

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.



PALOMAR MODEL DIGICOM 100

MODEL Digicom 100

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

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6CZ392

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 14-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;

ALL Coils.....9300
 ALL Trimmers.....5000

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of frequency counter to TP3.	Ch. 1, LSB, Xmit. Clarifier (R304)-mid-range.	C45	Disconnect PL1. Turn L3 to top of core. Adjust C45 for 12.800000MHz +10Hz.
"	Ch. 1, USB, Xmit. Clarifier (R304)-mid-range.	C55	Adjust for 12.803000MHz +10Hz.
Input of DC meter to TP1.	"	L3	Adjust L3 for 2.0V DC. Turn channel selectors to 99. Voltage should not exceed 7.5V DC. If necessary realign L3 for 7.5V DC on channel 99.
Input of frequency counter to TP2.	Ch. 1, USB, Rec	C80	Adjust for 10.697000MHz +10Hz.
"	Ch. 1, LSB, Rec	C56	Adjust for 10.700000MHz +10Hz.
Input of frequency counter to PL1.	"		Verify that frequency is the same for LSB and AM. Reconnect PL1.

RECEIVER ALIGNMENT

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

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Output of signal generator to antenna jack. 27.105MHz, no modulation. Output 0uV.	Ch. 12, LSB. RF AGC (R150), IF AGC (R160), S meter (R278), Audio Balance (R130)- mid positions.	L13,L14,L16, L21,L17	Adjust S Meter Control R278 for 3 on S meter with generator output at zero. Set generator for an output of 9 on S meter. Adjust for maximum on S meter. Keep generator output at S-9 reading.

RECEIVER ADJUSTMENTS

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

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of oscilloscope to TP8. Output of signal generator to antenna jack. Set generator for an output of 9 on S meter.	Ch. 12, LSB.	R160	Adjust for 1 Vp-p.
Output of signal generator to antenna jack. 27.105MHz, no modulation. Output 10uV.	"	R278	Adjust for 9 on S scale of meter.
Output of signal generator to antenna jack. 27.105MHz, no modulation. Output 1000uV. Input of DC meter to TP9.	"	R150	Adjust for 1V DC.
Output of signal generator to antenna jack. 27.105MHz, 1000Hz @ 90% modulation. Output 1000uV. Input of oscilloscope to TP8.	Ch. 12, AM.	R130	Adjust for 1Vp-p.

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TRANSMITTER ALIGNMENT

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

Check that there is no output on channels 24 through 99 in Xmit.

NOTE: Be sure to check transmit frequency and power on all active channels after alignment or adjustments of transmitter.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
	Turn MIC Gain (R167), RF AGC (R150) to mid position. Turn Drive (R273) to MINIMUM. Turn AM Carrier (R80) to maximum. Turn L22,L23,L12,L11 and L24 so slugs are at top of coil.		
Input of frequency counter & RF VTVM to TP5.	Ch. 12, USB.	L22,L23	Adjust for 16.405MHz at maximum output.
Input of frequency counter & RF VTVM to TP6.	Ch. 12, USB. Turn Drive (R273) to mid position.	L12,L11,L24	Adjust L12,L11,L24 for 27.105MHz at maximum output.

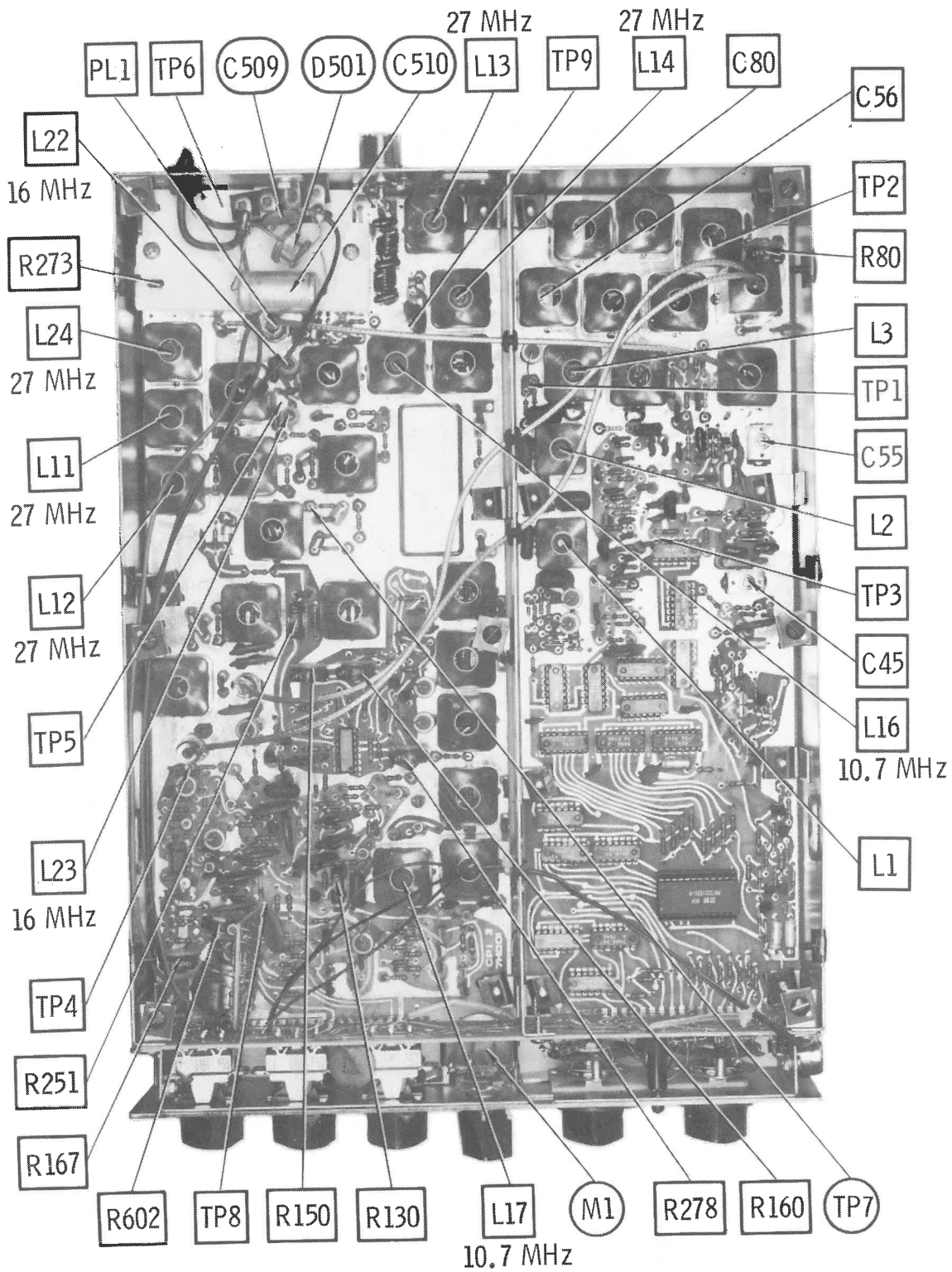
TRANSMITTER ADJUSTMENTS

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

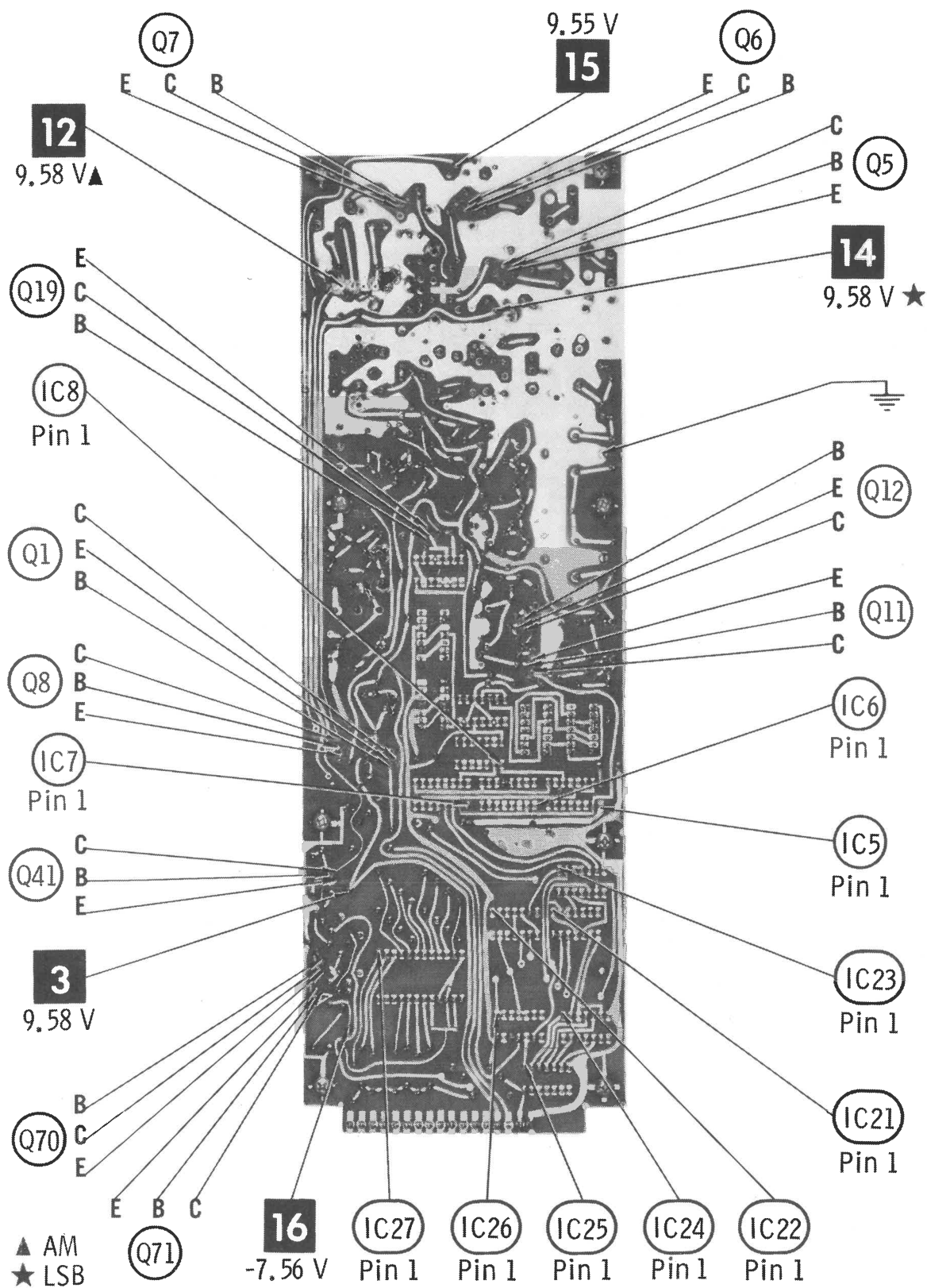
Check that there is no output on channels 24 through 99 in Xmit.

NOTE: Be sure to check transmit frequency and power on all active channels after alignment or adjustments of transmitter.

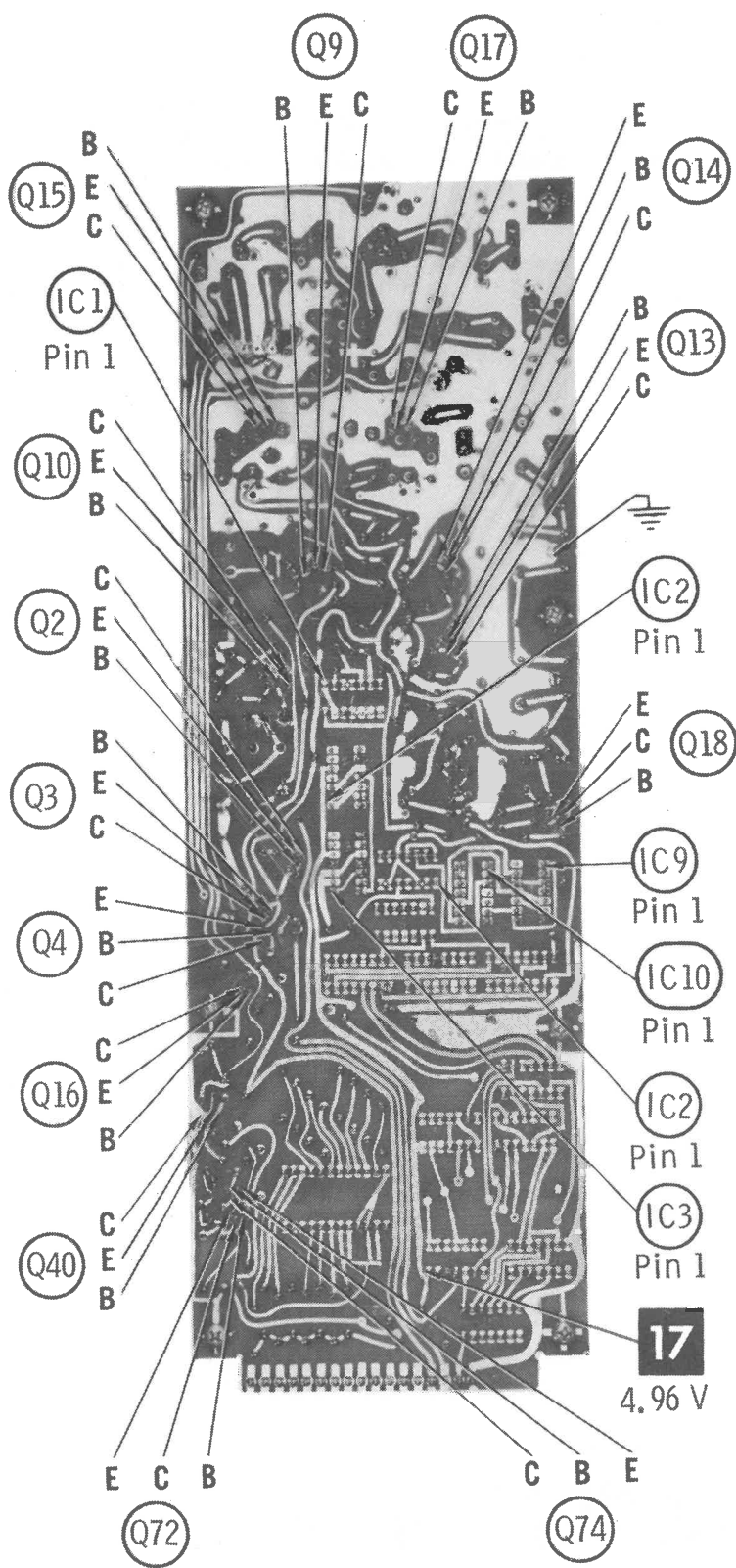
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator to MIC input. 1000Hz @1volt p-p. Input of oscilloscope to TP4.	Ch. 12, USB. Remove MIC. Xmit by jumper to MIC pins 2 and 3.	R251	Adjust for .5V p-p.
Input of oscilloscope or modulation meter to TP6.	Ch. 12, AM.	R80	Adjust for 90% modulation.
	"	R273	Adjust for 3.5 watts.
Output of signal generator to MIC input. 1000Hz @ .1V p-p.	Ch. 12, USB.	R167	Adjust for 3 watts.



CHASSIS - BOTTOM

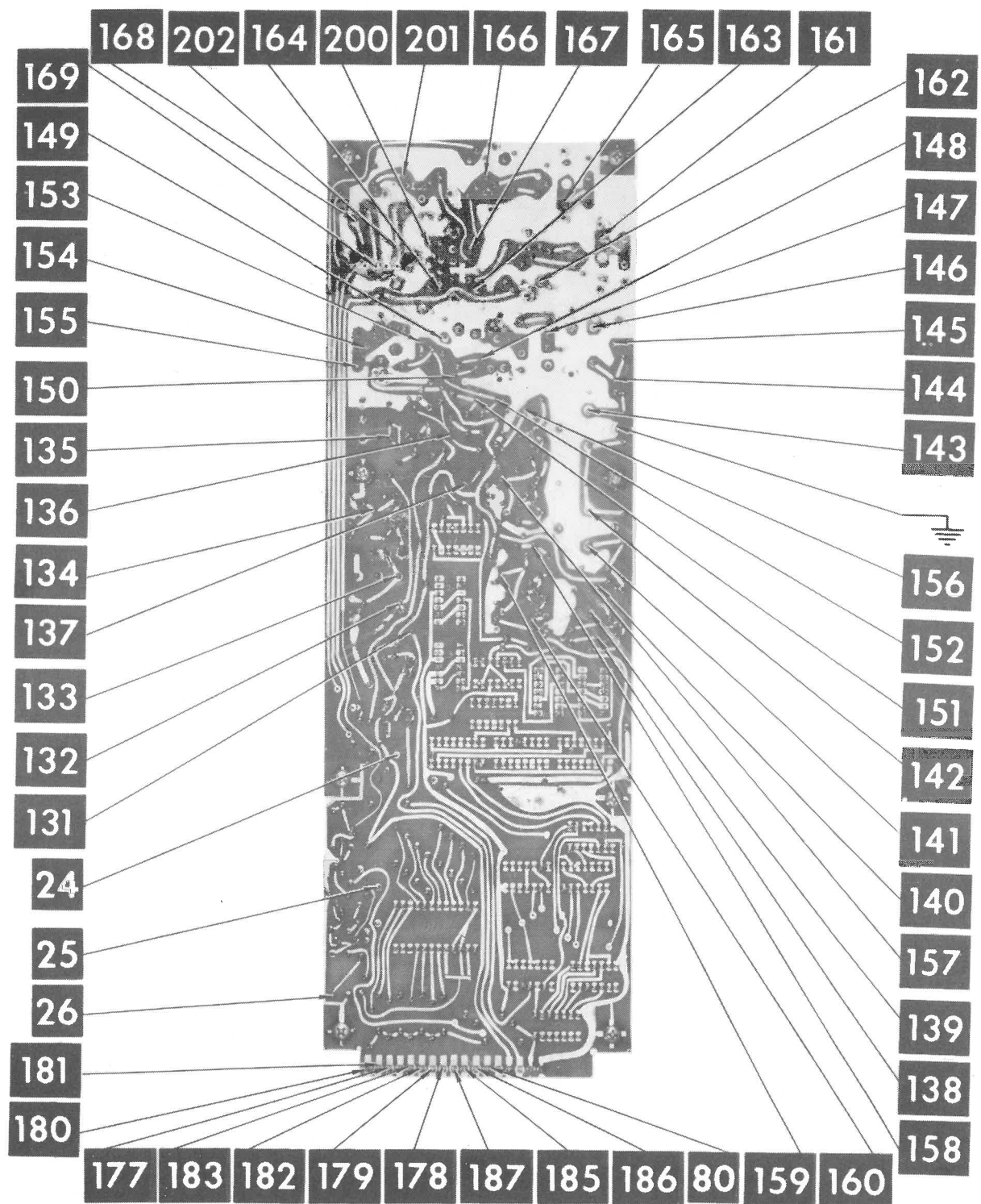


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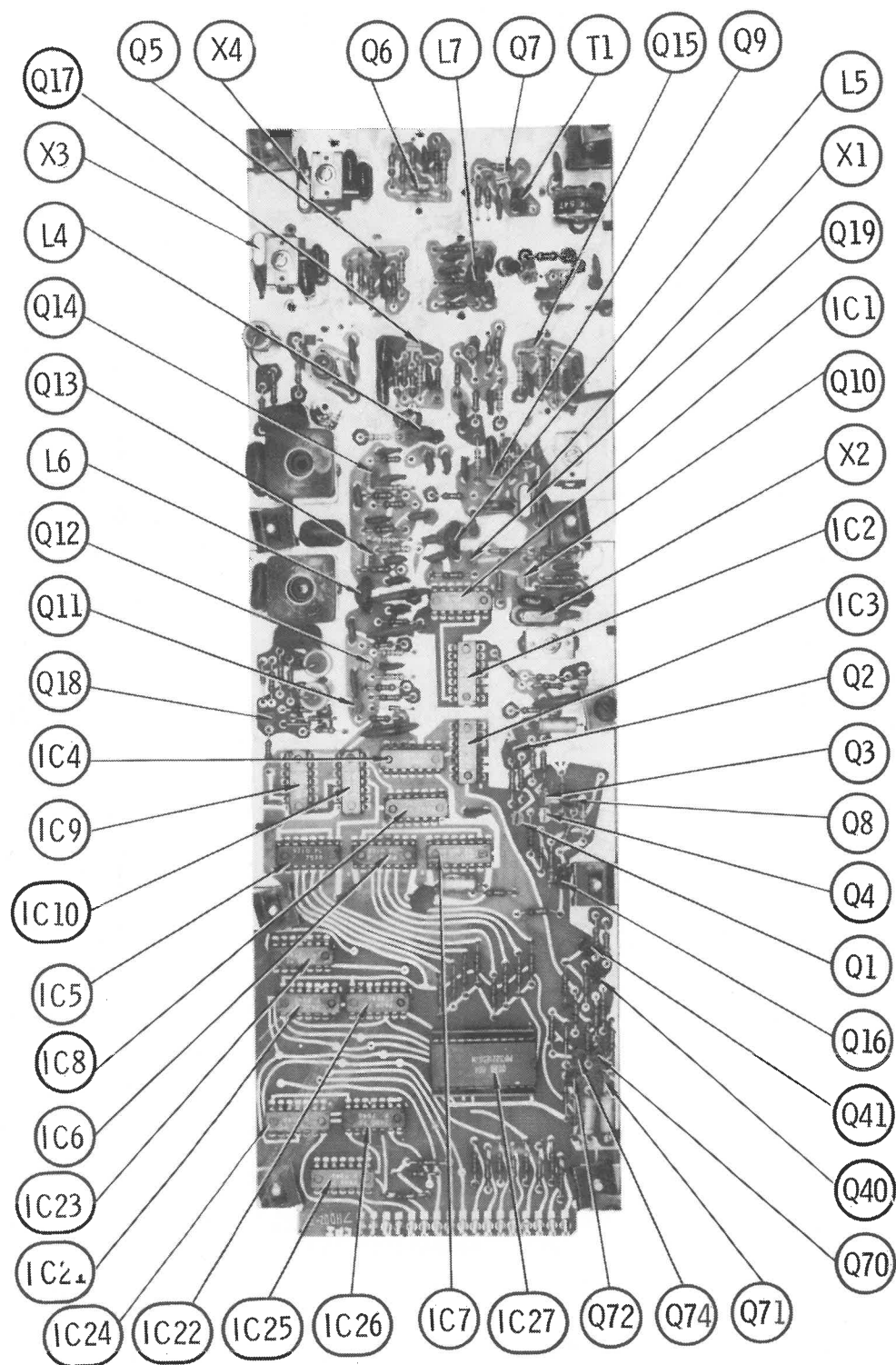


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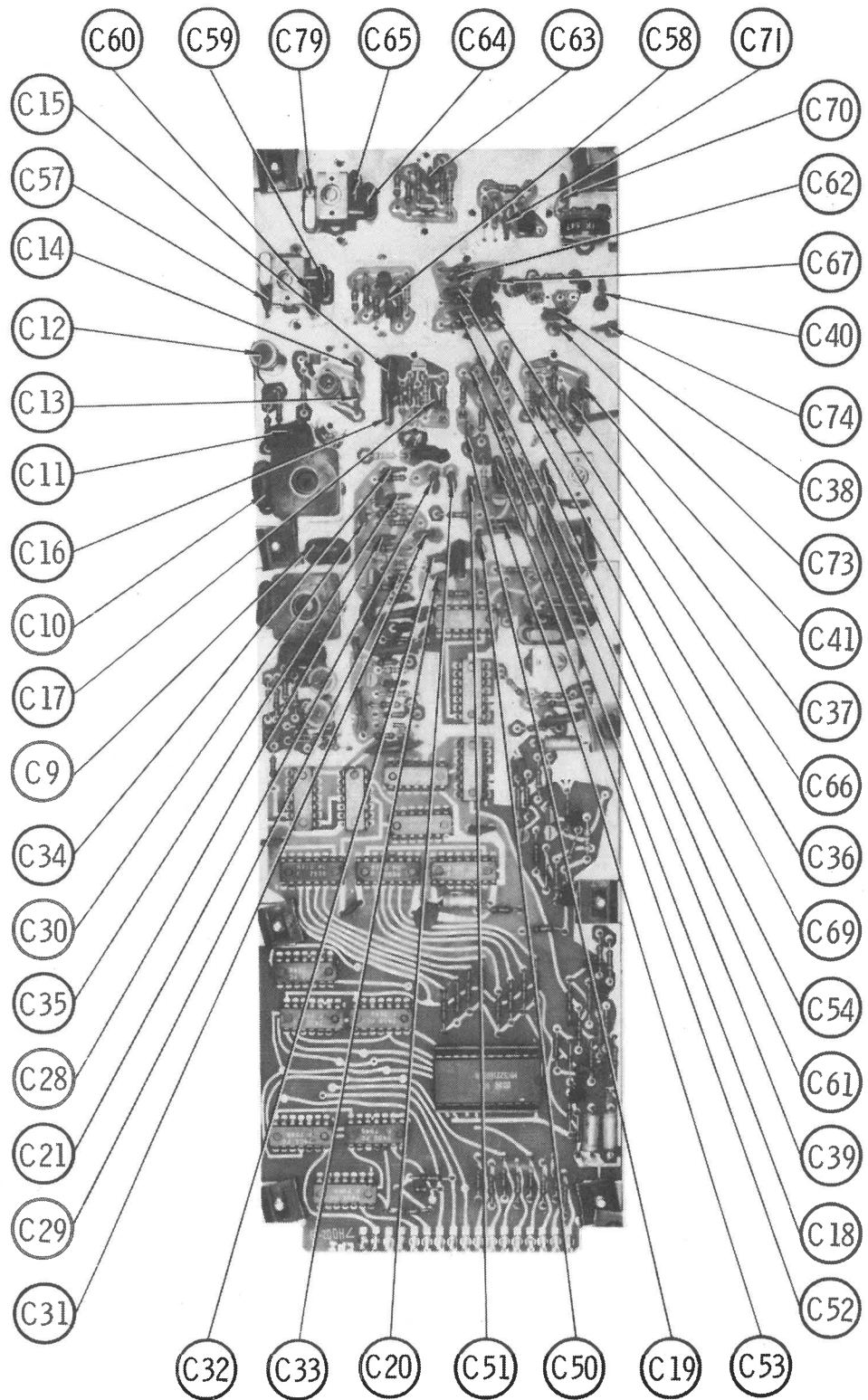
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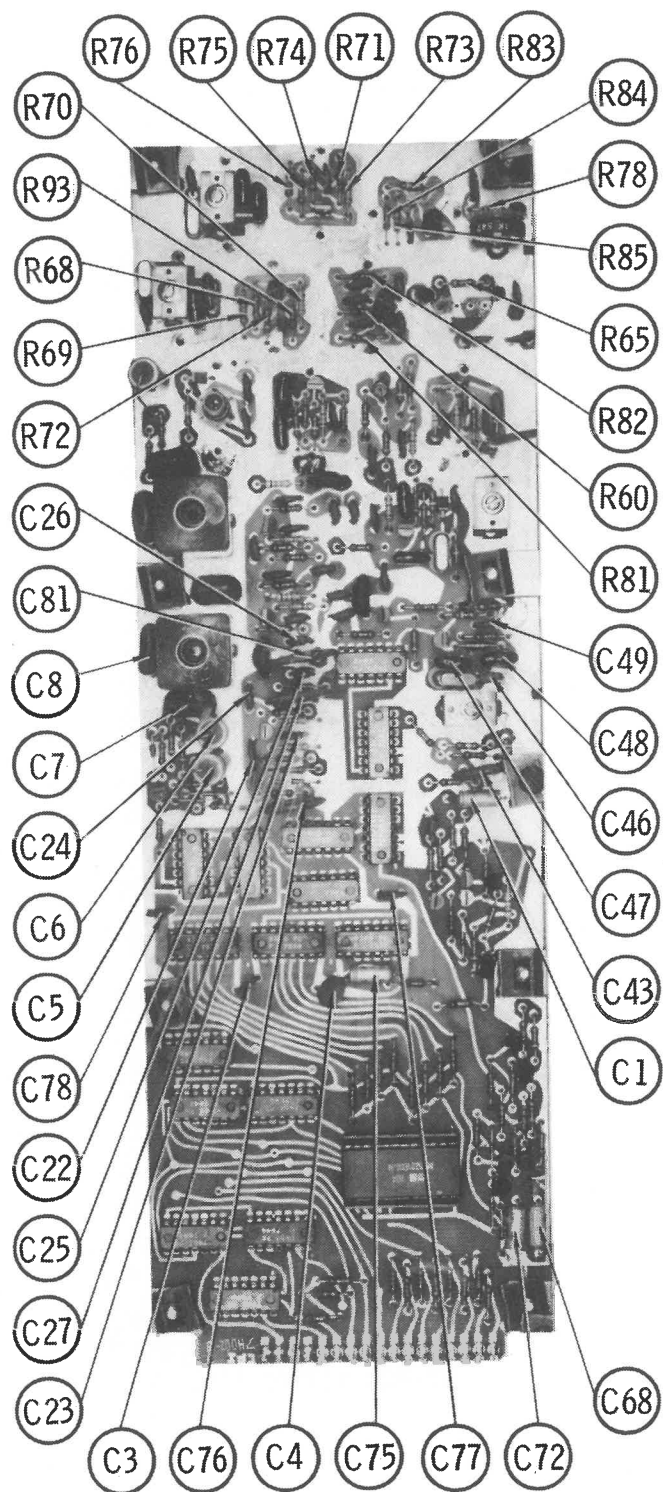
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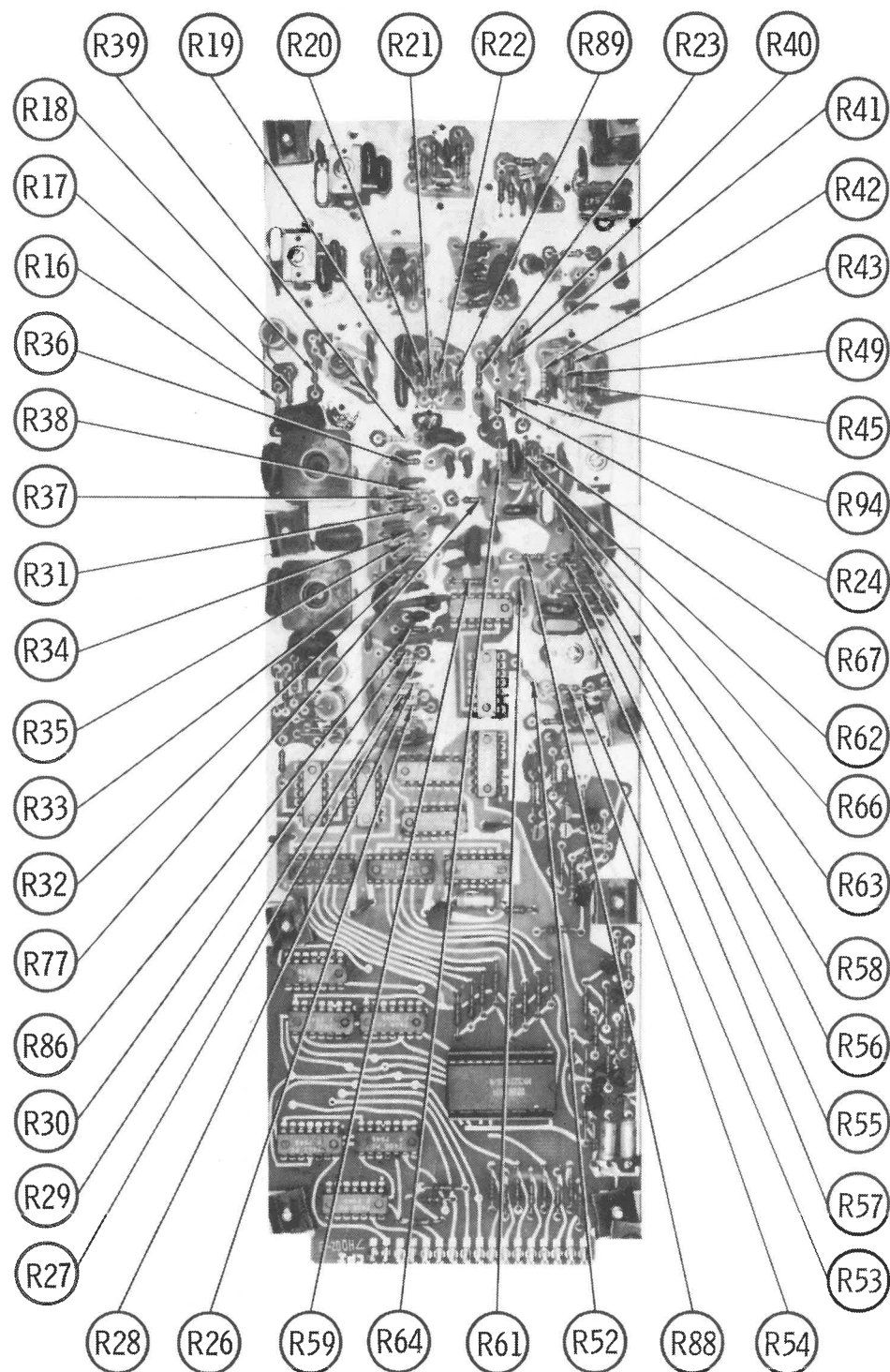
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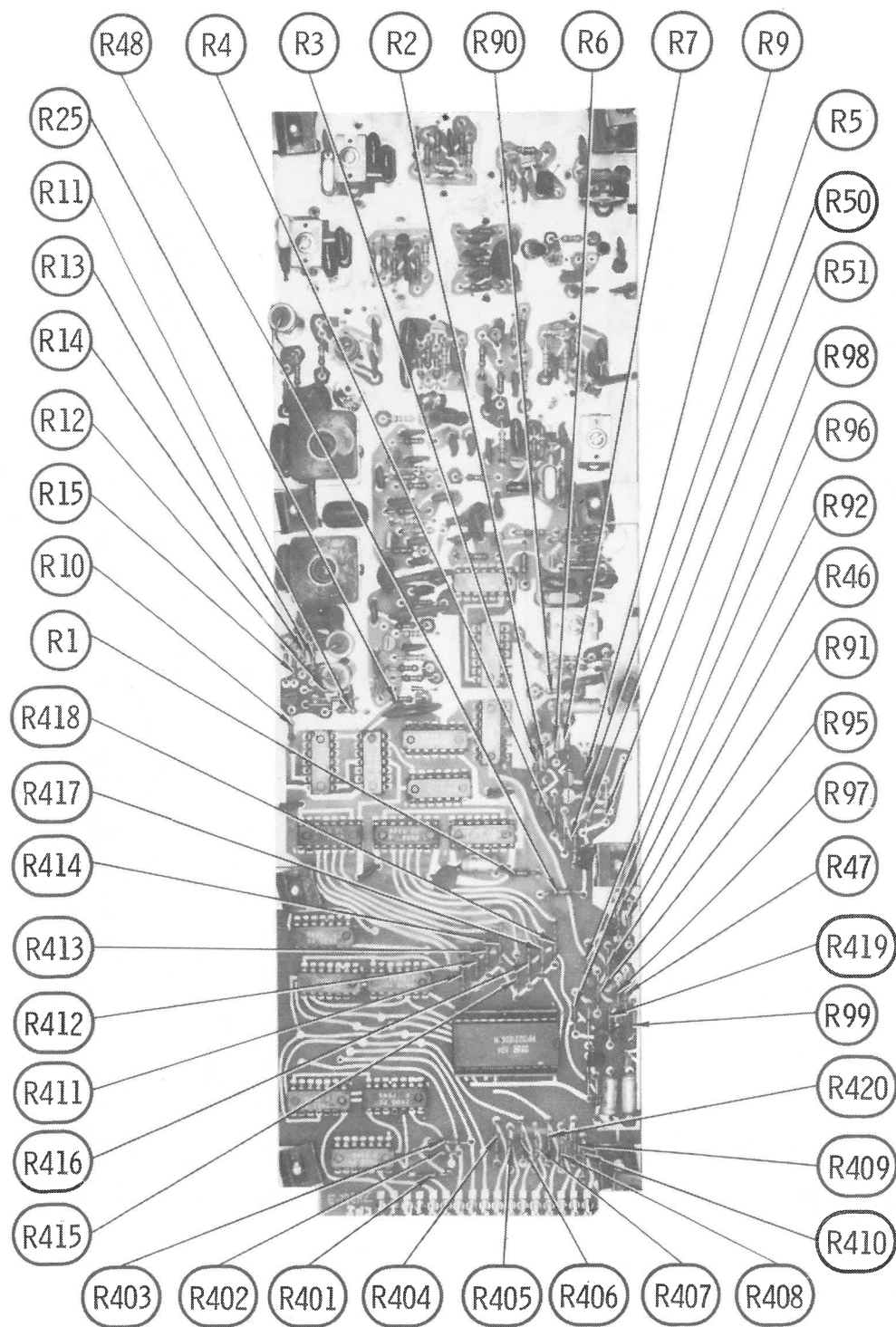
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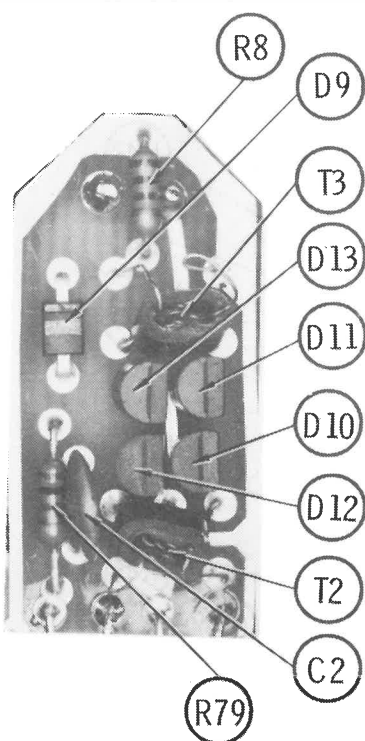
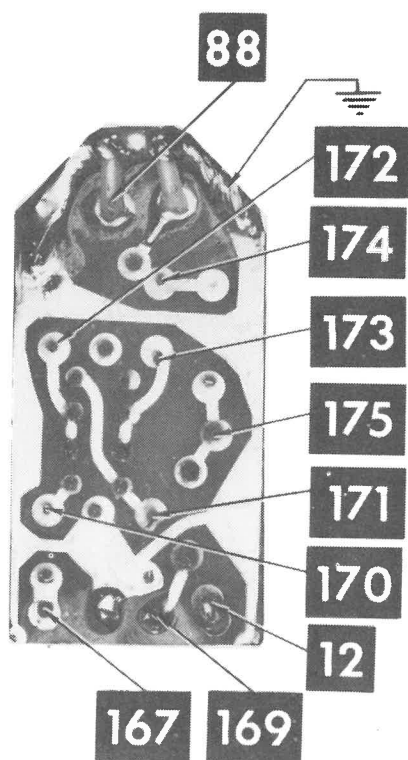
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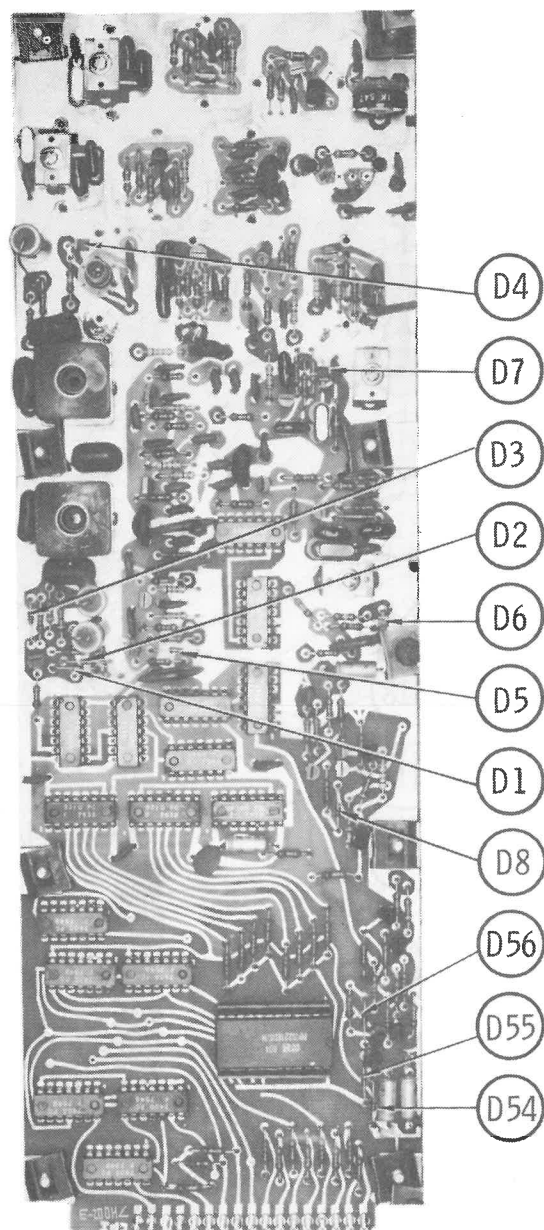
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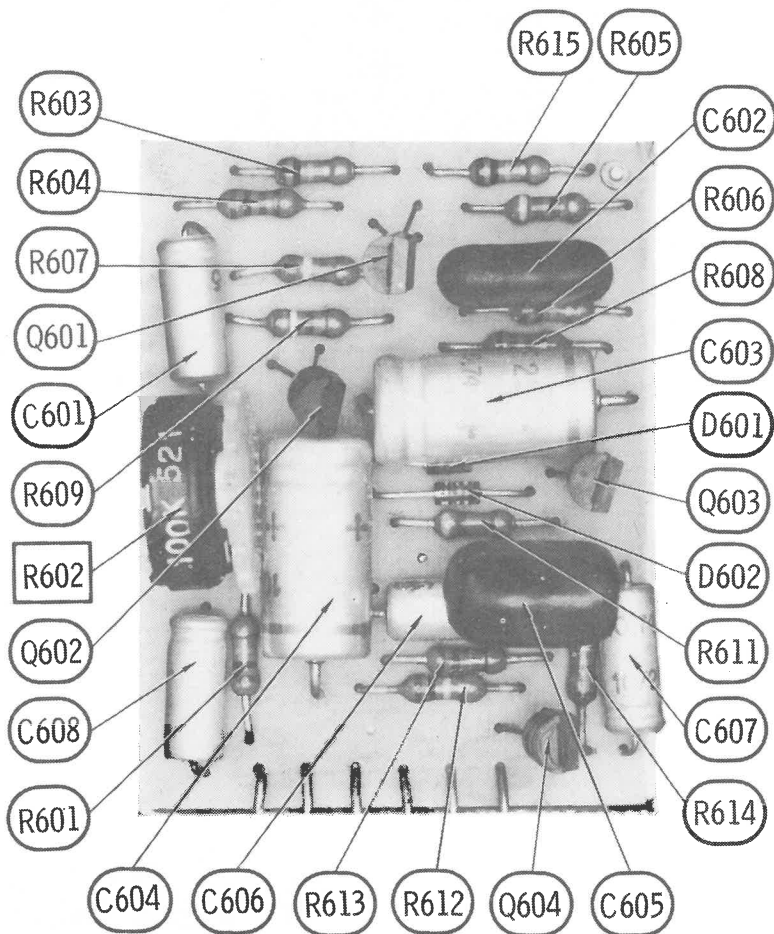
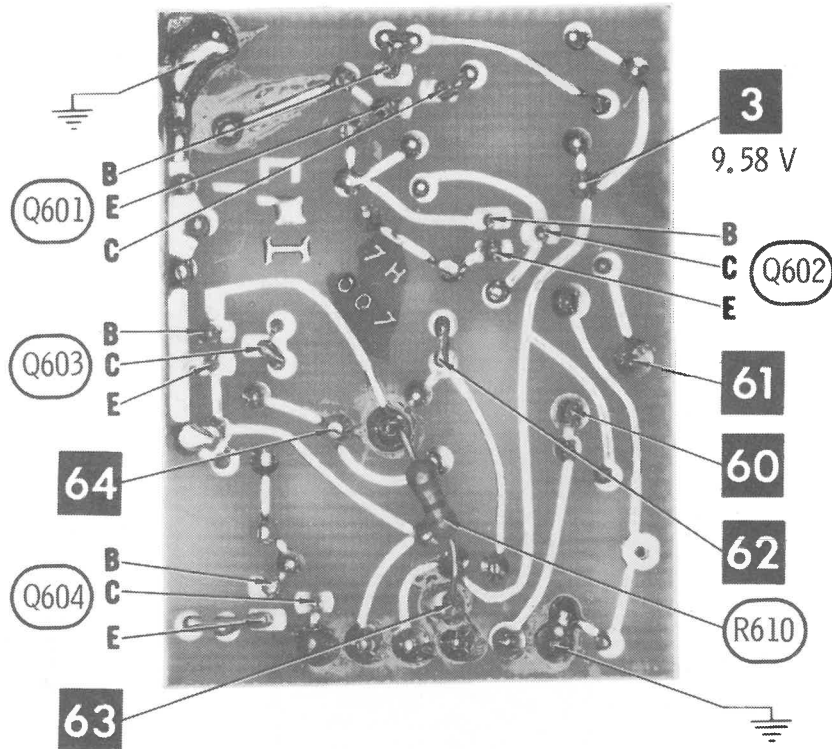
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MOD/DEMOD BOARD

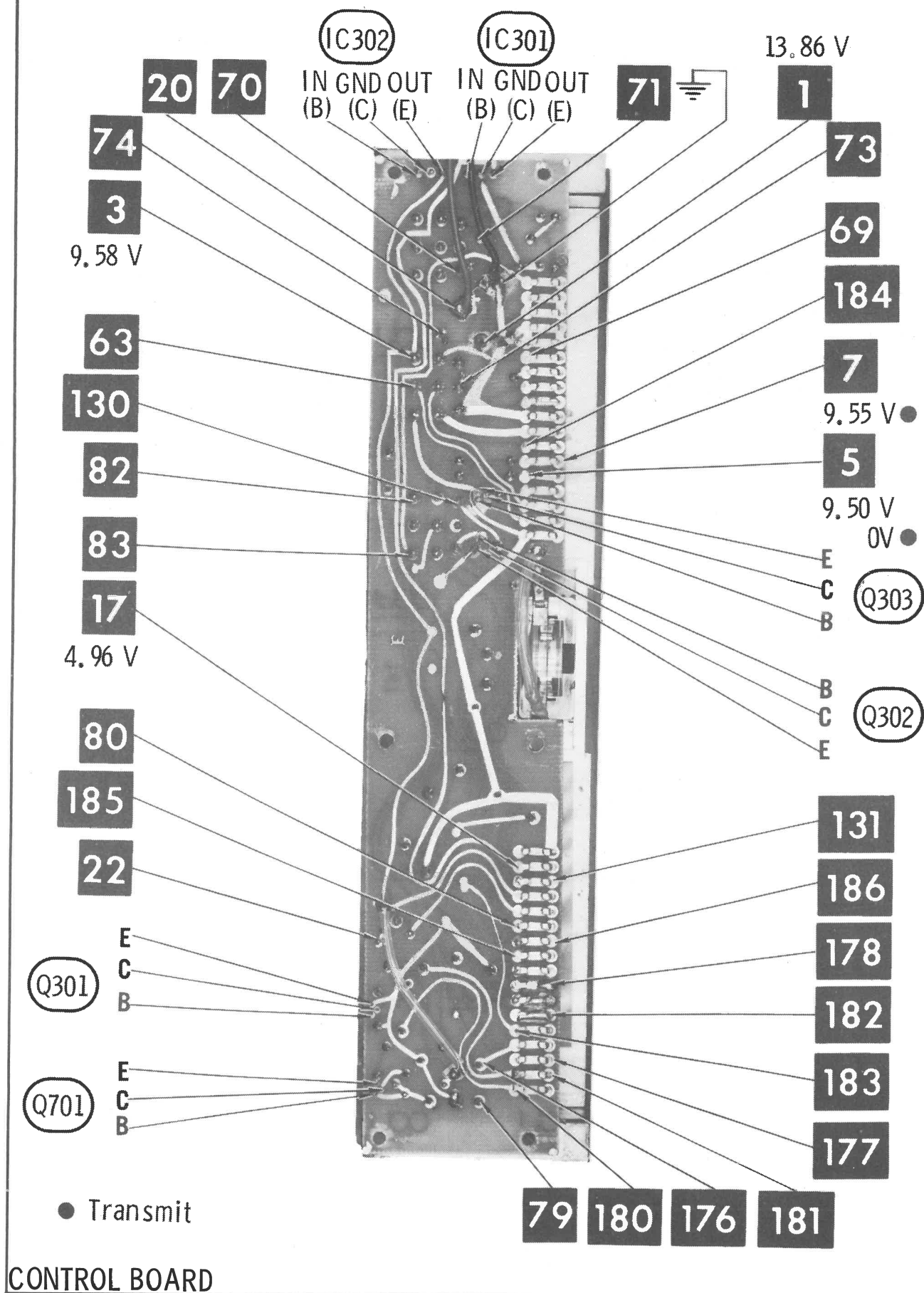


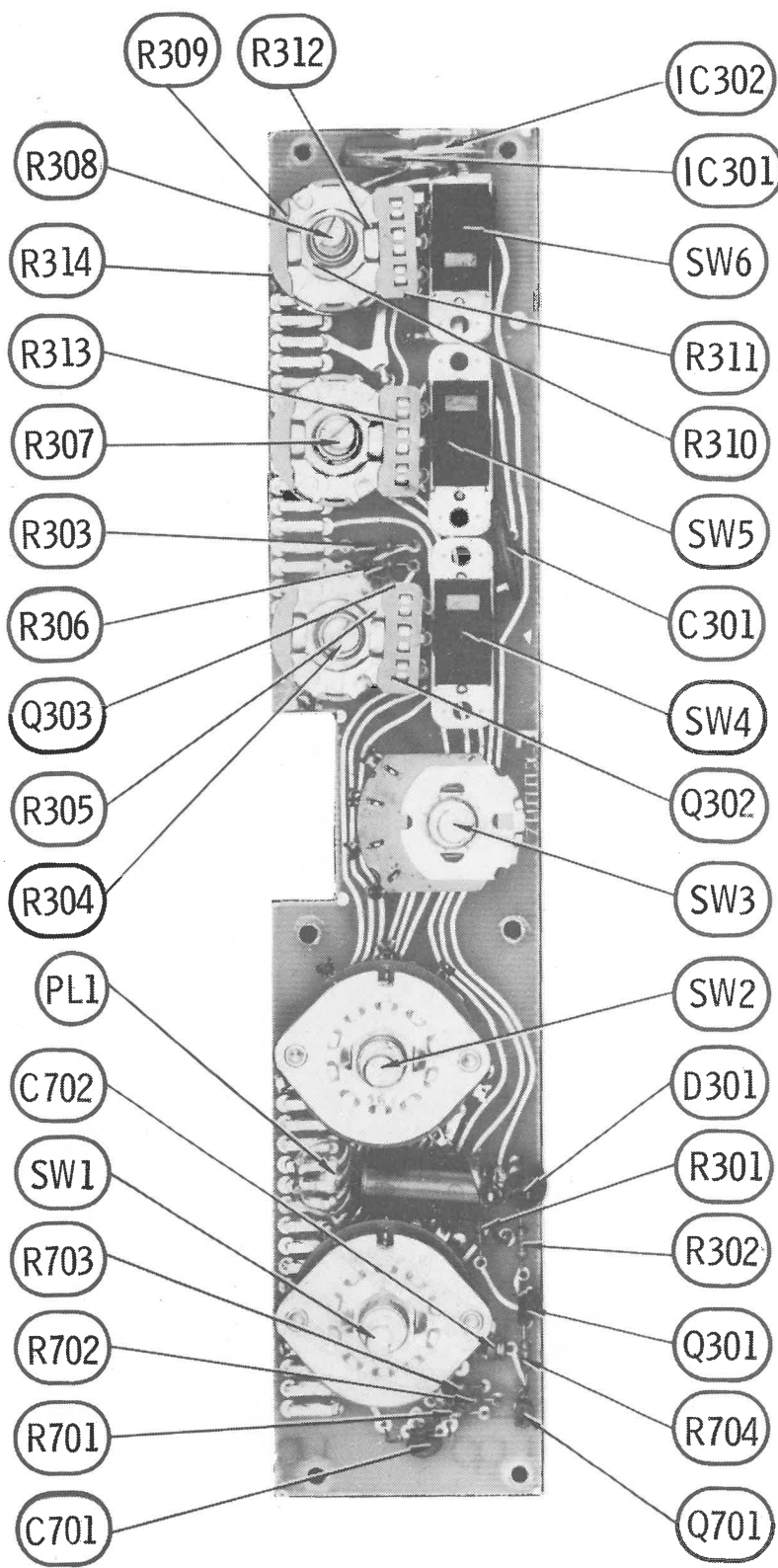
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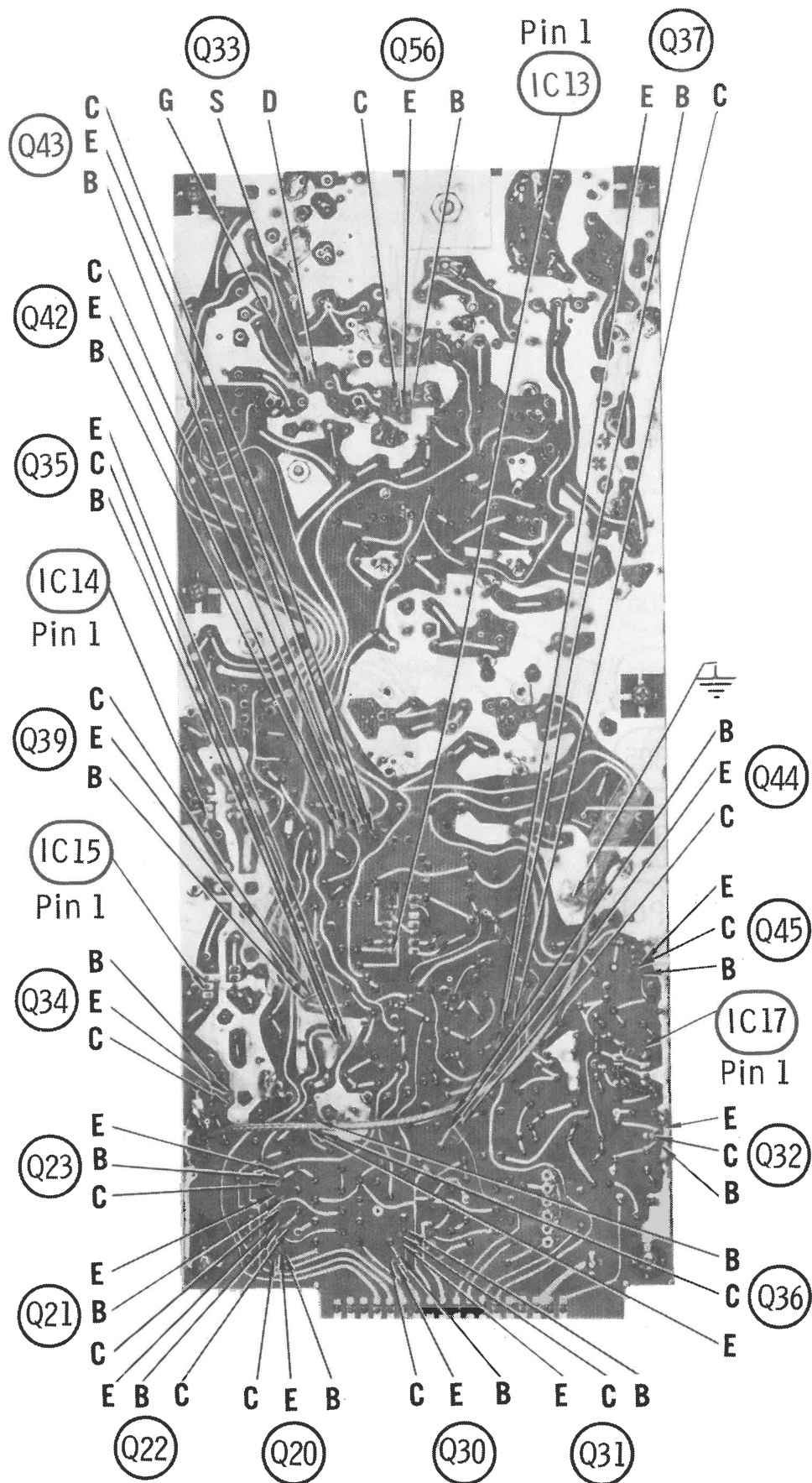
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AUDIO BOARD

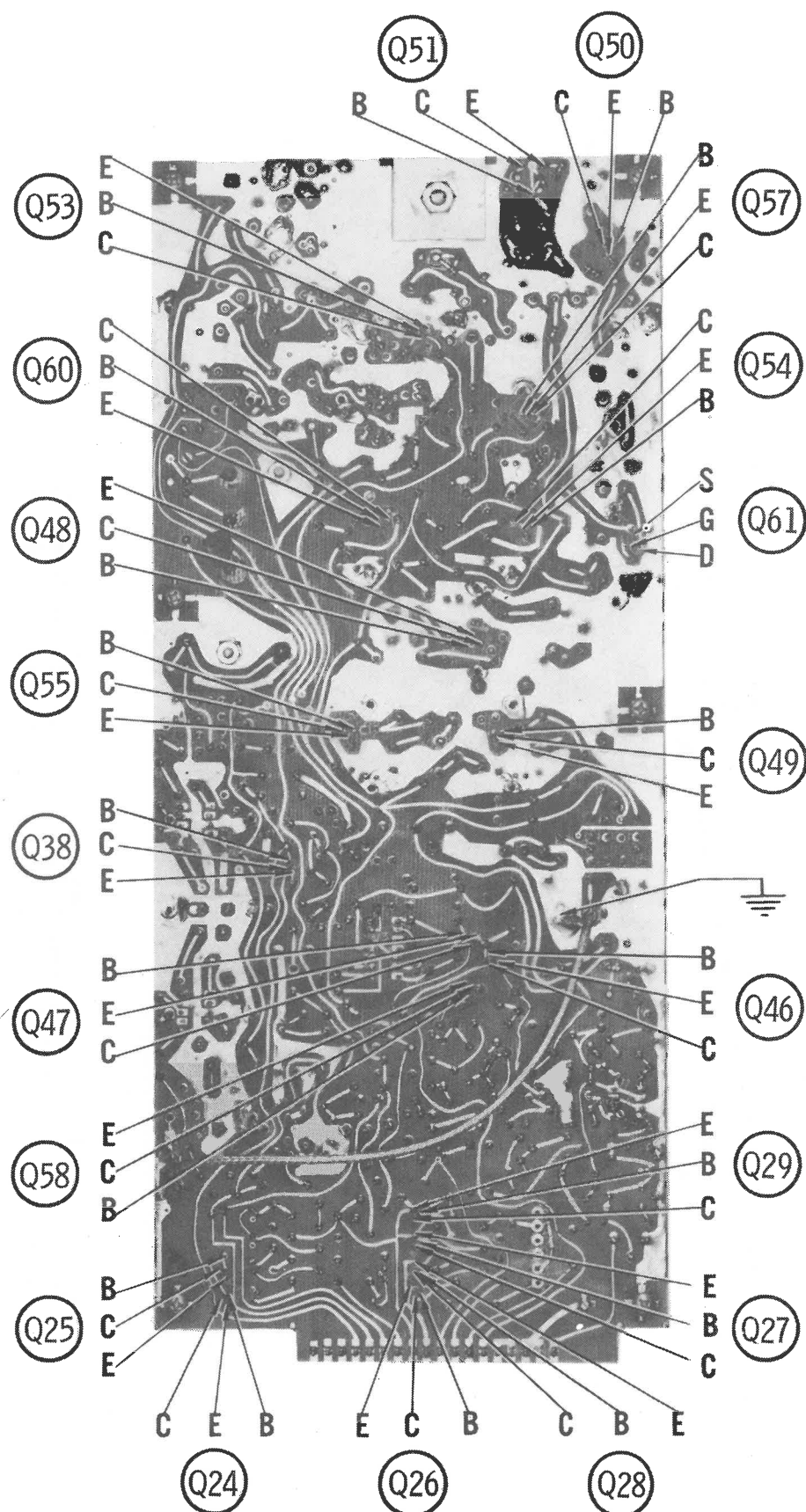




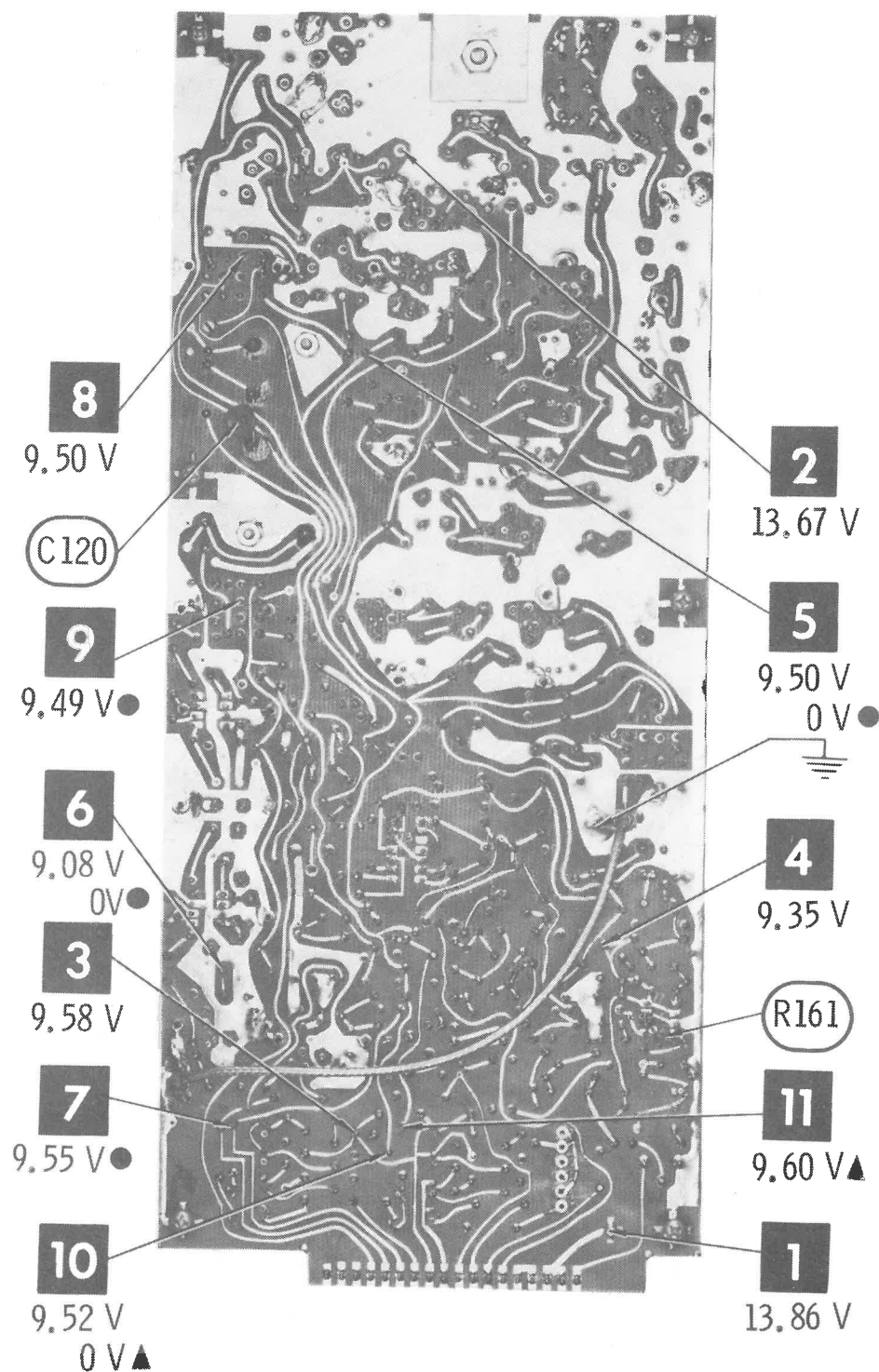
CONTROL BOARD



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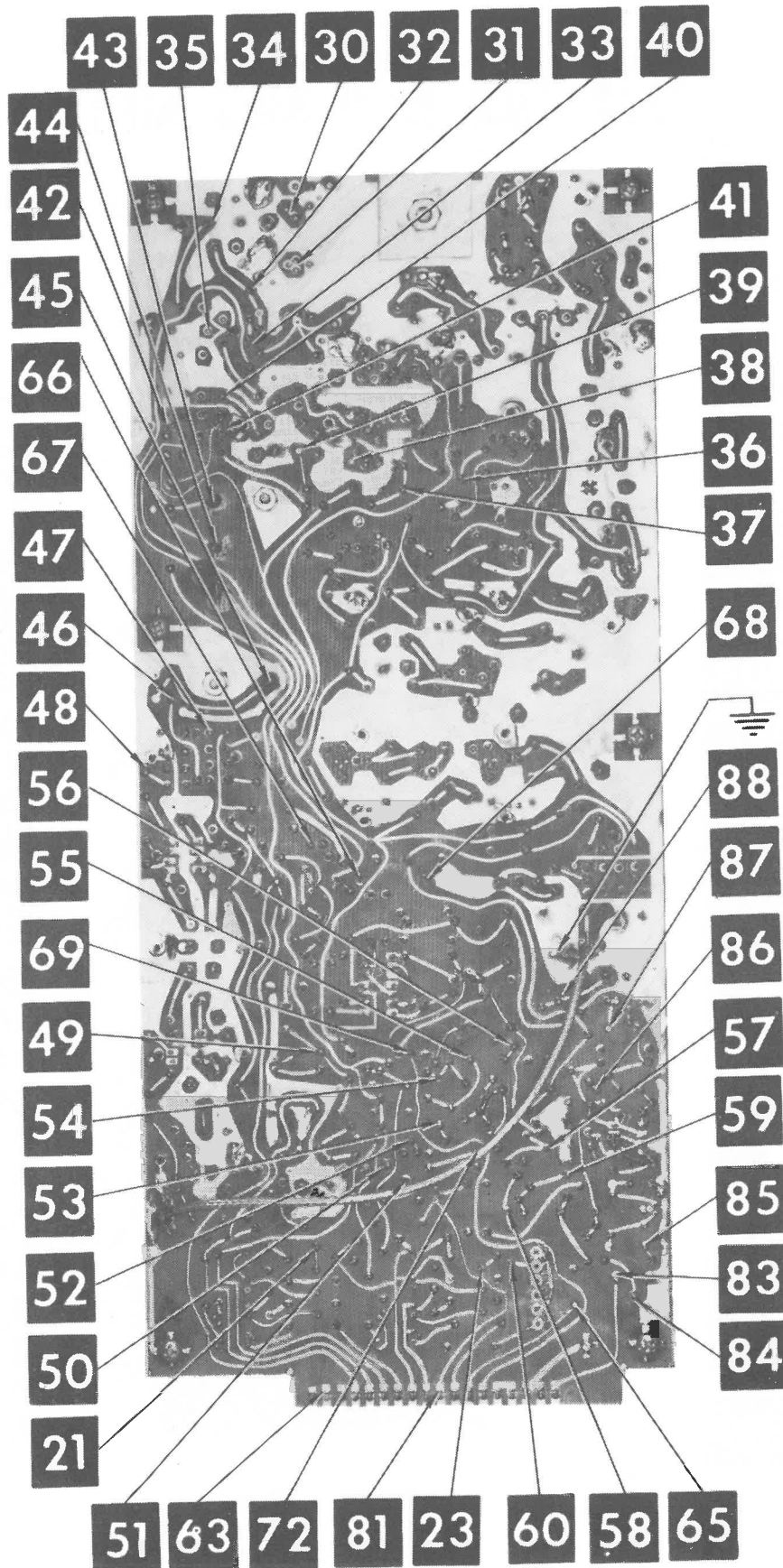


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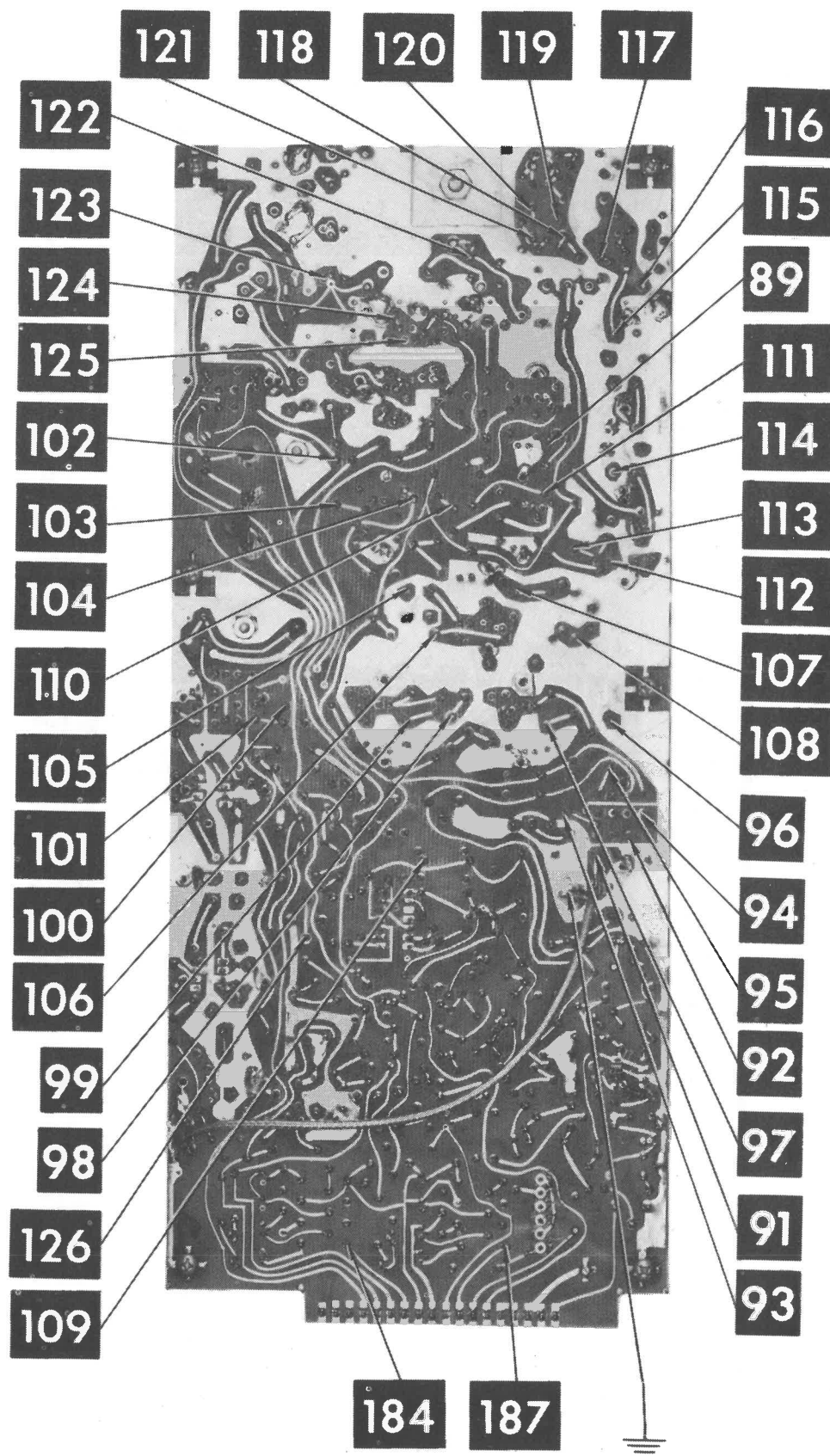
▲ AM
● Transmit

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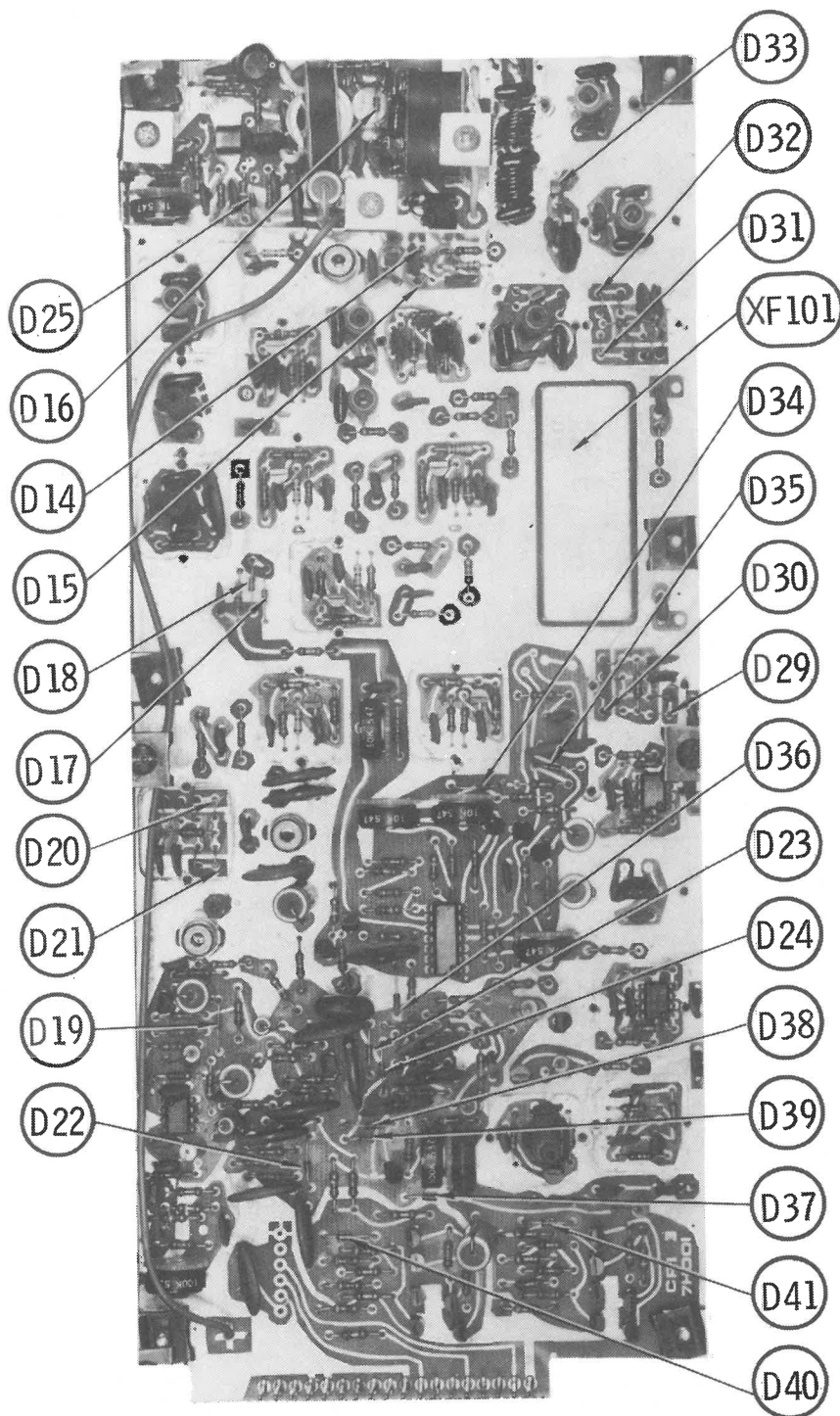


PALOMAR MODEL DIGICOM 100

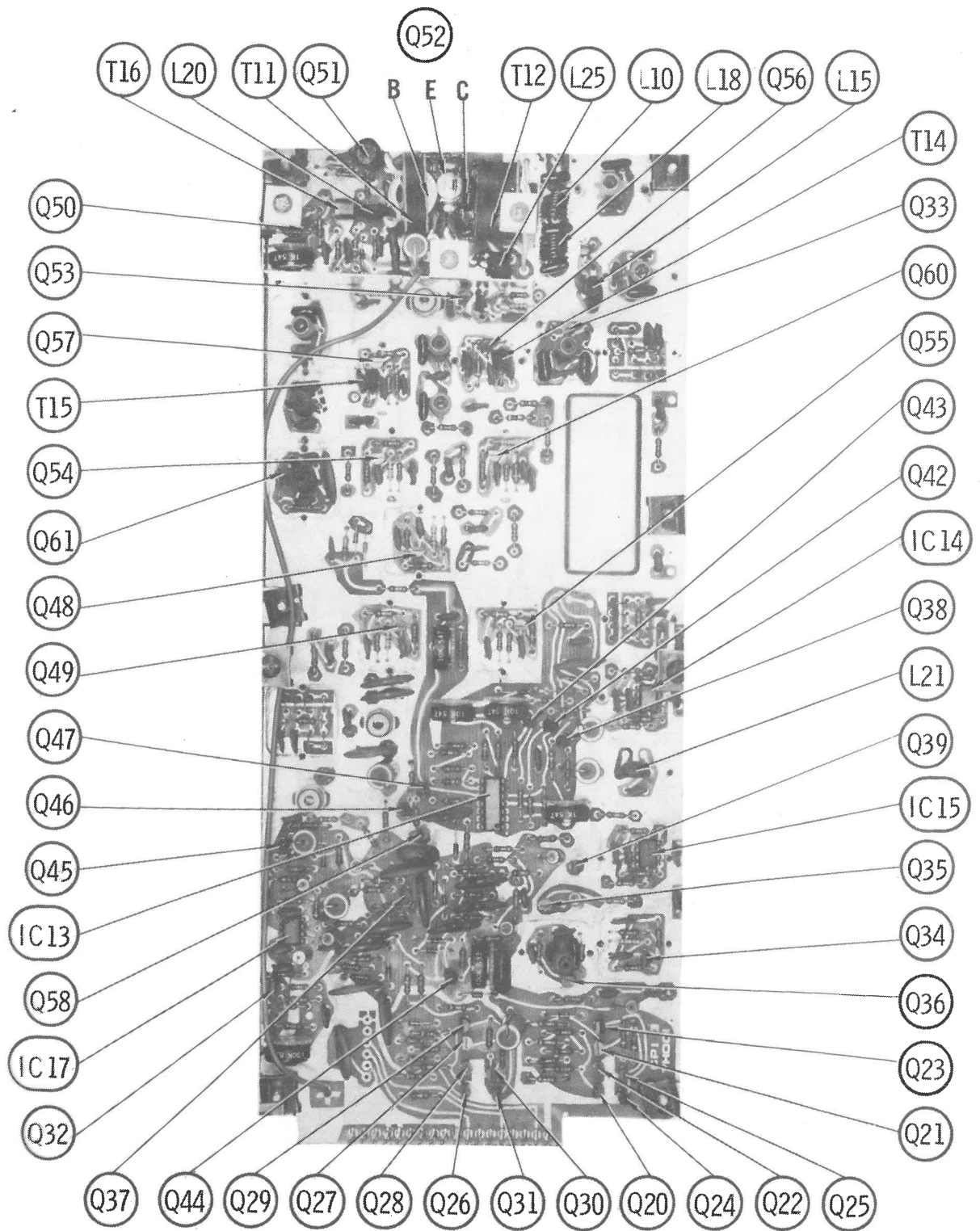
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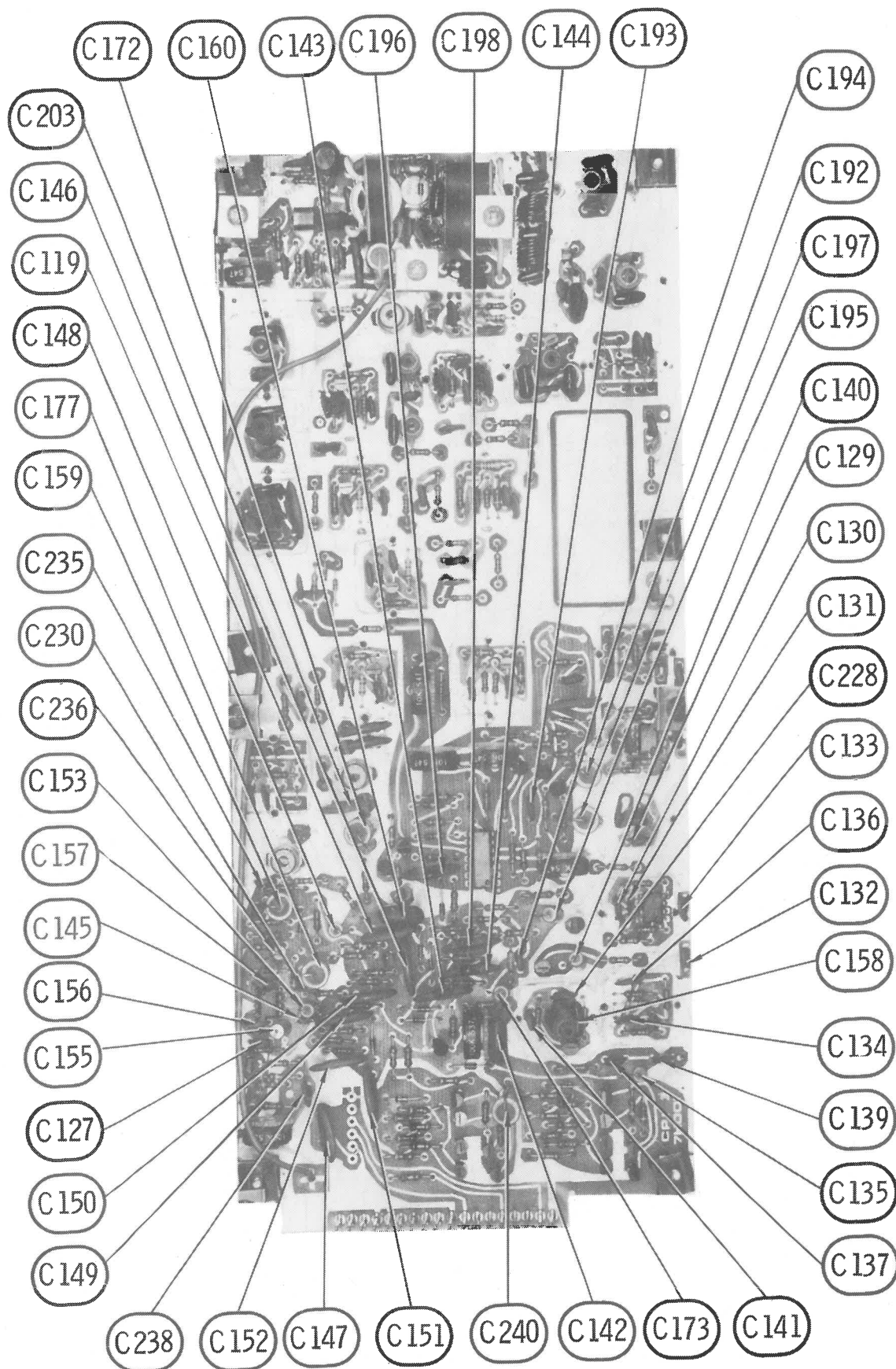
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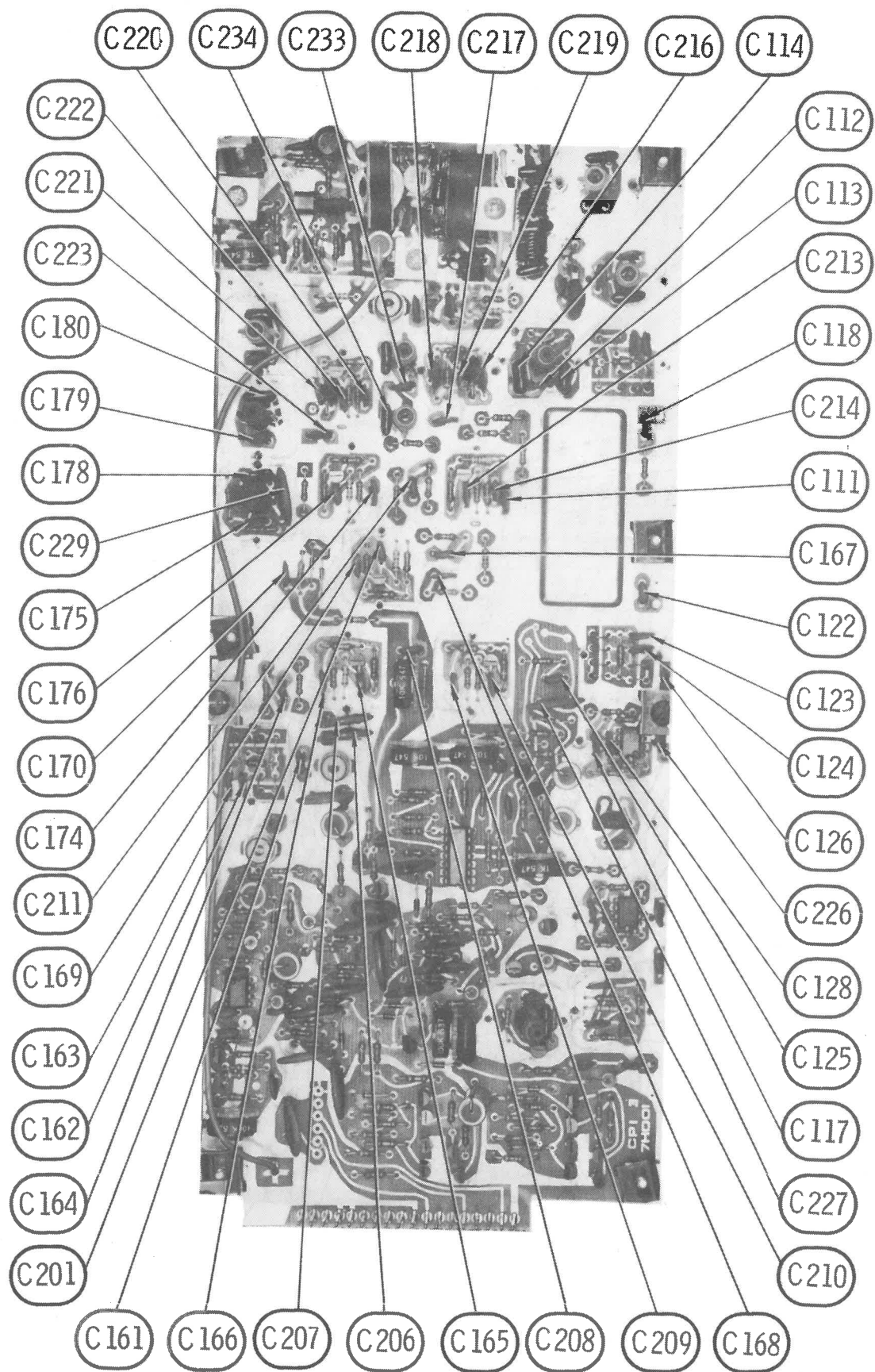
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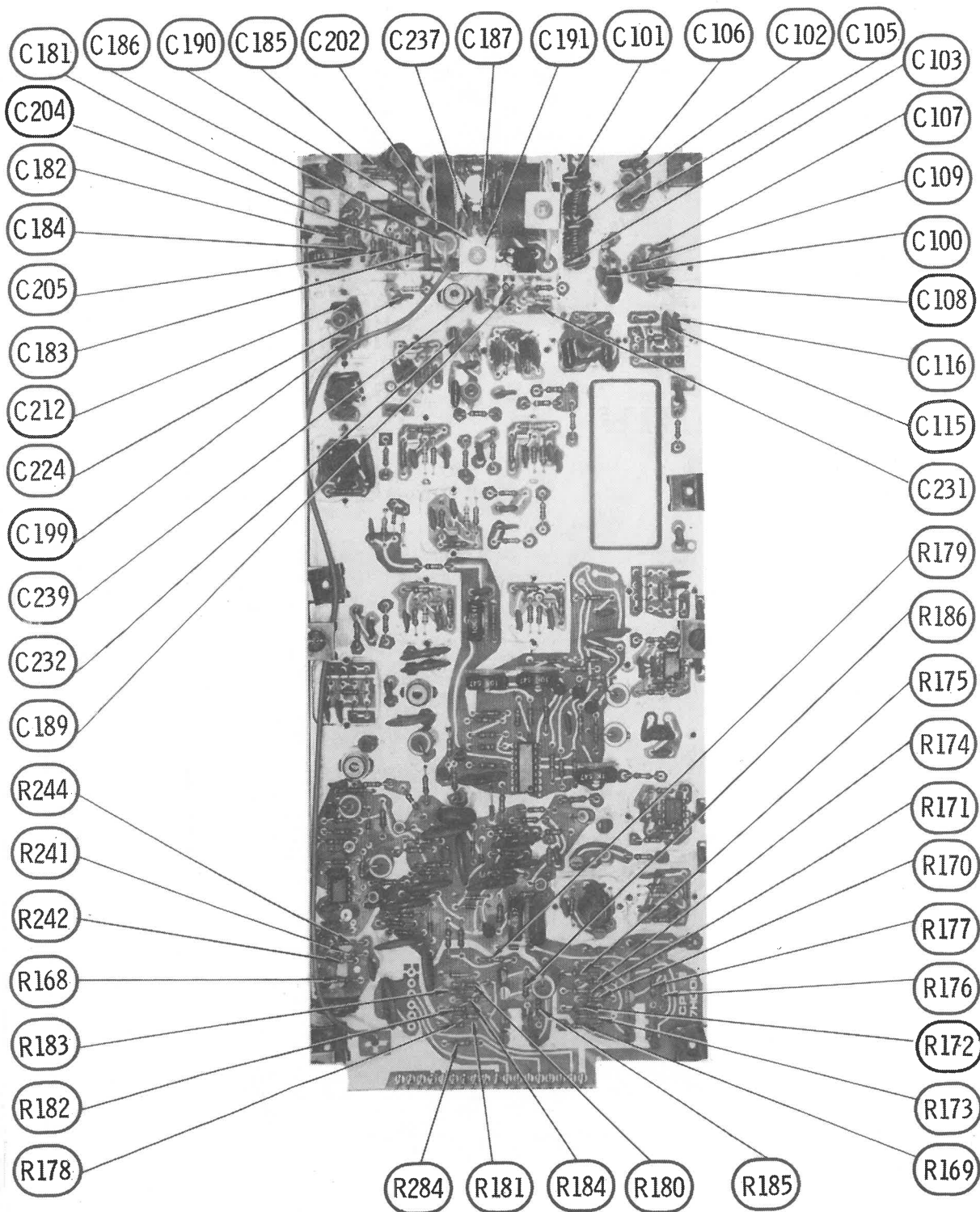
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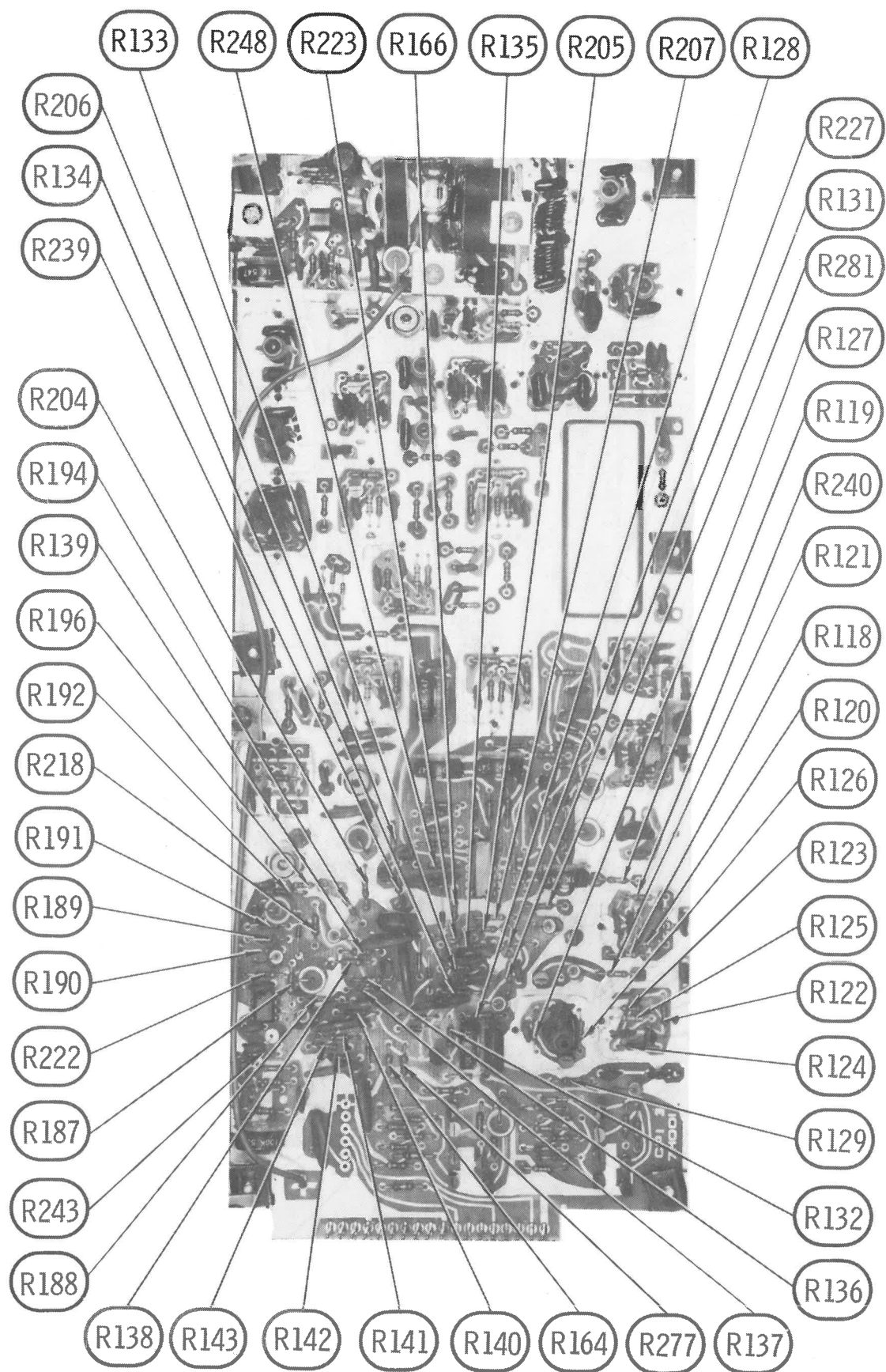
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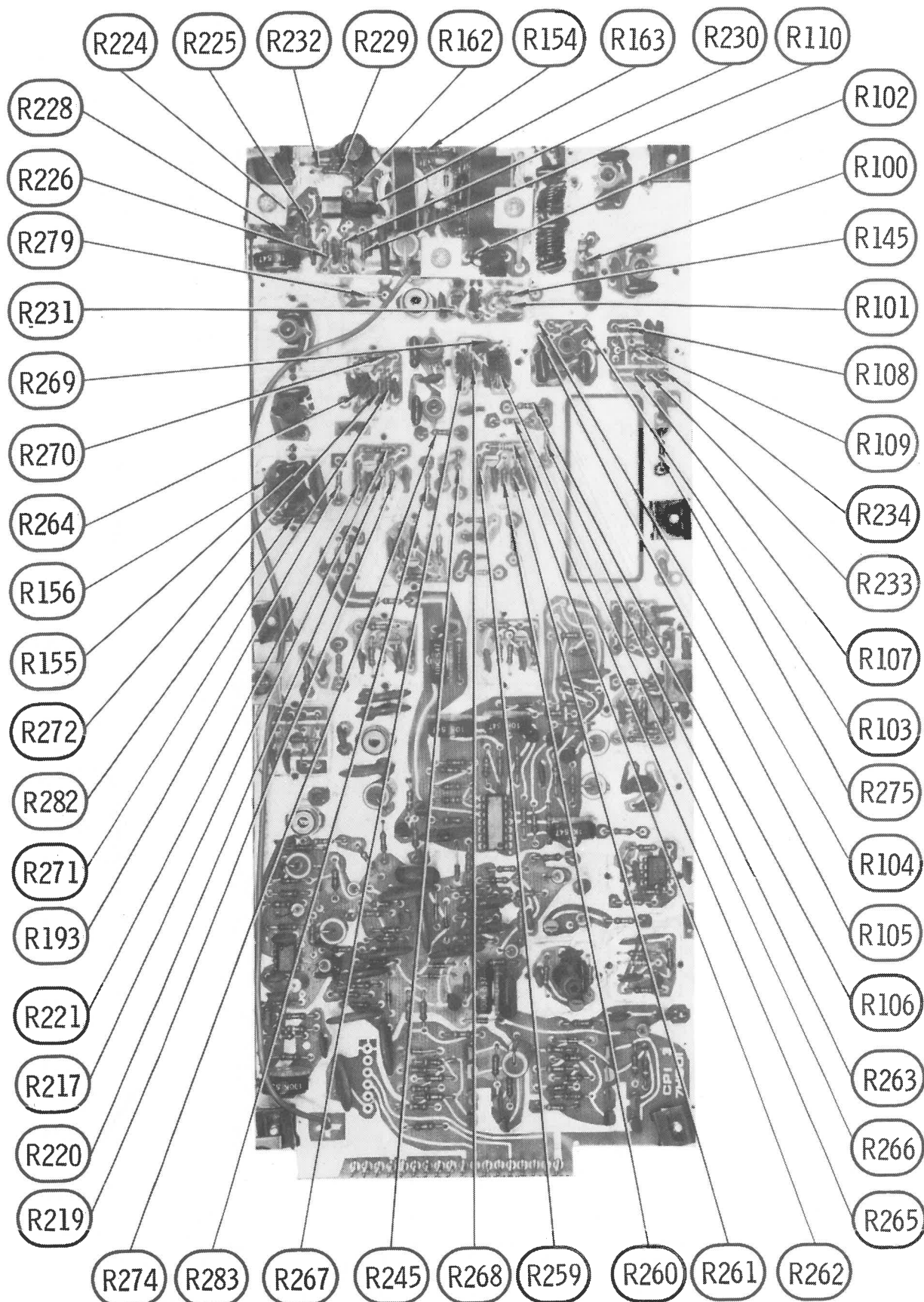
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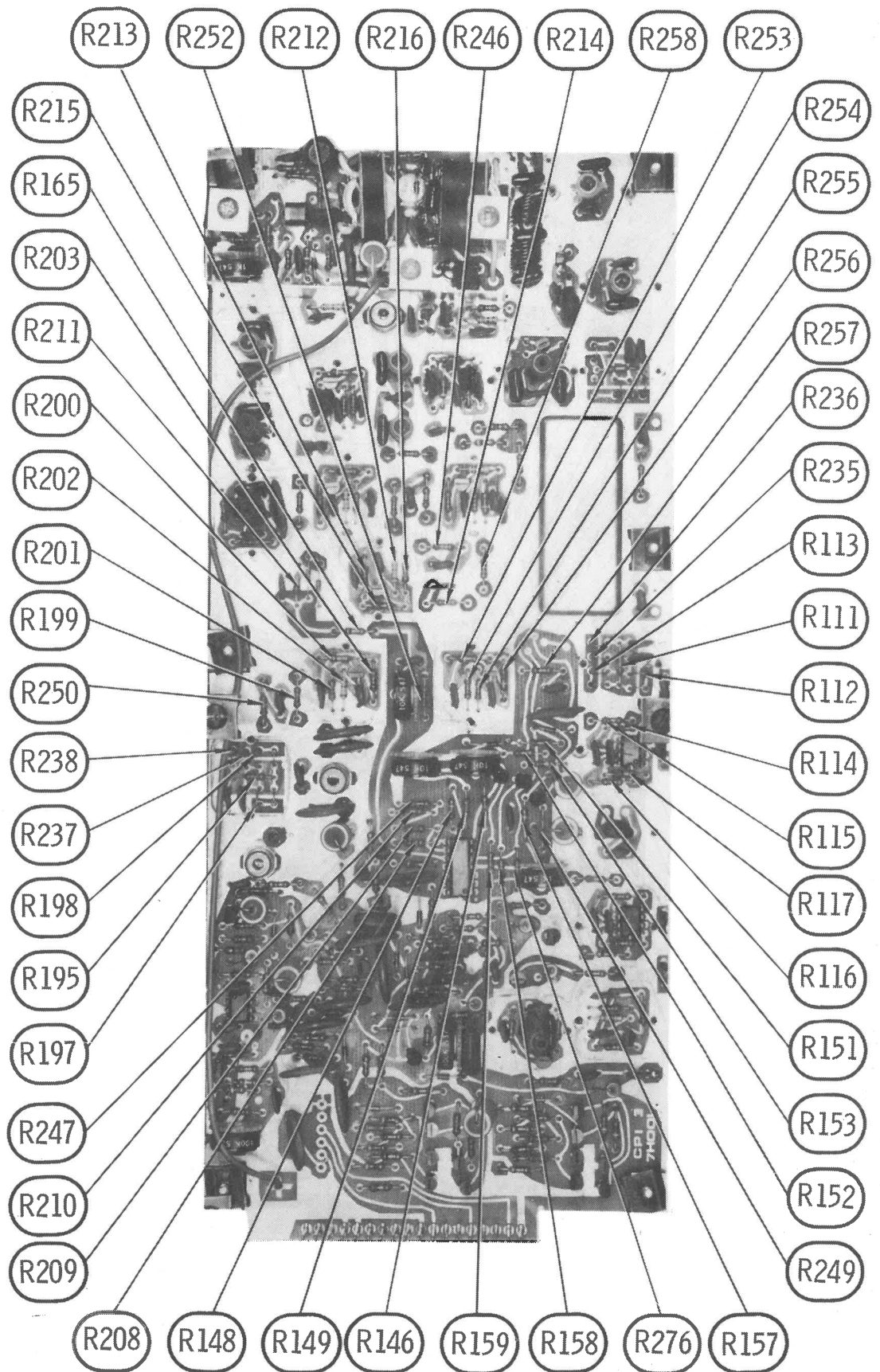
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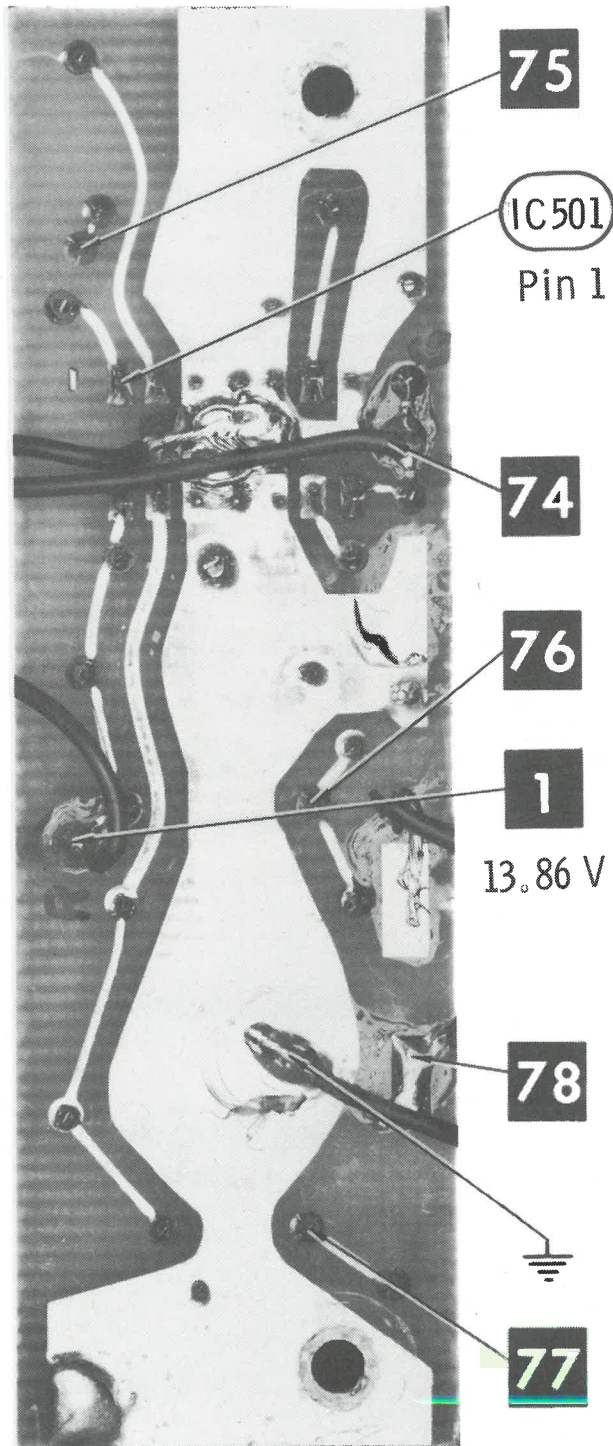
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REC - XMIT BOARD

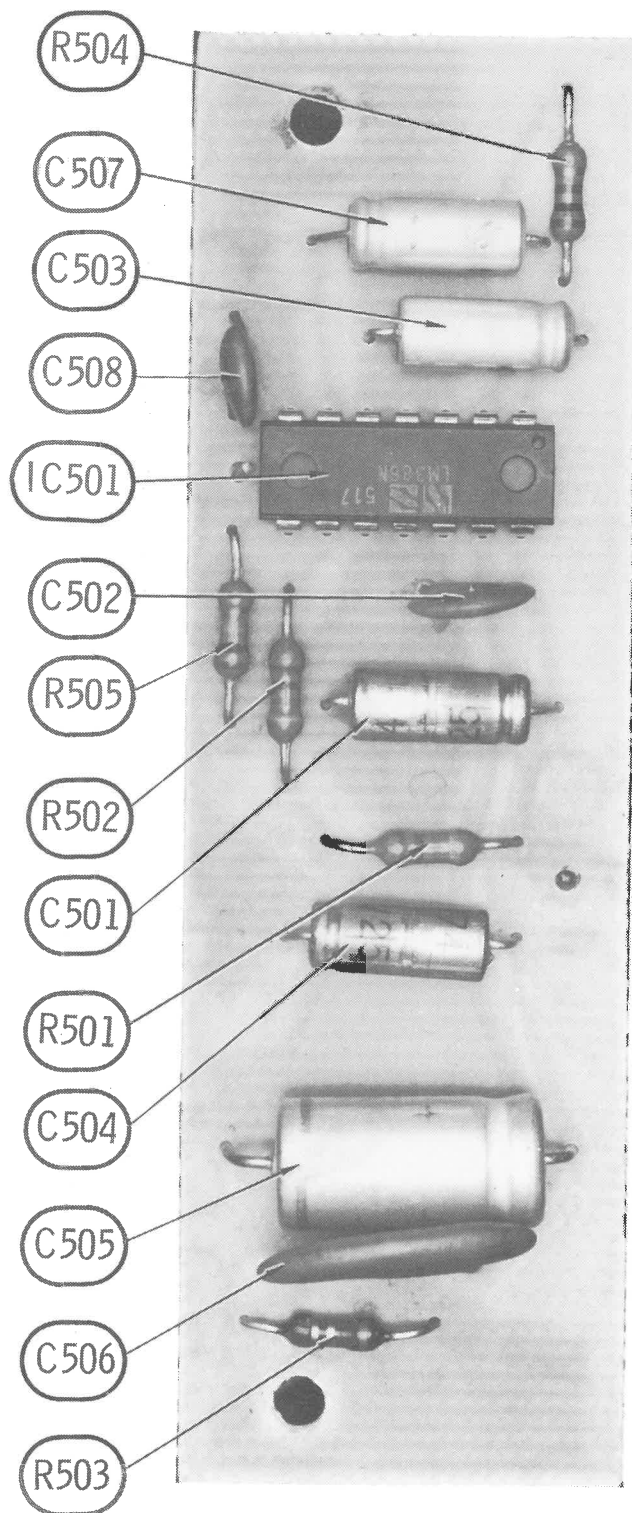


REC - XMIT BOARD



PALOMAR MODEL DIGICOM 100

AUDIO BOARD

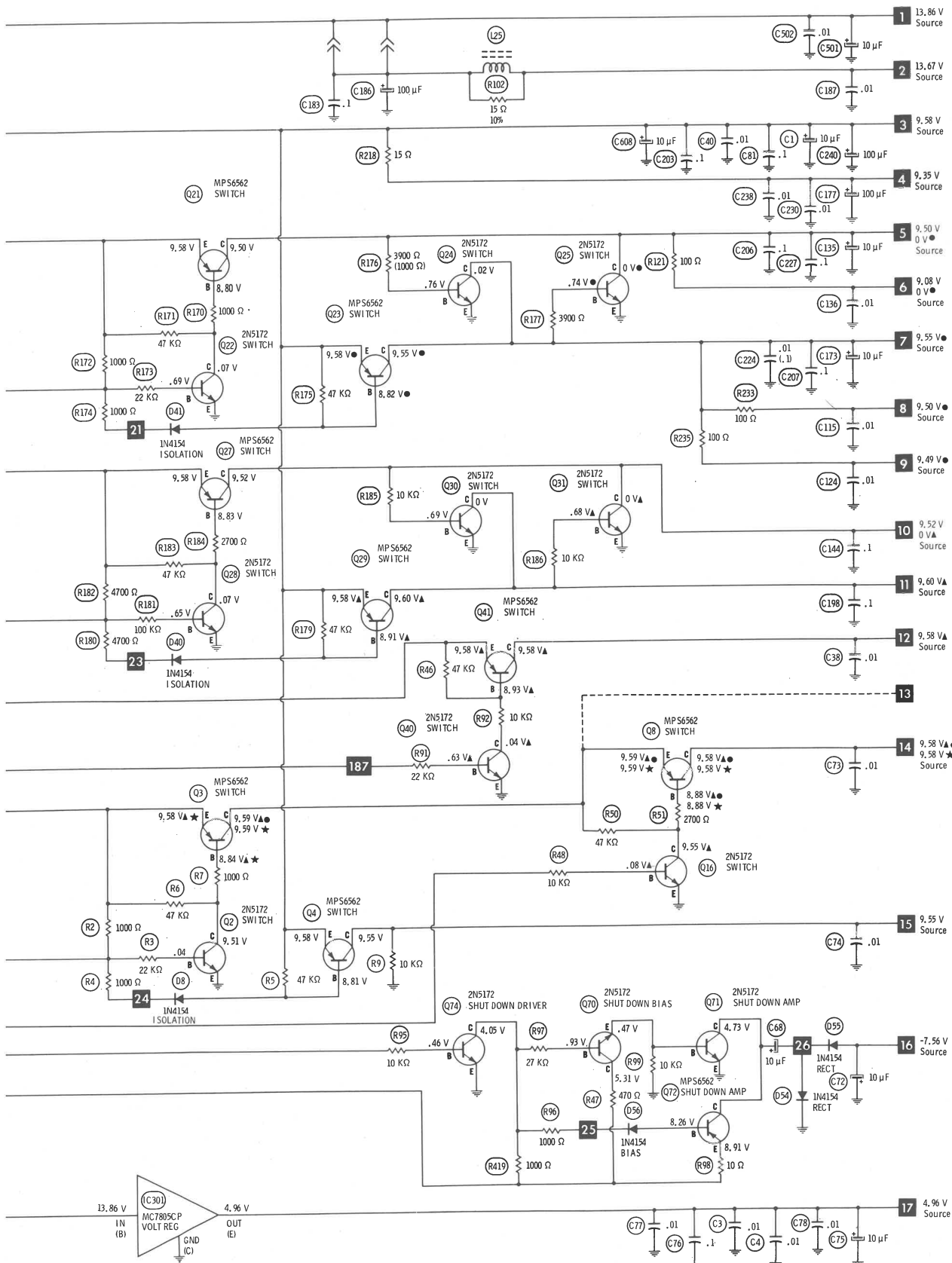


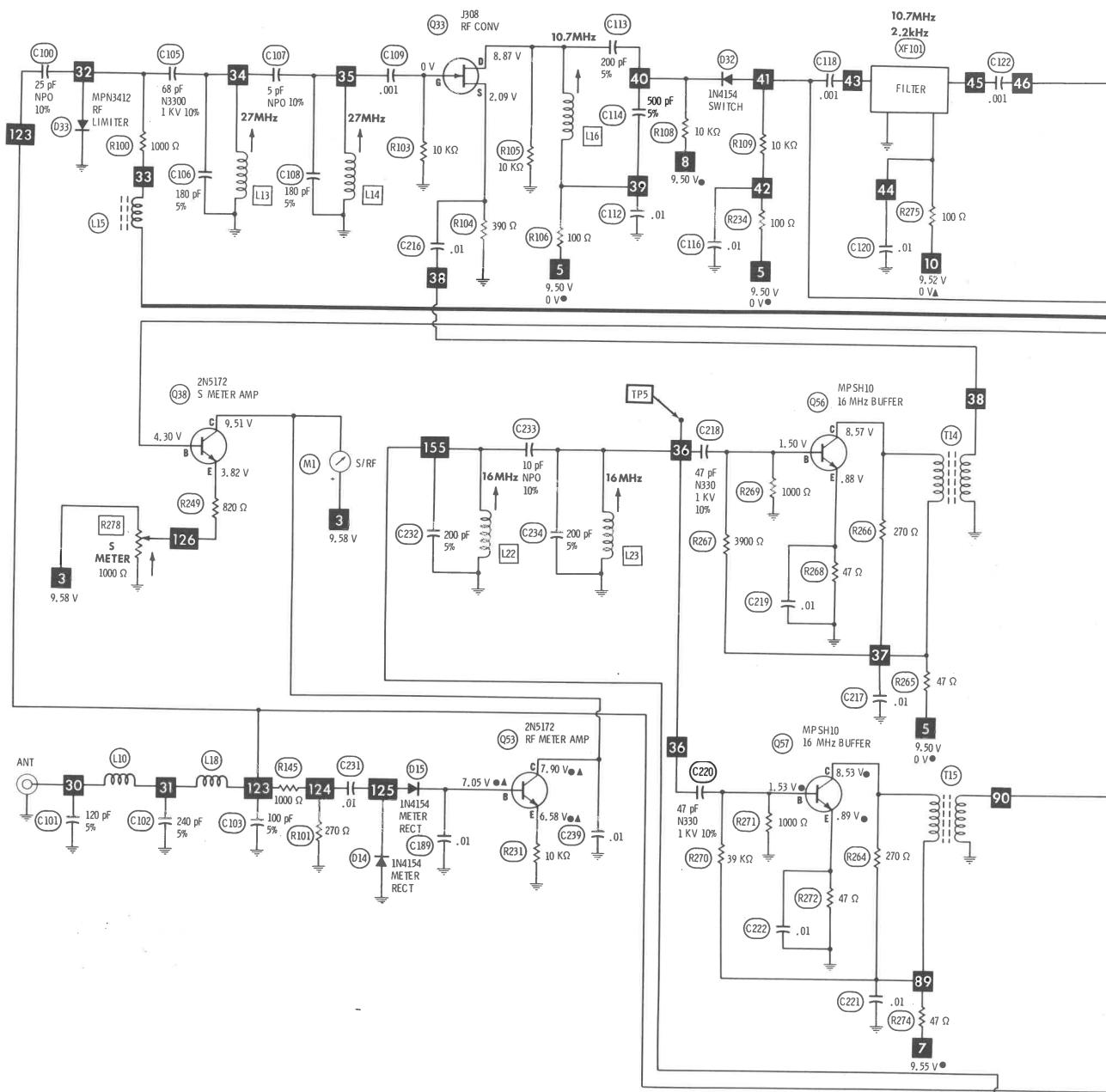
AUDIO BOARD

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

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	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D2	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D3	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D4	MV109									
D5	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D6	MV109									
D7	MV109									
D8	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D9	MPN3412									
D10	MBD101		1N82A	1N82AG	PTC217	HEPR0700	RE 48	SK3089	RT-202	ECG112
D11	MBD101		1N82A	1N82AG	PTC217	HEPR0700	RE 48	SK3089	RT-202	ECG112
D12	MBD101		1N82A	1N82AG	PTC217	HEPR0700	RE 48	SK3089	RT-202	ECG112
D13	MBD101		1N82A	1N82AG	PTC217	HEPR0700	RE 48	SK3089	RT-202	ECG112
D14	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D15	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D16	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D17	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D18	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D19	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D20	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D21	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D22	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D23	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D24	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D25	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D29	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D30	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D31	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D32	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D33	MPN3412									
D34	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D35	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D36	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D37	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D38	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D39	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D40	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D41	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D54	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D55	1N4154		GE-300	D200	PTC214	HEPR0602	RE 52	SK310		

PALOMAR MODEL DIGICOM 100





- ✗ 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 ★ LSB ▲ AM

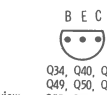
Supply voltage maintained as shown at input.
 Voltages measured with digital meter, no signal.
 Controls adjusted for normal operation.
 Arrow at control indicates direction of advance.
 Terminal identification may not be found on unit.
 Resistors are 1/2W or less, 5% unless noted.
 Value in () used in some versions.

A PHOTOFAC STANDARD NOTATION SCHEMATIC
 WITH CIRCUITRACE®

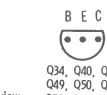
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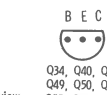
IC13
Top view



IC51
Top view

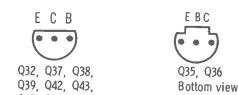


IC17
Top view

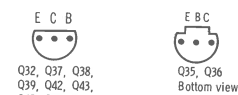


IC501
Top view

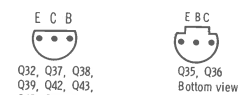
Terminal Guides



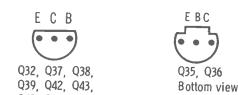
IC13
Top view



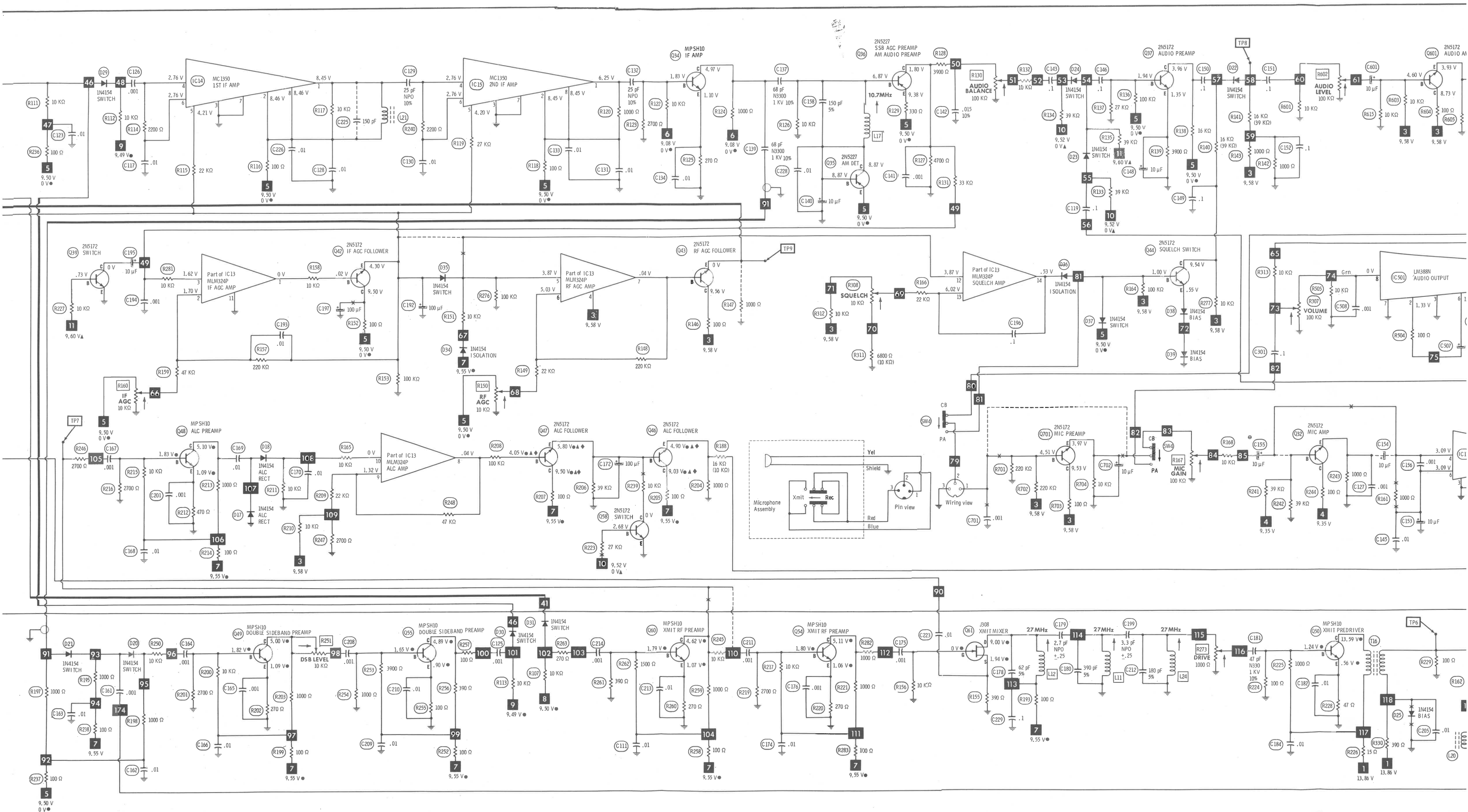
IC51
Top view



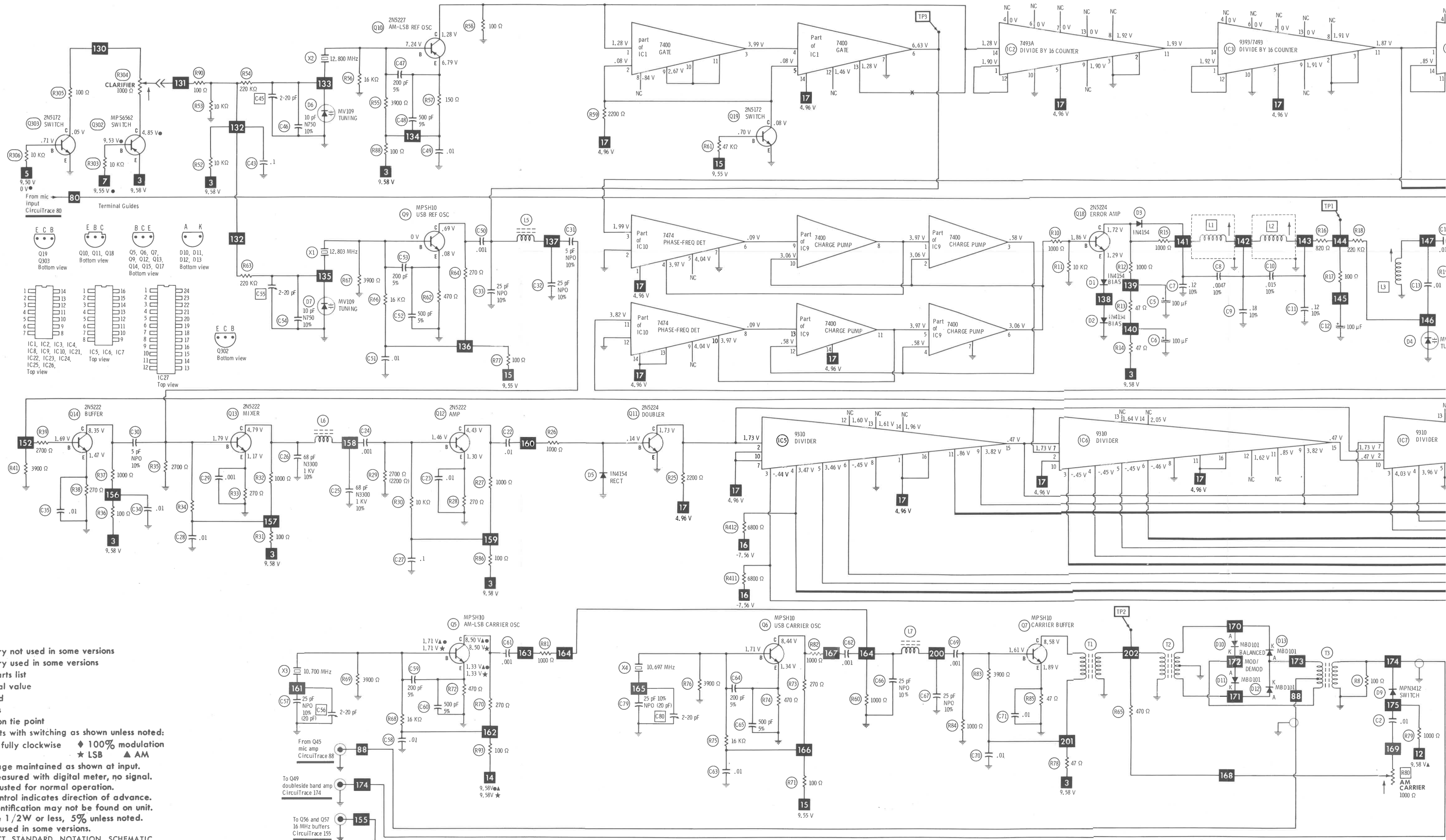
IC17
Top view



IC501
Top view







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.
Q3	MPS6562	(10)	GE-67	TR-20	PTC103	HEPS0019	RE 26	SK3118	RT-115	ECG159
Q4	MPS6562		GE-67	TR-20	PTC103	HEPS0019	RE 26	SK3118	RT-115	ECG159
Q5	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q6	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q7	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q8	MPS6562		GE-67	TR-20	PTC103	HEPS0019	RE 26	SK3118	RT-115	ECG159
Q9	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q10	2N5227		GE-22	TR-20	PTC103	HEPS0019	RE 26	SK3114	RT-126A	ECG159
Q11	2N5224		GE-20	TR-51	PTC121	HEPS0025	RE 13	SK3122	RT-172	ECG123A
Q12	2N5222		GE-61	TR-70	PTC133	HEPS0020	RE 9	SK3039	RT-108A	ECG107
Q13	2N5222		GE-61	TR-70	PTC133	HEPS0020	RE 9	SK3039	RT-108A	ECG107
Q14	2N5222		GE-61	TR-70	PTC133	HEPS0020	RE 9	SK3039	RT-108A	ECG107
Q15	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q16	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q17	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q18	2N5224		GE-20	TR-51	PTC121	HEPS0025	RE 13	SK3122	RT-172	ECG123A
Q19	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q20	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q21	MPS6562		GE-67	TR-20	PTC103	HEPS0019	RE 26	SK3118	RT-115	ECG159
Q22	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q23	MPS6562		GE-67	TR-20	PTC103	HEPS0019	RE 26	SK3118	RT-115	ECG159
Q24	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q25	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q26	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q27	MPS6562		GE-67	TR-20	PTC103	HEPS0019	RE 26	SK3118	RT-115	ECG159
Q28	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q29	MPS6562		GE-67	TR-20	PTC103	HEPS0019	RE 26	SK3118	RT-115	ECG159
Q30	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q31	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q32	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q33	J308		GE-FET-2	FE-100	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312
Q34	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q35	2N5227		GE-22	TR-20	PTC103	HEPS0019	RE 26	SK3114	RT-126A	ECG159
Q36	2N5227		GE-22	TR-20	PTC103	HEPS0019	RE 26	SK3114	RT-126A	ECG159
Q37	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q38	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q39	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q40	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q41	MPS6562		GE-67	TR-20	PTC103	HEPS0019	RE 26	SK3118	RT-115	ECG159
Q42	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q43	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q44	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q45	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q46	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q47	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q48	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q49	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q50	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q51	2N4427	(10)	GE-219	TR-64	PTC191	HEPS3001	RE 79	SK3048	RT-182	ECG195A
Q52	2514			TR-66	PTC128	HEPS3006				
Q53	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q54	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q55	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q56	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q57	MPSH10		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q58	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q59	2N5172		GE-61	TR-24	PTC115	HEPS0016	RE 9	SK3039	RT-108A	ECG229
Q60	MPSH10		GE-FET-2	FE-100	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312
Q61	J308				PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q70	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q71	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q72	MPS6562		GE-67	TR-20	PTC103	HEPS0019	RE 26	SK3118	RT-115	ECG159
Q74	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q301	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q302	MPS6562		GE-67	TR-20	PTC103	HEPS0019	RE 26	SK3118	RT-115	ECG159
Q303	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q601	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q602	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q603	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q604	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A
Q701	2N5172		GE-62	TR-70	PTC121	HEPS0016	RE 13	SK3124	RT-108A	ECG123A

(10) Rating 2.0 Watt @ 400mA

(6) Matched pair.

(7) Two required-select matched pair.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA			
		MFGR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	10 25V		WBR10-25	TC22A	TVA-1204
C5	100 25V		WBR100-25	TC2501B	TVA-1207
C6	100 25V		WBR100-25	TC2501B	TVA-1207
C12	100 25V		WBR100-25	TC2501B	TVA-1207
C18	10 25V		WBR10-25	TC22A	TVA-1204
C68	10 25V		WBR10-25	TC22A	TVA-1204
C72	10 25V		WBR10-25	TC22A	TVA-1204
C75	10 25V		WBR10-25	TC22A	TVA-1204
C135	10 25V		WBR10-25	TC22A	TVA-1204
C140	10 25V		WBR10-25	TC22A	TVA-1204
C148	10 25V		WBR10-25	TC22A	TVA-1204
C153	10 25V		WBR10-25	TC22A	TVA-1204
C154	10 25V		WBR10-25	TC22A	TVA-1204
C155	10 25V		WBR10-25	TC22A	TVA-1204
C159	100 25V		WBR100-25	TC2501B	TVA-1207
C172	100 25V		WBR100-25	TC2501B	TVA-1207
C173	10 25V		WBR10-25	TC22A	TVA-1204
C177	100 25V		WBR100-25	TC2501B	TVA-1207
C186	100 25V		WBR100-25	TC2501B	TVA-1207
C191	10 25V		WBR10-25	TC22A	TVA-1204
C192	100 25V		WBR100-25	TC2501B	TVA-1207
C195	10 25V		WBR10-25	TC22A	TVA-1204
C197	100 25V		WBR100-25	TC2501B	TVA-1207
C236	10 25V		WBR10-25	TC22A	TVA-1204
C240	100 25V		WBR100-25	TC2501B	TVA-1207
C501	10 25V		WBR10-25	TC22A	TVA-1204
C503	10 25V		WBR10-25	TC22A	TVA-1204
C504	10 25V		WBR10-25	TC22A	TVA-1204
C505	100 25V		WBR100-25	TC2501B	TVA-1207
C507	10 25V		WBR10-25	TC22A	TVA-1204
C510	1000 25V		WBR1000-25	MTA1000G25	TVA-1211
C601	10 25V		WBR10-25	TC22A	TVA-1204
C603	100 25V		WBR100-25	TC2501B	TVA-1207
C604	100 25V		WBR100-25	TC2501B	TVA-1207
C606	10 25V		WBR10-25	TC22A	TVA-1204
C607	10 25V		WBR10-25	TC22A	TVA-1204
C608	10 25V		WBR10-25	TC22A	TVA-1204
C702	10 25V		WBR10-25	TC22A	TVA-1204

PALOMAR MODEL DIGICOM 100

CAPACITORS

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA			
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C2	.01		UK50-103		MAG5011	
C3	.01		UK50-103		MAG5011	
C4	.01		UK50-103		MAG5011	
C7	.12 10%			WMF1S12	EWF1A112	1PB-S12
C8	.0047 10%			WMF1D47	EWF1A247	1PB-D47
C9	.18 10%				M192P1839R8	192P1839R8
C10	.015 10%		UK50-153		MAG50115	
C11	.12 10%			WMF1S12	EWF1A112	1PB-S12
C13	.01		UK50-103		MAG5011	
C14	.01		UK50-103		MAG5011	
C15	430 5%			CD15FD431J03	SX343	MWA-431
C16	430 5%			CD15FD431J03	SX343	MWA-431
C17	.01		UK50-103		MAG5011	
C19	.01		UK50-103		MAG5011	
C20	25 NPO 10%		DTZ-25	NP025	CN0425	10TCC-Q25
C21	25 NPO 10%		DTZ-25	NP025	CN0425	10TCC-Q25
C22	.01		UK50-103		MAG5011	
C23	.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.
C24	.001		DD-102G	GP1000	GP210	5GA-D10
C25	68 N330 1KV 10%					10TCS-Q68
C26	68 N330 1KV 10%					10TCS-Q68
C27	.1 25V		CK-104		MAG5001	
C28	.01		UK50-103		MAG5011	
C29	.001		DD-102G	GP1000	GP210	5GA-D10
C30	5 NPO 10%		DTZ-4R7	NP04P7	CN0547	10TCC-V47
C31	5 NPO 10%		DTZ-4R7	NP04P7	CN0547	10TCC-V47
C32	25 NPO 10%		DTZ-25	NP025	CN0425	10TCC-Q25
C33	25 NPO 10%		DTZ-25	NP025	CN0425	10TCC-Q25
C34	.01		UK50-103		MAG5011	
C35	.01		UK50-103		MAG5011	
C36	.01		UK50-103		MAG5011	
C37	.01		UK50-103		MAG5011	
C38	.01		UK50-103		MAG5011	
C39	.01		UK50-103		MAG5011	
C40	.01		UK50-103		MAG5011	
C41	.001		DD-102G		GP210	5GA-D10
C43	.1		CK-104	GP1000	MAG5001	
C45	2-20					
C46	10 N750 10%		DTN-10	N10	CN7410	10TCU-Q10
C47	200 5%			CD15FD201J03	SX320	MMA-201
C48	500 5%			CD15FD501J03		
C49	.01		UK50-103		MAG5011	
C50	.001		DD-102G	GP1000	GP210	5GA-D10
C51	.01		UK50-103		MAG5011	
C52	500 5%			CD15FD501J03		
C53	200 5%			CD15FD201J03	SX320	MMA-201
C54	10 N750 10%		DTN-10	N10	CN7410	10TCU-Q10
C55	2-20					
C56	2-20					
C57	25 NPO 10%		DTZ-25	NP025	CN0425	10TCC-Q25
C58	.01		UK50-103		MAG5011	
C59	200 5%			CD15FD201J03	SX320	MMA-201
C60	500 5%			CD15FD501J03		
C61	.001		DD-102G	GP1000	GP210	5GA-D10
C62	.001		DD-102G	GP1000	GP210	5GA-D10
C63	.01		UK50-103		MAG5011	
C64	200 5%			CD15FD201J03	SX320	MMA-201
C65	500 5%			CD15FD501J03		
C66	25 NPO 10%		DTZ-25	NP025	CN0425	10TCC-Q25
C67	25 NPO 10%		DTZ-25	NP025	CN0425	10TCC-Q25
C69	.001		DD-102G	GP1000	GP210	5GA-D10
C70	.01		UK50-103		MAG5011	
C71	.01		UK50-103		MAG5011	
C73	.01		UK50-103		MAG5011	
C74	.01		UK50-103		MAG5011	
C76	.1 25V		CK-104		MAG5001	
C77	.01		UK50-103		MAG5011	
C78	.01		UK50-103		MAG5011	
C79	25 10%		DTZ-25	NP025	CN0425	10TCC-Q25
C80	2-20					
C81	.1 25V		CK-104		MAG5001	
C100	25 NPO 10%		DTZ-25	NP025	CN0425	10TCC-Q25
C101	120 5%			CD15FD121J03	SX312	MMA-121
C102	240 5%			CD15FD241J03	SX324	MMA-241
C103	100 5%			CD15FD101J03	SX310	MMA-101
C105	68 N330 10%					10TCS-Q68
C106	180 5%			CD15FD181J03	SX318	MMA-181
C107	5 NPO 10%		DTZ-4R7	NP04P7	CN0547	10TCC-V47
C108	180 5%			CD15FD181J03	SX318	MMA-181
C109	.001		DD-102G	GP1000	GP210	5GA-D10
C111	.01		UK50-103		MAG5011	
C112	.01		UK50-103		MAG5011	
C113	200 5%			CD15FD201J03	SX320	MMA-201
C114	500 5%			CD15FD501J03		
C115	.01		UK50-103		MAG5011	
C116	.01		UK50-103		MAG5011	
C117	.01		UK50-103		MAG5011	
C118	.001		DD-102G	GP1000	GP210	5GA-D10
C119	.1 25V		CK-104		MAG5001	
C120	.01		UK50-103		MAG5011	
C122	.001		DD-102G	GP1000	GP210	5GA-D10
C123	.01		UK50-103		MAG5011	
C124	.01		UK50-103		MAG5011	
C125	.001		DD-102G	GP1000	GP210	5GA-D10

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.
C126	.001		DD-102G	GP1000	GP210	5GA-D10
C127	.001		DD-102G	GP1000	GP210	5GA-D10
C128	.01		UK50-103		MAG5011	
C130	.01		UK50-103		MAG5011	
C131	.01		UK50-103		MAG5011	
C132	25 NPO 10%		DTZ-25	NP025	CN0425	10TCC-Q25
C153	.01		UK50-103		MAG5011	
C134	.01		UK50-103		MAG5011	
C136	.01		UK50-103		MAG5011	
C137	68 N330 10%					10TCS-Q68
C139	68 N330 10%					10TCS-Q68
C141	.001		DD-102G	GP1000	GP210	5GA-D10
C142	.015			WMF1S15	EW1A115	1PB-S15
C143	.1 25V		CK-104		MAG5001	
C144	.1 25V		CK-104		MAG5001	
C145	.01		UK50-103		MAG5011	
C146	.1 25V		CK-104		MAG5001	
C147	.1 25V		CK-104		MAG5001	
C149	.1 25V		CK-104		MAG5001	
C150	.1 25V		CK-104		MAG5001	
C151	.1 25V		CK-104		MAG5001	
C152	.1 25V		CK-104		MAG5001	
C156	.001		DD-102G	GP1000	GP210	5GA-D10
C157	.01		UK50-103		MAG5011	
C158	150 5%			CD15FD151J03	SX315	MWA-151
C160	.015 10%			WMF1S15	EW1A115	1PB-S15
C161	.001		DD-102G	GP1000	GP210	5GA-D10
C162	.01		UK50-103		MAG5011	
C163	.01		UK50-103		MAG5011	
C164	.001		DD-102G	GP1000	GP210	5GA-D10
C165	.001		DD-102G	GP1000	GP210	5GA-D10
C166	.01		UK50-103		MAG5011	
C167	.001		DD-102G	GP1000	GP210	5GA-D10
C168	.01		UK50-103		MAG5011	
C169	.01		UK50-103		MAG5011	
C170	.01		UK50-103		MAG5011	
C174	.01		UK50-103		MAG5011	
C175	.001		DD-102G	GP1000	GP210	5GA-D10
C176	.001		DD-102G	GP1000	GP210	5GA-D10
C178	62 5%			CD15ED620J03	SX462	MWA-620
C179	2.2 NPO $\pm$.25			CD15FD391J03	SX339	MWA-391
C180	390 5%					10TCS-Q47
C181	47 N330 5%					
C182	.01		UK50-103		MAG5011	
C183	.1 25V		CK-104		MAG5001	
C184	.01		UK50-103		MAG5011	
C185	.01		UK50-103		MAG5011	
C187	.01		UK50-103		MAG5011	
C189	.01		UK50-103		MAG5011	
C190	.01		UK50-103		MAG5011	
C193	.01		UK50-103		MAG5011	
C194	.001		DD-102G	GP1000	GP210	5GA-D10
C196	.1 25V		CK-104		MAG5001	
C198	.1 25V		CK-104		MAG5001	
C199	3.3 NPO $\pm$.25					
C201	.001		DD-102G	GP1000	GP210	5GA-D10
C202	.001		DD-102G	GP1000	GP210	5GA-D10
C203	.1 25V		CK-104		MAG5001	
C204	.01		UK50-103		MAG5011	
C205	.01		UK50-103		MAG5011	
C206	.1 25V		CK-104		MAG5001	
C207	.1 25V		CK-104		MAG5001	
C208	.001		DD-102G	GP1000	GP210	5GA-D10
C209	.01		UK50-103		MAG5011	
C210	.01		UK50-103		MAG5011	
C211	.001		DD-102G	GP1000	GP210	5GA-D10
C212	180 5%		DTZ-180			10TCC-T18
C213	.01		UK50-103		MAG5011	
C214	.001		DD-102G	GP1000	GP210	5GA-D10
C216	.01		UK50-103		MAG5011	
C217	.01		UK50-103		MAG5011	
C218	47 N330 10%					10TCS-Q47
C219	.01					
C220	47 N330 10%		UK50-103		MAG5011	10TCS-Q47

PALOMAR MODEL DIGICOM 100

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.
C221	.01		UK50-103		MAG5011	
C222	.01		UK50-103		MAG5011	
C223	.01		UK50-103		MAG5011	
C224	.01		UK50-103		MAG5011	
C225	150		DD-151		GP315	10TS-T15
C226	.01		UK50-103		MAG5011	
C227	.01		UK50-103		MAG5011	
C228	.01		UK50-103		MAG5011	
C229	.1 25V		CK-104		MAG5001	
C230	.01		UK50-103		MAG5011	
C231	.01		UK50-103		MAG5011	
C232	200 5%			CD15FD201J03	SX320	MWA-201
C233	10 NPO 10%		DTZ-10	NP010	CN0410	10TCC-Q10
C234	200 5%			CD15FD201J03	SX320	MWA-201
C235	.001		DD-102G	GP1000	GP210	5GA-D10
C237	.01		UK50-103		MAG5011	
C238	.01		UK50-103		MAG5011	
C239	.01		UK50-103		MAG5011	
C301	.1 25V		CK-104		MAG5001	
C502	.01		UK50-103		MAG5011	
C506	.1 25V		CK-104		MAG5001	
C508	.001		DD-102G	GP1000	GP210	5GA-D10
C509	.1 25V		CK-104		MAG5001	
C602	.0047 10%			WMF1D47	EWFI A247	1PB-D47
C605	.18 10%				M192P1839R8	192P1839R8
C701	.001		DD-102G	GP1000	GP210	5GA-D10

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

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA				
			MFR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
R80	AM Carrier	1000		T-1000	C-102	MTC13L1	X201R102B
R130	Audio Balance	100K		T-100K	C-104	MTC15L1	X201R104B
R150	RF AGC	10K		T-10K	C-103	MTC14L1	X201R103B
R160	IF AGC	10K		T-10K	C-103	MTC14L1	X201R103B
R167	Mic Gain	100K		T-100K	C-104	MTC15L1	X201R104B
R251	DSB Level	10K		T-10K	C-103	MTC14L1	X201R103B
R273	Drive (Xmit)	1000		T-1000	C-102	MTC13L1	X201R102B
R278	S Meter	1000		T-1000	C-102	MTC13L1	X201R102B
R280	Bias (Xmit)	1000	(6)				
R304	Clarifier	1000	2F002A1E3 (5)	F1-1000,SF012	A47-1000-S,FS-5 or [NP-1000-S, UP-B-400]	RU13L,SL38,SN750 or [UA13L,SN875]	BU1,CF6,SS14, DC1
R307	Volume	100K	2F002A1E5 (5)	F2-100K,SF012	A47-100K-Z,FS-5 or [NP-100K-Z, UP-B-400]	RU15A,SL38,SN750 or [UA15A,SN875]	BU1,CF52,SS14, DC1
R308	Squelch	10K	2F002A1E4 (5)	F1-10K,SF012	A47-10K-S,FS-5 or [NP-10K-S, UP-B-400]	RU14L,SL38,SN750 or [UA14L,SN875]	BU1,CF9,SS14, DC1
R602	Audio Level	100K		T-100K	C-104	MTC15L1	X201R104B

(5) Number on unit.

(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	Pi Filter				
L2	Pi Filter				
L3	VCO Coil				
L4	Pi Filter				
L5	Pi Filter				
L6	Pi Filter				
L7	Pi Filter				
L10	Pi Filter				
L11	Harmonic Suppressor (27 MHz)				
L12	Xmit Mixer (27 MHz)				
L13	Rec. Ant. (27 MHz)				
L14	Rec. Ant. (27 MHz)				
L15	RF Choke				
L16	Rec. RF (27 MHz)				

PARTS LIST AND DESCRIPTION (CONTINUED)

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

COILS (RF-IF) (cont)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L17	Audio Preamp (10.7 MHz)				
L18	Pi Filter				
L20	RF Choke				
L21	RF Choke				
L22	Bandpass (16 MHz)				
L23	Bandpass (16 MHz)				
L24	Harmonic Suppressor (27 MHz)				
L25	RF Choke				
T1	Carrier Buffer				
T2	Mod/Demod				
T3	Mod/Demod				
T11	Xmit Driver				
T12	Xmit Final				
T14	Buffer				
T15	Buffer				
T16	Xmit Predriver				

PALOMAR MODEL DIGICOM 100

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	4" PM 8 Ohms		4A128	

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
F501	4Amp Quick Acting			MTH4	HDJ	312004	150-145	

PARTS LIST AND DESCRIPTION (CONTINUED)

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

MICROPHONE

ITEM No.	REPLACEMENT DATA			CONNECTION DATA						
	MFGR. PART No.	GC PART No.	GC POWER	GC CONNECTOR	GC Red	GC Shield	GC Yellow	GC Blue	GC White	GC Black
MIC		18-030	18-010		1	3	2	NC	NC	3

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	12.803		CB130W12.803	USB REF OSC	X3	10.700		CB130W10.700	AM LSB Carrier
X2	12.800		CB130W12.800	AM LSB OSC	X4	10.697		CB170W10.697	OSC LSB Carrier OSC

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
F101 M101 SW1 SW2 SW3 SW4 SW5 SW6	Filter Meter Switch Switch Switch Switch Switch Switch		10.7 MHz/2.2 kHz (001-27520/7552) S/RF Ch. Selector Ch. Selector Mode (Sideband/AM) PA/CB Noise Blanker Pwr. On/Off

WIRING DATA

General-use Hook-up Wire	Use Belden No. 8530 (Solid) Available in 12 Colors
Power Cord, 2-Wire	Use Belden No. 8524 (Stranded) Available in 12 Colors
Shielded Antenna Lead	17106 (Plastic) or 17126 (Rubber) -6 feet
	17109 (Plastic) or 17129 (Rubber) -9 feet
	Use Belden No. 8214 Lowest-loss (RG-8/U Type)
	8237 Low-loss (RG-8/U)
	8240 (Solid) Miniature (RG-58/U)
	8259 (Stranded) Miniature (RG-58A/U)
Coiled Microphone Cable	Use Belden No. 8497 3-Conductor (1 shielded for Press-to-Talk) Neoprene
	8491 4-Conductor (2 shielded, 2 unshielded) Neoprene
Ignition Noise Suppression	Use Belden No. 7300-Series Spark-Plug Sets
Bonding Strap	Use Belden No. 8661 (3/8 inch)