

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.



BROWNING MODEL SABRE

MODEL Sabre

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

© 1977 Howard W. Sams & Co., Inc.

Printed in U. S. of America

7CY500

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:
 L3, L13, T4, T5, T6, T7, T8, T13 5009
 L4, L5, L11, L12, L14, T1, T2, T3, T9 9440
 C173 5000

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP20.	Ch. 11		Check for 5.120MHz.
Input of frequency counter to TP1.	Ch. 11	L12	Connect a jumper from TP10 to ground. Adjust L12 for 21.600MHz.
	Ch. 11, Xmit	L11	Disconnect TP6 jumper. Adjust L11 for 27.300MHz. Remove jumper from TP10.
	Ch. 11 Delta Tune - Midrange	L14	Adjust for 22.420MHz.
	Ch. 11, Xmit	C173	Adjust for 27.085MHz. Reconnect TP6 jumper.
Input of oscilloscope to TP21.	Ch. 11	L13	Adjust L13 for MINIMUM squaring.
Input of RF VTVM to TP3.	Ch. 11	T13	Adjust for maximum.

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 TP3. 455kHz, 1000Hz @ 30% modulation.	Ch. 13, Delta Tune - Midrange RF Gain - Max.	T8, T7, T6	Adjust for maximum output.
Output of signal generator thru .01uF to TP1. 4.665MHz, 1000Hz @ 30% modulation.	Ch. 13	T5, T4	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation.	Ch. 13	T3, T2, T1	Adjust for maximum output. Repeat above steps if necessary.

RECEIVER ADJUSTMENTS

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

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation. Output 1000uV.	Ch. 13, Delta Tune - Midrange RF Gain - Max.	R60	SQUELCH RANGE Set squelch control R61 fully clockwise. Adjust R60 so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 13	R28	S METER Adjust R28 for 9 on S scale of meter.

TRANSMITTER ALIGNMENT

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

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

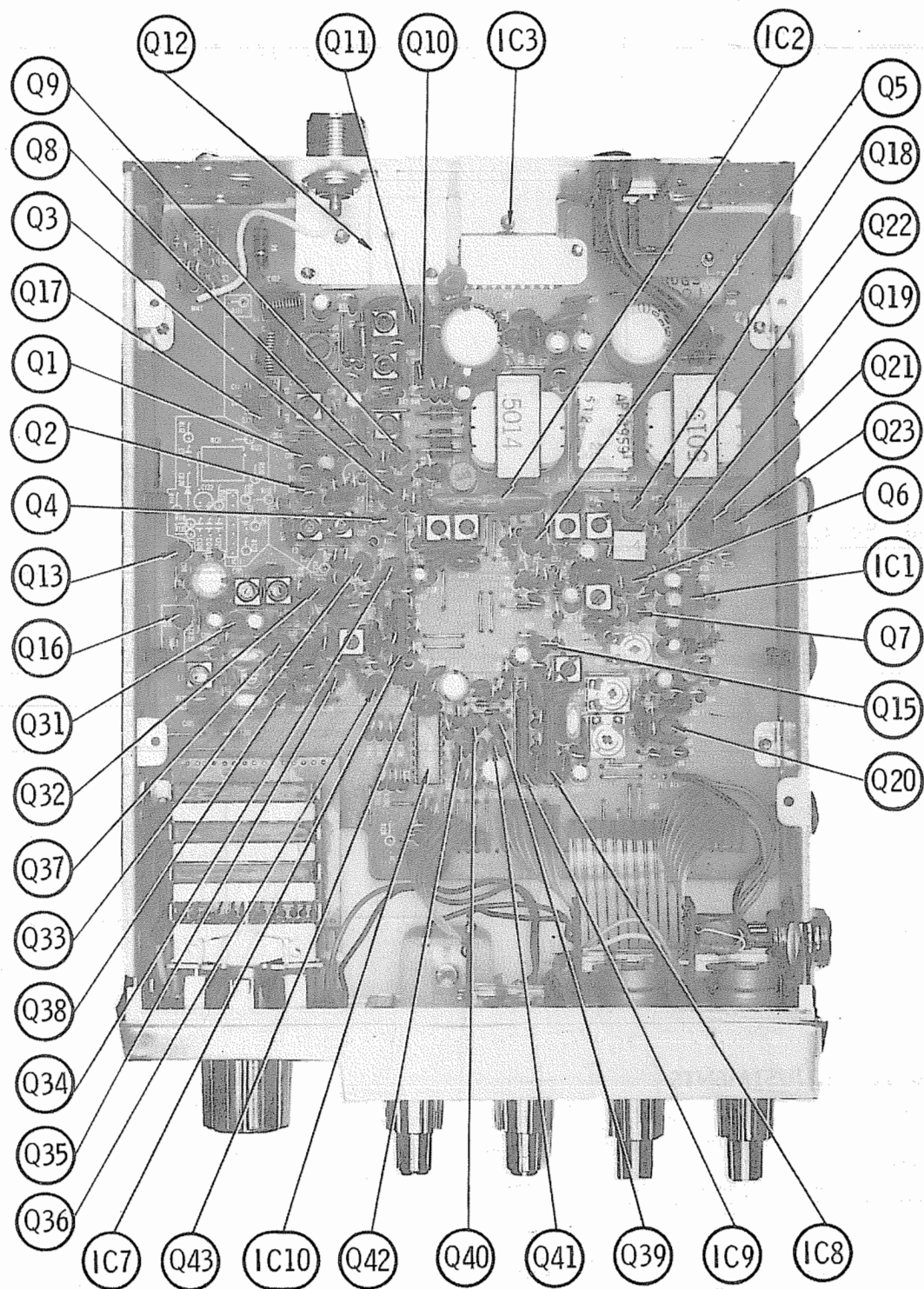
TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
	Ch. 13	T9, L4, L5, L3	Adjust for maximum.
	Ch. 13	L3	Adjust for 4 watts maximum.

TRANSMITTER ADJUSTMENTS

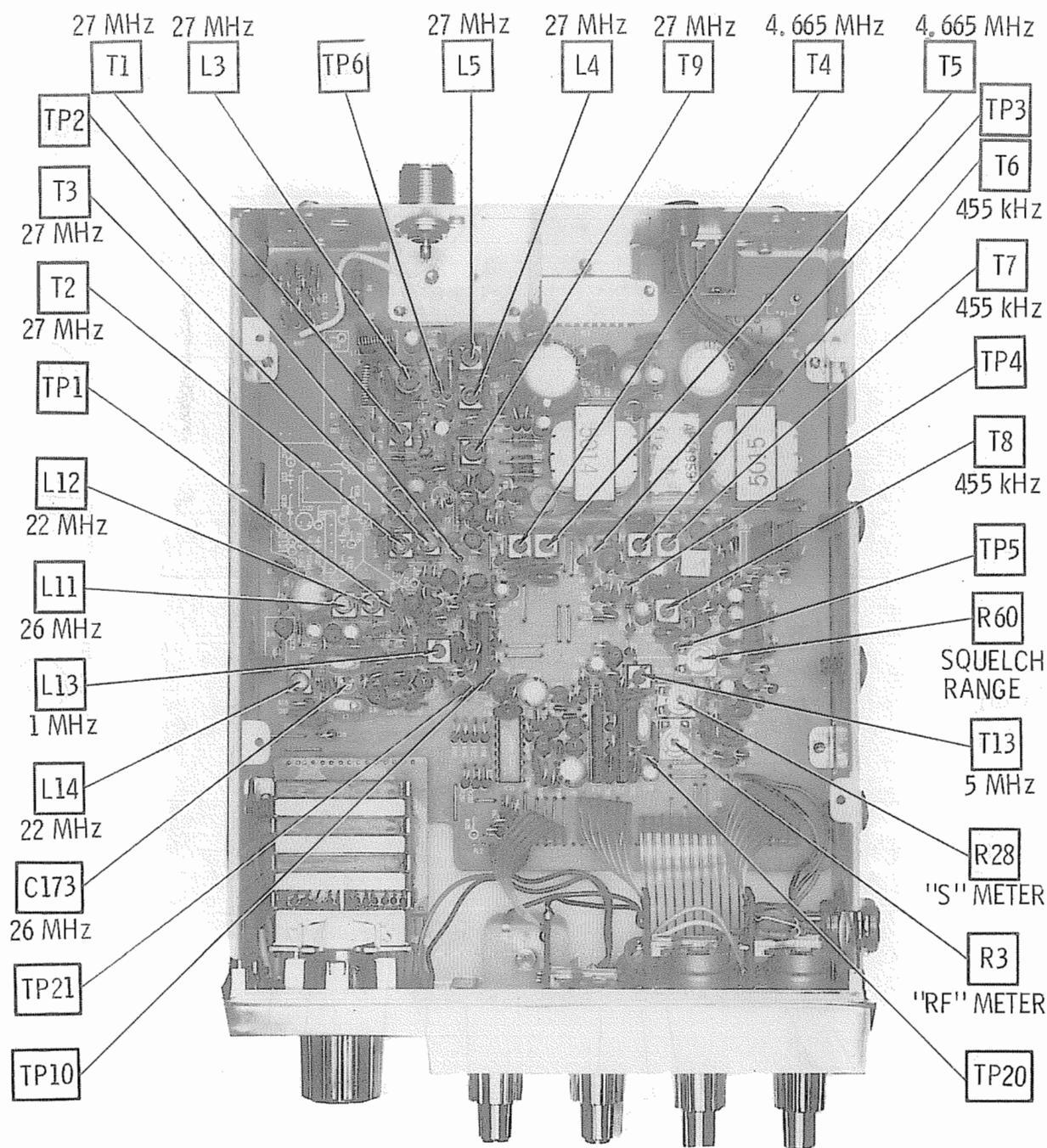
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.

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

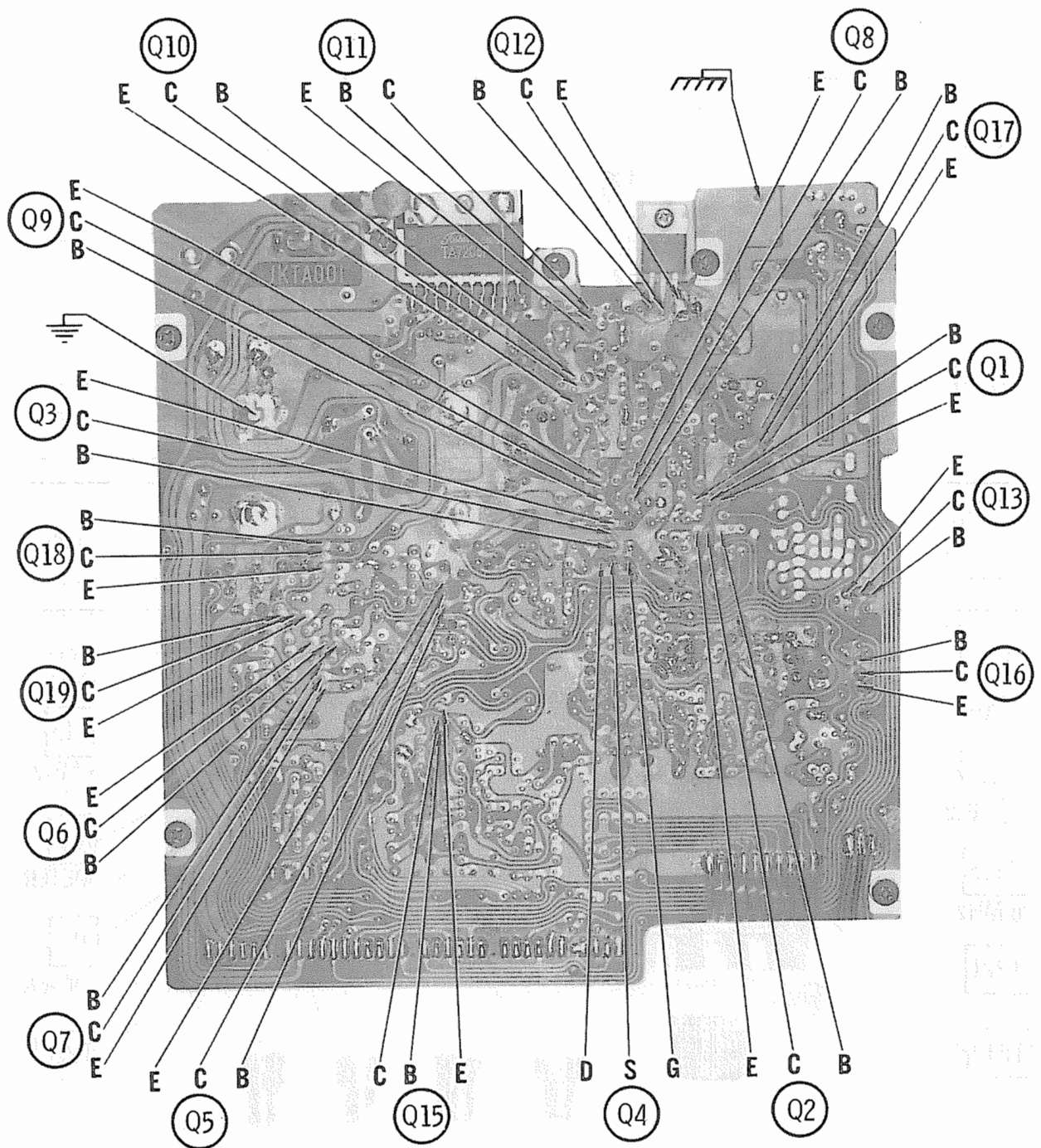
TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
	Ch. 13	R3	RF PANEL METER Adjust R3 so that RF panel meter agrees with RF wattmeter.



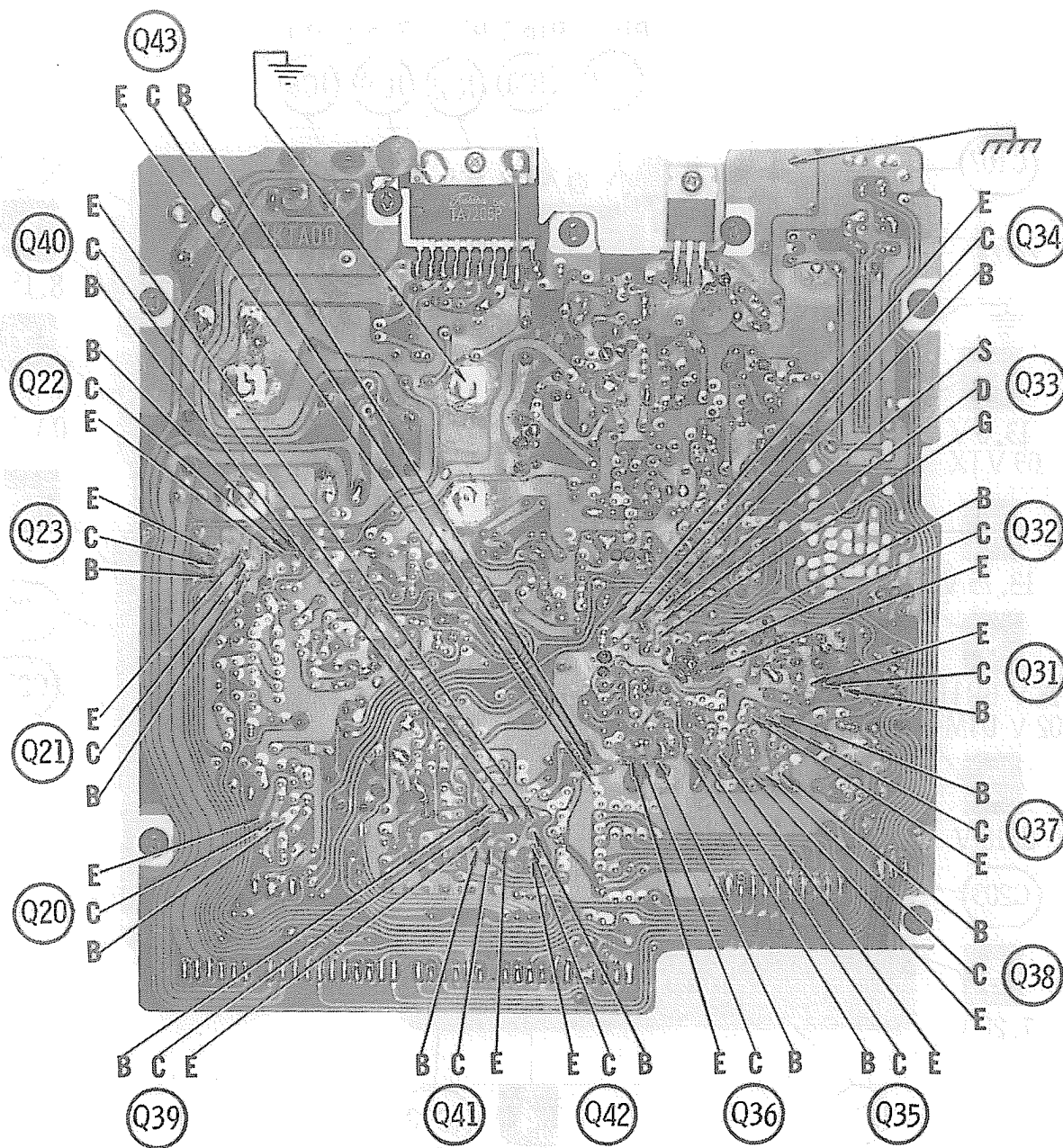
CHASSIS-BOTTOM



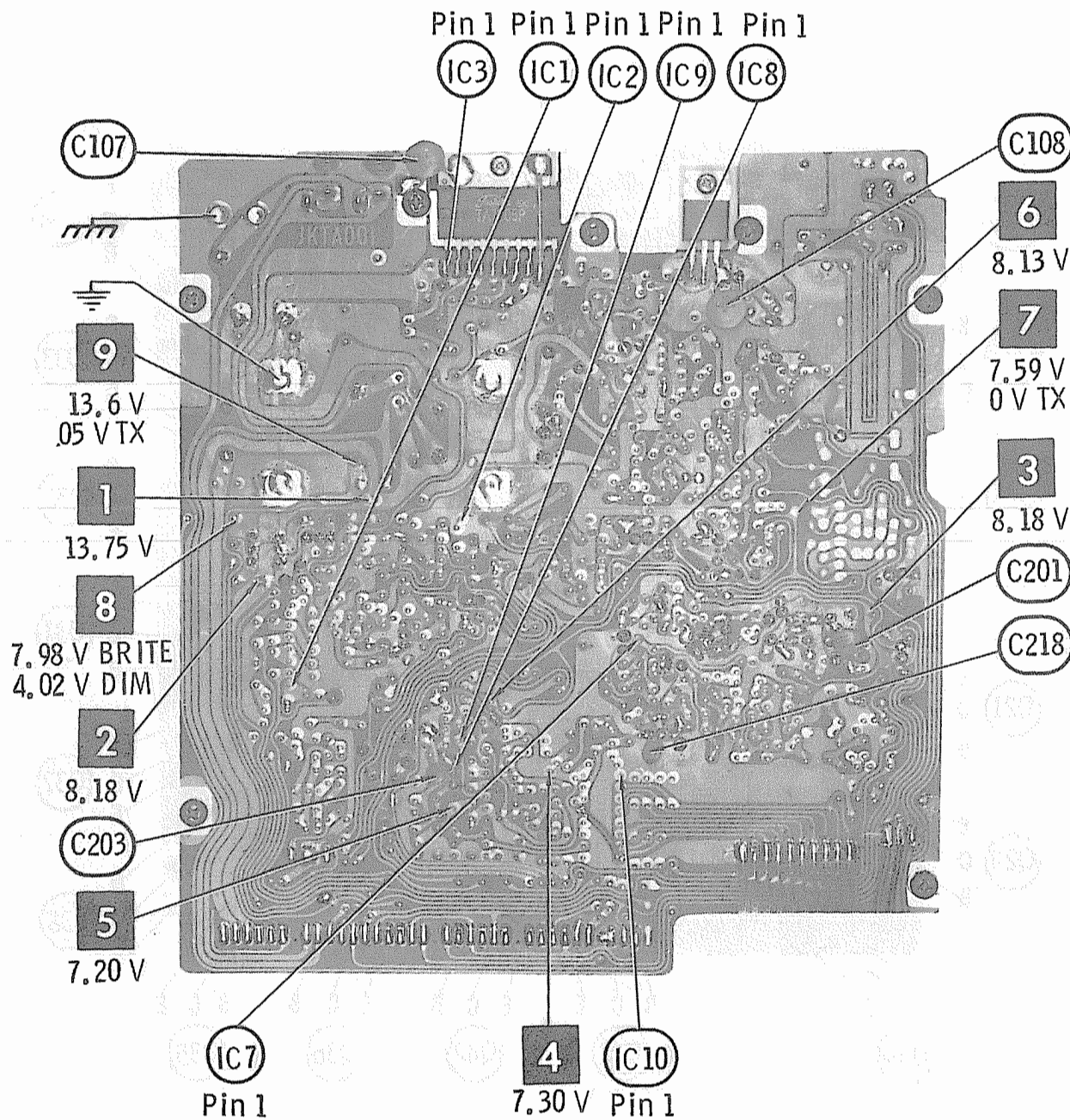
CHASSIS-BOTTOM



MAIN BOARD

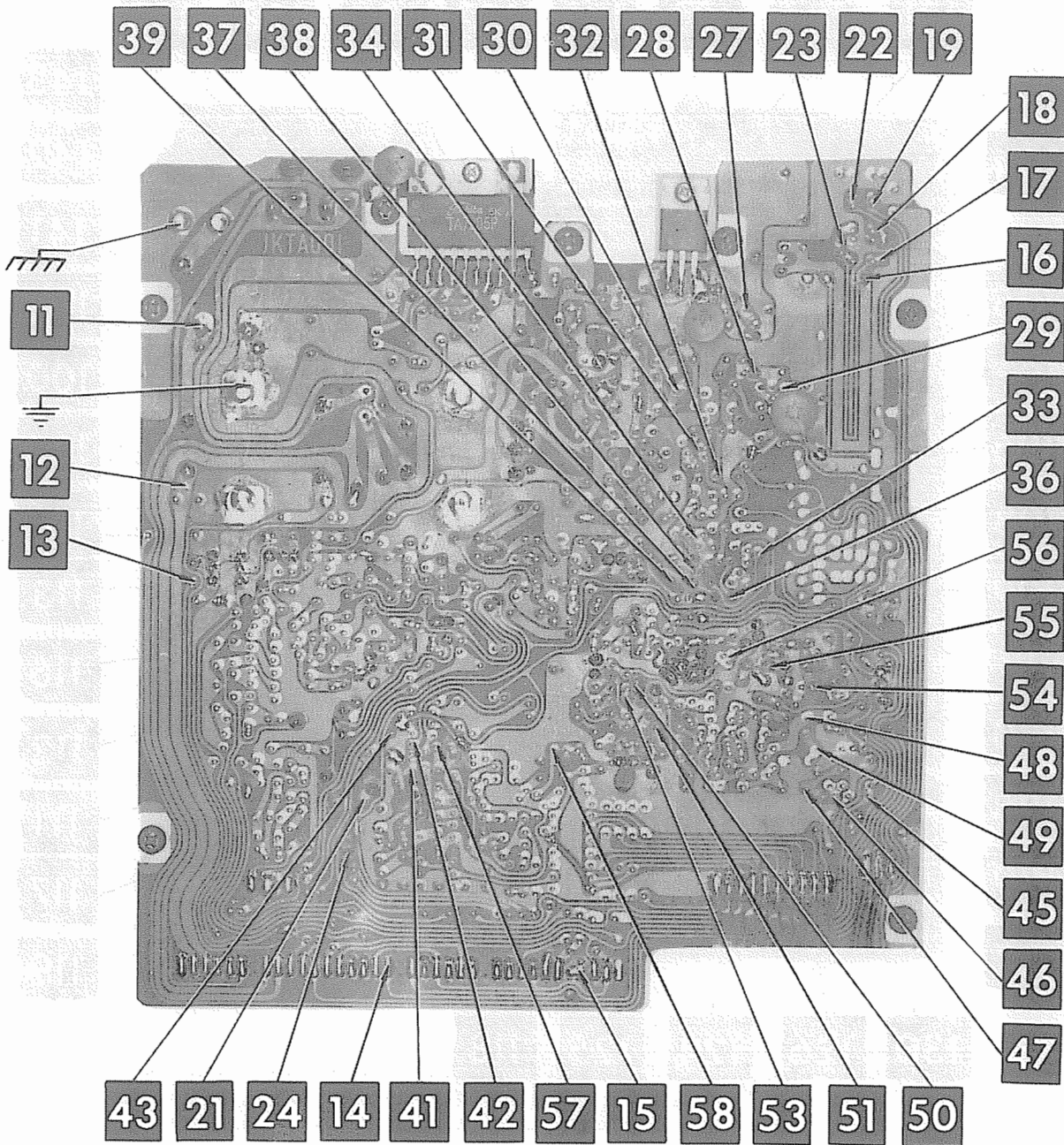


MAIN BOARD

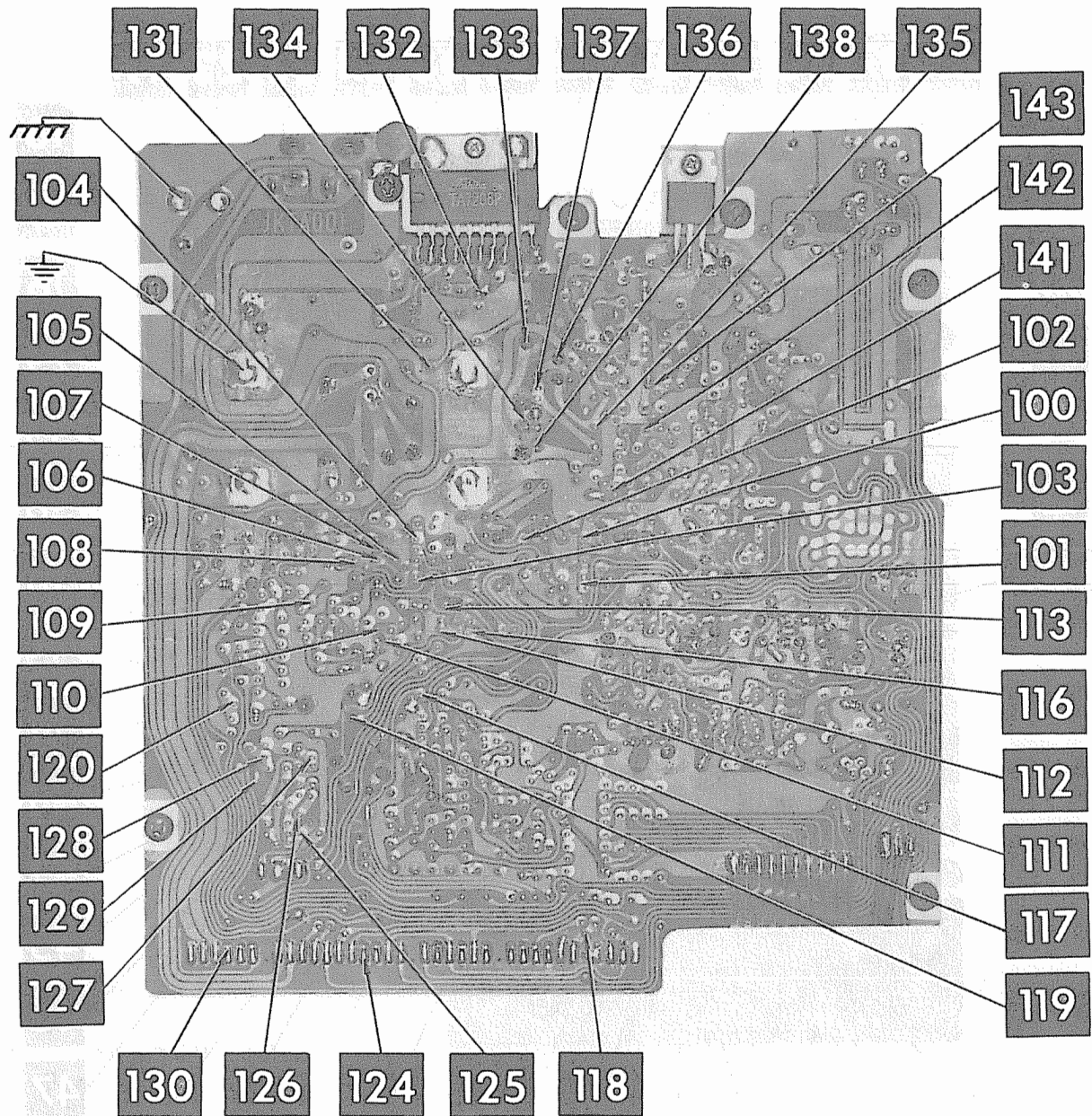


MAIN BOARD

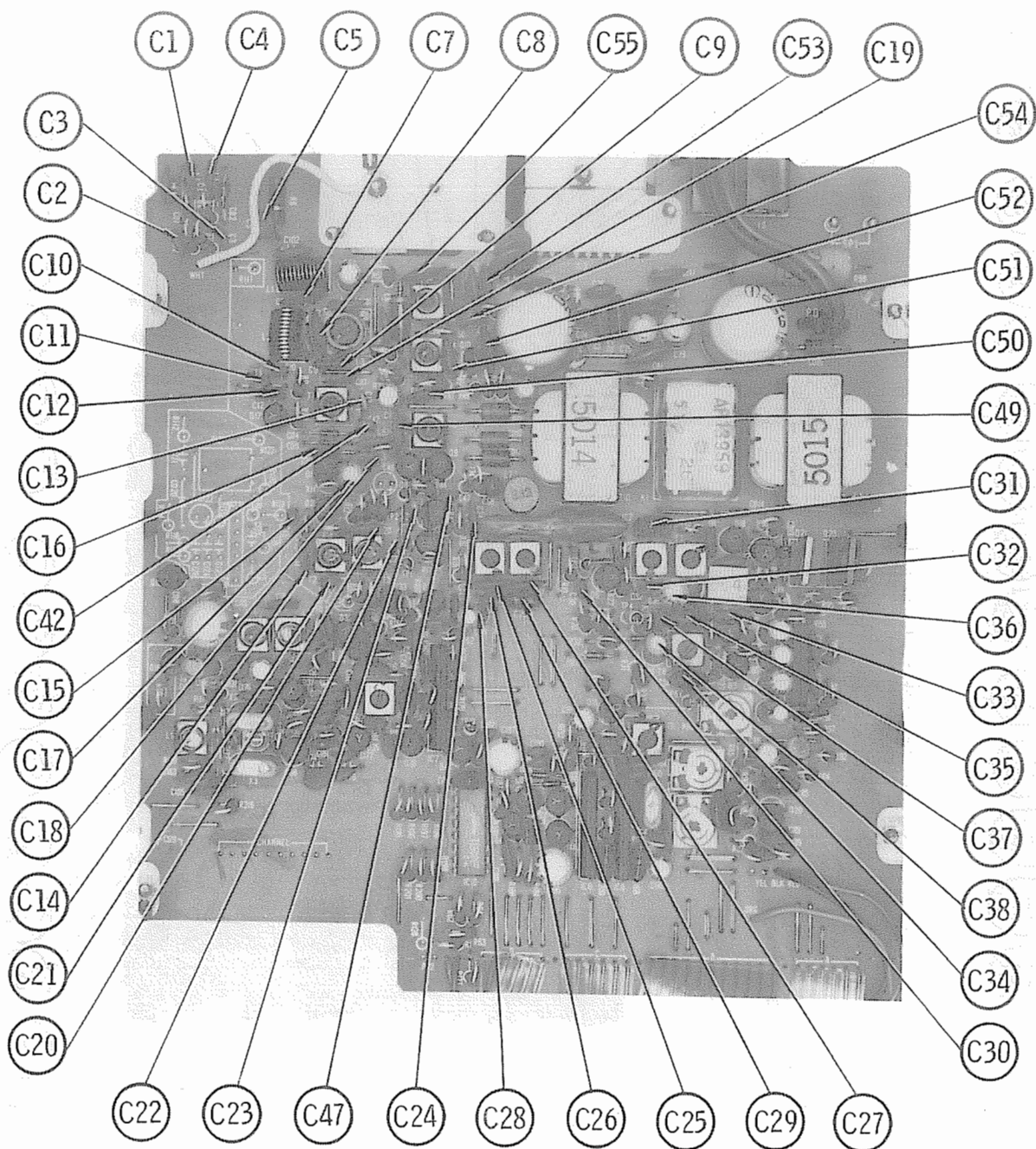
BROWNING MODEL SABRE



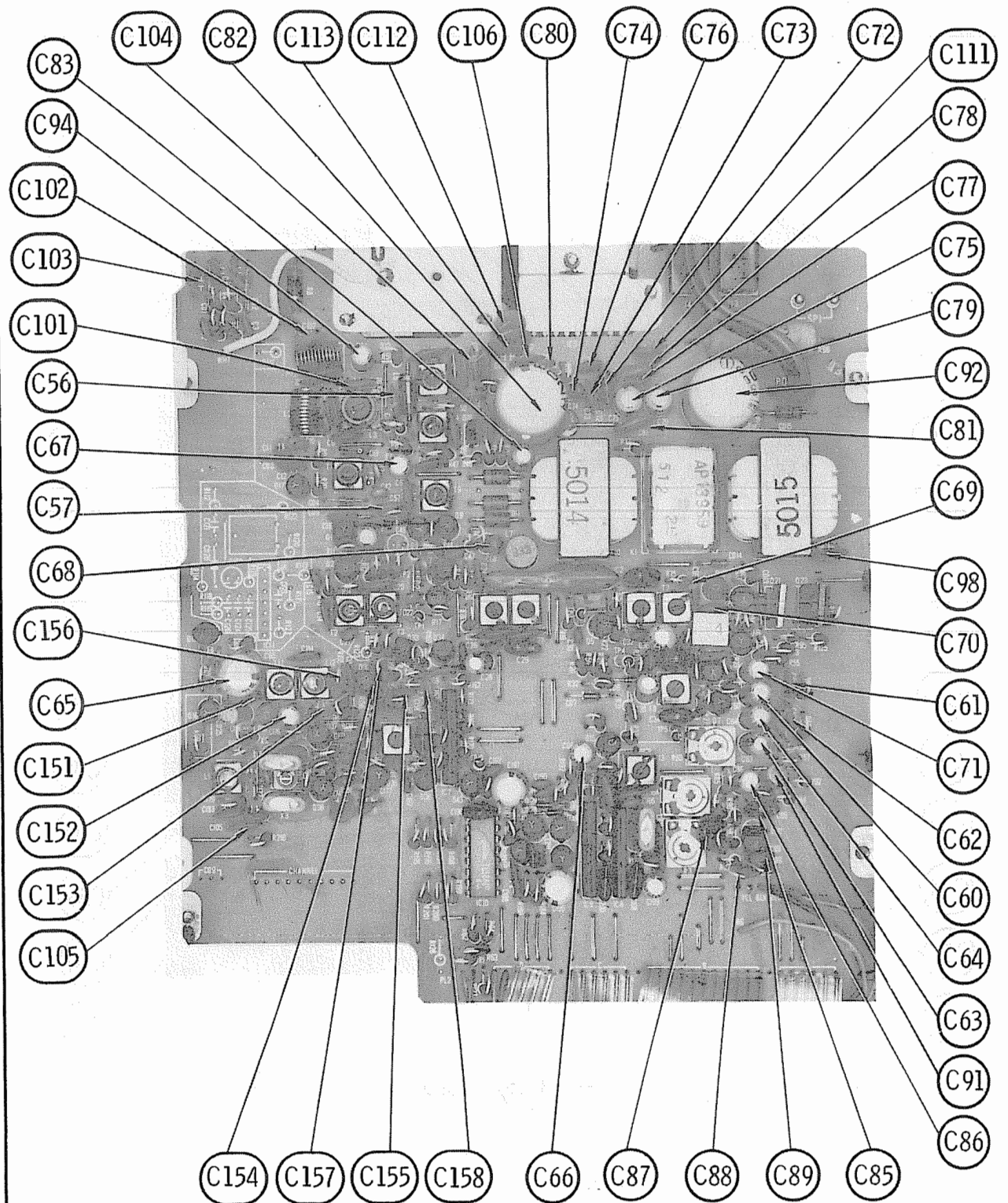
MAIN BOARD



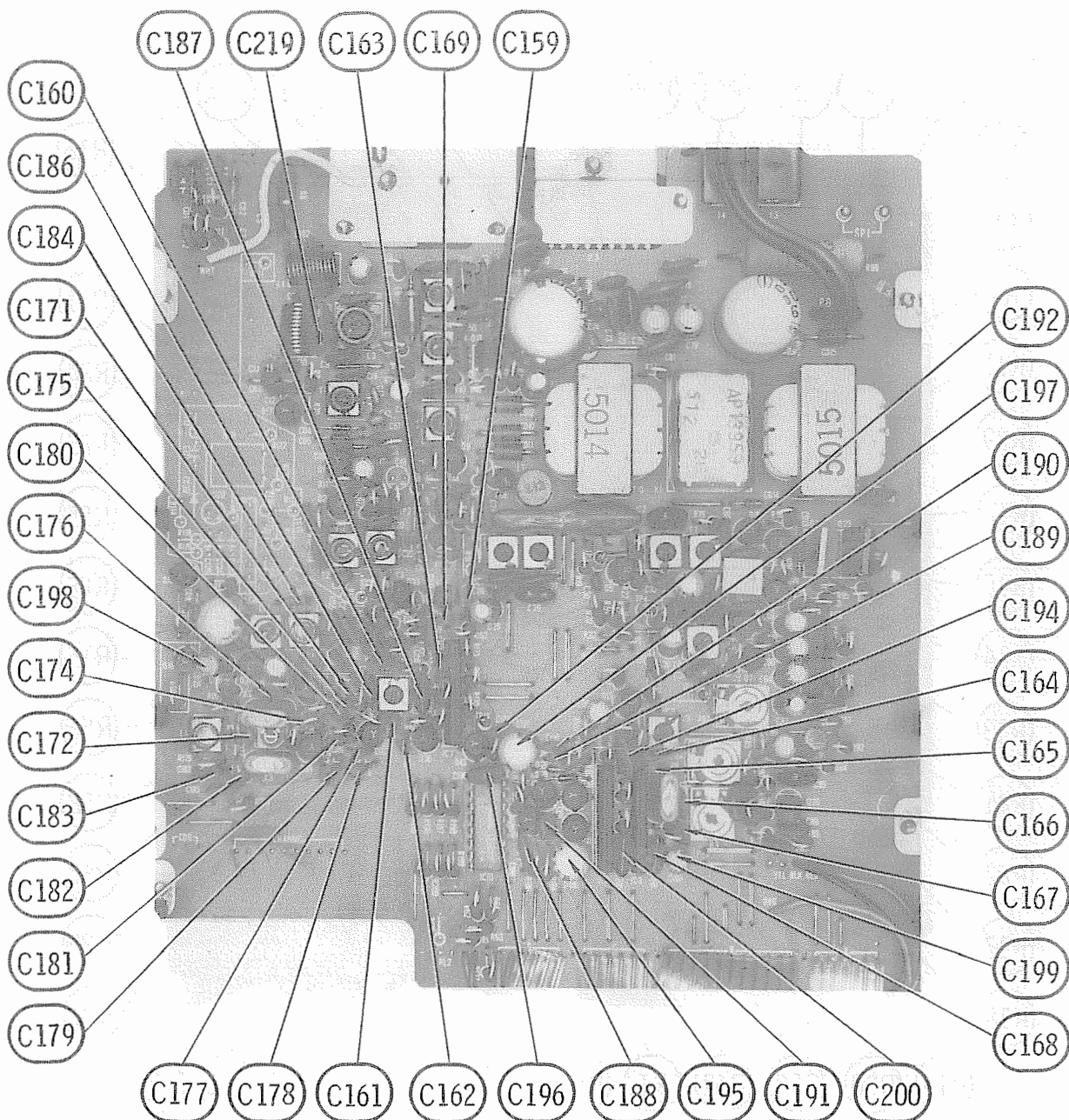
MAIN BOARD



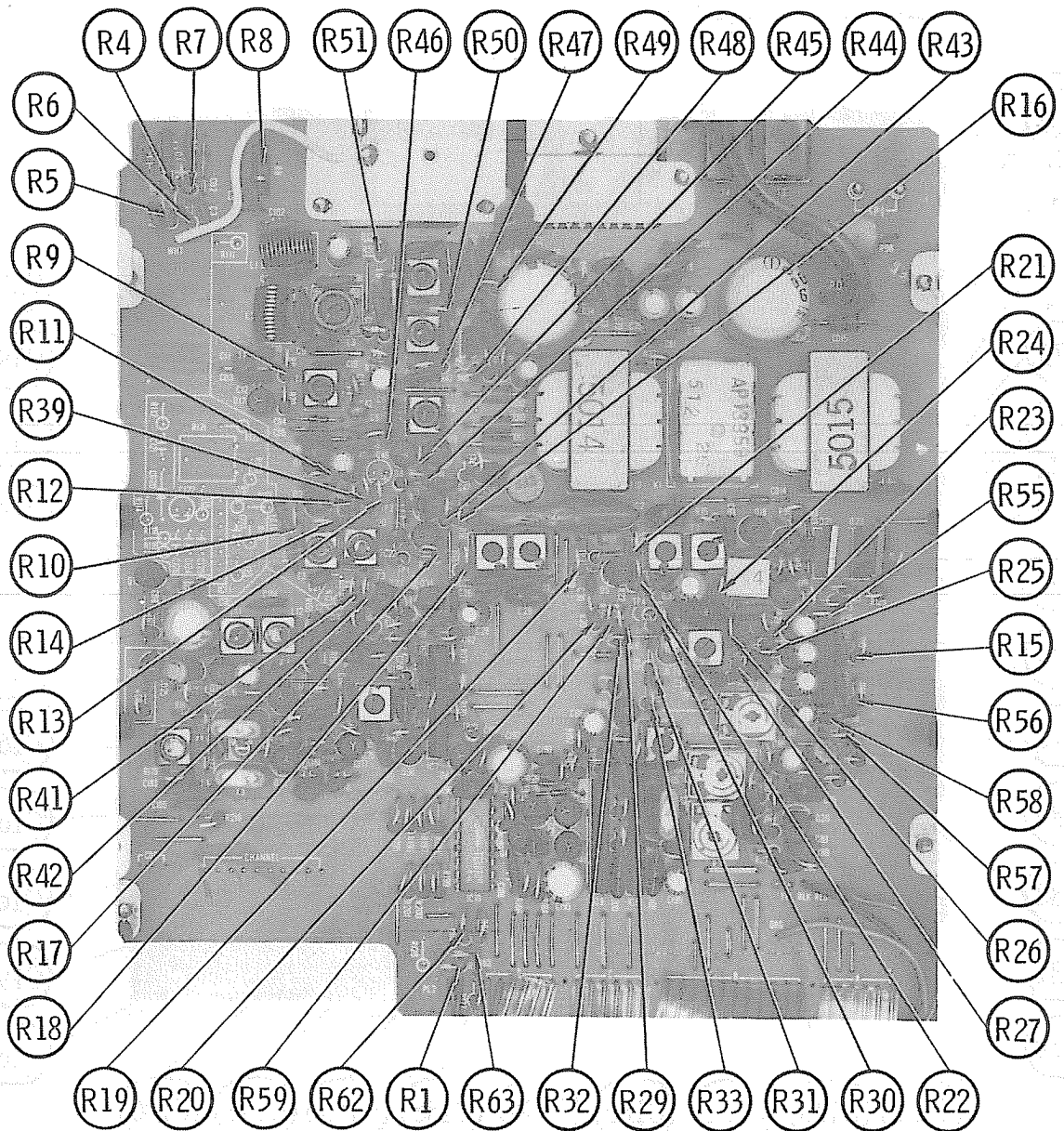
MAIN BOARD



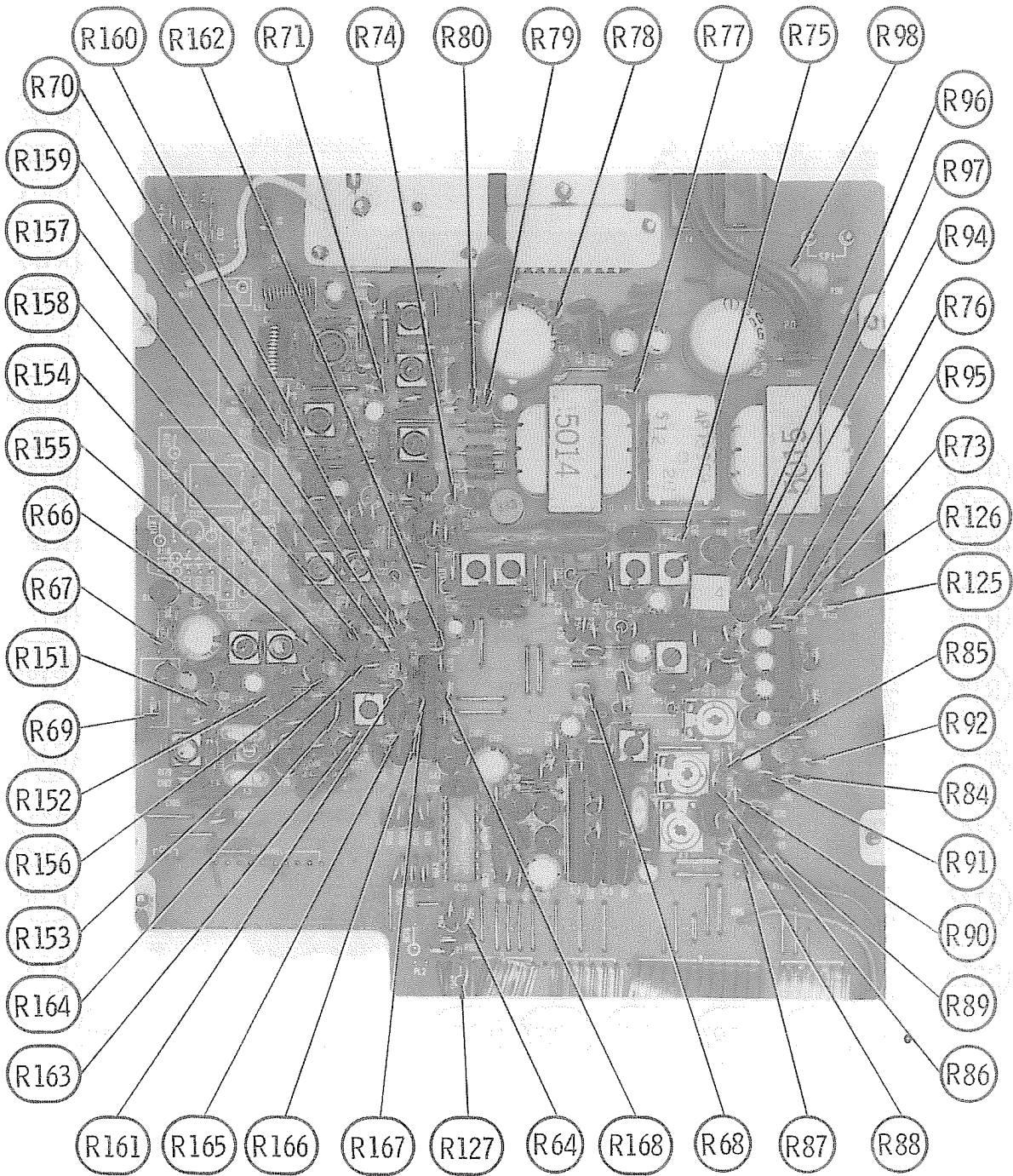
MAIN BOARD



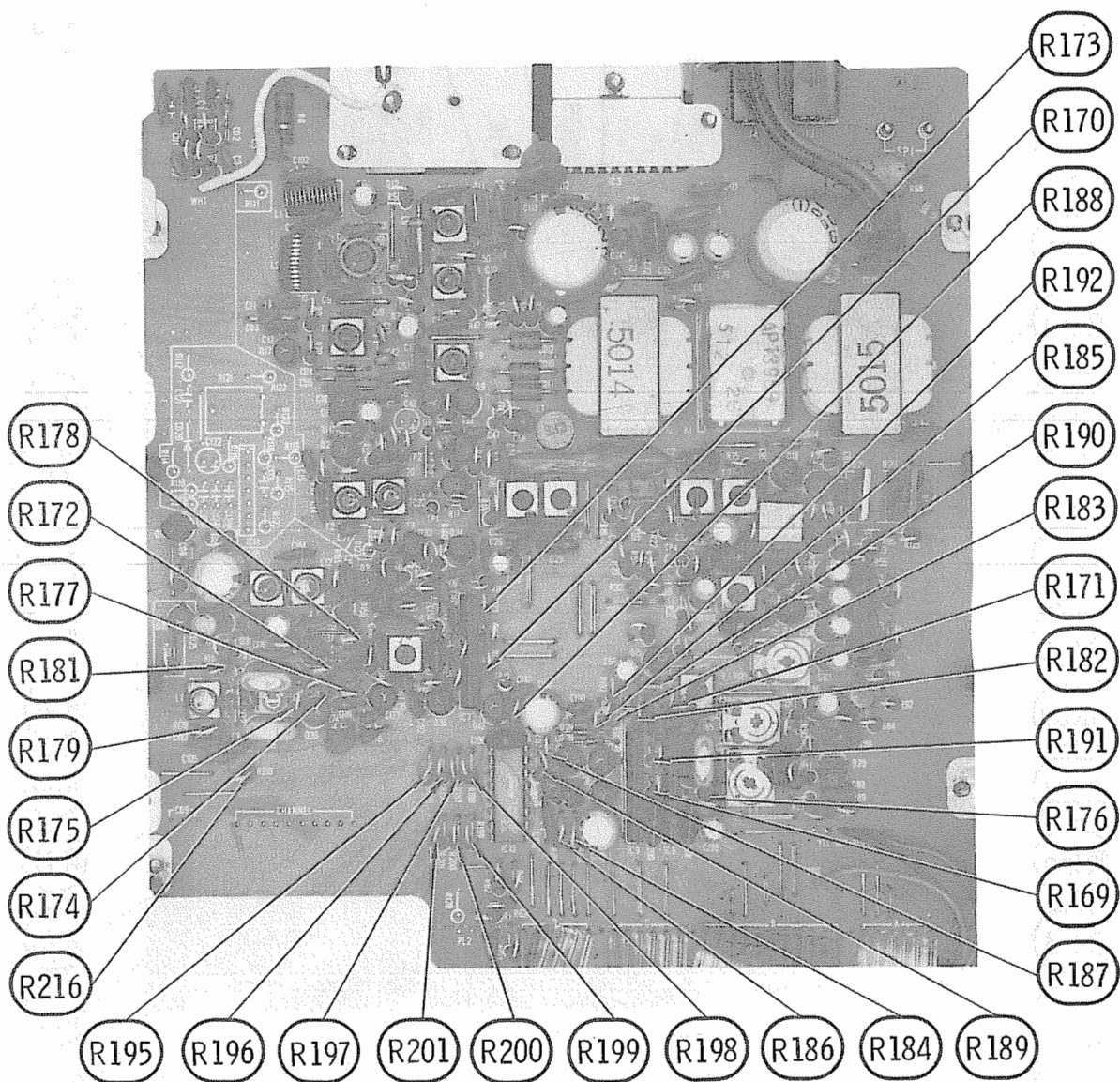
MAIN BOARD



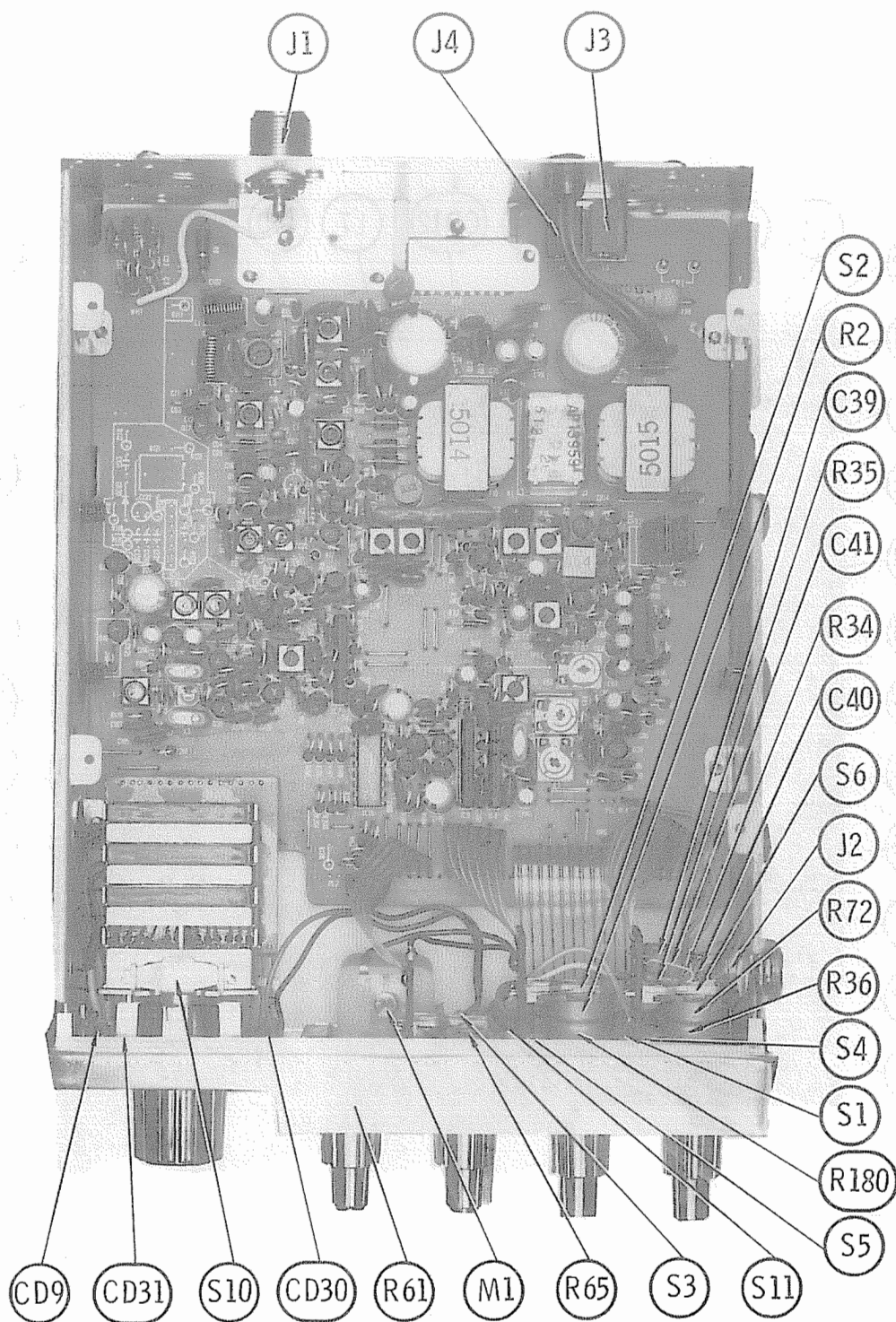
MAIN BOARD



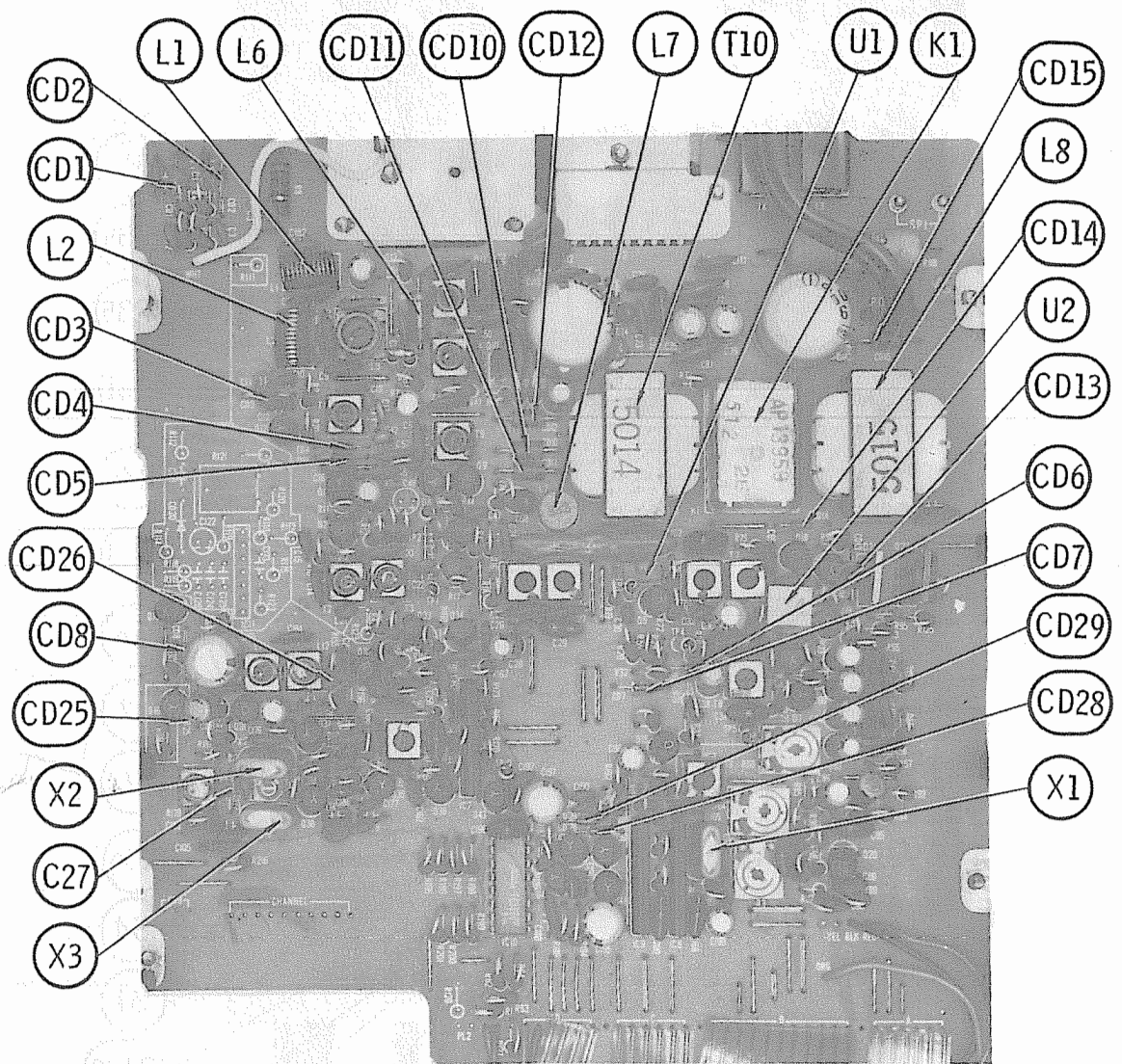
MAIN BOARD



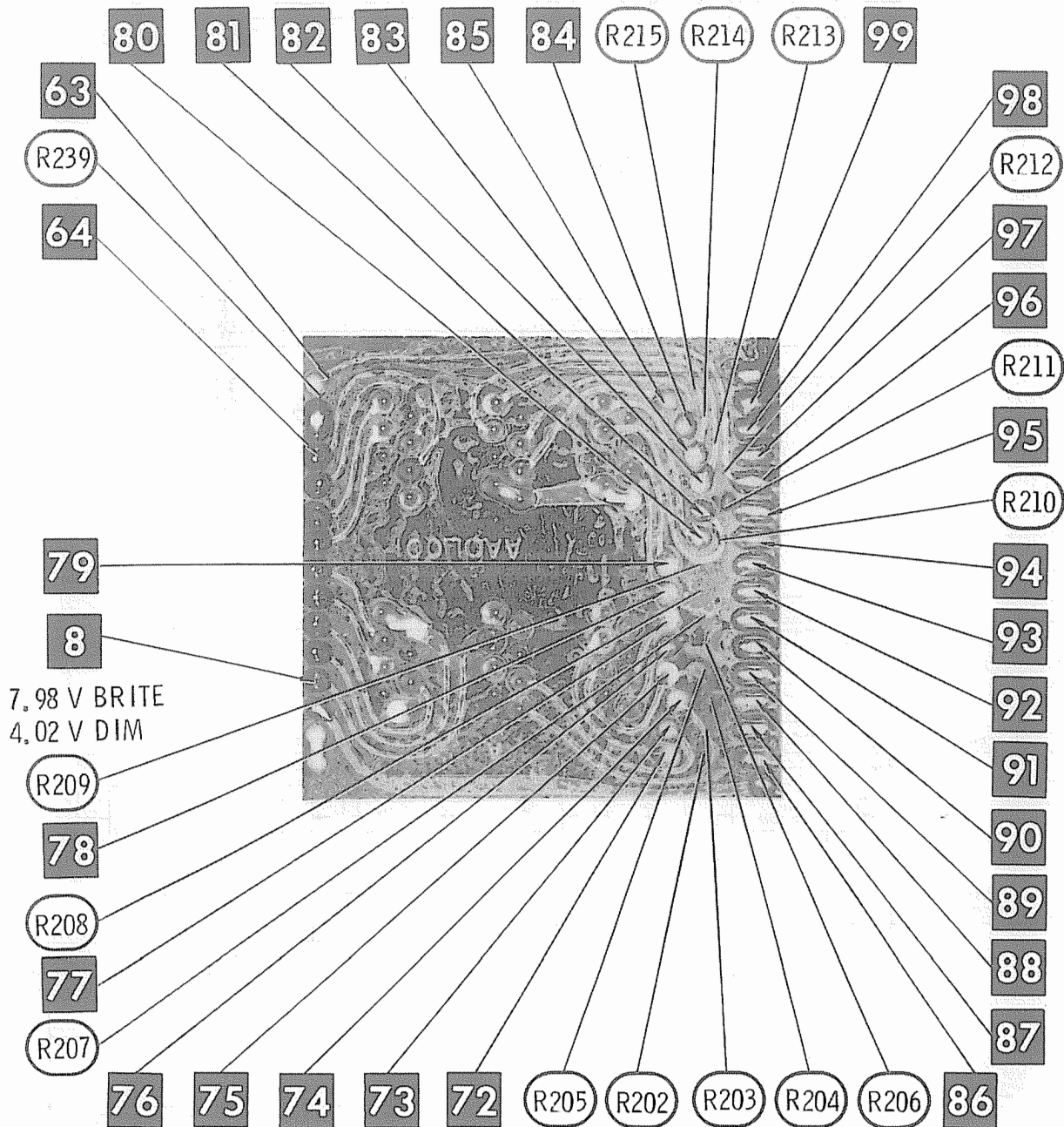
MAIN BOARD



CHASSIS-BOTTOM

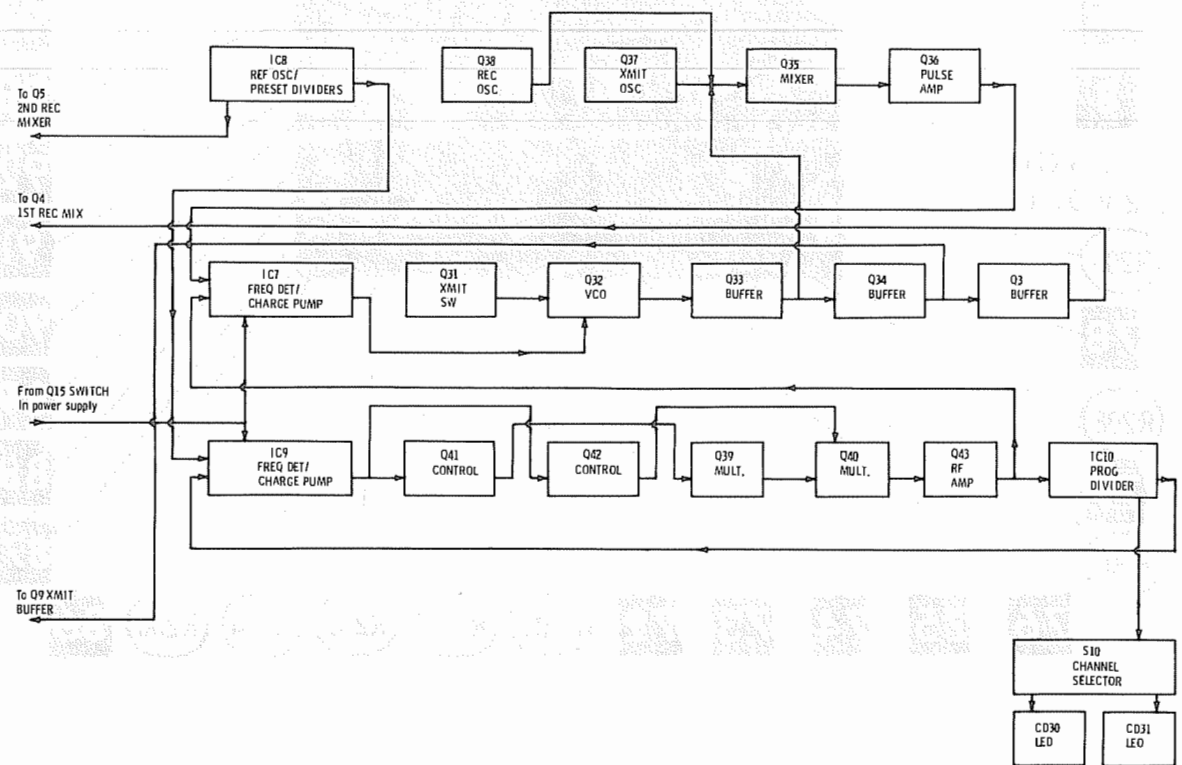
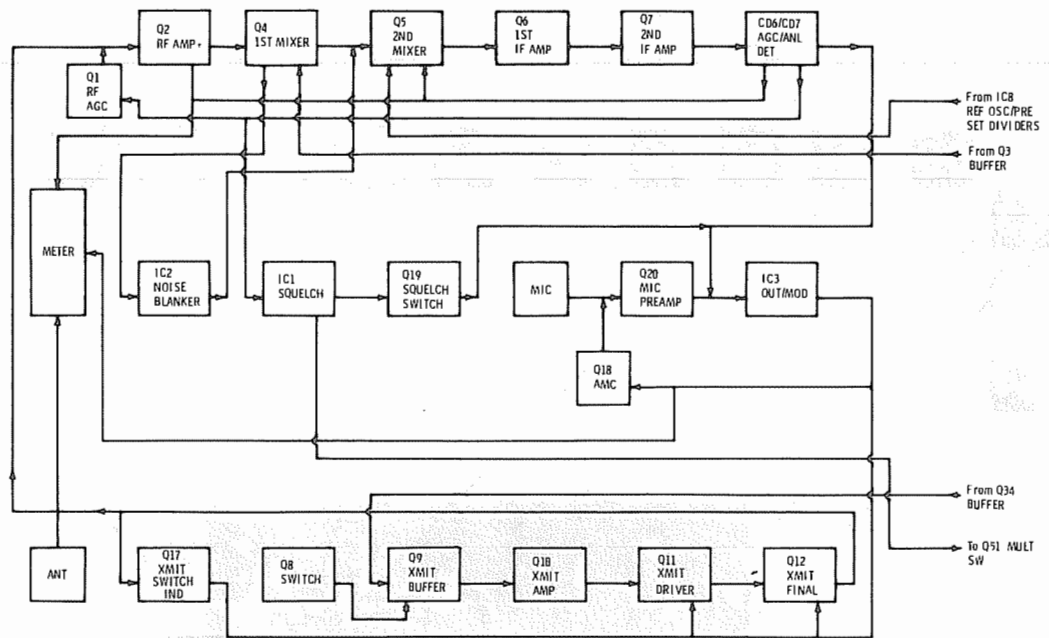


MAIN BOARD

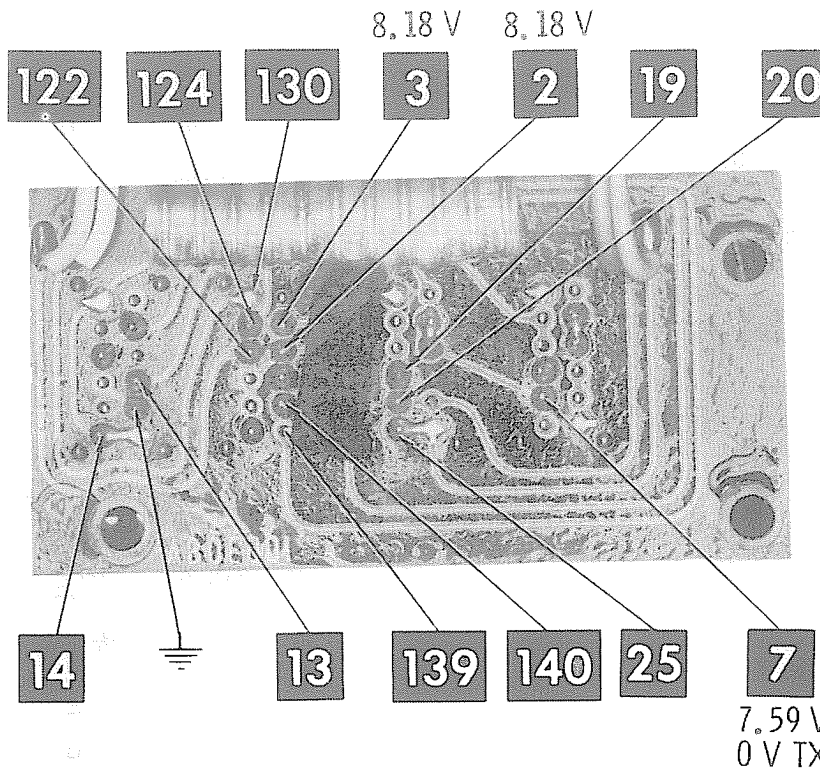


BROWNING MODEL SABRE

CHANNEL SELECTOR BOARD



BLOCK DIAGRAM



CONTROL BOARD

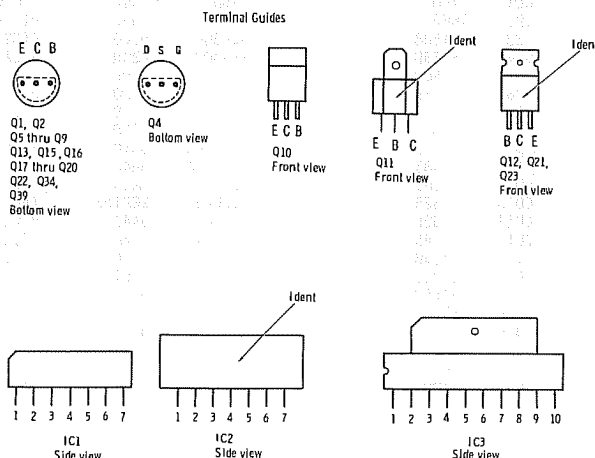
BROWNING MODEL SABRE

PARTS LIST AND DESCRIPTION

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

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFG. 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.
CD1	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
CD2	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
CD3	1S1588		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CD4	1S1588		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CD5	1S1588		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CD6	1S1588		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CD7	1S1588		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CD8	1S1588		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CD10	1S1885		GE-504A	5A40	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CD11	1S1885		GE-504A	5A40	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CD12	1S1885		GE-504A	5A40	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CD13	02Z62A		GEZD-6.2	WEP103	ZB6.2A	HEPR0408	RE 109	SK3058	RT-237	ECG137
CD14	1S1885		GE-504A	5A40	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CD15	1S1885		GE-504A	5A40	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CD25	1S1588		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CD26	1S2208		GE-90	D201		HEPR2503	RE 195	SK3126	RT-262	
CD27	1S1658		GE-90	D201		HEPR2503	RE 195	SK3126	RT-262	
CD28	1S1588		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CD29	1S1588		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
IC1	TA7064P									
IC2	10060									
IC3	TA7205P		GEIC-179	WEP949	PTC780				TVCM-81	ECG1155



26

PARTS LIST AND DESCRIPTION (CONTINUED)

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

SEMICONDUCTORS (Select replacement transistor for best results)(conf)

BROWNING MODEL SABRE

ITEM No.	TYPE No.	MFRG. 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.
IC7	TC5081P									
IC8	TC5082P									
IC9	TC5081P									
IC10	TC5080P									
Q1	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945(1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q2	2SC784R		GE-60 *	(IR)2SC380A0	PTC132 *	HEPS0008 *	RE 28 *	SK3018 *	RT-187	ECG229 *
	2SC1923A		GE-61	TR-95	PTC132	HEPS0016	RE 9	SK3018	RT-108A	ECG229
	(1)									
Q3	2SC1674(1)		GE-61	TR-95 *	PTC132 *	HEPS0010 *	RE 9 *	SK3018 *	RT-308	ECG229 *
	2SC785R		GE-60 *	(IR)2SC380A0	PTC132 *	HEPS0016 *	RE 9	SK3018 *	RT-187	ECG107
	2SC1674(1)		GE-61	TR-95 *	PTC132 *	HEPS0010 *	RE 9 *	SK3018 *	RT-308	ECG229 *
Q4	2SK196B		GE-FET-2	FE-100	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312
	2SK61 (1)		GE-FET-2	FE-100	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312
	JF1033(1)		GE-FET-2	FE-100	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312
Q5	2SC785R		GE-60 *	(IR)2SC380A0	PTC132 *	HEPS0016 *	RE 9	SK3018 *	RT-187	ECG107
	2SC1674(1)		GE-61	TR-95 *	PTC132 *	HEPS0010 *	RE 9 *	SK3018 *	RT-308	ECG229 *
Q6	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945(1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q7	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945(1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q8	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945(1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q9	2SC785R		GE-60 *	(IR)2SC380A0	PTC132 *	HEPS0016 *	RE 9	SK3018 *	RT-187	ECG107
	2SC1674(1)		GE-61	TR-95 *	PTC132 *	HEPS0010 *	RE 9 *	SK3018 *	RT-308	ECG229 *
Q10	2SC1166Y		GE-81 *	TR-63 *	PTC143	HEPS5026 *	RE 210	SK3122	RT-141	ECG297
Q11	2SC2074Y									
Q12	2SC1678		GE-322	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC1909(1)		GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
Q13	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q15	2SA495-0		GE-221 *	(IR)2SA495	PTC103 *	HEPS0013 *	RE 26 *	SK3114	RT-303	ECG159 *
	2SA733 (1)		GE-65	TR-31	PTC103	HEPS5022	RE 26	SK3025	RT-303	ECG159
Q16	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q17	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q18	2SA495-0		GE-221 *	(IR)2SA495	PTC103 *	HEPS0013 *	RE 26 *	SK3114	RT-303	ECG159 *
	2SA733 (1)		GE-65	TR-31	PTC103	HEPS5022	RE 26	SK3025	RT-303	ECG159
Q19	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q20	2SC732BL		GE-62	(IR)2SC373	PTC139 *	HEPS0024 *	RE 192	SK3122 *	RT-302	ECG199
	2SC1000(1)		GE-62	(IR)2SC458B	PTC139 *	HEPS0024 *	RE 192	SK3122 *	RT-302	ECG199
	2SC900 (1)		GE-62	(IR)2SC644	PTC139 *	HEPS0015 *	RE 192	SK3124	RT-302	ECG199
Q21	2SB435-0		GE-69	TR-77	PTC162		RE 22	SK3083	RT-155	ECG153
	2SB435 (1)		GE-69	TR-77	PTC162		RE 22	SK3083	RT-155	ECG153
Q22	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q23	2SD235-0		GE-66	TR-76	PTC110	HEPS5027	RE 21	SK3054	RT-197	ECG152
	2SD288 (1)		GE-66	TR-76	PTC110	HEPS5027	RE 21	SK3054	RT-197	ECG152
Q31	2SA495-0		GE-221 *	(IR)2SA495	PTC103 *	HEPS0013 *	RE 26 *	SK3114	RT-303	ECG159 *
	2SA733 (1)		GE-65	TR-31	PTC103	HEPS5022	RE 26	SK3025	RT-303	ECG159
Q32	2SC785R		GE-60 *	(IR)2SC380A0	PTC132 *	HEPS0016 *	RE 9	SK3018 *	RT-187	ECG107
	2SC1674(1)		GE-61	TR-95 *	PTC132 *	HEPS0010 *	RE 9 *	SK3018 *	RT-308	ECG229 *
Q33	2SK196R		GE-FET-1	FE-100	PTC151	HEPF0010	RE 46	SK3112	RT-176	ECG133
	JK1033 (1)		GE-FET-1	FE-100	PTC151	HEPF0010	RE 46	SK3112	RT-176	ECG133
Q34	2SC387A		GE-214	TR-80 *	PTC132 *	HEPS0020 *	RE 10 *	SK3039 *	RT-134	ECG108 *
	2SC1396(1)		GE-214	TR-80 *	PTC132 *	HEPS0020 *	RE 10 *	SK3039 *	RT-134	ECG108 *
A35	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q36	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q37	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q38	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q39	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q40	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q41	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q42	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q43	2SC372Y		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945 (1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199

* Lead configuration may vary from original.

(1) Used in some versions.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFGR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C17	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C28	3.3 50V		PC5-50	VTT3R3A50	QV1-25	EV-1618
C36	33 16V		PC30-25	VTT33D25	QV1-63	EV-1325
C38	3.3 50V		PC5-50	VTT3R3A50	QV1-25	EV-1618
C48	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C60	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C63	3.3 50V		PC5-50	VTT3R3A50	QV1-25	EV-1618
C64	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C65	220 10V		PC250-10	VTT220F10	QV1-115	EV-1140
C66	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C67	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C68	33 3V			TDC336M010FL	QDT1-89	SD10-339
C71	10 16V			VTT10B25	QV1-41	EV-1222
C74	3.3 16V		PC10-25	TDC335M015FL	QDT1-41	SD15-3R39
C75	33 16V		PC30-25	VTT33D25	QV1-63	EV-1325
C79	33 16V		PC30-25	VTT33D25	QV1-63	EV-1325
C82	1000 25V		WBRI000-25	VTT1000M25	QV1-185	EV-1360
C83	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C86	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C91	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C92	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1260
C94	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C152	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C195	100 10V		PC100-10	VTT100E10	QV1-93	EV-1130
C197	100 10V		PC100-10	VTT100E10	QV1-93	EV-1130
C198	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C199	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222

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	.0022		DD-222		GP222	QC2-97	5GA-D22
C2	470		DD-471	GP470	GP347		10TS-T47
C3	470		DD-471	GP470	GP347		10TS-T47
C4	.0022		DD-222		GP222	QC2-97	5GA-D22
C5	100		DTZ-100	NP0100	CN0310		10TCC-T10
C7	220 10%		DD-221		GP322		10TS-T22
C8	220 10%		DD-221		GP322		10TS-T22
C9	150 10%		DD-151		GP315		10TS-T15
C10	10		DTZ-10	NP010	CN0410		10TCC-Q10
C11	22		DTZ-22	NP022	CN0422		10TCC-Q22
C12	.0022		DD-222		GP222	QC2-97	5GA-D22
C13	22 N220				*		10TCR-Q22
C14	.0047		DD-472	GP4700	GP247		5GA-D47
C15	1				CN0510		10TCC-V10
C16	.0022		DD-222		GP222	QC2-97	5GA-D22
C18	.0047		DD-472	GP4700	GP247		5GA-D47
C19	.0047		DD-472	GP4700	GP247		5GA-D47
C20	.0047		DD-472	GP4700	GP247		5GA-D47
C21	1				CN0510		10TCC-V10
C22	10		DTZ-10	NP010	CN0410		10TCC-Q10
C23	15 N220				*		10TCR-Q15
C24	.0047		DD-472	GP4700	GP247		5GA-D47
C25	180 5% N470				*		10TCT-T18
C26	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C27	180 5% N470				*		10TCT-T18
C29	.033				M192P3339R8		192P3339R8
C30	5		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C31	.033				M192P3339R8		192P3339R8
C32	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C33	.0047		DD-472	GP4700	GP247		5GA-D47
C34	.033				M192P3339R8		192P3339R8
C35	.033				M192P3339R8		192P3339R8
C37	.01			WMF1S1	EWFA110	QF1-91	1PB-S10
C39	.0047		DD-472	GP4700	GP247		5GA-D47
C40	.01		DC-103	MGPD1	TA110	QC2-141	TG-S10

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
C41	.0047		DD-472	GP4700	GP247		5GA-D47
C42	5 N2220				*		10TCR-V47
C47	470		DD-471	GP470	GP347		10TS-T47
C49	.0047		DD-472	GP4700	GP247		5GA-D47
C50	.0047		DD-472	GP4700	GP247		5GA-D47
C51	.0047		DD-472	GP4700	GP247		5GA-D47
C52	220 10%		DD-221		GP322		10TS-T22
C53	220 10%		DD-221		GP322		10TS-T22
C54	.0047		DD-472	GP4700	GP247		5GA-D47
C55	220 10%		DD-221		GP322		10TS-T22
C56	.0047		DD-472	GP4700	GP247		5GA-D47
C57	.0047		DD-472	GP4700	GP247		5GA-D47
C61	.0047		DD-472	GP4700	GP247		5GA-D47
C62	.0047		DD-472	GP4700	GP247		5GA-D47
C69	.0022		DD-222		GP222	QC2-97	5GA-D22
C70	.0022		DD-222		GP222	QC2-97	5GA-D22
C72	.033				M192P3339R8		192P3339R8
C73	.0047		DD-472	GP4700	GP247		5GA-D47
C76	100		DTZ-100	NP0100	CN0310		10TCC-T10
C77	.0047		DD-472	GP4700	GP247		5GA-D47
C78	.1		CK-104		MAG5001		
C80	470		DD-471	GP470	GP347		10TS-T47
C81	.1		CK-104		MAG5001		
C85	.033				M192P3339R8		192P3339R8
C87	.033				M192P3339R8		192P3339R8
C88	470		DD-471	GP470	GP347		10TS-T47
C89	.0022		DD-222		GP222	QC2-97	5GA-D22
C93	.0047		DD-472	GP4700	GP247		5GA-D47
C101	.0047		DD-472	GP4700	GP247		5GA-D47
C102	.0047		DD-472	GP4700	GP247		5GA-D47
C103	.0047		DD-472	GP4700	GP247		5GA-D47
C104	.0047		DD-472	GP4700	GP247		5GA-D47
C105	.0047		DD-472	GP4700	GP247		5GA-D47
C106	.0047		DD-472	GP4700	GP247		5GA-D47
C107	.0047		DD-472	GP4700	GP247		5GA-D47
C108	.0047		DD-472	GP4700	GP247		5GA-D47
C109	.0047		DD-472	GP4700	GP247		5GA-D47
C110	.0047		DD-472	GP4700	GP247		5GA-D47
C111	.0047		DD-472	GP4700	GP247		5GA-D47
C112	.0047		DD-472	GP4700	GP247		5GA-D47
C113	.1		CK-104		MAG5001		
C151	.0022		DD-222		GP222	QC2-97	5GA-D22
C153	.0047		DD-472	GP4700	GP247		5GA-D47
C154	15		DTZ-15	NP015	CN0415		10TCC-Q15
C155	47		DTZ-47	NP047	CN0447		10TCC-Q47
C156	47		DTZ-47	NP047	CN0447		10TCC-Q47
C157	10		DTZ-10	NP010	CN0410		10TCC-Q10
C158	470		DD-471	GP470	GP347		10TS-T47
C159	.0022		DD-222		GP222	QC2-97	5GA-D22
C160	.0047		DD-472	GP4700	GP247		5GA-D47
C161	220		DD-221		GP322		10TS-T22
C162	220		DD-221		GP322		10TS-T22
C163	.0047 10%				M192P4729R8		192P4729R8
C164	150 5% N470				*		10TCT-T15
C165	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C166	47 5% N220				*		10TCR-Q47
C167	47 5% N220				*		10TCR-Q47
C168	.033				M192P3339R8		192P3339R8
C169	.0047		DD-472	GP4700	GP247		5GA-D47
C171	.0047		DD-472	GP4700	GP247		5GA-D47
C156	47		DTZ-47	NP047	CN0447		10TCC-Q47
C172	22 N220				*		10TCR-Q22
C173	20		DTZ-20	NP020	CN0420		10TCC-Q20
C174	100		DTZ-100	NP0100	CN0310		10TCC-T10
C175	47		DTZ-47	NP047	CN0447		10TCC-Q47
C176	.0047		DD-472	GP4700	GP247		5GA-D47
C177	3		DTZ-3R3	NP03P3	CN0533		10TCC-V33
C178	3		DTZ-3R3	NP03P3	CN0533		10TCC-V33
C179	100		DTZ-100	NP0100	CN0310		10TCC-T10

BROWNING MODEL SABRE

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
C180	47		DTZ-47	NP047	CN0447	QF1-91	10TCC-Q47
C181	.01			WMF1S1	EWF1A110		1PB-S10
C182	47 N750		DTN-47	N47	CN7447		10TCU-Q47
C183	.0047		DD-472	GP4700	GP247		5GA-D47
C184	.0047		DD-472	GP4700	GP247	QC2-97	5GA-D47
C186	.0047		DD-472	GP4700	GP247		5GA-D47
C187	.033				M192P3339R8		5GA-D47
C188	.0022		DD-222		GP222		192P3339R8
C189	220		DD-221		GP322	QF1-1	5GA-D22
C190	220		DD-221		GP322		10TS-T22
C191	.001			DPMS6D1	EWF1A210		10TS-T22
C192	470		DD-471	GP470	GP347		1PB-D10
C194	.1		CK-104		MAG5001	QC2-97	10TS-T47
C196	.033		DD-472	GP4700	GP247		5GA-D47
C200	.033		DD-472	GP4700	GP247		5GA-D47
C201	.0022		DD-222		GP222		5GA-D22
C202	10		DTZ-10	NP010	CN0410	QC2-97	10TCC-Q10
C203	10		DTZ-10	NP010	CN0410		10TCC-Q10
C21B	10		DTZ-10	NP010	CN0410		10TCC-Q10
C219	47		DTZ-47	NP047	CN0447		10TCC-Q47

*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.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
R2	Delta Tune	20K	(18)				
R180	SWR/RF Switch	20K					
R3	RF Meter	10K	(19)				
R28	S Meter	50K					
R36	Tone	50K					
R72	Volume/Power Switch	50K					
R60	Squelch Range	50K	(6)				
	Squelch Range	100K					
R61	Squelch	20K					
R65	ANL/ANL Switch	20K					

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

(18) Includes R2 and R180.

(19) Includes R36 and R72.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFR. PART No.			WORKMAN PART No.	MFR. PART No.
R58	2200 Cold NTC						

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.	
L1	RF Choke				
L2	RF Choke				
L3	Final (27MHz)				
L4	RF (27MHz)				
L5	Xmit Driver (27MHz)				
L6	RF Choke				
L7	RF Choke				
L11	VCO (22MHz)				
L12	VCO (22MHz)				
L13	Mixer (1MHz)				
L14	Rec Osc (22MHz)				
T1	Rec Antenna (27MHz)				
T2	Rec RF (27MHz)				
T3	Rec RF (27MHz)				
T4	Rec Mixer (4.665MHz)				
T5	Rec Mixer (4.665MHz)				
T6	IF (455kHz)			8812	
T7	IF (455kHz)			8812	
T8	IF (455kHz)			8812	
T9	Xmit Buffer (27MHz)				
T13	Ref Osc (5MHz)				

BROWNING MODEL SABRE

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.	
L8	1.15A	.16	1.26mH	5015 (1)	TR573		(1) Number on unit.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T10	31	16	5014 (1)	TR833		(1) Number on Unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	2" x 6" PM 16 ohms		26A07UZ16	

PARTS LIST AND DESCRIPTION (CONTINUED)

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

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER	DEVICE
F1	2A Fast Acting			AGC2	HDJ	312002	150145	FG2-2

MICROPHONE

ITEM No.	REPLACEMENT DATA				CONNECTION DATA						
	MFGR. PART No.	GC PART No.	GC NOISE CANCEL	GC POWER	GC CONNECTOR	GC Red	GC Shield	GC Yellow	GC Blue	GC White	GC Black
MIC		18-032	18-034	18-010	18-092	2	1	3	NC	NC	4

CRYSTALS

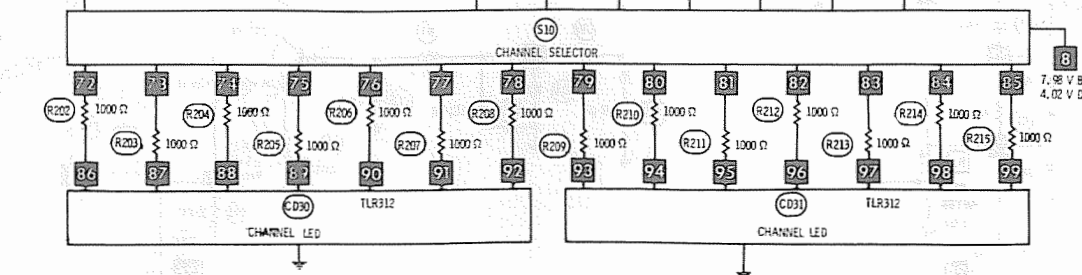
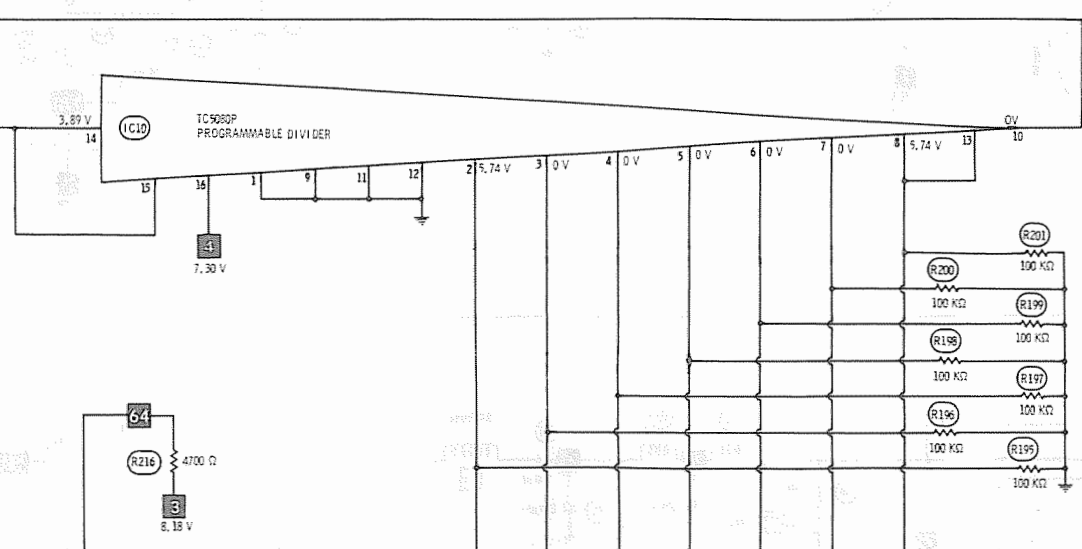
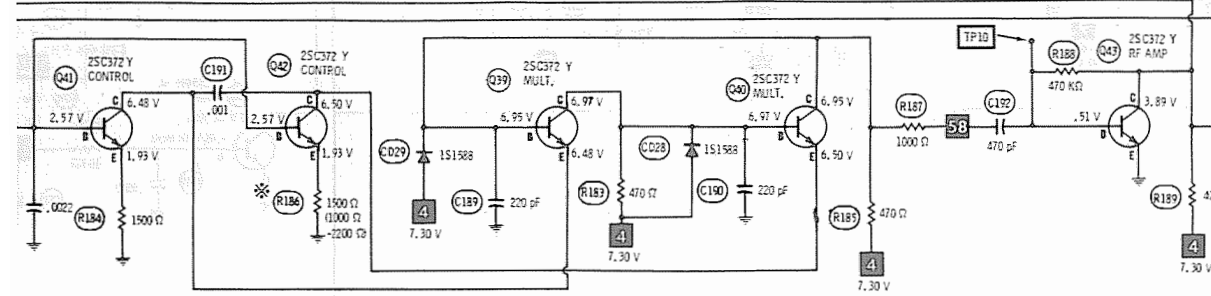
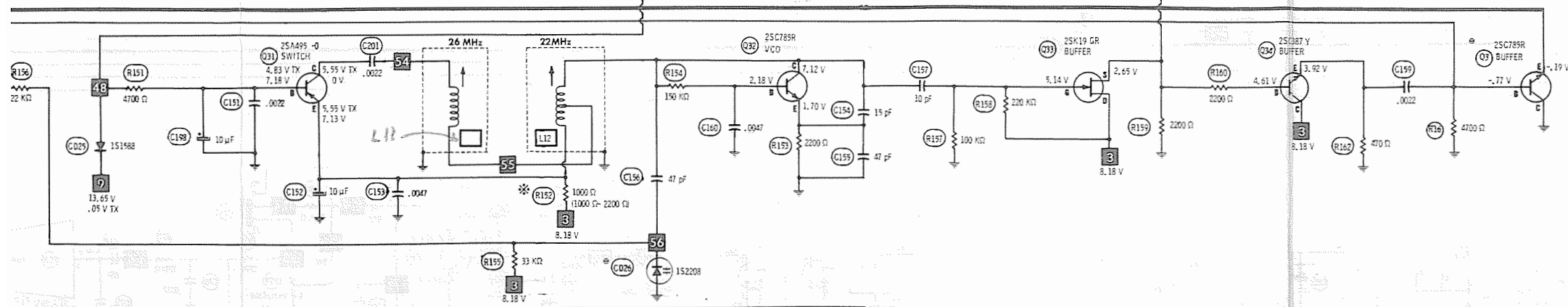
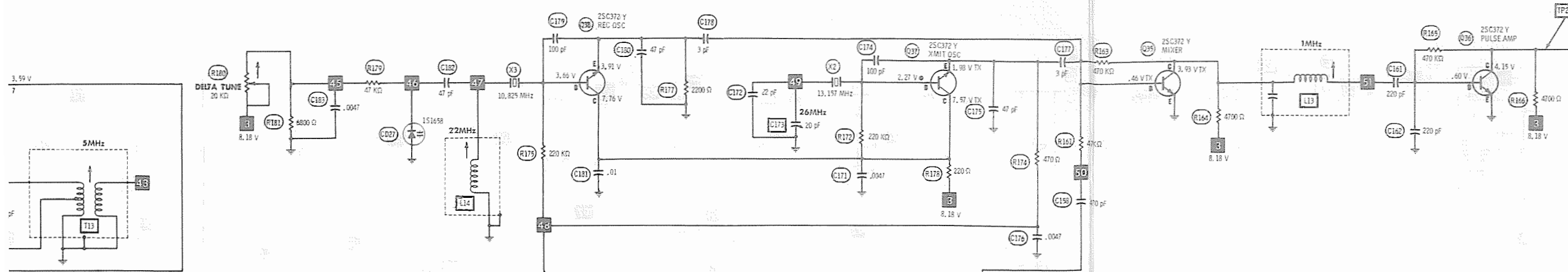
ITEM No.	CRYSTAL FREQUENCY IN MHz	MFGR. PART No.	CTS KNIGHTS PART No.	CHANNEL	ITEM No.	CRYSTAL FREQUENCY IN MHz	MFGR. PART No.	CTS KNIGHTS PART No.	CHANNEL
X1	5.120			Ref Osc	X3	10.825		CB20W10825	Rec Osc.
X2	13.157		CB20W13157	Xmit Osc					

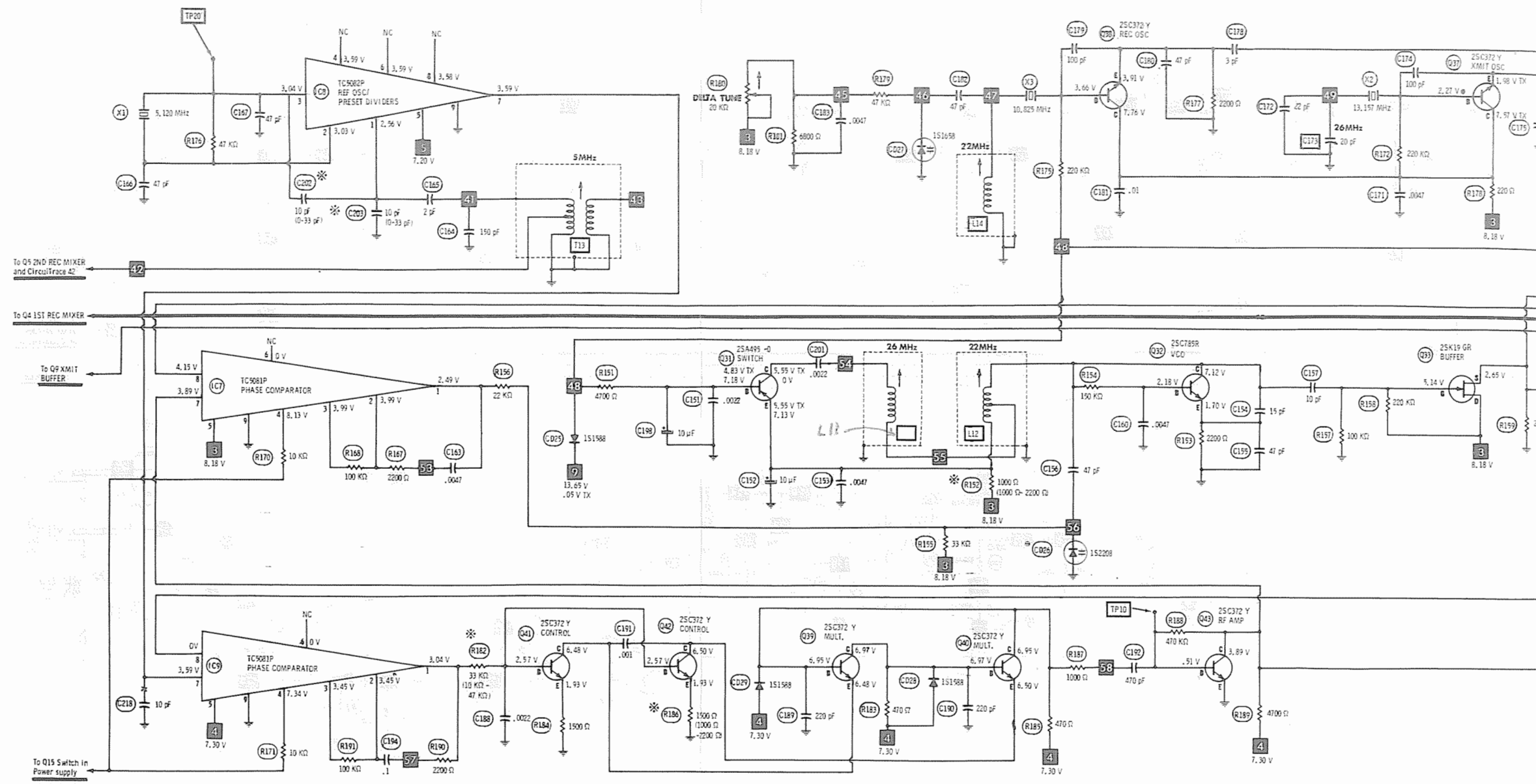
MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CD9	LED		Rec/Xmit Indicator
CD30	LED		Channel Indicator
CD31	LED		Channel Indicator
K1	Relay		Xmit/Rec. (180 ohm)
M1	Meter		S/R/Mod/SWR
PL1	Lamp		Meter
S1	Switch		Power (On Volume Control)
S2	Switch		RF/Mod.
S3	Switch		Cal/SWR/Off
S4	Switch		NB/ANL
S5	Switch		CB/PA
S6	Switch		Brite/Dim
SW7	Switch		Channel Selector
U1	Filter		455kHz
U2	Filter		455kHz

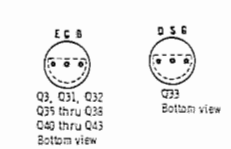
WIRING DATA

General-use Hook-up Wire (available in 5 colors)	BELDEN No. 8523	Coiled Microphone Cable	
Shielded Hook-up Wire (spiral wrapped)	BELDEN No. 8421	3-conductor (1 shielded)	23AWG BELDEN No. 9471 (5')
(braided)	BELDEN No. 8401		BELDEN No. 8497 (6')
Speaker Cable (available in 4 colors)	BELDEN No. 8782		BELDEN No. 9472 (7-1/2')
Bonding Strap	BELDEN No. 8672		28AWG BELDEN No. 9466 (6')
AC Power Cord	(6') BELDEN No. 17106		31AWG BELDEN No. 9468 (10')
	(9') BELDEN No. 17109	4-conductor (unshielded)	23AWG BELDEN No. 8415 (6')
		5-conductor (1 shielded)	28AWG BELDEN No. 9467 (6')
			BELDEN No. 9465 (7-1/2')





Terminal Guides



* Circuitry not used in some versions
 --- Circuitry used in some versions
 See parts list
 * Nominal value
 Ground
 Chassis
 Measurements with switching as shown unless noted:
 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

