



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 674 (Hy-Range V)

ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:	GC ELECTRONICS
MF, L25, L27, L28, L29, L30	8290, 5000
ALL Others	9440
TC1 thru TC21	8290
L18, L19	9296

SYNTHESIZER

INDICATOR	CHANNEL	ADJUST	FREQUENCY	REMARKS
OSCILLISCOPE (Response to 40MHz)	13	L1, L2		Connect scope to TP7. Adjust for maximum amplitude.
FREQUENCY COUNTER	1	TC1	23.330MHz	Connect counter to TP7. Adjust within <u>+50Hz</u> .
	5	TC2	23.380MHz	
	9	TC3	23.430MHz	
	13	TC4	23.480MHz	
	17	TC5	23.530MHz	
	21	TC6	23.580MHz	
	1	TC7	14.910MHz	Inductively couple counter to L3. Set mode switch to USB. Adjust within <u>+50Hz</u> . Connect scope to TP3. Adjust L3 for maximum amplitude.
	2	TC8	14.920MHz	
	3	TC9	14.930MHz	
	4	TC10	14.950MHz	
		L3		
	1	TC11	14.907MHz	Inductively couple counter to L4. Set mode switch to LSB. Adjust within <u>+50Hz</u> . Connect scope to TP4. Adjust L4 for maximum amplitude.
	2	TC12	14.917MHz	
	3	TC13	14.927MHz	
	4	TC14	14.947MHz	
		L4		
OSCILLOSCOPE (Response to 40MHz)	13	L5, L6, L7, L8		Connect scope to base of Q10. Adjust for maximum amplitude.
FREQUENCY COUNTER	9	VCa	7.8100MHz	Connect counter to TP1. Set fine tune to center scale. Adjust within <u>+50Hz</u> .

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

© 1975 Howard W. Sams & Co., Inc.

Printed in U. S. of America

5CY221

HY-GAIN MODEL 674

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 antenna jack, low side to ground.	27.105MHz, 1000Hz @ 30% modulation, output 1uV.	12	L21, L22, L23, L24, L25, L26, MF, L27, L28, L29, L32	Set mode switch to AM. Set RF gain to maximum clockwise. Set ANL-NS to ANL. Set fine tune to center. Adjust for maximum.
High side thru .01uF to antenna jack, low side to ground.	27.106MHz, 1000Hz @ 30% modulation, output 1uV.	12	L20	Set mode switch to USB. Adjust fine tune to obtain a 1000Hz beat note. 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.	27.106MHz 3uV	12	RV10, RV9	Set RF gain control to maximum clockwise with no signal input. Adjust RV10 for 1.2V DC at cathode of D37. Set mode switch to USB. Set squelch control maximum counterclockwise. Inject a 3uV signal and adjust fine tune for 1000Hz beat note. Adjust RV10 for 1V at speaker. Increase generator output to 50,000uV. Adjust RV9 for 2V output at speaker.
SQUELCH RANGE High side thru .01uF to antenna jack, low side to ground.	27.105MHz, 1000Hz @ 30% modulation, output 1uV.	12	RV14 (AM) RV11 (SSB)	Set squelch control maximum counterclockwise. AM - Set output meter to 0dB. Set squelch control maximum clockwise. Increase generator output to 5000uV. Adjust RV14 for a 6dB decrease in output. SSB - Same as above except increase generator to 10uV. Adjust RV11 for a 6dB decrease in output.
NOISE BLANKER High side thru .01uF to antenna jack, low side to ground.	27.105MHz, 1000Hz @ 30% modulation, output 1uV.	12	L24, TC20 L30, L31 L26, TC21	Connect scope to TP20. Set volume control maximum counterclockwise. Set RF gain control maximum clockwise. Set mode switch to AM. Inject a 100,000uV signal to antenna jack. Adjust for MINIMUM. Inject a 1000Hz pulse (noise generator) to antenna jack. Adjust for maximum. Inject a modulated 1uV and pulse signal together to antenna jack. Adjust for clear 1000Hz note and MINIMUM pulse noise.
"S" METER	27.105MHz, 1000Hz @ 30% modulation, output 100uV.	12	RV12 (AM)	Set RF gain control maximum clockwise. Adjust for "S"9 reading 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.

AM

INDICATOR	ADJUST	REMARKS
MIXER, BUFFER, DRIVER, FINAL RF Wattmeter Oscilloscope	L11, L12, L13, L14	Connect scope to base of Q11. Mode switch to AM. Channel selector to 13. Key transmitter. Adjust for maximum.
OUTPUT POWER RF Wattmeter	L15, L16, L17, L18	Mode switch to AM. Key transmitter. Adjust for maximum watts output.
TVI TRAP TV (Ch. 2)	L19	Mode switch to AM. Key transmitter. Adjust for MINIMUM interference on TV.
FINAL INPUT POWER Remove jumper at TPA and connect 0-1000 DC milliammeter.	TC18	Mode switch to AM. Adjust for 5 watts (maximum).

TRANSMITTER

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

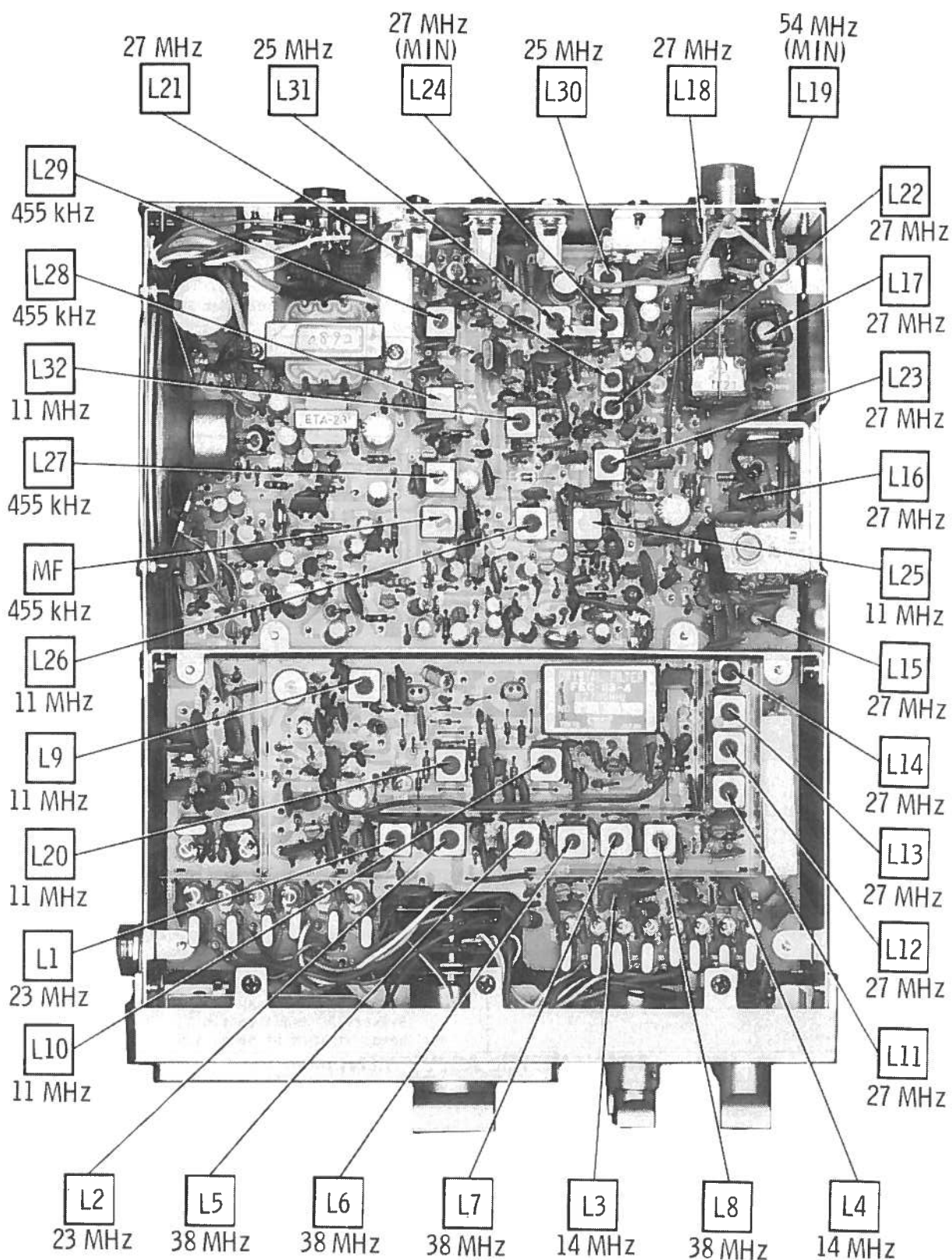
SSB

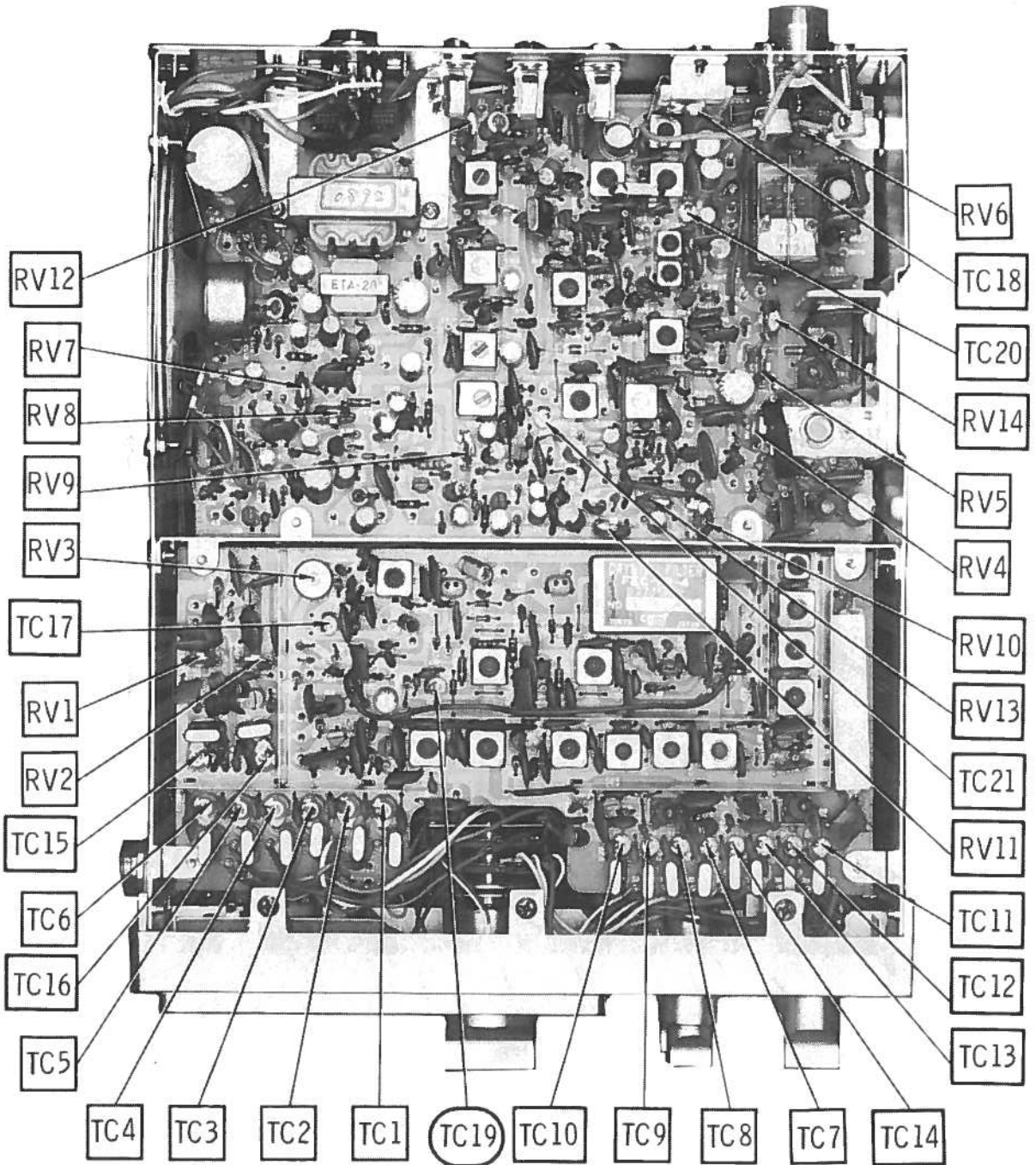
INDICATOR	ADJUST	REMARKS
USB CARRIER OSC. Connect frequency counter and RF VTVM from TP8 to ground.	TC15	Set mode switch to USB. Adjust for 11.275MHz ± 100 Hz.
	RV1	Adjust for 0.64V.
LSB CARRIER OSC. Connect frequency counter and RF VTVM from TP8 to ground.	TC16	Set mode switch to LSB. Adjust for 11.272MHz ± 100 Hz.
	RV2	Adjust for 0.64V.
CARRIER BALANCE Connect oscilloscope from antenna jack to ground.	L9, RV3, TC17	Short mic input. Set mode switch to LSB or USB. Key transmitter and adjust for MINIMUM on scope.
BIAS Remove jumper at TPA and connect a 0-100 DC milliammeter between C93 and RFC4.	RV5	Short mic input. Key transmitter. Adjust bias for 50mA. Reconnect jumper.
BIAS Connect a 0-1V DC VTVM between TP13 and ground.	RV4	Short mic input. Key transmitter. Adjust bias for 0.02V-0.04V.
FINAL OUTPUT POWER RF Wattmeter	L10	Connect two-tone generator to mic input. Key transmitter. Adjust for less than 15 watts P.E.P. Note: After SSB transmitter alignment is completed, check AM mode for maximum 5 watts DC input to final. Readjust TC18 if necessary.

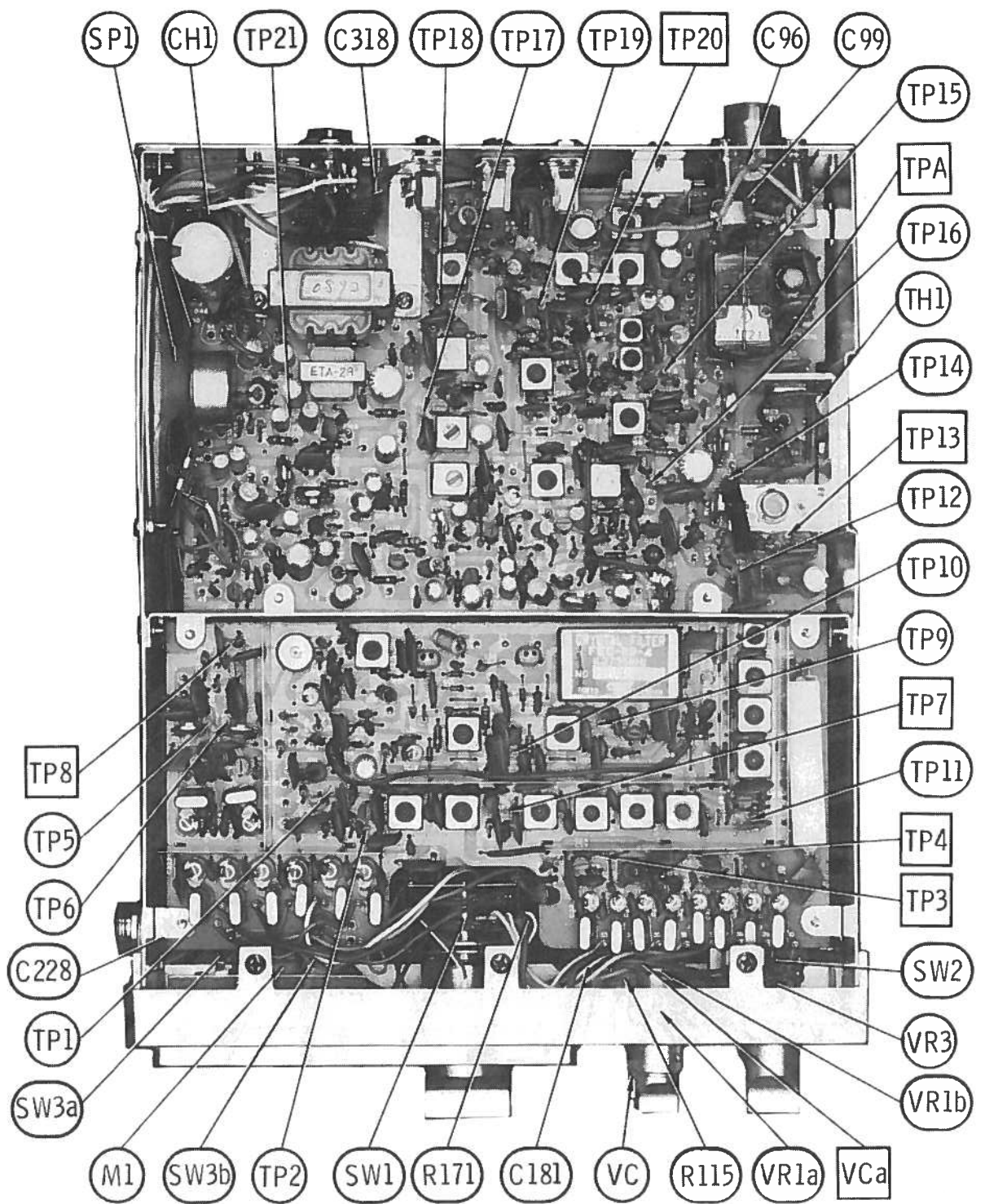
TRANSMITTER ADJUSTMENTS

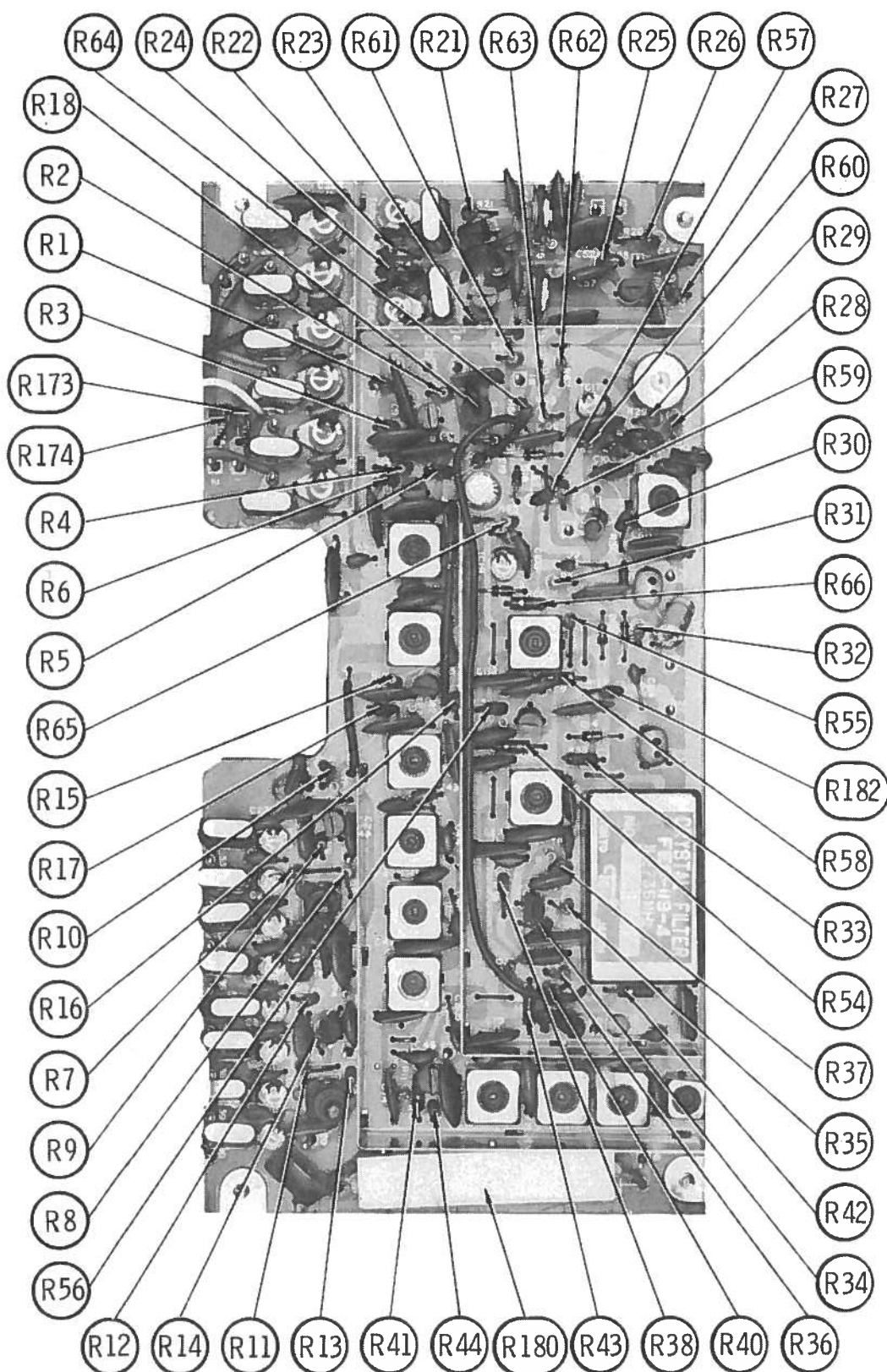
Connect an RF Wattmeter or 50-ohm, 25-watt dummy load to antenna connector.
Adjustments made with 14-volt DC input.

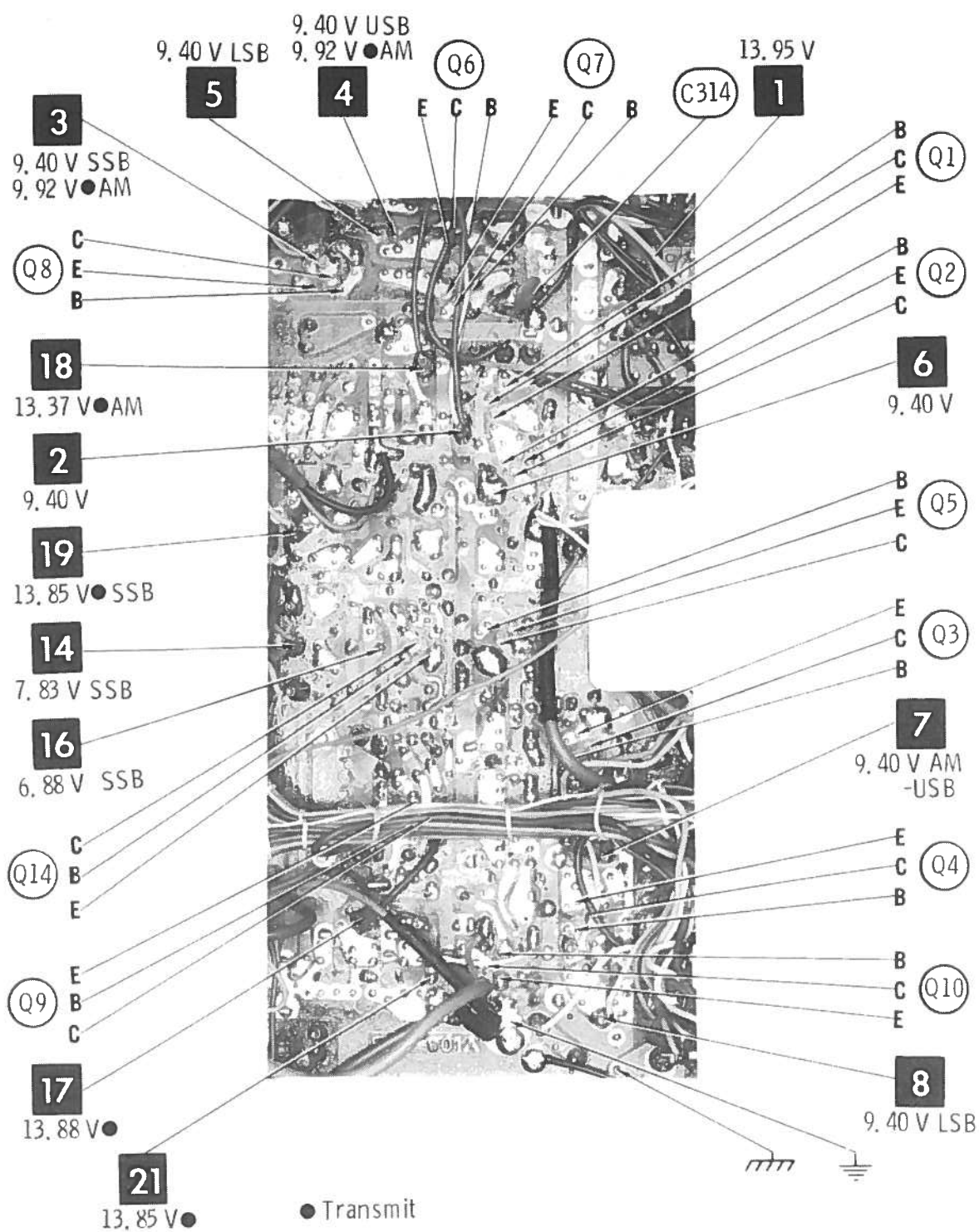
INDICATOR	ADJUST	REMARKS
AM-SSB MIC GAIN RANGE Oscilloscope (Usable to 30MHz) connected to antenna jack.	RV7 (AM)	Set mode switch to AM. Inject a 1000Hz 10mV audio signal at mic input. Key transmitter. Adjust RV7 for 100% modulation.
	RV8 (SSB)	Set mode switch to USB. Inject a two-tone, 800Hz and 1800Hz 10mV audio signal at mic input. Key transmitter. Adjust RV8 for 100% modulation.
RF PANEL METER RF Wattmeter	RV6	Set mode switch to AM. Key transmitter. Adjust so that panel RF meter agrees with RF wattmeter.

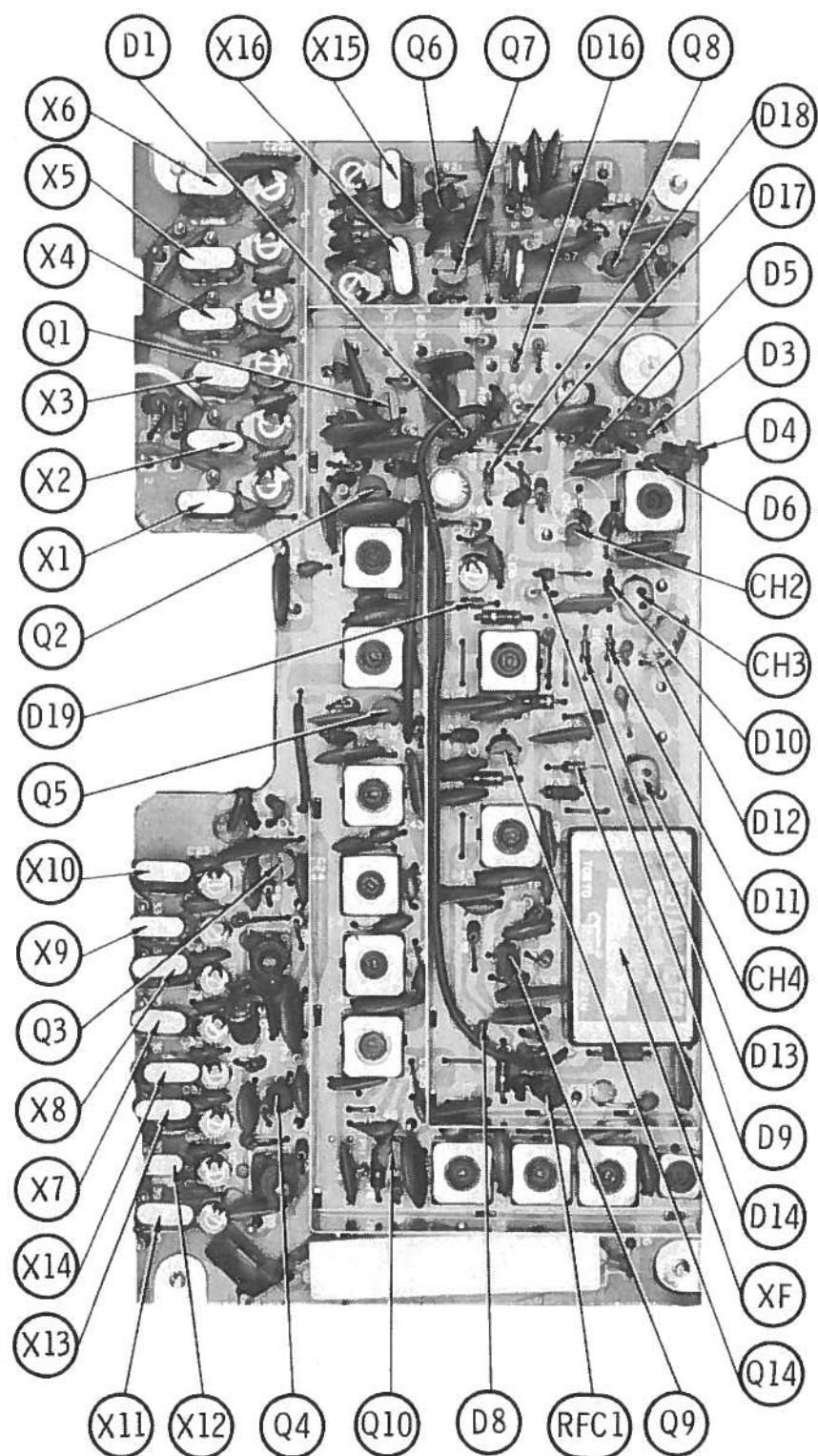




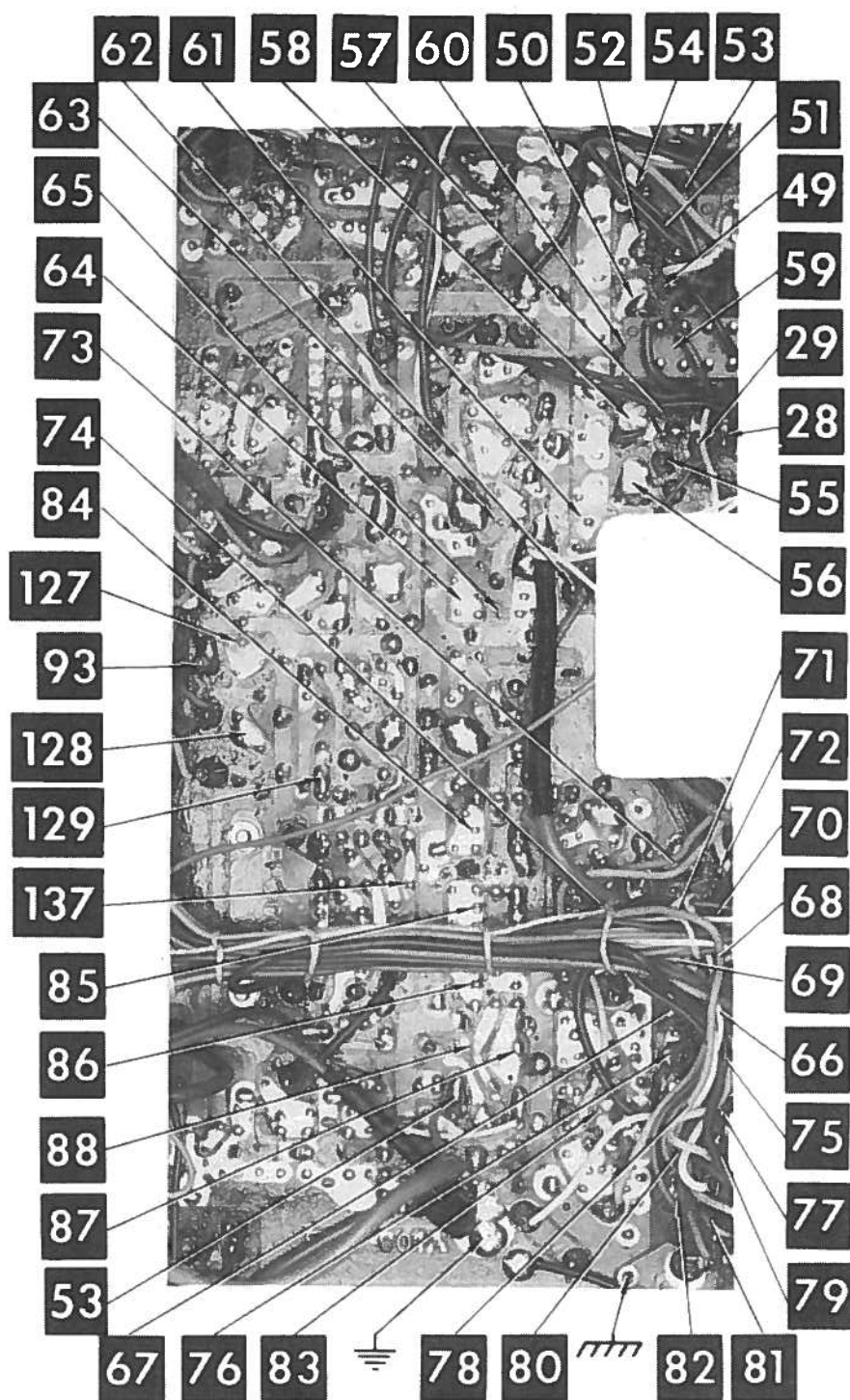




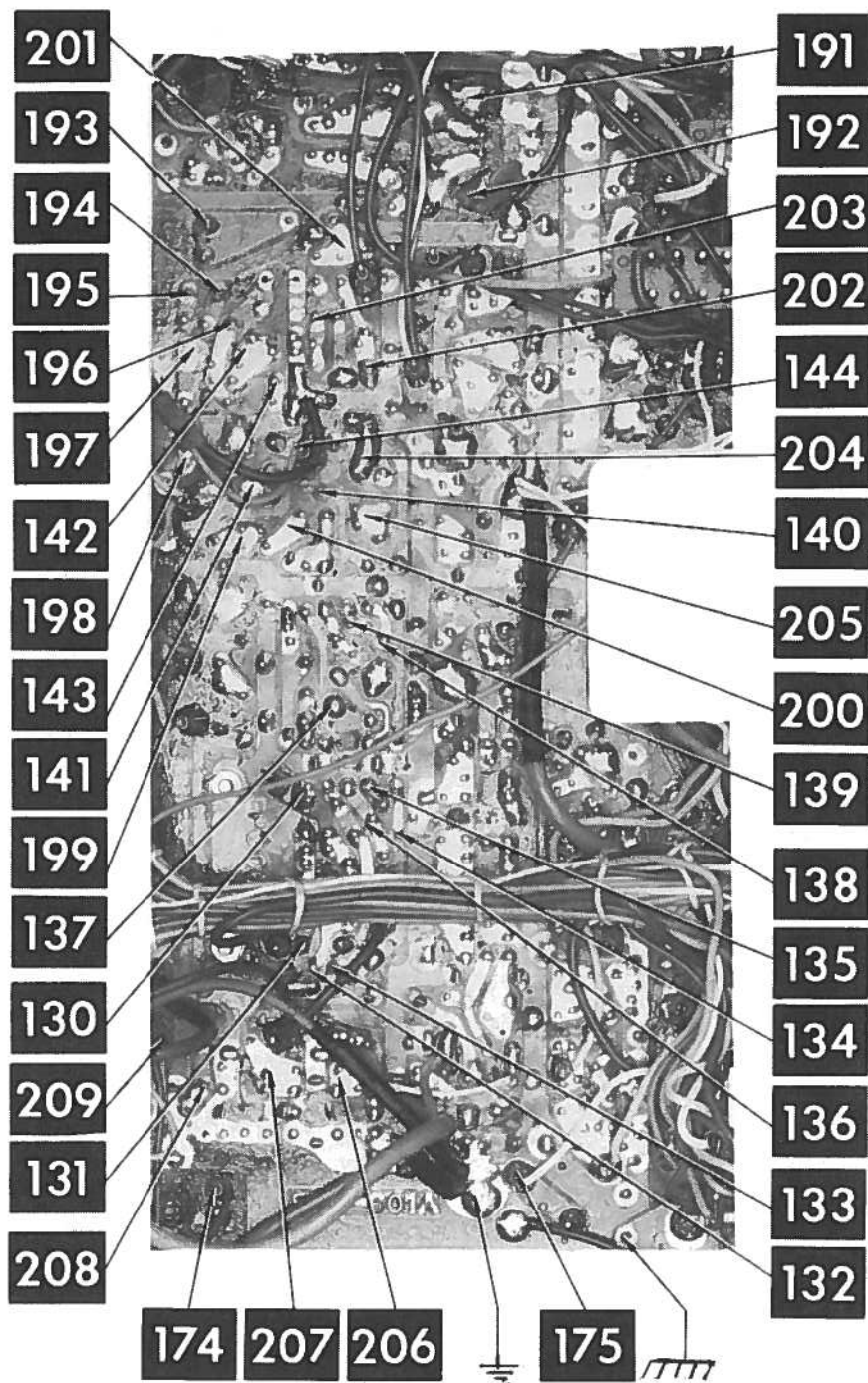




OSC-SSB BOARD

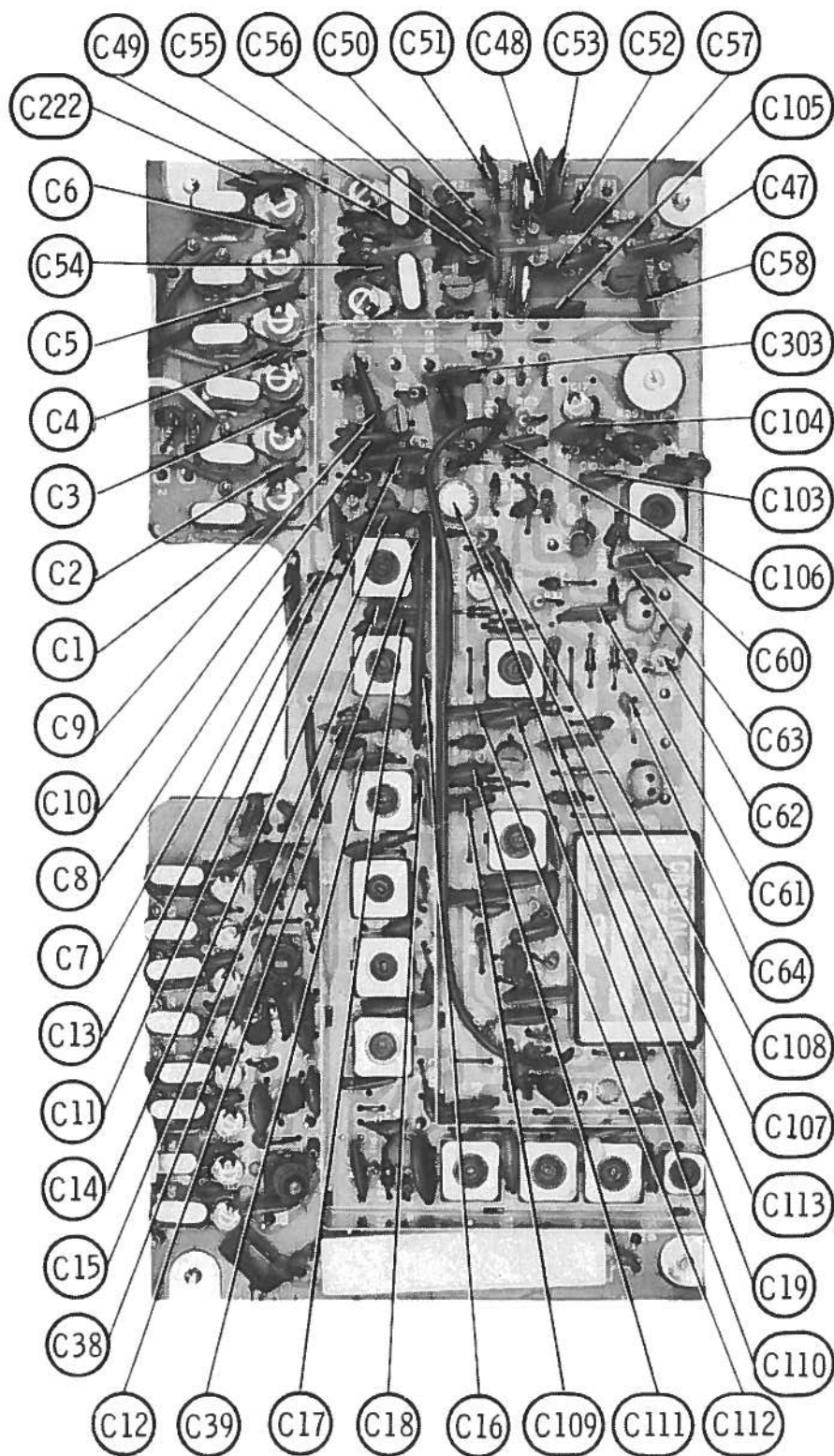


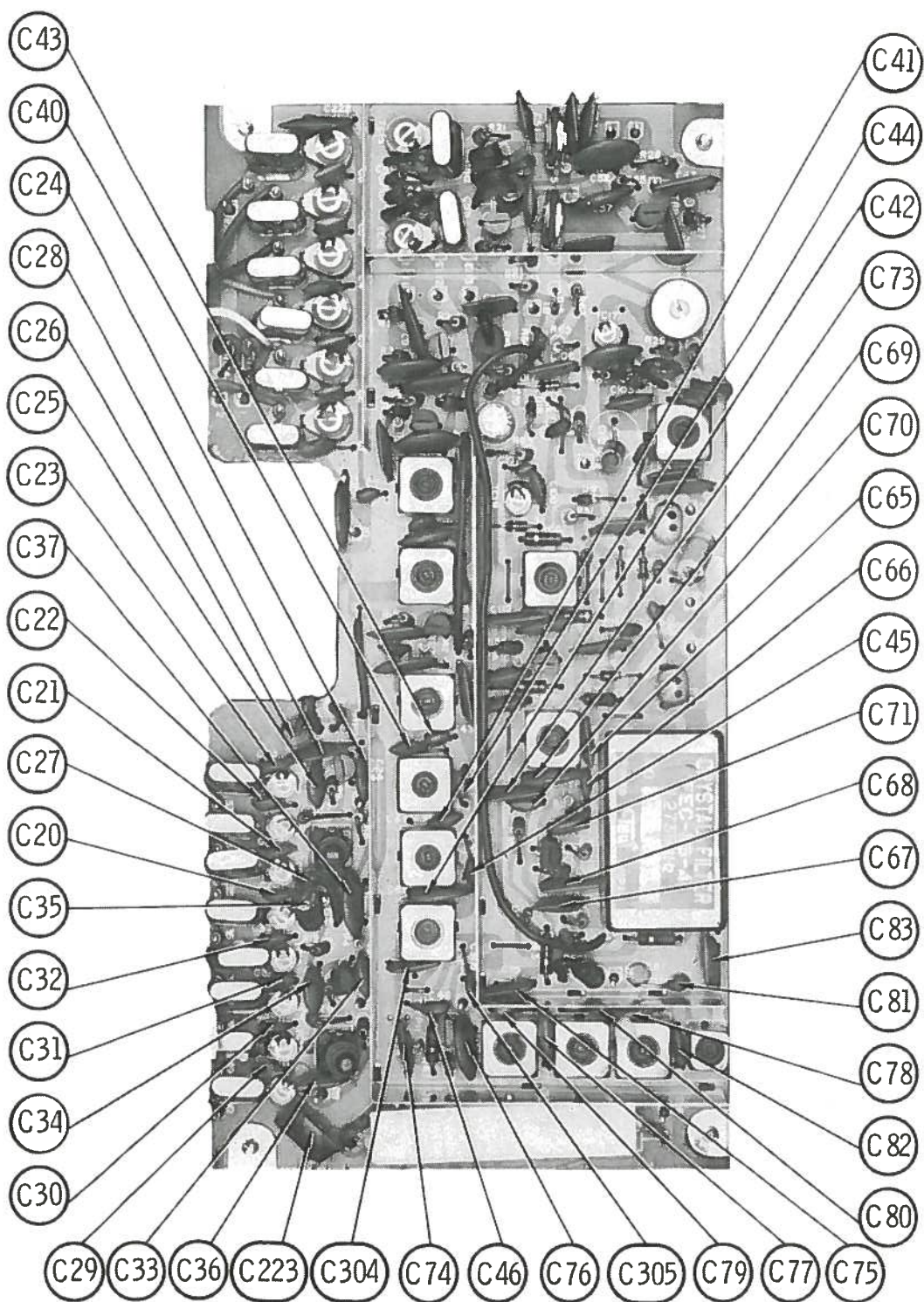
OSC-SSB BOARD



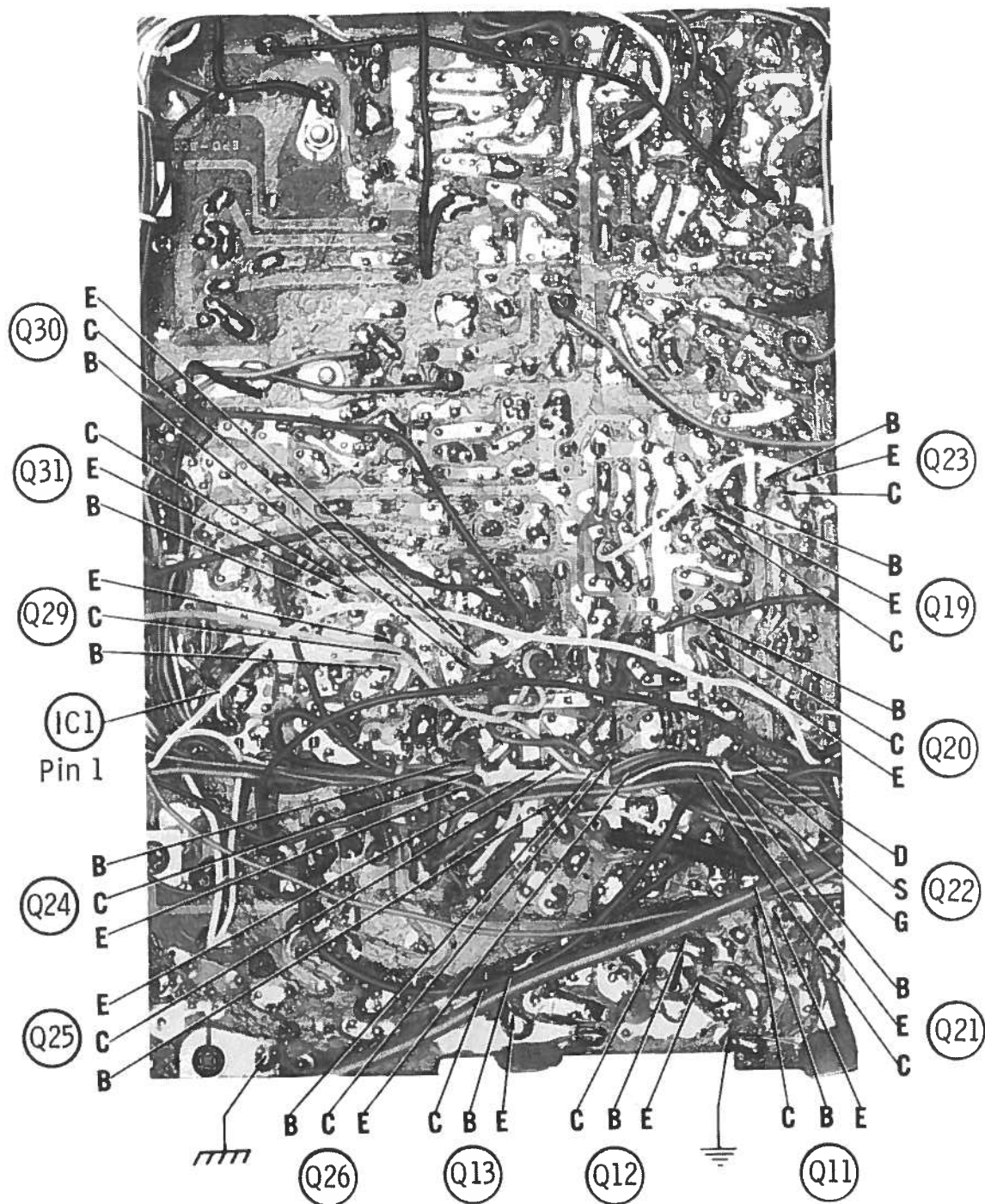
HY-GAIN MODEL 674

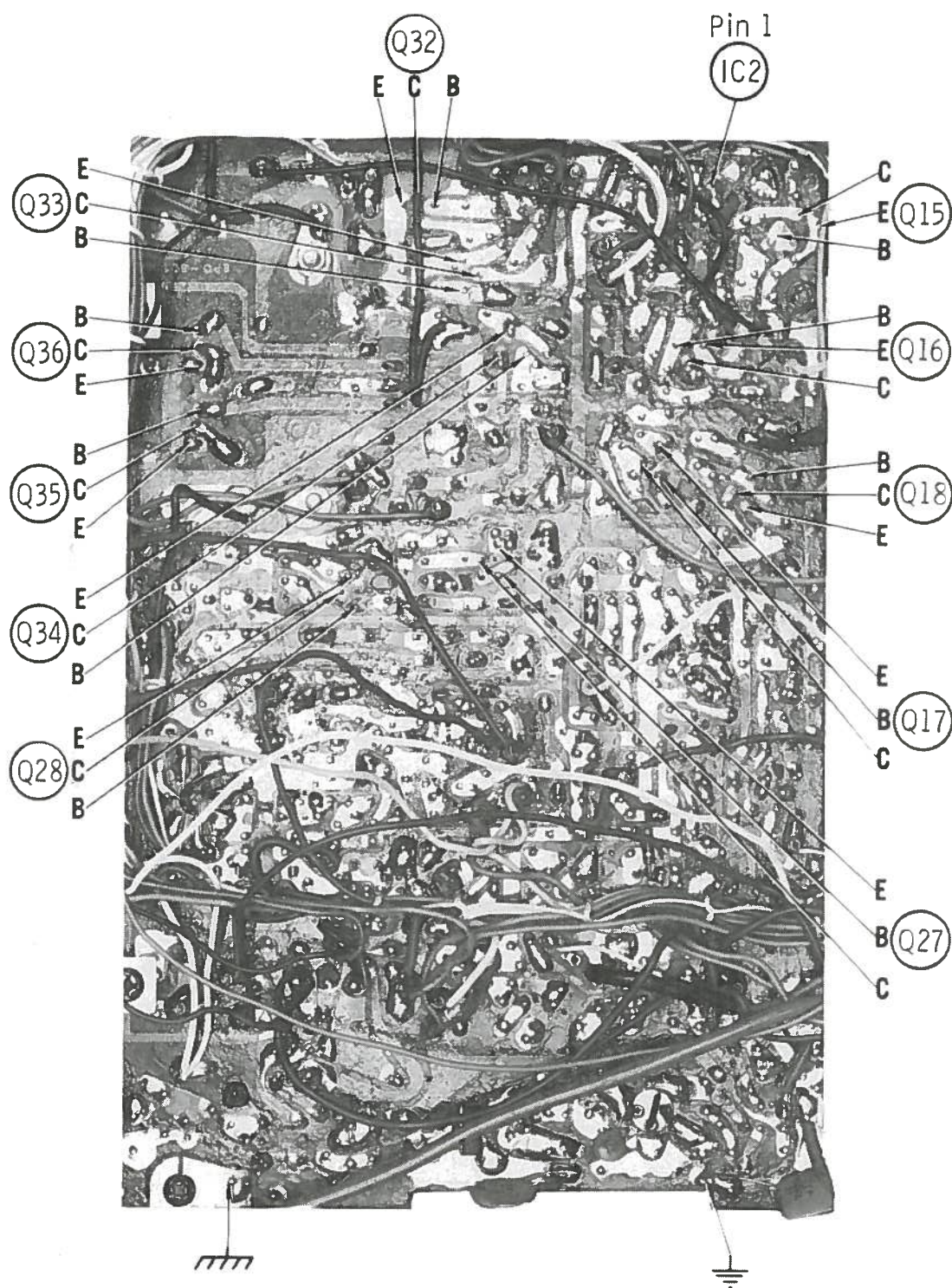
OSC-SSB BOARD



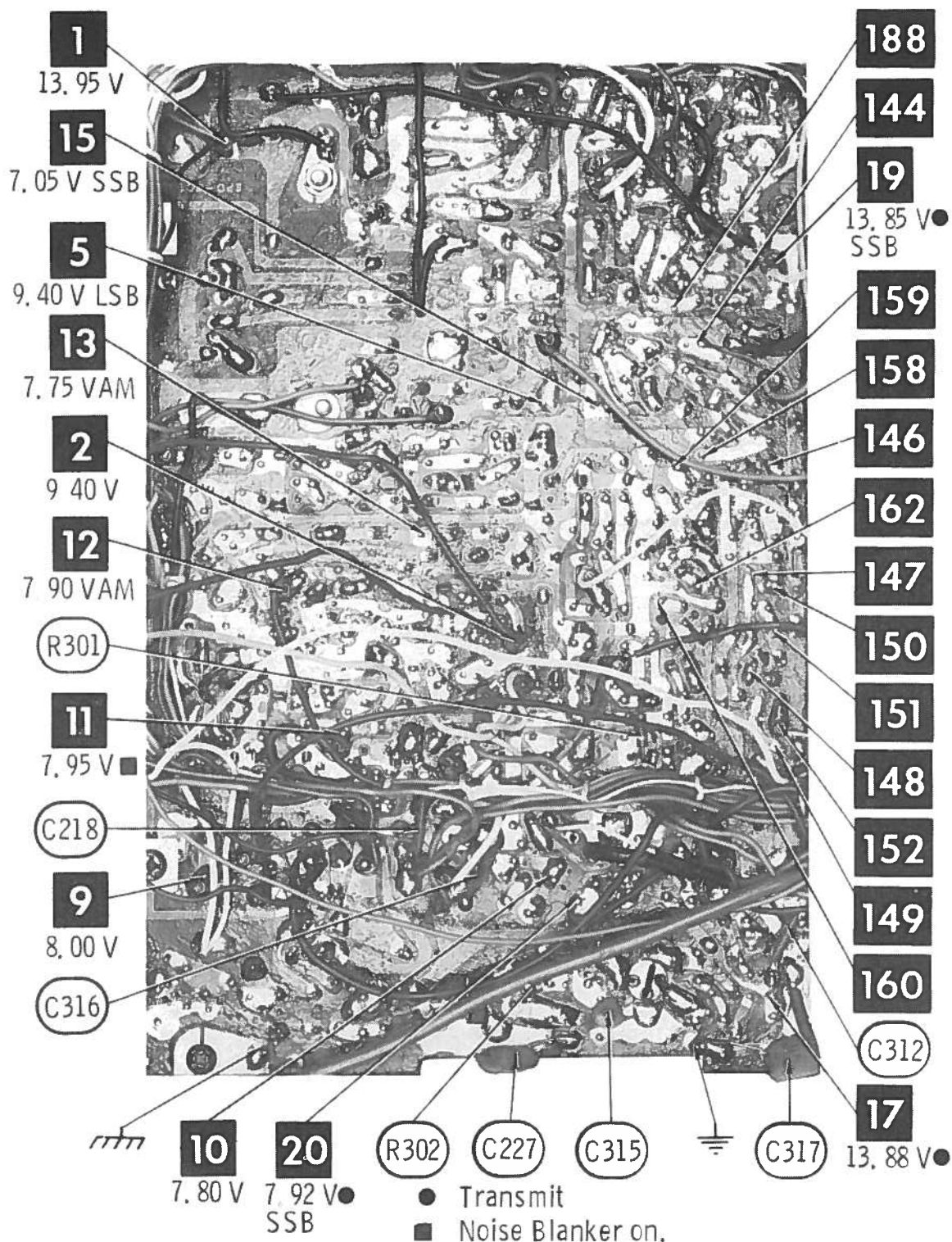


OSC-SSB BOARD

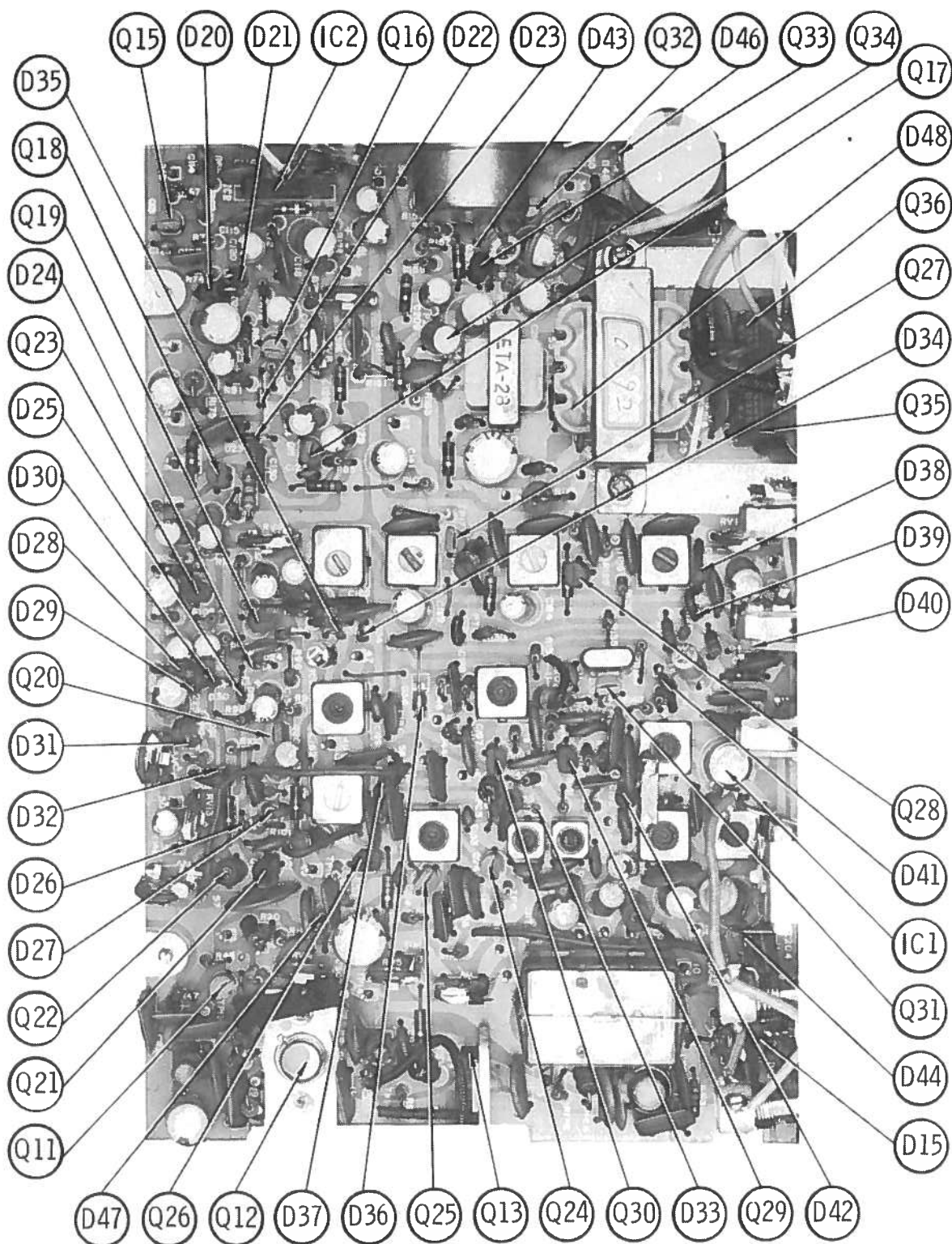




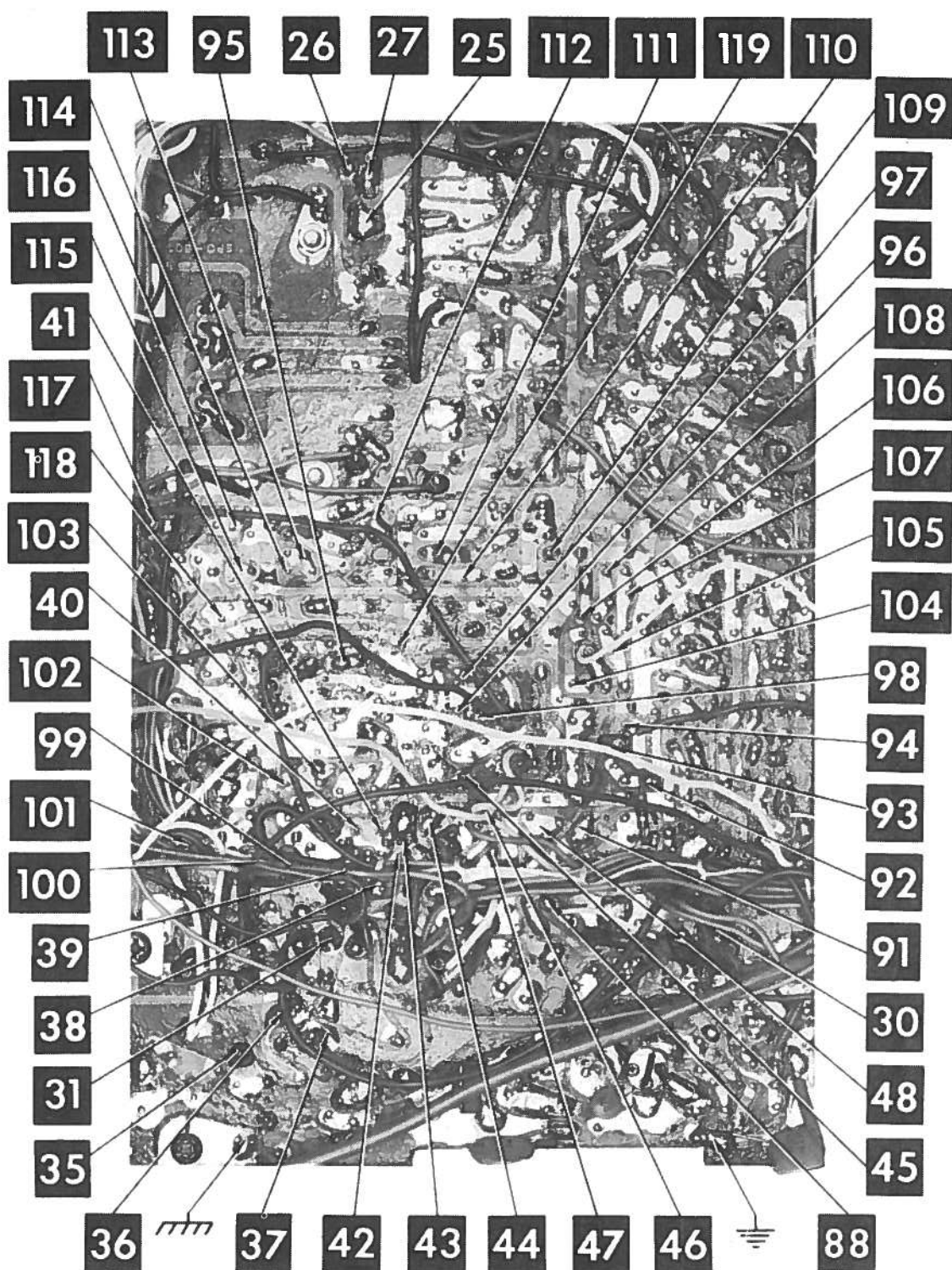
REC-XMIT-AUDIO BOARD



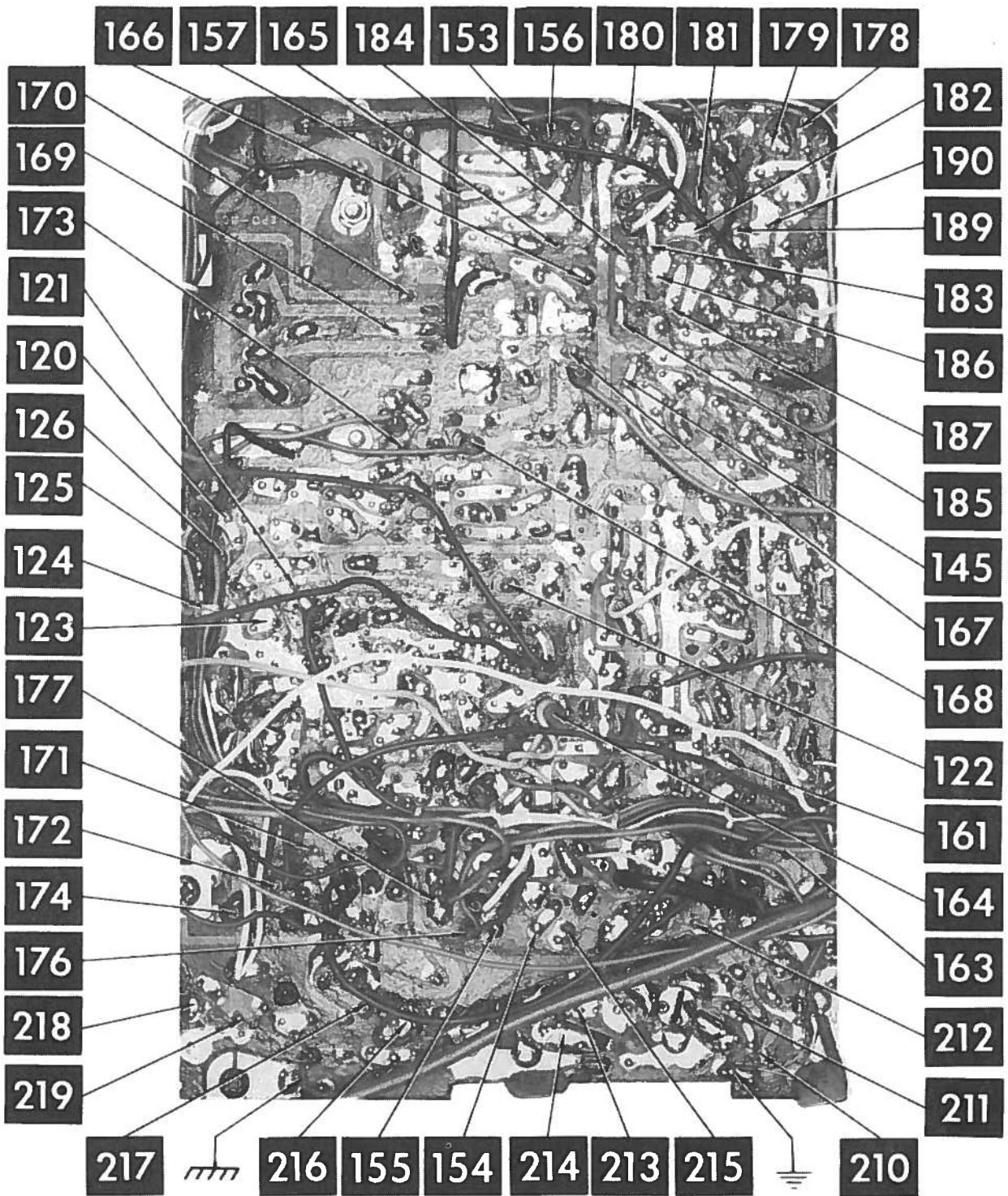
REC-XMIT-AUDIO BOARD



REC-XMIT-AUDIO BOARD

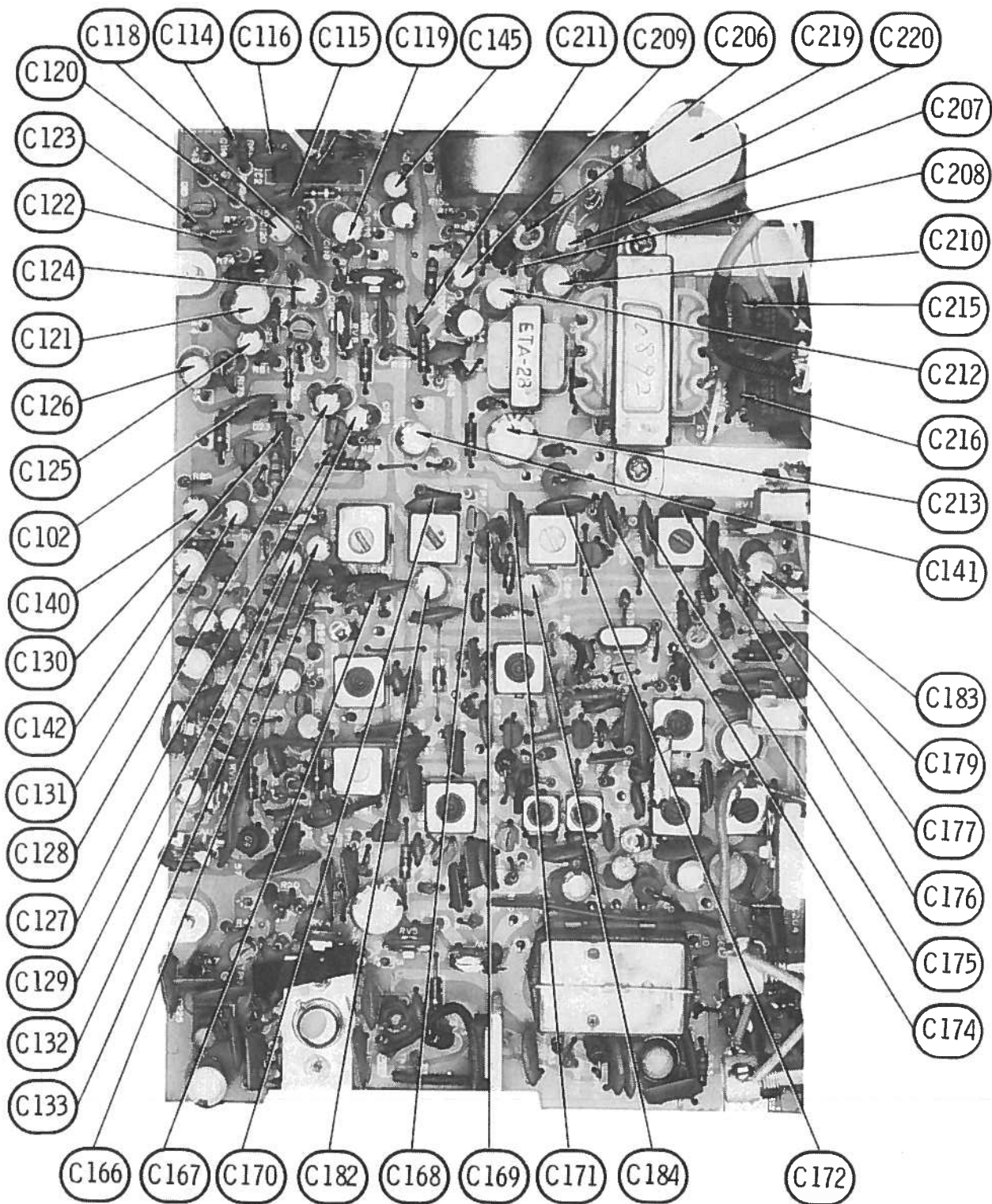


REC-XMIT-AUDIO BOARD

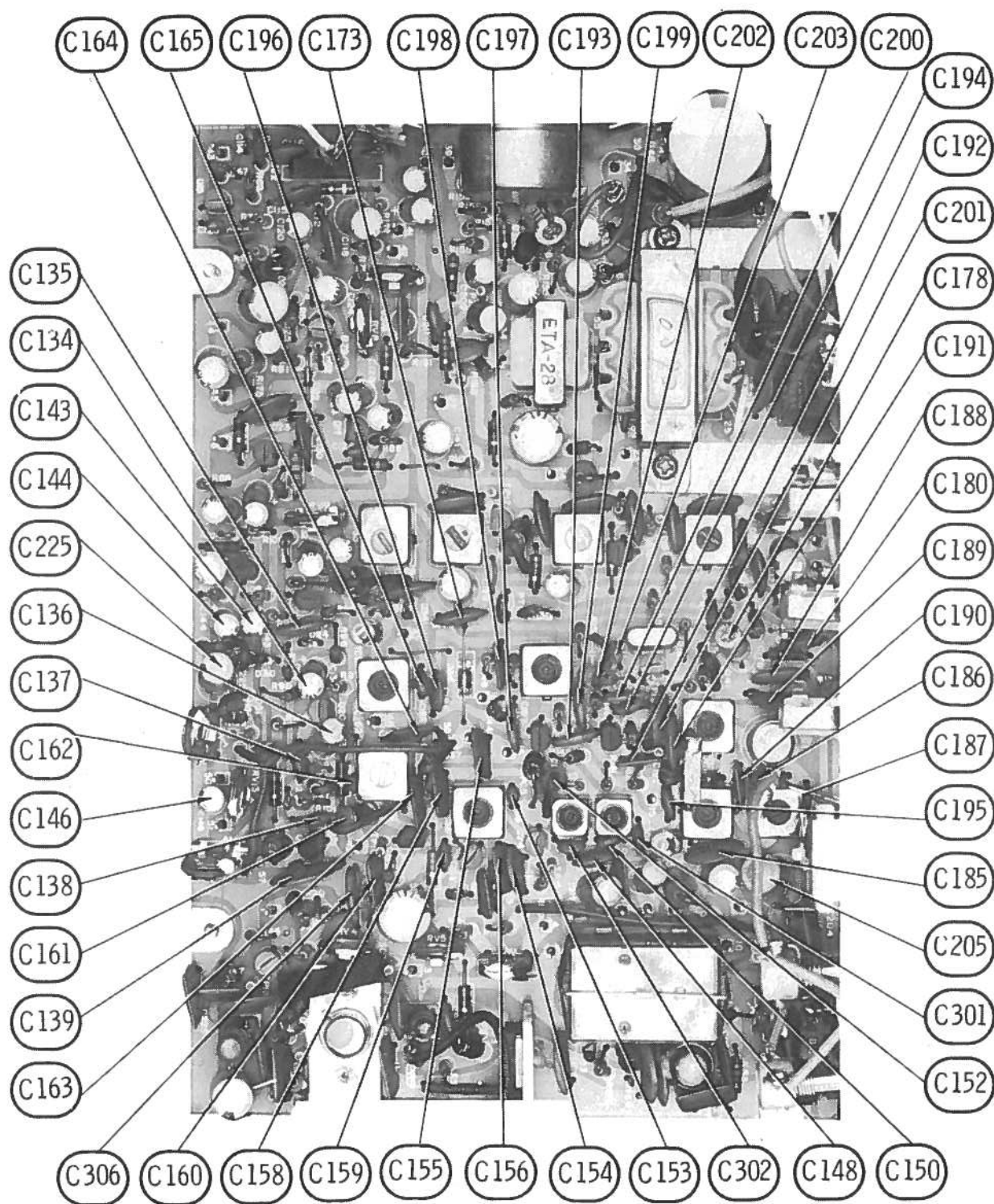


HY-GAIN MODEL 674

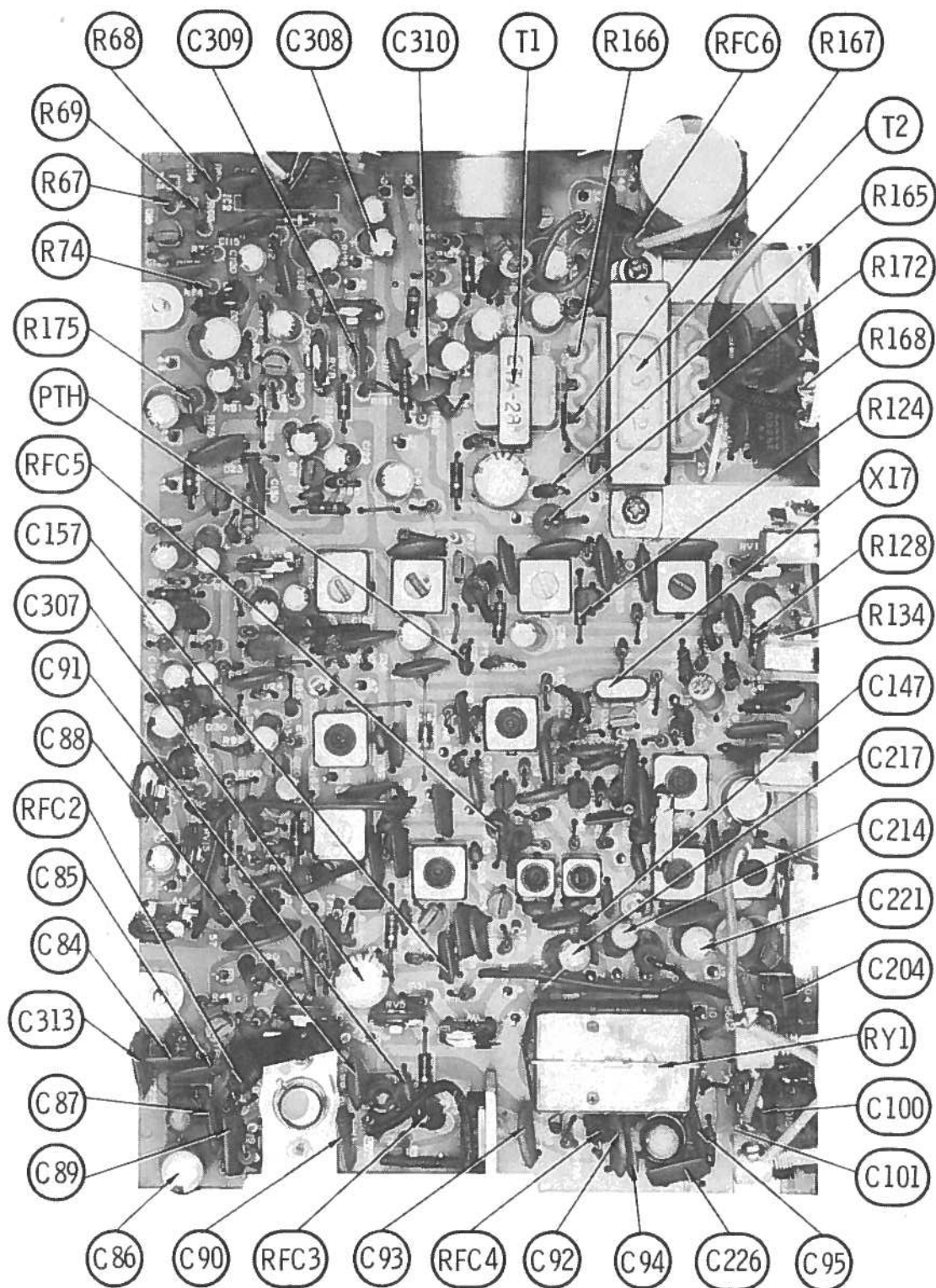
REC-XMIT-AUDIO BOARD



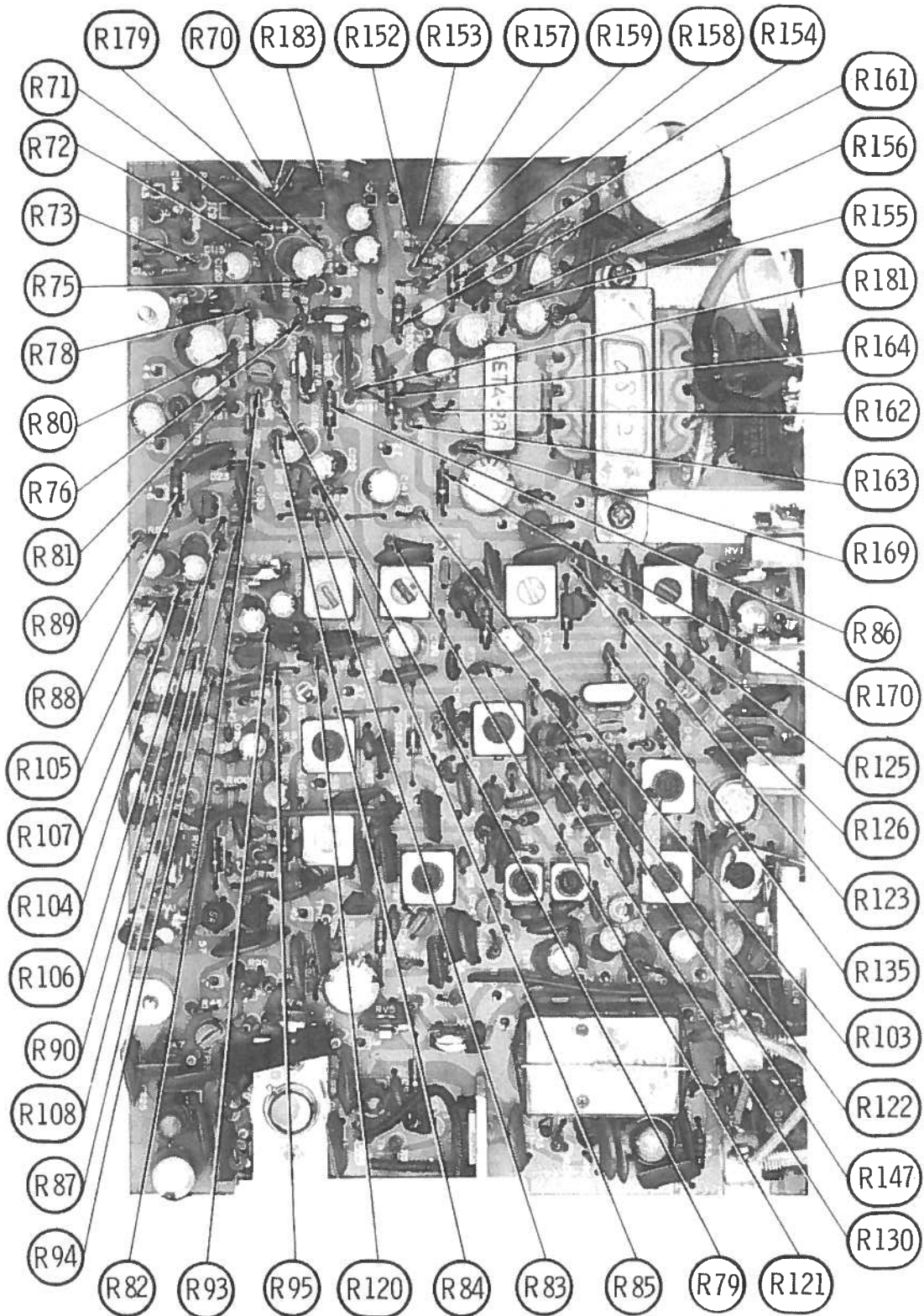
REC-XMIT-AUDIO BOARD



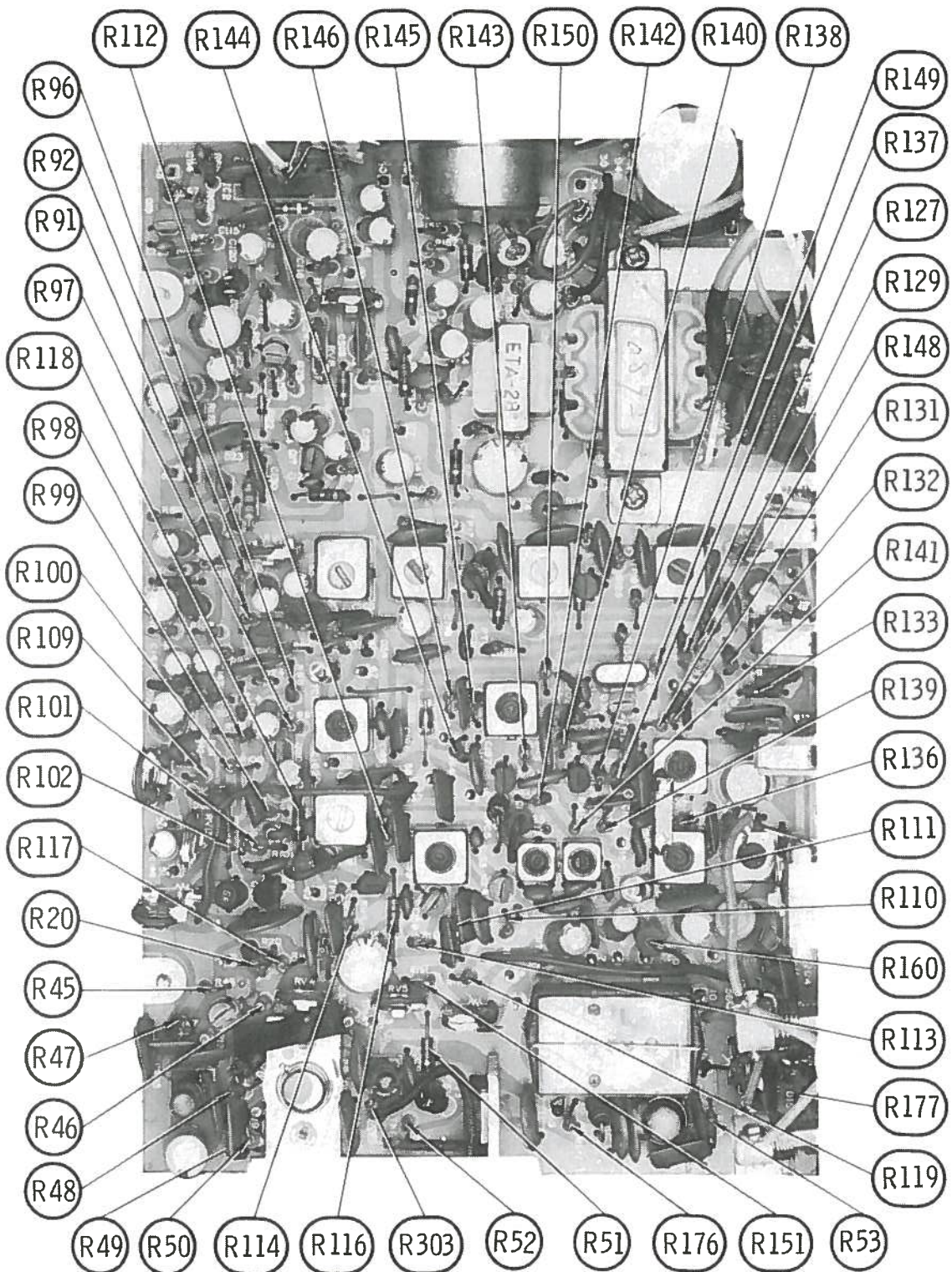
REC-XMIT-AUDIO BOARD



REC-XMIT-AUDIO BOARD



REC-XMIT-AUDIO BOARD



REC-XMIT-AUDIO BOARD

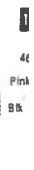
PARTS LIST AND DESCRIPTION (When ordering parts, state Model, Part Number, and Description.)

SEMICONDUCTORS (Select replacement transistor for best results)

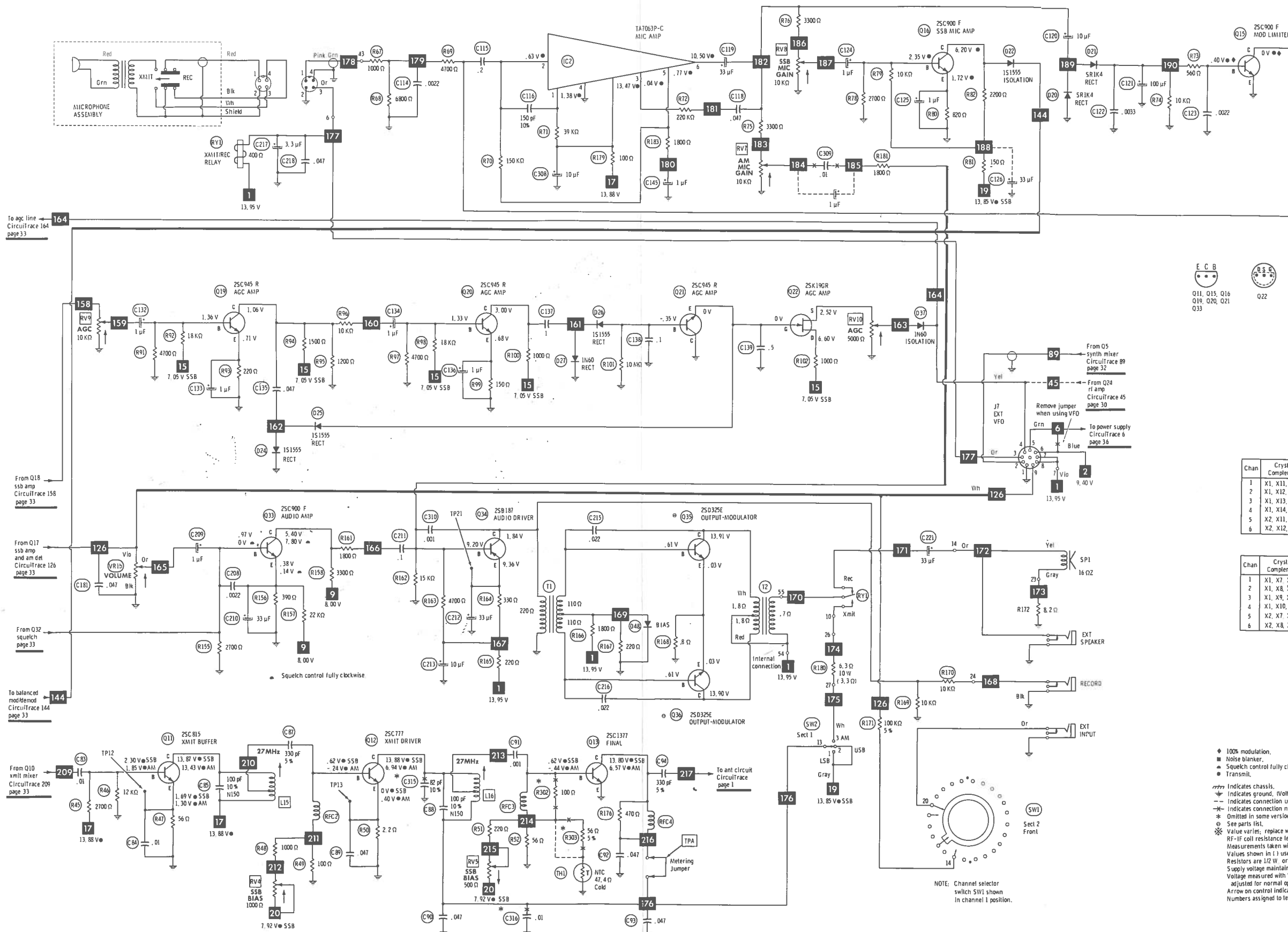
ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D1	BZ090 9V Zener	EDZ-23	GEZD-9.1	Z1210	PTC505	HEPZ0412	RE 114	SK3060	RT-240	ECG139
D3	1N60P	EDG-6	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D4	1N60P	EDG-6	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D5	1N60P	EDG-6	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D6	1N60P	EDG-6	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D8	1S2186GR	EDS-25	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D9	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D10	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D11	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D12	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D13	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D14	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D15	1N60	EDG-3	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D16	1S2186GR	EDS-25	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D17	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D18	1S2186GR	EDS-25	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D19	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D20	SR1K-4	EDS-24	GE-504A	804	PTC201	HEPRO052	RE 49	SK3030	RT-213	ECG116
D21	SR1K-4	EDS-24	GE-504A	804	PTC201	HEPRO052	RE 49	SK3030	RT-213	ECG116
D22	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D23	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D24	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D25	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D26	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D27	1N60	EDG-3	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D28	1N60	EDG-3	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D29	1N60	EDG-3	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D30	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D31	1N60	EDG-3	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D32	1N60	EDG-3	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D33	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D34	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D35	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D36	1N60	EDG-3	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D37	1N60	EDG-3	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D38	1N60	EDG-3	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D39	1N60	EDG-3	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D40	1N60	EDG-3	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D41	1N60	EDG-3	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D42	1N60	EDG-3	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D43	1S1555	EDS-1	GE-300	D200	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177
D44	BZ081 8V Zener	EDZ-24	GEZD-8.2	Z1208	Z88.2	HEPZ0411	RE 112	SK3136	RT-257	ECG5072
D46	SR1K-4 8V Zener	EDS-24	GE-504A	804	PTC201	HEPRO052	RE 49	SK3030	RT-213	ECG116
D47	BZ081	EDZ-24	GEZD-8.2	Z1208	Z88.2	HEPZ0411	RE 112	SK3136	RT-257	ECG5072
D48	TA7028M	E1CM-19	GE-504A	804	PTC201	HEPRO052	RE 49	SK3030	RT-213	ECG116
IC1	TA7063P-C	E1CM-14								
Q1	2SC839H	EQS-100	GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q2	2SC930	EQS-139 (1)	GE-60	TR-24	PTC132	HEPS0016	RE 13	SK3018	RT-108	ECG199
Q3	2SC839H	EQS-100	GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q4	2SC839H	EQS-100	GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q5	2SC839H	EQS-100	GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q6	2SC839H	EQS-100	GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q7	2SC839H	EQS-100	GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q8	2SC839H	EQS-100	GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q9	2SC839H	EQS-100	GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q10	2SC815	EQS-22	GE-20	TR-21	PTC139	HEPS0015	RE 13	SK3038	RT-102	ECG123A
Q11	2SC815	EQS-22	GE-20	TR-21	PTC139	HEPS0015	RE 13	SK3038	RT-102	ECG123A
Q12	2SC777	EQS-60	GE-20	TR-64	PTC176	HEPS0013		SK3047		ECG224
Q13	2SC1377	EQS-141	GE-66		PTC186					ECG236
Q14	2SC839H	EQS-100	GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q15	2SC900F	EQS-78	GE-62	TR-21	PTC139	HEPS0015	RE 13	SK3124	RT-102	ECG199
Q16	2SC900F	EQS-78	GE-62	TR-21	PTC139	HEPS0015		SK3124	RT-102	ECG199
Q17	2SC900F	EQS-78	GE-62	TR-21	PTC139	HEPS0015		SK3124	RT-102	ECG199
Q18	2SC900F	EQS-78	GE-62	TR-21	PTC139	HEPS0015		SK3124	RT-102	ECG199
Q19	2SC945R	EQS-61	GE-20	TR-24	PTC136	HEPS0015	RE 13	SK3124	RT-107A	ECG123A
Q20	2SC945R	EQS-61	GE-20	TR-24	PTC136	HEPS0015	RE 13	SK3124	RT-107A	ECG123A
Q21	2SK196R	EQF-4	GE-FET-2	FE-100	PTC152	HEPF0021	RE 45	SK3116	RT-175	ECG132
Q22	2SC945R	EQS-61	GE-20	TR-24	PTC136	HEPS0015	RE 13	SK3124	RT-107A	ECG123A
Q23	2SC945R	EQS-61	GE-20	TR-24	PTC136	HEPS0015	RE 13	SK3124	RT-107A	ECG123A
Q24	2SC839H	EQS-100	GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q25	2SC930B	EQS-139 (1)	GE-60	TR-51	PTC132	HEPS0016		SK3018	RT-108	ECG199
Q26	2SC900F	EQS-78	GE-62	TR-21	PTC139	HEPS0015		SK3124	RT-102	ECG199
Q27	2SC839H	EQS-100	GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q28	2SC839H	EQS-100	GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q29	2SC900F	EQS-78	GE-62	TR-21	PTC139	HEPS0015		SK3124	RT-102	ECG199
Q30	2SC900F	EQS-78	GE-62	TR-21	PTC139	HEPS0015		SK3124	RT-102	ECG199
Q31	2SC839H	EQS-100	GE-20	TR-24	PTC121	HEPS0015	RE 13	SK3018	RT-107A	ECG123A
Q32	2SC900F	EQS-78	GE-62	TR-21	PTC139	HEPS0015		SK3124	RT-102	ECG199
Q33	2SC900F	EQS-78	GE-62	TR-21	PTC139	HEPS0015		SK3124	RT-102	ECG199
Q34	2SB187	EQG-15	GE-53	(IR)2SB187	PTC135	HEPG0005	RE 4	SK3004	RT-123	ECG102A
Q35	2SD325E		GE-28	TR-55	PTC110	HEPS5000	RE 21	SK3054	RT-154	ECG152
Q36	2SD325E	EQS140 (1)	GE-28	TR-55	PTC110	HEPS5000	RE 21	SK3054	RT-154	ECG152
Q36	2SD325E	EQS140 (1)	GE-28	TR-55	PTC110	HEPS5000	RE 21	SK3054	RT-154	ECG152

(1) Used in some versions.

(CONTINUED ON PAGE 37)







To agc line
CircuitTrace 164
page 33

From Q18
ssb amp
CircuitTrace 158
page 33

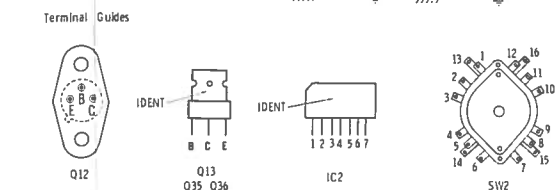
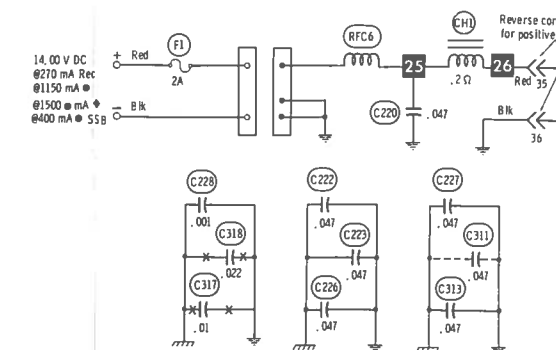
From Q17
ssb amp
and am det
CircuitTrace 126
page 33

From Q32
squench
page 33

To balanced
modulated
CircuitTrace 144
page 33

From Q10
xmit mixer
CircuitTrace 209
page 33

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



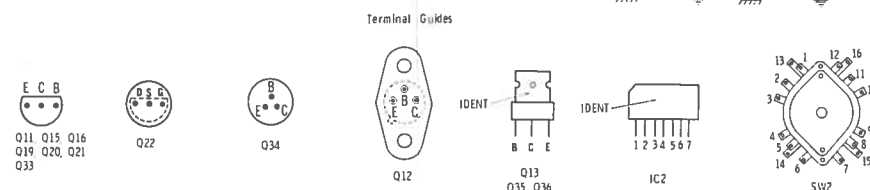
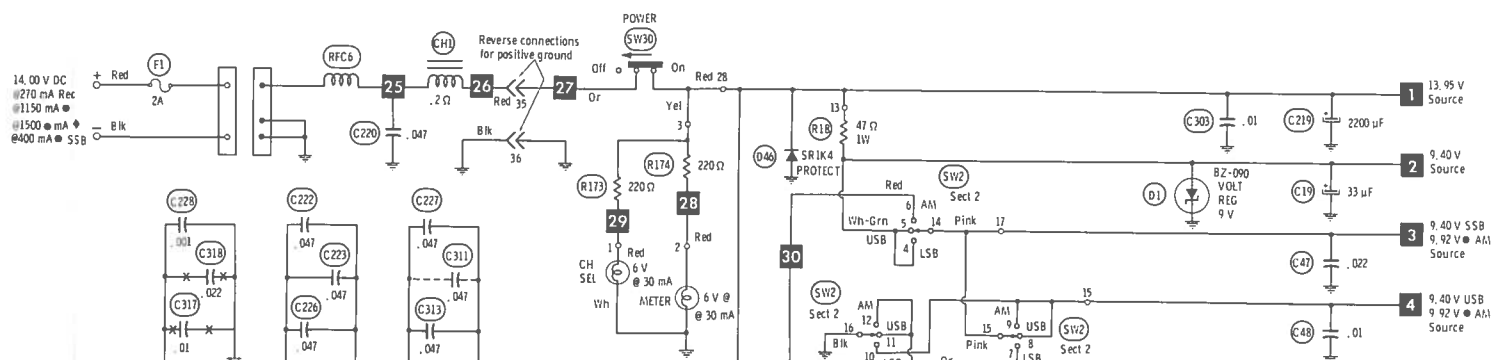
LSB

Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement
1	X1, X11, X16	7	X2, X13, X16	13	X4, X11, X16	19	X5, X13, X16
2	X1, X12, X16	8	X2, X14, X16	14	X4, X12, X16	20	X5, X14, X16
3	X1, X13, X16	9	X3, X11, X16	15	X4, X13, X16	21	X6, X11, X16
4	X1, X14, X16	10	X3, X12, X16	16	X4, X14, X16	22	X6, X12, X16
5	X2, X11, X16	11	X3, X13, X16	17	X5, X11, X16	23	X6, X13, X16
6	X2, X12, X16	12	X3, X14, X16	18	X5, X12, X16	24	X6, X14, X16

AM-USB

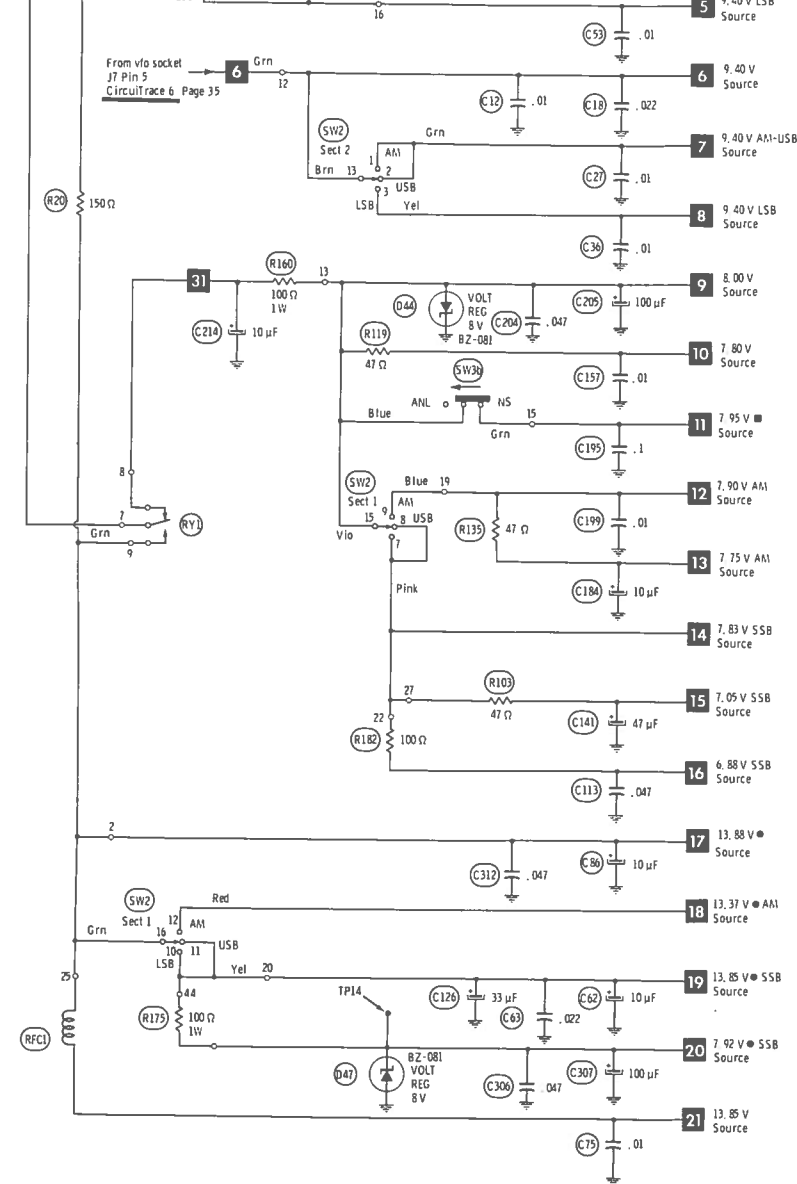
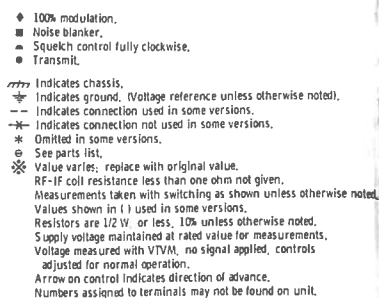
Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement
1	X1, X7, X15	7	X2, X9, X15	13	X4, X7, X15	19	X5, X9, X15
2	X1, X8, X15	8	X2, X10, X15	14	X4, X8, X15	20	X5, X10, X15
3	X1, X9, X15	9	X3, X7, X15	15	X4, X9, X15	21	X6, X7, X15
4	X1, X10, X15	10	X3, X8, X15	16	X4, X10, X15	22	X6, X8, X15
5	X2, X7, X15	11	X3, X9, X15	17	X5, X7, X15	23	X6, X9, X15
6	X2, X8, X15	12	X3, X10, X15	18	X5, X8, X15	24	X6, X10, X15

◆ 100% modulation.
■ Noise blanker.
▲ Squench control fully clockwise.
● Transmit.
--- 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, 10% 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.



LSB							
Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement
1	X1, X11, X16	7	X2, X13, X16	13	X4, X11, X16	19	X5, X13, X16
2	X1, X12, X16	8	X2, X14, X16	14	X4, X12, X16	20	X5, X14, X16
3	X1, X13, X16	9	X3, X11, X16	15	X4, X13, X16	21	X6, X11, X16
4	X1, X14, X16	10	X3, X12, X16	16	X4, X14, X16	22	X6, X12, X16
5	X2, X11, X16	11	X3, X13, X16	17	X5, X11, X16	EX	
6	X2, X12, X16	12	X3, X14, X16	18	X5, X12, X16	23	X6, X14, X16

Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement
1	X1, X7, X15	7	X2, X9, X15	13	X4, X7, X15	19	X5, X9, X15
2	X1, X8, X15	8	X2, X10, X15	14	X4, X8, X15	20	X5, X10, X15
3	X1, X9, X15	9	X3, X7, X15	15	X4, X9, X15	21	X6, X7, X15
4	X1, X10, X15	10	X3, X8, X15	16	X4, X10, X15	22	X6, X8, X15
5	X2, X7, X15	11	X3, X9, X15	17	X5, X7, X15	EX	
6	X2, X8, X15	12	X3, X10, X15	18	X5, X8, X15	23	X6, X10, X15



PARTS LIST AND DESCRIPTION (CONTINUED)

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

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.
C19	33 16V	ECEA16V33L	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C62	10 16V	ECEA16V10L	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C86	1 50V	ECEA50V1L	RME-D-J-010	EP50-10	PC10-50	MTV10CB50	EV-1622
C101	1 50V	ECEA50V1L	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C119	33 10V	ECEA10V33L	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
C120	10 16V	ECEA16V10L	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C121	100 6.3V	ECEA6V100L	RME-E-B-100	EP6-100	PC100-10	MTV100CB6	EV-1030
C124	1 50V	ECEA50V1L	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C125	1 50V	ECEA50V1L	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C126	33 10V	ECEA10V33L	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
C128	1 50V	ECEA50V1L	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C129	1 50V	ECEA50V1L	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C131	1 50V	ECEA50V1L	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C132	1 50V	ECEA50V1L	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C133	1 50V	ECEA50V1L	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C134	1 50V	ECEA50V1L	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C136	1 50V	ECEA50V1L	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C140	1 50V	ECEA50V1L	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C141	47 10V	ECEA10V47L	RME-D-D-050	EP15-50	PC50-10	MTV50CB15	EV-1226
C142	33 10V	ECEA10V33L	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
C143	10 16V	ECEA16V10L	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
	10 10V	ECEA10V10L	RME-A-D-010	EP15-10	PC10-25	VTT10A25	EV-1222
C144	10 16V	ECEA16V10L	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
	10 10V	ECEA10V10L	RME-A-D-010	EP15-10	PC10-25	VTT10A25	EV-1222
C145	1 50V	ECEA50V1L	RME-A-J-001	EP50-1	PC1-50	VTT10A25	EV-1222
C146	10 16V	ECEA16V10L	RME-B-E-010	EP15-10	PC10-25	MTV1CB50	EV-1615
	10 10V	ECEA10V10L	RME-A-D-010	EP15-10	PC10-25	VTT10A25	EV-1222
C178	10 16V	ECEA10V10L	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
	10 10V	ECEA10V10L	RME-A-D-010	EP15-10	PC10-25	VTT10A25	EV-1222
C182	33 16V	ECEA16V10L	RME-A-D-010	EP15-10	PC10-25	VTT10A25	EV-1222
	33 10V	ECEA10V33L	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C183	3.3 50V		ME-3-D-035	EA15-25	WBR35-50	MTA30D15	TVA-1149.1
	3.3 25V	ECEA25V3R3L	RME-B-J-005	EP50-5	PC5-50	VTT3R3A50	EV-1519
C184	10 16V	ECEA16V10L	RME-A-H-003	EP30-5	PC5-50	VTT3R3A50	EV-1618
		ECEA16V10L	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C205	100 16V	ECEA16V100L	RME-E-E-100	EP15-100	PC100-16	MTV100CD15	EV-1230
	100 10V	ECEA10V100L	RME-E-D-100	EP15-100	PC100-10	MTV100CB10	EV-1130
C206	33 10V	ECEA10V33L	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
C207	33 16V	ECEA16V33L	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C209	1 50V	ECEA50V1L	RME-A-J-001	EP50-1	PC1-50	MTV1CB50	EV-1615
C210	33 16V	ECEA16V33L	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C212	33 16V	ECEA16V33L	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C213	100 16V	ECEA16V100L	RME-E-E-100	EP15-100	PC100-16	MTV100CD15	EV-1230
C214	10 16V	ECEA16V10L	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C217	3.3 50V		RME-B-J-005	EP50-5	PC5-50	VTT4R7A50	EV-1519
	3.3 25V	ECEA25V3R3L	RME-A-H-003	EP30-5	PC5-50	VTT3R3A50	EV-1618
C219	2200 16V	ECEA16V2200L	ME-G2000	EA15-2000	WBR2000-16	TC1520C	TVA-1175.3
C221	33 16V	ECEA16V33L	ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C225	33 10V	ECEA10V33L	ME-3-D-035	EP15-25	PC30-25	VTT33A10	EV-1125
C307	100 16V	ECEA16V100L	RME-E-E-100	EP15-100	PC100-16	MTV100CD15	EV-1230
C308	10 16V	ECEA16V10L	RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222

HY-GAIN MODEL 674

CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENCOPART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	47 10% N150		*			*	10TCP-Q47
C2	47 10% N150		*			*	10TCP-Q47
C3	47 10% N150		*			*	10TCP-Q47
C4	47 10% N150		*			*	10TCP-Q47
C5	47 10% N150		*			*	10TCP-Q47
C6	47 10% N150		*			*	10TCP-Q47
C7	15 N150		*			*	10TCP-P15
C8	150 10% N150		*			*	10TCP-T15
C9	220 10% N150		*			*	10TCP-T22
C10	100 10% N150		*			*	10TCP-T10
C11	220 10% N150		*			*	10TCP-T22
C12	.01		CCD-103				25S-S10
C13	.01		CCD-103	DC-103	GP10000	MAG5011	25S-S10
C14	150 10% N150		*			*	10TCP-T15
C15	6 N150		*			*	10TCP-V68
C16	15 N150		*			*	10TCP-Q15
C17	150 10% N150		*			*	
C18	.022		CCD-203			GP120	5GA-S20
C20	27 10% N150		*			*	10TCP-Q27
C21	27 10% N150		*			*	10TCP-Q27
C22	27 10% N150		*			*	10TCP-Q27
C23	27 10% N150		*			*	10TCP-Q27
C24	68 10% N150		*			*	10TCP-Q68
C25	68 10% N150		*			*	10TCP-Q68
C26	820 10%		DM19-821J	CPR-820J	CD19FD821J03	SX382	424MEB200J501
C27	.01		CCD-103	DC-103	GP10000	MAG5011	25S-S10
C28	100 10% N150		*			*	10TCP-T10
C29	27 N150		*			*	10TCP-Q27
C30	27 N150		*			*	10TCP-Q27
C31	27 N150		*			*	10TCP-Q27
C32	27 N150		*			*	10TCP-Q27
C33	68 10% N150		*			*	10TCP-Q28
C34	68 10% N150		*			*	10TCP-Q28
C35	820 10%		DM19-821J	CPR-820J	CD19FD821J03	SX382	424MEB200J501
C36	.01		CCD-103	DC-103	GP10000	MAG5011	25S-S10
C37	100 10% N150		*			*	10TCP-T10

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/ELMENCOPART No.	CENTRALABPART No.	CORNELL-DUBILIERPART No.	MALLORYPART No.	SPRAGUEPART No.
C38	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C39	100 10% N150		*			*	10TCP-T10
C40	47 10% N150		*			*	10TCP-Q47
C41	47 10% N150		*			*	10TCP-Q47
C42	100 10% N150		*			*	10TCP-T10
C43	3 N150		*			*	10TCP-V30
C44	3 N150		*			*	10TCP-V30
C45	3 N150		*			*	10TCP-V30
C46	68		CCD-680	DD-680	GP68	GP468	10TS-Q68
C47	.022		CCD-203			GP120	5GA-S20
C48	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C49	130 10%		DM10-131J	CPR-130J	CD7FD131J03	SX313	424MC1300J501
C50	510 10%		DM15-511J	CPR-510J	CD15FD511J03	SX351	424ME5100J501
C51	220 10% N750		CCTN-221	DTN-220	N220	CN7322	10TCU-T22
C52	120 10% N150		*			*	10TCP-T12
C53	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C54	330 10%		DM15-331J	CPR-330J	CD15FD331J03	SX333	424ME3300J501
C55	510 10%		DM15-511J	CPR-510J	CD15FD511J03	SX351	424ME5100J501
C56	220 10% N750		*			*	10TCP-T15
C57	150 10% N150		*			*	2SS-S10
C58	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C60	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C61	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C63	.022		CCD-203			GP120	5GA-S20
C64	.001		CCD-102	DD-102		GP210	10TS-D10
C65	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C66	10		CCTO-100	DTZ-10	NP010	CN0410	10TCC-Q10
C67	.01		*			*	2SS-S10
C68	.022		CCD-103	DC-103	GP10000	MAG5011	10TCP-T10
C69	100 10% N150		*			*	10TCP-Q47
C70	47 10% N150		*			*	5GA-S20
C71	.022		CCD-203			GP120	5GA-S20
C73	.022		CCD-203			GP120	5GA-S20
C74	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C75	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C76	150 10% N150		*			*	10TCP-T15
C77	150 10% N150		*			*	10TCP-T15
C78	150 10% N150		*			*	10TCP-T15
C79	6 N150		*			*	10TCP-V68
C80	5 N150		*			*	10TCP-V50
C81	8		*	DTZ-10	NP010	CN0410	10TCC-Q10
C82	56 10% N150		*			*	10TCP-Q56
C83	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C84	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C85	100 10% N150		*			*	10TCP-T10
C87	330 5%		DM15-331J	CPR-330J	CD15FD331J03	SX333	424ME3300J501
C88	100 10% N150		*			*	10TCP-T10
C89	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C90	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C91	.001		CCD-102	DD-102		GP210	10TS-D10
C92	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C93	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C94	330 5%		DM15-331J	CPR-330J	CD15FD331J03	SX333	424ME3300J501
C95	270 5%			DTZ-270			10TCC-T27
C96	22		CCTO-220	DTZ-22	NP022	CN0422	10TCC-Q22
C99	2		CCTO-2R2	DTZ-2R2	NP02P2	CN0522	10TCC-V22
C100	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C102	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C103	.03		CCD-303	DC-303		GP130	TG-S30
C104	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C105	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C106	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C107	.001		CCD-102	DD-102		GP210	10TS-D10
C108	47 10% N150		*			*	10TCP-Q47
C109	.022		CCD-203			GP120	5GA-S20
C110	150 10% N150		*			*	10TCP-T15
C111	.022		CCD-203			GP120	5GA-S20
C112	.022		CCD-203			GP120	5GA-S20
C113	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C114	.0022		CCD-222	DD-222		GP222	2SS-D22
C115	.2		1MDF-4-204		DPMS2P2	PVC602	2PS-P20
C116	150 10%		CCTO-151	DTZ-150		CN0315	10TCC-T15
C118	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C122	.033		CCD-303	DC-303		GP130	TG-S30
C123	.0022		CCD-222	DD-222		GP222	2SS-D22
C127	.022		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C130	.2		1MDF-4-204		DPMS2P2	PVC602	2PS-P20
C135	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C137	.1			DC-104	MGP1	MAG5001	TG-P10
C138	.1			DC-104	MGP1	MAG5001	TG-P10
C139	.5		1DP-4-504		DPMS2P5	PVC105	2PS-P50
C147	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C148	100 5%		CCTO-101	DTZ-100	NP0100	CN0310	10TCC-T10
C150	2		CCTO-2R2	DTZ-2R2	NP02P2	CN0522	10TCC-V22
C152	220 10%		DM10-221J	CPR-220J	CD10FD221J03	SX322	424ME2200J501
C153	5		CCTO-050				10TCC-V50
C154	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C155	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C156	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C157	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C158	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C159	27 N150		*			*	10TCP-Q27
C160	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C161	220 10%		CCD-201	DD-201	GP200	GP320	10TS-T20

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.
C162	5		CCTO-050				10TCC-V50
C163	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C164	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C165	15		CCTO-150	DTZ-15	NP015	CN0415	10TCC-Q15
C166	.001 10%		CCTO-101	DTZ-100	NP0100	CN0310	10TCC-T10
C167	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C168	6			DTZ-6R8	NP06P8		10TCC-V68
C169	510 10%		DM15-511J	CPR-510J	CD15FD511J03	SX351	424ME5100J501
C170	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C171	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C172	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C173	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C174	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C175	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C176	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C177	.022		CCD-203			GP120	5GA-S20
C179	.0068		DM30-682J	CPR-6800J	CD20FD682J03	SX268	
C180	.022		CCD-203			GP120	5GA-S20
C181	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C185	100 10% N150		*			*	10TCP-T10
C186	.1			DC-104	MGP1	MAG5001	TG-P10
C187	.1			DC-104	MGP1	MAG5001	TG-P10
C188	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C189	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C190	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C191	330 5%		DM15-331J	CPR-330J	CD15FD331J03	SX333	424ME3300J501
C192	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C193	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C194	.1			DC-104	MGP1	MAG5001	TG-P10
C195	.1			DC-104	MGP1	MAG5001	TG-P10
C196	180 10%		CCD-181	DD-181		GP318	10TS-T18
C197	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C198	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C199	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C200	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C201	270 5%		CCD-271	DD-271	GP270	GP327	10TS-T27
C202	220 10%		CCD-221	DD-221		GP322	10TS-T22
C203	39		CCTO-390			CN0439	10TCC-Q39
C204	.047		CCD-403			GP140	5GA-S40
C208	.0022		CCD-222	DD-222		GP222	2SS-D22
C211	.1			DC-104	MGP1	MAG5001	TG-P10
C215	.022		CCD-203			GP120	5GA-S20
C216	.022		CCD-203			GP120	5GA-S20
C218	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C220	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C222	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C223	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C226	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C227	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C228	.001		CCD-102	DD-102		GP210	10TS-D10
C301	27 N150		*			*	10TCP-Q27
C302	27 N150		*			*	10TCP-Q27
C303	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C304	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C305	10		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C306	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C309	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C310	.001		CCD-102	DD-102		GP210	10TS-D10
C312	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C313	.047		CCD-503	DC-503	MGP05	MAG5015	TGL-S50
C314	47 10% N150		*			*	10TCP-Q47
C315	82 10%		CCTO-820	DTZ-82	NP082	CN0482	10TCC-Q82
C316	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C317	.01		CCD-103	DC-103	GP10000	MAG5011	2SS-S10
C318	.022		CCD-203			GP120	5GA-S20

* 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	RESISTANCE	REPLACEMENT DATA				
			MFR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
RV1	Bias	1000	ERP-15	TSV-1K (2) or T-1000 (2)	C-102 (2)	MTC13L1 (2)	X201R102B (2)
RV2	Bias	1000	ERP-15	TSV-1K (2) or T-1000 (2)	C-102 (2)	MTC13L1 (2)	X201R102B (2)
RV3	Carrier Balance	300	ERP-43	T-300 (2) or TSV-500 (2)	C-501 (2)	MTC32L1 (2)	X201R501B (2)
RV4	SSB Bias	1000	ERP-15	TSV-1K (2) or T-1000 (2)	C-102 (2)	MTC13L1 (2)	X201R102B (2)
RV5	SSB Bias	1000	ERP-1	TSV-1K (2) or T-1000 (2)	C-102 (2)	MTC13L1 (2)	X201R102B (2)
RV6	RF Meter	10K	ERP-2	TSV-10K (2) or T-10K (2)	C-103 (2)	MTC14L1 (2)	X201R103B (2)
RV7	AMC Mic Gain	10K	ERP-14	TSV-10K or T-10K	C-103	MTC14L1	X201R103B
RV8	SSB Mic Gain	10K	ERP-14	TSV-10K or T-10K	C-103	MTC14L1	X201R103B
RV9	AGC	10K	ERP-14	TSV-10K or T-10K	C-103	MTC14L1	X201R103B
RV10	AGC	5000	ERP-6	TSV-5K or T-5000	C-502	MTC53L1	X201R502B
RV11	SSB Squelch	5000	ERP-11	TSV-5K (2) or T-5000 (2)	C-502 (2)	MTC53L1 (2)	X201R502B (2)
RV12	AM "S" Meter	10K	ERP-2	TSV-10K (2) or T-10K (2)	C-103 (2)	MTC14L1 (2)	X201R103B (2)
RV13	SSB "S" Meter	1000	ERP-15	TSV-1K (2) or T-1000 (2)	C-102 (2)	MTC13L1 (2)	X201R102B (2)
RV14	Squelch Range	10K	ERP-2	TSV-10K (2) or T-10K (2)	C-103 (2)	MTC14L1 (2)	X201R103B (2)
VR1a	RF Gain	50K	ERV-115				
b	Volume	10K					
VR3	Squelch	10K	ERV-91				

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

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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.
TH1	47 Cold NTC		EOT-25	R18	3.3 10W WW		
PHT	638 Cold PTC		EOP-1				

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
CH2	Peaking (1mH)	ELR-8			
CH3	Peaking (100uH)	ELR-45			
CH4	Peaking (100uH)	ELR-45			
L1	Synth Buffer (Pri.)	ETR-136			
L2	Synth Buffer (Sec.)	ETR-136			
L3	14 MHZ Trap	ETR-20			
L4	14 MHZ Trap	ETR-20			
L5	Synth Mixer (38MHz)	ETR-24			
L6	Synth Mixer (38MHz)	ETR-25			
L7	Synth Mixer (38MHz)	ETR-25			
L8	Synth Mixer (38MHz)	ETR-26			
L9	Balanced Mod IF	ETR-137			
L10	1st SSB IF	ETI-65			
L11	Xmit Mixer (27MHz)	ETR-24			
L12	Xmit Mixer (27MHz)	ETR-24			
L13	Xmit Mixer (27MHz)	ETR-24			
L14	Xmit Mixer (27MHz)	ETR-101			
L15	Xmit Buffer (27MHz)	ETR-22			
L16	Xmit Driver (27MHz)	ETR-22			
L17	27MHz Trap	ETR-94			
L18	27MHz Trap	ETR-135			
L19	54MHz Trap	ETR-18			
L20	2nd SSB IF	ETI-65			
L21	RF Input IF	ETR-260			
L22	RF Input IF	ETR-260			
L23	RF Amp	ETR-27			
L24	27MHz Trap	ETR-42			
L25	1st AM Mixer IF	ETI-66			
L26	Mixer Interstage IF	ETI-32			
L27	Mixer Output	ETI-33			
L28	1st IF Amp	ETI-41			
L29	2nd IF Amp	ETI-23			
L30	Noise Input	ETR-43			
L31	Noise Amp/Oet	ETR-44			
L32	AM Rec Osc IF	ETR-28			
MF	2nd AM Mixer IF	EFC-3			
RFC1	RF Choke	ELR-4			
RFC2	RF Choke	ELR-4			
RFC3	RF Choke	ELR-4			
RFC4	RF Choke	ELR-4			
RFC5	RF Choke	ELR-4			
RFC6	RF Choke	ELR-11			

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	1500mA	.2	.2mH	ELA-2 (ELA-15)			

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.	THORDARSON PART No.	TRIAD PART No.	
T1	1.25	1		ETA-28 (ETA-28)			

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	55	24	ETA-52 (ETA-52)			

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	2 x 3 3/4 PM 16 ohms	EAS-14		

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			AGC2	HDJ	312002	150145	FP2-2

PARTS LIST AND DESCRIPTION (CONTINUED)

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

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
XF	Filter	MFH-73T	S-PRF Channel USB-LSB-AM Power Noise Blanking
M	Meter	EMM-21	
RL	Relay	EZR-1	
SW1	Switch	ESR-111	
SW2	Switch	ESR-106	
SW3	Switch	ESP-102	
SW4	Switch	ESP-102	
X1	Crystal		
X2	Crystal		
X3	Crystal		
X4	Crystal		
X5	Crystal		
X6	Crystal		
X7	Crystal		
X8	Crystal		
X9	Crystal		
X10	Crystal		
X11	Crystal		
X12	Crystal		
X13	Crystal		
X14	Crystal		
X15	Crystal		
X16	Crystal		
X17	Crystal		
	PC Board	ECR-1S	IF Main
	PC Board	EPO-601A	

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

ITEM	PART No.	ITEM	PART No.
Case	MC50P7	Knob Channel	MNO-128
Front Panel	MC50P1	Knob SA, AM, USB, LSB	MNO-129
Rear Panel	MC50P2	Knob Fine/Tune	MNO-130
Side Panel Right	MC50P3	Knob Volume	MNO-131
Side Panel Left	MC50P4	Knob RF Gain	MNO-132
Mobile Mounting Bracket	MC50P6	Push Button	MNO-99

ACCESSORIES

ITEM	MFGR. PART No.	REMARKS
DC Power Cord W/Plug	ENO-9D	
Microphone	EAM-14	

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
	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)