

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 14T275

RCA MODEL 14T275

MANUFACTURER'S SPECIFICATIONS

GENERAL

Operating Frequency Range 26.965 to 27.405 MHz
Channel Coverage Ch. 1 to Ch. 40 incl.
Frequency Control Crystal-controlled
phase-lock loop

Operating Temperature Range -30 to 50 °C. (-22 to 112 °F)
Power Requirements (Automotive-type electrical system):

Voltage 10-15 Vdc
Current (Typical Average) 0.7A (Rec); 1.2A (Xmtr)

TRANSMITTER SECTION

Emission Classification (FCC) 6A3
Power Output 4W
Maximum Modulation (FCC Limit) 100%
Harmonic & Spurious Suppression 60 dB min.
Output Impedance (Antenna Load) 50 Ohms

RECEIVER SECTION

Sensitivity (10 dB s/n) 0.7 µV
Adjacent Channel Rejection 40 dB min.
Image Rejection (First IF frequency) 60 dB min.
Spurious Rejection 40 dB min.
Intermediate Frequencies 10.695 MHz; 455 kHz
Squelch Sensitivity (Adjustable) 1.5 µV to 100 µV
Audio Power Output (Less than 10% THD) 3W min.

Courtesy of the Manufacturer

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

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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.

Connect Microphone

Suggested Alignment Tools:

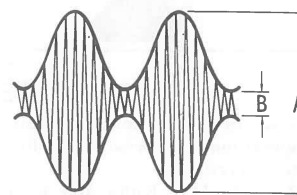
GC ELECTRONICS

L1, L2, L5, T1 thru T69440

L7, L11, L129300, 9302, 9304

L14, T7 thru T105000, 5009, 8276, 8728, 8728A

CT1.5000, 8276



$$\text{Modulation Ratio} = \frac{A - B}{A + B} \times 100 (\%)$$

FIGURE 1

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP1 (Q2 Emitter).	Ch. 19	CT1	Adjust for 10.240MHz +50Hz.
Input of oscilloscope to TP2 (T1 Secondary).	Ch. 19	T1	Adjust for maximum RF output.
Input of frequency counter to TP2 (T1 Secondary).	Ch. 19		Check for 20.480MHz.
Input of DC meter to TP8.	Ch. 1	L1	Adjust for 3.60 volts <u>+.1</u> volt.
Input of oscilloscope to TP3 (Junction of C22 and C57).	Ch. 19	L2, T2	Adjust for maximum RF output.
Input of frequency counter to TP3 (Junction of C22 and C57).	Ch. 1		Check for 37.660MHz. Check all channels. (See Truth Chart for correct frequencies).
Input of frequency counter to TP4 (IC1 pin 2).	Ch. 1		Check for 3.300MHz. Check all channels. (See Truth Chart for correct frequencies).
Input of frequency counter to TP5 (IC3 pin 2).	Ch. 19, XMT		Check for 10.695MHz.

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 TP6 (Q10 Emitter). 455kHz, 1000Hz @ 30% modulation.	Ch. 19 Squelch MINIMUM	T10, T9, T8	Adjust for maximum output.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19 Squelch MINIMUM	T7, L14, T6, T5	Adjust for maximum output. If necessary readjust T8, T9 and T10 for maximum.

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 input. 27.185MHz, 1000Hz @ 30% modulation. Output 1000uV.	Ch. 19 Squelch Maximum	RV1	SQUELCH RANGE Adjust so that squelch just breaks.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 2.5uV.	Ch. 19 Squelch MINIMUM Volume Maximum	RV5	VOLUME RANGE Adjust for 2.00 volts or .5 watts audio output.

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
Input of RF wattmeter and 50 ohm, 25 watt dummy load to antenna input.	Ch. 19	L5,T3,T4	Adjust for maximum RF output.
Input of RF wattmeter and 50 ohm, 25 watt dummy load to antenna input.	Ch. 19	L7,L11,L12	Adjust for 4.0 watts RF output maximum.

TRANSMITTER ADJUSTMENTS

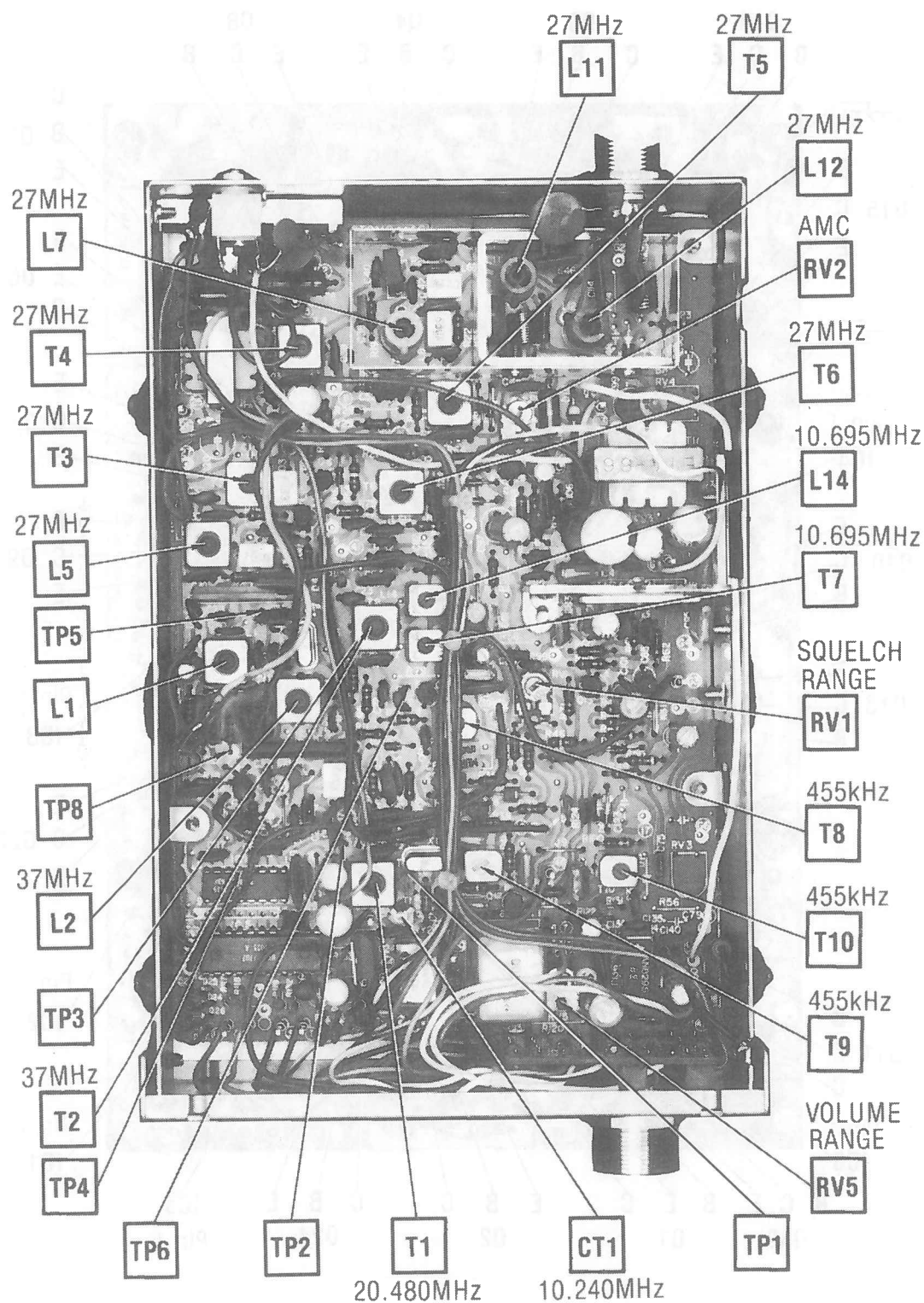
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.
NOTE: Be sure to check transmit frequency and power on all active channels after adjustment of transmitter.
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of oscilloscope or modulation meter to antenna input. Inject a 1000Hz, 20mV signal at MIC input.	Ch. 19	RV2	AMC Adjust for 85% modulation. See Figure 1.

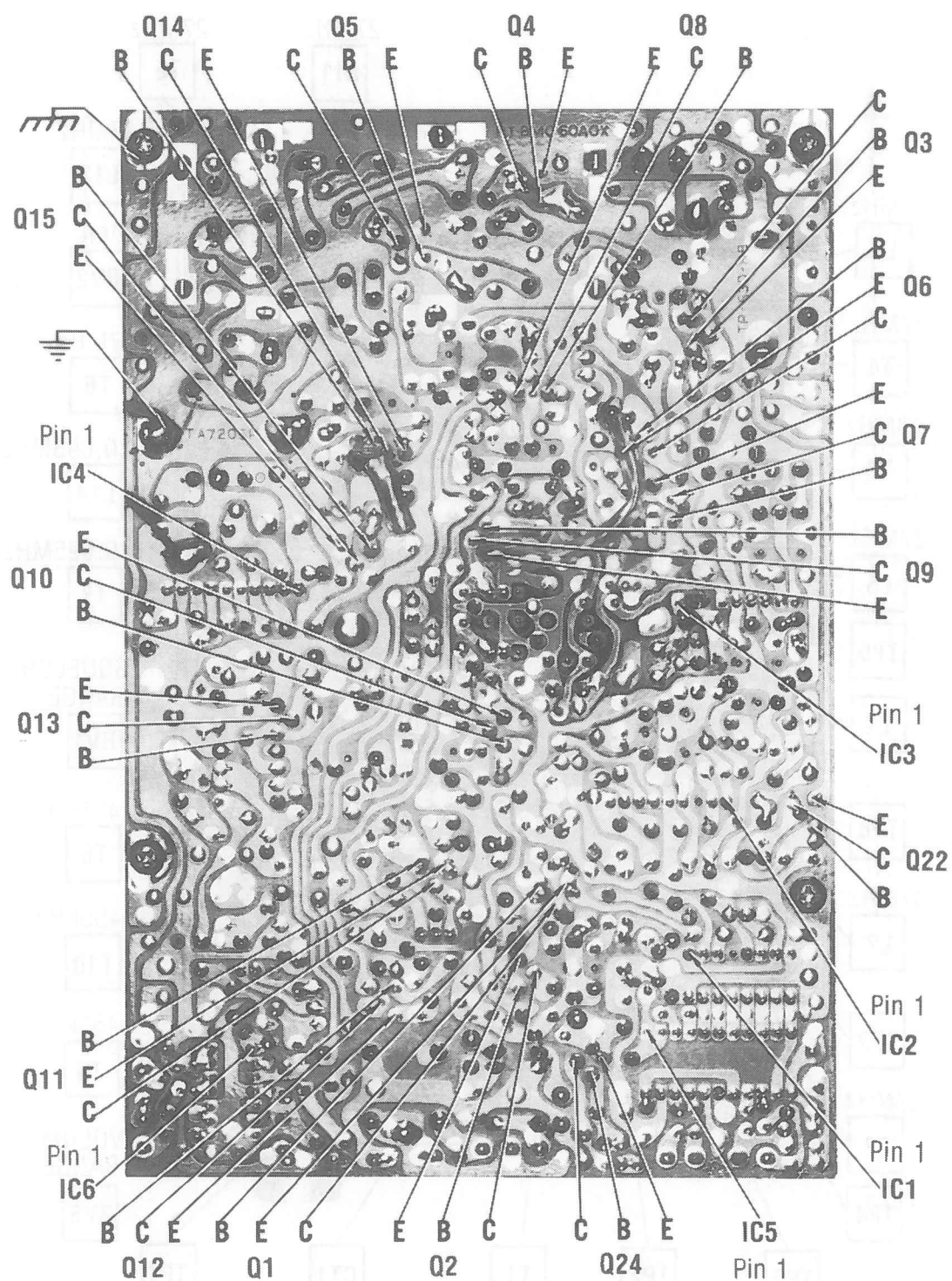
RCA MODEL 14T275

TRUTH CHART

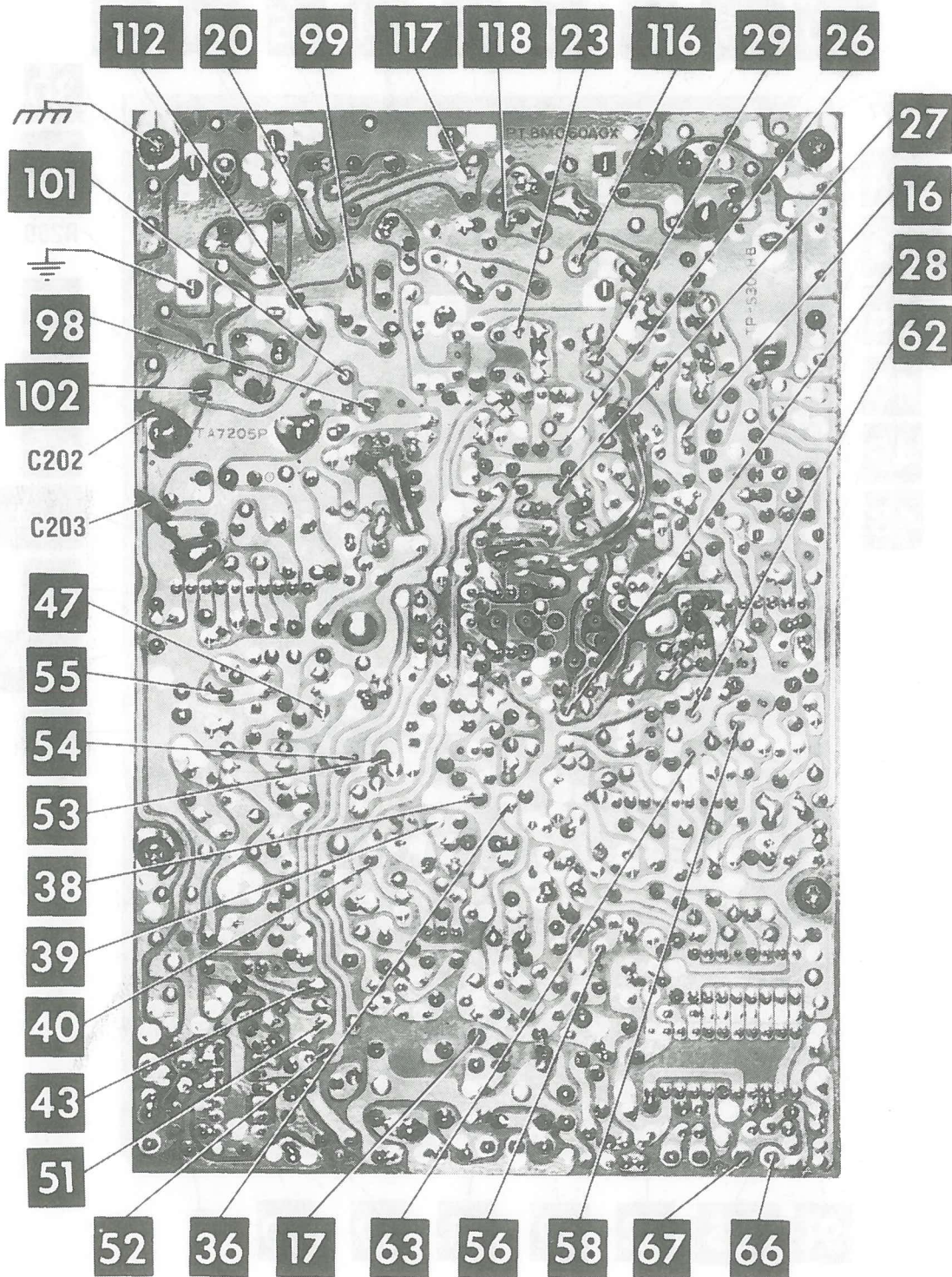
CHANNEL	1 = 5.00 Volts 0 = 0 Volts IC1 PROGRAM DIVIDER								DIVIDER INPUT IN MHz AT TP4	REC AND XMT SYNTH OUTPUT IN MHz AT TP3	
	PINS										
		9	10	11	12	13	14	15			
1		1	0	0	1	0	1	0	3.300	37.660	
2		1	0	0	1	0	0	1	3.290	37.670	
3		1	0	0	1	0	0	0	3.280	37.680	
4		1	0	0	0	1	1	0	3.260	37.700	
5		1	0	0	0	1	0	1	3.250	37.710	
6		1	0	0	0	1	0	0	3.240	37.720	
7		1	0	0	0	0	1	1	3.230	37.730	
8		1	0	0	0	0	0	1	3.210	37.750	
9		1	0	0	0	0	0	0	3.200	37.760	
10		0	1	1	1	1	1	1	3.190	37.770	
11		0	1	1	1	1	1	0	3.180	37.780	
12		0	1	1	1	1	0	0	3.160	37.800	
13		0	1	1	1	0	1	1	3.150	37.810	
14		0	1	1	1	0	1	0	3.140	37.820	
15		0	1	1	1	0	0	1	3.130	37.830	
16		0	1	1	0	1	1	1	3.110	37.850	
17		0	1	1	0	1	1	0	3.100	37.860	
18		0	1	1	0	1	0	1	3.090	37.870	
19		0	1	1	0	1	0	0	3.080	37.880	
20		0	1	1	0	0	1	0	3.060	37.900	
21		0	1	1	0	0	0	1	3.050	37.910	
22		0	1	1	0	0	0	0	3.040	37.920	
23		0	1	0	1	1	0	1	3.010	37.950	
24		0	1	0	1	1	1	1	3.030	37.930	
25		0	1	0	1	1	1	0	3.020	37.940	
26		0	1	0	1	1	0	0	3.000	37.960	
27		0	1	0	1	0	1	1	2.990	37.970	
28		0	1	0	1	0	1	0	2.980	37.980	
29		0	1	0	1	0	0	1	2.970	37.990	
30		0	1	0	1	0	0	0	2.960	38.000	
31		0	1	0	0	1	1	1	2.950	38.010	
32		0	1	0	0	1	1	0	2.940	38.020	
33		0	1	0	0	1	0	1	2.930	38.030	
34		0	1	0	0	1	0	0	2.920	38.040	
35		0	1	0	0	0	1	1	2.910	38.050	
36		0	1	0	0	0	1	0	2.900	38.060	
37		0	1	0	0	0	0	1	2.890	38.070	
38		0	1	0	0	0	0	0	2.880	38.080	
39		0	0	1	1	1	1	1	2.870	38.090	
40		0	0	1	1	1	1	0	2.860	38.100	



CHASSIS - BOTTOM

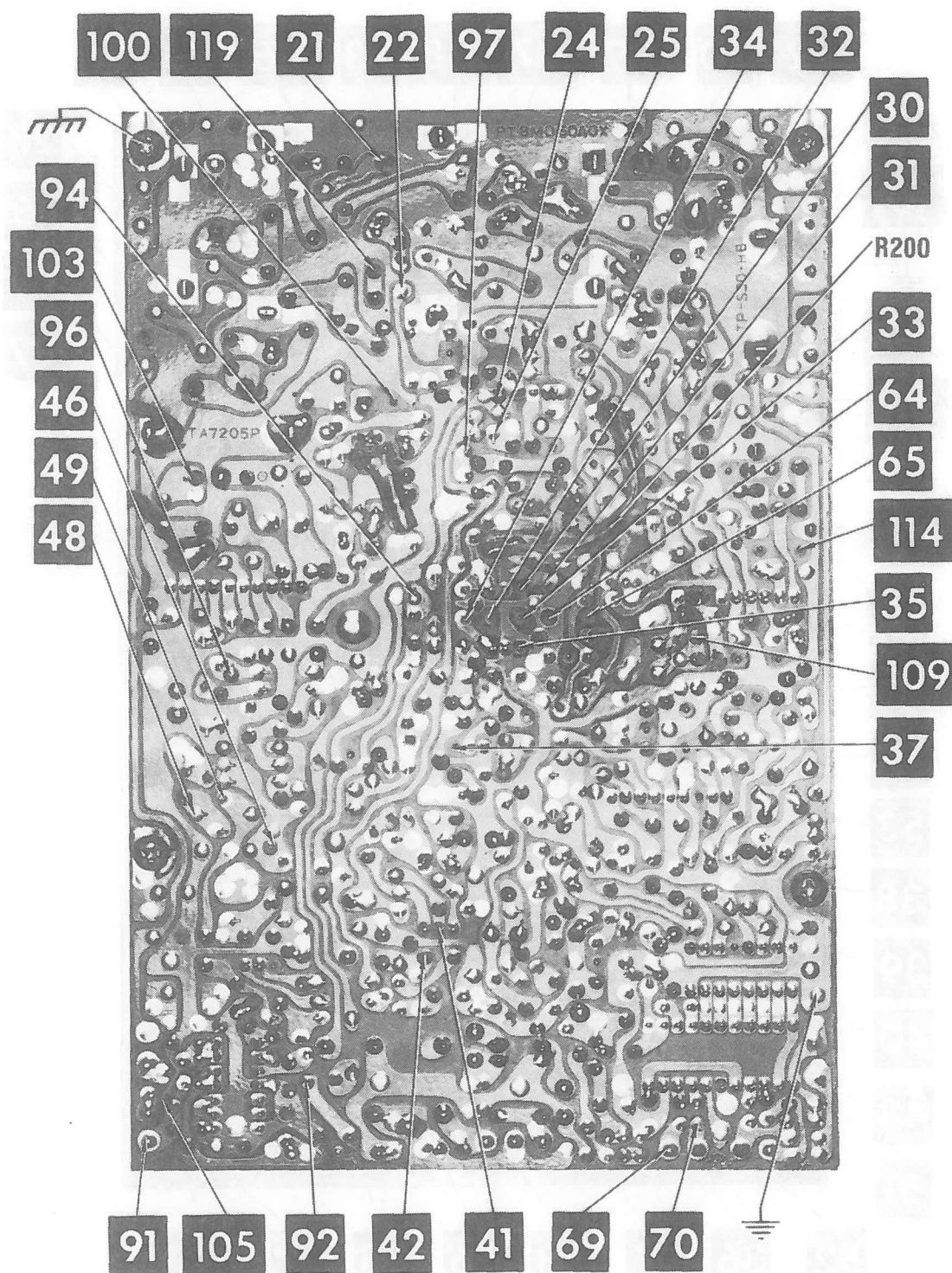


MAIN BOARD

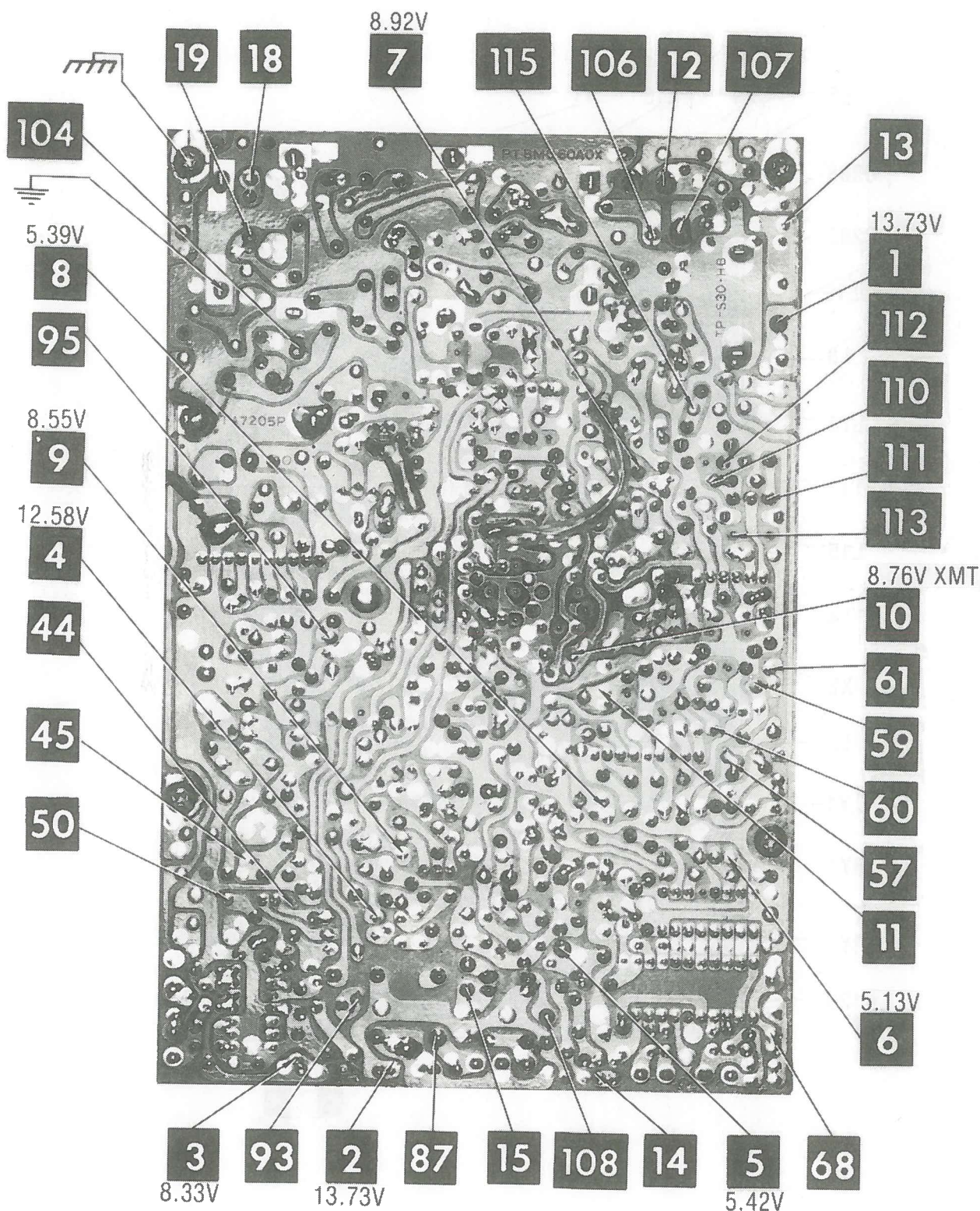


RCA MODEL 14T275

MAIN BOARD

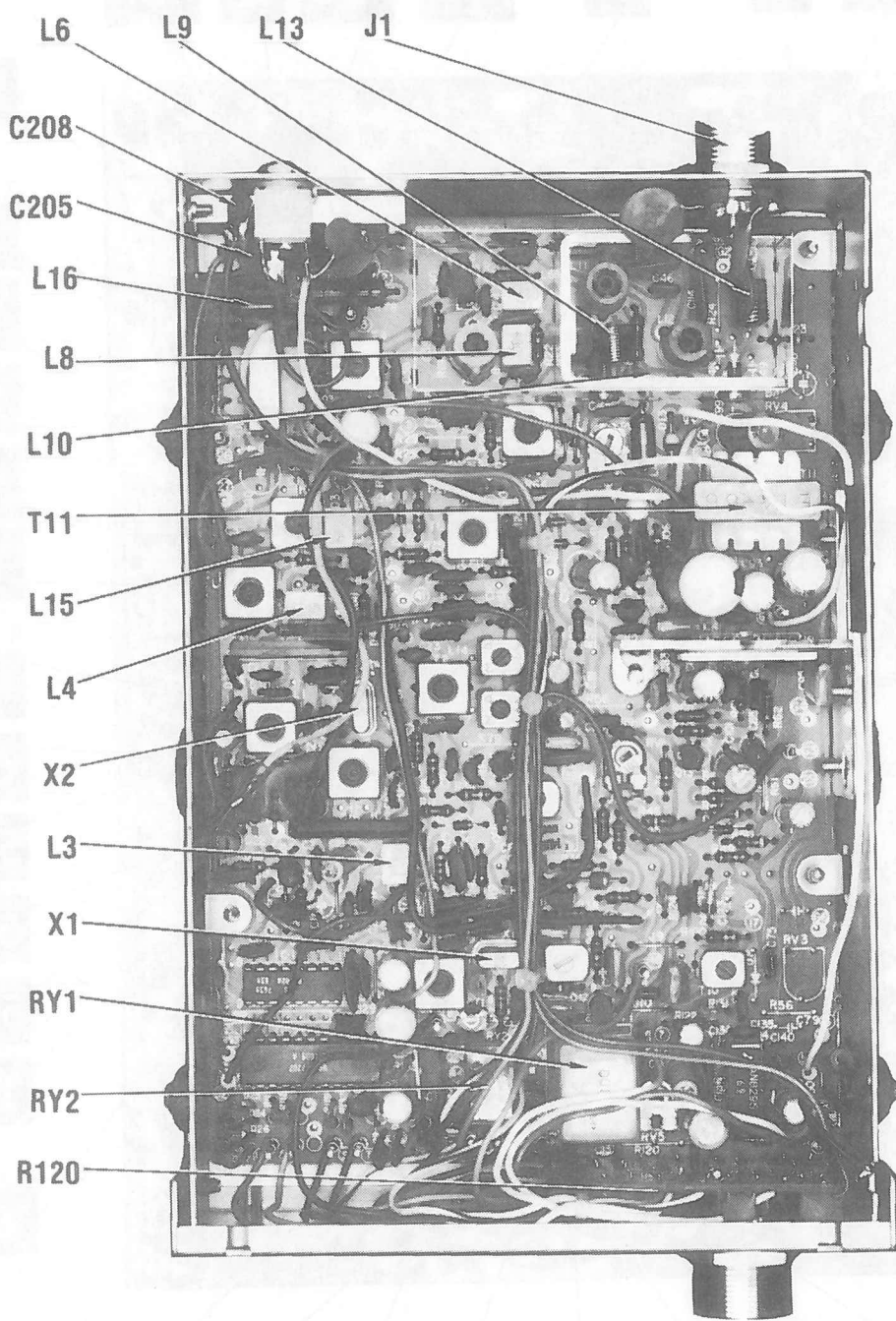


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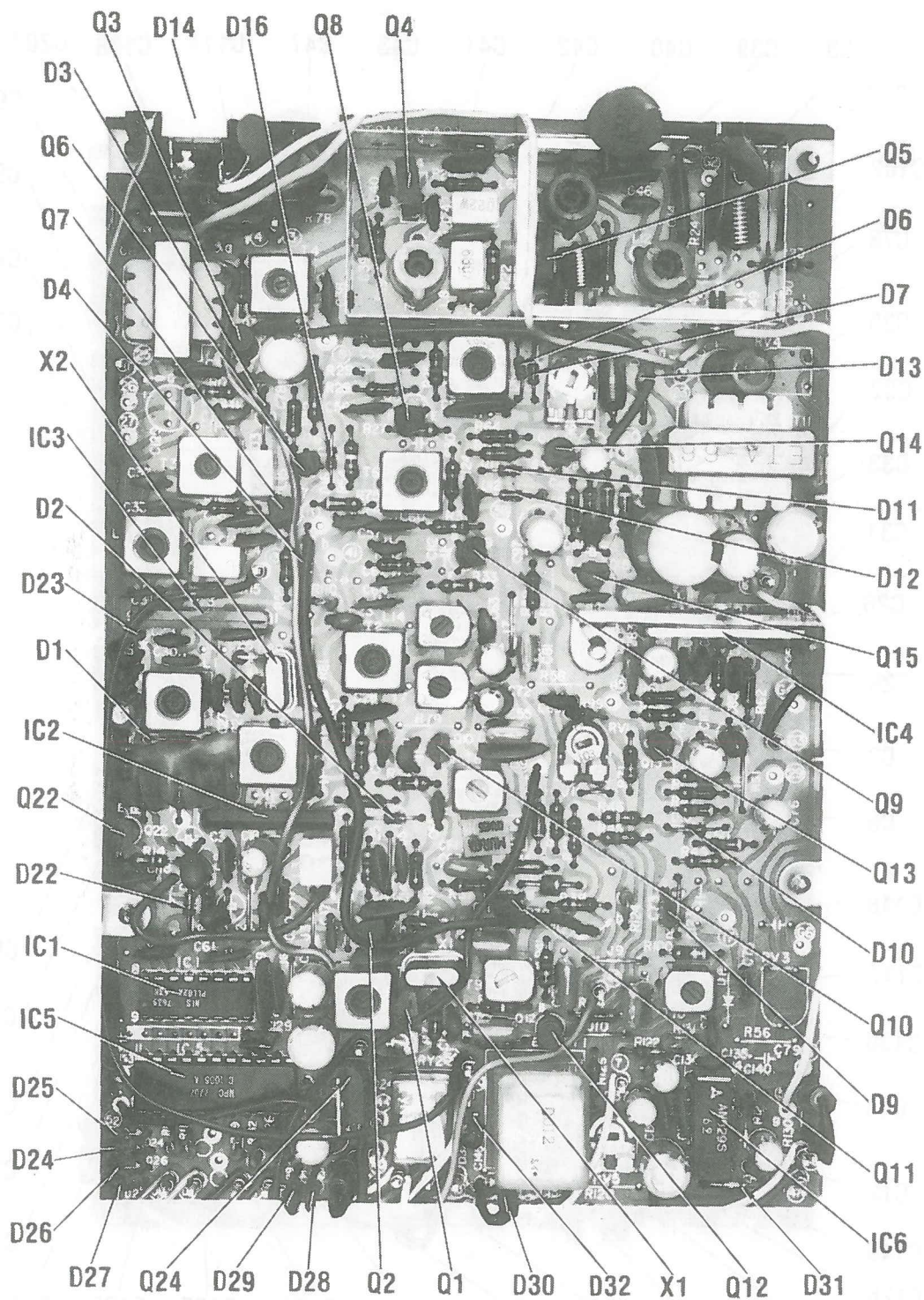


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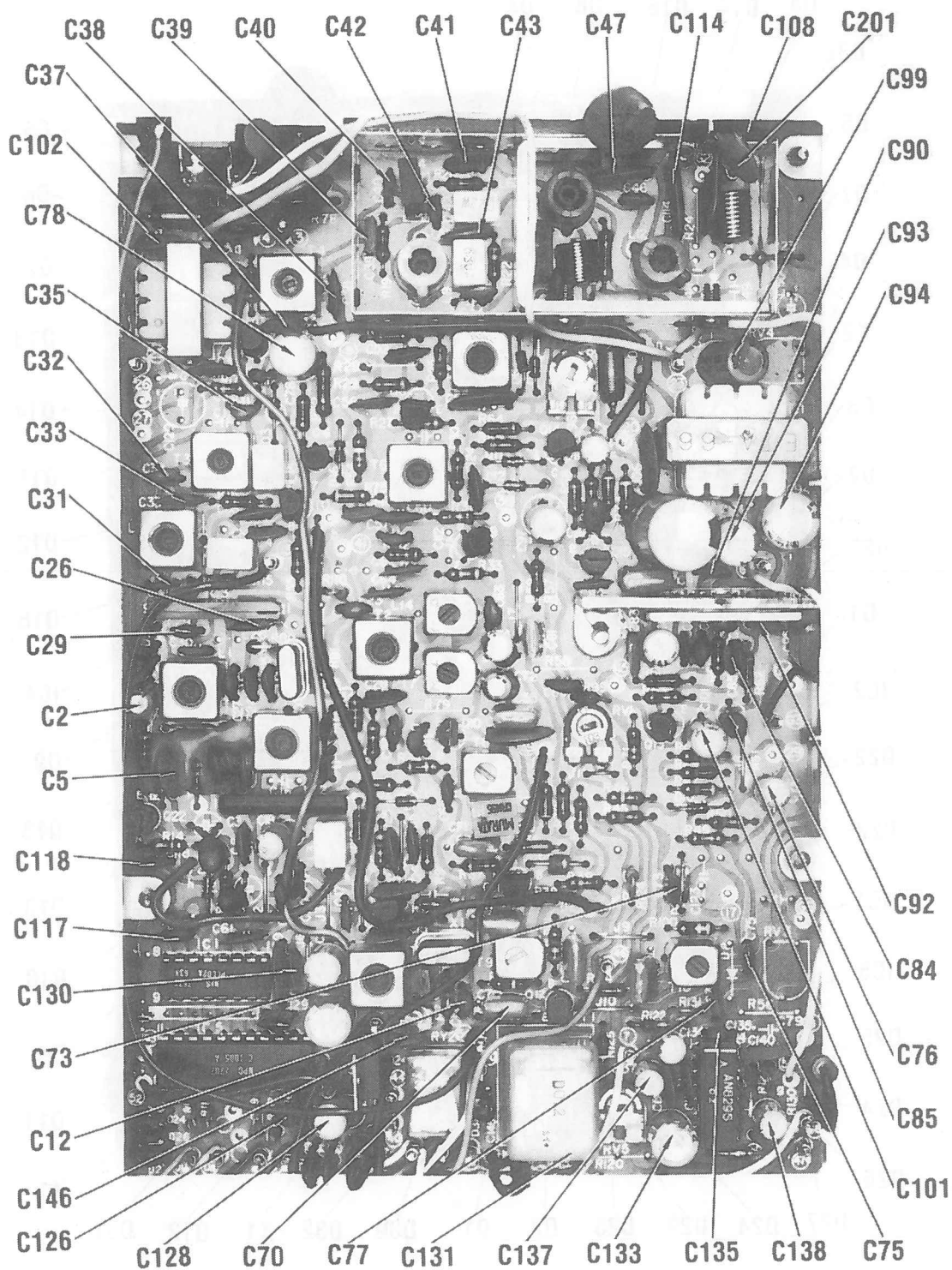
MOTOROLA MAIN BOARD



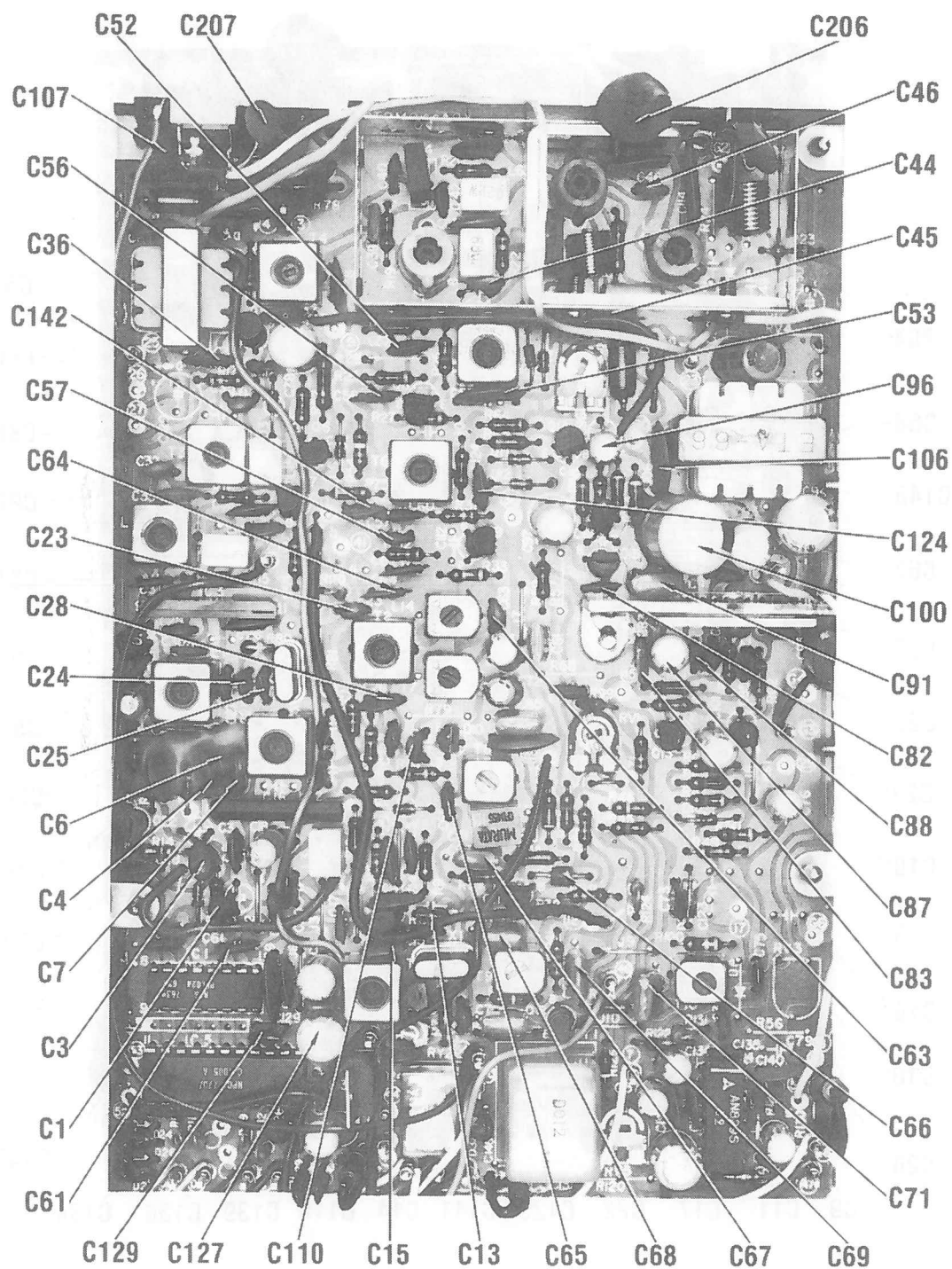
CHASSIS - BOTTOM



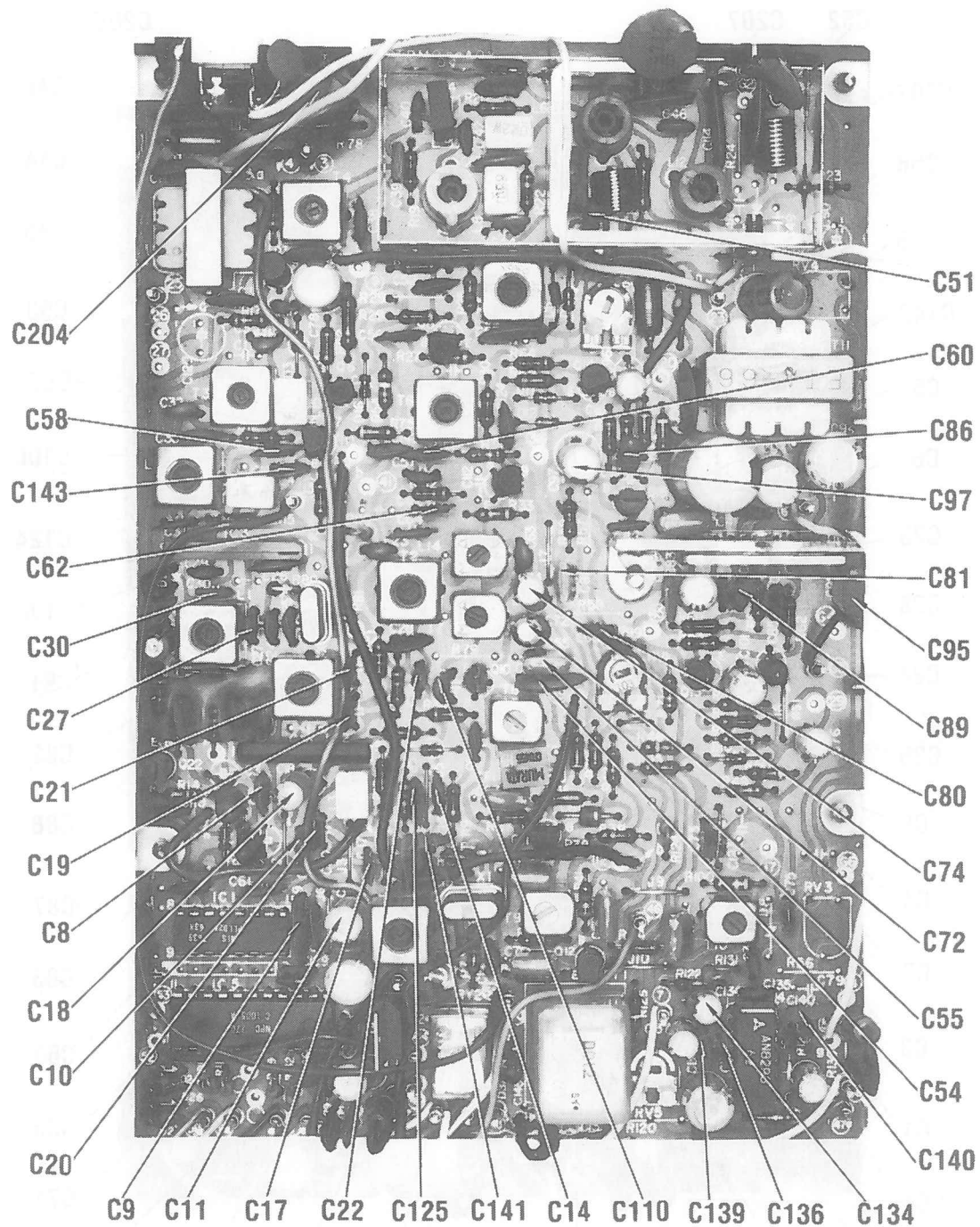
MAIN BOARD



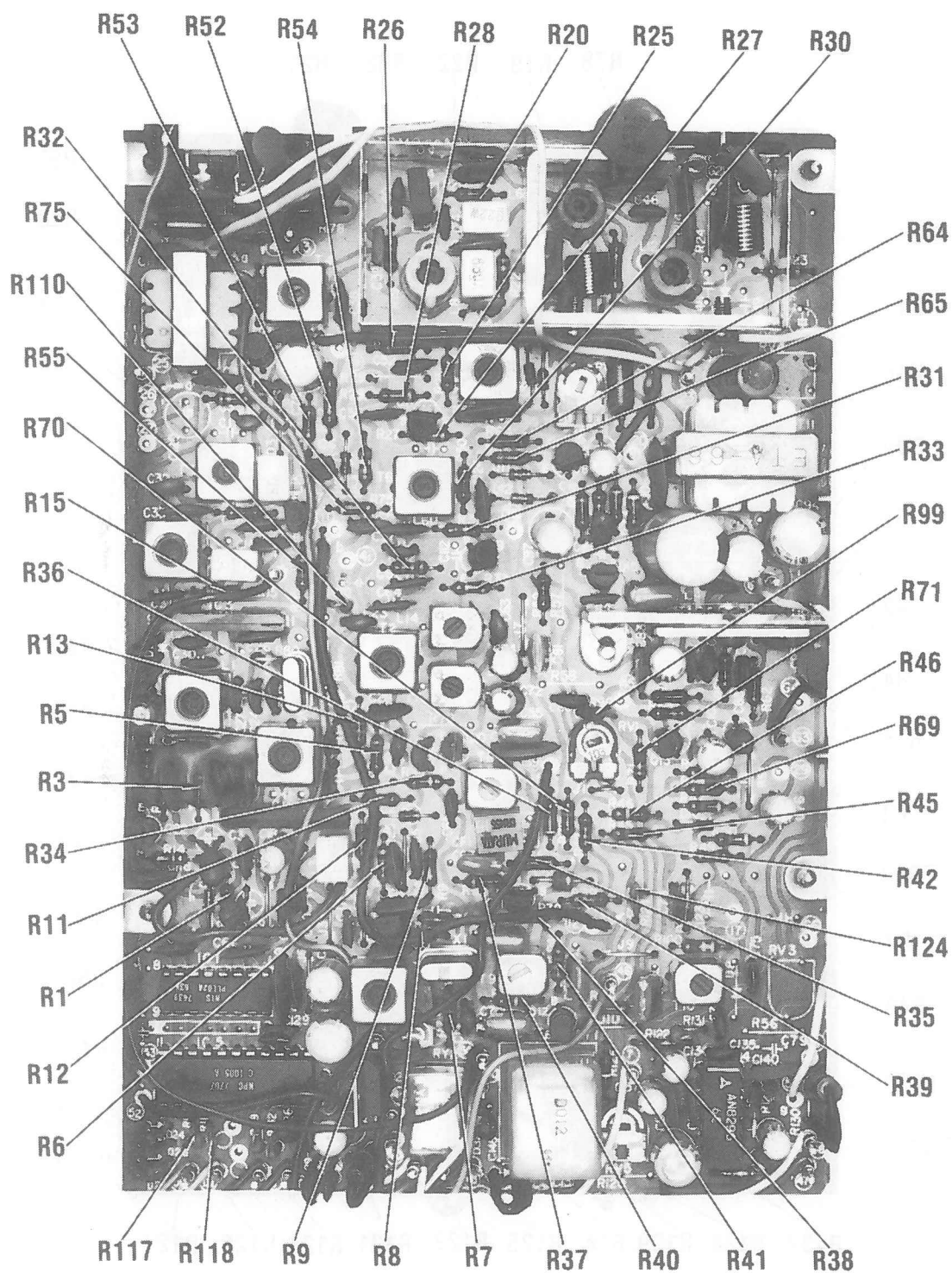
MAIN BOARD



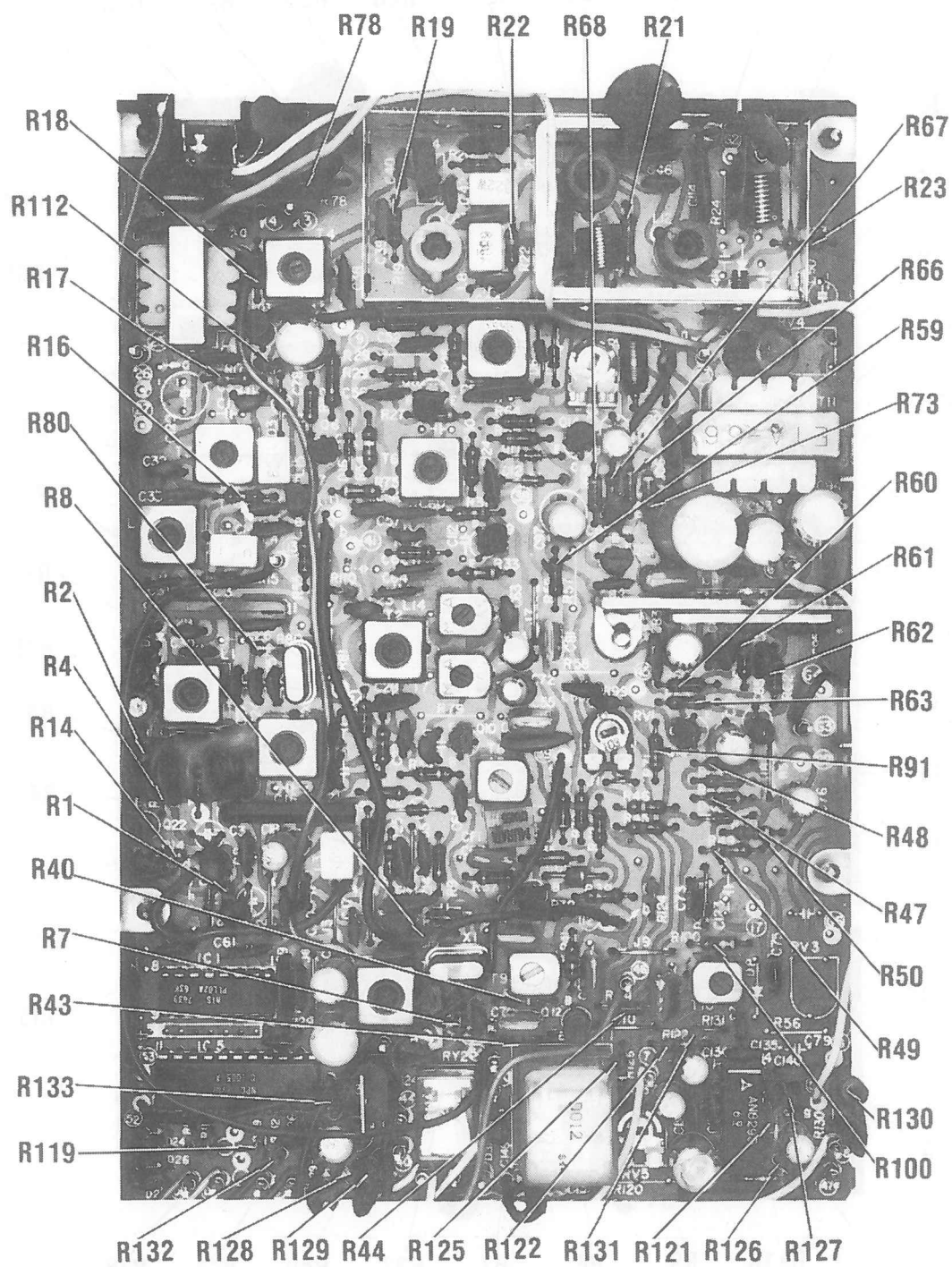
MAIN BOARD



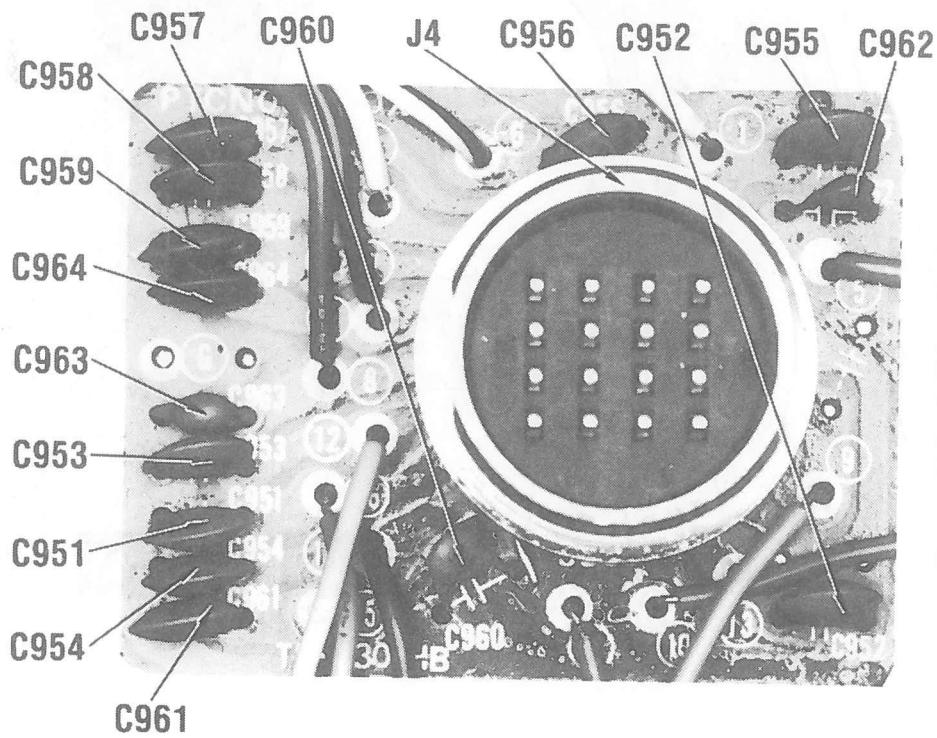
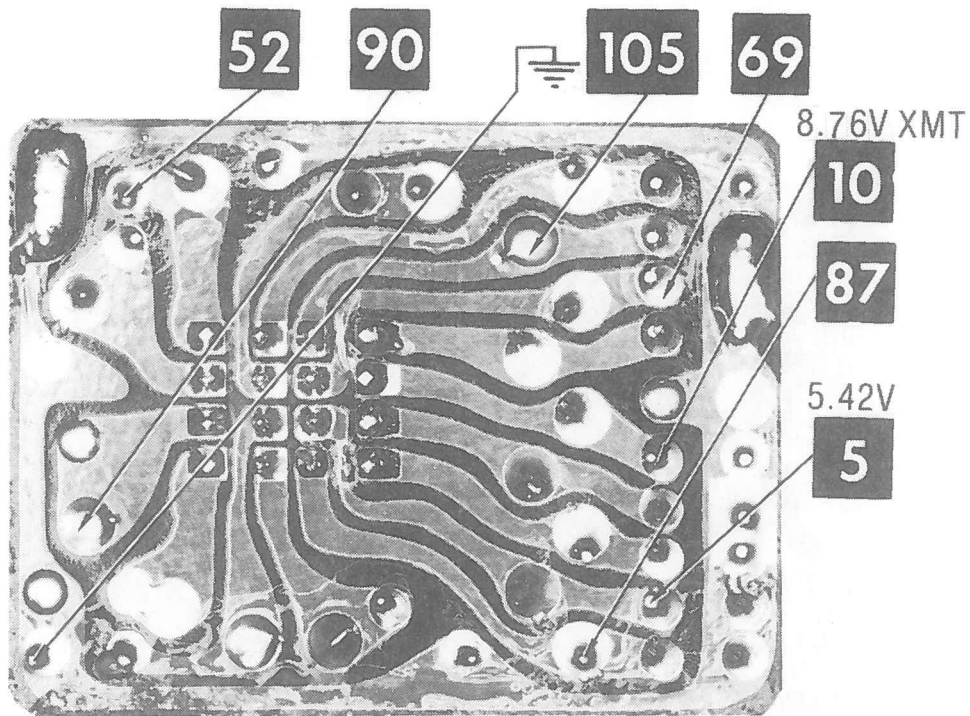
MAIN BOARD



MAIN BOARD

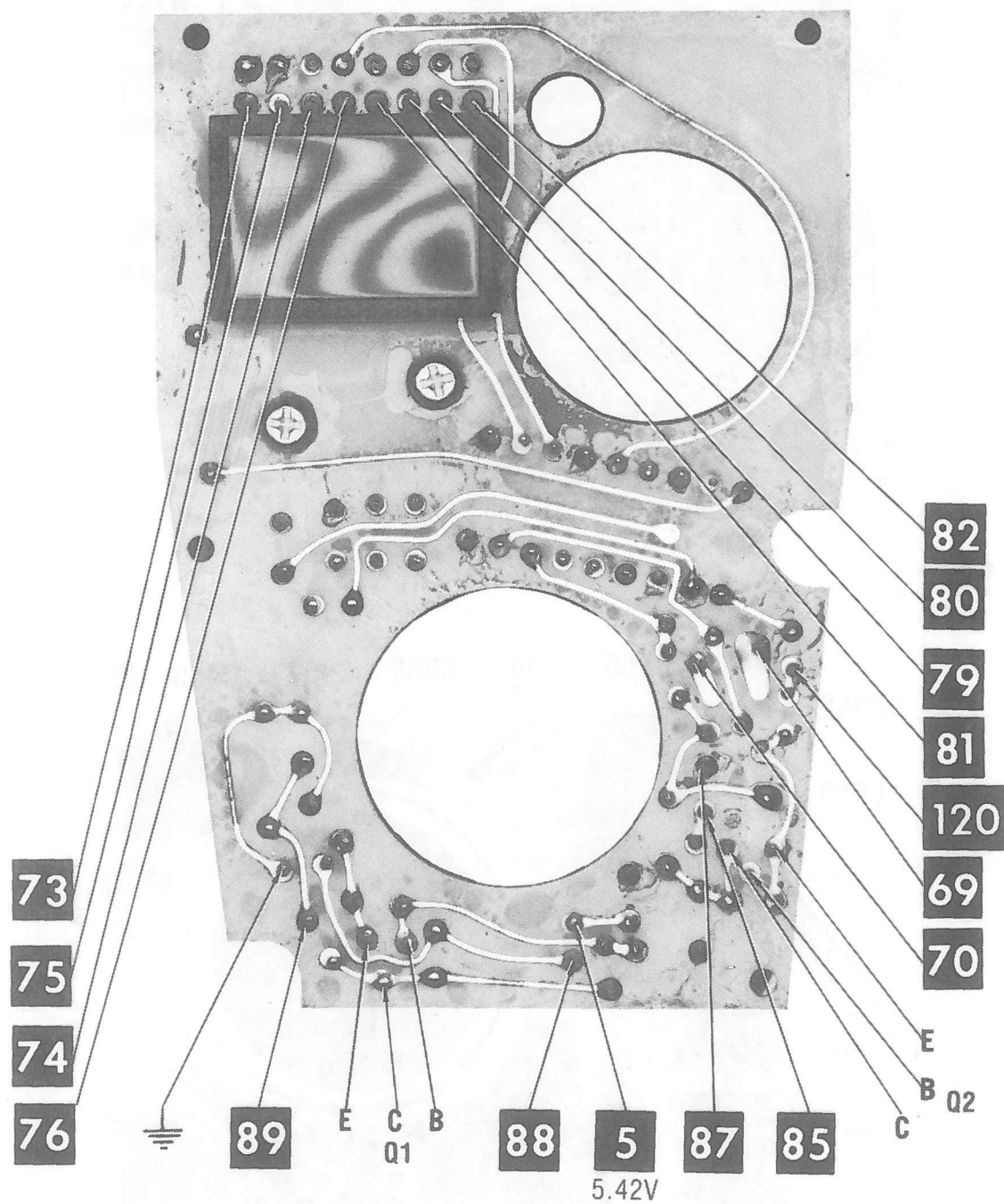


MAIN BOARD



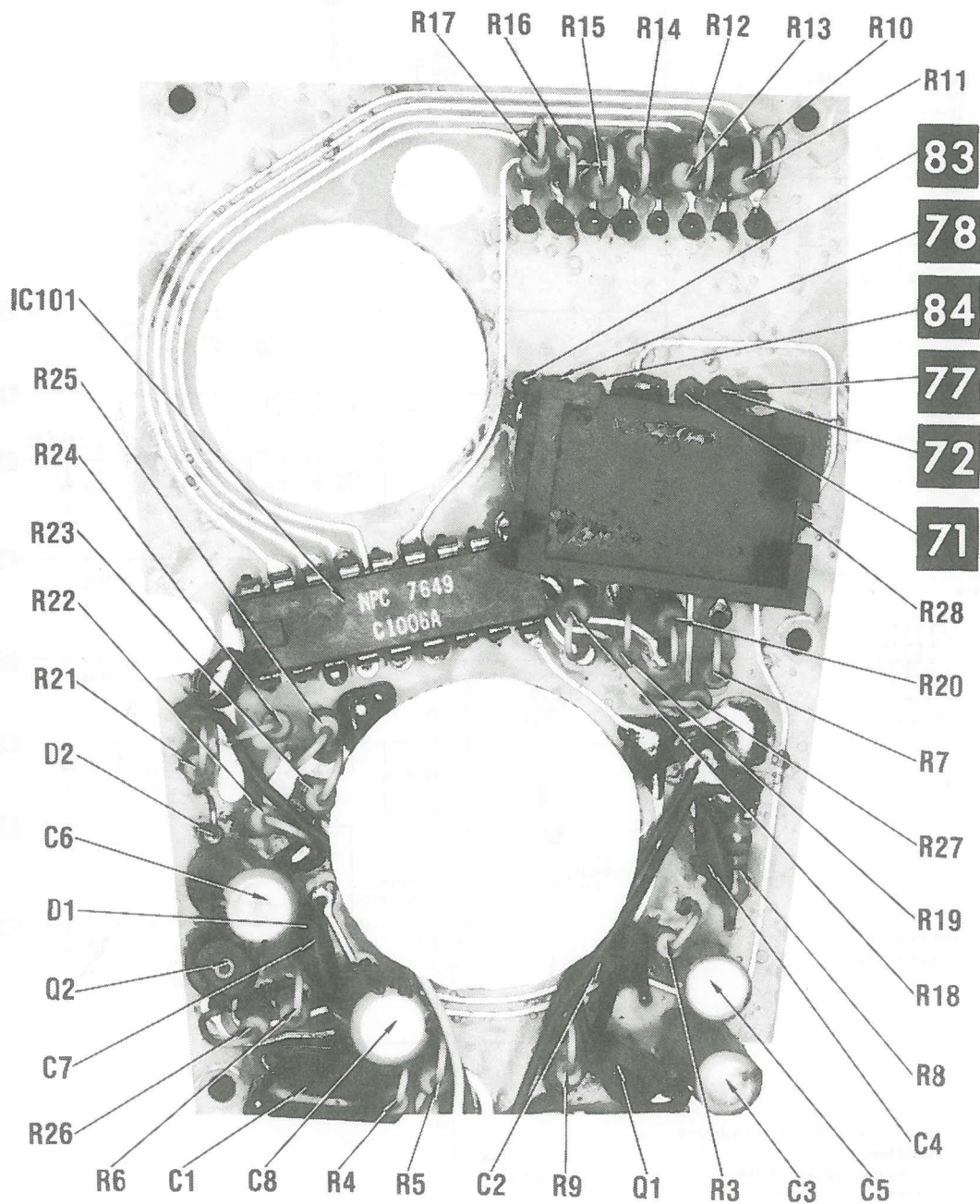
JACK BOARD

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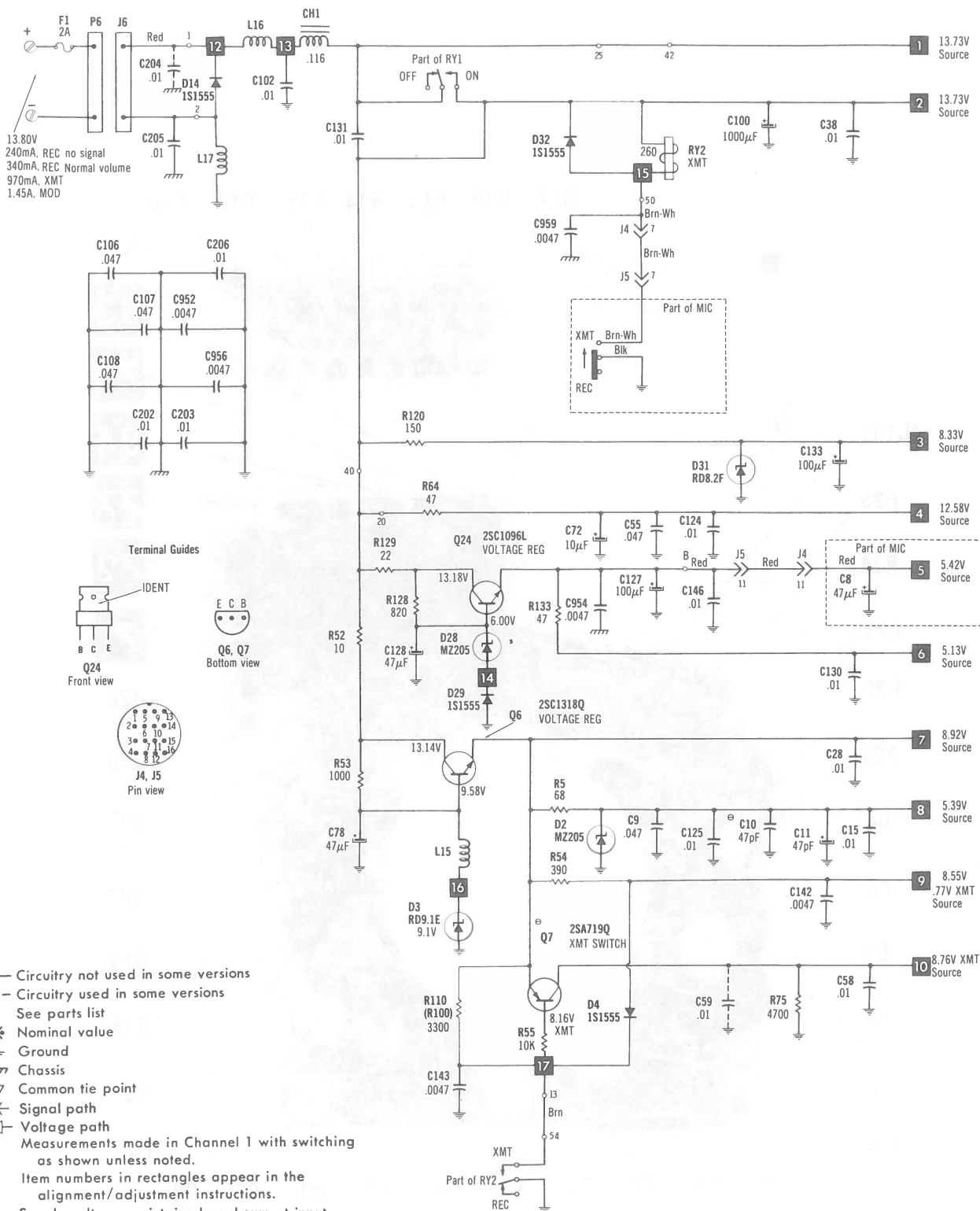


MIC AMP BOARD

RCA MODEL 14T275



MIC AMP BOARD

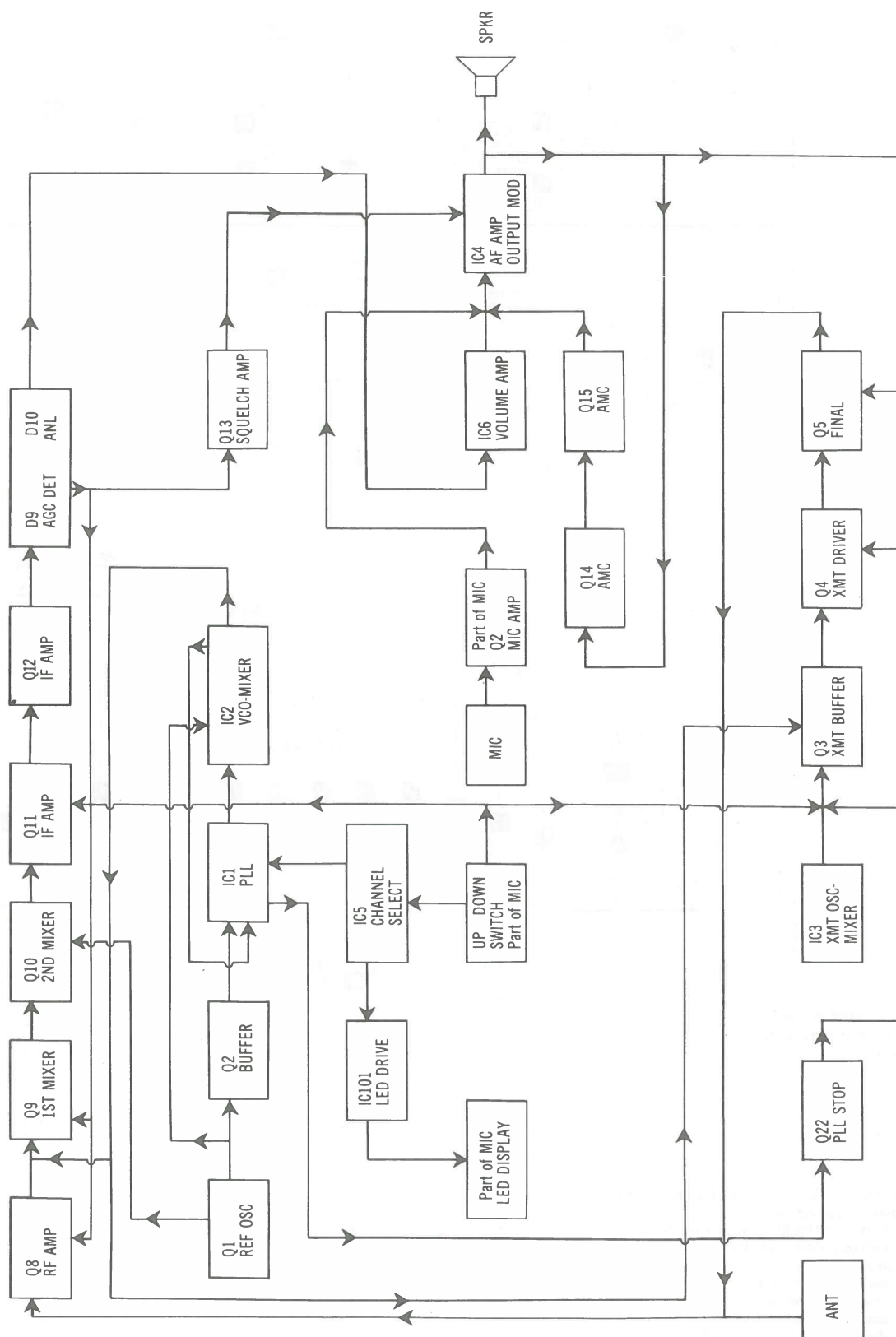


A PHOTOFAC STANDARD NOTATION SCHEMATIC

WITH **CIRCUITRACE**

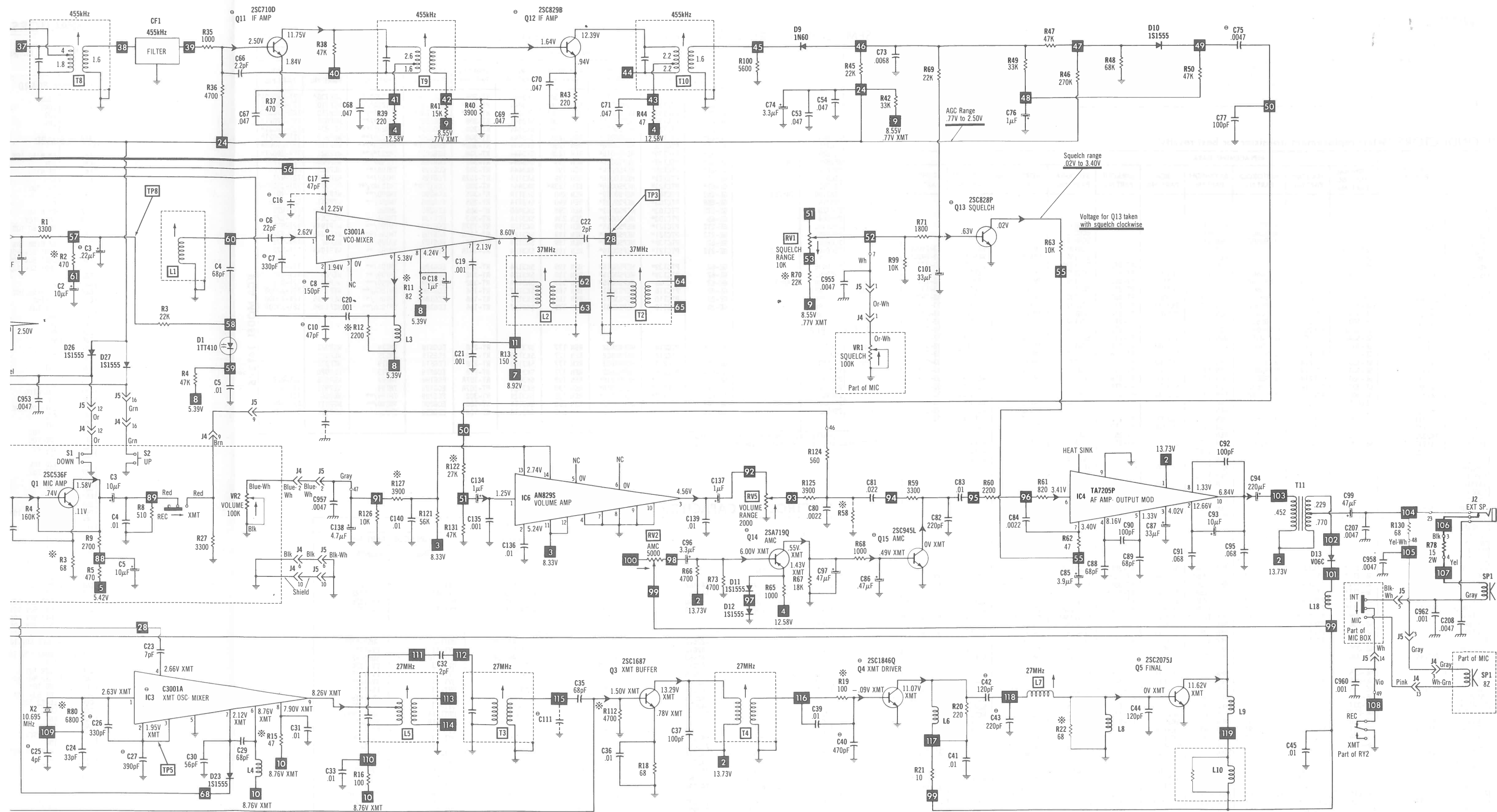
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BLOCK DIAGRAM





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	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.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
MAIN BOARD												
D1	ITT410	741689			HEPR2502	REN 612			ECG612			
	BB122				HEPR2502	REN 612			ECG612			
	MV201				HEPR2502	REN 612			ECG612			
D2	MZ205		GEZD-5.0			REN 135			ECG135	TM135	WEP1103	103-Z9006
	ZMZ605	741738	GEZD-5.0			REN 135			ECG135	TM135	WEP1103	103-Z9006
D3	RD9.1E	741739	GEZD-9.1	ZB9.1B		REN 139	SK3060	RT-240	ECG139A	1N4739A	WEP1109	103-272
D4	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D6	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D7	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D9	1N60	226344	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109	WEP134	103-Z9001
D10	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D11	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D12	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D13	V06C	166593	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
D14	1S1885	741740	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
D16	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D22	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D23	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D24	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D25	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D26	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D27	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D28	MZ205		GEZD-5.0			REN 135			ECG135	TM135	WEP1103	103-Z9006
	ZMZ205	741738	GEZD-5.0			REN 135			ECG135	TM135	WEP1103	103-Z9006
D29	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D30	1S1885	741740	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
D31	RD8.2F	742922	GEZD-8.2	ZB8.2A	HEPZ0411	REN 5072	SK3136	RT-257	ECG5072	TM5072/**	WEP1108	
D32	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
IC1	PLL02A	741686				REN 1167			ECG1167	TM1167	WEP2007	
	PLL02					REN 1167			ECG1167	TM1167	WEP2007	
IC2	C3001A					REN 1192	SK3445		ECG1192			
	C3001					REN 1192	SK3445		ECG1192			
IC3	TA7310P	742510				REN 1192	SK3445		ECG1192			
	C3001-0					REN 1192	SK3445		ECG1192			
	C3001					REN 1192	SK3445		ECG1192			
IC4	TA7310P	742510				REN 1192	SK3445		ECG1192			
IC5	TA7205P	741687	GEIC-179	PTC780		REN 1155	SK3231	TVM-81	ECG1155	TM1155	WEP949	
IC6	C1005A	742920										
	C1005											
IC6	AN829S	742921										
	AN829											
IC101	C1006A	742986										
Q1	2SC710E		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	TM123A/**	WEP66	121-Z9000A
	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	TM123A/**	WEP710	121-Z9000A
	2SC710D,E	742544	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	TM123A/**	WEP710	121-Z9000A
Q2	2SC710E		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	TM123A/**	WEP710	121-Z9000A
	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	TM123A/**	WEP710	121-Z9000A
	2SC710D,E	742544	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	TM123A/**	WEP710	121-Z9000A
Q3	2SC1687	741731	GE-20*	PTC121*	HEPS0015*	REN 123A*	SK3444	RT-107A*	ECG123A*	TM123A/**	WEP736*	121-Z9000A*
Q4	2SC1846Q		GE-336	PTC904		REN 295	SK3253		ECG295	TM295	WEP913	121-880
	2SC1846		GE-336	PTC904		REN 295	SK3253		ECG295	TM295	WEP913	121-880
	2SC1760		GE-276	PTC180		REN 306	SK3197	RT-310	ECG306	TM306	WEP771	
	2SC2036		GE-336			REN 295	SK3518		ECG306	TM306	WEP771	
	2SC1846Q, R,S	742545	GE-336	PTC904		REN 295	SK3253		ECG295	TM295	WEP913	121-880
Q5	2SC2075J		GE-215	PTC186		REN 235	SK3197	RT-146	ECG235	TM235	WEP785	121-Z9039
	2SC2075		GE-215	PTC186		REN 235	SK3197	RT-146	ECG235	TM235	WEP785	121-Z9039
	2SC1306	741732	GE-215	PTC186		REN 235	SK3197	RT-146	ECG235	TM235/**	WEP785	121-Z9039
	2SC1678		GE-322	PTC186		REN 235	SK3197	RT-146	ECG235	TM235	WEP785	121-Z9039
	2SC1974		GE-337	PTC186		REN 235	SK3197	RT-146	ECG235	TM235	WEP785	121-Z9039
Q6	2SC1318Q		GE-210*	PTC123	HEPS0015*	REN 128	SK3122	RT-302	ECG297	TM297	WEP59*	121-1007
	2SC1318	741856	GE-210*	PTC123	HEPS0015*	REN 128	SK3122	RT-302	ECG297	TM297	WEP59*	121-1007
	2SA719Q	741729	GE-269	PTC103*	HEPS0019*	REN 290	SK3114	RT-305	ECG290	TM290/**	WEP911	121-1019
	2SA719		GE-269	PTC103*	HEPS0019*	REN 290	SK3114	RT-305	ECG290	TM290/**	WEP911	121-1019
	2SA720		GE-272	PTC103*	HEPS0019*	REN 298	SK3450	RT-305	ECG298	TM298	WEP915*	121-879
	2SA719P, Q,R	742546	GE-269	PTC103*	HEPS0019*	REN 290	SK3114	RT-305	ECG290	TM290/**	WEP911	121-1019
Q8	2SC1047C		GE-60*	PTC132*	HEPS0016*	REN 229*	SK3018*	RT-107	ECG229*	TM229*	WEP63*	121-Z9021
	2SC1047		GE-60*	PTC132*	HEPS0016*	REN 229*	SK3018*	RT-107	ECG229*	TM229*	WEP63*	121-Z9021
	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	TM123A/**	WEP710	121-Z9000A
	2SC460		GE-61*	PTC136*	HEPS0014*	REN 107	SK3122	RT-134	ECG107	TM107/**	WEP460	121-522
	2SC1047B,C	742547	GE-60*	PTC132*	HEPS0016*	REN 229*	SK3018*	RT-107	ECG229*	TM229*	WEP63*	121-Z9021
	2SC1359C		GE-212	PTC121*	HEPS0014*	REN 199	SK3122	RT-308	ECG229*	TM229*	WEP66	121-Z9021
	2SC1359		GE-212	PTC121*	HEPS0014*	REN 199	SK3122	RT-308	ECG229*	TM229*	WEP66	121-Z9021
	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	TM123A/**	WEP710	121-Z9000A
	2SC1359B,C	742548	GE-212	PTC121*	HEPS0014*	REN 199	SK3122	RT-308	ECG229*	TM229*	WEP66	121-Z9021
	2SC710D	741726	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	TM123A/**	WEP710	121-Z9000A
Q10	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	TM123A/**	WEP710	121-Z9000A
	2SC829		GE-20*	PTC139*	HEPS0015*	REN 123A	SK3444	RT-308	ECG229*	TM229/**	WEP829	121-Z9021*

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.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
Q11	2SC839	741726	GE-61*	PTC132*	HEPS0015*	REN 123A*	SK3444	RT-308	ECG123A*	TM123A/**	WEP736*	121-Z9000A*
	2SC710D		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	TM123A/**	WEP710	121-Z9000A
	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	TM123A/**	WEP710	121-Z9000A
Q12	2SC829	742549	GE-20*	PTC139*	HEPS0015*	REN 123A	SK3444	RT-308	ECG229*	TM229/**	WEP829	121-Z9021*
	2SC829B		GE-20*	PTC139*	HEPS0015*	REN 123A	SK3444	RT-308	ECG229*	TM229/**	WEP829	121-Z9021*
	2SC829		GE-20*	PTC139*	HEPS0015*	REN 123A	SK3444	RT-308	ECG229*	TM229/**	WEP829	121-Z9021*
Q13	2SC710	741737	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	TM123A/**	WEP710	121-Z9000A
	2SC829B,C		GE-20*	PTC139*	HEPS0015*	REN 123A	SK3444	RT-308	ECG229*	TM229/**	WEP829	121-Z9021*
	2SC828P		GE-61*	PTC139*	HEPS0015*	REN 199	SK3444	RT-302	ECG199	TM199/**	WEP828	121-972
Q14	2SC828	741729	GE-61*	PTC139*	HEPS0015*	REN 199	SK3444	RT-302	ECG199	TM199/**	WEP828	121-972
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
	2SC372		GE-61*	PTC121*	HEPS0015*	REN 123A*	SK3444	RT-308	ECG123A*	TM123A/**	WEP372	121-Z9000A*
Q15	2SA719Q	742512	GE-269	PTC103*	HEPS0019*	REN 290	SK3114	RT-305	ECG290	TM290/**	WEP911	121-1019
	2SA719		GE-269	PTC103*	HEPS0019*	REN 290	SK3114	RT-305	ECG290	TM290/**	WEP911	121-1019
	2SA720		GE-272	PTC103*	HEPS0019*	REN 298	SK3450	RT-305	ECG298	TM298	WEP915*	121-879
Q22	2SA564	742513	GE-65	PTC103*	HEPS0019*	REN 234	SK3114	RT-303	ECG234	TM234	WEP564	121-879
	2SC945L		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
Q24	2SC900	742623	GE-62	PTC139*	HEPS0015*	REN 199	SK3124	RT-302	ECG199	TM199/**	WEP66	121-972
	2SC945L, P.O.		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
	2SC900E		GE-62	PTC139*	HEPS0015*	REN 199	SK3124	RT-302	ECG199	TM199/**	WEP66	121-972
Q24	2SC900U	742623	GE-62	PTC139*	HEPS0015*	REN 199	SK3124	RT-302	ECG199	TM199/**	WEP66	121-972
	2SC1096L		GE-28	PTC110	HEPS3041	REN 186	SK3197	RT-166	ECG186A	TM186A/**	WEP1096	121-Z9008
	2SC1096		GE-28	PTC110	HEPS3041	REN 186	SK3197	RT-166	ECG186A	TM186A/**	WEP1096	121-Z9008
	2SC1096-B		GE-28	PTC110	HEPS3041	REN 186	SK3197	RT-166	ECG186A	TM186A/**	WEP1096	121-Z9008

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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	
MIC AMP BOARD								
C1	.068		UK50-683		MAG50168			
C2	.001		DD-102G	GP1000	GP210	QC2-81	56A-D10	
C4	.01		UK50-103		MAG5011			
C7	.01		UK50-103		MAG5011			
MAIN BOARD								
C4	68 N150 10%	741788			*		10TCP-Q68	
C5	.01		UK50-103		MAG5011			
C6	22 N150	741807			*		10TCP-Q22	
C7	330		DD-331	GP330	GP333		10TS-T33	
C8	150 10%		DD-151		GP315		10TS-T15	
C9	.047	742524	UK25-503		MAG2515		HY-735	
C10	47	741807			GP-447		5-GA-Q47	
C12	22 N150			DPMS6D1	*	QFT2-1	10TCP-Q22	
C13	.001 10%				EWF1A210		1FT-D10	
C14	68 N150 10%	741788			*		10TCP-Q68	
C15	.01		UK50-103		MAG5011			
C17	47 N150 10%	245245			*		10TCP-Q47	
C19	.001 50V 10%			DPMS6D1	EWF1A210	QFT2-1	1FT-D10	
C20	.001 50V 10%			DPMS6D1	EWF1A210	QFT2-1	1FT-D10	
C21	.001 50V 10%			DPMS6D1	EWFA210	QFT2-1	1FT-D10	
C22	2	423295			MAG-32P2			
C23	7	742527			GP580		56A-V75	
C24	33 N150 10%	741781			*		10TCP-Q33	
C25	4 N150	742528			*		10TCP-V47	
C26	330 10%		DD-331	GP330	GP333		10TS-T33	
C27	390		DD-391	GP390	GP339		10TS-T39	
C28	.01		UK50-103		MAG5011			
C29	68		DD-680	GP68	GP468		10TS-Q68	
C30	56		DD-560		GP456		10TS-Q56	
C31	.01		UK50-103		MAG5011			
C32	2	423295			MAG-32P2			
C33	.01		UK50-103		MAG5011			
C35	68		DD-680	GP68	GP468		10TS-Q68	
C36	.01		UK50-103		MAG5011			
C37	100 N150	741763			*		10TCP-T10	
C38	.01		UK50-103		MAG5011			
C39	.01 50V 10%		DD-471	WMF1S1	EWF1A110	QFT2-91	1FT-S10	
C40	470		UK50-103	GP470	GP347		10TS-T47	
C41	.01				MAG5011			
C42	120 10%		DD-221	HV3-120	GP312		56A-T12	
C43	220 10%				GP322		10TS-T22	
C44	120 10%			HV3-120	GP312		56A-T12	
C45	.01		UK50-103		MAG5011			
C46	120 10%			HV3-120	GP312		56A-T12	
C47	270 10%		DD-271	GP270	GP327	QC2-23	10TS-T27	
C51	27				GP427		56A-Q27	
C52	.01		UK50-103		MAG5011			
C53	.047		UK25-503		MAG2515		HY-735	
C54	.047		UK25-503		MAG2515		HY-735	
C55	.047 50V 10%			DPMS2S47	EWF1A147	QFT2-171	1FT-S47	
C56	.01		UK50-103		MAG5011			
C57	10	742069		GP10	GP410	QC2-9	56A-Q10	
C58	.01		UK50-103		MAG5011			
C60	.01		UK50-103		MAG5011			
C61	.01		UK50-103		MAG5011			
C62	.01		UK50-103		MAG5011			
C63	2	423295			MAG-32P2			
C64	.01		UK50-103		MAG5011			
C65	18 N150	742525			*		10TCP-Q18	
C66	2.2	741782			MAG32P2			
C67	.047 50V 10%			DPMS2S47	EWF1A147	QFT2-171	1FT-S47	
C68	.047 50V 10%			DPMS2S47	EWF1A147	QFT2-171	1FT-S47	
C69	.047 50V 10%			DPMS2S47	EWF1A147	QFT2-171	1FT-S47	
C70	.047 50V 10%			DPMS2S47	EWF1A147	QFT2-171	1FT-S47	
C71	.047 50V 10%			DPMS2S47	EWF1A147	QFT2-171	1FT-S47	
C73	.0068 50V 10%			WMF1D68	EWF1A268	QFT2-73	1FT-D68	
C75	.0047 50V 10%			WMF1D47	M192P4729R8	QFT2-63	1FT-D47	
C77	100		DD-101	GP100	GP310		10TS-T10	
C80	.022 10%				GP222		10TS-D22	
C81	.022 50V 10%			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22	
C82	220 10%		DD-221		GP322		10TS-T22	
C83	.01 50V 10%			WMF1S1	EWF1A110	QFT2-91	1FT-S10	
C84	.0022 10%				GP222		10TS-D22	
C88	68		DD-680	GP68	GP468		10TS-Q68	
C89	68		DD-680	GP68	GP468		10TS-Q68	
C90	100		DD-101	GP100	GP310		10TS-T10	
C91	.068 50V 10%			WMF1S68	EWF1A168	QF1-195	1PB-S68	
C92	100		DD-101	GP100	GP310		10TS-T10	
C95	.068 50V 10%			WMF1S68	EWF1A168	QF1-195	1PB-S68	
C102	.01		UK50-103		MAG5011			
C106	.047		UK25-503		MAG2515		HY-735	
C107	.047		UK25-503		MAG2515		HY-735	
C108	.047		UK25-503		MAG2515		HY-735	
C110	18			GP22	GP418		56A-Q18	
C114	390 10%		DD-391	GP390	GP339		10TS-T39	
C117	.0047 10%		DD-472	GP4700	GP247		56A-D47	
C118	.022		UK25-223				HY-725	
C124	.01		UK50-103		MAG5011			
C125	.01		UK50-103		MAG5011			

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
C129	.0012 50V 10%				PVC6212		6PS-D15
C130	.01		UK50-103	DPMS6D12	MAG5011		
C131	.01		UK50-103		MAG5011		
C135	.001		DD-102		GP210		10TS-D10
C136	.01		UK50-103		MAG5011		
C139	.01		UK50-103		MAG5011		
C140	.01		UK50-103		MAG5011		
C141	100 N150 10%				MAG5011		
C142	.0047		DD-472	GP4700	*		10TCP-T10
C143	.0047		DD-472	GP4700	GP247		5GA-D47
C146	.01		UK50-103		GP247		5GA-D47
C201	150 10%		DD-151		MAG5011		
C202	.01				GP315		10TS-T15
C203	.01		UK50-103		MAG5011		
C204	.01		UK50-103		MAG5011		
C205	.01		UK50-103		MAG5011		
C206	.01		UK50-103		MAG5011		
C207	.0047		DD-472	GP4700	MAG5011		
C208	.0047		DD-472	GP4700	GP247		5GA-D47
C951	.0047		DD-472	GP4700	GP247		5GA-D47
C952	.0047		DD-472	GP4700	GP247		5GA-D47
C953	.0047		DD-472	GP4700	GP247		5GA-D47
C954	.0047		DD-472	GP4700	GP247		5GA-D47
C955	.0047		DD-472	GP4700	GP247		5GA-D47
C956	.0047		DD-472	GP4700	GP247		5GA-D47
C957	.0047		DD-472	GP4700	GP247		5GA-D47
C958	.0047		DD-472	GP4700	GP247		5GA-D47
C959	.0047		DD-472	GP4700	GP247		5GA-D47
C960	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C961	.0047		DD-472	GP4700	GP247		5GA-D47
C962	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C963	330		DD-331	GP330	GP333		10TS-T33
C964	.0047		DD-472	GP4700	GP247		5GA-D47
CT1	.0047	741721	DD-472	GP4700	GP247		5GA-D47

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

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

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA			
			MFR. PART No.	CENTRALAB PART No.	MALLORY PART No.	TRW PART No.
RV1	Squelch Range	10K	741707			U260R103B
RV2	AMC	5000	742508			U260R502B
RV5	Volume Range	2000	741708			U260R252B

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFR. PART No.			WORKMAN PART No.	MFR. PART No.
R21	10 Ohms 1/2W 2%		426743	R52	10 Ohms 1/2W 2%		426743

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	Phase Det.	742514	1000003S72K9		
L2	VCO Mixer (37MHz)	741720	10MB003M6NL8		
L3	VCO Mixer	741697	680X		
L4	RF Choke	742934	010X		
L5	XMT OSC Mixer (27MHz)	742516	10CB002M6NC3		
L6	XMT Driver	741695	022W		
L7	XMT Driver (27MHz)	741696			
L8	RF Choke	741697	680X		
L9	RF Choke	741703			
L10	RF Choke	741698			
L11	Loading Final (27MHz)	741699			
L12	Pi Filter (27MHz)	741700			
L13	Antenna Matching	742517			
L14	Mixer (10.695MHz)	742925	MA06N27H		
L15	RF Choke	741697	680X		
L16	RF Choke	741702			
L17	RF Choke	741702			
L18	RF Choke	741702			
T1	Ref Osc (10.240MHz)	742518	10DB002S71C3		
T2	FCO Mixer (37MHz)	742519	10MB005S7113		
T3	XMT Osc Mixer (27MHz)	741712	10CB001S6722		
T4	XMT Buffer (27MHz)	741713	10CP005SW1		
T5	RF (27MHz)	741714	ETR3336724		
T6	RF AMP (27MHz)	742520	ETR033472B3		
T7	Mixer (10.695MHz)	742925	MA-06N		
T8	IF (455kHz)	741717	ET1012268BT		
T9	IF (455kHz)	741718	ET1012369A3		
T10	IF (455kHz)	741719	ET1012969AT		

RCA MODEL 14T275

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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	1.45A	.116	.48	742611 ELA-16(1)	TR523		(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	32	1 8 2 128	741690 ETA66(1)	TR723	MCB-16	(1) Number on unit

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	3" PM 8 Ohms	741845	30A05Z8R	
SP2	2" PM 16 Ohms	742982		

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	426968	741827	AGC	HDJ-A	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	742932										

Mic includes volume, squelch, channel up/down, LED channel display and speaker.
Mic connector is 16 pin female.

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
J1	Connector	742497	Antenna Jack
J2	Connector	741816	PA Jack
J3	Connector	741819	DC Jack
J951	Connector	742918	MIC Jack
RY1	Relay	742923	12V 30mA (3A)
RY2	Relay	742924	12V 40mA (1A)
X1	Crystal	742506	10.240MHz
X2	Crystal	742507	10.695MHz
	Connector	742912	MIC 16 pin
	Cord	742916	MIC Connector Assembly
	Cord	741827	DC Pwr
	LED	742989	TLR321
	Switch	742913	Slide
	Switch	742981	On/Off
	Switch	742980	Channel Selector

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

ITEM	PART No.	ITEM	PART No.
Button, Channel Selector	742975	Knob, On/Off	742974
Case Assembly, Front	742972	Knob, Squelch	742976
Case Assembly, Rear	742973	Knob, Volume	742988