



PHOTOFACT[®] with

CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index

NOTE

ONLY THOSE PERSONS PROPERLY LICENSED ARE PERMITTED TO MAKE REPAIRS OR ADJUSTMENTS WHICH MAY RESULT IN ILLEGAL OPERATION. (REFER TO FCC RULES AND REGULATIONS PART 95, SUBPARTS 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 SBE-18CB (Sidebander III)

ALIGNMENT

Suggested Alignment Tools:

CV1 thru CV13	8290
T1 thru T16	9440
L1 thru L4	9440

GC ELECTRONICS:

8290
9440
9440

SBE MODEL SBE-18CB

SYNTHESIZER

INDICATOR	CHANNEL	ADJUST	FREQUENCY	REMARKS
Frequency Counter	1	CV3	11.700MHz	Connect counter to emitter of Q11 thru a 1000 ohm resistor. Set channel selector to Channel 1. Set clarifier VR10 to mid-scale.
	5	CV4	11.750MHz	
	10	CV5	11.800MHz	
	15	CV6	11.850MHz	
	20	CV7	11.900MHz	
	23	CV8	11.950MHz	Connect counter to TP2. Set mode selector to USB.
	1	CV9	19.1665MHz	
	2	CV10	19.1765MHz	
	3	CV11	19.1865MHz	
	4	CV12	19.2065MHz	
RF Wattmeter		CV13	7.7985MHz	Connect counter to TP3.
	13	T5, T6, T7		Connect wattmeter to antenna jack. Set mode selector to USB. Inject a 1kHz signal into microphone input. Key transmitter. Adjust audio output to produce 3 to 5 watts output. Adjust for maximum.
		T8, T9, T10, T11, T12		Set mode selector to LSB. Adjust for maximum.

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

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RECEIVER

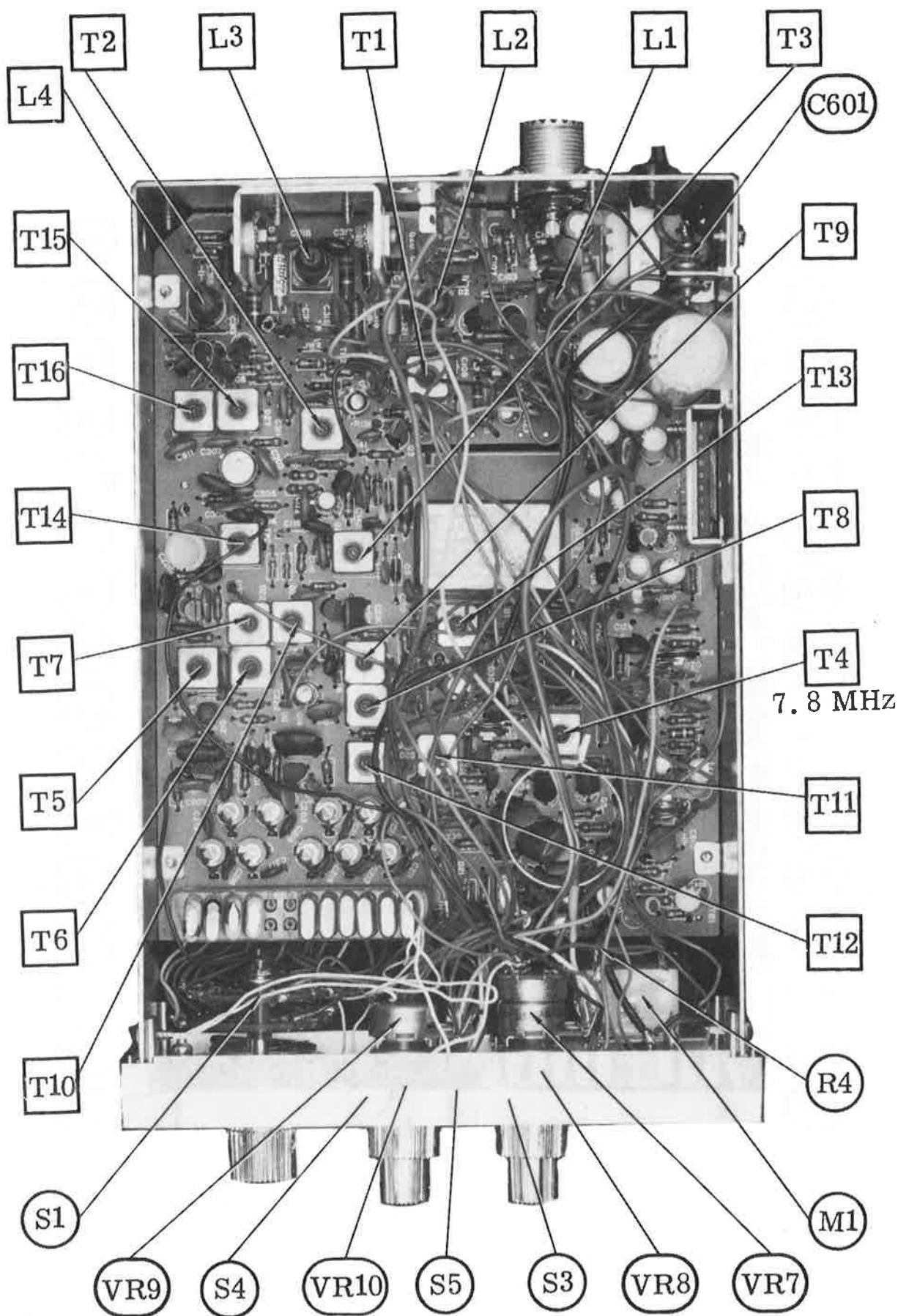
Connect an AC VTVM or AF Wattmeter across speaker voice coil.
Adjustments are made with 14 volt DC input.
Adjust volume control to obtain suitable reading.

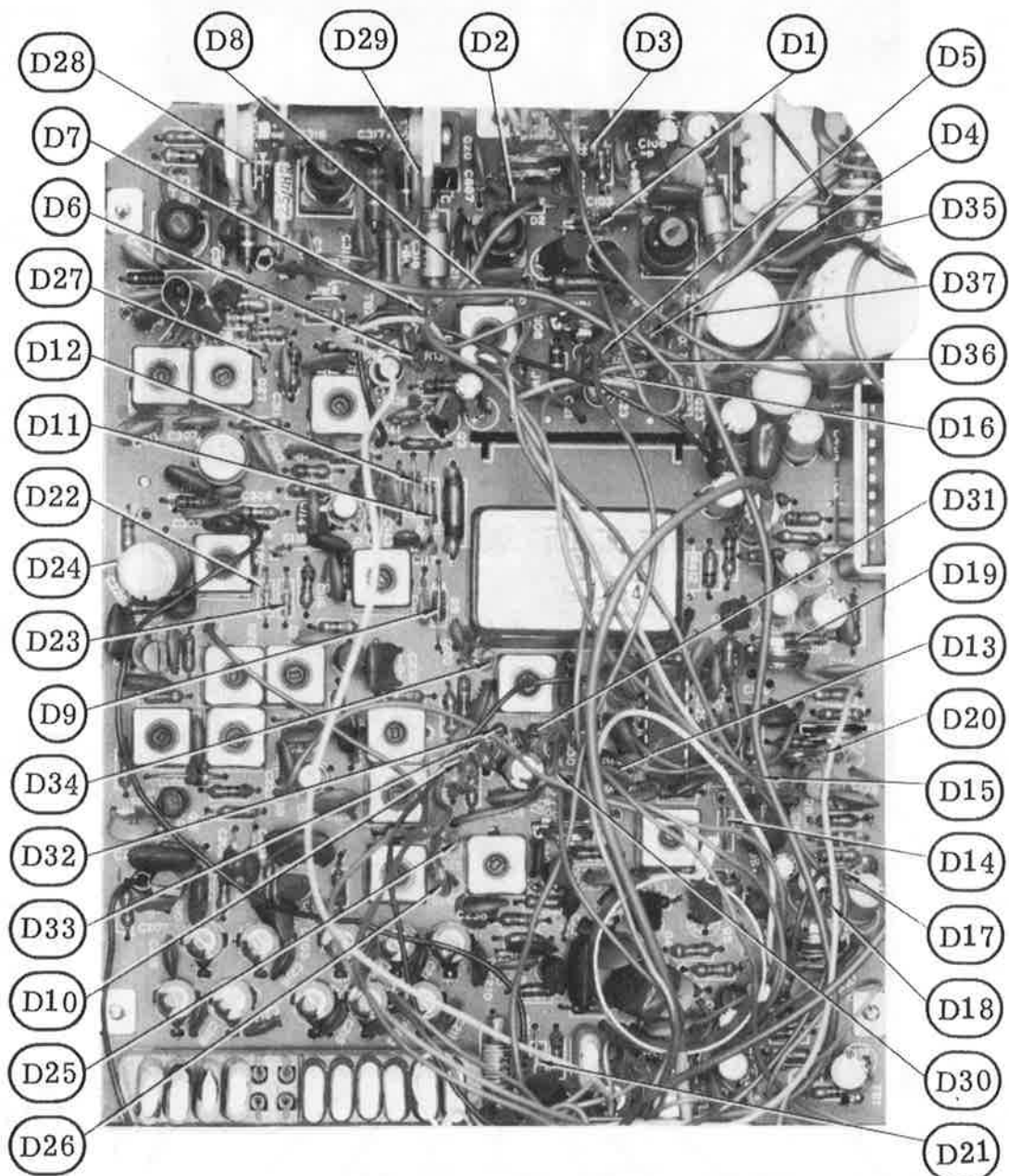
SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
High side thru a .01uF capacitor to IC-1 (Pin 1), low side to ground. Set to 7.8MHz, 1000Hz @ 30% modulation output: 250uV.	Any	T4	Adjust for maximum.
High side thru a .01uF capacitor to Q2 (Gate 1), low side to ground. Set to 7.8Hz, 1000Hz @ 30% modulation output: 30uV.	Any	T3	Adjust for maximum.
High side thru a .01uF capacitor to antenna jack, low side to ground. Set to 27.115MHz, 1000Hz @ 30% modulation output: 0.5uV.	13	T1, T2	Adjust for maximum.
AGC High side thru a .01uF capacitor to antenna jack, low side to ground. Set to 27.115MHz, 1000Hz @ 30% modulation output: 0.5uV.	13	VR4	Set RF gain maximum clockwise. Set volume control for 0db output. Disconnect generator. Adjust so that output drops 10db or more.
SQUELCH RANGE High side thru a .01uF capacitor to antenna jack, low side to ground. Set to 27.115Hz, 1000Hz @ 30% modulation output: 200uV.	13	VR6	Set squelch control fully clockwise. Adjust so that squelch just breaks.
"S" METER High side thru a .01uF capacitor to antenna jack, low side to ground. Set to 27.115MHz, 1000Hz @ 30% modulation output: 0.5uV.	13	VR5	Set mode switch to LSB. Adjust for "S9" on panel "S" meter.

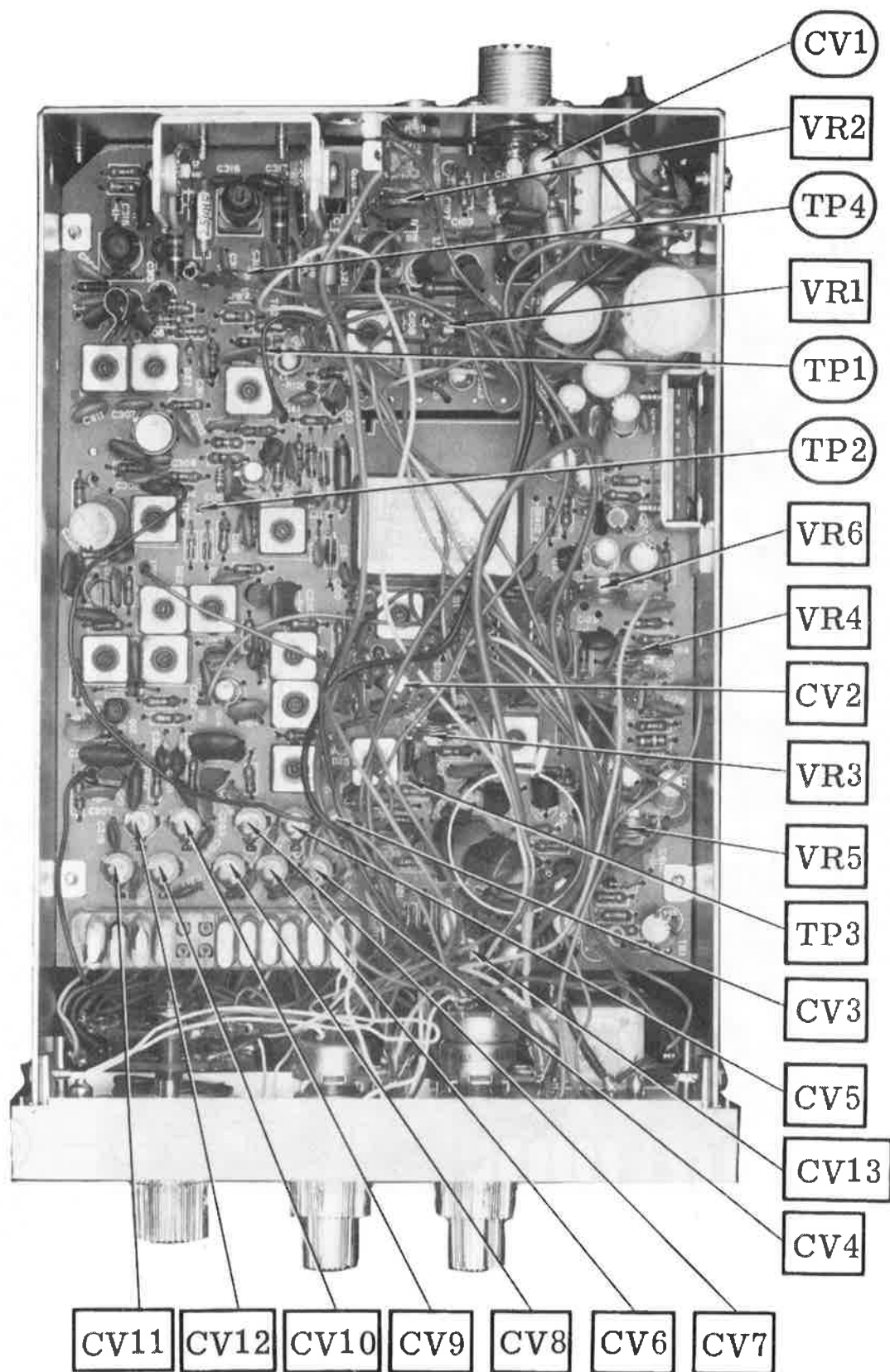
TRANSMITTER

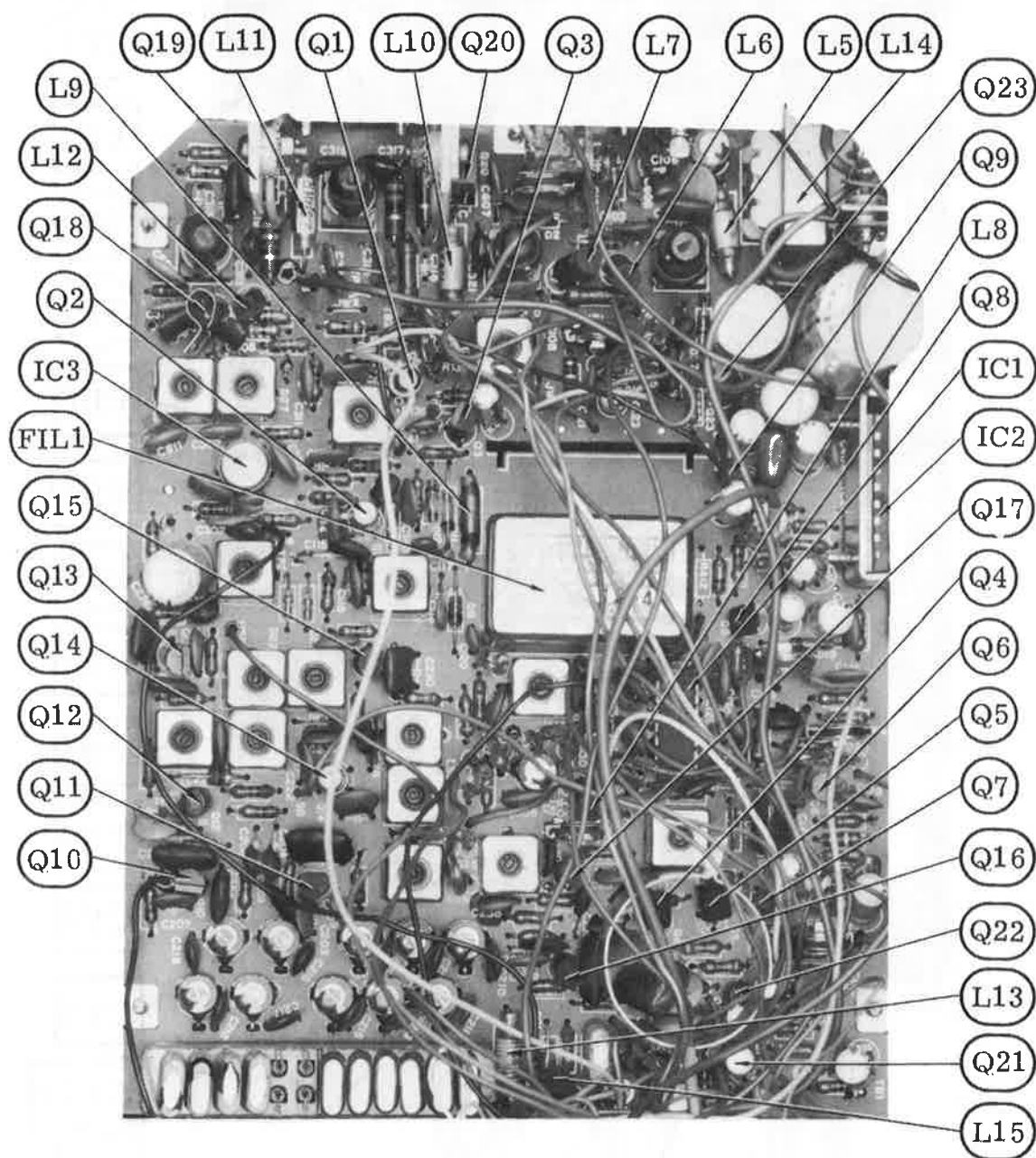
Connect an RF Wattmeter or 50 ohm 25 watt dummy load to antenna connector.
Adjustments are made with 14 volt DC input.

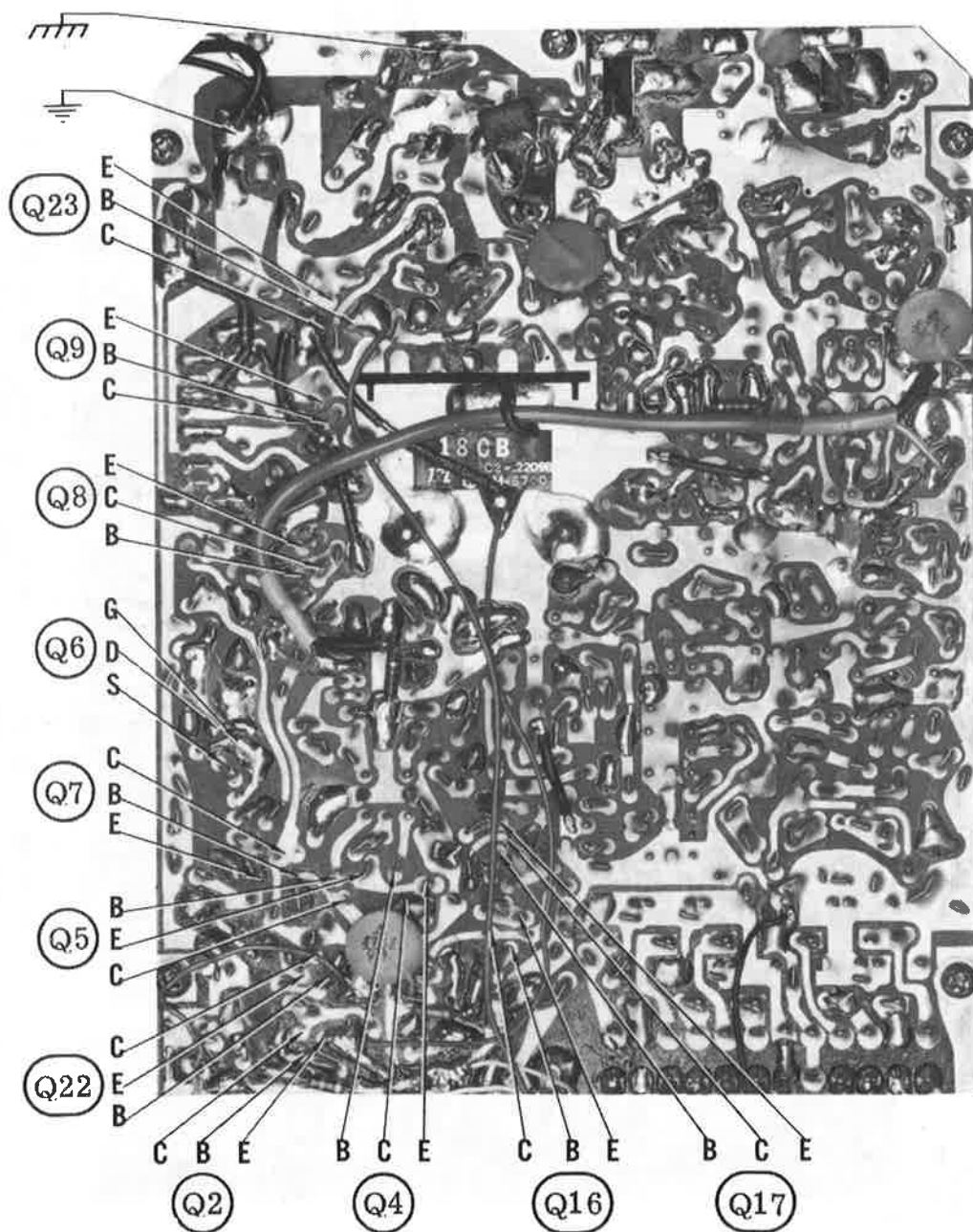
INDICATOR	ADJUST	REMARKS
CARRIER BALANCE Oscilloscope	VR3, CV2	Short microphone input to ground. Set mode switch to either USB or LSB. Key transmitter and adjust for MINIMUM indication on scope. Output voltage should be less than 0.05V p-p.
SSB EXCITER Oscilloscope (Response to 30MHz)	T14, T15, T16, L1, L2, L3, L4	Set VR-1 (ALC) to off position. Set channel selector to Channel 13. Set mode switch to either USB or LSB. Connect audio signal generator to input terminal of microphone connector. Inject a 1kHz suitable mV signal. Key transmitter and adjust for maximum.
TVI TRAP TV Set CH2	CV1	Key transmitter. Adjust for MINIMUM interference.
ALC RF Wattmeter Oscilloscope	VR1	Connect audio generator to microphone input. Inject a 1000Hz signal. Key transmitter. Adjust for 8 watts.
RF PANEL METER RF Wattmeter	VR2	Set mode switch to AM. Key transmitter. Adjust so that panel "RF" meter agrees with RF Wattmeter.

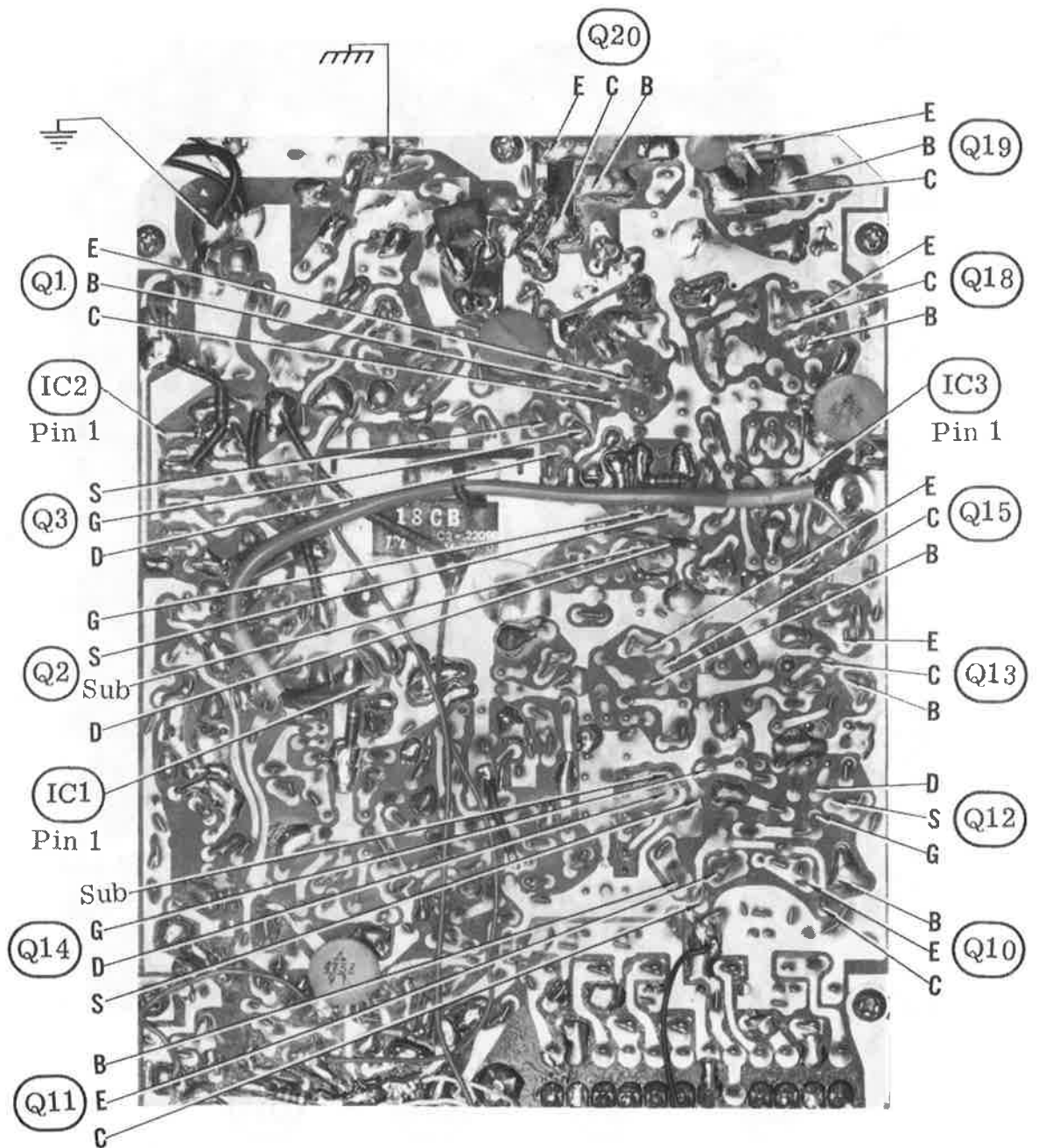


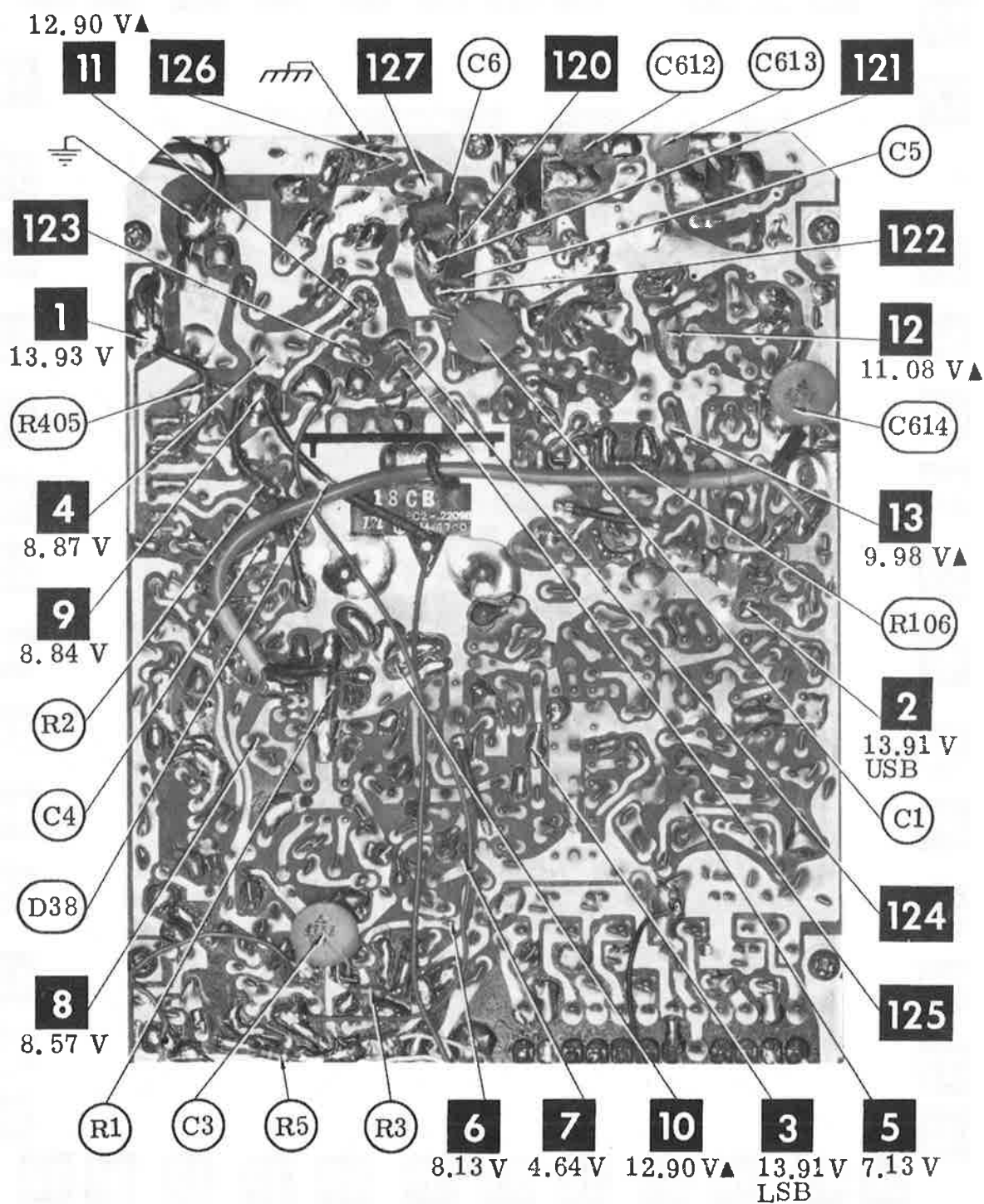






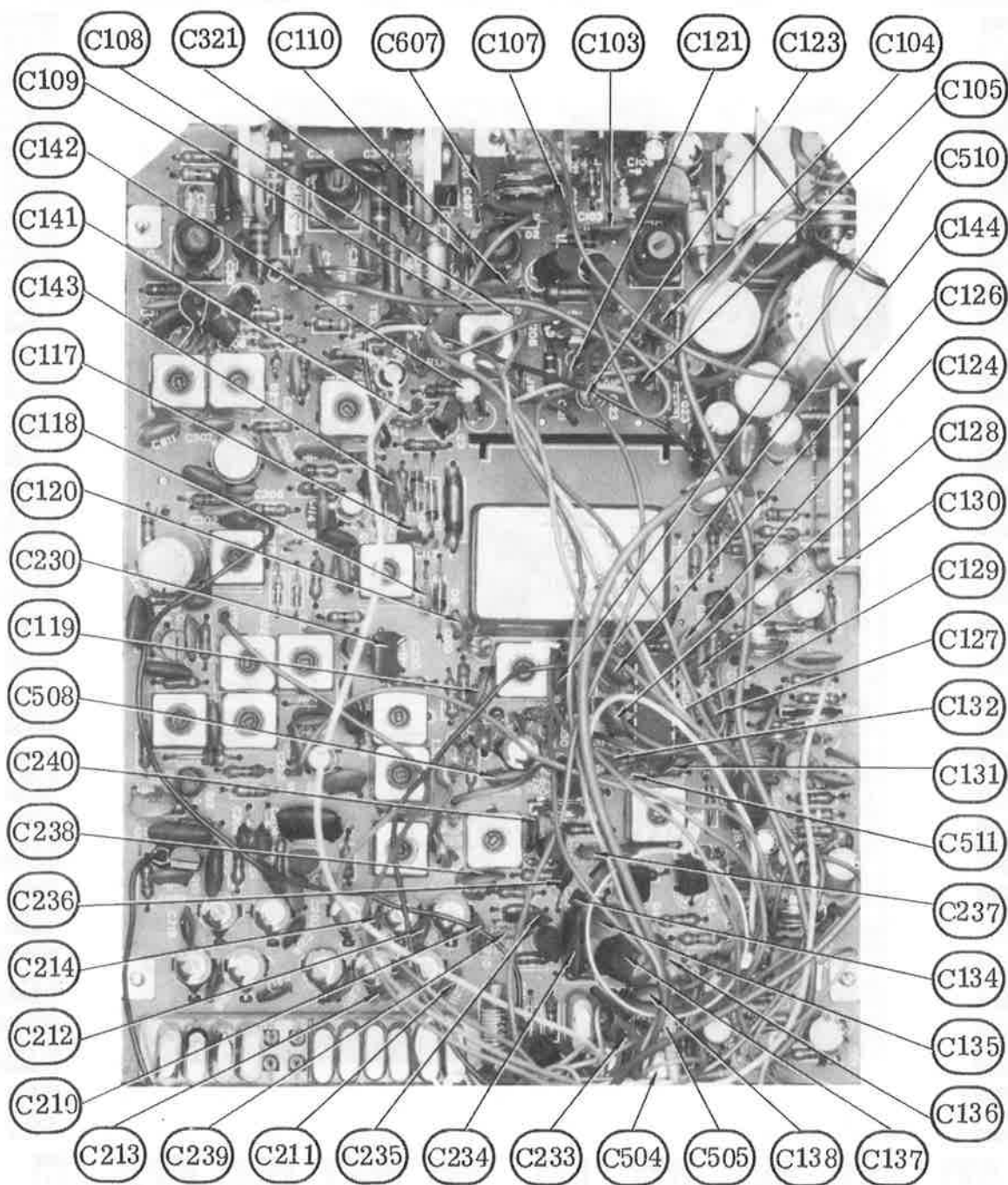


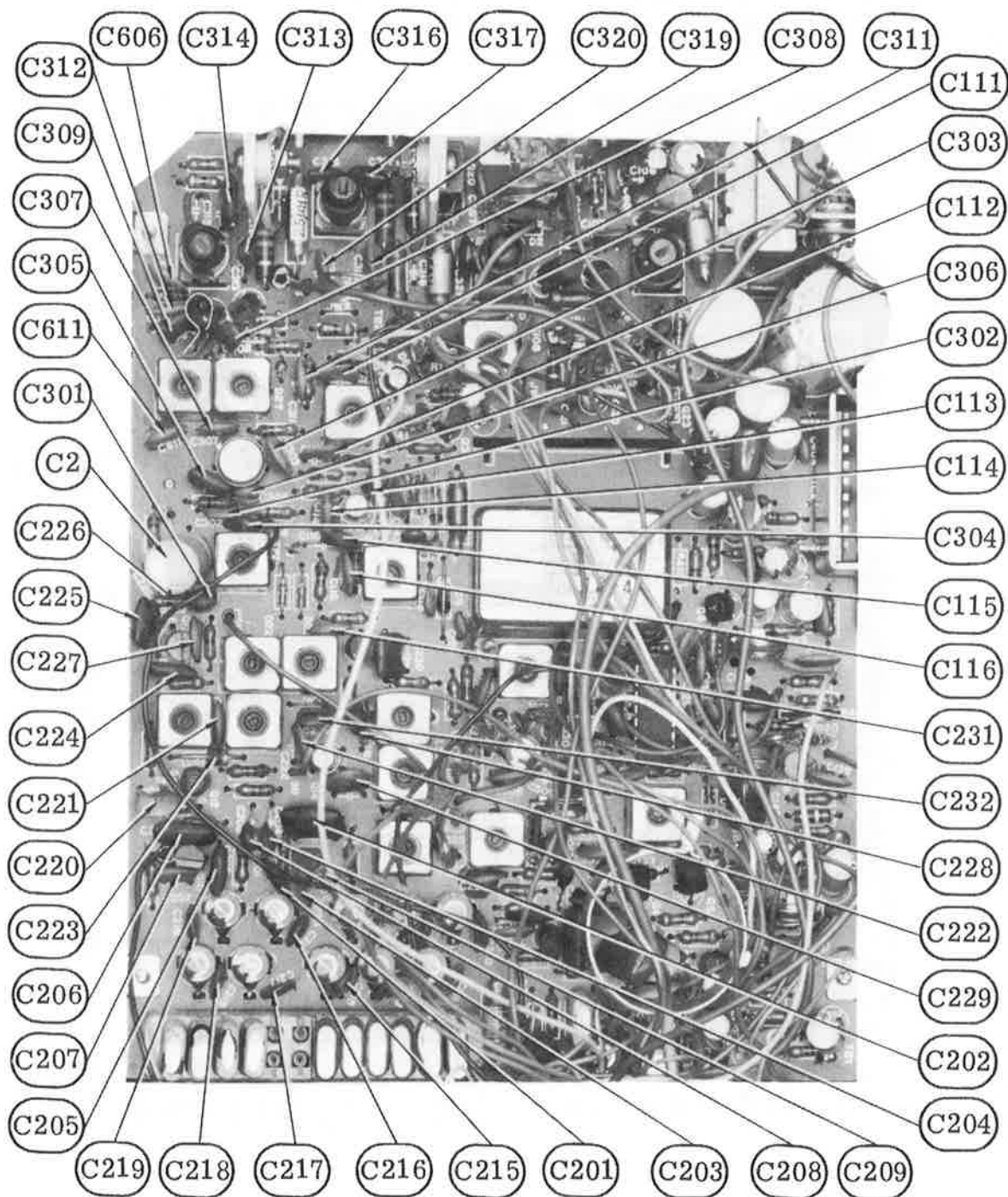


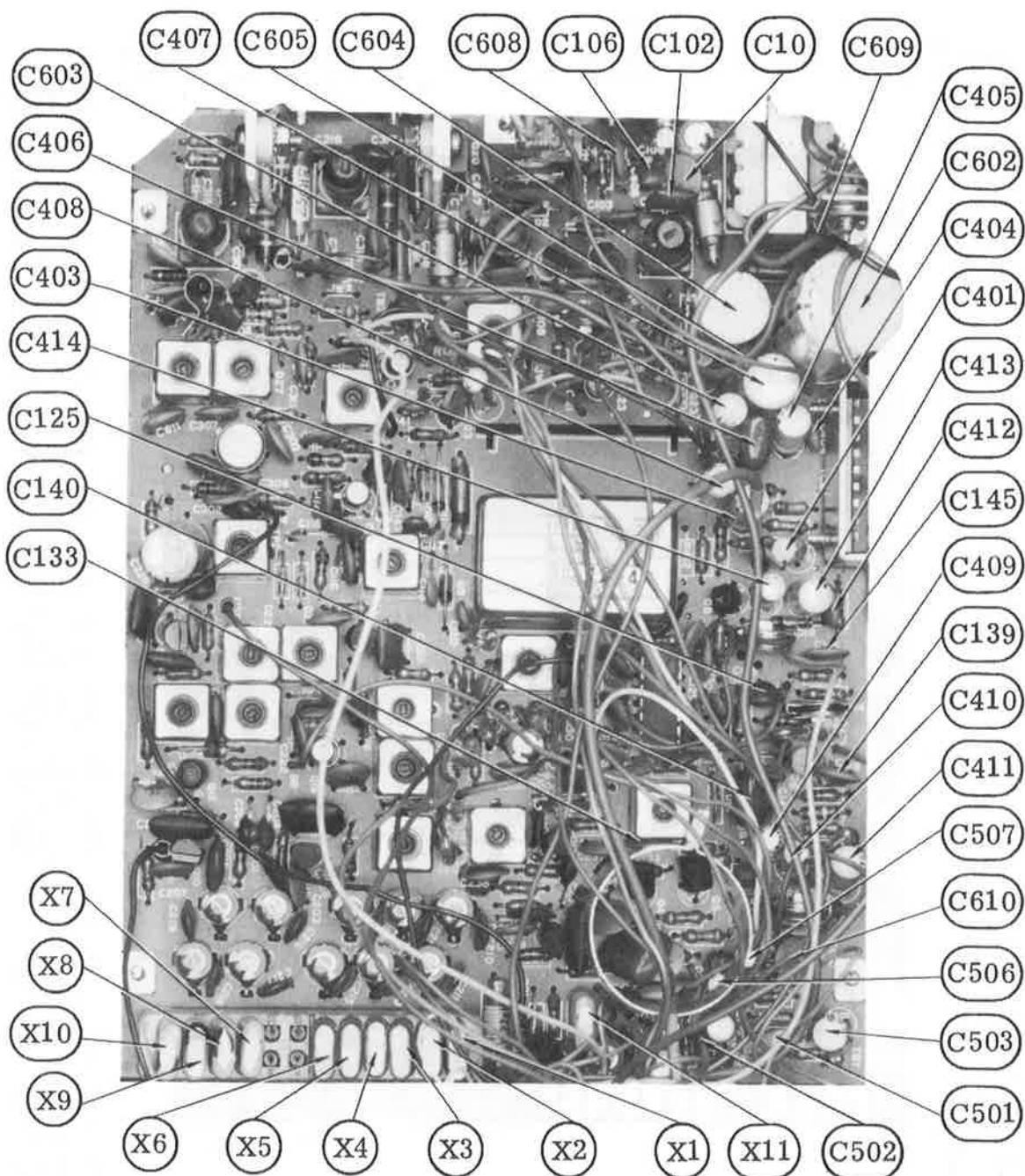


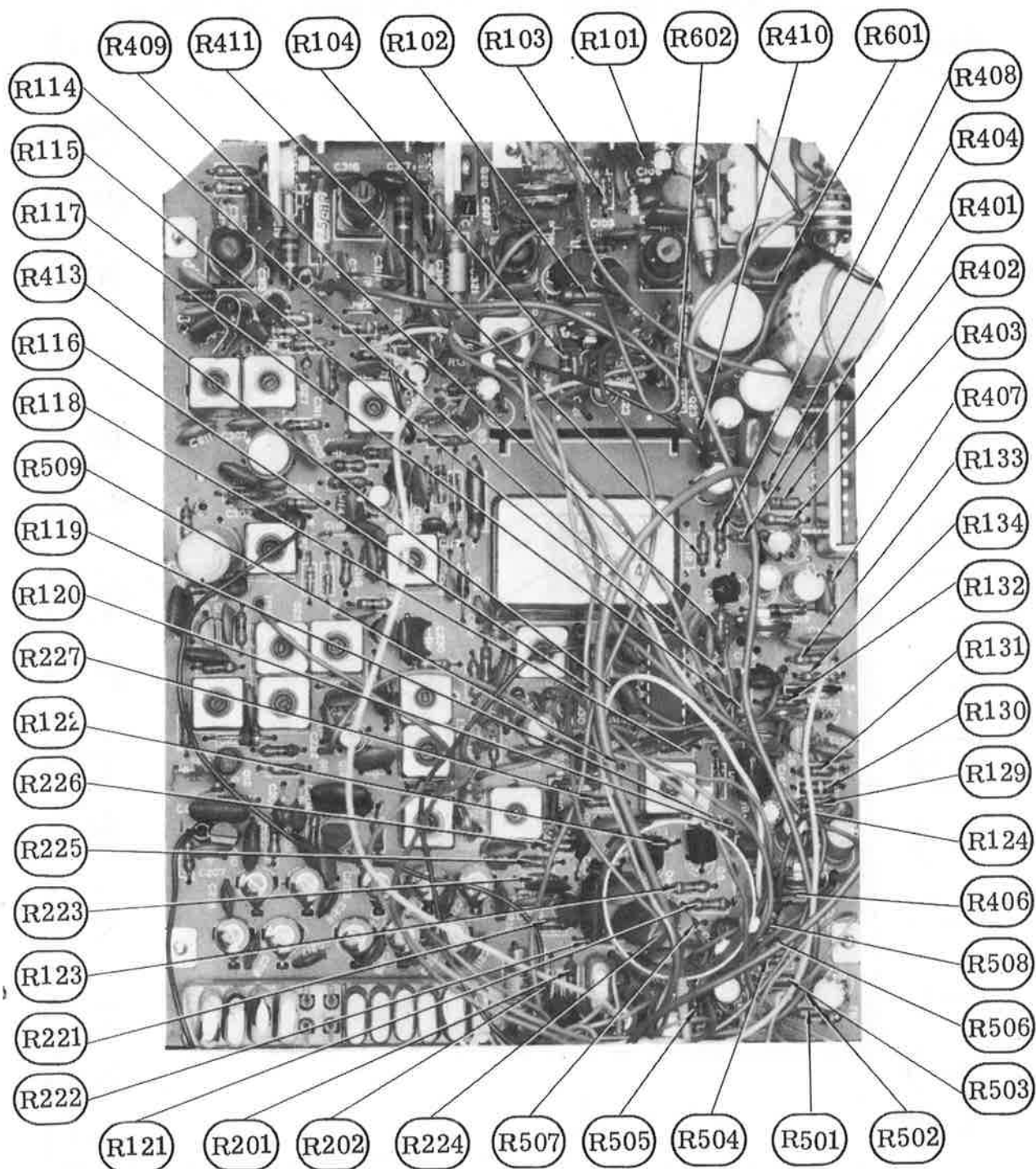




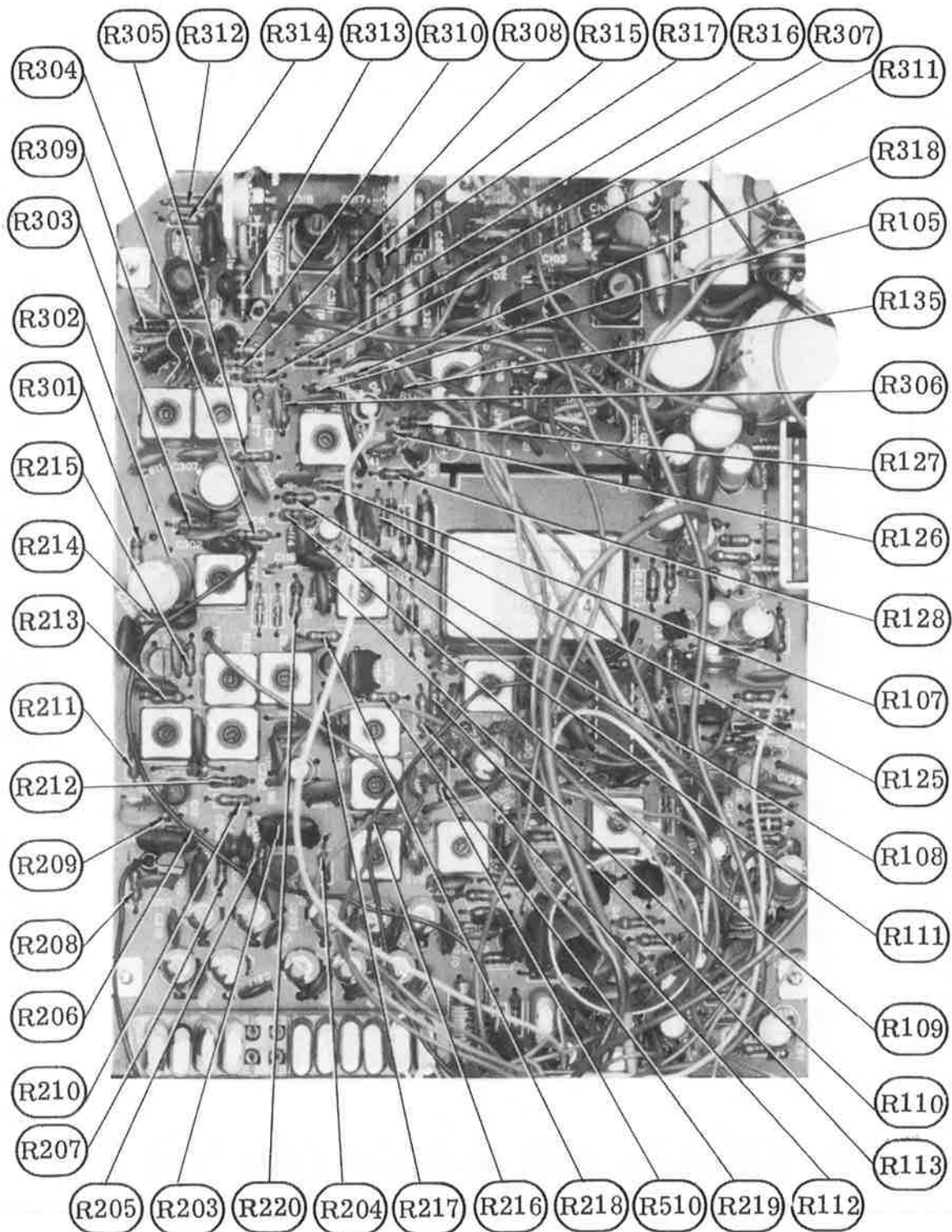








SBE MODEL SBE-18CB



PARTS LIST AND DESCRIPTION

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

WIRING DATA

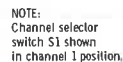
General-use Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors
	8524 (Stranded) Available in 12 Colors
Shielded Antenna Lead	Use BELDEN No. 8214 Lowest-loss (RG-8/U Type)
	8237 Low-Toss (RG-8/U)
	8240 (Solid) Miniature (RG-58/U)
	8259 (Stranded) Miniature (RG-58A/U)
Coiled Microphone Cable	Use BELDEN No. 8497 3-Conductor, 1 Shielded for Press-to-Talk (Neoprene)
Ignition Noise Suppression	Use BELDEN No. 7300-Series Spark-Plug Sets
Bonding Strap	Use BELDEN No. 8661 (3/8 In.)

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE / MFR. No. / PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D1	10D4/8000-00011-041	GE-504A	8D4 or 5A4D	PTC201 or	HEPR0052	SK3030 or	RT213 or	ECG 116 or
D2	10D4/8000-00011-041	GE-504A	8D4 or 5A4D	PTC202		SK3031	RT214	ECG 117
D3	1N34A/ 8000-00011-060	1N34AS	1N34A	PTC201 or	HEPR0052	SK3030 or	RT213 or	ECG 116 or
D4	1N34A/ 8000-00011-060	1N34AS	1N34A	PTC202		SK3031	RT214	ECG 117
D5	1N34A/ 8000-00011-060	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D6	1N34A/ 8000-00011-060	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D7	1N34A/ 8000-00011-060	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D8	1N34A/ 8000-00011-060	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D9	1N60P/ 8000-00004-063	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D10	1N34A/ 8000-00004-060	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D11	1N34A/ 8000-00004-060	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D12	1N34A/ 8000-00004-060	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D13	1S2472/ 8000-00004-042	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D14	1S2472/ 8000-00004-042	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D15	1S2472/ 8000-00004-042	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D16	1S2472/ 8000-00004-042	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D17	1N34A/ 8000-00011-060	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D18	1N60/8000-00004-060	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D19	1N60/8000-00004-060	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D20	1N60/8000-00004-060	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D21	1S352M/ 8000-00011-042	GE-90 (8)	D201 (8)	PTC206	HEPR2503(8)	SK3126 (8)		ECG 109
D22	1S2472/ 8000-00011-042	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D23	1S2472/ 8000-00011-042	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D24	1S2472/ 8000-00011-042	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D25	1N34A/ 8000-00004-060	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D26	1N34A/ 8000-00004-060	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D27	VD1210/ 8000-00011-044	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D28	1S990S/ 8000-00004-184	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D29	1S990S/ 8000-00004-184	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D30	1N60P/ 8000-00004-063	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D31	1N60P/ 8000-00004-063	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D32	1N60P/ 8000-00004-063	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D33	1N60P/ 8000-00004-063	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D34	1N60P/ 8000-00004-063	1N34AS	1N34A	PTC207	HEP134	SK3087		ECG 109
D35	10D4/8000-00011-041	GE-504A	8D4 or 5A4D	PTC201 or	HEPR0052	SK3030 or	RT213 or	ECG 116 or
D36	1S2472/ 8000-00011-042	1N60	1N60	PTC202		SK3031	RT214	ECG 117
D37	BZ-090/ 8000-00011-043	GEZD-9.1	Z-1210	PTC206	HEP135	SK3088		ECG 109
D38	UA757DC/ 8000-00032-029			PTC505	HEP20412	SK3060	RT240	ECG 139
IC1	AN214R/ 8000-00032-030							ECG 1058
IC2	TA7045M/ 8000-00032-031							ECG 724
Q1	2SC761Z/ 8000-00011-053	GE-39	TR-80	PTC126	HEP709	SK3039	RT113	ECG 161
Q2	3SK41/ 8000-00011-054	GE-FET-1	FE-100	PTC151	HEP801	SK3112	RT176	ECG 133
Q3	2SC710/ 8000-00011-047	GE-20	(1R)2SC710	PTC121	HEP56	SK3018	RT108	ECG 107
Q4	2SC710/ 8000-00011-047	GE-20	(1R)2SC710	PTC121	HEP56	SK3018	RT108	ECG 107

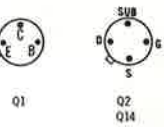
(CONTINUED ON PAGE 122)

SBE MODEL SBE-18CB

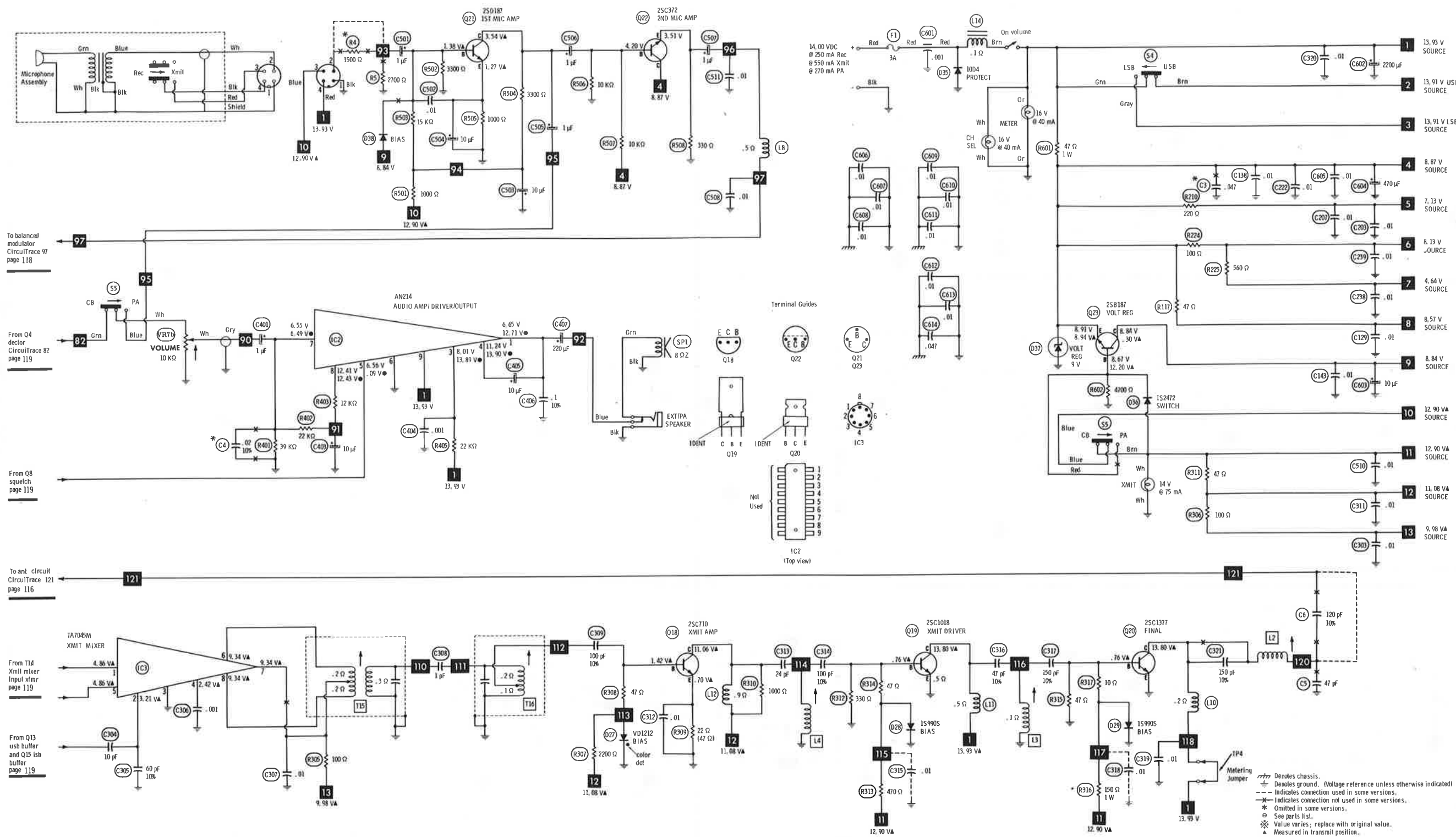


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A PHOTOFAC STANDARD NOTATION SCHEMATIC
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SBE MODEL SBE-18CB

PARTS LIST AND

(When ordering parts)

SEMICONDUCTOR

ITEM No.	TYPE / MFG. No. / PART No.
Q6	3SK34/ 8000-00011-
Q7	2SC710/ 8000-00011-
Q8	2SC372Y/ 8000-00032-
Q9	2SC372Y/ 8000-00032-
Q10	2SC710/ 8000-00011-
Q11	2SC710/ 8000-00011-
Q12	2SK196R/ 8000-00004-
Q13	2SC710/ 8000-00011-
Q14	3SK41/ 8000-00011-
Q15	2SC710/ 8000-00011-
Q16	2SC710/ 8000-00011-
Q17	2SC710/ 8000-00011-
Q18	2SC710/ 8000-00011-
Q19	2SC1018/ (1) 8000-00003-
Q20	2SC1377/ 8000-00032-
Q21	2SD187/ 8000-00032-
Q22	2SC372Y/ 8000-00032-
Q23	2SB187/ 8000-00032-

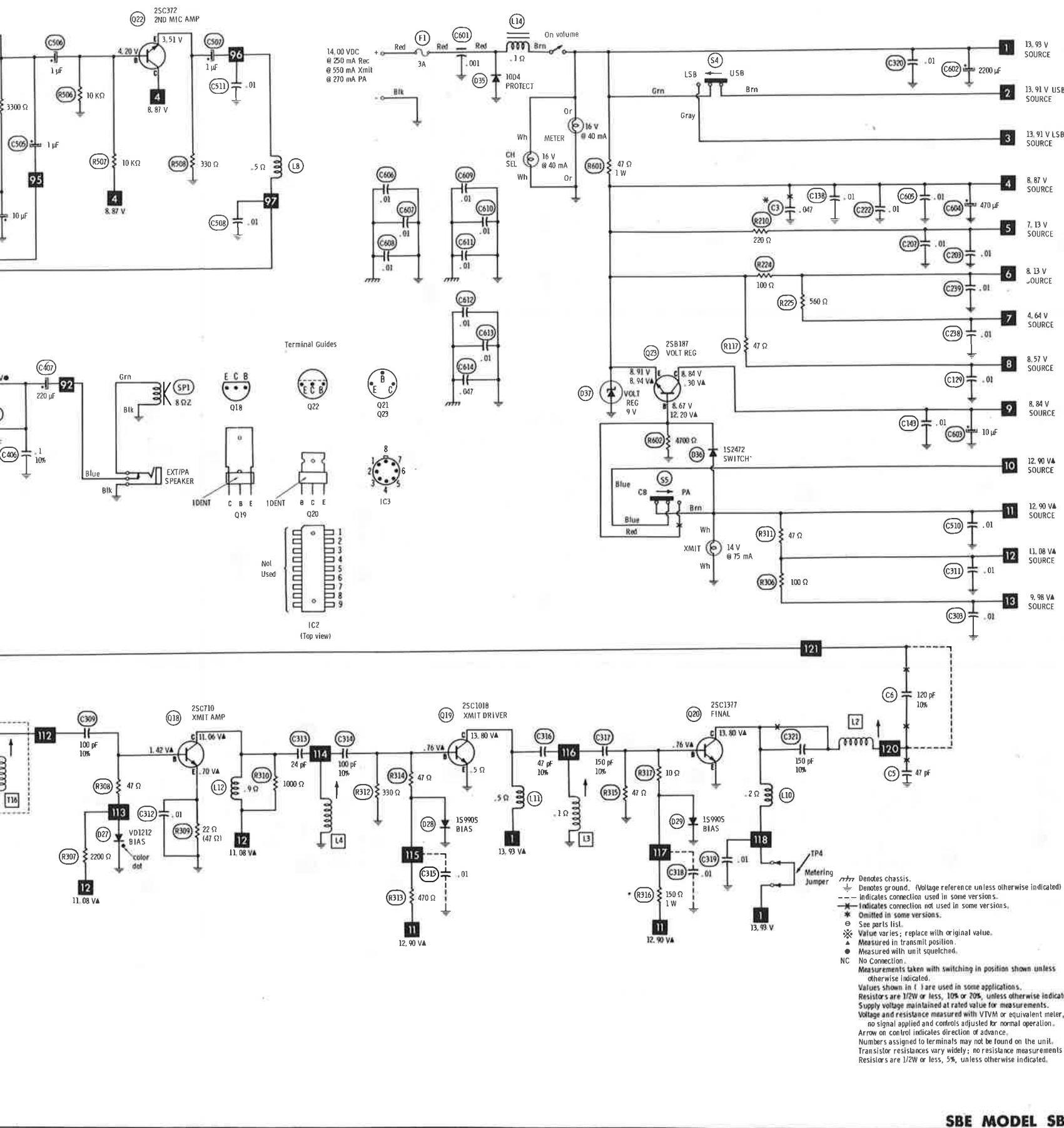
(1) Rating 4 watts @ 1 A
(8) Varactor

ELECTROLYTIC

ITEM No.	RATING
C2	220 16V
C123	.1 25V
C142	1 16V
C401	1 16V
C403	1 16V
C405	10 16V
C407	220 16V
C408	2.2 16V
C409	1 16V
C410	1 16V
C411	10 16V
C413	10 16V
C414	1 16V
C501	33 16V
C503	1 16V
C504	10 16V
C505	1 16V
C506	1 16V
C507	1 16V
C602	2200 16V
C603	10 16V
C604	470 16V

CAPACITORS

ITEM No.	RATING
C1	.047
C3	.047
C4	.02 10% 50V
C5	47
C6	120 10%
C101	.01
C102	100 10%
C103	200
C104	10
C105	56 10%
C106	4.7
C107	.01



SBE MODEL SBE-18CB

PARTS LIST AND DESCRIPTION (CONTINUED)

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

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE / MFR. No. / PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
Q6	3SK34/ 8000-00011-054	GE-FET-1	FE-100	PTC151	HEP801	SK3112	RT176	ECG 133
Q7	2SC710/ 8000-00011-047	GE-20	(IR)2SC710	PTC121	HEP56	SK3018	RT108	ECG 107
Q8	2SC372Y/ 8000-00032-025	GE-20	TR-24	PTC139	HEP55	SK3018	RT102	ECG 123A
Q9	2SC372Y/ 8000-00032-025	GE-20	TR-24	PTC139	HEP55	SK3018	RT102	ECG 123A
Q10	2SC710/ 8000-00011-047	GE-20	(IR)2SC710	PTC121	HEP56	SK3018	RT108	ECG 107
Q11	2SC710/ 8000-00011-047	GE-20	(IR)2SC710	PTC121	HEP56	SK3018	RT108	ECG 107
Q12	2SK196R/ 8000-00004-081	GE-FET-2	FE-100	PTC152	HEPF0021	SK3116	RT175	ECG 132
Q13	2SC710/ 8000-00011-047	GE-20	(IR)2SC710	PTC121	HEP56	SK3018	RT108	ECG 107
Q14	3SK41/ 8000-00011-053	GE-20	(IR)2SC710	PTC121	HEP56	SK3018	RT108	ECG 107
Q15	2SC710/ 8000-00011-047	GE-20	(IR)2SC710	PTC121	HEP56	SK3018	RT108	ECG 107
Q16	2SC710/ 8000-00011-047	GE-20	(IR)2SC710	PTC121	HEP56	SK3018	RT108	ECG 107
Q17	2SC710/ 8000-00011-047	GE-20	(IR)2SC710	PTC121	HEP56	SK3018	RT108	ECG 107
Q18	2SC710/ 8000-00011-047	GE-20	(IR)2SC710	PTC121	HEP56	SK3018	RT108	ECG 107
Q19	2SC1018/ (1)	GE-28	TR-55	PTC110	HEPS3020	SK3054		ECG 210
Q20	2SC1377/ 8000-00032-028	GE-66		PTC110				ECG 236
Q21	2SD187/ 8000-00032-027	GE-59		PTC134	HEP641	SK3010		ECG 103A
Q22	2SC372Y/ 8000-00032-025	GE-20	TR-24	PTC139	HEP55	SK3018	RT102	ECG 123A
Q23	2SB187/ 8000-00032-027	GE-59		PTC134	HEP641	SK3010		ECG 103A

(1) Rating 4 watts @ 1 amp.
(8) Varactor

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA					
		MFR. PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C2	220 16V		RME-J-E-250	EP15-250	PC250-25	MTV250DE15	EV-1245
C123	.1 25V					TDC104M050EL	SD35-R109
C142	.1 16V	8000-00032-002				TDC104M050EL	SD35-R109
C401	1 16V		RME-A-E-001	EP15-1	PC1-50	MTVICB50	EV-1315
	1 16V		RME-A-E-001	EP15-1	PC1-50	MTVICB50	EV-1315
	1 50V		RME-A-E-001	EP50-1	PC1-50	MTVICB50	EV-1615
C403	10 16V	8000-00004-047	RME-B-E-010	EP15-10	PC10-25	MTVICB50	EV-1222
C405	10 16V	8000-00004-047	RME-B-E-010	EP15-10	PC10-25	MTVICB50	EV-1222
C407	220 16V	8000-00004-044	RME-J-E-250	EP15-250	PC250-25	MTV250DE15	EV-1240
C408	2.2 16V	8000-00011-002	RME-A-E-002	EP15-2	PC2-100	MTVICB50	EV-1317
C409	1 16V		RME-A-E-001	EP15-1	PC1-50	MTVICB50	EV-1315
C410	1 16V		RME-A-E-001	EP15-1	PC1-50	MTVICB50	EV-1315
C411	10 16V	8000-00004-047	RME-B-E-010	EP15-10	PC10-25	MTVICB50	EV-1222
C413	10 16V	8000-00004-047	RME-B-E-010	EP15-10	PC10-25	MTVICB50	EV-1222
C414	1 16V		RME-A-E-001	EP15-1	PC1-50	MTVICB50	EV-1315
	33 16V	8000-00011-003	RME-A-E-001	EP15-1	PC1-50	MTVICB50	EV-1315
C501	1 16V		RME-B-E-010	EP15-10	PC10-25	MTVICB50	EV-1222
C504	10 16V	8000-00004-047	RME-B-E-010	EP15-10	PC10-25	MTVICB50	EV-1222
C505	1 16V		RME-A-E-001	EP15-1	PC1-50	MTVICB50	EV-1315
C506	1 16V		RME-A-E-001	EP15-1	PC1-50	MTVICB50	EV-1315
C507	1 16V		RME-A-E-001	EP15-1	PC1-50	MTVICB50	EV-1315
C602	2200 16V	8000-00032-004	ME-G2000	EA15-2000	WBR2000-16	TC1520C	TVA-1175,3
C603	10 16V		RME-B-E-010	EP15-10	PC10-25	MTVICB50	EV-1222
C604	470 16V	8000-00032-003	RME-L-E-500	EP15-500	PC500-16	MTV500DN15	EV-1250

CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENCOR PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	.047		CCD-503	CK-503	MGP05	TA150	TG-S50
C3	.047		CCD-503	CK-503	MGP05	TA150	TG-S50
C4	.02 10% 50V		10P-1-203		DPMS2S2	PWC212	2PS-S20
C5	47		CC10-470	DTZ-47	NP047	CM0447	10TCC-047
C6	120 10%		DM-15-121J	CPR-120J	CD15FD121J03	SK312	424MC1200J501
C101	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C102	100 10%		DM-15-101J	CPR-100J	CD15FD101J03	SK310	424MC1000J501
C103	200		CCD-201	DD-201	GP200	JF320	10TS-T20
C104	10		DM-15-100J		CD15CD100J03	SK410	
C105	56 10%		DM-15-560J	CPR-56J	CD15ED560J03	SK456	424MC560J01
C106	4.7		DM-15-050D		CD15CD050D03	SK550	
C107	.01		CCD-103	DD-103	GP10000	JF110	10TS-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				
			ARCO/ELMENCOPART No.	CENTRALABPART No.	CORNELL-DUBILIERPART No.	MALLORYPART No.	SPRAGUEPART No.
C108	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C109	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C110	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C111	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C112	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C113	10		DM-15-100J		CD15CD100J03	SK401	
C114	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C116	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C118	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C119	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C120	.001		CCD-102	DD-102	GP10000	GP210	10TS-D10
C121	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C124	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C125	100 10%		DM-15-101J	CPR-100J	CD15FD101J03	SX310	424MC1000J501
C126	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C127	.001		CCD-102	DD-102	GP10000	GP210	10TS-D10
C128	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C129	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C130	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C131	300 10%						
C132	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C133	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C134	47 10%		DM-15-050D		CD15CD050D03	SX500	
C135	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C136	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C137	.1 10%		1DP-2-104		DPMS2P1	EWFTA010	225P10491WD3
C138	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C139	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C140	.1 10%		1DP-2-104		DPMS2P1	EWFTA010	225P10491WD3
C141	.04			DD-403		GP140	
C143	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C144	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C145	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C201	100 10%		CCD-101	DD-101	GP100	GP310	10TS-T10
C202	300 10%		DM-19-301J	CPR-300J	CD15FD301J03	SX330	424ME3000J501
C203	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C204	2			DTZ-2R2	NP02P2	CN0522	10TCC-V22
C205	100 10%		CCD-101	DD-101	GP100	GP310	10TS-T10
C206	300 10%		DM-19-301J	CPR-300J	CD15FD301J03	SX330	424ME3000J501
C207	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C208	2				WMF-05W2	EWFO520	431P2059R5
C209	.001		CCD-102	DD-102	GP1000	GP210	10TS-D10
C210	33 N470 10%		*			*	10TCT-Q33
C211	33 N470 10%		*			*	10TCT-Q33
C212	33 N470 10%		*			*	10TCT-Q33
C213	33 N470 10%		*			*	10TCT-Q33
C214	33 N470 10%		*			*	10TCT-Q33
C215	33 N470 10%		*			*	10TCT-Q33
C216	33 N470 10%		*			*	10TCT-Q33
C217	33 N470 10%		*			*	10TCT-Q33
C218	33 N470 10%		*			*	10TCT-Q33
C219	33 N470 10%		*			*	10TCT-Q33
C220	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C221	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C222	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C223	2						
C224	220 10%		DM-19-221J	CPR-220J	CD15FD221J03	SX322	424ME2200J501
C225	220 10%		DM-19-221J	CPR-220J	CD15FD221J03	SX322	424ME2200J501
C226	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C227	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C228	1		1DP-5-105		WMF-05W1	EWFO510	431P1059R5
C229	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C230	100 10%		DM-15-101J	CPR-100J	CD15FD101J03	SX310	424MC1000J501
C231	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C232	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C233	22 N750 10%		CCTN-270	DTN-22		CN7422	10TCU-Q22
C234	500 10%		DM-19-501J	CPR-510J	CD15FD511J03	SX351	424ME5100J501
C235	150 5%		DM-15-151J	CPR-150J	CD15FD151J03	SX315	424MC1500J501
C236	10		DM-15-100J		CD15CD100J03	SX410	
C237	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C238	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C239	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C240	47 10%		DM-15-470J	CPR-475	CD15ED470J03	SX447	224MC470J501
C301	10		DM-15-100J		CD15CD100J03	SX410	
C302	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C303	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C304	10		DM-15-100J		CD15CD100J03	SX410	
C305	60 10%		DM-15-620J	CPR-621		SX462	MS-46
C306	.001		CCD-102	DD-102	GP1000	GP210	10TS-D10
C307	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C308	1		1DP-5-105		WMF-05W1	EWFO510	431P1059R5
C309	100 10%		DM-15-101J	CPR-100J	CD15FD101J03	SX310	424MC1000J501
C311	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C312	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C313	24		DM-15-240J	CPR-24J		SX424	MS-424
C314	100 10%		DM-15-101J	CPR-100J	CD15FD101J03	SX310	424MC1000J501
C315	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C316	47 10%		DM-15-470J	CPR-47J	CD15ED470J03	SX447	424MC470J501
C317	150 10%		DM-15-151J	CPR-150	CD15FD151J03	SX315	424MC1500J501
C318	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C319	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C320	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C321	150		DM-15-151J	CPR-150J	CD15FD151J03	SX315	424MC1500J501
C404	.001		CCD-102	DD-102	GP1000	GP210	10TS-D10
C406	.1 10% 50V		1DP-2-104		DPMS2P1	EWFTA010	225P10491WD3
C412	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10

SBE MODEL SBE-18CB

PARTS LIST AND DESCRIPTION

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

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C502	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C508	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C510	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C511	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C601	.001						
C605	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C606	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C607	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C608	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C609	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C610	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C611	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C612	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C613	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C614	.047		CCD-503	CK-503	MGPO5	TA150	TG-S50

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

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.	CTS-IRC PART No.	MALLORY PART No.
VR1	ALC	10K	8000-00004-096	TSV-10K or T-10K	C-103	X201R103B	MTC14L1
VR2	RF Meter	100K	8000-00004-094	TSV-100K or T-100K	C-104	X201R104B	MTC15L1
VR3	Carrier Balance	500	8000-00032-007	TSV-500 or T-500	C-501	X201R501B	MTC52L1
VR4	AGC	10K	8000-00004-097	TSV-10K (2) or T-10K (2)	C-103 (2)	X201R103B (2)	MTC14L1 (2)
VR5	"S" Meter	20K	8000-00011-083	T-20K (2) or TSV-25K (2)	C-253 (2)	X201R253B (2)	MTC24L1 (2)
VR6	Squelch Range	20K	8000-00011-083	T-20K (2) or TSV-25K (2)	C-253 (2)	X201R253B (2)	MTC24L1 (2)
VR7a	RF Gain	5000	8000-00011-005				
b	Volume/Switch	10K					
VR9a	Squelch	10K	8000-00004-256				
b	Clarifier	10K					

(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.	
L1	Antenna (27MHz)	8000-00004-078			
L2	Final Tank (27MHz)	8000-00032-022			
L3	Driver (27MHz)	8000-00004-075			
L4	Xmit. Amp (27MHz)	8000-00004-077			
L5	TVI Trap (0.85uH)	8000-00004-059		4594	
L6	RF Choke (150uH)	8000-00011-018		72F154AP	
L7	RF Choke (150uH)	8000-00011-018		72F154AP	
L8	RF Choke (22uH)	8000-00011-019		74F225AP	
L9	RF Choke (22uH)	8000-00011-019		74F225AP	
L10	RF Choke (5.5uH)	8000-00011-017		4609	
L11	RF Choke (2.5uH)	8000-00030-011		4606	
L12	RF Choke (8.2uH)	8000-00004-206		74F826AP	
L13	RF Choke (0.22uH)	8000-00011-016		4584	
L15	RF Choke (450uH)	8000-00032-023			
T1	Rec. Antenna (27MHz)	8000-00032-008	C0802T		
T2	Rec. RF (27MHz)	8000-00032-009	C2802T		
T3	Rec. Mixer (7.8MHz)	8000-00011-029	S183AT		
T4	Rec. IF (7.8MHz)	8000-00032-010	S2812T		
T5	Synth. Mixer (19MHz)	8000-00032-011	Z2821T		
T6	Synth. Mixer (19MHz)	8000-00032-012			
T7	USB Buffer (19MHz)	8000-00032-013			
T8	LSB Mixer (19MHz)	8000-00032-014	Z2851T		
T9	LSB Mixer (19MHz)	8000-00032-015			
T10	LSB Buffer (19MHz)	8000-00032-016			
T11	Buffer (7.8MHz)	8000-00032-017	S2882T		
T12	Doubler (7.8MHz)	8000-00032-018	Z2892T		
T13	Balance Mod. (7.8MHz)	8000-00011-038			
T14	Mixer Input (7.8MHz)	8000-00032-019	S0472T		
T15	Xmit. Mixer (27MHz)	8000-00032-020	C2902T		
T16	Xmit. Mixer (27MHz)	8000-00032-021	C2911T		

PARTS LIST AND DESCRIPTION

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

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L14	550mA	.2	2mH	8000-00011-022 K-10 (1)				(1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	2-1/2" PM 8 ohms		27A05Z8	

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	3A Slo Blo			MDL3	HDJ	313003	150145	

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
FIL-1	Filter	8000-00011-071	7.8MHz (Crystal)
M1	Meter	8000-00030-029	S/Rf
S1	Switch	8000-00011-058	Channel Selector
S3	Switch	8000-00004-101	NB/Off, Slide
S4	Switch	8000-00004-101	LSB/USB, Slide
S5	Switch	8000-00004-101	CB/PA, Slide
X1	Crystal	8000-00011-064	11.700MHz
X2	Crystal	8000-00011-065	11.750MHz
X3	Crystal	8000-00011-066	11.800MHz
X4	Crystal	8000-00011-068	11.850MHz
X5	Crystal	8000-00011-069	11.900MHz
X6	Crystal	8000-00011-070	11.950MHz
X7	Crystal	8000-00032-032	7.4665MHz
X8	Crystal	8000-00032-033	7.4765MHz
X9	Crystal	8000-00032-034	7.4865MHz
X10	Crystal	8000-00032-035	7.5065MHz
X11	Crystal	8000-00032-036	7.7985MHz

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

ITEM	PART No.	ITEM	PART No.
Cabinet, Front	8000-00030-024	Knob, Volume	8000-00030-026
Cabinet	8000-00030-039	Knob, Squelch	8000-00030-027
Panel, Front	8000-00032-037	Knob, Channel Selector	8000-00030-028

ACCESSORIES

ITEM	MFGR. PART No.	REMARKS
Microphone, Complete	8000-00004-153	

SBE MODEL SBE-18CB