



PHOTOFACT[®] with

CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index

NOTE

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

(Refer to FCC Rules and Regulations Part 95, Subpart C & D.)

The frequency of the transmitter should be checked periodically with a secondary frequency standard to insure proper and legal operation.

Best results will be obtained when adjusting the final RF output circuit if the antenna normally used is connected and the chassis is as nearly in the cabinet as possible.

Connect either 50-ohm dummy load or the normally used antenna system.



MODEL CB-910

MANUFACTURER'S SPECIFICATIONS

RECEIVER

* Sensitivity	0.7 μ V for 10 dB S/N
* Selectivity	6 dB down, at 6 KHz
* Adjacent Channel rejection	50 dB down
* Image Rejection	60 dB down
* Spurious Rejection	50 dB down
* IF	1st: 10,695 MHz/ 2nd: 455 KHz
* Squelch Sensivity	0.5 μ V to 500 μ V
* AGC Range	75 dB
* Audio Output	3 W at 8 Ω

TRANSMITTER

* RF Output Power	4 W, FCC maximum, at 13.8 V DC
* Modulation System	AM, collector modulation
* Modulation Capability	Less than 100%
* Spurious and Harmonics Rejection	More than 60 dB down
* Output Antenna Impedance	50 Ω

Courtesy of the Manufacturer

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

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BOMAN MODEL CB-910

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.
Connect Microphone.

Suggested Alignment Tools: GC ELECTRONICS:
L14, T7 thru T10 5009, 8728A, 8728
L7, L11, L12 9304, 9300, 9302
L1, L2, L5, T1 thru T6 9440
CT1 5000, 8276

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP1 (Q1, Emitter).	Ch. 19	CT1	Adjust for 10.240MHz +50Hz.
Input of RF VTVM to TP2 (T1, Secondary).	Ch. 19	T1	Adjust for maximum.
Input of DC meter to TP8.	Ch. 1	L1	Adjust for 3.6 volts +.1 volt.
Input of RF VTVM to TP4 (IC3, Pin 4).	Ch. 19, Delta Tune 0	L2,T2	Adjust for maximum.
Input of frequency counter to TP4 (IC3, Pin 4).	Ch. 1, Delta Tune 0		Check for 37.660MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of frequency counter to TP3 (IC3, Pin 2).	Ch. 19, XMT		Check for 10.695MHz.

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.
Squelch MINIMUM.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP10 (Q10, Emitter). 455kHz, 1000Hz @ 30% modulation.	Ch. 19	T10,T9, T8	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation	Ch. 19	T7,L14, T6,T5	Adjust for maximum output. If necessary, readjust T8, T9 and T10.

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. 27.185MHz, 1000Hz @ 30% modulation. Output 1000uV.	Ch. 19	RV1	SQUELCH RANGE Set squelch control VR2 fully clockwise. Adjust RV1 so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.18MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19	RV3	S METER Adjust RV3 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. 19	L5, T3, T4, L7, L11, L12	Adjust for maximum.
	Ch. 19	L12	Adjust for 3.8 watts.

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.

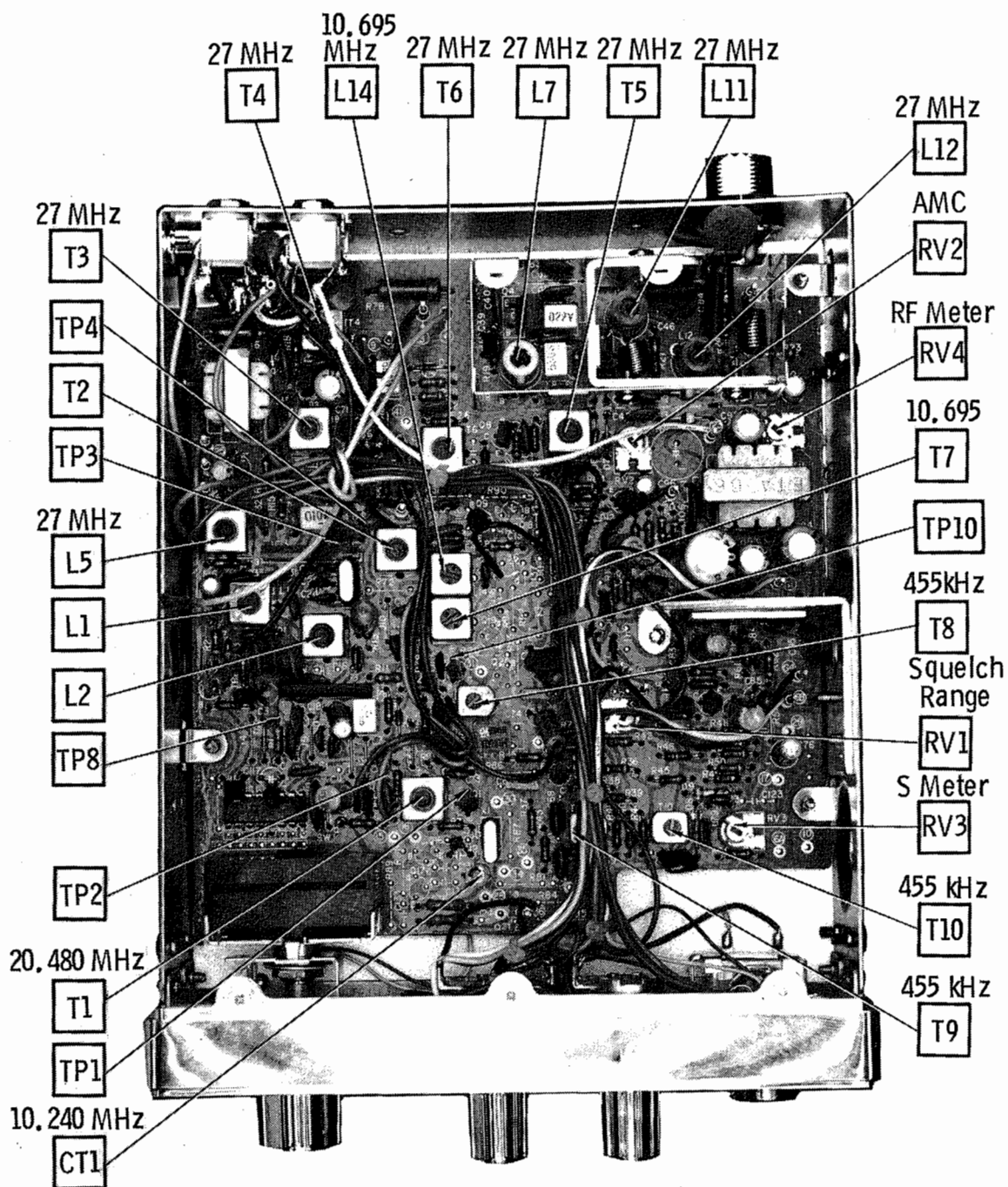
TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Modulation meter to antenna jack. Inject a 100mV 1000Hz signal at Mic input.	Ch. 19	RV2	AMC Adjust for 95% modulation.
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.	Ch. 19	RV4	RF METER Adjust RV4 so that meter agrees with RF wattmeter.

TRUTH CHART

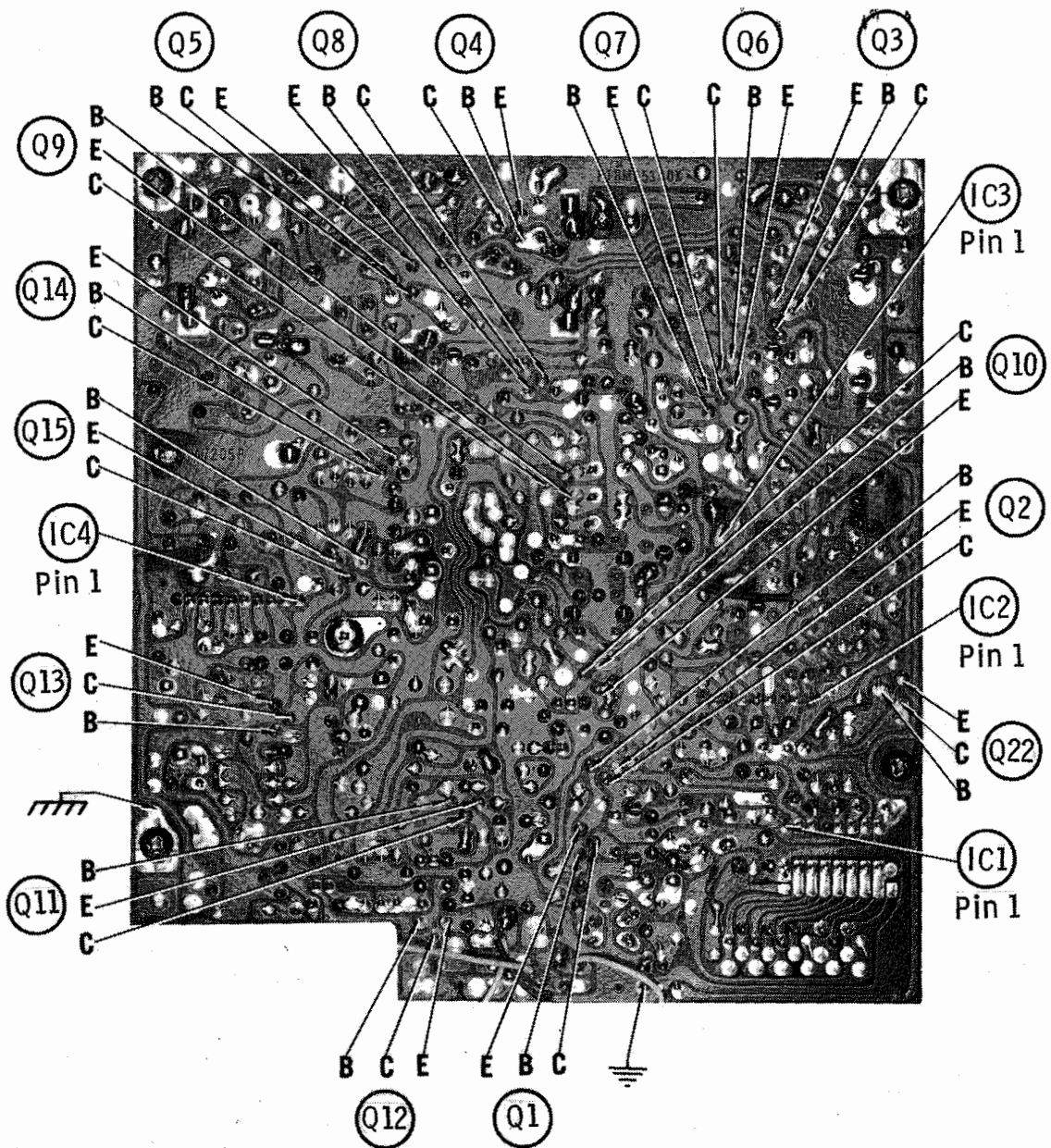
1 = <u>5.45</u> Volts 0 = <u>0</u> Volts								
C H A N N E L	IC1 PROGRAM DIVIDER							REC VCO OUTPUT IN MHZ TP4
	PINS							
	9	10	11	12	13	14	15	
1	1	0	0	1	0	1	0	37.660
2	1	0	0	1	0	0	1	37.670
3	1	0	0	1	0	0	0	37.680
4	1	0	0	0	1	1	0	37.700
5	1	0	0	0	1	0	1	37.710
6	1	0	0	0	1	0	0	37.720
7	1	0	0	0	0	1	1	37.730
8	1	0	0	0	0	0	1	37.750
9	1	0	0	0	0	0	0	37.760
10	0	1	1	1	1	1	1	37.770
11	0	1	1	1	1	1	0	37.780
12	0	1	1	1	1	0	0	37.800
13	0	1	1	1	0	1	1	37.810
14	0	1	1	1	0	1	0	37.820
15	0	1	1	1	0	0	1	37.830
16	0	1	1	0	1	1	1	37.850
17	0	1	1	0	1	1	0	37.860
18	0	1	1	0	1	0	1	37.870
19	0	1	1	0	1	0	0	37.880
20	0	1	1	0	0	1	0	37.900

1 = <u>5.45</u> Volts 0 = <u>0</u> Volts								
C H A N N E L	IC1 PROGRAM DIVIDER							REC VCO OUTPUT IN MHz TP4
	PINS							
	9	10	11	12	13	14	15	
21	0	1	1	0	0	0	1	37.910
22	0	1	1	0	0	0	0	37.920
23	0	1	0	1	1	0	1	37.950
24	0	1	0	1	1	1	1	37.930
25	0	1	0	1	1	1	0	37.940
26	0	1	0	1	1	0	0	37.960
27	0	1	0	1	0	1	1	37.970
28	0	1	0	1	0	1	0	37.980
29	0	1	0	1	0	0	1	37.990
30	0	1	0	1	0	0	0	38.000
31	0	1	0	0	1	1	1	38.010
32	0	1	0	0	1	1	0	38.020
33	0	1	0	0	1	0	1	38.030
34	0	1	0	0	1	0	0	38.040
35	0	1	0	0	0	1	1	38.050
36	0	1	0	0	0	1	0	38.060
37	0	1	0	0	0	0	1	38.070
38	0	1	0	0	0	0	0	38.080
39	0	0	1	1	1	1	1	38.090
40	0	0	1	1	1	1	0	38.100

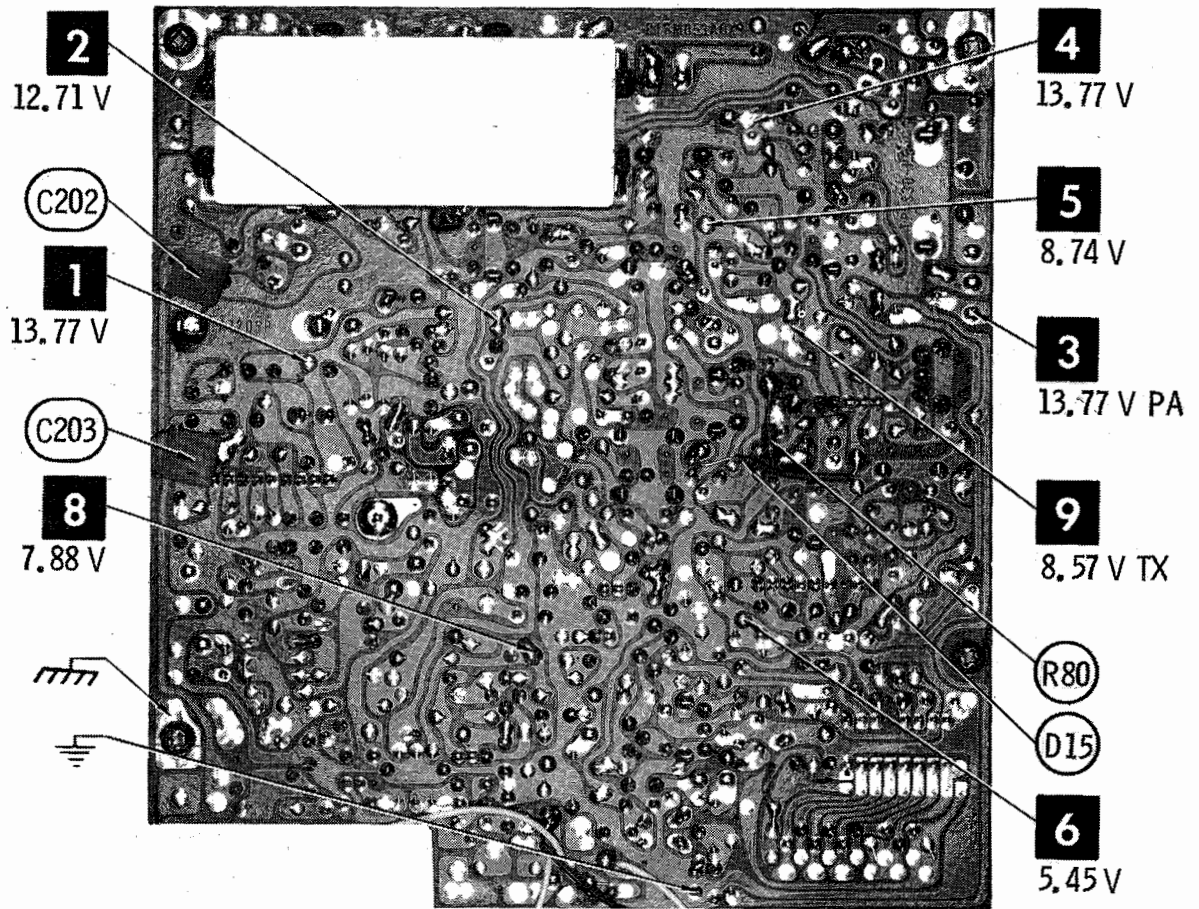
GEMTRONICS MODEL GT-44



CHASSIS - BOTTOM

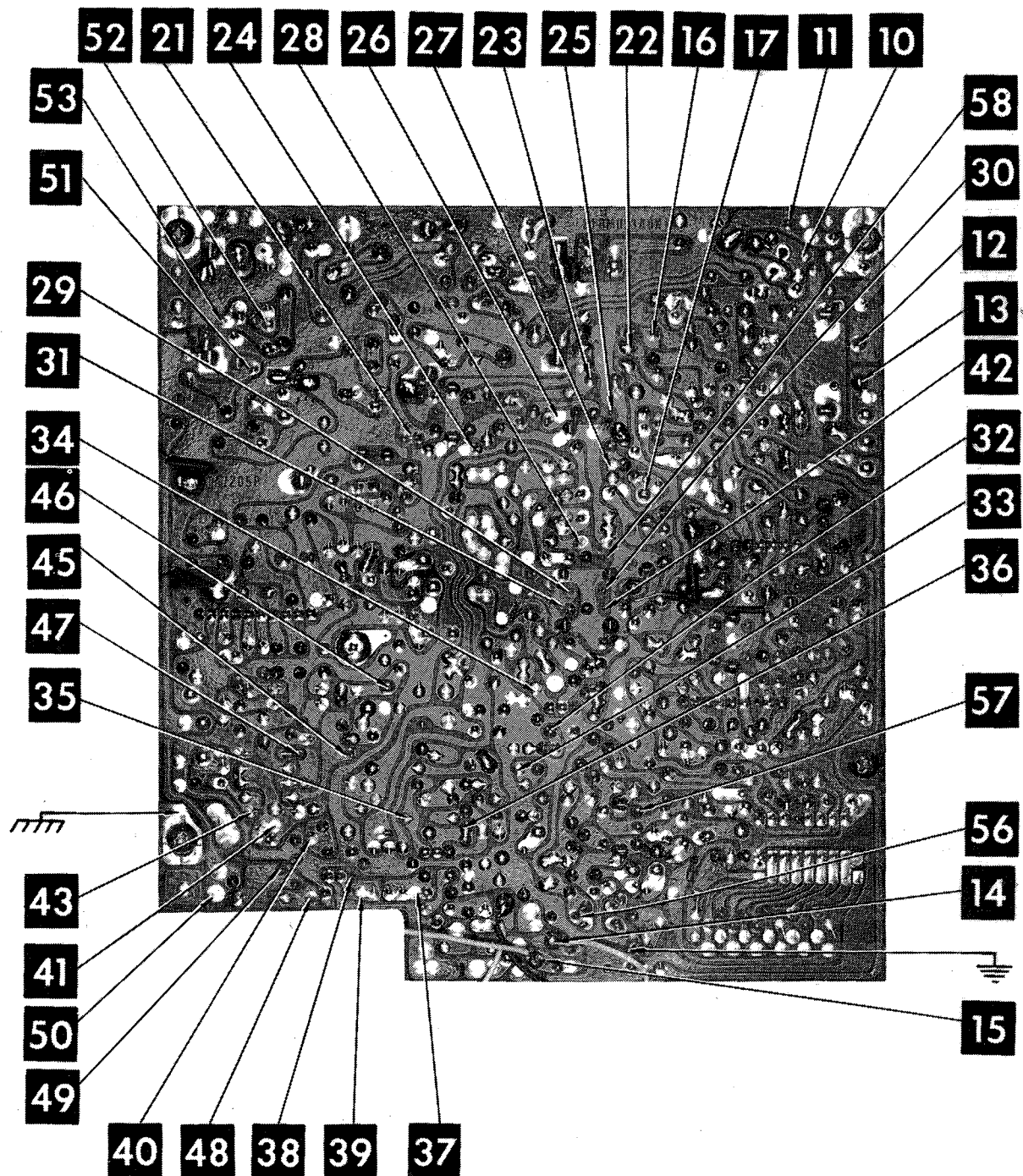


MAIN BOARD

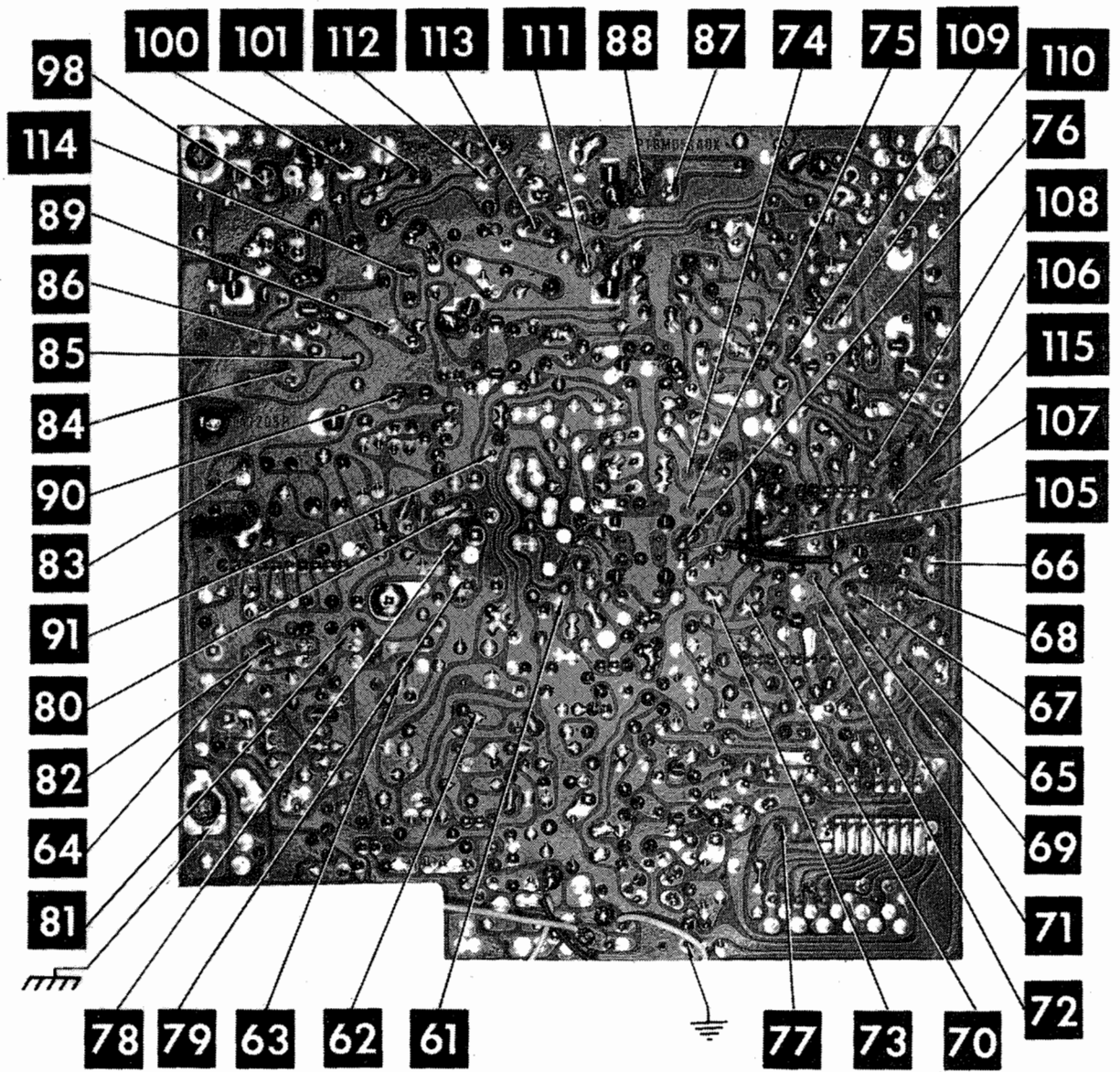


BOMAN MODEL CB-910

MAIN BOARD

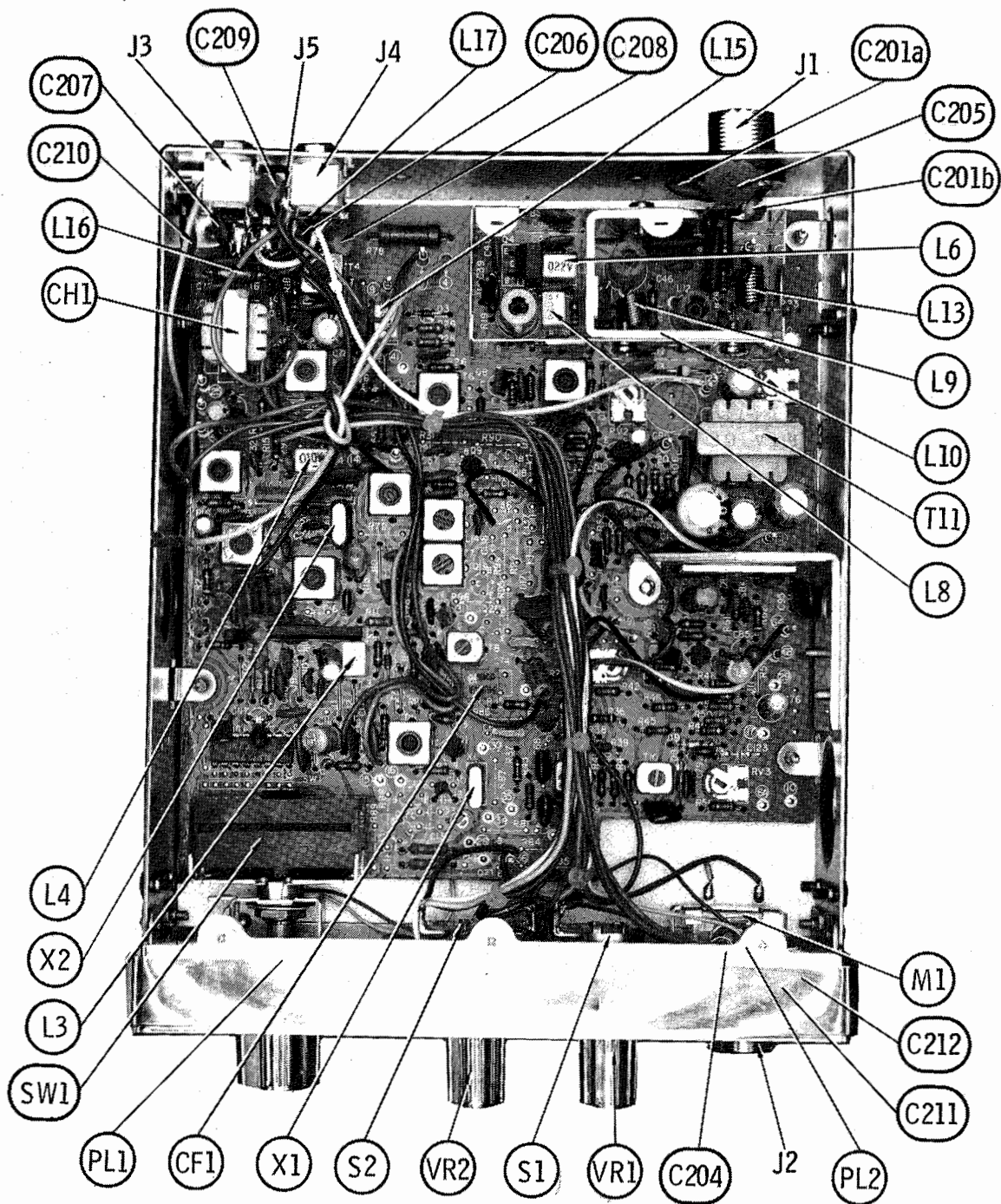


MAIN BOARD

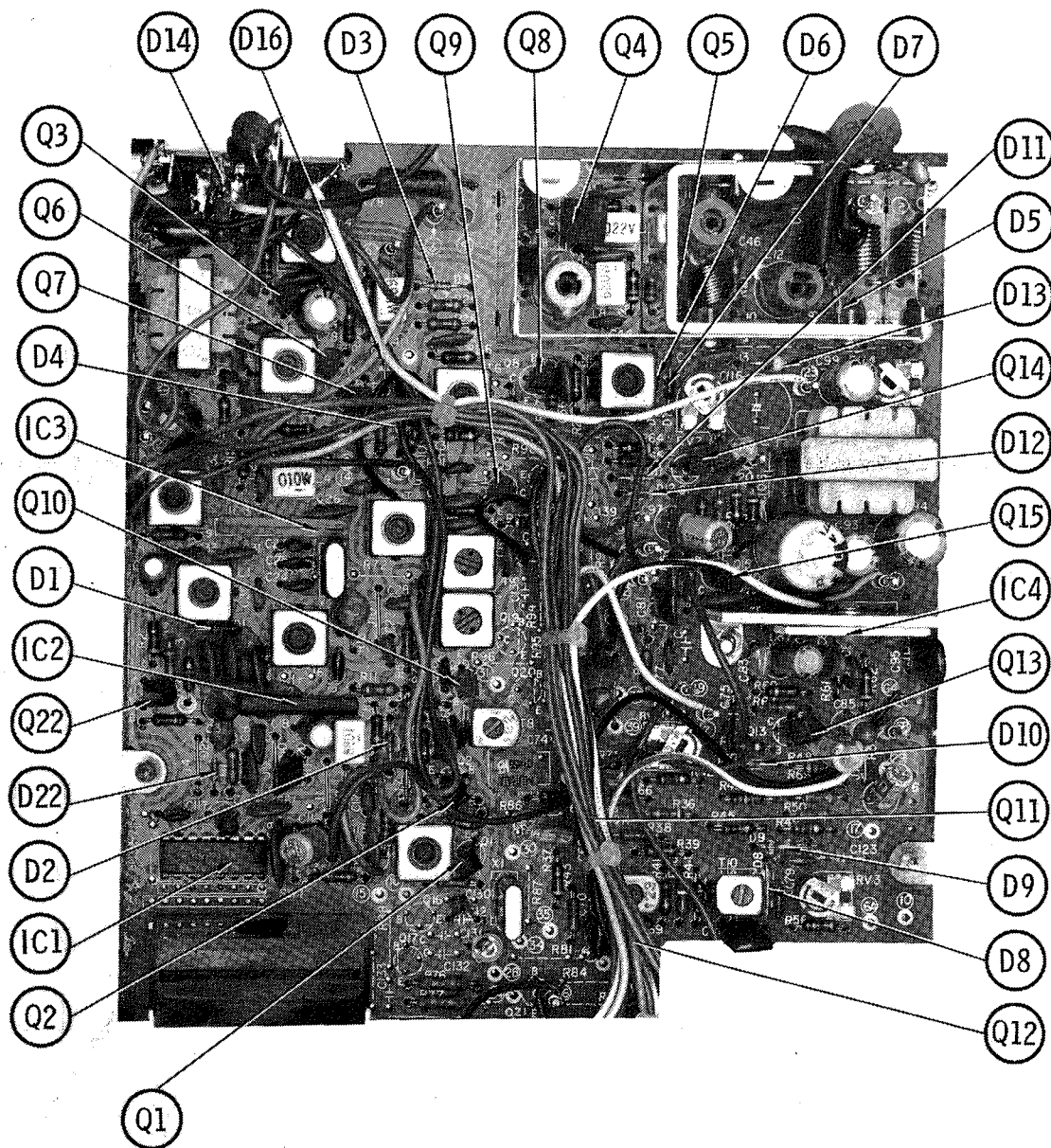


BOMAN MODEL CB-910

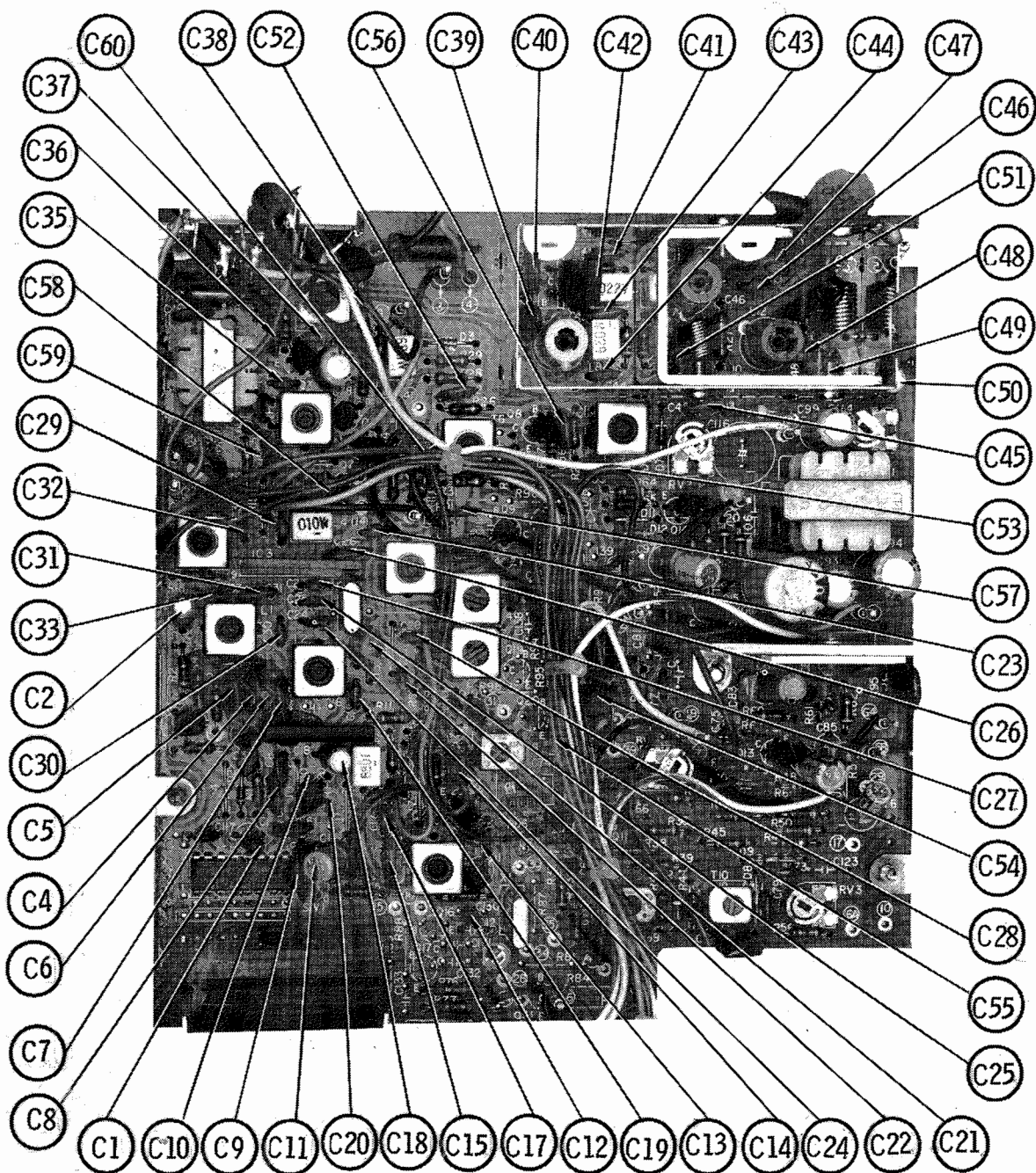
MAIN BOARD



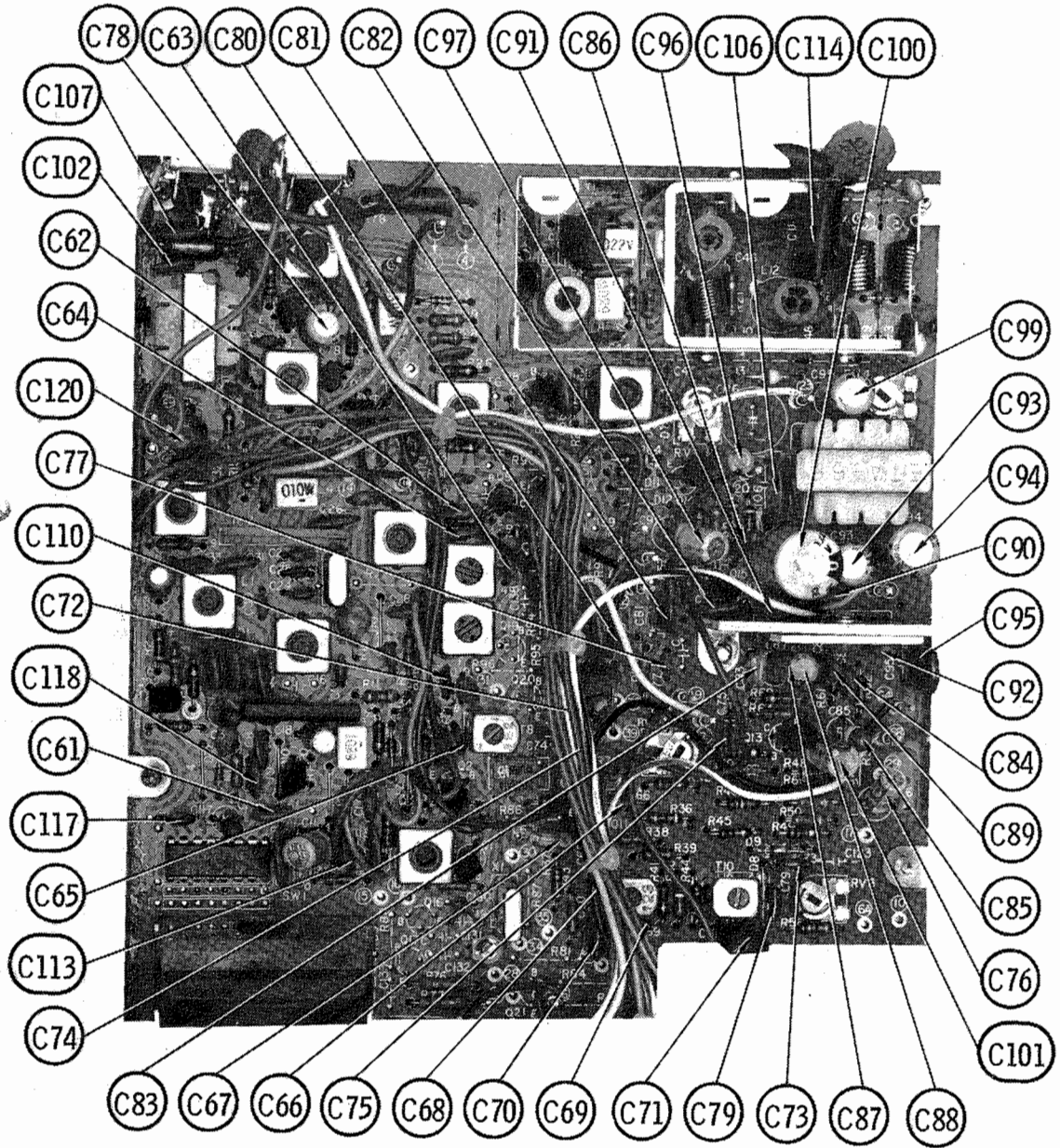
CHASSIS - BOTTOM



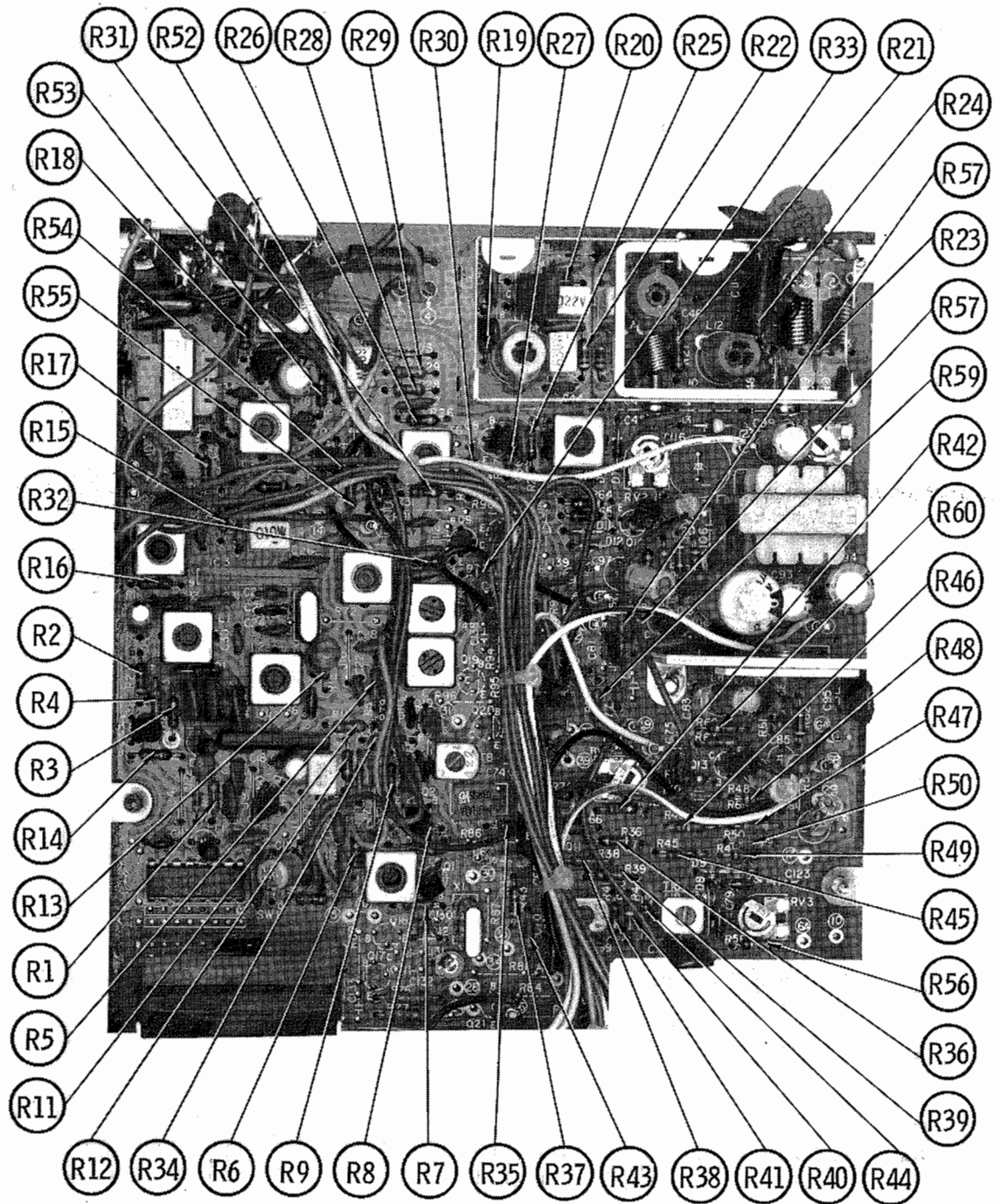
MAIN BOARD



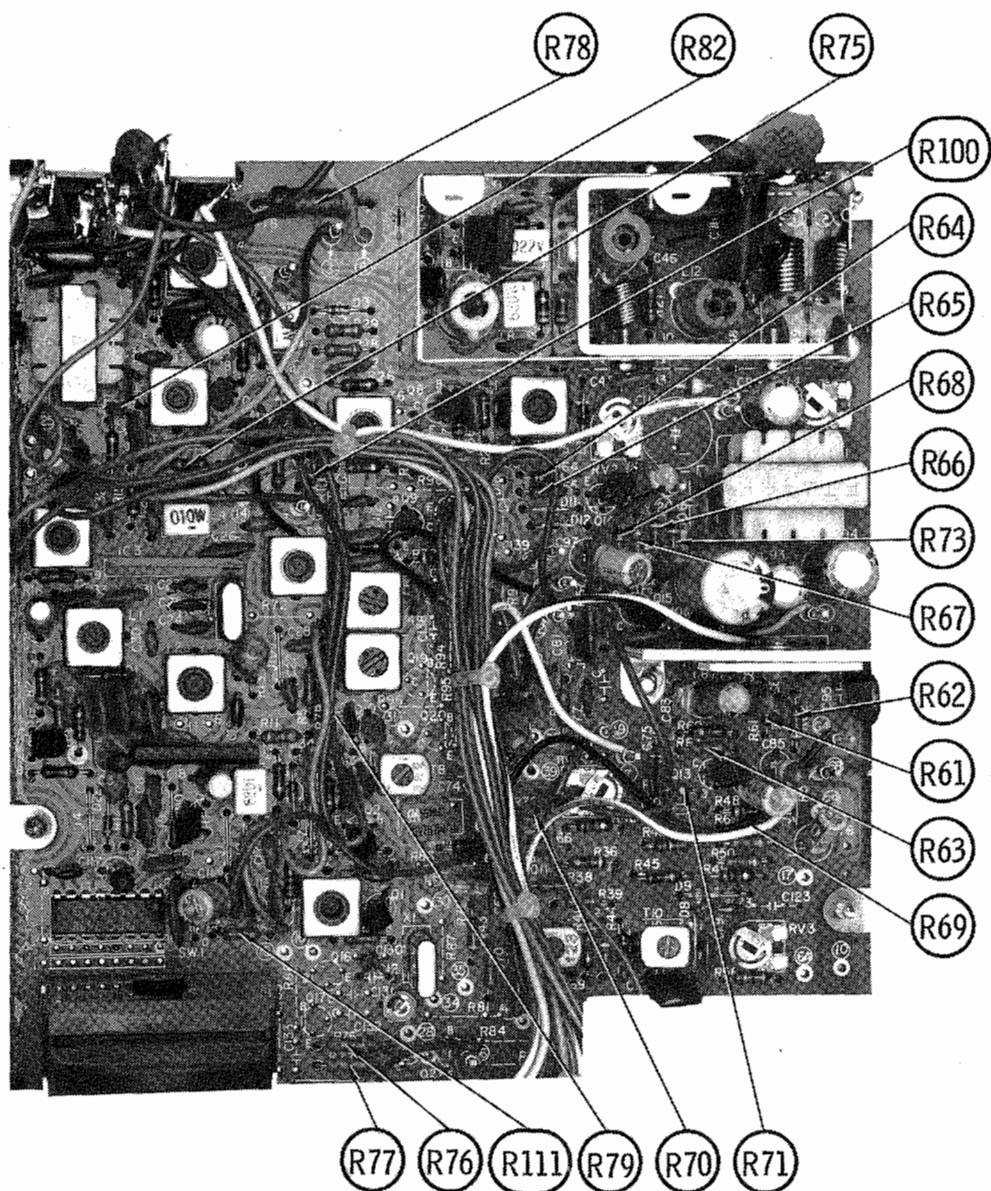
MAIN BOARD



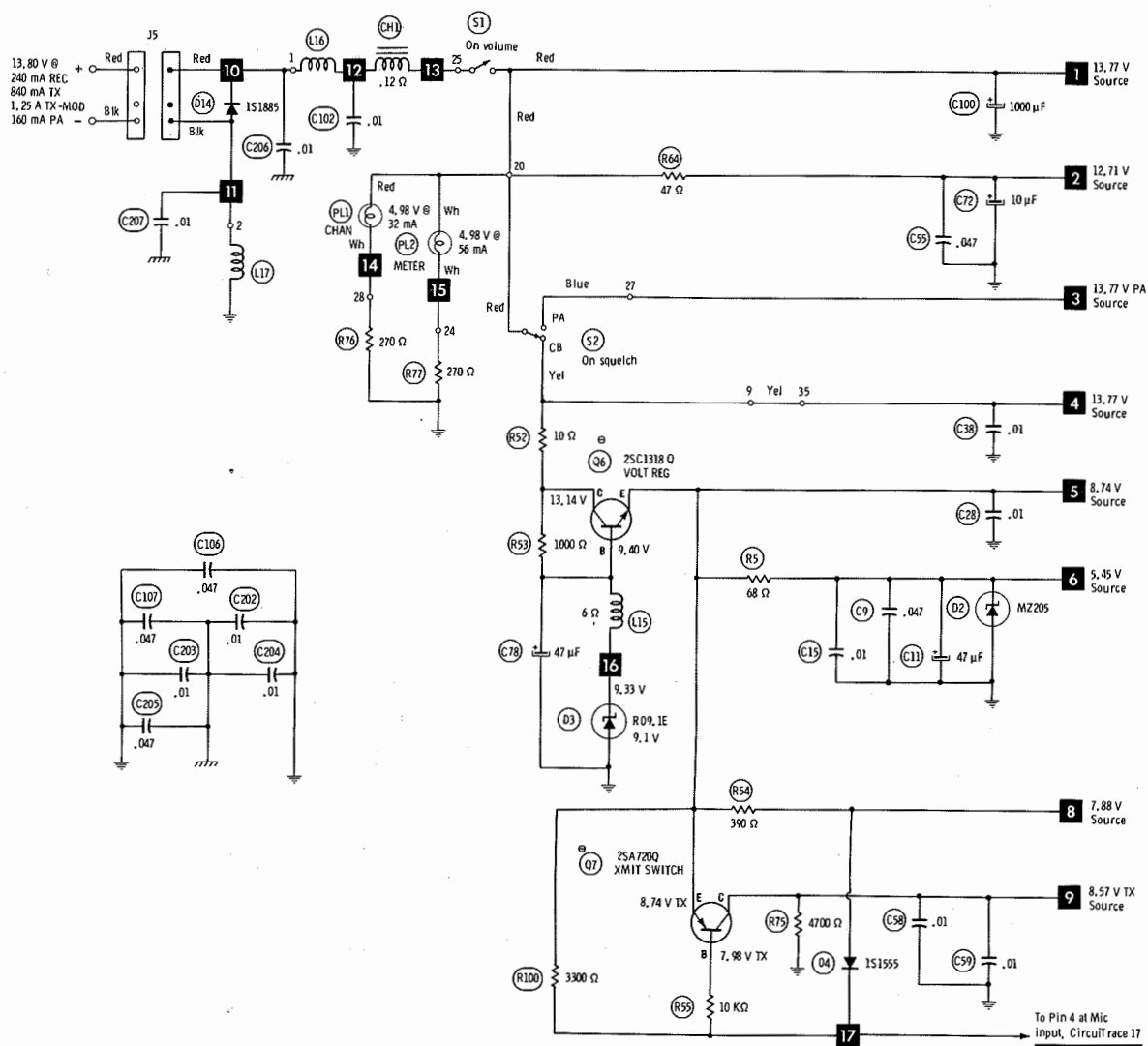
MAIN BOARD



MAIN BOARD



MAIN BOARD



✱ Circuitry not used in some versions

--- Circuitry used in some versions

⊙ See parts list

✱ Nominal value

⊥ Ground

⏏ Chassis

▽ Common tie point

Measurements made in Channel 1 with switching as shown unless noted.

Item numbers in rectangles appear in the alignment/adjustment instructions.

Supply voltage maintained as shown at input.

Voltages measured with digital meter, no signal.

Controls adjusted for normal operation.

Arrow at control indicates direction of advance.

Terminal identification may not be found on unit.

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

Value in () used in some versions.

A PHOTOFAC STANDARD NOTATION SCHEMATIC

WITH **CIRCUITRACE**

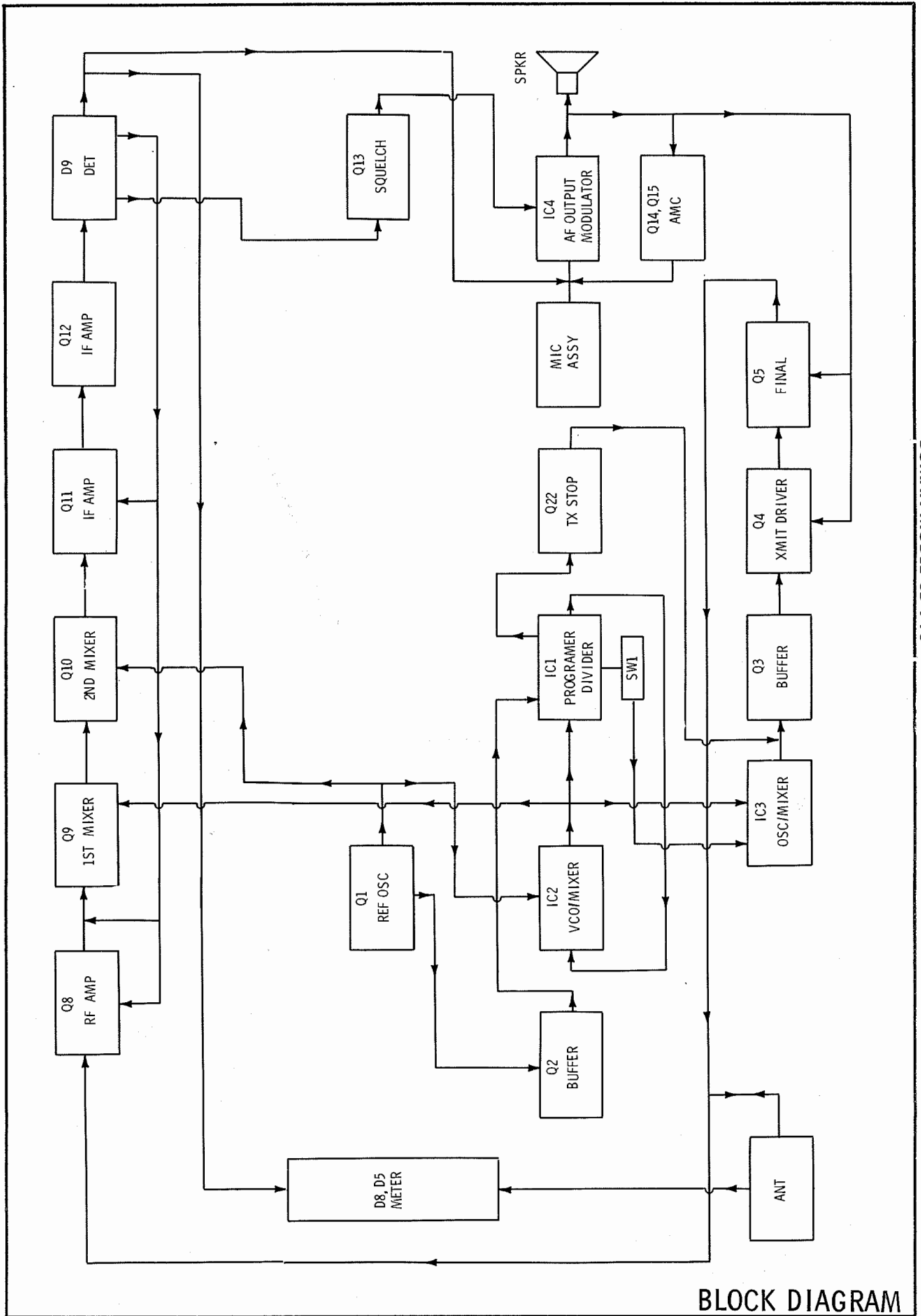
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Transistor Terminal Guide

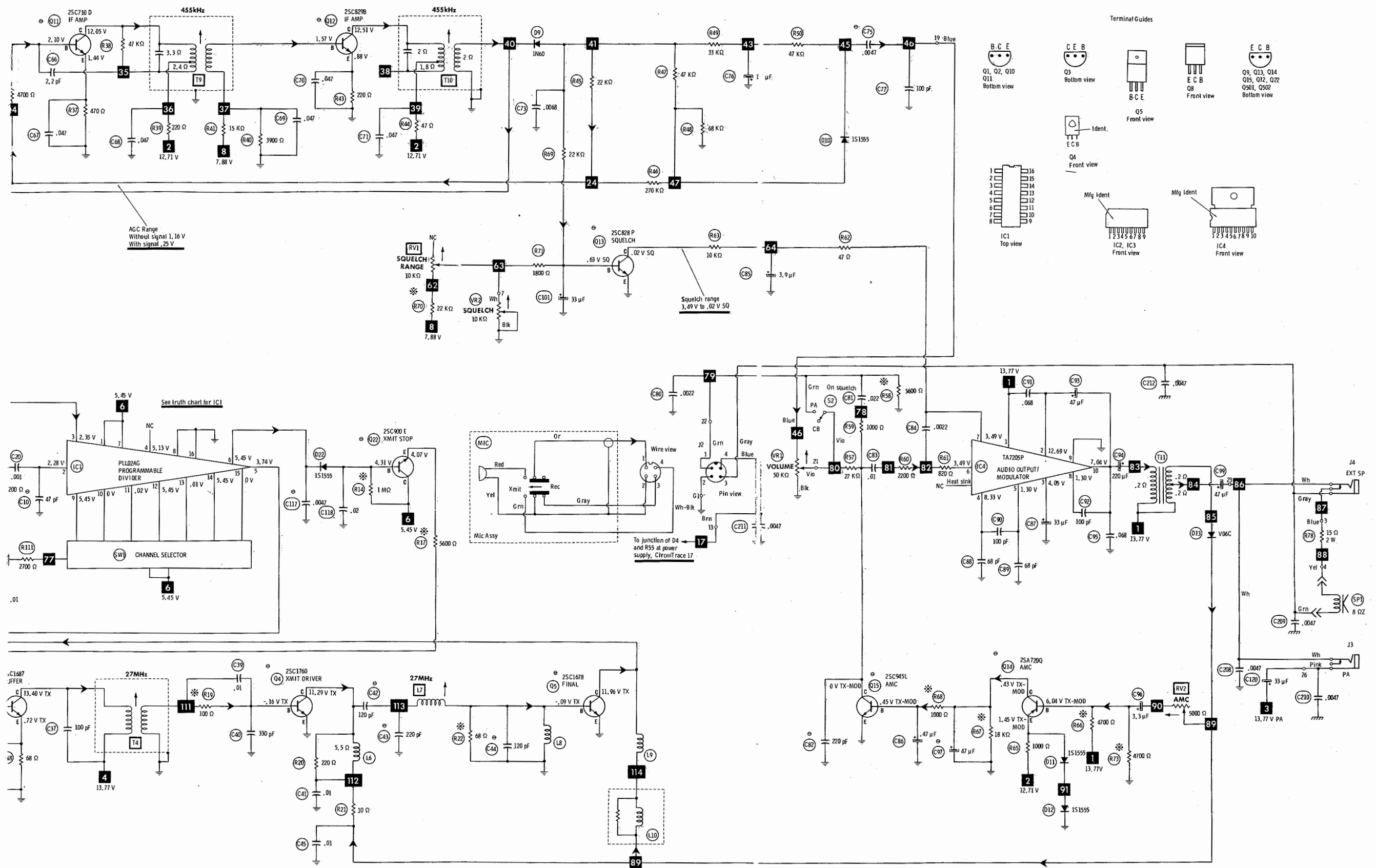


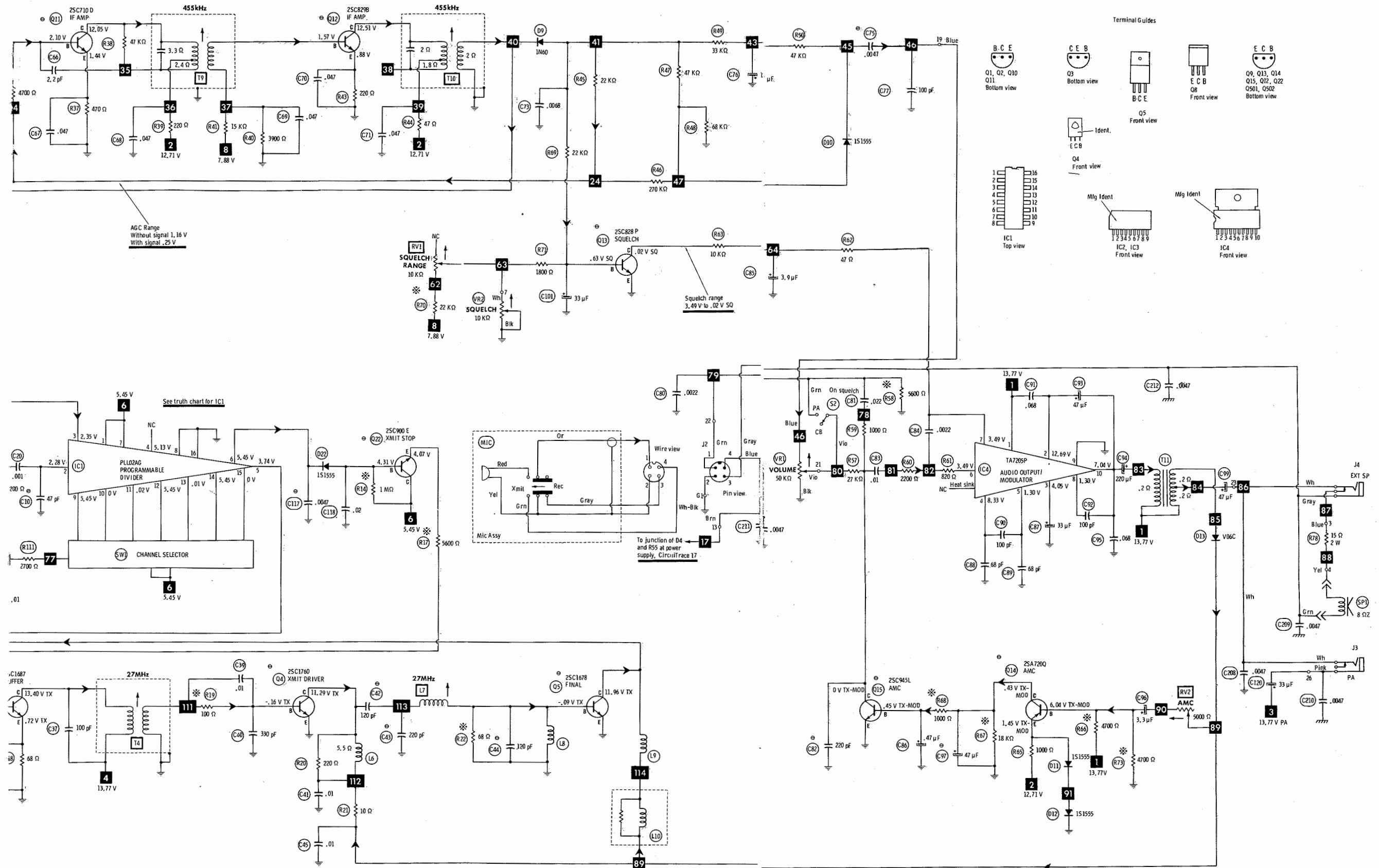
Q6, Q7
Bottom view

BOMAN MODEL CB-910



BLOCK DIAGRAM



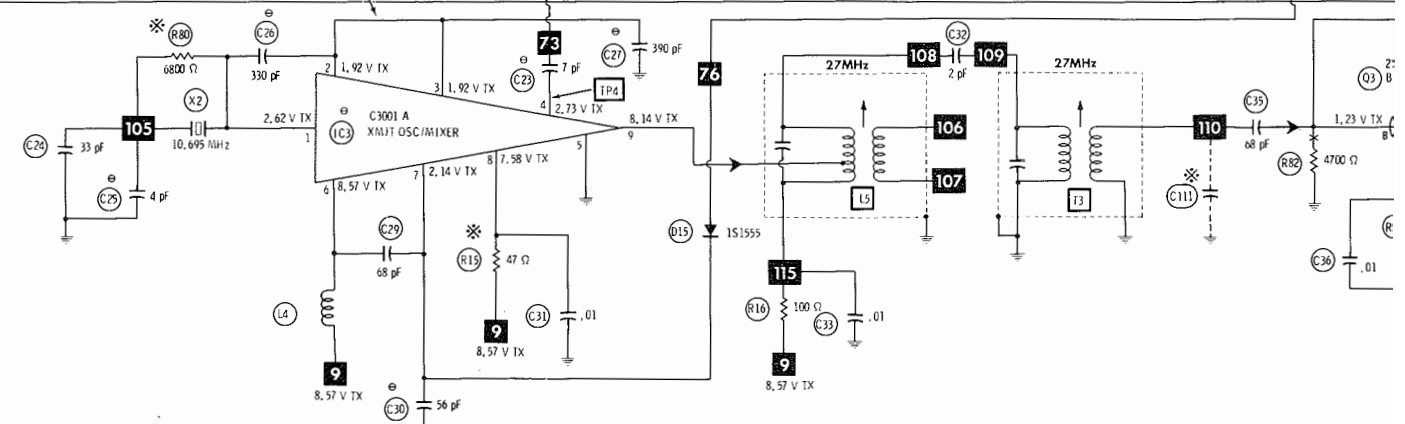
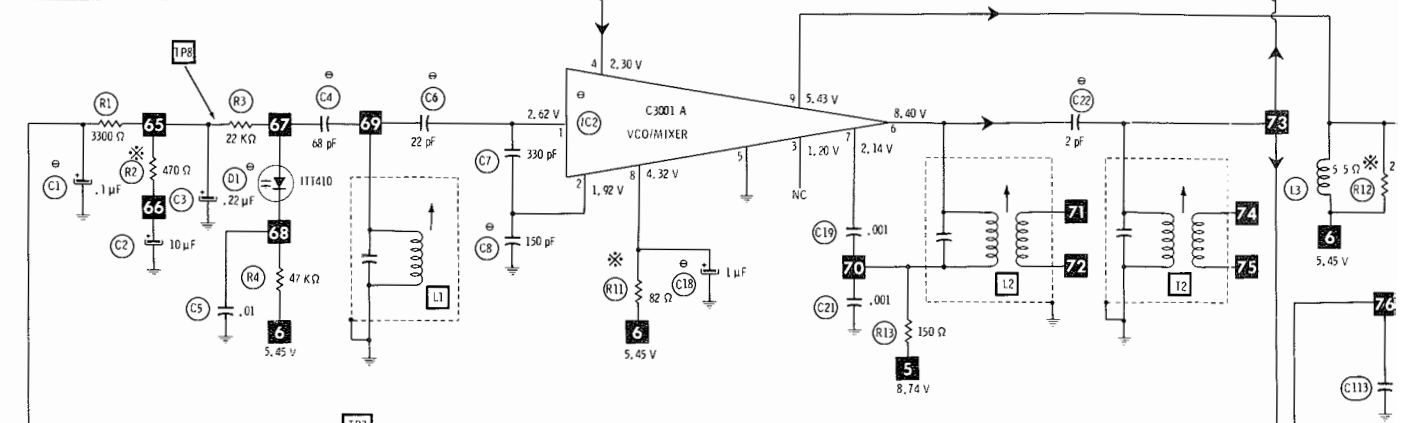
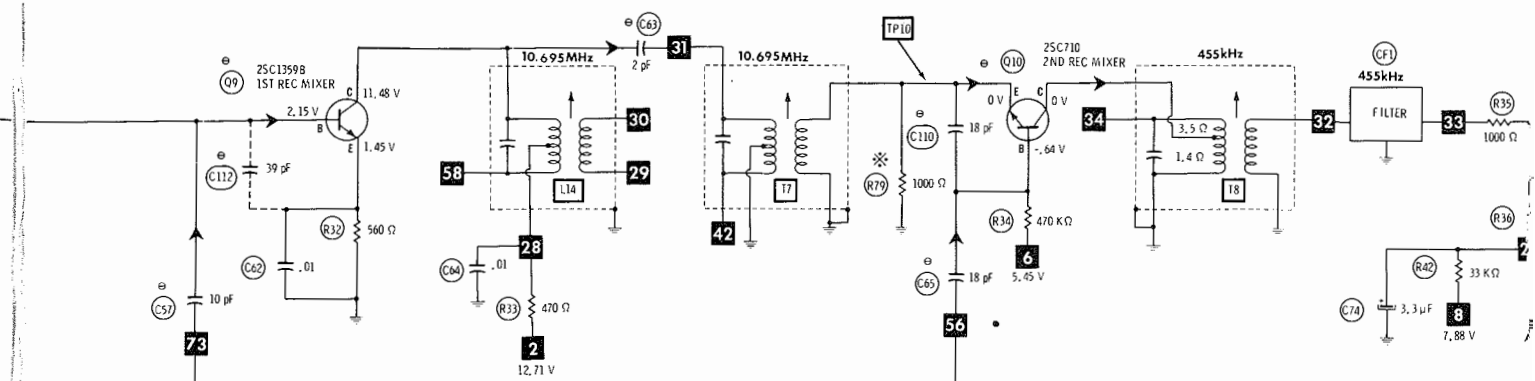
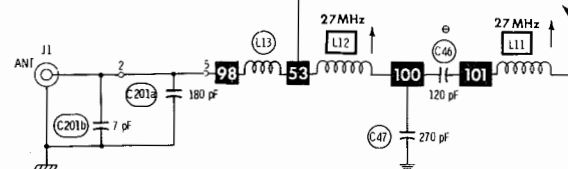
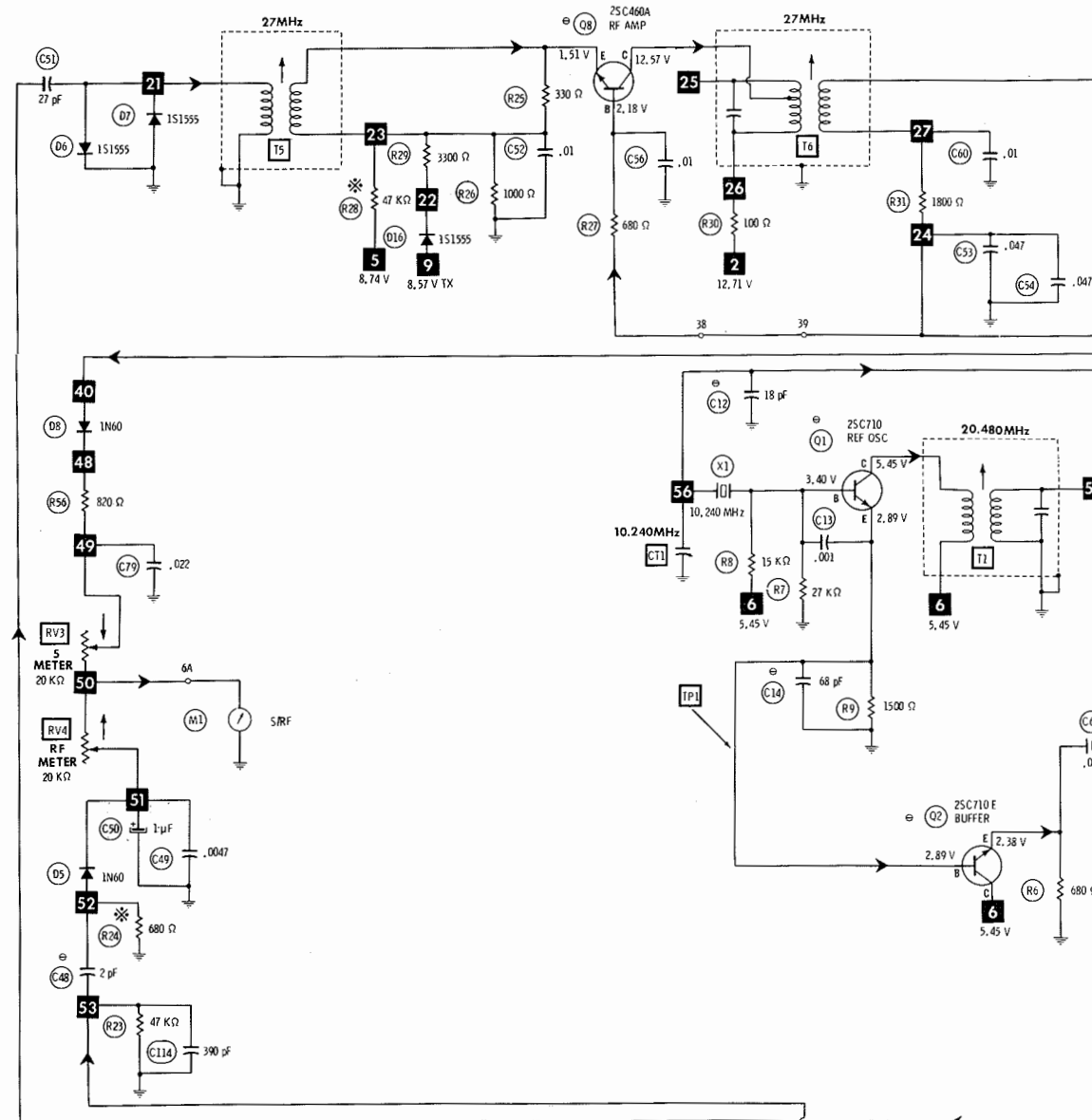


- ✱ Circuitry not used in some versions
 - Circuitry used in some versions
 - ⊙ See parts list
 - ✱ Nominal value
 - ⊥ Ground
 - ⌚ Chassis
 - ▽ Common tie point
- Measurements made in Channel 1 with switching as shown unless noted. Item numbers in rectangles appear in the alignment/adjustment instructions.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

A PHOTOFACIT STANDARD NOTATION SCHEMATIC

WITH **CIRCUITRACE®**

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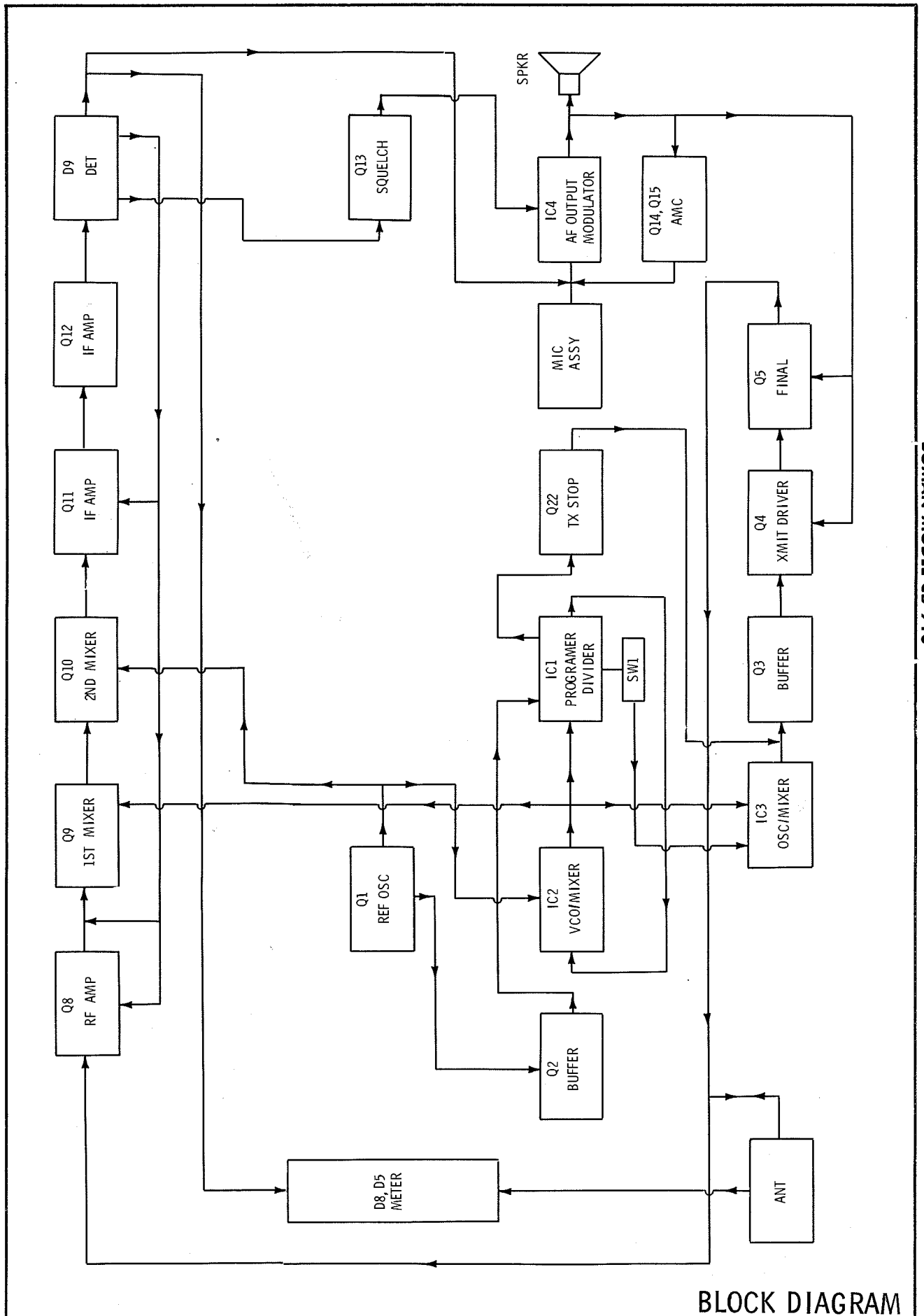
PARTS LIST AND DESCRIPTION (CONTINUED)

(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.	
						Q-LINE	GENERAL LINE
C41	.01	CC-CB180KPM	DC-103	MGP01	TA110	QC2-141	TG-S10
C42	120		DTZ-120		CN0312		10TCC-T12
C43	220		DD-221		GP322		10TS-T22
C44	120		DTZ-120		CN0312		10TCC-T12
C45	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C46	120		DTZ-120		CN0312		10TCC-T12
C47	270			CD15FD271J03	SX327	QW1-37	MMB-271
C48	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C49	.0047		DD-472	GP4700	GP247		5GA-D47
C51	27				CN0427		10TCC-Q27
C52	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C53	.047		UK50-503		MAG5015		
C54	.047		UK50-503		MAG5015		
C55	.047			DPMS2S47	EWFA1A47	QF1-171	1PB-S47
C56	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C57	10		DTZ-10	NP010	CN0410		10TCC-Q10
C58	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C59	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C60	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C61	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C62	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C63	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C64	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C65	18 N150				*		10TCC-Q18
C66	2.2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C67	.047			DPMS2S47	EWFA1A47	QF1-171	1PB-S47
C68	.047			DPMS2S47	EWFA1A47	QF1-171	1PB-S47
C69	.047			DPMS2S47	EWFA1A47	QF1-171	1PB-S47
C70	.047			DPMS2S47	EWFA1A47	QF1-171	1PB-S47
C71	.047			DPMS2S47	EWFA1A47	QF1-171	1PB-S47
C73	.0068			WMF1D68	EWFA1A268	QF1-73	1PB-D68
C75	.0047			WMF1D47	EWFA1A247	QF1-57	1PB-D47
C77	100		DD-101	GP100	GP310		10TS-T10
C79	.022			DPMS2S22	EWFA1A22	QF1-127	1PB-S22
C80	.0022		DD-222		GP222	QC2-97	5GA-D22
C81	.022			DPMS2S22	EWFA1A22	QF1-127	1PB-S22
C82	220		DD-221		GP322		10TS-T22
C83	.01			WMF1S1	EWFA1A110	QF1-91	1PB-S10
C84	.0022		DD-222		GP222	QC2-97	5GA-D22
C88	68		DD-680	GP68	GP468		10TS-Q68
C89	68		DD-680	GP68	GP468		10TS-Q68
C90	100		DD-101	GP100	GP310		10TS-T10
C91	.068			WMF1S68	EWFA1A68	QF1-195	1PB-S68
C92	100		DD-101	GP100	GP310		10TS-T10
C95	.068			WMF1S68	EWFA1A68	QF1-195	1PB-S68
C102	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C106	.047		UK50-503		MAG5015		
C107	.047		UK50-503		MAG5015		
C110	18				CN0418		10TCC-Q18
C111	82		DD-820		GP482		10TS-Q82
C112	39				CN0439		10TCC-Q39
C113	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C114	390		DD-391	GP390	GP339		10TS-T39
C117	.0047			WMF1D47	EWFA1A247	QF1-57	1PB-D47
C118	.02		DC-203	MGP02	TA120	QC2-157	TG-S20
C201a	180			CD15FD181J03	SX318	QW1-33	MMB-181
C201b	7		DTZ-6R8	NP06P8	CN0568		10TCC-V68
C202	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C203	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C204	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C205	.047		UK50-503		MAG5015		
C206	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C207	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C208	.0047		DD-472	GP4700	GP247		5GA-D47
C209	.0047		DD-472	GP4700	GP247		5GA-D47
C210	.0047		DD-472	GP4700	GP247		5GA-D47
C211	.0047		DD-472	GP4700	GP247		5GA-D47
C212	.0047		DD-472	GP4700	GP247		5GA-D47
CT1							

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



BLOCK DIAGRAM

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.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
D1	ITT410 BB122 MV201	QD-CTT410XQ			HEPR2502 HEPR2502 HEPR2502				ECG612 ECG612 ECG612			ZEN-452 ZEN-452 ZEN-452
D2	M2205	QD-ZM2205XE	GEZD-5.1	ZM5.18				RT-235	ECG5010	1N4733A	WEP1411	103-279-11
D3	RD9.1E	QD-ZRD9EXAA	GEZD-9.1	ZB9.18				RT-240	ECG139A	1N4739A	WEP1109	103-272
D4	1S1555	QD-SS1555XT	GE-300	PTC214	HEPR0602	RE 114	SK3100	RT-218	ECG177		WEP1062	
D5	1N60	QD-G1N60XXT	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D6	1S1555	QD-SS1555XT	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062	
D7	1S1555	QD-SS1555XT	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062	
D8	1N60	QD-G1N60XXT	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D9	1N60	QD-G1N60XXT	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D10	1S1555	QD-SS1555XT	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062	
D11	1S1555	QD-SS1555XT	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062	
D12	1S1555	QD-SS1555XT	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062	
D13	V06C	QD-SV06CXXB	GE-504A	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116	1N4004	WEP156	212-76
D14	1S1885	QD-SS1885XT	GE-504A	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116	1N4004	WEP156	212-76
D15	1S1555	QD-SS1555XT	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062	
D16	1S1555	QD-SS1555XT	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062	
D22	1S1555	QD-SS1555XT	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062	
IC1	PLLO2AG PLLO2	QQ-OPLL02A0				RE 360-IC RE 360-IC			ECG1233 ECG1167		WEP2007 WEP2007	
IC2	C3001A C3001		GE-181 GE-181				SK3487 SK3487		ECG1192 ECG1192			
IC3	TA7310P C3001-0 C3001	QQ-MC3001AT	GE-181 GE-181				SK3487 SK3487		ECG1192 ECG1192			
IC4	TA7310P TA7205P	QQ-MC3001AN QQ-M07205AT	GE-181 GEIC-179				SK3487 SK3231		ECG1192 ECG1155			
Q1	25C710		GE-211*	PTC132	HEPS0016*	RE 13*	SK3444*	TVMC-81 RT-308*	ECG123A*	TA7205P	WEP949	ZEN-114
Q2	25C710E	QT-C0710XEE	GE-211*	PTC132	HEPS0016*	RE 13*	SK3444*	RT-308*	ECG123A*	25C710	WEP710	ZEN-114
Q3	25C1687	QT-C1687XAN	GE-20*	PTC121*	HEPS0015*	RE 13*	SK3444*	RT-107A*	ECG123A*	25C536*	WEP736*	
Q4	25C1760 25C1846 25C2036		GE-276 GE-336 GE-336	PTC180 PTC180		RE 224 RE 209	SK3197 SK3253	RT-310	ECG306 ECG295	25C496	WEP771 WEP913	800-767
Q5	25C1678 25C1974 25C2075	(12)	GE-322 GE-337 GE-215	PTC186 PTC186 PTC186		RE 203 RE 203 RE 203	SK3197 SK3197 SK3197	RT-146 RT-146 RT-146	ECG235 ECG235 ECG235	25C1306 25C1306	WEP785 WEP785 WEP785	
Q6	25C1306 25C1318Q 25C1318	QT-C1036XZA QT-C1318XDN	GE-215 GE-210*	PTC186 PTC178	HEPS0015*	RE 203 RE 17*	SK3197 SK3137	RT-146 RT-302	ECG235 ECG297	25C1306	WEP785 WEP59*	121-722
Q7	25A720Q 25A720		GE-267 GE-267	PTC102* PTC102*	HEPS0019* HEPS0019*	RE 26* RE 26*	SK3114 SK3114	RT-305 RT-305	ECG298 ECG298		WEP915 WEP915	121-879
Q8	25A719 25C460A 25C460		GE-269 GE-61*	PTC103* PTC136*	HEPS0019* HEPS0014*	RE 26* RE 9	SK3114 SK3122*	RT-305 RT-134	ECG290 ECG107	25C460	WEP911 WEP460	121-879
Q9	25C710 25C1047 25C1359B		GE-61* GE-211* GE-212	PTC136* PTC132* PTC121*	HEPS0014* HEPS0016* HEPS0014*	RE 9 RE 13* RE 192	SK3122* SK3444* SK3122*	RT-134 RT-308* RT-308	ECG107 ECG123A* ECG229*	25C460 25C710 25C784	WEP460 WEP710 WEP63*	121-722
Q10	25C1359 25C710 25C710		GE-60* GE-212 GE-211*	PTC132* PTC121* PTC132	HEPS0016* HEPS0014* HEPS0016*	RE 28* RE 192 RE 13*	SK3018* SK3122* SK3444*	RT-107 RT-308 RT-308*	ECG229* ECG229* ECG123A*	25C784 25C710 25C710	WEP63* WEP66 WEP710	121-109
Q11	25C829 25C839 25C7100	QT-C0710XEE	GE-211* GE-61* GE-211*	PTC132* PTC132* PTC132	HEPS0015* HEPS0015* HEPS0016*	RE 13* RE 13* RE 13*	SK3444* SK3444* SK3444*	RT-308* RT-308 RT-308*	ECG229* ECG229* ECG123A*	25C710 25C829 25C710	WEP710 WEP829 WEP710	ZEN-114
Q12	25C710 25C829B 25C829	QT-C0829XEN	GE-211* GE-20* GE-20*	PTC132* PTC121* PTC121*	HEPS0015* HEPS0015* HEPS0015*	RE 13* RE 9* RE 9*	SK3444* SK3444 SK3444	RT-308* RT-308 RT-308	ECG229* ECG229* ECG229*	25C710 25C829 25C829	WEP710 WEP829 WEP829	ZEN-114
Q13	25C828P 25C828 25C945	QT-C0828XAN	GE-211* GE-61* GE-212	PTC132* PTC121* PTC121*	HEPS0015* HEPS0015* HEPS0015*	RE 13* RE 192 RE 192	SK3444* SK3444 SK3124	RT-308* RT-302 RT-107A	ECG229* ECG199 ECG199	25C710 25C828 25C945	WEP710 WEP828 WEP1945	ZEN-114
Q14	25C372 25A720Q 25A720		GE-61* GE-267 GE-267	PTC121* PTC102* PTC103*	HEPS0015* HEPS0019* HEPS0019*	RE 13* RE 26* RE 26*	SK3444 SK3114 SK3114	RT-308 RT-305 RT-305	ECG123A* ECG298 ECG290	25C372 25C710 25C829	WEP372 WEP915 WEP915	121-722
Q15	25A564 25C945L 25C945	QT-C0945LAA	GE-61* GE-212 GE-212	PTC121* PTC103* PTC121*	HEPS0015* HEPS0019* HEPS0015*	RE 9* RE 13* RE 192	SK3444 SK3114 SK3124	RT-308 RT-303 RT-107A	ECG229* ECG234 ECG199	25C829 25A564 25C945	WEP829 WEP564 WEP1945	ZEN-127
Q22	25C900E 25C900	QT-C0900XEA	GE-62 GE-62	PTC139* PTC139*	HEPS0015* HEPS0015*	RE 192 RE 192	SK3124 SK3124	RT-302 RT-302	ECG199 ECG199	25C900 25C900	WEP66 WEP66	121-29000

* Lead configuration may vary from original.
(12) 10 WATT @ 3.0 AMP.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFG. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C1	.1 10V	CD-A1A0R1ME	PC10-25	TDC104M050EL	QDT1-2	SD50-R109
C2	10 16V	CE-ED100ZMN		VTT10B25	QV1-41	EV-1222
C3	.22 10V	CD-A1AR22ME		TDC224M050EL	QDT1-10	SD50-R229
C11	47 10V	CE-EC470ALN		VTT47D16	QV1-73	EV-1226
C18	1 50V	CE-EG010ALN		VTT1A50	QV1-11	EV-1615
C50	1 50V	CE-EG010ALN	PC1-50	VTT1A50	QV1-11	EV-1615
C72	10 16V	CE-ED100ALN	PC10-25	VTT10B25	QV1-41	EV-1222
C74	3.3 25V	CE-EE3R3ALN	PC5-50	VTT3R3A50	QV1-23	EV-1318
C76	1 50V	CE-EG010ALN	PC1-50	VTT1A50	QV1-11	EV-1615
C78	47 16V	CE-ED470ALN	PC50-16	VTT47D16	QV1-73	EV-1226
C85	3.9 10V	CS-SE3R9MDN		TDC475M010EL	QDT1-48	SD10-4R79
C86	.47 10V	CD-A1AR47ME		TDC474M050EL	QDT1-19	SD50-R479
C87	33 6.3V	CE-E8330ALN	PC30-25	VTT33B10	QV1-61	EV-1125
C93	47 16V	CE-ED470ALN	PC50-16	VTT47D16	QV1-73	EV-1226
C94	220 16V	CE-AD221ZLS	PC250-25	VTT220H16	QV1-117	EV-1240
C96	3.3 25V	CE-EE3R3ALN	PC5-50	VTT3R3A50	QV1-23	EV-1318
C97	47 10V	CE-EC470ALN	PC50-16	VTT47D16	QV1-73	EV-1226
C99	47 25V	CE-AE470ZLS	PC50-25	VTT47E25	QV1-75	EV-1326
C100	1000 16V	CE-ED102ZUN	PC1000-16	VTT1000L16	QV1-183	EV-1260
C101	33 6.3V	CE-E8330ALN	PC30-25	VTT33B10	QV1-61	EV-1125
C120	33 16V	CE-ED330ALN	PC30-25	VTT33D25	QV1-63	EV-1325

SD15-3R99

ROMAN MODEL CB-910

CAPACITORS

			REPLACEMENT DATA					
ITEM No.	RATING	MFGR. PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.		
						Q-LINE	GENERAL LINE	
C4	68 N150	CC-CB680KPM	DC-103	MGP01	*	QC2-141	10TCP-Q68	
C5	.01	CC-C8220KPM			TA110			TG-S10
C6	22 N150				GP330		GP333	10TCP-Q22
C7	330						GP315	10TS-T33
C8	150						MAG5015	10TS-T15
C9	.047		CC-CB680KPM	UK50-503	NP047	CN0447	QF1-1	10TCC-Q47
C10	47	DTZ-47		CN0418		10TCC-Q18		
C12	18 NPO			EWFA1A210		1PB-D10		
C13	.001			*		10TCP-Q68		
C14	68 N150			TA110		TG-S10		
C15	.01	CC-CB470KPM	DC-103	MGP01	CN0433	QC2-141	10TCC-Q33	
C16	33		DTZ-33	NP033	*		10TCP-Q47	
C17	47 N150				EWFA1A210		1PB-D10	
C19	.001		DTZ-3R3	DPMS6D1	CN0533		10TCC-V33	
C20	.001		CC-C8330KPM	DTZ-2R2	CD19FD102J03	SX210	QF1-1	MWC-102
C21	.001	NP02P2			CN0522	10TCC-V22		
C22	2	DTZ-6R8			CN0568	10TCC-V68		
C23	7			NP06P8	*	10TCP-Q47		
C24	33 N150			DTZ-4R7	NP04P7	CN0547		10TCC-V47
C25	4 NPO	CC-CB560KOM	DD-331	GP330	GP333	QC2-141	10TS-T33	
C26	330		DD-391	GP390	GP339		10TS-T39	
C27	390		DC-103	MGP01	TA110		TG-S10	
C28	.01		DD-680	GP68	GP468		10TS-Q68	
C29	68				*		10TCP-Q56	
C30	56 N150	CC-CB101KPM	DC-103	MGP01	TA110	QC2-141	TG-S10	
C31	.01		DTZ-2R2	NP02P2	CN0522		10TCC-V22	
C32	2		DC-103	MGP01	TA110		TG-S10	
C33	.01		DD-680	GP68	GP468		10TS-Q68	
C35	68		CC-CB101KPM	DC-103	MGP01	TA110	QC2-141	TG-S10
C36	.01				*	10TCP-T10		
C37	100 N150	DC-103		MGP01	TA110	TG-S10		
C38	.01			WMF1S1	EWFA1A110	1PB-S10		
C39	.01			GP330			10TS-T33	
C40	330							

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	RESIST-ANCE	REPLACEMENT DATA			
			MFGR. PART No.	CENTRALAB PART No.	MALLORY PART No.	TRW PART No.
RV1	Squelch Range	10K	RP-GNB10301	T-10K (3)	MTC14L1 (3)	X201R103B (3)
RV2	AMC	5000	RP-GNB50202			U260R502B
RV3	S Meter	20K	RP-GNB20301			U260R253B
RV4	RF Meter	20K	RP-GNB20301			U260R253B
VR1	Volume/Power Switch	50K	RV-NB503A12			
VR2	Squelch/PA Switch	10K	RV-NE103B02			

(3) For horizontal mounting, bend the two outside terminals to fit PC board. Use jumper to connect center terminal to PC board.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	VCO	TR-10DD003S			
L2	VCO Mixer (38MHz)	TR-10MB003T			
L3	RF Choke (68uH)	LF-680KD01N			
L4	RF Choke (1uH)	LF-0R9KD01N			
L5	XMT Osc. (27MHz)	TR-10CB002M			
L6	RF Choke (2.2uH)	LF-2R2KD01N			
L7	XMT Driver (27MHz)	TR-A5CZ00M			
L8	RF Choke (68uH)	LF-680KD01N			
L9	RF Choke (.55uH)	LA-1KE1011A			
L10	RF Choke (1uH)	LD-ADX3825M			
L11	Final (27MHz)	TR-A5CZ002M			
L12	Pi Filter (27MHz)	TR-A5CZ003M			
L13	RF Choke (.4uH)	LA-1JG1010A			
L14	IF (10.695MHz)	TR-10MA017S			
L15	RF Choke (68uH)	LF-680KD01N			
L16	RF Choke (.75uH)	LD-ADB4024B			
L17	RF Choke (.75uH)	LD-ADB4024B			
T1	Rec Osc (20.480MHz)	TR-10DB002S			
T2	VCO Mixer (38MHz)	TR-10MB005S			
T3	XMT Mixer (27MHz)	TR-10CB001S			
T4	XMT Buffer (27MHz)	TR-10CP005S			
T5	Rec Antenna (27MHz)	TR-10MP003T			
T6	Rec RF (27MHz)	TR-10CA003T			
T7	IF (10.695MHz)	TR-07LA004N			
T8	IF (455kHz)	TR-07LA005N			
T9	IF (455kHz)	TR-07LA023N			
T10	IF (455kHz)				

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.	
CH1	1.3A	.116	.48mH	LJ-119H001Y ELA-16(1)	TR523		(1) Number on unit.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T11	32	1 2 8 128	TB-G25B001W ETA-66(1)	TR723	MCB-16	(1) Number on unit.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3" PM 8 Ohms	ZQ-A0770802	30A0528R	

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA					
		PART No.		BUSS PART No.		LITTELFUSE PART No.	
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER
F1	2A			AGC2	HDJ	312002	150145

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	ZG-AAZ70112	18-032	18-034	18-010	18-092	1	2	4	3	NC	2

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF1	Ceramic Filter	FB-R455A08M	455kHz
M1	Meter	ZM-J2018N03	S/R
PL1	Lamp	ZP-A064105U	Channel Indicator (4.98V @ 32mA)
PL2	Lamp	ZP-A064105U	Meter (4.98V @ 56mA)
S1	Switch		Power (Part of Volume Control)
S2	Switch		CB/PA (Part of Squelch Control)
SW1	Switch	SR-0840102W	Channel Selector
X1	Crystal	XA-S1B9001T	10.240MHz
X2	Crystal	XA-S1R9002T	10.695MHz

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')