



PHOTOFACT[®] with

CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index

NOTE

Repair or adjustment of transmitter circuits must be under supervision of a person with first-or second-class radiotelephone license.

(Refer to FCC Rules and Regulations Part 95, Subpart 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 GT-410D

MANUFACTURER'S SPECIFICATIONS

GENERAL

Dimensions	: 2- $\frac{5}{8}$ "H $\times$ 8- $\frac{5}{8}$ "W $\times$ 8- $\frac{3}{4}$ " D
Weight	: approx. 5.4 lbs.
DC Power consumption	: a) Receive (stand by) 300 mA b) Transmit (100% Mod.) 1.3A
Channels	: 40
Semi-conductors	: 32 Transistors 2 FET 28 diodes and 4 IC.
Operating condition	: a) Ambient temperature $-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$ b) Relative humidity $+35^{\circ}\text{C}$ 95% or less.

RECEIVER

Receiving system	: Double conversion superheterodyne.
Intermediate freq	: 1st 10.695 MHz, 2nd....455 KHz
Sensitivity	: S+N/N 10db or more at 1 μ V input.
Adjacent channel rejection	: 50dB or more.
Image rejection	: 50dB or more.
Power output (Audio)	: 4 watts.
AGC	: 80db or more.

TRANSMITTER

Transmit frequency	: 26.965 ~ 27.405 MHz
Power input	: 5 watts.
Power output	: 60% or more with upward modulation.
Modulation	: 100%
Spurious and harmonics	: 60 dB or more.
Frequency tolerance	: $\pm 0.005\%$ or less.
Antenna coupling	: 50 ohms.

Courtesy of the Manufacturer

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

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ROBYN MODEL GT-410D

ALIGNMENT INSTRUCTIONS

CAUTION: Use isolation transformer or observe polarity when connecting test equipment. Maintain line voltage at 120V AC. Allow a 15-minute warm-up period. Adjustments made with 13.8-volt DC input. Connect low sides of test equipment to ground unless specified otherwise. Connect 50-ohm dummy load or antenna before keying transmitter. Connect Microphone.

Suggested Alignment Tools:

GC Electronics:

L1,L2,L4,L5,L6-(PLL),L1,L2,L3,L11 thru L14...9440

L15,L18 thru L22.....9091,8728-A,8728

L4 thru L8.....5009,8728-A,8728

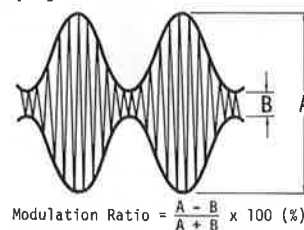


FIGURE 1

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP1 (TR1 (PLL),Emitter).	Ch. 19, Delta Tune Midrange BFO Off	L1 (PLL), VR6	Adjust for 10.240MHz.
Input of frequency counter to TP2 (TR2 (PLL),Collector).	Ch. 19		Check for 36.380MHz.
Input of DC meter to TP3 (IC-1 (PLL), Pin 6).	Ch. 1	L2 (PLL)	Adjust for 2.30 volts.
Input of oscilloscope to TP4 (L6 (PLL), Secondary).	Ch. 19, Delta Tune Midrange BFO Off	L6 (PLL)	Adjust for maximum RF.
Input of frequency counter to TP4 (L6 (PLL), Secondary).	Ch. 1, Delta Tune Midrange BFO Off		Check for 37.660MHz. Check all channels. (See Truth Chart for correct frequencies).
Input of frequency counter to TP5 (TR8 (PLL), Emitter).	Ch. 19, XMT		Check for 10.695MHz.
Input of oscilloscope to TP6 (L5 (PLL), Secondary).	Ch. 19, XMT	L4,L5 (PLL)	Adjust for maximum RF.
Input of frequency counter to TP6 (L5 (PLL), Secondary).	Ch. 1, XMT		Check for 26.965MHz. Check all channels. (See Truth Chart for correct frequencies).

RECEIVER ALIGNMENT

Connect an AC VTVM or AF wattmeter across speaker voice coil. Adjust volume control to obtain a suitable indication. Set generator output low enough to prevent AGC limiting. RF Gain Maximum, ANL Switch Off, BFO Switch Off.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP7 (TR3, Base). 455kHz,1000Hz @ 30% modulation.	Ch. 19, Delta Tune Midrange Squelch MINIMUM	L8,L7,L6	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz,1000Hz @ 30% modulation.	Ch. 19, Delta Tune 0 Squelch MINIMUM	L5,L4,L3, L2,L1	Adjust for maximum output. If necessary readjust L6, L7 and L8.

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication.
RF Gain Maximum, ANL Switch Off, BFO Switch Off.

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 50,000uV.	Ch. 19, Delta Tune 0 Squelch MINIMUM	VR1	AGC RANGE Adjust volume for 0db. Decrease generator output to 50uV. Adjust VR1 so that audio does not drop more than 10db.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 50,000uV.	Ch. 19, Delta Tune 0 Squelch MINIMUM	VR10	RF GAIN RANGE Adjust volume for 0db. Decrease generator output to 50uV. Adjust VR10 so that audio drops 10db.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 1000uV.	Ch. 19, Delta Tune 0 Squelch Maximum	VR7	SQUELCH RANGE Adjust so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19, Delta Tune 0 Squelch MINIMUM	VR2	SIG METER Adjust for 9 on SIG scale of meter.

TRANSMITTER ALIGNMENT

Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.
NOTE: Be sure to check transmit frequencies and power on all active channels after alignment of transmitter.
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of Spectrum analyzer or Harmonic meter to antenna jack.	Ch. 19	L11, L12, L13, L14, L15, L18, L19, L20, L21	Adjust for maximum.
	Ch. 19	L15	Adjust for 4 watts maximum.
	Ch. 19	L22	Adjust for MINIMUM at 54MHz. (2nd Harmonic).

TRANSMITTER ADJUSTMENTS

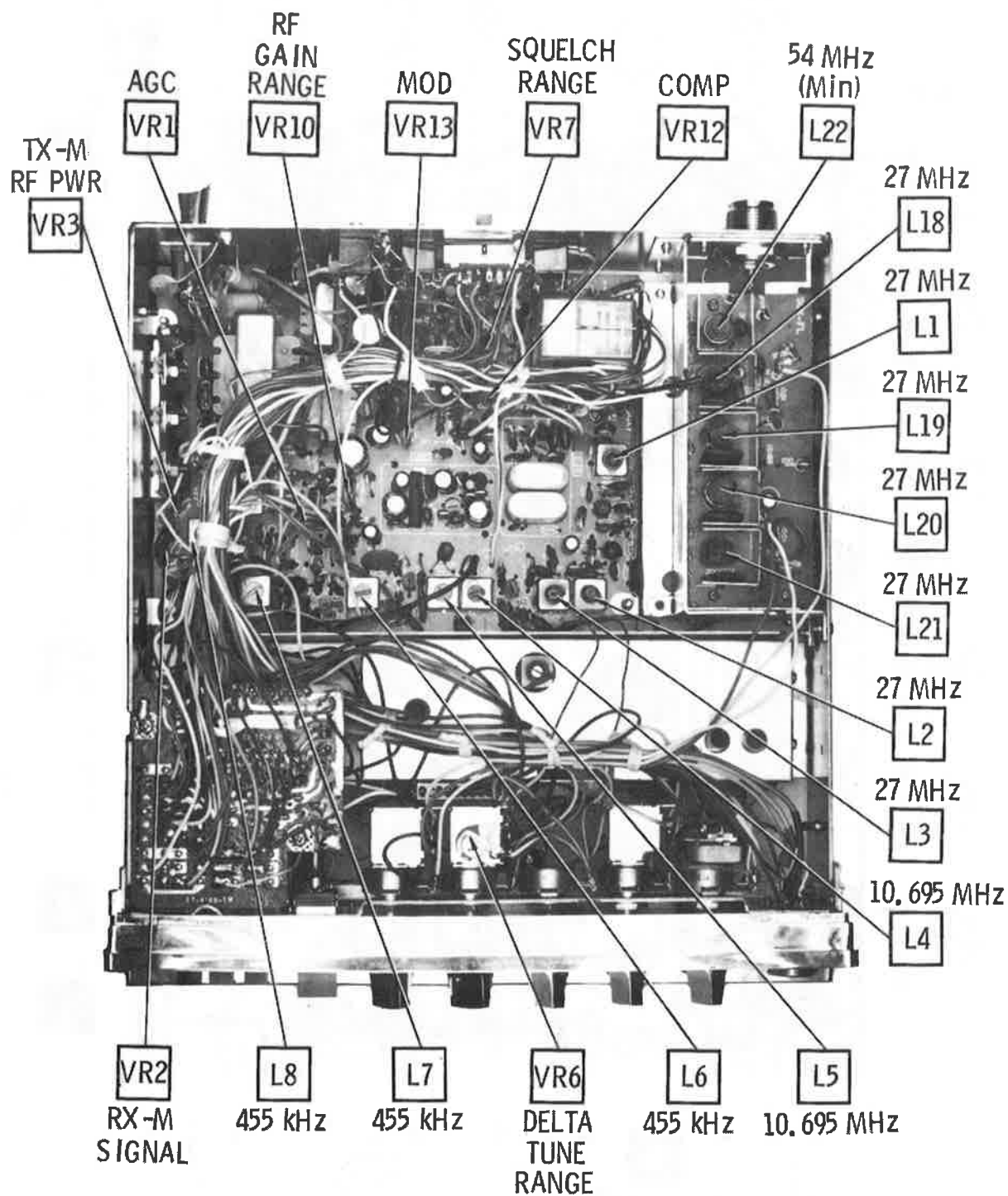
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.
NOTE: Be sure to check transmit frequency and power on all active channels after adjustment of transmitter.
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Oscilloscope or modulation meter to antenna jack. Inject a 1000Hz, 5mV signal at MIC input.	Ch. 19, MIC Gain Maximum (Located on MIC).	VR13	MIC GAIN RANGE Adjust for 50% modulation. (See Figure 1).
Oscilloscope or modulation meter to antenna jack. Inject a 1000Hz, 30mV signal at MIC input.	Ch. 19 MIC Gain Maximum (Located on MIC).	VR12	COMP (AMC) Adjust for 100% modulation maximum. (See Figure 1).
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.	Ch. 19	VR3	RF PWR METER Adjust so RF PWR meter agrees with RF wattmeter.

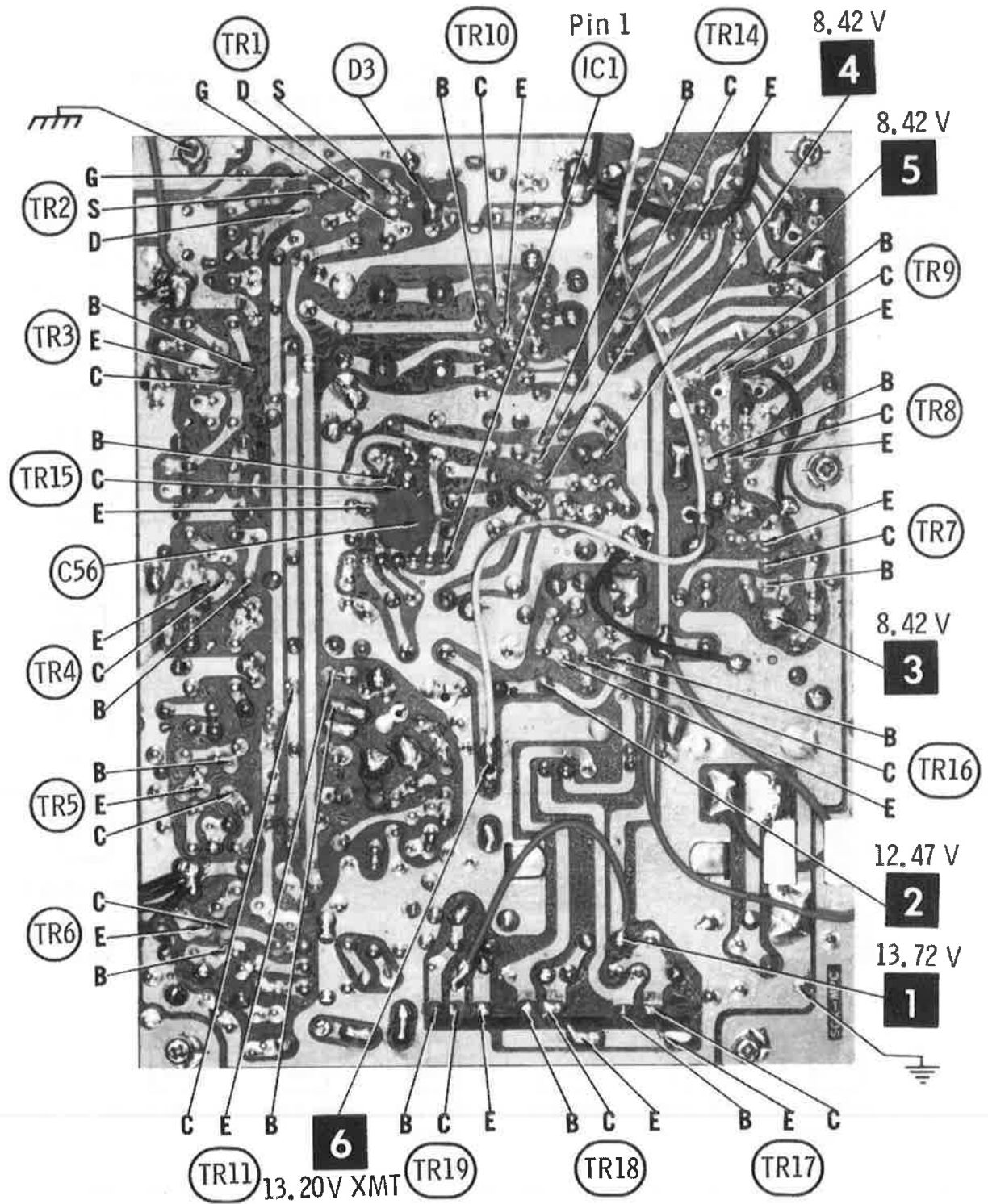
ROBYN MODEL GT-410D

TRUTH CHART

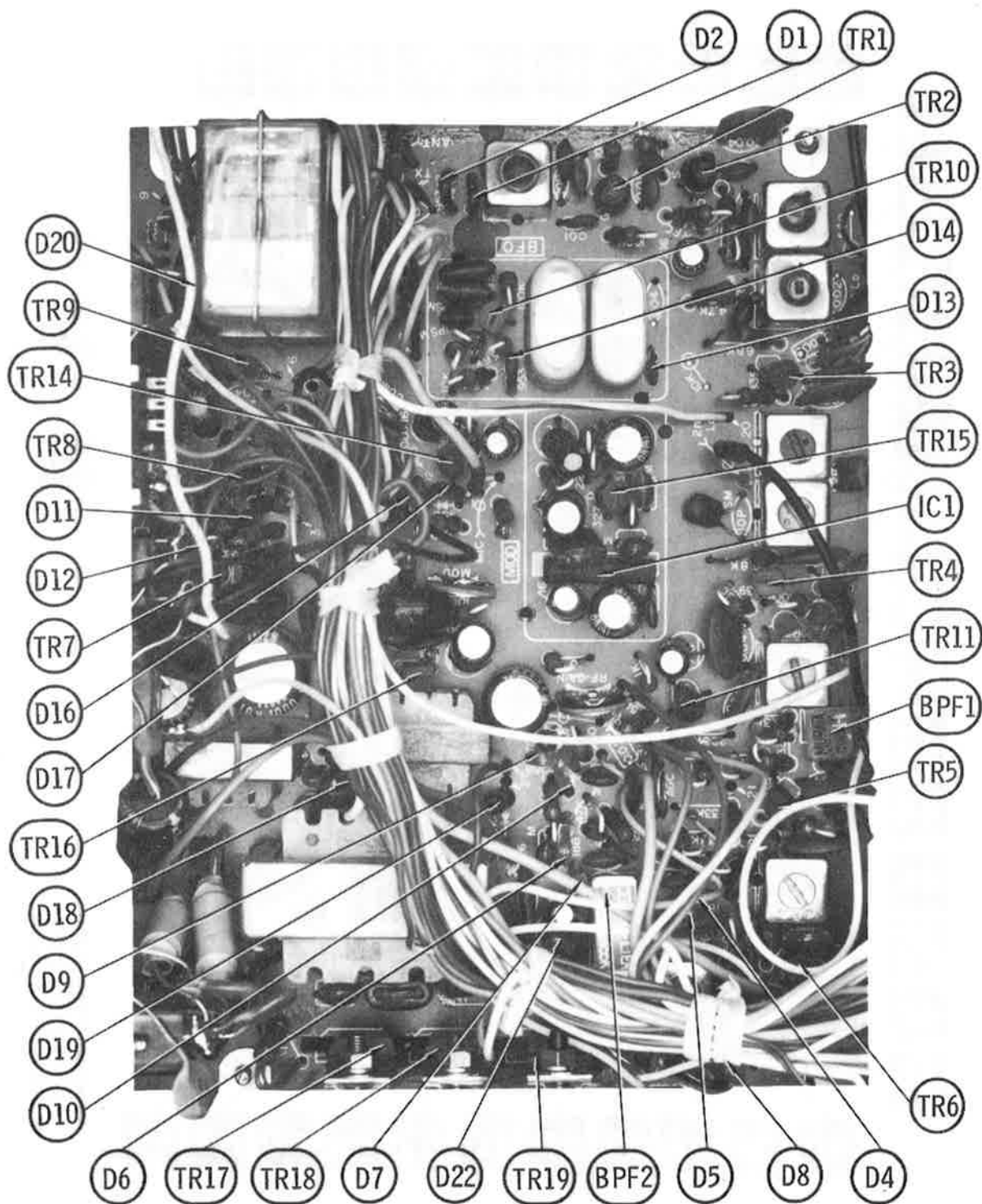
C H A N N E L	1 = 5.46 Volts 0 = 0 Volts IC-1 PROGRAM DIVIDER								Rec VCO OUTPUT IN MHz AT TP4	XMT VCO OUTPUT IN MHz AT TP6	
	PINS										
	10	11	12	13	14	15					
1	0	0	0	0	0	0			37.660	26.965	
2	0	0	0	0	0	1			37.670	26.975	
3	0	0	0	0	1	0			37.680	26.985	
4	0	0	0	1	0	0			37.700	27.005	
5	0	0	0	1	0	1			37.710	27.015	
6	0	0	0	1	1	0			37.720	27.025	
7	0	0	0	1	1	1			37.730	27.035	
8	0	0	1	0	0	1			37.750	27.055	
9	0	0	1	0	1	0			37.760	27.065	
10	0	0	1	0	1	1			37.770	27.075	
11	0	0	1	1	0	0			37.780	27.085	
12	0	0	1	1	1	0			37.800	27.105	
13	0	0	1	1	1	1			37.810	27.115	
14	0	1	0	0	0	0			37.820	27.125	
15	0	1	0	0	0	1			37.830	27.135	
16	0	1	0	0	1	1			37.850	27.155	
17	0	1	0	1	0	0			37.860	27.165	
18	0	1	0	1	0	1			37.870	27.175	
19	0	1	0	1	1	0			37.880	27.185	
20	0	1	1	0	0	0			37.900	27.205	
21	0	1	1	0	0	1			37.910	27.215	
22	0	1	1	0	1	0			37.920	27.225	
23	0	1	1	1	0	1			37.950	27.255	
24	0	1	1	0	1	1			37.930	27.235	
25	0	1	1	1	0	0			37.940	27.245	
26	0	1	1	1	1	0			37.960	27.265	
27	0	1	1	1	1	1			37.970	27.275	
28	1	0	0	0	0	0			37.980	27.285	
29	1	0	0	0	0	1			37.990	27.295	
30	1	0	0	0	1	0			38.000	27.305	
31	1	0	0	0	1	1			38.010	27.315	
32	1	0	0	1	0	0			38.020	27.325	
33	1	0	0	1	0	1			38.030	27.335	
34	1	0	0	1	1	0			38.040	27.345	
35	1	0	0	1	1	1			38.050	27.355	
36	1	0	1	0	0	0			38.060	27.365	
37	1	0	1	0	0	1			38.070	27.375	
38	1	0	1	0	1	0			38.080	27.385	
39	1	0	1	0	1	1			38.090	27.395	
40	1	0	1	1	0	0			38.100	27.405	



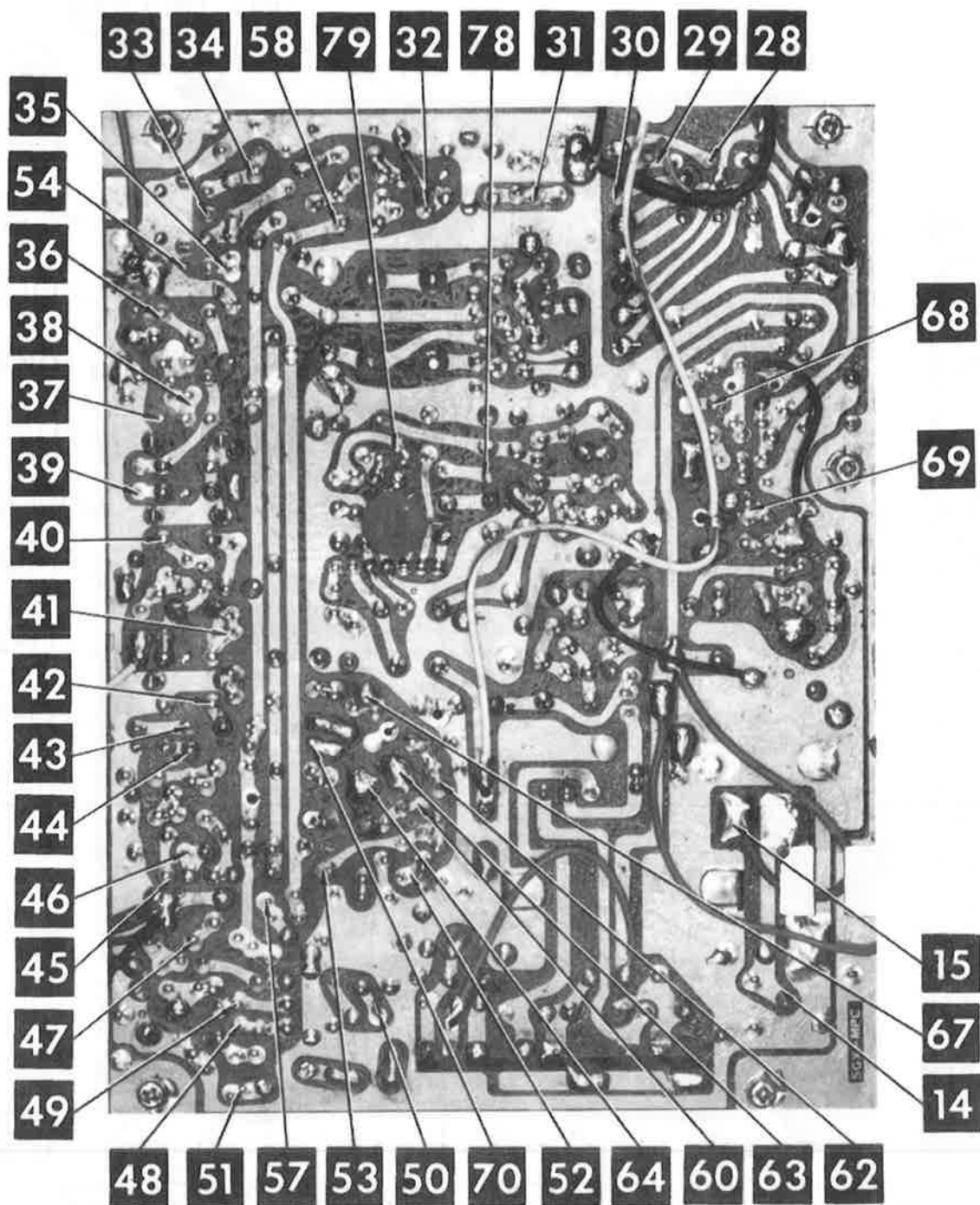
CHASSIS - BOTTOM



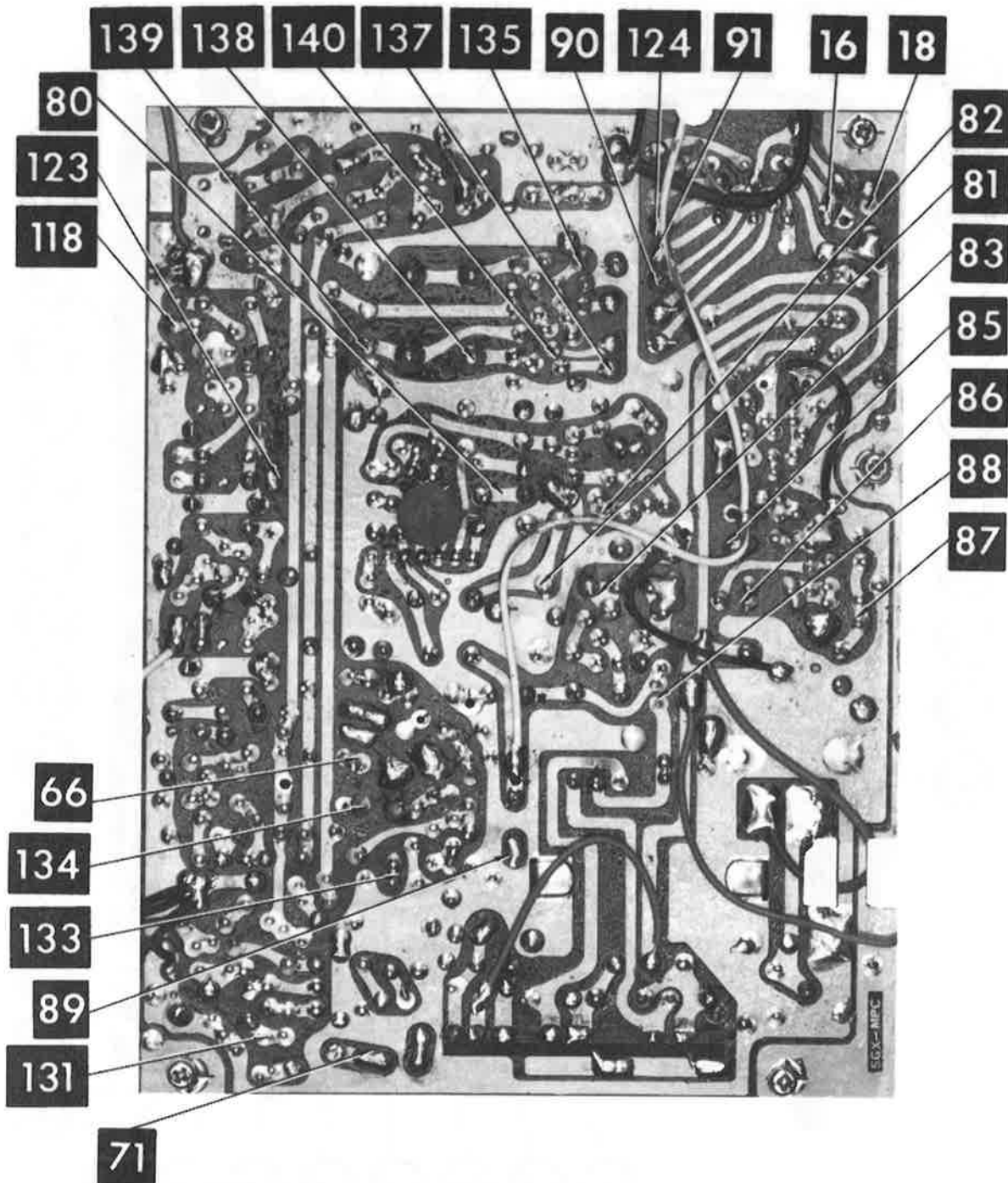
MAIN BOARD



MAIN BOARD

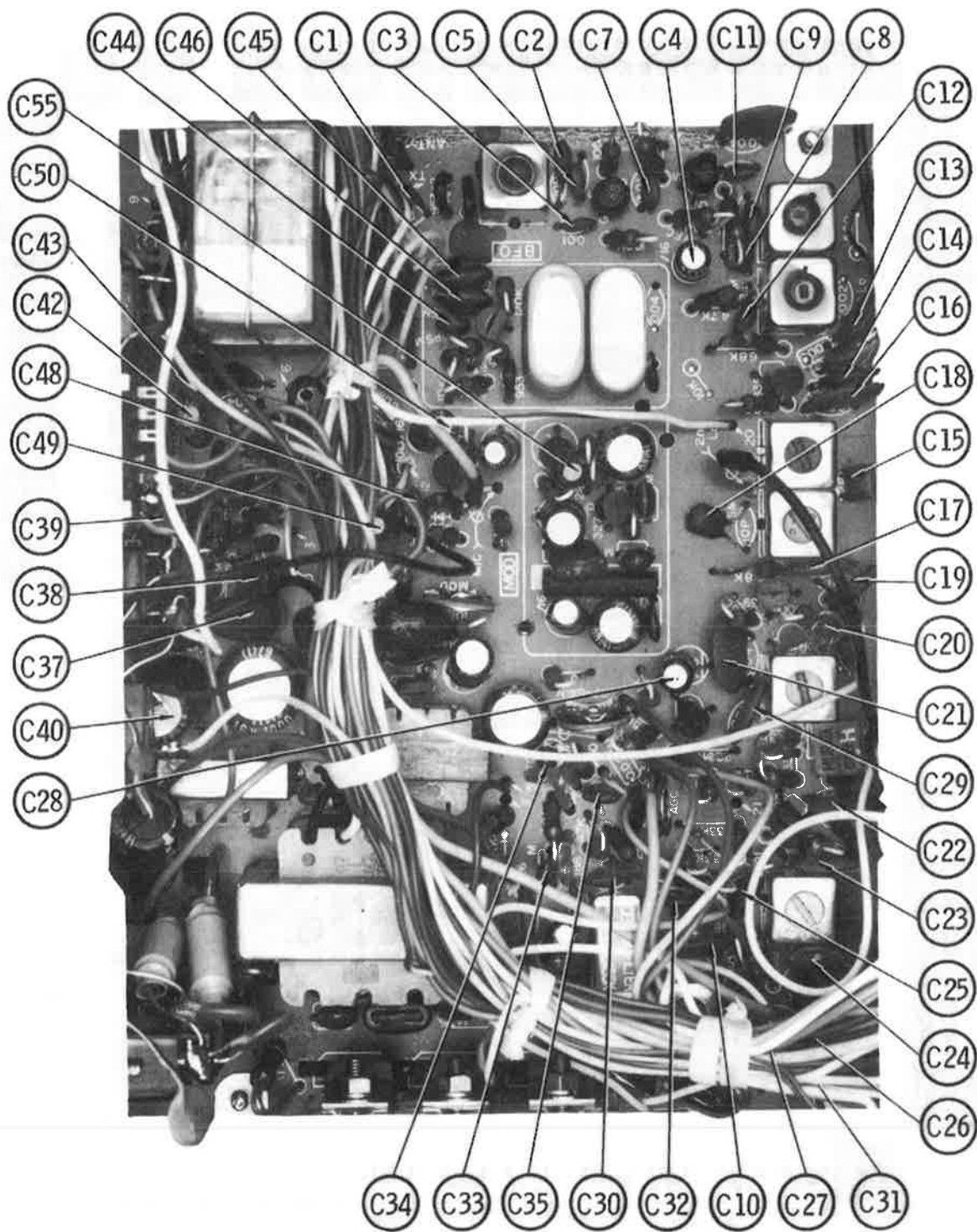


MAIN BOARD

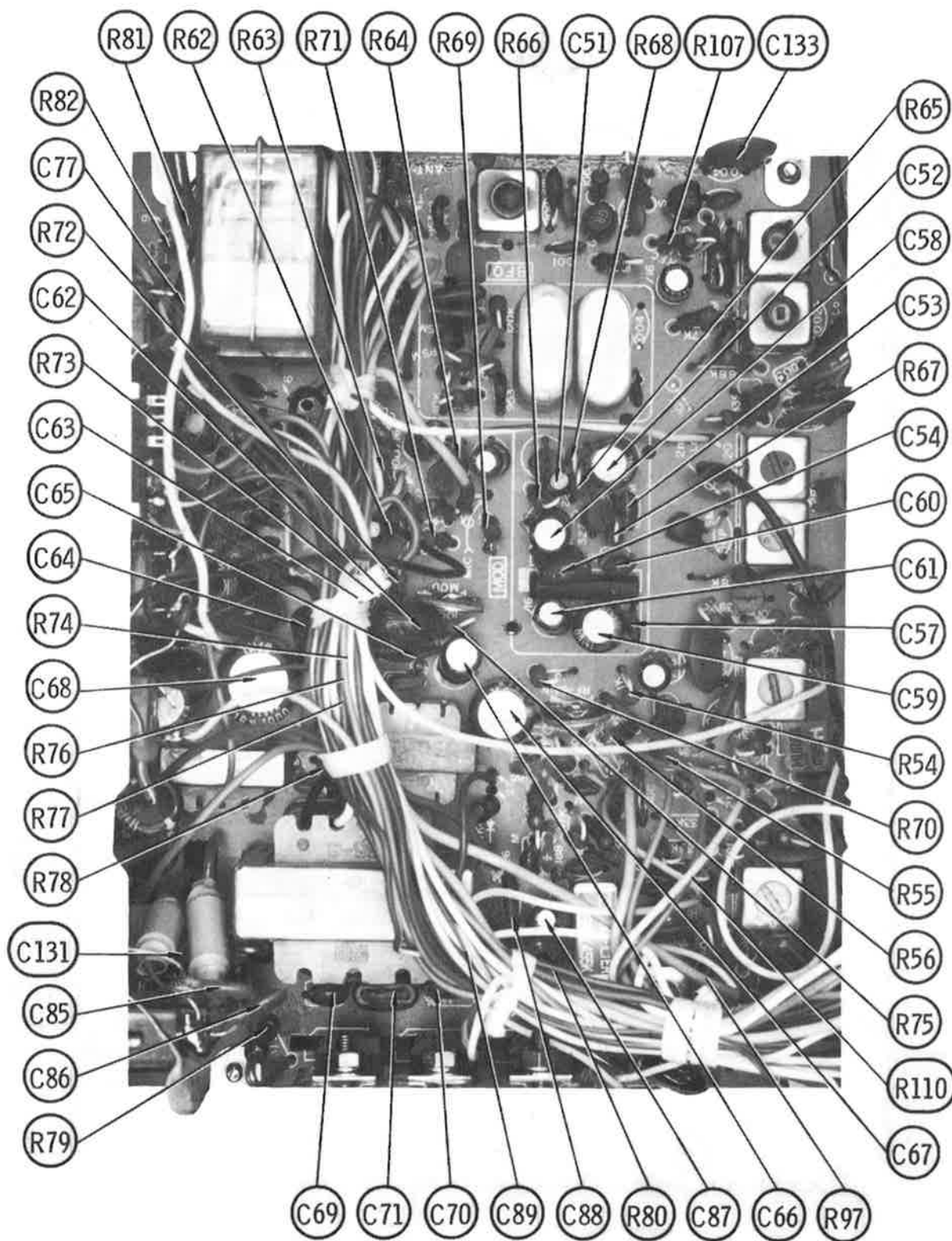


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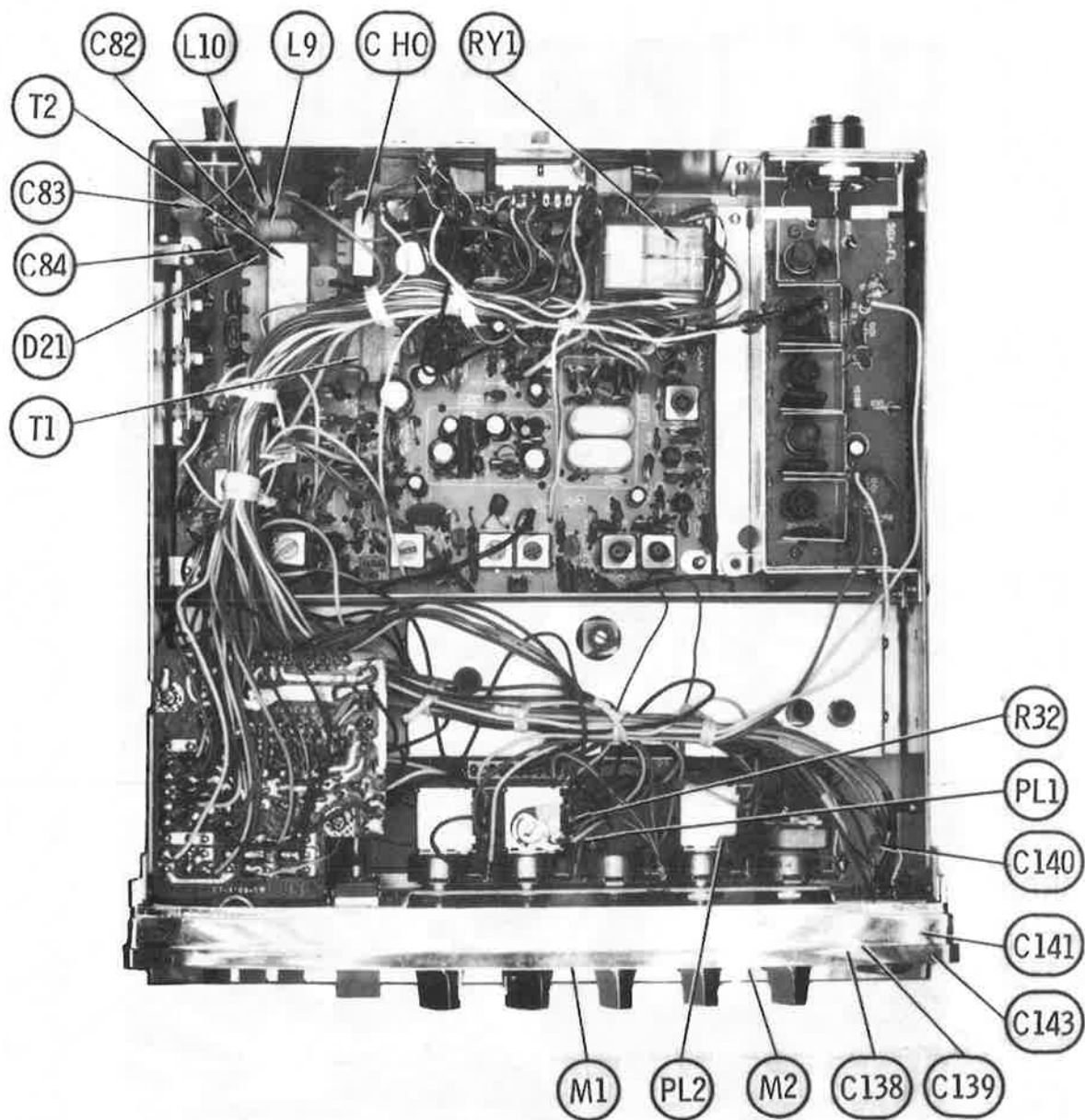
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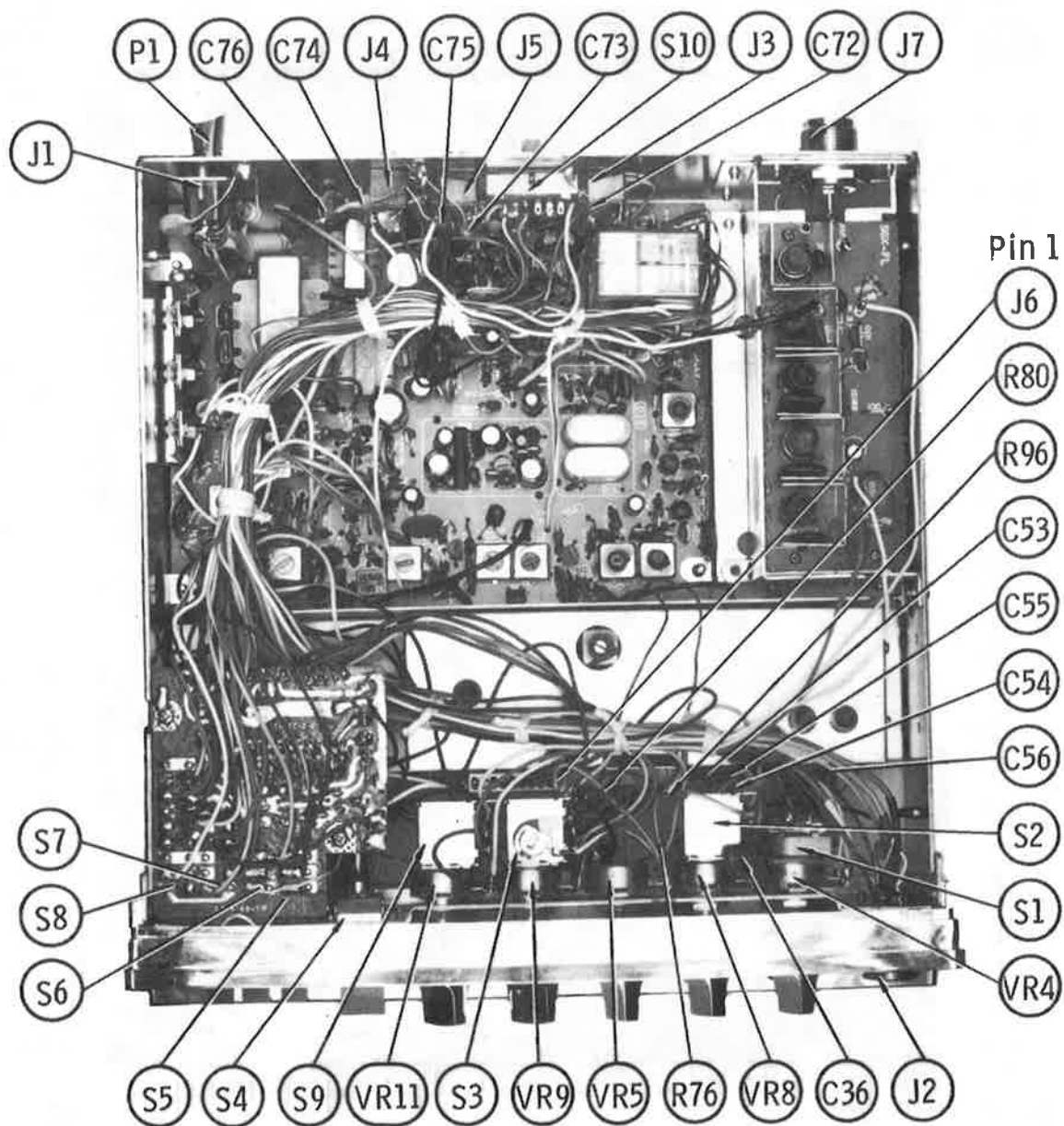
MAIN BOARD



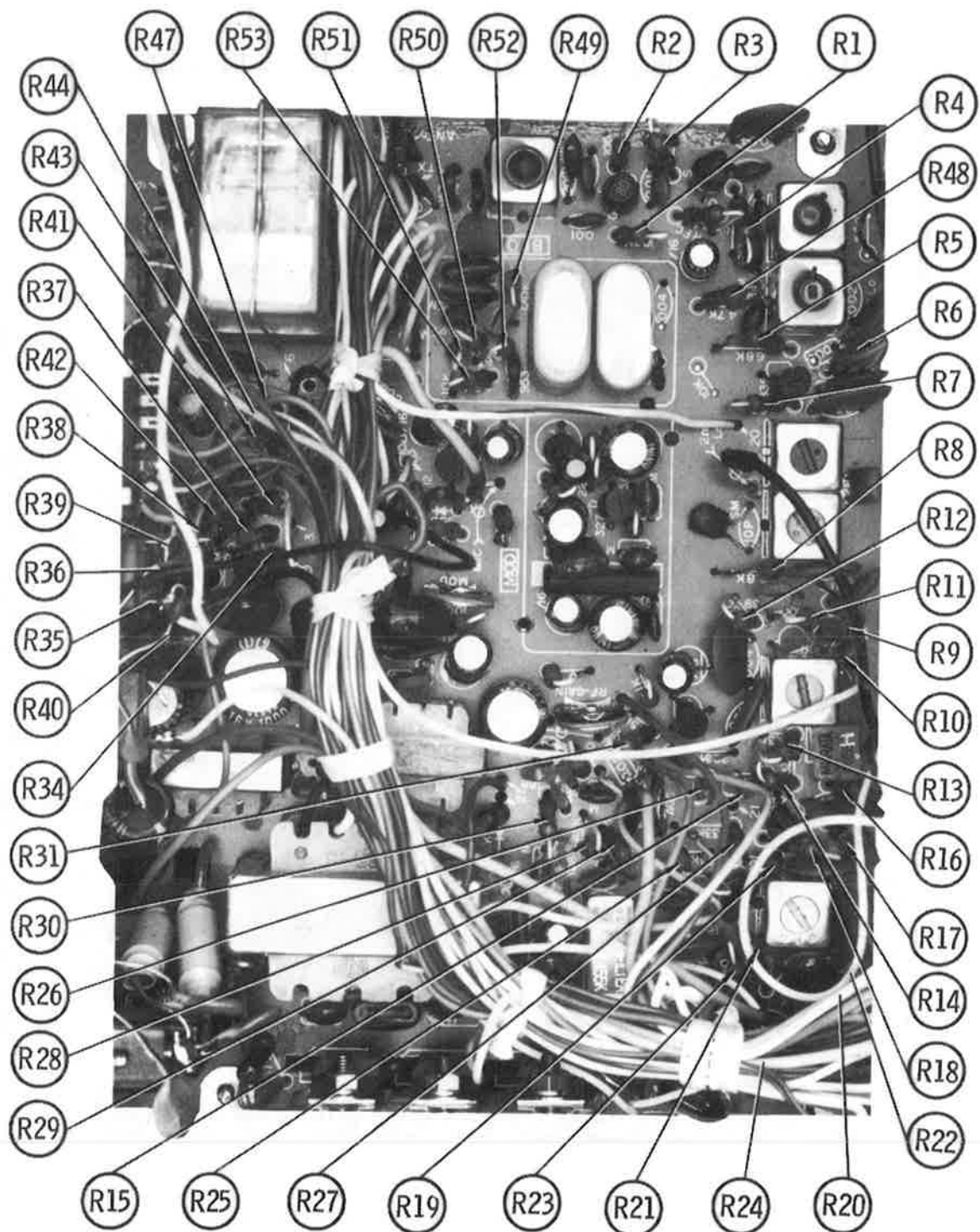
MAIN BOARD



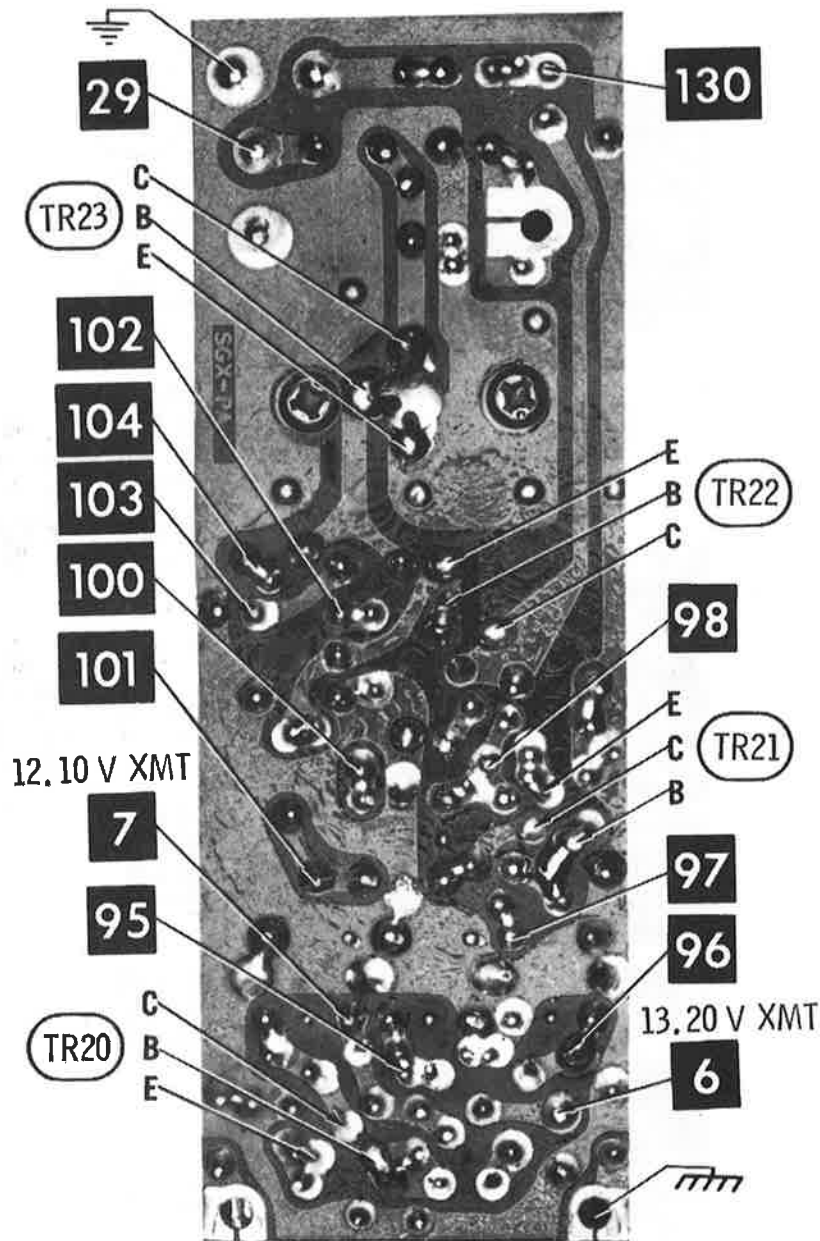
CHASSIS - BOTTOM



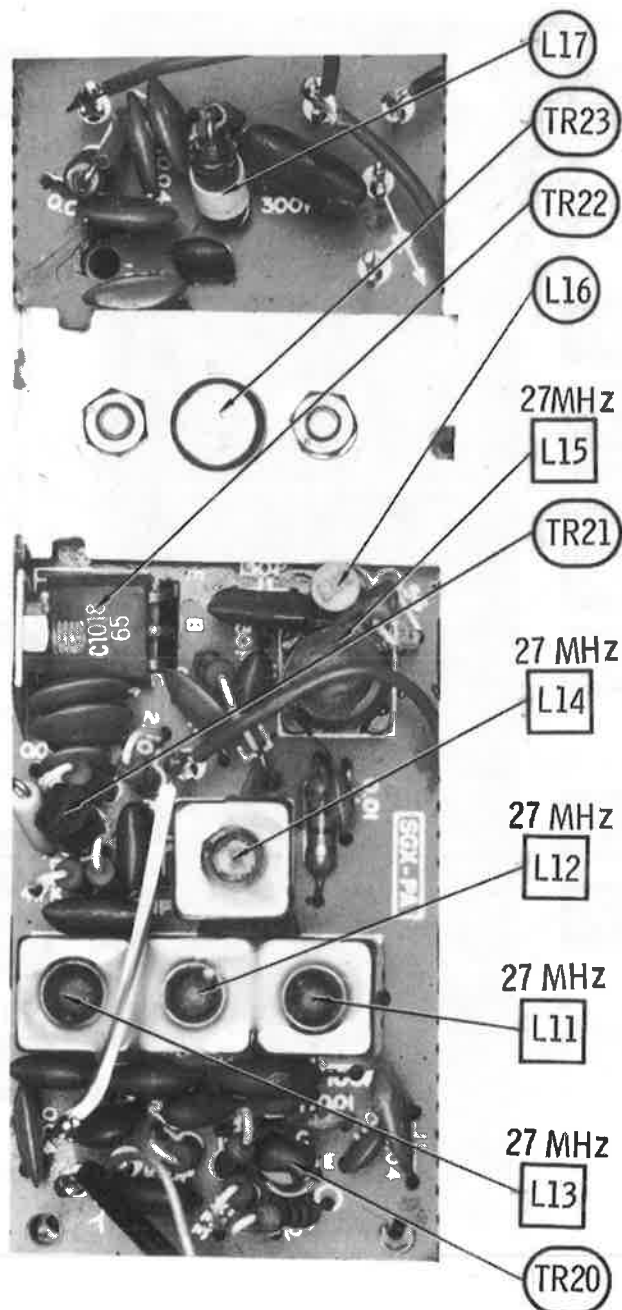
CHASSIS - BOTTOM



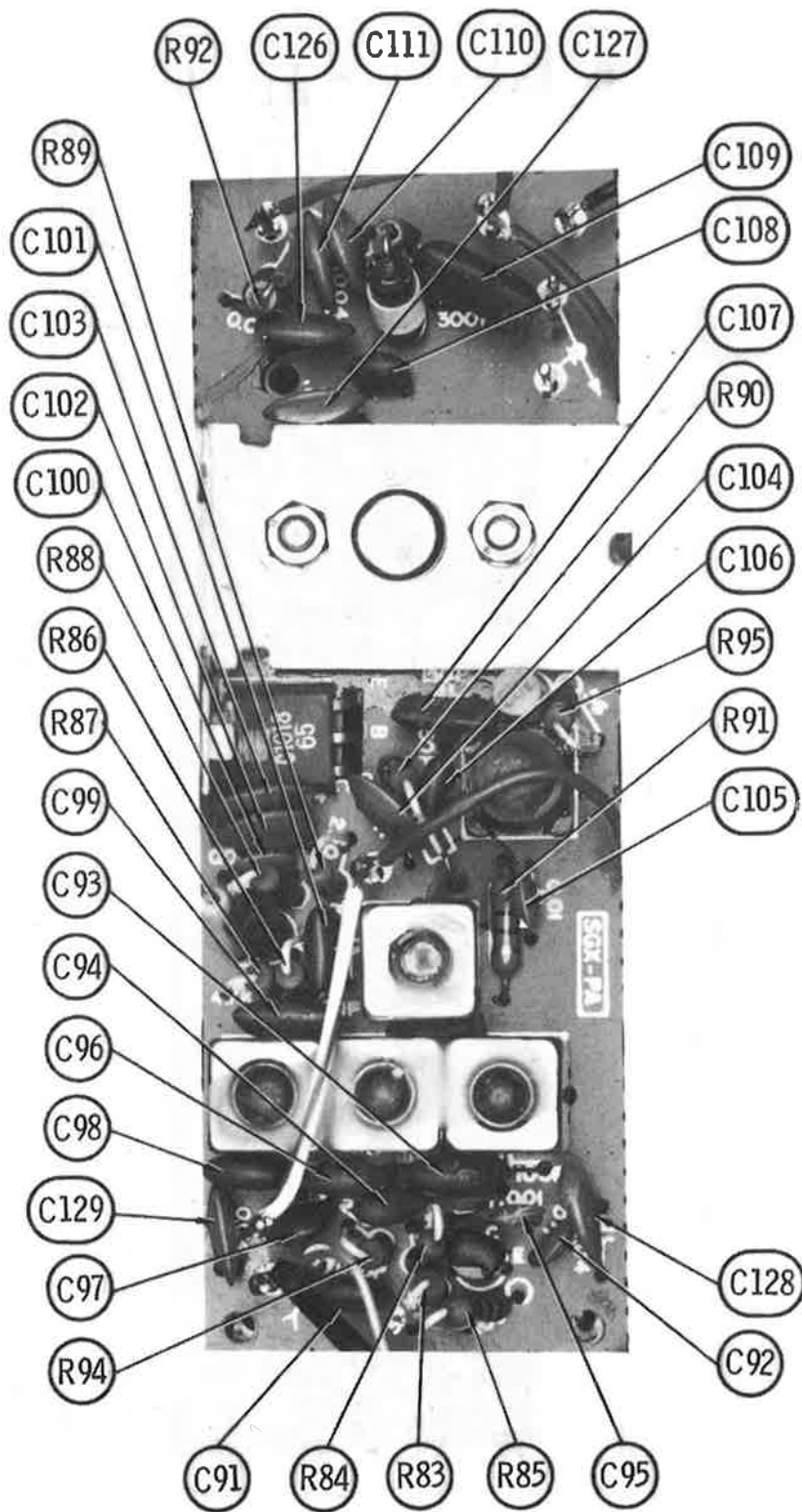
MAIN BOARD



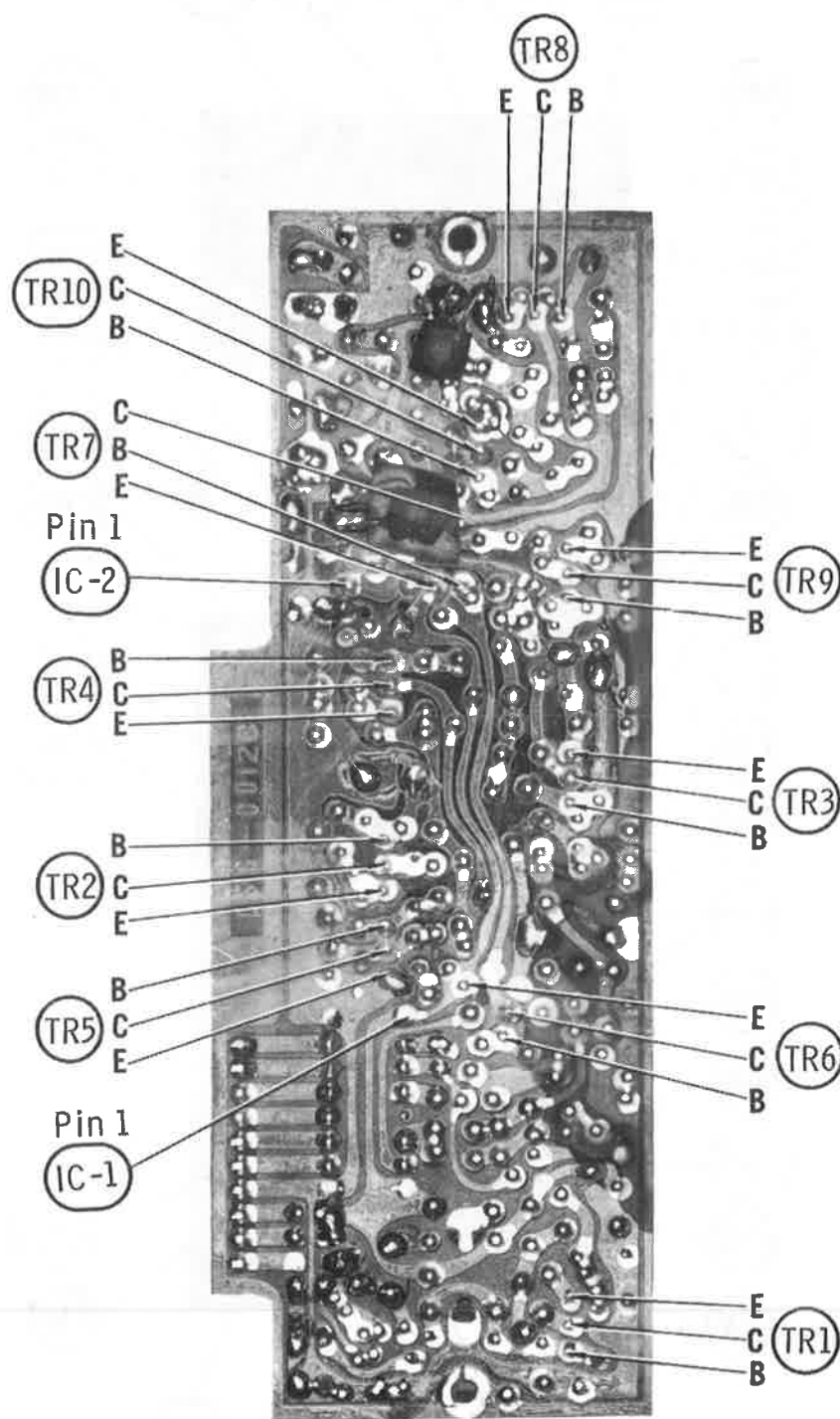
XMT BOARD



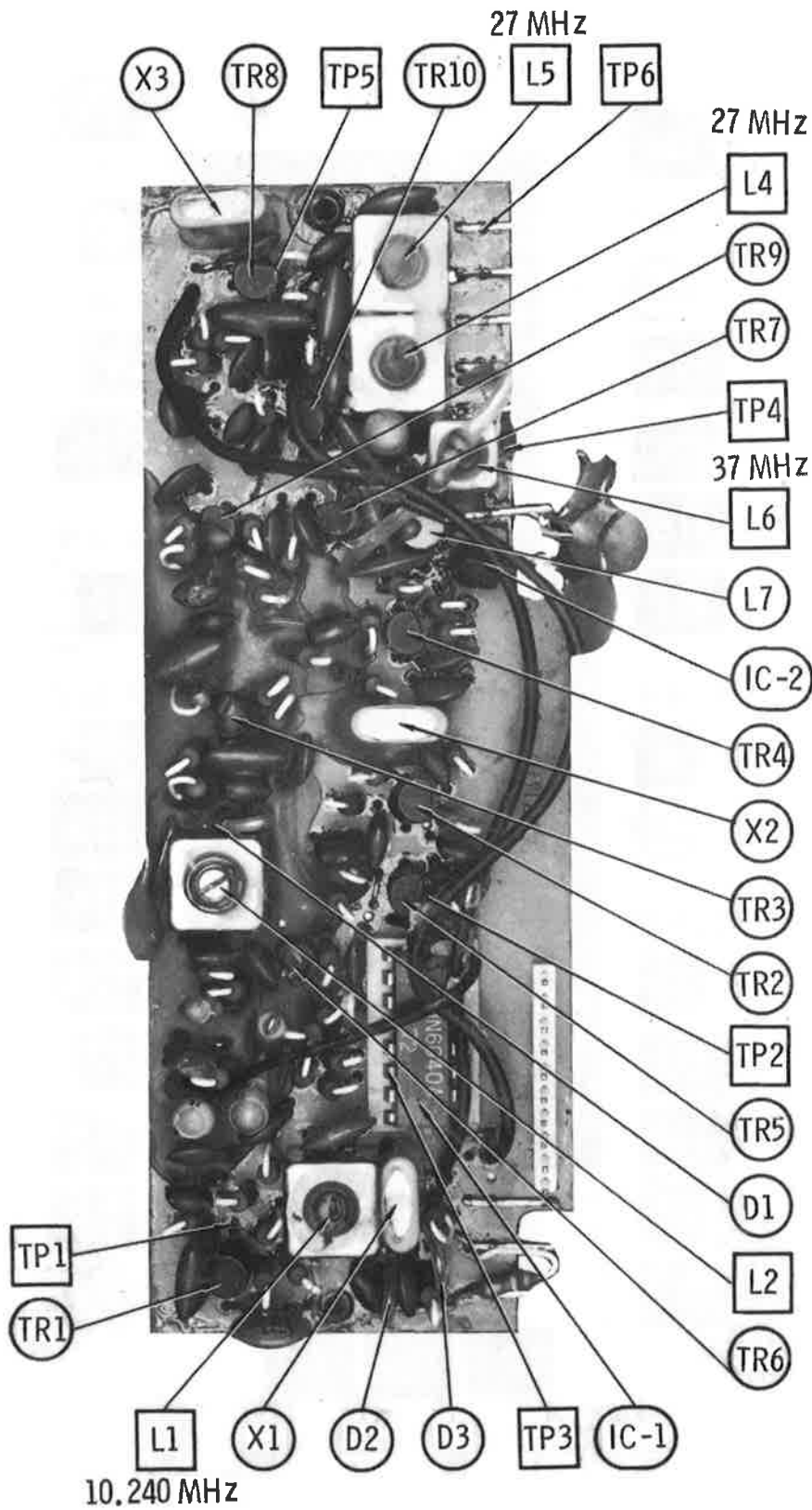
XMT BOARD



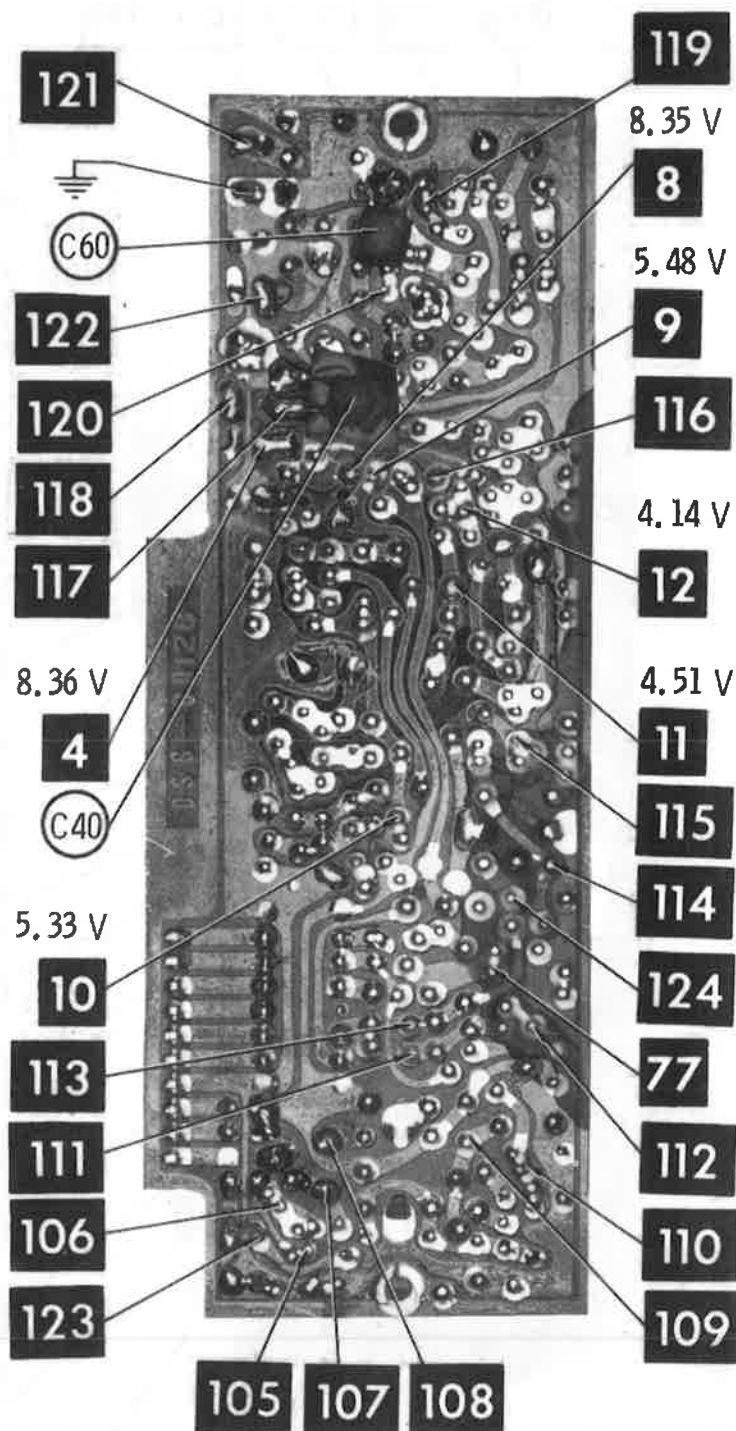
XMT BOARD



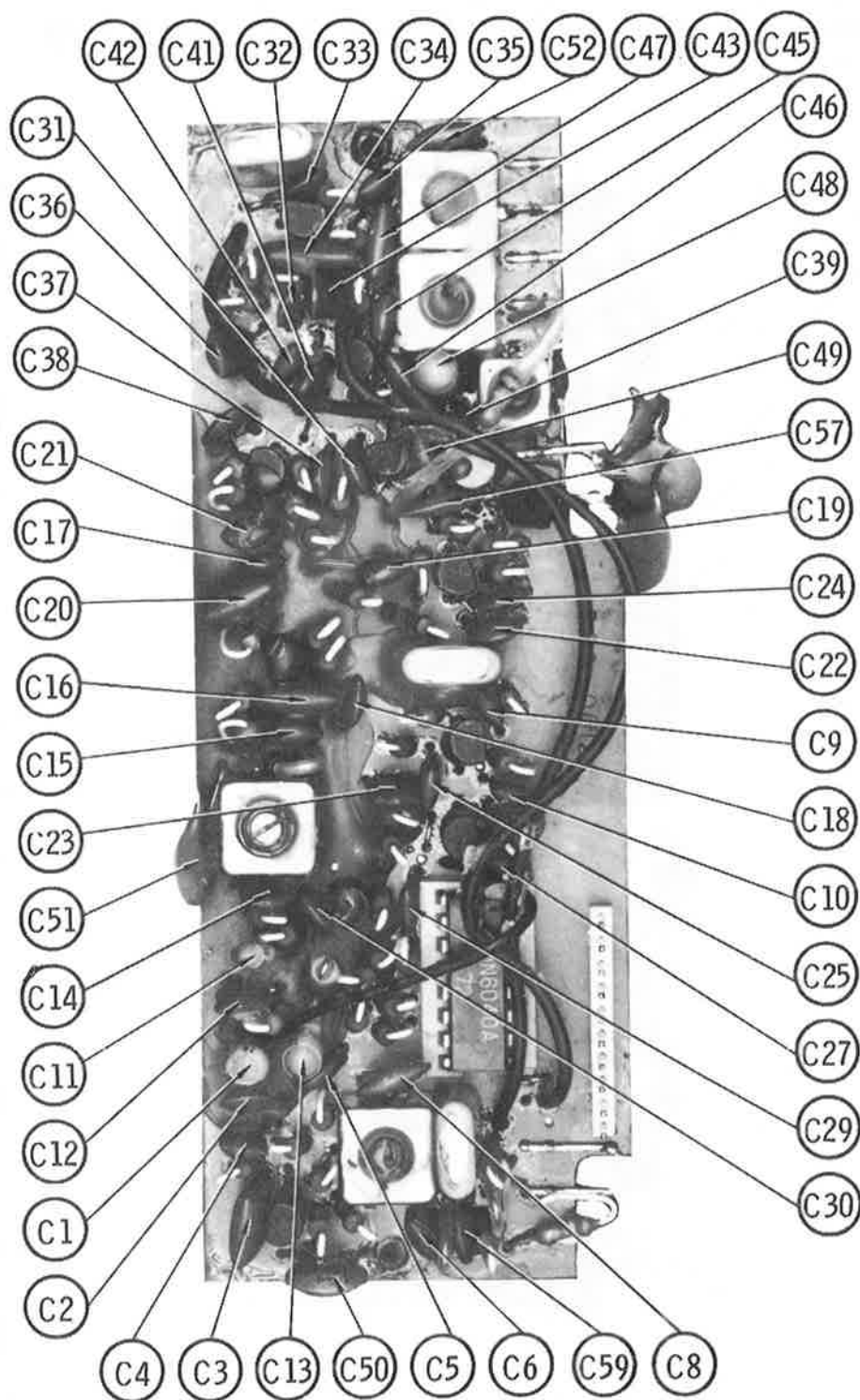
PLL BOARD



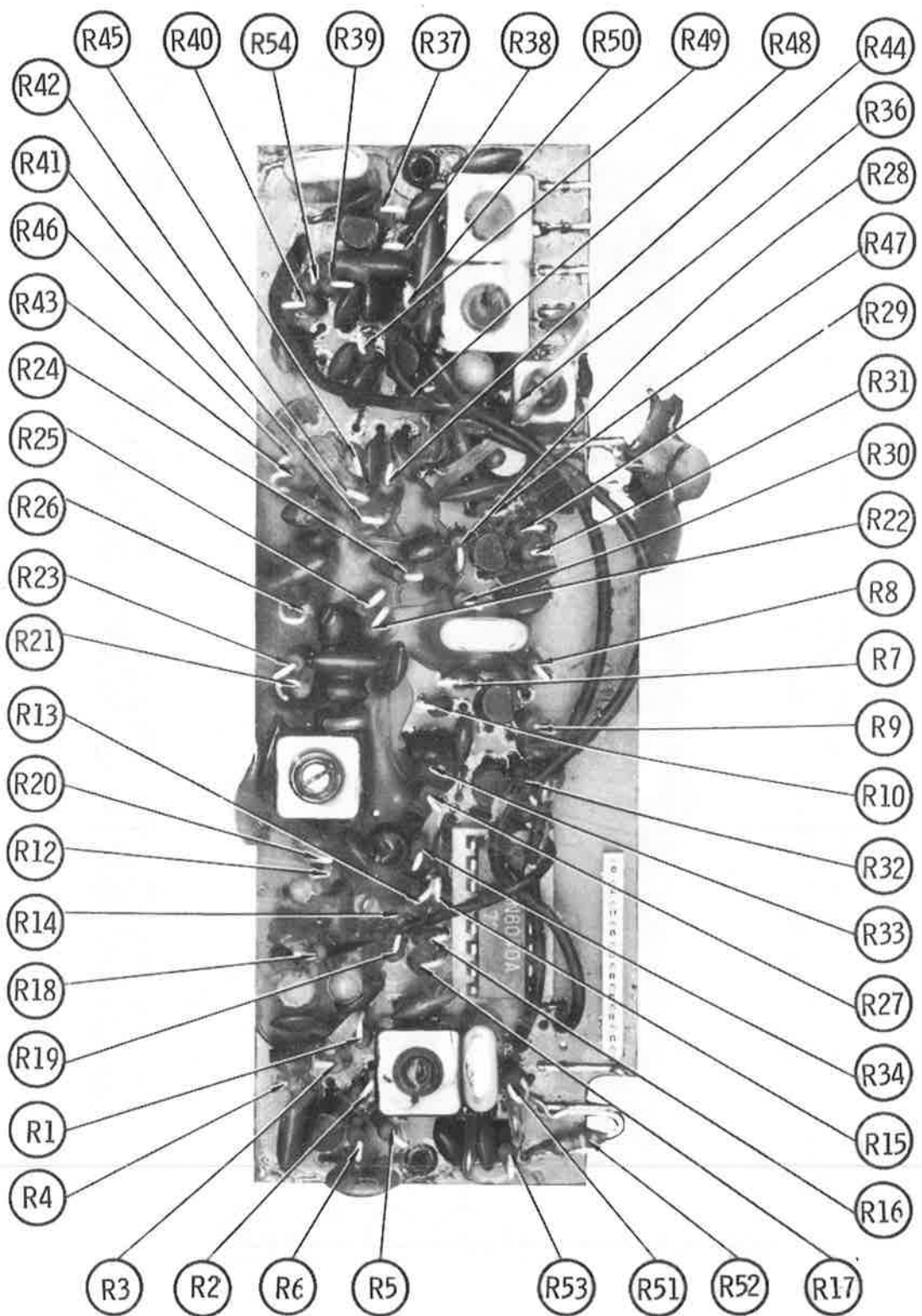
PLL BOARD



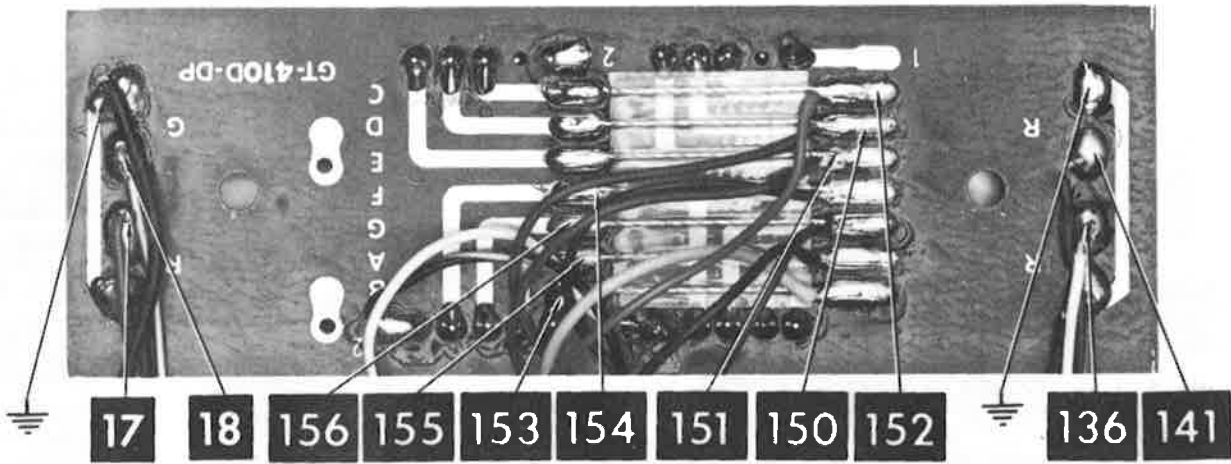
PLL BOARD



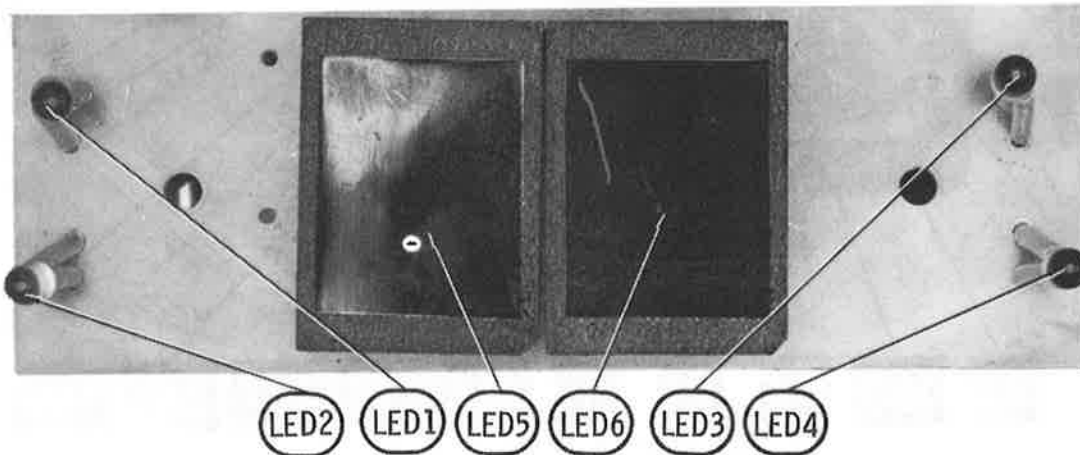
PLL BOARD



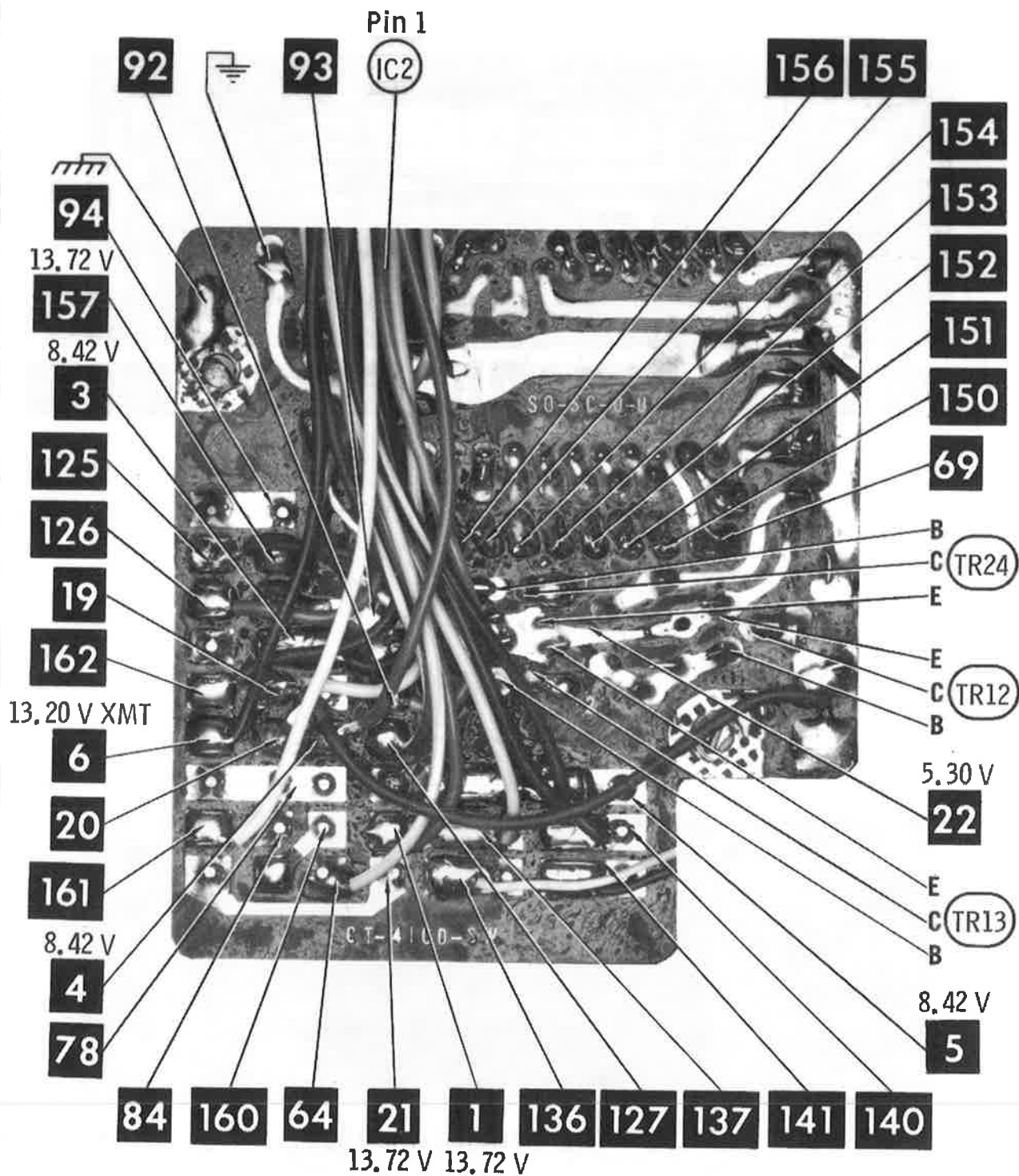
PLL BOARD



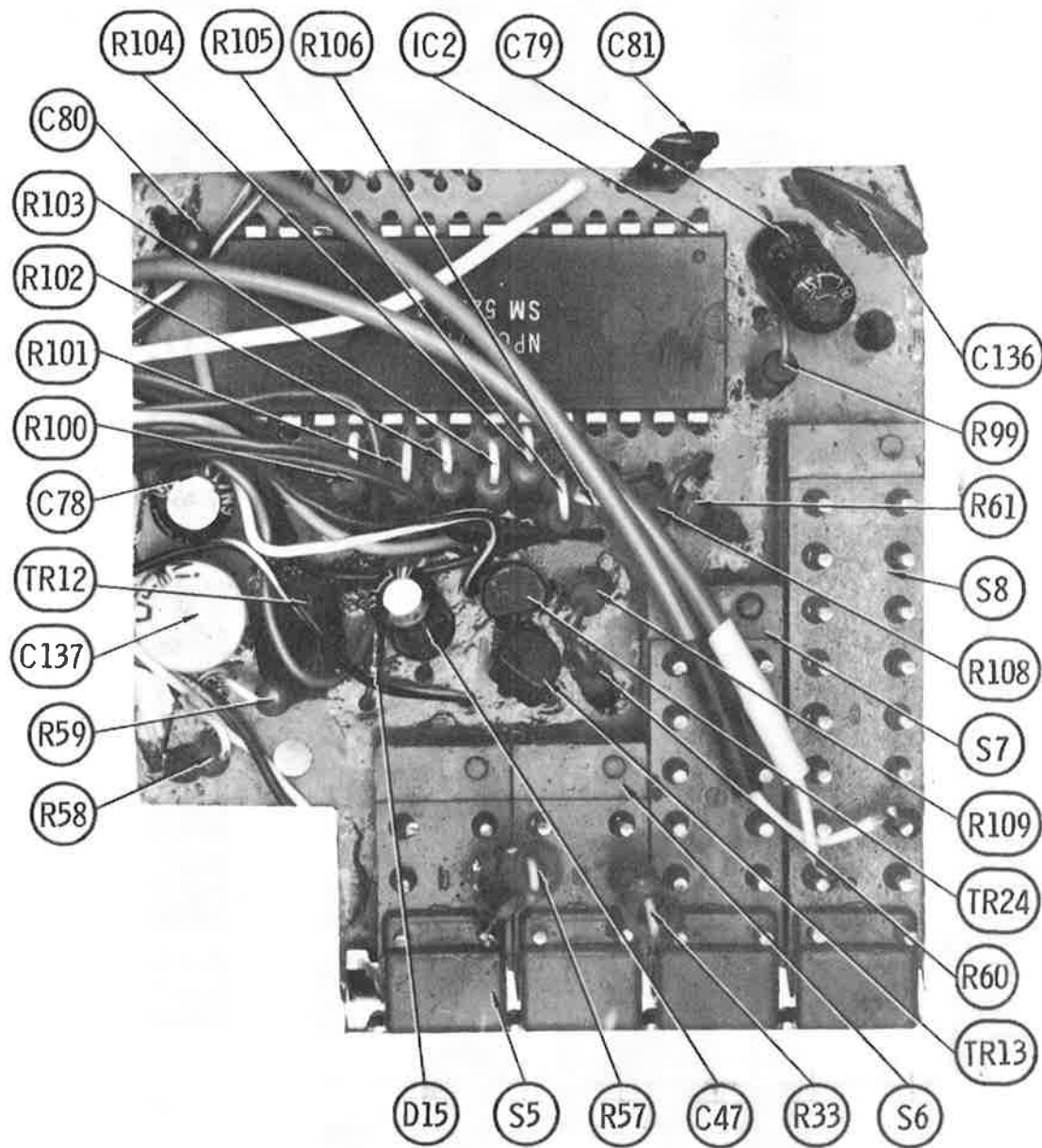
ROBYN MODEL GT-410D



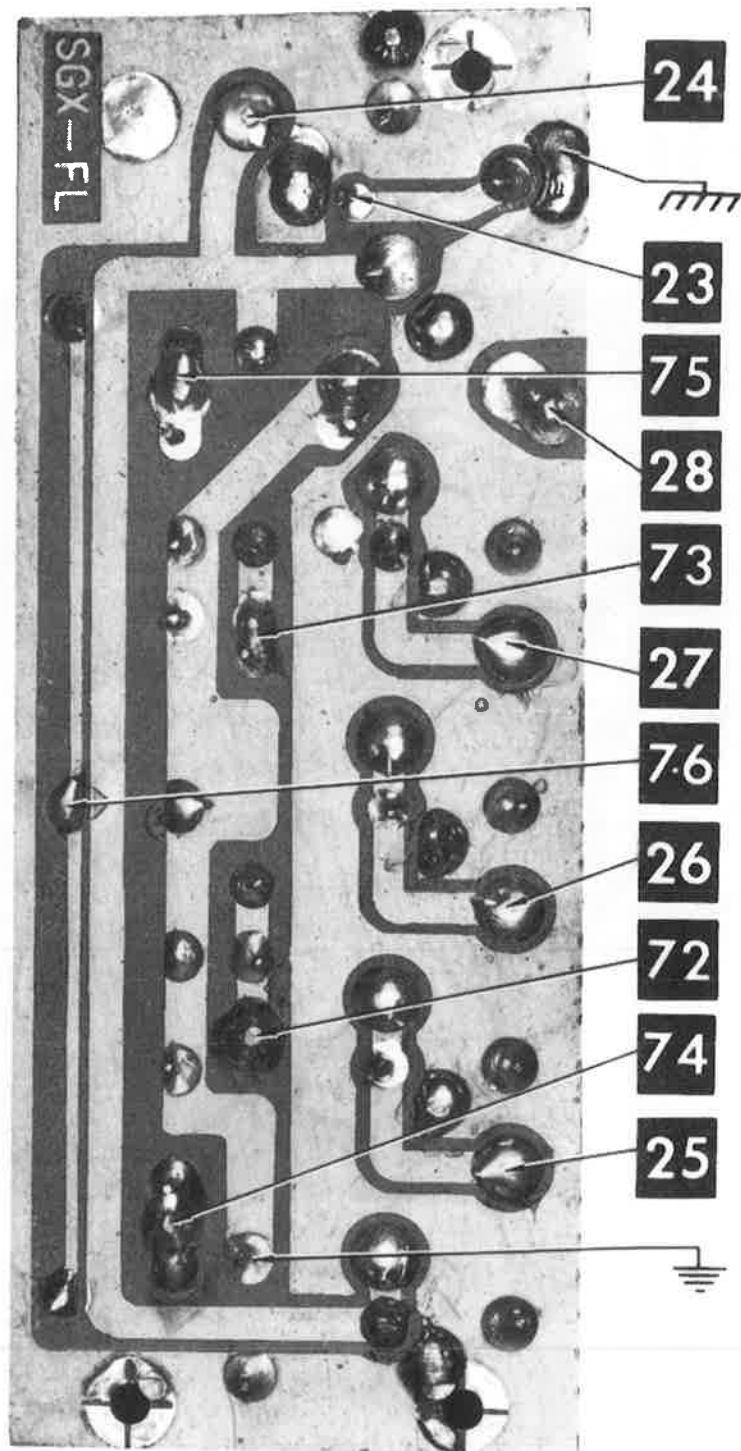
CH. READOUT BOARD



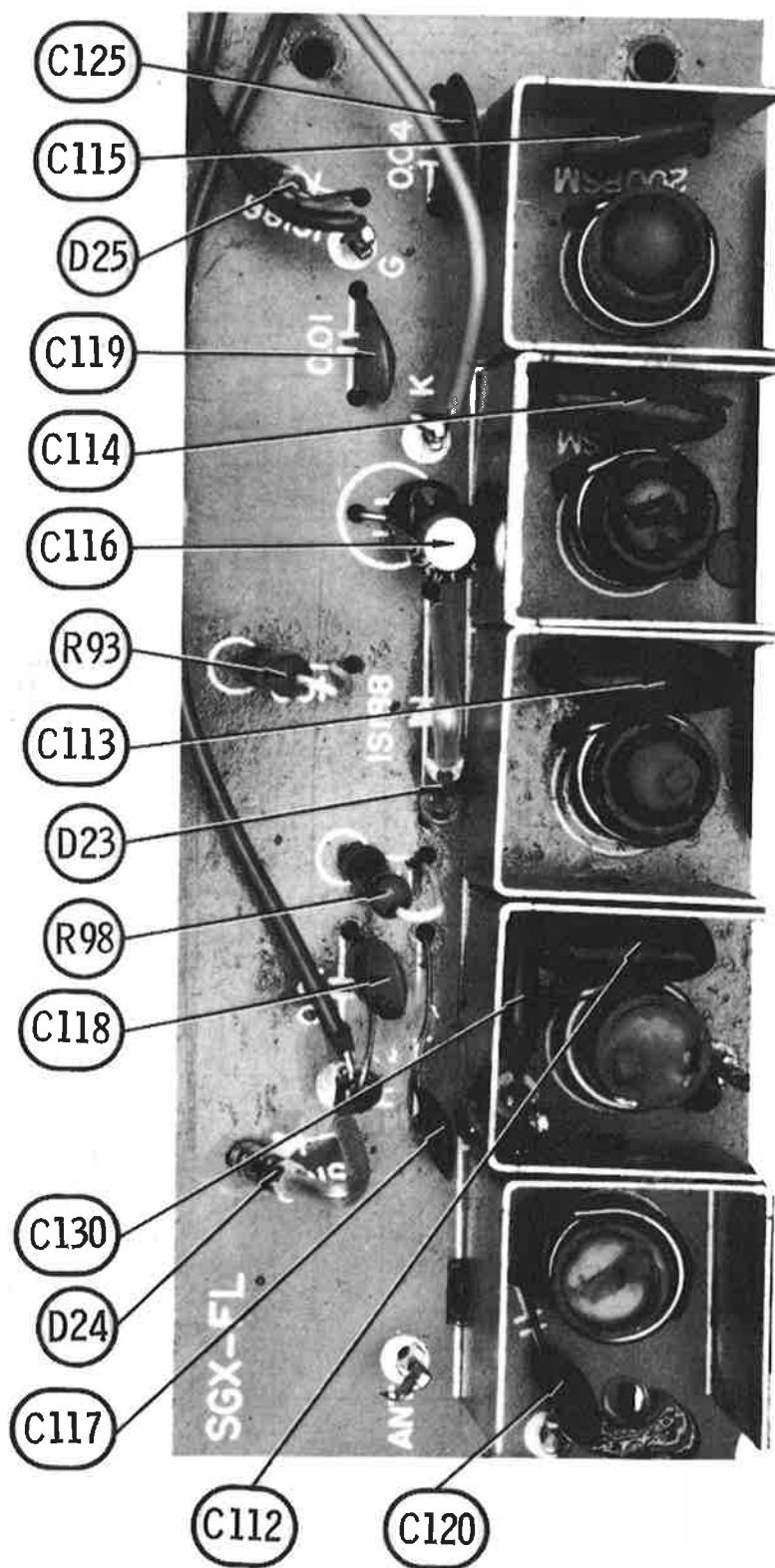
SCAN-SWITCH BOARD



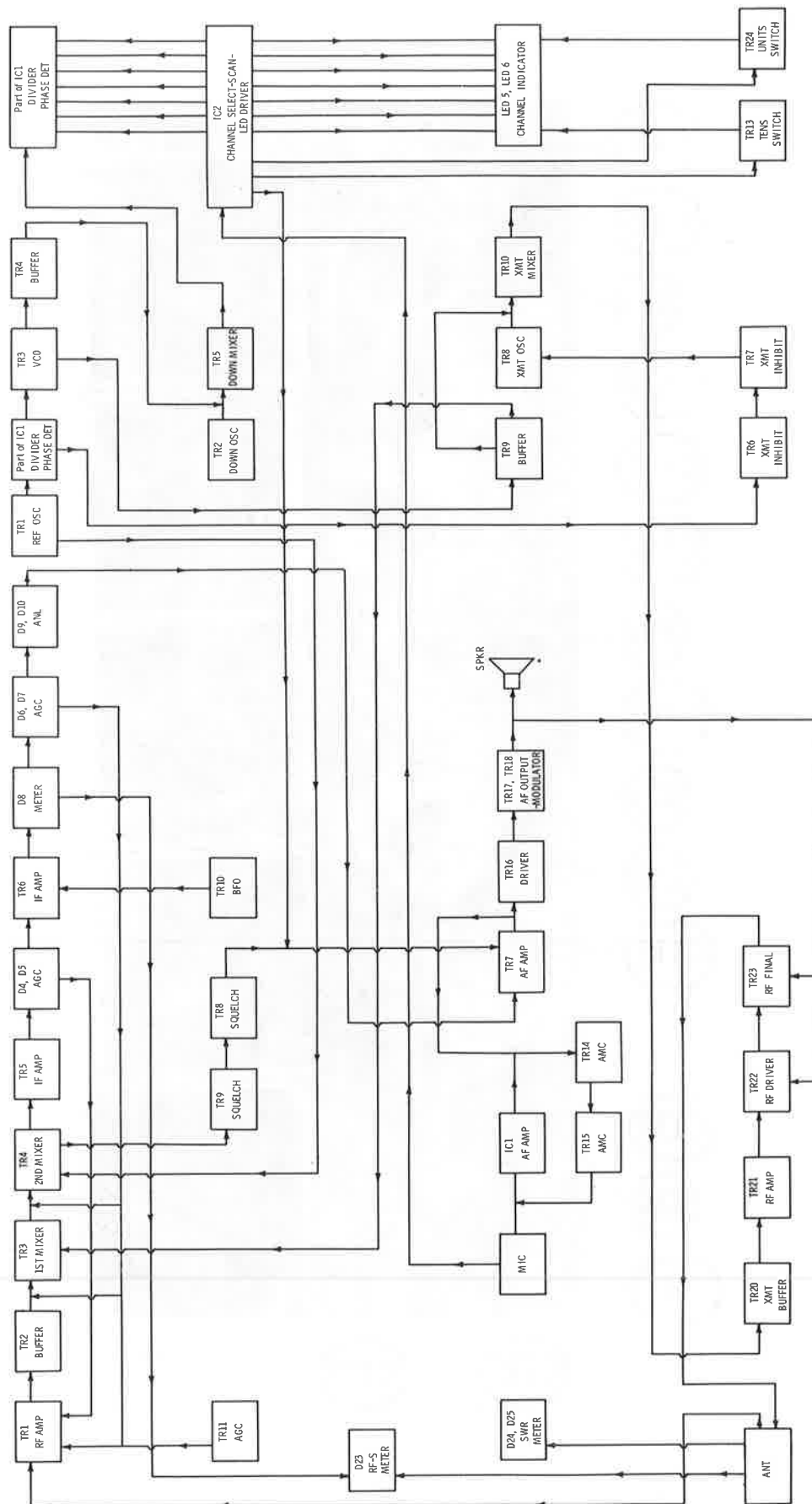
SCAN-SWITCH BOARD



ANT. BOARD



ANT. BOARD



BLOCK DIAGRAM

PARTS LIST AND DESCRIPTION

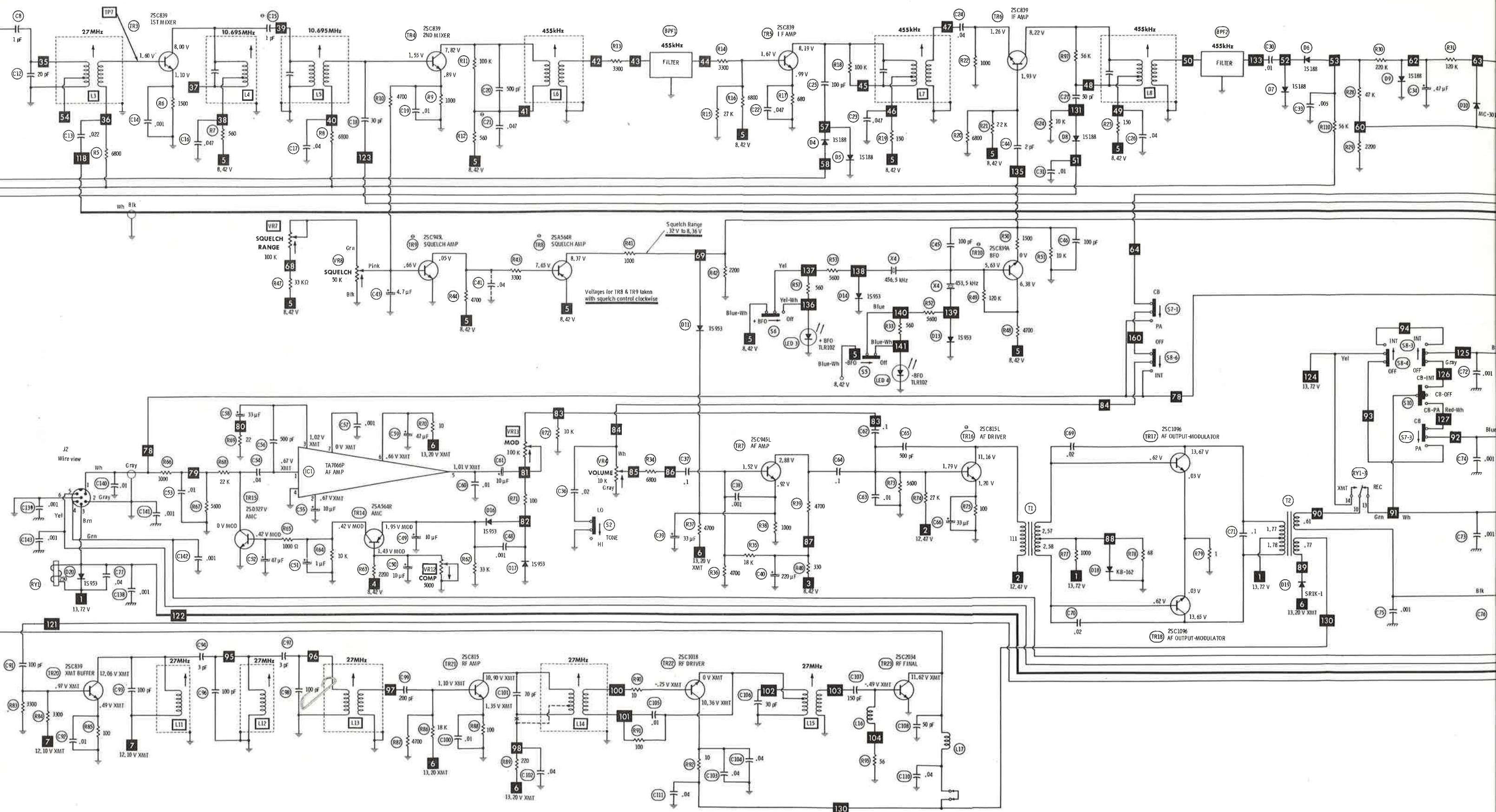
(When ordering parts, state Model, Part Number, and Description.)

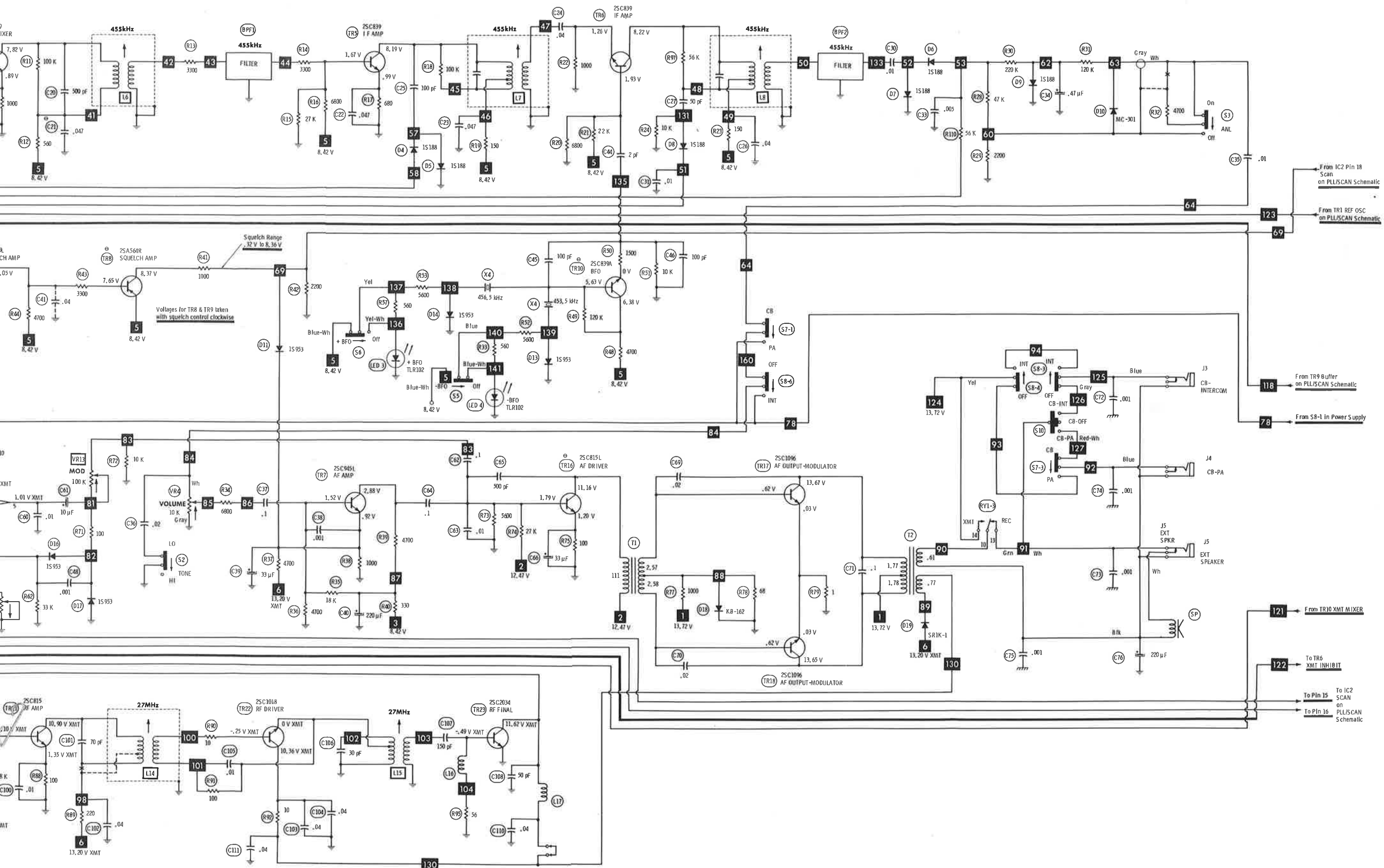
WIRING DATA

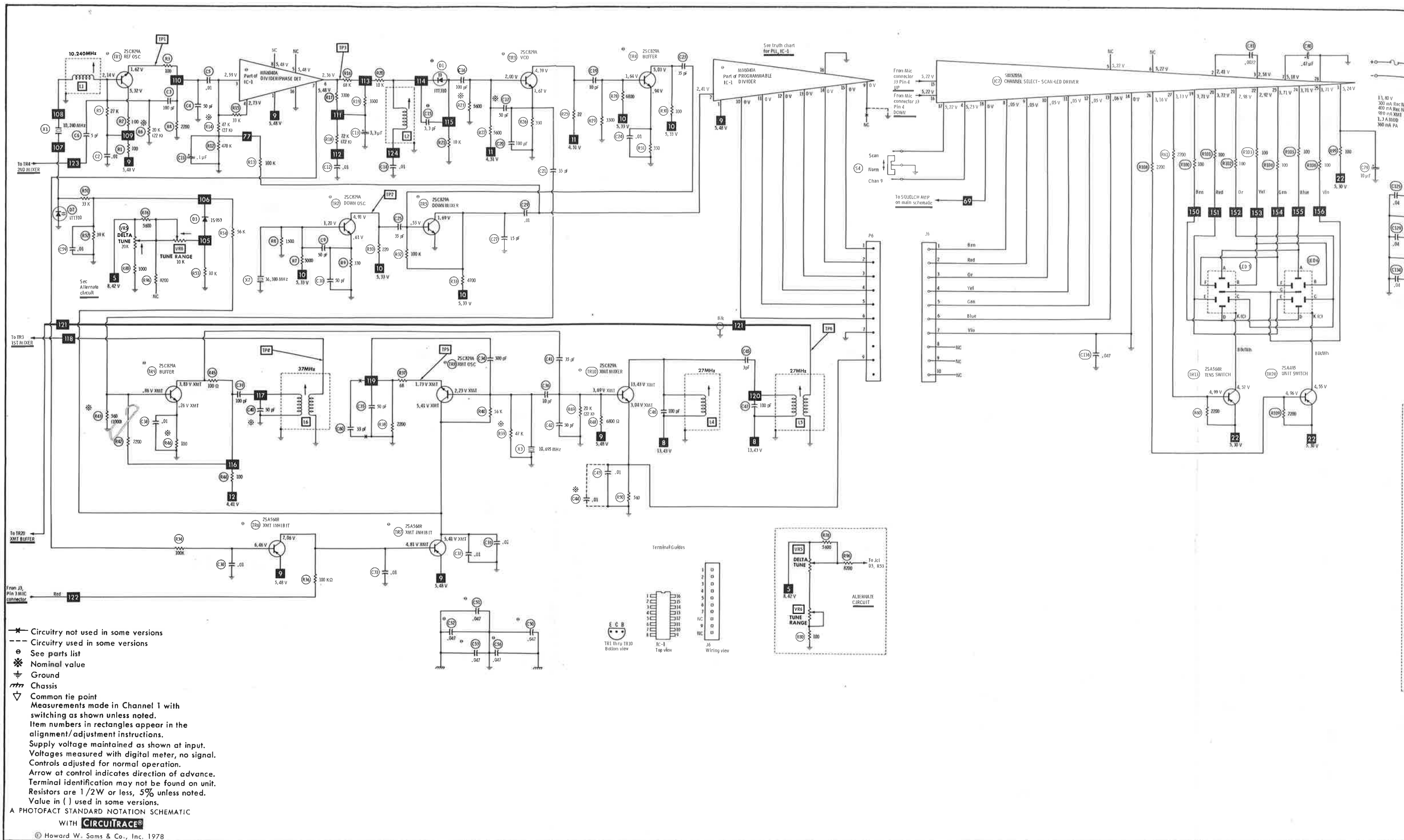
General-use Hook-up Wire (available in 5 colors)	BELDEN No. 8523	Coiled Microphone Cable	
Shielded Hook-up Wire (spiral wrapped)	BELDEN No. 8421	3-conductor (1 shielded)	23AWG BELDEN No. 9471 (5')
(braided)	BELDEN No. 8401		BELDEN No. 8497 (6')
Speaker Cable (available in 4 colors)	BELDEN No. 8782		BELDEN No. 9472 (7-1/2')
Bonding Strap	BELDEN No. 8672	28AWG BELDEN No. 9466 (6')	
AC Power Cord	(6') BELDEN No. 17106	31AWG BELDEN No. 9468 (10')	
	(9') BELDEN No. 17109	4-conductor (unshielded) 23AWG BELDEN No. 8415 (6')	
		5-conductor (1 shielded) 28AWG BELDEN No. 9467 (6')	
			BELDEN No. 9465 (7-1/2')

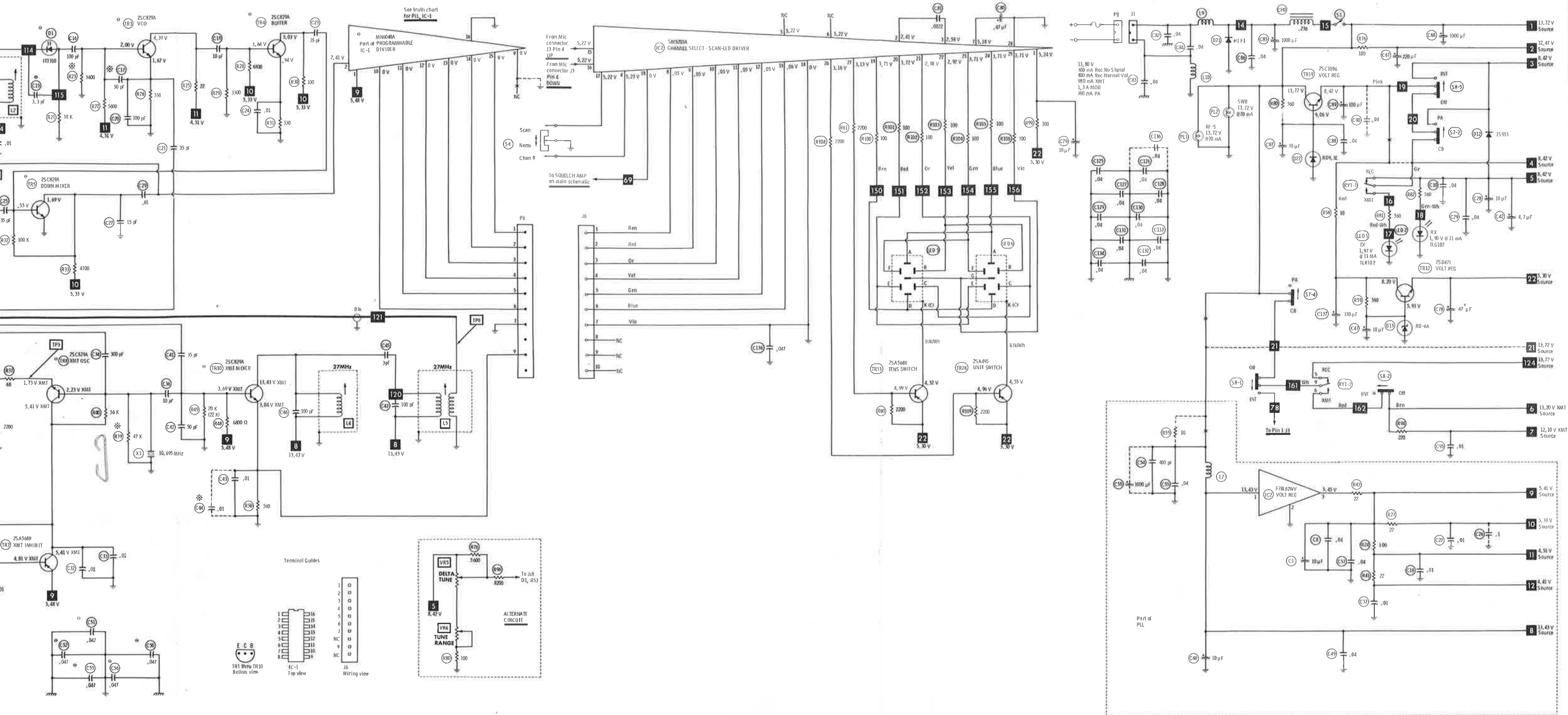
SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA										ZENITH PART No.
			GENERAL ELECTRIC PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.		
MAIN BOARD													
D1	1S953	DSS953	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062		
D2	1S953	DSS953	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062		
D3	1S953	DSS953	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062		
D4	1S188	DSS188	1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430	
D5	1S188	DSS188	1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430	
D6	1S188	DSS188	1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430	
D7	1S188	DSS188	1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430	
D8	1S188	DSS188	1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430	
D9	1S188	DSS188	1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430	
D10	MC-301	DAC301	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062		
D11	1S953	DSS953	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062		
D12	1S953	DSS953	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062		
D13	1S953	DSS953	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062		
D14	1S953	DSS953	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062		
D15	RD-6A	DZ0601	GEZD-5.6	ZB5.6A	HEPZ0407	RE 107	SK3057	RT-236	ECG136	1N4734A	WEP1104		
D16	1S953	DSS953	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062		
D17	1S953	DSS953	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062		
D18	KB-162	DEB162		PTC301		RE 250	SK3463		ECG601				
D19	SR1K-1	DR1100	GE-504A	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116	1N4004	WEP156	212-76	
D20	1S953	DSS953	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062		
D21	HIFI1	DR3100	GE-504A	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116	1N4004*	WEP156	212-76	
D22	RD9.1E	DZ0910	GEZD-9.1	ZB9.1B		RE 114		RT-240	ECG139A	1N4739A	WEP1109	103-272	
D23	1S188	DSS188	1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430	
D24	1S188	DSS188	1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430	
D25	1S188	DSS188	1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430	
IC1	TA7066P	NA066F											
IC2	SM5205A	NC205A											
TR1	2SK19GR	QF19GR	GE-FET-2	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312			ZEN-123	
	2SK19	QF19GR	GE-FET-2	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312			ZEN-123	
TR2	2SK19GR	QF19GR	GE-FET-2	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312			ZEN-123	
	2SK19	QF19GR	GE-FET-2	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312			ZEN-123	
TR3	2SC839	QSC839	GE-61*	PTC132*	HEPS0015*	RE 13*	SK3444*	RT-308	ECG123A*	2SC839	WEP736*	ZEN-120	
TR4	2SC839	QSC839	GE-61*	PTC132*	HEPS0015*	RE 13*	SK3444*	RT-308	ECG123A*	2SC839	WEP736*	ZEN-120	
TR5	2SC839	QSC839	GE-61*	PTC132*	HEPS0015*	RE 13*	SK3444*	RT-308	ECG123A*	2SC839	WEP736*	ZEN-120	
TR6	2SC839	QSC839	GE-61*	PTC132*	HEPS0015*	RE 13*	SK3444*	RT-308	ECG123A*	2SC839	WEP736*	ZEN-120	
TR7	2SC945L	QSC945	GE-212	PTC121*	HEPS0015*	RE 192	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000	
	2SC945	QSC945	GE-212	PTC121*	HEPS0015*	RE 192	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000	
TR8	2SA564R	QTA564	GE-65	PTC103*	HEPS0019*	RE 193	SK3114	RT-303	ECG234	2SA564	WEP564	121-879	
	2SA564	QTA564	GE-65	PTC103*	HEPS0019*	RE 193	SK3114	RT-303	ECG234	2SA564	WEP564	121-879	
TR9	2SC945L	QSC945	GE-212	PTC121*	HEPS0015*	RE 192	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000	
	2SC945	QSC945	GE-212	PTC121*	HEPS0015*	RE 192	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000	
TR10	2SC839A	QSC839	GE-61*	PTC132*	HEPS0015*	RE 13*	SK3444*	RT-308	ECG123A*	2SC839	WEP736*	ZEN-120	
	2SC839	QSC839	GE-61*	PTC132*	HEPS0015*	RE 13*	SK3444*	RT-308	ECG123A*	2SC839	WEP736*	ZEN-120	
TR11	2SC945L	QSC945	GE-212	PTC121*	HEPS0015*	RE 192	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000	
	2SC945	QSC945	GE-212	PTC121*	HEPS0015*	RE 192	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000	
TR12	2SD471	QSD471	GE-268	PTC144*	HEPS3001*	RE 196*	SK3124	RT-114*	ECG289		WEP910	121-1014	
	2SD1449	QSD1449	GE-63*	PTC178		RE 196*	SK3137		ECG192*		WEP753*	121-1014	
TR13	2SA564R	QTA564	GE-65	PTC103*	HEPS0019*	RE 193	SK3114	RT-303	ECG234	2SA564	WEP564	121-879	
	2SA495	QTA495	GE-221*	PTC103*	HEPS0013*	RE 26*	SK3466	RT-303	ECG159*	2SA495	WEP495	ZEN-106	
TR14	2SA564R	QTA564	GE-65	PTC103*	HEPS0019*	RE 193	SK3114	RT-303	ECG234	2SA564	WEP564	121-879	
	2SA564	QTA564	GE-65	PTC103*	HEPS0019*	RE 193	SK3114	RT-303	ECG234	2SA564	WEP564	121-879	
TR15	2SD327V	QSD327	GE-10	PTC121	HEPS0015	RE 13	SK3122	RT-105	ECG123A		WEP736	121-29000	
	2SD327	QSD327	GE-10	PTC121	HEPS0015	RE 13	SK3122	RT-105	ECG123A		WEP736	121-29000	
TR16	2SC815L	QSC815	GE-210*	PTC121*	HEPS0015*	RE 13*	SK3038*	RT-302	ECG123A*	2SC815	WEP736*	121-1014	
	2SC815	QSC815	GE-210*	PTC121*	HEPS0015*	RE 13*	SK3038*	RT-302	ECG123A*	2SC815	WEP736*	121-1014	
TR17	2SC1096	QSC1096	GE-28	PTC110	HEPS3041	RE 42	SK3197	RT-166	ECG186A	2SC1096	WEP1096		
TR18	2SC1096	QSC1096	GE-28	PTC110	HEPS3041	RE 42	SK3197	RT-166	ECG186A	2SC1096	WEP1096		
TR19	2SC1096	QSC1096	GE-28	PTC110	HEPS3041	RE 42	SK3197	RT-166	ECG186A	2SC1096	WEP1096		
TR20	2SC839	QSC839	GE-61*	PTC132*	HEPS0015*	RE 13*	SK3444*	RT-308	ECG123A*	2SC839	WEP736*	ZEN-120	
TR21	2SC815L	QSC815	GE-210*	PTC121*	HEPS0015*	RE 13*	SK3038*	RT-302	ECG123A*	2SC815	WEP736*	121-1014	
	2SC815	QSC815	GE-210*	PTC121*	HEPS0015*	RE 13*	SK3038*	RT-302	ECG123A*	2SC815	WEP736*	121-1014	
TR22	2SC1018	(14) QSC1018	GE-236	PTC192		RE 212	SK3298	RT-143	ECG299	2SC1018	WEP1018		
TR23	2SC2034	(15) QSC2034	GE-46	PTC176		RE 202	SK3049	RT-307	ECG234		WEP224		
	2SC756	QSC756	GE-46	PTC158		RE 206		RT-306F	ECG282		WEP909		
TR24	2SA495	QTA495	GE-221*	PTC103*	HEPS0013*	RE 26*	SK3466	RT-303	ECG159*	2SA495	WEP495	ZEN-106	
PLL BOARD													
D1	ITT310	DCT310	GE-90		HEPR2503			RT-262	ECG614		WEP200	ZEN-453	
D2	ITT310	DCT310	GE-90		HEPR2503			RT-262	ECG614		WEP200	ZEN-453	
D3	1S953	DSS953	GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062		
IC1	MN6040A	NC6040											
	SM5104F	NC5104											
	SM5104G	NC5104											
IC2	MN5104	NC5104											
	F78L62WV	ND62WV											
	MC78L06AV	ND06AV											
	F78L06	ND8L06											
TR1	UA78L062WV	ND62WV											
	2SC829A	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127	
	2SC829	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127	
TR2	2SC710	QSC710	GE-211*	PTC132	HEPS0016*	RE 13*	SK3444*	RT-308*	ECG123A*	2SC710	WEP710	ZEN-114	
	2SC829A	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127	
	2SC829	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127	
TR3	2SC710	QSC710	GE-211*	PTC132	HEPS0016*	RE 13*	SK3444*	RT-308*	ECG123A*	2SC710	WEP710	ZEN-114	
	2SC829A	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127	
	2SC829	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127	
TR4	2SC710	QSC710	GE-211*	PTC132	HEPS0016*	RE 13*	SK3444*	RT-308*	ECG123A*	2SC710	WEP710	ZEN-114	
	2SC829A	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127	
	2SC829	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127	
	2SC710	QSC710	GE-211*	PTC132	HEPS0016*	RE 13*	SK3444*	RT-308*	ECG123A*	2SC710	WEP710	ZEN-114	









PARTS LIST AND DESCRIPTION (CONTINUED)

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

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

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA									
			GENERAL ELECTRIC PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
TR5	2SC829A	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127
	2SC829	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127
TR6	2SC710	QSC710	GE-211*	PTC132	HEPS0016*	RE 13*	SK3444*	RT-308*	ECG123A*	2SC710	WEP710	ZEN-114
	2SA564R	QTA564	GE-65	PTC103*	HEPS0019*	RE 193	SK3114	RT-303	ECG234	2SA564	WEP564	121-879
TR7	2SA564	QTA564	GE-65	PTC103*	HEPS0019*	RE 193	SK3114	RT-303	ECG234	2SA564	WEP564	121-879
	2SA733	QTA733	GE-48	PTC103*	HEPS0019*	RE 219	SK3138	RT-303	ECG294	2SA733	WEP916	121-879
TR8	2SA564R	QTA564	GE-65	PTC103*	HEPS0019*	RE 193	SK3114	RT-303	ECG234	2SA564	WEP564	121-879
	2SA564	QTA564	GE-65	PTC103*	HEPS0019*	RE 193	SK3114	RT-303	ECG234	2SA564	WEP564	121-879
TR9	2SA733	QTA733	GE-48	PTC103*	HEPS0019*	RE 219	SK3138	RT-303	ECG294	2SA733	WEP916	121-879
	2SC829A	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127
TR10	2SC829	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127
	2SC710	QSC710	GE-211*	PTC132	HEPS0016*	RE 13*	SK3444*	RT-308*	ECG123A*	2SC710	WEP710	ZEN-114
TR10	2SC829A	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127
	2SC829	QSC829	GE-20*	PTC121*	HEPS0015*	RE 9*	SK3444	RT-308	ECG229*	2SC829	WEP829	ZEN-127
TR10	2SC710	QSC710	GE-211*	PTC132	HEPS0016*	RE 13*	SK3444*	RT-308*	ECG123A*	2SC710	WEP710	ZEN-114

* Lead configuration may vary from original. (14) 4.0 Watt @ 1.0 Amp. (15) 12 Watt @ 2.0 Amp.

ELECTROLYTIC CAPACITORS

		REPLACEMENT DATA				
ITEM No.	RATING	MFGR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
MAIN BOARD						
C4	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C28	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C34	.47 16V			TDC474M050EL	QDT1-19	SD50-R479
C39	33 16V		PC30-25	VTT33025	QV1-63	EV-1325
C40	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
C42	4.7 16V		PC5-50	VTT4R7B50	QV1-27	EV-1319
C43	4.7 16V		PC5-50	VTT4R7B50	QV1-27	EV-1319
C47	10 10V		PC10-25	VTT10B25	QV1-41	EV-1222
C49	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C50	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C51	1 16V		PC1-50	VTT1A50	QV1-9	EV-1315
C52	47 16V		PC50-16	VTT47D16	QV1-73	EV-1226
C55	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C58	33 16V		PC30-25	VTT33025	QV1-63	EV-1325
C59	47 16V		PC50-16	VTT47D16	QV1-73	EV-1226
C61	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C66	33 16V		PC30-25	VTT33025	QV1-63	EV-1325
C67	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
C68	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1260
C76	220 16V		WBR250-16	TT15X200A	QE1-479	TVA-1160.6
C78	47 6.3V		PC50-16	VTT47D16	QV1-73	EV-1226
C79	10 10V		PC10-25	VTT10B25	QV1-41	EV-1222
C80	.47 16V			TDC474M050EL	QDT1-19	SD50-R479
C85	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1260
C87	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C89	100 16V		PC100-16	VTT100F16	QV1-95	EV-1230
C116	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C137	330 10V		WBR300-35	VTT330G10	QV1-131	EV-1145
PLL BOARD						
C1	10 10V			TDC106M025FL	QDT1-64	SD25-109
C11	.1 25V			TDC104M050EL	QDT1-2	SD50-R109
C13	3.3 10V			TDC335M015FL	QDT1-41	SD15-3R39
C48	10 16V			TDC106M025FL	QDT1-64	SD25-109
C58	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1260

ROBYN MODEL GT-410D

CAPACITORS

			REPLACEMENT DATA					
ITEM No.	RATING	MFR. PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.		
						Q-LINE	GENERAL LINE	
MAIN BOARD								
C1	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10	
C2	20			CD15ED200J03	SX420	QW1-10	MWA-200	
C3	.01		DC-103	MGP01	TA110	QC2-141	TG-S10	
C5	.01		DC-103	MGP01	TA110	QC2-141	TG-S10	
C6	.04				GP140		5GA-S40	
C7	.01		DC-103	MGP01	TA110	QC2-141	TG-S10	
C8	1			CD15CD010D03		QW1-1	MWA-010	
C9	20			CD15ED200J03	SX420	QW1-10	MWA-200	
C10	.04				GP140		5GA-S40	
C11	.01		DC-103	MGP01	TA110	QC2-141	TG-S10	
C12	20			CD15ED200J03	SX420	QW1-10	MWA-200	
C13	.02		DC-203	MGP02	TA120	QC2-157	TG-S20	
C14	.02		DC-203	MGP02	TA120	QC2-157	TG-S20	
C15	1			CD15CD010D03		QW1-1	MWA-010	
C16	.04				GP140		5GA-S40	
C17	.04				GP140		5GA-S40	
C18	30			CD15ED300J03	SX430	QW1-14	MWA-300	
C19	.01		DC-103	MGP01	TA110	QC2-141	TG-S10	
C20	500			CD15FD511J03	SX351	QW1-43	MWA-511	
C21	.04				GP140		5GA-S40	
C22	.04				GP140		5GA-S40	
C23	.04				GP140		5GA-S40	
C24	.04			DPM56S39	PVC6139		6PS-S39	
C25	100			CD15FD101J03	SX310	QW1-27	MWA-101	
C26	.04				GP140		5GA-S40	
C27	50			CD15ED510J03		QW1-20	MWA-510	
C29	.04				GP140		5GA-S40	
C30	.01		DC-103	MGP01	TA110	QC2-141	TG-S10	
C31	.01		DC-103	MGP01	TA110	QC2-141	TG-S10	
C32	.01		DC-103	MGP01	TA110	QC2-141	TG-S10	
C33	.005			WMF1D5	EWFA250			
C35	.01			WMF1S1	EWFA110	QF1-91	1PB-S10	

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C36	.02			DPMS6S2	PVC612		6PS-S20
C37	.1			DPMS2P1	EWFA010	QF1-215	1PB-P10
C38	.001			DPMS6D1	EWFA210	QF1-1	1PB-D10
C41	.04				GP140		5GA-S40
C44	2			CD15CD010D03		QW1-1	MWA-010
C45	100			CD15FD101J03	SX310	QW1-27	MWA-101
C46	100			CD15FD101J03	SX310	QW1-27	MWA-101
C48	.001		DD-681	GP680	GP368		10TS-T68
C53	.01			WMF1S1	EWFA110		1PB-S10
C54	.04			DPMS6D3	PVC623	QF1-91	6PS-D30
C56	500		DD-501	GP500	GP350		10TS-T50
C57	.001			DPMS6D1	EWFA210	QF1-1	1PB-D10
C60	.01			WMF1S1	EWFA110	QF1-91	1PB-S10
C62	.1			DPMS2P1	EWFA010	QF1-215	1PB-P10
C63	.01			WMF1S1	EWFA110	QF1-91	1PB-S10
C64	.1			DPMS2P1	EWFA010	QF1-215	1PB-P10
C65	500		DD-501	GP500	GP350		10TS-T50
C69	.022			DPMS6S2	PVC612		6PS-S20
C70	.022			DPMS6S2	PVC612		6PS-S20
C71	.1			DPMS2P1	EWFA010	QF1-215	1PB-P10
C72	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C73	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C74	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C75	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C77	.04				GP140		5GA-S40
C81	.0022						
C82	.04				GP140		5GA-S40
C83	.04				GP140		5GA-S40
C84	.04				GP140		5GA-S40
C86	.04				GP140		5GA-S40
C88	.04				GP140		5GA-S40
C90	.04				GP140		5GA-S40
C91	100			CD15FD101J03	SX310	QW1-27	MWA-101
C92	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C93	100			CD15FD101J03	SX310	QW1-27	MWA-101
C94	3			CD15CD050D03		QW1-2	MWA-050
C95	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C96	100			CD15FD101J03	SX310	QW1-27	MWA-101
C97	3			CD15CD050D03		QW1-2	MWA-050
C98	100		DC-203	MGP02	TA120	QC2-157	TG-S20
C99	200			CD15FD201J03	SX320	QW1-34	MWA-201
C100	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C101	70			CD15ED680J03	SX468	QW1-23	MWA-680
C102	.04				GP140		5GA-S40
C103	.04				GP140		5GA-S40
C104	.04				GP140		5GA-S40
C105	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C106	30			CD15ED300J03	SX430	QW1-14	MWA-300
C107	150			CD15FD151J03	SX315	QW1-31	MWA-151
C108	50			CD15ED510J03		QW1-20	MWA-510
C109	300			CD15FD301J03	SX330	QW1-38	MWA-301
C110	.04				GP140		5GA-S40
C111	.04				GP140		5GA-S40
C112	300			CD15FD301J03	SX330	QW1-38	MWA-301
C113	300			CD15FD301J03	SX330	QW1-38	MWA-301
C114	300			CD15FD301J03	SX330	QW1-38	MWA-301
C115	200			CD15FD201J03	SX320	QW1-34	MWA-201
C117	2			CD15CD010D03		QW1-1	MWA-010
C118	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C119	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C120	30			CD15ED300J03	SX430	QW1-14	MWA-300
C125	.04				GP140		5GA-S40
C126	.04				GP140		5GA-S40
C127	.04				GP140		5GA-S40
C128	.04				GP140		5GA-S40
C129	.04				GP140		5GA-S40
C130	.04				GP140		5GA-S40
C131	.04				GP140		5GA-S40
C132	.04				GP140		5GA-S40
C133	.04				GP140		5GA-S40
C134	.04				GP140		5GA-S40
C136	.04				GP140		5GA-S40
C138	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C139	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C140	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C141	.001		DD-561		GP356		10TS-T56
C142	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C143	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
PLL BOARD							
C2	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C3	100			CD15FD101J03	SX310	QW1-27	MWA-101
C4	50			CD15ED510J03		QW1-20	MWA-510
C5	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C6	5			CD15CD050D03		QW1-2	MWA-050
C8	.04				GP140		5GA-S40
C9	50			CD15ED510J03		QW1-20	MWA-510
C10	50			CD15ED510J03		QW1-20	MWA-510
C12	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C14	.01			WMF1S1	EWFA110	QF1-91	1PB-S10
C15	30			CD15ED300J03	SX430	QW1-14	MWA-300
C16	100			CD15FD101J03	SX310	QW1-27	MWA-101
C17	300			CD15FD301J03	SX330	QW1-38	MWA-301
	50			CD15ED510J03		QW1-20	MWA-510
C18	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C19	10			CD15CD100J03		QW1-6	MWA-100
C20	100			CD15FD101J03	SX310	QW1-27	MWA-101
C21	35			CD15ED360J03	SX436		MWA-360
C22	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C23	35			CD15ED360J03	SX436		MWA-360
C24	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C25	35			CD15ED360J03	SX436		MWA-360

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS(cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE Q-LINE	PART No. GENERAL LINE
C26	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10
C27	15			CD15CD150J03		QW1-8	MWA-150
C29	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10
C30	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10
C31	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10
C32	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10
C33	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10
C34	300			CD15FD301J03	SX330	QW1-38	MWA-301
C35	50		DTZ-50	NP050	CN0450		10TCC-Q50
C36	10			CD15CD100J03		QW1-6	MWA-100
C37	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10
C38	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10
C39	10 NPO		DTZ-10	NP010	CN0410		10TCC-Q10
C40	50			CD15ED510J03		QW1-20	MWA-510
C41	35			CD15ED360J03	SX436		MWA-360
C42	50			CD15ED510J03		QW1-20	MWA-510
C43	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10
C44	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10
C45	3 NPO		DTZ-3R3	NP03P3	CN0533		10TCC-V33
C46	100			CD15FD101J03	SX310	QW1-27	MWA-101
C47	100			CD15CD100J03		QW1-6	MWA-100
C49	.04				GP140		5GA-S40
C50	.04				GP140		5GA-S40
C51	.04				GP140		5GA-S40
C52	.04				GP140		5GA-S40
C53	.04				GP140		5GA-S40
C54	390		DD-391	GP390	GP339		10TS-T39
C55	.04				GP140		5GA-S40
C56	.04				GP140		5GA-S40
C57	.04				GP140		5GA-S40
C59	.01		DC-103	MGPO1	TA110	QC2-141	TG-S10
C60	10			CD15CD100J03		QW1-6	MWA-100

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	AGC	50K	RS5032	T-50K (2)	C-503 (2)	MTC54L1 (2)	X201R503B (2)
VR2	RX-M Signal	100K	RS1042	T-100K (2)	C-104 (2)	MTC15L1 (2)	X201R104B (2)
VR3	TX-M Power	100K	RS1042	T-100K (2)	C-104 (2)	MTC15L1 (2)	X201R104B (2)
VR4	Volume/Power Switch	10K	401001				
VR5	Delta Tune	20K	402001				
VR6	Delta Tune Range	10K	RS1032				
VR7	Squelch Range	100K	RS1042	T-100K (2)	C-104 (2)	MTC15L1 (2)	X260R103B (2)
VR8	Squelch/Tone Switch	50K	401002				X201R104B (2)
VR9	RF Gain/ANL Switch	50K	401002				
VR10	RF Gain Range	20K	RS2032				X260R253B (2)
VR11	SWR-CAL/CAL Switch	50K	401002				
VR12	Comp	5000	RS5022				X260R502B (2)
VR13	Mod	100K	RS1042	T-100K (2)	C-104 (2)	MTC15L1 (2)	X201R104B (2)
VR14	Mic Volume	10K	M5X001	B16-116 (18)			

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

(18) Use original knob.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
MAIN BOARD					
L1	Rec Antenna (27MHz)	LL0001	T-60	9230-32	
L2	Rec RF (27MHz)	LL0016	T-63		
L3	Rec RF (27MHz)	LL0016	T-63		
L4	IF (10.695MHz)	LL0003	T-56		
L5	IF (10.695MHz)	LL0004	T-57		
L6	IF (455kHz)	LL0017	N-50A		
L7	IF (455kHz)	LL0005	N-47B		
L8	IF (455kHz)	LL0018	N-50C		
L9	RF Choke	LL0015	NS1724S		
L10	RF Choke	LL0015	NS1724S		
L11	XMT Buffer (27MHz)	LL0014	T-52		
L12	XMT Buffer (27MHz)	LL0014	T-52		
L13	XMT Buffer (27MHz)	LL0013	T-58		
L14	XMT Amp (27MHz)	LL0019	N-1801S		
L15	XMT Driver (27MHz)	LL0020	N-1807B		
L16	RF Choke	LL0021	3R3		
L17	RF Choke	LL0010	NS1726		
L18	Final (27MHz)	LL0009	NS1752		
L19	Pi Filter (27MHz)	LL0009	NS1752		
L20	Pi Filter (27MHz)	LL0009	NS1752		
L21	Antenna Matching (27MHz)	LL0009	NS1752		
L22	TVI Trap (54MHz)	LL0022	NS1753		
PLL BOARD					
L1	Ref Oscillator (10.240MHz)	LL0025	T69 (NS1984)		
L2	Divider	LL0026	T66 (NS1981)		
L4	XMT Mixer (27MHz)	LL0027	T67 (NS1982)		
L5	XMT Mixer (27MHz)	LL0028	T68 (NS1983)		
L6	Buffer (37MHz)	LL0029	K58		
L7	RF Choke	LL0024	LF1-120uH		

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA		NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFR. PART No.	THORDARSON PART No.	
CHO	1.3A	.236	.73mH	110005		

ROBYN MODEL GT-410D

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	2	1.1		401004			

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE			REPLACEMENT DATA			NOTES
	PRI.	SEC.		MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	32	1 4.5	2 11.52	401005			

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3 1/2" PM 8 Ohms	110019	3A0528	

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	2 Amp	110042		AGC2	HDJ	312002	150145	FG2-2

MICROPHONE

ITEM No.	REPLACEMENT DATA				CONNECTION DATA						
	MFGR. PART No.	GC PART No.	GC NOISE CANCEL	GC POWER	GC CONNECTOR	GC Red	GC Shield	GC Yellow	GC Blue	GC White	GC Black
MIC	410009				18-094	1	2	3	NC	NC	6

Mic includes Mic Gain Control and channel up/down switches.

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
BPF1	Ceramic Filter	110008	455kHz CFU 455H
BPF2	Ceramic Filter	402002	455kHz EFCL455K13A
J1	Jack	110015	Power
J2	Jack	410010	Microphone
J3	Jack	110018	CB/Intercom
J4	Jack	110018	CB/PA
J5	Jack	110018	External Speaker
J6	Jack	PLA011	Channel Selector IC
J7	Jack	110013	Antenna
LED1	LED	DLR102	TX (1.97V @ 11mA) TLR102
LED2	LED	DPG102	RC (1.90V @ 11mA) TLR102
LED3	LED	DLR102	+BFO (2.01V @ 11mA) TLR102
LED4	LED	DLR102	-BFO (1.98V @ 11mA) TLR102
LED5	LED	DMR306	Channel Display, Tens
LED6	LED	DMR306	Channel Display, Units
M1	Meter	130004	RF/S
M2	Meter	41008	SWR
PL1	Lamp	130005	RF/S Meter (13.72V @ 70mA)
PL2	Lamp	130005	SWR (13.72V @ 70mA)
RV1	Relay	401013	Xmit-Rec
S1	Switch	401001	Power (Part of Volume Control)
S2	Switch	401002	Tune (Part of Squelch Control)
S3	Switch	401002	ANL (Part of RF Gain Control)
S4	Switch	410006	Scan
S5	Switch	410005	-BFO Part of 4-Ganged Switch Bank
S6	Switch	410005	+BFO Part of 4-Ganged Switch Bank
S7	Switch	410005	CB/PA Part of 4-Ganged Switch Bank
S8	Switch	410005	Int Part of 4-Ganged Switch Bank
S9	Switch	401002	SWR/CAL (Part of SWR Calibrate Control)
S10	Switch	402010	CB-Int/CB-PA
X1	Crystal	XD2400	10.240MHz
X2	Crystal	XK3800	36.380MHz
X3	Crystal	XD6950	10.695MHz
X4	Crystal	X04565	456.5kHz
X5	Crystal	X04535	453.5kHz
	Printed Circuit Board	41006	Main
	Printed Circuit Board	410002	Switch
	Printed Circuit Board	401010	RF
	Printed Circuit Board	401009	RF Power
	Printed Circuit Board	410004	LED
	Printed Circuit Board	PLA002	PLL
	PLL Unit	PLB001	
	DC Power Cord	110038	

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

ITEM	PART No.	ITEM	PART No.
Escutcheon	410012	Cabinet Bottom	410023
Knob, Control	110023	Mobile Mounting Bracket	410024
Cabinet Top	410022	Microphone Hanger	110035