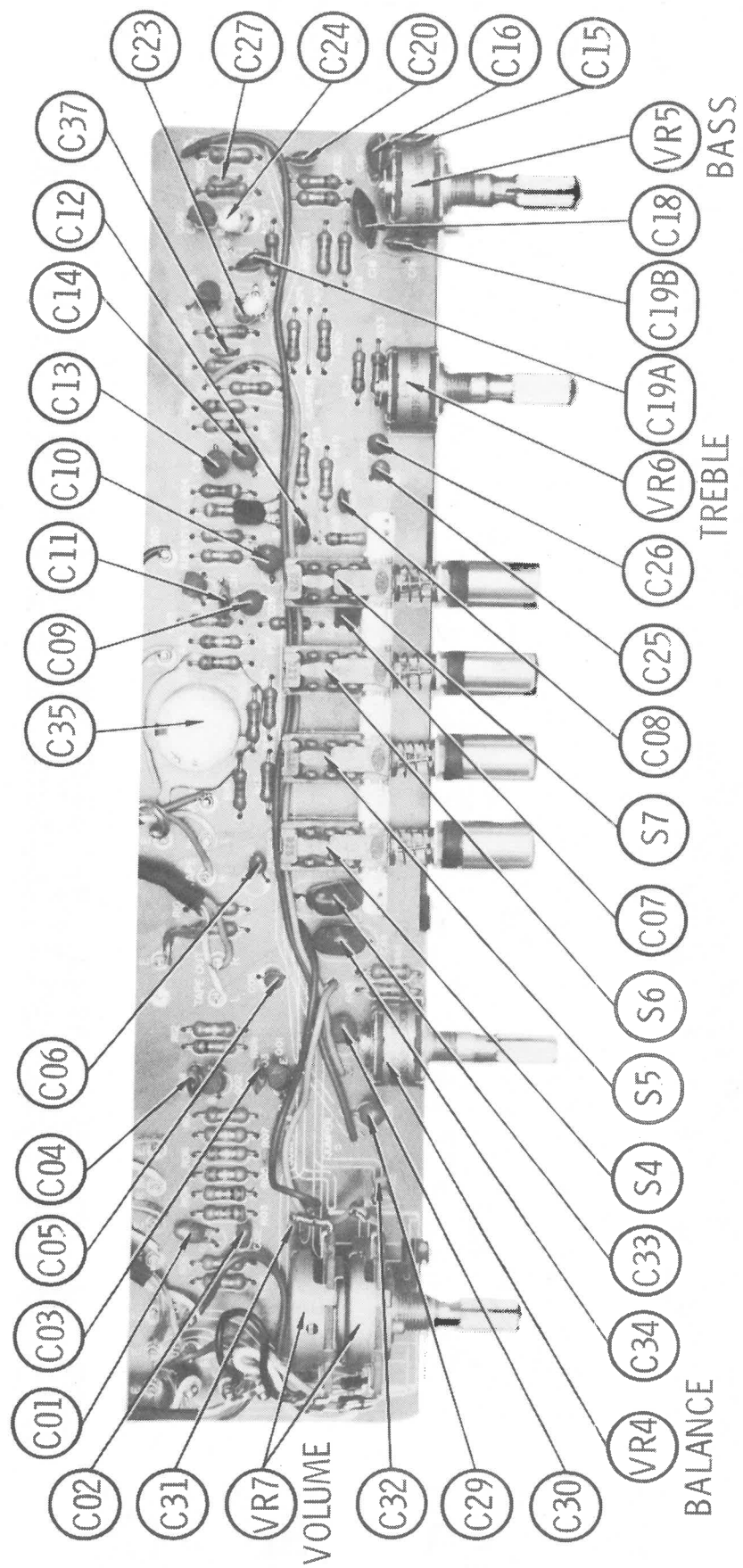


▲ AM  
 ■ FM Stereo  
 Broadcast

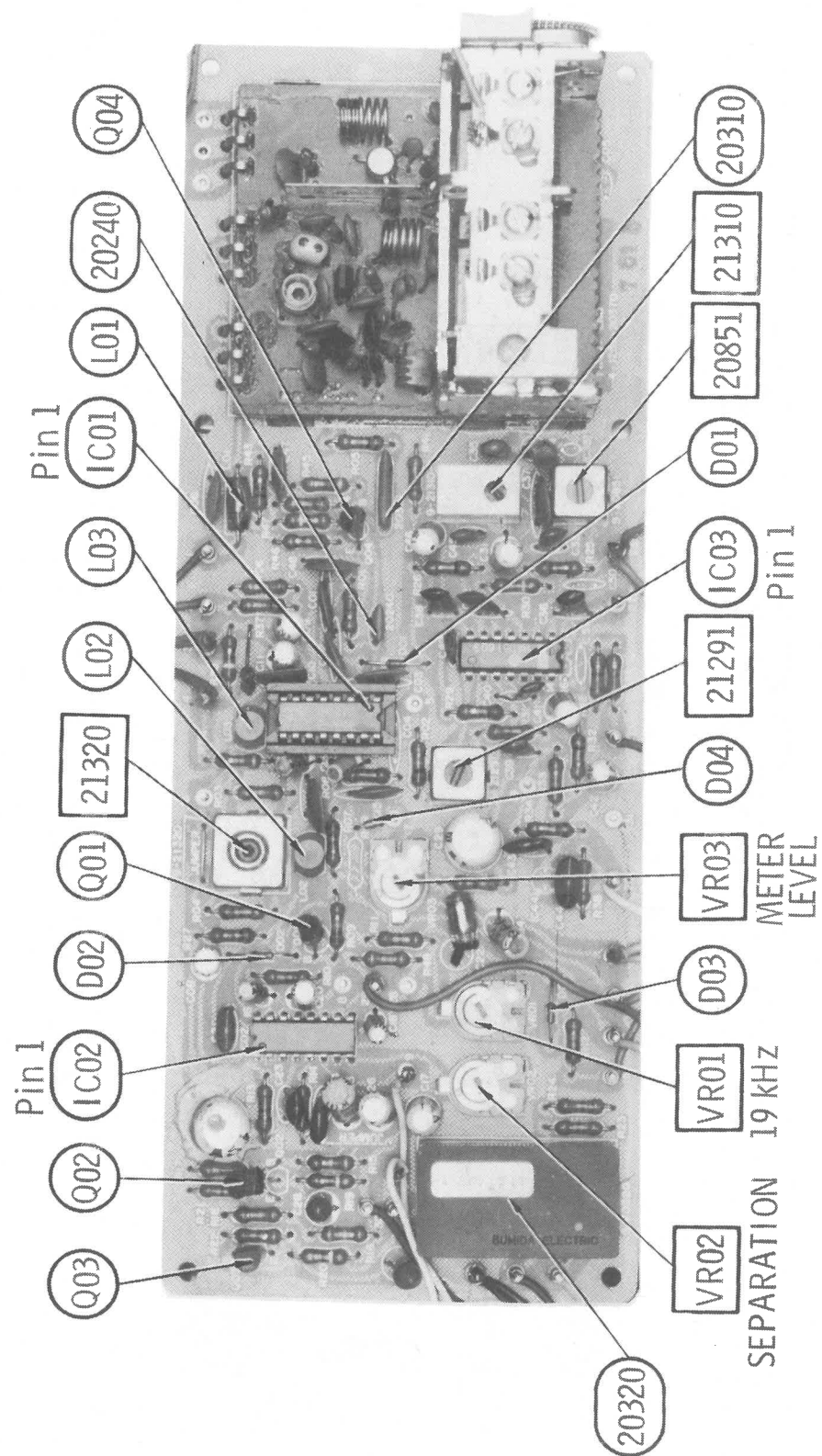


TONE/MODE BOARD

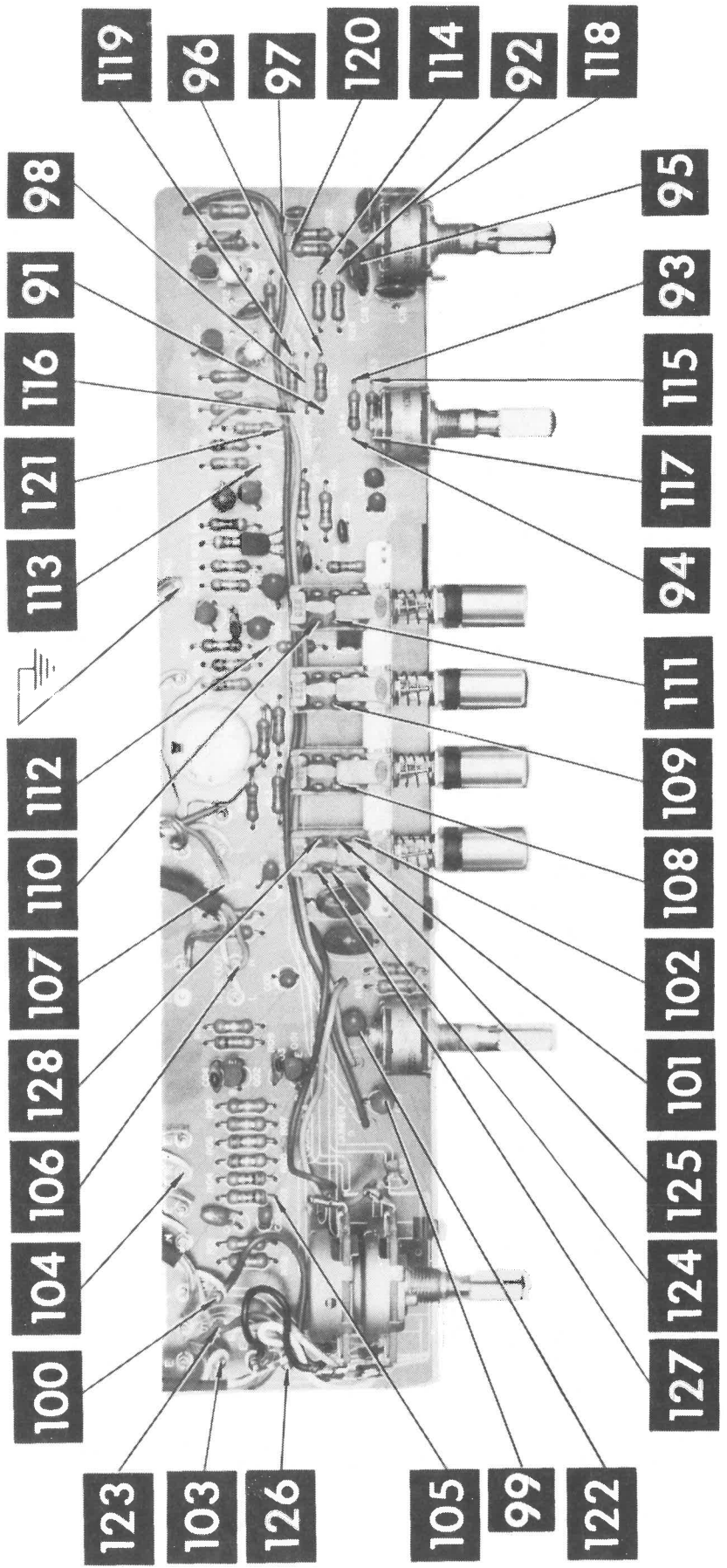
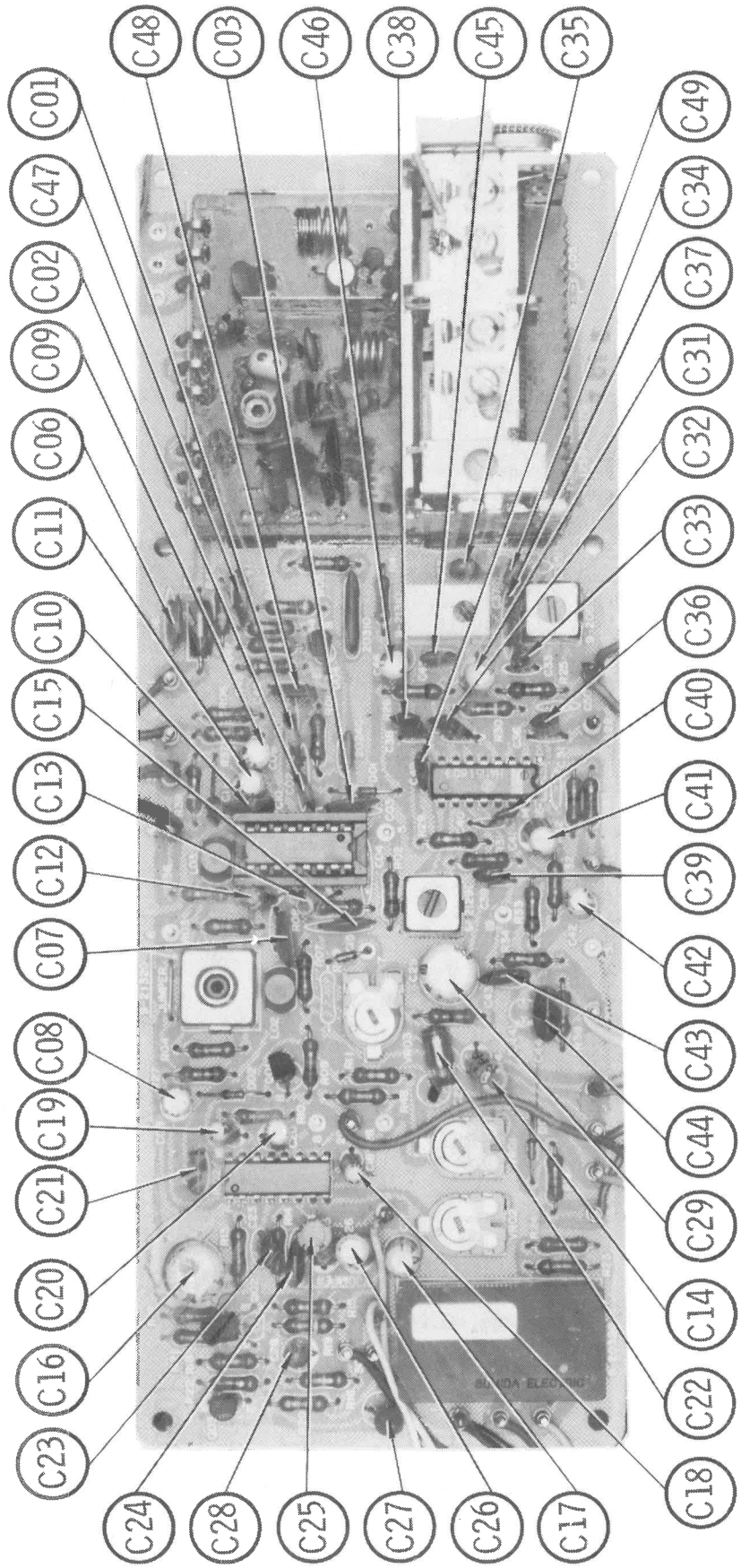
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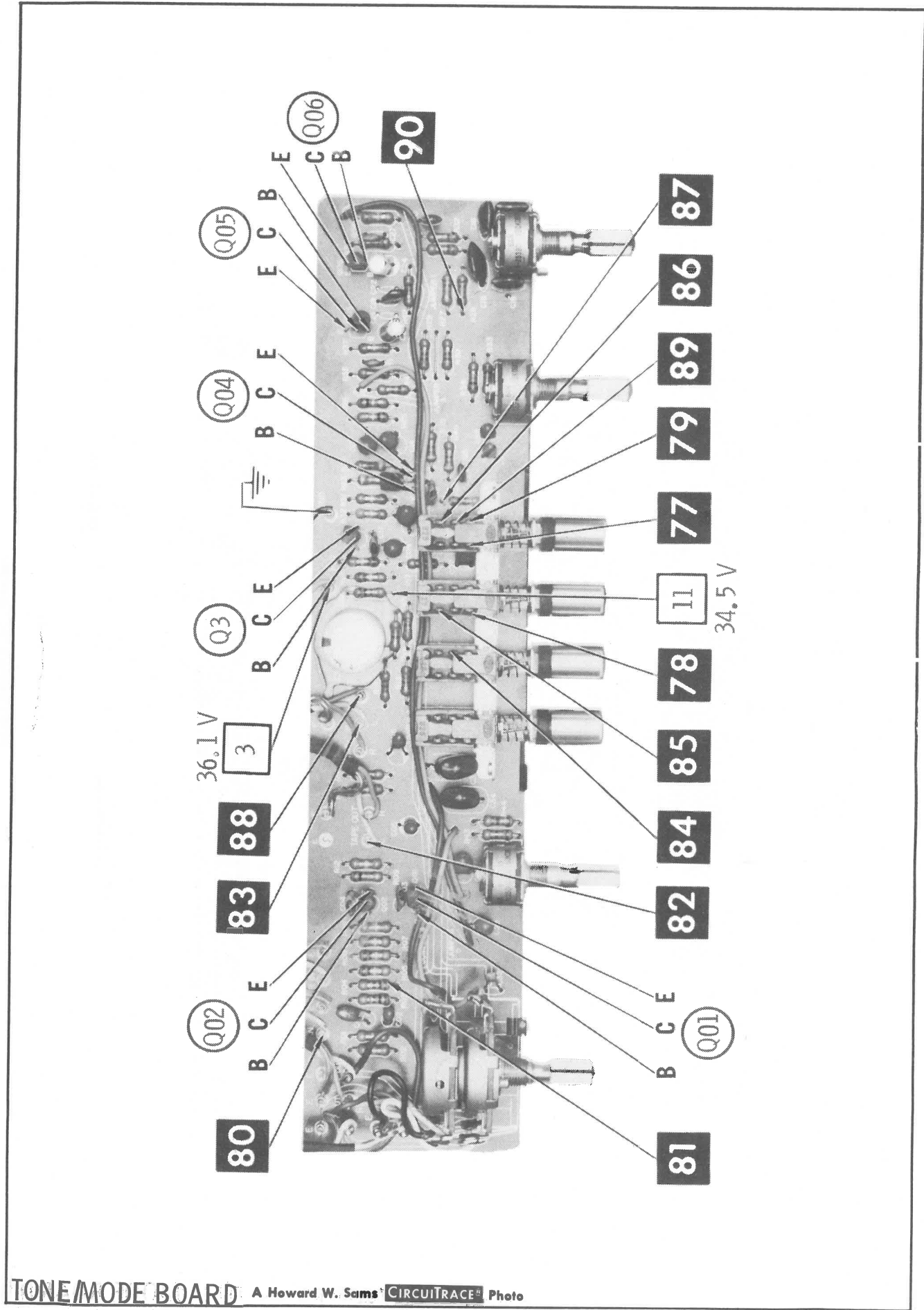
AM/FM IF BOARD



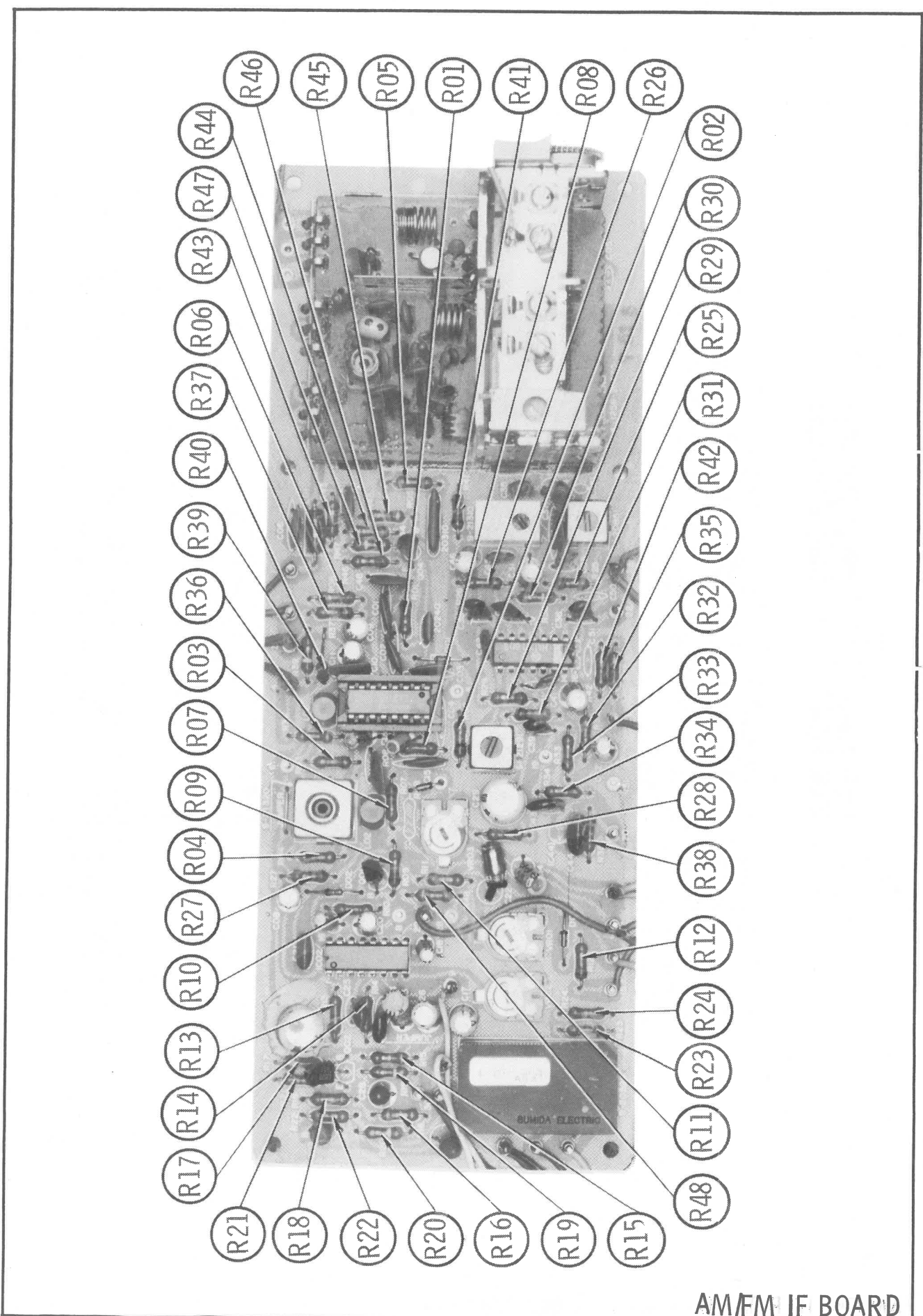
AM/FM IF BOARD



A Howard W. Sams CIRCUITRACE® Photo TONE/MODE BOARD



TONE/MODE BOARD A Howard W. Sams CIRCUITRACE Photo



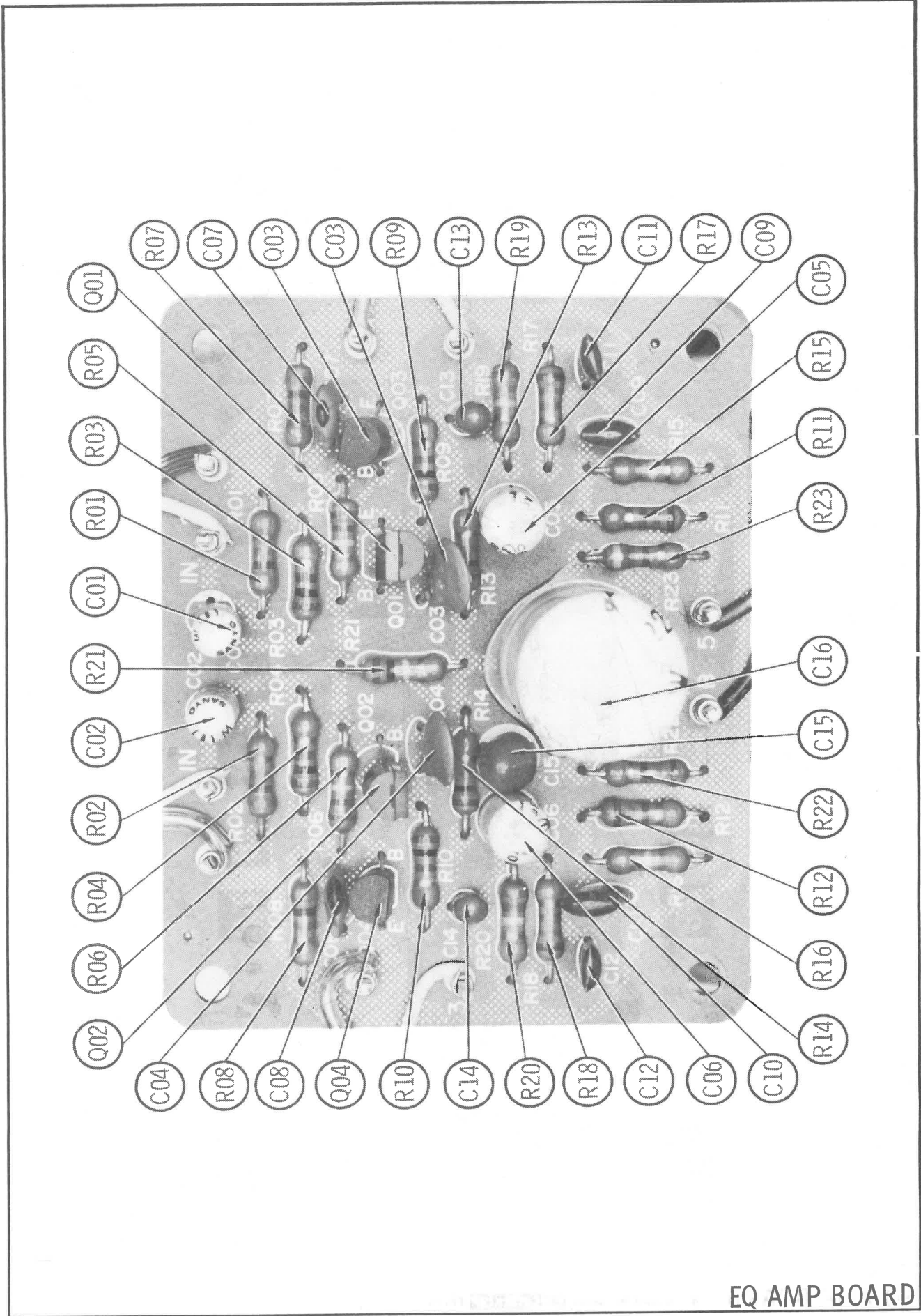
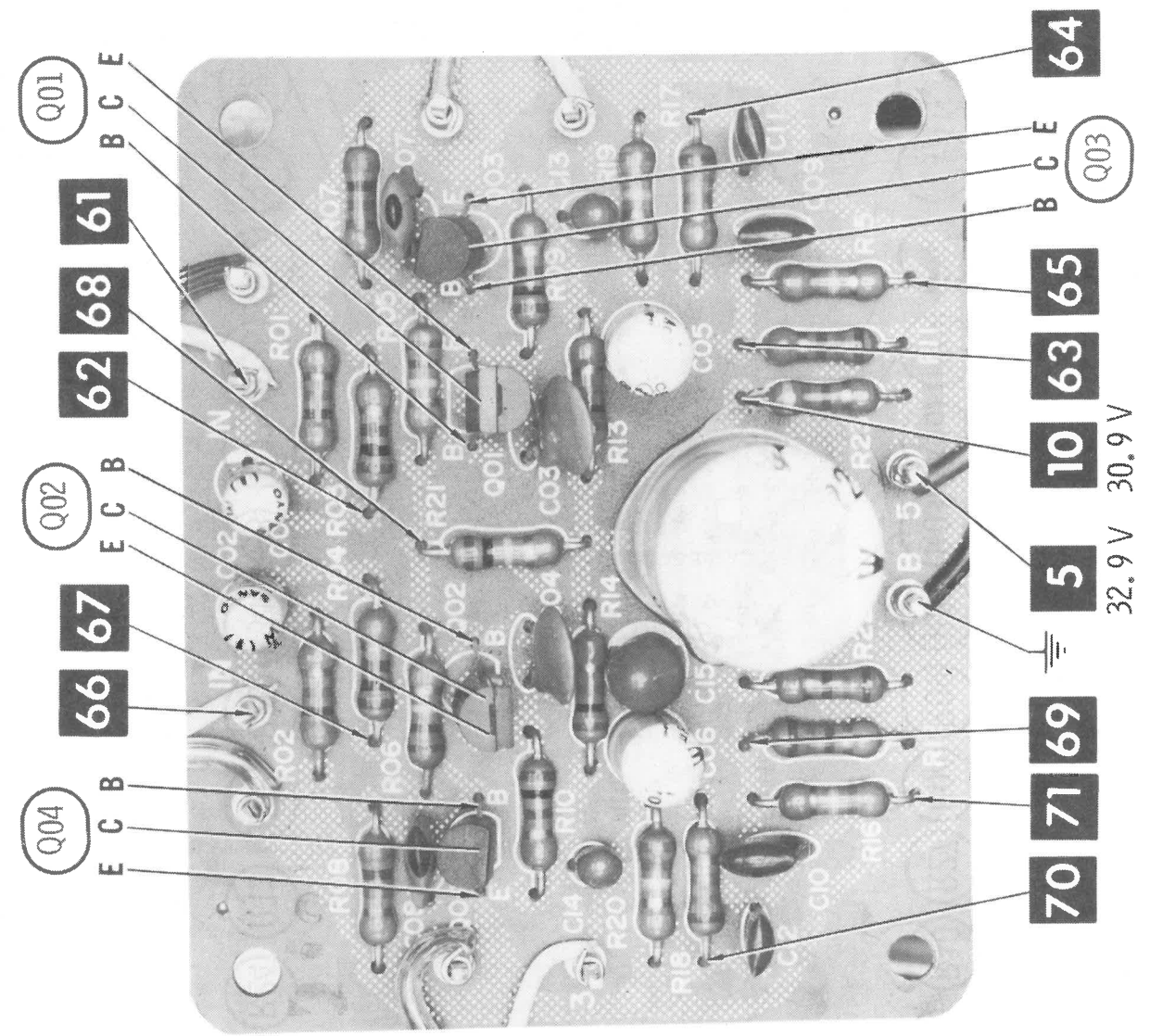
AM/FM IF BOARD

SEARS  
MODEL 143.92531600

FOLDER 3

EQ AMP BOARD

A Howard W. Sams CIRCUITRACE® Photo



EQ AMP BOARD