

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 SUPER TIGER 40A

MANUFACTURER'S SPECIFICATIONS

Frequency Control	 PLL (Phase Lock Loop) Synthesizing System
Channels	 40 channels all installed
Mode of Operation	 AM
Receiver System	 Dual Conversion Superheterodyne
Sensitivity	 Nominal 0.7 μ V (S/N 10 dB)
Selectivity	 1st : 10.695 MHz 2nd: 455 KHz
Frequency Tolerance	 $\pm$ 0.005 %
Spurious Rejection	 More than 50 dB
RF Output Power	 Maximum 4.0 W (F.C.C. Maximum)
Squelch Range	 0.5 μ V – 500 μ V
Receiv-O-Slide	 About $\pm$ 1 KHz (Receiving only)
Audio Output Power	 More than 3 W (EXT. SP at 8 ohms)
Controls	 VOLUME CONTROL/POWER SWITCH, SQUELCH CONTROL, TONE CONTROL, RF GAIN CONTROL, CHANNEL SELECTOR, RECEIV-O-SLIDE, CB/PA SWITCH, ANL SWITCH, NB SWITCH
Jacks and Connector	 MICROPHONE, PA, EXT. SP, ANTENNA, DC POWER
Speaker	 3" dynamic, 8 ohms
Microphone	 Dynamic CB mike
Power Source	 DC 13.8 V

Courtesy of the Manufacturer

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

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PEARCE-SIMPSON MODEL SUPER TIGER 40A

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:

T1, T2, T3, T4, T8, T11, T12, T13, T14, T15 ... 9440
T5, T6, T7 5000, 5009, 8276, 8728, 8728A
L6, L9, L12 8282, 9304, 8728, 8728A
C73, C127 5000, 8276

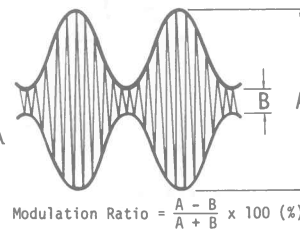


FIGURE 1

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP10 (IC1 Pin 4).	Ch. 19	C73	Adjust for 10.240MHz.
Input of frequency counter to TP11 (TR13 Emitter).	Ch. 19 Rec-O-Slide Midrange		Check for 14.910MHz.
Input of DC meter to TP1.	Ch. 19	T14	Adjust for 2.5 volts $\pm$.1 volt. Check for approximately 2.0 volts on channel 1 and 3.0 volts on channel 40.
Input of frequency counter to TP12 (IC1 Pin 2).	Ch. 1		Check for 1.360MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of oscilloscope to TP2.	Ch. 19	T8	Adjust for maximum RF output.
Input of oscilloscope to TP3.	Ch. 19	T15	Adjust for maximum RF output.
Input of frequency counter to TP2.	Ch. 1		Check for 16.270MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of frequency counter to TP13 (IC3 Pin 9).	Ch. 1, XMT	C127	Adjust 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, Rec-O-Slide Midrange, Squelch MINIMUM, NB Switch Off.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP14 (TR3 Base). 455kHz, 1000Hz @ 30% modulation.	Ch. 19	T7, T6, T5	Adjust for maximum output.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19	T4, T3, T2, T1	Adjust for maximum output. If necessary readjust T5, T6 and T7 for maximum.

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication.
RF Gain Maximum, Rec-O-Slide Midrange, Squelch MINIMUM, NB Switch Off.

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of DC meter to TP7. No signal input.	Ch. 19	VR12	REC AGC ADJ Adjust for 1.58 volts.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 50,000uV.	Ch. 19	VR2	REC SYSTEM GAIN Set volume VR4 for 0db. Decrease generator output 50uV. Adjust so that audio does not drop more than 10db.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 300uV.	Ch. 19 Squelch Maximum	VR8	SQUELCH RANGE Adjust VR8 for maximum audio. Set volume VR4 for 0db. Readjust VR8 to drop audio level down 6db.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19	VR7	REC S 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 frequency and power on all active channels after alignment of transmitter.
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of RF wattmeter and 50-ohm, 25 watt dummy load to antenna input.	Ch. 19	T12, T11, T13, L12, L9, L6	Adjust for maximum RF output.
Input of RF wattmeter and 50-ohm, 25 watt dummy load to antenna input.	Ch. 19	L9	Readjust for 4.0 watts RF output maximum.

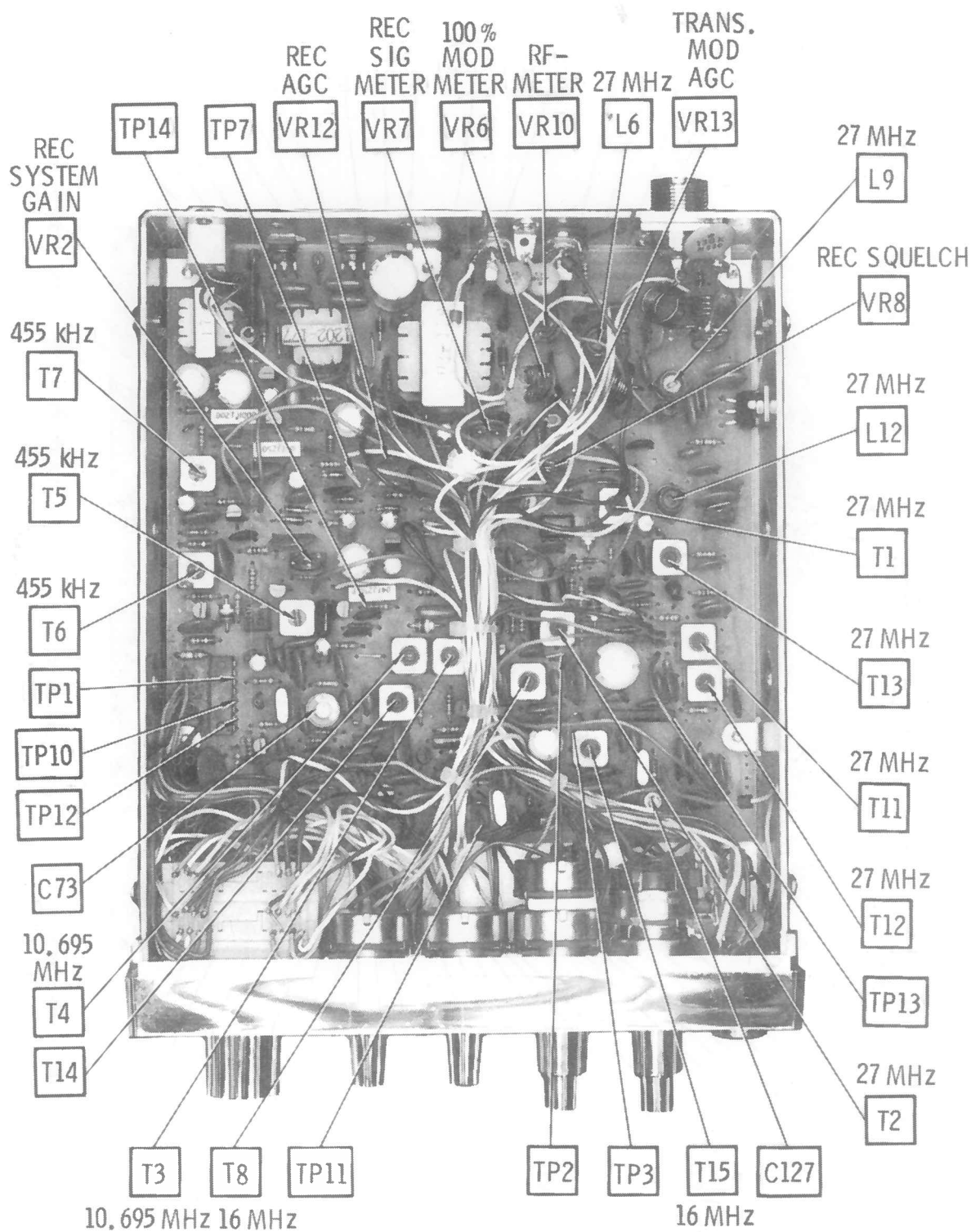
TRANSMITTER ADJUSTMENTS

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.

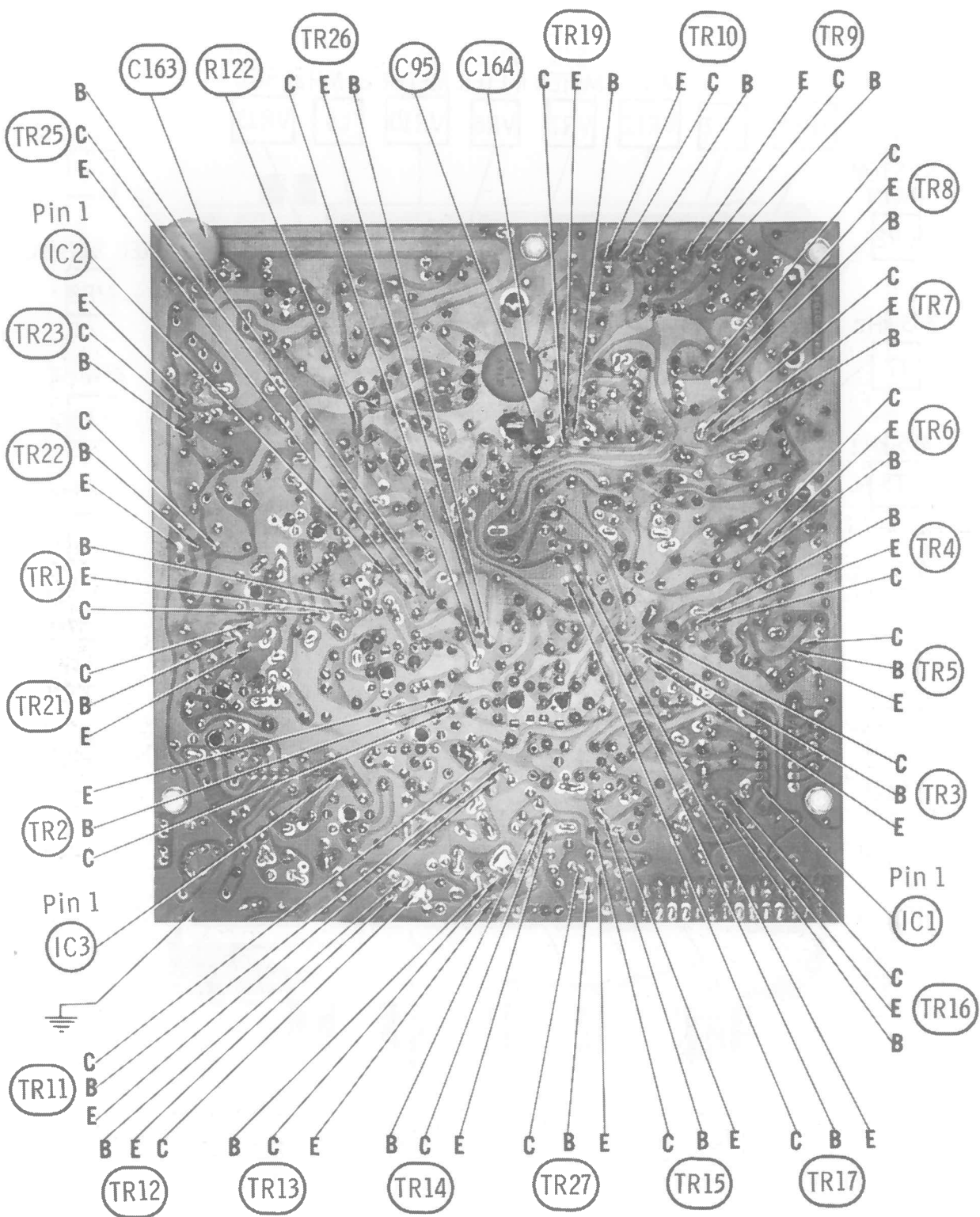
TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of oscilloscope or modulation meter to antenna input. Inject a 1000Hz, 50mV signal at Mic input.	Ch. 19	VR13	TRANS MOD AGC Adjust for 100% modulation maximum. See Figure 1
Input of RF wattmeter and 50-ohm, 25 watt dummy load to antenna input.	Ch. 19 RF/MOD/SWR RF	VR10	RF METER Adjust so that RF meter agrees with RF wattmeter.
Input of oscilloscope or modulation meter to antenna input. Inject a 1000Hz signal at Mic input.	Ch. 19 RF/MOD/SWR MOD	VR6	MOD METER Increase generator output until 100% modulation is achieved. Adjust for 100% on MOD scale of meter. See Figure 1.

TRUTH CHART

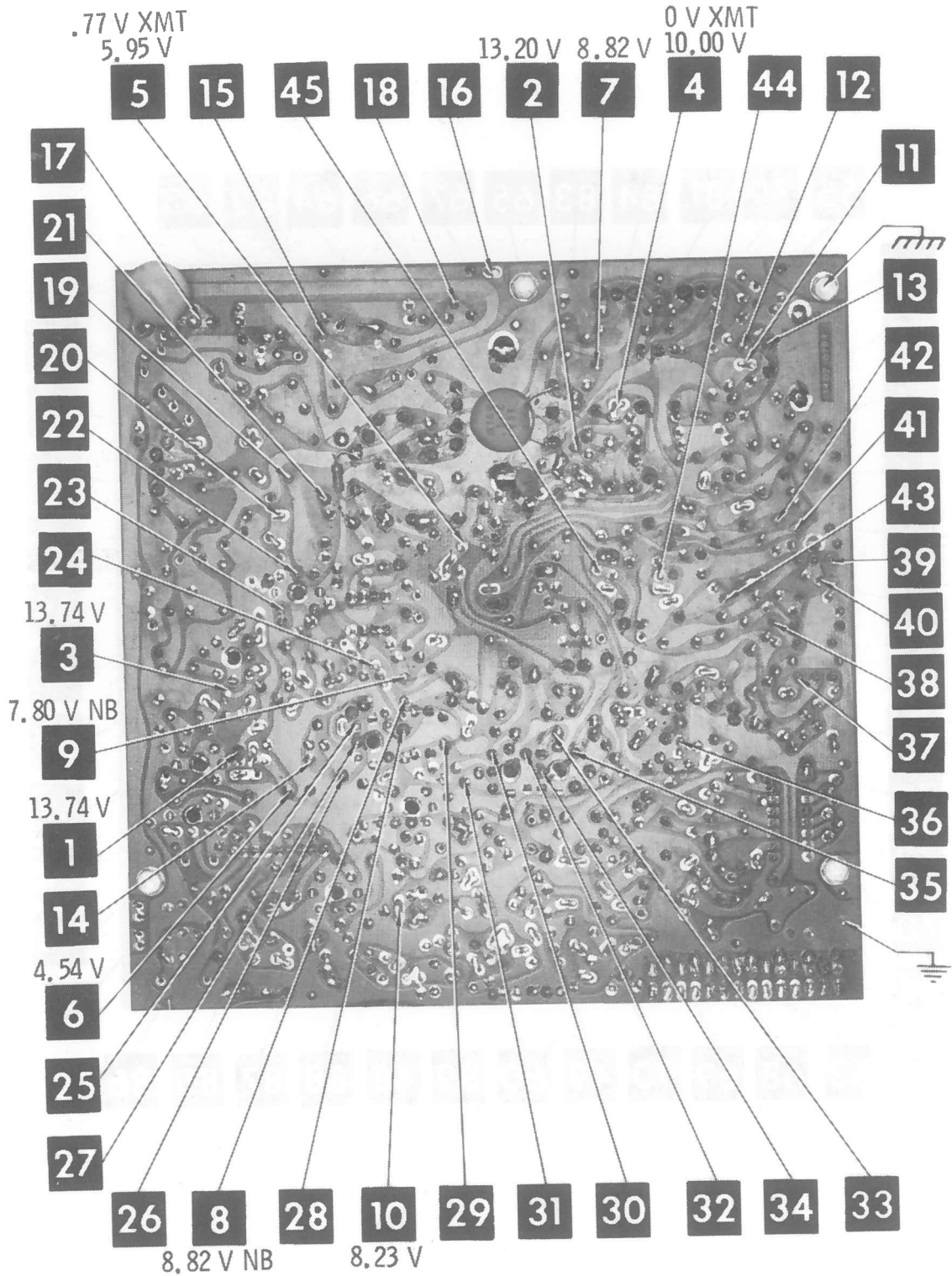
C H A N N E L	1 = 4.54 Volts 0 = 0 Volts								DIVIDER INPUT IN MHz AT TP12	REC VCO OUTPUT IN MHz AT TP2	XMT VCO OUTPUT IN MHz AT TP13
	IC1 PROGRAM DIVIDER										
	PINS										
	10	11	12	13	14	15					
1	0	0	1	0	0	0			1.360	16.270	26.965
2	0	0	1	0	0	1			1.370	16.280	26.975
3	0	0	1	0	1	0			1.380	16.290	26.985
4	0	0	1	1	0	0			1.400	16.310	27.005
5	0	0	1	1	0	1			1.410	16.320	27.015
6	0	0	1	1	1	0			1.420	16.330	27.025
7	0	0	1	1	1	1			1.430	16.340	27.035
8	0	1	0	0	0	1			1.450	16.360	27.055
9	0	1	0	0	1	0			1.460	16.370	27.065
10	0	1	0	0	1	1			1.470	16.380	27.075
11	0	1	0	1	0	0			1.480	16.390	27.085
12	0	1	0	1	1	0			1.500	16.410	27.105
13	0	1	0	1	1	1			1.510	16.420	27.115
14	0	1	1	0	0	0			1.520	16.430	27.125
15	0	1	1	0	0	1			1.530	16.440	27.135
16	0	1	1	0	1	1			1.550	16.460	27.155
17	0	1	1	1	0	0			1.560	16.470	27.165
18	0	1	1	1	0	1			1.570	16.480	27.175
19	0	1	1	1	1	0			1.580	16.490	27.185
20	1	0	0	0	0	0			1.600	16.510	27.205
21	1	0	0	0	0	1			1.610	16.520	27.215
22	1	0	0	0	1	0			1.620	16.530	27.225
23	1	0	0	1	0	1			1.650	16.560	27.255
24	1	0	0	0	1	1			1.630	16.540	27.235
25	1	0	0	1	0	0			1.640	16.550	27.245
26	1	0	0	1	1	0			1.660	16.570	27.265
27	1	0	0	1	1	1			1.670	16.580	27.275
28	1	0	1	0	0	0			1.680	16.590	27.285
29	1	0	1	0	0	1			1.690	16.600	27.295
30	1	0	1	0	1	0			1.700	16.610	27.305
31	1	0	1	0	1	1			1.710	16.620	27.315
32	1	0	1	1	0	0			1.720	16.630	27.325
33	1	0	1	1	0	1			1.730	16.640	27.335
34	1	0	1	1	1	0			1.740	16.650	27.345
35	1	0	1	1	1	1			1.750	16.660	27.355
36	1	1	0	0	0	0			1.760	16.670	27.365
37	1	1	0	0	0	1			1.770	16.680	27.375
38	1	1	0	0	1	0			1.780	16.690	27.385
39	1	1	0	0	1	1			1.790	16.700	27.395
40	1	1	0	1	0	0			1.800	16.710	27.405

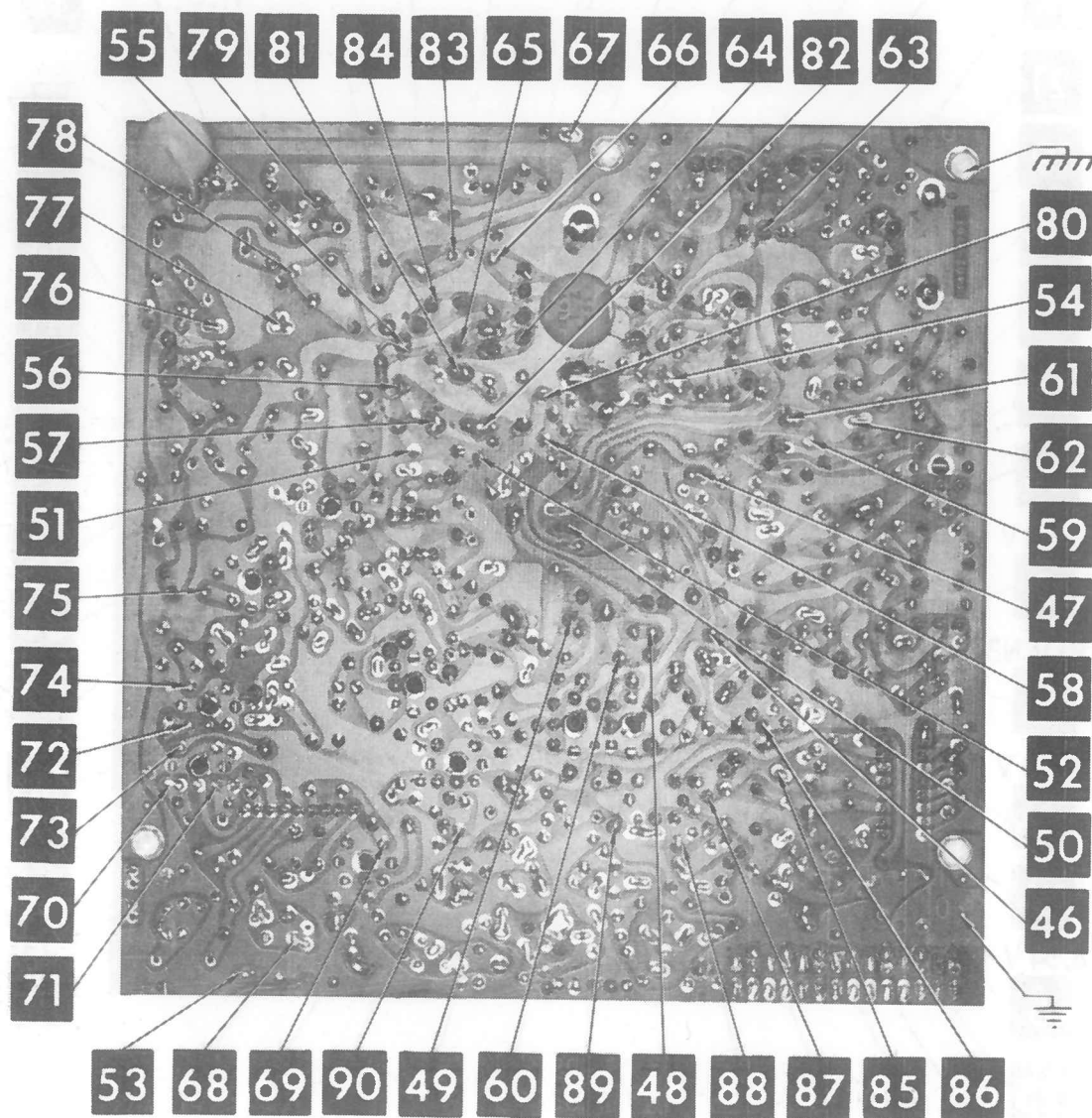


CHASSIS-BOTTOM

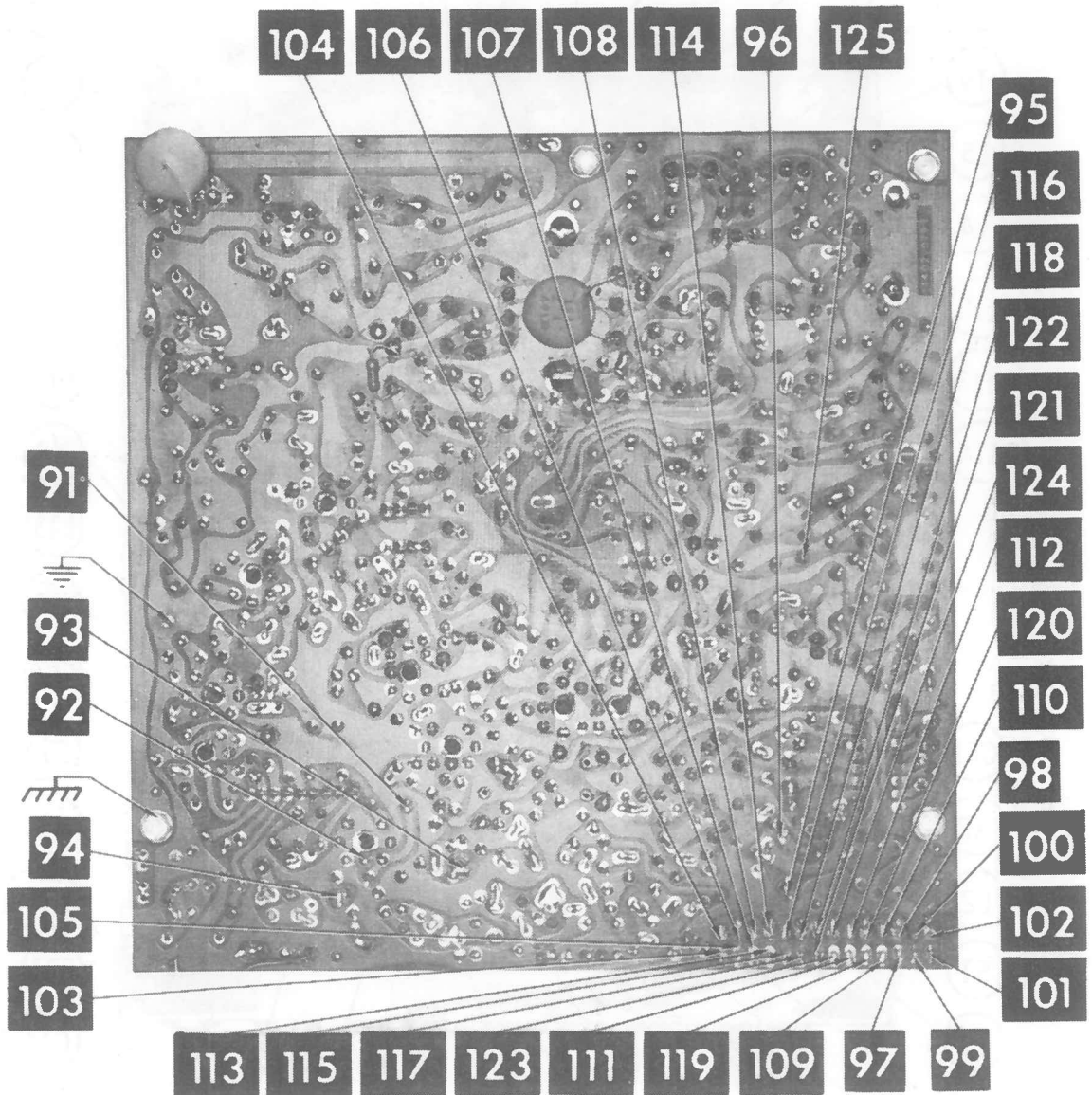


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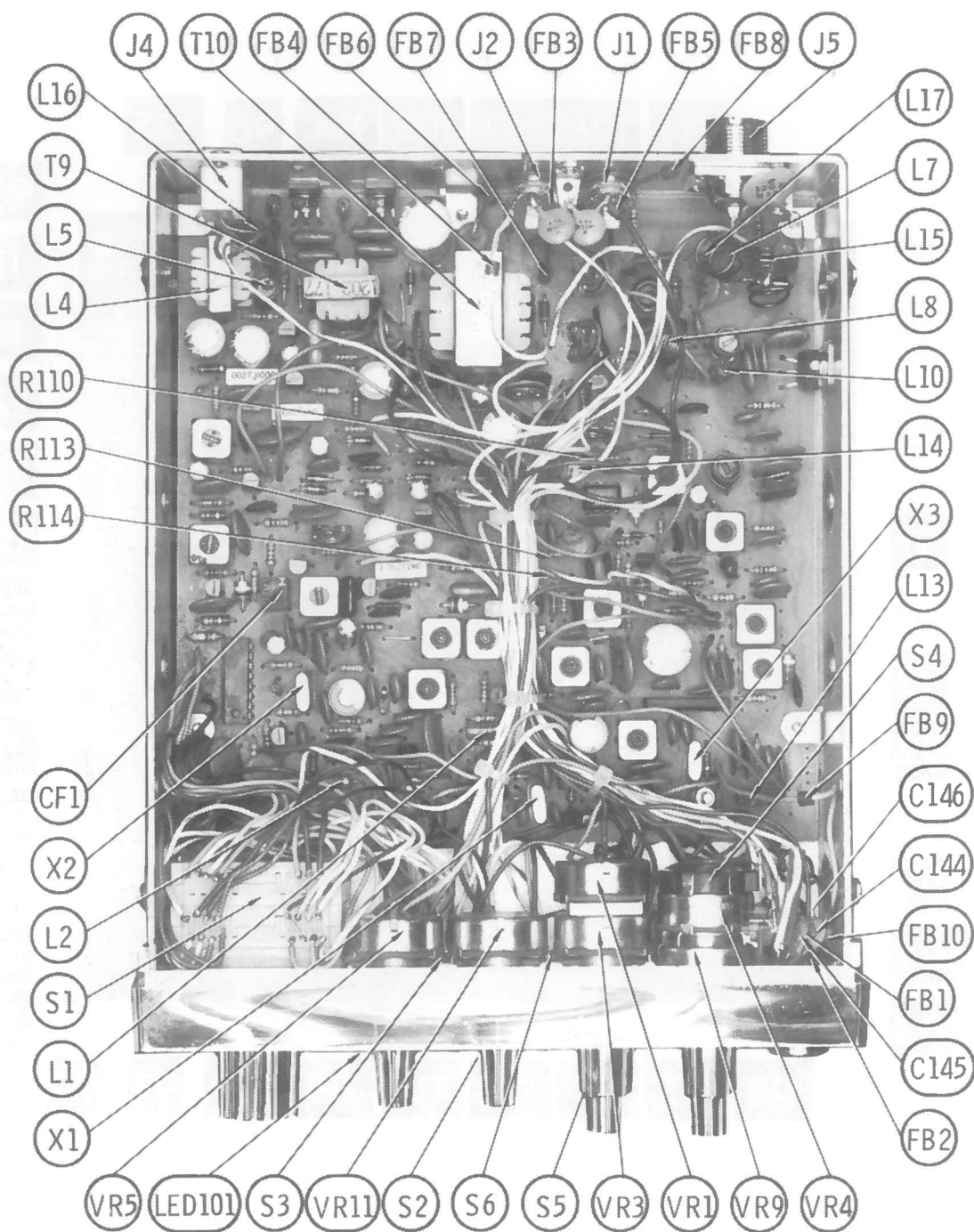


MAIN BOARD

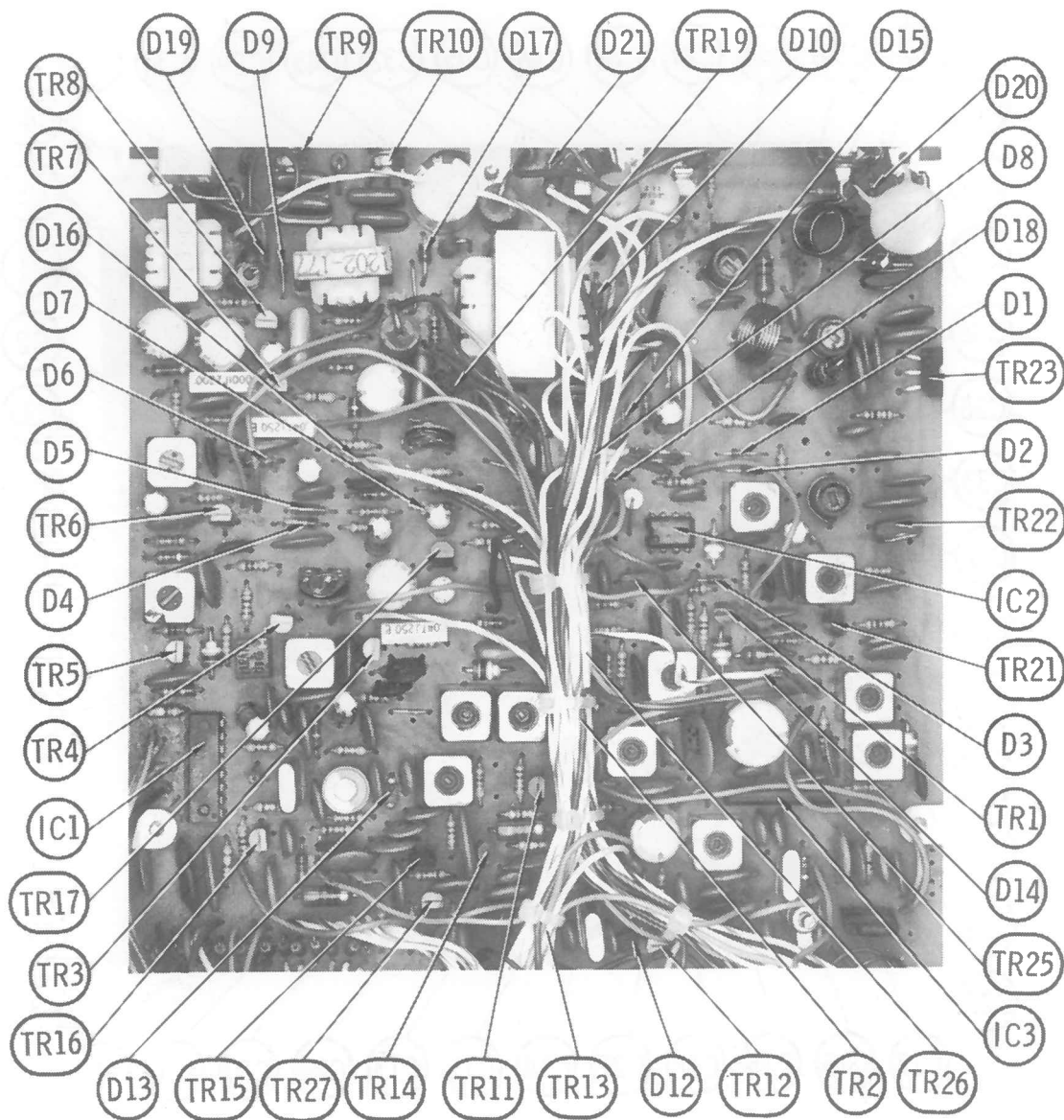


PEARCE-SIMPSON MODEL SUPER TIGER 40A

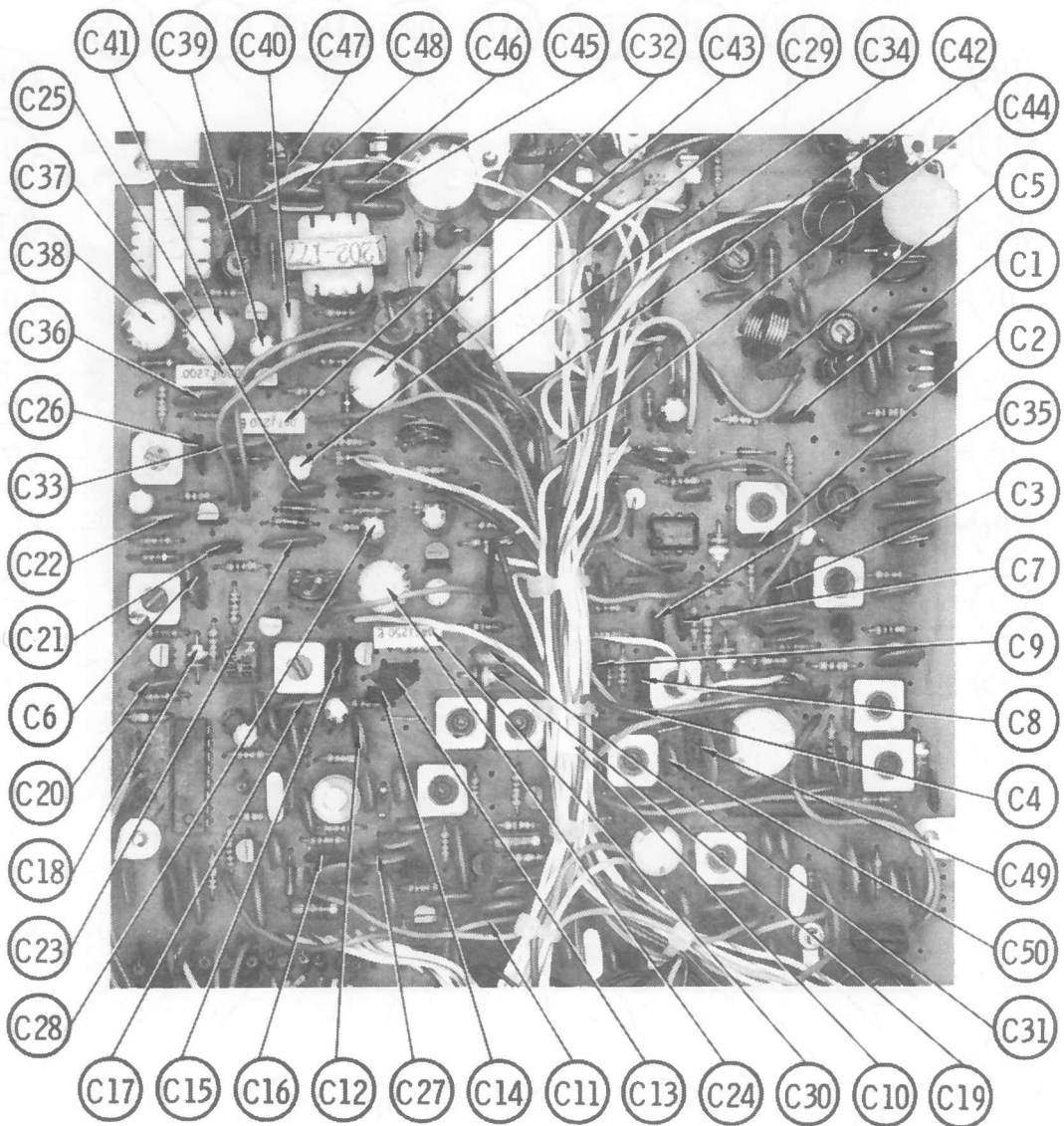
MAIN BOARD



CHASSIS-BOTTOM

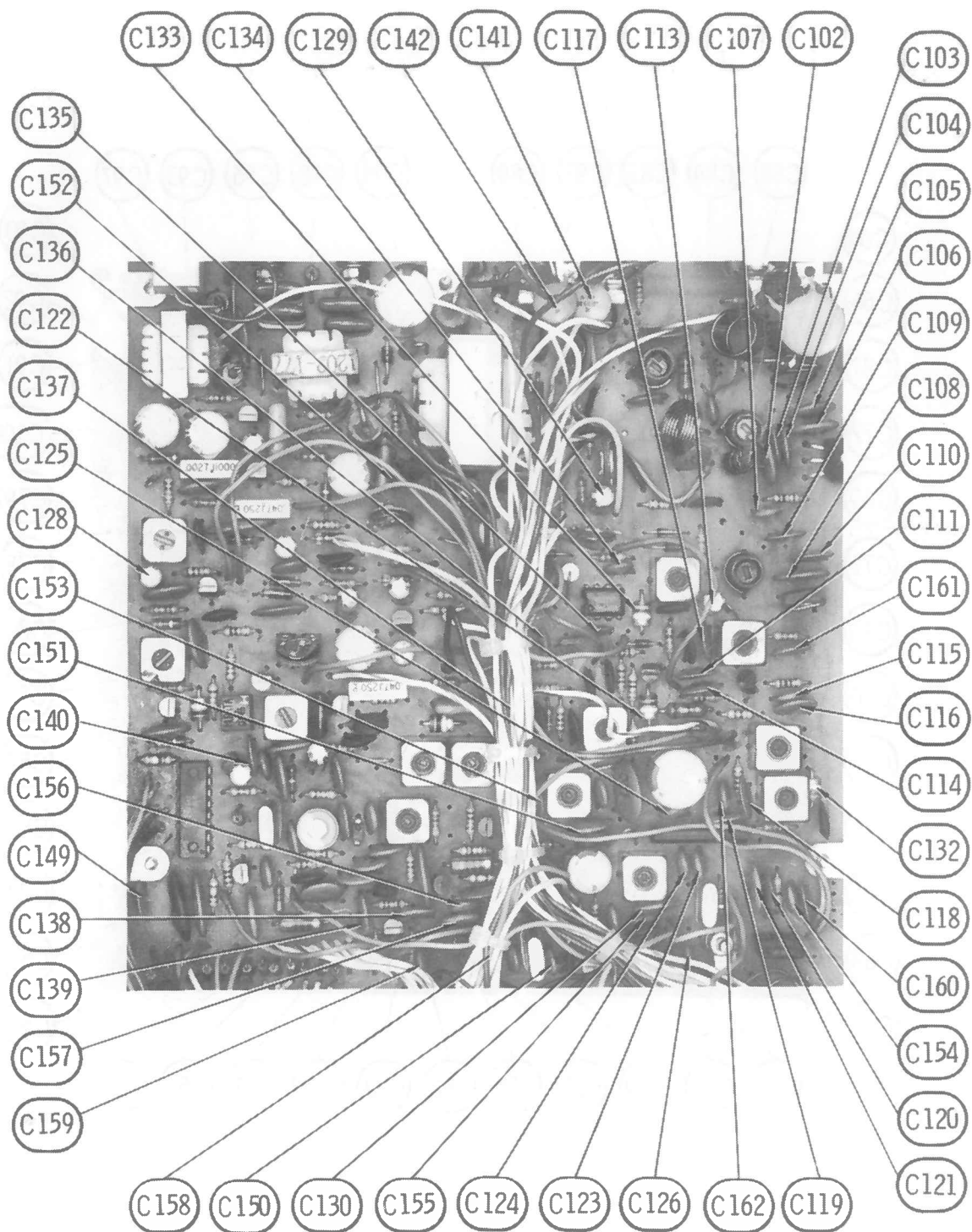


MA IN BOARD

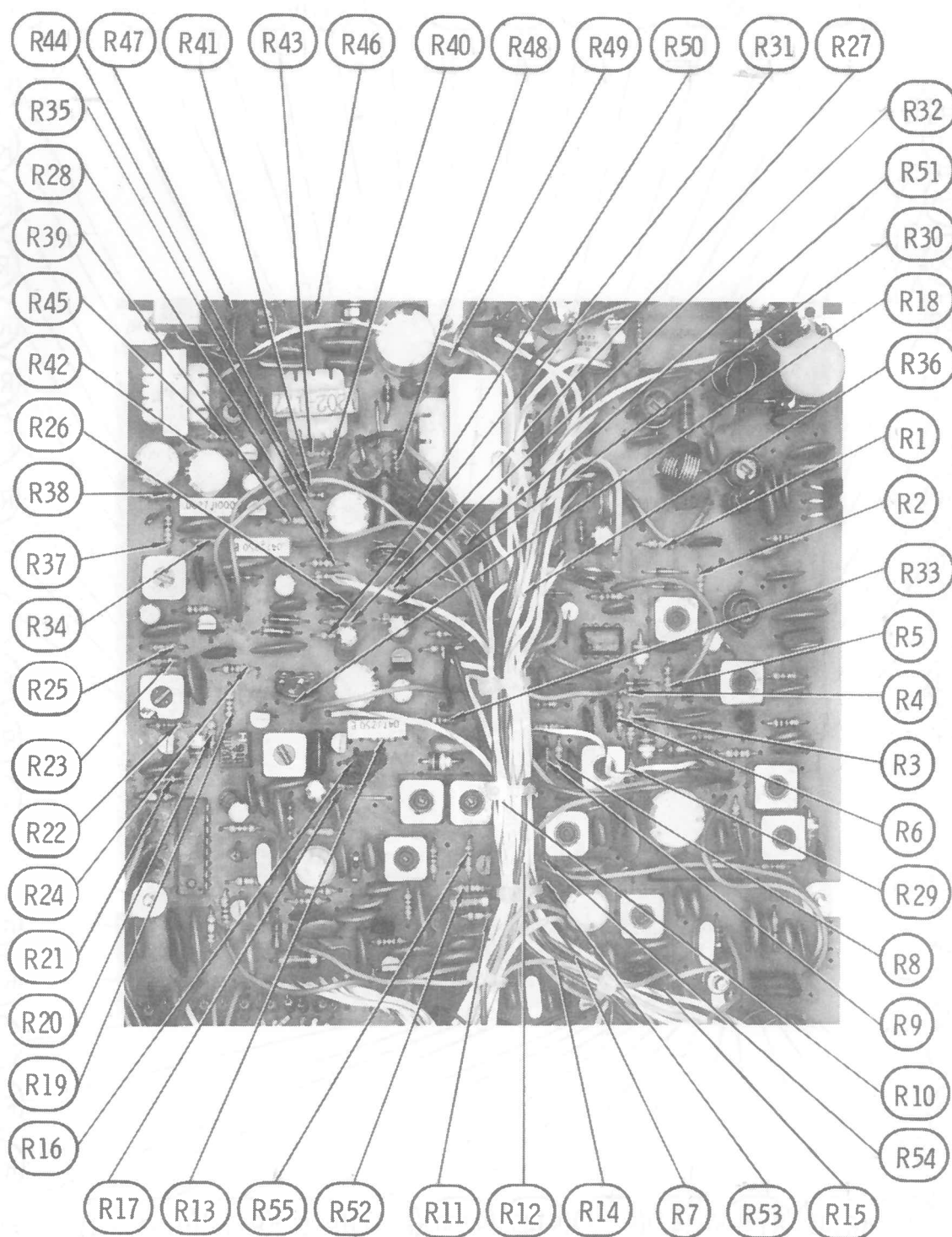


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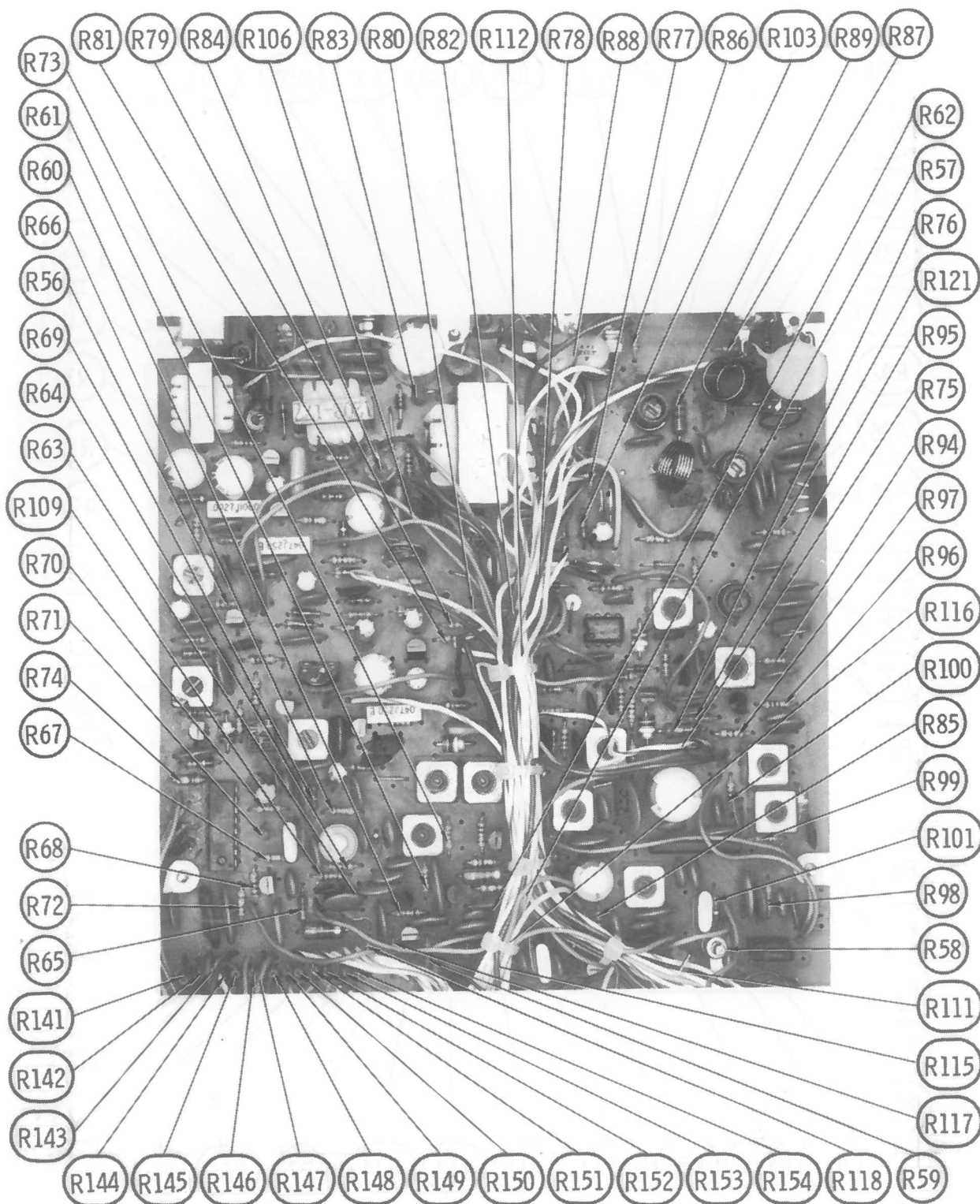




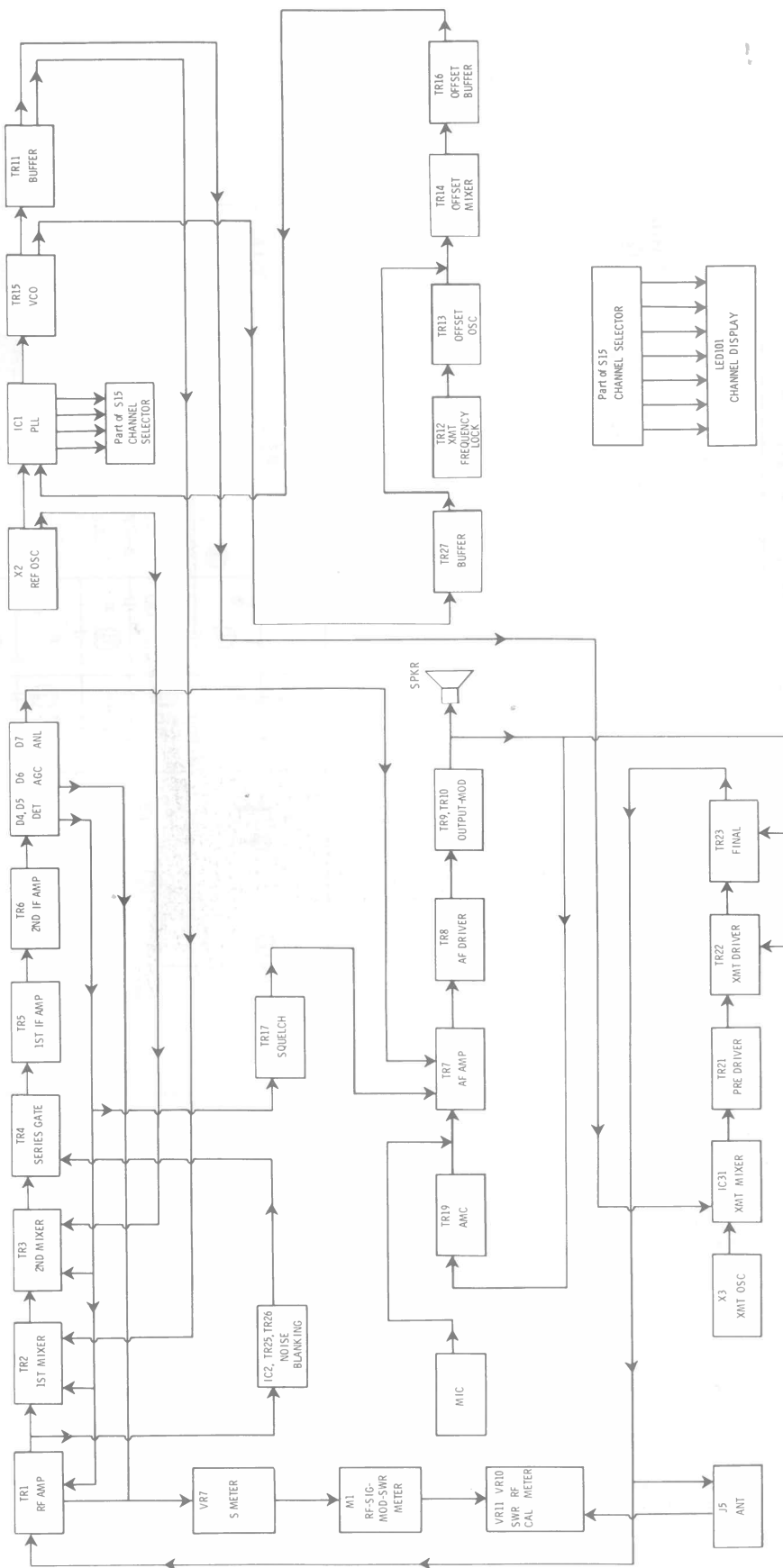
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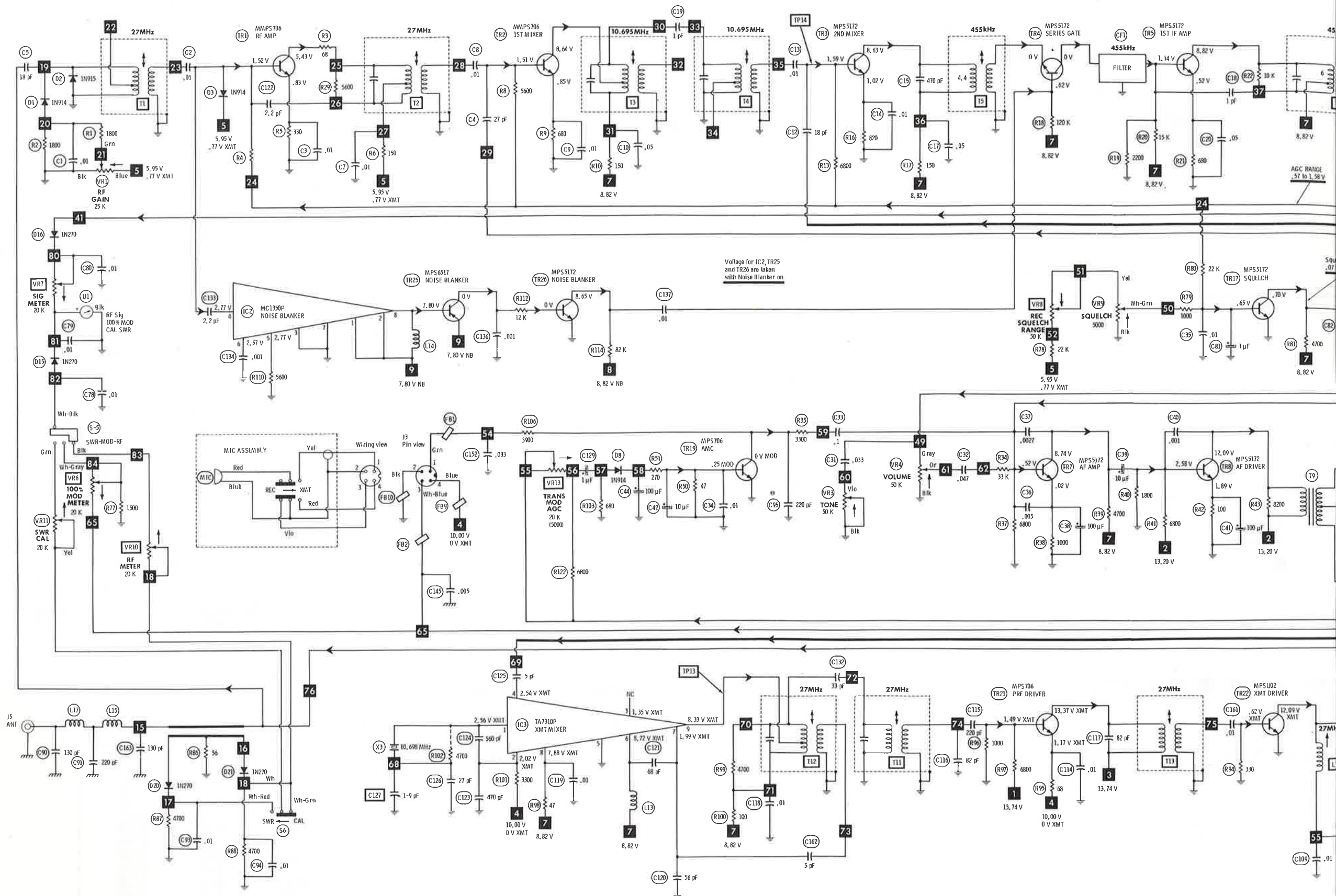
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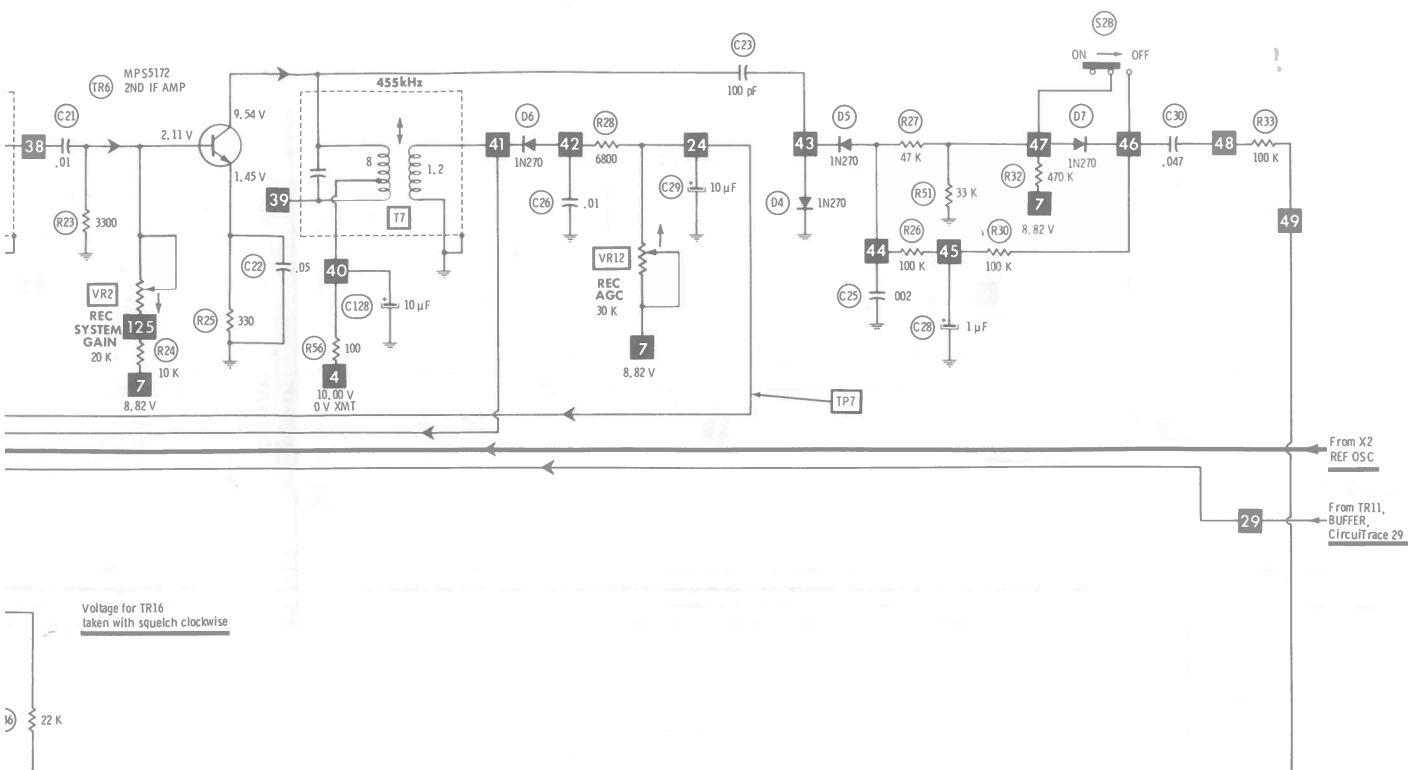


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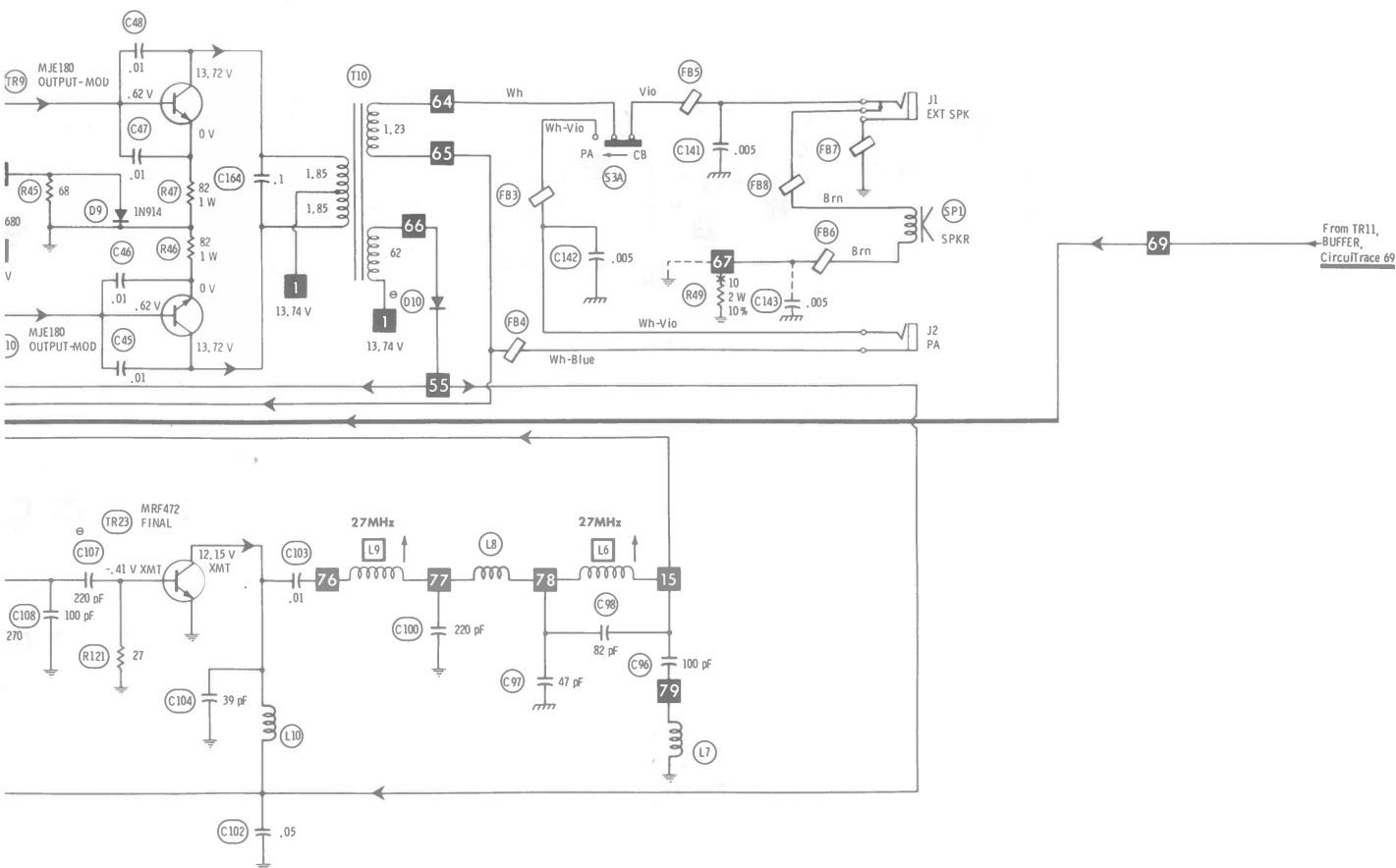


BLOCK DIAGRAM





Voltage for TR16
taken with squelch clockwise



PARTS LIST AND (When ordering parts, state /

WIRING DATA

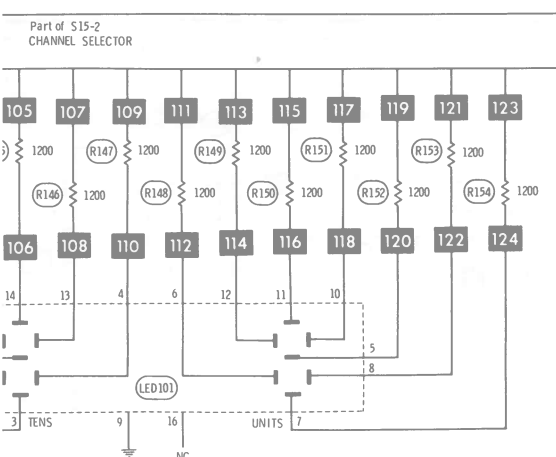
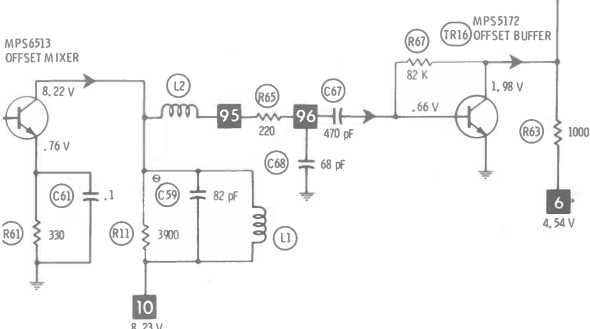
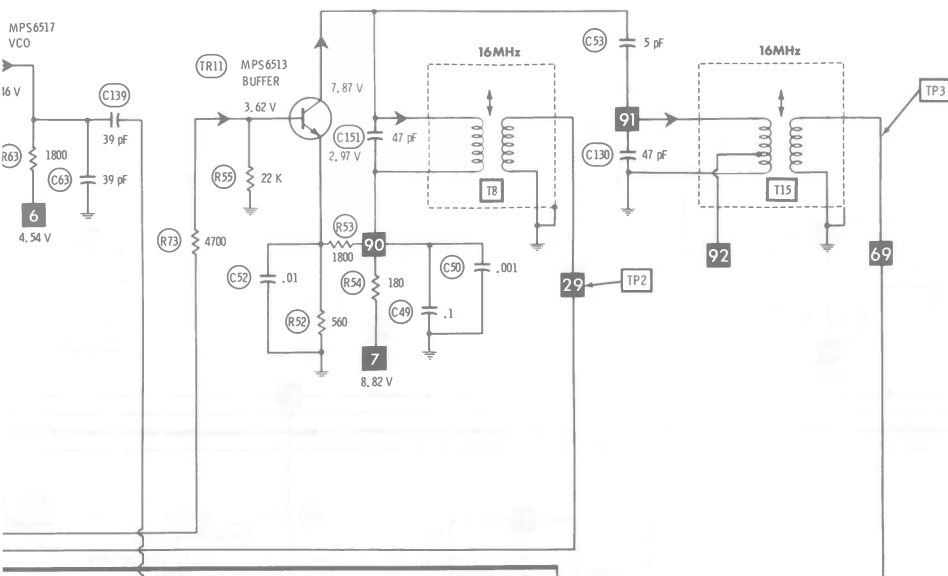
General-use Hook-up Wire
Shielded Hook-up Wire (sp
(br
Speaker Cable (available
Bonding Strap
AC Power Cord

SEMICONDUCTORS (Sele

ITEM No.	TYPE No.	MFG. PART No.	
D1	1N914	2102-029	GI
D2	1N914	2102-029	GI
D3	1N914	2102-029	GI
D4	1N270	2102-028	11
D5	1N270	2102-028	11
D6	1N270	2102-028	11
D7	1N270	2102-028	11
D8	1N914	2102-029	GI
D9	1N914	2102-029	GI
D10		2102-014	GI
D12	MV2109	2102-031	GI
D13	MV3142	2102-034	
D14	1N4734	2102-033	GI
D15	1N270	2102-028	11
D16	1N270	2102-028	11
D17		2102-032	GI
D18	1N914	2102-029	GI
D19		2102-014	GI
D20	1N270	2102-028	11
D21	1N270	2102-028	11
IC1	MM55104N		
	MM55104	2906-004	
IC2	SM5104		
IC3	MC1350P	2906-005	G
	TA7310P		
	TA7310	2906-006	
TR1	MPS706	2904-033	G
TR2	MPS706	2904-033	G
TR3	MPS5172	2904-054	G
TR4	MPS5172	2904-054	G
TR5	MPS5172	2904-054	G
TR6	MPS5172	2904-054	G
TR7	MPS5172	2904-054	G
TR8	MPS5172	2904-054	G
TR9	MJE180	2904-057	G
TR10	MJE180	2904-057	G
TR11	MPS6513	2904-053	G
TR12	MPS5172	2904-054	G
TR13	MPS6513	2904-053	G
TR14	MPS6513	2904-053	G
TR15	MPS6517	2904-038	G
TR16	MPS5172	2904-054	
TR17	MPS5172	2904-054	
TR19	MPS706	2904-033	
TR21	MPS706	2904-033	
TR22	MPSU02	2904-058	
TR23	MRF472	2904-061 (12)	
TR25	MPS6517	2904-038	
TR26	MPS5172	2904-054	
TR27	MPS706	2904-033	

ELECTROLYTIC C

ITEM No.	RATING
C24	100 16V
C28	1 50V
C29	10 16V
C38	100 16V
C39	10 16V
C41	100 16V
C42	10 16V
C43	100 16V
C44	100 16V
C57	100 16V
C74	10 16V
C77	470 16V
C81	1 50V
C82	10 16V
C83	470 16V
C87	1 50V
C113	1 50V
C128	10 16V
C129	1 50V



Each segment of LED
LED101 supply 1.72 V @ 8.5 mA

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	4-conductor (unshielded) 23AWG	BELDEN No. 8415 (6')
	(9') BELDEN No. 17109	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									
			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.
D1	1N914	2102-029	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D2	1N914	2102-029	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D3	1N914	2102-029	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D4	1N270	2102-028	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430
D5	1N270	2102-028	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430
D6	1N270	2102-028	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430
D7	1N270	2102-028	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430
D8	1N914	2102-029	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D9	1N914	2102-029	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D10		2102-014	GE-504A	PTC201	HEPR0052	REN 116	SK3030	RT-213	ECG116	1N4004	WEP156	212-76
D12	MV2109	2102-031	GE-90		HEPR2503	REN 614		RT-262	ECG614		WEP200	ZEN-453
D13	MV3142	2102-034										
D14	1N4734	2102-033	GEZD-5.6	ZB5.6A	HEPZ0407	REN 136	SK3057	RT-236	ECG136	1N4734A	WEP1104	
D15	1N270	2102-028	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430
D16	1N270	2102-028	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430
D17		2102-032	GEZD-9.1	ZB9.1B		REN 139		RT-240	ECG139A	1N4739A	WEP1109	103-272
D18	1N914	2102-029	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D19		2102-014	GE-504A	PTC201	HEPR0052	REN 116	SK3030	RT-213	ECG116	1N4004	WEP156	212-76
D20	1N270	2102-028	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430
D21	1N270	2102-028	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430
IC1	MM55104N											
	MM55104	2906-004										
	SM5104											
IC2	MC1350P	2906-005	GEIC-217		HEPC6059P		SK3234	TVM-59	ECG746		WEP2024	
IC3	TA7310P					REN 1192			ECG1192			
	TA7310	2906-006				REN 1192			ECG1192			
TR1	MPS706	2904-033	GE-86	PTC125	HEPS0025	RE 10	SK3122*	RT-113*	ECG108		WEP735A	ZEN-109
TR2	MPS706	2904-033	GE-86	PTC125	HEPS0025	RE 10	SK3122*	RT-113*	ECG108		WEP735A	ZEN-109
TR3	MPS5172	2904-054	GE-20	PTC139*	HEPS0015	RE 13	SK3444*	RT-172	ECG123A		WEP735A*	ZEN-119*
TR4	MPS5172	2904-054	GE-20	PTC139*	HEPS0015	RE 13	SK3444*	RT-172	ECG123A		WEP735A*	ZEN-119*
TR5	MPS5172	2904-054	GE-20	PTC139*	HEPS0015	RE 13	SK3444*	RT-172	ECG123A		WEP735A*	ZEN-119*
TR6	MPS5172	2904-054	GE-20	PTC139*	HEPS0015	RE 13	SK3444*	RT-172	ECG123A		WEP735A*	ZEN-119*
TR7	MPS5172	2904-054	GE-20	PTC139*	HEPS0015	RE 13	SK3444*	RT-172	ECG123A		WEP735A*	ZEN-119*
TR8	MPS5172	2904-054	GE-20	PTC139*	HEPS0015	RE 13	SK3444*	RT-172	ECG123A		WEP735A*	ZEN-119*
TR9	MJE180	2904-057	GE-57	PTC163	HEPS5000	RE 40	SK3178	RT-194	ECG184		WEP880	ZEN-209
TR10	MJE180	2904-057	GE-57	PTC163	HEPS5000	RE 40	SK3178	RT-194	ECG184		WEP880	ZEN-209
TR11	MPS6513	2904-053	GE-61*	PTC101*	HEPS0034*	RE 12	SK3018*	RT-108A	ECG229*		WEP956*	121-29000*
TR12	MPS5172	2904-054	GE-20	PTC139*	HEPS0015	RE 13	SK3444*	RT-172	ECG123A		WEP735A*	ZEN-119*
TR13	MPS6513	2904-053	GE-61*	PTC101*	HEPS0034*	RE 12	SK3018*	RT-108A	ECG229*		WEP956*	121-29000*
TR14	MPS6513	2904-053	GE-61*	PTC101*	HEPS0034*	RE 12	SK3018*	RT-108A	ECG229*		WEP956*	121-29000*
TR15	MPS6517	2904-038	GE-82	PTC103*	HEPS0019*	RE 26	SK3025	RT-103A*	ECG159		WEP715	ZEN-106*
TR16	MPS5172	2904-054	GE-20	PTC139*	HEPS0015	RE 13	SK3444*	RT-172	ECG123A		WEP735A*	ZEN-119*
TR17	MPS5172	2904-054	GE-20	PTC139*	HEPS0015	RE 13	SK3444*	RT-172	ECG123A		WEP735A*	ZEN-119*
TR18	MPS706	2904-033	GE-86	PTC125	HEPS0025	RE 10	SK3122*	RT-113*	ECG108		WEP735A	ZEN-109
TR19	MPS706	2904-033	GE-86	PTC125	HEPS0025	RE 10	SK3122*	RT-113*	ECG108		WEP735A	ZEN-109
TR20	MPS706	2904-033	GE-86	PTC125	HEPS0025	RE 10	SK3122*	RT-113*	ECG108		WEP735A	ZEN-109
TR21	MPS706	2904-033	GE-86	PTC125	HEPS0025	RE 10	SK3122*	RT-113*	ECG108		WEP735A	ZEN-109
TR22	MPSU02	2904-058	GE-225	PTC144	HEPS3020	RE 75	SK3199	RT-156	ECG188		WEP858	
TR23	MRF472	2904-061 (12)	GE-215	PTC186		RE 203	SK3197	RT-46	ECG235		WEP785	ZEN-209
TR25	MPS6517	2904-038	GE-82	PTC103*	HEPS0019*	RE 26	SK3025	RT-103*	ECG159		WEP715	ZEN-106*
TR26	MPS5172	2904-054	GE-20	PTC139*	HEPS0015	RE 13	SK3144*	RT-172	ECG123A		WEP735A*	ZEN-119*
TR27	MPS706	2904-033	GE-86	PTC125	HEPS0025	RE 10	SK3122*	RT-113*	ECG108		WEP735A*	ZEN-109*

* Lead configuration may vary from original.
(12) 10 WATT @ 1.0 AMP.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C24	100 16V	0406-086	PC100-16	VTT100F16	QV1-95	EV-1230
C28	1 50V	0406-085	PC1-50	VTT1A50	QV1-11	EV-1615
C29	10 16V	0406-084	PC10-25	VTT10B25	QV1-41	EV-1222
C38	100 16V	0406-086	PC100-16	VTT100F16	QV1-95	EV-1230
C39	10 16V	0406-084	PC10-25	VTT10B25	QV1-41	EV-1222
C41	100 16V	0406-086	PC100-16	VTT100F16	QV1-95	EV-1230
C42	10 16V	0406-084	PC10-25	VTT10B25	QV1-41	EV-1222
C43	100 16V	0406-086	PC100-16	VTT100F16	QV1-95	EV-1230
C44	100 16V	0406-086	PC100-16	VTT100F16	QV1-95	EV-1230
C57	100 16V	0406-086	PC100-16	VTT100F16	QV1-95	EV-1230
C74	10 16V	0406-084	PC10-25	VTT10B25	QV1-41	EV-1222
C77	470 16V	0406-088	PC500-16	VTT470K16	QV1-151	EV-1250
C81	1 50V	0406-085	PC1-50	VTT1A50	QV1-11	EV-1615
C82	10 16V	0406-084	PC10-25	VTT10B25	QV1-41	EV-1222
C83	470 16V	0406-088	PC500-16	VTT470K16	QV1-151	EV-1250
C87	1 50V	0406-085	PC1-50	VTT1A50	QV1-11	EV-1615
C113	1 50V	0406-085	PC1-50	VTT1A50	QV1-11	EV-1615
C128	10 16V	0406-084	PC10-25	VTT10B25	QV1-41	EV-1222
C129	1 50V	0406-085	PC1-50	VTT1A50	QV1-11	EV-1615

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS

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	
C1	.01	0411-088	UK50-103	CD15FD471J03	MAG5011	QW1-42	10TCS-Q27 10TCC-Q18 HY-635	
C2	.01		UK50-103		MAG5011			
C3	.01		UK50-103		MAG5011			
C4	27 N330 5%		UK16-503		*			
C5	18 NPO 10%				CN0418			
C6	.05 16V				MAG1615			
C7	.01				MAG5011			
C8	.01				MAG5011			
C9	.01				MAG5011			
C10	.05 16V				MAG5011			
C11	18 NPO 10%				MAG1615			
C12	18 NPO 10%				CN0418			
C13	.01				CN0418			
C14	.01				MAG5011			
C15	470 5%				MAG5011			
C16	.01				SX347			
C17	.05 16V				MAG5011			
C18	1 10%				MAG1615			
C19	1 10%				CN0510			
C20	.05 16V				CN0510			
C21	.01	MAG1615						
C22	.05 16V	MAG5011						
C23	100 N220 10%	MAG1615						
C25	.002 1KV	*						
C26	.01	GP220	QC2-93					
C27	39 NPO 10%	MAG5011						
C30	.047 5%	CN0439						
C31	.033	DPMS4S47	QFT2-171					
C32	.047 5%	DPMS6S33	QFT2-149					
C33	.1 16V	DPMS4S47	QFT2-171					
C34	.01	UK16-104	MAG1601					
C35	.01	UK50-103	MAG5011					
C36	.005 1KV	UK50-103	MAG5011					
C37	.0027 5%	DC-502	TA250	QC2-123				
C40	.001 10%		GP227	TG-D50				
C45	.01	DPMS6D1	EWFA1A210	10TS-D27				
C46	.01	WMF1S1		1FT-D10				
C47	.01	WMF1S1	EWFA1A110	QFT2-1				
C48	.01	WMF1S1	EWFA1A110	QFT2-91				
C49	.1 16V	WMF1S1	EWFA1A110	QFT2-91				
C50	.001 1KV	WMF1S1	EWFA1A110	QFT2-91				
C51	.001 1KV	UK16-104	MAG1601	1FT-S10				
C52	.01	DD-102G	GP1000	1FT-S10				
C53	5 NPO 5%	DD-102G	GP1000	1FT-S10				
C54	.001	UK50-103	GP1000	1FT-S10				
C55	.1 16V	DD-102G	GP1000	HY-650				
C56	.001 1KV	UK16-104	GP1000	5GA-D10				
C58	.01	DD-102G	GP1000	5GA-D10				
C59	82 N330 10%	UK50-103	MAG5011	10TCC-V50				
C60	100 N220 10%		CN0547	5GA-D10				
C61	.1 16V		CN0547	HY-650				
C62	560 10%	DD-102G	GP1000	5GA-D10				
C63	39 NPO 10%	UK16-104	GP1000	5GA-D10				
C64	18 NPO 10%	DD-102G	GP1000					
C66	.001 1KV	DD-102G	GP1000					
C67	470 10% 1KV	UK50-103	MAG5011					
C68	68 NPO 10%	DD-471	CN0418					
C69	.05 16V	DTZ-68	GP347					
C70	18 NPO 10%	UK16-503	CN0468					
C71	.001 1KV		MAG1615					
C72	22 NPO 10%		CN0418					
C73	10-60	DD-102G	GP210					
C75	.1 16V	DTZ-22	CN0422					
C76	.33 12V	UK16-104						
C78	.01	UK50-103	MAG1601					
C79	.01	UK50-103	CN7327					
C80	.01	UK50-103	MAG5011					
C84	.05 16V	UK50-103	MAG5011					
C85	.05	UK16-503	MAG1615					
C86	18 NPO 10%	UK16-503	MAG1615					
C88	.01	UK50-103	CN0418					
C89	.01	UK50-103	MAG5011					
C90	130 N330 10%	UK50-103	MAG5011					
C91	220 10%		*					
C92	.01	DD-221	GP322					
C93	.01	UK50-103	MAG5011					
C94	.01	UK50-103	MAG5011					
C95	220 10%	UK50-103	MAG5011					
C96	100 N220 10%	DD-221	GP322					
C97	47 N220 10%	DD-271	GP327					
C98	82 N330 10%		*					
C99	.01		*					
C100	220 10%	UK50-103	MAG5011					
C102	.05 16V	DD-221	GP322					
C103	.01	UK16-503	MAG1615					
C104	39 NPO 10%	UK50-103	MAG5011					
C105	.05 16V	UK16-503	CN0439					
C106	.05 16V	UK16-503	MAG1615					
C107	220 10%	DD-221	MAG1615					
C108	100 N220 10%	DD-271	GP322					
C109	.01		GP327					
C110	.01	UK50-103	*					
C111	.01	UK50-103	MAG5011					
C114	.01	UK50-103	MAG5011					
C115	220 10%	UK50-103	MAG5011					
		DD-221	GP322					
				10TS-T22				

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
C116	82 H330 10%	0411-090			*		10TCS-Q82
C117	82 N330 10%	0411-090			*		10TCS-Q82
C118	.01		UK50-103		MAG5011		
C119	.01		UK50-103		MAG5011		
C120	56 N220 10%	0411-098					
C121	68 NPO 10%		DTZ-68	NP068	CN0468		10TCC-Q68
C122	2.2 10%		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C123	470 10%		DD-471	GP470	GP347		10TS-T47
	390		DD-391	GP390	GP339		10TS-T39
C124	560 10%		DD-561		GP356		10TS-T56
C125	5 NPO 5%	0411-014			CN0547		10TCC-V50
C126	27 H330 5%	0411-095			*		10TCS-Q27
C127	1-9	0403-063					
C130	47 N220 10%	0411-097			*		10TCR-Q47
C132	3.3 10%		DTZ-3R3	NP03P3	CN0533		10TCC-V33
C133	2.2 10%		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C134	.001 1KV		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C135	.01		UK50-103		MAG5011		
C136	.001 1KV		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C137	.01		UK50-103		MAG5011		
C138	39 NPO 10%				CN0439		10TCC-Q39
C139	39 NPO 10%				CN0439		10TCC-Q39
C140	.01		UK50-103		MAG5011		
C141	.005 1KV		DC-502	MGP005	TA250	QC2-123	TG-D50
C142	.005 1KV		DC-502	MGP005	TA250	QC2-123	TG-D50
C143	.005						
C144	.01		UK50-103		MAG5011		
C145	.005 1KV		DC-502	MGP005	TA250	QC2-123	TG-D50
C146	.005 1KV		DC-502	MGP005	TA250	QC2-123	TG-D50
C147	.001						
C148	.001						
C149	.01		UK50-103		MAG5011		
C150	12 NPO 5%	0411-097			CN0412		10TCC-Q12
C151	47 N220 10%				*		10TCR-Q47
C152	.033		UK50-333		MAG50133		
C153	.01		UK50-103		MAG5011		
C154	.001 1KV		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C155	.001 1KV		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C156	.001 1KV		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C157	.01		UK50-103		MAG5011		
C158	.01		UK50-103		MAG5011		
C159	.001 1KV		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C160	.01		UK50-103		MAG5011		
C161	.01		UK50-103		MAG5011		
C162	5 NPO 5%	0411-014			CN0547		10TCC-V50
C163	130 N330 10%	0411-100			*		10TCR-T12
C164	.1 16V	*	UK16-104		MAG1601		HY-650

*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.	MALLORY PART No.	TRW PART No.
VR1	RF Gain	25K	2008-090 (18)	F1-50K,	P54L,3014	BU1,CF12,
VR3	Tone	50K		R1-25K,	RU253L,	CR6,SF8
				FFS103,	OX1187	SR7,DC1
				RFS109	IS1562	
VR2	Rec System Gain	20K	2008-083	T-20K(2)		X201R253B(2) 30
VR4	Volume	50K	2008-089 (19)	F1-5000	P53L,3014	BU1,CF8,
VR9	Squelch/Power Switch	5000		R2-50K	RU54A,OX1187,	CR62,SF8
				FFS103,	IS1562	SR7GC
				RFS109	US41	
VR5	Recv-0-Slide	25K	2008-091	KR1		
				F1-25K (1),	RU253L,SL36,	BU1(1),CF11
VR6	Mod Meter	20K	2008-083	SSK104	SL1500	SS6A
VR7	Rec Sig Meter	20K	2008-083	T-20K(2)	MTC24L1(2)	X201R253B(2) 30
VR8	Rec Squelch	50K	2008-086	T-20K(2)	MTC24L1(2)	X201R253B(2) 30
VR10	RF Meter	20K	2008-083	T-50K(2)	MTC54L1(2)	X201R503B(2) 36
VR11	SWR CAL	10K	2008-093	T-20K(2)	MTC24L1(2)	X201R253B(2) 30
				F1-10K(1)	RU13L,SL36	BU1(1),CF9
				SSK104	SL1500	SS6A
VR12	Rec AGC	50K	2008-086	T-50K(2)	MTC54L1(2)	X201R503B(2) 36
VR13	Trans Mod AGC	20K	2008-083	T-20K(2)	MTC24L1(2)	X201R253B(2) 30
	Trans Mod AGC	5000	2008-099			

(1) Enlarge mounting hole.

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

(18) Includes VR1 and VR3.

(19) Includes VR4 and VR9.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	RF Choke (120uH)	1201-251			
L2	RF Choke (120uH)	1201-251			
L5	RF Choke (6.8uH)	1201-264			
L6	Ant Tuning (27MHz)	1201-262			
L7	RF Choke (2.2uH)	1201-266			
L8	Pi Filter	1201-261			
L9	XMT Final (27MHz)	1201-263			
L10	RF Choke (.47uH)	1201-265			
L12	XMT Driver (27MHz)	1201-262			
L13	RF Choke (1uH)	1201-284			
L14	RF Choke (2.2uH)	1201-266			
L15	Ant Loading (.35uH)	1201-285			
L16	RF Choke (6.8uH)	1201-264			
L17	Ant Loading (.35uH)	1201-285			
T1	Ant Tuning (27MHz)	1201-268			
T2	Rec RF (27MHz)	1201-272			
T3	IF (10.695MHz)	1201-238			
T4	IF (10.695MHz)	1201-238			
T5	IF (455kHz)	1201-269			
T6	IF (455kHz)	1201-270			
T7	IF (455kHz)	1201-271			
T8	VCO Buffer (16MHz)	1201-268			
T11	XMT Mixer (27MHz)	1201-286			
T12	XMT Mixer (27MHz)	1201-287			
T13	XMT Predriver (27MHz)	1201-273			
T14	VCO	1201-268			
T15	VCO Buffer (16MHz)	1201-268			

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.	
L4	1.3A	.22	2mH	1202-174			

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T9	2	.7		1202-177			

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T10	32	1 8 2 18	1202-178			

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3 1/2" PM 8 Ohms	2501-026	3A05Z8	