

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 T4009A (CB1135)

MANUFACTURER'S SPECIFICATIONS

TRANSMITTER

RF Power Output: 4.0 watts at 13.8 V DC

RF Harmonic Attenuation (T.V.I. Suppression): More than 65 dB down

Audio Distortion: Less than 5% at 1000 Hz at knee of compression

Audio Frequency Response: +2 to -14 dB, 300 to 3000 Hz

Microphone Sensitivity: 20 mV $\pm$ 4 dB at knee of compression

Modulation Limiting: Less than 100% modulation for inputs up to 40 dB above Mic sensitivity

Output Impedance: 50 ohms

RECEIVER

Input Impedance: 50 ohms

Sensitivity: 0.7 μ V or less for 10 dB (S+N)/N (30% modulation at 1 kHz) EIA Method

Squelch Sensitivity: Less than 1 μ V at Threshold, 100 to 1,000 μ V at Maximum

Adjacent Channel Selectivity: More than 70 dB down at $\pm$ 10 kHz; EIA Method

Cross Modulation Rejection: More than 70 dB at $\pm$ 50 kHz

RF Blocking Protection: More than 70 dB at $\pm$ 50 kHz

Spurious & Image Rejection: More than 10 dB at image. More than 50 dB at all other spurious frequencies

Intermediate Frequency: 455 kHz

Automatic Gain Control (AGC): Less than 12 dB audio rise with signal levels of 1 to 200,000 μ V; EIA Method

Automatic Noise Limiter (ANL): Low distortion AGC tracking type "Extender"

High sensitivity, antenna sampling impulse noise blanker w/automatic level control

Audio Output: 2.5 watts at less than 5% distortion (30% modulation at 1 kHz)

Speaker: 3 1/2" diameter, 4 ohms

CHANNEL 9 RECEIVER

Input Impedance: 50 ohms

Sensitivity: 0.5 μ V or less for 10 dB (S+N)/N (30% modulation at 1 kHz); EIA Method

Cross Modulation Rejection: More than 70 dB at $\pm$ 50 kHz

RF Blocking Protection: More than 70 dB at $\pm$ 50 kHz

Spurious & Image Rejection: More than 10 dB at image. More than 50 dB at all other spurious frequencies; EIA Method

Intermediate Frequency: 455 kHz

Automatic Gain Control (AGC): Less than 12 dB audio rise with signal levels of 1 to 100,000 μ V; EIA Method

Automatic Noise Limiter (ANL): Low distortion AGC tracking type

Audio Output: 2.5 watts at less than 5% distortion (30% modulation at 1 kHz)

Courtesy of the Manufacturer

MOTOROLA MODEL T4009A

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:
 L101 9440
 L102, L103, L402, L403, L404, L1101,
 L1103, L1104 5000,5009,8276,8728,8728A
 T104, T105, T106, T1101, T1102 9440

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP10 (U400 pin 3).	Ch. 19		Check for 10.240MHz.
Input of DC meter to TP2 (junction of R434 and R435).	Ch. 1	L402	Adjust for 6.00 volts.
Input of frequency counter to TP3b (Q404 emitter).	Ch. 1	L403	Adjust for 26.510MHz $\pm$ 50Hz. Check all channels. (See Truth Chart for correct frequencies.)
Input of frequency counter to TP3 (Q404 emitter).	Ch. 1, XMT	L404	Adjust for 26.965MHz $\pm$ 50Hz. Check all channels. (See Truth Chart for correct frequencies.)
Input of frequency counter to TP11 (U400 pin 2).	Ch. 1		Check for 2.520MHz. 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.
 Mon Off, Ch. 9 Off, Extend Off, Squelch MINIMUM.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP12 (Q102 gate). 455kHz, 1000Hz @ 30% modulation.	Ch. 19	T106, T105, T104	Adjust for maximum output.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19	L103, L102, L101	Adjust for maximum output. If necessary, readjust T104, T105 and T106 for maximum.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Input of oscilloscope to TP13 (Q502 base).	Ch. 19	T500, T501	Set generator output for 10db signal to noise plus noise ratio of receiver. Inject a 100pps, 1uSec. pulse width signal at antenna input. Switch extender to on and adjust for maximum amplitude of pulses.

RECEIVER ADJUSTMENTS

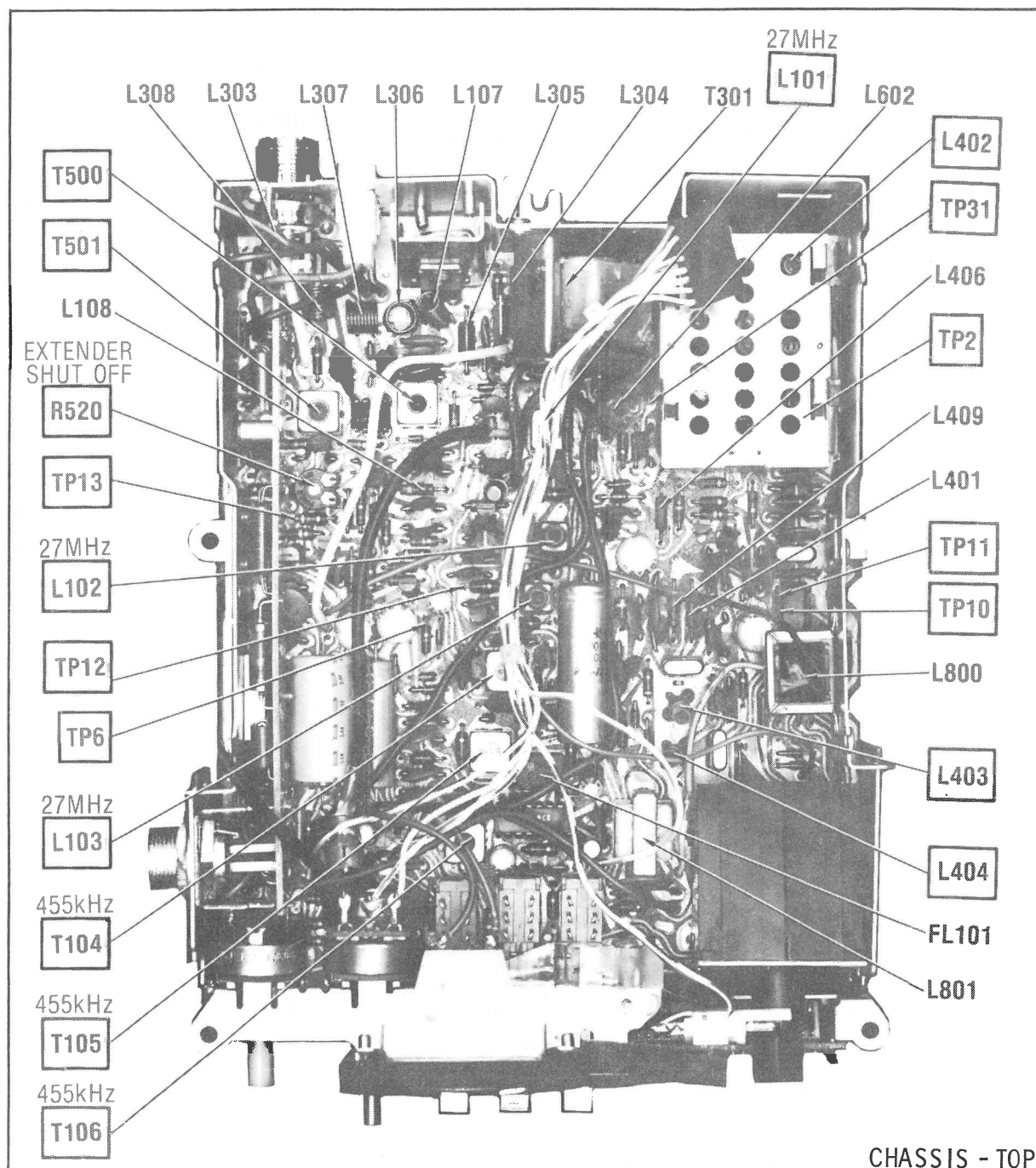
Connect an AC VTVM or AF wattmeter across speaker voice coil.
 Adjust volume control to obtain a suitable indication.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation. Output 70uV. Input of oscilloscope to TP6 (Q505 collector). Inject a 100pps, 1uSec. pulse width signal at antenna input.	Ch. 19	R520	EXTENDER SHUT OFF Switch extender to on and adjust so pulses just disappear.

CHANNEL 9 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.
Mon On, Ch. 9 Off, Squelch Max, Ch. 9 Squelch MINIMUM, Extend Off.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP3 (Q1104 gate).		L1102	Adjust for 27.520MHz $\pm$ 50Hz.
Output of signal generator thru .01uF to TP3a (Q1104 gate). 455kHz, 1000Hz @ 30% modulation.		T1102, T1101	Adjust for maximum output.
Output of signal generator thru .01uF to antenna input. 27.065MHz, 1000Hz @ 30% modulation.		L1104, L1103	Adjust for maximum output. If necessary, readjust T1101 and T1102 for maximum.

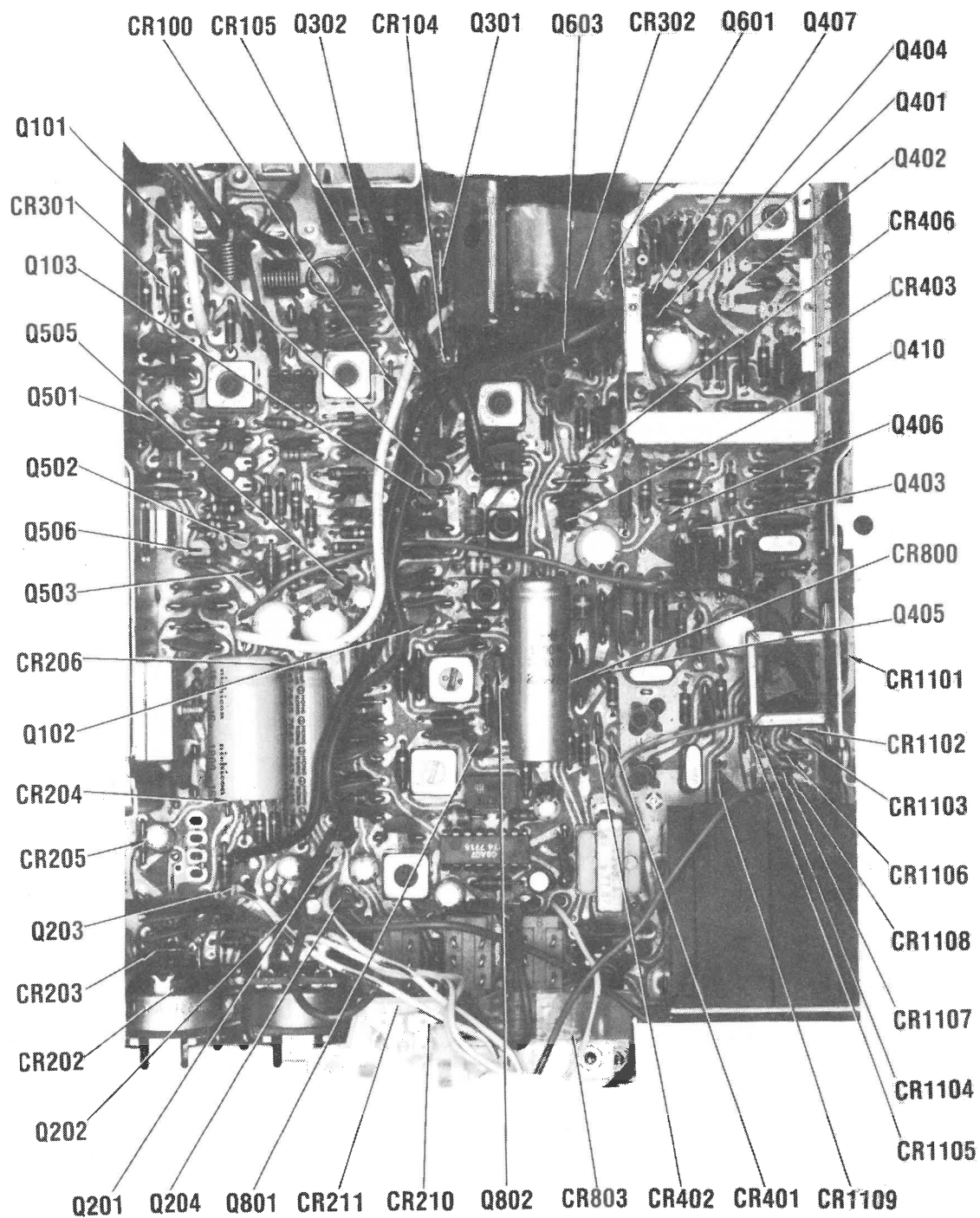


CHASSIS - TOP

MOTOROLA MODEL T4009A

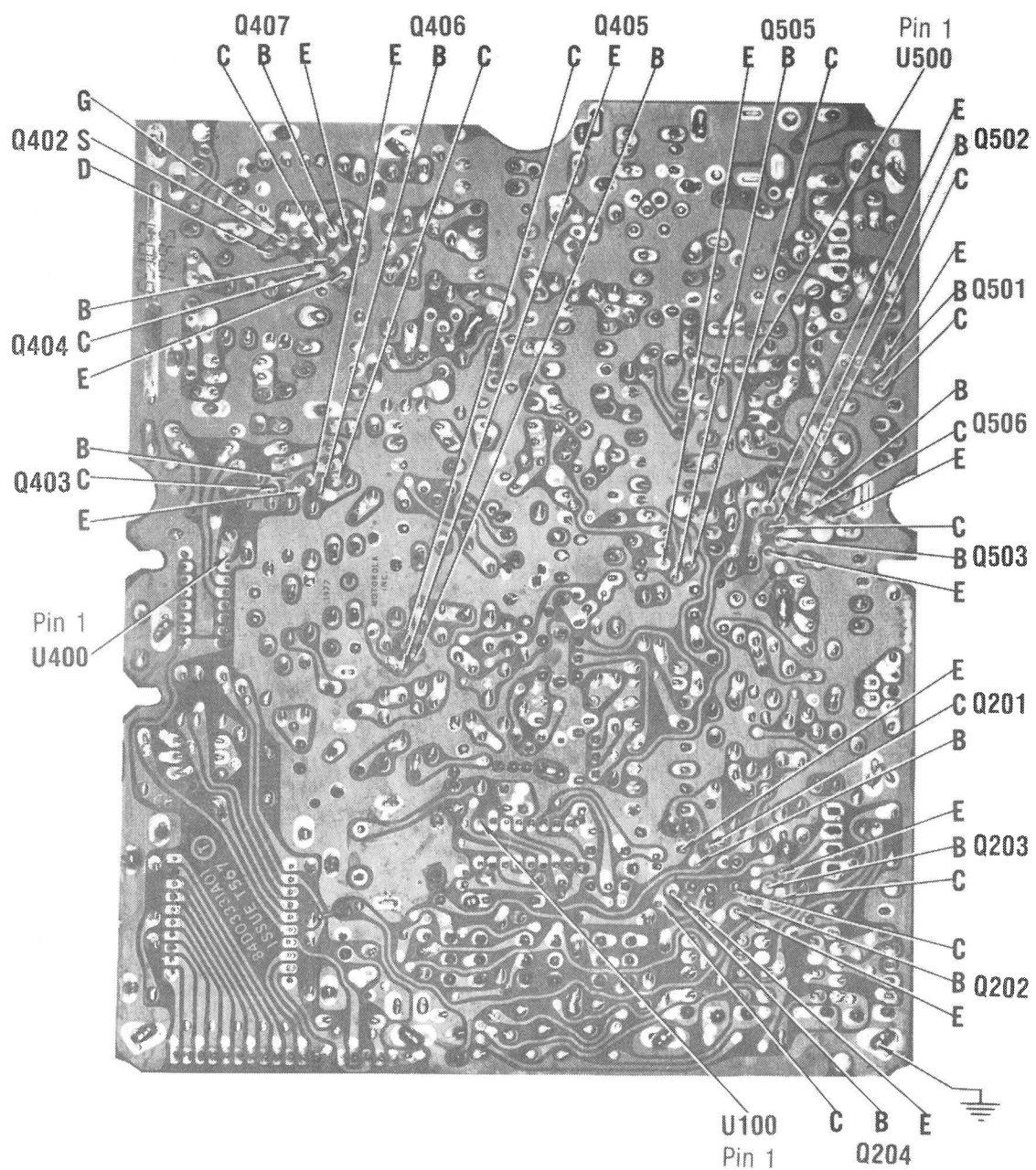
TRUTH CHART

C H A N N E L	1 = 8.30 Volts 0 = 0 Volts								REC VCO OUTPUT IN MHz AT TP3	XMT VCO OUTPUT IN MHz AT TP3	DIVIDER INPUT IN MHz AT TP11
	U400 PROGRAM DIVIDER										
	PINS										
	9	10	11	12	13	14	15				
1	1	1	1	1	1	0	0		26.510	26.965	2.520
2	1	1	1	1	0	1	1		26.520	26.975	2.510
3	1	1	1	1	0	1	0		26.530	26.985	2.500
4	1	1	1	1	0	0	0		26.550	27.005	2.480
5	1	1	1	0	1	1	1		26.560	27.015	2.470
6	1	1	1	0	1	1	0		26.570	27.025	2.460
7	1	1	1	0	1	0	1		26.580	27.035	2.450
8	1	1	1	0	0	1	1		26.600	27.055	2.430
9	1	1	1	0	0	1	0		26.610	27.065	2.420
10	1	1	1	0	0	0	1		26.620	27.075	2.410
11	1	1	1	0	0	0	0		26.630	27.085	2.400
12	1	1	0	1	1	1	0		26.650	27.105	2.380
13	1	1	0	1	1	0	1		26.660	27.115	2.370
14	1	1	0	1	1	0	0		26.670	27.125	2.360
15	1	1	0	1	0	1	1		26.680	27.135	2.350
16	1	1	0	1	0	0	1		26.700	27.155	2.330
17	1	1	0	1	0	0	0		26.710	27.165	2.320
18	1	1	0	0	1	1	1		26.720	27.175	2.310
19	1	1	0	0	1	1	0		26.730	27.185	2.300
20	1	1	0	0	1	0	0		26.750	27.205	2.280
21	1	1	0	0	0	1	1		26.760	27.215	2.270
22	1	1	0	0	0	1	0		26.770	27.225	2.260
23	1	0	1	1	1	1	1		26.800	27.255	2.230
24	1	1	0	0	0	0	1		26.780	27.235	2.250
25	1	1	0	0	0	0	0		26.790	27.245	2.240
26	1	0	1	1	1	1	0		26.810	27.265	2.220
27	1	0	1	1	1	0	1		26.820	27.275	2.210
28	1	0	1	1	1	0	0		26.830	27.285	2.200
29	1	0	1	1	0	1	1		26.840	27.295	2.190
30	1	0	1	1	0	1	0		26.850	27.305	2.180
31	1	0	1	1	0	0	1		26.860	27.315	2.170
32	1	0	1	1	0	0	0		26.870	27.325	2.160
33	1	0	1	0	1	1	1		26.880	27.335	2.150
34	1	0	1	0	1	1	0		26.890	27.345	2.140
35	1	0	1	0	1	0	1		26.900	27.355	2.130
36	1	0	1	0	1	0	0		26.910	27.365	2.120
37	1	0	1	0	0	1	1		26.920	27.375	2.110
38	1	0	1	0	0	1	0		26.930	27.385	2.100
39	1	0	1	0	0	0	1		26.940	27.395	2.090
40	1	0	1	0	0	0	0		26.950	27.405	2.080

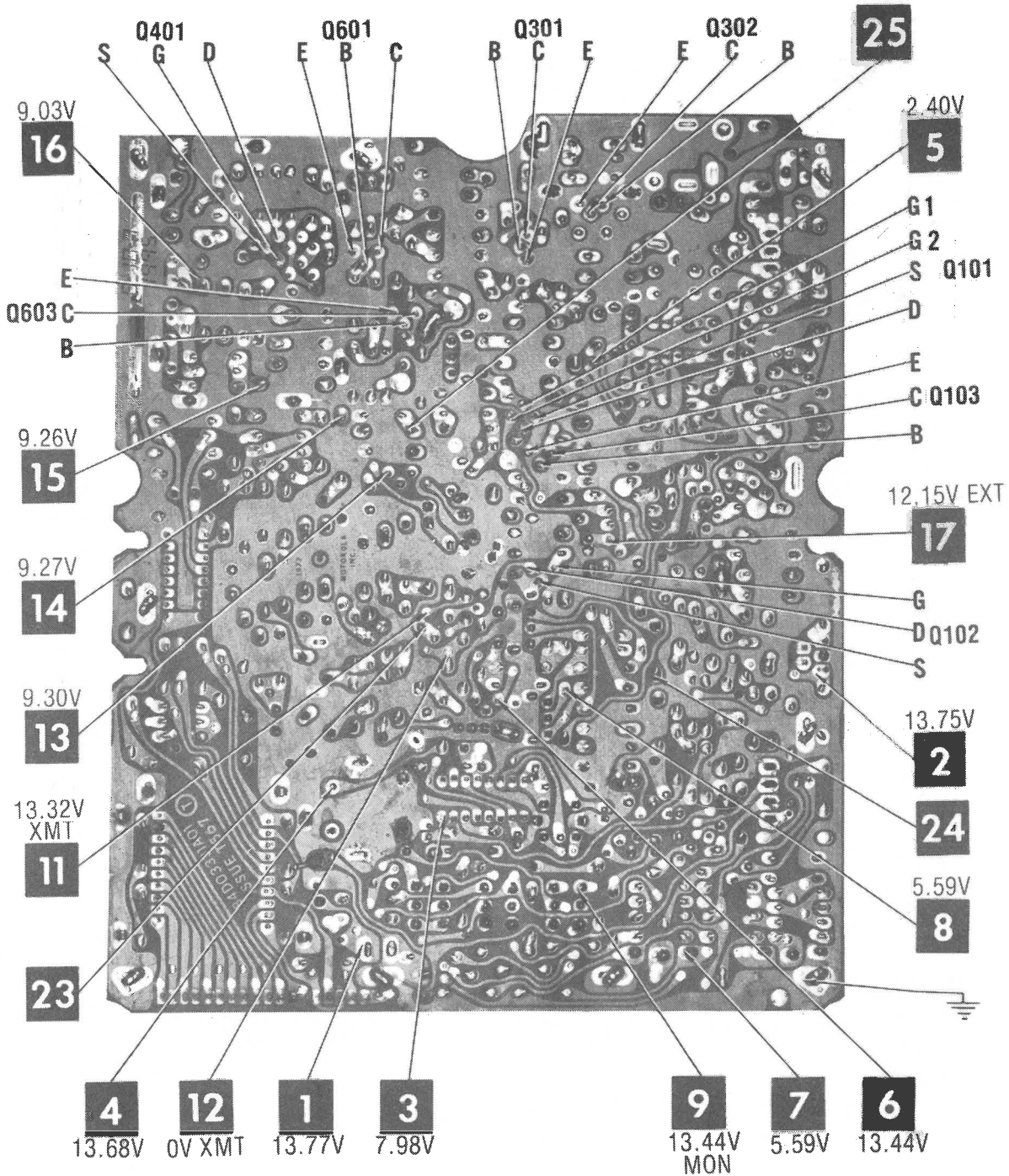


MOTOROLA MODEL T4009A

MAIN BOARD

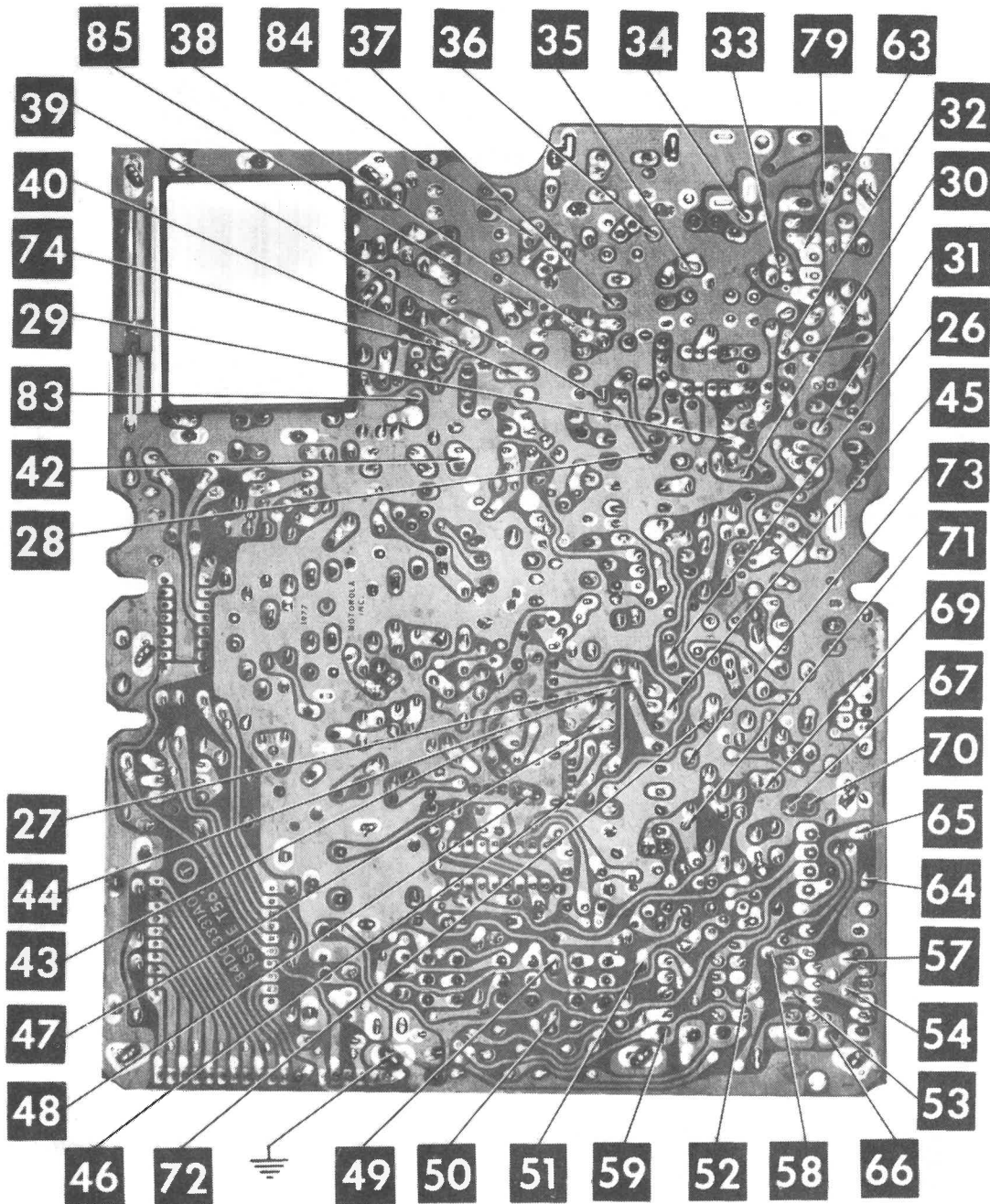


MAIN BOARD



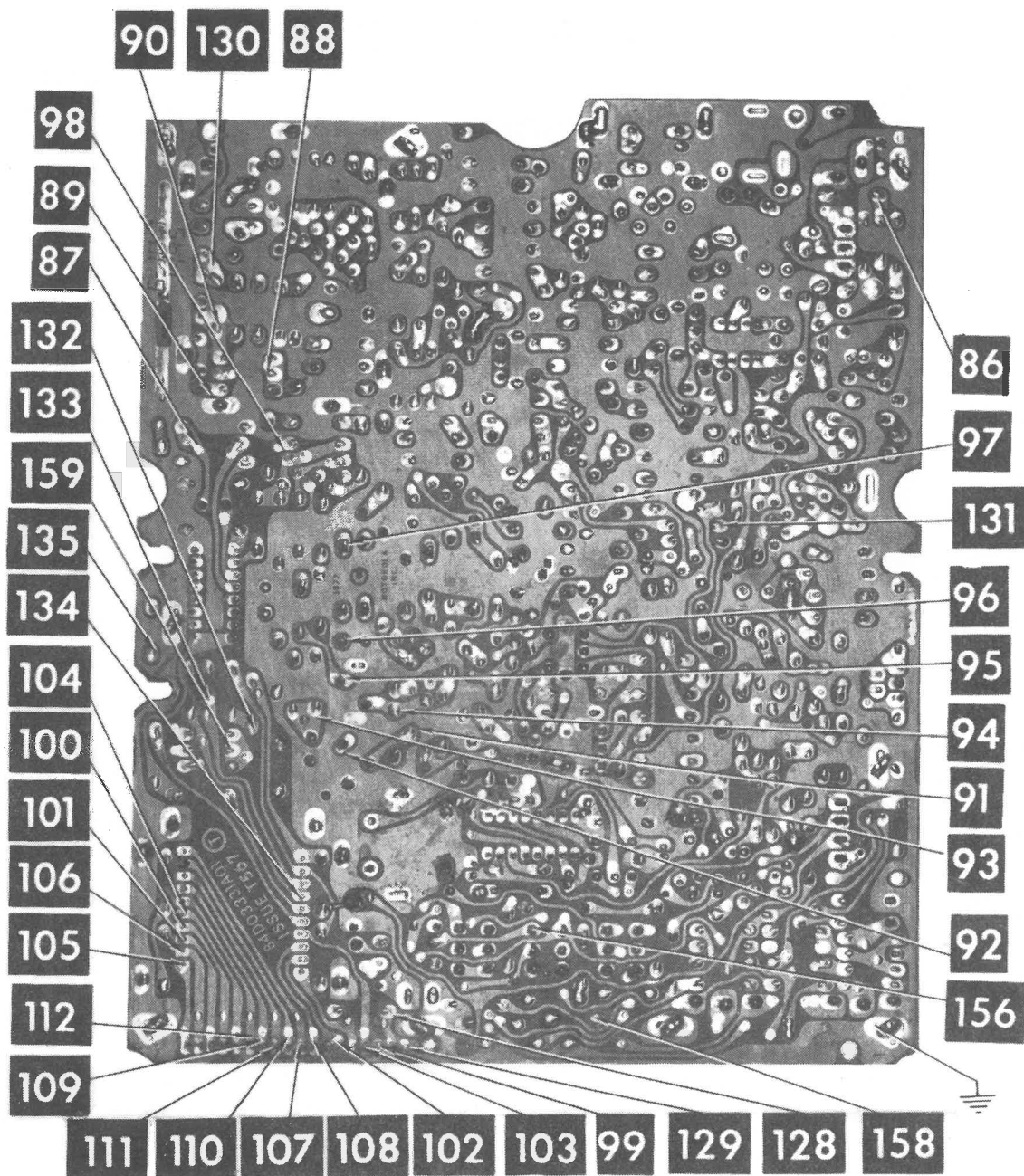
MOTOROLA MODEL T4009A

MAIN BOARD

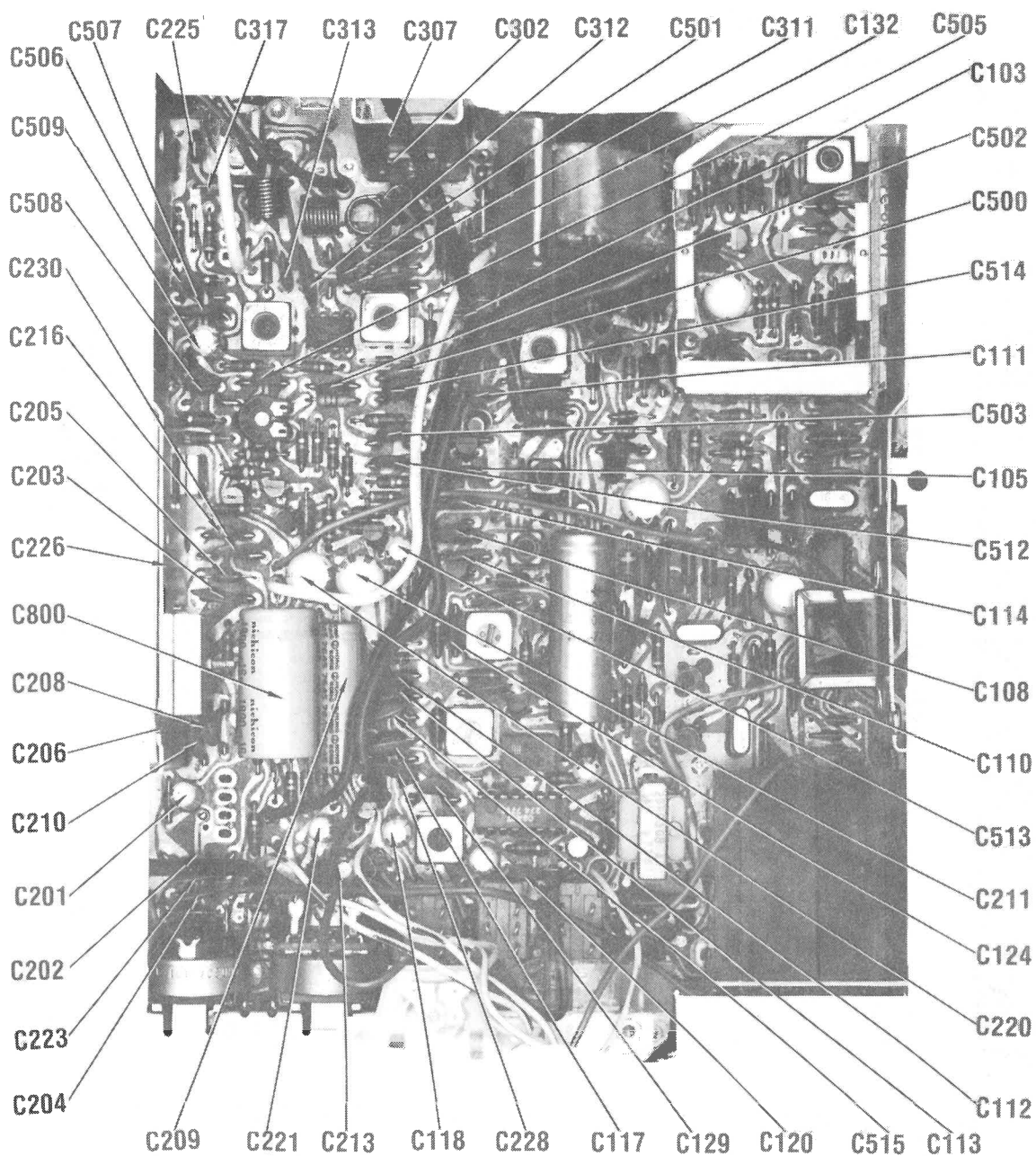


MAIN BOARD

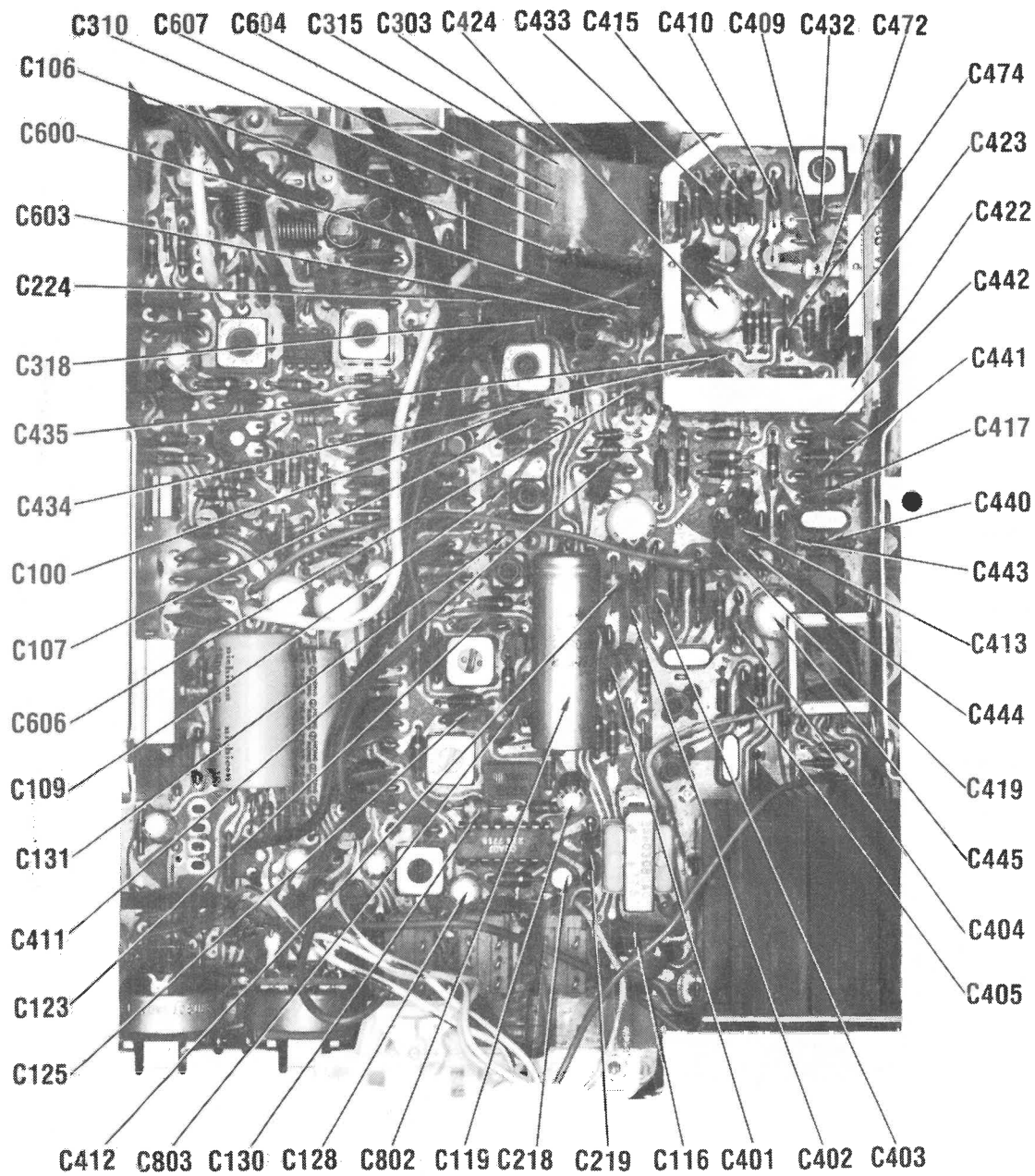
MOTOROLA MODEL T4009A



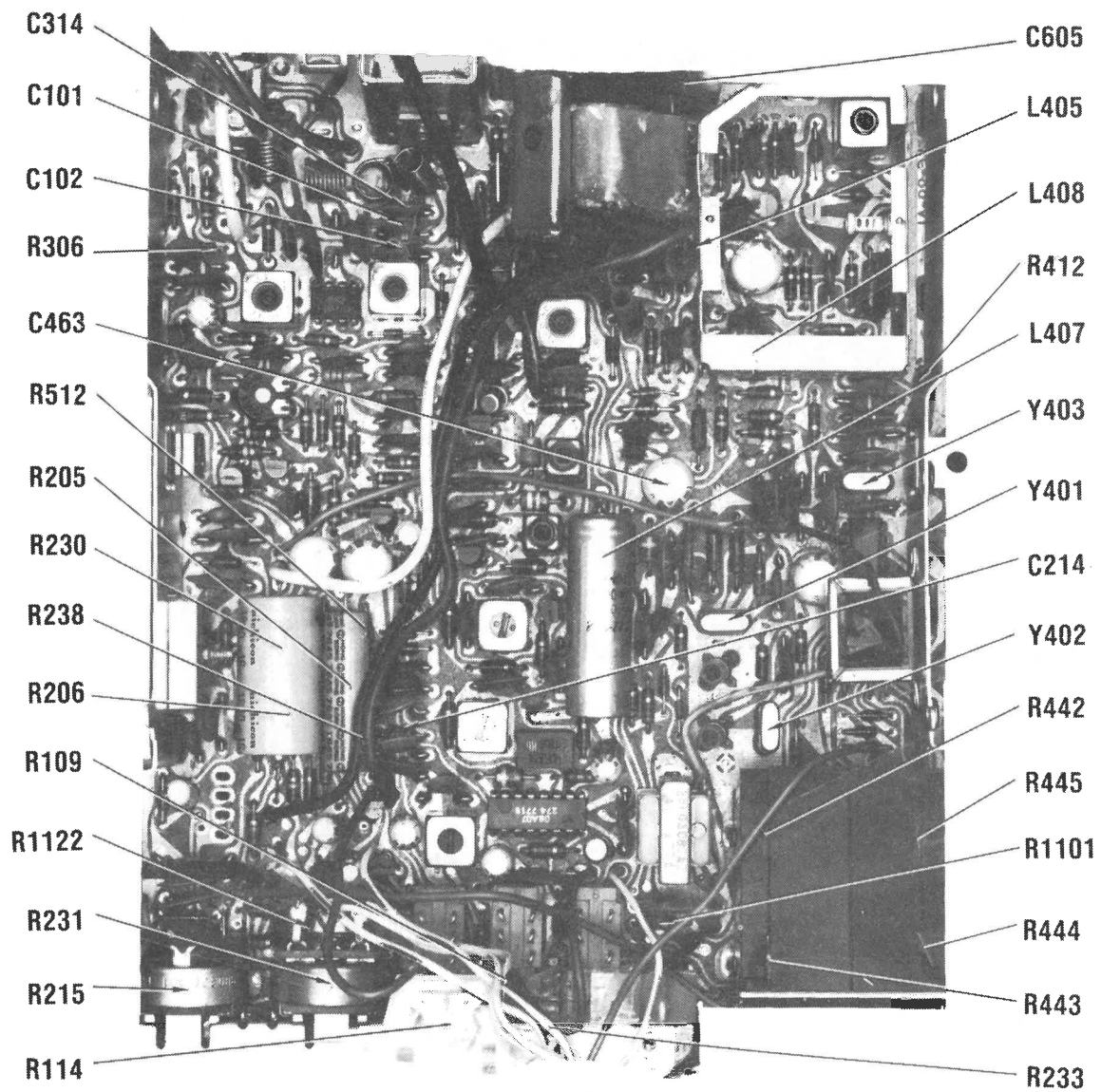
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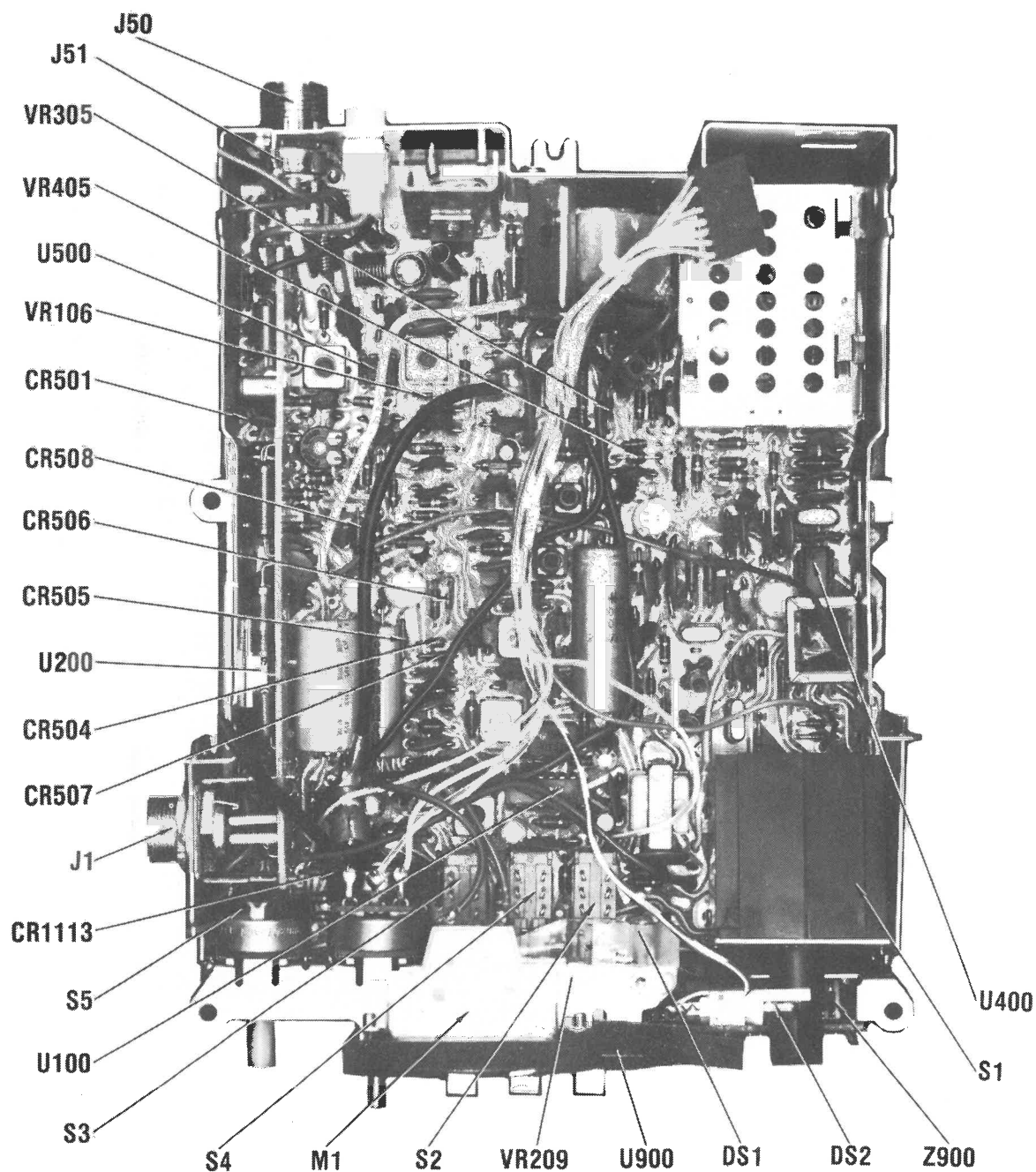
MAIN BOARD



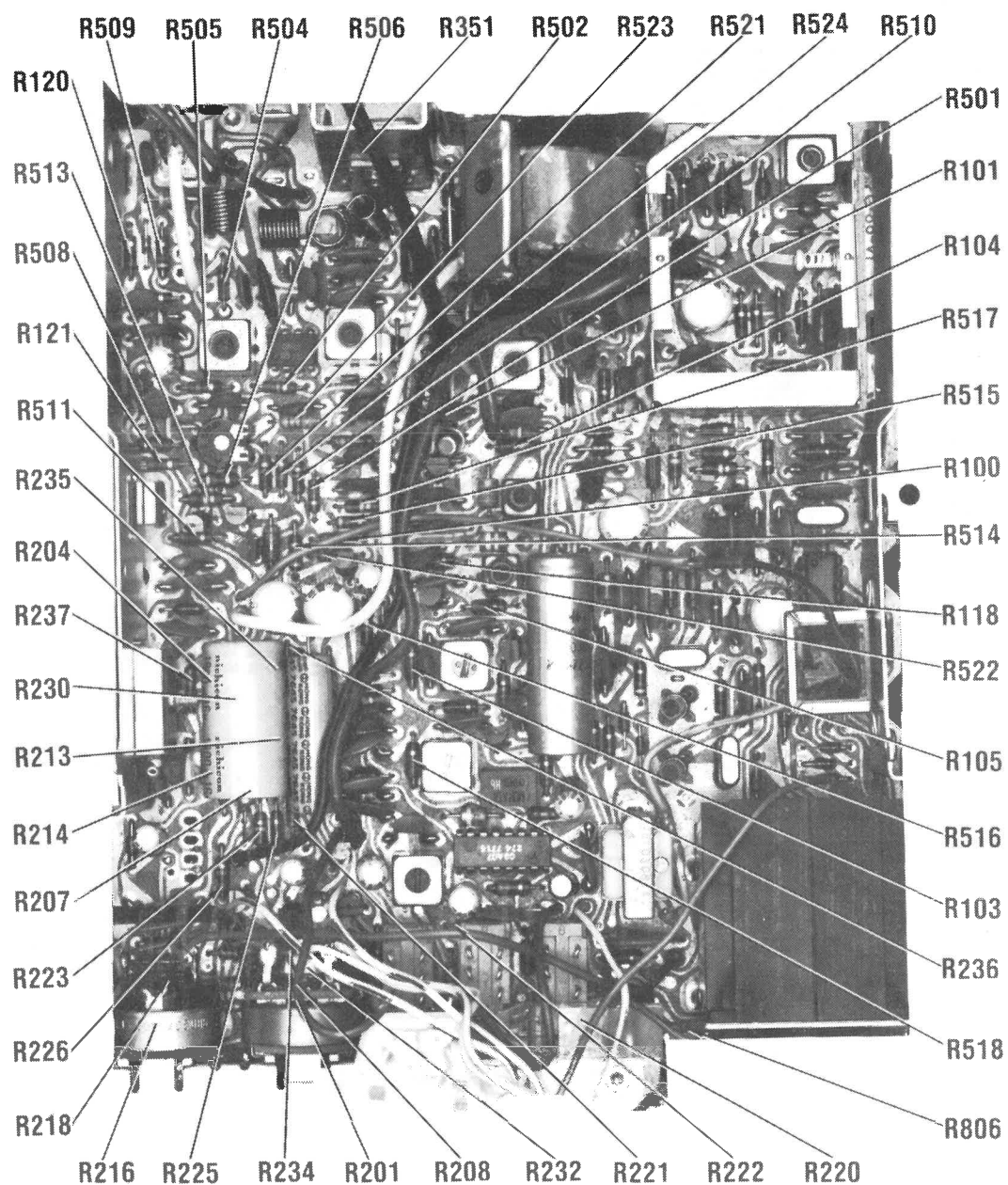
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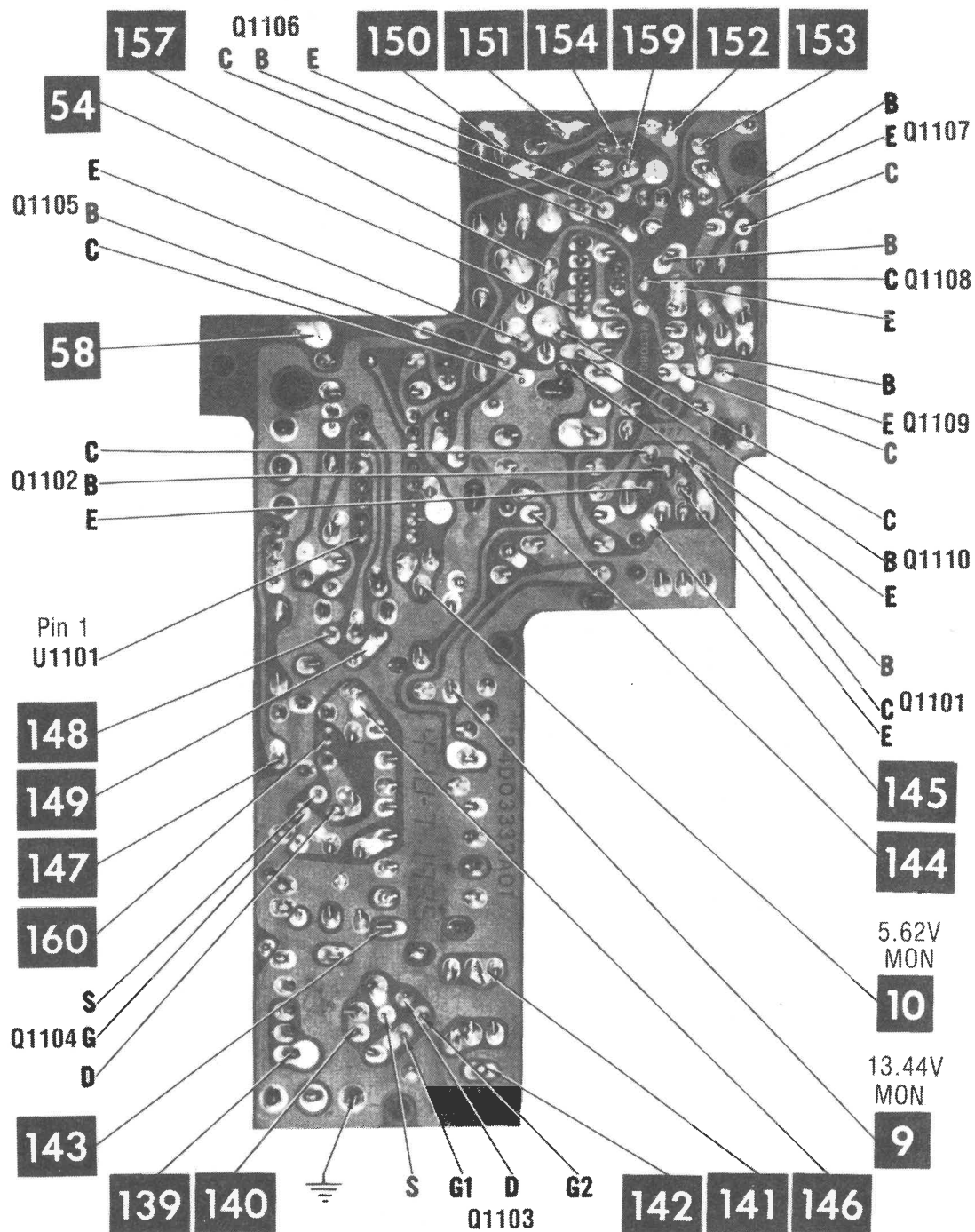
MAIN BOARD



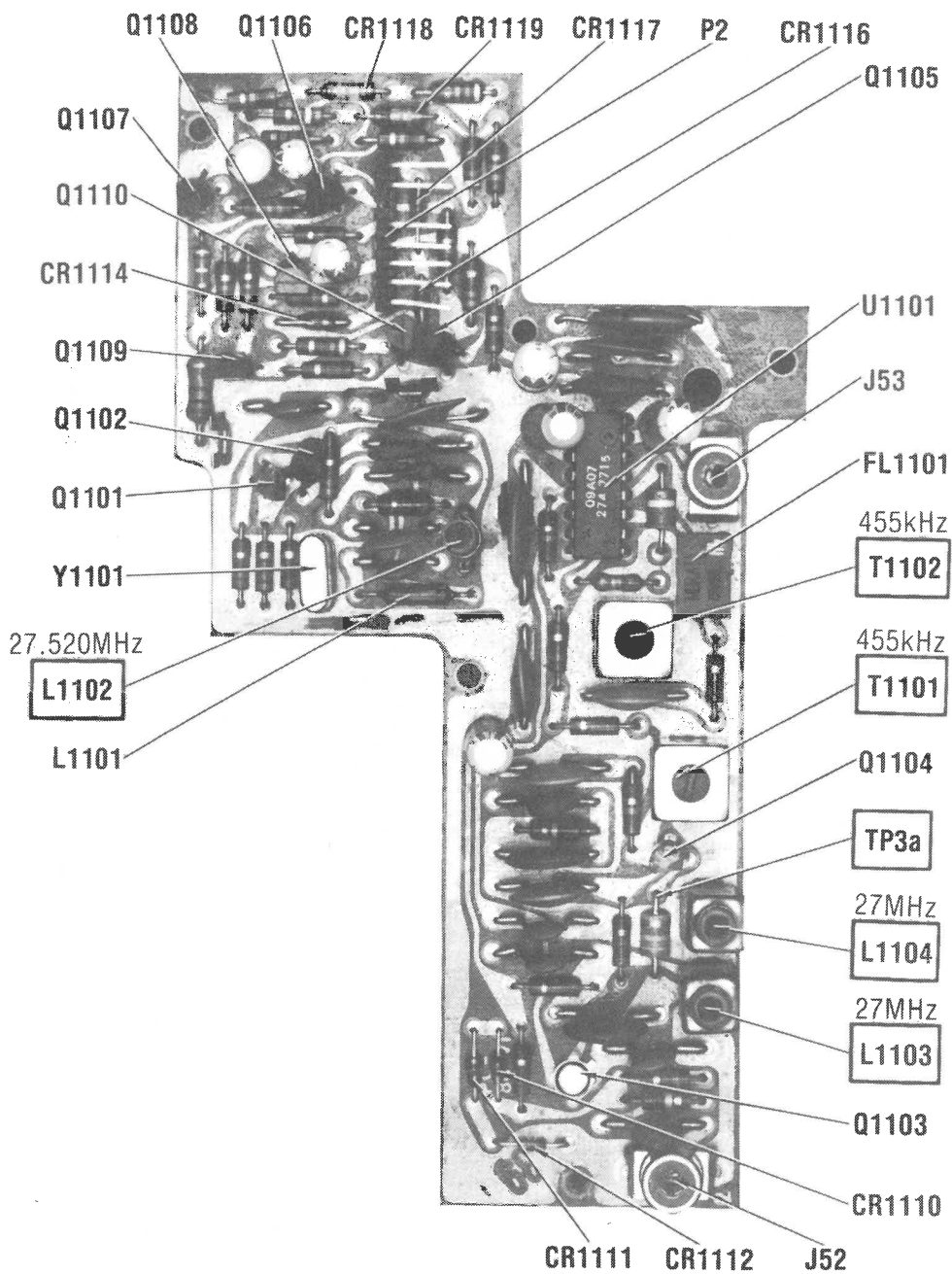
CHASSIS - TOP



MAIN BOARD

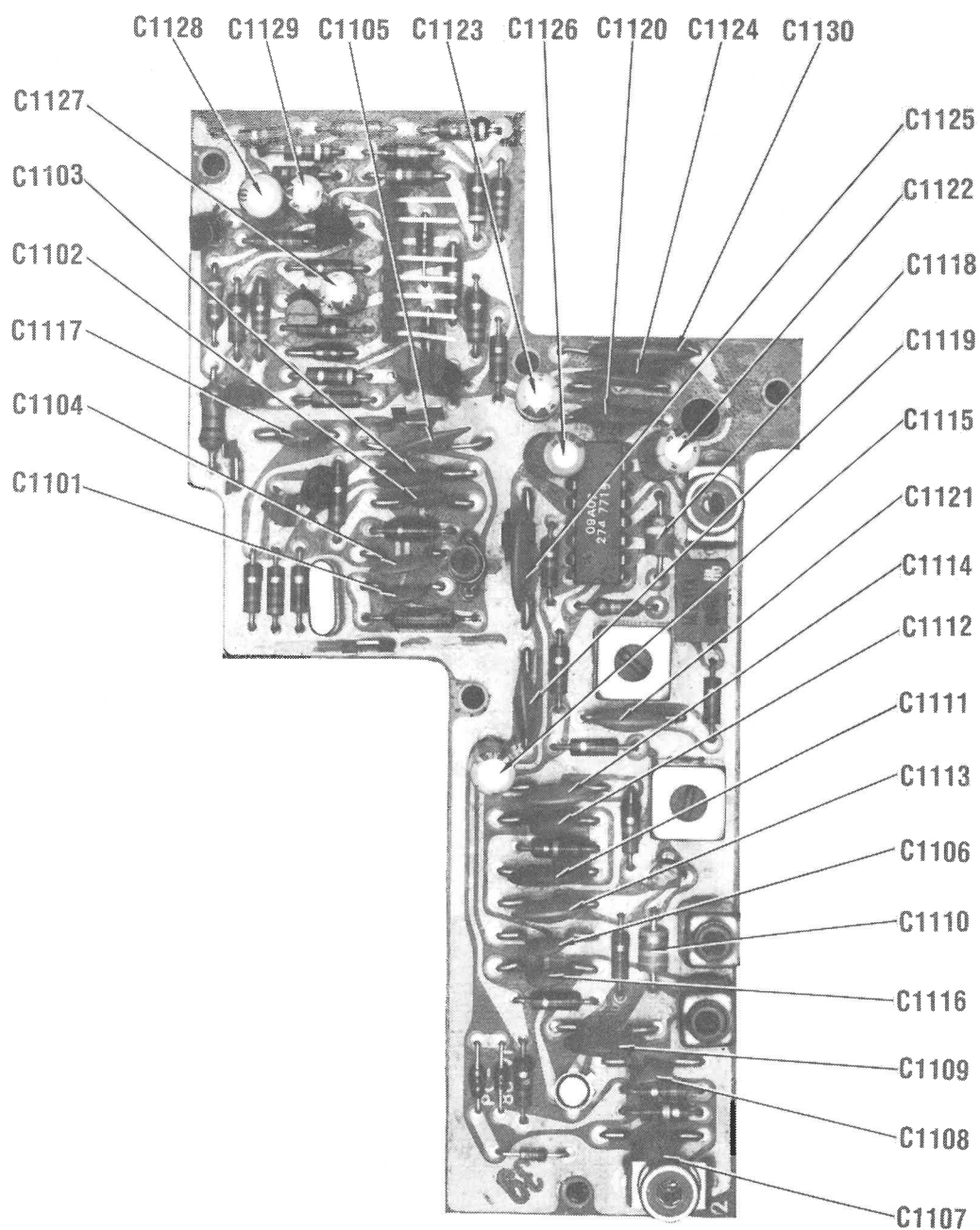


CH. 9 REC BOARD

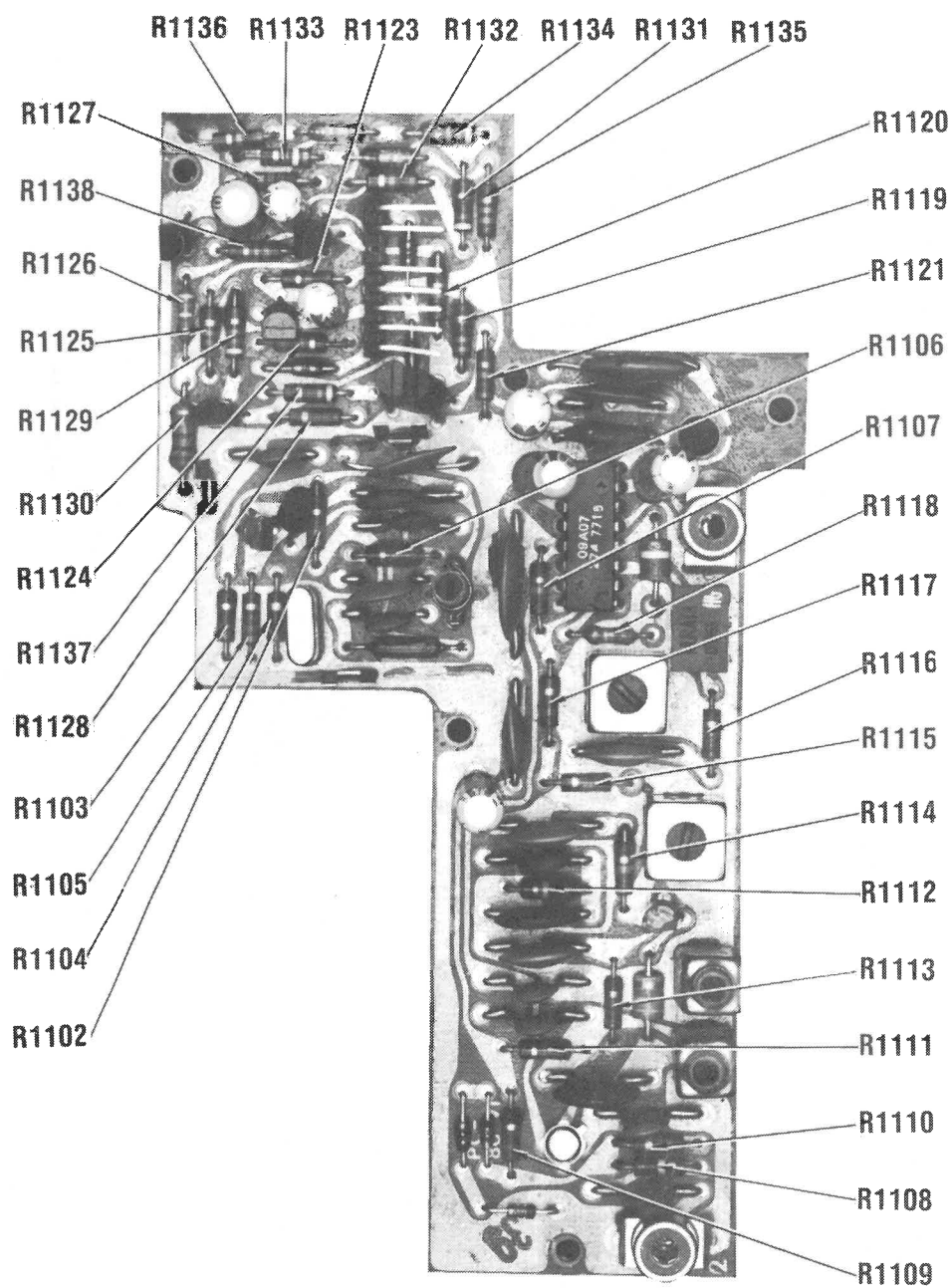


MOTOROLA MODEL T4009A

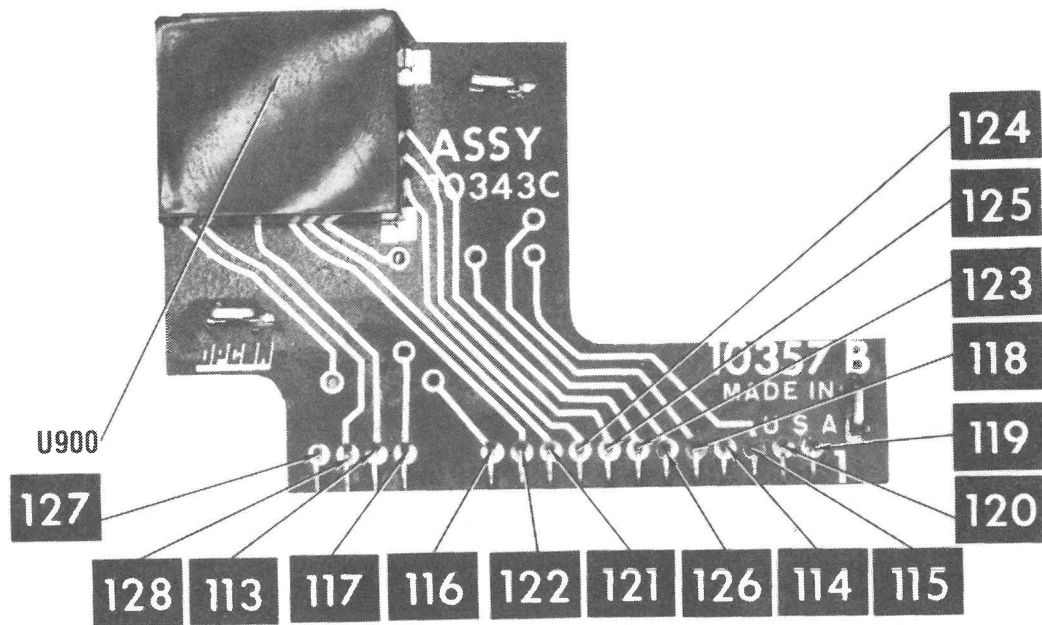
CH. 9 REC BOARD



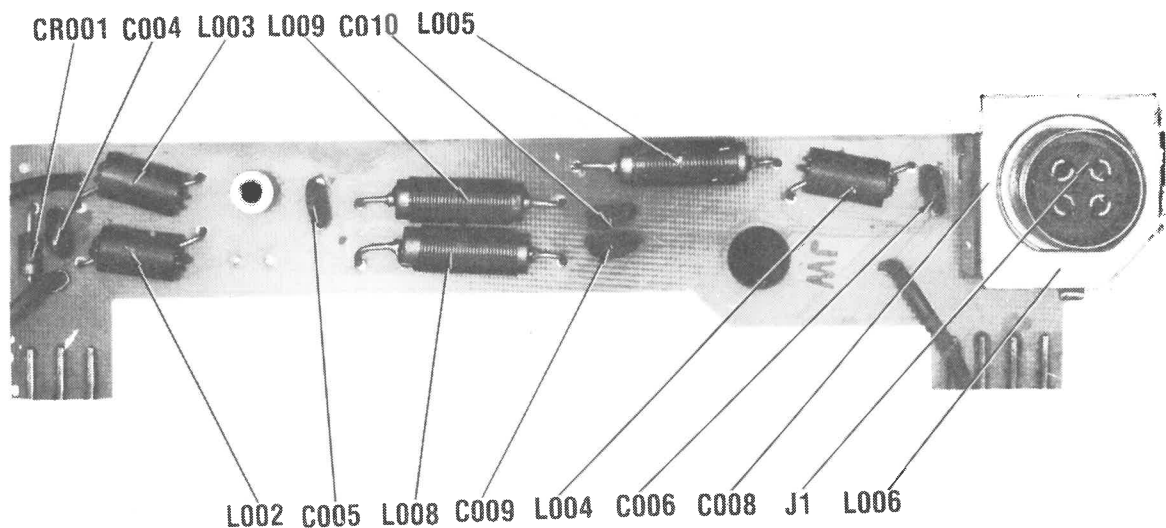
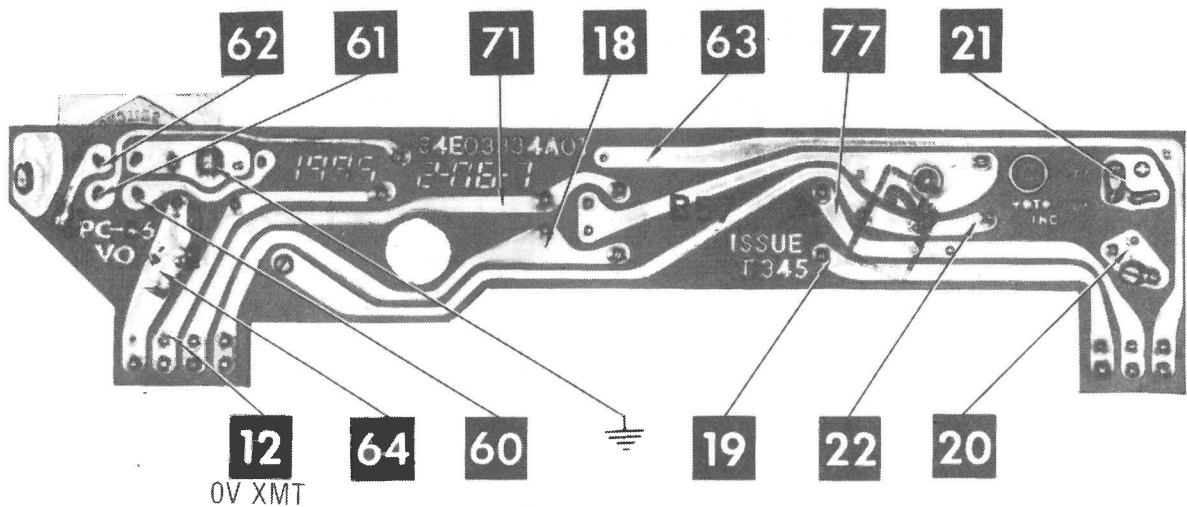
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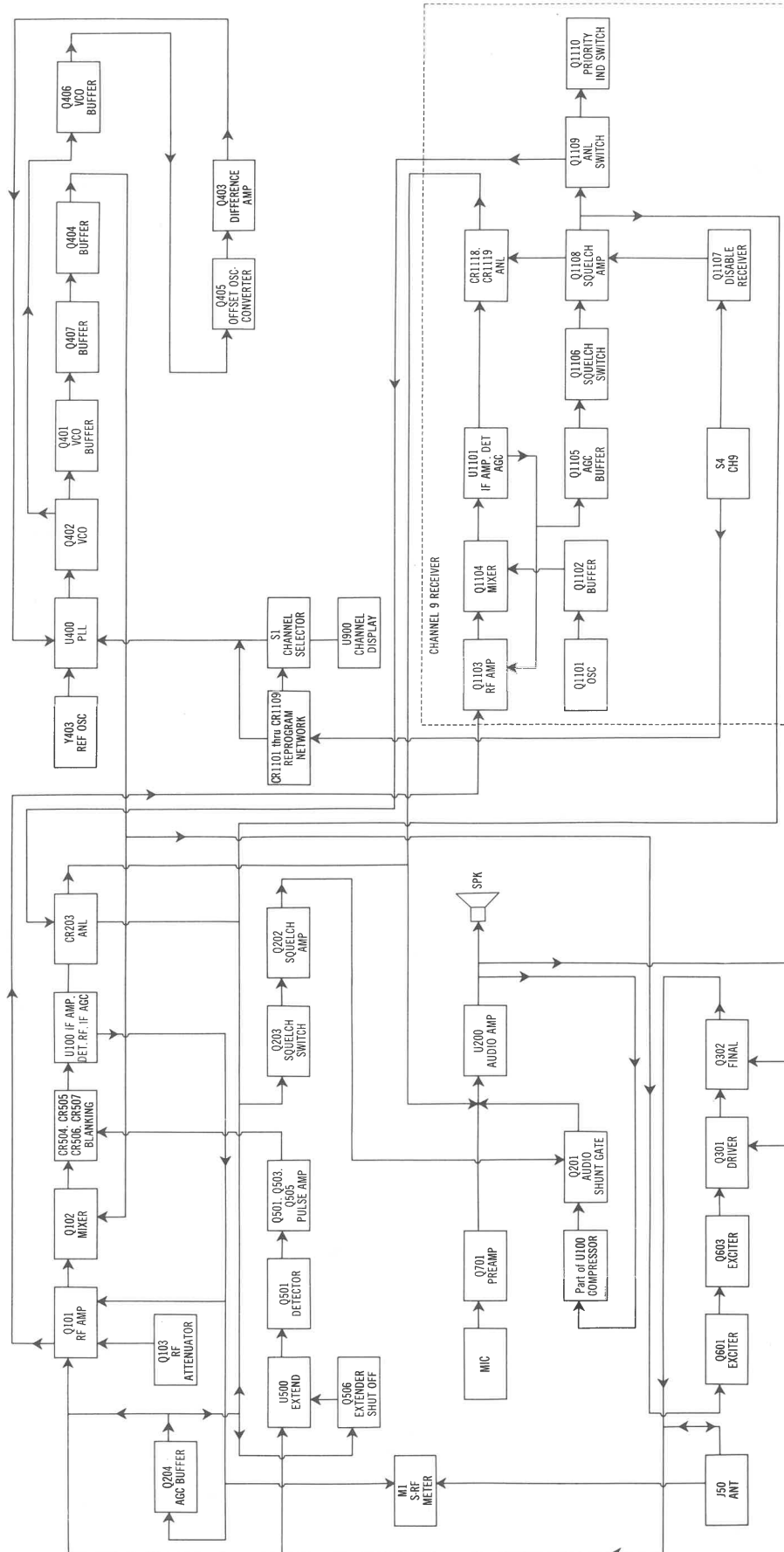
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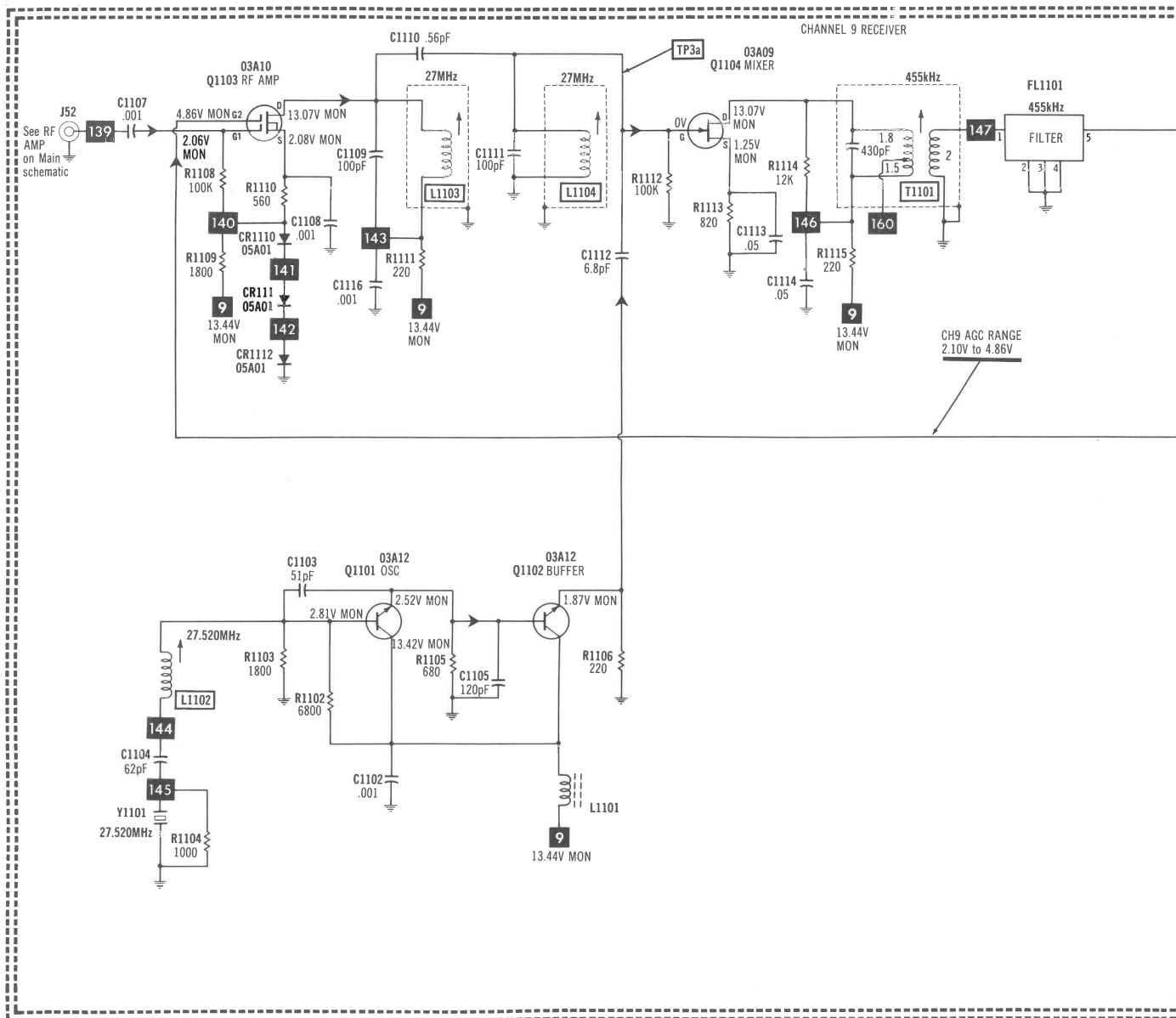
LED BOARD



POWER SUPPLY BOARD



BLOCK DIAGRAM



Terminal Guides

✖ Circuitry not used in some versions

--- Circuitry used in some versions

Chassis

Common tie point

Signal path

Voltage path

See parts list

Nominal value

Ground

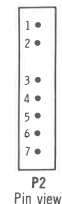
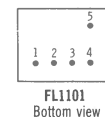
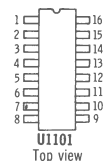
Measurements made in Channel 1 with switching as shown unless noted.

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.

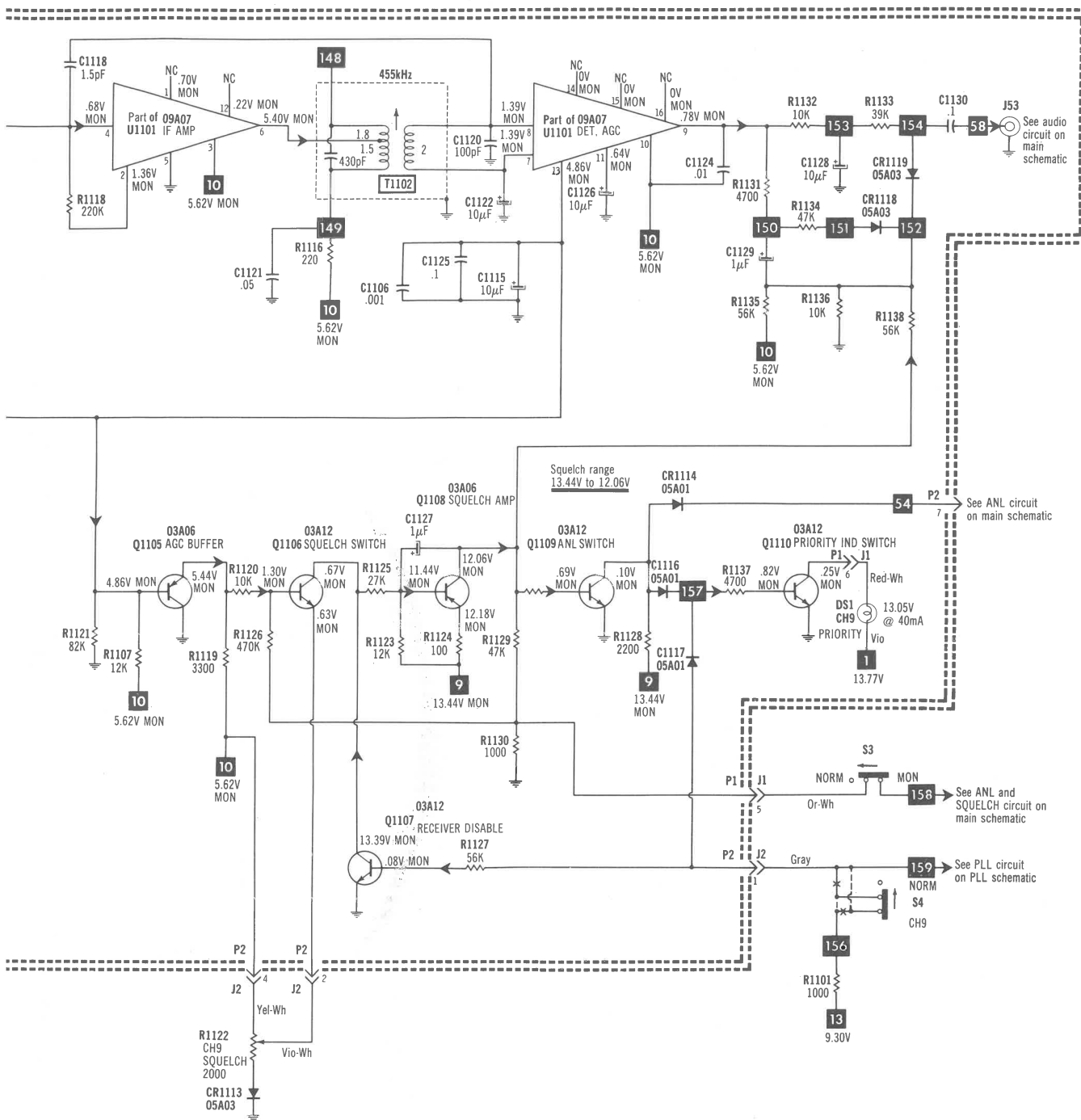
Resistors are 1/2W or less, 5% unless noted. Value in () used in some versions.



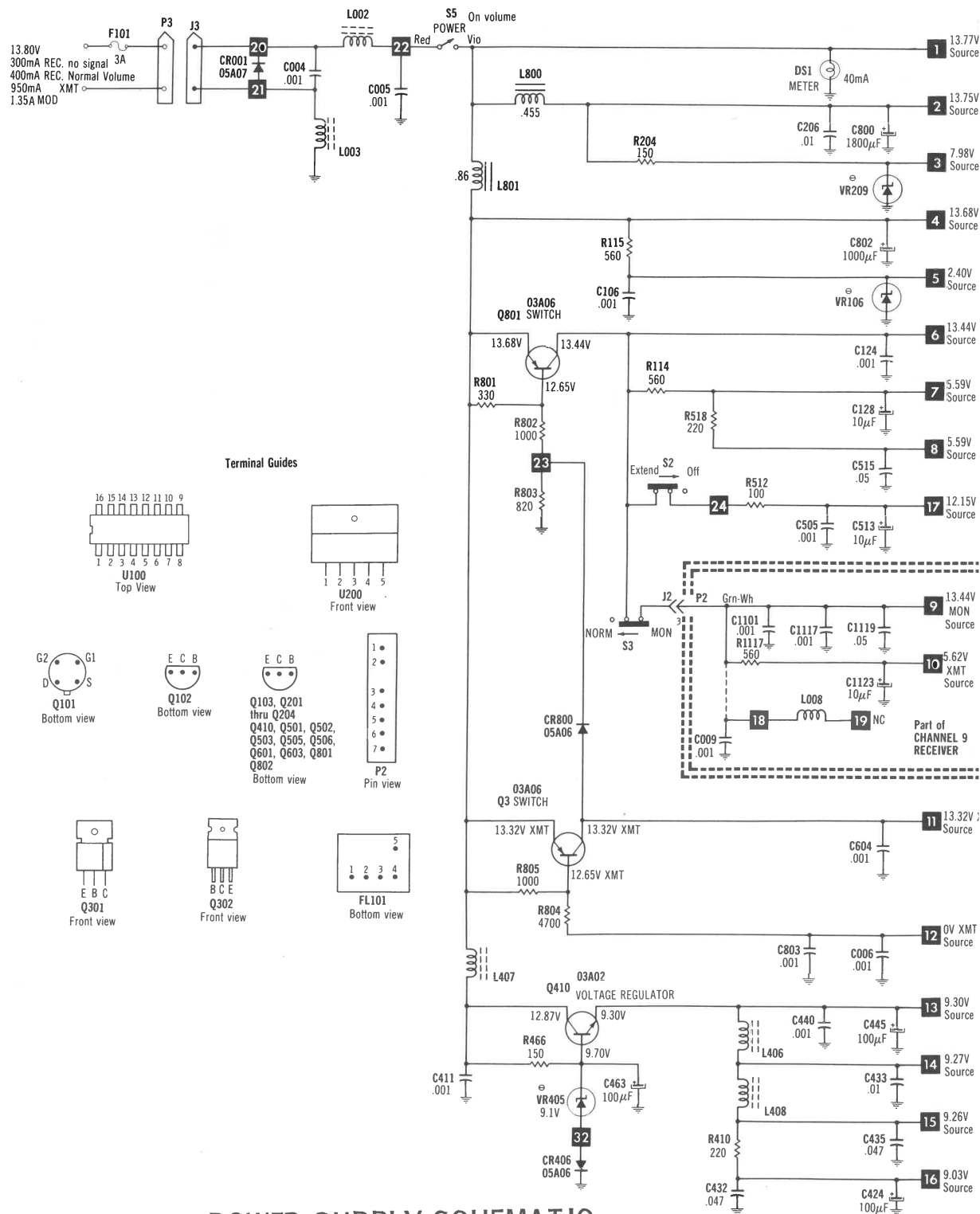
A PHOTOFAC STANDARD NOTATION SCHEMATIC
WITH CIRCUITRACE

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CH. 9 REC SCHEMATIC



MOTOROLA MODEL T4009A



POWER SUPPLY SCHEMATIC

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

A PHOTOFAC STANDARD NOTATION SCHEMATIC
WITH **CIRCUITRACE**

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Measurements made in Channel 1 with switching
as shown unless noted.

Item numbers in rectangles appear in the
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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.





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PARTS LIST A (When ordering parts,

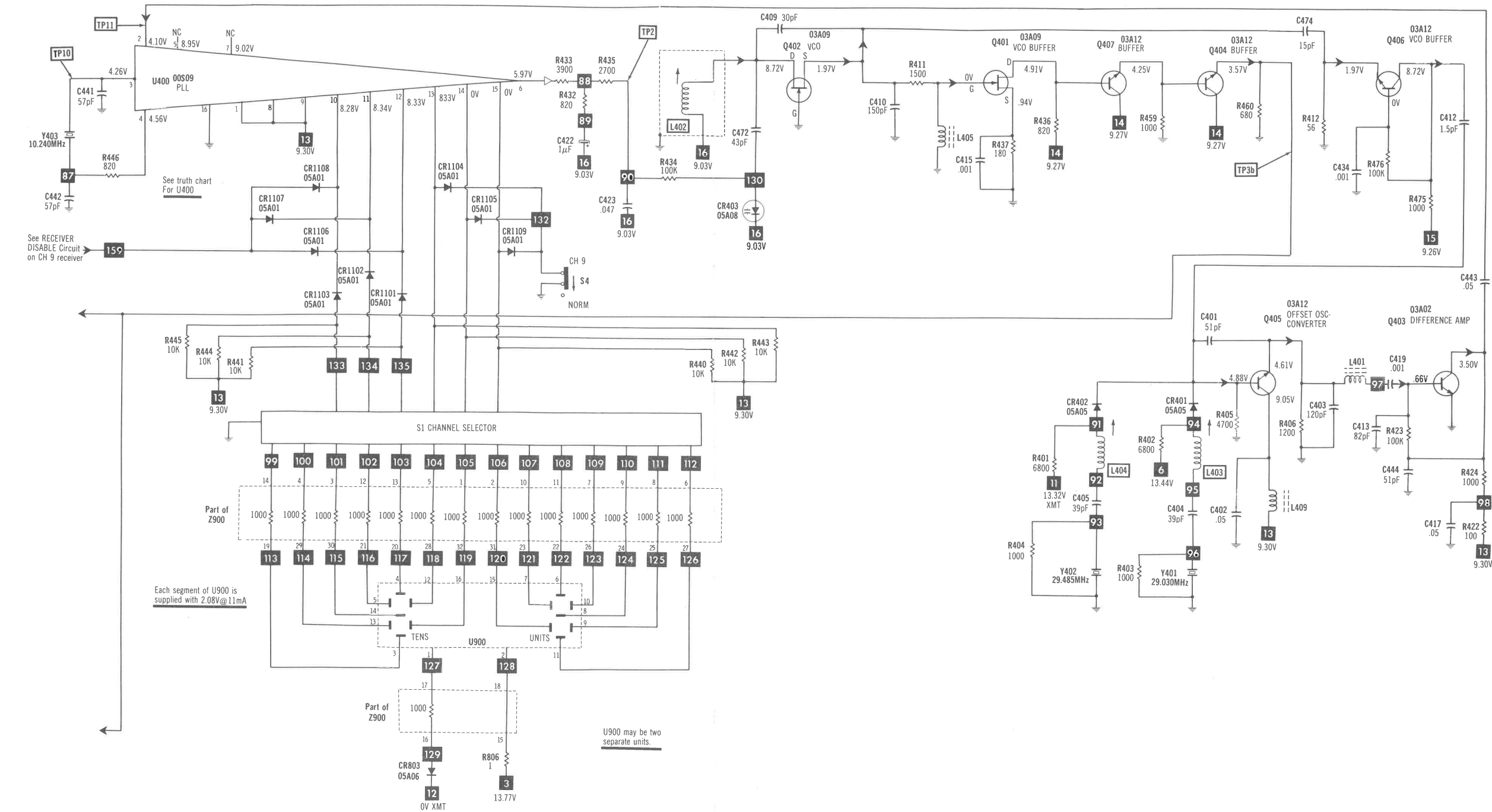
WIRING DA

General-use Hook-up
Shielded Hook-up Wire
Speaker Cable (avail)
Bonding Strap . . .
AC Power Cord . . .

SEMICONDUCTORS (

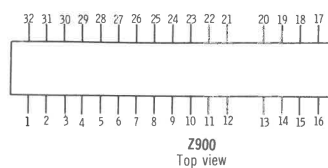
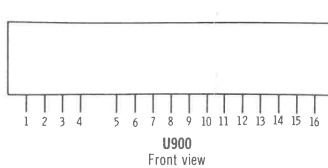
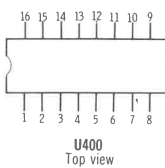
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CR100	05A07	48-03005A07
CR104	05A06	48-03005A06
CR105	05A06	48-03005A06
CR202	05A03	48-03005A03
CR203	05A03	48-03005A03
CR204	05A01	48-03005A01
CR205	05A01	48-03005A01
CR206	05A06	48-03005A06
CR210	05A01	48-03005A01
CR211	05A01	48-03005A01
CR301	05A06	48-03005A01
CR302	05A07	48-03005A07
CR401	05A05	48-03005A05
CR402	05A05	48-03005A05
CR403	05A08	48-03005A08
CR406	05A06	48-03005A06
CR501	05A06	48-03005A06
CR504	05A06	48-03005A06
CR505	05A06	48-03005A06
CR506	05A06	48-03005A06
CR507	05A06	48-03005A06
CR508	05A03	48-03005A03
CR800	05A06	48-03005A06
CR803	05A06	48-03005A06
CR1101	05A01	48-03005A01
CR1102	05A01	48-03005A01
CR1103	05A01	48-03005A01
CR1104	05A01	48-03005A01
CR1105	05A01	48-03005A01
CR1106	05A01	48-03005A01
CR1107	05A01	48-03005A01
CR1108	05A01	48-03005A01
CR1109	05A01	48-03005A01
CR1110	05A01	48-03005A01
CR1111	05A01	48-03005A01
CR1112	05A01	48-03005A01
CR1113	05A01	48-03005A01
CR1114	05A01	48-03005A01
CR1116	05A01	48-03005A01
CR1117	05A01	48-03005A01
CR1118	05A03	48-03005A03
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Q102	03A09	48-3003A09
Q103	03A12	48-3003A12
Q201	03A11	48-3003A11
Q202	03A06	48-3003A06
Q203	03A11	48-3003A11
Q204	03A06	48-3003A06
Q301	04S05	48-40004S05
Q302	2SC2092	
Q401	03A09	48-3003A09
Q402	03A09	48-3003A09
Q403	03A12	48-3003A12
Q404	03A12	48-3003A12
Q405	03A12	48-3003A12
Q406	03A03	48-3003A03
Q407	03A12	48-3003A12
Q410	03A02	48-3003A02
Q501	03A05	48-3003A05
Q502	03A04	48-3003A04
Q503	03A12	48-3003A12
Q505	03A04	48-3003A04
Q506	03A11	48-3003A11
Q601	03A03	48-3003A03
Q603	03A03	48-3003A03
Q701	03A05	48-3003A05
Q801	03A06	48-3003A06
Q802	03A06	48-3003A06
Q1101	03A12	48-3003A12
Q1102	03A12	48-3003A12
Q1103	03A10	48-3003A10
Q1104	03A09	48-3003A09
Q1105	03A06	48-3003A06
Q1106	03A12	48-3003A12
Q1107	03A12	48-3003A12
Q1108	03A06	48-3003A06
Q1109	03A12	48-3003A12
Q1110	03A12	48-3003A12

MOTOROLA MODEL T4009A



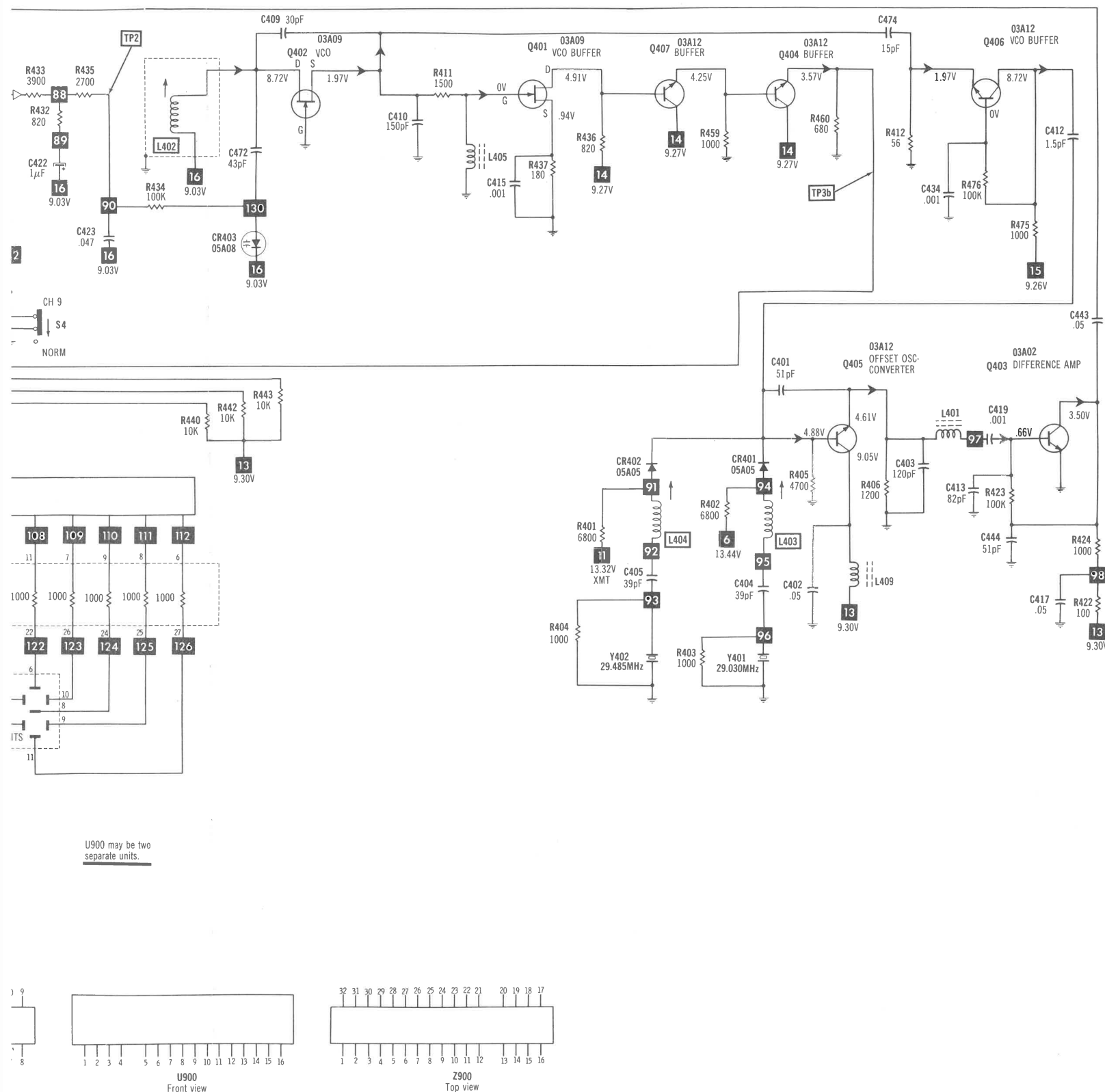
--- Circuitry not used in some versions
--- Circuitry used in some versions
Chassis
Common tie point
Signal path
Voltage path
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Voltages measured with digital meter, no signal.
Controls adjusted for normal operation.
Arrow at control indicates direction 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.

Terminal Guides



PLL SCHEMATIC

A PHOTOFAC STANDARD NOTATION SCHEMATIC
WITH CIRCUITACE
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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	BELDEN No. 9471 (5')
Shielded Hook-up Wire (spiral wrapped)	BELDEN No. 8421	3-conductor (1 shielded) 23AWG	BELDEN No. 9472 (7-1/2')
(braided)	BELDEN No. 8401		BELDEN No. 9497 (6')
Speaker Cable (available in 4 colors)	BELDEN No. 8782	31AWG BELDEN No. 9466 (6')	
Bonding Strap	BELDEN No. 8672	28AWG BELDEN No. 9468 (10')	
AC Power Cord	(6') BELDEN No. 17106	4-conductor (unshielded) 23AWG	BELDEN No. 8415 (6')
	(9') BELDEN No. 17109	5-conductor (1 shielded) 28AWG	BELDEN No. 9467 (6')
			BELDEN No. 9465 (7-1/2')

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	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.
CR001	05A07	48-03005A07	GE-504A	PTC201	HEPRO0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
CR100	05A07	48-03005A07	GE-504A	PTC201	HEPRO0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
CR104	05A06	48-03005A06	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR105	05A06	48-03005A06	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR202	05A03	48-03005A03	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	TM109/**	WEP134	103-29001
CR203	05A03	48-03005A03	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	TM109/**	WEP134	103-29001
CR204	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR205	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR206	05A06	48-03005A06	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR210	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR211	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR301	05A06	48-03005A01	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR302	05A07	48-03005A07	GE-504A	PTC201	HEPRO0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
CR401	05A05	48-03005A05	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR402	05A05	48-03005A05	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR403	A08											
	05A08	48-03005A08										
CR406	05A06	48-03005A06	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR501	05A06	48-03005A06	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR504	05A06	48-03005A06	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR505	05A06	48-03005A06	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR506	05A06	48-03005A06	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR507	05A06	48-03005A06	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR508	05A03	48-03005A03	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	TM109/**	WEP134	103-29001
CR800	05A06	48-03005A06	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR803	05A06	48-03005A06	GE-514	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR1101	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1102	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1103	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1104	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1105	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1106	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1107	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1108	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1109	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1110	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1111	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1112	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1113	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1114	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1116	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1117	05A01	48-03005A01	GE-300	PTC214	HEPRO602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1118	05A03	48-03005A03	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	TM109/**	WEP134	103-29001
CR1119	05A03	48-03005A03	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	TM109/**	WEP134	103-29001
Q101	03A10	48-3003A10	GE-FET-4	PTC182	HEPF2007	REN 222	SK3065	RT-181	ECG222	TM222	WEP905	121-826
Q102	03A09	48-3003A09	GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312	WEP920	121-756
Q103	03A12	48-3003A12	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q201	03A11	48-3003A11	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q202	03A06	48-3003A06	GE-82	PTC141	HEPS5023	REN 159	SK3466	RT-115	ECG159	TM159	WEP62	121-29003
Q203	03A11	48-3003A11	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q204	03A06	48-3003A06	GE-82	PTC141	HEPS5023	REN 159	SK3466	RT-115	ECG159	TM159	WEP62	121-29003
Q301	04S05	48-40004S05	GE-236*	PTC192*		REN 299*	SK3298*	RT-143*	ECG299*	TM299*	WEP1018*	121-79036
Q302	25C2092		GE-337	PTC186		REN 235	SK3197	RT-146	ECG235	TM235	WEP840*	121-29039
	04S06	48-40004S06	GE-337	PTC186		REN 235	SK3197	RT-146	ECG235	TM235	WEP840*	121-29039
Q401	03A09	48-3003A09	GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312	WEP920	121-756
Q402	03A09	48-3003A09	GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312	WEP920	121-756
Q403	03A12	48-3003A12	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q404	03A12	48-3003A12	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q405	03A12	48-3003A12	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q406	03A03	48-3003A03	GE-11	PTC136	HEPS0025	REN 107	SK3018	RT-107	ECG107	TM107	WEP535	121-522
Q407	03A12	48-3003A12	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q410	03A02	48-3003A02	GE-47	PTC178	HEPS3011	REN 293	SK3124		ECG293	TM293	WEP912	121-29014
Q501	03A05	48-3003A05	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q502	03A04	48-3003A04	GE-21	PTC103	HEPS0012	REN 106	SK3118	RT-126	ECG106	TM106	WEP106	121-29020
Q503	03A12	48-3003A12	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q505	03A04	48-3003A04	GE-21	PTC103	HEPS0012	REN 106	SK3118	RT-126	ECG106	TM106	WEP106	121-29020
Q506	03A11	48-3003A11	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q601	03A03	48-3003A03	GE-11	PTC136	HEPS0025	REN 107	SK3018	RT-107	ECG107	TM107	WEP535	121-522
Q603	03A03	48-3003A03	GE-11	PTC136	HEPS0025	REN 107	SK3018	RT-107	ECG107	TM107	WEP535	121-522
Q701	03A05	48-03003A05	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q801	03A06	48-3003A06	GE-82	PTC141	HEPS5023	REN 159	SK3466	RT-115	ECG159	TM159	WEP62	121-29003
Q802	03A06	48-3003A06	GE-82	PTC141	HEPS5023	REN 159	SK3466	RT-115	ECG159	TM159	WEP62	121-29003
Q1101	03A12	48-3003A12	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q1102	03A12	48-3003A12	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q1103	03A10	48-3003A10	GE-FET-4	PTC182	HEPF2007	REN 222	SK3065	RT-181	ECG222	TM222	WEP905	121-826
Q1104	03A09	48-3003A09	GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312	WEP920	121-756
Q1105	03A06	48-3003A06	GE-82	PTC141	HEPS5023	REN 159	SK3466	RT-115	ECG159	TM159	WEP62	121-29003
Q1106	03A12	48-3003A12	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q1107	03A12	48-3003A12	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-102A	ECG123A	TM123A	WEP736	121-29000A
Q1108	03A06	48-3003A06	GE-82	PTC141	HEPS5023	REN 159	SK3466	RT-115	ECG159	TM159	WEP62	121-29003
Q1109	03A12	48-3003A12	GE-20	PTC136	HEPS0015	REN 123A	SK3444	RT-1				

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.
U100	09A07	51-3009A07										
U200	00S08	51-4000S08										
U400	00S09	51-4000S09										
U500	09A02	51-3009A02										
U1101	09A07	51-3009A07										
VR106		48-03073A10										
VR209		48-03073A06	GEZD-8.2	ZB8.2B		REN 5061	SK3766		ECG5000		WEP1400	
VR305		48-03073A08	GEZD-43	ZB43B		REN 5072	SK3136	RT-257	ECG5072A	TM5072/**	WEP1108	
VR405		48-03073A09	GEZD-9.1	ZB9.1B		REN 139	SK3339		ECG5087A		WEP1169	
							SK3060	RT-240	ECG139A	TM139/**	WEP1109	103-272

* 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
C118	10 25V	23-03035A02	PC10-25	VTT10B25	QV1-43	EV-1322
C119	10 25V	23-03035A02	PC10-25	VTT10B25	QV1-43	EV-1322
C128	10 25V	23-03035A02	PC10-25	VTT10B25	QV1-43	EV-1322
C201	1 25V	23-03035A01	PC1-50	VTT1A50	QV1-9	EV-1315
C209	175 15V	23-03035A05	WBR250-16	TT15X200A	QE1-479	TVA-1160.6
C211	100 16V	23-03035A04	PC100-25	VTT100G25	QV1-97	EV-1330
C213	10 25V	23-03035A02	PC10-25	VTT10B25	QV1-43	EV-1322
C218	2.2 25V	23-03035A12	PC2-100	VTT2R2A50	QV1-19	EV-1517
C220	100 16V	23-03035A04	PC100-25	VTT100G25	QV1-97	EV-1330
C221	1 25V	23-03035A01	PC1-50	VTT1A50	QV1-9	EV-1315
C224	1 25V	23-03035A01	PC1-50	VTT1A50	QV1-9	EV-1315
C422	1 15V	23-10218A29		TDC105M035EL		SD35-19
C424	100 16V	23-03035A04	PC100-25	VTT100G25	QV1-97	EV-1330
C445	100 16V	23-10818A65	PC100-25	VTT100G25	QV1-97	EV-1330
	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C463	100 16V	23-10818A65	PC100-25	VTT100G25	QV1-97	EV-1330
C509	10 25V	23-03035A02	PC10-25	VTT10B25	QV1-43	EV-1322
C513	10 25V	23-03035A02	PC10-25	VTT10B25	QV1-43	EV-1322
C800	1800 16V	23-42674B21	WBR2000-16	TC1520C	QE1-627	TVA-1170
C802	1000 20V	23-03035A08	WBR1000-25	TC2510A	QE1-593	TVA-1211
C1115	10 25V	23-03035A02	PC10-25	VTT10B25	QV1-43	EV-1322
C1122	10 25V	23-03035A02	PC10-25	VTT10B25	QV1-43	EV-1322
C1123	10 25V	23-03035A02	PC10-25	VTT10B25	QV1-43	EV-1322
C1126	10 25V	23-03035A02	PC10-25	VTT10B25	QV1-43	EV-1322
C1127	1 25V	23-03035A01	PC1-50	VTT1A50	QV1-9	EV-1315
C1128	10 25V	23-03035A02	PC10-25	VTT10B25	QV1-43	EV-1322
C1129	1 25V	23-03035A01	PC1-50	VTT1A50	QV1-9	EV-1315

MOTOROLA MODEL T4009A

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
C004	.001 100V		DD-102		GP210		10TS-D10
C005	.001 100V		DD-102		GP210		10TS-D10
C006	.001 100V		DD-102		GP210		10TS-D10
C008	.001 100V		DD-102		GP210		10TS-D10
C009	.001 100V		DD-102		GP210		10TS-D10
C010	.001 100V		DD-102		GP210		10TS-D10
C100	.001 100V		DD-102		GP210		10TS-D10
C101	.001 100V		DD-102		GP210		10TS-D10
C102	.001 100V		DD-102		GP210		10TS-D10
C103	.001 100V		DD-102		GP210		10TS-D10
C105	.001 100V		DD-102		GP210		10TS-D10
C106	.001 100V		DD-102		GP210		10TS-D10
C107	.001 100V		DD-102		GP210		10TS-D10
C108	.001 100V		DD-102		GP210		10TS-D10
C109	.001 100V		DD-102		GP210		10TS-D10
C110	.001 100V		DD-102		GP210		10TS-D10
C111	.001 100V		DD-102		GP210		10TS-D10
C112	.001 100V		DD-102		GP210		10TS-D10
C113	.001 100V		DD-102		GP210		10TS-D10
C114	.001 100V		DD-102		GP210		10TS-D10
C116	.001 100V		DD-102		GP210		10TS-D10
C117	.001 100V		DD-102		GP210		10TS-D10
C120	.001 100V		DD-102		GP210		10TS-D10
C123	.001 100V		DD-102		GP210		10TS-D10
C124	.001 100V		DD-102		GP210		10TS-D10
C125	.001 100V		DD-102		GP210		10TS-D10

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS(cont)

ITEM No.	RATING	MFG. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C129	100 N750 100V 5%	23-03030A52	DTN-100	N100	CN7310		10TCU-T10
C130	1.5 500V 5%		DTZ-1R5	NP01P5	CN0515		10TCC-V15
C131	3.9 NPO 500V 5%				*		10TCC-V39
C132	100 NPO 100V 5%		DTZ-100	NP0100	CN0310		10TCC-T10
C202	.01 16V		UK50-103		MAG5011		
C203	.01 100V		DD-1032	GP10000	GP110		5GA-S10
C204	.01 100V		DD-1032	GP10000	GP110		5GA-S10
C205	.1 50V		CK-104		MAG5001		
C206	.01 100V		DD-1032	GP10000	GP110		5GA-S10
C208	.05 12V		UK50-503		MAG5015		
C210	.001 100V		DD-102		GP210		10TS-D10
C214	.1 50V		CK-104		MAG5001		
C216	.01 16V	21-03030A14	UK50-103		MAG5011		
C219	.01 100V		DD-1032	GP10000	GP110		5GA-S10
C223	.01 100V		DD-1032	GP10000	GP110		5GA-S10
C225	.001 100V		DD-102		GP210		10TS-D10
C226	100 N750 100V 5%		DTN-100	N100	CN7310		10TCU-T10
C228	.01 100V		DD-1032	GP10000	GP110		5GA-S10
C230	.01 16V		UK50-103		MAG5011		
C302	100 N750 100V 5%		DTN-100	N100	CN7310		10TCU-T10
C303	82 N220 100V 5%				*		10TCR-Q82
C307	270 N750 100V 5%				CN7327		10TCU-T27
C310	.001 100V		DD-102		GP210		10TS-D10
C311	300 N750 100V 5%		DTN-330	N330	CN7333		10TCU-T33
C312	270 N750 100V 5%	21-03030A11			CN7327		10TCU-T27
C313	190 N750 100V 5%		DTN-200				10TCU-T20
C314	370 N750 100V 5%		DTN-390				10TCU-T39
C315	.01 100V		DD-1032	GP10000	GP110		5GA-S10
C317	1.5 500V 5%		DTZ-1R5	NP01P5	CN0515		10TCC-V15
C318	.001 100V		DD-102		GP210		10TS-D10
C401	51 N220 100V 5%				*		10TCR-Q50
C402	.05 16V		UK50-503		MAG5015		
C403	120 N220 100V 5%				*		10TCR-T12
C404	39 N220 100V 5%				*		10TCR-Q39
C405	39 N220 100V 5%				*		10TCR-Q39
C409	30 NPO 100V 5%	21-03030A38	DTZ-33	NP033	CN0433		10TCC-Q33
C410	150 NPO 100V 5%		DTZ-150		CN0315		10TCC-T15
C411	.001 100V		DD-102		GP210		10TS-D10
C412	1.5 500V 5%		DTZ-1R5	NP01P5	CN0515		10TCC-V15
C413	82 N220 100V 5%				*		10TCR-Q82
C415	.001 100V		DD-102		GP210		10TS-D10
C417	.05 16V		UK50-503		MAG5015		
C419	.001 100V		DD-102		GP210		10TS-D10
C423	.047 100V 10%			DPMS2S47	M192P4739R8	QFT2-171	1FT-S47
C432	.047 50V	8-42208B18		DPMS2S47		QF1-171	1PB-S47
C433	.001 100V		DD-102		EWF1A147		10TS-D10
C434	.001 100V		DD-102		GP210		10TS-D10
C435	.047 50V			DPMS2S47	EWF1A147	QF1-171	1PB-S47
C440	.01 100V		DD-1032	GP10000	GP110		5GA-S10
C441	57 N150 100V 5%				*		10TCP-Q56
C442	57 N150 100V 5%				*		10TCP-Q56
C443	.05 16V		UK50-503		MAG5015		
C444	51 N220 100V 5%				*		10TCR-Q50
C472	43 N470 100V 5%				*		10TCC-Q47
C474	15 NPO 100V 5%		DTZ-15	NP015	CN0415		10TCC-Q15
C500	5 NPO 100V ±.25	21-03030A01			GP550		
C501	.001 100V		DD-102		GP210		10TS-D10
C502	.001 100V		DD-102		GP210		10TS-D10
C503	.001 100V		DD-102		GP210		10TS-D10
C505	.001 100V		DD-102		GP210		10TS-D10
C506	.001 100V		DD-102		GP210		10TS-D10
C507	100 N750 100V 5%		DTN-100	N100	CN7310		10TCU-T10
C508	680 100V 10%		DD-681	GP680	GP368		10TS-T68
C512	680 100V 10%		DD-681	GP680	GP368		10TS-T68
C514	8 N220 100V ±.5				*		10TCR-V82
C515	.05 16V		UK50-503		MAG5015		
C600	10 N330 100V 5%	21-03030A03			*		10TCS-Q10
C603	62 N220 100V 5%				*		10TCR-Q68
C604	.001 100V		DD-102		GP210		10TS-D10
C605	.001 100V		DD-102		GP210		10TS-D10
C606	.001 100V		DD-102		GP210		10TS-D10
C607	100 N750 100V 5%		DTN-100	N100	CN7310		10TCU-T10
C803	.001 100V		DD-102		GP210		10TS-D10
C1101	.001 100V		DD-102		GP210		10TS-D10
C1102	.001 100V		DD-102		GP210		10TS-D10
C1103	51 N220 100V 5%	21-03030A11			*		10TCR-Q50
C1104	62 N220 100V 5%				*		10TCR-Q68
C1105	120 N220 100V 5%				*		10TCR-T12
C1106	.001 100V		DD-102		GP210		10TS-D10
C1107	.001 100V		DD-102		GP210		10TS-D10
C1108	.001 100V		DD-102		GP210		10TS-D10
C1109	100 NPO 100V 5%		DTZ-100	NP0100	CN0310		10TCC-T10
C1110	.56pF 500V 5%	21-03045A02					
C1111	100 NPO 100V 5%		DTZ-100	NP0100	CN0310		10TCC-T10
C1112	6.8 NPO 500V 5%		DTZ-6R8	NP06P8	CN0568		10TCC-V68
C1113	.05 16V		UK50-503		MAG5015		
C1114	.05 16V		UK50-503		MAG5015		
C1116	.001 100V		DD-102		GP210		10TS-D10
C1117	.001 100V		DD-102		GP210		10TS-D10
C1118	1.5 500V 5%		DTZ-1R5	NP01P5	CN0515		10TCC-V15
C1119	.05 16V		UK50-503		MAG5015		
C1120	100 NPO 100V 5%		DTZ-100	NP0100	CN0310		10TCC-T10
C1121	.05 16V		UK50-503		MAG5015		
C1124	.01 100V		DD-1032	GP10000	GP110		5GA-S10
C1125	.1 25V		UK25-104		MAG2501		HY-750
C1130	.1 25V		UK25-104		MAG2501		HY-750

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

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA			
			MFGR. PART No.	CENTRALAB PART No.	MALLORY PART No.	TRW PART No.
R215	Volume/Power Switch	100K	18-03076A01 18R03076A01 (5)	F2-100K, SN200, AK33, KR4	RU15A, SL37, SN1000, US41	BU11, CF52, SS6A, GC
R231	Squelch	2500	18-40237R01			
R1122	Ch. 9 Squelch	2000	18R40237R01 (5)			
R520	Extender Shut Off	2000	18-03072A02			U260R252B

(5) Number on unit.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFGR. PART No.			WORKMAN PART No.	MFGR. PART No.
Z900	Resistor Network(1)		51-63009A09				

(1) Consists of fifteen 1000 ohm resistors.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L002	RF Choke	24-03304A01			
L003	RF Choke	24-03304A01			
L004	RF Choke	24-03304A01			
L005	RF Choke (10uH)	24-03298A01			
L006	RF Choke	24-03304A01			
L008	RF Choke (10uH)	24-03298A01			
L009	RF Choke (10uH)	24-03298A01			
L101	Rec Antenna (27MHz)	24-03051A01			
L102	Rec RF (27MHz)	24-03102A01			
L103	Rec RF (27MHz)	24-03102A01			
L107	RF Choke (.35uH)	24-03102A03			
L108	RF Choke (18uH)	24-03047A01			
L303	RF Choke	24-03047A05			
L304	RF Choke	24-03102A04			
L305	RF Choke	24-03229A01			
L306	RF Choke	24-03044A05			
L307	Pi Filter	24-03044A02			
L308	Pi Filter	24-03044A02			
L401	RF Choke (18uH)	24-03047A01			
L402	VCO	24-40009S01			
L403	Offset Oscillator	24-03070A01			
L404	Offset Oscillator	24-03070A01			
L405	RF Choke (18uH)	24-03047A01			
L406	RF Choke (18uH)	24-03047A01			
L407	RF Choke (18uH)	24-03047A01			
L408	RF Choke (18uH)	24-03047A01			
L409	RF Choke (18uH)	24-03047A01			
L602	RF Choke (.35uH)	24-03102A02			
L1101	RF Choke (18uH)	24-03047A01			
L1102	Oscillator (27.520MHz)	24-03070A01			
L1103	Rec RF (27MHz)	24-03102A01			
L1104	Rec RF (27MHz)	24-03102A01			
T104	IF (455kHz)	24-3050A01			
T105	IF (455kHz)	24-3050A02			
T106	IF (455kHz)	24-3050A03			
T500	RF Blue (Noise Blanker)	24-3051A02			
T501	RF Red (Noise Blanker)	24-3051A03			
T1101	IF (455kHz)	24-3050A03			
T1102	IF (455kHz)	24-3050A03			

MOTOROLA MODEL T4009A

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.	
L800	1.35A	.455	1.2mH	25-40953D03			
L801	1.35A	.86	.8mH	25-03070A01			

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.	MFRG. PART No.	THORDARSON PART No.	TRIAD PART No.	
T301	8	32	25-40196R01			

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFRG. PART No.	QUAM PART No.	
E1	3 1/2" PM, 4 Ohms	50-03016A01	3A05	

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
F001	3A 250V Quick Acting	65-03101A02		AGC3	HRK	312003	150145	FG3-2	

MICROPHONE

ITEM No.	REPLACEMENT DATA				CONNECTION DATA						
	MFRG. 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	TMW-6119A										

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
DS1	Lamp	65-03069A01	Meter
DS2	Lamp	65-03069A01	Ch. 9 Priority (13.50V @ 40mA)
FL101	Filter	91-40050R01	455kHz
FL102	Filter	91-40050R01	455kHz
FL1101	Filter		455kHz
J1	Socket		Microphone
J3	Socket		Power
J50	Socket		Antenna
J51	Jack		External Speaker
J52	Socket		RF Input
J53	Socket		
M1	Meter	72-03114A01	S/Rf
P1	Plug		Microphone
P3	Plug		Power
P52	Plug		RF
P53	Plug		Audio Output
S1	Switch	40-03311A01	Channel Selector
S2	Switch	40-03095A01	Extend
S3	Switch	40-03095A01	Norm/Mon
S4	Switch	40-03095A01	Norm/Ch. 9
S5	Switch		Power On/Off (Part of Volume Control)
S701	Switch	40-03067A01	REC/XMT
U900	LED	48-3056A02	Channel Indicator
Y401	Crystal	48-03091A01	29.030MHz
Y402	Crystal	48-03091A02	29.485MHz
Y403	Crystal	48-40000R01	10.240MHz
Y1101	Crystal	48-03091A03	27.520MHz
	Printed Circuit Board	84-03331E01	Main
	Printed Circuit Board	84-03136A01	LED
	Printed Circuit Board	1-80799B58	Filter
	Printed Circuit Board	84-03332A01	Channel 9 Monitor

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

ITEM	PART No.	ITEM	PART No.
Cabinet, Top	15-03011A01	Knob, Channel Selector	36-03090A02
Cabinet, Bottom	15-03012A04	Knob, Volume	36-03054A01
Cabinet, Front	15-03077A01	Knob, Squelch	36-40219R01
Escutcheon, Upper	13-03097A09	Knob, Squelch (Channel 9)	36-40220R01
Escutcheon, Lower	13-40144R05	Grille, Speaker	35-03042A01