



PHOTOFACT[®] with

CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index

NOTE

Repair or adjustment of transmitter circuits must be under supervision of a person with first-or second-class radiotelephone license.

(Refer to FCC Rules and Regulations Part 95, Subpart C & D.)

The frequency of the transmitter should be checked periodically with a secondary frequency standard to insure proper and legal operation.

Best results will be obtained when adjusting the final RF output circuit if the antenna normally used is connected and the chassis is as nearly in the cabinet as possible.

Connect either 50-ohm dummy load or the normally used antenna system.



MODEL 8008

MANUFACTURER'S SPECIFICATIONS

GENERAL

Number of Channels	40
Operating Voltage	13.8V DC $\pm$ ground
Frequency Range	26.965 to 27.405 MHz
Microphone	Dynamic, with plug-in connector
Speaker	75mm (3") round dynamic, 8 Ω
Antenna Impedance	50 Ω
Dimensions-HxWxL	Approximately 46 x 165 x 230 mm (1-7/8x6-5/8x9 inches)
Weight	Approximately 1.8 kg (4 lbs.) with accessories

RECEIVER

Certification	Part 15, Sub-part C
Sensitivity	0.5 μ V for 10 dB $\frac{s+n}{n}$
Adjacent Channel Rejection	50 dB minimum
Spurious Rejection (Major Image)	50 dB minimum
Squelch Sensitivity (Threshold)	1 μ V minimum
Audio Output	3 W

TRANSMITTER

Compliance	FCC Data 8008, Part 95
Power Output	4 W (maximum legal power)
Modulation	85% minimum guaranteed sine wave (typically 95%)
Harmonic Suppression (TV Interference)	-60 dB minimum

Specifications subject to change without notice.

Courtesy of the Manufacturer

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

© 1978 Howard W. Sams & Co., Inc. Printed in U. S. of America 8CE667

PAGE MODEL 8008

ALIGNMENT INSTRUCTIONS

CAUTION: Use isolation transformer or observe polarity when connecting test equipment. Maintain line voltage at 120V AC. Allow a 15-minute warm-up period.
Adjustments made with 13.8-volt DC input.
Connect low sides of test equipment to ground unless specified otherwise.
Connect 50-ohm dummy load or antenna before keying transmitter.
Suggested Alignment Tools: GC ELECTRONICS
L4, L7, T3 thru T7, T15 5009
T1, T2, T8, T11 thru T14, T16, T17 9440

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP1.	Ch. 19	T8	Adjust for 10.240MHz.
	Ch. 19, Xmit		Check for 10.238MHz.
Input of DC meter to TP2.	Ch. 19	T11	Adjust for 2.65 volts.
Input of DC meter to TP2.	Ch. 19, Xmit		Check for 3.70 volts.
Input of RF VTVM to TP10 (Q23, G2).	Ch. 19	T16	Adjust for maximum RF voltage.
Input of RF VTVM to TP11 (Q16, Collector).	Ch. 19	T12	Adjust for maximum RF voltage.
Input of frequency counter to TP11 (Q16, Collector).	Ch. 1		Check for 16.270MHz. Check all channels (channel frequency - 10.695MHz = frequency on counter).
Input of RF VTVM to TP12 (junction of C327 and C416).	Ch. 19, Xmit	T17	Adjust for maximum RF voltage.
Input of frequency counter to TP12 (junction of C327 and C416).	Ch. 1, Xmit		Check for 16.727MHz. Repeat for all channels. (Channel frequency - 10.238MHz = frequency on counter).

RECEIVER ALIGNMENT

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication.
Set generator output low enough to prevent AGC limiting.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP1. 455kHz, 1000Hz @ 30% modulation.	Ch. 19 Squelch MIN	T7,T6,T5	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19 Squelch MIN	T4,T3,T2,T1	Adjust for maximum output. If necessary, readjust T5, T6, and T7.

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 5000uV.	Ch. 19	R116	SQUELCH RANGE Set squelch control R137 fully clockwise. Adjust R116 so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19	R133	S METER Adjust R133 for 9 on S scale of meter.

TRANSMITTER ALIGNMENT

Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.
NOTE: Be sure to check transmit frequency and power on all active channels after alignment of transmitter.
See page 4 for channel frequencies.

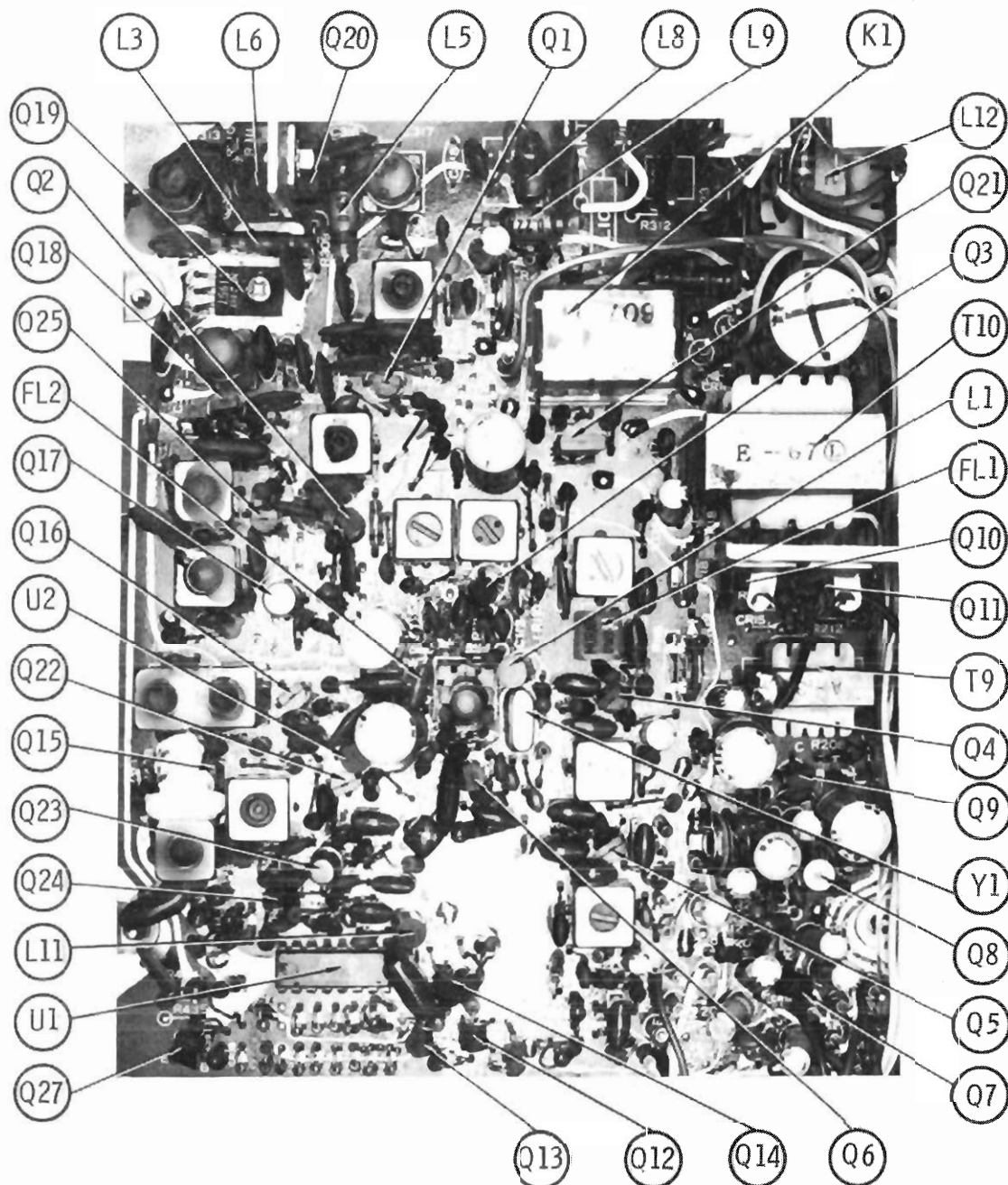
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
	Ch. 19	T13,T14,T15, L4,L7	Adjust for maximum.
	Ch. 19	L7	Adjust for 4 watts maximum.

TRANSMITTER ADJUSTMENTS

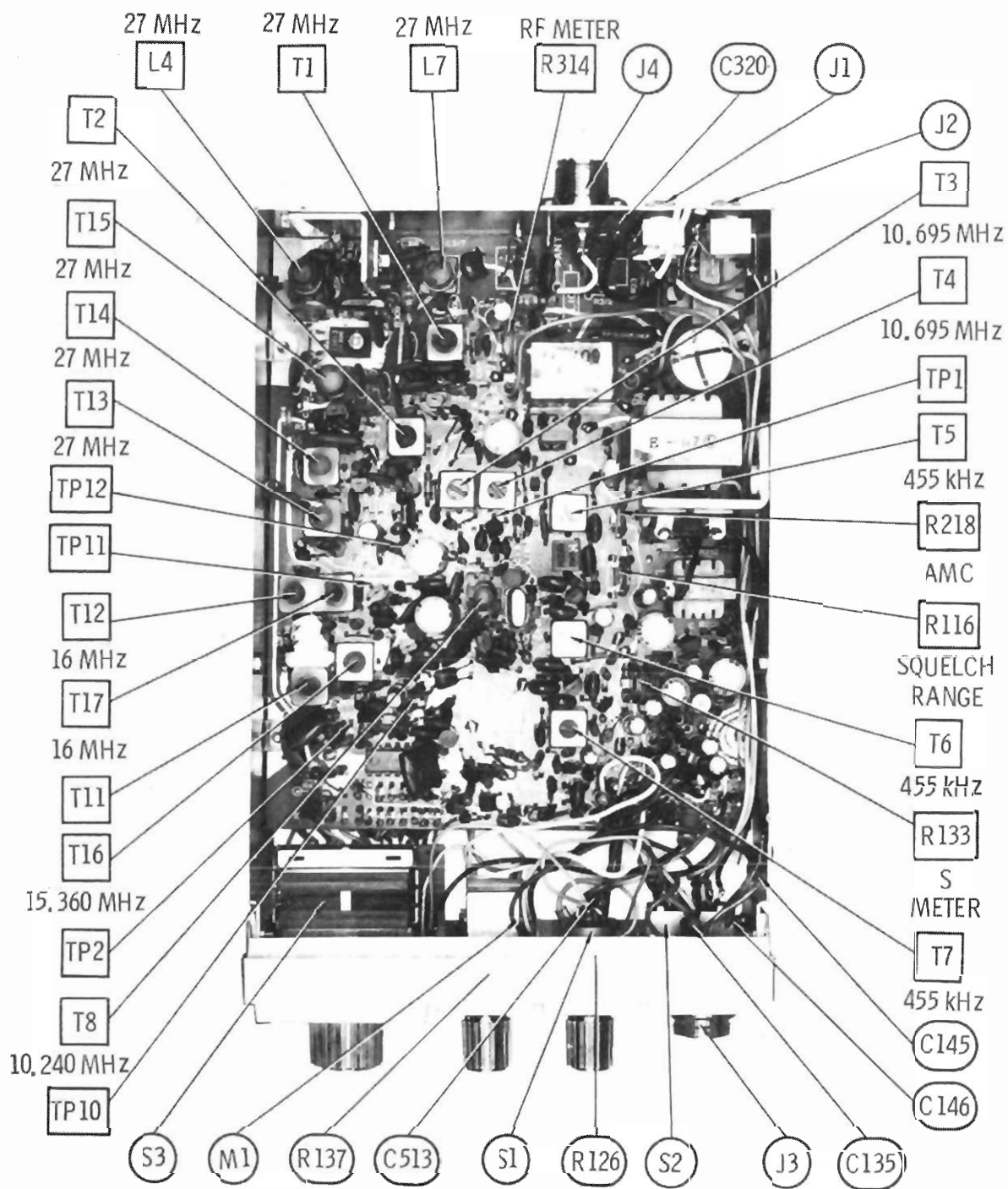
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.
NOTE: Be sure to check transmit frequency and power on all active channels after adjustment of transmitter.
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Modulation meter to antenna jack. Inject a 1000Hz, 15mV signal at mic input.	Ch. 19	R218	AMC Adjust R218 for 95% modulation.
Connect an RF wattmeter and 50-ohm, 25 watt dummy load to antenna connector.	Ch. 19	R314	RF PANEL METER Adjust R314 so that RF panel meter agrees with RF wattmeter.

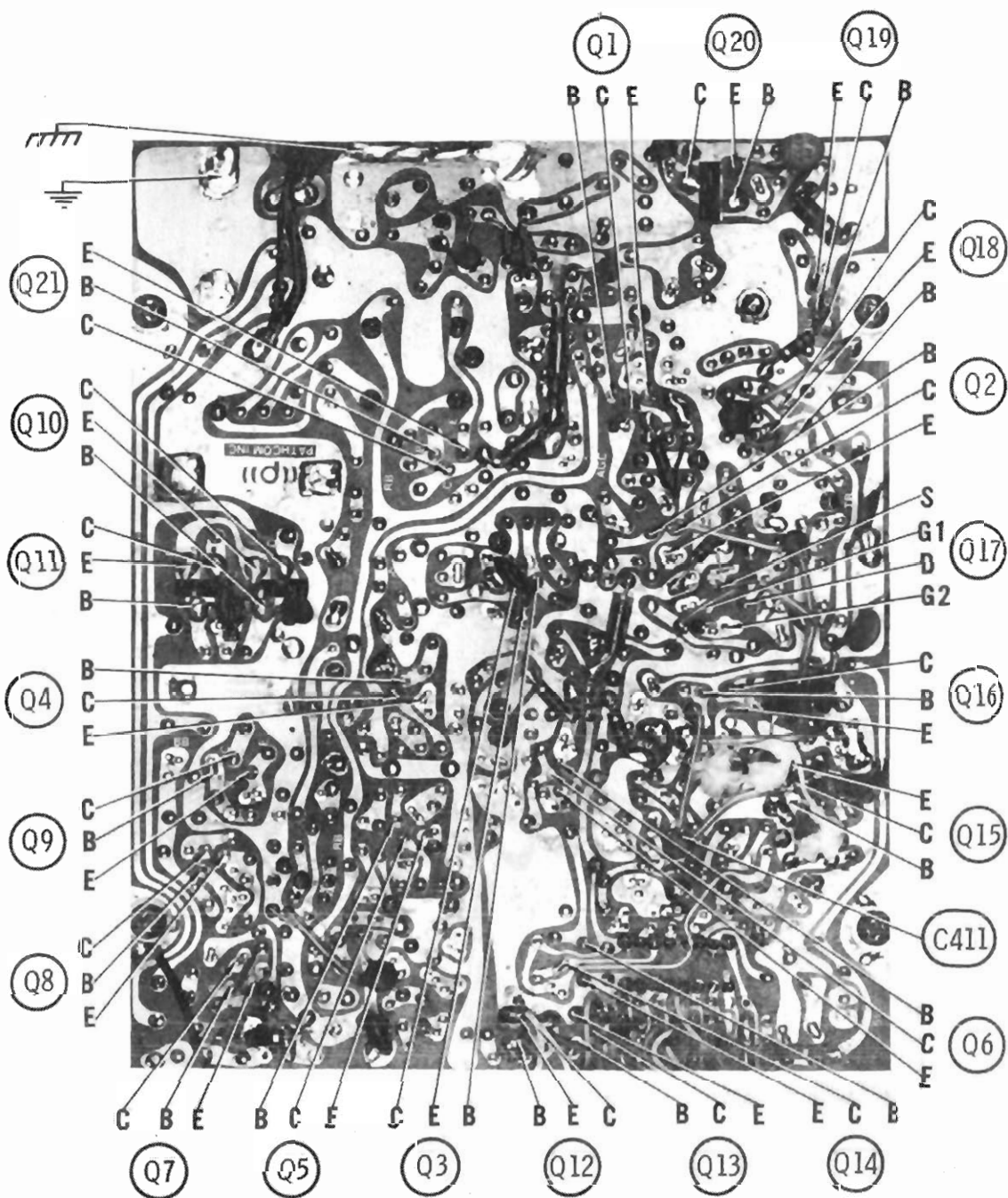
PAGE MODEL 8008



MAIN BOARD



CHASSIS-BOTTOM



MAIN BOARD

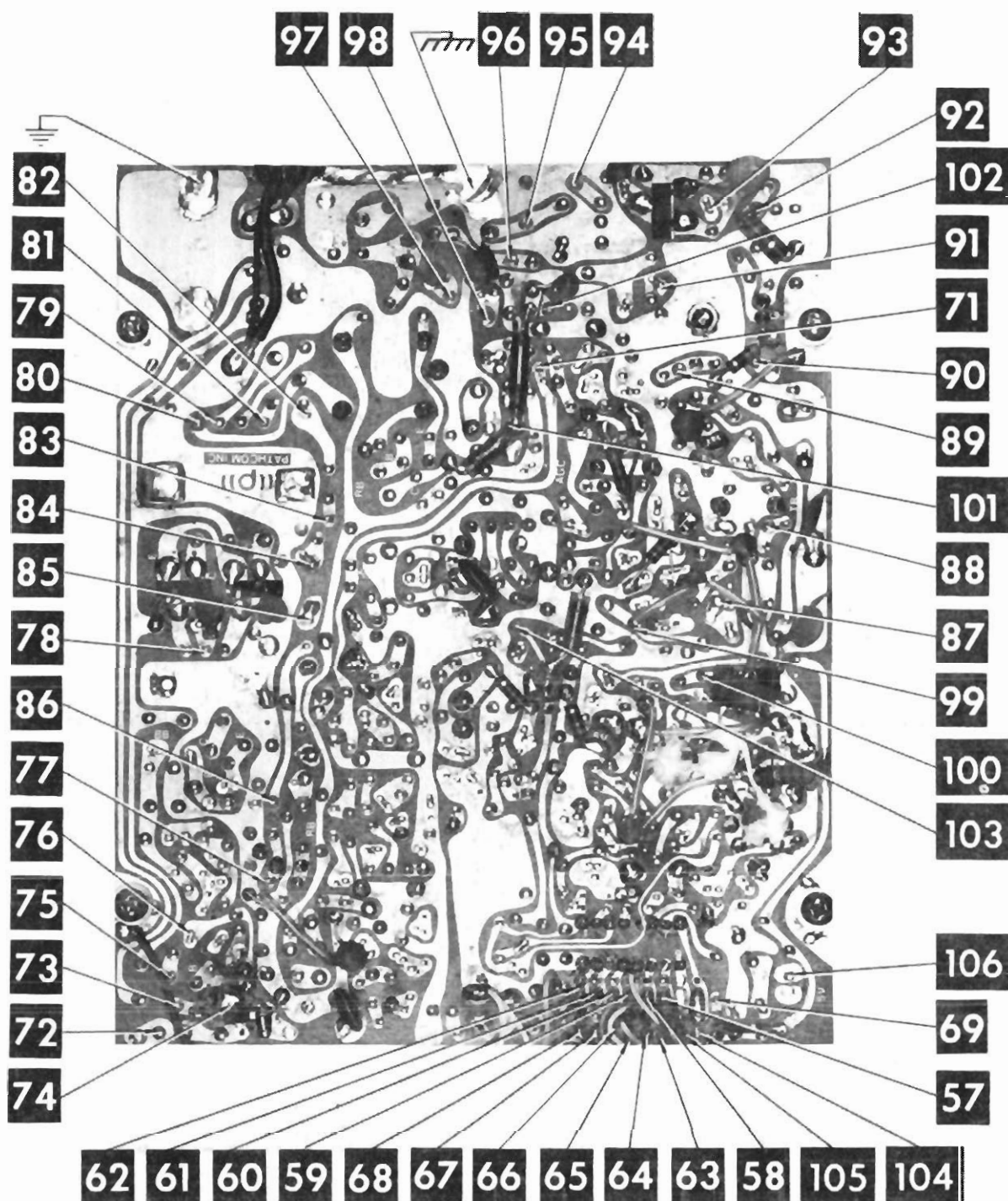


MAIN BOARD

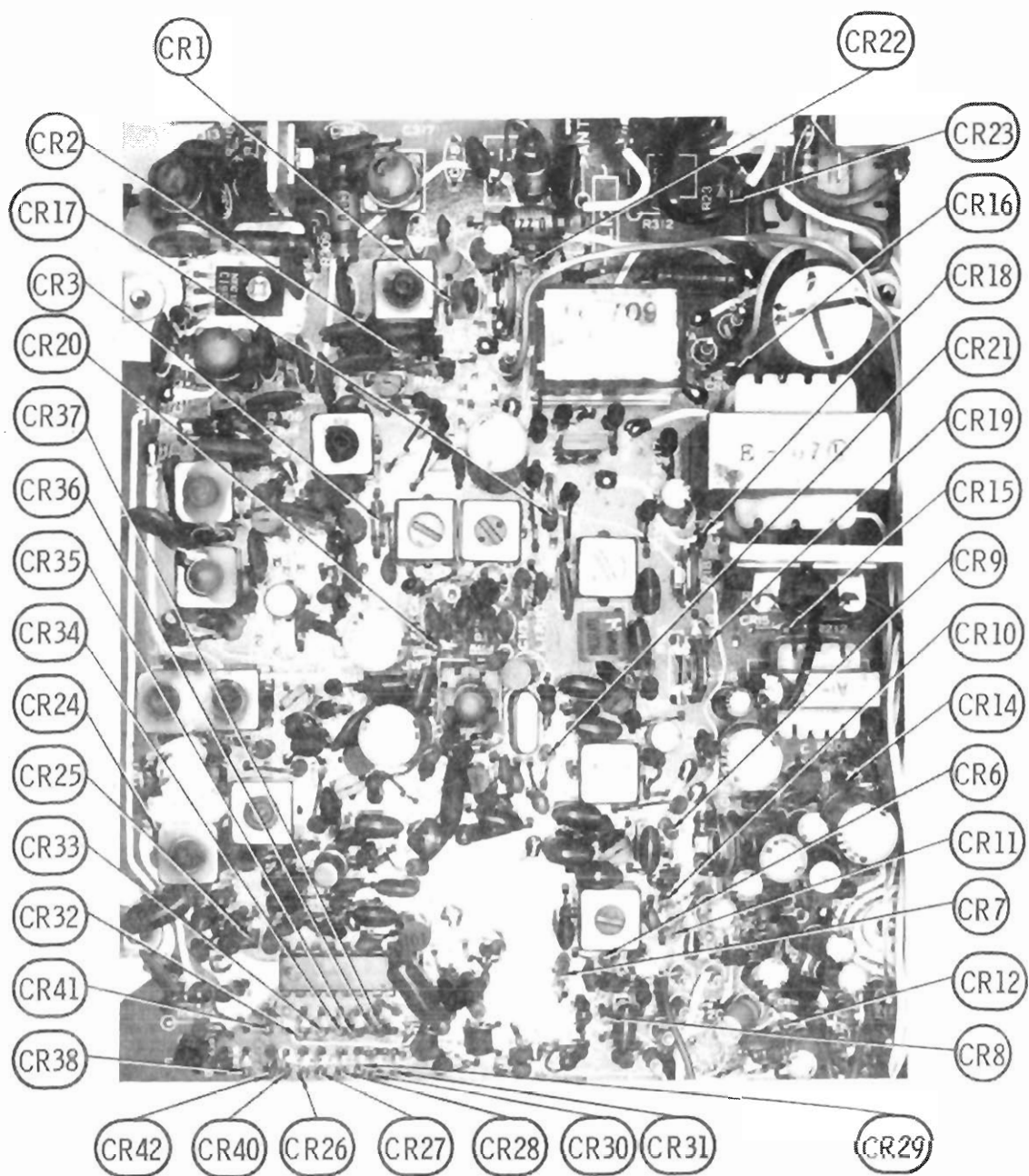


MAIN BOARD

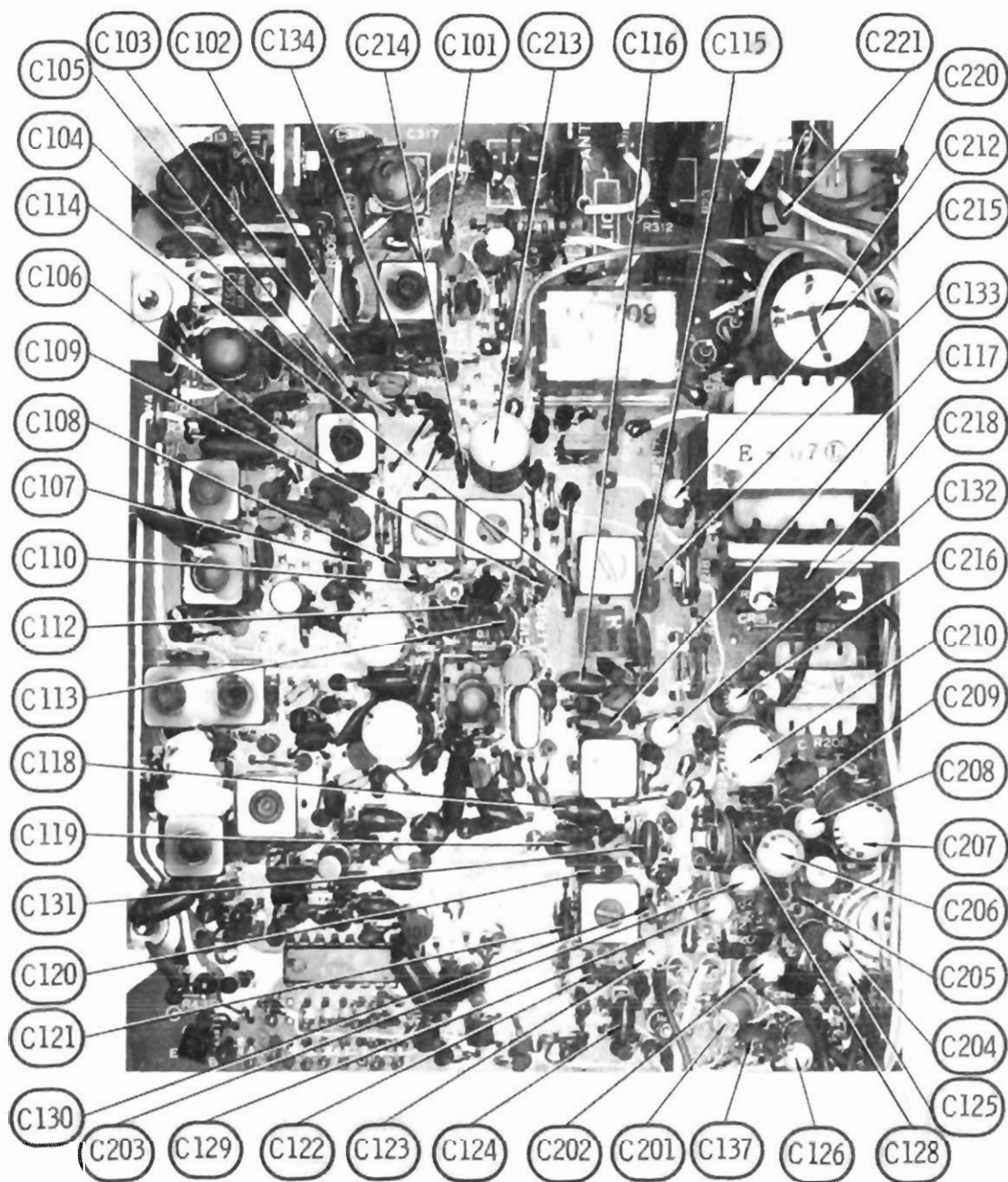
PAGE MODEL 8008



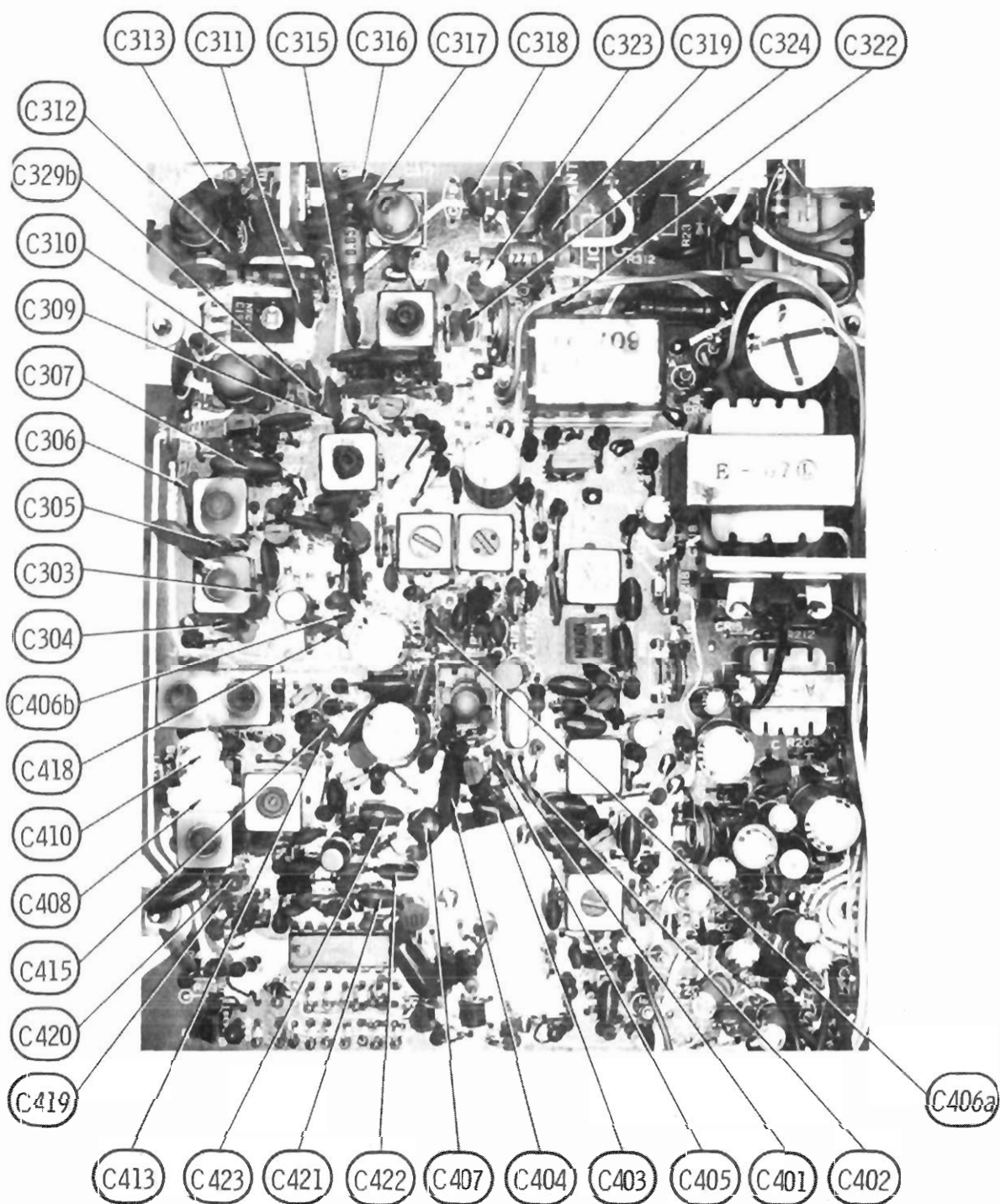
MAIN BOARD



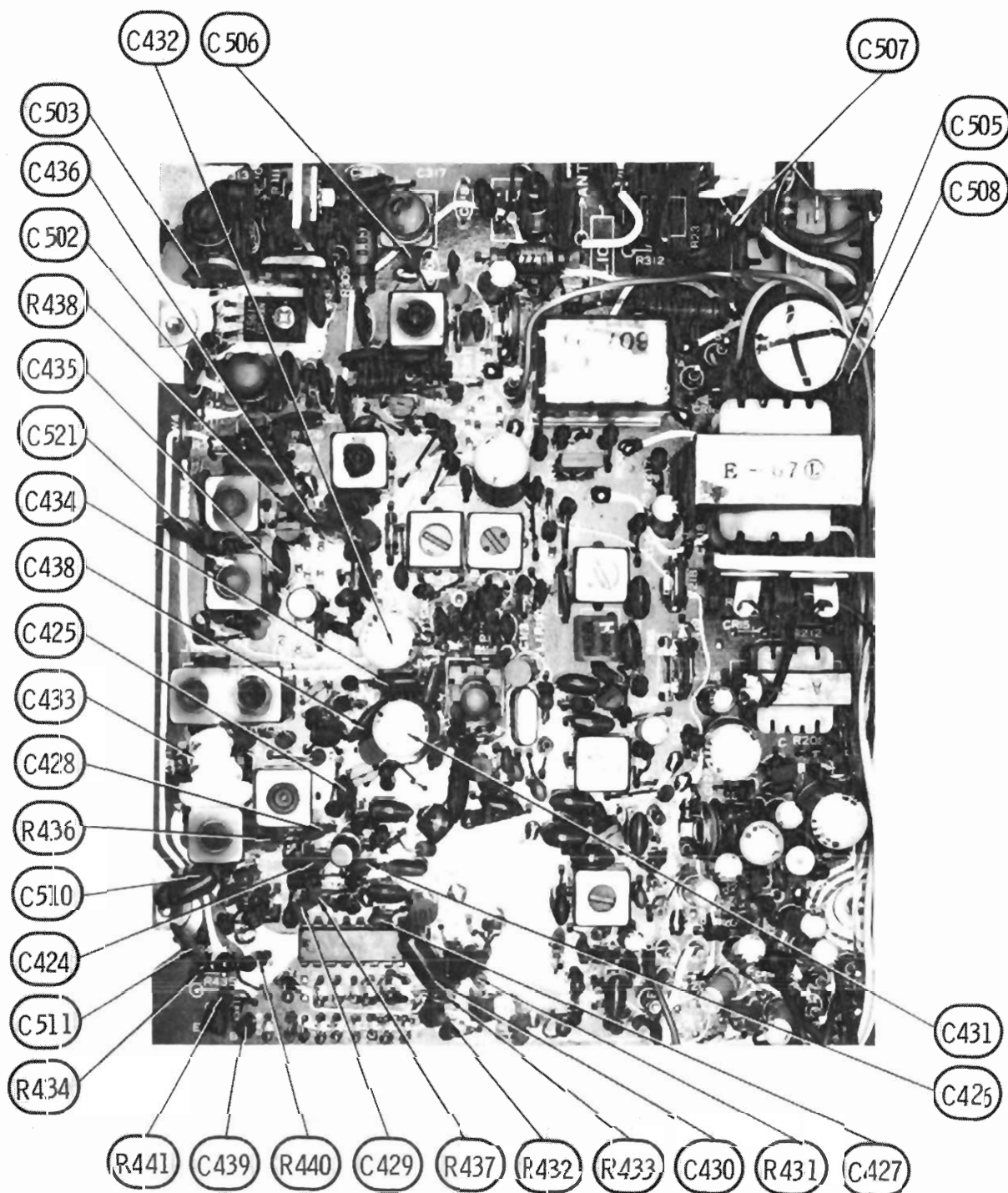
MAIN BOARD



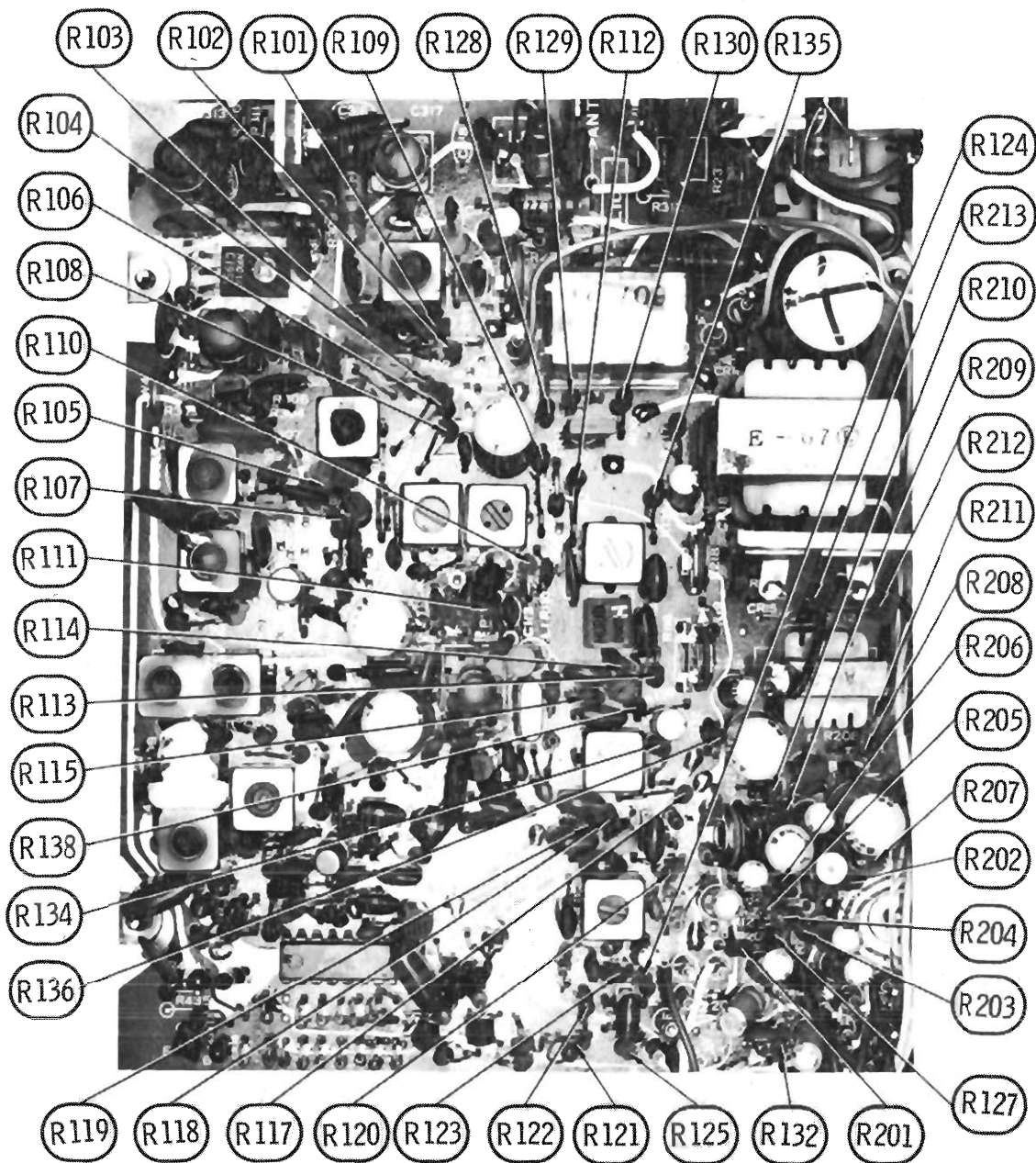
MAIN BOARD



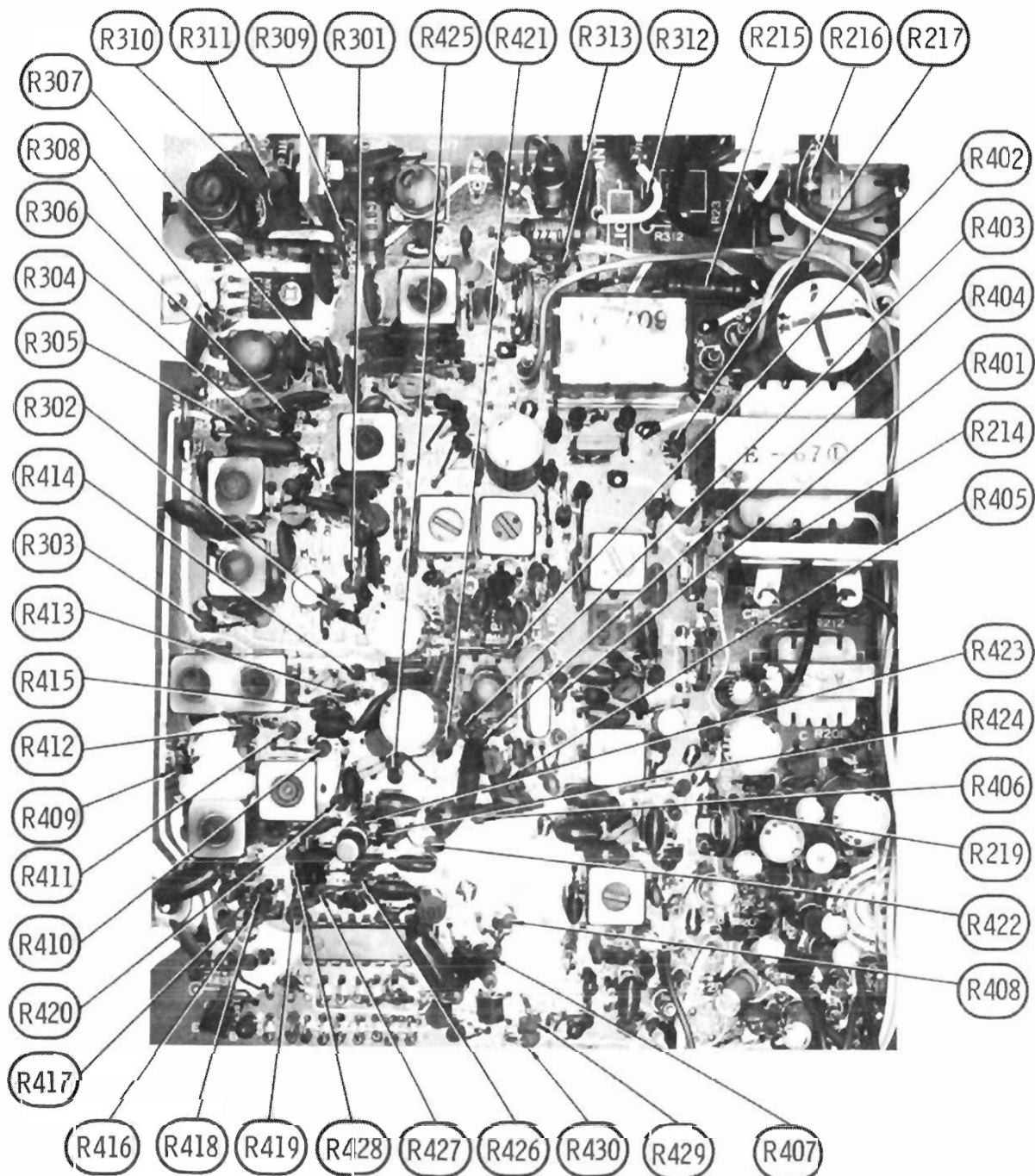
MAIN BOARD



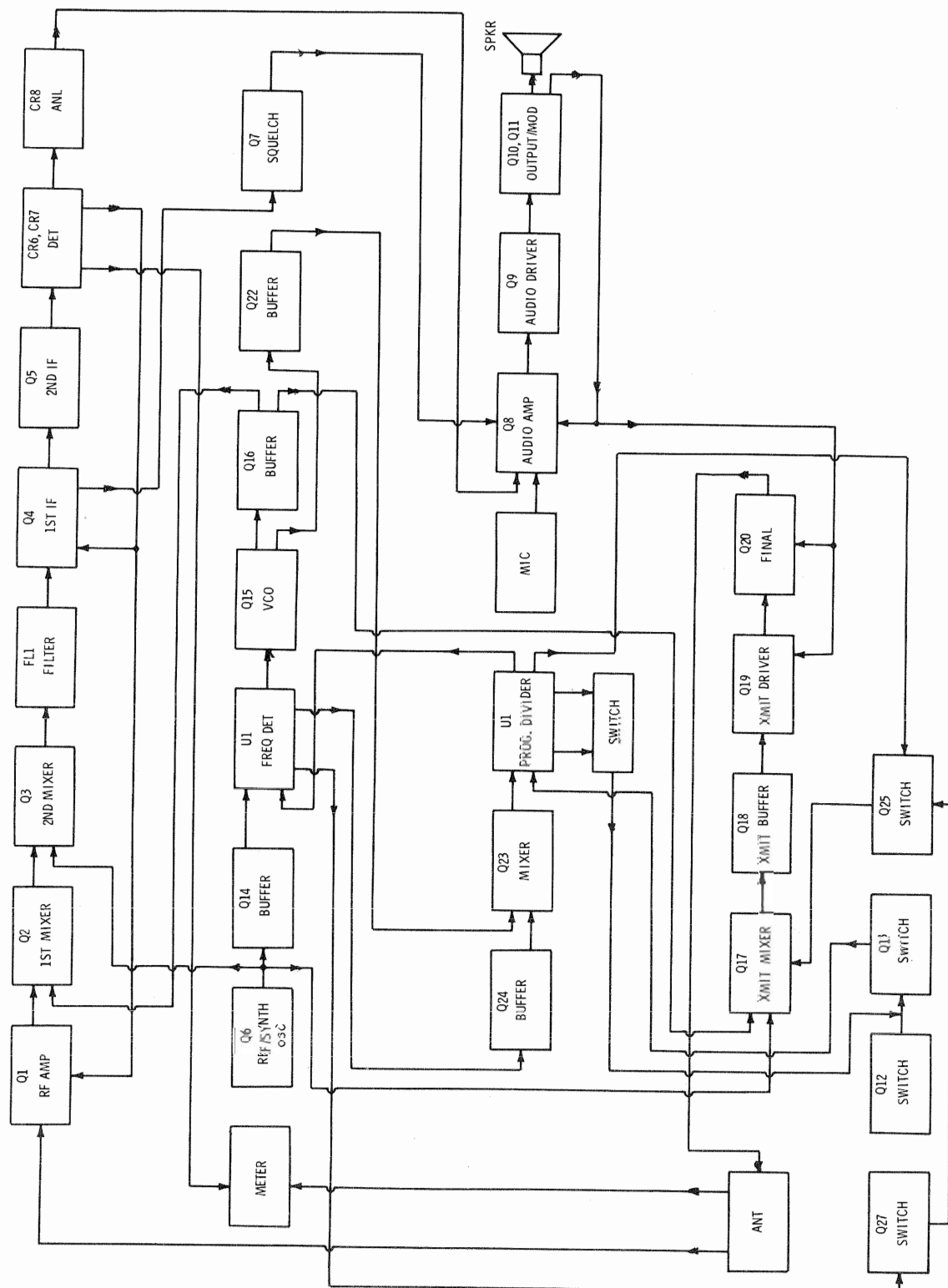
MAIN BOARD



MAIN BOARD



MAIN BOARD



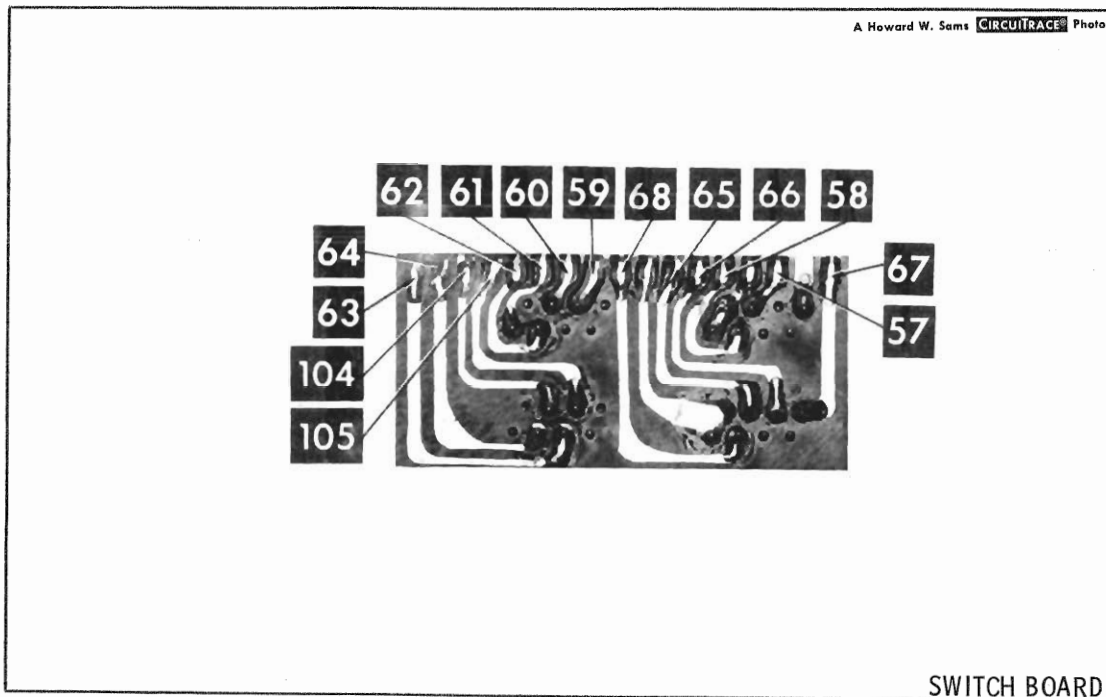
BLOCK DIAGRAM

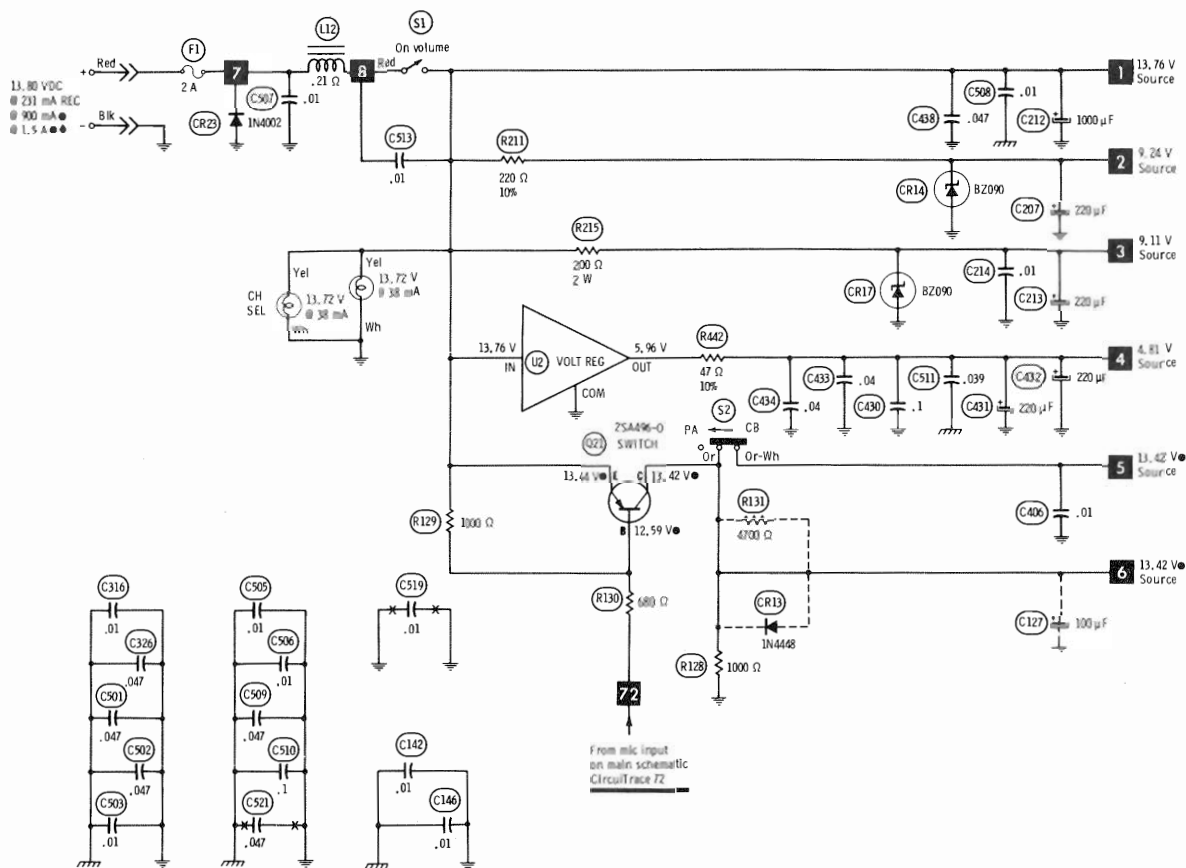
TRUTH CHART

1 = <u>4.50</u> Volts 0 = <u>0</u> Volts									
C H A N N E L	U1 PROGRAM DIVIDER							REC VCO OUTPUT IN MHz AT TP11	XMIT VCO OUTPUT IN MHz AT TP12
	PINS								
	9	10	11	12	13	14	15		
1	1	0	1	1	0	1	1	16.270	16.727
2	1	0	1	1	1	0	0	16.280	16.737
3	1	0	1	1	1	0	1	16.290	16.747
4	1	0	1	1	1	1	1	16.310	16.767
5	1	1	0	0	0	0	0	16.320	16.777
6	1	1	0	0	0	0	1	16.330	16.787
7	1	1	0	0	0	1	0	16.340	16.797
8	1	1	0	0	1	0	0	16.360	16.817
9	1	1	0	0	1	0	1	16.370	16.827
10	1	1	0	0	1	1	0	16.380	16.837
11	1	1	0	0	1	1	1	16.390	16.847
12	1	1	0	1	0	0	1	16.410	16.867
13	1	1	0	1	0	1	0	16.420	16.877
14	1	1	0	1	0	1	1	16.430	16.887
15	1	1	0	1	1	0	0	16.440	16.897
16	1	1	0	1	1	1	0	16.460	16.917
17	1	1	0	1	1	1	1	16.470	16.927
18	1	1	1	0	0	0	0	16.480	16.937
19	1	1	1	0	0	0	1	16.490	16.947
20	1	1	1	0	0	1	1	16.510	16.967

1 = <u>4.50</u> Volts 0 = <u>0</u> Volts									
C H A N N E L	U1 PROGRAM DIVIDER							REC VCO OUTPUT IN MHz AT TP11	XMIT VCO OUTPUT IN MHz AT TP12
	PINS								
	9	10	11	12	13	14	15		
21	1	1	1	0	1	0	0	16.520	16.977
22	1	1	1	0	1	0	1	16.530	16.987
23	1	1	1	1	0	0	0	16.560	17.017
24	1	1	1	0	1	1	0	16.540	16.997
25	1	1	1	0	1	1	1	16.550	17.007
26	1	1	1	1	0	0	1	16.570	17.027
27	1	1	1	1	0	1	0	16.580	17.037
28	1	1	1	1	0	1	1	16.590	17.047
29	1	1	1	1	1	0	0	16.600	17.057
30	1	1	1	1	1	0	1	16.610	17.067
31	1	1	1	1	1	1	0	16.620	17.077
32	1	1	1	1	1	1	1	16.630	17.087
33	0	0	0	0	0	0	0	16.640	17.097
34	0	0	0	0	0	0	1	16.650	17.107
35	0	0	0	0	0	1	0	16.660	17.117
36	0	0	0	0	0	1	1	16.670	17.127
37	0	0	0	0	1	0	0	16.680	17.137
38	0	0	0	0	1	0	1	16.690	17.147
39	0	0	0	0	1	1	0	16.700	17.157
40	0	0	0	0	1	1	1	16.710	17.167

PAGE MODEL 8008



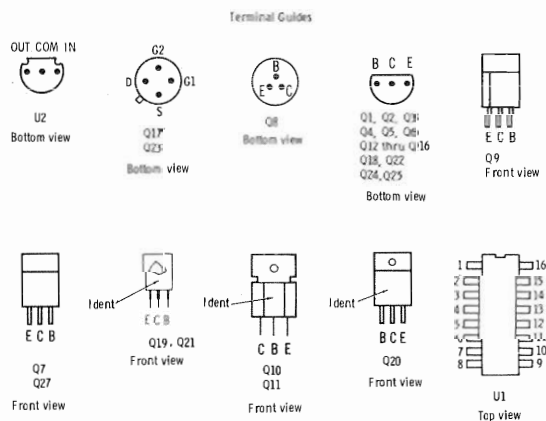


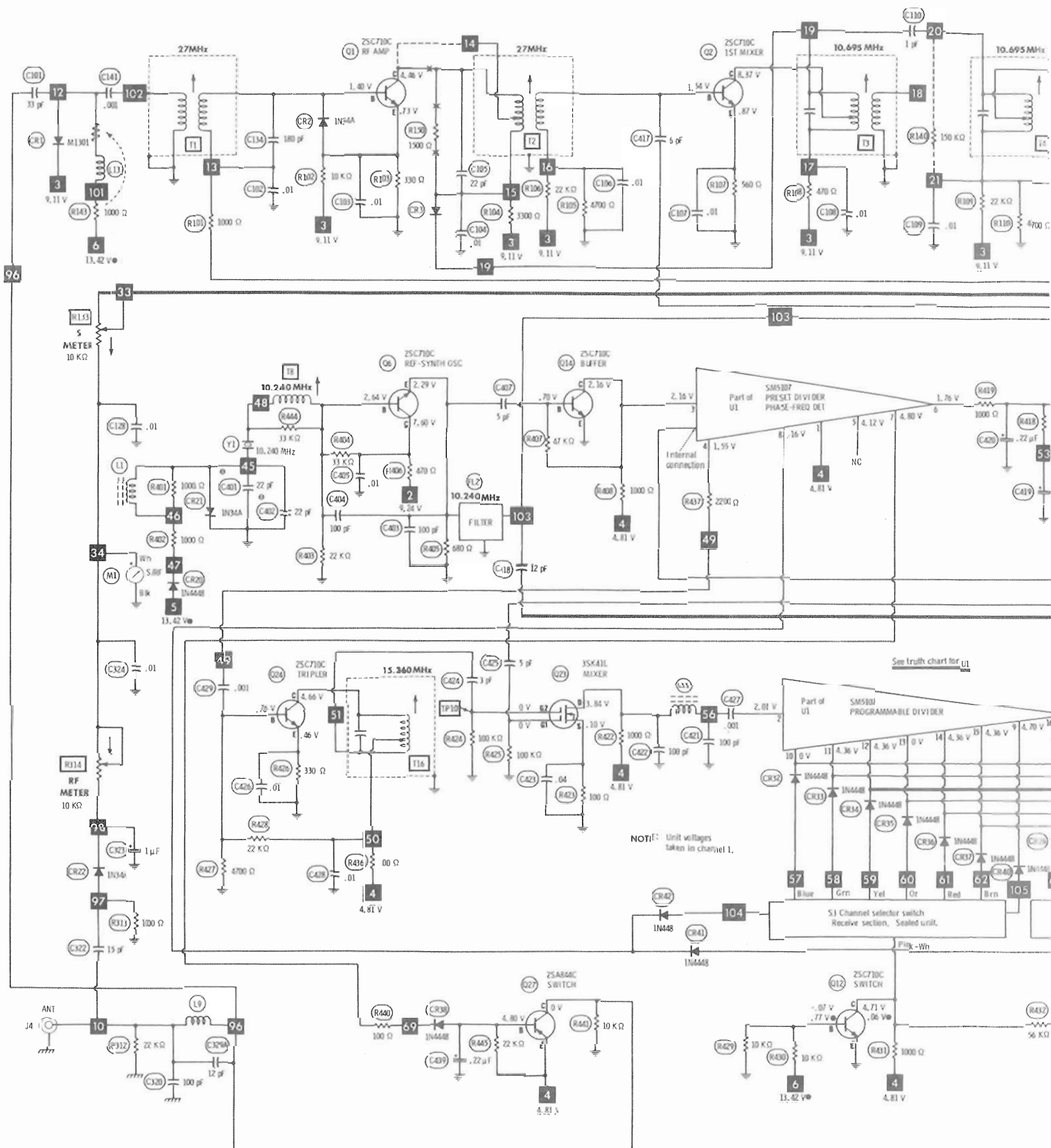
- ✕ Circuitry not used in some versions
 - Circuitry used in some versions
 - ⊖ See parts list
 - ✱ Nominal value
 - ⊕ Ground
 - ⏏ Chassis
 - ▽ Common tie point
- Measurements with switching as shown unless noted:
 ■ Squelch fully clockwise ♦ 100% modulation
 ● Transmit
- Supply voltage maintained as 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.

A PHOTOFAC STANDARD NOTATION SCHEMATIC

WITH **CIRCUITRACE**

© Howard W. Sams & Co., Inc. 1978







PARTS LIST AND DESCRIPTION

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

PARTS L

(When orderi

SEMICO

ITEM No.	TY	Nc
Q20	2SC130	2SC210
Q21	2SA490	2SA490
Q22	2SC710	2SC710
Q23	3SK411	3SK411
Q24	2SC710	2SC710
Q25	2SC710	2SC710
Q27	2SA840	2SA840
U1	5M510	5M510
U2	F78L6	F78L6

* Lead cor
(1) Used in
(11) Rating,
(12) Rating,
(13) Rating,

ELECTR

ITEM No.	
C123	
C125	
C126	
C129	
C132	
C201	
C202	
C203	
C204	
C206	
C207	
C208	
C210	
C212	
C213	
C215	
C216	
C323	
C419	
C420	
C431	
C432	
C439	

CAPACI

ITEM No.	
C101	3
C102	1
C103	1
C104	1
C105	2
C106	1
C107	1
C108	1
C109	1
C110	1
C112	5
C113	1
C114	1
C115	1
C116	1
C117	1
C118	1
C119	1
C120	1
C121	1
C122	1
C124	1
C128	1
C130	1

WIRING DATA

General-use Hook-up Wire (available in 5 colors)	BELDEN No. 8523	Coiled Microphone Cable	
Shielded Hook-up Wire (spiral wrapped)	BELDEN No. 8421	3-conductor (1 shielded)	23AWG BELDEN No. 9471 (5')
(braided)	BELDEN No. 8401		BELDEN No. 8497 (6')
Speaker Cable (available in 4 colors)	BELDEN No. 8782		BELDEN No. 9472 (7-1/2')
Bonding Strap	BELDEN No. 8672		28AWG BELDEN No. 9466 (6')
AC Power Cord	(6') BELDEN No. 17106	4-conductor (unshielded)	23AWG BELDEN No. 8415 (6')
	(9') BELDEN No. 17109	5-conductor (1 shielded)	28AWG BELDEN No. 9467 (6')
			BELDEN No. 9465 (7-1/2')

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.
CR1	M1301	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR2	1N34A	IP20-0015	1N34AS	1N34A	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109
CR3	1N34A	IP20-0015	1N34AS	1N34A	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109
CR6	1N60	IP20-0060	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
CR7	1N60	IP20-0060	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
CR8	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
	1S2472	IP20-0021(1)	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR9	1N60	IP20-0060	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
CR10	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
	1N60	IP20-0060(1)	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
CR11	1N60	IP20-0060	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
CR12	1N34	IP20-0015	1N34AS	1N34A	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109
CR14	BZ090	IP20-0019	GEZD-9.1		ZB9.1B		RE 114		RT-240	ECG139A
CR15	1S1211	IP20-0023			PTC301		RE 250			ECG601
CR16	1N4002	IP20-0120	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CR17	BZ090	IP20-0019	GEZD-9.1		ZB9.1B		RE 114		RT-240	ECG139A
CR18	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR19	1N34	IP20-0015	1N34AS	1N34A	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109
CR20	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR21	1N34	IP20-0015	1N34AS	1N34A	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109
CR22	1N34	IP20-0015	1N34AS	1N34A	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109
CR23	1N4002	IP20-0120	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CR24	MV201	IP20-0204			HEPR2502					ECG612
CR25	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR26	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR27	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR28	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR29	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR30	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR31	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR32	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR33	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR34	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR35	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR36	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR37	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR38	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR40	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR41	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR42	1N4448	IP20-0216	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
Q1	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q2	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q3	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q4	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q5	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q6	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q7	2SA844C	IP20-0217	GE-21 *	TR-54 *	PTC103 *	HEPS0019 *	RE 18 *	SK3114	RT-126A *	ECG129 *
Q8	2SA495	IP20-0159(1)								
	2SD30		GE-59	TR-08	PTC134		RE 6	SK3010	RT-129	ECG103A
	2SD187	IP20-0076(1)	GE-59	TR-08	PTC134		RE 6	SK3010	RT-129	ECG103A
Q9	2SC403C		GE-62	(IR)2SC403A	PTC121 *	HEPS0015 *	RE 13 *	SK3124	RT-302	ECG123A *
	2SC372Y	IP20-0006(1)	GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC1641	(1)	GE-20 *	TR-24 *	PTC136 *	HEPS0015 *	RE 13 *	SK3122 *	RT-107A *	ECG123A *
	2SC945	(1)	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q10	2SC1014	IP20-0172(11)	GE-273	WEP1014	PTC193		RE 213		RT-137	ECG300
Q11	2SC1014	IP20-0172(11)	GE-273	WEP1014	PTC193		RE 213		RT-137	ECG300
Q12	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q13	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q14	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q15	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q16	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q17	3SK45B	IP20-0157	GE-FET-4	WEP905	PTC181	HEPF2004	RE 199	SK3050	RT-181	ECG222
	3SK41	IP20-0218(1)	GE-FET-4	WEP905	PTC181	HEPF2004	RE 199	SK3050	RT-181	ECG222
Q18	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q19	2SC1957	IP20-0103	GE-270	WEP913	PTC180	HEPS3044	RE 209			ECG295
	2SC2086	(1)	GE-270	WEP912 *	PTC143	HEPS3001 *	RE 220			ECG293
	2SC2091	(1)	GE-270	WEP913	PTC180		RE 209			ECG295
	2SC1449	(1)(13)	GE-270	WEP913	PTC180		RE 209		RT-162	ECG295
	2SC495T	(1)(12)	GE-270	WEP913	PTC180		RE 209		RT-162	ECG295
	2SC2028	(1)	GE-270	WEP913	PTC180	HEPS3044	RE 209			ECG295

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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

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.
Q20	2SC1306	IP20-0155(14)	GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC2166		GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC2092		GE-337	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC1678		GE-322	WEP1678	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC1816		GE-216	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
Q21	2SC2029	(1)	GE-333	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
	2SA496-0		GE-29	IRTR-56	PTC111	HEPS5006		SK3084	RT-153	ECG187
	2SA496Y		GE-29	IRTR-73	PTC111	HEPS5006		SK3083	RT-155	ECG185
Q22	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q23	3SK41L	IP20-0218	GE-FET-4	WEP905	PTC181	HEPF2004	RE 199	SK3050	RT-181	ECG222
Q24	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q25	2SC710C	IP20-0002	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q27	2SA844C	IP20-0217	GE-244 *	TR-30 *	PTC103 *	HEPS0019 *	RE 18 *	SK3114	RT-126A *	ECG129 *
U1	SM5107	IP20-0219								
U2	F78L62AC									
	F78L06C	IP20-0220(1)								

- * Lead configuration may vary from original.
 (1) Used in some versions.
 (11) Rating, 7 WATT @ 1.5 AMP.
 (12) Rating, 5 WATT @ 800 MA.
 (13) Rating, 750 MW @ 2 AMP.
 (14) Rating, 12 WATTS @ 3 AMP.
 (15) Rating, 30 WATTS @ 3 AMP.
 (16) Rating, 16 WATTS @ 4 AMP.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C123	.22 25V	IP22-0044		TDC224M050EL	QDT1-10	SD50-R229
C125	1 50V	IP22-0001	PC1-50	VTT1A50	QV1-11	EV-1615
C126	1 50V	IP22-0001	PC1-50	VTT1A50	QV1-11	EV-1615
C129	1 50V	IP22-0001	PC1-50	VTT1A50	QV1-11	EV-1615
C132	10 16V	IP22-0004	PC10-25	VTT10B25	QV1-41	EV-1222
C201	4.7 25V	IP22-0003	PC5-50	VTT4R7B50	QV1-27	EV-1319
C202	4.7 25V	IP22-0003	PC5-50	VTT4R7B50	QV1-27	EV-1319
C203	4.7 25V	IP22-0003	PC5-50	VTT4R7B50	QV1-27	EV-1319
C204	1 50V	IP22-0001	PC1-50	VTT1A50	QV1-11	EV-1615
C206	47 16V	IP22-0006	PC50-10	VTT47B10	QV1-71	EV-1026
C207	220 16V	IP22-0009	PC250-25	VTT220H16	QV1-117	EV-1240
C208	1 50V	IP22-0001	PC1-50	VTT1A50	QV1-11	EV-1615
C210	220 16V	IP22-0009	PC250-25	VTT220H16	QV1-117	EV-1240
C212	1000 16V	IP22-0051	PC1000-15	VTT1000L16	QV1-183	EV-1260
C213	220 16V	IP22-0009	PC250-25	VTT220H16	QV1-117	EV-1240
C215	1 50V	IP22-0001	PC1-50	VTT1A50	QV1-11	EV-1615
C216	10 16V	IP22-0004	PC10-25	VTT10B25	QV1-41	EV-1222
C323	1 50V	IP22-0001	PC1-50	VTT1A50	QV1-11	EV-1615
C419	1 25V	IP22-0034		TDC105M035EL		SD35-19
C420	.22 35V	IP22-0025		TDC224M050EL	QDT1-10	SD50-R229
C431	220 16V	IP22-0009	PC250-25	VTT220H16	QV1-117	EV-1240
C432	220 16V	IP22-0009	PC250-25	VTT220H16	QV1-117	EV-1240
C439	.22 35V	IP22-0025		TDC224M050EL	QDT1-10	SD50-R229

CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA			
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
						Q-LINE GENERAL LINE
C101	33 M470				*	10TCT-Q33
C102	.01		UK50-103		MAG5011	
C103	.01		UK50-103		MAG5011	
C104	.01		UK50-103		MAG5011	
C105	22 N750				*	10TCU-Q22
C106	.01		UK50-103		MAG5011	
C107	.01		UK50-103		MAG5011	
C108	.01		UK50-103		MAG5011	
C109	.01		UK50-103		MAG5011	
C110	1 NP0				CN0510	10TCC-V10
C112	5				CN0547	10TCC-V47
C113	.01		DTZ-4R7	NP04P7	MAG5011	
C114	.039		UK50-103		GP140	5GA-S40
C115	.04 10%				M192P3939R8	192P3939R8
C116	.04 10%				M192P3939R8	192P3939R8
C117	.04 10%				M192P3939R8	192P3939R8
C118	.04 10%				M192P3939R8	192P3939R8
C119	.04 10%				M192P3939R8	192P3939R8
C120	.04 10%				M192P3939R8	192P3939R8
C121	15				M192P3939R8	192P3939R8
C122	.001		DD-102	CD15CD150J03	GP210	MMA-150
C124	.04 10%				M192P3939R8	10TS-D10
C128	.01		UK50-103		MAG5011	192P3939R8
C130	.001		DD-102		GP210	10TS-D10

PAGE MODEL 8008

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C131	.04 10%	(1)	UK50-103	CD15FD181J03	M192P3939R8	QW1-33	192P3939R8
C133	.04 10%				M132P3939R8		192P3939R8
C134	180 10%				SX318		MMA-181
C135	.01				MAG5011		
C136	.039				M192P3939R8		1FT-S39
C137	.01		UK50-103		MAG5011	QFT2-159	1FT-S39
C138	.039				M192P3939R8	QFT2-159	1FT-S39
C141	.001		DD-102		GP210		10TS-D10
C142	.01		UK50-103		MAG5011		
C143	15						
C144	47	(1)	UK50-103		MAG5011		
C145	.01				MAG5011		
C146	.01				MAG5011		
C205	.01				MAG5011		
C209	.01				MAG5011		
C214	.01				MAG5011		
C217	.01				MAG5011		
C218	.01				MAG5011		
C219	.01				MAG5011		
C220	.01				MAG5011		
C221	.01				MAG5011		
C303	33 N470	(1)	UK50-103		*		10TCT-Q33
C304	.01				MAG5011		
C305	1 NPO				CN0510		10TCC-V10
C306	33 N470				*		10TCT-Q33
C307	510 10%				SX351		MMA-511
C309	.01		UK50-103	CD15FD511J03	MAG5011	QW1-43	
C310	120 10%				SX312		MMA-121
C311	.01				MAG5011		
C312	35				CD15ED360J03		MMA-360
C313	100 10%				CD15FD101J03		MMA-101
C314	30	(1)	UK50-103		SX310	QW1-27	
C315	.01				MAG5011		
C316	.01				MAG5011		
C317	.001				GP210		10TS-D10
C318	270 5%				SX327		MMA-271
C319	220 10%				SX322	QW1-35	MMA-221
C320	100 10%				SX310		MMA-101
C322	15 NPO		DTZ-15	CD15FD101J03	CN0415	QW1-27	10TCC-Q15
C324	.01		UK50-103	NPO15	MAG5011		
C326	.047		UK50-503		MAG5015		
C327	.001	(1)	DD-102		GP210		10TS-D10
C328	35				SX436		MMA-360
C329A	12 NPO				CN0412		10TCC-Q12
C329B	.01				MAG5011		
C401	22 N750		UK50-103		*		10TCU-Q22
C402	22 N750				*		10TCU-Q22
C403	100 10%				CD15FD101J03		MMA-101
C404	150 10%				CD15FD151J03		MMA-151
C405	.01		UK50-103		SX310	QW1-27	
C406A	.01		UK50-103		SX315		
C406B	12 NPO	(1)			MAG5011	QW1-31	
C407	5				MAG5011		
C408	22 N750				CN0412		10TCC-Q12
C409	.01				*		MMA-050
C410	100 10%				MAG5011		10TCU-Q22
C411	6 NPO		UK50-103		SX310	QW1-2	
C412	47 N470 10%				CD15CD050D03		MMA-101
C413	5				CD15CD060D03		MMA-060
C414	56 10%				CD15ED560J03		10TCT-Q47
C415	.01				SX456		MMA-050
C417	6	(1)	UK50-103		MAG5011	QW1-21	MMA-560
C418	12 NPO				CD15CD060D03		
C421	100 10%				CN0412		MMA-060
C422	100 10%				SX310		10TCC-Q12
C423	.04 10%				SX310		MMA-101
C424	3				M192P3939R8	QW1-27	MMA-101
C425	5						MMA-060
C426	.01				CD15CD050D03		10TCT-Q47
C427	.001				CD15ED560J03		MMA-050
C428	.01				SX456		MMA-560
C429	.001	(1)	UK50-103		MAG5011	QW1-3	
C430	.1 10%				GP210		MMA-060
C433	.04 10%				MAG5011		10TCC-Q12
C434	.04 10%				GP210		MMA-101
C435	.01				EWFO5010		MMA-101
C436	.01		UK50-103		M192P3939R8	QW1-27	MMA-101
C438	.047				M192P3939R8		192P3939R8
C440	4				MAG5011		
C441	56 10%				MAG5015		
C501	.047				CD15CD050D03	QW1-2	MMA-050
			UK50-503		CD15ED560J03		MMA-560

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C502	.047	(1)	UK50-503	WMF05P1	MAG5015	QFT2-215	1FT-P10 5GA-S40
C503	.01		UK50-103		MAG5011		
C505	.01		UK50-103		MAG5011		
C506	.01		UK50-103		MAG5011		
C507	.01		UK50-103		MAG5011		
C508	.01		UK50-103		MAG5011		
C509	.047		UK50-503		MAG5015		
C510	.1 10%				EWFO5010		
C511	.039				GP140		
C512	.01		UK50-103		MAG5011		
C513	.01		UK50-103		MAG5011		
C519	.01		UK50-103		MAG5011		
C521	.047		UK50-503		MAG5015		

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

(1) Used in some versions.

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
R116	Squelch Range	10K	IP24-0003	T-10K	C-103	MTC14L1	X201R103B
R126	Volume/Switch	10K	IP24-0049				
R133	S Meter	10K	IP24-0005	T-10K (2)	C-103 (2)	MTC14L1 (2)	X201R103B (2)
R137	Squelch	10K	IP24-0017				
R218	AMC	10K	IP24-0005	T-10K (2)	C-103 (2)	MTC14L1 (2)	X201R103B (2)
R314	RF Meter	100K	IP24-0002	T-100K (2)	C-104 (2)	MTC15L1 (2)	X201R104B (2)

(2) Cut off one of the end terminals and bend to fit PC board.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	RF Choke (22uH)	IP21-0072		→ 9530-52	
L3	RF Choke (25uH)	IP21-0227			
L4	Xmit Driver (27MHz)	IP21-0282			
L5	RF Choke (.65uH)	IP21-0071		→ 4622	
L6	RF Choke (10uH)	IP21-0073		→ CB144(34)	
L7	Final (27MHz)	IP21-0096		→ CB144(34)	
L8	Pi Filter	IP21-0096		→ 4584	
L9	Antenna Match (.22uH)	IP21-0098		→ 9250-104	
L11	RF Choke (100uH)	IP21-0290			
T1	Rec RF (27MHz)	IP21-0236			
T2	Rec RF (27MHz)	IP21-0277			
T3	Rec Mixer (10.695MHz)	IP21-0239			
T4	Rec Mixer (10.695MHz)	IP21-0291			
T5	IF (455kHz)	IP21-0243			
T6	IF (455kHz)	IP21-0244		→ 2067	
T7	IF (455kHz)	IP21-0278			
T8	Ref Oscillator (10.240MHz)	IP21-0279			
T11	VCO	IP21-0281			
T12	Buffer (16MHz)	IP21-0280			
T13	Xmit Mixer (27MHz)	IP21-0280			
T14	Xmit Mixer (27MHz)	IP21-0280			
T15	Xmit Buffer (27MHz)	IP21-0093			
T16	Tripler (15.360MHz)	IP21-0078			
T17	Buffer (16MHz)				

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFR. PART No.	THORDARSON PART No.	TRIAD PART No.	
L12	1.900A	4.60	1.02mH	IP21-0112 K-18(1)			(1) Number on unit.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T9	2	1.6		IP21-0075			

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE			REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T10	32	1 8	2 8	IP21-0283		MCB-37	

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	3" PM, 8 Ohms	IP29-0017	30A0528R	

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER	DEVICE
F1	2A Quick Acting	IP36-0002		HGC2	HDJ	312002	150145	FG2-2

MICROPHONE

ITEM No.	REPLACEMENT DATA				CONNECTION DATA						
	MFGR. PART No.	GC PART No.	GC NOISE CANCEL	GC POWER	GC CONNECTOR	GC Red	GC Shield	GC Yellow	GC Blue	GC White	GC Black
MIC	IP29-0016	18-032	18-034	18-010	18-092	1	2	4	NC	NC	2

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
DS1	Lamp	IP28-0009	13.72V @ 38mA
DS2	Lamp	IP28-0009	13.72V @ 38mA
FL1	Filter	IP31-0048	455kHz
FL2	Filter		10.240MHz
J1	Jack	IP26-0005	External Speaker
J2	Jack	IP26-0005	PA
J3	Jack	IP26-0014	Microphone
J4	Jack	IP26-0013	Antenna
K1	Relay	IP32-0007	Xmit-Rec
M1	Meter	IP27-0012	S-RF
S2	Switch	IP25-0034	PA-CB
S3	Switch	IP25-0043	Channel Selector
Y1	Crystal	IP31-0090	10.240MHz
	DC Power Cord	IP35-0004	

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

ITEM	PART No.	ITEM	PART No.
Bezel, Front	IP30-0177	Channel Disc	IP30-0178
Cabinet, Lower	IP30-0181	Knob, Channel Selector	IP30-0165
Cabinet, Upper	IP30-0180	Knob, Volume/Squelch	IP30-0166