



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 3-5812A

GENERAL ELECTRIC MODEL 3-5812A

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

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Printed in U. S. of America

7CE630

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:
 L14,T7 thru T10.....5009
 L7,L11,L12.....9304
 L1,L2,L5,T1 thru T6.....9440
 CT1.....5000

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of frequency counter to TP1.	Ch. 19	CT1	Adjust for 10.240MHz.
Input of RF VTVM to TP2.	Ch. 19	T1	Adjust for maximum.
Input of DC meter to TP8.	Ch. 19	L1	Adjust for 2.8 volts.
Input of Frequency counter to TP3.	Ch. 19, XMIT		Check for 10.695MHz.
Input of RF VTVM to TP4.	Ch. 19	L2,T2	Adjust for maximum.
Input of frequency counter to TP4.	Ch. 1		Check for 37.660MHz. Check all channels. (Channel frequency + 10.695MHz = 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	TRANSCIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP10. 455kHz,1000Hz @ 30% modulation.	Ch. 19, Delta Tune 0	T10,T9,T8	Adjust for maximum output.
Output of signal generator thru .01uF to TP11. 10.695MHz,1000Hz @ 30% modulation.	Ch. 19 Delta Tune 0	T7,L14	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz,1000Hz @ 30% modulation.	Ch. 19 Delta Tune 0	T6,T5	Adjust for maximum output. Repeat above steps, if necessary.

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 1000uV.	Ch. 19 Delta Tune 0	RV1	SQUELCH RANGE Set Squelch Control VR2 fully clockwise. Adjust RV1 so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.185MHz,1000Hz @ 30% modulation. Output 100uV.	Ch. 19 Delta Tune 0	RV3	S METER Adjust RV3 for 9 on S scale of meter.

TRANSMITTER ALIGNMENT

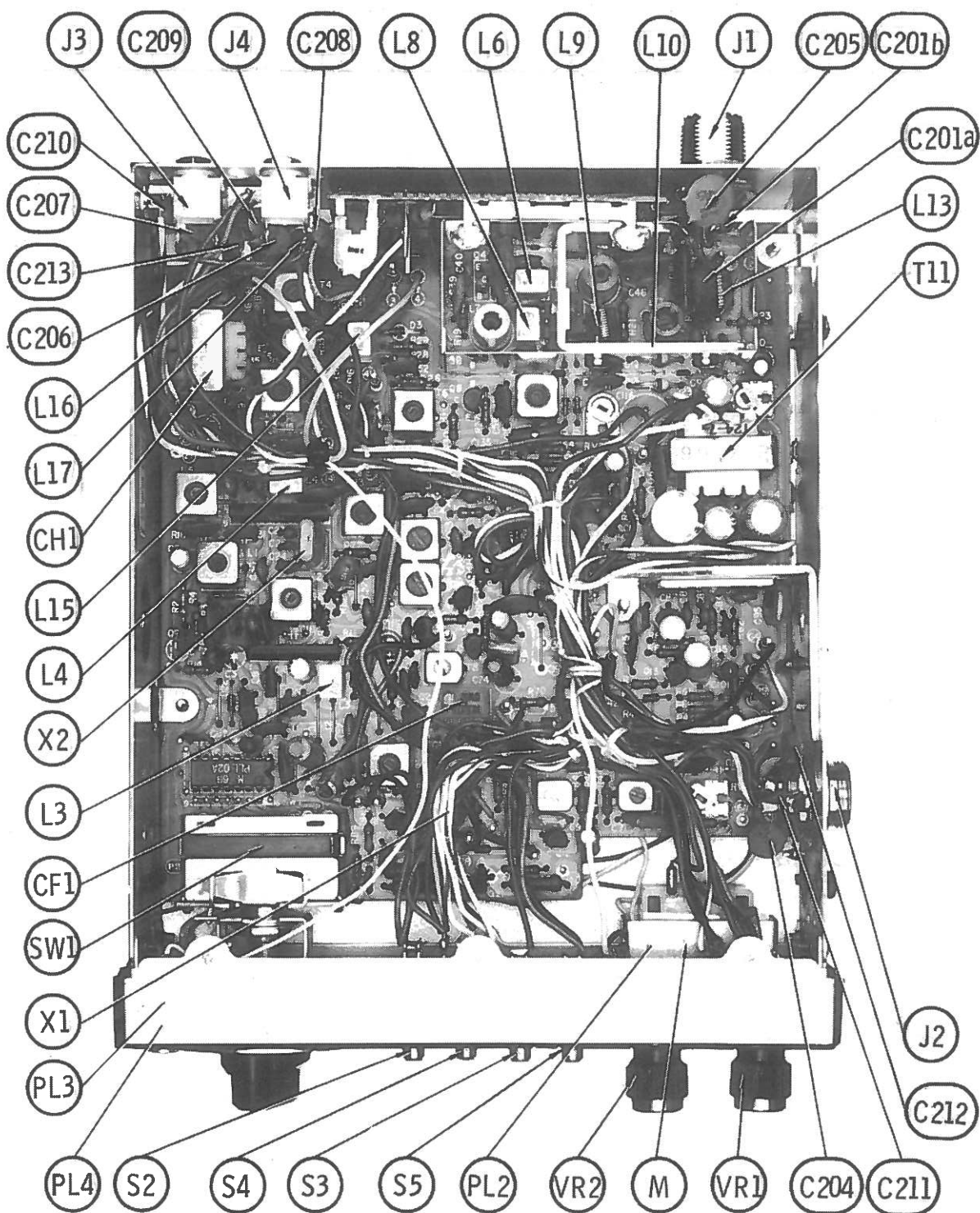
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.
NOTE: Be sure to check transmit frequency and power on all active channels after alignment of transmitter.
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
	Ch. 19	L5,T3,T4, L7,L11,L12	Adjust for maximum.
	Ch. 19	L12	Adjust for 4 watts maximum.

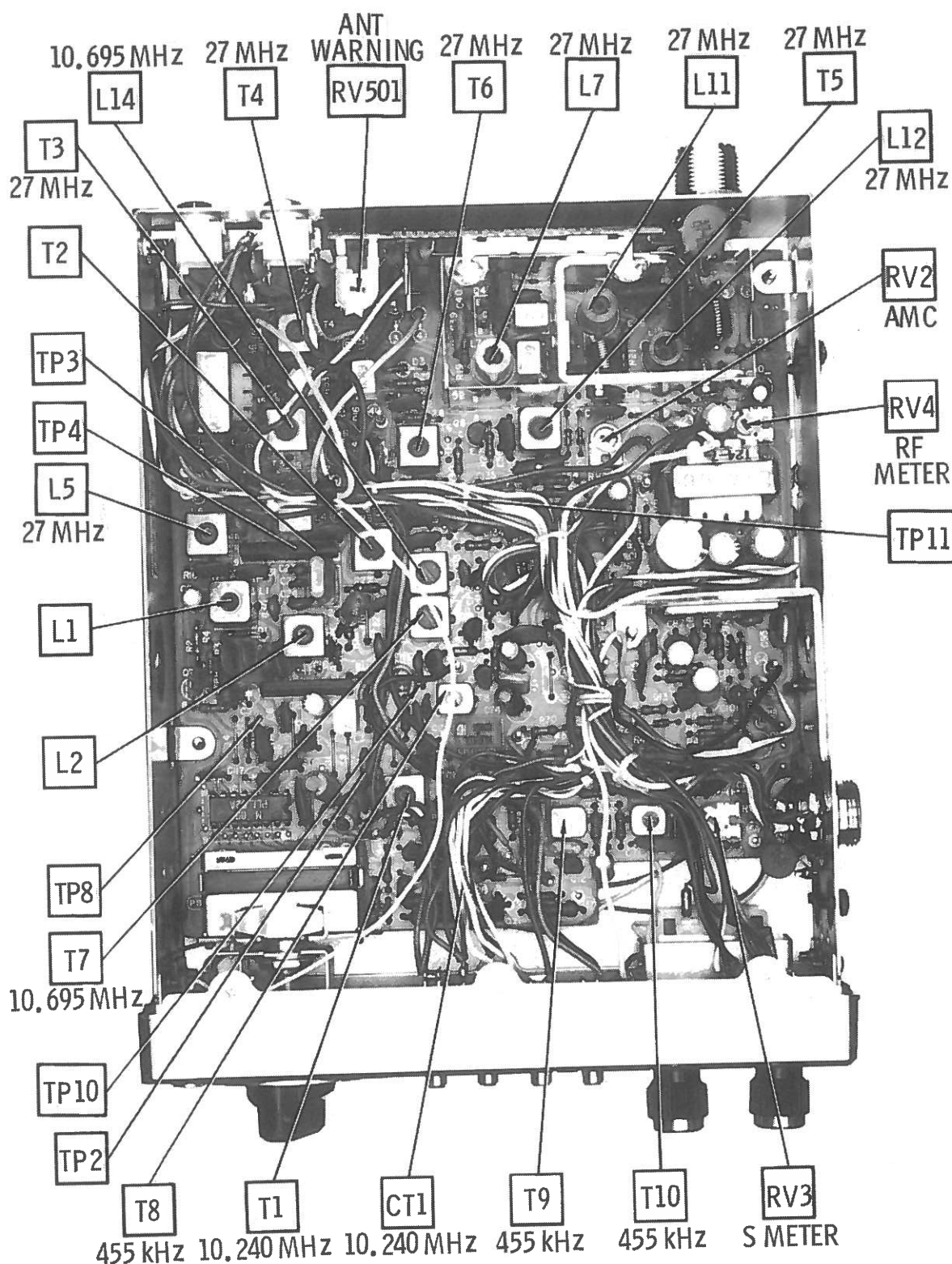
TRANSMITTER ADJUSTMENTS

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.

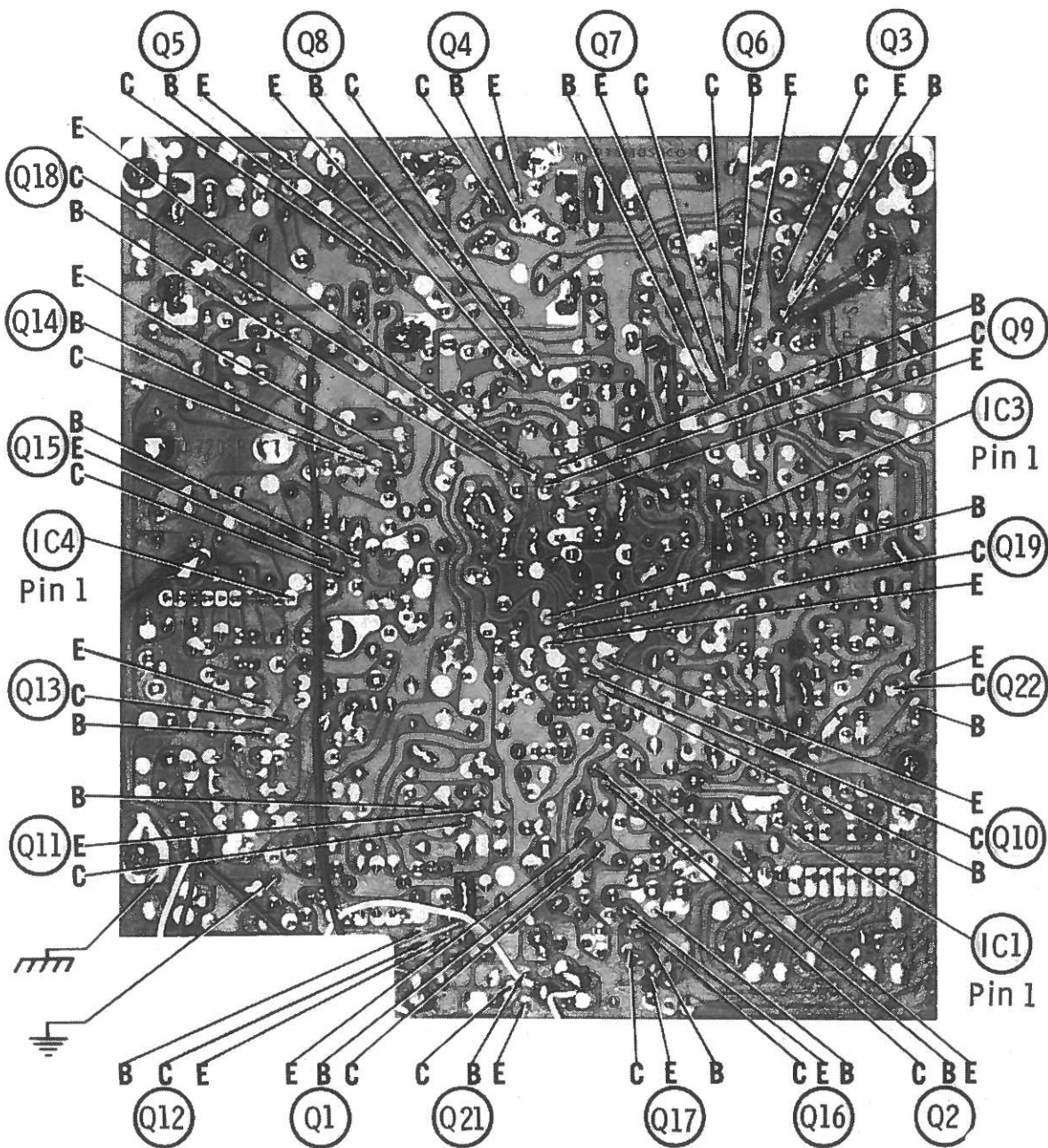
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Modulation meter to antenna jack. Inject a 100mV, 1000Hz signal at MIC input.	Ch. 19	RV2	ALC Adjust for 95% modulation.
	Ch. 19	RV4	RF PANEL METER Adjust RV4 so that RF panel meter agrees with RF wattmeter.
Connect a 150 ohm non-inductive resistor to antenna jack.	Ch. 19	RV501	ANTENNA WARNING (AWI) Adjust RV501 so antenna warning indicator lights.



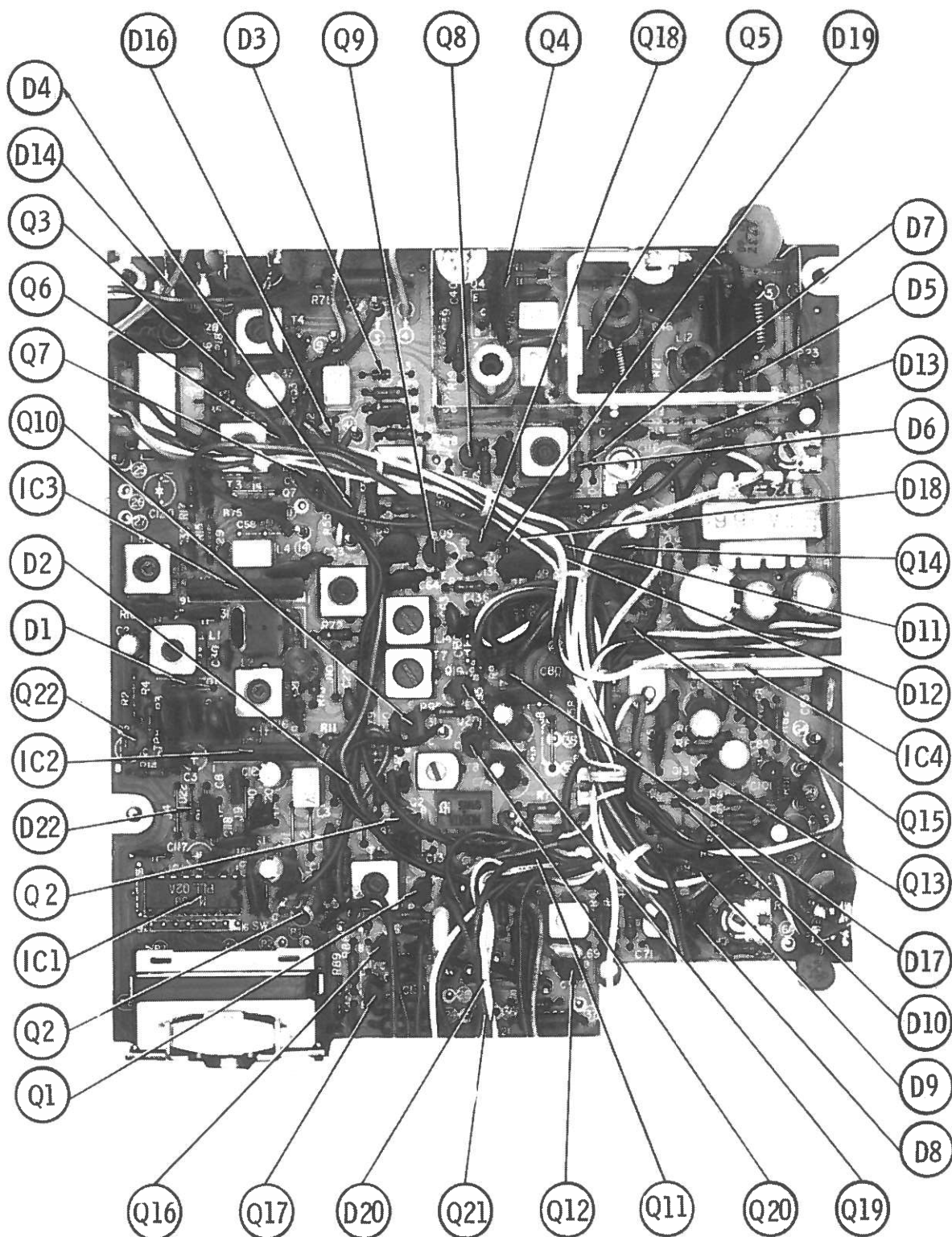
CHASSIS — BOTTOM



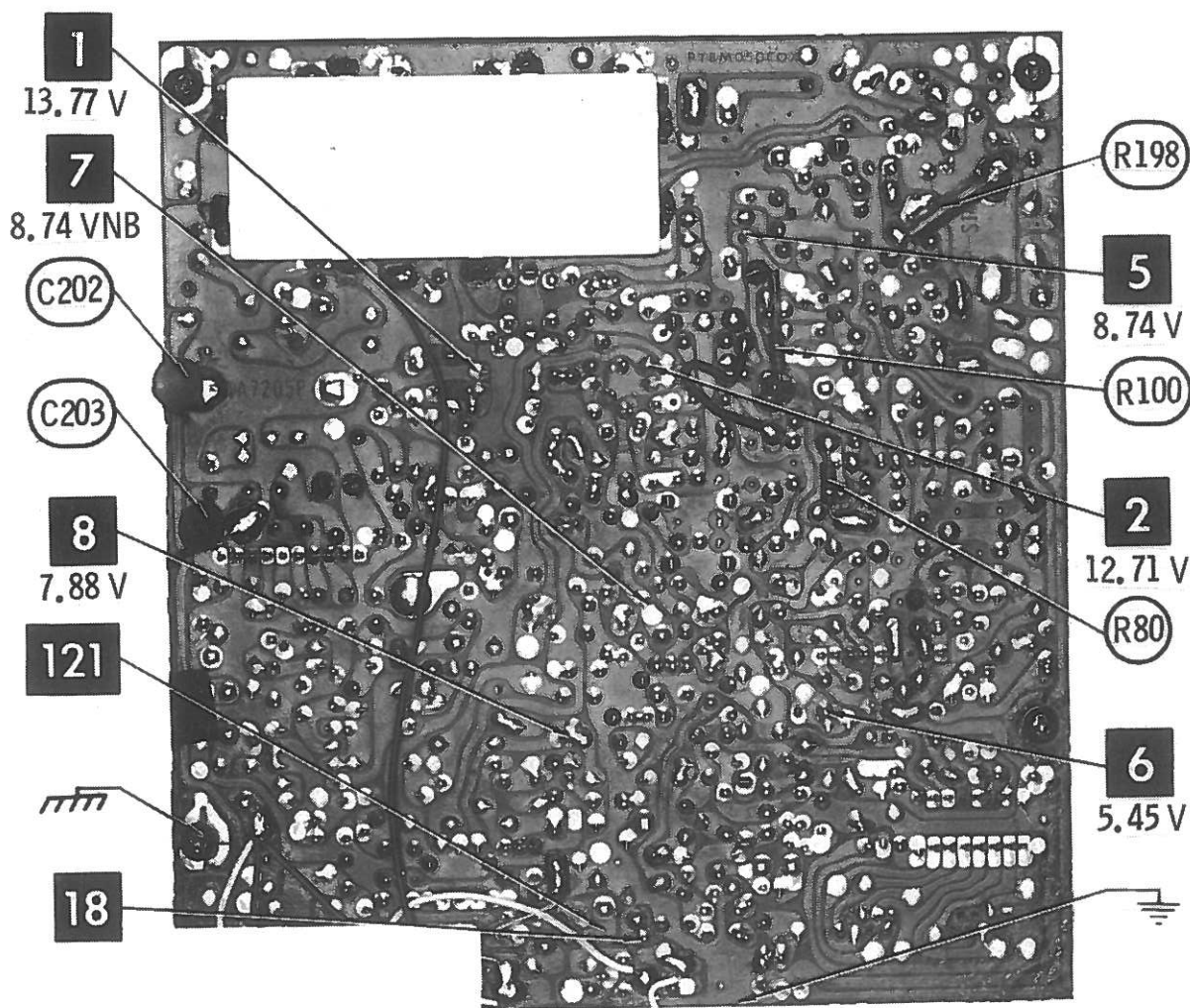
CHASSIS - BOTTOM



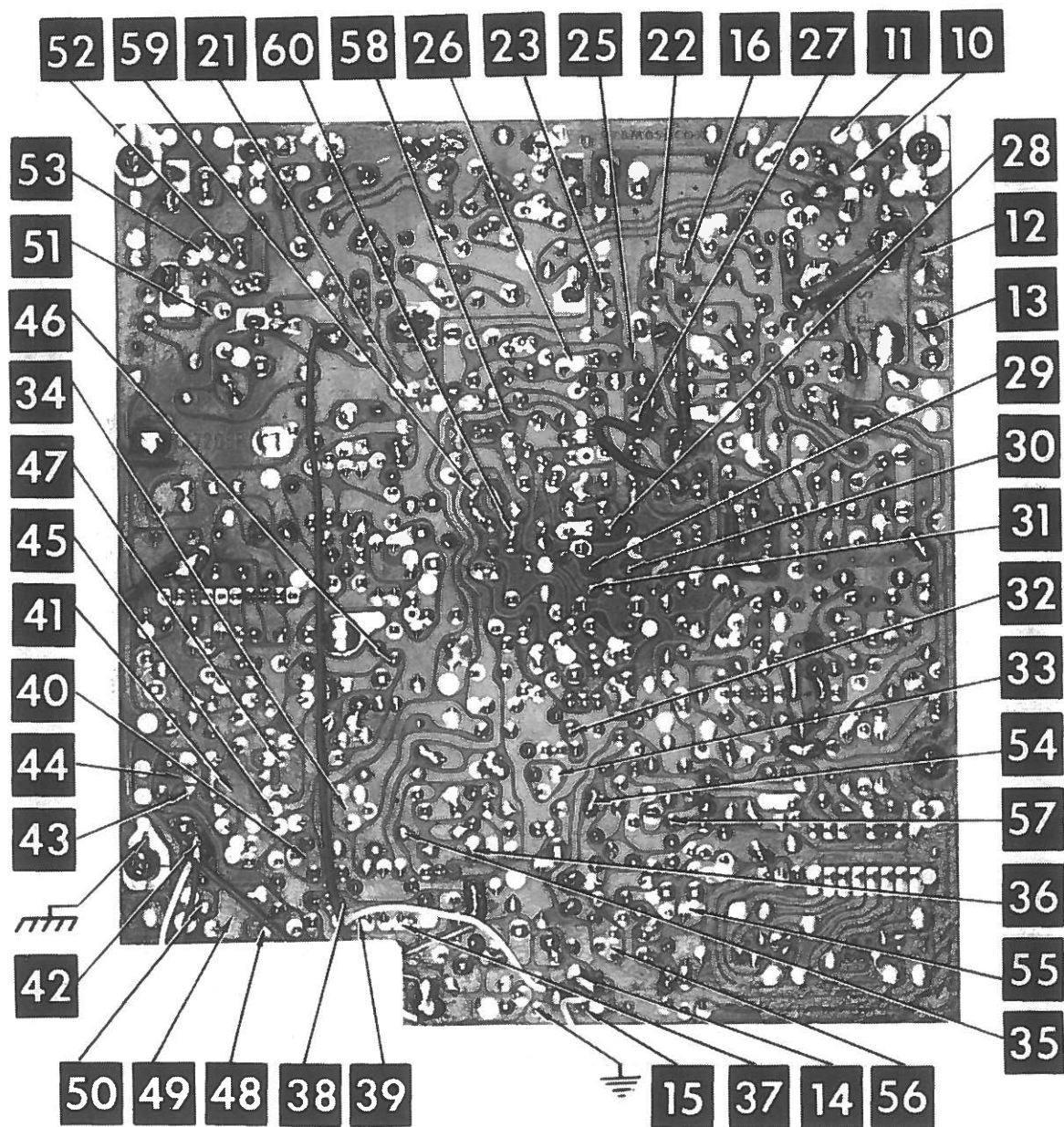
MAIN BOARD



MAIN BOARD

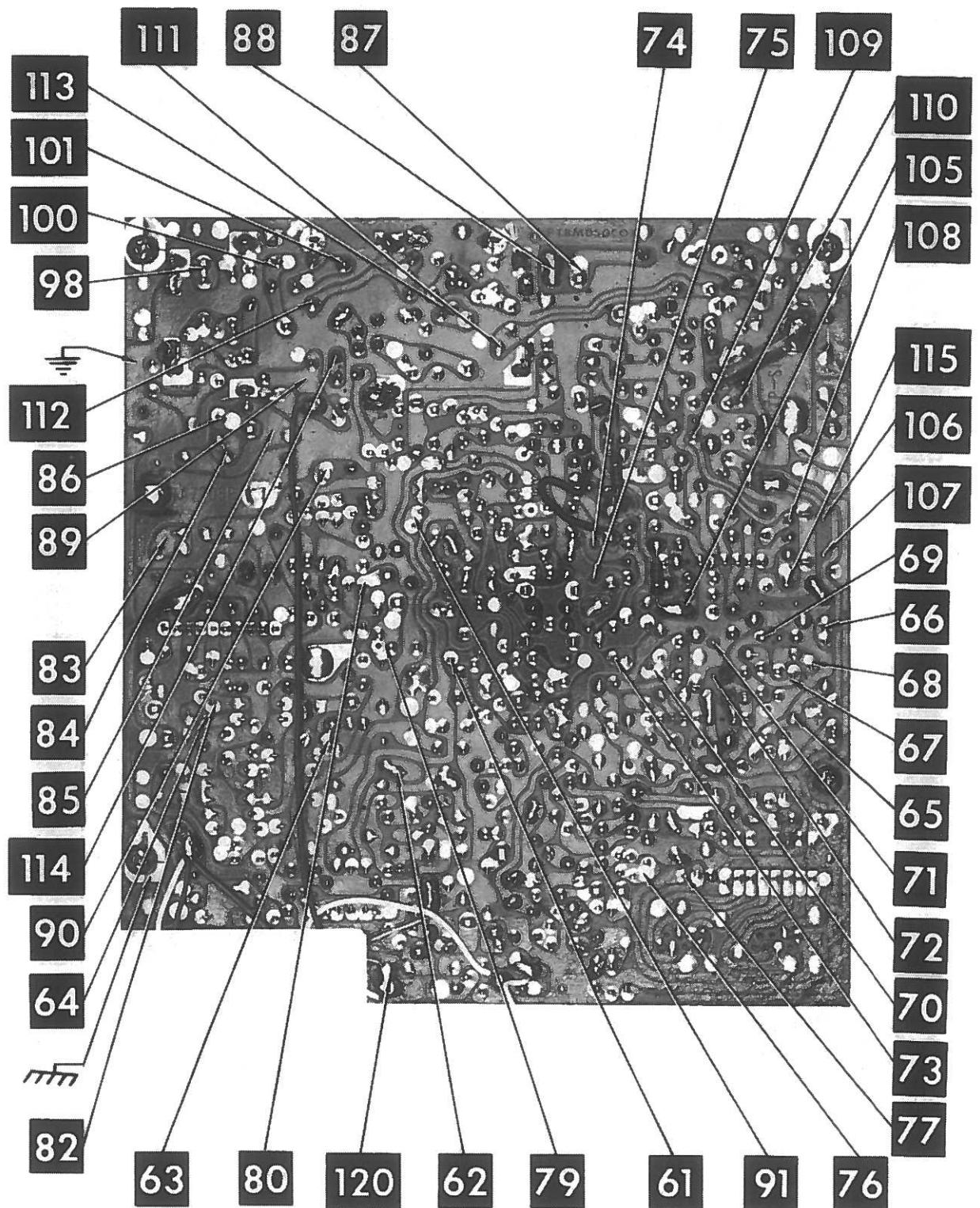


MAIN BOARD

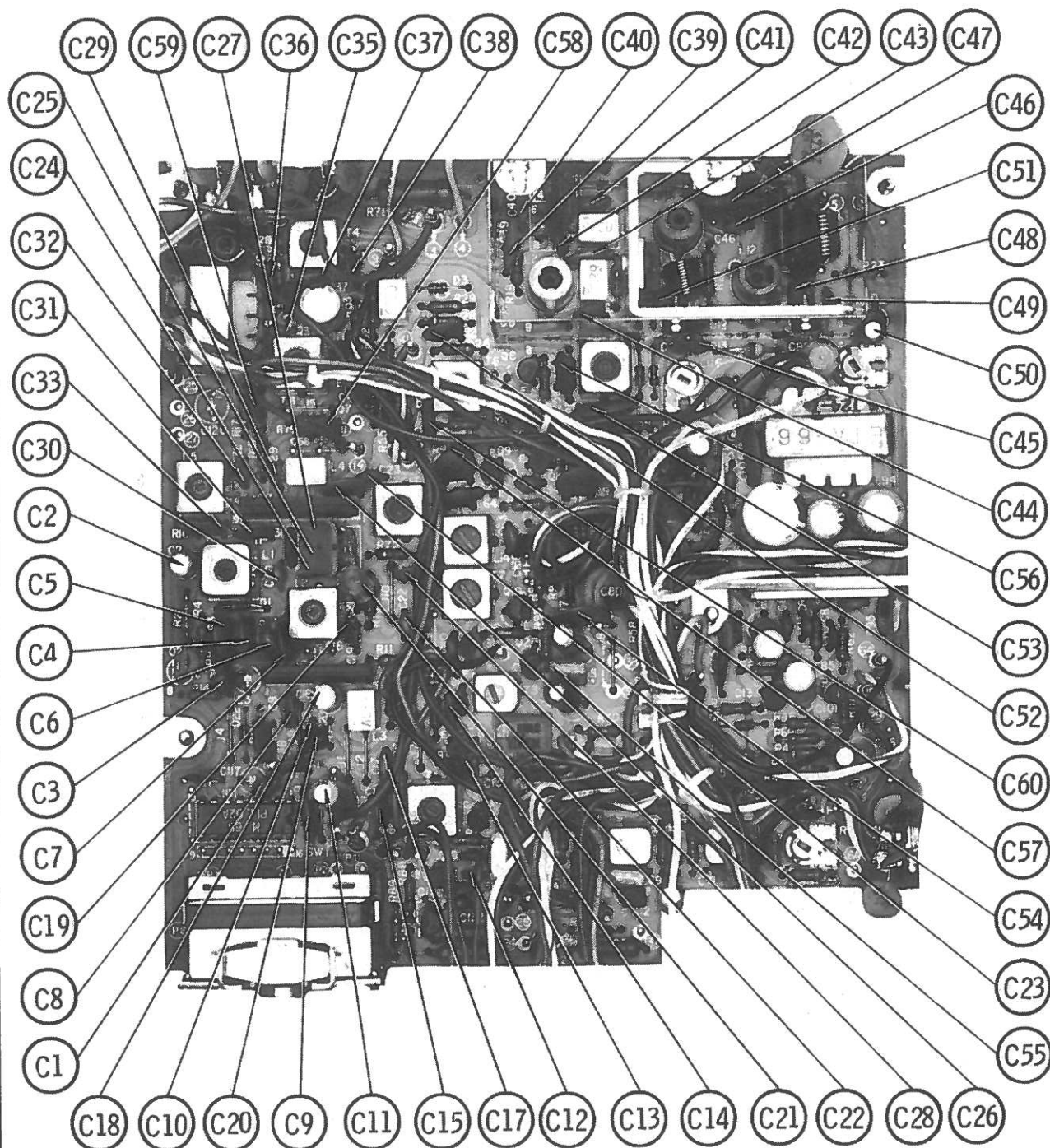


GENERAL ELECTRIC MODEL 3-5812A

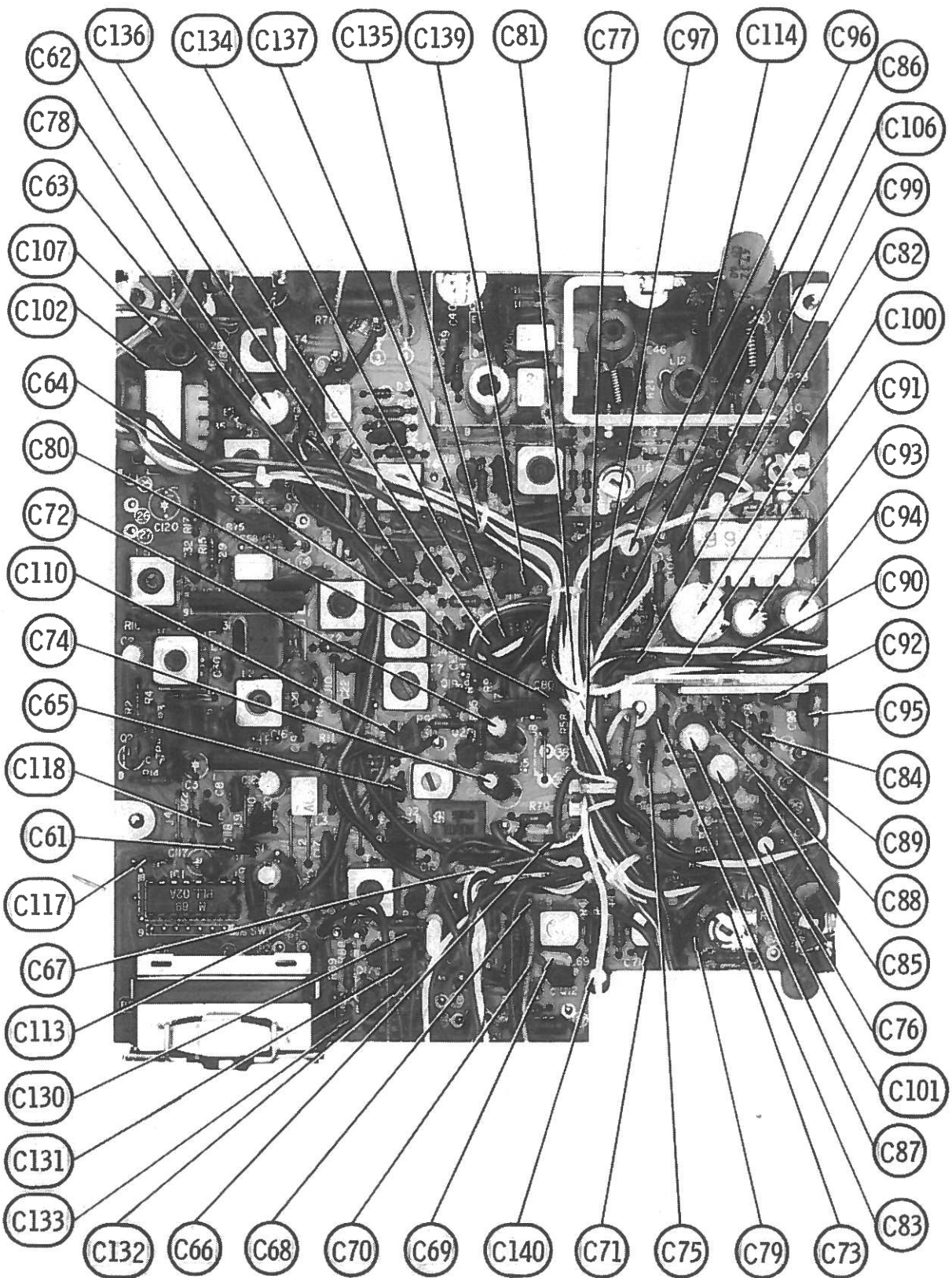
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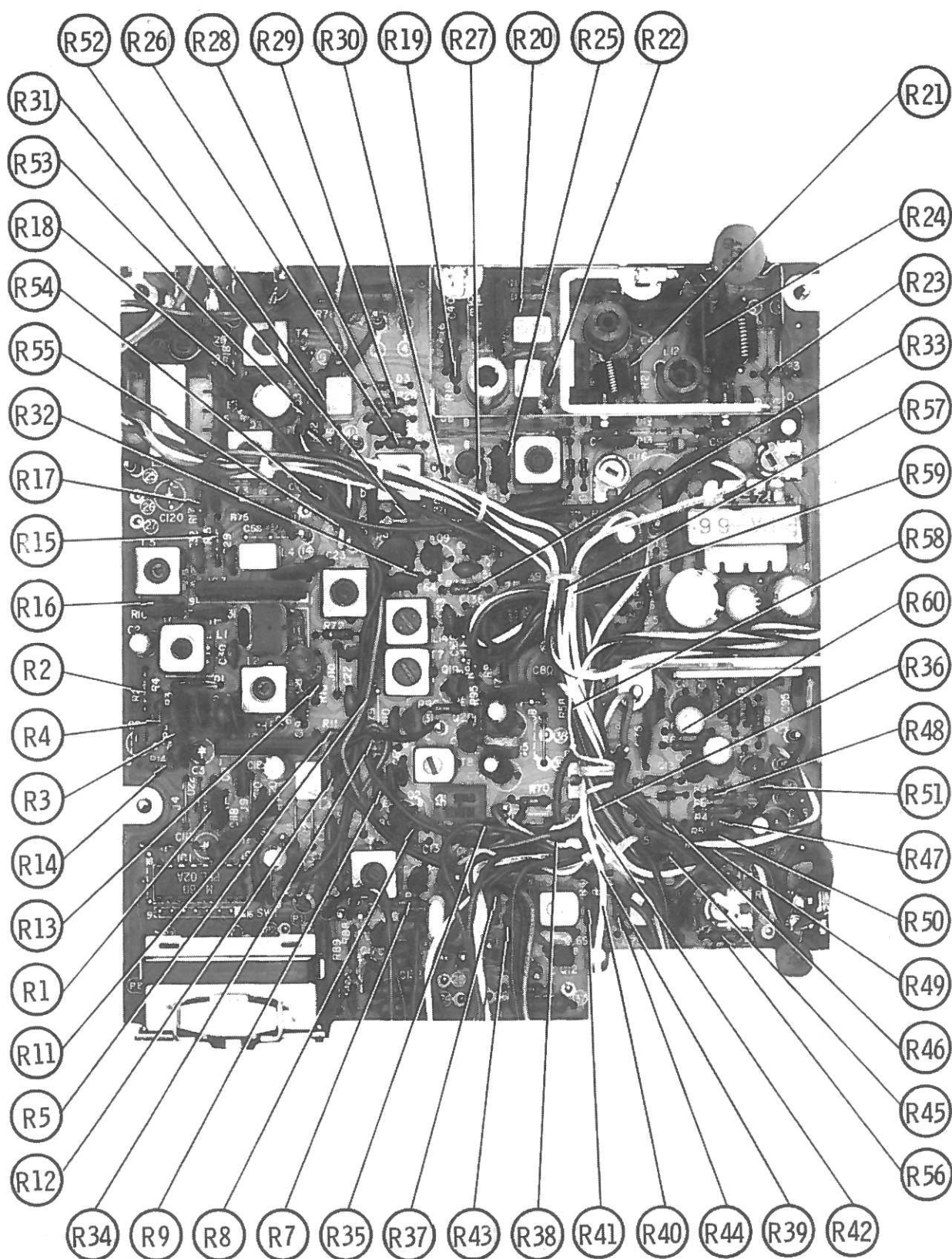
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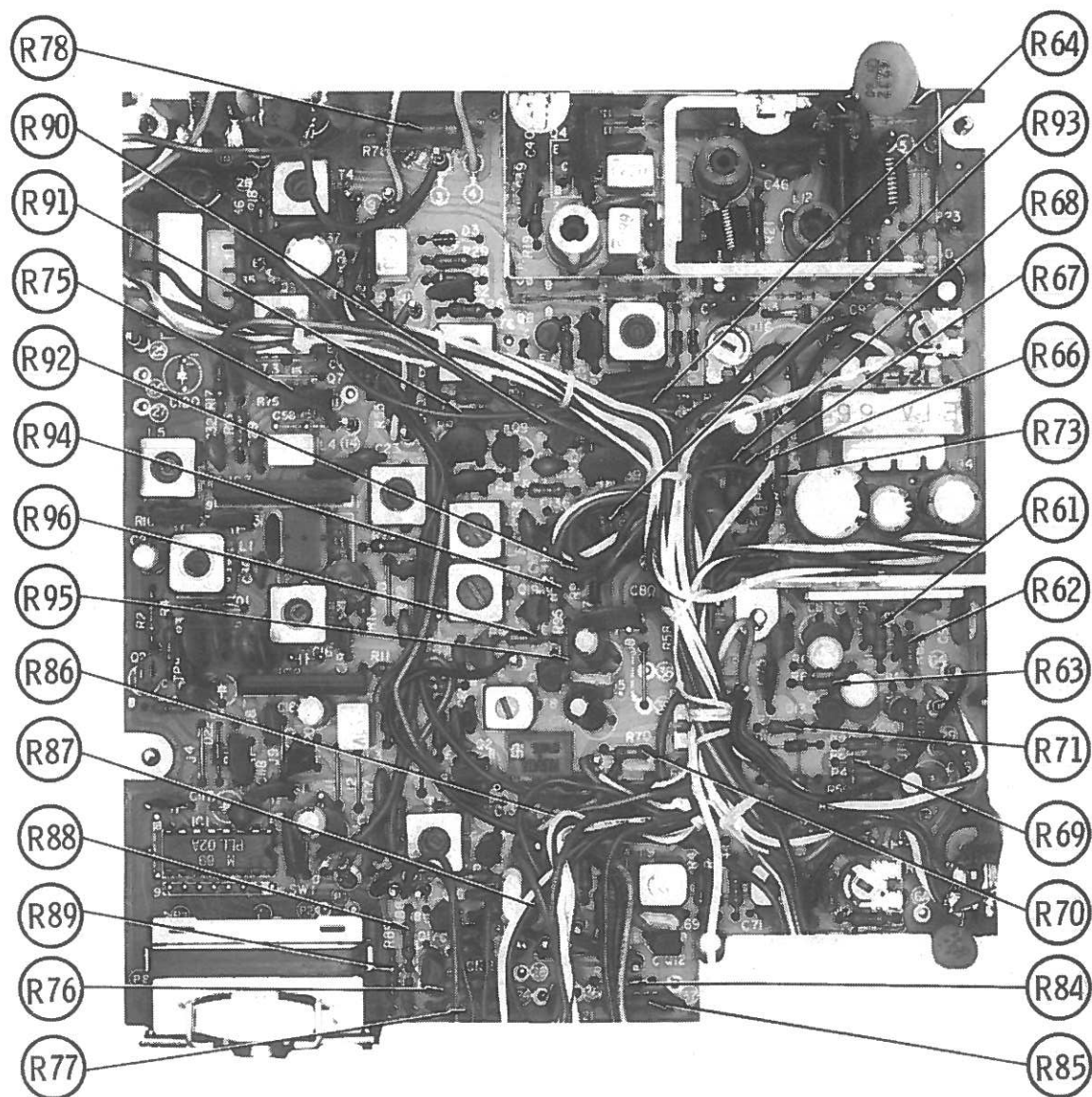
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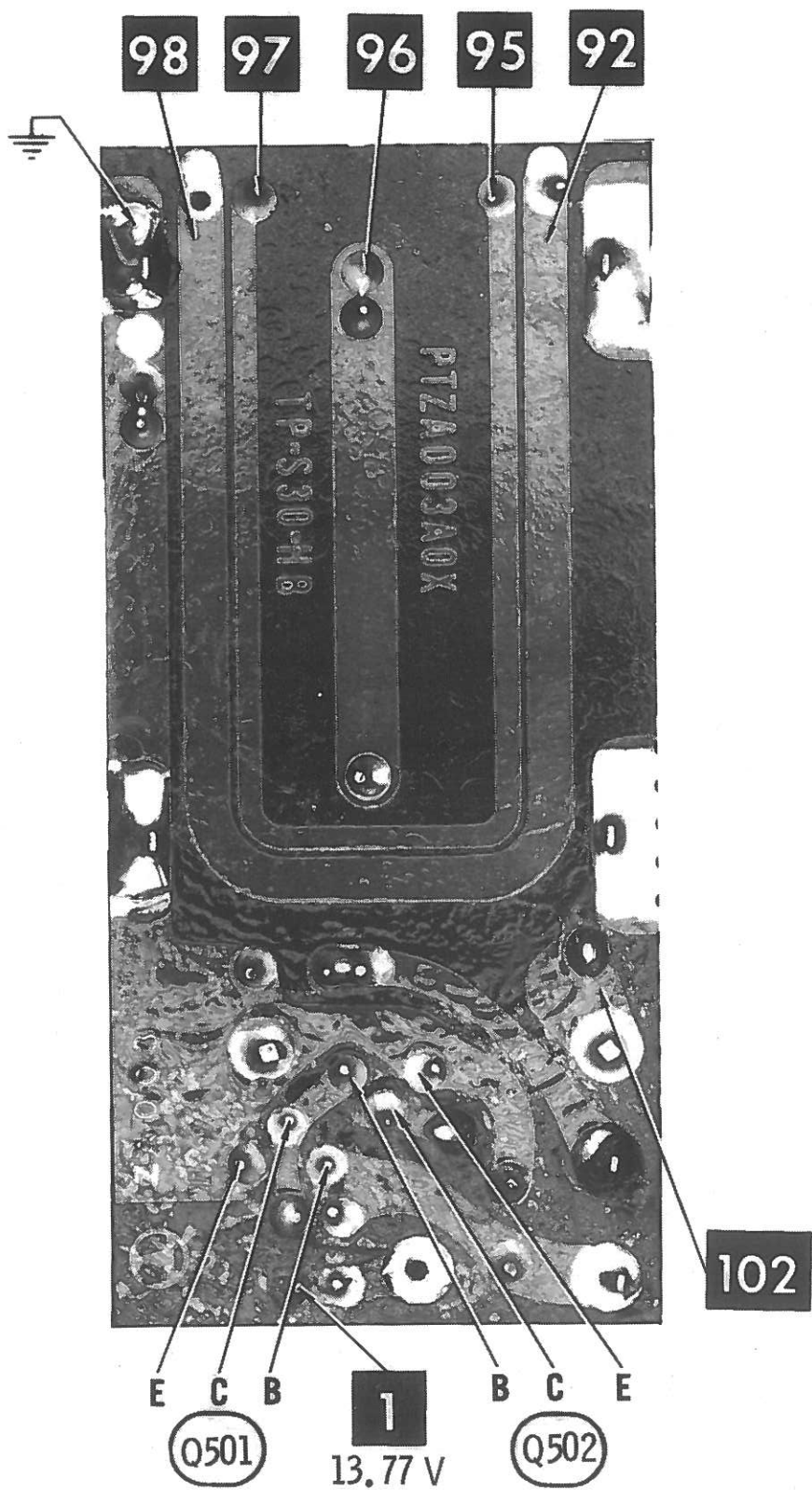
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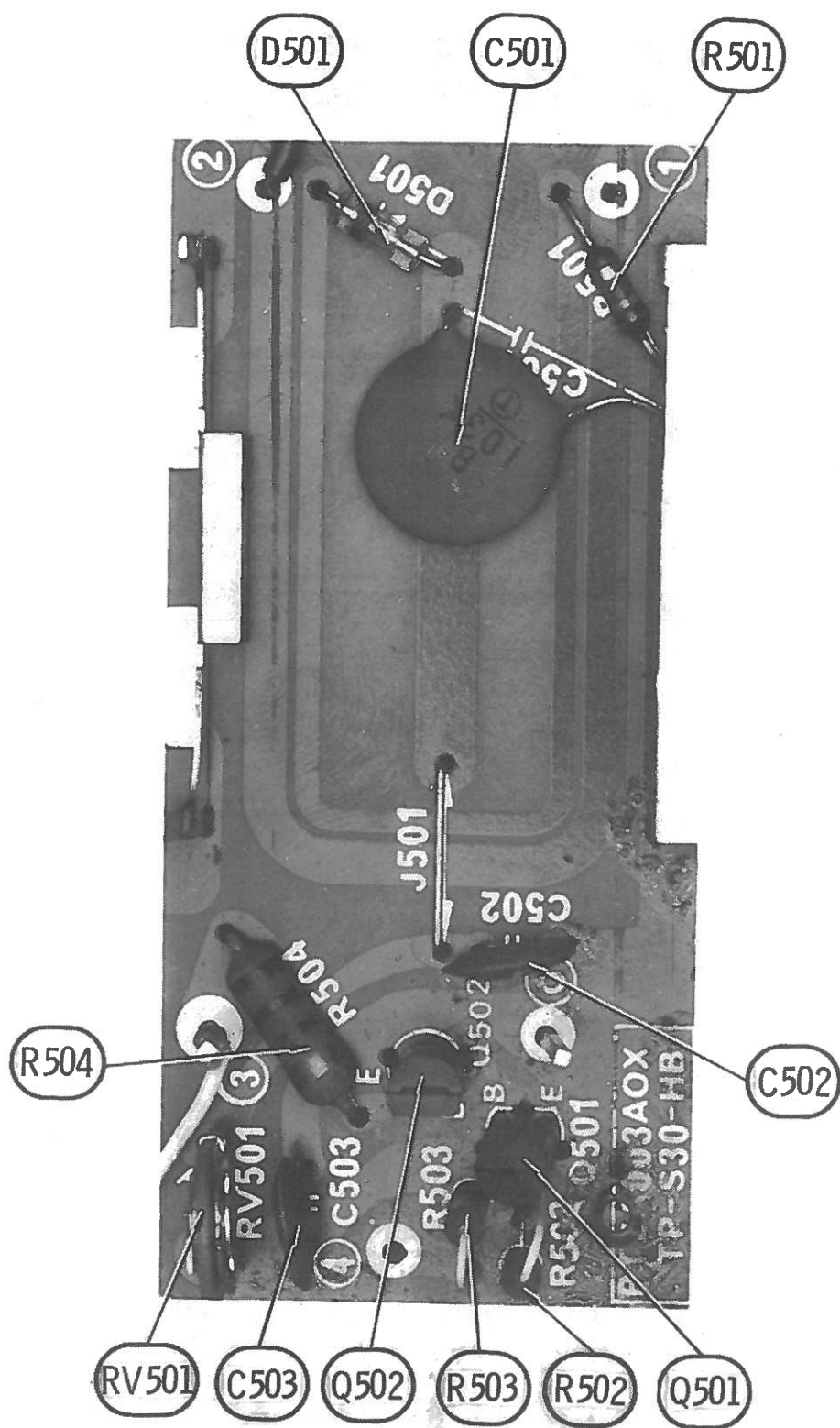
MAIN BOARD



MAIN BOARD



ANT. WARNING BOARD



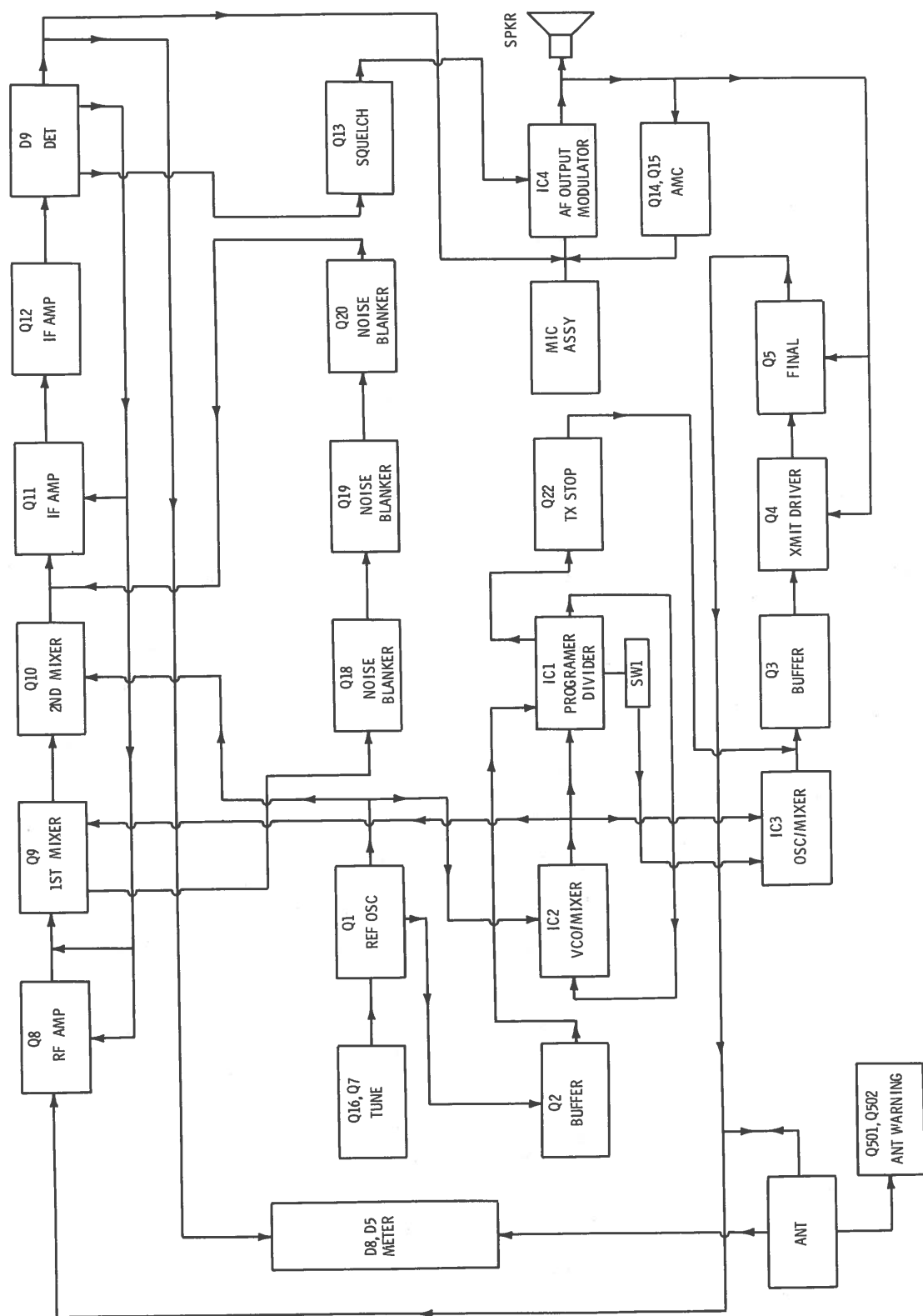
ANT. WARNING BOARD

TRUTH CHART

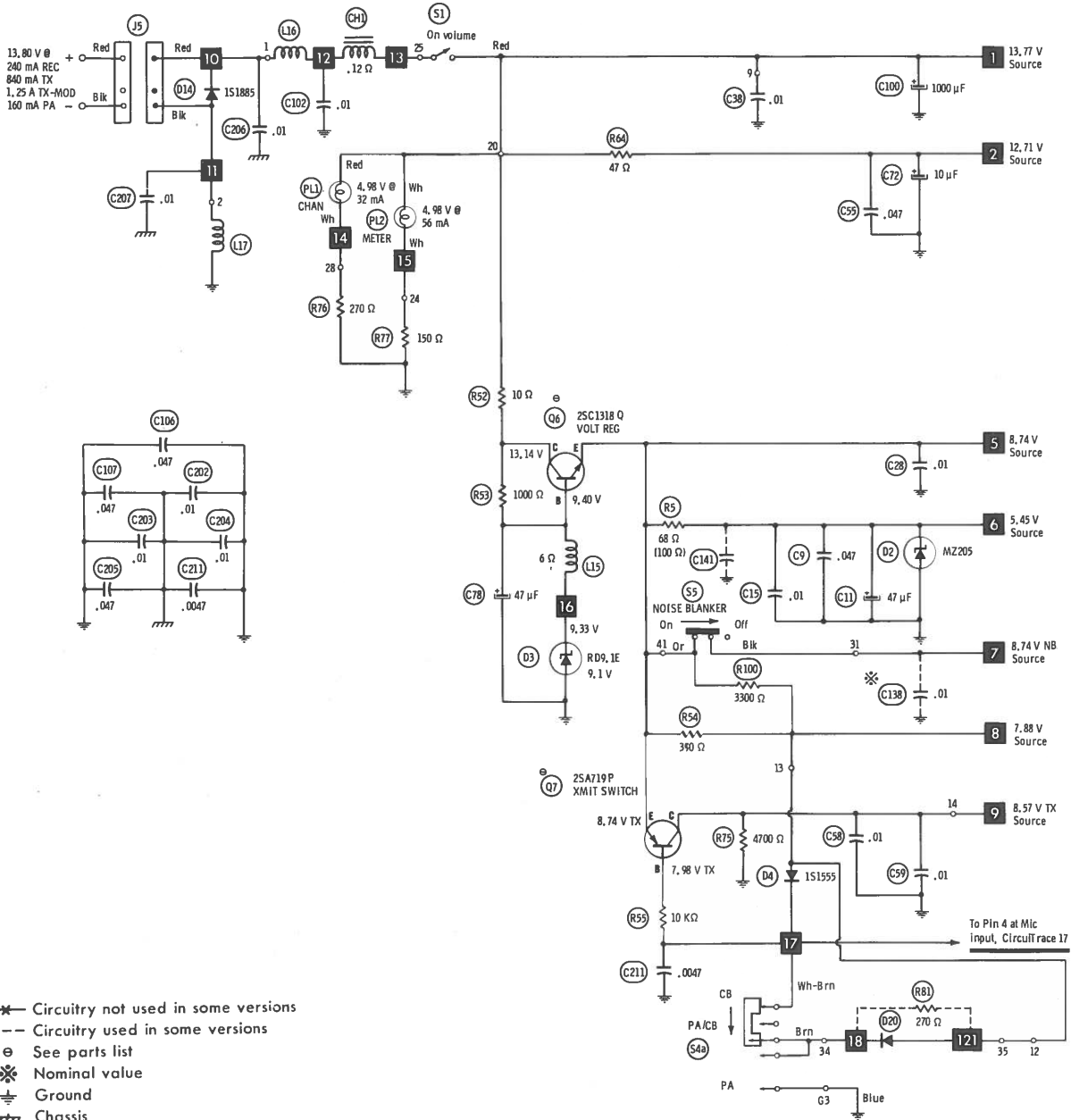
1 = <u>5.40</u> Volts 0 = <u>0</u> Volts								
C H A N N E L	IC1 PROGRAM DIVIDER							REC & XMT VCO OUTPUT IN MHz AT TP4
	PINS							
	9	10	11	12	13	14	15	
1	1	0	0	1	0	1	0	37.660
2	1	0	0	1	0	0	1	37.670
3	1	0	0	1	0	0	0	37.680
4	1	0	0	0	1	1	0	37.700
5	1	0	0	0	1	0	1	37.710
6	1	0	0	0	1	0	0	37.720
7	1	0	0	0	0	1	1	37.730
8	1	0	0	0	0	0	1	37.750
9	1	0	0	0	0	0	0	37.760
10	0	1	1	1	1	1	1	37.770
11	0	1	1	1	1	1	0	37.780
12	0	1	1	1	1	0	0	37.800
13	0	1	1	1	0	1	1	37.810
14	0	1	1	1	0	1	0	37.820
15	0	1	1	1	0	0	1	37.830
16	0	1	1	0	1	1	1	37.850
17	0	1	1	0	1	1	0	37.860
18	0	1	1	0	1	0	1	37.870
19	0	1	1	0	1	0	0	37.880
20	0	1	1	0	0	1	0	37.900

1 = <u>5.40</u> Volts 0 = <u>0</u> Volts								
C H A N N E L	IC1 PROGRAM DIVIDER							REC & XMT VCO OUTPUT IN MHz AT TP4
	PINS							
	9	10	11	12	13	14	15	
21	0	1	1	0	0	0	1	37.910
22	0	1	1	0	0	0	0	37.920
23	0	1	0	1	1	0	1	37.950
24	0	1	0	1	1	1	1	37.930
25	0	1	0	1	1	1	0	37.940
26	0	1	0	1	1	0	0	37.960
27	0	1	0	1	0	1	1	37.970
28	0	1	0	1	0	1	0	37.980
29	0	1	0	1	0	0	1	37.990
30	0	1	0	1	0	0	0	38.000
31	0	1	0	0	1	1	1	38.010
32	0	1	0	0	1	1	0	38.020
33	0	1	0	0	1	0	1	38.030
34	0	1	0	0	1	0	0	38.040
35	0	1	0	0	0	1	1	38.050
36	0	1	0	0	0	1	0	38.060
37	0	1	0	0	0	0	1	38.070
38	0	1	0	0	0	0	0	38.080
39	0	0	1	1	1	1	1	38.090
40	0	0	1	1	1	1	0	38.100

GENERAL ELECTRIC MODEL 3-5812A



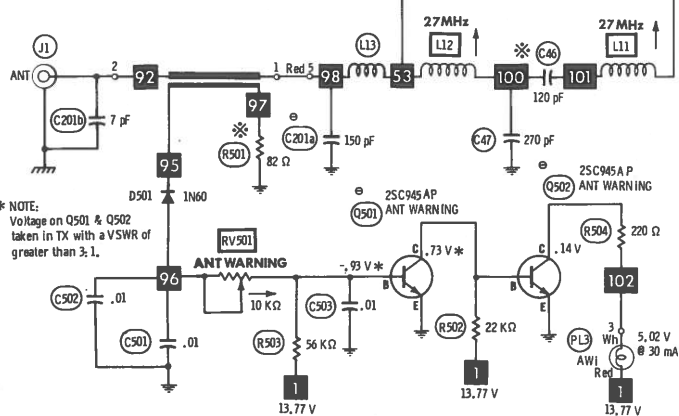
BLOCK DIAGRAM



- Circuitry not used in some versions
 - - - Circuitry used in some versions
 - ⊙ See parts list
 - * Nominal value
 - ⊥ Ground
 - ⏏ Chassis
 - ∇ Common tie point
- Measurements made in Channel 1 with switching as shown unless noted.
Item numbers in rectangles appear in the alignment/adjustment instructions.
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.

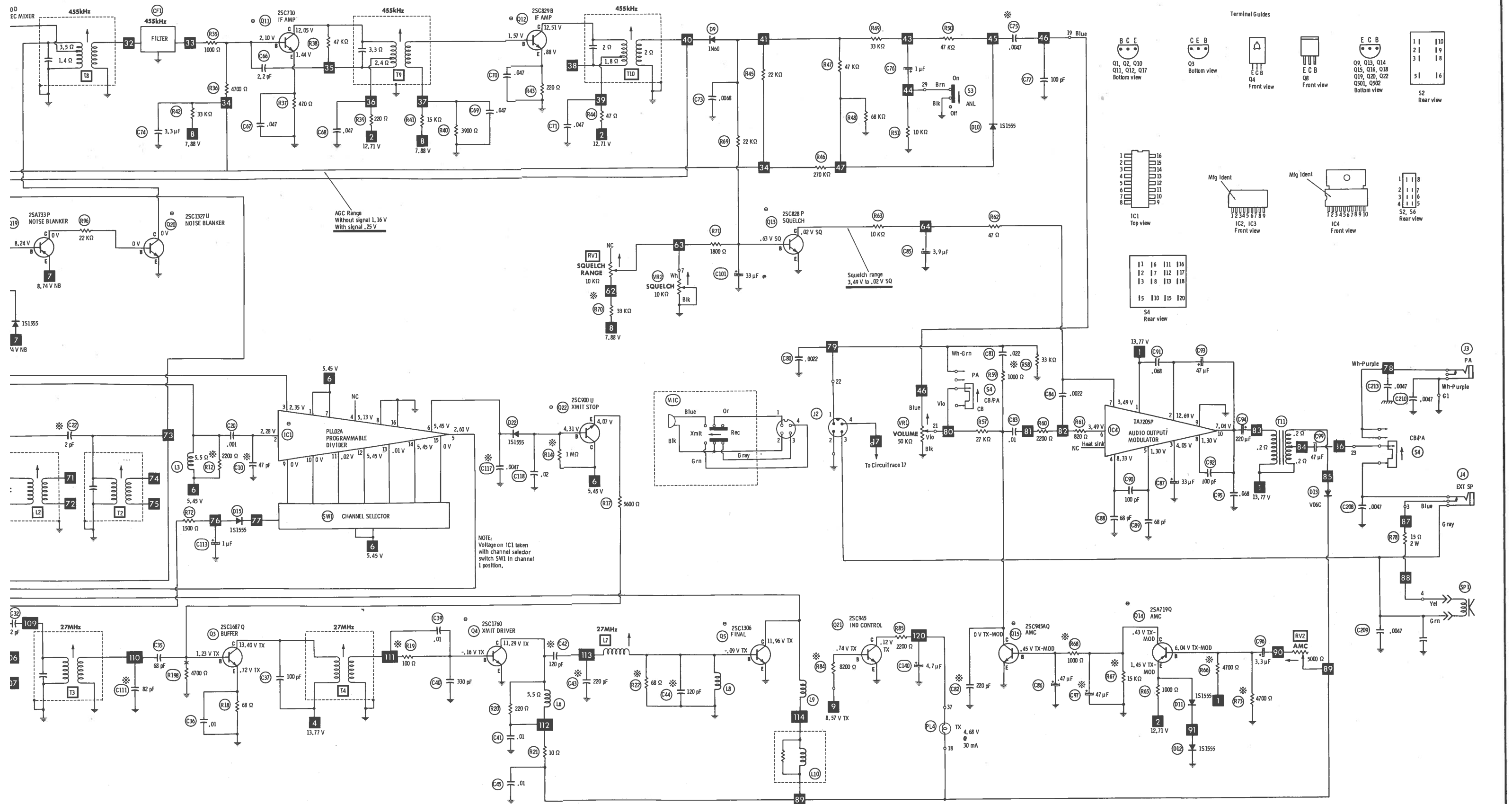
A PHOTOFAC STANDARD NOTATION SCHEMATIC
WITH CIRCUITTRACE™

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Item numbers in rectangles appear in the alignment/adjustment instructions.
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PARTS LIST AND DESCRIPTION

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

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	31AWG BELDEN No. 9468 (10')	
	(9') BELDEN No. 17109	4-conductor (unshielded)	23AWG BELDEN No. 8415 (6')
		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.	MFG. 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.
D1	ITT410	EA16X106	GE-90	D201		HEPR2503	RE 195	SK3126	RT-262	ECG610
	BB122	(1)	GE-90	D201		HEPR2503	RE 195	SK3126	RT-262	ECG610
	MC201	(1)	GE-90	D201		HEPR2503	RE 195	SK3126	RT-262	ECG610
D2	MZ205	EA16X136		WEP602			RE 105			ECG135
D3	RD9.1E	EA16X137	GEZD-9.1		ZB9.1B		RE 114		RT-240	ECG139A
D4	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D5	1N60	EA16X48	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D6	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D7	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D8	1N60	EA16X48	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D9	1N60	EA16X48	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D10	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D11	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D12	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D13	V06C	EA57X14	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D14	1S1885	RV1189	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D15	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D16	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D17	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D18	1N60	EA16X48	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D19	1N60	EA16X48	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D20	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D22	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D501	1N60	EA16X48	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
IC1	PLL02A						RE 360-IC			ECG1167
	PLL02	EA33X8388(1)					RE 360-IC			ECG1167
IC2	C3001A									ECG1192
	TA7310P	EA33X8392(1)								ECG1192
IC3	C3001-0									ECG1192
	TA7310P	EA33X8392(1)								ECG1192
IC4	TA7205P	EA33X8389	GEIC-179	WEP949	PTC780		RE 357-IC	SK3231	TVMC-81	ECG1155
Q1	2SC710		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710D	EA15X364 (1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q2	2SC710		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710D	EA15X364(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q3	2SC1687	EA15X379	GE-20 *	TR-24 *	PTC121 *	HEPS0015 *	RE 13 *	SK3018 *	RT-107A *	ECG123A *
Q4	2SC1760		GE-276	WEP1014			RE 224		RT-310	ECG306
	2SC1845Q, R, S	EA15X383(1)	GE-336				RE 209			ECG306
Q5	2SC1306	EA15X381	GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
Q6	2SC1318Q	EA15X378	GE-210 *	TR-21 *	PTC178	HEPS0015 *	RE 17 *	SK3122	RT-302	ECG128 *
Q7	2SA719R		GE-269	TR-28 *	PTC103 *	HEPS0019 *	RE 26 *	SK3114	RT-305	ECG290
	2SA719Q	RV2355(1)	GE-269	TR-28 *	PTC103 *	HEPS0019 *	RE 26 *	SK3114	RT-305	ECG290
Q8	2SC1047C		GE-60 *	(IR)2SC829B	PTC132 *	HEPS0016 *	RE 28 *	SK3018 *	RT-107	ECG161 *
	2SC1047B	EA15X384(1)	GE-60 *	(IR)2SC829B	PTC132 *	HEPS0016 *	RE 28 *	SK3018 *	RT-107	ECG161 *
Q9	2SC1359C		GE-212	(IR)2SC380A0	PTC121 *	HEPS0014 *	RE 192	SK3038 *	RT-308	ECG199
	2SC1359B	EA15X251(1)	GE-212	(IR)2SC380A0	PTC121 *	HEPS0014 *	RE 192	SK3038 *	RT-308	ECG199
Q10	2SC710		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710D	EA15X364(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q11	2SC710		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710D	EA15X364(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q12	2SC829B		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC829C	RT6733(1)	GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
Q13	2SC828P	RV2354	GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
Q14	2SA719Q	RV2355	GE-269	TR-28 *	PTC103 *	HEPS0019 *	RE 26 *	SK3114	RT-305	ECG290
Q15	2SC945AQ		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
	2SC945(L)									
	P/Q	EA15X335(1)	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q16	2SC710		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710D	EA18X364 (1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q17	2SC710		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710D	EA18X364(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q18	2SC829C	RT6733	GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
Q19	2SA733P,Q	EA15X385	GE-48	TR-31	PTC103 *	HEPS0019 *	RE 26 *	SK3138	RT-303	ECG294
Q20	2SC1327									
	T/U	EA15X386	GE-85 *	(IR)2SC945	PTC139 *	HEPS0024 *	RE 192	SK3124	RT-107A	ECG199
Q21	2SC945L		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
	2SC945	RT7557(1)	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q22	2SC900									
	U/E	EA4025	GE-62	(IR)2SC644	PTC139 *	HEPS0015 *	RE 192	SK3124	RT-302	ECG199
Q501	2SC945AP		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
	2SC945A/P	RT7557(1)	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q502	2SC945AP		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
	2SC945A/P	RT7557(1)	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199

* Lead configuration may vary from original.

(1) Used in some versions.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFRG. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C1	.1 10V	RT5264		TDC104M050EL	QDT1-2	SD50-R109
C2	10 16V	EA31X246	PC10-25	VTT10B25	QV1-41	EV-1222
C3	.22 10V	RT8326		TDC224M050EL	QDT1-10	SD50-R229
C11	47 10V	EA31X214	PC50-16	VTT47D16	QV1-73	EV-1226
C18	1 50V	EA31X204	PC1-50	VTT1A50	QV1-11	EV-1615
C50	1 50V	EA31X204	PC1-50	VTT1A50	QV1-11	EV-1615
C72	10 16V	EA31X246	PC10-25	VTT10B25	QV1-41	EV-1222
C74	3.3 25V	EA2552	PC5-50	VTT3R3A50	QV1-23	EV-1318
C76	1 50V	EA31X204	PC1-50	VTT1A50	QV1-11	EV-1615
C78	47 16V	EA31X214	PC50-16	VTT47D16	QV1-73	EV-1226
C85	3.9 10V	EA31X242		TDC475M010EL	QDT1-48	SD10-4R79
C86	.47 10V	EA31X223		TDC474M050EL	QDT1-19	SD50-R479
C87	33 6.3V	RT5269	PC30-25	VTT33B10	QV1-61	EV-1125
C93	47 16V	EA31X214	PC50-16	VTT47D16	QV1-73	EV-1226
C94	220 16V	RT5047	PC250-25	VTT220H16	QV1-117	EV-1240
C96	3.3 25V	EA31X239	PC5-50	VTT3R3A50	QV1-23	EV-1318
C97	47 10V	EA31X214	PC50-16	VTT47D16	QV1-73	EV-1226
C99	47 25V	EA31X209	PC50-25	VTT47E25	QV1-75	EV-1326
C100	1000 16V	EA31X200	PC1000-16	VTT1000L16	QV1-183	EV-1260
C101	33 6.3V	RT5269	PC30-25	VTT33B10	QV1-61	EV-1125
C113	1 50V	EA31X204	PC1-50	VTT1A50	QV1-11	EV-1615
C140	4.7 25V	EA31X211	PC5-50	VTT4R7B50	QV1-27	EV-1319

CAPACITORS

ITEM No.	RATING	MFRG. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C4	68 N150 50V	EA18X173			*		10TCP-Q68
C5	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C6	22 N150 50V	EA18X155			*		10TCP-Q22
C7	330 50V		DD-331	GP330	GP333		10TS-T33
C8	150 50V		DTZ-150		CN0315		10TCC-T15
C9	.047 50V		UK25-503		MAG2515		HY-735
C10	47 50V		DTZ-47	NP047	CN0447		10TCC-Q47
C12	4 NPO 50V		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C13	.001 50V			DPMS6D1	EFW1A210	QF1-1	1PB-D10
C14	68 N150 50V	EA18X173			*		10TCP-Q68
C15	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C16	33 50V	(1)	DTZ-33	NP033	CN0433		10TCC-Q33
C17	47 N150 50V	EA18X248					10TCP-Q47
C19	.001 50V			DPMS6D1	EFW1A210	QF1-1	1PB-D10
C20	.001 50V			DPMS6D1	EFW1A210	QF1-1	1PB-D10
C21	.001 100V			CD19FD102J03	SX210		MWC-102
C22	2 50V		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C23	7 50V		DTZ-6R8	NP06P8	CN0568		10TCC-V68
C24	33 N150 50V	EA18X232			*		10TCP-Q33
C25	4 N150 50V	RT7562			*		10TCP-V39
C26	330 50V		DD-331	GP330	GP333		10TS-T33
C27	390 50V		DD-391	GP390	GP339		10TS-T39
C28	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C29	68 N150 50V	EA18X173			*		10TCP-Q68
C30	56 50V				CN0456		10TCC-Q56
C31	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C32	2 50V		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C33	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C35	68 N150	EA38X173			*		10TCP-Q68
C36	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C37	100 N150 50V	EA18X186			*		10TCP-T10
C38	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C39	.01 50V			WMF1S1	EFW1A110	QF1-91	1PB-S10
C40	330 50V		DD-331	GP330	GP333		10TS-T33
C41	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10

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
C42	120 50V		DTZ-120		CN0312		10TCC-T12
C43	220 50V		DD-221		GP322		10TS-T22
C44	120 50V		DTZ-120		CN0312		10TCC-T12
C45	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C46	120 50V		DTZ-120		CN0312		10TCC-T12
C47	270 500V			CD15FD271J03	SX327	QW1-37	MWB-271
C48	2 50V		DTZ-2R2	NPO2P2	CN0522		10TCC-V22
C49	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C51	27 50V				CN0427		10TCC-Q27
C52	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C53	.047 50V		UK25-503		MAG2515		HY-735
C54	.047 50V		UK25-503		MAG2515		HY-735
C55	.047 50V			DPMS2S47	EW1A147	QF1-171	1PB-S47
C56	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C57	10 50V		DTZ-10	NPO10	CN0410		10TCC-Q10
C58	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C59	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C60	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C61	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C62	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C63	2 50V		DTZ-2R2	NPO2P2	CN0522		10TCC-V22
C64	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C65	18 NPO 50V				CN0418		10TCC-Q18
C66	2.2 500V		DTZ-2R2	NPO2P2	CN0522		10TCC-V22
C67	.047 50V			DPMS2S47	EW1A147	QF1-171	1PB-S47
C68	.047 50V			DPMS2S47	EW1A147	QF1-171	1PB-S47
C69	.047 50V			DPMS2S47	EW1A147	QF1-171	1PB-S47
C70	.047 50V			DPMS2S47	EW1A147	QF1-171	1PB-S47
C71	.047 50V			DPMS2S47	EW1A147	QF1-171	1PB-S47
C73	.0068 50V			WMF1D68	EW1A268	QF1-73	1PB-D68
C75	.0047 50V			WMF1D47	EW1A247	QF1-57	1PB-D47
C77	100 50V		DD-101	GP100	GP310		10TS-T10
C79	.022 50V			DPMS2S22	EW1A122	QF1-127	1PB-S22
C80	.0022 50V		DD-222		GP222	QC2-97	5GA-D22
C81	.022 50V			DPMS2S22	EW1A122	QF1-127	1PB-S22
C82	220 50V		DD-221		GP322		10TS-T22
C83	.01 50V			WMF1S1	EW1A110	QF1-91	1PB-S10
C84	.0022 50V		DD-222		GP222	QC2-97	5GA-D22
C88	68 50V		DD-680	GP68	GP468		10TS-Q68
C89	68 50V		DD-680	GP68	GP468		10TS-Q68
C90	100 50V		DD-101	GP100	GP310		10TS-T10
C91	.068 50V			WMF1S68	EW1A168	QF1-195	1PB-S68
C92	100 50V		DD-101	GP100	GP310		10TS-T10
C95	.068 50V			WMF1S68	EW1A168	QF1-195	1PB-S68
C102	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C106	.047 50V		UK25-503		MAG2515		HY-735
C107	.047 50V		UK25-503		MAG2515		HY-735
C110	18 50V				CN0418		10TCC-Q18
C112	39 50V				CN0439		10TCC-Q39
C114	390 500V			CD15FD391J03	SX339	QW1-41	MMA-391
C117	.0047 50V			WMF1D47	EW1A247	QF1-57	1PB-D47
C118	.022 50V		DC-253	MGP025	TA125		TG-S25
C130	.0022 50V		DD-222		GP222	QC2-97	5GA-D22
C131	39 N150	EA18X141			*		10TCP-Q39
C132	15 N150	EA18X200			*		10TCP-Q15
C133	.0027 50V		DD-222		GP222	QC2-97	5GA-D22
C134	3 50V		DTZ-3R3	NPO3P3	CN0533		10TCC-V33
C135	220 50V		DD-221		GP322		10TS-T22
C136	.0033 100V			CD19FD332J03	SX233		MWC-332
C137	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C138	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C139	220 50V		DD-221		GP322		10TS-T22
C201a	150 50V			CD15FD151J03	SX315	QW1-31	MMA-151
C201b	7 50V		DTZ-6R8	NPO6P8	CN0568		10TCC-V68
C202	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C203	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C204	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C205	.047 50V		UK25-503		MAG2515		HY-735
C206	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C207	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C208	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C209	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C210	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C211	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C212	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C213	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C501	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C502	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C503	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
CT1	20	EA30X52					

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.
(1) Used in some versions.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
RV1	Squelch Range	10K	EA49X330				
RV2	AMC	5000	EA49X345				
RV3	S Meter	20K	EA49X332				
RV4	RF Meter	20K	EA49X332				
RV501	Antenna Warning	10K	EA49X354				
VR1	Volume Switch	50K	EA49X328				
VR2	Squelch	10K	EA49X344				

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	VCO	EA36X257			
L2	VCO	EA36X258			
L3	RF Choke (68uH)	EA36X239			
L4	RF Choke (1uH)	EA36X259			
L5	Xmit Mixer (27MHz)	EA36X260			
L6	RF Choke (2.2uH)	EA36X237			
L7	Xmit Driver (27MHz)	EA36X238			
L8	RF Choke (68uH)	EA36X239			
L9	RF Choke (.55uH)	EA36X245			
L10	RF Choke (1uH)	EA36X240			
L11	Final (27MHz)	EA36X241			
L12	Pi Filter (27MHz)	EA36X242			
L13	RF Choke (.4uH)	EA36X261			
L14	IF (10.695MHz)	EA36X262			
L15	RF Choke (68uH)	EA36X239			
L16	RF Choke (1.15uH)	EA36X263			
L17	RF Choke (1.15uH)	EA36X263			
T1	Ref Oscillator (10.240MHz)	EA35X102			
T2	VCO	EA36X264			
T3	Xmit Mixer (27MHz)	EA36X247			
T4	Xmit Buffer (27MHz)	EA36X248			
T5	Rec Antenna (27MHz)	EA36X249			
T6	Rec RF (27MHz)	EA36X265			
T7	IF (10.695MHz)	EA36X266			
T8	IF (455kHz)	EA61X188			
T9	IF (455kHz)	EA61X189			
T10	IF (455kHz)	EA61X190			

GENERAL ELECTRIC MODEL 3-5812A

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
CH1	1.3A	.24	3.72mH	EA36X256 LJ119H004W (1)			(1) Number on unit.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE			REPLACEMENT DATA			NOTES
	PRI.	SEC.		MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T11	2.88	1 8	2 13.5	EA64X30 ETA-66 (1)	TR723	MCB-16	(1) Number on unit.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	3 5/8" PM 8 ohms	EA95X120	3A05Z8R	

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	2 Amp	EA68X64	EA68X59	AG2-2	HDJ	312002	150145	FG2-2

MICROPHONE

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	EA68X123	18-032	18-034	18-010	18-092	1	2	4	3	NC	2

CRYSTALS

ITEM No.	CRYSTAL FREQUENCY IN MHz	MFGR. PART No.	CTS KNIGHTS PART No.	CHANNEL	ITEM No.	CRYSTAL FREQUENCY IN MHz	MFGR. PART No.	CTS KNIGHTS PART No.	CHANNEL
X1	10.240	EA75X5	CA60W10240	Ref. Osc.	X2	10.695	EA75X6		Xmit Osc.

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF1	Ceramic Filter	EA36X232	455kHz
J1	Jack	EA95X143	Antenna
J2	Jack	EA41X148	Microphone
J3	Jack	EA41X135	PA
J4	Jack	EA41X135	External Speaker
J5	Jack	EA41X149	Power
M1	Meter	EA62X151	
PL1	Lamp	EA41X144	Channel (4.98V @ 32mA)
PL2	Lamp	EA41X144	Meter (4.98V @ 56mA)
PL3	Lamp	EA41X150	AWI (5.02V @ 30mA)
PL4	Lamp	EA41X145	TX (4.68V @ 30mA)
S1	Switch		Power (Part of Volume Control)
S2	Switch	EA39X224	Delta Tune
S3	Switch	EA39X225	ANL
S4	Switch	EA39X223	CB/PA
S5	Switch	EA39X225	NB
SW1	Switch	EA53X134	Channel Selector

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

ITEM	PART No.	ITEM	PART No.
Escutcheon	EA89X255	Microphone Holder	EA68X65
Cabinet Top	EA98X489	Knob, Channel Selector	EA43X681
Cabinet Bottom	EA98X490	Knob, Control	EA43X682