



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 981-6237 (981-8352)

MANUFACTURER'S SPECIFICATIONS

RECEIVER

CIRCUIT SYSTEM PLL synthesizer controlled double superheterodyne
FREQUENCY COVERAGE All 40 CB channels (class D)
26.965 to 27.405 MHz

INTERMEDIATE
FREQUENCY 1st I-F : 10.695 MHz
2nd I-F : 455 kHz

SENSITIVITY for
500mW output 0.25 μ V/0.5 μ V

SENSITIVITY at 10 dB
S+N/N 0.5 μ V/1 μ V

ADJACENT CHANNEL
REJECTION 60 dB/40 dB

SIGNAL to NOISE RATIO
at 1000 μ V input 50 dB/40 dB

DISTORTION at 5000 μ V
input 3.5%/8.0%

AGC FIGURE of MERIT 70 dB/60 dB

AUDIO OUTPUT
at 5000 μ V input Undistorted (10% HD) :
3.5W/3W
Maximum : 5W/4W

FREQUENCY RESPONSE 400-2000 Hz

OUTPUT IMPEDANCE ● SPEAKER : 5" $\times$ 3 1/2"
(12 $\times$ 8cm) PM, 8 ohm
● External speaker Jack : 8 ohm
● Headphone Jack : 8 ohm
● PA. SP. Jack : 8 ohm

CROSS MODULATION 50 dB/30 dB
SQUELCH Adjustable from 0.5 μ V to
10000 μ V

TRANSMITTER

CIRCUIT SYSTEM PLL synthesizer
amplitude modulation
FREQUENCY COVERAGE All 40 CB channels (class D)
26.965 to 27.405 MHz

POWER OUTPUT 4.0 watts/2.5 watts

EMISSION 6A3

MODULATION
CAPABILITIES $\pm$ 90%

SPURIOUS RADIATION -65 dB/-60 dB

FREQUENCY TOLERANCE 0.002%/0.005%

ENVELOPE DISTORTION 10% max. 1000 Hz, 50% mod.

HUM and NOISE LEVEL 40 dB min. below max. mod.

ANTENNA IMPEDANCE 50 ohms

OTHER ITEM

POWER REQUIREMENTS AC : 120V, 60 Hz
DC : 12 volts, negative
ground

FUSE 2 Amp.

DIMENSIONS 4" (H) $\times$ 11-9/16" (W) $\times$ 9-1/8" (D)
(10.1 $\times$ 29.4 $\times$ 23.1cm)

WEIGHT 8 lbs. 4 oz. (3.75 kg)

JCPenney MODEL 981-6237

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
 T1,T2,T11 thru T14 9440
 T3,T4,T5 5000,5009,8276,8728,8728A
 T15 8282,8606,9302,9440
 T201,T206 thru T208 5000,5009,8276,8728,8728A
 T202 thru T205 9440

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of oscilloscope to TP1 (P201 pin 6).	Ch. 19	T208	Adjust for maximum RF output.
Input of frequency counter to TP1 (P201 pin 6).	Ch. 19 Fine Tuning Midrange		Check for 10.240MHz.
Input of frequency counter to TP2 (IC201 pin 9).	Ch. 19 Fine Tuning Midrange		Check for 5.120MHz.
Input of oscilloscope to TP3 (T206 secondary).	Ch. 19 Fine Tuning Midrange	T206	Adjust for maximum RF output.
Input of frequency counter to TP3 (T206 secondary).	Ch. 19		Check for 15.360MHz.
Input of DC meter to TP4 (Junction of R203 and R206).	Ch. 1 Fine Tuning Midrange	T201	Adjust for 1.80 volts.
Input of frequency counter to TP5 (IC201 pin 13).	Ch. 1 Fine Tuning Midrange		Check for .910MHz. Check all channels. (See Truth Chart for correct frequency).
Input of oscilloscope to TP6 (P211).	Ch. 19	T202	Adjust for maximum RF output.
Input of frequency counter to TP6 (P211).	Ch. 1 Fine Tuning Midrange		Check for 16.270MHz. Check all channels. (See Truth Chart for correct frequencies).
Input of frequency counter to TP7 (Q210 emitter).	Ch. 19, XMT		Check for 10.695MHz.
Input of oscilloscope to TP8. (T207 secondary).	Ch. 19, XMT	T207	Adjust for maximum RF output.
Input of oscilloscope to TP9 (P201 pin 2).	Ch. 19, XMT	T203,T204, T205	Adjust for maximum RF output.
Input of frequency counter to TP9 (P201 pin 2).	Ch. 1, XMT	R222	Adjust for 26.965MHz. Check all channels. (See Truth Chart for correct frequencies).

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.
Fine Tuning Midrange, Squelch MINIMUM

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP10 (Q3 base). 455kHz, 1000Hz @ 30% modulation.	Ch. 19	T5, T4, T3	Adjust for maximum output.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19	T2, T1	Adjust for maximum output. If necessary, readjust T3, T4 and T5 for maximum.

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication.
Fine Tuning Midrange, Squelch MINIMUM

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 50,000uV.	Ch. 19	RT1	MIXER GAIN Set volume RV2 for 0db. Decrease generator output to 10uV. Adjust RT1 so audio does not drop more than 10db.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19	RT2	S METER Adjust 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	TRANSCIVER	ADJUST	REMARKS
Input of RF wattmeter and 50 ohm, 25 watt dummy load to antenna input.	Ch. 19	T11, T12, T13	Adjust for maximum RF output.
Input of RF wattmeter and 50 ohm, 25 watt dummy load to antenna input.	Ch. 19	T14, T15	Adjust for 4.0 watts RF output maximum.

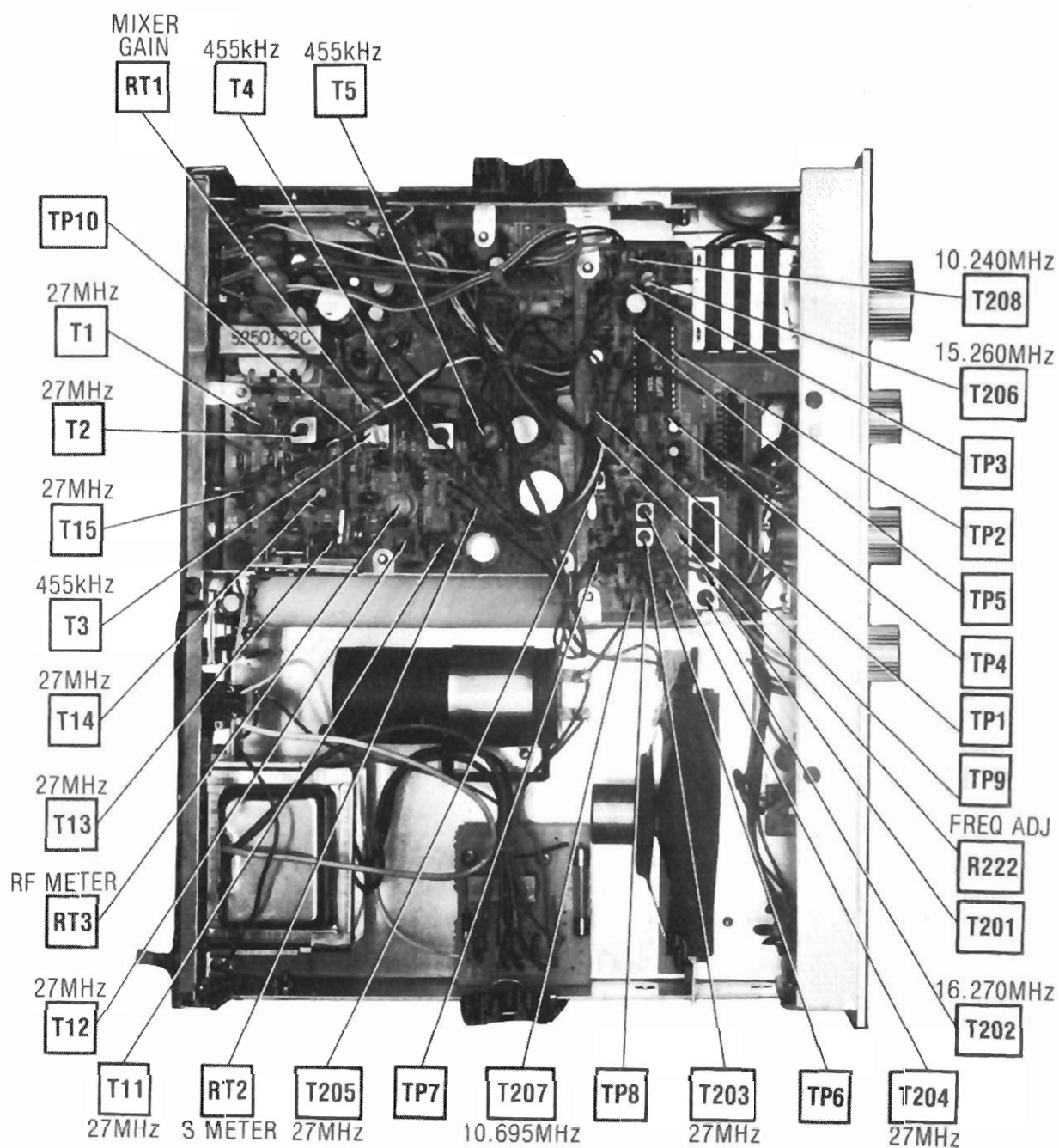
TRANSMITTER ADJUSTMENTS

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 adjustments of transmitter.
See page 4 for channel frequencies.

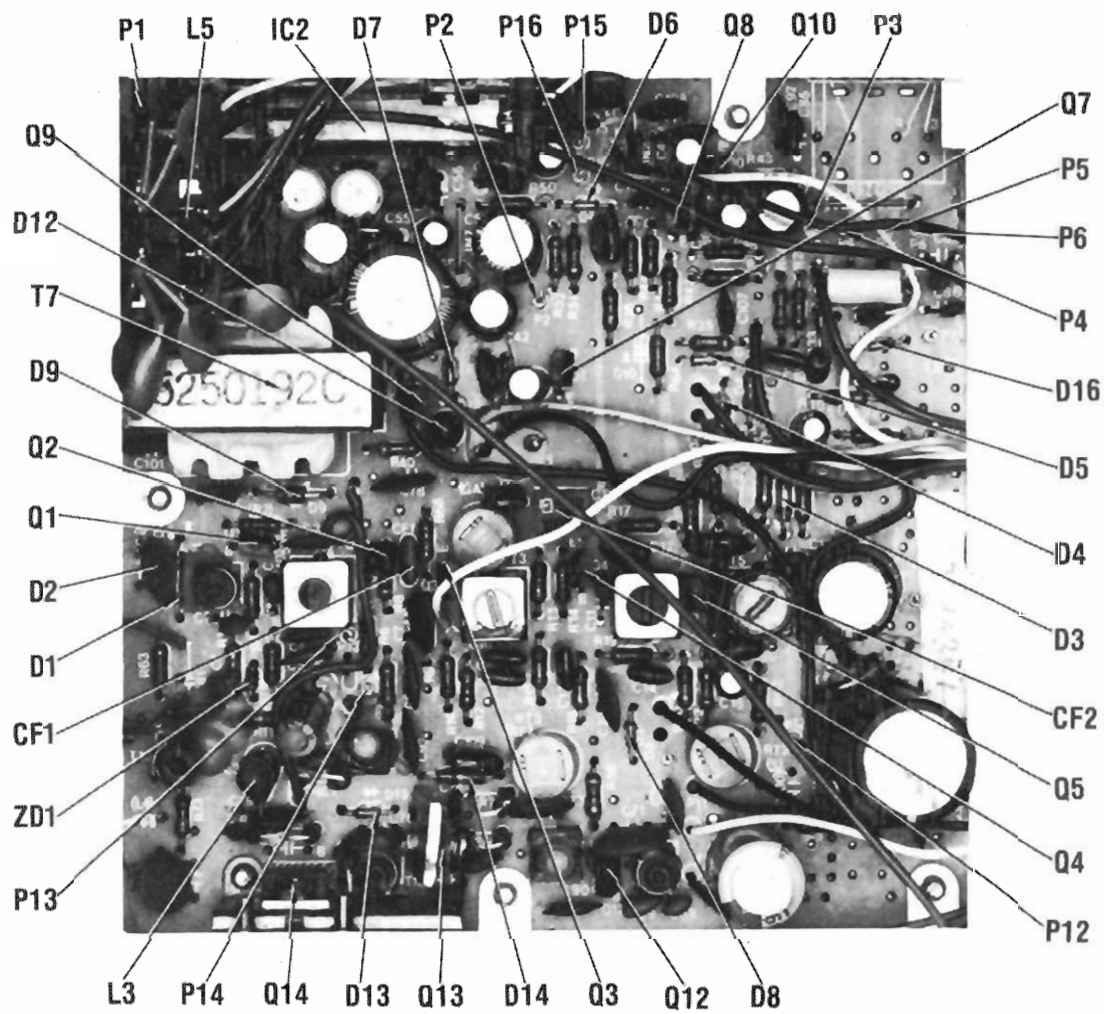
TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of RF wattmeter and 50 ohm, 25 watt dummy load to antenna input.	Ch. 19	RT3	RF METER Adjust so RF meter agrees with RF wattmeter.

TRUTH CHART

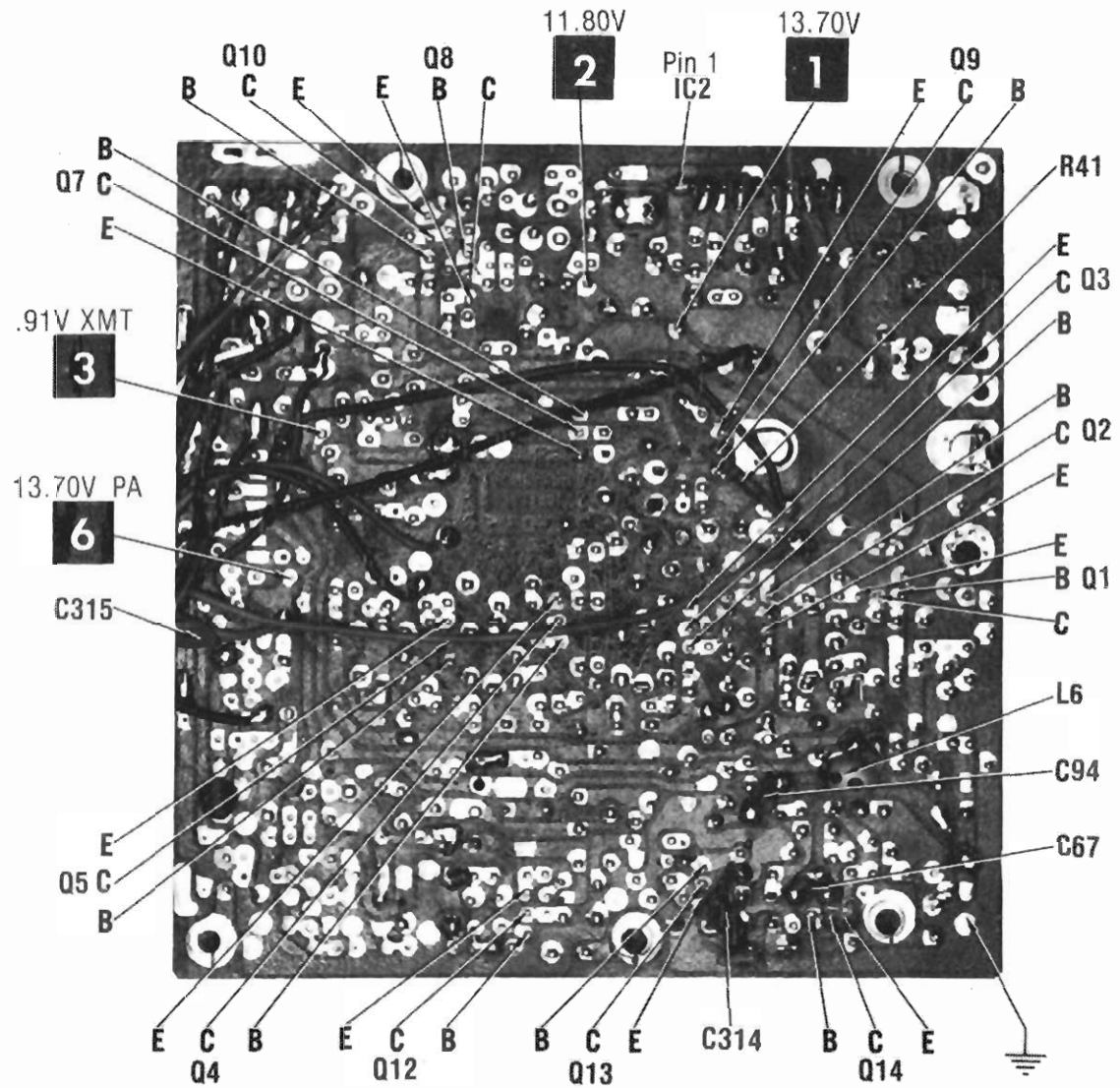
CHANNEL	1 = 5.18 Volts 0 = 0 Volts								DIVIDER INPUT ^Y IN MHz AT TP5	REC SYNTH OUTPUT IN MHz AT TP6	XMT SYNTH OUTPUT IN MHz AT TP9
	IC201 PROGRAM DIVIDER										
	PINS										
			6	5	4	3	2	1			
1			0	0	0	0	0	1	.910	16.270	26.965
2			0	0	0	0	1	0	.920	16.280	26.975
3			0	0	0	0	1	1	.930	16.290	26.985
4			0	0	0	1	0	0	.950	16.310	27.005
5			0	0	0	1	0	1	.960	16.320	27.015
6			0	0	0	1	1	0	.970	16.330	27.025
7			0	0	0	1	1	1	.980	16.340	27.035
8			0	0	1	0	0	0	1.000	16.360	27.055
9			0	0	1	0	0	1	1.010	16.370	27.065
10			0	1	0	0	0	0	1.020	16.380	27.075
11			0	1	0	0	0	1	1.030	16.390	27.085
12			0	1	0	0	1	0	1.050	16.410	27.105
13			0	1	0	0	1	1	1.060	16.420	27.115
14			0	1	0	1	0	0	1.070	16.430	27.125
15			0	1	0	1	0	1	1.080	16.440	27.135
16			0	1	0	1	1	0	1.100	16.460	27.155
17			0	1	0	1	1	1	1.110	16.470	27.165
18			0	1	1	0	0	0	1.120	16.485	27.175
19			0	1	1	0	0	1	1.130	16.490	27.185
20			1	0	0	0	0	0	1.150	16.510	27.205
21			1	0	0	0	0	1	1.160	16.520	27.215
22			1	0	0	0	1	0	1.170	16.530	27.225
23			1	0	0	0	1	1	1.200	16.560	27.255
24			1	0	0	1	0	0	1.180	16.540	27.235
25			1	0	0	1	0	1	1.190	16.550	27.245
26			1	0	0	1	1	0	1.210	16.570	27.265
27			1	0	0	1	1	1	1.220	16.580	27.275
28			1	0	1	0	0	0	1.230	16.590	27.285
29			1	0	1	0	0	1	1.240	16.600	27.295
30			1	1	0	0	0	0	1.250	16.610	27.305
31			1	1	0	0	0	1	1.260	16.620	27.315
32			1	1	0	0	1	0	1.270	16.630	27.325
33			1	1	0	0	1	1	1.280	16.640	27.335
34			1	1	0	1	0	0	1.290	16.650	27.345
35			1	1	0	1	0	1	1.300	16.660	27.355
36			1	1	0	1	1	0	1.310	16.670	27.365
37			1	1	0	1	1	1	1.320	16.680	27.375
38			1	1	1	0	0	0	1.330	16.690	27.385
39			1	1	1	0	0	1	1.340	16.700	27.395
40			0	0	0	0	0	0	1.350	16.710	27.405



CHASSIS TOP

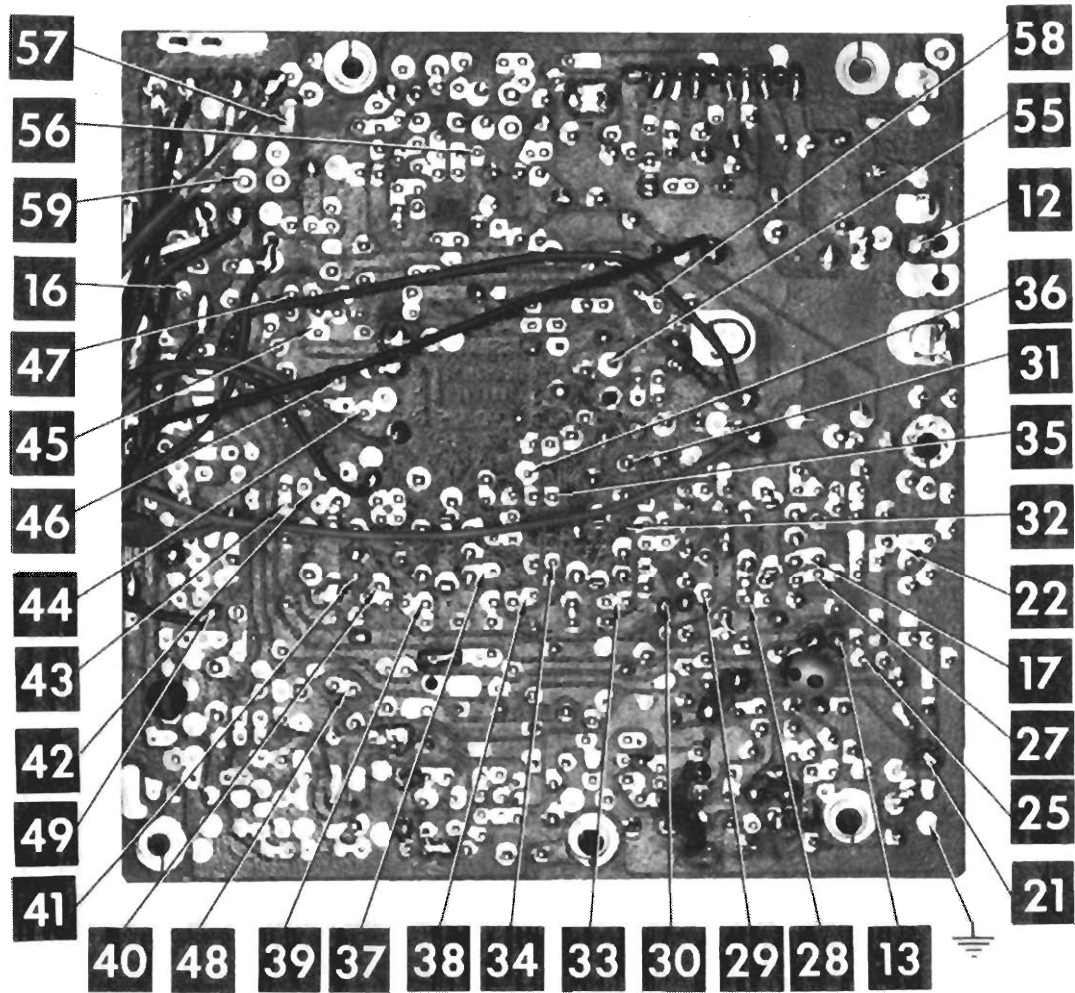


MAIN BOARD

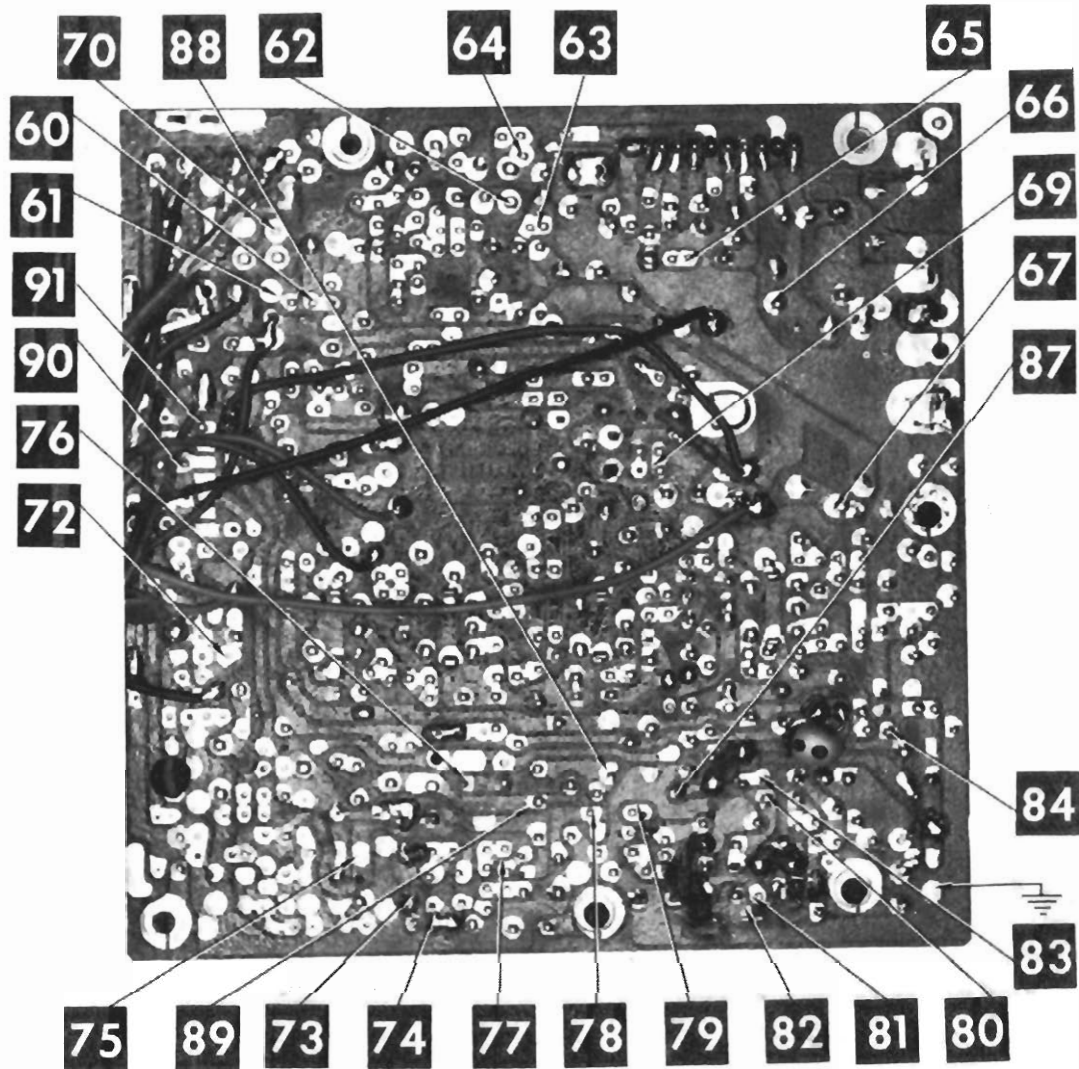


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MAIN BOARD

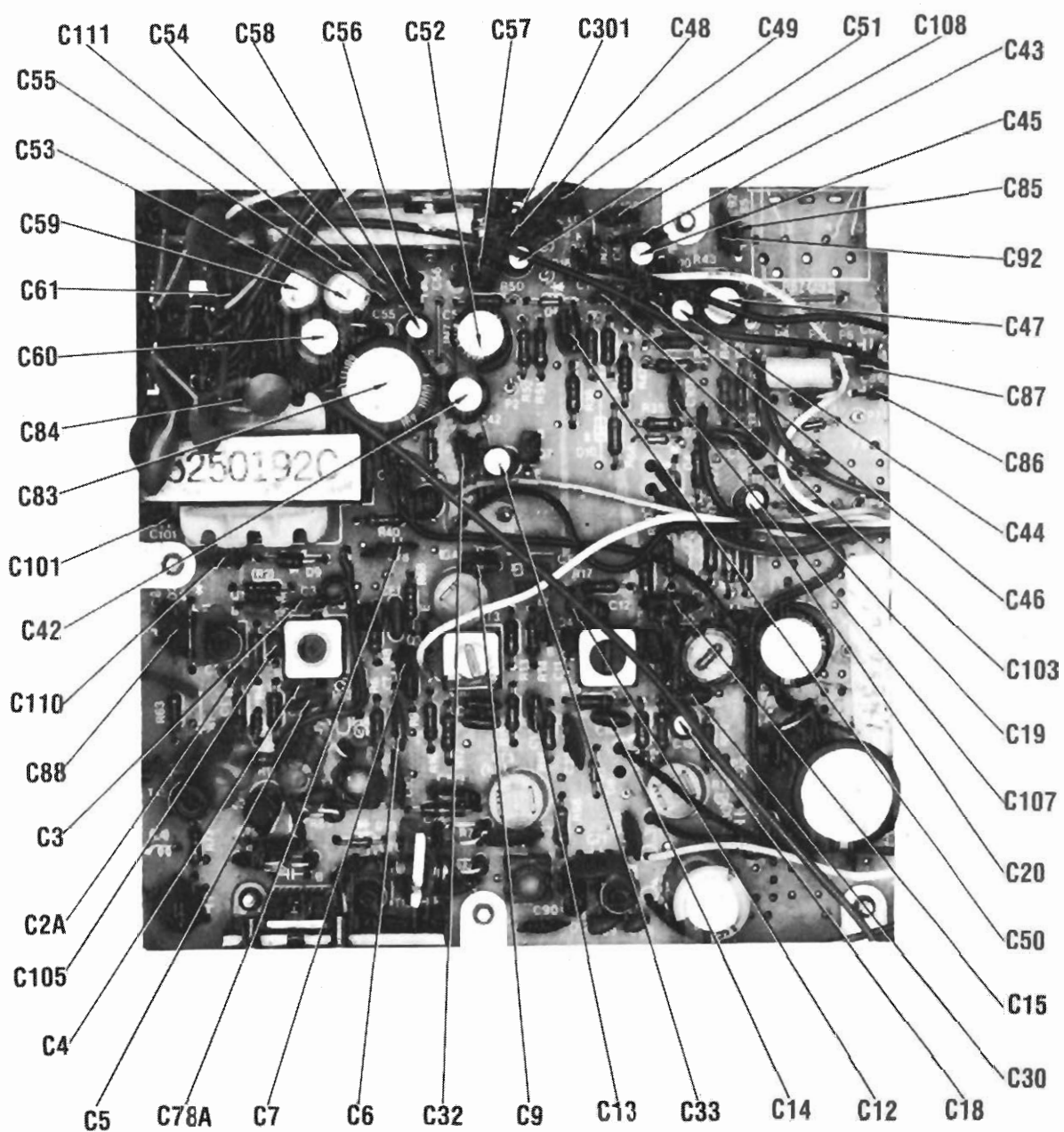


MAIN BOARD

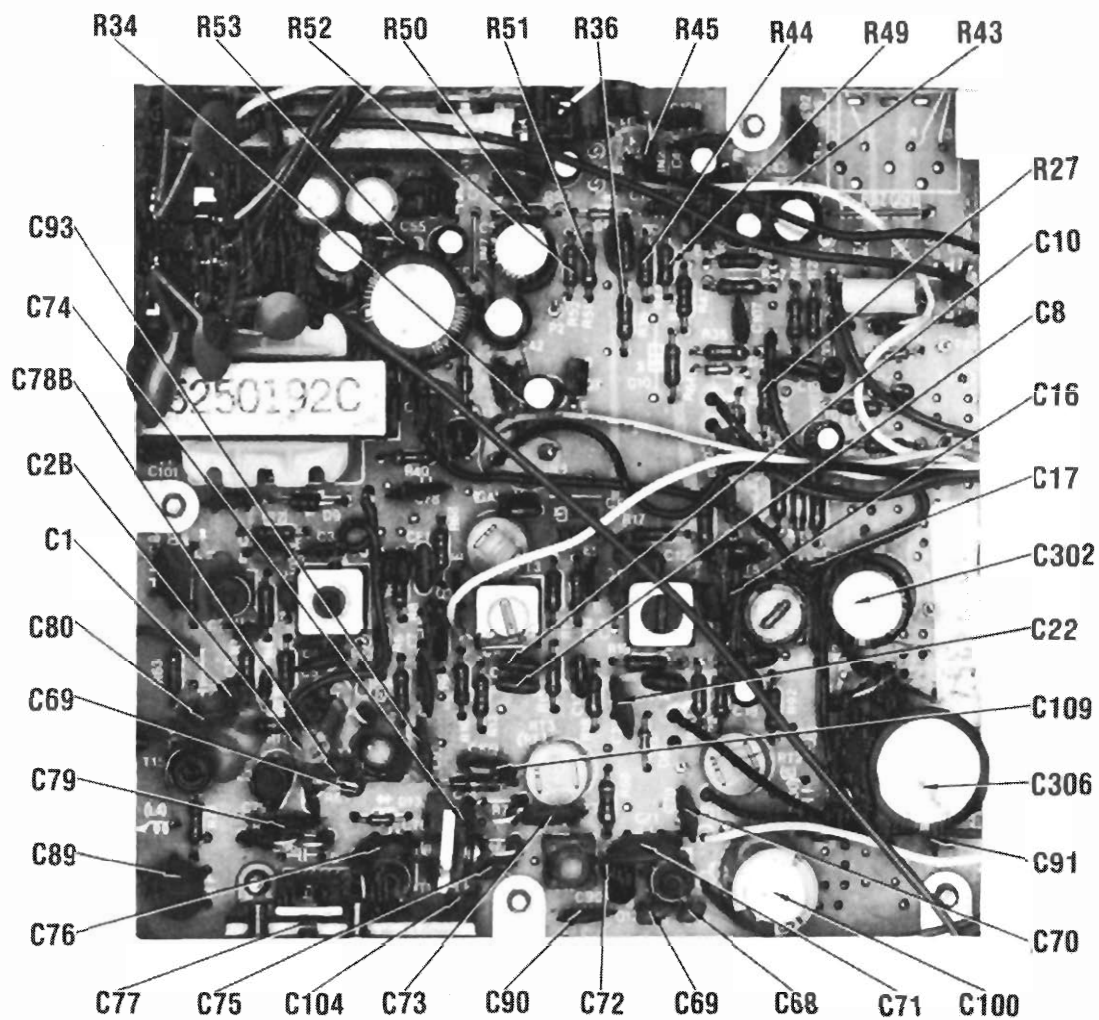


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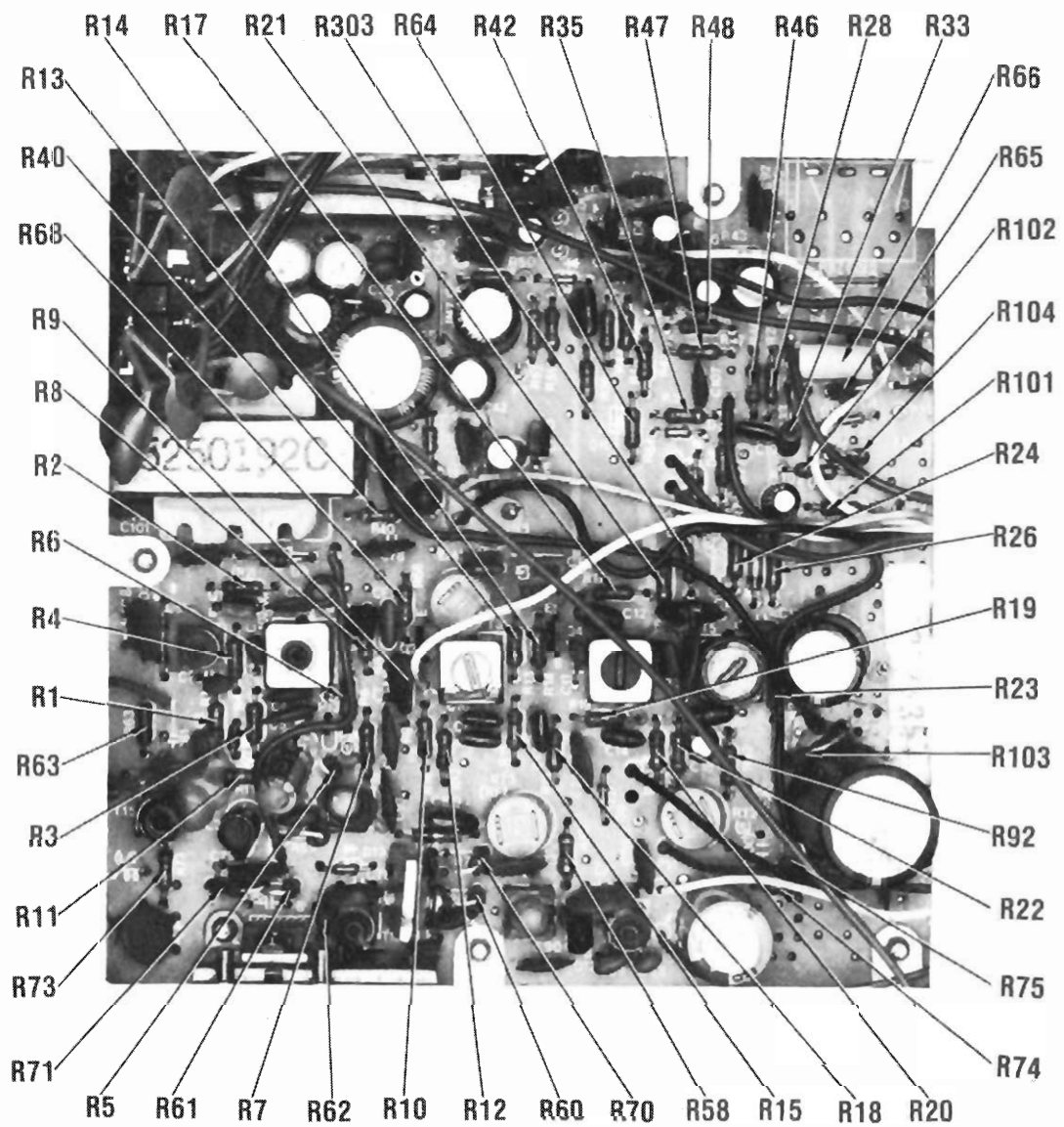
MAIN BOARD



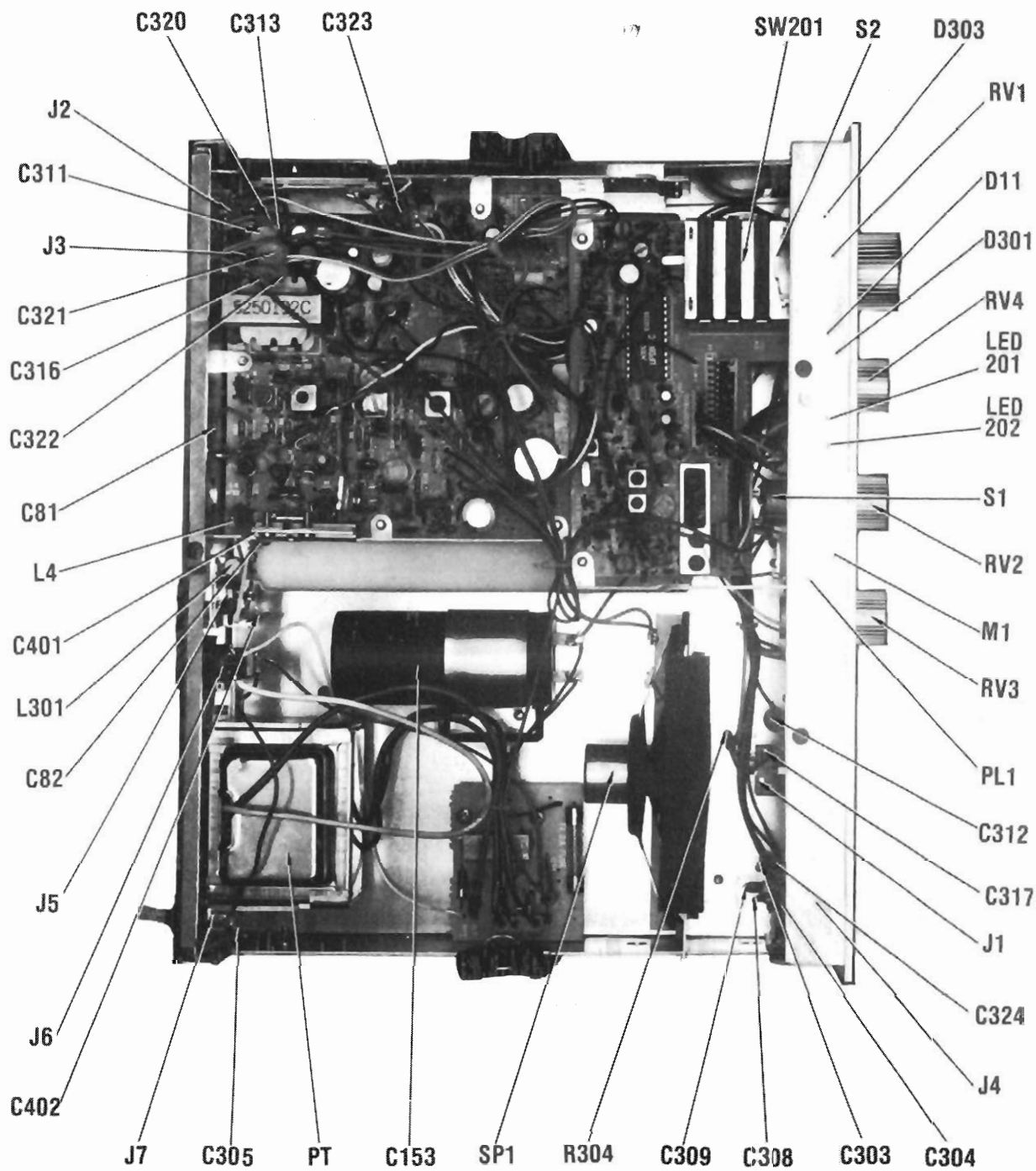
MAIN BOARD



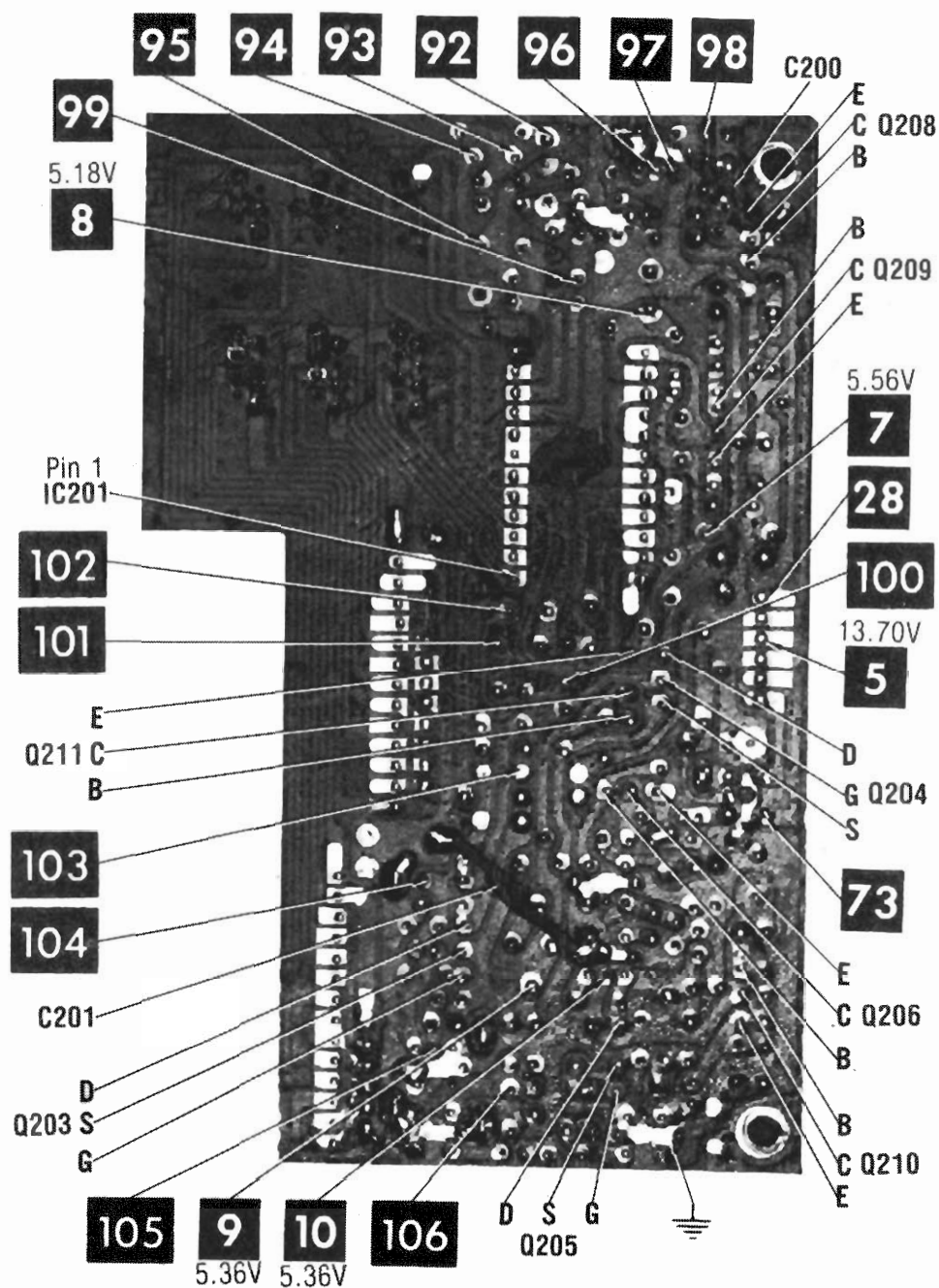
MAIN BOARD



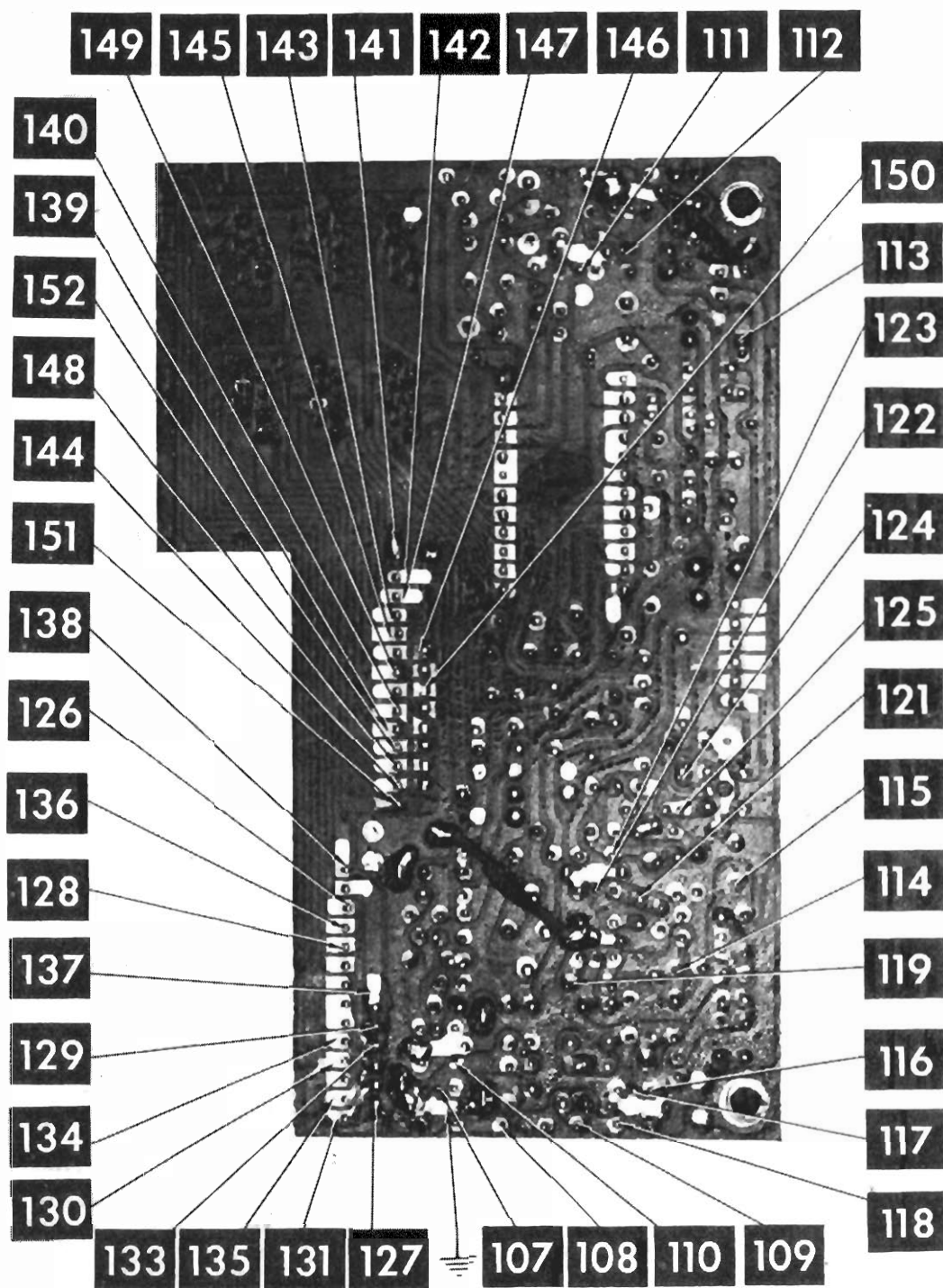
MAIN BOARD



CHASSIS TOP

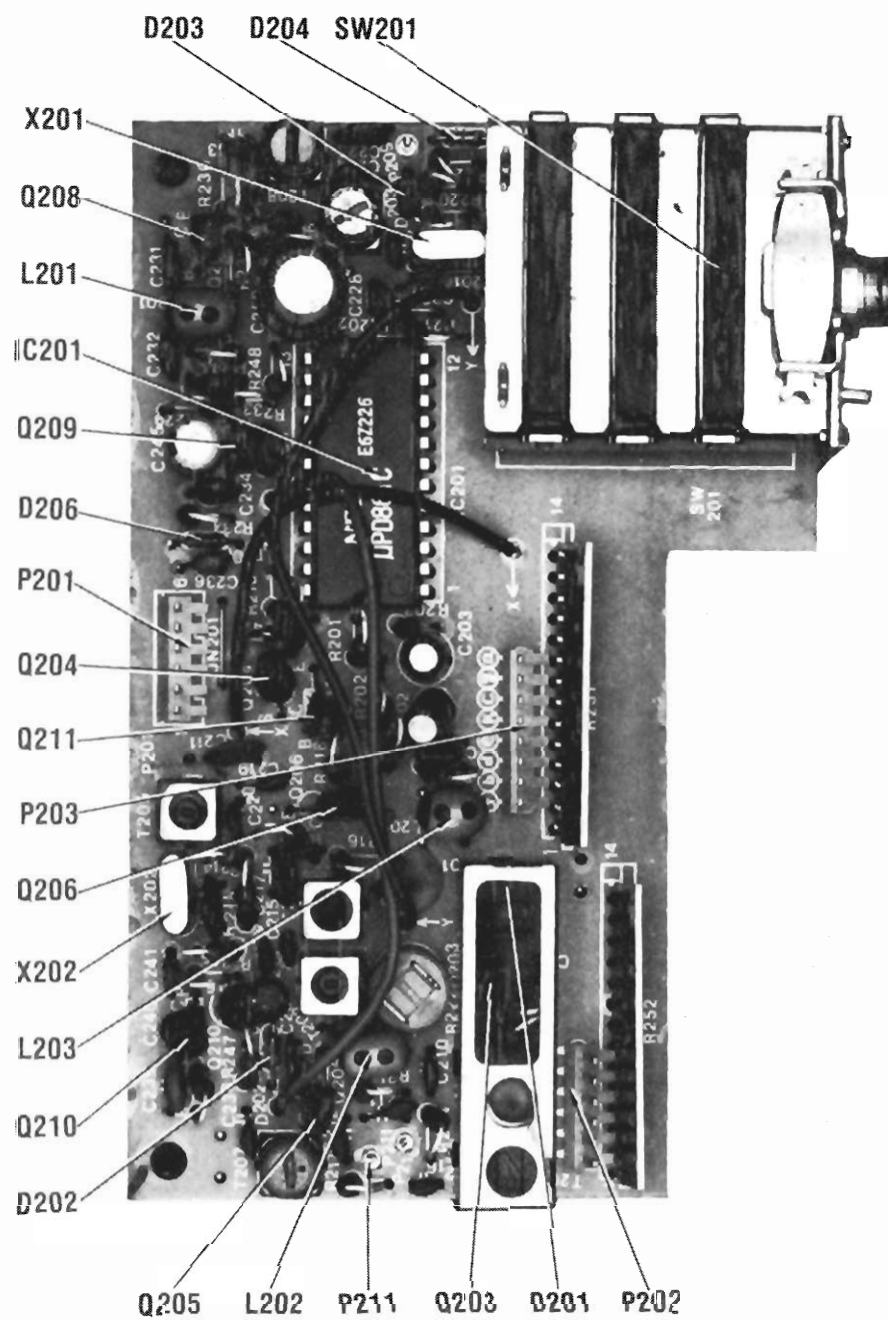


PLL BOARD



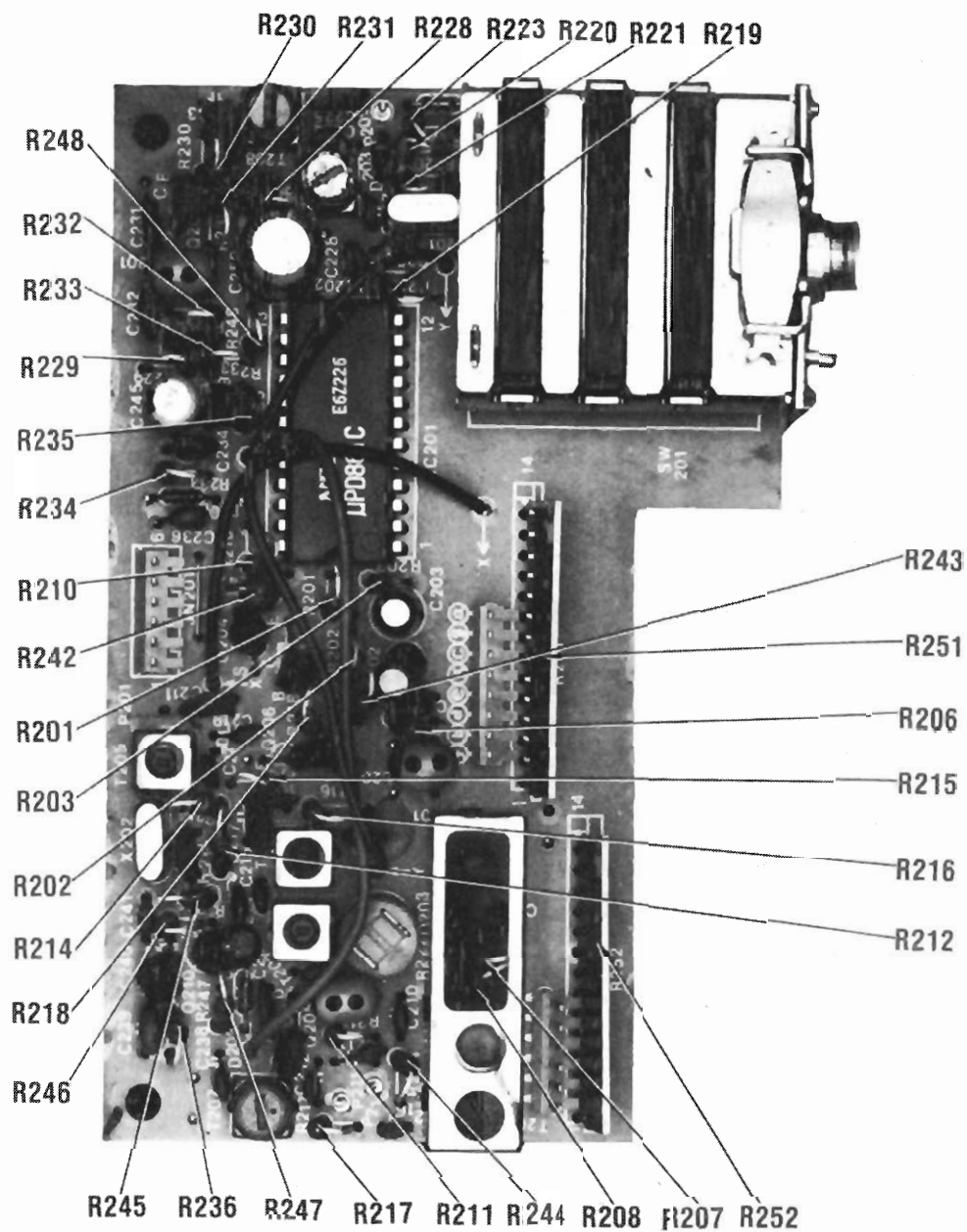
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PLL BOARD

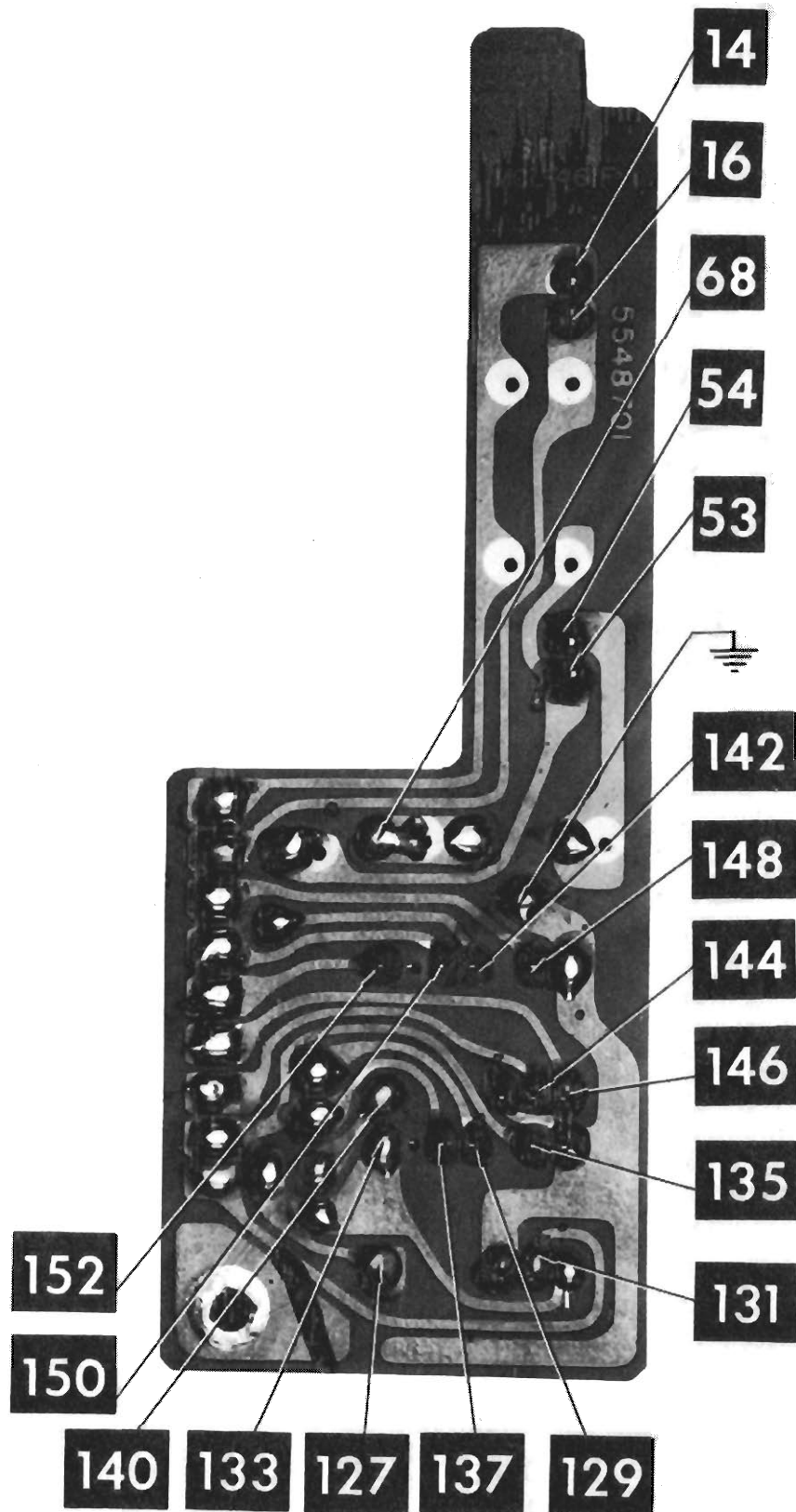


PLL BOARD



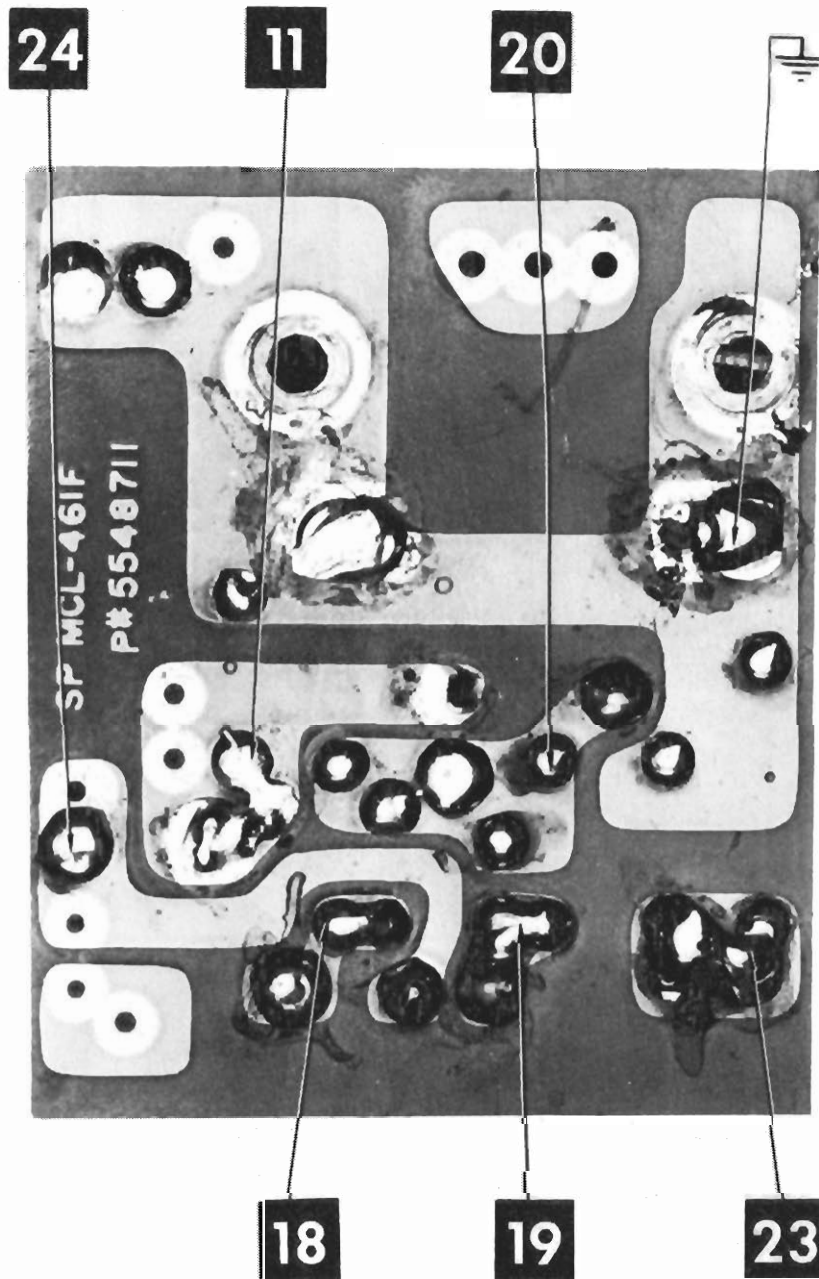


PLL BOARD

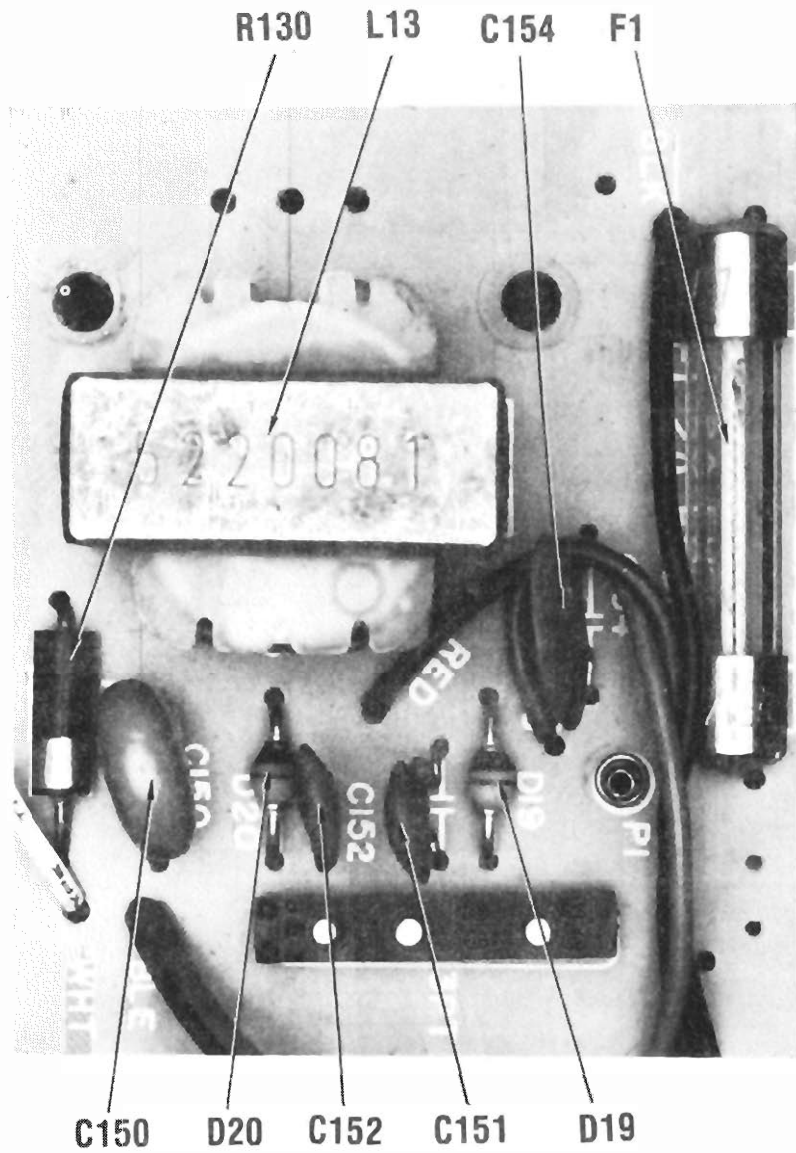


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LED BOARD



POWER SUPPLY BOARD



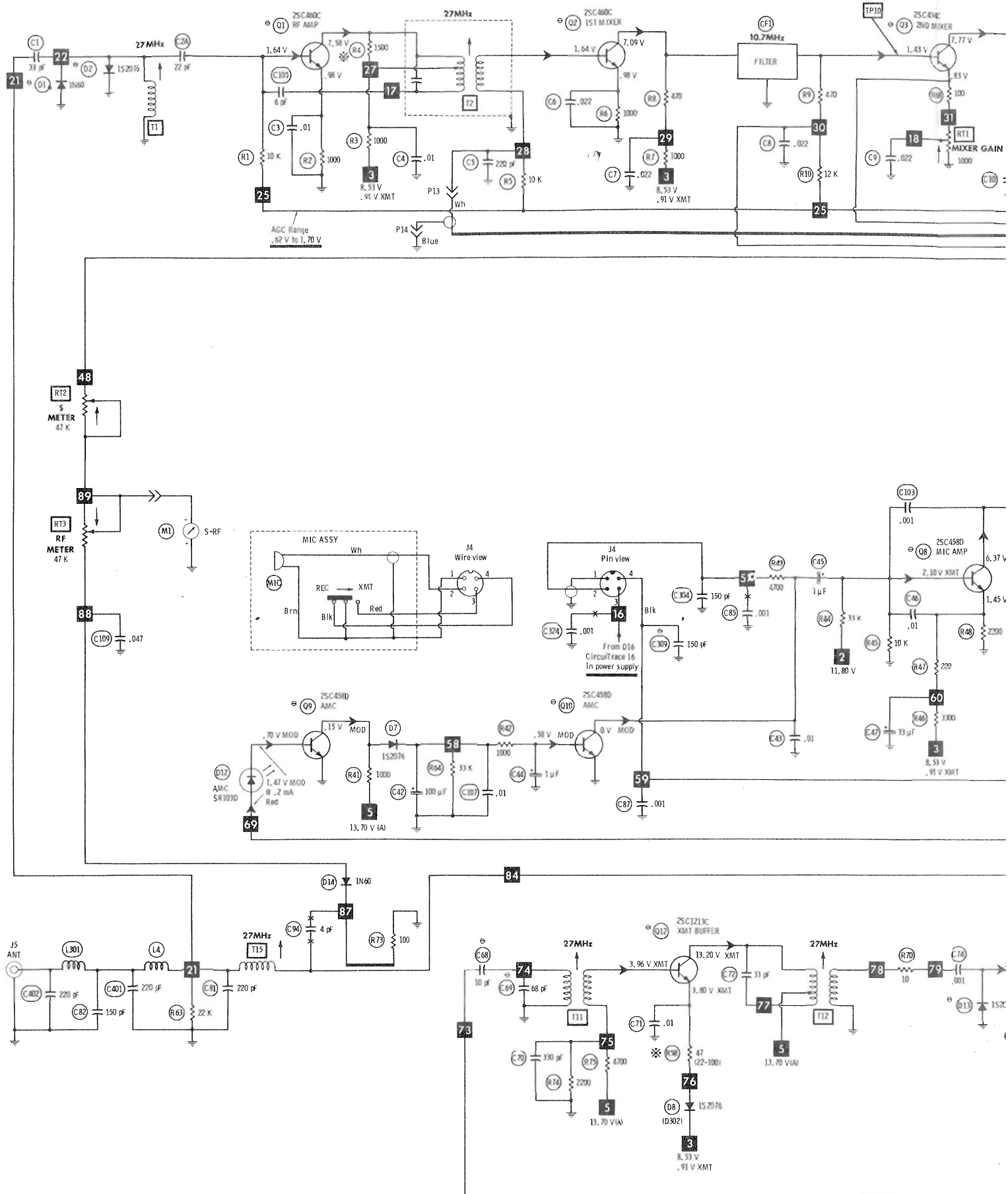
POWER SUPPLY BOARD

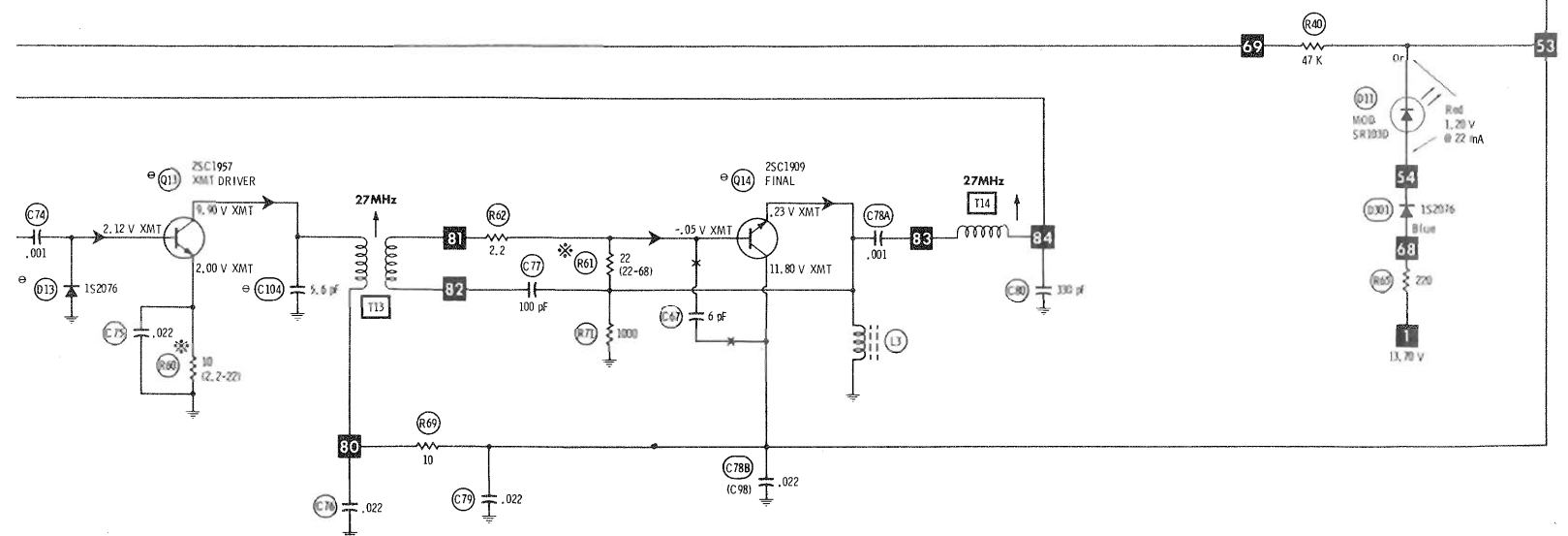
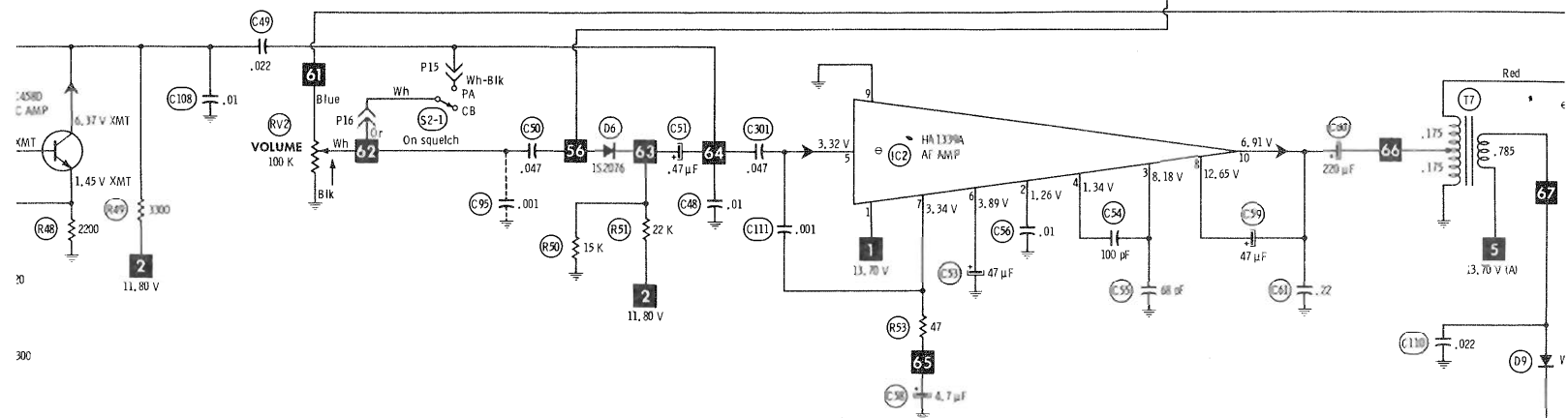
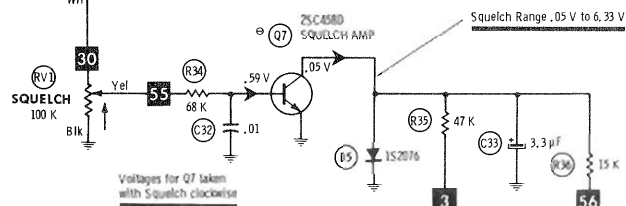
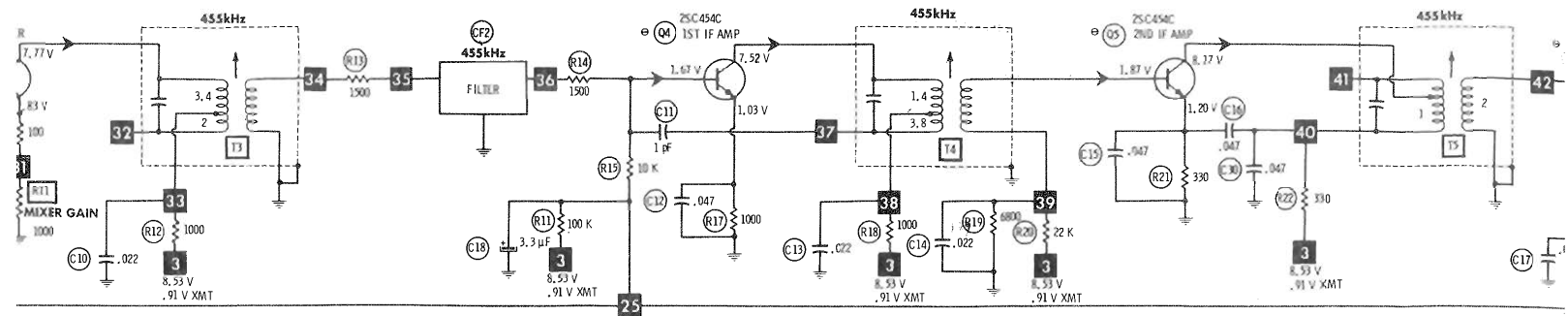


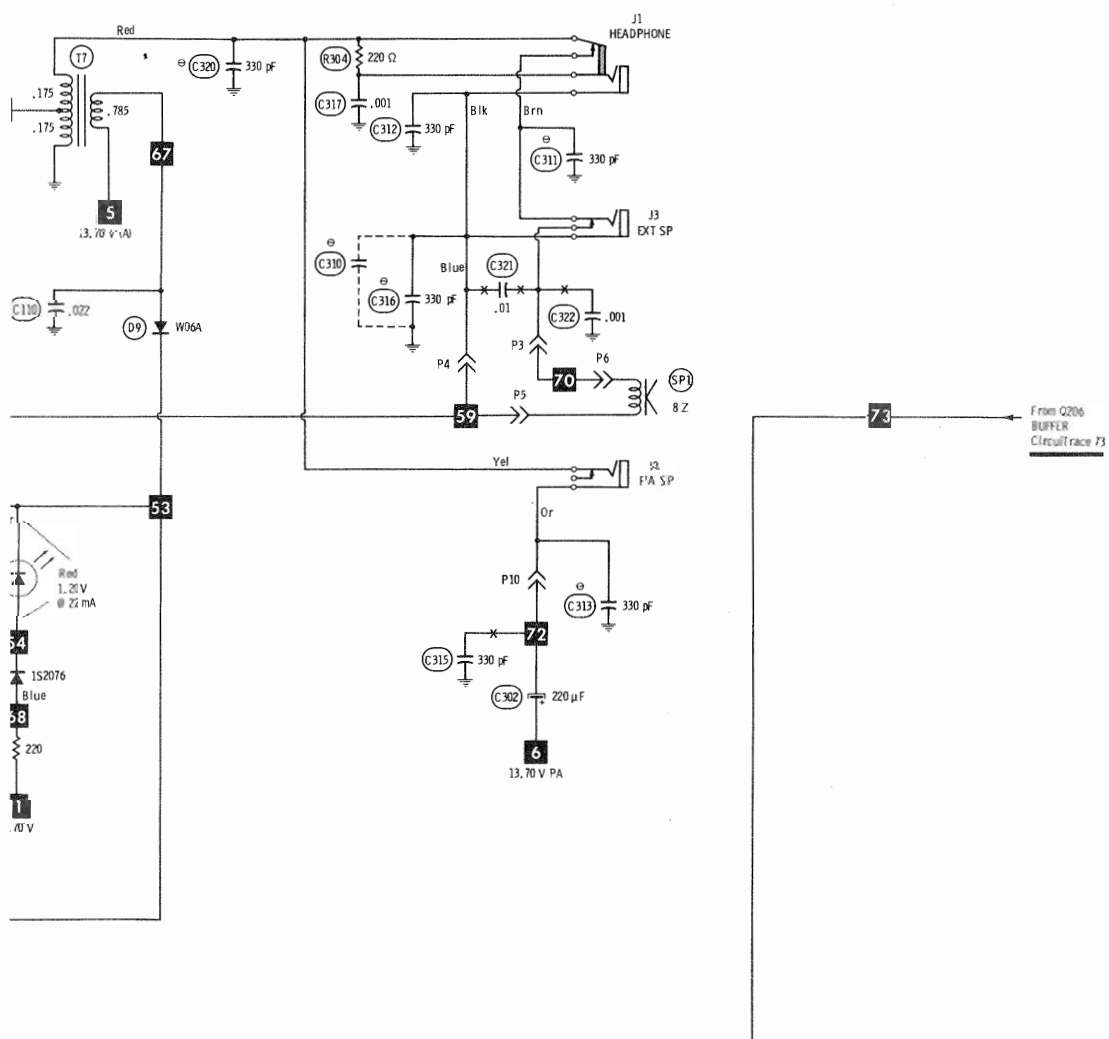
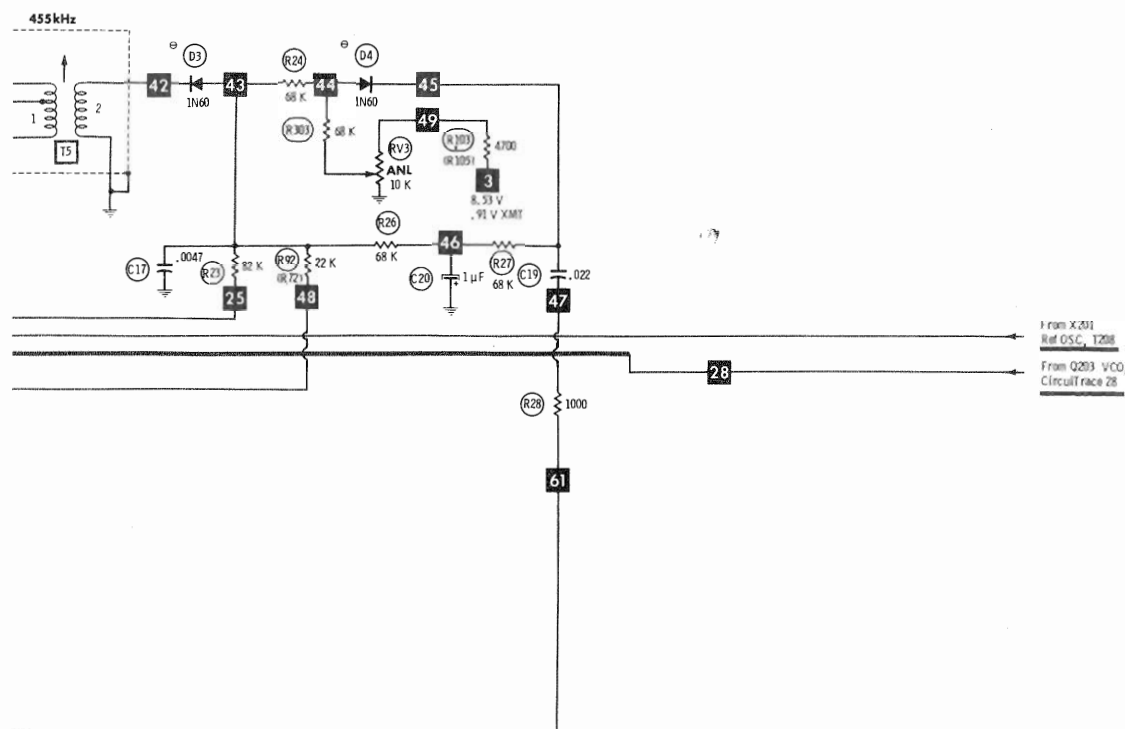
PARTS LIST AND DESCRIPTION
(When ordering parts, state Model, Part Number, and Description.)

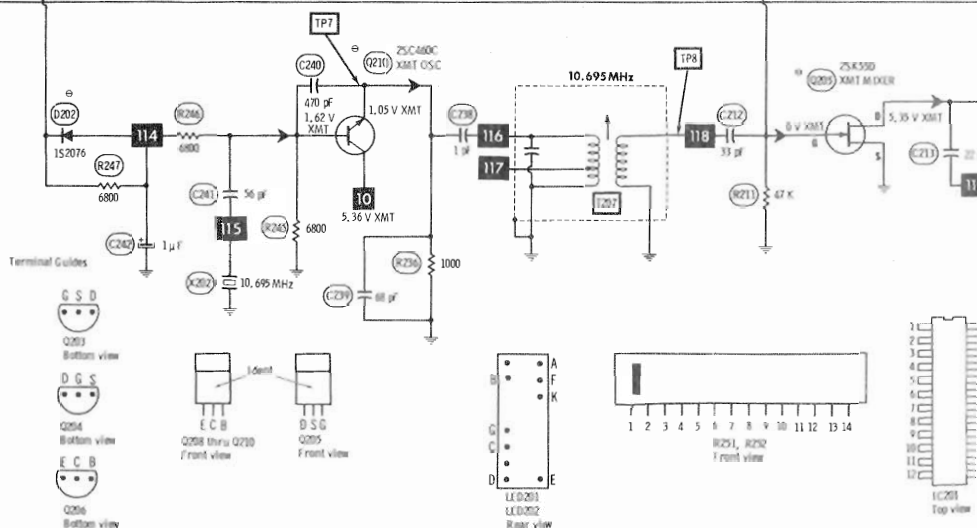
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			GENERAL ELECTRIC PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
D1	1N60		1N60	PTC206	HEPR91 35	REN 109	SK3088	RT-263	ECG109	TM109/**	WEPT 34	103-29001
D2	1N60TFI	5330731	1N60	PTC206	HEPR91 35	REN 109	SK3088	RT-263	ECG109	TM109/**	WEPT 34	103-29001
	1S2076		GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
	1S2076TFI	5330133	GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
D3	1N60		1N60	PTC206	HEPR91 35	REN 109	SK3088	RT-263	ECG109	TM109/**	WEPT 34	103-29001
	1N60TFI	5330731	1N60	PTC206	HEPR91 35	REN 109	SK3088	RT-263	ECG109	TM109/**	WEPT 34	103-29001
	1N60		1N60	PTC206	HEPR91 35	REN 109	SK3088	RT-263	ECG109	TM109/**	WEPT 34	103-29001
D5	1N60TFI	5330731	1N60	PTC206	HEPR91 35	REN 109	SK3088	RT-263	ECG109	TM109/**	WEPT 34	103-29001
	1S2076		GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
	1S2076TFI	5330133	GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
D6	1S2076		GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
	1S2076TFI	5330133	GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
D7	1S2076		GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
	1S2076TFI	5330133	GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
D9	W06A	5330341	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEPT 34	103-29001
D13	1S2076		GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
	1S2076TFI	5330133	GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
D14	1N60		1N60	PTC206	HEPR91 35	REN 109	SK3088	RT-263	ECG109	TM109/**	WEPT 34	103-29001
	1N60TFI	5330731	1N60	PTC206	HEPR91 35	REN 109	SK3088	RT-263	ECG109	TM109/**	WEPT 34	103-29001
D19	V03C	5330001	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEPT 34	103-29001
D20	V03C	5330001	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEPT 34	103-29001
D201	1S2790	5330661	GE-90	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
D202	1S2076		GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
	1S2076TFI	5330133	GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
D203	1S2076		GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
	1S2076TFI	5330133	GE-514	PTC214	HEPR602	REN 177	SK3100	RT-218	ECG519	TM519	WEPT 34	103-29001
D206	RD5-1EC	5330842	GE-5									

JCPenney **MODEL 981-6237**











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.
Q211	2SA844E	5321253	GE-244*	PTC103*	HEPS0019*	REN 129*	SK3114	RT-126A*	ECG129*	TM129*	WEP60*	121-29005
ZD1	2SA844	5330322	GE-244*	PTC103*	HEPS0019*	REN 129*	SK3114	RT-126A*	ECG129*	TM129*	WEP60*	121-29005
	HZ98		GEZD-8.7			REN 113	SK3749		ECG5073	TM5073	WEP1155	103-272
	HZ-9		GEZD-8.7			REN 113	SK3749		ECG5073	TM5073	WEP1155	103-272

* Lead configuration may vary from original.
 /** Also available as exact type replacement.

ELECTROLYTIC CAPACITORS

REPLACEMENT DATA						
ITEM No.	RATING	MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C28	10 25V		PC10-25	VTT10825	QV1-43	EV-1322
C18	3.3 50V		PC5-50	VTT3R3A50	QV1-25	EV-1618
C20	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C33	3.3 50V		PC5-50	VTT3R3A50	QV1-25	EV-1618
C42	100 10V		PC100-10	VTT100E10	QV1-93	EV-1130
C44	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C45	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C47	33 25V	0252623	PC30-25	VTT33025	QV1-63	EV-1325
C51	.47 50V	0256118	PC1-50	VTT47A63	QV1-3	EV-1610
C52	100 16V	0252531	PC100-16	VTT100F16	QV1-95	EV-1230
C53	47 16V	0252525	PC50-16	VTT47D16	QV1-73	EV-1226
C58	4.7 25V	0252615	PC5-50	VTT4R7B50	QV1-27	EV-1319
C59	47 16V	0252525	PC50-16	VTT47D16	QV1-73	EV-1226
C60	220 10V	0252332	PC250-10	VTT220F10	QV1-115	EV-1140
C83	1000 16V	0256010	PC1000-16	VTT1000L16	QV1-183	EV-1260
C100	330 16V	0252533	WBR300-35*	VTT330H16	QV1-133	EV-1245
C153	4000 25V	0259704	AA0140A	FP060.4A		TVLU-1095
C202	4.7 25V	0252615	PC5-50	VTT4R7B50	QV1-27	EV-1319
C203	4.7 25V	0252615	PC5-50	VTT4R7B50	QV1-27	EV-1319
C242	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C245	10 25V	0252621	PC10-25	VTT10825	QV1-43	EV-1322
C250	330 6.3V	0252233	WBR300-35*	VTT330G10	QV1-131	EV-1145
C302	220 25V	0252632	PC250-25	VTT220K25	QV1-119	EV-1340
C306	2200 16V	0256111				

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
C1	33			GP33	GP433	QC2-27	5GAQ33
C2A	22			GP22	CP422	QC2-19	5GAQ22
C3	.01		UK50-103		MAG5011		
C4	.01		UK50-103		MAG5011		
C5	220 10%		DD-221		GP322		10TS-T22
C6	.022		UK25-223				HY-725
C7	.022		UK25-223				HY-725
C8	.022 50V			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C9	.022 50V			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C10	.022 50V			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C11	1 .25pF	0248631					
C12	.047 50V			DPMS2S47	EWFA1A17	QFT2-171	1FT-S47
C13	.022 50V			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C14	.022 50V			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C15	.047 50V			DPMS2S47	EWFA1A17	QFT2-171	1FT-S47
C16	.047		UK25-503		MAG2S15		HY-735
C17	.0047		DD-472	GP4700	GP247		5GA-D47
C19	.022 50V			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C22	.022		UK25-223				HY-725
C30	.047 50V			DPMS2S47	EWFA1A17	QFT2-171	1FT-S47
C32	.01		UK50-103		MAG5011		
C43	.022		UK25-223				HY-725
C46	.01 50V			WMF1S1	EWFA1A10	QFT2-91	1FT-S10
C48	.01 50V			WMF1S1	EWFA1A10	QFT2-91	1FT-S10
C49	.022 50V			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C50	.047 50V			DPMS2S47	EWFA1A17	QFT2-171	1FT-S47
C54	100 10%		DD-101	GP100	GP310		10TS-T10
C55	68 10%		DD-680	GP68	GP468		10TS-Q68
C56	.01 50V			WMF1S1	EWFA1A10	QFT2-91	1FT-S10
C57	.047 50V			DPMS2S47	EWFA1A17	QFT2-171	1FT-S47
C61	.22 100V			WMF05P22	EWFO5022	QFT2-253	1FT-P22
C67	6				GP568		5GAV68
C68	10	0248660				QC2-9	5GAQ10
C69	68 10%		DD-68C	GP68	GP468		10TS-Q68
C70	330		DD-331	GP330	GP333		10TS-T33

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
C71	.01		UK50-103		MAG5011		
C72	33			GP33	GP433	QC2-27	5GAQ33
C73	.022		UK25-223				HY-725
C74	.001		DD-102		GP210		10TS-D10
C75	.022		UK25-223				HY-725
C76	.022		UK25-223				HY-725
C77	100 10%		DD-101	GP100	GP310		10TS-T10
C78A	.022		UK25-223				HY-725
C78B	.001		DD-102		GP210		10TS-D10
C79	.022		UK25-223				HY-725
C80	330		DD-331	GP330	GP333		10TS-T33
C81	220 10%		DD-221		GP322		10TS-T22
C82	150		DD-151		GP315		10TS-T15
C84	.047		UK25-503		MAG2515		HY-735
C85	.001		DD-102		GP210		10TS-D10
C86	.001		DD-102		GP210		10TS-D10
C87	.001		DD-102		GP210		10TS-D10
C88	.022		UK25-223				HY-725
C89	.022		UK25-223				HY-725
C90	.022		UK25-223				HY-725
C91	.022		UK25-223				HY-725
C92	.022		UK25-223				HY-725
C93	.022		UK25-223				HY-725
C94	4			GP5	GP550	QC2-1	5GAV50
C101	.01		UK50-103		MAG5011		
C103	.001		DD-102		GP210		10TS-D10
C104	56		DD-560		GP456		10TS-Q56
C105	6	0248646			GP568		5GAV68
C106	.001		DD-102		GP210		10TS-D10
C107	.01		UK50-103		MAG5011		
C108	.01		UK50-103		MAG5011		
C109	.047 50V			DPMS2S47	EW1A147	QFT2-171	1FT-S47
C110	.022		UK25-223				HY-725
C111	.001		DD-102		GP210		10TS-D10
C112	.001		DD-102		GP210		10TS-D10
C150	.001		DD-102		GP210		10TS-D10
C151	.01		UK50-103		MAG5011		
C152	.01		UK50-103		MAG5011		
C154	.047		UK25-503		MAG2515		HY-735
C200	.022		UK25-223				HY-725
C201	.022		UK25-223				HY-725
C204	27 N750				CN7427		10TCU-Q27
C205	100		DD-101	GP100	GP310		10TS-T10
C206	47			GP47	GP447	QC2-31	5GAQ47
C207	.001		DD-102		GP210		10TS-D10
C208	.01		UK50-103		MAG5011		
C209	3			GP5	GP533	QC2-1	5GAV50
C210	3			GP5	GP533	QC2-1	5GAV50
C211	4			GP5	GP550	QC2-1	5GAV50
C212	33			GP33	GP433	QC2-27	5GAQ33
C213	22 N470 10%	0248378			GP550		10TCT-Q22
C214	4			GP5		QC2-1	5GAV50
C215	18 N470	0248376					10TCT-Q18
C216	33			GP33	GP433	QC2-27	5GAQ33
C217	.01		UK50-103		GP433		
C218	.01		UK50-103		MAG5011		
C219	4			GP5	GP550	QC2-1	5GAV50
C220	18 N470	0248376					10TCT-Q18
C221	.01		UK50-103		MAG5011		
C222	.001		DD-102		GP210		10TS-D10
C224	6	0248646			GP568		5GAV68
C225	.01		UK50-103		MAG5011		
C228	5			GP5	GP550	QC2-1	5GAV50
C231	.01		UK50-103		MAG5011		
C232	82 10%		DD-820		GP482		10TS-Q82
C233	150		DD-151		GP315		10TS-T15
C234	.01 50V			WMF1S1	EW1A110	QFT2-91	1FT-S10
C236	5			GP5	GP550	QC2-1	5GAV50
C237	.01		UK50-103		MAG5011		
C238	4			GP5	GP550	QC2-1	5GAV50
C239	68 10%		DD-680	GP68	GP468		10TS-Q68
C240	470		DD-471	GP470	GP347		10TS-T47
C241	56		DD-560		GP456		10TS-Q56
C243	27				GP427	QC2-23	5GAQ27
C247	33			GP33	GP433	QC2-27	5GAQ33
C248	27				GP427	QC2-23	5GAQ27
C249	.01 50V			WMF1S1	EW1A110	QFT2-91	1FT-S10
C251	.01 50V			WMF1S1	EW1A110	QFT2-91	1FT-S10
C254	4			GP5	GP550	QC2-1	5GAV50
C301	.047 50V			DPMS2S47	EW1A147	QFT2-171	1FT-S47
C303	150		DD-151		GP315		10TS-T15
C304	150		DD-151		GP315		10TS-T15
C305	.01		UK50-103		MAG5011		
C308	.01		UK50-103		MAG5011		
C309	150		DD-151		GP315		10TS-T15
C310	3			GP5	GP533	QC2-1	5GAV50
C311	330 10%		DD-331	GP330	GP333		10TS-T33
C312	330		DD-331	GP330	GP333		10TS-T33
C313	330 10%		DD-331	GP330	GP333		10TS-T33
C314	.022		UK25-223				HY-725
C315	330		DD-331	GP330	GP333		10TS-T33
C316	330 10%		DD-331	GP330	GP333		10TS-T33

JCPenney MODEL 981-6237

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
C317	.001		DD-102		GP210	10TS-D10
C318	120					
C320	330 10%		DD-331	GP330	GP333	10TS-T33
C321	.01		UK50-103		MAG5011	
C322	.001		DD-102		GP210	10TS-D10
C323	.022		UK25-223			HY-725
C324	.001		DD-102		GP210	10TS-D10
C401	220 10%		DD-221		GP322	10TS-T22
C402	220 10%		DD-221		GP322	10TS-T22

*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.
RT1	Mixer Gain	1000	0151883	T-1000(3)	MTC13L1(3)	U260R102B(3)
RT2	S Meter	470K	0151888	T-50K(3)	MTC54L1(3)	U260R503B(3)
RT3	RF Meter	470K	0151888	T-50K(3)	MTC54L1(3)	U260R503B(3)
R222	Frequency Adjust	100K	0151889	T-100K(3)	MTC15L1(3)	U260R104B(3)
RV1	Squelch/PA Switch	100K	5003093			
RV2	Volume/Power Switch	100K	5003142			
RV3	ANL	10K	0151450			
RV4	Fine Tune	10K	0151450			

(3) For horizontal mounting, bend the two outside terminals to fit PC Board. Use jumper to connect center terminal to PC Board.

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.
R251	Resistor Block		5068063	R252	Resistor Block		5068063

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L3	RF Choke (2.2uH)	5150782		74F226AP	
L4	RF Choke (.33uH)	5150071		4586	
L6	RF Choke (12uH)	5152015		72F125AP	
L201	RF Choke (100uH)	5152027			
L202	RF Choke (10uH)	5152014			
L203	RF Choke (150uH)	5152029			
L301	RF Choke				
L303	RF Choke				
T1	RF (27MHz)	5126372			
T2	RF Amp (27MHz)	5120099			
T3	IF (455kHz)	0322116	200996035	CBS723-TC	
T4	IF (455kHz)	0322146	221166NE3	8517	
T5	IF (455kHz)	5132031	221466862	CS503-4TC	
T11	RF (27MHz)	5126376		8518	
T12	XMT Buffer (27MHz)	5123375			
T13	XMT Driver (27MHz)	5126377			
T14	Final (27MHz)	5126378			
T15	Loading, Final	0317184			
T201	Buffer	5123432			
T202	VCO (16MHz)	5123441			
T203	XMT Mixer (27MHz)	5123431			
T204	XMT Mixer (27MHz)	5123432			
T205	XMT Buffer (27MHz)	5123431			
T206	Down Mixer (15.360MHz)	5123443			
T207	XMT Oscillator (10.695MHz)	5123442			
T208	Mixer (10.240MHz)	5123444			

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.	
L5	1.45A	.71	1.5mH	5220001			
L13	1.45A	.5	10.8mH	5220081			

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
PT	120V AC @ 20mA AC	24.4V AC CT @ 1.56A AC	5211901			

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T7	8	18	5250192 5250192C(1)			(1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3" x 4-1/2" PM 8 Ohms	5415001		

MICROPHONIC

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	5421223	18-032	18-034	18-010	18-092	2	1	3	4	NC	1

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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	5720085		AGC(2)	HRK	312002	150145	FG2-2

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

ITEM	PART No.	ITEM	PART No.
Bottom, Cover	7189032	Front Panel Assembly	6219743
Cover	6145432	Knob, Assembly	6286451
		Knob, Assembly	6286461

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF1	Filter	5160211	10.7MHz
CF2	Filter	5160011	455kHz
D11	LED	5380182	SR103D (1.20V @ 22mA)
D12	LED	5380182	AMC, SR103D (1.47V @ .2mA) (RED)
D303	LED	5380182	XMT, SR103W (1.60V @ 24mA) (WH)
J1	Jack	5670641	Headphone
J2	Jack	5673101	PA Speaker
J3	Jack	5673101	Ext. Speaker
J4	Jack	5650111	Microphone (4 pin connector)
J5	Jack	5675152	Antenna
LED201	LED	5310091	Units (each segment 1.60V @ 5mA)
LED202	LED	5310091	Tens (each segment 1.60V @ 5mA)
M1	Meter	5554199	S/R
PL1	Lamp	5760823	Meter (5.05V @ 32mA)
S1	Switch		On/Off (Part of volume)
S2	Switch		PA/CD
SW201	Switch	5612192	Channel Selector
X201	Crystal	5780281	10.240MHz
X202	Crystal	5780282	10.695MHz
	Cord	5747161	AC Power (120V AC)
	Cord	5749191	DC Power (12V)
	Socket	5652021	DC
	Socket	5652002	AC

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	23AWG	BELDEN No. 8415 (6')
		5-conductor (1 shielded)	28AWG BELDEN No. 9467 (6')
			BELDEN No. 9465 (7-1/2')