



PHOTOFACT[®] with CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index

NOTE

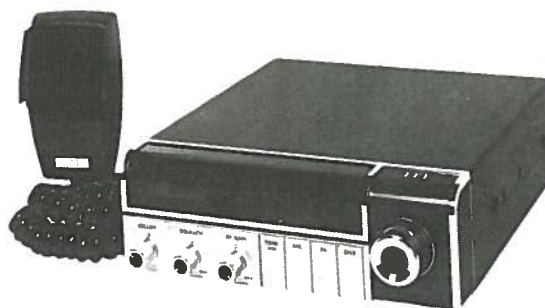
Repair or adjustment of transmitter circuits must be under supervision of a person with first-or second-class radiotelephone license.

(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 4400M

ITT MODEL 4400M

MANUFACTURER'S SPECIFICATIONS

Receiver

Circuit:

PLL synthesized dual conversion superheterodyne

IF Frequency:

1st IF—10.695 MHz, 2nd IF—455 KHz

Sensitivity at S/N

10 dB:

0.8 micro-volt

Selectivity:

(± 10 KHz) 60 dB

AGC:

80 dB

S/N at 100 mV input:

50 dB

Audio Power Output:

4.5 @ 10%

Audio Frequency

Response:

300—2.5 KHz

Spurious Response:

50 dB

Squelch Range:

1 μ V to 350 μ V

Current Drain (no

signal:

280 mA

Transmitter

RF Output Power:

4 W maximum

Modulation Capability:

100% maximum

Spurious Response:

70 dB

Courtesy of the Manufacturer

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

© 1977 Howard W. Sams & Co., Inc.

Printed in U. S. of America

8CE661

ALIGNMENT INSTRUCTIONS

CAUTION: Use isolation transformer or observe polarity when connecting test equipment.
Maintain line voltage at 120V AC. Allow a 15-minute warm-up period.
Adjustments made with 13.8-volt DC input.

Connect low sides of test equipment to ground unless specified otherwise.

Connect 50-ohm dummy load or antenna before keying transmitter.

Suggested Alignment Tools: GC Electronics:

L208 thru L212, T101, T201 thru T205.....5009

L101 thru L106, L201 thru L207.....9440

TC101, TC102, TC201.....5000

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TPA.	Ch. 19	TC101	Adjust for 10.240MHz.
Input of RF VTVM to TPA.	Ch. 19	T101	Adjust for maximum RF voltage.
Input of frequency counter to TPC.	Ch. 19	TC102	Adjust for 36.190MHz.
Input of RF VTVM to TPC.	Ch. 19	L105	Adjust for maximum RF voltage.
Input of DC meter to TPF.	Ch. 19	L102	Adjust for 3.00 volts.
Input of RF VTVM to TPR.	Ch. 19	L101	Adjust for maximum RF voltage.
Input of oscilloscope to TPE.	Ch. 19	L106	Adjust for symmetrical square wave.
Input of RF VTVM to TPG.	Ch. 19	L103, L104	Adjust for maximum RF voltage.
Input of frequency counter to TPG.	Ch. 1		Check for 37.660MHz. Check all channels (Channel frequency + 10.695MHz = frequency on counter).
Input of frequency counter to TPS.	Ch. 19, XMT	TC201	Disconnect C274. Adjust for 10.695MHz. Reconnect C274.

RECEIVER ALIGNMENT

Connect an AC VTVM or AF wattmeter across speaker voice coil.

Adjust volume control to obtain a suitable indication.

Set generator output low enough to prevent AGC limiting.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TPH. 4.55kHz, 1000Hz @ 30% modulation.	Ch. 19, RF Gain Maximum Squelch MINIMUM ANL Off PA Off Ch. 9 Off	T205, T204, T203	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19, RF Gain Maximum Squelch MINIMUM ANL Off PA Off Ch. 9 Off	T202, T201, L202, L201	Adjust for maximum output. If necessary readjust T203, T204, T205.

RECEIVER ADJUSTMENTS

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

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 500uV.	Ch. 19, RF Gain Maximum ANL Off PA Off Ch. 9 Off	VR204	SQUELCH RANGE Set Squelch Control VR2 fully clockwise. Adjust VR204 so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19, RF Gain Maximum ANL Off PA Off Ch. 9 Off	VR201	S METER Adjust VR201 for 9 on Signal scale of meter.

TRANSMITTER ALIGNMENT

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

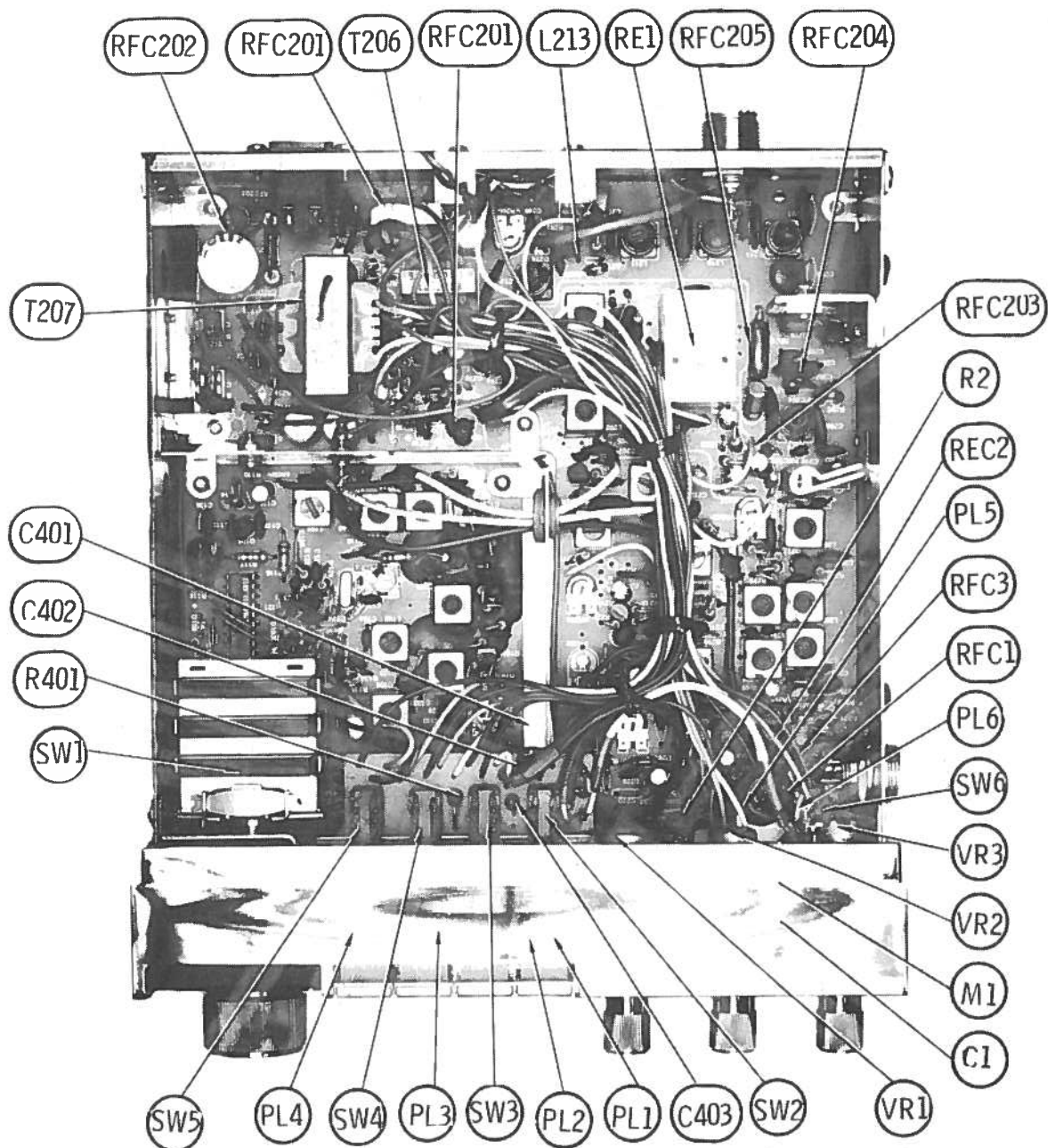
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Tunable field strength meter set at 54MHz.	Ch. 19	L203, L204, L205, L206, L207, L208, L209, L210, L211	Adjust for maximum.
		L211, L210	Adjust for 4 watts maximum.
	Ch. 19	L212	Adjust for MINIMUM signal.

TRANSMITTER ADJUSTMENTS

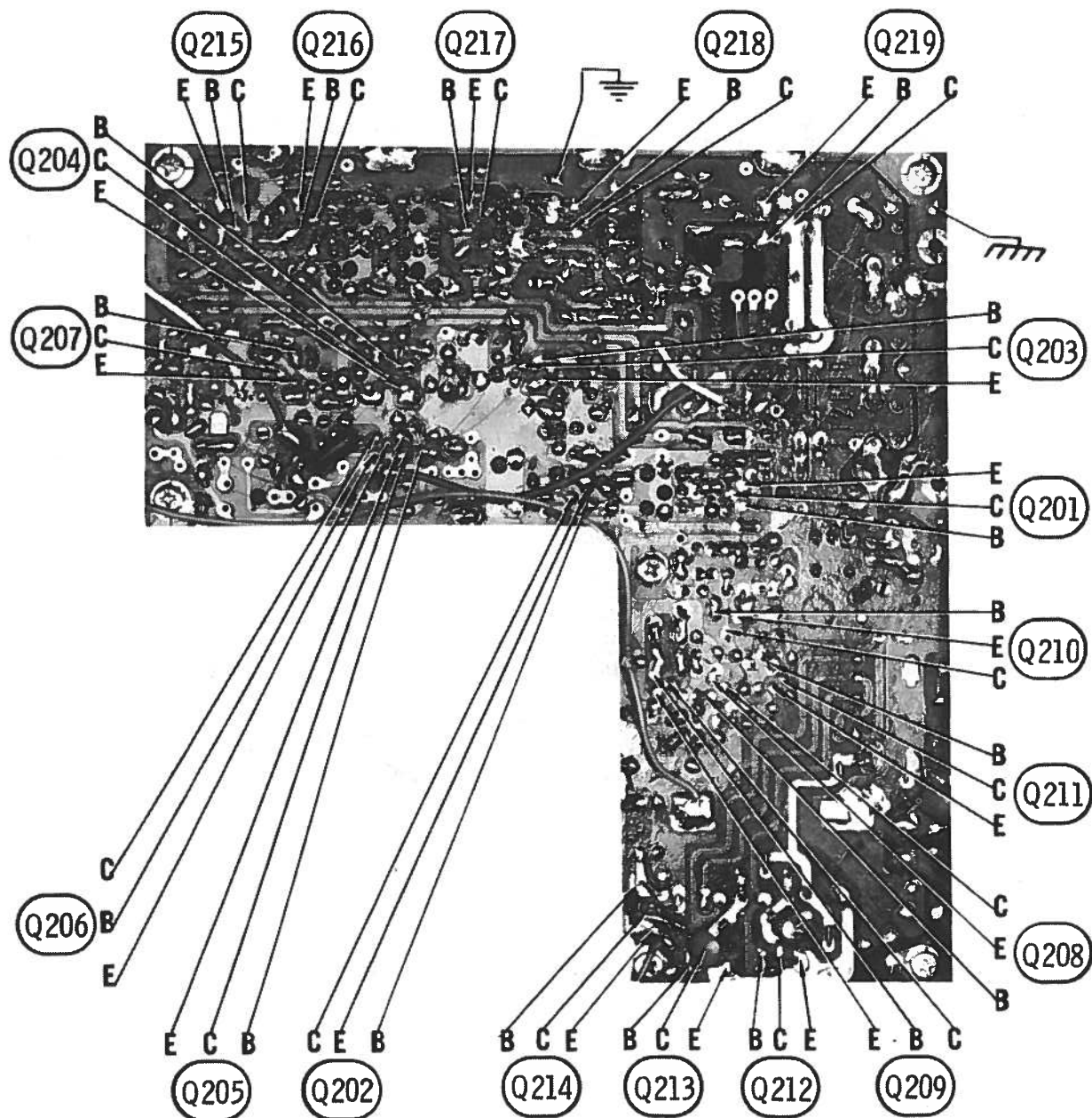
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.
NOTE: Be sure to check transmit frequency and power on all active channels after adjustment of transmitter.
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Modulation meter to antenna jack. Inject a 1000Hz, 20mV signal at MIC input.	Ch. 19	VR206	AMC Adjust VR206 for 100% modulation maximum.
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.	Ch. 19	VR205	RF PANEL METER Adjust VR205 so that RF panel meter agrees with RF wattmeter.

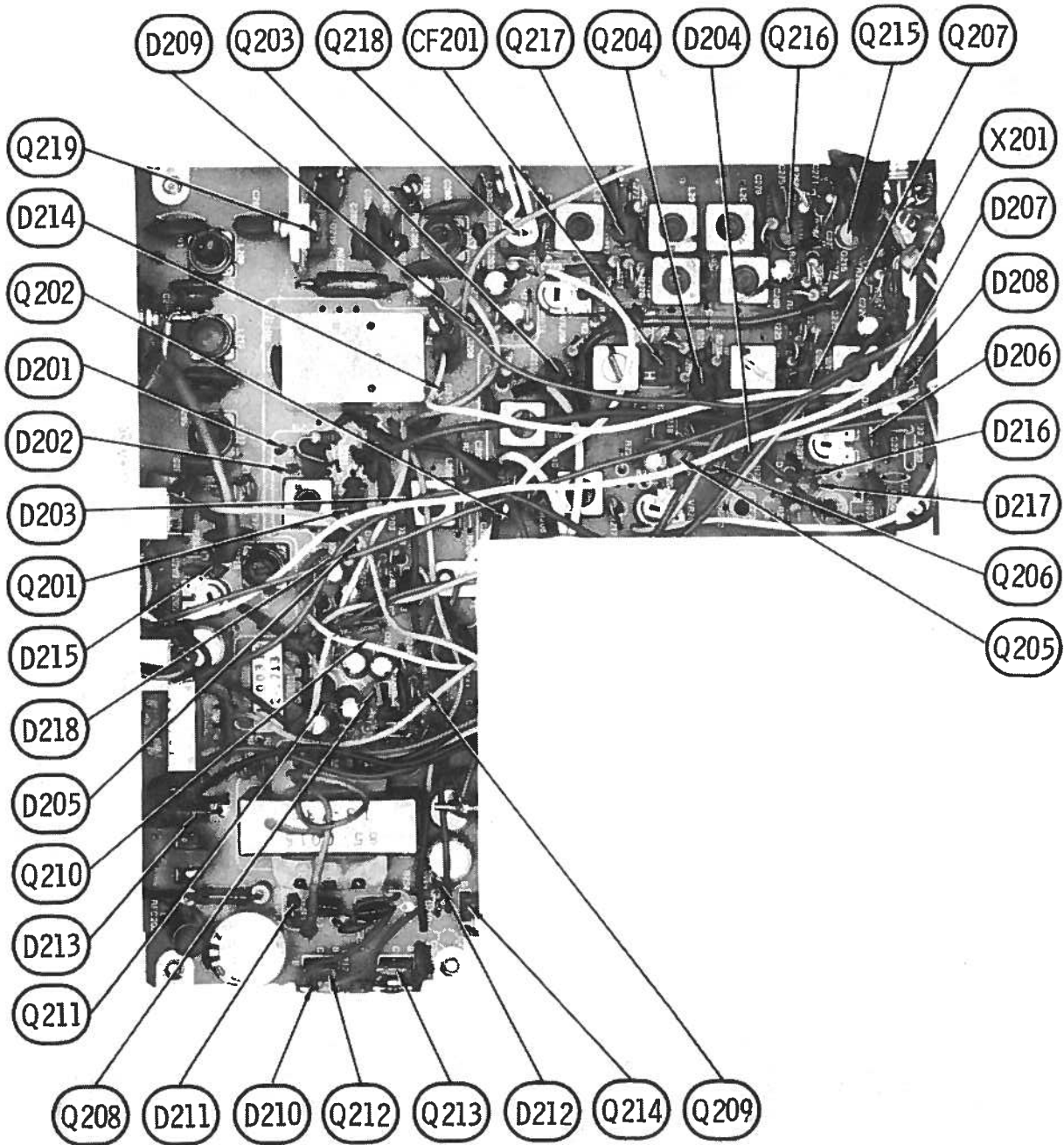
ITT MODEL 4400M



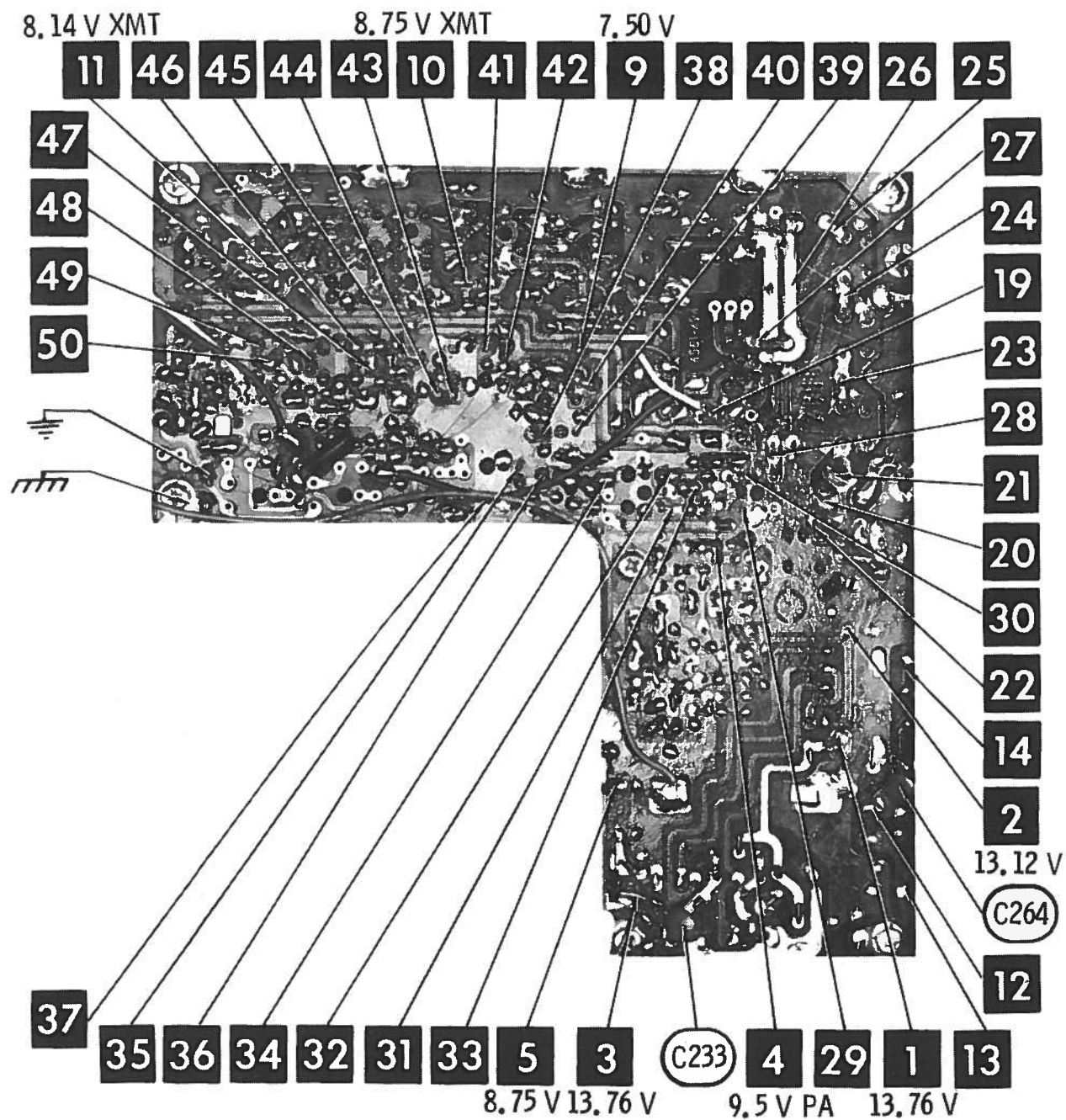
CHASSIS-BOTTOM



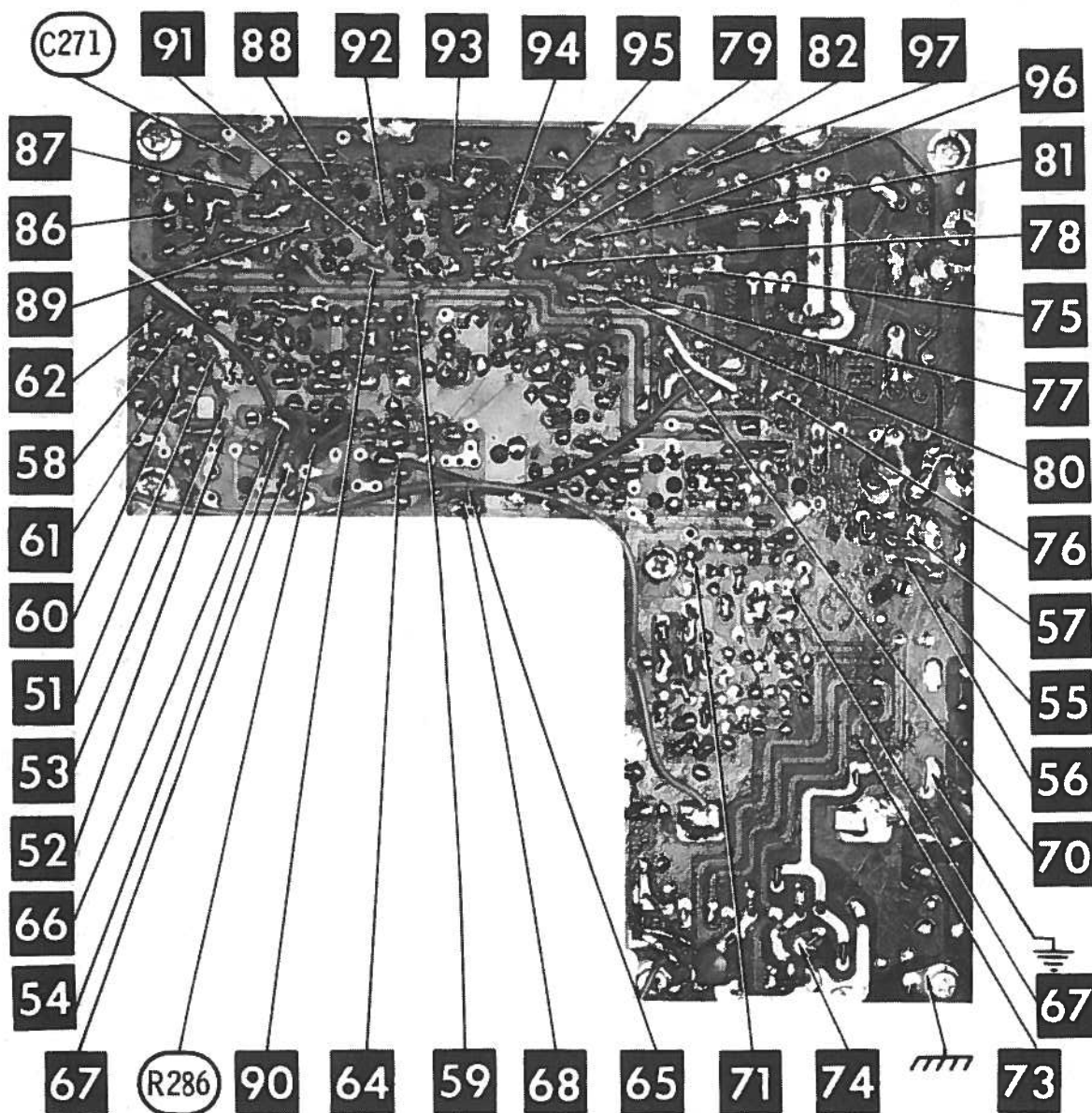
MAIN BOARD



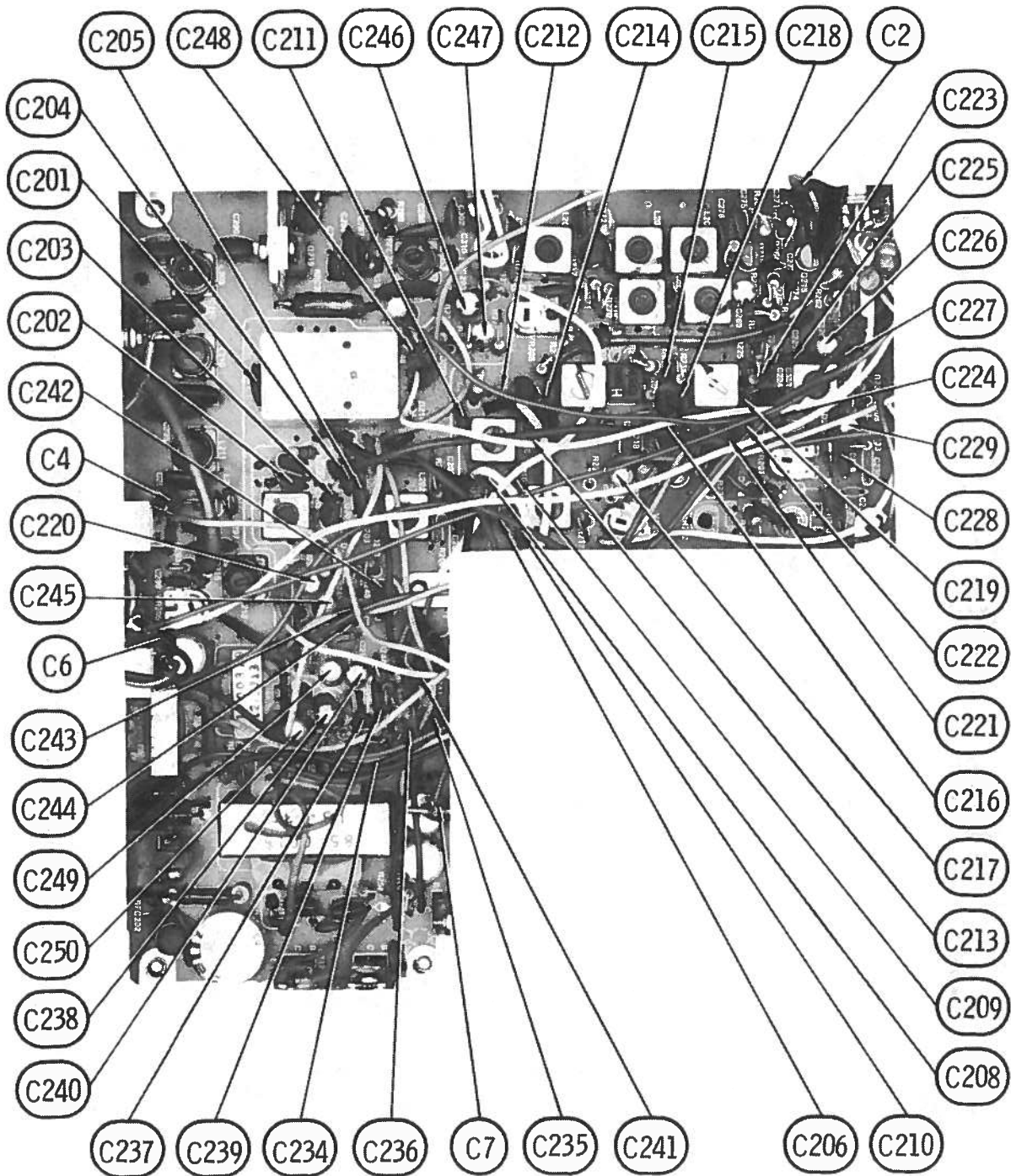
MAIN BOARD



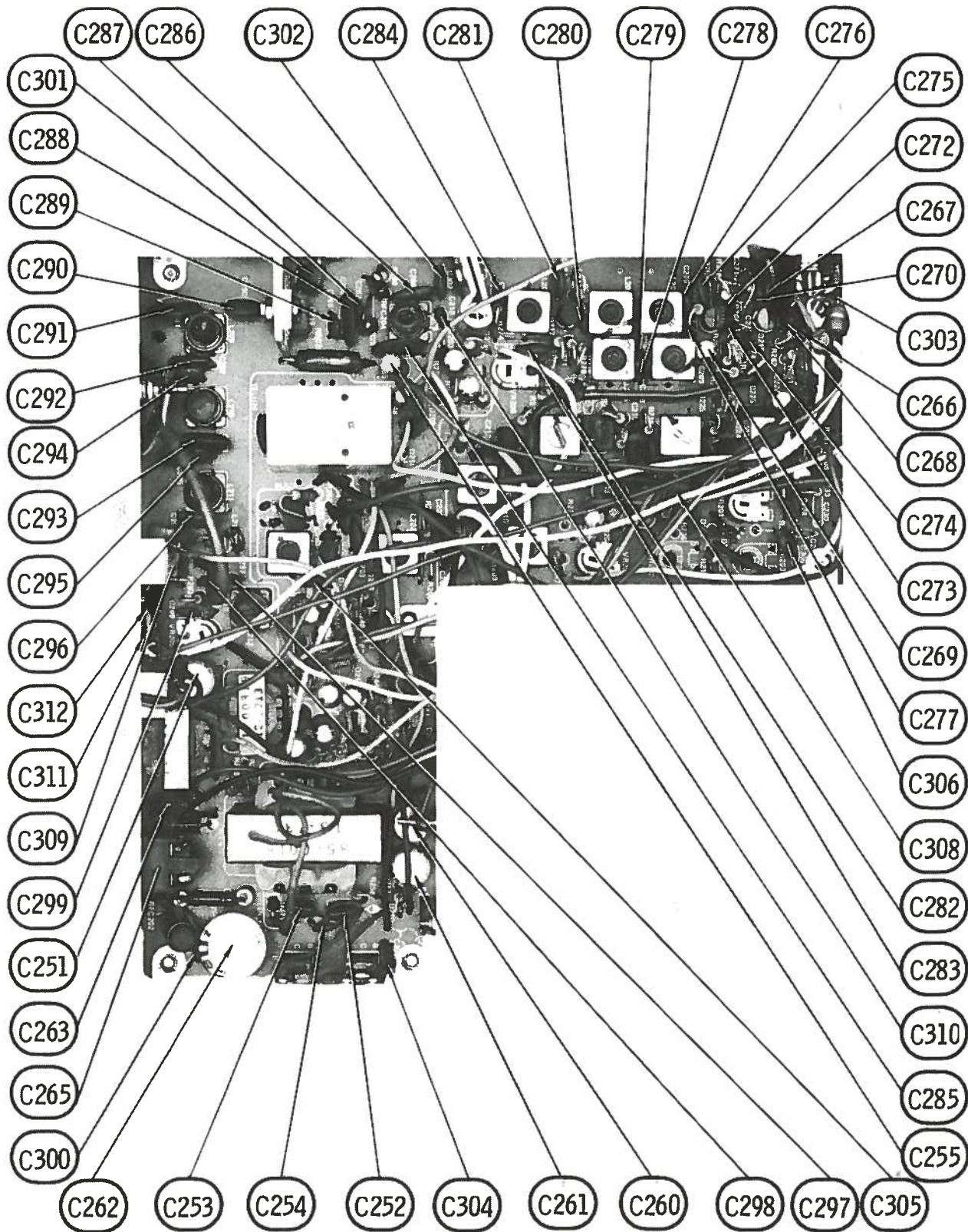
MAIN BOARD



MAIN BOARD

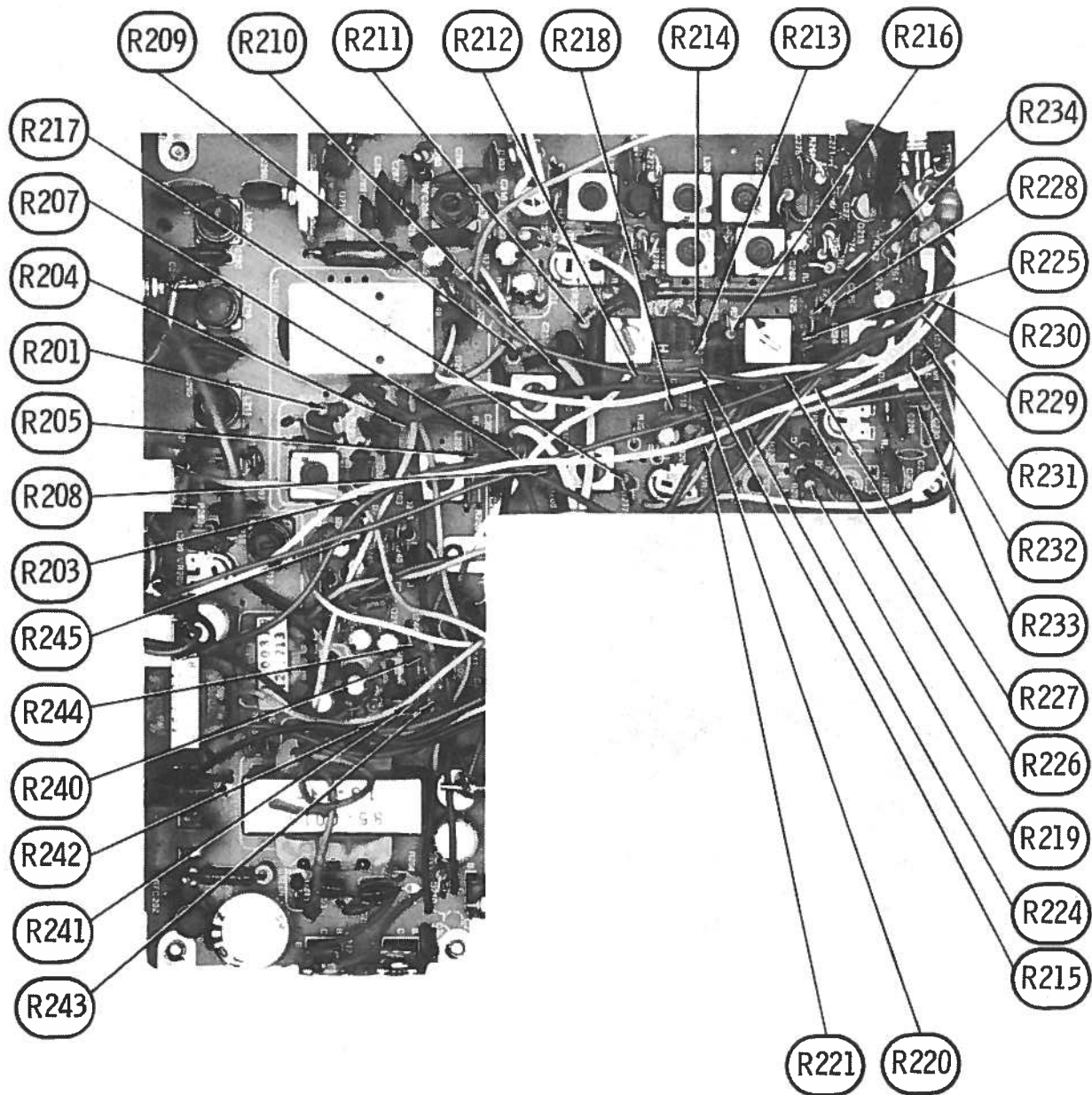


MAIN BOARD

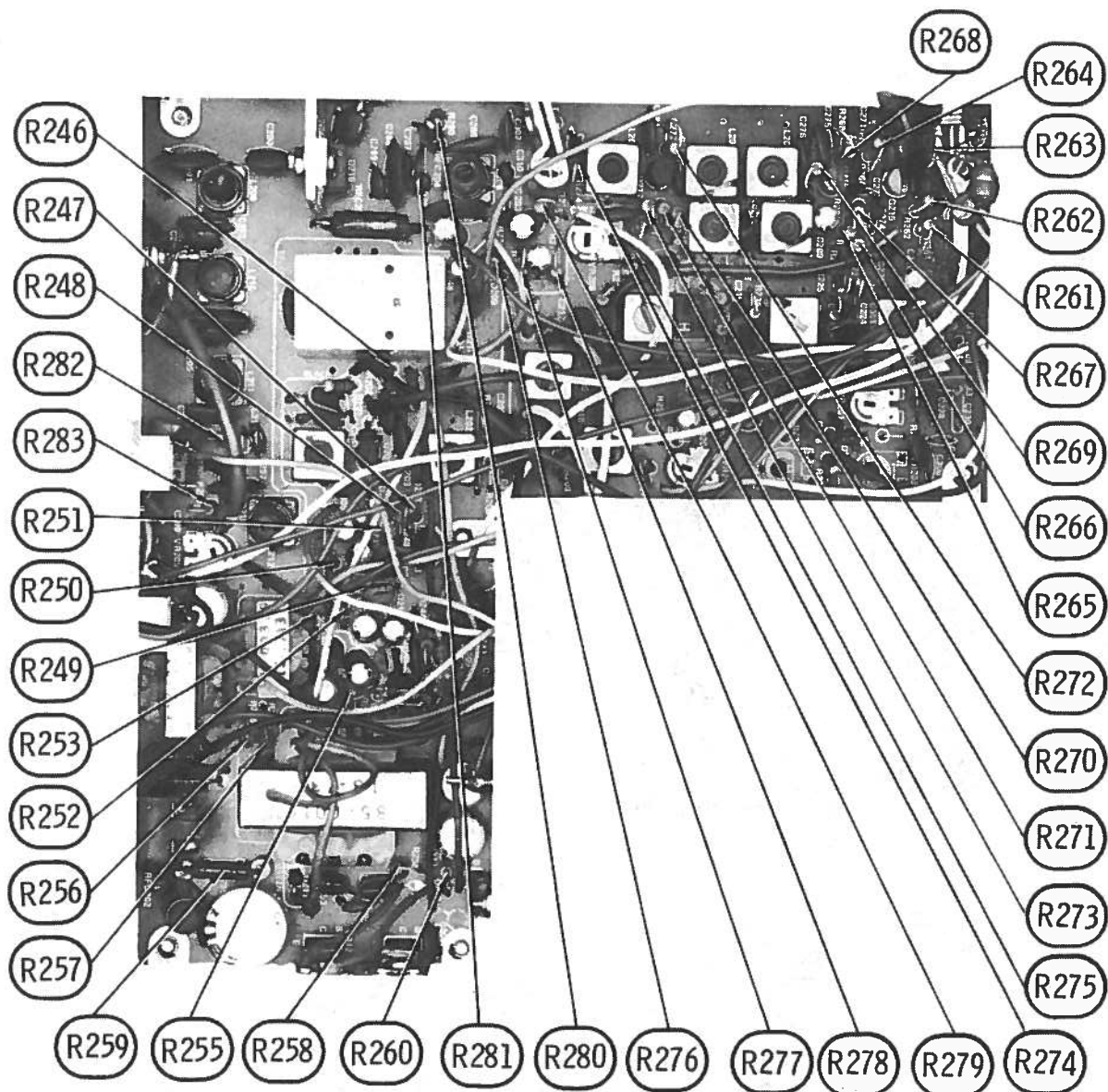


ITT MODEL 4400M

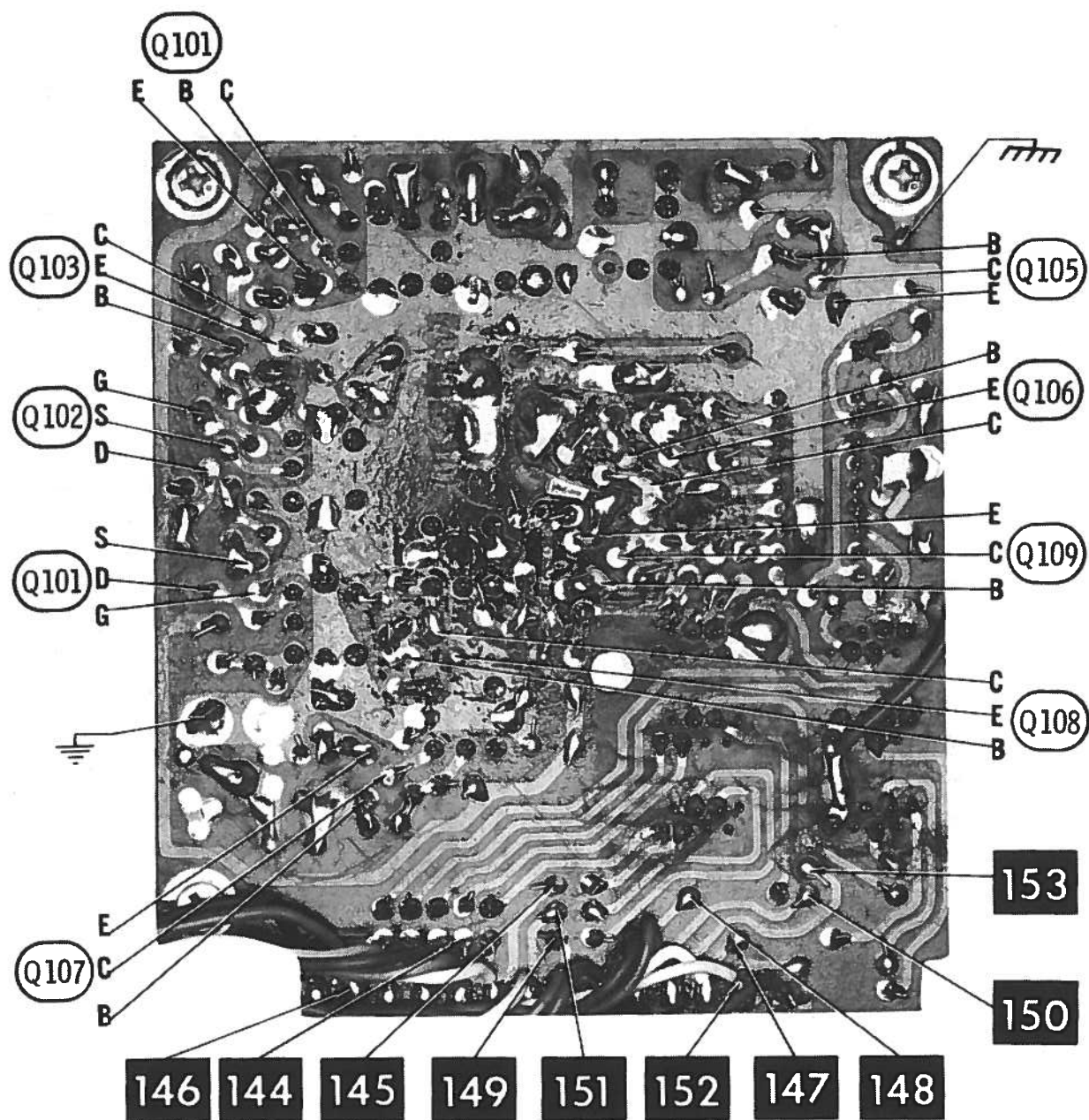
MAIN BOARD



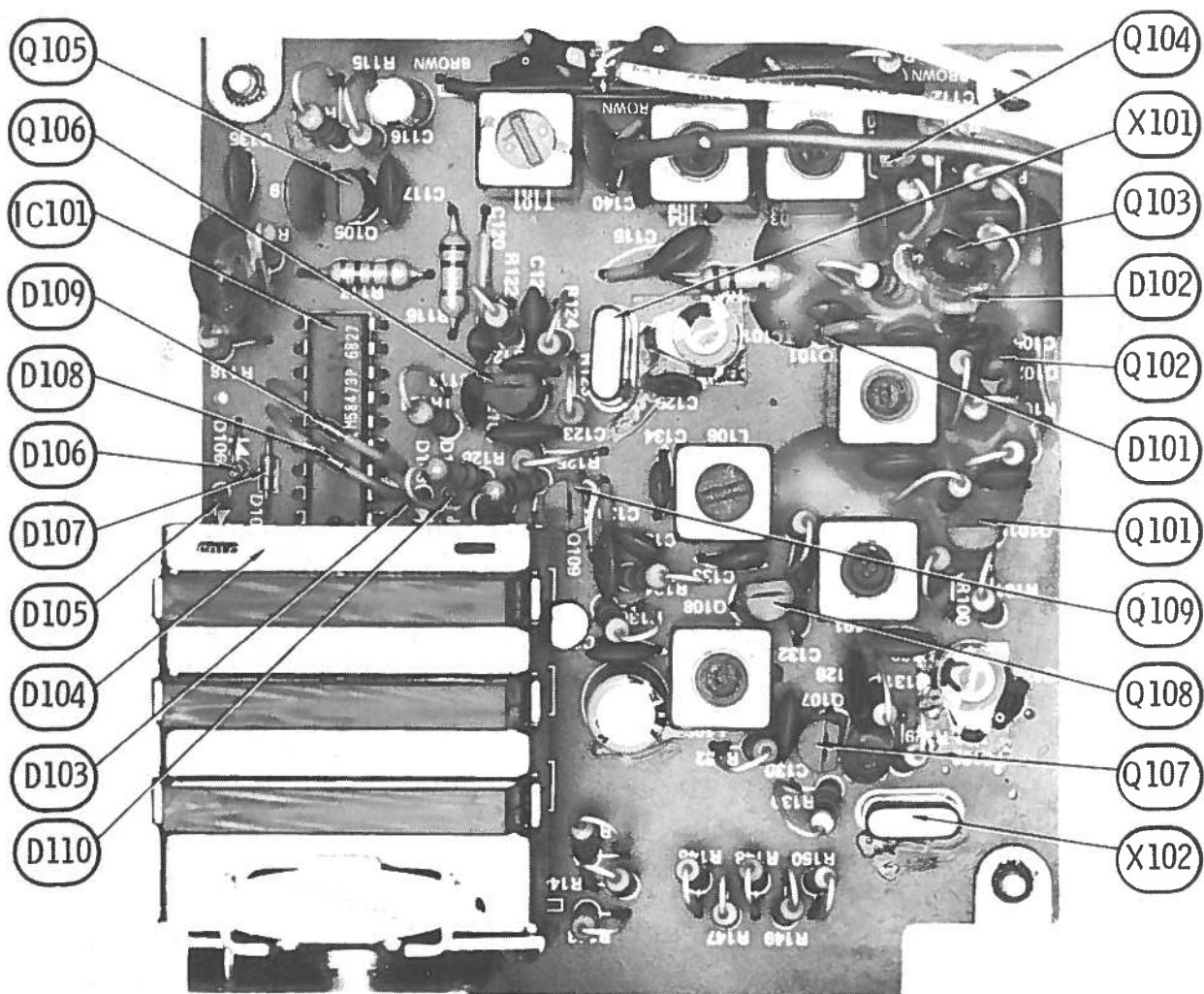
MAIN BOARD



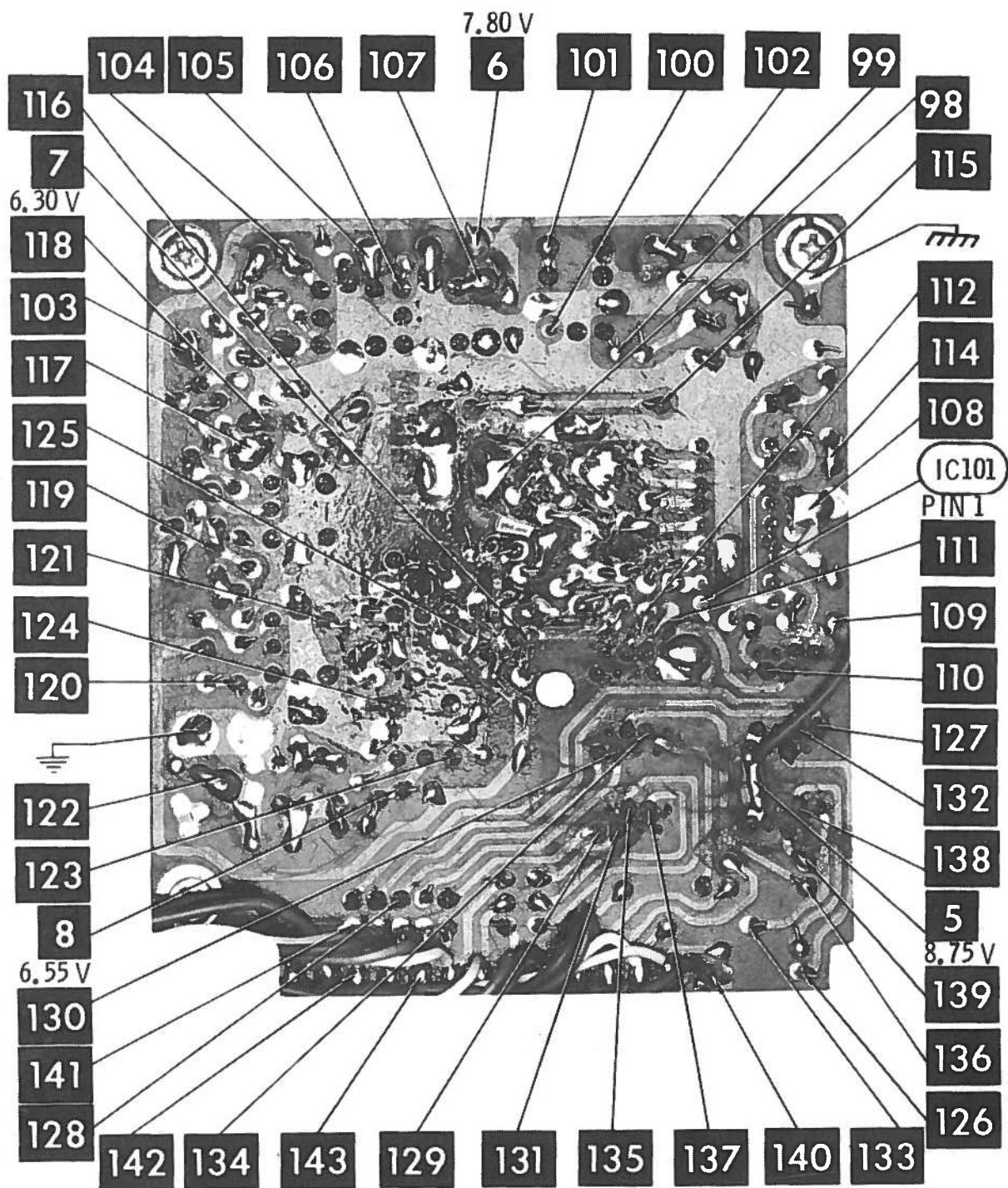
MAIN BOARD



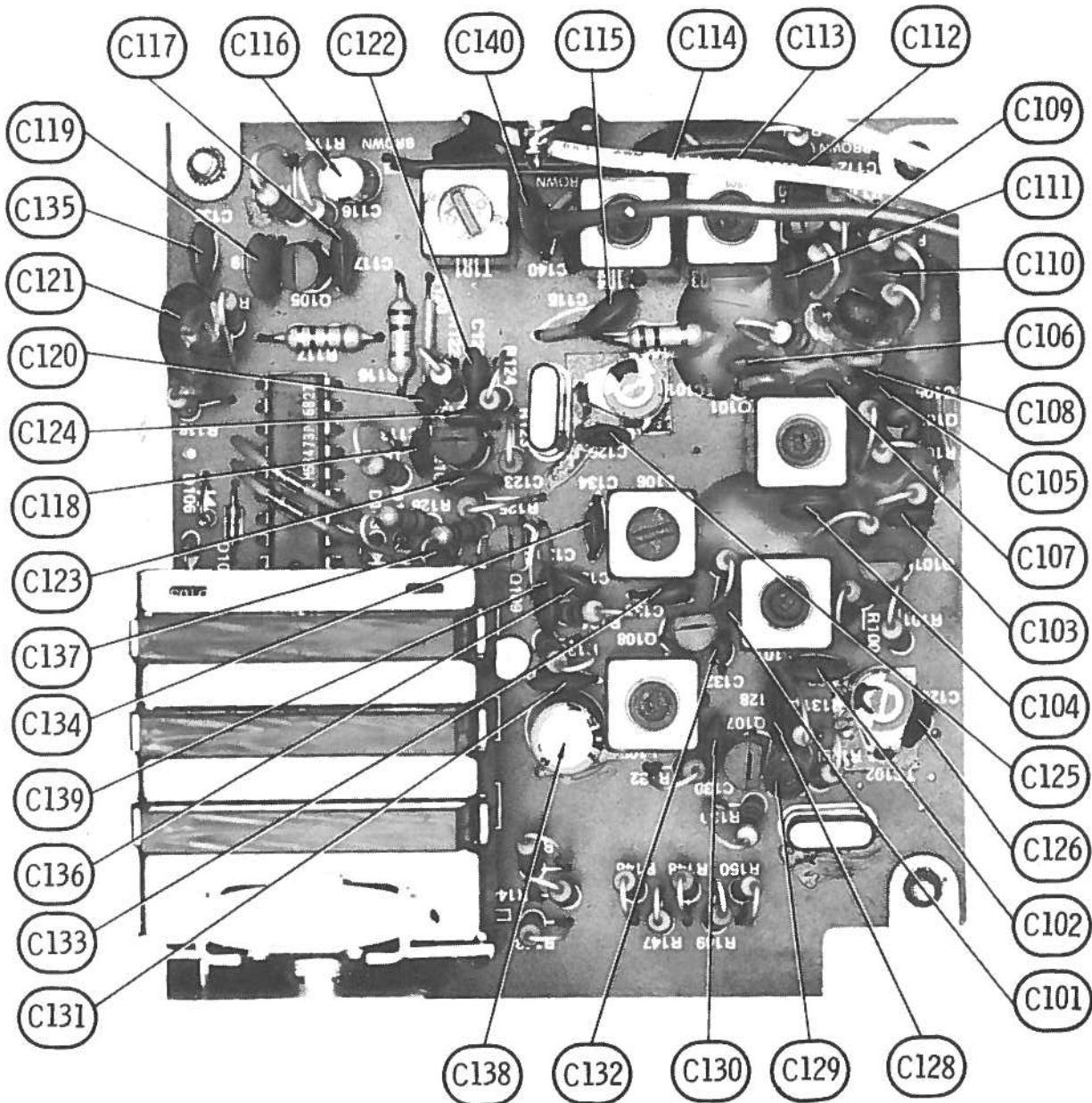
PLL BOARD



PLL BOARD

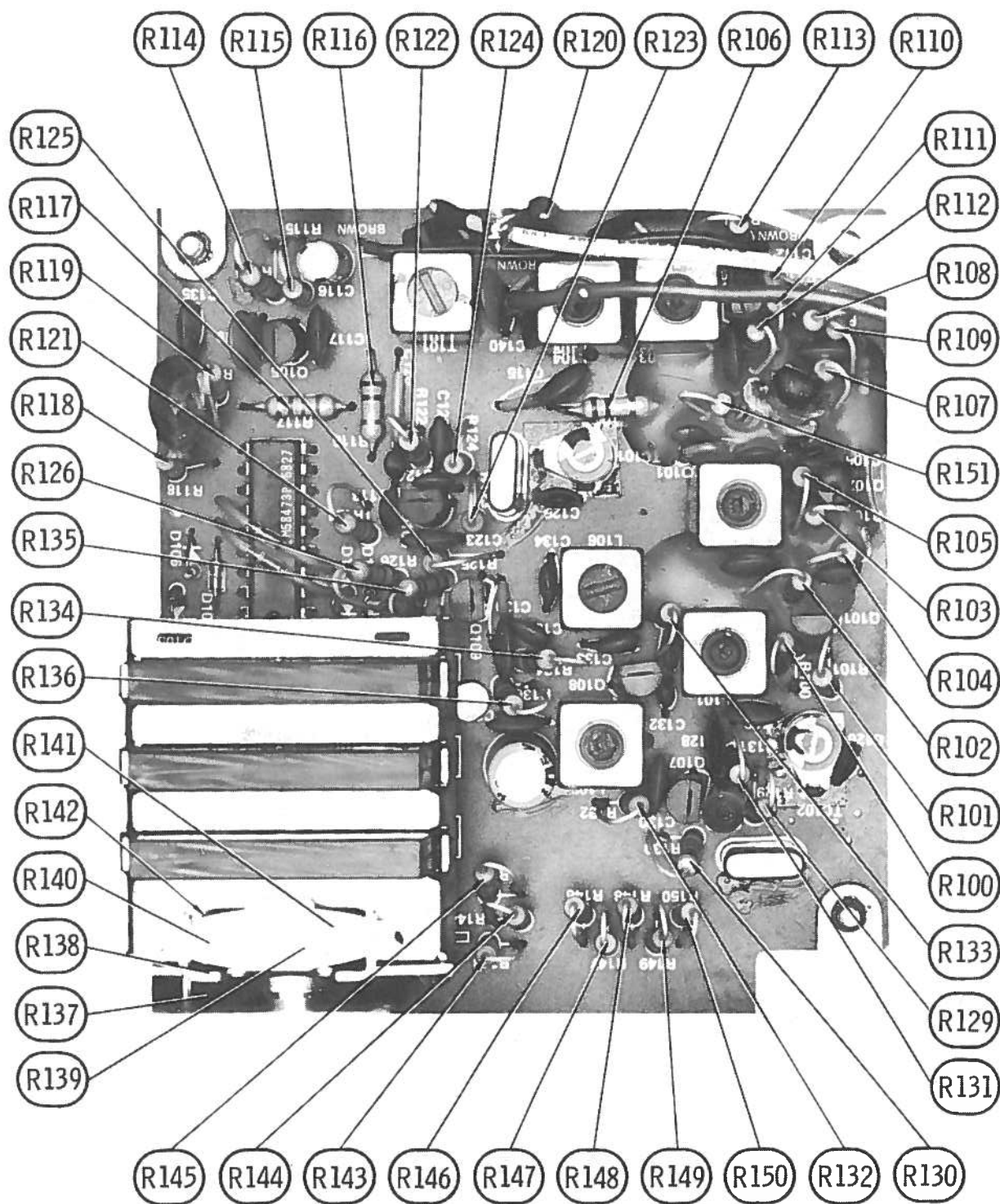


PLL BOARD

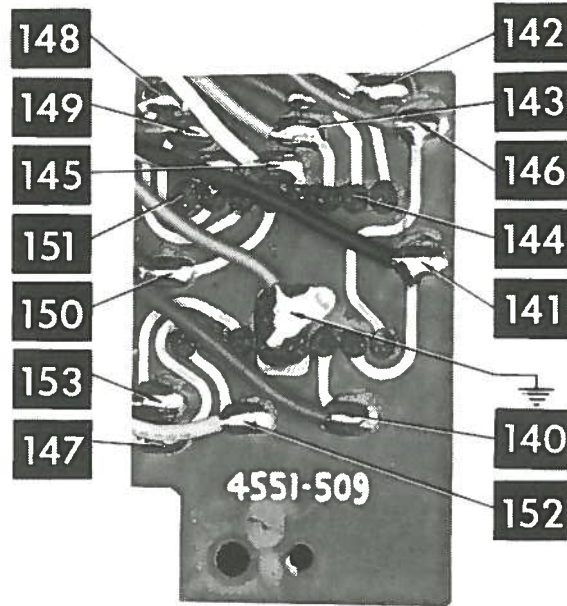


ITT MODEL 4400M

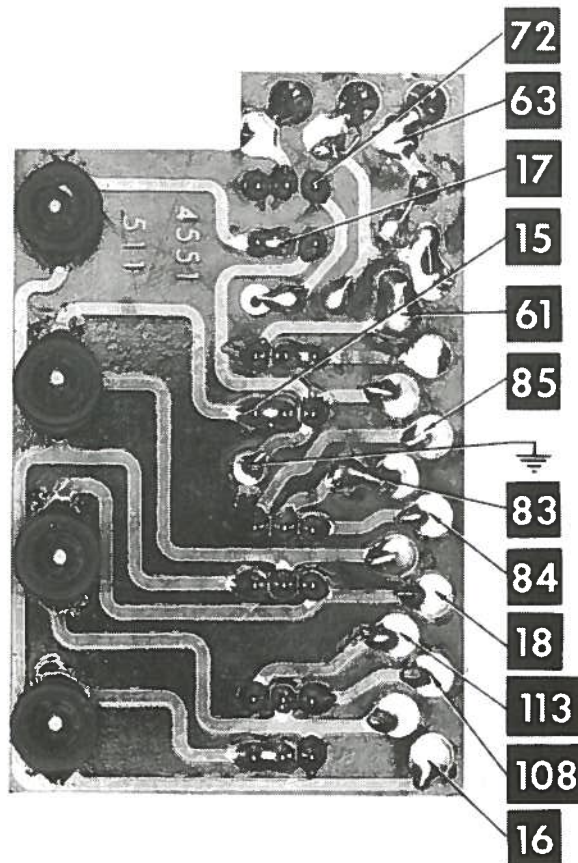
PLL BOARD



PLL BOARD



LED BOARD



SWITCH BOARD



PARTS LIST AND DESCRIPTION

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

WIRING DATA

General-use Hook-up Wire (available in 5 colors)	BELOEN No. 8523	Coiled Microphone Cable
Shielded Hook-up Wire (spiral wrapped)	BELOEN No. 8421	3-conductor (1 shielded) 23AWG
(braided)	BELOEN No. 8401	BELOEN No. 8497 (5')
Speaker Cable (available in 4 colors)	BELOEN No. 8782	BELOEN No. 8497 (6')
Bonding Strap	BELOEN No. 8672	BELOEN No. 9472 (7-1/2')
AC Power Cord	(6') BELOEN No. 17106	28AWG BELOEN No. 9466 (6')
	(9') BELOEN No. 17109	31AWG BELOEN No. 9468 (10')
		4-conductor (unshielded) 23AWG BELOEN No. 8415 (6')
		5-conductor (1 shielded) 28AWG BELOEN No. 9467 (6')
		BELOEN No. 9465 (7-1/2')

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	IR WORKMAN PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
0101	MV201				PTC311	HEPR2501				ECG611
0102	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
0103	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
0104	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
0105	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
0106	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
0107	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
0108	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
0109	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
0110	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D201	1S2076		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D202	1S2076		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
0203	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
0204	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
0205	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
0206	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
0207	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
0208	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
0209	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
0210	MV1				PTC301		RE 250			ECG601
D211	W03B		GE-504A	5A40	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D212	MZ310A		GE-504A	5A40	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG140A
D213	W03B		GE-504A	5A40	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D214	W03B		GE-504A	5A40	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D215	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D216	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D217	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D218	1S2473		GE-300	0200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
IC101	M58473P									
Q101	2SK33E		GE-FET-2	FE-100	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312
Q102	2SK330		GE-FET-2	FE-100	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312
Q103	2SC710B		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q104	2SC710B		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q105	2SC711E		GE-62 *	(IR)2SC644	PTC121	HEPS0024 *	RE 192 *	SK3124 *	RT-302 *	ECG199 *
Q106	2SC710B		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q107	2SC7100		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q108	2SC711E		GE-62 *	(IR)2SC644	PTC121	HEPS0024 *	RE 192 *	SK3124 *	RT-302 *	ECG199 *
Q109	2SC711E		GE-62 *	(IR)2SC644	PTC121	HEPS0024 *	RE 192 *	SK3124 *	RT-302 *	ECG199 *
Q201	2SC7100		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q202	2SC7100		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q203	2SC710C		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q204	2SC710B		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q205	2SC711G		GE-62 *	(IR)2SC644	PTC121	HEPS0024 *	RE 192 *	SK3124 *	RT-302 *	ECG199 *
Q206	2SC711G		GE-62 *	(IR)2SC644	PTC121	HEPS0024 *	RE 192 *	SK3124 *	RT-302 *	ECG199 *
Q207	2SC710C		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q208	2SC711F		GE-62 *	(IR)2SC644	PTC121	HEPS0024 *	RE 192 *	SK3124 *	RT-302 *	ECG199 *
Q209	2SB561C		GE-244 *	TR-88 *	PTC177 *	HEPS3011	RE 18 *	SK3025 *	RT-115 *	ECG129 *
Q210	2SC711F		GE-62 *	(IR)2SC644	PTC121	HEPS0024 *	RE 192 *	SK3124 *	RT-302 *	ECG199 *
Q211	2SC711F		GE-62 *	(IR)2SC644	PTC121	HEPS0024 *	RE 192 *	SK3124 *	RT-302 *	ECG199 *
Q212	2SO3600	(12)	GE-337		PTC186		RE 203	SK3197	RT-146	ECG235
Q213	2SO3600	(12)	GE-337		PTC186		RE 203	SK3197	RT-146	ECG235
Q214	2SO359C		GE-247	TR-55	PTC110	HEPS5027	RE 42	SK3041	RT-158	ECG186A
Q215	2SC710B		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q216	2SC710B		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q217	2SC7100		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q218	2SC2086	(13)	GE-47 *	WEP912 *			RE 220 *			ECG293 *
Q219	2SC1964	(14)	GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235

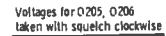
* Lead configuration may vary from original.

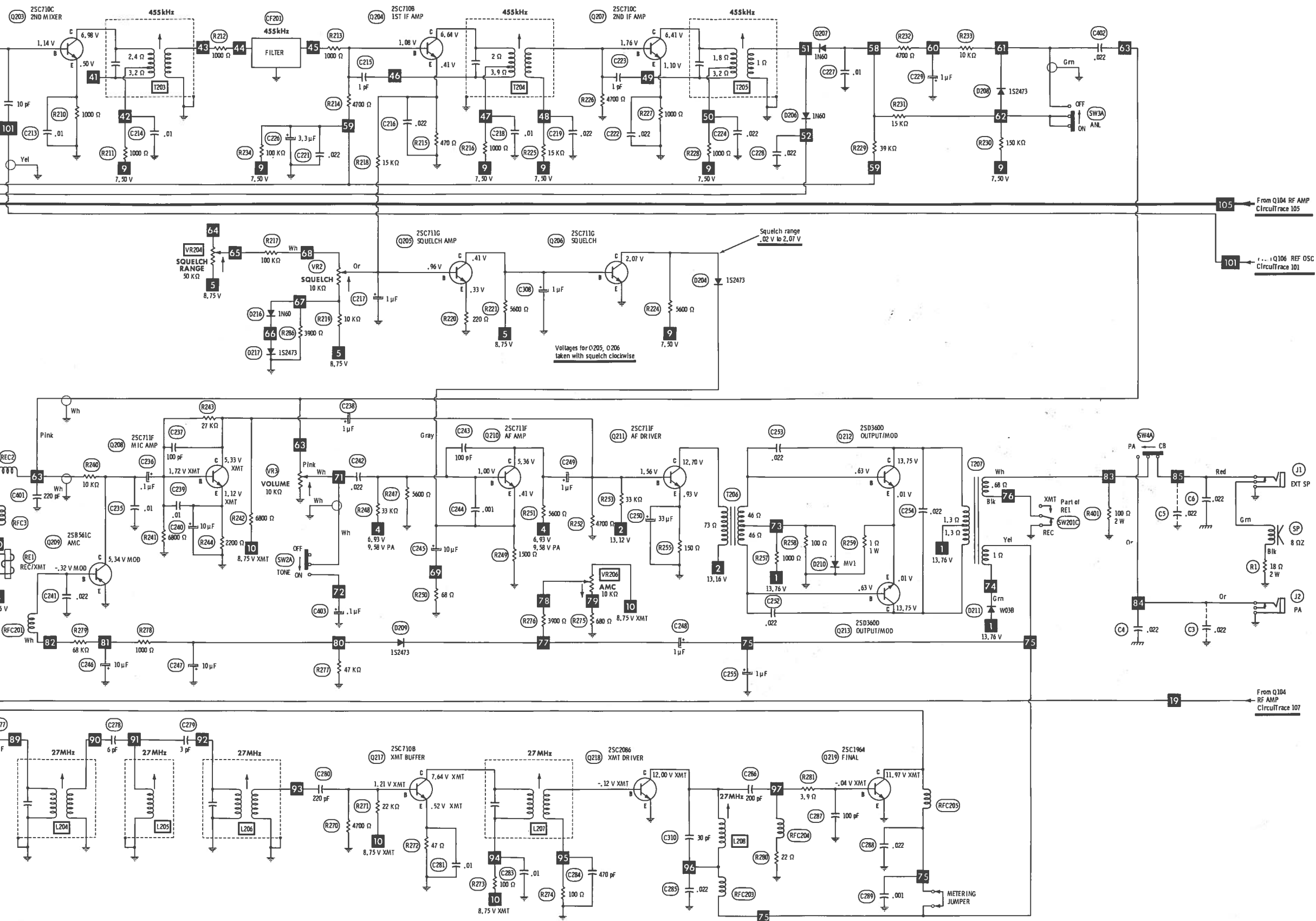
(12) Rating 10 W @ 800 mA

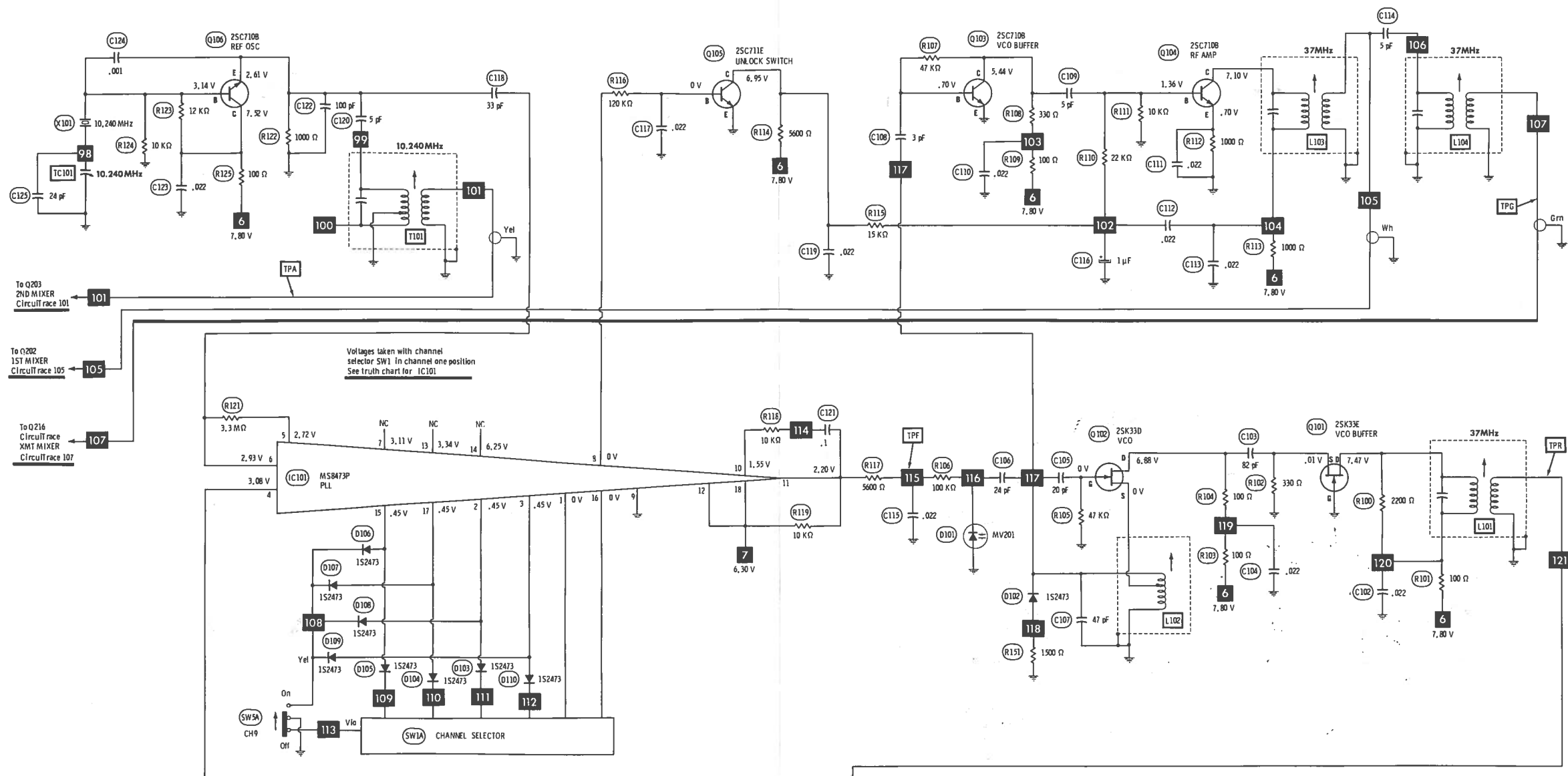
(13) Rating 800 MW @ 1 AMP

(14) Rating 12 W @ 3.5 AMP

ITT MODEL 4400M



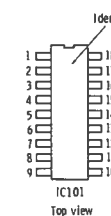




- ✖ Circuitry not used in some versions
 - Circuitry used in some versions
 - ⊙ See parts list
 - ✱ Nominal value
 - ⊥ Ground
 - ⏏ Chassis
 - ▽ Common tie point
- Measurements made in Channel 1 with switching as shown unless noted. Item numbers in rectangles appear in the alignment/adjustment instructions. Supply voltage maintained as shown at input. Voltages measured with digital meter, no signal. Controls adjusted for normal operation. Arrow at control indicates direction of advance. Terminal identification may not be found on unit. Resistors are 1/2W or less, 5% unless noted. Value in () used in some versions.

A PHOTOFAC STANDARD NOTATION SCHEMATIC
WITH CIRCUITRACE™

© Howard W. Sams & Co., Inc. 1977



ITT MODEL 4400M

TRUTH CHART

1 = <u>6.28</u> Volts 0 = <u>0-45</u> Volts								
C H A N N E L	IC101 PROGRAM DIVIDER							REC & XMT VCO OUTPUT IN MHz AT TPG
	PINS							
	1	2	3	15	16	17		
1	0	0	0	0	0	0		37.660
2	0	0	0	1	0	0		37.670
3	0	0	0	0	1	0		37.680
4	0	0	0	0	0	1		37.700
5	0	0	0	1	0	1		37.710
6	0	0	0	0	1	1		37.720
7	0	0	0	1	1	1		37.730
8	1	0	0	1	0	0		37.750
9	1	0	0	0	1	0		37.760
10	1	0	0	1	1	0		37.770
11	1	0	0	0	0	1		37.780
12	1	0	0	0	1	1		37.800
13	1	0	0	1	1	1		37.810
14	0	1	0	0	0	0		37.820
15	0	1	0	1	0	0		37.830
16	0	1	0	1	1	0		37.850
17	0	1	0	0	0	1		37.860
18	0	1	0	1	0	1		37.870
19	0	1	0	0	1	1		37.880
20	1	1	0	0	0	0		37.900

1 = 6.28 Volts 0 = 0-45 Volts

C H A N N E L	IC101 PROGRAM DIVIDER							REC & XMT VCO OUTPUT IN MHz AT TPG
	PINS							
	1	2	3	15	16	17		
21	1	1	0	1	0	0		37.910
22	1	1	0	0	1	0		37.920
23	1	1	0	1	0	1		37.950
24	1	1	0	1	1	0		37.930
25	1	1	0	0	0	1		37.940
26	1	1	0	0	1	1		37.960
27	1	1	0	1	1	1		37.970
28	0	0	1	0	0	0		37.980
29	0	0	1	1	0	0		37.990
30	0	0	1	0	1	0		38.000
31	0	0	1	1	1	0		38.010
32	0	0	1	0	0	1		38.020
33	0	0	1	1	0	1		38.030
34	0	0	1	0	1	1		38.040
35	0	0	1	1	1	1		38.050
36	1	0	1	0	0	0		38.060
37	1	0	1	1	0	0		38.070
38	1	0	1	0	1	0		38.080
39	1	0	1	1	1	0		38.090
40	1	0	1	0	0	1		38.100

PARTS LIST AND DESCRIPTION (CONTINUED)

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

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFGR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C116	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C138	100 10V		PC100-10	VTT100E10	QV1-93	EV-1130
C217	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C220	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C226	3.3 25V		PC5-50	VTT3R3A50	QV1-23	EV-1318
C229	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C234	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C236	.1 35V			TDC104M050EL	Q0T1-2	SD50-R109
C238	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C240	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C245	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C246	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C247	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C248	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C249	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C250	33 10V		PC30-25	VTT33B10	QV1-61	EV-1125
C251	100 16V		PC100-16	VTT100F16	QV1-95	EV-1230
C255	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C260	100 16V		PC100-16	VTT100F16	QV1-95	EV-1230
C261	100 16V		PC100-16	VTT100F16	QV1-95	EV-1230
C262	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1260
C269	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C308	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C309	100 16V		PC100-16	VTT100F16	QV1-95	EV-1230
C403	1 35V			TOC105M035EL		S035-19

CAPACITORS

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C1	.022	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C2	.001				GP210		5GA-010
C3	.022	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C4	.022				GP120		5GA-S20
C5	.022	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C6	.022				GP120		5GA-S20
C7	.001	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C101	10				GP120		5GA-S20
C102	.022	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C103	82 10%				GP120		5GA-S20
C104	.022	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C105	20 NPO 5%				GP120		5GA-S20
C106	24	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C107	4.7 5%				GP120		5GA-S20
C108	3 NPO	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C109	5 NPO				GP120		5GA-S20
C110	.022	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C111	.022				GP120		5GA-S20
C112	.022	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C113	.022				GP120		5GA-S20
C114	5 NPO	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C115	.022				GP120		5GA-S20
C117	.022	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C118	33 NPO 5%				GP120		5GA-S20
C119	.022	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C120	5 NPO				GP120		5GA-S20
C121	.1 10%	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C122	100 10%				GP120		5GA-S20
C123	.022	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C124	.001				GP120		5GA-S20
C125	24 NPO 5%	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C126	20 NPO 5%				GP120		5GA-S20
C128	100 NPO 10%	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C129	330 5%				GP120		5GA-S20
C130	.022	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C131	.022				GP120		5GA-S20
C132	10	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C133	220				GP120		5GA-S20
C134	390 10%	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C135	.022				GP120		5GA-S20
C136	.001	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C137	18				GP120		5GA-S20
C139	.022	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C140	.022				GP120		5GA-S20
C201	.01	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C202	.01				GP120		5GA-S20
C203	1	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C204	.01				GP120		5GA-S20
C205	.01	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C206	15				GP120		5GA-S20
C207	.01	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C208	.01				GP120		5GA-S20
C209	.01	(1)	00-102G	GP1000	GP120	QC2-81	5GA-S20
C210	1				GP120		5GA-S20

ITT MODEL 4400M

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C211	.022		DTZ-10	NP010	GP120		5GA-S20
C212	10 NPO		DD-1032	GP10000	CN0410		10TCC-Q10
C213	.01		DD-1032	GP10000	GP110		5GA-S10
C214	.01				GP110		5GA-S10
C215	1				CN0510		10TCC-V10
C216	.022		DD-1032	GP10000	GP120		5GA-S20
C218	.01				GP110		5GA-S10
C219	.022				GP120		5GA-S20
C221	.022				GP120		5GA-S20
C222	.022				GP120		5GA-S20
C223	1				CN0510		10TCC-V10
C224	.022				GP120		5GA-S20
C225	.022				GP120		5GA-S20
C227	.01 10%			OPMS6S1	EW6F110		6PS-S10
C228	.022				GP120		5GA-S20
C233	.022				GP120		5GA-S20
C235	.01 10%			DPMS6S1	EW6F110		6PS-S10
C237	100 10%		00-101	GP100	GP310		10TS-T10
C239	.01		00-1032	GP10000	GP110		5GA-S10
C241	.022				GP120		5GA-S20
C242	.022 10%			OPMS6S22	EW6F122		6PS-S22
C243	100 10%		00-101	GP100	GP310		10TS-T10
C244	.001		00-102G	GP1000	GP210	QC2-81	5GA-D10
C252	.022 10%			OPMS6S22	EW6F122		6PS-S22
C253	.022 10%			OPMS6S22	EW6F122		6PS-S22
C254	.022				GP120		5GA-S20
C263	.1 10%			OPMS6P1	EW6F6010		6PS-P10
C264	.022				GP120		5GA-S20
C265	.022				GP120		5GA-S20
C266	300 NPO 5%						10TCC-T30
C267	220 5%			C015F0221J03	SX322	QW1-35	MMA-221
C268	.001		00-102G	GP1000	GP210	QC2-81	5GA-D10
C270	.022				GP120		5GA-S20
C271	22 NPO 5%		OTZ-22	NP022	CN0422		10TCC-Q22
C272	33 NPO 5%		OTZ-33	NP033	CN0433		10TCC-Q33
C273	5 NPO 5%		OTZ-4R7	NP04P7	CN0547		10TCC-V47
C274	15 NPO 5%		DTZ-15	NP015	CN0415		10TCC-Q15
C275	.01		DD-1032	GP10000	GP110		5GA-S10
C276	.01		DD-1032	GP10000	GP110		5GA-S10
C277	3 NPO		OTZ-3R3	NP03P3	CN0533		10TCC-V33
C278	6 NPO						10TCC-V56
C279	3 NPO		OTZ-3R3	NP03P3	CN0533		10TCC-V33
C280	820		DD-821	GP820	GP382		10TS-T82
C281	.01		00-1032	GP10000	GP110		5GA-S10
C282	.022				GP120		5GA-S20
C283	.01		DD-1032	GP10000	GP110		5GA-S10
C284	470		DD-471	GP470	GP347		10TS-T47
C285	.022				GP120		5GA-S20
C286	200 N22D 10%				*		10TCR-T20
C287	100 10%		00-101	GP100	GP310		10TS-T10
C288	.022				GP120		5GA-S20
C289	.001		00-102G	GP1000	GP210	QC2-81	5GA-D10
C290	.01		DD-1032	GP10000	GP110		5GA-S10
C291	.022				GP120		5GA-S20
C292	250		OTZ-270				10TCC-T27
C293	300 5%			C015F0301J03	SX330	QW1-3B	MMA-301
C294	.022				GP120		5GA-S20
C295	.022				GP120		5GA-S20
C296	150 10%		DTZ-150		CN0315		10TCC-T15
C297	10 NPO		OTZ-10	NP010	CN0410		10TCC-Q10
C298	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C299	.022				GP120		5GA-S20
C300	.022				GP120		5GA-S20
C301	.022				GP120		5GA-S20
C302	.022				GP120		5GA-S20
C303	.022				GP120		5GA-S20
C304	.022				GP120		5GA-S20
C305	.022				GP120		5GA-S20
C306	.022				GP120		5GA-S20
C310	30		OTZ-33	NP033	CN0433		10TCC-Q33
C311	.022	(1)			GP120		5GA-S20
C312	.022	(1)			GP120		5GA-S20
C401	220		DTZ-220				10TCC-T22
C402	.022 10%			OPMS6S22	EW6F122		6PS-S22
TC101							
TC102							
TC201							

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

(1) Used in some versions.

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.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
VR1	RF Gain	5000	5023321 (5) 1030110 (5)				
VR2	Squelch	10K					
VR3	Volume/Switch	10K					
VR201	S Meter	50K					
VR204	Squelch Range	50K					
VR205	RF Meter	50K					
VR206	AMC	10K					

(5) Number on unit.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L101	VCO Buffer (37MHz)		59330051373H7		
L102	VCO		59330101373H7		
L103	VCO Output (37MHz)				
L104	VCO Output (37MHz)		59330051373H7		
L105	Down Osc (36.190MHz)		59330071373B8		
L106	Down Mixer (1MHz)		59330081373G1		
L201	Rec Antenna (27MHz)		59330011372D3		
L202	RF Amp (27MHz)		59330021372D3		
L203	Harmonic Suppressor (27MHz)				
L204	Harmonic Suppressor (27MHz)		59330041373E8		
L205	Harmonic Suppressor (27MHz)		59330031372L7		
L206	XMT Mixer (27MHz)				
L207	XMT Buffer (27MHz)		59330041373E8		
L208	XMT Driver (27MHz)				
L209	Antenna Match (27MHz)				
L210	Pi Filter (27MHz)				
L211	Pi Filter (27MHz)				
L212	TVI Trap (54MHz)				
L213	RF Choke				
RFC1	RF Choke				
RFC2	RF Choke				
RFC3	RF Choke				
RFC201	RF Choke				
RFC202	RF Choke				
RFC203	RF Choke				
RFC204	RF Choke				
RFC205	RF Choke				
T101	Ref Oscillator (10.240MHz)		5563004773G1		
T201	Rec Mixer (10.695MHz)		5563004772KV		
T202	Rec Mixer (10.695MHz)		5563009773K3		
T203	IF (455kHz)		5553004772K3		
T204	IF (455kHz)		5553018772K3		
T205	IF (455kHz)		5553010772K3		

ITT MODEL 4400M

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.	
RFC 201	1.4A	.12	.75mH	83-0018 (1)			(1) Number on unit.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T207	42	1 8 2 26	85-0015 (1)			(1) Number on unit.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	SEC. 2	MFR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T206	1	1		81-00319 (1)			(1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFR. PART No.	QUAM PART No.	
SP	3 1/2" PM 8 Ohms		3A05Z8	

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA					
		PART No.		BUSS PART No.		LITTELFUSE PART No.	
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	WORKMAN PART No.
FU1	3A Quick Acting			AGC3	HDJ	312003	150145

MICROPHONE

ITEM No.	REPLACEMENT DATA				CONNECTION DATA						
	MFR. PART No.	GC PART No.	GC NOISE CANCEL	GC POWER	GC CONNECTOR	GC Red	GC Shield	GC Yellow	GC Blue	GC White	GC Black
MIC		18-032	18-034	18-010	18-092	1	2	4	NC	NC	2

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF201	Filter		455kHz
M1	Meter		S-RF
RE1	Relay		Rec-XMT
SW1	Switch		Channel Selector
SW2	Switch		Tone
SW3	Switch		ANL
SW4	Switch		CB-PA
SW5	Switch		Channel 9
SW6	Switch		Power (On Volume)
SW201	Switch		Rec-XMT (On RE1 Relay)
X101	Crystal		10.240MHz
X102	Crystal		36.190MHz
X201	Crystal		36.950MHz