

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.



JCPenney MODEL 981-6235

CB-100

MODEL 981-6235 (981-0607)

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

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ALIGNMENT INSTRUCTIONS

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

MF1, T4, T5, T65000
 I5, T1, T2, T3, T149440
 L1, L4, L8, L9, T11, T12, T138728
 L119295

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter and RF VTVM to T8 Secondary.	Ch. 13, Rec.	T8	Adjust for 37.750MHz at maximum output.
Input of frequency counter to T8 Secondary.	Ch. 17, Rec. Ch. 21, Rec. Ch. 1, Rec. Ch. 5, Rec. Ch. 9, Rec.		Check for 37.800MHz Check for 37.850MHz Check for 37.600MHz Check for 37.650MHz Check for 37.700MHz
Input of frequency counter to IC2 Pin 7.	Fine Tune to "0". Ch. 1, Rec., Ch. 2, Rec. Ch. 3, Rec. Ch. 4, Rec.		Check for 10.180MHz Check for 10.170MHz Check for 10.160MHz Check for 10.140MHz
Input of Frequency Counter to of IC2 Pin 2.	Ch. 1, Xmit. Ch. 2, Xmit. Ch. 3, Xmit. Ch. 4, Xmit.		Check for 10.635MHz Check for 10.625MHz Check for 10.615MHz Check for 10.595MHz

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 Q3 base. 455kHz, 1000Hz @ 30% modulation.	Ch. 13. ANL fully counterclockwise.	MF1, T4, T5, T6	Adjust for maximum.
Output of signal generator thru .01uF to Q2 base. 10.6MHz, 1000Hz @ 30% modulation.	Ch. 13. ANL fully counter-clockwise.	T2, T3	Adjust for maximum.
Output of signal generator thru .01uF to antenna jack 27.115MHz, 1000Hz @ 30% modulation.	Ch. 13. ANL fully counterclockwise.	L1, T1	Adjust for maximum. 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	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation, Output 2.5uV.	Ch. 13. ANL fully counterclockwise.	R19	IF GAIN Adjust R19 for audio output level of 2V.
Output of signal generator thru .01uF to antenna jack, 27.115MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 13. ANL fully counterclockwise.	R32	S METER Adjust TR32 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 or adjustment of transmitter.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of RF wattmeter to antenna jack.	Ch. 13.	L4, T11, T12, T13, T14, L5, L8, L9	Adjust for maximum.
Input of RF wattmeter to antenna jack.	Ch. 13	L5, L8, L9	Adjust for 4 watts maximum.

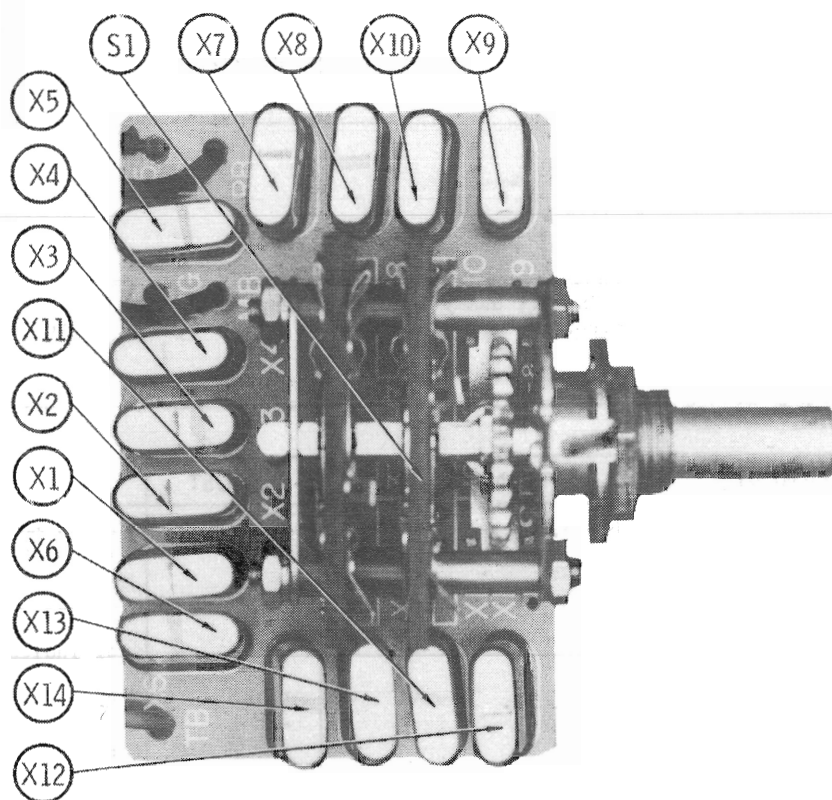
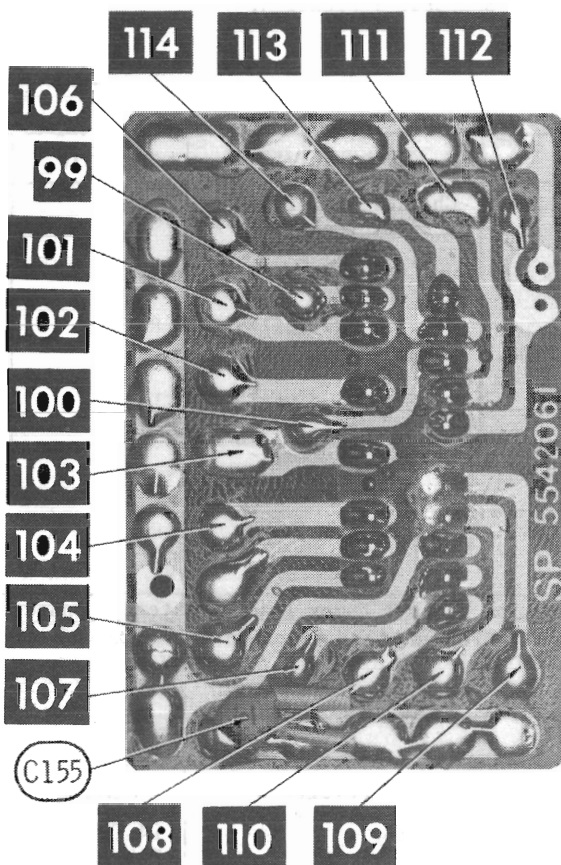
TRANSMITTER ADJUSTMENTS

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

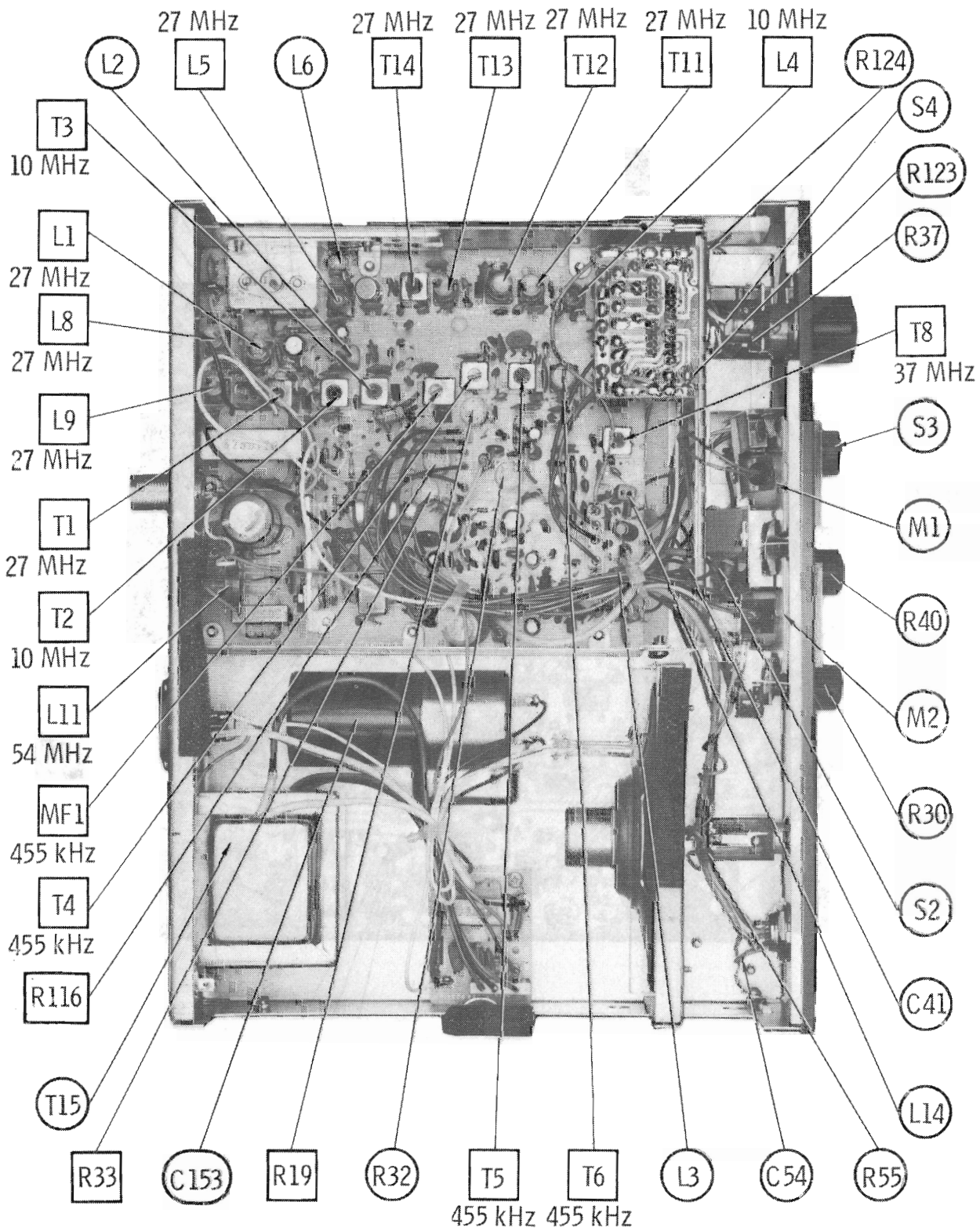
NOTE: Be sure to check transmit frequency and power on all active channels after alignment or adjustment of transmitter.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of oscilloscope or modulation indication to antenna jack.	Ch. 13.	R33	PANEL MODULATION METER Inject a 1000Hz audio signal at mic input. Adjust R33 so that panel meter agrees with scope or indicator.
RF wattmeter to antenna jack.	Ch. 13.	R116	RF PANEL METER Adjust R116 so that panel RF meter agrees with RF wattmeter.
TV set (Ch. 2).	Ch. 13	L11	TVI TRAP Adjust for MINIMUM interference on TV.

JC Penney MODEL 981-6235

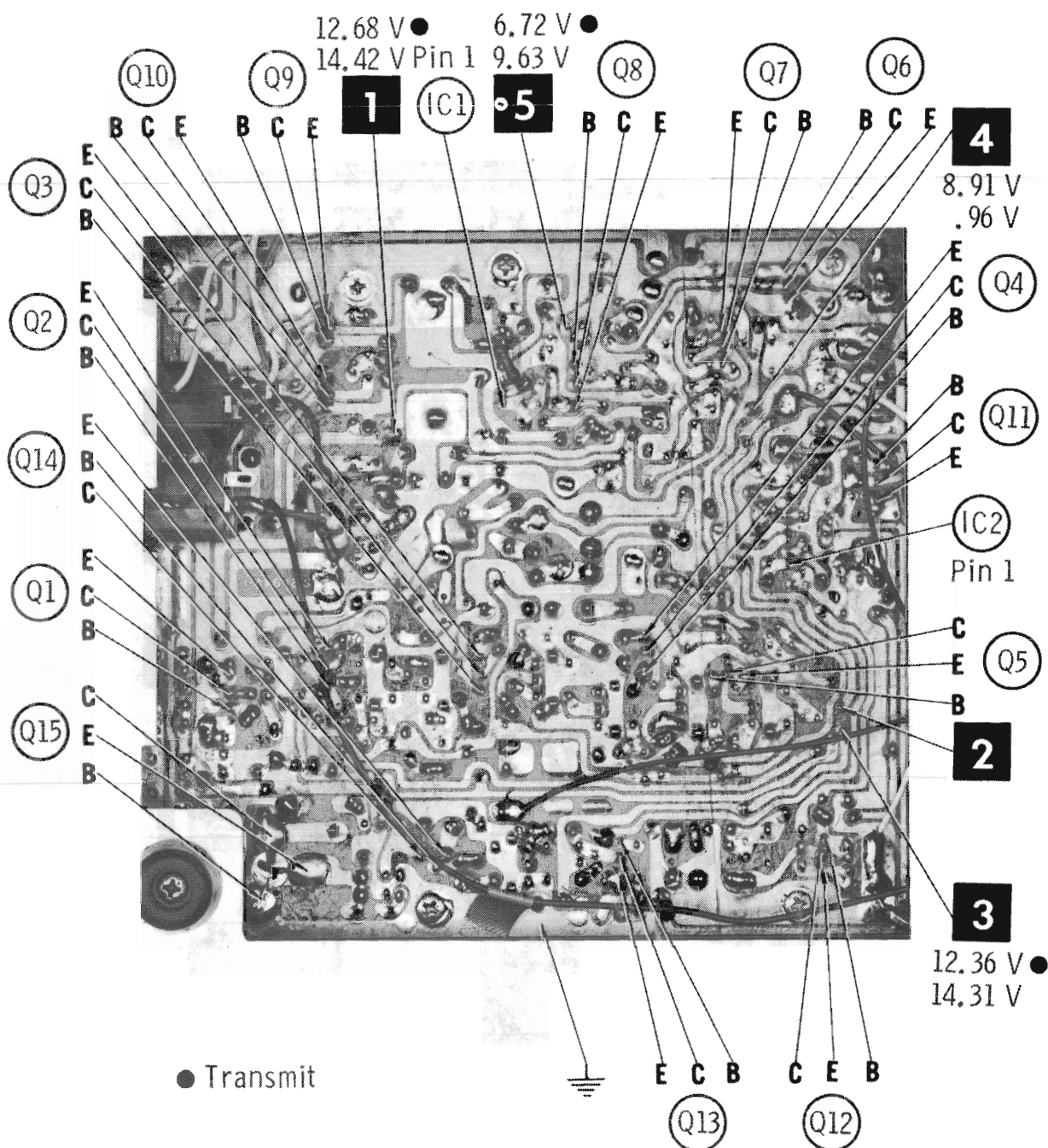


SWITCH-CRYSTAL BOARD

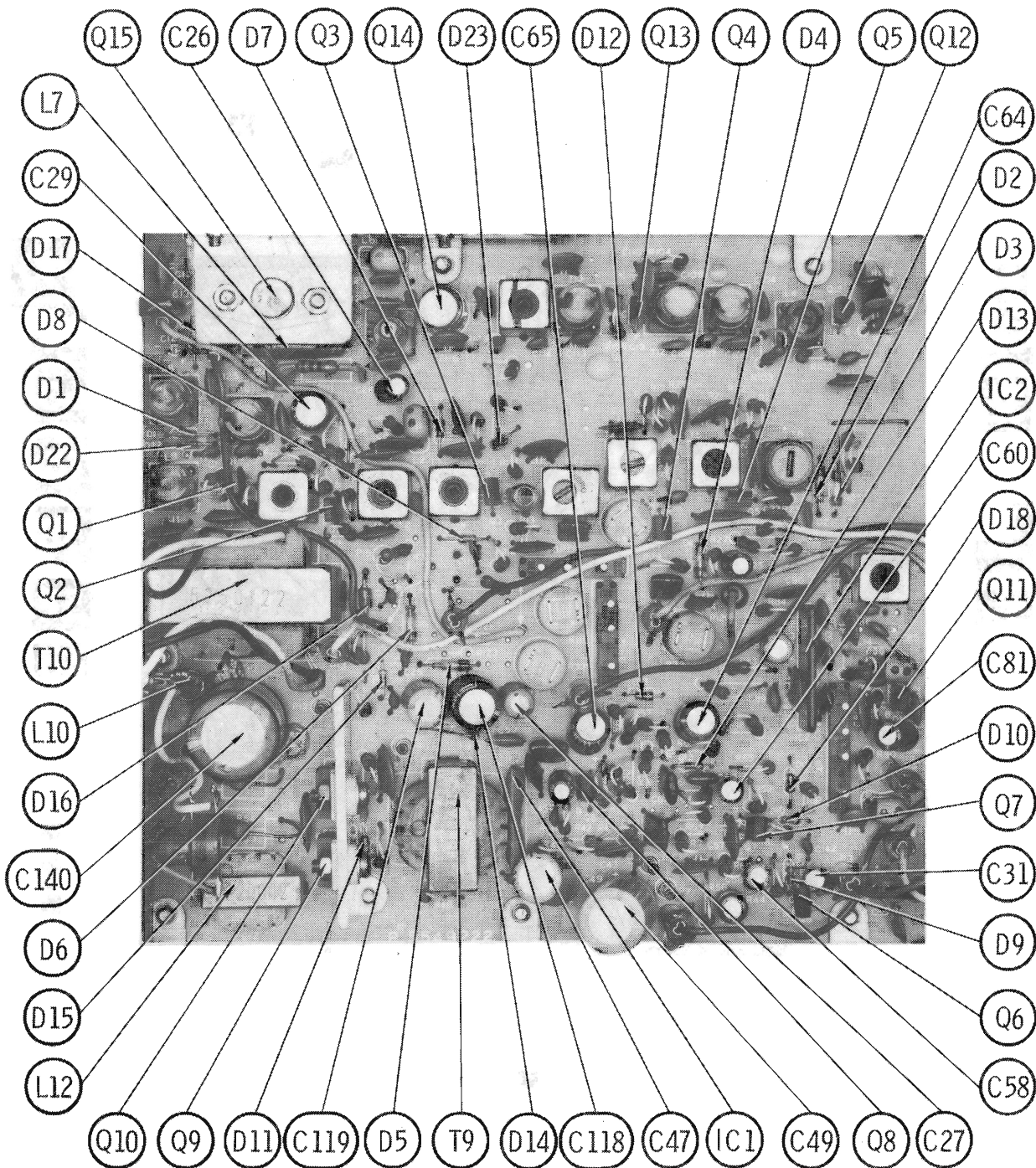


JC Penney MODEL 981-6235

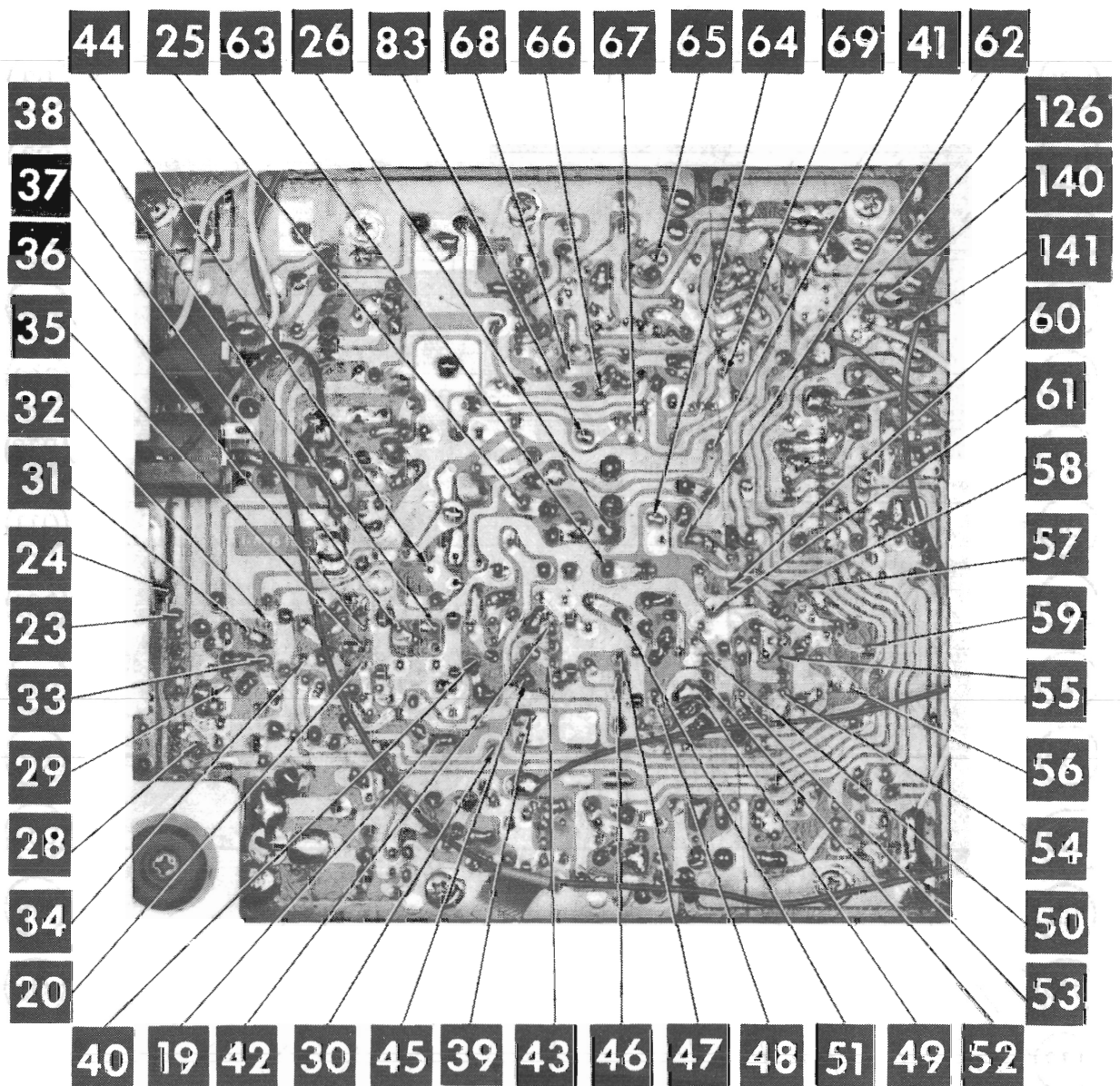
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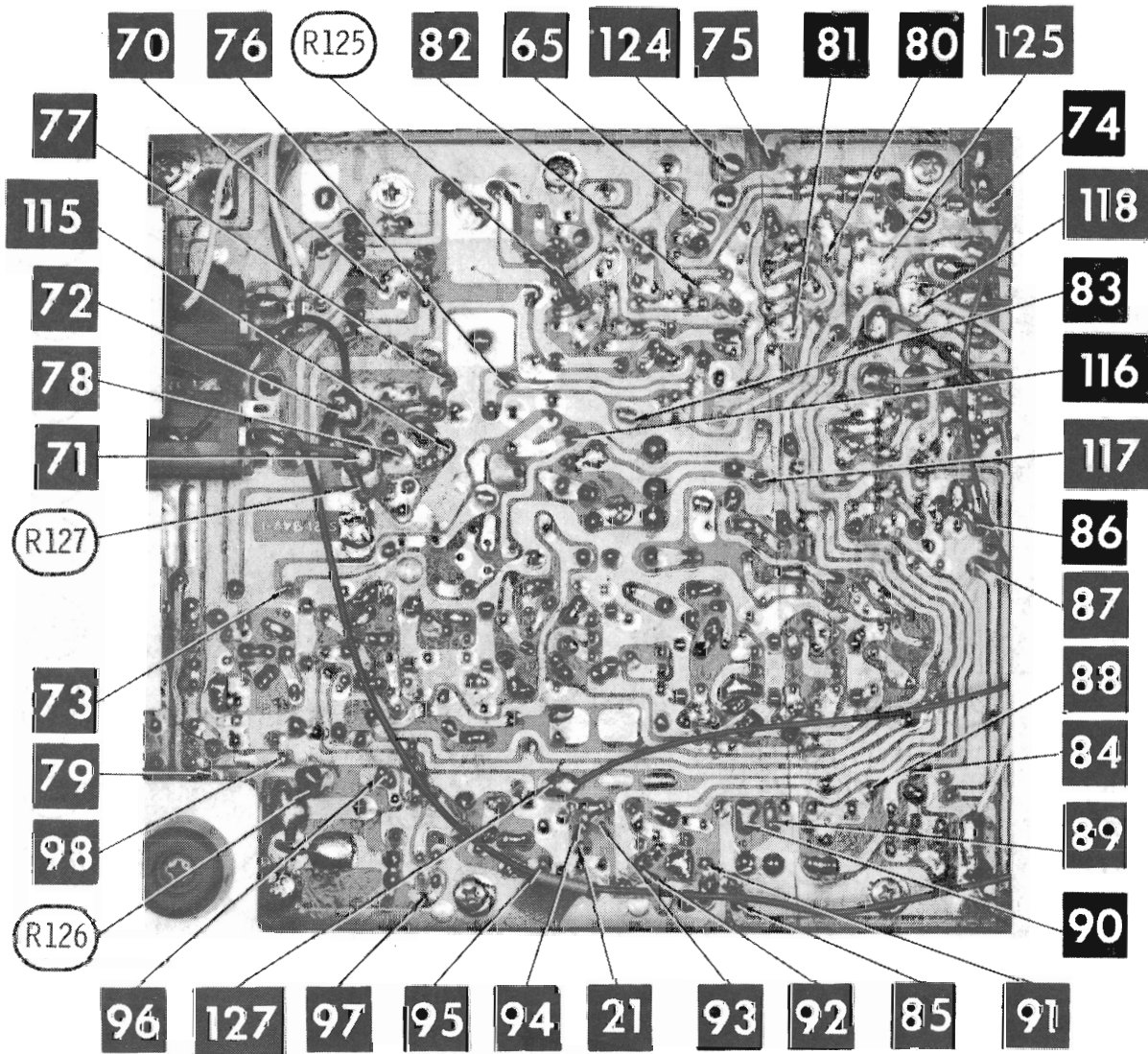
MAIN BOARD



MAIN BOARD

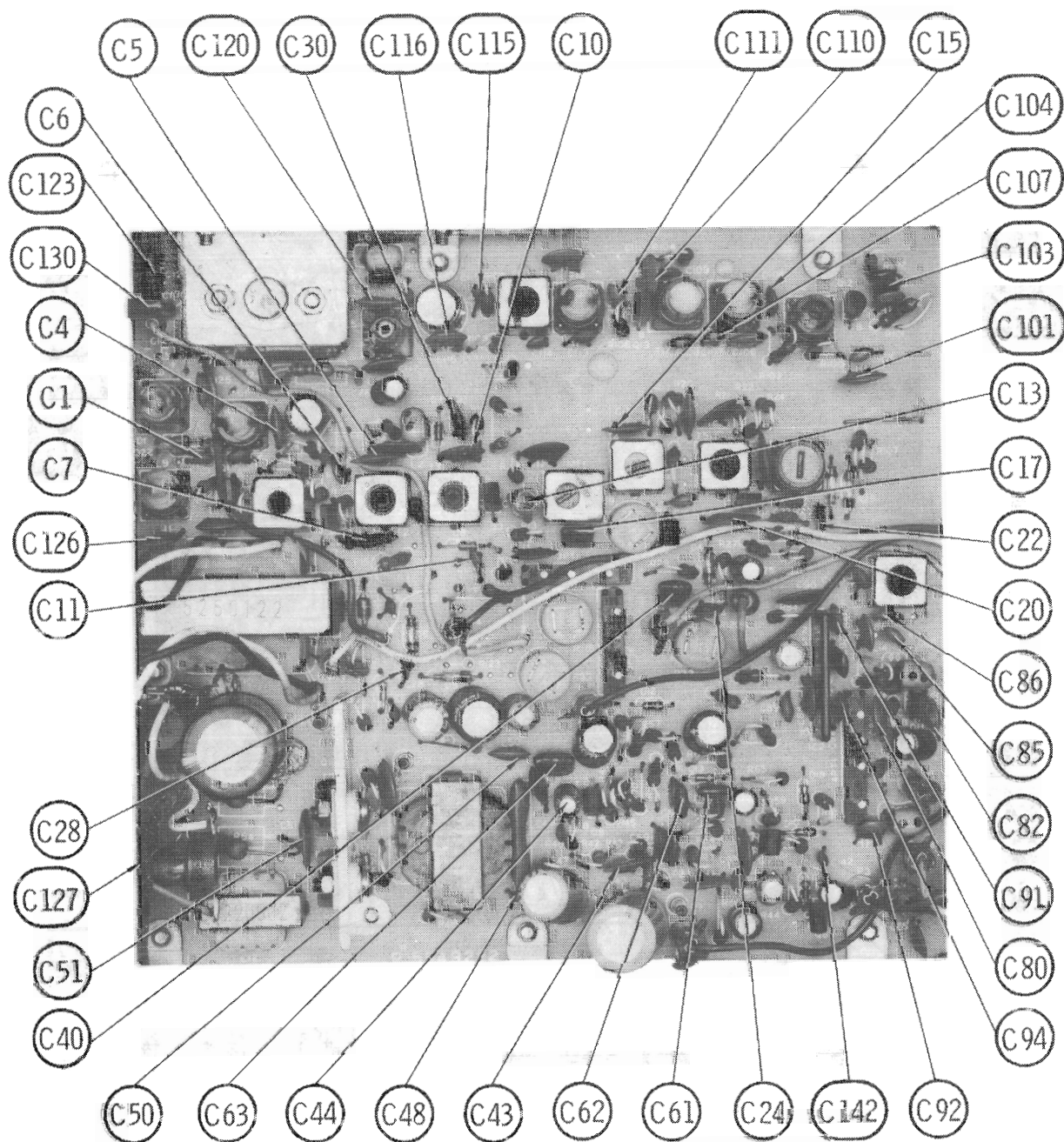


MAIN BOARD

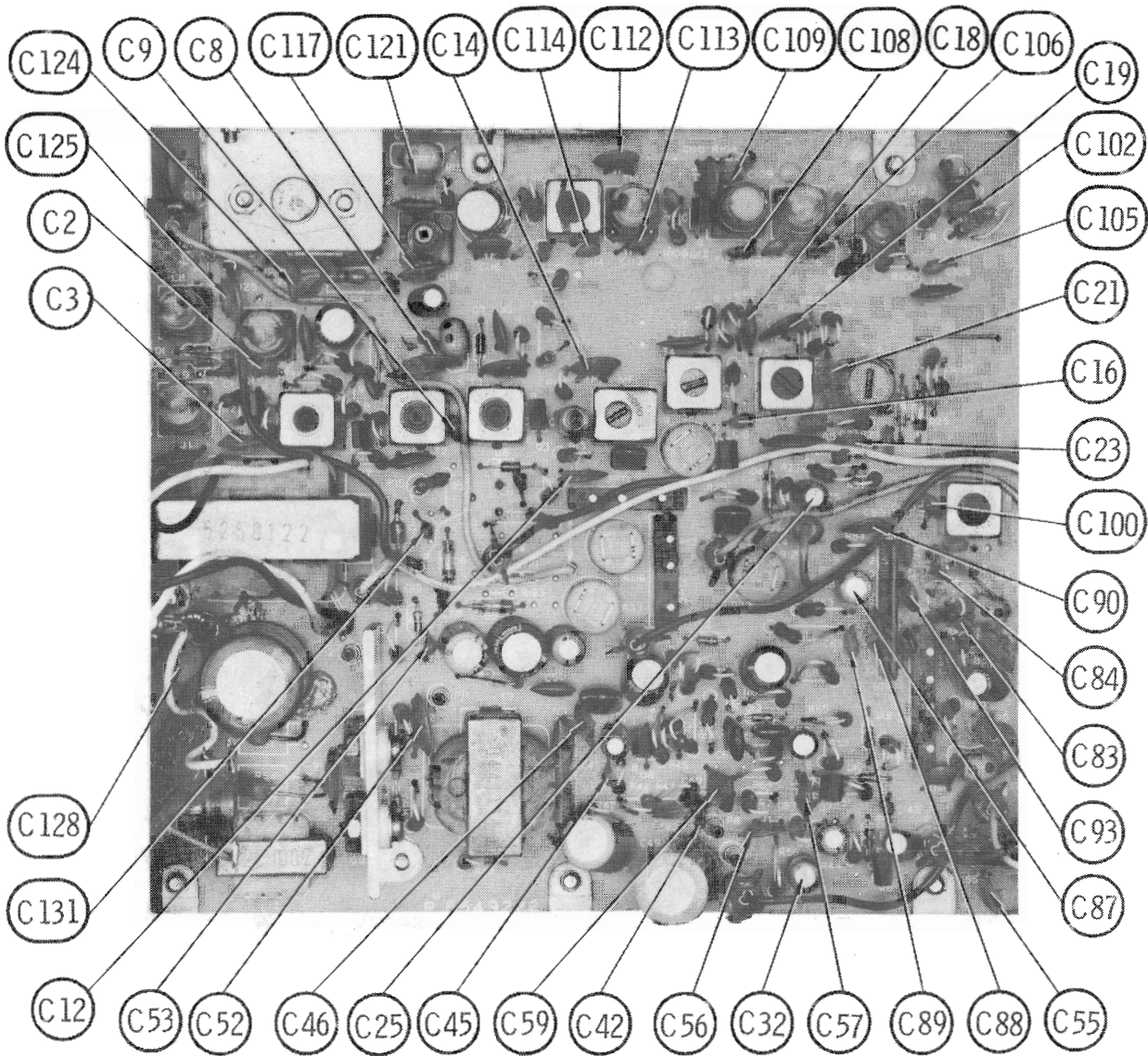


JCPenney MODEL 981-6235

MAIN BOARD

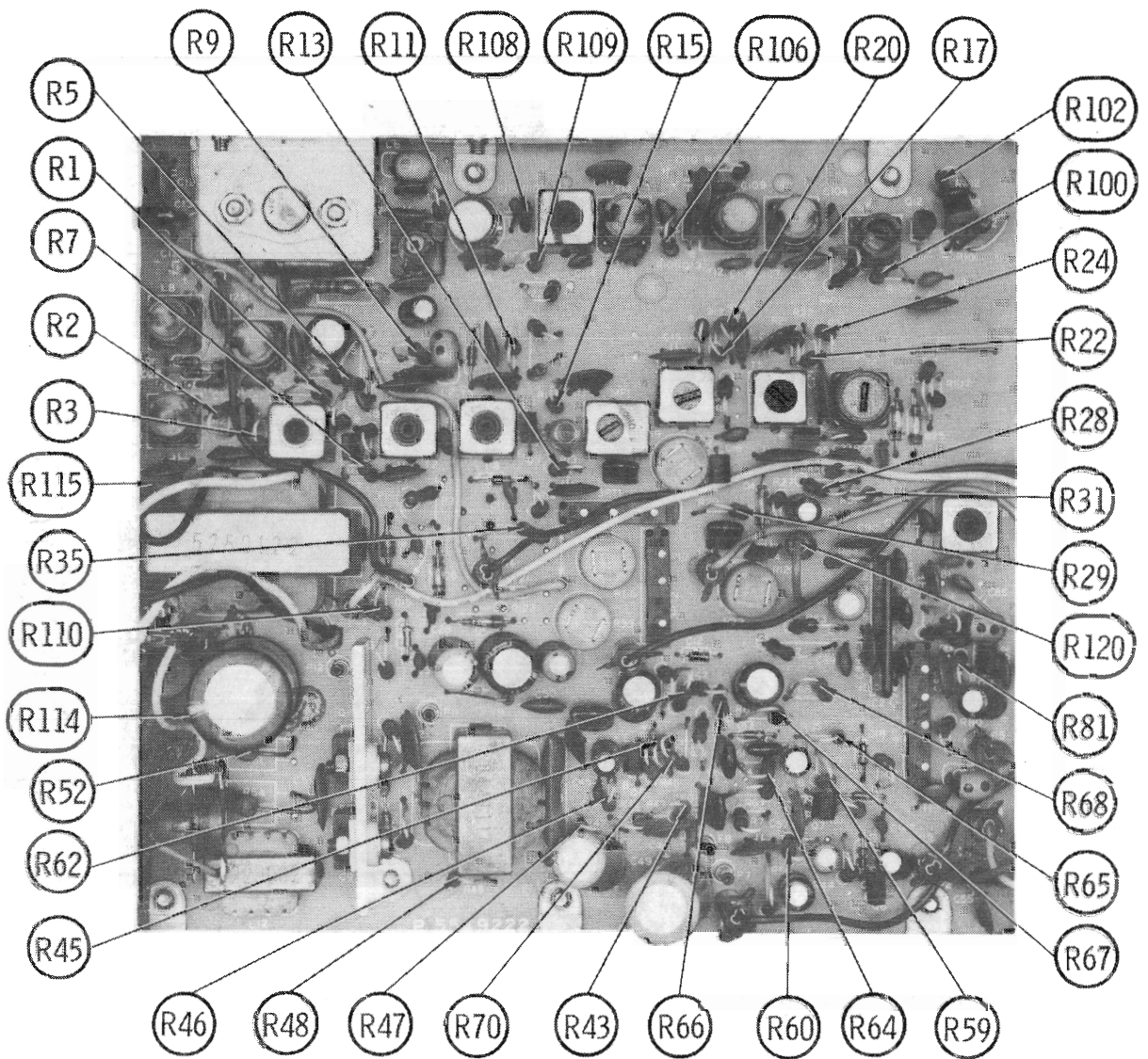


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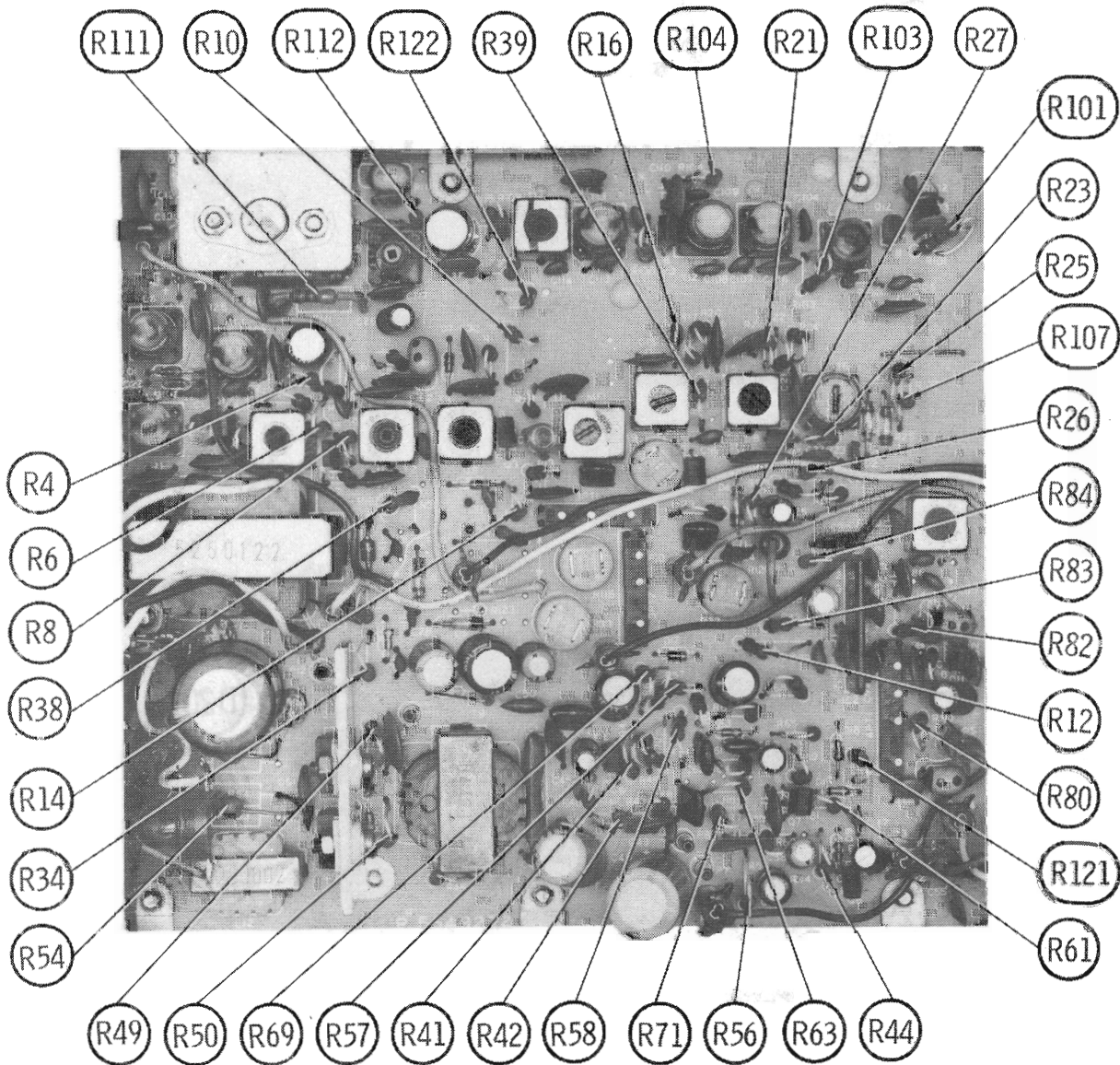


JCPenney MODEL 981-6235

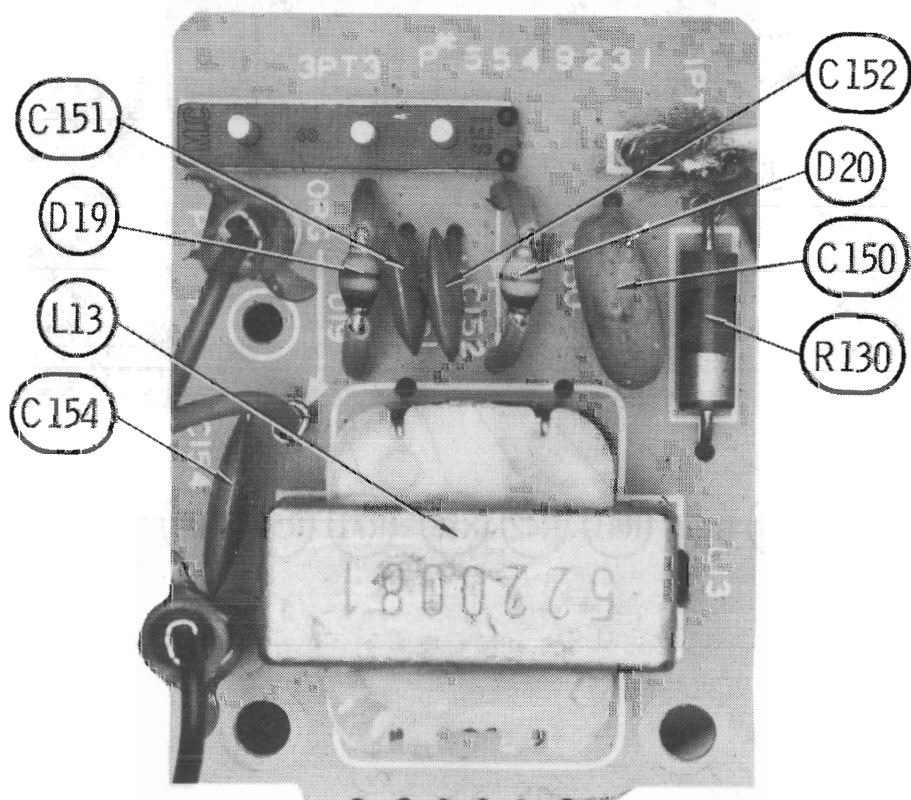
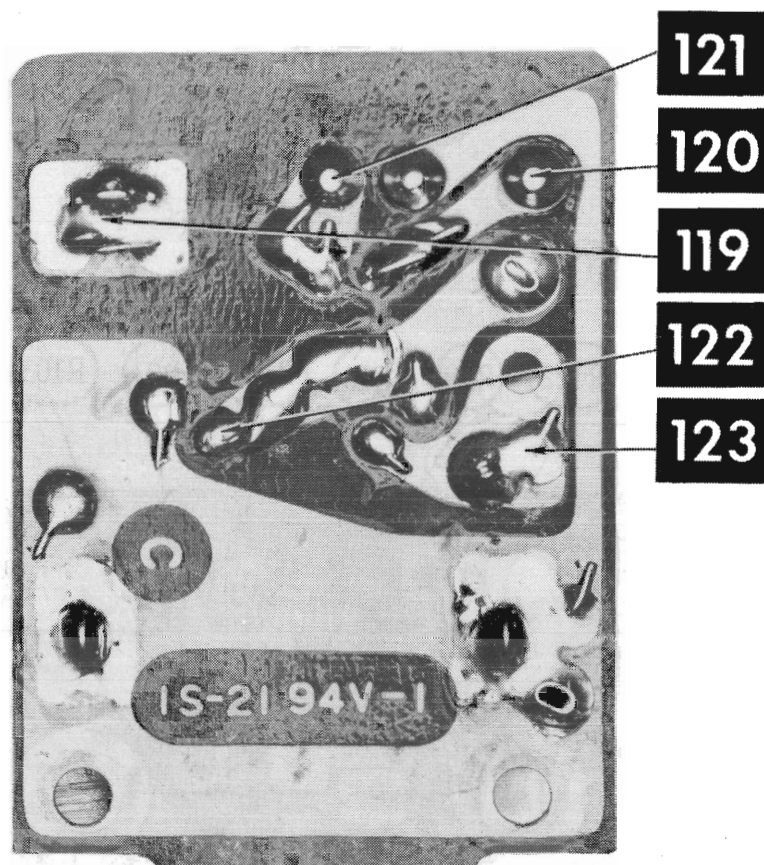
MAIN BOARD



MAIN BOARD



MAIN BOARD



AC POWER SUPPLY BOARD

PARTS LIST AND DESCRIPTION

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

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	IR WORKMAN PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D1	1S2076	5330131	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D2	1N60	0575005	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D3	1N60	0575005	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D4	1N60	0575005	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D5	1N60	0575005	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D6	1N60	0575005	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D7	HZ-9B	5330322					RE 113			ECG5073
D8	1S2076	5330131	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D9	1S2473HC	5330572	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D10	1S2473HC	5330572	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D11	1S2076	5330131	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D12	1S2473HC	5330572	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D13	1S2473HC	5330572	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D14	1N60	0575005	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D15	1S2473HC	5330572	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D16	W06A	5330341	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D17	1N60	0575005	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D18	1S2076	5330131	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D19	V03C	5330001	GE-504A	5A6D	PTC202	HEPR0054	RE 49	SK3017A	RT-215	ECG116
D20	V03C	5330001	GE-504A	5A6D	PTC202	HEPR0054	RE 49	SK3017A	RT-215	ECG116
D21	1N60	0575005	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D22	1S2076	5330131	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D23	1N60	0575005	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
IC1	FA6007(M)									
IC2	FA6007D	5353021								
Q1	2SC460C	0573487	GE-61	(1R)2SC460B	PTC101	HEPS0014	RE 10	SK3124	RT-187	ECG107
Q2	2SC460C	0573487	GE-61	(1R)2SC460B	PTC101	HEPS0014	RE 10	SK3124	RT-187	ECG107
Q3	2SC454C	0573492	GE-20	(1R)2SC454B	PTC121	HEPS0014	RE 13	SK3124	RT-187	ECG123A
Q4	2SC454C	0573492	GE-20	(1R)2SC454B	PTC121	HEPS0014	RE 13	SK3124	RT-187	ECG123A
Q5	2SC454D	0573492	GE-20	(1R)2SC454B	PTC121	HEPS0014	RE 13	SK3124	RT-187	ECG123A
Q6	2SC458D	5320064	GE-20	(1R)2SC372	PTC121	HEPS0015	RE 13	SK3124	RT-187	ECG123A
Q7	2SC458D	5320064	GE-20	(1R)2SC372	PTC121	HEPS0015	RE 13	SK3124	RT-187	ECG123A
Q8	2SC458D	5320064	GE-20	(1R)2SC372	PTC121	HEPS0015	RE 13	SK3124	RT-187	ECG123A
Q9	2SC1061TB	5320671 (10)	GE-66	TR-76	PTC137	HEPS5027	RE 21	SK3054	RT-197	ECG152
Q10	2SC1061TB	5320671 (10)	GE-66	TR-76	PTC137	HEPS5027	RE 21	SK3054	RT-197	ECG152
Q11	2SC460C	0573487	GE-61	(1R)2SC460B	PTC101	HEPS0014	RE 10	SK3124	RT-187	ECG107
Q12	2SC717	5320051	GE-86	(1R)2SC717	PTC132	HEPS0020	RE 10	SK3018	RT-107A	ECG233
Q13	2SC1213C	5320613	GE-210		PTC123	HEPS0014	RE 17	SK3122	RT-114	ECG289
Q14	2SC781	5320501 (11)	GE-219	TR-65	PTC179	HEPS3001	RE 79	SK3048	RT-182	ECG195A
Q15	2SC799	5320511 (12)	GE-46		PTC158		RE 198	SK3049	RT-182	ECG237

(1) Used in some versions.

(10) Rating, 25 watts @ 3.0 amps.

(11) Rating, 800 mw @ 1.0 amp.

(12) Rating, 10 watts @ 3.0 amp.

JCPenney MODEL 981-6235

ELECTROLYTIC CAPACITORS

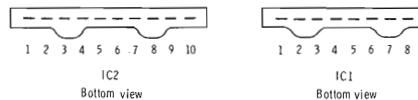
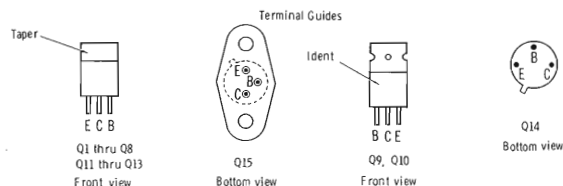
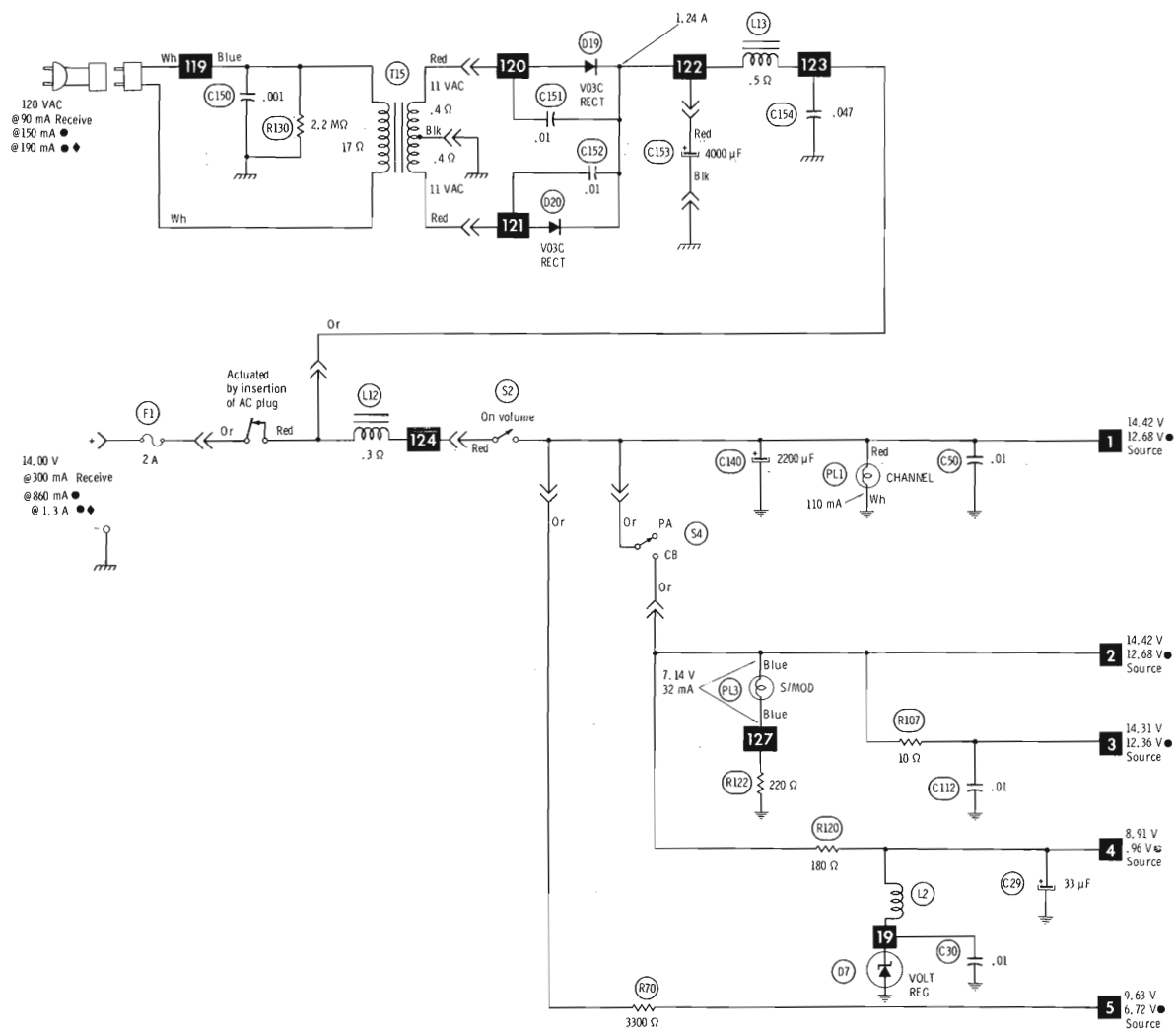
ITEM No.	RATING	REPLACEMENT DATA			
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C25	1 25V	0252611	PC1-50	TT25X1	EV-1315
C26	1 25V	0252611	PC1-50	TT25X1	EV-1315
C27	10 25V		PC10-25	VTT10A25	EV-1322
C29	33 25V	0252623	PC30-25	VTT33D25	EV-1325
C31	1 25V	0252611	PC1-50	TT25X1	EV-1315
C32	10 25V	0252621	PC10-25	VTT10A25	EV-1322
C44	1 25V	0252611	PC1-50	TT25X1	EV-1315
C47	33 16V	0252623	PC30-25	VTT33D25	EV-1325
	220 25V	0239147 (1)	PC250-25	VTT220H25	EV-1340
C49	330 25V	0252533	WBR300-35	VTT330J25	EV-1345
C58	3.3 25V	0252613	PC5-50	VTT3R3A50	EV-1318
C60	1 25V	0252611	PC1-50	TT25X1	EV-1315
C64	33 25V	0252623	PC30-25	VTT33D25	EV-1325
C65	33 25V	0252623	PC30-25	VTT33D25	EV-1325
C81	10 25V	0252621	PC10-25	VTT10A25	EV-1322
C87	10 25V	0252621	PC10-25	VTT10A25	EV-1322
C118	33 25V	0252623	PC30-25	VTT33D25	EV-1325
C119	47 16V	0252525	PC50-16	VTT47D16	EV-1226
C140	2200 25V	0256110			
C153	4000 25V	0259704			FP06.4A

(1) Used in some versions.

CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA			
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	47 10%		DTZ-47	NP047	CN0447	10TCC-Q47
C2	22 10%		DTZ-22	NP022	CN0422	10TCC-Q22
C3	.01		DC-103	MGP01	TA110	TG-S10
C4	.01		DC-103	MGP01	TA110	TG-S10
C5	.022		UK50-223		MAG5012	
C6	22 10%		DTZ-22	NP022	CN0422	10TCC-Q22
C7	.022		UK50-223		MAG5012	
C8	.022		UK50-223		MAG5012	
C9	10		DTZ-10	NP010	CN0410	10TCC-Q10
C10	.022		UK50-223		MAG5012	
C11	33		DTZ-33	NP033	CN0433	10TCC-Q33

(CONTINUED ON PAGE 58)



—*— Circuitry not used in some versions
 --- Circuitry used in some versions
 ⊕ See parts list
 * Nominal value
 ⊕ Ground
 ⊕ Chassis
 ⊕ Common tie point

Measurements with switching as shown unless noted:
 ■ Squelch fully clockwise ◆ 100% modulation
 ● Transmit

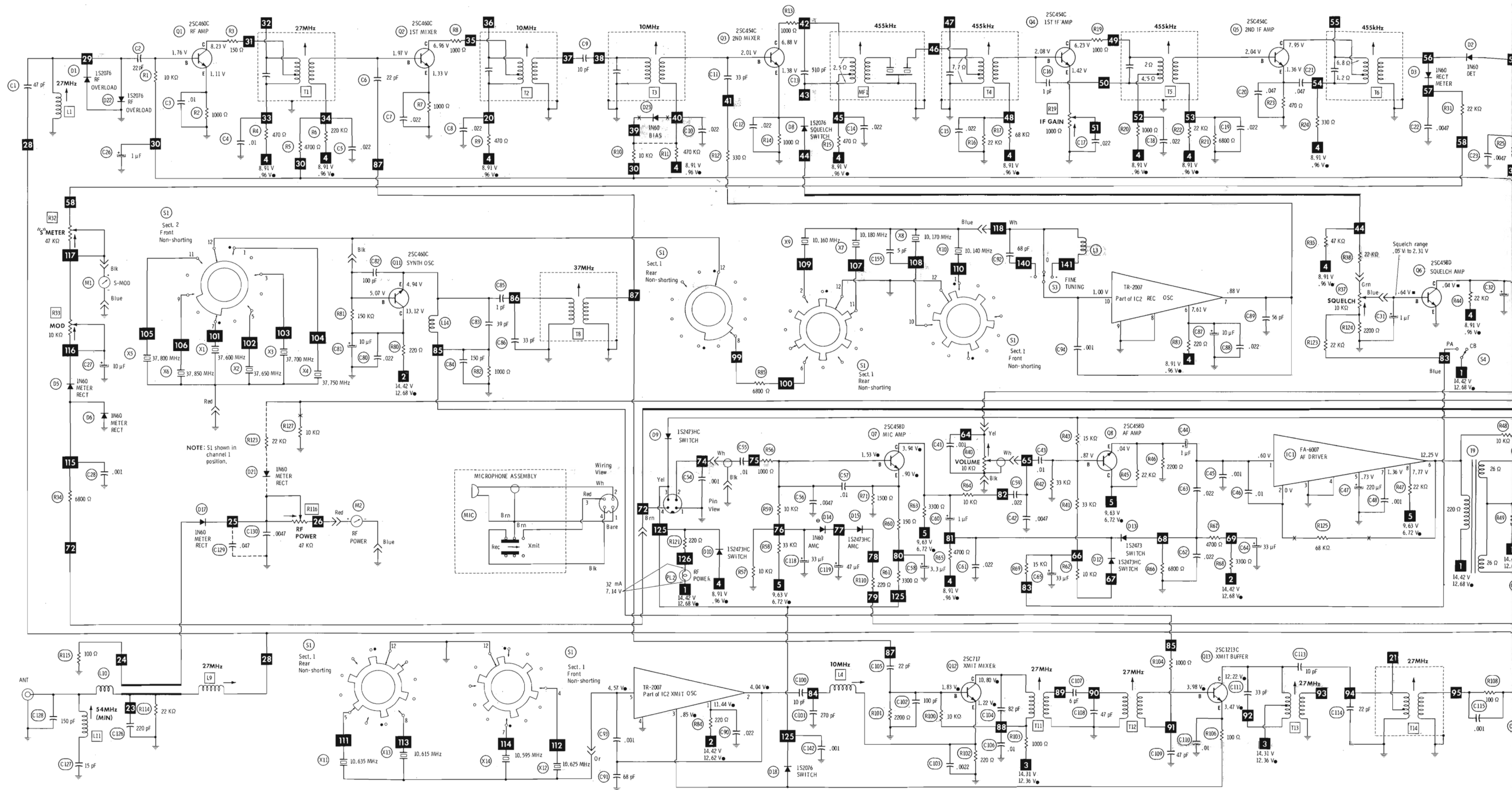
Supply voltage maintained as shown at input.
 Voltages measured with digital meter, no signal.
 Controls adjusted for normal operation.
 Arrow at control indicates direction of advance.
 Terminal identification may not be found on unit.
 Resistors are 1/2W or less, 5% unless noted.
 Value in () used in some versions.

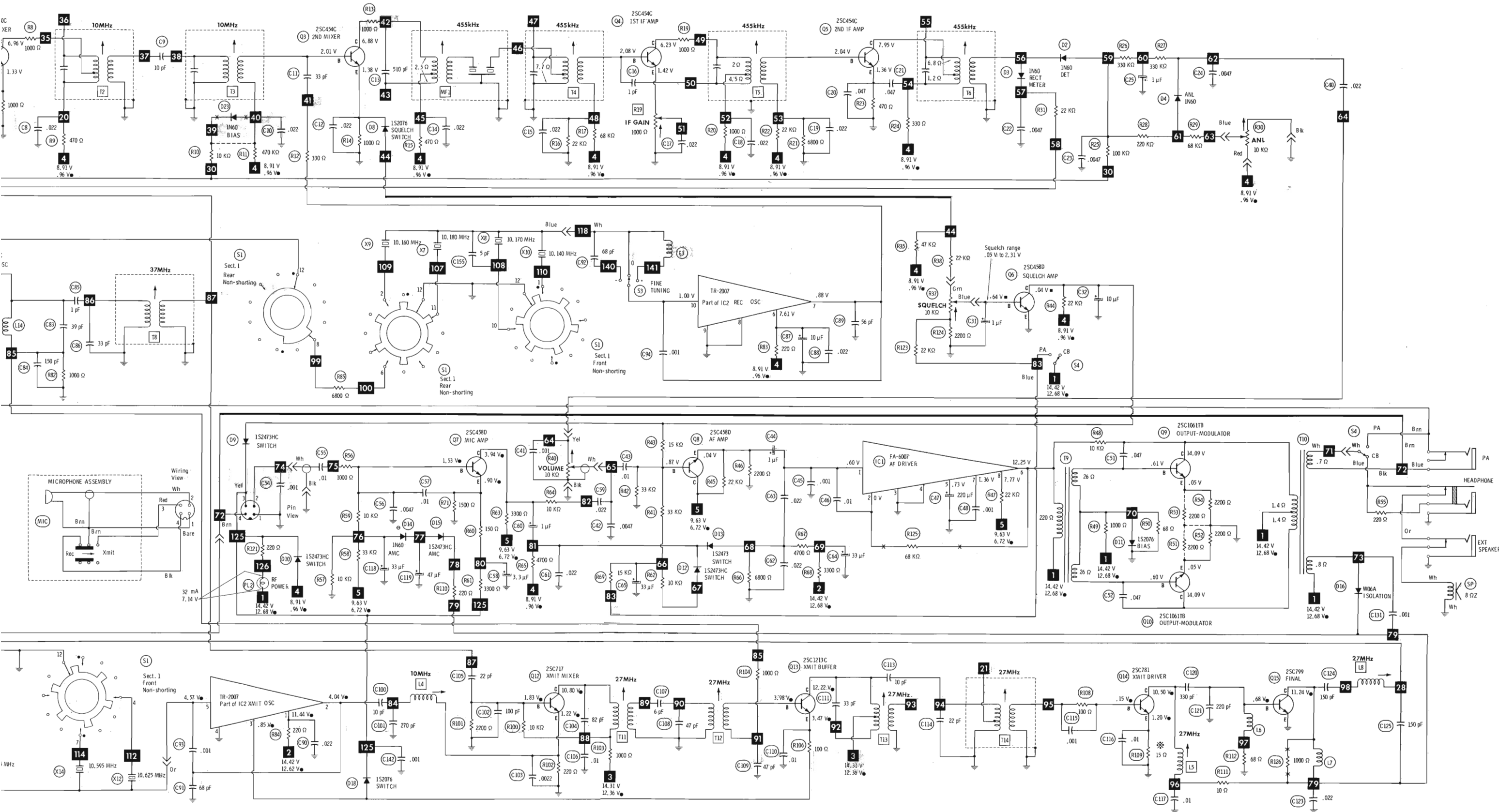
A PHOTOFAC STANDARD NOTATION SCHEMATIC

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





PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

ITEM No.	RATING	MFRG. PART No.	REPLACEMENT DATA			
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C12	.022 10%	(1)		CD15FD511J03	GP220	10TS-D20
C13	510 5%				SX351	MWA-511
C14	.022		UK50-223		MAG5012	
C15	.022		UK50-223		MAG5012	
C16	1				CN0510	10TCC-V10
C17	.022		UK50-223		MAG5012	
C18	.022		UK50-223		MAG5012	
C19	.022		UK50-223		MAG5012	
C20	.047		UK50-503		MAG5015	
C21	.047		UK50-503		MAG5015	
C22	.0047		DD-472	GP4700	GP247	5GA-D47
C23	.0047		DD-472	GP4700	GP247	5GA-D47
C24	.0047		DD-472	GP4700	GP247	5GA-D47
C28	.001		DD-102G	GP1000	GP210	5GA-D10
C30	.01		DC-103	MGP01	TA110	TG-S10
C40	.022			DPM52P22	EWFI A022	1PB-P22
C41	.001		DD-102G	GP1000	GP210	5GA-D10
C42	.0047		DD-472	GP4700	GP247	5GA-D47
C43	.01		DC-103	MGP01	TA110	TG-S10
C45	.001		DD-102G	GP1000	GP210	5GA-D10
C46	.01		DC-103	MGP01	TA110	TG-S10
C48	.001		DD-102G	GP1000	GP210	5GA-D10
C50	.01		DC-103	MGP01	TA110	TG-S10
C51	.047		UK50-503		MAG5015	
C52	.047		UK50-503		MAG5015	
C53	.001		DD-102G	GP1000	GP210	5GA-D10
C54	.001		DD-102G	GP1000	GP210	5GA-D10
C55	.022		UK50-223		MAG5012	
	.01		DC-103	MGP01	TA110	TG-S10
C56	.0047 10%				TA110	10TS-D47
C57	.01		DC-103	MGP01		TG-S10
C59	.022		UK50-223		MAG5012	
C61	.022				M192P2239R8	192P2239R8
C62	.022				M192P2239R8	192P2239R8
C63	.047			DPM52S47	EWFI A147	1PB-S47
	.022			M192P2239R8	192P2239R8	
C80	.022	UK50-223		MAG5012		
C82	100 10%	DTZ-100	NP0100		10TCC-T10	
C83	39 10%			CN0439	10TCC-Q39	
C84	150 10%	DD-151		GP315	10TS-T15	
C85	1			CN0510	10TCC-V10	
C86	33	DTZ-33	NP033	CN0433	10TCC-Q33	
C88	.022	UK50-223		MAG5012		
C89	56	DD-560		GP456	10TS-Q56	
C90	.022	UK50-223		MAG5012		
C91	68 10%	DTZ-68	NP068	CN0468	10TCC-Q68	
C92	68 10%	DTZ-68	NP068	CN0468	10TCC-Q68	
C93	.001		DPM56D1	EWFI A210	1PB-D10	
C94	.001		DPM56D1	EWFI A210	1PB-D10	
C100	10			CN0410	10TCC-Q10	
C101	270 10%	DTZ-10	NP010	GP327	10TS-T27	
C102	100 10%	DD-271	GP270		10TCC-T10	
C103	.0022	DTZ-100	NP0100	CN0310	192P2229R8	
C104	82 10%			M192P2229R8	192P2229R8	
C105	22 10%	DTZ-82	NP082	CN0482	10TCC-Q82	
C106	.01	DTZ-22	NP022	CN0422	10TCC-Q22	
C107	6	DC-103	MGP01	TA110	TG-S10	
C108	47 10%	DTZ-47	NP047	CN0447	10TCC-Q47	
C109	47 10%	DTZ-47	NP047	CN0447	10TCC-Q47	
C110	.01	DC-103	MGP01	TA110	TG-S10	
C111	33 10%	DTZ-33	NP033	CN0433	10TCC-Q33	
C112	.01	DC-103	MGP01	TA110	TG-S10	
C113	10	DTZ-10	NP010	CN0410	10TCC-Q10	
C114	22 10%	DTZ-22	NP022	CN0422	10TCC-Q22	
C115	.001	DD-102G	GP1000	GP210	5GA-D10	
C116	.01	DC-103	MGP01	TA110	TG-S10	
C117	.01	DC-103	MGP01	TA110	TG-S10	
C120	220 10%	DD-221		GP322	10TS-T22	
	330 10%	DD-331	GP330	GP333	10TS-T33	
C121	100 10%	DTZ-100	NP0100	CN0310	10TCC-T10	
	220 10%	DD-221		GP322	10TS-T22	
C123	.022	UK50-223		MAG5012		
C124	150 10%	DD-151		GP315	10TS-T15	
C125	150 10%	DD-151		GP315	10TS-T15	
C126	220 10%	DD-221		GP322	10TS-T22	
C127	15 10%	DTZ-15	NP015	CN0415	10TCC-Q15	
C128	150 10%	DD-151		GP315	10TS-T15	
C129	.047	UK50-503		MAG5015		
C130	.0047			M192P4729R8	192P4729R8	
C131	.001	DD-102G	GP1000	GP210	5GA-D10	
C142	.001	DD-102G	GP1000	GP210	5GA-D10	
C150	.001	DD-102G	GP1000	GP210	5GA-D10	
C151	.01	DC-103	MGP01	TA110	TG-S10	
C152	.01	DC-103	MGP01	TA110	TG-S10	
C154	.047	UK50-503		MAG5015		
C155	5	DTZ-4R7	NP04P7	CN0547	10TCC-V47	

(1) Used in some versions.

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.
R19	IF Gain	1000	0151883	T-1000 (4)	C-102 (4)	MTCL31L (4)	X201R102B(4)

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA				
			MFGR. Part No.	CENTRALAB Part No.	CLAROSTAT Part No.	MALLORY Part No.	TRW Part No.
R30	ANL	10K	0153449	F1-10K (1), SSK012	A47-10K-S(1), KSS-3 or [NP-10K-S(1), UP-C-400]	RU14L, SL36, SL1500 or [UA14L(1),SK750]	BU1(1), CF9, SS1,DC1
R32	S Meter	47K	0151888	T-50K (4)	C-503 (4)	MTC54L1 (4)	X201R503B (4)
R33	Mod	10K	0151886	T-10K (4)	C-103 (4)	MTC14L1 (4)	X201R103B (4)
R37	Squelch/PA Switch	10K	0153764				
R40	Volume/Power Switch	10K	5012022	F2-10K (1), SSK012, KR1	A47-10K-Z(1), KSS-3, SWE-12 or [NP-10K-Z(1), UP-C-400,NWE-12]	RU14A, SL36, SL1500,US41 or [UA14A(1),SK750(1),US6]	BU1(1),CF61, SS1,GC
R116	RF Power	47K	0151888	T-50K (4)	C-503 (4)	MTC54L1 (4)	X201R503B (4)

(1) Enlarge mounting hole.

(4) Modify terminals to fit PC board.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	RF Choke	0317196			
L2	RF Choke (12uH)	5152015			
L3	Rec Osc. (2.2uH)	5152005			
L4	Xmit Osc.	5123008			
L5	Xmit Driver (27MHz)	5123352			
L6	Xmit Driver (4.7uH)	5152009			
L7	Final Amp (2.2uH)	0318546			
L8	RF Choke	5123261			
L9	RF Choke	5123007			
L10	Ant Load (.33uH)	5150071			
L11	TVI (54MHz)	5123382	22383		
L13	RF Choke (3uH)	5220081	5220081		
L14	Synth Osc. (1uH)	5152061			
MF1	IF (455kHz)	5161022	61022/5031		
T1	Rec. RF (27MHz)	5120099	20099/5835		
T2	Rec. Mixer (10MHz)	0322341	22341/5025		
T3	Rec. Mixer (10MHz)	0322341	22341/5025		
T4	Rec. Mixer (455kHz)	5161021	XYE5/10857		
T5	IF (455kHz)	0322146	22146/5038		
T6	IF (455kHz)	5132031	5M1F/32031		
T8	Synth Osc.	5123261	23261/5625		
T11	Xmit Mixer (27MHz)	0317192			
T12	Harmonic Suppressor (27MHz)	0317193			
T13	Xmit Buffer (27MHz)	0317194			
T14	Harmonic Suppressor	0317164	17164/5735		

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.	
L12	1.3A	.3	2.7mH	5220001			

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.	
L13	1.24A	.5	1.4mH	5220081			

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T9	1.5	1		0441414	TR-643		

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T10	32	8	5250122			

PARTS LIST AND D

(When ordering parts, state Model No.)

TRANSFORMER (P

ITEM No.	RATING	
	PRI.	SEC.
T15	120V AC @ 190mA AC	22V AC 1.24A

SPEAKER

ITEM No.	TYPE
SP	3 1/2" x 5" PM

FUSE DEVICES

ITEM No.	DESCRIPTION
F1	2 Amp. Quick Acting

MICROPHONE

ITEM No.	RE	
	MFGR. PART No.	PA
MIC	5421102	18-

CRYSTALS

ITEM No.	CRYSTAL FREQUENCY IN MHz	MFGR. PART N.
X1	37.600	5780191
X2	37.650	5780192
X3	37.700	5780193
X4	37.750	5780194
X5	37.800	5780195
X6	37.850	5780196
X7	10.180	5980201

MISCELLANEOUS

ITEM No.	PART NAME
M1	Meter
M2	Meter
	Power Cord
	Power Cord
S1	Switch
S2	Switch
S3	Switch
S4	Switch

CABINETS & CAB

ITEM
Cabinet, Top
Cabinet, Bottom
Front Plate Assembly

WIRING DATA

General-use Hook-up Wire
Power Cord, 2-Wire ...
Shielded Antenna Lead
Coiled Microphone Cable
Ignition Noise Suppressor
Bonding Strap

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
R30	ANL	10K	0153449	F1-10K (1), SSK012	A47-10K-S(1), KSS-3 or [NP-10K-S(1), UP-C-400]	RU14L, SL36, SL1500 or [UA14L(1),SK750]	BU1(1), CF9, SS1,DC1
R32	S Meter Mod SqueIch/PA Switch Volume/Power Switch	47K	0151888	T-50K (4)	C-503 (4)	MTC54L1 (4)	X201R503B (4)
R33		10K	0151886	T-10K (4)	C-103 (4)	MTC14L1 (4)	X201R103B (4)
R37		10K	0153764				
R40		10K	5012022	F2-10K (1), SSK012, KR1	A47-10K-Z(1), KSS-3, SWE-12 or [NP-10K-Z(1), UP-C-400,NWE-12]	RU14A, SL36, SL1500,U541 or [UA14A(1),SK750(1),US26]	BU1(1),CF61, SS1,6C
R116	RF Power	47K	0151888	T-50K (4)	C-503 (4)	MTC54L1 (4)	X201R503B (4)
(1) Enlarge mounting hole. (4) Modify terminals to fit PC board.							

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	RF Choke	0317196			
L2	RF Choke (12uH)	5152015			
L3	Rec Osc. (2.2uH)	5152005			
L4	Xmit Osc.	5123008			
L5	Xmit Driver (27MHz)	5123352			
L6	Xmit Driver (4.7uH)	5152009			
L7	Final Amp (2.2uH)	0318546			
L8	RF Choke	5123261			
L9	RF Choke	5123007			
L10	Ant Load (.33uH)	5150071			
L11	TVI (54MHz)	5123382	22383		
L13	RF Choke (3uH)	5220081	5220081		
L14	Synth Osc. (1uH)	5152061			
MF1	IF (455kHz)	5161022	61022/5031		
T1	Rec. RF (27MHz)	5120099	20099/5835		
T2	Rec. Mixer (10MHz)	0322341	22341/5025		
T3	Rec. Mixer (10MHz)	0322341	22341/5025		
T4	Rec. Mixer (455kHz)	5161021	XYE5/10857		
T5	IF (455kHz)	0322146	22146/50JB		
T6	IF (455kHz)	5132031	5N1F/32031		
T8	Synth Osc.	5123261	23261/5625		
T11	Xmit Mixer (27MHz)	0317192			
T12	Harmonic Suppressor (27MHz)	0317193			
T13	Xmit Buffer (27MHz)	0317194			
T14	Harmonic Suppressor	0317164	17164/5735		

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.	
L12	1.3A	.3	2.7mH	5220001			

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.	
L13	1.24A	.5	1.4mH	5220081			

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T9	1.5	1		0441414	TR-643		

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T10	32	8	5250122			

PARTS LIST AND DESCRIPTION (CONTINUED)

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

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T15	120V AC @ 190mA AC	22V AC @ 1.24A DC	5211103			

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3 1/2" x 5" PM 8 ohms	5410712	35A05Z8	

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA					
		PART No.		BUSS PART No.		LITTELFUSE PART No.	
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER
F1	2 Amp. Quick Acting		5748101	AGC2	HDJ	312002	150-145

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	5421102	18-032	18-034	18-010	18-092	2	1	3	4	NC	1

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	37.600	5780191	DA20W37.600	1,2,3,4	X8	10.170	5780202	DC90W10.170	2,6,10,14,18,22
X2	37.650	5780192	DA20W37.650	5,6,7,8	X9	10.160	5780203	DC90W10.160	3,7,11,15,19
X3	37.700	5780193	DA20W37.700	9,10,11,12	X10	10.140	5780204	DC90W10.140	4,8,12,16,20,23
X4	37.750	5780194	DA20W37.750	13,14,15,16	X11	10.635	5780205	DB90W10.635	1,5,9,13,17,21
X5	37.800	5780195	DA20W37.800	17,18,19,20	X12	10.625	5780206	DB90W10.625	2,6,10,14,18,22
X6	37.850	5780196	DA20W37.850	21,22,23	X13	10.615	5780207	DB90W10.615	3,7,11,15,19
X7	10.180	5980201	DC90W10.180	1,5,9,13,17,21	X14	10.595	5780208	DB90W10.595	4,8,12,16,20,23

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
M1	Meter	5554033	S/Mod
M2	Meter	5554034	RF/Power
	Power Cord	5747161	AC
	Power Cord	5748101	DC
S1	Switch	5610661	Channel Selector
S2	Switch		On/Off (Part of Volume)
S3	Switch		Fine Tuning
S4	Switch	0531175	PA/CB (Part of SqueIch)

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

ITEM	PART No.	ITEM	PART No.
Cabinet, Top	7189156	Knob, Control	6286012
Cabinet, Bottom	7189032	Knob, Channel Selector	6286091
Front Plate Assembly	6625041		

WIRING DATA

General-use Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors 8524 (Stranded) Available in 12 Colors
Power Cord, 2-Wire	Use BELDEN No. 17106 (Plastic) or 17126 (Rubber) -6 feet 17109 (Plastic) or 17129 (Rubber) -9 feet
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 8491 4-Conductor (2 shielded, 2 unshielded) Neoprene
Ignition Noise Suppression	Use BELDEN No. 7300-Series Spark-Plug Sets
Bonding Strap	Use BELDEN No. 8661 (3/8 inch)