

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 1014001, VEEP

MANUFACTURER'S SPECIFICATIONS

TRANSMITTER

Power Output:	4 watts
Modulation:	100% capability
Frequency Response:	400 to 2,500 Hz
Output Impedance:	52 ohms, unbalanced

RECEIVER

Sensitivity:	Less than 1 μ V for 10 dB (S+N) /N
Selectivity:	6 dB at 3 KHz, 70 dB at 10 KHz
Image Rejection:	80 dB
I.F. Frequencies:	Double conversion; 1st : 10.695 MHz 2nd 455 KHz
Automatic Gain Control:	Less than 10 dB change in audio output for inputs from 10 to 50,000 microvolts
Squelch:	Adjustable; threshold less than 1 μ V
Audio Output Power:	4 watts (maximum)
Frequency Response:	450 to 2,700 Hz
Distortion:	Less than 10% @3 watts @1000 Hz
Built-in Speaker:	16 ohms, round
External Speaker:	8 ohms. Disables internal speaker when connected

PRESIDENT MODEL 1014001, VEEP

Courtesy of the Manufacturer

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

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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.

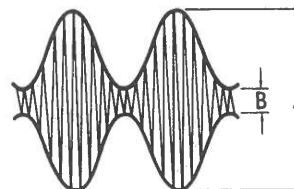
Suggested Alignment Tools:

GC ELECTRONICS:

L12, L15, L18 9091, 8728A, 8728

L4, L6, L7, L8 5009, 8728A, 8728

L1, L2, L3, L9, L10, L11 9440



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

FIGURE 1

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP10 (IC3 Pin 2).	Ch. 19		Check for 10.240MHz.
Input of DC meter to TP1.	Ch. 19	L9	Adjust for 3 volts. Check for approximately 2.2 volts on Ch. 1. Check for approximately 4.1 volts on Ch. 40.
	Ch. 1, XMT		Check for approximately 1.45 volts. Check for approximately 2.6 volts on Ch. 40.
Input of oscilloscope to TP3 (L3 Secondary).	Ch. 19	L3	Adjust for maximum.
Input of frequency counter to TP11 (IC2 Pin 3).	Ch. 1		Check for 16.270MHz. Check all channels. (See Truth Chart for correct frequencies.)
	Ch. 1, XMT		Check for 13.4825MHz. 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.

Squelch MINIMUM, ANL Off

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP12 (D4 anode). 455kHz, 1000Hz @ 30% modulation.	Ch. 19	L8, L7, L6	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19	L4, L2,	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.
Squelch MINIMUM, ANL Off

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output .3uV.	Ch. 19 Volume Maximum	VR7	RF GAIN Adjust for 2 volts audio.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 700uV.	Ch. 19 Squelch Maximum	VR3	T. SQUELCH (SQUELCH RANGE) Adjust so squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19	VR4	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 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	L10, L11, L12, L15	Adjust for maximum.
Input of RF wattmeter to antenna input.	Ch. 19	L15	Adjust for 3.8 watts.
Input of spectrum analyzer or harmonic meter to antenna input.	Ch. 19	L18	Adjust for MINIMUM at 54MHz.

TRANSMITTER ADJUSTMENTS

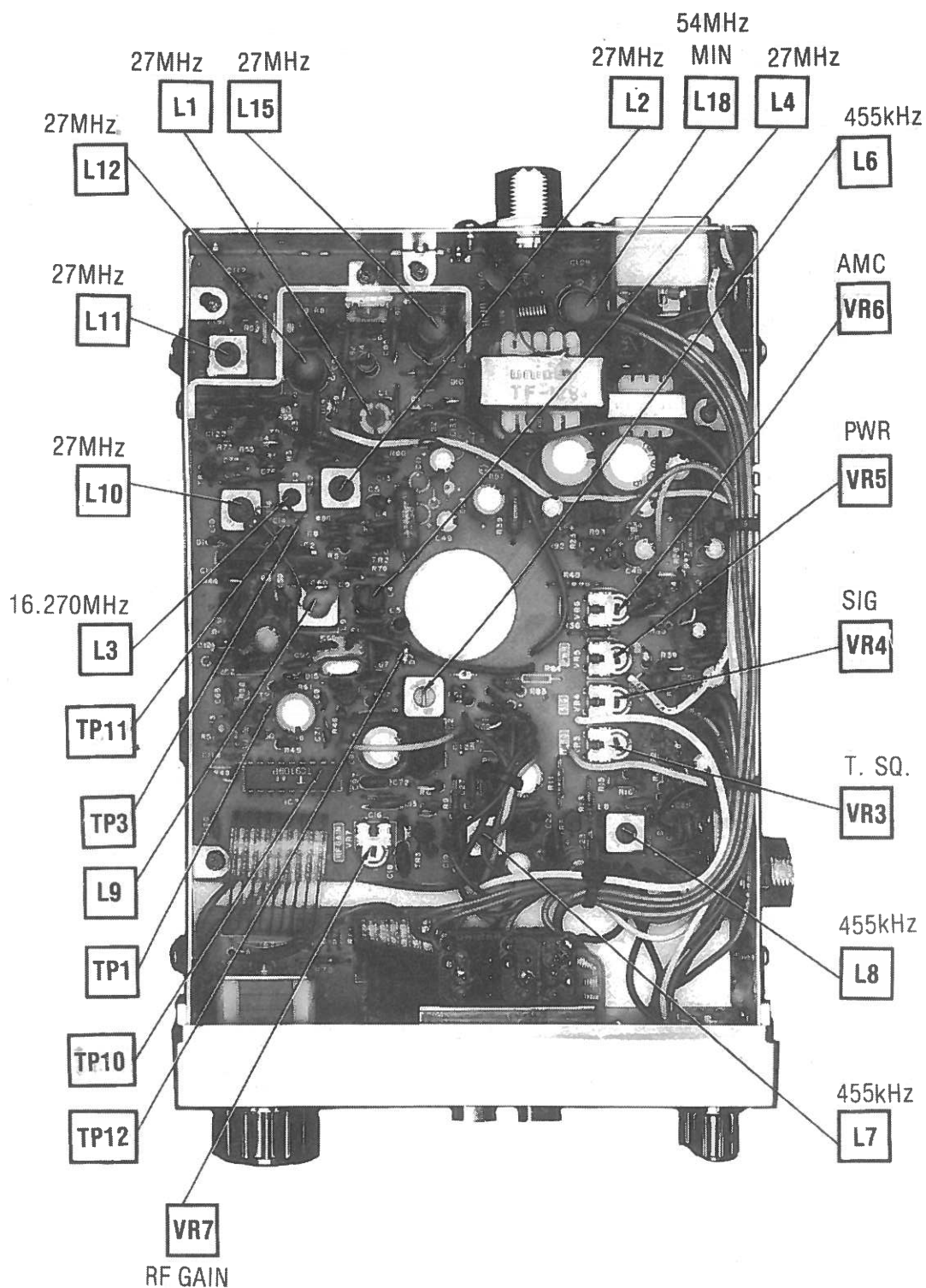
Connect a 50-ohm, 25-watt dummy load to antenna connector.
NOTE: Be sure to check transmit frequency and power on all active channels after adjustment of transmitter.
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of oscilloscope or modulation meter to antenna input. Inject a 1000Hz, 30mV signal at MIC input.	Ch. 19	VR6	AMC Adjust for 95% modulation (See Figure 1.)
Input of RF wattmeter to antenna input.	Ch. 19	VR5	PWR (TX PWR METER) Adjust so TX PWR meter agrees with RF wattmeter

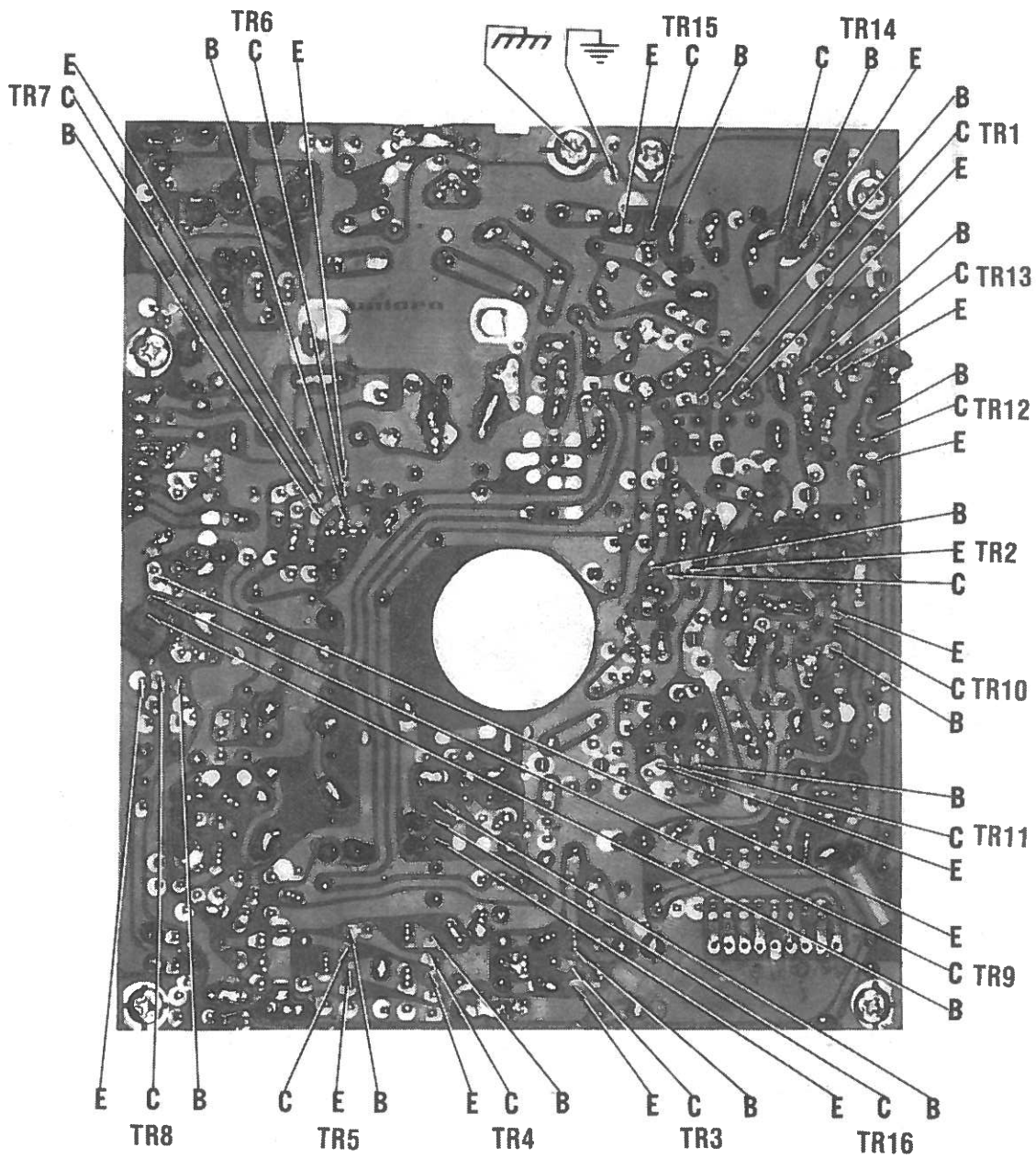
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TRUTH CHART

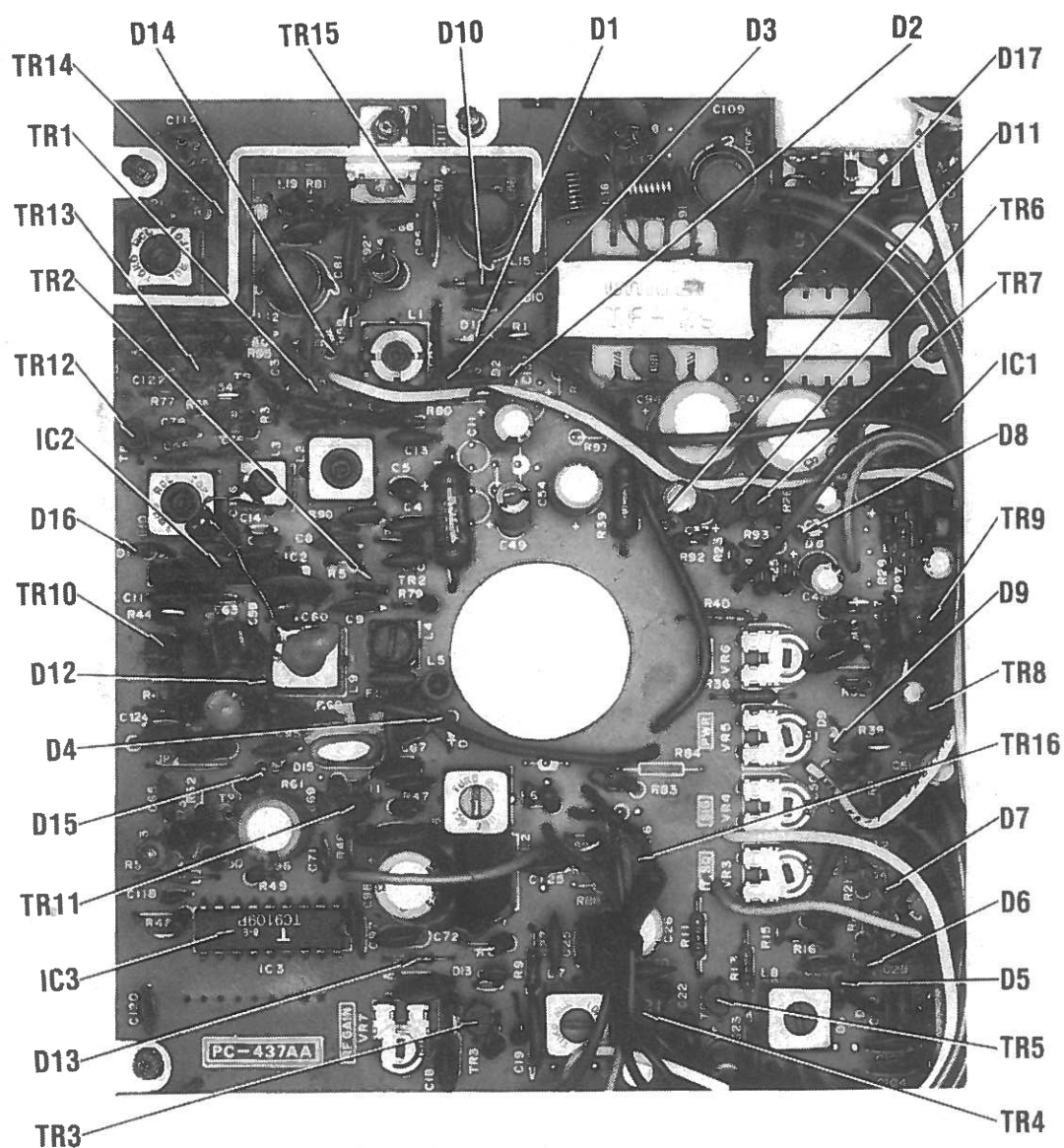
C H A N N E L	1 = 7.50 Volts 0 = 0 Volts								REC VCO OUTPUT IN MHz AT TP11 (IC2, Pin 3)	XMT VCO OUTPUT IN MHz AT TP11 (IC2, Pin 5)	
	IC3 PROGRAM DIVIDER										
	PINS										
	17	16	15	14	13	12	11	10			
1	1	1	1	1	1	1	1	1	16.270	13.4825	
2	1	1	1	0	0	0	0	1	16.280	13.4875	
3	1	1	1	0	1	0	0	1	16.290	13.4925	
4	1	1	1	1	1	0	1	0	16.310	13.5025	
5	1	1	1	0	1	0	0	0	16.320	13.5075	
6	1	1	1	0	0	0	1	0	16.330	13.5125	
7	1	1	1	1	1	1	0	1	16.340	13.5175	
8	1	1	1	0	0	0	0	0	16.360	13.5275	
9	1	1	1	1	1	0	0	0	16.370	13.5325	
10	1	1	0	0	0	1	0	0	16.380	13.5375	
11	1	1	0	1	1	1	1	1	16.390	13.5425	
12	1	1	0	0	0	0	0	1	16.410	13.5525	
13	1	1	0	0	1	0	0	1	16.420	13.5575	
14	1	1	0	1	1	0	1	0	16.430	13.5625	
15	1	1	0	0	1	0	0	0	16.440	13.5675	
16	1	1	0	0	0	0	1	0	16.460	13.5775	
17	1	1	0	1	1	1	0	1	16.470	13.5825	
18	1	1	0	0	0	0	0	0	16.480	13.5875	
19	1	1	0	1	1	0	0	0	16.490	13.5925	
20	1	0	1	0	0	1	0	0	16.510	13.6025	
21	1	0	1	1	1	1	1	1	16.520	13.6075	
22	1	0	1	0	0	0	0	1	16.530	13.6125	
23	1	0	1	0	1	0	0	1	16.560	13.6275	
24	1	0	1	1	1	0	1	0	16.540	13.6175	
25	1	0	1	0	1	0	0	0	16.550	13.6225	
26	1	0	1	0	0	0	1	0	16.570	13.6325	
27	1	0	1	1	1	1	0	1	16.580	13.6375	
28	1	0	1	0	0	0	0	0	16.590	13.6425	
29	1	0	1	1	1	0	0	0	16.600	13.6475	
30	1	0	0	0	0	1	0	0	16.610	13.6525	
31	1	0	0	1	1	1	1	1	16.620	13.6575	
32	1	0	0	0	0	0	0	1	16.630	13.6625	
33	1	0	0	0	1	0	0	1	16.640	13.6675	
34	1	0	0	1	1	0	1	0	16.650	13.6725	
35	1	0	0	0	1	0	0	0	16.660	13.6775	
36	1	0	0	0	0	0	1	0	16.670	13.6825	
37	1	0	0	1	1	1	0	1	16.680	13.6875	
38	1	0	0	0	0	0	0	0	16.690	13.6925	
39	1	0	0	1	1	0	0	0	16.700	13.6975	
40	0	1	0	0	0	1	0	0	16.710	13.7025	



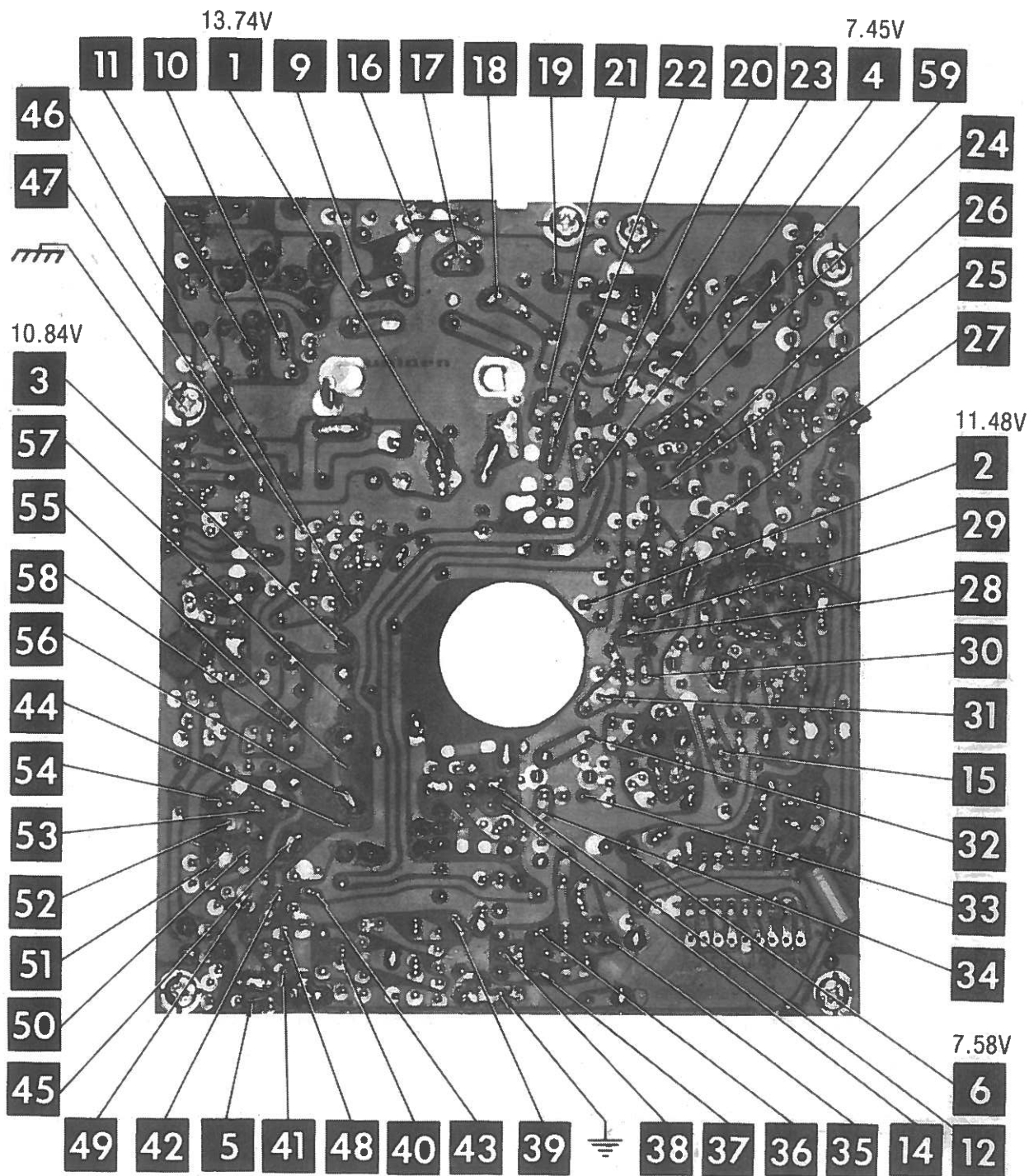
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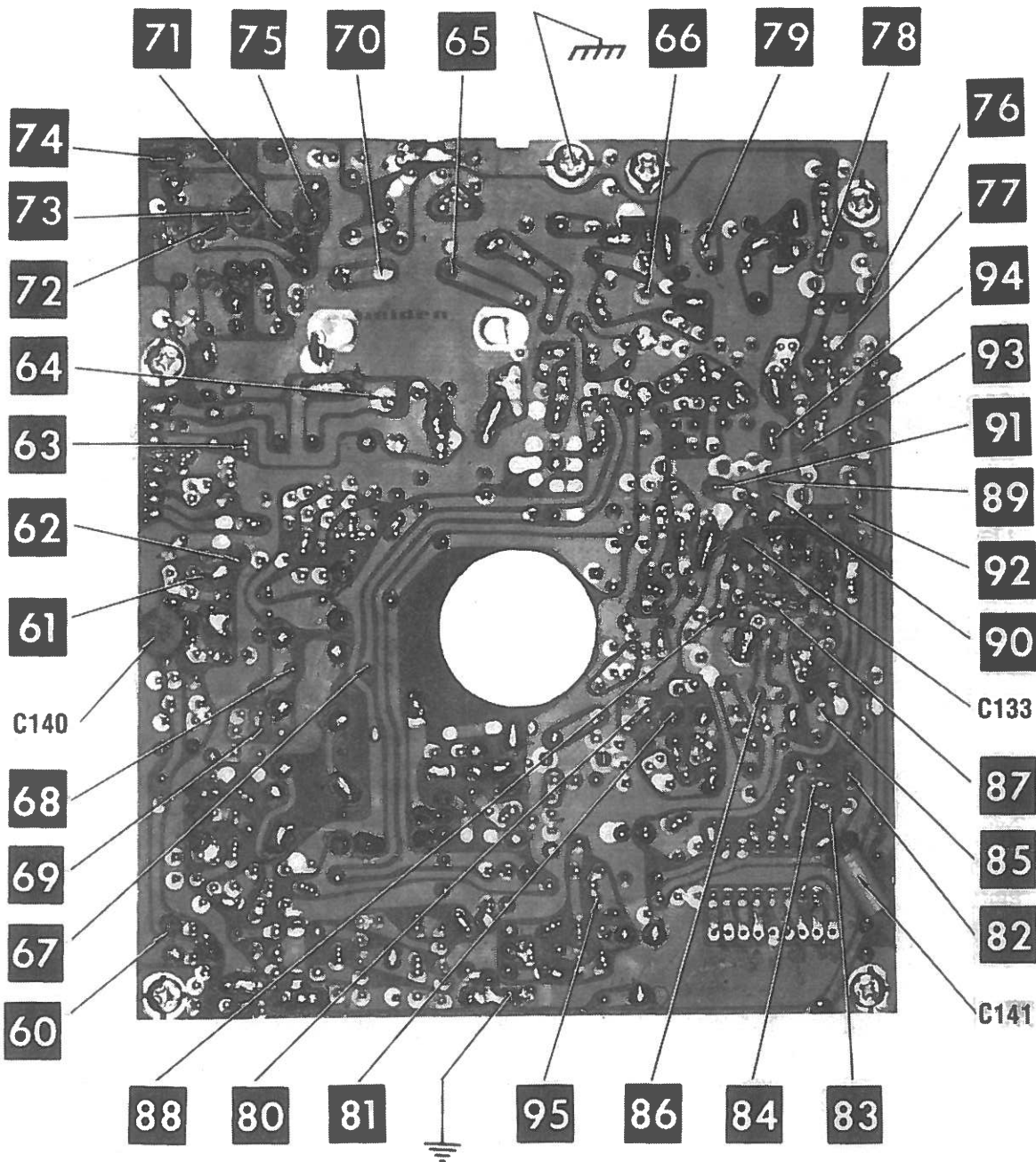
MAIN BOARD



MAIN BOARD

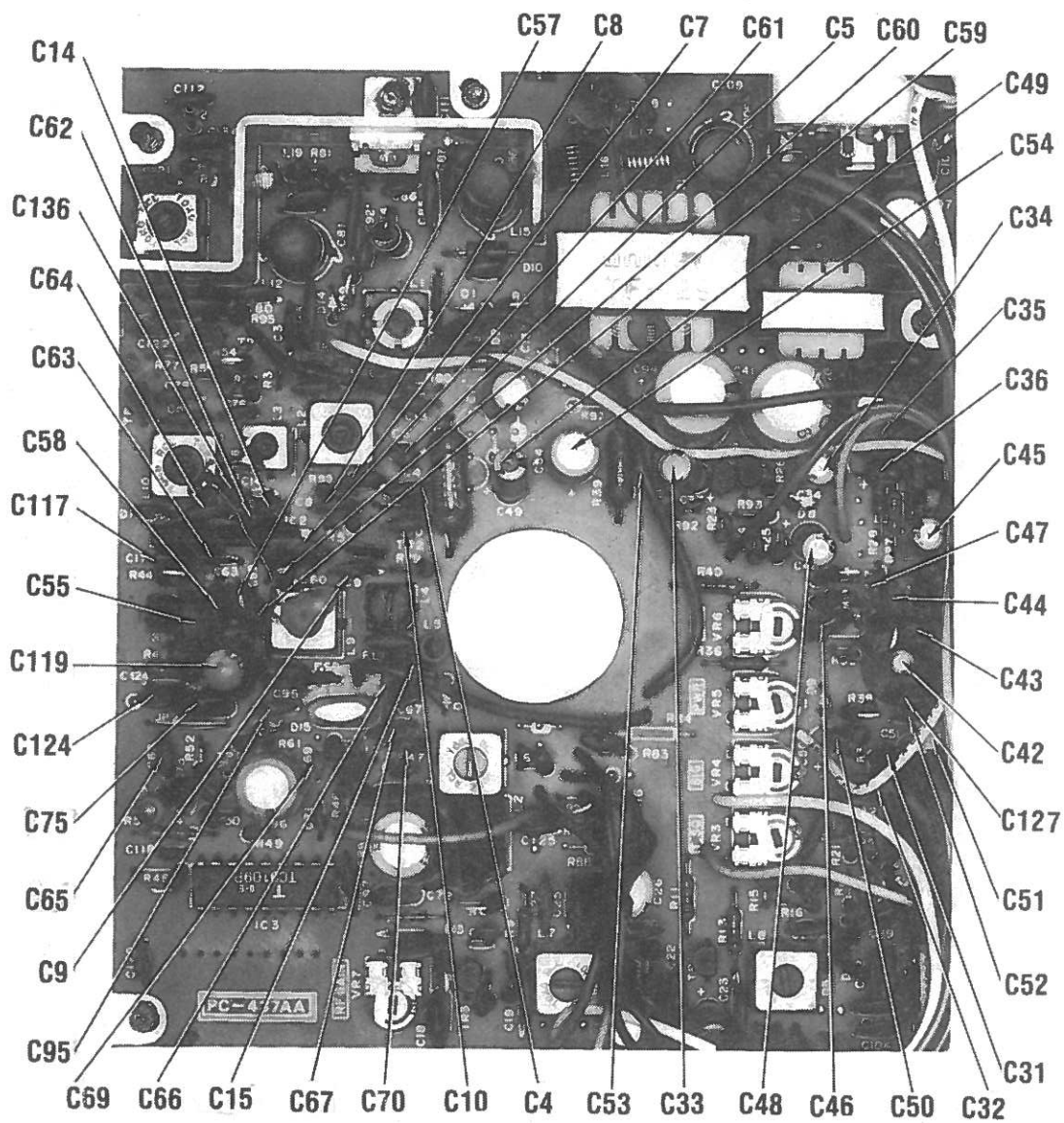


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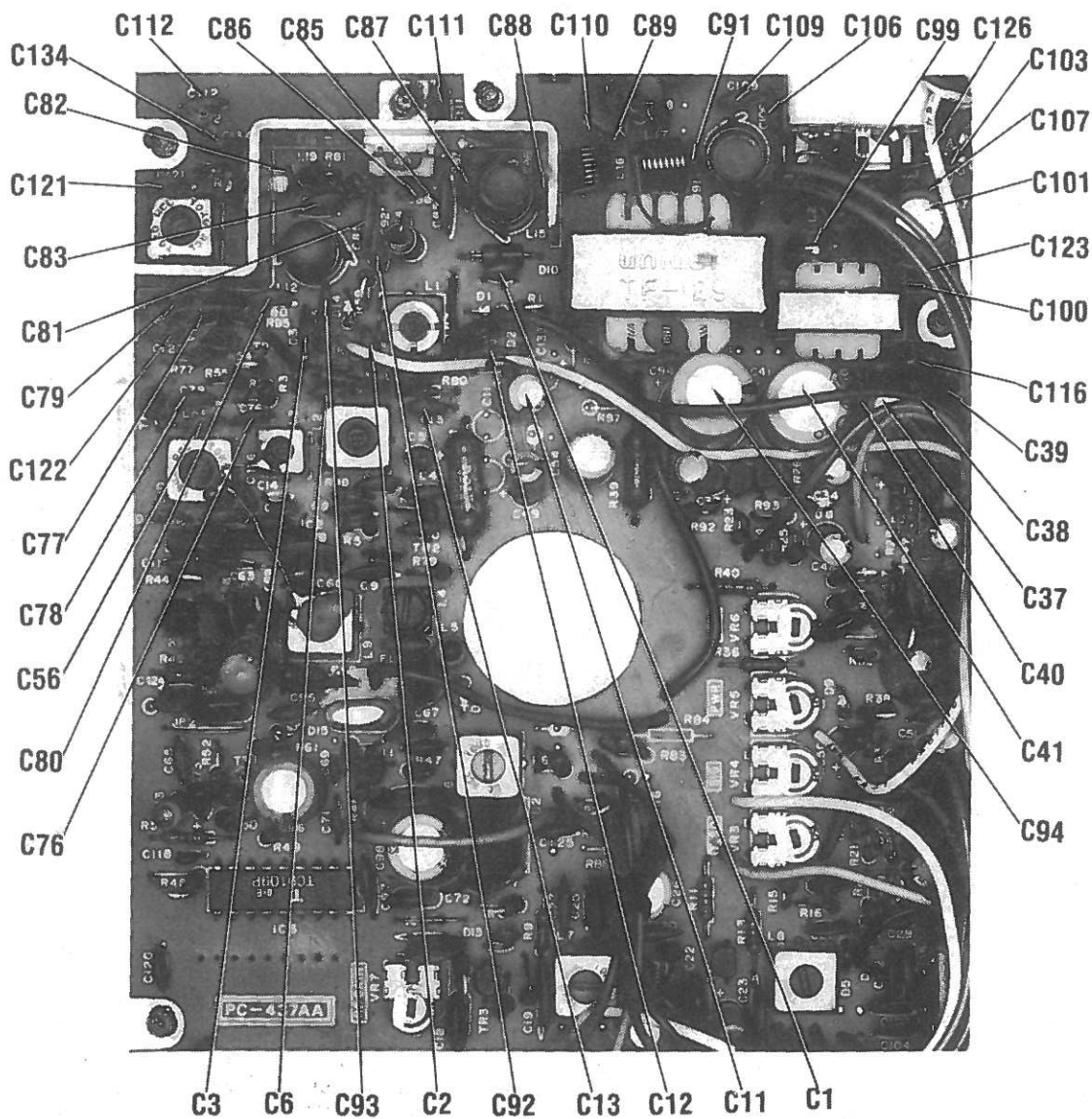


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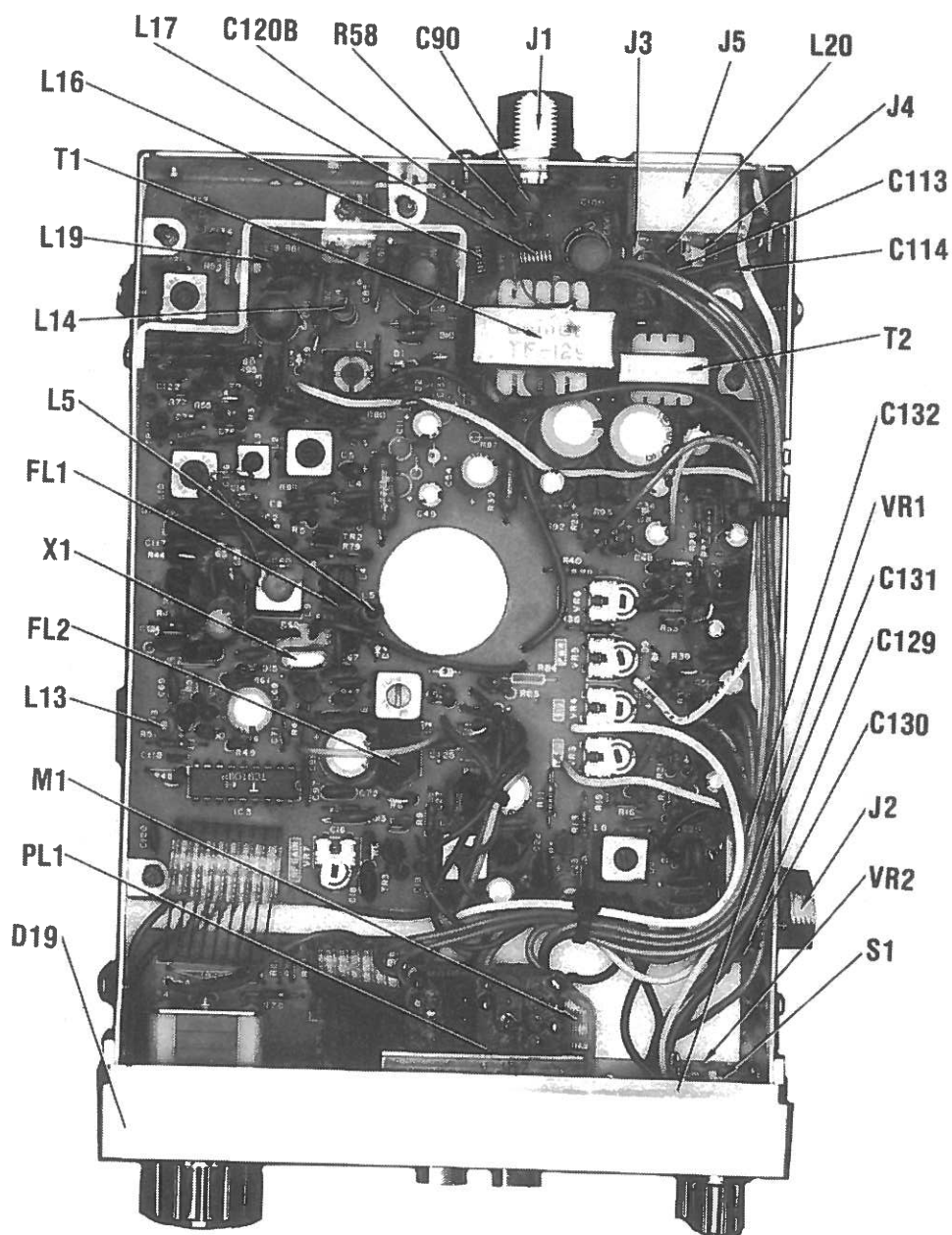
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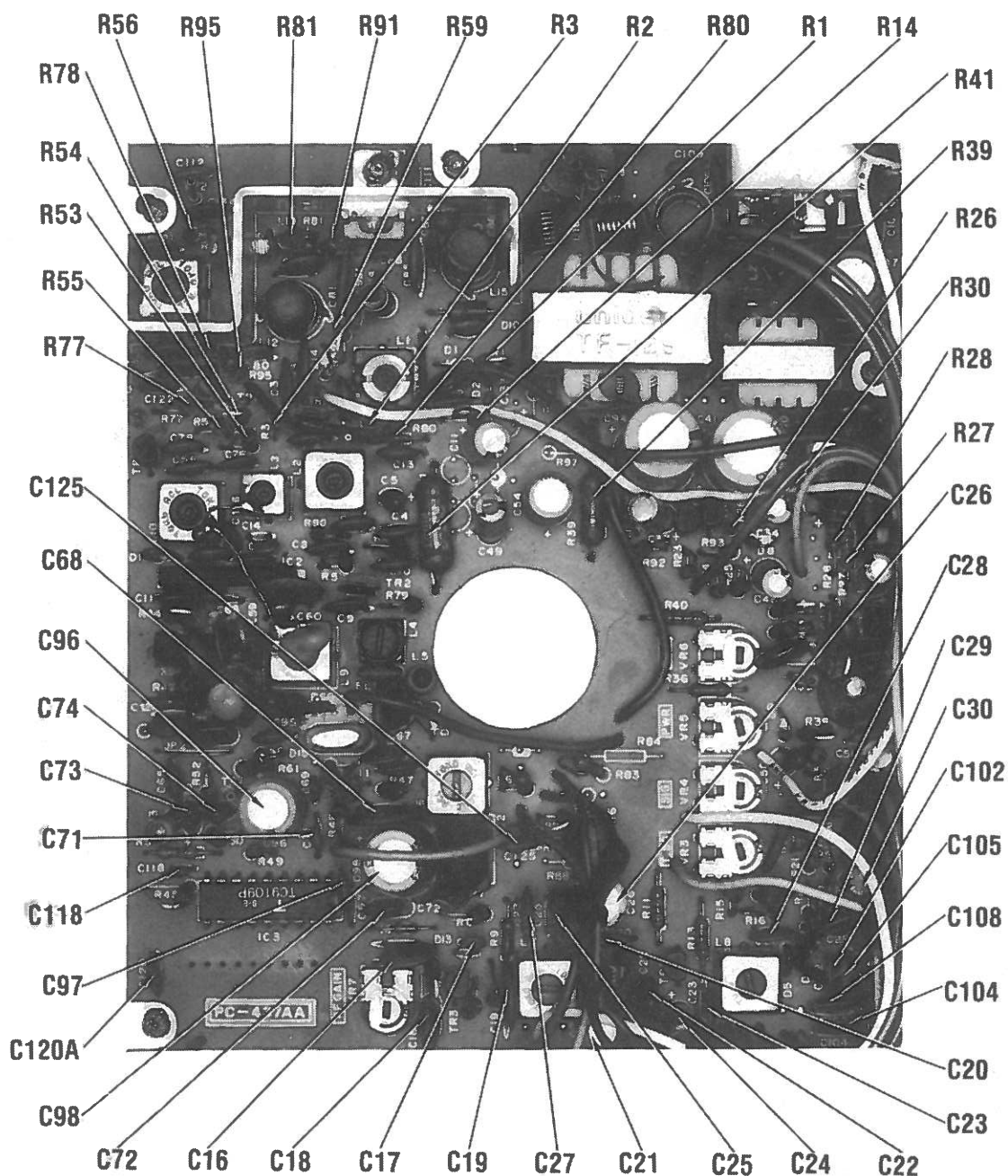
MAIN BOARD



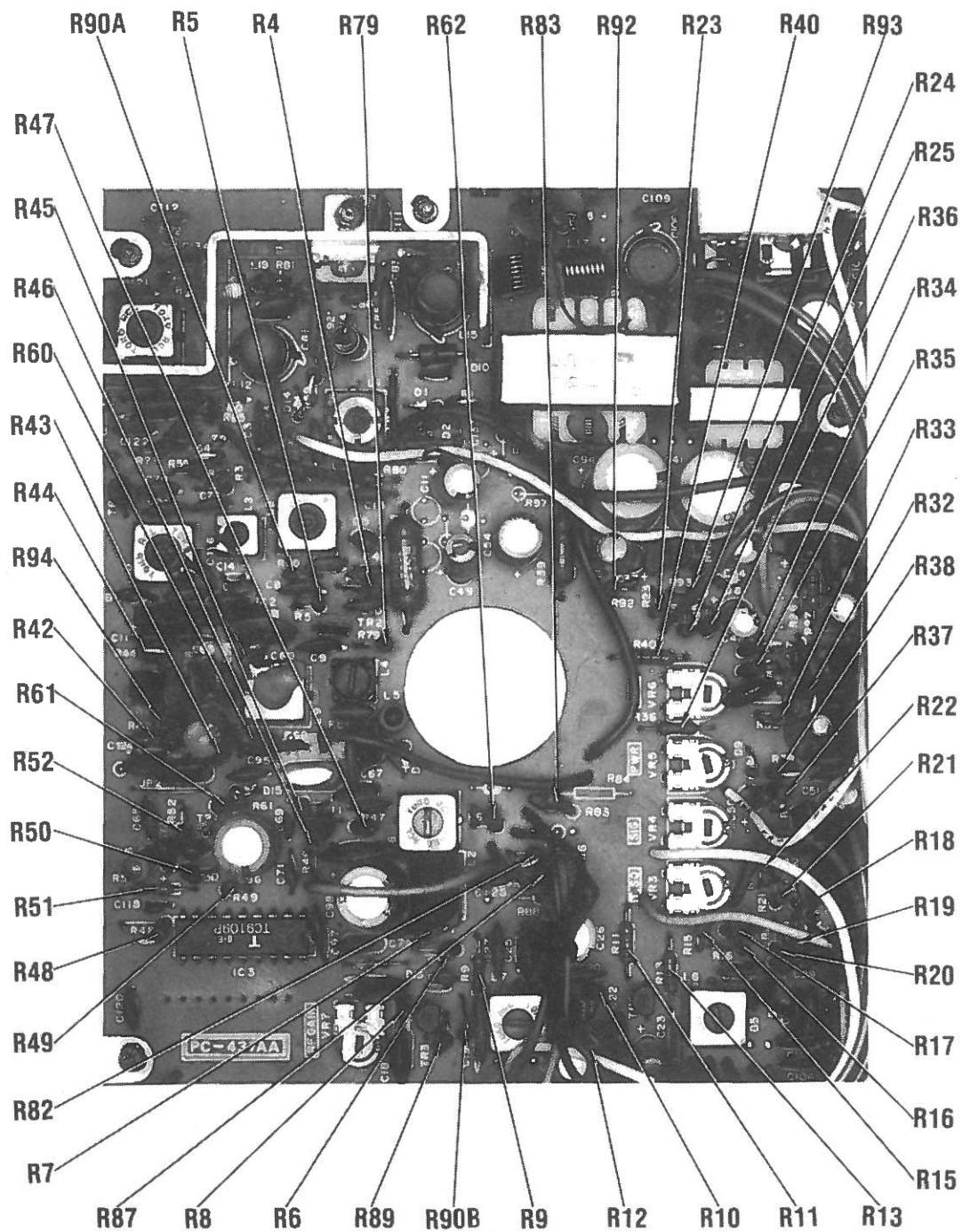
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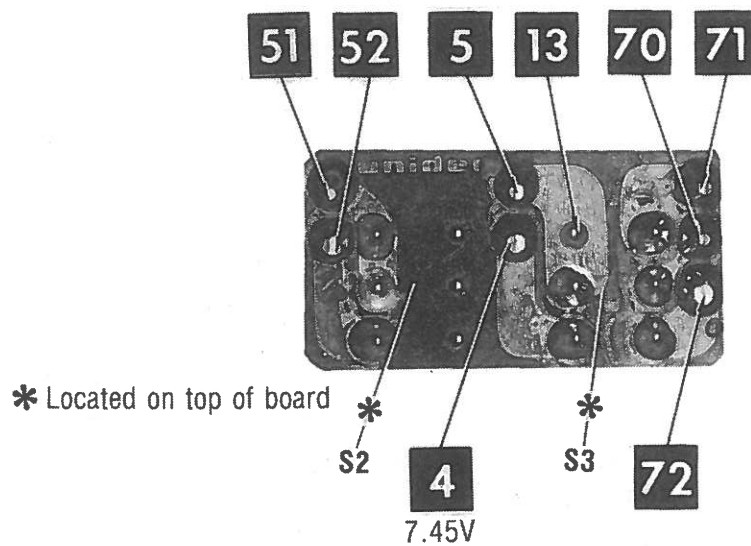
CHASSIS - BOTTOM



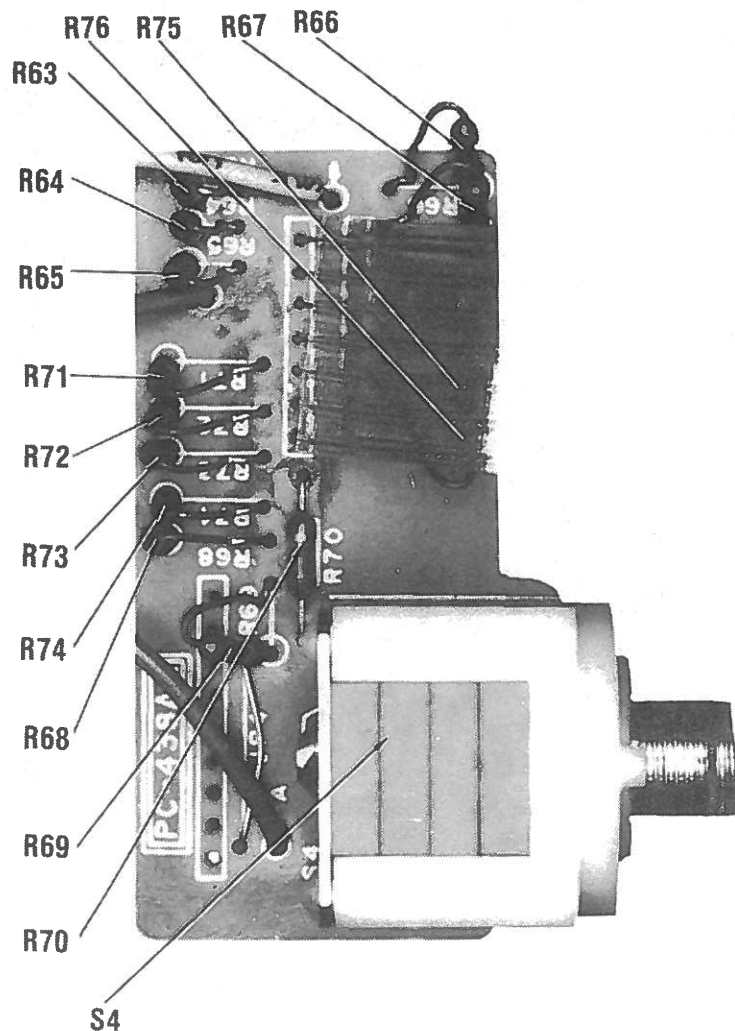
MAIN BOARD



MAIN BOARD

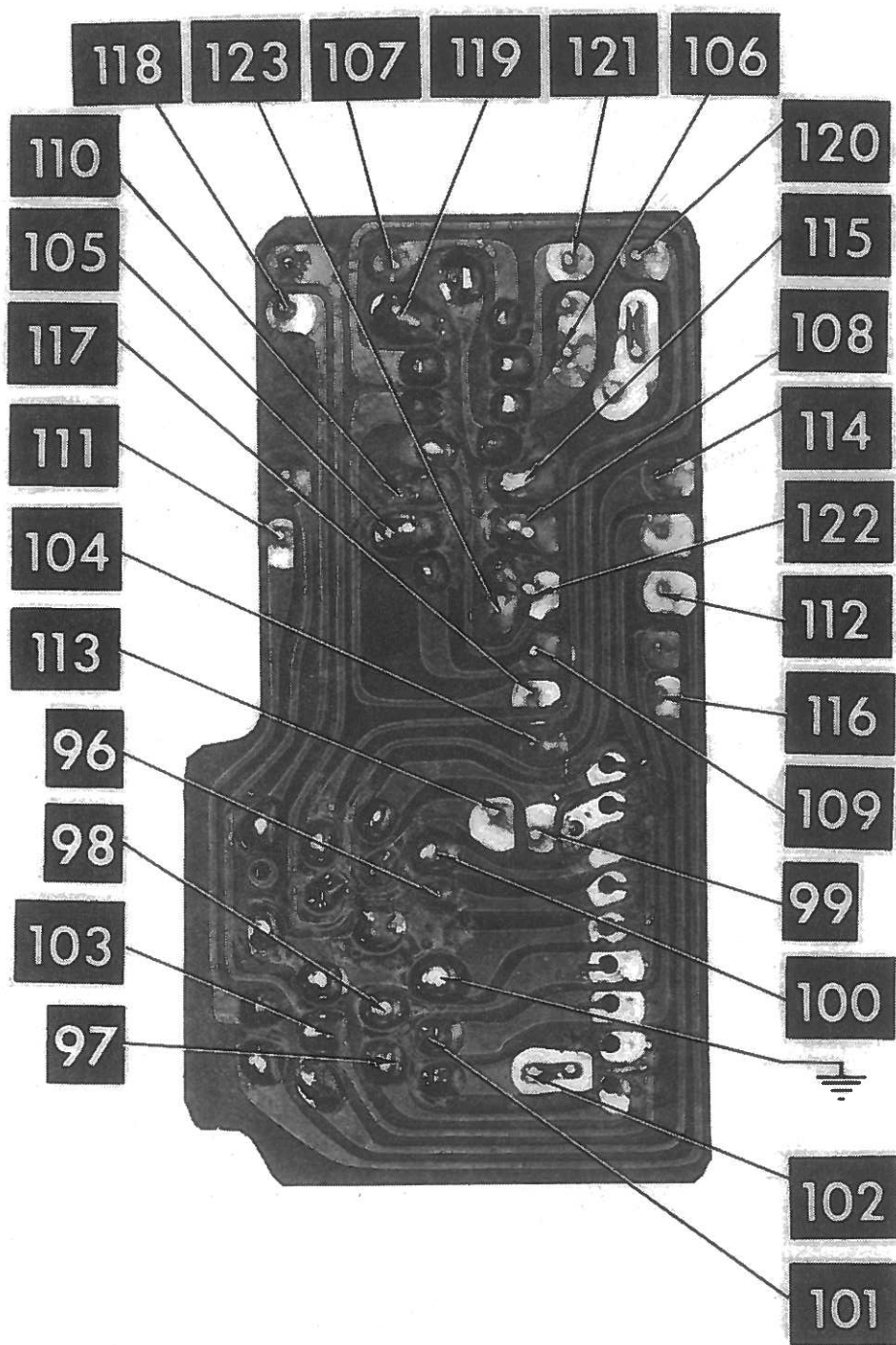


ANL - PA SWITCH BOARD

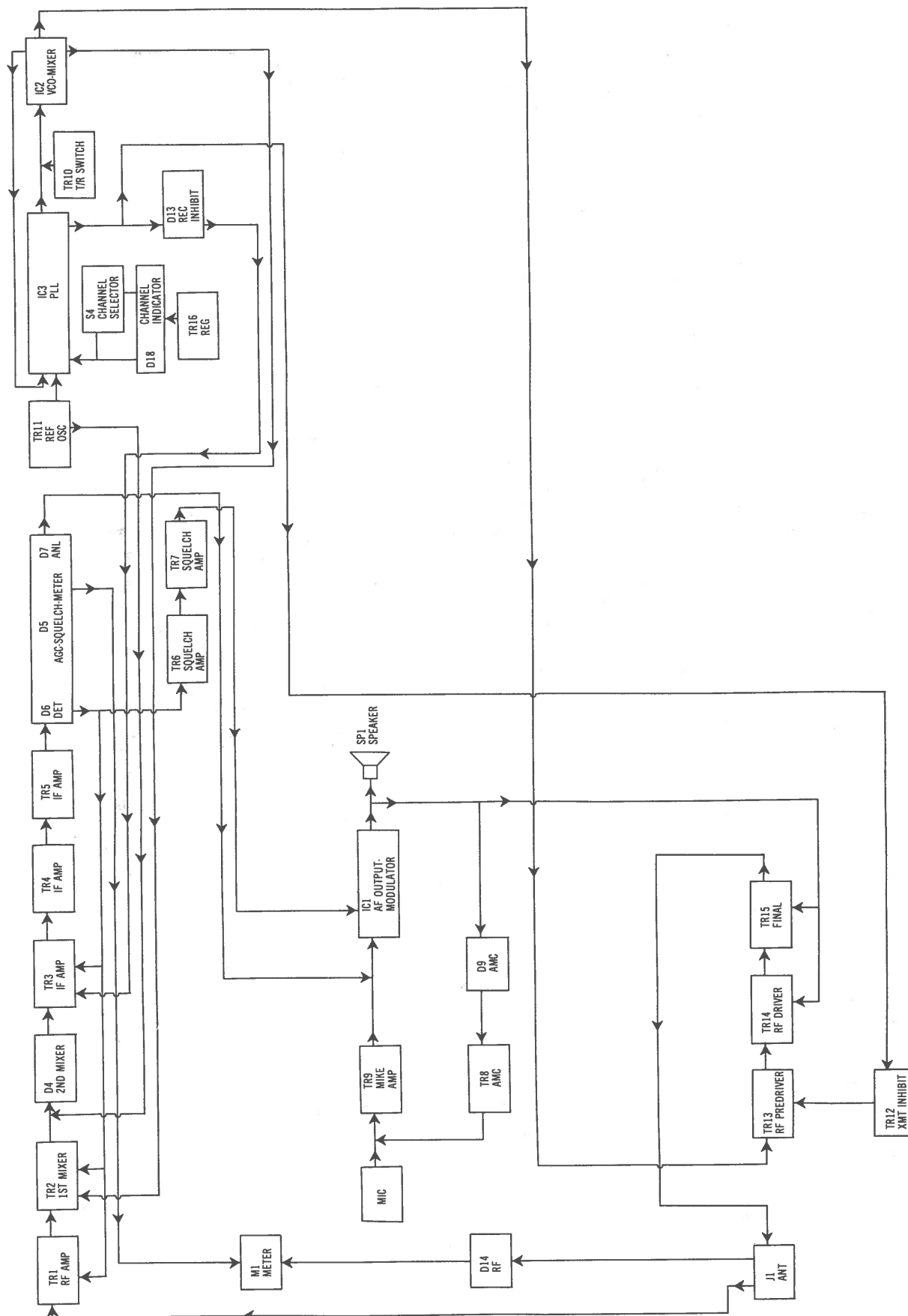


CH. SELECTOR BOARD

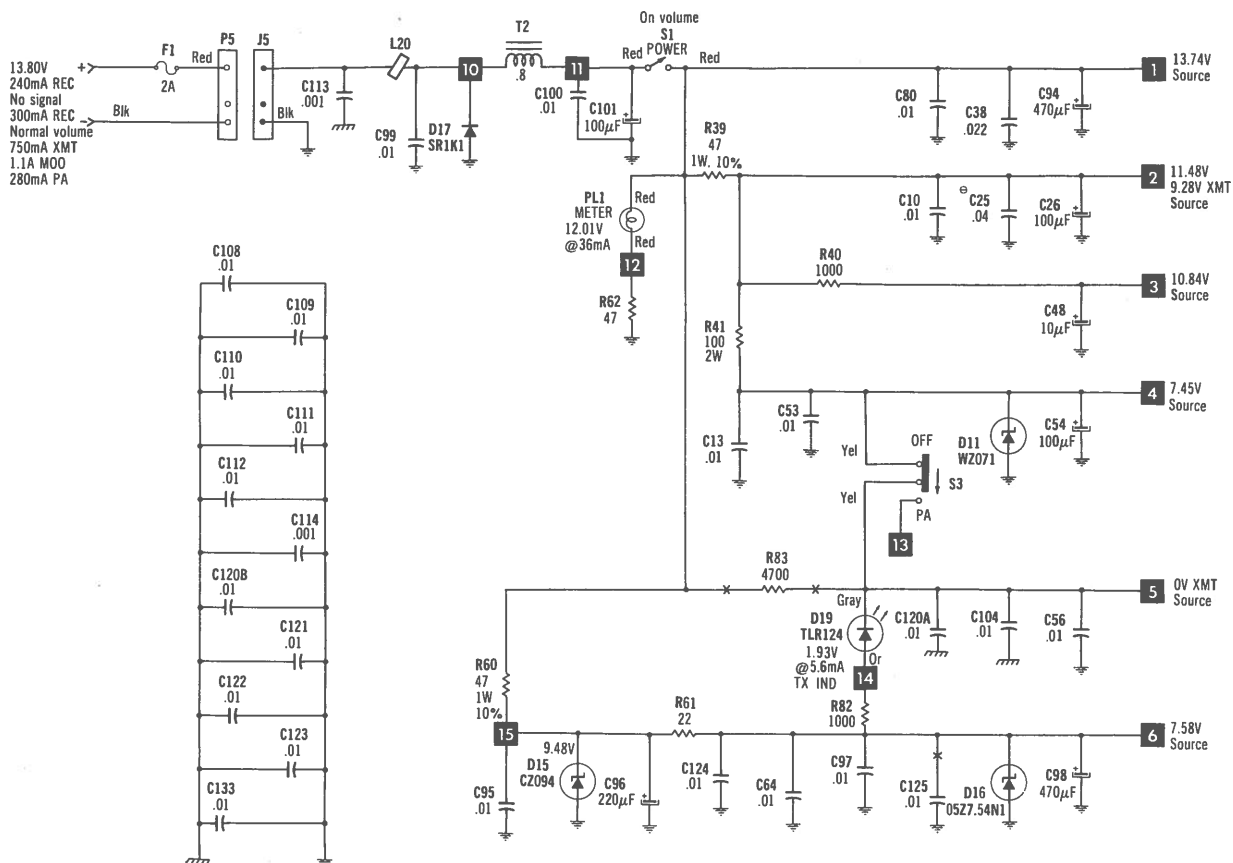
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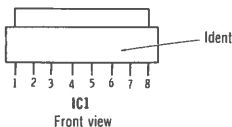
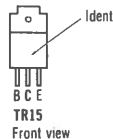
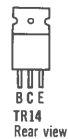
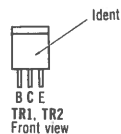
CH. SELECTOR BOARD



BLOCK DIAGRAM



Terminal Guides



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

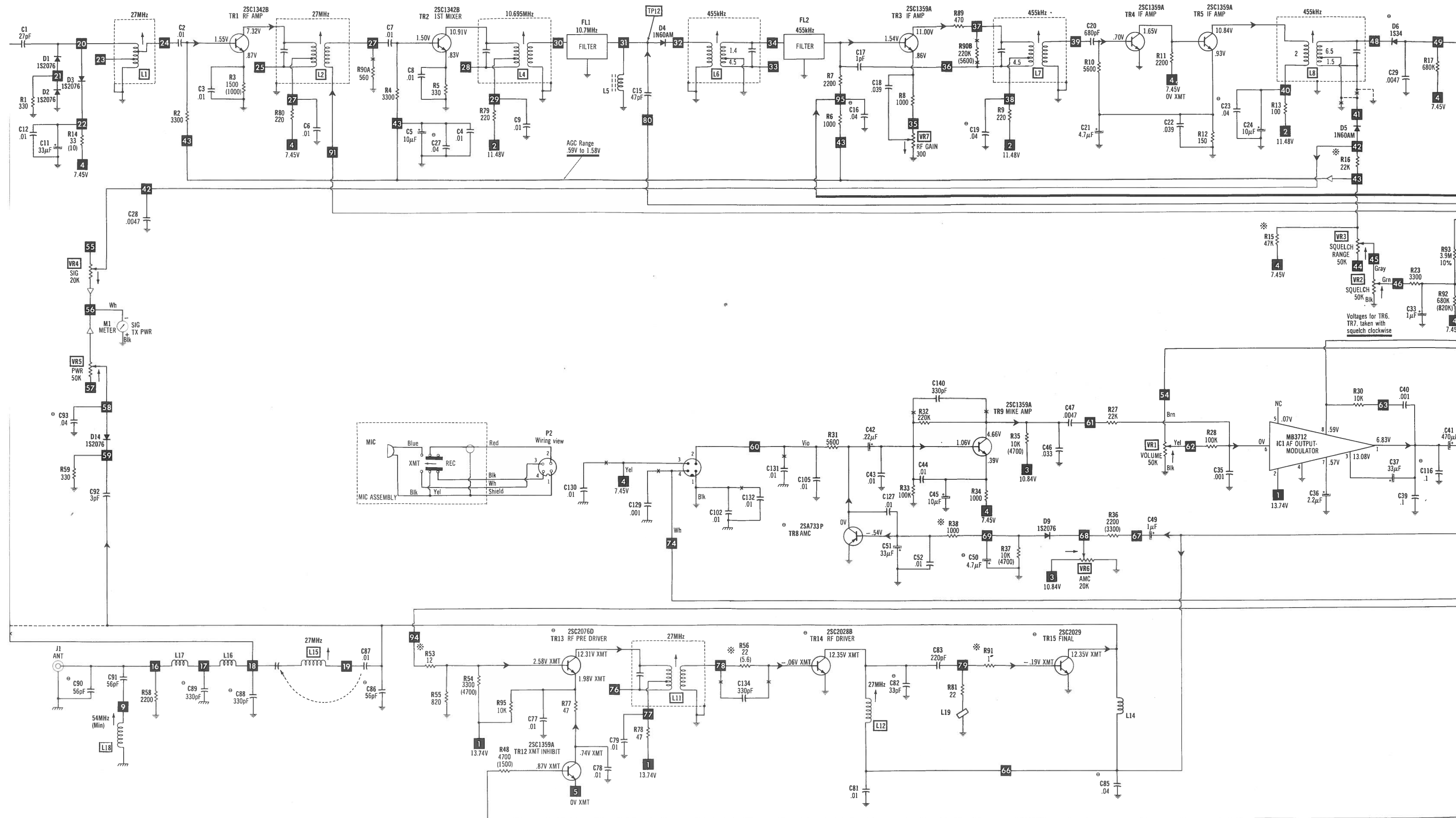
Measurements made in Channel 1 with switching as shown unless noted.
Item numbers in rectangles appear in the alignment/adjustment instructions.
Supply voltage maintained as shown at input.
Voltages measured with digital meter, no signal.
Controls adjusted for normal operation.
Arrow at control indicates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

A PHOTOFAC STANDARD NOTATION SCHEMATIC

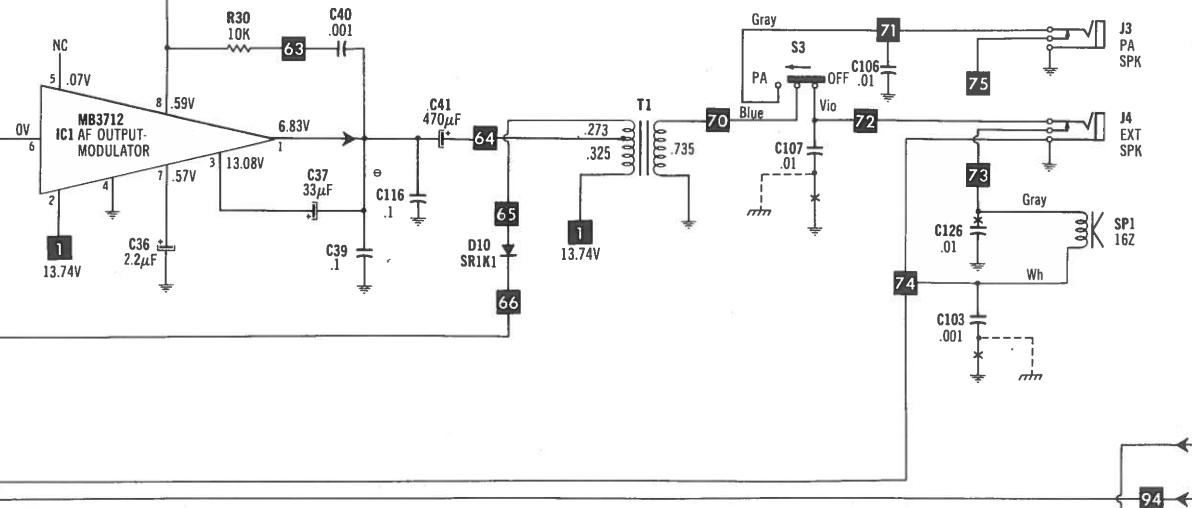
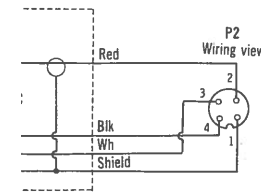
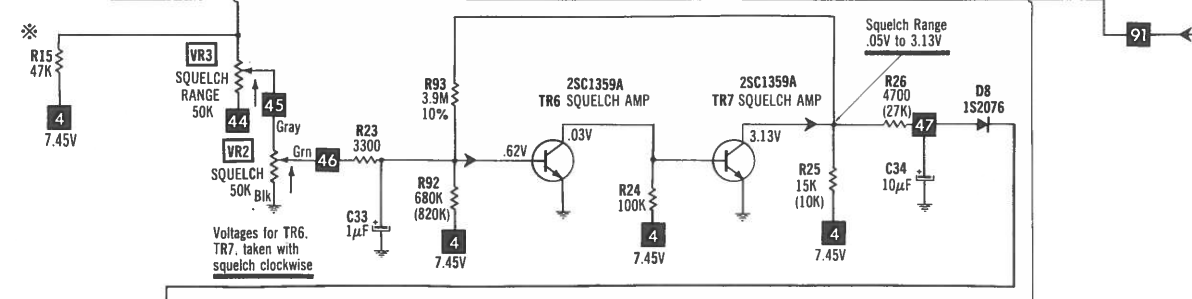
WITH **CIRCUITRACE®**

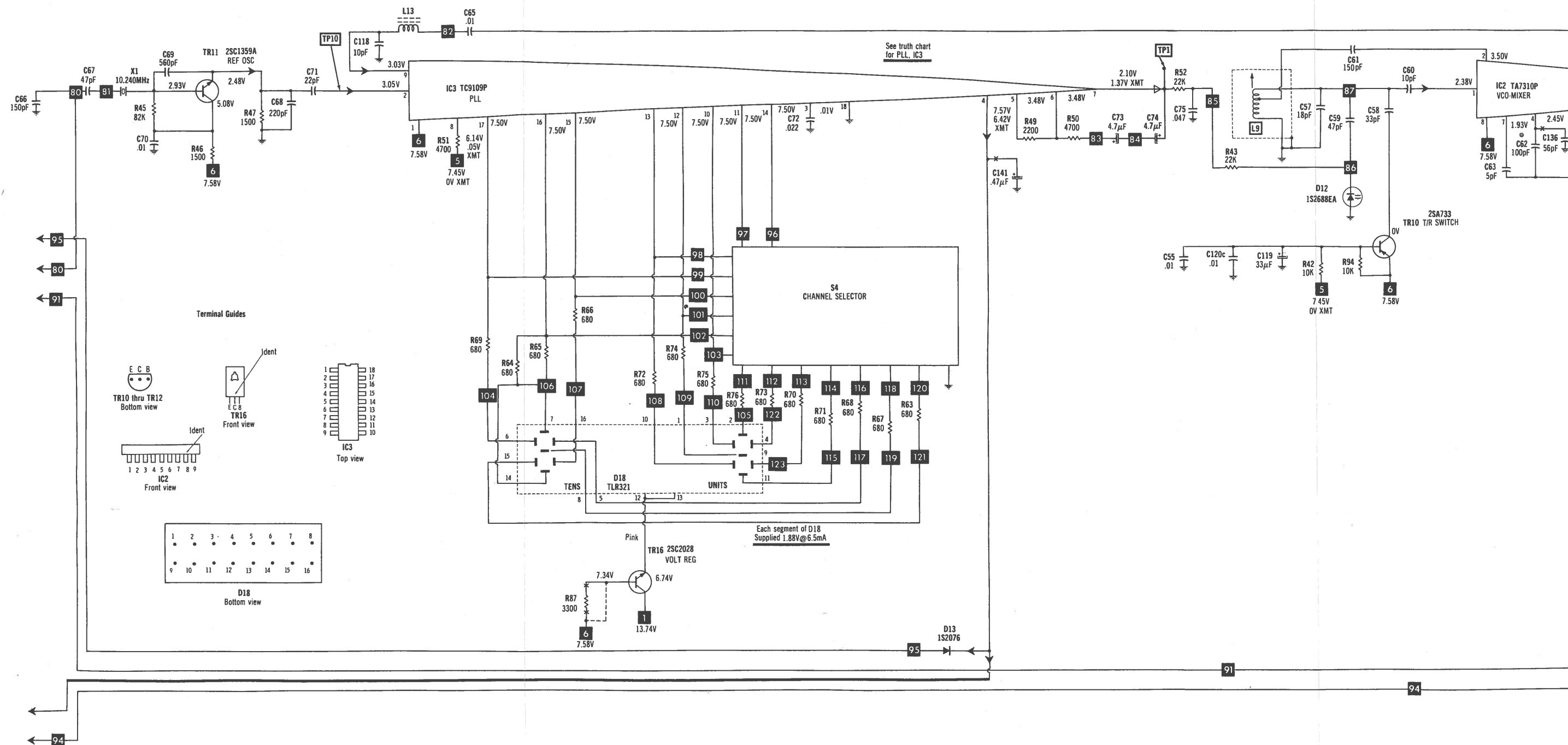
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POWER SUPPLY SCHEMATIC



MAIN SCHEMATIC



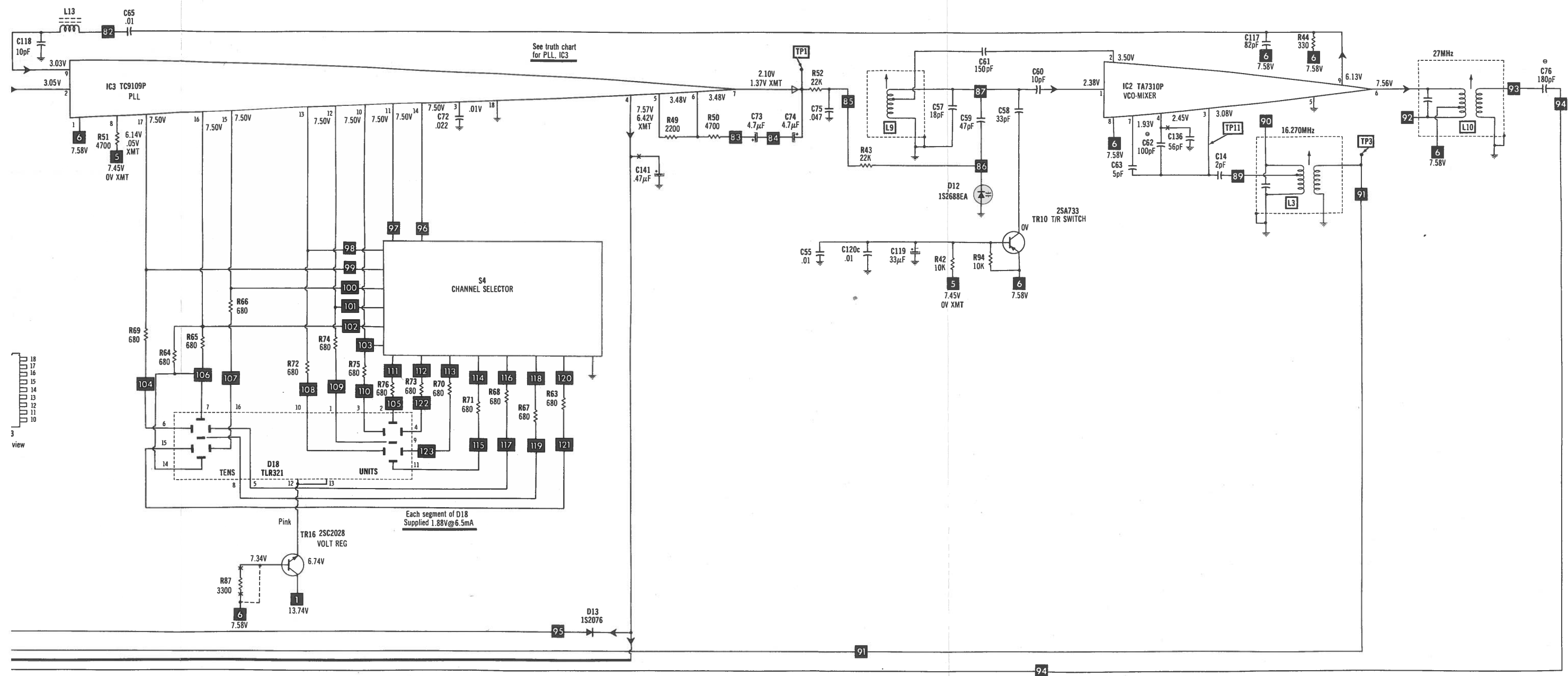


- Circuitry not used in some versions
- - - Circuitry used in some versions
- ⊙ See parts list
- ⊛ Nominal value
- ⊕ Ground
- ⊖ Chassis
- ▽ Common tie point
- Signal path
- ⤵ Voltage path

A PHOTOFAC STANDARD NOTATION SCHEMATIC
WITH **CIRCUITRACE**
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Controls adjusted for normal operation.
Arrow at control indicates direction of advance.
Terminal identification may not be found on unit.
Resistors are 1/2W or less, 5% unless noted.
Value in () used in some versions.

PLL SCHEMATIC



PLL SCHEMATIC

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	BELDEN No. 17106	31AWG	BELDEN No. 9468 (10')
	(6') BELDEN No. 17109	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.	MFG. 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	1S2076	2000-345	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S1588		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S2473		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1N4448		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	WG713		GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D2	1S2076	2000-345	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S1588		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S2473		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1N4448		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	WG713		GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D3	1S2076	2000-345	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S1588		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S2473		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1N4446		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	WG713		GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D4	1N60AM	2000-301	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-Z9001
D5	1N60AM	2000-301	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-Z9001
D6	1S34	2000-346	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	TM109/**	WEP134	103-Z9001
D7	1N60AM	2000-301	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-Z9001
D8	1S2075K	2000-303	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S2473K		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S2076		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S1588		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S2473		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D9	1N4446	2000-345	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	WG713		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
	1S2076		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S1588		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S2473		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D10	1N4446	2000-304	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	WG713		GE-504A	PTC201	HEPRO052	REN 116	SK3311	RT-213	ECG116	TM116	WEP1062	103-131
	SRIK1		GEZD-7.5	ZB7.5B		REN 138	SK3059	RT-239	ECG138A	TM138/**	WEP1107	103-Z9002
	WZ071		GEZD-7.5	ZB7.5B		REN 138	SK3059	RT-239	ECG138A	TM138/**	WEP1107	103-Z9002
	XZ071					REN 614	SK3126		ECG613			103-281
D12	1S2688EA	2000-344	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D13	1S2076	2000-345	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S1588		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S2473		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1N4446		GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	WG713		GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131

PRESIDENT MODEL 1014001, VEEP

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.	MFG. 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.
D14	1S2076	2000-345	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S1588		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1N4446		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D15	WG713	2000-305	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
	CZ094		GEZD-9.1	ZB9.1B		REN 139	SK3060	RT-240	ECG139A	TM139/**	WEP1109	103-272
	CZ092		GEZD-9.1	ZB9.1B		REN 139	SK3060	RT-240	ECG139A	TM139/**	WEP1109	103-272
	05Z075UNI		GEZD-7.5	ZB7.5B		REN 138	SK3059	RT-239	ECG138A	TM138/**	WEP1107	103-29002
D16	05Z7.5	2000-325	GEZD-7.5	ZB7.5B		REN 138	SK3059	RT-239	ECG138A	TM138/**	WEP1107	103-29002
	SR1K1		GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
	55Z77		GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
	MB3712		GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
IC1	TA7310P	2000-017				REN 1192	SK3445		ECG1192	TM1192		
	TA7310					REN 1192	SK3445		ECG1192	TM1192		
	AN103					REN 1192	SK3445		ECG1192	TM1192		
	TC9109P											
IC2	TA9109P	2000-038										
	TA9109P											
	TA9109P											
	TA9109P											
TR1	2SC1342B	2000-205	GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
	2SC1342		GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
	2SC1923		GE-61*	PTC132	HEPS0016*	REN 107	SK3018	RT-107	ECG229	TM229	WEP956	121-29021
	2SC930		GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP956*	121-29021*
TR2	2SC763	2000-205	GE-61*	PTC115	HEPS0020*	REN 229*	SK3018*	RT-309	ECG229*	TM229*	WEP56	121-29021
	2SC1342B		GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
	2SC1342		GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
	2SC1923		GE-61*	PTC132	HEPS0016*	REN 107	SK3018	RT-107	ECG229	TM229	WEP956	121-29021
TR3	2SC930	2000-253	GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP956*	121-29021*
	2SC763		GE-61*	PTC115	HEPS0020*	REN 229*	SK3018*	RT-309	ECG229*	TM229*	WEP56	121-29021
	2SC1359A		GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
	2SC1359		GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
TR4	2SC380	2000-253	GE-61*	PTC136*	HEPS0016*	REN 107	SK3018*	RT-107A	ECG107	TM107	WEP380	121-522
	2SC460		GE-61*	PTC136*	HEPS0016*	REN 107	SK3122	RT-134	ECG107	TM107/**	WEP460	121-522
	2SC1684		GE-62*	PTC139*	HEPS0024*	REN 199*	SK3122*	RT-108A*	ECG199*	TM199*	WEP66*	121-972
	2SC930		GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP956*	121-29021*
TR5	2SC1675	2000-253	GE-213	PTC132*	HEPS0025*	REN 123A*	SK3122	RT-308	ECG229*	TM229*	WEP956*	121-29021
	2SC1359A		GE-212	PTC121*	HEPS0014*	REN 199	SK3122	RT-308	ECG229*	TM229*	WEP66	121-29021
	2SC1359		GE-212	PTC121*	HEPS0014*	REN 199	SK3122	RT-308	ECG229*	TM229*	WEP66	121-29021
	2SC380		GE-61*	PTC136*	HEPS0016*	REN 107	SK3018*	RT-107A	ECG107	TM107	WEP380	121-522
TR6	2SC460	2000-253	GE-61*	PTC136*	HEPS0014*	REN 107	SK3122	RT-134	ECG107	TM107/**	WEP460	121-522
	2SC1684		GE-62*	PTC139*	HEPS0024*	REN 199*	SK3122*	RT-108A*	ECG199*	TM199*	WEP66*	121-972
	2SC930		GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP956*	121-29021*
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3122	RT-308	ECG229*	TM229*	WEP956*	121-29021
TR7	2SC1359A	2000-253	GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
	2SC1359		GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
	2SC1815		GE-62	PTC136*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-972
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
TR8	2SC828	2000-213	GE-61*	PTC139*	HEPS0015*	REN 199	SK3444	RT-302	ECG199	TM199/**	WEP828	121-972
	2SC536		GE-212	PTC121*	HEPS0016*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP536	121-972
	2SC458		GE-210*	PTC121*	HEPS0009*	REN 123A*	SK3122	RT-187	ECG289	TM289/**	WEP458	121-773
	2SA733P		GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
TR9	2SC1359A	2000-253	GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
	2SC1359		GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
	2SC1815		GE-62	PTC136*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-972
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
TR10	2SC828	2000-213	GE-61*	PTC139*	HEPS0015*	REN 199	SK3444	RT-302	ECG199	TM199/**	WEP828	121-972
	2SC536		GE-212	PTC121*	HEPS0016*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP536	121-972
	2SC458		GE-210*	PTC121*	HEPS0009*	REN 123A*	SK3122	RT-187	ECG289	TM289/**	WEP458	121-773
	2SA733P		GE-48	PTC127	HEPS0019*	REN 294	SK3138	RT-303	ECG294	TM294/**	WEP916	121-952
TR11	2SA733	2000-253	GE-221*	PTC103*	HEPS0013*	REN 159*	SK3114	RT-303	ECG159*	TM159/**	WEP916	121-952
	2SA495		GE-244*	PTC103*	HEPS0019*	REN 129*	SK3114	RT-126A*	ECG129*	TM129*	WEP495	121-29003
	2SA564		GE-65	PTC103*	HEPS0019*	REN 234	SK3114	RT-303	ECG234	TM234	WEP60*	121-29005
	2SA659		GE-89	PTC103	HEPS0029	REN 159	SK3466	RT-103A	ECG159	TM159	WEP62	121-29003

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.
TR11	2SC1359A	2000-253	GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
	2SC1359		GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
	2SC380		GE-61*	PTC136*	HEPS0016*	REN 107	SK3018*	RT-107A	ECG107	TM107	WEP380	121-522
	2SC460		GE-61*	PTC136*	HEPS0014*	REN 107	SK3122	RT-134	ECG107	TM107/**	WEP460	121-522
	2SC168A		GE-62*	PTC139*	HEPS0024*	REN 199*	SK3122*	RT-108A*	ECG199*	TM199*	WEP66*	121-972
TR12	2SC930	2000-253	GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP956*	121-29021*
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3122	RT-308	ECG229*	TM229*	WEP956*	121-29021
	2SC1359A		GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
	2SC1359		GE-61*	PTC132	HEPS0014*	REN 229*	SK3018*	RT-108A*	ECG229*	TM229*	WEP956*	121-29021
	2SC1815		GE-62	PTC136*	HEPS0015*	REN 199	SK3245	RT-304	ECG199	TM199	WEP66	121-972
TR13	2SC945	2000-206	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
	2SC828		GE-61*	PTC139*	HEPS0015*	REN 199	SK3444	RT-302	ECG199	TM199/**	WEP828	121-972
	2SC536		GE-212	PTC121*	HEPS0016*	REN 199	SK3124	RT-107A	ECG199	TM199	WEP536	121-972
	2SC458		GE-210*	PTC121*	HEPS0009*	REN 123A*	SK3122	RT-187	ECG289	TM289/**	WEP458	121-773
	2SC2076D		GE-210*	PTC121*	HEPS0015*	REN 123A*	SK3122	RT-308	ECG295	TM295	WEP736	121-722
TR14	2SC2076C	2000-207	GE-210*	PTC121*	HEPS0015*	REN 123A*	SK3122	RT-308	ECG295	TM295	WEP736	121-722
	2SC2076		GE-210*	PTC121*	HEPS0015*	REN 123A*	SK3122	RT-308	ECG295	TM295	WEP736	121-722
	2SC941		GE-210*	PTC132*	HEPS0016*	REN 123A*	SK3122	RT-107A	ECG123A*	TM123A*	WEP66	121-29000A*
	2SC1364		GE-210	PTC121*	HEPS0015*	REN 123A*	SK3124	RT-308	ECG123A*	TM123A*/**	WEP736*	121-29000A
	2SC933		GE-210	PTC136	HEPS0015	REN 123A	SK3444	RT-308*	ECG123A	TM123A	WEP736	121-29000A*
TR15	2SC2000	2000-208	GE-210	PTC136	HEPS0015	REN 123A	SK3444	RT-308*	ECG123A	TM123A	WEP736	121-29000A*
	2SC2028B		GE-270	PTC180	HEPS3044	REN 295	SK3253	RT-162	ECG295	TM295	WEP913	200-767
	2SC2028B/20		GE-270	PTC180	HEPS3044	REN 295	SK3253	RT-146	ECG295	TM295	WEP913	200-767
	2SC2028		GE-270	PTC180	HEPS3044	REN 295	SK3197	RT-310	ECG235	TM235	WEP785	121-880
	2SC2091		GE-270	PTC180	HEPS3044	REN 295	SK3253	RT-146	ECG235	TM235	WEP785	121-880
TR16	2SC1957	2000-207	GE-336	PTC904	HEPS3044	REN 295	SK3253	RT-146	ECG295	TM295	WEP913	200-767
	2SC495		GE-337	PTC186	HEPS3044	REN 295	SK3197	RT-310	ECG235	TM235	WEP785	121-880
	2SC1846		GE-276	PTC186	HEPS3044	REN 295	SK3197	RT-146	ECG235	TM235	WEP785	121-880
	2SC1974		GE-333	PTC186	HEPS3044	REN 295	SK3197	RT-146	ECG235	TM235	WEP785	121-880
	2SC1760		GE-333	PTC186	HEPS3044	REN 295	SK3197	RT-146	ECG235	TM235	WEP785	121-880

PRESIDENT MODEL 1014001, VEEP

* 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
C5	10 25V	1800-605		TDC106M025FL	QDT1-64	SD25-109
C11	33 16V	1800-307	PC30-25	VTT33D25	QV1-63	EV-1325
C21	4.7 25V	1800-317	PC5-50	VTT4R7B50	QV1-27	EV-1319
C24	10 16V	1800-306	PC10-25	VTT10B25	QV1-41	EV-1222
C26	100 16V	1800-312	PC100-16	VTT100F16	QV1-95	EV-1230
C30	1 50V	1800-302	PC1-50	VTT1A50	QV1-11	EV-1615
C33	1 50V	1800-302	PC1-50	VTT1A50	QV1-11	EV-1615
C34	10 16V	1800-306	PC10-25	VTT10B25	QV1-41	EV-1222
C36	2.2 25V	1800-603		TDC225M035FL		SD35-2R29
C37	33 16V	1800-307	PC30-25	VTT33D25	QV1-63	EV-1325
C41	470 16V	1800-309	PC500-16	VTT470K16	QV1-151	EV-1250
C42	.22 16V	1800-502		TDC224M050EL	QDT1-10	SD50-R229
C45	10 16V	1800-306	PC10-25	VTT10B25	QV1-41	EV-1222
C48	10 16V	1800-306	PC10-25	VTT10B25	QV1-41	EV-1222
C49	1 50V	1800-302	PC1-50	VTT1A50	QV1-11	EV-1615
C50	4.7 25V	1800-607		TDC475M035FL	QDT1-49	SD35-4R79
C51	33 10V	1800-323	PC30-25	VTT33B10	QV1-61	EV-1125
C54	100 10V	1800-310	PC100-10	VTT100E10	QV1-93	EV-1130
C73	4.7 25V	1800-607		TDC475M035FL	QDT1-49	SD35-4R79
C74	4.7 25V	1800-607		TDC475M035FL	QDT1-49	SD35-4R79
C94	470 16V	1800-309	PC500-16	VTT470K16	QV1-151	EV-1250
C96	220 10V	1800-325	PC250-10	VTT220F10	QV1-115	EV-1140
C98	470 10V	1800-327	PC500-16	VTT470K16	QV1-149	EV-1150
C101	100 25V	1800-313	PC100-25	VTT100G25	QV1-97	EV-1330
C119	33 10V	1800-323	PC30-25	VTT33B10	QV1-61	EV-1125
C141	.47 50V		PC1-50	VTT47A63	QV1-3	EV-1610

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C1	27 N220 5%	1800-099			*		10TCR-Q27
C2	.01		UK25-103		MAG2511		HY-520
C3	.01		UK25-103		MAG2511		HY-520
C4	.01		UK25-103		MAG2511		HY-520
C6	.01		UK25-103		MAG2511		HY-520
C7	.01		UK25-103		MAG2511		HY-520
C8	.01		UK25-103		MAG2511		HY-520
C9	.01		UK25-103		MAG2511		HY-520
C10	.01		UK25-103		MAG2511		HY-520
C12	.01		UK25-103		MAG2511		HY-520
C13	.01		UK25-103		MAG2511		HY-520
C14	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C15	47 NPO 10%		DTZ-47	NP047	CN0447		10TCC-Q47
C16	.04				GP140		5GA-S40
C17	1				CN0510		10TCC-V10
C18	.039			DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C19	.04				GP140		5GA-S40
C20	680		DD-681	GP680	GP368		10TS-T68
C22	.039			DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C23	.04				GP140		5GA-S40
C25	.04				GP140		5GA-S40
C27	.04				GP140		5GA-S40
C28	.0047		DD-472	GP4700	GP247		5GA-D47
C29	.0047		DD-472	GP4700	GP247		5GA-D47
C31	.001 10%			DPMS6D1	M192P10292	QFT2-1	1FT-D10
C32	.0022			DPMS6D22	M192P2229R8	QFT2-28	1FT-D22
C35	.001		DD-102		GP210		10TS-D10
C38	.022 10%			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C39	.1 10%			WMF05P1	M192P1049R8	QFT2-215	1FT-P10
C40	.001			DPMY6D1	M192P10292	QFT2-1	1FT-D10
C43	.01		UK25-103		MAG2511		HY-520
C44	.01		UK25-103		MAG2511		HY-520
C46	.033			DPMS6S33	M192P3339R8	QFT2-149	1FT-S33
C47	.0047			WMF1D47	M192P4729R8	QFT2-63	1FT-D47
C52	.01		UK25-103		MAG2511		HY-520
C53	.01		UK25-103		MAG2511		HY-520
C55	.01		UK25-103		MAG2511		HY-520
C56	.01		UK25-103		MAG2511		HY-520
C57	18 N220 10%	1800-060			*		10TCR-Q18
C58	33 N220 10%	1800-125			*		10TCR-Q33
C59	47 N750 10%		DTH-47	N47	CN7447		10TCU-Q47
C60	10 N220 10%	1800-059			*		10TCR-Q10
C61	150 N220 5%	1800-128			*		10TCR-T15
C62	100		DTZ-100	NP0100	CN0310		10TCC-T10
C63	5		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C64	.01		UK25-103		MAG2511		HY-520
C65	.01		UK25-103		MAG2511		HY-520
C66	150 N220 5%	1800-128			*		10TCR-T15
C67	47 N220 10%	1800-064			*		10TCR-Q47
C68	220 N220 10%	1800-098			*		10TCR-T22
C69	560		DD-561		GP356		10TS-T56
C70	.01		UK25-103		MAG2511		HY-520
C71	22		DTZ-22	NP022	CN0422		10TCC-Q22
C72	.022			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C75	.047 10%			DPMS2S47	M192P4739R8	QFT2-171	1FT-S47
C76	180		DTZ-180				10TCC-T18
C77	.01 10%		UK25-103		MAG2511		HY-520
C78	.01		UK25-103		MAG2511		HY-520
C79	.01		UK25-103		MAG2511		HY-520
C80	.01		UK25-103		MAG2511		HY-520
C81	.01 10%		UK25-103		MAG2511		HY-520
C82	33		DTZ-33	NP033	CN0433		10TCC-Q33
C83	220		DTZ-220				10TCC-T22
C85	.04				GP140		5GA-S40
C86	56				CN0456		10TCC-Q56
C87	.01		UK25-103		MAG2511		HY-520
C88	330		DD-331	GP330	GP333		10TS-T33
C89	330		DD-331	GP330	GP333		10TS-T33
C90	56				CN0456		10TCC-Q56
C91	56				CN0456		10TCC-Q56
C92	3		DTZ-3R3	NP03P3	CN0533		10TCC-V33

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
C93	.04		UK25-103		GP140		5GA-S40
C95	.01		UK25-103		MAG2511		HY-520
C97	.01		UK25-103		MAG2511		HY-520
C99	.01		UK25-103		MAG2511		HY-520
C100	.01		UK25-103		MAG2511		HY-520
C102	.01		UK25-103		MAG2511		HY-520
C103	.001		DD-102		GP210		10TS-D10
C104	.01		UK25-103		MAG2511		HY-520
C105	.01		UK25-103		MAG2511		HY-520
C106	.01		UK25-103		MAG2511		HY-520
C107	.01		UK25-103		MAG2511		HY-520
C108	.01		UK25-103		MAG2511		HY-520
C109	.01		UK25-103		MAG2511		HY-520
C110	.01		UK25-103		MAG2511		HY-520
C111	.01		UK25-103		MAG2511		HY-520
C112	.01		UK25-103		MAG2511		HY-520
C113	.001		DD-102		GP210		10TS-D10
C114	.001		DD-102		GP210		10TS-D10
C116	.1 10%			WMF05P1	M192P1049R8	QFT2-215	1FT-P10
C117	82		DTZ-82	NP082	CN0482		10TCC-Q82
C118	10		DTZ-10	NP010	CN0410		10TCC-Q10
C120A	.01		UK25-103		MAG2511		HY-520
C120B	.01		UK25-103		MAG2511		HY-520
C120C	.01						
C121	.01		UK25-103		MAG2511		HY-520
C122	.01		UK25-103		MAG2511		HY-520
C123	.01		UK25-103		MAG2511		HY-520
C124	.01		UK25-103		MAG2511		HY-520
C125	.01		UK25-103		MAG2511		HY-520
C126	.01		UK25-103		MAG2511		HY-520
C127	.01		UK25-103		MAG2511		HY-520
C129	.001		DD-102		GP210		10TS-D10
C130	.01		UK25-103		MAG2511		HY-520
C131	.01		UK25-103		MAG2511		HY-520
C132	.01		UK25-103		MAG2511		HY-520
C133	.01		UK25-103		MAG2511		HY-520
C134	330		DD-331	GP330	GP333		10TS-T33
C136	56				CN0456		10TCC-Q56
C140	330		DD-331	GP330	GP333		10TS-T33

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

PRESIDENT MODEL 1014001, VEEP

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	Volume/Power Switch	50K	1900-104			
VR2	Squelch	50K	1900-142			
VR3	T Squelch	50K	1900-202			U260R503B
VR4	SIG	20K	1900-204			U260R253B
VR5	PWR	50K	1900-202			U260R503B
VR6	AMC	20K	1900-204			U260R253B
VR7	RF Gain	300	1900-206			U260R501B

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	Rec RF (27MHz)	2200-504			
L2	RF Amp (27MHz)	2200-505	LA280		
L3	VCO/Mixer (16.270MHz)	2200-506	LB118		
L4	IF (10.695MHz)	2200-507	LA119		
L5	RF Choke (10uH)	2200-205			
L6	IF (455kHz)	2200-508	LA281		
L7	IF (455kHz)	2200-048	LA204		
L8	IF (455kHz)	2200-091	LA207		
L9	PLL	2200-509	LA282		
L10	VCO/Mixer (27MHz)	2200-510	LA283		
L11	RF Predriver (27MHz)	2200-085	LA208		
L12	RF Driver (27MHz)	2200-020			
L13	RF Choke (4.7uH)	2200-208			
L14	RF Choke (4.7uH)	2200-017			
L15	Final	2200-020			
L16	Pi Filter	2200-088			
L17	RF Choke	2200-089			
L18	TVI Trap (54MHz)	2200-020			

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.	
T2	1.05A	.8	86mH	2300-001 TF-083(1)	TR507		(1) Number on unit.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	18	8	2600-005 TF-129(1)			(1) Number on unit.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	3" PM 16 Ohms	3100-009 SP-003 (1)	30C25Z16	(1) Number on unit.

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER	DEVICE
F1	2A Quick Acting			AGC(2A)	HRK	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	3200-005	18-032	18-034	18-010	180092	2	1	3	4	NC	1

PRESIDENT MODEL 1014001, VEEP

PARTS LIST AND DESCRIPTION (CONTINUED)

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

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
D18	LED	2000-306	Channel Indicator (Each segment 1.88V @ 6.5mA) (TLR321)
D19	LED	2000-347	TX Indicator (1.93V @ 5.6mA) (TLR124)
FL1	Filter	2200-304	10.7MHz
FL2	Filter	2200-307	455kHz
J1	Jack	1100-002	Antenna Connector
J2	Jack	1100-004	Microphone (4 Pin Male)
J3	Jack	1100-021	PA Speaker
J4	Jack	1100-021	External Speaker
J5	Jack	1100-003	DC Power (3 Pin Male)
L19	Ferrite Bead	2200-052	LD087
L20	Ferrite Bead	2200-101	LD088
M1	Meter	2900-001	SIG/TX Power
PL1	Lamp		Meter 12.01V @ 36mA
P2	Plug		Microphone
P5	Plug	2700-001	DC Power Cord Assembly
S1	Switch		Power On/Volume (Part of VR1)
S2	Switch	3000-013	ANL On/Off
S4	Switch	3000-118	Channel Selector
X1	Crystal	2100-013	10.240MHz (QX074)
	Printed Circuit Board	3500-047	Channel LED (PC-440)
	Printed Circuit Board	3500-045	Channel Selector Switch (PC438)
	Printed Circuit Board	3500-048	Microphone Jack (PC441)
	Printed Circuit Board	3500-046	Push Switch (PC439)

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

ITEM	PART No.	ITEM	PART No.
Bottom Cover	3300-108	Front Panel (No Inserts)	3300-516
Knob, Channel Selector	1300-006	Knob, Push Switch	1300-003
Knob, Control	1300-007	Spring Insert (Ch Knob)	1100-305
Lens, Digital Display	3400-108	Top Cover	3300-107