

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 14T270

MANUFACTURER'S SPECIFICATIONS

General

Frequency Range	26.965 — 27.405 MHz
Channels	40 (PLL Synthesized)
Frequency Tolerance	+0.005%
Operating Temperature Range	−30°C to +50°C (−22°F to +112°F)
Power Source	12–15 VDC (13.8 V nom.) Positive or Negative Ground (or 105–120 VAC 50/60 Hz for 14T303 only)
Current Drain	Transmit: 1.5A nom. Receive: 1.2A nom. (full audio)

Transmitter

Emission	6A3
RF Power Output	4W (FCC Maximum)
Modulation Type	AM
Modulation Level	Up to 100% Max (Limited to FCC Specs)
Attenuation of Spurious and Harmonic Radiation	60 dB (Min)
Antenna Input Impedance	50 Ohms

Receiver

Sensitivity	0.5 microvolts for 10 dB S/N
Adjacent Channel Rejection	−40 dB or more
Image Rejection (1st IF)	60 dB
Spurious Rejection (except images)	45 dB nom.
IF Frequencies	
1st IF	10.695 MHz
2nd IF	455 kHz
Squelch Sensitivity	1.5 μ V to 100 μ V
Audio Output	3 W

RCA MODEL 14T270

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.

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 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 RF Gain maximum	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 RF Gain maximum	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 RF Gain maximum	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 RF Gain maximum	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 RF Gain maximum	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.

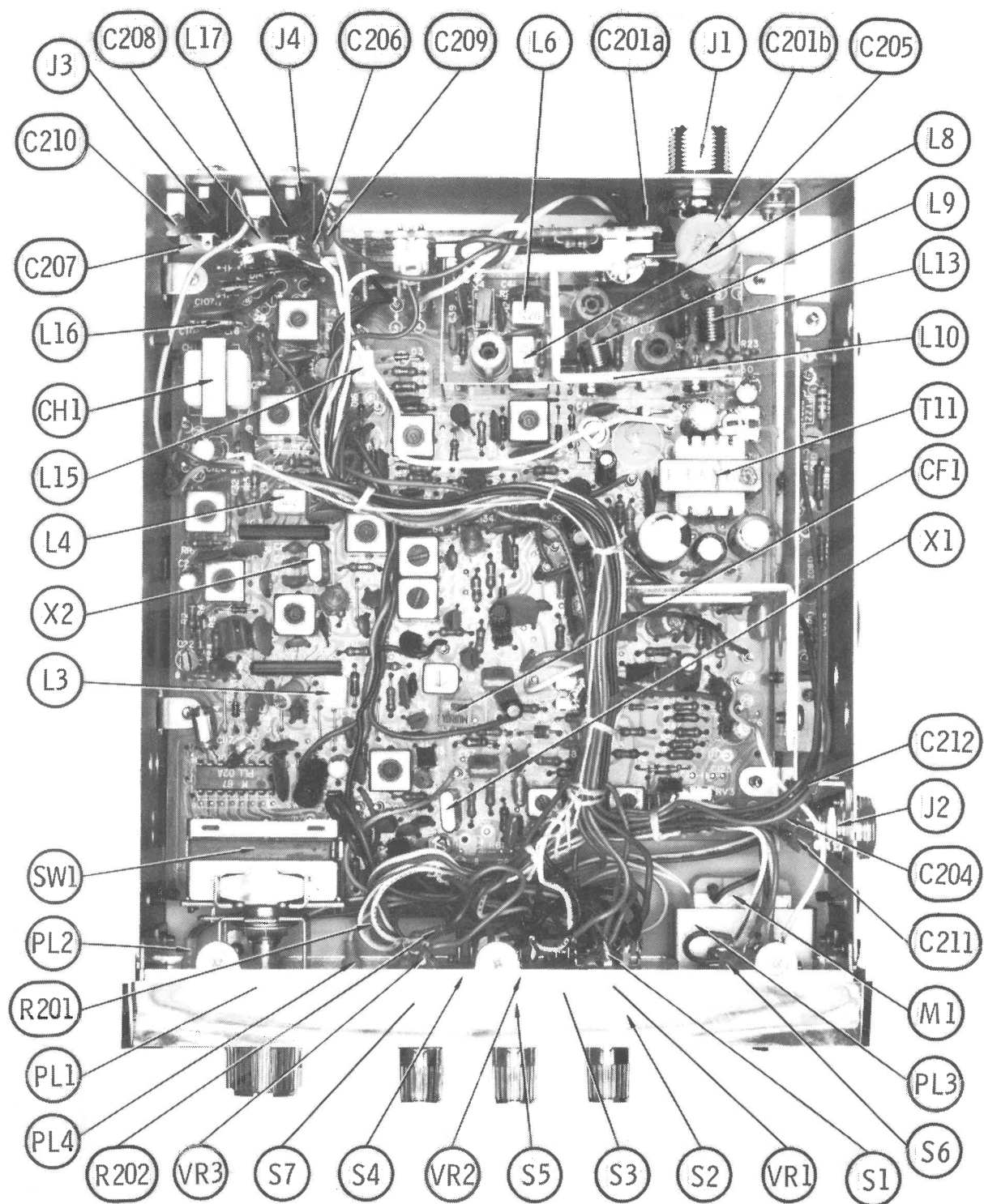
TRANSMITTER ADJUSTMENTS

Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.

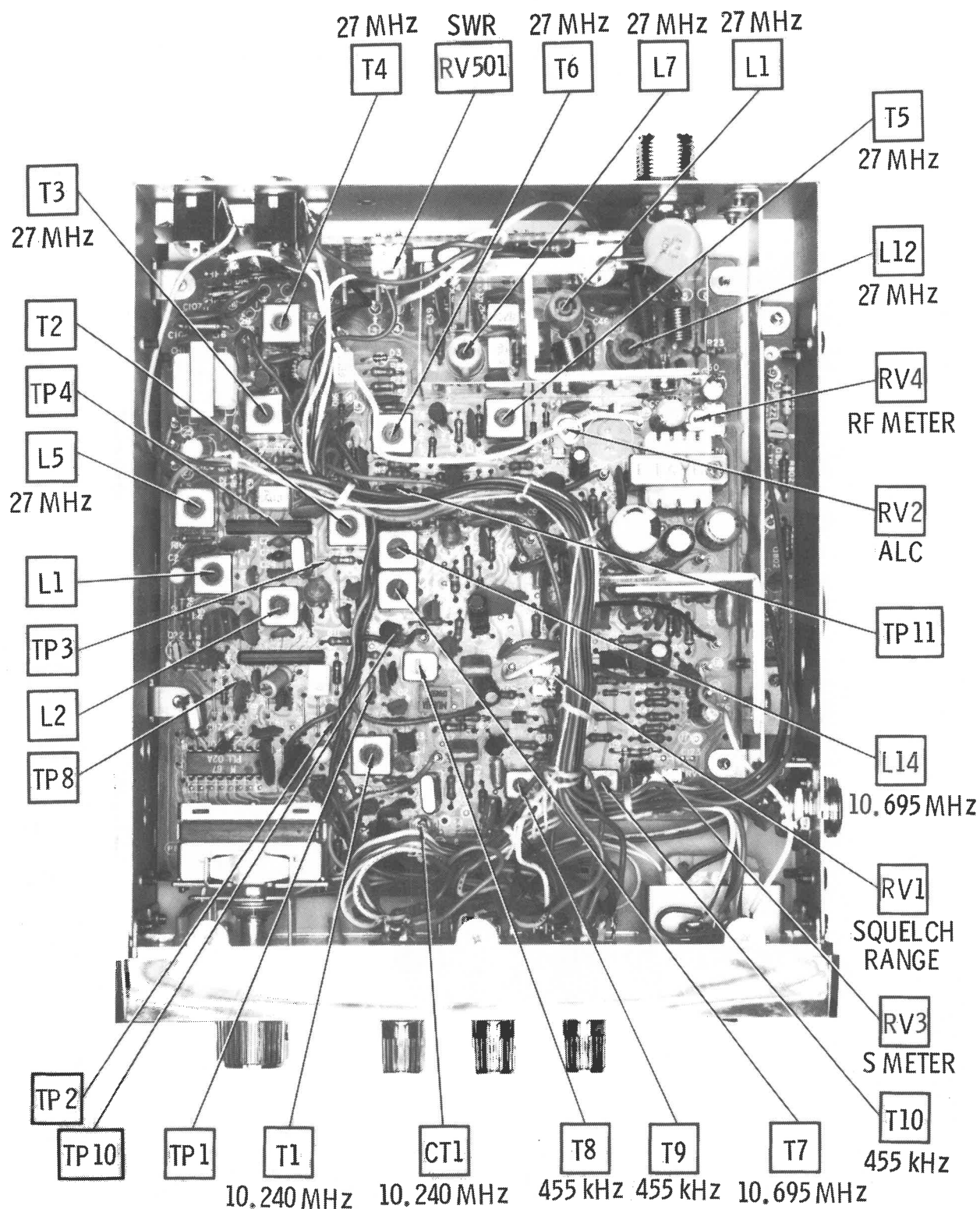
NOTE: Be sure to check transmit frequency and power on all active channels after adjustments of transmitter.
See page 4 for channel frequencies.

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 for 3/4 reading on RF scale of meter.
SWR meter to antenna jack.	Ch. 19	RV501	SWR METER Place S/RF-CAL-SWR switch to CAL position. Adjust SWR/CAL control VR3 to SET on SWR scale of meter. Place S/RF-CAL-SWR switch to SWR position. Adjust RV501 so that SWR meter agrees with external meter.

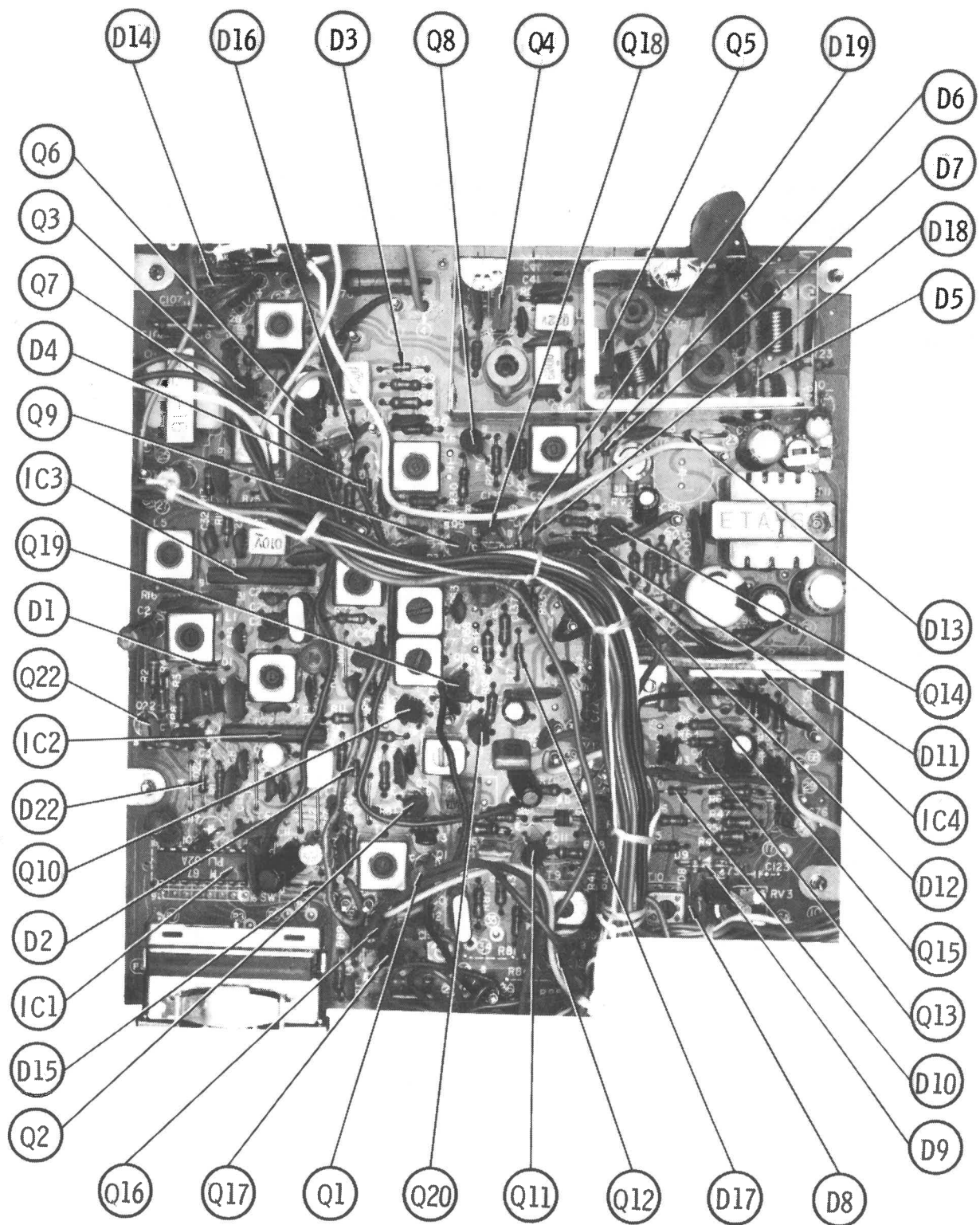
RCA MODEL 14T270



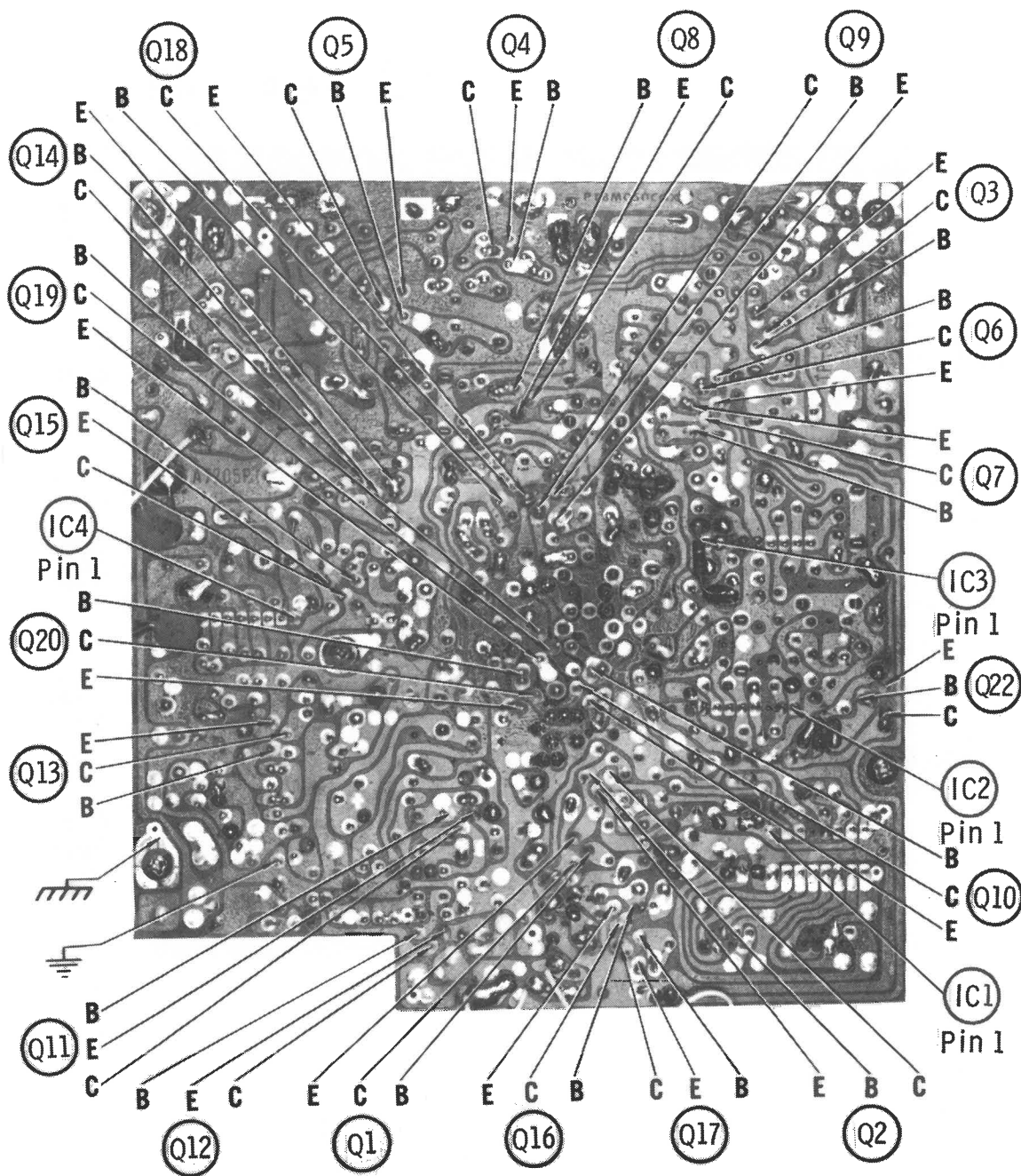
CHASSIS-BOTTOM



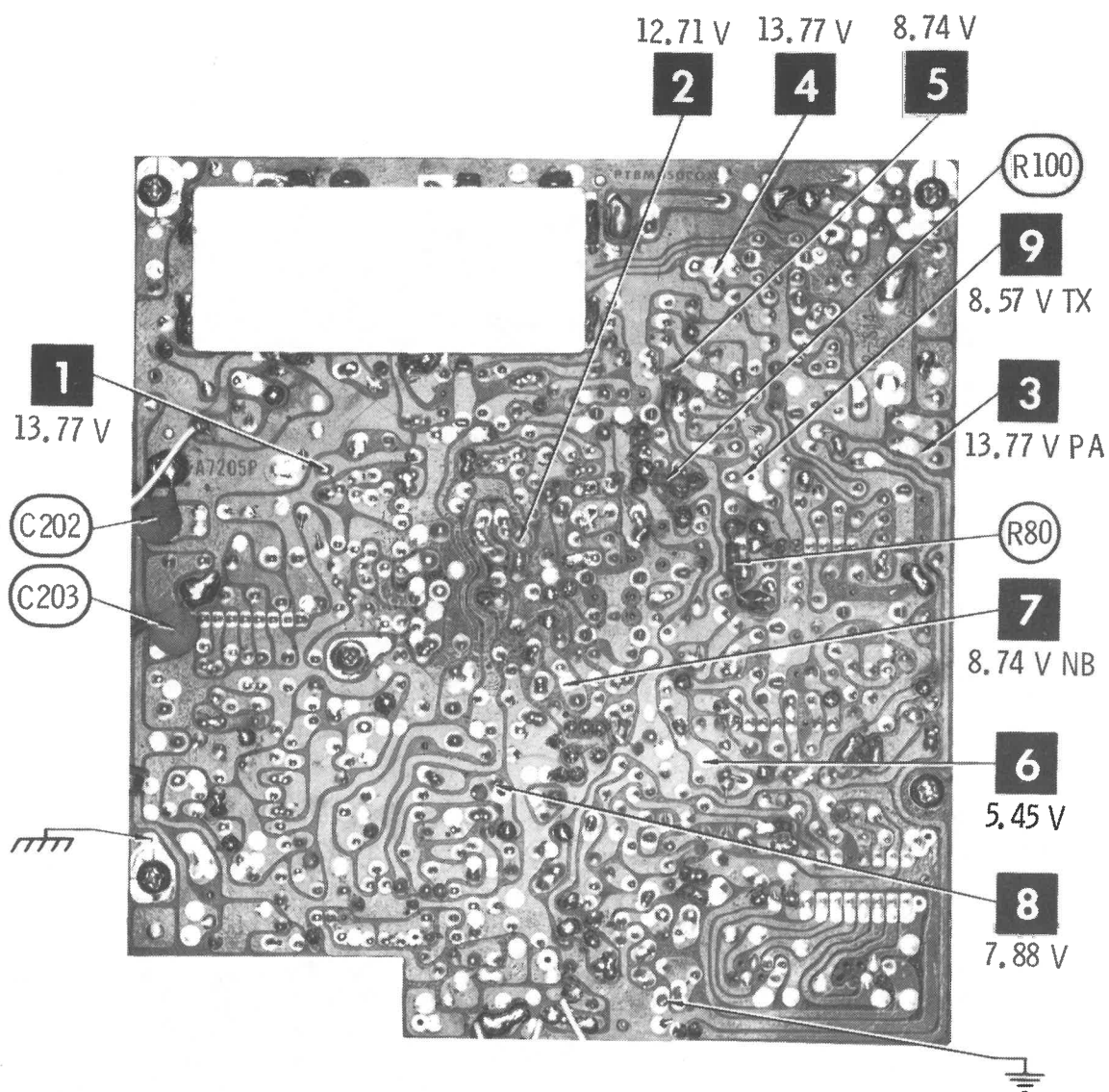
CHASSIS-BOTTOM



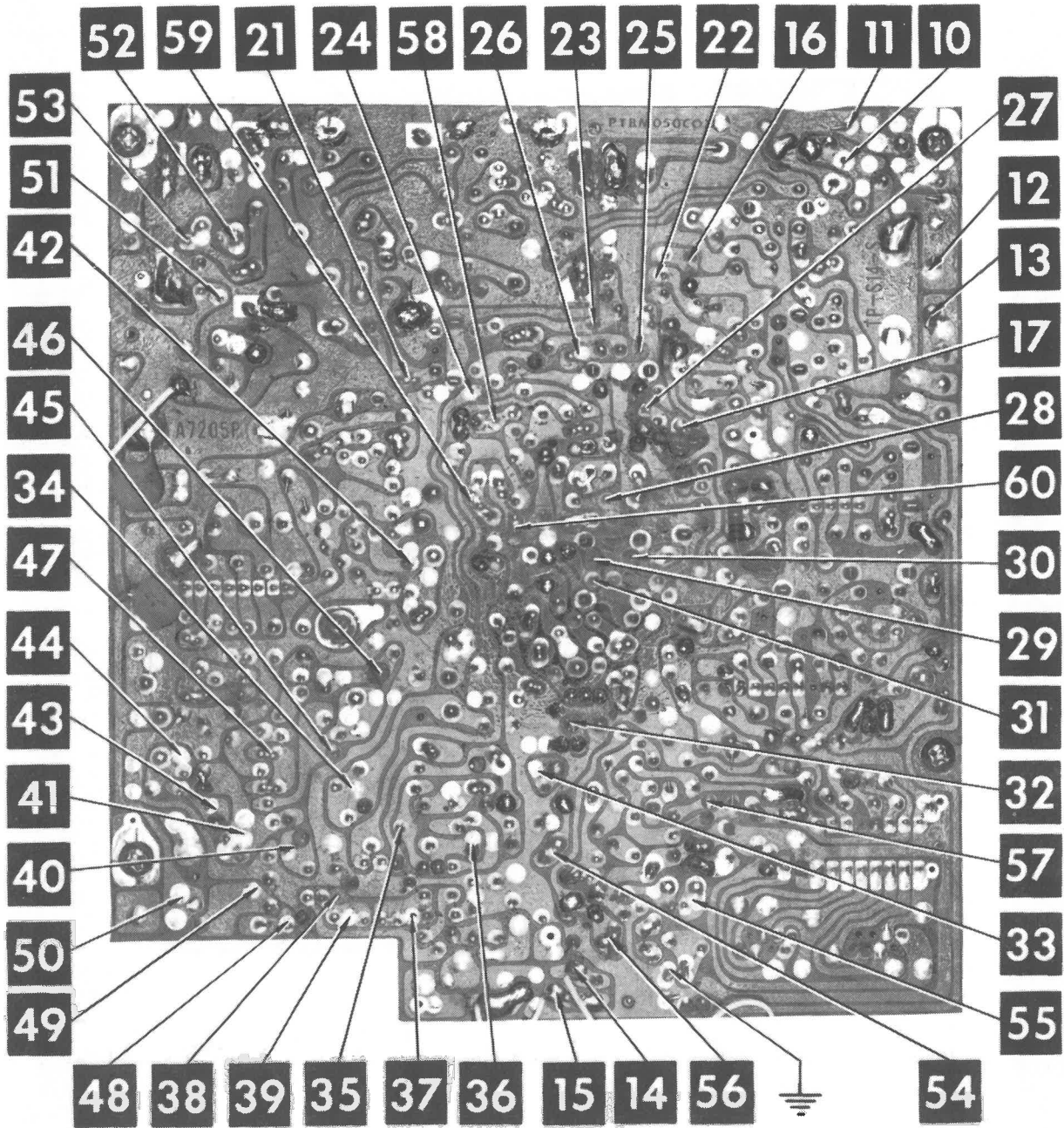
MAIN BOARD



MAIN BOARD

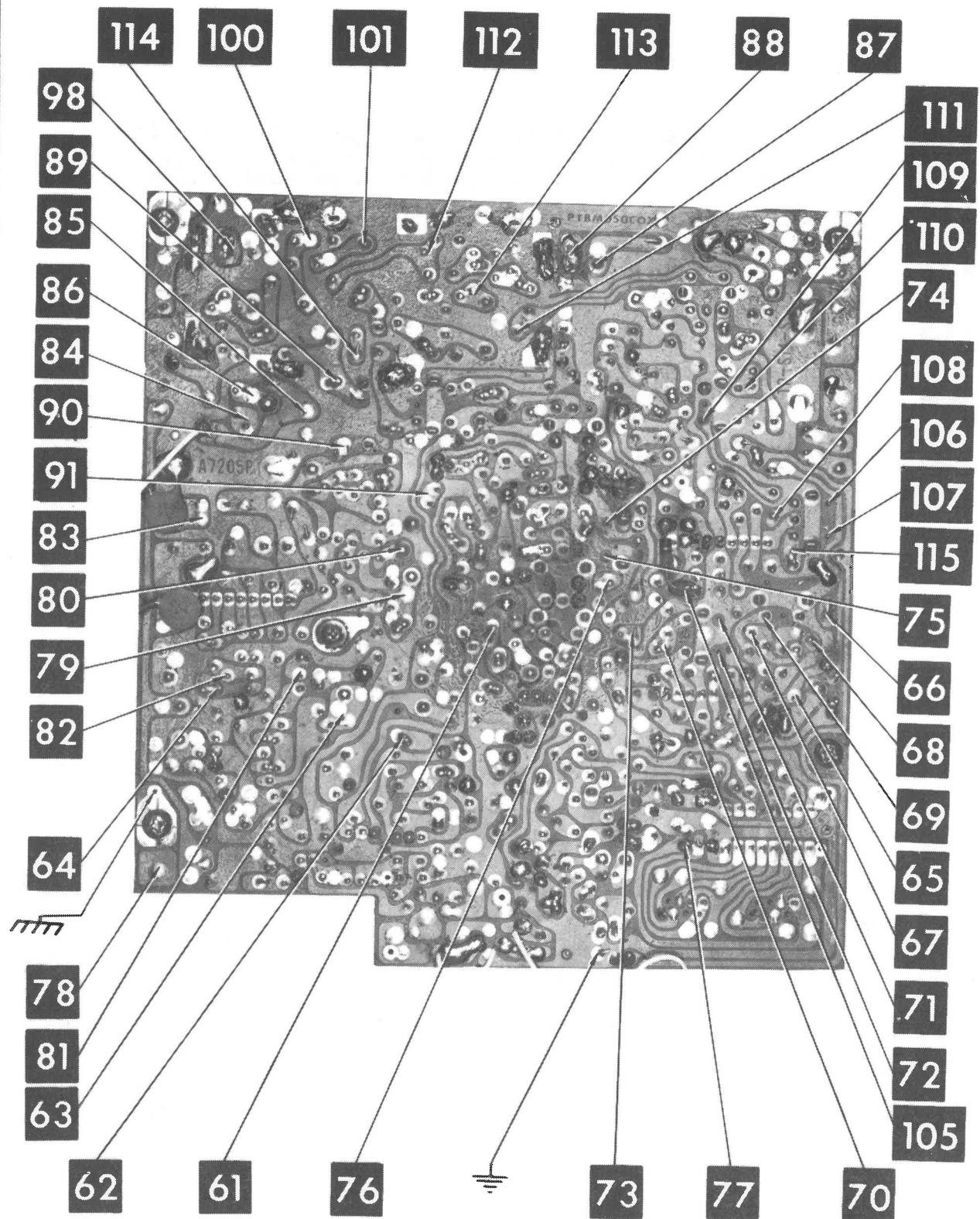


MAIN BOARD

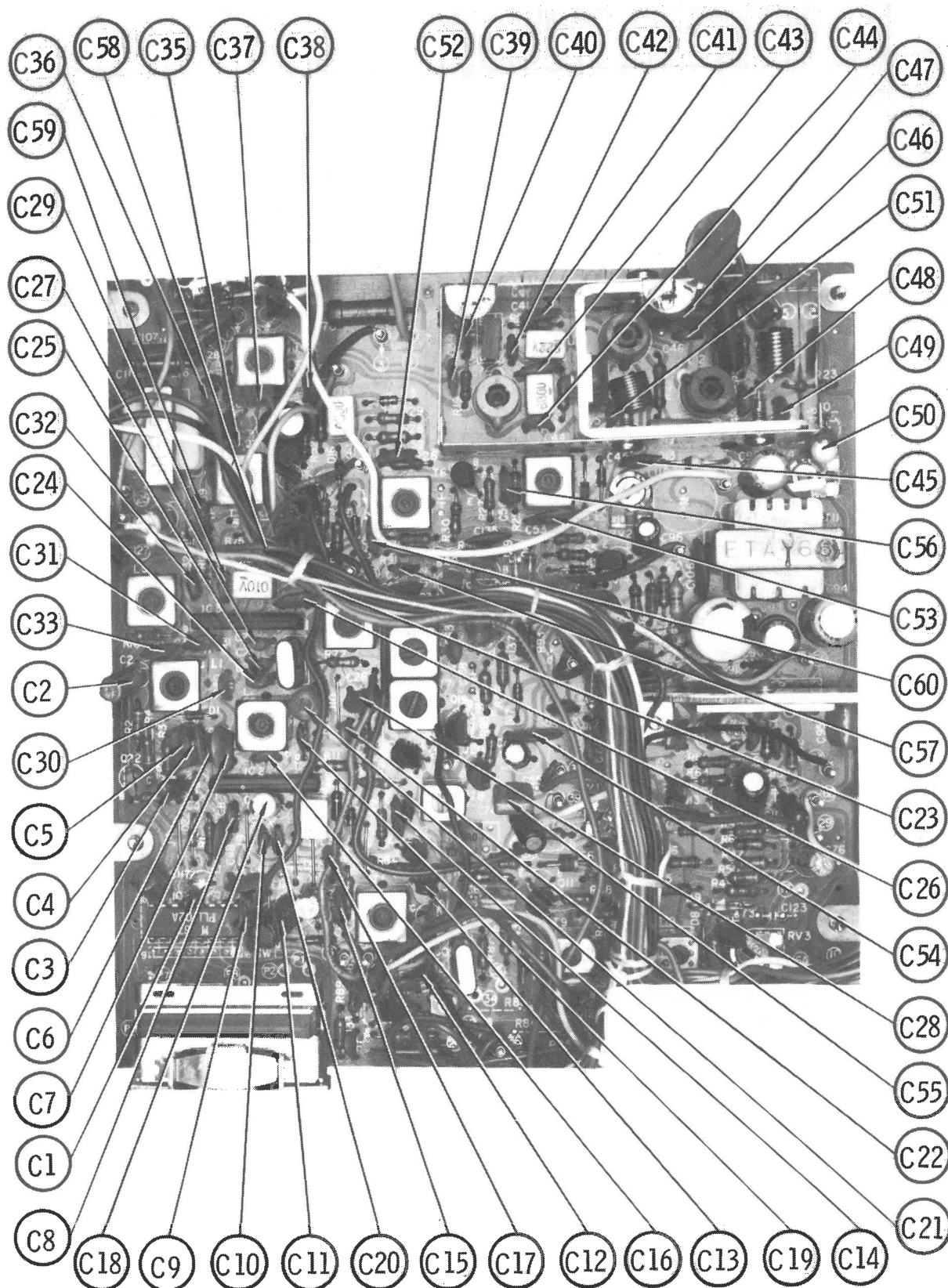


RCA MODEL 14T270

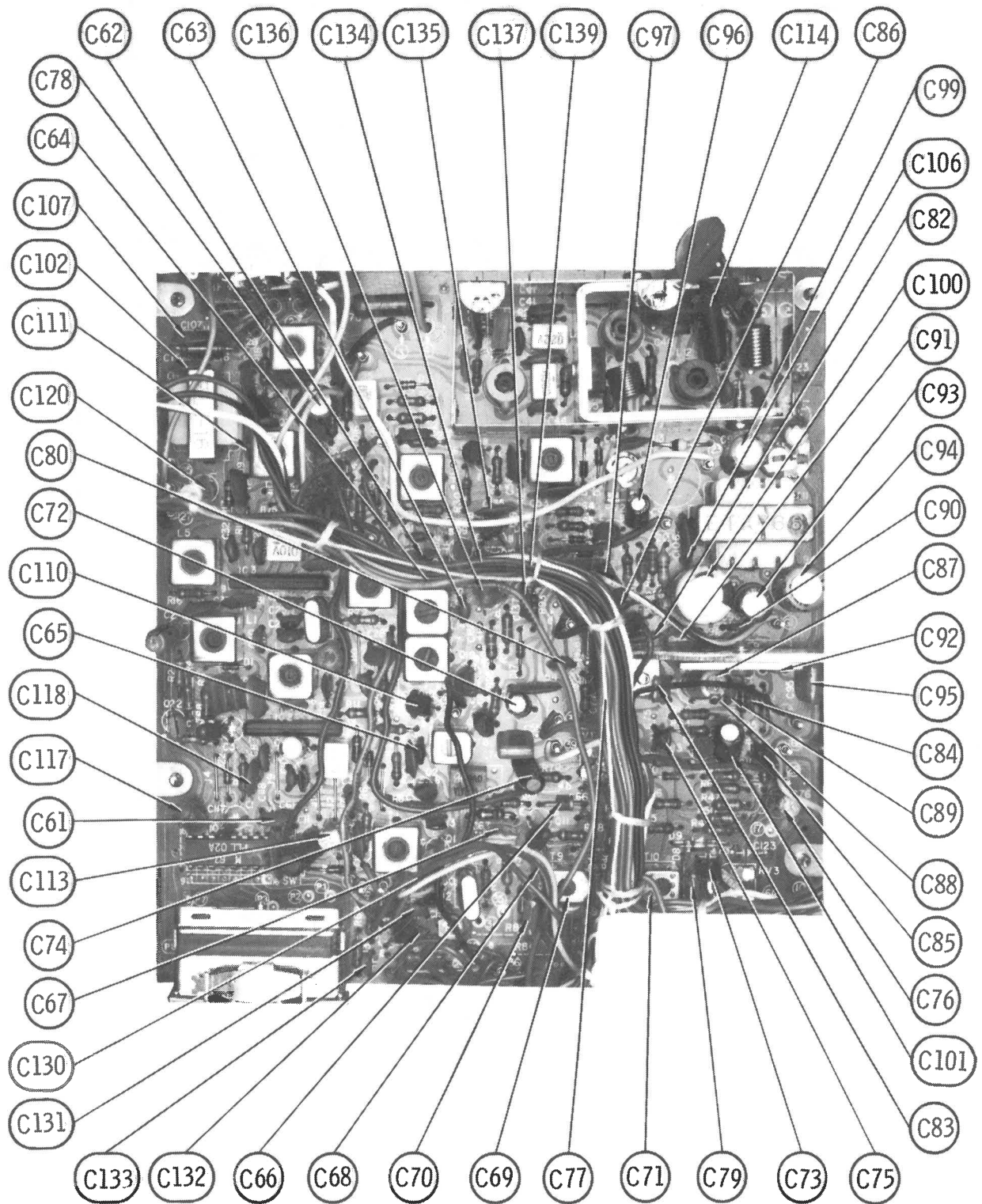
MAIN BOARD



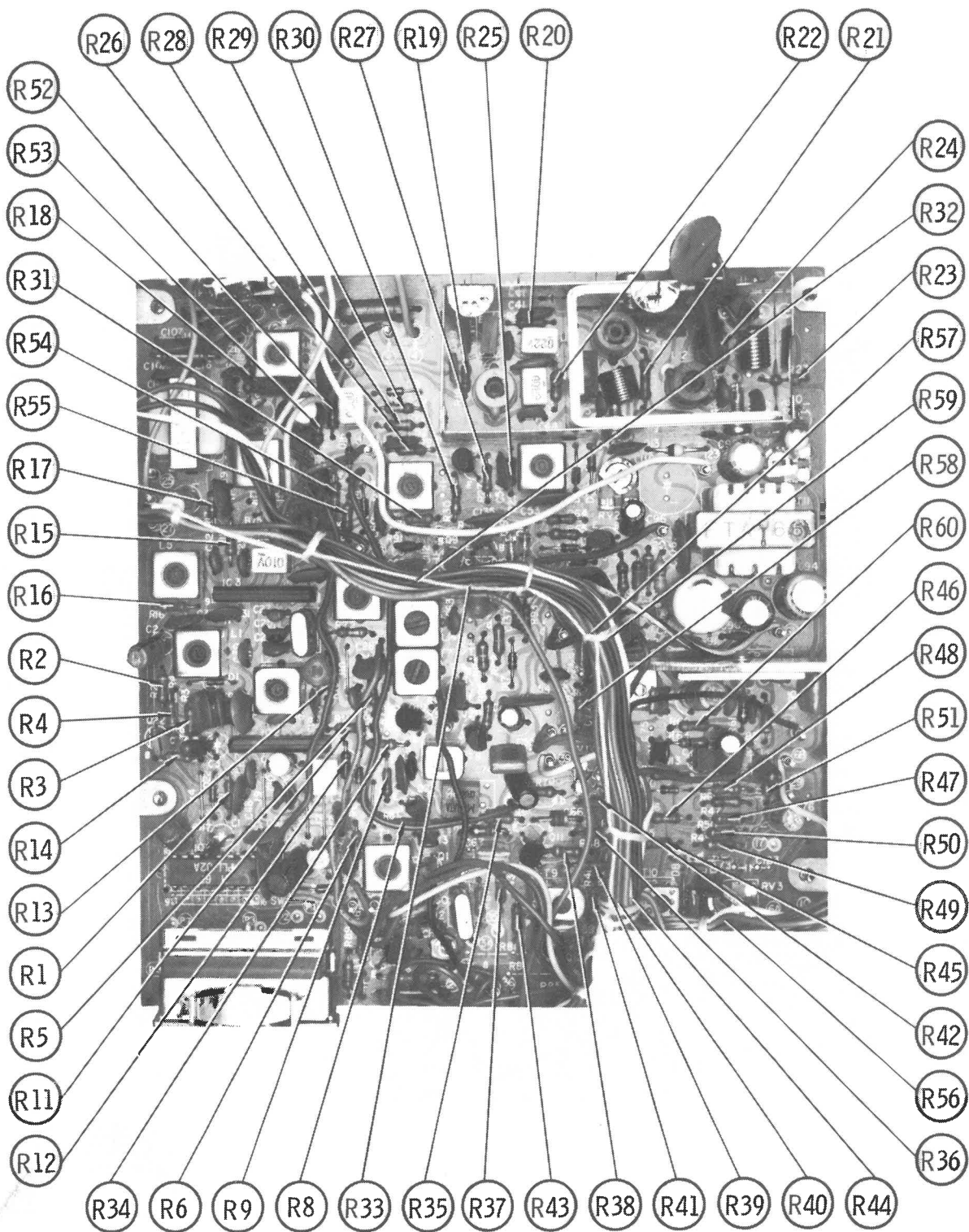
MAIN BOARD



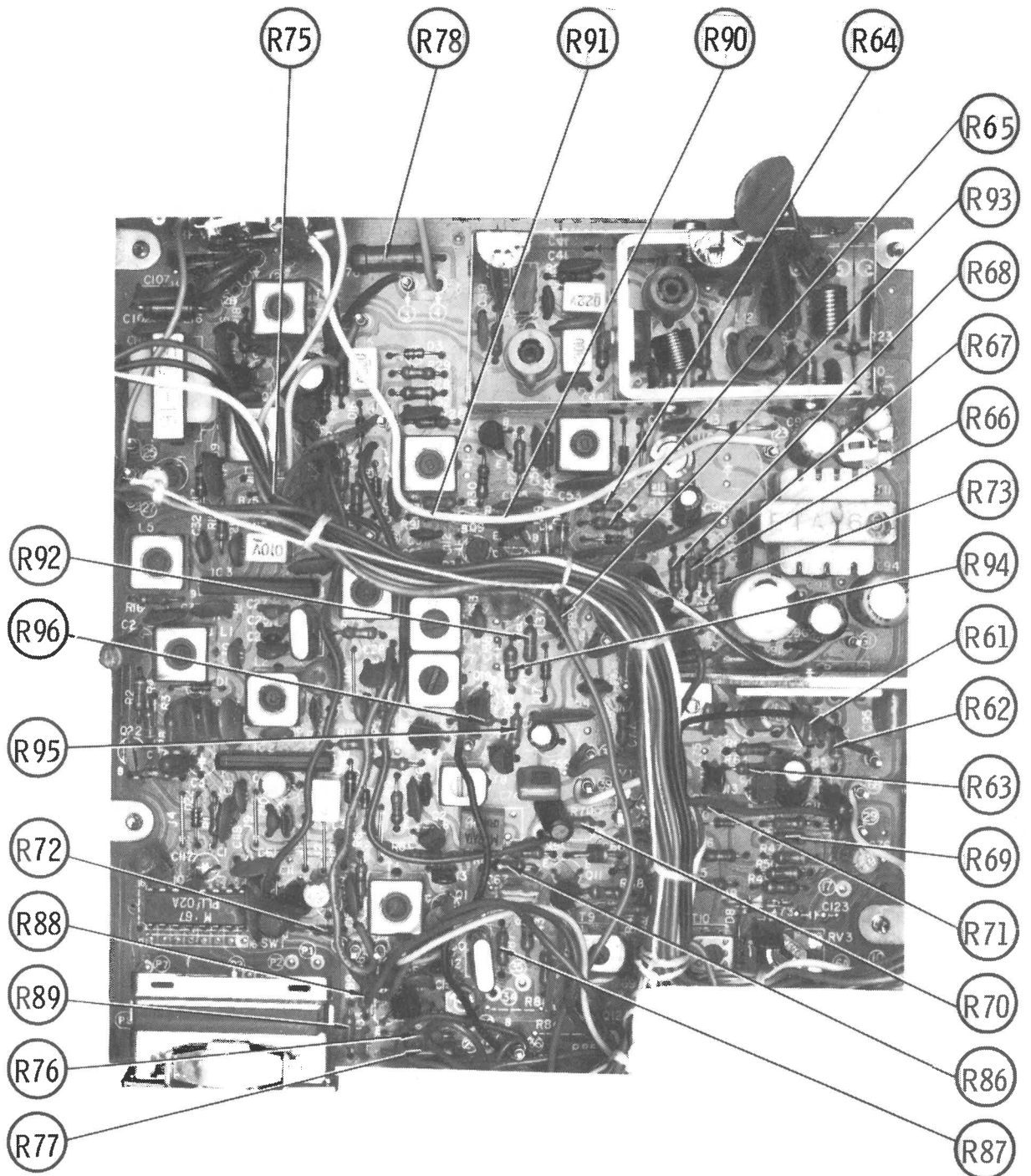
MAIN BOARD



MAIN BOARD

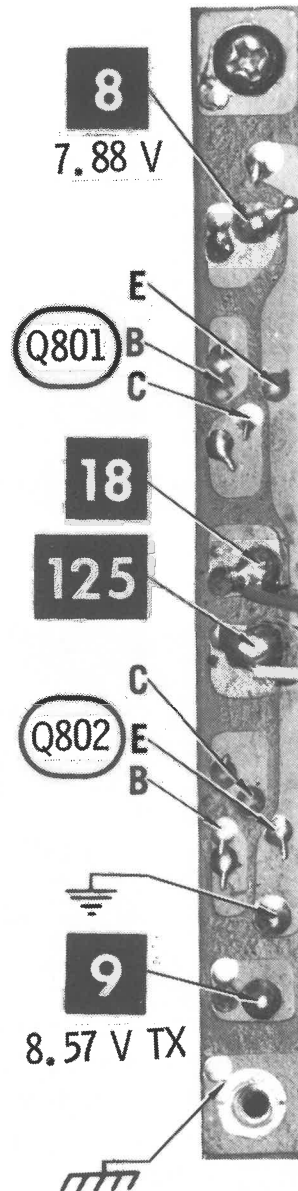
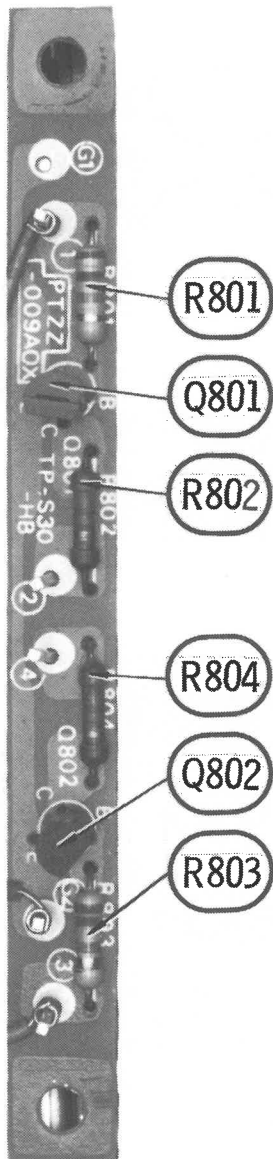


MAIN BOARD

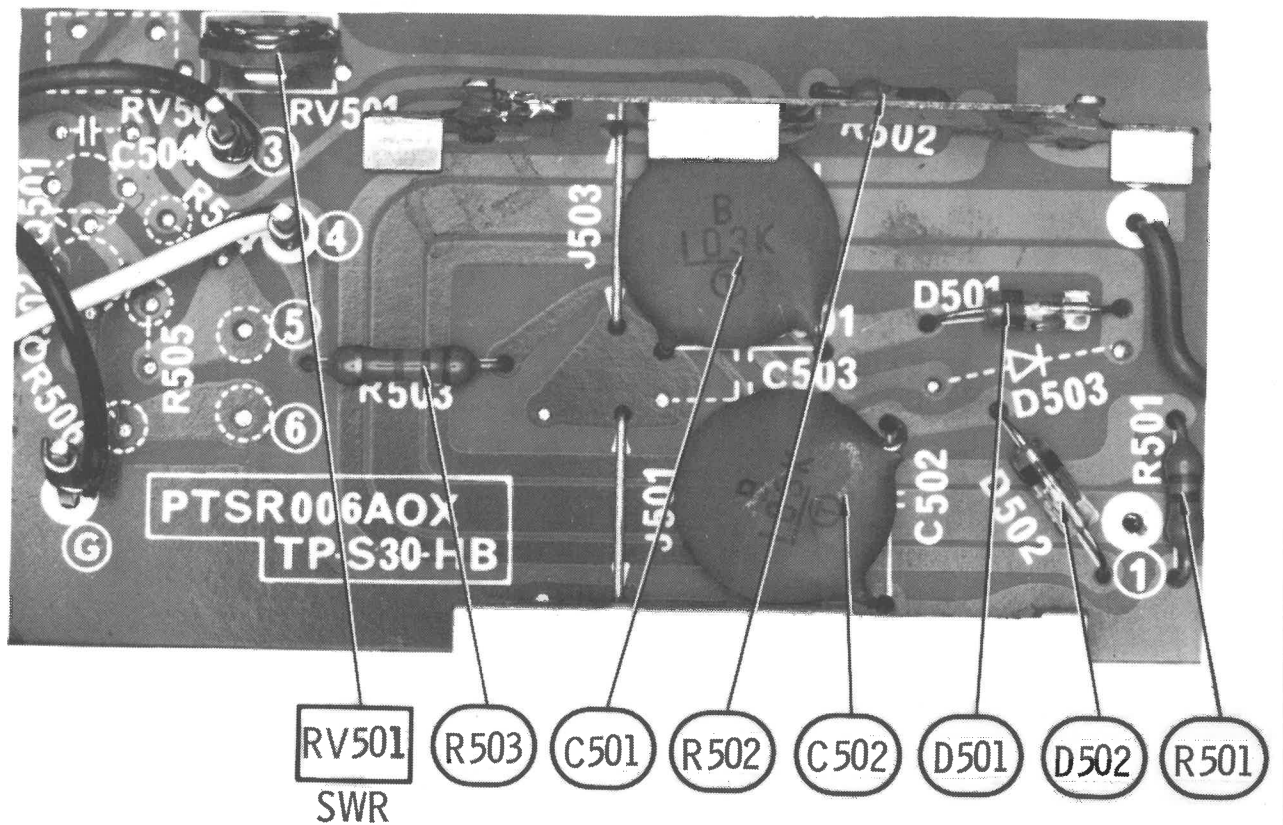
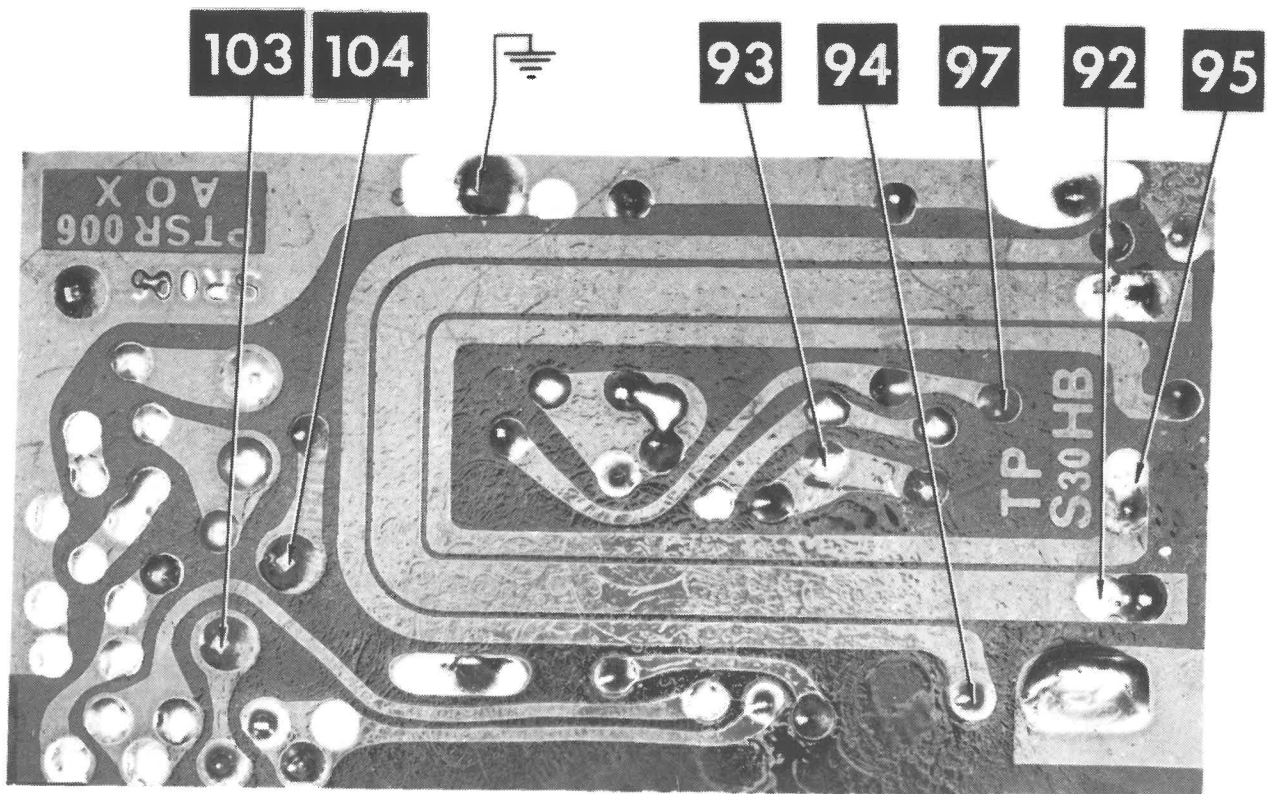


MAIN BOARD

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INDICATOR BOARD



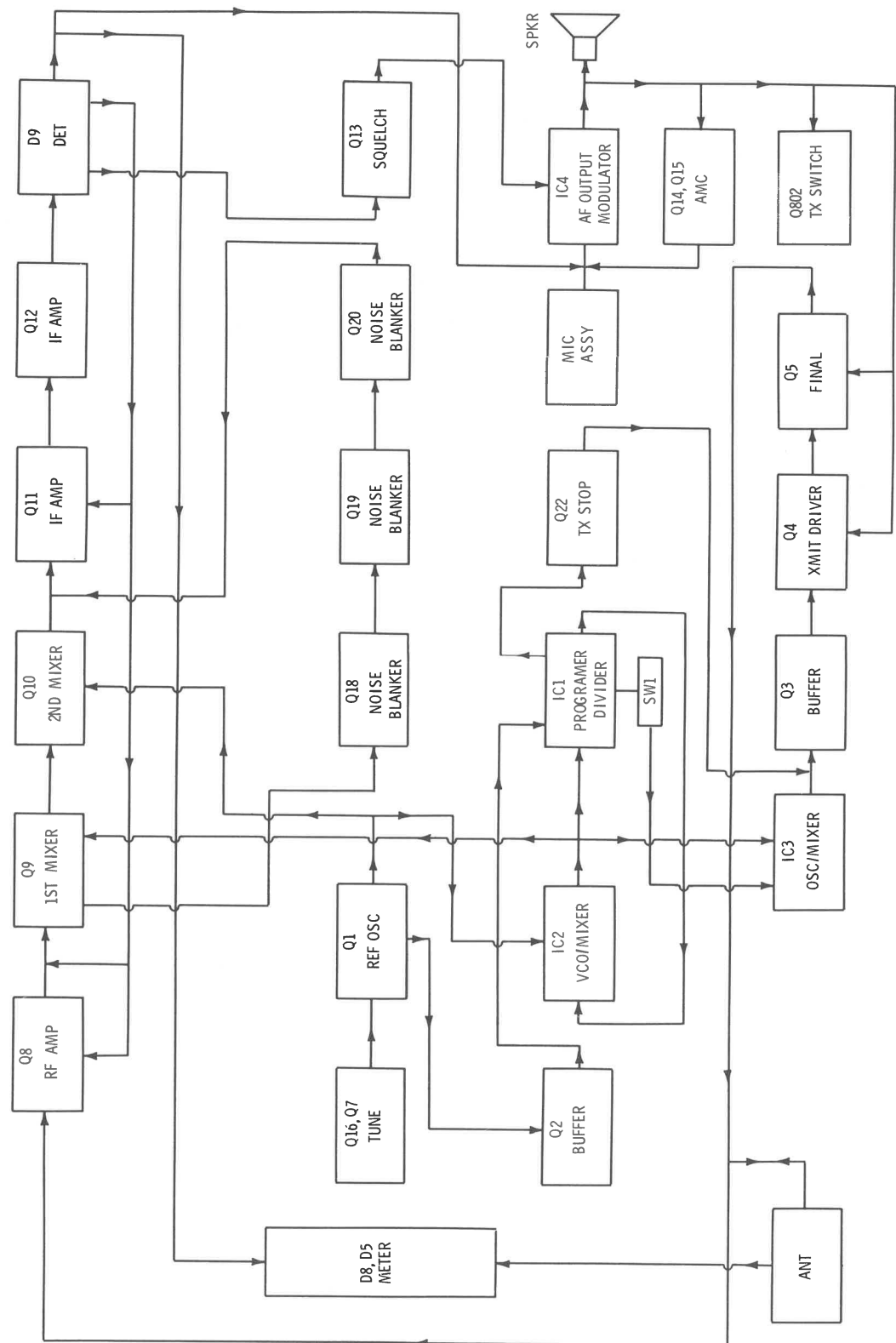
SWR BOARD

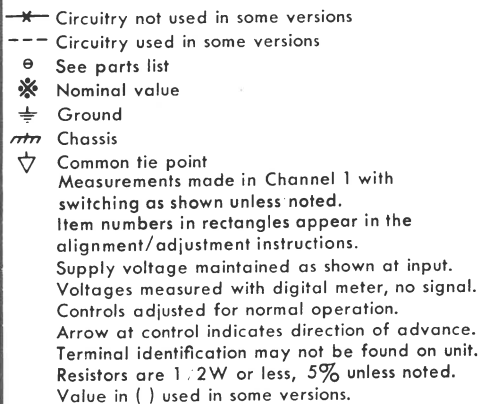
TRUTH CHART

1 = <u>5.34</u> Volts 0 = <u>0</u> Volts								
C H A N N E L	IC1 PROGRAM DIVIDER							REC 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	0	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>5.34</u> Volts 0 = <u>0</u> Volts								
C H A N N E L	IC1 PROGRAM DIVIDER							REC 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	0	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

RCA MODEL 14T270

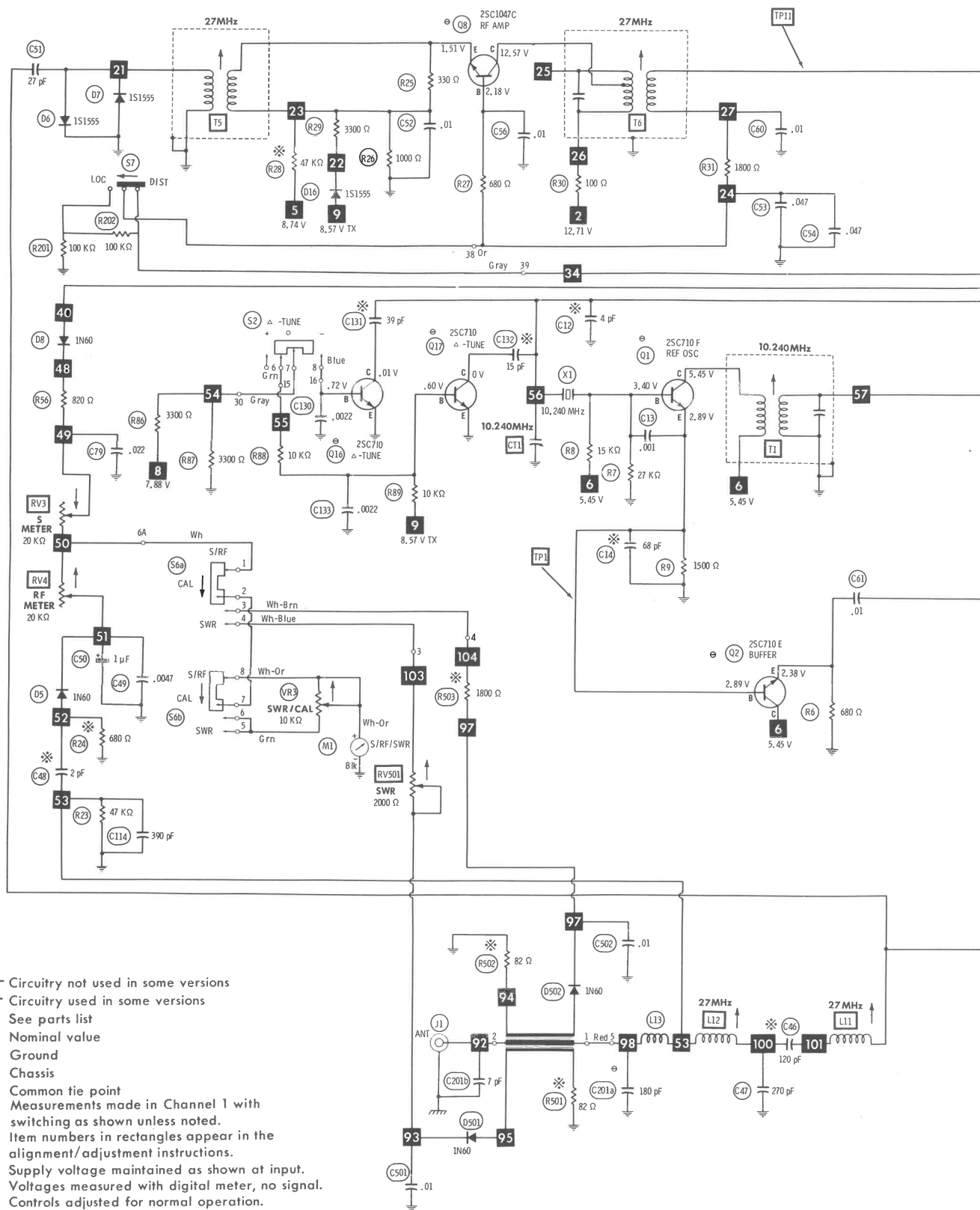




WITH **CIRCUITRACE[®]**

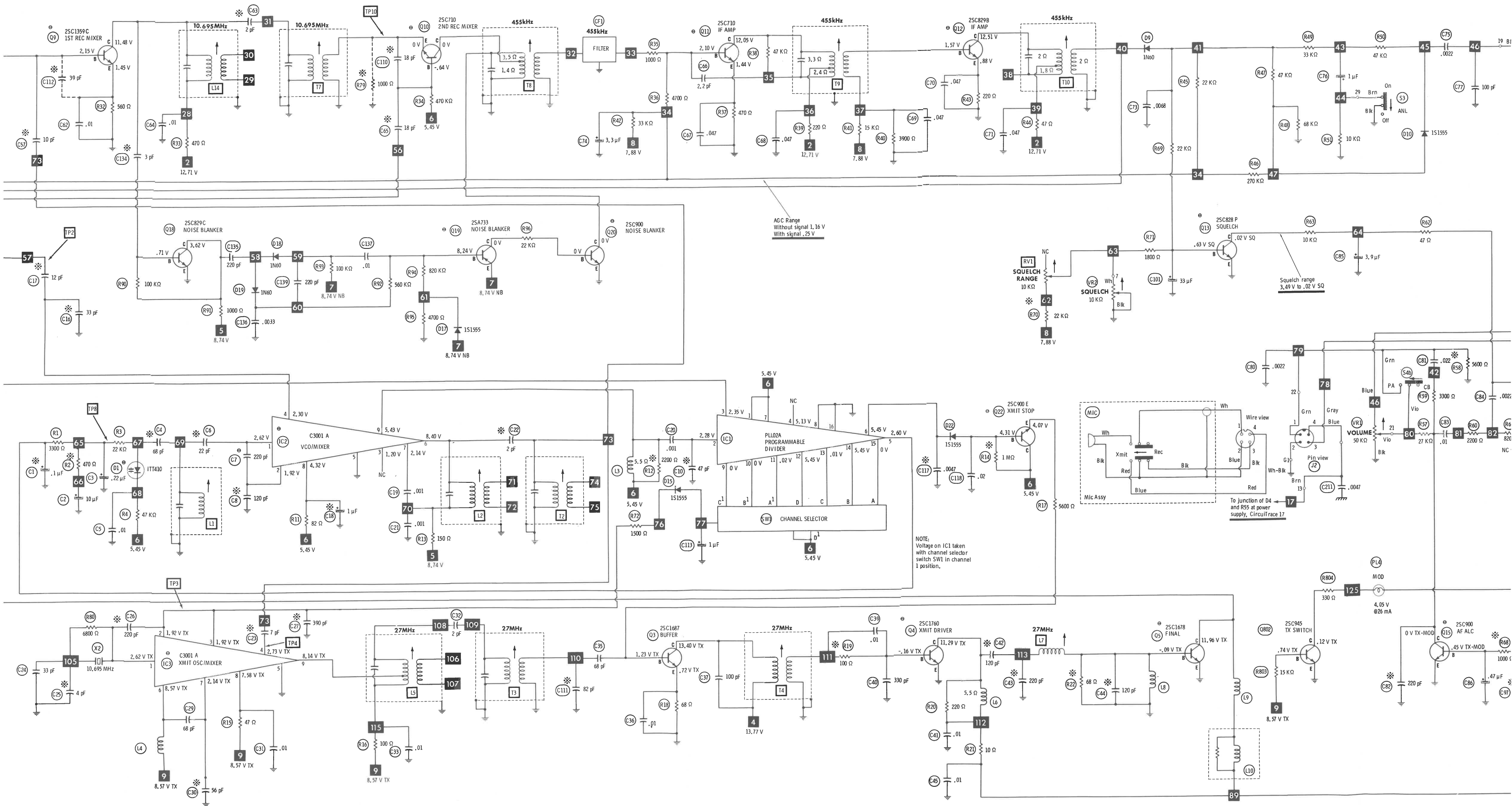
E C B

Q6, Q7
Bottom view



A PHOTOFAC STANDARD NOTATION SCHEMATIC
WITH CIRCUITRACE®

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PARTS LIST AND DESCRIPTION (CONTINUED)

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

Id.	SPRAGUE PART No.	SYLVANIA PART No.
	RT-262	ECG610
	RT-262	ECG6610
	RT-262	ECG6610
		ECG6135
	RT-240	ECG139A
	RT-218	ECG177
	RT-263	ECG109
	RT-218	ECG177
	RT-218	ECG177
	RT-263	ECG109
	RT-263	ECG109
	RT-218	ECG177
	RT-218	ECG177
	RT-218	ECG177
	RT-213	ECG116
	RT-213	ECG116
	RT-218	ECG177
	RT-218	ECG177
	RT-218	ECG177
	RT-263	ECG109
	RT-263	ECG109
	RT-218	ECG177
	RT-263	ECG109
	RT-263	ECG109
		ECG1167
		ECG1167
		ECG1192
		ECG1192
		ECG1192
		ECG1192
		ECG1192
		ECG1192
		ECG1192
*	TVCN-81	ECG1155
*	RT-308 *	ECG123A *
*	RT-308 *	ECG123A *
	RT-107A *	ECG123A *
	RT-310	ECG306
		ECG306
		ECG306
	RT-146	ECG235
	RT-146	ECG235
	RT-146	ECG235
	RT-302	ECG128 *
	RT-302	ECG128 *
	RT-805	ECG290
	RT-305	ECG290
	RT-305	ECG290
*	RT-107	ECG161 *
*	RT-107	ECG161 *
*	RT-308 *	ECG123A *
	RT-308	ECG199
*	RT-308	ECG199
*	RT-308 *	ECG123A *
*	RT-308 *	ECG123A *
*	RT-308	ECG229 *
*	RT-308	ECG123A *
*	RT-308 *	ECG123A *
*	RT-308	ECG229 *
*	RT-308	ECG229 *
*	RT-308 *	ECG123A *
	RT-302	ECG199
	RT-302	ECG199
	RT-107A	ECG199
	RT-308	ECG123A *
	RT-305	ECG290
	RT-305	ECG290
	RT-305	ECG290
	RT-303	ECG234
	RT-302	ECG199
*	RT-107A	ECG199
*	RT-308 *	ECG123A *
*	RT-308	ECG229 *
*	RT-308	ECG123A *
*	RT-308 *	ECG123A *
*	RT-308	ECG229 *
*	RT-308	ECG123A *
	RT-308	ECG229 *
	RT-303	ECG294
	RT-302	ECG199
	RT-107A	ECG199
	RT-302	ECG199
	RT-302	ECG199
	RT-308	ECG123A *
	RT-107A	ECG199
	RT-302	ECG199
	RT-308	ECG123A *

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFGR. PART No.	CORNELL- DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C1	.1 10V	742688		TDC104M050EL	QDT1-2	SD50-R109
C2	10 16V	742072	PC10-25	VTT10B25	QV1-41	EV-1222
C3	.22 10V	742553		TDC224M050EL	QDT1-10	SD50-R229
C11	47 10V	742077	PC50-16	VTT47D16	QV1-73	EV-1226
C18	1 50V	742076	PC1-50	VTT1A50	QV1-11	EV-1615
C50	1 50V	742076	PC1-50	VTT1A50	QV1-11	EV-1615
C72	10 16V	742068	PC10-25	VTT10B25	QV1-41	EV-1222
C74	3.3 25V	742074	PC5-50	VTT3R3A50	QV1-23	EV-1318
C76	1 50V	742076	PC1-50	VTT1A50	QV1-11	EV-1615
C78	47 16V	742079	PC50-16	VTT47D16	QV1-73	EV-1226
C85	3.9 25V	741793				
C86	.47 10V	742584		TDC474M050EL	QDT1-19	SD50-R479
C87	33 6.3V	741794	PC30-25	VTT33B10	QV1-61	EV-1125
C93	47 16V	742079	PC50-16	VTT47D16	QV1-73	EV-1226
C94	220 10V	741797	PC250-25	VTT220H16	QV1-117	EV-1240
C96	3.3 25V	742074	PC5-50	VTT3R3A50	QV1-23	EV-1318
C97	47 10V	742077	PC50-16	VTT47D16	QV1-73	EV-1226
C99	47 25V	742081	PC50-25	VTT47E25	QV1-75	EV-1326
C100	1000 16V	740844	PC1000-16	VTT1000L16	QV1-183	EV-1260
C101	33 6.3V	741794	PC30-25	VTT33B10	QV1-61	EV-1125
C113	1 50V	742076	PC1-50	VTT1A50	QV1-11	EV-1615
C120	33 16V	742085	PC30-25	VTT33B10	QV1-61	EV-1125

CAPACITORS

ITEM No.	RATING	MFG. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C4	68 N150	741788	DC-103	MGP01	*		10TCP-Q68
C5	.01				TA110	QC2-141	TG-S10
C6	22 N150 10%	741807			*		10TCP-Q22
C7	220		DD-221		GP322		10TS-T22
C8	120		DTZ-120		CN0312		10TCC-T12
C9	.047		UK25-503		MAG2515		HY-735
C10	47		DTZ-47	NP047	CN0447		10TCC-Q47
C12	4 NP0		DD-4R7	NP04P7	CN0547		10TCC-V47
C13	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C14	68 N150 10%						
C15	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C16	33		DTZ-33	NP033	CN0433		10TCC-Q33
C17	12 N150	741766			*		10TCP-Q12
C19	.001 10% 50V			DPMS6D1	EWFA1A210	QF1-1	1PB-D10
C20	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C21	.001 5%			CD19FD102J03	SK210		MMC-102
C22	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C23	7		DTZ-6R8	NP06P8	CN0568		10TCC-V68
C24	33		DTZ-33	NP033	CN0433		10TCC-Q33
C25	4		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C26	220		DTZ-220				10TCC-T22
C27	390		DD-391	GP390	GP339		10TS-T39
C28	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C29	68		DTZ-68	NP068	CN0468		10TCC-Q68
C30	56				CN0456		10TCC-Q56
C31	.01 N150		DC-103	MGP01	TA110	QC2-141	TG-S10
C32	2 N150	423295			*		10TCP-V22
C33	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C35	68		DTZ-68	NP068	CN0468		10TCC-Q68
C36	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C37	100 N150 10%	741763			*		10TCP-T10
C38	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C39	.01 10% 50V			WMF1S1	EWFA1A110	QF1-91	1PB-S10
C40	330		DD-331	GP330	GP333		10TS-T33
C41	.01		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	MFG. PART No.	REPLACEMENT DATA					
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE	PART No.	
						Q-LINE	GENERAL LINE	
C42	120	(1)	DTZ-120	MGPO1	CN0312	QC2-141	10TCC-T12	
C43	220		DD-221		GP322		10TS-T22	
C44	120		DTZ-120		CN0312		10TCC-T12	
C45	.01		DC-103		TA110		TG-S10	
C46	120		DTZ-120		CN0312		10TCC-T12	
C47	270		DTZ-270				10TCC-T27	
C48	2		DTZ-2R2		NP02P2		CN0522	10TCC-V22
C49	.0047		9D-472		GP4700		GP247	5GA-D47
C51	27		DTZ-47		NP047		CN0447	10TCC-Q47
C52	.01		DC-103		MGPO1		TA110	QC2-141
C53	.047		UK25-503		MAG2515	HY-735		
C54	.047		UK25-503		MAG2515	HY-735		
C55	.047 10% 50V			DPMS2S47	EWFI1A147	QF1-171	1PB-S47	
C56	.01			MGPO1	TA110	QC2-141	TG-S10	
C57	10			NP010	CN0410		10TCC-Q10	
C58	.01			DC-103	MGPO1	TA110	QC2-141	TG-S10
C59	.01			DC-103	MGPO1	TA110	QC2-141	TG-S10
C60	.01			DC-103	MGPO1	TA110	QC2-141	TG-S10
C61	.01			DC-103	MGPO1	TA110	QC2-141	TG-S10
C62	.01			DC-103	MGPO1	TA110	QC2-141	TG-S10
C63	2			DTZ-2R2	NP02P2	CN0522		10TCC-V22
C64	.01			DC-103	MGPO1	TA110	QC2-141	TG-S10
C65	18 NPO					CN0418		10TCC-Q18
C66	2.2			DTZ-2R2	NP02P2	CN0522		10TCC-V22
C67	.047 10% 50V				DPMS2S47	EWFI1A147	QF1-171	1PB-S47
C68	.047 10% 50V				DPMS2S47	EWFI1A147	QF1-171	1PB-S47
C69	.047 10% 50V				DPMS2S47	EWFI1A147	QF1-171	1PB-S47
C70	.047 10% 50V				DPMS2S47	EWFI1A147	QF1-171	1PB-S47
C71	.047 10% 50V				DPMS2S47	EWFI1A147	QF1-171	1PB-S47
C73	.0068 5% 50V				WMFI D68	EWFI2A268	QF1-73	1PB-D68
C75	.0022 10% 50V					M192P2229R8		192P2229R8
C77	100			DTZ-100	NP0100	CN0310		10TCC-T10
C79	.022 10% 50V			DC-253	MGPO25	TA125		TG-S25
C80	.0022			DD-222		GP222	QC2-97	5GA-D22
C81	.022 10% 50V			DC-253	MGPO25	TA125		TG-S25
C82	220			DD-221		GP322		10TS-T22
C83	.01			DC-103	MGPO1	TA110	QC2-141	TG-S10
C84	.0022			DD-222		GP222	QC2-97	5GA-D22
C88	68			DTZ-68	NP068	CN0468		10TCC-Q68
C89	68			DTZ-68	NP068	CN0468		10TCC-Q68
C90	100			DTZ-100	NP0100	CN0310		10TCC-T10
C91	.068 10% 50V			UK50-683		MAG50168		
C92	100			DTZ-100	NP0100	CN0310		10TCC-T10
C95	.068 10% 50V			UK50-683		MAG50168		
C102	.01			DC-103	MGPO1	TA110	QC2-141	TG-S10
C106	.047			UK25-503		MAG2515		HY-735
C107	.047			UK25-503		MAG2515		HY-735
C110	18 10%					CN0418		10TCC-Q18
C111	82			DD-820		GP482		10TS-Q82
C112	39					CN0439		10TCC-Q39
C114	390 10%			CD15FD391J03	SX339	QW1-41	MMA-391	
C117	.0047 5%			CD19FD472J03	SX247		MWC-472	
C118	.02		UK50-223		MAG5012			
C130	.0022		DD-222		GP222	QC2-97	5GA-D22	
C131	39				CN0439		10TCC-Q39	
C132	15		DTZ-15	NP015	CN0415		10TCC-Q15	
C133	.0022		DD-222		GP222	QC2-97	5GA-D22	
C134	3		DTZ-3R3	NP03P3	CN0533		10TCC-V33	
C135	220		DD-221		GP322		10TS-T22	
C136	.0033 5%			CD19FD332J03	SX233		MWC-332	
C137	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10	
C138	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10	
C139	220		DD-221		GP322		10TS-T22	
C201A	180 10%			CD15FD181J03	SX318	QW1-33	MMA-181	
C201B	7		DTZ-6R8	NP06P8	CN0568		10TCC-V68	
C202	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10	
C203	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10	
C204	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10	
C205	.047		UK25-503		MAG2515		HY-735	
C206	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10	
C207	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10	
C208	.0047		DD-472	GP4700	GP247		5GA-D47	
C210	.0047		DD-472	GP4700	GP247		5GA-D47	
C211	.0047		DD-472	GP4700	GP247		5GA-D47	
C501	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10	
C502	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10	

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

(1) Used in some versions.

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.
D1	ITT410	(1)	GE-90	D201	PTC311	HEPR2503	RE 195	SK3126	RT-262	ECG610
	BB142		GE-90	D201	PTC311	HEPR2503	RE 195	SK3126	RT-262	ECG610
	MC201		GE-90	D201	PTC311	HEPR2503	RE 195	SK3126	RT-262	ECG610
D2	MZ205			WEP602			RE 105			ECG135
D3	RD9.1E		GEZD-9.1		ZB9.1B		RE 114		RT-240	ECG139A
D4	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D5	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D6	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D7	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D8	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D9	1N60	(1)	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D10	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D11	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D12	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D13	V06C		GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D14	1S1885		GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D15	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D16	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D17	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D18	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D19	1N60	(1)	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D22	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D501	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D502	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
IC1	PLL02A						RE 360-IC			ECG1167
	PLL02						RE 360-IC			ECG1167
IC2	C3001A									ECG1192
	C3001									ECG1192
	TA7310P									ECG1192
IC3	C3001A									ECG1192
	C3001									ECG1192
	TA7310P									ECG1192
IC4	TA7205P	(1)	GEIC-179	WEP949	PTC780		RE 357-IC	SK3231	TVCM-81	ECG1155
Q1	2SC710		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 *
Q3	2SC1687		GE-20 *	TR-24 *	PTC121 *	HEPS0015 *	RE 13 *	SK3018 *	RT-107A *	ECG123A *
Q4	2SC1760		GE-276	WEP1014			RE 224		RT-310	ECG306
	2SC1846		GE-336				RE 209			ECG306
	2SC2036		GE-336				RE 209			ECG306
Q5	2SC1678		GE-322	WEP1678	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC1306		GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC2075		GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC1974		GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
Q6	2SC1318Q	(1)	GE-210 *	TR-21 *	PTC178	HEPS0015 *	RE 17 *	SK3122	RT-302	ECG128 *
	2SC1318		GE-210 *	TR-21 *	PTC178	HEPS0015 *	RE 17 *	SK3122	RT-302	ECG128 *
Q7	2SA719Q		GE-269	TR-28 *	PTC103 *	HEPS0019 *	RE 26 *	SK3114	RT-805	ECG290
	2SA719		GE-269	TR-28 *	PTC103 *	HEPS0019 *	RE 26 *	SK3114	RT-305	ECG290
	2SA720		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 *
	2SC1047		GE-60 *	(IR)2SC829B	PTC132 *	HEPS0016 *	RE 28 *	SK3018 *	RT-107	ECG161 *
	2SC710		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC460									
Q9	2SC1359C		GE-212	(IR)2SC380A0	PTC121 *	HEPS0014 *	RE 192	SK3038 *	RT-308	ECG199
	2SC1359		GE-212	(IR)2SC380A0	PTC121 *	HEPS0014 *	RE 192	SK3038 *	RT-308	ECG199
Q10	2SC710	(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC829		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC839		GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q11	2SC710		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC829		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
Q12	2SC829B		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC829		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC710		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q13	2SC829P		GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
	2SC828	(1)	GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
	2SC945		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
	2SC372		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
Q14	2SA719R		GE-269	TR-28 *	PTC103 *	HEPS0019 *	RE 26 *	SK3114	RT-305	ECG290
	2SA719		GE-269	TR-28 *	PTC103 *	HEPS0019 *	RE 26 *	SK3114	RT-305	ECG290
	2SA720		GE-269	TR-28 *	PTC103 *	HEPS0019 *	RE 26 *	SK3114	RT-305	ECG290
Q15	2SA564		GE-65	(IR)2SA564A	PTC103 *	HEPS0019 *	RE 193	SK3114	RT-303	ECG234
	2SC900		GE-62	(IR)2SC644	PTC139 *	HEPS0015 *	RE 192	SK3124	RT-302	ECG199
Q16	2SC945		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-302	ECG199
	2SC710		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC829	(1)	GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC839		GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q17	2SC710		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC829		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC839		GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q18	2SC829C		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC829		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
Q19	2SA733		GE-48	TR-31	PTC103 *	HEPS0019 *	RE 26 *	SK3138	RT-303	ECG294
Q20	2SC900		GE-62	(IR)2SC644	PTC139 *	HEPS0015 *	RE 192	SK3124	RT-302	ECG199
	2SC1327	(1)	GE-85 *	(IR)2SC945	PTC139 *	HEPS0024 *	RE 192	SK3124	RT-107A	ECG199
Q22	2SC900		GE-62	(IR)2SC644	PTC139 *	HEPS0015 *	RE 192	SK3124	RT-302	ECG199
Q801	2SC945		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-302	ECG199
	2SC828		GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
	2SC372		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q802	2SC828		GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
	2SC372		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *

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

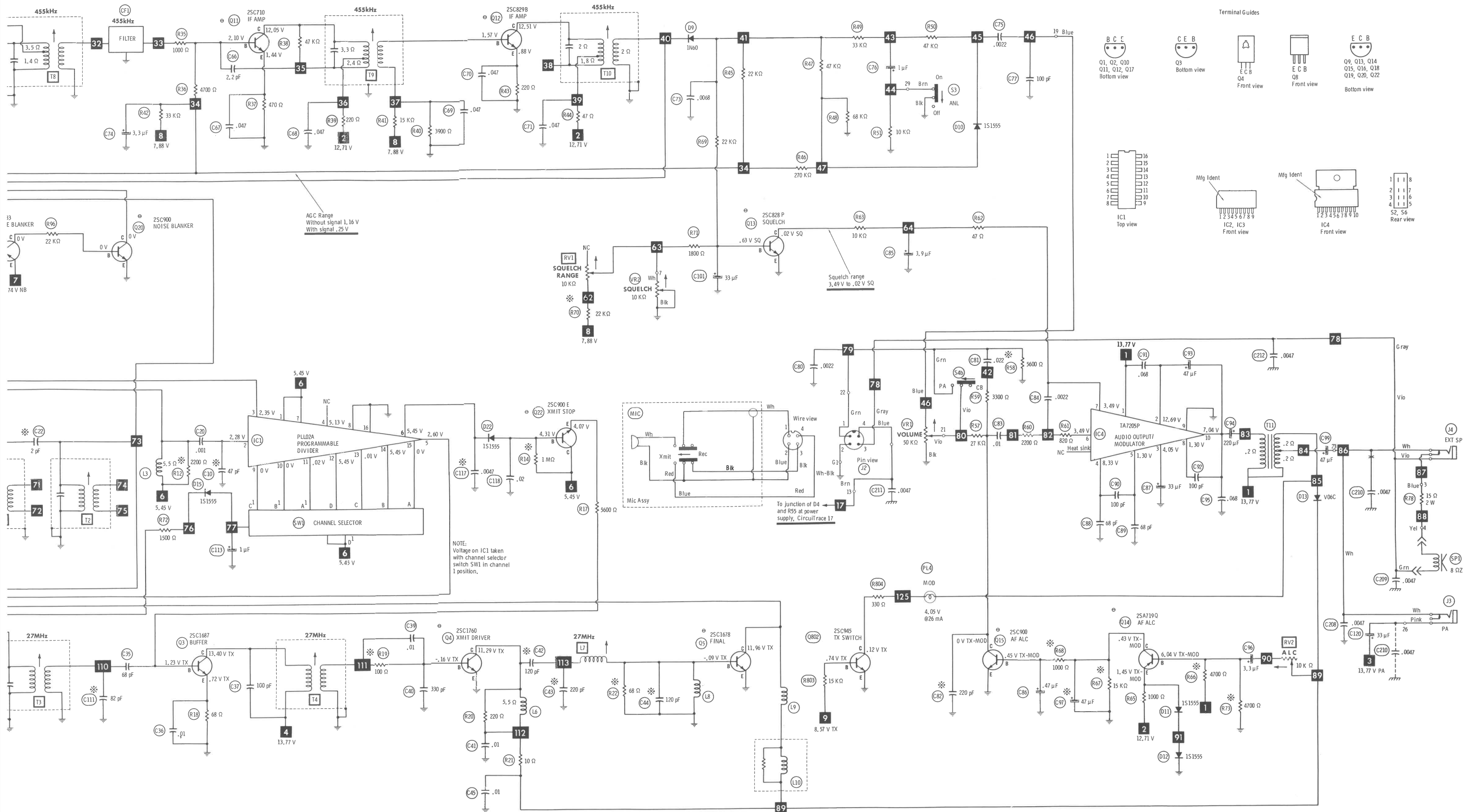
PARTS LIST AND DESCRIPTION (CONTINUED)
(When ordering parts, state Model, Part Number, and Description.)

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C1	.1 10V	742688	PC10-25	TDC104M050EL	QDT1-2	SD50-R109
C2	10 16V	742072		VTT10B25	QV1-41	EV-1222
C3	.22 10V	742553		TDC224M050EL	QDT1-10	SD50-R229
C11	47 10V	742077		VTT47D16	QV1-73	EV-1226
C18	1 50V	742076		VTT1A50	QV1-11	EV-1615
C50	1 50V	742076		VTT1A50	QV1-11	EV-1615
C72	10 16V	742068		VTT10B25	QV1-41	EV-1222
C74	3.3 25V	742074		VTT3R3A50	QV1-23	EV-1318
C76	1 50V	742076		VTT1A50	QV1-11	EV-1615
C78	47 16V	742079		VTT47D16	QV1-73	EV-1226
C85	3.9 25V	741793	PC30-25	TDC474M050EL	QDT1-19	SD50-R479
C86	.47 10V	742584		VTT33B10	QV1-61	EV-1125
C87	33 6.3V	741794		VTT47D16	QV1-73	EV-1226
C93	47 16V	742079		VTT220H16	QV1-117	EV-1240
C94	220 16V	741797		VTT3R3A50	QV1-23	EV-1318
C96	3.3 25V	742074		VTT47D16	QV1-73	EV-1226
C97	47 10V	742077		VTT47E25	QV1-75	EV-1326
C99	47 25V	742081		VTT1000L16	QV1-183	EV-1260
C100	1000 16V	740844		VTT33B10	QV1-61	EV-1125
C101	33 6.3V	741794		VTT1A50	QV1-11	EV-1615
C113	1 50V	742076		VTT33B10	QV1-61	EV-1125
C120	33 16V	742085	PC30-25	VTT33B10		

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
C4	68 N150	741788			*		10TCP-Q68
C5	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C6	22 N150 10%	741807			*		10TCP-Q22
C7	220		DD-221		GP322		10TS-T22
C8	120		DTZ-120		CN0312		10TCC-T12
C9	.047		UK25-503		MAG2515		HY-735
C10	47		DTZ-47	NP047	CN0447		10TCC-Q47
C12	4 NPO		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C13	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C14	68 N150 10%						
C15	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C16	33		DTZ-33	NP033	CN0433		10TCC-Q33
C17	12 N150	741766			*		10TCP-Q12
C19	.001 10% 50V			DPMS6D1	EWFA210	QF1-1	1PB-D10
C20	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C21	.001 5%			CD19FD102J03	SX210		MWC-102
C22	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C23	7		DTZ-6R8	NP06P8	CN0568		10TCC-V68
C24	33		DTZ-33	NP033	CN0433		10TCC-Q33
C25	4		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C26	220		DTZ-220				10TCC-T22
C27	390		DD-391	GP390	GP339		10TS-T39
C28	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C29	68		DTZ-68	NP068	CN0468		10TCC-Q68
C30	56				CN0456		10TCC-Q56
C31	.01 N150		DC-103	MGP01	TA110	QC2-141	TG-S10
C32	2 N150	423295			*		10TCP-V22
C33	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C35	68		DTZ-68	NP068	CN0468		10TCC-Q68
C36	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C37	100 N150 10%	741763			*		10TCP-T10
C38	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C39	.01 10% 50V			WMF1S1	EWFA110	QF1-91	1PB-S10
C40	330		DD-331	GP330	GP333		10TS-T33
C41	.01		DC-103	MGP01	TA110	QC2-141	TG-S10



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	741707				
RV2	ALC	5000					
	ALC	10K	742508(6)				
RV3	S Meter	20K	741709				
RV4	RF Meter	20K	741709				
RV501	SWR	2000	742556				
VR1	Volume/Switch	50K	741828				
VR2	Squelch	10K	741829				
VR3	SWR/CAL	10K	741829				

(6) Alternate part, may be used in some versions.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	VCO Input	742514			
L2	VCO	741720			
L3	RF Choke	741697			
L4	RF Choke	742515			
L5	Harmonic Suppressor (27MHz)	742516			
L6	RF Choke	741695			
L7	Xmt Driver (27MHz)	741696			
L8	RF Choke	741697			
L9	RF Choke	741703			
L10	RF Choke	741698			
L11	Final Amp (27MHz)	741699			
L12	Antenna Match (27MHz)	741700			
L13	RF Choke	742517			
L14	Harmonic Suppressor (10.695MHz)	742521			
L15	RF Choke	741697			
L16	Pi Filter	741702			
L17	RF Choke	741702			
T1	Ref. Osc. (10.240MHz)	742518			
T2	VCO	742519			
T3	Xmt Osc. (27MHz)	741712			
T4	Xmt Buffer (27MHz)	741713			
T5	Rec. Antenna (27MHz)	741714			
T6	Rec. RF (27MHz)	742520			
T7	Rec. Mixer (27MHz)	742521			
T8	IF (455kHz)	741717			
T9	IF (455kHz)	741718			
T10	IF (455kHz)	741719			

RCA MODEL 14T270

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	1.1A	.12	.48mH	741691 ELA-16(1)	TR523		(1) Number on unit.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE			REPLACEMENT DATA			NOTES
	PRI.	SEC.		MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T11	2.9	1 8	2 13.5	741690 ETA-66(1)	TR723	MCB-16	(1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	3 1/2" PM, 8 Ohms	741830	3C3Z8U	

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 250V	426968		AGC2	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	741826	18-032	18-034	18-010	18-092	1	2	4	3	NC	2

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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	742506	CA60W10240	Ref Osc	X2	10.695	742507		Xmit Osc

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF1	Filter	741812	455kHz
J1	Jack	742497	Antenna
J2	Jack	741815	Mic
J3	Jack	742498	PA
J4	Jack	742498	External Speaker
J5	Jack	741819	Power
M1	Meter	741831	S/Rf/SWR
PL1	Lamp	741818	Channel Indicator (4.98V @ 32mA)
PL2	Lamp	741832	RX
PL3	Lamp		Meter (4.98V @ 56mA)
PL4	Lamp		Mod. (4.05V @ 26mA)
S1	Switch	741834	Power (Part of Volume Control)
S2	Switch	741817	Delta Tune
S3	Switch	741817	NB/Off
S4	Switch	741817	PA/CB
S5	Switch	741817	ANL
S6	Switch	741834	CAL/S-Rf/SWR
S7	Switch	741817	Local/Distance
SW1	Switch	742543	Channel Select
	Power Cord	741827	DC

RCA MODEL 14T270

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

ITEM	PART No.	ITEM	PART No.
Panel, Front Escutcheon	742539 742538	Knob, Channel Select Knob, Control	742542 741823

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')