



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.



MODELS Caravelle II (Courier)
Conqueror II (Courier)
Fanfare 880 (Fanon)

ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:

GC ELECTRONICS

L1, L2, L3, T1, T2, T11, T14 thru T21 #9440
T3 thru T10, T12, T13, T25 #5000, #8290

RECEIVER

Connect an AC VTVM or AF Wattmeter across speaker voice coil.
Adjustments made with 120-volt AC input to power supply.
Adjust volume control to obtain suitable reading.

SIGNAL GENERATOR	GEN FREQ	CHANNEL	ADJUST	REMARKS
High side thru .01 μ F to base of Q3, low side to ground.	455KHz, 1000Hz @ 30% modulation	Any	T5, T6, T7, T8	Adjust generator output to obtain 0.5V output across voice coil. Adjust for maximum.
High side thru .01 μ F to antenna jack, low side to ground.	27.085MHz, 1000Hz @ 30% modulation, output 1 μ V		T1, T2, T3, T4, T11, T12, T25	Adjust for maximum.

COURIER/FANON MODELS CARAVELLE II, CONQUEROR II/FANFARE 880

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

© 1975 Howard W. Sams & Co., Inc. Printed in U. S. of America 5CY251

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF Wattmeter across speaker voice coil.
 These adjustments made with 120-volt AC input to power supply.
 Adjust volume control to obtain a suitable reading.

SIGNAL GENERATOR	GEN FREQ	CHANNEL	ADJUST	REMARKS
SQUELCH RANGE High side thru .01 uF to antenna jack, low side to ground.	27.085MHz, 1000Hz @ 30% modulation, output 100 uV.	11	VR3	Set squelch control fully clockwise. Adjust so that squelch just breaks.
"S" METER High side thru .01 uF to antenna jack, low side to ground.	27.085MHz, 1000Hz @ 30% modulation, output 100 uV.	11	VR2	Adjust for "S" 9 on panel meter.

TRANSMITTER

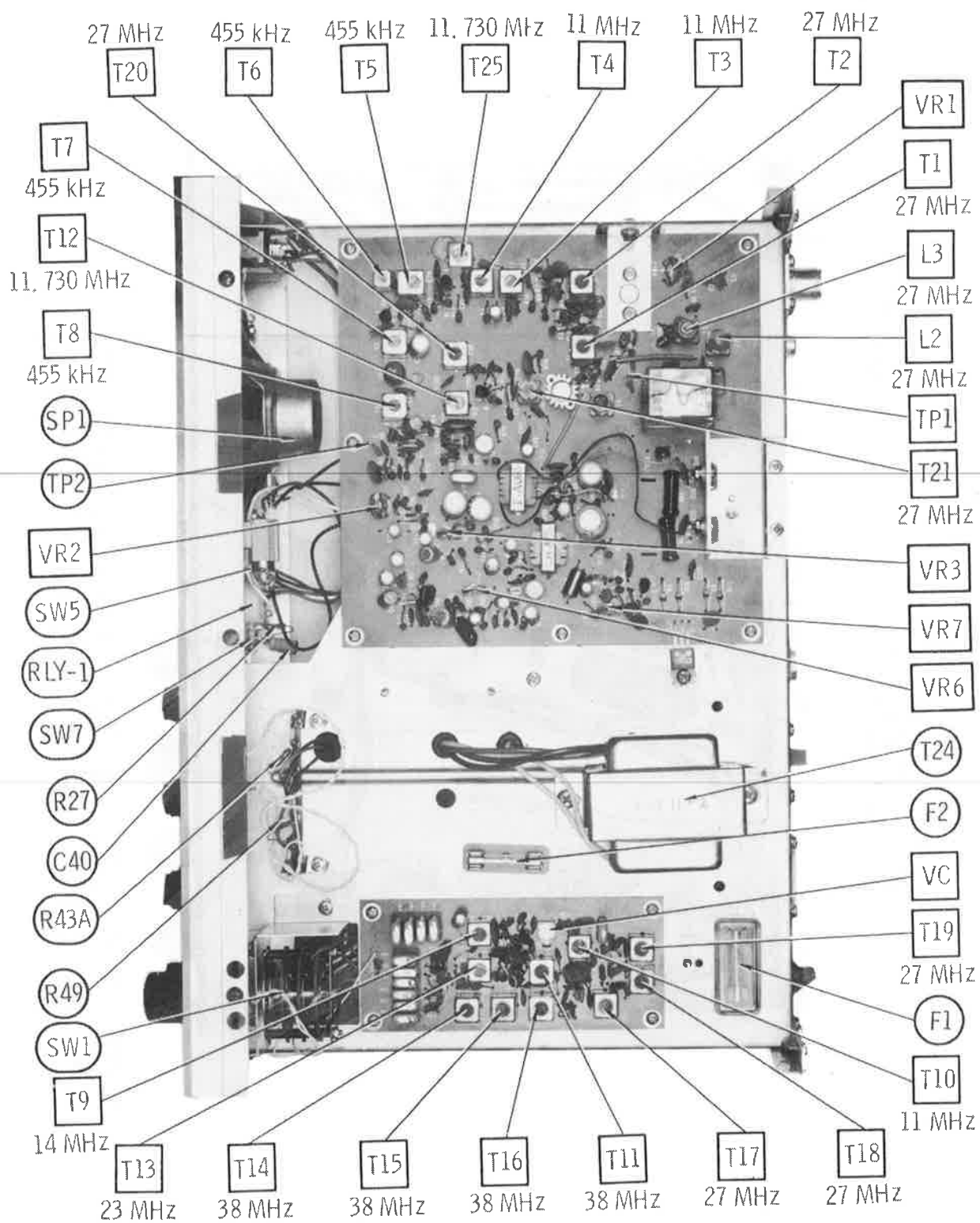
Connect an RF Wattmeter or 50-ohm, 25-watt dummy load to antenna connector.
 Adjustments made with 120-volt AC input to power supply.

INDICATOR	ADJUST	REMARKS
OSCILLATOR, MIXER, BUFFER, DRIVER, FINAL RF Wattmeter Oscilloscope (Response to 30MHz)	T9,T10,T13 T14,T15, T16,T17, T18,T19, T20,T21	Connect scope to base of Q11. Adjust VC for MINIMUM amplitude. Channel Selector to 11 Key transmitter. Adjust for maximum.
OUTPUT POWER RF Wattmeter	L2	Key transmitter. Adjust for 4-watts output.
TVI TRAP TV (Ch. 2)	L1	Key transmitter. Adjust for MINIMUM interference on TV.
FINAL INPUT POWER Remove jumper at TP1 and connect 0-1000DC milliammeter between T23 and L4.	L3	Adjust for 5-watts (Max.).

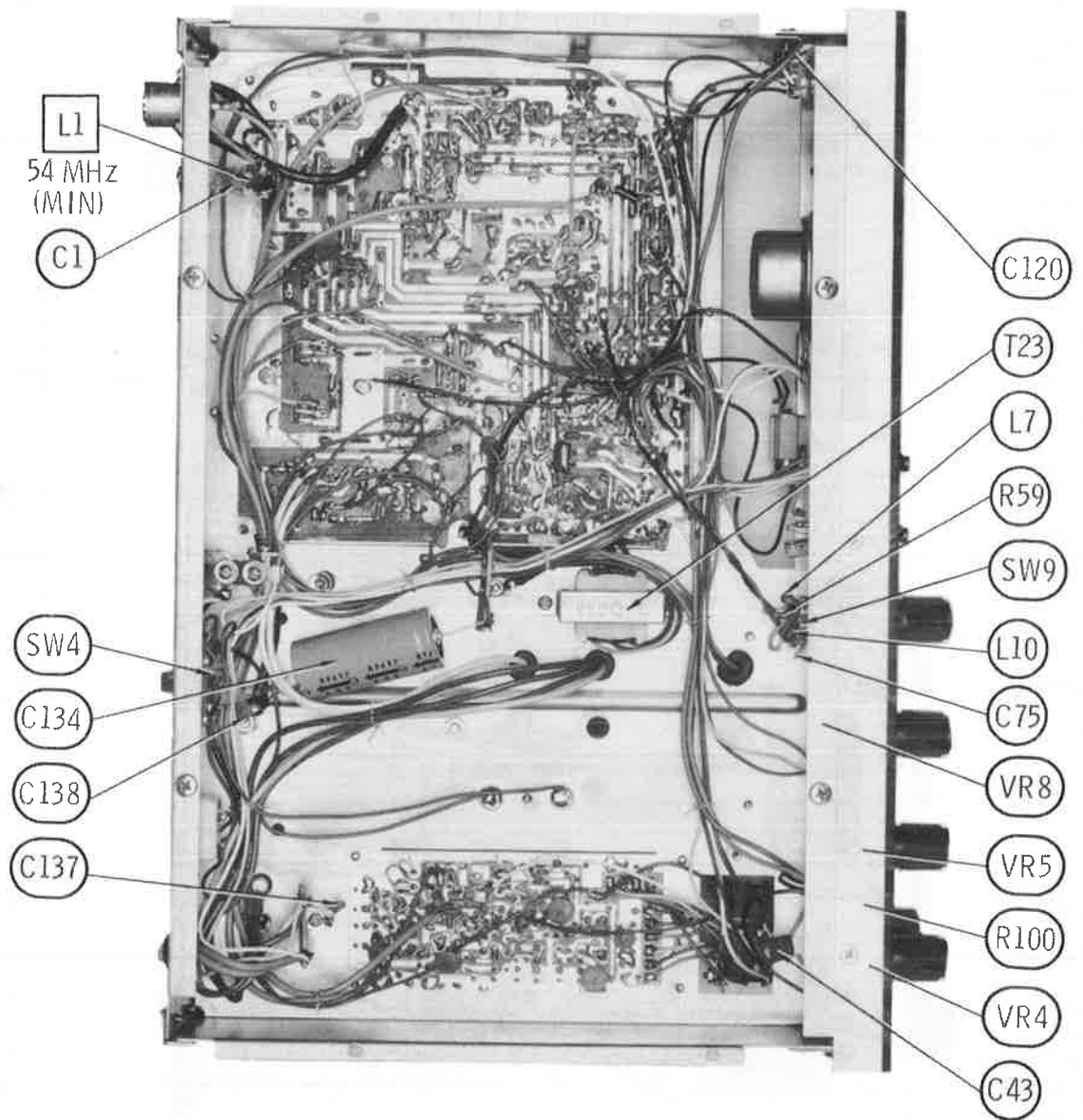
TRANSMITTER ADJUSTMENTS

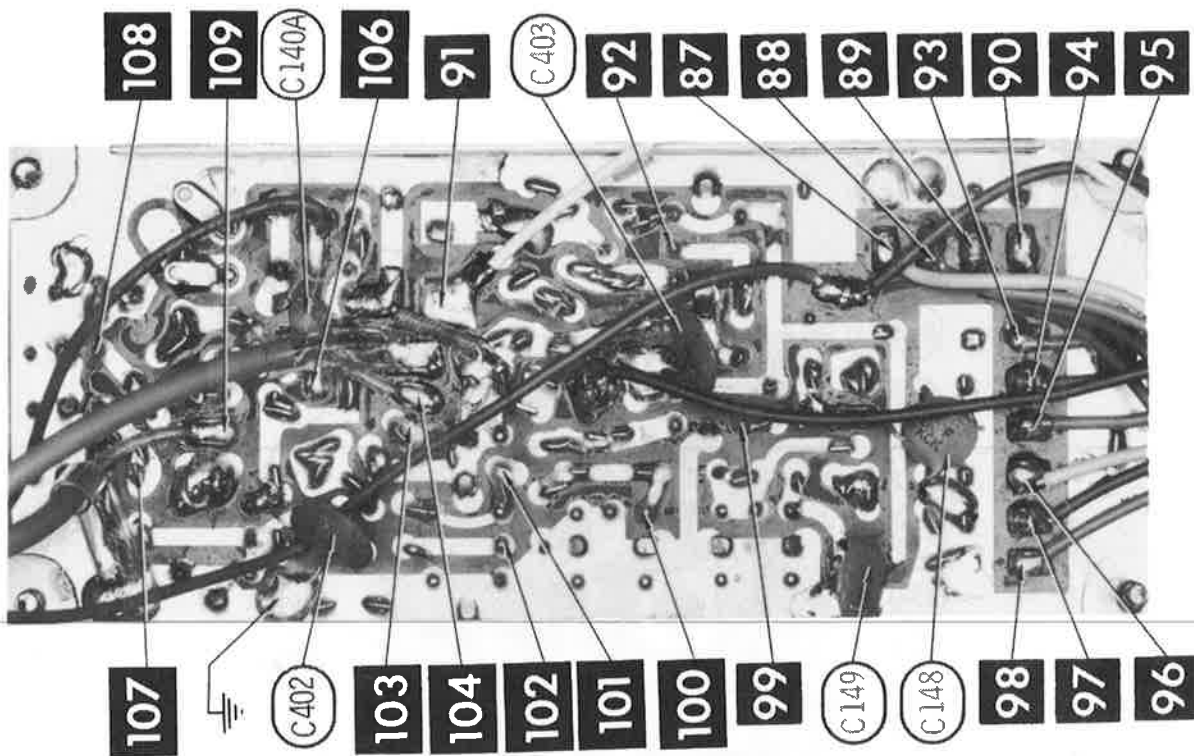
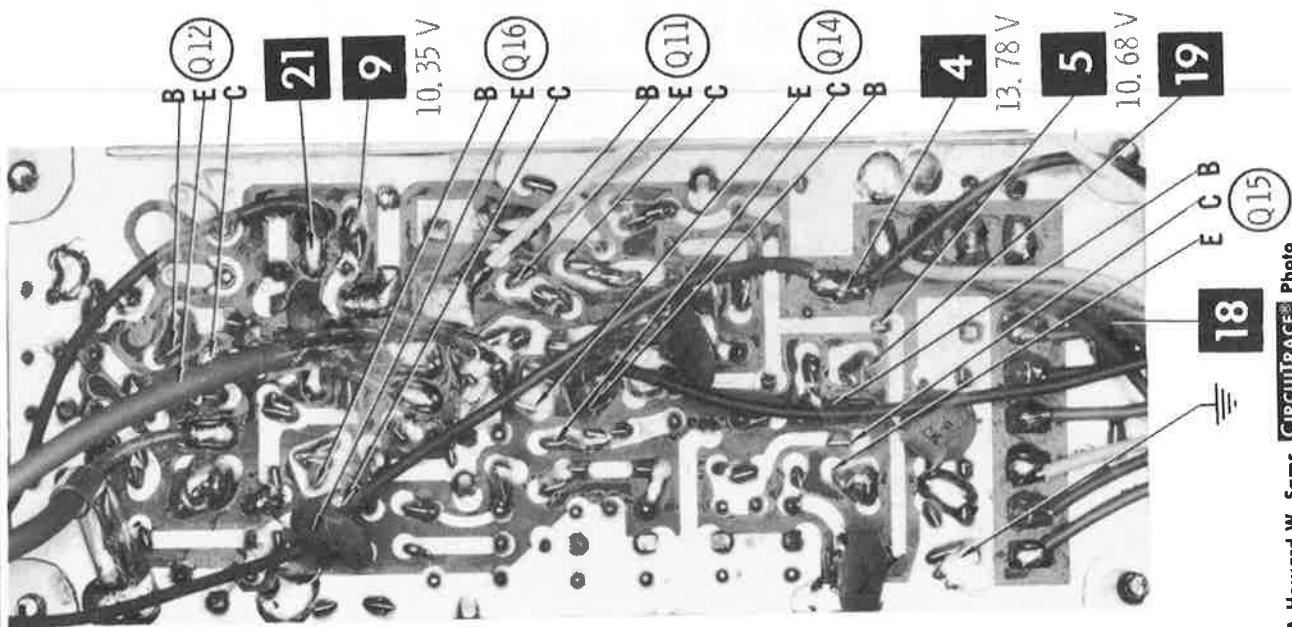
Connect an RF Wattmeter or 50-ohm, 25-watt dummy load to antenna connector.
 Adjustments made with 120-volt AC input to power supply.

INDICATOR	ADJUST	REMARKS
VOLTAGE REGULATOR DC Voltmeter connected to F2 and ground.	VR7	Adjust for 14 VDC at F2. Key transmitter. Voltage should not vary.
AMC Modulation Meter connected to antenna antenna jack.	VR6	Inject a 1000Hz 5 mV audio signal at mic input. Key transmitter. Adjust for 100% modulation maximum.
RF PANEL METER RF Wattmeter	VR1	Key transmitter. Adjust so that panel RF meter agrees with RF wattmeter.



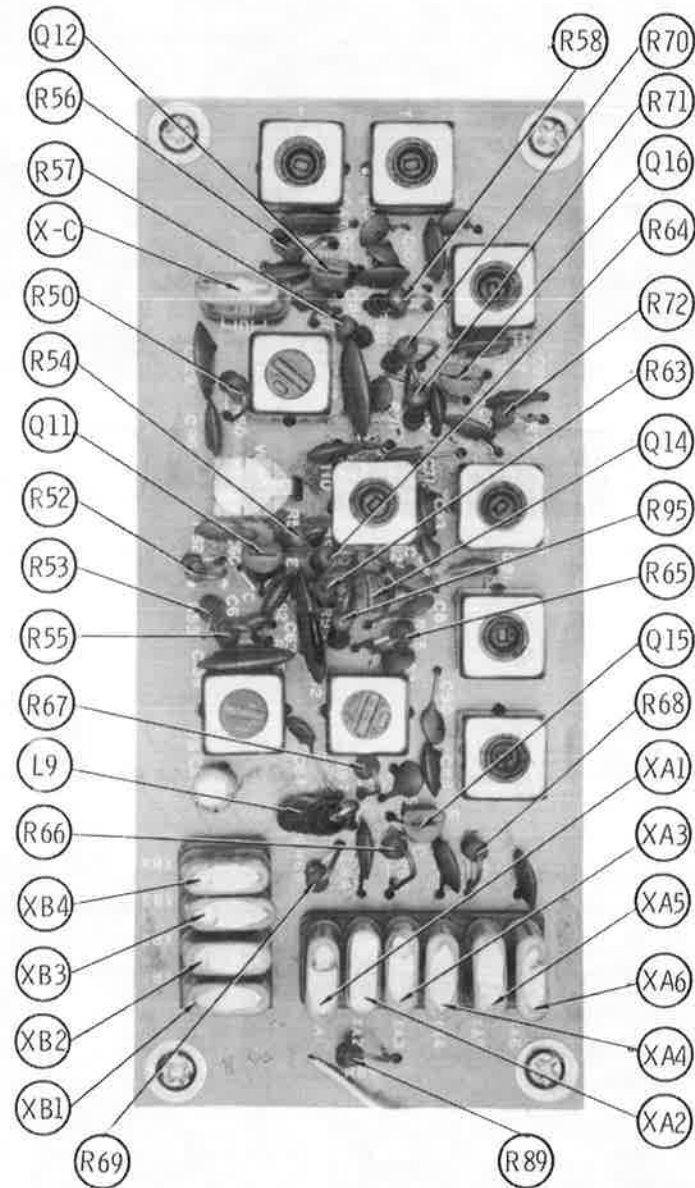
COURIER/FANON MODELS CARAVELLE II, CONQUEROR II/FANFARE 880



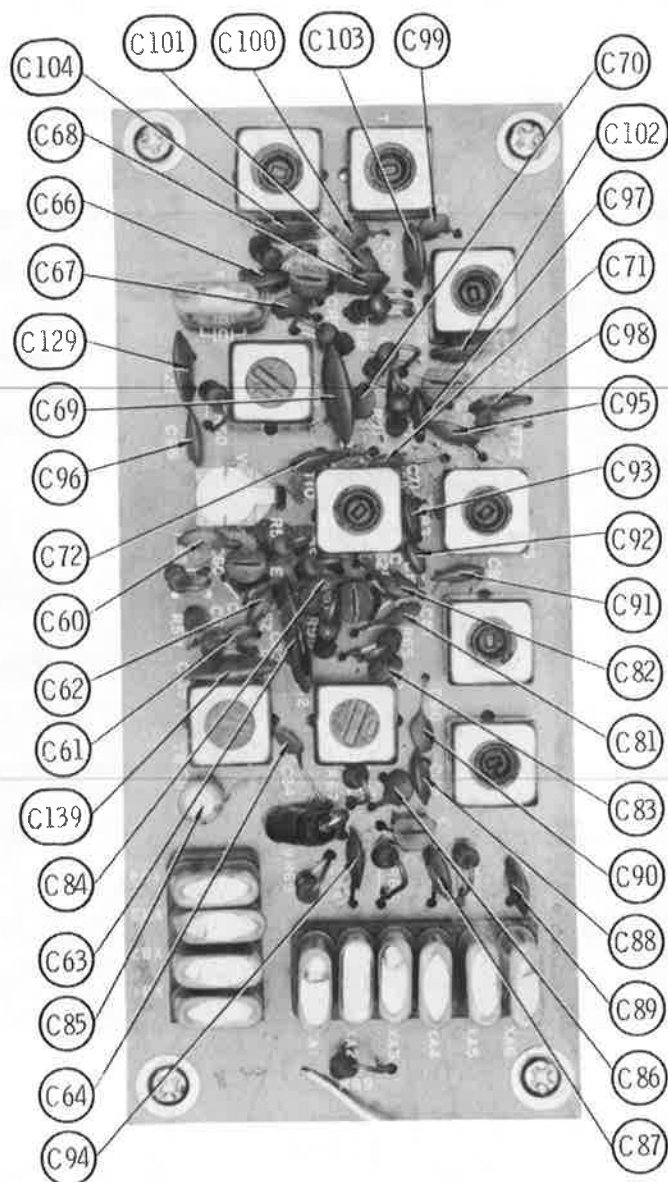


Synthesizer Board

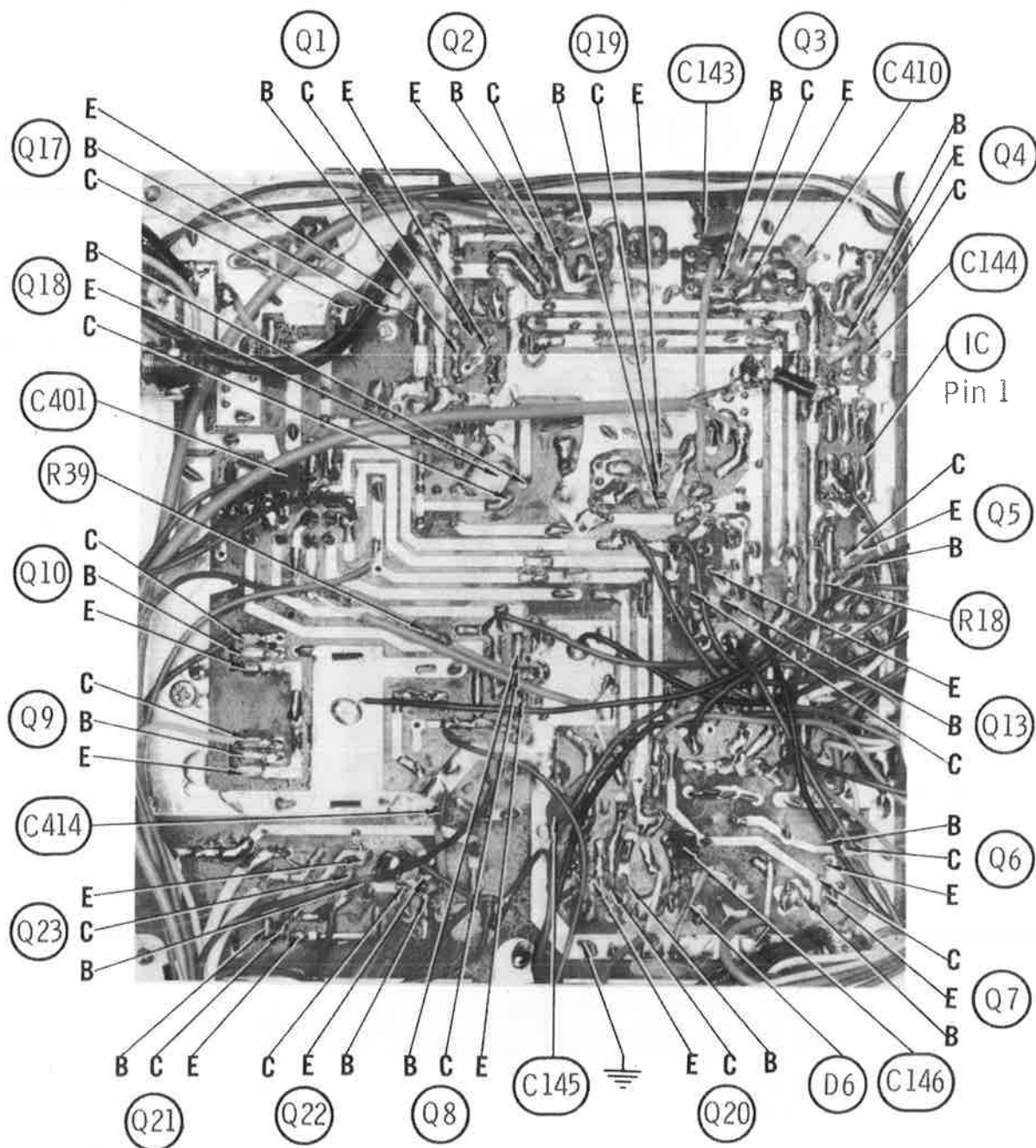
A Howard W. Sams **CIRCUITRACE**® Photo **COURIER/FANON MODELS CARAVELLE II, CONQUEROR II/FANFARE 880**



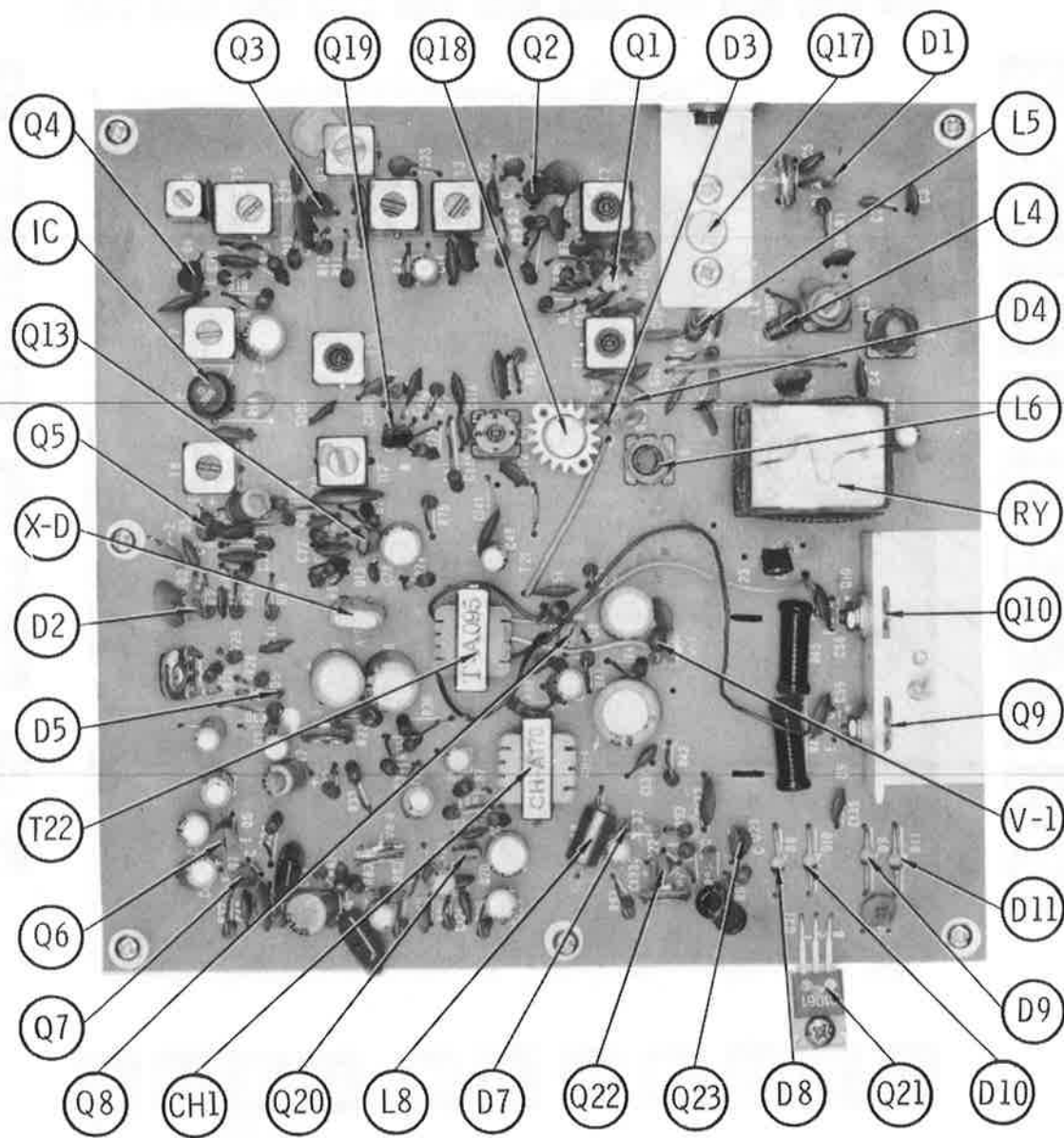
Synthesizer Board



Synthesizer Board



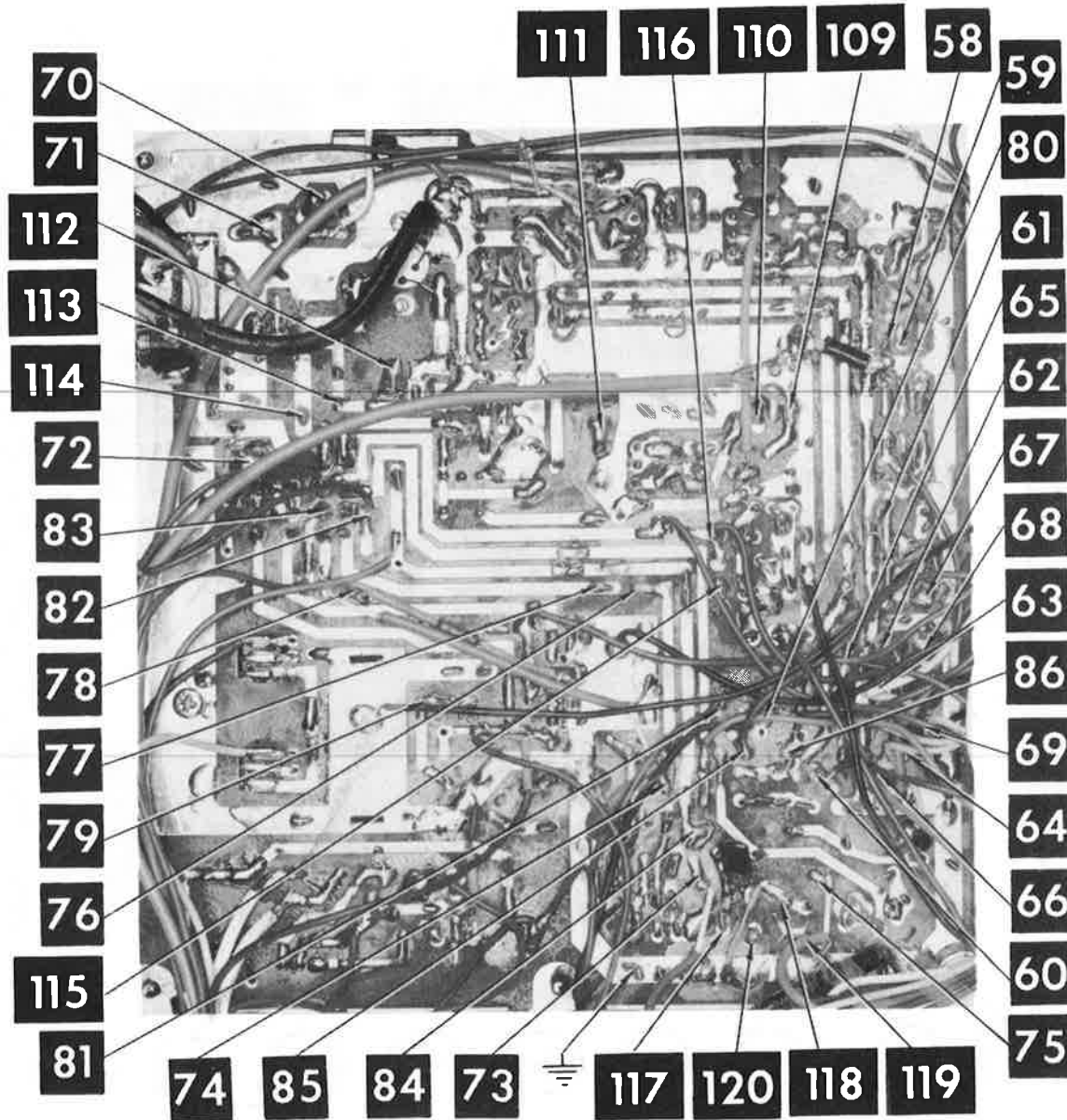
Main Board



Main Board

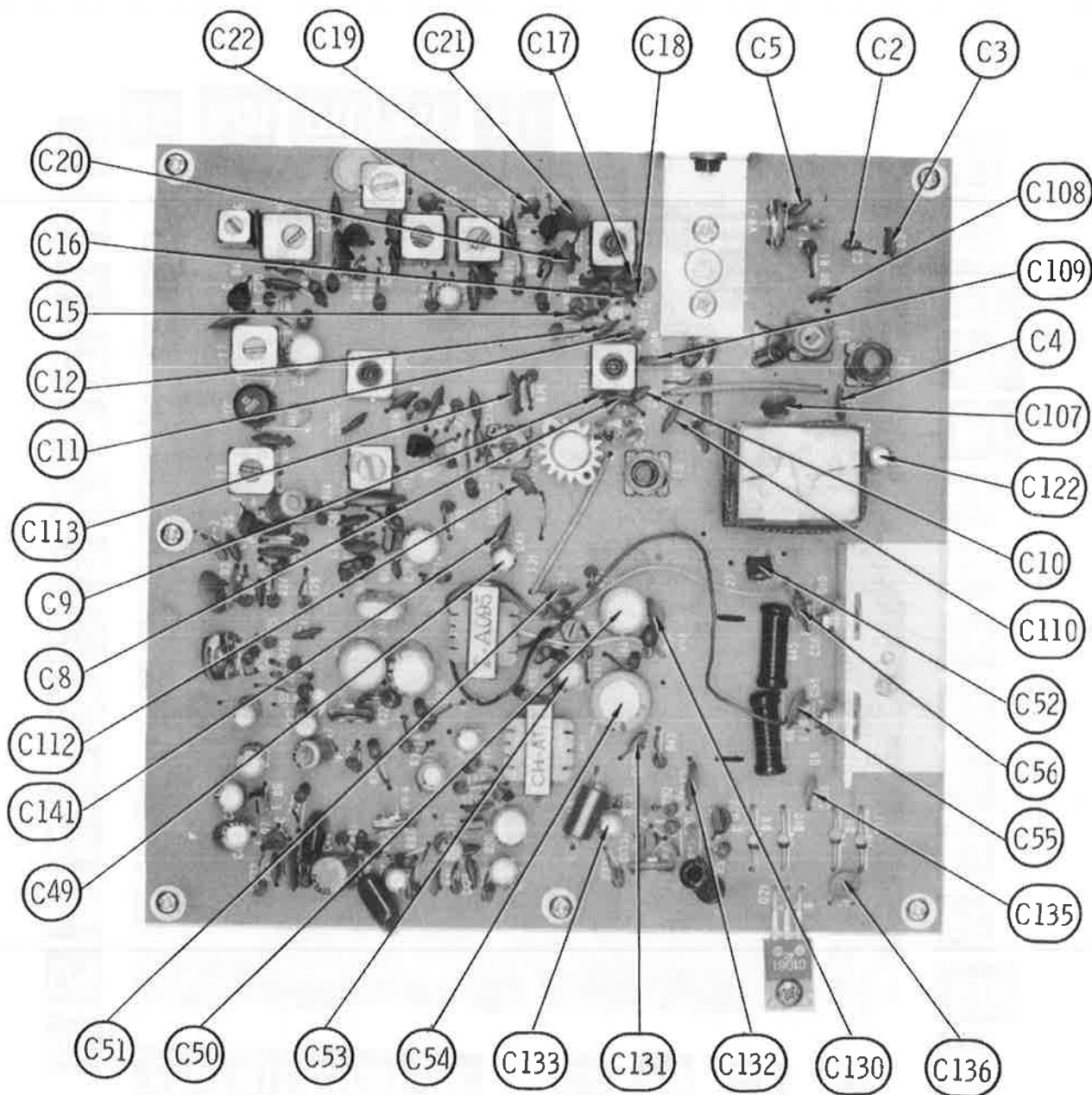


Main Board

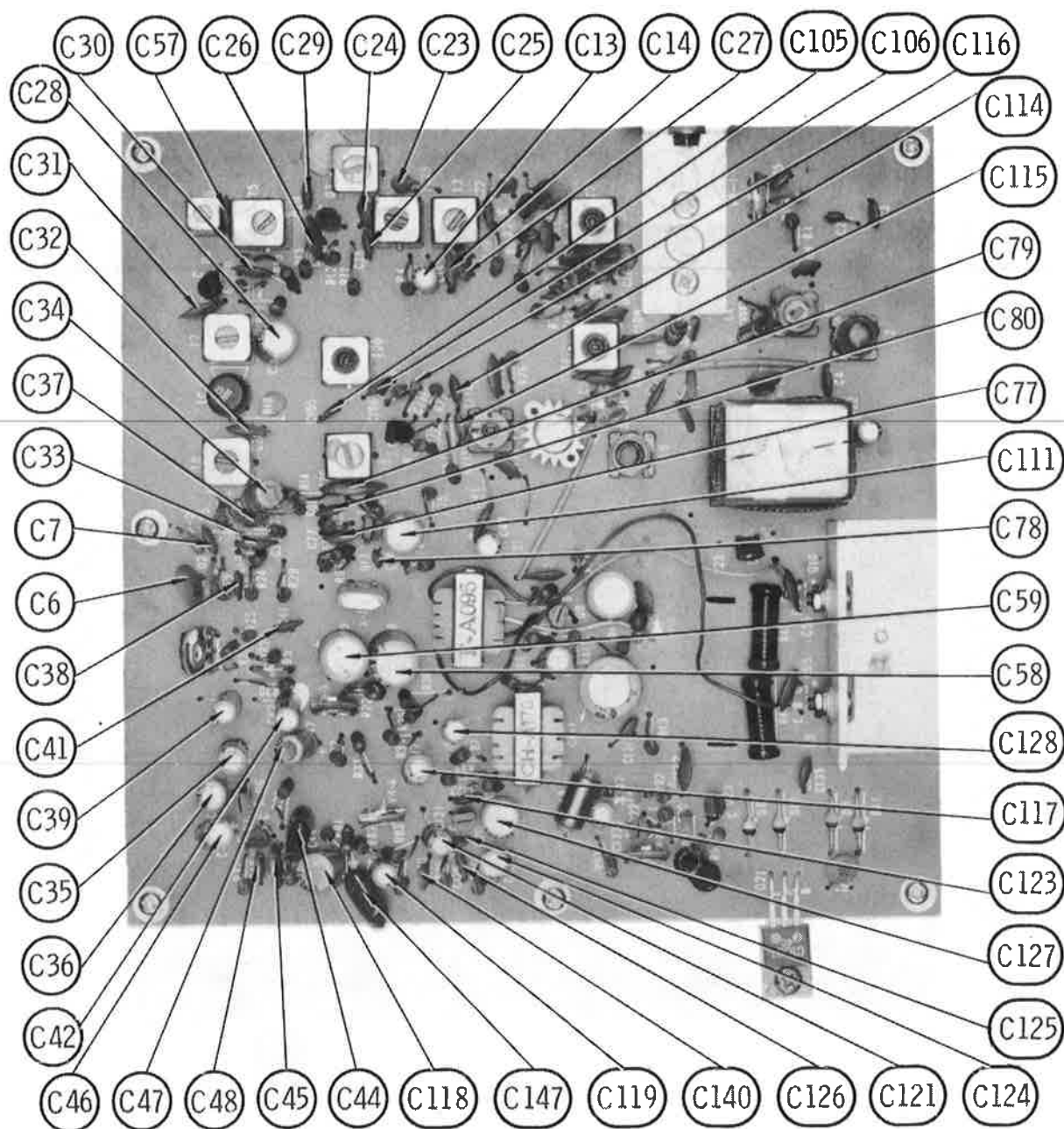


COURIER/FANON MODELS CARAVELLE II, CONQUEROR II/FANFARE 880

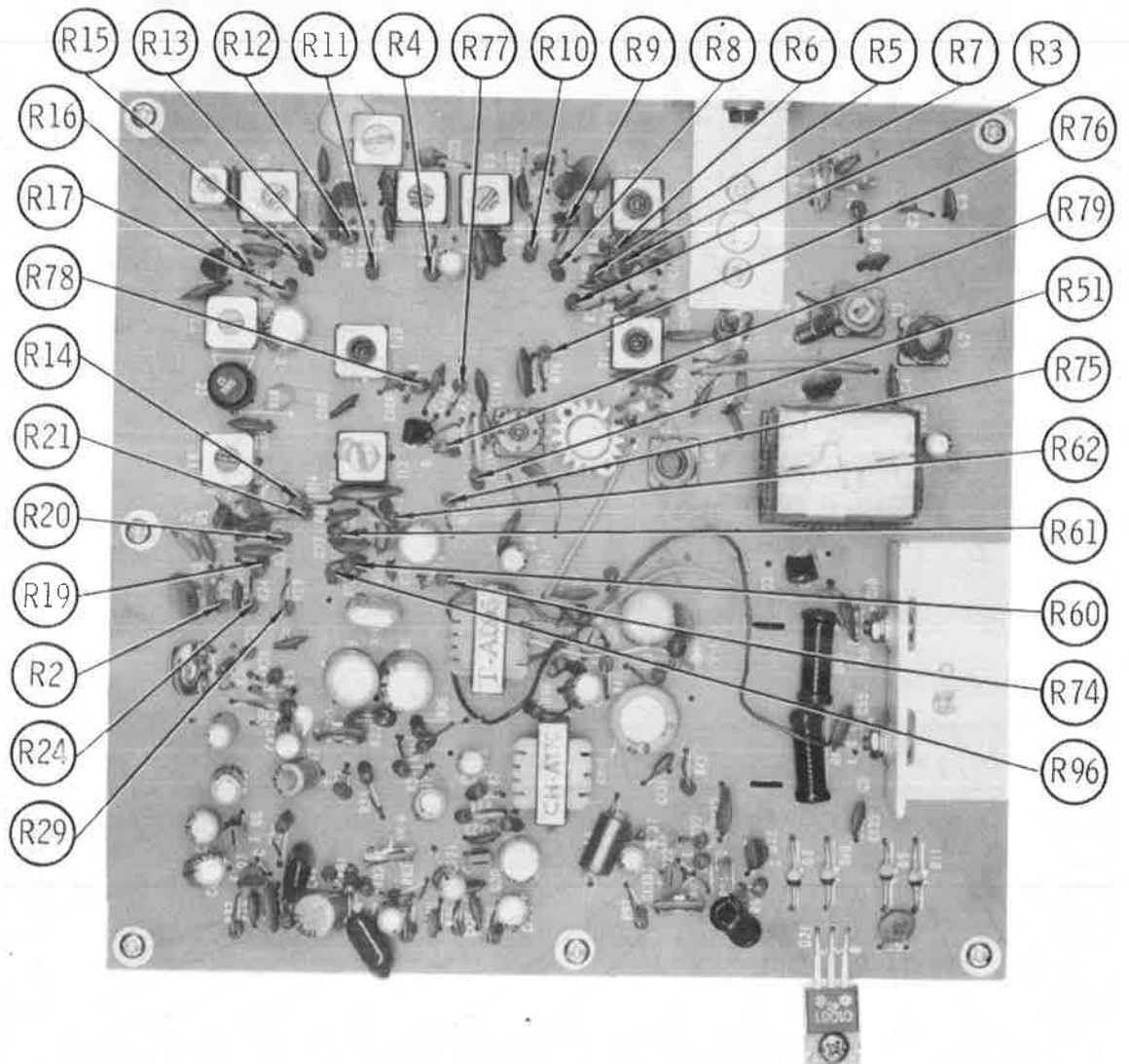
Main Board



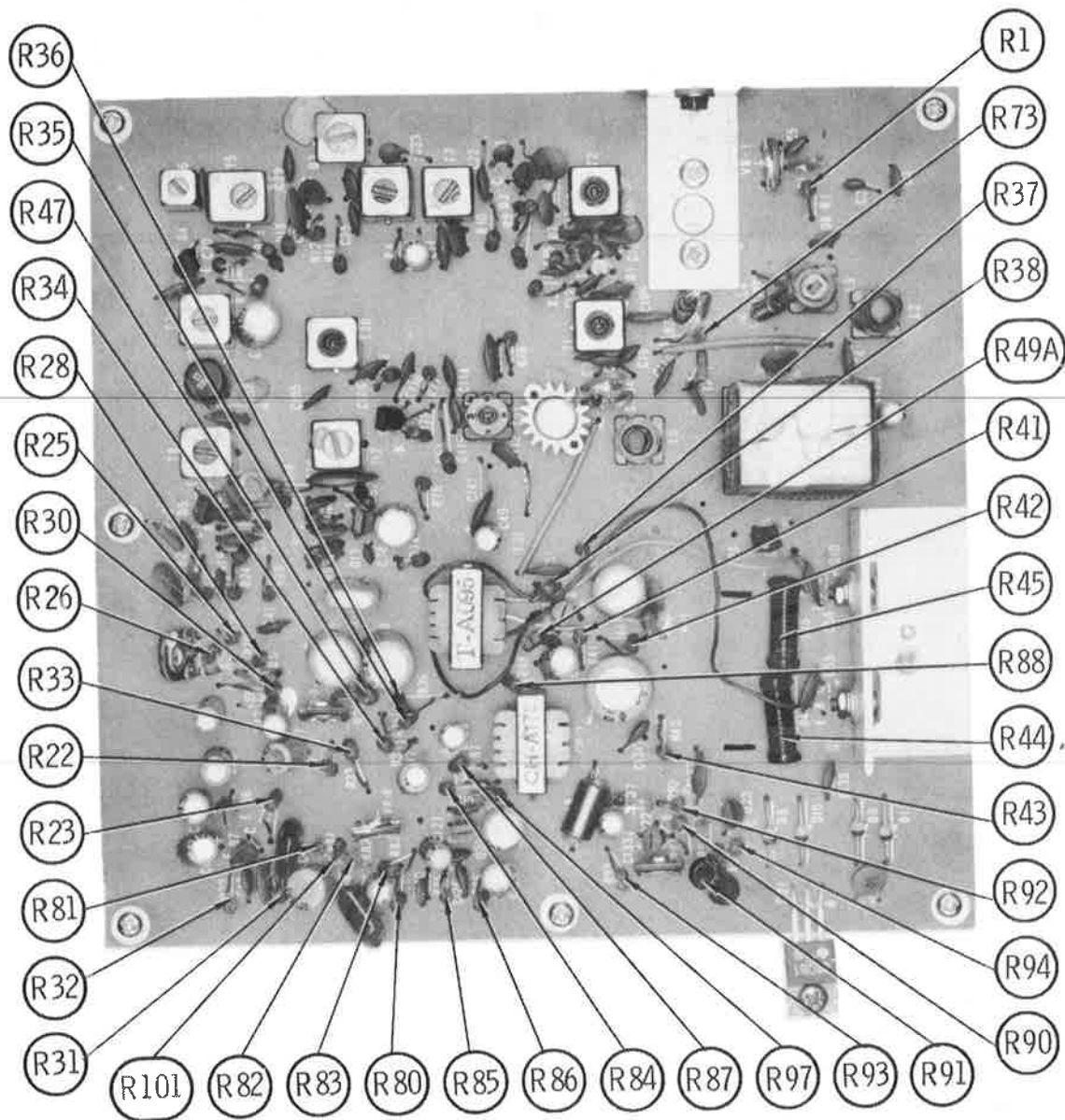
Main Board



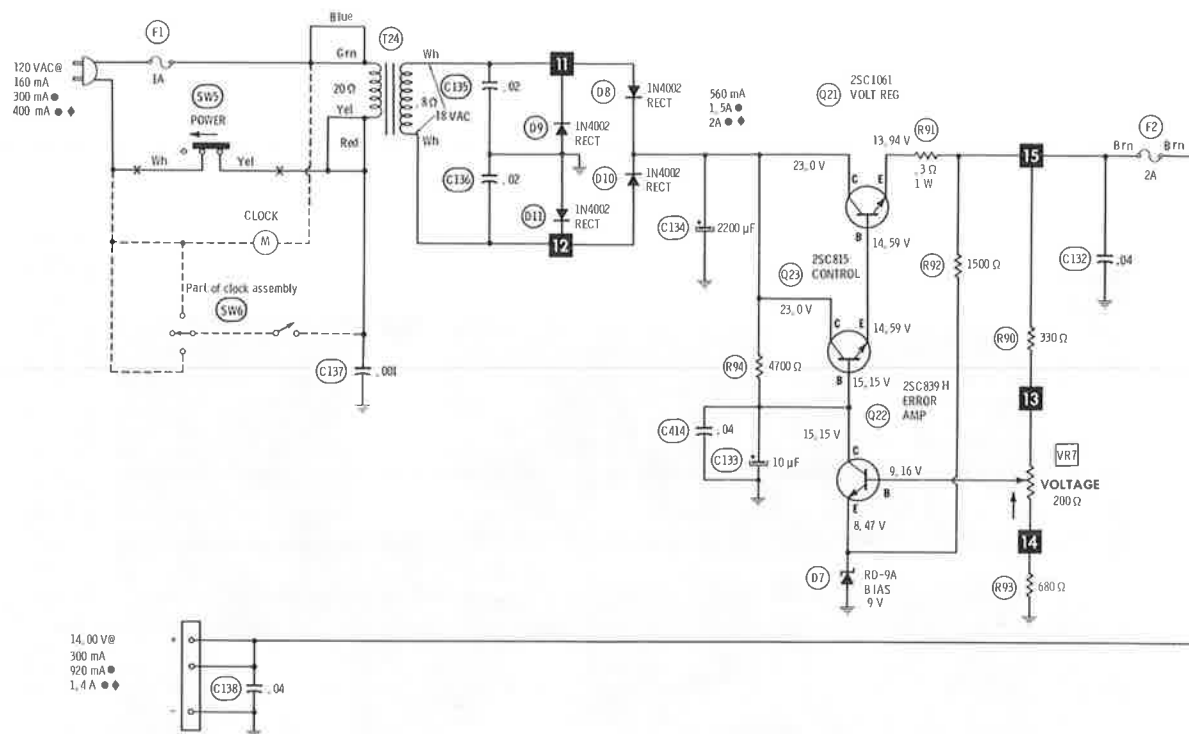
Main Board



Main Board



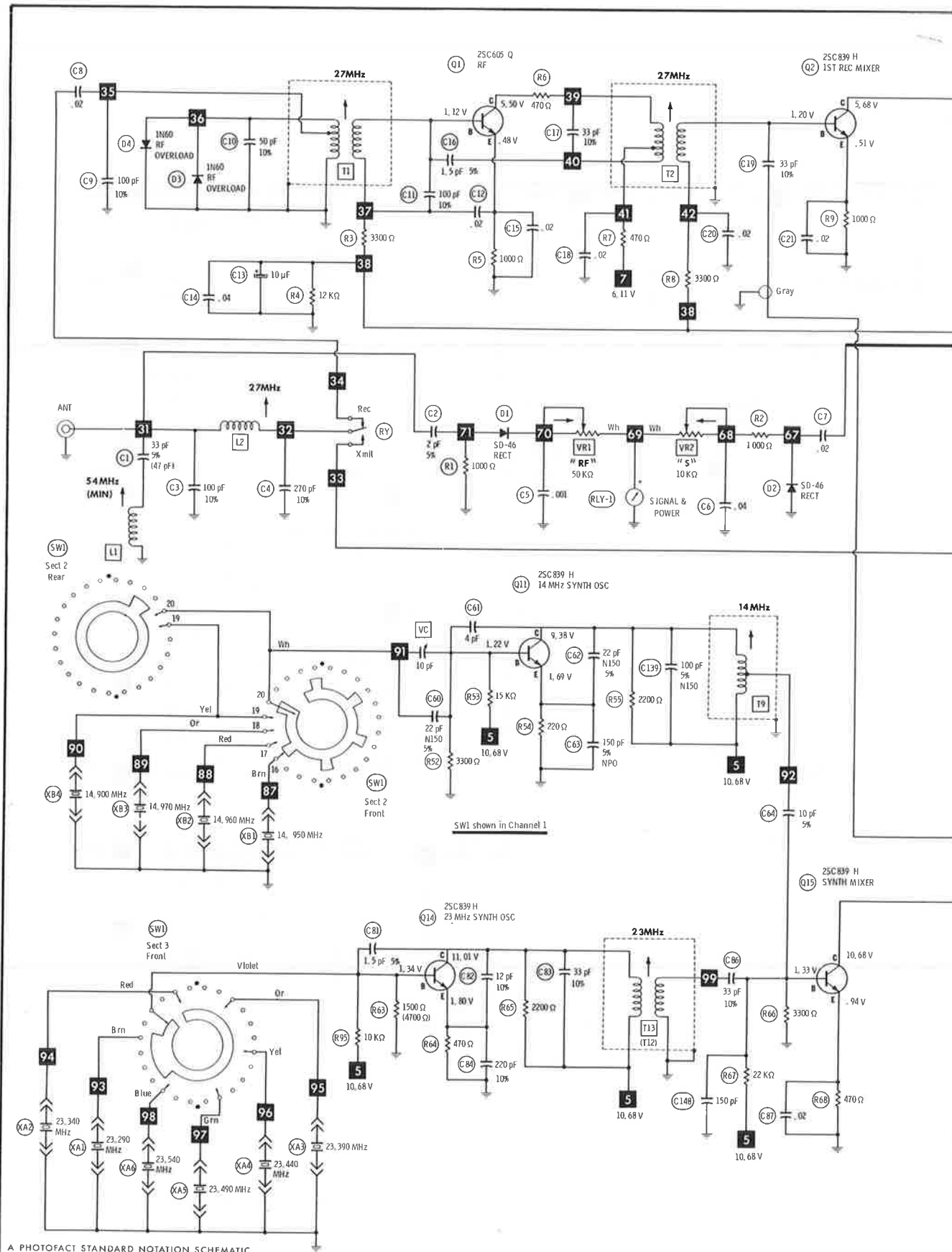
Main Board



- ◆ 100% modulation.
 - Noise blanker.
 - ▲ Squelch control fully clockwise.
 - Transmitt.
 - Indicates chassis.
 - ⊥ Indicates ground. (Voltage reference unless otherwise noted).
 - 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.
 - RF-IF coil resistance less than one ohm not given.
- Measurements taken with switching as shown unless otherwise noted.
 Values shown in () used in some versions.
 Resistors are 1/2 W. or less, 5% unless otherwise noted.
 Supply voltage maintained at rated value for measurements.
 Voltage measured with VTVM, no signal applied, controls adjusted for normal operation.
 Arrow on control indicates direction of advance.
 Numbers assigned to terminals may not be found on unit.

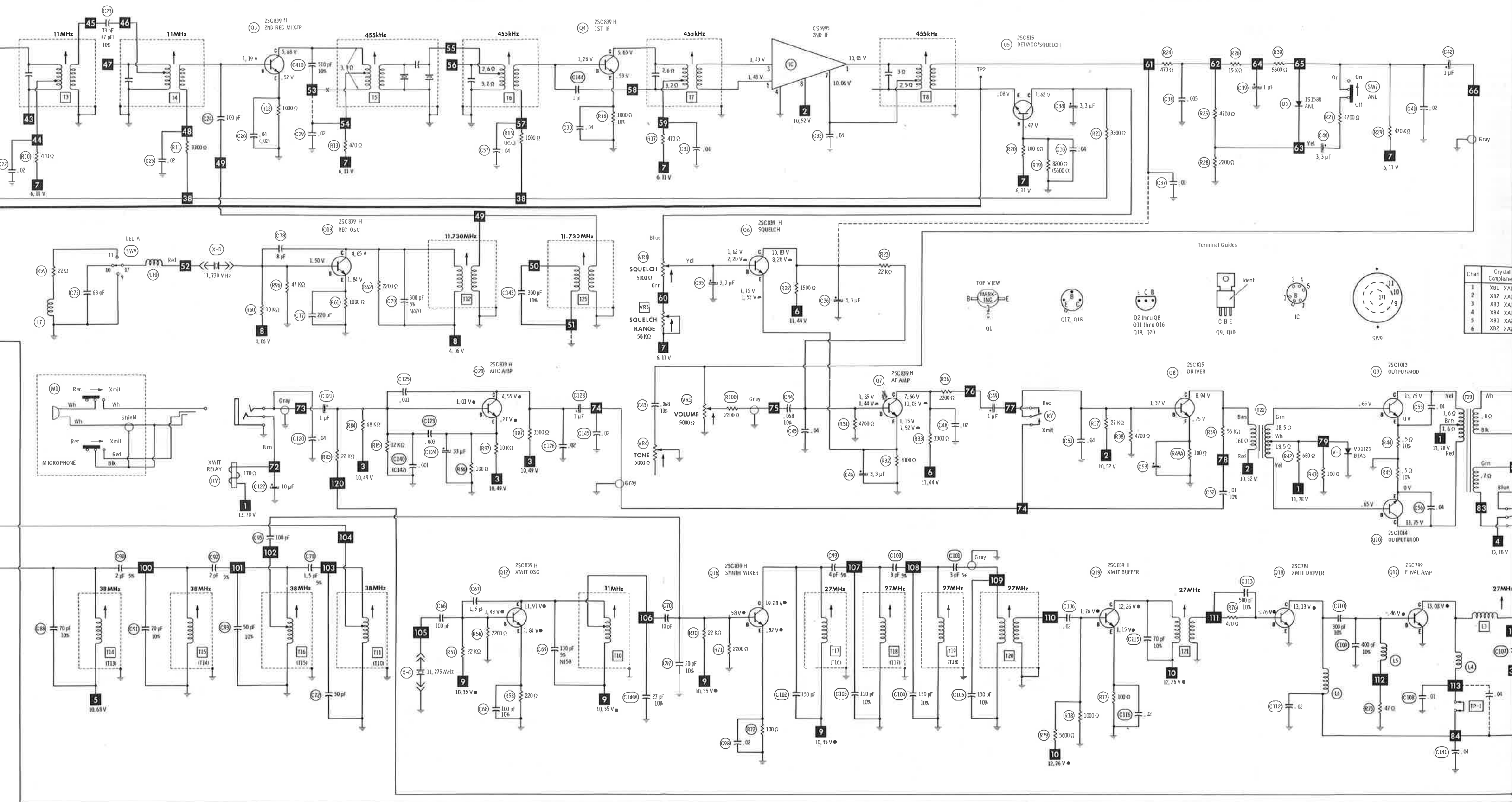
A PHOTOFACT STANDARD NOTATION SCHEMATIC
 with **CIRCUITRACE**

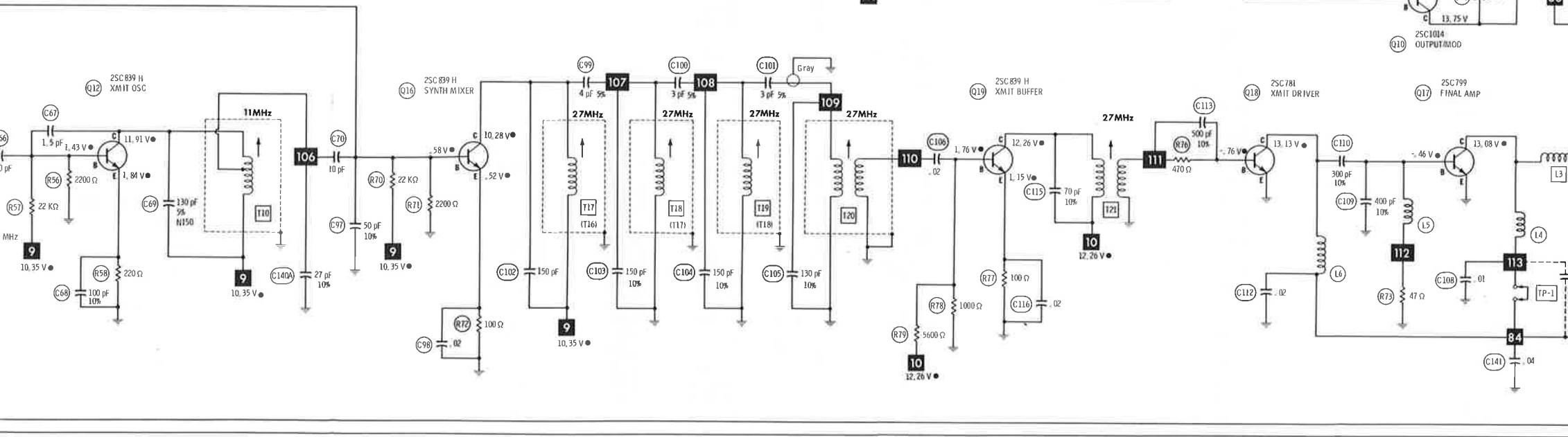
© Howard W. Sams & Co., Inc. 1975



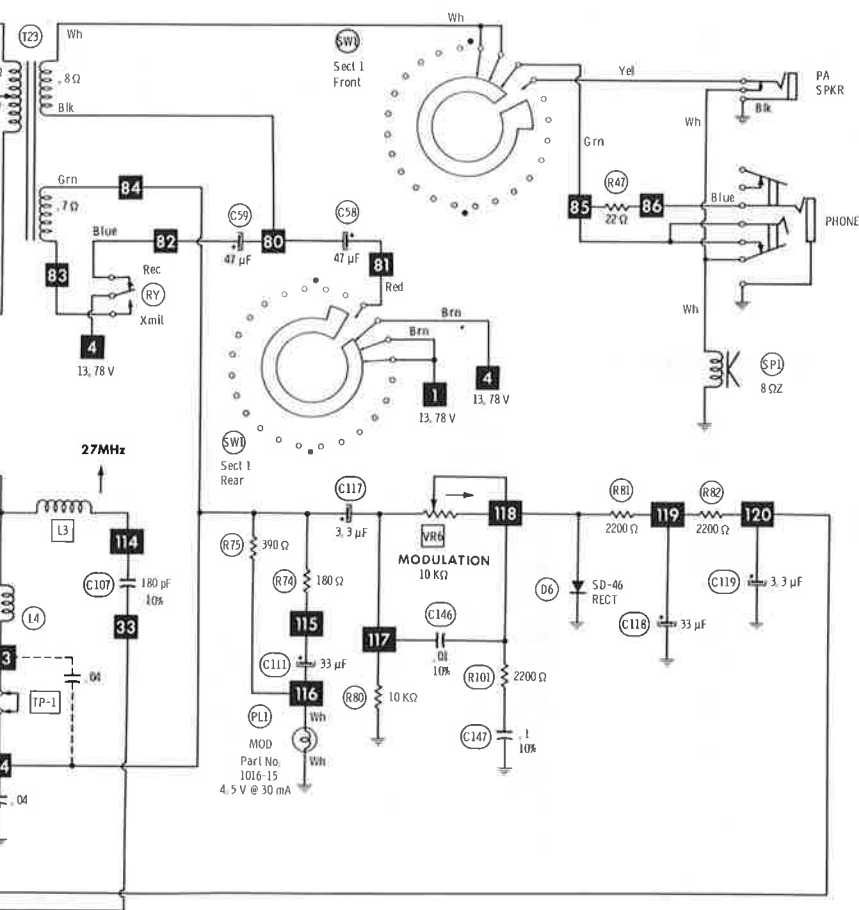
A PHOTOFAC STANDARD NOTATION SCHEMATIC
with **CIRCUITRACE**
© Howard W. Sams & Co., Inc. 1975

SEE NOTES ON PAGE 56





Chan	Crysal Complement	Chan	Crysal Complement	Chan	Crysal Complement	Chan	Crysal Complement
1	XB1 XA1	7	XB3 XA2	13	XB1 XA4	19	XB3 XA5
2	XB2 XA1	8	XB4 XA2	14	XB2 XA4	20	XB4 XA5
3	XB3 XA1	9	XB1 XA3	15	XB3 XA4	21	XB1 XA6
4	XB4 XA1	10	XB2 XA3	16	XB4 XA4	22	XB2 XA6
5	XB1 XA2	11	XB3 XA3	17	XB1 XA5	23	XB4 XA6
6	XB2 XA2	12	XB4 XA3	18	XB2 XA5	A	— — —



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.
D1	SD-46	1016-77	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263
D2	SD-46	1016-77	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263
D3	1N60	294-42-9	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263
D4	1N60	294-42-9	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263
D5	1S1588	2010-01	GE-504A	8D4	PTC201	HEPR0052	RE 49	SK3030	RT-213
D6	SD-46	1016-77	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263
D7	RD-9A	D-18	6EZD-9.1	Z1210	PTC505	HEPZ0412	RE 114	SK3060	RT-240
D8	9V Zener								
D9	1N4002	2010-02	GE-504A	8D4	PTC201	HEPR0052	RE 49	SK3030	RT-213
D10	1N4002	2010-02	GE-504A	8D4	PTC201	HEPR0052	RE 49	SK3030	RT-213
D11	1N4002	2010-02	GE-504A	8D4	PTC201	HEPR0052	RE 49	SK3030	RT-213
IC	CS5995	1016-80			PTC743				
Q1	2SC605Q	1016-85	GE-11	TR-95	PTC115	HEPS0020	RE 9	SK3018	RT-107A
Q2	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A
Q3	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A
Q4	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A
Q5	2SC815	296-77-9	GE-20	TR-21	PTC139	HEPS015	RE 13	SK3038	RT-102
Q6	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A
Q7	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A
Q8	2SC815	296-77-9	GE-20	TR-21	PTC139	HEPS0015	RE 13	SK3038	RT-102
Q9	2SC1013	1009-05	GE-28	TR-55	PTC110	HEPS3020	RE 80	SK3041	RT-197
Q10	2SC1013	1009-05	GE-28	TR-55	PTC110	HEPS3020	RE 80	SK3041	RT-197
Q11	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A
Q12	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A
Q13	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A
Q14	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A
Q15	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A
Q16	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107A
Q17	2SC799	1001-08(1)			PTC158				
Q18	2SC781	1009-03(2)		TR-87	PTC150	HEPS3001	RE 79	SK3048	RT-114
Q19	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107
Q20	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107
Q21	2SC1061	1016-81(3)	GE-66	TR-92	PTC137	HEPS5000	RE 42	SK3054	RT-154
Q22	2SC839H	1042-04	GE-20	TR-24	PTC121	HEPS0015	RE 10	SK3018	RT-107
Q23	2SC815	296-77-9	GE-20	TR-21	PTC139	HEPS0015	RE 13	SK3038	RT-102
V1	VD1123	2010-03	GE-504A	8D4	PTC201	HEPR0052	RE 49	SK3030	RT-213

- (1) Rating 10 watts @ 3 amp.
(2) Rating 800m.w. @ 1 amp.
(3) Rating 25 watts @ 3 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.
C13	10 16V	170-23-9	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C28	33 16V	170-48-9	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C34	3.3 50V	1016-141	RME-B-J-005	EP50-5	PC5-50	VTT4R7A50	EV-1519
C35	3.3 50V	1016-141	RME-B-J-005	EP50-5	PC5-50	VTT4R7A50	EV-1519
C36	3.3 50V	1016-141	RME-B-J-005	EP50-5	PC5-50	VTT4R7A50	EV-1519
C39	1 50V	170-53-9	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C40	3.3 50V	1016-141	RME-B-J-005	EP50-5	PC5-50	VTT4R7A50	EV-1519
C42	1 50V	170-53-9	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C46	3.3 10V	170-49-9	RME-A-E-003	EP15-5	PC5-50	VTT3R3A50	EV-1318
C47	47 10V	1016-140	RME-E-E-050	EP15-50	PC50-16	MTV50CB15	EV-1226
C49	1 50V	170-53-9	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C50	220 16V	170-26-9	RME-J-E-250	EP15-250	PC250-25	MTV250DE15	EV-1245
C53	33 16V	170-45-9	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C54	470 16V	170-47-9	RME-L-E-500	EP15-500	PC500-16	MTV500DN15	EV-1250
C58	47 50V	170-46-9	RME-E-E-050	EP15-50	PC50-16	MTV50CB15	EV-1226
C59	47 50V	170-46-9	RME-E-E-050	EP15-50	PC50-16	MTV50CB15	EV-1226
C85	10 16V	170-23-9	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C111	33 16V	170-48-9	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C117	3.3 50V	1016-141	RME-B-J-005	EP50-5	PC5-50	VTT4R7A50	EV-1519
C118	33 16V	170-48-9	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C119	3.3 25V	1016-146	RME-A-H-003	EP30-5	PC5-50	VTT3R3A50	EV-1618
C121	1 50V	170-53-9	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C122	10 16V	170-23-9	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C124	33 16V	170-45-9	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C127	33 16V	170-48-9	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C128	1 50V	170-53-9	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C133	10 16V	170-23-9	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C134	2200 35V	2010-05					

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

CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	33 5%						
C2	2 5%						
C3	100 10%		CCTO-2R2	DTZ-33	NP033	CNO433	10TCC-Q33
C4	270 10%		CCTO-101	DTZ-2R2	NP02P2	CNO522	10TCC-V22
C5	.001		CCD-201	DD-201	NP0100	CNO310	10TCC-T10
C6	.04		CCD-102	DD-102	GP200	GP320	10TS-T20
C7	.02		CCD-403		GP1000	GP210	2SS-D10
C8	.02		CCD-203			GP140	5GA-S40
C9	100 10%		CCD-203			GP120	5GA-S20
C10	50 10%		CCD-203			GP120	5GA-S20
C11	100 10%		CCD-203			GP120	5GA-S20
C12	.02		CCD-203			GP120	5GA-S20
C14	.04		CCD-203			GP140	5GA-S40
C15	.02		CCD-203			GP120	5GA-S20
C16	1.5 5%		CCD-203			GP120	5GA-S20
C17	33 10%		CCD-203			GP120	5GA-S20
C18	.02		CCD-203			GP120	5GA-S20
C19	33 10%		CCD-203			GP120	5GA-S20
C20	.02		CCD-203			GP120	5GA-S20
C21	.02		CCD-203			GP120	5GA-S20
C22	.02		CCD-203			GP120	5GA-S20
C23	33 10%		CCD-203			GP120	5GA-S20
C24	100 10%		CCD-203			GP120	5GA-S20
C25	.02		CCD-203			GP120	5GA-S20
C26	.04		CCD-403			GP140	5GA-S40
C27	.02		CCD-203			GP120	5GA-S20
C29	.02		CCD-203			GP120	5GA-S20
C30	.04		CCD-403			GP140	5GA-S40
C31	.04		CCD-403			GP140	5GA-S40
C32	.04		CCD-403			GP140	5GA-S40
C33	.04		CCD-403			GP140	5GA-S40
C37	.01		CCD-103			GP140	5GA-S40
C38	.005		CCD-502			GP120	2SS-S10
C41	.02		CCD-203			GP120	10TS-D50
C43	.068 10%		CCD-203			GP120	5GA-S20
C44	.068 10%		1MDF-2-683		DPMS4S68	EWFA1A168	1PB-S68
C45	.04		CCD-403		DPMS4S68	EWFA1A168	5GA-S40
C48	.02		CCD-203			GP120	5GA-S20
C51	.04		CCD-403			GP140	5GA-S40
C52	.01 10%		1MDF-1-103		CPJ-103	DPMS4S1	EWFA1A110
C55	.04		CCD-403			GP140	5GA-S40
C56	.04		CCD-403			GP140	5GA-S40
C57	.04		CCD-403			GP140	5GA-S40
C60	22 5% N150						
C61	4 5%						
C62	22 5% N150						
C63	150 5% NPO						
C64	10 5%						
C66	100						
C67	1.5 5%						
C68	100 10%						
C69	130 5% N150						
C70	10 5%						
C71	1.5 5%						
C72	50 10%						
C75	68 10%						
C77	220 10%						
C78	8						
C79	300 5% N470						
C80	.02						
C81	1.5 5%						
C82	12 5%						
C83	33 10%						
C84	220 10%						
C86	33 10%						
C87	.02						
C88	70 10%						
C89	.02						
C90	2 5%						
C91	70 10%						
C92	2 5%						
C93	50 10%						
C94	.02						
C95	100 10%						
C96	.02						
C97	50 10%						
C98	.02						
C99	4 5%						
C100	3 5%						
C101	3 5%						
C102	150 10%						
C103	150 10%						
C104	150 10%						
C105	130 10%						
C106	.02						
C107	180 10%						
C108	.01						
C109	400 10%						

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

CAPACITORS (cont)

ITEM No.	RATING	
C110	300 10%	
C112	.02	
C113	500 10%	
C114	.02	
C115	70 10%	
C116	.02	
C120	.04	
C123	.003	
C125	.001	
C126	.02	
C129	.04	
C130	.02	
C131	.001	
C132	.04	
C135	.02	
C136	.02	
C137	.001	
C138	.04	
C139	100 5% N150	
C140	.001	
C140A	27 10%	
C141	.01	
C143	300 10%	
C144	1	
C145	.02	
C146	.01 10%	
C147	.1 10%	
C148	150 10%	
C149	.04	
C401	.04	
C402	.04	
C403	.04	
C410	510 10%	
C414	.04	

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS

RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
3088	RT-263	ECG109
3088	RT-263	ECG109
3088	RT-263	ECG109
3088	RT-263	ECG109
3030	RT-213	ECG116
3088	RT-263	ECG109
3060	RT-240	ECG139
3030	RT-213	ECG116
3030	RT-213	ECG116
3030	RT-213	ECG116
3030	RT-213	ECG116
3018	RT-107A	ECG703A
3018	RT-107A	ECG107
3018	RT-107A	ECG108
3018	RT-107A	ECG108
3038	RT-102	ECG123A
3018	RT-107A	ECG108
3038	RT-102	ECG123A
3041	RT-197	ECG210
3041	RT-197	ECG210
3018	RT-107A	ECG108
3018	RT-107A	ECG108
3018	RT-107A	ECG108
3018	RT-107A	ECG108
3018	RT-107A	ECG108
3018	RT-107A	ECG108
3049	RT-114	ECG195
3048	RT-107	ECG108
3018	RT-107	ECG108
3054	RT-154	ECG186
3018	RT-107	ECG108
3038	RT-102	ECG123A
3030	RT-213	ECG116

MALLORY PART No.	SPRAGUE PART No.
TT10A25	EV-1222
TV30CB25	EV-1325
TT4R7A50	EV-1519
TT4R7A50	EV-1519
TT4R7A50	EV-1519
TV1CB50	EV-1615
TT4R7A50	EV-1519
TV1CB50	EV-1615
TT3R3A50	EV-1318
TV50CB15	EV-1226
TV1CB50	EV-1615
TV250DE15	EV-1226
TV30CB25	EV-1325
TV500DN15	EV-1250
TV50CB15	EV-1226
TV50CB15	EV-1226
TT10A25	EV-1222
TV30CB25	EV-1325
TT4R7A50	EV-1519
TV30CB25	EV-1325
TT3R3A50	EV-1618
TV1CB50	EV-1615
TT10A25	EV-1222
TV30CB25	EV-1325
TV30CB25	EV-1325
TV1CB50	EV-1615
TT10A25	EV-1222

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			ARCO PART No.	CENTRALAB PART No.	CORNELL- DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	33 5%		CCTO-2R2	DTZ-33	NPO33	CNO433	10TCC-Q33
C2	2 5%		CCTO-101	DTZ-2R2	NPO2P2	CNO522	10TCC-V22
C3	100 10%		CCD-201	DD-201	GP200	GP320	10TCC-T10
C4	270 10%		CCD-102	DD-102	GP1000	GP210	10TS-T20
C5	.001		CCD-403			GP140	2SS-D10
C6	.04		CCD-203			GP120	5GA-S40
C7	.02		CCD-203			GP120	5GA-S20
C8	.02		CCD-203			GP120	5GA-S20
C9	100 10%		CCTO-101	DTZ-100	NPO100	CNO310	10TCC-T10
C10	50 10%		CCTO-510	DTZ-50	NPO50	CNO450	10TCC-Q50
C11	100 10%		CCTO-101	DTZ-100	NPO100	CNO310	10TCC-T10
C12	.02		CCD-203			GP120	5GA-S20
C14	.04		CCD-403			GP140	5GA-S40
C15	.02		CCD-203			GP120	5GA-S20
C16	1.5 5%			DTZ-1R5	NPO1P5	CNO515	10TCC-V15
C17	33 10%			DTZ-33	NPO33	CNO433	10TCC-Q33
C18	.02		CCD-203			GP120	5GA-S20
C19	33 10%		CCTO-330	DTZ-33	NPO33	CNO433	10TCC-Q33
C20	.02		CCD-203			GP120	5GA-S20
C21	.02		CCD-203			GP120	5GA-S20
C22	.02		CCD-203			GP120	5GA-S20
C23	33 10%		CCTO-330	DTZ-33	NPO33	CNO433	10TCC-Q33
C24	100 10%		CCTO-101	DTZ-100	NPO100	CNO310	10TCC-T10
C25	.02		CCD-203			GP120	5GA-S20
C26	.04		CCD-403			GP140	5GA-S40
C27	.02		CCD-203			GP120	5GA-S20
C29	.02		CCD-203			GP120	5GA-S20
C30	.04		CCD-403			GP140	5GA-S40
C31	.04		CCD-403			GP140	5GA-S40
C32	.04		CCD-403			GP140	5GA-S40
C33	.04		CCD-403			GP140	5GA-S40
C37	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C38	.005		CCD-502				10TS-D50
C41	.02		CCD-203			GP120	5GA-S20
C43	.068 10%		1MDF-2-683		DPMS4S68	EWFTA168	1PB-S68
C44	.068 10%		1MDF-2-683		DPMS4S68	EWFTA168	1PB-S68
C45	.04		CCD-403			GP140	5GA-S40
C48	.02		CCD-203			GP120	5GA-S20
C51	.04		CCD-403			GP140	5GA-S40
C52	.01 10%		1MDF-1-103	CPJ-103	DPMS4S1	EWFTA110	1PB-S10
C55	.04		CCD-403			GP140	5GA-S40
C56	.04		CCD-403			GP140	5GA-S40
C57	.04		CCD-403			GP140	5GA-S40
C60	22 5% N150		*			*	10TCR-Q22
C61	4 5%		CCTO-4R7	DTZ-4R7	NPO4P7	CNO537	10TCC-V47
C62	22 5% N150		*			*	10TCR-Q22
C63	150 5% NPO			DTZ-150		CNO315	10TCC-T15
C64	10 5%		CCTO-100	DTZ-10	NPO10	CNO410	10TCC-Q10
C66	100		CCTO-101	DTZ-100	NPO100	CNO310	10TCC-T10
C67	1.5 5%			DTZ-1R5	NPO1P5	CNO515	10TCC-V15
C68	100 10%		CCTO-101	DTZ-100	NPO100	CNO310	10TCC-T10
C69	130 5% N150		*			*	10TCR-T12
C70	10 5%		CCTO-100	DTZ-10	NPO10	CNO410	10TCC-Q10
C71	1.5 5%		CCTO-2R2	DTZ-2R2	NPO2P2	CNO522	10TCC-V22
C72	50 10%			DTZ-50	NPO50	CNO450	10TCC-Q50
C75	68 10%		CCD-680	DD-680	GP68	GP468	10TS-Q68
C77	220 10%		CCD-221	DD-221		GP322	10TS-T22
C78	8			DTZ-10	NPO10	CNO410	10TCC-Q10
C79	300 5% N470		*			*	10TCT-T30
C80	.02		CCD-203			GP120	5GA-S20
C81	1.5 5%		CCTO-3R3	DTZ-3R3	NPO3P3	CNO533	10TCC-V33
C82	12 5%		CCTO-120			CNO412	10TCC-Q12
C83	33 10%		CCTO-330	DTZ-33	NPO33	CNO433	10TCC-Q33
C84	220 10%		CCD-221	DD-221		GP322	10TS-T22
C86	33 10%		CCTO-330	DTZ-33	NPO33	CNO433	10TCC-Q33
C87	.02		CCD-203			GP120	5GA-S20
C88	70 10%		CCD-680	DD-680	GP68	GP468	10TS-Q68
C89	.02		CCD-203			GP120	5GA-S20
C90	2 5%		CCTO-2R2	DTZ-2R2	NPO2P2	CNO522	10TCC-V22
C91	70 10%		CCD-680	DD-680	GP68	GP468	10TS-Q68
C92	2 5%		CCTO-2R2	DTZ-2R2	NPO2P2	CNO522	10TCC-V22
C93	50 10%		CCTO-510	DTZ-50	NPO50	CNO450	10TCC-Q50
C94	.02		CCD-203			GP120	5GA-S20
C95	100 10%		CCTO-101	DTZ-100	NPO100	CNO310	10TCC-T10
C96	.02		CCD-203			GP120	5GA-S20
C97	50 10%		CCTO-510	DTZ-50	NPO50	CNO450	10TCC-Q50
C98	.02		CCD-203			GP120	5GA-S20
C99	4 5%		CCTO-4R7	DTZ-4R7	NPO4P7	CNO537	10TCC-V47
C100	3 5%		CCTO-3R3	DTZ-3R3	NPO3P3	CNO533	10TCC-V33
C101	3 5%		CCTO-3R3	DTZ-3R3	NPO3P3	CNO533	10TCC-V33
C102	150 10%		CCD-151	DD-151		CNO315	10TCC-T15
C103	150 10%		CCD-151	DD-151		CNO315	10TCC-T15
C104	150 10%		CCD-151	DD-151		CNO315	10TCC-T15
C105	130 10%		CCTO-121	DTZ-120		CNO312	10TCC-T12
C106	.02		CCD-203			GP120	5GA-S20
C107	180 10%		CCD-181	DD-181		GP318	10TS-T18
C108	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C109	400 10%		CCD-391	DD-391	GP390	GP339	10TS-T39

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 PART No.	CENTRALAB PART No.	CORNELL- DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C110	300 10%		CCD-301	DD-301	GP300	GP330	10TS-T30
C112	.02		CCD-203			GP120	5GA-S20
C113	500 10%		CCD-501	DD-501	GP500	GP350	10TS-T50
C114	.02		CCD-203			GP120	5GA-S20
C115	70 10%		CCD-680	DD-680	GP68	GP468	10TS-Q68
C116	.02		CCD-203			GP120	5GA-S20
C120	.04		CCD-403			GP140	5GA-S40
C123	.003		CCD-302	DD-302		GP230	10TS-D30
C125	.001		CCD-102	DD-102	GP1000	GP210	2SS-D10
C126	.02		CCD-203			GP120	5GA-S20
C129	.04		CCD-403			GP140	5GA-S40
C130	.02		CCD-203			GP120	5GA-S20
C131	.001		CCD-102	DD-102	GP1000	GP210	2SS-D10
C132	.04		CCD-403			GP140	5GA-S40
C135	.02		CCD-203			GP120	5GA-S20
C136	.02		CCD-203			GP120	5GA-S20
C137	.001		CCD-102	DD-102		GP210	10TS-D10
C138	.04		CCD-403			GP140	5GA-S40
C139	100 5% N150		*			*	10TCR-T10
C140	.001		CCD-102	DD-102		GP210	10TS-D10
C140A	27 10%		CCTO-270			CNO427	10TCC-Q27
C141	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C143	300 10%		CCD-301	DD-301	GP300	GP330	10TS-T30
C144	1					CNO510	10TCC-V10
C145	.02		CCD-203			GP120	5GA-S20
C146	.01 10%		1MDF-1-103	CPJ-103	DPMS4S1	EWFTA110	1PB-S10
C147	.1 10%		1MDF-3-104		DPMS2P1	EWFTA010	1PB-S10
C148	150 10%		CCD-151	DD-151		CNO315	10TCC-T15
C149	.04		CCD-403			GP140	5GA-S40
C401	.04		CCD-403			GP140	5GA-S40
C402	.04		CCD-403			GP140	5GA-S40
C403	.04		CCD-403			GP140	5GA-S40
C410	510 10%		DM15-511J	CPR-510J		SX351	424ME5100J501
C414	.04		CCD-403			GP140	5GA-S40

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

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

ITEM No.	FUNCTION	RESIST- ANCE	REPLACEMENT DATA				
			MFR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
VR1	"RF"	50K	1016-74	TSV-50K or T-50K	C-503	MTC54L1	X201R503B
VR2	"S"	10K	1000-64	TSV-10K or T-10K	C-103	MTC14L1	X201R103B
VR3	Squelch Range	50K	1016-74	TSV-50K or T-50K	C-503	MTC54L1	X201R503B
VR4	Tone	5000	1016-10	F5-5000(1), SSK102	NP-5000-V(1), UP-C-400	RU53R,SL36,SL1500 or [UA53R(1), SK3500]	BU1(1),CF34, SS1,DC1
VR5	Volume	5000	1016-09	F2-5000(1), SSK102		RU53A,SL36,SL1500 or [UA53A(1), SK3500] or U12(1)	BU1(1),CF60, SS1,DC1
VR6	Modulation	10K	1000-64	TSV-10K or T-10K	C-103	MTC14L1	X201R103B
VR7	Voltage	200	1016-73	T-200 or TSV-250		MTC22L1	X201R251B
VR8	Squelch	5000	1016-11	F1-5000(1), SSK102	A47-5000-S(1), KSS-3 or [NP-5000-S(1), UP-C-400]	RU53L,SL36,SL1500 or [UA53L(1), SK3500] or U14(1)	BU1(1),CF8,SS1, DC1

(1) Enlarge mounting hole.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	TVI Trap (54MHz)	1016-55			
L2	PI Filter (27MHz)	1016-56			
L3	Final Amp (27MHz)	1016-57			
L4	RF Choke	1016-58			
L5	RF Choke	1016-72			
L6	RF Choke	1016-60			
L7	RF Choke	1016-64			
L8	Line Choke	1016-61			
L9	Line Choke	1016-62			
L10	RF Choke	1016-63			
T1	Rec Antenna (27MHz)	1016-66	GT-1304		
T2	Rec RF Input (27MHz)	1016-67	GT-1305		
T3	11MHz IF	1016-40	K112		
T4	11MHz IF	1016-41	K113		
T5	Input IF (455KHz)	1016-48	FL-A320		
T6	Interstage IF (455KHz)	2010-07	T-1039		
T7	Interstage IF (455KHz)	1016-38	B15	2067	

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.	
T8	Output IF (455KHz)	1016-39	C15	2068	
T9	Synth Osc (14MHz)	1016-43	T-1308		
T10	Xmit Osc (11MHz)	1016-44	T-1309		
T11	Harmonic Supp (38MHz)	1016-45	GT-1320		
T12	Rec Osc (11.730MHz)	1016-59	T-1310		
T13	Synth Osc (23MHz)	1016-46	T-1307		
T14	Harmonic Supp (38MHz)	1016-42	GT-1301		
T15	Harmonic Supp (38MHz)	1016-42	GT-1301		
T16	Harmonic Supp (38MHz)	1016-45	GT-1320		
T17	Synth Mix (27MHz)	1016-42	GT-1301		
T18	Harmonic Supp (27MHz)	1016-42			
T19	Harmonic Supp (27MHz)	1016-42	GT-1301		
T20	Harmonic Supp (27MHz)	1016-47	GT-1303		
T21	Xmit Buffer Output (27MHz)	1016-54			
T25	Rec Osc. (11.730MHz)	2010-08	T-1310		

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
CH1	1400mA	.1	.6mH	1016-75 CH-A170 (1)			(1) Number on unit

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T22	3	1		1016-37 T-A095 (1)			(1) Number on unit.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T23	26	8	1016-36 T-D038 (1)			(1) Number on unit.

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T24	120VAC @ 400mA AC	18VAC @ 2000mA AC	1016-35 T-H478 (1)			(1) Number on unit

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	2 3/4" x 4 1/4" PM, 8 ohms	1016-05		

COURIER/FANON MODELS CARAVELLE II, CONQUEROR II/FANFARE 880

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 F2	1 Amp Quick Acting 2 Amp Quick Acting 3 Amp Quick Acting	1016-148 1016-150 1016-149 (1)	1016-53 1016-138 1016-138	AGC1 AGC2 AGC3	3823-1 3823-1 3823-1	312001 312002 312003	357.001 357.001 357.001	FG1.2 FG2.2 FG3.2

(1) May be used in some versions.

CRYSTALS

ITEM No.	CRYSTAL FREQUENCY IN MHz	MFGR. PART No.	CTS KNIGHTS PART No.	CHANNEL	ITEM No.	CRYSTAL FREQUENCY IN MHz	MFGR. PART No.	CTS KNIGHTS PART No.	CHANNEL
XA1	23.290	1016-126	MA20M23.290	1,2,3,4	XB1	14.950	1016-132	MB32M14.950	1,5,9,13,17,21
XA2	23.340	1016-127	MA20M23.340	5,6,7,8	XB2	14.960	1016-133	MB32M14.960	2,6,10,14,18,22
XA3	23.390	1016-128	MA20M23.390	9,10,11,12	SB3	14.970	1016-134	MB32M14.970	3,7,11,15,19,23
XA4	23.440	1016-129	MA20M23.440	13,14,15,16	SB4	14.990	1016-135	MB32M14.990	4,8,12,16,20
XA5	23.490	1016-130	MA20M23.490	17,18,19,20	X-C	11.275	1016-136	MC20W11.275	Transmit
XA6	23.540	1016-131	MA20M23.540	21,22,23	X-D	11.730	1016-137	MC20W11.730	Receive

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
RY RLY-1 SW1 SW4 SW5 SW6 SW7 SW9	Relay Meter Switch Switch Switch Switch Switch Digital Clock	1016-52 1016-05 210-13-9 1016-13 1016-121 1016-13 1016-12 1016-120	"S"/RF power Channel Selector AC-DC Power Power Conqueror II (Part of clock assembly) ANL Delta Tune (Conqueror II)

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

ITEM	PART No.	ITEM	PART No.
Front Panel	1016-203	Knob, Channel Selector Assembly	1016-207 (1016-06)
Cabinet Cover	1016-27	Knob, Volume/Squelch/Delta Tune/Tone	1016-07
Side Board	1016-26		

ACCESSORIES

ITEM	MFGR. PART No.	REMARKS
Microphone w/Hanger DC Power Cord	1016-32 1016-23	

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)