



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 T4025A (CB1136)

MANUFACTURER'S SPECIFICATIONS

GENERAL

Frequency Range: 40 Channels; 26.965 to 27.405 MHz
Frequency Stability: $\pm 0.005\%$ (-30°C (-22°F) to $+50^{\circ}\text{C}$ (122°F)
Receiver System: Single conversion superheterodyne with dual gate MOSFET RF amp, FET mixer, ceramic IF filter, and integrated circuit IF system.
Microphone: Dynamic w/built-in pre-amp; 600 ohms.
Metering: Illuminated with "S" units and relative power output display.
Electronic Digital Clock: With automatic operation, fast or slow electronic pushbutton advance and AM/PM indicator.
Power Failure Indicator: Blinking LED indicates that there has been AC power failure.
External Speaker Jack: Allows varying speaker locations.
Transmit Light: Indicates when message is being broadcast.
L.E.D. light emitting diodes: For channel identification.
Input Voltage: 13.8 V DC $\pm 20\%$ or 105-120 VAC, 60Hz
Circuit Protection: 1 Amp fuse for AC.
Dimensions: 4.62" high x 12" wide x 9.62" deep (11.7cm x 30.4cm x 24.4cm)
Weight: Less than 8 lbs. (3.55 Kg)
Controls: On/Off/Auto; Mic Gain Control; RF Gain Control; On/Off volume; Squelch control; PA switch; Switchable ANL; Audio Mute Switch.

TRANSMITTER

RF Power Output: 4.0 watts
RF Harmonic Attenuation (T.V.I. Suppression): More than 65 dB down.
Audio Distortion: Less than 5% at 1000Hz at knee of compression.
Audio Frequency Response: +2 to -14 dB, 300 to 3000 Hz.
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 μV or less for 10 dB (S+N)/N (30% modulation at 1 kHz) EIA Method.
Squelch Sensitivity: Less than 1 μV at Threshold, 300 μV Min at Maximum setting.
Adjacent Channel Selectivity: More than 70 dB down at ± 10 kHz; EIA Method.
Cross Modulation Rejection: More than 70 dB at ± 50 kHz.
RF Blocking Protection: More than 70 dB at ± 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 200,000 μV ; 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)
Speaker: 3 1/2" diameter, 4 ohms.

Courtesy of the Manufacturer

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

© 1978 Howard W. Sams & Co., Inc. Printed in U. S. of America SCE886

MOTOROLA MODEL T4025A

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.
 Adjust R1005 for 13.8 volts DC at TP13.
 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 9440

T104,T105,T106 5000,5009,8276,8728,8728A

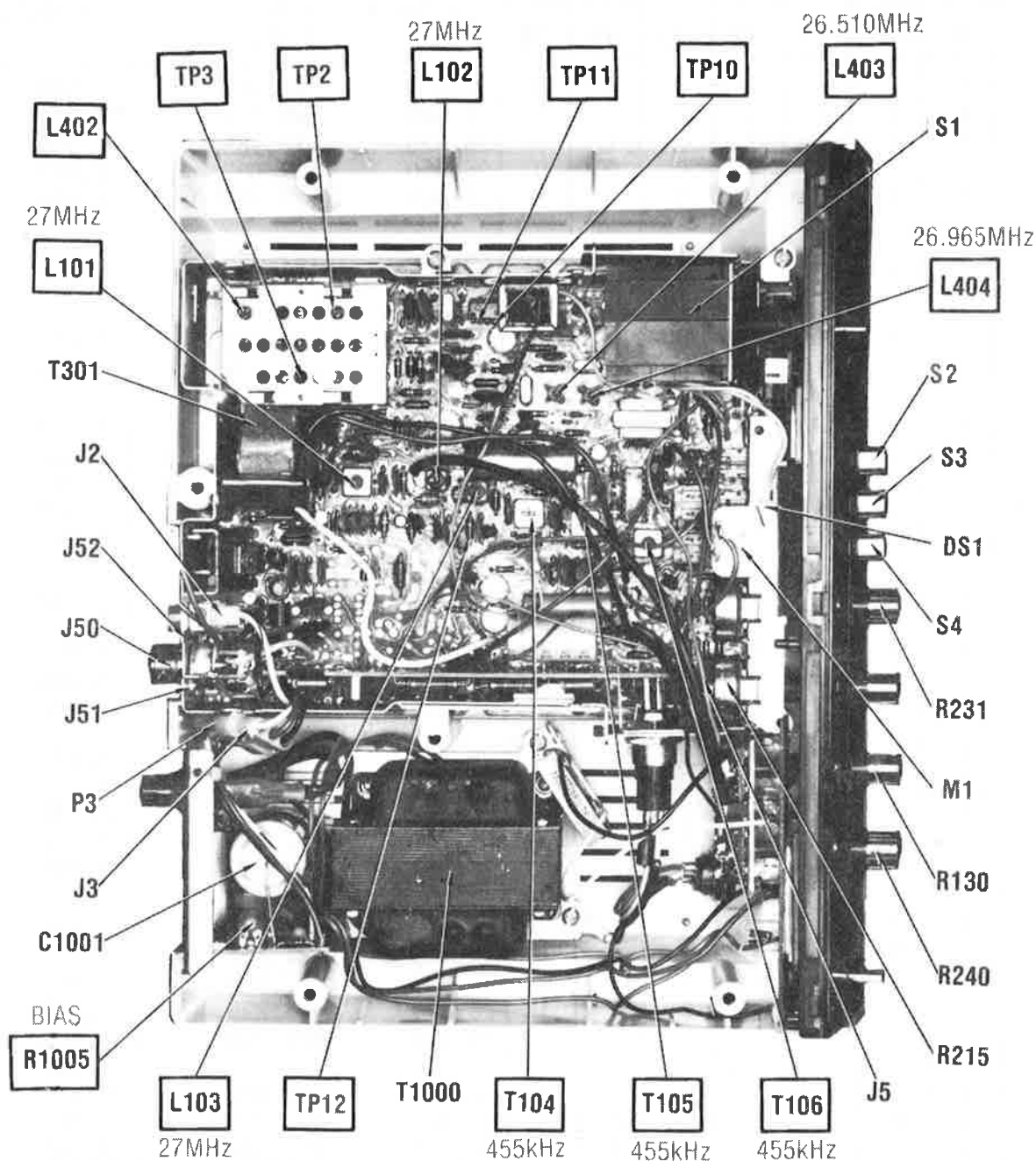
SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP10 (U400 pin 4)	Ch. 19		Check for 10.240MHz.
Input of DC meter to TP2.	Ch. 1	L402	Adjust for 6.00 volts.
Input of frequency counter to TP3.	Ch. 1	L403	Adjust for 26.510MHz $\pm$ 50Hz. Check all channels (See Truth Chart for correct frequencies).
Input of frequency counter to TP3.	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.
 RF Gain Max, Squelch MINIMUM, ANL Off, Mute Off

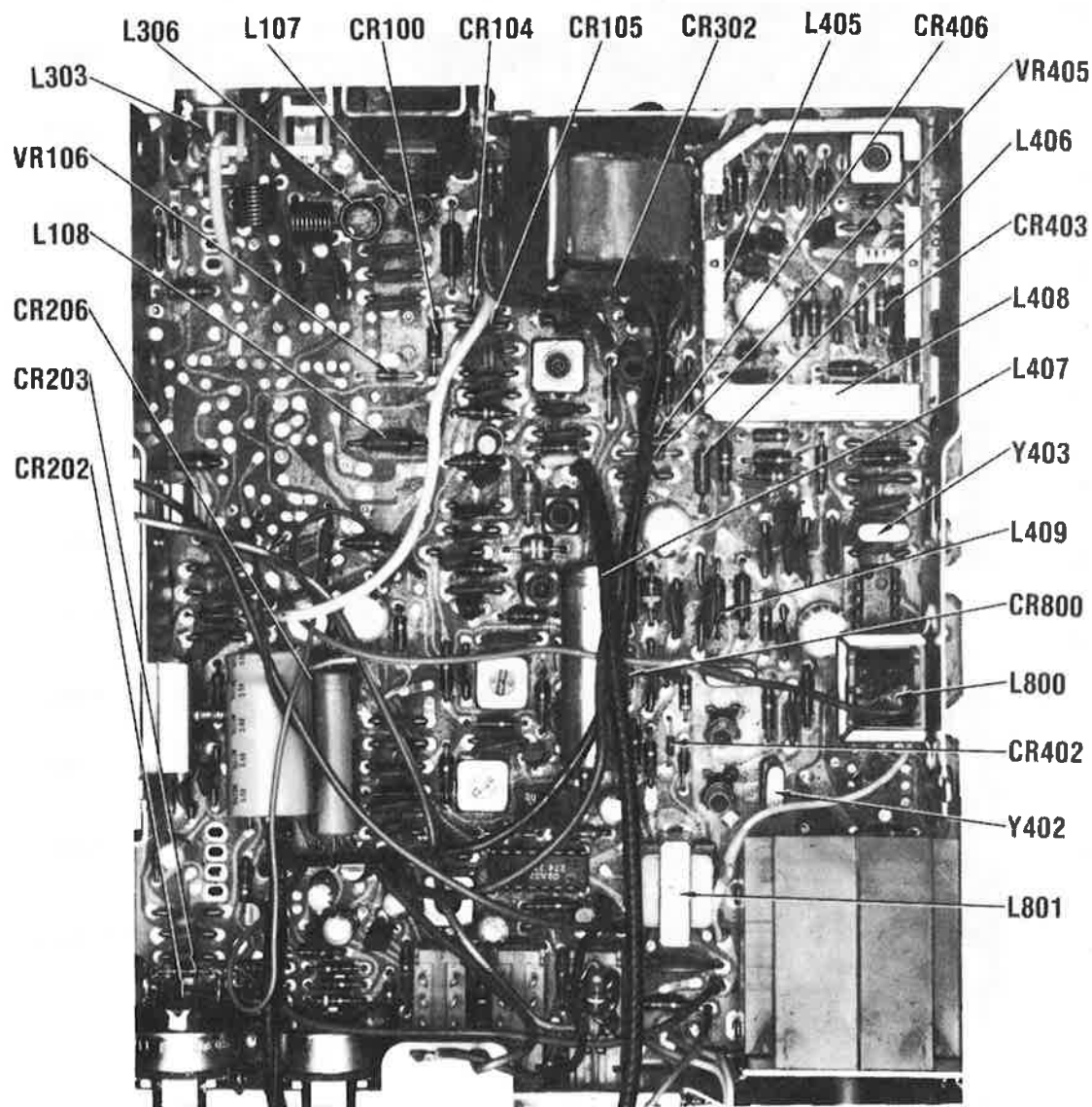
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP12 (Q102 gate). 455kHz, 1000Hz @ 30% modulation.	Ch. 19	T106,T105, T104	Adjust for maximum output.
Output of signal generator thru .01uF to antenna input. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19	L103,L102, L101	Adjust for maximum output. If necessary readjust T104, T105 and T106 for maximum.



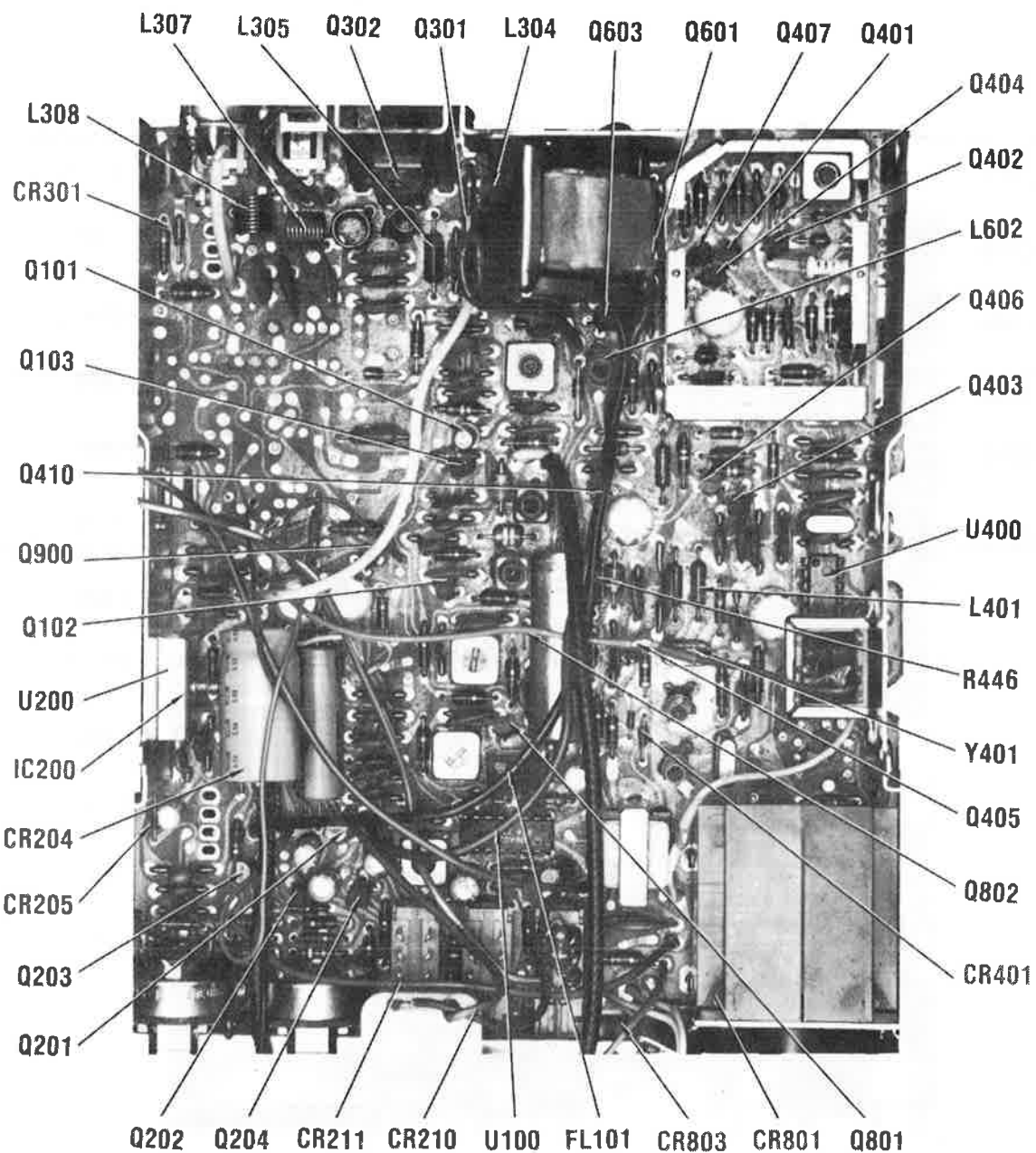
CHASSIS TOP

TRUTH CHART

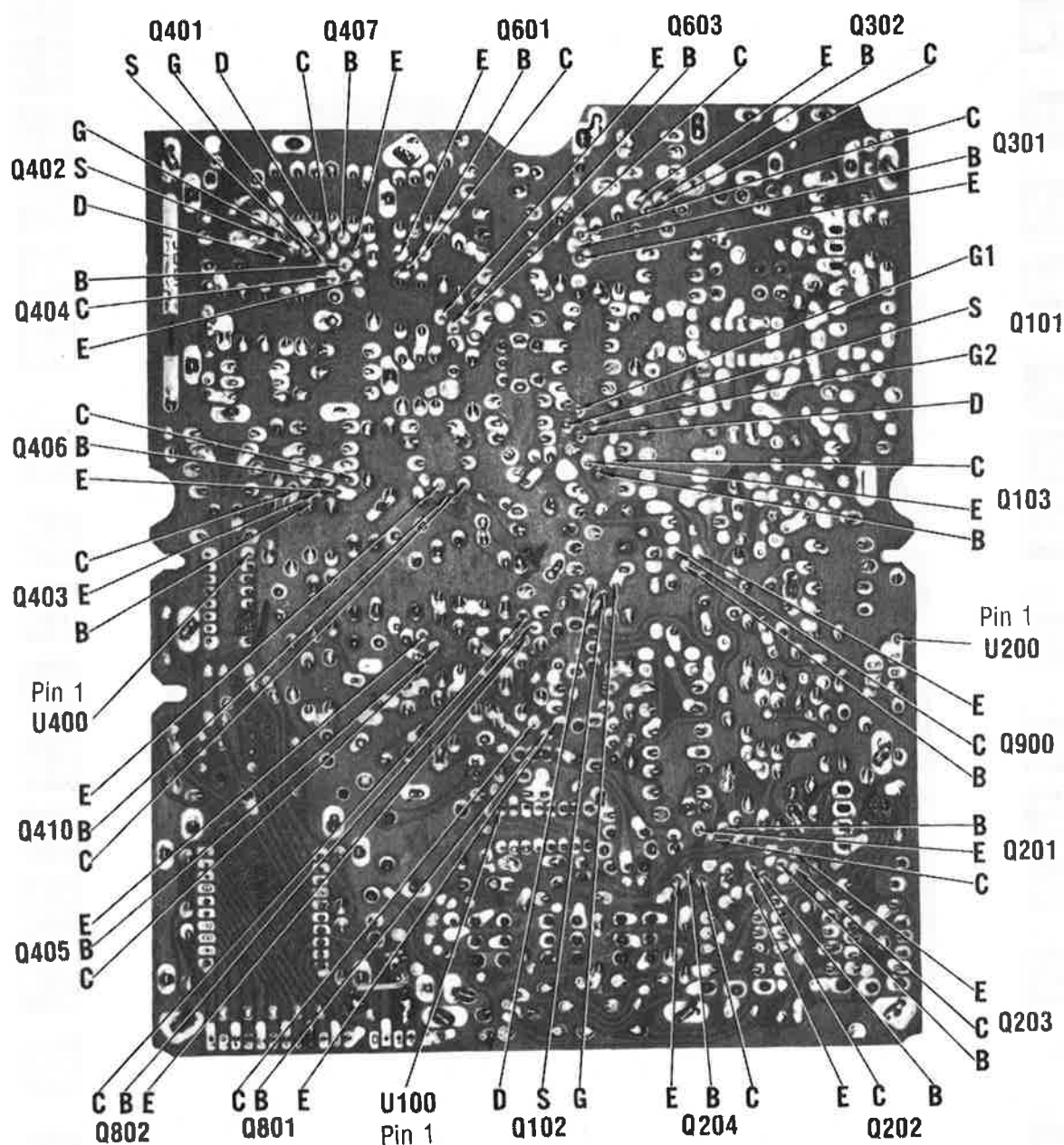
C H A N N E L	1 = 8.30 Volts 0 = 0 Volts								REC VCO OUTPUT IN MHz AT TP3	XMT VCO OUTPUT IN MHz AT TP3	DIVIDER INPUT IN MHz AT TP11
	U400 PROGRAM DIVIDER										
	PINS										
	9	10	11	12	13	14	15				
1	1	1	1	1	1	0	0	26.510	26.965	2.520	
2	1	1	1	1	0	1	1	26.520	26.975	2.510	
3	1	1	1	1	0	1	0	26.530	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	



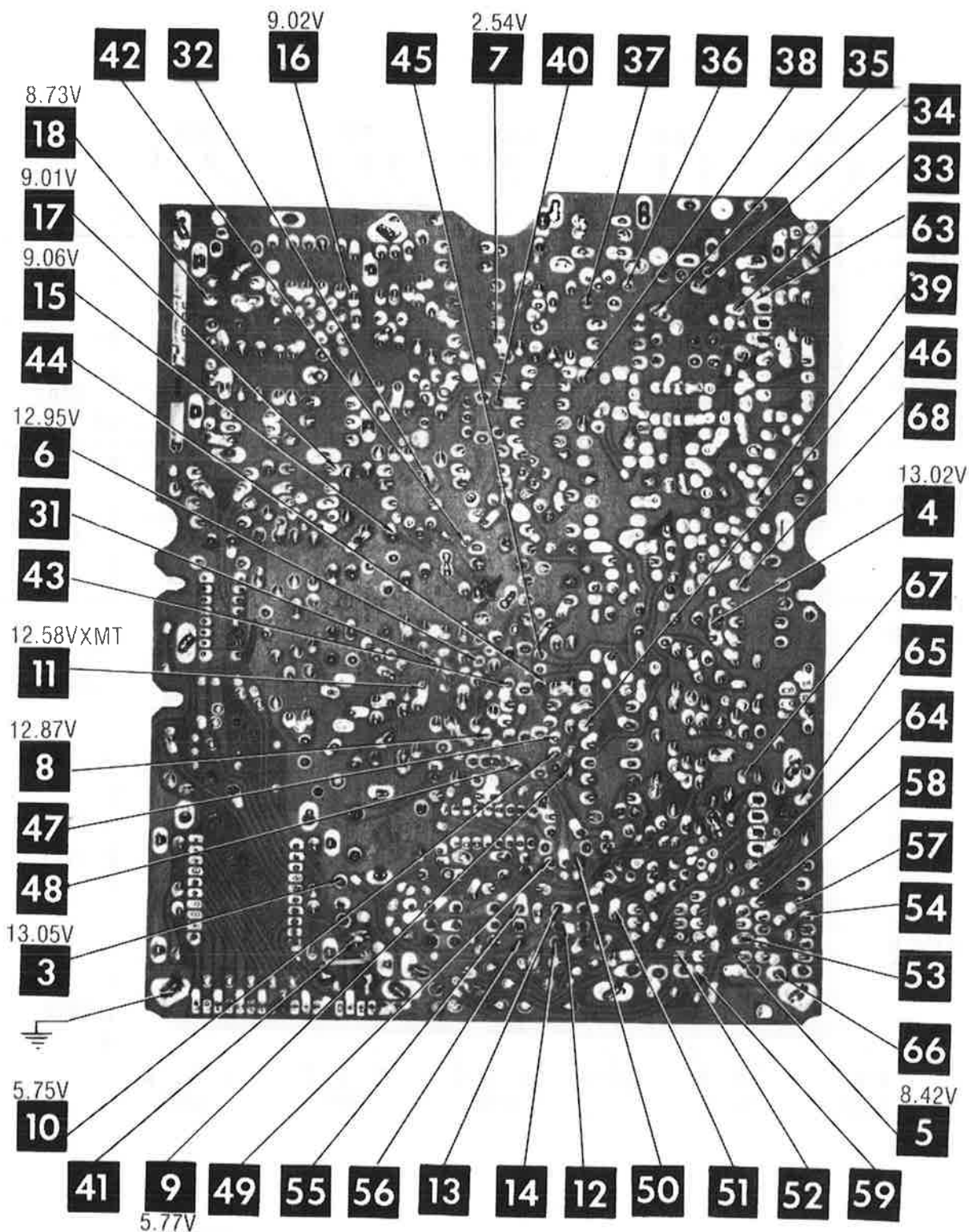
MAIN BOARD



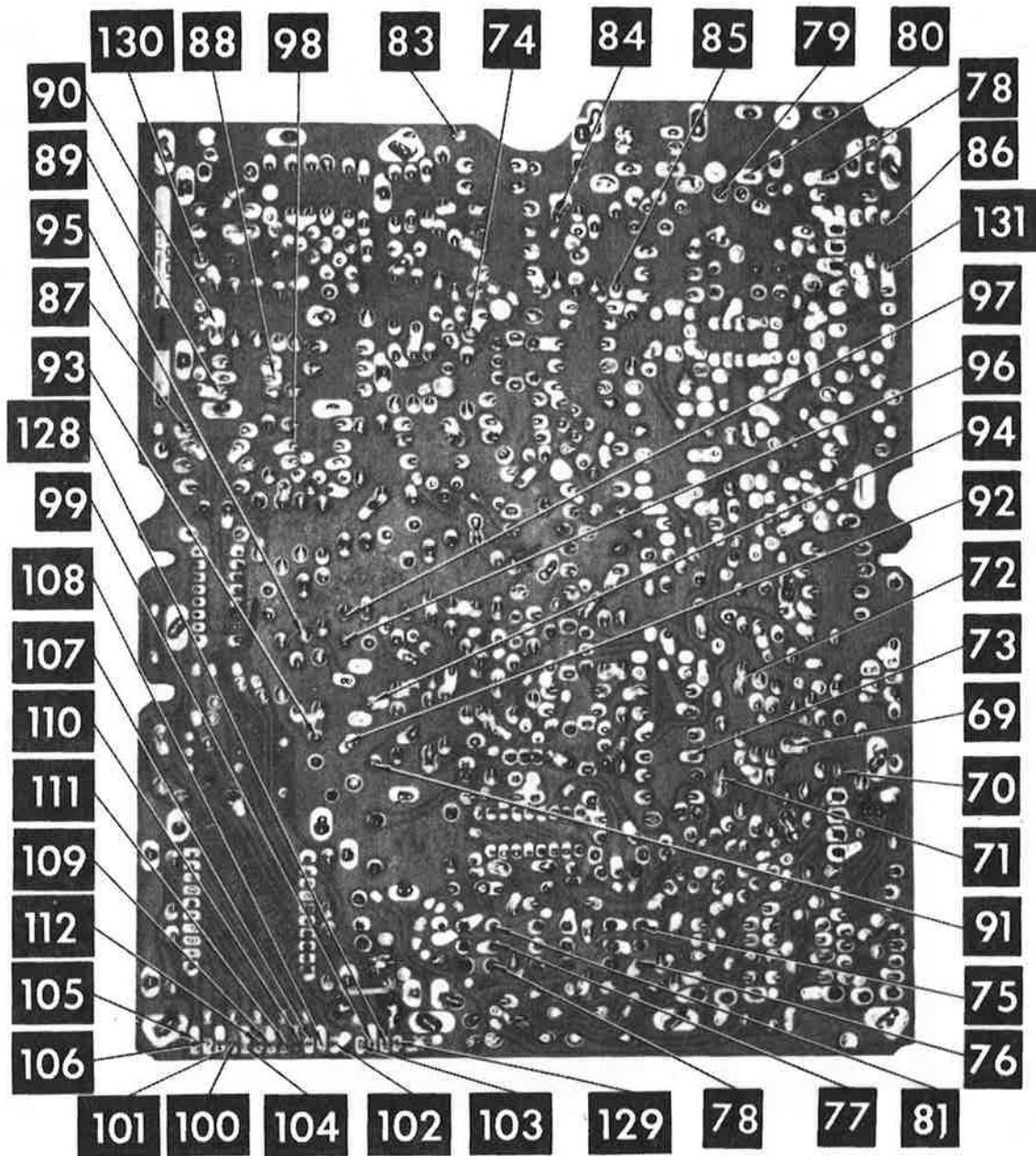
MAIN BOARD



MAIN BOARD

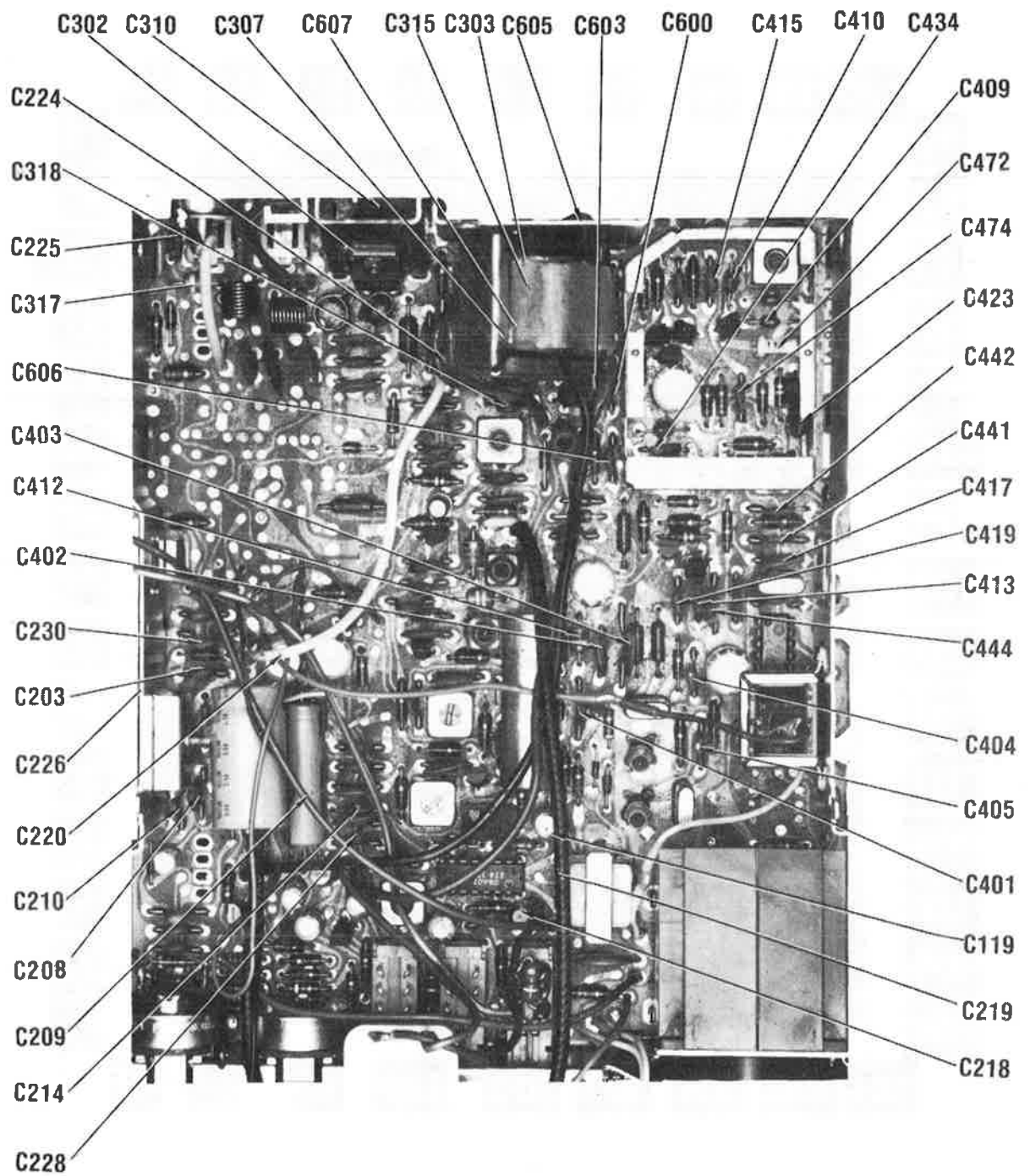


MAIN BOARD

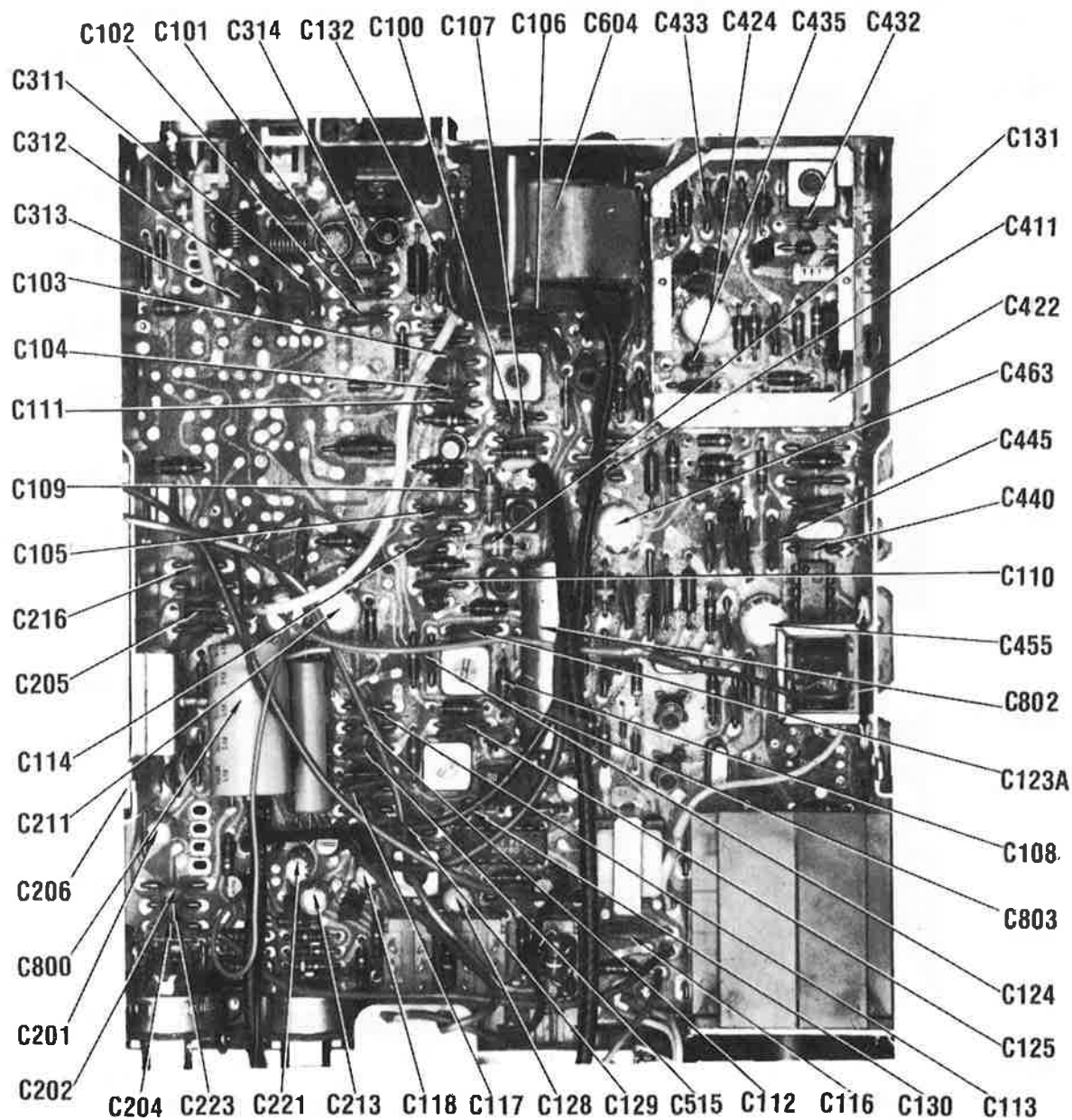


MOTOROLA MODEL T4025A

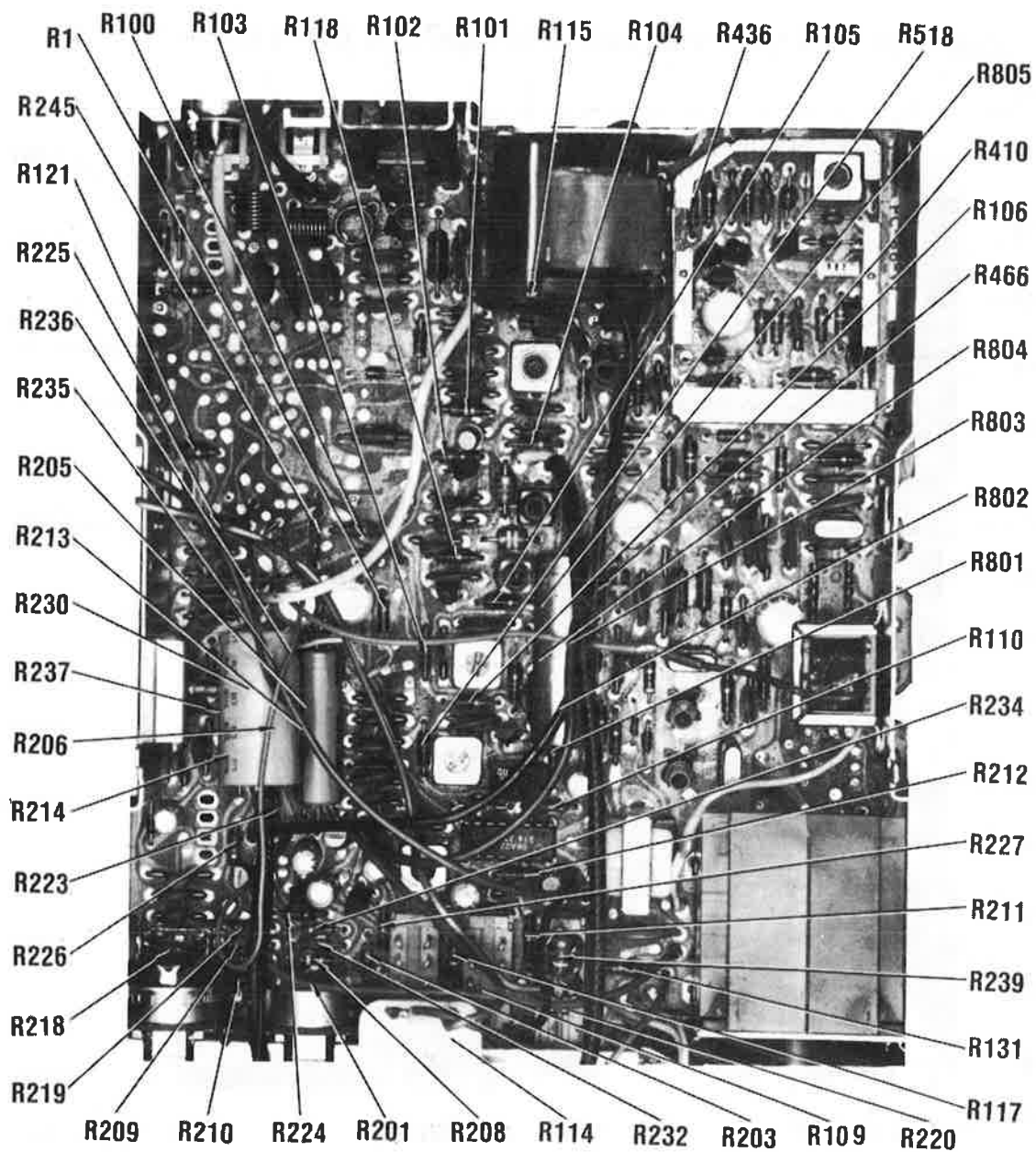
MAIN BOARD



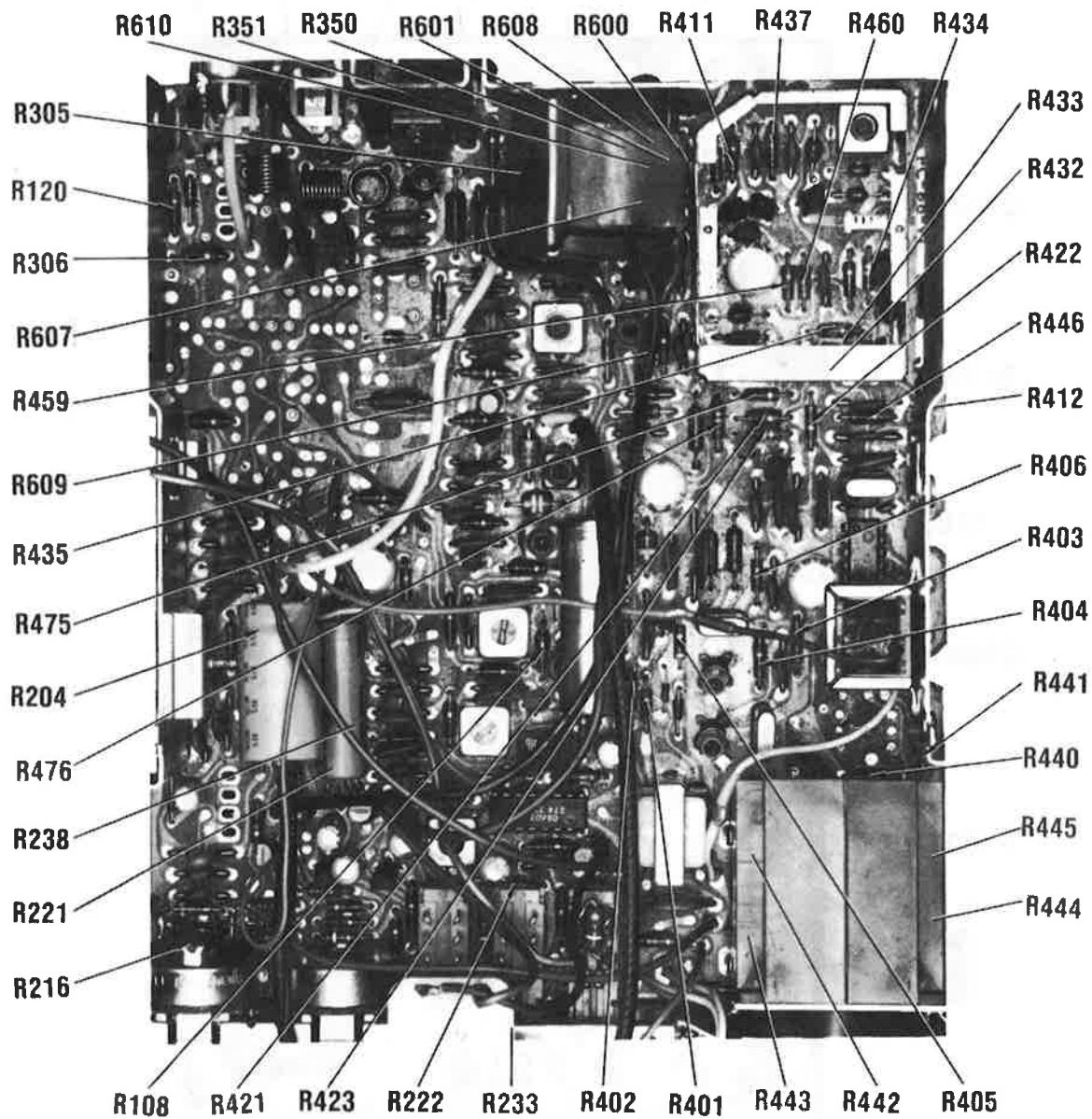
MAIN BOARD



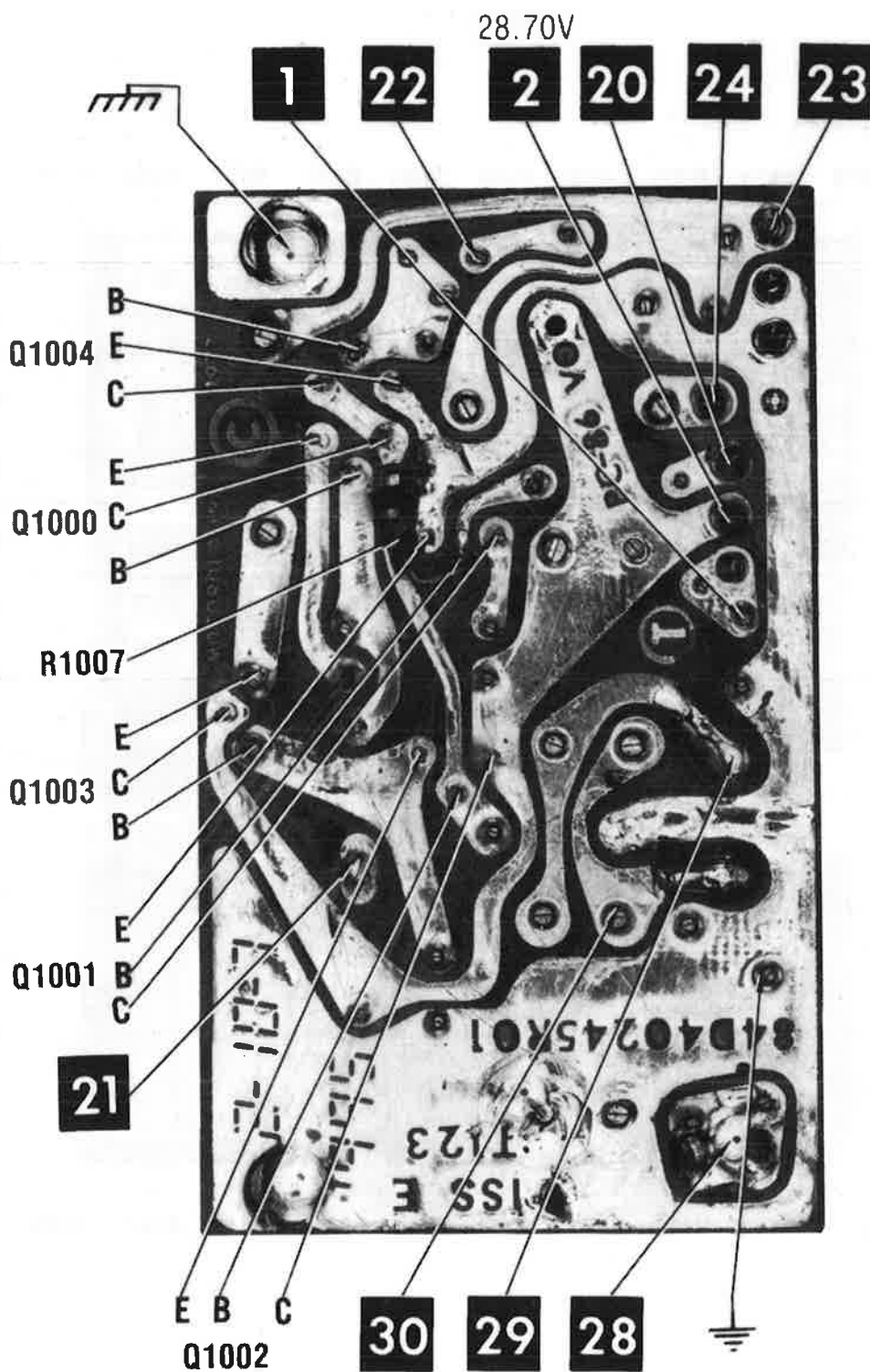
MAIN BOARD



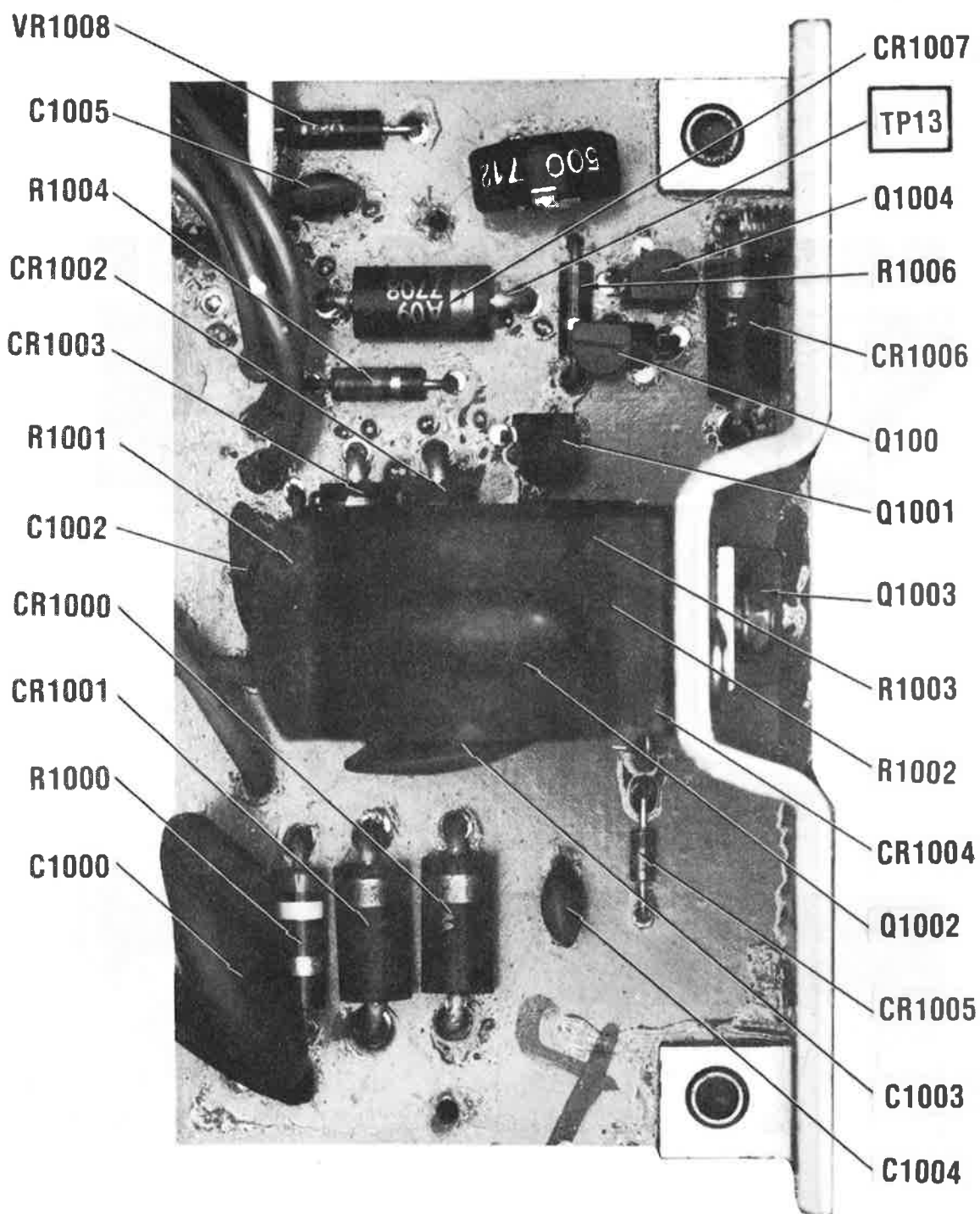
MAIN BOARD



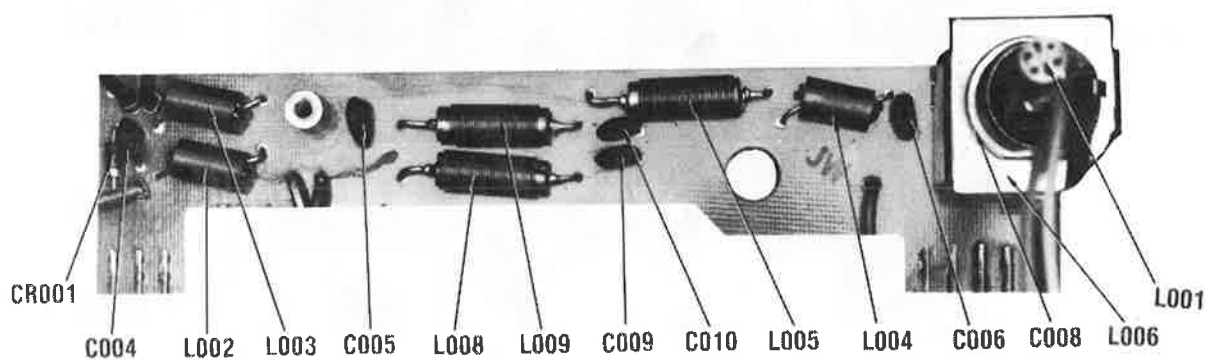
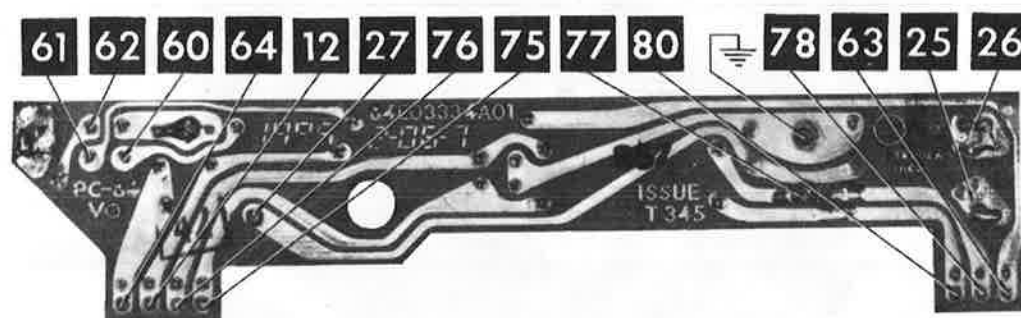
MAIN BOARD



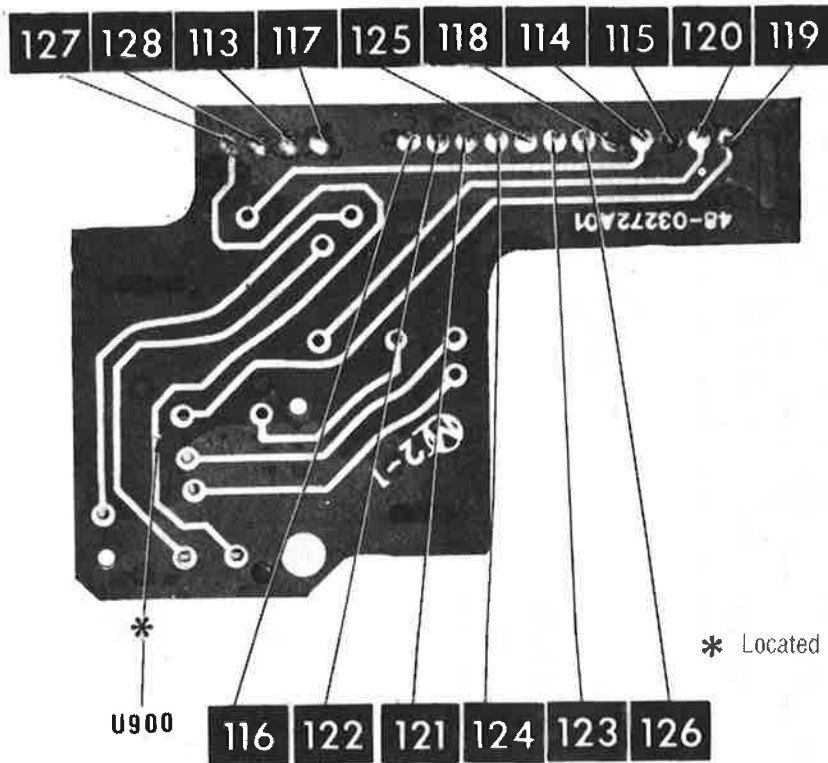
POWER SUPPLY BOARD



POWER SUPPLY BOARD

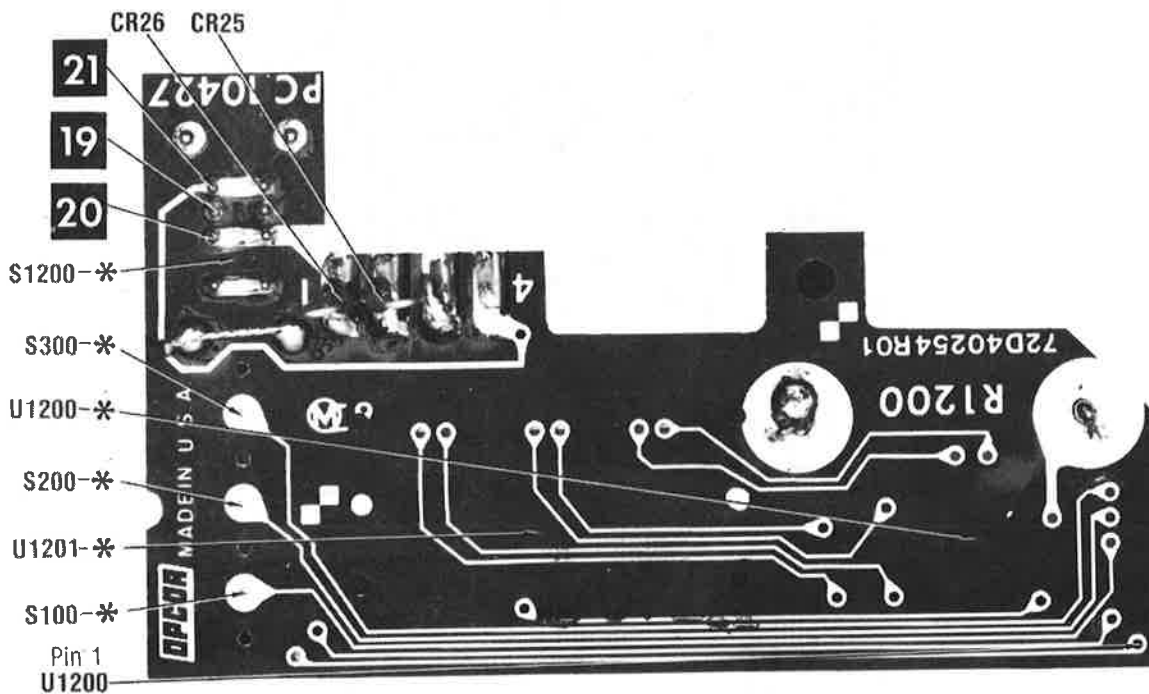


FILTER BOARD



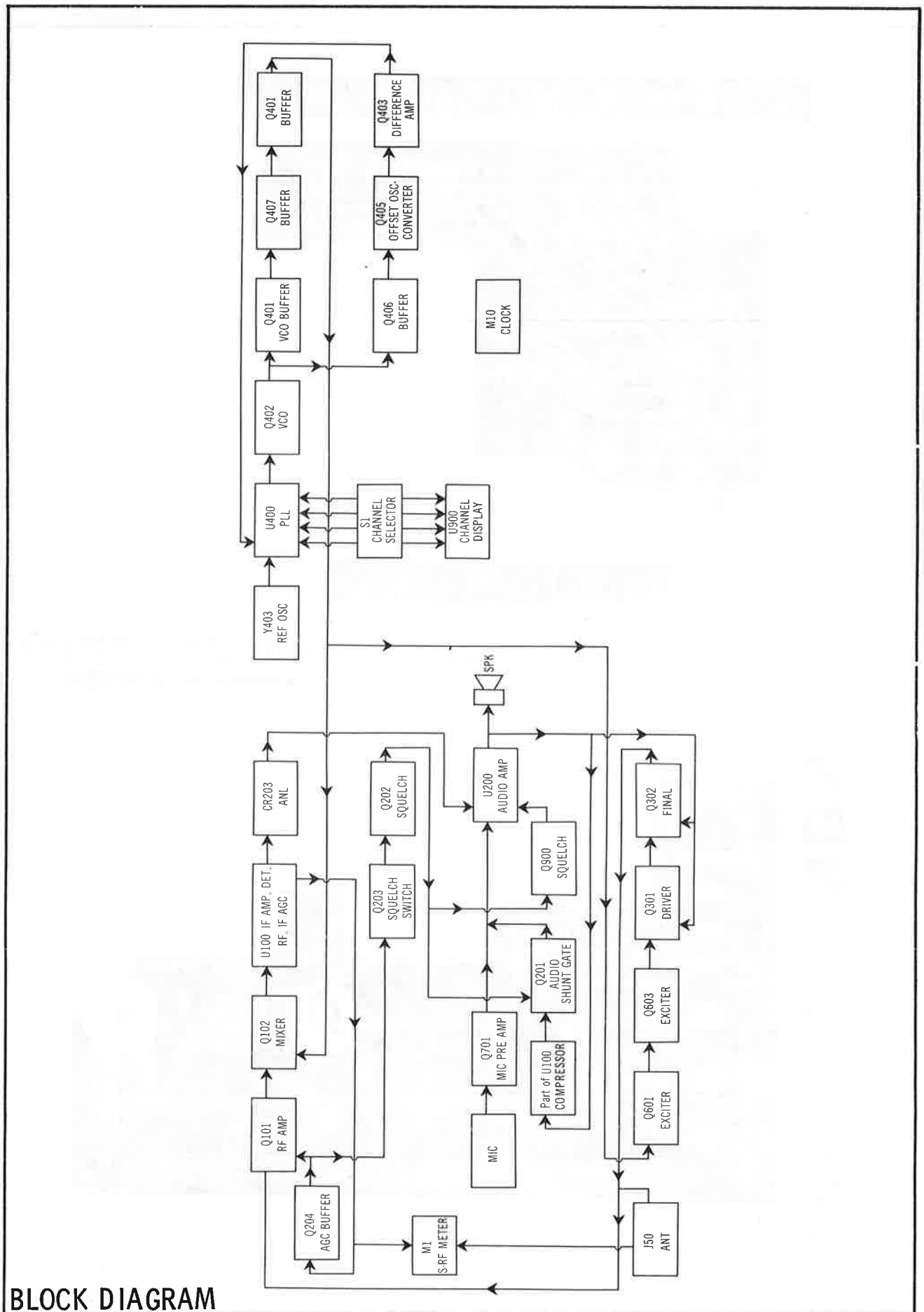
* Located on top of board

CHANNEL INDICATOR BOARD



* Located on top of board

CLOCK BOARD



BLOCK DIAGRAM

PARTS LIST AND DESCRIPTION

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

WIRING DATA

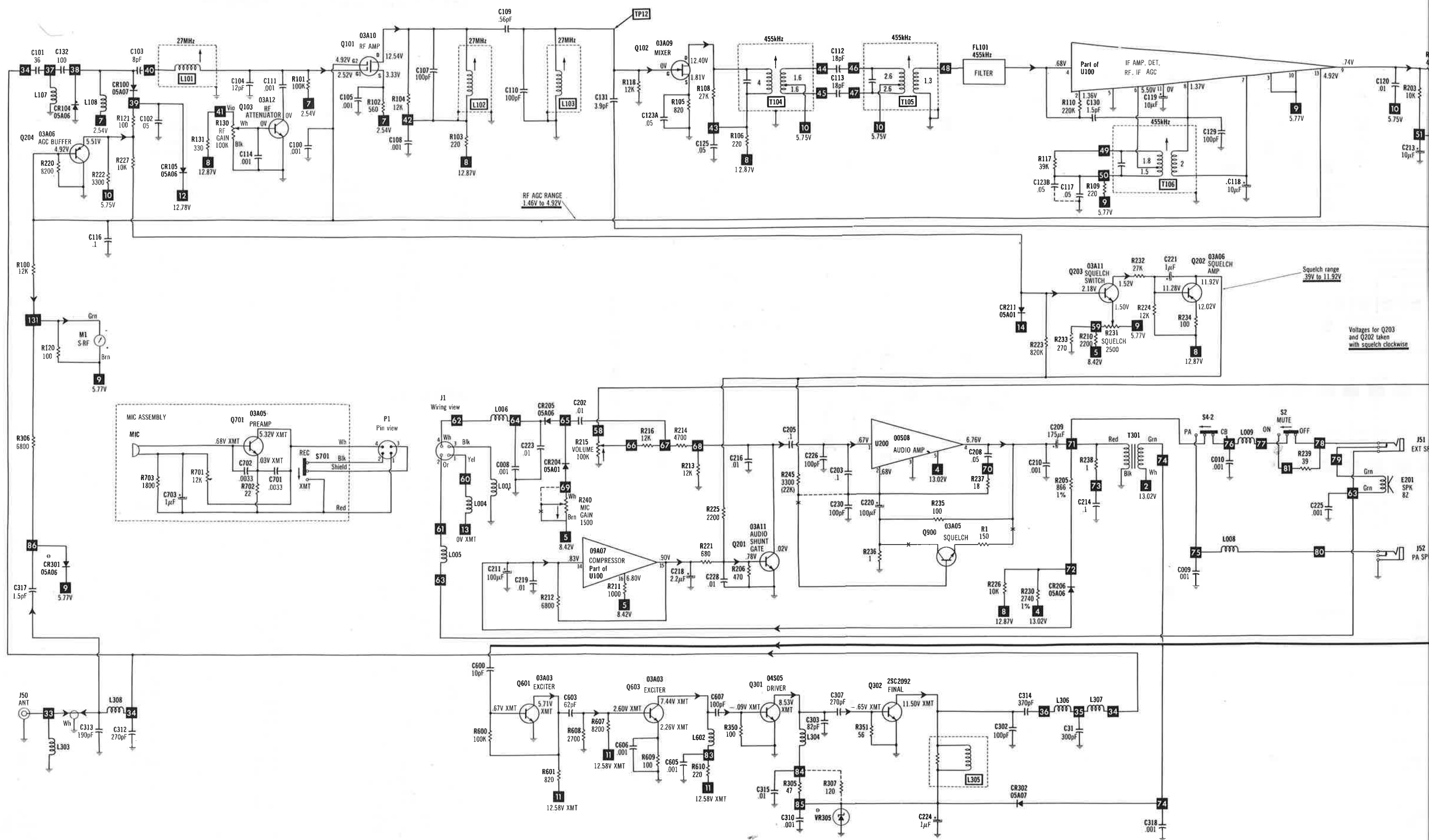
General-use Hook-up Wire (available in 5 colors)	BELDEN No. 8523	Coiled Microphone Cable	
Shielded Hook-up Wire (spiral wrapped)	BELDEN No. 8421	3-conductor (1 shielded)	23AWG BELDEN No. 9471 (5')
(braided)	BELDEN No. 8401		BELDEN No. 8497 (6')
Speaker Cable (available in 4 colors)	BELDEN No. 8782		BELDEN 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)

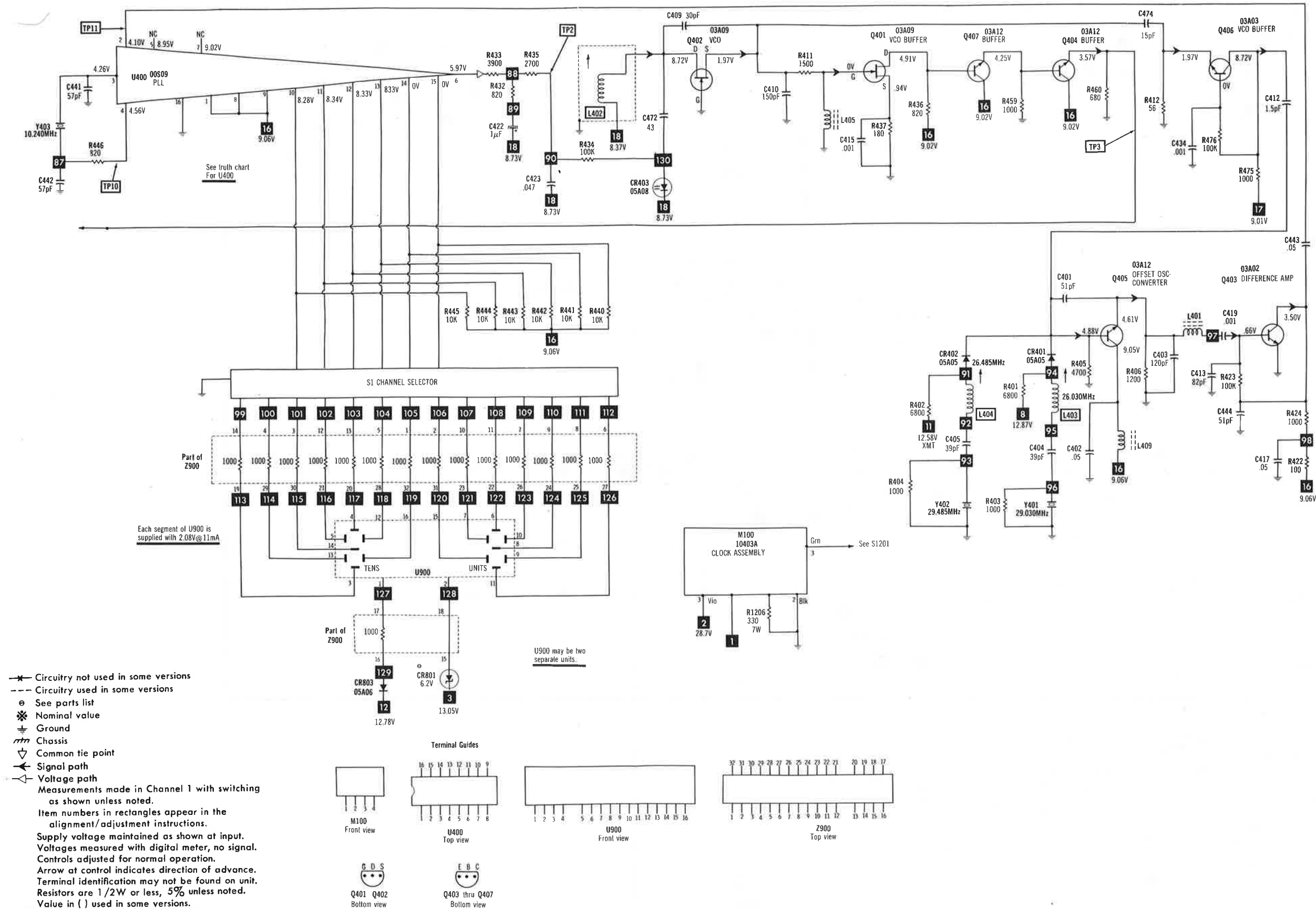
REPLACEMENT DATA												
ITEM No.	TYPE No.	MFR. PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
CR001	05A07	48-03005A07	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
CR25			GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
CR26			GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
CR100	05A07	48-03005A07	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR104	05A06	48-03005A06	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR105	05A06	48-03005A06	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
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-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR205	05A01	48-03005A01	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR206	05A06	48-03005A06	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR210	05A01	48-03005A01	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR211	05A01	48-03005A01	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR301	05A06	48-03005A06	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR302	05A07	48-03005A07	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02
CR401	05A05	48-03005A05	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR402	05A05	48-03005A05	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR403	05A08	48-03005A08	GE-90	HEPR2503	REN 614			RT-262	ECG614		WEP200	
CR406	05A06	48-03005A06	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR800	05A06	48-03005A06	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR801			GEZD-14.0			REN 144	SK3094		ECG144A	TM144	WEP1159	103-29012
CR803	05A06	48-03005A06	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
CR1000	05A09	48-03005A09	GE-512	PTC204	HEPR0098	REN 156	SK3051	RT-201	ECG156	TM156	WEP4008	212-29000
CR1001	05A09	48-03005A09	GE-512	PTC204	HEPR0098	REN 156	SK3051	RT-201	ECG156	TM156	WEP4008	212-29000
CR1002	05A09	48-03005A09	GE-512	PTC204	HEPR0098	REN 156	SK3051	RT-201	ECG156	TM156	WEP4008	212-29000
CR1003	05A09	48-03005A09	GE-512	PTC204	HEPR0098	REN 156	SK3051	RT-201	ECG156	TM156	WEP4008	212-29000
CR1004	05A03	48-03005A03	1N34AS	PTC207	HEPR9134A	REN 109	SK3087	RT-200	ECG109	TM109/**	WEP134	103-29001
CR1005	05A01	48-03005A01	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287
CR1006	05A09	48-03005A09	GE-512	PTC204	HEPR0098	REN 156	SK3051	RT-201	ECG156	TM156	WEP4008	212-29000
CR1007	05A09	48-03005A09	GE-512	PTC204	HEPR0098	REN 156	SK3051	RT-201	ECG156	TM156	WEP4008	212-29000
Q101	03A10	48-03003A10	GE-FET-4	PTC182	HEPF2007	REN 222	SK3065	RT-181	ECG222	TM222	WEP905	121-826
Q102	03A09	48-03003A09	GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312		
Q103	03A12	48-03003A12	GE-11	PTC136	HEPS0025	REN 107	SK3018	RT-107	ECG107	TM107	WEP535	121-522
Q201	03A11	48-03003A11	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
Q202	03A06	48-03003A06	GE-48	PTC127	HEPS0019*	REN 294	SK3138	RT-303	ECG294	TM294/**	WEP916	121-952
Q203	03A11	48-03003A11	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
Q204	03A06	48-03003A06	GE-48	PTC127	HEPS0019*	REN 294	SK3138	RT-303	ECG294	TM294/**	WEP916	121-952
Q301	04S05	48-40004S05	GE-275	PTC167	HEPS3047	REN 302	SK3252	RT-186	ECG302	TM302	WEP918	121-29036
Q302	25C2092		GE-337	PTC186		REN 235	SK3197	RT-146	ECG235	TM235	WEP785	121-29039
	04S06	48-40004S06	GE-337	PTC186		REN 235	SK3197	RT-146	ECG235	TM235	WEP785	121-29039
Q401	03A09	48-03003A09	GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312		121-756
Q402	03A09	48-03003A09	GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312		121-756
Q403	03A12	48-03003A12	GE-11	PTC136	HEPS0025	REN 107	SK3018	RT-107	ECG107	TM107	WEP535	121-522
Q404	03A12	48-03003A12	GE-11	PTC136	HEPS0025	REN 107	SK3018	RT-107	ECG107	TM107	WEP535	121-522
Q405	03A12	48-03003A12	GE-11	PTC136	HEPS0025	REN 107	SK3018	RT-107	ECG107	TM107	WEP535	121-522
Q406	03A03	48-03003A03	GE-210	PTC121*	HEPS0015*	REN 123A*	SK3124	RT-308	ECG123A*	TM123A/**	WEP736*	121-29000A
Q407	03A12	48-03003A12	GE-11	PTC136	HEPS0025	REN 107	SK3018	RT-107	ECG107	TM107	WEP535	121-522
Q410	03A02	48-03003A02	GE-210	PTC121*	HEPS0015*	REN 123A*	SK3124	RT-308	ECG123A*	TM123A/**	WEP736*	121-29000A
Q601	03A03	48-03003A03	GE-210	PTC121*	HEPS0015*	REN 123A*	SK3124	RT-308	ECG123A*	TM123A/**	WEP736*	121-29000A
Q603	03A03	48-03003A03	GE-210	PTC121*	HEPS0015*	REN 123A*	SK3124	RT-308	ECG123A*	TM123A/**	WEP736*	121-29000A
Q701	03A05	48-03003A05	GE-85	PTC139	HEPS0024	REN 199	SK3122	RT-108A	ECG199	TM199	WEP66	121-990
Q801	03A06	48-03003A06	GE-48	PTC127	HEPS0019*	REN 294	SK3138	RT-303	ECG294	TM294/**	WEP916	121-952
Q802	03A06	48-03003A06	GE-48	PTC127	HEPS0019*	REN 294	SK3138	RT-303	ECG294	TM294/**	WEP916	121-952
Q900	03A05	48-03003A05	GE-85	PTC139	HEPS0024	REN 199	SK3122	RT-108A	ECG199	TM199	WEP66	121-990
Q1000	03A06	48-03003A06	GE-48	PTC127	HEPS0019*	REN 294	SK3138	RT-303	ECG294	TM294/**	WEP916	121-952
Q1001	03A05	48-03003A05	GE-85	PTC139	HEPS0024	REN 199	SK3122	RT-108A	ECG199	TM199	WEP66	121-990
Q1002	03A07	48-03003A07	GE-20	PTC136	HEPS0033	REN 123A	SK3124	RT-102	ECG123A	TM123A	WEP736	121-29000A
Q1003	04S11	48-40004S11	GE-66	PTC167	HEPS3061	REN 152	SK3054	RT-197	ECG152	TM152/**	WEP745	121-987-02
Q1004	03A05	48-03003A05	GE-85	PTC139	HEPS0024	REN 199	SK3122	RT-108A	ECG199	TM199	WEP66	121-990
U100	09A07	51-03009A07										
U200	00S08	51-40000S08										
U400	00S09	51-40000S09										
VR106		48-03007A10	GEZD-3.3			REN 5066	SK3330		ECG5066A		WEP1150	
VR209		48-03007A06	GEZD-8.2	ZB8.2B		REN 5072	SK3136	RT-257	ECG5072A	TM5072/**	WEP1108	
VR305		48-03007A08	GEZD-43	ZB43B			SK3339		ECG5087A		WEP1169	
VR405		48-03007A09	GEZD-9.1	ZB9.1B		REN 139	SK3060	RT-240	ECG139A	TM139/**	WEP1109	103-272
VR1008		48-03007A04	GEZD-12	ZB12B		REN 142	SK3062	RT-243	ECG142A	TM142/**	WEP1112	103-29003

MOTOROLA MODEL T4025A

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







ELECTROLYTIC CA

ITEM No.	RATING
C118	10 25V
C119	10 25V
C128	10 25V
C201	1 50V
C209	175 15V
C211	100 16V
C213	10 25V
C218	2.2 50V
C220	100 16V
C221	1 50V
C224	1 50V
C422	1 35V
C424	100 16V
C455	100 16V
C463	100 16V
C800	1800 16V
C802	1000 20V
C1001	3000 30V

CAPACITORS

ITEM No.	RATING
C004	.001 100V
C005	.001 100V
C006	.001 100V
C008	.001 100V
C009	.001 100V
C010	.001 100V
C100	.001 100V
C101	36 N220 5% 100V
C102	.05 25V
C103	8 +.5 N220 100V
C104	12 N220 5% 100V
C105	.001 100V
C106	.001 100V
C107	100 NPO 5% 100V
C108	.001 100V
C109	.56 5% 50V
C110	100 NPO 5% 100V
C111	.001 100V
C112	18 NPO 5% 100V
C113	18 NPO 5% 100V
C114	.001 100V
C116	.1 25V
C117	.05 16V
C123a	.05 16V
C123b	.05 16V
C124	.001 100V
C125	.05 25V
C129	100 N750 5% 100V
C130	1.5 5% 500V
C131	3.9 NPO 5% 500V
C132	100 NPO 5% 100V
C202	.01 16V
C203	.01 16V
C204	.01 16V
C205	.01 50V
C206	.01 16V
C208	.05 16V
C210	.001 100V
C214	.1 50V
C216	.01 16V
C219	.01 16V
C223	.01 16V
C225	.001 100V
C226	100 N750 5% 100V
C228	.01 16V
C230	100 N750 5% 100V
C302	100 N750 5% 100V
C303	82 N220 5% 100V
	82 N750 5% 100V
C307	270 N750 5% 100V
C310	.001 100V
C311	300 N750 5% 100V
C312	270 N750 5% 100V

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



		REPLACEMENT DATA				
ITEM No.	RATING	MFG. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C118	10 25V	23-03035A02	PC10-25	VT110B25	QV1-43	EV-1322
C119	10 25V	23-03035A02	PC10-25	VT110B25	QV1-43	EV-1322
C128	10 25V	23-03035A02	PC10-25	VT110B25	QV1-43	EV-1322
C201	1 50V		PC1-50	VT11A50	QV1-11	EV-1615
C209	175 15V	23-03035A05	NLW175-16	TT15X200A	QET-468	TVA1160.4
C211	100 16V	23-10818A65	PC100-16	VT1100F16	QV1-95	EV-1230
C213	10 25V	23-03035A02	PC10-25	VT110B25	QV1-43	EV-1322
C218	2.2 50V		PC2-100	VT22R2A50	QV1-19	EV-1517
C220	100 16V	23-10818A65	PC100-16	VT1100F16	QV1-95	EV-1230
C221	1 50V		PC1-50	VT11A50	QV1-11	EV-1615
C224	1 50V		PC1-50	VT11A50	QV1-11	EV-1615
C422	1 35V			TDC105M035EL		SD35-19
C424	100 16V	23-10818A65	PC100-16	VT1100F16	QV1-95	EV-1230
C455	100 16V	23-10818A65	PC100-16	VT1100F16	QV1-95	EV-1230
C463	100 16V	23-10818A65	PC100-16	VT1100F16	QV1-95	EV-1230
C800	1800 16V	23-42674B21	WBR2000-16	TC1520C	QET-627	TVA-1170
C802	1000 20V		WBR1000-16	TT15X1000B	QET-591	TVA-1163
C1001	3000 30V	23-03035A11	WBR3000-35			TVA-1318.4

ITEM No.	RATING	MFG. PART No.	REPLACEMENT DATA					PART No.	
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE			
						Q-LINE	GENERAL LINE		
C004	.001 100V		DD-102G	GP1000	GP210	QC2-81	56A-D10		
C005	.001 100V		DD-102G	GP1000	GP210	QC2-81	56A-D10		
C006	.001 100V		DD-102G	GP1000	GP210	QC2-81	56A-D10		
C008	.001 100V		DD-102G	GP1000	GP210	QC2-81	56A-D10		
C009	.001 100V		DD-102G	GP1000	GP210	QC2-81	56A-D10		
C010	.001 100V		DD-102G	GP1000	GP210	QC2-81	56A-D10		
C100	.001 100V		DD-102G	GP1000	GP210	QC2-81	56A-D10		
C101	36 N220 5% 100V	21-03030A38			MAG5015		10TCR-V82		
C102	.05 25V		UK50-503		*		10TCR-Q12		
C103	8 +.5 N220 100V	21-03030A34							
C104	12 N220 5% 100V	21-03030A05							
C105	.001 100V		DD-102G	GP1000	GP210	QC2-81	56A-D10		
C106	.001 100V		DD-102G	GP1000	GP210	QC2-81	56A-D10		
C107	100 NPO 5% 100V		DTZ-100	NP0100	CN0310		10TCC-T10		
C108	.001 100V		DD-102G	GP1000	GP210	QC2-81	56A-D10		
C109	.56 5% 50V	21-03045A02					10TCC-T10		
C110	100 NPO 5% 100V		DTZ-100	NP0100	CN0310	QC2-81	56A-D10		
C111	.001 100V		DD-102G	GP1000	GP210		10TCC-Q18		
C112	18 NPO 5% 100V				CN0418		10TCC-Q18		
C113	18 NPO 5% 100V				CN0418		56A-D10		
C114	.001 100V		DD-102G	GP1000	GP210	QC2-81	HY-750		
C116	.1 25V		UK25-104		MAG2501				
C117	.05 16V		UK50-503		MAG5015				
C123a	.05 16V		UK50-503		MAG5015				
C123b	.05 16V		UK50-503		MAG5015				
C124	.001 100V		DD-102G	GP1000	GP210	QC2-81	56A-D10		
C125	.05 25V		UK50-503		MAG5015				
C129	100 N750 5% 100V		DTN-100	N100	CN7310		10TCU-T10		
C130	1.5 5% 500V		DTZ-1R5	NP01P5	CN0515		10TCC-V15		
C131	3.9 NPO 5% 500V	21-03030A52					10TCC-V39		
C132	100 NPO 5% 100V		DTZ-100	NP0100	CN0310		10TCC-T10		
C202	.01 16V		UK16-103		MAG1611		HY-420		
C203	.01 16V		UK16-103		MAG1611		HY-420		
C204	.01 16V		UK16-103		MAG1611		HY-420		
C205	.01 50V		UK50-103		MAG5011				
C206	.01 16V		UK16-103		MAG1611		HY-420		
C208	.05 16V		UK50-503		MAG5015				
C210	.001 100V		DD-102G	GP1000	GP210	QC2-81	56A-D10		
C214	.1 50V		CK-104		MAG5001				
C216	.01 16V		UK16-103		MAG1611		HY-420		
C219	.01 16V		UK16-103		MAG1611		HY-420		
C223	.01 16V		UK16-103		MAG1611		HY-420		
C225	.001 100V		DD-102G	GP1000	GP210	QC2-81	56A-D10		
C226	100 N750 5% 100V		DTN-100	N100	CN7310		10TCU-T10		
C228	.01 16V		UK16-103		MAG1611		HY-420		
C230	100 N750 5% 100V		DTN-100	N100	CN7310		10TCU-T10		
C302	100 N750 5% 100V		DTN-100	N100	CN7310		10TCU-T10		
C303	82 N220 5% 100V	21-03030A14							

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
C313	190 N750 5% 100V	21-03030A22	UK50-103 DTZ-1R5 DD-102G	NP01P5 GP1000	MAG5011	QC2-81	10TCC-V15
C314	370 N750 5% 100V	21-03030A56			CN0515		5GA-D10
C315	.01 100V				GP210		10TCR-Q50
C317	1.5 5% 500V				*		
C318	.001 100V				MAG5015		10TCR-T12
C401	51 N220 5% 100V	21-03030A11			*		10TCR-Q39
C402	.05 16V				*		10TCR-Q39
C403	120 N220 5% 100V	21-03132A20			*		10TCC-Q30
C404	39 N220 5% 100V	21-03030A38			*		10TCC-T15
C405	39 N220 5% 100V	21-03030A38			CN0315	QC2-81	5GA-D10
C409	30	21-03030A48	DTZ-150 DD-102G DTZ-1R5	GP1000 NP01P5	GP210		10TCC-V15
C410	150				CN0515		10TCR-Q82
C411	.001 100V				*		5GA-D10
C412	1.5 5% 500V				GP210		10TCC-V15
C413	82 N220 5% 100V	21-03030A14			CN0515		10TCR-Q82
C415	.001 100V				*		5GA-D10
C417	.05 16V				GP210	QC2-81 QFT2-171	5GA-D10
C419	.001 100V				MAG5015		1FT-S47
C423	.047 10% 50V				GP210		HY-735
C432	.047				M192P4739R8		5GA-D10
C433	.001 100V				MAG2515		5GA-D10
C434	.001 100V				GP210		5GA-D10
C435	.05				GP210		
C440	.01 16V				MAG5015		HY-420
C441	57 N150 5% 100V	21-03030A46			MAG1611		10TCP-Q56
C442	57 N150 5% 100V	21-03030A46			*		10TCP-Q56
C444	51 N220 5% 100V	21-03030A11	UK16-103	NP015	*		10TCR-Q50
C445	.05 16V				MAG1611	QC2-81 QC2-81	HY-420
C472	43 N470 5% 100V	21-03030A50			CN0415		10TCC-Q15
C474	15 NPO 5% 100V				MAG5015		10TCS-Q10
C515	.05 16V				*		
C600	10 N330 5% 100V	21-03030A03			GP210		5GA-D10
C603	62 N220 5% 100V	21-03030A12			GP210		5GA-D10
C604	.001 100V				GP210		5GA-D10
C605	.001 100V				GP210		10TCU-T10
C606	.001 100V				GP210		5GA-D10
C607	100 N750 5% 100V				CN7310	QC2-81 QC2-141	125L-D50
C803	.001 100V		DD-102G DD-102G DD-102G DTN-100 DD-102G CI-502 DC-103 UK25-104 DD-102G DD-102G	GP1000 GP1000 GP1000 N100 GP1000 HV3-5000 MGP01	GP210		TG-S10
C1000	.005 125V				GP210		HY-750
C1002	.01 100V				GP210		5GA-D10
C1003	.1 25V				GP210		5GA-D10
C1004	.001 100V				GP210		
C1005	.001 100V				GP210		
					GP210		
					GP210		
					GP210		
					GP210		
					GP210		

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

MOTOROLA MODEL T4025A

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.
R130	RF Gain	100K	18R03076A03 (5)	F2-100K,SN200,AK38	RU15A,SL37,SN1000	BU11,CF52,SS6A
R125	Volume/Power Switch	100K	18-03076A05 (6)	F2-100K,SN200,AK38	RU15A,SL37,SN1000,US41	BU11,CF52,SS6A,GC
R231	Squelch	2500	18R03076A01 (5)	F1-2500,SN200,AK38	RU252L,SL37,SN1000	BU11,CF86,SS6A
R240	Mic Gain	1500	18-03076A02 (5)	F1-1500,SN200,AK38	RU152L,SL37,SN1000	BU11,CF7,SS6A
R2005	Bias	500	18-03076A04 (5)	T-500	MTCS2L1	X260R501B
			18-03072A01			

(5) Number on unit.

(6) Alternate part, may be used in some versions.

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.
R1200	3300 Ohms 10% 5W		17-42726801	Z900	Resistor Network		51-03009A09(1)

(1) Consists of fifteen 1000 Ohm resistors.

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.	
L001	RF Choke	24-03304A01	906724		
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) (5.5uH)	24-03051A01			
L102	RF Amp (27MHz)(.35uH)	24-03102A01			
L103	RF Amp (27MHz)(.35uH)	24-03102A01			
L107	Highpass Filter (.47uH) Highpass Filter (.35uH)	24-03102A03			
L108	RF Choke (18uH)	24-03047A01			
L303	RF Choke (.82uH)	24-03047A05			
L304	RF Choke	24-03102A04			
L305	RF Choke	24-03229A01			
L306	Pi Filter	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 (29.485MHz)	24-03070A01			
L404	Offset Oscillator (29.030MHz)	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 (.47uH) RF Choke (.35uH)	24-03102A02			
T104	Rec Mixer (455kHz)	24-03050A01			
T105	Rec Mixer (455kHz)	24-03050A02			
T106	IF Amp (455kHz)	24-03050A03			

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	25-03080A01			

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T301	8	32	25-40196R01			

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T1000	120V AC @ 450mA AC	20.8V AC @ 1.37A AC	25-40198R01 25D40359R01(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
		MFR. PART No.	QUAM PART No.	
E201	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
E1001	1A SLOW BLOW, 250V	65-139183	09-03046A02	MDL1, 250V	HTA		342038	

MICROPHONE

MICROPHONE												
ITEM No.	REPLACEMENT DATA				CONNECTION DATA							
	MFR. 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	TMM6119A											

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
DS1	Lamp	91-40050R01	Meter Illumination (13.05V @ 40mA)
FL101	Filter	09-40164R01	455kHz
J1	Connector	09-03103A01	Microphone
J50	Connector	09-03111A01	Antenna
J51	Jack	09-0311A01	Ext. Speaker
J52	Jack	72-40331R01	PA
M1	Meter	10403A	S/Rf
M100	Clock	40-03311A01	Assembly
S1	Switch	40-03095A01	Channel Selector
S2	Switch	40-03095A01	Mute
S3	Switch	40-03095A01	ANL
S4	Switch	40-03095A01	PA/CB
S5	Switch	40-40286R01	Power (Part of volume control)
S1201	Switch	48-40018S05	Clock On/Off/Auto
U900	LED Display	48-03191A01	Channel Readout (Each segment 2.08V @ 11mA)
Y401	Crystal	48-03091A02	29.030MHz
Y402	Crystal	48-40000R01	29.485MHz
Y403	Crystal	72D40254R01	10.240MHz
	PC Board	84-40196R01	Clock (Complete)
	PC Board	01-80799B58	Clock (alternate) (less components)
	PC Board	84-40143R01	Filter (less components)
	PC Board	84-40272R01	LED Channel Readout (less components)
	PC Board	84-40245R01	Main (less components)
	PC Board		Power Supply (less components)

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

ITEM	PART No.	ITEM	PART No.
Button, Clock-set	45-40256R01	Housing, Top	15-40149R01
Button, Push (PA, ANL, MUTE)	38-40235R01	Knob, Channel Selector	36-40234R01
Front Panel	64-40195R01	Knob, Control	36-40233R01
Housing, Bottom	15-40148R01	Lens, Front Panel	61-4014TR01

MOTOROLA MODEL T4025A

