

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 PANTHER SSB

ALIGNMENT

Suggested Alignment Tools:	GC ELECTRONICS:
T6, T7, T8	5000, 8290
ALL Others	9440
CT1 thru CT17	8290

SYNTHESIZER

INDICATOR	CHANNEL	ADJUST	FREQUENCY	REMARKS
Frequency Counter	1	CT1	11.805MHz	Set Slide-O-Tune to 1/2 mash. Connect counter to TP4 and ground. Mode Switch to AM.
	5	CT2	11.855MHz	
	9	CT3	11.905MHz	
	13	CT4	11.955MHz	
	17	CT5	12.005MHz	
	21	CT6	12.055MHz	
	1	CT7	7.3615MHz	Connect counter to TP5. Mode Switch to USB.
	2	CT8	7.3715MHz	
	3	CT9	7.3815MHz	
	4	CT10	7.4015MHz	
	1	CT11	7.3585MHz	Mode Switch to LSB.
	2	CT12	7.3685MHz	
	3	CT13	7.3785MHz	
	4	CT14	7.3985MHz	

PEARCE-SIMPSON MODEL PANTHER SSB

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

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RECEIVER

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

SIGNAL GENERATOR	GEN FREQ	CHANNEL	ADJUST	REMARKS
High side thru a .01uF cap to base of TR3, low side to ground.	Set to 455k Hz, 1000 Hz @ 30% Modulation Output 10uV	Any	T6 T7 T8	Squelch Control maximum counter-clockwise. Noise blanker-off. DX-Local SW to DX. Slide-O-Tune-Mid Scale Mode Selector to AM Adjust for maximum.
High side thru a .01uF cap to antenna jack, low side to ground.	Set to 27.115MHz, 1000 Hz @ 30% Modulation Output 0.3uV	13	T1,T2,T3, T4,T5,T9, T10,T11, T12,T13, T14,T15, VR1	Same as above Mode Switch to USB Adjust for maximum.

RECEIVER ADJUSTMENTS

SIGNAL GENERATOR	GEN FREQ	CHANNEL	ADJUST	REMARKS
AGC High side thru a .01uF capacitor to antenna jack low side to ground.	Set to 27.115MHz, 1000 Hz @ 30% Mod. output 100,000uV.	13	VR7	Set mode switch to AM. Adjust volume control to obtain 0 dB. Decrease generator to 10uV. Adjust so that signal does not drop more than 6 dB.
RF Gain Range High side thru a .01uF capacitor to antenna jack low side to ground.	Set to 27.115 Hz, 1000 Hz @ 30% Mod. output 0.3uV.	13	VR2	Set volume control for 0 dB output. Adjust so that output drops 6 dB or more when Local-DX SW is in Local position.
Squelch Range High side thru a .01uF capacitor to antenna jack low side to ground.	Set to 27.115MHz 1000 Hz @ 30% Mod. output 1000uV.	13	VR4 (AM) VR5 (SSB)	Set squelch control fully CW. Adjust so that squelch just breaks.
"S" Meter High side thru a .01uF capacitor to antenna jack low side to ground.	Set to 27.115MHz 1000 Hz @ 30% Mod. output 2000uV.	13	VR3 (AM) VR8 (SSB)	Set mode switch to AM & SSB Adjust for "S9" on panel "S" meter.

TRANSMITTER

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

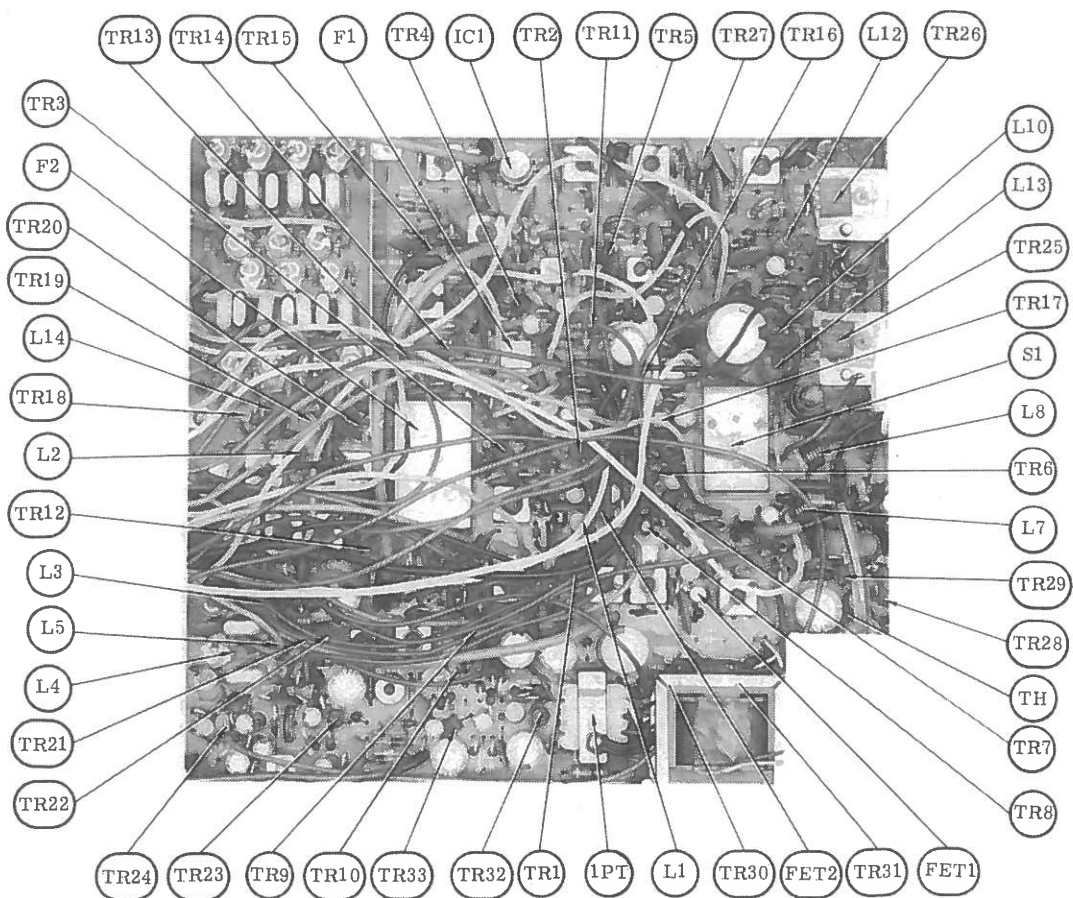
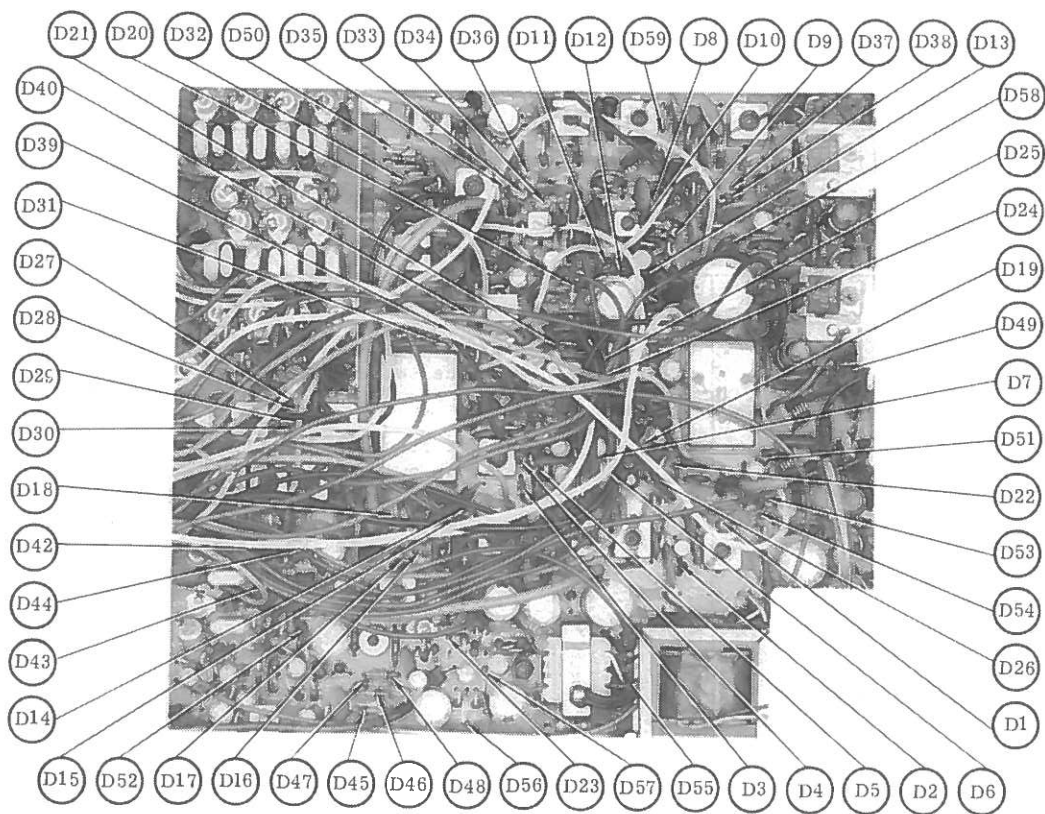
SSB

INDICATOR	ADJUST	REMARKS
USB Carrier Osc. Frequency Counter	CT15	Connect frequency counter to TP6 and ground. Set mode switch to USB. Adjust for frequency of 7.7985MHz.
LSB Carrier Osc. Frequency Counter	CT16	Connect frequency counter to TP6 and ground. Set mode switch to LSB. Adjust for frequency of 7.8015MHz.
Carrier Oscillator Oscilloscope	T16	Connect Scope to TP6. Adjust for maximum.
Carrier Balance Oscilloscope	CT17 VR10	Short microphone input to ground. Set Mode switch to either USB or LSB. Key transmitter and adjust for MINIMUM indication on scope.
SSB Exciter Oscilloscope (Response to 30MHz)	T17, T18 T19, T20 T21, L9 L11	Connect oscilloscope between antenna and ground. Set channel selector to 13. Set Mode switch to either USB or LSB. Connect Audio signal generator to input terminal of microphone connector. Inject a 1kHz 3mV signal. Key transmitter and adjust for maximum.
Final Bias 0-1 A DC Milliammeter	VR13	Remove jumper at TP "A" connect meter to L10 and L13. Use two tone generator. Key transmitter. Adjust bias for 700 mA.
Output Power RF Wattmeter	VR14	Mode switch to AM. Key transmitter. Adjust for 4 Watts power output.
TVI Trap TV Set (Ch. 2)	L6	Key transmitter. Adjust for MINIMUM interference.
Final Input Power 0-1 DC Milliammeter	L9	Connect Wattmeter to antenna jack. Remove jumper at TP "A" connect meter between L10 and L13. Adjust for 3.5 Watts.

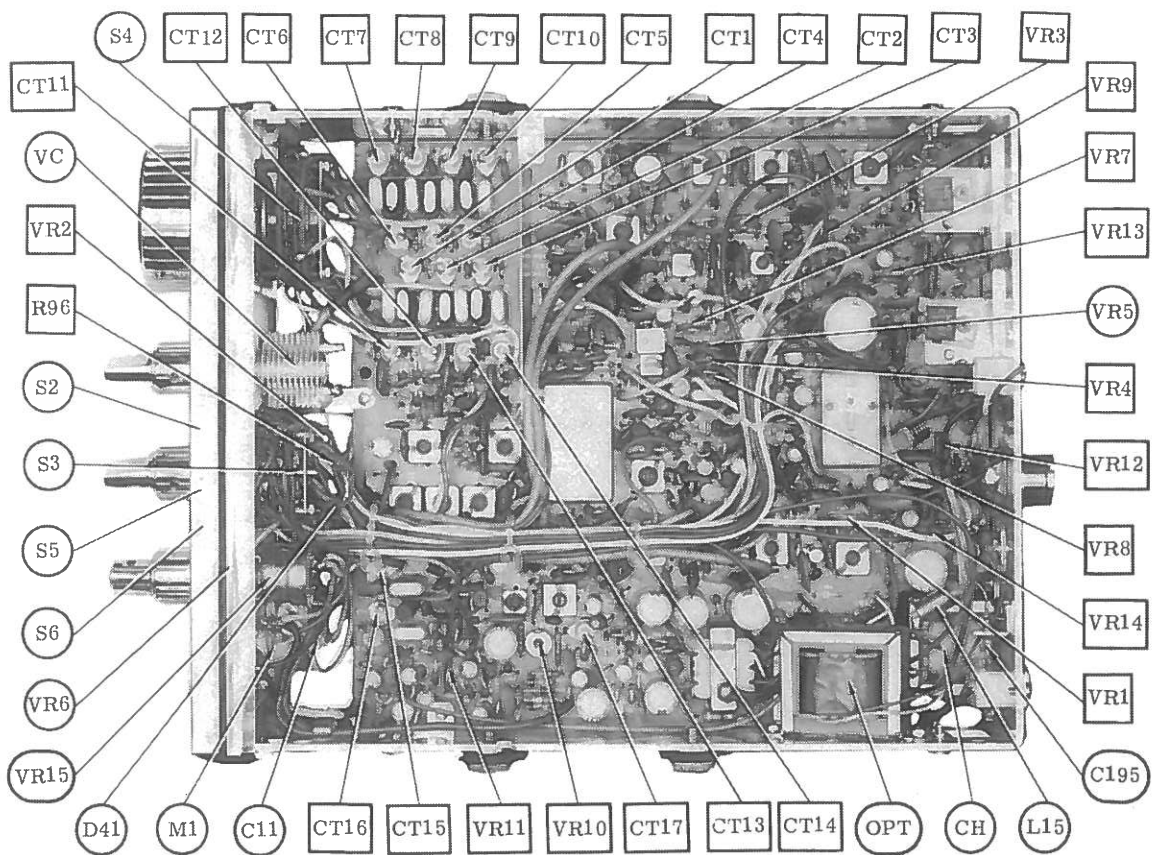
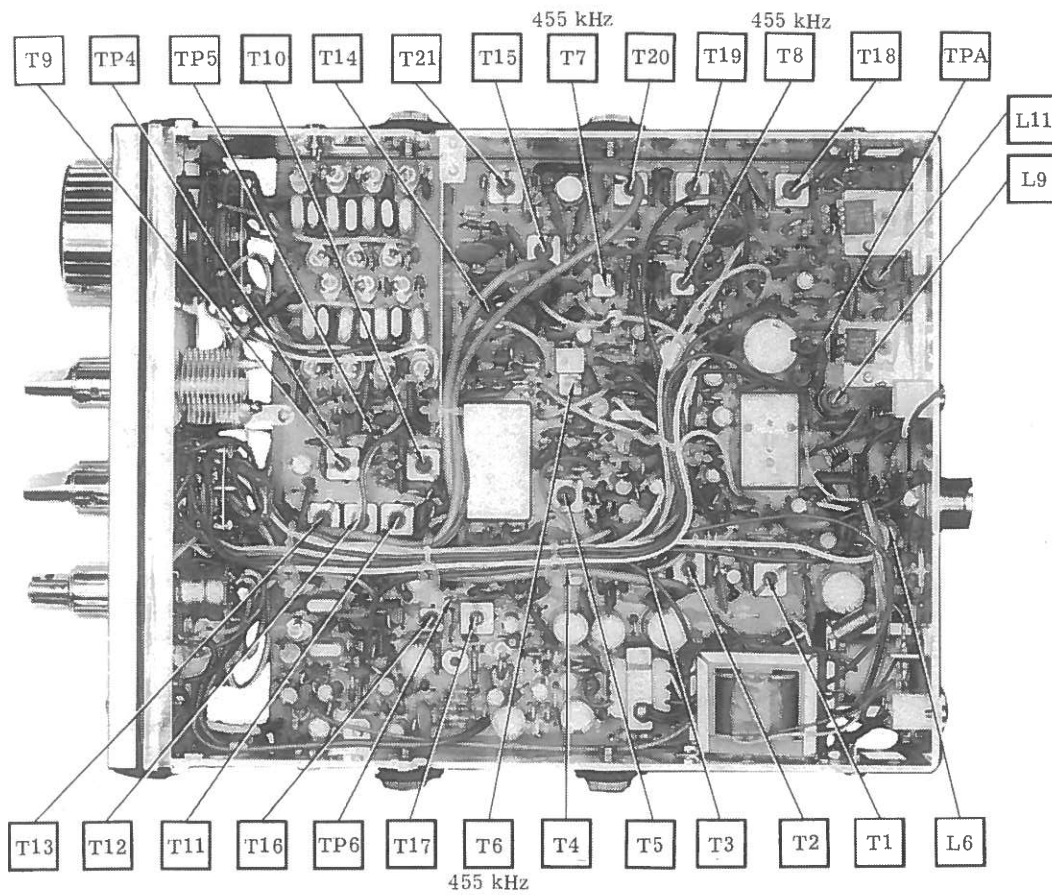
PEARCE-SIMPSON MODEL PANTHER SSB

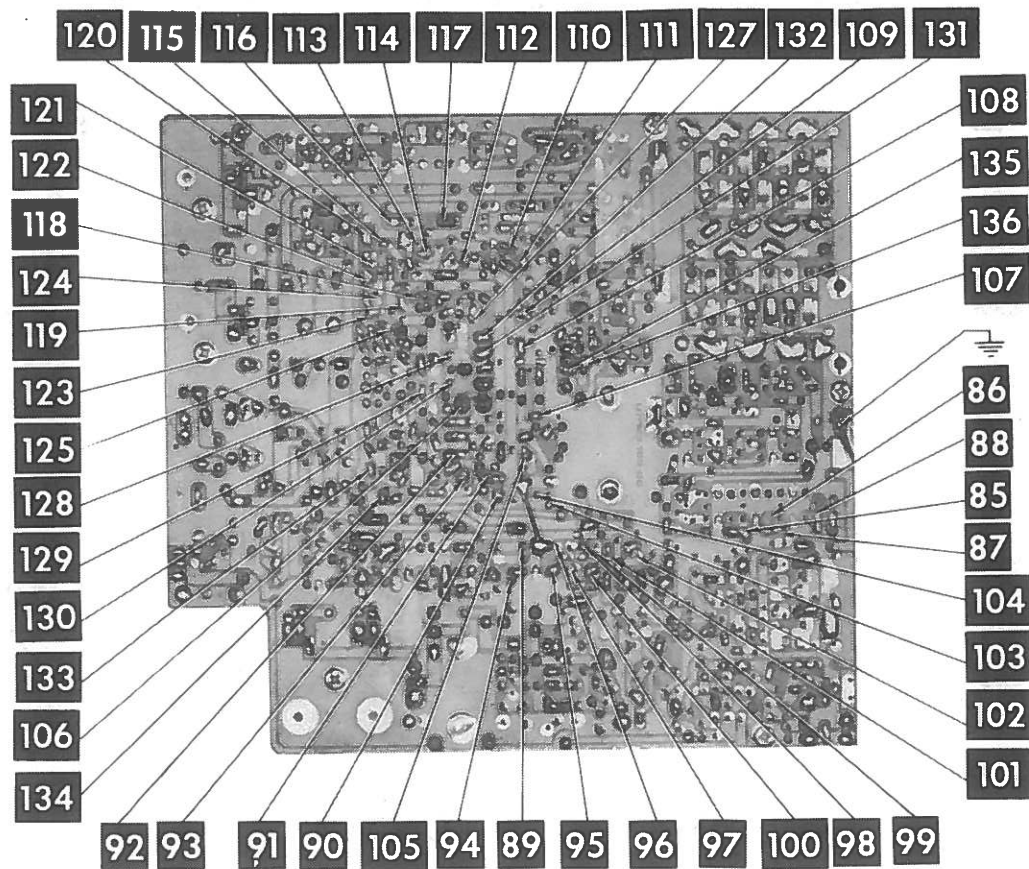
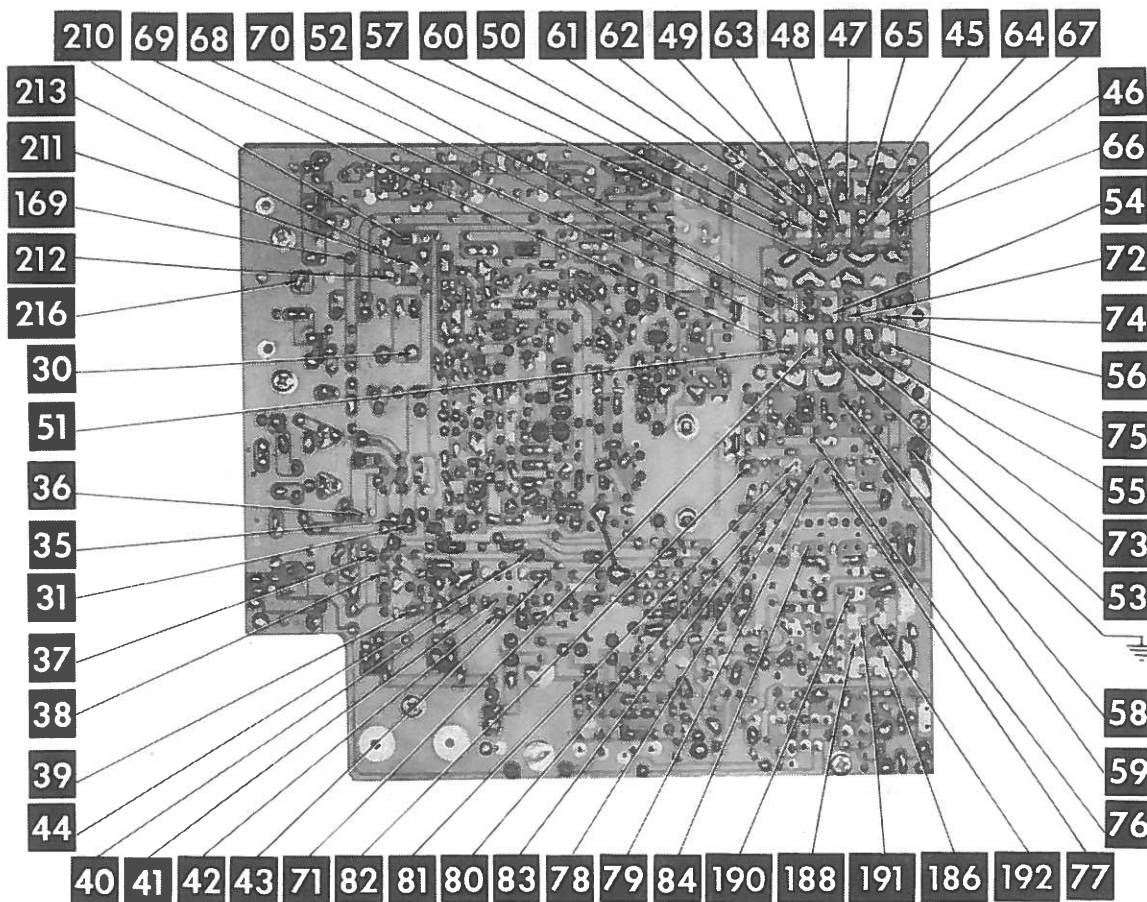
TRANSMITTER ADJUSTMENTS

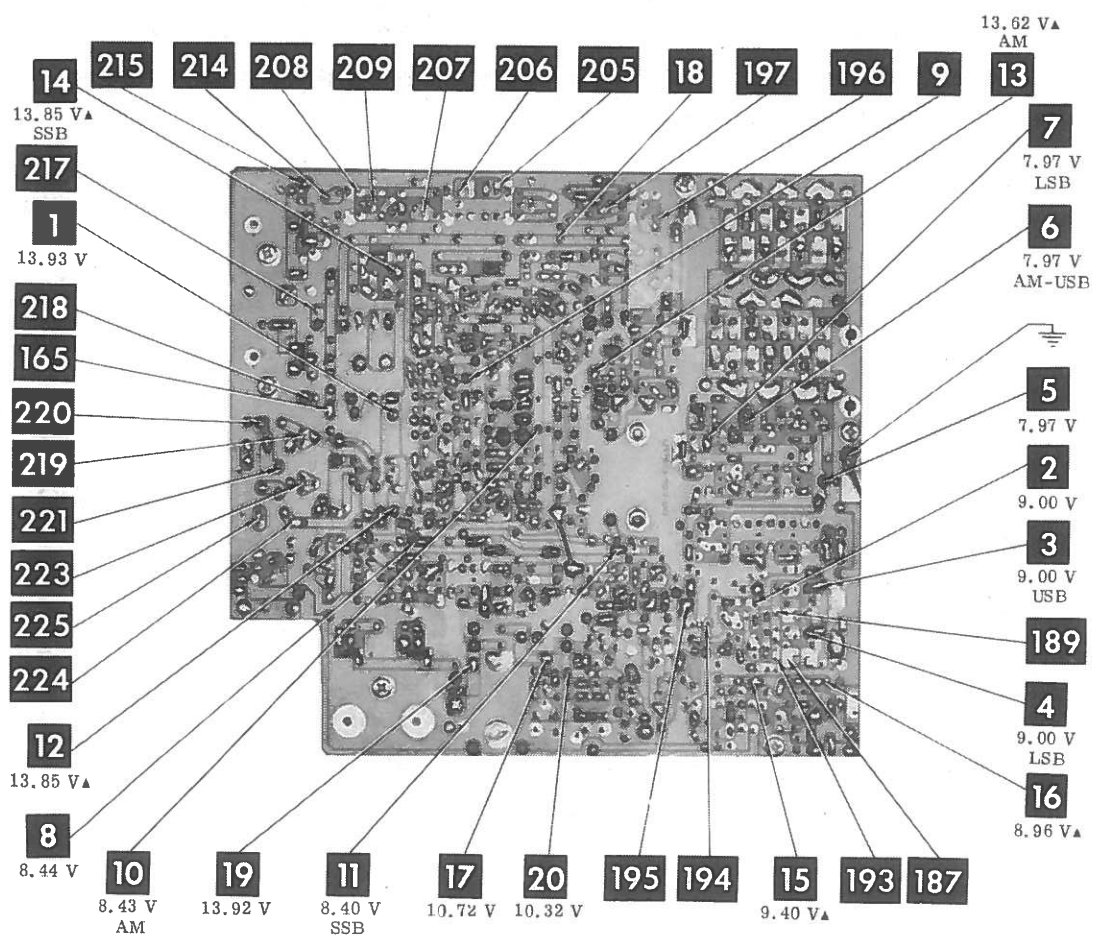
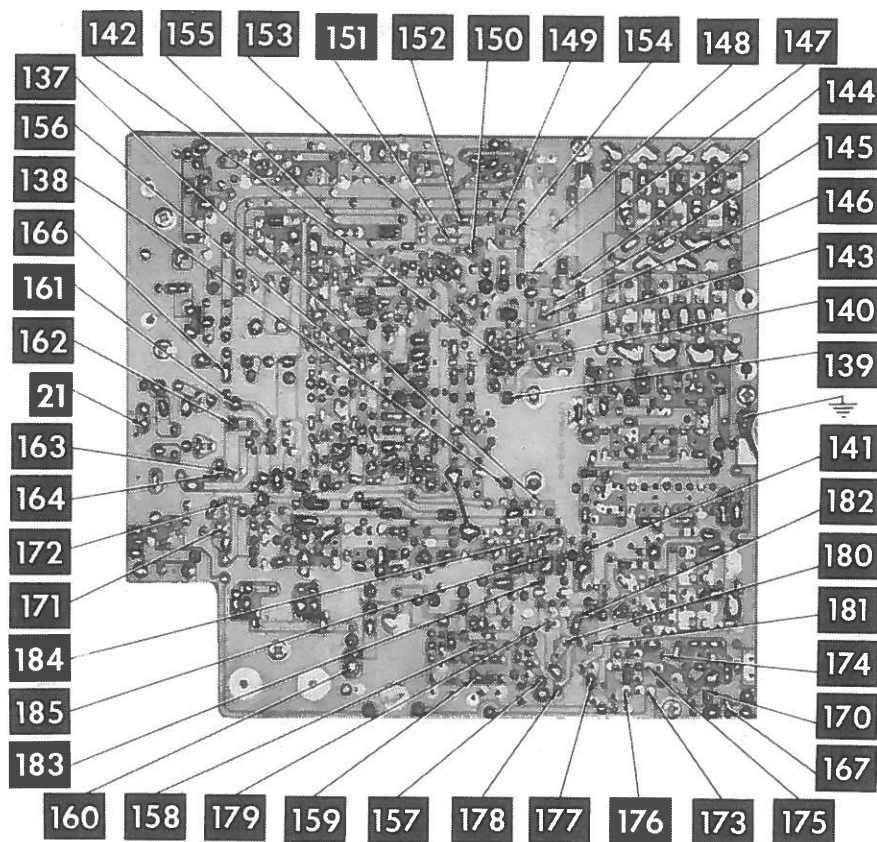
INDICATOR	ADJUST	REMARKS
SSB Mike Gain Range Oscilloscope Useable to 30MHz	VR11	Connect audio generator to microphone input. Inject 0.2 Volt signal. Key transmitter. Adjust for 12.5 Watts.
ALC RF Wattmeter Oscilloscope	VR9	Connect audio generator to microphone input. Inject a 1000Hz signal. Key transmitter. Adjust for 15 Watts.
RF Panel Meter RF Wattmeter	VR12	Set mode switch to AM Key transmitter. Adjust so that panel "RF" meter agrees with RF Wattmeter.

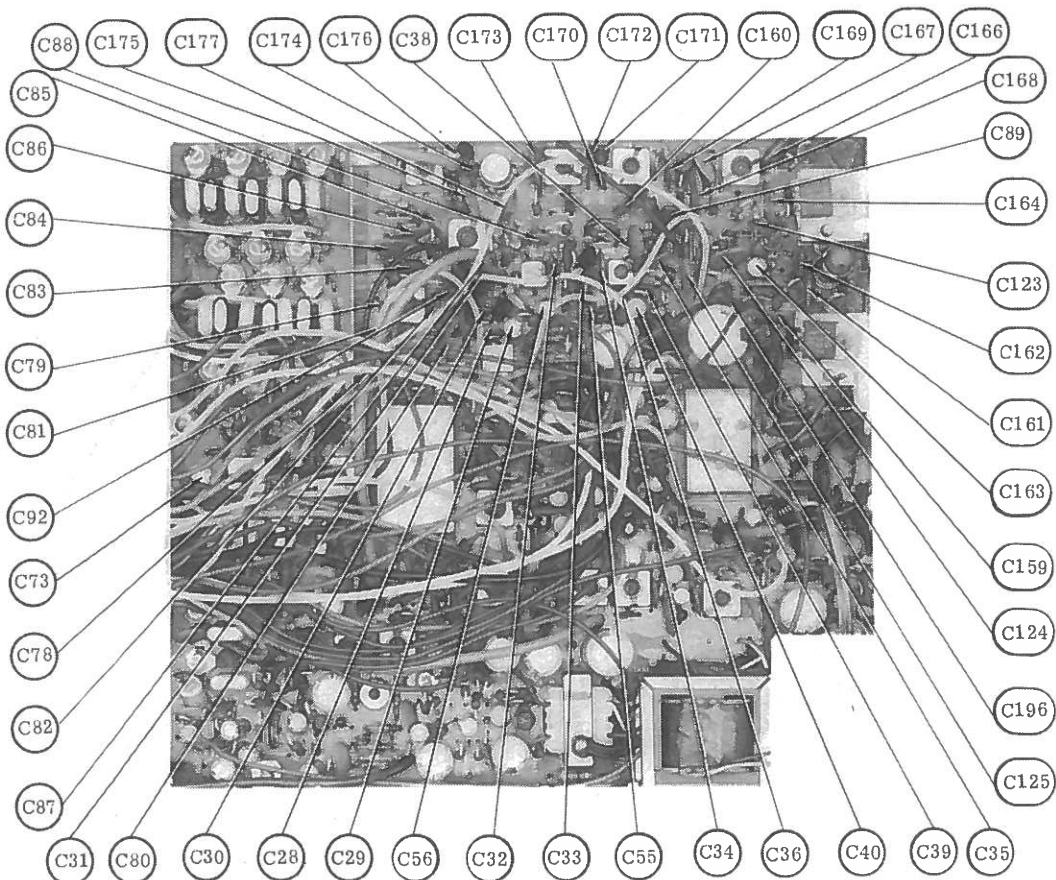
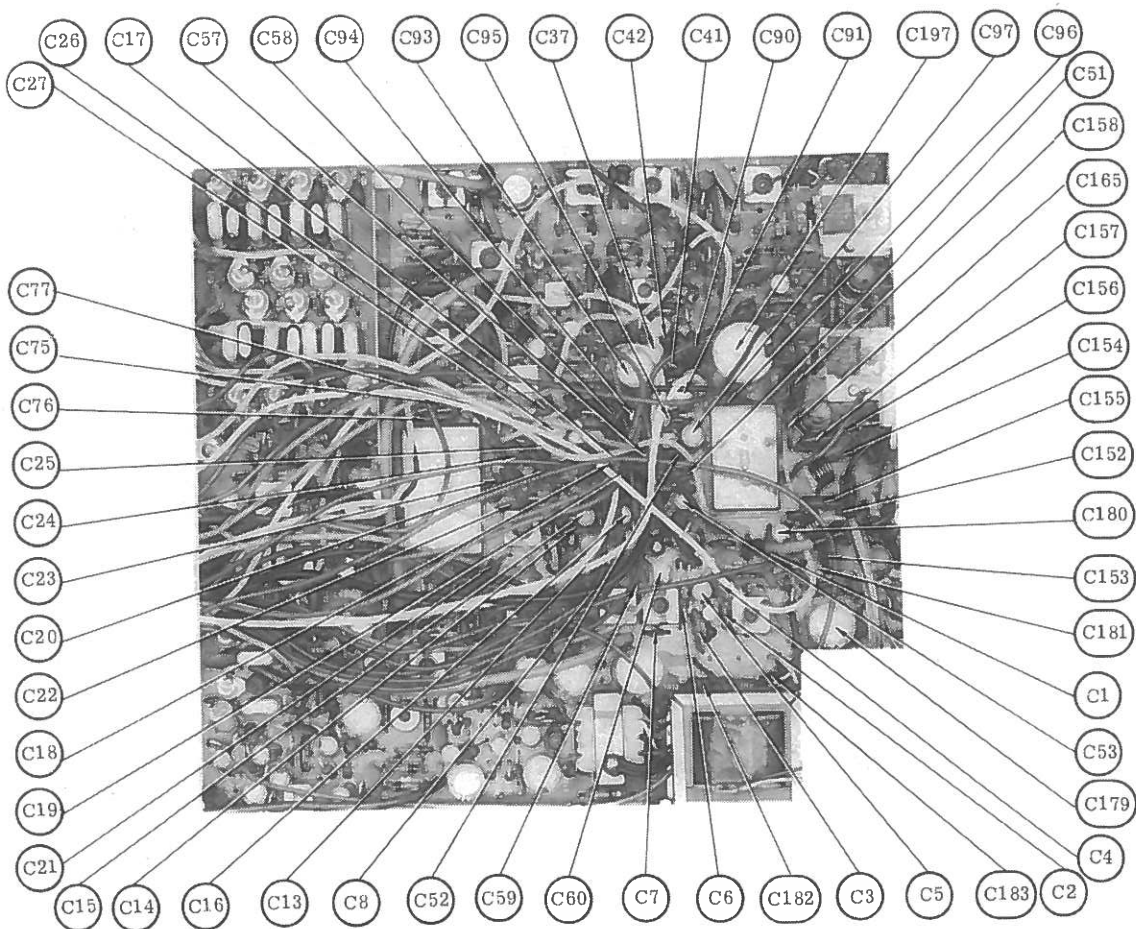


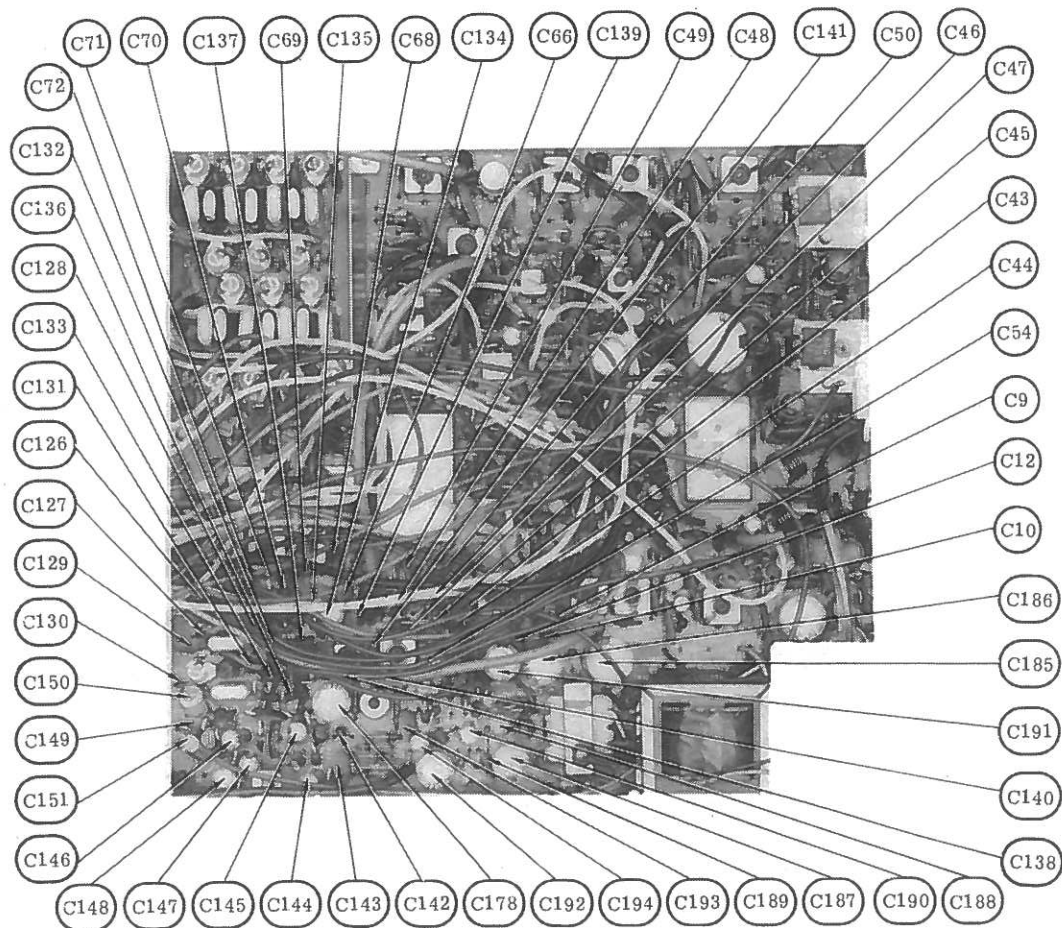
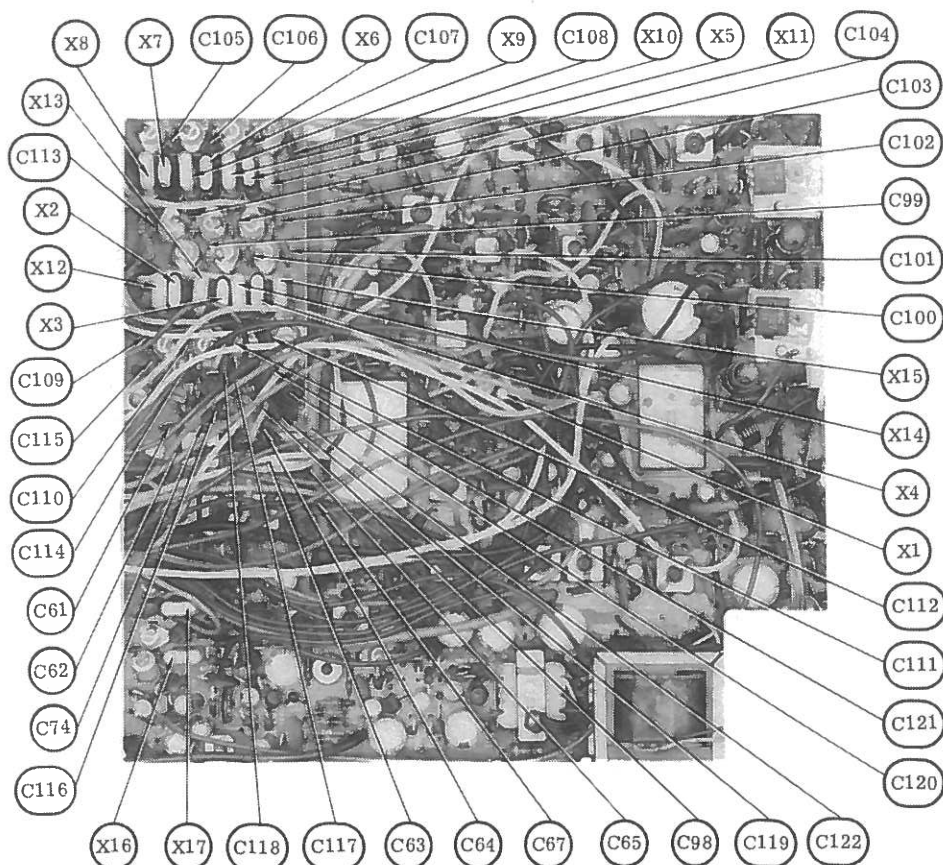
PEARCE-SIMPSON MODEL PANTHER SSB

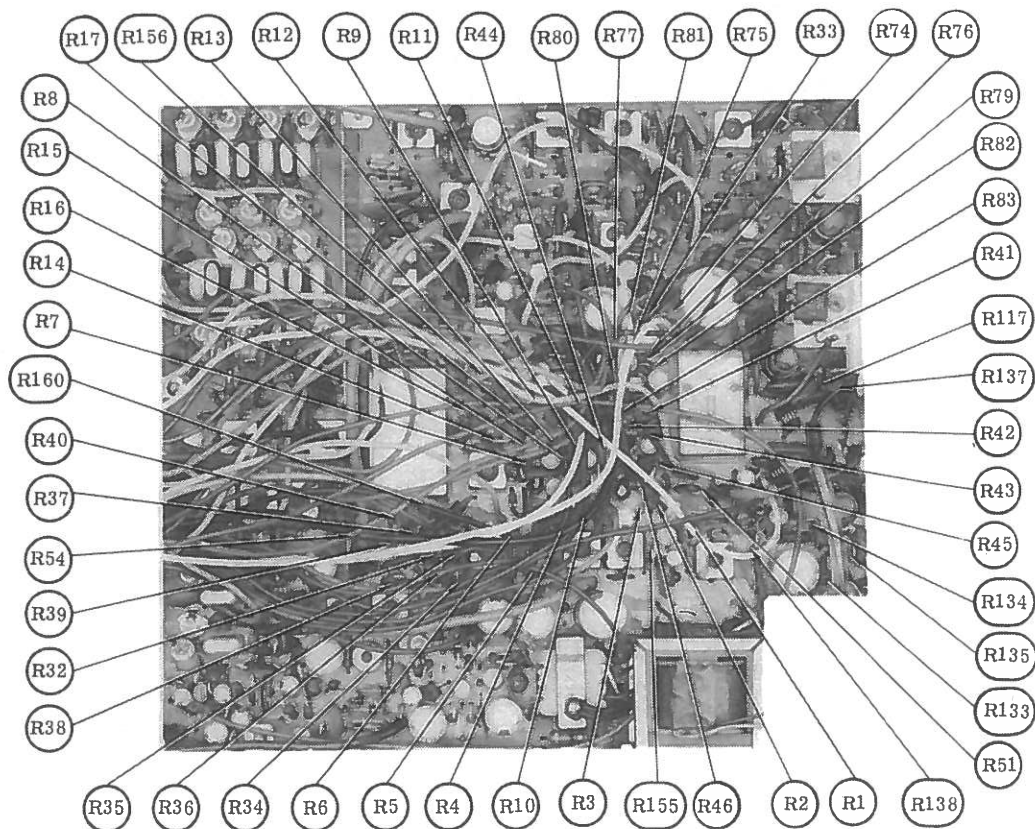
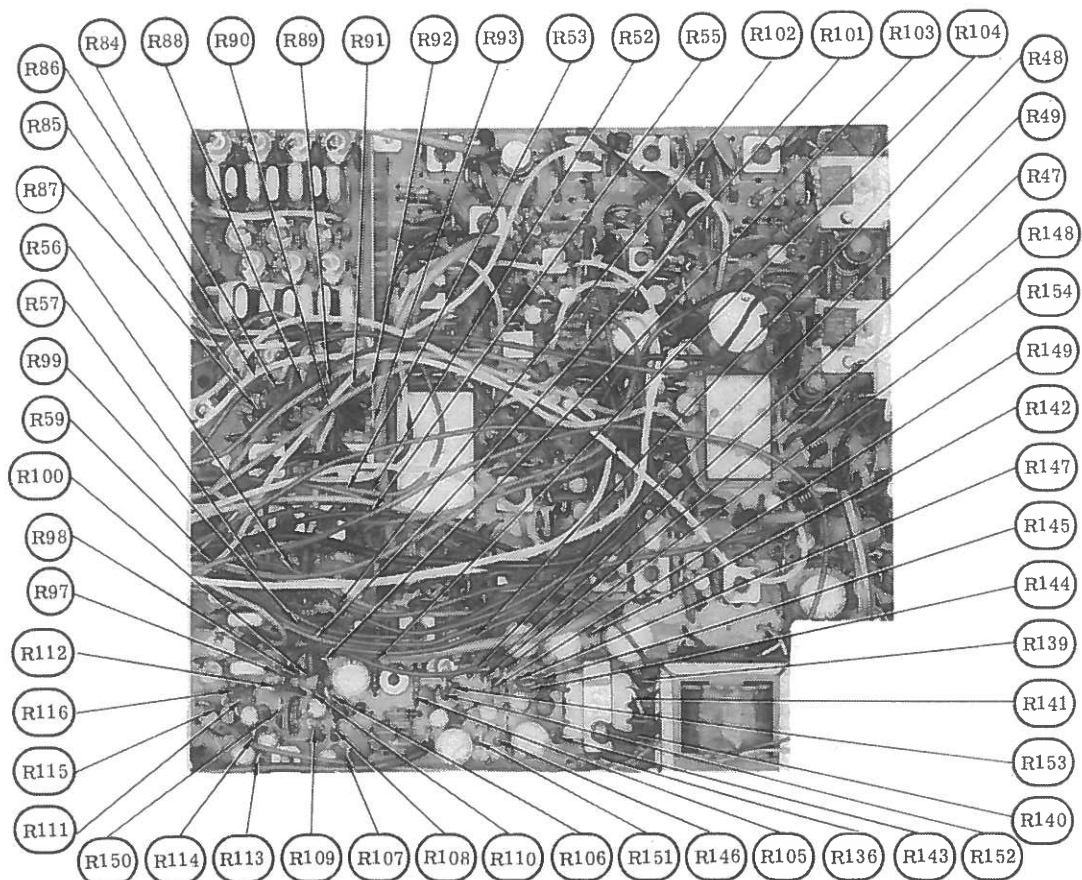


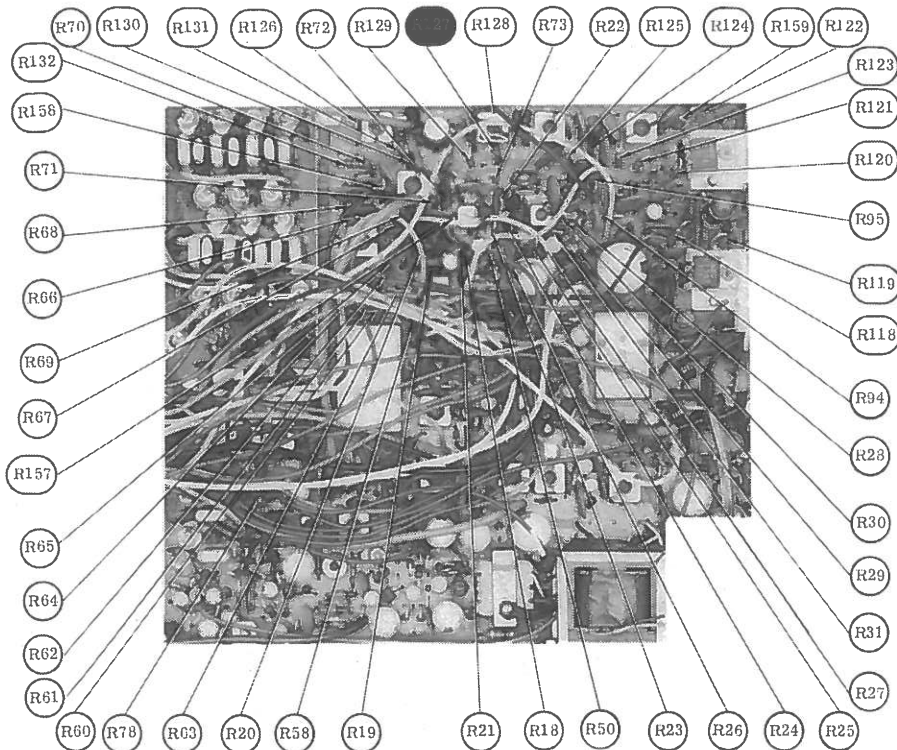












PARTS LIST AND DESCRIPTION

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

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE / MFR. No. / PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D1	1N60P	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D2	ZE1.5 1.45V Zener							
D3	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D4	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D5	1N4448	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D6	1S2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D7	1S2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D8	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D9	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D10	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D11	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D12	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D13	1N4448	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D14	1S1007	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506
D15	1S1007	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506
D16	1S2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D17	1S2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D18	1S2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D19	1N60P	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D20	1S2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D21	1S2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D22	WZ081 8.1V Zener	GE-X11	Z-1208	Z88.2	HEPZ0411	SK3059	RT239	ECG 5072
D23	1S2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D24	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D25	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D26	BZ090 9.1V Zener	GEZD-9.1	Z-1210	PTC505	HEPZ-412	SK3060	RT240	ECG 139
D27	1N60P	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D28	1N60P	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D29	1N60P	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D30	1N60P	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D31	1S2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D32	1S2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D33	1N60P	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D34	1N60P	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D35	1N60P	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D36	1N60P	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D37	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D38	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D39	1N2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D40	1N2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D41	1N2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D42	1N2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D43	1N2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D44	BZ-090 9.1V Zener	GEZD-9.1	Z-1210	PTC505	HEPZ0412	SK3060	RT240	ECG 139
D45	1S1007	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506
D46	1S1007	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506

PARTS LIST AND DESCRIPTION (CONTINUED)

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

SEMICONDUCTORS (Select replacement transistor for best results)(cont)

ITEM No.	TYPE / MFR. No. / PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D47	1S1007	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506
D48	1S1007	GE-511	D172	PTC216	HEPR3012	SK3130		ECG 506
D49	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D50	1S2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D51	SR1K-2	GE-504A	8D4 or 5A4D	PTC201 or PTC202	HEPR0052	SK3030 or SK3031	RT213 or RT214	ECG 116 or ECG 117
D52	BZ-090 9.1V Zener	GEZD-9.1	Z-1210	PTC505	HEP20412	SK3060	RT240	ECG 139
D53	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D54	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D55	CD86003	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D56	1S2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D57	1S2473	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177
D58	SR1K-2	GE-504A	8D4 or 5A4D	PTC201 or PTC202	HEPR0052	SK3030 or SK3031	RT213 or RT214	ECG 116 or ECG 117
D59	KB262	GE-300	D200	PTC214	HEPR0600	SK3100	RT218	ECG 177
FET-1	3SK22(Y)				HEPF2005	SK3116		ECG 220
FET-2	2SK30(Y)	GE-FET-1	FE-100	PTC151	HEP801	SK3112	RT175	ECG 133
IC-1	TA7045(M)			PTC744				ECG 724
TR1	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR2	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR3	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR4	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR5	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR6	2SC945(R)	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 123A
TR7	2SC733(R)							
TR8	2SC945(R)	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 123A
TR9	2SC945(R)	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 123A
TR10	2SC945(R)	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 123A
TR11	2SC945(R)	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 123A
TR12	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR13	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR14	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR15	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR16	2SC900(F)	GE-62	TR-21	PTC139	HEP725	SK3124	RT102	ECG 199
	2SC945(R) (1)	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 123A
TR17	2SC945(T)	GE-20	(IR)2SC945	PTC136	HEP728	SK3124	RT102	ECG 199
	2SC945(R) (1)	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 123A
TR18	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR19	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR20	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR21	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR22	2SC839(H)	GE-20	TR-24	PTC121	HEP728	SK3018	RT102	ECG 108
TR23	2SC945(R)	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 199
TR24	2SC945(R)	GE-20	TR-21	PTC136	HEP728	SK3124	RT102	ECG 199
TR25	2SC1307 (2)	GE-66		PTC110				
TR26	2SC1306 (3)	GE-66	TR-55	PTC110				ECG 235
TR27	2SC710	GE-20	(IR) 2SC710	PTC121	HEP56	SK3018	RT108	ECG 107
TR28	2SC1096(L) (4)	GE-28	TR-55	PTC110	HEPS5003	SK3054	RT154	ECG 186
TR29	2SC945(T)	GE-20	(IR)2SC945	PTC136	HEP728	SK3124	RT102	ECG 199
TR30	2SC1096(L) (4)	GE-28	TR-55	PTC110	HEPS5003	SK3054	RT154	ECG 186
TR31	2SC1096(L) (4)	GE-28	TR-55	PTC110	HEPS5003	SK3054	RT154	ECG 186
TR32	2SC735(Y)	GE-63	TR-21	PTC123	HEP53	SK3124	RT102	ECG 123A
TR33	2SC945(T)	GE-20	(IR)2SC945	PTC136	HEP728	SK3124	RT102	ECG 199

(1) Used in some versions.

(2) Rating 25 Watt @ 8 Amp.

(3) Rating 12 Watt @ 3 Amp.

(4) Rating 10 Watt @ 2 Amp.

PEARCE-SIMPSON MODEL PANTHER SSB

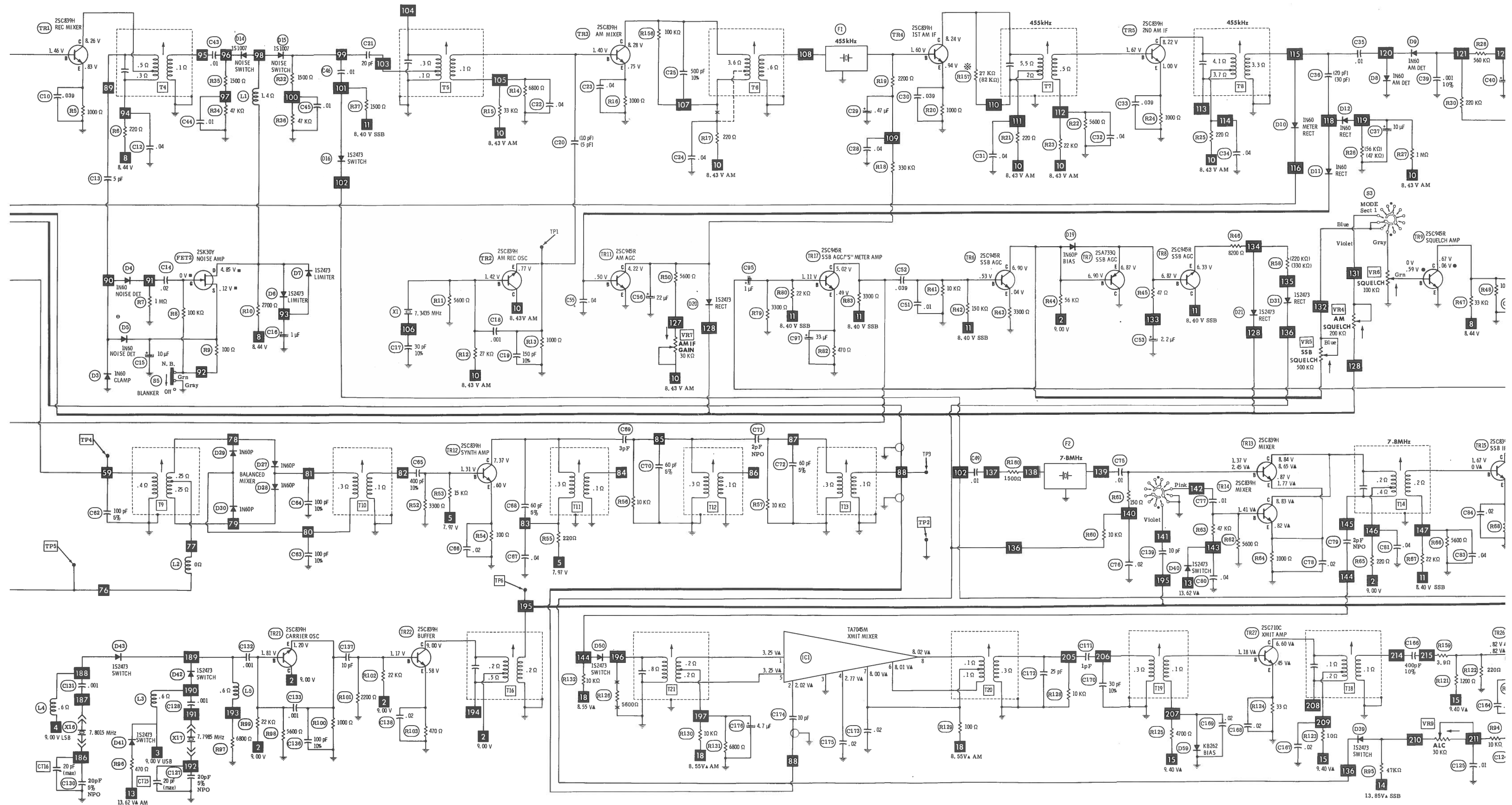
ELECTROLYTIC CAPACITORS

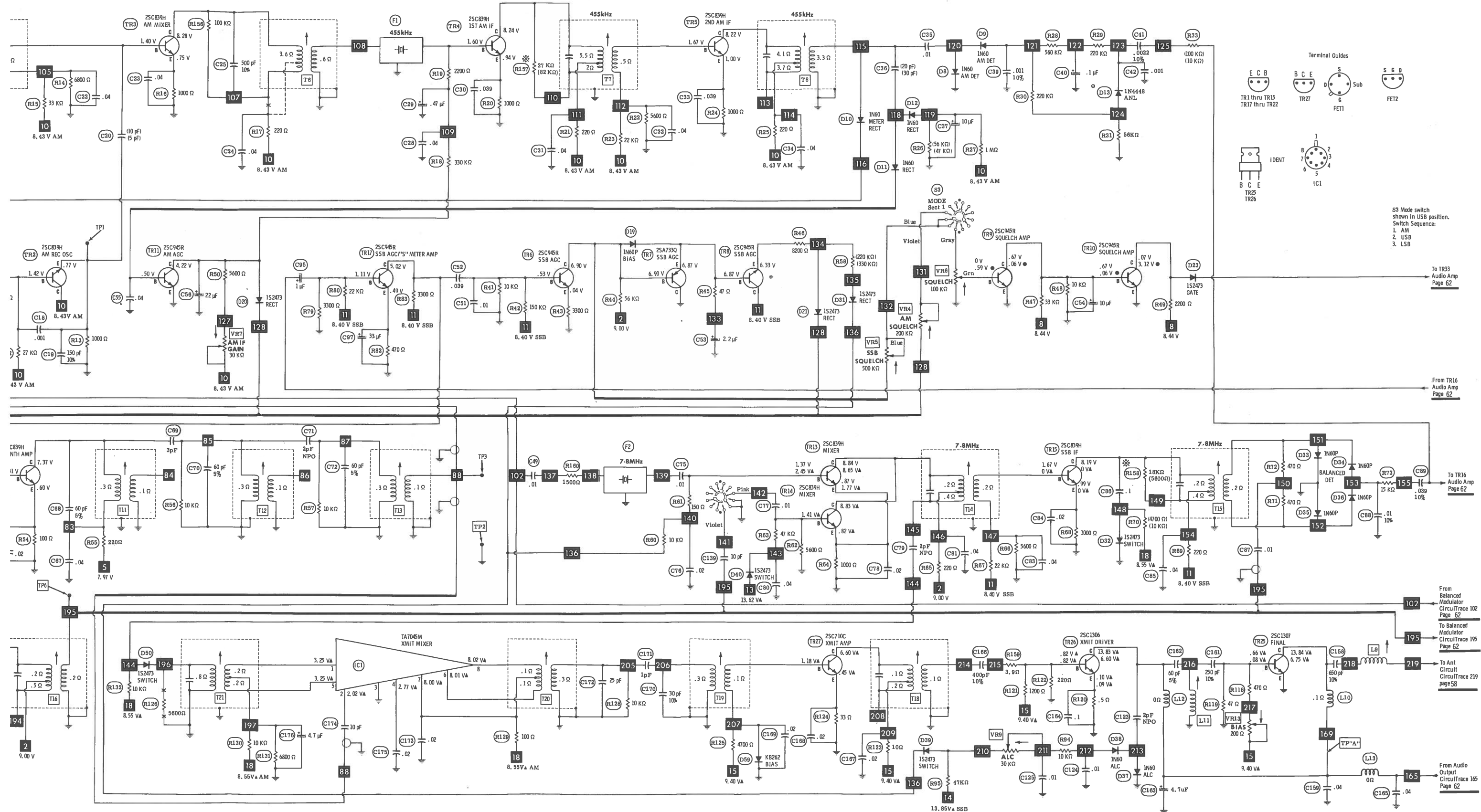
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		MFR. PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C5	.1 25V		RME-A-J-001	EP50-1	PC1-50	TDC104M050EL	SD35-R109
C11	1 50V		ME-1-D-010	EA15-10	WBR10-25	MTV1CB50	EV-1615
C15	10 16V		RME-A-J-001	EP50-1	PC1-50	MTA10D35	TVA-1129.87
C16	1 50V		RME-D-D-050	EP15-50	PC50-10	MTV1CB50	EV-1615
C27	47 10V					MTV50CB15	EV-1226
C29	.47 50V					TDC474M050EL	SD50-R479
C37	10 16V		ME-1-D-010	EA15-10	WBR10-25	MTA10D35	TVA-1129.87
C40	.1 25V					TDC104M050EL	SD35-R109
C53	2.2 25V		RME-A-G-002	EP30-2	PC2-100	VTT2R2A50	EV-1317
C54	10 16V		ME-1-D-010	EA15-10	WBR10-25	MTA10D35	TVA-1129.87
C56	22 10V		RME-B-D-025	EP15-25	PC25-25	MTV25CB35	EV-1125
C57	4.7 25V		RME-A-G-005	EP30-5	PC5-50	VTT4R7A50	EV-1319
C58	4.7 25V		RME-A-G-005	EP30-5	PC5-50	VTT4R7A50	EV-1319
C73	47 10V		RME-D-D-050	EP15-50	PC50-10	MTV50CB15	EV-1226
C91	33 6.3V		ME-2-B-035	EP6-25	PC30-25	VTT33A10	EV-1125
C93	330 10V		RME-F-B-250	EP6-250	WBR300-35	MTA300G50	EV-1145
C94	1 50V		RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C95	1 50V		RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C97	33 6.3V		ME-2-B-035	EP6-25	PC30-25	VTT33A10	EV-1125
C134	47 10V		RME-D-D-050	EP15-50	PC50-10	MTV50CB15	EV-1226
C142	1 50V		RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C144	10 16V		ME-1-D-010	EA15-10	WBR10-25	MTA10D35	TVA-1129.87
C145	4.7 25V		RME-A-G-005	EP30-5	PC5-50	VTT4R7A50	EV-1319
C146	4.7 25V		RME-A-G-005	EP30-5	PC5-50	VTT4R7A50	EV-1319
C147	4.7 25V		RME-A-G-005	EP30-5	PC5-50	VTT4R7A50	EV-1319
C148	33 6.3V		ME-2-B-035	EP6-25	PC30-25	VTT33A10	EV-1125
C150	47 10V		RME-D-D-050	EP15-50	PC50-10	MTV50CB15	EV-1226
C151	1 50V		RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C163	4.7 25V		RME-A-G-005	EP30-5	PC5-50	VTT4R7A50	EV-1319
C176	4.7 25V		RME-A-G-005	EP30-5	PC5-50	VTT4R7A50	EV-1319
C178	47 10V		RME-D-D-050	EP15-50	PC50-10	MTV50CB15	EV-1226

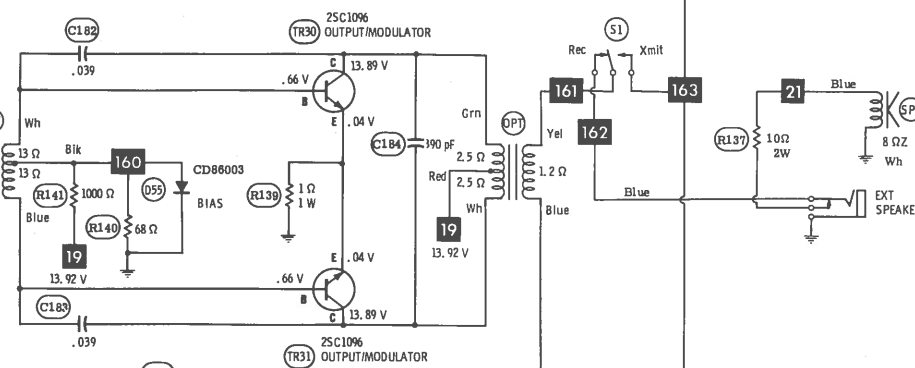
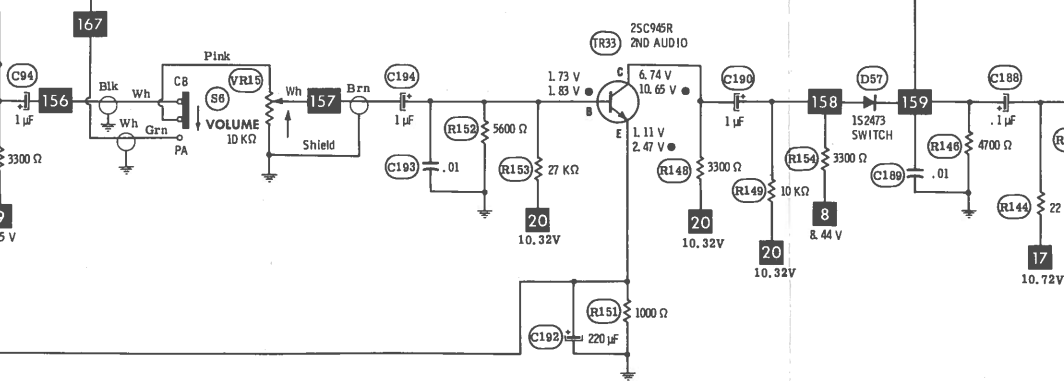
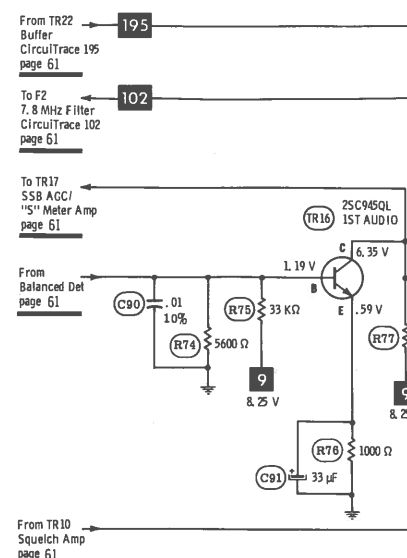
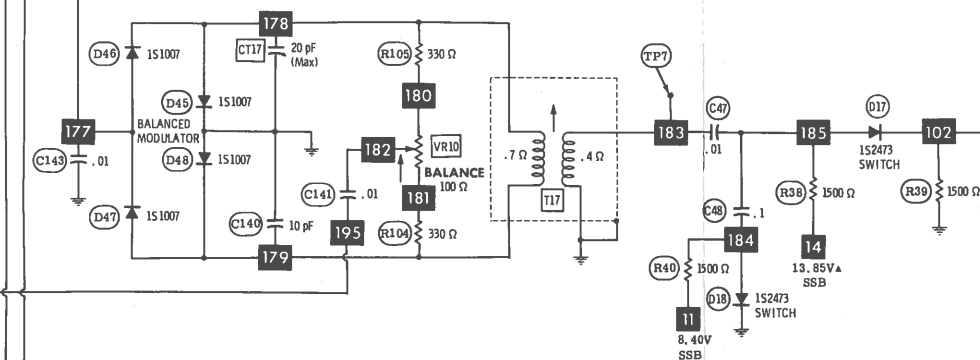
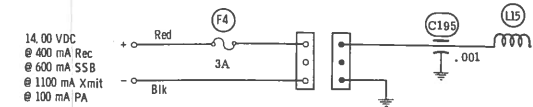
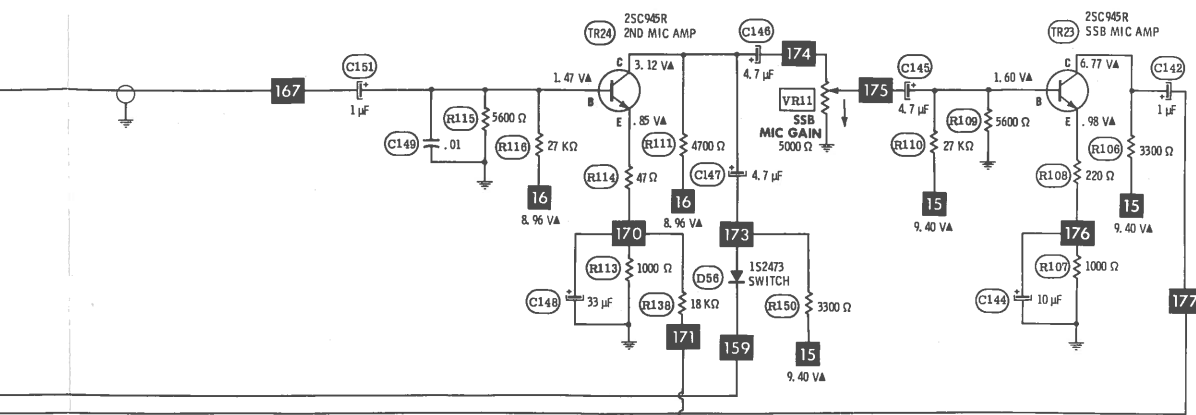
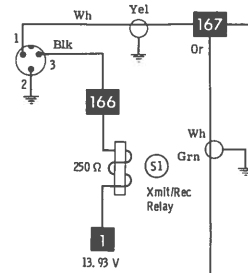
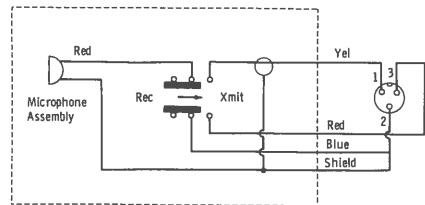
(CONTINUED ON PAGE 65)



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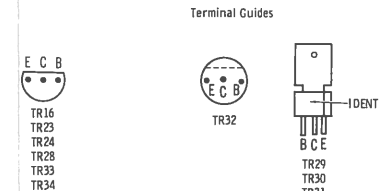
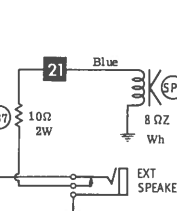
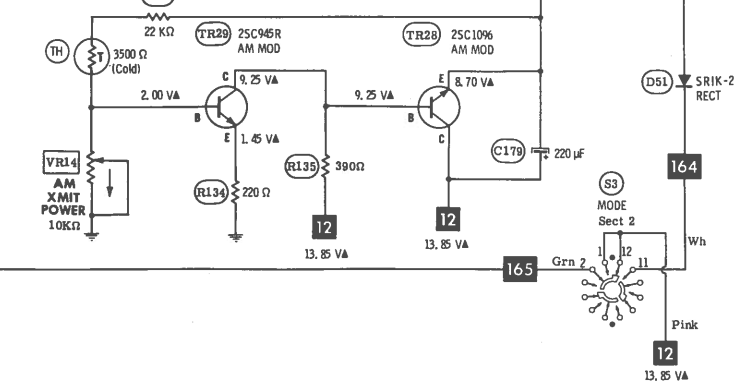


AM-USB

Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement
1	X2, X8	7	X3, X10	13	X5, X8	19	X6, X10
2	X2, X9	8	X3, X11	14	X5, X9	20	X6, X11
3	X2, X10	9	X4, X8	15	X5, X10	21	X7, X8
4	X2, X11	10	X4, X9	16	X5, X11	22	X7, X9
5	X3, X8	11	X4, X10	17	X6, X8		
6	X3, X9	12	X4, X11	18	X6, X9	23	X7, X11

LSB

Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement
1	X2, X12	7	X3, X14	13	X5, X12	19	X6, X14
2	X2, X13	8	X3, X15	14	X5, X13	20	X6, X15
3	X2, X14	9	X4, X12	15	X5, X14	21	X7, X12
4	X2, X15	10	X4, X13	16	X5, X15	22	X7, X13
5	X3, X12	11	X4, X14	17	X6, X12		
6	X3, X13	12	X4, X15	18	X6, X13	23	X7, X15



SS Mode switch shown in USB position.
Switch Sequence:
1. AM
2. USB
3. LSB

■ Noise Blanker on.
⊕ Denotes chassis.
⊥ Denotes ground. (Voltage re
--- Indicates connection used in
--- Indicates connection not use
* Omitted in some versions.
⊙ See parts list.
⊗ Value varies; replace with (r
▲ Measured in transmit positio
● Measured with unit squelch

NC No Connection.
Measurements taken with sw
otherwise indicated.
Values shown in () are use
Resistors are 1/2W or less, 5
Supply voltage maintained at
Voltage and resistance meas
no signal applied and contr
Arrow on control indicates dir
Numbers assigned to termin
Transistor resistances vary v



PARTS LIST AND DESCRIPTION (CONTINUED)

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

ELECTROLYTIC CAPACITORS (cont)

ITEM No.	RATING	REPLACEMENT DATA					
		MFGR. PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C179	220 25V		ME-G250	EA30-250	WBR250-25	MTA250G75	TVA-1208
C180	47 10V		RME-D-D-050	EP15-50	PC50-10	MTV50CB15	EV-1226
C181	10 16V		ME-1-D-010	EA15-10	WBR10-25	MTA10035	TVA-1129.87
C185	470 16V		RME-L-E-500	EP15-500	PC500-16	MTV500DN15	EV-1250
C186	220 16V		RME-J-E-250	EP15-250	PC250-25	MTV250DE15	EV-1245
C187	220 6.3V		RME-F-B-250	EP6-250	PC250-10	MTV250DB10	EV-1145
C188	1 50V		RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C190	1 50V		RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C191	220 16V		RME-J-E-250	EP15-250	PC250-25	MTV250DE15	EV-1245
C192	220 6.3V		RME-F-B-250	EP6-250	PC250-10	MTV250DB10	EV-1145
C194	1 50V		RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C197	1000 25V		RME-P-G-1000	EP30-1000	WBR1000-25	MTA1000G25	EV-1360

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	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C2	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C3	.02		CCD-203	DD-203		GP120	10TS-S20
C4	.005		CCD-502	CK-502	MGP005	TA250	TG-D50
C6	.04			DD-403		GP140	
C7	2 NPO			DTZ-2R2	NP02P2	CN0522	10TCC-V22
C8	.005		CCD-502	CK-502	MGP005	TA250	TG-D50
C9	10		DM-15-100J		CD15CD100J03	SX410	
C10	.039 50V		1MD-1-393			EWFA1A139	1PB-S39
C12	.04			DD-403		GP140	
C13	5		DM-15-050D		CD15CD50D03	SX550	
C14	.02		CCD-203	DD-203		GP120	10TS-S20
C17	30 10%		DM-15-300J	CPR-30J		SX430	
C18	.001 50V		6DP-1-102	CPR-1000J	DPMS6D1	EWFA210	225P10291WD3
C19	150 10%		DM-15-151J	CPR-150J	CD15FD1J03	SX315	424MC1500J501
C20	5		DM-15-050D		CD15CD50D03	SX550	
C21	20		DM-15-200J	CPR-20J		SX420	
C22	.04			DD-403		GP140	
C23	.039 50V		1MD-1-393			EWFA1A139	1PB-S39
C24	.04			DD-403		GP140	
C25	500 10%		DM-19-501J				
C26	.04			DD-403		GP140	
C28	.04			DD-403		GP140	
C30	.039 50V		1MD-1-393			EWFA39	1PB-S39
C31	.04			DD-403		GP140	
C32	.04			DD-403		GP140	
C33	.039 50V		1MD-1-393			EWFA39	1PB-S39
C34	.04			DD-403		GP140	
C35	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C36	30		DM-15-300J	CPR-30J		SX430	
C38	.04			DD-403		GP140	
C39	.001 10%		6DP-1-102	CPR-1000J	DPMS6D1	EWFA210	225P10291WD3
C41	.0022 10% 50V		1MDF-1-222			EWFA222	1PB-D22
C42	.001 10%		6DP-1-102	CPR-1000J	DPMS6D1	EWFA210	225P10291WD3
C43	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C44	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C45	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C46	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C47	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C48	.1			CK-104		TA010	TG-P10
C49	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C50	.04			DD-403		GP140	
C51	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C52	.039 50V		1MD-1-393			EWFA1A139	1PB-S39
C55	.04			DD-403		GP140	
C59	.04			DD-403		GP140	
C61	30 10%		DM-15-300J	CPR-30J		SX430	
C62	100 5%						
C63	100 10%		DM-15-101J	CPR-100J	CD15FD101J03	SX310	424MC1000J501
C64	100 10%		DM-15-101J	CPR-100J	CD15FD101J03	SX310	424MC1000J501
C65	400 10%						MS-34
C66	.02		CCD-203	DD-203		GP120	10TS-S20
C67	.04			DD-403		GP140	
C68	60 5%						MS-46
C69	3						
C70	60 5%			DTZ-1R5	NP01P5	CN0515	MS-46
C71	2 NPO						10TCC-V15
C72	60 5%						MS-46
C74	.04			DD-403		GP140	
C75	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C76	.02		CCD-203	DD-203		GP120	10TS-S20
C77	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C78	.02		CCD-203	DD-203		GP120	10TS-S20
C79	2 NPO			DTZ-2R2	NP02P2	CN0522	10TCC-V22
C80	.04			DD-403		GP140	
C81	.04			DD-403		GP140	
C83	.04			DD-403		GP140	
C84	.02		CCD-203	DD-203		GP120	10TS-S20
C85	.04			DD-403		GP140	
C86	.1			CK-104		TA010	TG-P10
C87	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C88	.01 10%		CCD-103	DD-103	GP10000	JF110	10TS-S10

PEARCE-SIMPSON MODEL PANTHER SSB

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.
C89	.039 10% 50V		1MD-1-393			EWFA1A139	1PB-S39
C90	.01 10% 50V		1DP-1-103	CPR-10000J	DPMS6S1	EWFA1A110	225P10391WD3
C92	.04			DD-403		GP140	
C96	.04			DD-403		GP140	
C98	.04			DD-403		GP140	
C99	20 N470		*			*	10TCT-Q20
C101	20 N470		*			*	10TCT-Q20
C102	20 N470		*			*	10TCT-Q20
C103	20 N470		*			*	10TCT-Q20
C104	20 N470		*			*	10TCT-Q20
C105	20		DM-15-200J	CPR-20J		SX420	
C106	20		DM-15-200J	CPR-20J		SX420	
C107	20		DM-15-200J	CPR-20J		SX420	
C108	20		DM-15-200J	CPR-20J		SX420	
C109	20		DM-15-200J	CPR-20J		SX420	
C110	20		DM-15-200J	CPR-20J		SX420	
C111	20		DM-15-200J	CPR-20J		SX420	
C112	20		DM-15-200J	CPR-20J		SX420	
C113	10 N470		*			*	10TCT-Q10
C114	150		DM-15-151J	CPR-150J	CD15FD151J03	SX315	424MC1500J501
C115	150 10%		DM-15-151J	CPR-150J	CD15FD151J03	SX315	424MC1500J501
C116	40 10%						MS-44
C117	.001 10%		6DP-1-102	CPR-1000J	DPMS6D1	EWFA1A210	225P10291WD3
C118	150 10%		DM-15-151J	CPR-150J	CD15FD151J03	SX315	424MC1500J501
C119	40 10%						MS-44
C120	.001 10% 50V		6DP-1-102	CPR-1000J	DPMS6D1	EWFA1A210	225P10291WD3
C121	150 10%		DM-15-151J	CPR-150J	CD15FD151J03	SX315	424MC1500J501
C122	.04			DD-403		GP140	
C123	2 NPO			DTZ-2R2	NPO2P2	CN0522	10TCC-V22
C124	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C125	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C126	.04			DD-403		GP140	
C127	20 NPO 5%						
C128	.001		6DP-1-102	CPR-1000J	DPMS6D1	EWFA1A210	225P10291WD3
C129	.04			DD-403		GP140	
C130	20 NPO 5%						
C131	.001 50V		6DP-1-102	CPR-1000J	DPMS6D1	EWFA1A210	225P10291WD3
C132	.001 50V		6DP-1-102	CPR-1000J	DPMS6D1	EWFA1A210	225P10291WD3
C133	.001 50V		6DP-1-102	CPR-1000J	DPMS6D1	EWFA1A210	225P10291WD3
C135	.04			DD-403		GP140	
C136	100 10%		6DP-1-102	CPR-1000J	DPMS6D1	EWFA1A210	225P10291WD3
C137	10		DM-15-100J		CD15CD100J03	SX410	
C138	.02		CCD-203	DD-203		GP120	10TS-S20
C139	10		DM-15-100J		DC15CD100J03	SX410	
C140	10		DM-15-100J		DC15CD100J03	SX410	
C141	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C143	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C149	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C152	40 10%						MS-44
C153	200 10%		DM-19-201J	CPR-200J	CD15FD201J03	SX320	424ME2000J501
C154	.04		CCD-203	DD-203		GP120	10TS-S20
C155	250 10%		DM-19-251J				
C156	1						MS-34
C157	400 10%						
C158	650 10%						
C159	.04			DD-403		GP140	
C160	.04			DD-403		GP140	
C161	250 10%		DM-19-251J				
C162	60 5%						MS-46
C164	.04			DD-403		GP140	
C165	.04			DD-403		GP140	
C166	400 10%						MS-34
C167	.02		CCD-203	DD-203		GP120	10TS-S20
C168	.02		CCD-203	DD-203		GP120	10TS-S20
C169	.02		CCD-203	DD-203		GP120	10TS-S20
C170	30 10%		DM-15-300J	CPR-30J		SX430	
C171	1						MS-425
C172	25						10TS-S20
C173	.02		CCD-203	DD-203		GP120	
C174	10		DM-15-100J		CD15CD100J03	SX410	
C175	.02		CCD-203	DD-203		GP120	10TS-S20
C177	.04			DD-403		GP140	
C182	.039 50V		1MD-1-393			EWFA1A139	1PB-S39
C183	.039 50V		1MD-1-393			EWFA1A139	1PB-S39
C189	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C193	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10
C195	.001						
C196	.04			DD-403		GP140	
CT1	20 Max.						
CT2	20 Max.						
CT3	20 Max.						
CT4	20 Max.						
CT5	20 Max.						
CT6	20 Max.						
CT7	20 Max.						
CT8	20 Max.						
CT9	20 Max.						
CT10	20 Max.						
CT11	20 Max.						
CT12	20 Max.						
CT13	20 Max.						
CT14	20 Max.						
VC	50 Max.						

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

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.	CTS-IRC PART No.	MALLORY PART No.
VR1	Bias	100K		TSV-100K or T-100K	C-104	X201R104B	MTC15L1
VR2	RF Gain	50K		TSV-50K or T-50K	C-503	X201R503B	MTC54L1
VR3	AM "S" Meter	5000		TSV-5K (2) or T-5000 (2)	C-502 (2)	X201R502B (2)	MTC53L1 (2)
VR4	AM Squelch	200K		TSV-250K (2) or [T-250K(2)]		X201R254B (2)	MTC184L1 (2)
VR5	SSB Squelch	500K		TSV-500K (2) or T-500K (2)	C-504 (2)	X201R504B (2)	MTC55L1 (2)
VR6a	Squelch	100K					
b	Volume/Switch	10K					
VR7	AM IF Gain	30K		TSV-50K (2) or T-50K (2)	C-503 (2)	X201R503B (2)	MTC54L1 (2)
VR8	SSB "S" Meter	10K		TSV-10K (2) or T-10K (2)	C-103 (2)	X201R103B (2)	MTC14L1 (2)
VR9	ALC	30K		TSV-50K (2) or T-50K (2)	C-503 (2)	X201R503B (2)	MTC54L1 (2)
VR10	Balance	100					
VR11	SSB Mic Gain	5000		TSV-5K or T-5000	C-502	X201R502B	MTC53L1
VR12	RF Meter	100K		TSV-100K or T-100K	C-104	X201R104B	MTC15L1
VR13	Bias	200		T-200 (2) or [TSV-250 (2)]		X201R251B (2)	MTC22L1 (2)
VR14	AM Transmit Power	10K		TSV-10K (2) or T-10K (2)	C-103 (2)	X201R103B (2)	MTC14L1 (2)

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

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFGR. PART No.			WORKMAN PART No.	MFGR. PART No.
TH	3500 Col'd NTC						

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	RF Choke (100uH)		LF-1	4642	
L2	RF Choke (8.2uH)		LF-4/6R2	4611	
L3	RF Choke (470uH)		LF-1	72F474AP	
L4	RF Choke (470uH)		LF-1	72F474AP	
L5	RF Choke (470uH)		LF-1	72F474AP	
L6	TVI Trap (54MHz)		TC-71024		
L7	Filter (27MHz)		NS-1367		
L8	Filter (27MHz)		NS-1367		
L9	Final Tank (27MHz)		TC-71024		
L10	RF Choke		NS-1515B		
L11	Xmit. Driver (27MHz)		TC-71024		
L12	RF Choke		NS-1515B		
L13	RF Choke		NS-1515B		
L14	RF Choke (3.9uH)		LF-4/3R9	4608	
L15	Line Choke		NS1516		
T1	Rec. Antenna (27MHz)		TKXC22019GN		
T2	Rec. RF (27MHz)		TKXC22017A0		
T3	Rec. RF (27MHz)		TKXC22017A0		
T4	Input IF (7.8MHz)		TKAC22526N		
T5	Output IF (7.8MHz)		TKAC22015A		
T6	AM Mixer (455kHz)		LPN5944BM		
T7	AM Input IF (455kHz)		LLC3657		
T8	AM Output IF (455kHz)		LLC4990A2		
T9	Syn. Osc. (11MHz)		TKXN21017ZV1		
T10	Syn. Amp (19MHz)		KXN6711BM		
T11	Syn. Amp (19MHz)		KXN6711BM		
T12	Syn. Amp (19MHz)		KXN6711BM		
T13	Syn. Amp (19MHz)		KXN6711BM		
T14	SSB Mixer (7.8MHz)		TKAC22015A		
T15	SSB IF (7.8MHz)		TKAC22015A		
T16	Carrier Osc. (7.8MHz)		113CC2804AC		
T17	Balance Mod (7.8MHz)		TKAN21016A0		
T18	Xmit. Amp (27MHz)		TKXC23444N		
T19	Xmit. Mixer (27MHz)		TKXN21014A0		
T20	Xmit. Mixer (27MHz)		TKXN21379UH		
T21	Xmit. Mixer (7.8MHz)		TKAC23360ZV1		

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.	
CH	1300mA	.2	2.6mH	N28-7111H				

PEARCE-SIMPSON MODEL PANTHER SSB

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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.	
IPT	1.25	1		N24A-7258A				

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA				NOTES
	PRI.	SEC.	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
OPT	32	8	N35-7274				

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3" PM, 8 ohms	92-02D	3A05Z8	

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		RF-104	AGC2	HDJ	312002	150145	F62-2

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
F1	Filter		Ceramic 455kHz (LF-B6)
F2	Filter		Crystal 7.8MHz (K07F22A)
M1	Meter		"S"/RF
S1	Relay		Xmit/Rec (AE3344)
S2	Switch		DX/Local, Slide
S3	Switch		Mode, Rotary
S4	Switch		Channel Selector, Rotary
S5	Switch		Noise Blanker, Slide
S6	Switch		PA/CB, Slide
X1	Crystal		7.3435MHz
X2	Crystal		11.805MHz
X3	Crystal		11.855MHz
X4	Crystal		11.905MHz
X5	Crystal		11.955MHz
X6	Crystal		12.005MHz
X7	Crystal		12.055MHz
X8	Crystal		7.3615MHz
X9	Crystal		7.3715MHz
X10	Crystal		7.3815MHz
X11	Crystal		7.4015MHz
X12	Crystal		7.3585MHz
X13	Crystal		7.3685MHz
X14	Crystal		7.3785MHz
X15	Crystal		7.3985MHz
X16	Crystal		7.8015MHz
X17	Crystal		7.7985MHz

WIRING DATA

General-use Hook-up Wire	Use BELDEN 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 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
	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)