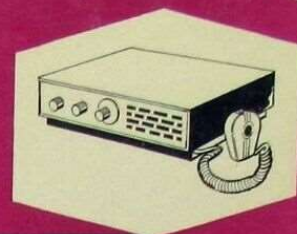


SAMS PHOTOFACT[®] CB RADIO SERIES



CB-16
16
JUNE 1968



CONTENTS

TRADE NAME AND MODEL	PAGE	TRADE NAME AND MODEL	PAGE	TRADE NAME AND MODEL	PAGE
B & K		GENERAL		MIDLAND	
Cobra 23, PAC-V.....	5	Super MC-9.....	39	13-130.....	81
CLARICON		GENERAL ELECTRIC		PEARCE-SIMPSON	
1-5-200.....	21	Y7050A.....	49	Companion IV.....	91
E. C. I.		LAFAYETTE		REGENCY	
Courier TR-5.....	29	Dyna-Com 5 (99-3087L) ..	59	Ranger CB270.....	103
		HE-20T (99-3088WX) ..	71	SEARS	
				6558.....	115

HOWARD W. SAMS & CO., INC.

Indianapolis, Indiana



PHOTOFACT[®] with

CIRCUITRACE[®]

TRADE NAME: B & K Model Cobra 23 W/AC Adapter PAC-V
 SUPPLIER: For Current Address, See Annual Index
 TYPE SET: 21-Transistor Transceiver
 POWER SUPPLY: 12 Volt Storage Battery or (110-120 Volts AC)
 RATING: .820 Amp @ 12.6 VDC (Receive)
 1.2 Amp @ 12.6 VDC (Transmit)
 TUNING RANGE: All 23 CB Channels



ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:

A1 thru A5.
 A6 thru A15.
 A16 thru A19.

GENERAL CEMENT: 9440
 GENERAL CEMENT: 9296, 9297, 9300
 GENERAL CEMENT: 8606, 8606L, 8869

WALSCO: 2501
 WALSCO: 2510, 2546, 2547
 WALSCO: 2543, 2544, 2588

RECEIVER ALIGNMENT

Connect an AC VTVM across Voice Coil. Turn Volume Control fully clockwise, turn Squelch Control fully counterclockwise.

SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
High side thru .01mfd to Base of Q7 (Rec. Mixer), low side to chassis. Tune to 455KC (Mod).	Any	A1 thru A5	Adjust for maximum.
High side thru .01mfd to Antenna Receptacle. Low side to chassis. Set Frequency to 27.085MC (Channel 11) Mod.	Any	A6, A7, A8, A9	Adjust for maximum.
High side thru .01mfd to Antenna Receptacle. Low side to chassis. Set Frequency to 27.085MC (Channel 11) Mod.	Any	A11, A12	Adjust for maximum.

TRANSMITTER ALIGNMENT

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 50Ω dummy load or the normally used antenna system.

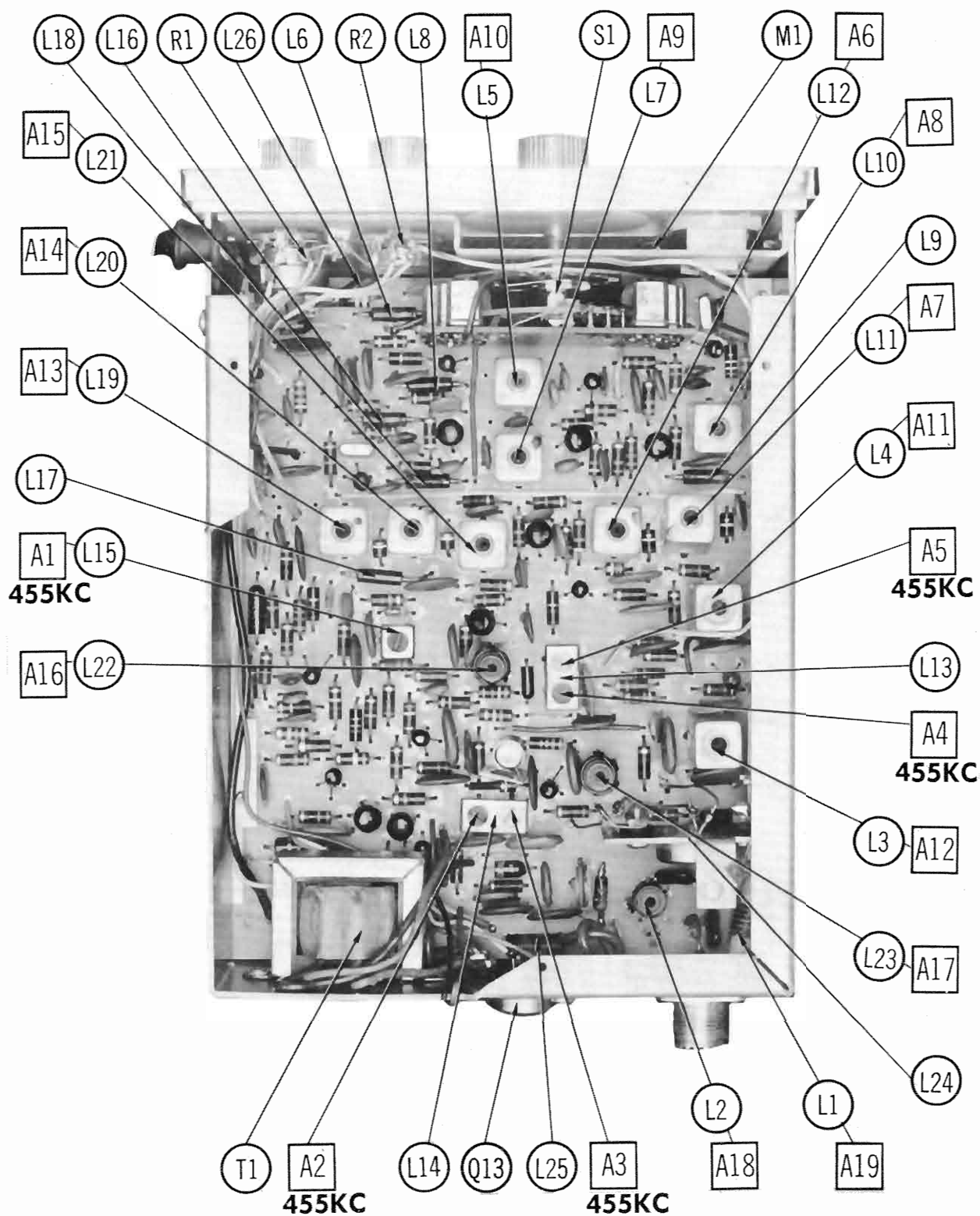
INDICATOR	ADJUST	REMARKS
Connect a DC VTVM from emitter of Q3 (33.3MC Osc.) to GND.	A10	Adjust for maximum reading and back off 1/4 turn.
RF Wattmeter or Field Strength Meter or Frequency Meter.	A13 thru A19	Key transmitter. Check all Channels for equal output and proper frequency. Insert D.C. Meter in Collector Circuit of Final amp. Adjust Final Current for (425ma).

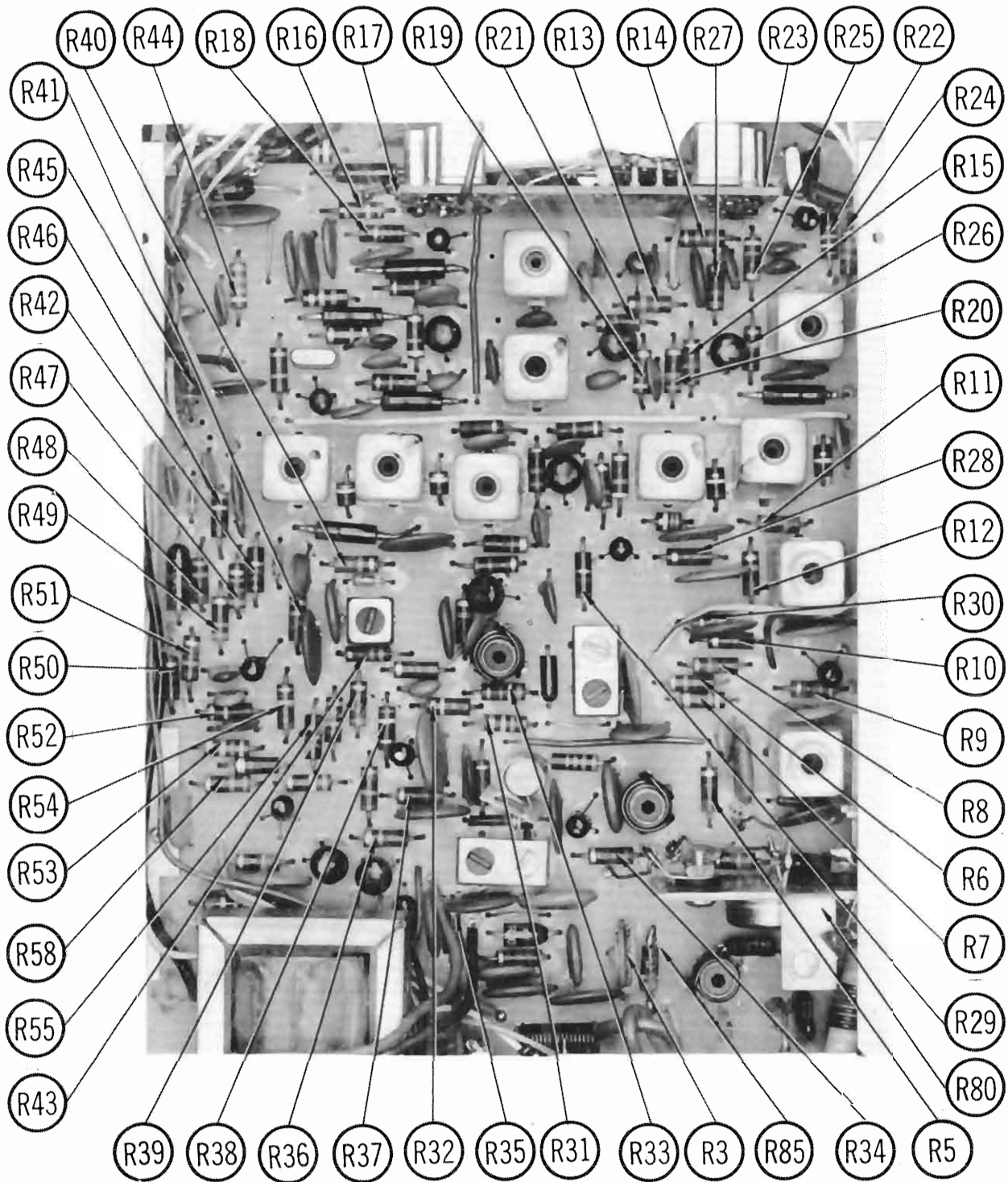
HOWARD W. SAMs & CO., INC. Indianapolis, Indiana 46206

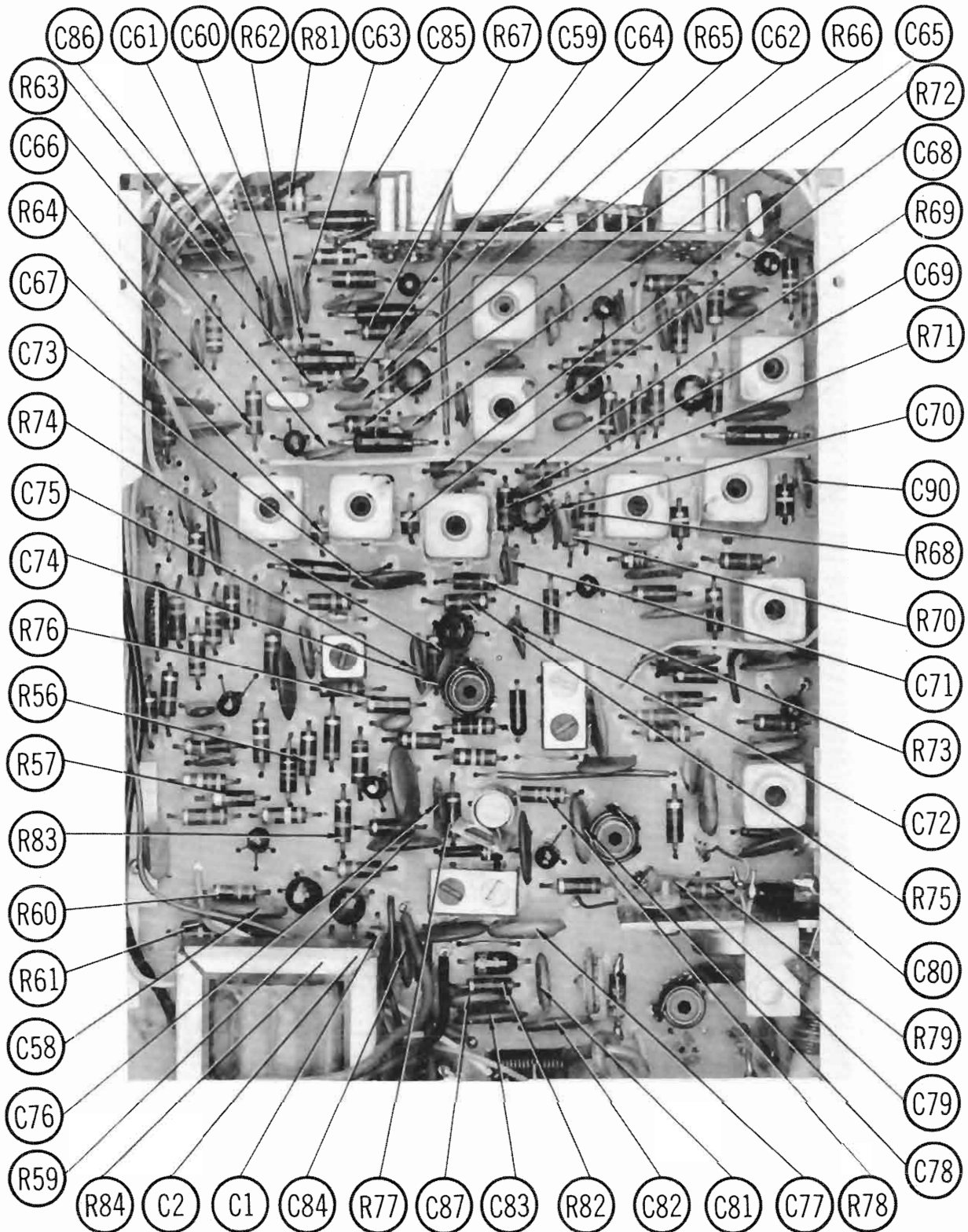
© 1968 Howard W. Sams & Co., Inc. Printed in U. S. of America TY164

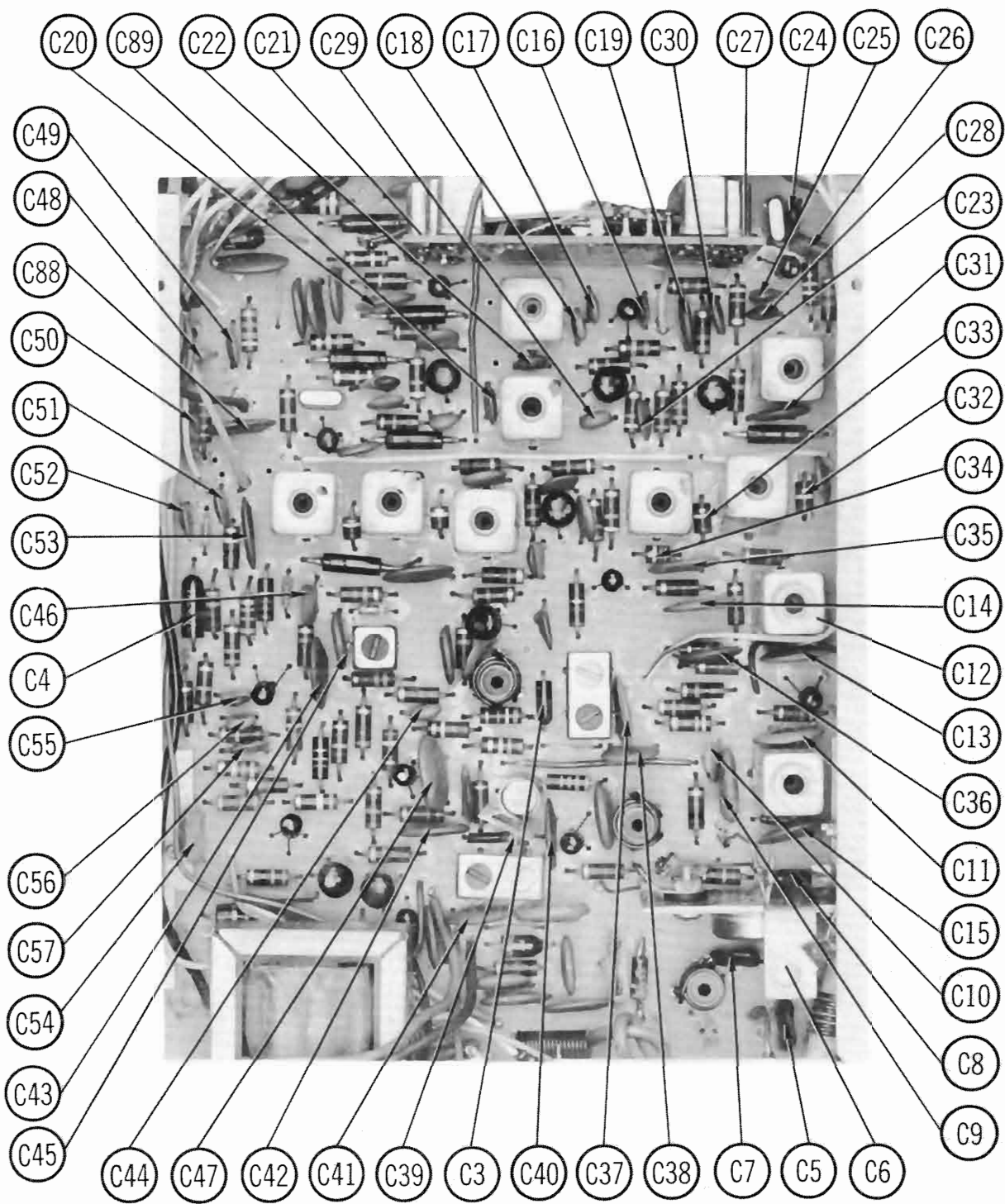
B & K MODEL COBRA 23, PAC-V

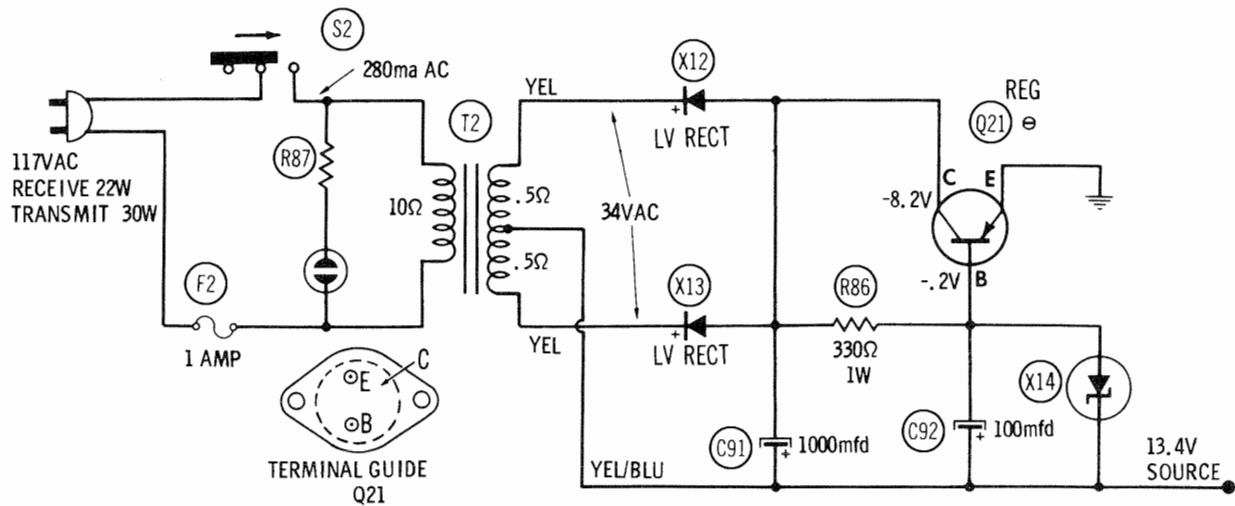








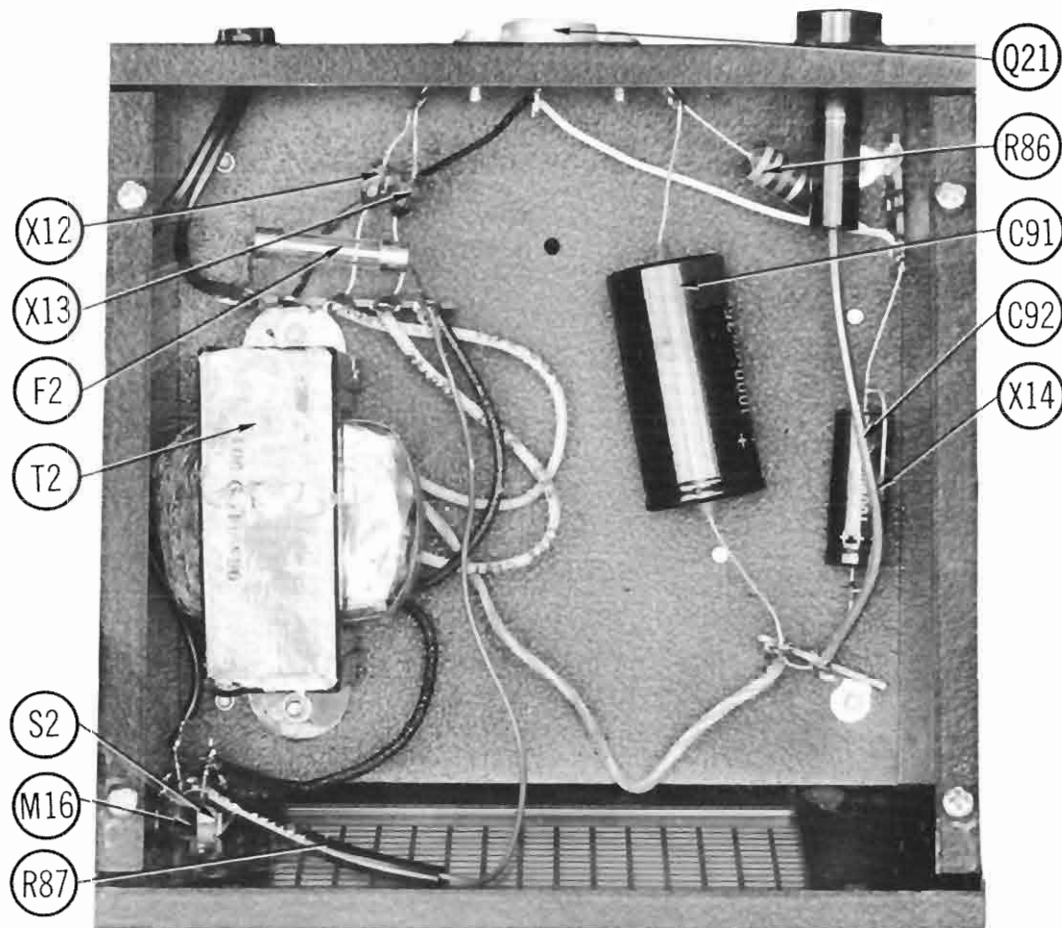


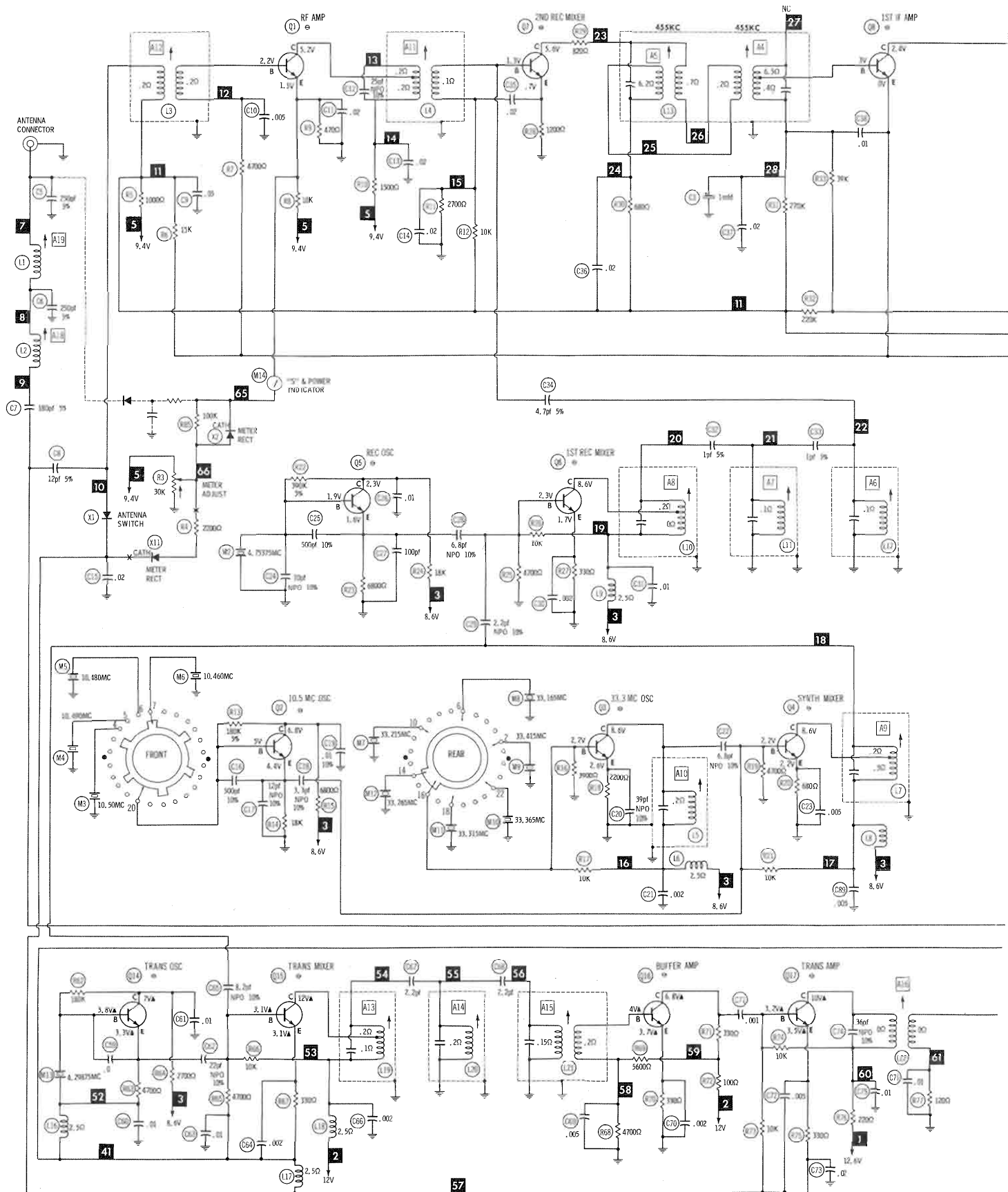


A PHOTOFAC STANDARD NOTATION SCHEMATIC

© Howard W. Sams & Co., Inc. 1968

AC POWER SUPPLY

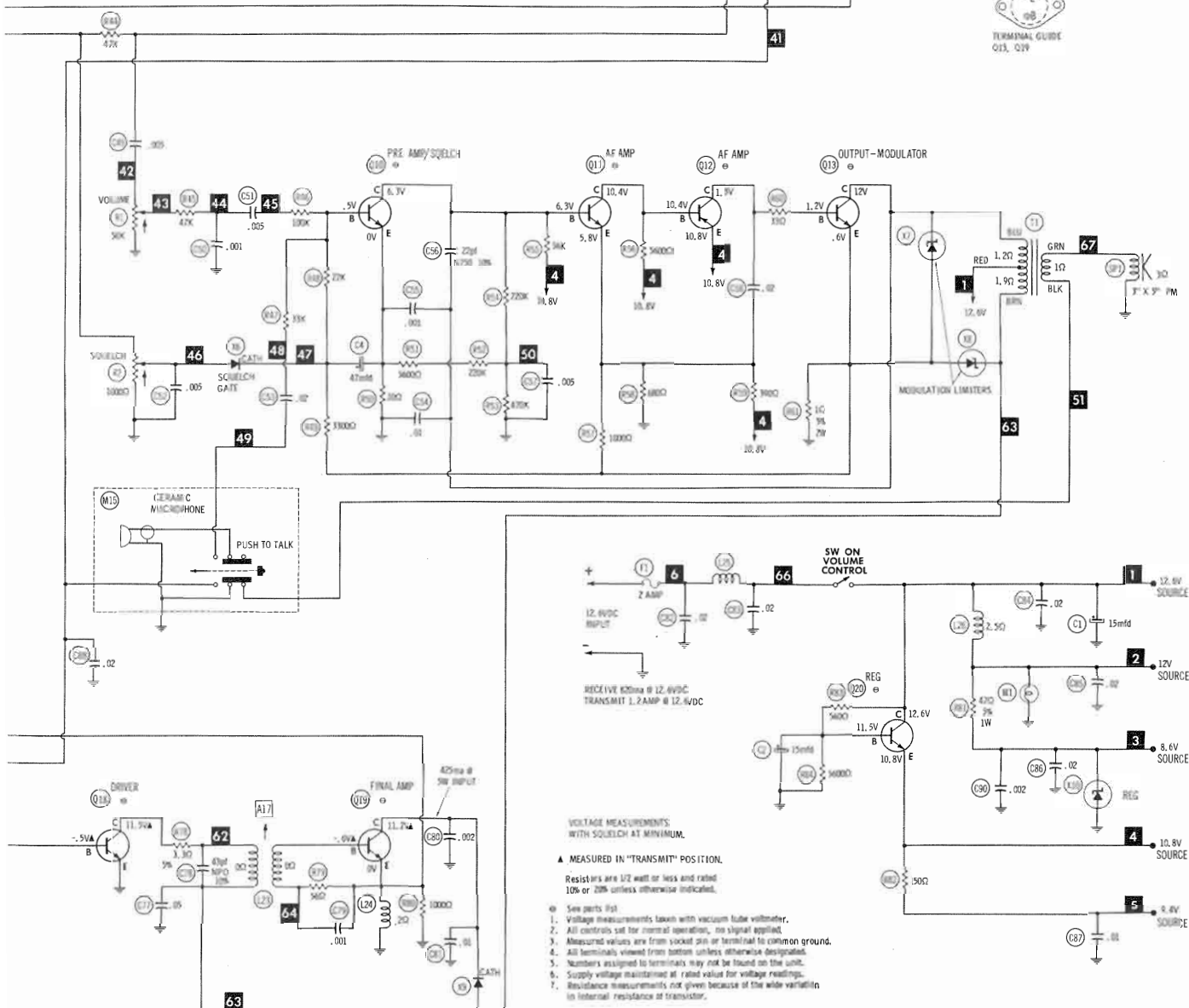
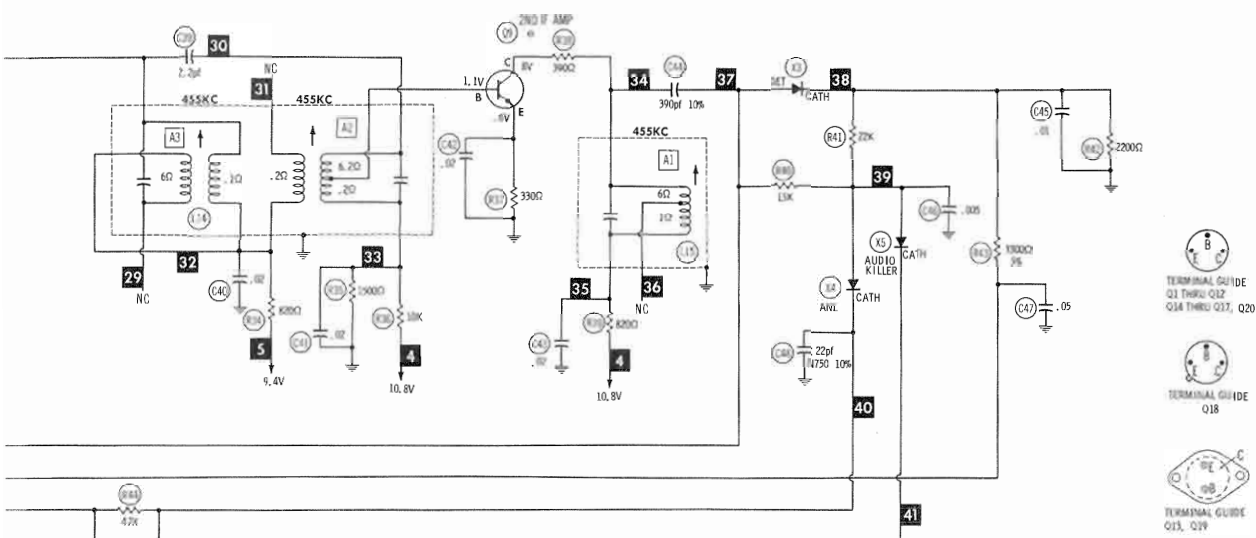




A PHOTOFAC STANDARD NOTATION SCHEMATIC

with **CIRCUITRACE**
© Howard W. Sams & Co., Inc. 1968

B & K MODEL COBRA 23, PAC-V



VOLTAGE MEASUREMENTS:
WITH SQUELCH AT MINIMUM.

▲ MEASURED IN "TRANSMIT" POSITION.

Resistors are 1/2 watt or less and rated 10% or 20% unless otherwise indicated.

- See parts list.
Voltage measurements taken with vacuum tube voltmeter.
All controls set for normal operation, no signal applied.
Measured values are from yoke pin or terminal to common ground.
All terminals viewed from bottom unless otherwise designated.
Numbers assigned to terminals may not be found on the unit.
Supply voltage maintained at rated value for voltage readings.
Resistance measurements not given because of the wide variation in internal resistance of transmitter.

B & K MODEL COBRA 23, PAC-V

PARTS LIST AND DESCRIPTION

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

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				B & K PART No.	NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.		
Q1		RF Amp	DS-81	GE-20	TR-21	SK-3018	176-005-9-001	NPN
Q2		10.5MC Oscillator	DS-81	GE-20	TR-21	SK-3018	176-005-9-001	NPN
Q3		33.3MC Oscillator	DS-81	GE-20	TR-21	SK-3018	176-005-9-001	NPN
Q4		Synthesizer Mixer	DS-81	GE-20	TR-21	SK-3018	176-003-9-001	NPN
Q5		Receive Oscillator	DS-81	GE-20	TR-21	SK-3018	176-005-9-001	NPN
Q6		1st Receive Mixer	DS-81	GE-20	TR-21	SK-3018	176-003-9-001	NPN
Q7		2nd Receive Mixer	DS-81	GE-20	TR-21	SK-3018	176-005-9-001	NPN
Q8		1st IF Amp.	DS-81	GE-20	TR-21	SK-3018	176-006-9-001	NPN
Q9		2nd IF Amp.	DS-81	GE-20	TR-21	SK-3018	176-007-9-001	NPN
Q10		Preamp-Squeich	DS-66	GE-10	TR-09	SK-3020	176-006-9-001	NPN
Q11		AF Amp.	DS-66	GE-10	TR-09	SK-3020	176-006-9-001	NPN
Q12		AF Amp.		GE-22	TR-19	SK-3025	177-001-9-001	PNP
Q13		Output-Modulator			TR-23		172-003-9-001	NPN
Q14		Transmit Oscillator		GE-20			176-005-9-001	NPN
Q15		Transmit Mixer		GE-20			176-003-9-001	NPN
Q16		Buffer Amp.					176-003-9-001	NPN
Q17		Transmit Amp.					176-003-9-001	NPN
Q18		Transmit Driver					176-004-9-001	NPN
Q19		Final Amp.					172-001-9-001	NPN
Q20		Voltage Regulator	DS-81	GE-9A	TR-21		176-008-9-001	NPN

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS & DIODES		RECTIFIERS	
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1		151-015-9-001	1N82A	1N82A		
X2		151-015-9-001	1N82A	1N82A		
X3		151-015-9-001	1N82A	1N82A		
X4		151-015-9-001	1N82A	1N82A		
X5		151-014-9-001				
X6		151-015-9-001	1N82A	1N82A		
X7		151-006-9-001 (33 Volt Zener)		Z1122		VR33
X8		151-006-9-001 (33 Volt Zener)		Z1122		VR33
X9		151-011-9-001				
X10		152-008-9-001 (9.1 Volt Zener)		12M9.1		1TA9.1
X11		151-015-9-001				

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
			B & K PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	15	20V	027-001-9-003	CRE609A		TYR13BF150M	MT1-11	TAS156M020POC	150D156X020B2
C2	15	20V	027-001-9-003	CRE609A		TYR13BF150M	MT1-11	TAS156M020POC	150D156X0020B2
C3	1	6V	027-001-9-002	CRE300A		TYR13B010M	MT1-1	TAS105M006POA	150D105X0006A2
C4	47	6V	027-001-9-004	CRE317A	EA6-50	TYR13B8470M	MT1-15	TAS476M006POC	150D476X0006B2

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.
C5	250	5%	ADM-15-251		CD10E251J500	DM-15-251J	SX324	MS-325
C6	250	5%	ADM-15-251		CD10E251J500	DM-15-251J	SX324	MS-325
C7	180	5%	ADM-15-181	CPR-180J	CD10E181J500	DM-15-181J	SX318	MS-318
C8	12	5%	ADM-15-120		CD15C120J500	DM-15-120J	SX412	MS-412
C9	.05		GPD ZSV503P	DD-503		CCD-503	GP150	5HK-S50
C10	.0005		TTP-.005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C11	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C12	25	NPO 10%	NPO-DI 25	DTZ-25		CCTO-270	CNO425	10TCC-Q25
C13	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C14	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C15	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C16	500		GPD XSF501K	DD-501	JBZ601YP501K	CCD-501	GP350	10TS-T50
C17	12	NPO 10%		TCZ-12	CZ601CG120J	CCTO-120	CNO412	10TCC-Q12
C18	3.3	NPO 10%	NPO-DI 3.3	DTZ-3R3		CCTO-3R3	CNO533	10TCC-V30
C19	.01		TTP-.01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C20	39	NPO 10%	NPO-DI 39	TCZ-39		CCTO-390	CNO439	10TCC-Q39
C21	.002		GPD XSF202K	DD-202	BYE601ZU202P	CCD-202	GP220	5GA-D20
C22	6.8	NPO 10%	NPO-DI 6.8	DTZ-6R8	CZ601CH6R8D	CCTO-6R8	CNO568	10TCC-V68
C23	.0005		TTP-.005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C24	10	NPO 10%	NPO-DI 10	DTZ-10	CZ601CG100J	CCTO-100	CNO410	10TCC-Q10
C25	500		GPD XSF501K	DD-501	JBZ601YP501K	CCD-501	GP350	10TS-T50
C26	.01		TTP-.01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C27	100		NPO-DI 100	DTZ-100	CV601CG101K	CCTO-101	CNO310	10TCC-T10
C28	6.8	NPO 10%	NPO-DI 6.8	DTZ-6R8	CZ601CH6R8D	CCTO-6R8	CNO568	10TCC-V68
C29	2.2	NPO 10%	NPO-DI 2.2	DTZ-2R2	CZ601CJ2R2D	CCTO-2R2	CNO522	10TCC-V22
C30	.002		GPD XSF202K	DM-202	BYE601ZU202P	CCD-202	GP220	5GA-D20
C31	.01		TTP-.01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C32	1	5%		TCZ-1			CNO510	10TCC-V10
C33	1	5%		TCZ-1			CNO510	10TCC-V10
C34	4.7	5%		DTZ-4R7		CCTO-4R7	CNO547	10TCC-V47
C35	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C36	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C37	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C38	.01		TTP-.01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C39	2.2			DTZ-2R2	CZ601CJ2R2D	CCTO-2R2	CNO522	10TCC-V22
C40	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C41	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C42	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C43	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C44	390	10%	DI-390	DD-391		CCD-391	GP339	10TS-T39
C45	.01		TTP-.01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C46	.0005		TTP-.005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C47	.05		TTP-.05	CK-503	HOY101ZV503P		TA150	TG-S50
C48	22	N750 10%	N750-DI 22	DTN-22	CZ601UJ220K	CCTN-220	CN7422	10TCU-Q22
C49	.0005		TTP-.005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C50	.001		GPD X5U102P5	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C51	.0005		TTP-.005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C52	.0005		TTP-.005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C53	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C54	.01		TTP-.01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C55	.001		GPD X5U102P5	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C56	22	N750 10%	N750-DI 22	DTN-22	CZ601UJ220K	CCTN-220	CN7422	10TCU-Q22
C57	.005		TTP-.005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C58	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C59	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C60	.01		TTP-.01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C61	.01		TTP-.01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C62	22	NPO 10%	NPO-DI 22	DTZ-22	CY601CG220K	CCTO-220	CNO422	10TCC-Q22
C63	.01		TTP-.01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C64	.002		GPD XSF202K	DM-202	BYE601ZU202P	CCD-202	GP220	5GA-D20
C65	8.2	NPO 10%	NPO-DI 8.2					10TCC-V82
C66	.002		GPD XSF202K	DD-202	BYE601ZU202P	CCD-202	GP220	5GA-D20
C67	2.2			DTZ-2R2	CZ601CJ2R2D	CCTO-2R2	CNO522	10TCC-V22
C68	2.2			DTZ-2R2	CZ601CJ2R2D	CCTO-2R2	CNO522	10TCC-V22
C69	.005		TTP-.005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C70	.002		GPD XSF202K	DD-202	BYE601ZU202P	CCD-202	GP220	5GA-D20
C71	.001		GPD X5U102P5	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C72	.005		TTP-.005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C73	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C74	36	NPO 10%		TCZ-36		CCTO-360		
C75	.01		TTP-.01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C76	.01		TTP-.01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C77	.05		GPD ZSV503P	DD-503		CCD-503	GP150	5HK-S50
C78	43	NPO 10%		TCZ-43				
C79	.001		GPD X5U102P5	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C80	.002		GPD XSF202K	DM-202	BYE601ZU202P	CCD-202	GP220	5GA-D20
C81	.01		TTP-.01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C82	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C83	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C84	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C85	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C86	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C87	.01		TTP-.01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C88	.02		TTP-.02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C89	.005		TTP-.005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C90	.002		GPD XSF202K	DM-202	BYE601ZU202P	CCD-202	GP220	5GA-D20

B & K MODEL COBRA 23, PAC-V

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CONTROLS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	USE	RESIST-ANCE	REPLACEMENT DATA				
			B & K PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume & Switch	50K	008-001-9-024 (1) KR-1	F2-50K, SF012,	A47-50K-Z, FS-3, SWE-12 or NP-50K-Z, UP-B-400, NWE-12	Q13-123, 76-1 or (BU1, CF63, SS14, GC)*	UA54A, SK750, US41 or (RU54A, SL38, SK750, US41) or (U33, US26)
R2	Squelch	1000	008-001-9-025 (2)	F5-1000, SF012	NP-1000-V, UP-B-400	Q17-108 or (BU1, CF37, SS14, DC1)*	UA13R, SK750 or (RU13R, SL38, SK750) or (U3)
R3	Meter Adjust	30K	008-049-9-002	T-50K		X201R503B	MTC54L1

(1) Some versions may use Part Number 008-059-9-001. (2) Some versions may use Part Number 008-059-9-002. * "SNAPTROL"

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	Antenna Tuning	044-006-9-001			
L2	Antenna Matching	044-009-9-001			
L3	Antenna Input	066-003-9-002			
L4	RF Interstage	066-003-9-001			
L5	33.3MC Collector	046-003-9-001			
L6	RF Choke (10uh)	041-001-9-023	19-1005	4612	T860
L7	Synthesizer Mixer	046-003-9-006			
L8	RF Choke (10uh)	041-001-9-023	19-1005	4612	T860
L9	RF Choke (10uh)	041-001-9-023	19-1005	4612	T860
L10	1st Receive Mixer	046-003-9-005			
L11	Harmonic Suppressor	046-003-9-003			
L12	Harmonic Suppressor	046-003-9-003			
L13	Input IF	060-003-9-001			
L14	Interstage IF	060-003-9-002			
L15	Output IF	060-003-9-003			
L16	RF Choke (10mh)	041-001-9-023	19-1005	4612	T860
L17	RF Choke (10mh)	041-001-9-023	19-1005	4612	T860
L18	RF Choke (10uh)	041-001-9-023	19-1005	4612	T860
L19	Transmit Mixer	046-003-9-002			
L20	Harmonic Suppressor	046-003-9-003			
L21	Buffer	066-003-9-003			
L22	RF Interstage	066-003-9-003			
L23	Driver	066-005-9-001			
L24	RF Choke (2.2uh)	041-001-9-019		74F226AF	
L25	RF Choke (2.6uh)	042-004-9-001			
L26	RF Choke (10uh)	041-001-9-023	19-1005	4612	T860

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			B & K PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC.						
T1	10	4	061-010-9-003					

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	8AG	2Amp	125V	191-121-8-002	742-006-9-001	AGX2	HDI-B	362002	155014	

PARTS LIST AND DESCRIPTION (CONTINUED)

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

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA			NOTES
		B & K PART No.	JENSEN PART No.	QUAM PART No.	
SP1	3" X 5" 4 ohms	580-002-9-003 (580-002-9-002)	P3X5X3	35A05	

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
M1	Pilot Lamp	400-015-9-001	
M2	Crystal	131-001-9-011	4.753750MC
M3	Crystal	313-001-9-007	10.50000MC
M4	Crystal	131-001-9-008	10.49000MC
M5	Crystal	131-001-9-009	10.48000MC
M6	Crystal	131-001-9-010	10.46000MC
M7	Crystal	313-001-9-002	33.21500MC
M8	Crystal	131-001-9-001	33.16500MC
M9	Crystal	131-001-9-006	33.41500MC
M10	Crystal	131-001-9-005	33.36500MC
M11	Crystal	131-001-9-004	33.31500MC
M12	Crystal	131-001-9-003	33.26500MC
M13	Crystal	131-001-9-012	4.298750MC
M14	"S" Meter	320-015-9-001	
M15	Microphone Assembly	560-003-9-001 (560-002-9-002)	
S1	Switch, Selector	083-066-9-001	

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

ITEM	PART No.	ITEM	PART No.
Knob, Selector	751-039-9-001	Molded Panel	580-063-9-902
Knob, Control	751-039-9-902	Case	272-046-9-903
Panel, Front	255-057-9-902	Bracket, Car Mounting	250-022-9-902

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.)

A C ADAPTER

PARTS LIST AND DESCRIPTION

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

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				B & K PART No.	NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.		
Q21		Regulator					171-010-9-001	PNP

PARTS LIST AND DESCRIPTION (CONTINUED)

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

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS & DIODES		RECTIFIERS	
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	SARKES TARZIAN PART No.
X12	.75 Amp	151-011-9-001	GE-504	8D4 or 5A4-A	SK-3016	40C or F4
X13	.75 Amp	151-011-9-001	GE-504	8D4 or 5A4-A	SK-3016	40C or F4
X14		152-007-9-001 (Zener)		Z1114C		1TA15

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
			B & K PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C91	1000	35V	022-001-9-015	PRS1395		BR1000-50		TC50100A	
C92	100	20V	022-001-9-014	PRS1270		BR100-25	QT1-23	TC2501A	TVA-1207

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
				B & K PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC. 1	SEC. 2						
T2	117VAC 0.280A	34VAC 01.5Amp		065-043-9-001					

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
F2	.3AG 1Amp 250 V Pigtail		193-251-3-001		3JV-1		318001	

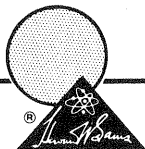
MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
M16 S2	Pilot Lamp Switch, Power	401-001-9-002 084-002-9-001	NEZH (Includes 100K resistor)

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

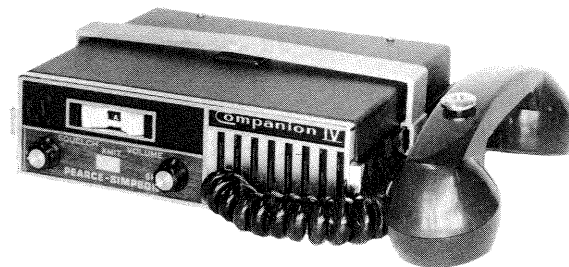
ITEM	PART No.	ITEM	PART No.
Knob, Knurled	769-024-9-902	Perforated Cover	253-015-9-903
Lens, Red	750-003-9-001	Case	272-041-9-904
Bezel, Speaker	380-004-9-001		



PHOTOFACT[®] with

CIRCUITRACE[®]

TRADE NAME : Pearce-Simpson Model Companion IV
 SUPPLIER : For Current Address, See Annual Index
 TYPE SET : 13-Transistor Transceiver
 POWER SUPPLY : 12 Volt Storage Battery
 RATING : .23 Amp. @ 12.6VDC (Receive)
 .64 Amp. @ 12.6VDC (Transmit)
 TUNING RANGE : Any 10 CB Channels 1 thru 23



ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:

A1 thru A6, A9, A10..... GENERAL CEMENT #8868, 8987, 9089..... WALSCO #2531-X, 2541, 2587
 A7, A8, A11, A12, A13... GENERAL CEMENT #8606, 8606L, 8869.... WALSCO #2543, 2544, 2588

RECEIVER ALIGNMENT

Connect an AC VTVM across Speaker Voice Coil Terminals. Turn Volume Control fully clockwise; Turn Squelch Control fully counterclockwise.

SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
High side thru .01mfd to Base of Q3, (Rec. Mixer), low side to Chassis. Tune to 455KC (Mod.).	Any	A1 thru A6	Adjust for maximum.
High side thru .01mfd to Antenna Receptacle, low side to Chassis. Tune to 27.06MC (Channel 9) (Mod.).	9	A7, A8, A9	Adjust for maximum.

TRANSMITTER ALIGNMENT

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.

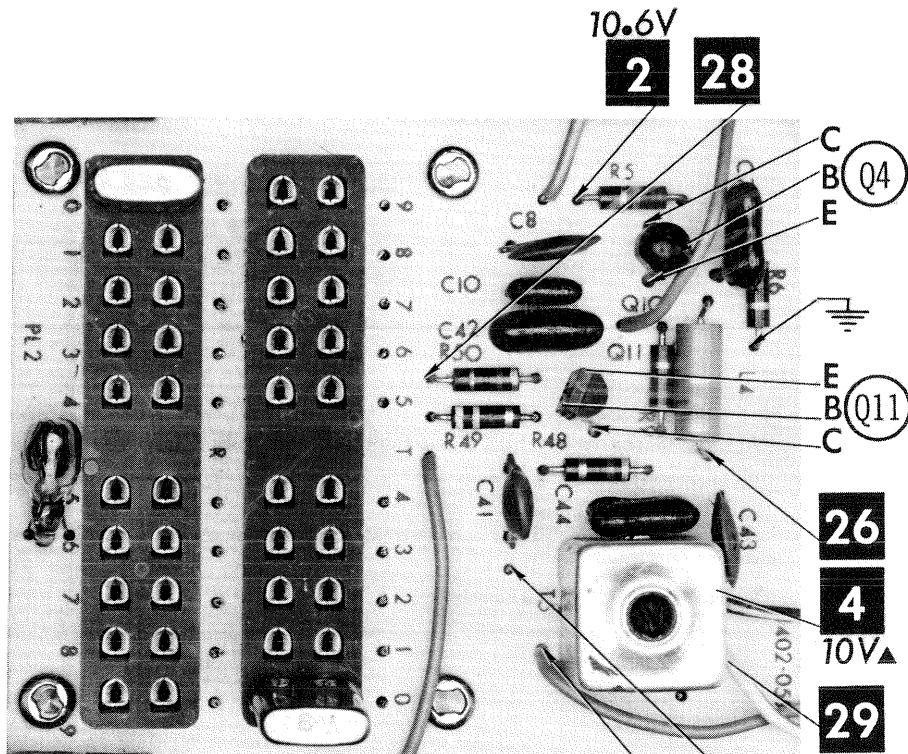
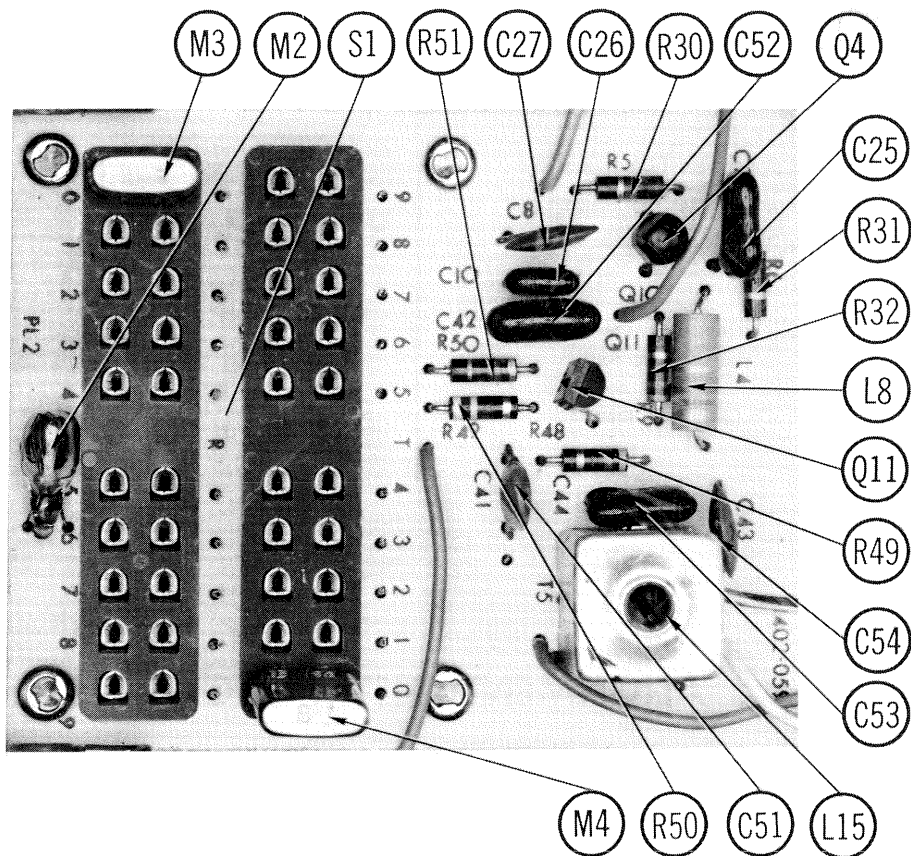
Connect either 50Ω dummy load or the normally used antenna system.

INDICATOR	ADJUST	REMARKS
Accurate Frequency Meter with Scope.	A10	Reduce Power Supply Voltage to 9.5 Volts. Key Transmit and adjust for correct Frequency. Key Transmit to ensure Oscillator starting properly.
RF Wattmeter or Field Strength Meter and 0-500ma DC Current Meter.	A11, A12, A13	Insert 0-500ma DC Meter in series with L18 (Current measuring provision indicated on Schematic). Power Supply Normal (12.6V). Key Transmitter. Adjust for 3 Watts, RF Power Output and 435ma, DC Current Reading.

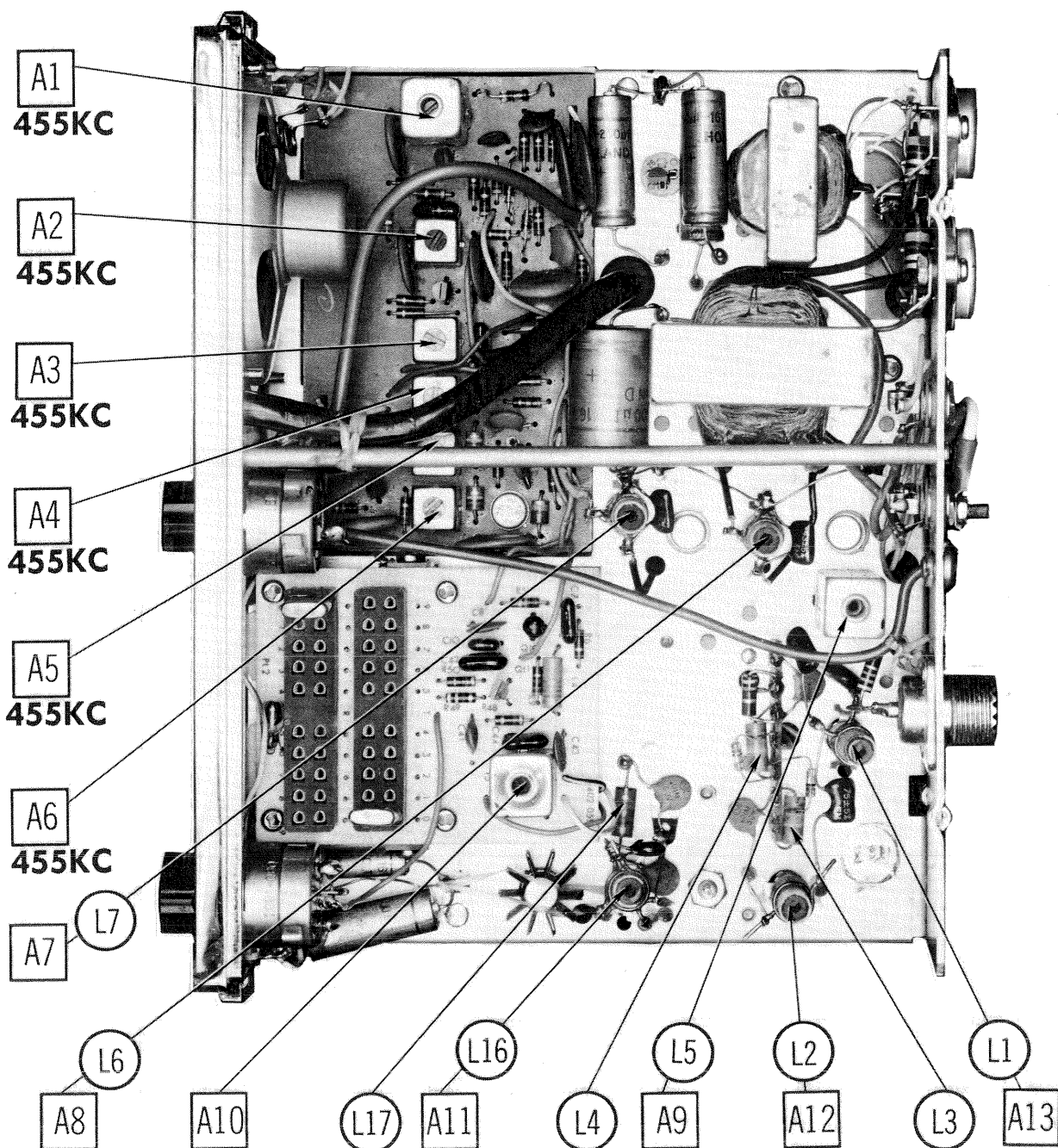
HOWARD W. SAMs & CO., INC. Indianapolis, Indiana 46206

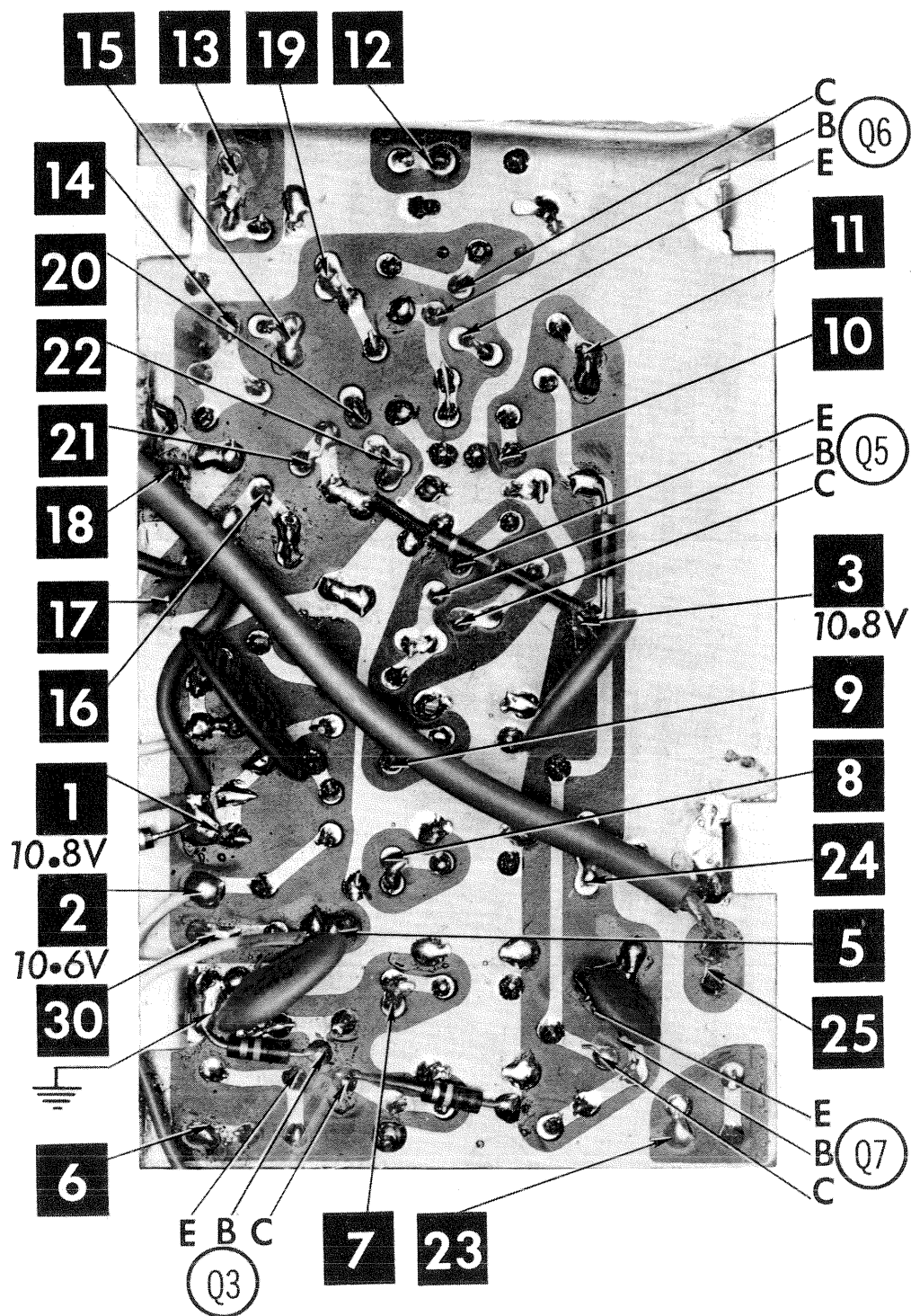
© 1968 Howard W. Sams & Co., Inc. Printed in U. S. of America TY173

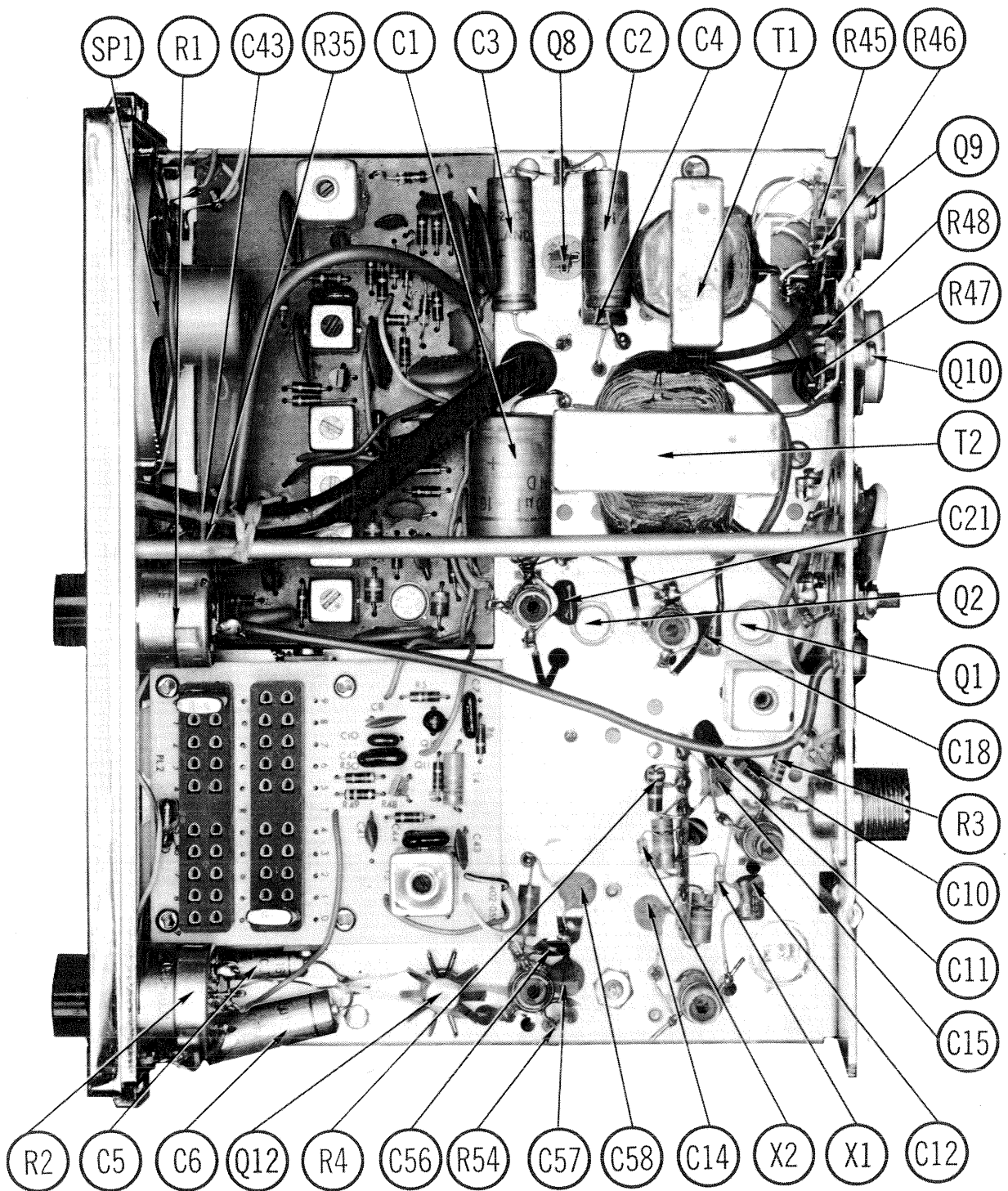
PEARCE-SIMPSON MODEL COMPANION IV

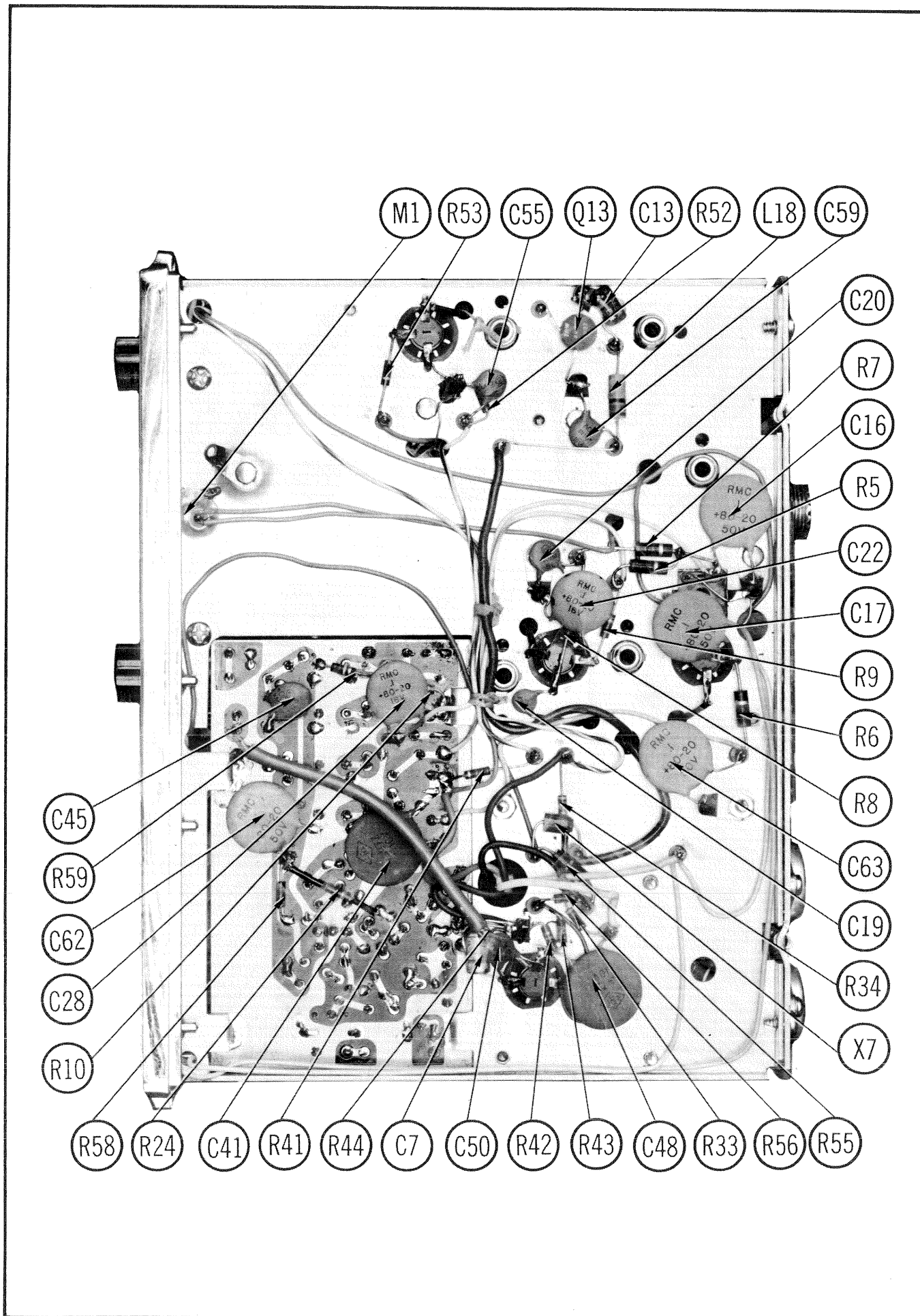


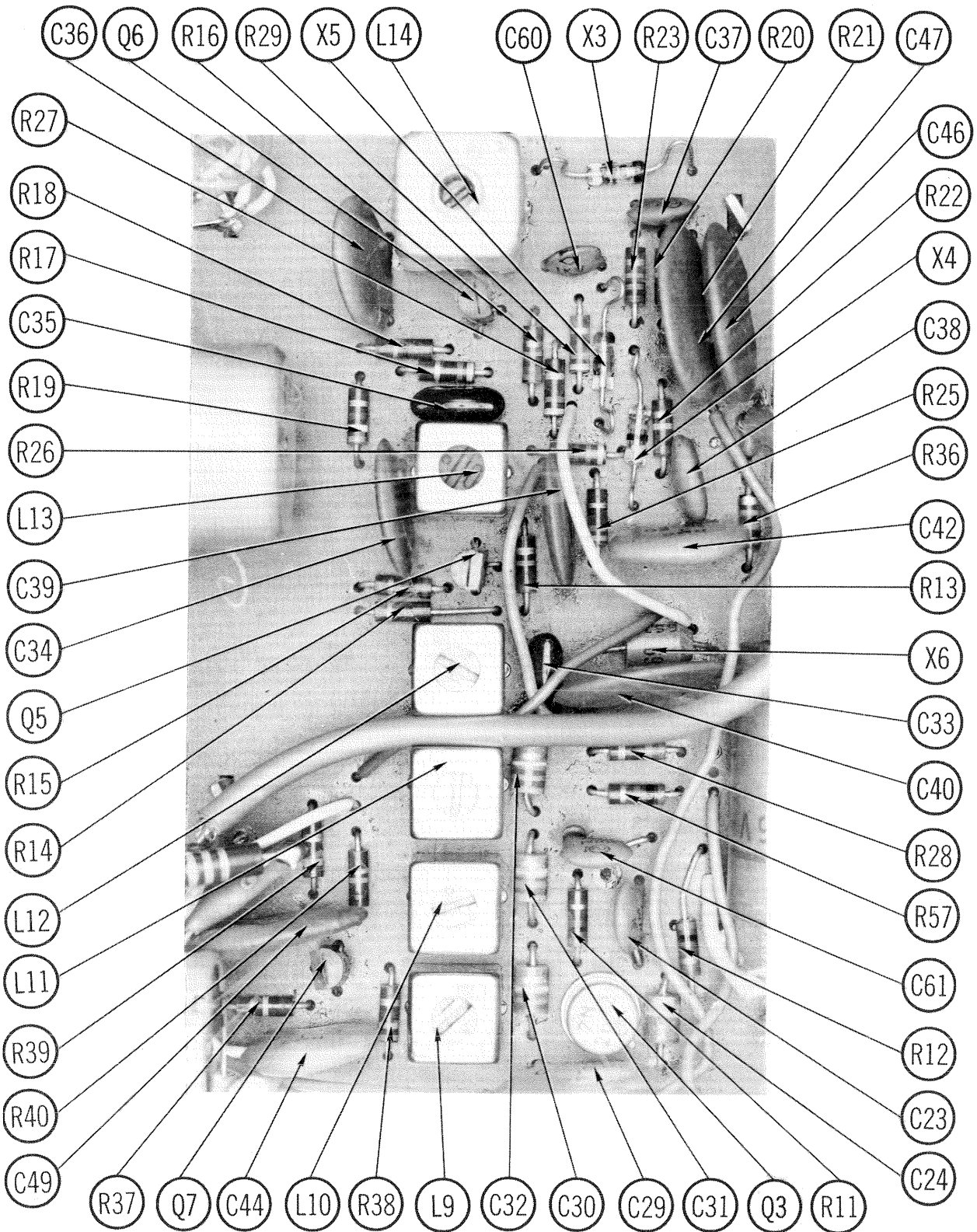
▲TRANSMIT

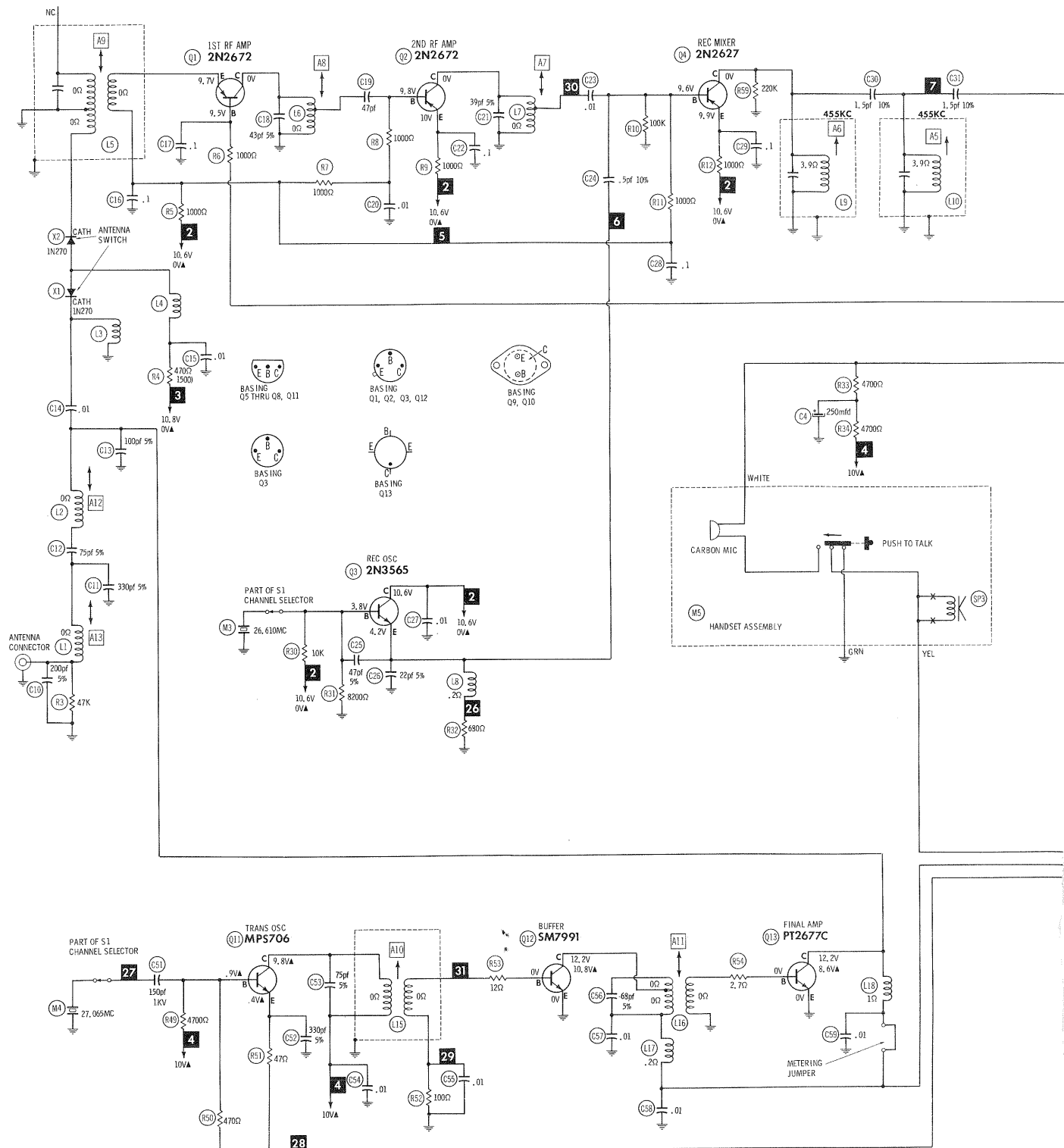












▲ TRANSMIT POSITION

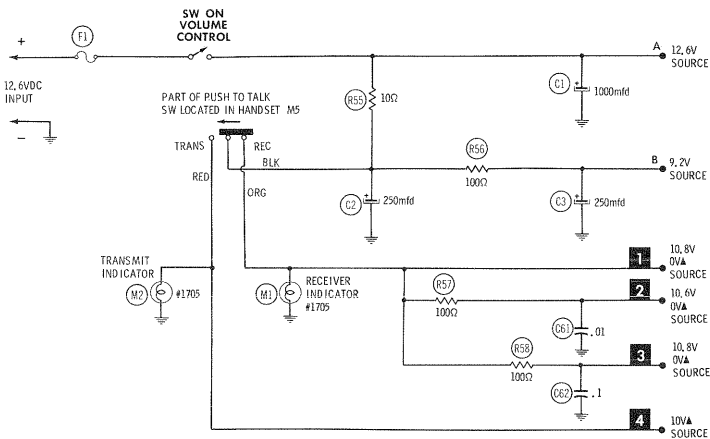
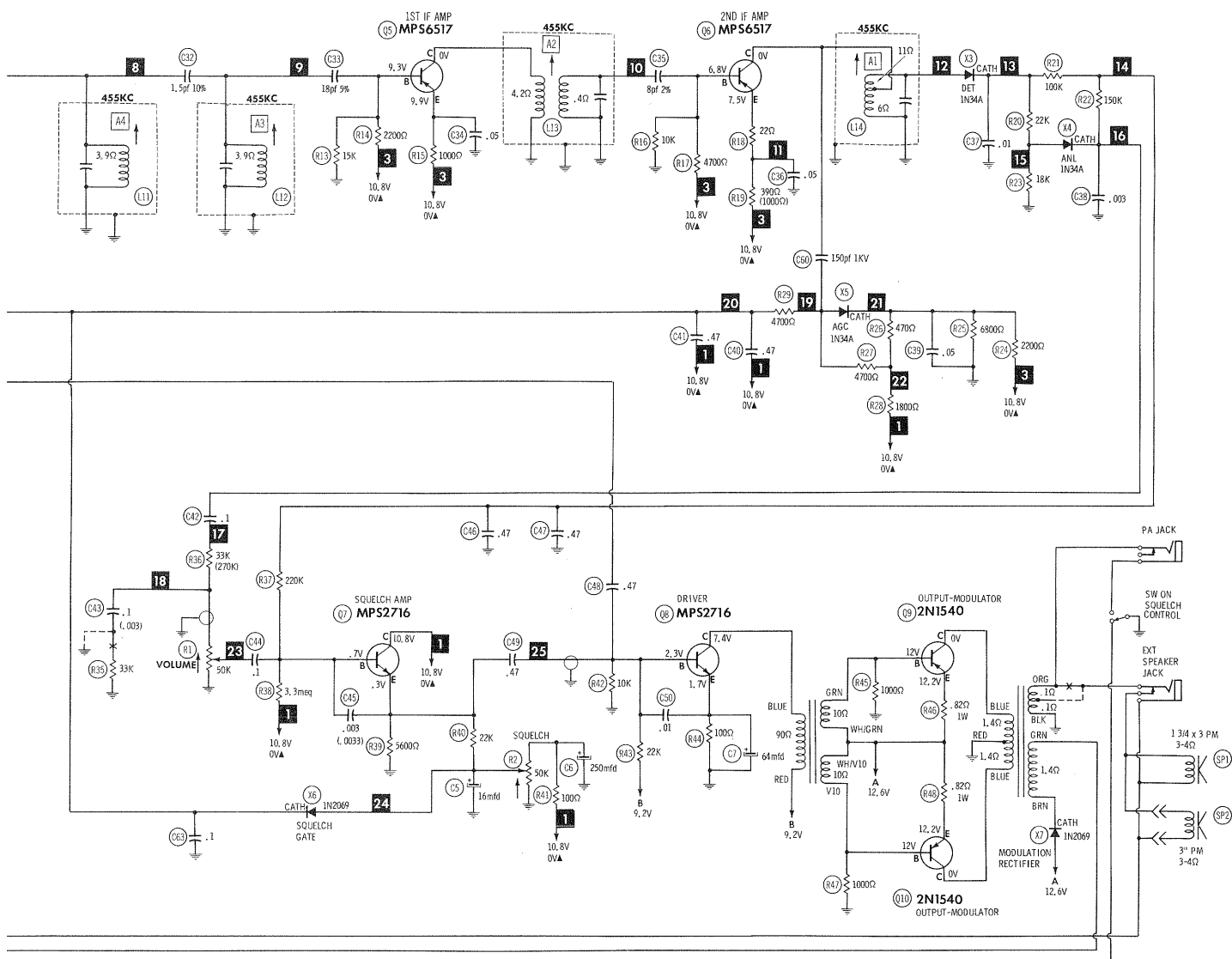
Resistors are 1/2 watt or less and rated 10% or 20% unless otherwise indicated.

1. Voltage measurements taken with vacuum tube voltmeter.
2. All controls set for normal operation, no signal applied.
3. Measured values are from socket pin or terminal to common ground.
4. All terminals viewed from bottom unless otherwise designated.
5. Numbers assigned to terminals may not be found on the unit.
6. Supply voltage maintained at rated value for voltage readings.
7. Resistance measurements not given because of the wide variation in internal resistance of transistor.

A PHOTOFAC STANDARD NOTATION SCHEMATIC

with **CIRCUITRACE**

© Howard W. Sams & Co., Inc. 1968



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.	ORIG. TYPE	USE	REPLACEMENT DATA				Pearce-Simpson PART No.	NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.		
Q1	2N2672	1st RF Amp.	DS-41	GE-9	TR-17	SK-3006	2904-016	PNP
Q2	2N2672	2nd RF Amp.	DS-41	GE-9	TR-17	SK-3006	2904-016	PNP
Q3	2N2672	Rec. Mixer	DS-41	GE-9	TR-17	SK-3006	2904-016	PNP
Q4	2N3565	Rec. Osc.	DS-81	GE-11	TR-22	SK-3018	2904-033	NPN
Q5	MPS6517	1st IF Amp.	DS-41	GE-9	TR-17	SK-3007	2904-038	PNP
Q6	MPS6517	2nd IF Amp.	DS-41	GE-9	TR-17	SK-3007	2904-038	PNP
Q7	MPS2716	Squelch Amp.	DS-66	GE-10	TR-21	SK-3020	2904-034	NPN
Q8	MPS2716	Driver	DS-66	GE-10	TR-21	SK-3020	2904-034	NPN
Q9	2N5140	Output - Modulator	DS-503	GE-3	TR-01	SK-3009	2904-008	PNP
Q10	2N5140	Output - Modulator	DS-503	GE-3	TR-01	SK-3009	2904-008	PNP
Q11	MPS706	Trans. Osc.	DS-81	GE-11	TR-11	SK-3018	2904-033	NPN
Q12	SM7991	Buffer					2904-032	NPN
Q13	PT2677C	Final Amp.					2904-037	NPN

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS & DIODES		RECTIFIERS	
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1		2102-028 (1N270)				
X2		2102-028 (1N270)				
X3		1N34A	1N34AS	1N34A		
X4		1N34A	1N34AS	1N34A		
X5		1N34A	1N34AS	1N34A		
X6		1N2069		8D4 or 1N2069		F-4 or 40C
X7		1N2069		8D4 or 1N2069		F-4 or 40C

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		Pearce-Simpson PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	1000 16V	0406-057	PRS1295	EA30-1000	BR1000-15		TC2510	TVA-1211
C2	250 16V	0406-056	PRS1280	EA30-250	BR250-50	QT1-28	MTA250F20	TVA-1208
C3	250 16V	0406-056	PRS1280	EA30-250	BR250-50	QT1-28	MTA250F20	TVA-1203
C4	250 16V	0406-056	PRS1280	EA30-250	BR250-50	QT1-28	MTA250F20	TVA-1208
C5	16 16V	0406-060	CRE609A		NLW20-25	MT1-11	TT25X15	TL-1157
C6	250 16V	0406-056	PRS1280	EA30-250	BR250-50	QT1-28	MTA250F20	TVA-1208
C7	64 4V	0406-051	CRE318A		NLW75-10	MT1-18	TT6X60A	TE-1101,5

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.
C10	200	5%	ADM-15-201	CPR-200J	CD15F201J500	DM-15-201J	SX320	MS-320
C11	330	5%	ADM-15-331	CPR-330J	CD15F331J500	DM-15-331J	SX333	MS-333
C12	75	5%	ADM-15-750	CPR-75J	CD15E750J500	DM-15-750J	SX475	MS-475
C13	100	5%	ADM-15-101	CPR-100J	CD15F101J500	DM-15-101J	SX310	MS-310
C14	.01 50V		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C15	.01 50V		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C16	.1 50V		TTD-1	CK-104	HOY101ZV104Z		TA010	TG-P10
C17	.1 50V		TTD-1	CK-104	HOY101ZV104Z		TA010	TG-P10
C18	43	5%	ADM-15-430	CPR-43J	CD15E430J500	DM-15-430J	SX443	MS-443
C19	47		NPO-DI 47	DTZ-47	CX601CG470K	CCTO-470	CNO447	10TCC-Q47
C20	.01 50V		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C21	39	5%	ADM-15-390	CPR-39J	CD15E390J500	DM-15-390J	SX439	MS-439
C22	.1 50V		TTD-1	CK-104	HOY101ZV104Z		TA010	TG-P10
C23	.01 50V		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C24	.5pf	10%		TCZ-R5				
C25	47	5%	NPO-DI 47	DTZ-47	CX601CG470K	CCTO-470	CNO447	10TCC-Q47
C26	22	5%	ADM-15-220	CPR-22J	CD15E220J500	DM-15-222J	SX422	MS-422
C27	.01 50V		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C28	.1 50V		TTD-1	CK-104	HOY101ZV104Z		TA010	TG-P10
C29	.1 50V		TTD-1	CK-104	HOY101ZV104Z		TA010	TG-P10
C30	1.5	10%		TCZ-1R5				
C31	1.5	10%		TCZ-1R5				
C32	1.5	10%		TCZ-1R5				
C33	18	5%	ADM-15-180	TCZ-18	CD15E180J500	DM-15-180J	SX418	MS-418
C34	.05 100V		BPD-05	DD-503		CCD-503	GPI50	5HK-S50
C35	8	2%						
C36	.05 100V		BPD-05	DD-503		CCD-503	GPI50	5HK-S50
C37	.01 50V		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C38	.003		DI-3000	DD-302	BYS601ZU303P	CCD-302	GP230	10TS-D30
C39	.05 100V		BPD-05	DD-503		CCD-503	GPI50	5HK-S50
C40	.47 10V			UK10-474			MAG12047	HY-330
C41	.47 10V			UK10-474			MAG12047	HY-330
C42	.1 16V		TTD-1	CK-104	HOY101ZV104Z		TA010	TG-P10
C43	.1 16V		TTD-1	CK-104	HOY101ZV104Z		TA010	TG-P10
C44	.1 16V		TTD-1	CK-104	HOY101ZV104Z		TA010	TG-P10
C45	.003		DI-3000	DD-302	BYS601ZU302P	CCD-302	GP230	10TS-D30
C46	.47 10V			UK10-474			MAG12047	HY-330
C47	.47 10V			UK10-474			MAG12047	HY-330
C48	.47 10V			UK10-474			MAG12047	HY-330
C49	.47 10%			UK10-474			MAG12047	HY-330
C50	.01 50V		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C51	150		DI-150	DD-151		CCD-151	GP315	10TS-T15
C52	330	5%	ADM-15-331	CPR-330J	CD15F331J500	DM-15-331J	SX333	MS-333
C53	75	5%	ADM-15-750	CPR-75J	CD15E750J500	DM-15-750J	SX475	MS-475
C54	.01 50V		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C55	.01 50V		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C56	68	5%	ADM-15-680	CPR-68J	CD15E680J500	DM-15-680J	SX468	MS-468
C57	.01 50V		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C58	.01 50V		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C59	.01 50V		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C60	150		DI-150	DD-151		CCD-151	GP315	10TS-T15
C61	.01 50V		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C62	.1 16V		TTD-1	CK-104	HOY101ZV104Z		TA010	TG-P10
C63	.1 50V		TTD-1	CK-104	HOY101ZV104Z		TA010	TG-P10

Pearce-Simpson Part Number.

† Alternate Value

PEARCE-SIMPSON MODEL COMPANION IV

CONTROLS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			Pearce-Simpson PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume & Power Switch	50K	2008-061	F2-50K, SRS010, KR1	A47-50K-S, RS-2, SWE-12 or (NP-50K-Z, UP-A-400, NWE-12)	B13-123, SK2, 76-1 or (BU1, CF63, SS2, GC)*	UA54A, SL2500, US41 or (RU54A, SL38, SL2500, US41)
R2	Squelch & PA Switch	50K	2008-060	F3-50K, SRS010, KR3		B17-123, SK2, 76-4	UA54R, SL2500, US43 or (RU54R, SL38, SL2500, US43)

* "SNAPTROL"

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	Pearce-Simpson PART No.			IRC PART No.	WORKMAN PART No.	Pearce-Simpson PART No.
R46	.82Ω 1W	BWH .82	WS .82	2000-016	R48	.82Ω 1W	BWH .82	WS .82	2000-016

PARTS LIST AND DESCRIPTION (CONTINUED)

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

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		Pearce-Simpson PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	Pi - Network	1201-148		4201	
L2	Pi - Network	1201-147		4201A	
L3	RF Choke (47uh)	1201-170	19-7047	72F475AP	TG-248
L4	RF Choke (47uh)	1201-170	19-7047	72F475AP	TG-248
L5	Ant. Input	1201-153			
L6	1st RF	1201-168			
L7	2nd RF	1201-168			
L8	RF Choke (5.6uh)	1201-144	19-2013	4609	T820
L9	Input IF	1201-166			
L10	Interstage IF	1201-166			
L11	Interstage IF	1201-166			
L12	Interstage IF	1201-166			
L13	Interstage IF	1201-167			
L14	Output IF	1201-100D (1201-166)			
L15	Trans. Osc.	1201-169			
L16	Trans. Driver	1201-149			
L17	RF Choke (5.6uh)	1201-144	19-2013	4609	T820
L18	RF Choke (15uh)	1201-145		72F155AP	T944

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO			REPLACEMENT DATA					NOTES
				Pearce-Simpson PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	3.3	1	1	1202-148					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			Pearce-Simpson PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	80Ω CT	SEC. 1	1202-149					
		4Ω						
		SEC. 2						
		1.4Ω DC Resistance						

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA			NOTES
				Pearce-Simpson PART No.	JENSEN PART No.	QUAM PART No.	
SP1	1 3/4" x 3" PM	4Ω		2501-022	3K7		Part of Handset Ass'y. (M5)
SP2	3" PM	4Ω		2501-020		30A05	
SP3	2" PM	8Ω			P20001		

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, 3A, 250V	3108-019 ①		AGC 3	HHJ	312008	155020	

① Includes Power Cord, Fuse & Holder

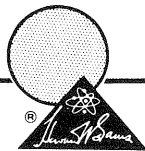
MISCELLANEOUS

ITEM No.	PART NAME	Pearce-Simpson PART No.	NOTES
M1	Indicator Lamp	1801-027	Receive - CHICAGO MINIATURE Replacement CM-1705 Transmit - CHICAGO MINIATURE Replacement CM-1705 26.610MC (Ch.9) order by Model, Channel desired, Part Number 0514-001 (Ch.1) thru 0514-023 (Ch.23). 27.065MC (Ch.9) order by Model, Channel desired, Part Number 0513-001 (Ch.1) thru 0513-023 (Ch.23). Includes Ceramic Mic & 2" PM Speaker (SP3) Channel Selector (Wafer)
M2	Indicator Lamp	1801-027	
M3	Receive Crystal	0514-009	
M4	Transmit Crystal	0513-009	
M5	Hand Set Assembly	1601-018	
S1	Switch	2701-080	

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

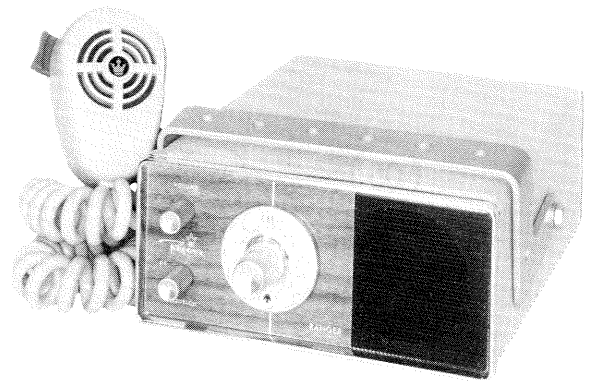
ITEM	PART No.	ITEM	PART No.
Knob, Volume & Squelch	1301-046	Cabinet Half	1501-030
Cradle Knob	1301-058	Speaker Jack	2303-044



PHOTOFACT[®] with

CIRCUITRACE[®]

TRADE NAME : Regency Model Ranger CB-270
 SUPPLIER : For Current Address, See Annual Index
 TYPE SET : 15-Transistor Transceiver
 POWER SUPPLY : 12-Volt Storage Battery
 RATING : .110 Amp. @ 12.6VDC (Receive)
 .80 Amp. @ 12.6VDC (Transmit)
 TUNING RANGE : Any 11 CB Channels 1 thru 23



ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:

A1, A2, A4 thru A9, GENERAL CEMENT #8606, 8606L, 8869..... WALSCO #2543, 2544, 2588
 A3, A12, A14..... GENERAL CEMENT #9296, 9297, 9300..... WALSCO #2510, 2546, 2547
 A13..... GENERAL CEMENT #8868, 8987, 9089..... WALSCO #2531-X, 2541, 2587

RECEIVER ALIGNMENT

Connect an AC VTVM across speaker voice coil terminals. Turn Volume Control fully clockwise. Turn Squelch Control to approximately midrange position.

SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
High side thru .01mfd to base of Q4 (Rec. Mixer), low side to ground. Tune to 455KC (Mod.).	Any	A1, A2	Adjust for maximum.
High side thru .01mfd to Antenna Connector, low side to ground. Tune to 27.085MC (Channel 11) (Mod.).	11	3	Starting with slug at top of coil, adjust A3 thru first peak and 1/4 to 1/2 turn past point where oscillator starts on second peak.
High side thru .01mfd Antenna Connector, low side to ground. Tune to 27.085MC (Channel 11) (Mod.).	11	A4, A5, A6, A7, A8, A9	Adjust for maximum.

TRANSMITTER ALIGNMENT

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.

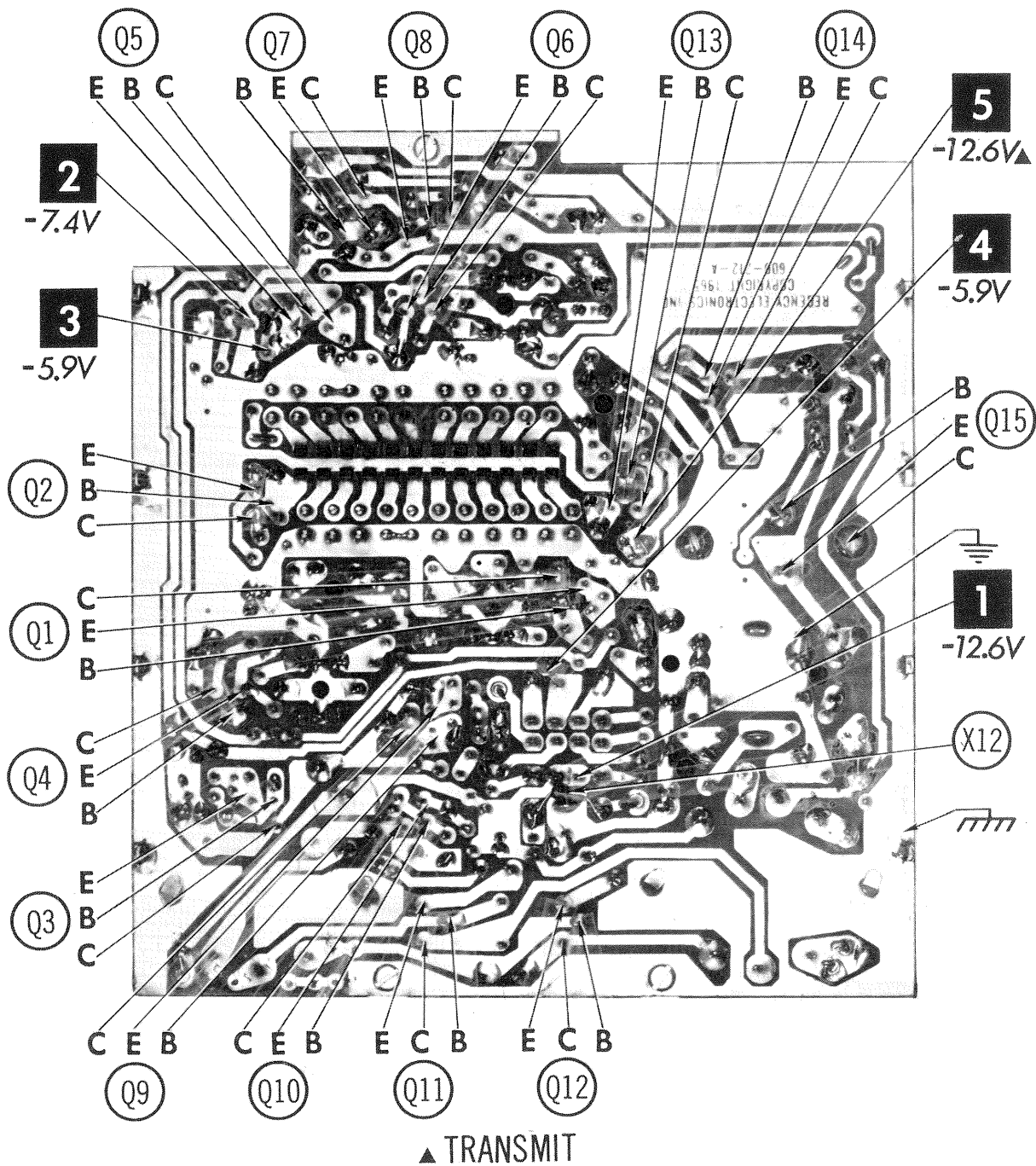
Connect either 50Ω dummy load or the normally used antenna system.

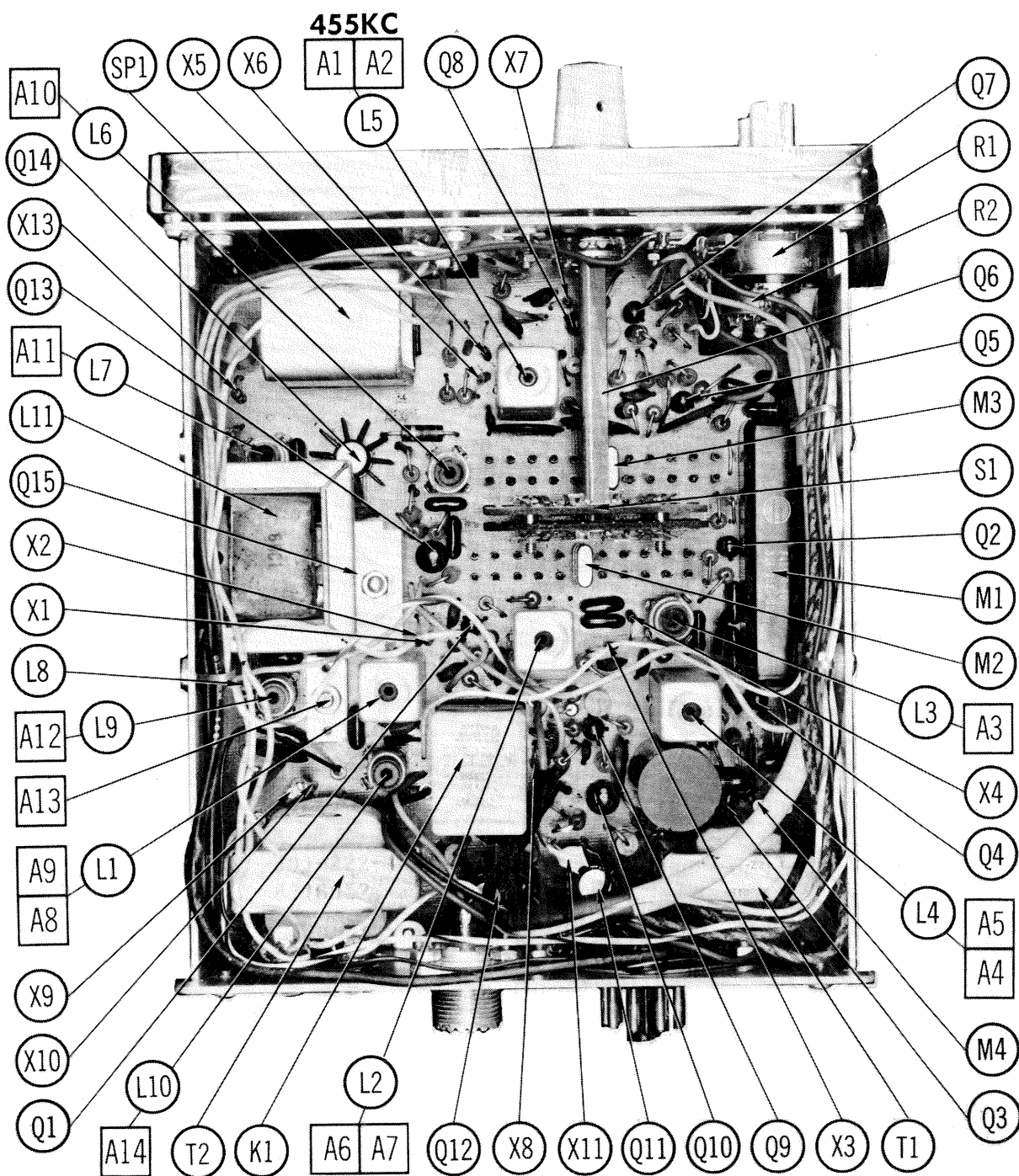
INDICATOR	ADJUST	REMARKS
RF Wattmeter, Field Strength Meter and 0-1A Meter.	A10 Thru A14	Connect 0-1A Meter in Series with Collector Q15 (Trans. Amp.). Key Transmitter several times to ensure oscillator starting properly. Adjust for maximum power output. Meter current should not exceed 250ma.

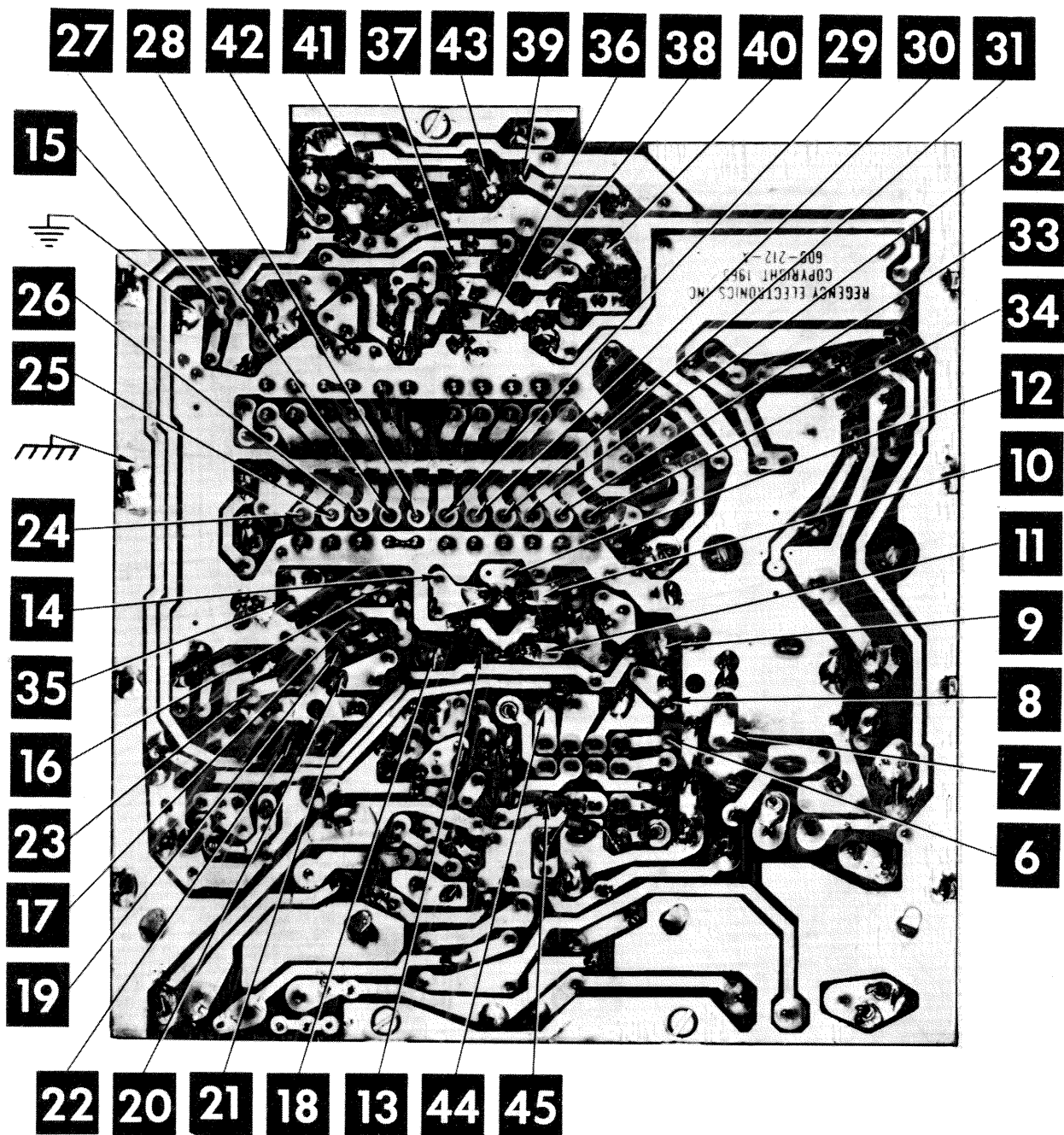
HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

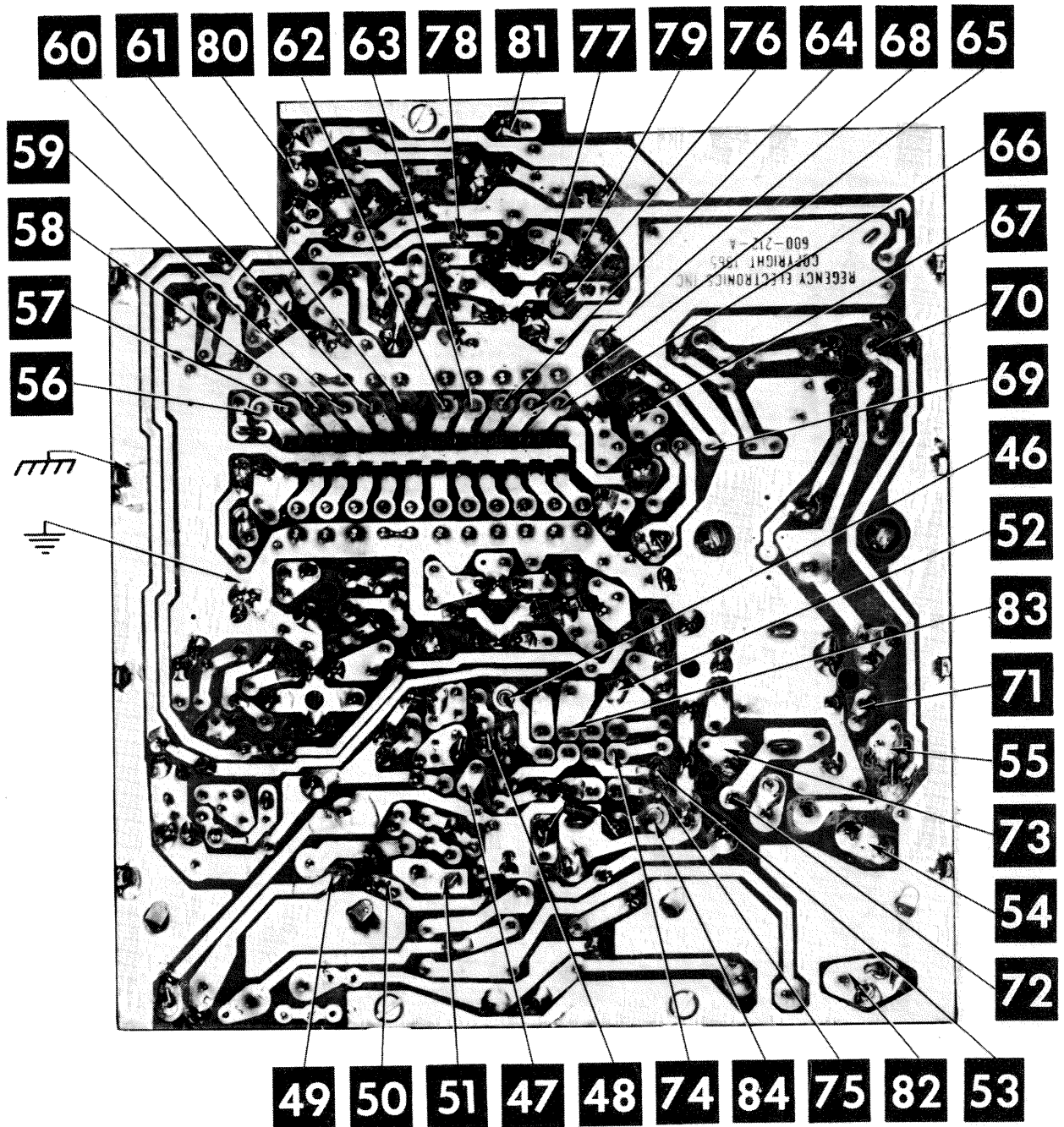
© 1968 Howard W. Sams & Co., Inc. Printed in U. S. of America TY147

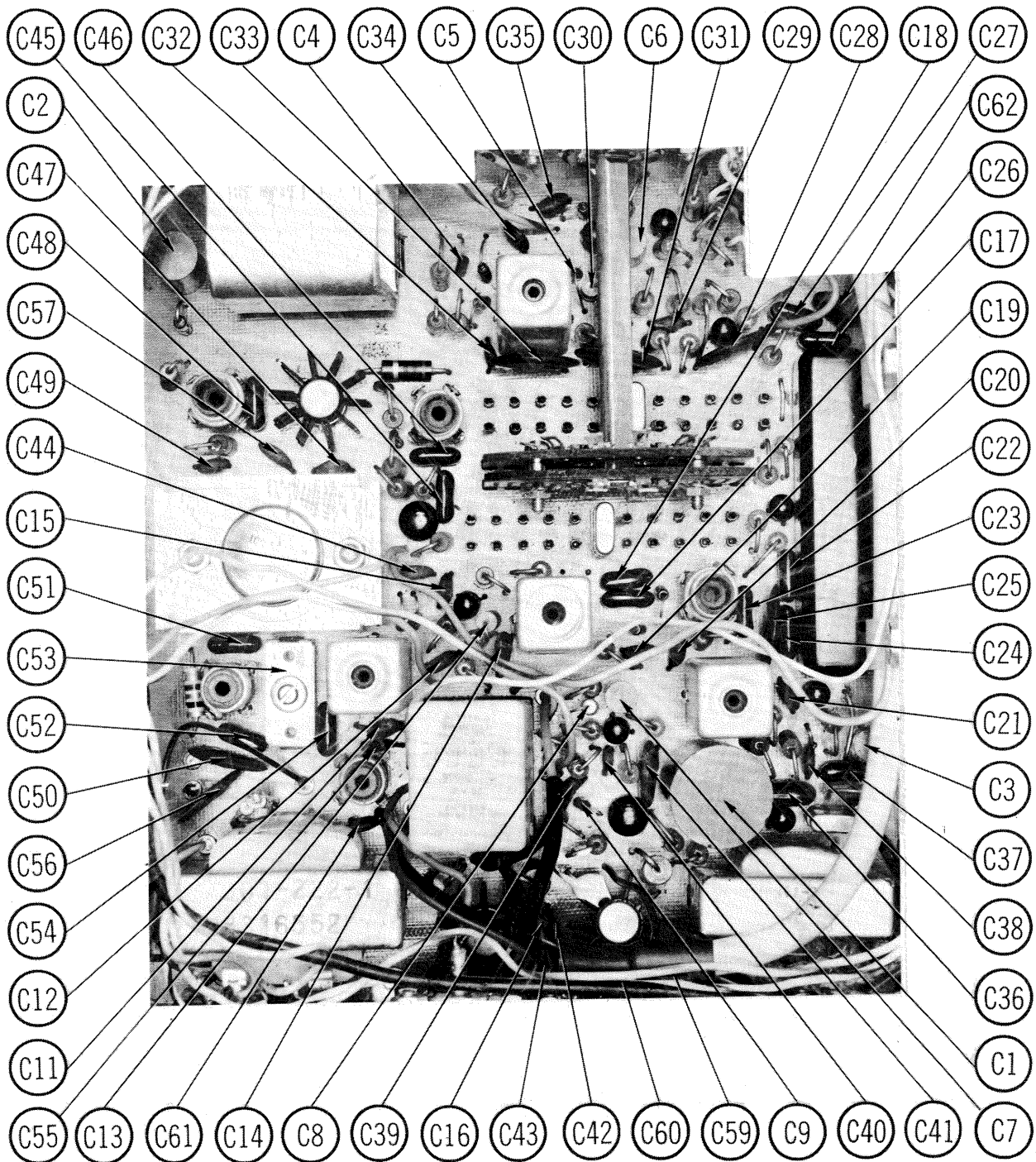
REGENCY MODEL RANGER CB270

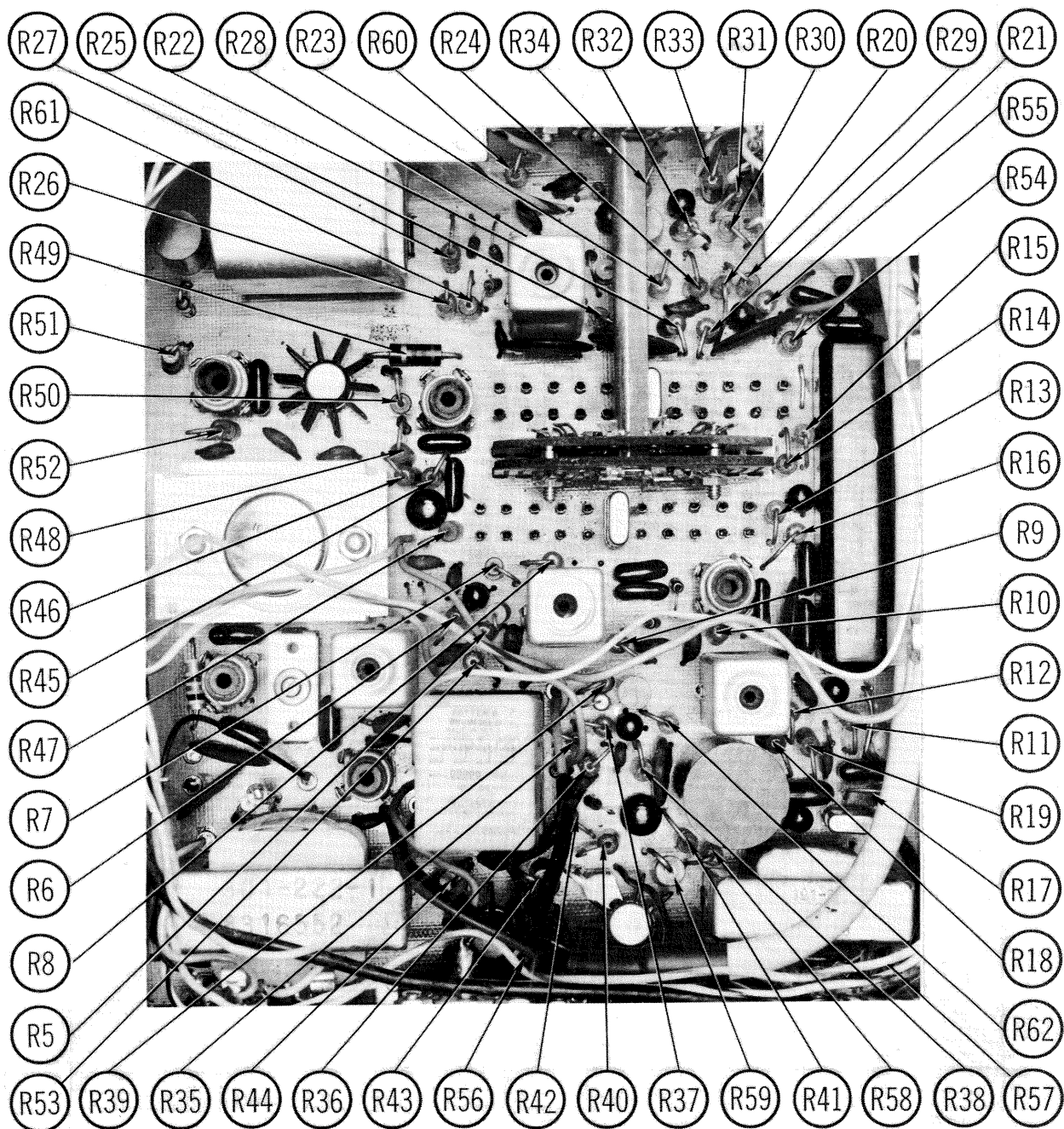


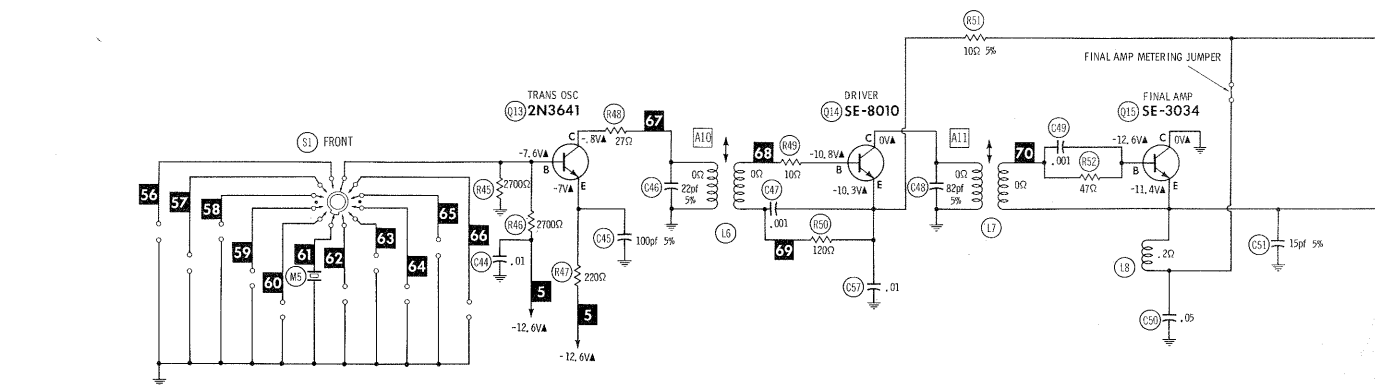
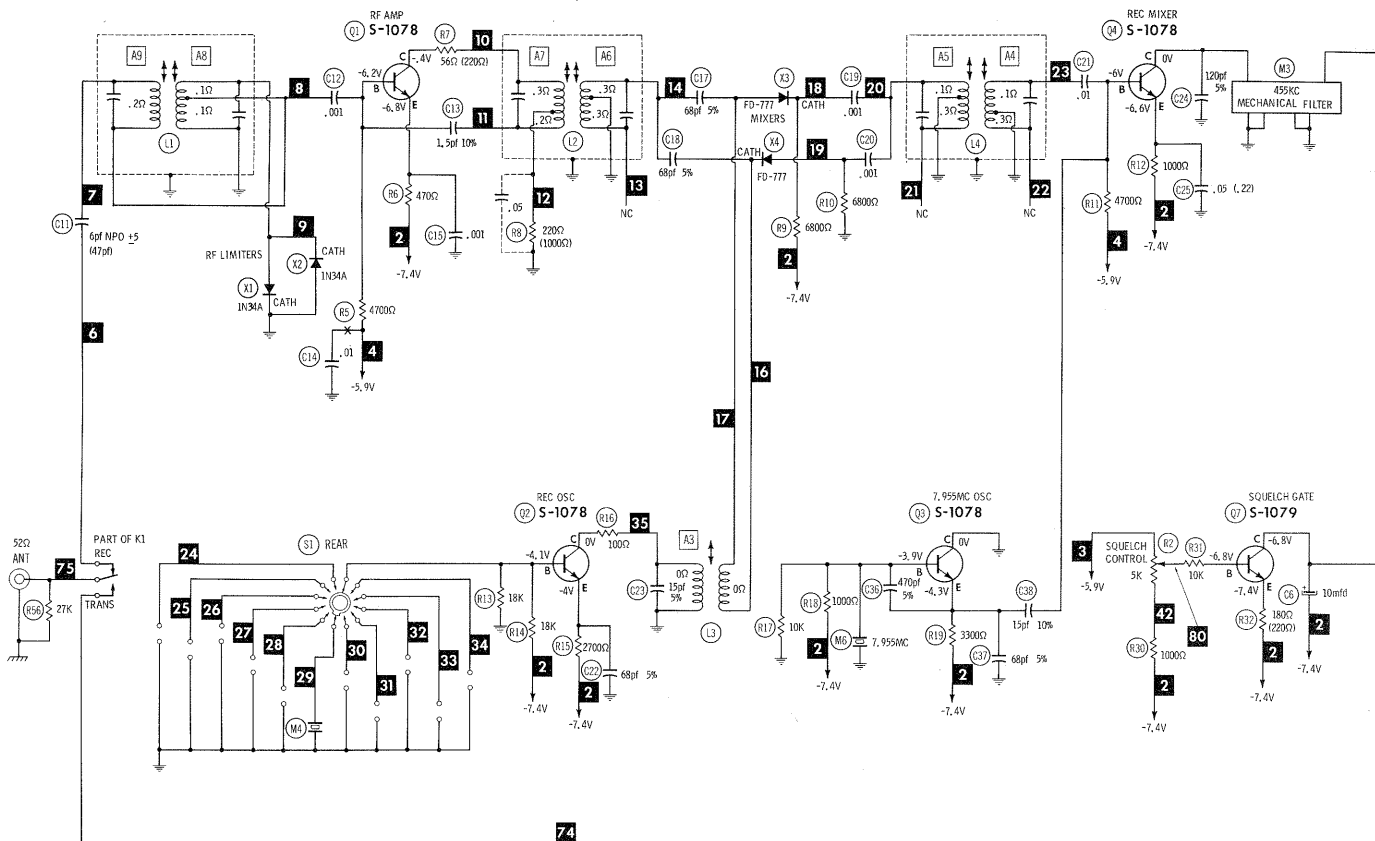












ALL MEASUREMENTS TAKEN IN RECEIVE POSITION UNLESS OTHERWISE DESIGNATED.

NC: No Connection

Resistors are 1/2 watt or less and rated 10% or 20% unless otherwise indicated.

▲ TRANSMIT POSITION

1. Voltage measurements taken with vacuum tube voltmeter.
2. All controls set for normal operation, no signal applied.
3. Measured values are from socket pin or terminal to common ground.
4. All terminals viewed from bottom unless otherwise designated.
5. Numbers assigned to terminals may not be found on the unit.
6. Supply voltage maintained at rated value for voltage readings.
7. Resistance measurements not given because of the wide variation in internal resistance of transistor.

A PHOTOFAC STANDARD NOTATION SCHEMATIC with CIRCUITRACE

© Howard W. Sams & Co., Inc. 1968

111



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.	ORIG. TYPE	USE	REPLACEMENT DATA				NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	
Q1	S-1078	RF Amp.	DS-81	GE-11	TR-21	SK-3018	NPN
Q2	S-1078	Rec. Osc.	DS-81	GE-11	TR-21	SK-3018	NPN
Q3	S-1078	7.955MC Osc.	DS-81	GE-11	TR-21	SK-3018	NPN
Q4	S-1078	Rec. Mixer	DS-81	GE-11	TR-21	SK-3018	NPN
Q5	S-1079	1st IF Amp.	DS-81	GE-11	TR-21	SK-3018	NPN
Q6	S-1079	2nd IF Amp.	DS-81	GE-11	TR-21	SK-3018	NPN
Q7	S-1079	Squelch Gate	DS-81	GE-11	TR-21	SK-3018	NPN
Q8	S-1079	Squelch Amp.	DS-81	GE-11	TR-21	SK-3018	NPN
Q9	SE-4002	AF Amp.	DS-66	GE-10	TR-21	SK-3020	NPN
Q10	SE-6001	Driver	DS-66	GE-10	TR-21	SK-3020	NPN
Q11	SE-8001	Output - Modulator					NPN {
Q12	SE-8001	Output - Modulator					NPN }
Q13	2N3641	Trans. Osc.	DS-81	GE-11	TR-21	SK-3018	NPN
Q14	SE-8010	Trans. Buffer					NPN
Q15	SE-3034	Trans. Final Amp.					NPN

① When ordering, specify matched pair.

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS & DIODES		RECTIFIERS	
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1		1N34A	1N34AS	1N34A		
X2		1N34A	1N34AS	1N34A		
X3		FD-777				
X4		FD-777				
X5		1N34A	1N34AS	1N34A		
X6		1N881				
X7		1N881				
X8		1N881				
X9		ZS18A (Zener)		Z-1018		.25T18
X10		ZS18A (Zener)		Z-1018		.25T18
X11		102-234				
X12		1N881				
X13	30ma	ZD8.2A (Zener)		1ZM8, 2T10		1TA8.2A

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		REGENCY PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	900 15V	16-65PSS900-15	PRS1230		NLW100-15	MT1-19	TC1501A	
C2	100 15V	4-65PSS100-15	BCD15100	EP15-100	NLW10-15	MT1-5	MTV100CF15	TE-1162
C3	10 15V	1-65PSS10-15	BCD15010	EP15-10	TYR13BB4R7K		MTV10CB50	TE-1155
C4	4.7 6V	CT475	CRE304A				TAS475K006POA	150D475X
C5	2.2 15V	CT225	CRE452A		TYR13BF2R2K		TAS225K015POA	9006A2
C6	10 15V	1-65PSS10-15	BCD15010	EP15-10	NLW10-15			150D225X
C7	10 15V	1-65PSS10-15	BCD15010	EP15-10	NLW10-15		MTV10CB50	9015A2
C8	22 4V	CM226	CRE311A		TYR13BB220K		MTV10CB50	TE-1155
C9	4.7 6V	CT475	CRE304A		TYR13BB4R7K		TAS226K006POC	TE-1155
							TAS475K006POA	150D226X
								9006B2
								150D475X
								9006A2

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.
C11	6 NPO ±5	(47pF) †	DI-1000	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C12	.001			CK-103	HOY101ZV103P	CCD-103	CNO515	10TCC-V15
C13	1.5 10%		TTD-01	TCZ-1R5			TA110	TG-S10
C14	.01		DI-1000	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C15	.001		ADM-20-102	CPR-1000J	CD19F102J500	DM-19-102J	SX210	MS-21
C16	.001 5%		ADM-15-680	CPR-68J	CD15E680J500	DM-15-680J	SX468	MS-468
C17	68 5%		ADM-15-680	CPR-68J	CD15E680J500	DM-15-680J	SX468	MS-468
C18	68 5%		DI-1000	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C19	.001		DI-1000	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C20	.001		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C21	.01		ADM-15-680	CPR-68J	CD15E680J500	DM-15-680J	SX468	MS-468
C22	68 5%		ADM-15-150	CD10C150J500	DM-15-150J	SX415	MS-415	
C23	15 5%		ADM-15-121	CPR-120J	CD15F121J500	DM-15-121J	SX312	MS-312
C24	120 5%	(.22) †	BPD-05	DD-503	CD15F101J500	DM-15-101J	GP150	5HK-S50
C25	.05		ADM-15-101	CPR-100J	CD15E360J500	DM-15-360J	SX436	MS-310
C26	100 5%		ADM-15-360	CPR-36J			GP150	5HK-S50
C27	36 5%	(.22) †	BPD-05	DD-503	JBS601YP102K	CCD-102	GP210	10TS-D10
C28	.05		DI-1000	DD-102				10TCC-V12
C29	.001			TCZ-1R5				5HK-S50
C30	1.2 10%	(.22) †	BPD-05	DD-503	BYS601ZU302P	CCD-503	GP150	10TS-D30
C31	.05		DI-3000	DM-302		CCD-302	GP230	5HK-S50
C32	.003	(.22) †	BPD-05	DD-503		CCD-503	GP150	5HK-S50
C33	.05		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C34	.01		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C35	.05		ADM-15-471	CPR-470J	CD15F471J500	DM-16-471J	SX347	MS-347
C36	470 5%		ADM-15-680	CPR-68J	CD15E680J500	DM-15-680J	SX468	MS-468
C37	68 5%		NPO-DI 15	DTZ-15	CZ601CG150J	CCO-150	CNO415	10TCC-Q15
C38	15 NPO 10%		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C39	.01		DI-3000	DM-302	JBS601ZU302P	CCD-302	GP230	10TS-D30
C40	.003			UK20-204			MAG12022	
C41	.22 12V		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C42	.05		TTD-05	CK-503	HOV101ZV503Z		TA150	TG-S50
C43	.05		TTD-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C44	.01		ADM-15-101	CPR-100J	CD15F101J500	DM-15-101J	SX310	MS-310
C45	100 5%		ADM-15-220	CPR-22J	CD15E220J500	DM-15-220J	SX422	MS-422
C46	22 5%		DI-1000	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C47	.001		ADM-15-820	CPR-82J	CD15E820J500	DM-15-820J	SX482	MS-482
C48	82 5%		DI-1000	DD-102	JBS601YP102K	CCD-102	GP210	10TS-D10
C49	.001		ADM-15-150	CD10C150J500	DM-15-150J	SX415	MS-415	
C50	.05 5%		ADM-15-150	CD10C150J500	DM-15-150J	SX415	MS-415	
C51	15 5%		ADM-15-101	CPR-100J	CD15F101J500	DM-15-101J	SX310	MS-310
C52	100 5%							
C53	90-400		ADM-15-221	CPR-220J	CD15F221J500	DM-15-221J	SX322	MS-322
C54	220 5%		BPD-05	DD-503	JBT601YP502K	CCD-503	GP150	5HK-S50
C55	.05		DI-5000	DD-502	BYX601ZU103M	CCD-502	GP250	10TS-D50
C56	.005		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C57	.01		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C58	.01		DI-5000	DD-502	JBT601YP502K	CCD-502	GP250	10TS-D50
C59	.005		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C60	.01		DI-10000	DD-103	BYX601ZU103M	CCD-103	GP110	10TS-S10
C61	.01		TTD-1	CK-104	HOV101ZV104Z		TA010	TG-P10
C62	.1 12V							

† Alternate Value.

REGENCY MODEL RANGER CB270

CONTROLS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	USE	RESIST-ANCE	REPLACEMENT DATA				
			REGENCY PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume & Power Sw.	10K	102-096-1	F2-10K, SSK-014 ①, KR-1	A47-10K-Z, KSS-3 ①, SWE-12 or (NP-10K-Z, UP-C-400 ①, NWE-12)	Q13-116 ①, 76-1 or (BU1, CF61, SS1 ①, GC)*	UA14A, SK1000 ①, US41 or (RU14A, SL38, SK1000 ①, US41) or (U18 ①, US26)
R2	Squelch & PA Switch	5K	100-093-12	F1-5000, SSK014 ①, KR-3	A47-5000-S, KSS-3 ①, SWE-21 or (NP-5000-S, UP-C-400 ①, NWE-21)	Q11-114 ①, 76-4 or (BU1, CF8, SS1 ①, VF)*	UA53L, SK1000 ①, US43 or (RU53L, SL38, SK1000 ①, US43) or (U14 ①, US28)

* "SNAPTROL"

① File Flat

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REGENCY PART No.			IRC PART No.	WORKMAN PART No.	REGENCY PART No.
R43	1.5Ω 2W	BHW1.5	WS1.5Ω		R44	1.5Ω 2W	BHW1.5	WS1.5Ω	

PARTS LIST AND DESCRIPTION (CONTINUED)

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

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		REGENCY PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	Antenna Matching	301-358 ①			
L2	RF Amp.	301-359			
L3	Rec. Osc.	102-055			
L4	RF Mixer	301-360			
L5	IF	301-361			
L6	Trans. Osc.	102-056			
L7	Driver	102-057			
L8	RF Choke (1uh)	9310-12		74F106AP	
L9	Trans. Final Amp.	102-058			
L10	PI Network	102-059			

① Some versions may use Part #301-427.

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (O CURRENT 1000~)	REGENCY PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L11	800ma	.2Ω	1.8mh	301-224	C-4125 ①	TC-1 ①	TR153 ①	TY-16XT ①	① Drill New Mtg. Holes.

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	REGENCY PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	3	1		301-221					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	REGENCY PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	30Ω	4Ω	301-222					
		SEC. 2						
		1.5Ω DC Resistance						

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA			NOTES
		REGENCY PART No.	JENSEN PART No.	QUAM PART No.	
SP1	2 1/2" PM 4Ω	PIWAK25		25A07	

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, 1.5A, 250V		301-441-2	AGC 1 1/2	HDJ	31201.5	155020		

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
K1	Relay	KN4514	12VDC
M1	Transmit Indicator	GE-2182R	CHICAGO MINIATURE Replacement #CM-2182.
M2	Modulation Indicator	GE-2182	CHICAGO MINIATURE Replacement #CM-2182.
M3	Filter - Mech.	F-455-FC-60	455KC
M4	Crystal - Rec.	301-374-11(Ch. 11)	301-374-1 (Ch. 1) thru 301-374-23 (Ch. 23)
M5	Crystal - Trans.	301-373-11(Ch. 11)	301-373-1 (Ch. 1) thru 301-373-23 (Ch. 23)
M6	Crystal - Osc.	301-375	7.955MC
M7	Mic Ass'y.	301-371	Ceramic
S1	Switch, Selector	301-369	Wafer

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

ITEM	PART No.	ITEM	PART No.
Cabinet (Wrap)	500-696	Dial, Assembly	102-232
Knob, Volume, Squelch	102-069	Dial	102-229
Knob, Channel Selector	102-070	Dial, Hub	102-173
Dial Escutcheon	102-071	Bracket, Mobile Mounting	301-385



PHOTOFACT[®] with

CIRCUITRACE[®]

TRADE NAME : Lafayette Model Dyna-Com 5 (99-3087L)
SUPPLIER : For Current Address, See Annual Index
TYPE SET : 14-Transistor Transceiver
POWER SUPPLY : 15 Volts DC
RATING : .060ma @ 15VDC (Receive)
 .680ma @ 15VDC (Transmit)
TUNING RANGE : Any 3 CB Channels 1 thru 23



ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:

A1, A2, A3, A4.....GENERAL CEMENT #8284..... WALSCO #2584
 A5 thru A10.....GENERAL CEMENT #9440..... WALSCO #2501

RECEIVER ALIGNMENT

Connect an AC VTVM across Speaker Voice Coil. Turn Volume Control fully clockwise, turn Squelch Control to MINIMUM Position.

SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
High side thru .01mfd to Base of Q2 (Rec. Mixer), low side to chassis. Tune to 455KC (Mod.).	Any	A1, A2, A3, A4	Adjust for maximum.
High side thru .01mfd to Antenna Receptacle. Low side to chassis. Set Frequency to 27.065MC (Channel 9)(Mod.)	9	A5, A6, A7	Adjust for maximum.

TRANSMITTER ALIGNMENT

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.

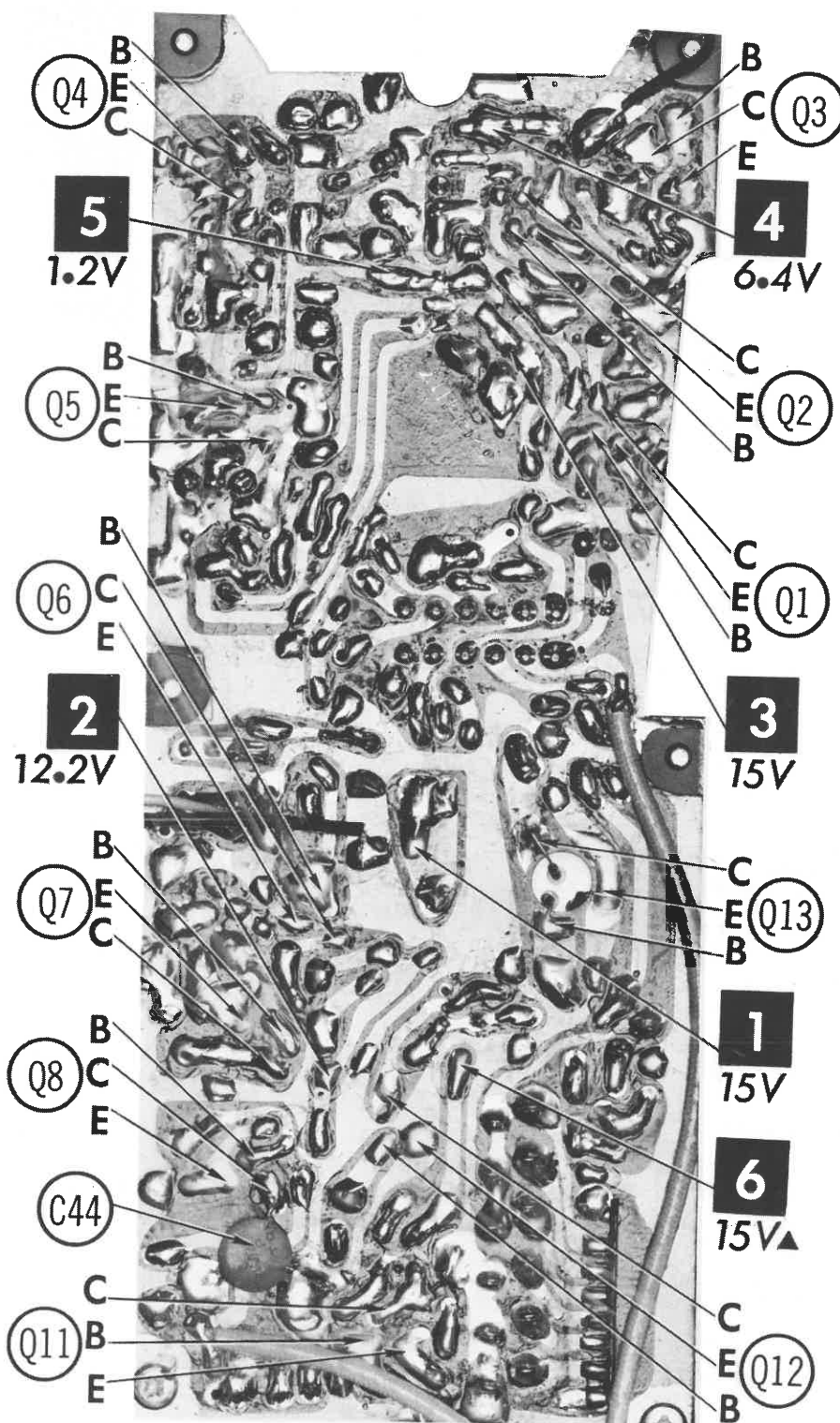
Connect either 50Ω dummy load or the normally used antenna system.

INDICATOR	ADJUST	REMARKS
RF Wattmeter, Field Strength Meter and 0-1 Ameter.	A8, A9, A10	Key Transmitter and adjust for maximum by Compressing or expanding L15 coil turns. Insert 0-1A DC Meter in Series with L14 and adjust L15 for .315ma @ 15VDC

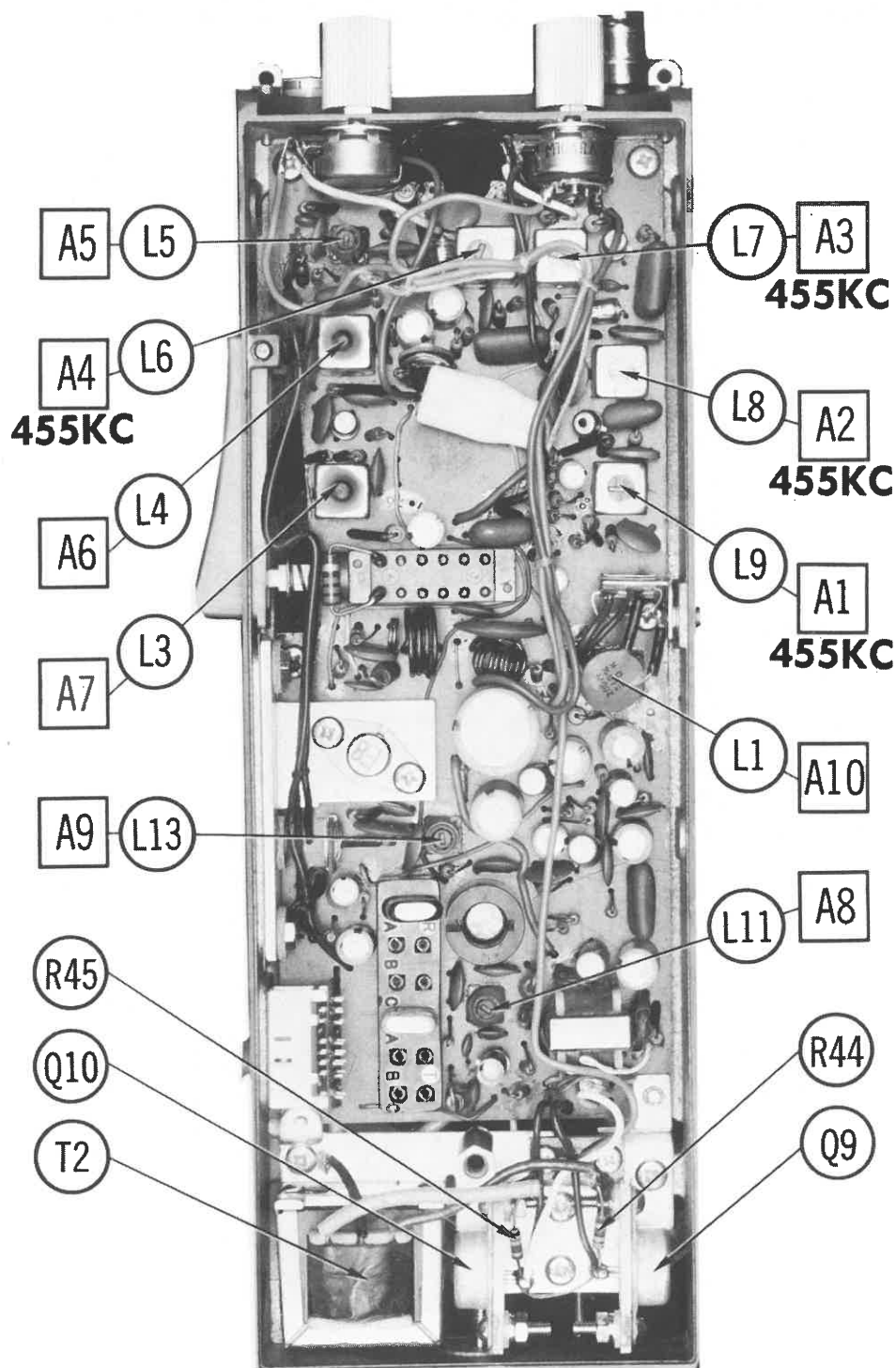
HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

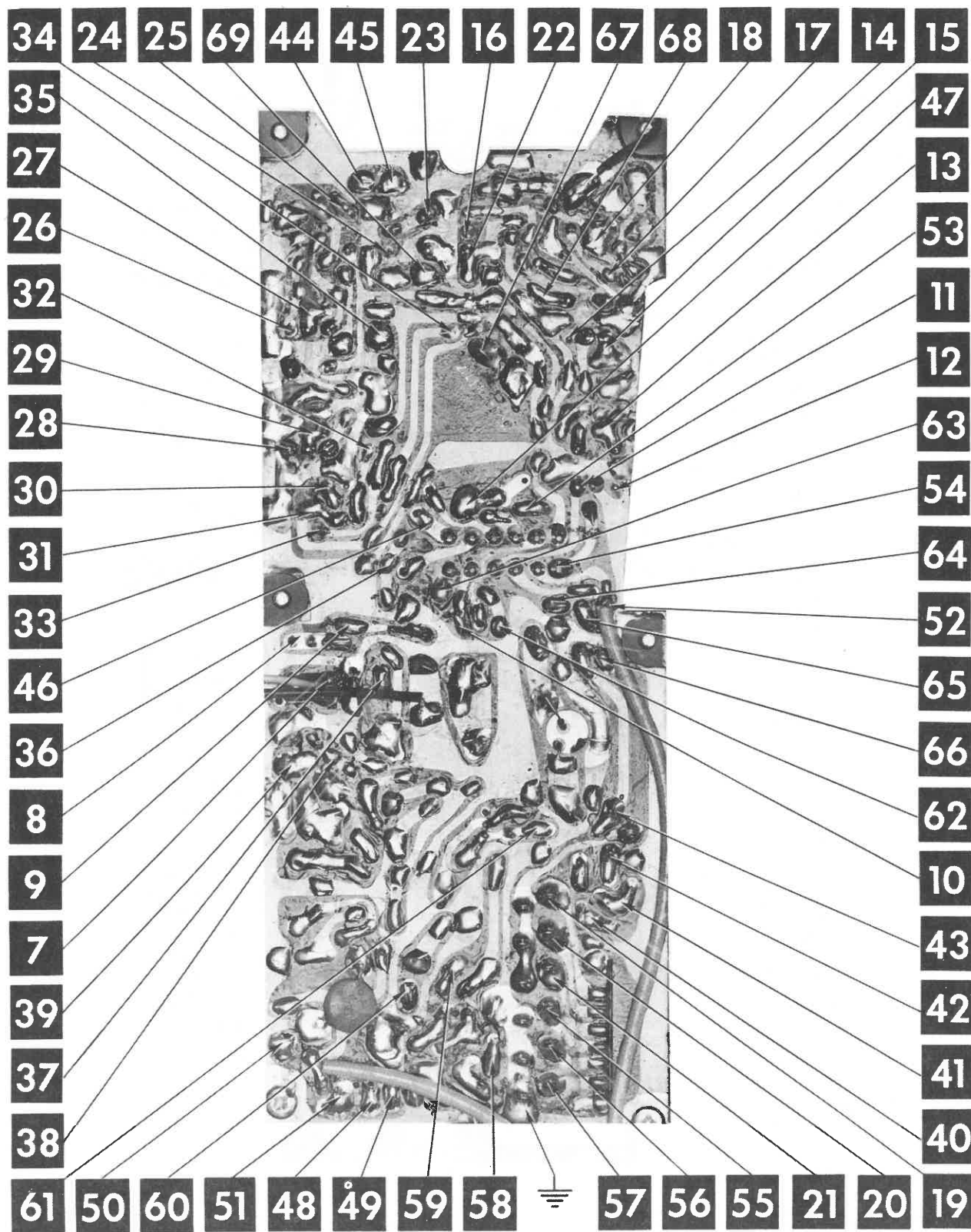
© 1968 Howard W. Sams & Co., Inc. Printed in U. S. of America TY093

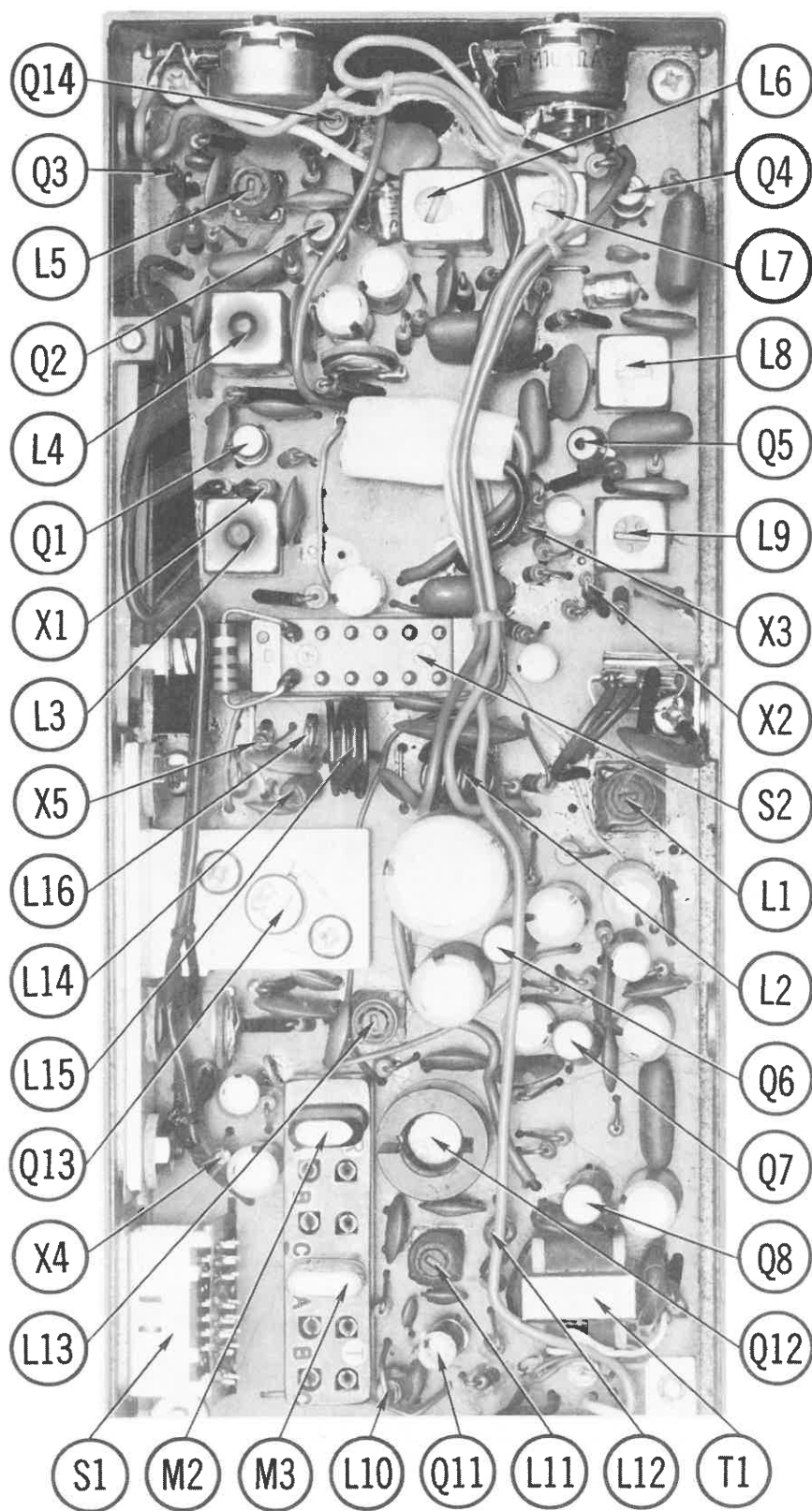
LAFAYETTE MODEL DYNA-COM 5 (99-3087L)

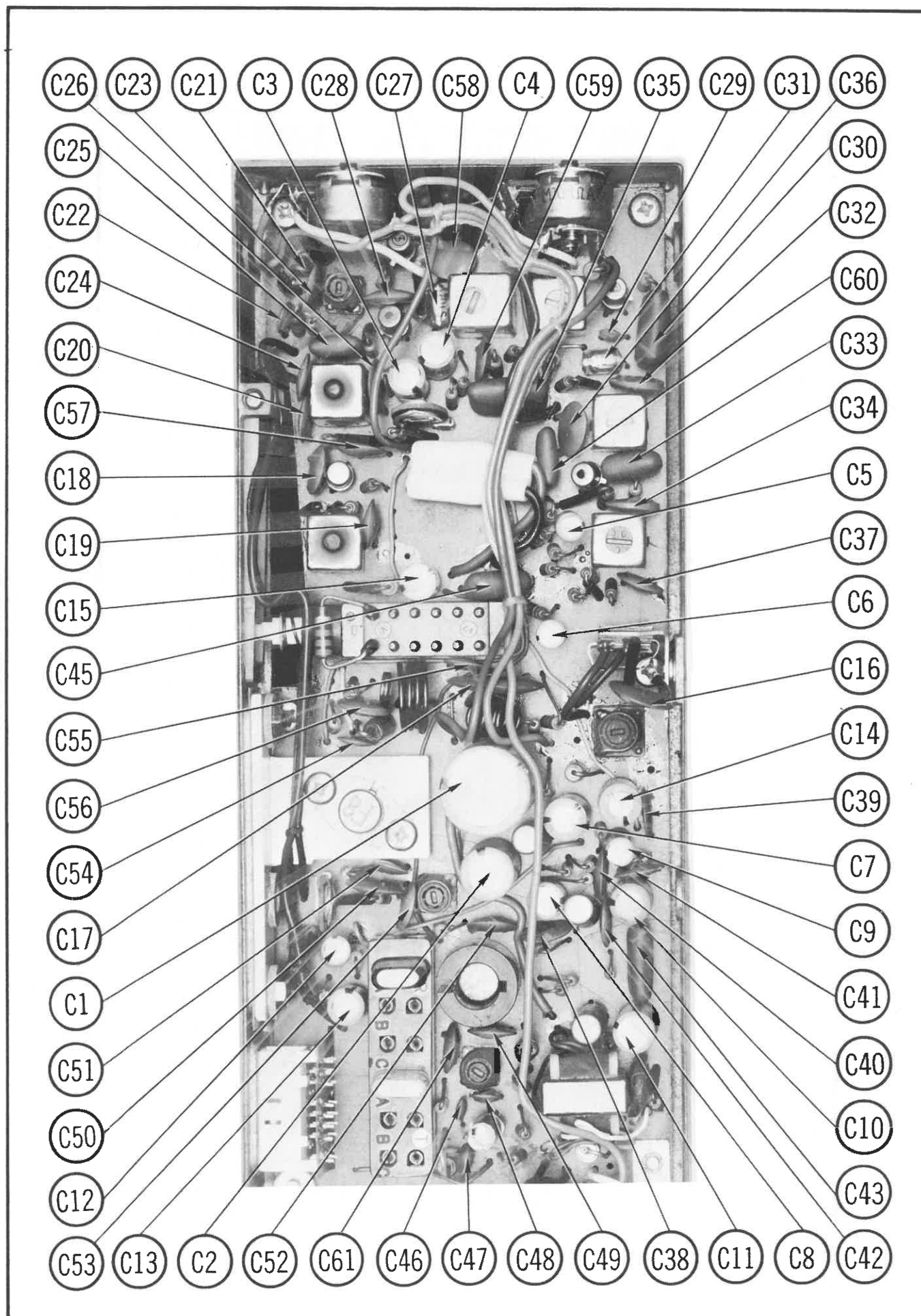


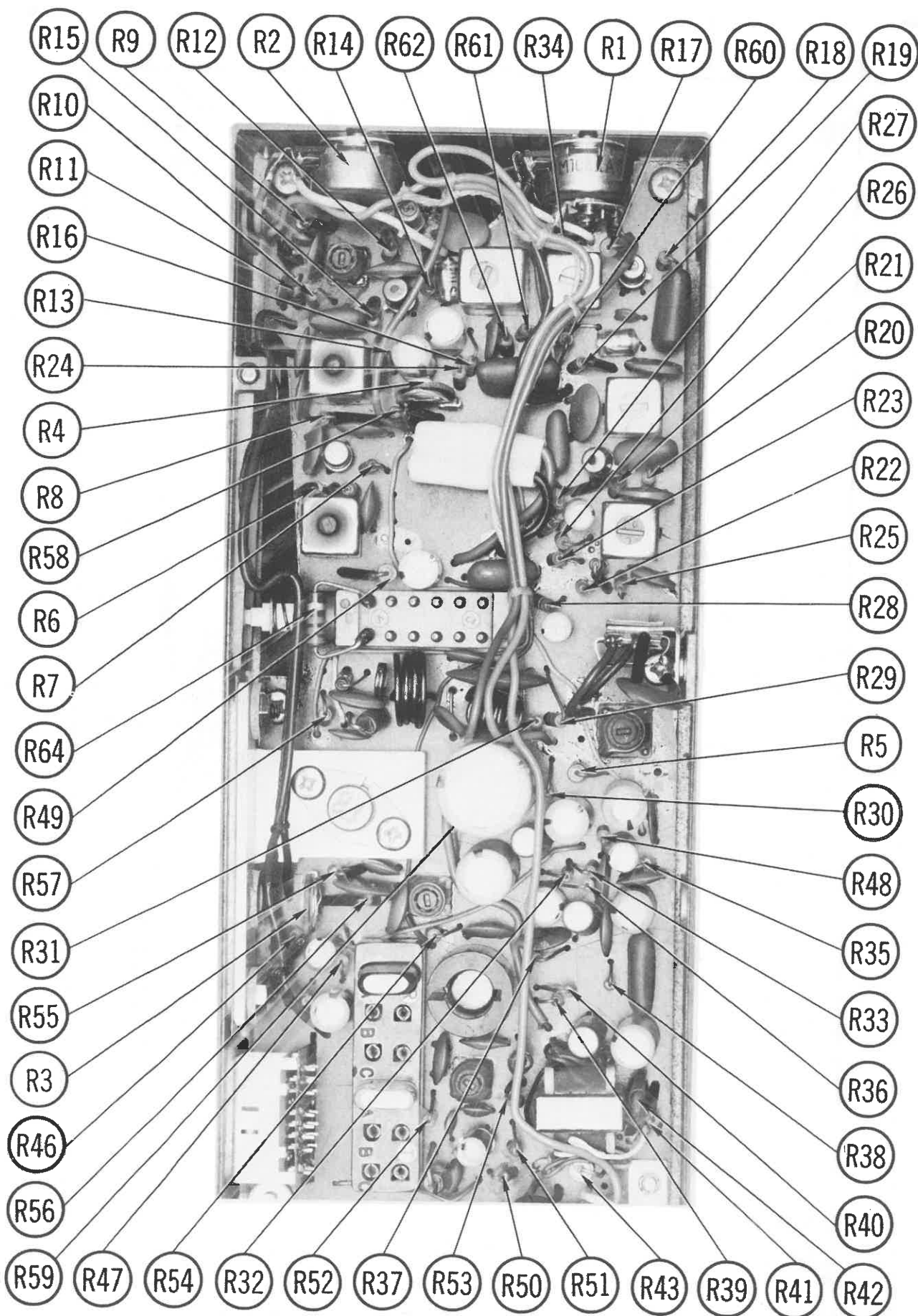
▲TRANSMIT

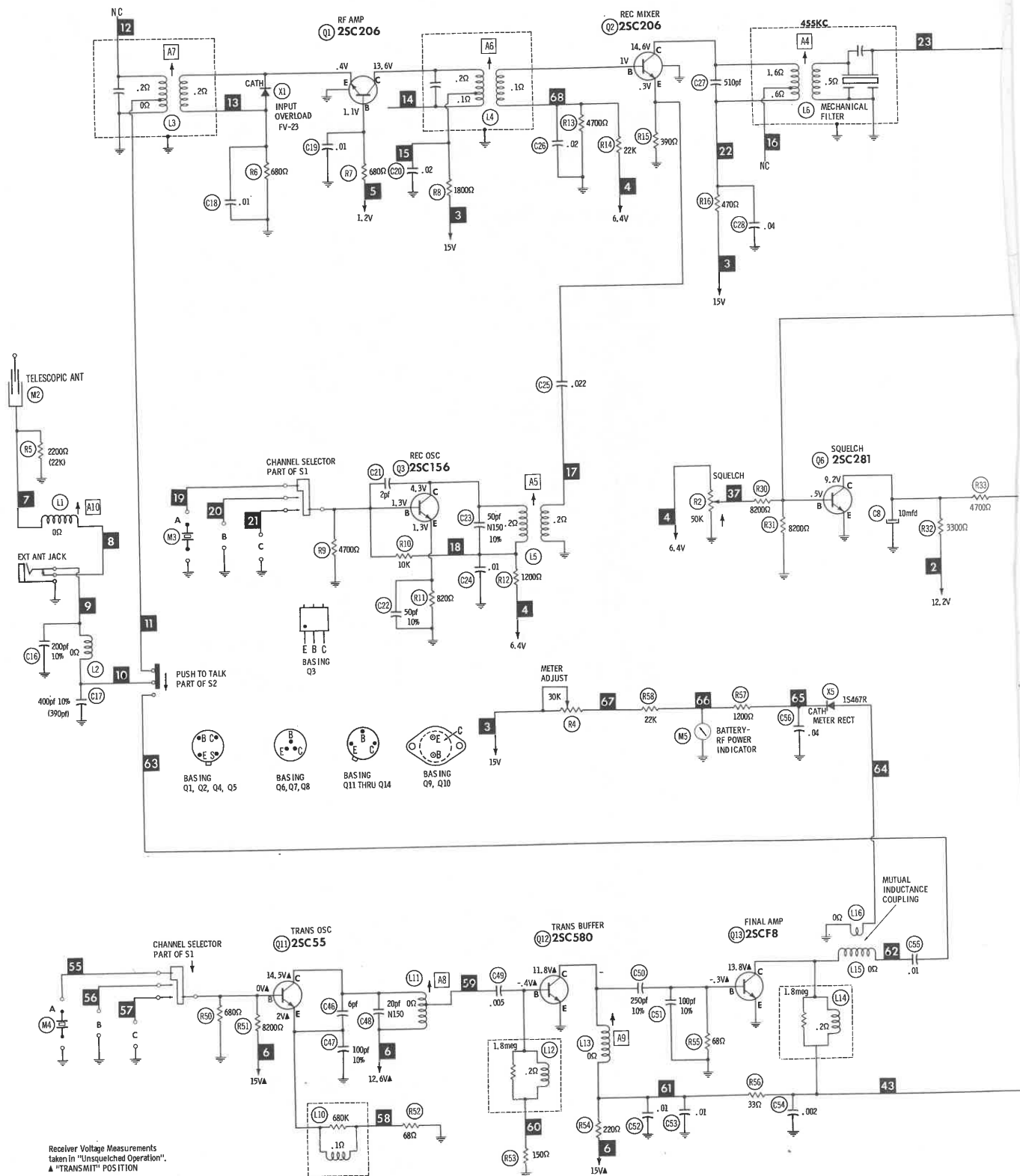












Receiver Voltage Measurements
taken in "Unsquenced Operation".
▲ "TRANSMIT" POSITION

Resistors are 1/2 watt or less and rated
10% or 20% unless otherwise indicated.

1. Voltage measurements taken with vacuum tube voltmeter.
2. All controls set for normal operation, no signal applied.
3. Measured values are from socket pin or terminal to common ground.
4. All terminals viewed from bottom unless otherwise designated.
5. Numbers assigned to terminals may not be found on the unit.
6. Supply voltage maintained at rated value for voltage readings.
7. Resistance measurements not given because of the wide variation in internal resistance of transistor.

A PHOTOFAC STANDARD NOTATION SCHEMATIC
with CIRCUITTRACE™

© Howard W. Sams & Co., Inc. 1968

PARTS LIST AND DESCRIPTION

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

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	
Q1	2SC206	RF Amp.	DS-74	GE-20	TR-22	SK-3018	NPN
Q2	2SC206	Rec. Mixer	DS-74	GE-20	TR-22	SK-3018	NPN
Q3	2SC156	Rec. Osc.	DS-74	GE-20	TR-22	SK-3018	NPN
Q4	2SC206	1st IF Amp.	DS-74	GE-20	TR-22	SK-3018	NPN
Q5	2SC206	2nd IF Amp.	DS-74	GE-20	TR-22	SK-3018	NPN
Q6	2SC281	Squelch					NPN
Q7	2SD37	AF Amp.	DS-26	GE-8	TR-10	SK-3010	NPN
Q8	2SB60A	Driver	DS-26	GE-2	TR-05	SK-3004	PNP
Q9	2SB466	Output - Modulator	DS-520	GE-3	TR-01	SK-3009	PNP
Q10	2SB466	Output - Modulator	DS-520	GE-3	TR-01	SK-3009	PNP
Q11	2SC55	Trans. Osc.	DS-74	GE-20	TR-22	SK-3018	NPN
Q12	2SC580	Buffer					NPN
Q13	2SCF8	Final Amp.					PNP
Q14	FV-22	Voltage Regulator					

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS & DIODES		RECTIFIERS	
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1		FV-23	1N34AS	1N34A		
X2		1S446	1N34AS	1N34A		
X3		1S446	1N34AS	1N34A		
X4		1S446	1N34AS	1N34A		
X5	15ma	1S467R				

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		LAFAYETTE PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	200 25V		BCD15100	EP15-100	NLW100-15		MTV100CF15	TE-1162
C2	100 15V		BCD25005	EP30-5	NLW6-25	MT1-5	MTA5D50	TE-1202
C3	5 25V		CRE313A	EP6-25	NLW30-6	MT1-13	TT6X30	TE-1132.1
C4	30 6V		BCD6010	EP6-10	NLW10-6	MT1-5	TT6X10	TE-1087
C5	10 6V		BCD15003		NLW3-15	MT1-3	MTV3CB50	TE-1150
C6	3 15V		CRE463A		NLW30-15	MT1-14	MTV30CB25	TE-1158
C7	30 15V		BCD15010	EP15-10	NLW10-15	MT1-5	TT15X10	TE-1155
C8	10 15V		BCD25001		NLW1-50	MT1-1	TT25X1	TE-1200
C9	1 25V		CRE463A		NLW30-15		TT10X30	TE-1132.1
C10	30 10V		CRE463A		NLW30-15	MT1-14	MTV30CB25	TE-1158
C11	30 15V		BCD25001		NLW1-50	MT1-1	TT25X1	TE-1200
C12	1 25V		BCD15010	EP15-10	NLW10-15	MT1-5	TT15X10	TE-1155
C13	10 15V		CRE463A		NLW30-15	MT1-14	MTV30CB25	TE-1158
C14	30 15V		BCD25005	EP30-5	NLW6-25	MT1-5	MTA5D50	TE-1202
C15	5 25V							

CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCOR PART No.	MALLORY PART No.	SPRAGUE PART No.
C16	200 10%		GPDX5F201K	DM-201		CCD-201	GP320	10TS-T20
C17	400 10%		GPDX5F391K	DD-391		CCD-391	GP339	10TS-T39
C18	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C19	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C20	.02		TTP-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C21	2		NPO-DI 2.2	DTZ-2R2	CZ601CJ2R2D	CCTO-2R2	CNO522	10TCC-V22
C22	50 10%		GPDX5F500K	DD-500	JBZ601YP500K	CCD-500	GP450	10TS-Q50
C23	50 N150 10%							10TCP-Q50
C24	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C25	.022							
C26	.02		TTP-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C27	510			CPR-510J	CD15F511J500	CM-15-E-511J	SX351	MS-351
C28	.04							
C29	5		NPO-DI 5.0	DTZ-4R7	CZ601CH5R0D	CCTO-050	CNO547	10TCC-V50
C30	.082							
C31	510			CPR-510J	CD15F511J500	CM-15-E-511J	SX351	MS-351

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.
C32	.01							
C33	.047							
C34	.04							
C35	.082							
C36	.02		TTP-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C37	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C38	.0047 50V		DI-4700	DD-472	JBT601YP472K	CCD-472	GP247	10TS-D47
C39	.0047 50V		DI-4700	DD-472	JBT601YP472K	CCD-472	GP247	10TS-D47
C40	.0047 50V		DI-4700	DD-472	JBT601YP472K	CCD-472	GP247	10TS-D47
C41	.0047 50V		DI-4700	DD-472	JBT601YP472K	CCD-472	GP247	10TS-D47
C42	.0047 50V	DI-4700	DD-472	JBT601YP472K	CCD-472	GP247	10TS-D47	
C43	.056							
C44	.02	TTP-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20	
C45	.047							
C46	6							
C47	100 10%	GPD5F101K	DD-101	JBZ601YP101K	CCD-101	GP310	10TS-T10	
C48	20 N150							10TCP-Q20
C49	.005	TTP-005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50	
C50	250 10%	GPD5F251K	DD-251		CCD-251	GP325	10TS-T25	
C51	100 10%	GPD5F101K	DD-101	JBZ601YP101K	CCD-101	GP310	10TS-T10	
C52	.01	TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10	
C53	.01		CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10	
C54	.002	GPD5F202K	DM-202	JBX601YP202K	CCD-202	GP220	5GAB-D22	
C55	.01	TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10	
C56	.04							
C57	.01	TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10	
C58	.01	TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10	
C59	.01	TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10	
C60	.033							
C61	.01	TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10	

CONTROLS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			LAFAYETTE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume & Switch	10K					
R2	Squelch	50K					
R3	Range Boost Adj.	5000Ω					
R4	Meter Adjust	30K					

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	LAFAYETTE PART No.			IRC PART No.	WORKMAN PART No.	LAFAYETTE PART No.
R42	28Ω (Cold)								

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		LAFAYETTE PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	Pi Network				
L2	Pi Network				
L3	Ant. Matching	(256/072)			
L4	RF Amp.	(256/073)			
L5	Rec. Osc.				
L6	Input IF	(257/014)			
L7	Interstage IF	(256/092)			
L8	Interstage IF	(256/214)			
L9	Output IF	(256/022)			
L10	RF Choke (10, 5uh)	①		8515	
L11	Trans. Osc.				
L12	RF Choke (6.5uh)	②		4610 ③	
L13	Buffer				
L14	RF Choke (6.5uh)	②		4610 ③	
L15	Final Amp.				
L16	Metering Takeoff				

① Wound on 680K Resistor.
② Wound on 1.8meg Resistor.

③ Shunt with 1.8meg resistor

LAFAYETTE MODEL DYNA-COM 5 (99-3087L)

PARTS LIST AND DESCRIPTION (CONTINUED)

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

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO			REPLACEMENT DATA					NOTES
				LAFAYETTE PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC. 1	SEC. 2						
T1	2.2	1							

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			LAFAYETTE PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC.						
T2	625Ω	100Ω						

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA			NOTES
		LAFAYETTE PART No.	JENSEN PART No.	QUAM PART No.	
SP1	2 3/4" PM 100Ω	(7P80AB)		27A06Z100	

BATTERIES

ITEM No.	VOLTAGE	LAFAYETTE PART No.	REPLACEMENT DATA			NOTES
			BURGESS	EVEREADY	MALLORY	
M1	15V		930 or H146X or 2MN6	1015 or E91 or E9	M15R or MN1500 or ZM9	12 Required

MISCELLANEOUS

ITEM No.	PART NAME	LAFAYETTE PART No.	NOTES
M2	Receive Crystal		26.610MC
M3	Transmit Crystal		27.065MC
M4	Meter, Ind.		Battery & RF Power
S1	Switch, Trans.-Rec.		
S2	Switch, Selector		3 Position

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. 8499 Single Conductor Shielded (Neoprene)
 8498 Single Conductor Shielded (Vinyl)
 Ignition Noise Suppression Use BELDEN No. 7300-Series Spark-Plug Sets
 Bonding Strap Use BELDEN No. 8661 (3/8 In.)



PHOTOFACT[®] with CIRCUITRACE[®]

TRADE NAME : Lafayette Model HE-20T (99-3088WX)
 SUPPLIER : For Current Address, See Annual Index
 TYPE SET : 15-Transistor Transceiver
 POWER SUPPLY : 110-120 Volts AC, 60 Cycles (or)
 12 Volt Storage Battery
 RATING : 4 Watts, .065 Amp @ 117 VAC (Receive)
 14 Watts, .150 Amp @ 117 VAC (Transmit)
 TUNING RANGE : Any 12 CB Channels 1 thru 23
 Receiver may be continuously tuned.



ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:

A1 thru A4.
 A5, A7, A8, A9, A10, A11, A12.
 A13 & A6.

GENERAL CEMENT: 9293
 GENERAL CEMENT: 8606, 8869
 GENERAL CEMENT: 8290

WALSCO: 2534X
 WALSCO: 2511, 2543
 WALSCO: 2537

Connect an AC VTVM across Speaker Voice Coil. Turn Volume Control fully clockwise, turn Squelch Control fully Counterclockwise.

SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
High side thru .01mfd to Base of Q2 (Rec. Mix.), low side to chassis. Tune to 455KC (Mod.)	Any	A1, A2, A3, A4	Adjust for maximum
High side thru .01mfd to Antenna Receptacle. Low side to chassis. Set Frequency to 27.085MC (Channel 11).	11	A5, A7, A8	Adjust for maximum
	Low	A5	With Spot Switch (S5) on, Adjust for maximum on "S" Meter.
	High	A6	With Spot Switch (S5) on, Adjust for maximum on "S" Meter. Repeat above steps for optimum performance.

TRANSMITTER ALIGNMENT

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.

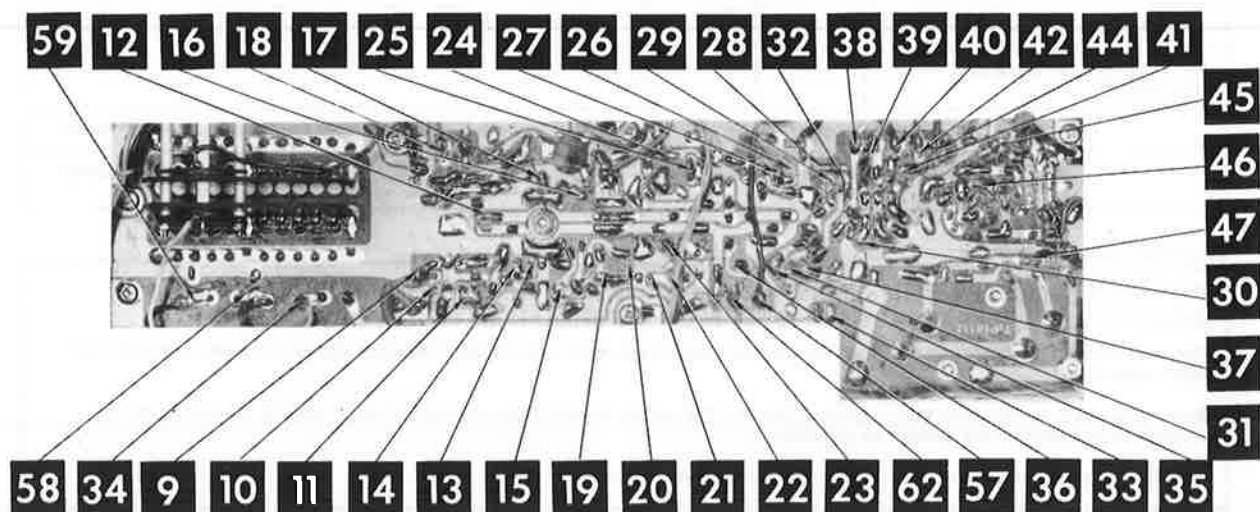
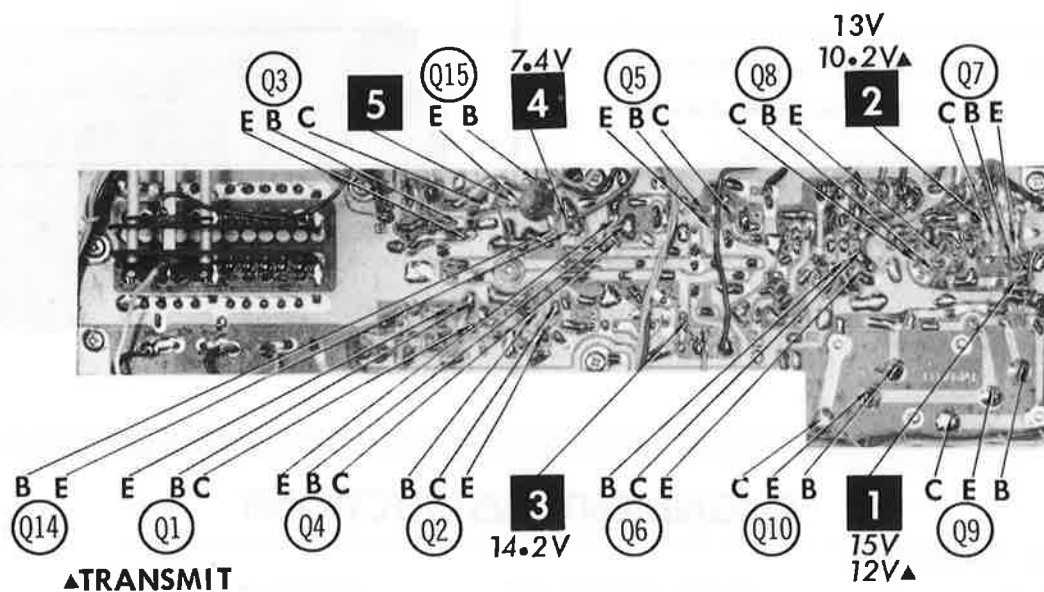
Connect either 50Ω dummy load or the normally used antenna system.

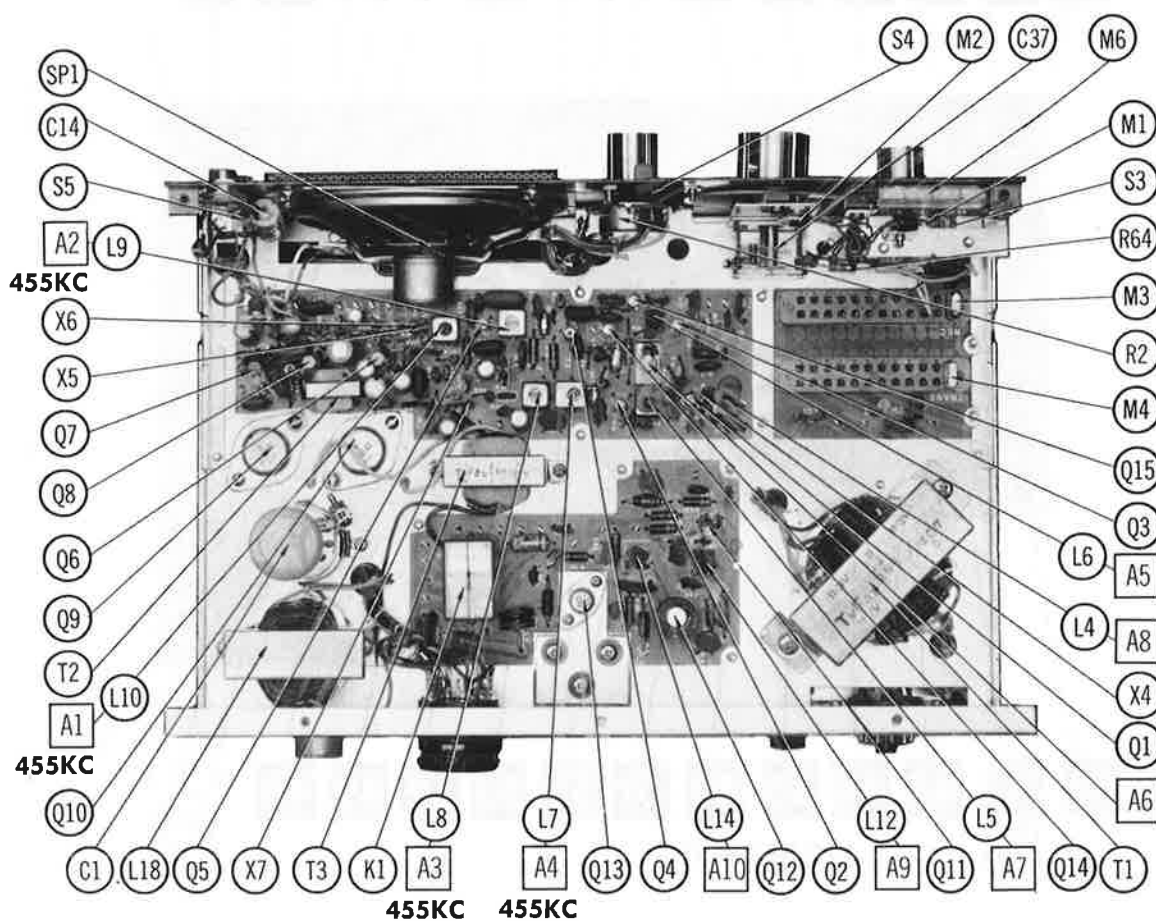
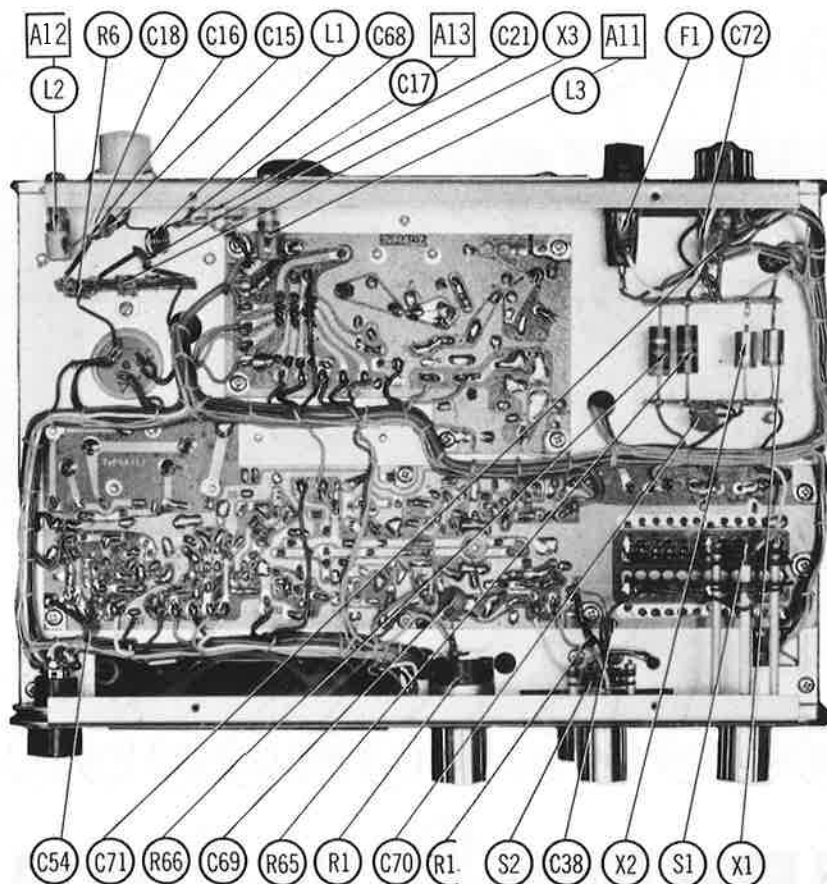
INDICATOR	ADJUST	REMARKS
RF Watt Meter or Field Strength Meter.	A9, A10, A11, A12	Adjust for maximum. Key transmitter several times to insure oscillator starting. DC Current should not exceed 480ma.
Nearby TV Receiver (Ch. 2)	A13	Key Transmitter and Adjust for minimum interference.

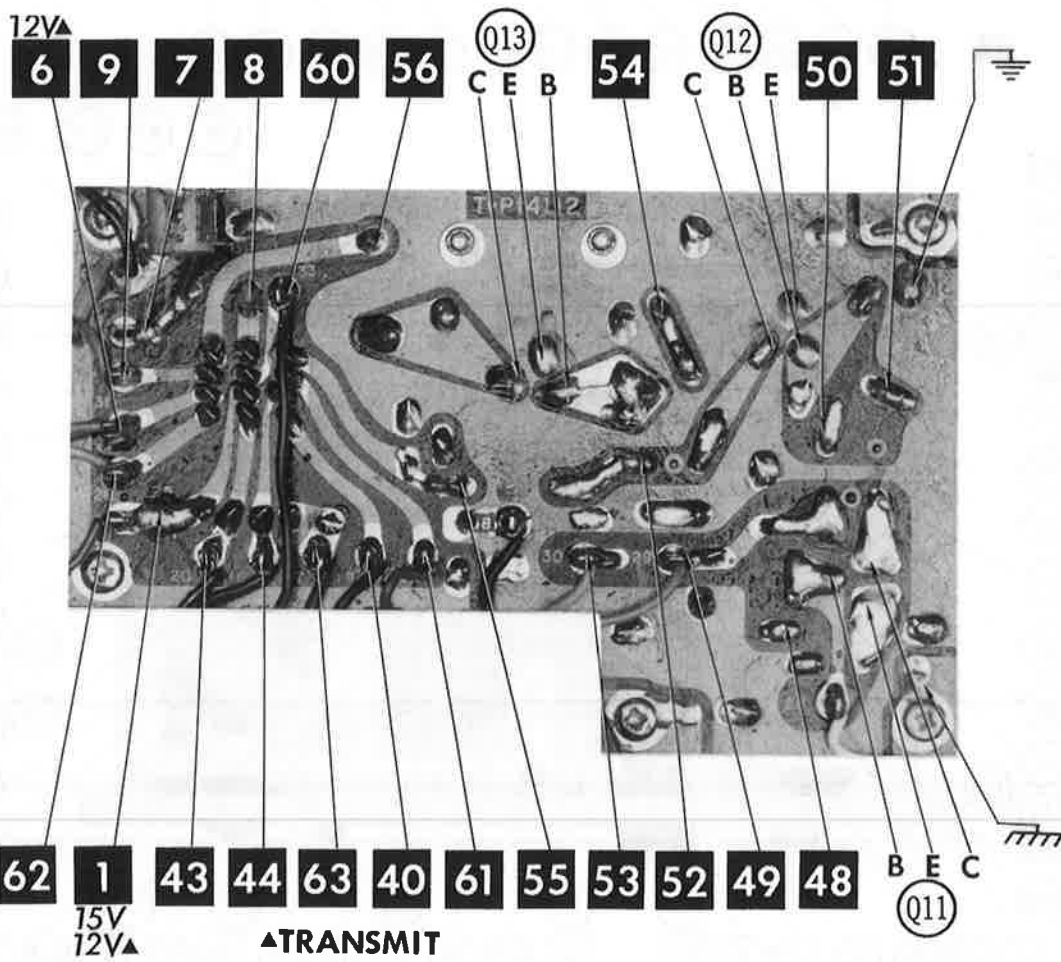
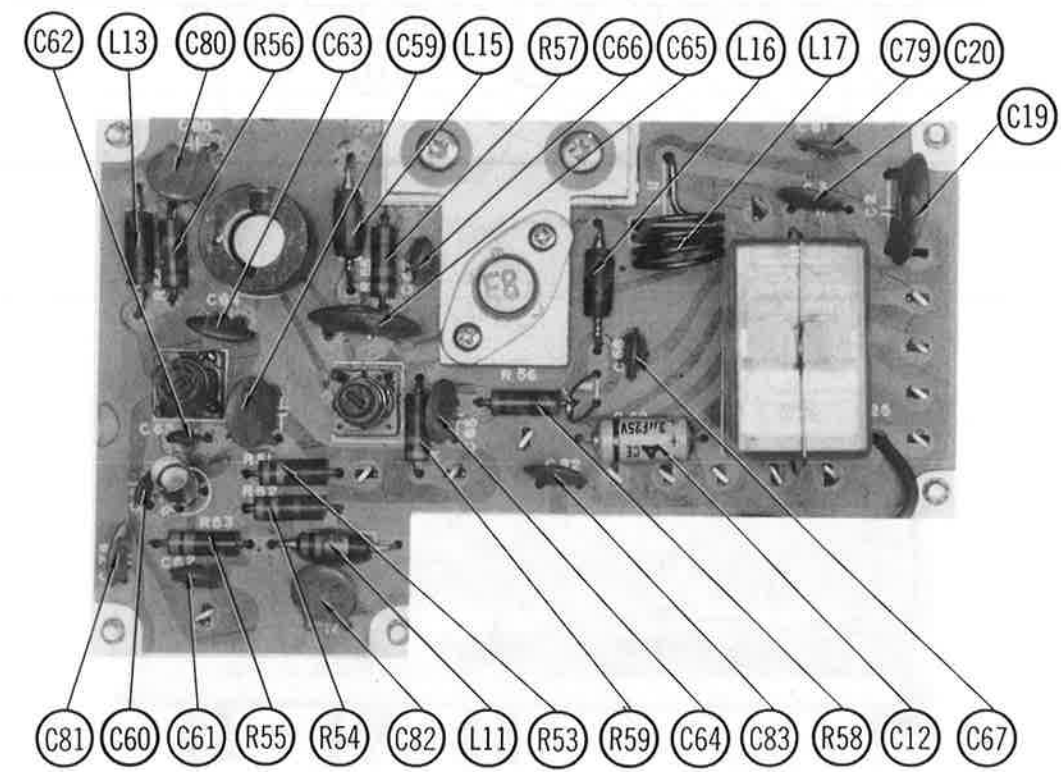
HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

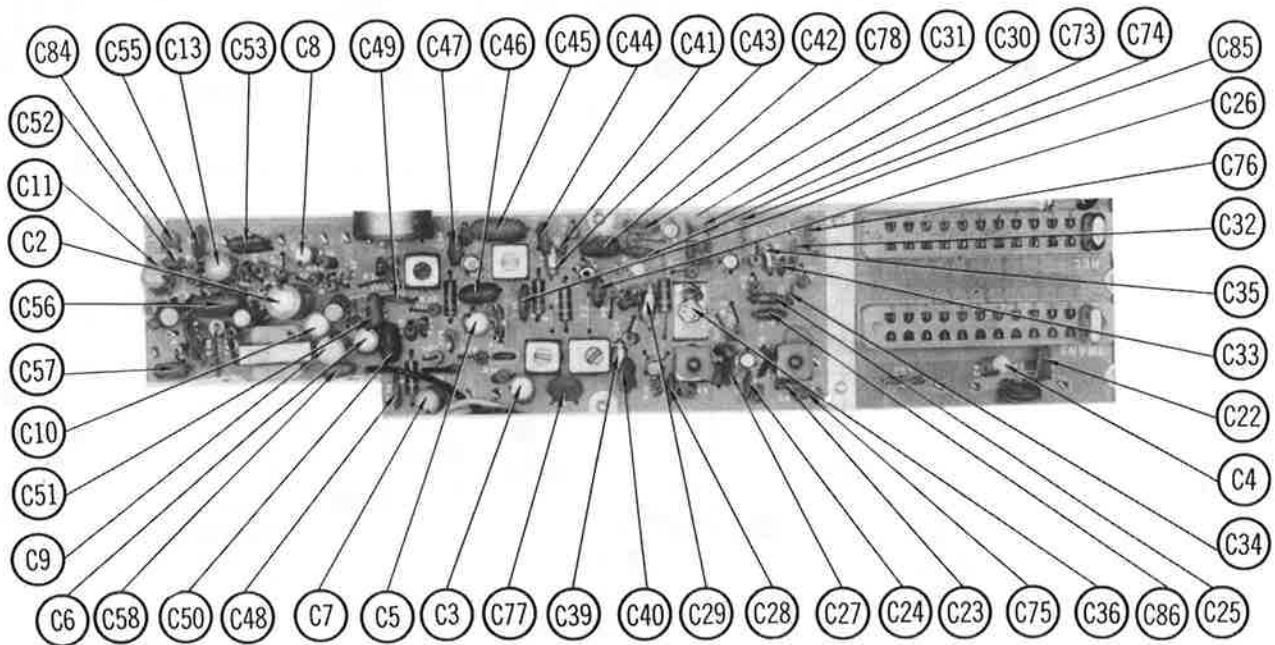
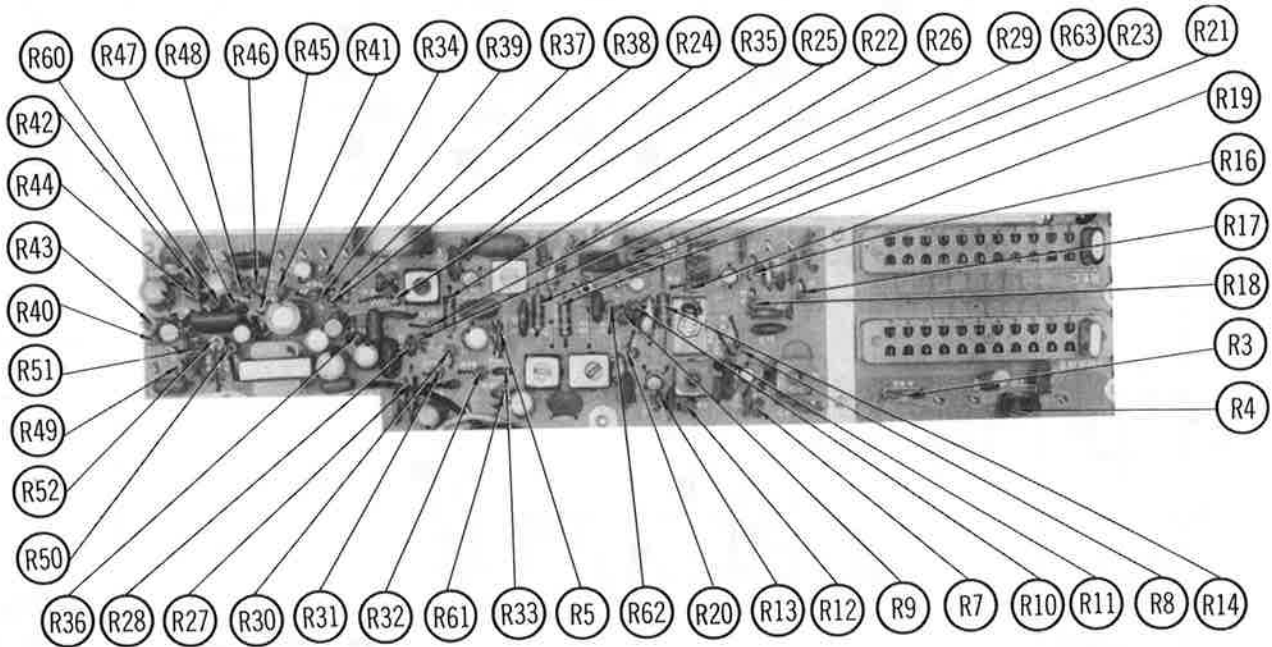
© 1968 Howard W. Sams & Co., Inc. Printed in U. S. of America TY170

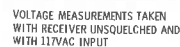
LAFAYETTE MODEL HE-20T (99-3088WX)











© Howard W. Sams & Co., Inc. 1968

7



PARTS LIST AND DESCRIPTION

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

TRANSISTORS

ITEM No.	TYPE No.	FUNCTION	REPLACEMENT DATA					
			MFGR. PART No.	DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	SYLVANIA PART No.
Q1	2SC206	RF Amp		DS-74	GE-20	TR-21	SK-3018	ECG 108
Q2	2SC206	Receive Mixer		DS-74	GE-20	TR-21	SK-3018	ECG 108
Q3	2SC206	Receive Mixer		DS-74	GE-20	TR-21	SK-3018	ECG 108
Q4	2SC206	1st IF Amp		DS-74	GE-20	TR-21	SK-3018	ECG 108
Q5	2SC206	2nd IF Amp		DS-74	GE-20	TR-21	SK-3018	ECG 123
Q6	2SC281	Squelch		DS-66	GE-10	TR-22	SK-3019	ECG 103
Q7	2SD37	AF Amp			GE-8	TR-09	SK-3010	ECG 123
Q8	2SB60A	Driver		DS-26	GE-2	TR-05	SK-3004	ECG 102
Q9	2SB41	Output-Modulator		DS-520	GE-3	TR-01	SK-3009	ECG 104
Q10	2SB41	Output-Modulator		DS-520	GE-3	TR-01	SK-3009	ECG 104
Q11	2SC55	Transmit Oscillator		DS-74	GE-20	TR-21	SK-3018	ECG 108
Q12	2SC580	Buffer						
Q13	2SCF8	Final Amp						
Q14	FV-21	Regulator						
Q15	FV-22	Regulator						

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MFGR. PART OR TYPE No.	REPLACEMENT RECTIFIERS & DIODES					NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	SYLVANIA PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X1	DS-1P	GE-504A	8D4 or 5A4-D	ECG 116 or ECG 117	SK-3030 or SK-3031	40C or F4	
X2	DS-1P	GE-504A	8D4 or 5A4-D	ECG 116 or ECG 117	SK-3030 or SK-3031	40C or F4	
X3	1S446	1N34AS	1N34A	ECG 109		40C or F4	
X4	FV-23						
X5	1S446	1N34AS	1N34A	ECG 109		40C or F4	
X6	1S446	1N34AS	1N34A	ECG 109		40C or F4	
X7	1S446	1N34AS	1N34A	ECG 109	SK-3030 or SK-3031	40C or F4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		LAFAYETTE PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1A	1000 25V		PRS1295	EA30-1000	BR1000-25		TC2510	TL-1218
B	1000 25V		PRS1295	EA30-1000	BR1000-25		TC2510	TL-1218
C2	100 15V		BCD15100	EP15-100	NLW100-15	MT1-19	MTV100CF15	TE-1162
C3	10 15V		BCD15010	EP15-10	NLW15-15	MT1-9	MTV10CB50	TE-1053.5
C4	1 25V		BCD25001		NLW1-50	MT1-1	MTV1CB50	TE-1200
C5	30 6V		BCD6025		NLW30-6	MT1-13	MTV30CB25	TE-1132.1
C6	10 15V		BCD15010	EP15-10	NLW15-15	MT1-9	MTV10CB50	TE-1053.5
C7	10 15V		BCD15010	EP15-10	NLW15-15	MT1-9	MTV10CB50	TE-1053.5
C8	1 25V		BCD25001		NLW1-50	MT1-1	MTV1CB50	TE-1200
C9	30 15V		BCD15025	EP15-25	NLW30-15	MT1-14	MTV30CB25	TE-1158
C10	10 15V		BCD15010	EP15-10	NLW15-15	MT1-9	MTV10CB50	TE-1053.5
C11	30 10V		BCD10025		NLW30-15	MT1-14	MTV30CB25	TE-1132.1
C12	3 25V		PTT76		NLW3-25	MT1-3	MTA3D50	TE-1201.1
C13	30 10V		BCD10025		NLW30-15	MT1-14	MTV30CB25	TE-1132.1
C14	30 25V		PTT83		NLW30-25	MT1-14	MTA30E35	TE-1207.5

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.
C15	150	10%	GPD X5F151K	DD-151		CCD-151	GP315	10TS-T16
C16	2		NPO-DI 2.2	DTZ-2R2	CZ601CJ2R2D	CCTO-2R2	CNO522	10TCC-V22
C17	250							
C18	20		NPO-DI 22	DTZ-22	CY601CG220K	CCTO-220	CNO422	10TCC-Q22
C19	400	10%		DD-401		CCD-401	GP340	10TS-T39
C20	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C21	.005		TTP-.005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C22	.04		TTP-05	CK-503	HOY101ZV503Z	CCD-403	TA150	TGL-S50
C23	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C24	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C25	.04		TTP-05	CK-503	HOY101ZV503Z	CCD-403	TA150	TGL-S50
C26	.04		TTP-05	CK-503	HOY101ZV503Z	CCD-403	TA150	TGL-S50
C27	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C28	.02		TTP-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C29	.001			CPR-1000J	CD19F102K500	DM-19-102J	SX210	MS-21
C30	45	N220				*	*	10TCR-Q47
C31	5	N075				*	*	*
C32	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C33	40		GPD P3K390K			CCD-390	GP439	5GA-Q39
C34	15		NPO-DI 15	DTZ-15	CZ601CG150K	CCTO-150	CNO415	10TCC-Q15
C35	5			TCZ-4R7	CD10C050K500	CCTO-050	SX550	MS-55
C36	3							
C37								
C38	5		NPO-DI 5.0	DTZ-5	CZ601CH5R0D	CCTO-050	CNO547	10TCC-V50
C39	510			CPR-510J	CD15F511K500	CM-15-E-511J	SX351	MS-351
C40	.04		TTP-05	CK-503	HOY101ZV503Z	CCD-403	TA150	TGL-S50
C41	5		NPO-DI 5.0	DTZ-5	CZ601CH5R0D	CCTO-050	CNO547	10TCC-V50
C42	.047		DBE6847	DD-503	DMF4847	4DP-3-473	PVC4147	4PS-S47
C43	510			CPR-510J	CD15F511K500	CM-15-E-511J	SX351	MS-351
C44	.04		TTP-05	CK-503	HOY101ZV503Z	CCD-403	TA150	TGL-S50
C45	.1		DBE2P1		DMF2P1	2DP-3-104	PVC201	2PS-P10
C46	.047		DBE6847	DD-503	DMF4847	4DP-3-473	PVC4147	4PS-S47
C47	.04		TTP-05	CK-503	HOY101ZV503Z	CCD-403	TA150	TGL-S50
C48	.04		TTP-05	CK-503	HOY101ZV503Z	CCD-403	TA150	TGL-S50
C49	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C50	.047		DBE6847	DD-503	DMF4847	4DP-3-473	PVC4147	4PS-S47

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.
C51	.022		TTP-1	DD-203	DMF1S22	1DP-1-223	PVC1022	4PS-S22
C52	.001			CK-104	HOV101ZV104Z		TA010	TG-P10
C53	.033		TTP-1	DD-203	DMF1S33	1DP-1-333	PVC1133	4PS-S33
C54	.001		TTP-02	CK-104	HOV101ZV104Z		TA010	TG-P10
C55	.02			DD-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C56	.082				WMF1S82	1MD-2-823		6PS-S82
C57	.022				DMF1S22	1DP-1-223	PVC1122	4PS-S22
C58	.022			DD-203	DMF1S22	1DP-1-223	PVC1122	4PS-S22
C59	.02		TTP-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C60	6							5GA-V60
C61	100	10%	GPD X5F101K	DD-101	CV601CG101K	CCD-101	GP310	10TS-T10
C62	20		NPO-DI 22	DTZ-22	CV601CG220K	CCTO-220	CNO422	10TCC-Q22
C63	.005		TTP-.005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-S50
C64	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C65	400	10%		DD-401		CCD-401	GP340	10TS-T39
C66	100	10%	GPD X5F101K	DD-101	CV601CG101K	CCD-101	GP310	10TS-T10
C67	.002		GPD X5F202K	DD-202	JBX601YP202K	CCD-202	GP220	10TS-D20
C68	100	10%	GPD X5F101K	DD-101	CV601CG101K	CCD-101	GP310	5GA-T10
C69	.001	150VAC		CI-102			UAC210	
C70	.04		TTP-05	CK-503	HOV101Z503Z	CCD-403	TA150	TGL-S50
C71	.04		TTP-05	CK-503	HOV101Z503Z	CCD-403	TA150	TGL-S50
C72	.04		TTP-05	CK-503	HOV101Z503Z	CCD-403	TA150	TGL-S50
C73	.04		TTP-05	CK-503	HOV101Z503Z	CCD-403	TA150	TGL-S50
C74	.02		TTP-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C75	.02		TTP-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C76	.02		TTP-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C77	.04		TTP-05	CK-503	HOV101503Z	CCD-403	TA150	TGL-S50
C78	.04		TTP-05	CK-503	HOV101503Z	CCD-403	TA150	TGL-S50
C79	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C80	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C81	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C82	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C83	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C84	.001		TTP-1	CK-104	HOV101ZV104Z		TA010	TG-P10
C85	.04		TTP-05	CK-503	HOV101Z503Z	CCD-403	TA150	TGL-S50
C86	.04		TTP-05	CK-503	HOV101Z503Z	CCD-403	TA150	TGL-S50

CONTROLS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			LAFAYETTE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume & Switch	10K	(861S)	F2-10K①, SSK012, KR-4	A47-10K-Z①, KSS-3, SWE-13 or (NP-10K-Z①, UP-C-400, NWE-13)	Q13-116①, 76-1 or (BU1①, CF61 SS1, GC)*	RU14A, SL36, SL3250, US41 or (UA14A①, SK750, US41) or (U18①, US26)
R2	Squelch	50K	(862R)	F3-50K①, SSK012		B17-123, SK3①	RU54R, SL36, SL3250 or (UA54R①, SK750) or (U34①)
R3	"S" Meter Adjust	5000Ω					
R4	RF Meter Adjust	10K					
R5	Bias Adjust	5000Ω					

* "SNAPTROL"

① Enlarge mounting hole.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	LAFAYETTE PART No.			IRC PART No.	WORKMAN PART No.	LAFAYETTE PART No.
R33	150K (Cold)				R52	.1Ω			
R51	35Ω (Cold)								

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	PI Network (4 Turns)				
L2	TV1 Trap				
L3	PI Network				
L4	RF Input				
L5	RF Interstage				
L6	Receive Oscillator				
L7	IF Input				
L8	IF Interstage				
L9	IF Interstage				
L10	IF Output				
L11	RFC (3.8uh)	①	19-1003③	4608 ③	T858 ③
L12	Transmit Oscillator	②		72F125AP④	
L13	RFC (13uh)	②		72F125AP④	
L14	Buffer	②		72F125AP④	
L15	RFC (13uh)	②		72F125AP④	
L16	RFC (13uh)	②		72F125AP④	
L17	Final				

① Wound on 890K resistor

② Wound on 4meg resistor

③ Shunt with 880K resistor

④ Shunt with 4meg resistor

LAFAYETTE MODEL HE-20T (99-3088WX)

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~)	LAFAYETTE PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L18	.570A	.8Ω	38mh						

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	LAFAYETTE PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC .150A	24VAC .570A DC ▲				P8180	21F84	F45X	▲ Transmit

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	LAFAYETTE PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	2, 1	1							

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	LAFAYETTE PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T3	4Ω	16Ω						

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA			NOTES
				LAFAYETTE PART No.	JENSEN PART No.	QUAM PART No.	
SP1	4"	PM	16Ω	(10P50SM)		4A05Z16	

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	AGC .7 Amp			AGC 3/4	HKP	312, 750	342012	
F2	AGC 1 Amp			AGC 1	HHJ	312001.	155020	

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
K1	Relay		Receive-Transmit
M1	Lamp, Meter		CHICAGO MINIATURE Replacement CM-2180
M2	Lamp, Dial		CHICAGO MINIATURE Replacement CM-2180
M3	Crystal		Receive 26, 610MC
M4	Crystal		Transmit 27, 065MC
M5	Microphone		
S1	Switch, Selector		Rotary
S2	Switch, Xtal-Tone		DPDT
S3	Switch, Mode		DPDT
S4	Switch, PA-CB		DPDT
S5	Switch, Spot		DPDT

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)
	8498 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. 8861 (3/8 In.)