

SAMS
PHOTOFACT[®]
CB RADIO
SERIES



CB-57
57
 SEPTEMBER 1974



CONTENTS

TRADE NAME AND MODEL	PAGE	TRADE NAME AND MODEL	PAGE	TRADE NAME AND MODEL	PAGE
COBRA		JOHNSON		SILTRONIX	
138/A 5		Messenger 351 53		SSB-23 93	
FIELDMASTER		ROBYN			
TR-18M 39		605 83			

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



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 138/A

ALIGNMENT

Suggested Alignment Tools:

All Tuneable Transformers and Coils

All Trimmer Caps

GC ELECTRONICS

#9440

#8290, 8868, 9087

SYNTHESIZER ALIGNMENT

INDICATOR	CHANNEL	ADJUST	FREQUENCY	REMARKS
Frequency Counter	Any	CT7	7.8025 MHz +5 -0 Hz	Receiver in USB mode. Connect counter between TP6 and TP7.
RF Voltmeter	Any	T19		Receiver in USB mode. Connect voltmeter between TP6 and TP7. Adjust for maximum.
Frequency Counter	1	CT1	8.159 MHz 8.1615 MHz	Receiver in USB mode. Connect counter between TP4 and ground. Adjust for first frequency listed for each channel. With receiver in AM mode, check for second frequency listed. Repeat adjustment of first frequency if necessary.
	5	CT2	8.209 MHz 8.2115 MHz	
	9	CT3	8.259 MHz 8.2615 MHz	
	13	CT4	8.309 MHz 8.3115 MHz	
	17	CT5	8.359 MHz 8.3615 MHz	
	21	CT6	8.409 MHz 8.4115 MHz	

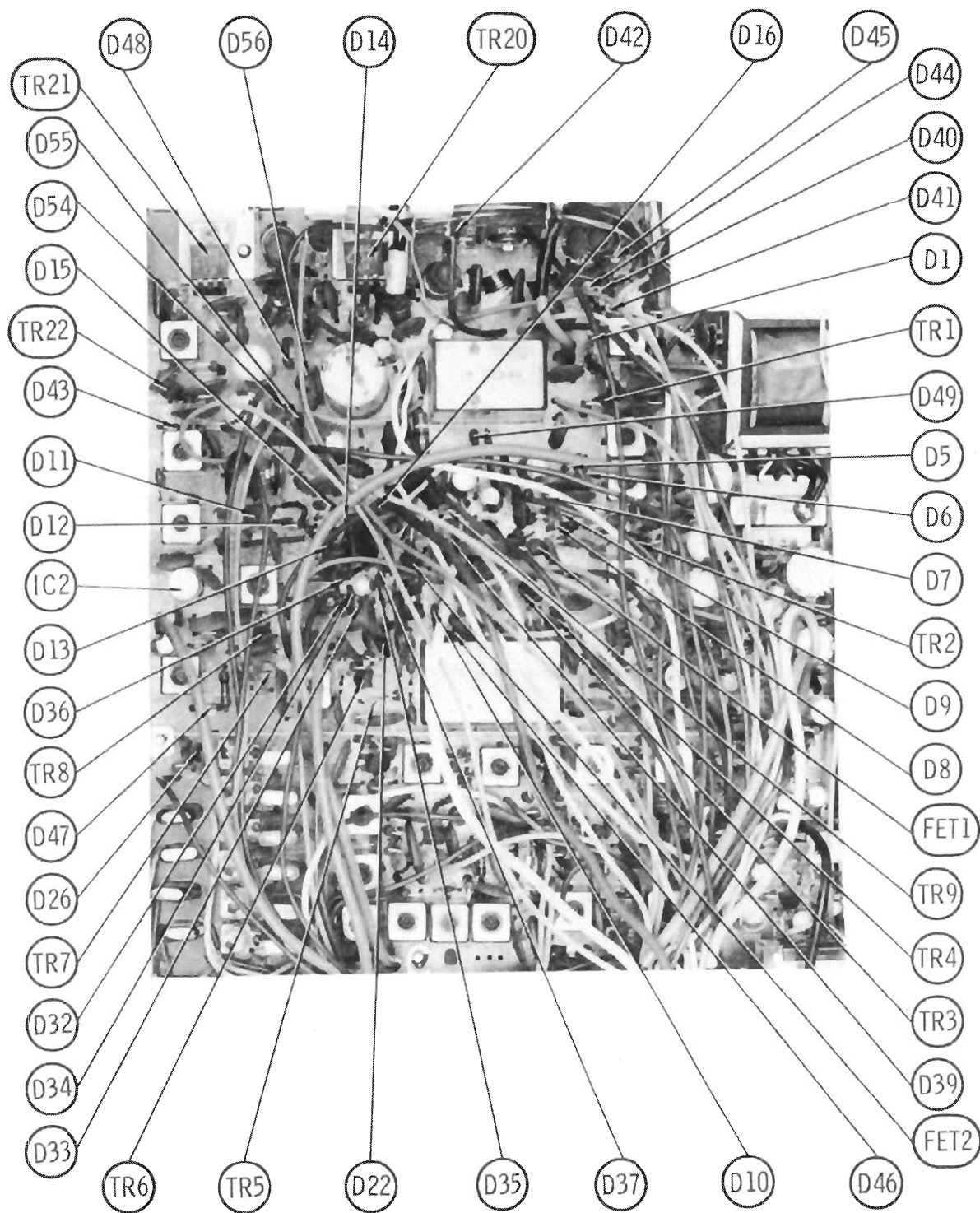
HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

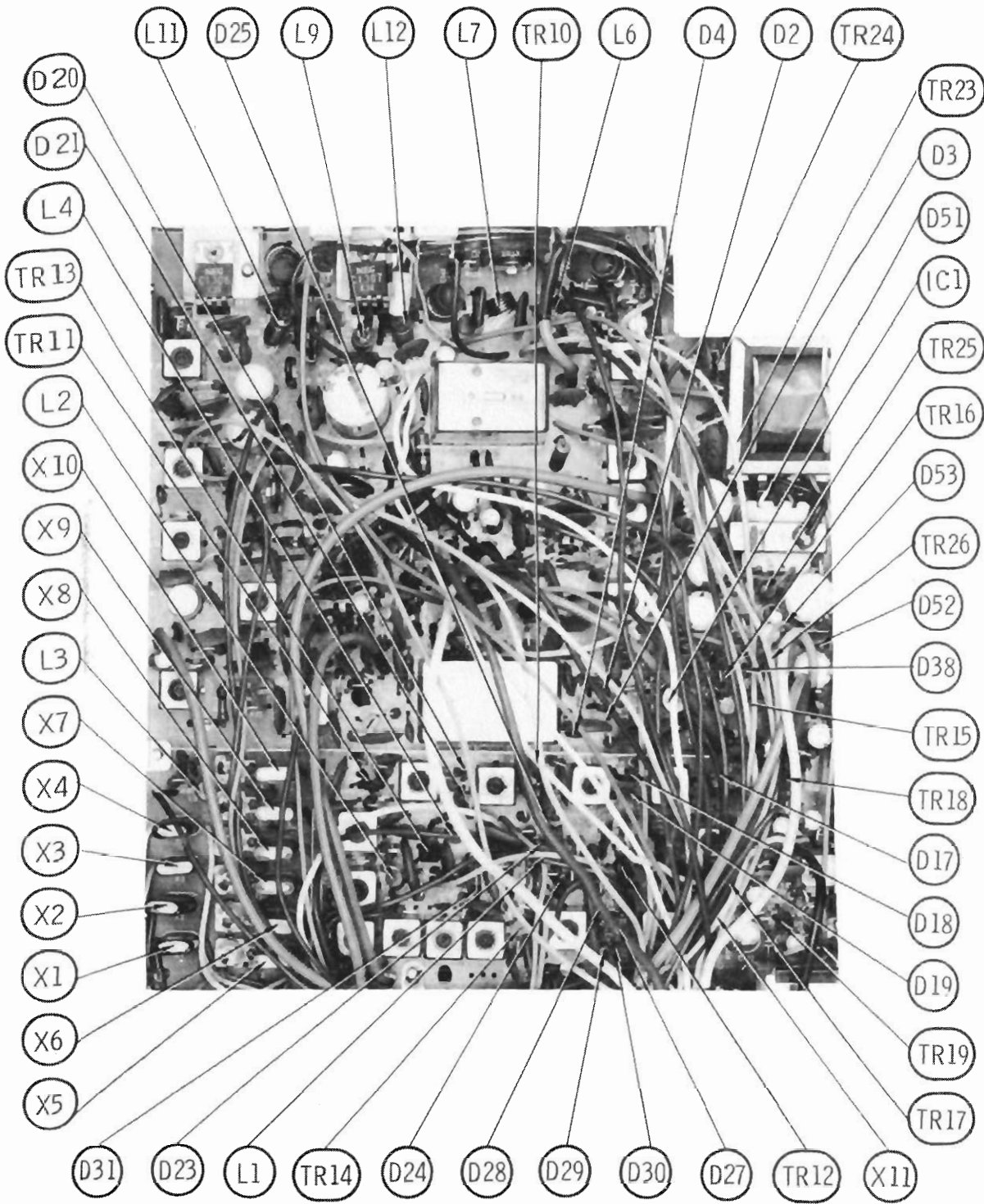
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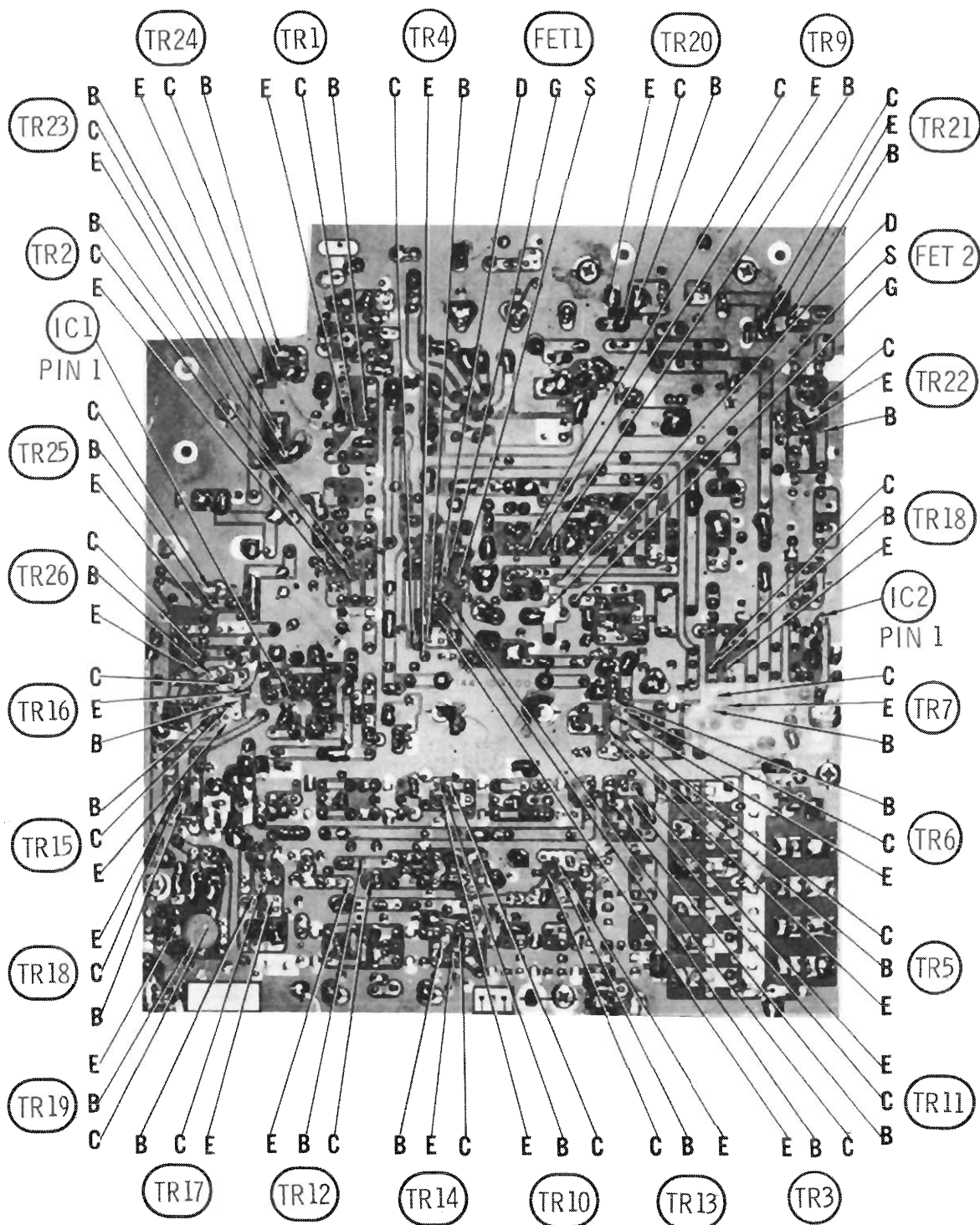
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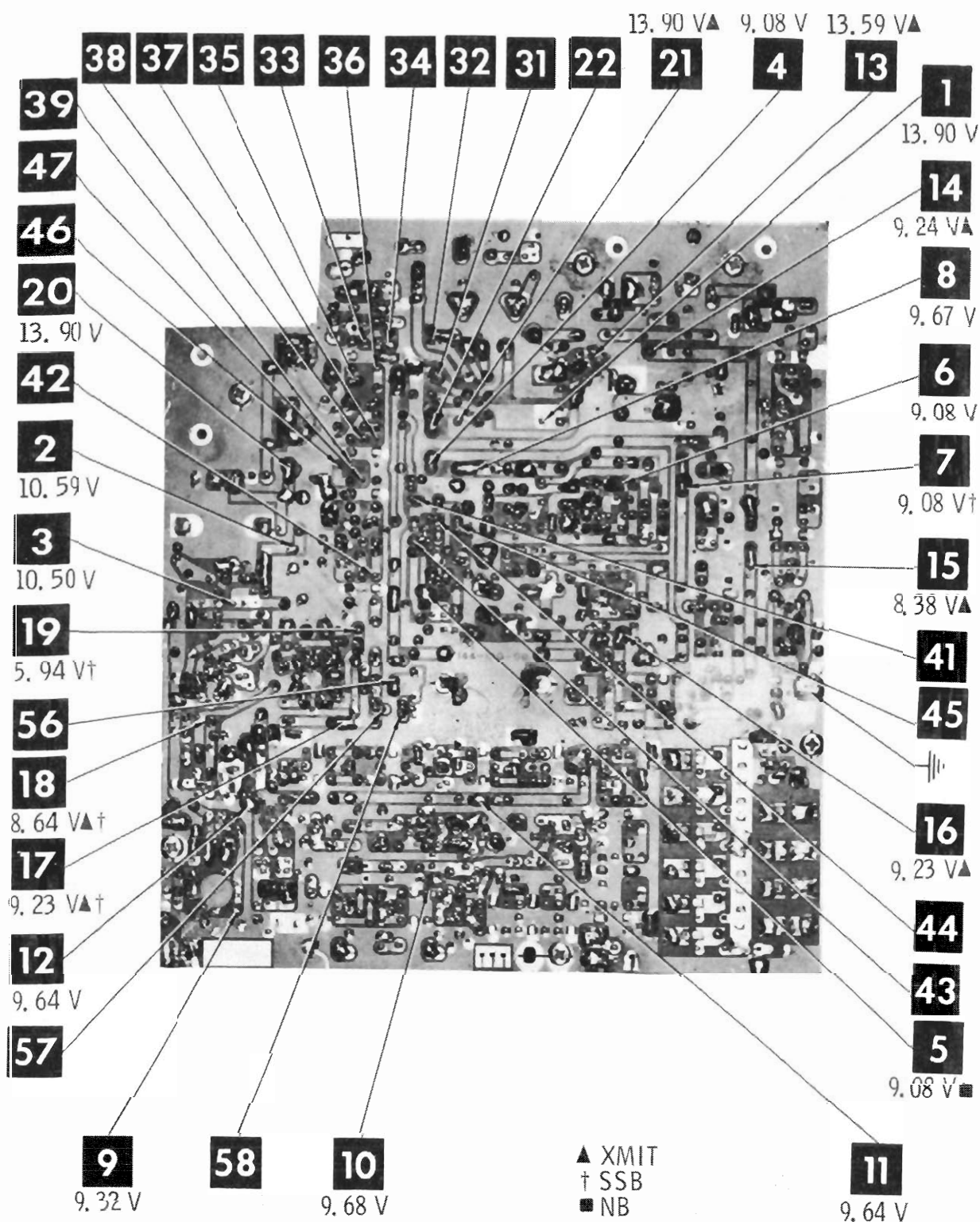
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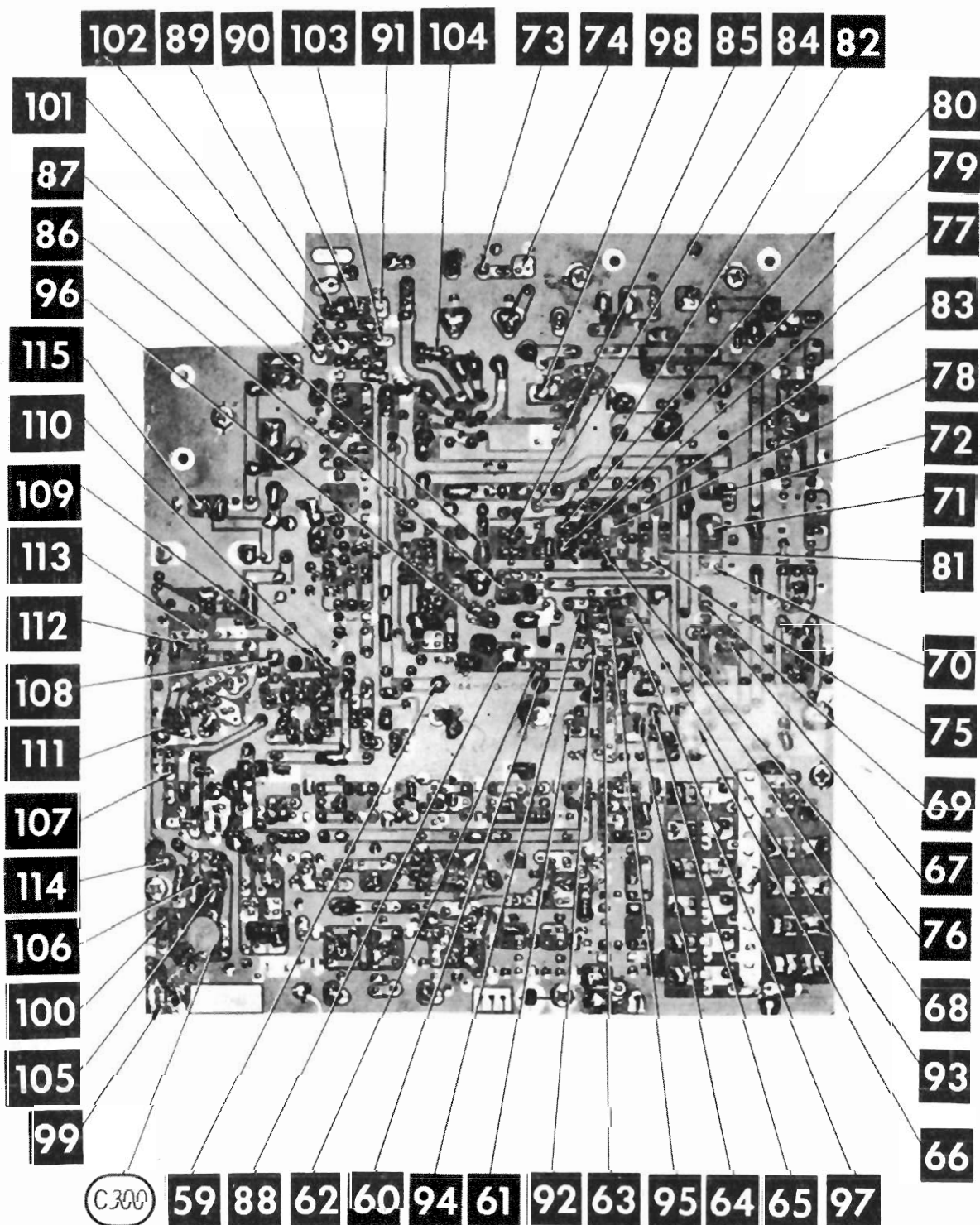
COBRA MODEL 138/A

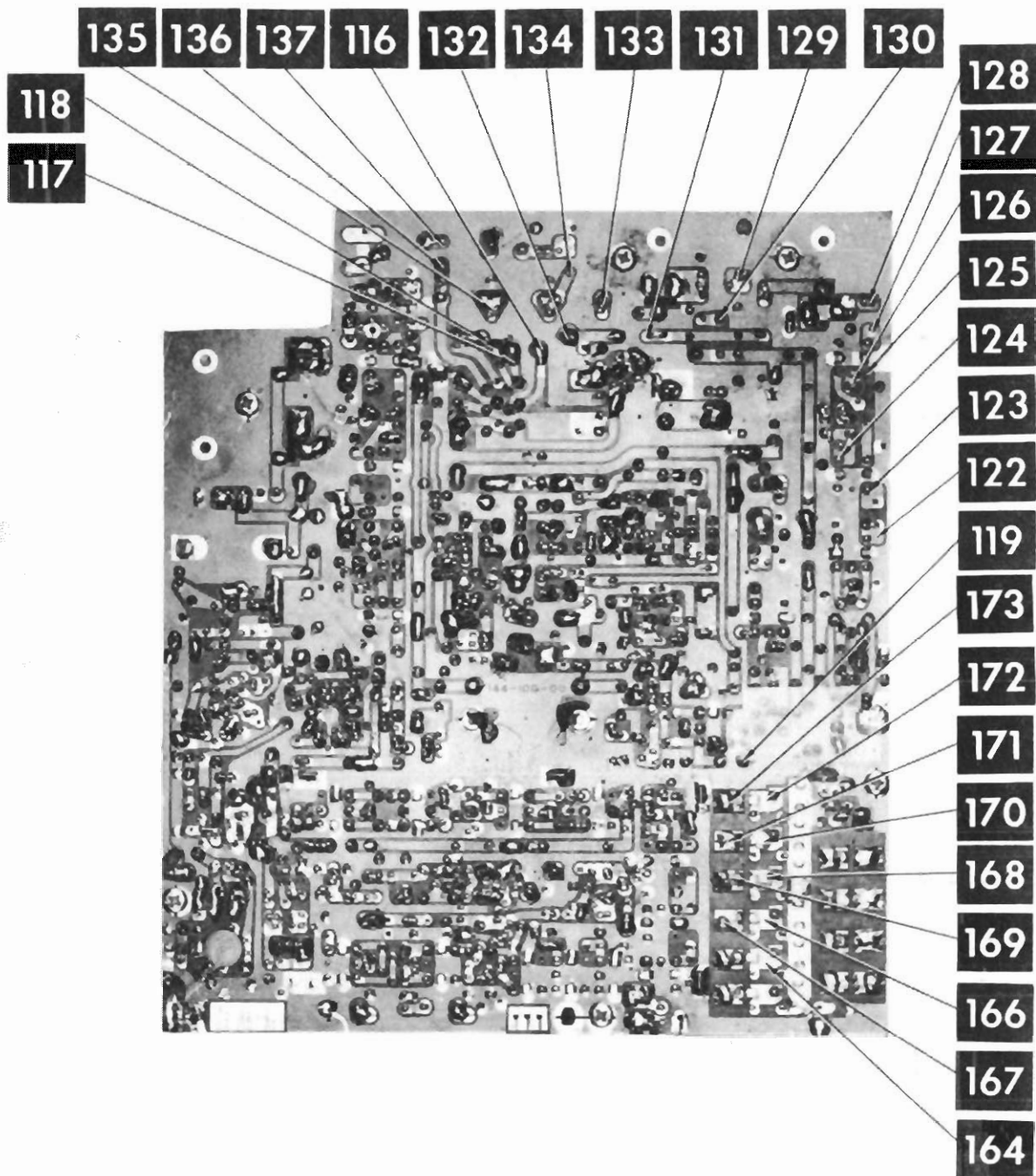




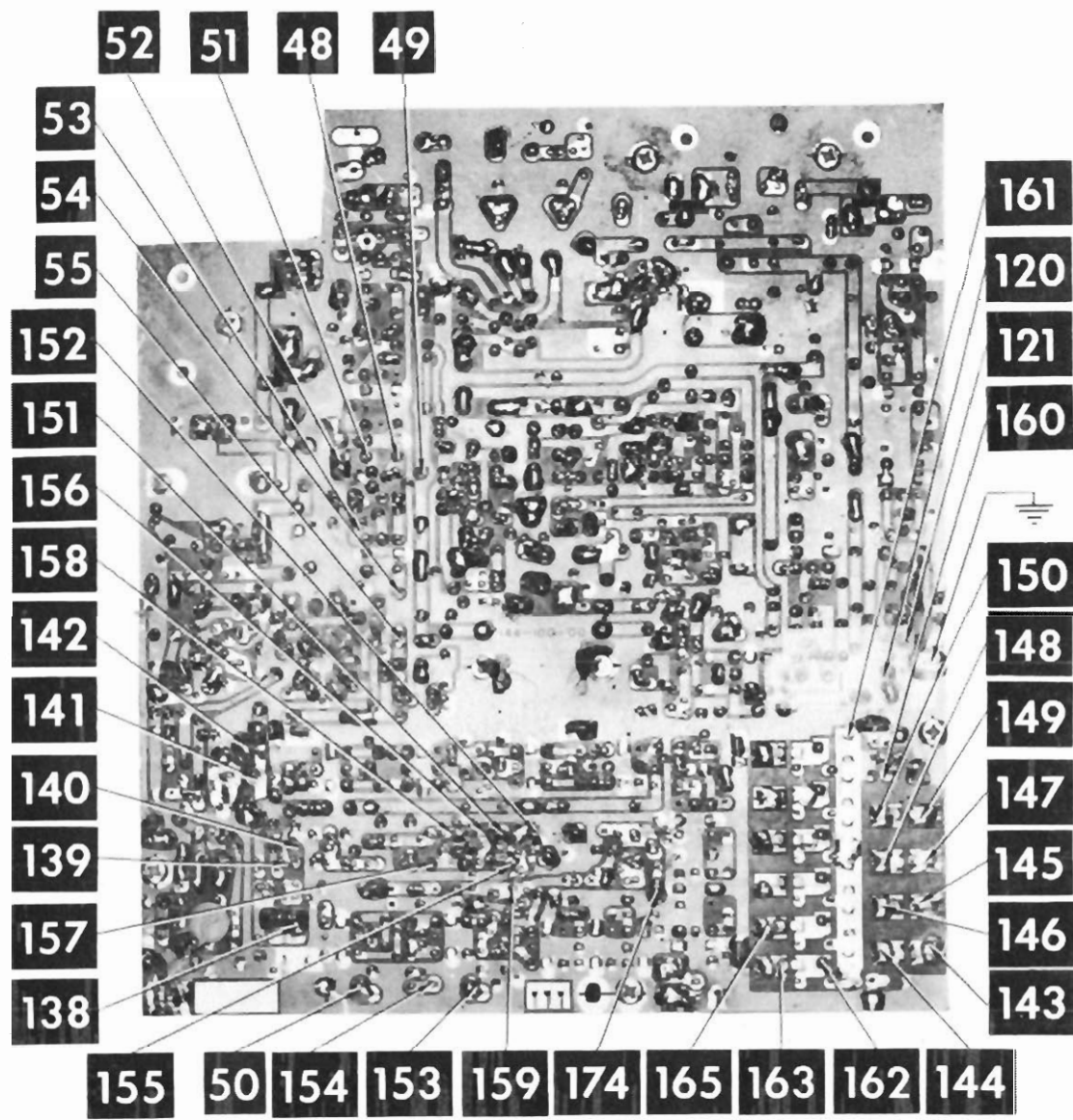


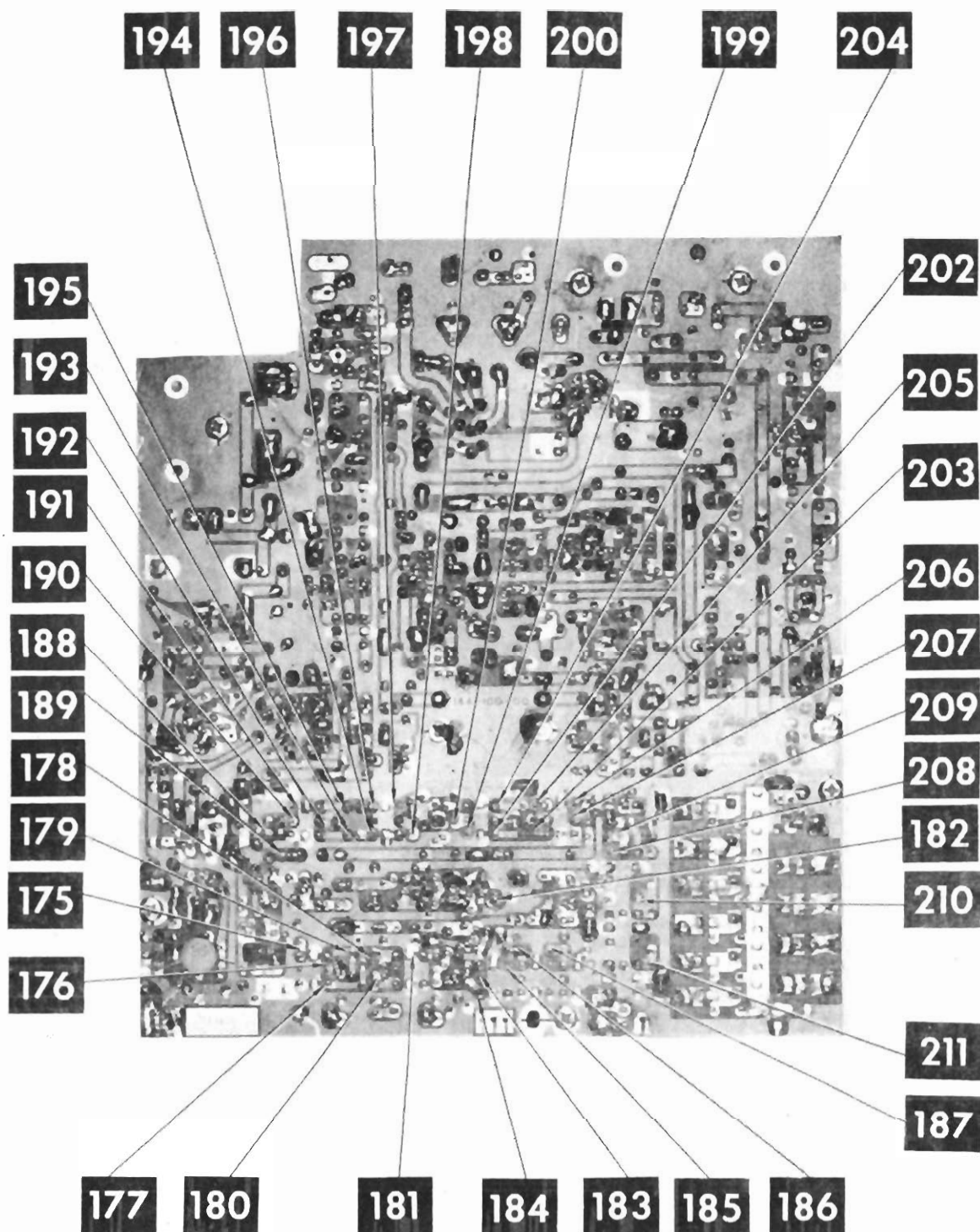


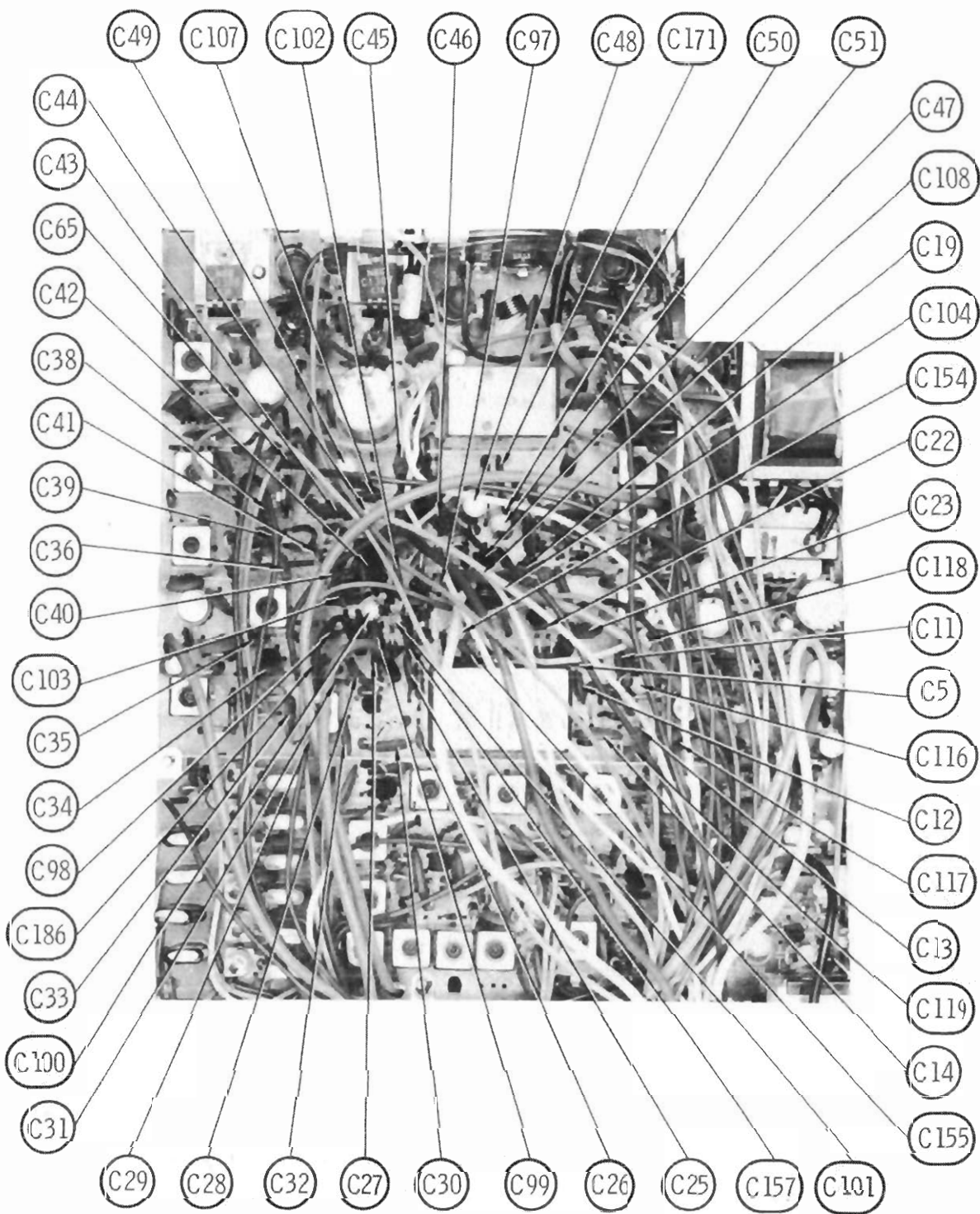


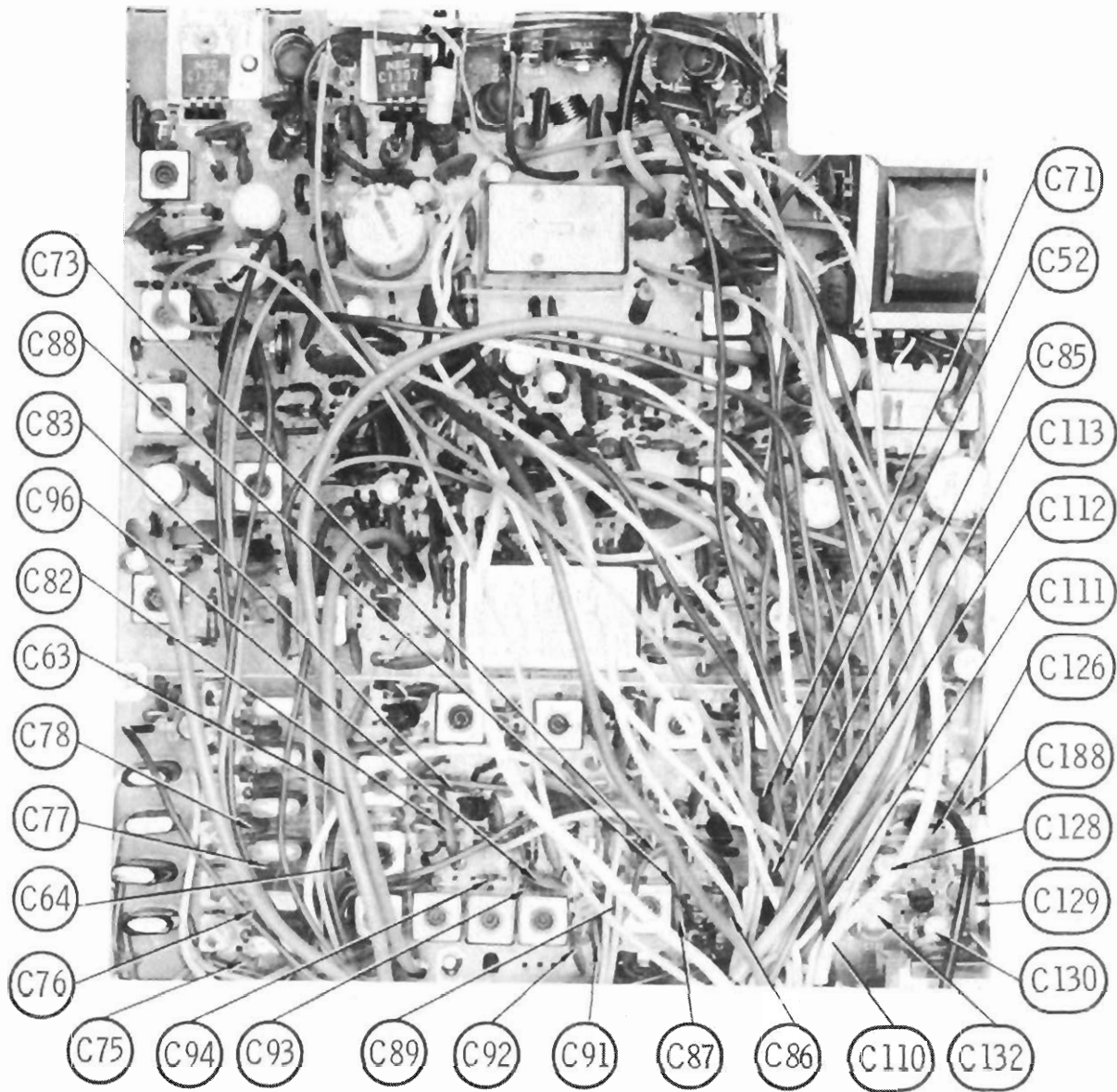


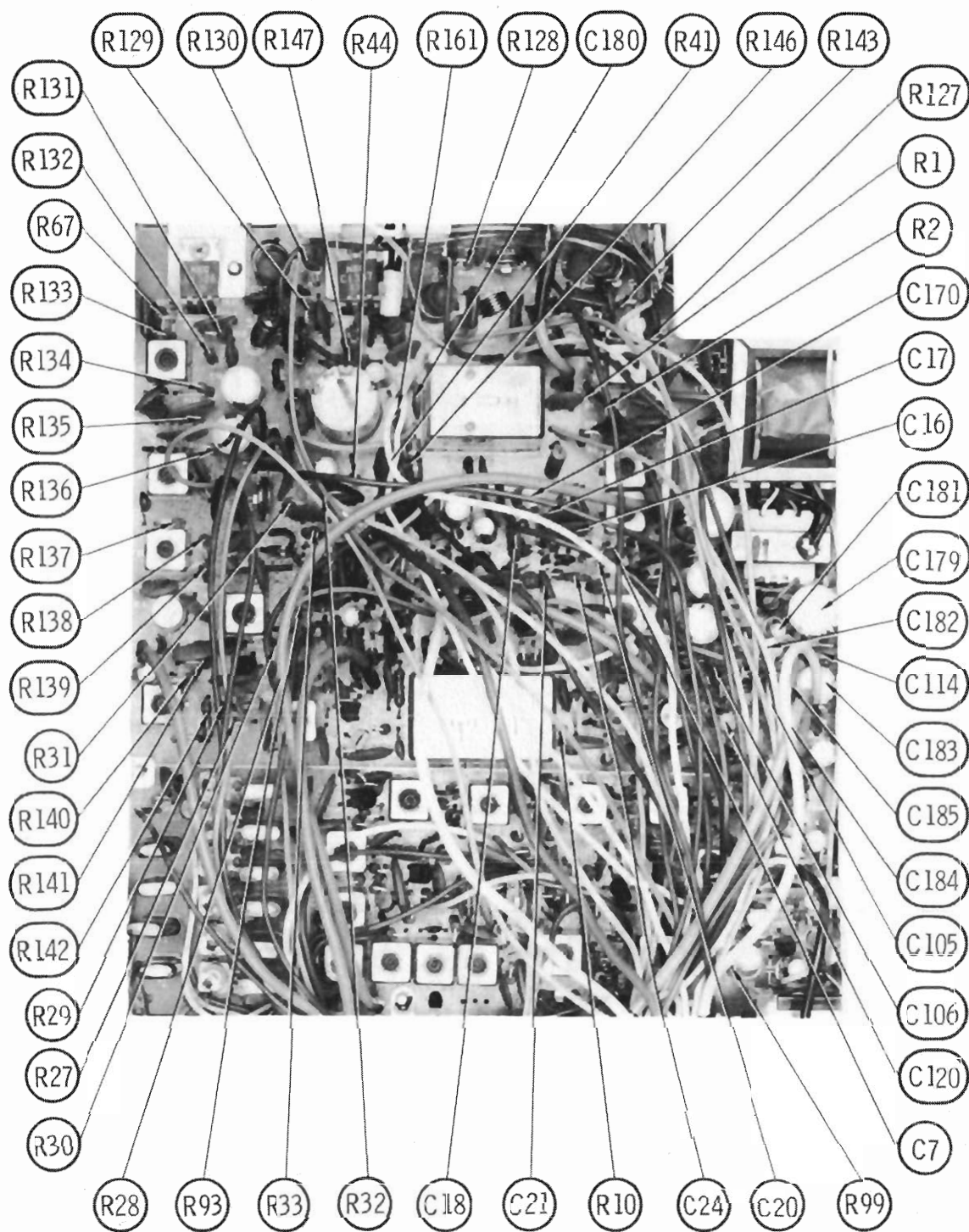
COBRA MODEL 138 / A

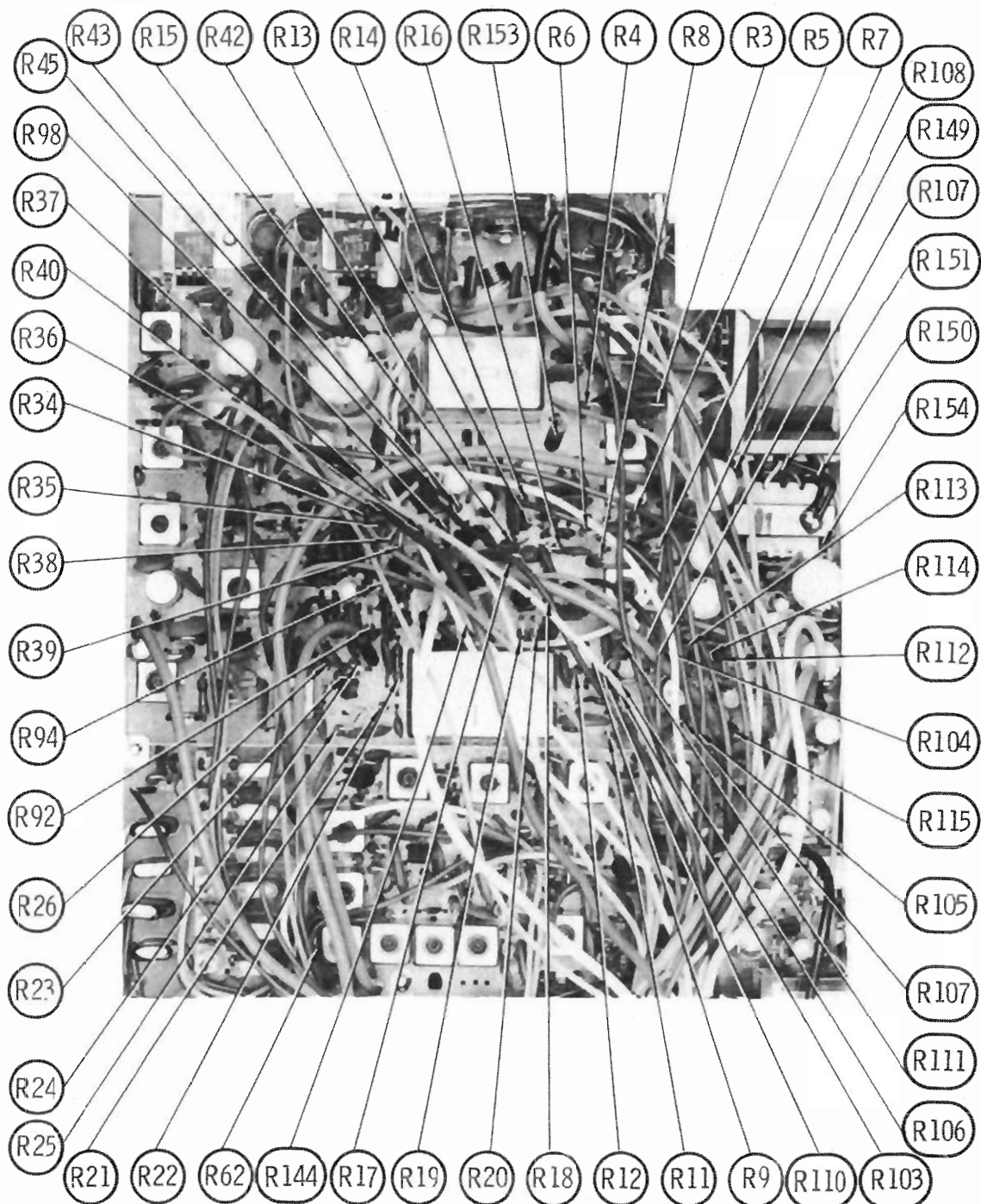


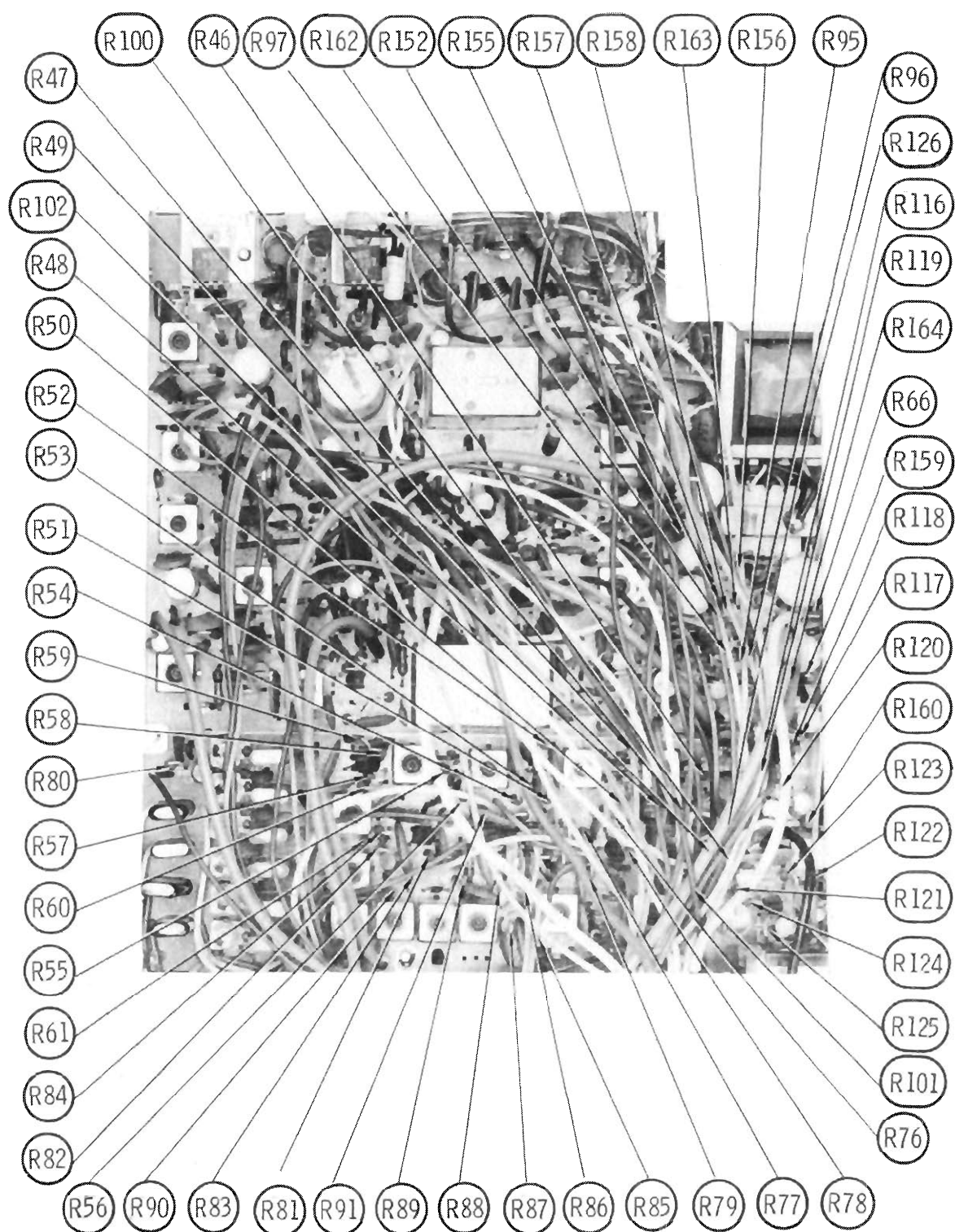












PARTS LIST AND DESCRIPTION

(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-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) 8496 3-Conductor, 1 Shielded, for Press-to-Talk (Vinyl)
Ignition Noise Suppression	Use BELDEN No. 7300-Series Spark-Plug Sets
Bonding Strap	Use BELDEN No. 8661 (3/8 In.)

SEMICONDUCTORS

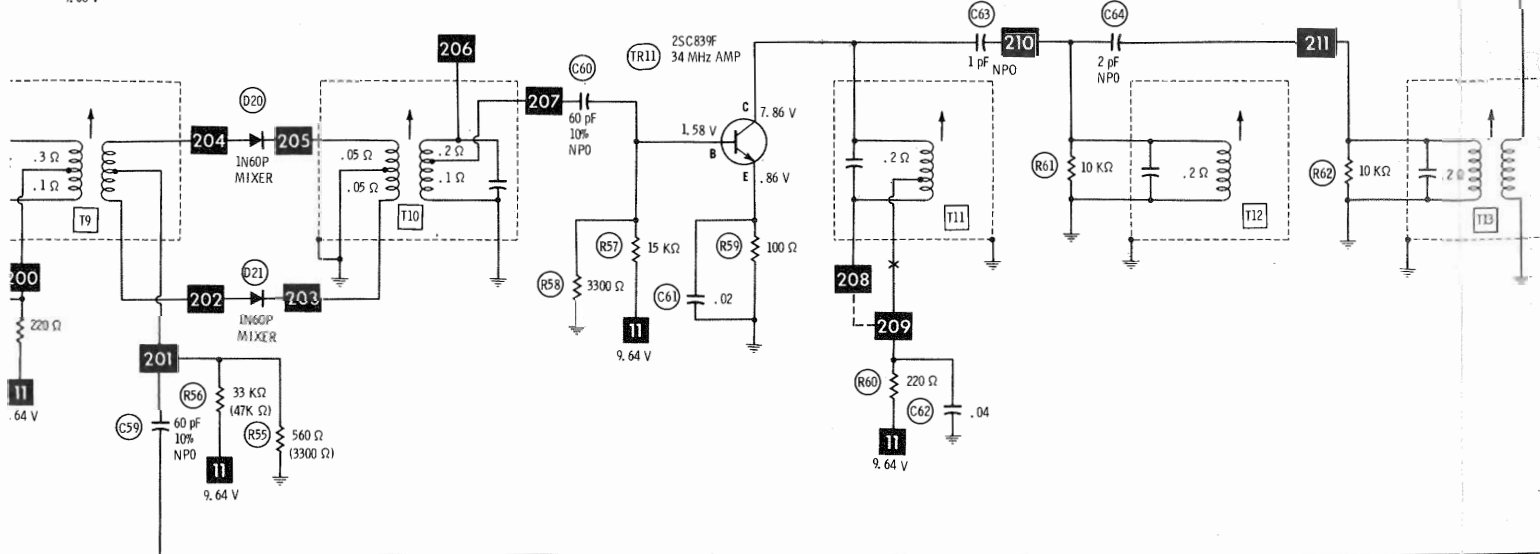
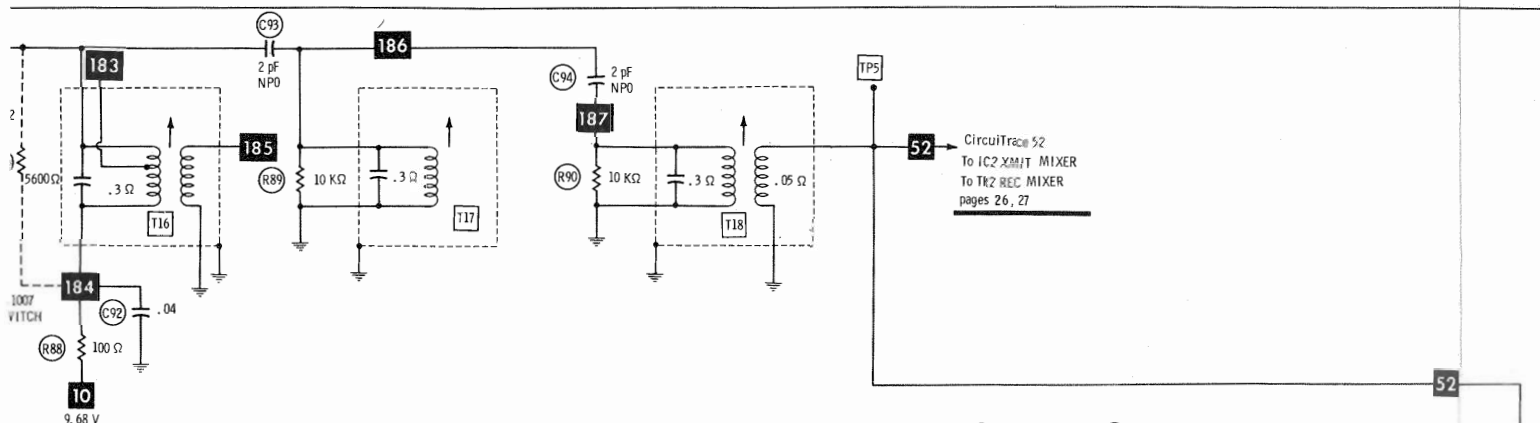
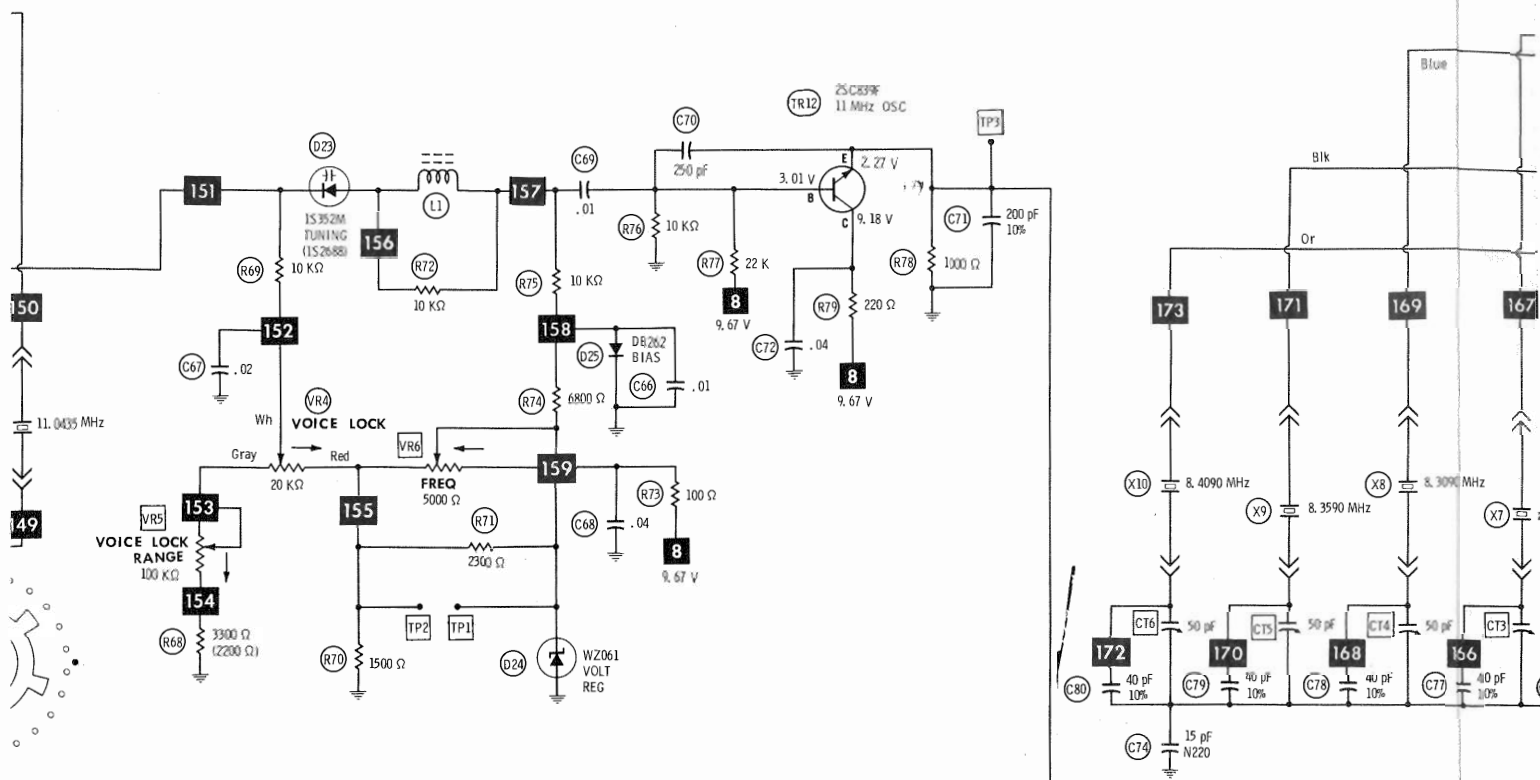
ITEM No.	TYPE / MFR. No. / PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D1	1N60P/ PL-150-006-9-001	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D2	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D3	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D4	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D5	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D6	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D7	1S2472/ PL-151-045-9-002	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D8	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D9	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D10	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D11	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D12	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D13	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D14	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D15	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D16	1S1693/ PL-151-045-9-004	GE-504A	8D4 or 5A4D	PTC201 or PTC202	HEPR0052	SK3030 or SK3031	RT213 or RT214	ECG 116 or ECG 117
D17	1N60P/ PL-150-006-9-001	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D18	1N60P/ PL-150-006-9-001	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D19	1N60P/ PL-150-006-9-001	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D20	1N60P/ PL-150-006-9-001	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D21	1N60P/ PL-150-006-9-001	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D22	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D23	1S352M/ PL-154-001-9-001	GE-90 (8)	D201 (8)		HEPR2503(8)	SK3126 (8)		
D24	WZ-061/ PL-152-052-9-002 (6.2 V Zener)	GEZD-6.2	Z-1204	PTC503	HEPZ0408	SK3058	RT237	ECG 5070
D25	KB-262/ PL-151-032-9-004	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D26	1S1007/ PL-151-045-9-003	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506
D27	1N60P/ PL-150-006-9-001	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D28	1N60P/ PL-150-006-9-001	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D29	1N60P/ PL-150-006-9-001	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D30	1N60P/ PL-150-006-9-001	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D31	1S1007/ PL-151-045-9-003	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506
D32	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D33	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D34	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D35	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D36	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D37	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D38	1S2473/ PL-151-035-9-001							
D39	1S2473/ PL-151-035-9-001							
D40	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D41	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D42	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109

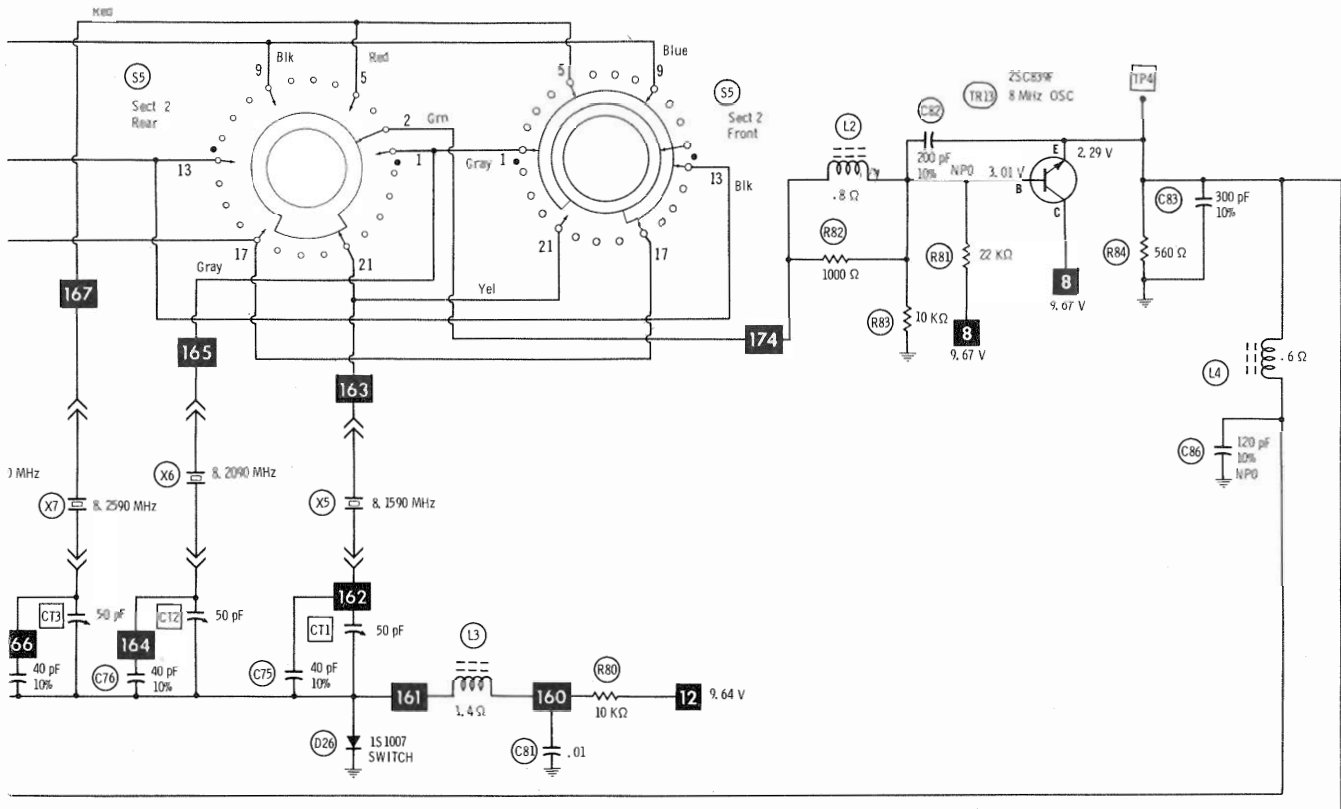
(CONTINUED ON PAGE 34)

COBRA MODEL 138 / A









S5 Shown on CH.
No. 1
S4 Shown on USB
Switch sequence
1. AM
2. USB
3. LSB

Terminal Guides



TR10, TR11, TR12
TR13, TR14, TR17

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

PARTS LIST AND DESCRIPTION (CONTINUED)

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

SEMICONDUCTORS (cont)

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.
D43	KB-262/ PL-151-032-9-004	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D44	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D45	1N60/ PL-150-001-9-005	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D46	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D47	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D48	CZ-092/ PL-152-051-9-001 (9.2 V Zener)	GEZD-9.1	Z-1210	PTC505	HEPZ0412	SK3060	RT240	ECG 139
D49	CZ-092/ PL-152-051-9-001 (9.2 V Zener)	GEZD-9.1	Z-1210	PTC505	HEPZ0412	SK3060	RT240	ECG 139
D50	SR1K-2/ PL-151-045-9-001	GE-504A	8D4 or 5A4D	PTC201 or PTC202	HEPR0052	SK3030 or SK3031	RT213 or RT214	ECG 116 or ECG 117
D51	CD-37/ PL-150-040-9-002	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D52	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D53	1S2473/ PL-151-035-9-001	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D54	CZ-092/ PL-152-051-9-001 (9.2 V Zener)	GEZD-9.1	Z-1210	PTC505	HEPZ0412	SK3060	RT240	ECG 139
D55	WZ-081/ PL-152-054-9-001 (8.1 V Zener)	GE-X11	Z-1208	ZB8.2	HEPZ0411	SK3059	RT239	ECG 5072
D56	SR1K-2/ PL-151-045-9-001	GE-504A	8D4 or 5A4D	PTC201 or PTC202	HEPR0052	SK3030 or SK3031	RT213 or RT214	ECG 116 or ECG 117
FET1	2SK306R/ PL-182-014-9-002	GE-FET-1	FE-100	PTC151	HEP801	SK3112	RT176	ECG 133
FET2	2SK196R/ PL-182-014-9-002	GE-FET-1	FE-100	PTC151	HEP801	SK3112	RT176	ECG 133
IC1	MC1496G/ PL-307-047-9-001							ECG 724
IC2	TA7045M/ PL-307-047-9-002							ECG 107
TR1	2SC839F/ PL-176-049-9-002	GE-17	TR-24	PTC121	HEP728	SK3018	RT107	ECG 107
TR2	2SC839F/ PL-176-042-9-002	GE-17	TR-24	PTC121	HEP728	SK3018	RT107	ECG 107
TR3	2SA733H, I, P	GE-65	TR-31	PTC131	HEP708	SK3138	RT120	ECG 159
TR4	2SC839F/ PL-176-042-9-002	GE-17	TR-24	PTC121	HEP728	SK3018	RT107	ECG 107
TR5	2SC839F/ PL-176-042-9-002	GE-17	TR-24	PTC121	HEP728	SK3018	RT107	ECG 107
TR6	2SC839F/ PL-176-042-9-002	GE-17	TR-24	PTC121	HEP728	SK3018	RT107	ECG 107
TR7	2SC839F/ PL-176-042-9-002	GE-17	TR-24	PTC121	HEP728	SK3018	RT107	ECG 107
TR8	2SC839F/ PL-176-042-9-002	GE-17	TR-24	PTC121	HEP728	SK3018	RT107	ECG 107
TR9	2SC945T, R/ PL-176-042-9-003	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 123A
TR10	2SC839F/ PL-176-042-9-002	GE-17	TR-24	PTC121	HEP728	SK3018	RT107	ECG 107
TR11	2SC839F/ PL-176-042-9-002	GE-17	TR-24	PTC121	HEP728	SK3018	RT107	ECG 107
TR12	2SC839F/ PL-176-042-9-002	GE-17	TR-24	PTC121	HEP728	SK3018	RT107	ECG 107
TR13	2SC839F/ PL-176-042-9-002	GE-17	TR-24	PTC121	HEP728	SK3018	RT107	ECG 107
TR14	2SC839F/ PL-176-042-9-002	GE-17	TR-24	PTC121	HEP728	SK3018	RT107	ECG 107
TR15	2SC945T, R/ PL-176-042-9-003	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 123A
TR16	2SC945T, R/ PL-176-042-9-003	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 123A
TR17	2SC839F/ PL-176-042-9-002	GE-17	TR-24	PTC121	HEP728	SK3018	RT107	ECG 107
TR18	2SC945T, R/ PL-176-042-9-003	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 123A
TR19	2SC945T, R/ PL-176-042-9-003	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 123A
TR20	2SC1307/ PL-172-024-9-003(1)	GE-66		PTC110				
TR21	2SC1306/ PL-172-024-9-002(2)	GE-66	TR-55	PTC110				ECG 186
TR22	2SC710(C)/	GE-10	TR-24	PTC126	HEP723	SK3018	RT107	ECG 107
TR23	2SC1096/ PL-172-024-9-001(3)	GE-28	TR-55	PTC110	HEPS5003	SK3054	RT154	ECG 186
TR24	2SC1096/ PL-172-024-9-001(3)	GE-28	TR-55	PTC110	HEPS5003	SK3054	RT154	ECG 186
TR25	2SC735(Y)/ PL-176-047-9-001	GE-63	TR-21	PTC123	HEP53	SK3124	RT102	ECG 123A
TR26	2SC945T, R/ PL-176-042-9-003	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 123A

- (1) Rating 25 watt @ 8 amp.
 (2) Rating 12 watt @ 3 amp.
 (3) Rating 10 watt @ 2 amp.
 (8) Varactor

PARTS LIST AND DESCRIPTION (CONTINUED)

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

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA					
		MFGR. PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C37	1 50 V	PL-022-122-9-001	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C44	.1 25 V	PL-022-122-9-013				TDC104M050EL	S050-R109
C48	33 10 V	PL-022-122-9-005	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
	33 6.4 V	PL-022-122-9-006	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
C49	33 16 V		ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
	33 10 V	PL-022-122-9-005	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
C51	1 50 V	PL-022-122-9-001	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C700	1 50 V	PL-022-122-9-001	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C101	.1 25 V	PL-022-122-9-013				TDC104M050EL	S050-R109
C116	2.2 25 V	PL-022-122-9-002	RME-A-G-002	EP30-2	PC2-100	VTT2R2A50	EV-1317
C118	22 10 V	PL-022-122-9-004	RME-B-E-010	EP15-25	PC25-25	MTV25CB35	EV-1125
C120	10 16 V	PL-022-120-9-001	ME-3-D-035	EP15-10	PC10-25	VTT10A25	EV-1222
C122	33 16 V		ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
	33 10 V	PL-022-122-9-005	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
C123	33 10 V	PL-022-122-9-005	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
C125	1 50 V	PL-022-122-9-001	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C127	1 50 V	PL-022-122-9-001	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C128	1 50 V	PL-022-122-9-001	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C129	33 10 V	PL-022-122-9-005	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
	33 6.4 V	PL-022-122-9-006	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
C130	1 50 V	PL-022-122-9-001	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C132	47 10 V	PL-022-120-9-002	RME-D-D-050	EP15-50	PC50-1C	MTV50CB15	EV-1226
C134	4.7 25 V	PL-022-122-9-003	RME-A-G-005	EP30-5	PC5-50	VTT4R7A50	EV-1319
C135	10 16 V	PL-022-120-9-001	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C154	10 16 V	PL-022-120-9-001	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C163	4.7 25 V	PL-022-122-9-003	RME-A-G-005	EP30-5	PC5-50	VTT4R7A50	EV-1319
C167	4.7 25 V	PL-022-122-9-003	RME-A-G-005	EP30-5	PC5-50	VTT4R7A50	EV-1319
C168	220 10 V	PL-022-122-9-009	RME-G-D-250	EP15-250	PC250-10	MTV250DB10	EV-1145
C169	220 16 V	PL-022-122-9-006	RME-J-E-250	EP15-250	PC250-25	MTV250DE15	EV-1245
C170	33 16 V		ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
	33 10 V	PL-022-122-9-005	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
C172	4.7 25 V	PL-022-122-9-003	RME-A-G-005	EP30-5	PC5-50	VTT4R7A50	EV-1319
C173	220 25 V	PL-022-122-9-007	RME-K-G-250	EP30-250	PC250-25	MTV250DJ25	EV-1345
C174	470 16 V	PL-022-099-9-006	RME-L-E-500	EP15-500	PC500-16	MTV500DN15	EV-1250
C178	220 16 V	PL-022-122-9-008	RME-J-E-250	EP15-250	PC250-25	MTV250DE15	EV-1245
C179	470 10 V		RME-K-D-500	EP15-500	PC500-16	MTV500DN15	EV-1150
	470 6.3 V	PL-022-122-9-014	RME-J-B-500	EP6-500	PC500-16	MTV500DE6	EV-1050
C181	.1 25 V	PL-022-122-9-013				TDC104M050EL	S050-R109
C182	1 50 V	PL-022-122-9-001	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C183	220 6.3 V	PL-022-122-9-010	RME-F-B-250	EP6-250	PC250-10	MTV250DB10	EV-1145
C184	1 50 V	PL-022-122-9-001	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C187	330 10 V	PL-022-122-9-011	ME-8-E-250	EP15-250	WBR300-35	MTA300G50	EV-1245
C189	10 16 V	PL-022-120-9-001	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C190	1000 25 V	PL-022-122-9-012	RME-P-G-1000	EP30-1000	WBR1000-25	MTA1000G25	EV-1360

CORRA MODEL 138 / A

CAPACITORS

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENDO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C2	.001		CCD-102	DD-102	GP1000	SM21C	255-D10
C3	.02		CCD-203	CK-203	MGP02	TA12C	TG-S20
C4	.02		CCD-203	CK-203	MGP02	TA120	TG-S20
C5	.04			DD-403		GP140	
C6	.2	NPO		DTZ-2R2	NP02P2	CN0522	10TCC-V22
C7	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C8	.40	10%				CN0439	10TCC-Q39
C9	.02		CCD-203	CK-203	MGP02	TA120	TG-S20
C10	.02		CCD-203	CK-203	MGP02	TA120	TG-S20
C11	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C12	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C13	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C14	.02		CCD-203	CK-203	MGP02	TA120	TG-S20
C15	.20	NPO	CCTO-200	DTZ-20	NP020	CN0420	10TCC-Q20
C16	.02		CCD-203	CK-203	MGP02	TA120	TG-S20
C17	.02		CCD-203	CK-203	MGP02	TA120	TG-S20
C18	.02		CCD-203	CK-203	MGP02	TA12C	TG-S20
C19	.02		CCD-203	CK-203	MGP02	TA12C	TG-S20
C20	.5	NPO			NP05		10TCC-V50
C21	.02		CCD-203	CK-203	MGP02	TA12C	TG-S20
C22	.001		CCD-102	DD-102	GP1000	SM21C	255-D10
C23	.04			DD-403		GP14C	
C24	.005		CCD-502	CK-502	MGP005	TA25C	TG-D50
C25	.01		CCD-103	CK-103	MGP01	TA11C	TG-S10
C26	.001		CCD-102	DD-102	GP1000	SM21C	255-D10
C27	.20	NPO	CCTO-200	DTZ-20	NP020	CN0420	10TCC-Q20
C28	.04			DD-403		GP14C	
C29	.2	NPO		DTZ-2R2	NP02P2	CN0522	10TCC-V22
C30	.02		CCD-203	CK-203	MGP02	TA12C	TG-S20
C31	.04			DD-403		GP140	
C32	.04			DD-403		GP140	
C33	.01		CCD-203	CK-203	MGP02	TA12C	TG-S20
C34	.01		CCD-203	CK-203	MGP02	TA12C	TG-S20
C35	.04			DD-403		GP14C	
C36	.01		CCD-103	CK-103	MGP01	TA11C	TG-S10
C38	.04			DD-403		GP140	
C39	.04			DD-403		GP140	
C40	.20	NPO	CCTO-200	DTZ-20	NP020	CN0420	10TCC-Q20
C41	.5	NPO			NP05		10TCC-V50
C42	.50C	10%	PL-023-148-9-007	DM-19-501J			
C43	.02		CCD-203	CK-203	MGP02	TA120	TG-S20
C45	.02		CCD-203	CK-203	MGP02	TA120	TG-S20
C46	.04			DD-403		GP140	
C47	.20	NPO	CCTO-200	DTZ-20	NP020	CN0420	10TCC-Q20
C50	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C52	.04			DD-403		GP140	
C53	.25	NPO		DTZ-25		CN0425	10TCC-Q25

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.	
C54	60	NPO	10%	PL-020-126-9-006	CCT0-101	DTZ-100	NP0100	CN0310	MS-46
C55	100		10%		CCD-203	CK-203	MGP02	TA120	10TCC-T10
C56	.02				CCD-203	CK-203	MGP02	TA120	TG-S20
C57	.02					DD-403		GP140	TG-S20
C58	.04								
C59	60	NPO	10%	PL-020-126-9-006					MS-46
C60	60	NPO	10%	PL-020-126-9-006					MS-46
C61	.02				CCD-203	CK-203	MGP02	TA120	TG-S20
C62	.04					DD-403		GP140	
C63	1	NPO						CN0510	10TCC-V10
C64	2	NPO				DTZ-2R2	NP02P2	CN0522	10TCC-V22
C65	.04					DD-403		GP140	
C66	.01				CCD-103	CK-103	MGP01	TA110	TG-S10
C67	.02				CCD-203	CK-203	MGP02	TA120	TG-S20
C68	.04					DD-403		GP140	
C69	.01				CCD-103	CK-103	MGP01	TA110	TG-S10
C70	250				DM-19-251J				
C71	200		10%		CCD-201	DD-201	GP200	GP320	10TS-T20
C72	.04					DD-403		GP140	
C73	.04					DD-403		GP140	
C74	15	N220		PL-020-126-9-010					10TCR-Q15
C75	40		10%					CN0439	10TCC-Q39
C76	40		10%					CN0439	10TCC-Q39
C77	40		10%					CN0439	10TCC-Q39
C78	40		10%					CN0439	10TCC-Q39
C79	40		10%					CN0439	10TCC-Q39
C80	40		10%					CN0439	10TCC-Q39
C81	.01				CCD-103	CK-103	MGP01	TA110	TG-S10
C82	200	NPO	10%		CCD-201	DD-201	GP200	GP320	10TS-T20
C83	300		10%		DM-19-301J	CPR-300J	CD15FD301J03	SX330	424ME3000J501
C84	.04					DD-403		GP140	
C85	12	NPO		PL-020-126-9-002	DM-15-120J			SX412	
C86	120	NPO	10%		DM-15-121J	CPR-120J	CD15FD121J03	SX312	424MC1200J501
C87	100	N220	10%	PL-020-109-9-008					10TCR-T10
C88	100	N220	10%	PL-020-109-9-008					10TCR-T10
C89	600		10%	PL-023-048-9-005					MS-36
C90	.02				CCD-203	CK-203	MGP02	TA120	TG-S20
C91	.02				CCD-203	CK-203	MGP02	TA120	TG-S20
C92	.04					DD-403		GP140	
C93	2	NPO				DTZ-2R2	NP02P2	CN0522	10TCC-V22
C94	2	NPO				DTZ-2R2	NP02P2	CN0522	10TCC-V22
C95	.04					DD-403		GP140	
C96	.04					DD-403		GP140	
C97	.04					DD-403		GP140	
C98	5	NPO					NP05		10TCC-V50
C99	.01				CCD-103	CK-103	MGP01	TA110	TG-S10
C100	.01				CCD-103	CK-103	MGP01	TA110	TG-S10
C101	5	NPO					NP05		10TCC-V50
C102	.04					DD-403		GP140	
C103	.01				CCD-103	CK-103	MGP01	TA110	TG-S10
C104	.04					DD-403		GP140	
C105	.01				CCD-103	CK-103	MGP01	TA110	TG-S10
C106	.04					DD-403		GP140	
C107	.04					DD-403		GP140	
C108	20	NPO	10%		CCT0-200	DTZ-20	NP020	CN0420	10TCC-Q20
C109	15	NPO	10%		CCT0-150	DTZ-15	NP015	CN0415	10TCC-Q15
C110	20	NPO	10%		CCT0-150	DTZ-20	NP020	CN0420	10TCC-Q20
C111	.001		10%		SDP-1-102	CPR-1000J	DPMS6D1	EWFA210	225P10291WD3
C112	150		10%		CCD-151	DD-151	GP150	GP315	10TS-T15
C113	.04					DD-403		GP140	
C114	.01				CCD-103	CK-103	MGP01	TA110	TG-S10
C115	25	NPO	10%			DTZ-25		CN0425	10TCC-Q25
C116	.04					DD-403		GP140	
C117	.02				CCD-203	CK-203	MGP02	TA120	TG-S20
C118	.01				CCD-103	CK-103	MGP01	TA110	TG-S10
C119	.04					DD-403		GP140	
C120	.01				CCD-103	CK-103	MGP01	TA110	TG-S10
C121	.04					DD-403		GP140	
C122	.01				CCD-103	CK-103	MGP01	TA110	TG-S10
C123	.04					DD-403		GP140	
C124	.04					DD-403		GP140	
C125	.01					DD-403		GP140	
C126	.01					DD-403		GP140	
C127	.04					DD-403		GP140	
C128	.04					DD-403		GP140	
C129	35	NPO	10%						
C130	250		10%	PL-023-048-9-002	DM-19-251J				
C131	250		10%	PL-023-048-9-002	DM-19-251J				
C132	400		10%	PL-023-048-9-004					
C133	1	NPO							MS-34
C134	.04							CN0510	10TCC-V10
C135	650		10%	PL-023-048-9-006		DD-403		GP140	
C136	.04					DD-403		GP140	
C137	.04					DD-403		GP140	
C138	.04					DD-403		GP140	
C139	200		10%		DM-19-201J	CPR-200J	CD15FD201J03	SX320	424ME2000J501
C140	50	NPO	10%		CCT0-510	DTZ-50	NP050	CN0450	10TCC-Q50
C141	.04					DD-403		GP140	
C142	.1					CK-104		TA010	TG-P10
C143	400		10%	PL-023-048-9-004					MS-34
C144	1	NPO						CN0510	10TCC-V10
C145	.04					DD-403		GP140	
C146	.04					DD-403		GP140	
C147	.04					DD-403		GP140	
C148	.04					DD-403		GP140	
C149	.1					DD-403		GP140	
C150	400		10%			DD-403		GP140	
C151	1	NPO				DD-403		GP140	
C152	.04					DD-403		GP140	
C153	.04					DD-403		GP140	
C154	.04					DD-403		GP140	
C155	.04					DD-403		GP140	
C156	.04					DD-403		GP140	
C157	.04					DD-403		GP140	
C158	25	NPO	10%			DTZ-25		CN0425	10TCC-Q25
C159	.04					DD-403		GP140	
C160	.02				CCD-203	CK-203	MGP02	TA120	TG-S20
C161	.02				CCD-203	CK-203	MGP02	TA120	TG-S20
C162	1	NPO						CN0510	10TCC-V10
C163	.04					DD-403		GP140	
C164	.04					DD-403		GP140	
C165	.04					DD-403		GP140	
C166	.02				CCD-203	CK-203	MGP02	TA120	TG-S20
C167	.04					DD-403		GP140	
C168	.04					DD-403		GP140	
C169	.04					DD-403		GP140	
C170	.04					DD-403		GP140	
C171	.04					DD-403		GP140	
C172	.1					CK-104		TA010	TG-P10
C173	.1					CK-104		TA010	TG-P10
C174	.04					DD-403		GP140	

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/ELMENC	CENTRALAB	CORNELL-DUBILIER	MALLORY	SPRAGUE
C185	.01	PL-025-089-9-001	CCD-103	CK-103	MGP01	TA110	TG-S10
C186	.04			DD-403		GP140	
C188	.04			DD-403		GP140	
C191	.04			DD-403		GP140	
C192	.001						
C300	.01	PL-020-030-9-002	CCD-103	CK-103	MGP01	TA110	TG-S10
CT1	50 (Max)						
CT2	50 (Max)						
CT3	50 (Max)						
CT4	50 (Max)						
CT5	50 (Max)						
CT6	50 (Max)						
CT7	20 (Max)						

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	RF Gain Range	100 K	PL-008-209-9-001	TSV-100K (2) or T-100K (2)	C-104 (2)	X201R104B (2)	MTC15L1 (2)
VR2	RF Gain	100 K	PL-008-210-9-002	TSV-10K (2) or T-10K (2)	C-103 (2)	X201R103B (2)	MTC14L1 (2)
VR3	"S" Meter	20 K	PL-008-187-9-006	T-20K (2) or TSV-25K (2)	C-253 (2)	X201R253B (2)	MTC24L1 (2)
VR4	Voice Lock	20 K	PL-008-210-9-004				
VR5	Voice Lock Range	100 K	PL-008-209-9-001	TSV-100K (2) or T-100K (2)	C-104 (2)	X201R104B (2)	MTC15L1 (2)
VR6	Frequency	5000	PL-008-209-9-003	TSV-5K (2) or T-5000 (2)	C-502 (2)	X201R502B (2)	MTC53L1 (2)
VR7	AGC	5000	PL-008-209-9-003	TSV-5K (2) or T-5000 (2)	C-502 (2)	X201R502B (2)	MTC53L1 (2)
VR8	Squelch Range	100 K	PL-008-209-9-001	TSV-100K (2) or T-100K (2)	C-104 (2)	X201R104B (2)	MTC15L1 (2)
VR9	Squelch	100 K	PL-008-210-9-001				
VR16	Volume/Switch	10 K	PL-008-209-9-004	TSV-50K (2) or T-50K (2)	C-503 (2)	X201R503B (2)	MTC54L1 (2)
VR10	Balance	50 K					
VR11	Dynamike	10 K	PL-008-210-9-003				
VR12	AMC	10 K	PL-008-209-9-002	TSV-10K (2) or T-10K (2)	C-103 (2)	X201R103B (2)	MTC14L1 (2)
VR13	"RF" Power	100 K	PL-008-209-9-001	TSV-100K (2) or T-100K (2)	C-104 (2)	X201R104B (2)	MTC15L1 (2)
VR14	Bias	300	PL-008-209-9-006	T-300 (2)		X201R351B (2)	MTC32L1 (2)
VR15	ALC	50 K	PL-008-209-9-004	TSV-50K (2) or T-50K (2)	C-503 (2)	X201R503B (2)	MTC54L1 (2)

(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.
R67	2.2 5% 1/4 W			R148	4.5 5 W		
R131	.5 5% 1/4 W			R149	1 1% 1 W		

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			
		MFR. PART No.	OTHER IDENTIFICATION	MEISSNER PART No.	MILLER PART No.
L1	RF Choke (10 uH)	PL-041-062-9-001	100		
L2	RF Choke (8.2 uH)	PL-041-062-9-003	8R2		
L3	RF Choke (100 uH)	PL-041-062-9-002	101		
L4	RF Choke (6.8 uH)	PL-041-061-9-002	6R8		
L5	Trap (54 MHz)	PL-041-056-9-003	TC-71024		
L6	Xmit Ant (27 MHz)	PL-044-032-9-001	NS-1367A		
L7	Pi Network (27 MHz)	PL-044-032-9-001	NS-1367A		
L8	Final Amp (27 MHz)	PL-041-056-9-003	TC-71024		
L9	RF Choke	PL-041-062-9-005	NS-1515B		
L10	Xmit Buffer (27 MHz)	PL-041-056-9-003	TC-71024		
L11	RF Choke	PL-041-062-9-005	NS-1515B		
L12	RF Choke	PL-041-062-9-005	NS-1515B		
T1	Rec Ant (27 MHz)	PL-066-019-9-001	TKXC-24124N (LA-080 3N25)		
T2	Rec RF (27 MHz)	PL-066-019-9-002	TKXC24124N (LA-088 3N25)		
T3	Rec RF (27 MHz)	PL-066-019-9-002	TKXC24124N (LA-088 3N25)		
T4	Rec IF (7.8 MHz)	PL-060-018-9-001	TKXC-22526N (LA-038 3N25)		
T5	Rec IF (7.8 MHz)	PL-060-018-9-002	TKXC-24133N (LA-094 3N35)		
T6	Rec IF (7.8 MHz)	PL-060-018-9-003	TKXC-24137N (LA-096 3N15)		
T7	26 MHz Mixer Input	PL-060-018-9-004	TKXC-24136D (LA-093 3N35)		
T8	26 MHz Mixer Output	PL-060-018-9-005	TKXC-24126YDR (LA-090 3D15)		

COBRA MODEL 138/A

PARTS LIST AND DESCRIPTION (CONTINUED)

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

COILS (RF-IF) (cont)

ITEM No.	FUNCTION	REPLACEMENT DATA			
		MFGR. PART No.	OTHER IDENTIFICATION	MEISSNER PART No.	MILLER PART No.
T9	34 MHz Mixer Input	PL-060-018-9-006	TKXC-241180 (LA-083 3N25)		
T10	34 MHz Output	PL-060-018-9-007	TKXC-24125DR (LA-089 3N25)		
T11	34 MHz Output	PL-060-018-9-008	TKXC-24119Y (LA-084 3D15)		
T12	34 MHz Output	PL-046-013-9-001	TKXC-241020Z (LA-085 3N25)		
T13	34 MHz Output	PL-046-013-9-002	TKXC-24113X (LA-081 3N25)		
T14	Balance Mixer Input	PL-060-018-9-009	TKAC-24135ZPH		
T15	Balance Mixer Output	PL-064-013-9-001	TKXN-6711BM		
T16	19 MHz Output	PL-064-013-9-002	TKXC-24132N		
T17	19 MHz Output	PL-060-018-9-010	TKXC-24121Z		
T18	19 MHz Output	PL-060-018-9-011	TKXC-24134X		
T19	7.8 MHz Osc Output	PL-060-018-9-012	113CC-2804AC		
T20	Xmit RF Amp (27 MHz)	PL-060-018-9-014	TKXC-2344AN (LA069 3N15)		
T21	Xmit Buffer Input (27 MHz)	PL-046-013-9-004	TKXC-24122X (LA087 3N25)		
T22	Xmit Mixer Output (27 MHz)	PL-046-013-9-003	TKXC-24117BH (LA082 3N25)		
T23	Xmit Mixer Input (7.8 MHz)	PL-060-018-9-013	TKAC-23360ZVI (LA068 3N25)		

FILTER CHOKE

ITEM No.	RATINGS			MFGR. PART No.
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	
CH	1460 mA	.2	2.6 mH	PL-042-012-9-001

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			MFGR. PART No.
	PRI.	SEC. 1	SEC. 2	
IPT	1.25	1 CT		PL-068-007-9-001

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		MFGR. PART No.
	PRI.	SEC.	
Opt	32 CT	8	PL-061-023-9-001

SPEAKER

ITEM No.	TYPE	MFGR. PART No.
SP1	3 1/2" PM 8 ohms	PL-580-014-9-001

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA					
		PART No.		BUSS PART No.		LITTELFUSE PART No.	
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER
F1	2A Fast Acting	PL-191-251-3-002	PL-742-018-9-001	AGC2	HDJ	312002	150145
							FG2-2

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF	Crystal Filter	PL-143-003-9-001	7.8 MHz
M	Meter	PL-320-051-9-001	"S"/RF
RL	Relay	PL-441-008-9-001	Xmit/Rec
S1	Switch	PL-084-036-9-001	NB-Off
S2	Switch	PL-084-036-9-001	Anl-Off
S3	Switch	PL-084-036-9-001	CB-PA
S4	Switch	PL-083-159-9-001	Channel Selector
S5	Switch		AM-USB-LSB
X1	Crystal	PL-133-007-9-001	11.0035 MHz
X2	Crystal	PL-133-007-9-002	11.0135 MHz
X3	Crystal	PL-133-007-9-003	11.0235 MHz
X4	Crystal	PL-133-007-9-004	11.0435 MHz
X5	Crystal	PL-133-007-9-005	8.1590 MHz
X6	Crystal	PL-133-007-9-006	8.2090 MHz
X7	Crystal	PL-133-007-9-007	8.2590 MHz
X8	Crystal	PL-133-007-9-008	8.3090 MHz
X9	Crystal	PL-133-007-9-009	8.3590 MHz
X10	Crystal	PL-133-007-9-010	8.4090 MHz
X11	Crystal	PL-133-007-9-011	7.8025 MHz
	Printed Circuit Board	302-152-9-001	

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

ITEM	PART No.	ITEM	PART No.
Cabinet, Flotem	PL-252-013-9-001	Knob, AM-USB-LSB	PL-751-095-9-002
Cabinet, Top	PL-272-098-9-001	Knob, RF Gain	PL-751-095-9-002
Chassis, Metal		Knob, Squelch	PL-751-108-9-001
	(M2-02314)	Knob, Voice Lock	PL-751-095-9-002
Chassis, Front	258-010-9-001	Knob, Volume	PL-751-167-9-001
Dial, Channel	PL-380-176-9-002	Plate, Front	PL-260-016-9-001
Knob, Channel Selector	PL-751-095-9-001		
Knob, Dynamic	PL-751-095-9-002		

ACCESSORIES

ITEM	MFGR. PART No.	REMARKS
Dynamic Microphone	PL-562-107-9-001	Complete
DC Power Cord	PL-523-182-9-001	