

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.



SBE MODEL SBE-30CB

MODEL SBE-30CB (Trinidad II)

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

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6CY382

ALIGNMENT INSTRUCTIONS

SUGGESTED ALIGNMENT TOOLS:	GC ELECTRONICS:
L4,L9,T1,T2,T8 thru T10.....	9440
L1,L2,T3 thru T5,VC1.....	5000,8290
L6,L8,L10.....	9300

SYNTHESIZER

INDICATOR	CHANNEL	ADJUST	FREQUENCY	REMARKS
Input of frequency counter to anode of D12, common to ground.	1		16.965MHz	Check for proper frequency.
	5		17.015MHz	
	9		17.065MHz	
	13		17.115MHz	
	17		17.165MHz	
	21		17.215MHz	
Input of frequency counter to base of Q6, common to ground.	1		9.545MHz	Check for proper frequency.
	2		9.555MHz	
	3		9.565MHz	
	4		9.585MHz	
Input of frequency counter thru .01uF to cathode of D12, common to ground.	1		10.000MHz	Check for proper frequency.
	2		10.010MHz	
	3		10.020MHz	
	4		10.040MHz	

RECEIVER

Connect an AC VTVM or AF Wattmeter across speaker voice coil.
Adjustments made with 14-volt DC input.
Adjust volume control to obtain suitable reading.

SIGNAL GENERATOR	GEN FREQ	CHANNEL	ADJUST	REMARKS
High side thru .01uF to base of Q6, common to ground.	455kHz, 1000Hz @ 30% modulation.	Any	T3,T4,T5	Set generator output low enough to prevent AGC limiting. Adjust for maximum.
High side thru .01uF to antenna jack, common to ground.	27.115MHz, 1000Hz @ 30% modulation	13	L1,L2,T1, T2,L9	Set generator output low enough to prevent AGC limiting. Adjust for maximum.

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF Wattmeter across speaker voice coil.
These adjustments made with 14-volt.
Adjust volume control to obtain a suitable reading.

SIGNAL GENERATOR	GEN FREQ	CHANNEL	ADJUST	REMARKS
SQUELCH RANGE High side thru .01uF to antenna jack, common to ground.	27.115MHz, 1000Hz @ 30% modulation, output 300uV.	13	VR3	Set squelch control fully clockwise. Adjust VR3 so that squelch just breaks.
S METER High side thru .01uF to antenna jack, low side to ground.	27.115MHz 1000Hz @ 30% modulation, output 100uV	13	VR5	Adjust for 9 on S scale of meter.

TRANSMITTER

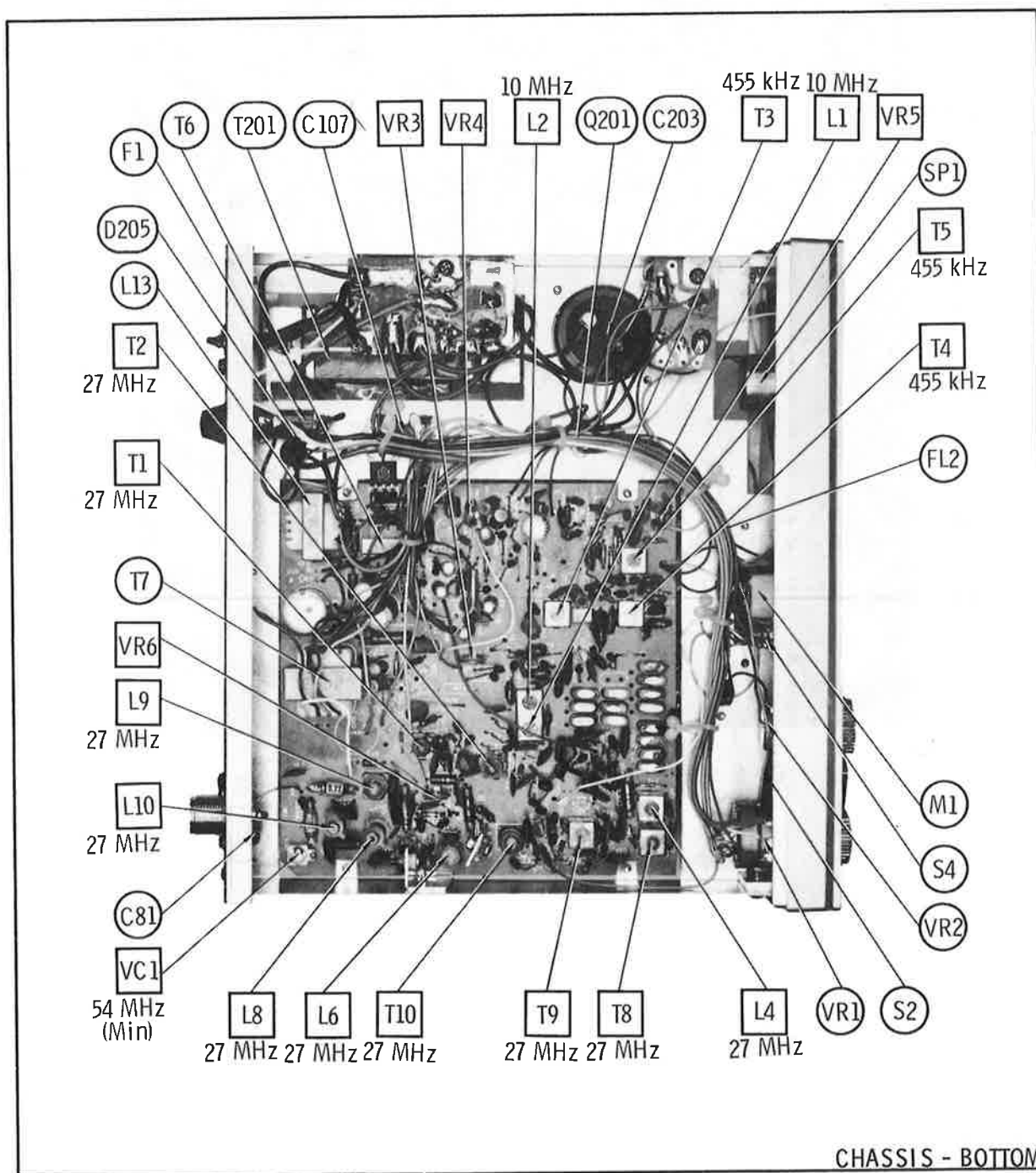
Connect an RF Wattmeter or 50-ohm, 25-watt dummy load to antenna connector.
Adjustments made with 14-volt DC input.

INDICATOR	ADJUST	REMARKS
OSCILLATOR, MIXER, Input of RF VTVM to antenna jack, common to ground.	L4,T8	Channel selector to CH. 1. Key transmitter. Adjust for maximum.
OUTPUT POWER Input of RF Wattmeter to antenna jack, common to ground.	L8,L10, T9,T10,L6	Key transmitter. Adjust for 4 watts output.
TVI TRAP TV (Ch. 2)	VC1	Key transmitter. Adjust for MINIMUM interference on TV.

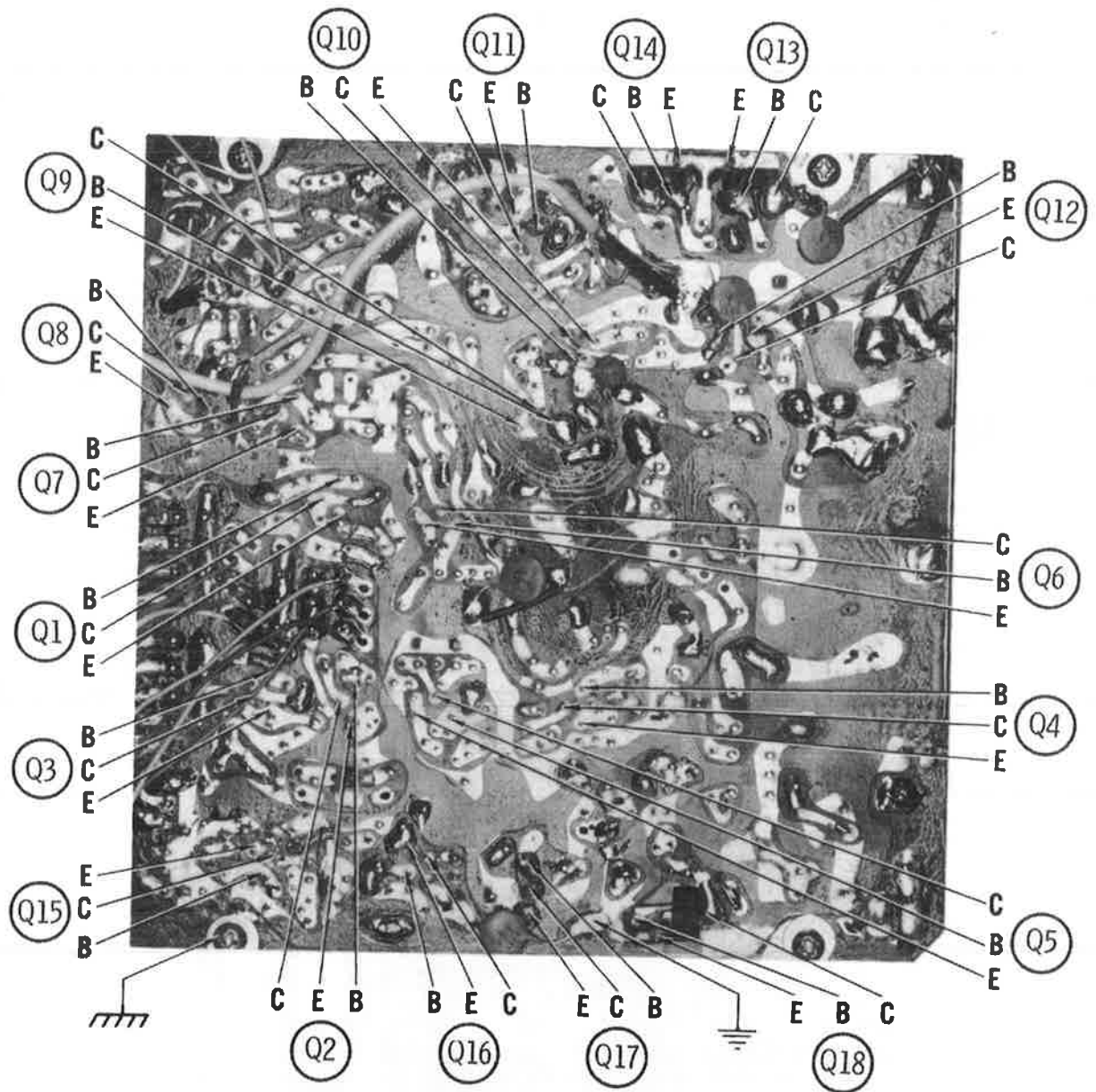
TRANSMITTER ADJUSTMENTS

Connect an RF Wattmeter or 50-ohm, 25-watt dummy load to antenna connector.
Adjustments made with 14-volt DC input.

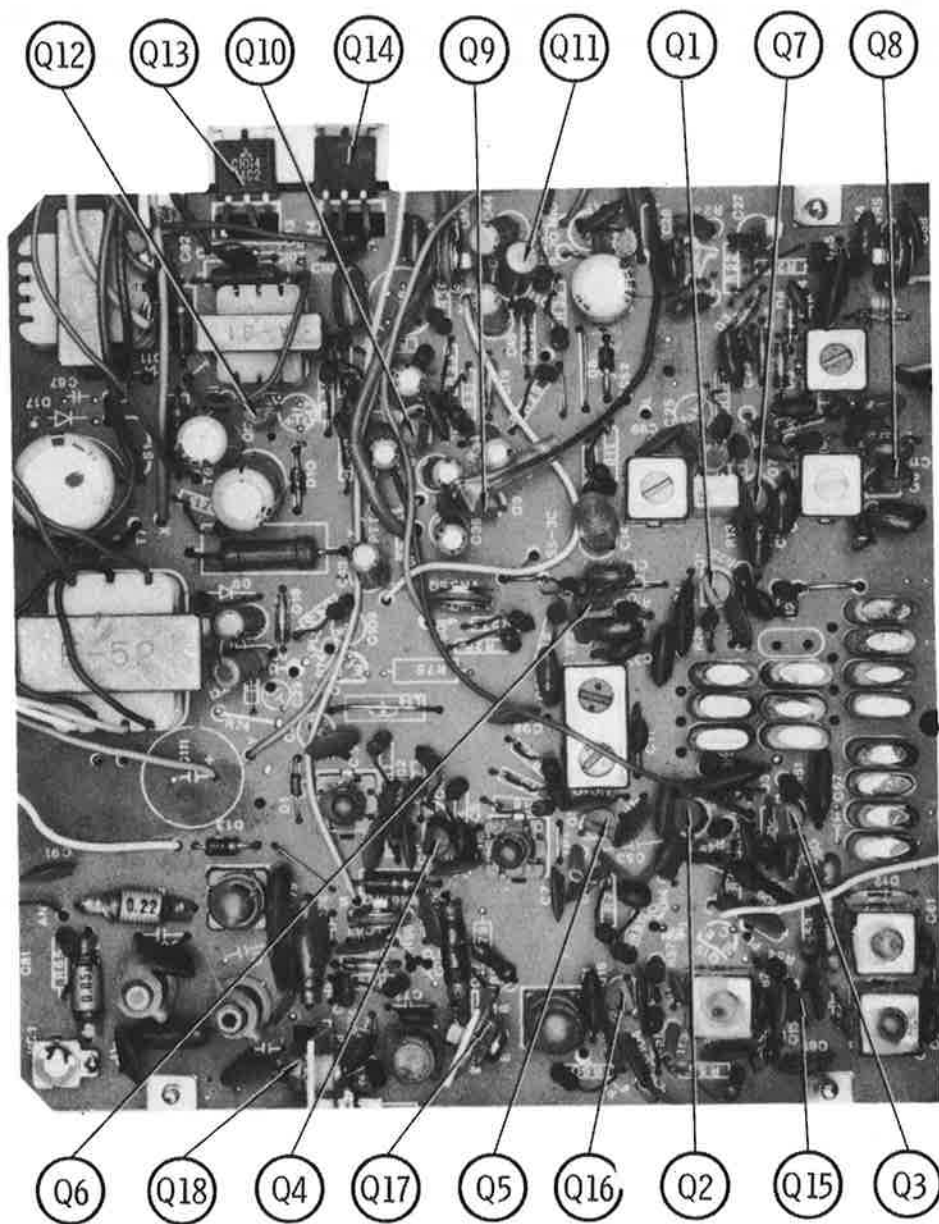
INDICATOR	ADJUST	REMARKS
AMC Input of Modulation Meter to antenna jack, common to ground.	VR4	Disable AMC. Inject a 1000Hz signal at mic input. Key transmitter. Adjust for overmodulation. Restore AMC. Adjust VR4 for 100% modulation maximum.
RF PANEL METER Input of RF Wattmeter to antenna jack, common to ground.	VR6	Key transmitter. Adjust VR6 so that panel RF meter agrees with RF wattmeter.



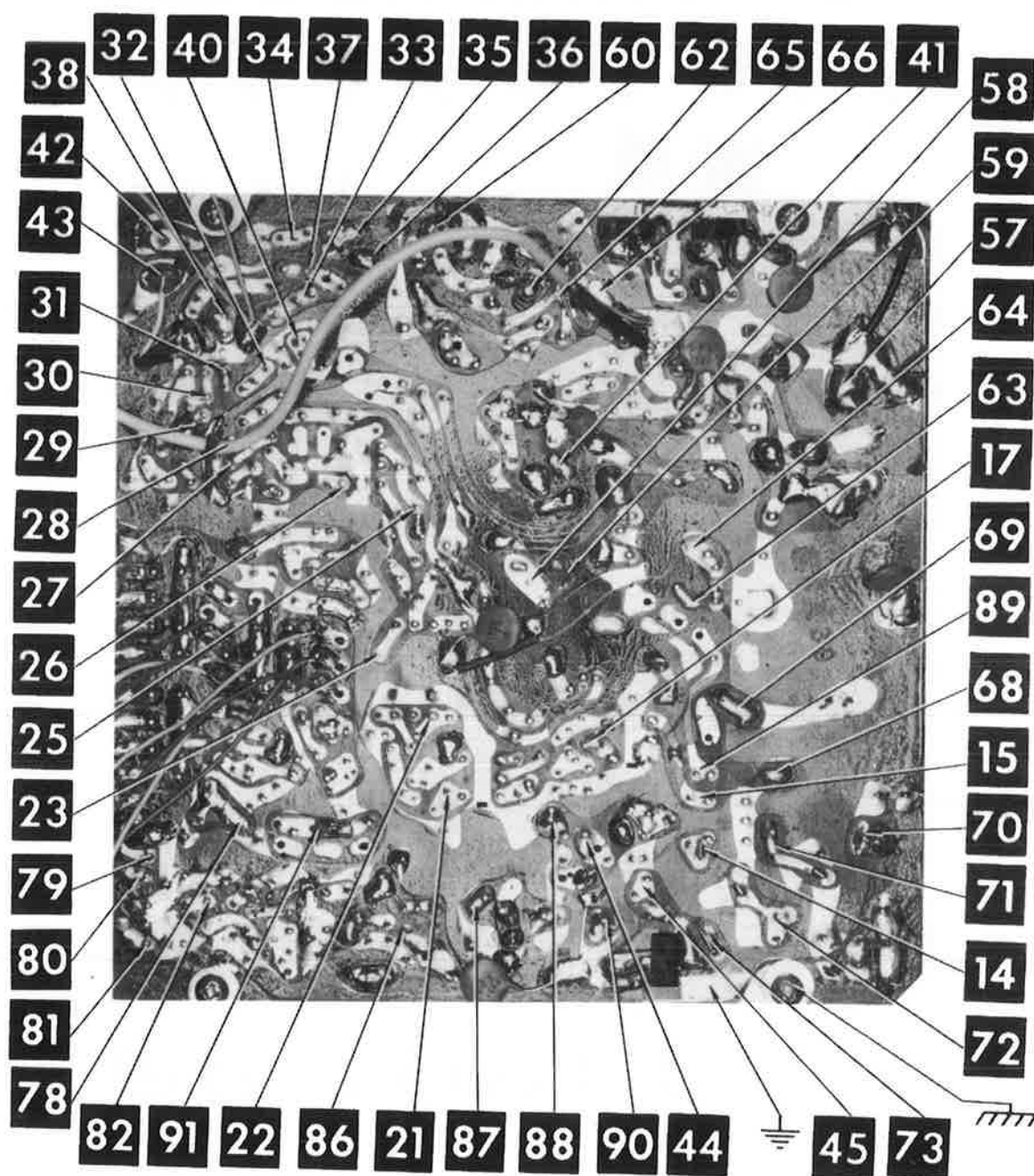
SBE MODEL SBE-30CB



MAIN BOARD



MAIN BOARD



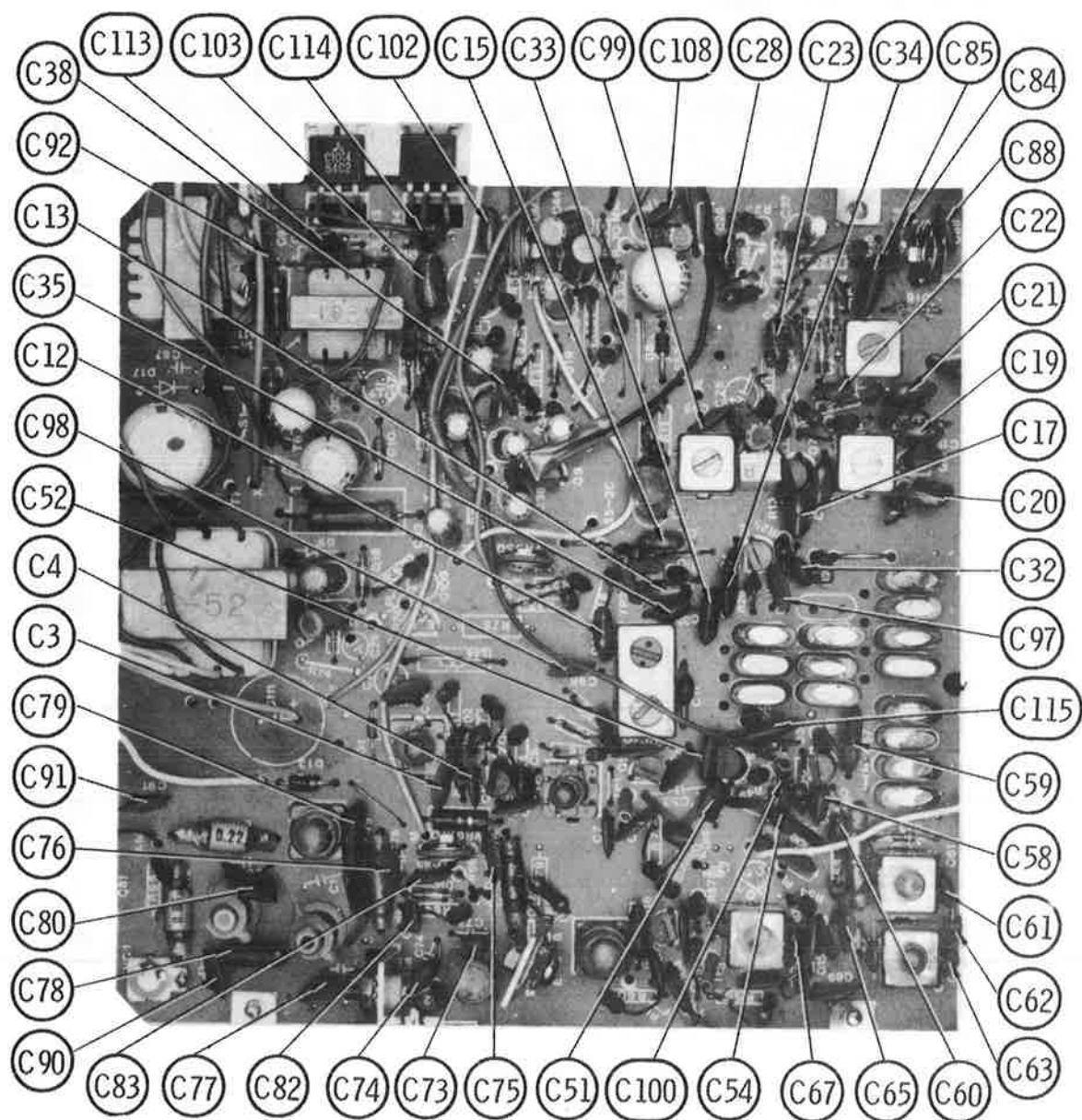
MAIN BOARD



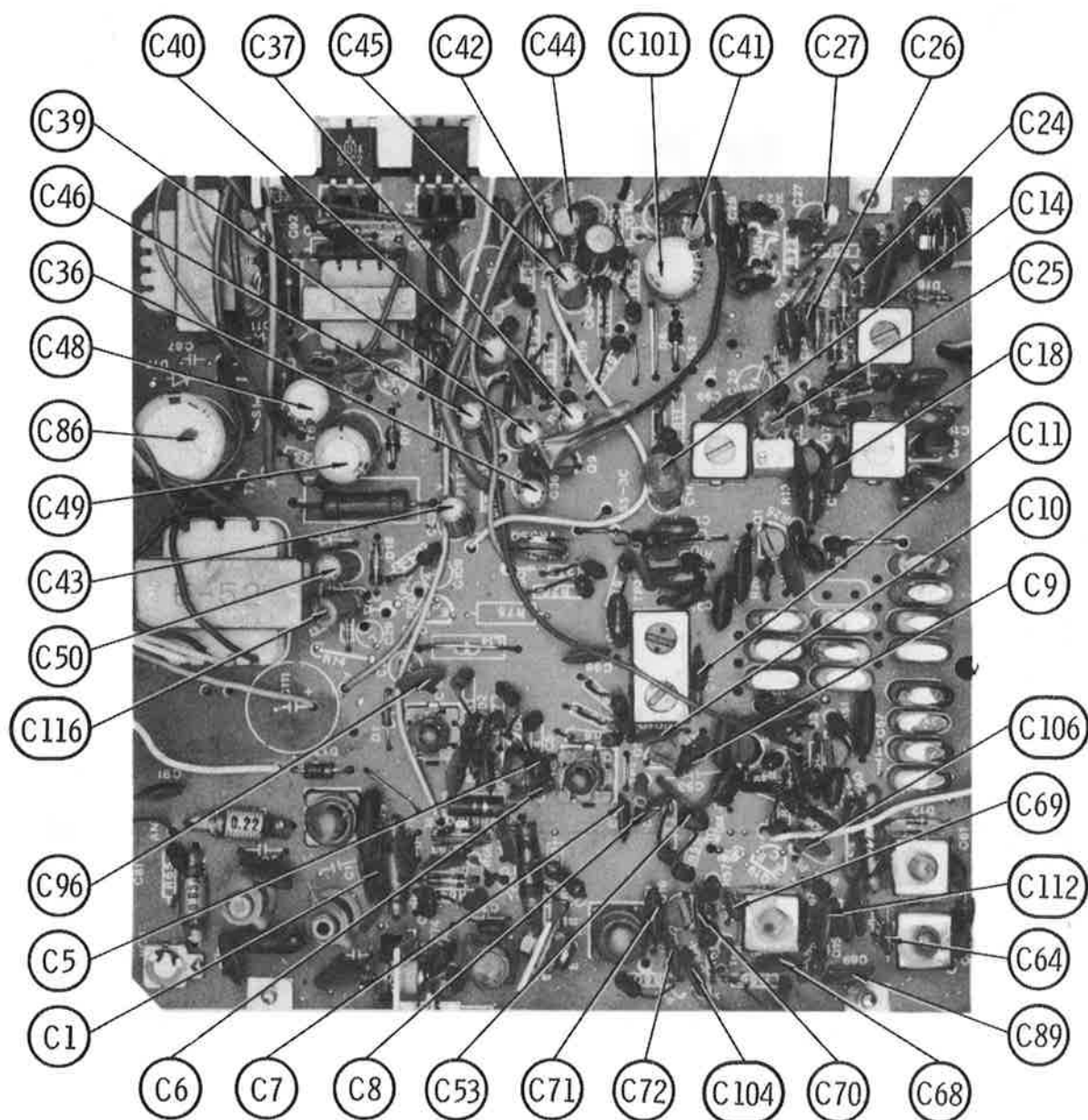
SBE MODEL SBE-30CB

• TRANSMIT

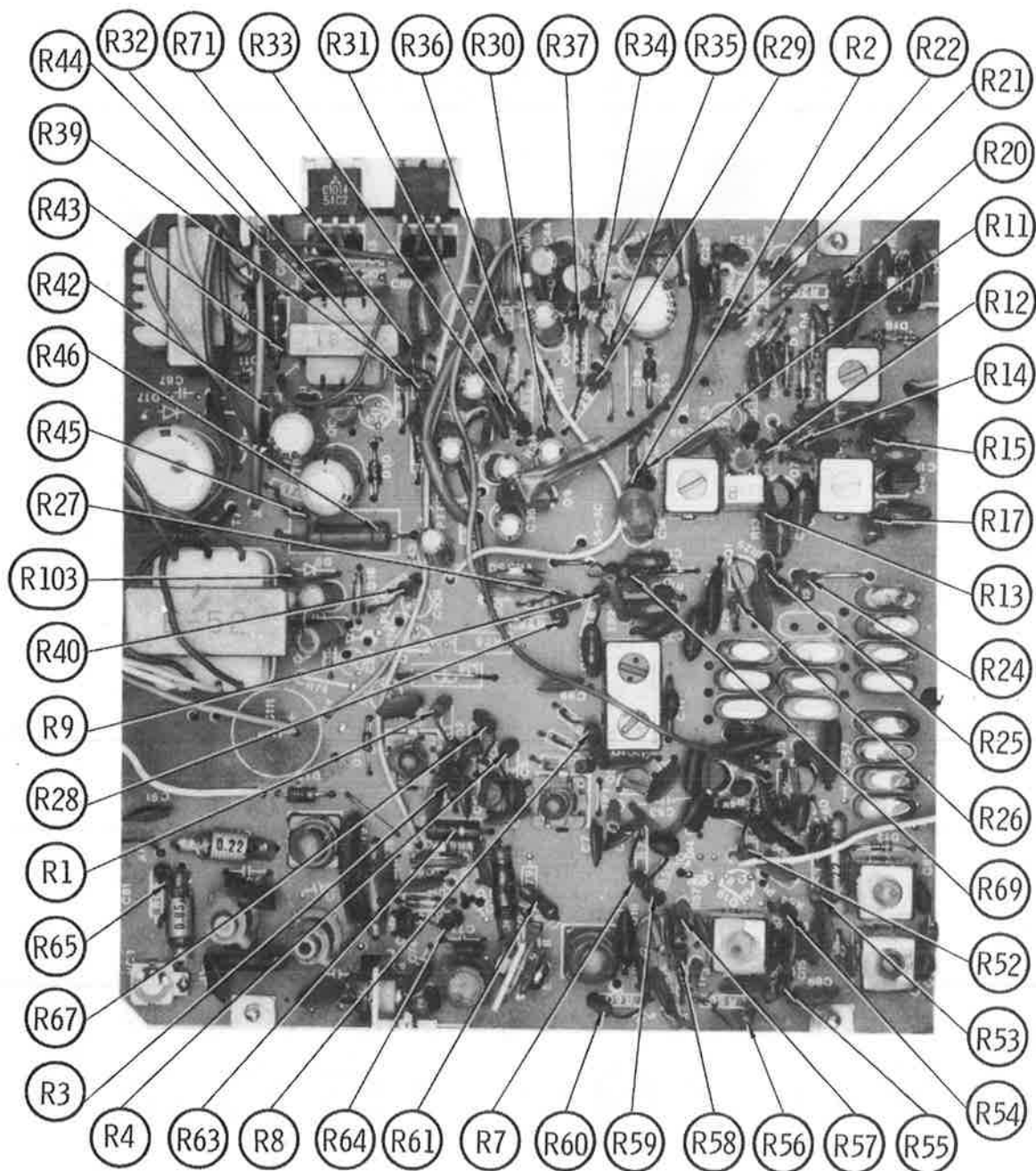
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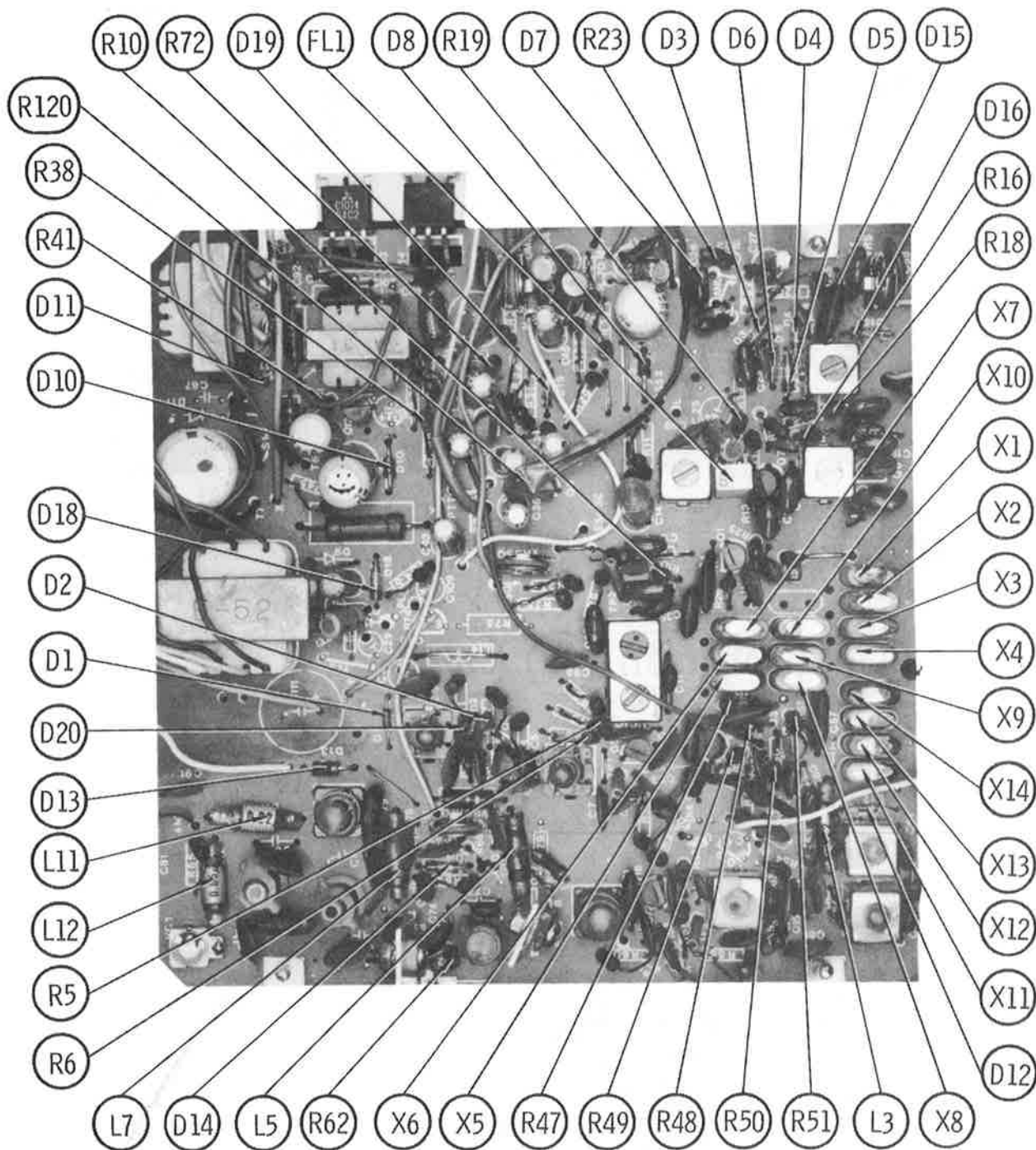
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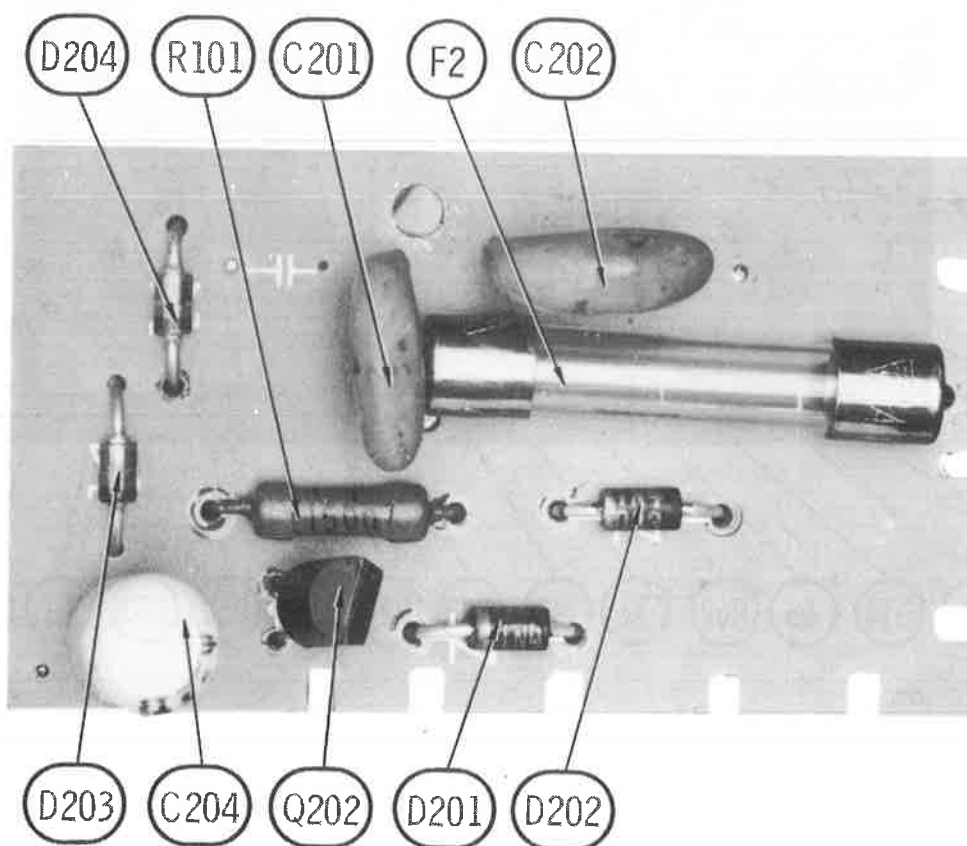
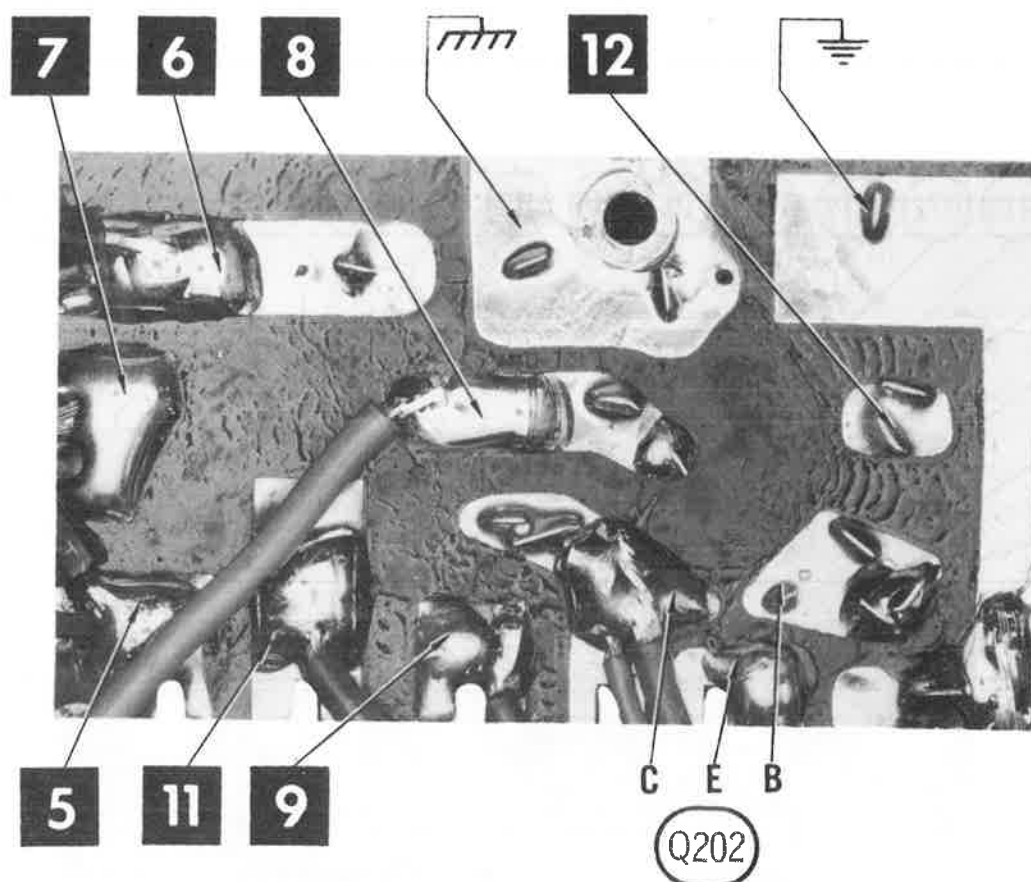
MAIN BOARD



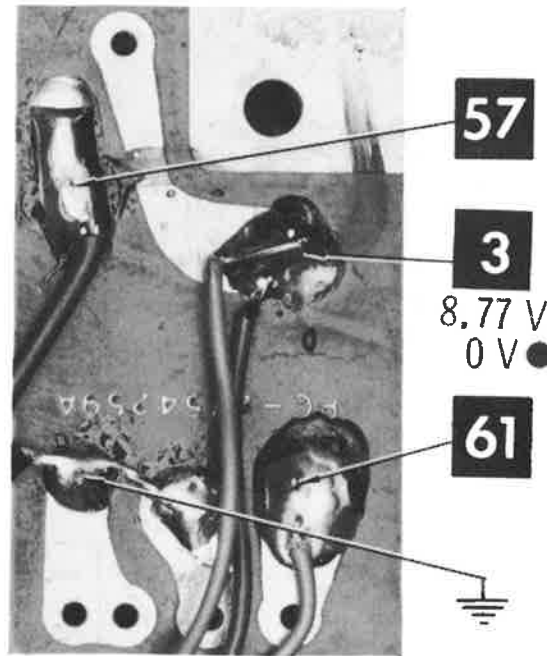
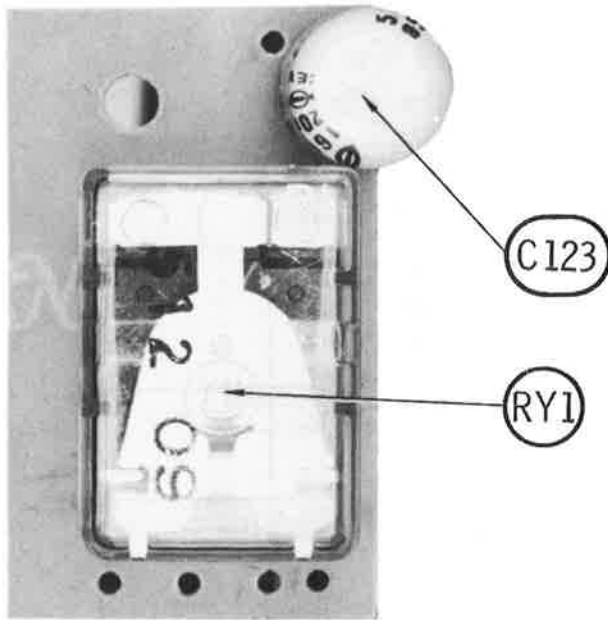
MAIN BOARD



MAIN BOARD



POWER SUPPLY BOARD



● TRANSMIT

RELAY BOARD

SBE MODEL SBE-30CB

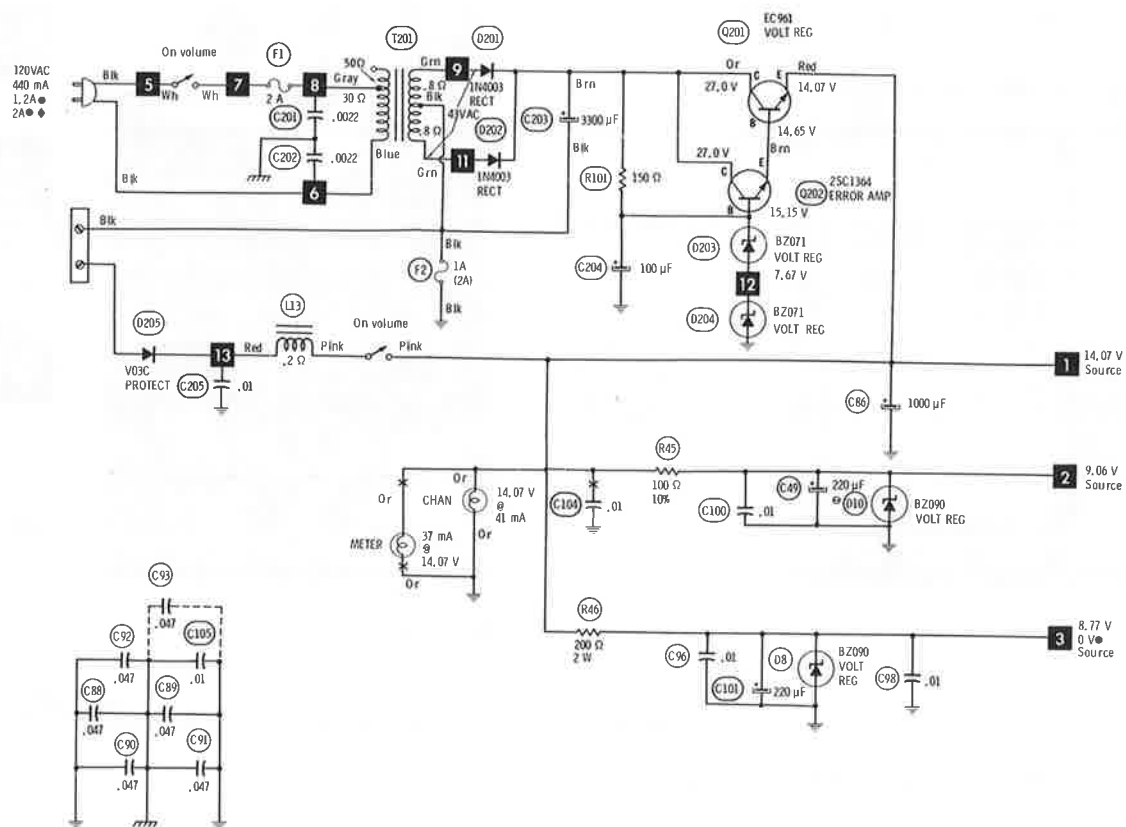
PARTS LIST AND DESCRIPTION

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

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFG. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	IR WORKMAN PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D1	WG713	*-00038-008	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D2	1N60	*-00006-007	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D3	1N60	*-00006-007	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D4	1N60	*-00006-007	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D5	1N60	*-00006-007	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D6	1N60	*-00006-007	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D7	1S84	*-00004-064	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D8	BZ090	*-00011-043	GEZD-9.1		ZB9.1B				RT-240	ECG139
D10	BZ090	*-00011-043	GEZD-9.1		ZB9.1B				RT-240	ECG139
D11	1S1211	*-00011-045			PTC301					
D12	1S2473	*-00006-281	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D13	1N4003		GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
	1N4002	*-00030-010 (1)	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D14	1N60	*-00006-007	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D15	1N60	*-00006-007	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D16	1N60	*-00006-007	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D17	1N60	*-00006-007	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D18	1N60	*-00006-007	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D19	1N60	*-00006-007	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D20	1N60	*-00006-007	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D201	1N4003		GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
	1N4002	*-00030-010 (1)	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D202	1N4003		GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
	1N4002	*-00030-010 (1)	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D203	BZ071	*-00011-103								
D204	BZ071	*-00011-103								
D205	V03C	*-00011-104	GE-504A	5A6D	PTC202	HEPR0054	RE 49	SK3017A	RT-215	ECG116
Q1	2SC710C	*-00006-003	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
Q2	2SC710C	*-00006-003	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
Q3	2SC710C	*-00006-003	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
Q4	2SC710C	*-00006-003	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
Q5	2SC710C	*-00006-003	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
Q6	2SC710C	*-00006-003	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
Q7	2SC710C	*-00006-003	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
Q8	2SC710C	*-00006-003	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A

(CONTINUED ON PAGE 82)



Terminal Guides



Q202
Bottom view



Q201
Bottom view



Q10, Q12, Q15, Q16
Bottom view



Q11
Bottom view



Q13, Q14
Front view



Q17
Front view



Q18
Front view

- 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:

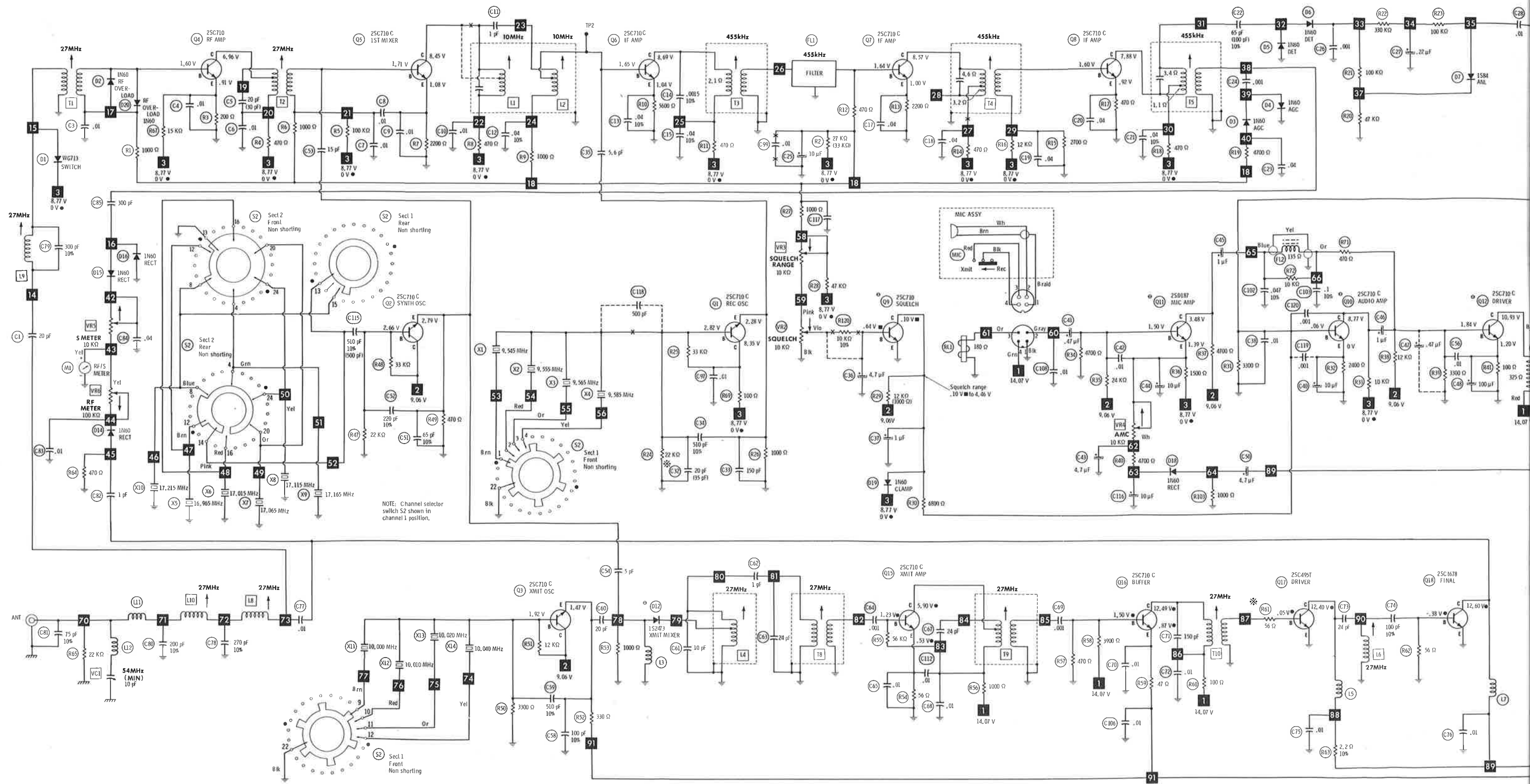
- Squelch fully clockwise
- ◆ 100% modulation
- Transmit

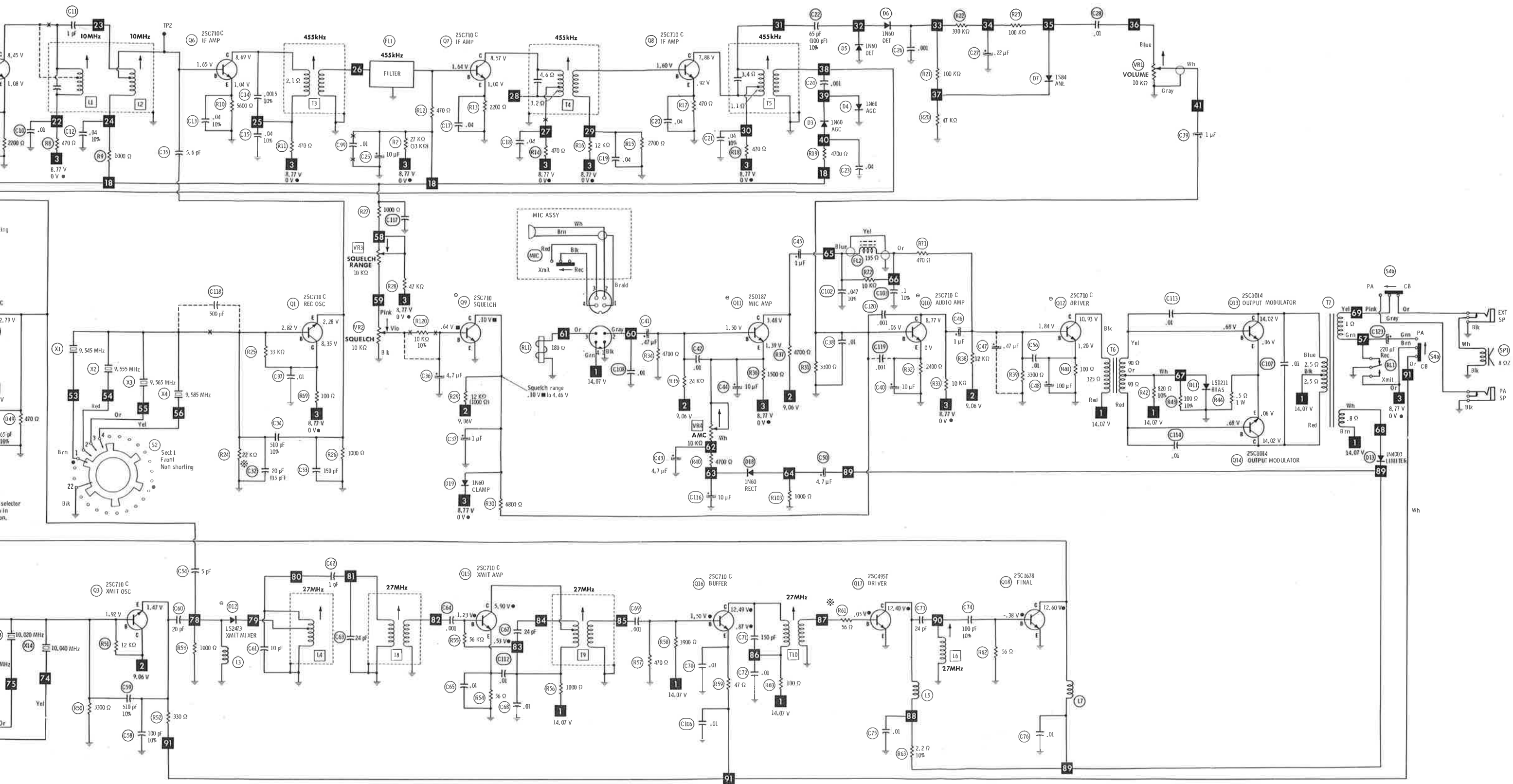
Supply voltage maintained as shown at input.
Voltages measured with digital meter, no signal.
Controls adjusted for normal operation.
Arrow at control indicates direction of advance.
Terminal identification may not be found on unit.
Resistors are 1/2W or less, 5% unless noted.
Value in () used in some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

A PHOTOFACT STANDARD NOTATION SCHEMATIC
WITH **CIRCUITRACE**

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





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.	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.
Q9	2SC710C	*-00006-003	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
Q10	2SC711	(1)	GE-62	(IR)2SC644	PTC121	HEPS0024	RE 192	SK3124	RT-108A	ECG199
	2SC710C	*-00006-003	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
Q11	2SC711	(1)	GE-62	(IR)2SC644	PTC121	HEPS0024	RE 192	SK3124	RT-108A	ECG199
	2SD187	*-00032-027	GE-59	TR-08	PTC134	HEPG6011	RE 6	SK3010	RT-129	ECG103A
Q12	2SD77	(1)	GE-59	TR-08	PTC108	HEPG6011	RE 6	SK3010	RT-129	ECG103A
	2SC710C	*-00006-003	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
Q13	2SC711	(1)	GE-62	(IR)2SC644	PTC121	HEPS0024	RE 192	SK3124	RT-108A	ECG199
	2SC1014	*-00004-087			PTC193					ECG300
Q14	2SC1014	(10)								
Q15	2SC1014	*-00004-087								ECG300
		(10)								
Q15	2SC710C	*-00006-003	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
Q16	2SC710C	*-00006-003	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
Q17	2SC495T	*-00006-278			PTC180					ECG295
Q18		(11)								
	2SC1678	*-00006-279	GE-215		PTC186		RE 203	SK3197		ECG235
Q201		(12)								
	EC961	*-00006-190	GE-14	TR-59	PTC119	HEPS7004	RE 19	SK3027	RT-131	ECG130
Q202	2SC1364	*-00006-280	GE-20	(IR)2SC829B	PTC121	HEPS0015	RE 13	SK3124	RT-172	ECG123A

* 8000 series.
(1) Used in some versions.
(10) Rating, 7.0 watts @ 1.5 amps.
(11) Rating, 5.0 watts @ 800 mA.
(12) Rating, 10 watts @ 3.0 amps.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA			
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C25	10 16V	8000-00006-065	PC10-25	VTT10A25	EV-1222
C27	.22 16V				
C36	2.2 16V	8000-00011-002(1)	PC2-100	VTT2R2A50	EV-1317
	4.7 16V	8000-00006-064	PC5-50	VTT4R7A50	EV-1319
C37	1 16V	8000-00006-063	PC1-50	TT15X1	EV-1315
C39	1 16V	8000-00006-063	PC1-50	TT15X1	EV-1315
C40	10 16V	8000-00006-065	PC10-25	VTT10A25	EV-1222
C41	4.7 16V	8000-00006-292	PC5-50	VTT4R7A50	EV-1319
C43	4.7 16V	8000-00006-292	PC5-50	VTT4R7A50	EV-1319
C44	10 16V	8000-00006-065	PC10-25	VTT10A25	EV-1222
C45	1 16V	8000-00006-063	PC1-50	TT15X1	EV-1315
C46	1 16V	8000-00006-063	PC1-50	TT15X1	EV-1315
C47	1 16V	8000-00006-063	PC1-50	TT15X1	EV-1315
C48	100 16V	8000-00006-067	PC100-16	VTT100F16	EV-1230
C49	220 16V	8000-00006-164	PC250-25	VTT220G16	EV-1240
C50	4.7 16V	8000-00006-064	PC5-50	VTT4R7A50	EV-1319
C86	1000 16V	8000-00006-068			
C101	220 16V	8000-00006-164	PC250-25	VTT220G16	EV-1240
C116	10 16V	8000-00006-065	PC10-25	VTT10A25	EV-1222
C123	220 16V	8000-00006-164	PC250-25	VTT220G16	EV-1240
C203	3300 16V	8000-00011-102	PC1000-16	VTT1000L16	EV-1260
C204	100 16V	8000-00006-067	PC100-16	VTT100F16	EV-1230

(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	20 10%	(1)	UK50-103	CD15ED200J03	SX420	MWA-200
C3	.01				MAG5011	
C4	.01				MAG5011	
C5	20 10%			CD15ED200J03	SX420	MWA-200
	30 10%			CD15ED300J03	SX420	MWA-300
C6	.01	(1)	UK50-103		MAG5011	
C7	.01				MAG5011	
C8	.01				MAG5011	
C9	.01				MAG5011	
C10	.01				MAG5011	
C11	1 10%	8000-00004-028				

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.
C12	.04 10%	(1)	CW20C393K UK50-103	DPMS2S47	EWFA1A17	1PB-S47
C13	.04 10%			DPMS2S47	EWFA1A17	1PB-S47
C14	.0015 10%			CD19FD152J03	SX215	MWA-152
C15	.04					
	.01				MAG5011	
C17	.04 10%	(1)	DD-102G DD-102G	DPMS2S47	EWFA1A17	1PB-S47
C18	.04 10%			DPMS2S47	EWFA1A17	1PB-S47
C19	.04 10%			DPMS2S47	EWFA1A17	1PB-S47
C20	.04 10%			DPMS2S47	EWFA1A17	1PB-S47
C21	.04 10%			DPMS2S47	EWFA1A17	1PB-S47
C22	65 10%	(1)	DD-102G DD-102G	CD15ED680J03	SX468	MWA-680
	100 10%			CD15FD101J03	SX310	MWA-101
C23	.04 10%			DPMS2S47	EWFA1A17	1PB-S47
C24	.001			GP1000	GP210	5GA-D10
C26	.001			GP1000	GP210	5GA-D10
C28	.01 10%	(1)	UK50-103 UK50-103		PVC605	6TM-P50
C32	20 10%			CD15ED200J03	SX420	MWA-200
	35 10%			CD15ED360J03	SX436	MWA-350
C33	150 10%			CD15FD151J03	SX315	MWA-151
C34	510 10%			CD15FD511J03	SX351	MWA-511
C35	5.6 10%	(1)	UK50-103 UK50-103			
C38	.01				MAG5011	
C42	.01				MAG5011	
C51	65 10%			CD15ED680J03	SX468	MWA-680
C52	220 10%			CD15FD221J03	SX322	MWA-221
C54	5 10%	(1)	DTZ-4R7 UK50-103	NP04P7	CN0547	10TCC-V47
C56	.01				MAG5011	
C58	100 10%			CD15FD101J03	SX310	MWA-101
C59	510 10%			CD15FD511J03	SX351	MWA-511
C60	20 10%			CD15ED200J03	SX420	MWA-200
C61	10 10%	(1)	DD-102G DC-103	CD6CD100D03		
C62	1 10%				CN0510	10TCC-V10
C63	24 10%			CD15ED240J03	SX424	MWA-240
C64	.001			GP1000	GP210	5GA-D10
C65	.01			MGP01	TA110	TG-S10
C67	24 10%	(1)	DC-103 DD-102G DC-103	CD15ED240J03	SX424	MWA-240
C68	.01			MGP01	TA110	TG-S10
C69	.001			GP1000	GP210	5GA-D10
C70	.01			MGP01	TA110	TG-S10
C71	150 10%			CD15FD151J03	SX315	MWA-151
C72	.01	(1)	DC-103	MGP01	TA110	TG-S10
C73	24 10%			CD15ED240J03	SX424	MWA-240
C74	100 10%			CD15FD101J03	SX310	MWA-101
C75	.01			MGP01	TA110	TG-S10
C76	.01			MGP01	TA110	TG-S10
C77	.01	(1)	DC-103 DC-103 DC-103	MGP01	TA110	TG-S10
C78	270 10%			CD15FD271J03	SX327	MWA-271
C79	300 10%			CD15FD301J03	SX330	MWA-301
C80	200 10%			CD15FD201J03	SX320	MWA-201
C81	75 10%			CD15FD750J03	SX478	MWA-750
C82	1 10%	(1)	DC-103			
C83	.01			MGP01	TA110	TG-S10
C84	.04 10%			DPMS2S47	EWFA1A17	1PB-S47
C85	300 10%			CD15FD301J03	SX330	MWA-301
C88	.047	(1)	UK50-503 UK50-503 UK50-503		MAG5015	
C89	.047				MAG5015	
C90	.047				MAG5015	
C91	.047				MAG5015	
C92	.047				MAG5015	
C93	.047	(1)	UK50-503 DC-103		MAG5015	
C96	.01			MGP01	TA110	TG-S10
C97	.01			MGP01	TA110	TG-S10
C98	.01			MGP01	TA110	TG-S10
C99	.01			MGP01	TA110	TG-S10
C100	.01	(1)	DC-103	MGP01	TA110	TG-S10
C102	.047 10%					
C103	.1 10%			DPMS2S47	EWFA1A17	1PB-S47
C104	.01			WMF05P1	EWFO5010	431P1049R5
C105	.01			MGP01	TA110	TG-S10
C106	.01	(1)	DC-103 DC-103 DC-103 DC-103 DC-103	MGP01	TA110	TG-S10
C107	.01			MGP01	TA110	TG-S10
C108	.01			MGP01	TA110	TG-S10
C112	.01			MGP01	TA110	TG-S10
C113	.01 10%				TA110	TG-S10
C114	.01 10%	(1)	DC-103			
C115	510 10%			CD15FD511J03	SX351	MWA-511
C117	.01			MGP01	TA110	TG-S10
C118	500 10%			CD15FD501J03	SX310	MWA-501
C119	.01			MGP01	TA110	TG-S10
C120	.001	(1)	DC-103 DD-102G DD-222 DD-222 DC-103	GP1000	GP210	5GA-D10
C201	.0022				GP222	5GA-D22
C202	.0022				GP222	5GA-D22
C205	.01				GP222	5GA-D22
VC1	10			MGP01	TA110	TG-S10

(1) Used in some versions.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CONTROLS (All wattages)

ITEM No.	FUNCTION	RESISTANCE
VR1	Volume/Power Switch	10K
VR2	Squelch	10K
VR3	Squelch Range	10K
VR4	AMC	10K
VR5	S Meter	50K
VR6	R Meter	10K

(1) Enlarge mounting hole.
(2) Cut off one of the end terminals.

RESISTORS (Power and Special)

ITEM No.	RATING	WORKING PART
R206	20 Ohm 5W	WR-20

COILS (RF-IF)

ITEM No.	FUNCTION	
L1	Rec Mixer (10MHz)	8K
L2	Rec Mixer (10MHz)	8K
L3	RF Choke (22uH)	8K
L4	Xmit Osc (27MHz)	8K
L5	RF Choke (2.5uH)	8K
L6	Xmit Driver (27MHz)	8K
L7	RF Choke (.65uH)	8K
L8	Ant Match (27MHz)	8K
L9	Rec Ant (27MHz)	8K
L10	Pi Filter (27MHz)	8K
L11	RF Choke (.22uH)	8K
L12	TVI (54MHz)	8K
T1	Rec Antenna (27MHz)	8K
T2	Rec RF (27MHz)	8K
T3	IF (455kHz)	8K
T4	IF (455kHz)	8K
T5	IF (455kHz)	8K
T8	Harmonic Suppressor	8K
T9	Xmit Amp (27MHz)	8K
T10	Xmit Buffer (27MHz)	8K

PARTS LIST AND DESCRIPTION (CONTINUED)

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

s)(cont)

RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
SK3018	RT-105	ECG123A
SK3124	RT-108A	ECG199
SK3018	RT-105	ECG123A
SK3124	RT-108A	ECG199
SK3010	RT-129	ECG103A
SK3010	RT-129	ECG103A
SK3018	RT-105	ECG123A
SK3124	RT-108A	ECG199
		ECG300
SK3018	RT-105	ECG123A
SK3018	RT-105	ECG123A
		ECG295
SK3197		ECG235
SK3027	RT-131	ECG130
SK3124	RT-172	ECG123A

MALLORY PART No.	SPRAGUE PART No.
DA25	EV-1222
R2A50	EV-1317
R7A50	EV-1319
X1	EV-1315
X1	EV-1315
DA25	EV-1222
R7A50	EV-1319
R7A50	EV-1319
DA25	EV-1222
X1	EV-1315
X1	EV-1315
X1	EV-1315
00F16	EV-1230
20G16	EV-1240
R7A50	EV-1319
20G16	EV-1240
DA25	EV-1222
20G16	EV-1240
000L16	EV-1260
00F16	EV-1230

REPLACEMENT DATA		
	MALLORY PART No.	SPRAGUE PART No.
SK420		MWA-200
MAG5011		
MAG5011		
SK420		MWA-200
SK420		MWA-300
MAG5011		
MAG5011		
MAG5011		
MAG5011		
VC1		

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA			
			CENTRALAB PART No.	CORNELL- DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C12	.04 10%	(1)	CW20C393K UK50-103	DPMS2S47	EWFA1A147	1PB-S47
C13	.04 10%			DPMS2S47	EWFA1A147	1PB-S47
C14	.0015 10%			CD19FD152J03	SX215	MWA-152
C15	.04				MAG5011	
C17	.04 10%			DPMS2S47	EWFA1A147	1PB-S47
C18	.04 10%			DPMS2S47	EWFA1A147	1PB-S47
C19	.04 10%			DPMS2S47	EWFA1A147	1PB-S47
C20	.04 10%			DPMS2S47	EWFA1A147	1PB-S47
C21	.04 10%			DPMS2S47	EWFA1A147	1PB-S47
C22	65 10%			CD15ED680J03	SX468	MWA-680
	100 10%	(1)	DD-102G DD-102G	CD15FD101J03	SX310	MWA-101
C23	.04 10%			DPMS2S47	EWFA1A147	1PB-S47
C24	.001			GP1000	GP210	5GA-D10
C26	.001			GP1000	GP210	5GA-D10
C28	.01 10%				PVC605	6TM-P50
C32	20 10%				SX420	MWA-200
C33	150 10%			CD15ED200J03	SX436	MWA-350
C34	510 10%			CD15ED360J03	SX315	MWA-151
C35	5.6 10%			CD15FD151J03	SX351	MWA-511
C38	.01					
C42	.01	8000-00006-272	UK50-103 UK50-103		MAG5011	
C51	65 10%				MAG5011	
C52	220 10%			CD15ED680J03	SX468	MWA-680
C54	5 10%			CD15FD221J03	SX322	MWA-221
C56	.01			NP04P7	CN0547	10TCC-V47
C58	100 10%				MAG5011	
C59	510 10%			CD15FD101J03	SX310	MWA-101
C60	20 10%			CD15FD511J03	SX351	MWA-511
C61	10 10%			CD15ED200J03	SX420	MWA-200
C62	1 10%			CD6CD100D03		
C63	24 10%	8000-00004-028	DD-102G DC-103	CD15ED240J03	CN0510	10TCC-V10
C64	.001			GP1000	SX424	MWA-240
C65	.01			MGP01	GP210	5GA-D10
C67	24 10%			CD15ED240J03	TA110	TG-S10
C68	.01				SX424	MWA-240
C69	.001			DC-103	TA110	TG-S10
C70	.01			DD-102G	GP210	5GA-D10
C71	150 10%			DC-103	TA110	TG-S10
C72	.01			DC-103	CD15FD151J03	MWA-151
C73	24 10%			DC-103	MGP01	TG-S10
C74	100 10%	8000-00004-028	DC-103	CD15ED240J03	SX424	MWA-240
C75	.01			CD15FD101J03	SX310	MWA-101
C76	.01			MGP01	TA110	TG-S10
C77	.01			DC-103	TA110	TG-S10
C78	270 10%			DC-103	TA110	TG-S10
C79	300 10%			DC-103	CD15FD271J03	MWA-271
C80	200 10%			DC-103	CD15FD301J03	MWA-301
C81	75 10%			DC-103	CD15FD201J03	MWA-201
C82	1 10%			DC-103	CD15FD750J03	MWA-750
C83	.01			DC-103	MGP01	TG-S10
C84	.04 10%	8000-00004-028	DC-103	DPMS2S47	EWFA1A147	1PB-S47
C85	300 10%			CD15FD301J03	SX330	MWA-301
C88	.047			UK50-503	MAG5015	
C89	.047			UK50-503	MAG5015	
C90	.047			UK50-503	MAG5015	
C91	.047			UK50-503	MAG5015	
C92	.047			UK50-503	MAG5015	
C93	.047			UK50-503	MAG5015	
C96	.01			DC-103	MGP01	TG-S10
C97	.01			DC-103	MGP01	TG-S10
C98	.01	8000-00004-204	DC-103	DC-103	TA110	TG-S10
C99	.01			DC-103	TA110	TG-S10
C100	.01			DC-103	TA110	TG-S10
C102	.047 10%			DC-103	TA110	TG-S10
C103	.1 10%			DC-103	DPMS2S47	EWFA1A147
C104	.01			DC-103	WFF05P1	431P1049R5
C105	.01			DC-103	MGP01	TG-S10
C106	.01			DC-103	MGP01	TG-S10
C107	.01			DC-103	MGP01	TG-S10
C108	.01			DC-103	MGP01	TG-S10
C112	.01			DC-103	MGP01	TG-S10
C113	.01 10%	8000-00004-204	DC-103	DC-103	TA110	TG-S10
C114	.01 10%			DC-103	TA110	TG-S10
C115	510 10%			DC-103	CD15FD511J03	MWA-511
C117	.01			DC-103	MGP01	TG-S10
C118	500 10%			DC-103	CD15FD501J03	MWA-501
C119	.01			DC-103	MGP01	TG-S10
C120	.001			DD-102G	GP210	5GA-D10
C201	.0022			DD-222	GP222	5GA-D22
C202	.0022			DD-222	GP222	5GA-D22
C205	.01			DC-103	MGP01	TG-S10
VC1	10			DC-103	TA110	TG-S10

(1) Used in some versions.

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				
			MFR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
VR1	Volume/Power Switch	10K	8000-00006-282	F2-10K,SSK012, KR7	A47-10K-S, KSS-3, SWE-23 or [NP-10K-Z, UP-C-400,MWE-23]	RU14A,SL36,SL1500, US42 or [UA14A, SK750,US27]	BU1,CF61,SS1, WF
VR2	Squelch	10K	8000-00006-283	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
VR3	Squelch Range	10K	8000-00004-097	T-10K (2)	C-103 (2)	MTC14L1 (2)	X201R103B (2)
VR4	AMC	10K	8000-00004-097	T-10K (2)	C-103 (2)	MTC14L1 (2)	X201R103B (2)
VR5	S Meter	50K	8000-00004-093	T-50K (2)	C-503 (2)	MTC54L1 (2)	X201R503B (2)
VR6	RF Meter	100K	8000-00004-094	T-100K (2)	C-104 (2)	MTC15L1 (2)	X201R104B (2)

(1) Enlarge mounting hole.

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

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFR. PART No.			WORKMAN PART No.	MFR. PART No.
R206	20 Ohm 5W	WR-20					

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	Rec Mixer (10MHz)	8000-00012-032	42K10		
L2	Rec Mixer (10MHz)	8000-00012-032	42K10		
L3	RF Choke (22uH)	8000-00004-053			
L4	Xmit Osc (27MHz)	8000-00012-023	Y1		
L5	RF Choke (2.5uH)	8000-00030-011			
L6	Xmit Driver (27MHz)	8000-00006-285			
L7	RF Choke (.65uH)	8000-00004-055			
L8	Ant Match (27MHz)	8000-00030-017			
L9	Rec Ant (27MHz)	8000-00012-029			
L10	Pi Filter (27MHz)	8000-00030-017			
L11	RF Choke (.22uH)	8000-00011-016			
L12	TVI (54MHz)	8000-00004-059			
T1	Rec Antenna (27MHz)	8000-00006-287			
T2	Rec RF (27MHz)	8000-00006-288			
T3	IF (455kHz)	8000-00012-033			
T4	IF (455kHz)	8000-00012-034	E1A/2278		
T5	IF (455kHz)	8000-00012-035	A293A		
T8	Harmonic Suppressor	8000-00012-024	3Y		
T9	Xmit Amp (27MHz)	8000-00006-286	305		
T10	Xmit Buffer (27MHz)	8000-00006-289			

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.	
L13	1.8A	.2	2mH	8000-00011-022 K-10 (1)	TR554		(1) Number on unit.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T6	1.3	1		8000-00004-119 A-31 (1)	TR651		(1) Number on unit

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T7	50	8	8000-00006-290 E-52 (1)	TR809		(1) Number on unit

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T201	120V AC @ 440mA AC	40V AC @ 1.4A AC	PT-1215 (1)			(1) Number on unit.

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER	DEVICE
F1	2A Quick Acting	8000-00006-091	8000 00011-124	AGC2	HJMHH	312002	24201A	FG2-2

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	3" PM 8 Ohms	8000-00006-298	30A05Z8R	

SBE MODEL SBE-30CB

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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	8000-00004-153	18-032	18-034	18-000	18-092	2	1	3	NC	NC	4

CRYSTALS

ITEM No.	CRYSTAL FREQUENCY IN MHz	MFGR. PART No.	CTS KNIGHTS PART No.	CHANNEL	ITEM No.	CRYSTAL FREQUENCY IN MHz	MFGR. PART No.	CTS KNIGHTS PART No.	CHANNEL
X1	9.545	*-00012-043	SC90W9.545	1,5,9,13,17,21	X8	17.115	*-00012-050	SA50W17.115	13,14,15,16
X2	9.555	*-00012-044	SC90W9.555	8,6,10,12,18,22	X9	17.165	*-00012-051	SA50W17.165	17,18,19,20
X3	9.565	*-00012-045	SC90W9.565	3,7,11,15,19	X10	17.215	*-00012-052	SA50W17.215	21,22,23
X4	9.585	*-00012-046	SC90W9.585	4,8,12,16,20,23	X11	10.000	*-00012-053	SB90W10.000	1,5,9,13,17,21
X5	16.965	*-00012-047	SC50W16.965	1,2,3,4	X12	10.010	*-00012-054	SB90W10.010	2,6,10,14,18,22
X6	17.015	*-00012-048	SA50W17.015	5,6,7,8	X13	10.020	*-00012-055	SB50W10.020	3,7,11,15,19
X7	17.065	*-00012-049	SA50W17.065	9,10,11,12	X14	10.040	*-00012-056	SB90W10.040	4,8,12,16,20,23

* 8000 Series

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
FL1	Filter	8000-00006-291	455kHz
FL2	Filter		Audio
M1	Meter (A-56)	8000-00006-297	S/Rf
RLY1	Relay	HTC-12	Rec/Xmit
S2	Switch	8000-00006-255	Channel Select
S4	Switch		PA/CB

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

ITEM	PART No.	ITEM	PART No.
Cabinet	8000-00006-305	Knob, Channel	8000 00006-115
Front Bezel	8000-00006-296	Knob, Control	8000 00006-204
Front Overlay	8000-00006-311	Knob, Channel Disk	8000 00006-293

WIRING DATA

General-use Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors
Power Cord, 2-Wire	8524 (Stranded) Available in 12 Colors
	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)