



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.



COMMANDO MODELS 2320, 2325

MODELS 2320, 2325

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

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7CY489

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:
 L1,L9,L10,L11,T3,T4,T5,T6,T14,T15.....5009
 L2,L3,T1,T2,T10,T11,T12, T13,T16.....9440
 C98.....5000

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter and RF VTVM to TP1.	Ch. 13	L2	Adjust for 17.115MHz at maximum.
Input of frequency counter to TP1.	Ch. 17 Ch. 21 Ch. 1 Ch. 5 Ch. 9		Check for 17.165MHz. Check for 17.215MHz. Check for 16.965MHz. Check for 17.015MHz. Check for 17.065MHz.
Input of frequency counter and RF VTVM to TP2.	Ch. 13, Delta Tune-Center position.	L3	Adjust for 9.545MHz.
Input of frequency counter to TP2.	Ch. 14 Ch. 15 Ch. 16		Check for 9.555MHz. Check for 9.565MHz. Check for 9.585MHz.
Input of frequency counter and RF VTVM to TP3.	Ch. 13, Xmit		Adjust for 10.000MHz at maximum.
Input of frequency counter to TP3.	Ch. 14, Xmit Ch. 15, Xmit Ch. 16, Xmit		Adjust for 10.010MHz. Adjust for 10.020MHz. Adjust for 10.040MHz.

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 ACG limiting.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP4. 455kHz,1000Hz @ 30% modulation.	Ch. 13, Delta Tune-Center position.	T6,T5,T4	Adjust for maximum output.
Output of signal generator thru .01uF to TP1. 10.635MHz,1000Hz @ 30% modulation.	Ch. 13,	T3 (Blue) T4 (Pink)	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.115MHz,1000Hz @ 30% modulation.	Ch. 13,	T2,T1,L1	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 50,000uV.	Ch. 13	VR1	AGC Adjust volume VR4 for 0db. Decrease generator to 50uV. Adjust VR1 so that audio signal does not drop more than 10dp.
Output of signal generator thru .01uF to antenna jack. 27.115MHz,1000Hz @ 30% modulation. Output 1000uV.	Ch. 13	VR5	SQUELCH RANGE Set Squelch Control VR6 fully clockwise. Adjust VR5 so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.115MHz,1000Hz @ 30% modulation. Output 100uV.	Ch. 13	VR3	S METER Adjust VR3 for 9 on S scale.

TRANSMITTER ALIGNMENT

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

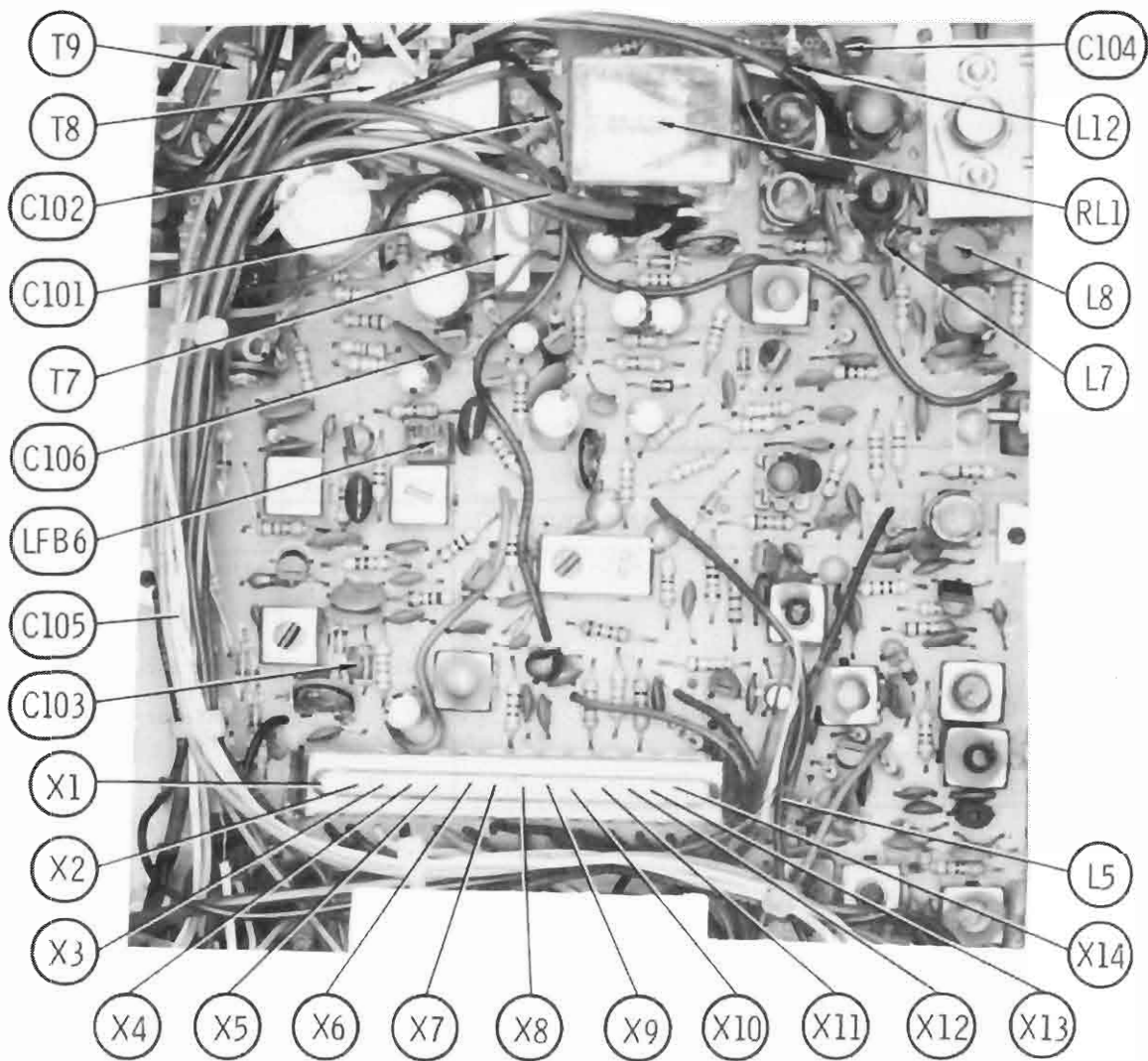
TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of spectrum analyzer to antenna jack.	Ch. 13	T10,T11,T12, T13,T14,T15, L9,L10,L11	Adjust for maximum.
	Ch. 13	L11,L10	Adjust for 4 watts maximum.
	Ch. 13	C98	Adjust for MINIMUM at 54MHz.

TRANSMITTER ADJUSTMENTS

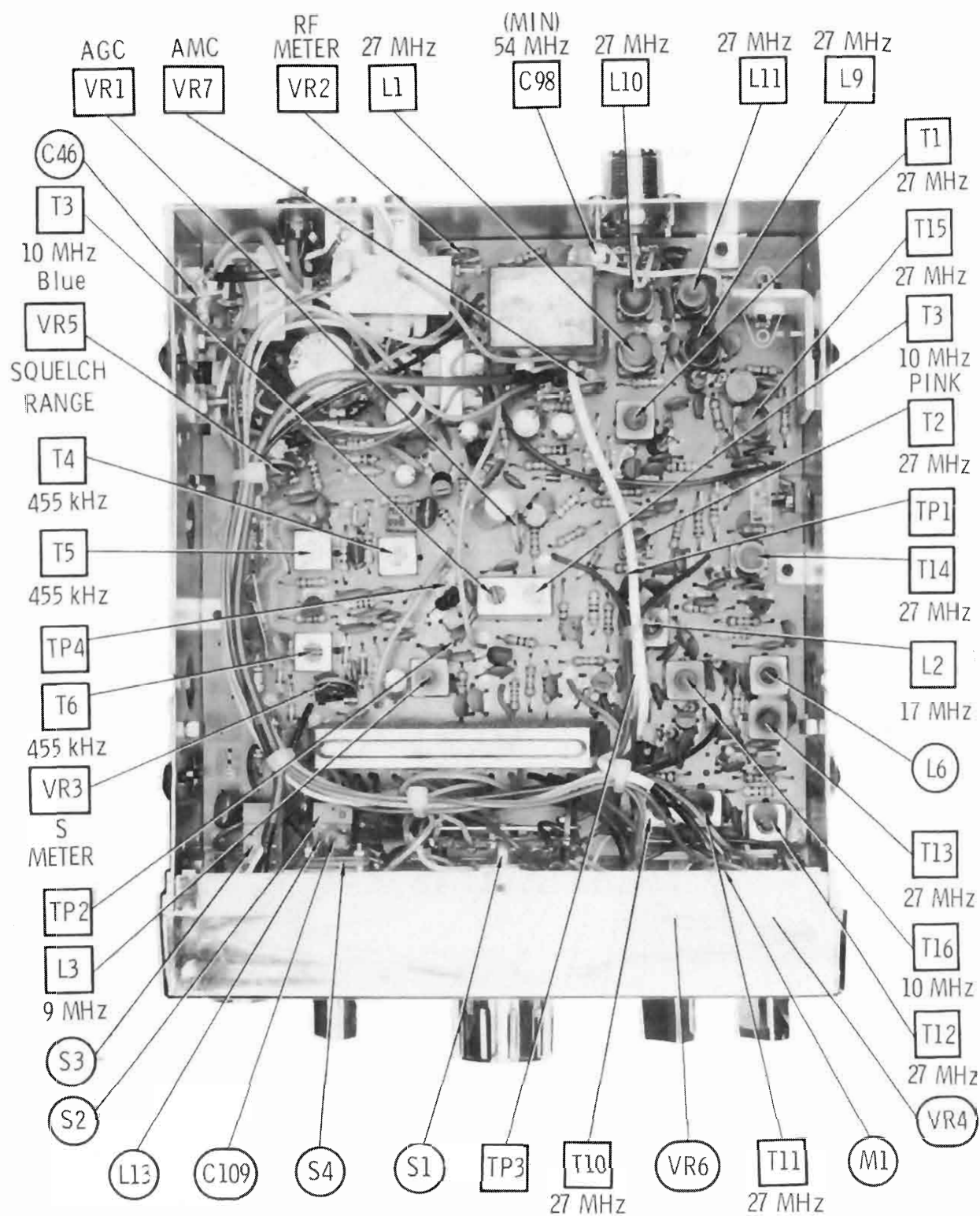
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.
NOTE: Be sure to check transmit frequency and power on all active channels after adjustments of transmitter. See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Modulation meter to antenna jack. Inject a 1000Hz signal at MIC input.	Ch. 13	VR7	AMC Disconnect D14 to disable AMC. Adjust signal for overmodulation. Restore AMC operation. Adjust VR7 for 100% modulation maximum.
	Ch. 13	VR2	RF PANEL METER Adjust VR2 so panel RF meter agrees with RF wattmeter.

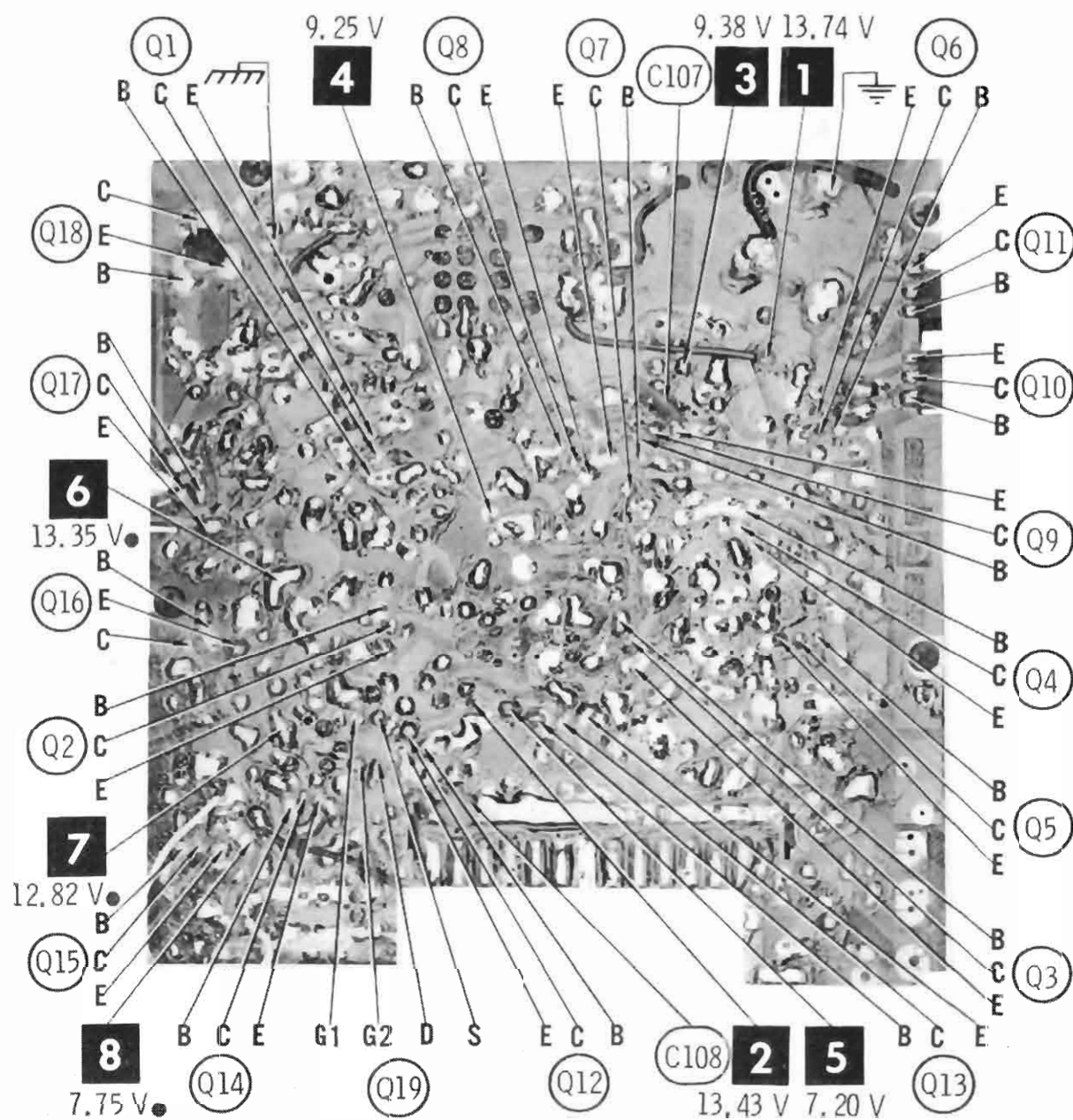
COMANDO MODELS 2320, 2325



MAIN BOARD

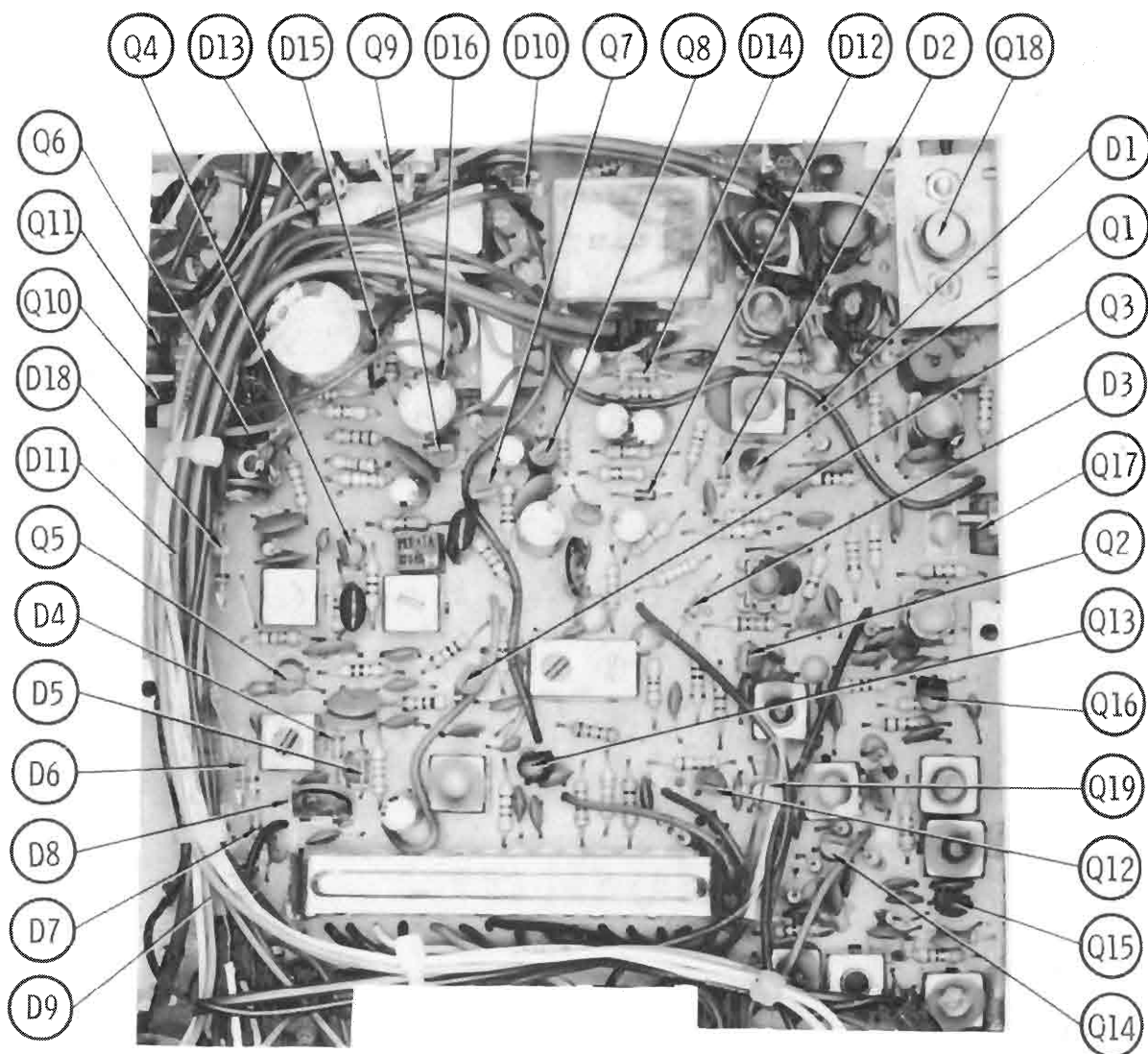


CHASSIS-BOTTOM

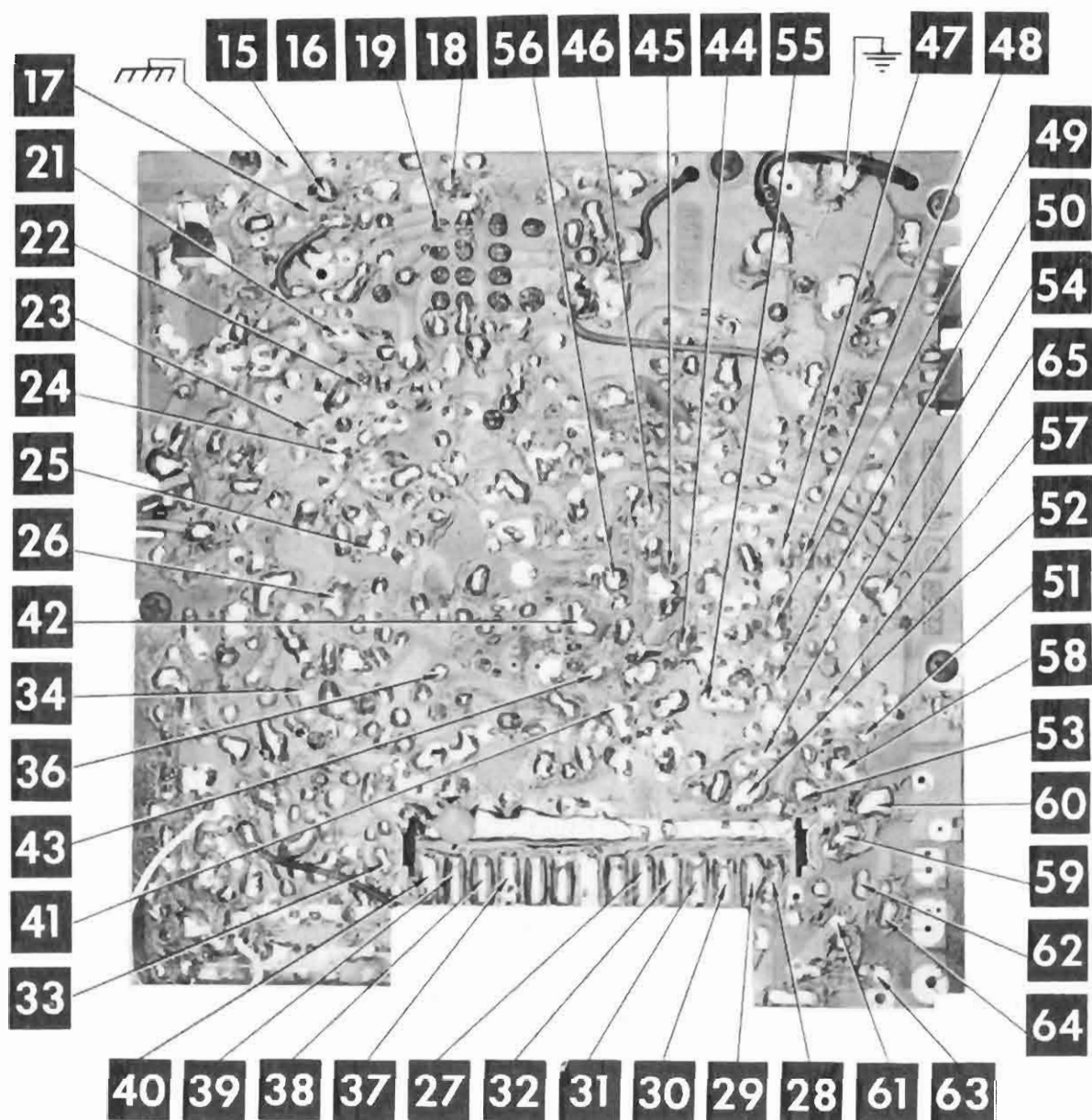


• Transmit

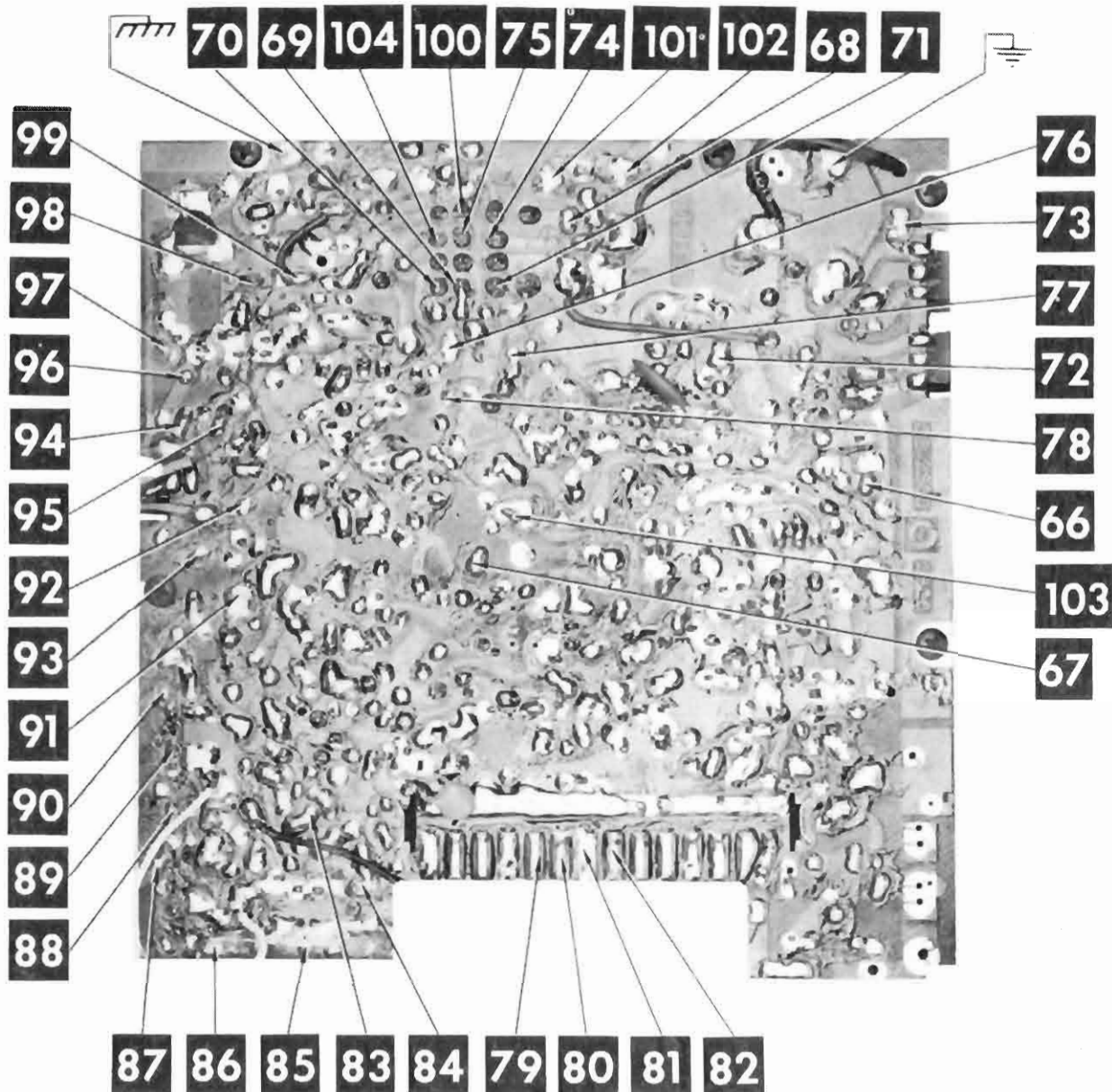
MAIN BOARD



MAIN BOARD

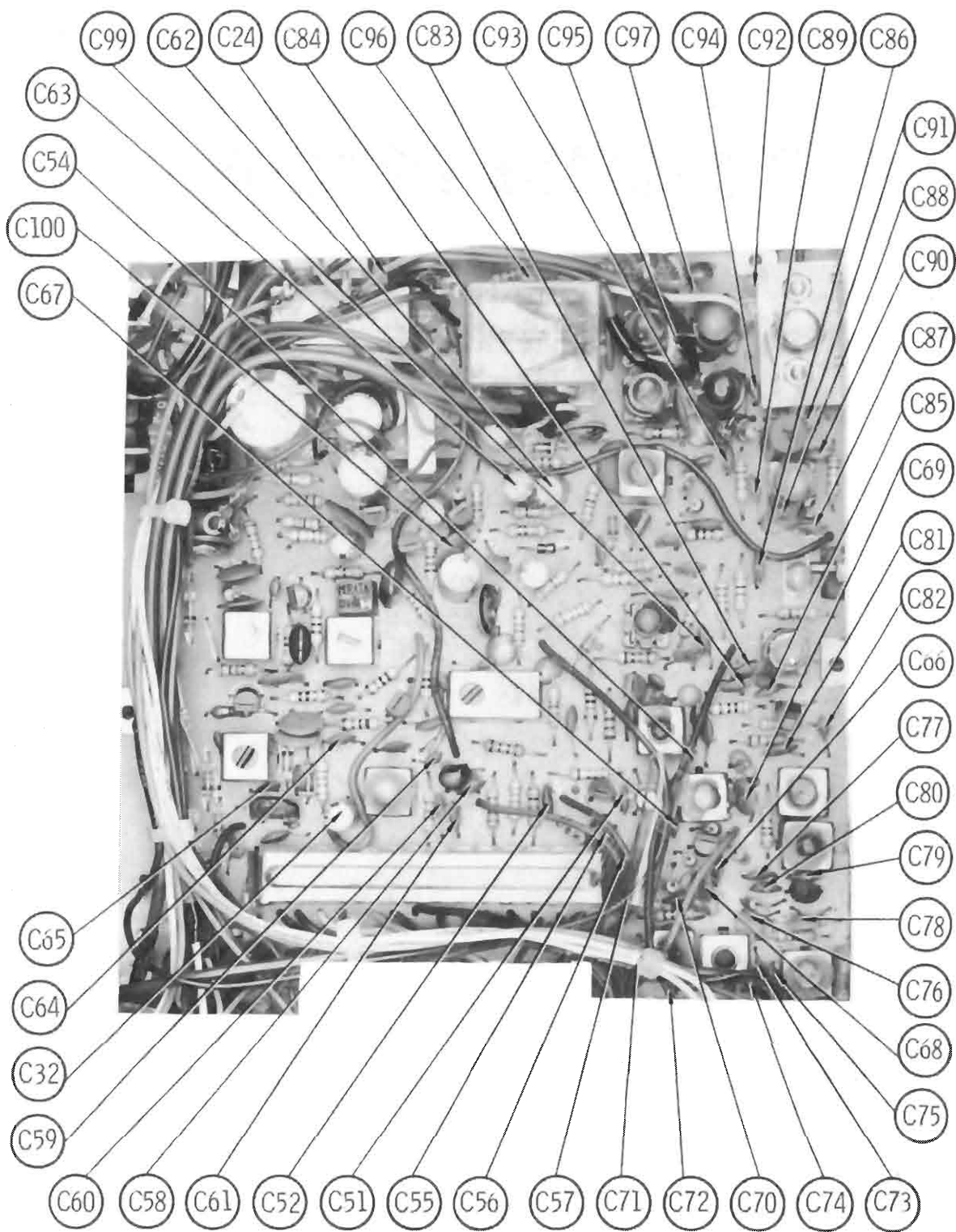


MAIN BOARD

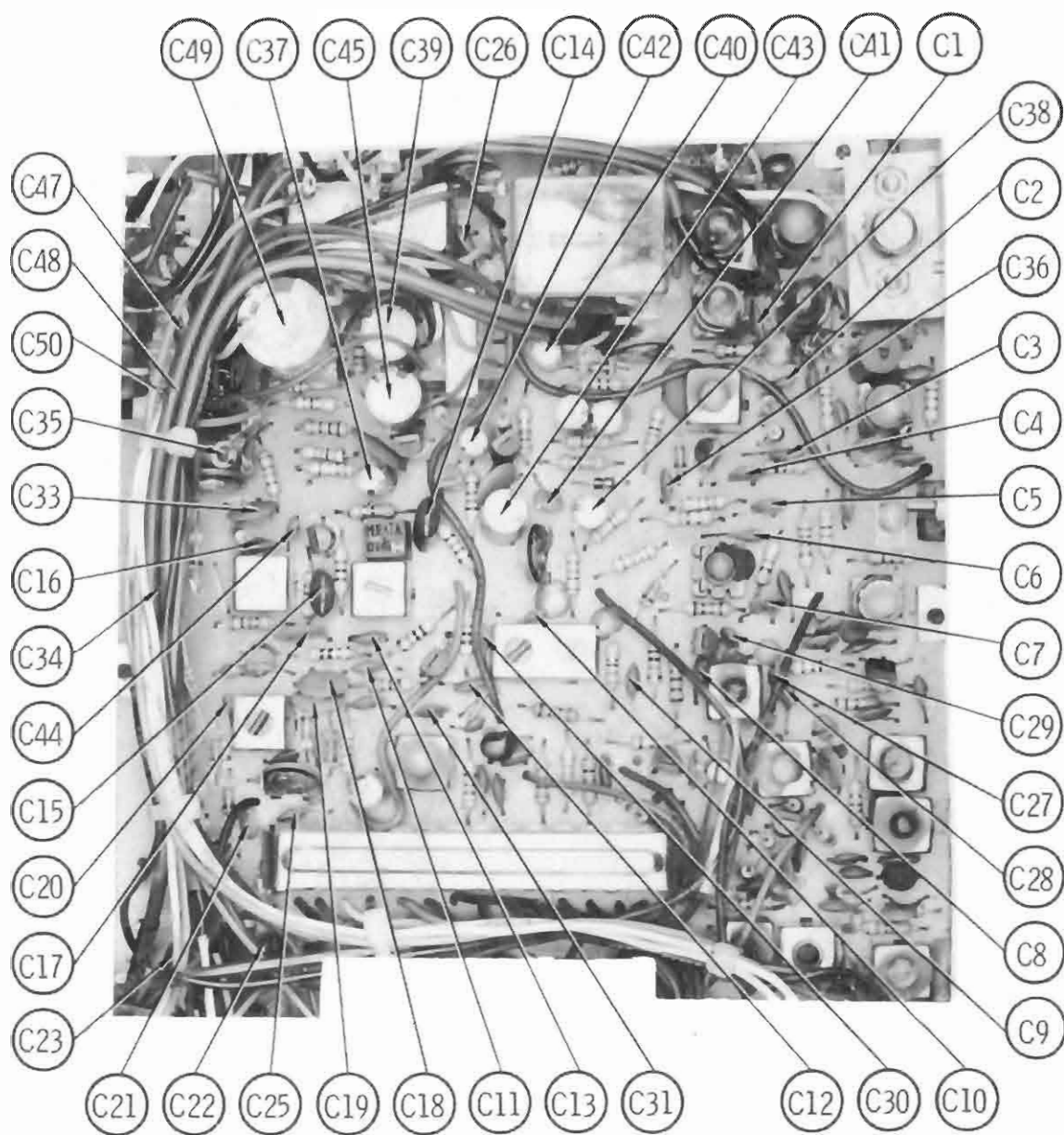


COMMANDO MODELS 2320, 2325

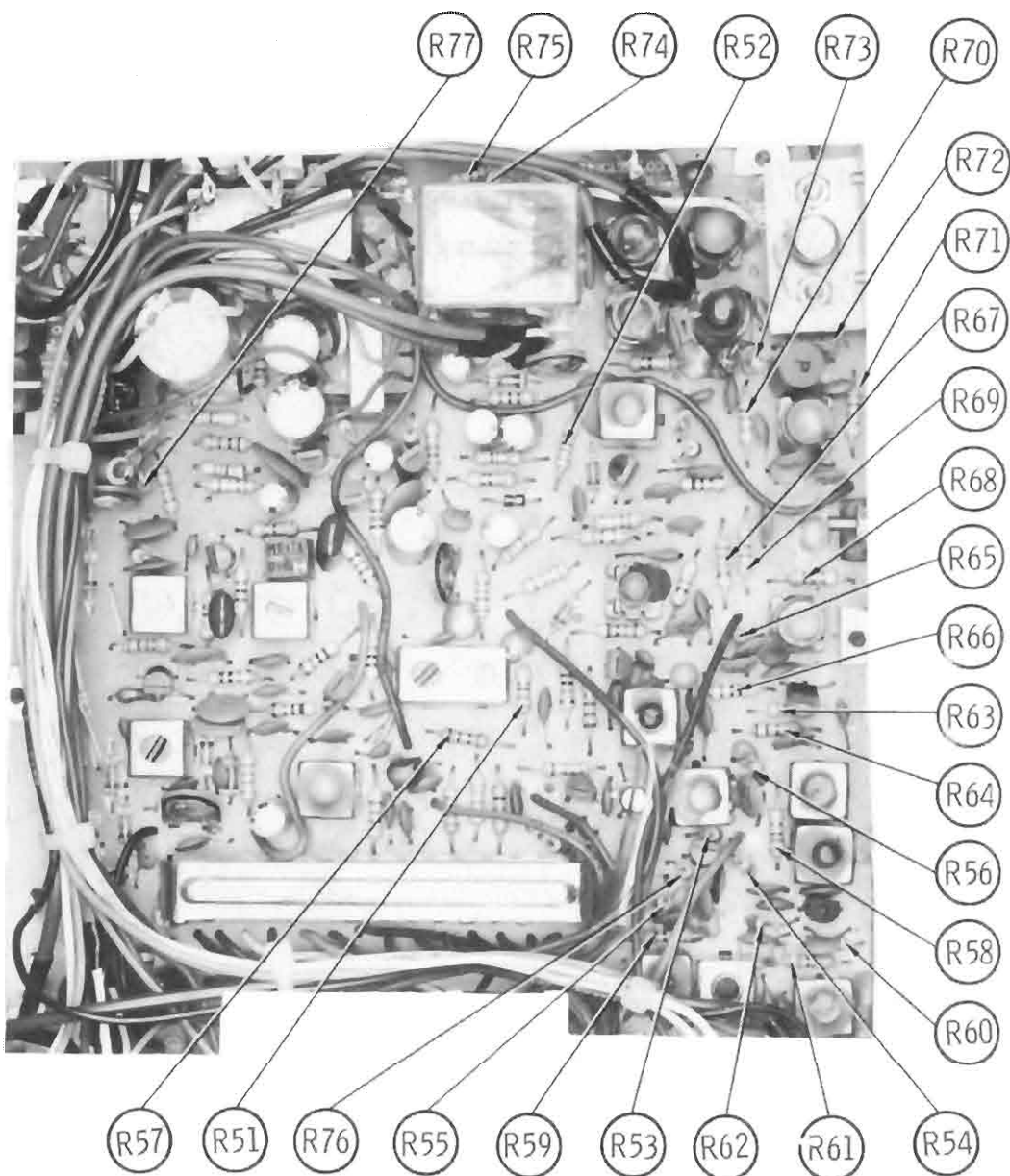
MAIN BOARD



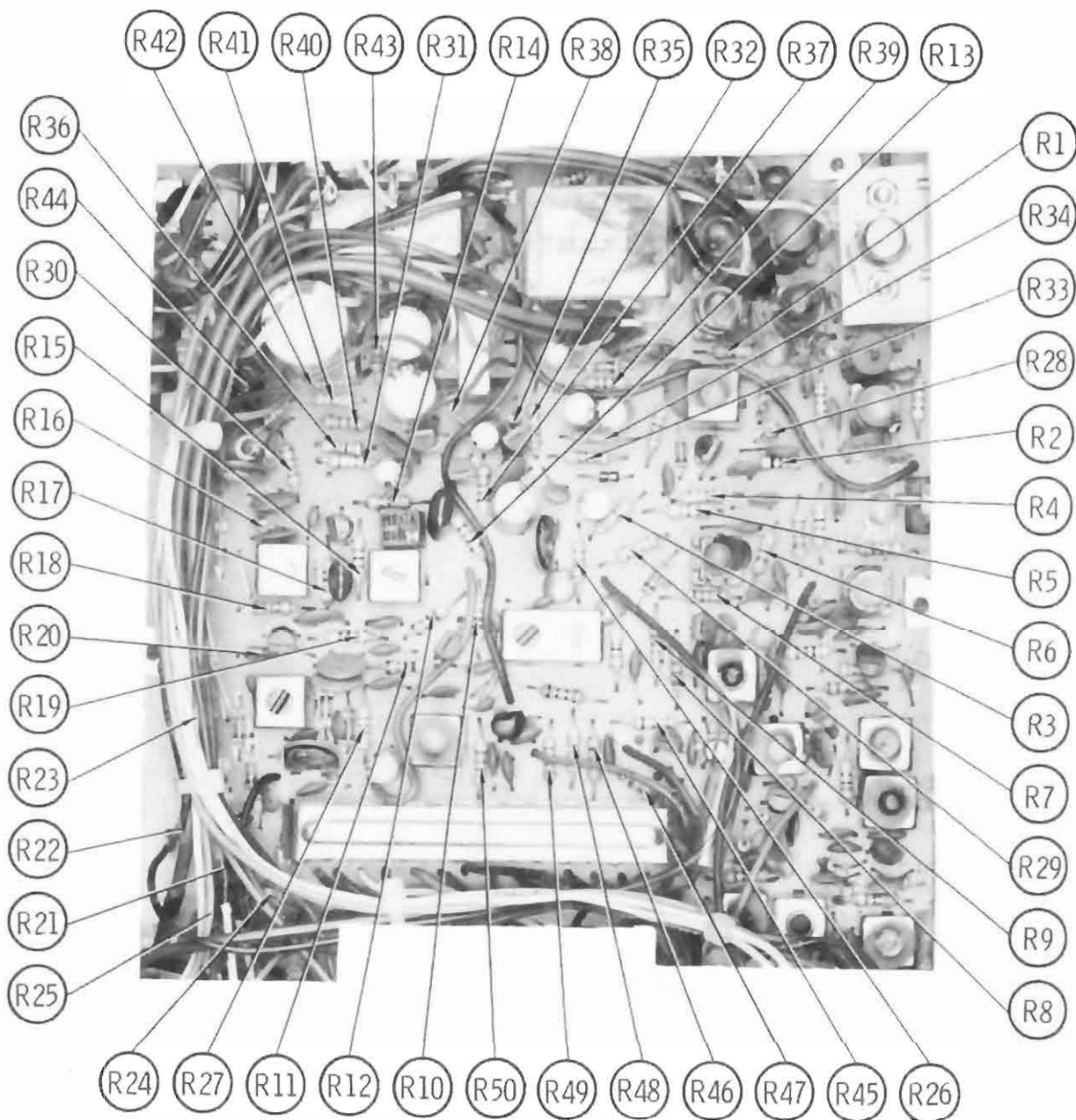
MAIN BOARD



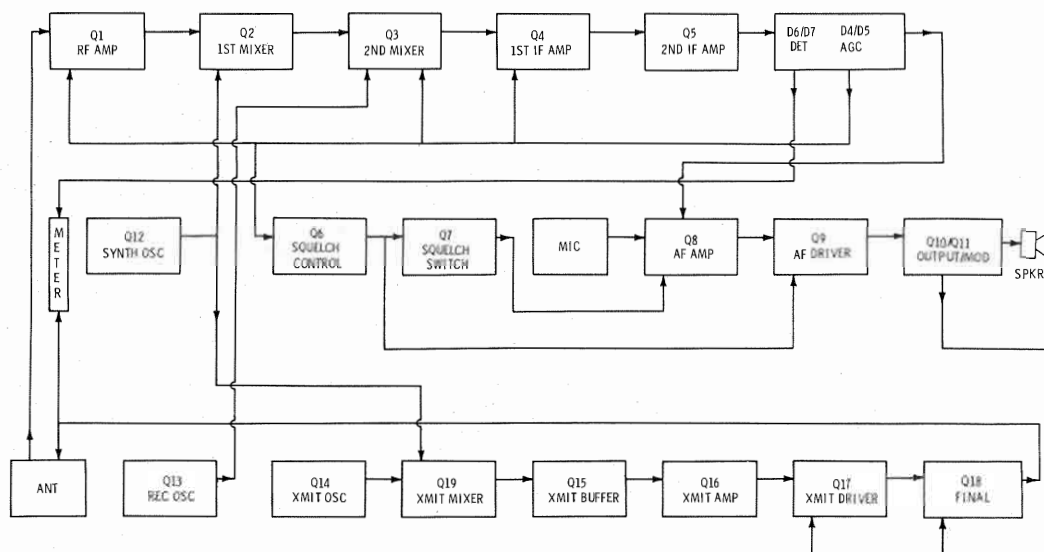
MAIN BOARD



MAIN BOARD



MAIN BOARD



BLOCK DIAGRAM

PARTS LIST AND DESCRIPTION

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

WIRING DATA

General-use Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 13 Colors 8524 (Stranded) Available in 13 Colors
Shielded Antenna Lead	Use BELDEN No. 8214 Lowest-loss (RG-8/U Type) 8237 Low-loss (RG-8/U) 8240 (Solid) Miniature (RG-58/U) 8259 (Stranded) Miniature (RG-58A/U)
Coiled Microphone Cable	Use BELDEN No. 8497 3-Conductor (1 shielded for Press-to-Talk) Neoprene

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.
B1	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D2	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D3	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D4	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D5	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D6	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D7	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D8	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D9	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D10	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D11	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D12	CDZ-C9V		GEZD-9.1	Z1209	ZB9.1A	HEPZ0412	RE 114	SK3060	RT-240	ECG139
D13	1S1885		GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D14	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D15	MV-1				PTC301					
D16	CDZ-C9V		GEZD-9.1	Z1209	ZB9.1A	HEPZ0412	RE 114	SK3060	RT-240	ECG139
D18	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
Q1	25C710C		GE-211 *	(1R)25C710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q2	25C710C		GE-211 *	(1R)25C710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q3	25C710C,B		GE-211 *	(1R)25C710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q4	25C710C,B		GE-211 *	(1R)25C710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q5	25C710C,B		GE-211 *	(1R)25C710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *

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.	IR WORKMAN PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
Q6	2SC1312H		GE-62	(IR)2SC372	PTC139 *	HEPS0015 *	RE 192	SK3122	RT-172 *	ECG199
	2SC870E,F		GE-47	TR-21 *	PTC139	HEPS0030 *	RE 13 *	SK3124 *	RT-302	ECG123A *
Q7	2SC1312H		GE-62	(IR)2SC372	PTC139 *	HEPS0015 *	RE 192	SK3122	RT-172 *	ECG199
	2SC870E,F		GE-47	TR-21 *	PTC139	HEPS0030 *	RE 13 *	SK3124 *	RT-302	ECG123A *
Q8	2SC1312H		GE-62	(IR)2SC372	PTC139 *	HEPS0015 *	RE 192	SK3122	RT-172 *	ECG199
	2SC870E,F		GE-47	TR-21 *	PTC139	HEPS0030 *	RE 13 *	SK3124 *	RT-302	ECG123A *
Q9	2SC620E,B		GE-20 *	(IR)2SC644	PTC125 *	HEPS0015 *	RE 13 *	SK3020 *	RT-107A *	ECG123A *
	2SC1312		GE-62	(IR)2SC372	PTC139 *	HEPS0015 *	RE 192	SK3122	RT-172 *	ECG199
Q10	2SC1226Q (11)		GE-28	TR-55	PTC110	HEPS5027	RE 42	SK3054	RT-166	ECG186A
	2SC1014D (1)(12)		GE-273	WEP1014	PTC193		RE 213		RT-137	ECG300
Q11	2SC1226Q (11)		GE-28	TR-55	PTC110	HEPS5027	RE 42	SK3054	RT-166	ECG186A
	2SC1014D (1)(12)		GE-273	WEP1014	PTC193		RE 213		RT-137	ECG300
Q12	2SC710C		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q13	2SC710C,B		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q14	2SC710C		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q15	2SC710C		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q16	2SC620E		GE-20 *	(IR)2SC644	PTC125 *	HEPS0015 *	RE 13 *	SK3020 *	RT-107A *	ECG123A *
	2SC710C(1)		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q17	2SC1847Q (13)		GE-270		PTC180		RE 209			ECG295
	2SC776 (1)(14)		GE-219	TR-65	PTC191	HEPS3001	RE 79A	SK3048	RT-306	ECG195A
	2SC1018 (1)(15)		GE-236	WEP1018	PTC192		RE 212		RT-143	ECG299
Q18	2SC1974 (16)		GE-337		PTC186		RE 203	SK3197	RT-146	ECG235
	2SC778 (1)(17)		GE-46	WEP778	PTC176	HEPS3001	RE 198	SK3049	RT-174	ECG237
	2SC1239 (1)(18)		GE-46 *	WEP1239	PTC176 *		RE 198 *		RT-174 *	ECG237 *
Q19	MFE121		GE-FET-4		PTC181 *	HEPF2004	RE 199	SK3050	RT-181	ECG222
	MFP121(1)		GE-FET-4		PTC181 *	HEPF2004	RE 199	SK3050	RT-181	ECG222
	40673(1)		GE-FET-4		PTC181 *	HEPF2004	RE 199	SK3065	RT-180	ECG222

* Lead configuration may vary from original.

(1) Used in some versions.

(11) Rating, 10 WATT @ 3.0 AMP

(12) Rating, 7.0 WATT @ 1.5 AMP

(13) Rating, 1.2 WATT @ 1.5 AMP

(14) Rating, 1.0 WATT @ 1.0 AMP

(15) Rating, 4.0 WATT @ 1.0 AMP

(16) Rating, 12 WATT @ 2 AMP

(17) Rating, 2.5 WATT @ 2.0 AMP

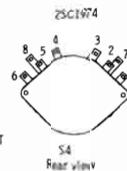
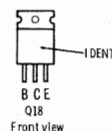
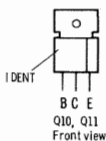
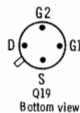
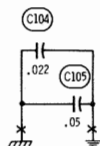
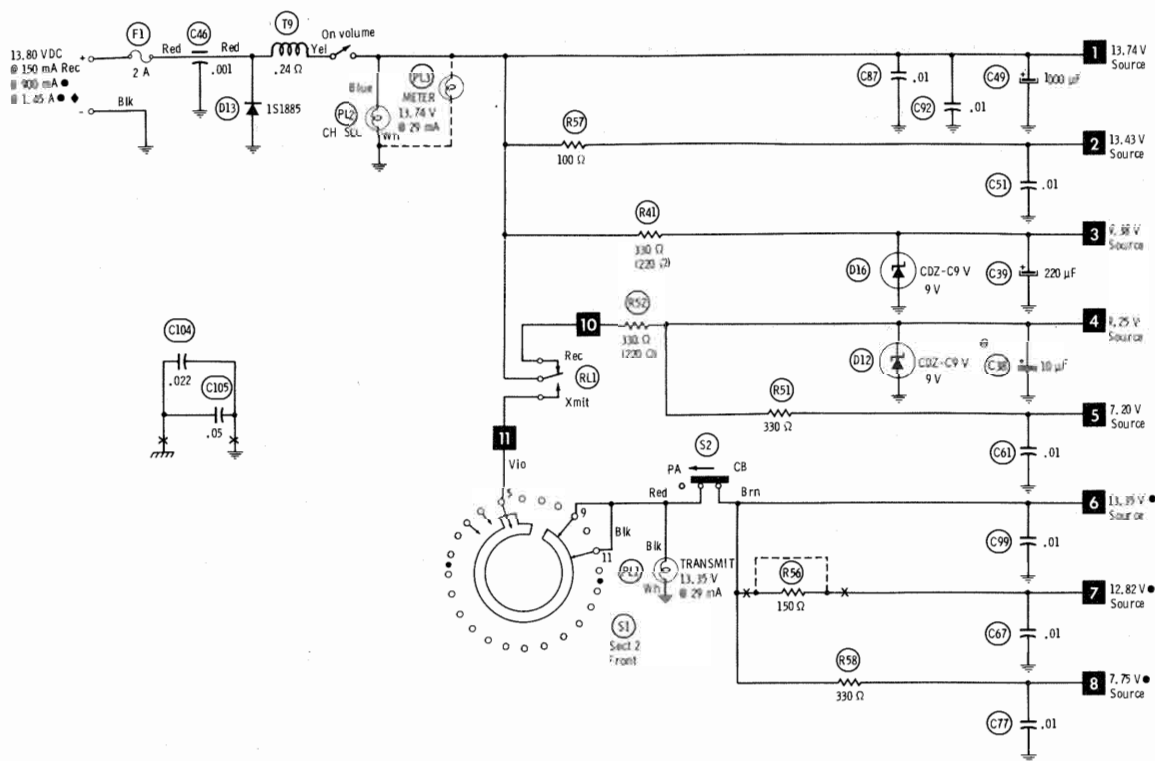
(18) Rating, 12 WATT @ 4.0 AMP

COMMANDO MODELS 2320, 2325

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFG. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C32	10 25V		PC10-25	VTT10A25	QV1-43	EV-1322
C35	1 50V		PC1-50	VTT1B63	QV1-11	EV-1615
C37	1 50V		PC1-50	VTT1B63	QV1-11	EV-1615
C38	10 25V		PC10-25	VTT10A25	QV1-43	EV-1322
C39	220 16V		PC250-25	VTT220G16	QV1-117	EV-1240
C40	1 50V		PC1-50	VTT1B63	QV1-11	EV-1615
C42	4.7 25V		PC5-50	VTT4R7A50	QV1-27	EV-1319
C43	47 16V		PC50-16	VTT47D16	QV1-73	EV-1226
C45	220 16V		PC250-25	VTT220G16	QV1-117	EV-1240
C49	1000 25V		WBR1000-25	VTT1000M25	QV1-185	EV-1360
C62	10 25V		PC10-25	VTT10A25	QV1-43	EV-1322
C63	33 16V		PC30-25	VTT33D25	QV1-63	EV-1325
	47 16V	(1)	PC50-16	VTT47D16	QV1-73	EV-1226

(1) Used in some versions.



—X— 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:

■ Squelch fully clockwise ♦ 100% modulation

● Transmit

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.

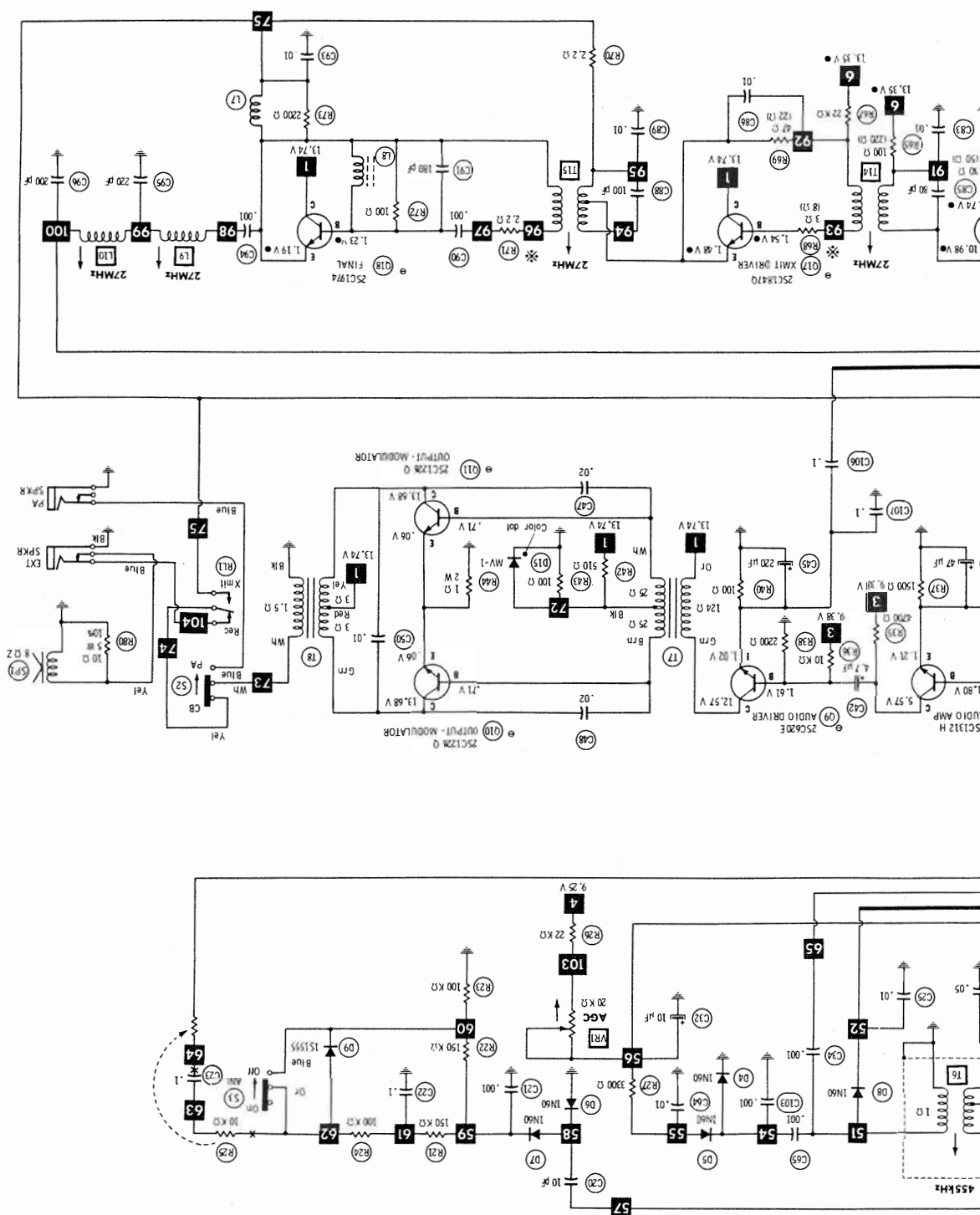
A PHOTOFACIT STANDARD NOTATION SCHEMATIC

WITH **CIRCUITRACE**

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Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement
1	X1, X7, X11	7	X2, X9, X13	13	X4, X7, X11	19	X5, X9, X13
2	X1, X8, X12	8	X2, X10, X14	14	X4, X8, X12	20	X5, X10, X14
3	X1, X9, X13	9	X3, X7, X11	15	X4, X9, X13	21	X6, X7, X11
4	X1, X10, X14	10	X3, X8, X12	16	X4, X10, X14	22	X6, X8, X12
5	X2, X7, X11	11	X3, X9, X13	17	X5, X7, X11		
6	X2, X8, X12	12	X3, X10, X14	18	X5, X8, X12	23	X6, X10, X14

NOTE: Channel selector switch, S1 shown in channel 1 position.



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

CAPACITORS

ITEM	NO.	RATING	MFR.	PART NO.	CENTRAL NO.	PART NO.	CORNELL DUBLIER	MALORY	SPRAGUE	PART NO.	GENERAL LINE
C1	600			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C2	30			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C3	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C4	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C5	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C6	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C7	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C8	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C9	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C10	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C11	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C12	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C13	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C14	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C15	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C16	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C17	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C18	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C19	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C20	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C21	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C22	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C23	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C24	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C25	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C26	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C27	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C28	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C29	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C30	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C31	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C32	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C33	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C34	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C35	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C36	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C37	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C38	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C39	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C40	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C41	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C42	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C43	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C44	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C45	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C46	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C47	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C48	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C49	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C50	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C51	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C52	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C53	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C54	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C55	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C56	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C57	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C58	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C59	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C60	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C61	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C62	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C63	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C64	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C65	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C66	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C67	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C68	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C69	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C70	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C71	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C72	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C73	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C74	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C75	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C76	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C77	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C78	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C79	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C80	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C81	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C82	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C83	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C84	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C85	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C86	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C87	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C88	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C89	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C90	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C91	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C92	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C93	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C94	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C95	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C96	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C97	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C98	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C99	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621
C100	01			DC-103	DC-103	DC-103	CD15ED300J03	SX430	QW1-14	MMA-300	MMA-621

(1) used in some versions.

PARTS I

(When order)

CONTRACT		RESISTOR		COILS (INDUCTORS)		FILTER CAPACITORS		TRANSFORMERS	
ITEM No.	QTY	ITEM No.	QTY	ITEM No.	QTY	ITEM No.	QTY	ITEM No.	QTY
V1A	1	V1A	1	L1	1	L1	1	T1	1
V1B	1	V1B	1	L2	1	L2	1	T2	1
V1C	1	V1C	1	L3	1	L3	1	T3	1
V1D	1	V1D	1	L4	1	L4	1	T4	1
V1E	1	V1E	1	L5	1	L5	1	T5	1
V1F	1	V1F	1	L6	1	L6	1	T6	1
V1G	1	V1G	1	L7	1	L7	1	T7	1
V1H	1	V1H	1	L8	1	L8	1	T8	1
V1I	1	V1I	1	L9	1	L9	1	T9	1
V1J	1	V1J	1	L10	1	L10	1	T10	1
V1K	1	V1K	1	L11	1	L11	1	T11	1
V1L	1	V1L	1	L12	1	L12	1	T12	1
V1M	1	V1M	1	L13	1	L13	1	T13	1
V1N	1	V1N	1	L14	1	L14	1	T14	1
V1O	1	V1O	1	L15	1	L15	1	T15	1
V1P	1	V1P	1	L16	1	L16	1	T16	1
V1Q	1	V1Q	1	L17	1	L17	1	T17	1
V1R	1	V1R	1	L18	1	L18	1	T18	1
V1S	1	V1S	1	L19	1	L19	1	T19	1
V1T	1	V1T	1	L20	1	L20	1	T20	1
V1U	1	V1U	1	L21	1	L21	1	T21	1
V1V	1	V1V	1	L22	1	L22	1	T22	1
V1W	1	V1W	1	L23	1	L23	1	T23	1
V1X	1	V1X	1	L24	1	L24	1	T24	1
V1Y	1	V1Y	1	L25	1	L25	1	T25	1
V1Z	1	V1Z	1	L26	1	L26	1	T26	1
V2A	1	V2A	1	L27	1	L27	1	T27	1
V2B	1	V2B	1	L28	1	L28	1	T28	1
V2C	1	V2C	1	L29	1	L29	1	T29	1
V2D	1	V2D	1	L30	1	L30	1	T30	1
V2E	1	V2E	1	L31	1	L31	1	T31	1
V2F	1	V2F	1	L32	1	L32	1	T32	1
V2G	1	V2G	1	L33	1	L33	1	T33	1
V2H	1	V2H	1	L34	1	L34	1	T34	1
V2I	1	V2I	1	L35	1	L35	1	T35	1
V2J	1	V2J	1	L36	1	L36	1	T36	1
V2K	1	V2K	1	L37	1	L37	1	T37	1
V2L	1	V2L	1	L38	1	L38	1	T38	1
V2M	1	V2M	1	L39	1	L39	1	T39	1
V2N	1	V2N	1	L40	1	L40	1	T40	1
V2O	1	V2O	1	L41	1	L41	1	T41	1
V2P	1	V2P	1	L42	1	L42	1	T42	1
V2Q	1	V2Q	1	L43	1	L43	1	T43	1
V2R	1	V2R	1	L44	1	L44	1	T44	1
V2S	1	V2S	1	L45	1	L45	1	T45	1
V2T	1	V2T	1	L46	1	L46	1	T46	1
V2U	1	V2U	1	L47	1	L47	1	T47	1
V2V	1	V2V	1	L48	1	L48	1	T48	1
V2W	1	V2W	1	L49	1	L49	1	T49	1
V2X	1	V2X	1	L50	1	L50	1	T50	1
V2Y	1	V2Y	1	L51	1	L51	1	T51	1
V2Z	1	V2Z	1	L52	1	L52	1	T52	1
V3A	1	V3A	1	L53	1	L53	1	T53	1
V3B	1	V3B	1	L54	1	L54	1	T54	1
V3C	1	V3C	1	L55	1	L55	1	T55	1
V3D	1	V3D	1	L56	1	L56	1	T56	1
V3E	1	V3E	1	L57	1	L57	1	T57	1
V3F	1	V3F	1	L58	1	L58	1	T58	1
V3G	1	V3G	1	L59	1	L59	1	T59	1
V3H	1	V3H	1	L60	1	L60	1	T60	1
V3I	1	V3I	1	L61	1	L61	1	T61	1
V3J	1	V3J	1	L62	1	L62	1	T62	1
V3K	1	V3K	1	L63	1	L63	1	T63	1
V3L	1	V3L	1	L64	1	L64	1	T64	1
V3M	1	V3M	1	L65	1	L65	1	T65	1
V3N	1	V3N	1	L66	1	L66	1	T66	1
V3O	1	V3O	1	L67	1	L67	1	T67	1
V3P	1	V3P	1	L68	1	L68	1	T68	1
V3Q	1	V3Q	1	L69	1	L69	1	T69	1
V3R	1	V3R	1	L70	1	L70	1	T70	1
V3S	1	V3S	1	L71	1	L71	1	T71	1
V3T	1	V3T	1	L72	1	L72	1	T72	1
V3U	1	V3U	1	L73	1	L73	1	T73	1
V3V	1	V3V	1	L74	1	L74	1	T74	1
V3W	1	V3W	1	L75	1	L75	1	T75	1
V3X	1	V3X	1	L76	1	L76	1	T76	1
V3Y	1	V3Y	1	L77	1	L77	1	T77	1
V3Z	1	V3Z	1	L78	1	L78	1	T78	1
V4A	1	V4A	1	L79	1	L79	1	T79	1
V4B	1	V4B	1	L80	1	L80	1	T80	1
V4C	1	V4C	1	L81	1	L81	1	T81	1
V4D	1	V4D	1	L82	1	L82	1	T82	1
V4E	1	V4E	1	L83	1	L83	1	T83	1
V4F	1	V4F	1	L84	1	L84	1	T84	1
V4G	1	V4G	1	L85	1	L85	1	T85	1
V4H	1	V4H	1	L86	1	L86	1	T86	1
V4I	1	V4I	1	L87	1	L87	1	T87	1
V4J	1	V4J	1	L88	1	L88	1	T88	1
V4K	1	V4K	1	L89	1	L89	1	T89	1
V4L	1	V4L	1	L90	1	L90	1	T90	1
V4M	1	V4M	1	L91	1	L91	1	T91	1
V4N	1	V4N	1	L92	1	L92	1	T92	1
V4O	1	V4O	1	L93	1	L93	1	T93	1
V4P	1	V4P	1	L94	1	L94	1	T94	1
V4Q	1	V4Q	1	L95	1	L95	1	T95	1
V4R	1	V4R	1	L96	1	L96	1	T96	1
V4S	1	V4S	1	L97	1	L97	1	T97	1
V4T	1	V4T	1	L98	1	L98	1	T98	1
V4U	1	V4U	1	L99	1	L99	1	T99	1
V4V	1	V4V	1	L100	1	L100	1	T100	1
V4W	1	V4W	1	L101	1	L101	1	T101	1
V4X	1	V4X	1	L102	1	L102	1	T102	1
V4Y	1	V4Y	1	L103	1	L103	1	T103	1
V4Z	1	V4Z	1	L104	1	L104	1	T104	1
V5A	1	V5A	1	L105	1	L105	1	T105	1
V5B	1	V5B	1	L106	1	L106	1	T106	1
V5C	1	V5C	1	L107	1	L107	1	T107	1
V5D	1	V5D	1	L108	1	L108	1	T108	1
V5E	1	V5E	1	L109	1	L109	1	T109	1
V5F	1	V5F	1	L110	1	L110	1	T110	1
V5G	1	V5G	1	L111	1	L111	1	T111	1
V5H	1	V5H	1	L112	1	L112	1	T112	1
V5I	1	V5I	1	L113	1	L113	1	T113	1
V5J	1	V5J	1	L114	1	L114	1	T114	1
V5K	1	V5K	1	L115	1	L115	1	T115	1
V5L	1	V5L	1	L116	1	L116	1	T116	1
V5M	1	V5M	1	L117	1	L117	1	T117	1
V5N	1	V5N	1	L118	1	L118	1	T118	1
V5O	1	V5O	1	L119	1	L119	1	T119	1
V5P	1	V5P	1	L120	1	L120	1	T120	1
V5Q	1	V5Q	1	L121	1	L121	1	T121	1
V5R	1	V5R	1	L122	1	L122	1	T122	1
V5S	1	V5S	1	L123	1	L123	1	T123	1
V5T	1	V5T	1	L124	1	L124	1	T124	1
V5U	1	V5U	1	L125	1	L125	1	T125	1
V5V	1	V5V	1	L126	1	L126	1	T126	1
V5W	1	V5W	1	L127	1	L127	1	T127	1
V5X	1	V5X	1	L128	1	L128	1	T128	1
V5Y	1	V5Y	1	L129	1	L129	1	T129	1
V5Z	1	V5Z	1	L130	1	L130	1	T130	1
V6A	1	V6A	1	L131	1	L131	1	T131	1
V6B	1	V6B	1	L132	1	L132	1	T132	1
V6C	1	V6C	1	L133	1	L133	1	T133	1
V6D	1	V6D	1	L134	1	L134	1	T134	1
V6E	1	V6E	1	L135	1	L135	1	T135	1
V6F	1	V6F	1	L136	1	L136	1	T136	1
V6G	1	V6G	1	L137	1	L137	1	T137	1
V6H	1	V6H	1	L138	1	L138	1	T138	1
V6I	1	V6I	1	L139	1	L139	1	T139	1
V6J	1	V6J	1	L140	1	L140	1	T140	1
V6K	1	V6K	1	L141	1	L141	1	T141	1
V6L	1	V6L	1	L142	1	L142	1	T142	1
V6M	1	V6M	1	L143	1	L143	1	T143	1
V6N	1	V6N	1	L144	1	L144	1	T144	1
V6O	1	V6O	1	L145	1	L145	1	T145	1
V6P	1	V6P	1	L146	1	L146	1	T146	1
V6Q	1	V6Q	1	L147	1	L147	1	T147	1
V6R	1	V6R	1	L148	1	L148	1	T148	1
V6S	1	V6S	1	L149	1	L149	1	T149	1
V6T	1	V6T	1	L150	1	L150	1	T150	1
V6U	1	V6U	1	L151	1	L151	1	T151	1
V6V	1	V6V	1	L152	1	L152	1	T152	1
V6W	1	V6W	1	L153	1	L153	1	T153	1
V6X	1	V6X	1	L154	1	L154	1	T154	1
V6Y	1	V6Y	1	L155	1	L155	1	T155	1
V6Z	1	V6Z	1	L156	1	L156	1	T156	1
V7A	1	V7A	1	L157	1	L157	1	T157	1
V7B	1	V7B	1	L158	1	L158	1	T158	1
V7C	1	V7C	1	L159	1	L159	1	T159	1
V7D	1	V7D	1	L160	1	L160	1	T160	1
V7E	1	V7E	1	L161	1	L161	1	T161	1
V7F	1	V7F	1	L162	1	L162	1	T162	1
V7G	1	V7G	1	L163	1	L163	1	T163	1
V7H	1	V7H	1	L164	1	L164	1	T164	1
V7I	1	V7I	1	L165	1	L165	1	T165	1
V7J	1	V7J	1	L166	1	L166	1	T166	1
V7K	1	V7K	1	L167	1	L167	1	T167	1
V7L	1	V7L	1	L168	1	L168	1	T168	1
V7M	1	V7M	1	L169	1	L169	1	T169	1
V7N	1	V7N	1	L170	1	L170	1	T170	1
V7O	1	V7O	1	L171	1	L171	1	T171	1
V7P	1	V7P	1	L172	1	L172	1	T172	1
V7Q	1	V7Q	1	L173	1	L173	1	T173	1
V7R	1	V7R	1	L174	1	L174	1	T174	1
V7S	1	V7S	1	L175	1</				

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	MFG. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLOY PART No.	TRW PART No.
V81	AGC	20K		T-20K (2)	C-253 (2)	MTG24L1 (2)	X201R253B (2)
V82	RF Meter	10K		T-10K (2)	C-103 (2)	MTG14L1 (2)	X201R103B (2)
V83	S Meter	5000		T-5000 (2)	C-502 (2)	MTG53L1 (2)	X201R502B (2)
V84	Volume/Switch	5000					
V85	Squelch Range	10K					
V86	Squelch	5000					
V87	RF	10K					
V88	RF Gain	1000	(6)	T-10K (2)	C-103 (2)	MTG14L1 (2)	X201R103B (2)

(2) Cut off one of the end terminals and bend to fit PC board.
(6) Alternate part, may be used in some versions.

RESISTORS (Power and Special)

ITEM No.	RATING	WORKMAN PART No.	MFG. PART No.	ITEM No.	RATING	WORKMAN PART No.	MFG. PART No.
R44	2W WM		WS1.0 Ohm	R30	10 5W		5W-SQ 10 Ohm
REPLACEMENT DATA				REPLACEMENT DATA			

COILS (RF-IF)

ITEM No.	FUNCTION	PART No.	OTHER IDENTIFICATION	MILLER PART No.	REMARKS
L1	Rec Antenna (27MHz)				
L2	Synth. Osc (17MHz)				
L3	Rec Osc (9MHz)				
L5	RF Choke				
L6	RF Choke				
L7	RF Choke				
L8	RF Choke				
L9	Final (27MHz)				
L10	P1 Filter (27MHz)				
L11	Antenna Match (27MHz)				
L12	TVI Trap (54MHz)				
L13	Delta Tune				
T1	Rec Antenna (27MHz)				
T2	Rec RF (27MHz)				
T3a	Rec Mixer (10MHz)				
T3b	Rec Mixer (10MHz)				
T4	IF (455KHz)				
T5	IF (455KHz)				
T6	IF (455KHz)				
T10	Xmit Mixer (27MHz)				
T11	Harmonic Suppressor				
T12	Harmonic Suppressor				
T13	Xmit Buffer (27MHz)				
T14	Xmit Amp (27MHz)				
T15	Xmit Driver (27MHz)				

FILTER CHOKE

ITEM No.	RATINGS	INDUCTANCE	DC RES.	CURRENT	DC RES.	ITEM No.	REPLACEMENT DATA	NOTES
T9	1.35A	.25	2.7mH	A2611 (1)	TR577			(1) Number on unit.
CURRENT (Measured)				MFG. PART No.				
INDUCTANCE				THORDARSON PART No.				
				TRIAD PART No.				

TRANSFORMER (Driver)

ITEM No.	TURN'S RATIO	MFG. PART No.	THORDARSON PART No.	TRIAD PART No.	NOTES
T7	2:1	1	A2490 (1)	TR674	(1) Number on unit.
SEC. 1		SEC. 2			

PARTS LIST AND DESCRIPTION (CONTINUED)

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		MFCR.	PART No.	THORDARSON PART No.	TRIAD PART No.	NOTES
	PQL.	SEC.					
TR	15.5	B	A2590 (1)	TR041			(1) Number on unit.

SPEAKER

ITEM No.	TYPE	WGR. PART No.	QUAM. PART No.	3A05Z0
SP1	3 1/2" PM 8 Ohms			
		REPLACEMENT DATA		
		NOTES		

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
2A		HOLDER	AGC2	H0J	312002	150145	FG2-2	DEVICE
		DEVICE	DEVICE	HOLDER	DEVICE	HOLDER		DEVICE

MICROPHONE

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

CRYSTALS

X1	CRYSTAL FREQUENCY	MFG. PART NO.	CTS KNIGHTS PART NO.	CHANNEL
X2	17.015	SA70M17-015	SC45M9-550	2.6,10.14,18.22
X3	17.065	SA70M17-065	SC45M9-550	3.7,7.11,15.19
X4	17.115	SA70M17-115	SC45M9-550	4.8,12.12,16.23
X5	17.165	SA70M17-165	SC45M9-550	1.5,5.9,13,17.21
X6	17.215	SA70M17-215	SC45M9-550	2.6,10.14,18.22
X7	9.5450	SC45M9-5450	SC45M9-550	4.8,12.12,16.23
X8	17.314	SA70M17-314	SC45M9-550	1.5,5.9,13,17.21
X9	5.6,7.8	SA70M17-015	SC45M9-550	2.6,10.14,18.22
X10	9.10,11.12	SA70M17-065	SC45M9-550	3.7,7.11,15.19
X11	13.14,15.16	SA70M17-115	SC45M9-550	4.8,12.12,16.23
X12	17.18,19.20	SA70M17-165	SC45M9-550	1.5,5.9,13,17.21
X13	21.22,23	SA70M17-215	SC45M9-550	2.6,10.14,18.22
X14	10.040	SA70M17-040	SC45M9-550	3.7,7.11,15.19
X15	10.010	SA70M17-010	SC45M9-550	4.8,12.12,16.23
X16	10.000	SA70M17-000	SC45M9-550	1.5,5.9,13,17.21
X17	9.8500	SC45M9-8500	SC45M9-550	2.6,10.14,18.22
X18	9.5550	SC45M9-5550	SC45M9-550	3.7,7.11,15.19
X19	10.040	SA70M17-040	SC45M9-550	4.8,12.12,16.23
X20	10.020	SA70M17-020	SC45M9-550	1.5,5.9,13,17.21
X21	10.010	SA70M17-010	SC45M9-550	2.6,10.14,18.22
X22	10.000	SA70M17-000	SC45M9-550	3.7,7.11,15.19
X23	9.8120	SA70M17-8120	SC45M9-550	4.8,12.12,16.23
X24	9.8000	SA70M17-8000	SC45M9-550	1.5,5.9,13,17.21
X25	9.7800	SA70M17-7800	SC45M9-550	2.6,10.14,18.22
X26	9.7600	SA70M17-7600	SC45M9-550	3.7,7.11,15.19
X27	9.7400	SA70M17-7400	SC45M9-550	4.8,12.12,16.23
X28	9.7200	SA70M17-7200	SC45M9-550	1.5,5.9,13,17.21
X29	9.7000	SA70M17-7000	SC45M9-550	2.6,10.14,18.22
X30	9.6800	SA70M17-6800	SC45M9-550	3.7,7.11,15.19
X31	9.6600	SA70M17-6600	SC45M9-550	4.8,12.12,16.23
X32	9.6400	SA70M17-6400	SC45M9-550	1.5,5.9,13,17.21
X33	9.6200	SA70M17-6200	SC45M9-550	2.6,10.14,18.22
X34	9.6000	SA70M17-6000	SC45M9-550	3.7,7.11,15.19
X35	9.5800	SA70M17-5800	SC45M9-550	4.8,12.12,16.23
X36	9.5600	SA70M17-5600	SC45M9-550	1.5,5.9,13,17.21
X37	9.5400	SA70M17-5400	SC45M9-550	2.6,10.14,18.22
X38	9.5200	SA70M17-5200	SC45M9-550	3.7,7.11,15.19
X39	9.5000	SA70M17-5000	SC45M9-550	4.8,12.12,16.23
X40	9.4800	SA70M17-4800	SC45M9-550	1.5,5.9,13,17.21
X41	9.4600	SA70M17-4600	SC45M9-550	2.6,10.14,18.22
X42	9.4400	SA70M17-4400	SC45M9-550	3.7,7.11,15.19
X43	9.4200	SA70M17-4200	SC45M9-550	4.8,12.12,16.23
X44	9.4000	SA70M17-4000	SC45M9-550	1.5,5.9,13,17.21
X45	9.3800	SA70M17-3800	SC45M9-550	2.6,10.14,18.22
X46	9.3600	SA70M17-3600	SC45M9-550	3.7,7.11,15.19
X47	9.3400	SA70M17-3400	SC45M9-550	4.8,12.12,16.23
X48	9.3200	SA70M17-3200	SC45M9-550	1.5,5.9,13,17.21
X49	9.3000	SA70M17-3000	SC45M9-550	2.6,10.14,18.22
X50	9.2800	SA70M17-2800	SC45M9-550	3.7,7.11,15.19
X51	9.2600	SA70M17-2600	SC45M9-550	4.8,12.12,16.23
X52	9.2400	SA70M17-2400	SC45M9-550	1.5,5.9,13,17.21
X53	9.2200	SA70M17-2200	SC45M9-550	2.6,10.14,18.22
X54	9.2000	SA70M17-2000	SC45M9-550	3.7,7.11,15.19
X55	9.1800	SA70M17-1800	SC45M9-550	4.8,12.12,16.23
X56	9.1600	SA70M17-1600	SC45M9-550	1.5,5.9,13,17.21
X57	9.1400	SA70M17-1400	SC45M9-550	2.6,10.14,18.22
X58	9.1200	SA70M17-1200	SC45M9-550	3.7,7.11,15.19
X59	9.1000	SA70M17-1000	SC45M9-550	4.8,12.12,16.23
X60	9.0800	SA70M17-0800	SC45M9-550	1.5,5.9,13,17.21
X61	9.0600	SA70M17-0600	SC45M9-550	2.6,10.14,18.22
X62	9.0400	SA70M17-0400	SC45M9-550	3.7,7.11,15.19
X63	9.0200	SA70M17-0200	SC45M9-550	4.8,12.12,16.23
X64	9.0000	SA70M17-0000	SC45M9-550	1.5,5.9,13,17.21
X65	8.9800	SA70M17-9800	SC45M9-550	2.6,10.14,18.22
X66	8.9600	SA70M17-9600	SC45M9-550	3.7,7.11,15.19
X67	8.9400	SA70M17-9400	SC45M9-550	4.8,12.12,16.23
X68	8.9200	SA70M17-9200	SC45M9-550	1.5,5.9,13,17.21
X69	8.9000	SA70M17-9000	SC45M9-550	2.6,10.14,18.22
X70	8.8800	SA70M17-8800	SC45M9-550	3.7,7.11,15.19
X71	8.8600	SA70M17-8600	SC45M9-550	4.8,12.12,16.23
X72	8.8400	SA70M17-8400	SC45M9-550	1.5,5.9,13,17.21
X73	8.8200	SA70M17-8200	SC45M9-550	2.6,10.14,18.22
X74	8.8000	SA70M17-8000	SC45M9-550	3.7,7.11,15.19
X75	8.7800	SA70M17-7800	SC45M9-550	4.8,12.12,16.23
X76	8.7600	SA70M17-7600	SC45M9-550	1.5,5.9,13,17.21
X77	8.7400	SA70M17-7400	SC45M9-550	2.6,10.14,18.22
X78	8.7200	SA70M17-7200	SC45M9-550	3.7,7.11,15.19
X79	8.7000	SA70M17-7000	SC45M9-550	4.8,12.12,16.23
X80	8.6800	SA70M17-6800	SC45M9-550	1.5,5.9,13,17.21
X81	8.6600	SA70M17-6600	SC45M9-550	2.6,10.14,18.22
X82	8.6400	SA70M17-6400	SC45M9-550	3.7,7.11,15.19
X83	8.6200	SA70M17-6200	SC45M9-550	4.8,12.12,16.23
X84	8.6000	SA70M17-6000	SC45M9-550	1.5,5.9,13,17.21
X85	8.5800	SA70M17-5800	SC45M9-550	2.6,10.14,18.22
X86	8.5600	SA70M17-5600	SC45M9-550	3.7,7.11,15.19
X87	8.5400	SA70M17-5400	SC45M9-550	4.8,12.12,16.23
X88	8.5200	SA70M17-5200	SC45M9-550	1.5,5.9,13,17.21
X89	8.5000	SA70M17-5000	SC45M9-550	2.6,10.14,18.22
X90	8.4800	SA70M17-4800	SC45M9-550	3.7,7.11,15.19
X91	8.4600	SA70M17-4600	SC45M9-550	4.8,12.12,16.23
X92	8.4400	SA70M17-4400	SC45M9-550	1.5,5.9,13,17.21
X93	8.4200	SA70M17-4200	SC45M9-550	2.6,10.14,18.22
X94	8.4000	SA70M17-4000	SC45M9-550	3.7,7.11,15.19
X95	8.3800	SA70M17-3800	SC45M9-550	4.8,12.12,16.23
X96	8.3600	SA70M17-3600	SC45M9-550	1.5,5.9,13,17.21
X97	8.3400	SA70M17-3400	SC45M9-550	2.6,10.14,18.22
X98	8.3200	SA70M17-3200	SC45M9-550	3.7,7.11,15.19
X99	8.3000	SA70M17-3000	SC45M9-550	4.8,12.12,16.23
X100	8.2800	SA70M17-2800	SC45M9-550	1.5,5.9,13,17.21
X101	8.2600	SA70M17-2600	SC45M9-550	2.6,10.14,18.22
X102	8.2400	SA70M17-2400	SC45M9-550	3.7,7.11,15.19
X103	8.2200	SA70M17-2200	SC45M9-550	4.8,12.12,16.23
X104	8.2000	SA70M17-2000	SC45M9-550	1.5,5.9,13,17.21
X105	8.1800	SA70M17-1800	SC45M9-550	2.6,10.14,18.22
X106	8.1600	SA70M17-1600	SC45M9-550	3.7,7.11,15.19
X107	8.1400	SA70M17-1400	SC45M9-550	4.8,12.12,16.23
X108	8.1200	SA70M17-1200	SC45M9-550	1.5,5.9,13,17.21
X109	8.1000	SA70M17-1000	SC45M9-550	2.6,10.14,18.22
X110	8.0800	SA70M17-0800	SC45M9-550	3.7,7.11,15.19
X111	8.0600	SA70M17-0600	SC45M9-550	4.8,12.12,16.23
X112	8.0400	SA70M17-0400	SC45M9-550	1.5,5.9,13,17.21
X113	8.0200	SA70M17-0200	SC45M9-550	2.6,10.14,18.22
X114	8.0000	SA70M17-0000	SC45M9-550	3.7,7.11,15.19
X115	7.9800	SA70M17-9800	SC45M9-550	4.8,12.12,16.23
X116	7.9600	SA70M17-9600	SC45M9-550	1.5,5.9,13,17.21
X117	7.9400	SA70M17-9400	SC45M9-550	2.6,10.14,18.22
X118	7.9200	SA70M17-9200	SC45M9-550	3.7,7.11,15.19
X119	7.9000	SA70M17-9000	SC45M9-550	4.8,12.12,16.23
X120	7.8800	SA70M17-8800	SC45M9-550	1.5,5.9,13,17.21
X121	7.8600	SA70M17-8600	SC45M9-550	2.6,10.14,18.22
X122	7.8400	SA70M17-8400	SC45M9-550	3.7,7.11,15.19
X123	7.8200	SA70M17-8200	SC45M9-550	4.8,12.12,16.23
X124	7.8000	SA70M17-8000	SC45M9-550	1.5,5.9,13,17.21
X125	7.7800	SA70M17-7800	SC45M9-550	2.6,10.14,18.22
X126	7.7600	SA70M17-7600	SC45M9-550	3.7,7.11,15.19
X127	7.7400	SA70M17-7400	SC45M9-550	4.8,12.12,16.23
X128	7.7200	SA70M17-7200	SC45M9-550	1.5,5.9,13,17.21
X129	7.7000	SA70M17-7000	SC45M9-550	2.6,10.14,18.22
X130	7.6800	SA70M17-6800	SC45M9-550	3.7,7.11,15.19
X131	7.6600	SA70M17-6600	SC45M9-550	4.8,12.12,16.23
X132	7.6400	SA70M17-6400	SC45M9-550	1.5,5.9,13,17.21
X133	7.6200	SA70M17-6200	SC45M9-550	2.6,10.14,18.22
X134	7.6000	SA70M17-6000	SC45M9-550	3.7,7.11,15.19
X135	7.5800	SA70M17-5800	SC45M9-550	4.8,12.12,16.23
X136	7.5600	SA70M17-5600	SC45M9-550	1.5,5.9,13,17.21
X137	7.5400	SA70M17-5400	SC45M9-550	2.6,10.14,18.22
X138	7.5200	SA70M17-5200	SC45M9-550	3.7,7.11,15.19
X139	7.5000	SA70M17-5000	SC45M9-550	4.8,12.12,16.23
X140	7.4800	SA70M17-4800	SC45M9-550	1.5,5.9,13,17.21
X141	7.4600	SA70M17-4600	SC45M9-550	2.6,10.14,18.22
X142	7.4400	SA70M17-4400	SC45M9-550	3.7,7.11,15.19
X143	7.4200	SA70M17-4200	SC45M9-550	4.8,12.12,16.23
X144	7.4000	SA70M17-4000	SC45M9-550	1.5,5.9,13,17.21
X145	7.3800	SA70M17-3800	SC45M9-550	2.6,10.14,18.22
X146	7.3600	SA70M17-3600	SC45M9-550	3.7,7.11,15.19
X147	7.3400	SA70M17-3400	SC45M9-550	4.8,12.12,16.23
X148	7.3200	SA70M17-3200	SC45M9-550	1.5,5.9,13,17.21
X149	7.3000	SA70M17-3000	SC45M9-550	2.6,10.14,18.22
X150	7.2800	SA70M17-2800	SC45M9-550	3.7,7.11,15.19
X151	7.2600	SA70M17-2600	SC45M9-550	4.8,12.12,16.23
X152	7.2400	SA70M17-2400	SC45M9-550	1.5,5.9,13,17.21
X153	7.2200	SA70M17-2200	SC45M9-550	2.6,10.14,18.22
X154	7.2000	SA70M17-2000	SC45M9-550	3.7,7.11,15.19
X155	7.1800	SA70M17-1800	SC45M9-550	4.8,12.12,16.23
X156	7.1600	SA70M17-1600	SC45M9-550	1.5,5.9,13,17.21
X157	7.1400	SA70M17-1400	SC45M9-550	2.6,10.14,18.22
X158	7.1200	SA70M17-1200	SC45M9-550	3.7,7.11,15.19
X159	7.1000	SA70M17-1000	SC45M9-550	4.8,12.12,16.23
X160	7.0800	SA70M17-0800	SC45M9-550	1.5,5.9,13,17.21
X161	7.0600	SA70M17-0600	SC45M9-550	2.6,10.14,18.22
X162	7.0400	SA70M17-0400	SC45M9-550	3.7,7.11,15.19
X163	7.0200	SA70M17-0200	SC45M9-550	4.8,12.12,16.23
X164	7.0000	SA70M17-0000	SC45M9-550	1.5,5.9,13,17.21
X165	6.9800	SA70M17-9800	SC45M9-550	2.6,10.14,18.22
X166	6.9600	SA70M17-9600	SC45M9-550	3.7,7.11,15.19
X167	6.9400	SA70M17-9400	SC45M9-550	4.8,12.12,16.23
X168	6.9200	SA70M17-9200	SC45M9-550	1.5,5.9,13,17.21
X169	6.9000	SA70M17-9000	SC45M9-550	2.6,10.14,18.22
X170	6.8800	SA70M17-8800	SC45M9-550	3.7,7.11,15.19
X171	6.8600	SA70M17-8600	SC45M9-550	4.8,12.12,16.23
X172	6.8400	SA70M17-8400		

MISCELLANEOUS

ITEM NO.	PART NAME	PART No.	NOTES
L86	Ceramic Filter	455KHz (CF455)	
M1	Relay	5/RF (76.7)	
RL1	Switch	Xmit/Rec (65.6,11)	
S1	Switch	Channel Selector	
S2	Switch	CB/PA	
S3	Switch	ANL	
S4	Switch	Delta tune	
	Printed Circuit Board	Main (00069-01)	