

PHOTOFACT[®] with

CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index

NOTE

ONLY THOSE PERSONS PROPERLY LICENSED ARE PERMITTED TO MAKE REPAIRS OR ADJUSTMENTS WHICH MAY RESULT IN ILLEGAL OPERATION. (REFER TO FCC RULES AND REGULATIONS PART 95, SUBPARTS C & D.)

The frequency of the transmitter should be checked periodically with a secondary frequency standard to insure proper and legal operation.

Best results will be obtained when adjusting the final RF output circuit if the antenna normally used is connected and the chassis is as nearly in the cabinet as possible.

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



MODEL Bearcat 23C

ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:

L7, L8, L9, L10.....GC ELECTRONICS #5000, #8290
ALL others.....#9440

RECEIVER

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

SIGNAL GENERATOR	GEN FREQ	CHANNEL	ADJUST	REMARKS
High side thru .01uF to TR4 base low side to ground.	455kHz, 1000Hz @ 30% modulation, output MINIMUM uV	Any	L7, L8, L9, L10	Set Receive-o-Slide to center position. Set Squelch maximum counterclockwise. Set Noise Blanker off. Adjust for maximum.
High side thru .01uF to Antenna Jack, low side to ground	27.115Hz, @ 30% modulation	13	L1, L2, L4, L5	Adjust for maximum.

RECEIVER ADJUSTMENTS

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

SIGNAL GENERATOR	GEN FREQ	CHANNEL	ADJUST	REMARKS
AGC High side thru .01uF to Antenna Jack, low side to ground.	27.115Hz, 1000Hz @ 30% modulation, output 50,000uV.	13	VR7	Adjust volume control to obtain 0db. Decrease generator to 50uV. Adjust so that signal does not drop more than 6db.

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

© 1975 Howard W. Sams & Co., Inc. Printed in U. S. of America 5CY203

PEARCE-SIMPSON MODEL BEARCAT 23C

RECEIVER ADJUSTMENTS

SIGNAL GENERATOR	GEN FREQ	CHANNEL	ADJUST	REMARKS
SQUELCH RANGE High side thru .01uF to Antenna Jack low side to ground.	27.115MHz, 1000Hz @ 30% modulation, output 1000uV.	13	VR8	Set squelch control fully clockwise. Adjust so that squelch just breaks.
NOISE BLANKER High side thru .01uF to Antenna Jack low side to ground.	23.5MHz, 100Hz @ 30% modulation, output 10uV.	13	L24, L25	Set Noise Blanker on. Connect scope to TP6. Adjust for maximum amplitude.
"S" METER	27.115MHz, 1000Hz @ 30% modulation, output 500uV.	13	VR9	Adjust for "S9" on panel meter.

TRANSMITTER

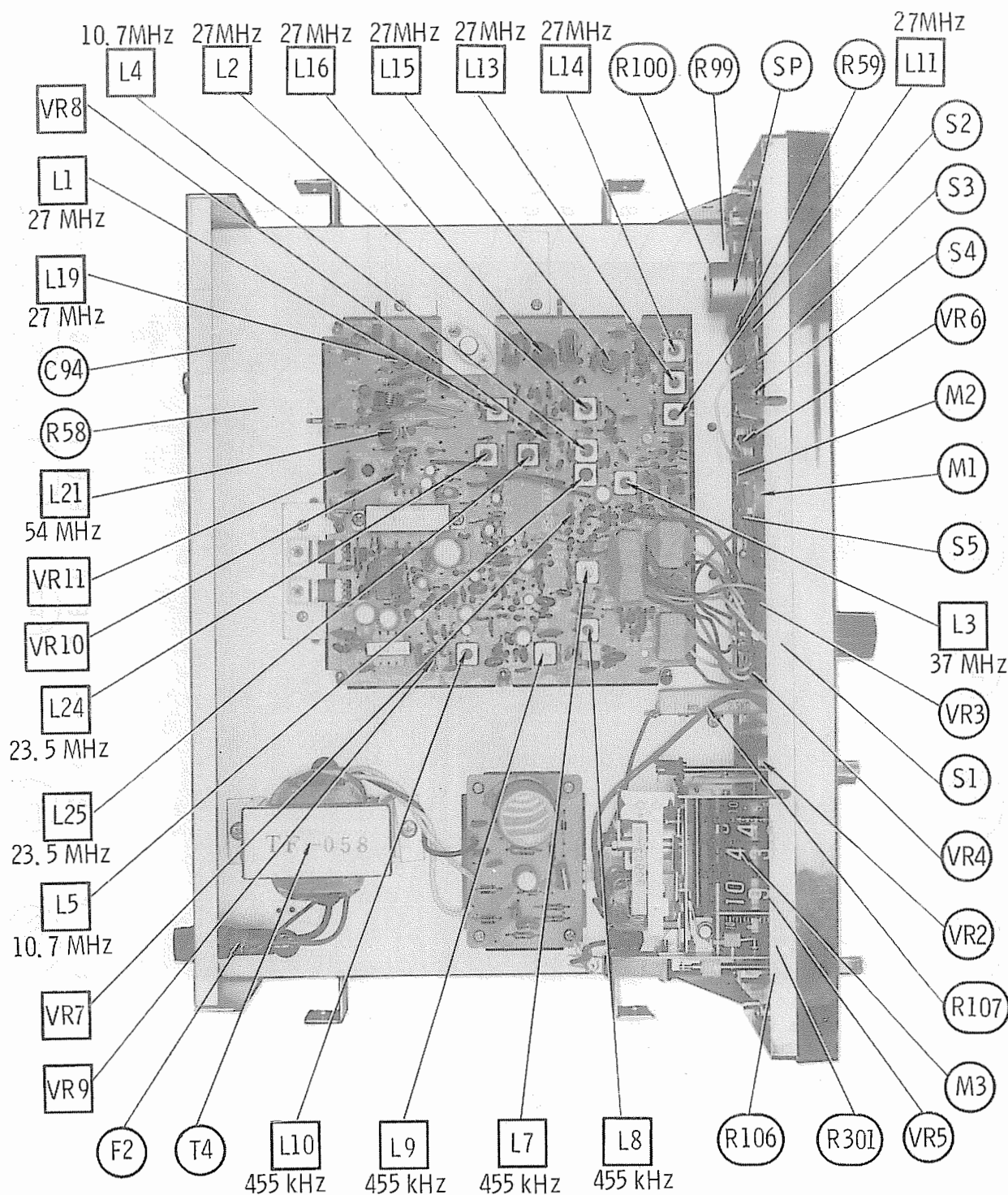
Connect an RF Wattmeter or 50-ohm, 25-watt dummy load to antenna connector.
Adjustments made with 14-volt DC input.

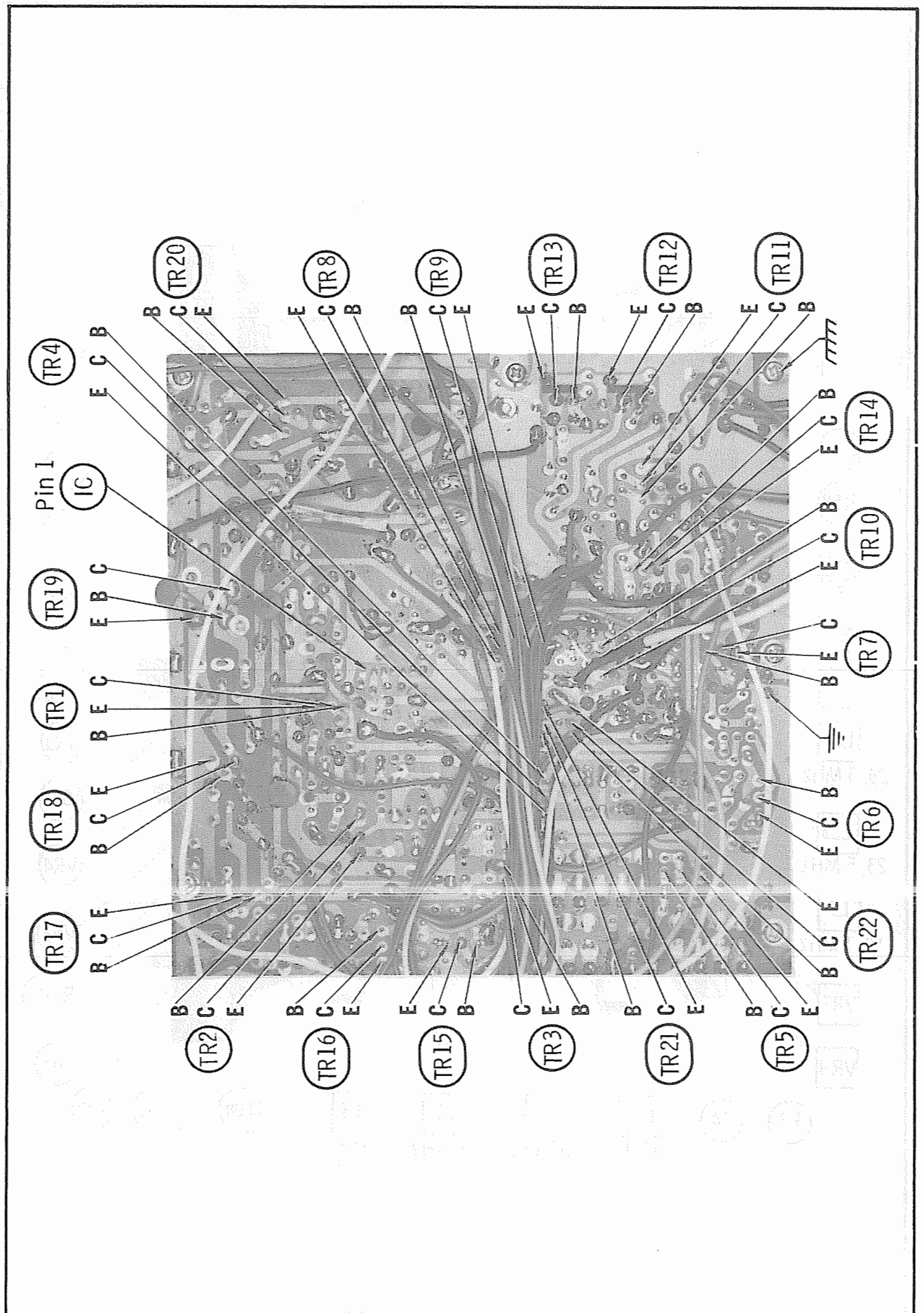
INDICATOR	ADJUST	REMARKS
OSCILLATOR, MIXER, BUFFER, DRIVER, FINAL RF Wattmeter	L3, L11, L13, L14	Channel selector to CH 13 Key transmitter. Adjust for maximum.
OUTPUT POWER RF Wattmeter	L15, L16	Key transmitter. Adjust for 3.5 watts output.
TVI TRAP TV (Ch. 2)	L21	Key transmitter. Adjust for MINIMUM interference on TV.
FINAL INPUT POWER Remove jumper at TP5 and connect 0-1000 DC milliammeter.	L19	Adjust for 5 watts.
FREQUENCY COUNTER Connect to Antenna Jack		Key transmitter and check frequency of all channels.

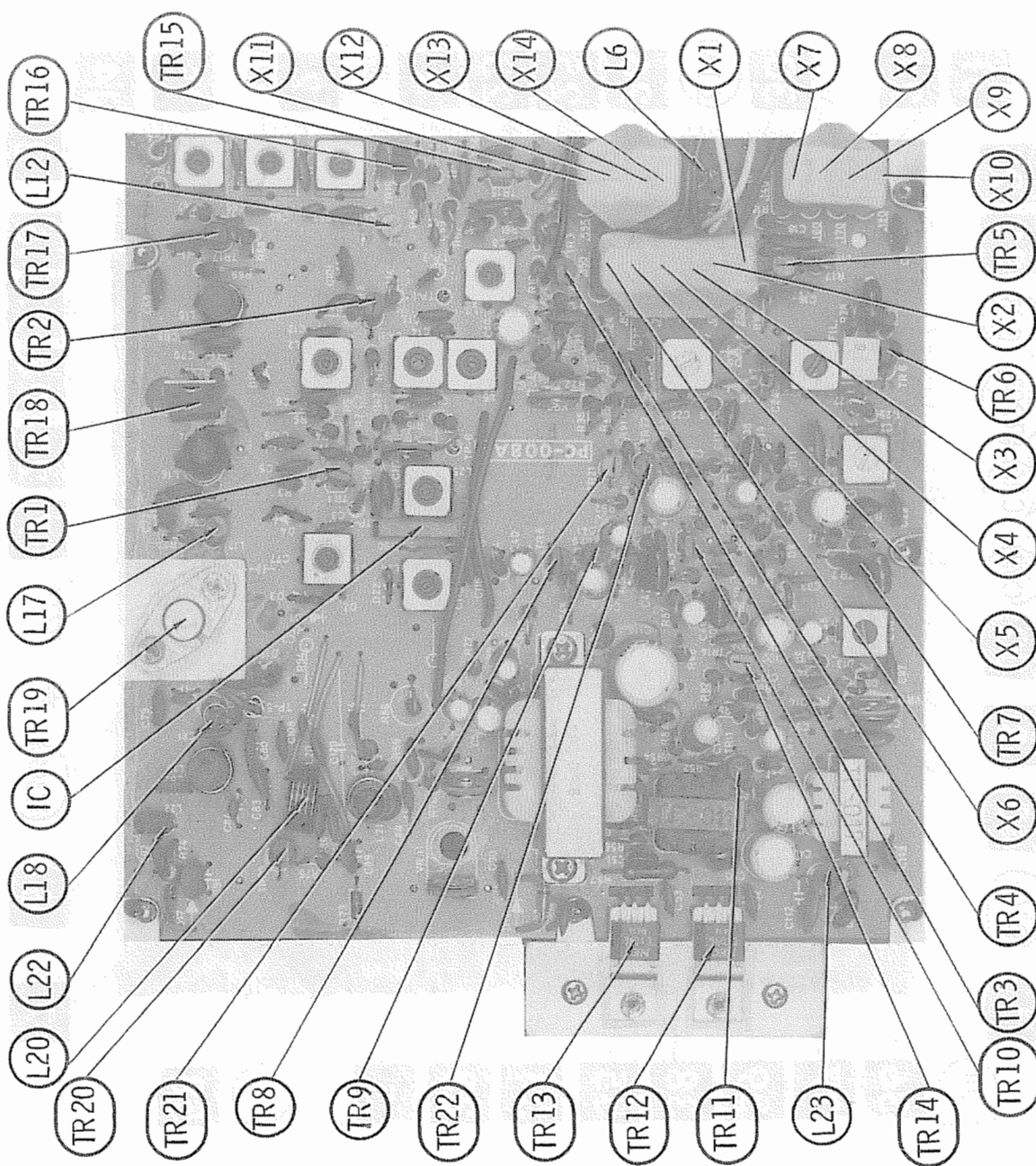
TRANSMITTER ADJUSTMENTS

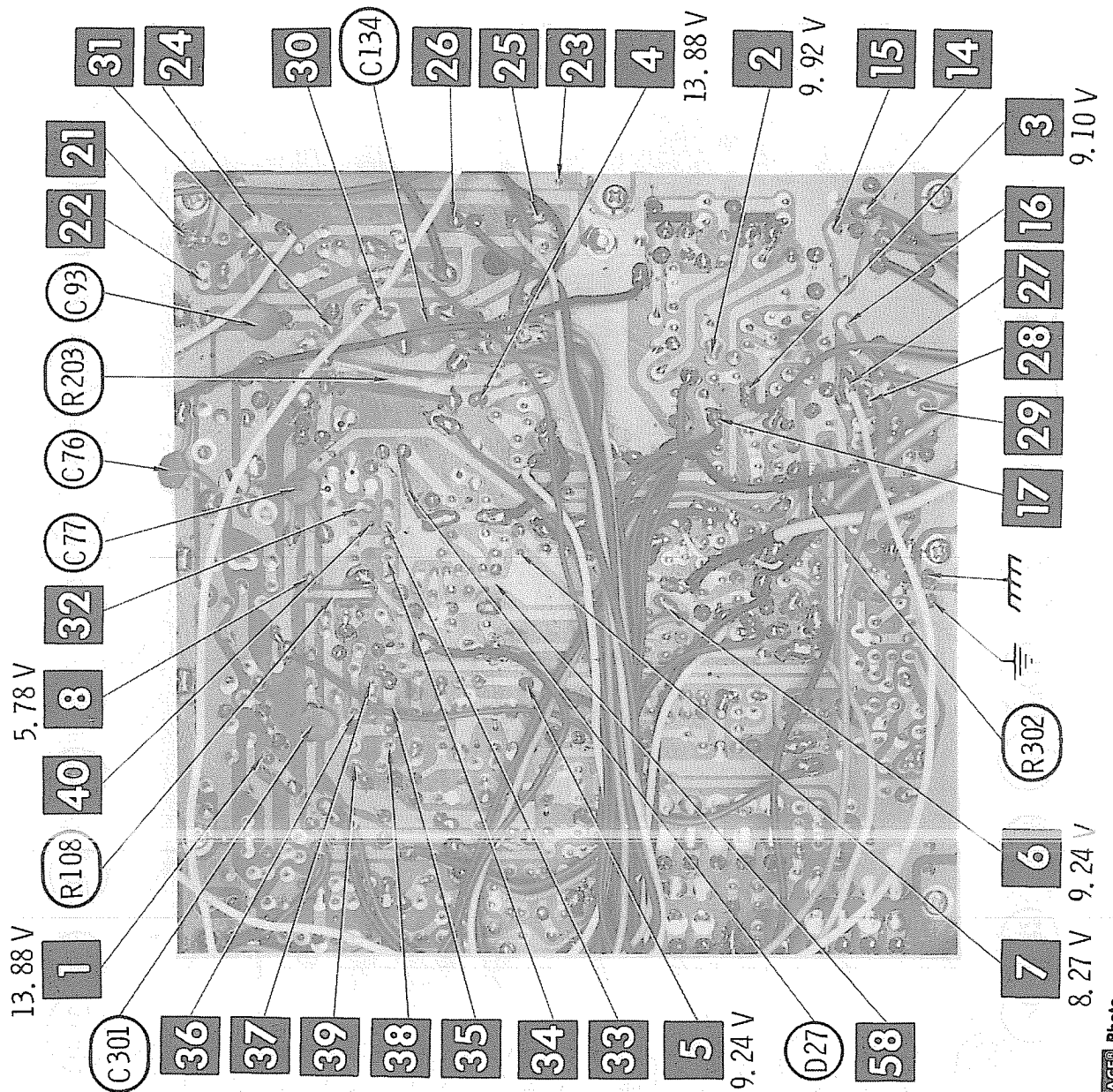
Connect an RF Wattmeter or 50-ohm, 25-watt dummy load to antenna connector.
Adjustments made with 14-volt DC input.

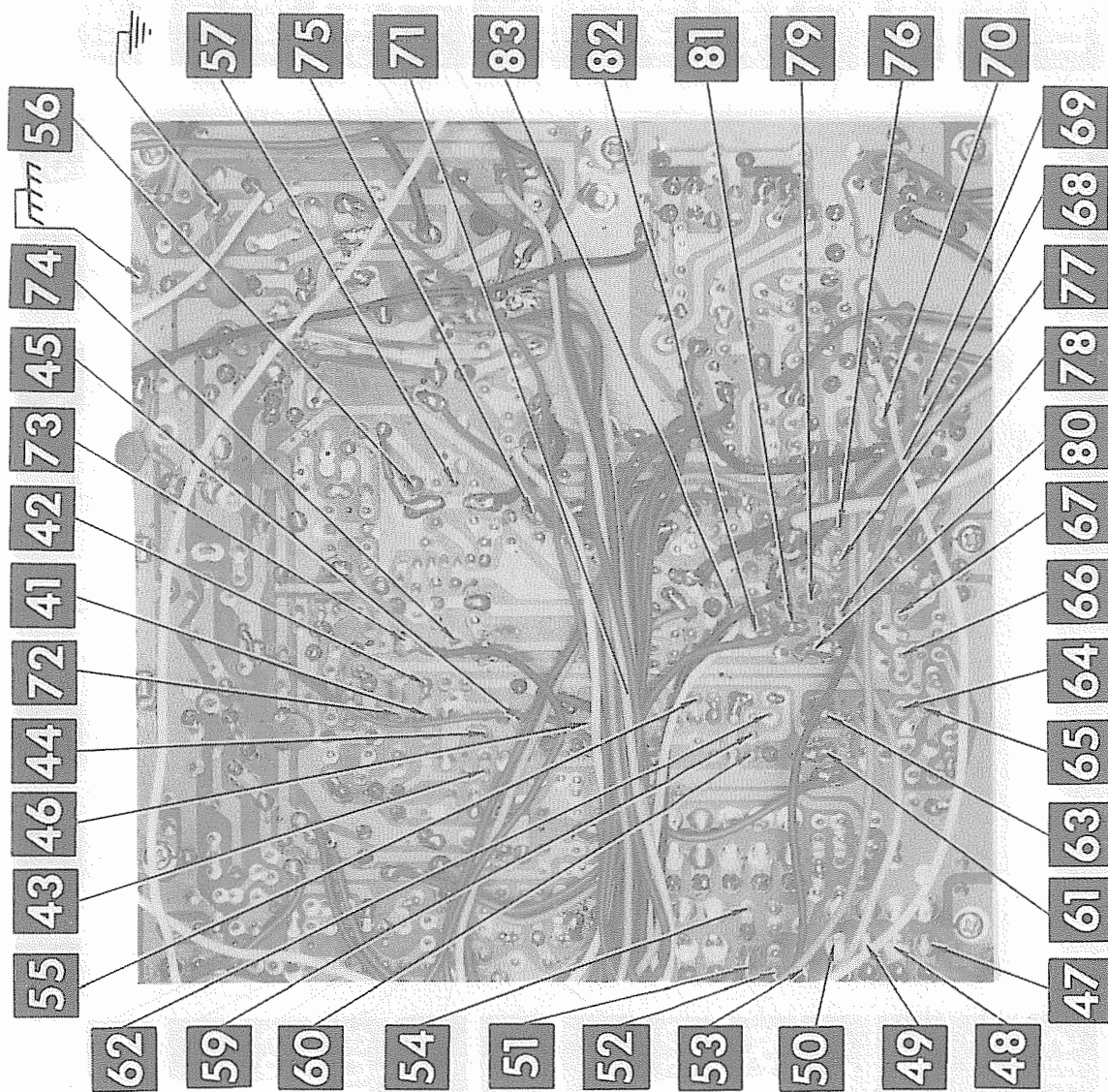
INDICATOR	ADJUST	REMARKS
VOLTAGE REGULATOR DC Voltmeter connected to TR25 Emitter and ground.	VR1	Adjust for 14 VDC. Key transmitter. Voltage should not vary.
PANEL MODULATION METER Oscilloscope or Modulation Indicator connected to Antenna Jack	VR10	Inject a 1000Hz audio signal at mic input. Key transmitter. Adjust so that panel meter agrees with scope or indicator.
RF PANEL METER RF Wattmeter	VR11	Set mode switch to AM. Key transmitter. Adjust so that panel RF meter agrees with RF wattmeter.

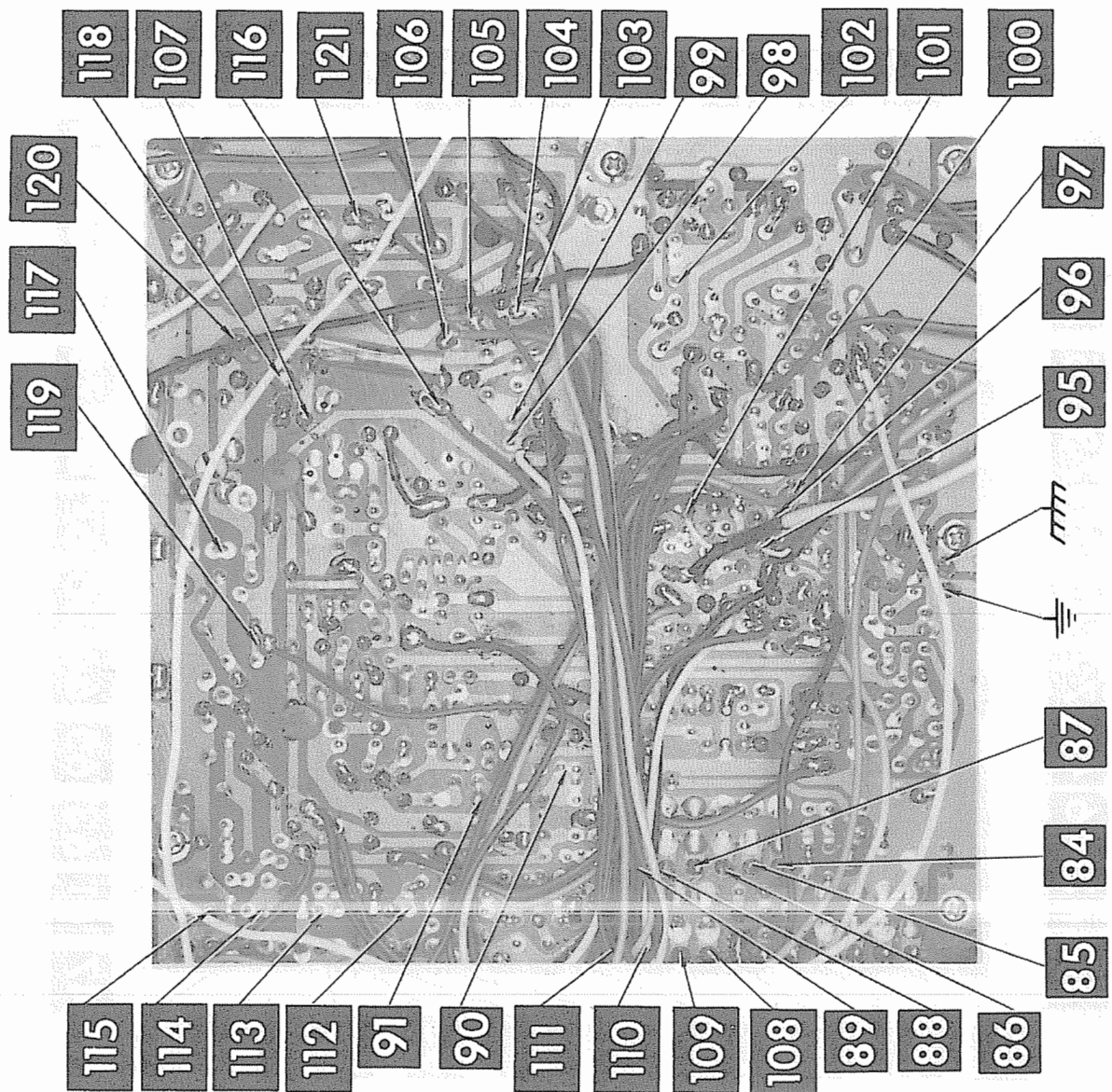


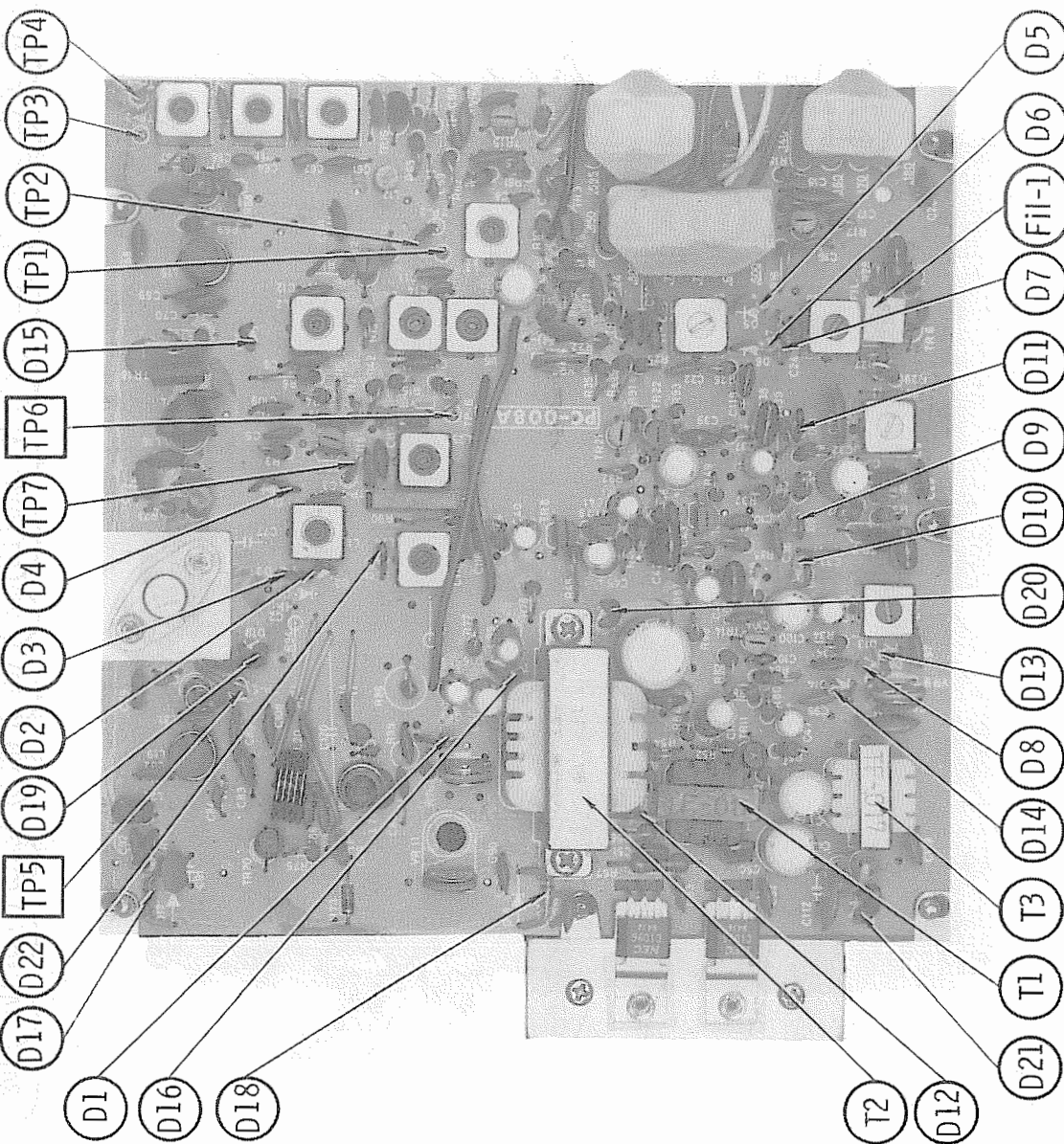






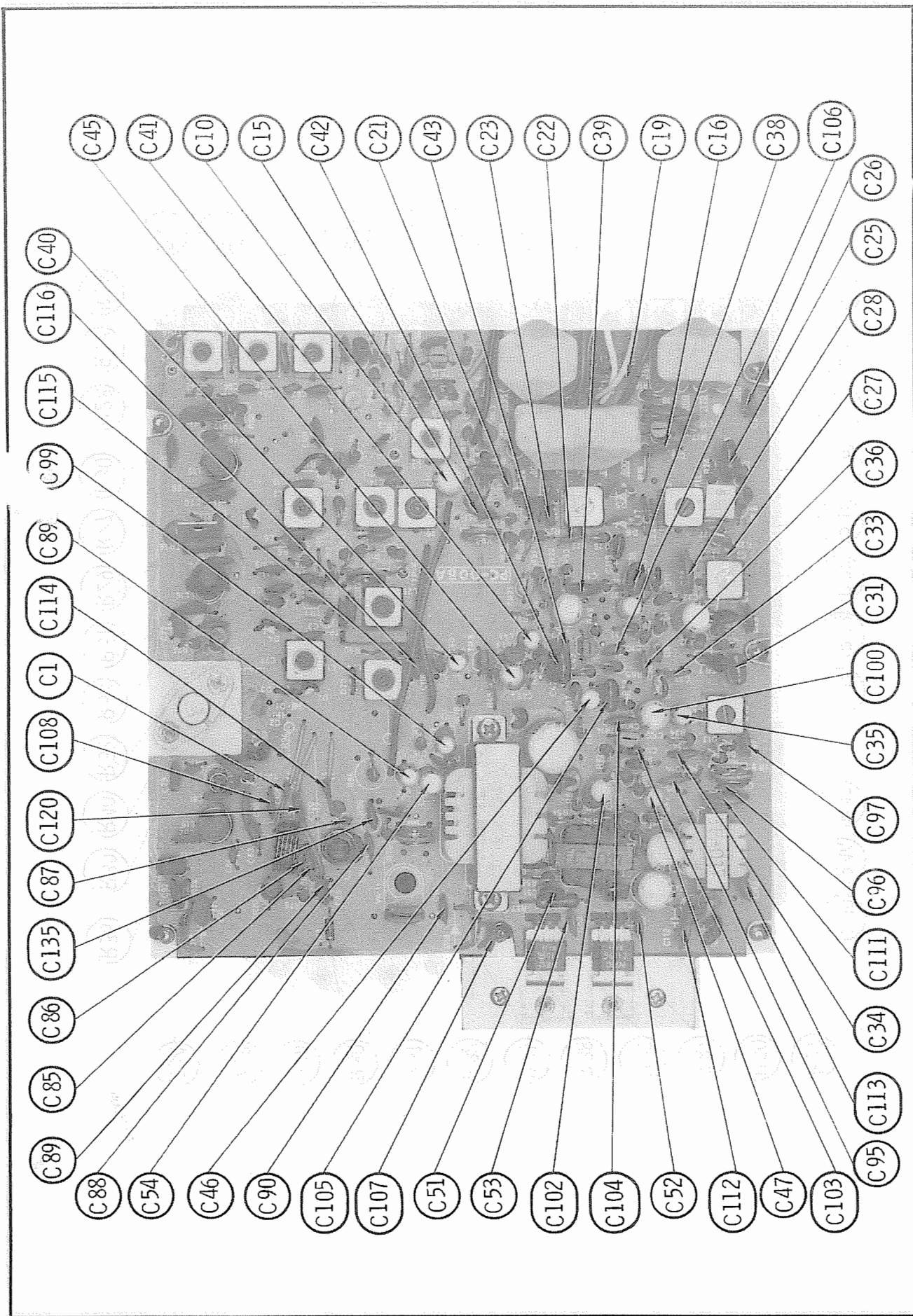
PEARCE-SIMPSON MODEL BEARCAT 23C

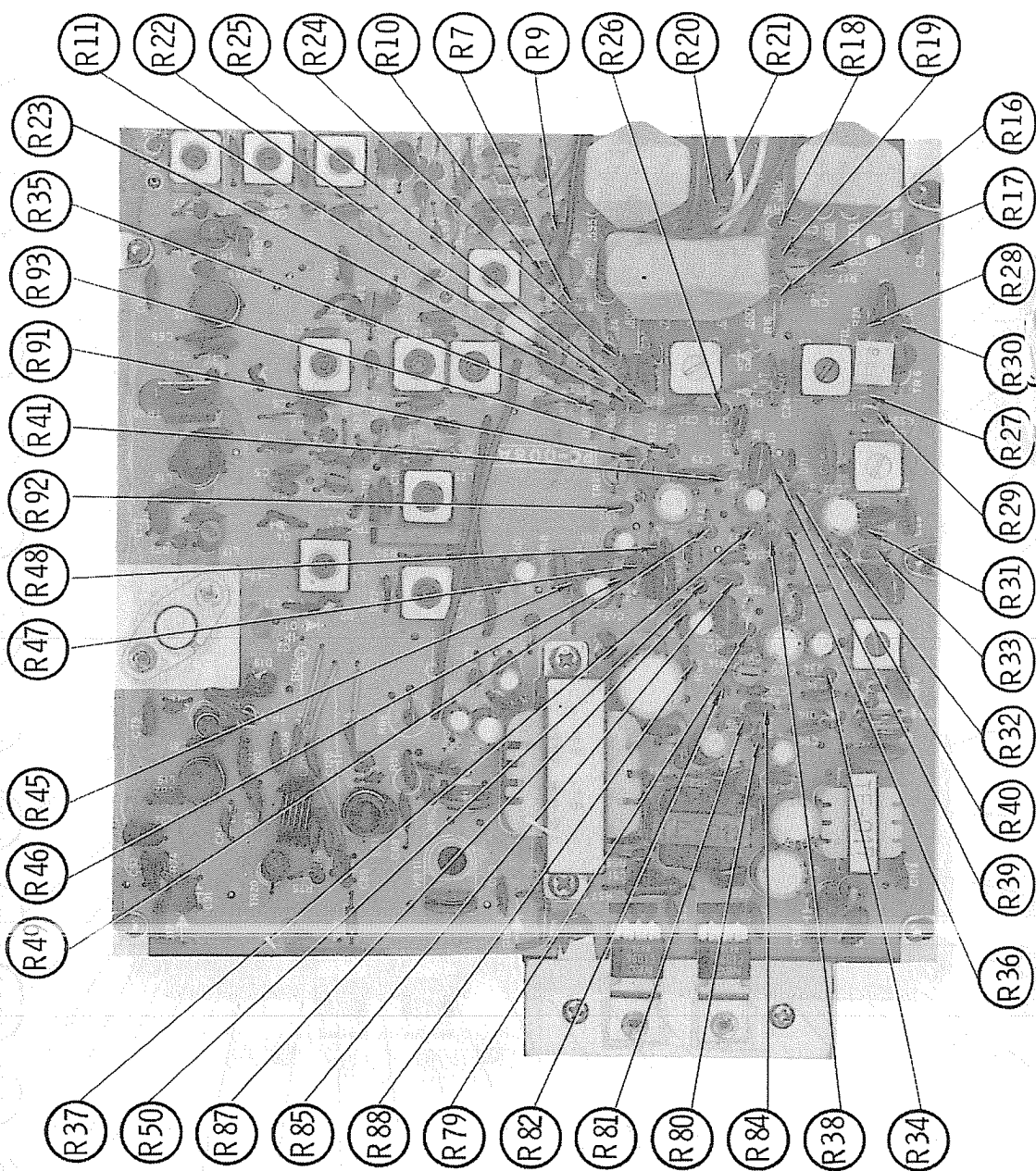




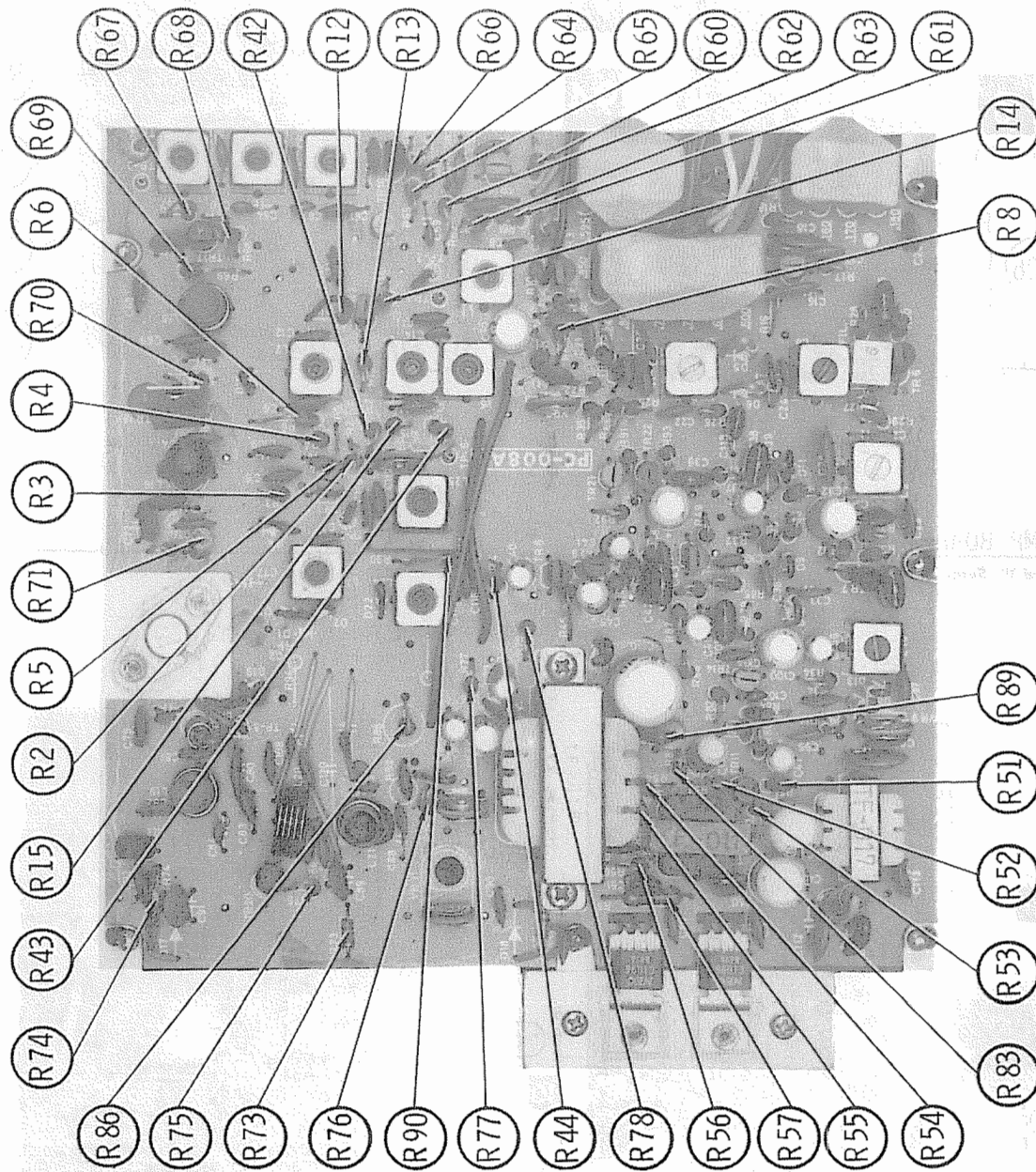
PEARCE-SIMPSON MODEL BEARCAT 23C

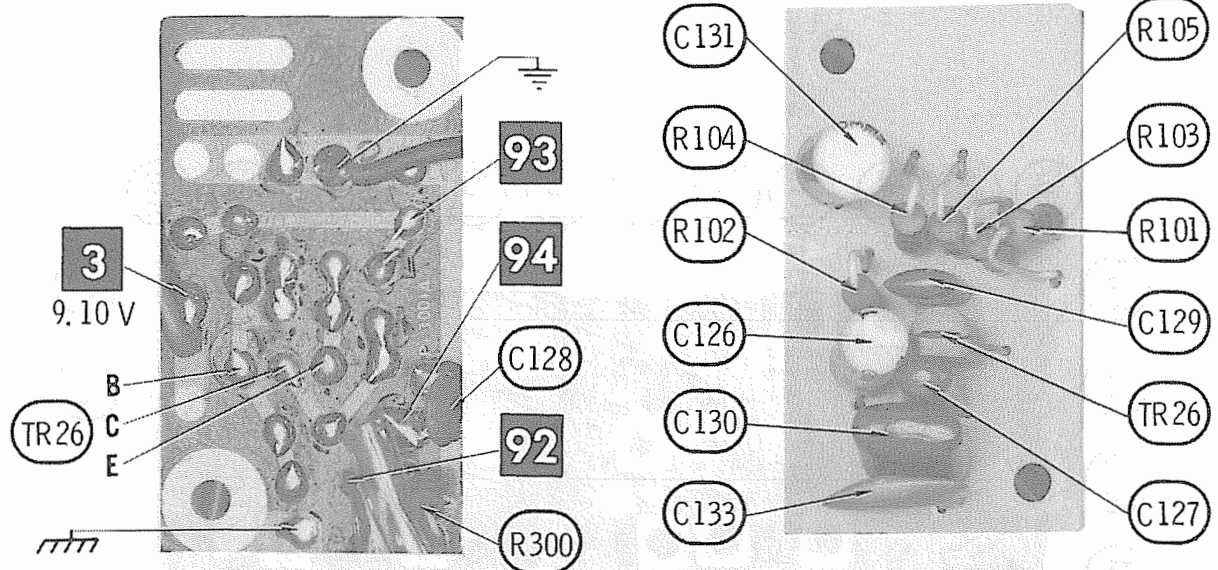
PEARCE-SIMPSON MODEL BEARCAT 23C





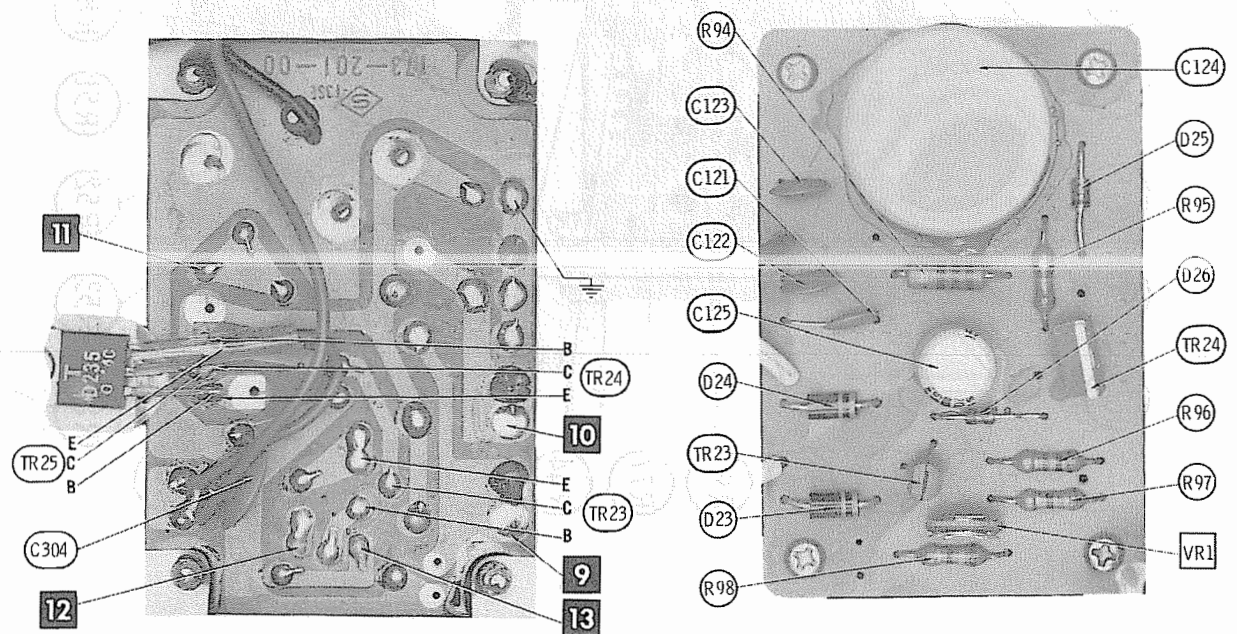
PEARCE-SIMPSON MODEL BEARCAT 23C



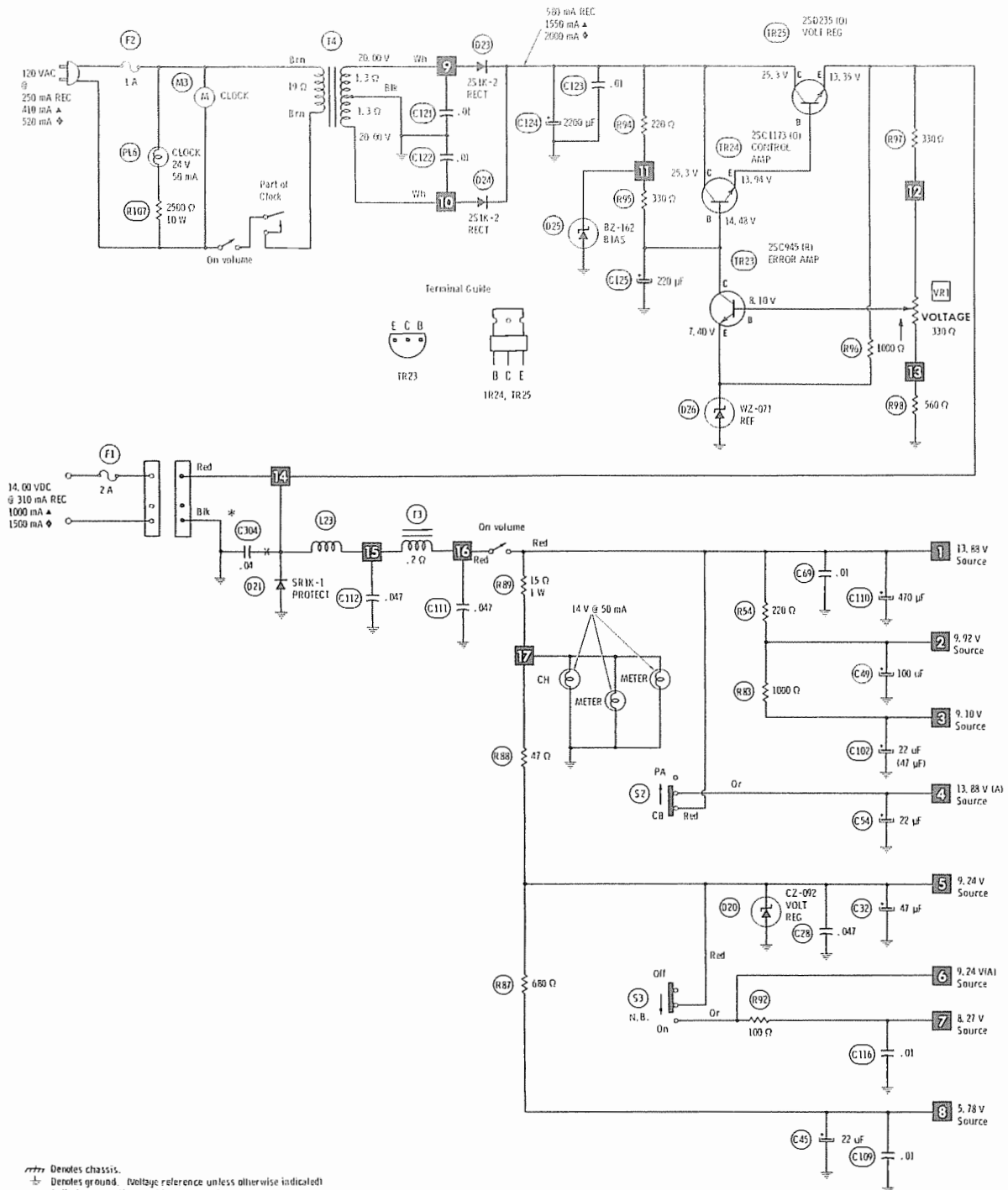


MIC AMP BOARD

A Howard W. Sams **CIRCUITRACE** Photo



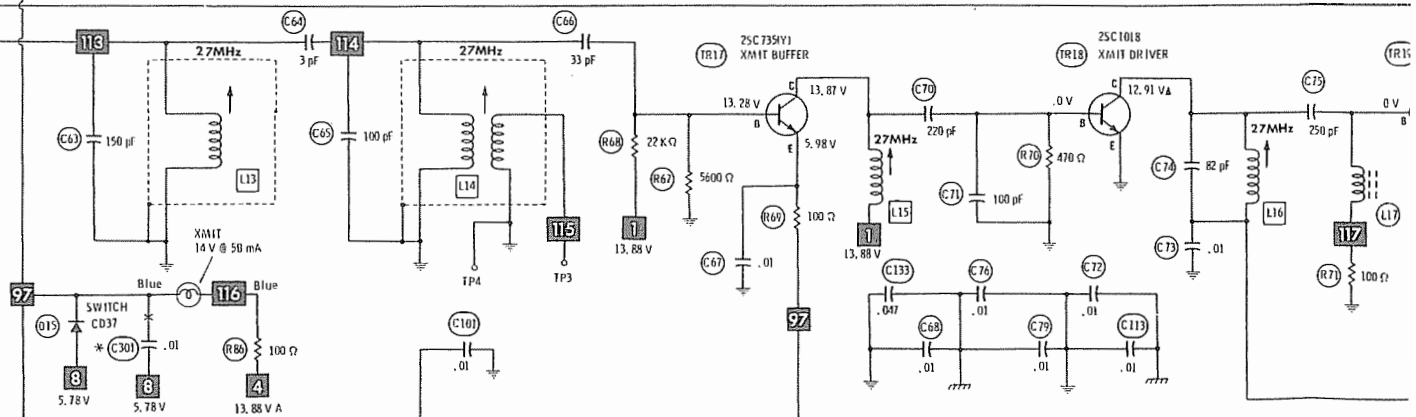
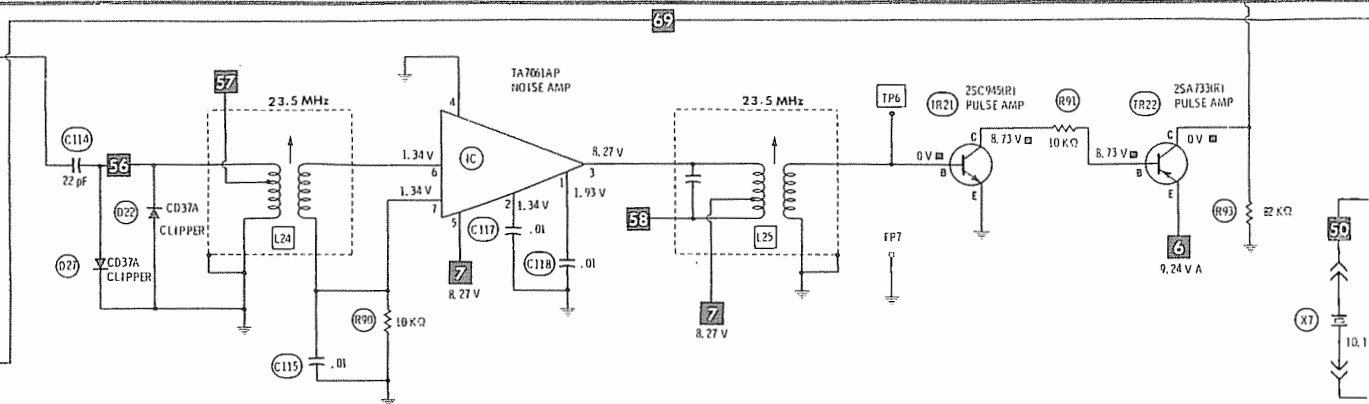
POWER SUPPLY BOARD

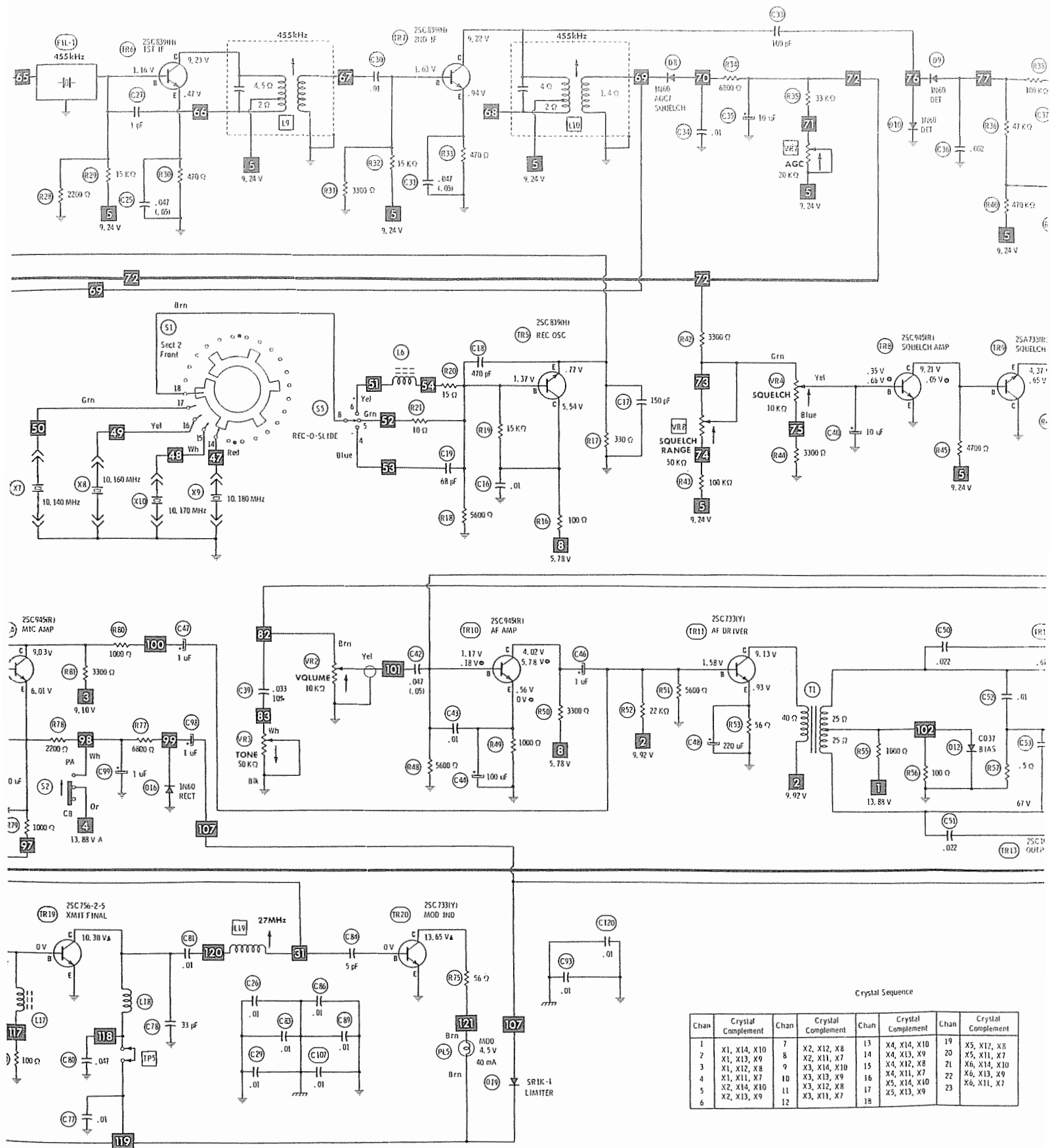


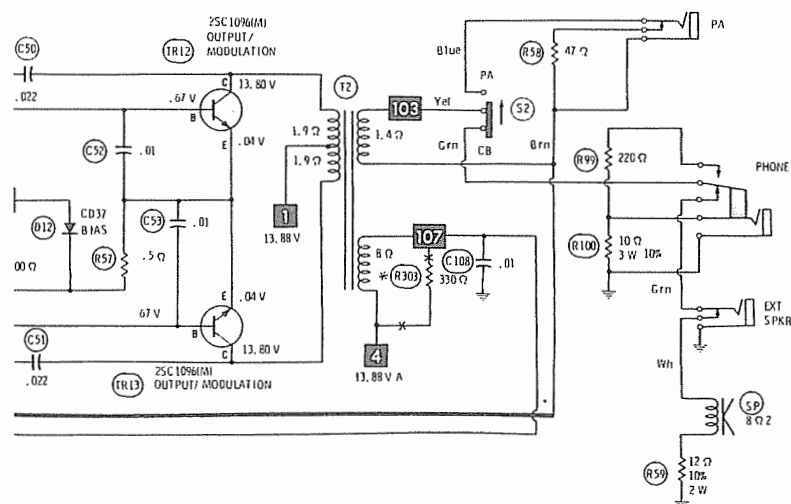
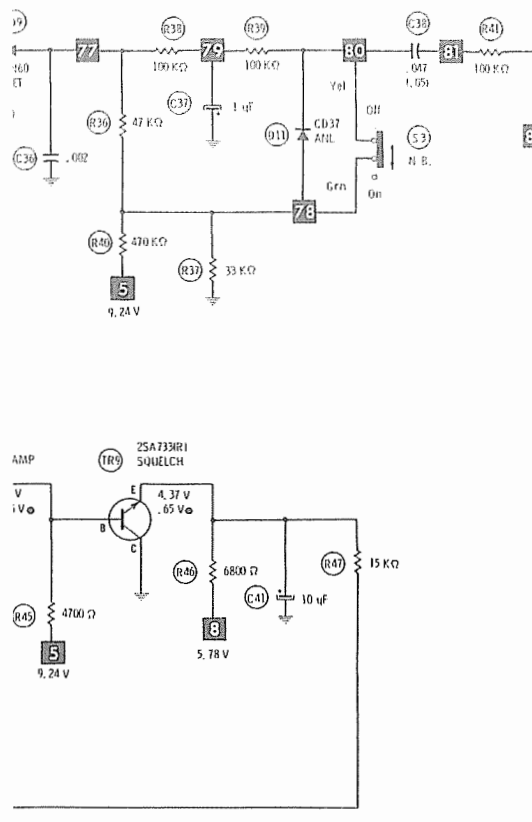
Denotes chassis.
Denotes ground. (Voltage reference unless otherwise indicated)
Indicates connection used in some versions.
Indicates connection not used in some versions.
Omitted in some versions.
See parts list.
Value varies; replace with original value.
Measured in transmit position.
Measured with unit squelched.
100% Modulation.
Noise Blanking on.
No Connection.
Measurements taken with switching in position shown unless otherwise indicated.
Values shown in () are used in some applications.
Resistors are 1/2W or less, 5%, unless otherwise indicated.
Supply voltage maintained at rated value for measurements.
Voltage and resistance measured with VVM or equivalent meter, no signal applied and controls adjusted for normal operation.
Arrow on control indicates direction of advance.
Numbers assigned to terminals may not be found on the unit.
Transistor resistances vary widely; no resistance measurements taken.

A PHOTOFAC STANDARD NOTATION SCHEMATIC
with CIRCUITRACE

© Howard W. Sams & Co., Inc. 1975

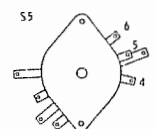
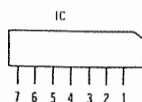
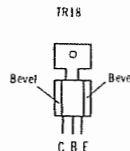
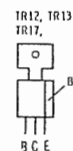
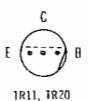






Terminal Guides

Chan	Crystal Complement
19	X5, X12, X8
20	X5, X11, X7
21	X6, X14, X10
22	X6, X13, X9
23	X6, X11, X7



PARTS LIST AND DESCRIPTION

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

PARTS LIST

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

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE / MFG. No. / PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D1	1N60/5001-080	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D2	CD37/5001-145	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D3	CD37/5001-145	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D4	CD37/5001-145	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D5	1N60P/5001-134	1N34AS (7)	1N34A (7)	PTC207 (7)	HEP134 (7)	SK3087 (7)		ECG 110 (6)
D6	1N60P/5001-134							
D7	1N60/5001-080	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D8	1N60/5001-080	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D9	1N60/5001-080	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D10	1N60/5001-080	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D11	CD37/5001-145	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D12	CD37/5001-145	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D13	1N60/5001-080	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D14	1N60/5001-080	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D15	CD37/5001-145	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D16	1N60/5001-080	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D17	1N60(P)/5001-134	1N34AS (7)	1N34A (7)	PTC207 (7)	HEP134 (7)	SK3087 (7)		ECG 110 (6)
D18	1N60(P)/5001-134							
D19	SRTK-1/5001-117	GE-504A	8D4 or 5A40	PTC201 or PTC202	HEPR0052	SK3030 or SK3031	RT213 or RT214	ECG 116 or ECG 117
D20	CZ092/5001-152	GEZD-9.1	Z-1210	PTC505	HEP20412	SK3060	RT240	ECG 139
D21	SRTK-1/5001-117	GE-504A	8D4 or 5A40	PTC201 or PTC202	HEPR0052	SK3030 or SK3031	RT213 or RT214	ECG 116 or ECG 117
D22	CD37A/5001-144	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D23	2S1K/5001-129	GE-504A	8D4 or 5A40	PTC201 or PTC202	HEPR0052	SK3030 or SK3031	RT213 or RT214	ECG 116 or ECG 117
D24	2S1K/5001-129	GE-504A	8D4 or 5A40	PTC201 or PTC202	HEPR0052	SK3030 or SK3031	RT213 or RT214	ECG 116 or ECG 117
D25	BZ162/5001-143	GEZD-15	Z-1214	ZB16	HEP20419	SK3063	RT246	ECG 5075
D26	WZ-071/5001-142	GEZD-7.5	Z-1208	PTC504	HEP20410	SK3059	RT239	ECG 138
D27	IC TA-7061AP	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
TR1	2SC839(H)/5001-014	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR2	2SC839(H)/5001-014	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR3	2SC839(H)/5001-014	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR4	2SC839(H)/5001-014	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR5	2SC839(H)/5001-014	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR6	2SC839(H)/5001-014	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR7	2SC839(H)/5001-014	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR8	2SC945(R)/5001-038	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 199
TR9	2SA733(R)/5001-066	GE-65	TR-31	PTC131	HEP708	SK3138	RT120	ECG 159
TR10	2SC945(R)/5001-038	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 199
TR11	2SC733(Y)/5001-072	GE-20	TR-21	PTC123	HEP729	SK3122	RT100	ECG 123A
TR12	2SC1096(M)/5001-064 (1)	GE-28	TR-55	PTC110		SK3041	RT133	ECG 152
TR13	2SC1096(M)/5001-064 (1)	GE-28	TR-55	PTC110		SK3041	RT133	ECG 152
TR14	2SC945(R)/5001-038	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 199
TR15	2SC839(H)/5001-014	GE-20	TR-21	PTC121	HEP728	SK3018	RT102	ECG 108
TR16	2SC839(H)/5001-014	GE-20	TR-21	PTC121	HEP728	SK3018	RT102	ECG 108
TR17	2SC735(Y)	GE-20	TR-21	PTC136	HEP53	SK3047	RT102	ECG 123A
TR18	2SC1018/5001-044(2)			PTC110	HEPS3020	SK3054		ECG 210
TR19	2SC756-2-5/5001-068 (3)			PTC158		SK3049		ECG 224
TR20	2SC733(Y)	GE-20	TR-21	PTC123	HEP729	SK3122	RT100	ECG 123A
TR21	2SC945(R)/5001-038	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 199
TR22	2SA733(R)/5001-066	GE-65	TR-31	PTC131	HEP708	SK3138	RT120	ECG 159
TR23	2SC945(R)/5001-038	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 199
TR24	2SC1173(O)/5001-053 (4)	GE-66	TR-55	PTC110		SK3054	RT154	ECG 152
TR25	2SD235(O)	GE-66	TR-92	PTC110				
TR26	2SC945(R)/5001-038	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 199

(1) Rating 10 watt @ 2 amp.

(2) Rating 4 watt @ 1 amp.

(3) Rating 10 watt @ 4 amp.

(4) Rating 10 watt @ 3 amp.

(6) Matched Pair

(7) Two required-select matched pair.

ELECTRO

ITEM No.	R/
C10	47 1
C32	47 1
C35	10 1
C37	1 25
	1 16
C40	10 1
C41	10 1
C44	100
	100
C45	22 1
C46	1 25
	1 16
C47	1 25
	1 16
C48	220
	220
C49	100
C54	22 1
C98	1 50
C99	1 25
	1 16
C100	100
	100
C102	22 1
C110	470
C124	2200
C125	220
C126	1 25
C131	33 1

CAPACIT

ITEM No.	
C1	27
C2	.001
C3	.01
C4	3
C5	.01
C6	.01
C7	100
C8	10
C9	.01
C11	.01
C12	.01
C13	.01
C14	2
C15	.01
C16	.01
C17	150
C18	470
C19	68
C20	10
C21	.01
C22	.01
C23	.001
C24	.001
C25	.04
C26	.01
C27	1
C28	.04
C29	.01
C30	.01
C31	.04
C33	100
C34	.01
C36	.001
C38	.04
C39	.03
C42	.04

PARTS LIST AND DESCRIPTION (CONTINUED)

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

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA					
		MFGR. PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C10	47 16V	5018-034	RME-E-E-050	EP15-50	PC50-16	MTV50CB15	EV-1226
C32	47 16V	5018-034	RME-E-E-050	EP15-50	PC50-16	MTV50CB15	EV-1226
C35	10 16V	5018-005	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C37	1 25V		RME-A-G-001	EP30-1	PC1-50	MTV1CB50	EV-1315
	1 16V	5018-002	RME-A-E-001	EP15-1	PC1-50	MTV1CB50	EV-1315
C40	10 16V	5018-005	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C41	10 16V	5018-005	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C44	100 10V		RME-E-O-100	EP15-100	PC100-10	MTV100CB10	EV-1130
	100 6.3V	5018-013	RME-E-B-100	EP6-100	PC100-10	MTV100CB6	EV-1030
C45	22 16V	5018-042	RME-O-E-025	EP15-25	PC25-25	MTV25CB35	EV-1325
C46	1 25V		RME-A-G-001	EP30-1	PC1-50	MTV1CB50	EV-1315
	1 16V	5018-002	RME-A-E-001	EP15-1	PC1-50	MTV1CB50	EV-1315
C47	1 25V		RME-A-G-001	EP30-1	PC1-50	MTV1CB50	EV-1315
	1 16V	5018-002	RME-A-E-001	EP15-1	PC1-50	MTV1CB50	EV-1315
C48	220 10V		RME-G-O-250	EP15-250	PC250-10	MTV250CB10	EV-1145
	220 6.3	5018-044	RME-F-B-250	EP6-250	PC250-10	MTV250CB10	EV-1145
C49	100 16V	5018-012	RME-E-E-100	EP15-100	PC100-16	MTV100CB15	EV-1230
C54	22 16V	5018-042	RME-O-E-025	EP15-25	PC25-25	MTV25CB35	EV-1325
C98	1 50V	5018-035	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C99	1 25V		RME-A-G-001	EP30-1	PC1-50	MTV1CB50	EV-1315
	1 16V	5018-002	RME-A-E-001	EP15-1	PC1-50	MTV1CB50	EV-1315
C100	100 10V		RME-E-O-100	EP15-100	PC100-10	MTV100CB10	EV-1130
	100 6.3	5018-013	RME-E-B-100	EP6-100	PC100-10	MTV100CB6	EV-1030
C102	22 16V	5018-042	RME-O-E-025	EP15-25	PC25-25	MTV25CB35	EV-1325
C110	470 16V	5018-024	RME-L-E-500	EP15-500	PC500-16	MTV500CB15	EV-1250
C124	2200 25V	5018-016	ME-G2000		WBR2000-25	TC2520A	TVA-1213.5
C125	220 16V	5018-023	RME-J-E-250	EP15-250	PC250-25	MTV250CB15	EV-1245
C126	1 25V		RME-A-G-001	EP30-1	PC1-50	MTV1CB50	EV-1315
C131	33 16V	5018-009	ME-3-E-030	EP15-25	PC30-25	MTV30CB25	EV-1325

CAPACITORS

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	27					CN0427	10TCC-Q27
C2	.001 50V						
C3	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C4	3		CCTO-3R3	DTZ-3R3	NP03P3	CN0533	10TCC-V33
C5	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C6	.01		CCO-103	DC-103	GP10000	MAG5011	2SS-S10
C7	100			DTZ-100	NP0100	CN0310	10TCC-T10
C8	10			DTZ-10	NP010	CN0410	10TCC-Q10
C9	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C11	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C12	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C13	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C14	2		CCTO-3R3	DTZ-3R3	NP03P3	CN0533	10TCC-V33
C15	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C16	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C17	150		CCD-103	DTZ-150	GP10000	MAG5011	2SS-S10
C18	470		CCD-471	DD-471	GP470	GP347	10TCC-T15
C19	68			DTZ-68	NP068	CN0468	10TCC-Q68
C20	10			DTZ-10	NP010	CN0410	10TCC-Q10
C21	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C22	.01		CCO-103	DC-103	GP10000	MAG5011	2SS-S10
C23	.001		CCD-102	DD-102	GP1000	GP210	2SS-D10
C24	.001 10%		CCD-102	DD-102	GP1000	GP210	10TCC-T10
C25	.047		1MDF-2-473		DPMS2S47	EWFA1A147	1PB-S47
C26	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C27	1					CN0510	10TCC-V10
C28	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C29	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C30	.01		1MDF-1-103	CPJ-103	DPMS4S1	EWFA1A110	1PB-S10
C31	.047		1MDF-2-473		DPMS2S47	EWFA1A147	1PB-S47
C33	100			DTZ-100	NP0100	CN0310	10TCC-T10
C34	.01		CCD-202	DD-202	GP2000	GP220	2SS-D20
C36	.002		1MDF-2-473		DPMS2S47	EWFA1A147	1PB-S47
C38	.047		1MDF-2-473		DPMS2S47	EWFA1A147	1PB-S47
C39	.033 10%		60P-3-333		DPMS6S33	EWFA1A147	6PS-S33
C42	.047		1MDF-2-473		DPMS2S47	EWFA1A147	1PB-S47

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C43	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C50	.022		1MDF-1-223	CPJ-223	DPMS2S22	EWF1A122	1PB-S22
C51	.022		1MDF-1-223	CPJ-223	DPMS2S22	EWF1A122	1PB-S22
C52	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C53	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C55	470		CCD-471	DD-471	GP470	GP347	10TS-T47
C56	220			DTZ-220			10TCC-T22
C57	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C58	33			DTZ-33	NP033	CNO433	10TCC-Q33
C59	22			DTZ-22	NP022	CNO422	10TCC-Q22
C60	100			DTZ-100	NP0100	CNO310	10TCC-T10
C61	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C62	3		CCTO-3R3	DTZ-3R3	NP03P3	CNO533	10TCC-V33
C63	150			DTZ-150		CNO315	10TCC-T15
C64	3		CCTO-3R3	DTZ-3R3	NP03P3	CNO533	10TCC-V33
C65	100			DTZ-100	NP0100	CNO310	10TCC-T10
C66	33			DTZ-33	NP033	CNO433	10TCC-Q33
C67	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C68	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C69	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C70	220			DTZ-220			10TCC-T22
C71	100			DTZ-100	NP0100	CNO310	10TCC-T10
C72	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C73	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C74	82			DTZ-82	NP082	CNO482	10TCC-Q82
C75	250			DTZ-270			10TCC-T27
C76	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C77	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C78	33			DTZ-33	NP033	CNO433	10TCC-Q33
C79	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C80	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C81	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C82	180			DTZ-180			10TCC-T18
C83	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C84	5		CCTO-050				10TCC-V50
C85	150			DTZ-150		CNO315	10TCC-T15
C86	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C87	27					CNO427	10TCC-Q27
C88	100			DTZ-100	NP0100	CNO310	10TCC-T10
C89	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C90	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C91	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C92	100			DTZ-100	NP0100	CNO310	10TCC-T10
C93	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C94	22			DTZ-22	NP022	CNO422	10TCC-Q22
C95	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C96	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C97	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C101	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C103	.0022		6DP-1-222	CPR-2200J	DPMS6022	EWF6222	6PS-D22
C104	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C105	.047		1MDF-2-473		DPMS2S47	EWF1A147	1PB-S47
C106	.001		CCD-102	DD-102	GP1000	GP210	2SS-D10
C107	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C108	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C109	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C111	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C112	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C113	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C114	22			DTZ-22	NP022	CNO422	10TCC-Q22
C115	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C116	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C117	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C118	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C119	.022		6DP-2-203		DPMS6S2	PVC612	6PS-S20
C120	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C121	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C122	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C123	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C127	.001		1MDF-1-102	CPJ-102	OPMS601	EWF1A210	1PB-D10
C128	.001		CCD-102	DD-102	GP1000	GP210	2SS-D10
C129	.01		1MDF-1-103	CPJ-103	DPMS4S1	EWF1A110	1PB-S10
C130	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C132	.001						
C133	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C134	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C135	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C301	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C304	.04		CCD-403			GP140	5GA-S40

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
VR1	Voltage	300	5008-054	T-300 or TSV-500	C-501	MTC32LL	X201R351B
VR2	Volume/Switch	10K	RV-015	F-10K (1), SSK014, KR7	A47-10K-Z (1), KSS-3, SWE-20 or [HP-10K-Z (1), UP-C-400, NME-20]	RU14A, SL36, SL1500, US42 or [UA14A (1), SK750, 4S42] or [U18 (1), US27]	BU1 (1), CF61, SS6A, WF
VR3	Tone	50K	RV-026	F1-50K (1), SSK014	A47-50K-S (1), KSS-3 or [HP-50K-S (1), UP-C-400]	RU54L, SL36, SL1500 or [UA54L (1), SK750] or [U35 (1)]	BU1 (1), CF12, SS6A
VR4	Squelch	10K	RV-017	F1-10K (1), SSK014	A47-10K-S (1), KSS-3 or [HP-10K-S (1), UP-C-400]	RU14L, SL36, SL1500 or [UA14L (1), SK750] or [U20 (1)]	BU1 (1), CF9, SS6A
VR5	Mic Gain	10K	RV-025	F2-10K (1), SSK014	A47-10K-Z (1), KSS-3 or [HP-10K-Z (1), UP-C-400]	RU14A, SL36, SL1500 or [UA14A (1), SK750] or [U18 (1)]	BU1 (1), CF61, SS6A
VR6a b	SWR Calibrate SWR Calibrate	5000 5000	RV-073	F1-5000 (1), R1-5000, SSK014, CPL-2	NP-5000-S (1), NR-5000-S, UP-C-400, DC-2	P53L, 3014 (1), RU53L, CS3500	BU1 (1), CF8, CR4, SS6A, SS7A
VR7	AGC	20K	5008-008	T-20K (2) or TSV-25K (2)	C-253 (2)	MTC24L1 (2)	X201R253B (2)
VR8	Squelch Range	50K	5008-032	TSV-50K (2) or T-50K (2)	C-503 (2)	MTC54L1 (2)	X201R503B (2)
VR9	"S"	20K	5008-008	T-20K (2) or TSV-25K (2)	C-253 (2)	MTC24L1 (2)	X201R253B (2)
VR10	Modulation	30K	5008-023	TSV-50K (2) or T-50K (2)	C-503 (2)	MTC54L1 (2)	X201R503B (2)
VR11	"RF"	10K	5008-007	TSV-10K (2) or T-10K (2)	C-103 (2)	MTC14L1 (2)	X201R103B (2)

(1) Enlarge mounting hole.

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

PEARCE-SIMPSON MODEL BEARCAT 23C

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFGR. PART No.			WORKMAN PART No.	MFGR. PART No.
R-107	2500 10W WW						

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	Rec. Antenna (27MHz)	5006-118	TKXN-22160-8U		
L2	Rec. RF (27MHz)	5006-189	LA-041-4125		
L3	37MHz Osc	5006-190	LA-042-4335		
L4	1ST Mixer (10.7MHz)	5006-111			
L5	1ST Mixer (10.7MHz)	5006-112	LA-019-432J		
L6	RF Choke (2.2uH)	5006-054	2R2	74F226AP	
L7	2ND Mixer (455kHz)		LA-078-433H		
L8	Input IF (455kHz)				
L9	Interstage IF (455kHz)	5006-195	LA-106-433V		
L10	Output IF (455kHz)	5006-195	LA-107-433V		
L11	Xmit. Mixer (27MHz)	5006-049	LA-109-432L		
L12	RF Choke (2.2uH)	5006-054	2R2	74F226AP	
L13	Xmit. Mixer (27MHz)	5006-049	LA-109-432L		

PARTS LIST AND DESCRIPTION (CONTINUED)

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

COILS (RF-IF) (cont)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L14	Xmit. Mixer (27MHz)	5006-050	LA-108-3N35		
L15	Xmit. Buffer (27MHz)	5006-188			
L16	Xmit. Driver (27MHz)	5006-116			
L17	RF Choke (2.2uH)	5006-054	2R2	74F226AP	
L18	RF Choke	5006-122			
L19	Final Tank (27MHz)	5006-188			
L20	Pi Network (27MHz)	5006-083			
L21	TVI Filter (54MHz)	5006-188			
L22	RF Choke (2.2uH)	5006-054	2R2	74F226AP	
L23	Line Choke	5006-205			
L24	Noise Blanker (23.5MHz)		TKXN-20979A		
L25	Noise Blanker (23.5MHz)		LA-077-4335		

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T-3	1500mA	.2	.7mH	5006-124				

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD Part No.	
T-1	1	1		5007-008				

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA				NOTES
	PRI.	SEC.	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T-2	128	8	5007-033				

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3" PM 8 ohms	SP-015	30A0528	

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	2A Quick Acting	5028-001	5029-001	AGC2	HDJ	312002	150145	FG2-2
F2	1A Quick Acting	5028-003	5029-004	AGC1	HKP	312001	342001AL	FG1-2

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
Fil-1	Filter	LF-86	Ceramic (455kHz)
M-1	Meter		"S"/RF (MT-034)
M-2	Meter		SWR/Mod (MT-035)
S1	Switch		Channel Selector (SR-046)
S2	Switch		PA/CB (SR-023)
S3	Switch		NB (SR-023)
S4	Switch		SWR/RF-Mod (S2-023)
S5	Switch		Rec-O-Slide (SR-050)
X1	Crystal	5003-001	37.600MHz
X2	Crystal	5003-002	37.650MHz
X3	Crystal	5003-003	37.700MHz
X4	Crystal	5003-004	37.750MHz
X5	Crystal	5003-005	37.800MHz
X6	Crystal	5003-006	37.850MHz
X7	Crystal	5003-011	10.140MHz
X8	Crystal	5003-012	10.160MHz
X9	Crystal	5003-013	10.170MHz
X10	Crystal	5003-014	10.180MHz
X11	Crystal	5003-007	10.595MHz
X12	Crystal	5003-008	10.615MHz
X13	Crystal	5003-009	10.625MHz
X14	Crystal	5003-010	10.635MHz
	Printed Circuit Board	PC-008AA	Main
	Printed Circuit Board	173-201-00	Power
	Printed Circuit Board	P-3001A	Mic Amp

PEARCE-SIMPSON MODEL BEARCAT 23C

ACCESSORIES

ITEM	MFGR. PART No.	REMARKS
Microphone	5004-012	
Power Cord, AC	5015-005	
Power Cord, DC	5015-010	

WIRING DATA

General-use Hook-up Wire	Use BELOEN No. 8530 (Solid) Available in 12 Colors
	8524 (Stranded) Available in 12 Colors
Power Cord, 2-Wire	Use BELDEN No. 17106 (Plastic) or 17126 (Rubber) -6 feet
	17109 (Plastic) or 17129 (Rubber) -9 feet
Shielded Antenna Lead	Use BELOEN No. 8214 Lowest-loss (RG-8/U Type)
	8237 Low-loss (RG-8/U)
	8240 (Solid) Miniature (RG-58/U)
	8259 (Stranded) Miniature (RG-58A/U)
Coiled Microphone Cable	Use BELDEN No. 8497 3-Conductor (1 shielded for Press-to-Talk) Neoprene
	8491 4-Conductor (2 shielded, 2 unshielded) Neoprene
Ignition Noise Suppression	Use BELDEN No. 7300-Series Spark-Plug Sets
Bonding Strap	Use BELDEN No. 8661 (3/8 inch)