



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 COUGAR 23B

ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:	GC ELECTRONICS
L8, L9, L10	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 Base of TR4, low side to ground.	455kHz, 1000Hz @ 30% modulation.	Any	L7, L8, L9, L10	Set generator output for 0.5V output. Set Receive-0-Slide Switch 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.	27.115MHz, 1000Hz @ 30% modulation, output 1uV.	13	L1, L2, L4, L5	Adjust for maximum.

PEARCE-SIMPSON MODEL COUGAR 23B

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

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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.	27.115MHz, 1000Hz @ 30% modulation, output 50,000uV.	13	VR7	Adjust volume control to obtain 0 db. Decrease generator to 50uV. Adjust so that signal does not drop more than 6 db.
SQUELCH RANGE High side thru .01uF to Antenna Jack, low side to ground.	27.115MHz, 1000Hz @ 30% modulation, 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 noise pulse @ 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 100uV.	13	VR9	Adjust for "S"9 on panel meter.

TRANSMITTER

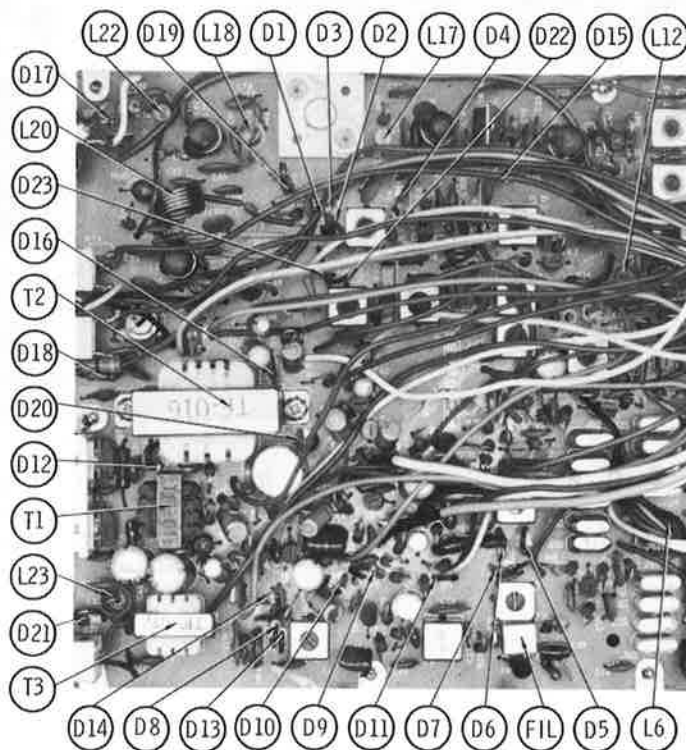
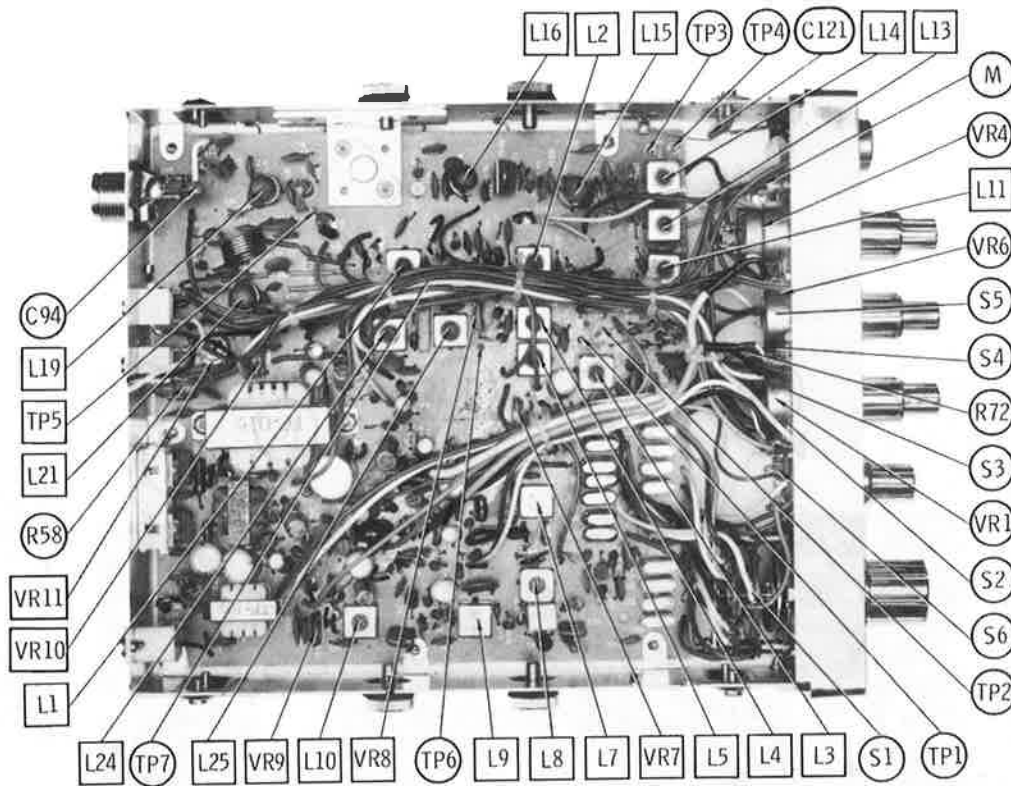
Connect an RF Wattmeter or 50-ohm, 25-watt dummy load to antenna connector.
Adjustments made with 14-volt DC input.

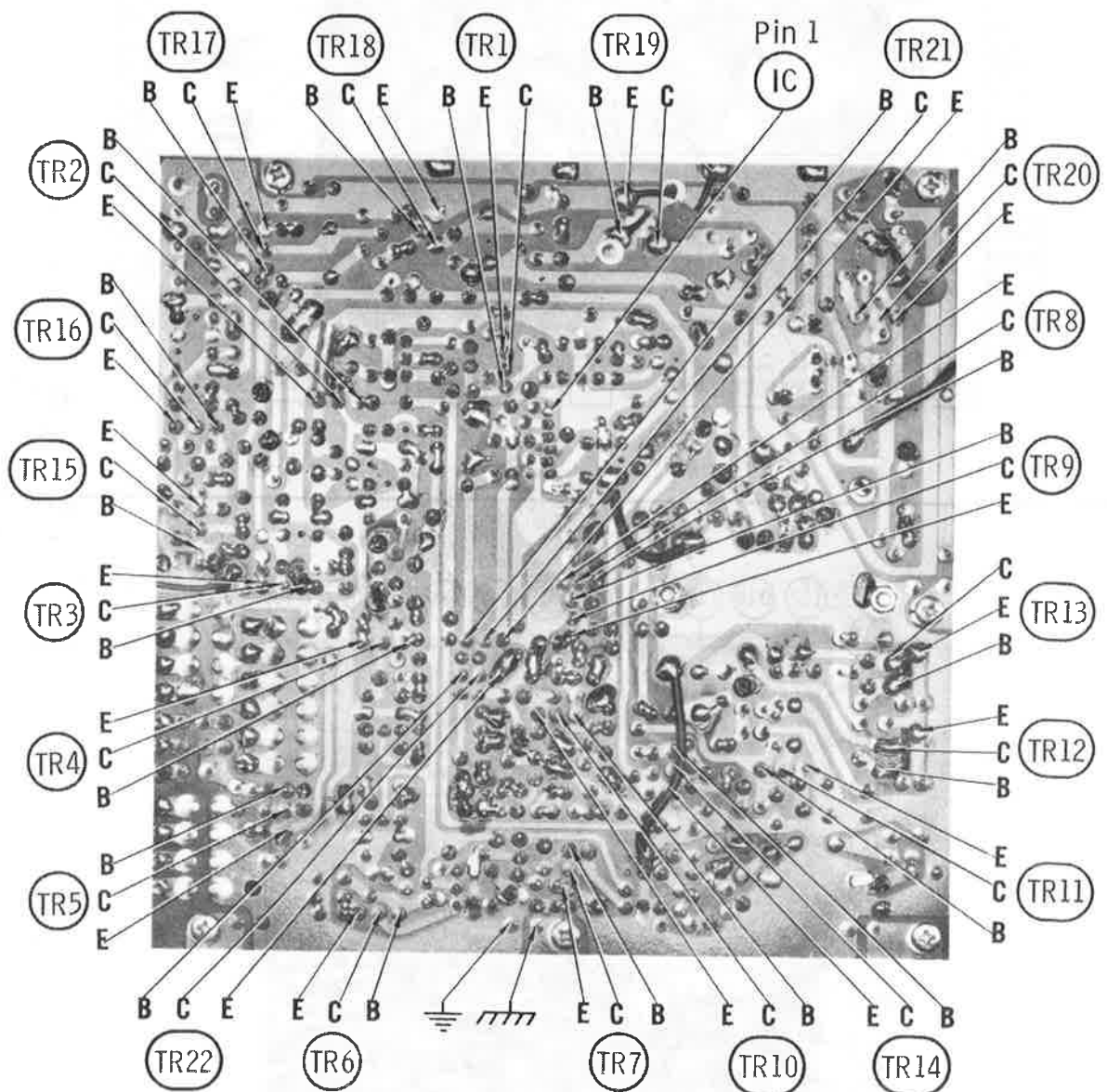
INDICATOR	ADJUST	REMARKS
OSCILLATOR, MIXER, BUFFER, DRIVER, FINAL RF Wattmeter	L3, L11, L13, L14	Channel selector to CH. 13. Key transmitter. Adjust for maximum.
OUTPUT POWER RF Wattmeter	L15, L16	Key transmitter. Adjust for 3.5 watts output.
TVI TRAP TV (Ch. 2)	L21	Key transmitter. Adjust for MINIMUM interference on TV.
FINAL INPUT POWER Remove jumper at TP5 and connect 0-1000 DC milliammeter between L18 and C77.	L19	Adjust for 5 watts (maximum).

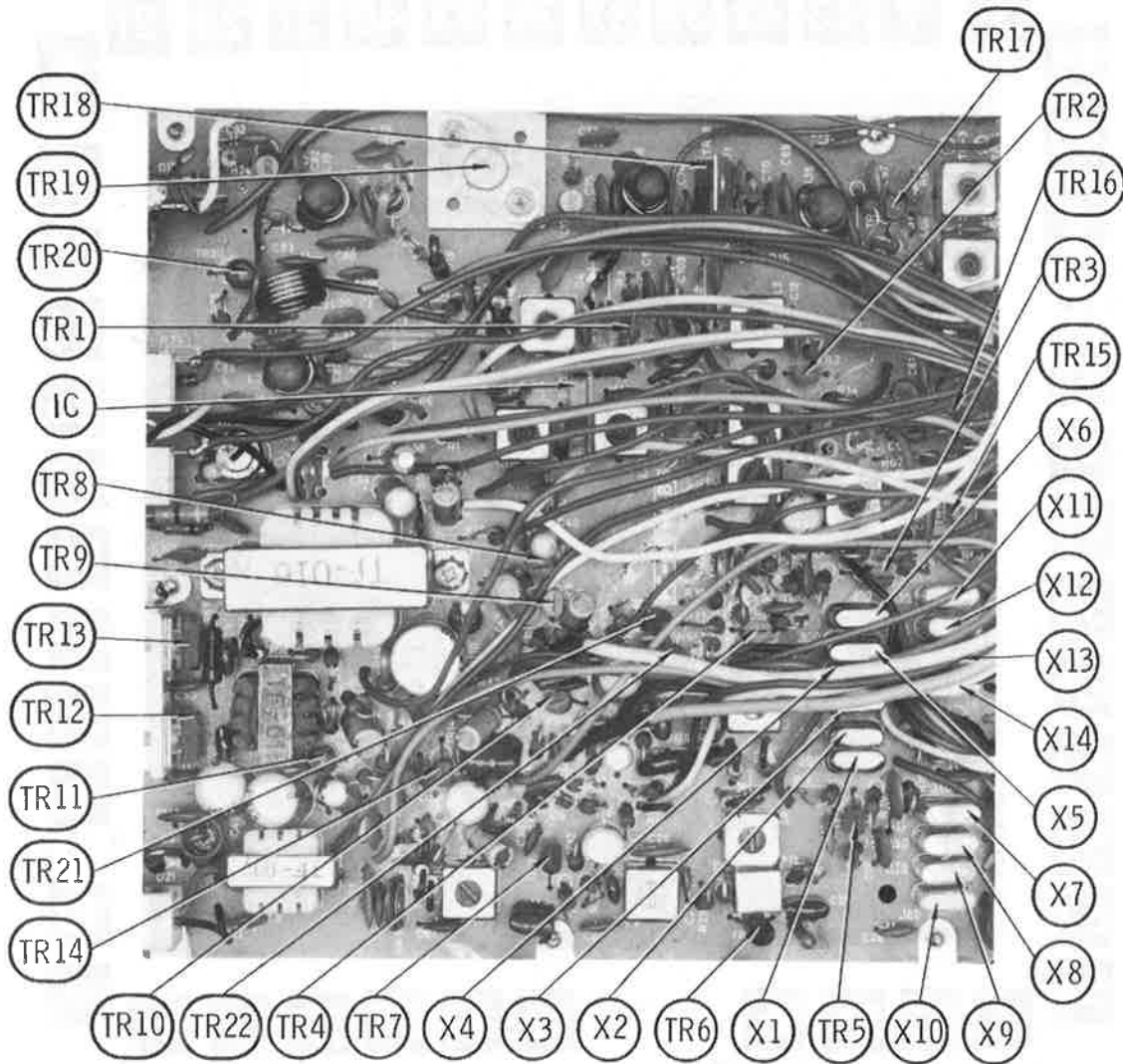
TRANSMITTER ADJUSTMENTS

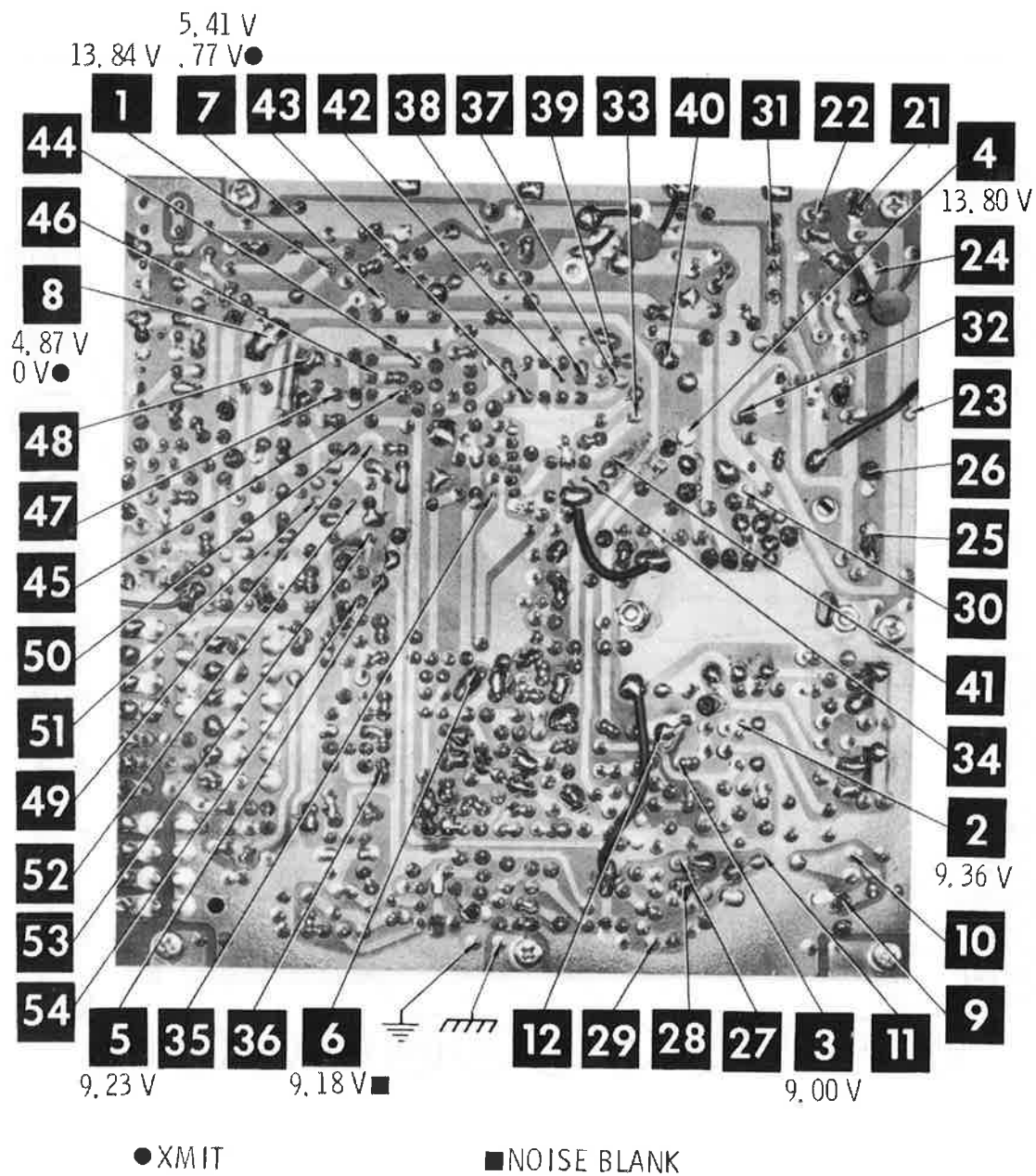
Connect an RF Wattmeter or 50-ohm, 25-watt dummy load to antenna connector.
Adjustments made with 14-volt DC input.

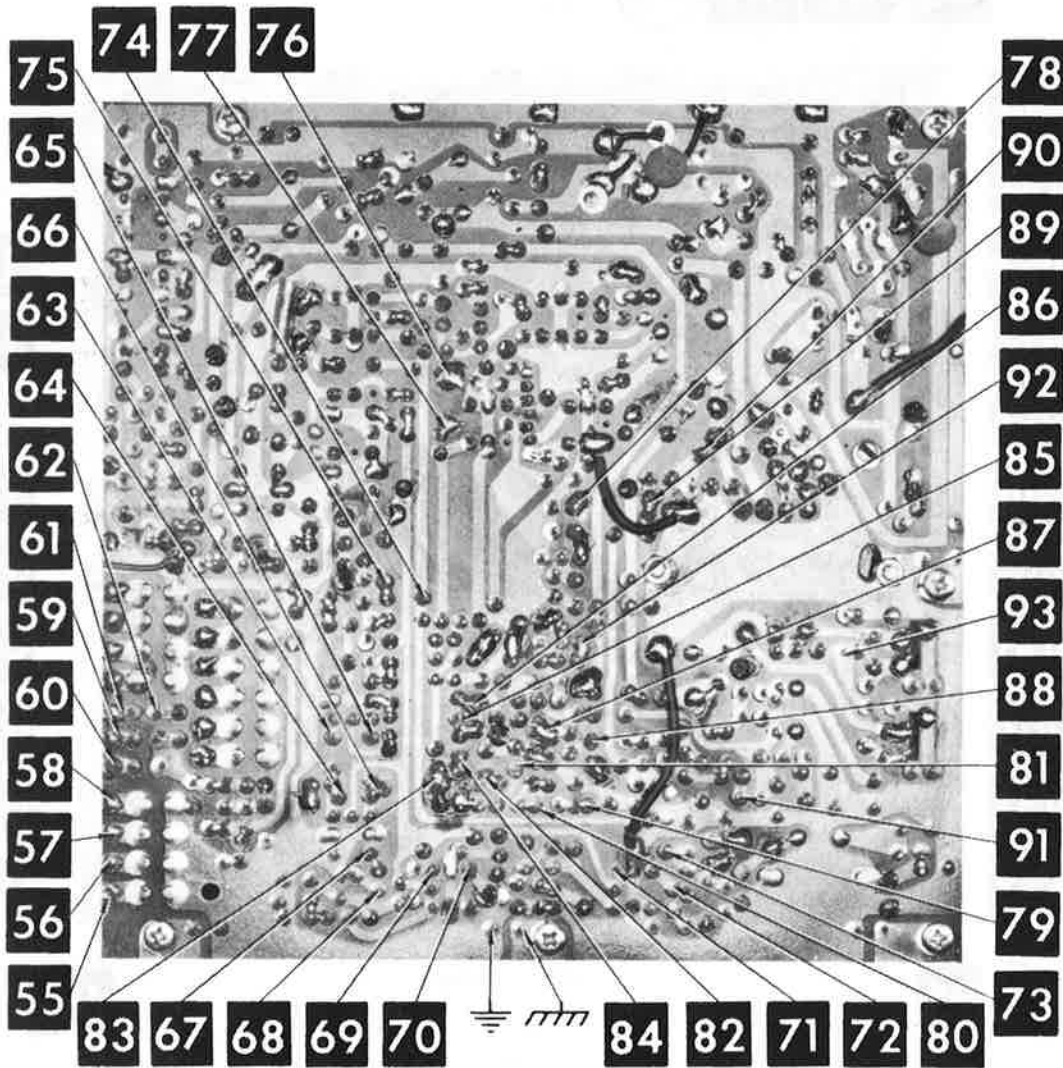
INDICATOR	ADJUST	REMARKS
PANEL MODULATION METER Oscilloscope or Modulation Indicator connected to Antenna Jack.	VR10	Inject a 1000 audio signal at mic input. Key transmitter. Adjust so that panel meter agrees with scope or indicator.
RF PANEL METER RF Wattmeter	VR11	Key transmitter. Adjust so that panel RF meter agrees with RF wattmeter.



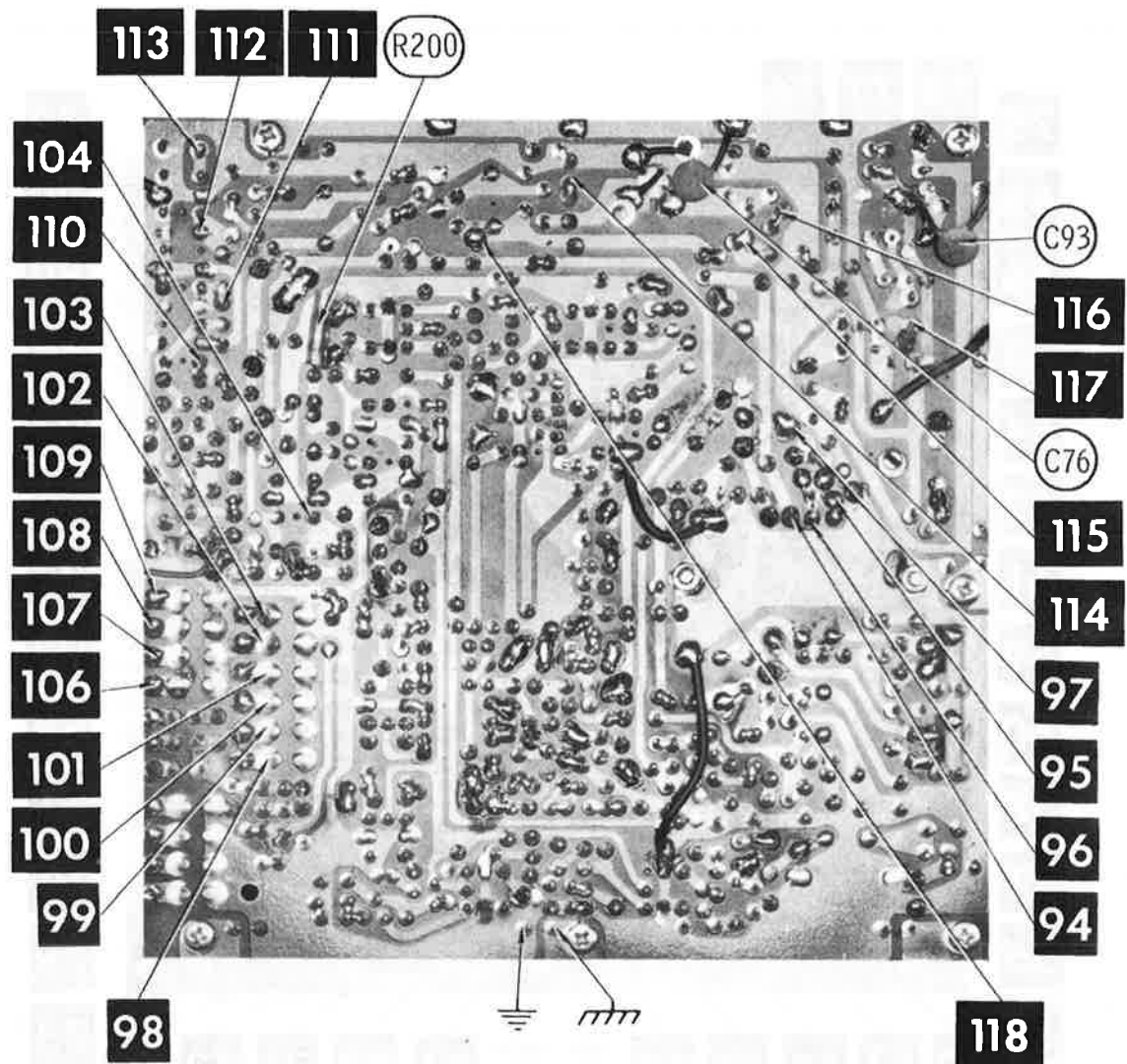


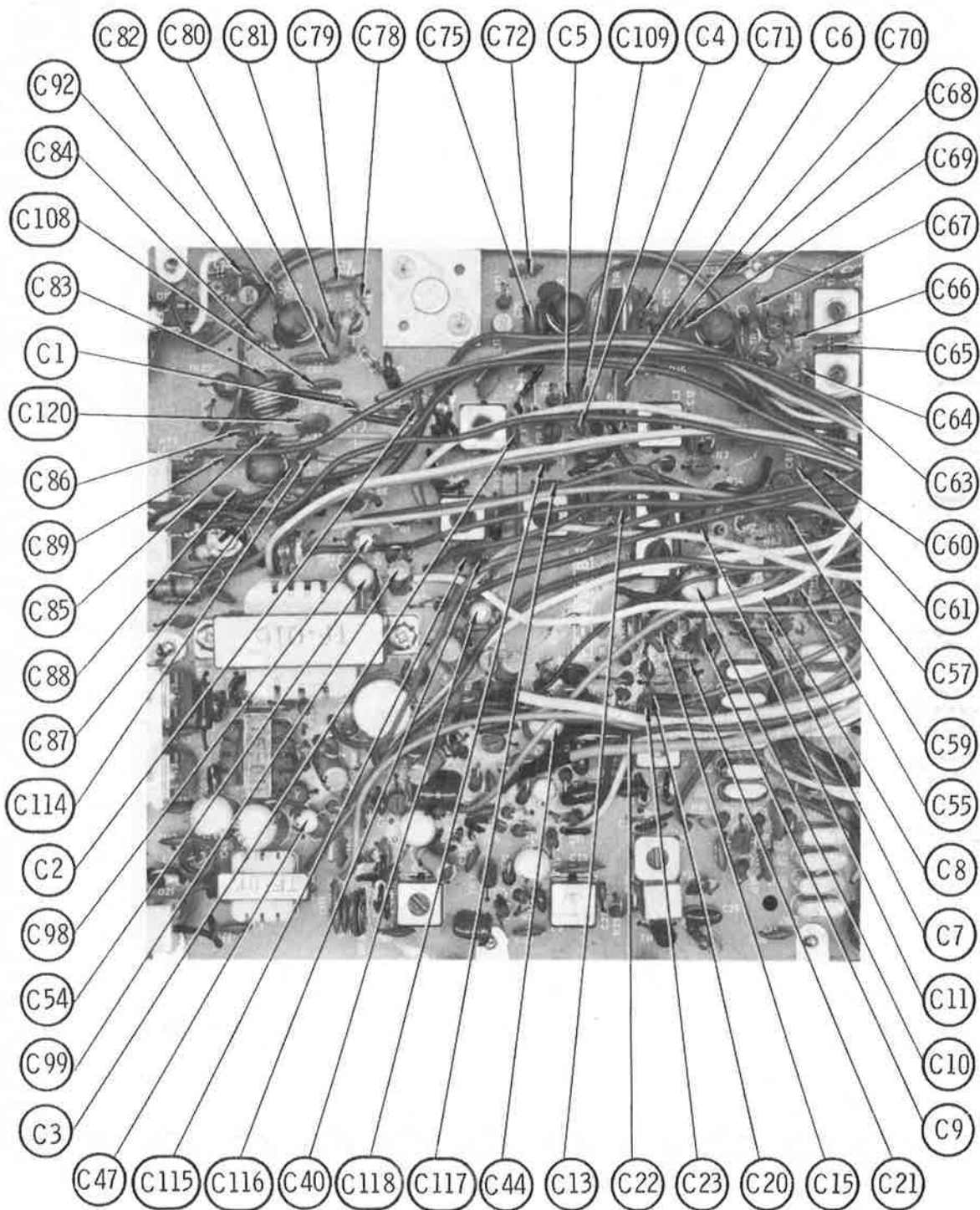


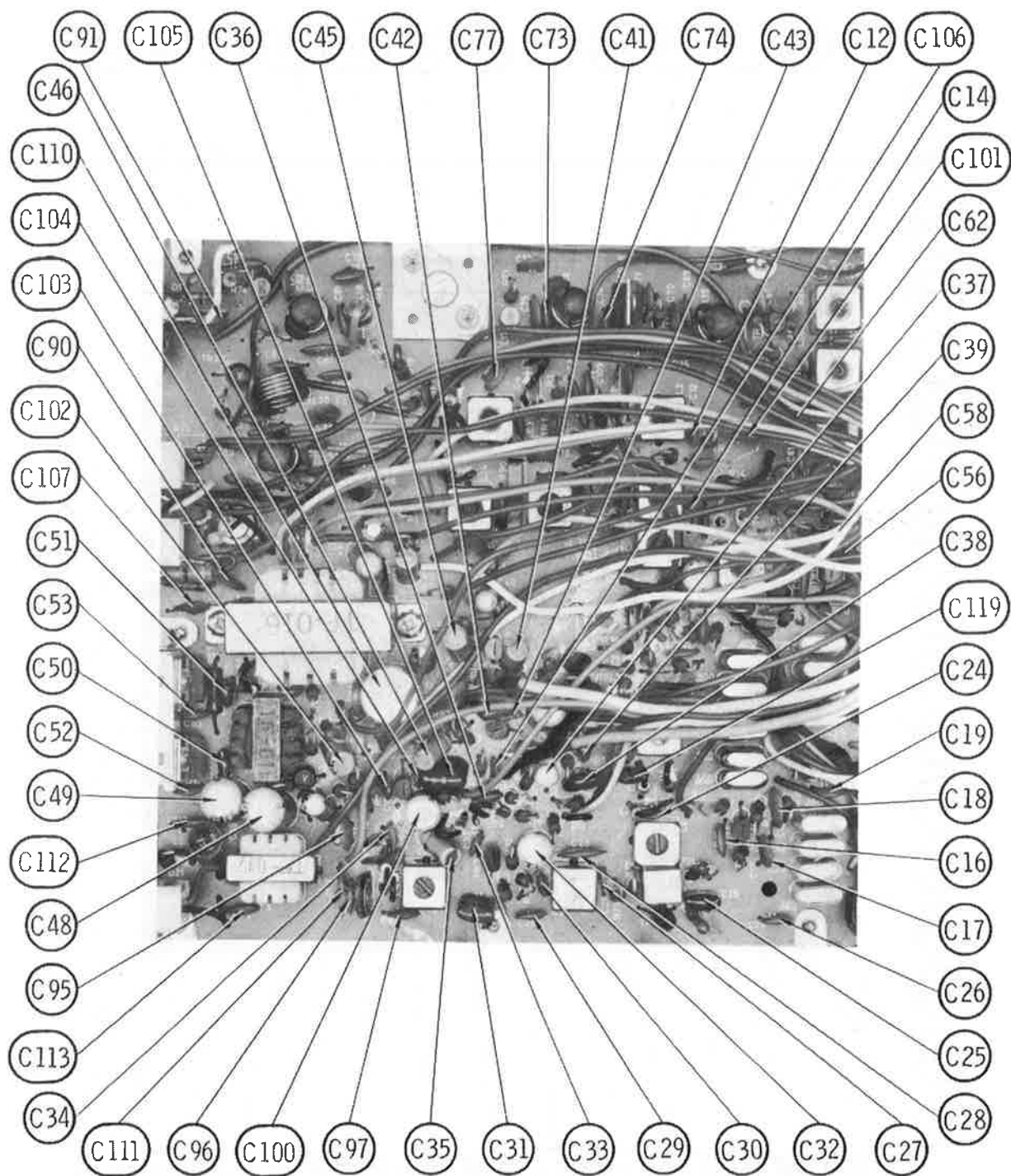


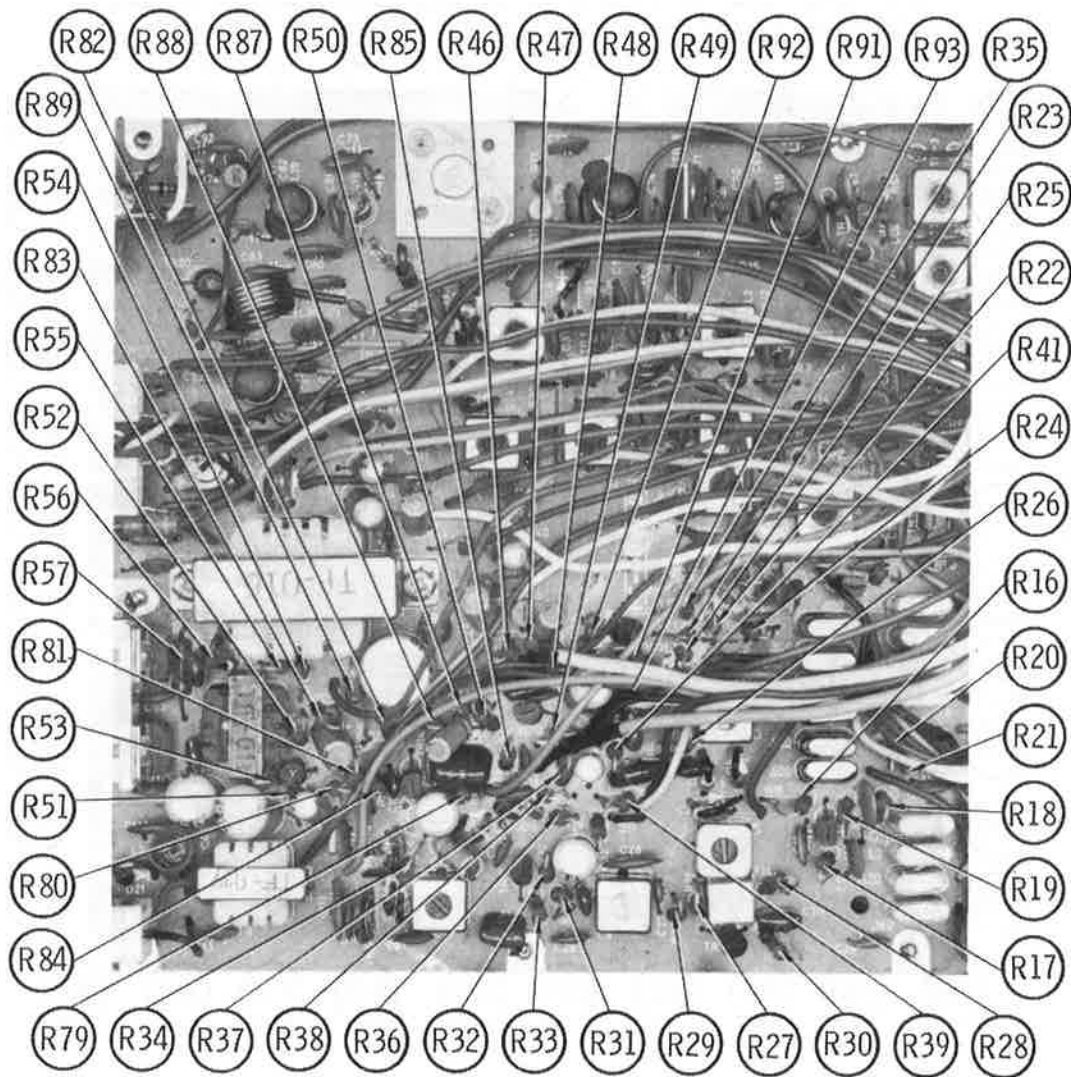


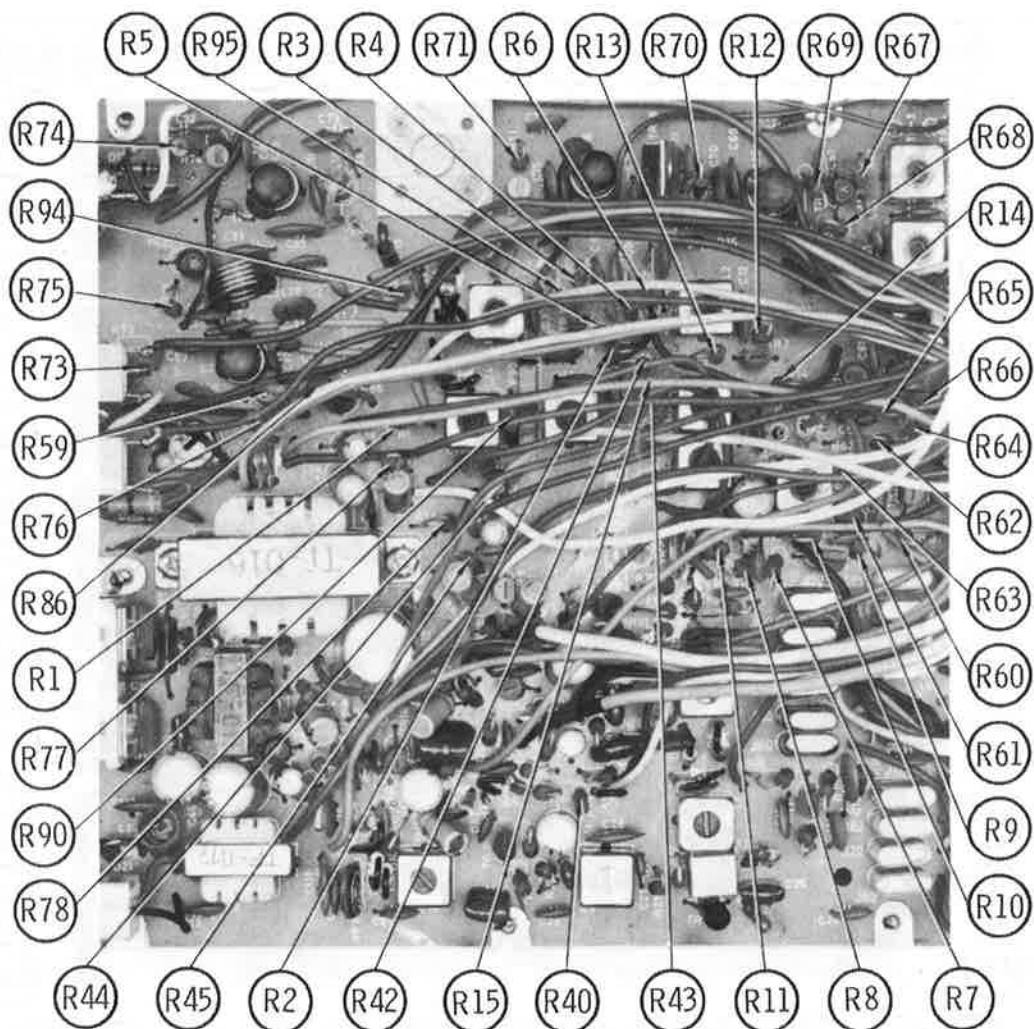
PEARCE-SIMPSON MODEL COUGAR 23B

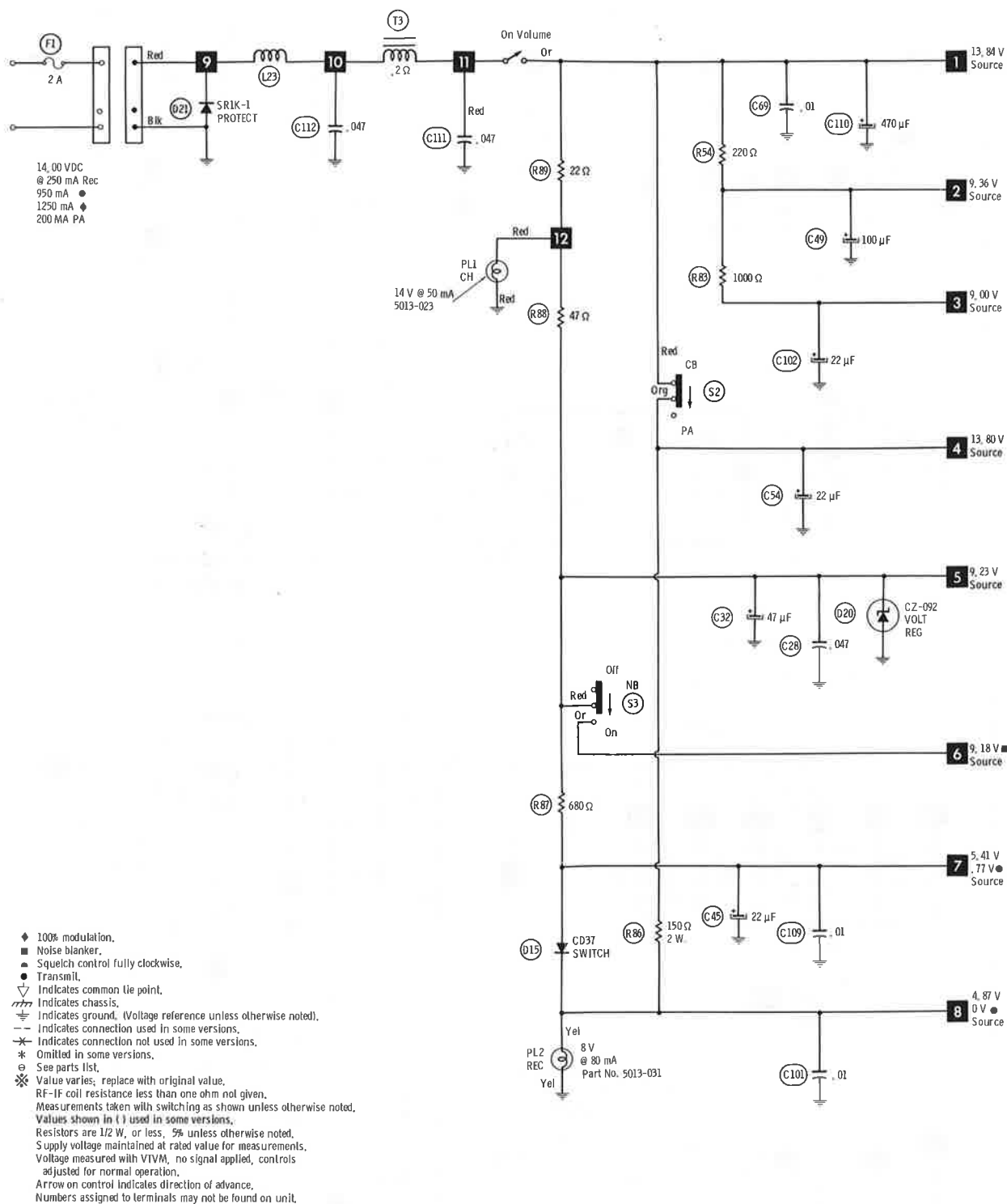






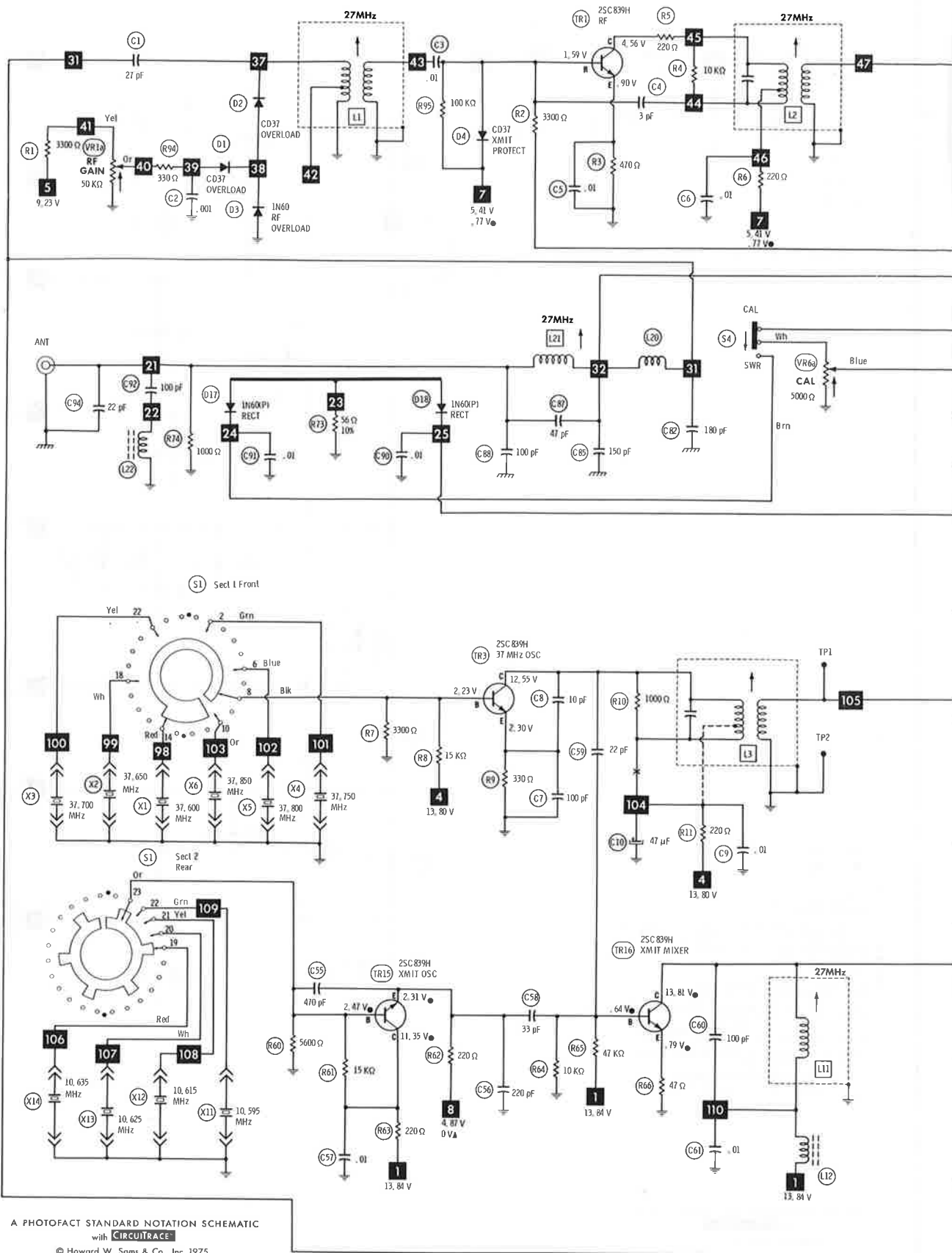






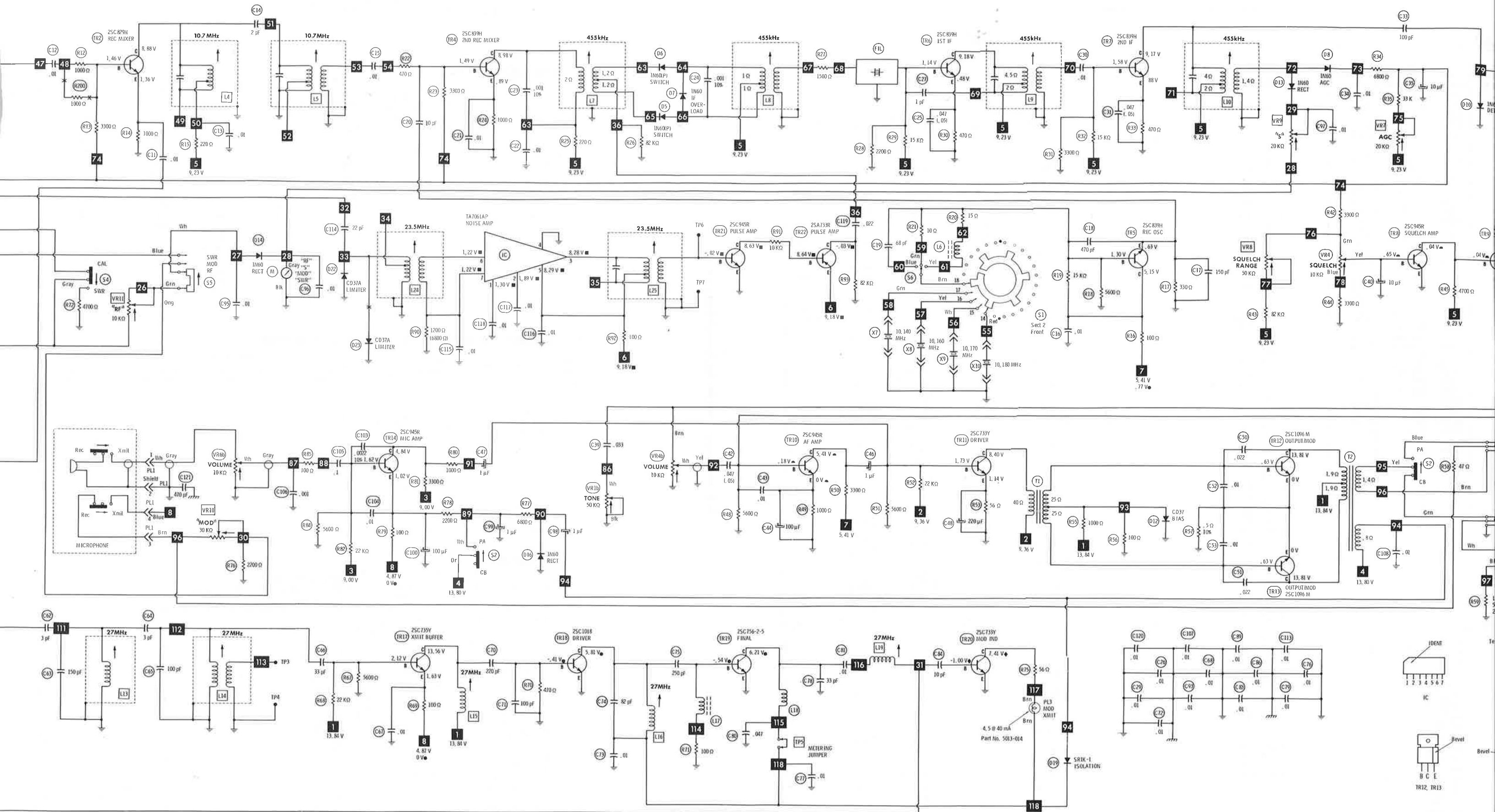
A PHOTOFAC STANDARD NOTATION SCHEMATIC
with CIRCUITRACE

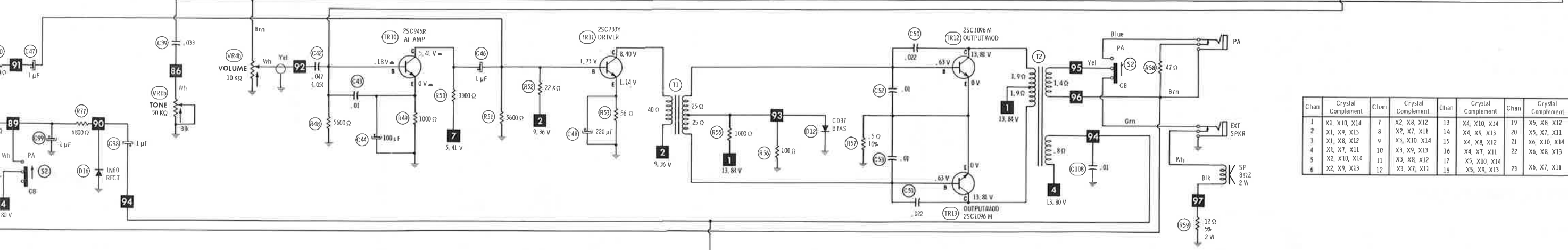
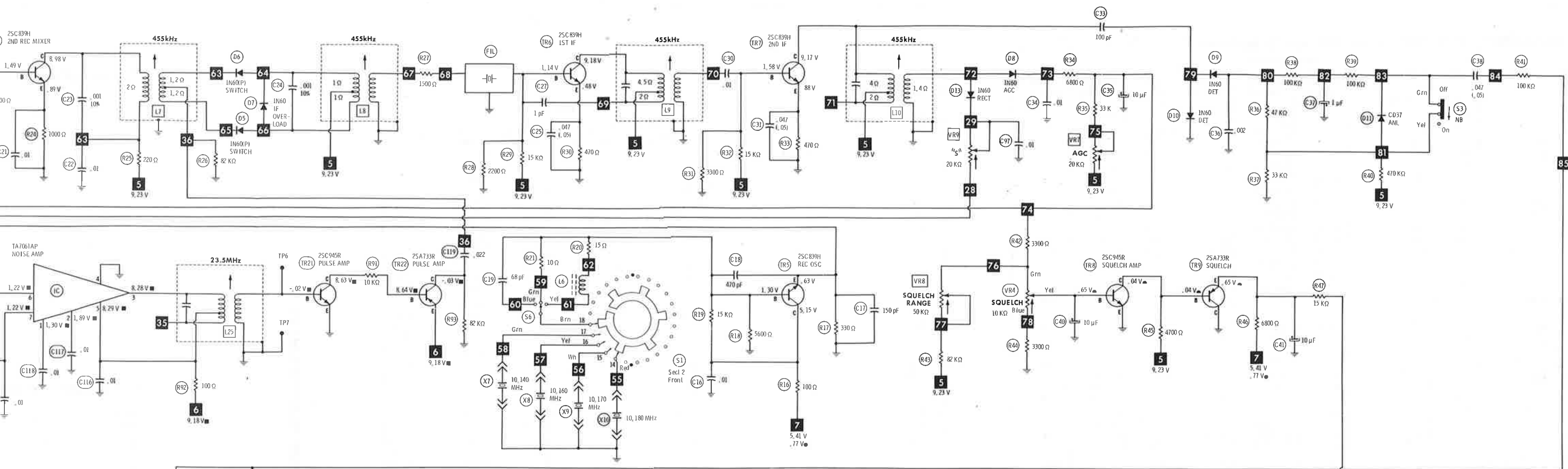
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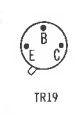
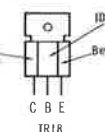
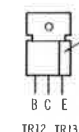
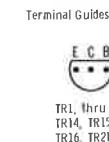
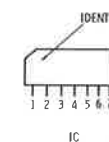
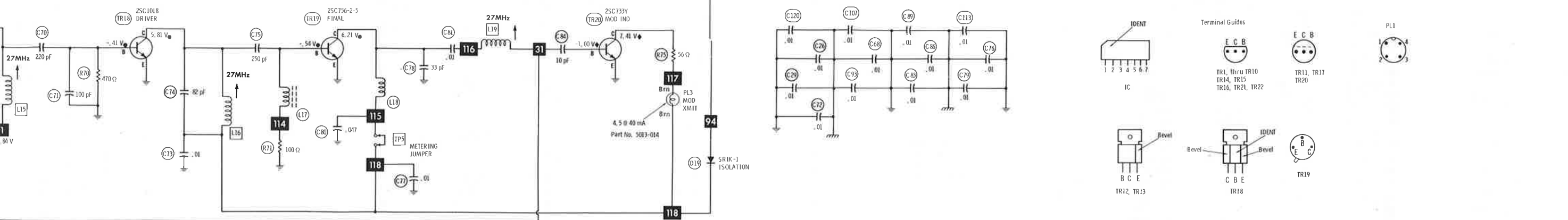
A PHOTOFAC STANDARD NOTATION SCHEMATIC
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SEE NOTES ON PAGE 83





Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement
1	X1, X10, X14	7	X2, X8, X12	13	X4, X10, X14	19	X5, X8, X12
2	X1, X9, X13	8	X2, X7, X11	14	X4, X9, X13	20	X5, X7, X11
3	X1, X8, X12	9	X3, X10, X14	15	X4, X8, X12	21	X6, X10, X14
4	X1, X7, X11	10	X3, X9, X13	16	X4, X7, X11	22	X6, X8, X13
5	X2, X10, X14	11	X3, X8, X12	17	X5, X10, X14	23	X6, X7, X11
6	X2, X9, X13	12	X3, X7, X11	18	X5, X9, X13		



PARTS LIST AND DESCRIPTION
(When ordering parts, state Model, Part Number, and Description.)

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D1	CD37	5001-145	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D2	CD37	5001-145	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D3	1N60	5001-080	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D4	CD37	5001-145	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D5	1N60P	5001-134	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D6	1N60P	5001-134	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D7	1N60	5001-080	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D8	1N60	5001-080	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D9	1N60	5001-080	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D10	1N60	5001-080	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D11	CD37	5001-145	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D12	CD37	5001-145	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D13	1N60	5001-080	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D14	1N60	5001-080	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D15	CD37	5001-145	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D16	1N60	5001-080	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D17	1N60P	5001-134	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D18	1N60P	5001-134	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D19	SR1K-1	5001-117	GE-504A	8D4	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D20	CZ-092	5001-152	GEZD-9.1	Z1210	PTC505	HEPZ0412	RE 114	SK3060	RT-240	ECG139
D21	SR1K-1	5001-117	GE-504A	8D4	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D22	CD37A	5001-144	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D23	CD37A	5001-144 (1)	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
IC	TA7061AP	5002-007								ECG1100
TR1	2SC839H	5001-014	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A	ECG108
TR2	2SC839H	5001-014	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A	ECG108
TR3	2SC839H	5001-014	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A	ECG108
TR4	2SC839H	5001-014	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A	ECG108
TR5	2SC839H	5001-014	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A	ECG108
TR6	2SC839H	5001-014	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A	ECG108
TR7	2SC839H	5001-014	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A	ECG108
TR8	2SC945R	5001-038	GE-20	TR-21	PTC136	HEPS0015	RE 10	SK3124	RT-107A	ECG199
TR9	2SA733R	5001-066	GE-65	TR-31	PTC131	HEPS0022	RE 26	SK3138	RT-120	ECG159
TR10	2SC945R	5001-038	GE-20	TR-21	PTC136	HEPS0015	RE 10	SK3124	RT-107A	ECG199
TR11	2SC733Y	5001-072	GE-20	TR-21	PTC123	HEPS0025	RE 13	SK3122	RT-100	ECG123A
TR12	2SC1096M	5001-064 (2)	GE-28	TR-55	PTC110		RE 21	SK3041	RT-133	ECG152
TR13	2SC1096M	5001-064 (2)	GE-28	TR-55	PTC110		RE 21	SK3041	RT-133	ECG152
TR14	2SC945R	5001-038	GE-20	TR-21	PTC136	HEPS0015	RE 10	SK3124	RT-107A	ECG199
TR15	2SC839H	5001-014	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A	ECG108
TR16	2SC839H	5001-014	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A	ECG108
TR17	2SC735Y	5001-506	GE-20	TR-21	PTC136	HEPS0014	RE 13	SK3047	RT-102	ECG123A
TR18	2SC1018	5001-044 (3)	GE-20	TR-21	PTC110	HEPS3020	RE 80	SK3054	RT-186	ECG210
TR19	2SC756-2-5	501-068 (4)			PTC158			SK3049	RT-186	ECG224
TR20	2SC733Y	5001-072	GE-20	TR-21	PTC123	HEPS0025	RE 13	SK3122	RT-100	ECG123A
TR21	2SC945R	5001-038	GE-20	TR-21	PTC136	HEPS0015	RE 10	SK3124	RT-107A	ECG199
TR22	2SA733R	5001-066	GE-65	TR-31	PTC131	HEPS0022	RE 26	SK3138	RT-120	ECG159

- (1) Not used in some versions.
(2) Rating 10 Watt @ 2 Amp.
(3) Rating 4 Watt @ 1 Amp.
(4) Rating 10 Watt @ 4 Amp.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA					
		MFR. PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C10	47 16V	C-004178	RME-E-E-050	EP15-50	PC50-16	MTV50CB15	EV-1226
C32	47 16V	C-004178	RME-E-E-050	EP15-50	PC50-16	MTV50CB15	EV-1226
C35	10 16V	C-002178	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	C-001178	RME-A-E-001	EP15-1	PC1-50	MTV1CB50	EV-1315
C40	10 16V	C-002178	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C41	10 16V	C-002178	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C44	100 10V		RME-E-D-100	EP15-100	PC100-10	MTV100CB10	EV-1130
	100 6.3V	C-007178	RME-E-B-100	EP6-100	PC100-10	MTV100CB6	EV-1030
C45	22 16V	C-003178	RME-D-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	C-001178	RME-A-E-001	EP15-1	PC1-50	MTV1CB50	EV-1315
	1 25V		RME-A-G-001	EP30-1	PC1-50	MTV1CB50	EV-1315
C47	1 16V	C-00178	RME-A-E-001	EP15-1	PC1-50	MTV1CB50	EV-1315
	220 10V		RME-G-D-250	EP15-250	PC250-10	MTV250DB10	EV-1145
	220 6.3V	C-008178	RME-F-B-250	EP6-250	PC250-10	MTV250DB10	EV-1145
C49	100 16V	C-005178	RME-E-E-100	EP15-100	PC100-16	MTV100CD15	EV-1230
C54	22 16V	C-003178	RME-D-E-025	EP15-25	PC25-25	MTV25CB35	EV-1325
C98	1 50V	C-009178	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	C-001178	RME-A-E-001	EP15-1	PC1-50	MTV1CB50	EV-1315
C100	100 10V		RME-E-D-100	EP15-100	PC100-10	MTV100CB10	EV-1130
	100 6.3V	C-007178	RME-E-B-100	EP6-100	PC100-10	MTV100CB6	EV-1030
C102	22 16V	C-003178	RME-D-E-025	EP15-25	PC25-25	MTV25CB35	EV-1325
C110	470 16V	C-006178	RME-L-E-500	EP15-500	PC500-16	MTV500DN15	EV-1250

PARTS LIST AND DESCRIPTION (CONTINUED)
(When ordering parts, state Model, Part Number, and Description.)

CAPACITORS

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.
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		CCD-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			DTZ-150	CN0315	10TCC-T15	
C18	470		CCD-471	DD-471	GP470	GP347	10TS-T47
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		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C23	.001 10%		CCD-102	DD-102	GP210	GP210	10TS-D10
C24	.001 10%		CCD-102	DD-102	GP210	GP210	10TS-D10
C25	.047		1MDF-2-473		DPMS2S47	EWFI1A147	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	EWFI1A110	1PB-S10
C31	.047		1MDF-2-473		DPMS2S47	EWFI1A147	1PB-S47
C33	100			DTZ-100	NP0100	CN0310	10TCC-T10
C34	.01		CCD-202	DD-202	GP220	GP220	2SS-D20
C36	.002		1MDF-2-473		DPMS2S47	EWFI1A147	1PB-S47
C38	.047		1MDF-2-473		DPMS2S47	EWFI1A147	1PB-S47
C39	.033 10%		6DP-3-333		DPMS6S33	EWFI1A147	6PS-S33
C42	.047		1MDF-2-473		DPMS2S47	EWFI1A147	1PB-S47
C43	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C50	.022		1MDF-1-223	CPJ-223	DPMS2S22	EWFI1A122	1PB-S22
C51	.022		1MDF-1-223	CPJ-223	DPMS2S22	EWFI1A122	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	NP0100	CN0310	10TCC-T22
C57	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C58	33			DTZ-33	NP033	CN0433	10TCC-Q33
C59	22			DTZ-22	NP022	CN0422	10TCC-Q22
C60	100			DTZ-100	NP0100	CN0310	10TCC-T10
C61	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C62	3		CCTO-3R3	DTZ-3R3	NP03P3	CN0533	10TCC-V33
C63	150			DTZ-150	CN0315	10TCC-T15	
C64	3			DTZ-3	CN0315	10TCC-T15	
C65	100			DTZ-100	NP0100	CN0310	10TCC-T10
C66	33			DTZ-33	NP033	CN0433	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	NP0100	CN0310	10

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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		CCT0-3R3	DTZ-3R3	NPO3P3	CN0533	10TCC-V33
C5	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C6	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C7	100			DTZ-100	NPO100	CN0310	10TCC-T10
C8	10			DTZ-10	NPO10	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		CCT0-3R3	DTZ-3R3	NPO3P3	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			DTZ-150	CN0315		10TCC-T15
C18	470		CCD-471	DD-471	GP470	GP347	10TS-T47
C19	68			DTZ-68	NPO68	CN0468	10TCC-Q68
C20	10			DTZ-10	NPO10	CN0410	10TCC-Q10
C21	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C22	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C23	.001 10%		CCD-102	DD-102	GP210		10TS-D10
C24	.001 10%		CCD-102	DD-102	GP210		10TS-D10
C25	.047		1MDF-2-473		DPMS2S47	EW1A147	1PB-S47
C26	.01		CCD-103	DC-103	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	EW1A110	1PB-S10
C31	.047		1MDF-2-473		DPMS2S47	EW1A147	1PB-S47
C33	100			DTZ-100	NPO100	CN0310	10TCC-T10
C34	.01		CCD-202	DD-202	GP2000	GP220	2SS-D20
C36	.002		1MDF-2-473		DPMS2S47	EW1A147	1PB-S47
C38	.047		1MDF-2-473		DPMS2S47	EW1A147	1PB-S47
C39	.033 10%		6DP-3-333		DPMS6S33	EW1A133	6PS-S33
C42	.047		1MDF-2-473		DPMS2S47	EW1A147	1PB-S47
C43	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C50	.022		1MDF-1-223	CPJ-223	DPMS2S22	EW1A122	1PB-S22
C51	.022		1MDF-1-223	CPJ-223	DPMS2S22	EW1A122	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	NPO33	CN0433	10TCC-Q33
C59	22			DTZ-22	NPO22	CN0422	10TCC-Q22
C60	100			DTZ-100	NPO100	CN0310	10TCC-T10
C61	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C62	3		CCT0-3R3	DTZ-3R3	NPO3P3	CN0533	10TCC-V33
C63	150			DTZ-150	CN0315		10TCC-T15
C64	3		CCT0-3R3	DTZ-3R3	NPO3P3	CN0533	10TCC-V33
C65	100			DTZ-100	NPO100	CN0310	10TCC-T10
C66	33			DTZ-33	NPO33	CN0433	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	NPO100	CN0310	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	NPO82	CN0482	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	NPO33	CN0433	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	10		CCT0-100	DTZ-10	NPO10	CN0410	10TCC-Q10
C85	150			DTZ-150	CN0315		10TCC-T15
C86	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C87	47		CCT0-470	DTZ-47	NPO47	CN0447	10TCC-Q47
C88	100			DTZ-100	NPO100	CN0310	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	NPO100	CN0310	10TCC-T10
C93	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C94	22			DTZ-22	NPO22	CN0422	10TCC-Q22
C95	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C96	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

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.
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	DPMS6D22	EW1A010	6PS-D22
C104	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C105	.1		1MDF-3-104		DPMS2P1		1PB-P10
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		CCD-103	DTZ-22	NPO22	CN0422	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	470		CCD-471	DD-471	GP470	GP347	10TS-T47

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

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
VR1a	RF Gain	50K	5008-083				
b	Tone	50K					
VR4a	Squelch	10K	5008-090				
b	Volume/Switch	10K					
VR6a	Calibrate	5000	5000-082				
b	Mic Gain	10K					
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" Meter	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" Meter	10K	5008-007	TSV-10K (2) or T-10K (2)	C-103 (2)	MTC14L1 (2)	X201R103B (2)

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

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	Rec. Ant. (27MHz)	5006-118(TKXN-22160BU)	LA-029		
L2	Rec. RF (27MHz)	5006-189(TKXC-22534BU)	LA-041		
L3	Osc. (37MHz)	5006-190(TKXC-22535BM)	LA-042		
L4	Rec. Mixer (10.7MHz)	5006-111(TKAC-206211E)	LA-016		
L5	Rec. Mixer (10.7MHz)	5006-112(TKAC-21165A)	LA-019		
L6	RF Choke	5006-054(LF4-2R2K)	E-003178		
L7	Input IF (455kHz)	5006-217(RLN-40479N)	LA-078		
L8	Interstage IF (455kHz)	5006-268(RLN-40480N)	LA-079		
L9	Interstage IF (455kHz)	5006-195(YOC-15001F)	LA-106		
L10	Output IF (455kHz)	5006-240(YMC-15002A)	LA-107		
L11	Xmit. Mixer (27MHz)	5006-049(KXN-13638HM)	LA-009		
L12	RF Choke	5006-054(LF4-2R2K)			
L13	Xmit. Mixer (27MHz)	5006-049(KXN-13638HM)	LA-009		
L14	Xmit. Mixer (27MHz)	5006-050(KXN-13636BM)	LA-008		
L15	Choke (27MHz)		LC-019		
L16	Choke (27MHz)	5006-116(TC-71024)	LC-018		
L17	RF Choke	5006-054(LF4-2R2K)	E-003178		
L18	RF Choke	5006-122(TC-71029)	LD-012		
L19	RF Choke		LC-019		
L20	Pi Network	5006-083(NS-1344)	LE-006		
L21	Antenna (27MHz)		LC-019		
L22	TVI Trap (54MHz)	5006-054(LF4-2R2K)	E-003178		
L23	RF Choke	5006-205(TC-71095)	LD-017		
L24	Noise Amp Input(23.5MHz)	5006-046(TKXN-20979A)	LD-104		
L25	Noise Amp Output (23.5MHz)	5006-047(TKXC-14299A)	LA-077		

PEARCE-SIMPSON MODEL COUGAR 23B

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~)	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T3	1250mA	.2	.7mH	5006-T24 TF-017				

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.	
T1	1	1		5007-015 TF-011				

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	128	8	5007-033 TF-016			

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3" PM, 8 Ohms	5012-009	30A0528	

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	1 Amp	5028-001	5029-001	AGC1	HDJ	312001	145150	FG2-1

PEARCE-SIMPSON MODEL COUGAR 23B

PARTS LIST AND DESCRIPTION (CONTINUED)

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

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
FL1	Ceramic Filter	5023-001	(LF-B6) 455kHz
M	Meter	5014-019	(MT-030) RF-"S"-SWR
S1	Switch	5009-053	Channel Selector
S2	Switch	5009-040	CB-PA
S3	Switch	5009-040	Noise Blanking
S4	Switch	5009-040	CAL-SWR
S5	Switch	5009-055	SWR-MOD-RF
S6	Switch	5009-054	Receive-O-Slide
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
	Socket	5010-002	(S-00105)

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

ITEM	PART No.	ITEM	PART No.
Cabinet, Top	5020-068	Knob, Receive-O-Slide	5020-059
Cabinet, Bottom	5020-069	Knob, Volume	5020-060
Front Panel	5020-070	Knob, Squelch	5020-061
Chassis	M-001178	Knob, Channel	5020-003

ACCESSORIES

ITEM	MFR. PART No.	REMARKS
Microphone	5004-015	

WIRING DATA

General-use Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors
Shielded Antenna Lead	8524 (Stranded) Available in 12 Colors
	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
Ignition Noise Suppression	8491 4-Conductor (2 shielded, 2 unshielded) Neoprene
Bonding Strap	Use BELDEN No. 7300-Series Spark-Plug Sets
	Use BELDEN No. 8661 (3/8 inch)