

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.



MIDLAND MODEL 150M

MODEL 150M (77-150)

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

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9CE1081

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:
 L101 thru L104, L203, L204, L301 thru L304 9440
 L105, L106, L107 5000, 5009, 8276, 8728, 9089
 L305, L306 8728, 9304, 9089

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of oscilloscope to TP11 (L204 Secondary).	Ch. 19	L204	Adjust for maximum RF (1.5 volts p-p typical). (See Figure 1.)
Input of frequency counter to TP11 (L204 Secondary).	Ch. 19		Check for 10.240MHz $\pm$ 100Hz.
Input of DC meter to TP1 (IC202 Pin 17).	Ch. 40, XMT	L203	Adjust for 6.80 volts. Check for approximately 1.00 volt on channel 1 receive.
Input of frequency counter to TP12 (IC203 Pin 3).	Ch. 1		Check for 16.270MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of frequency counter to TP13 (IC203 Pin 9).	Ch. 1, XMT		Check 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. Preset controls as follows, unless otherwise noted:
 RF Gain Maximum, Squelch MINIMUM, Tone Low, ANL Off.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator to TP15 (Q105 Emitter). 455kHz, 1000Hz @ 30% modulation.	Ch. 19	L107, L106, L105	Adjust for maximum audio output.
Output of signal generator to antenna input. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19	L104, L103, L102, L101	Adjust for maximum audio output. Readjust L105, L106, L107 for maximum.

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication.
Preset controls as follows, unless otherwise noted:
RF Gain Maximum, Squelch MINIMUM, Tone Low, ANL Off.

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Output of signal generator to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 500uV.	Ch. 19 Squelch Maximum	RV101	SQUELCH RANGE Adjust so squelch just breaks.
Output of signal generator to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19	RV103	SIGNAL METER Adjust for 9 on Signal scale of meter.

TRANSMITTER ALIGNMENT

Connect a 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 to antenna input.	Ch. 19, XMT	L301,L302, L303,L304, L305	Adjust for maximum RF output.
Input of RF wattmeter to antenna input.	Ch. 19, XMT	L306	Adjust for 4.0 watts RF output maximum.

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TRANSMITTER ADJUSTMENTS

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

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of oscilloscope or modulation meter to antenna input. Inject a 1000Hz, 20mV audio signal to mic input.	Ch. 19, XMT	RV201	ALC Adjust for 85% modulation maximum. (See Figure 2.)
Input of RF wattmeter to antenna input.	Ch. 19, XMT	RV202	POWER METER At 4.0 watts RF output adjust for 4 on Power scale of meter.
Connect a 150-ohm non-inductive load to antenna input.	Ch. 19, XMT	RV301	AWI Adjust so AWI lamp just begins to illuminate.

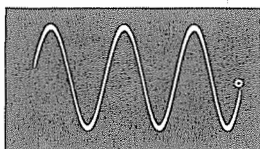


FIGURE 1

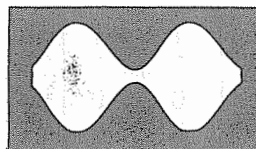
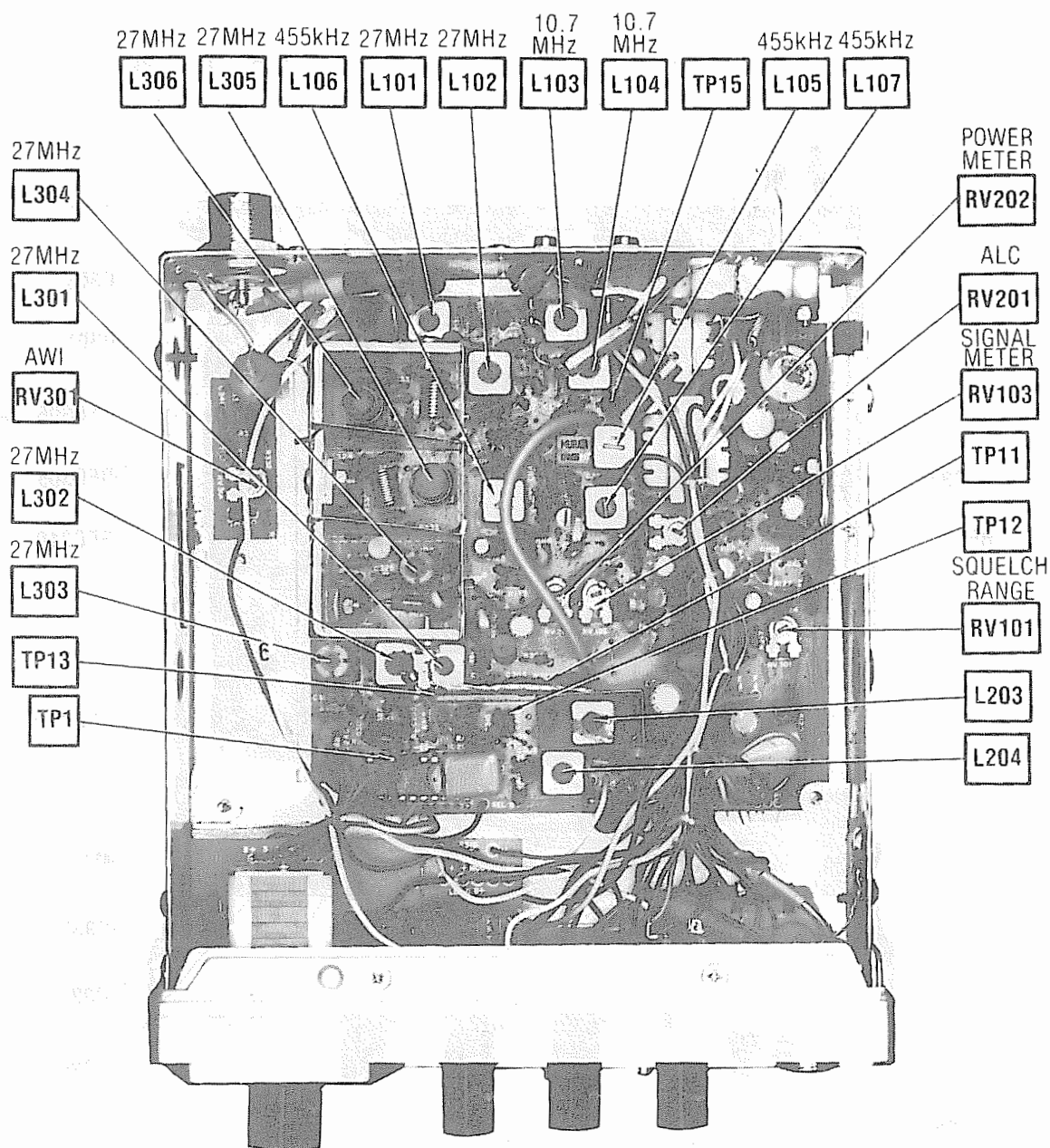


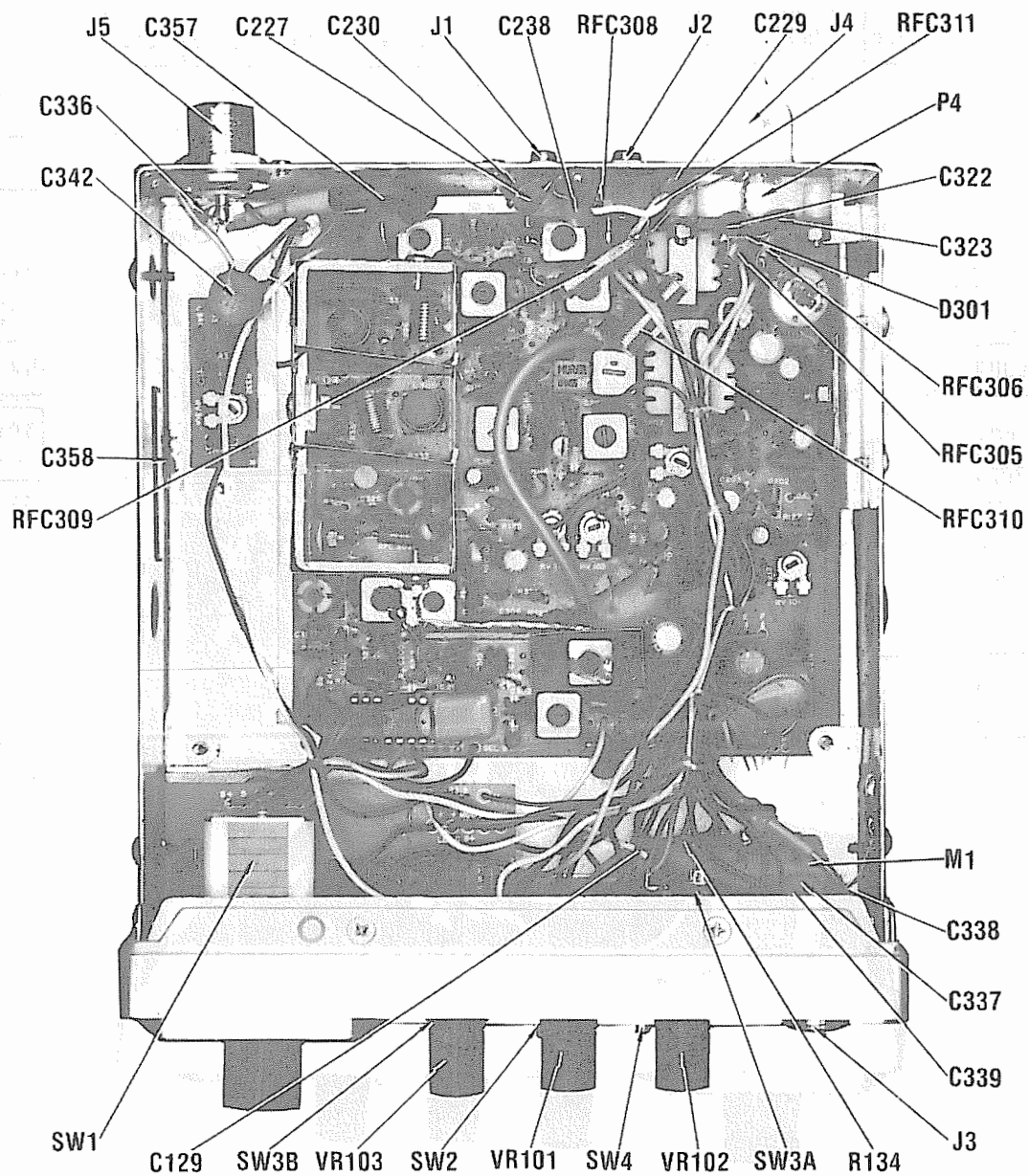
FIGURE 2

TRUTH CHART

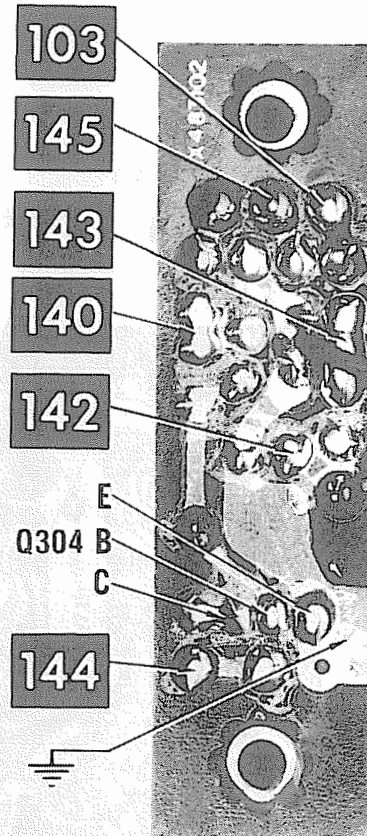
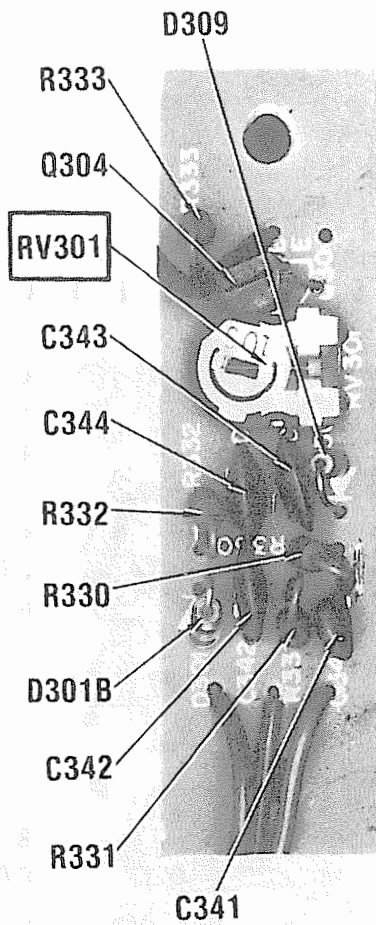
C H A N N E L	1 = 8.52 Volts 0 = .04 Volts							REC VCO OUTPUT IN MHz AT TP12	XMT SYNTH OUTPUT IN MHz AT TP13		
	CHANNEL INPUT CODES										
	IC202 PINS										
	6	5	4	3	2	1					
1	0	0	0	0	0	1			16.270	26.965	
2	0	0	0	0	1	0			16.280	26.975	
3	0	0	0	0	1	1			16.290	26.985	
4	0	0	0	1	0	0			16.310	27.005	
5	0	0	0	1	0	1			16.320	27.015	
6	0	0	0	1	1	0			16.330	27.025	
7	0	0	0	1	1	1			16.340	27.035	
8	0	0	1	0	0	0			16.360	27.055	
9	0	0	1	0	0	1			16.370	27.065	
10	0	1	0	0	0	0			16.380	27.075	
11	0	1	0	0	0	1			16.390	27.085	
12	0	1	0	0	1	0			16.410	27.105	
13	0	1	0	0	1	1			16.420	27.115	
14	0	1	0	1	0	0			16.430	27.125	
15	0	1	0	1	0	1			16.440	27.135	
16	0	1	0	1	1	0			16.460	27.155	
17	0	1	0	1	1	1			16.470	27.165	
18	0	1	1	0	0	0			16.480	27.175	
19	0	1	1	0	0	1			16.490	27.185	
20	1	0	0	0	0	0			16.510	27.205	
21	1	0	0	0	0	1			16.520	27.215	
22	1	0	0	0	1	0			16.530	27.225	
23	1	0	0	0	1	1			16.560	27.255	
24	1	0	0	1	0	0			16.540	27.235	
25	1	0	0	1	0	1			16.550	27.245	
26	1	0	0	1	1	0			16.570	27.265	
27	1	0	0	1	1	1			16.580	27.275	
28	1	0	1	0	0	0			16.590	27.285	
29	1	0	1	0	0	1			16.600	27.295	
30	1	1	0	0	0	0			16.610	27.305	
31	1	1	0	0	0	1			16.620	27.315	
32	1	1	0	0	1	0			16.630	27.325	
33	1	1	0	0	1	1			16.640	27.335	
34	1	1	0	1	0	0			16.650	27.345	
35	1	1	0	1	0	1			16.660	27.355	
36	1	1	0	1	1	0			16.670	27.365	
37	1	1	0	1	1	1			16.680	27.375	
38	1	1	1	0	0	0			16.690	27.385	
39	1	1	1	0	0	1			16.700	27.395	
40	0	0	0	0	0	0			16.710	27.405	



CHASSIS-BOTTOM



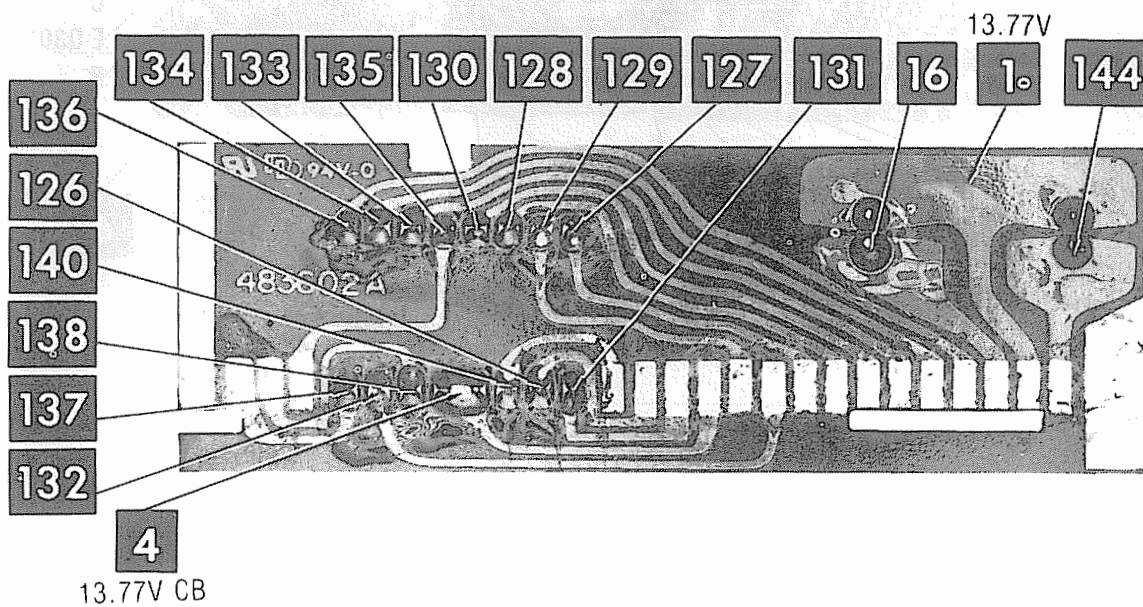
CHASSIS-BOTTOM



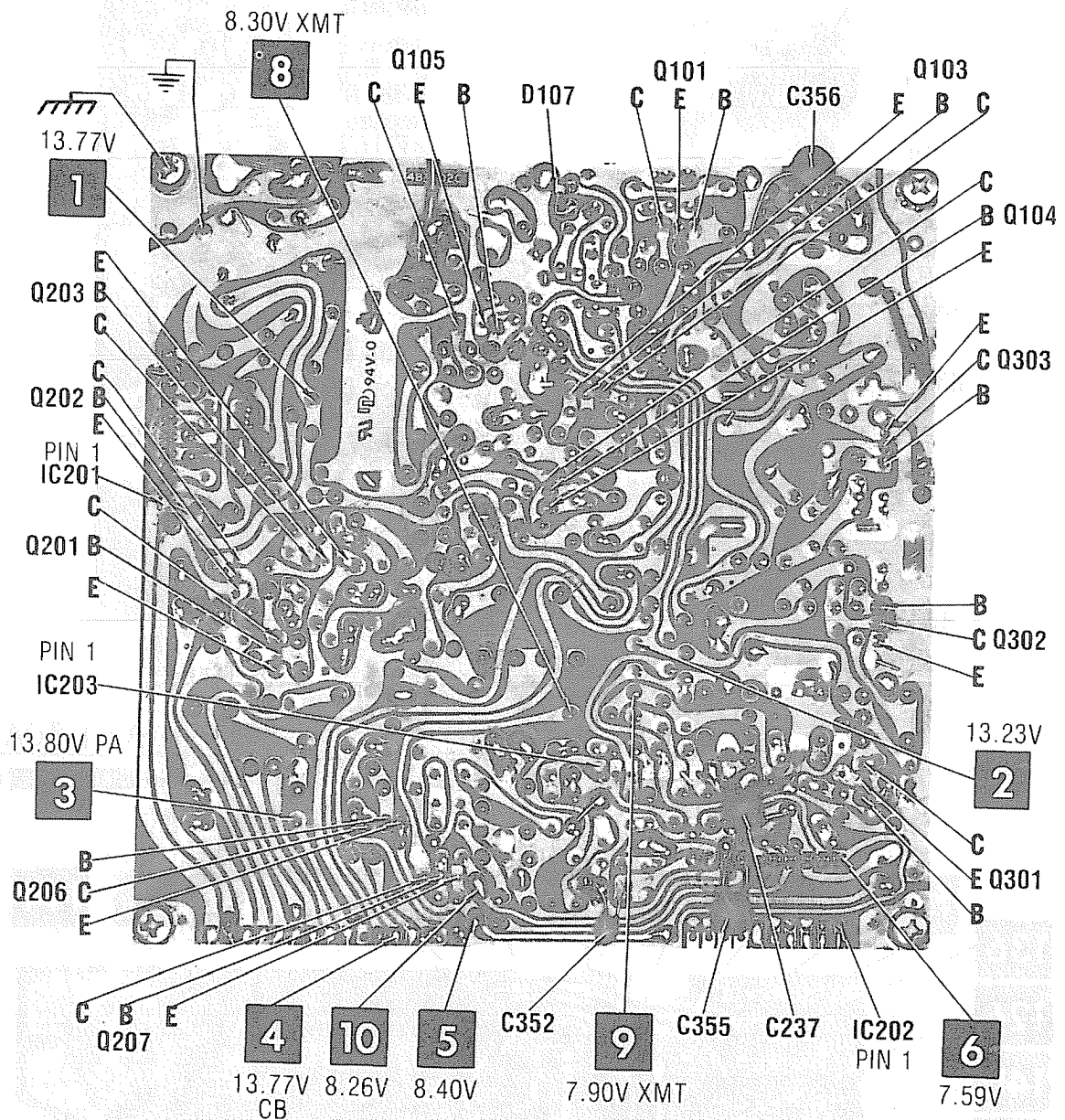
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AWI BOARD

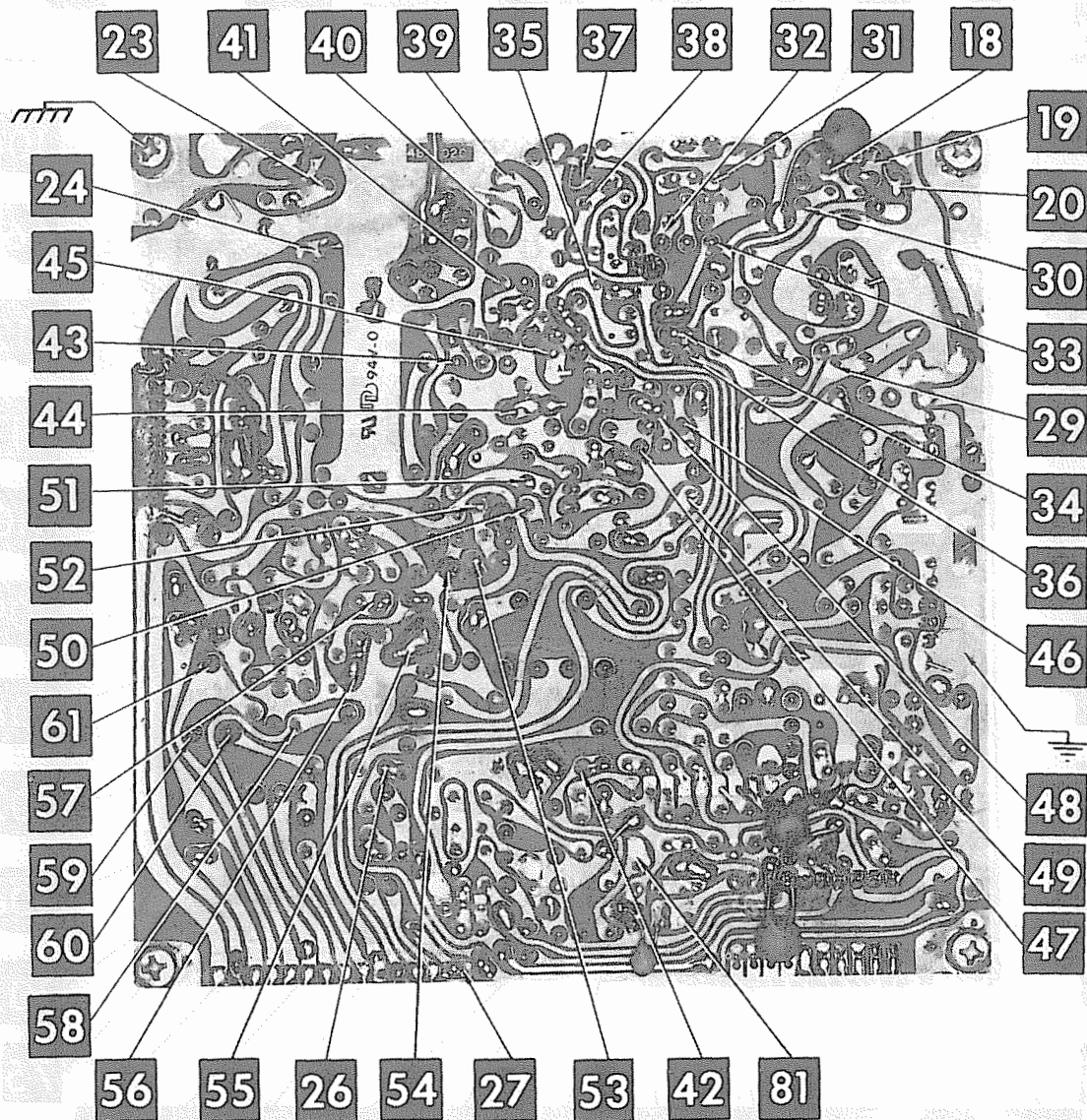
A Howard W. Sams **CIRCUITRACE** Photo



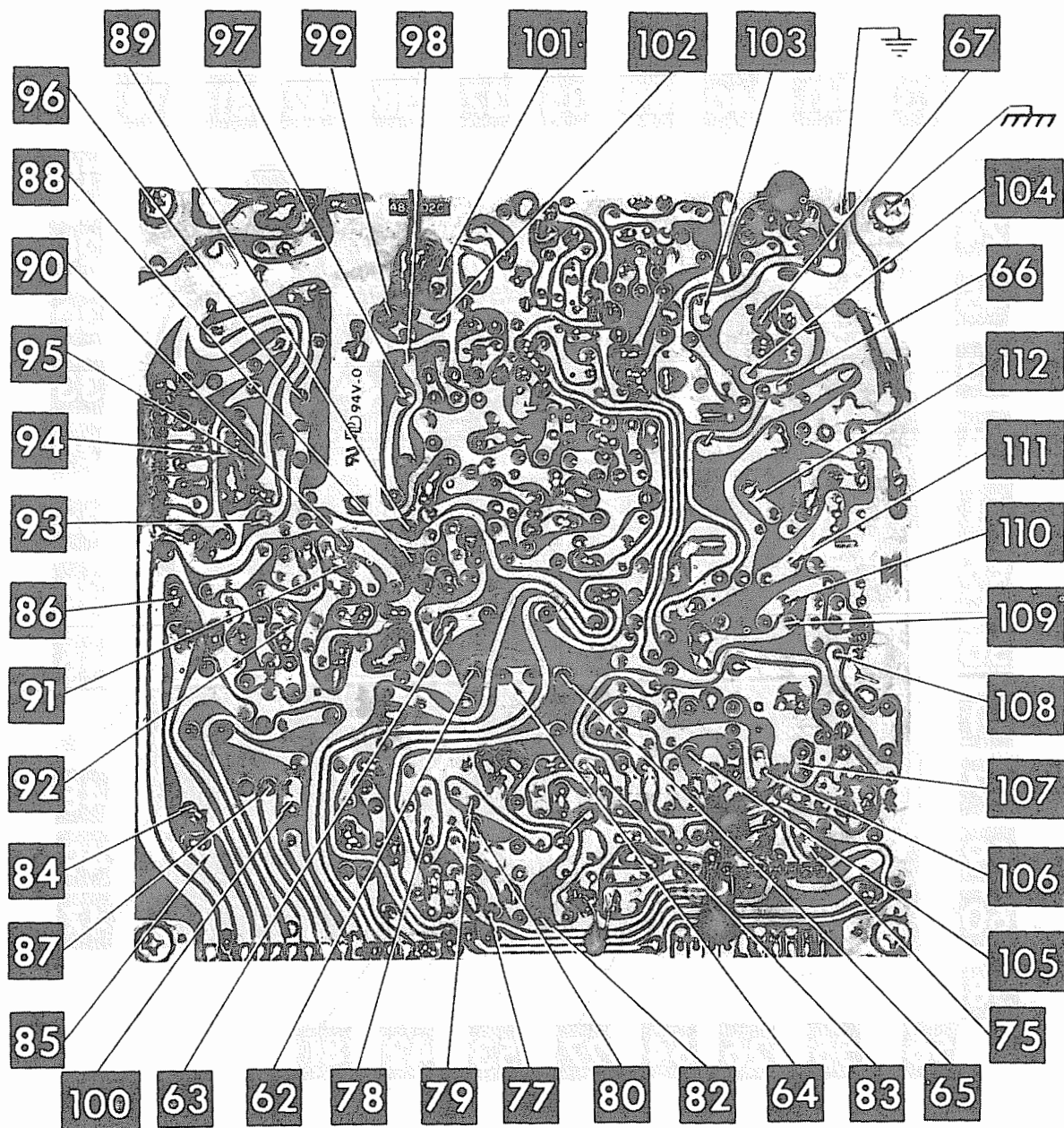
READOUT BOARD



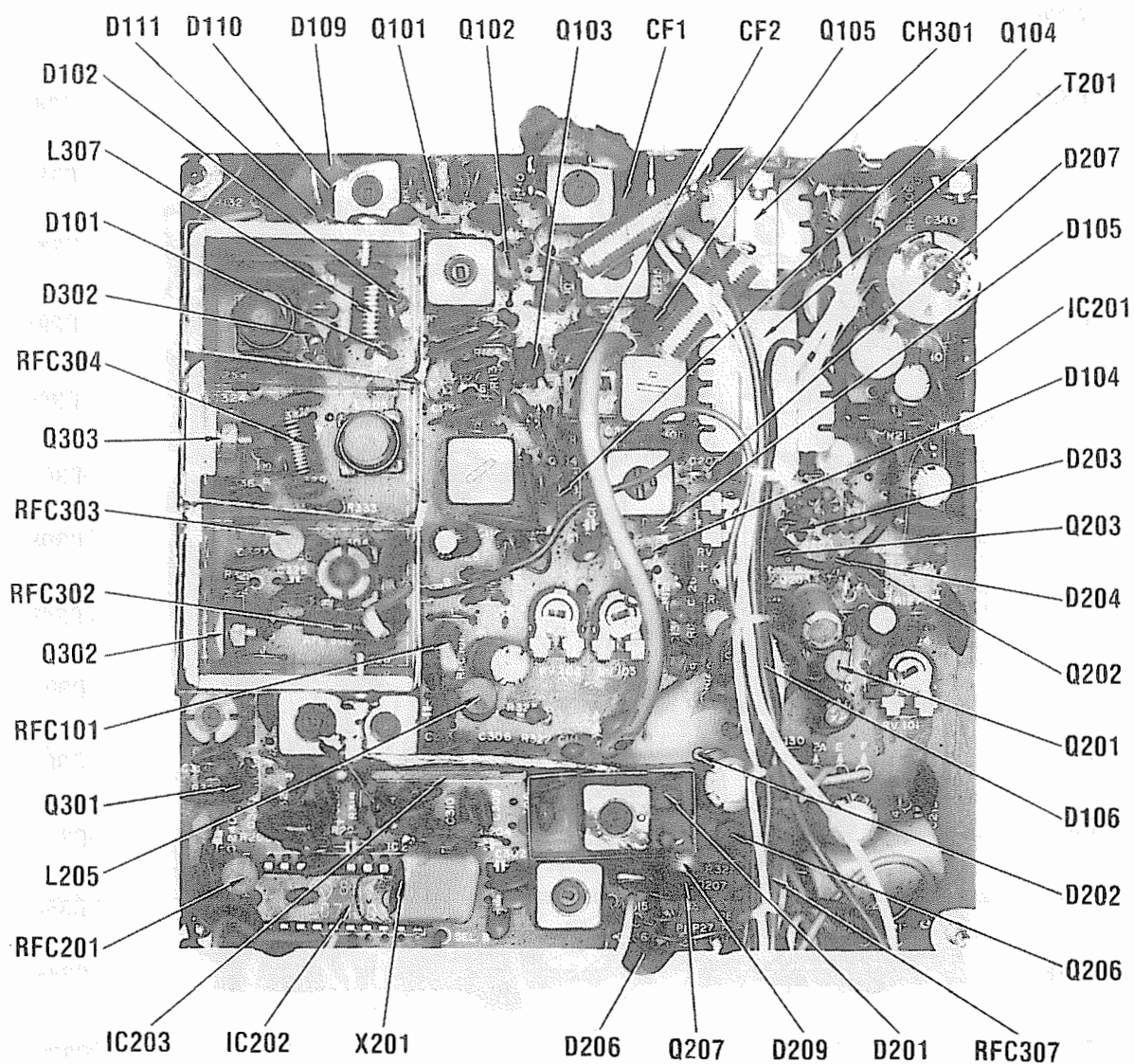
MAIN BOARD



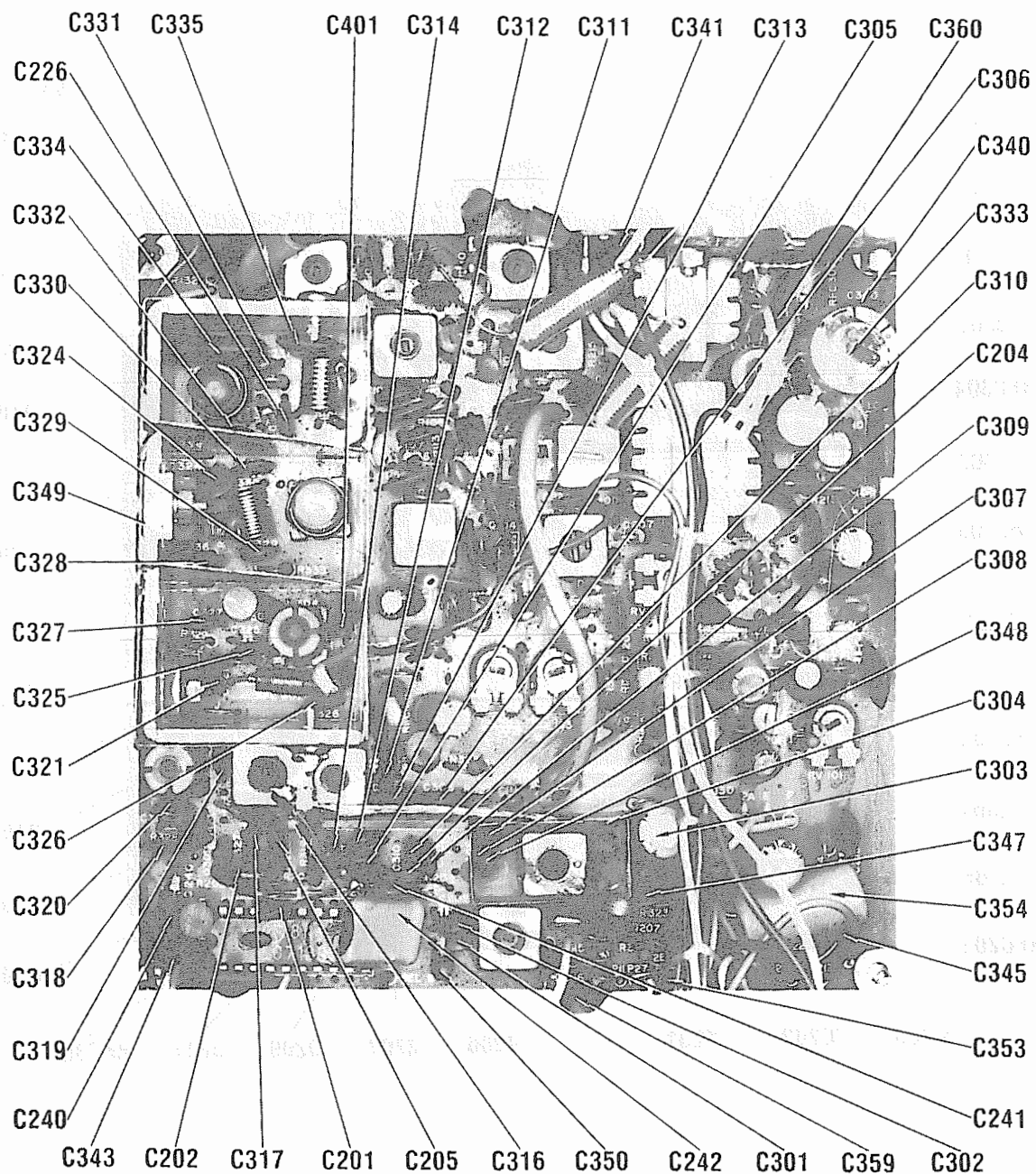
MAIN BOARD



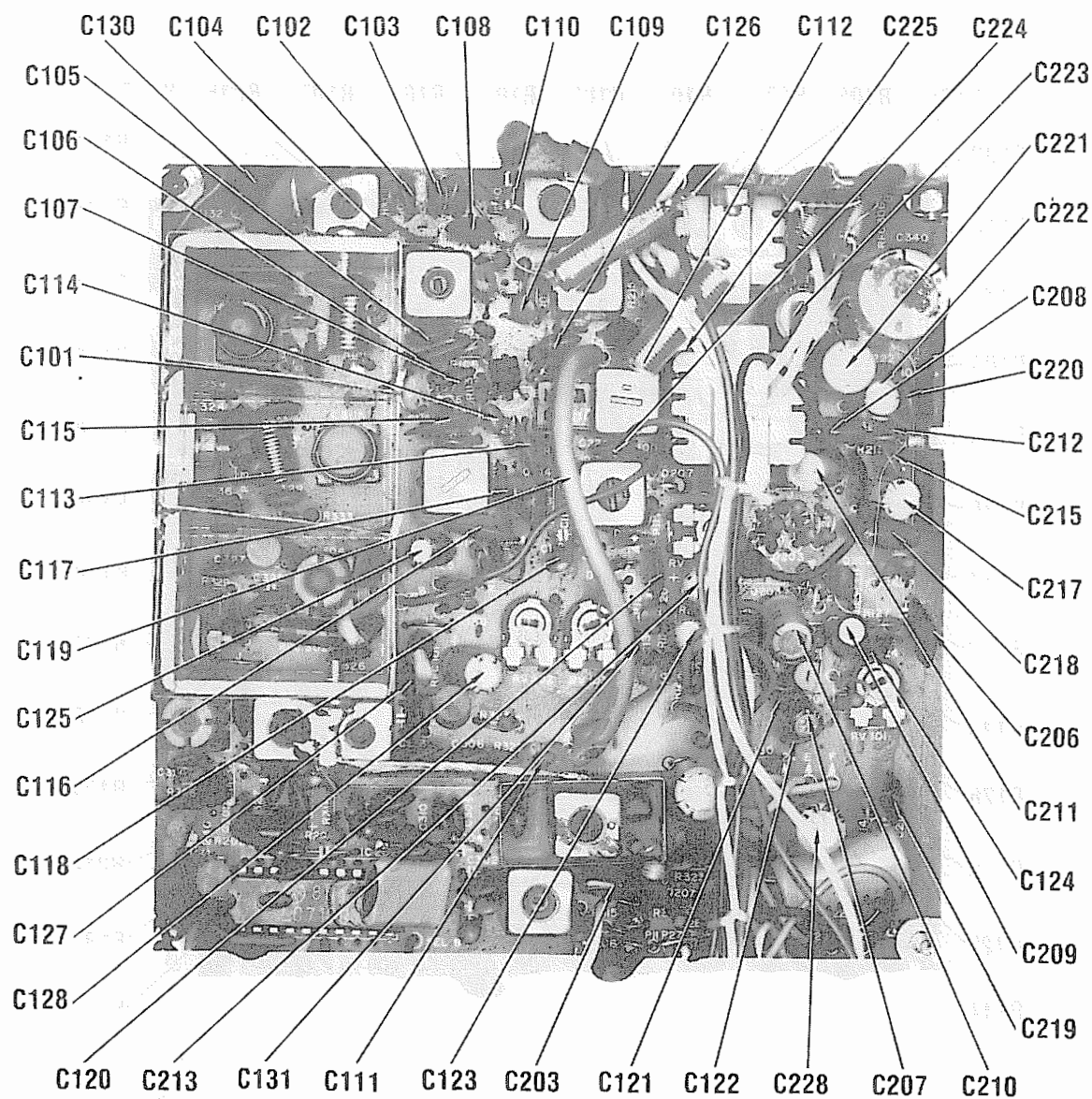
MAIN BOARD



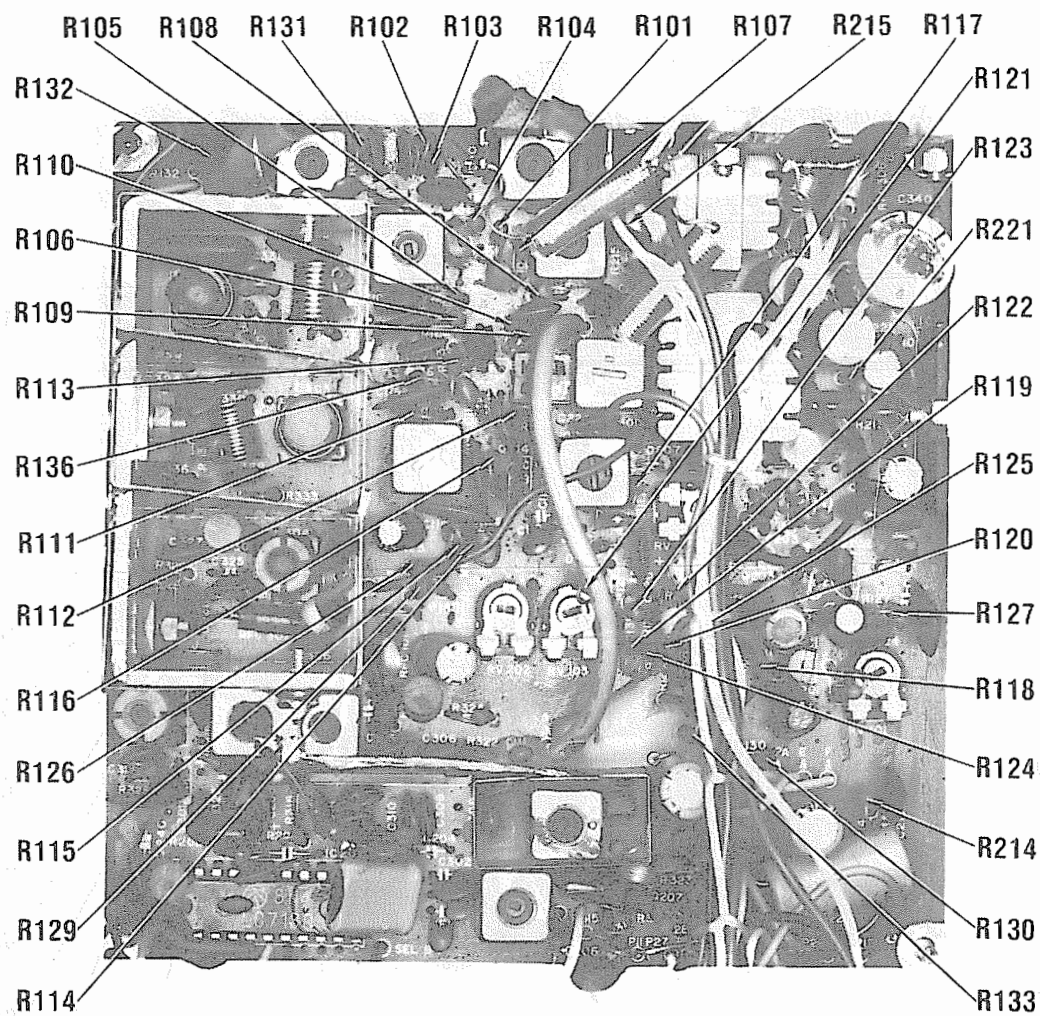
MA IN BOARD



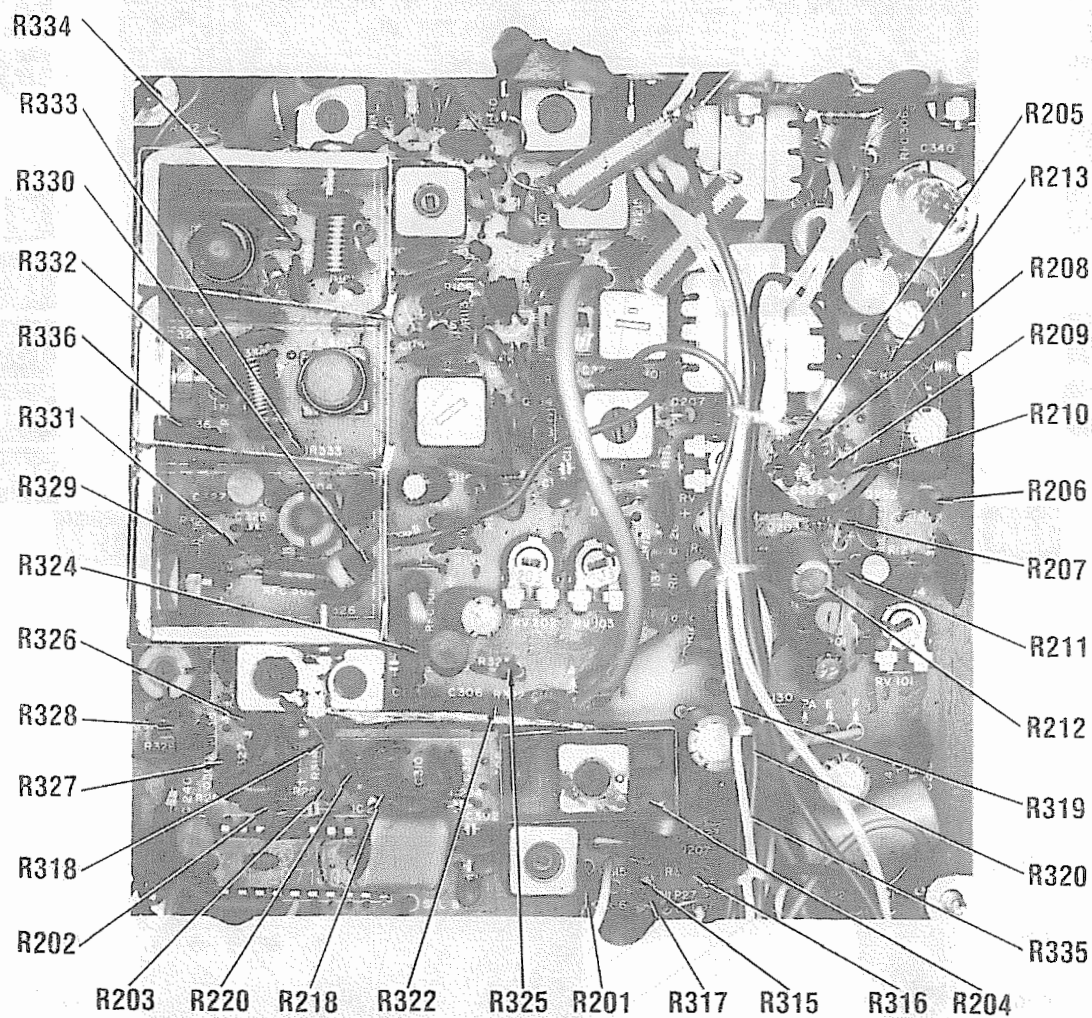
MAIN BOARD



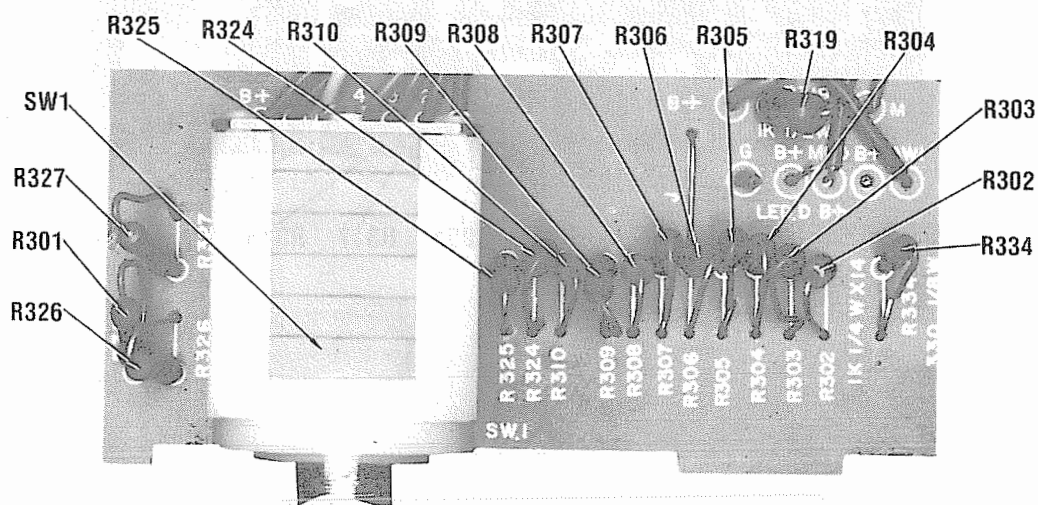
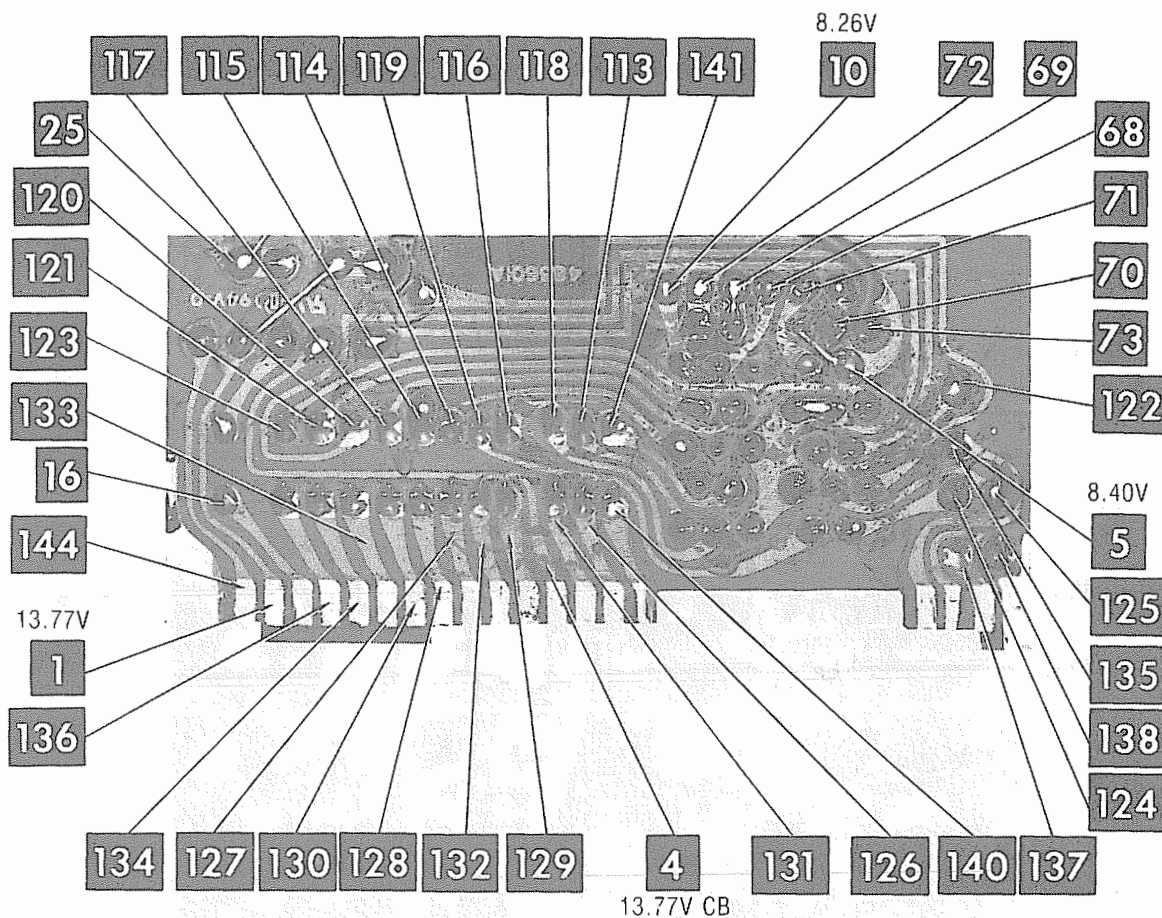
MAIN BOARD



MAIN BOARD

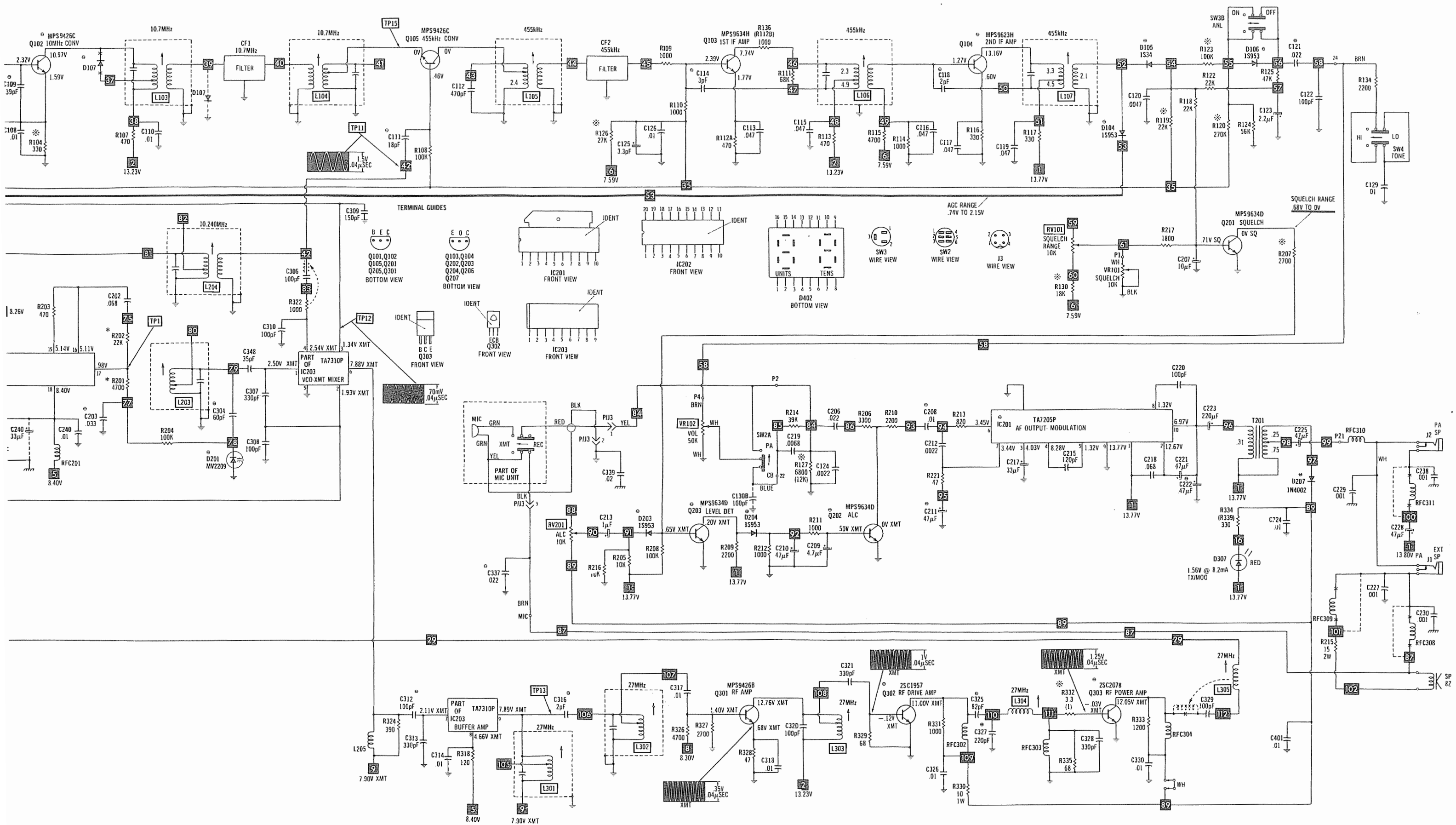


MAIN BOARD



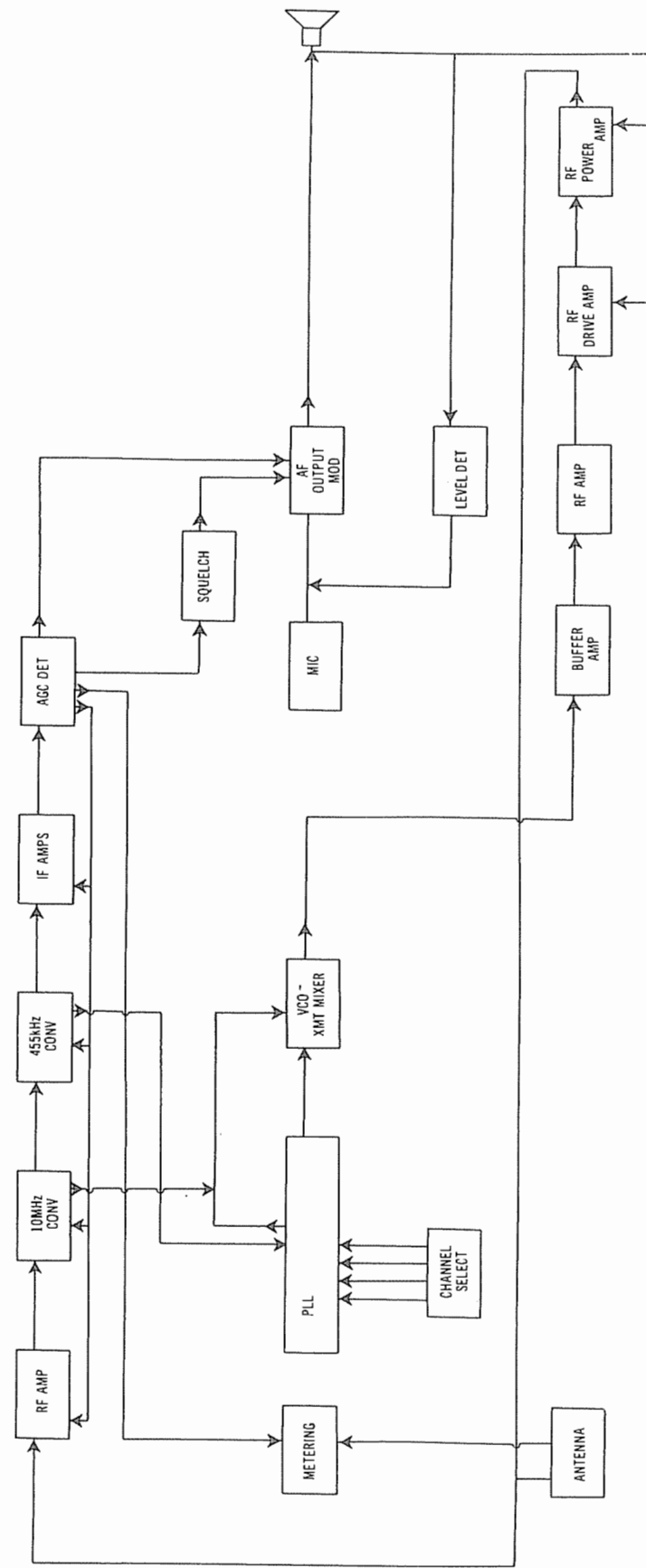
CHANNEL SELECTOR BOARD





MAIN SCHEMATIC

MIDLAND MODEL 150M



BLOCK DIAGRAM

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.	MALLORY PART No.	RAYTHEON PART No.	RCA PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
Q301B	1N60	05-170060	1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-Z9001
Q309	1N60	05-170060	1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-Z9001
Q304	MPS9600I	01-349600	GE-20	PTC136	REN 123A	SK3444/123A	ECG123A	TM123A	WEP736/123A	121-Z9000A
	MPS9600		GE-20	PTC136	REN 123A	SK3444/123A	ECG123A	TM123A	WEP736/123A	121-Z9000A
O101	1S953	05-181555	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
	1S1555	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
	MA150	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D102	1S34	05-180034	1N34AS	PTC207	REN 109	SK3087	ECG109	TM109/**	WEP134/109	103-Z9001
	1N60	05-170060	1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-Z9001
O104	1S953	05-181555	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
	1S1555	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
	MA150	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
O105	1S34	05-180034	1N34AS	PTC207	REN 109	SK3087	ECG109	TM109/**	WEP134/109	103-Z9001
	1N60	05-170060	1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-Z9001
O106	1S1555	05-181555	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
	MA150	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
O107	MA150	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
O109	1N60	05-170060	1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-Z9001
	1S34	05-180034	1N34AS	PTC207	REN 109	SK3087	ECG109	TM109/**	WEP134/109	103-Z9001
O110	MA150	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
	1S1555	05-181555	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
O111	MA150	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
O201	MW2209	05-480209	GE-300	PTC214	REN 614	SK3126	ECG613	TM613	WEP200/613	103-281
	1S1658	05-181658	GE-300	PTC214	REN 614	SK3126	ECG613	TM613	WEP200/613	103-281
D202	MA1091	05-331091	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
O203	MA150	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
	1S1555	05-181555	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D204	1S953	05-181555	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
	1S1555	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
	MA150	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
O206	1S953	05-181555	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
	1S1555	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
	MA150	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
O207	1N4002	05-174002	GE-504A	PTC201	REN 116	SK3311	ECG116	TM116	WEP156	212-76-02
	MR9602	05-429602	GE-504A	PTC201	REN 116	SK3311	ECG116	TM116	WEP156	212-76-02
D209	MA150	05-330150	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
	1S1555	05-181555	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D301A	1N4002	05-174002	GE-504A	PTC201	REN 116	SK3311	ECG116	TM116	WEP156	212-76-02
	MR9602	05-429602	GE-504A	PTC201	REN 116	SK3311	ECG116	TM116	WEP156	212-76-02
D302	1N60	05-170060	1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-Z9001
IC201	TA7205P	02-257205	GE1C-179	PTC780	REN 1155	SK3231/1155	ECG1155	TM1155	WEP949/1155	221-Z9051
	KIA7205P		GE1C-179	PTC780	REN 1155	SK3231/1155	ECG1155	TM1155	WEP949/1155	221-Z9051
	KIA7205AP		GE1C-179	PTC780	REN 1155	SK3231/1155	ECG1155	TM1155	WEP949/1155	221-Z9051
IC202	LC7130	02-507130			REN 1192	SK3445/1192	ECG1192	TM1192	WEP2120/1192	221-Z9061
IC203	TA7310P	02-257310			REN 1192	SK3445/1192	ECG1192	TM1192	WEP2120/1192	221-Z9061
	KIA7310P				REN 1192	SK3445/1192	ECG1192	TM1192	WEP2120/1192	221-Z9061
	AN103	02-010103								
Q101	MPS9426C	01-349426	GE-61	PTC121*	REN 229	SK3246/229	ECG229	TM229	WEP956/229	121-Z9068
	MPS9426		GE-61	PTC121*	REN 229	SK3246/229	ECG229	TM229	WEP956/229	121-Z9068
	ZSC784-0		GE-60*	PTC132*	REN 229*	SK3246/229*	ECG229*	TM229*/**	WEP784	121-Z9021*
Q102	MPS9426C	01-349426	GE-61	PTC121*	REN 229	SK3246/229	ECG229	TM229	WEP956/229	121-Z9068
	MPS9426		GE-61	PTC121*	REN 229	SK3246/229	ECG229	TM229	WEP956/229	121-Z9068
	ZSC784-0		GE-60*	PTC132*	REN 229*	SK3246/229*	ECG229*	TM229*/**	WEP784	121-Z9021*
Q103	MPS9623H	01-349423	GE-20	PTC136	REN 123A	SK3444/123A	ECG123A	TM123A	WEP736/123A	121-Z9000A
	MPS9623I		GE-20	PTC136	REN 123A	SK3444/123A	ECG123A	TM123A	WEP736/123A	121-Z9000A
	MPS9623		GE-20	PTC136	REN 123A	SK3444/123A	ECG123A	TM123A	WEP736/123A	121-Z9000A
Q104	MPS9623H	01-349423	GE-20	PTC136	REN 123A	SK3444/123A	ECG123A	TM123A	WEP736/123A	121-Z9000A
	MPS9623I		GE-20	PTC136	REN 123A	SK3444/123A	ECG123A	TM123A	WEP736/123A	121-Z9000A
	MPS9623		GE-20	PTC136	REN 123A	SK3444/123A	ECG123A	TM123A	WEP736/123A	121-Z9000A
Q105	MPS9426C	01-349426	GE-61	PTC121*	REN 229	SK3246/229	ECG229	TM229	WEP956/229	121-Z9068
	MPS9426		GE-61	PTC121*	REN 229	SK3246/229	ECG229	TM229	WEP956/229	121-Z9068
	ZSC784-0		GE-60*	PTC132*	REN 229*	SK3246/229*	ECG229*	TM229*/**	WEP784	121-Z9021*
Q201	MPS9634D	01-349634	GE-62*	PTC136	REN 199*	SK3854/123AP	ECG199*	TM199*	WEP66/199*	121-972
	MPS9634C		GE-62*	PTC136	REN 199*	SK3854/123AP	ECG199*	TM199*	WEP66/199*	121-972
	MPS9634		GE-62*	PTC136	REN 199*	SK3854/123AP	ECG199*	TM199*	WEP66/199*	121-972
Q202	MPS9634D	01-349634	GE-62*	PTC136	REN 199*	SK3854/123AP	ECG199*	TM199*	WEP66/199*	121-972
	MPS9634C		GE-62*	PTC136	REN 199*	SK3854/123AP	ECG199*	TM199*	WEP66/199*	121-972
	MPS9634		GE-62*	PTC136	REN 199*	SK3854/123AP	ECG199*	TM199*	WEP66/199*	121-972
Q203	MPS9634D	01-349634	GE-62*	PTC136	REN 199*	SK3854/123AP	ECG199*	TM199*	WEP66/199*	121-972
	MPS9634C		GE-62*	PTC136	REN 199*	SK3854/123AP	ECG199*	TM199*	WEP66/199*	121-972
	MPS9634		GE-62*	PTC136	REN 199*	SK3854/123AP	ECG199*	TM199*	WEP66/199*	121-972
Q206	MPS9418T	01-349418	GE-63	PTC178*	REN 297*	SK3854/123AP	ECG297*	TM297*	WEP914/297*	921-340
	MPS9418		GE-63	PTC178*	REN 297*	SK3854/123AP	ECG297*	TM297*	WEP914/297*	921-340
Q207	MPS9681T	01-349681	GE-82	PTC103	REN 159	SK3466/159	ECG159	TM159	WEP62/159	121-Z9003
	MPS9681		GE-82	PTC103	REN 159	SK3466/159	ECG159	TM159	WEP62/159	121-Z9003
Q301	MPS9426B	01-349426	GE-61	PTC121*	REN 229	SK3246/229	ECG229	TM229	WEP956/229	121-Z9068
	MPS9426C		GE-61	PTC121*	REN 229	SK3246/229	ECG229	TM229	WEP956/229	121-Z9068
	MPS9426		GE-61	PTC121*	REN 229	SK3246/229	ECG229	TM229	WEP956/229	121-Z9068

PARTS LIST AND DES

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

SEMICONDUCTORS (Sel

ITEM No.	TYPE No.	MFR. PART No.
Q302	ZSC1957	01-031957
	ZSC2314	01-032314
Q303	ZSC1678	01-032078
	ZSC2078	01-031306
	ZSC1306	
	ZSC495	

* Lead configuration may vary from
/** Also available as exact type re

ELECTROLYTIC CAPAC

ITEM No.	RATING
C123	2.2 50V
C125	3.3 50V
C128	33 16V
C202	.22 16V
C207	10 16V
C209	4.7 25V
C210	47 10V
C211	47 10V
	47 16V
C213	1 50V
C217	33 10V
C221	47 16V
C222	.47 50V
C223	220 16V
C225	47 16V
C228	47 16V
C240	33 10V
C303	47 16V
C333	1000 16V
C354	220 16V

CAPACITORS

ITEM No.	RATING
AWI BOARD	
C341	1
C342	.01
C343	.01
C344	.01
MAIN BOARD	
C101	36 50V
C102	.01
C103	.01
C104	2 50V
	1 50V
C105	.01
C106	.047 50V
C107	.01
C108	.01
C109	39 50V
C110	.01
C111	18 50V
C112	470 50V 5%
C113	.047 50V
C114	3 50V
C115	.047 50V
C116	.047 50V
C117	.047 50V
C118	2 1220 50V
C119	.047 50V
C120	.0047 50V
C121	.022 50V 10%
C122	100 50V 10%
C124	.0022 50V
C126	.01
C127	.01
C129	.01 10%
C130A	.01
C130B	100
C131	.022 10%
C201	.01
C202	.068
C203	.033
	.068 10%
C204	5
C205	.01
C206	.022
C208	.01
	.047 10%
C212	.0022

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.	RAYTHEON PART No.	RCA PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
Q302	2SC1957	01-031957	GE-270	PTC180	REN 295	SK3253/295	ECG295	TM295	WEP913/295	121-880
Q303	2SC2314	01-032314	GE-270	PTC180	REN 295	SK3253/295	ECG295	TM295	WEP913/295	121-880
	25C1678		GE-322	PTC186	REN 235	SK3197/235	ECG235	TM235	WEP785/235	121-29039
	25C2078	01-032078	GE-215	PTC186	REN 235	SK3197/235	ECG235	TM235	WEP785/235	121-29039
	25C1306	01-031306	GE-215	PTC186	REN 235	SK3239/236	ECG235	TM235/**	WEP785/235	121-29039
	25C495		GE-270	PTC180	REN 295	SK3253/295	ECG295	TM295	WEP913/295	121-880

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

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C123	2.2 50V	00-132265	PC2-100	VTT2R2A50	QV1-21	EV-1617.1
C125	3.3 50V	00-132460	MLW4-50	VTT3R3A50	QV1-25	EV-1618.1
C128	33 16V	00-132510	PC30-25	VTT33025	QV1-63	EV-1325
C202	.22 16V	03-007016		70C224M050EL	Q0T1-10	S050-R229
C207	10 16V	00-132115	PC10-25	VTT10B25	QV1-41	EV-1222
C209	4.7 25V	00-132595	PC5-50	VTT4R7B50	QV1-31	EV-1619.1
C210	47 10V	00-132555	PC50-16	VTT47016	QV1-73	EV-1226
C211	47 10V		PC50-16	VTT47016	QV1-73	EV-1226
	47 16V	00-132630	PC50-16	VTT47016	QV1-73	EV-1226
C213	1 50V	00-132055	PC1-50	VTT1A50	QV1-11	EV-1615
C217	33 10V	00-132505	PC30-25	VTT33B10		EV-1225
C221	47 16V	00-132630	PC50-16	VTT47016	QV1-73	EV-1226
C222	.47 50V		PC1-50	VTT47016	QV1-3	EV-1610
C223	220 16V	00-132380	PC250-25	VTT220H16	QV1-117	EV-1240
C225	47 16V	00-132630	PC50-16	VTT47016	QV1-73	EV-1226
C228	47 16V	00-132630	PC50-16	VTT47016	QV1-73	EV-1226
C240	33 10V		PC30-25	VTT33B10	QV1-73	EV-1225
C303	47 16V	00-132630	PC50-16	VTT47016	QV1-73	EV-1226
C333	1000 16V	00-132210	PC1000-16	VTT1000M16	QV1-183	EV-1261
C354	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240

CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA			
			CORNELL- DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
	AWI BOARD					
C341	1			MAG5001		
C342	.01			MAG5011		
C343	.01			MAG5011		
C344	.01			MAG5011		
	MAIN BOARD					
C101	36 50V			CN0439		10TCC-Q39
C102	.01			MAG5011		
C103	.01			MAG5011		
C104	2 50V			MAG5011		
	1 50V			CN0510		10TCC-V10
C105	.01			MAG5011		
C106	.047 50V			MAG5015		
C107	.01			MAG5011		
C108	.01			MAG5011		
C109	39 50V			CN0439		10TCC-Q39
C110	.01			MAG5011		
C111	18 50V			CN0418		10TCC-Q18
C112	470 50V 5%		CD15FD471J03	SX347	QW1-42	MMB-471
C113	.047 50V			MAG5015		
C114	3 50V		NP03P3	CN0533		10TCC-V33
C115	.047 50V			MAG5015		
C116	.047 50V			MAG5015		
C117	.047 50V			MAG5015		
C118	2 1/2 50V	06-000085		*		10TCR-V30
C119	.047 50V			MAG5015		
C120	.0047 50V		WMF1047	M192P4729R8	QFT2-63	1FT-047
C121	.022 50V 10%		OPMS2522	M192P2239R8	QFT2-127	1FT-S22
C122	100 50V 10%		GP100	GP310	QCT2-24	10TS-T10
C124	.0022 50V		OPMS6022	M192P2229R8	QFT2-27	1FT-022
C126	.01			MAG5011		
C127	.01			MAG5011		
C129	.01 10%		WMF151	EWFI1A110	QFT2-91	1FT-S10
C130A	.01			MAG5011		
C130B	100		GP100	GP310	QCT2-24	10TS-T10
C131	.022 10%		OPMS2522	M192P2239R8	QFT2-127	1FT-S22
C201	.01			MAG5011		
C202	.068		WMF1568	EWFI1A168	QF1-195	1PB-S68
C203	.033		OPMS6533	M192P3339R8	QFT2-149	1FT-S33
	.068 10%		WMF1568	EWFI1A168	QF1-195	1PB-S68
C204	5		NP06PB	CN0568		10TCC-V68
C205	.01			MAG5011		
C206	.022		OPMS2522	M192P2239R8	QFT2-127	1FT-S22
C208	.01		WMF151	EWFI1A110	QFT2-91	1FT-S10
	.047 10%		OPMS2547	EWFI1A147	QFT2-171	1FT-S47
C212	.0022		OPMS6022	M192P2229R8	QFT2-27	1FT-022

MIDLAND MODEL 150M

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

ITEM No.	RATING	MFCR. PART No.	REPLACEMENT DATA				
			CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.		
					Q-LINE	GENERAL LINE	
C215	120 50V	06-000085		CN0312		10TCC-T12	
C218	.068		WMF156B	EWFI1A168	QF1-195	1PB-S68	
C219	.0068		WMF1068	EWFI1A268	QFT2-73	1FT-D68	
C220	100 10%		GP100	GP310	QCT2-24	10TS-T10	
C224	.01			MAG5011			
C226	.01			MAG5011			
C227	.01			MAG5011			
C229	.01			MAG5011			
C230	.01			MAG5011			
C231	.01			MAG5011			
C232	.01			MAG5011			
C233	.01			MAG5011			
C234	.01			MAG5011			
C235	.01			MAG5011			
C236	.01			MAG5011			
C237	.001			GP210		QCT2-41	10TS-U10
C238	.01			MAG5011			
C240	.01			MAG5011			
C241	47			HP047	CN0447	QCC2-26	10TCC-Q47
C242	47			NP047	CN0447	QCC2-26	10TCC-Q47
C301	47			HP047	CN0447		10TCC-Q47
C302	39				CN0439	QCC2-26	10TCC-Q39
C304	60 NP0 5%			NP068	CN0468		10TCC-Q68
C305	100 10%			GP100	GP310	QCT2-24	10TS-T10
C306	100 10%			GP100	GP310	QCT2-24	10TS-T10
C307	330 10%			GP330	GP333	QCT2-33	10TS-T33
C308	100 10%			GP100	GP310	QCT2-24	10TS-T10
C309	150 10%				CN0315		10TCC-T15
C310	100 10%			GP100	GP310	QCT2-24	10TS-T10
C311	.01				MAG5011		
C312	100 10%			GP100	GP310	QCT2-24	10TS-T10
C313	330 10%			GP330	GP333	QCT2-33	10TS-T33
C314	.01				MAG5011		
C316	2 H220				*		10TCR-V30
C317	.01				MAG5011		
C318	.01				MAG5011		
C319	.01				MAG5011		
C320	100 10%			GP100	GP310	QCT2-24	10TS-T10
C321	330 10%			GP330	GP333	QCT2-33	10TS-T33
C322	.01				MAG5011		
C323	.01			MAG5011			
C324	.01			MAG5011			
C325	82 10%			GP482		10TS-Q82	
C326	.01			MAG5011			
C327	220 10%			GP322		10TS-T22	
C328	330 10%		GP330	GP333	QCT2-33	10TS-T33	
C329	100 10%		GP100	GP310	QCT2-24	10TS-T10	
C330	.01			MAG5011			
C331	1			CN0510		10TCC-V10	
C332	270 10%		CD15FD271J03	SX327	QW1-37	MMB-271	
C334	390 10%		CD15FD391J03	SX339	QW1-41	MMB-391	
C335	180 10%		CD15FD181J03	SX318	QW1-33	MMB-181	
C336	18			CN0418		10TCC-Q18	
C337	.022		MGP025	TA125		TG-S25	
C338	.02			MAG5012			
C339	.02			MAG5012			
C340	.01			MAG5011			
C341	.01			MAG5011			
C342	.047			MAG5011			
C343	.047			MAG5015			
C344	27			MAG5015			
C345	1			CN0427		10TCC-Q27	
C346	5			CN0510		10TCC-V10	
C347	.01		NP06PB	CN0568		10TCC-V68	
C348	36			MAG5011			
C349	.01			CN0439		10TCC-Q39	
C350	5		NP06PB	MAG5011			
C352	10		NP010	CN0568		10TCC-V68	
C353	.01			CN0410		10TCC-Q10	
C355	82 10%			MAG5011	QCC2-15		
C356	.01			GP482		10TS-Q82	
C357	.01			MAG5011			
C358	.01			MAG5011			
C359	.01			MAG5011			
C360	.01			MAG5011			
C401	.01			MAG5011			

* 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	RESISTANCE	REPLACEMENT DATA		
			MFR. PART No.	MALLORY PART No.	TRW PART No.
RV101	Squelch Range	10K	77-164019	RVA0911H103	U260R103B
RV103	Signal Meter	20K	77-164018	RVA0911H253	U260R253B
RV201	ALC	10K	77-164019	RVA0911H103	U260R103B
RV202	Power Meter	20K	77-164018	RVA0911H253	U260R253B
RV301	AWI	10K	77-164019	RVA0911H103	U260R103B
VR101	Squelch	10K	77-160016		
VR102	Volume/Power Switch	50K	77-160011		
VR103	RF Gain	50K	77-166013		

PARTS LIST AND DESCRIPTION (CONTINUED)

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

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L101	Receive Antenna (27MHz)	77-176069			
L102	RF (27MHz)	77-176071	340006A		
L103	Converter (10.7MHz)	77-090024	340007A		
L104	Converter (10.7MHz)	77-090024	340007A		
L105	IF (455kHz)	77-090017	340008		
L106	IF (455kHz)	77-090018	340009		
L107	IF (455kHz)	77-090019	340010		
L203	VCO	77-176055	340035		
L204	Ref. Oscillator	77-090024	340007		
L205	RF Choke (.45uH)	77-178042	045K		
L301	Buffer (27MHz)	77-176055			
L302	Buffer (27MHz)	77-090021			
L303	RF (27MHz)	77-090022			
L304	RF Driver (27MHz)	77-090023			
L305	Final (27MHz)	77-176072			
L306	Loading Final (27MHz)	77-176073			
L307	RF Choke	77-176053			
RFC101	RF Choke (1.5uH)	77-178041			
RFC201	RF Choke (25uH)	77-178037	250K		
RFC302	RF Choke (1uH)	77-178036			
RFC303	RF Choke		6R8K	70F686A1	
RFC304	RF Choke (.5uH)	77-178039			
RFC305	RF Choke (.8uH)	77-178040			
RFC306	RF Choke (.8uH)	77-178040			
RFC307	RF Choke				
RFC308	RF Choke				
RFC309	RF Choke				
RFC310	RF Choke				
RFC311	RF Choke				

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.	
CH301	1.35A	.1	.52mH	77-090025			

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T201	2.5	1 8 2 13	77-096010			

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3" PM, 8 Ohms	77-060005	30A0528R	

MIDLAND MODEL 150M

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.	
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER
F1	2A Quick Acting			AGC2	HRK	312002	150145

MISCELLANEOUS

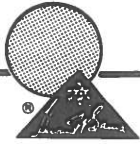
ITEM No.	PART NAME	PART No.	NOTES
CF1	Filter	77-179014	10.7MHz (Ceramic)
CF2	Filter	77-179015	455kHz (Ceramic)
D307	LED	77-202013	Xmt (TLR104) (1.56V @ 8.2mA)
D308	LED	77-202013	Antenna Warning (TLR104) (2.06V @ 13.6mA)
D402	LED	77-202014	Channel Display (TH2010P) (Each segment supplied with 1.93V @ 11.7mA)
J1	Jack	77-153001	Ext. Spkr.
J2	Jack	77-153001	PA Spkr.
J3	Jack	77-159036	Microphone (4-Pin)
J4	Jack	77-153002	DC Power W/Lug Plate
J5	Jack	77-159035	Antenna
M1	Meter	77-200008	S/R/F
PL1	Lamp		Meter (5.14V @ 57mA) (Part of Meter Assembly)
SW1	Switch	77-180015	Channel Selector
SW2	Switch	77-183018	PA/CB
SW3B	Switch	77-183018	AIL
SW4	Switch	77-183018	Tone
X201	Crystal	77-128006	10.240MHz
	Cord	77-034012	DC (With Plug)
	Microphone	77-038017	Assembly
	P.C. Board	77-070025	AWI
	P.C. Board	77-070024	Channel Selector
	P.C. Board	77-075046	LED Display (With Components)
	P.C. Board	77-070023	LED Display

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

ITEM	PART No.	ITEM	PART No.
Cover, Bottom	77-013016	Knob, Channel Selector	77-115026
Cover, Top	77-011010	Knob, Volume, Squelch, RF Gain	77-110019
Chassis, Front Body	77-015003	Lens, LED Display	77-020024
Chassis, Main Body	77-015002	Panel, Front Escutcheon	77-010041

WIRING DATA

Cable (Speaker)(Unshielded).....	Use BELDEN No. 8782 (AWG24)(4 colors)
Shielding Strap.....	Use BELDEN No. 8660 (3/16" width)
Hook-up Wire (General Use).....	Use BELDEN No. 8524 (AWG22)(13 colors)
Hook-up Wire (Shielded).....	Use BELDEN No. 8401 (Braided Shield)(1 conductor)(AWG25)
	Use BELDEN No. 8421 (Spiral Shield)(1 conductor)(AWG25)
	Use BELDEN No. 8737 (Spiral Shield)(2 conductor)(AWG22)
Coax (Transmission Line).....	Use BELDEN No. 8216 (RG-174/U, 50 ohms)
Microphone Cable (Coiled).....	Use BELDEN No. 9466 (3 conductor-1 shielded)(6 ft.)(AWG28)



PHOTOFACT[®] with

CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index

NOTE

Repair or adjustment of transmitter circuits must be under supervision of a person with first-or second-class radiotelephone license.

(Refer to FCC Rules and Regulations Part 95, Subpart C & D.)

The frequency of the transmitter should be checked periodically with a secondary frequency standard to insure proper and legal operation.

Best results will be obtained when adjusting the final RF output circuit if the antenna normally used is connected and the chassis is as nearly in the cabinet as possible.

Connect either 50-ohm dummy load or the normally used antenna system.



MODEL 3-5817A

MANUFACTURER'S SPECIFICATIONS

RECEIVER

MAXIMUM FREQUENCY COVERAGE:	26.965 to 27.405 MHz.
IF FREQUENCIES:	455 kHz, 10.695 MHz.
SENSITIVITY:	To produce 500 MW audio output minimum; less than .5uV.
ADJACENT CHANNEL SELECTIVITY:	Better than 60 db at 10 kHz.
IMAGE REJECTION RATIO:	Better than 60 db.
PA/AUDIO OUTPUT POWER [power to external speaker]:	Better than 4.0 watts. At 10% THD
SQUELCH RANGE [SENSITIVITY]:	0.5 to 2000 uV nominal.
VNS [Variable noise Suppression]:	Signal to noise improvment; minimum 15 db.

TRANSMITTER

FREQUENCY RESPONSE:	400 Hz to 2.5 kHz.
FREQUENCY COVERAGE:	26.965 to 27.405 MHz.
TRANSMIT POWER OUTPUT [RF [Radio Frequency] power to antenna]:	4 watts maximum as limited by FCC Rules and Regulations at 13.8 volt DC.
MODULATION CAPABILITY:	Factory pre-set limit 85-100% maximum.
MIC POWER AMPLIFIER:	Modulation sensitivity control range 20 db $\pm$ 3 db
FREQUENCY TOLERANCE:	Better than .003% max.

GENERAL ELECTRIC MODEL 3-5817A

Courtesy of the Manufacturer

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

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9CE1089

ALIGNMENT INSTRUCTIONS

CAUTION: Use an 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 a 50-ohm dummy load or antenna before keying transmitter. Connect microphone.

Suggested Alignment Tools: GC ELECTRONICS:
 CT1.....5000
 T1 thru T8.....9440
 L3.....9300,9302,9304
 T9,T10,T11.....5000,8728,5009

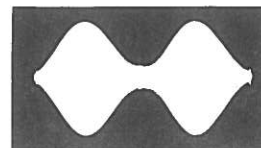


FIGURE 1

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of frequency counter to TP1 (IC2 Pin 3).	Ch. 19		Check for 10.240MHz. $\pm 150\text{Hz}$.
Input of DC meter to TP8 (Junction R11 and R15).	Ch. 1	T1	Adjust for $2.0 \pm .2$ volts. Check for approximately 4.3 volts on Ch. 40.
Input of DC meter to TP8 (Junction R11 and R15).	Ch. 1, XMT	CT1	Adjust for $2.0 \pm .2$ volts. Check for approximately 4.3 volts on Ch. 40.
Input of frequency counter to TP2 (Junction C14 and C28).	Ch. 19		Check for 16.490MHz. Check all channels. (See Truth Chart for correct frequencies).
Input of frequency counter to TP2 (Junction C14 and C28).	Ch. 19, XMT		Check for 13.5925MHz. 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. Preset controls as follows, unless otherwise noted: VNS MINIMUM, RF Gain maximum, Squelch MINIMUM, VFF Off.

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Output of signal generator to TP3 (Q12 Base). 455kHz, 1000Hz @ 30% modulation	Ch. 19	T11, T10	Adjust for maximum output.
Output of signal generator to antenna input. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19	T9, T8, T7, T6, T5	Adjust for maximum output. If necessary readjust T10 and T11 for maximum.

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication.
Preset controls as follows, unless otherwise noted:
VNS MINIMUM, RF Gain maximum, Squelch MINIMUM, VFF Off.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 10uV.	Ch. 19 RF Gain MINIMUM	R94	RF GAIN RANGE Adjust for a signal to noise ratio of 10db.
Output of signal generator to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 1000uV.	Ch. 19 Squelch maximum	RV1	SQUELCH RANGE Adjust so squelch just breaks.
Output of signal generator to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19 Auto SWR/TX/RX in TX/RX position.	RV3	RX SIGNAL METER Adjust for 9 on RX SIGNAL scale on meter.

TRANSMITTER ALIGNMENT

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

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of RF wattmeter to antenna input.	Ch. 19, XMT	T2, T3, T4, L3	Adjust for maximum.
Input of RF wattmeter to antenna input.	Ch. 19, XMT	L3	Adjust for 4 watts maximum.

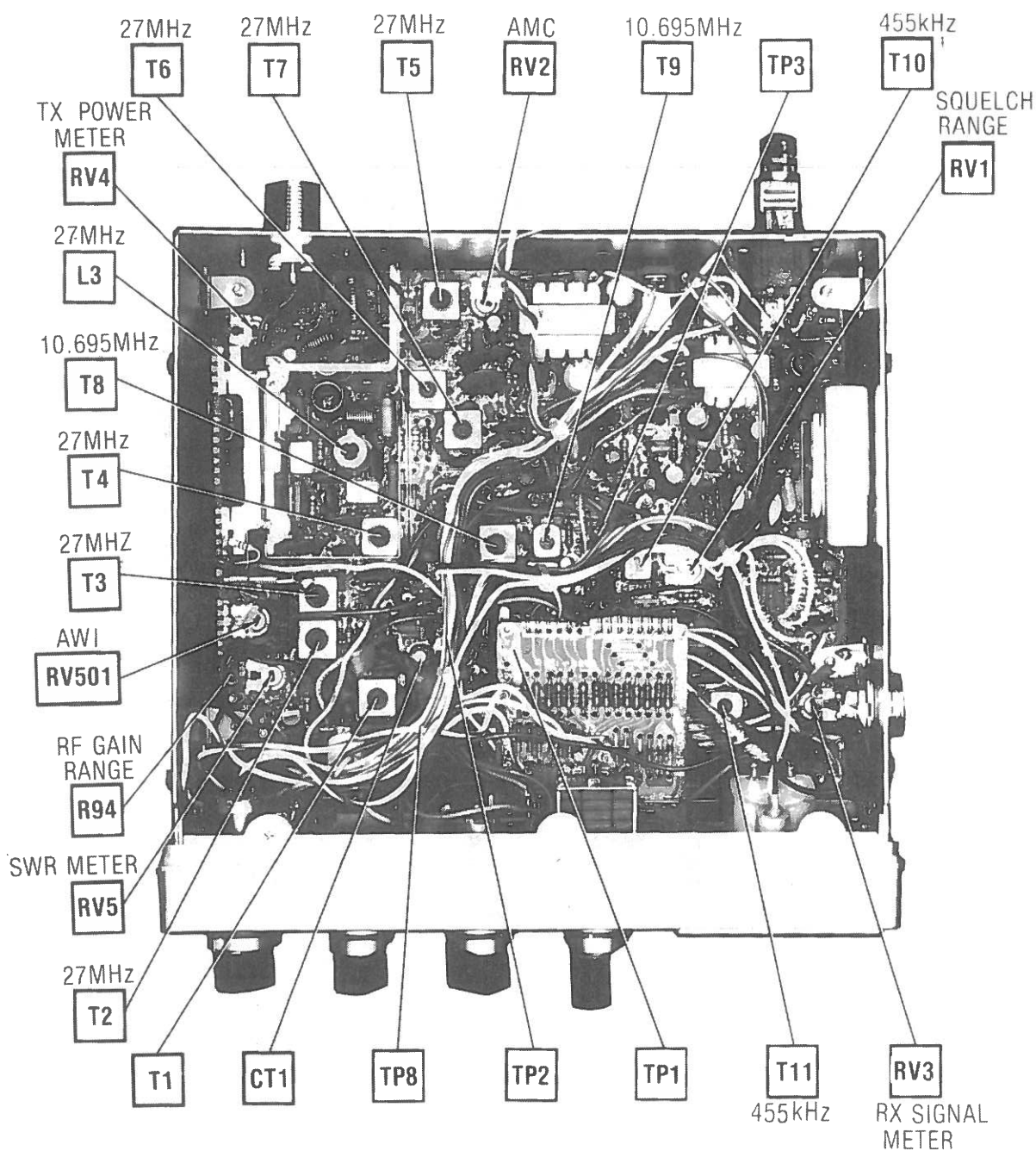
TRANSMITTER ADJUSTMENTS

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

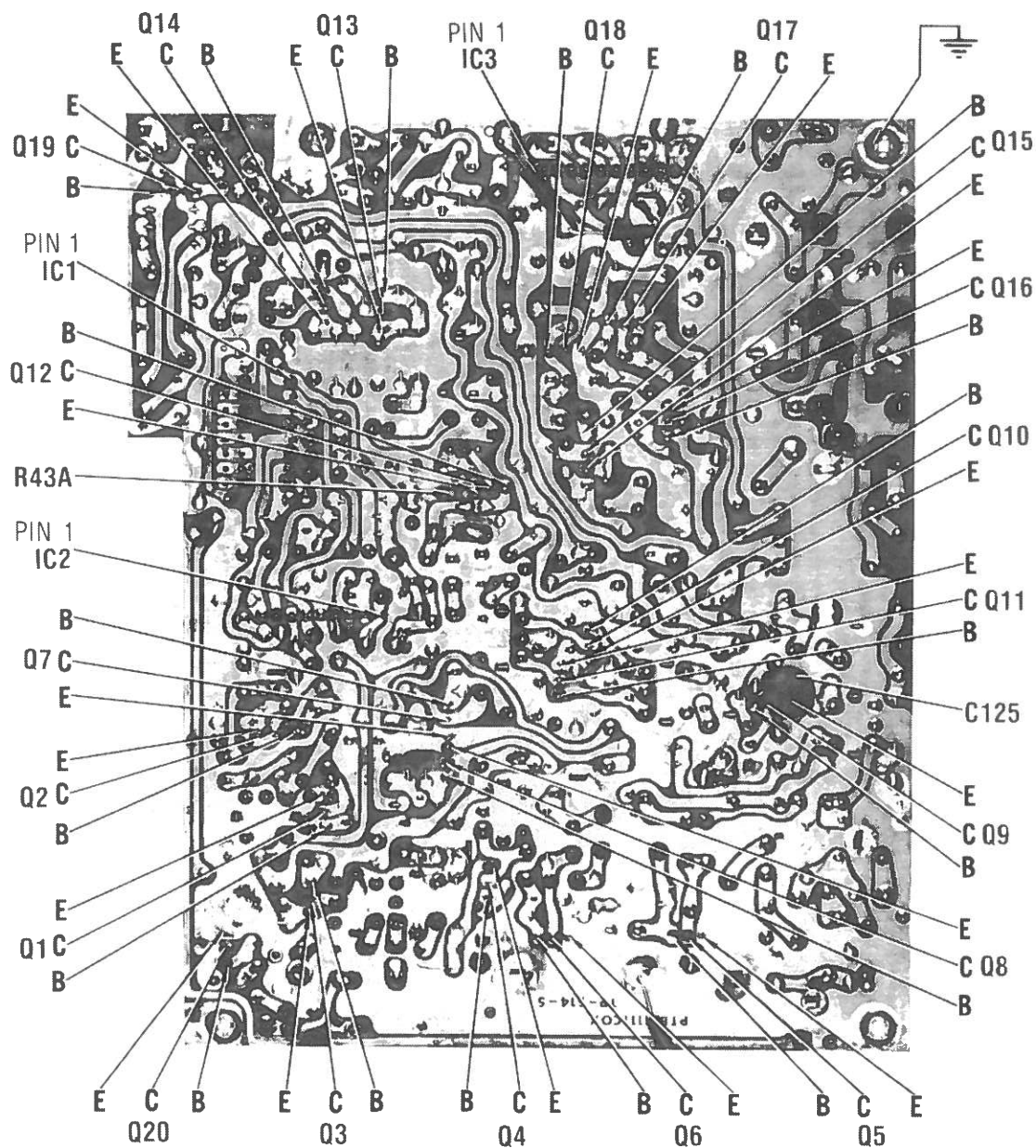
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of oscilloscope or modulation meter to antenna input. Inject a 1000Hz, 20mV signal at MIC input.	Ch. 19, XMT	RV2	AMC Adjust for 100% modulation maximum. (See Figure 1.)
Input of RF wattmeter to antenna input.	Ch. 19, XMT	RV4	TX POWER METER Adjust so TX POWER meter agrees with RF wattmeter.
Connect a 150 Ohm 5 watt non-inductive resistor to antenna input.	Ch. 19, XMT Auto SWR/TX/RX switch to TX/RX position.	RV501	AWI Adjust so AWI indicator just lights.
Connect a 150 Ohm 5 watt non-inductive resistor to antenna input.	Ch. 19, XMT Auto SWR/TX/RX switch to AUTO SWR position.	RV5	SWR METER Adjust for 3 on SWR scale on meter.

TRUTH CHART

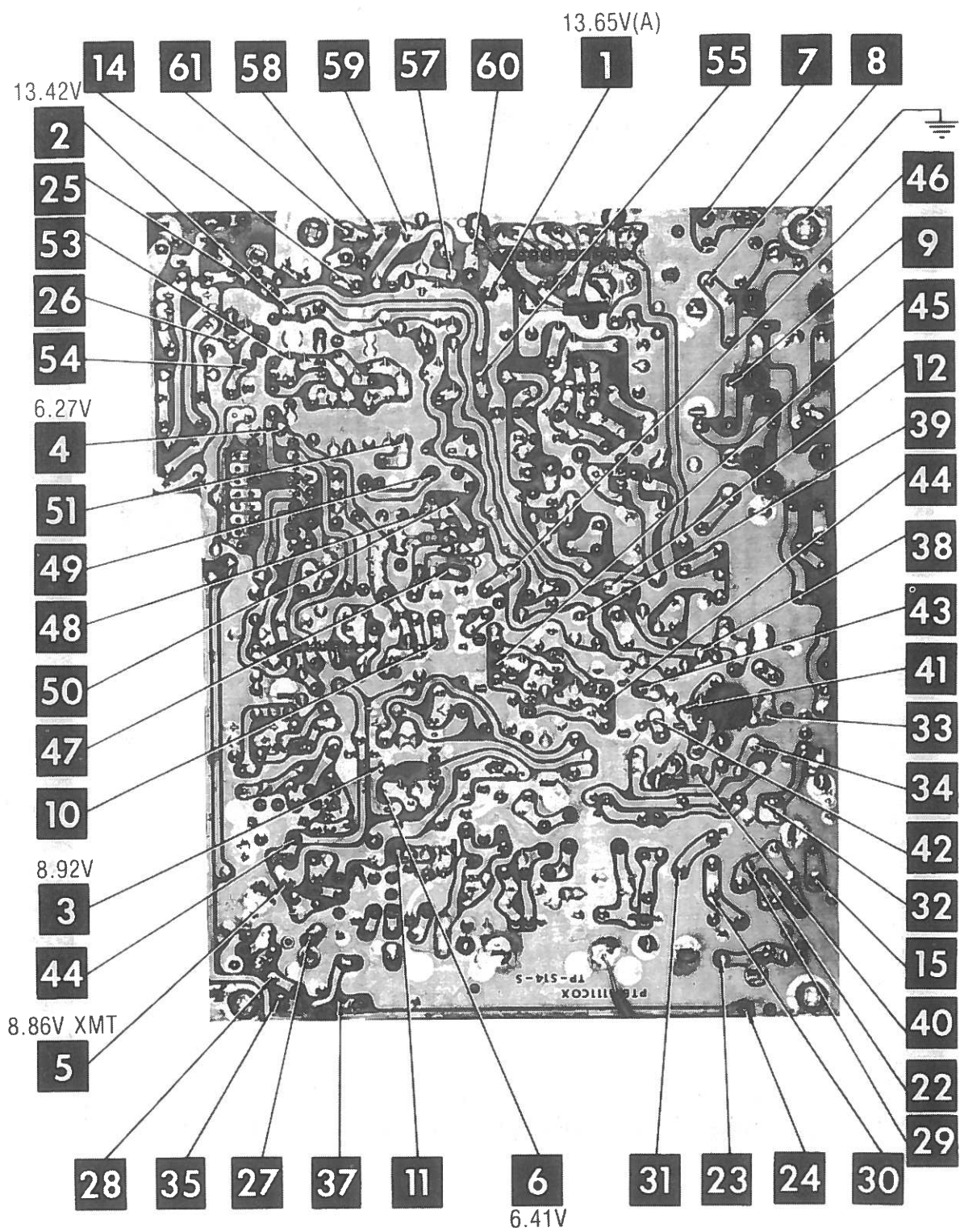
CHANNEL	1 = 6.27 Volts 0 = 0 Volts								REC VCO OUTPUT IN MHz AT TP2	XMT VCO OUTPUT IN MHz AT TP2	VCO OUTPUT IN MHz AT
	PROGRAM DIVIDER										
	IC1 PINS										
	9	10	11	12	13	14	15				
1	1	0	0	1	0	1	0		16.270	13.4825	
2	1	0	0	1	0	0	1		16.280	13.4875	
3	1	0	0	1	0	0	0		16.290	13.4925	
4	1	0	0	0	1	1	0		16.310	13.5025	
5	1	0	0	0	1	0	1		16.320	13.5075	
6	1	0	0	0	1	0	0		16.330	13.5125	
7	1	0	0	0	0	1	1		16.340	13.5175	
8	1	0	0	0	0	0	1		16.360	13.5275	
9	1	0	0	0	0	0	0		16.370	13.5325	
10	0	1	1	1	1	1	1		16.380	13.5375	
11	0	1	1	1	1	1	0		16.390	13.5425	
12	0	1	1	1	1	0	0		16.410	13.5525	
13	0	1	1	1	0	1	1		16.420	13.5575	
14	0	1	1	1	0	1	0		16.430	13.5625	
15	0	1	1	1	0	0	1		16.440	13.5675	
16	0	1	1	0	1	1	1		16.460	13.5775	
17	0	1	1	0	1	1	0		16.470	13.5825	
18	0	1	1	0	1	0	1		16.480	13.5875	
19	0	1	1	0	1	0	0		16.490	13.5925	
20	0	1	1	0	0	1	0		16.510	13.6025	
21	0	1	1	0	0	0	1		16.520	13.6075	
22	0	1	1	0	0	0	0		16.530	13.6125	
23	0	1	0	1	1	0	1		16.560	13.6275	
24	0	1	0	1	1	1	1		16.540	13.6175	
25	0	1	0	1	1	1	0		16.550	13.6225	
26	0	1	0	1	1	0	0		16.570	13.6325	
27	0	1	0	1	0	1	1		16.580	13.6375	
28	0	1	0	1	0	1	0		16.590	13.6425	
29	0	1	0	1	0	0	1		16.600	13.6475	
30	0	1	0	1	0	0	0		16.610	13.6525	
31	0	1	0	0	1	1	1		16.620	13.6575	
32	0	1	0	0	1	1	0		16.630	13.6625	
33	0	1	0	0	1	0	1		16.640	13.6675	
34	0	1	0	0	1	0	0		16.650	13.6725	
35	0	1	0	0	0	1	1		16.660	13.6775	
36	0	1	0	0	0	1	0		16.670	13.6825	
37	0	1	0	0	0	0	1		16.680	13.6875	
38	0	1	0	0	0	0	0		16.690	13.6925	
39	0	0	1	1	1	1	1		16.700	13.6975	
40	0	0	1	1	1	1	0		16.710	13.7025	



CHASSIS-BOTTOM

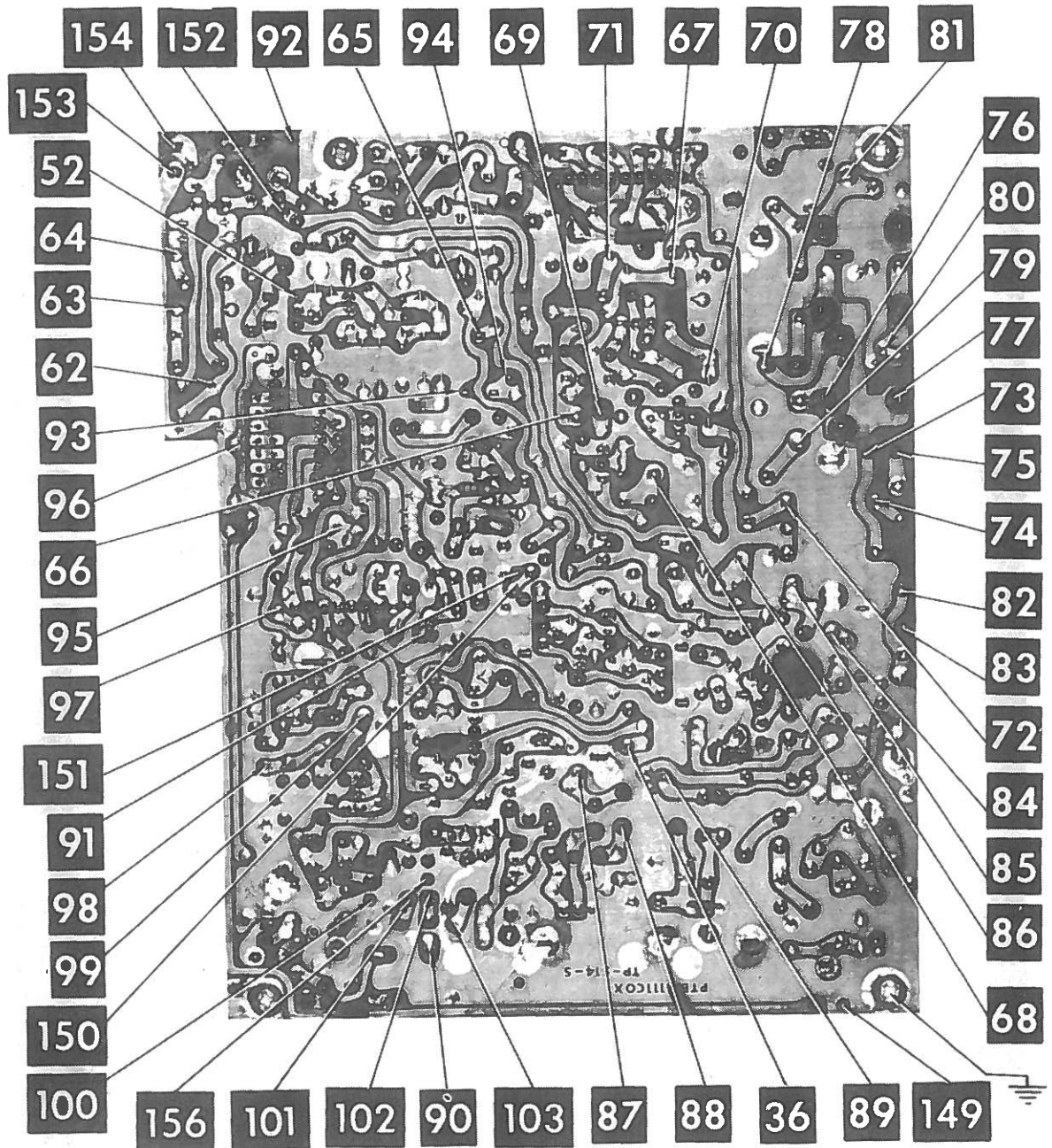


MAIN BOARD

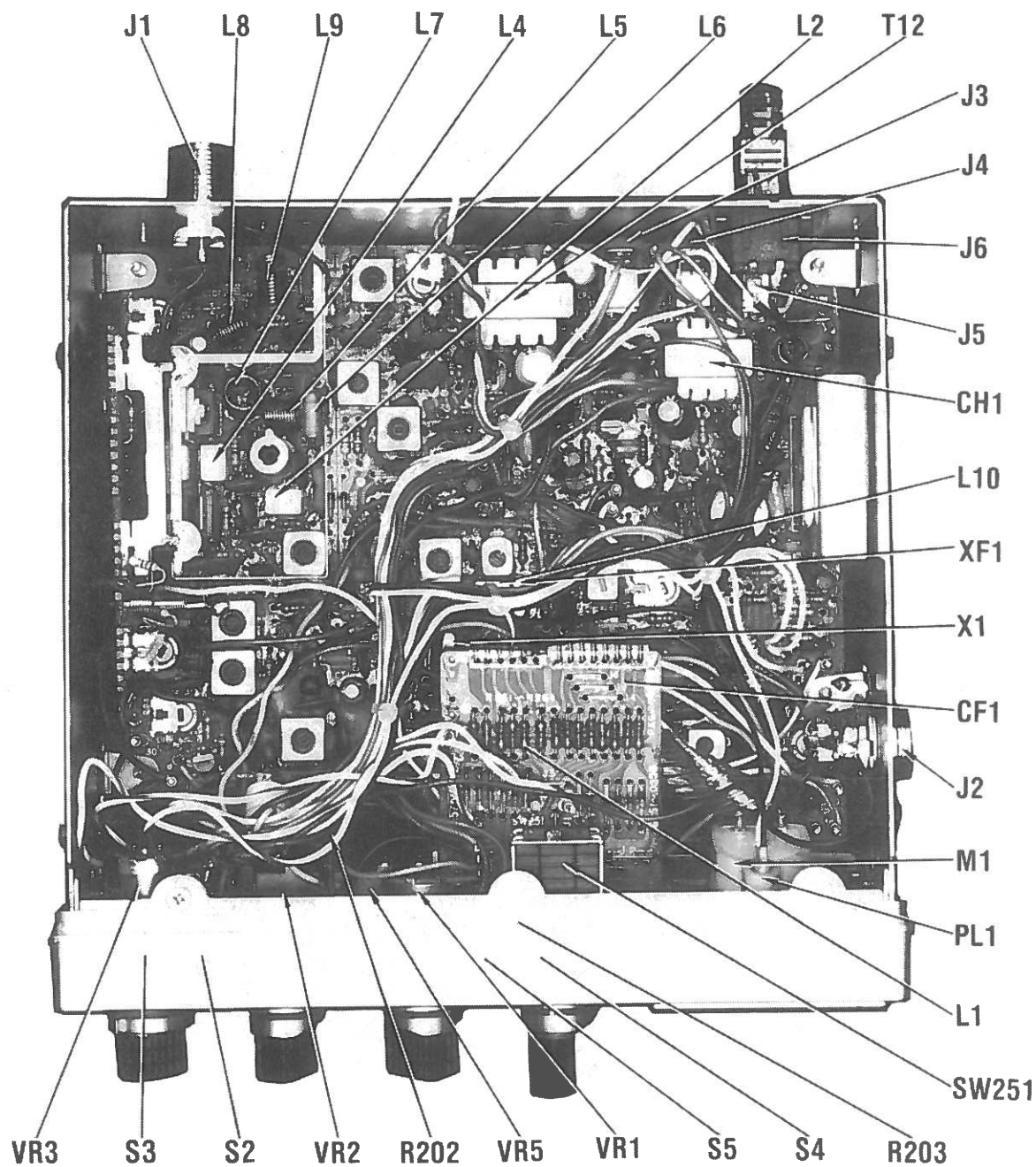


GENERAL ELECTRIC MODEL 3-5817A

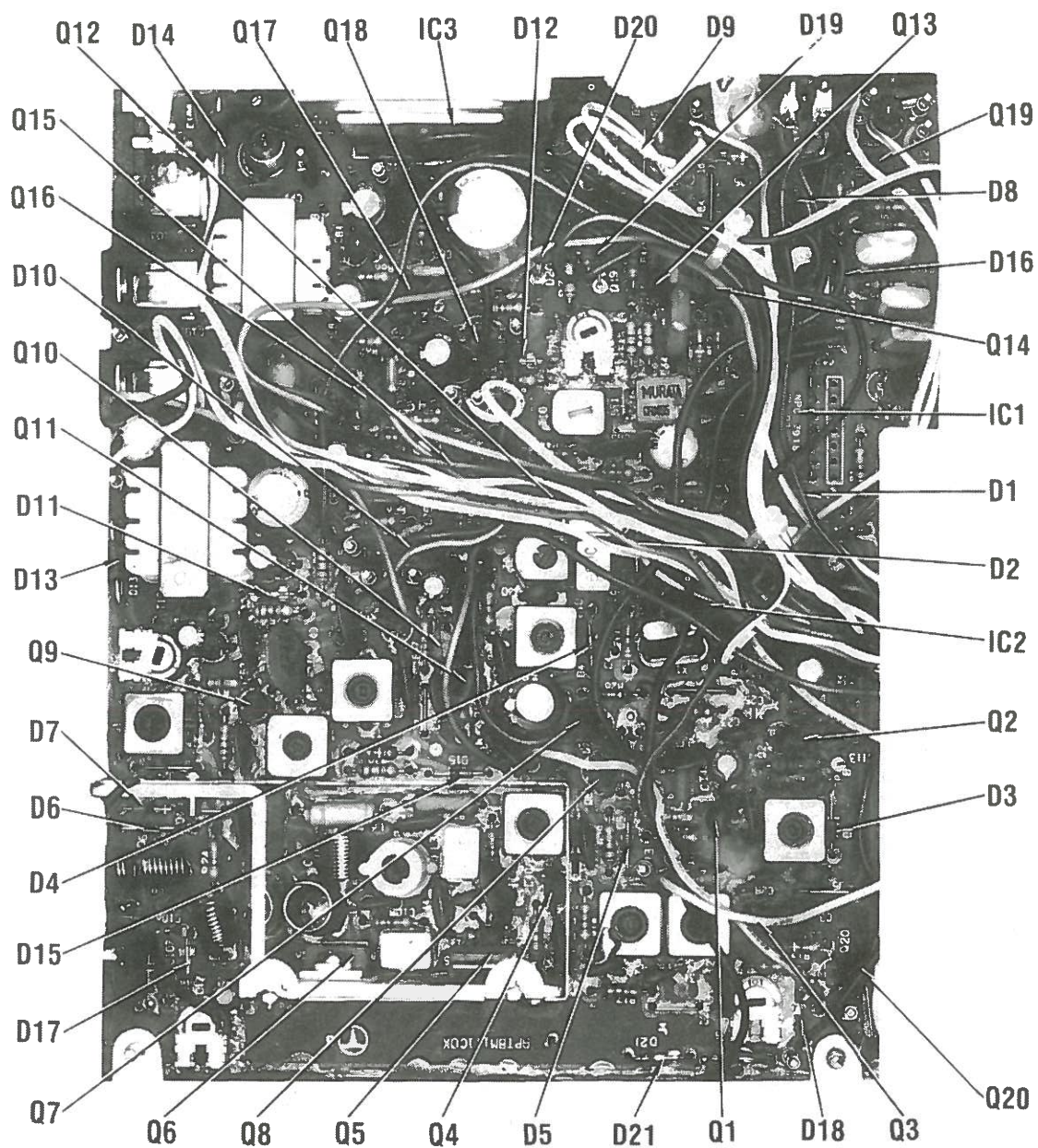
MAIN BOARD



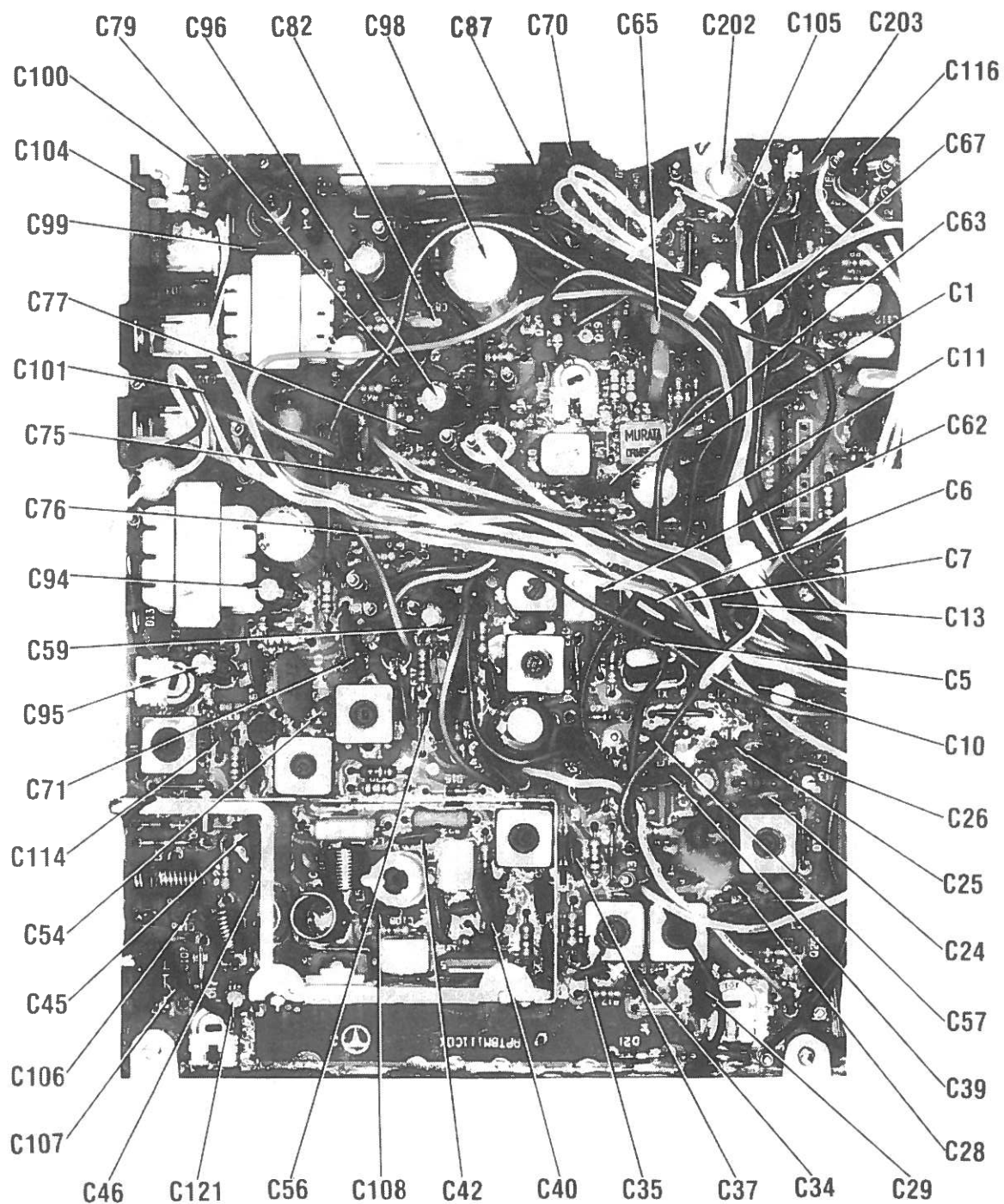
MAIN BOARD



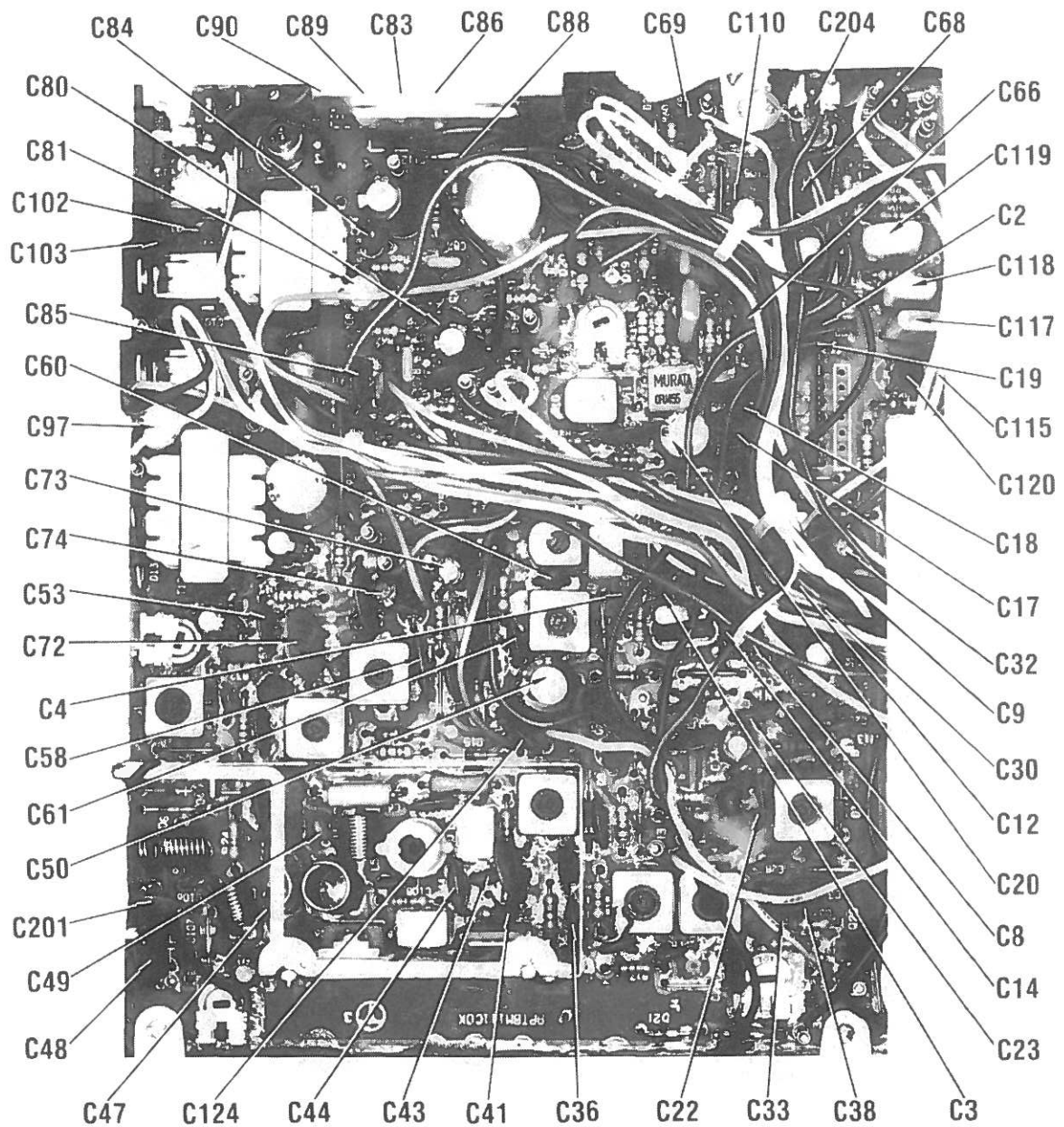
CHASSIS-BOTTOM



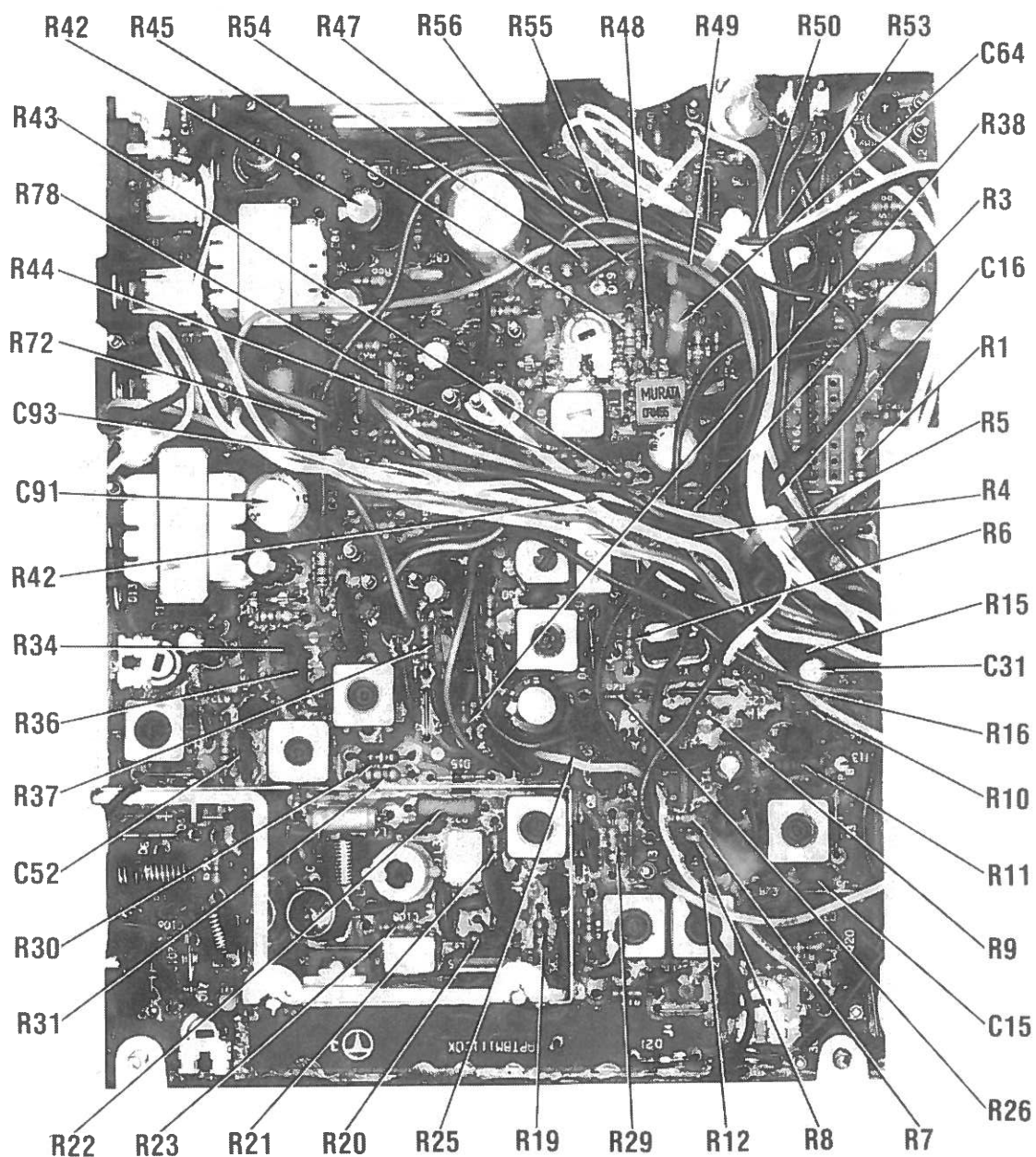
MAIN BOARD



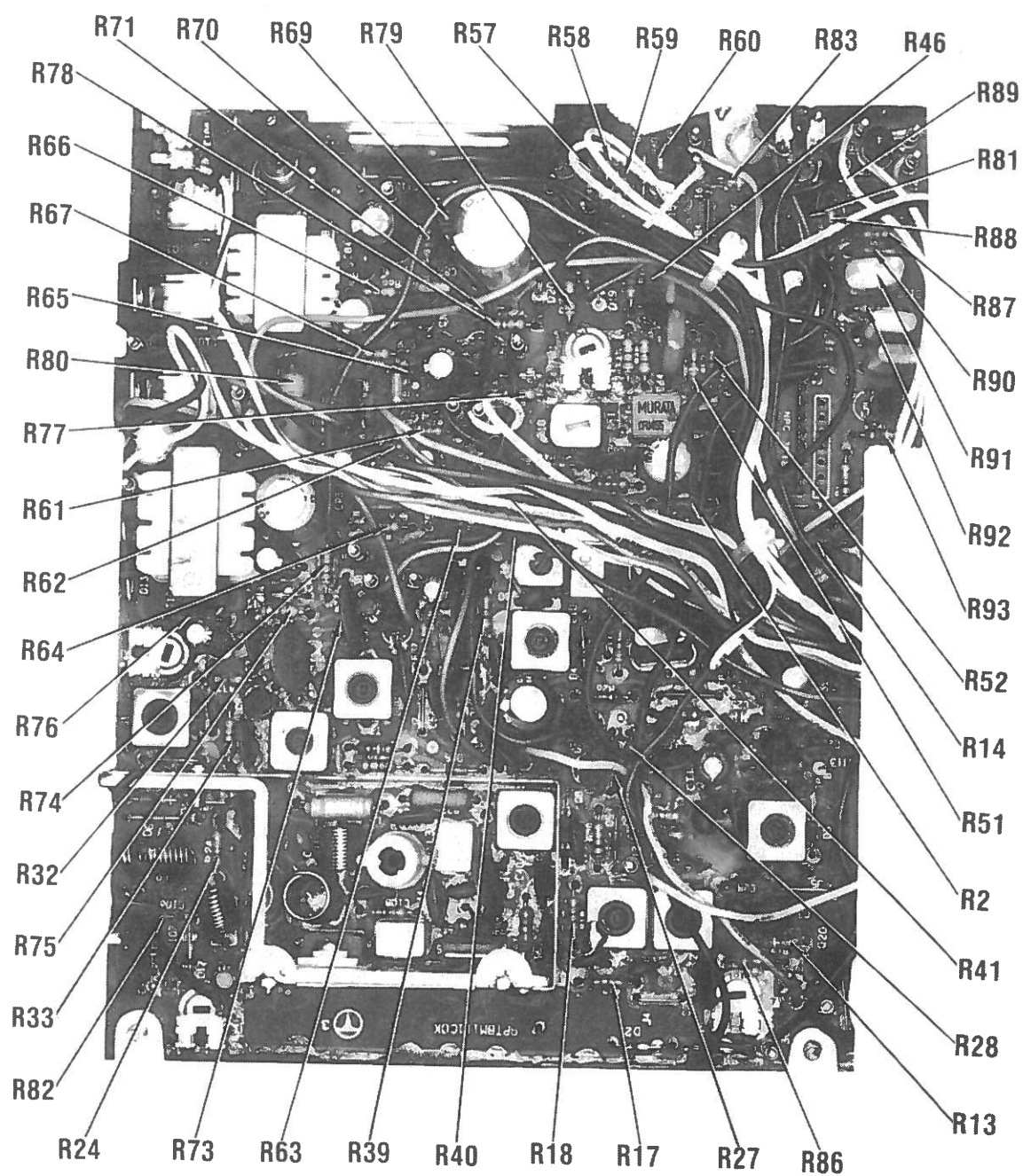
MAIN BOARD



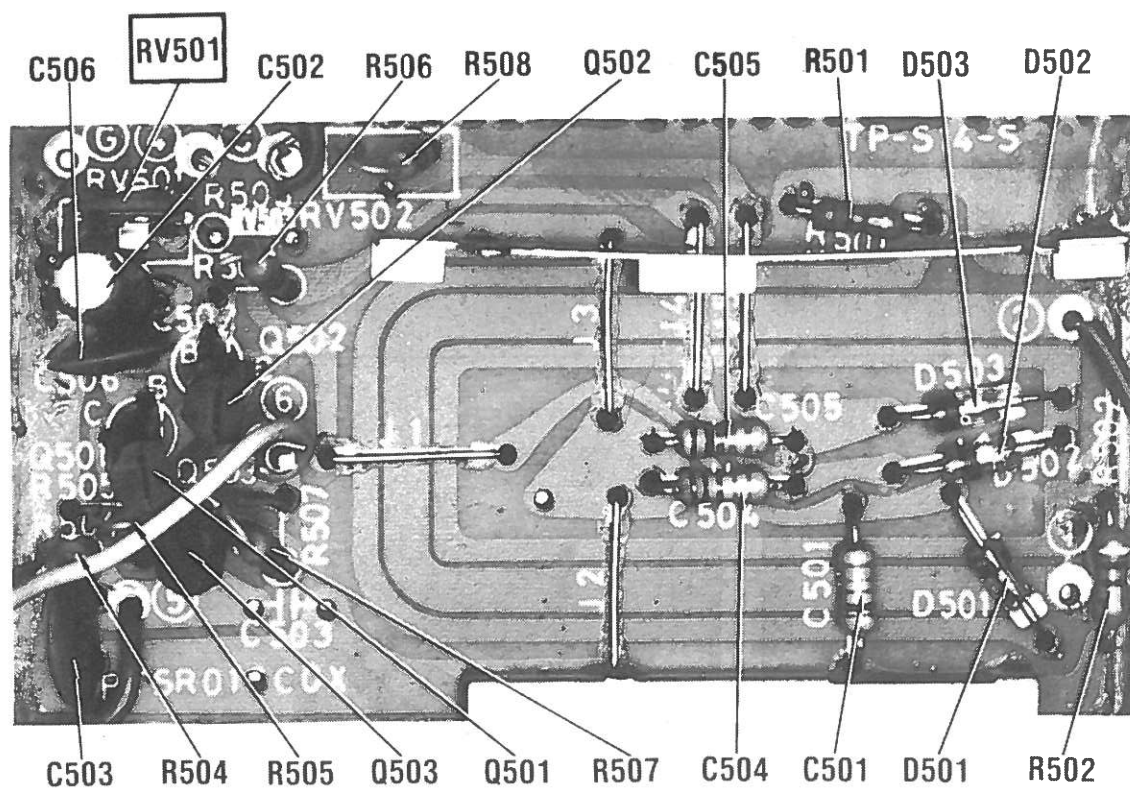
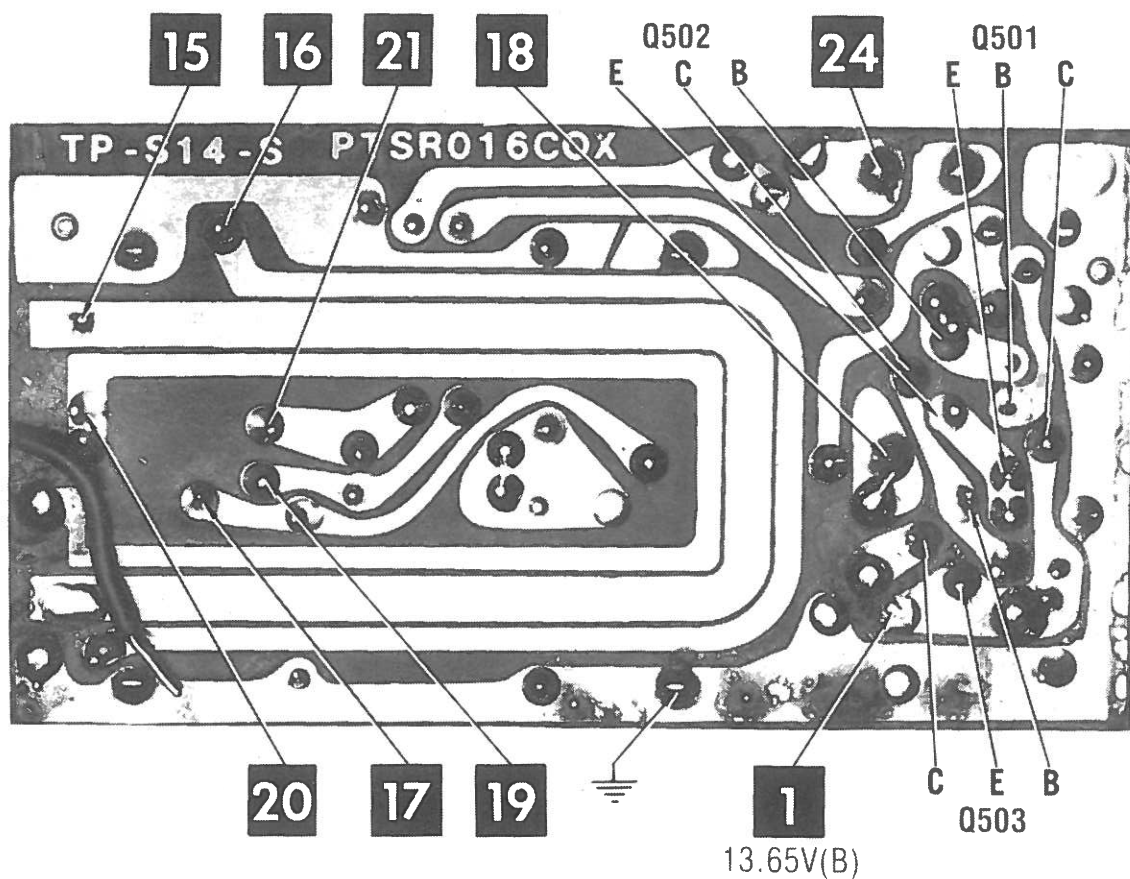
MAIN BOARD



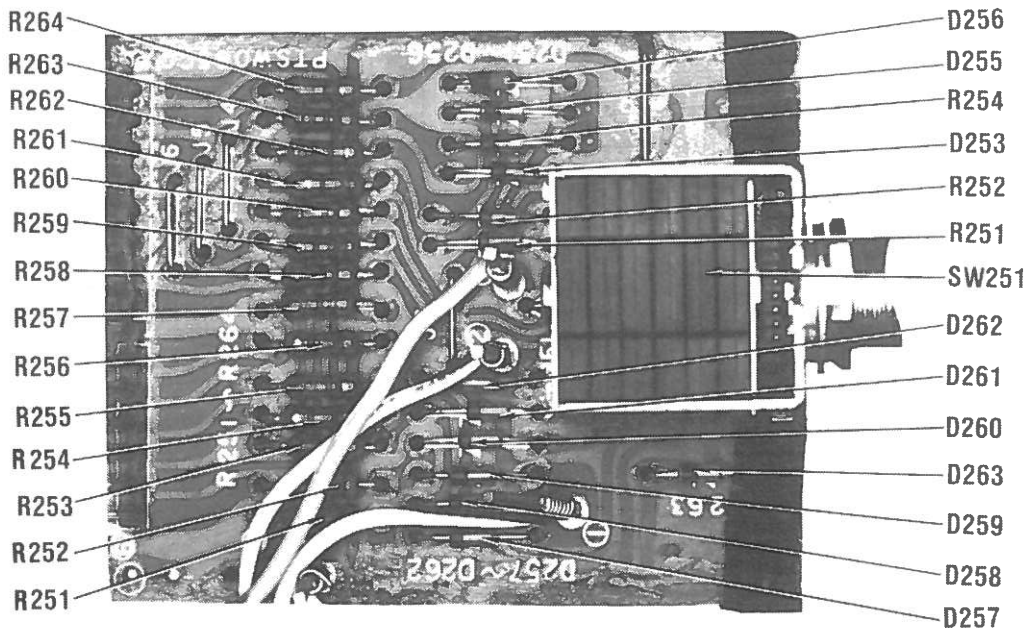
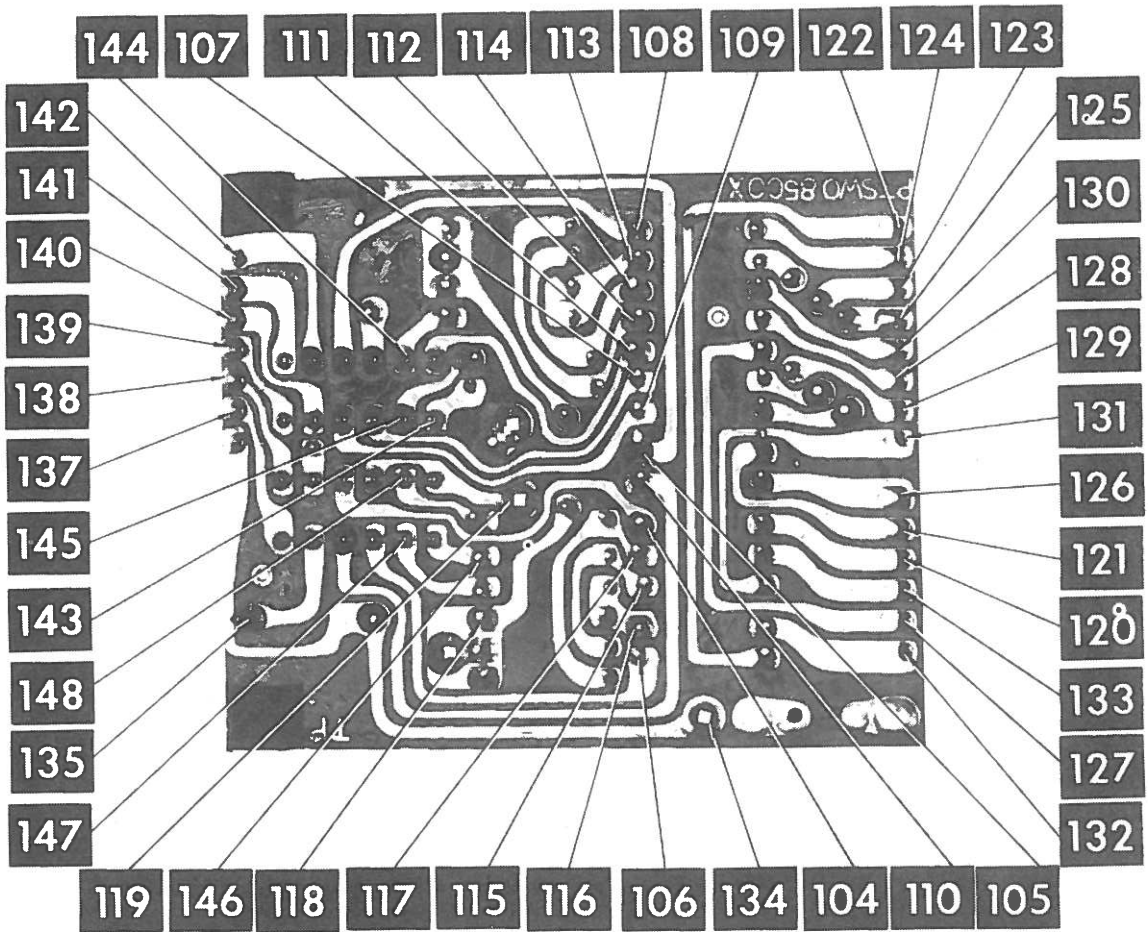
MAIN BOARD



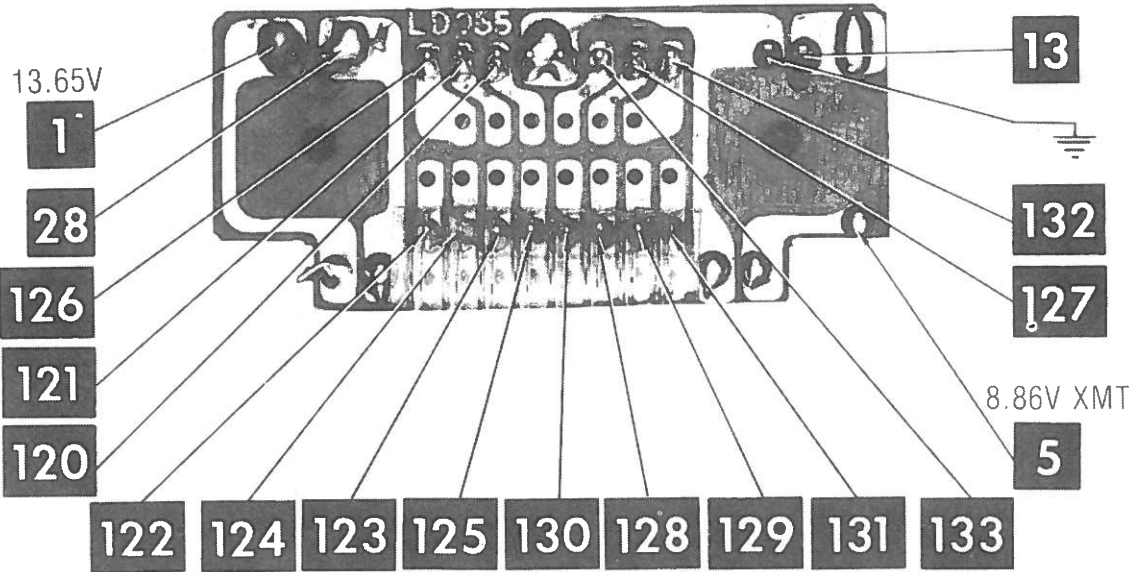
MAIN BOARD



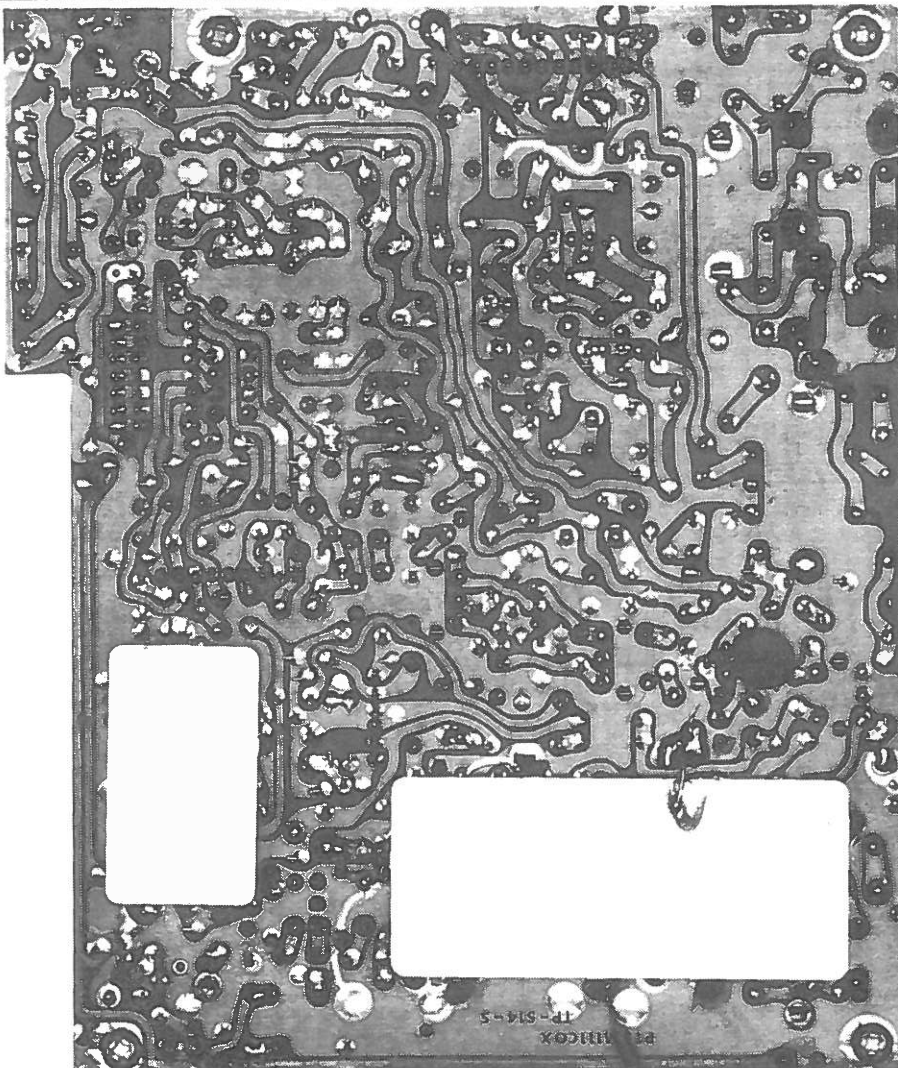
AWI BOARD



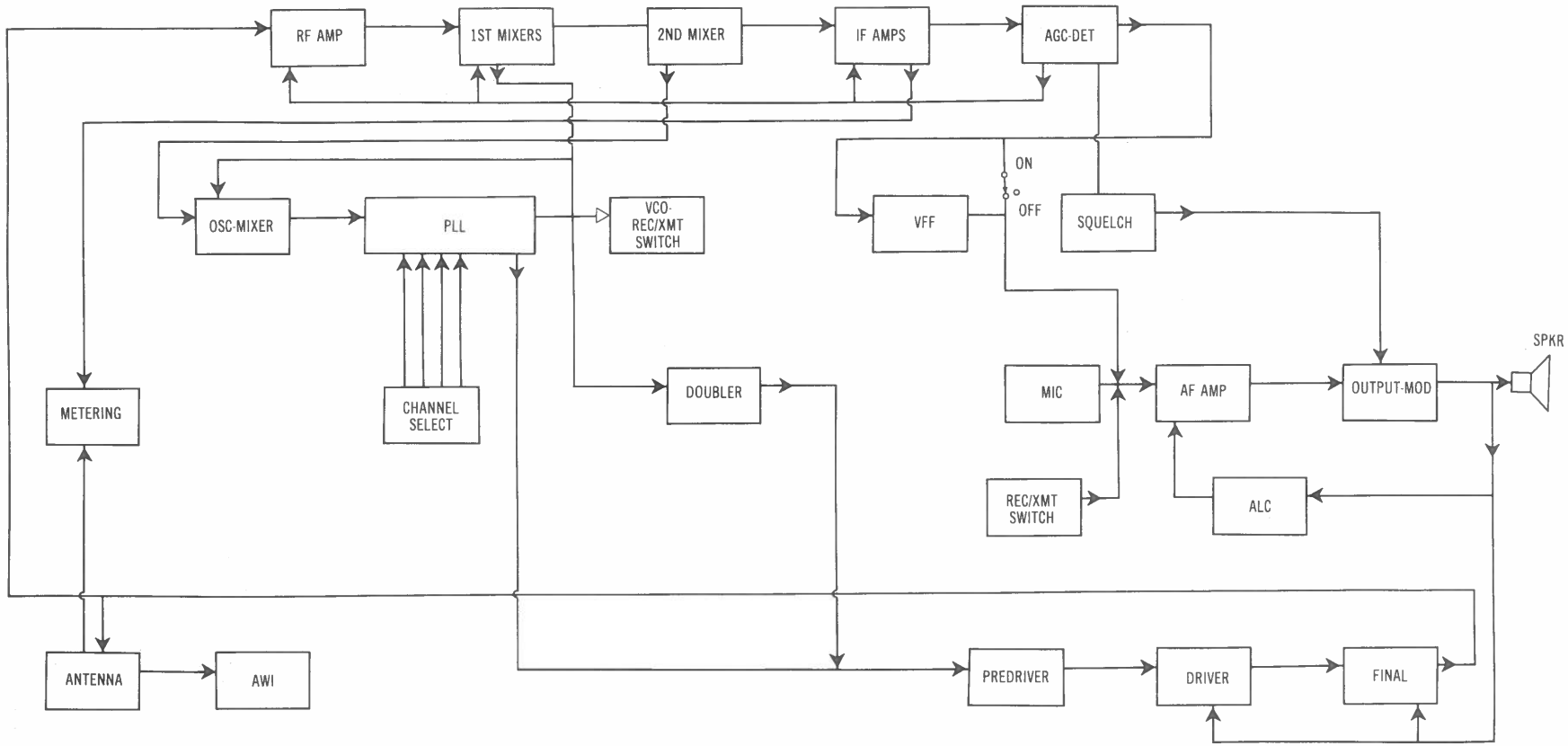
CHANNEL SELECTOR BOARD

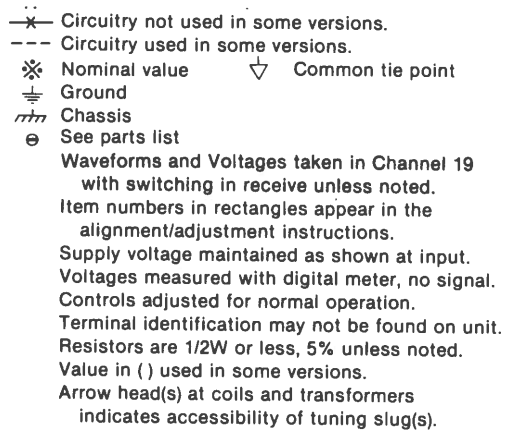


LED BOARD



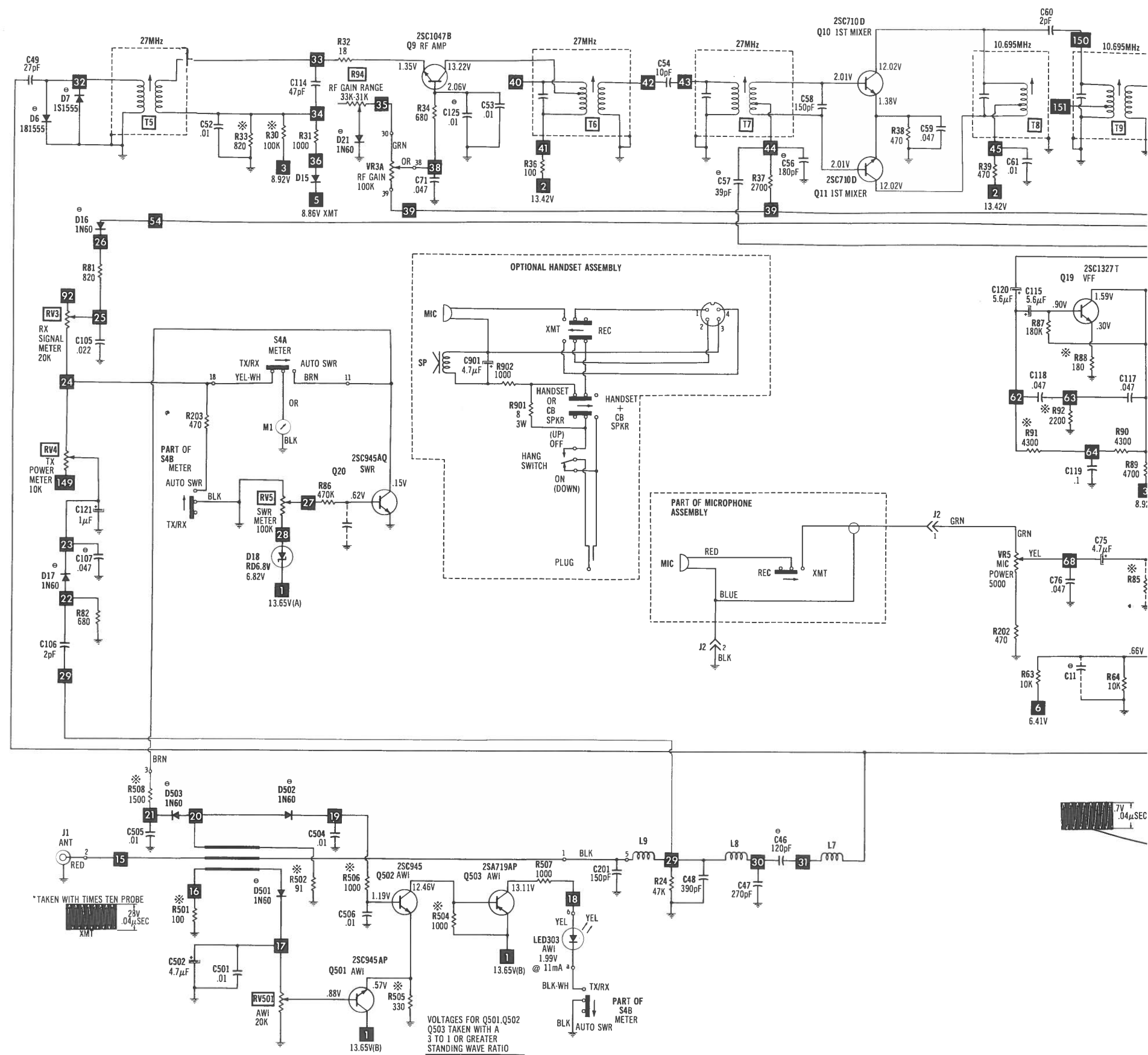
SHIELD LOCATION

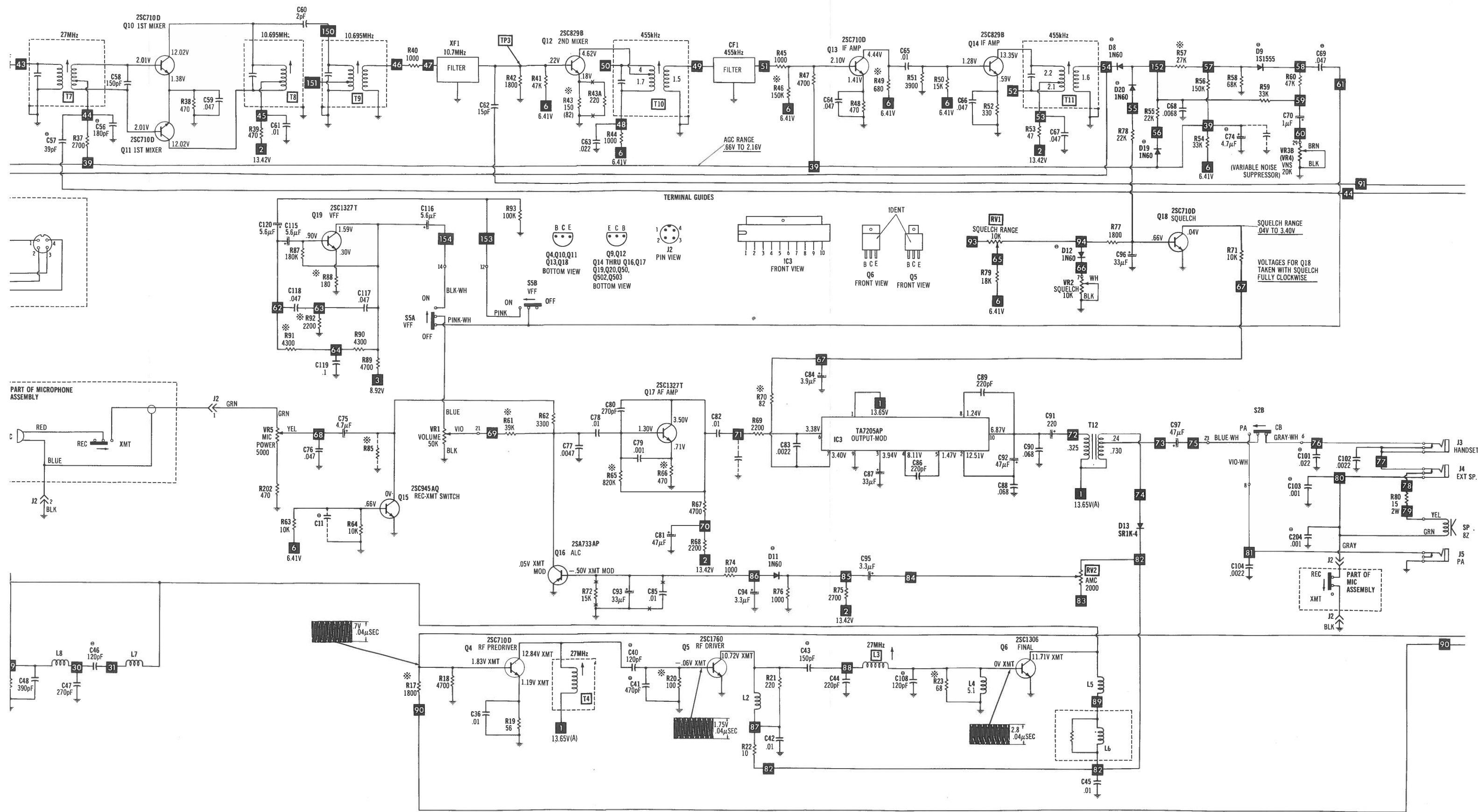




WITH **CIRCUITRACE[®]**

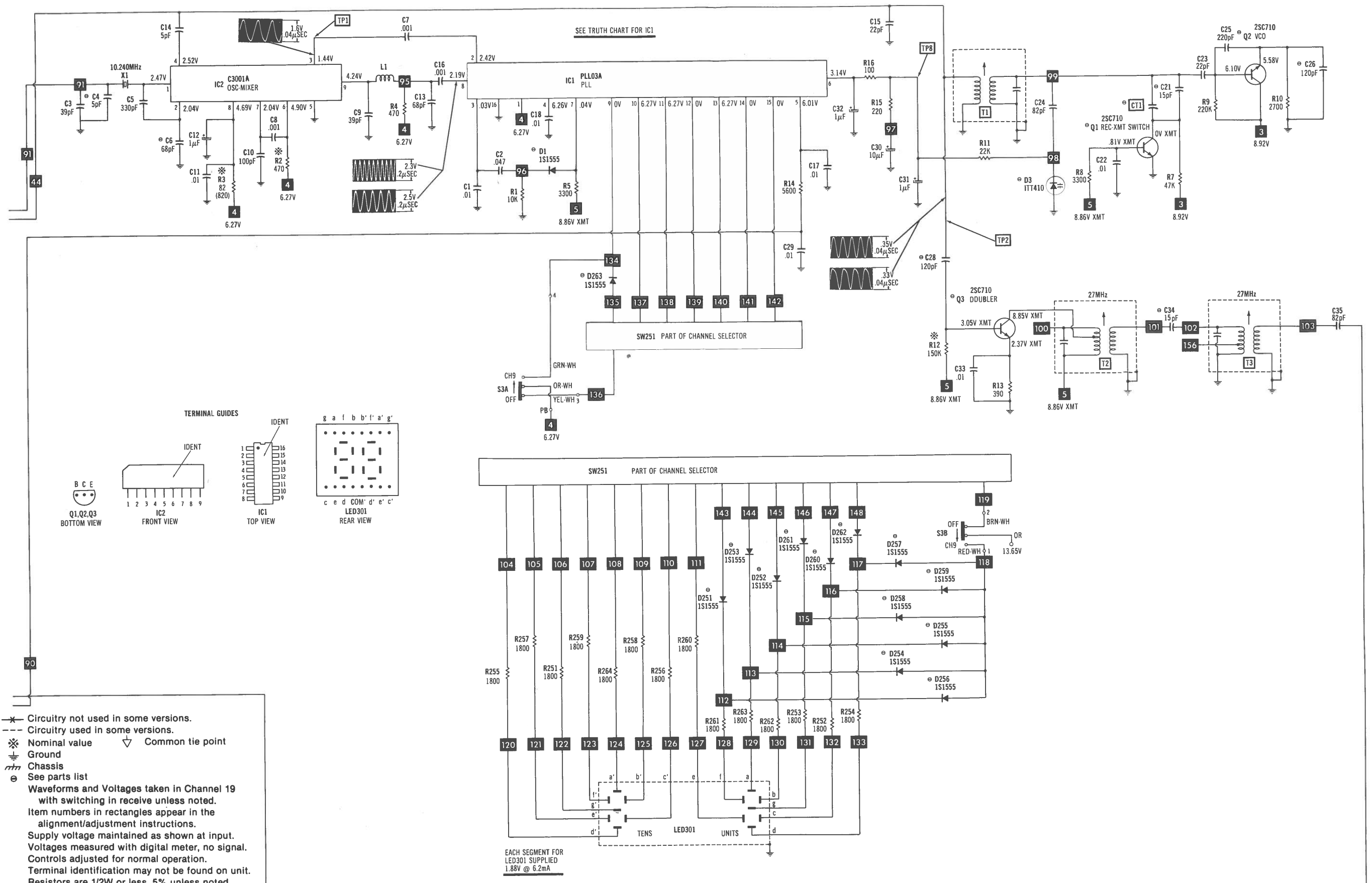
POWER SUPPLY SCHEMATIC





MAIN SCHEMATIC

GENERAL ELECTRIC MODEL 3-5817A



— Circuitry not used in some versions.
 --- Circuitry used in some versions.
 * Nominal value ▽ Common tie point
 ⊥ Ground
 ⏏ Chassis
 Ⓢ See parts list

Waveforms and Voltages taken in Channel 19 with switching in receive unless noted. Item numbers in rectangles appear in the alignment/adjustment instructions. Supply voltage maintained as shown at input. Voltages measured with digital meter, no signal. Controls adjusted for normal operation. Terminal identification may not be found on unit. Resistors are 1/2W or less, 5% unless noted. Value in () used in some versions. Arrow head(s) at coils and transformers indicates accessibility of tuning slug(s).

PLL SCHEMATIC

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.	MALLORY PART No.	RAYTHEON PART No.	RCA PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
D1	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D2	MZ-306C ITT410 BB122 MV201	EA16X163 EA16X106		ZM68 PTC311	 REN 612 REN 612	 SK3778/5012A	 ECG5012A ECG612 ECG612 ECG611	 TM5012 TM612 TM612 TM611	 WEP1413/5012	 103-176 103-176 103-146
D4	UZ9.1B RD9.1	EA16X415	GEZD-9.1 GEZD-9.1	ZB9.1B ZB9.1B	REN 139 REN 139	SK3060/139A SK3060/139A	ECG139A ECG139A	TM139A/** TM139A/**	WEP1109/139A WEP1109/139A	103-272 103-272
D5	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D6	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D7	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D8	1N60 1K261 1K60	EA16X48	1N60 1N34AS 1N60	PTC206 PTC207 PTC206	REN 109 REN 109 REN 109	SK3088 SK3087 SK3088	ECG109 ECG109 ECG109	TM109/** TM109/** TM109/**	WEP134/109 WEP134/109 WEP134/109	103-Z9001 103-Z9001 103-Z9001
D9	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D10	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D11	1N60 1K261 1K60	EA16X48	1N60 1N34AS 1N60	PTC206 PTC207 PTC206	REN 109 REN 109 REN 109	SK3088 SK3087 SK3088	ECG109 ECG109 ECG109	TM109/** TM109/** TM109/**	WEP134/109 WEP134/109 WEP134/109	103-Z9001 103-Z9001 103-Z9001
D12	1N60 1K261 1K60	EA16X48	1N60 1N34AS 1N60	PTC206 PTC207 PTC206	REN 109 REN 109 REN 109	SK3088 SK3087 SK3088	ECG109 ECG109 ECG109	TM109/** TM109/** TM109/**	WEP134/109 WEP134/109 WEP134/109	103-Z9001 103-Z9001 103-Z9001
D13	SR1K-4	EA16X430	GE-504A	PTC201	REN 116	SK3311	ECG116	TM116	WEP156	212-76-02
D14	SR1K-4 1S1885	EA16X430	GE-504A GE-504A	PTC201 PTC201	REN 116 REN 116	SK3311 SK3311	ECG116 ECG116	TM116 TM116	WEP156 WEP156	212-76-02 212-76-02
D15	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D16	1N60 1K261 1K60	EA16X48	1N60 1N34AS 1N60	PTC206 PTC207 PTC206	REN 109 REN 109 REN 109	SK3088 SK3087 SK3088	ECG109 ECG109 ECG109	TM109/** TM109/** TM109/**	WEP134/109 WEP134/109 WEP134/109	103-Z9001 103-Z9001 103-Z9001
D17	1N60 1K261 1K60	EA16X48	1N60 1N34AS 1N60	PTC206 PTC207 PTC206	REN 109 REN 109 REN 109	SK3088 SK3087 SK3088	ECG109 ECG109 ECG109	TM109/** TM109/** TM109/**	WEP134/109 WEP134/109 WEP134/109	103-Z9001 103-Z9001 103-Z9001
D18	RD6.8V	EA16X435	GEZD-6.8	ZB6.88	REN 5071	SK3334/5071A	ECG5071A	TM5071A/**	WEP1106/5071A	103-Z9020
D19	1N60 1K261 1K60	EA16X48	1N60 1N34AS 1N60	PTC206 PTC207 PTC206	REN 109 REN 109 REN 109	SK3088 SK3087 SK3088	ECG109 ECG109 ECG109	TM109/** TM109/** TM109/**	WEP134/109 WEP134/109 WEP134/109	103-Z9001 103-Z9001 103-Z9001
D20	1N60 1K261 1K60	EA16X48	1N60 1N34AS 1N60	PTC206 PTC207 PTC206	REN 109 REN 109 REN 109	SK3088 SK3087 SK3088	ECG109 ECG109 ECG109	TM109/** TM109/** TM109/**	WEP134/109 WEP134/109 WEP134/109	103-Z9001 103-Z9001 103-Z9001
D21	1N60 1K261 1K60	EA16X48	1N60 1N34AS 1N60	PTC206 PTC207 PTC206	REN 109 REN 109 REN 109	SK3088 SK3087 SK3088	ECG109 ECG109 ECG109	TM109/** TM109/** TM109/**	WEP134/109 WEP134/109 WEP134/109	103-Z9001 103-Z9001 103-Z9001
D251	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D252	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D253	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D254	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D255	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D256	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D257	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D258	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D259	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D260	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131

GENERAL ELECTRIC MODEL 3-5817A

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.	MFG. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	MALLORY PART No.	RAYTHEON PART No.	RCA PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
D261	1S1555 1N4448 MA150	DA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D262	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
D263	1S1555 1N4448 MA150	EA16X429	GE-300 GE-514 GE-300	PTC214 PTC214 PTC214	REN 177 REN 177 REN 177	SK3175/177 SK3100/519 SK3175/177	ECG177 ECG519 ECG177	TM177 TM519 TM177	WEP1062/177 WEP925/519 WEP1062/177	103-131 103-131 103-131
O501	1N60 1K261 1K60	EA16X48	1N60 1N34AS 1N60	PTC206 PTC207 PTC206	REN 109 REN 109 REN 109	SK3088 SK3087 SK3088	ECG109 ECG109 ECG109	TM109/** TM109/** TM109/**	WEP134/109 WEP134/109 WEP134/109	103-Z9001 103-Z9001 103-Z9001
D502	1N60 1K261 1K60	EA16X48	1N60 1N34AS 1N60	PTC206 PTC207 PTC206	REN 109 REN 109 REN 109	SK3088 SK3087 SK3088	ECG109 ECG109 ECG109	TM109/** TM109/** TM109/**	WEP134/109 WEP134/109 WEP134/109	103-Z9001 103-Z9001 103-Z9001
O503	1N60 1K261 1K60	EA16X48	1N60 1N34AS 1N60	PTC206 PTC207 PTC206	REN 109 REN 109 REN 109	SK3088 SK3087 SK3088	ECG109 ECG109 ECG109	TM109/** TM109/** TM109/**	WEP134/109 WEP134/109 WEP134/109	103-Z9001 103-Z9001 103-Z9001
IC1	PLL03A	EA33X8501					ECG1272	TM1272		
IC2	C3001A C3001 TA7310P	EA33X8394			REN 1192 REN 1192 REN 1192	SK3445/1192 SK3445/1192 SK3445/1192	ECG1192 ECG1192 ECG1192	TM1192 TM1192 TM1192	WEP2120/1192 WEP2120/1192 WEP2120/1192	221-Z9061 221-Z9061 221-Z9061
IC3	TA7205AP	EA33X8394	GE1C-179	PTC780	REN 1155	SK3231/1155	ECG1155	TM1155	WEP949/1155	221-Z9051
Q1	TA7205A 2SC7100,E 2SC829	EA33X8396 EA15X364	GE1C-179 GE-211* GE-20*	PTC780 PTC132* PTC139*	REN 1155 REN 123AP* REN 229*	SK3231/1155 SK3356 SK3122	ECG1155 ECG123AP* ECG229*	TM1155 TM123AP/** TM229/**	WEP949/1155 WEP710 WEP829	221-Z9051 121-Z9000A* 121-Z9021*
Q2	2SC839 2SC7100,E	EA15X364	GE-61* GE-211*	PTC132* PTC132*	REN 123A* REN 123AP*	SK3124/289 SK3356	ECG123A* ECG123AP*	TM123A/** TM123AP/**	WEP1945 WEP710	121-Z9000A* 121-Z9000A*
Q3	2SC829 2SC839 2SC7100,E 2SC829	EA15X364	GE-20* GE-61* GE-211* GE-20*	PTC139* PTC132* PTC132* PTC139*	REN 229* REN 123A* REN 123AP* REN 229*	SK3122 SK3124/289 SK3356 SK3122	ECG229* ECG123A* ECG123AP* ECG229*	TM229/** TM123A/** TM123AP/** TM229/**	WEP829 WEP1945 WEP710 WEP829	121-Z9021* 121-Z9000A* 121-Z9000A* 121-Z9021*
Q4	2SC839		GE-61*	PTC132*	REN 123A*	SK3124/289	ECG123A*	TM123A/**	WEP1945	121-Z9000A*
Q5	2SC7100,E 2SC1687 2SC1760 2SC1846 2SC2036	EA15X364 EA15X380	GE-211* GE-20* GE-276 GE-336 GE-336	PTC132* PTC121* PTC180 PTC904 PTC904	REN 123AP* REN 123A* REN 306 REN 295 REN 306	SK3356 SK3246/229 SK3251/306 SK3253/295 SK3251/306	ECG123AP* ECG123* ECG306 ECG295 ECG306	TM123AP/** TM123A* TM306 TM295 TM306	WEP710 WEP710* WEP771/306 WEP913/295 WEP771/306	121-Z9000A* 121-Z9000A* 121-Z9069 121-880 121-Z9069
Q6	2SC1306 2SC1678 2SC1974 2SC2075	EA15X381	GE-215 GE-322 GE-337 GE-215	PTC186 PTC186 PTC186 PTC186	REN 235 REN 235 REN 235 REN 235	SK3239/236 SK3197/235 SK3239/236 SK3197/235	ECG235 ECG235 ECG235 ECG235	TM235/** TM235 TM235 TM235	WEP785/235 WEP785/235 WEP785/235 WEP785/235	121-Z9039 121-Z9039 121-Z9039 121-Z9039
Q7	2SC2075 2SC1318Q,R 2SC1318 2SC2002	EA15X378	GE-210 GE-210 GE-210 GE-271	PTC123 PTC123 PTC123 PTC123*	REN 297 REN 297 REN 297 REN 297	SK3124/289 SK3124/289 SK3124/289 SK3449/297	ECG297 ECG297 ECG297 ECG297	TM297 TM297 TM297 TM297	WEP914/297 WEP914/297 WEP914/297 WEP914/297	921-340 921-340 921-340 921-340
Q8	2SA719P,Q, R 2SA719 2SA564 2SA720 2SA952	EA15X395	GE-269 GE-269 GE-65 GE-272 GE-244*	PTC103* PTC103* PTC103* PTC142*	REN 290 REN 290 REN 234 REN 298 REN 129*	SK3114/290 SK3114/290 SK3247/234 SK3114/290 SK3114/290	ECG290 ECG290 ECG234 ECG298 ECG129*	TM290/** TM290/** TM234 TM298 TM129*	WEP911/290 WEP911/290 WEP495 WEP915/298 WEP60/129*	121-Z9003* 121-Z9003* 121-879* 121-879 121-Z9005*
Q9	2SC1047B,C 2SC1047 2SC460	EA15X450	GE-60* GE-60* GE-61*	PTC132* PTC132* PTC136*	REN 229* REN 229* REN 107	SK3132 SK3132 SK3122	ECG229* ECG229* ECG107	TM229* TM229* TM107/**	WEP63/161* WEP63/161* WEP460	121-Z9021* 121-Z9021* 121-522*
Q10	2SC7100,E 2SC829 2SC839	EA15X364	GE-211* GE-20* GE-61*	PTC132* PTC139* PTC132*	REN 123AP* REN 229* REN 123A*	SK3356 SK3122 SK3124/289	ECG123AP* ECG229* ECG123A*	TM123AP/** TM229/** TM123A/**	WEP710 WEP829 WEP1945	121-Z9000A* 121-Z9021* 121-Z9000A*
Q11	2SC7100,E 2SC829 2SC839	EA15X364	GE-211* GE-20* GE-61*	PTC132* PTC139* PTC132*	REN 123AP* REN 229* REN 123A*	SK3356 SK3122 SK3124/289	ECG123AP* ECG229* ECG123A*	TM123AP/** TM229/** TM123A/**	WEP710 WEP829 WEP1945	121-Z9000A* 121-Z9021* 121-Z9000A*
Q12	2SC829B,C 2SC829 2SC839	EA15X190	GE-20* GE-20* GE-61*	PTC139* PTC139* PTC132*	REN 229* REN 229* REN 123A*	SK3122 SK3122 SK3124/289	ECG229* ECG229* ECG123A*	TM229/** TM229/** TM123A/**	WEP829 WEP829 WEP1945	121-Z9021* 121-Z9021* 121-Z9000A*
Q13	2SC7100,E 2SC829 2SC839	EA15X364	GE-211* GE-20* GE-61*	PTC132* PTC139* PTC132*	REN 123AP* REN 229* REN 123A*	SK3356 SK3122 SK3124/289	ECG123AP* ECG229* ECG123A*	TM123AP/** TM229/** TM123A/**	WEP710 WEP829 WEP1945	121-Z9000A* 121-Z9021* 121-Z9000A*
Q14	2SC829B,C 2SC829 2SC839	EA15X190	GE-20* GE-20* GE-61*	PTC139* PTC139* PTC132*	REN 229* REN 229* REN 123A*	SK3122 SK3122 SK3124/289	ECG229* ECG229* ECG123A*	TM229/** TM229/** TM123A/**	WEP829 WEP829 WEP1945	121-Z9021* 121-Z9021* 121-Z9000A*
Q15	2SC945AQ 2SC945A 2SC945	EA15X335	GE-212 GE-212 GE-212	PTC121* PTC121* PTC121*	REN 199 REN 199 REN 199	SK3124/289 SK3124/289 SK3124/289	ECG199 ECG199 ECG199	TM199/** TM199/** TM199/**	WEP1945 WEP1945 WEP1945	121-972* 121-972* 121-972*
Q16	2SC828 2SA733AP 2SA733P,Q 2SA564 2SA719 2SA952	EA15X385	GE-48 GE-48 GE-65 GE-269 GE-244*	PTC127 PTC127 PTC103* PTC103* PTC142*	REN 199 REN 294 REN 234 REN 290 REN 129*	SK3114/290 SK3114/290 SK3247/234 SK3114/290 SK3114/290	ECG294 ECG294 ECG234 ECG290 ECG129*	TM294/** TM294/** TM234 TM290/** TM129*	WEP911/290 WEP911/290 WEP495 WEP911/290 WEP60/129*	121-972* 121-972* 121-879* 121-Z9067 121-Z9067
Q17	2SC1327T 2SC1327 2SC900	EA15X386	GE-85* GE-85* GE-62	PTC139* PTC139* PTC139*	REN 199 REN 199 REN 199	SK3245/199 SK3245/199 SK3250/315	ECG199 ECG199 ECG199	TM199 TM199 TM199/**	WEP634 WEP634 WEP66/199	121-972* 121-972* 121-972*
Q18	2SC7100,E 2SC945 2SC828	EA15X364	GE-211* GE-212 GE-61*	PTC132* PTC121* PTC139*	REN 123AP* REN 199 REN 199	SK3356 SK3124/289 SK3122	ECG123AP* ECG199 ECG199	TM123AP/** TM199/** TM199/**	WEP710 WEP1945 WEP828	121-Z9000A* 121-972* 121-972*

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.	RAYTHEON PART No.	RCA PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
Q19	2SC1327T	EA15X386	GE-85*	PTC139*	REN 199	SK3245/199	ECG199	TM199	WEP634	121-972*
	2SC1327		GE-85*	PTC139*	REN 199	SK3245/199	ECG199	TM199	WEP634	121-972*
Q20	2SC900	EA15X335	GE-62	PTC139*	REN 199	SK3250/315	ECG199	TM199/**	WEP66/199	121-972*
	2SC945AQ		GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
	2SC945A		GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
	2SC945		GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
Q501	2SC828	EA15X335	GE-61*	PTC139*	REN 199	SK3122	ECG199	TM199/**	WEP828	121-972*
	2SC945AP		GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
	2SC945A		GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
	2SC945		GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
Q502	2SC828	EA15X335	GE-61*	PTC139*	REN 199	SK3122	ECG199	TM199/**	WEP828	121-972*
	2SC945AP		GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
	2SC945A		GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
	2SC945		GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
Q503	2SA719R	EA15X395	GE-269	PTC103*	REN 290	SK3114/290	ECG290	TM290/**	WEP911/290	121-29003*
	2SA719		GE-269	PTC103*	REN 290	SK3114/290	ECG290	TM290/**	WEP911/290	121-29003*
	2SA733		GE-48	PTC127	REN 294	SK3114/290	ECG294	TM294/**	WEP911/290	121-29067

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

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C12	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C20	47 25V		PC50-25	VTT47E25	QV1-77	EV-1426.1
C30	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C31	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C32	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C50	220 10V		PC250-10	VTT220F10	QV1-115	EV-1140
C70	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C73	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C74	4.7 25V		PC5-50	VTT47B50	QV1-31	EV-1619.1
C75	4.7 25V		PC5-50	VTT47B50	QV1-31	EV-1619.1
C81	47 16V		PC50-16	VTT47D16	QV1-73	EV-1226
C84	3.9 25V			TDC475M010EL	QDT1-48	SD10-4R79
C87	33 6.3V		PC30-25	VTT33B10		EV-1225
C91	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
C92	47 16V		PC50-16	VTT47D16	QV1-73	EV-1226
C93	33 6.3V		PC30-25	VTT33B10		EV-1225
C94	3.3 25V		HLW4-50	VTT33R3A50	QV1-25	EV-1618.1
C95	3.3 25V		HLW4-50	VTT33R3A50	QV1-25	EV-1618.1
C96	33 6.3V		PC30-25	VTT33B10		EV-1225
C97	47 25V		PC50-25	VTT47E25	QV1-77	EV-1426.1
C98	1000 16V		PC1000-16	VTT1000M16	QV1-183	EV-1261
C115	5.6 25V			TDC686M025FL	QDT1-55	SD25-6R89
C116	5.6 25V			TDC686M025FL	QDT1-55	SD25-6R89
C120	5.6 25V			TDC686M025FL	QDT1-55	SD25-6R89
C121	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C502	4.7 25V		PC5-50	VTT47B50	QV1-31	EV-1619.1
C901	4.7 25V		PC5-50	VTT47B50	QV1-31	EV-1619.9

CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA			
			CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C1	.01 50V			MAG5011		1PB-S47
C2	.047 50V			EWFI1A147	QF1-171	10TCC-Q39
C3	39 50V 10%		DPMS2S47	CN0439		10TCP-Y50
C4	5 50V N150	(1)		*		10TS-T33
C5	330 50V 10%	(1)	GP330	GP333	QCT2-33	10TCC-068
C6	68 50V 10%	(1)	NP068	CN0468		1FT-D10
C7	.001 50V 10%		DPMS6D1	M192P10292	QFT2-1	1FT-D10
C8	.001 50V 10%		DPMS6D1	M192P10292	QFT2-1	10TCC-Q39
C9	39 50V 10%			CN0439		10TCC-T10
C10	100 50V 10%		NP0100	CN0310		
C11	.01 50V			MAG5011		10TCC-Q68
C13	68 50V 10%		NP068	CN0468		
C14	5 50V +.25			CN0568		10TCC-Q22
C15	22 50V 10%		NP022	CN0422	QFT2-1	1FT-D10
C16	.001 50V 10%		DPMS6D1	M192P10292		
C17	.01 50V			MAG5011		
C18	.01 50V			MAG5011		
C19	.047 50V		DPMS2S47	EWFI1A147	QF1-171	1PB-S47
C21	15 50V 10%	(1)	NP015	CN0415		10TCC-Q15
C22	.01 50V			MAG5011		
C23	22 50V 10%		NP022	CN0422		10TCC-Q22
C24	82 50V 10%		NP082	CN0482		10TCC-Q82
C25	220 50V 10%					10TCC-T22
C26	120 50V 10%	(1)		CN0312		10TCC-T12

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA			
			CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C28	120 50V 10%	(1)		CN0312		10TCC-T12
C29	.01 50V			MAG5011		
C33	.01 50V			MAG5011		
C34	15 50V 10%	(1)	NP015	CN0415		10TCC-Q15
C35	82 50V 10%		NP082	CN0482		10TCC-Q82
C36	.01 50V			MAG5011		
C37	.01 50V			MAG5011		
C38	.01 50V			MAG5011		
C39	.01 50V			MAG5011		
C40	120 N150 50V 5%	(1)		*		10TCP-T12
C41	470 50V 10%		GP470	GP347	QCT2-35	10TS-T47
C42	.01 50V			MAG5011		
C43	150 50V 10%			CN0315		10TCC-T15
C44	220 50V 10%					10TCC-T22
C45	.01 50V			MAG5011		
C46	120 50V 10%			CN0312		10TCC-T12
C47	270 500V 10%					10TCC-T27
C48	39 500V 10%			CN0439		10TCC-Q39
C49	27 50V 10%			CN0427		10TCC-Q27
C52	.01 50V			MAG5011		
C53	.01 50V			MAG5011		
C54	10 50V +.5			*		10TCC-Q10
C56	180 50V					10TCC-T18
	150 50V 10%	(1)		CN0315		10TCC-T15
C57	39 50V 10%	(1)		CN0439		10TCC-Q39
C58	150 N150 50V 10%			*		10TCP-T15
C59	.047 50V		DPMS2S47	EWFA1A147	QF1-171	1PB-S47
C60	2 50V +.25			CN0522		
C61	.01 50V			MAG5011		
C62	15 50V 10%		NP015	CN0415		10TCC-Q15
C63	.022 50V			M192P2239R8		192P2239R8
C64	.047 50V 10%		DPMS2S47	M192P4739R8	QFT2-171	1FT-S47
C65	.01 50V 10%		WMF1S1	EWFA1A110	QF1-91	1PR-S10
C66	.047 50V 10%		DPMS2S47	M192P4739R8	QFT2-171	1FT-S47
C67	.047 50V		DPMS2S47	EWFA1A147	QF1-171	1PB-S47
C68	.0068 50V 10%		WMF1D68	M192P6829R8	QFT2-73	1FT-D68
C69	.047 50V 10%		DPMS2S47	EWFA1A147	QF1-171	1PB-S47
	.0047 50V		GP4700	GP247		5GA-D47
C71	.047 50V		DPMS2S47	EWFA1A147	QF1-171	1PR-S47
C72	.047 50V		DPMS2S47	EWFA1A147	QF1-171	1PB-S47
C76	.047 50V 10%		DPMS2S47	M192P4739R8	QFT2-171	1FT-S47
C77	.0047 50V		GP4700	GP247		5GA-D47
C78	.01 50V 10%		WMF1S1	EWFA1A110	QF1-91	1PB-S10
C79	.001 50V			GP210	QCT2-41	10TS-D10
C80	270 50V 10%					10TCC-T27
C82	.01 50V 10%		WMF1S1	EWFA1A110	QF1-91	1PB-S10
C83	.0022 50V			GP222	QCT2-46	10TS-D22
C85	.01 50V			MAG5011		
C86	220 50V 10%					10TCC-T22
C88	.068 50V			MAG50168		10TCC-T22
C89	220 50V 10%					
C90	.068 50V 10%			MAG50168		
C99	.01 50V			MAG5011		
C100	.01 50V			MAG5011		
C101	.022 50V			M192P2239R8		192P2239R8
C102	.0022 50V			GP222	QCT2-46	10TS-D22
C103	.001 50V 10%			GP210	QCT2-41	10TS-D10
C104	.0022 50V			GP222	QCT2-46	10TS-D22
C105	.022 50V			M192P2239R8		192P2239R8
C106	2 50V +.25			CN0522		
C107	.047 50V		OPMS2S47	EWFA1A147	QF1-171	1PB-S47
	.0047 50V		GP4700	GP247		5GA-D47
C108	120 50V 10%	(1)		CN0312		10TCC-T12
C110	.01 50V	(1)		MAG5011		
C114	47 50V 10%		NP047	CN0447	QCC2-26	10TCC-Q47
C117	.047 50V 10%		DPMS2S47	EWFA1A147	QF1-171	1PB-S47
C118	.047 50V 10%		DPMS2S47	EWFA1A147	QF1-171	1PB-S47
C119	.1 50V 10%			MAG5001		
C124	.01 50V	(1)		MAG5011		
C125	.01 50V	(1)		MAG5011		
C201	150 500V 10%			CN0315		10TCC-T15
C202	.047 50V			MAG5011		
	.0047 50V		GP4700	GP247		5GA-D47
C203	.0047 50V		GP4700	GP247		5GA-D47
C204	.001 50V 10%			GP210	QCT2-41	10TS-D10
C501	.01 50V			MAG5011		
C503	.01 50V			MAG5011		
C504	.01 50V			MAG5011		
C505	.01 50V			MAG5011		
C506	.01 50V			MAG5011		
CT1	Trimmer	EA30XB5				

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

(1) Value varies, replace with valve found in set.

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	RESISTANCE	REPLACEMENT DATA		
			MFGR. PART No.	MALLORY PART No.	TRW PART No.
RV1	Squelch Range	10K	EA49X528	RVA0911H103	U260R103B
RV2	AMC	2000	EA49X530	RVA0911H252	U260R252B
RV3	RX Signal Meter	20K	EA49X531	RVA0911H253	U260R253B
RV4	TX Power Meter	10K	EA49X528	RVA0911H103	U260R103B
RV5	SWR Meter	100K	EA49X529	RVA0911V104 (2)	X260R104B (2)
RV501	AWI	20K	EA49X490	RVA0911V253	X260R253B
VR1	Volume/Power Switch	50K	EA49X392		
VR2	Squelch	10K	EA49X393		
VR3A	RF Gain	100K	EA49X533 (18)		
VR3B	Variable Noise Suppressor	20K			
VR5	Mic Power	5000	EA49X532		

(2) Cut off one of the end terminals and bend to fit P.C. Board.

(18) Includes VR3A and VR3B.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		MFGR. PART No.	WORKMAN PART No.			MFGR. PART No.	WORKMAN PART No.
R901	8 3W Carbon						

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	RF Choke	EA36X334			
L2	RF Choke	EA36X237			
L3	RF Driver (27MHz)	EA36X519			
L4	RF Choke	EA36X239			
L5	RF Choke	EA36X245			
L6	RF Choke	EA36X240			
L7	RF Choke	EA36X522			
L8	Pi Filter	EA36X521			
L9	RF Choke	EA36X336			
L10	RF Choke	EA36X239			
L11	RF Choke	EA36X263			
T1	VCO	EA36X337			
T2	Doubler (27MHz)	EA36X283	10C8003		
T3	Doubler (27MHz)	EA36X283			
T4	RF Predriver (27MHz)	EA36X248			
T5	Receive Antenna (27MHz)	EA36X249			
T6	RF Amp (27MHz)	EA36X265	TR10CA0035		
T7	RF Amp (27MHz)	EA36X339	TR10CM003M		
T8	1st Mixer (10.695MHz)	EA36X340	TR10MA018M		
T9	1st Mixer (10.695MHz)	EA61X204			
T10	IF (455kHz)	EA61X188	ET10I122		
T11	IF (455kHz)	EA61X190	ET10I129		

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	1.35A	.23	3.3mH	EA36X256			

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T12	2	1 2 8 12.5	EA64X30	TR723	MCB-16	

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

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3" PM 8 Ohm	EA95X137	30A05Z8R	

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
AC4	2A Quick-acting	5-1725		AGC2	HRK	312-002	150-145	FG2-2

MISCELLANEOUS

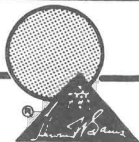
ITEM No.	PART NAME	PART No.	NOTES
CF1	Filter	EA36X520	455kHz
D301	LED	EA62X242	Channel Indicator (Each segment supplied 1.88V @ 6.2mA)
D302	LED	EA16X224	TX (Red) (1.98V @ 9.4mA)
O303	LED	EA16X225	A.W.I. (Yellow) (1.99V @ 11mA)
J1	Jack	EA41X203	Antenna
J2	Jack	EA41X176	Mike
J3	Jack	EA41X235	Handset
J4	Jack	EA41X235	External Speaker
J5	Jack	EA41X235	PA
J6	Jack	EA41X236	DC Receptacle
M1	Meter	EA62X244	Assembly
PL1	Lamp	EA41X237	Meter (9.37V @ 60mA)
PL2	Lamp	EA41X238	Panel (13.70V @ 74mA)
PL3	Lamp	EA41X238	Dial (13.70V @ 70mA)
S2	Switch	EA55X183	CB/PA
S3	Switch	EA55X183	Ch 9
S4	Switch	EA55X183	TX-RX/Auto SWR
S5	Switch	EA55X183	VFF
SW251	Switch	EA62X243	Channel Selector (w/P.C. Board)
X1	Crystal	EA75X6	10.240MHz
XF1	Filter	EA36X333	10.7MHz
	Microphone Handset	5-1278	
		5-1825	Telephone

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

ITEM	PART No.	ITEM	PART No.
Escutcheon Assembly	EA98X750	Knob, Mic Power	EA43X917
Knob, Channel Selector	EA43X1031	Knob, VNS (Outer)	EA43Y852
Knob, RF Gain (Inner)	EA43X853	Knob, Volume/Squelch	EA43X855

WIRING DATA

Cable (Speaker)(Unshielded).....	Use BELDEN No. 8782 (AWG24)(4 colors)
Shielding Strap.....	Use BELDEN No. 8660 (3/16" width)
Hook-up Wire (General Use).....	Use BELDEN No. 8524 (AWG22)(13 colors)
Hook-up Wire (Shielded).....	Use BELDEN No. 8401 (Braided Shield)(1 conductor)(AWG25)
	Use BELDEN No. 8421 (Spiral Shield)(1 conductor)(AWG25)
	Use BELDEN No. 8737 (Spiral Shield)(2 conductor)(AWG22)
Microphone Cable (Coiled).....	Use BELDEN No. 8497 (3 conductor-1 shielded)(6 ft.)(AWG22)
Microphone Cable (Coiled).....	Use BELDEN No. 9466 (3 conductor-1 shielded)(6 ft.)(AWG28)
Microphone Cable (Coiled).....	Use BELDEN No. 9468 (3 conductor-1 shielded)(6 ft.)(AWG31)



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 Stalker V

MANUFACTURER'S SPECIFICATIONS

GENERAL

Channels	40
Frequency Range	26.965 MHz to 27.405 MHz
Frequency Control	PLL Synthesized
Antenna Impedance	50 ohm
Power Input	13.8V DC
Accessories	DC Power Cord, Detachable Dynamic Microphone, Microphone Hanger, Mounting Bracket
Size	7-3/8"(W) x 8-3/4"(D) x 2-1/4"(H)
Weight	3 pounds, 14 ounces

TRANSMITTER

Output Power	4 watts
Emission Type	6A3
Hum and Noise	Better than -60 dB
Frequency Tolerance	0.003%
Modulation Percentage (Peak)	100%

RECEIVER

Sensitivity at 10 dB S + N/N	0.5 μ V
Sensitivity for 500 mW Audio Output	0.5 μ V
Squelch Threshold	0.5 μ V
Squelch Deepest Point	1000 μ V
"S" Meter S-9	100 μ V
Maximum AF Output Power	4 watts
AF Output Power/10% Distortion	3 watts
Selectivity BW @ 6 dB Down	-60 dB
Image Rejection	-80 dB
Speaker Impedance	8 ohms

TEABERRY MODEL Stalker V

Courtesy of the Manufacturer

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

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ALIGNMENT INSTRUCTIONS

CAUTION: Use isolation transformer or observe polarity when connecting test equipment.
 Maintain line voltage at 120V AC. Allow a 15-minute warm-up period.
 Adjustments made with 13.8-volt DC input.
 Connect low sides of test equipment to ground unless specified otherwise.
 Connect 50-ohm dummy load or antenna before keying transmitter.
 Connect microphone.

Suggested Alignment Tools: GC ELECTRONICS:
 L1 thru L6, L17 thru L24.....9440
 L7, L8, L9.....5009, 8728, 8728-A
 L11, L14, L16.....9091, 8728, 8728-A

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of oscilloscope to TP10 (L23, Secondary).	Ch. 19 Delta Tune Detent	L23	Adjust for maximum. (500mV typical). (See Figure 1.)
Input of frequency counter to TP10 (L23, Secondary).	Ch. 19 Delta Tune Detent	L24	Adjust for 10.240MHz.
Input of DC meter to TP2. (Junction of R88 and R89).	Ch. 1	L19	Adjust for 1.25 volts.
	Ch. 1, XMT		Check for 2.10 volts.
Input of oscilloscope to TP11 (IC2, Pin 4).	Ch. 1 Delta Tune Detent	L22	Adjust for maximum. (320mV typical). (See Figure 2.)
Input of oscilloscope to TP5. (L18 Secondary).	Ch. 19 Delta Tune Detent	L18	Adjust for maximum. (460mV typical). (See Figure 3.)
Input of frequency counter to TP5 (L18 Secondary).	Ch. 1 Delta Tune Detent		Check for 16.270MHz. Check all channels. (See Truth Chart for correct frequencies.)
	Ch. 1, XMT		Check for 16.725MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of frequency counter to TP3 (IC1, Pin 22).	Ch. 1 Delta Tune Detent		Check for .910MHz. Check all channels. (See Truth Chart for correct frequencies.)
	Ch. 1, XMT		Check for 1.365MHz. 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. Preset control as follows unless otherwise
 noted: NB/ANL Off, Squelch MINIMUM, RF Gain Maximum, Delta Tune Detent.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP12 (FET2, Gate). 455kHz, 1000Hz @ 30% modulation.	Ch. 19	L9,L8,L7	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19	L6,L5,L4, L3,L2	Adjust for maximum output. If necessary, readjust L7, L8 and L9.
Inject a 100pps, 1uSec. pulse width signal at antenna jack.	Ch. 19 NB/ANL On	L1	Adjust for MINIMUM noise from speaker.

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication.
Preset control as follows unless otherwise noted: NB/ANL Off, Squelch MINIMUM, RF Gain Maximum, Delta Tune Detent.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output .4uV.	Ch. 19 Volume Maximum	VR1	IF GAIN Adjust for 2 volts audio.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 1000uV.	Ch. 19 Squelch Maximum	VR3	SQUELCH RANGE Adjust so squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19	VR2	S METER Adjust for 9 on S scale of meter.

TRANSMITTER ALIGNMENT

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

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of RF wattmeter to antenna input.	Ch. 19	L21, L20, L17, L16, L14	Adjust for maximum.
Input of RF wattmeter to antenna input.	Ch. 19	L14	Adjust for 4 watts maximum.
Input of spectrum analyzer or harmonic meter to antenna jack.	Ch. 19	L11	Adjust for MINIMUM at 54MHz.

TRANSMITTER ADJUSTMENTS

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

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of oscilloscope or modulation meter to antenna jack. Inject a 1000Hz, 30mV signal at mic input.	Ch. 19 Mic Gain Maximum	VR4	AMC Adjust for 100% modulation maximum. (See Figure 4.)
Input of RF wattmeter to antenna jack.	Ch. 19	VR5	RF METER Adjust so RF meter reads just below to red on the RF scale of meter.

TEABERRY MODEL Stalker V

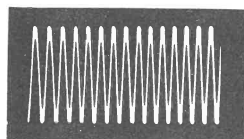


FIGURE 1

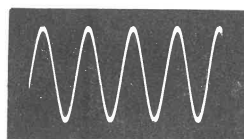


FIGURE 2

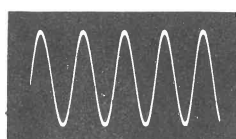


FIGURE 3

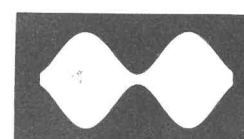
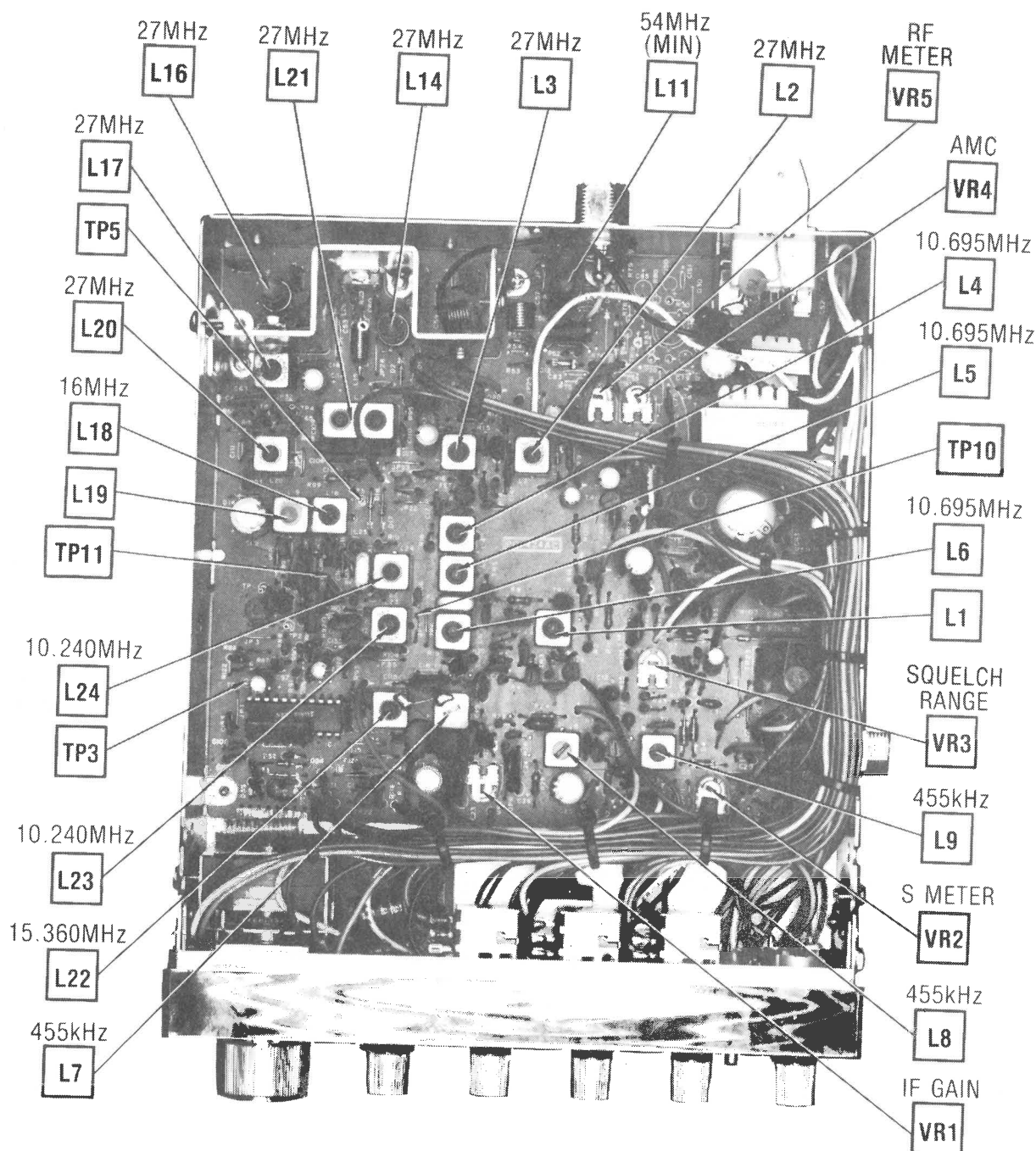


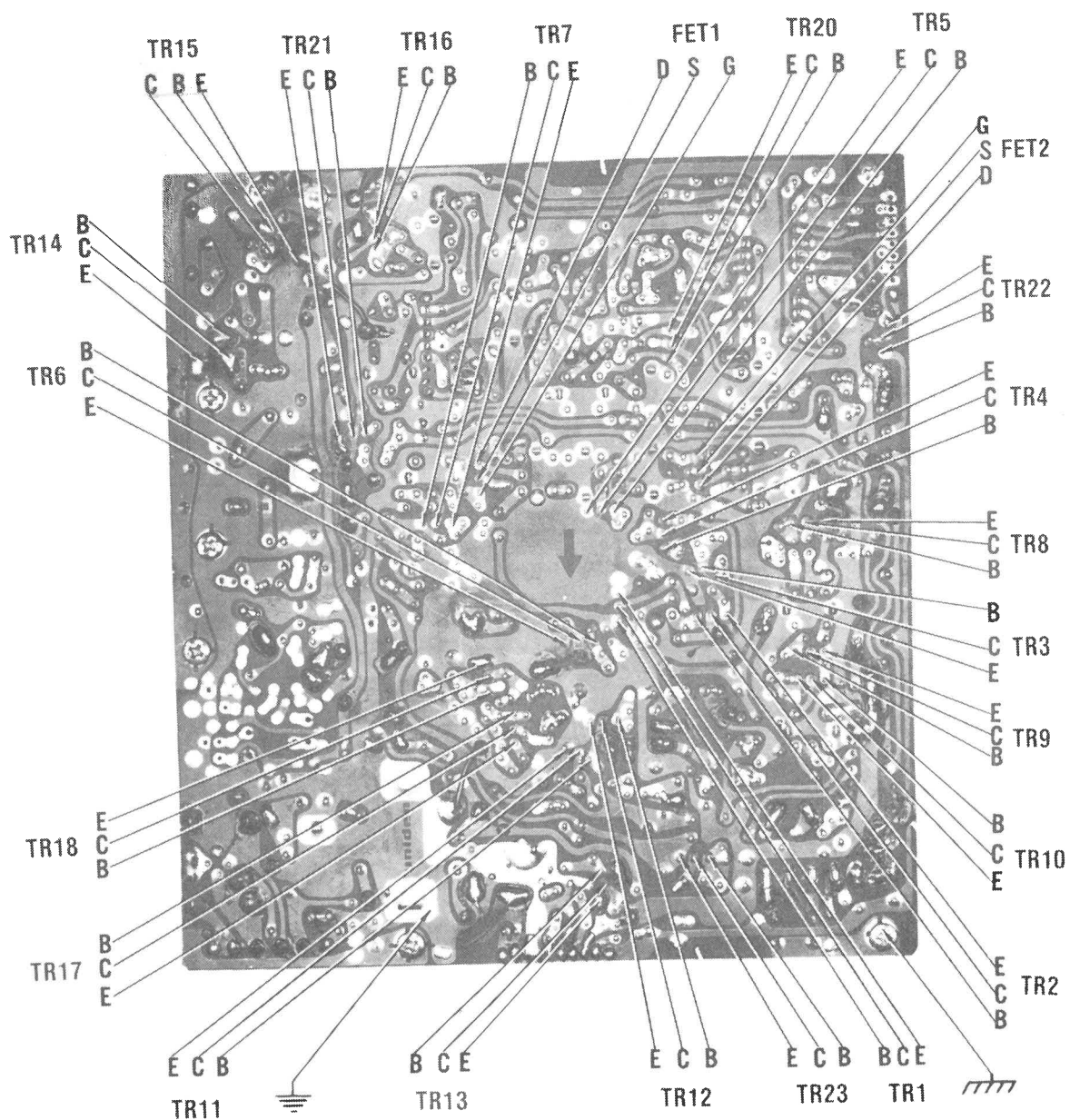
FIGURE 4

TRUTH CHART

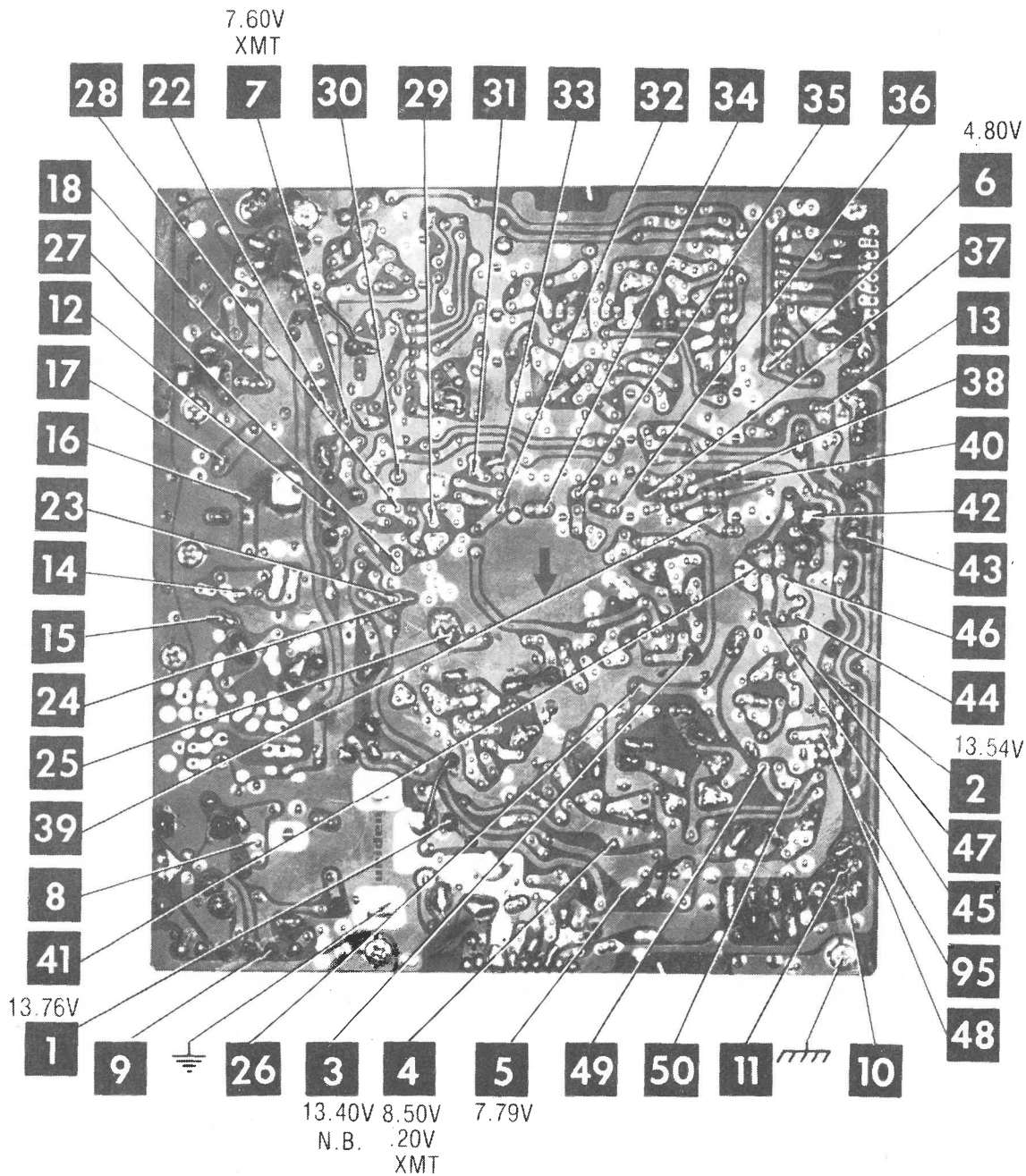
C H A N N E L	1 = 4.78 Volts							0 = 0 Volts		REC SYNTHESIZER OUTPUT IN MHz AT TP5.	REC DIVIDER INPUT IN MHz AT TP3.	XMT SYNTHESIZER OUTPUT IN MHz AT TP5.	XMT DIVIDER INPUT IN MHz AT TP3.
	IC1 PROGRAM DIVIDER												
	PINS												
	6	5	4	3	2	1							
1	0	0	0	0	0	1			16.270	.910	16.725	1.365	
2	0	0	0	0	1	0			16.280	.920	16.735	1.375	
3	0	0	0	0	1	1			16.290	.930	16.745	1.385	
4	0	0	0	1	0	0			16.310	.950	16.765	1.405	
5	0	0	0	1	0	1			16.320	.960	16.775	1.415	
6	0	0	0	1	1	0			16.330	.970	16.785	1.425	
7	0	0	0	1	1	1			16.340	.980	16.795	1.435	
8	0	0	1	0	0	0			16.360	1.000	16.815	1.455	
9	0	0	1	0	0	1			16.370	1.010	16.825	1.465	
10	0	1	0	0	0	0			16.380	1.020	16.835	1.475	
11	0	1	0	0	0	1			16.390	1.030	16.845	1.485	
12	0	1	0	0	1	0			16.410	1.050	16.865	1.505	
13	0	1	0	0	1	1			16.420	1.060	16.875	1.515	
14	0	1	0	1	0	0			16.430	1.070	16.885	1.525	
15	0	1	0	1	0	1			16.440	1.080	16.895	1.535	
16	0	1	0	1	1	0			16.460	1.100	16.915	1.555	
17	0	1	0	1	1	1			16.470	1.110	16.925	1.565	
18	0	1	1	0	0	0			16.480	1.120	16.935	1.575	
19	0	1	1	0	0	1			16.490	1.130	16.945	1.585	
20	1	0	0	0	0	0			16.510	1.150	16.965	1.605	
21	1	0	0	0	0	1			16.520	1.160	16.975	1.615	
22	1	0	0	0	1	0			16.530	1.170	16.985	1.625	
23	1	0	0	0	1	1			16.560	1.200	17.015	1.655	
24	1	0	0	1	0	0			16.540	1.180	16.995	1.635	
25	1	0	0	1	0	1			16.550	1.190	17.005	1.645	
26	1	0	0	1	1	0			16.570	1.210	17.025	1.665	
27	1	0	0	1	1	1			16.580	1.220	17.035	1.675	
28	1	0	1	0	0	0			16.590	1.230	17.045	1.685	
29	1	0	1	0	0	1			16.600	1.240	17.055	1.695	
30	1	1	0	0	0	0			16.610	1.250	17.065	1.705	
31	1	1	0	0	0	1			16.620	1.260	17.075	1.715	
32	1	1	0	0	1	0			16.630	1.270	17.085	1.725	
33	1	1	0	0	1	1			16.640	1.280	17.095	1.735	
34	1	1	0	1	0	0			16.650	1.290	17.105	1.745	
35	1	1	0	1	0	1			16.660	1.300	17.115	1.755	
36	1	1	0	1	1	0			16.670	1.310	17.125	1.765	
37	1	1	0	1	1	1			16.680	1.320	17.135	1.775	
38	1	1	1	0	0	0			16.690	1.330	17.145	1.785	
39	1	1	1	0	0	1			16.700	1.340	17.155	1.795	
40	0	0	0	0	0	0			16.710	1.350	17.165	1.805	



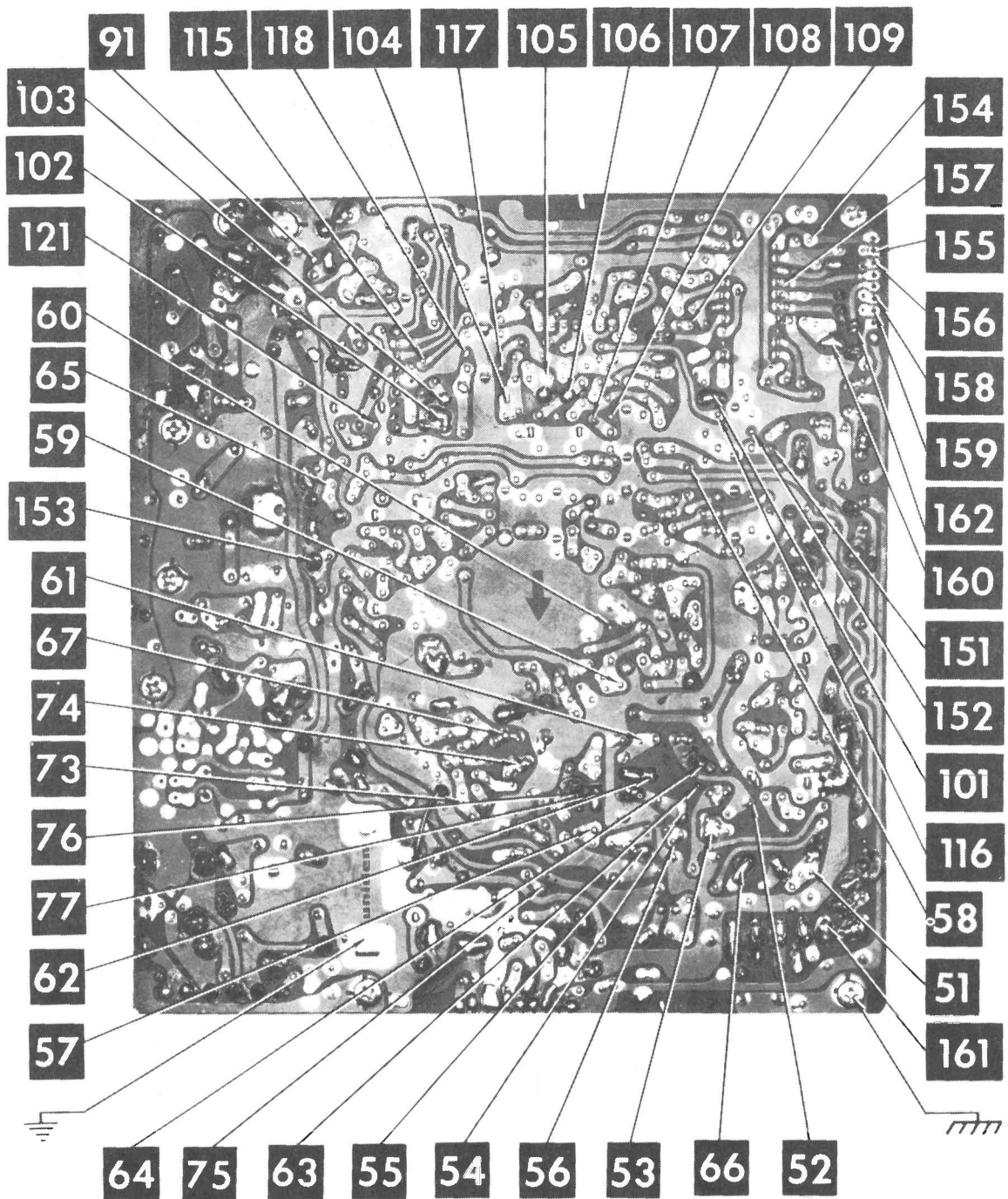
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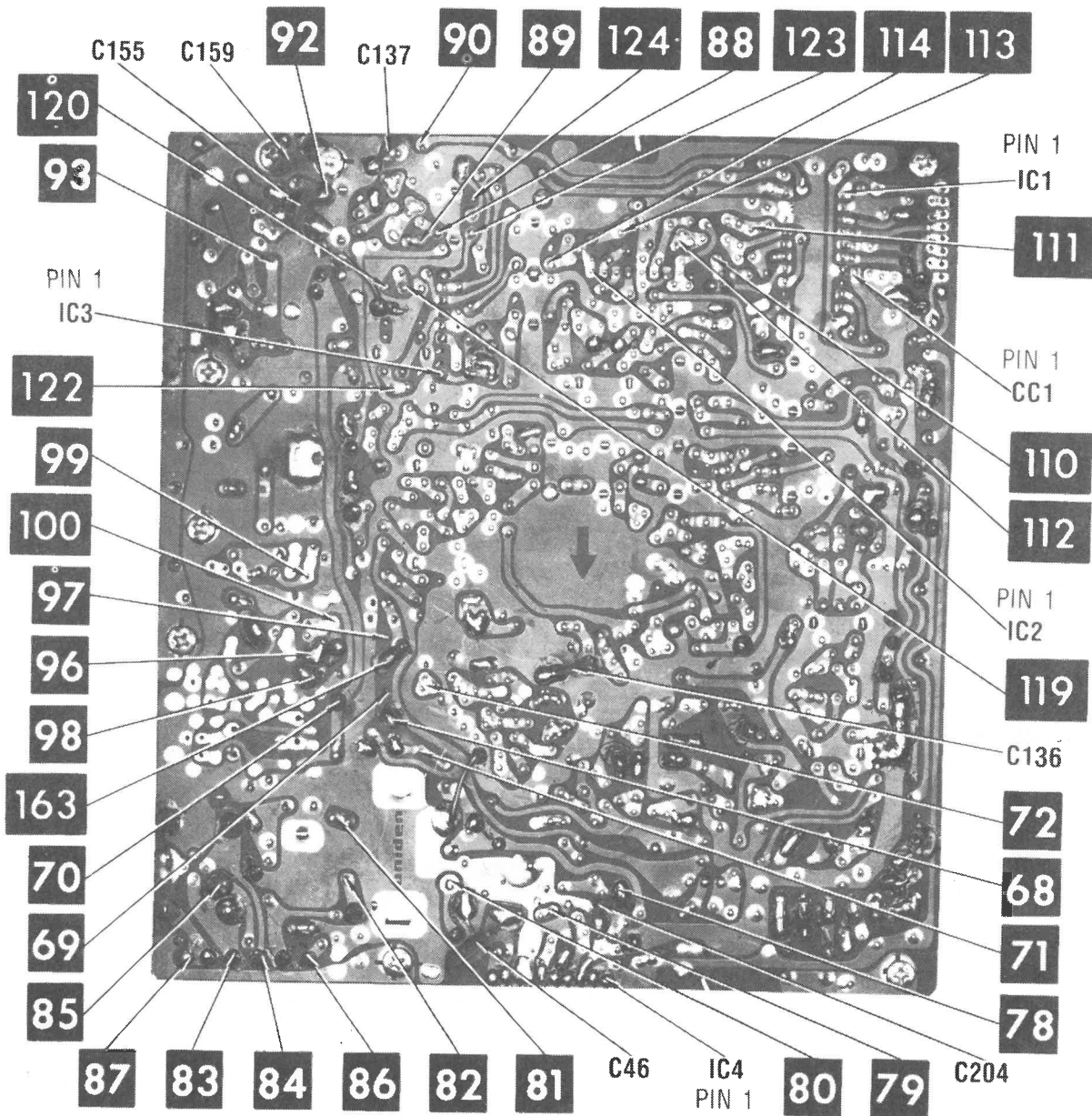
MAIN BOARD



MAIN BOARD

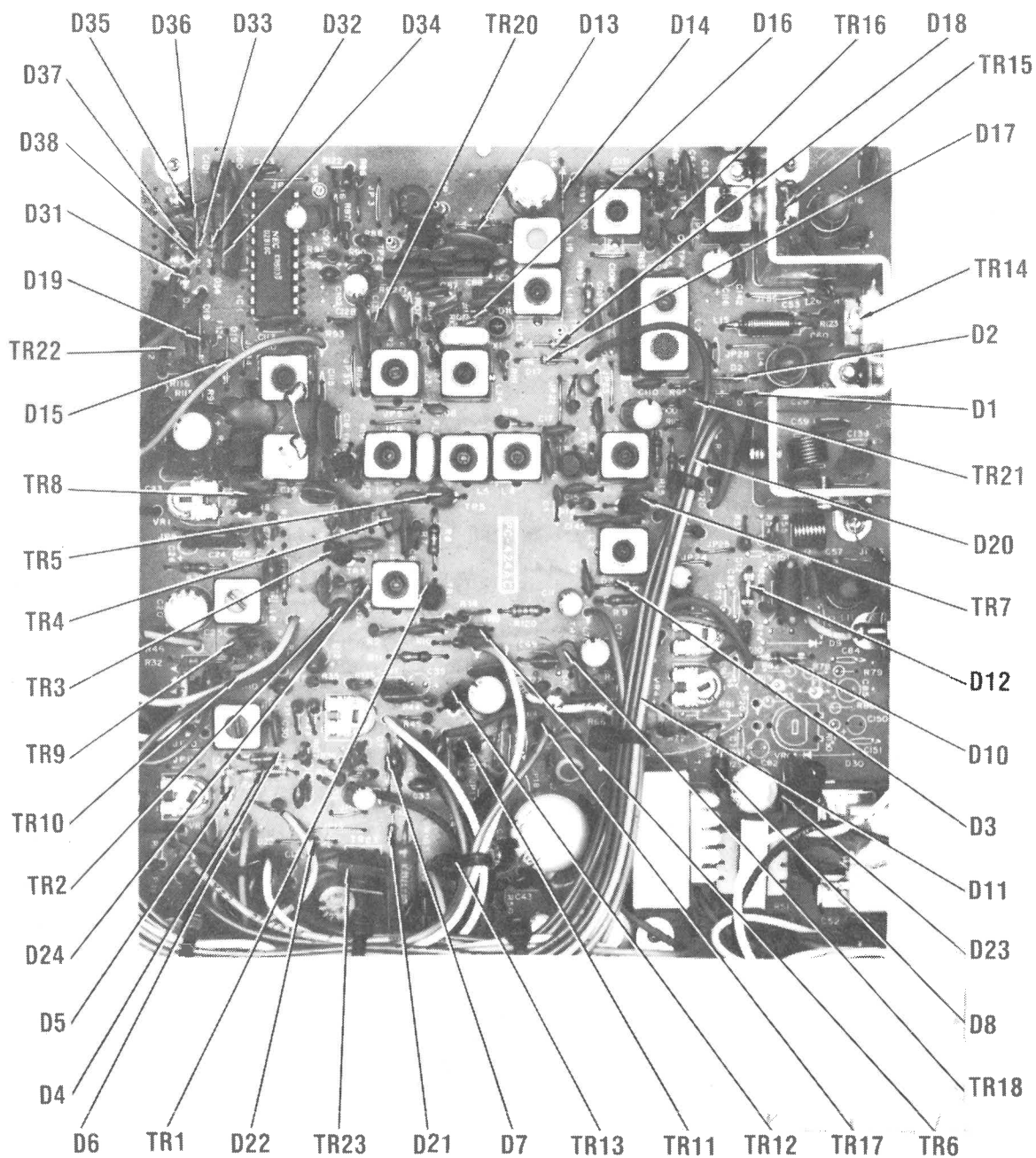


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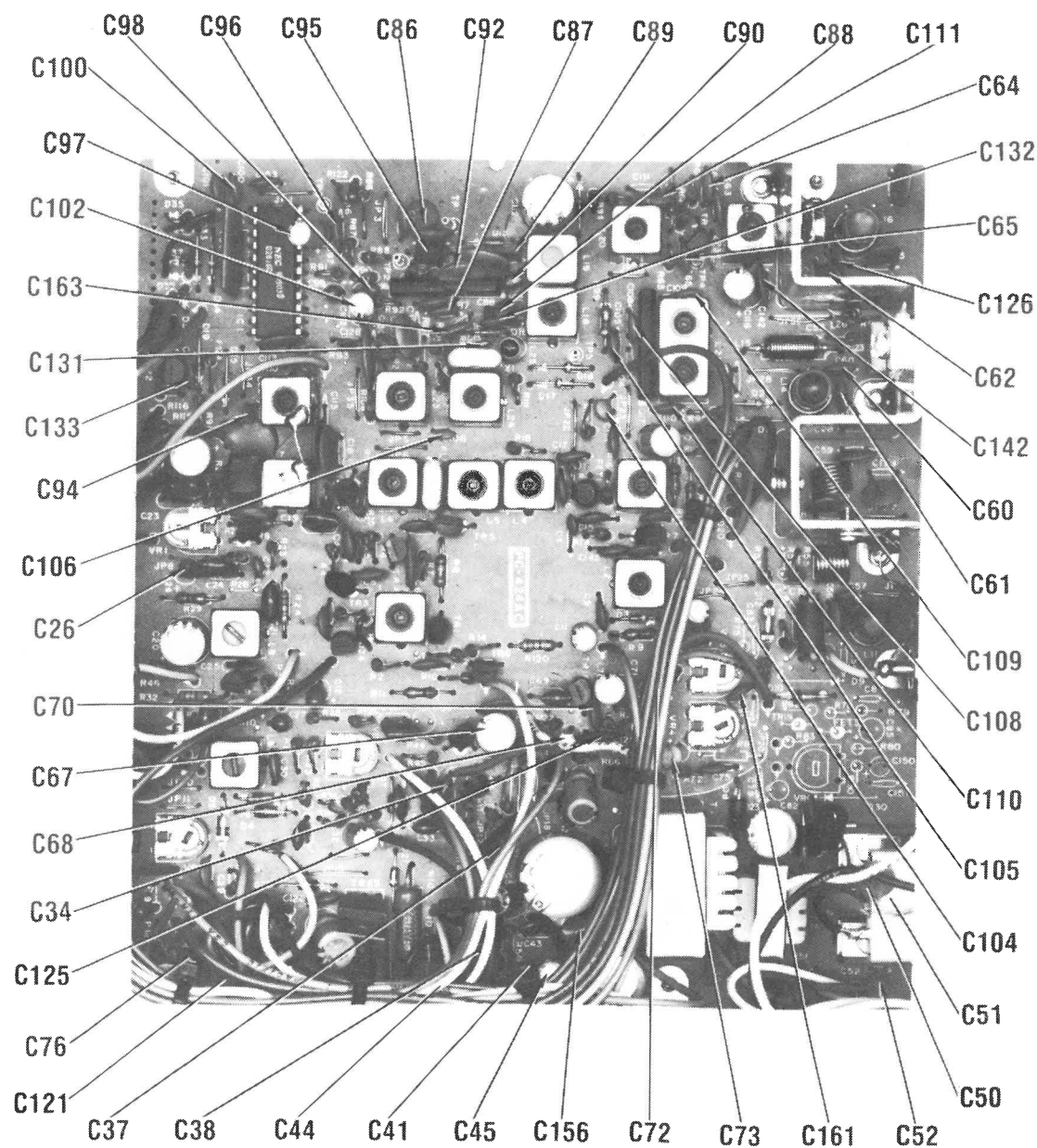


TEABERRY MODEL Stalker V

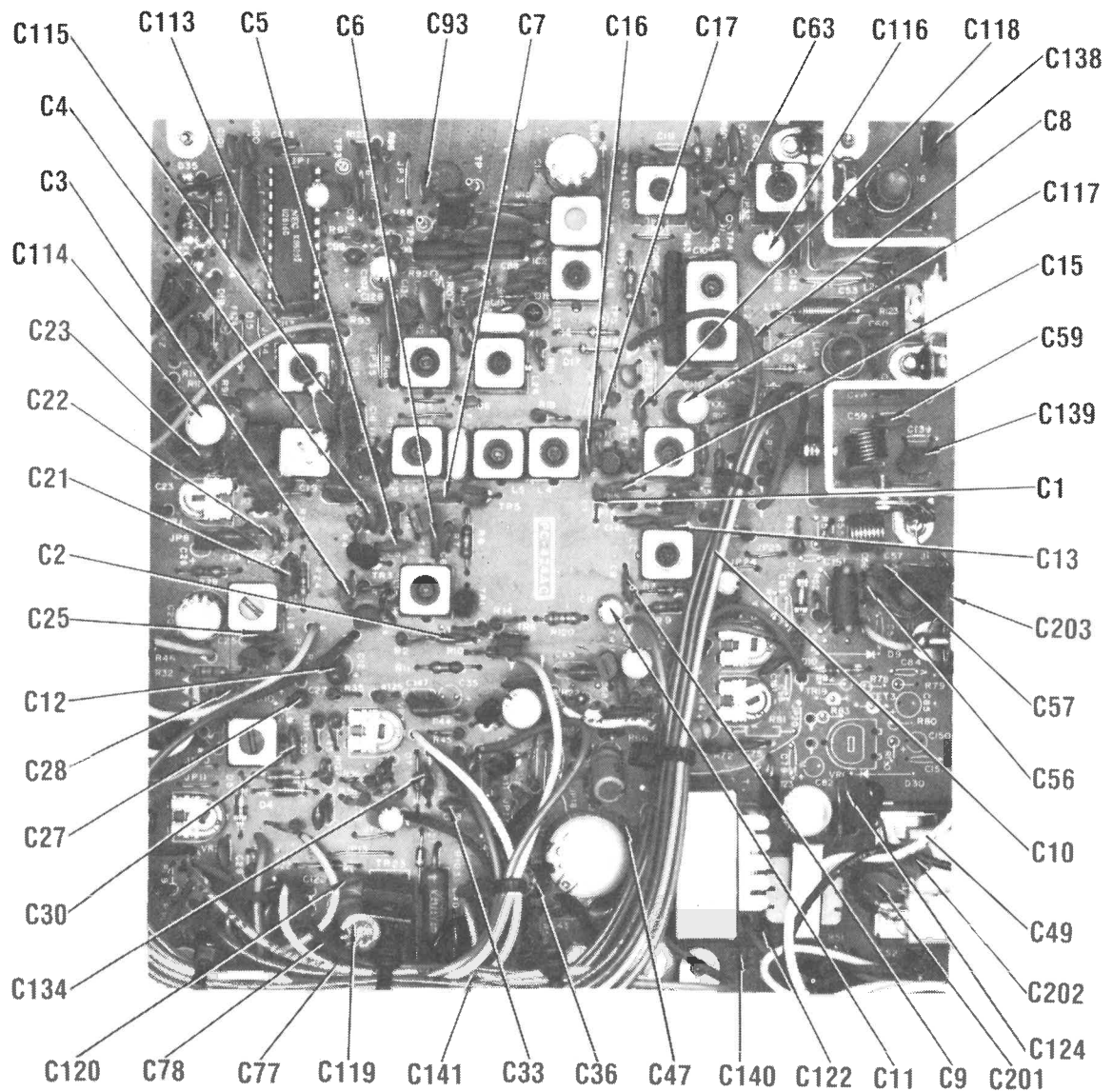
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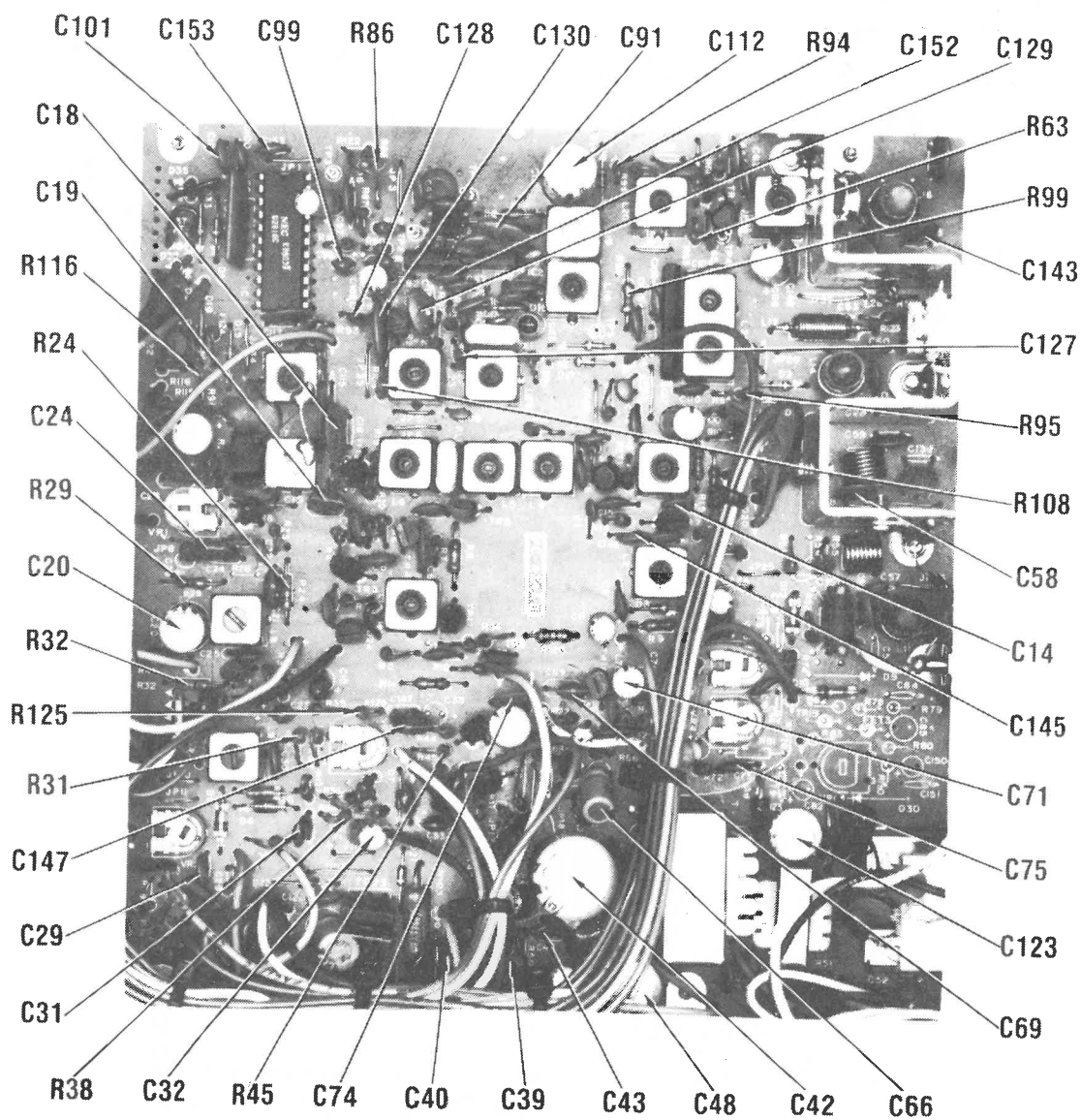
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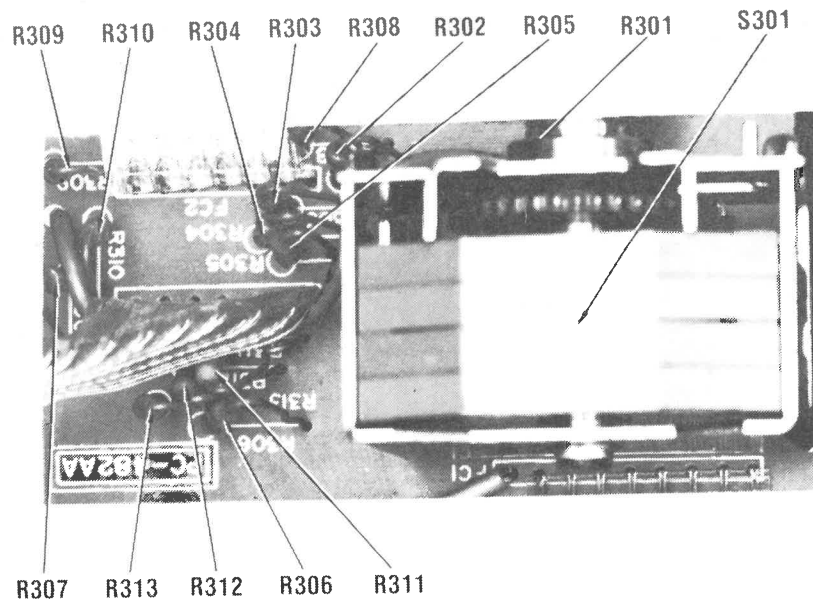
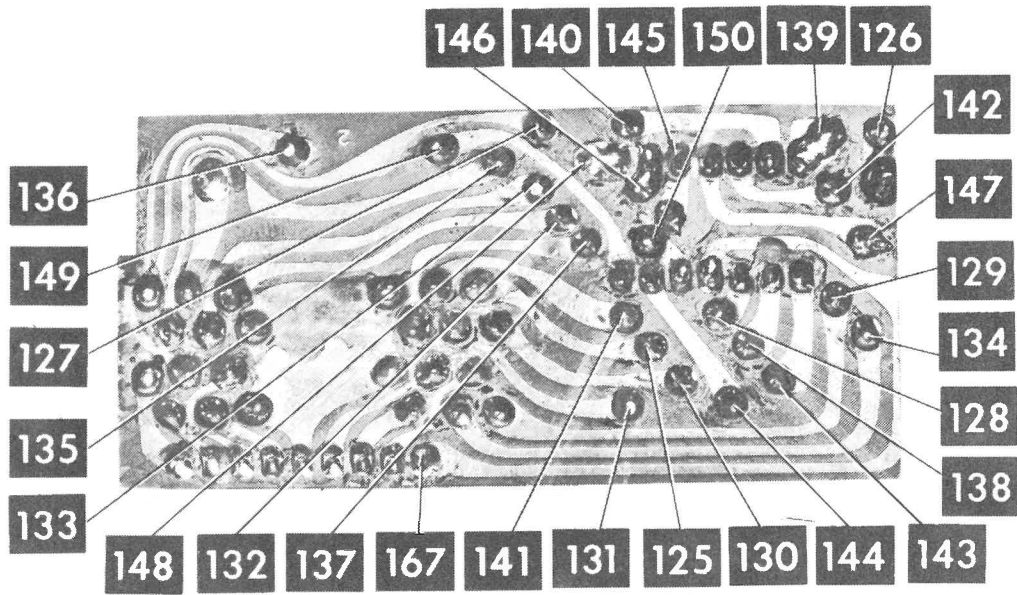
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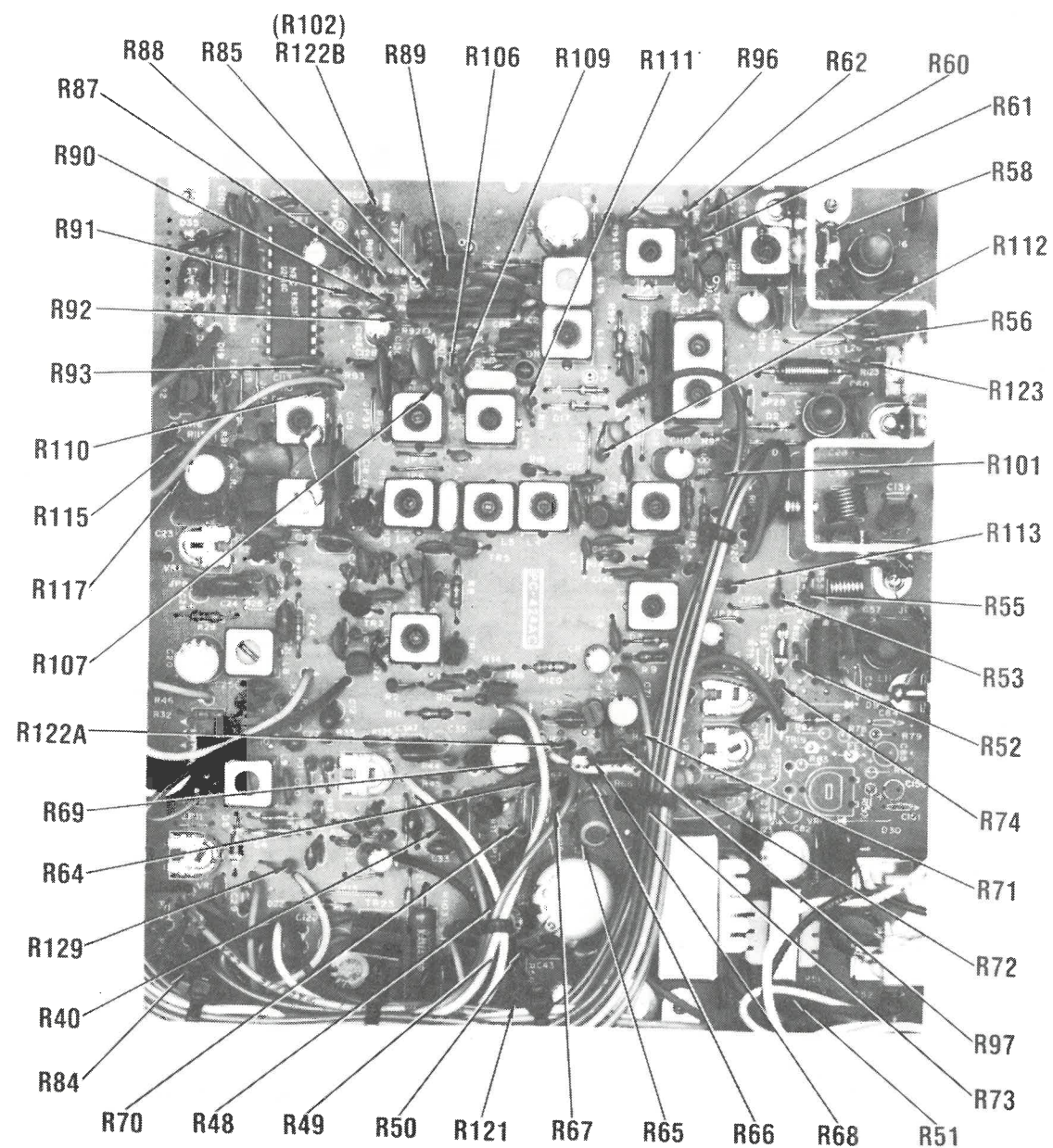
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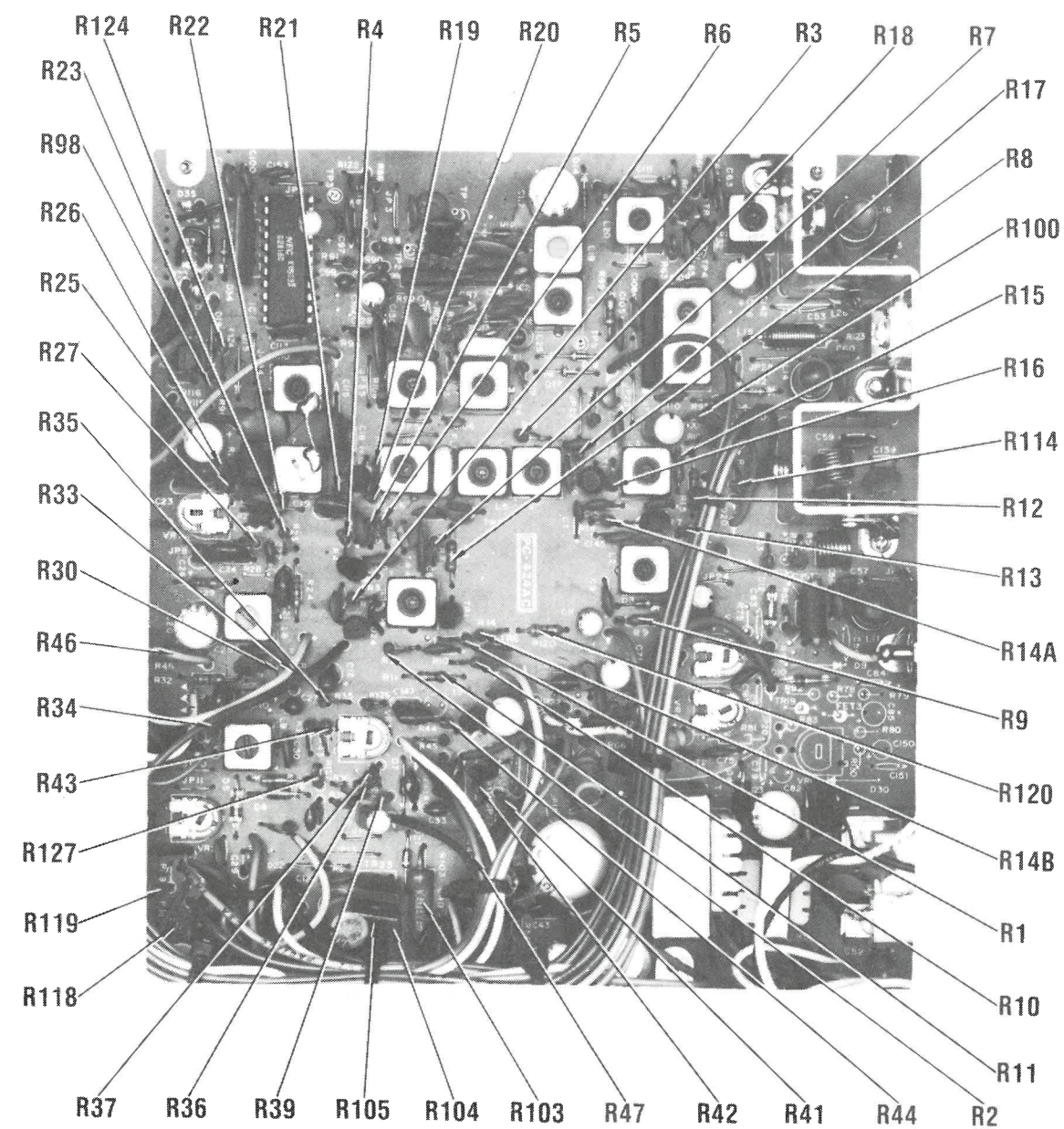
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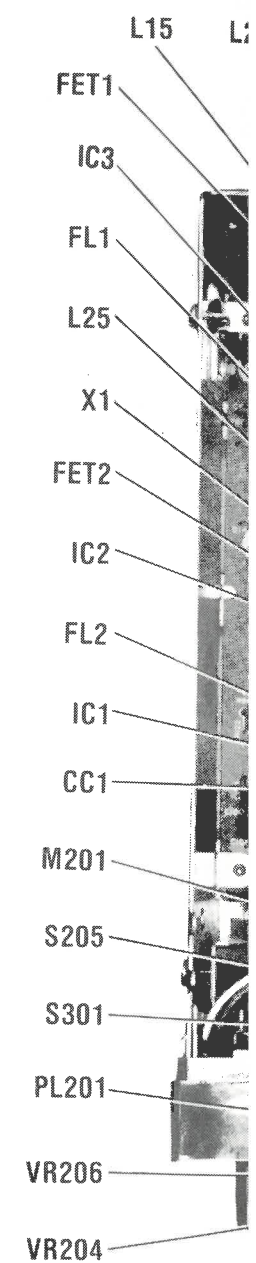
CHANNEL SELECTOR BOARD



MAIN BOARD



MAIN BOARD

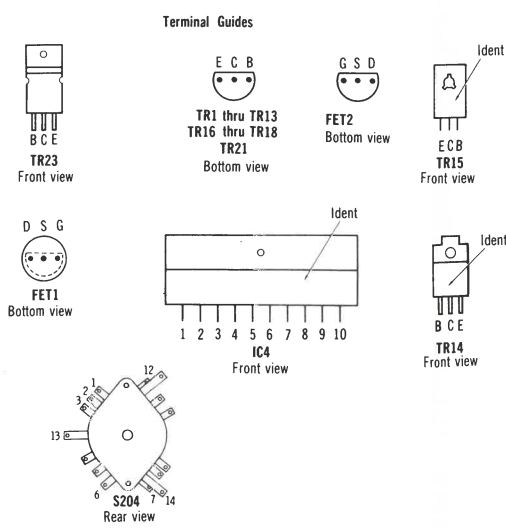


R3 R18 R7
 R17
 R8
 R100
 R15
 R16
 R114
 R12
 R13
 R14A
 R9
 R120
 R14B
 R1
 R10
 R11
 R41 R44 R2

MAIN BOARD

L15 L26 L13 L12 L10 J202 L50 L201 J203 J1
 FET1 J2
 IC3 T2
 FL1 T1
 L25 IC4
 X1
 FET2
 IC2
 FL2
 IC1
 CC1
 M201
 S205
 S301
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 P/J201
 VR205
 S204
 S201
 S206
 S203
 VR203
 VR202

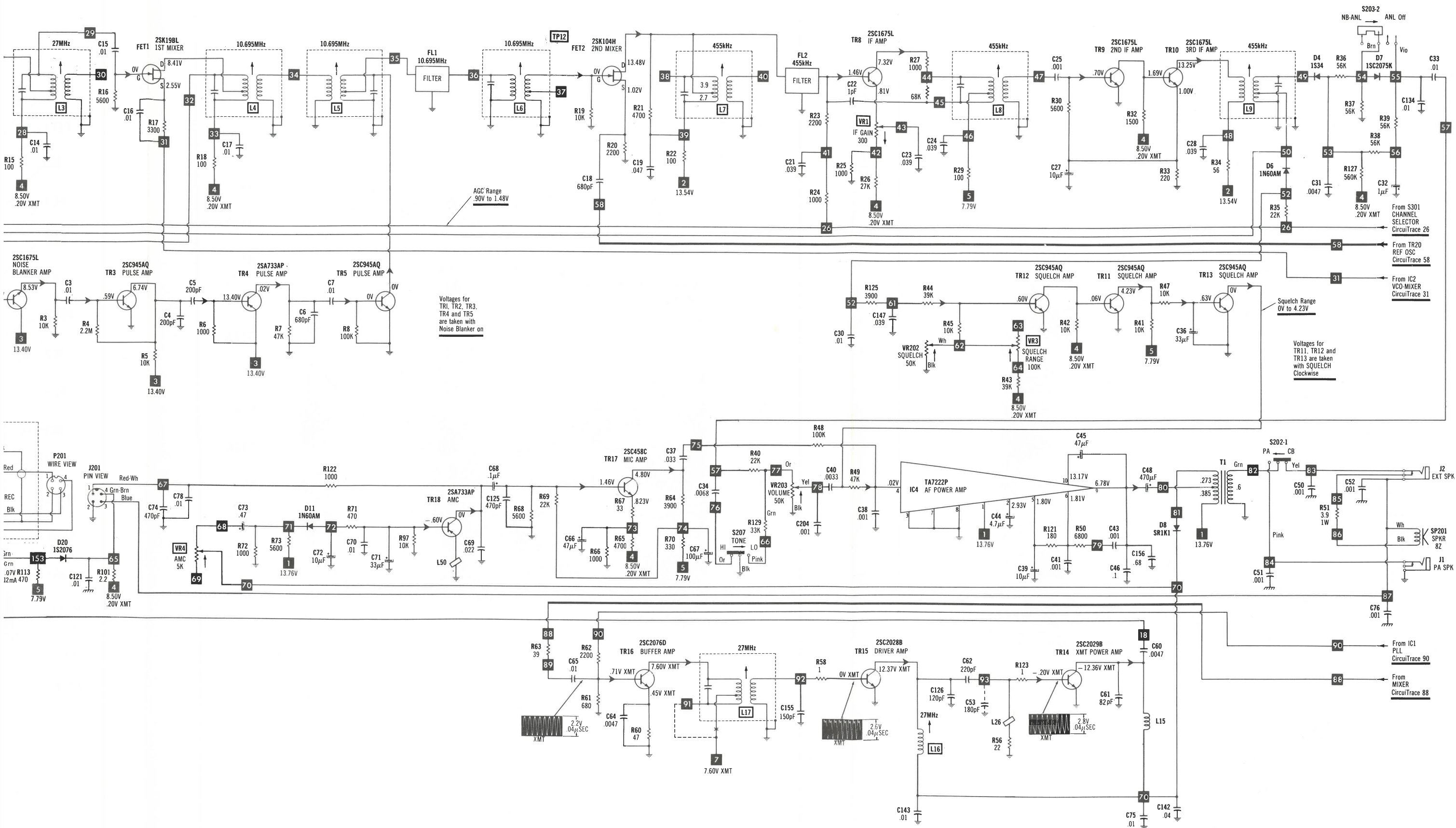
CHASSIS-BOTTOM



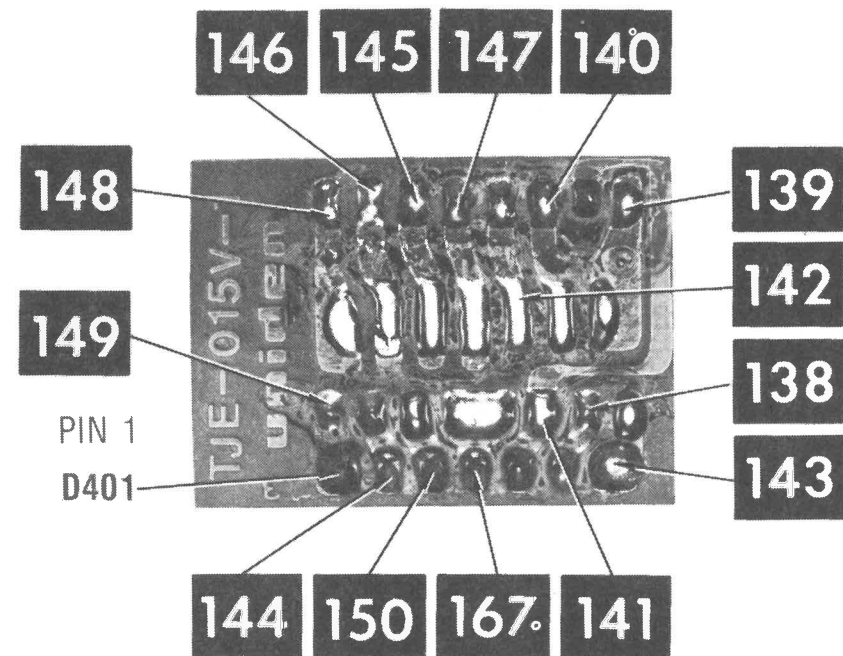
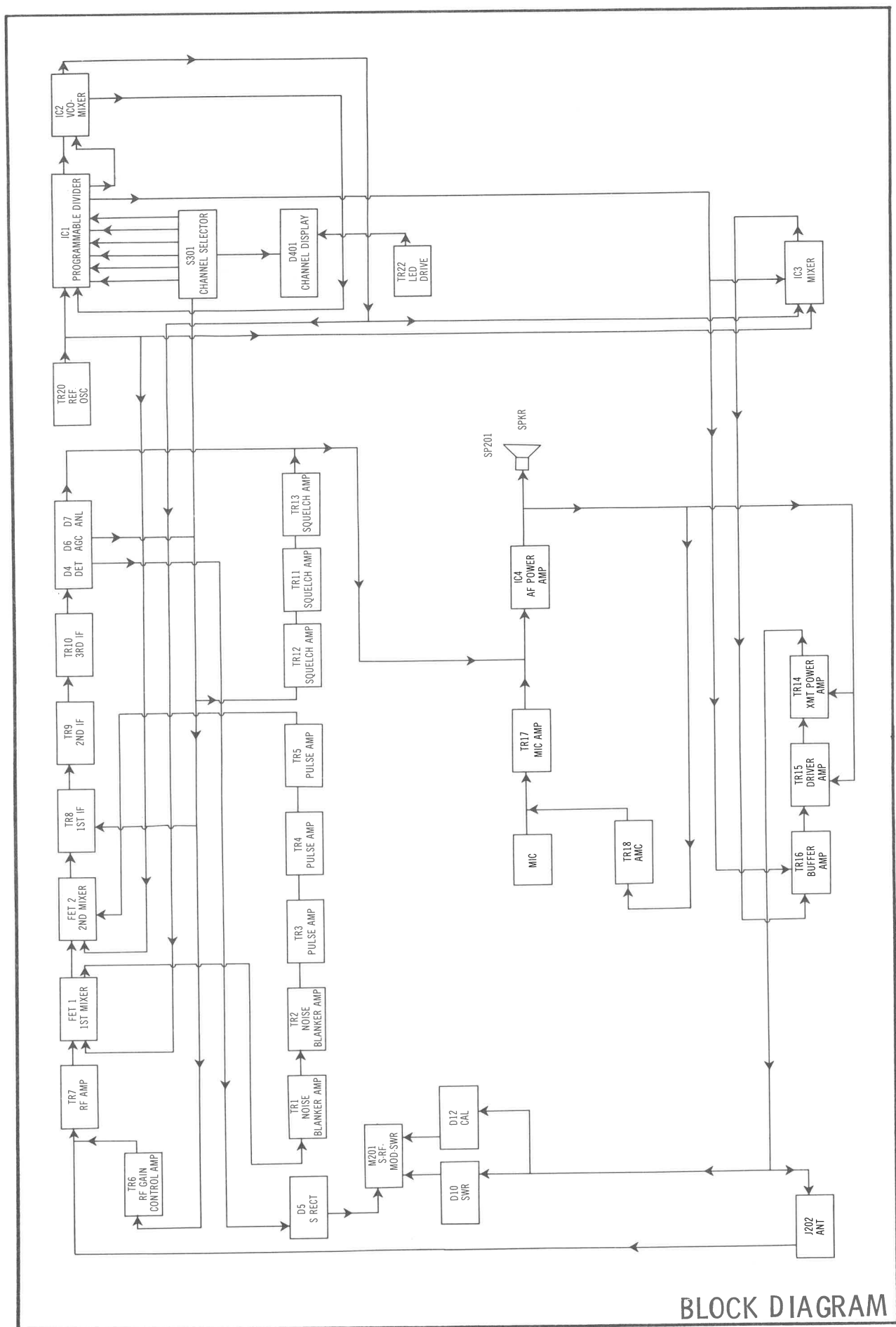
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WITH **CIRCUITRACE®**
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MAIN SCHEMATIC



LED BOARD

PARTS LIST AND DESCRIPTION (CONTINUED)

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

WIRING DATA

Cable (Speaker)(Unshielded).....	Use BELDEN No. 8782 (AWG24)(4 colors)
Shielding Strap.....	Use BELDEN No. 8660 (3/16" width)
Hook-up Wire (General Use).....	Use BELDEN No. 8524 (AWG22)(13 colors)
Hook-up Wire (Shielded).....	Use BELDEN No. 8401 (Braided Shield)(1 conductor)(AWG25)
	Use BELDEN No. 8421 (Spiral Shield)(1 conductor)(AWG22)
	Use BELDEN No. 8737 (Spiral Shield)(2 conductor)(AWG22)
Microphone Cable (Coiled)	Use BELDEN No. 8497 (3 conductor-1 shielded)(6 ft.)(AWG22)
Microphone Cable (Coiled)	Use BELDEN No. 9466 (3 conductor-1 shielded)(6 ft.)(AWG28)
Microphone Cable (Coiled)	Use BELDEN No. 9468 (3 conductor-1 shielded)(6 ft.)(AWG31)

SEMICONDUCTORS (Select replacement transistor for best results)

			REPLACEMENT DATA							
ITEM No.	TYPE No.	MFR. PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	RAYTHEON PART No.	RCA PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
D1	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D2	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D3	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D4	1S34	DDAY051001	1N34AS	PTC207	REN 109	SK3087	ECG109	TM109/**	WEP134/109	103-29001
D5	1N60	DDAY001001	1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-29001
	1N60AM		1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-29001
D6	1N60	DDAY001001	1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-29001
	1N60AM		1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-29001
D7	1S2075K	DDAY063001	GE-300	PTC214	REN 177	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D8	SR1K1	DDAY002001	GE-504A	PTC201	REN 116	SK3311	ECG116	TM116	WEP156	212-76-02
D10	1N60P	DDAY001002	1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-29001
D11	1N60AM	DDAY001001	1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-29001
D12	1N60P	DDAY001002	1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-29001
D13	1S2688EA	DDAY006003			REN 614	SK3126	ECG613	TM613	WEP200/613	103-281
D14	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D15	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D16	1S2687D	DDAY067001			REN 612	SK3100/519	ECG612	TM612		103-176
D17	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D18	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D19	XZ051	DDAY020004	GEZD-5.1			SK3056/135A	ECG135A	1N4733A	WEP1103/135A	103-29006
D20	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D21	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D22	XZ086	DDAY020005	GEZD-8.7		REN 5073	SK3749/5073A	ECG5073A	TM5073A	WEP1155/5073A	
D23	SR1K1	DDAY002001	GE-504A	PTC201	REN 116	SK3311	ECG116	TM116	WEP156	212-76-02
D24	1N60AM	DDAY001001	1N60	PTC206	REN 109	SK3088	ECG109	TM109/**	WEP134/109	103-29001
D31	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D32	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D33	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D34	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D35	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D36	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D37	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
D38	1S2076	DDAY069001	GE-514	PTC214	REN 177	SK3100/519	ECG519	TM519	WEP925/519	103-131
FET1	2SK198L	DDCY001002	GE-FET-2	PTC161	REN 132*	SK3834/132	ECG312*	TM312*	WEP920/312*	921-1067*
FET2	2SK104H	DDCY011001	GE-FET-2	PTC161	REN 132*	SK3834/132	ECG312*	TM312*	WEP920/312*	921-1067*

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.	RAYTHEON PART No.	RCA PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
IC1	D2816C	DDEY147001								
IC2	UPD2816C	DDEY109001			REN 1192	SK3445/1192	ECG1192	TM1192	WEP2120/1192	221-Z9061
IC3	TA7310P	DDEY109001			REN 1192	SK3445/1192	ECG1192	TM1192	WEP2120/1192	221-Z9061
IC4	TA7222P	DDEY146001				SK3726				
TR1	2SC1675L	DDBY259001	GE-213	PTC132*	REN 229*	SK3122	ECG229*	TM229*	WEP773	121-Z9021*
TR2	2SC1675L	DDBY259001	GE-213	PTC132*	REN 229*	SK3122	ECG229*	TM229*	WEP773	121-Z9021*
TR3	2SC945AQ	DDBY224003	GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
TR4	2SA733AP		GE-48	PTC127	REN 294	SK3114/290	ECG294	TM294/**	WEP911/290	121-Z9067
	2SA733P	DDBY003001	GE-48	PTC127	REN 294	SK3114/290	ECG294	TM294/**	WEP911/290	121-Z9067
TR5	2SC945AQ	DDBY224003	GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
TR6	2SC945AQ	DDBY224003	GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
TR7	2SC1674L	DDBY295002	GE-61*	PTC132*	REN 229*	SK3132	ECG229*	TM229*	WEP784	121-Z9021*
TR8	2SC1675L	DDBY259001	GE-213	PTC132*	REN 229*	SK3122	ECG229*	TM229*	WEP773	121-Z9021*
TR9	2SC1675L	DDBY259001	GE-213	PTC132*	REN 229*	SK3122	ECG229*	TM229*	WEP773	121-Z9021*
TR10	2SC1675L	DDBY259001	GE-213	PTC132*	REN 229*	SK3122	ECG229*	TM229*	WEP773	121-Z9021*
TR11	2SC945AQ	DDBY224003	GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
TR12	2SC945AQ	DDBY224003	GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
TR13	2SC945AQ	DDBY224003	GE-212	PTC121*	REN 199	SK3124/289	ECG199	TM199/**	WEP1945	121-972*
TR14	2SC2029/1		GE-333	PTC186	REN 235	SK3197/235	ECG235	TM235	WEP785/235	121-Z9039
	2SC2029B/10	DDBY257001	GE-333	PTC186	REN 235	SK3197/235	ECG235	TM235	WEP785/235	121-Z9039
TR15	2SC2028/2		GE-270	PTC180	REN 295	SK3253/295	ECG295	TM295	WEP755/195A*	121-Z9066
	2SC2028B/20	DDBY256002	GE-270	PTC180	REN 295	SK3253/295	ECG295	TM295	WEP755/195A*	121-Z9066
TR16	2SC2076D	DDBY270003	GE-210	PTC121*	REN 295	SK3122	ECG295	TM295	WEP784	121-880
TR17	2SC458C	DDBY273001	GE-210	PTC121*	REN 289	SK3124/289	ECG289	TM289/**	WEP458	121-Z9065
TR18	2SA733AP		GE-48	PTC127	REN 294	SK3114/290	ECG294	TM294/**	WEP911/290	121-Z9067
	2SA733P	DDBY003001	GE-48	PTC127	REN 294	SK3114/290	ECG294	TM294/**	WEP911/290	121-Z9067
TR20	2SC1675L	DDBY259001	GE-213	PTC132*	REN 229*	SK3122	ECG229*	TM229*	WEP773	121-Z9021*
TR21	2SA733AP		GE-48	PTC127	REN 294	SK3114/290	ECG294	TM294/**	WEP911/290	121-Z9067
	2SA733P	DDBY003001	GE-48	PTC127	REN 294	SK3114/290	ECG294	TM294/**	WEP911/290	121-Z9067
TR22	2SC2236-0	DDBY276001	GE-270	PTC143*	REN 293	SK3849/293	ECG293	TM293	WEP912/293	121-Z9066
TR23	2SC1096L		GE-28	PTC110	REN 186A	SK3248	ECG186A	TM186A/**	WEP1096	121-Z9008
	2SC1096-3ZL	DDBY227002	GE-28	PTC110	REN 186A	SK3248	ECG186A	TM186A/**	WEP1096	121-Z9008

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

TEABERRY MODEL Stalker V

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C11	10 16V	CELZ311000	PC10-25	VTT10B25	QV1-41	EV-1222
C12	4.7 16V	CSEZ314796		TDC686M025FL	QDT1-55	SD25-6R89
C20	100 16V	CELZ311010	PC100-16	VTT100E16	QV1-95	EV-1231
C26	4.7 16V	CSEZ314796		TDC686M025FL	QDT1-55	SD25-6R89
C27	10 10V	CSEZ901006		TDC106M025FL	QDT1-64	SD25-109
C32	1 50V	CELZ811090	PC1-50	VTT1A50	QV1-11	EV-1615
C36	33 6.3V	CELZ903300	PC30-25	VTT33B10		EV-1225
C39	10 10V	CSEZ111006		TDC106M025FL	QDT1-64	SD25-109
C42	1000 16V	CELZ311020	PC1000-16	VTT1000M16	QV1-183	EV-1261
C44	4.7 25V	CELZ514790	PC5-50	VTT47B50	QV1-31	EV-1619.1
C45	47 10V	CELZ114700	PC50-16	VTT47D16	QV1-73	EV-1226
C48	470 16V	CELZ314710	PC500-16	VTT470K16	QV1-151	EV-1251
C66	47 10V	CELZ114700	PC50-16	VTT47D16	QV1-73	EV-1226
C67	100 10V	CELZ111010	PC100-10	VTT100D10	QV1-93	EV-1131
C68	.1 16V	CAAZ311086	PC1-50	VTT47A63	QV1-3	EV-1610
C71	33 16V	CELZ313300	PC30-25	VTT33D25	QV1-63	EV-1325
C72	10 10V	CSEZ901006		TDC106M025FL	QDT1-64	SD25-109
C73	.47 50V	CELZ814780	PC1-50	VTT47A63	QV1-3	EV-1610
C97	10 16V	CELZ311000	PC10-25	VTT10B25	QV1-41	EV-1222
C98	2.2 16V	CSEZ312296		TDC225M035FL		SD35-2R29
C99	2.2 16V	CSEZ312296		TDC225M035FL		SD35-2R29
C102	.47 50V	CELZ814780	PC1-50	VTT47A63	QV1-3	EV-1610
C112	470 6.3V	CELZ904710	PC500-16	VTT470K16	QV1-151	EV-1251
C114	100 10V	CELZ111010	PC100-10	VTT100D10	QV1-93	EV-1131
C116	47 10V	CELZ114700	PC50-16	VTT47D16	QV1-73	EV-1226
C117	47 10V	CELZ114700	PC50-16	VTT47D16	QV1-73	EV-1226
C119	100 10V	CELZ111010	PC100-10	VTT100D10	QV1-93	EV-1131
C123	100 25V		PC100-25	VTT100G25	QV1-97	EV-1331

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA			
			CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C1	10 50V 10%		NP010	CN0410	QCC2-15	10TCC-Q10
C2	.01 50V			MAG5011		
C3	.01 50V			MAG5011		
C4	200 50V 10%		GP200	GP320	QCT2-28	10TS-T20
C5	200 50V 10%		GP200	GP320	QCT2-28	10TS-T20
C6	680 50V 10%		GP680	GP368		10TS-T68
C7	.01 50V			MAG5011		
C8	15 H220 50V 10%			*		10TCR-Q15
C9	.01 50V			MAG5011		
C10	.01 50V			MAG5011		
C13	220 50V 10%					10TCC-T22
C14	.01 50V			MAG5011		
C15	.01 50V			MAG5011		
C16	.01 50V			MAG5011		
C17	.01 50V			MAG5011		
C18	680 50V 10%		GP680	GP368		10TS-T68
C19	.047 50V		DPMS2S47	EW1A147	QFT2-171	1FT-S47
C21	.039 50V		DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C22	1 50V			CN0510		10TCC-V10
C23	.039 50V		DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C24	.039 50V		DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C25	.001 50V		DPMS6D1	EW1A210	QFT2-1	1FT-D10
C28	.039 50V		DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C29	.01 50V			MAG5011		
C30	.01 50V			MAG5011		
C31	.0047 50V		WMF1D47	M192P4729R8	QFT2-63	1FT-D47
C33	.01 50V		WMF1S1	EW1A110	QFT2-91	1FT-S10
C34	.0068 50V		WMF1D68	EW1A268	QFT2-73	1FT-D68
C37	.033 50V		DPMS6S33	M192P3339R8	QFT2-149	1FT-S33
C38	.001 50V		GP1000	GP210	QC2-81	5GA-D10
C40	.0033 50V		WMF1D33	M192P3329R8	QFT2-43	1FT-D33
C41	.001 50V		GP1000	GP210	QC2-81	5GA-D10
C43	.001 50V		DPMS6D1	EW1A210	QFT2-1	1FT-D10
C46	.1 25V			MAG2501	QC1-231	HY-750
C47	.01 50V			MAG5011		
C49	.0022 50V			GP222	QCT2-46	10TS-D22
C50	.001 50V		GP1000	GP210	QC2-81	5GA-D10
C51	.001 50V		GP1000	GP210	QC2-81	5GA-D10
C52	.001 50V		GP1000	GP210	QC2-81	5GA-D10
C53	180 50V 10%			GP318	QCT2-27	10TS-T18
C56	68 H220 50V 10%			*		10TCR-Q68
C57	33 50V 10%		NP033	CN0433	QCC2-22	10TCC-Q33
C58	220 50V 10%					10TCC-T22
C59	330 50V 10%		GP330	GP333	QCT2-33	10TS-T33
C60	.0047 50V		GP4700	GP247		5GA-D47
C61	82 50V 10%		NP082	CN0482		10TCC-Q82
C62	220 50V 10%					10TCC-T22
C63	.01 50V			MAG5011		
C64	.0047 50V		GP4700	GP247		5GA-D47
C65	.01 50V			MAG5011		
C69	.022 50V		DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C70	.01 50V			MAG5011		
C74	470 50V 10%		GP470	GP347	QCT2-35	10TS-T47
C75	.01 50V			MAG5011		
C76	.001		GP1000	GP210	QC2-81	5GA-D10
C77	.01 50V			MAG5011		
C78	.01 50V			MAG5011		
C86	330 50V 10%		GP330	GP333	QCT2-33	10TS-T33
C87	100 50V 10%		NP0100	CN0310		10TCC-T10
C88	.01 50V			MAG5011		
C89	47 H750 50V 10%			*		10TCU-Q47
C90	15 H220 50V 10%			*		10TCR-Q15
C91	150 H220 50V 10%			*		10TCR-T15
C92	68 H220 50V 5%			*		10TCR-Q68
C93	.01 50V			MAG5011		
C94	8 50V +.25		NP010	CN0410	QCC2-15	10TCC-Q10
C95	.022 50V		DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C96	.04			GP140		5GA-S40
C100	.01 50V			MAG5011		
C101	.01 50V			MAG5011		
C104	15 50V 10%		NP015	CN0415		10TCC-Q15
C105	.01 50V			MAG5011		
C106	39 50V 10%			CN0439		10TCC-Q39
C108	.01 50V			MAG5011		
C109	.01 50V			MAG5011		
C110	.01 50V			MAG5011		
C111	.01 50V			MAG5011		
C113	.04 50V			GP140		5GA-S40
C115	.04 50V			GP140		5GA-S40
C118	.01 50V			MAG5011		
C120	.01 50V			MAG5011		
C121	.01 50V			MAG5011		
C122	.01 50V			MAG5011		
C124	.01 50V			MAG5011		
C125	470 50V 10%		GP470	GP347	QCT2-35	10TS-T47
C126	120 50V 10%			CN0312		10TCC-T12
C127	10 NPO 50V 10%		NP010	CN0410	QCC2-15	10TCC-Q10
C128	10 NPO 50V 10%		NP010	CN0410	QCC2-15	10TCC-Q10
C129	100 H220 50V 10%			*		10TCR-T10
C130	220 H220 50V 10%			*		10TCR-T22
C131	6 H220 50V 10%			*		10TCU-V68
C132	.01 50V			MAG5011		
C133	.01 50V			MAG5011		
C134	.01 50V		WMF1S1	EW1A110	QFT2-91	1FT-S10
C136	.01 50V			MAG5011		
C137	.01 50V			MAG5011		
C138	.04			GP140		5GA-S40

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA			
			CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C139	.01 50V			MAG5011		
C140	.01 50V			MAG5011		
C141	.01 50V			MAG5011		
C142	.04 50V			GPT40		5GA-S40
C143	.01 50V			MAG5011		
C145	.01 50V			MAG5011		
C147	.039 50V		DPM56S39	M192P3939R8	QFT2-159	1FT-S39
C152	.01 50V			MAG5011		
C153	.01 50V			MAG5011		
C155	150 50V 10%			CNO315		10TCC-T15
C156	.68 50V		WMF05P68	EWFO5068		431P6849R5
C159	.01 50V			MAG5011		
C161	.01 50V			MAG5011		
C163	220 50V 10%					10TCC-T22
C201	.01 50V			MAG5011		
C202	.01 50V			MAG5011		
C203	9 50V ±.25		NP010	CNO410	QCC2-15	10TCC-Q10
C204	.001 50V		GP1000	GP210	QC2-81	5GA-D10
CC1	(1)	HHAY003001				

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

(1) Consists of four .01pF Capacitors.

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

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA		
			MFR. PART No.	MALLORY PART No.	TRW PART No.
VR1	IF Gain	300	RRVY189001	RVA0911H501	U260R501B
VR2	Signal Meter	20K	RRVY189006	RVA0911H253	U260R253B
VR3	Squelch Range	100K	RRVY189008	RVA0911H104	U260R104B
VR4	AHC	5000	RRVY189010	RVA0911H502	U260R502B
VR5	RF Meter	20K	RRVY189006	RVA0911H253	U260R253B
VR202	Squelch/PA Switch	50K	RRVY355001		
VR203	Volume/Power Switch	50K	RRVY320001		
VR204	Delta Tune	20K	RRVY039001		
VR205	RF Gain/Hi-Cut Switch	1000	RRVY353001		
VR206	SWR/CAL-Dim Switch	5000	RRVY354001		

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	Noise Blanker	LLAY181001			
L2	Receive Antenna (27MHz)	LLAY029001		CBS740-T	
L3	RF Amp (27MHz)	LLAY138001			
L4	Mixer (10.695MHz)	LLAY180001		CBS715-TC	
L5	Mixer (10.695MHz)	LLAY277001			
L6	Mixer (10.695MHz)	LLAY274001			
L7	IF (455kHz)	LLAY106001		8517	
L8	IF (455kHz)	LLAY204001			
L9	IF (455kHz)	LLAY207001			
L11	TVI Trap (54MHz)	LLCY018001		CB304	
L12	Antenna Matching	LLEY089001			
L13	Pi Filter	LLEY088001			
L14	Loading Final (27MHz)	LLCY018001		CB304	
L15	RF Choke	LLDY012001		4588	
L16	Driver (27MHz)	LLCY017001		CB303	
L17	Buffer (27MHz)	LLAY208001			
L18	VCO Mixer (16MHz)	LLAY201001			
L19	VCO	LLAY275001			
L20	Mixer (27MHz)	LLAY088001		CBS717-TC	
L21	Mixer (27MHz)	LLAY198001			
L22	Down Oscillator (15.360MHz)	LLAY166001			
L23	Reference Oscillator (10.240MHz)	LLAY182001			
L24	Reference Oscillator (10.240MHz)	LLAY217001			
L25	RF Choke (100uH)	LLZY001013			

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000 ~)	MFR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	1.15A	.135	.85mH	TTFY083001			

TEABERRY MODEL Stalker V

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
F201	2A Quick Acting	ZFSY012004		AGC2	HRK	312002	150145	F62-2

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	6.25	1 2 16 12.25	TTFY129001			

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFR. PART No.	QUAM PART No.	
SP201	4" PM 16 Ohms	ASPY052001		

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
D201	LED	DDAY102001	Receive (Grn) (TLRG101) (2.07V @ 12mA)
D203	LED	DDAY100001	XMT (Red) (1.92V @ 7mA)
D401	LED	DDAY078001	Ch 9 (TLR-124) (1.93V @ 6.5mA)
FL1	Filter	FFLY055001	Channel Display (TLR-321) (Each segment supplied with 1.92V @ 6.5mA)
FL2	Filter	FFLY009001	10.695MHz (Crystal) (FL-055)
J1	Jack	JJKY089001	455kHz (Ceramic) (FL-009)
J2	Jack	JJKY089001	PA Speaker
J201	Jack	JJKY072001	Ext Speaker
J202	Jack	JJKY035001	Mic
J203	Jack	JJKY052001	Antenna
L10	Ferrite Bead	LLDY071001	DC Power
L26	Ferrite Bead	LLDY087001	
L50	Ferrite Bead	LLDY075001	
L201	Ferrite Bead	LLDY088001	
M201	Meter	ZMTY094001	Signal/RF/SWR/CAL
PL201	Lamp		Meter (10.37V @ 34mA)
S203	Switch	SSWY145001	Off/ANL/NB-ANL
S204	Switch	SSWY145001	CAL/S-RF/SWR
S206	Switch	SSWY146001	Off/CH9
S301	Switch	SSRY216001	Channel Selector
X1	Crystal	QQXY074001	10.240MHz
	Cable	WWFY005107	Flat
	Cable	WWFY005103	Flat
	Cable	WWFY012105	Flat
	Cord	WZDZ070088	DC Power
	Microphone	AMKY105001	
	P.C. Board	PPCY482011	Channel Switch
	P.C. Board	PPCY483011	LED
	P.C. Board	PPCY424012	Main

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

ITEM	PART No.	ITEM	PART No.
Chassis	MDBP206017	Filter, Optical, (Channel Display)	MDAP404321
Chassis, Front	MDBP306423	Knob (5 used)	MDMP402181
Cover, Bottom	MDBP306019	Knob, Channel Selector	MDMP406425
Cover, Top	MDBP306018	Panel, Front	MDMP204318