



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 TRC-448 (21-1561)

REALISTIC MODEL TRC-448

MANUFACTURER'S SPECIFICATIONS

DESCRIPTION		CONDITION	NOMINAL	LIMIT
TRANSMITTER				
Frequency Tolerance	AM		±0.0003%	±0.005%
	SSB		±0.0003%	±0.005%
RF Output	AM	13.8 V DC	3.8 W (4 watts max.)	3.5 ~ 4.0 W
	SSB	13.8 V DC	12 W PEP	10 ~ 12 W
Modulation Distortion		80% MOD 1 kHz	3%	10%
Spurious Harmonic Emission	AM		-65 dB	-60 dB
	SSB		-65 dB	-60 dB
Carrier Suppression	SSB		-50 dB	-40 dB
Unwanted Sideband Suppression		2.5 kHz (SSB)	-50 dB	-40 dB
Current Drain		No Modulation (AM)	1500 mA	2000 mA
		(SSB)	1000 mA	1500 mA
		80% MOD (AM)	2000 mA	2600 mA
		10 W PEP Two-Tone (SSB)	2500 mA	3000 mA
Modulation Frequency Response		1 kHz 0 dB		
		Lower 450 Hz	AM SSB -6 dB	AM -10 dB, SSB -14 dB
		Upper 2.5 kHz	AM SSB -6 dB	AM SSB -10 dB
Carrier Power Uniformity		Ch-to-Ch with No MOD	AM 0.3 W	0.5 W
MIC Input Level Uniformity		Ch-to-Ch for 4 W Output, 1000Hz Single-Tone	SSB 2 dB	3 dB
Intermodulation Distortion		500 and 2500 Hz Two-Tone	30 dB	25 dB
MIC Input Level Uniformity		LSB/USB 4 W Output		
		1.5 kHz Single Tone	1 dB	3 dB
Microphone Sensitivity		AM 50% MOD	0.7 mV	1.5 mV
		SSB 4 W PEP	0.7 mV	1.5 mV
RECEIVER				
Max. Sensitivity		AM	0.5 μV	1 μV
		SSB	0.25 μV	0.5 μV
Sensitivity		10 dB S/N AM	0.5 μV	1 μV
		SSB	0.25 μV	0.5 μV
AGC Figure of Merit		50 mV 10 dB AM	90 dB	80 dB
		SSB	90 dB	80 dB
Overload AGC Characteristics		10 mV to 100 mV AM	±2 dB	±5 dB
		SSB	±2 dB	±5 dB

Courtesy of the Manufacturer

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

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8CF936

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:

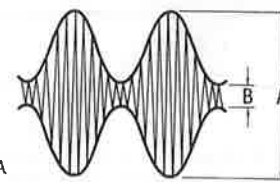
T1 thru T8, T207 thru T214.....9440

T9.....5000, 5009, 8276, 8228, 8728A

T201 thru T204.....9440

L207, L208, T205, T206.....5009, 8728, 8728A

TC1 thru TC7, TC201.....5000, 8276



$$\text{Modulation Ratio} = \frac{A - B}{A + B} \times 100 (\%)$$

FIGURE 1

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP8.	Ch. 19	TC6	Adjust for 10.240MHz +10Hz.
Input of DC meter to TP9 (Junction of VR4 and VR2).	Ch. 19 Clarifier Midrange	VR2	Adjust for 4.00 volts.
Input of oscilloscope to TP5.	Ch. 19, AM	T7, T8	Adjust for maximum RF (45mV p-p typical).
Input of frequency counter to TP5.	Ch. 19, AM Clarifier Midrange	TC4	Adjust for 33.485MHz.
Input of frequency counter to TP5.	Ch. 19, USB Clarifier Midrange	TC5	Adjust for 33.4875MHz.
Input of oscilloscope to TP2.	Ch. 19, USB	T1, T2	Adjust for maximum RF (300mV p-p typical).
Input of frequency counter to TP2.	Ch. 19, USB	TC1	Adjust for 15.605MHz +10Hz.
Input of DC meter to TP7.	Ch. 1, USB	TC3	Adjust for 2.50 volts +.1 volt. Check for approximate 3.50 volts on channel 40.
Input of DC meter to TP7.	Ch. 1, LSB	TC2	Adjust for 2.50 volts +.1 volt. Check for approximate 3.50 volts on channel 40.
Input of oscilloscope to TP3.	Ch. 19, LSB	T3, T4	Adjust for maximum RF (120mV p-p typical).
Input of frequency counter to TP6.	Ch. 1, AM Clarifier Midrange		Check for 1.280MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of oscilloscope to TP4.	Ch. 19, AM	T6	Adjust for maximum RF (400mV p-p typical).
Input of frequency counter to TP4.	Ch. 1, AM Clarifier Midrange		Check for 34.765MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of oscilloscope to TP4.	Ch. 19, LSB	T5	Adjust for maximum RF (700mV p-p typical).
Input of frequency counter to TP4.	Ch. 1, LSB Clarifier Midrange		Check for 19.1625MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of frequency counter to TP4	Ch. 1, USB Clarifier Midrange		Check for 34.7675MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of frequency counter to antenna input.	Ch. 1, AM XMT	VR1	Adjust for 26.965MHz. Check all channels. (See page 4 for channel 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. Preset controls as follows, unless otherwise noted: RF Gain Maximum, Clarifier Midrange, Squelch MINIMUM, NB Out, Mon/PA/CB CB.			
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP214. 7.8MHz, 1000Hz @ 30% modulation.	Ch. 19, AM	T209,T208, T207	Adjust for maximum output.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19, AM	T212,T211, T210	Adjust for maximum output. Readjust T207, T208 and T209 for maximum.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Input of oscilloscope to TP210.	Ch. 19, AM	T213,T214	Set generator output for 10db signal to noise plus ratio of receiver. Inject a 100pps, 1uSec. pulse width signal at antenna input. Switch noise blanker on and adjust for maximum pulse amplitude (200mV peak, typical).

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil. Adjust volume control to obtain a suitable indication. Preset controls as follows, unless otherwise noted: RF Gain Maximum, Clarifier Midrange, Squelch MINIMUM, NB Out, Mon/PA/CB CB.			
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of DC meter to TP208. No signal input.	Ch. 19, AM	VR207	AGC Adjust for 1.40 volts.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 1000uV.	Ch. 19, AM Squelch Maximum	VR209	SQUELCH RANGE Adjust so squelch just breaks.
No signal input.	Ch. 19, AM	VR206	S METER ZERO Adjust for 0 on S units scale of meter.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19, AM	VR205	S METER Adjust for 9 on S units scale of meter.

TRANSMITTER ALIGNMENT

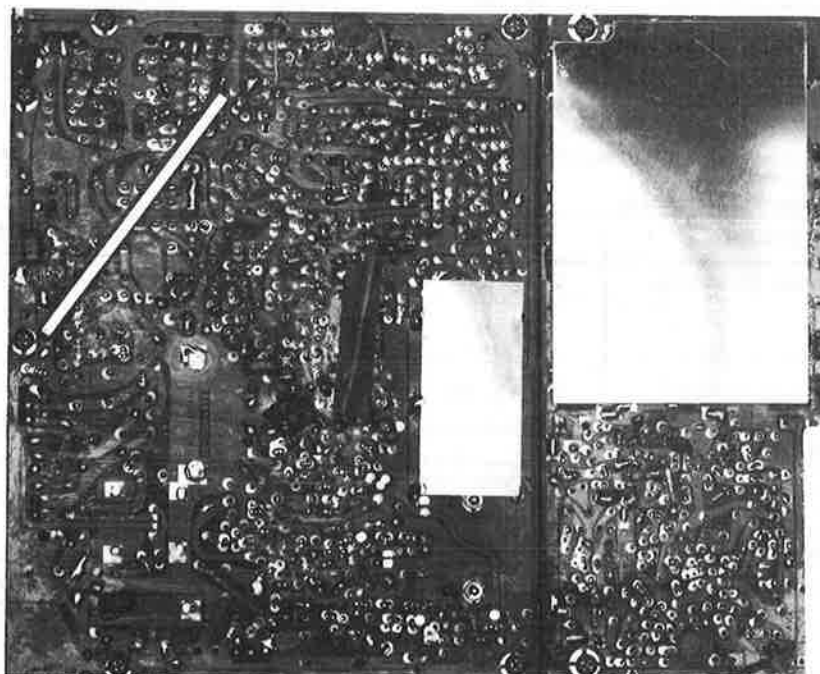
Connect a 50-ohm, 25-watt dummy load to antenna connector. NOTE: Be sure to check transmit frequency and power on all active channels after alignment of transmitter. See page 4 for channel frequencies.			
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of RF wattmeter to antenna input.	Ch. 19, AM	T201,T202, T203,T204, T205,T206, L207,L208	Adjust for maximum RF output.
Input of spectrum analyzer or harmonic meter to antenna input.	Ch. 19, AM	TC201	Adjust for MINIMUM at 54MHz (2nd harmonic).

TRANSMITTER ADJUSTMENTS

Connect a 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	TRANSCEIVER	ADJUST	REMARKS
Input of RF wattmeter to antenna input. No modulation input.	Ch. 19, USB	VR3,TC7,T9	CARRIER BALANCE Adjust for MINIMUM RF output. Switch to LSB and check for MINIMUM RF output.
Connect a 0-500mA DC meter at TP216. No modulation.	Ch. 19, USB	VR202	FINAL BIAS Adjust for 50mA idle current.

TRANSMITTER ADJUSTMENTS (Continued)

TEST EQUIPMENT	TRANSCIEVER	ADJUST	REMARKS
Input of oscilloscope to antenna input. Inject a two-tone, 30mV signal at mic input.	Ch. 19, USB	VR201	DRIVER BIAS Adjust for cleanest waveform.
Input of RF wattmeter to antenna input. Inject a two-tone, 30mV signal at mic input.	Ch. 19, USB	VR4	SSB MOD Set VR204 to MINIMUM (fully counterclockwise) and adjust VR4 for 11.0 watts PEP maximum.
Input of RF wattmeter to antenna input. Inject a 1000Hz, 30mV signal at mic input.	Ch. 19, USB	VR204	SSB ALC Adjust for 11.0 watts PEP maximum.
Input of oscilloscope or modulation meter to antenna input. Inject a 1000Hz, 5mV signal at mic input.	Ch. 19, AM	VR5	AM AMC Adjust for 85% to 90% modulation maximum. (See Figure 1.)
Input of RF wattmeter to antenna input.	Ch. 19, AM	VR210	AM POWER Adjust for 4.0 watts RF output maximum.
Input of RF wattmeter to antenna input.	Ch. 19, AM	VR203	RF METER Adjust so RF meter agrees with RF wattmeter.
Input of oscilloscope or modulation meter to antenna input. Inject a 1000Hz signal at mic input. Set output to produce a 30% modulation. (See Figure 1.)	Ch. 19, AM	VR208	MOD INDICATOR Adjust so mod light just turns on.



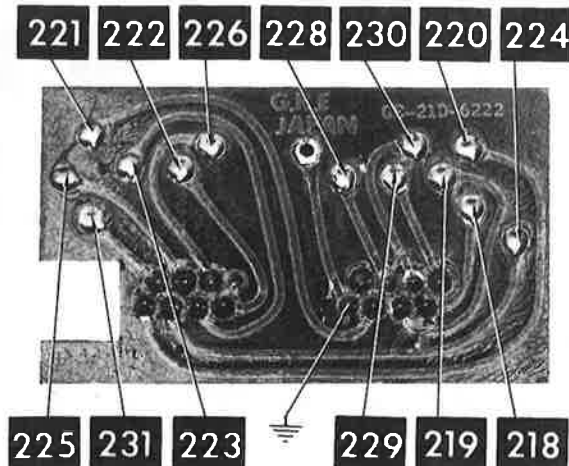
SHIELD LOCATION

TRUTH CHART

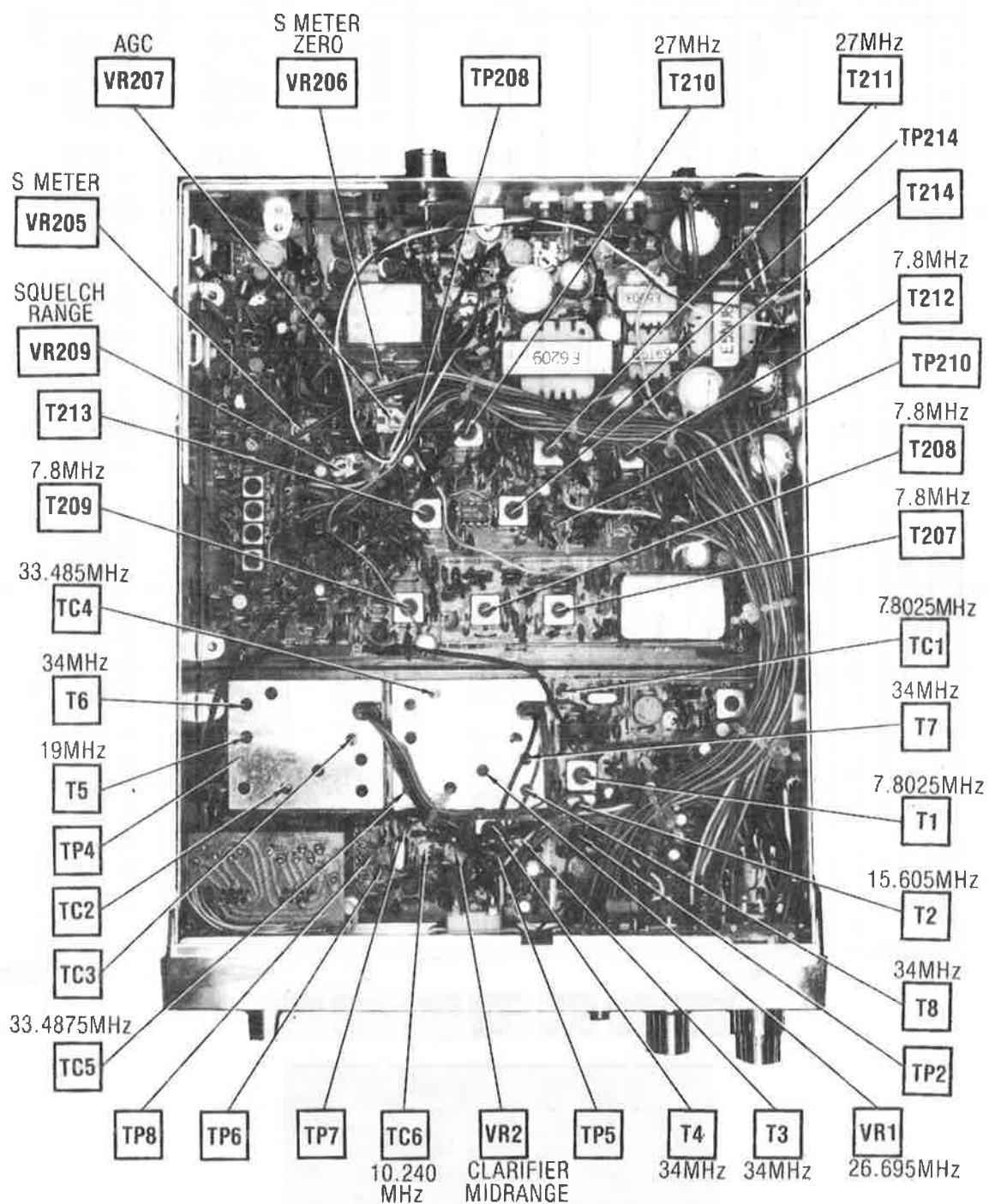
CHANNEL	1 = 5.10 Volts 0 = 0 Volts								DIVIDER INPUT IN MHZ AT TP6	AM REC SYNTH OUTPUT IN MHZ AT TP4	LSB REC & XMIT SYNTH OUTPUT IN MHZ AT TP4	USB REC AM XMIT SYNTH OUTPUT IN MHZ AT TP4
	PROGRAM DIVIDER											
	PINS											
	11	12	13	14	15	16						
1	0	0	0	0	0	0			1.280	34.765	19.1625	34.7675
2	0	0	0	0	0	1			1.290	34.775	19.1725	34.7775
3	0	0	0	0	1	0			1.300	34.785	19.1825	34.7875
4	0	0	0	1	0	0			1.320	34.805	19.2025	34.8075
5	0	0	0	1	0	1			1.330	34.815	19.2125	34.8175
6	0	0	0	1	1	0			1.340	34.825	19.2225	34.8275
7	0	0	0	1	1	1			1.350	34.835	19.2325	34.8375
8	0	0	1	0	0	1			1.370	34.855	19.2525	34.8575
9	0	0	1	0	1	0			1.380	34.865	19.2625	34.8675
10	0	0	1	0	1	1			1.390	34.875	19.2725	34.8775
11	0	0	1	1	0	0			1.400	34.885	19.2825	34.8875
12	0	0	1	1	1	0			1.420	34.905	19.3025	34.9075
13	0	0	1	1	1	1			1.430	34.915	19.3125	34.9175
14	0	1	0	0	0	0			1.440	34.925	19.3225	34.9275
15	0	1	0	0	0	1			1.450	34.935	19.3325	34.9375
16	0	1	0	0	1	1			1.470	34.955	19.3525	34.9575
17	0	1	0	1	0	0			1.480	34.965	19.3625	34.9675
18	0	1	0	1	0	1			1.490	34.975	19.3725	34.9775
19	0	1	0	1	1	0			1.500	34.985	19.3825	34.9875
20	0	1	1	0	0	0			1.520	35.005	19.4025	35.0075
21	0	1	1	0	0	1			1.530	35.015	19.4125	35.0175
22	0	1	1	0	1	0			1.540	35.025	19.4225	35.0275
23	0	1	1	1	0	1			1.570	35.055	19.4525	35.0575
24	0	1	1	0	1	1			1.550	35.035	19.4325	35.0375
25	0	1	1	1	0	0			1.560	35.045	19.4425	35.0475
26	0	1	1	1	1	0			1.580	35.065	19.4625	35.0675
27	0	1	1	1	1	1			1.590	35.075	19.4725	35.0775
28	1	0	0	0	0	0			1.600	35.085	19.4825	35.0875
29	1	0	0	0	0	1			1.610	35.095	19.4925	35.0975
30	1	0	0	0	1	0			1.620	35.105	19.5025	35.1075
31	1	0	0	0	1	1			1.630	35.115	19.5125	35.1175
32	1	0	0	1	0	0			1.640	35.125	19.5225	35.1275
33	1	0	0	1	0	1			1.650	35.135	19.5325	35.1375
34	1	0	0	1	1	0			1.660	35.145	19.5425	35.1475
35	1	0	0	1	1	1			1.670	35.155	19.5525	35.1575
36	1	0	1	0	0	0			1.680	35.165	19.5625	35.1675
37	1	0	1	0	0	1			1.690	35.175	19.5725	35.1775
38	1	0	1	0	1	0			1.700	35.185	19.5825	35.1875
39	1	0	1	0	1	1			1.710	35.195	19.5925	35.1975
40	1	0	1	0	0	0			1.720	35.205	19.6025	35.2075

REALISTIC MODEL TRC-448

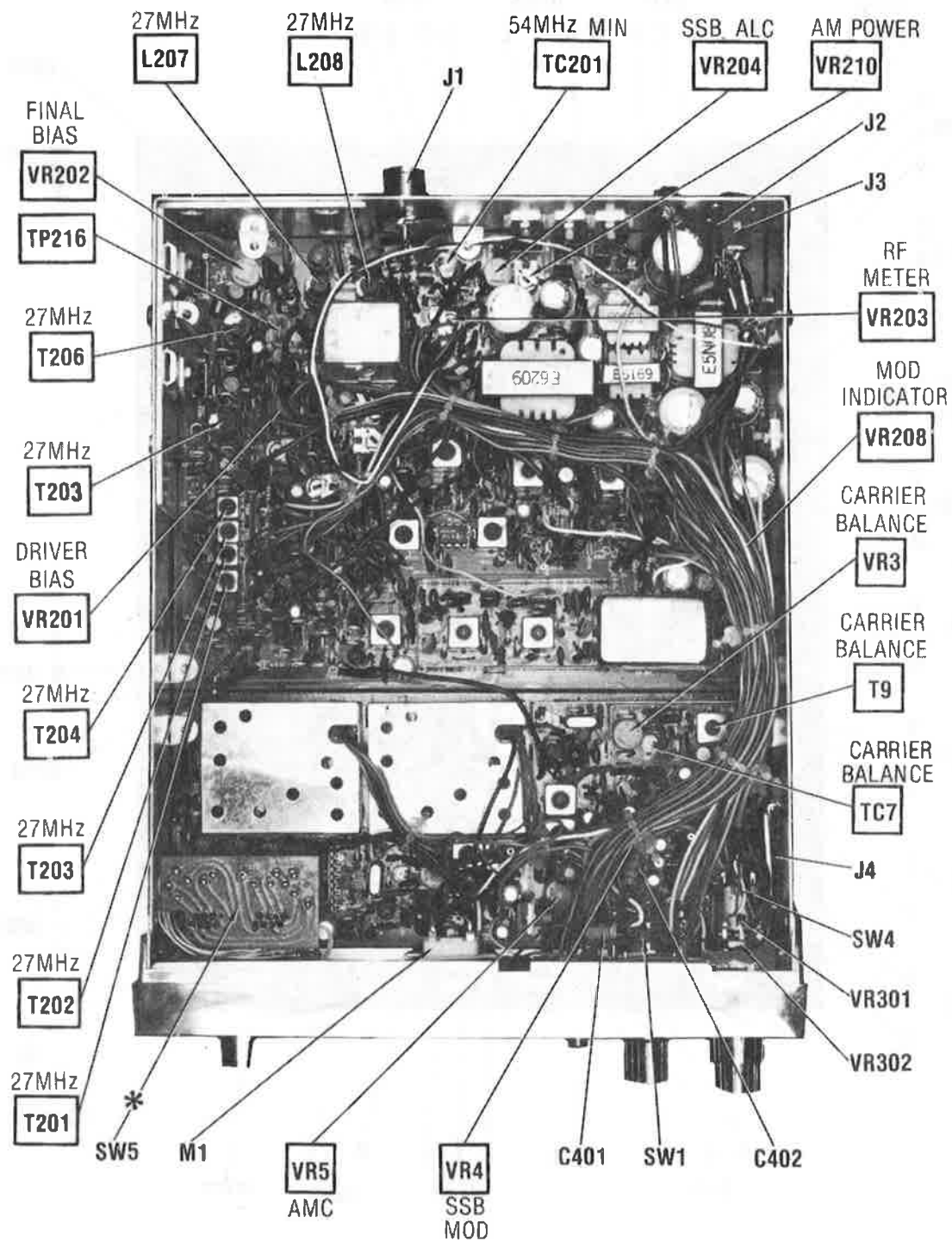
A Howard W. Sams CIRCUITRACE® Photo



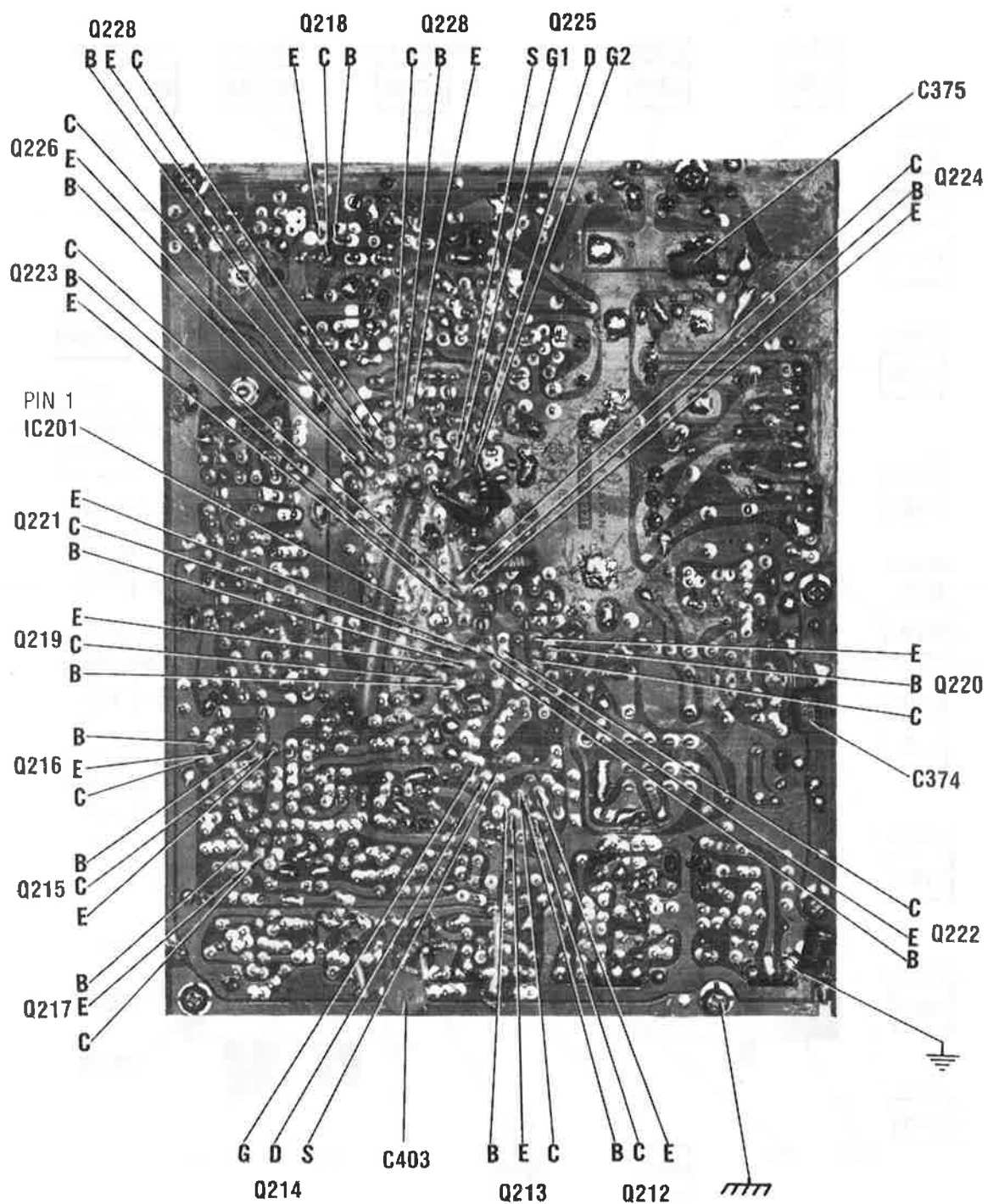
SWITCH BOARD



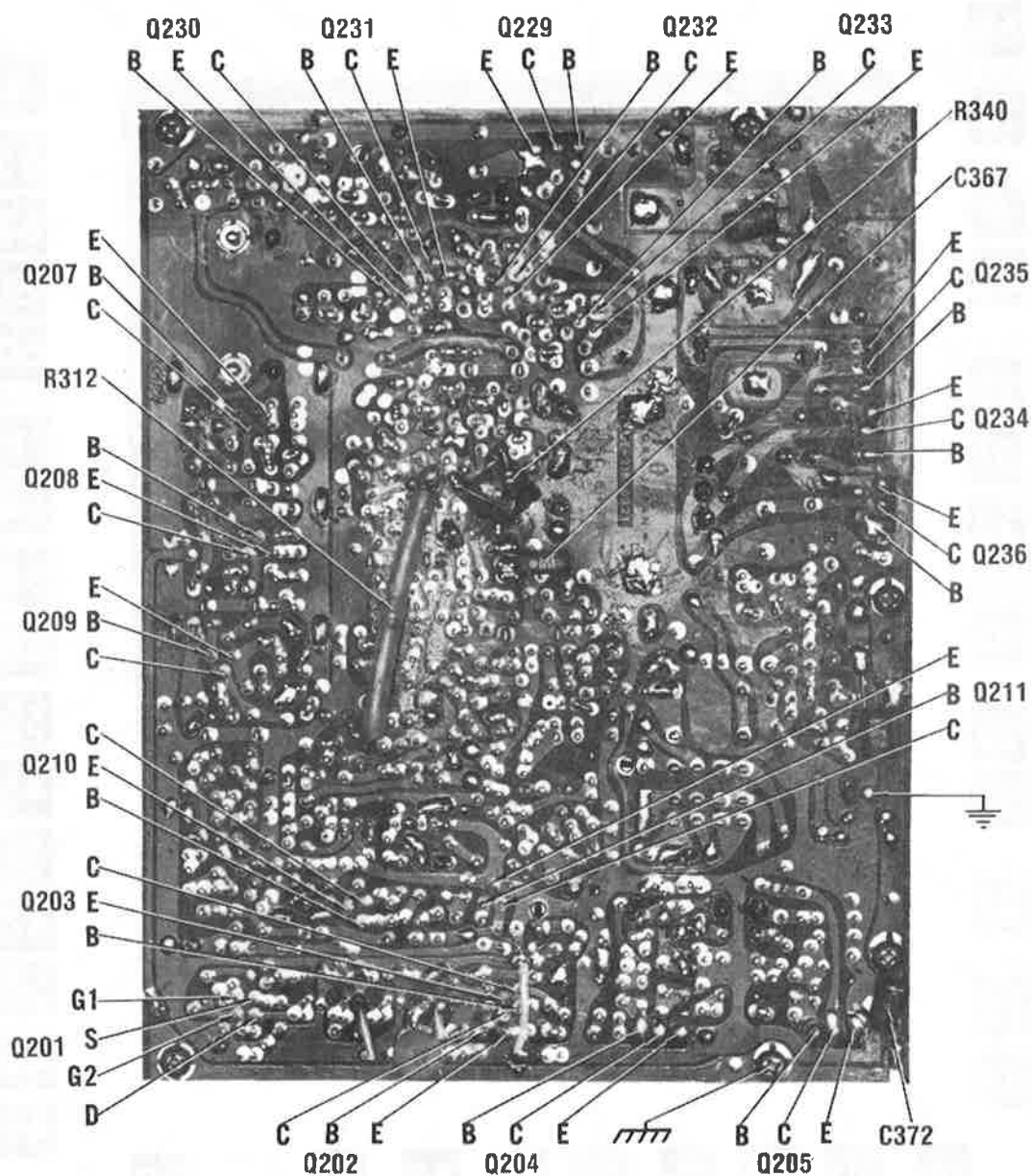
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CHASSIS-BOTTOM

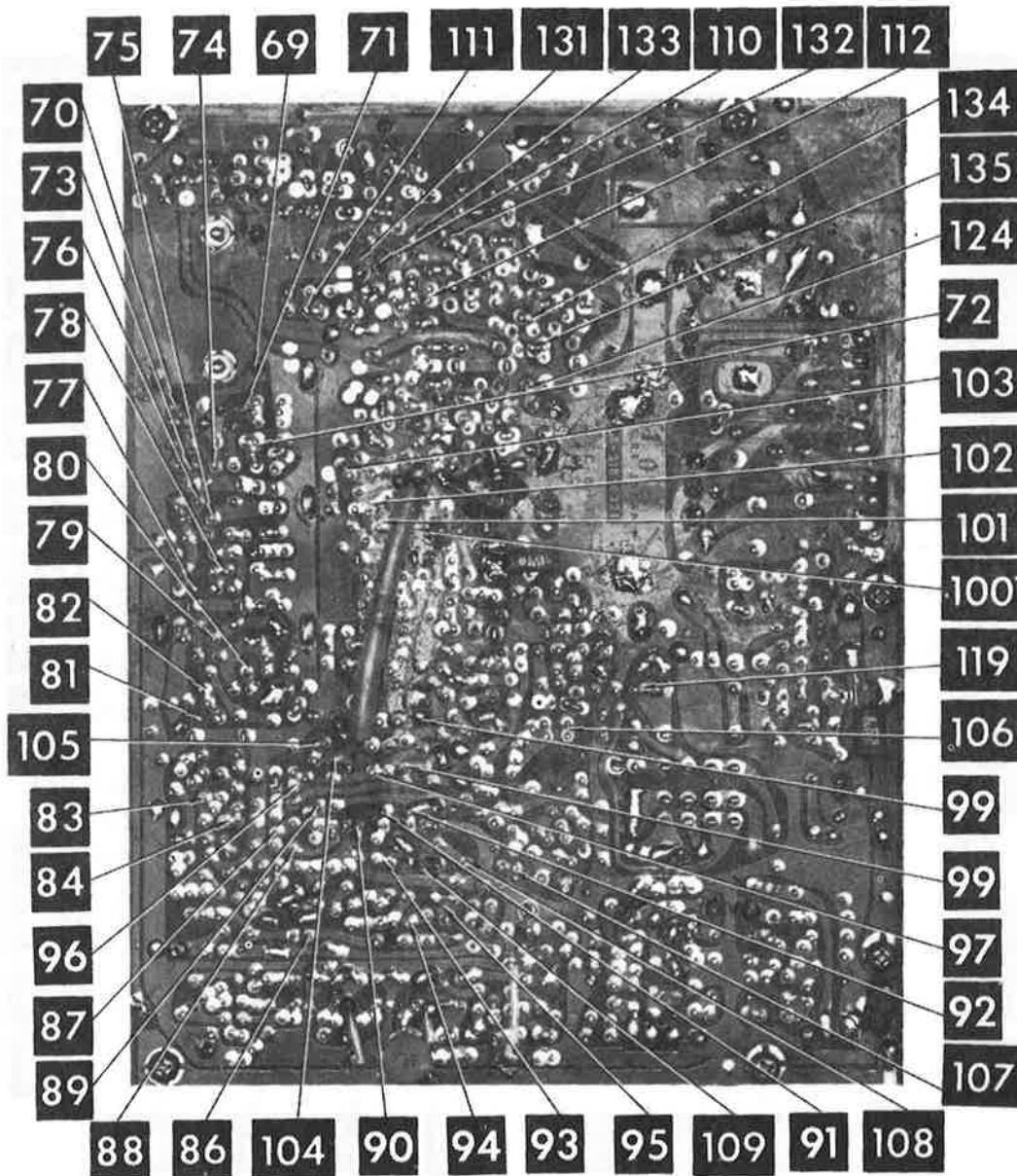


MAIN BOARD



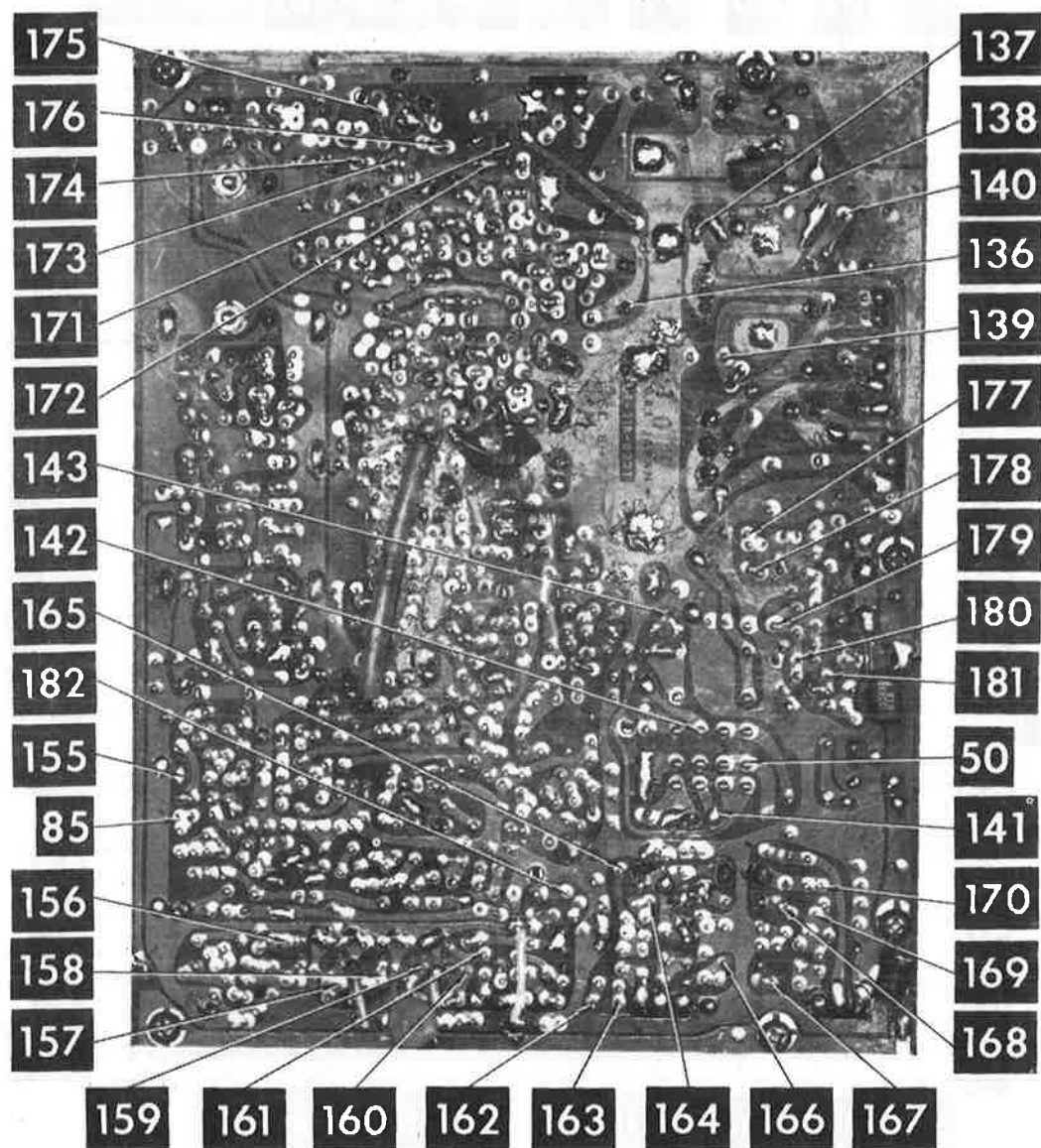
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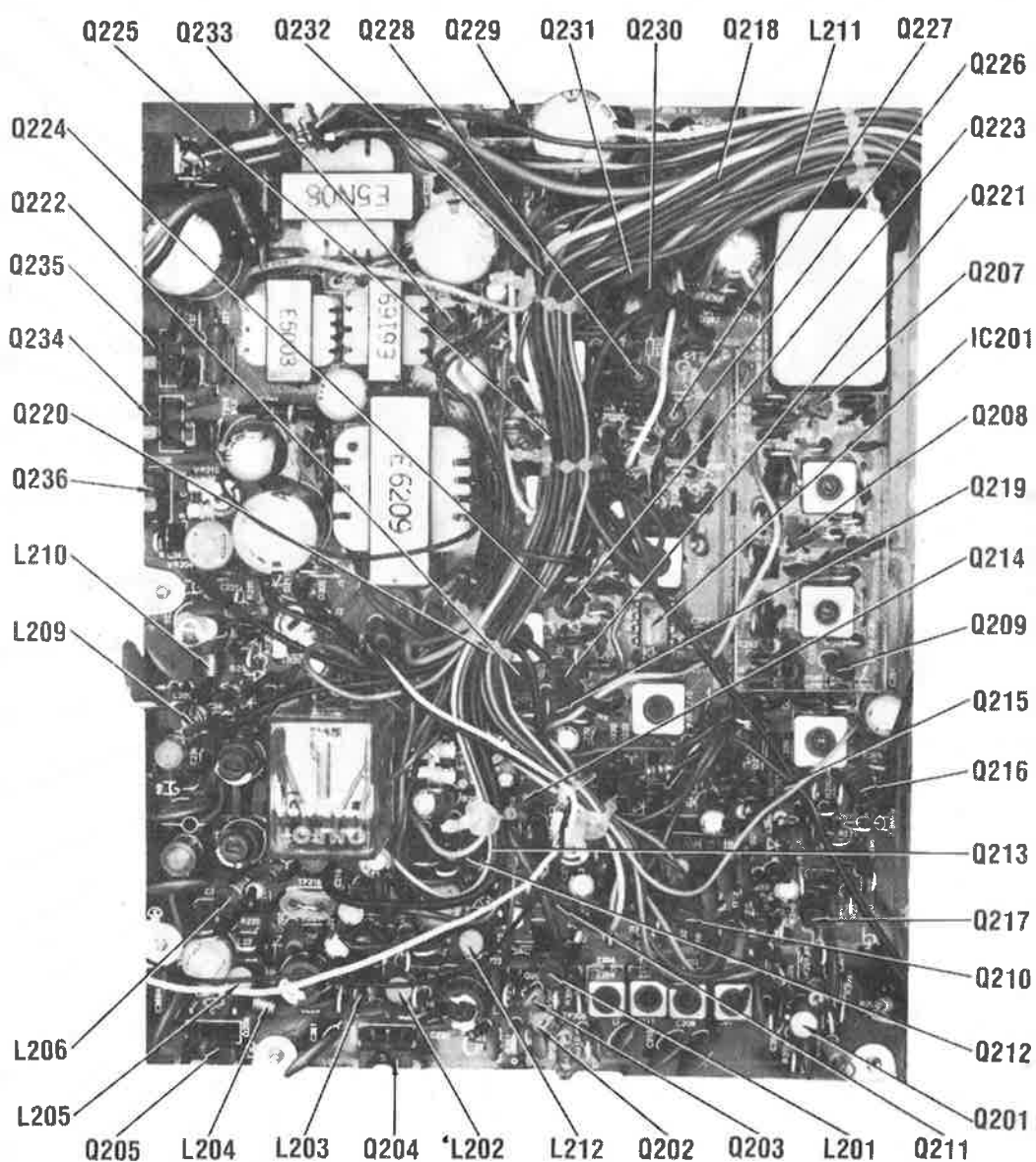


REALISTIC MODEL TRC-448

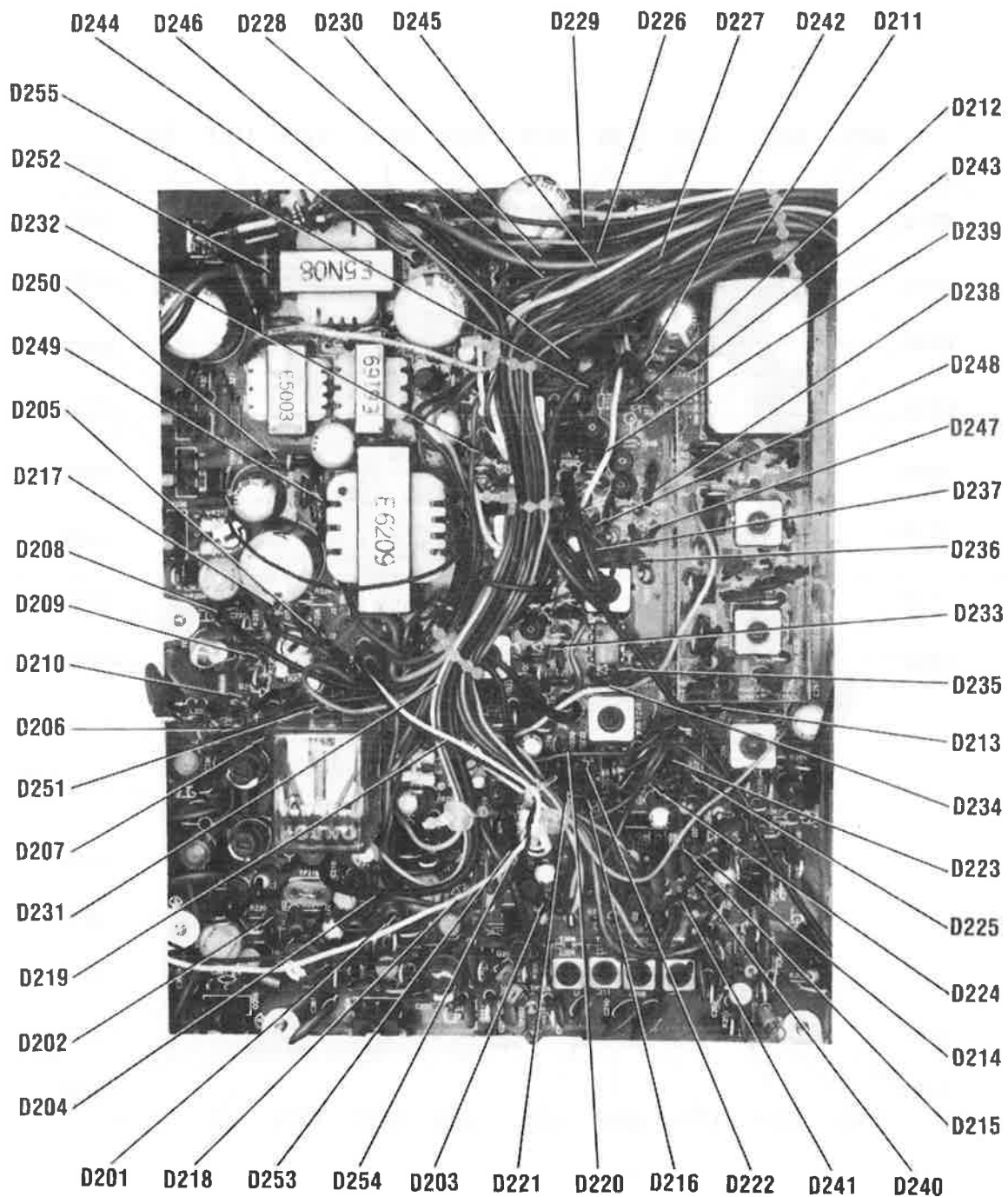
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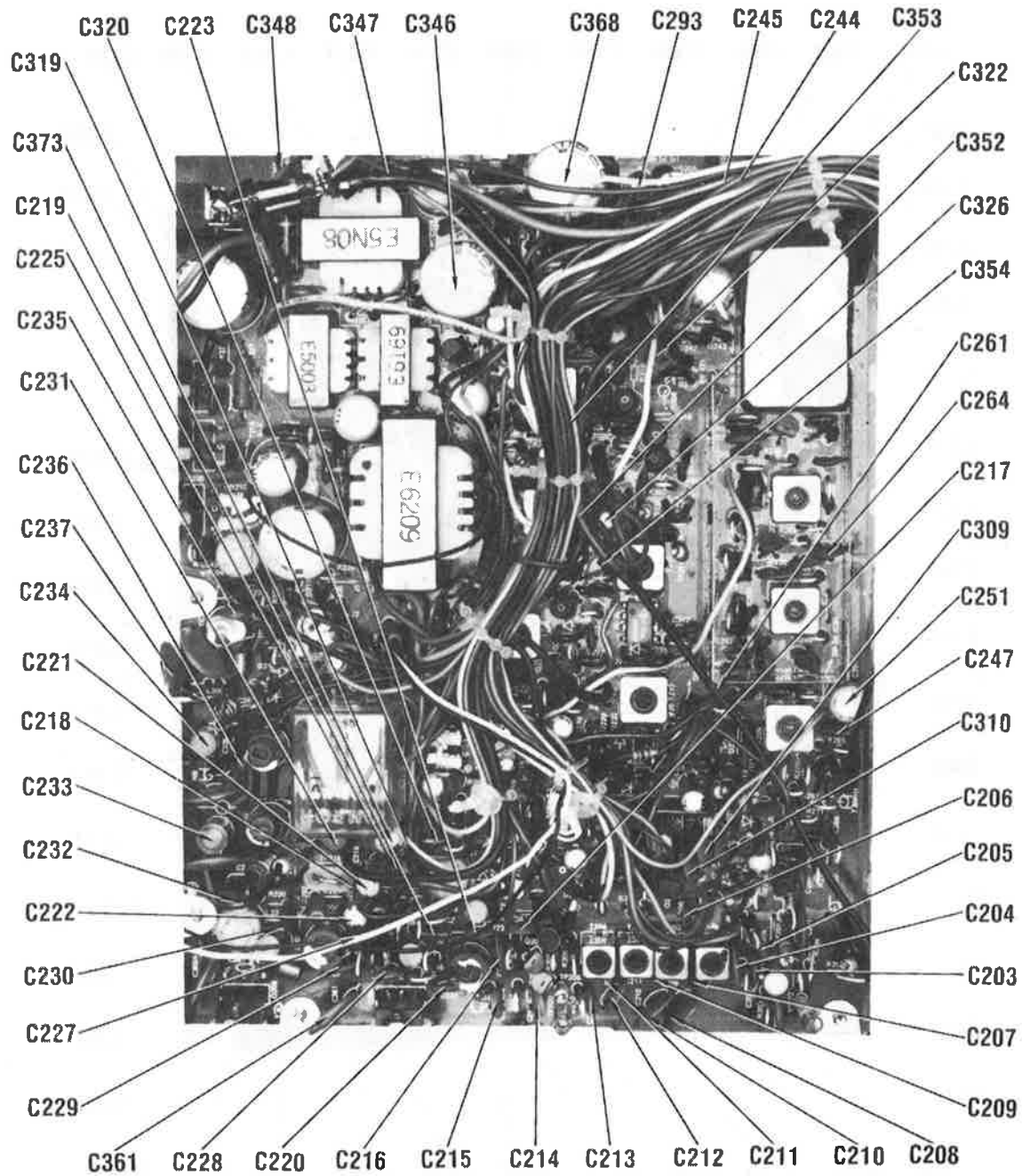
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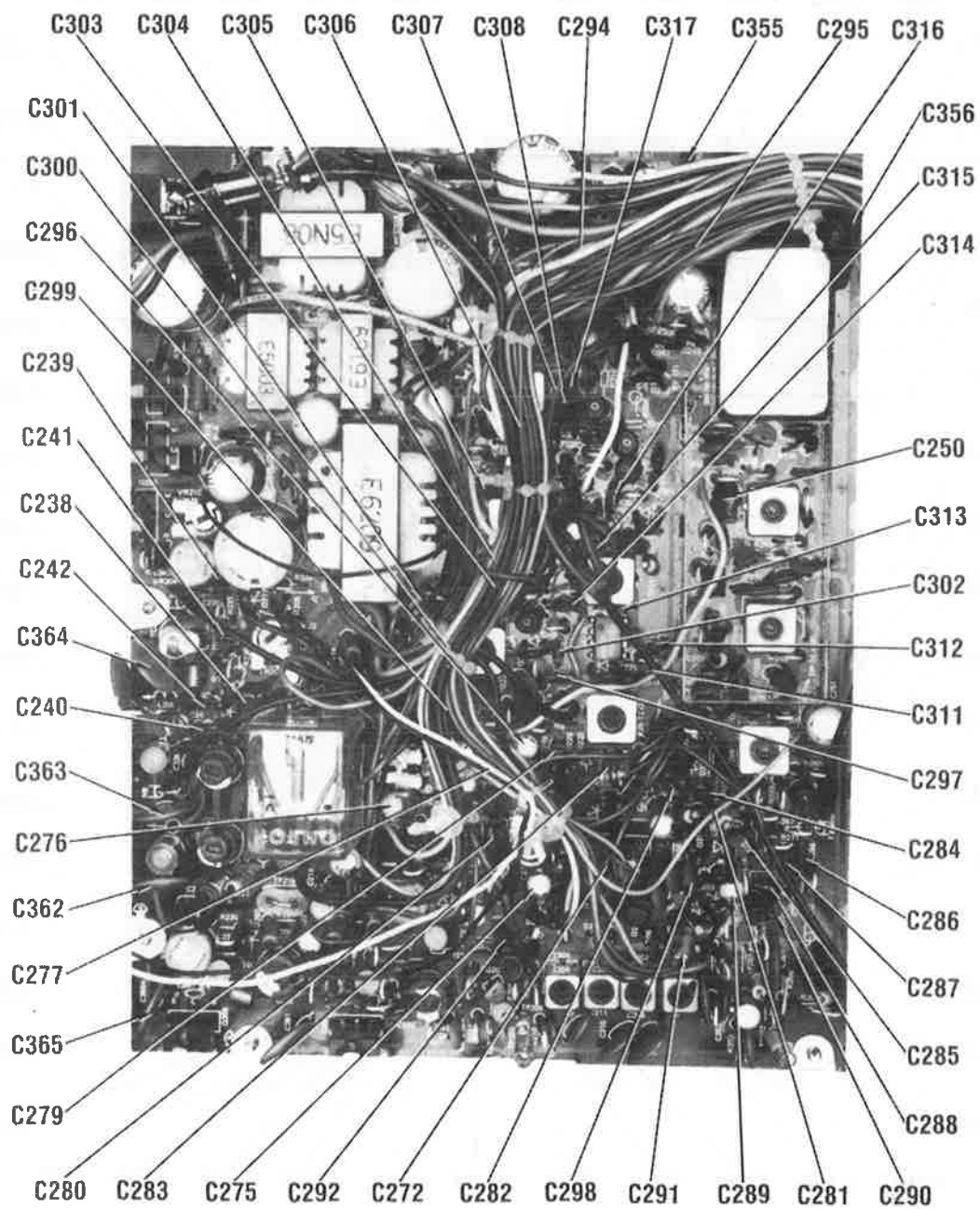
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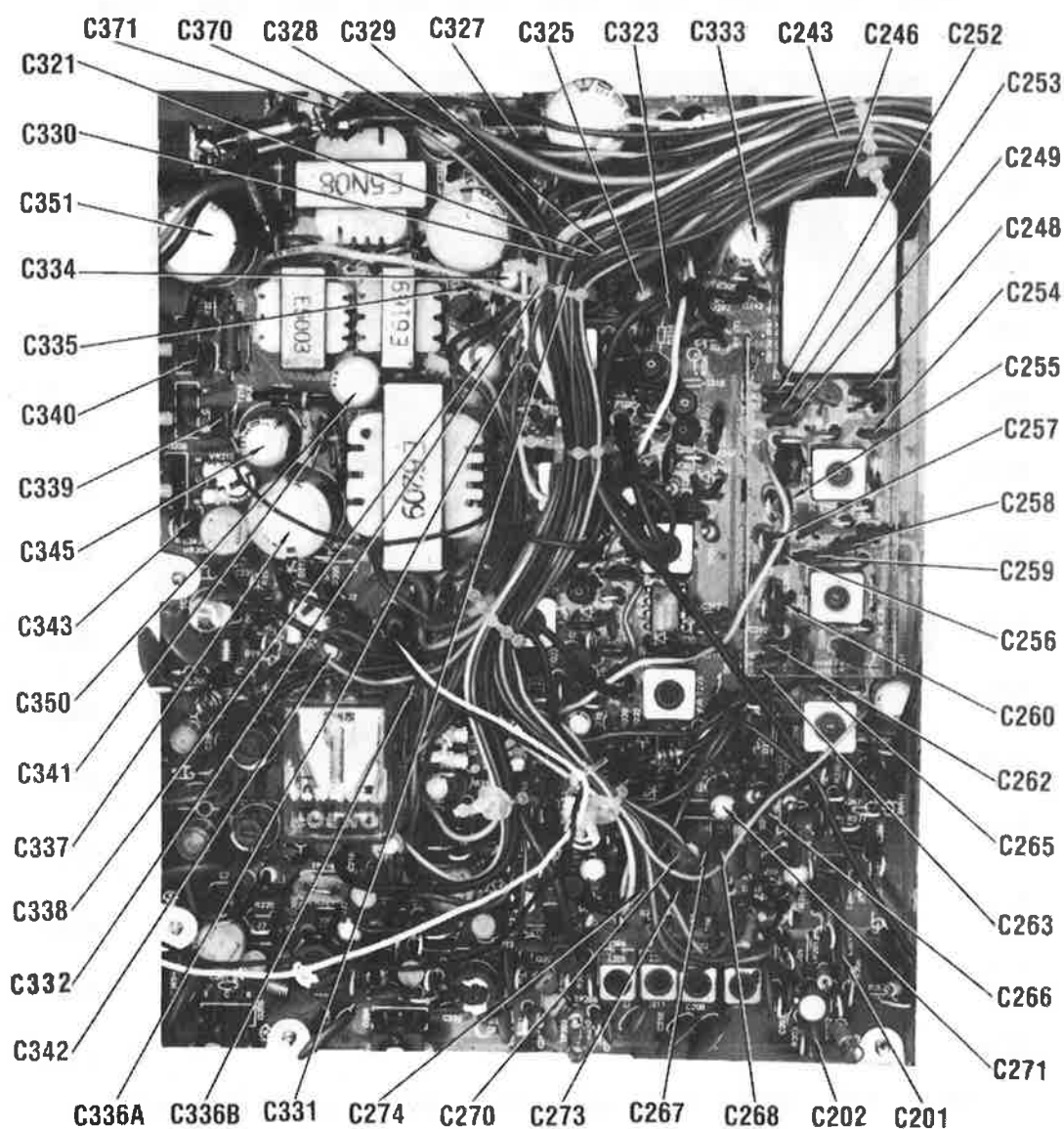
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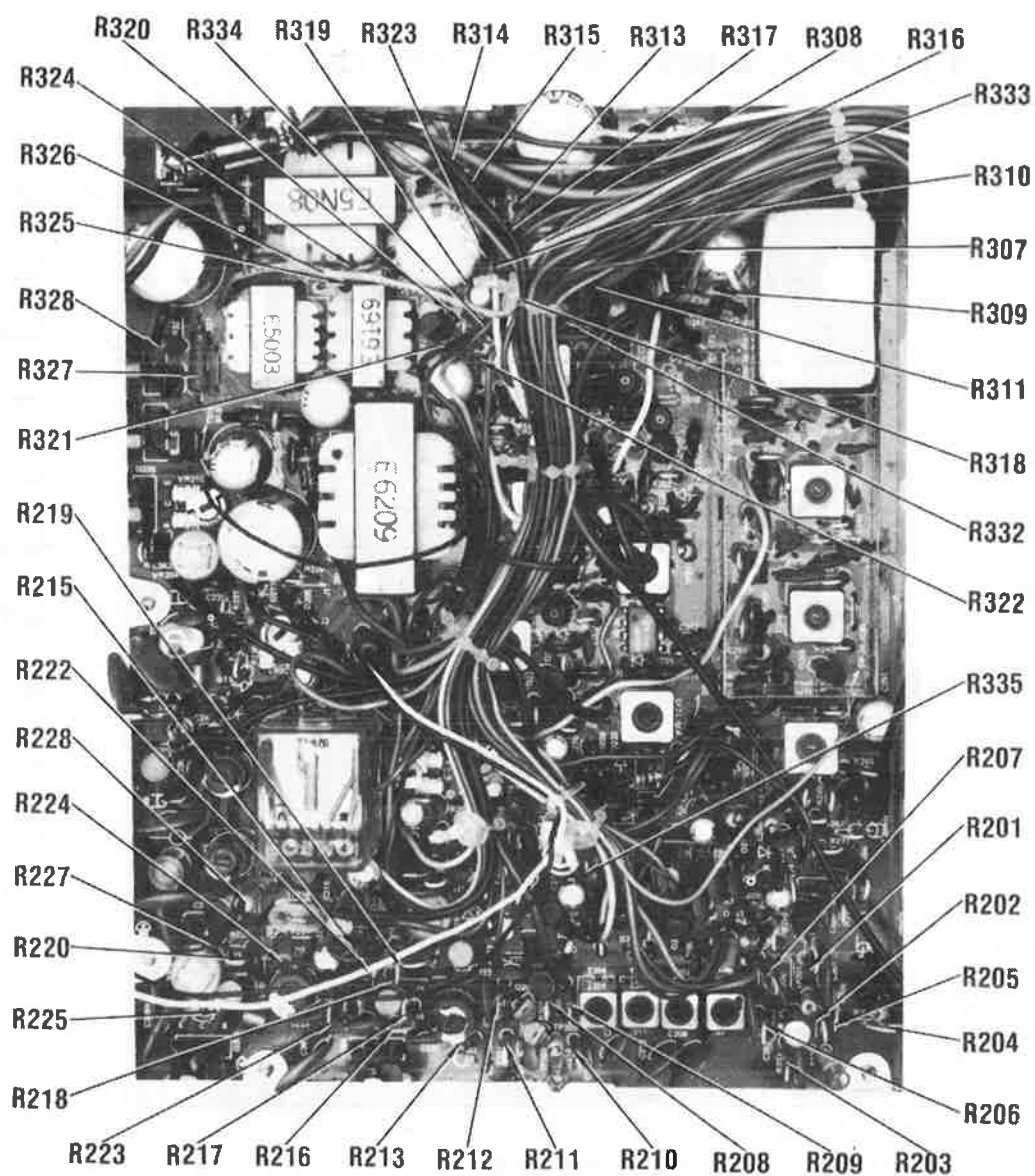
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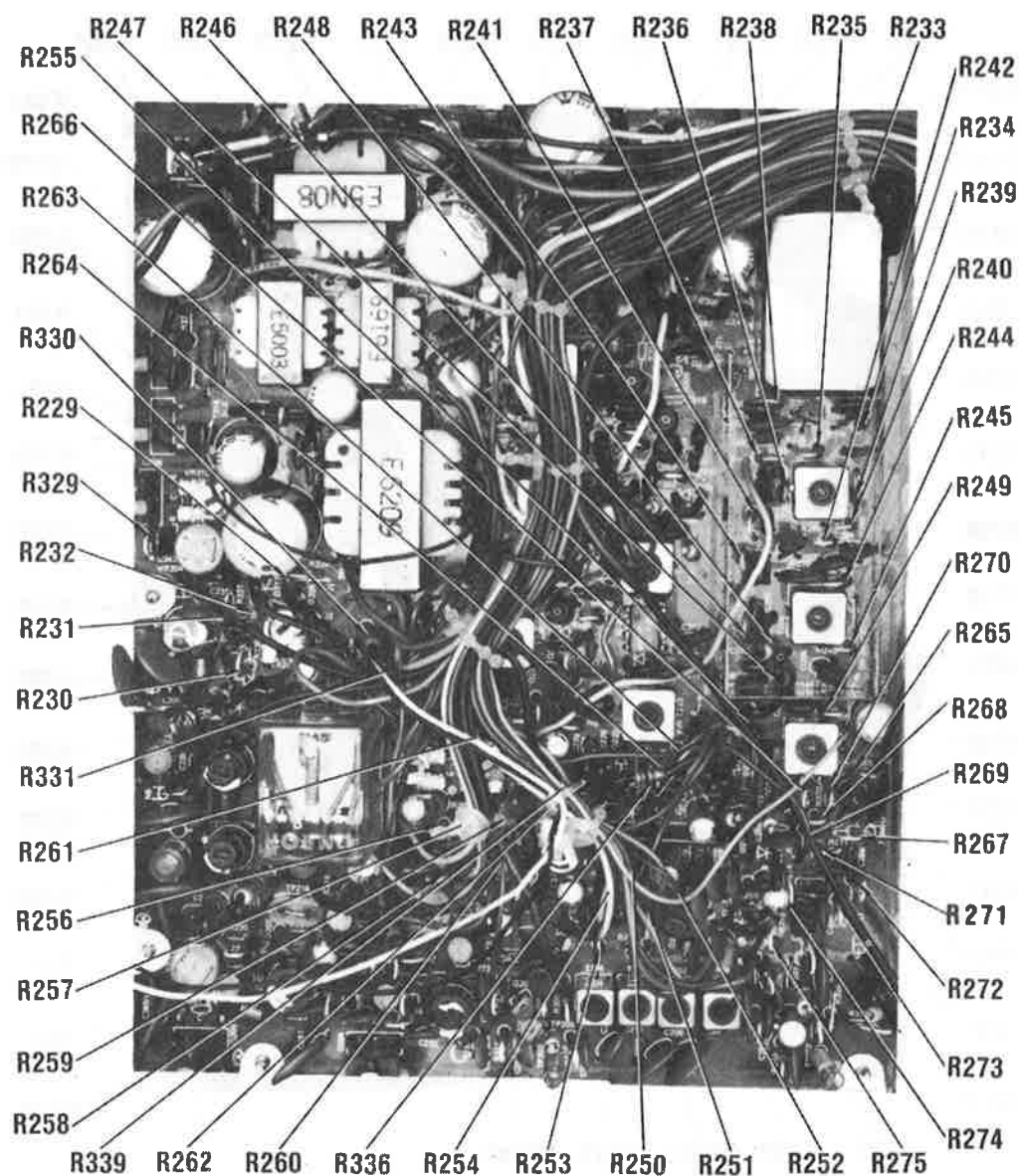
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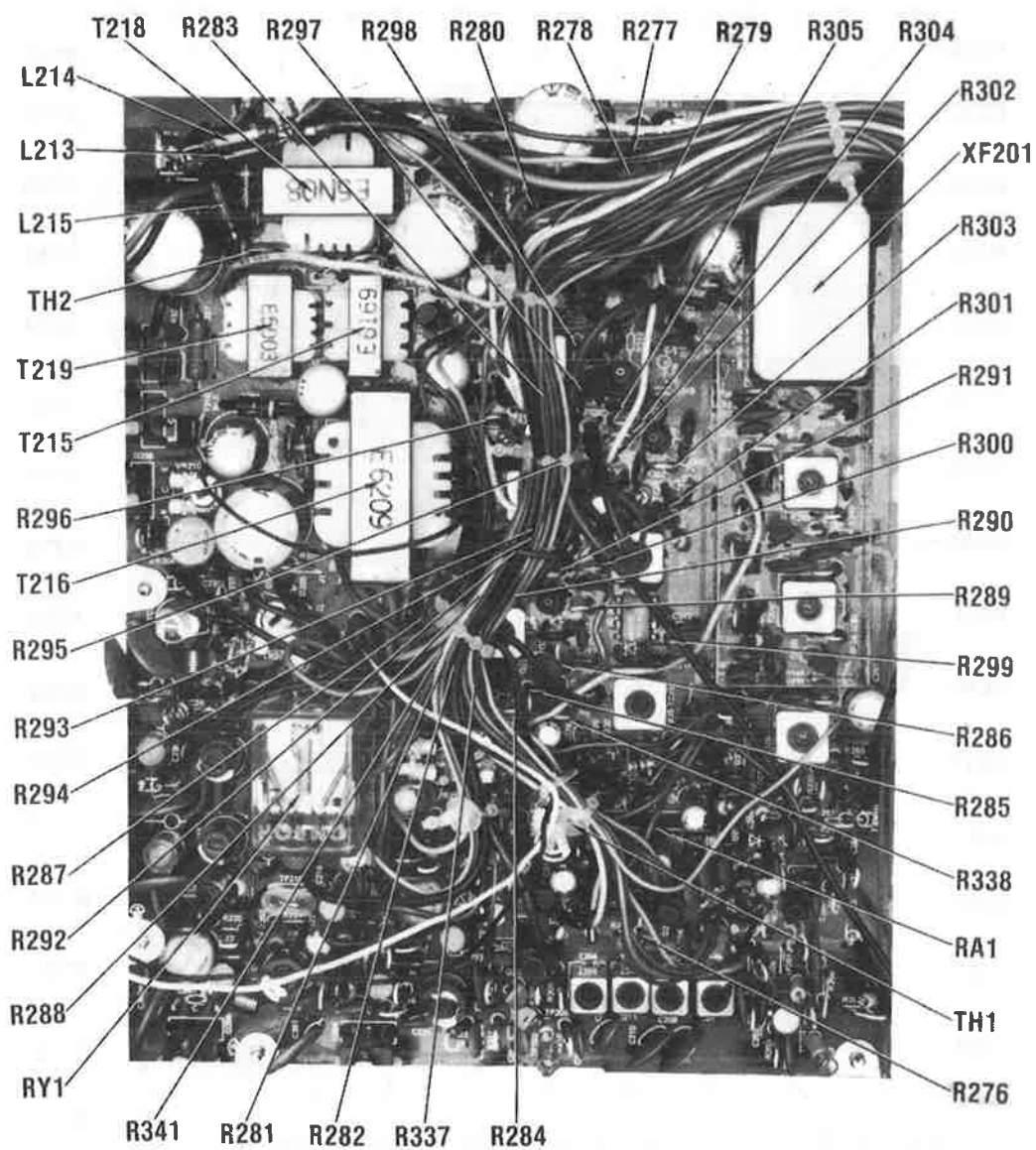
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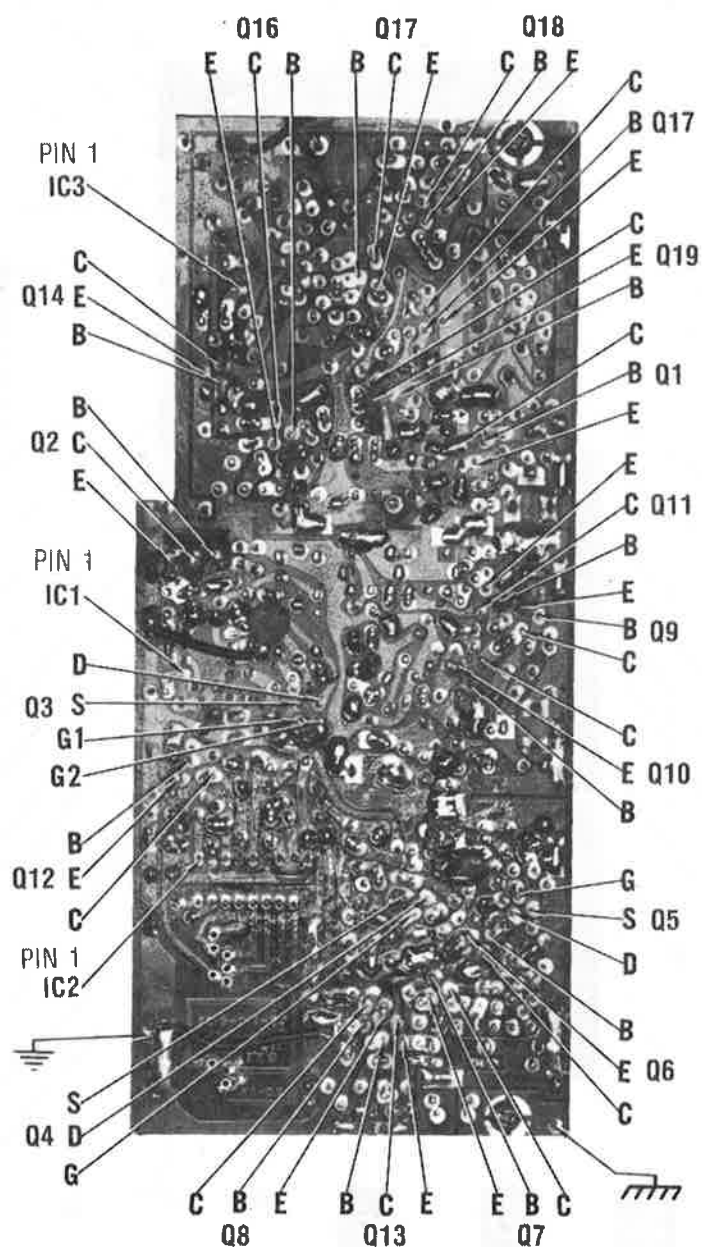
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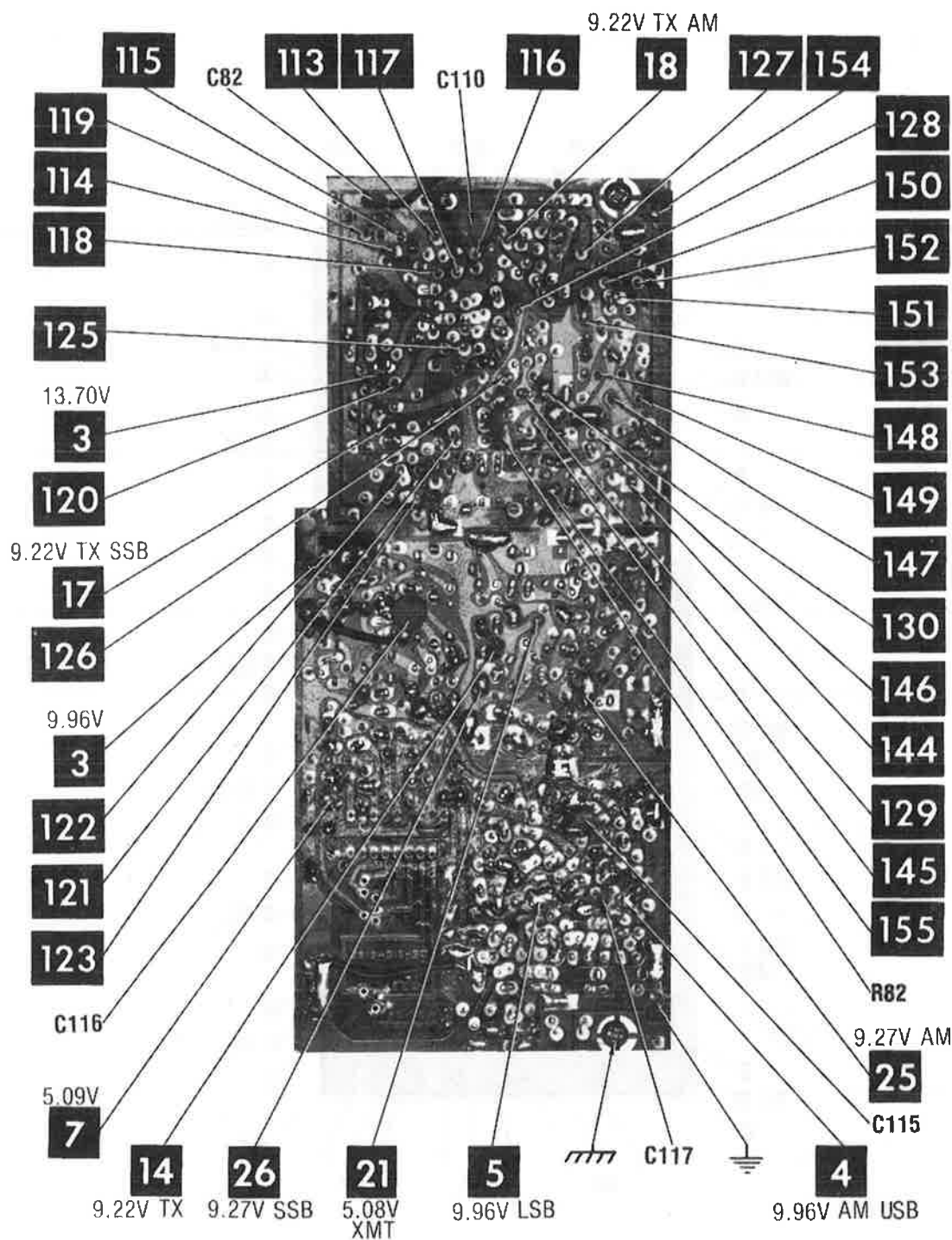
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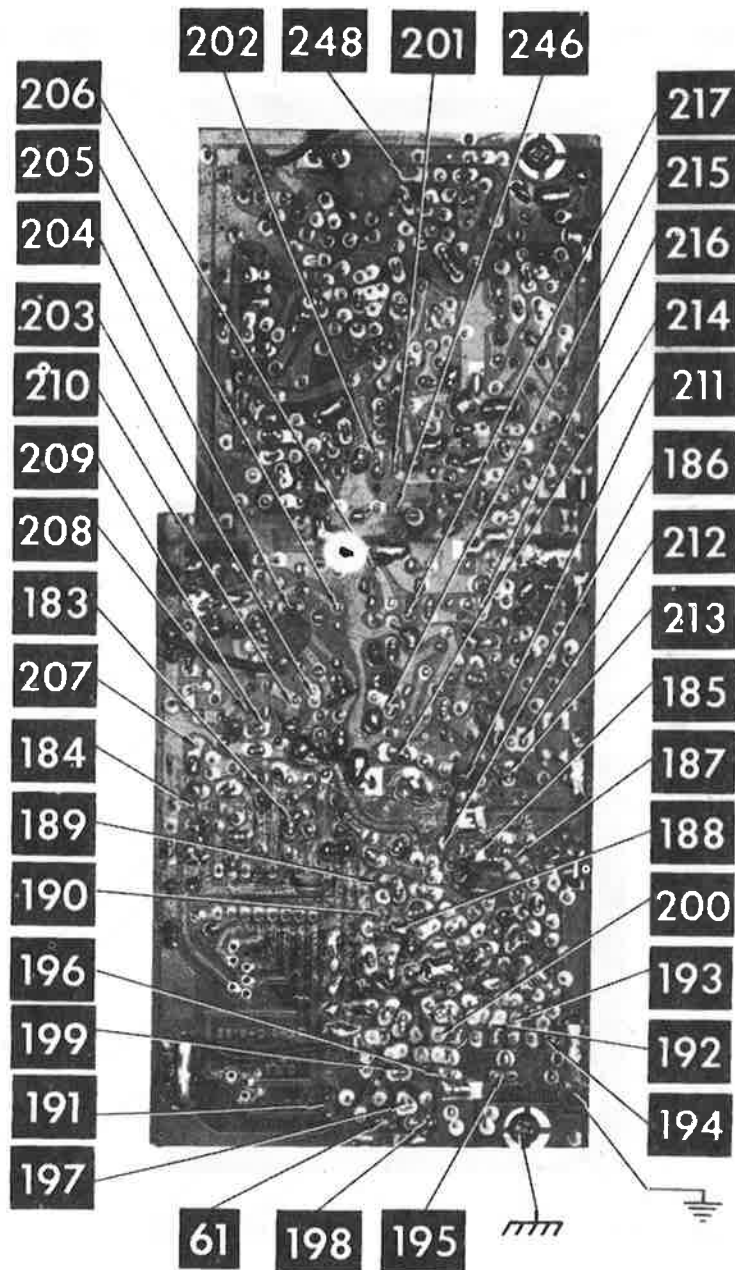
MAIN BOARD



PLL BOARD

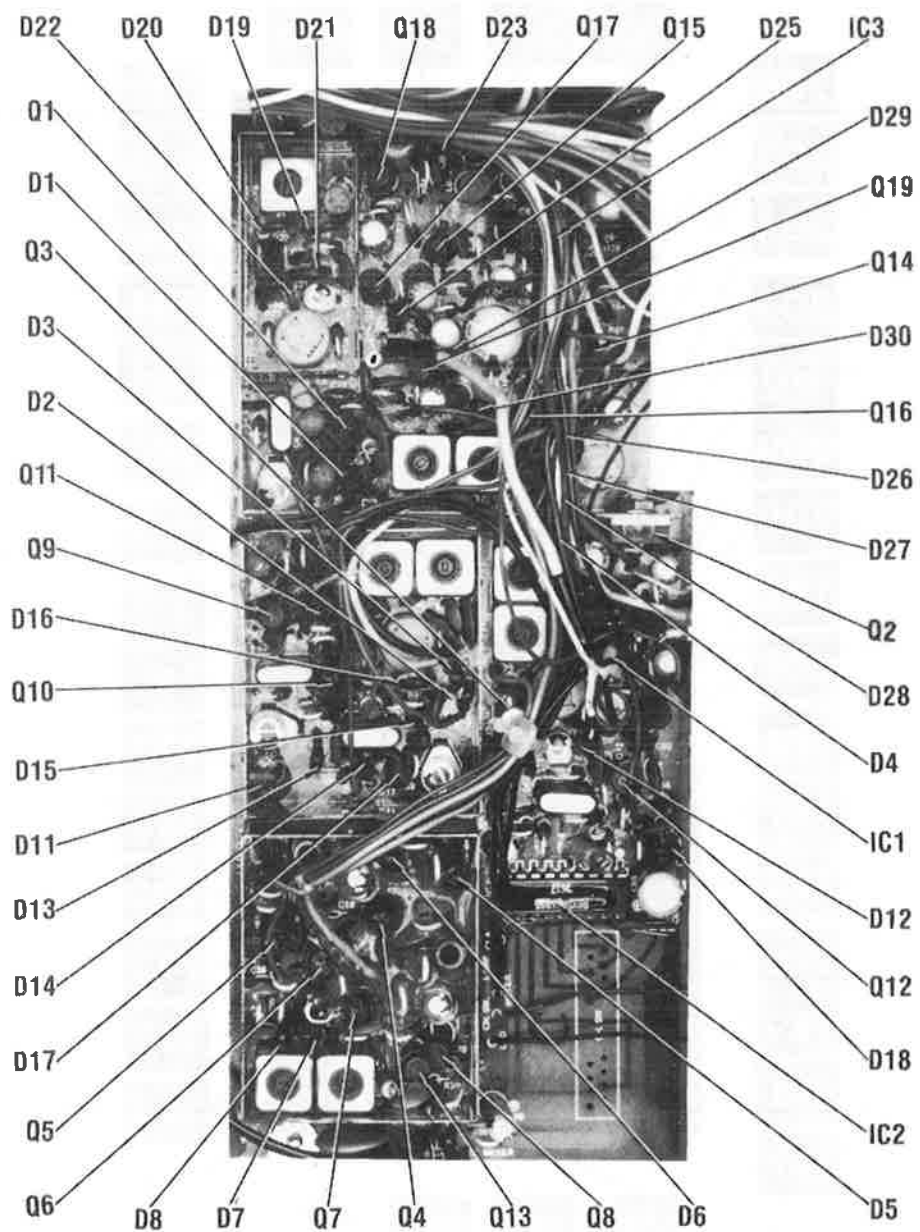


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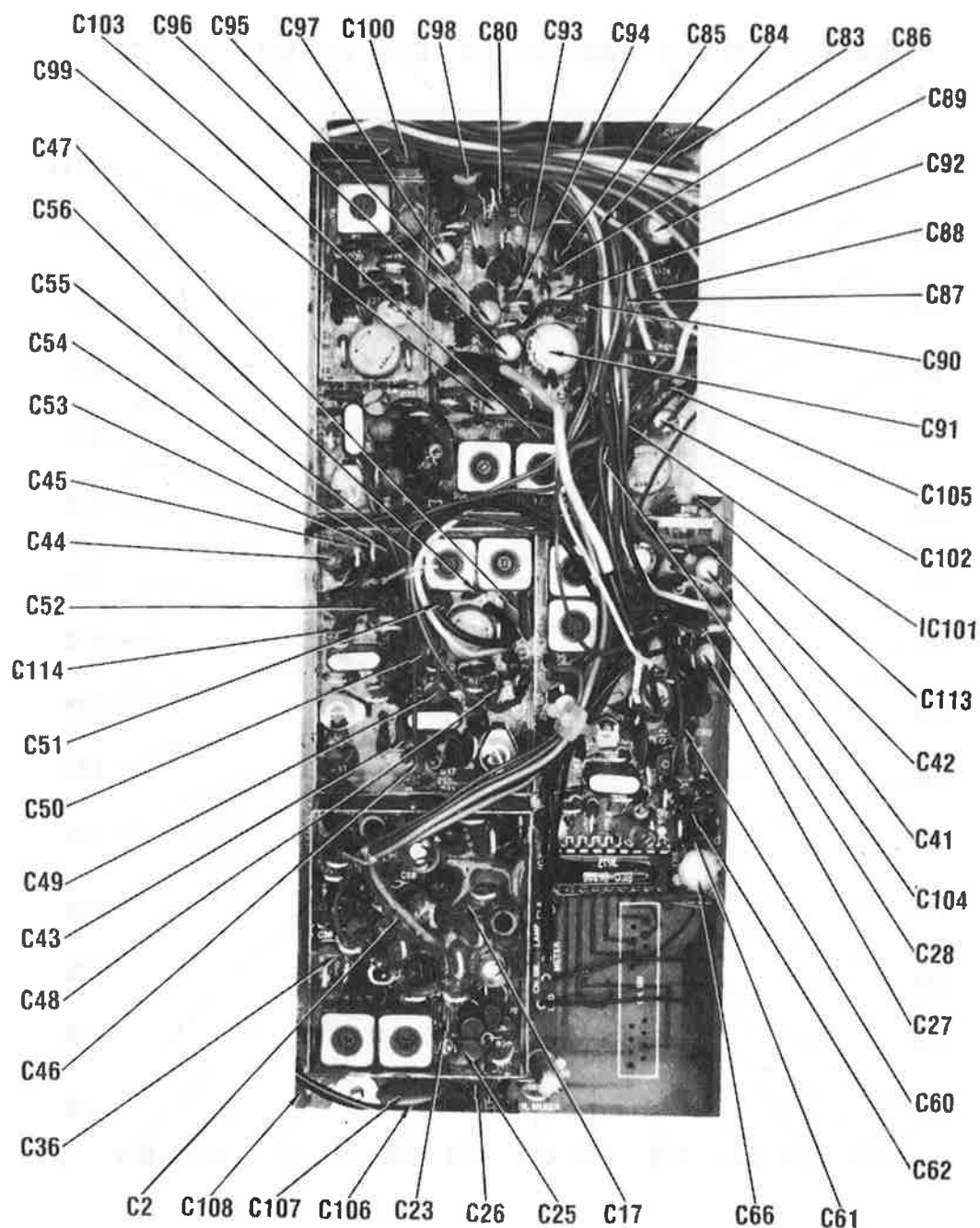


REALISTIC MODEL TRC-448

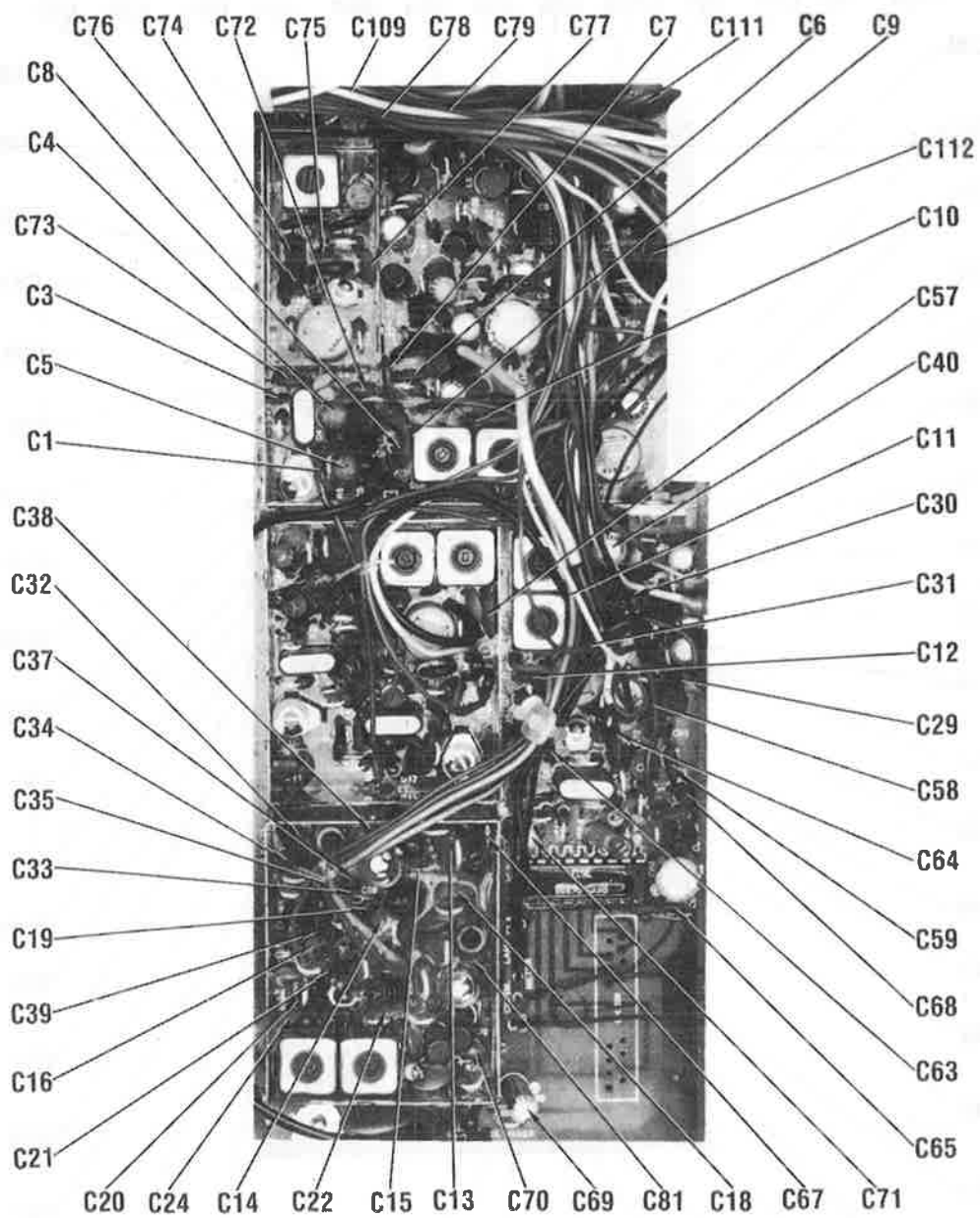
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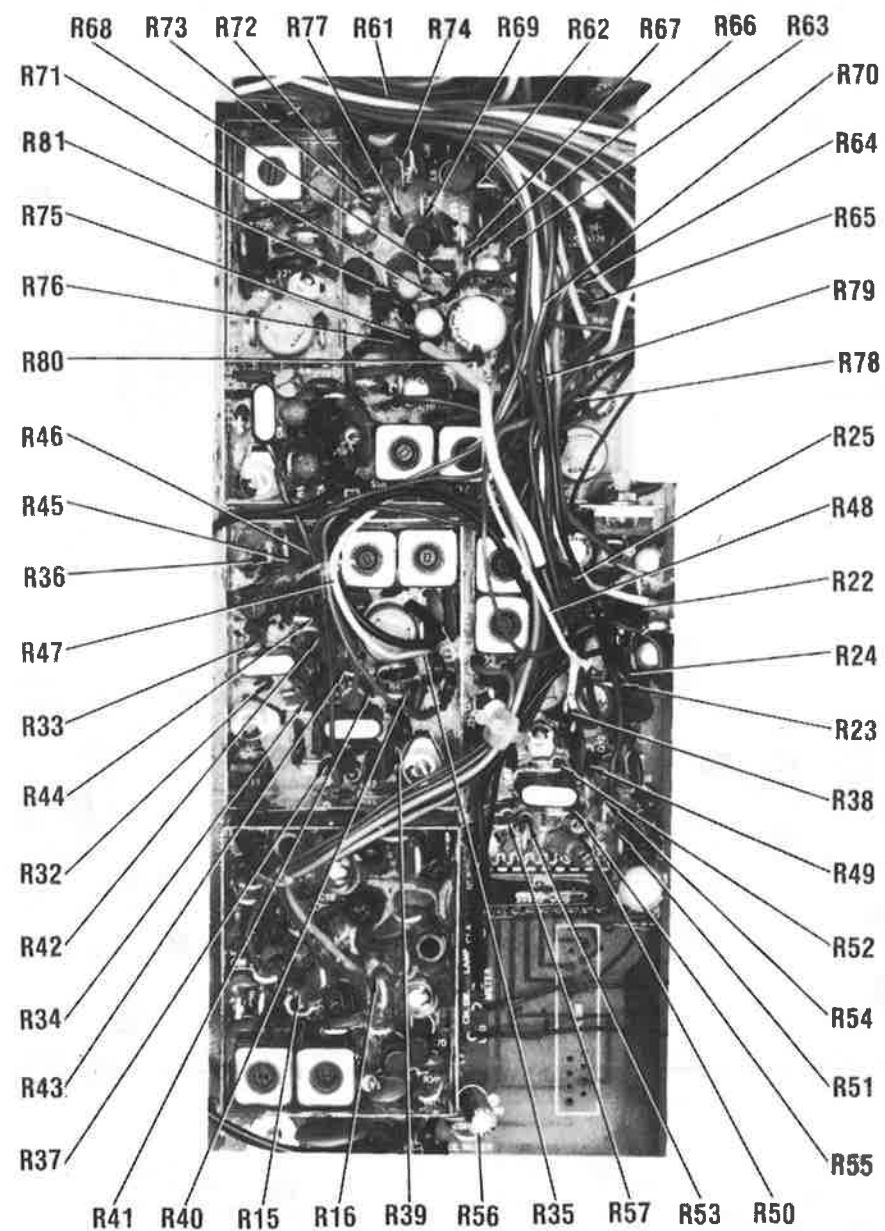
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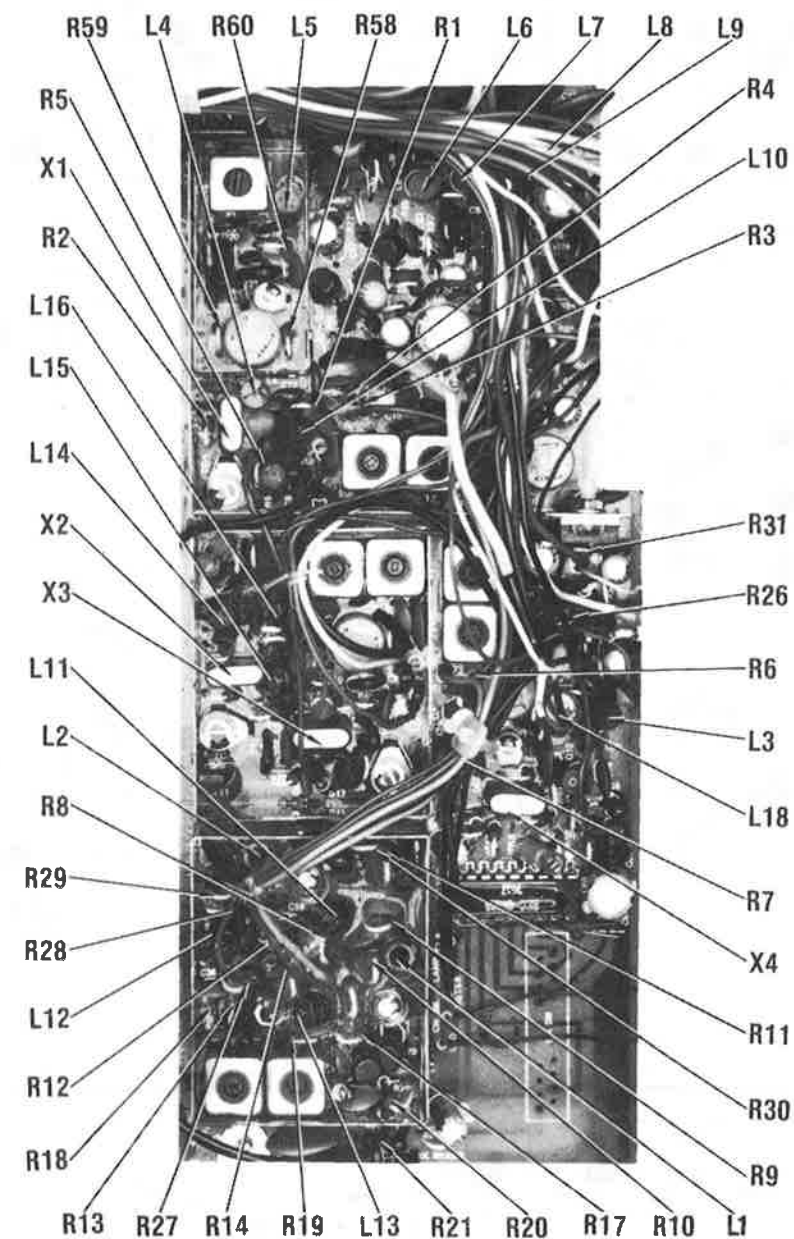
PLL BOARD



PLL BOARD



PLL BOARD



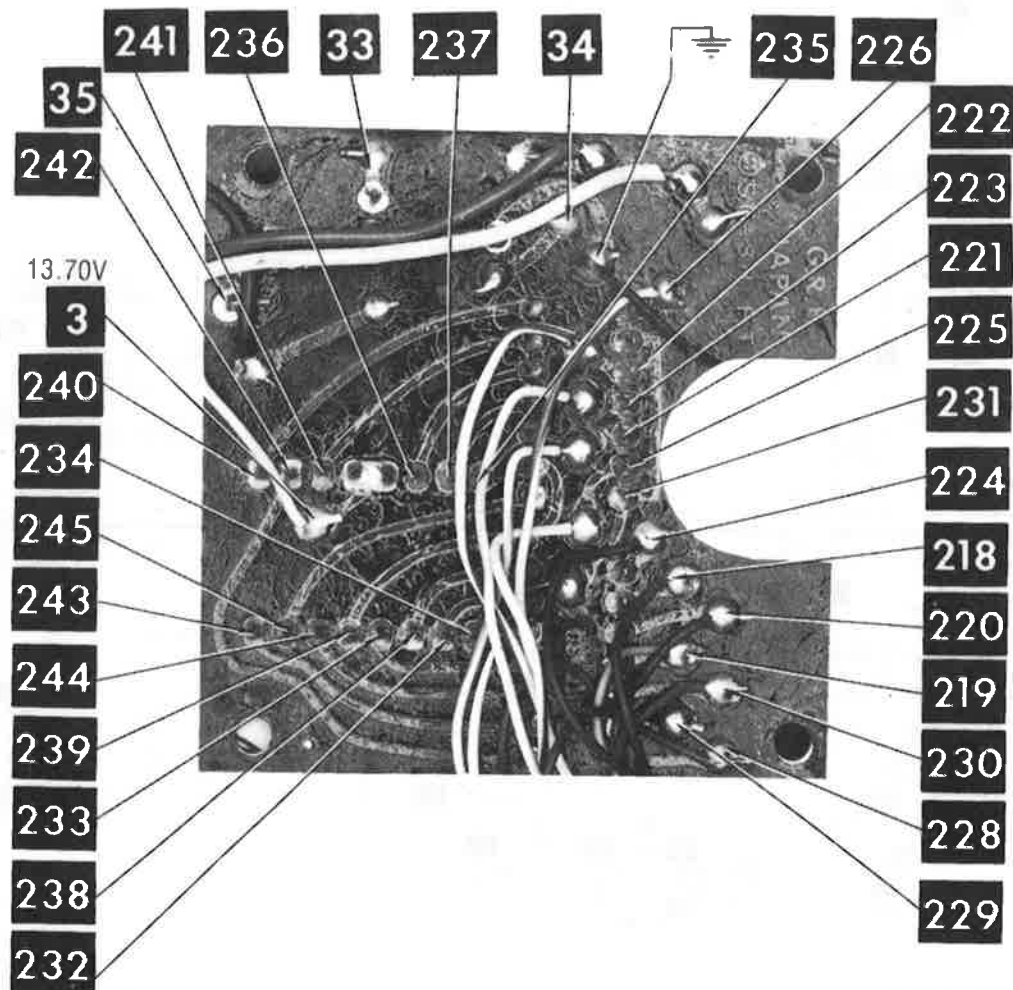
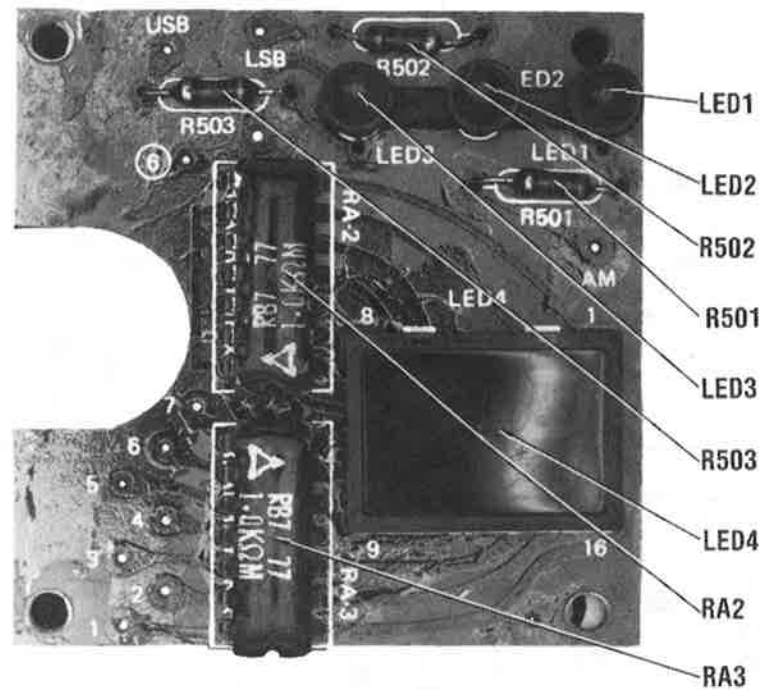
PLL BOARD

2
35
242
13.70V
3
240
234
245
243
244
239
233
238
232

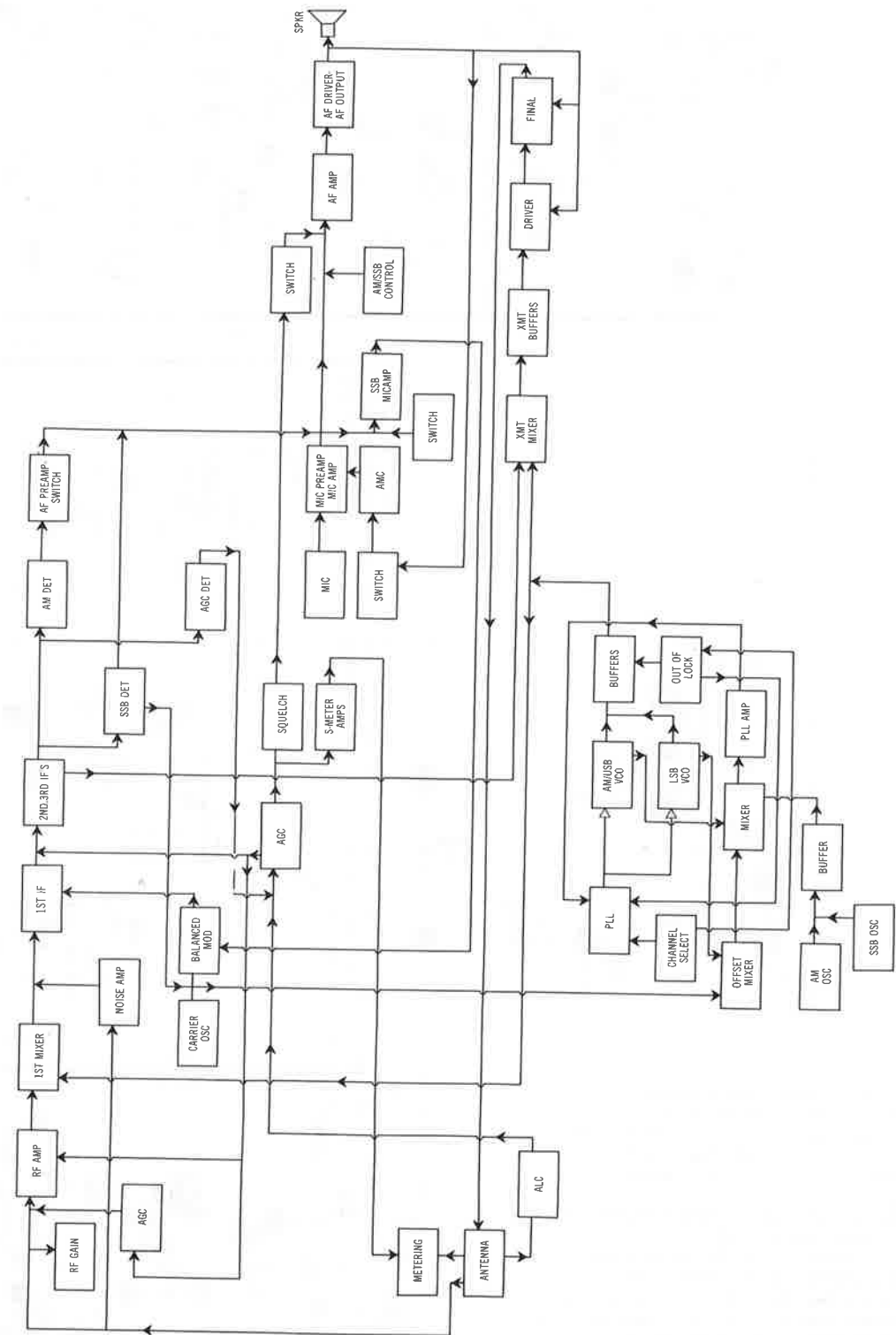
L8 L9
R4
L10
R3

R31
R26
R6
L3
L18
R7
X4
R11
R30
R9
R10 L1

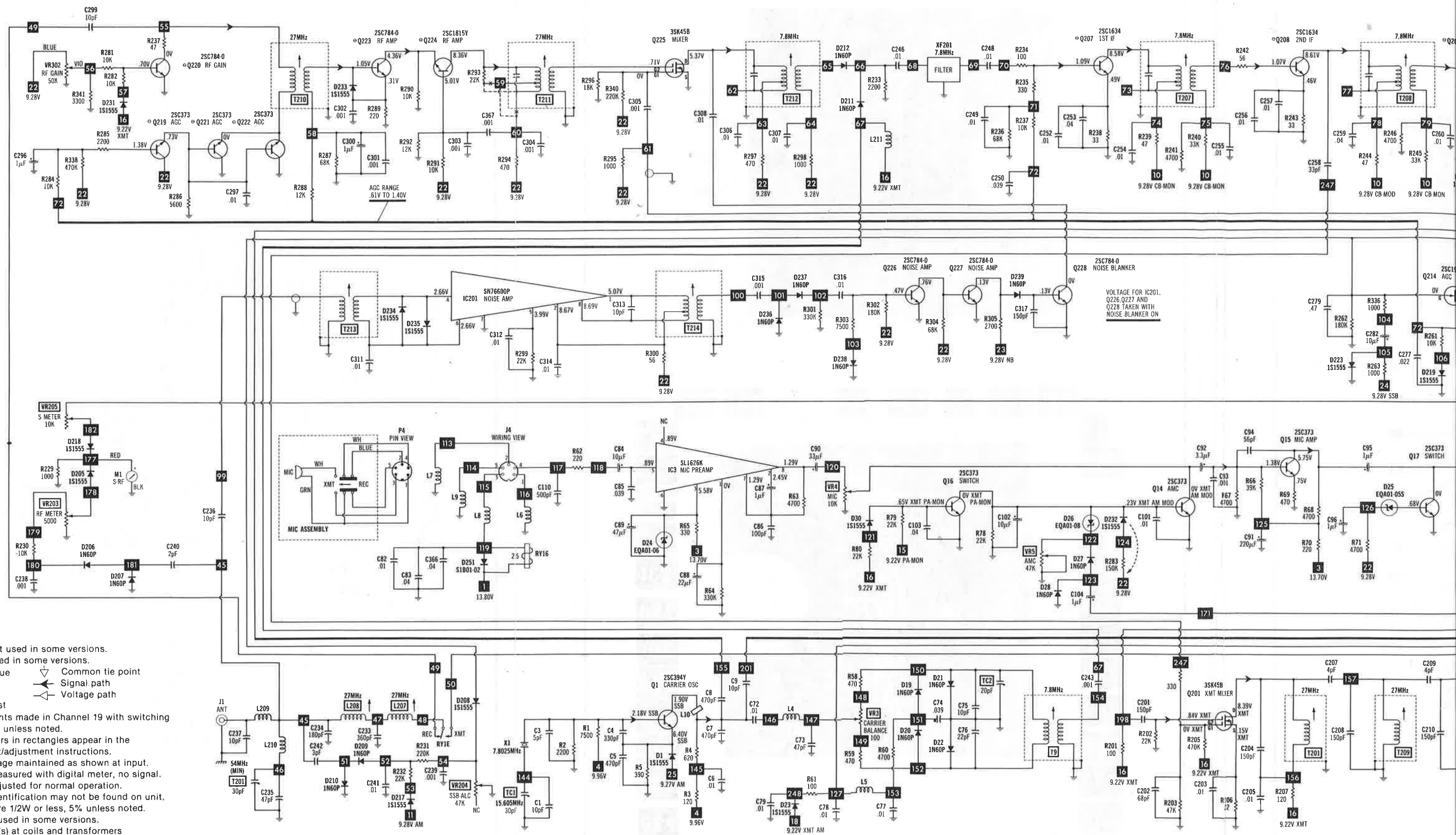
PLL BOARD



LED BOARD



BLOCK DIAGRAM

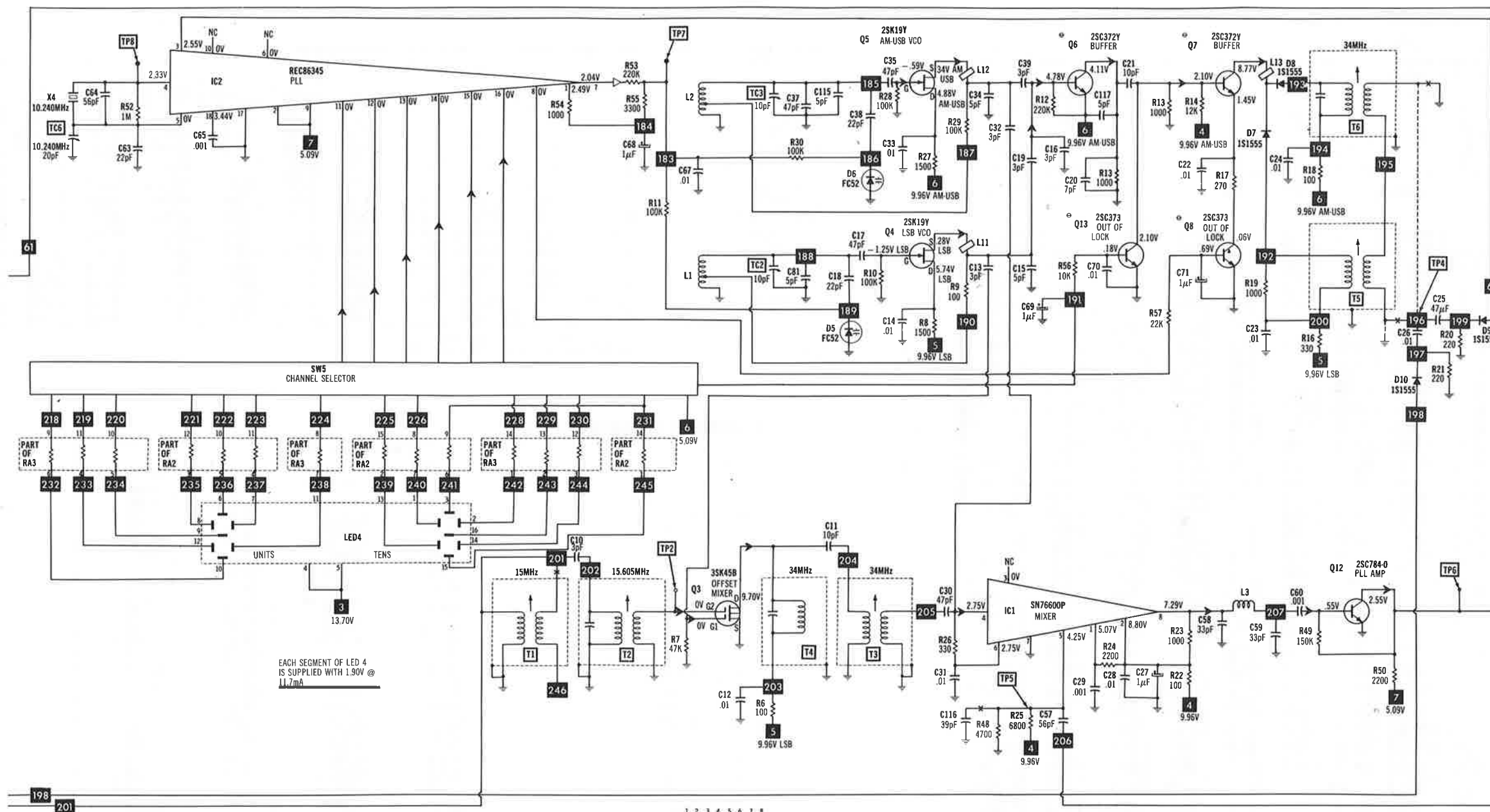


* Circuitry not used in some versions.
 --- Circuitry used in some versions.
 * Nominal value
 ⊥ Ground
 ▭ Chassis
 ⊕ See parts list
 Measurements made in Channel 19 with switching in receive unless noted.
 Item numbers in rectangles appear in the alignment/adjustment instructions.
 Supply voltage maintained as shown at input.
 Voltages measured with digital meter, no signal.
 Controls adjusted for normal operation.
 Terminal identification may not be found on unit.
 Resistors are 1/2W or less, 5% unless noted.
 Value in () used in some versions.
 Arrow head(s) at coils and transformers indicates accessibility of tuning slug(s).

A PHOTOFACT STANDARD NOTATION SCHEMATIC
 WITH **CIRCUITTRACE®**
 © Howard W. Sams & Co., Inc. 1979

MAIN CB SCHEMATIC

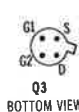




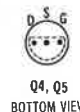
EACH SEGMENT OF LED 4
IS SUPPLIED WITH 1.90V @
11.7mA



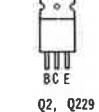
Q6 THRU Q13
BOTTOM VIEW



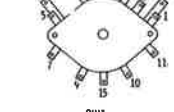
Q3
BOTTOM VIEW



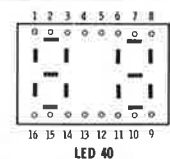
Q4, Q5
BOTTOM VIEW



Q2, Q229
BOTTOM VIEW



SW1
BOTTOM VIEW



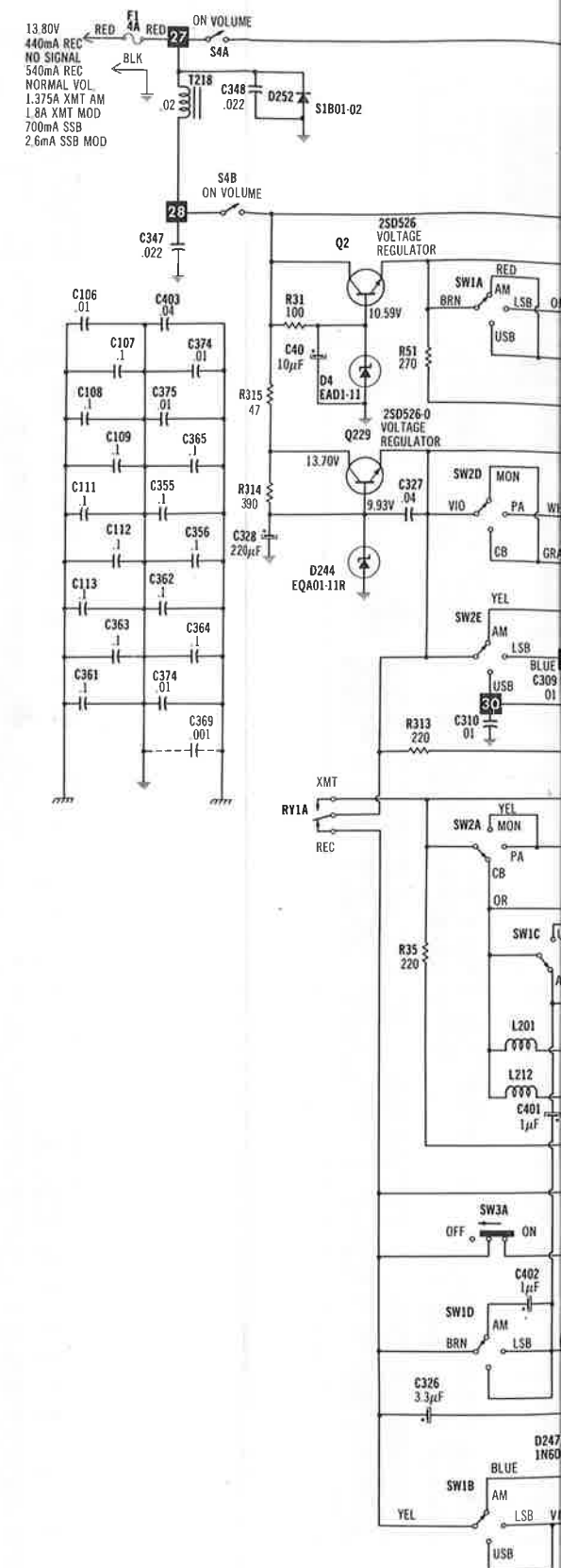
LED 40
BOTTOM VIEW

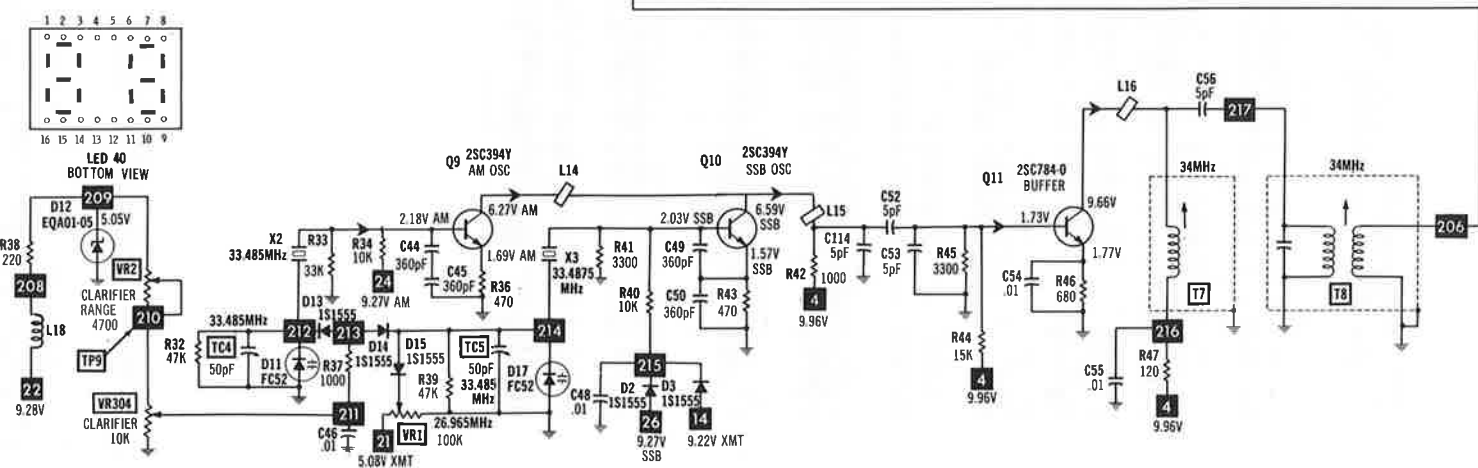
- ✕ Circuitry not used in some versions.
- Circuitry used in some versions.
- ✱ Nominal value
- ⊥ Ground
- ⏏ Chassis
- ⊙ See parts list
- ▽ Common tie point
- Signal path
- ⤴ Voltage path

Measurements made in Channel 19 with switching
in receive unless noted.
Item numbers in rectangles appear in the
alignment/adjustment instructions.
Supply voltage maintained as shown at input.
Voltages measured with digital meter, no signal.
Controls adjusted for normal operation.
Terminal identification may not be found on unit.
Resistors are 1/2W or less, 5% unless noted.
Value in () used in some versions.
Arrow head(s) at coils and transformers
indicates accessibility of tuning slug(s).

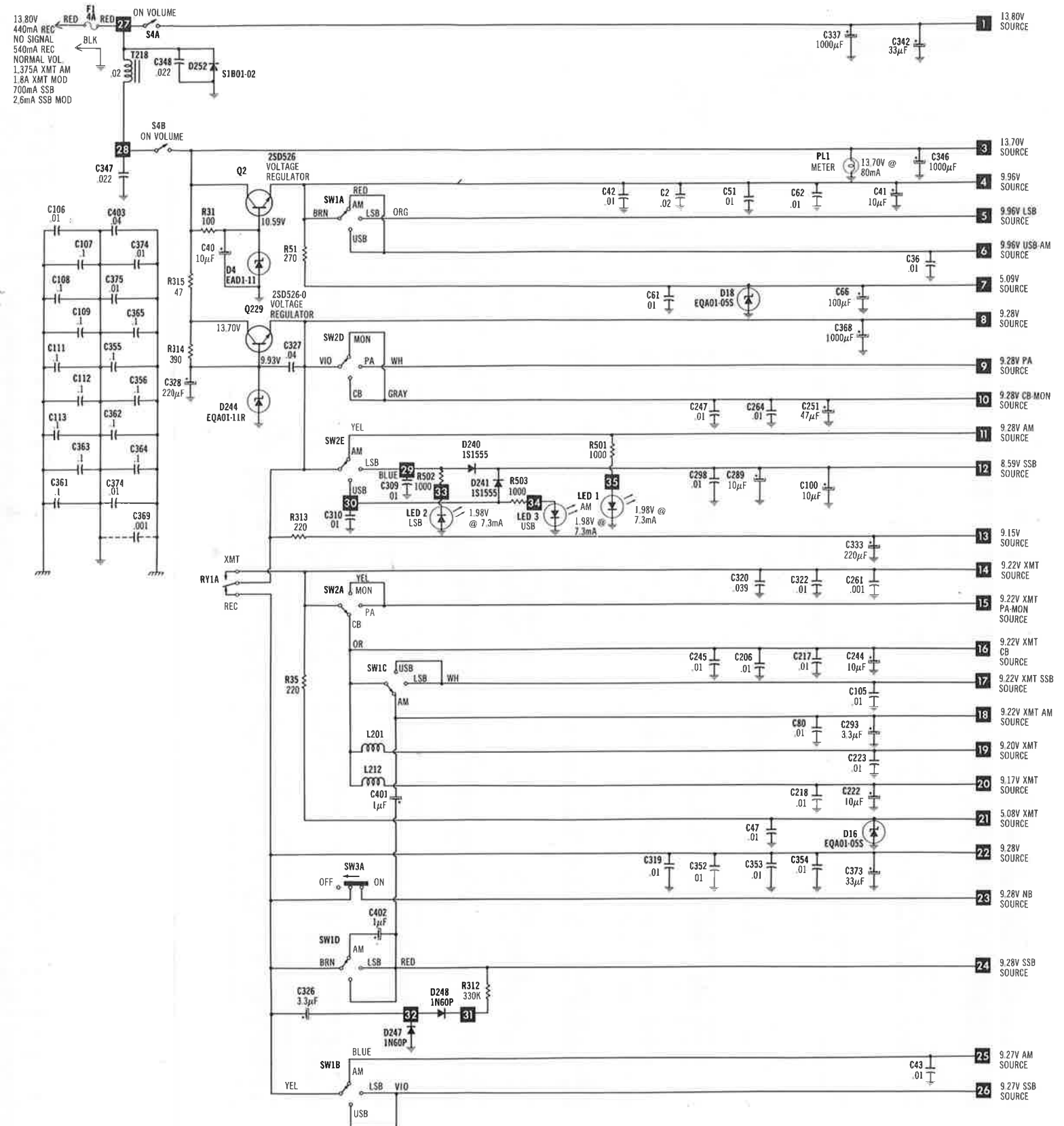
CHANNEL SELECTOR & PLL SCHEMATIC

A PHOTOFAC STANDARD NOTATION SCHEMATIC
WITH **CIRCUITRACE**
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PARTS LIST AND DESCRIPTION (CONTINUED)

(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	23AWG BELDEN No. 9471 (5')
Shielded Hook-up Wire (spiral wrapped)	BELDEN No. 8421	3-conductor (1 shielded)	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	28AWG 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.
01	1S1555	DX0270	3E-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
02	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
03	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
04	EQAO1-11R	DX0113	GEZD-11	ZB11B		REN 5074	SK3139	RT-242	ECG5074A	TM5074/**	WEP1156	103-279-20
05	FC52	DX0718										
06	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
07	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
08	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
09	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
10	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
11	FC52	DX0718										
12	EQAO1-05S	DX0989	GEZD-5.0			REN 135			ECG135A	TM135	WEP1103	103-29006
13	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
14	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
15	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
16	EQAO1-05S	DX0989	GEZD-5.1			REN 135			ECG135A	TM135	WEP1103	103-29006
17	FC52	DX0718										
18	EQAO1-05S	DX0989	GEZD-5.0			REN 135			ECG135A	TM135	WEP1103	103-29006
19	1N60P	DX0162		PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
20	1N60P	DX0162		PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
21	1N60P	DX0162		PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
22	1N60P	DX0162		PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
23	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
24	EQAO1-06S	DX0990	GEZD-6.8	ZB6.8A	HEP20409	REN 5071	SK3334	RT-238	ECG5071	TM5071/**	WEP1106	103-29006
25	EQAO1-05S	DX0989	GEZD-5.0			REN 135			ECG135A	TM135	WEP1103	103-29006
26	EQAO1-08S	DX0991	GEZD-8.2	ZB8.2B		REN 5072	SK3136	RT-257	ECG5072A	TM5072/**	WEP1108	103-29006
27	1N60P	DX0162		PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
28	1N60P	DX0162		PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
29	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
30	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
31	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
32	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
33	EQAO1-05S	DX0112	GEZD-5.0			REN 135			ECG135A	TM135	WEP1103	103-29006
34	EQAO1-33	DX0121	GEZD-33	ZB33A	HEP20426	REN 147	SK3095	RT-250	ECG147	TM147/**	WEP1122	103-29004
35	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
36	1N60P	DX0162		PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
37	1N60P	DX0162		PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
38	1N60P	DX0162		PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
39	1N60P	DX0162		PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
40	1N60P	DX0162		PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
41	1N60P	DX0162		PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
42	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
43	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
44	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
45	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
46	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
47	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
48	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
49	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
50	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
51	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
52	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
53	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
54	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
55	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
56	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
57	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
58	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
59	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
60	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
61	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
62	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
63	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
64	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
65	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
66	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
67	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
68	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
69	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
70	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
71	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
72	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
73	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
74	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
75	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
76	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
77	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
78	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
79	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
80	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
81	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
82	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
83	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
84	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
85	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
86	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
87	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
88	1S1555	DX0270	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG17			

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.
D247	1N60P	DX0162	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
D248	1N60P	DX0162	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
D249	S1B-01-02	DX0445	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
D250	S1B-01-02	DX0445	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
D251	S1B-01-02	DX0445	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
D252	S1B-01-02	DX0445	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
D253	1N60P	DX0162	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
D254	1N60P	DX0162	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001
D255	1S1555	DX0270	GE-300	PTC214	HEPR0052	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
IC1	5N76600P	MX3336	GEIC-217		HEPC6059P		SK3234	TVM-59	ECG746	TM746	WEP2024	221-29028
IC2	5N76600P	MX3336	GEIC-217		HEPC6059P		SK3234	TVM-59	ECG746	TM746	WEP2024	221-29028
IC3	5N76600P	MX3336	GEIC-217		HEPC6059P		SK3234	TVM-59	ECG746	TM746	WEP2024	221-29028
IC201	5N76600P	MX3336	GEIC-217		HEPC6059P		SK3234	TVM-59	ECG746	TM746	WEP2024	221-29028
Q1	25D526		GE-61*	PTC121*	HEPS0014*	REN 229*	SK3018*	RT-309	ECG229*	TM229*	WEP394	121-970
Q2	25D526		GE-241	PTC167	HEPS3060	REN 196	SK3054	RT-152	ECG196	TM196	WEP756	121-970
Q3	35K458		GE-FET-4	PTC182	HEPF2007	REN 222	SK3065	RT-181	ECG222	TM222	WEP905	121-826
Q4	35K458		GE-FET-4	PTC182	HEPF2007	REN 222	SK3065	RT-181	ECG222	TM222	WEP905	121-826
Q5	25K19Y		GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312	WEP920	121-756
Q6	25K19Y		GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312	WEP920	121-756
Q7	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q8	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q9	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q10	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q11	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q12	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q13	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q14	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q15	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q16	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q17	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q18	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q19	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q20	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q201	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q202	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q203	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q204	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q205	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q206	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q207	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q208	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q209	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q210	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q211	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q212	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q213	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q214	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q215	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q216	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q217	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q218	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q219	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q220	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q221	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q222	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q223	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q224	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q225	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q226	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000
Q227	25C372Y		GE-61*	PTC121*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-29000

REALISTIC MODEL TRC-448

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.
Q228	25C784-0		GE-60*	PTC132*	HEPS0008*	REN 229*	SK3122	RT-187	ECG229*	TM229/**	WEP784	121-29021
Q229	25C784-0		GE-61*	PTC132	HEPS0016	REN 229	SK3018	RT-107	ECG229	TM229	WEP784	121-29000A*
Q230	25C784-0		GE-61*	PTC132	HEPS0016	REN 229	SK3018	RT-107	ECG229	TM229	WEP784	121-29000A*
Q231	25C784-0		GE-61*	PTC132	HEPS0016	REN 229	SK3018	RT-107	ECG229	TM229	WEP784	121-29000A*
Q232	25C784-0		GE-61*	PTC132	HEPS0016	REN 229	SK3018	RT-107	ECG229	TM229	WEP784	121-29000A*
Q233	25C784-0		GE-61*	PTC132	HEPS0016	REN 229	SK3018	RT-107	ECG229	TM229	WEP784	121-29000A*
Q234	25C784-0		GE-61*	PTC132	HEPS0016	REN 229	SK3018	RT-107	ECG229	TM229	WEP784	121-29000A*
Q235	25C784-0		GE-61*	PTC132	HEPS0016	REN 229	SK3018	RT-107	ECG229	TM229	WEP784	121-29000A*
Q236	25C784-0		GE-61*	PTC132	HEPS0016	REN 229	SK3018	RT-107	ECG229	TM229	WEP784	121-29000A*

* Lead configuration may vary from original.
** Also available as exact type replacement.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C27	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C40	33 16V		PC30-25	VTT33025	QV1-63	EV-1325
C41	10 16V		PC10-25	VTT10825	QV1-41	EV-1222
C66	100 10V		PC100-10	VTT100E10	QV1-93	EV-1131
C68	1 35V			TDCl04M050EL	QDT1-2	SD50-R109
C69	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C71	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C84	10 16V		PC10-25	VTT10825	QV1-41	EV-1222
C87	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C88	22 16V			TDc226M035GL	QDT1-83	SD35-229
C89	47 16V		PC50-16	VTT47D16	QV1-73	EV-1226
C90	33 50V		PC30-50	VTT33650	QV1-69	EV-1625.1
C91	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
C92	3.3 50V		PC5-50	VTT3R3A50	QV1-25	EV-1618.1
C95	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C96	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C97	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C98	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C99	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C100	10 16V		PC10-25	VTT10825	QV1-41	EV-1222
C102	10 16V		PC10-25	VTT10825	QV1-41	EV-1222
C104	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C221	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C222	10 16V		PC10-25	VTT10825	QV1-41	EV-1222
C244	10 16V		PC10-25	VTT10825	QV1-41	EV-1222
C251	47 16V		PC50-16	VTT47D16	QV1-73	EV-1226
C270	3.3 50V		PC5-50	VTT3R3A50	QV1-25	EV-1618.1
C271	3.3 50V		PC5-50	VTT3R3A50	QV1-25	EV-1618.1
C275	10 16V		PC10-25	VTT10825	QV1-41	EV-1222
C276	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C279	47 35V			TDC474M050EL	QDT1-19	SD50-R479
C282	10 6.3V			TDCl06M025FL	QDT1-64	SD25-109
C289	10 16V		PC10-25	VTT10825	QV1-41	EV-1222
C291	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C293	3.3 50V		PC5-50	VTT3R3A50	QV1-25	EV-1618.1
C294	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C295	33 16V		PC30-25	VTT33D25	QV1-63	EV-1326
C296	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C300	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C324	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C325	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C326	3.3 50V		PC5-50	VTT3R3A50	QV1-25	EV-1618.1
C328	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
C329	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C332	33 16V		PC30-25	VTT33D25	QV1-63	EV-1325
C333	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
C334	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C336A	10 16V		PC10-25	VTT10825	QV1-41	EV-1222
C337	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1261
C338	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
C342	33 16V		PC30-25	VTT33D25	QV1-63	EV-1325
C345	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
C346	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1261
C350	47 35V		PC50-50	VTT47F35	QV1-77	EV-1426.1
C351	470 35V		WBR500-35*	VTT470M35	QV1-157	EV-1451
C368	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1261
C373	33 16V		PC30-25	VTT33D25	QV1-63	EV-1325
C401	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C402	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615

PARTS LIST AND DESCRIPTION (CONTINUED)

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

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T216	50	1 8	2 18	TD-0162	TR644	(1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3 1/2" PM, 8 Ohms	S-4709	3A05Z8	

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	4A Quick Acting			AGC4	HRK	312004	150145	

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	M-2287	18-032	18-034	18-010	18-105	4	1	3	NC	NC	1	

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
F201	Filter	C-0843	7.8MHz
J1	Jack	J6480	Antenna
J2	Jack	J6385	PA Speaker
J3	Jack	J6385	External Speaker
J4	Jack	J-0533	Microphone
L10	Ferrite Bead	FBH-2.6/1.3/1.3/40L	
L11	Ferrite Bead	FBH-2.6/1.3/1.3/40L	
L12	Ferrite Bead	FBH-2.6/1.3/1.3/40L	
L13	Ferrite Bead	FBH-2.6/1.3/1.3/40L	
L14	Ferrite Bead	FBH-2.6/1.3/1.3/40L	
L15	Ferrite Bead	FBH-2.6/1.3/1.3/40L	
L16	Ferrite Bead	FBH-2.6/1.3/1.3/40L	
LED1	LED	L0832	AM (1.98V @ 7.3mA)
LED2	LED	L0832	LSB (1.98V @ 7.3mA)
LED3	LED	L0832	USB (1.98V @ 7.3mA)
LED4	LED	L0831	Tens & Units (Each Segment 1.90V @ 11.7mA)
M1	Meter	M-0354	S/R/F Meter
PL2	Lamp	L-0263	Modulation (14V @ 50mA)
RY16	Relay	R-8090	
SW1	Switch	S-0814	AM/LSB/USB
SW2	Switch	S-2403	MON/PA/CB
SW3	Switch		Noise Blanker, On/Off
SW5	Switch	S-1284	Channel Selector
S4	Switch		Power On/Off (Part of Volume Control)
X1	Crystal		7.805MHz
X2	Crystal		33.485MHz
X3	Crystal		33.4875MHz
X4	Crystal		10.240MHz

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

ITEM		PART No.	ITEM		PART No.
Cabinet, Bottom		Z-3671	Knob, RF Gain		K-2728
Cabinet, Top		Z-3670	Smoked Panel		HB-6658
Escutcheon		X-7534			