

SAMS PHOTOFACT[®] CB RADIO SERIES



CB-29
29
AUGUST 1970



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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.



SBE MODEL SBE-1CB (Coronado)

ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:	GENERAL CEMENT #	WALSCO #
A1 thru A4, A7, A8.....	9087.....	2528
A5, A9, A13, A24	8276, 8277, 8290.....	2512, 2515, 2525
A6, A10, A11, A12, A14, thru A18	8606L, 9440	2501, 2544
A19 thru A23.....	8868, 9089	2541, 2587

RECEIVER

Connect AC VTVM to terminals of speaker. Turn volume control fully clockwise, turn Squelch control fully counterclockwise.

SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
High side thru .01mfd to Base of Q3 (2nd Rec. Mixer), low side to chassis. Tune to 455KC (Mod.).	Any	A1 thru A4	Adjust for maximum.
Frequency Meter or counter thru 5pf to Emitter of Q102 (Rec. Osc.)	Any	A5	Adjust only if all Rec. Osc. crystal frequencies are high or low.
Frequency meter or counter thru 5pf to Emitter of Q101 (Synthesizer).	Any	A9	Adjust only if all synthesizer crystal frequencies are high or low.
High side thru .01 to Antenna Receptacle, low side to chassis. Tune to 27.115MC (Mod.). (Channel 13).	13	A6, A7, A8, A10, A11, A12	Adjust for maximum.

TRANSMITTER

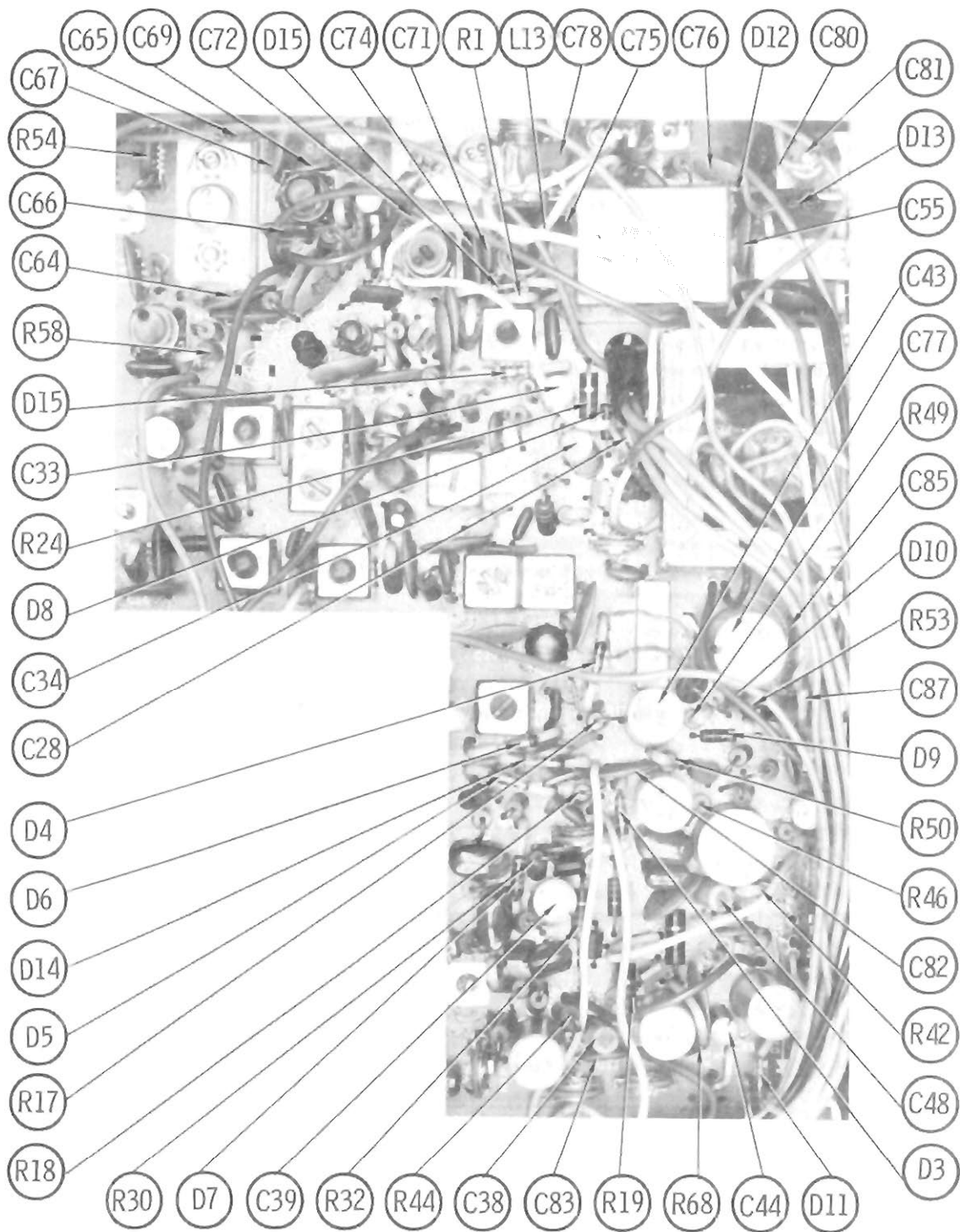
INDICATOR	ADJUST	REMARKS
Frequency Meter or Counter thru 5pf to Emitter of Q103 (Transmit. Osc.)	A13	Adjust only if all Transmit Osc. crystal frequencies are high or low.
RF wattmeter or Field Strength Meter 0-500ma DC ohmmeter connected in collector of Q16.	A14 thru A23	Adjust for maximum. DC current should not exceed 370ma @ 13.5VDC.
TV set (Ch. 2).	A24	Adjust for MINIMUM interference.

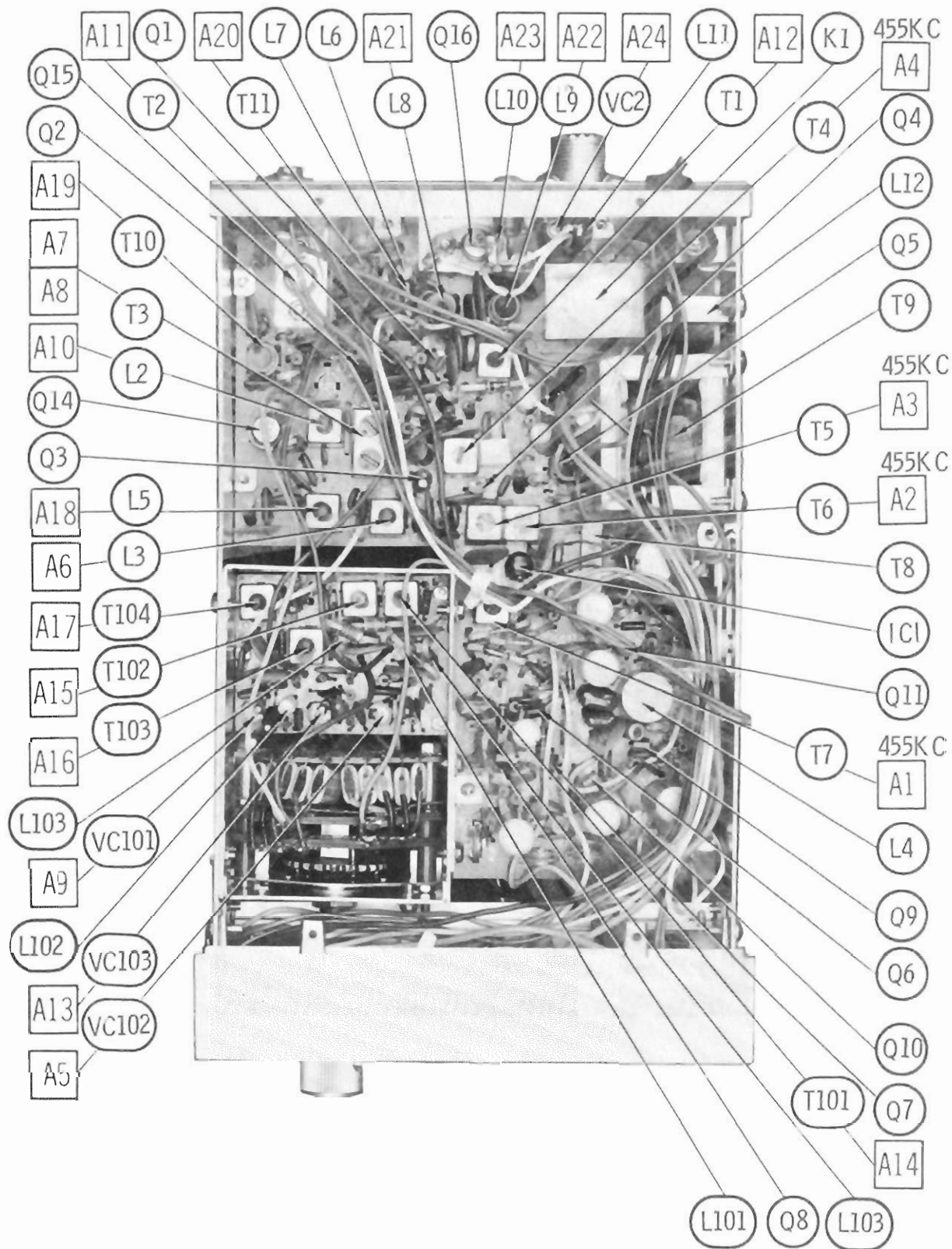
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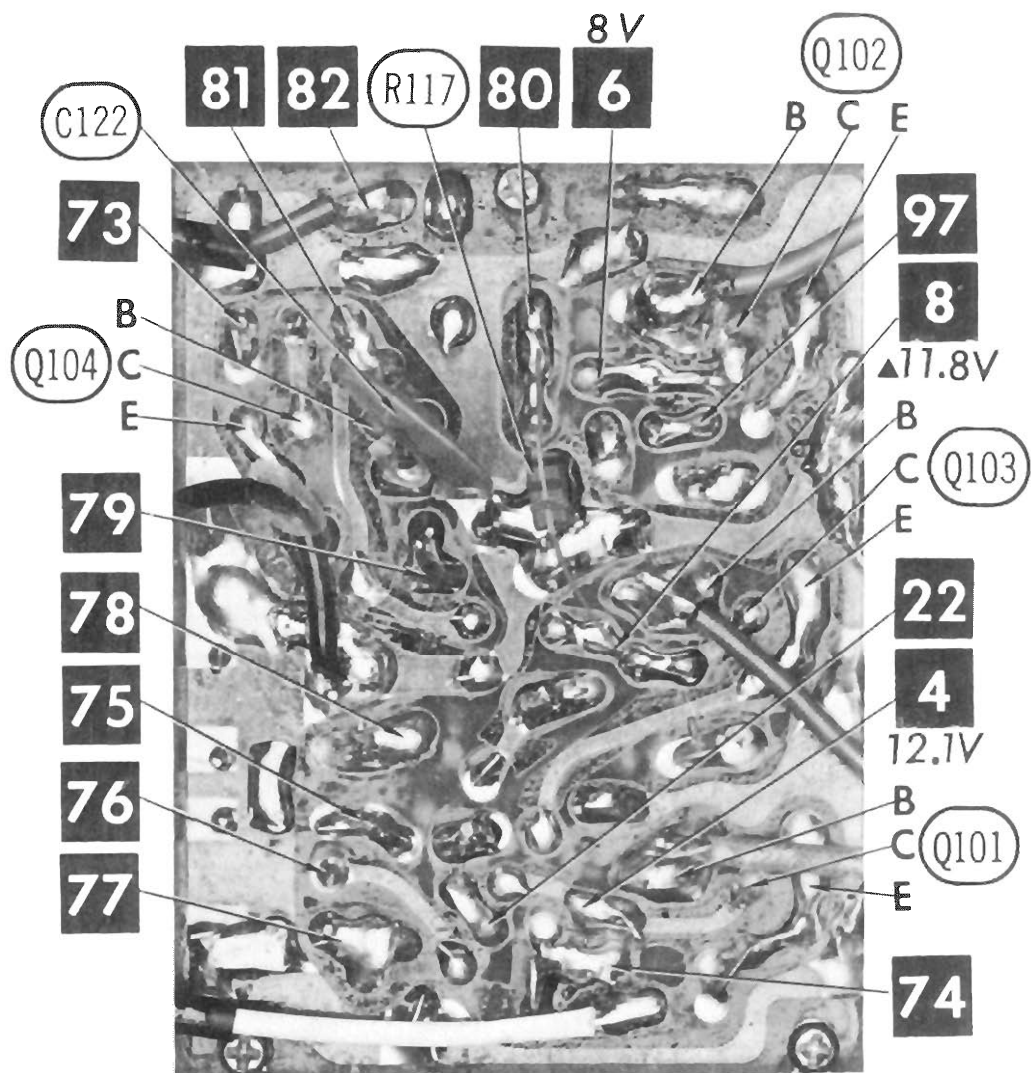
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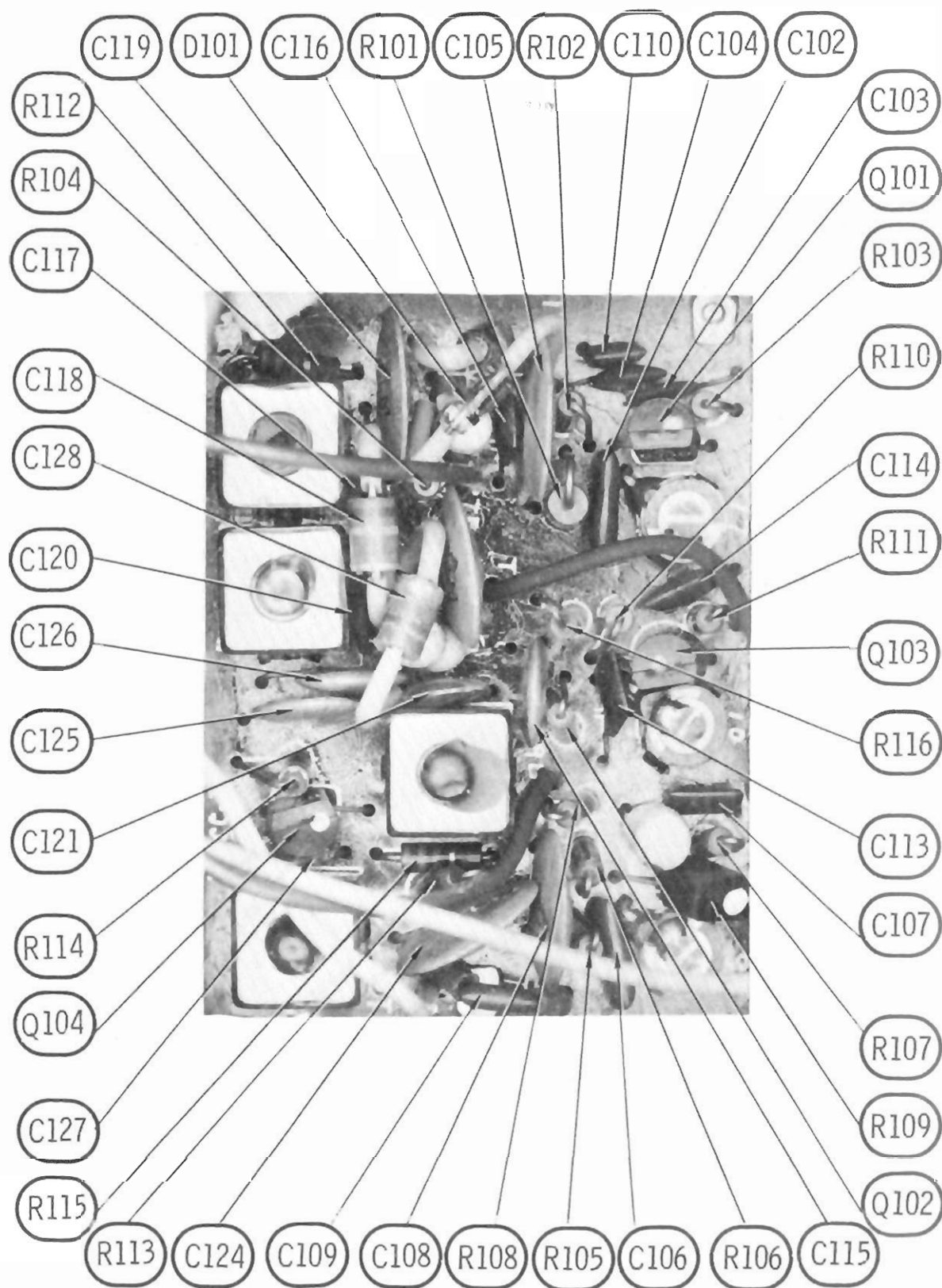
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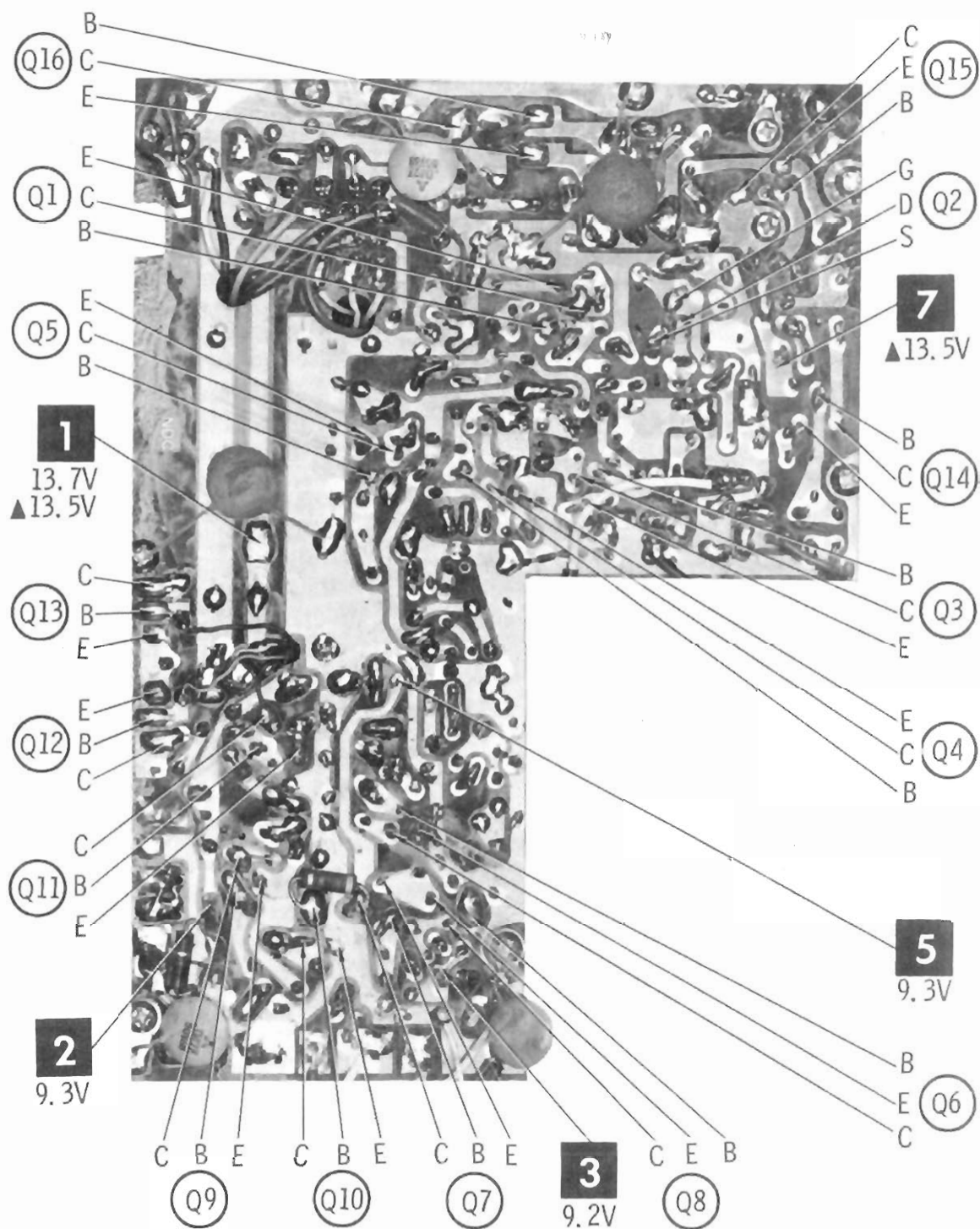
SBE MODEL SBE-1CB

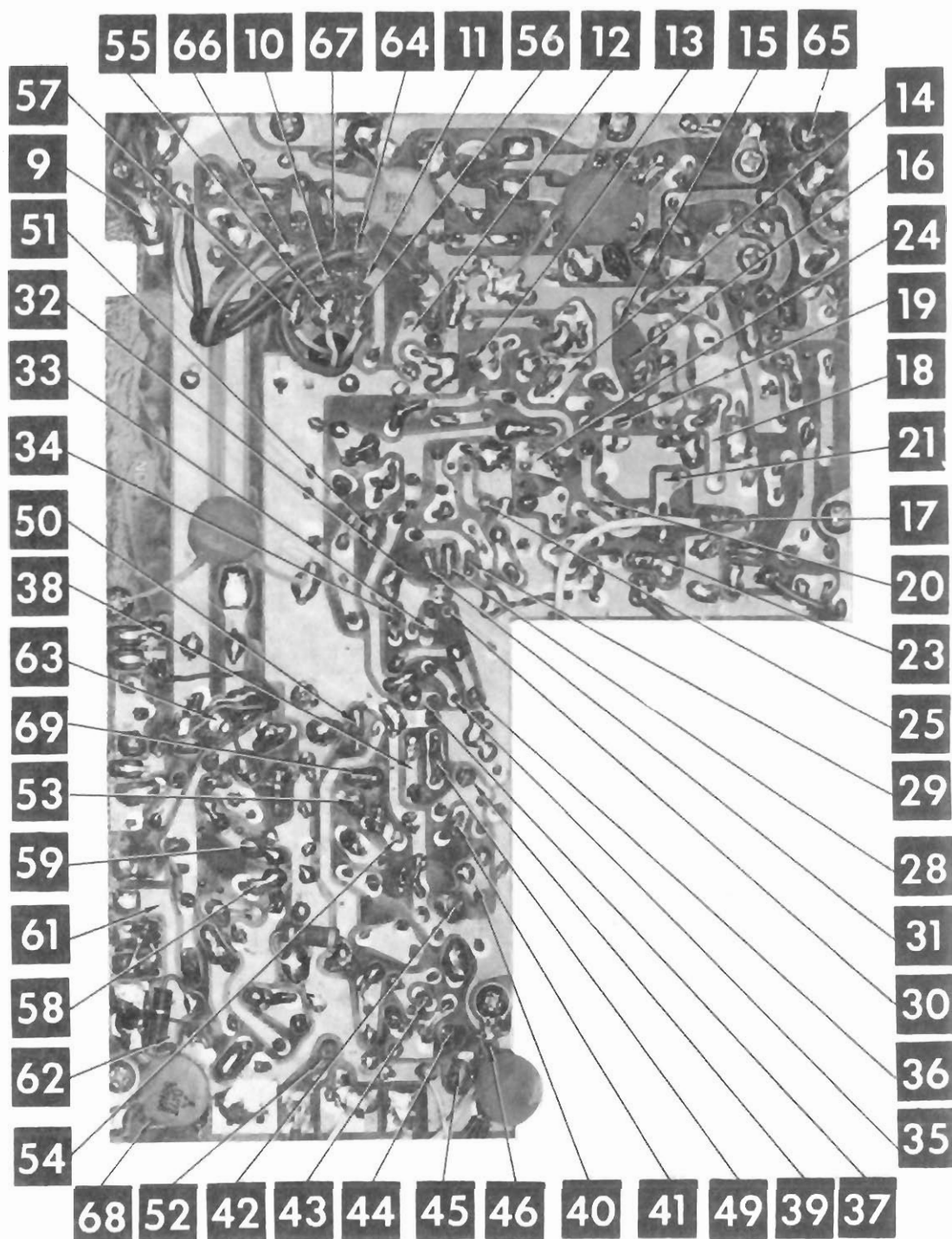


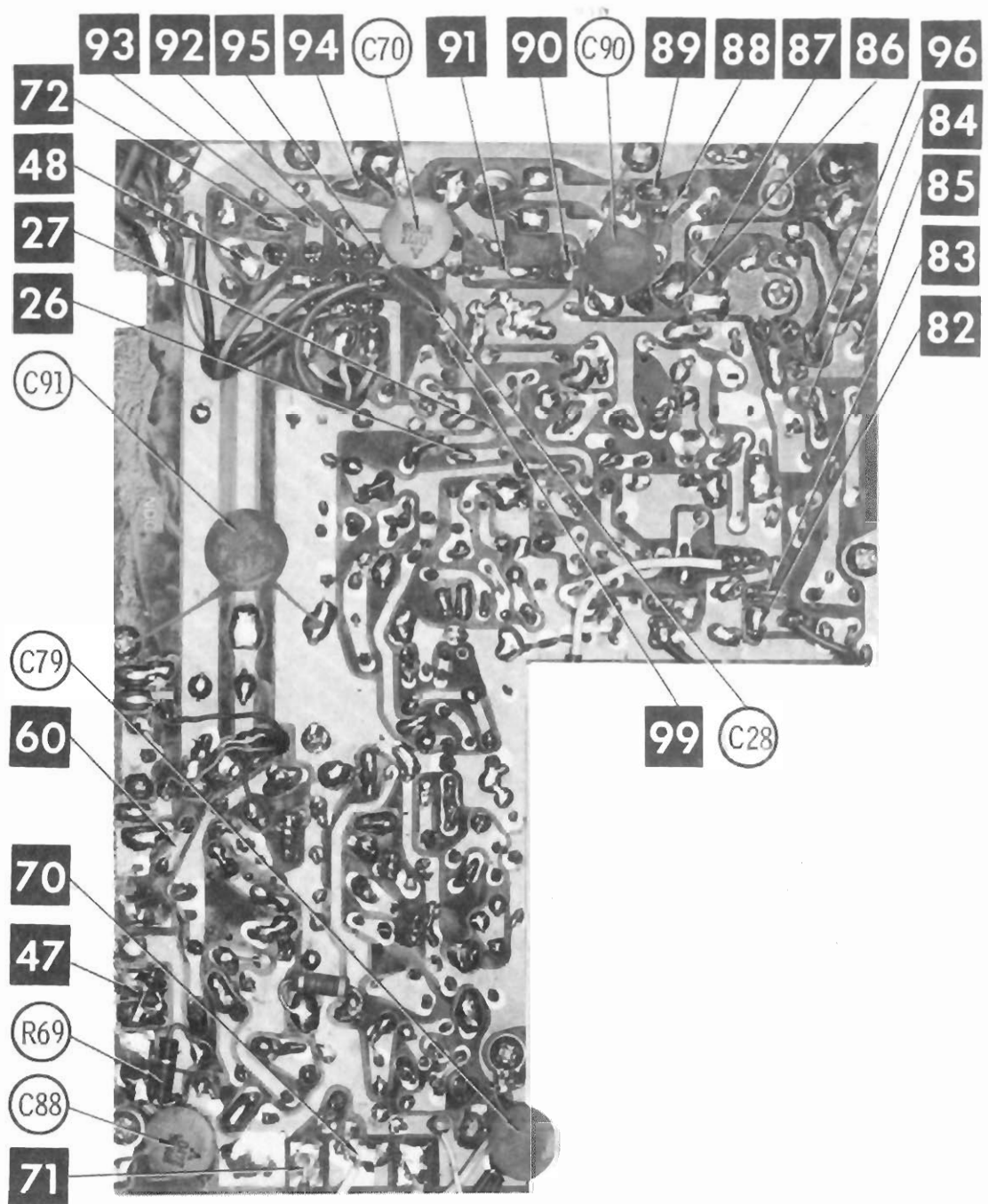




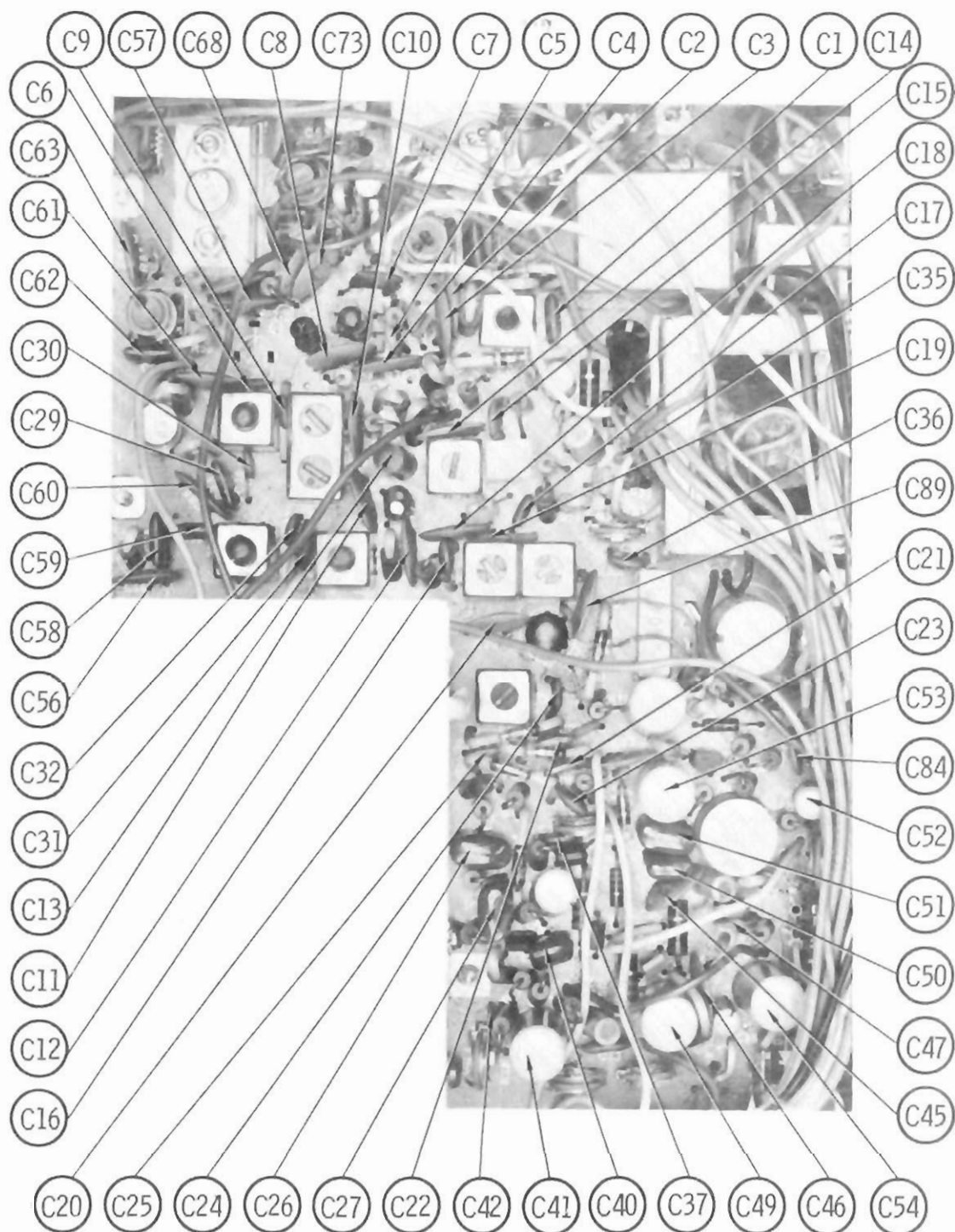


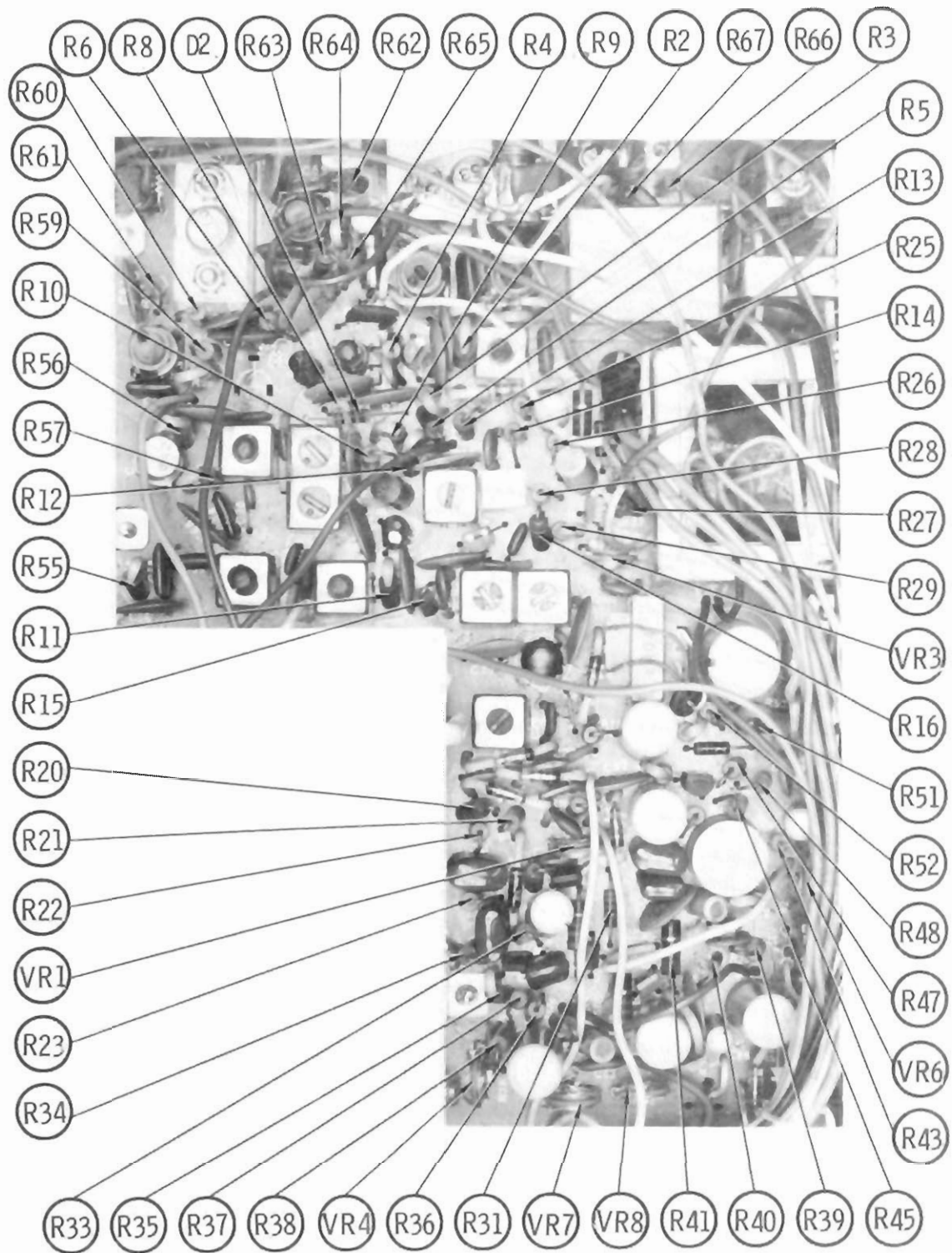






A Howard W. Sams **CIRCUITRACE** Photo





PARTS LIST AND DESCRIPTION

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

TRANSISTORS

ITEM No.	TYPE No.	FUNCTION	REPLACEMENT DATA					
			MFGR. PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MOTOROLA PART No.	RCA PART No.	SYLVANIA PART No.
Q1	2SC710	RF Amp	4802-00009	GE-17	TR-22	HEP56	SK3018	ECG 108
Q2	2SK19	1st Receiver Mixer	4802-00010	GE-FET-1	FE-100	HEP802		ECG 132
Q3	2SC710	2nd Receiver Mixer	4802-00009	GE-17	TR-22	HEP56	SK3018	ECG 108
Q4	2SC710 (2SC709)	1st IF Amp	4802-00009 4802-00012	GE-17	TR-22	HEP56	SK3018	ECG 108
Q5	2SC458	AGC Amp	4802-00014	GE-10	TR-21	HEP53	SK3020	ECG 123
Q6	2SC458	Squelch	4802-00014	GE-10	TR-21	HEP53	SK3020	ECG 123
Q7	2SC458	Squelch	4802-00014	GE-10	TR-21	HEP53	SK3020	ECG 123
Q8	2SC458	AF Amp	4802-00014	GE-10	TR-21	HEP53	SK3020	ECG 123
Q9	2SC458	AF Amp	4802-00014	GE-10	TR-21	HEP53	SK3020	ECG 123
Q10	2SC458	Speech Limiter	4802-00014	GE-10	TR-21	HEP53	SK3020	ECG 123
Q11	2SC620	Driver	4802-00015	GE-18	TR-25	HEP243	SK3020	ECG 128
Q12	2SC1014	Output-Mod.	4802-00016			HEP245	SK3041	ECG 152
Q13	2SC1014	Output-Mod.	4802-00016			HEP245	SK3041	ECG 152
Q14	2SC774	Xmtr Amp	4802-00017				SK3047	
Q15	2SC777	Xmtr Driver	4802-00019		TR-25		SK3047	
Q16	2SC778	Xmtr Final	4802-00008		TR-25		SK3048	
Q101	2SC710	Synthesizer Oscillator	4802-00009	GE-17	TR-22	HEP56	SK3018	ECG 108
Q102	2SC710	Receiver Oscillator	4802-00009	GE-17	TR-22	HEP56	SK3018	ECG 108
Q103	2SC710	XMTR Oscillator	4802-00009	GE-17	TR-22	HEP56	SK3018	ECG 108
Q104	2SC710	Buffer	4802-00009	GE-17	TR-22	HEP56	SK3018	ECG 108

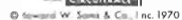
INTEGRATED CIRCUITS

ITEM No.	FUNCTION	MFGR. PART No.	REMARKS
IC1	2nd IF Amp	4804-00003	

POWER RECTIFIERS & SIGNAL DIODES

POWER RECTIFIERS & SIGNAL DIODES							
ITEM No.	MFGR. PART OR TYPE No.	REPLACEMENT RECTIFIERS & DIODES			REPLACEMENT RECTIFIERS	NOTES	
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	SYLVANIA PART No.	RCA PART No.		
D1	1N34A	1N34AS	1N34A	ECG 109	SK3033	Zener Zener	
D2	1N34A	1N34AS	1N34A	ECG 109			
D3	1N34A	1N34AS	1N34A	ECG 109			
D4	1N34A	1N34AS	1N34A	ECG 109			
D5	1N34A	1N34AS	1N34A	ECG 109			
D6	1N34A	1N34AS	1N34A	ECG 109			
D7	1S84	GE-509	8D10 or 5A10-D	ECG 125			
D8	1S757A	GEZD-9.1	1ZM9.1-T10	ECG 139			
D9	1S757A	GEZD-9.1	1ZM9.1-T10	ECG 139			
D10	MV3						
D11	1N34A	1N34AS	1N34A	ECG 109	SK3030 or SK3031		
D12	1N34A	1N34AS	1N34A	ECG 109			
D13	10D1	GE-504A	8D4 or 5A4-D	ECG 116 or ECG 117			
D14	1N34A	1N34AS	1N34A	ECG 109	SK3030 or SK3031		
D15	1N34A	1N34AS	1N34A	ECG 109			
D101	1S180	GE-504A	8D4 or 5A4-D	ECG 116 or ECG 117			

(CONTINUED ON PAGE 122)





PARTS LIST AND DESCRIPTION (CONTINUED)

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

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
			PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C28	10	16V	1504-01513	BCD25010	EP15-10	PC10-50	MT1-5	MTV10CB50	TE-1155
C33	10	16V	1504-01513	BCD25010	EP15-10	PC10-50	MT1-5	MTV10CB50	TE-1155
C34	10	16V	1504-01513	BCD25010	EP15-10	PC10-50	MT1-5	MTV10CB50	TE-1155
C38	1	16V	1504-01505	BCD50003	EP15-2	PC1-100	MT1-1	MTV1CB50	TE-1148
C39	50	15V	1504-01503	BCD15050	EP15-50	PC50-16	MT1-16	MTV50CB15	TE-1160
C41	220	16V	1501-01506	BCD20200	EA15-250	PC200-16	QT1-28	MTV200CK15	TL-1164
C43	220	16V	1501-01508	BCD20200	EA15-250	PC200-16	QT1-28	MTV200CK15	TL-1164
C44	1	15V	1504-01505	BCD50003	EP15-2	PC1-100	MT1-1	MTV1CB50	TE-1148
C48	1	15V	1504-01505	BCD50003	EP15-2	PC1-100	MT1-1	MTV1CB50	TE-1148
C49	220	16V	1501-01508	BCD20200	EA15-250	PC200-16	QT1-28	MTV200CK15	TL-1164
C52	10	16V	1504-01513	BCD25010	EP15-10	PC10-50	MT1-5	MTV10CB50	TE-1155
C53	220	16V	1501-01508	BCD20200	EA15-250	PC200-16	QT1-28	MTV200CK15	TL-1164
C54	220	16V	1501-01508	BCD20200	EA15-250	PC200-16	QT1-28	MTV200CK15	TL-1164
C77	1000	15V	1504-01507	PRS1230	EA15-1000	WBR1000-16	QT1-32	TC1501A	TL-1166.5

CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	30 10%	#1501-00024	TTP-01	TCZ-30	MGP01	CCT0-300	TA110	10TCC-Q30
C2	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C3	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C4	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C5	30 N330		ADM-10-200	TCA-33		*	*	10TCS-Q30
C6	20 10%	#1501-00023	ADM-15-470	CPR-20J	CD15ED22QJ03	DM-10-220	SX420	MS-42
C7	47 10%		TTP-01	CPR-47J	CD15E470J500	DM-15-470J	SX447	424MC47RQJ501
C8	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C9	1.5		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C10	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C11	.01	#1503-00606	TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C12	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C13	.0015 10%		TTP-01	DB-152	MGP01	CCD-152	GP215	10TS-D15
C14	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C15	.05		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C16	.05	#1503-00606	TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C17	2		TTP-01	CK-103	MGP01	DM-10-020		
C18	.01		ADM-10-100	CK-503	MGP05	CCD-103	TA110	TG-S10
C19	10 10%		TTP-05	DM-102	MGP05	DM-10-100	SX410	MS-41
C20	.047		GPD X5F102K	DM-102	GP1000	CCD-503	TA150	TGL-S50
C21	.001	#1503-00606	GPD X5F102K	DM-102	GP1000	CCD-102	SM210	2SS-D10
C22	.001		TTP-05	CK-503	MGP05	CCD-102	SM210	2SS-D10
C23	.05		ADM-10-150	DM-102	GP1000	CCD-503	TA150	TGL-S50
C24	15 10%		GPD X5F102K	CK-104	GP1000	DM-10-180	SX415	MS-415
C25	.001		TTP-1	CK-104		CCD-102	SM210	2SS-D10
C26	.1	#1503-00606	TTP-1	CK-104		TA010	TA010	TG-P10
C27	.1		ADM-15-301	CPR-300J	CD15F3C1J500	DM-15-301	SX330	MS-33
C28	300		ADM-10-101	CPR-100J	CD15F0101J03	DM-10-101	SX310	MS-31
C29	100 10%		NP0-DI 100	TCN-30	NP0100	CCT0-101	CN0310	10TCU-Q30
C30	30 N750		#1503-00606	TTP-05	DTZ-100			
C31	100 10%	TTP-05		CK-503	MGP05	CCD-503	TA150	TGL-S50
C32	2 ±.5pf	TTP-05		CK-503	MGP05	CCD-503	TA150	TGL-S50
C35	.05	TTP-05		CK-503	MGP05	CCD-503	TA150	TGL-S50
C36	.05	TTP-05		CK-503	MGP05	CCD-503	TA150	TGL-S50
C37	.05	#1503-00606	TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C40	.04		DD-403	DM-102	GP1000	CCD-102	SM210	2SS-D10
C42	.001		GPD X5F102K	CK-103	MGP01	CCD-103	TA110	TG-S10
C45	.01		TTP-01	CK-503	MGP05	CCD-503	TA150	TGL-S50
C46	.047		TTP-05	CK-103	MGP01	CCD-103	TA110	TG-S10
C47	.01	#1503-00606	TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C50	.05		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C51	.1		TTP-1	CK-104		TA010	TA010	TG-P10
C55	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C56	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C57	.01	#1503-00606	TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C58	130 10%		ADM-10-131	CPR-130J	CD15ED330J01	DM-10-131	SX313	MS-313
C59	30 10%		ADM-10-300	CPR-30J	CD15ED330J01	DM-10-300	SX430	MS-43
C60	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C61	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C62	.78	#1503-00606	ADM-10-750	CPR-75J	CD15ED750J03	DM-10-750	SX475	MS-475
C63	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C64	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C65	.047		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS(cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C108	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C109	5 10%				CD15CD050D03	DM-10-050	SX550	MS-55
C110	5 10%				CD15CD050D03	DM-10-050	SX550	MS-55
C111	150 10%				CD15F151J500	DM-15-151J	SX315	424MC1500J501
C113	47 10%		ADM-15-151	CPR-150J	CD15E47QJ500	DM-15-470J	SX447	424MC47RQJ501
C114	47 10%		ADM-15-470	CPR-47J	CD15E47QJ500	DM-15-470J	SX447	424MC47RQJ501
C115	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C116	20 10%		ADM-10-200	CPR-20J	CD15ED220J03	DM-10-220	SX420	MS-42
C117	5 10%				CD15CD050D03	DM-10-050	SX550	MS-55
C118	.24pf 10%							
C119	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C120	20 10%		ADM-10-200	CPR-20J	CD15ED220J03	DM-10-220	SX420	MS-42
C121	25 N150					*	*	10TCP-Q25
C122	.047		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C123	.51pf 10%							
C124	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C125	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C126	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C127	25 N150					*	*	10TCP-Q25
C128	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
VC2	2-10pf	#1506-00104						
VC101	2-20pf	#1506-00103						
VC102	2-20pf	#1506-00103						
VC103	2-20pf	#1506-00103						

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

#SBE Part Number

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
VR1	Squelch Limit	20K	4715-00011	T-20K or TSV-25K		X201R253B	MTC24L1
VR2	Squelch	5000	4715-00013				
VR3	AGC Adjust	10K	4715-00014	T-10K or TSV-10K		X201R103B	MTC14L1
VR4	Volume Level	10K	4715-00014	T-10K or TSV-10K		X201R103B	MTC14L1
VR6	Modulation Adjust	100K	4715-00021	T-100K or TSV-100K		X201R104B	MTC15L1
VR7	"S" Meter Adjust	20K	4715-00011	T-20K or TSV-25K		X201R253B	MTC24L1
VR8	Transmit Zero Adjust	100K	4715-00021	T-100K or TSV-100K		X201R104B	MTC15L1
VR9	Volume/Switch	5000	4715-00023				

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L2	Synthesizer	1811-00004			
L3	Rec. Osc.	1811-00005			
L5	Harmonic Suppressor	1802-00012			
L6	RF Choke (3uh)	1812-00001		74F335A1	
L7	RF Choke (2.2uh)	1812-00002		74F226A1	T812
L8	Antenna Matching	1811-00006			
L9	Antenna Tuning	1811-00007			
L10	Antenna Matching	1811-00008			
L11	TVI Trap (1uh)	1812-00003		4602	
L13	Wave trap (1uh)	1812-00005	19-2009	74F335A1	T806
L101	RF Choke (33uh)	1812-00001		74F335A1	
L102	RF Choke (33uh)	1812-00001		74F335A1	
T1	Antenna Matching	1812-00004		74F335A1	
T2	RF Output	1802-00006			
T3	1st Receive Mixer	1811-00001			
T4	Input IF	1802-00007	16-9026 (1)	2066 (1)	
T5	Interstage IF	1802-00008	16-9027	2066	
T6	Interstage IF	1802-00009	16-9027	2066	
T7	Output IF	1802-00010	16-9028	2068	
T10	RF Interstage	1802-00011			
T11	Driver	1811-00002			
T101	Xmtr Mixer	1802-00013			
T102	Harmonic Suppressor	1802-00014			
T103	Buffer	1802-00015			
T104	RF Interstage	1802-00016			

(1) Remove C13

PARTS LIST AND DESCRIPTION (CONTINUED)

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

FILTER

ITEM No.	RATINGS			REPLACEMENT DATA					NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L4		96	140mh	5603-00009					

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L12	940ma	.3	2.2mh	5603-00010					

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD Part No.	
T8	1.4	1 CT		5603-00007					

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T9	32	8	5603-00008					
		SEC.2						
		.8 DC Resistance						

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		PART No.	QUAM PART No.	
SP1	2 3/4" PM 8 ohms	1301-00012		

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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	3AG 2A	5104-00020	5105-00204	AGC2	HDJ	312002	155020	

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
K1	Relay	2301-00109-006	
M1	Crystal	2301-00109-007	17.015MC (Channels 5,6,7,8)
M2	Crystal	2301-00109-008	17.065MC (Channels 9,10,11,12)
M3	Crystal	2301-00109-009	17.115MC (Channels 13,14,15,16)
M4	Crystal	2301-00109-010	17.165MC (Channels 17,18,19,20)
M5	Crystal	2301-00109-005	17.215MC (Channels 21, 22, 23)
M6	Crystal	2301-00109-004	16.965MC (Channels 1,2,3,4)
M7	Crystal	2301-00109-003	9.585MC (Channels 4,8,12,16,20,23)
M8	Crystal	2301-00109-002	9.565MC (Channels 3,7,11,15,19)
M9	Crystal	2301-00109-001	9.555MC (Channels 2,6,10,14,18,22)
M10	Channel	2301-00109-011	9.545MC (Channels 1,5,9,13,17,21)
M11	Crystal	2301-00109-012	10.000MC (Channels 1,5,9,13,17,21)
M12	Crystal	2301-00109-013	10.010MC (Channels 2,6,10,14,18,22)
M13	Crystal	2301-00109-014	10.020MC (Channels 3,7,11,15,19)
M14	Crystal	2901-00019	10.040MC (Channels 4,8,12,16,20,23)
M15	Meter (200ma)		
M16	Filter, Ceramic		
S101	Switch, Selector	5107-00203	

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

ITEM	PART No.	ITEM	PART No.
Cabinet	1411-00125	Knob, Volume & Squelch	2401-00003
Front Panel Assembly	9209-00033	Knob, Selector	2401-00004

ACCESSORIES

ITEM	MFGR. PART No.	REMARKS
Microphone	1302-00011	

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. 730C	Series Spark-Plug Sets
Bonding Strap	Use BELDEN No. 8661	(3/8 In.)



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CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index

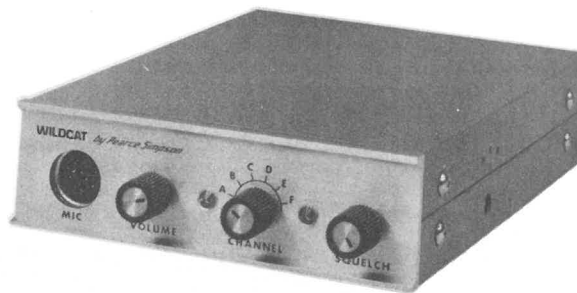
NOTE

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.



PEARCE-SIMPSON MODEL WILDCAT

ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:

	GENERAL CEMENT	WALSCO
A1, A2, A3, A5, A6, A9	#8276,8277,8290	#2512,2515,2525
A4, A7, A8, A10	#8606L,9440	#2501,2544

RECEIVER

Connect an AC VTVM across speaker voice coil. Set volume control fully clockwise and squelch control fully counterclockwise.

SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
High side thru .01 mfd to base of TR2 (Mixer), low side of chassis. Tune to 455KC (mod).	Any	A1, A2 A3	Adjust for maximum.
High side thru .01 mfd to Antenna connector, low side to chassis. Tune to 27.065MC (mod).	9	A4, A5, A6	Adjust for maximum.

TRANSMITTER

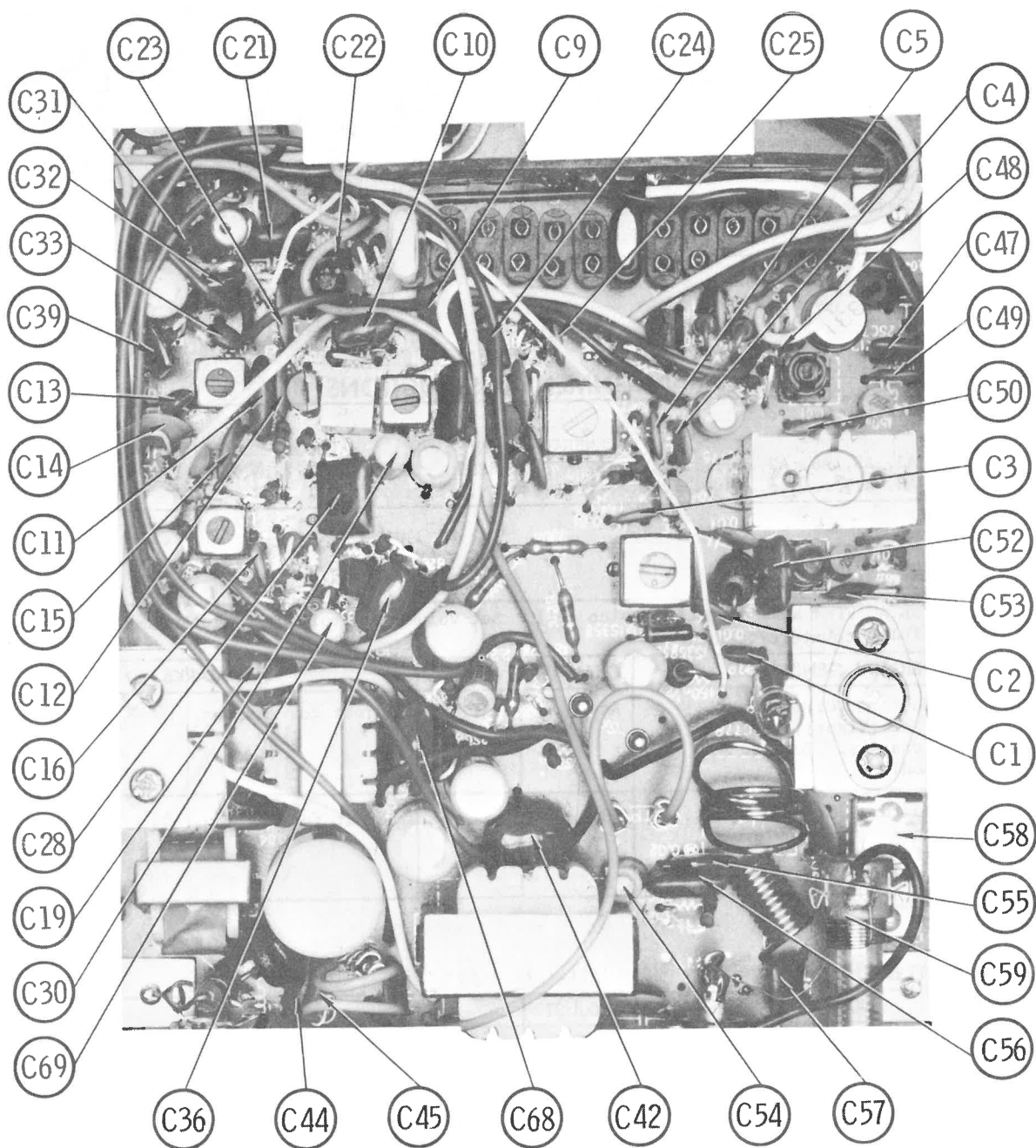
INDICATOR	ADJUST	REMARKS
RF wattmeter or Field Strength meter.	A7, A8, A9	Adjust for maximum.
0-500ma DC Ammeter.	L7	Remove meter jumper and insert meter. Adjust L7 by compressing or expanding the coil. Adjust for 5 watts input to TR14 (Final Amp).
Television (Ch. 2)	A10	Adjust for MINIMUM interference on TV.

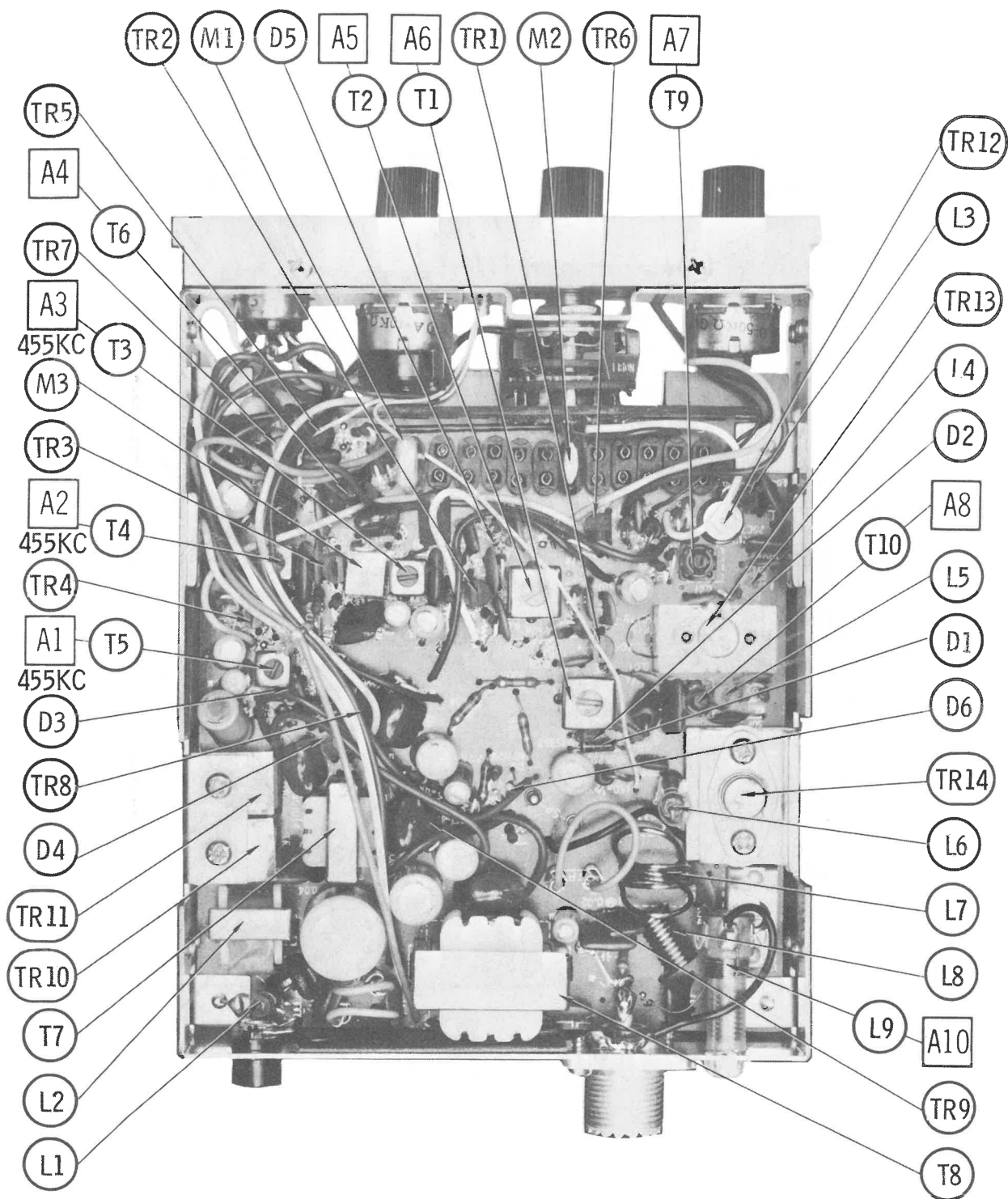
HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

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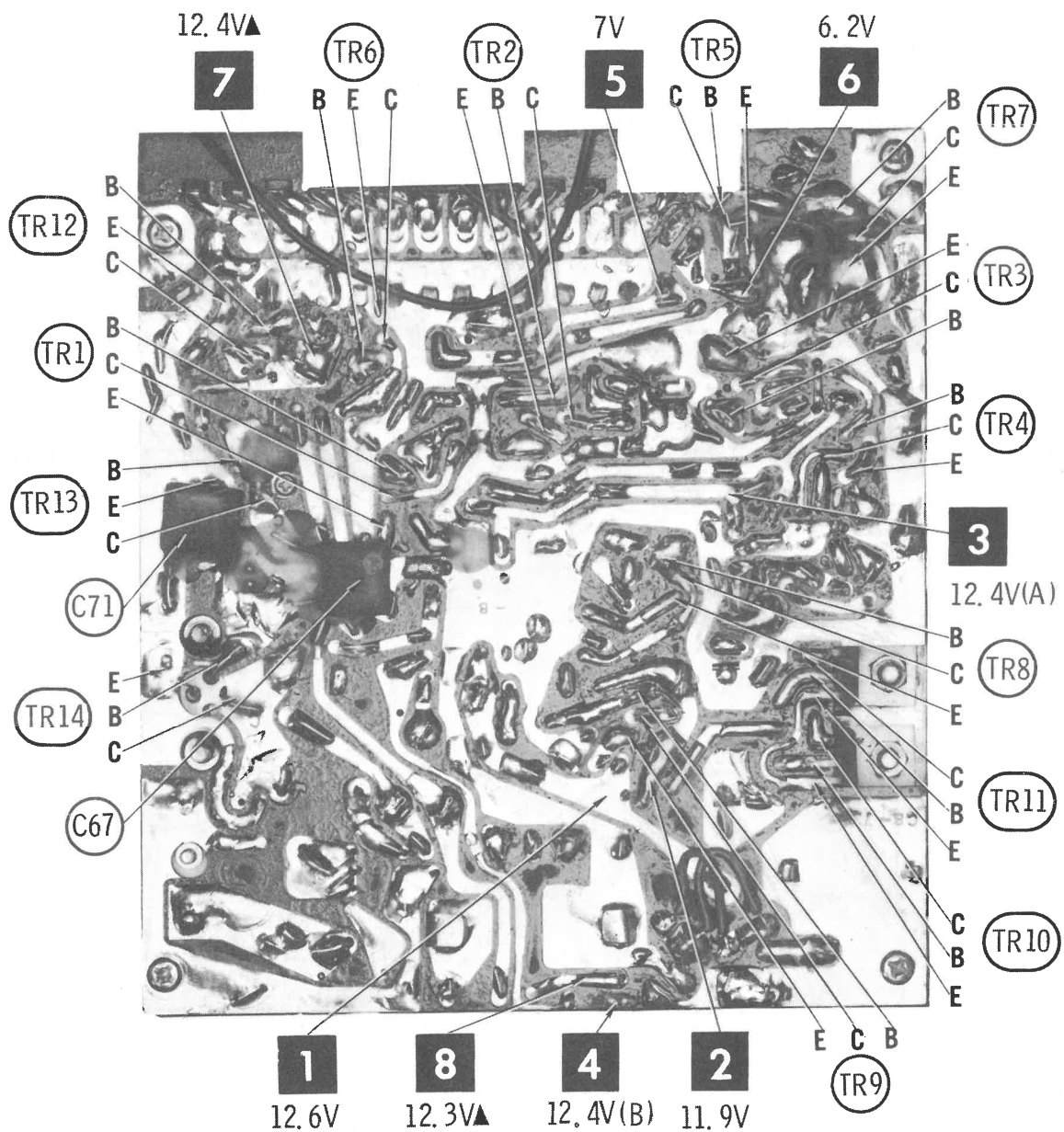
TY853

PEARCE-SIMPSON MODEL WILDCAT



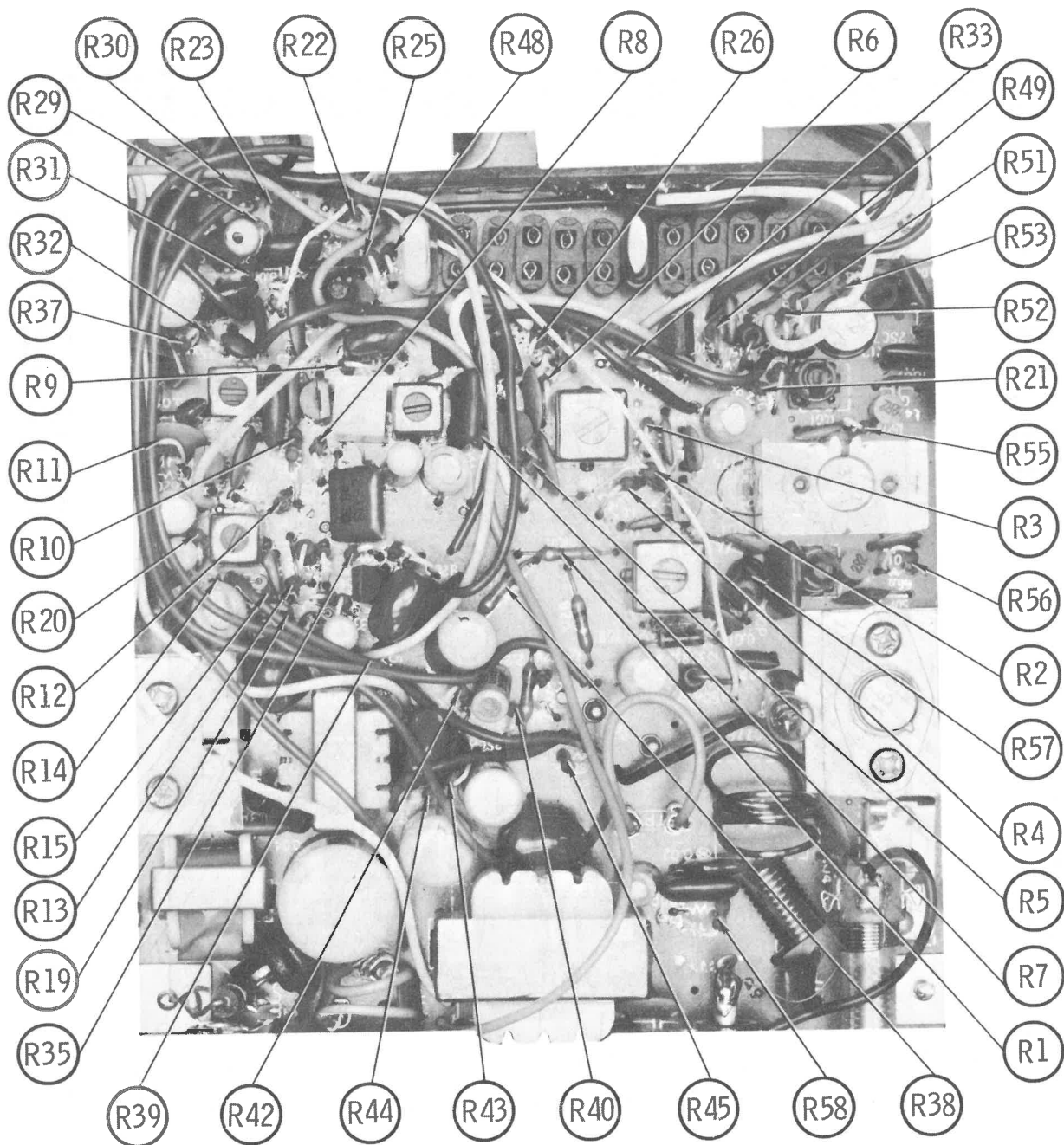


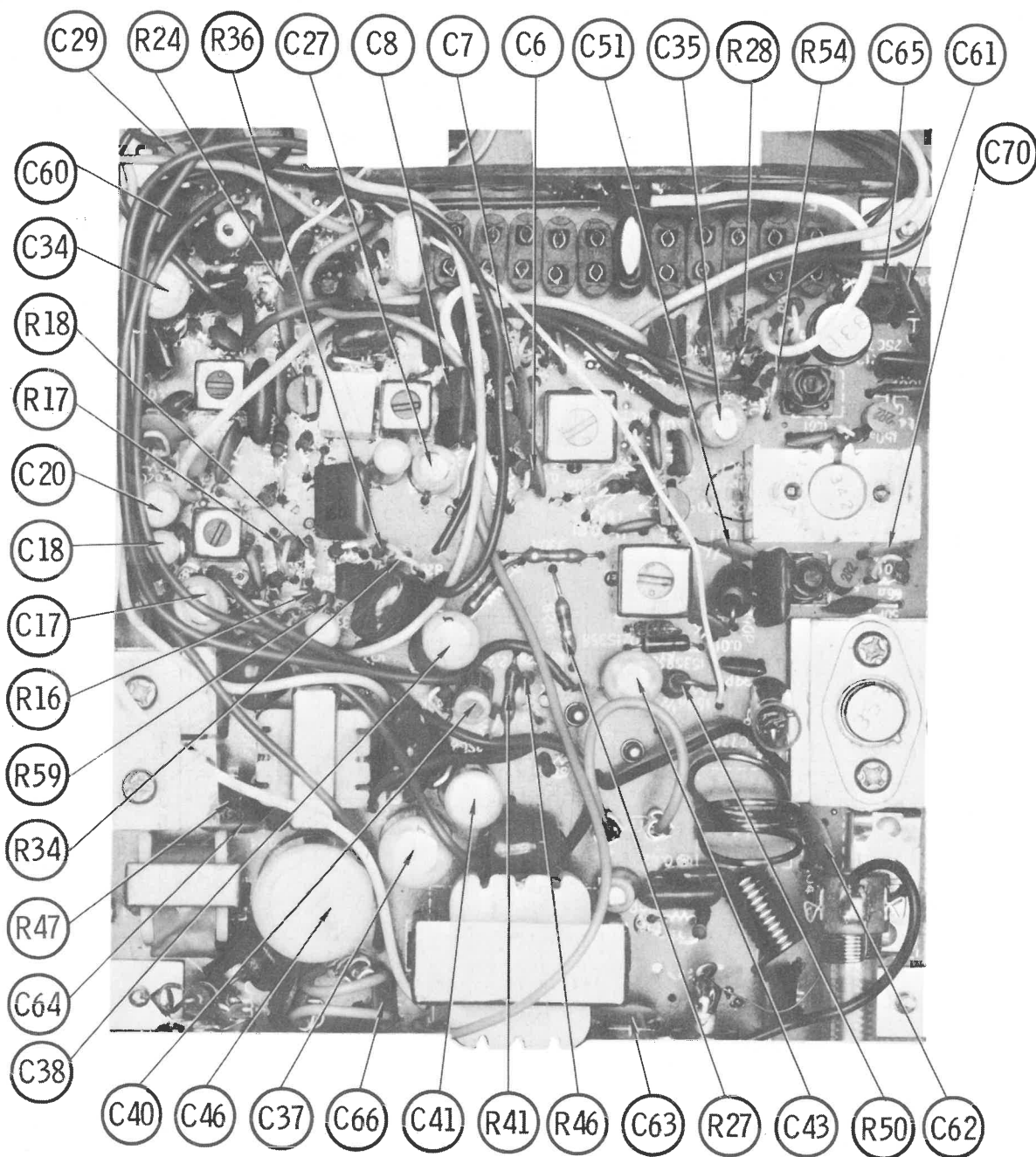
PEARCE-SIMPSON MODEL WILDCAT

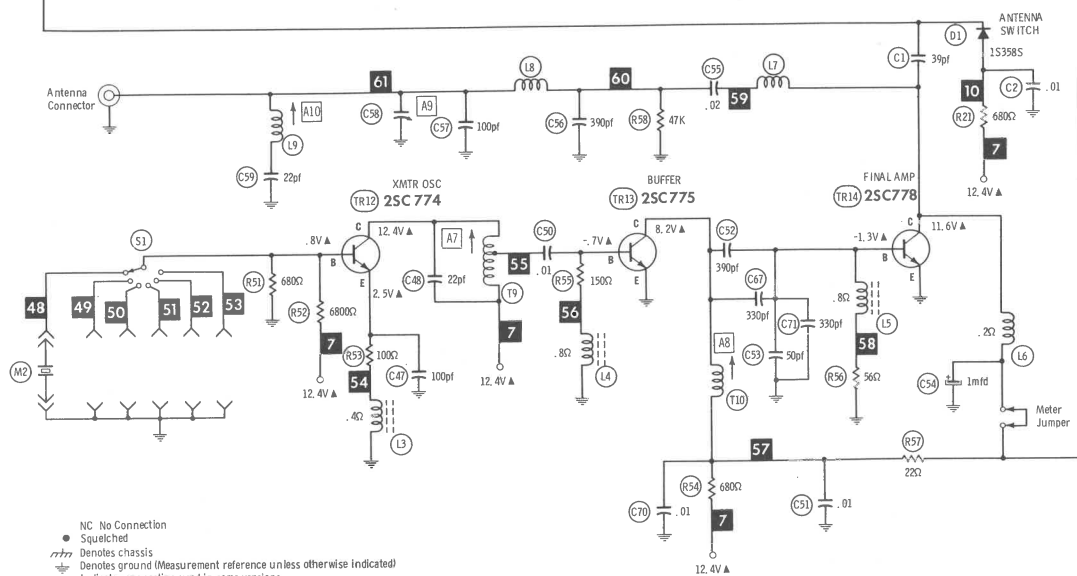
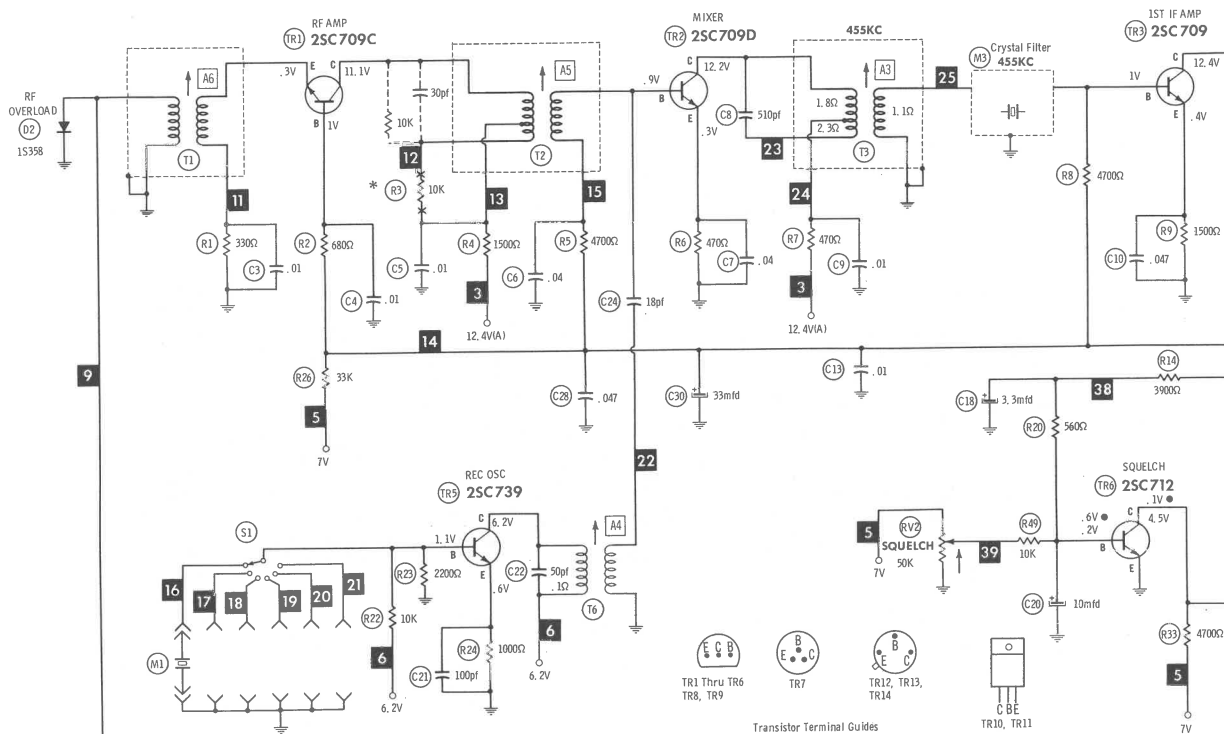


PEARCE-SIMPSON MODEL WILDCAT





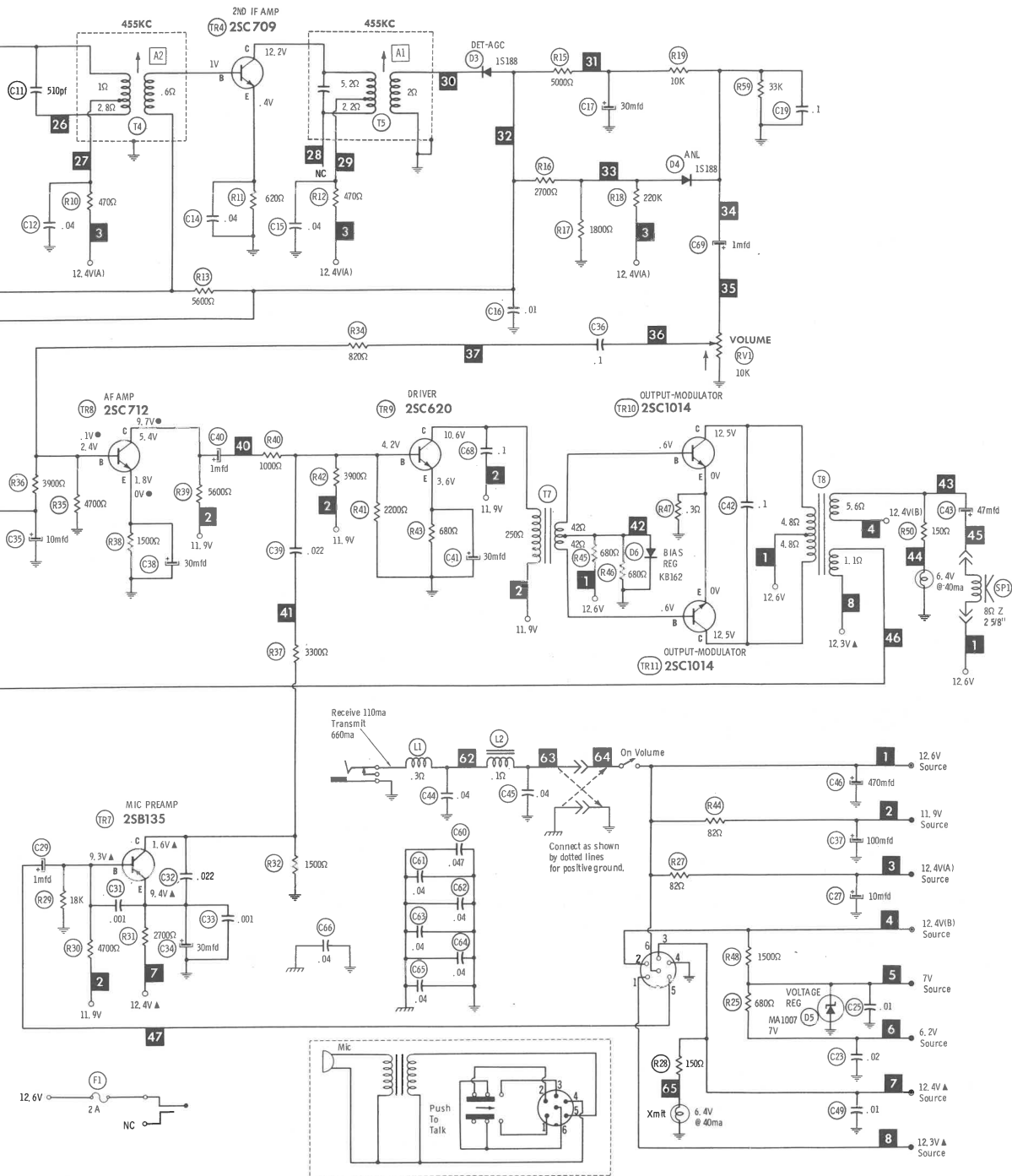




- NC, No Connection
- Squelched
- Denotes chassis
- Denotes ground (Measurement reference unless otherwise indicated)
- Indicates connection used in some versions.
- Indicates connection not used in some versions.
- Omitted in some versions.
- Measurements taken with switching in position shown unless otherwise indicated.
- Measured in "Transmit" position.
- Values shown in () are used in some applications.
- Resistors are 1/2W or less, 10% or 20%, unless otherwise indicated.
- Supply voltage maintained at rated value for measurements.
- Voltage and resistance measured with VTVM or equivalent meter.
- no signal applied and controls adjusted for normal operation.
- Controls viewed from actuator end. Arrow indicates clockwise rotation.
- Numbers assigned to terminals may not be found on the unit.
- Transistor resistances vary widely. No resistance measurements taken.

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with **CIRCUITRACE**

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PEARCE-SIMPSON MODEL WILDCAT

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.)

TRANSISTORS

ITEM No.	TYPE No.	FUNCTION	REPLACEMENT DATA					
			MFGR. PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MOTOROLA PART No.	RCA PART No.	SYLVANIA PART No.
TR1	2SC709	RF Amp		GE-17	TR-22	HEP56	SK3018	
TR2	2SC709	Mixer		GE-17	TR-22	HEP56	SK3018	
TR3	2SC739	Receive Oscillator		GE-17	TR-21	HEP50	SK3018	
TR4	2SC709	1st IF Amp		GE-17	TR-22	HEP56	SK3018	
TR5	2SC709	2nd IF Amp		GE-17	TR-22	HEP56	SK3018	
TR6	2SC712	Squelch		GE-17	TR-25	HEP50	SK3020	
TR7	2SB135	Mic Preamp		GE-2	TR-14	HEP250	SK3004	ECG 102
TR8	2SC712	AF Amp		GE-17	TR-25	HEP50	SK3020	
TR9	2SC620	Driver		GE-18	TR-25	HEP53	SK3020	ECG 123
TR10	2SC1014	Output - Modulator(1)		GE-28		HEP701	SK3041	ECG 152
TR11	2SC1014	Output - Modulator(1)		GE-28		HEP701	SK3041	ECG 152
TR12	2SC774	Xmtr Oscillator		GE-17	TR-22	S3001	SK3046	ECG 108
TR13	2SC775	Buffer		GE-17	TR-22		SK3047	ECG 108
TR14	2SC778	Final Output (1)		GE-17			SK3048	

(1) When replacing, apply silicone grease to both sides of insulator. Tighten mounting screws securely.

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MFGR. PART OR TYPE No.	REPLACEMENT RECTIFIERS & DIODES			REPLACEMENT RECTIFIERS	NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	SYLVANIA PART No.	RCA PART No.	
D1	1S358S	GE-504A	1N82A	ECG 116	SK3030	
D2	1S358	GE-504A	1N82A	ECG 116	SK3030	
D3	1S188	1N34AS	1N34A	ECG 109	1N34A	
D4	1S188	1N34AS	1N34A	ECG 109	1N34A	
D5	MZ-1007		1ZM6.8	ECG 138		Zener
D6	KB-162	GE-504A	5A4D	ECG 116	SK3016	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C17	33 16V		MCD-110	EP15-25	PC30-35	MT1-13.5	MTV30CB25	TE-1158
C18	3.3 35V		MCD-40	EP30-2	PC5-100	MT1-3	MTV3CB50	TL-1302
C20	10 16V		MCD-70	EP15-10	PC10-50	MT1-5	MTV10CB50	TE-1155
C27	10 16V		MCD-70	EP15-10	PC10-50	MT1-5	MTV10CB50	TE-1155
C29	1 50V		MCD-10		PC1-100	MT1-1	MTV1CB50	TE-1200
C30	3.3 35V		MCD-40	EP30-2	PC5-100	MT1-3	MTV3CB50	TL-1302
C34	33 16V		MCD-110	EP15-25	PC30-35	MT1-13.5	MTV30CB25	TE-1158
C35	10 16V		MCD-70	EP15-10	PC10-50	MT1-5	MTV10CB50	TE-1155
C37	100 16V		MCD-180	EP15-100	PC100-16	MT1-19	MTV100CF15	TE-1162
C38	33 16V		MCD-110	EP15-25	PC30-35	MT1-13.5	MTV30CB25	TE-1158
C40	1 50V		MCD-10	EP15-25	PC1-100	MT1-1	MTV1CB50	TE-1200
C41	33 16V		MCD-110	EP15-25	PC30-35	MT1-13.5	MTV30CB25	TE-1158
C43	47 16V			EP30-50	PC50-25	MT1-16.5	MTV50CD25	TE-1209
C46	470 16V							
C54	1 50V		MCD-10		PC1-100	MT1-1	MTV1CB50	TE-1200
C69	1 50V		MCD-10		PC1-100	MT1-1	MTV1CB50	TE-1200

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	39	(1)		TCN-39		CCTN-390	CN7439	10TCU-Q39
C2	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C3	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C4	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C5	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C6	.04			DD-403			GP140	
C7	.04			DD-403			GP140	
C8	510		GPD X5F501K	DM-501	GP500	CCD-501	GP350	10TS-T50
C9	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C10	.047		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C11	510		GPD X5F501K	DM-501	GP500	CCD-501	GP350	10TS-T50
C12	.04			DD-403			GP140	
C13	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C14	.04			DD-403			GP140	
C15	.04			DD-403			GP140	
C16	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C19	.1		TTP-1	CK-104			TA010	TG-P10
C21	100		NPO-DI 100	DTZ-100	NP0100	CCTO-101	CN0310	10TCC-T10
C22	50		NPO-DI 50	DTZ-50	NP050	CCTO-510	CN0450	10TCC-Q50
C23	.02		TTP-02	CK-203	MGP02	CCD-203	TA120	TG-S20
C24	.18			TCZ-18	NP018	CCTO-180	CN0418	10TCC-Q18
C25	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C28	.047		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C31	.001		DBE6D1	CPR-1000J	DPMS6D1	6DP-1-102	PVC621	225P10291WD3
C32	.022		TTP-02	CK-203	MGP02	CCD-203	TA120	TG-S20
C33	.001		GPD X5F102K	DM-102	GP1000	CCD-102	SM210	2SS-D10
C36	.1		TTP-1	CK-104			TA010	TG-P10
C39	.022		TTP-02	CK-203	MGP02	CCD-203	TA120	TG-S20
C42	.1		TTP-1	CK-104			TA010	TG-P10
C44	.04			DD-403			GP140	
C45	.04			DD-403			GP140	
C47	100		NPO-DI 100	DTZ-100	NP0100	CCTO-101	CN0310	10TCC-T10
C48	22		NPO-DI 20	DTZ-20	NP020	CCTO-200	CN0420	10TCC-Q20
C49	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C50	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C51	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C52	390		GPD X5F391K	DD-391	GP390	CCD-391	GP339	10TS-T39
C53	50		NPO-DI 50	DTZ-50	NP050	CCTO-510	CN0450	10TCC-Q50
C55	.022		TTP-02	CK-203	MGP02	CCD-203	TA120	TG-S20
C56	390		GPD X5F391K	DD-391	GP390	CCD-391	GP339	10TS-T39
C57	100		NPO-DI 100	DTZ-100	NP0100	CCTO-101	CN0310	10TCC-T10
C58	150							
C59	22		NPO-DI 20	DTZ-20	NP020	CCTO-200	CN0420	10TCC-Q20
C60	.047		TTP-05	CK-503	MGP05	CCD-503	TA150	TGL-S50
C61	.04			DD-403			GP140	
C62	.04			DD-403			GP140	
C63	.04			DD-403			GP140	
C64	.04			DD-403			GP140	
C65	.04			DD-403			GP140	
C66	.04			DD-403			GP140	
C67	330		GPD X5F331K	DD-331	GP330	CCD-331	GP333	10TS-T33
C68	.1		TTP-1	CK-104			TA010	TG-P10
C70	.01		TTP-01	CK-103	MGP01	CCD-103	TA110	TG-S10
C71	330		GPD X5F331K	DD-331	GP330	CCD-331	GP333	10TS-T33

(1) Nominal Value.

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
RV1	Volume/Switch	10K					
RV2	Squelch	50K					

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	Hash Choke (1uh)		19-1000	4602	T855
L3	RF Choke (10uh)		19-1005	4622	T860
L4	RF Choke (2.2uh)		19-1002	4606	T857
L5	RF Choke (2.2uh)		19-1002	4606	T857
L6	RF Choke (1uh)		19-1000	4602	T855
L7	Final				
L8	Pi Network				
L9	TVI Trap				
T1	Receive Antenna				
T2	Receive RF				
T3	Input IF				
T4	Interstage IF				
T5	Output IF				
T6	Receive Oscillator				
T9	Xmtr Oscillator				
T10	Buffer				

PEARCE-SIMPSON MODEL WILDCAT

PARTS LIST AND DESCRIPTION (CONTINUED)

(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~)	PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L2	110ma 660ma (1)	.1	10mh						(1)Transmit position.

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD Part No.	
T7	5	1							

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T8	300	8						
		SEC.2						
		DC Res. 1.1						

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				PART No.	QUAM PART No.	
SP1	2-5/8"	PM	8 ohms			

FUSE DEVICES

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

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
M1 M2 S1	Rec Crystal Xmtr Crystal Switch, Selector		26.610MC 27.065MC