



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.



GM MODEL CBD-10

MODEL CBD-10 (7898530)

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

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ALIGNMENT INSTRUCTIONS

CAUTION: Use isolation transformer or observe polarity when connecting test equipment. Maintain line voltage at 120V AC. Allow a 15-minute warm-up period.
Adjustments made with 13.8-volt DC input.
Connect low sides of test equipment to ground unless specified otherwise.
Connect 50-ohm dummy load or antenna before keying transmitter.
Suggested Alignment Tools: GC ELECTRONICS:
L112, T106, T107, T108, T1098728
L106, L109, L1109296,9297,9300
L103,L104,T101,T102,T103,T104,T105,T111.9440

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to Q117 emitter.	Ch. 13		Check for 10.2392MHz <u>+0.4kHz.</u>
Input of frequency counter to Q108 base.	Ch. 1, Delta Tune -center position.	CT101	Adjust for 37.659200MHz
Input of VTVM to TP8.	Ch. 1	T101	Adjust for 1.5V <u>+.01</u> volt.
Input of RF VTVM to Q115 base.	Ch. 13	T111	Adjust for maximum.
Input of frequency counter to Q109 emitter.	Ch. 13,Xmit		Check for 10.6942MHz <u>+0.4kHz.</u>

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 Q116 emitter. 455kHz, 1000Hz @ 30% modulation.	Ch. 13	T109,T108, T107	Adjust for maximum output.
Output of signal generator thru .01uF to Q115 base. 10.694200MHz, 1000Hz @ 30% modulation.	Ch. 13	T106, L112	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation.	Ch. 13 Delta Tune - center position	T105, T104	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	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation. Output 500uV.	Ch. 13, Delta Tune - center position.	RV101	<u>SQUELCH RANGE</u> Set squelch control VR2 fully clockwise. Adjust VR101 so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.115MHz @ 30% modulation. Output 100uV.	Ch. 13	RV103	<u>S METER</u> Adjust for 9 on S scale of meter.

TRANSMITTER ALIGNMENT

Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.
Be sure to check transmit frequency and power on all active channels after alignment of transmitter.

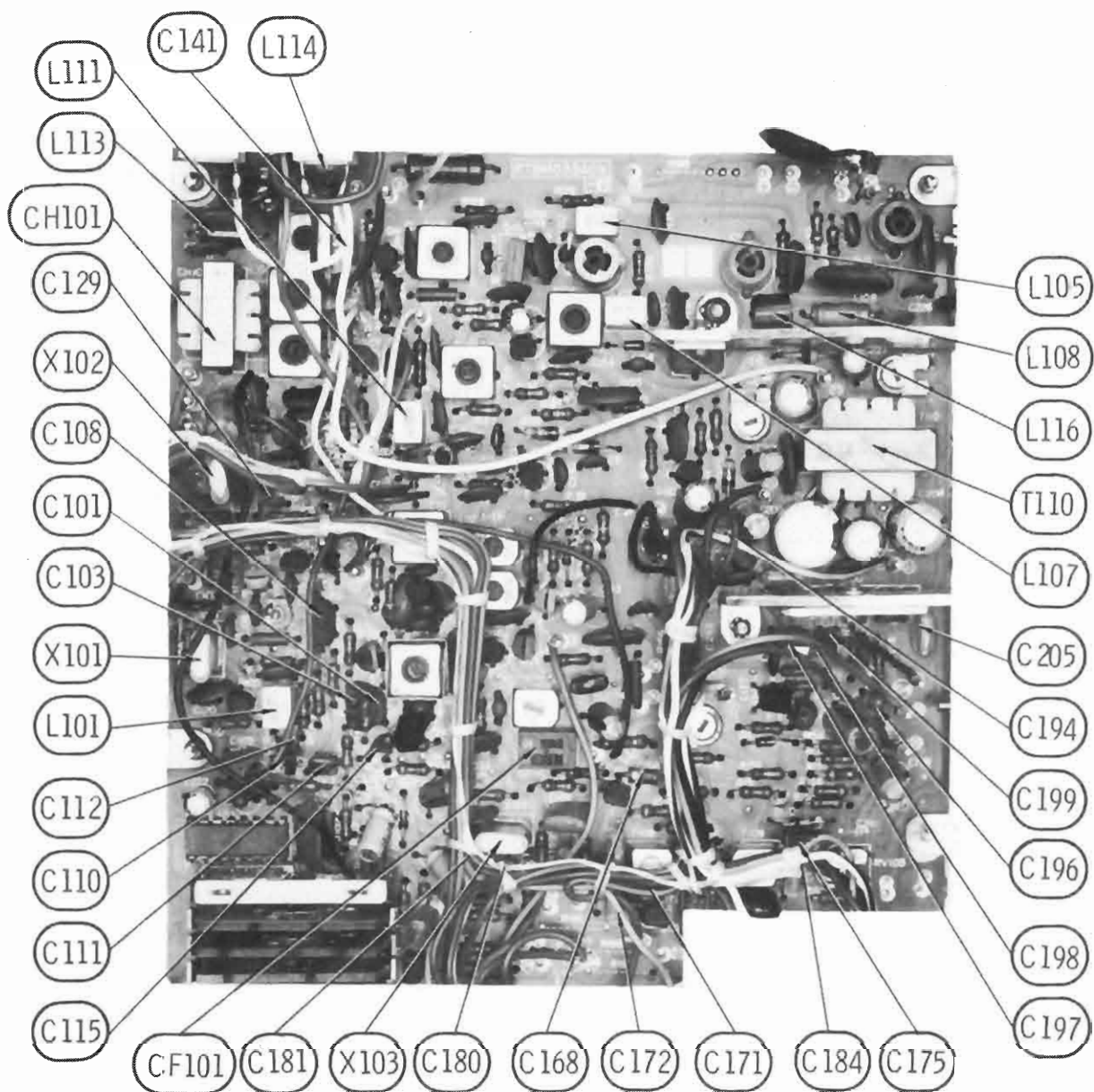
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
	Ch. 13	L103, L104, T102, T103, L106, L109, L110	Adjust for maximum output.
	Ch. 13	L110, L109	Adjust for 4 watts maximum.

TRANSMITTER ADJUSTMENTS

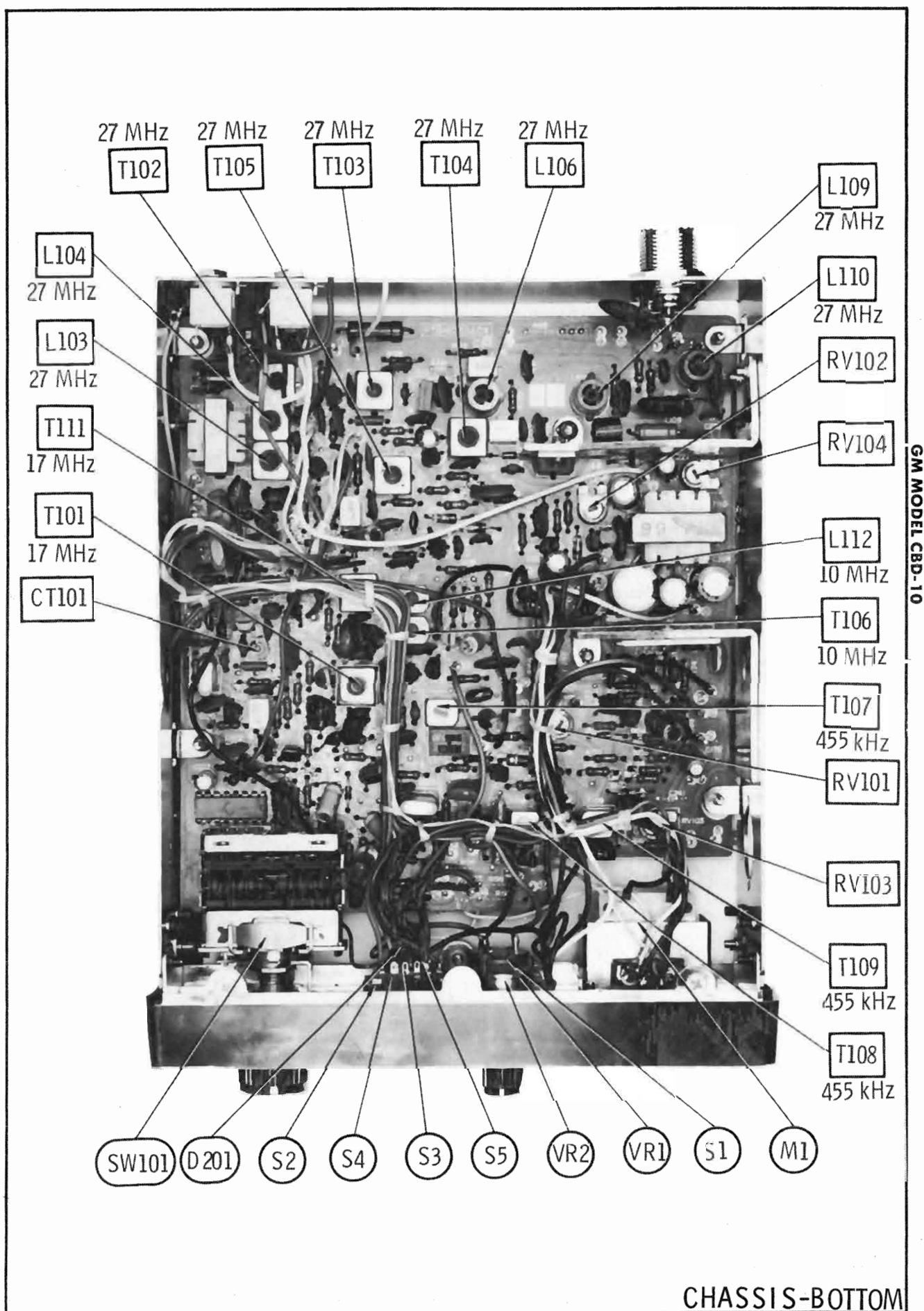
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.
Be sure to check transmit frequency and power on all active channels after adjustments of transmitter.

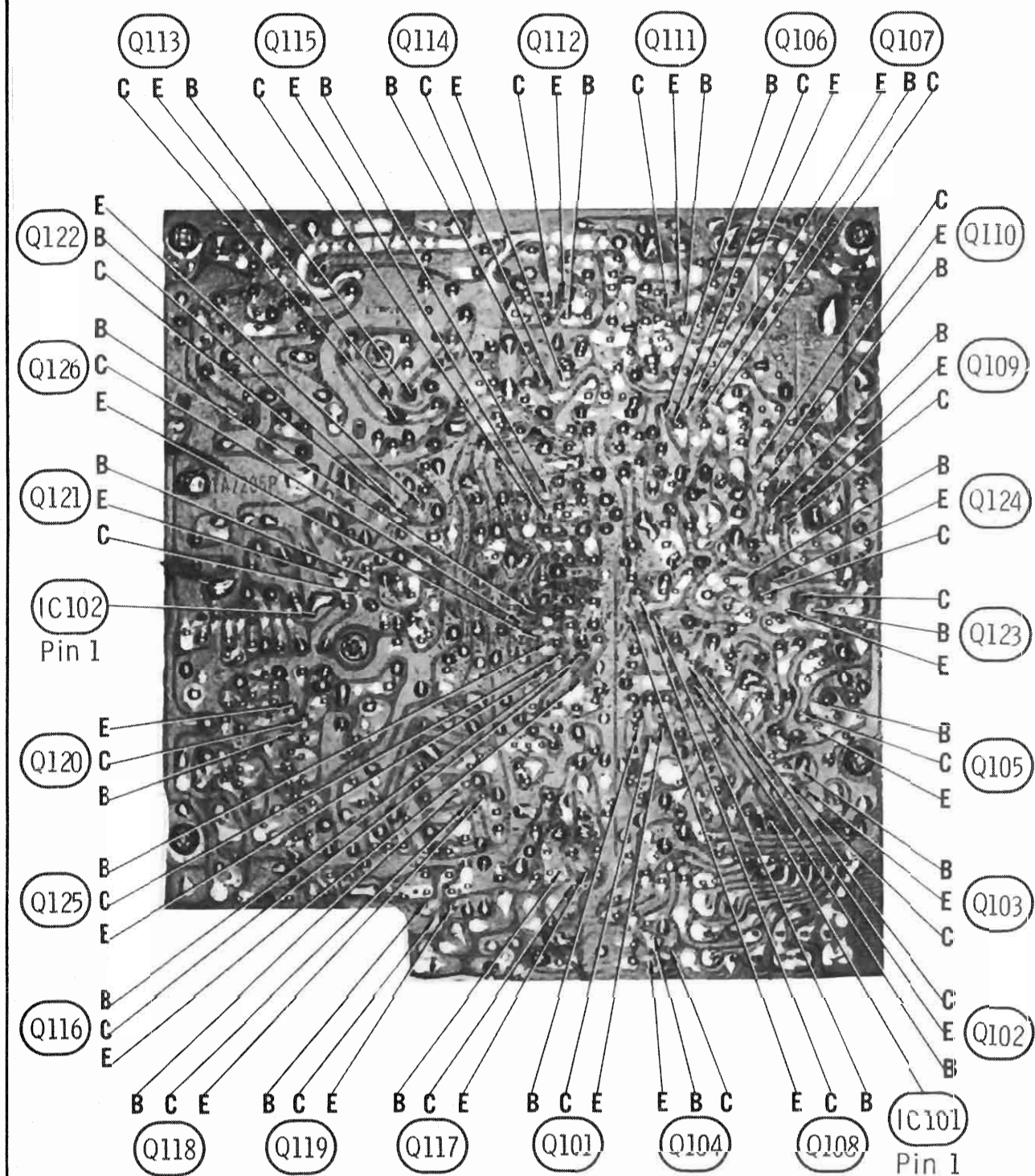
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Modulation meter to antenna jack. Inject a 1000Hz signal at MIC input.	Ch. 13	RV102	<u>AMC</u> Disconnect C209 to disable AMC. Adjust signal for over-modulation. Restore AMC operation. Adjust RV102 for 100% modulation maximum.
	Ch. 13	RV104	<u>RF PANEL METER</u> Adjust RV104 so that panel RF meter agrees with RF wattmeter.

GM MODEL CBD-10

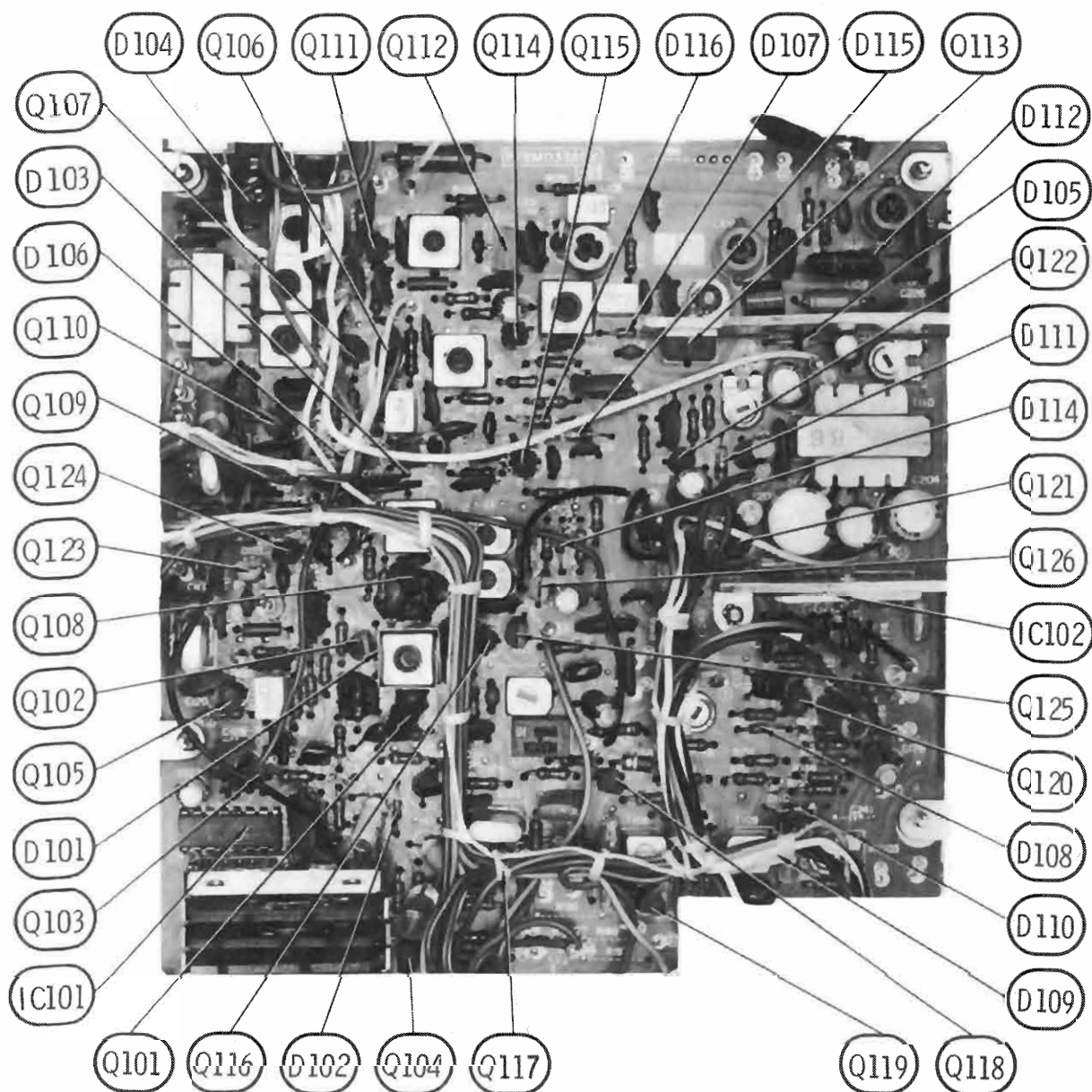


MAIN BOARD

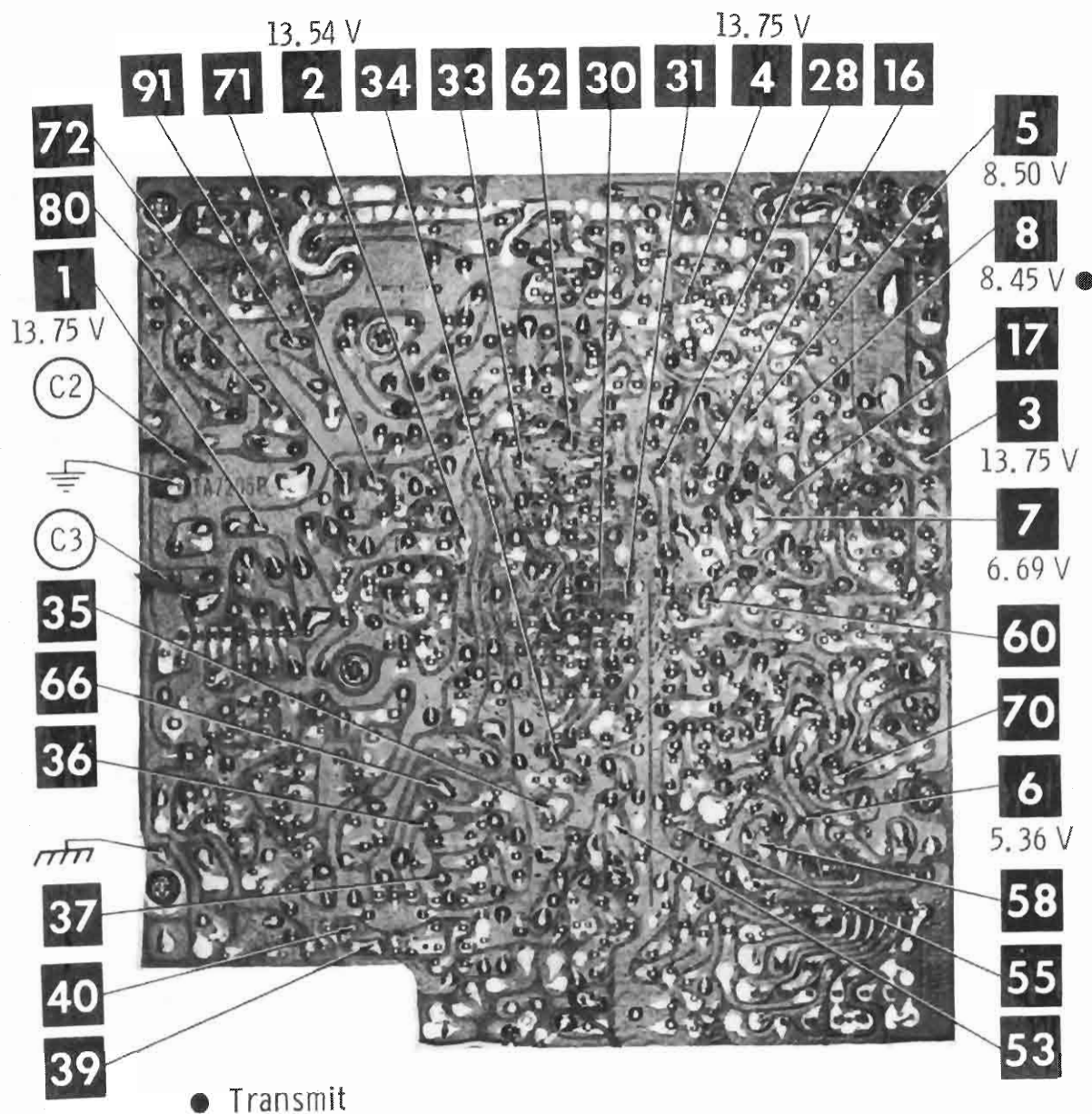




MAIN BOARD

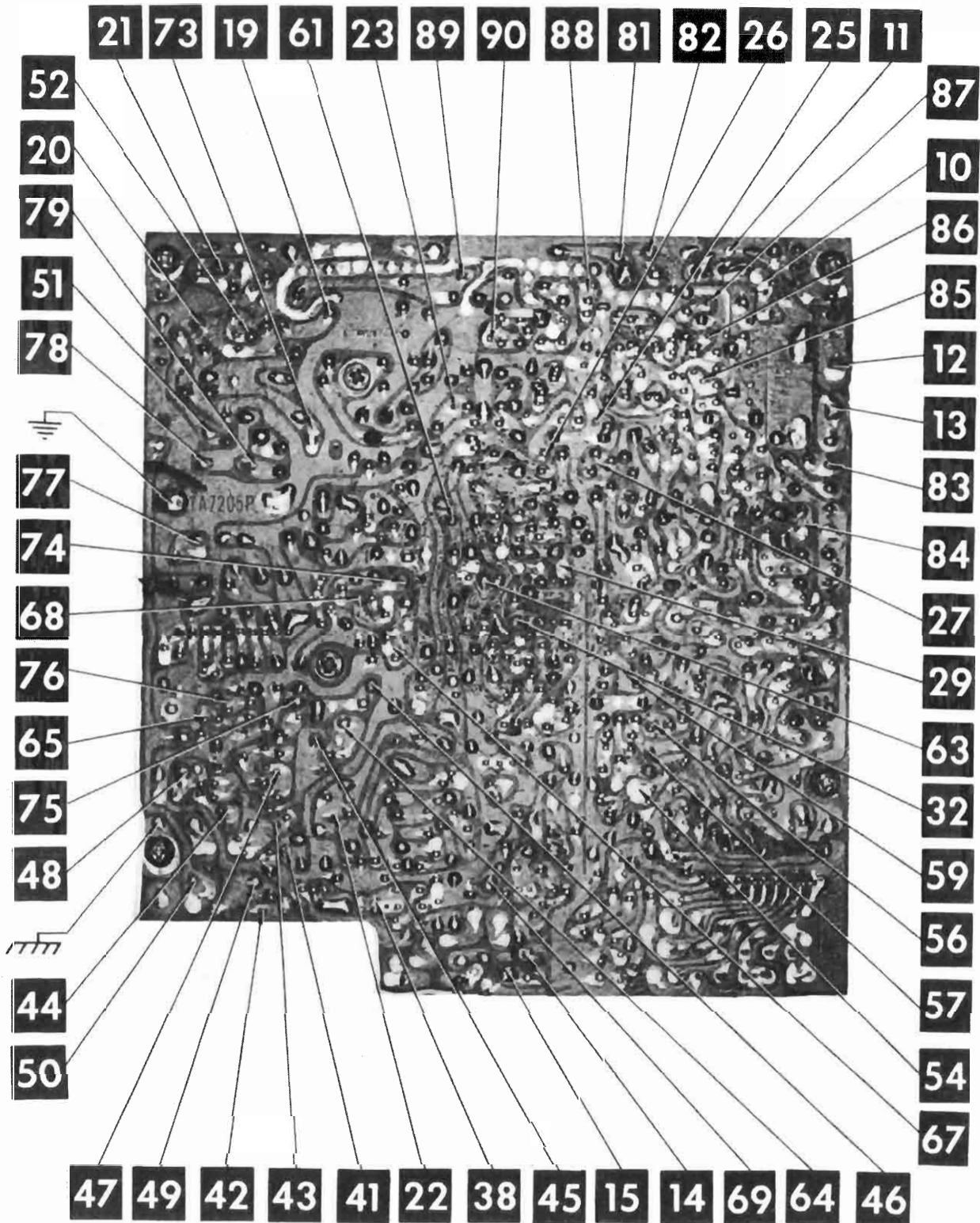


MAIN BOARD

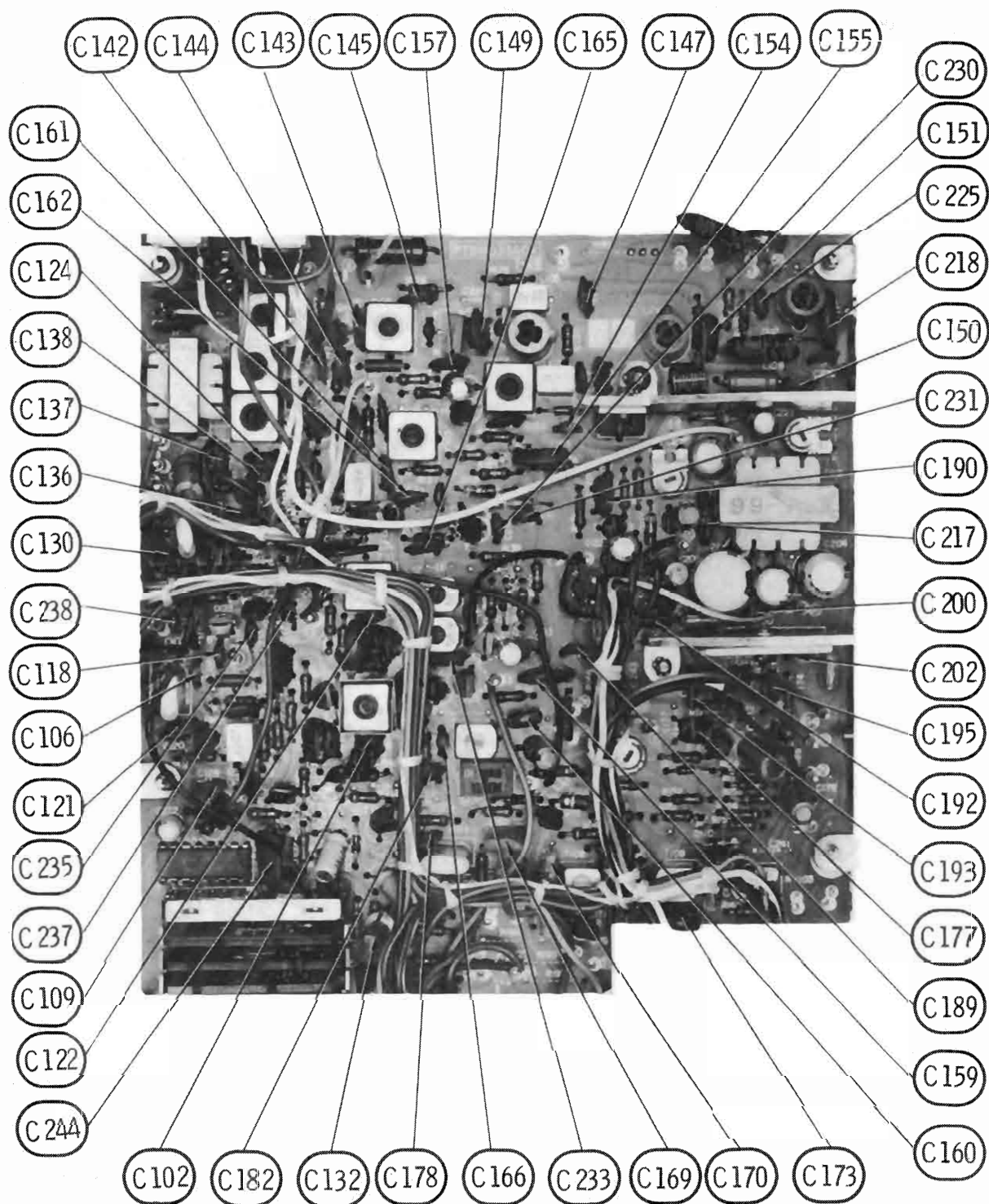


MAIN BOARD

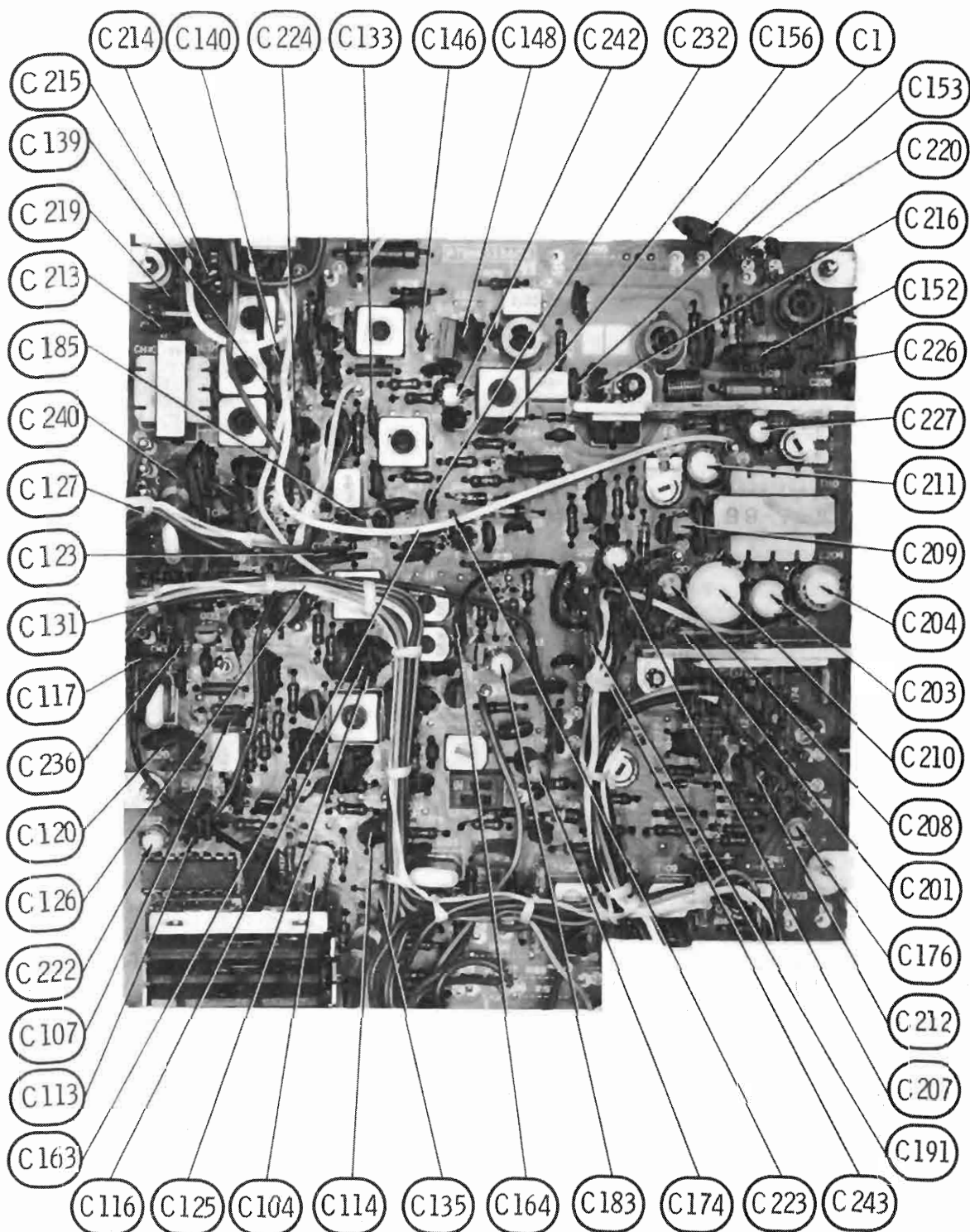
GM MODEL CBD-10



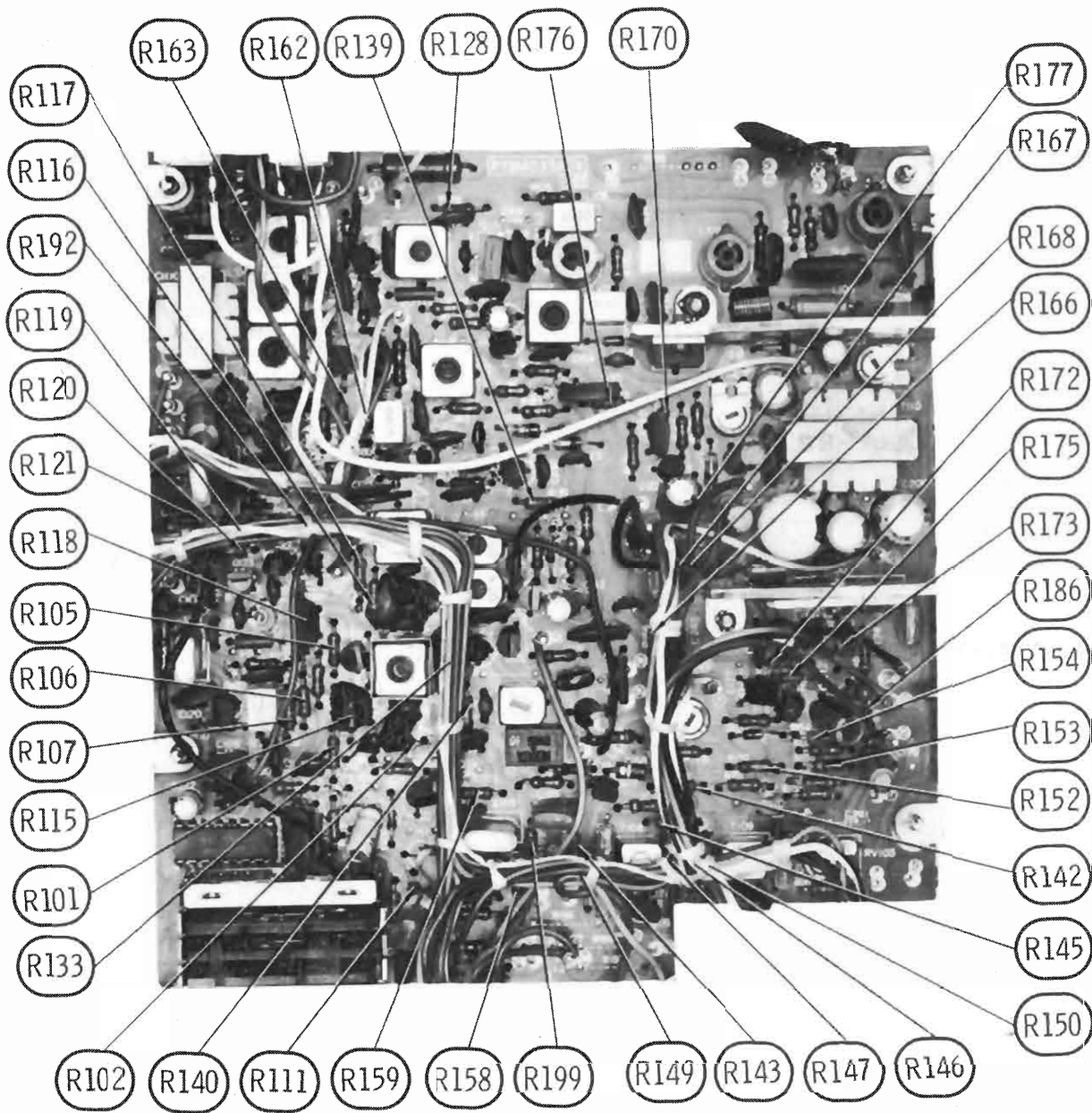
MAIN BOARD



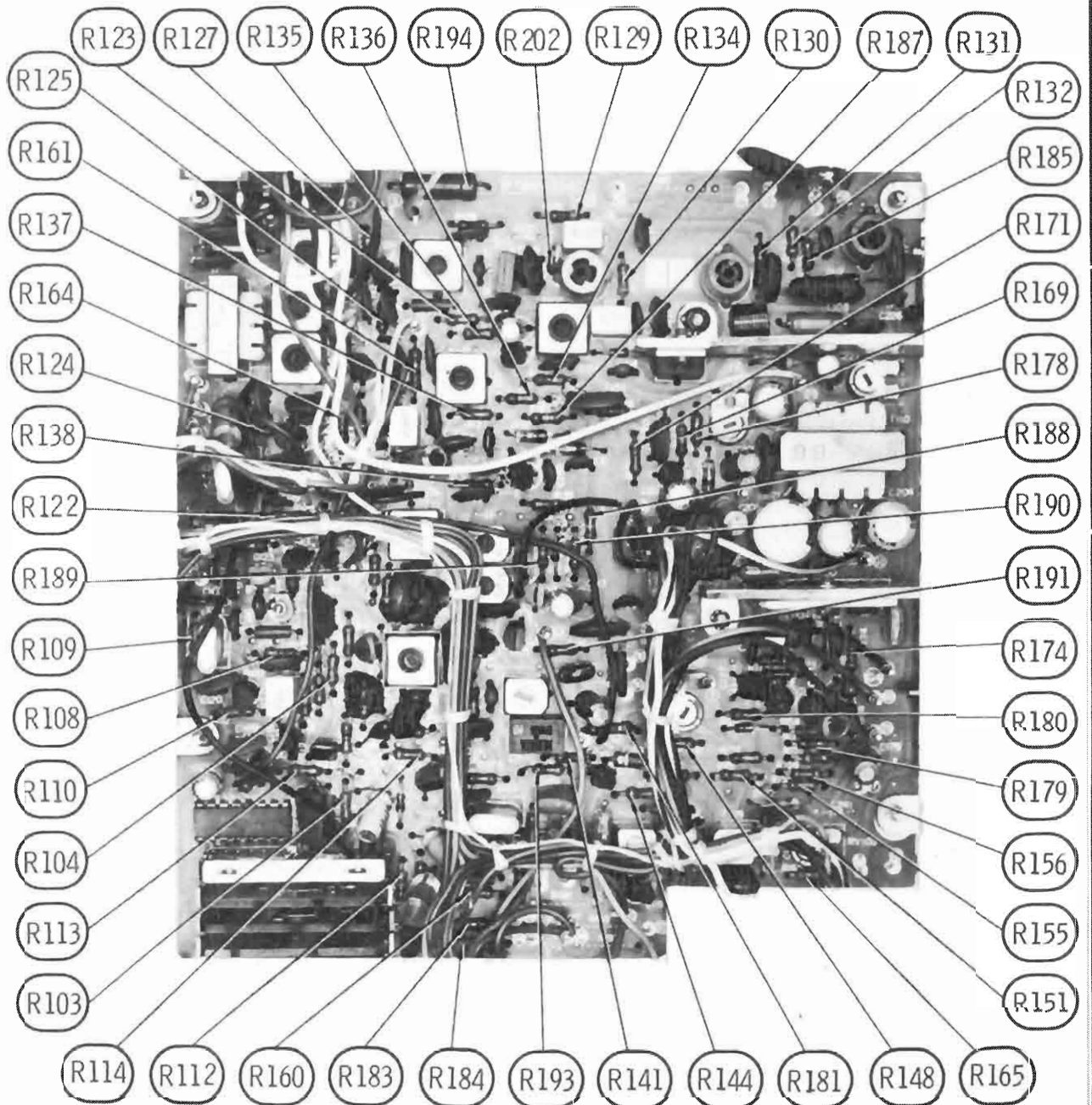
MAIN BOARD



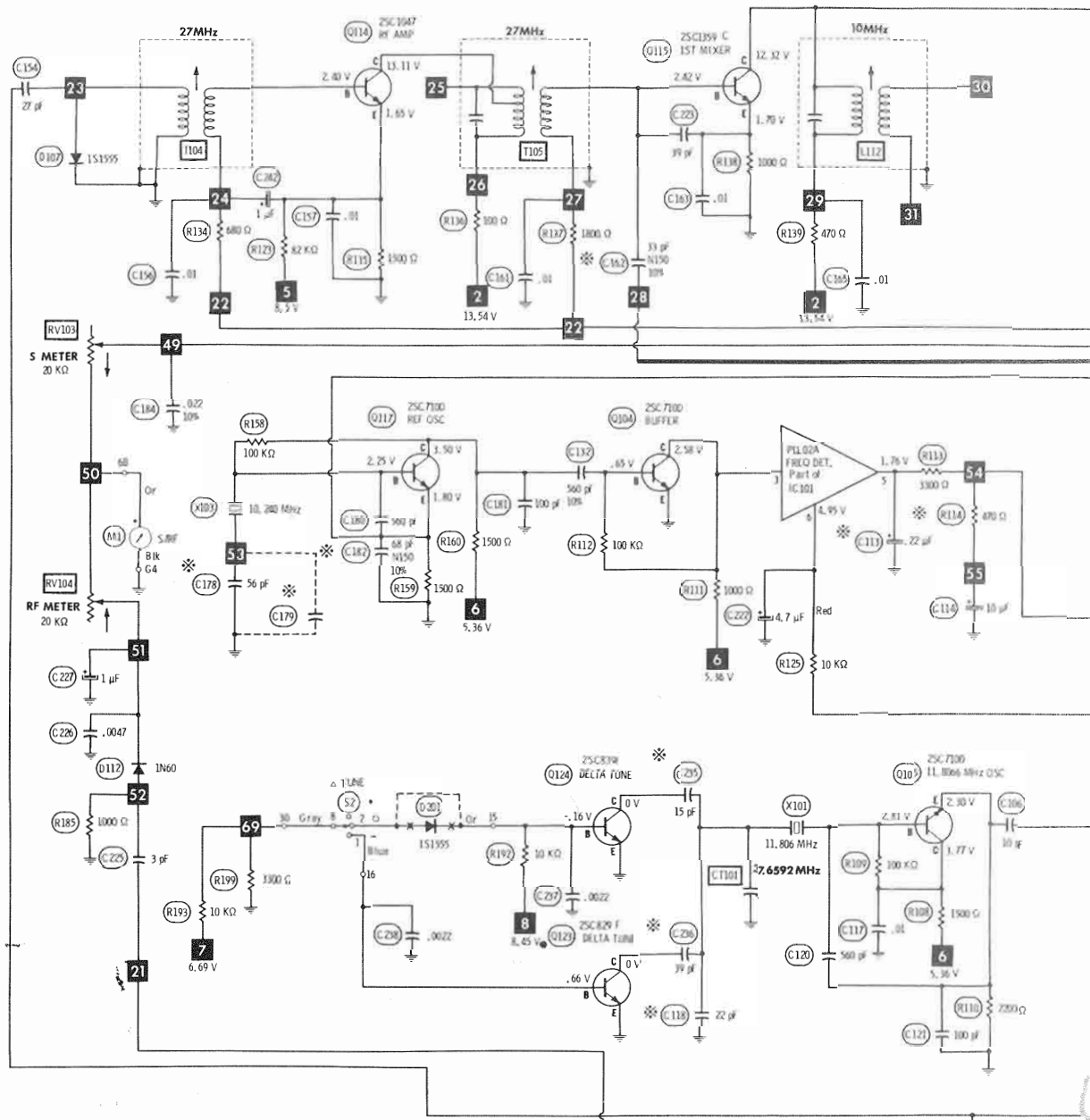
MAIN BOARD



MAIN BOARD



MAIN BOARD



— 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.

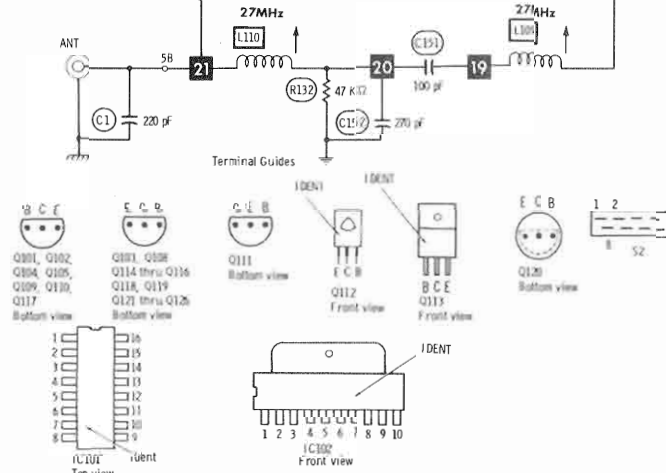
Resistors are 1/2W or less, 5% unless noted.

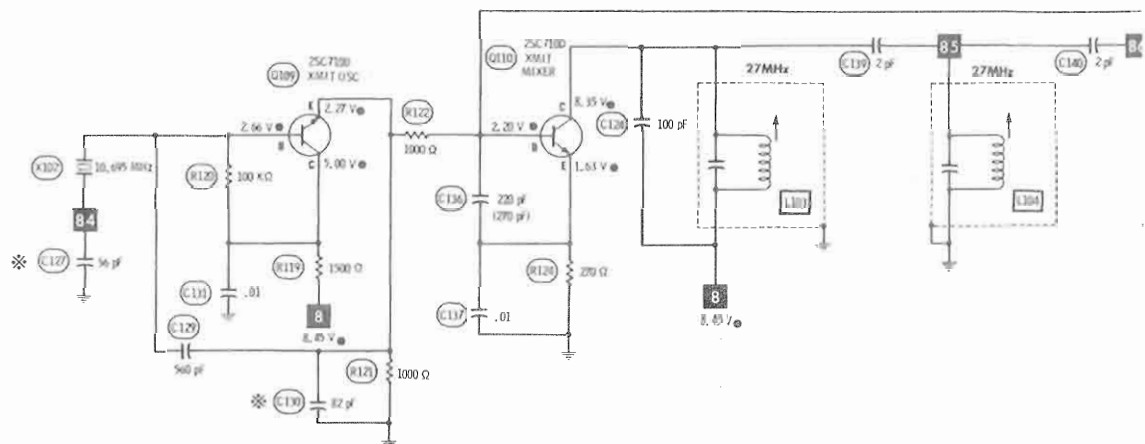
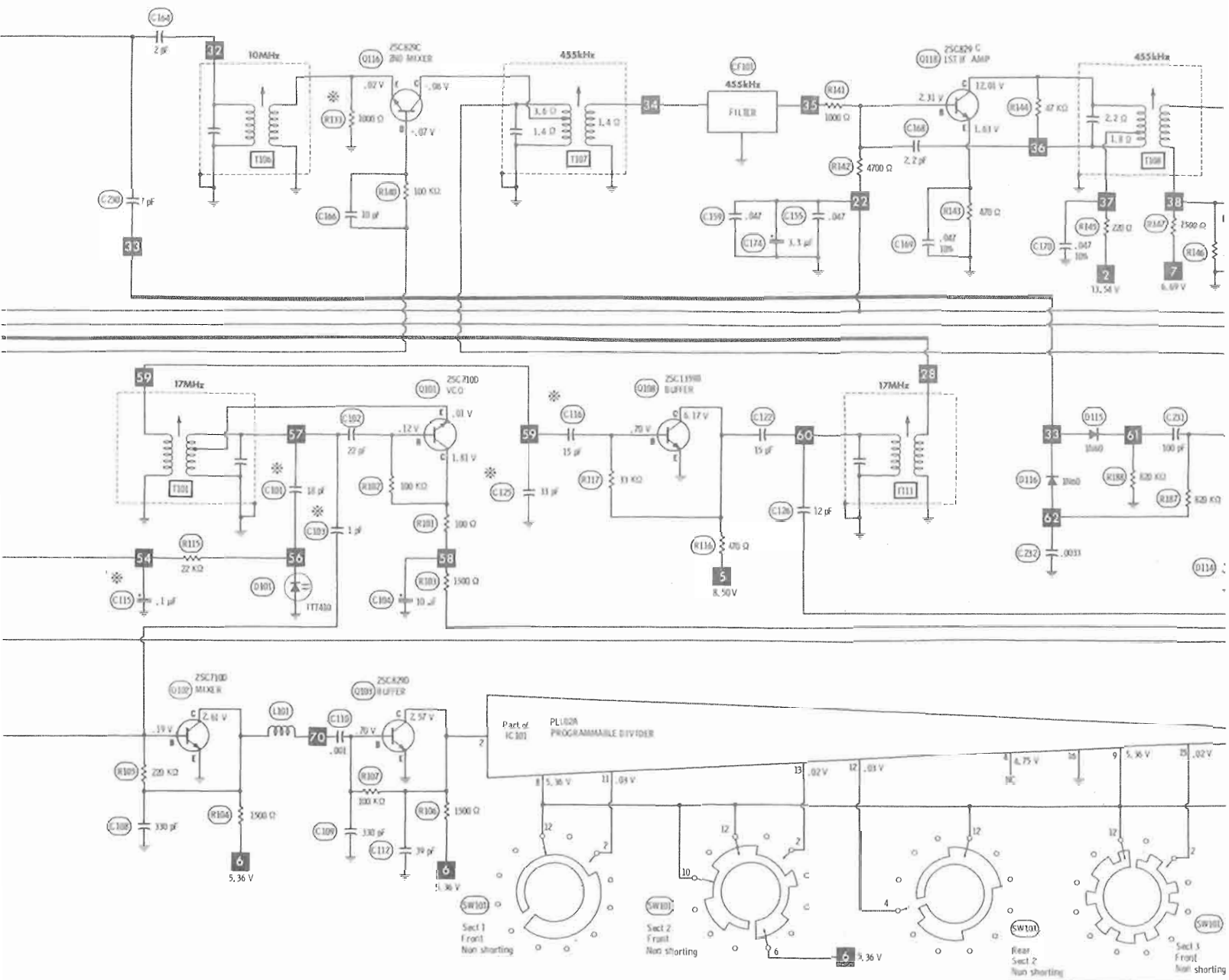
Value in () used in some versions.

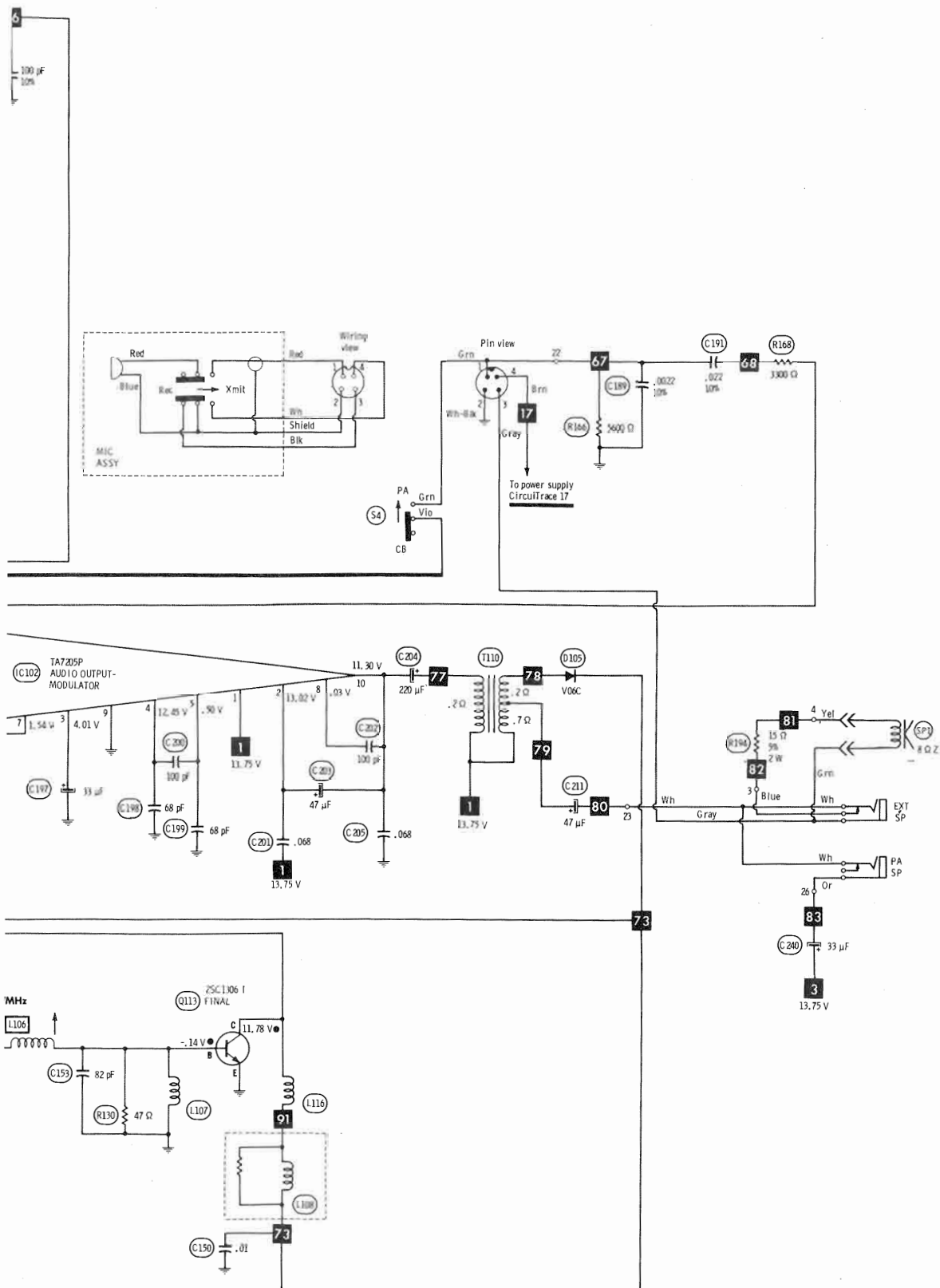
A PHOTOFACT STANDARD NOTATION SCHEMATIC

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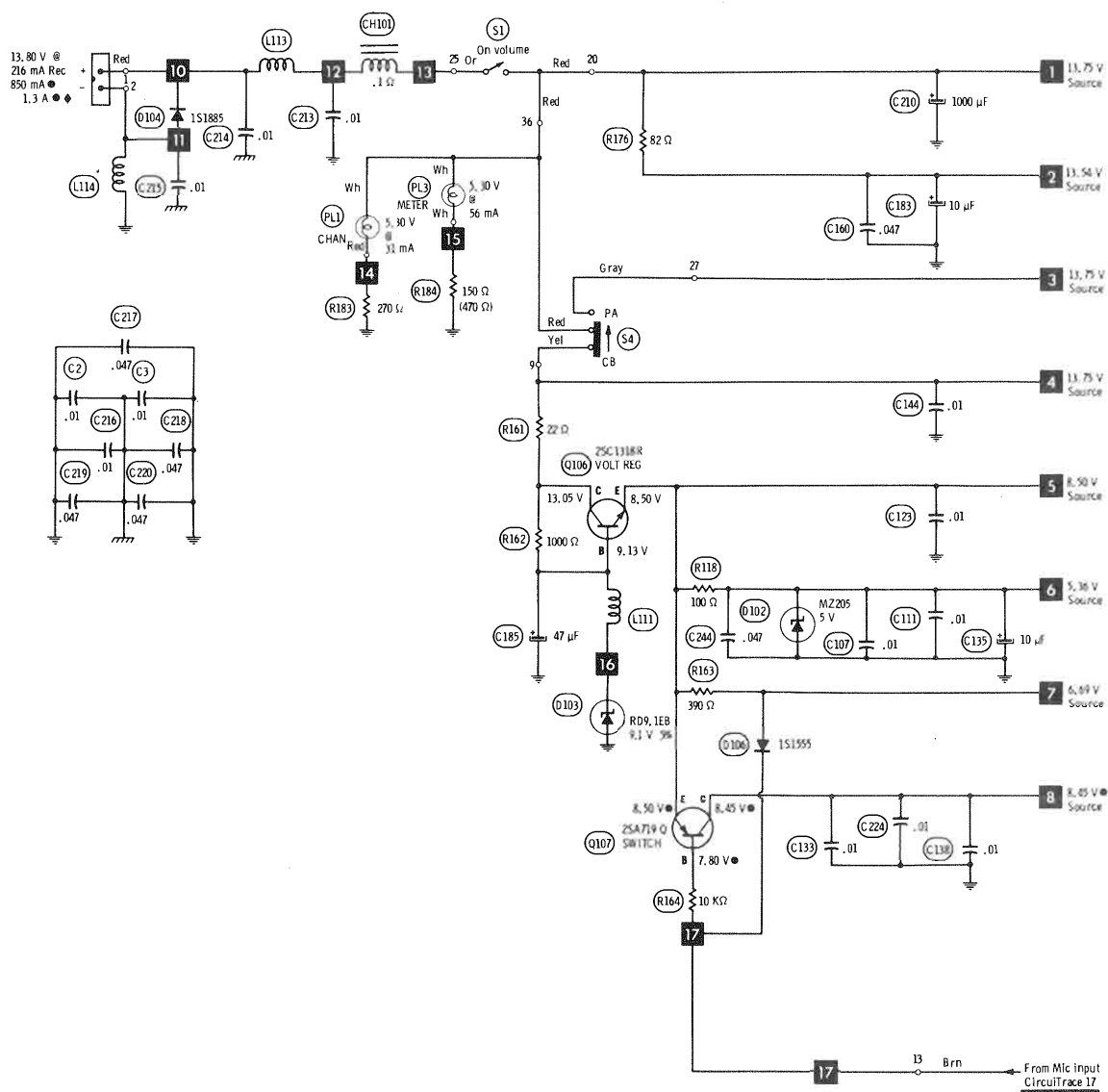




ITEM No.	TY N.
D101	1TT-
D102	BB14;
D103	MZ-20
D104	RD-9
D105	1S18
D106	V96C
D107	1S15
D108	1S15
D109	1N60
D110	1N60
D111	1N60
D112	1N60
D114	1S15
D115	1N60
D116	1N60
D201	1S15
IC101	PLLO
IC102	TA72
Q101	2SC7
Q102	2SC7
Q103	2SC8
Q104	2SC7
Q105	2SC7
Q106	2SC1
Q107	2SA7
Q108	2SC1
Q109	2SC7
Q110	2SC7
Q111	2SC1
Q112	2SC1
Q113	2SC1
Q114	(1C
Q115	2SC1
Q116	2SC1
Q117	2SC1
Q118	2SC1
Q119	2SC8
Q120	2SC3
Q121	2SC8
Q122	2SC8
Q123	2SC8
Q124	2SC8
Q125	2SC9
Q126	2SC9

(10) Ratio

ITEM No.
C104
C113
C114
C115
C135
C174
C176
C183
C185
C196
C197
C203
C204
C207
C208
C209
C210
C211
C212
C222
C240
C242



—* 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.

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Terminal Guide



Q106, Q107

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.
D101	1TT-410		GE-90	D201		HEPR2503	RE 195	SK3126	RT-262	
	BB142		GE-90	D201		HEPR2503	RE 195	SK3126	RT-262	
D102	MZ-205		GEZD-5.1	Z1203	ZM5.1A	HEPZ0406	RE 105	SK3056	RT-235	ECG135
D103	RD-9.1EB		GEZD-9.1		ZB9.1B		RE 114		RT-240	ECG139
D104	1S1885		GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D105	V06C		GE-509	5A8D	PTC203	HEPR0055	RE 51	SK3032	RT-210	ECG125
D106	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D107	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D108	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D109	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D110	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D111	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D112	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D114	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D115	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D116	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D201	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
IC101	PLL02A									ECG1155
IC102	TA7205P		GEIC-179		PTC780					ECG123A
Q101	2SC710D		GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-308	ECG123A
Q102	2SC710D		GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-308	ECG229
Q103	2SC829D		GE-20	(IR)2SC829B	PTC121	HEPS0015	RE 9	SK3122	RT-308	ECG123A
Q104	2SC710D		GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-308	ECG123A
Q105	2SC710D		GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-308	ECG123A
Q106	2SC1318R		GE-210	TR-21	PTC178	HEPS0015	RE 17	SK3122	RT-302	ECG128
Q107	2SA719Q		GE-21	TR-28	PTC103	HEPS0012	RE 26	SK3114	RT-305	ECG159
Q108	2SC1359B		GE-212	(IR)2SC380A0	PTC121	HEPS0014	RE 192	SK3038	RT-308	ECG199
Q109	2SC710D		GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-308	ECG123A
Q110	2SC710D		GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-308	ECG123A
Q111	2SC1687		GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q112	2SC1760									ECG306
Q113	2SC1306I (10)		GE-215		PTC186		RE 203	SK3197	RT-146	ECG235
Q114	2SC1047C		GE-60	(IR)2SC829B	PTC132	HEPS0016	RE 28	SK3018	RT-107	ECG161
Q115	2SC1359C		GE-212	(IR)2SC380A0	PTC121	HEPS0014	RE 192	SK3038	RT-308	ECG199
Q116	2SC829C		GE-20	(IR)2SC829B	PTC121	HEPS0015	RE 9	SK3122	RT-308	ECG229
Q117	2SC710D		GE-21	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-308	ECG123A
Q118	2SC829C		GE-20	(IR)2SC829B	PTC121	HEPS0015	RE 9	SK3122	RT-308	ECG229
Q119	2SC829C		GE-20	(IR)2SC829B	PTC121	HEPS0015	RE 9	SK3122	RT-308	ECG229
Q120	2SC372Y		GE-61	(IR)2SC372	PTC121	HEPS0015	RE 13	SK3122	RT-308	ECG123A
Q121	2SC828Q		GE-61	(IR)2SC828A	PTC121	HEPS0015	RE 192	SK3122	RT-302	ECG199
Q122	2SC828P		GE-61	(IR)2SC828A	PTC121	HEPS0015	RE 192	SK3122	RT-302	ECG199
Q123	2SC839F		GE-61	(IR)2SC644	PTC132	HEPS0015	RE 13	SK3018	RT-308	ECG 123A
Q124	2SC839F		GE-61	(IR)2SC644	PTC132	HEPS0015	RE 13	SK3018	RT-308	ECG 123A
Q125	2SC900U		GE-62	(IR)2SC644	PTC139	HEPS0015	RE 192	SK3124	RT-304	ECG199
Q126	2SC900U		GE-62	(IR)2SC644	PTC139	HEPS0015	RE 192	SK3124	RT-304	ECG199

(10) Rating, 12 Watts @ 3.0 Amp.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA			
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C104	10 16V	1223976	PC10-25	VTT10A25	EV-1222
C113	.22 50V	1223983		TDC224M050EL	SD50-R229
C114	10 16V	1223984	PC10-25	VTT10A25	EV-1222
C115	1 50V	1223985		TDC105M035EL	SD35-19
C135	10 16V	1223976	PC10-25	VTT10A25	EV-1222
C174	3.3 25V	1224008	PC5-50	VTT3R3A50	EV-1318
C176	1 50V	1224010	PC1-50	VTT1B63	EV-1615
C183	10 16V	1223976	PC10-25	VTT10A25	EV-1222
C185	47 10V	1224015	PC50-16	VTT47D16	EV-1226
C196	3.9 35V	1224018		TDC335M035EL	SD35-3R39
C197	33 6.3V	1224019	PC30-25	VTT33A10	EV-1125
C203	47 16V	1224015	PC50-16	VTT47D16	EV-1226
C204	220 16V	1224024	PC250-25	VTT220G16	EV-1240
C207	33 6.3V	1224019	PC30-25	VTT33A10	EV-1125
C208	10 16V	1223976	PC10-25	VTT10A25	EV-1222
C209	1 50V	1224010	PC1-50	VTT1B63	EV-1615
C210	1000 16V	1224022	PC1000-16	VTT1000L16	EV-1260
C211	47 10V	1224018	PC50-25	VTT47E25	EV-1326
C212	33 6.3V	1224019	PC30-25	VTT33A10	EV-1125
C222	4.7 25V		PC1-50	VTT47B63	EV-1310
C227	1 50V	1224010	PC1-50	VTT1B63	EV-1615
C240	33 6.3V	1224019	PC30-25	VTT33D25	EV-1325
C242	1 50V	1224010	PC1-50	VTT1B63	EV-1615

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA								
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.					
C1	220 10%	1223974	DC-103 DC-103	CD15FD221J03	SX322	MMA-221					
C2	.01			MGP01	TA110	TG-S10					
C3	.01			MGP01	TA110	TG-S10					
C101	18 NPO		DTZ-10 DC-103 DD-331 DD-331	NP010 MGP01 GP330 GP330 DPMS6D1 DPMS4S1	CN0418	10TCC-Q18					
C102	22 N150				CN0510	10TCP-Q22					
C103	1 NPO				CN0410	10TCC-V10					
C106	10				TA110	10TCC-Q10					
C107	.01				GP333	TG-S10					
C108	330 10%				GP333	10TS-T33					
C109	330 10%				GP333	10TS-T33					
C110	.001 10% 50V				EWFA1A210	1PB-D10					
C111	.01 10% 50V				EWFA2110	2PB-S10					
C112	39				CN0439	10TCC-Q39					
C116	15				CN0415	10TCC-Q15					
C117	.01 10% 50V				EWFA1A110	1PB-S10					
C118	22 10% N150				1223974	DD-561 DD-101 DTZ-15 DC-103	GP356 GP310 NP015 CN0415 TA110 SX310	10TCP-Q22			
C120	560							10TS-T56			
C121	100 10%	10TS-T10									
C122	15	10TCC-Q15									
C123	.01	TG-S10									
C124	100	MMA-101									
C125	33	DTZ-33	NP033	CN0433	10TCC-Q33						
C126	12 10% N150				10TCP-Q12						
C127	56 10% N150				10TCP-Q56						
C129	560	1223993	DD-561	GP356	10TS-T56						
C130	82 10% N150		DC-103 DC-103 DD-221 DC-103 DC-103 DTZ-2R2 DTZ-2R2 DD-680	MGP01 CD19FD561J03 MGP01 MGP01 MGP01 NP02P2 NP02P2 GP68	10TCP-Q82						
C131	.01				TA110	TG-S10					
C132	560 10%				SX356	MMA-561					
C133	.01				TA110	TG-S10					
C136	220 10%				GP322	10TS-T22					
C137	.01				TA110	TG-S10					
C138	.01				TA110	TG-S10					
C139	2				CN0522	10TCC-V22					
C140	2				CN0522	10TCC-V22					
C141	68				GP468	10TS-Q68					
C142	.01				1223988	DC-103 DC-103 DD-471 DC-103 DTZ-120 DD-221 DC-103	MGP01 MGP01 GP470 MGP01 MGP01 CD15FD101J03 CD15FD271J03	TG-S10			
C143	100 10% N150							TA110	10TCP-T10		
C144	.01							TA110	TG-S10		
C145	.01							TA110	TG-S10		
C146	470		GP347	10TS-T47							
C147	.01		TA110	TG-S10							
C148	120	CN0312	10TCC-T12								
C149	220	GP322	10TS-T22								
C150	.01	TA110	TG-S10								
C151	100 10%	SX310	MMA-101								
C152	270 10%	SX327	MMA-271								
C153	82	GP482	10TS-Q82								
C154	27	CN0427	10TCC-Q27								
C155	.047	1223992	DC-503 DC-103 DC-103 DC-503 DC-103 DC-103 DTZ-10 DTZ-2R2	MGP05 MGP01 MGP01 MGP05 MGP01 MGP01 NP010 NP02P2 DPMS2S47 DPMS2S47 DPMS2S47 DPMS2S47 DPMS2S47 M192P4729R8 M192P2229R8				TG-S50			
C156	.01				TA110	TG-S10					
C157	.01				TA110	TG-S10					
C159	.047				TA150	TG-S50					
C160	.047 10% 50V				1223992	DC-103 DC-103 DC-103 DTZ-10 DTZ-2R2	MGP01 MGP01 MGP01 NP010 NP0410 CN0522 EWFA1A147 EWFA1A147 EWFA1A147 EWFA1A147 EWFA1A147 M192P4729R8 M192P2229R8	TG-S10			
C161	.01							10TCP-Q33			
C162	33 10% N150							TA110	TG-S10		
C163	.01							CN0510	10TCC-V10		
C164	2							TA110	TG-S10		
C165	.01							CN0410	10TCC-Q10		
C166	10							CN0522	10TCC-V22		
C168	2.2							EWFA1A147	1PB-S47		
C169	.047 10% 50V							EWFA1A147	1PB-S47		
C170	.047 10% 50V							EWFA1A147	1PB-S47		
C171	.047 10% 50V							EWFA1A147	1PB-S47		
C172	.047 10% 50V							EWFA1A147	1PB-S47		
C173	.047 10% 50V							EWFA1A147	1PB-S47		
C175	.0047 10% 50V							1223992	DD-561 DD-101	GP356 GP310	192P4729R8
C177	.0022 10% 50V										192P2229R8
C178	56 10% N150	10TCP-Q33									
C180	560	10TS-T56									
C181	100 10%	10TS-T10									
C182	68 10% N150	1224013	DD-202 DC-103 DD-221 DC-103 DD-202 DD-680 DD-680 DD-101 DD-101 DD-101 DC-103 DC-103	GP2000 MGP01 DPMS4S1 MGP01 GP2000 GP68 GP68 GP100 WMF1S68 GP100 WMF1S68 MGP01 MGP01	10TCP-Q68						
C184	.022 10% 50V				192P2239R8						
C189	.0022 10%				5GA-020						
C190	.01				TG-S10						
C191	.022 10% 50V				192P2239R8						
C192	220				10TS-T22						
C193	.01 10% 50V				2PB-S10						
C194	.01				TG-S10						
C195	.0022				5GA-020						
C198	68				10TS-Q68						
C199	68				10TS-Q68						
C200	100 10%				10TS-T10						
C201	.068 10% 50V				1PB-S68						
C202	100 10%				10TS-T10						
C205	.068 10% 50V				1PB-S68						
C213	.01				TG-S10						
C214	.01	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.
C215	.01		DC-103	MGP01	TA110	TG-S10
C216	.01		DC-103	MGP01	TA110	TG-S10
C217	.047		DC-503	MGP05	TA150	TG-S50
C218	.047		DC-503	MGP05	TA150	TG-S50
C219	.047		DC-503	MGP05	TA150	TG-S50
C220	.047		DC-503	MGP05	TA150	TG-S50
C223	39				CN0439	10TCC-Q39
C224	.01		DC-103	MGP01	TA110	TG-S10
C225	3		DTZ-3R3	NP03P3	CN0533	10TCC-V33
C226	.0047		DD-472	GP4700	GP247	56A-D47
C230	7		DTZ-6R8	NP06P8	CN0568	10TCC-V68
C231	100		DD-101	GP100	GP310	10TS-T10
C232	.0033 10% 50V				M192P3329R8	192P3329R8
C233	330		DD-331	GP330	GP333	10TS-T33
C235	15 10% N150	1223986				10TCP-Q15
C236	39 10% N150	1223982				10TCP-Q39
C237	.0022 10% 50V				M192P2229R8	192P2229R8
C238	.0022 10% 50V				M192P2229R8	192P2229R8
C243	100 10%		DD-101	GP100	GP310	10TS-T10
C244	.047		DC-503	MGP05	TA150	TG-S50
CT101		1223960				

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.
RV101	Squelch Range	10K	1223946	T-10K (2)	C-103 (2)	MTCT14L1 (2)	X201R103B (2)
RV102	AMC	2000	1223947				
RV103	S Meter	20K	1223948				
RV104	RF Meter	20K	1223948				
VR1	Volume/Switch	50K	1223881				
VR2	Squelch	10K	1223882				

(2) Cut off one of the end terminals and bend to fit PC board.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L101	RF Choke (22mH)	1223934	220P		
L103	Xmit Mixer (27MHz)	1223935			
L104	Harmonic Suppressor (27MHz)	1223936	10CD005S		
L105	RF Choke (2.2MHz)	1223937	022R		
L106	Xmit Driver (27MHz)	1223938			
L107	RF Choke (68MH)	1223939	680R		
L108	RF Choke	1223940			
L109	Final Tank (27MHz)	1223941			
L110	Pi Filter (68MH)	1223942			
L111	RF Choke	1223939	680R		
L112	REC Mixer (10MHz)	1223943	MB08N46T		
L113	RF Choke	1223944			
L114	RF Choke	1223944			
L116	RF Choke	1223945			
T101	VCO (17MHz)	1223950	10DA-002S		
T102	Xmit Mixer (27MHz)	1223951			
T103	Xmit Buffer (27MHz)	1223952	10CP005S		
T104	Rec Antenna (27MHz)	1223953	ETR-0333		
T105	Rec RF (27MHz)	1223954	10CA-005S		
T106	Rec Mixer (10MHz)	1223955	MB-08N		
T107	IF (455kHz)	1223956	ETI-0122		
T108	IF (455kHz)	1223957	ETI0123		
T109	IF (455kHz)	1223958	ETI0129		
T111	VCO Buffer (17MHz)		10MB003S		

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFR. PART No.	THORDARSON PART No.	TRIAD PART No.	
CH101	1.35A	.1	.37mH	1223932 ELA-16 (1)			(1) Number on unit

PARTS LIST AND DESCRIPTION (CONTINUED)

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

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T110	2	1 8	2 (2)	1223942 ETA-66 (1)		(1) Number on unit (2) DC Resistance .2 ohms

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	3" PM 8 ohms	1123883	3A0528R	

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	1223907	18-032	18-034	18-010	18-092	1	2	4	3	NC	2

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
X101	11.806	1223961	CB100M11806	Osc	X103	10.240	1223963	CA120M10240	Ref Osc
X102	10.695	1223962	CC130M10695	Xmit Osc					

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF101	Filter	1223924	455kHz
M1	Meter	1223884	S/RP
S1	Switch	1223889	On/Off (Part of volume control)
S2	Switch	1223892	Delta Tune
S3	Switch	1223889	ANL
S4	Switch	1223889	PA/CB
S5	Switch	1223889	Noise Blanker
SW101	Switch		Channel Selector
	Printed Circuit Board		Main TP-S30-HB

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

ITEM	PART No.	ITEM	PART No.
Knob, Channel Selector	1223899	Mounting Bracket	7898249
Knob, Control	1223900	Microphone Holder	1223906
Escutcheon Assembly	1223898		

WIRING DATA

General-use Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 13 Colors
Shielded Antenna Lead	8524 (Stranded) Available in 13 Colors
	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
Bonding Strap	Use BELDEN No. 8661 (3/8 inch)