



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-431 (21-1544)

MANUFACTURER'S SPECIFICATIONS

RECEIVER SPECIFICATIONS (1 μ V=0dB)

DESCRIPTION	NOMINAL	LIMIT
1. FREQUENCY TOLERANCE	± 1000 Hz	± 1350 Hz
2. INTERMEDIATE FREQUENCY: 1st	9.785 MHz	
2nd	455 kHz	± 1.5 kHz
3. SENSITIVITY for Standard Output (500 mW)	0.3 μ V	0.5 μ V
4. SENSITIVITY for 10 dB S+N/N	0.5 μ V	1 μ V
5. AGC FIGURE OF MERIT	86 dB	80 dB
(RF input 10 mV, AF -10 dB)		
6. BANDWIDTH at -6 dB (re. item 4)	6 kHz	3.5 - 8 kHz
7. ADJACENT CHANNEL REJECTION at ± 10 kHz	70 dB	60 dB
(re. item 4)		
8. OVERLOAD SIGNAL for 10% Distortion	> 50 mV	> 50 mV
9. AUDIO POWER OUTPUT at 10% Distortion	3.5 W	3.0 W
(RF input 1 mV)		
10. DISTORTION at Standard Output (RF input 1 mW)	2%	4%
11. BATTERY DRAIN at no Signal	250 mA	350 mA
12. FIDELITY (RF input 1 mV, 1 kHz 0 dB reference)		
at 450 Hz Modulation	-6 dB	-6 $\pm$ 3 dB
at 2500 Hz Modulation	-6 dB	-6 $\pm$ 3 dB
13. SQUELCH SENSITIVITY	0.5 μ V	1.0 μ V
14. SQUELCH SENSITIVITY at the deepest point	1000 μ V	500 - 2000 μ V
15. IMAGE REJECTION (re. item 4) at 1st IF/2nd IF	76/60 dB	60/50 dB
16. S/N RATIO at 1 mV Input	40 dB	35 dB
17. "S" METER SENSITIVITY for "S9"	100 μ V	50 - 200 μ V
18. DELTA TUNE	1000 Hz	700 - 1500 Hz
19. CONDUCTED RECEIVER RADIATION		2000 pW
20. CROSS MODULATION	60 dB	50 dB
21. SPURIOUS RESPONSE	-70 dB	-60 dB

TRANSMITTER SPECIFICATIONS

DESCRIPTION	NOMINAL	LIMIT
1. FREQUENCY TOLERANCE	± 1000 Hz	± 1350 Hz
2. RF POWER OUTPUT		
at no Modulation	3.8 W (4W max.)	3.5 W
at 100% Modulation	up or no change	
3. CONDUCTED SPURIOUS SUPPRESSION (worst value)	-65 dB	-60 dB
4. MODULATION CAPABILITY	+95, -100%	$\pm 80\%$ - $\leq \pm 100\%$
5. BATTERY DRAIN		
at no Modulation	1100 mA	1400 mA
at 100% Modulation	1600 mA	1900 mA
6. MICROPHONE SENSITIVITY at 50%, 1 kHz Modulation	0.5 mV	1 mV

Courtesy of the Manufacturer

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

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REALISTIC MODEL TRC-431

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-volts at TP1.
Connect low sides of test equipment to ground unless specified otherwise.
Connect 50-ohm dummy load or antenna before keying transmitter.
Suggested Alignment Tools: GC ELECTRONICS
L101, L102, T802, L905, L907, F901 9440
CT801. 8276, 5000
L910 9304, 9300, 9302
T301 thru T304, T801, T803, L901 thru L904 . 5009, 8728-A, 8728

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of oscilloscope to TP11 (Q301, Emitter).	Ch. 19	T801	Adjust for maximum.
Input of frequency counter to TP2 (Q301, Emitter).	Ch. 19		Check for 10.240MHz.
Input of frequency counter thru 5pF to TP12 (Q805, Emitter).	Ch. 19	CT801	Adjust for 11.5966MHz.
Input of DC meter to TP802.	Ch. 20	T802	Adjust for 3.0 $\pm$.1 volt. Check for 2.0 to 2.3 volts on Ch. 1 and 3.7 to 4.1 volts on Ch. 40.
Input of oscilloscope to TP803.	Ch. 19	T803	Adjust for maximum.
Input of frequency counter to TP803.	Ch. 1		Check for 36.750MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of frequency counter to TP13 (Q901, Emitter.)	Ch. 19, XMT		Disconnect C905. Check for 9.78MHz. Reconnect C905.
Input of frequency counter to antenna jack.	Ch. 19, XMT	CT801	Check for 27.185MHz. If necessary readjust CT801 for 27.185MHz.

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.
Delta Tune 0, Squelch MINIMUM.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP11 (Q301, Emitter). 455kHz, 1000Hz @ 30% modulation.	Ch. 19	T304, T303	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19	T302, T301, L102, L101	Adjust for maximum output. If necessary, readjust T303 and T304.

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication.
Delta Tune 0, Squelch MINIMUM.

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
No signal input. Input of DC meter to TP1.	Ch. 19	VR1	AGC Adjust for 1.25 $\pm$.05 volts
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 1000uV.	Ch. 19 Squelch Maximum	VR3	SQUELCH RANGE Adjust so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19	VR4	S METER Adjust for 9 on S 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	TRANSCIVER	ADJUST	REMARKS
Input of RF wattmeter to antenna input.	Ch. 19	L901,L902, L903,L904, L905,L907, L910	Adjust for maximum.
Input of RF wattmeter to antenna input.	Ch. 19	L907	Adjust clockwise for a decrease in output of .5 watts.
Input of RF wattmeter to antenna input.	Ch. 19	L910	Adjust counterclockwise for 3.8 watts.
Input of spectrum analyzer or harmonic meter to antenna jack.	Ch. 19	F901	Adjust for MINIMUM at 54MHz.

TRANSMITTER ADJUSTMENTS

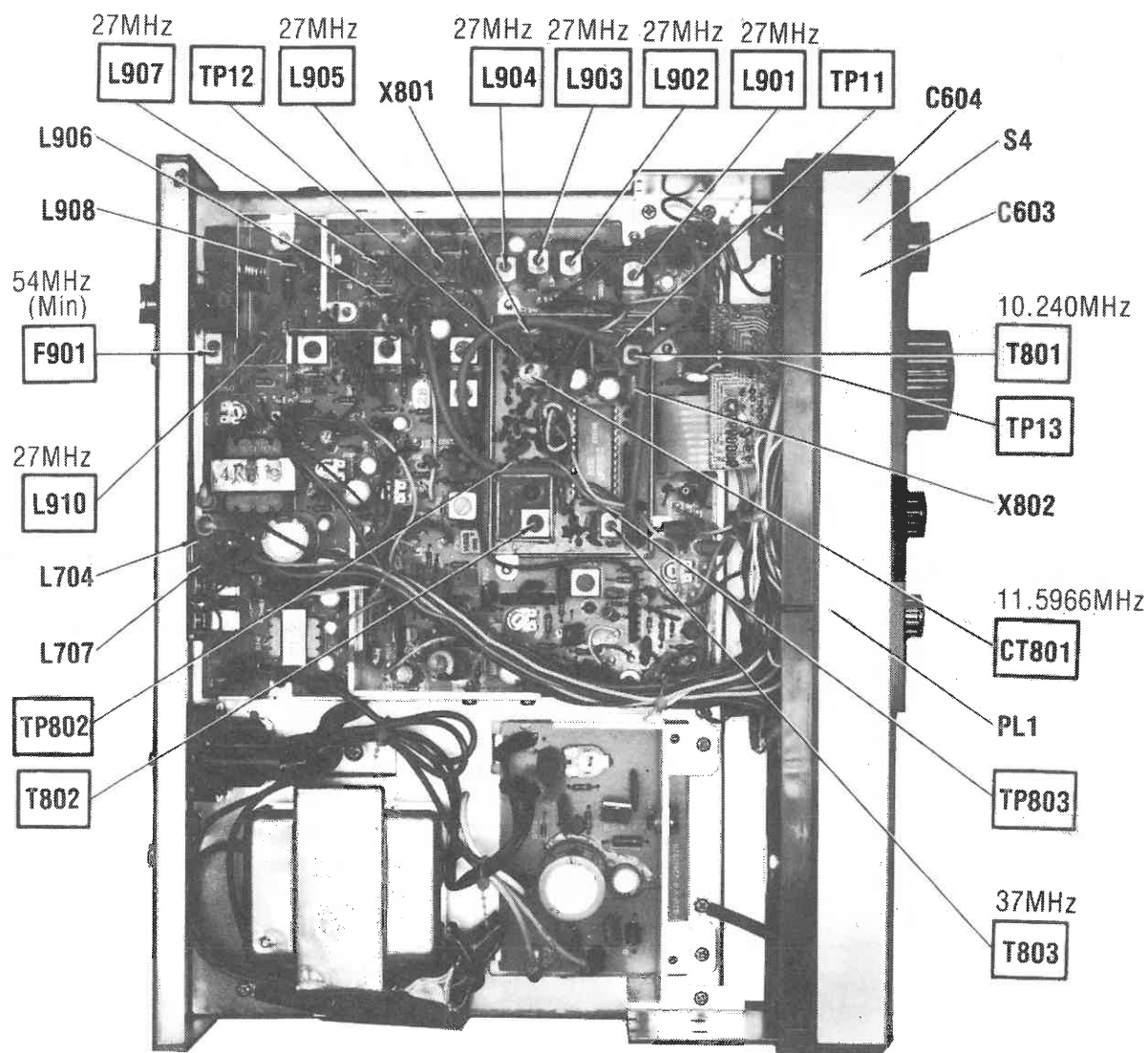
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.
NOTE: Be sure to check transmit frequency and power on all active channels after adjustment of transmitter.
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of oscilloscope or modulation meter to antenna jack. Inject a 1000Hz, 100mV signal at MIC input.	Ch. 19	VR7	AMC Adjust VR7 for 100% modulation maximum.
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.	Ch. 19	VR5	POWER METER Adjust so that POWER meter agrees with RF wattmeter.
Input of DC meter to TP10 (Q704, Emitter)	Ch. 19	VR8	VOLT REG Adjust for 13.80 volts.

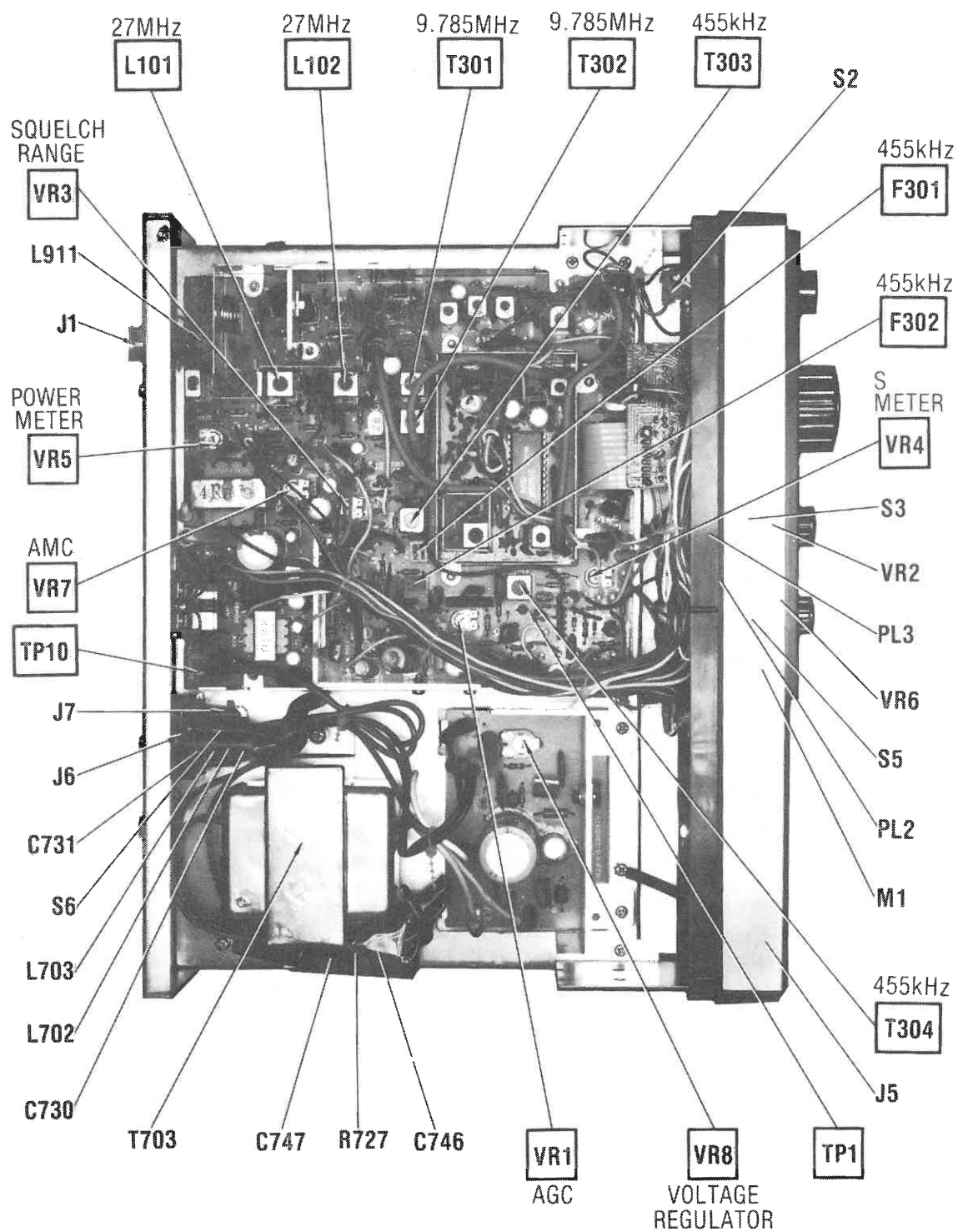
REALISTIC MODEL TRC-431

TRUTH CHART

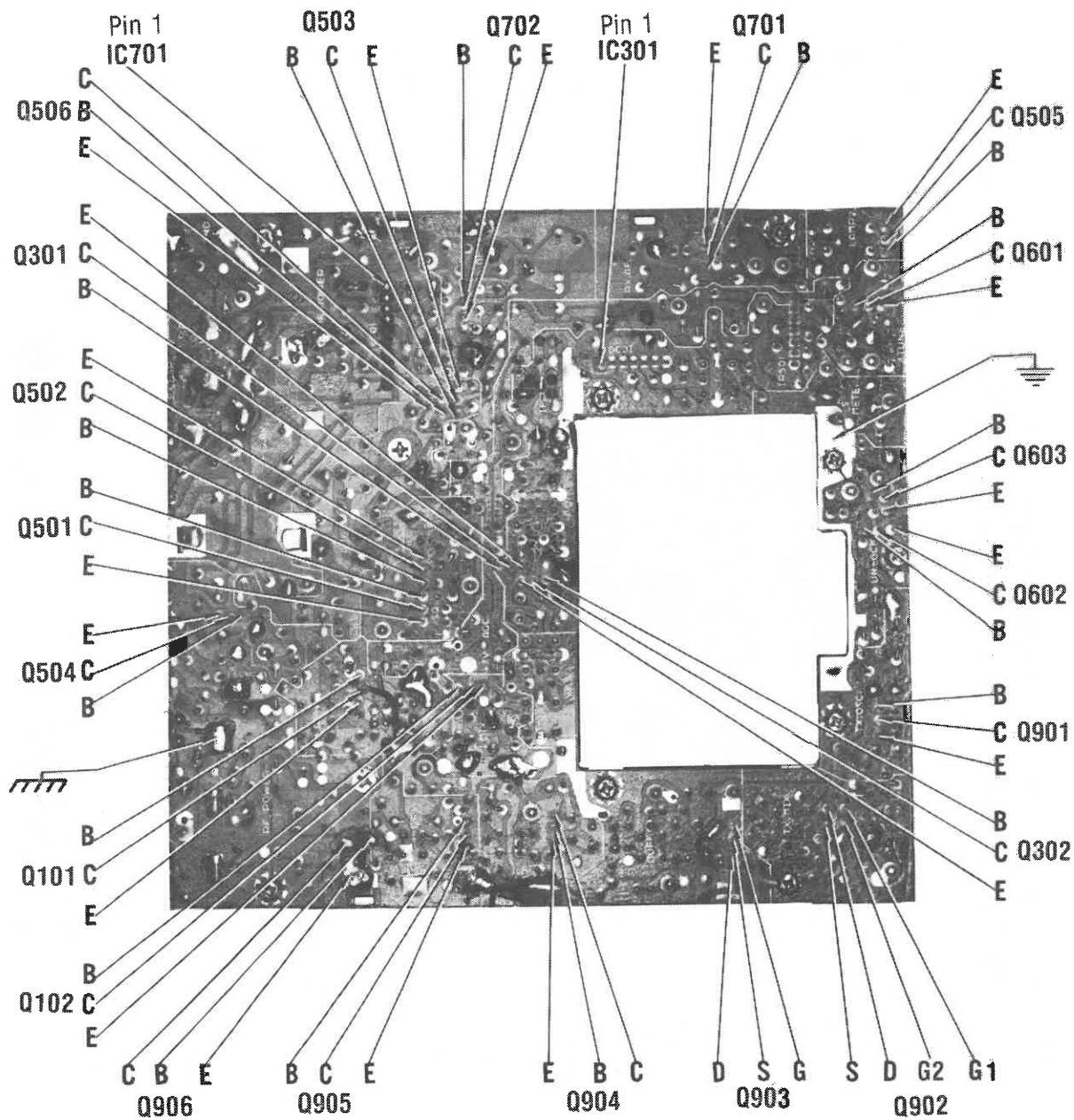
C H A N N E L	1 = 6.00 Volts 0 = Volts IC801 PROGRAM DIVIDER								REC & XMT SYNTHESIZER OUTPUT IN MHz AT TP803		
	PINS										
			6	5	4	3	2	1			
1			0	0	0	1	0	0	36.750		
2			0	0	0	1	0	1	36.760		
3			0	0	0	1	1	0	36.770		
4			0	0	1	0	0	0	36.790		
5			0	0	1	0	0	1	36.800		
6			0	0	1	0	1	0	36.810		
7			0	0	1	0	1	1	36.820		
8			0	0	1	1	0	1	36.840		
9			0	0	1	1	1	0	36.850		
10			0	0	1	1	1	1	36.860		
11			0	1	0	0	0	0	36.870		
12			0	1	0	0	1	0	36.890		
13			0	1	0	0	1	1	36.900		
14			0	1	0	1	0	0	36.910		
15			0	1	0	1	0	1	36.920		
16			0	1	0	1	1	1	36.940		
17			0	1	1	0	0	0	36.950		
18			0	1	1	0	0	1	36.960		
19			0	1	1	0	1	0	36.970		
20			0	1	1	1	0	0	36.990		
21			0	1	1	1	0	1	37.000		
22			0	1	1	1	1	0	37.010		
23			1	0	0	0	0	1	37.040		
24			0	1	1	1	1	1	37.020		
25			1	0	0	0	0	0	37.030		
26			1	0	0	0	1	0	37.050		
27			1	0	0	0	1	1	37.060		
28			1	0	0	1	0	0	37.070		
29			1	0	0	1	0	1	37.080		
30			1	0	0	1	1	0	37.090		
31			1	0	0	1	1	1	37.100		
32			1	0	1	0	0	0	37.110		
33			1	0	1	0	0	1	37.120		
34			1	0	1	0	1	0	37.130		
35			1	0	1	0	1	1	37.140		
36			1	0	1	1	0	0	37.150		
37			1	0	1	1	0	1	37.160		
38			1	0	1	1	1	0	37.170		
39			1	0	1	1	1	1	37.180		
40			1	1	0	0	0	0	37.190		



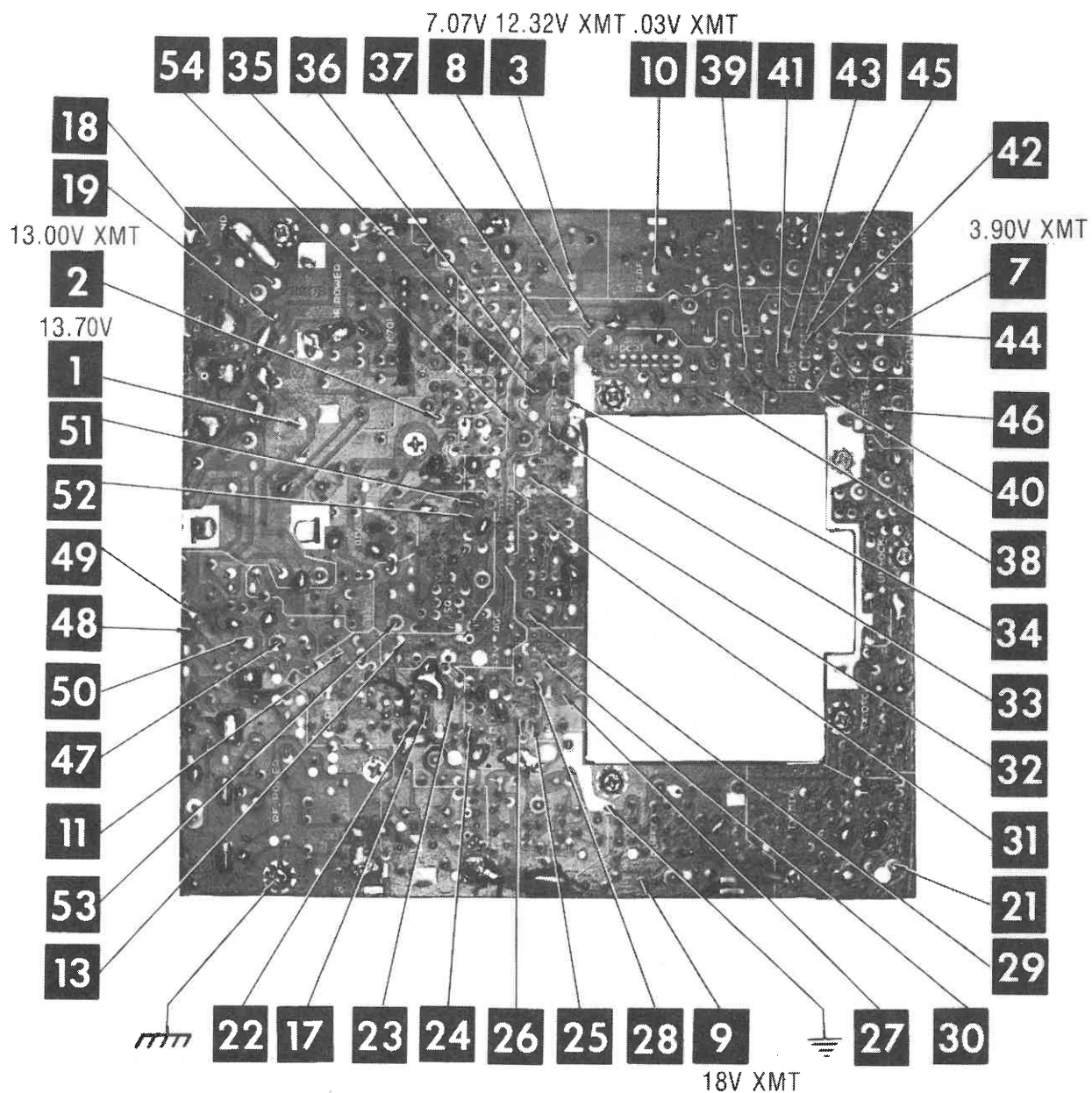
CHASSIS-TOP



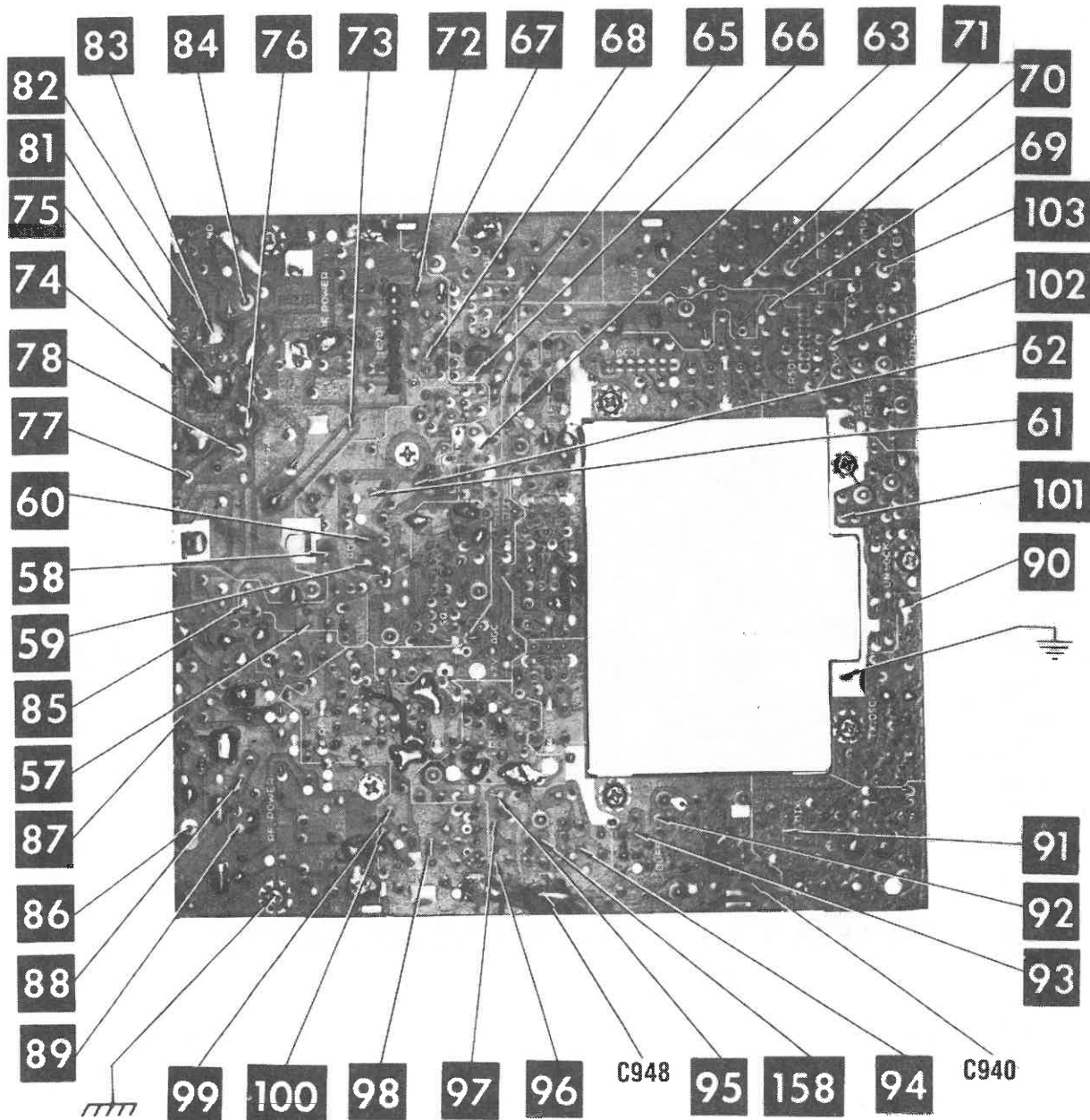
CHASSIS-TOP



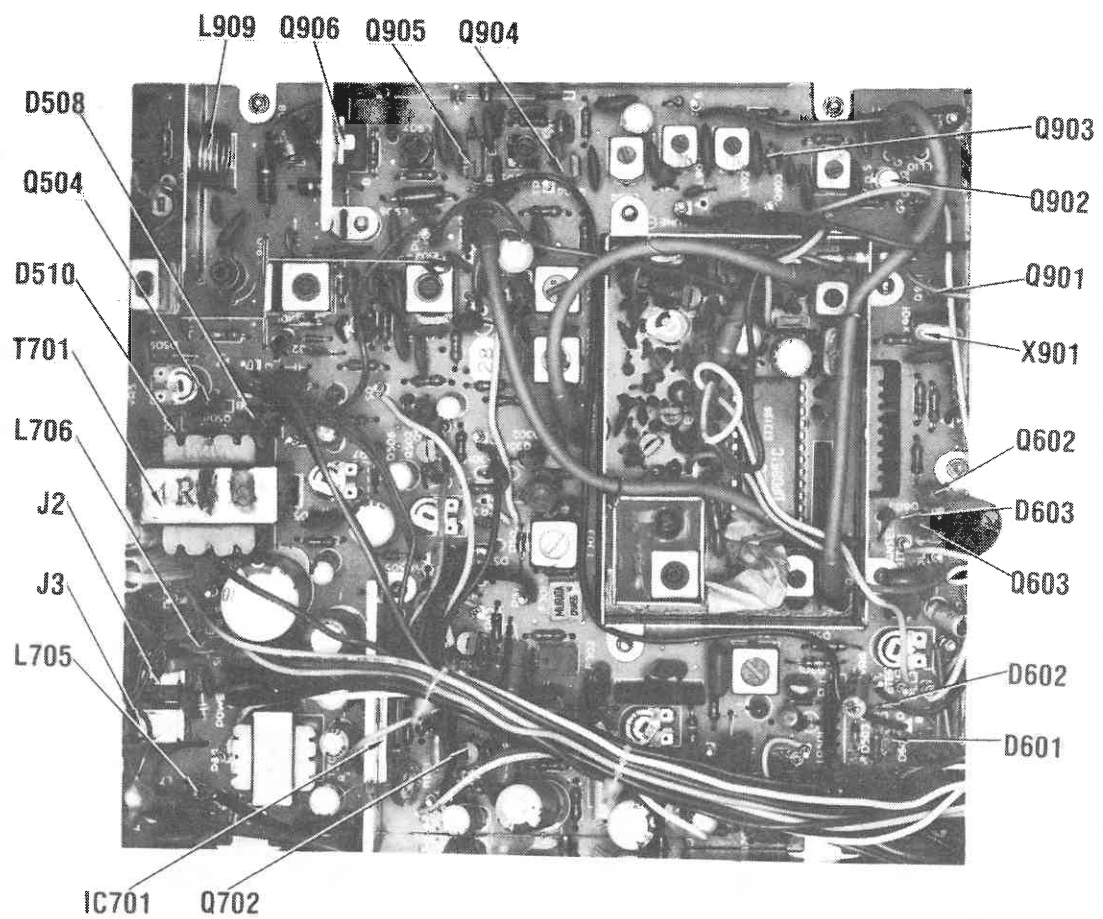
MAIN BOARD



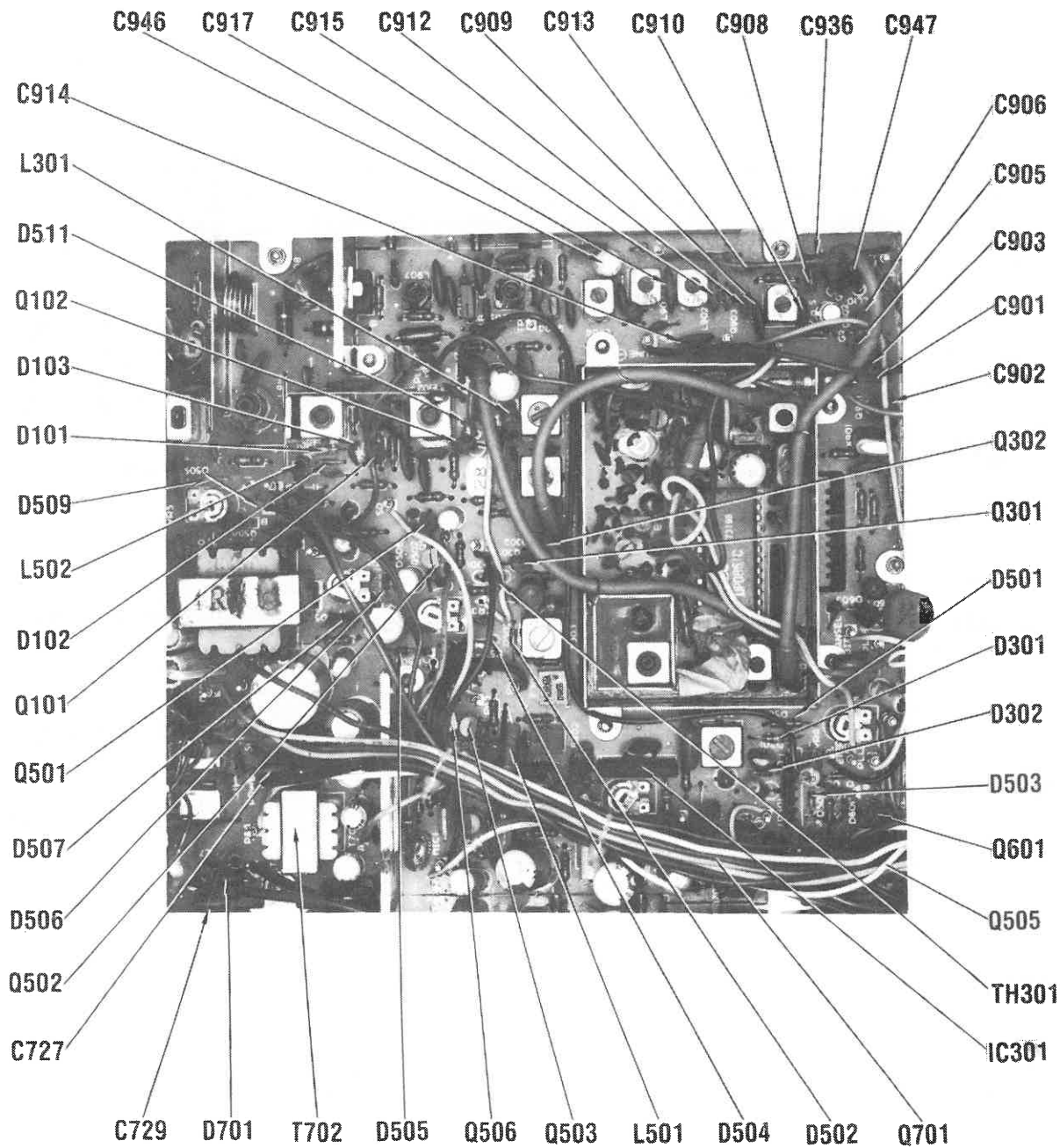
MAIN BOARD



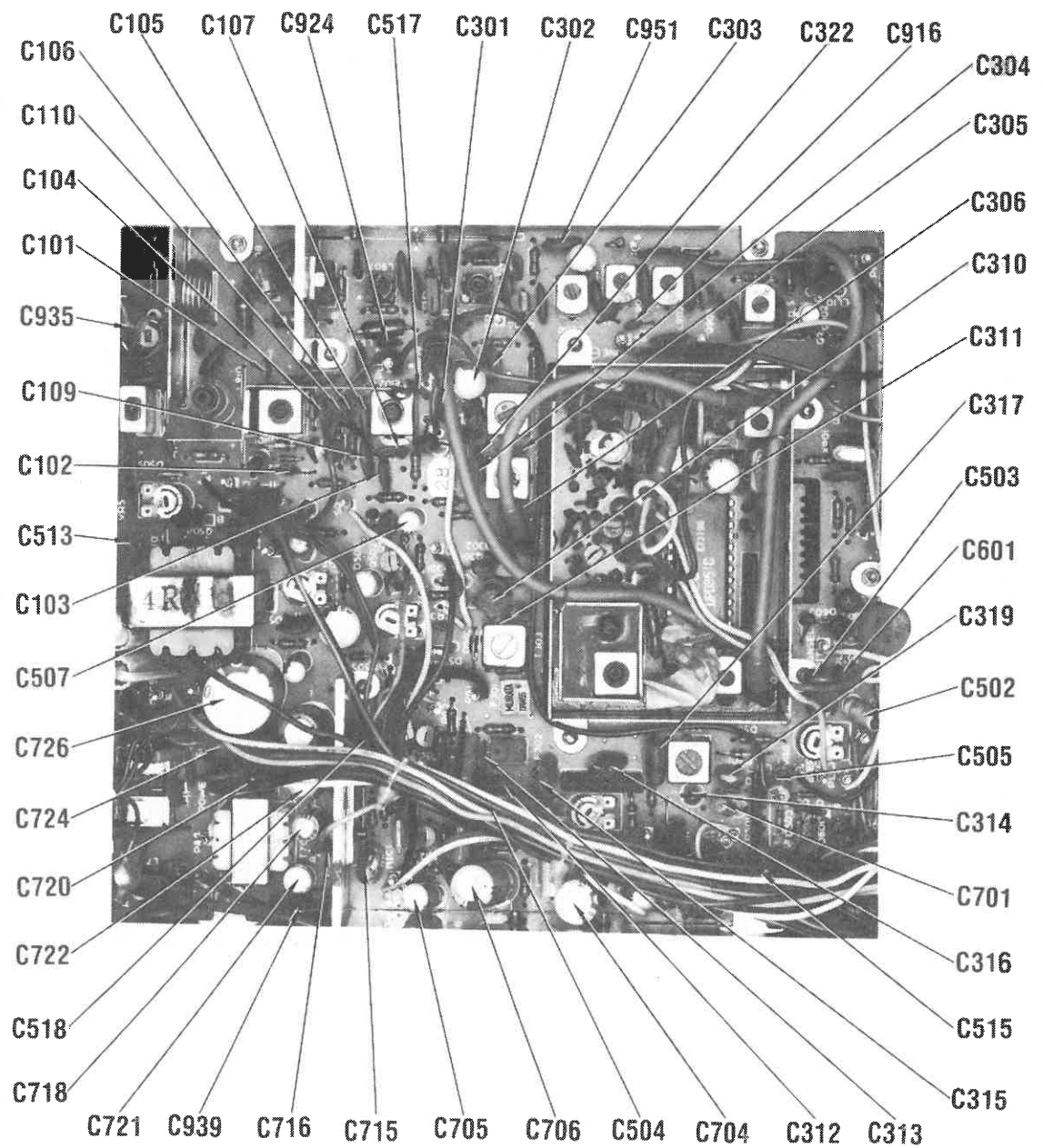
REALISTIC MODEL TRC-431



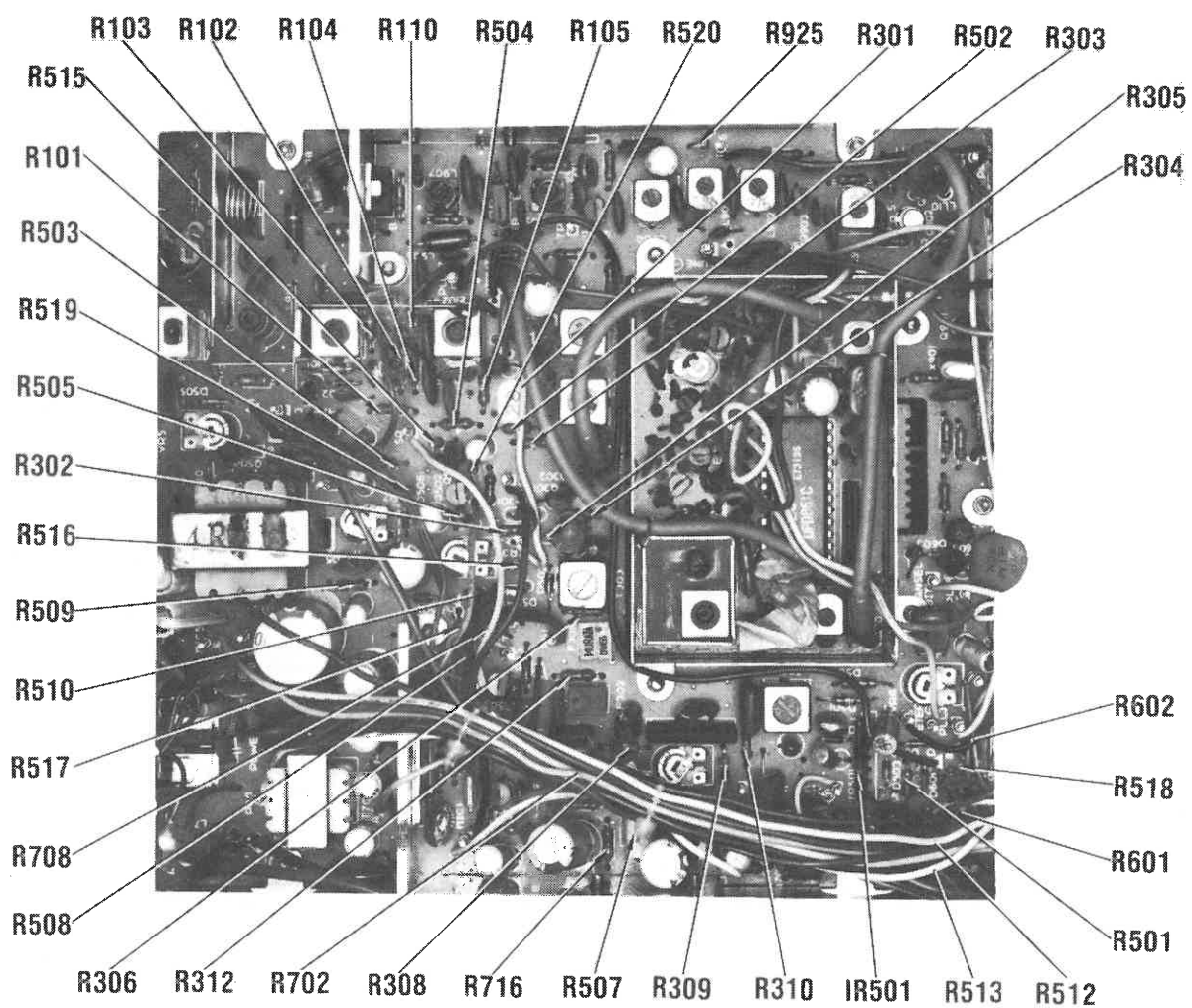
MAIN BOARD



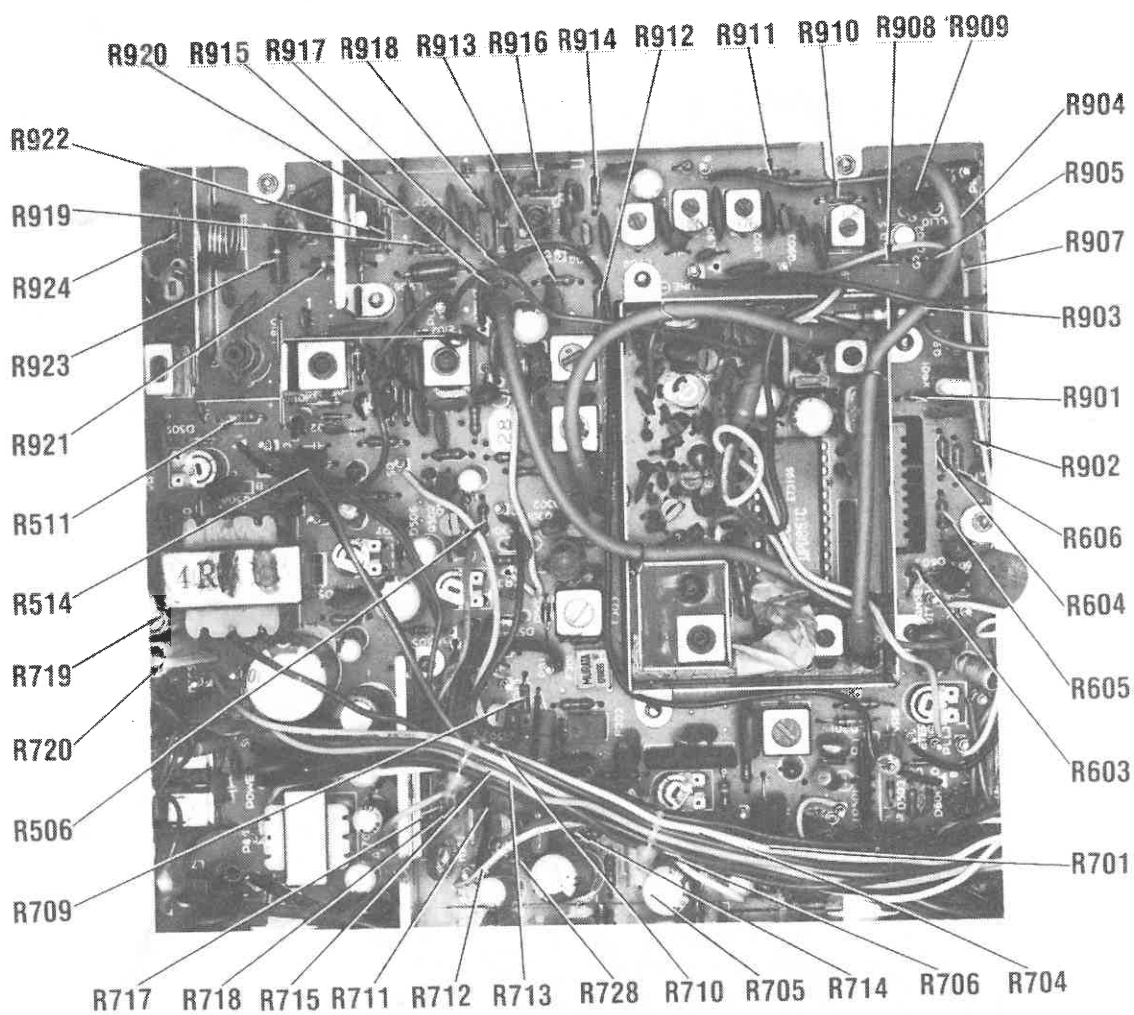
MAIN BOARD



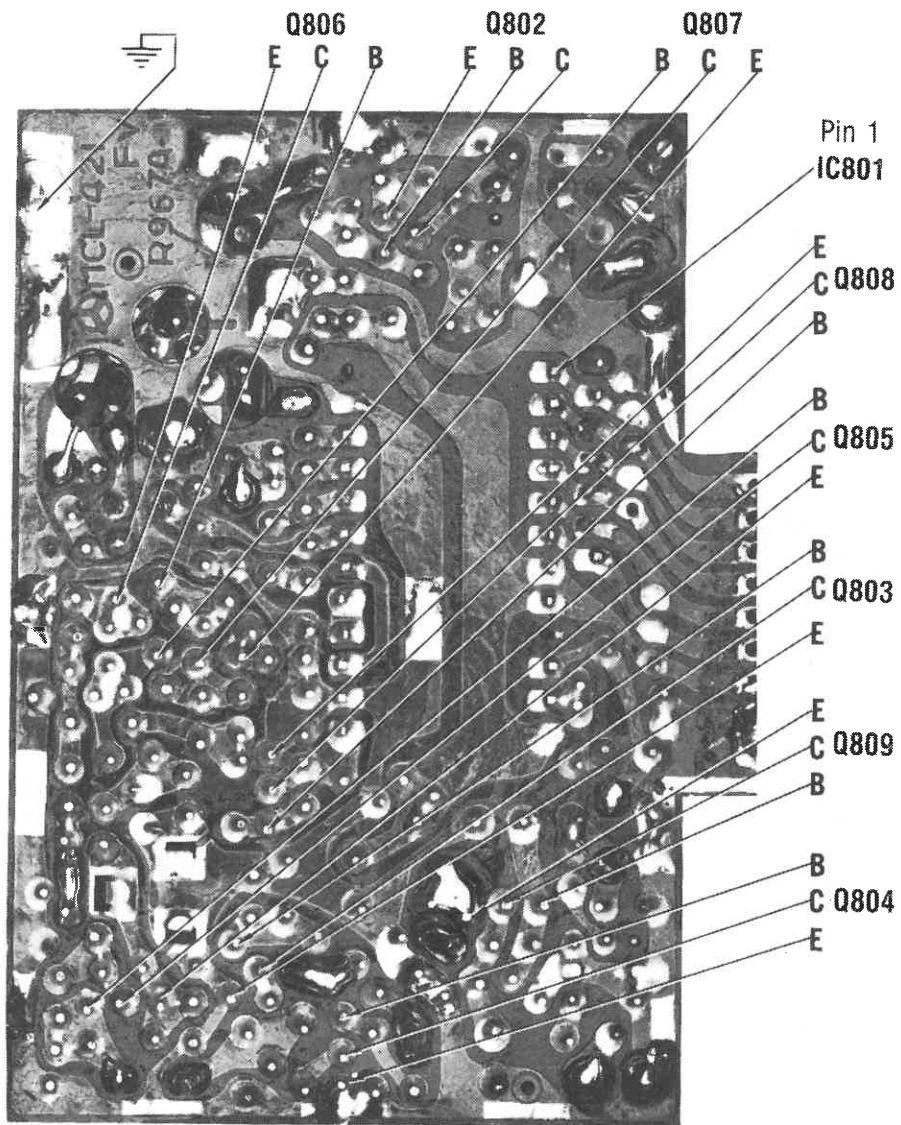
MAIN BOARD



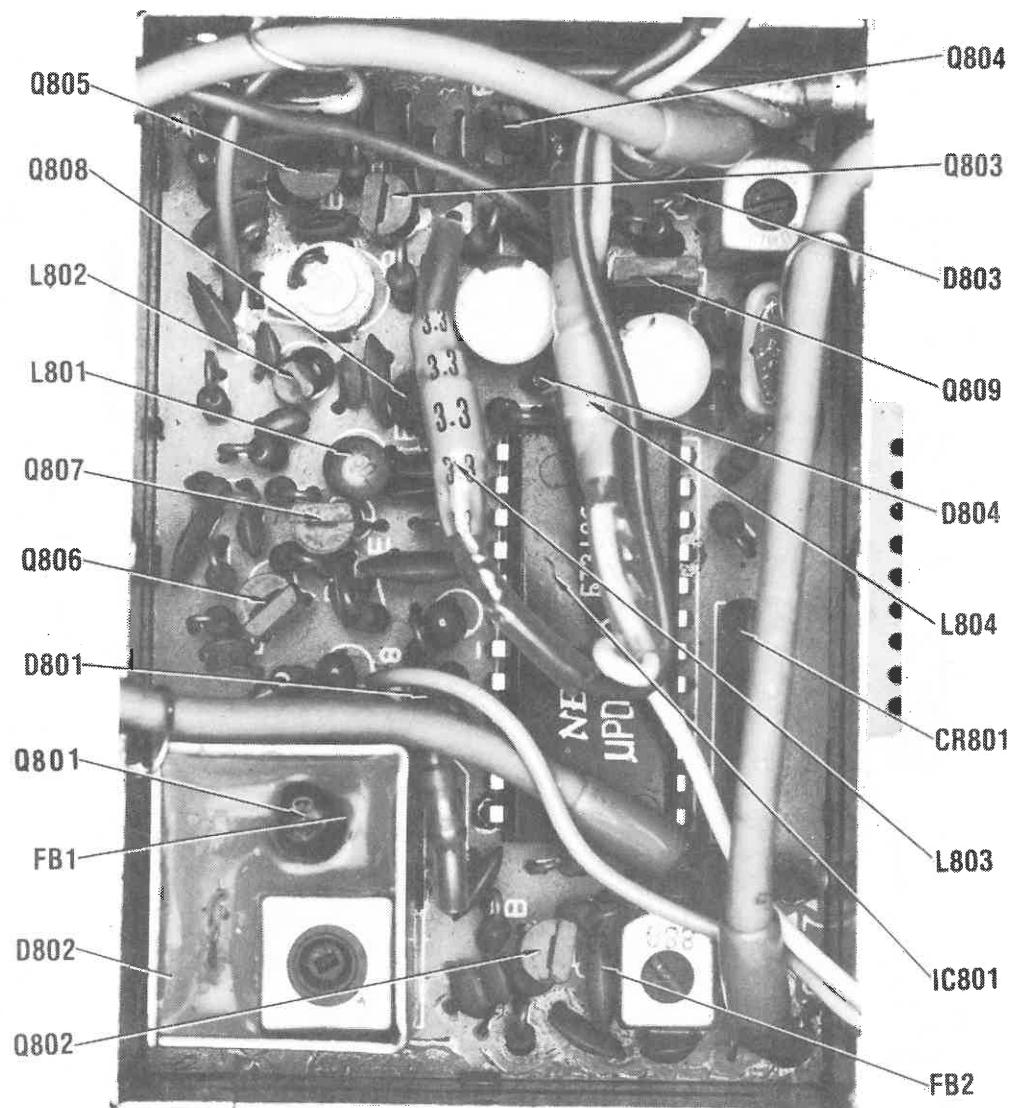
MAIN BOARD



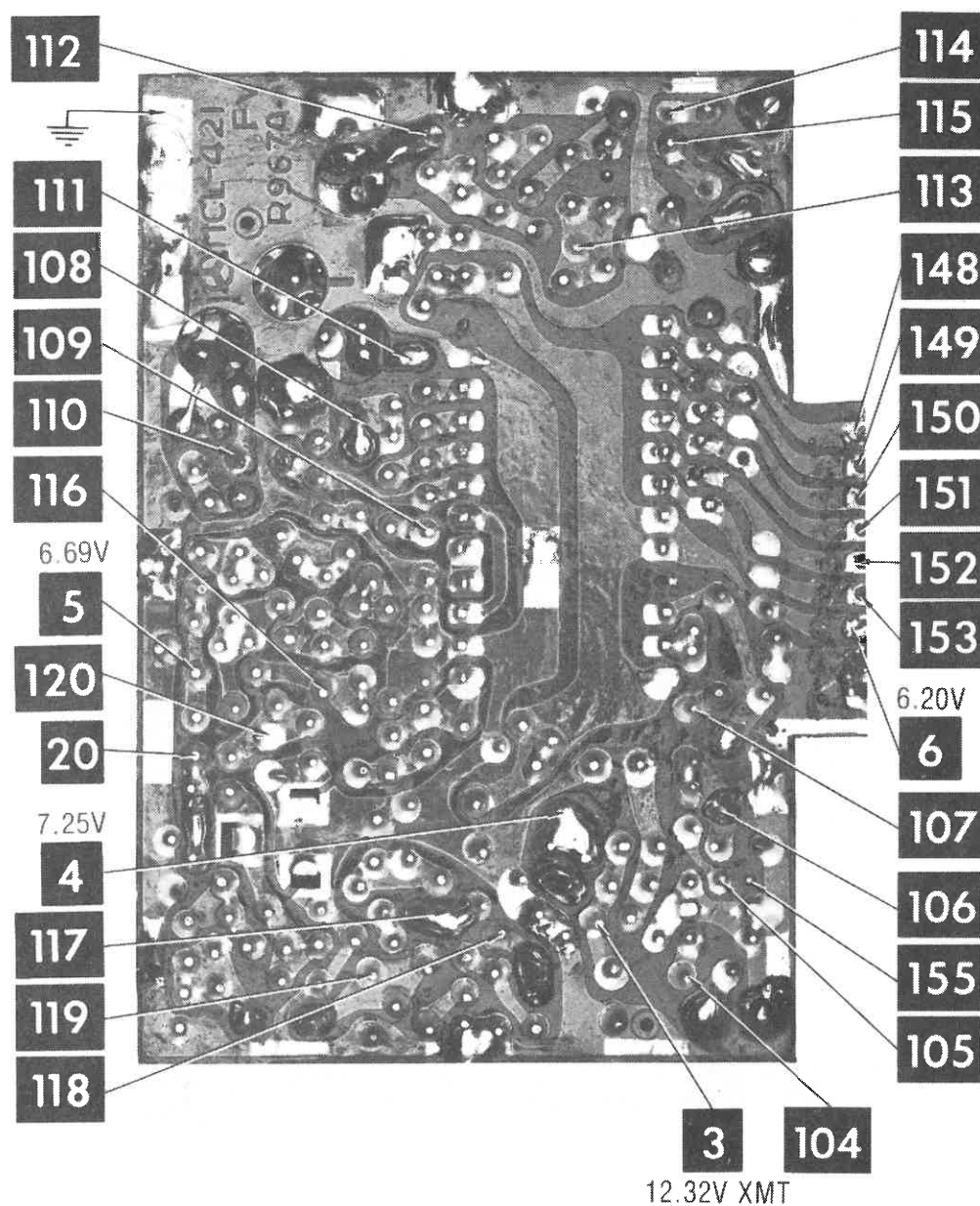
MAIN BOARD



PLL BOARD

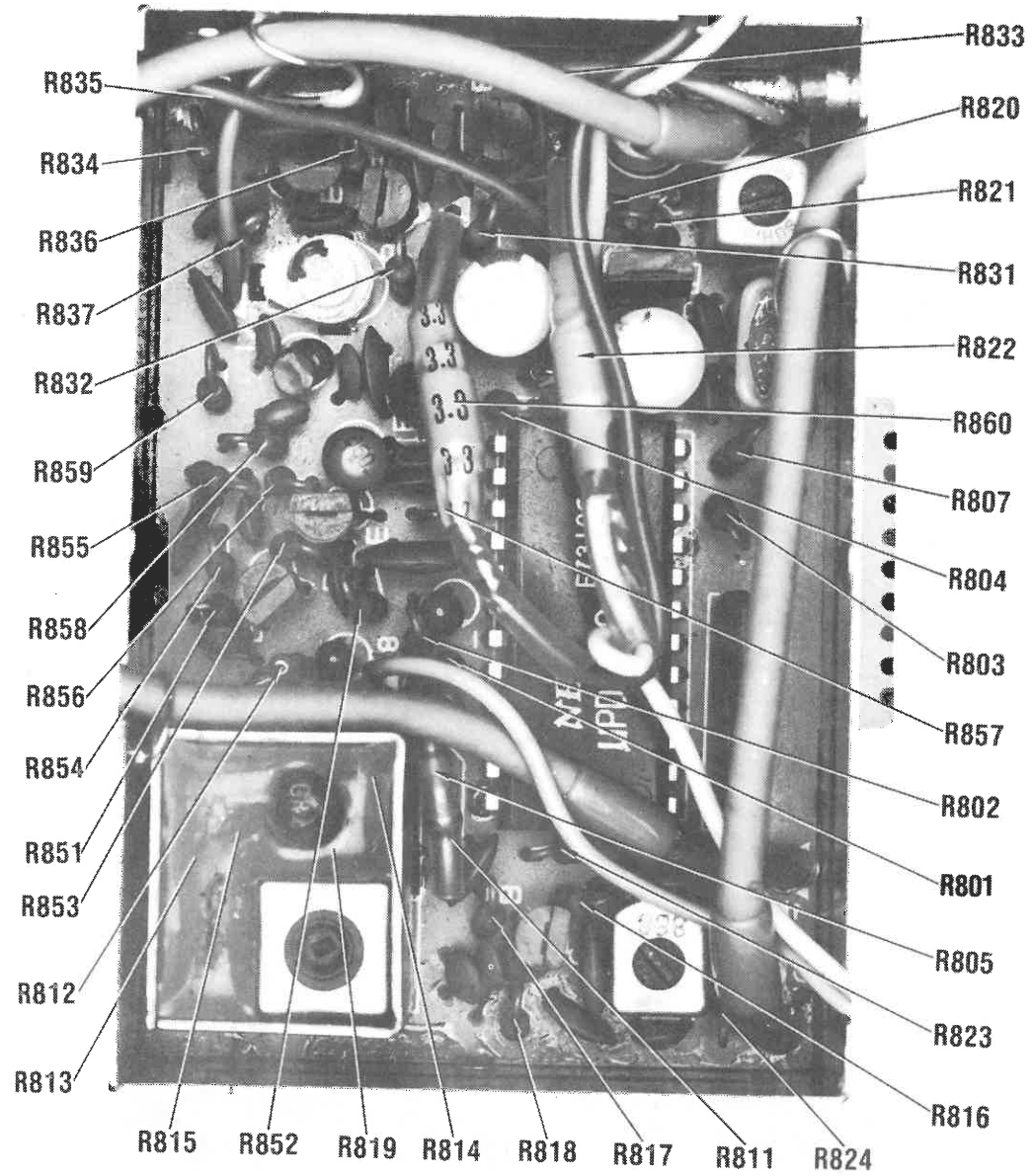


PLL BOARD

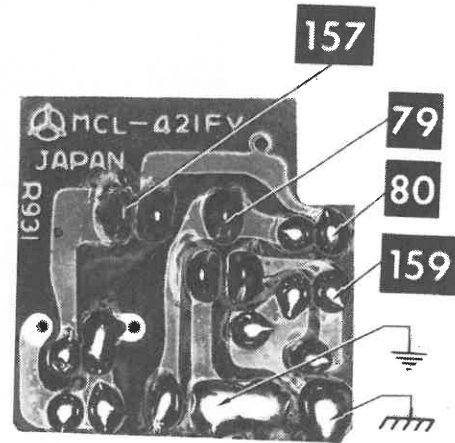
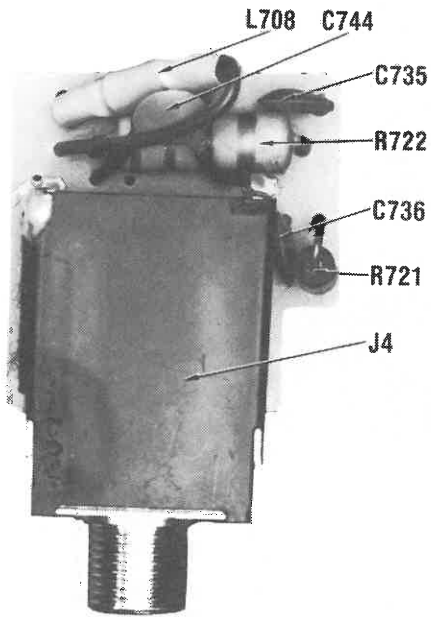


PLL BOARD



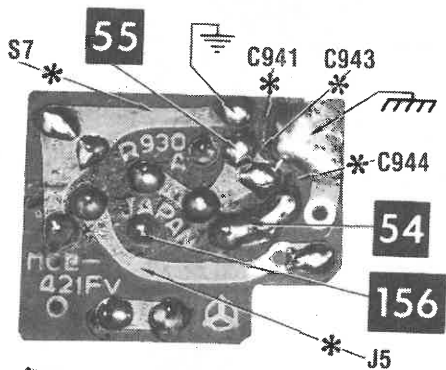


PLL BOARD



HEADPHONE JACK BOARD

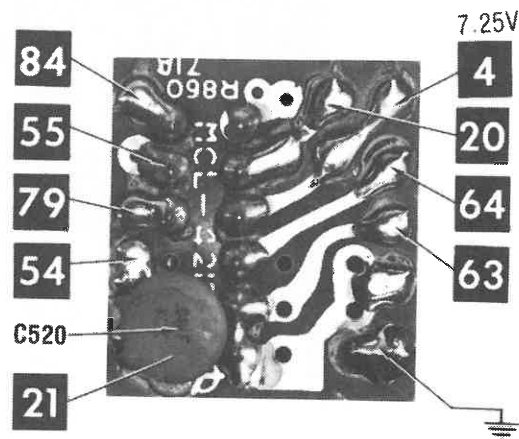
A Howard W. Sams **CIRCUITRACE®** Photo



*on opposite side of Board

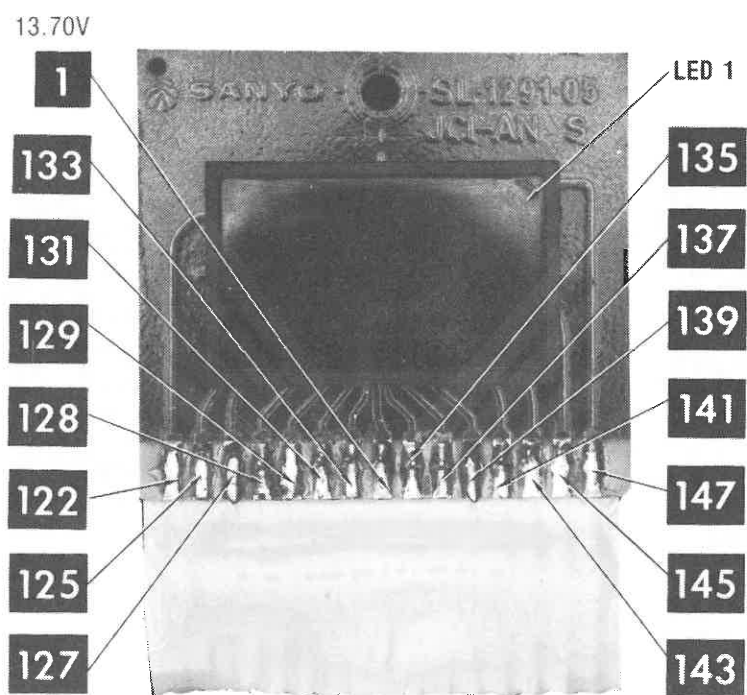
MIC JACK BOARD

A Howard W. Sams **CIRCUITRACE®** Photo

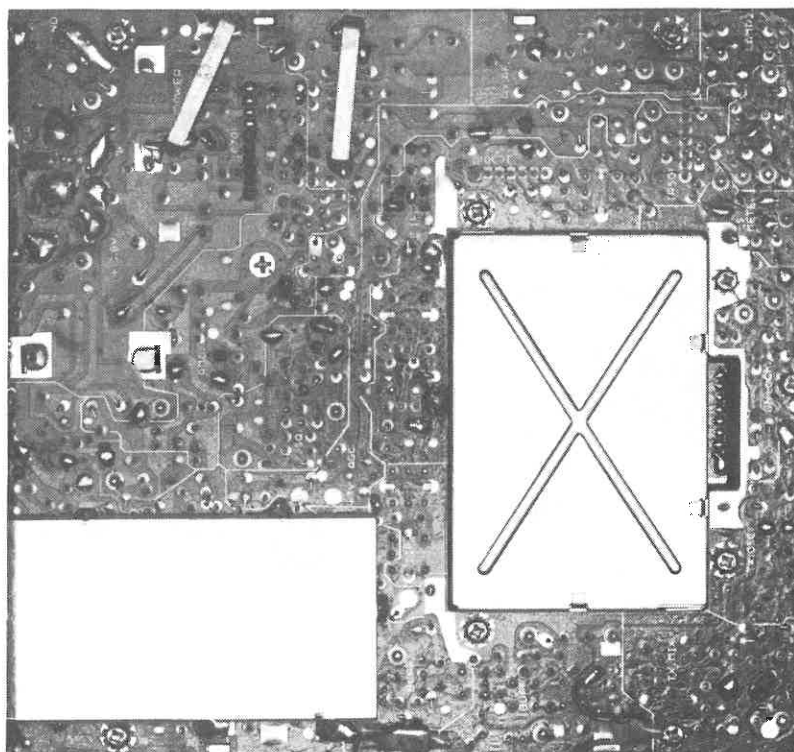


PA/CB SWITCH BOARD

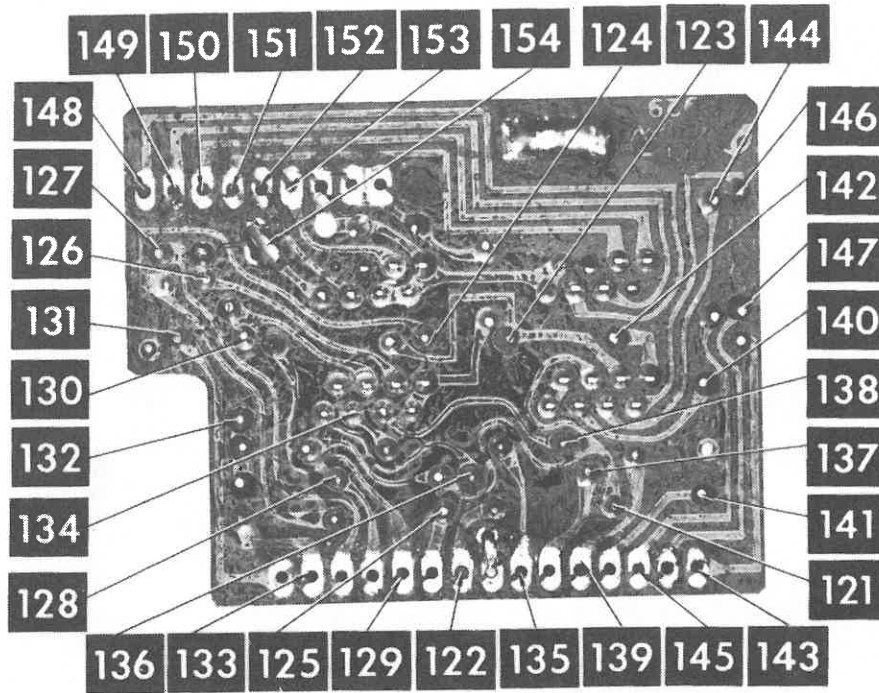
REALISTIC MODEL TRC-431



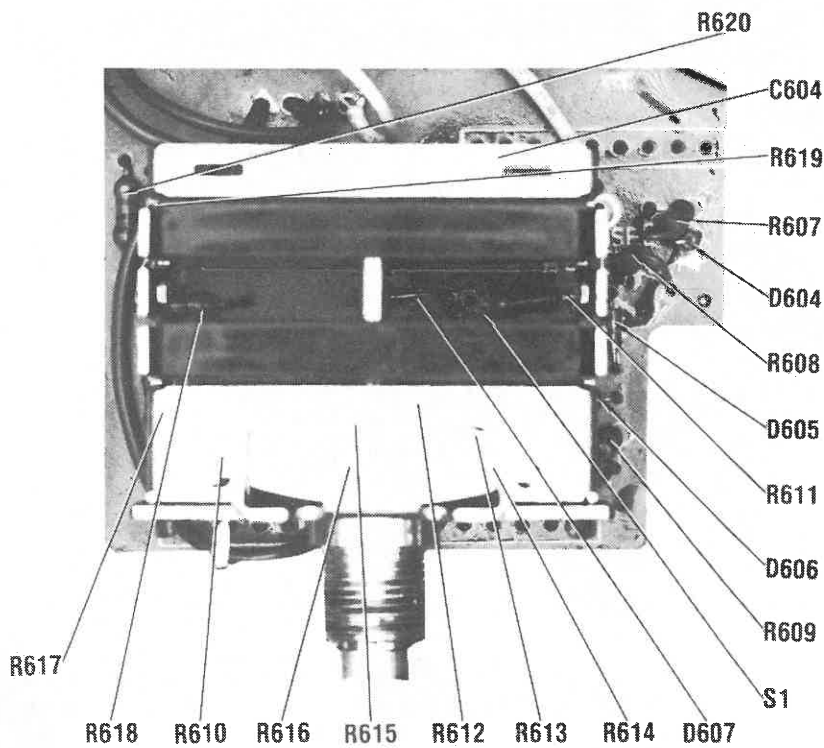
LED BOARD



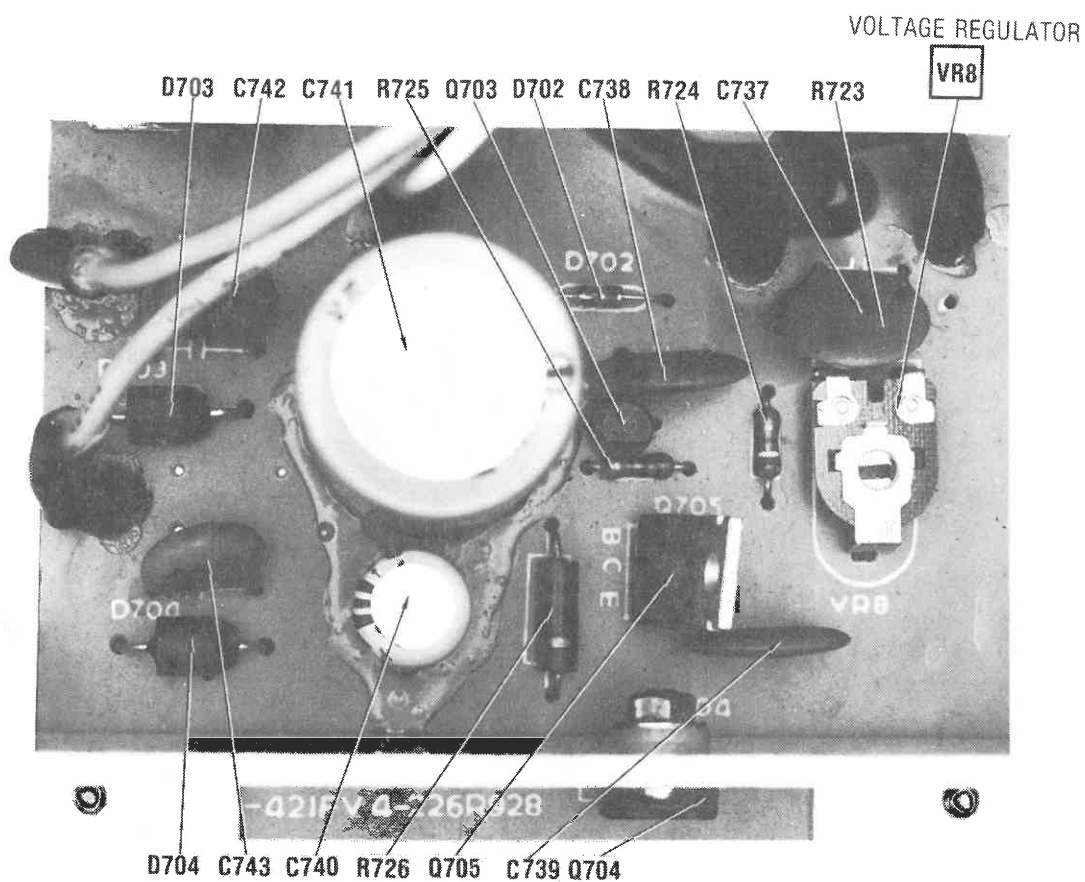
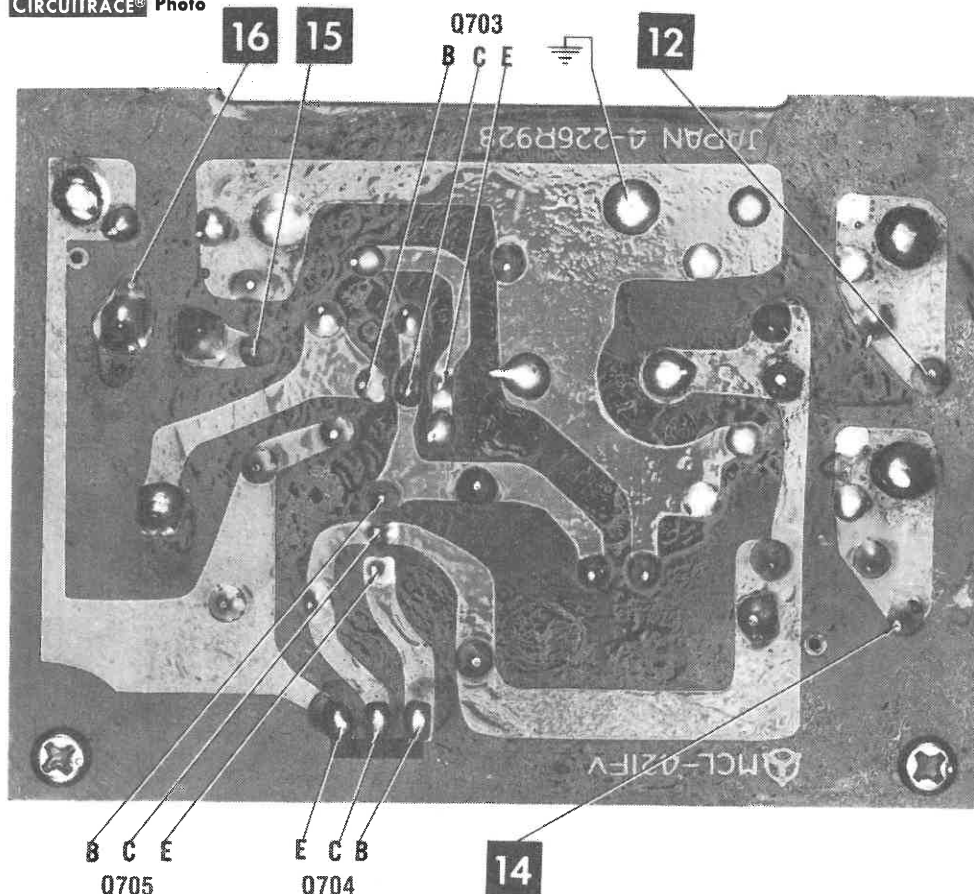
SHIELD LOCATION



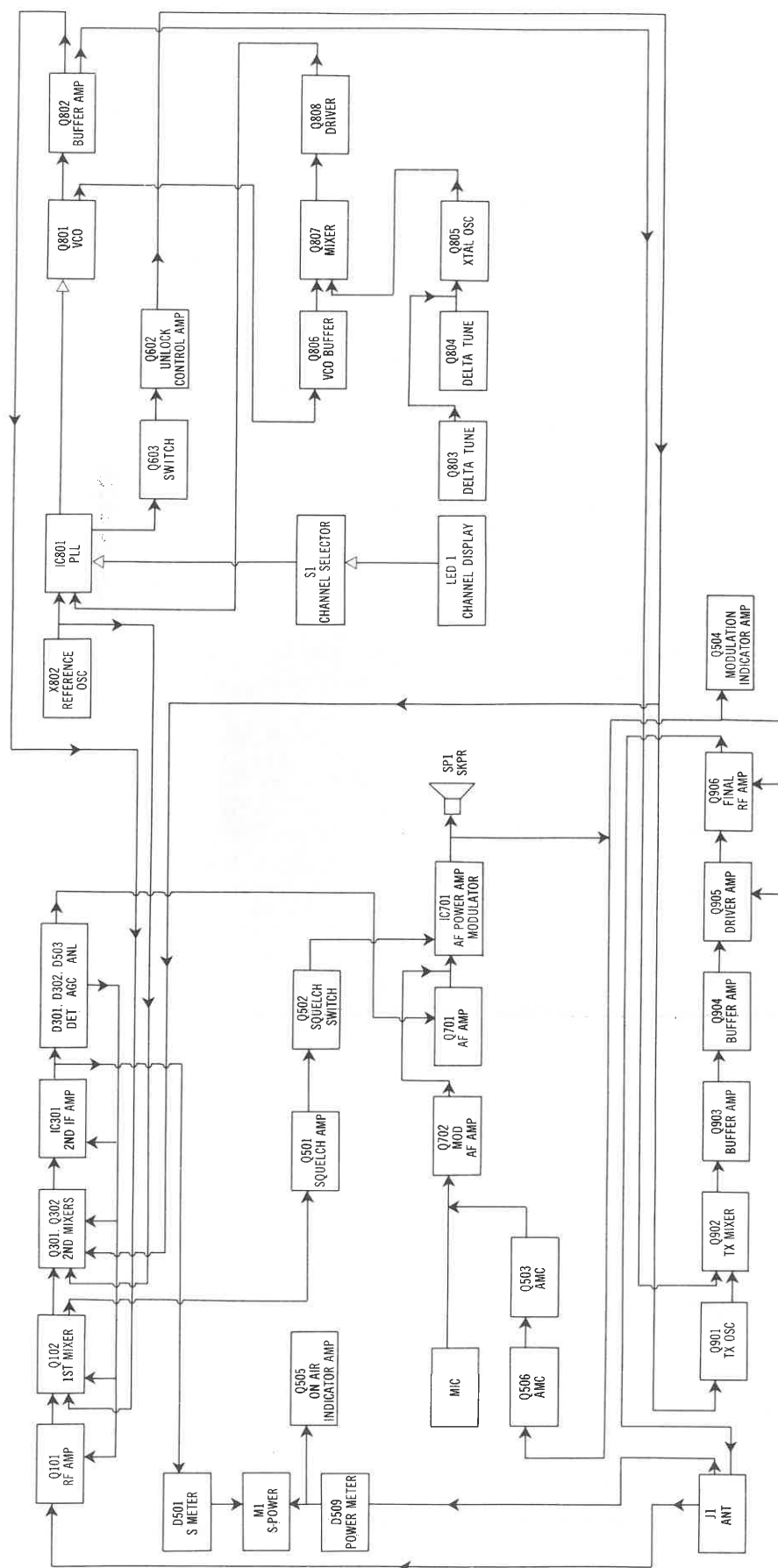
REALISTIC MODEL TRC-431

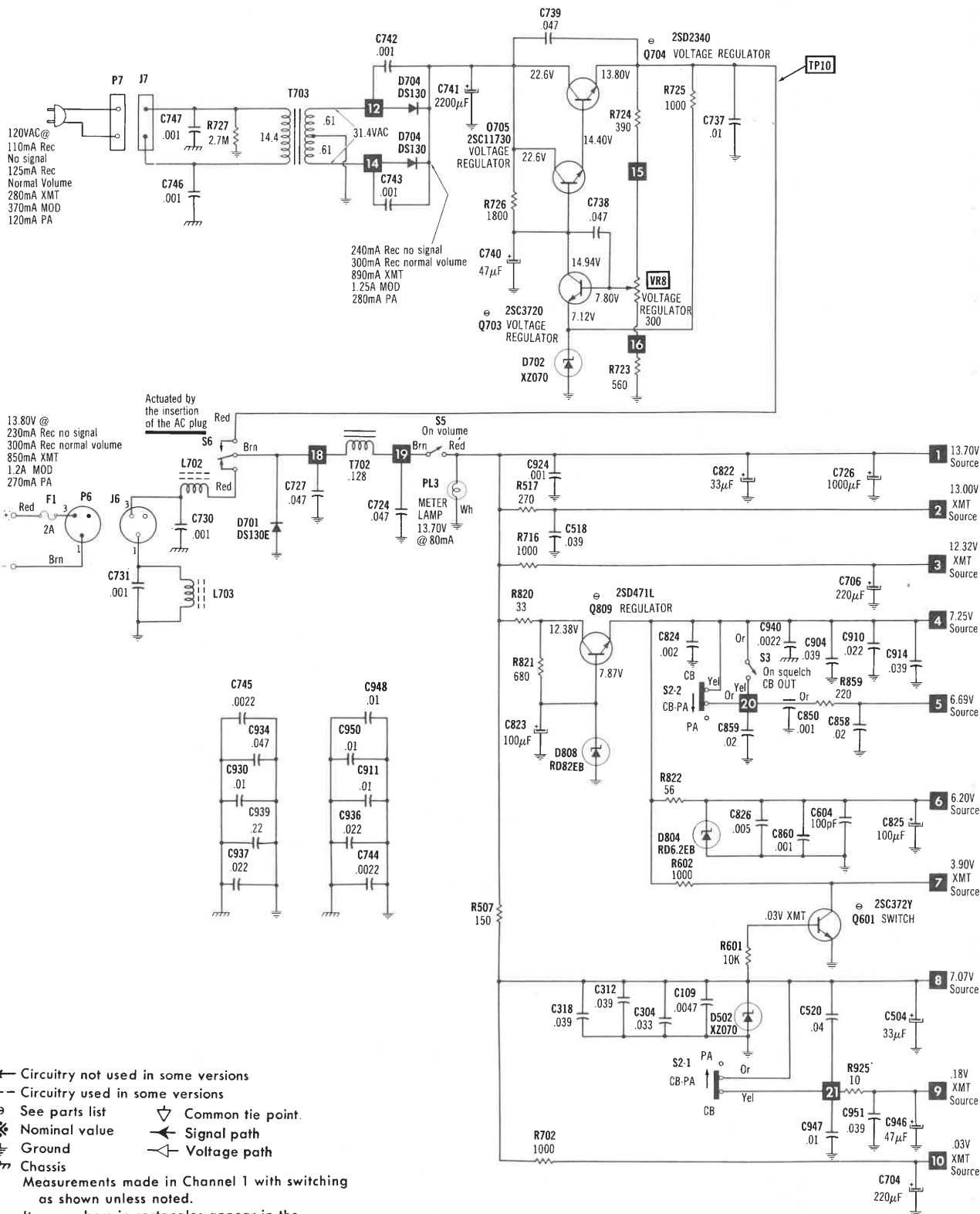


CH. SELECTOR BOARD



POWER SUPPLY BOARD





- ✖ 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.

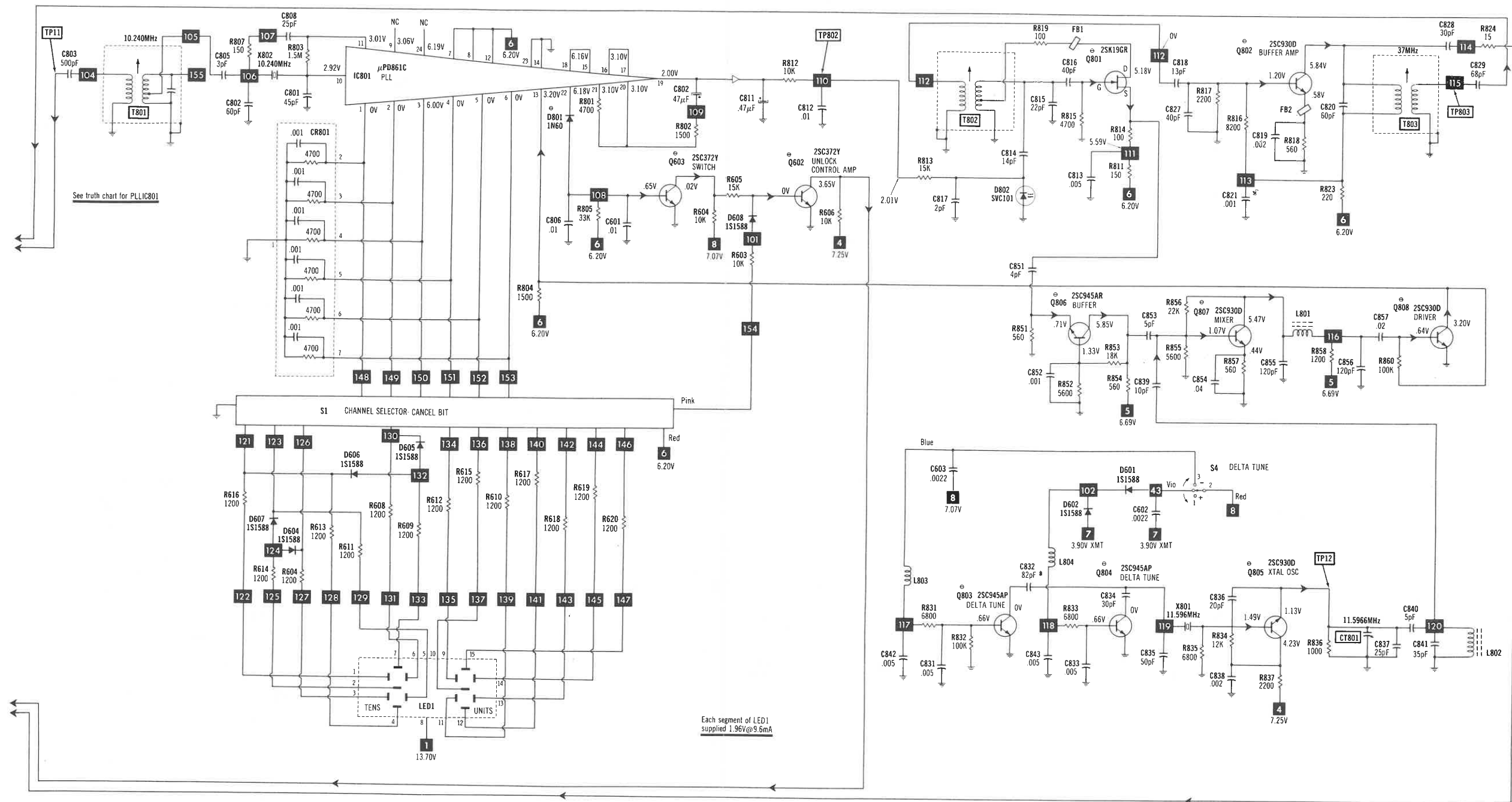
Value in () used in some versions.

A PHOTOFAC STANDARD NOTATION SCHEMATIC
WITH **CIRCUITRACE®**

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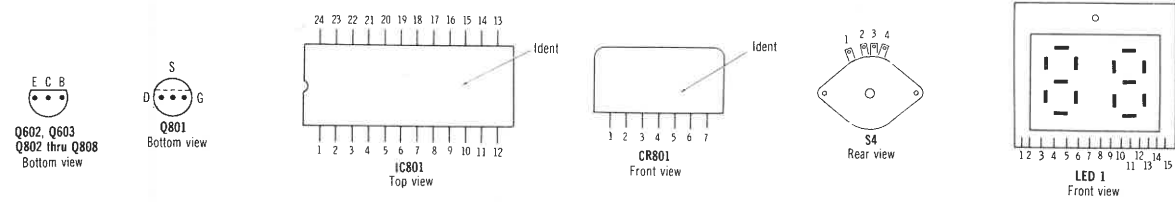
POWER SUPPLY SCHEMATIC





—X— 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
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A PHOTOFAC STANDARD NOTATION SCHEMATIC
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PLL SCHEMATIC

PARTS LIST AND DESCRIPTION

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

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA									
			GENERAL ELECTRIC PART No.	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.
D101	1S188FM1A	DX-0241	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	TM109/**	WEP134	103-Z9001
D102	1S1588		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D103	1S1588	DX-0241	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 109	SK3087	RT-200	ECG109	TM109/**	WEP134	103-Z9001
D301	1S188FM1A	DX-0241	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	TM109/**	WEP134	103-Z9001
D302	1S1588		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D501	1S188FM1A	DX-0241	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	TM109/**	WEP134	103-Z9001
D502	XZ-070		GEZD-6.8	ZB6.8A	HEP20409	REN 5071	SK3334	RT-238	ECG5071	TM5071/**	WEP1106	103-287
D503	1S1588		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D504	1S1588	DX-0099	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 145	SK3063	RT-245	ECG145A	TM145/**	WEP1114	103-Z9013
D505	XZ-152	DX-0099	GEZD-15	ZB15B	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D506	1S1588		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D507	1S1588	DX-0099	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D508	DS-130E	DX-0099	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
	DS-130		GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
	1S1588		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D509	1S1588	DX-0099	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D510	1S1588	DX-0099	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D511	1S1587		GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D601	1S1588		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287	
	1N4148	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287	
D602	1S1588	DX-0099	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1N4148		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D603	1S1588	DX-0099	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1N4148		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D604	1S1588	DX-0099	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1N4148		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D605	1S1588	DX-0099	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1N4148		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D606	1S1588	DX-0099	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1N4148		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D607	1S1588	DX-0099	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	ITT73N		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
	1N4148		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
D701	DS-130E	DX-0099	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
	DS-130		GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
	DS-130B		GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
D702	XZ-070	DX-0099	GEZD-6.8	ZB6.8A	HEP20409	REN 5071	SK3334	RT-238	ECG5071	TM5071/**	WEP1106	103-287
D703	DS-130		GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
	DS-130B		GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
D704	DS-130C	DX-0099	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
	DS-130B		GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
	DS-130C		GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
D801	1N60	DX-0161	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-Z9001
	1S188		1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	TM109/**	WEP134	103-Z9001
	SVC101		GE-90		HEPR2503	REN 614		RT-262	ECG614		WEP200	
D802	RD8.2EB	DX-0729										
D803	RD6.2EB											
D804	IC301											
IC301	M51171L	DX-0729										
	CX-075B											
	C1156H											
IC701	UPC1156	DX-0729										
	UPD861C											
	2SC1674L											
Q101	2SC1674	DX-0729	GE-61	PTC132*	HEPS0010*	REN 229	SK3493	RT-308	ECG229*	TM229*	WEP956*	121-Z9021
	2SC1674		GE-61	PTC132*	HEPS0010*	REN 229	SK3246	RT-308	ECG229*	TM229*	WEP956*	121-Z9021
	2SC1674		GE-61	PTC132*	HEPS0010*	REN 229	SK3246	RT-308	ECG229*	TM229*	WEP956*	121-Z9021
Q301	2SC930D	DX-0729	GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP380	121-Z9021*
	2SC930		GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP380	121-Z9021*
	2SC930D		GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP380	121-Z9021*
Q302	2SC930	DX-0729	GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP380	121-Z9021*
	2SC930		GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP380	121-Z9021*
	2SC930		GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP380	121-Z9021*
Q501	2SA733Q	DX-0729	GE-48	PTC103*	HEPS3012*	REN 129*	SK3114	RT-115*	ECG129*	TM129*	WEP60*	121-Z9005
	2SA733		GE-48	PTC103*	HEPS3012*	REN 129*	SK3114	RT-115*	ECG129*	TM129*	WEP60*	121-Z9005
	2SC536E		GE-212	PTC121*	HEPS0016*	REN 199	SK3124	RT-107A	ECG199	TM199	WEP536	121-972
Q502	2SC536E	DX-0729	GE-212	PTC121*	HEPS0016*	REN 199	SK3124	RT-107A	ECG199	TM199	WEP536	121-972
	2SC536		GE-212	PTC121*	HEPS0016*	REN 199	SK3124	RT-107A	ECG199	TM199	WEP536	121-972
	2SC536E		GE-212	PTC121*	HEPS0016*	REN 199	SK3124	RT-107A	ECG199	TM199	WEP536	121-972
Q503	2SC536E	DX-0729	GE-212	PTC121*	HEPS0016*	REN 199	SK3124	RT-107A	ECG199	TM199	WEP536	121-972
	2SC536		GE-212	PTC121*	HEPS0016*	REN 199	SK3124	RT-107A	ECG199	TM199	WEP536	121-972
	2SC536E		GE-212	PTC121*	HEPS0016*	REN 199	SK3124	RT-107A	ECG199	TM199	WEP536	121-972
Q504	2SB564L	DX-0729	GE-67*	PTC177	HEPS3028*	REN 29						

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.
Q701	2SC536E		GE-212	PTC121*	HEPS0016*	REN 199	SK3124	RT-107A	ECG199	TM199	WEP536	121-972
Q702	2SC536		GE-212	PTC121*	HEPS0016*	REN 199	SK3124	RT-107A	ECG199	TM199	WEP536	121-972
	2SC536E		GE-212	PTC121*	HEPS0016*	REN 199	SK3124	RT-107A	ECG199	TM199	WEP536	121-972
Q703	2SC372-0		GE-61*	PTC121*	HEPS0015*	REN 123A*	SK3444	RT-308	ECG123A*	TM123A*/**	WEP372	121-Z9000A*
	2SC372		GE-61*	PTC121*	HEPS0015*	REN 123A*	SK3444	RT-308	ECG123A*	TM123A*/**	WEP372	121-Z9000A*
Q704	2SD234-0		GE-66		HEPS0027	REN 152	SK3054	RT-197	ECG152	TM152	WEP745	121-987-02
	2SD234		GE-66		HEPS0027	REN 152	SK3054	RT-197	ECG152	TM152	WEP745	121-987-02
Q705	2SC1173-0		GE-215	PTC110		REN 236	SK3197	RT-160	ECG236	TM236/**	WEP1237	121-Z9040
	2SC1173		GE-215	PTC110		REN 236	SK3197	RT-160	ECG236	TM236/**	WEP1237	121-Z9040
Q801	2SK19GR		GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312	WEP920	121-756
	2SK19		GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312	WEP920	121-756
Q802	2SC930D		GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP380	121-Z9021*
	2SC930		GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP380	121-Z9021*
Q803	2SC945AP		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
Q804	2SC945P		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
	2SC945Q		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
Q805	2SC945AP		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
Q806	2SC945P		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
	2SC945Q		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
Q807	2SC930D		GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP380	121-Z9021*
	2SC930		GE-60*	PTC132*	HEPS0016*	REN 229	SK3018	RT-308	ECG229*	TM229*/**	WEP380	121-Z9021*
Q808	2SC839H		GE-61*	PTC132*	HEPS0015*	REN 123A*	SK3444	RT-308	ECG123A*	TM123A*/**	WEP403	121-Z9000A*
	2SC839		GE-61*	PTC132*	HEPS0015*	REN 123A*	SK3444	RT-308	ECG123A*	TM123A*/**	WEP403	121-Z9000A*
Q809	2SD471L		GE-268	PTC144*	HEPS3001*	REN 289	SK3124	RT-114*	ECG289	TM289	WEP910	121-773
	2SD471		GE-268	PTC144*	HEPS3001*	REN 289	SK3124	RT-114*	ECG289	TM289	WEP910	121-773
Q901	2SC828R		GE-61*	PTC139*	HEPS0015*	REN 199	SK3444	RT-302	ECG199	TM199/**	WEP828	121-972
	2SC828		GE-61*	PTC139*	HEPS0015*	REN 199	SK3444	RT-302	ECG199	TM199/**	WEP828	121-972
Q902	3SK59GR		GE-FET-4	PTC182	HEPF2007	REN 222	SK3065	RT-181	ECG222	TM222	WEP905	121-826
	3SK59		GE-FET-4	PTC182	HEPF2007	REN 222	SK3065	RT-181	ECG222	TM222	WEP905	121-826
Q903	JF1033B		GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312	WEP920	121-756
	JF1033		GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312	WEP920	121-756
Q904	BC546A		GE-20	PTC136	HEPS0015	REN 199	SK3122	RT-103A	ECG199	TM199	WEP66	121-972
	BC546		GE-20	PTC136	HEPS0015	REN 199	SK3122	RT-103A	ECG199	TM199	WEP66	121-972
Q905	2SC1957K		GE-270	PTC180	HEPS3044	REN 295	SK3197		ECG295	TM295	WEP913	121-880
	2SC1957		GE-270	PTC180	HEPS3044	REN 295	SK3197		ECG295	TM295	WEP913	121-880
Q906	2SC1909R		GE-215	PTC186		REN 235	SK3197	RT-146	ECG235	TM235	WEP785	121-Z9039
	2SC1909		GE-215	PTC186		REN 235	SK3197	RT-146	ECG235	TM235	WEP785	121-Z9039

REALISTIC MODEL TRC-431

* 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
C110	.2 35V	CT35204		TDC224M050EL	QDT1-10	SD50-R229
C302	100 10V	CE10107	PC100-10	VTT100E10	QV1-93	EV-1130
C314	10 10V	CE10106		TDC106M025FL	QDT1-64	SD25-109
C502	10 16V	CE10106	PC10-25	VTT10B25	QV1-41	EV-1222
C504	33 10V	CE10336	PC30-25	VTT33B10	QV1-61	EV-1125
C505	1 10V	CE10105	PC1-50	VTT1A50	QV1-9	EV-1315
C506	33 10V	CE10336	PC30-25	VTT33B10	QV1-61	EV-1125
C507	3.3 10V	CE10335	PC5-50	VTT3R3A50	QV1-23	EV-1318
C508	220 10V	CE10227	PC250-10	VTT220F10	QV1-115	EV-1140
C509	4.7 16V	CE16475	PC5-50	VTT4R7B50	QV1-27	EV-1319
C511	3.3 50V	CE50335	PC5-50	VTT3R3A50	QV1-25	EV-1618
C515	10 10V	CE10106	PC10-25	VTT10B25	QV1-41	EV-1222
C516	1 50V	CT50105		TDC105M050EL	QDT1-25	SD50-19
C701	.1 10V	CA10104		TDC104M050EL	QDT1-2	SD50-R109
C703	33 10V	CE10336	PC30-25	VTT33B10	QV1-61	EV-1125
C704	220 10V	CE10227	PC250-10	VTT220F10	QV1-115	EV-1140
C705	33 10V	CE10336	PC30-25	VTT33B10	QV1-61	EV-1125
C706	220 16V	CE16227	PC250-25	VTT220H16	QV1-117	EV-1240
C714	33 6.3V	CE063336	PC30-25	VTT33B10	QV1-61	EV-1125
C718	2.2 16V	CT16225		TDC225M035FL		SD35-2R29
C721	33 10V	CE10336	PC30-25	VTT33B10	QV1-61	EV-1125
C722	47 16V	CE16476	PC50-16	VTT47D16	QV1-73	EV-1226
C725	220 16V	CE16227	PC250-25	VTT220H16	QV1-117	EV-1240
C726	1000 16V	CE16108	PC1000-16	VTT1000L16	QV1-183	EV-1260
C740	47 25V	CE25476	PC50-25	VTT47E25	QV1-75	EV-1326
C741	2200 35V	CE35228	WBR2000-50	TC50200A	QET1-648	TVA-1318.3
C807	.47 35V	CT35474		TDC474M050EL	QDT1-19	SD50-R479
C811	.47 35V	CT35474		TDC474M050EL	QDT1-19	SD50-R479
C822	33 16V	CE16336	PC30-25	VTT33D25	QV1-63	EV-1325
C823	100 10V	CE10107	PC100-10	VTT100E10	QV1-93	EV-1130
C825	100 6.3V	CE063107	PC100-10	VTT100E10	QV1-93	EV-1130
C946	47 10V	CE10476	PC50-16	VTT47D16	QV1-73	EV-1226

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
C101	27 N220 5%	R-CKD270J			*		10TCR-Q27
C102	15						10TCC-Q15
C103	.022		DTZ-15	NP015	CN0415		HY-725
C104	.022		UK25-223				HY-725
C105	82 N220 5%	R-CKD820J	UK25-223		*		10TCR-Q82
C106	.022		UK25-223				HY-725
C107	.022		UK25-223				HY-725
C109	.0047		DD-472	GP4700	GP247		5GA-D47
C301	.01		UK50-103		MAG5011		
C303	.022		UK25-223				HY-725
C304	.033 50V			DPMS6S33	M192P3339R8	QFT2-149	1FT-S33
C305	1				CN0510		10TCC-V10
C306	.039 50V			DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C310	500 5%			CD15FD511J03	SX351	QW1-43	MWA-511
C311	.039 50V			DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C312	.039				GP140		5GA-S40
C313	68 5%		DTZ-68	NP068	CN0468		10TCC-Q68
C315	.039 50V			DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C316	.039 50V			DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C317	.039			DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C318	.039 50V			DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C319	.022 50V			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C322	27				CN0427		10TCC-Q27
C501	.0047		DD-472	GP4700	GP247		5GA-D47
C503	.039 50V			DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C510	270		DTZ-270				10TCC-T27
C512	.039						5GA-S40
C513	.01		UK50-103		GP140		
C514	3		DTZ-3R3	NP03P3	MAG5011		10TCC-V33
C517	.0022				CN0533		10TS-D22
C518	.039 50V			DPMS6S39	GP222	QFT2-159	1FT-S39
C520	.04				M192P3939R8		
C601	.01		UK50-103		MAG5011		10TS-D22
C602	.0022				GP222		10TS-D22
C603	.0022				GP222		10TCC-T10
C604	100 5%		DTZ-100	NP0100	CN0310		1FT-S39
C702	.039 50V			DPMS6S39	M192P3939R8	QFT2-159	1FT-S10
C707	.01 50V			WMF1S1	M192P1039R8	QFT2-91	1FT-S10
C708	.039 50V			DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C710	.022 50V			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C711	.068 50V			WMF1S68	EW1A168	QF1-195	1PB-S68
C712	.001 50V			DPMS6D1	M192P10292	QFT2-1	1FT-D10
C713	.039 50V			DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C715	.068 50V 10%			WMF1S68	EW1A168	QF1-195	1PB-S68
C716	220		DTZ-220				10TCC-T22
C717	.068 50V			WMF1S68	EW1A168	QF1-195	1PB-S68
C719	.01 50V			WMF1S1	M192P1039R8	QFT2-91	1FT-S10
C720	.039 50V			DPMS6S39	M192P3939R8	QFT2-159	1FT-S39
C723	390		DD-391	GP390	GP339		10TS-T39
C724	.22			WMF05P22	M192P2249R8	QFT2-253	1FT-P22
C727	.047		UK25-503		MAG2515		HY-735
C729	.047		UK25-503		MAG2515		HY-735
C730	.001		DD-102		GP210		10TS-D10
C731	.001		DD-102		GP210		10TS-D10
C732	.0022				GP222		10TS-D22
C733	.0022				GP222		10TS-D22
C734	.0022				GP222		10TS-D22
C735	.0022				GP222		10TS-D22
C736	.0022				GP222		10TS-D22
C737	.01		UK50-103		MAG5011		HY-735
C738	.047		UK25-503		MAG2515		HY-735
C739	.047		UK25-503		MAG2515		125L-D10
C742	.001 1.4KV		C1-102	HV3-1000	UAC210		125L-D10
C743	.001 1.4KV		C1-102	HV3-1000	UAC210		10TS-D22
C744	.0022				GP222		10TS-D22
C745	.0022				GP222		125L-D10
C746	.001 1.4KV		C1-102	HV3-1000	UAC210		125L-D10
C747	.001 1.4KV		C1-102	HV3-1000	UAC210		10TS-D22
C748	.0022				GP222		10TS-D22
C749	.0022				GP222		10TS-D22
C750	.0075			WMF1D82	EW1A282		1PB-D82
C751	.033 50V			DPMS6S33	M192P3339R8	QFT2-149	1FT-S33
C801	45		DTZ-47	NP047	CN0447		10TCC-Q47
C802	60		DTZ-68	NP068	CN0468		10TCC-Q68
C803	500		DD-501	GP500	GP350		10TS-T50
C805	3		DTZ-3R3	NP03P3	CN0533		10TCC-V33
C806	.01 50V			WMF1S1	M192P1039R8	QFT2-91	1FT-S10
C808	25		DTZ-25	NP025	CN0425		10TCC-Q25
C812	.01 50V			WMF1S1	M192P1039R8	QFT2-91	1FT-S10
C813	.005		DC-502	MGP005	TA250	QC2-123	TG-D50
C814	14 N470 5%	R-CKD140J			*		10TCT-Q15
C815	22 N470 5%	R-CKD220J			*		10TCT-Q22
C816	40 5%				CN0439		10TCC-Q39
C817	2 N330	R-CKD020C			*		10TCC-V30
C818	13		DTZ-15	NP015	CN0415		10TCC-Q15
C819	.002				GP220		10TS-D20
C820	60		DTZ-68	NP068	CN0468		10TCC-Q68
C821	.001		DD-102		GP210		10TS-D10
C824	.002				GP220		10TS-D20
C826	.005		DC-502	MGP005	TA250	QC2-123	TG-D50
C827	40				CN0439		10TCC-Q39
C828	30		DTZ-33	NP033	CN0433		10TCC-Q33
C829	68		DTZ-68	NP068	CN0468		10TCC-Q68
C831	.005		DC-502	MGP005	TA250	QC2-123	TG-D50
C832	82 5%		DTZ-82	NP082	CN0482		10TCC-Q82
C833	.005		DC-502	MGP005	TA250	QC2-123	TG-D50
C834	20		DTZ-20	NP020	CN0420		10TCC-Q20
C835	50		DTZ-50	NP050	CN0450		10TCC-Q50
C836	200		DTZ-200				10TCC-T20
C837	25 NPO		DTZ-25	NP025	CN0425		10TCC-Q25
C838	.002				GP220		10TS-D20

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

REPLACEMENT DATA																					
ITEM No.	RATING	MFR. PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.															
						Q-LINE	GENERAL LINE														
C839	10	4-223R807	DTZ-10	NP010	CN0410	QC2-123 QC2-123	10TCC-Q10														
C840	5		DTZ-4R7	NP04P7	CN0547		10TCC-V47														
C841	35		DC-502	MGP005	CN0439		10TCC-Q39														
C842	.005				TA250		TG-D50														
C843	.005		DC-502	MGP005	TA250		TG-D50														
C850	.001 500V		DTZ-4R7	NP04P7	CN0547	QFT2-91	10TCC-V47														
C851	4				GP210		10TS-D10														
C852	.001		DD-102		CN0547		10TCC-V47														
C853	5		DTZ-4R7	NP04P7	GP140		5GA-S40														
C854	.04		DTZ-120	NP04P7	CN0312		10TCC-T12														
C855	120 5%				CN0312		10TCC-T12														
C856	120 5%	DTZ-120	R-CKD820J	MAG5011	QFT2-91		10TS-D10 1FT-S10 10TS-T39 10TCC-T12 5GA-S40 10TS-T50 10TCC-Q15 1FT-S10 10TCR-Q82 HY-725 10TCC-Q47 10TS-D22 5GA-S40 10TCR-Q82 10TCC-V33 10TCC-Q15 10TCC-V33 10TCR-Q47 10TS-T50 1FT-S10 10TCR-Q39 HY-725 10TS-D10 10TS-D22 5GA-D47 10TCR-Q82 5GA-D47														
C857	.01	UK50-103		MAG5012																	
C858	.02	UK50-223		MAG5012																	
C859	.02	UK50-223		GP210																	
C860	.001	DD-102		M192P1039R8																	
C901	.01 50V	DD-391		WMF1S1				GP339													
C902	390							GP339													
C903	120 5%	DTZ-120				CN0312															
C904	.039	DD-501		GP500		GP140															
C905	500					NP015		GP350													
C906	13	DTZ-15	WMF1S1	M192P1039R8																	
C908	.01 50V	R-CKD820J	UK25-223 UK50-103 DTZ-47	*		QFT2-91		10TCR-Q82 HY-725 10TCC-Q47 10TS-D22 5GA-S40 10TCR-Q82 10TCC-V33 10TCC-Q15 10TCC-V33 10TCR-Q47 10TS-T50 1FT-S10 10TCR-Q39 HY-725 10TS-D10 10TS-D22 5GA-D47 10TCR-Q82 5GA-D47													
C909	82 N220 5%			R-CKD470J					DTZ-3R3 DTZ-15 DTZ-3R3	CN0447											
C910	.022									R-CKD400J	NP03P3 NP015 NP03P3	GP222									
C911	.01											DD-501	WMF1S1	GP140							
C912	47 5%													UK25-223 DD-102	GP500 WMF1S1	*					
C913	.0022															R-CKD820J	DD-472	GP4700	CN0533		
C914	.039																		DD-472 UK50-103 UK50-103	GP4700	CN0415
C915	82 N220 5%																				GP390
C916	3				WMF05P22		*														
C917	15			R-CKD181J			M192P1039R8		GP247												
C918	3								DD-391 DTZ-270 UK25-503 DTZ-120 UK25-223 UK25-223	MAG5011 MAG5011 GP222 GP339	MAG5011										
C919	47 N220 5%	C-0799	DTZ-120								M192P2249R8	GP222									
C920	500											1FT-P22	GP222								
C921	.01 50V												GP222								
C922	40 N220 5%												GP222								
C923	.022												GP222								
C924	.001				GP222																
C925	.0022			*																	
C926	.0047			M192P1039R8																	
C927	82 N220 5%	M192P1039R8																			
C928	.0047	MAG5011																			
C929	.01	MAG5011																			
C930	.01	GP222																			
C931	.0022	GP339																			
C932	390	R-CKD181J	DD-391 DTZ-270 UK25-503 DTZ-120 UK25-223 UK25-223	WMF1S1 WMF1S1	M192P1039R8 M192P1039R8 MAG5011 GP140 CN0312	QFT2-91 QFT2-91	10TS-D22														
C933	270						10TS-T39														
C934	.047						10TCC-T27														
C935	120 5%						HY-735														
C936	.022						10TCC-T12														
C937	.022						HY-725														
C938	.0022						HY-725														
C939	.22						10TS-D22														
C940	.0022						1FT-P22														
C941	.0022						10TS-D22														
C943	.0022						10TS-D22														
C944	.0022	10TS-D22																			
C945	180 N220 5%	C-0799	DTZ-120	WMF1S1 WMF1S1	M192P1039R8 M192P1039R8 MAG5011 GP140 CN0312	QFT2-91 QFT2-91	10TCC-T18														
C947	.01 50V						1FT-S10														
C948	.01 50V						1FT-S10														
C950	.01						5GA-S40														
C951	.039						10TCC-T12														
C952	120																				
CT801	30																				

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

REALISTIC MODEL TRC-431

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	AGC	100K	P-6386	F2-5000(1), R2-50K, CPL2, KR1	P53A(1), RU54A, CS3500, US41	U260R104B
VR2	Squelch/CB Out Switch	10K	P-0798			
VR3	Squelch Range	20K	P-6385			U250R253B
VR4	S Meter	2000	P-6426			U260R252B
VR5	Power Meter	20K	P-6385			U260R253B
VR6-1	Volume	5000	4-222R541A			BU1(1), CF60,
VR6-2	Volume/Power Switch	50K				CR62, SS1, SS7A, GC
VR7	AMC	300	4-222R718			
VR8	Voltage Regulator	300	4-222R718			

(1) Enlarge mounting hole.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFR. PART No.			WORKMAN PART No.	MFR. PART No.
IR501	Resistor Network		RX-0034(1)	TH301	160 Co1d NTC		T-1176

(1) Consist of seven 1.2K ohm resistors.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
F901	TVI Trap (54MHz)	C-0778	4-253R919	CBS126 CBS742-T	
L101	Rec RF (27MHz)	CA-3379	4-257R815		
L102	RF Amp (27MHz)	CA-4498	4-259R828		
L301	RF Choke		4-253R717		
L501	RF Choke		4-253R717		
L502	RF Choke		4-253R717		
L702	RF Choke		4-253R718		
L703	RF Choke		4-253R718		
L704	RF Choke		4-253R717		
L705	RF Choke		4-253R717		
L706	RF Choke		4-253R717		
L707	RF Choke		4-253R717		
L708	RF Choke		4-253R717		
L801	RF Choke (56uH)	CB-2308	4-255R811	74F186AP	
L802	Oscillator	CA-4780	4-259R892		
L803	RF Choke		4-253R717		
L804	RF Choke		4-253R717		
L901	Mixer (27MHz)	CA-4856	4-253R876		
L902	Buffer Amp (27MHz)		4-259R876		
L903	Buffer Amp (27MHz)	CA-4774	4-259R886		
L904	Buffer Amp (27MHz)	CA-4776	4-259R887		
L905	Buffer Amp (27MHz)	CA-4715	4-259R865		
L906	RF Choke	CA-2263	4-253R709		
L907	Driver Amp (27MHz)	CA-4777	4-259R891	8535	
L908	RF Choke	CA-3377	4-265R802		
L909	RF Choke	CA-3378	4-265R803		
L910	Antenna Tuning(27MHz)		4-259R80810		
L911	RF Choke	CA-4845	4-259R894		
T301	IF (9.785MHz)		4-256R75140		
			4-256R75130		
T302	IF (9.785MHz)	CA-7538	4-256R732		
T303	IF (455kHz)	CA-7539	4-256R733		
T304	IF (455kHz)	CA-7540	4-256R734		
T801	PLL Input (10.240MHz)	CA-4857	4-259R889		
T802	VCO	CA-4779	4-259R890		
T803	Buffer Amp (37MHz)	CA-4782	4-259R888		

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T702	1.2A	.128	1.3mH	CB-2306 R810(1)			(1) Number on unit.

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.	
T701	3.4	1 8 2 20,48	4-254R811 4R811(1)		MCB46	(1) Number on unit.

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T703	120V AC @ 370mA AC	31.40V AC @ 1.5A AC CT	TA-0618 4-251R811A(1)			(1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3" PH 8 Ohms	S-4598	30A05ZBR	

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA					
		PART No.		BUSS PART No.		LITTELFUSE PART No.	
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER
F1	2A Quick Acting			AGC2	HDJ	312002	150145
							FG2-2

MICROPHONE

ITEM No.	REPLACEMENT DATA				CONNECTION DATA						
	MFGR. PART No.	GC PART No.	GC NOISE CANCEL	GC POWER	GC CONNECTOR	GC Red	GC Shield	GC Yellow	GC Blue	GC White	GC Black
MIC	M-2269	18-032	18-034	18-010	18-105	4	1	3	5	NC	1

REALISTIC MODEL TRC-431

PARTS LIST AND DESCRIPTION (CONTINUED)

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

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CR801	Comp Comb	C-0799	.001uF X 6 & 4.7K ohm X 6
F301	Filter	C-0621	455kHz
F302	Filter	C-0673	455kHz
FB1	Ferrite Bead	HB-4845	
FB2	Ferrite Bead	HB-4845	
J1	Jack	J-6255	Antenna
J2	Jack	J-0867	Ext Spk
J3	Jack	J-0867	PA
J4	Jack	J-0865	Headphone
J5	Jack	4-235R832A	Mic
J6	Jack	J-6296	Power (DC)
J7	Jack	J-6279	Power (AC)
LED1	LED		Channel Readout
M1	Meter	M-0344	S/Rf
PL1	Lamp	4-612R81871	Modulation 5.86V @ 22mA
PL2	Lamp	L-0795	On The Air 12.79V @ 45mA
PL3	Lamp	4-612R819	Meter 13.70V @ 80mA
S1	Switch	S-1280	Channel Selector
S2	Switch	S-7318	CB/PA
S3	Switch		CB Out (Part of Squelch Control)
S4	Switch	S-1281	Delta Tune
S6	Switch		AC/DC (Activated by insertion of AC plug)
S7	Switch		MIC BY-PASS (Activated by insertion of mic)
X801	Crystal	MX-2308	11.596MHz
X802	Crystal	MX-2307	10.240MHz
X901	Crystal	MX-2306	9.785MHz
	Cord	W-1938	DC Power
	P.C. Board	X-7453	AC/DC Converter
	P.C. Board	X-7457	Channel Selector
	P.C. Board	X-7455	Headphone
	P.C. Board		Main
	P.C. Board	X-7456	Mic
	P.C. Board	X-7458	PA
	Assembly	X-7454	PLL

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

ITEM	PART No.	ITEM	PART No.
Button, PA	176-2-161R134	Knob, Channel Selector	K-2592
Chassis	176-0-311R173	Knob, Control	176-2-163R147A
Cover, Bottom	Z-3544	Panel, Front	Z-3542
Cover, Top	Z-3543		

WIRING DATA

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