

PHOTOFACT[®] with

CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index

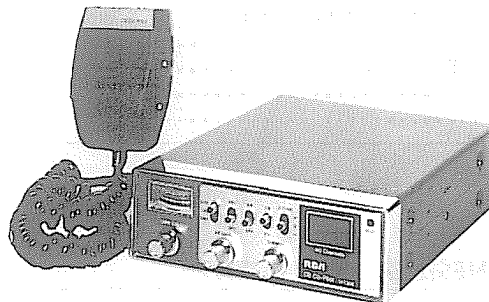
NOTE

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 14T305

MANUFACTURER'S SPECIFICATIONS

RCA MODEL 14T305

General

Frequency Range	26.965 – 27.405 MHz
Channels	40 (PLL Synthesized)
Frequency Tolerance	±0.005%
Operating Temperature Range	–30°C to +50°C (–22°F to +112°F)
Power Source	12–15 VDC (13.8 V nom.) Positive or Negative Ground (or 105–120 VAC 50/60 Hz for 14T303 only)
Current Drain	Transmit: 1.5A nom. Receive: 1.2A nom. (full audio)

Transmitter

Emission	6A3
RF Power Output	4W (FCC Maximum)
Modulation Type	AM
Modulation Level	Up to 100% Max (Limited to FCC Specs)
Attenuation of Spurious and Harmonic Radiation	60 dB (Min)
Antenna Input Impedance	50 Ohms

Receiver

Sensitivity	0.5 microvolts for 10 dB S/N
Adjacent Channel Rejection	–40 dB or more
Image Rejection (1st IF)	60 dB
Spurious Rejection (except images)	45 dB nom.
IF Frequencies	
1st IF	10.695 MHz
2nd IF	455 kHz
Squelch Sensitivity	1.5 uV to 100 uV
Audio Output	3 W

Mechanical

14T305

Dimensions	7" x 2-5/16" x 8-1/4" (178mm x 59mm x 209mm)
Weight	3 lbs, 13.6 oz (1.75 kg)

Courtesy of the Manufacturer

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

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ALIGNMENT INSTRUCTIONS

CAUTION: Use isolation transformer or observe polarity when connecting test equipment. Maintain line voltage at 120V AC. Allow a 15-minute warm-up period. Adjustments made with 13.8-volt DC input. Connect low sides of test equipment to ground unless specified otherwise. Connect 50-ohm dummy load or antenna before keying transmitter. Connect microphone.

Suggested Alignment Tools: GC Electronics:
T1,T2,T3,T4,T5,T6,L1,L2,L5.....9440
T7,T8,T9,T10,L14.....5009,8728-A,8728
L7,L11,L12.....9304,9300,9302
CT1.....8276,5000

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP1 (Q2 Emitter).	Ch. 19	CT1	Adjust for 10.240MHz +50Hz.
Input of oscilloscope to TP2 (T1 secondary).	Ch. 19	T1	Adjust for maximum RF at 20.480MHz.
Input of DC meter to TP8 (Junction of R1,R2 and R3).	Ch. 1	L1	Adjust for 3.60 volts ±.1 volt.
Input of oscilloscope to TP3 (IC3, Pin 4).	Ch. 19	L2,T2	Adjust for maximum RF.
Input of frequency counter to TP3 (IC3, Pin 4).	Ch. 1		Check for 37.660MHz. Repeat for all channels. (See Truth Chart for correct frequencies).
Input of frequency counter to TP4 (IC3, Pin 3).	Ch. 19, XMT		Check for 10.695MHz.
Input of frequency counter to antenna jack.	Ch. 19, XMT	CT1	Check for 27.185MHz. (If necessary readjust 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.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP10 (Q10 Emitter). 455kHz,1000Hz @ 30% modulation.	Ch. 19, LOCAL/DIST DIST Squelch MINIMUM NB Off ANL Off	T10,T9,T8	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz,1000Hz @ 30% modulation.	Ch. 19, LOCAL/DIST DIST Squelch MINIMUM NB Off ANL Off	T7,L14,T6, T5	Adjust for maximum output. If necessary readjust T10,T9 and T8.

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 jack. 27.185MHz, 1000Hz @ 30% modulation. Output 500uV.	Ch. 19, LOCAL/DIST DIST Squelch Maximum NB Off ANL Off	RV1	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, LOCAL/DIST DIST Squelch MINIMUM NB Off ANL Off	RV3	SIGNAL METER Adjust for 9 on signal scale of meter

TRANSMITTER ALIGNMENT

Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.

NOTE: Be sure to check transmit frequency and power on all active channels after alignment of transmitter.

See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
	Ch. 19	L5, T3, T4, L7, L11, L12	Adjust for maximum RF output.
	Ch. 19	L7	Readjust for 4.4 watts output.
	Ch. 19	L12	Adjust for 3.8 watts output.

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.

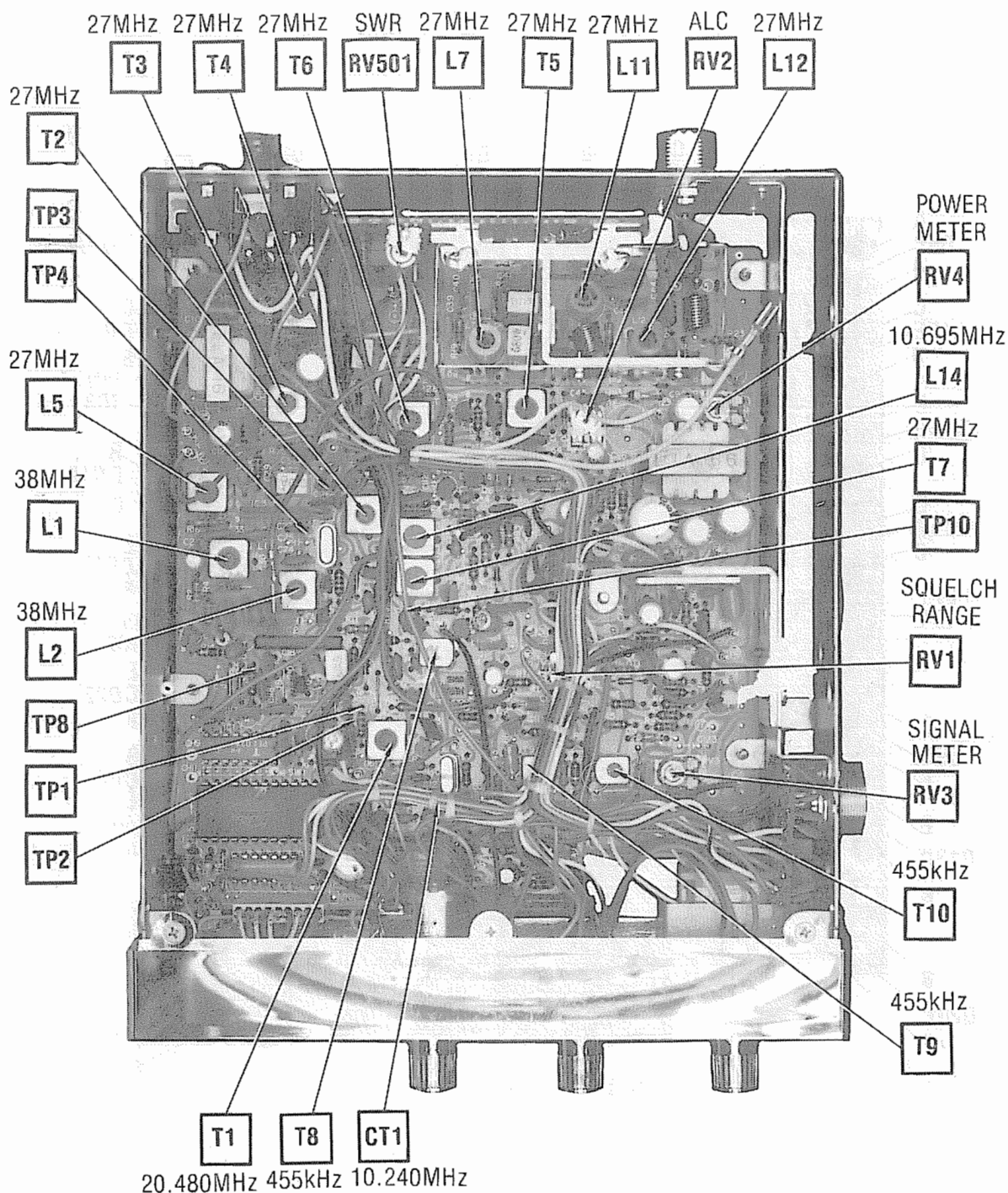
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of modulation meter to antenna jack. Inject a 20mV, 1000Hz signal at MIC input.	Ch. 19	RV2	AF ALC Adjust for 85% modulation maximum.
	Ch. 19	RV4	POWER METER Adjust so that RF panel meter agrees with RF wattmeter.
Connect a 100 Ohm 5 watt non-inductive resistor to antenna jack.	Ch. 19	RV501	SWR METER Set SWR/CAL/SRF Switch to CAL position. Adjust SWR control to SET on SWR scale of meter. Adjust RV501 for 2 on SWR scale of meter.

RCA MODEL 14T305

TRUTH CHART

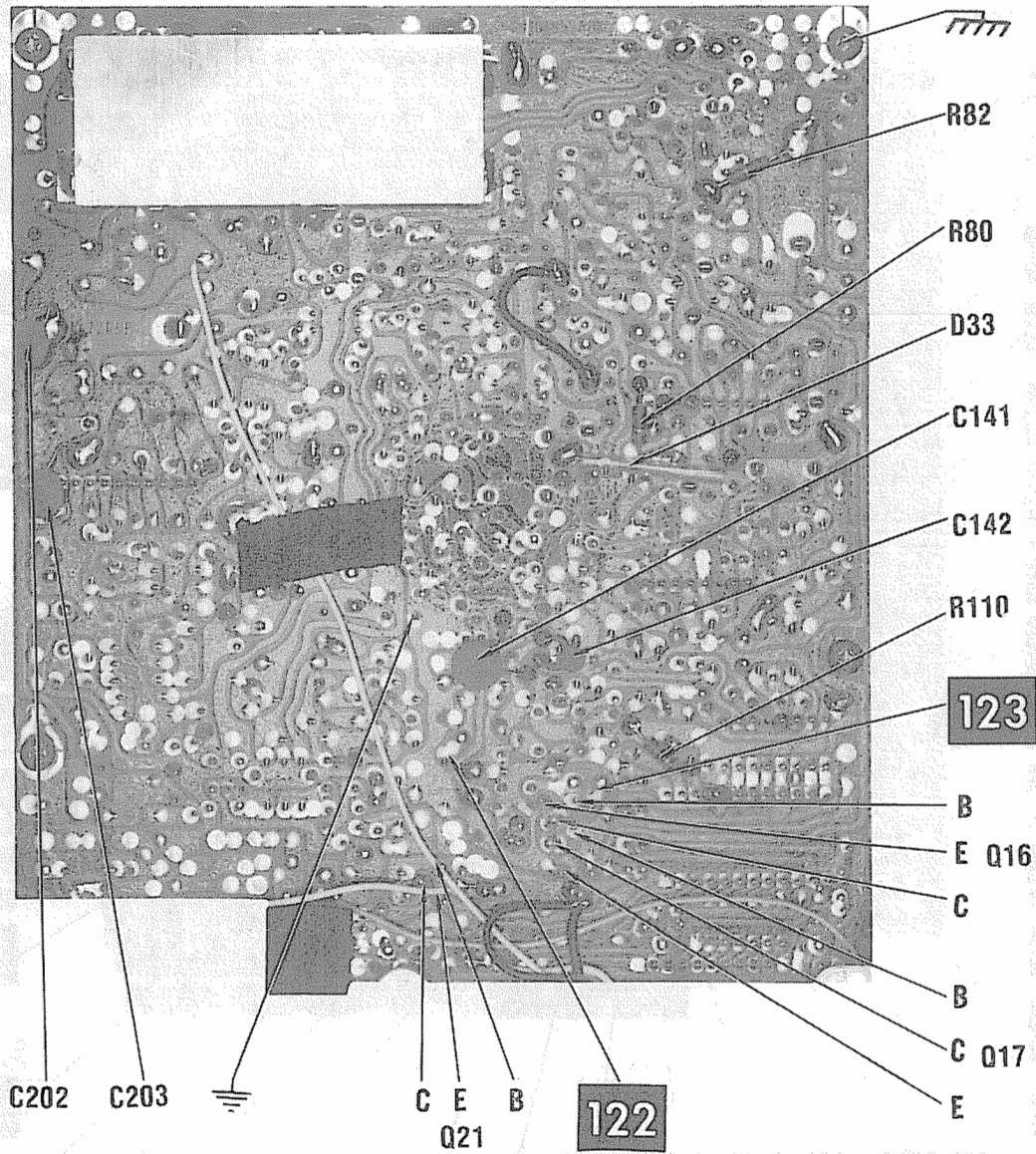
C H A N N E L	1 = 5.06 Volts 0 = 0 Volts IC1 PROGRAM DIVIDER								REC & XMT VCO OUTPUT IN MHz AT TR4		
	PINS										
	9	10	11	12	13	14	15				
1	1	0	0	1	0	1	0		37.660		
2	1	0	0	1	0	0	1		37.670		
3	1	0	0	1	0	0	0		37.680		
4	1	0	0	0	1	1	0		37.700		
5	1	0	0	0	1	0	1		37.710		
6	1	0	0	0	1	0	0		37.720		
7	1	0	0	0	0	1	1		37.730		
8	1	0	0	0	0	0	1		37.750		
9	1	0	0	0	0	0	0		37.760		
10	0	1	1	1	1	1	1		37.770		
11	0	1	1	1	1	1	0		37.780		
12	0	1	1	1	1	0	0		37.800		
13	0	1	1	1	0	1	1		37.810		
14	0	1	1	1	0	1	0		37.820		
15	0	1	1	1	0	0	1		37.830		
16	0	1	1	0	1	1	1		37.850		
17	0	1	1	0	1	1	0		37.860		
18	0	1	1	0	1	0	1		37.870		
19	0	1	1	0	1	0	0		37.880		
20	0	1	1	0	0	1	0		37.900		
21	0	1	1	0	0	0	1		37.910		
22	0	1	1	0	0	0	0		37.920		
23	0	1	0	1	1	0	1		37.950		
24	0	1	0	1	1	1	1		37.930		
25	0	1	0	1	1	1	0		37.940		
26	0	1	0	1	1	0	0		37.960		
27	0	1	0	1	0	1	1		37.970		
28	0	1	0	1	0	1	0		37.980		
29	0	1	0	1	0	0	1		37.990		
30	0	1	0	1	0	0	0		38.000		
31	0	1	0	0	1	1	1		38.010		
32	0	1	0	0	1	1	0		38.020		
33	0	1	0	0	1	0	1		38.030		
34	0	1	0	0	1	0	0		38.040		
35	0	1	0	0	0	1	1		38.050		
36	0	1	0	0	0	1	0		38.060		
37	0	1	0	0	0	0	1		38.070		
38	0	1	0	0	0	0	0		38.080		
39	0	0	1	1	1	1	1		38.090		
40	0	0	1	1	1	1	0		38.100		



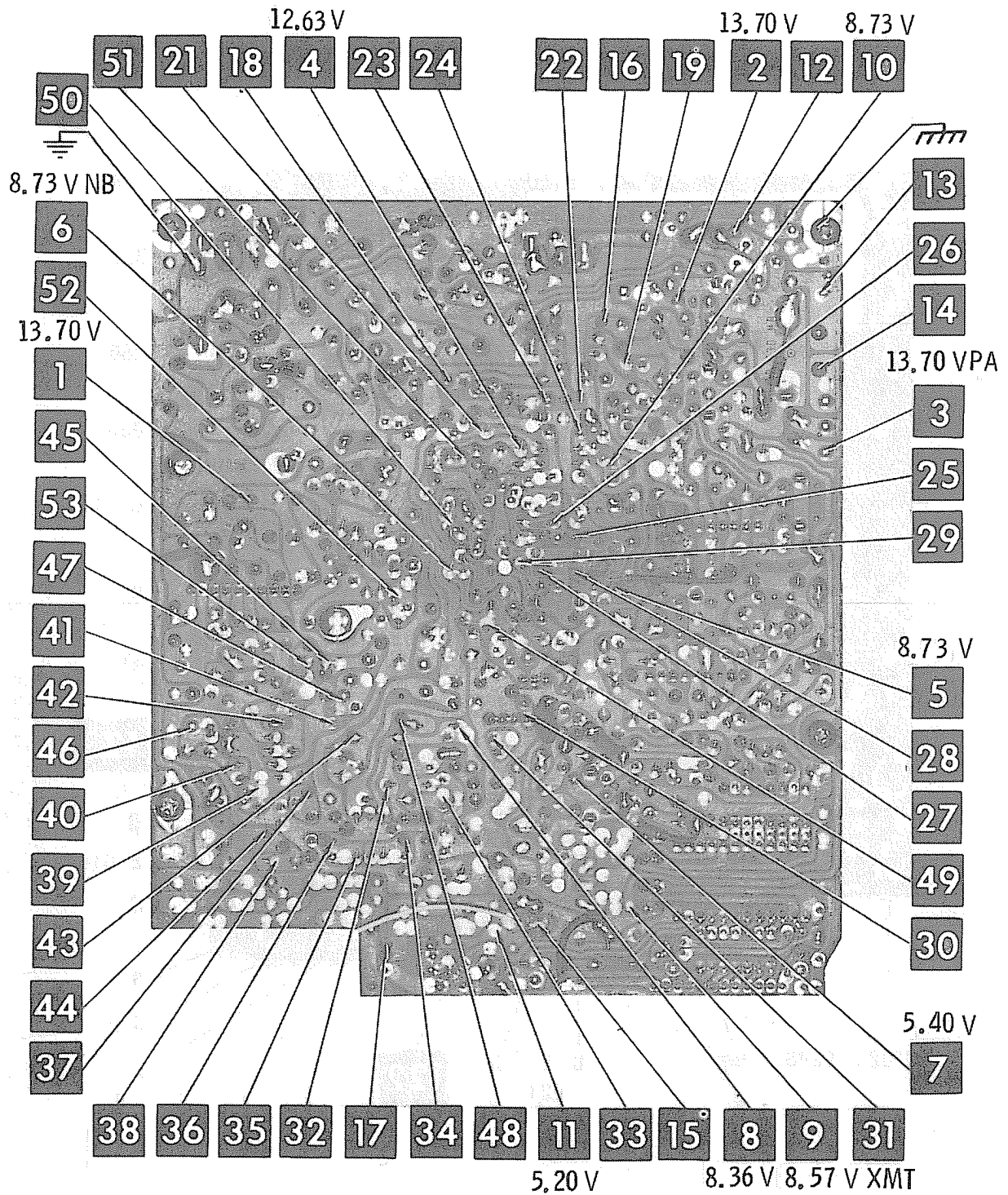
CHASSIS - BOTTOM



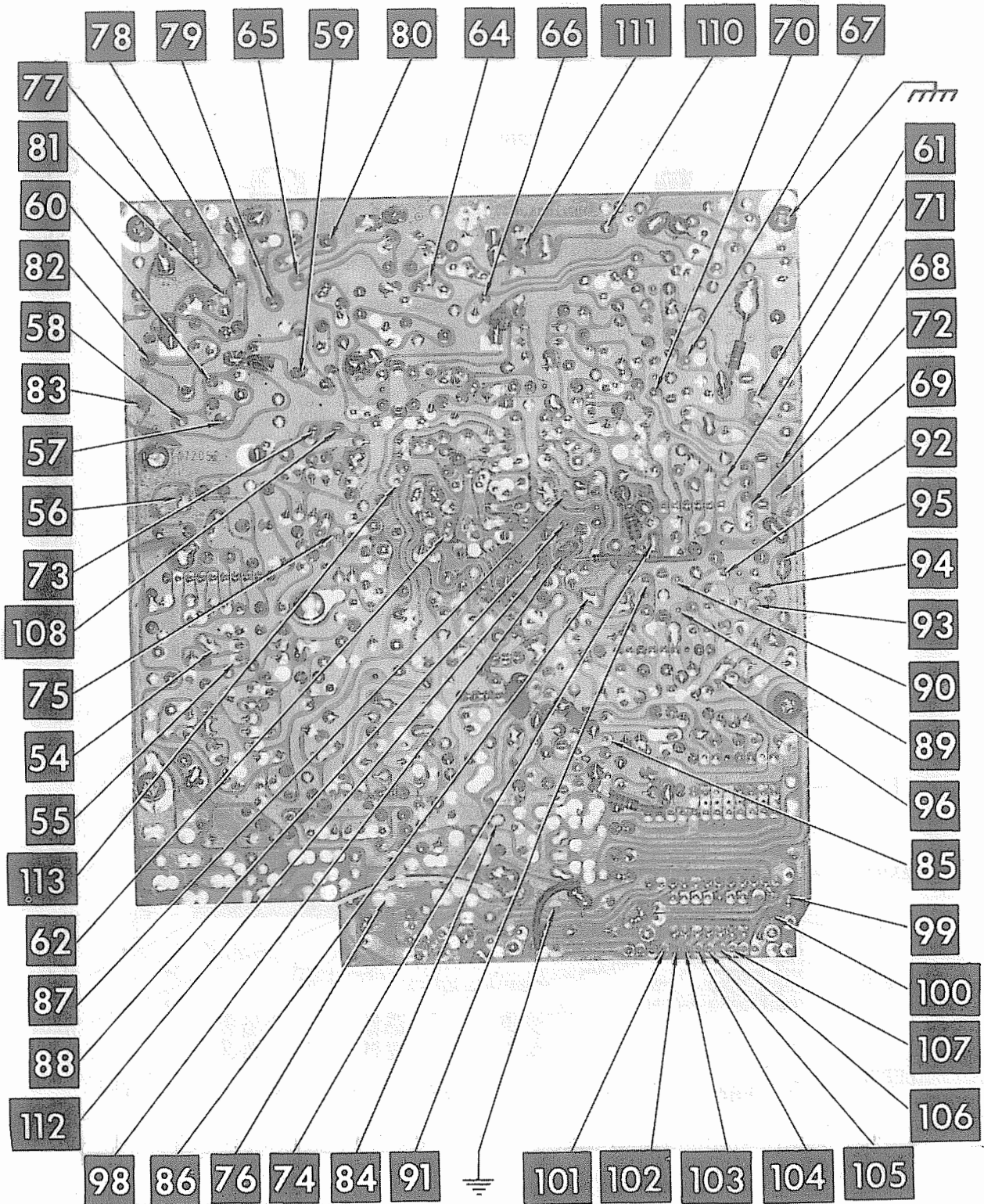
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MAIN BOARD

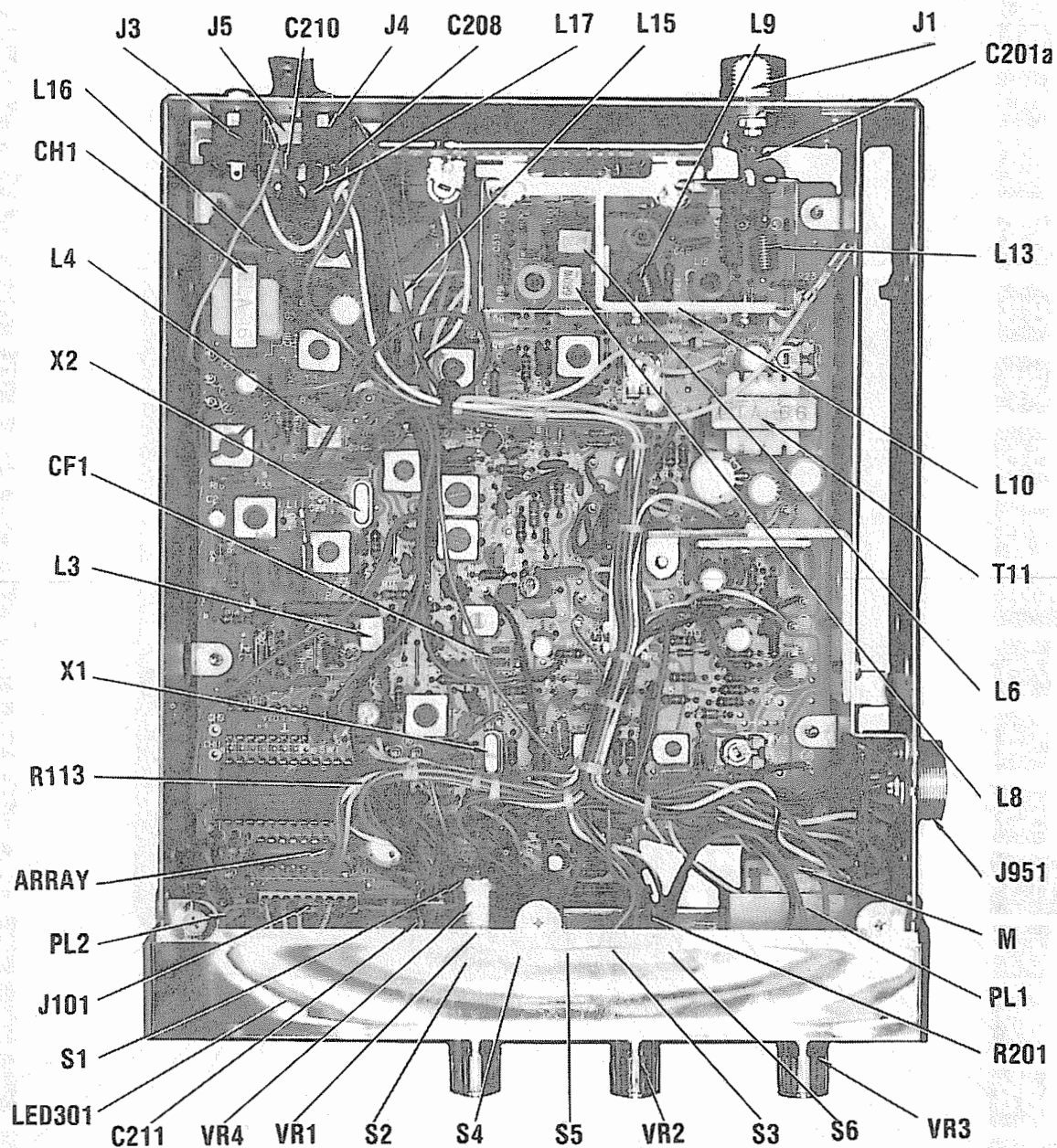


MAIN BOARD



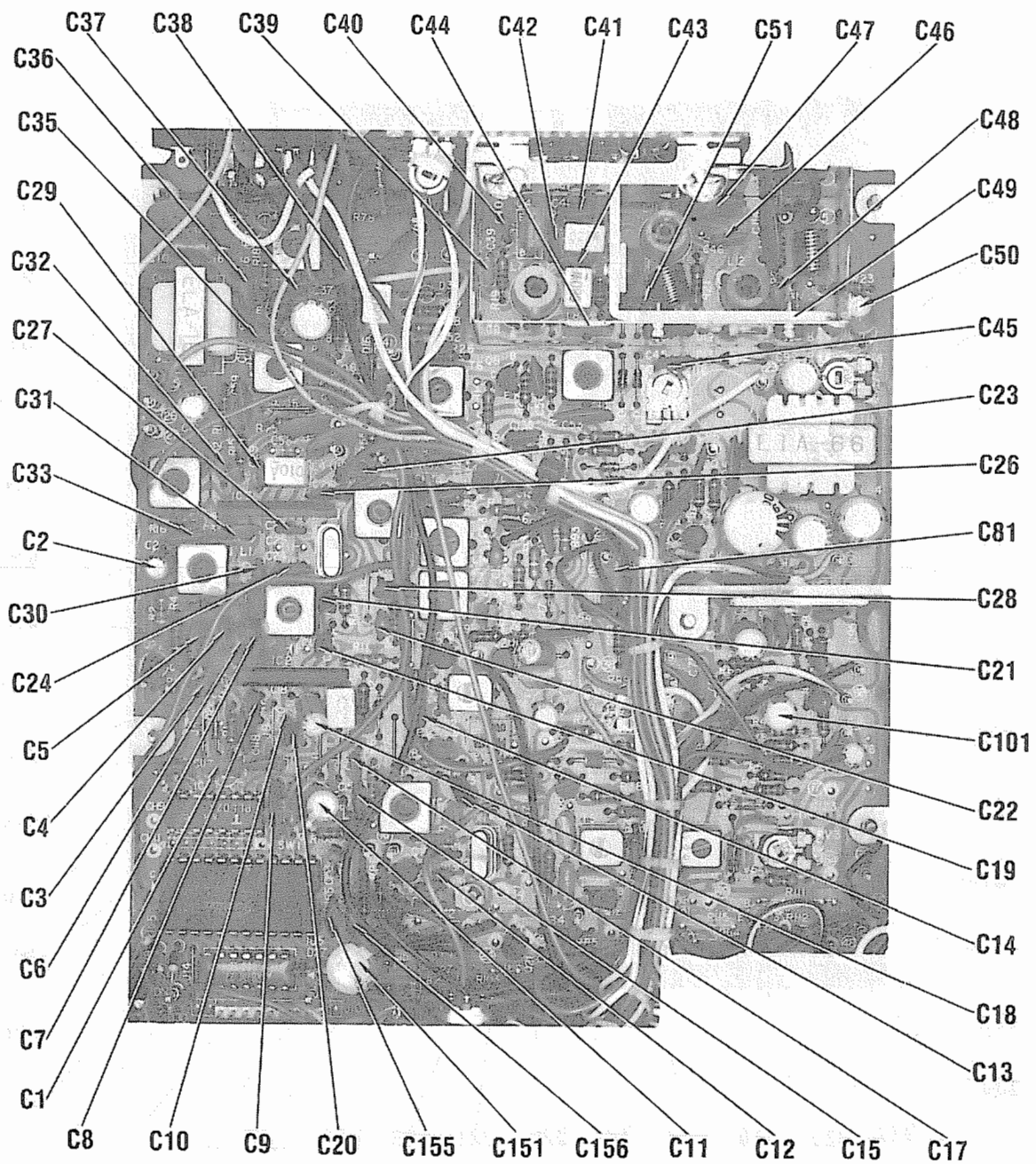
RCA MODEL 14T305

MAIN BOARD

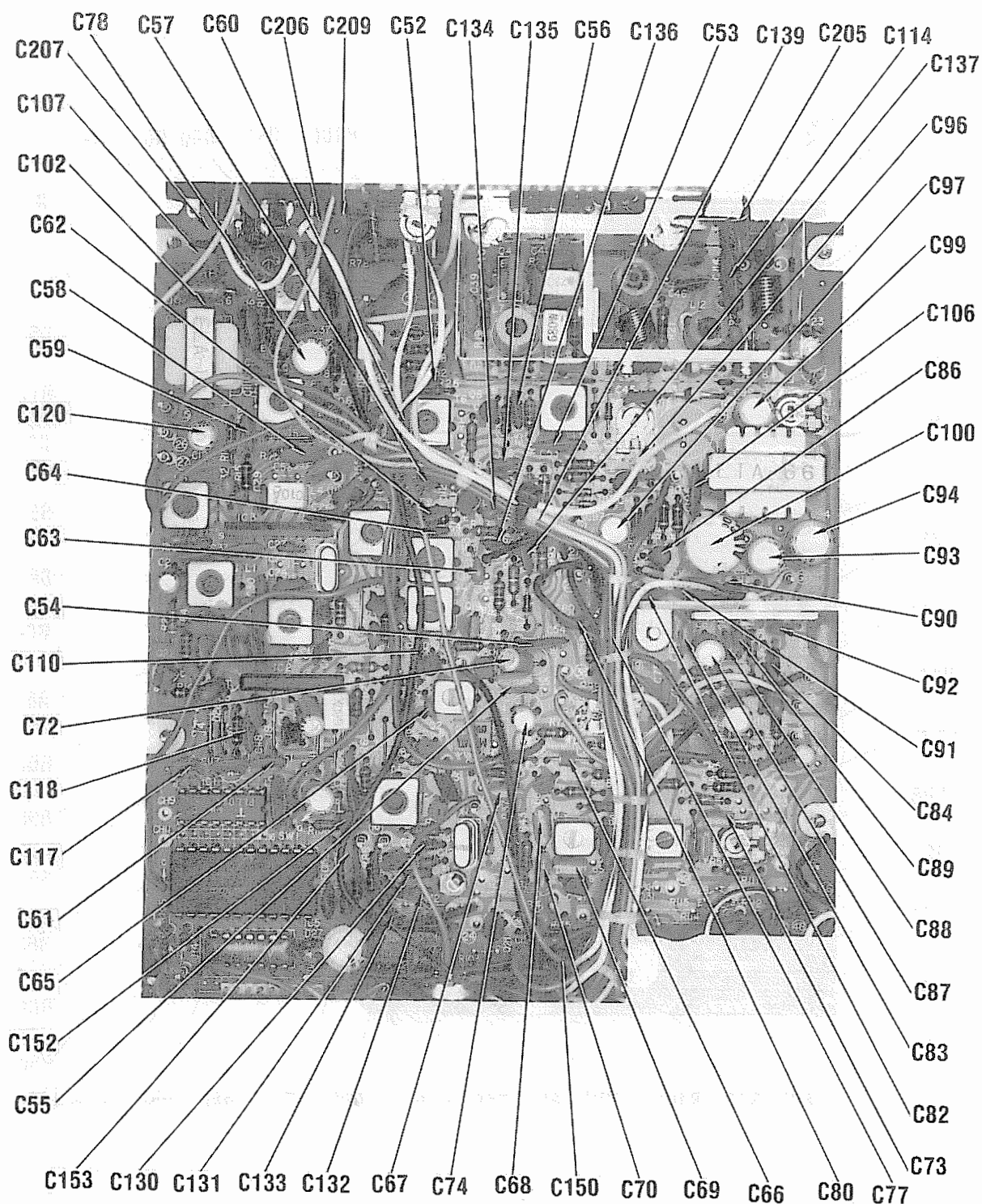


CHASSIS - BOTTOM

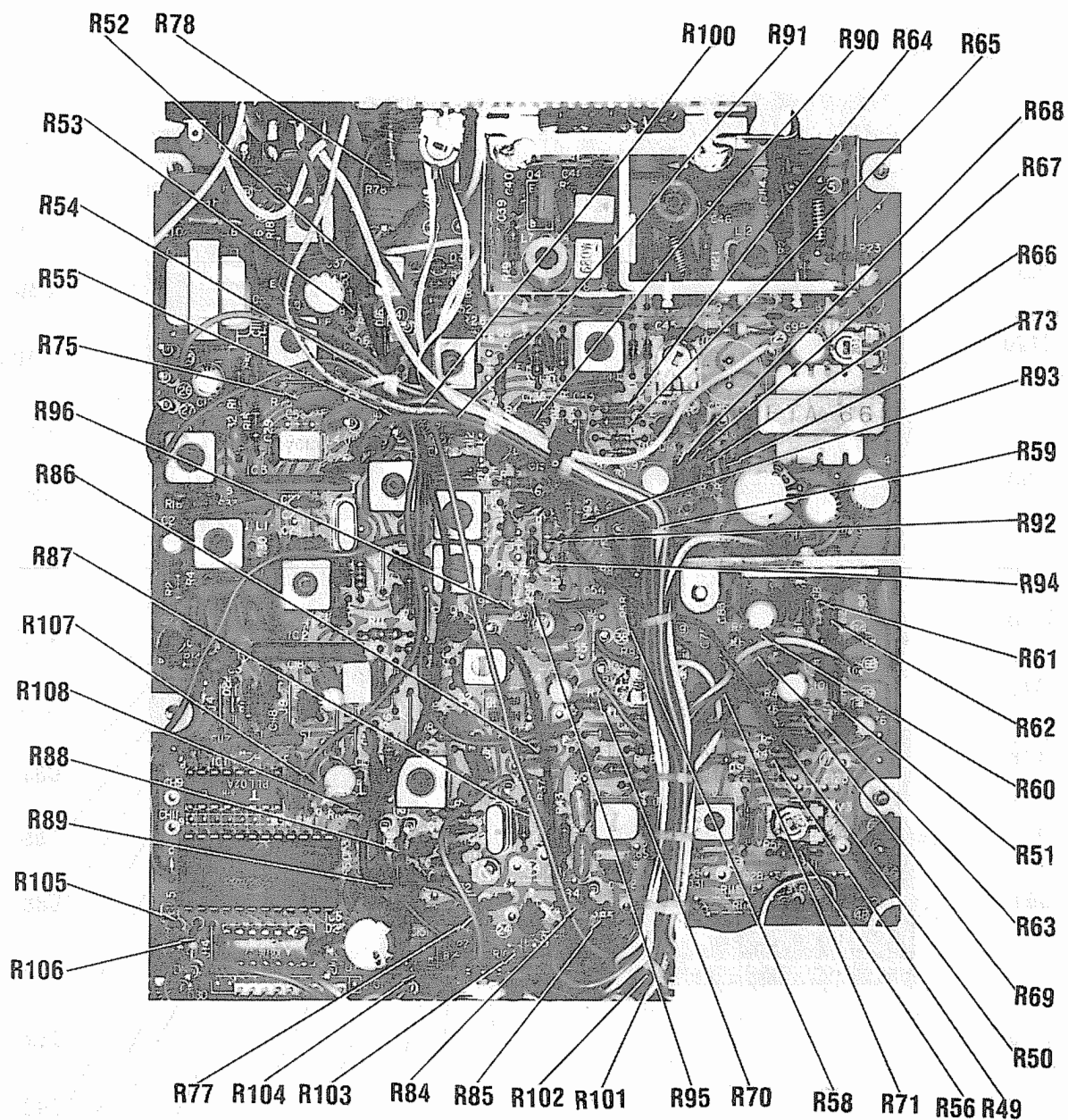




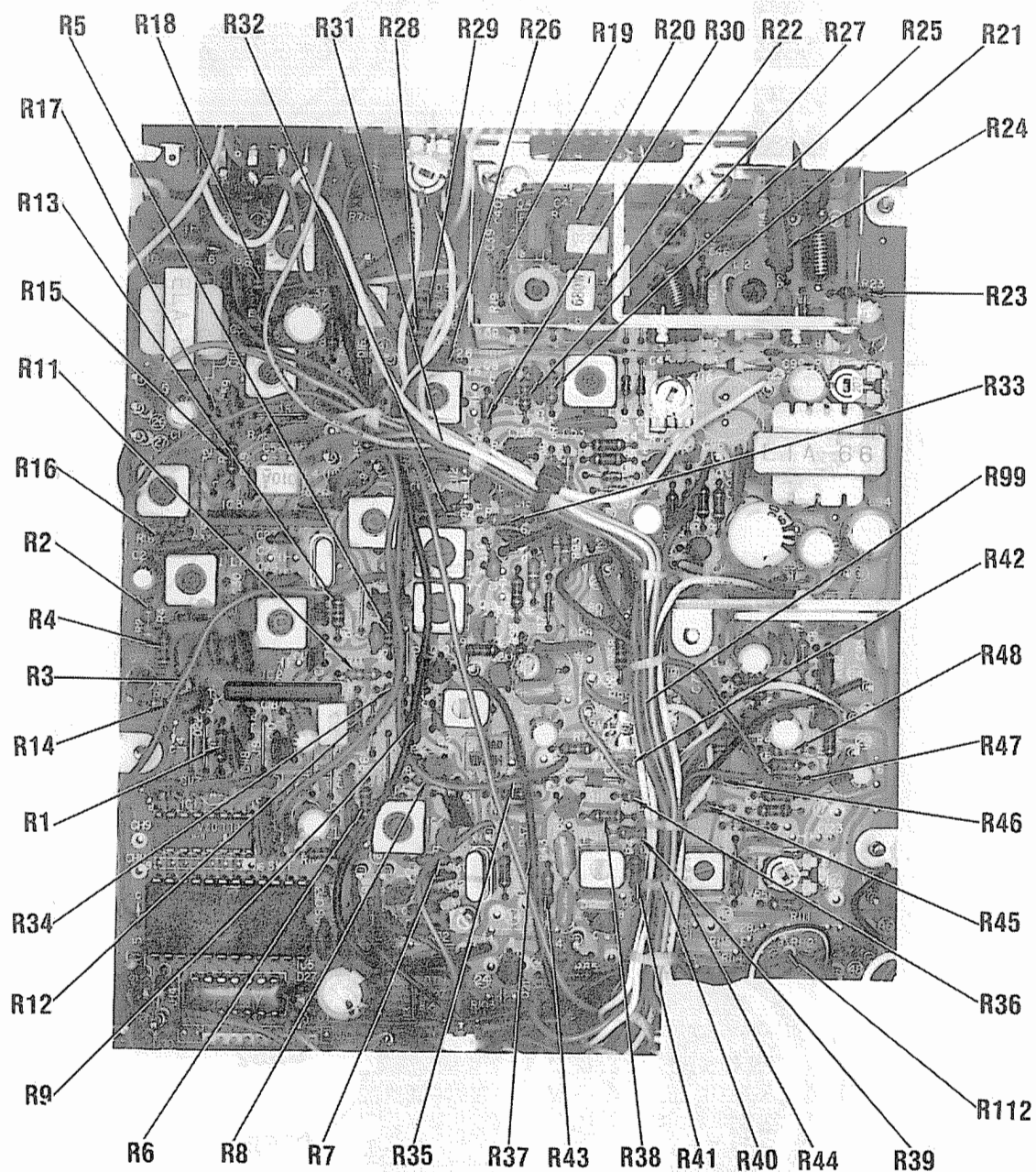
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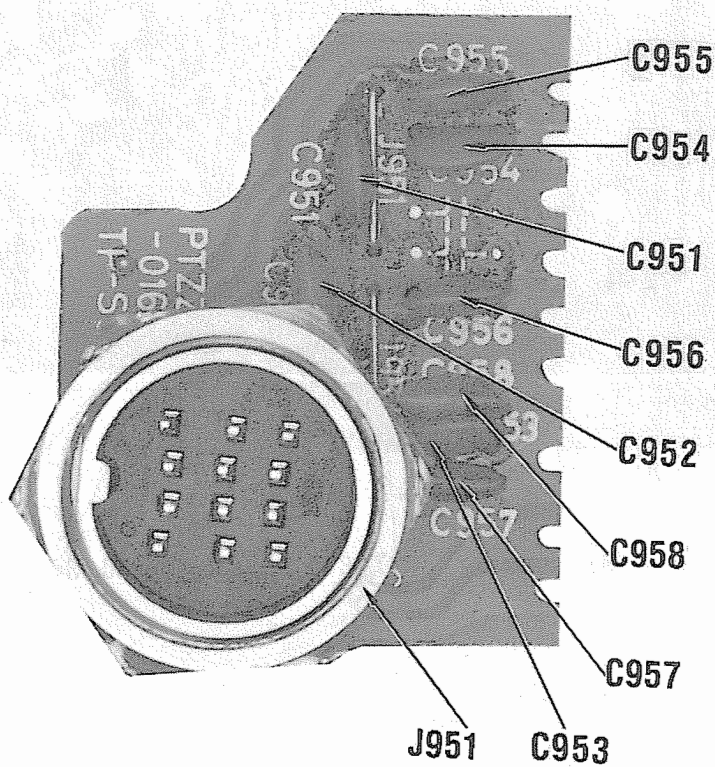
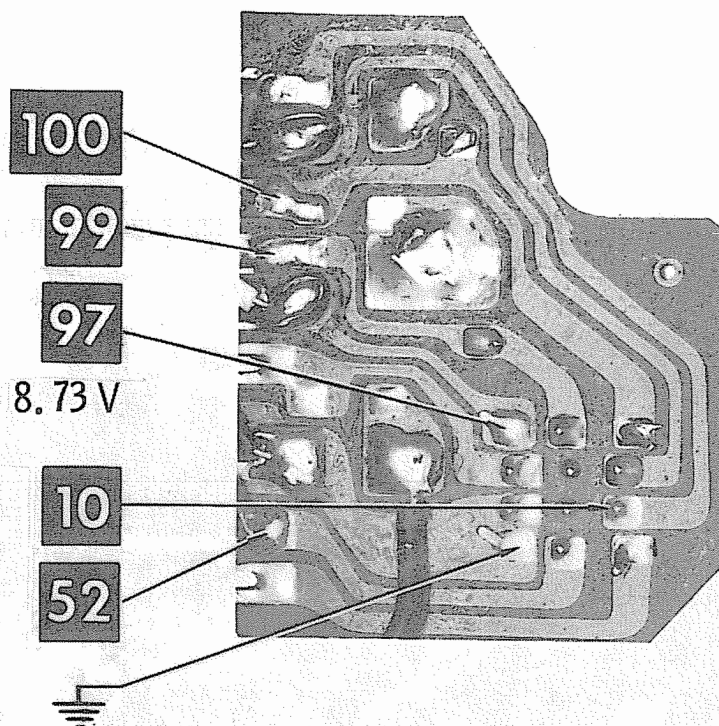
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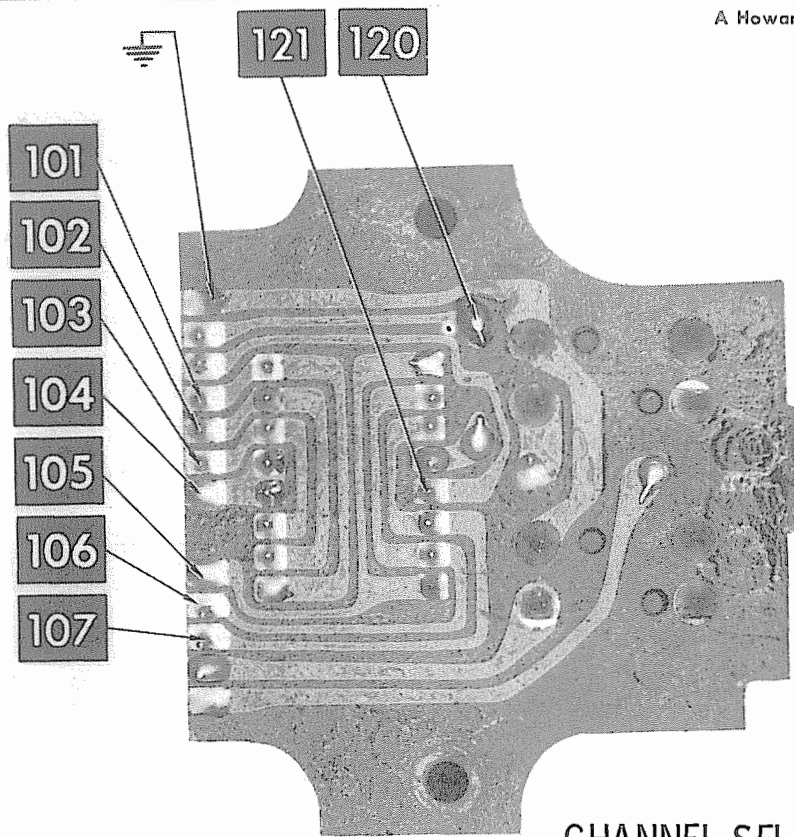
MAIN BOARD



MAIN BOARD

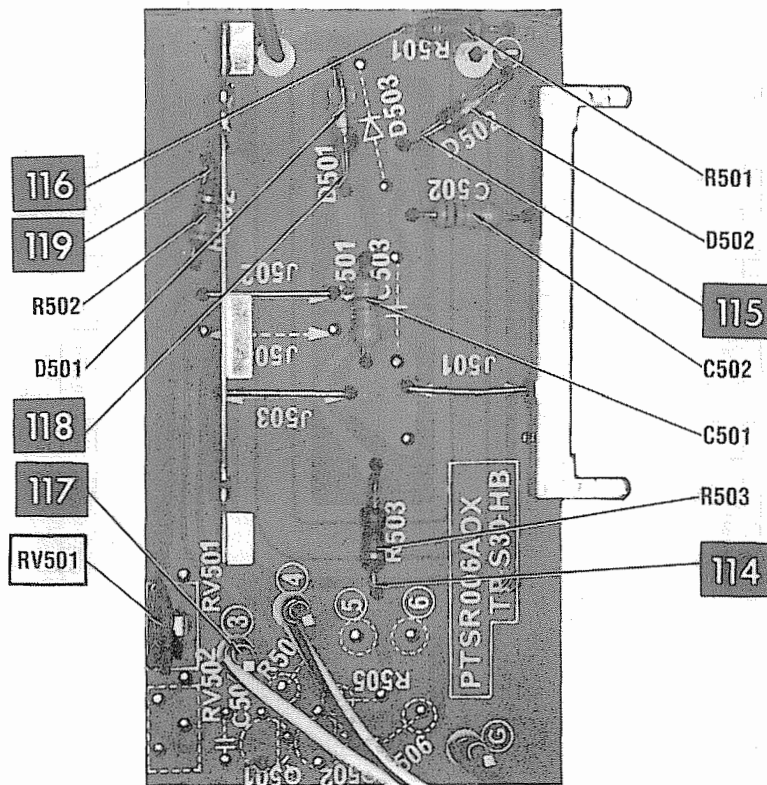


MIC BOARD



CHANNEL SELECTOR LED BOARD

RCA MODEL 14T305



SWR BOARD



PARTS LIST AND DESCRIPTION

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

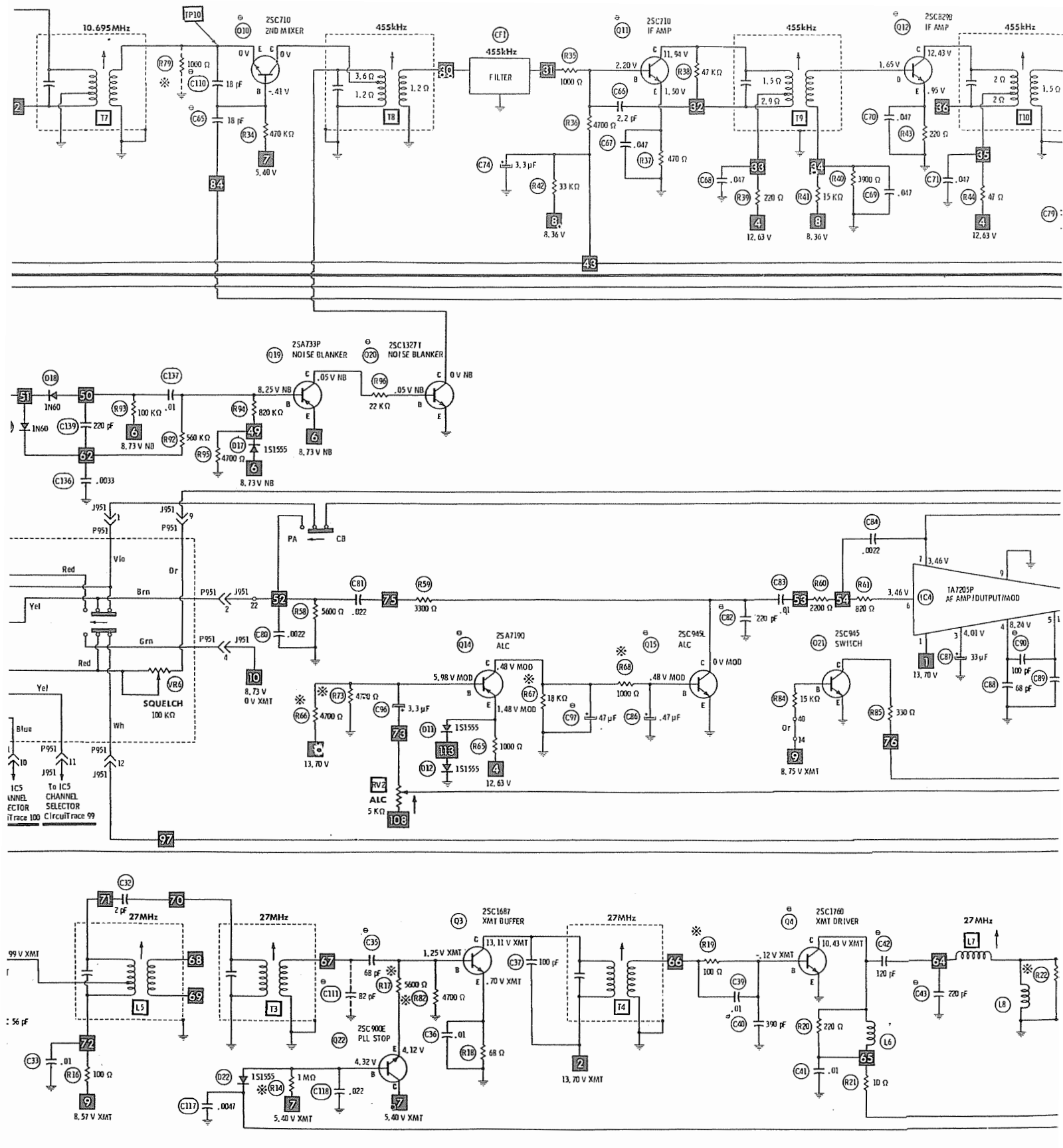
WIRING DATA

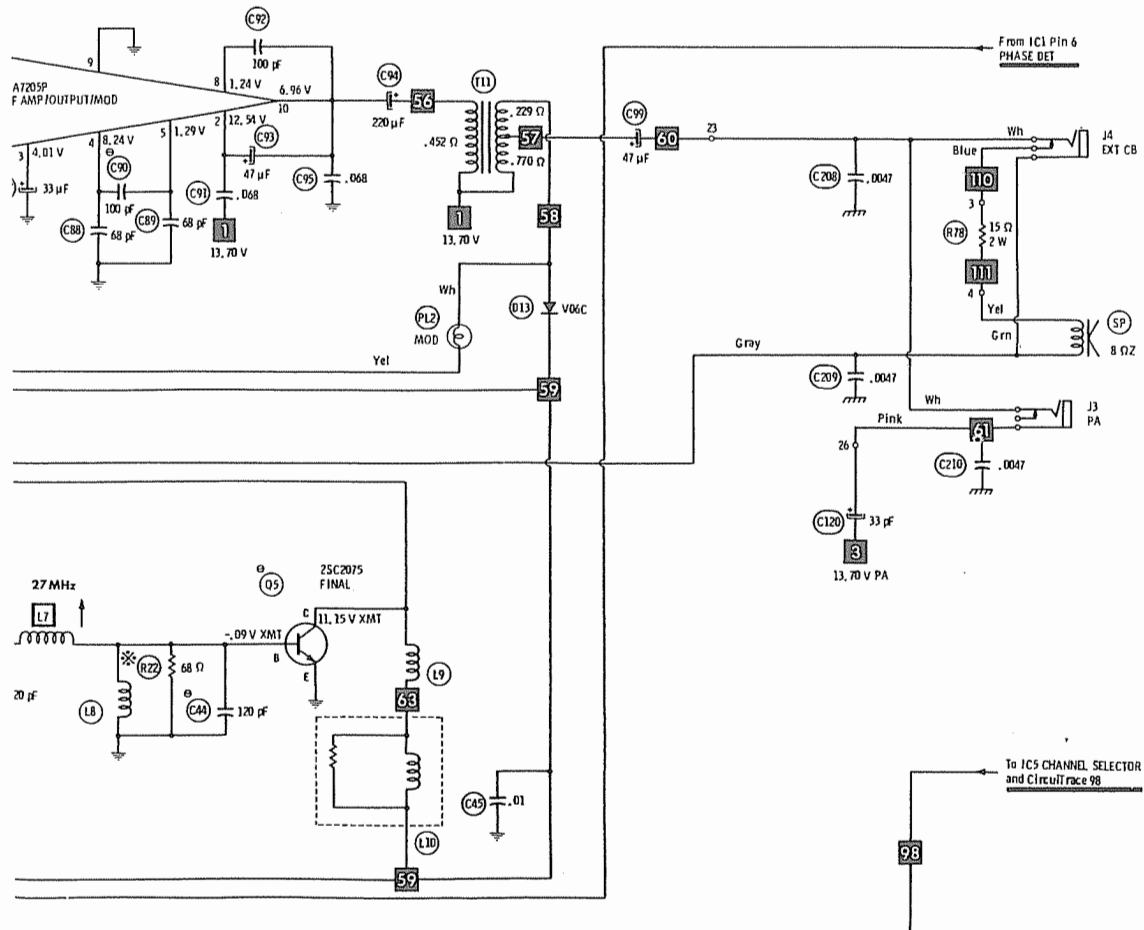
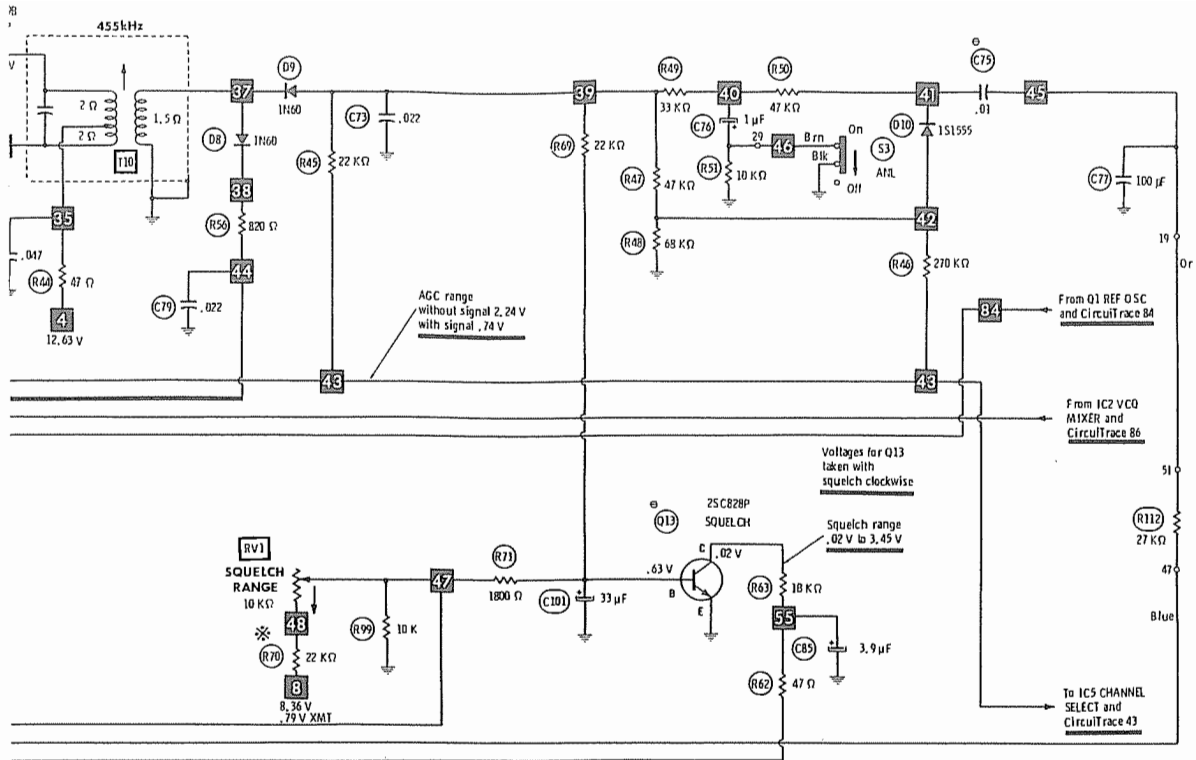
General-use Hook-up Wire (available in 5 colors)	BELDEN No. 8523	Coiled Microphone Cable	
Shielded Hook-up Wire (spiral wrapped)	BELDEN No. 8421	3-conductor (1 shielded) 23AWG	BELDEN No. 9471 (5')
(braided)	BELDEN No. 8401		BELDEN No. 8497 (6')
Speaker Cable (available in 4 colors)	BELDEN No. 8782		BELDEN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

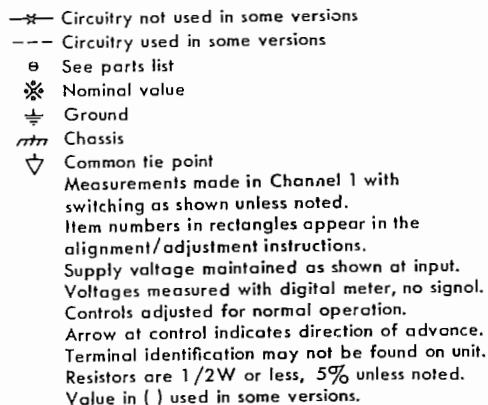
SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA									
			GENERAL ELECTRIC PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
01	ITT41D	741689	GE-90		HEPR2503	REN 614		RT-262	ECG614		WEP200	ZEN-453
	88122		GE-90		HEPR2503	REN 614		RT-262	ECG614		WEP200	ZEN-453
	MW201		GE-90		HEPR2503	REN 614		RT-262	ECG614		WEP200	ZEN-453
02	MZ205	741738	GEZD-5.0			REN 135			ECG135			103-290
03	RD9.1E	741739	GEZD-9.1	ZB9.1B		REN 139	SK3060	RT-240	ECG139A	1N4739A	WEP1109	103-272
04	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
05	1N60	112524	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
06	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
07	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
08	1N60	112524	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
09	1N60	112524	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
010	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
011	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
012	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
013	V06C	166593	GE-504A	PTC201	HEPR0052	REN 116	SK3030	RT-213	ECG116	1N4004	WEP156	212-76-02
014	1S1885	741740	GE-504A	PTC201	HEPR0052	REN 116	SK3030	RT-213	ECG116	1N4004	WEP156	212-76-02
016	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
017	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
018	1N60	112524	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
019	1N60	112524	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
022	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
025	MZ205	741738	GEZD-5.0			REN 135			ECG135			103-290
026	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
027	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
028	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
029	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
030	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
033	1S1555	741741	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062	
0501	1N60	112524	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
0502	1N60	112524	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
IC1	PLL02A	741686				REN 1167			ECG1167		WEP2007	
	PLL02					REN 1167			ECG1167		WEP2007	
IC2	C3001A					REN 1192	SK3445		ECG1192			
	C3001					REN 1192	SK3445		ECG1192			
IC3	TA7310P	742510				REN 1192	SK3445		ECG1192			
	C3001-0					REN 1192	SK3445		ECG1192			
	C3001					REN 1192	SK3445		ECG1192			
IC4	TA7310P	742510				REN 1155	SK3231	TVCM-81	ECG1155	TA7205P	WEP949	
IC5	TA7205P	741687	GEIC-179	PTC780								
	C1004A											
	C1004											
	C1004T	742619										
Q1	2SC710	742544	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710	WEP710	121-Z9000*
	2SC710D,E		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710	WEP710	121-Z9000*
Q2	2SC710	742544	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710	WEP710	121-Z9000*
	2SC710D,E	741731	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710	WEP710	121-Z9000*
Q3	2SC1687		GE-20*	PTC121*	HEPS0015*	REN 123A*	SK3444	RT-107A*	ECG123A*	2SC536	WEP736*	121-Z9000*
Q4	2SC1760		GE-276	PTC180		REN 306	SK3197	RT-310	ECG306		WEP771	
	2SC1846		GE-336	PTC904		REN 295	SK3253		ECG295	2SC496	WEP913	800-767
	2SC2036		GE-336			REN 295	SK3518		ECG306	2SC1018	WEP771	
	2SC1846Q, R,S	742545	GE-336	PTC904		REN 295	SK3253		ECG295	2SC496	WEP913	800-767
Q5	2SC2075		GE-215	PTC186		REN 235	SK3197	RT-146	ECG235		WEP785	
	2SC1306	741732	GE-215	PTC186		REN 235	SK3197	RT-146	ECG235	2SC1306	WEP785	
	2SC1678		GE-322	PTC186		REN 235	SK3197	RT-146	ECG235	2SC1306	WEP785	
	2SC1974		GE-337	PTC186		REN 235	SK3197	RT-146	ECG235	2SC1306	WEP785	
Q6	2SC1318Q		GE-210*	PTC123	HEPS0015*	REN 128	SK3122	RT-302	ECG297		WEP59*	121-722
	2SC1318	741856	GE-210*	PTC123	HEPS0015*	REN 128	SK3122	RT-302	ECG297		WEP59*	121-722
Q7	2SA719P		GE-269	PTC103*	HEPS0019*	REN 290	SK3114	RT-305	ECG290	2SA562	WEP911	121-879
	2SA719		GE-269	PTC103*	HEPS0019*	REN 290	SK3114	RT-305	ECG290	2SA562	WEP911	121-879
	2SA720		GE-82	PTC127	HEPS0026	REN 298	SK3114	RT-126A	ECG298		WEP62	121-879
	2SA719P, Q,R	742546	GE-269	PTC103*	HEPS0019*	REN 290	SK3114	RT-305	ECG290	2SA562	WEP911	121-879
Q8	2SC1047C		GE-60*	PTC132*	HEPS0016*	REN 229*	SK3018*	RT-107	ECG229*	2SC535	WEP63*	ZEN-109
	2SC1047		GE-60*	PTC132*	HEPS0016*	REN 229*	SK3018*	RT-107	ECG229*	2SC535	WEP63*	ZEN-109
	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710	WEP710	121-Z9000*
	2SC460		GE-61*	PTC136*	HEPS0014*	REN 107	SK3122	RT-134	ECG107	2SC460	WEP460	121-722
Q9	2SC1047B,C	742547	GE-60*	PTC132*	HEPS0016*	REN 229*	SK3018*	RT-107	ECG229*	2SC535	WEP63*	ZEN-109
	2SC1359C		GE-212	PTC121*	HEPS0014*	REN 199	SK3122	RT-308	ECG229*	2SC930	WEP66	121-Z9000*
	2SC1359		GE-212	PTC121*	HEPS0014*	REN 199	SK3122	RT-308	ECG229*	2SC930	WEP66	121-Z9000*
	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710	WEP710	121-Z9000*
	2SC1359B,C	742548	GE-212	PTC121*	HEPS0014*	REN 199	SK3122	RT-308	ECG229*	2SC930	WEP66	121-Z9000*
Q10	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710	WEP710	121-Z9000*
	2SC829		GE-20*	PTC139*	HEPS0015*	REN 123A	SK3444	RT-308	ECG229*	2SC829	WEP829	121-Z9000*
	2SC710D	741726	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710	WEP710	121-Z9000*
Q11	2SC710		GE-20*	PTC139*	HEPS0015*	REN 123A	SK3444	RT-308	ECG229*	2SC829	WEP829	121-Z9000*
	2SC829		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710	WEP710	121-Z9000*

RCA MODEL 14T305







PARTS LIST AND DESCRIPTION (CONTINUED)

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

SEMICONDUCTORS (Select replacement transistor for best results) (cont)

ITEM No.	TYPE No.	MFG. PART No.	REPLACEMENT DATA									
			GENERAL ELECTRIC PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
Q12	2SC829B	742549	GE-20*	PTC139*	HEPS0015*	REN 123A	SK3444	RT-308	ECG229*	2SC829	WEP829	121-Z9000*
	2SC829		GE-20*	PTC139*	HEPS0015*	REN 123A	SK3444	RT-308	ECG229*	2SC829	WEP829	121-Z9000*
	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710	WEP710	121-Z9000*
	2SC829B,C		GE-20*	PTC139*	HEPS0015*	REN 123A	SK3444	RT-308	ECG229*	2SC829	WEP829	121-Z9000*
Q13	2SC828P	741737	GE-61*	PTC139*	HEPS0015*	REN 199	SK3444	RT-302	ECG199	2SC828	WEP828	ZEN-119
	2SC828		GE-61*	PTC139*	HEPS0015*	REN 199	SK3444	RT-302	ECG199	2SC828	WEP828	ZEN-119
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-Z9000*
	2SC372		GE-61*	PTC121*	HEPS0015*	REN 123A*	SK3444	RT-308	ECG123A*	2SC372	WEP372	121-Z9000*
Q14	2SA719Q	741729	GE-269	PTC103*	HEPS0019*	REN 290	SK3114	RT-305	ECG290	2SA719	WEP719	121-879
	2SA719		GE-269	PTC103*	HEPS0019*	REN 290	SK3114	RT-305	ECG290	2SA719	WEP719	121-879
	2SA720		GE-82	PTC127	HEPS0026	REN 298	SK3114	RT-126A	ECG298	2SA720	WEP720	121-879
	2SA564		GE-65	PTC103*	HEPS0019*	REN 234	SK3114	RT-303	ECG234	2SA564	WEP564	121-879
Q15	2SC945L	742512	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945L	WEP1945L	121-Z9000*
	2SC900		GE-62	PTC139*	HEPS0015*	REN 199	SK3124	RT-302	ECG199	2SC900	WEP900	ZEN-119
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-Z9000*
	2SC945L, P,Q		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945L	WEP1945L	121-Z9000*
Q16	2SC829	742544	GE-61*	PTC139*	HEPS0015*	REN 199	SK3444	RT-302	ECG199	2SC829	WEP829	ZEN-119
	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710	WEP710	121-Z9000*
	2SC710DE		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710DE	WEP710DE	121-Z9000*
	2SC839		GE-61*	PTC132*	HEPS0015*	REN 123A*	SK3444	RT-308	ECG234*	2SC839	WEP839	121-Z9000*
Q17	2SC829	742544	GE-61*	PTC139*	HEPS0015*	REN 199	SK3444	RT-302	ECG199	2SC829	WEP829	ZEN-119
	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710	WEP710	121-Z9000*
	2SC710DE		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3444	RT-308*	ECG123A*	2SC710DE	WEP710DE	121-Z9000*
	2SC839		GE-61*	PTC132*	HEPS0015*	REN 123A*	SK3444	RT-308	ECG234*	2SC839	WEP839	121-Z9000*
Q18	2SC829C	166906	GE-20*	PTC139*	HEPS0015*	REN 123A	SK3444	RT-308	ECG229*	2SC829C	WEP829C	121-Z9000*
	2SC829		GE-20*	PTC139*	HEPS0015*	REN 123A	SK3444	RT-308	ECG229*	2SC829	WEP829	121-Z9000*
	2SA733P		GE-48	PTC127	HEPS0019*	REN 294	SK3138	RT-303	ECG294	2SA733P	WEP733P	121-933
	2SA733		GE-48	PTC127	HEPS0019*	REN 294	SK3138	RT-303	ECG294	2SA733	WEP733	121-933
Q19	2SA733P,Q	742008	GE-48	PTC127	HEPS0019*	REN 294	SK3138	RT-303	ECG294	2SA733P,Q	WEP733P,Q	121-933
	2SC1327T		GE-85*	PTC139*	HEPS0024*	REN 199	SK3245	RT-107A	ECG199	2SC1327T	WEP1327T	121-972
	2SC900		GE-62	PTC139*	HEPS0015*	REN 199	SK3124	RT-302	ECG199	2SC900	WEP900	ZEN-119
	2SC1327		GE-85*	PTC139*	HEPS0024*	REN 199	SK3245	RT-107A	ECG199	2SC1327	WEP1327	121-972
Q20	2SC1327T,U	742550	GE-85*	PTC139*	HEPS0024*	REN 199	SK3245	RT-107A	ECG199	2SC1327T,U	WEP1327T,U	121-972
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP945	121-Z9000*
	2SC945RQ		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945RQ	WEP945RQ	121-Z9000*
	2SC829		GE-20*	PTC139*	HEPS0015*	REN 123A	SK3444	RT-308	ECG229*	2SC829	WEP829	121-Z9000*
Q21	2SC900E	742558	GE-62	PTC139*	HEPS0015*	REN 199	SK3124	RT-302	ECG199	2SC900E	WEP900E	ZEN-119
	2SC900		GE-62	PTC139*	HEPS0015*	REN 199	SK3124	RT-302	ECG199	2SC900	WEP900	ZEN-119
	2SC900U		GE-62	PTC139*	HEPS0015*	REN 199	SK3124	RT-302	ECG199	2SC900U	WEP900U	ZEN-119
	2SC1096S, L,M		GE-28	PTC110	HEPS3041	REN 186	SK3197	RT-166	ECG186A	2SC1096S	WEP1096S	ZEN-119
Q22	2SC2074C	742623	GE-336	PTC110	HEPS3041	REN 186	SK3197	RT-166	ECG186A	2SC2074C	WEP2074C	ZEN-119
	2SC2074		GE-336	PTC110	HEPS3041	REN 186	SK3197	RT-166	ECG186A	2SC2074	WEP2074	ZEN-119
	2SC1096		GE-28	PTC110	HEPS3041	REN 186	SK3197	RT-166	ECG186A	2SC1096	WEP1096	ZEN-119
	2SC1096S, L,M		GE-28	PTC110	HEPS3041	REN 186	SK3197	RT-166	ECG186A	2SC1096S	WEP1096S	ZEN-119
Q25	2SC735Y	742621	GE-210*	PTC123*	HEPS0014*	REN 289	SK3122	RT-308*	ECG289	2SC735Y	WEP735Y	ZEN-127
	2SC735		GE-210*	PTC123*	HEPS0014*	REN 289	SK3122	RT-308*	ECG289	2SC735	WEP735	ZEN-127
	2SC1959		GE-210*	PTC123*	HEPS0015*	REN 128	SK3122	RT-302	ECG297	2SC1959	WEP1959	121-722
	2SC1318		GE-210*	PTC123*	HEPS0014*	REN 289	SK3122	RT-308*	ECG289	2SC1318	WEP1318	ZEN-127
Q26	2SC735GR	742621	GE-210*	PTC123*	HEPS0014*	REN 289	SK3122	RT-308*	ECG289	2SC735GR	WEP735GR	ZEN-127
	2SC735Y		GE-210*	PTC123*	HEPS0014*	REN 289	SK3122	RT-308*	ECG289	2SC735Y	WEP735Y	ZEN-127
	2SC735		GE-210*	PTC123*	HEPS0014*	REN 289	SK3122	RT-308*	ECG289	2SC735	WEP735	ZEN-127
	2SC1959		GE-210*	PTC123	HEPS0015*	REN 128	SK3122	RT-302	ECG297	2SC1959	WEP1959	121-722
Q27	2SC1318	742621	GE-210*	PTC123	HEPS0015*	REN 128	SK3122	RT-302	ECG297	2SC1318	WEP1318	ZEN-127
	2SC734		GE-212	PTC123*	HEPS5026*	REN 128*	SK3122	RT-302	ECG128*	2SC734	WEP734	121-972
	2SC735GR		GE-210*	PTC123*	HEPS0014*	REN 289	SK3122	RT-308*	ECG289	2SC735GR	WEP735GR	ZEN-127
	2SC735GR		GE-210*	PTC123*	HEPS0014*	REN 289	SK3122	RT-308*	ECG289	2SC735GR	WEP735GR	ZEN-127

* Lead configuration may vary from original.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFR. PART No.	CORNELL- DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C2	10 16V	742072	PC10-25	VTT10B25	QV1-41	EW-1222
C3	.22 10V	742553		TD224M050EL	QDT1-10	S050-R229
C11	47 10V	742077	PC50-16	VTT47016	QV1-73	EW-1226
C18	1 50V	742076	PC1-50	VTT1A50	QV1-11	EW-1615
C50	1 50V	742076	PC1-50	VTT1A50	QV1-11	EW-1615
C72	10 16V	742068	PC10-25	VTT10B25	QV1-41	EW-1222
C74	3.3 25V	742074	PC5-50	VTT3R3A50	QV1-23	EW-1318
C76	1 50V	742076	PC1-50	VTT1A50	QV1-11	EW-1615
C78	47 16V	742079	PC50-16	VTT47016	QV1-73	EW-1226
C85	3.9 25V	741793		T0C475M035FL	QDT1-43	S035-3R99
C86	.47 10V	742584		TD474M050EL	QDT1-19	S050-R479
C87	33 10V		PC30-25	VTT33B10	QV1-61	EW-1125
C93	47 16V	742079	PC50-16	VTT47016	QV1-73	EW-1226
C94	220 16V	741797	PC250-25	VTT220H16	QV1-117	EW-1240
C96	3.3 25V	742074	PC5-50	VTT3R3A50	QV1-23	EW-1318
C97	47 10V	742077	PC50-16	VTT47016	QV1-73	EW-1226
C99	47 25V	742081	PC50-25	VTT47E25	QV1-75	EW-1326
C100	1000 16V	742080	PC1000-16	VTT1000L16	QV1-183	EW-1260
C101	33 10V		PC30-25	VTT33B10	QV1-61	EW-1125
C120	33 16V	742085	PC30-25	VTT33025	QV1-63	EW-1325
C150	10 16V	742068	PC10-25	VTT10B25	QV1-41	EW-1222
C151	470 6.3V		PC500-16	VTT470K16	QV1-149	EW-1150
C152	.1 10V	742688		TD104M050EL	QDT1-2	S050-R109

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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
C1	.01		UK50-103		MAG5011		
	.1		CK-104		MAG5001		
C4	68 N150 10%	741788			*		10TCP-Q68
C5	.01		UK50-103		MAG5011		
C6	22 N150	741807					10TCP-Q22
C7	330 10%		00-331	GP330	GP333		10TS-T33
	220 50V 5%		DO-221		GP322		10TS-T22
C8	150 10%		DO-151		GP315		10TS-T15
	120 50V 10%		DO-151		GP315		10TS-T15
C9	.047		UK25-503		MAG2515		HY-735
C10	47		DTZ-47	NP047	CN0447		10TCC-Q47
C12	4 N150	742528			*		10TCP-V47
C13	.001 50V 10%			DPMS6D1	EWFA1A210	QFT2-1	1FT-D10
C14	68 N150 10%	741788			*		10TCP-Q68
C15	.01		UK50-103		MAG5011		
C16	33	437381			*		10TCP-Q47
C17	47 N150 10%	245245					1FT-D10
C19	.001 50V 10%			DPMS6D1	EWFA1A210	QFT2-1	1FT-D10
C20	.001 50V 10%			DPMS6D1	EWFA1A210	QFT2-1	1FT-D10
C21	.001 50V 10%			DPMS6D1	EWFA1A210	QFT2-1	1FT-D10
	100 100V	742526					10TCC-V22
C22	2 50V 5%		OTZ-2R2	NP02P2	CN0522		
C23	7	742527			*		10TCP-Q33
C24	33 N150 10%	741781					
C25	4	742528					
C26	330 10%		00-331	GP330	GP333		10TS-T33
	560 50V			CD19FD561J03	SX356		MWC-561
C27	390		DO-391	GP390	GP339		10TS-T39
C28	.01		UK50-103		MAG5011		
C29	68		DTZ-68	NP068	CN0468		10TCC-Q68
C30	56				CN0456		10TCC-Q56
C31	.01		UK50-103		MAG5011		
C32	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C33	.01		UK50-103		MAG5011		
C35	68		DTZ-68	NP068	CN0468		10TCC-Q68
	220 50V 5%		DO-221		GP322		10TS-T22
C36	.01		UK50-103		MAG5011		
C37	100 N150 10%	741763			*		10TCP-T10
C38	.01		UK50-103		MAG5011		
C39	.01 50V 10%			WMF1S1	EWFA1A110	QFT2-91	1FT-S10
C40	390		DO-391	GP390	GP339		10TS-T39
	330		DO-331	GP330	GP333		10TS-T33
C41	.01		UK50-103		MAG5011		
C42	120 10%		DTZ-120		CN0312		10TCC-T12
C43	220 10%		DO-221		GP322		10TS-T22
C44	120 10%		DTZ-120		CN0312		10TCC-T12
C45	.01		UK50-103		MAG5011		
C46	120 10%		DTZ-120		CN0312		10TCC-T12
C47	270 10%		DO-271	GP270	GP327		10TS-T27
C48	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C49	.0047		DO-472	GP470D	GP247		56A-Q47
C51	27				CN0427		10TCC-Q27
C52	.01		UK50-103		MAG5011		
C53	.047		UK25-503		MAG2515		HY-735
C54	.047		UK25-503		MAG2515		HY-735
C55	.047 50V 10%			DPMS2S47	EWFA1A147	QFT2-171	1FT-S47
C56	.01		UK50-103		MAG5011		
C57	10		OTZ-10	NP010	CN0410		10TCC-Q10
C58	.01		UK50-103		MAG5011		
C59	.01		UK50-103		MAG5011		
C60	.01		UK50-103		MAG5011		
C61	.01		UK50-103		MAG5011		
C62	.01		UK50-103		MAG5011		
C63	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C64	.01		UK50-103		MAG5011		
C65	18 N150	742525			*		10TCP-Q18
C66	2.2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C67	.047 50V 10%			DPMS2S47	EWFA1A147	QFT2-171	1FT-S47
C68	.047 50V 10%			DPMS2S47	EWFA1A147	QFT2-171	1FT-S47
C69	.047 50V 10%			DPMS2S47	EWFA1A147	QFT2-171	1FT-S47
C70	.047 50V 10%			DPMS2S47	EWFA1A147	QFT2-171	1FT-S47
C71	.047 50V 10%			DPMS2S47	EWFA1A147	QFT2-171	1FT-S47
C73	.022 50V 10%			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C75	.01 50V 10%			WMF1S1	EWFA1A110	QFT2-91	1FT-S10
C77	100 10%		OTZ-100	NP0100	CN0310		10TCC-T10
C79	.022 50V 10%			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C80	.0022				GP222		10TS-D22
C81	.022 50V 10%			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C82	220 10%		DO-221		GP322		10TS-T22
C83	.01 50V 10%			WMF1S1	EWFA1A110	QFT2-91	1FT-S10
C84	.0022 10%				GP222		10TS-D22
C88	68		OTZ-68	NP068	CN0468		10TCC-Q68

RCA MODEL 14T305

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
C89	68		DTZ-68	NP068	CN0468		10TCC-Q68
C90	100		DTZ-100	NP0100	CN0310		10TCC-T10
C91	.068 50V 10%			WMF1S68	EWFA168	QF1-195	1PB-S68
C92	100		OTZ-100	NP0100	CN0310		10TCC-T10
C95	.068 50V 10%			WMF1S68	EWFA168	QF1-195	1PB-S68
C102	.01		UK50-103		MAG5011		HY-735
C106	.047		UK25-503		MAG2515		HY-735
C107	.047		UK25-503		MAG2515		10TCC-Q18
C110	18				CN0418		10TS-Q82
C111	82 50V		DD-820		GP482		10TS-T39
C114	390 10%	436478	DD-391	GP390	GP339		
C117	.0047 10%	742536			GP247		
C118	.022	741761			SM120		
C130	.0022 10%				GP222		10TS-D22
C131	39 N150	423293			*		10TCP-Q39
C132	15 N150				*		10TCP-Q15
C133	.0022 10%				GP222		10TS-D22
C134	3 N150	742554			*		10TCP-V30
C135	220 10%		DD-221		GP322		10TS-T22
C136	.0033 50V 10%			WMF1033	M192P3329RB	QFT2-43	1FT-D33
C137	.01		UK50-103		MAG5011		
C139	220 10%		DD-221		GP322		10TS-T22
C141	.01		UK50-103		MAG5011		
C142	100		DTZ-100	NP0100	CN0310		10TCC-T10
C154	.047 50V 10%			DPMS2S47	EWFA147	QFT2-171	1FT-S47
	.1 10V		UK12-104		MAG1201		HY-360
C155	.047 12V		UK12-503		MAG1215		HY-350
C156	.047 12V		UK12-503		MAG1215		HY-350
C201A	150 500V 56		DTZ-150		CN0315		10TCC-T15
	180 500V		DD-181		GP318		10TS-T18
C201B	7 500V	742499					
C202	.01 50V		UK50-103		MAG5011		
C203	.01 50V		UK50-103		MAG5011		
C204	.01		UK50-103		MAG5011		
C205	.047 50V	742569		GP5000			
C206	.01 50V		UK50-103		MAG5011		
C207	.01 50V		UK50-103		MAG5011		
C208	.0047 50V		DD-472	GP4700	GP247		56A-D47
C209	.0047 50V		DD-472	GP4700	GP247		56A-D47
C210	.0047 50V		DD-472	GP4700	GP247		56A-D47
C501	.01 50V		UK50-103		MAG5011		
C502	.01 50V		UK50-103		MAG5011		
C503	.01 50V		UK50-103		MAG5011		
C951	.0047 50V		DD-472	GP4700	GP247		56A-D47
C952	.0047 50V		DD-472	GP4700	GP247		56A-D47
C953	.0047 50V		DD-472	GP4700	GP247		56A-D47
C954	.0047 50V		DD-472	GP4700	GP247		56A-D47
C955	.0047 50V		DD-472	GP4700	GP247		56A-D47
C956	.0047 50V		DD-472	GP4700	GP247		56A-D47
C957	.0047 50V		DD-472	GP4700	GP247		56A-D47
C958	.0047 50V		DD-472	GP4700	GP247		56A-D47
CT1		741721					

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

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

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA			
			MFR. PART No.	CENTRALAB PART No.	MALLORY PART No.	TRW PART No.
RV1	Squelch Range	10K	741707			U260R103B
RV2	ALC	5000	742508			U260R502B
RV3	Signal Meter	20K	741709			U260R253B
RV4	Power Meter	20K	741909			U260R253B
RV501	SWR Meter	5000	742631			X260R502B
VR1	Dimmer	1000	742637(18)			
VR4	Dimmer/Power Switch	200				
VR2	RF Gain	100K	742638			
VR3	SWR CAL	10K	741829			
VR5	Volume	50K				
VR6	Squelch	100K				

(18) Includes VR1, VR4 and Power Switch.

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.	MFG. PART No.			WORKMAN PART No.	MFG. PART No.
	ARRAY 180 Ohms (X7)		742625				

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	RF	742514			
L2	Mixer (38MHz)	741720			
L3	RF	741697			
L4	RF (1uH)	742515			
L5	RF (27MHz)	742516			
L6	RF	741695			
L7	XMT Driver (27MHz)	741696			
L8	RF	741697			
L9	Final	741703			
L10	RF	741698			
L11	Loading Final (27MHz)	741699			
L12	Pi Filter (27MHz)	741700			
L13	Antenna Matching	742517			
L14	Mixer (13.695MHz)	742521			
L15	RF	741697			
L16	RF	741702			
L17	RF	741702			
T1	Ref Osc (20.480MHz)	742518			
T2	Mixer (38MHz)	742519			
T3	XMT Osc/XMT Mixer (27MHz)	741712			
T4	XMT Buffer (27MHz)	741713			
T5	RF (27MHz)	741714			
T6	RF (27MHz)	742520			
T7	Mixer (10.695MHz)	742521			
T8	IF (455kHz)	741717			
T9	IF (455kHz)	741718			
T10	IF (455kHz)	741719			

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (D CURRENT 1000~)	MFG. PART No.	THORDARSON PART No.	TRIAD PART No.	
CH1	1.45A	.116	.48mH	741691 ELA16(1)	TR523		(1) Number on unit.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFG. PART No.	THORDARSON PART No.	TRIAD PART No.	
T4	32	1 8 2 128	741690 ETA-66(1)	TR723	MCB16	(1) Number on unit.

RCA MODEL 14T305

PARTS LIST AND DESCRIPTION (CONTINUED)

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

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3 1/2" PM 8 Ohms	741830	3A0528R	

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
	2A Quick Acting	426968		AGC	HDJ(A)	312002	150145	FG2-2

MICROPHONE

ITEM No.	REPLACEMENT DATA				CONNECTION DATA						
	MFGR. PART No.	GC PART No.	GC NOISE CANCEL	GC POWER	GC CONNECTOR	Red	Shield	Yellow	Blue	White	Blac
MIC	742672										

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF1	Filter	741812	455kHz
J1	Jack	742497	Antenna
J3	Jack	742498	PA/SP
J4	Jack	742498	External C8 Speaker
J5	Jack	741819	DC
J951	Jack	742667	Mic
LED301	LED	742568	TENS & UNITS
M	Meter	741831	S/RF/SWR DC with Lamp (PL1)
PL1	Lamp		Meter (4.80V @ 55mA)
PL2	Lamp	741833	Modulation
S1	Switch	742637	On/Dimmer
S2	Switch	742645	Delta Tune
S3	Switch	741817	ANL On/Off
S4	Switch	741817	PA/CB
S5	Switch	741817	Noise Blanker On/Off
S6	Switch	742645	S/RF/CAL/SWR
X1	Crystal	742506	10.240MHz
X2	Crystal	742507	10.695MHz
	Cord	741827	DC Power
	Mic Assembly	742672	
	Plug	742668	9 Pin (LED Board)

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

ITEM	PART No.	ITEM	PART No.
Escutcheon	742577	Knob (VR)	741823
		Panel (Front)	742613