

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.



PRESIDENT MODEL JOHN Q.

MODEL John Q.

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.
 Suggested Alignment Tools: GC Electronics:
 L6,L7,L8,L9,L11,L12,L15.....5009
 L1,L2,L3,L4,L5,L16,L17,L18,L19,L20,L23....9440
 TC1.....5000

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of oscilloscope to TP1.	Ch. 19	L5	Adjust for maximum.
Input of frequency counter to TP1.	Ch. 19	TC1	Adjust for 10.240MHz.
Input of DC meter to TP3.	Ch. 19	L19	Adjust for 3.0 volts.
Input of oscilloscope to TP4.	Ch. 19	L20	Adjust for maximum.
Input of frequency counter to TP4.	Ch. 19	L23	Adjust for 37.880MHz.

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	TRANSCIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP10. 455kHz, 1000Hz @ 30% modulation.	Ch. 19, DX-LOC to DX	L8,L7,L6	Adjust for maximum output.
Output of signal generator thru .01uF to TP11. 10.695MHz, 1000Hz @ 30% modulation.	Ch. 19	L4,L3	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19	L2,L1	Adjust for maximum output. Repeat above steps, if necessary.

RECEIVER ADJUSTMENTS

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

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output .9uV.	Ch. 19, RF Gain - Max Volume - Max	RT1	AGC Adjust RT1 for 2 volts audio.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 500uV.	Ch. 19	RT3	SQUELCH RANGE Set Squelch Control VR2 fully clockwise. Adjust RT3 so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19	RT2	S METER Adjust for 9 on S 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.

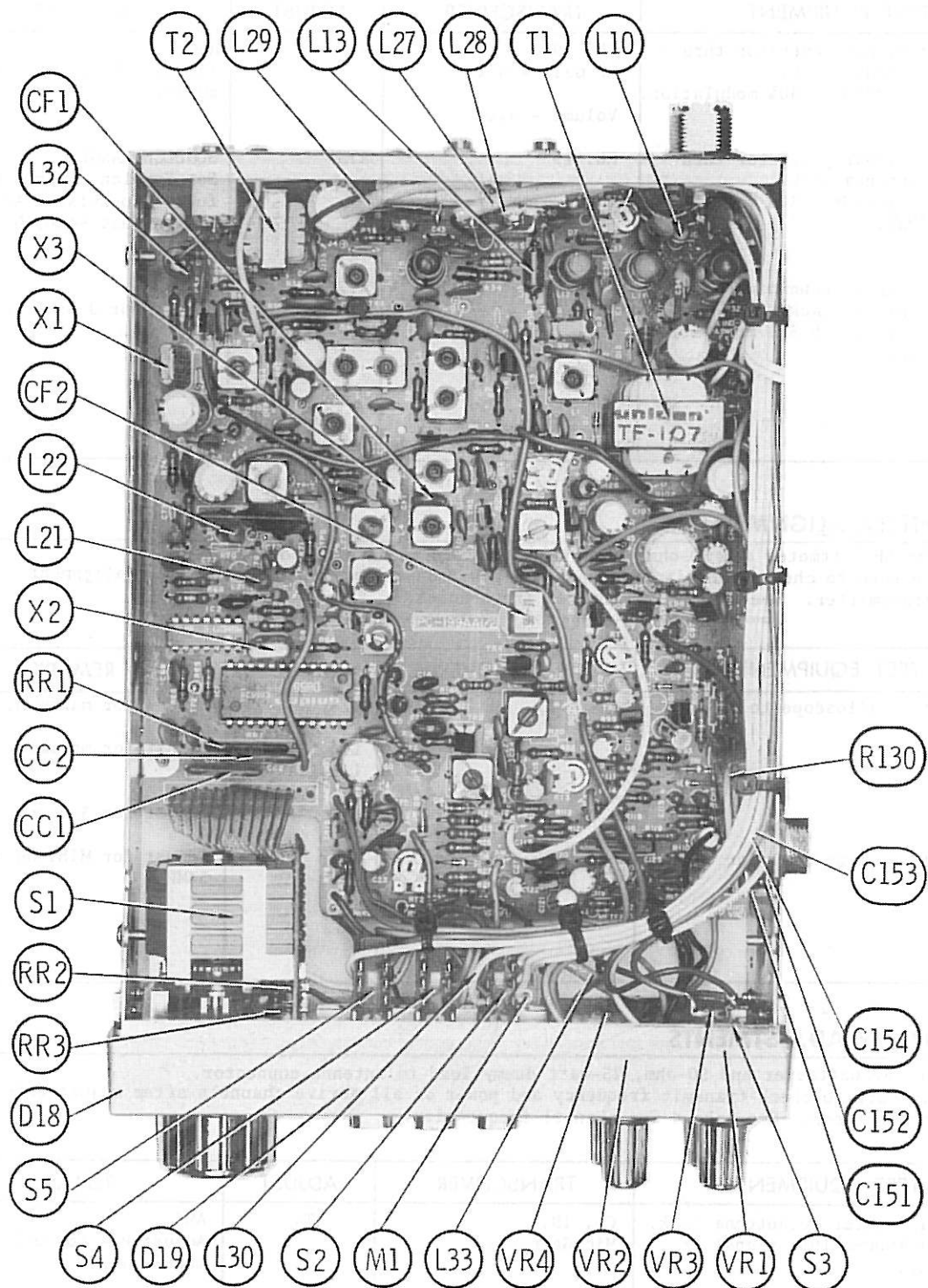
TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of oscilloscope to TP7. Input of spectrum analyzer to antenna jack.	Ch. 19	L18,L17	Adjust for maximum.
	Ch. 19	L16,L15, L12,L11	Adjust for maximum.
	Ch. 19	L12	Adjust for 3.8 watts.
	Ch. 19	L9	Adjust for MINIMUM at 54MHz.

TRANSMITTER ADJUSTMENTS

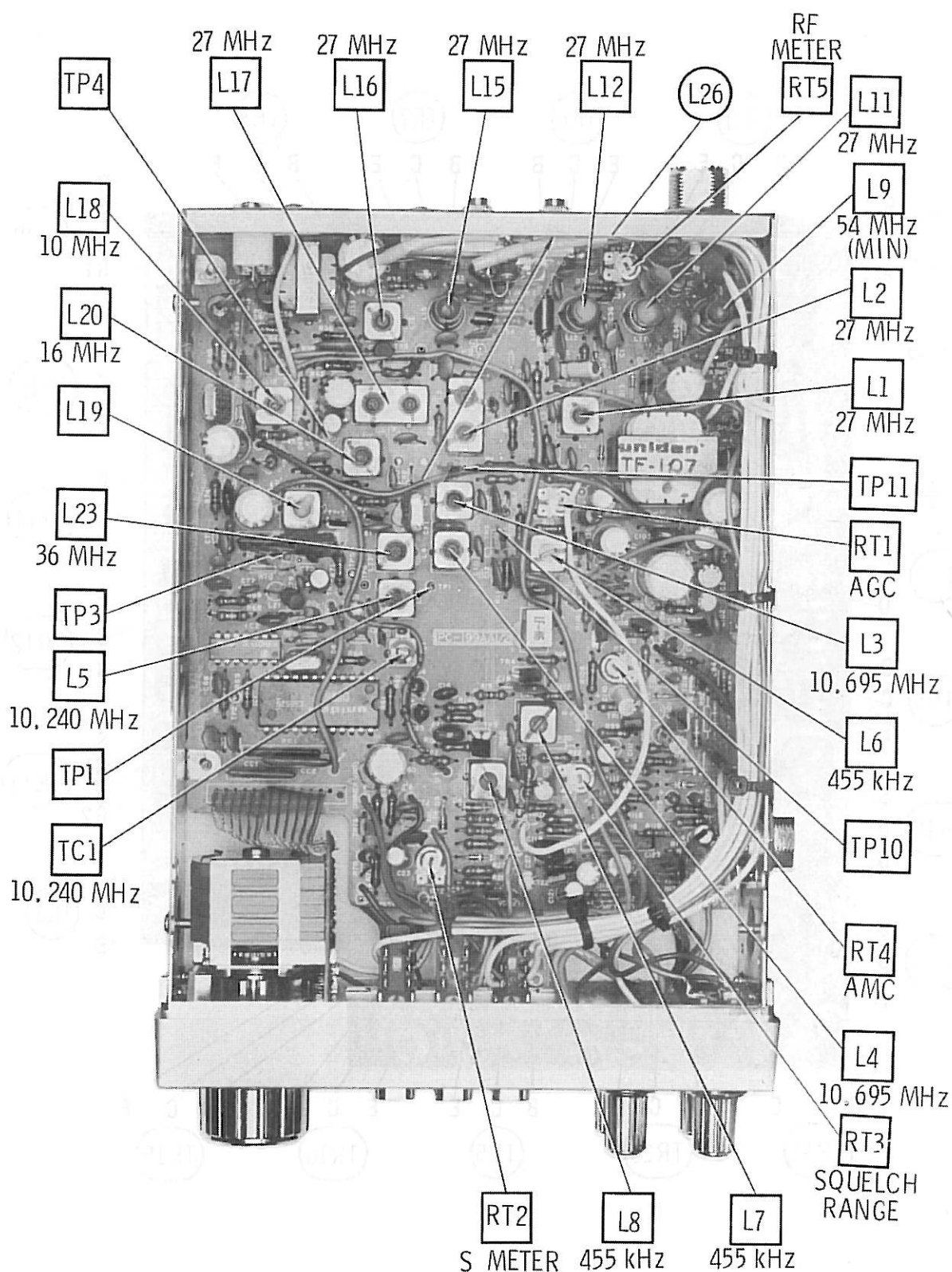
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.

NOTE: Be sure to check transmit frequency and power on all active channels after adjustments of transmitter. See page 4 for channel frequencies.

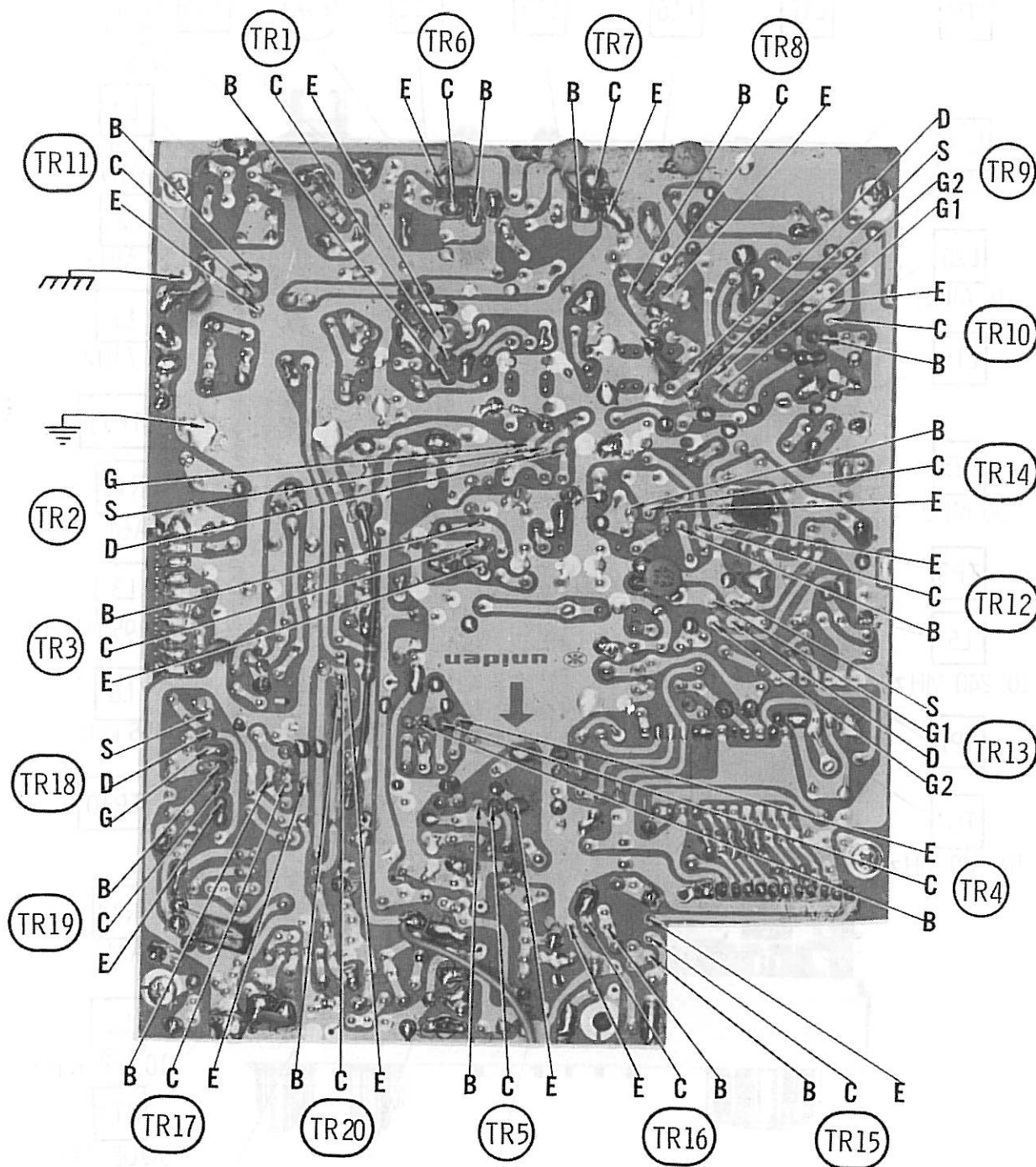
TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Modulation meter to antenna jack. Inject a 1000Hz 10mV signal at MIC input.	Ch. 19, Mic Gain-Max	RT4	AMC Adjust RT4 for 95% modulation.
	Ch. 19	RT5	RF PANEL METER Adjust RT5 so that RF panel meter agrees with RF wattmeter.



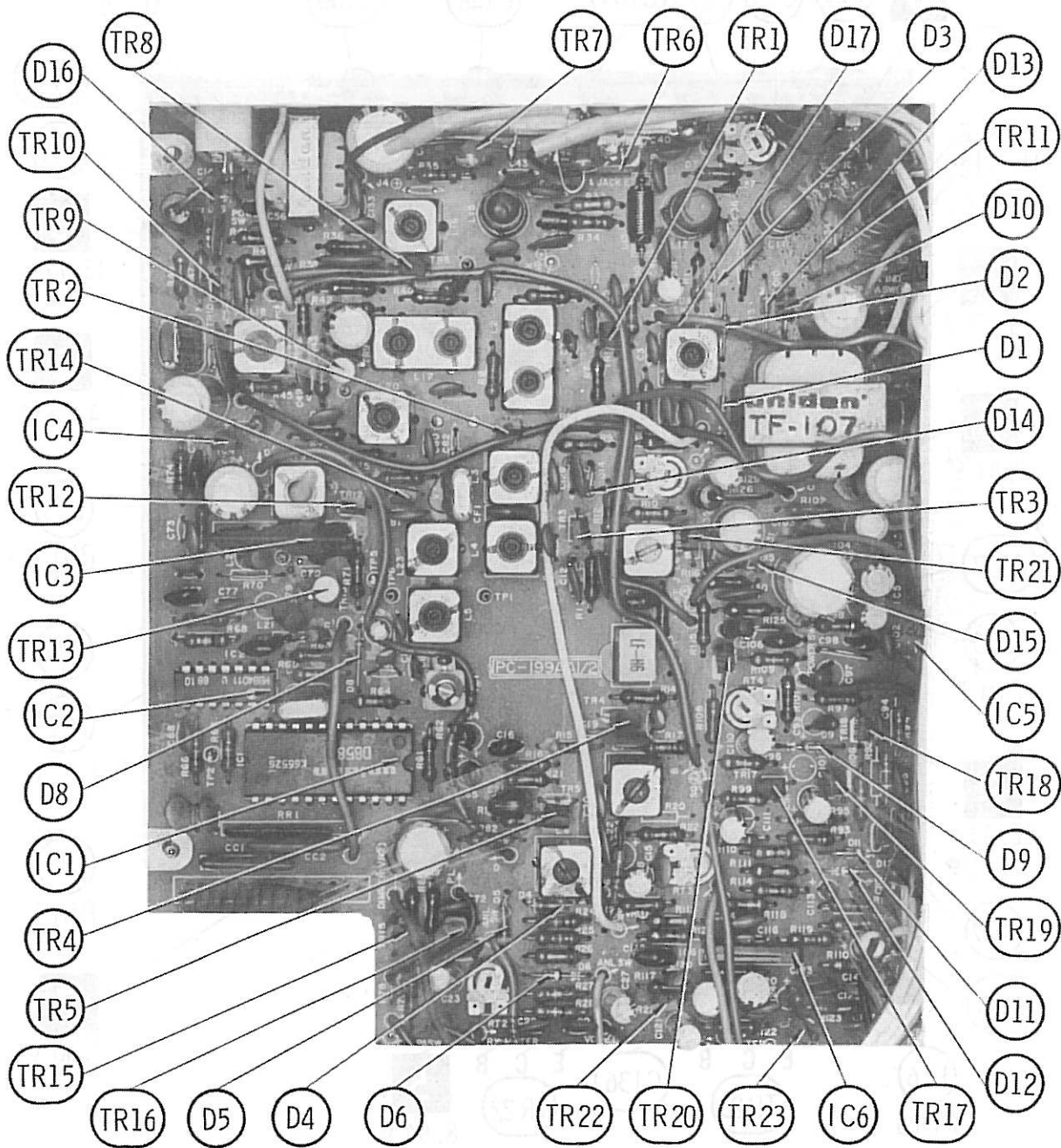
CHASSIS-BOTTOM



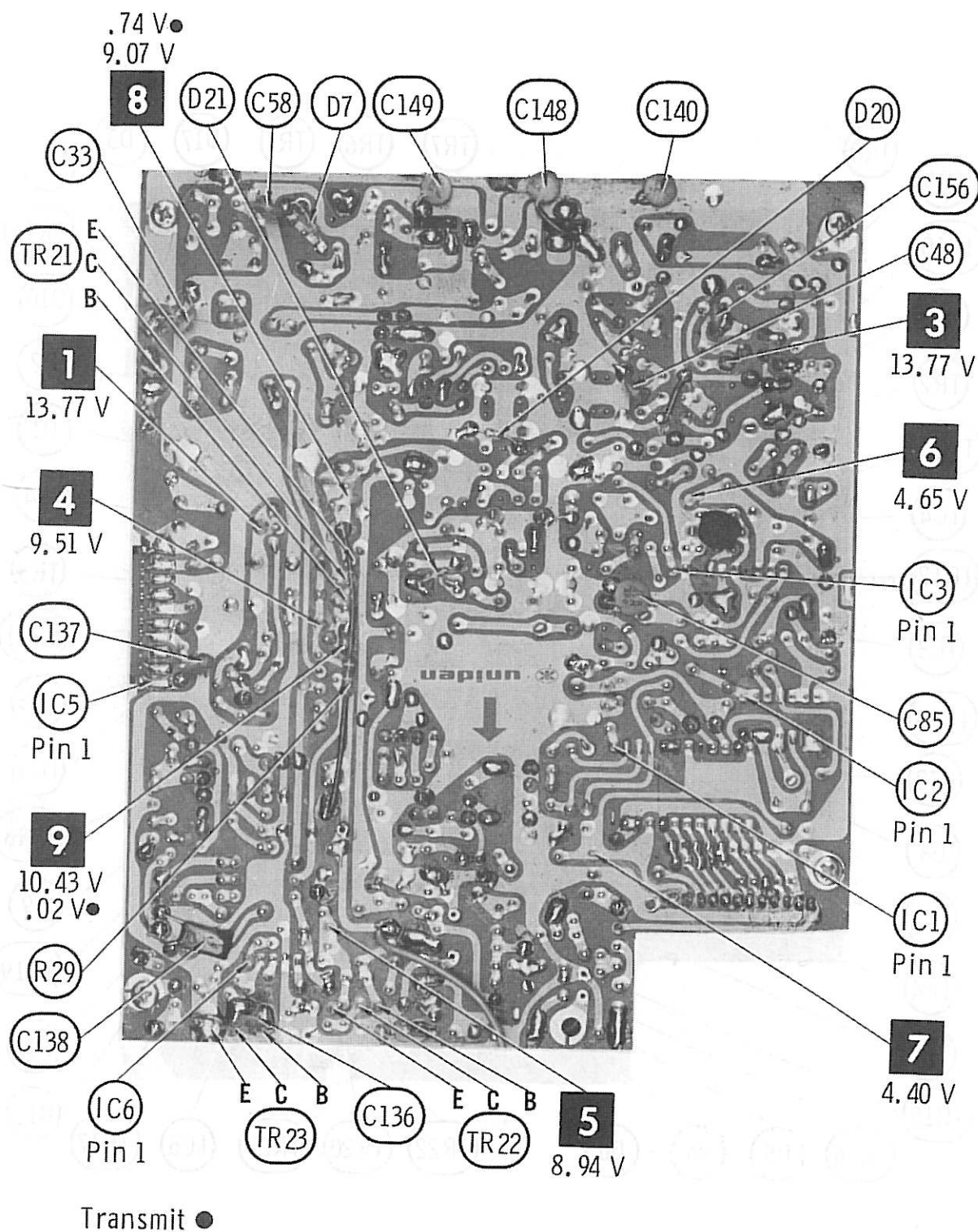
CHASSIS-BOTTOM



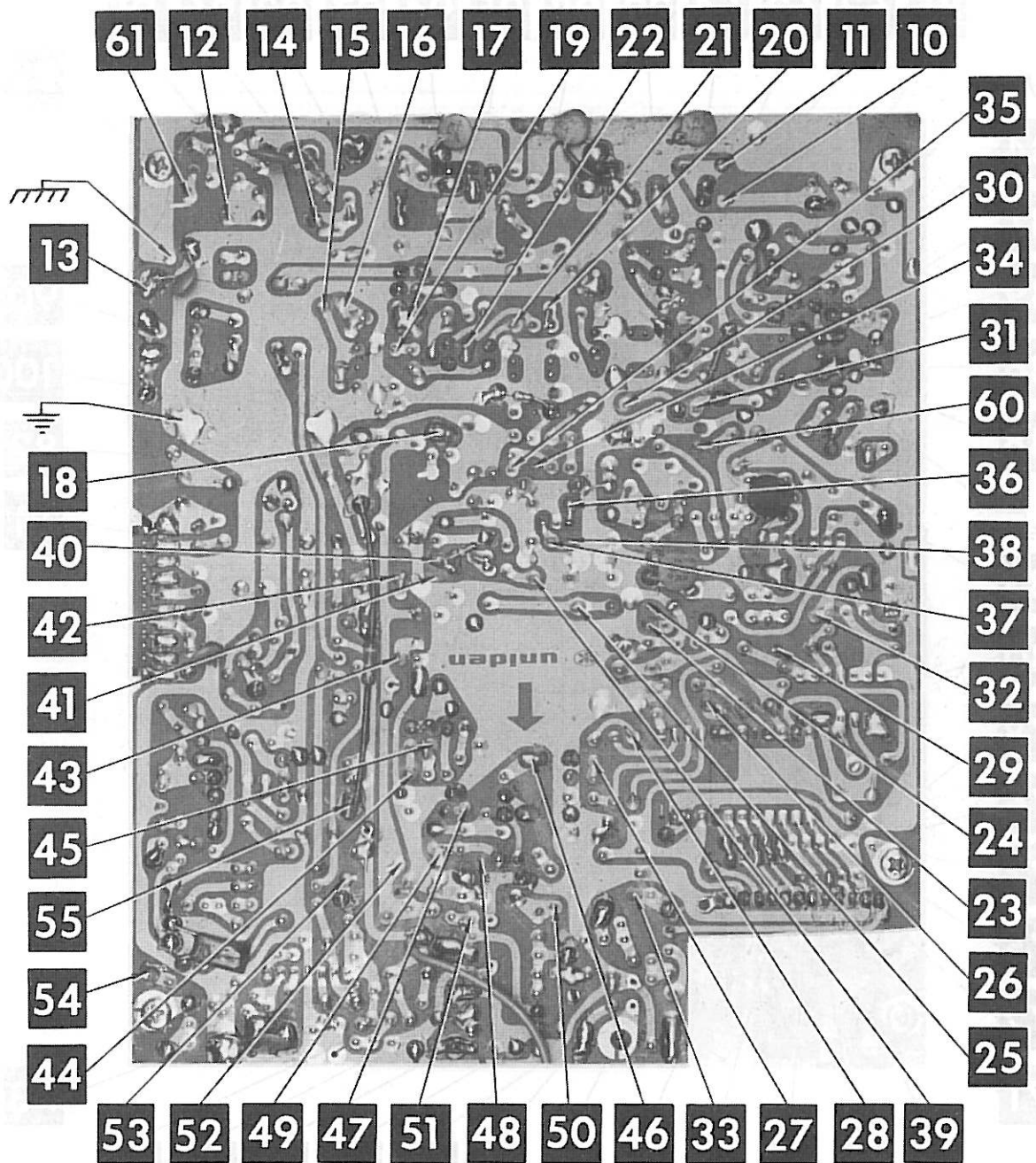
MAIN BOARD



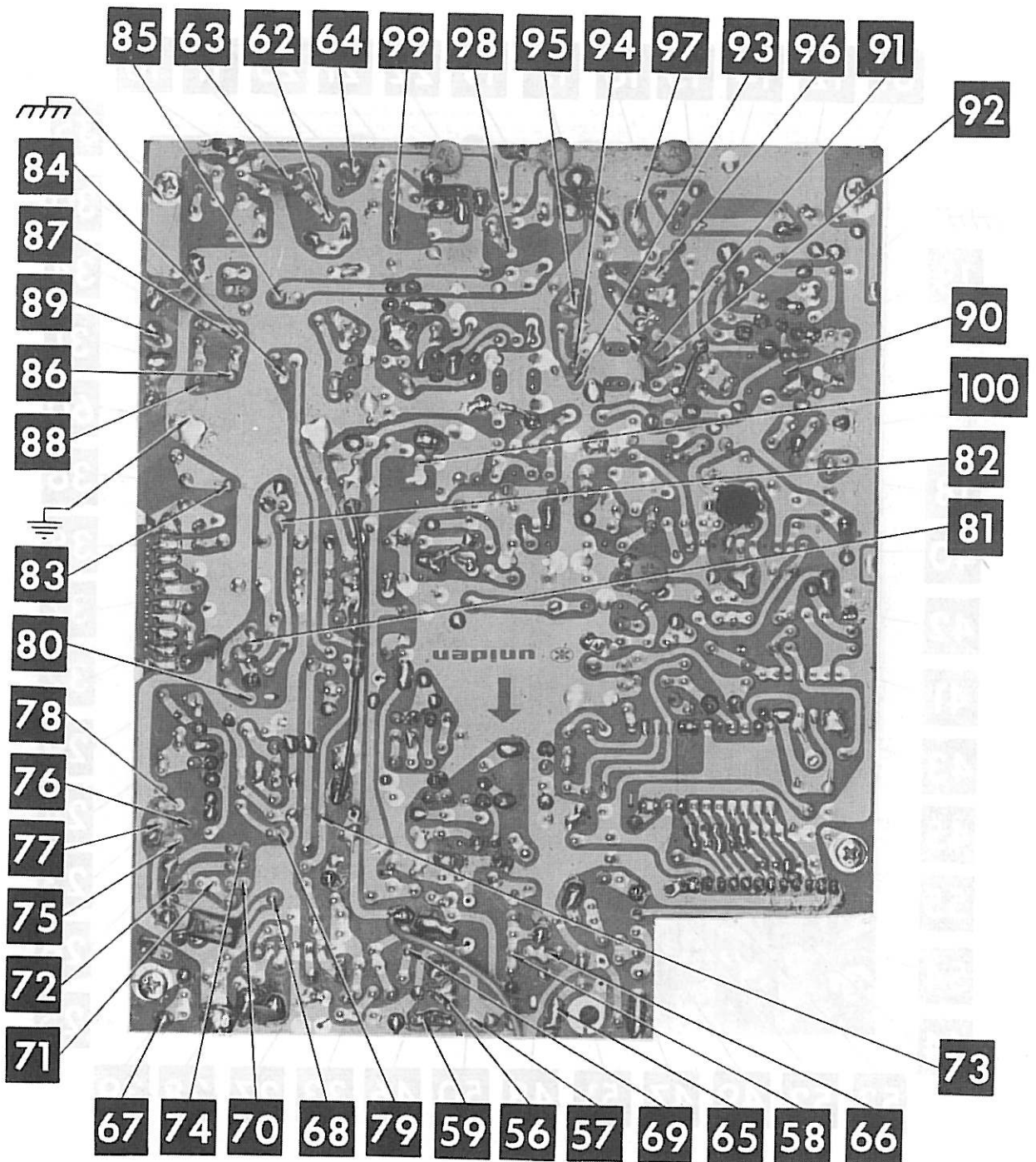
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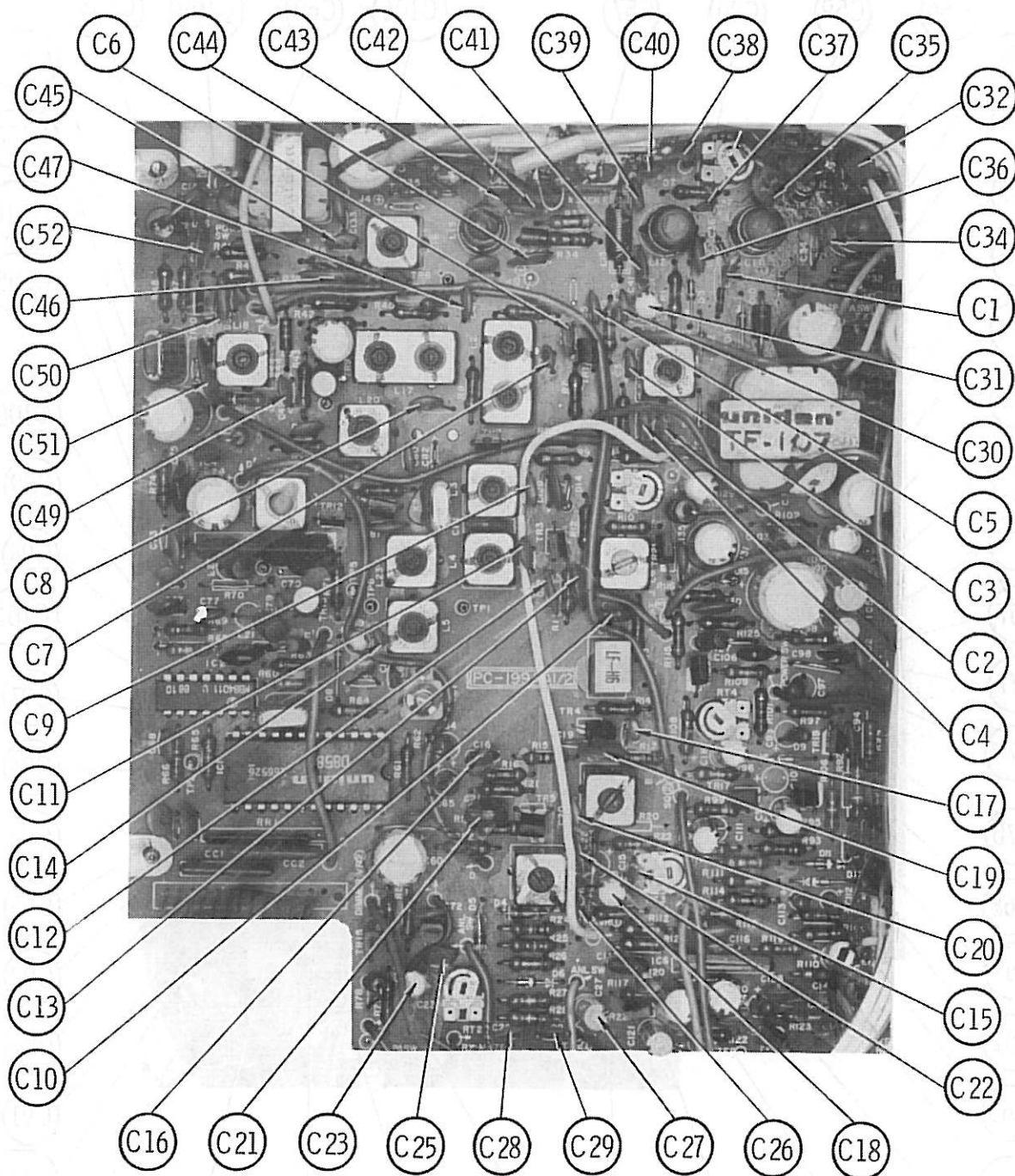
MAIN BOARD



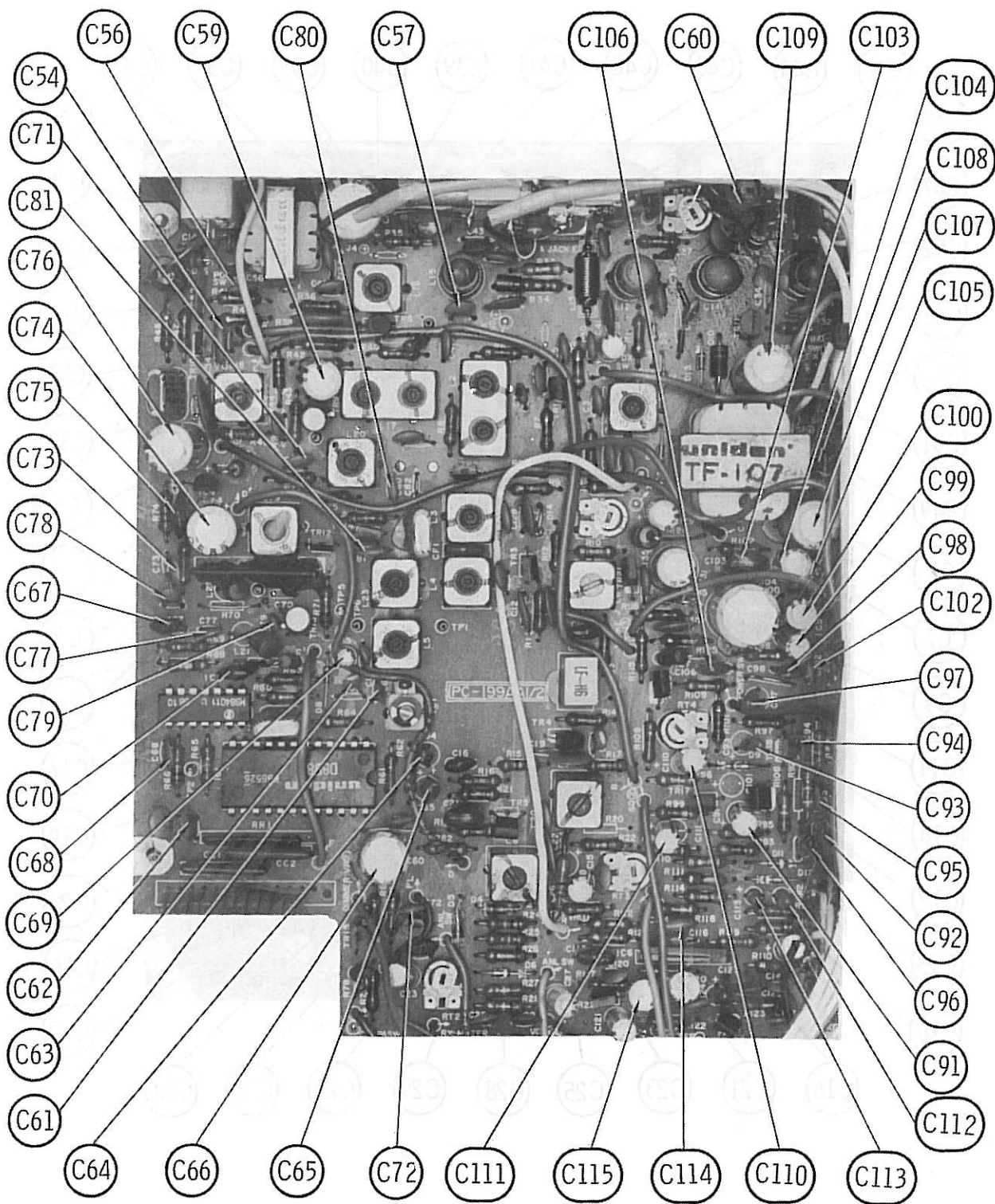
MAIN BOARD



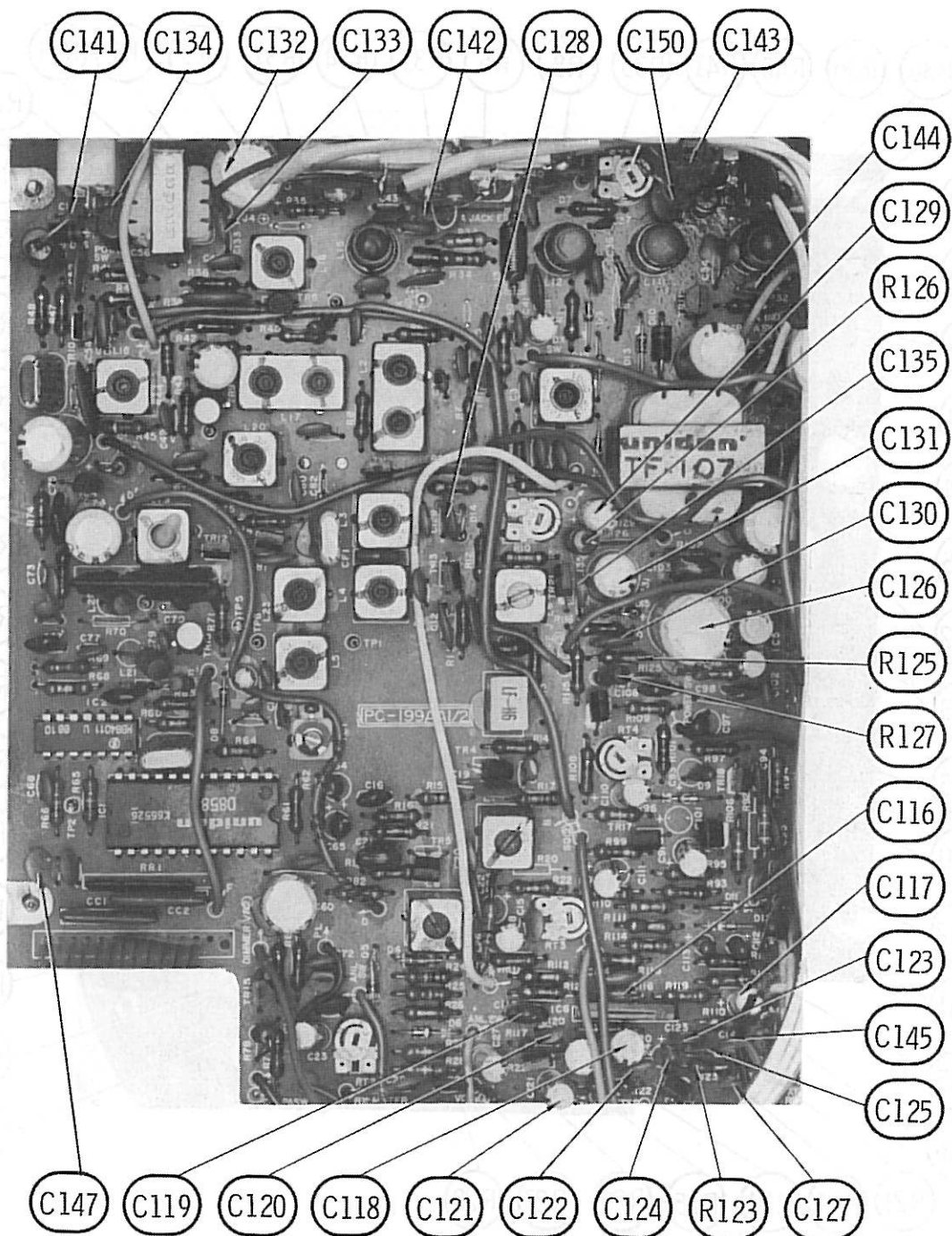
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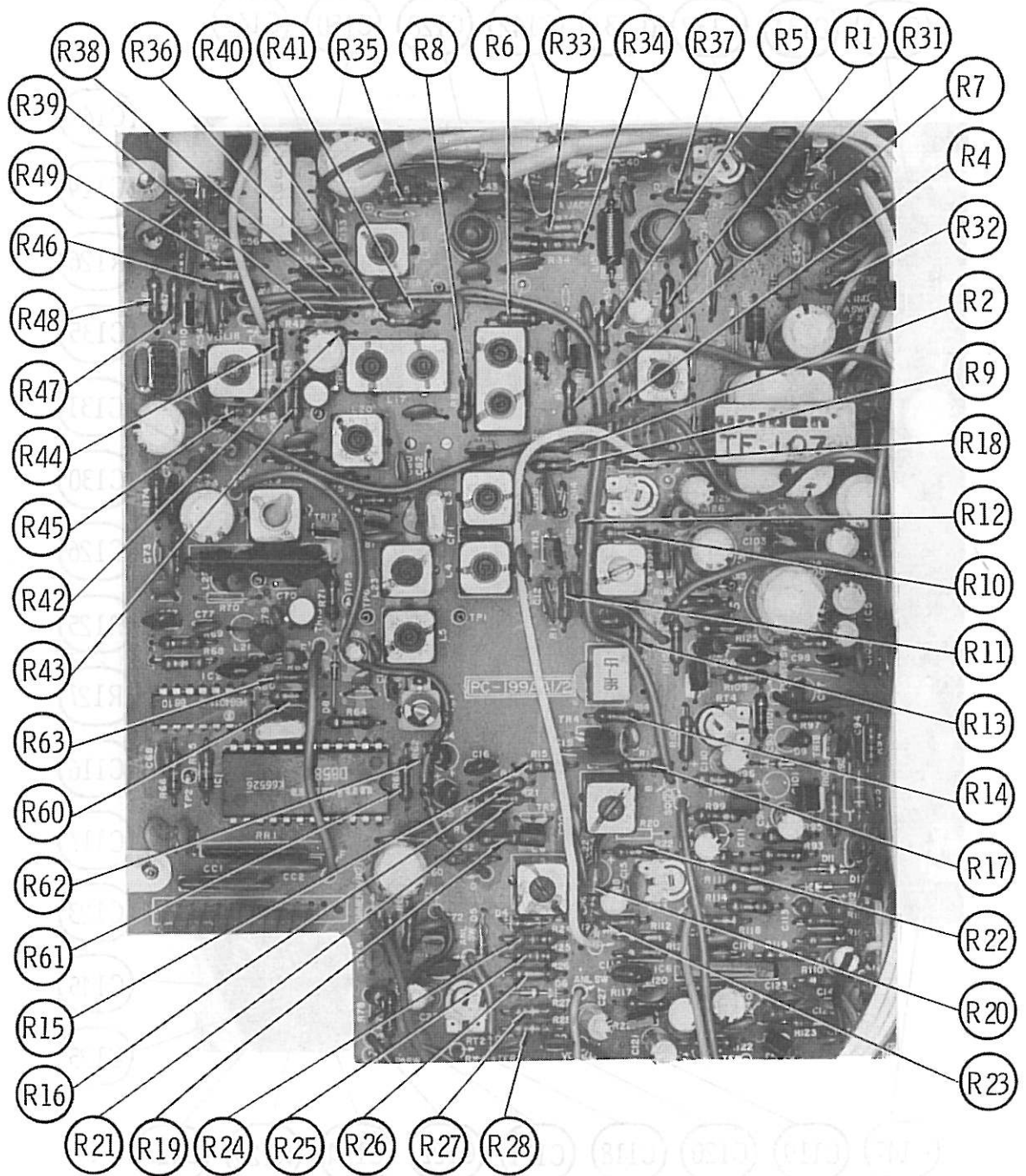
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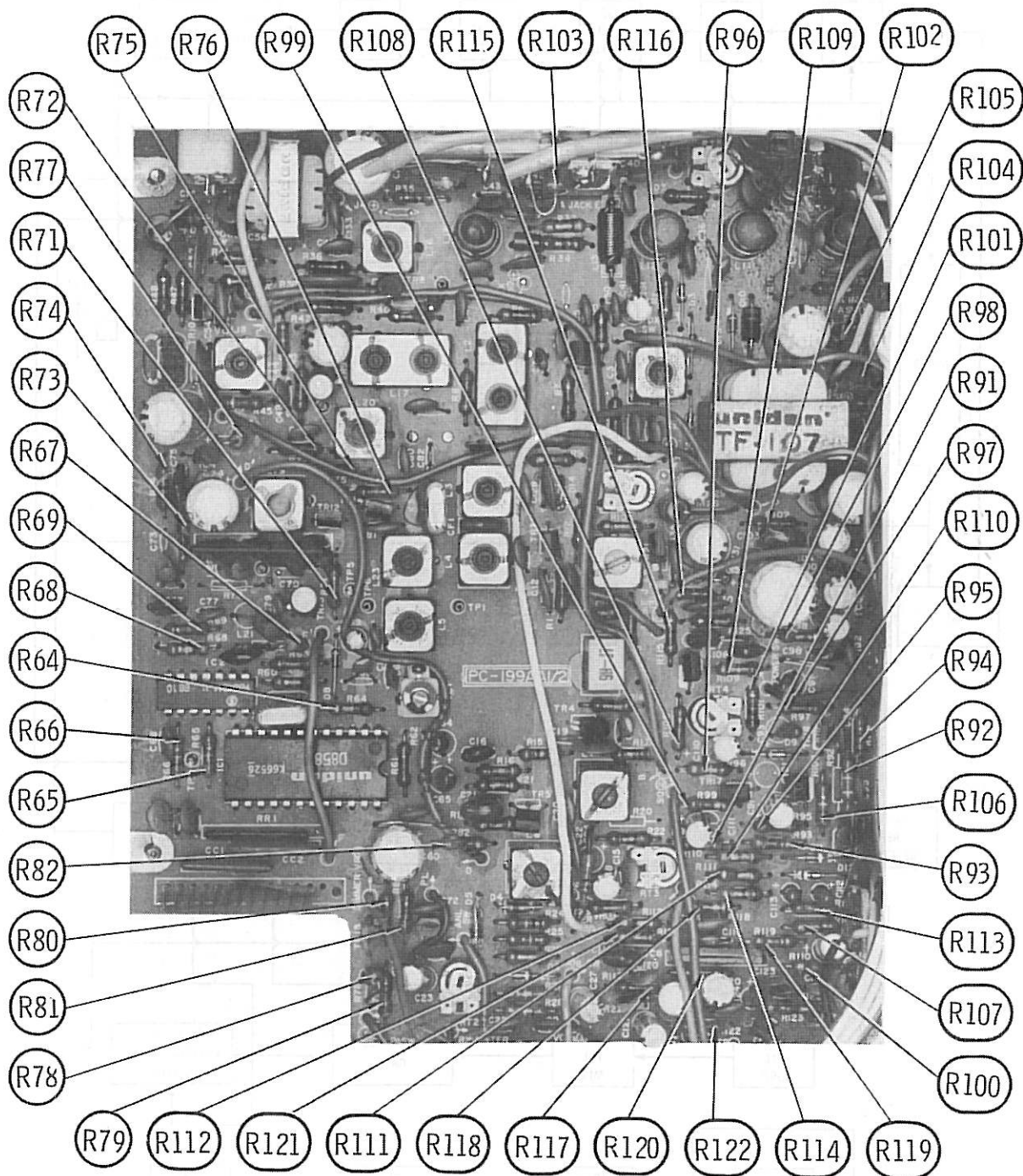
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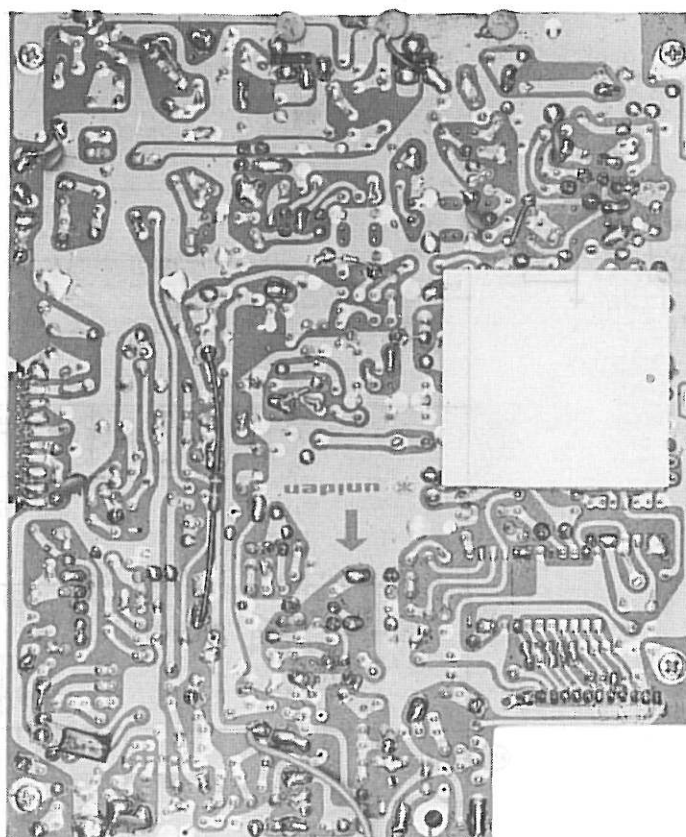
MAIN BOARD



MAIN BOARD







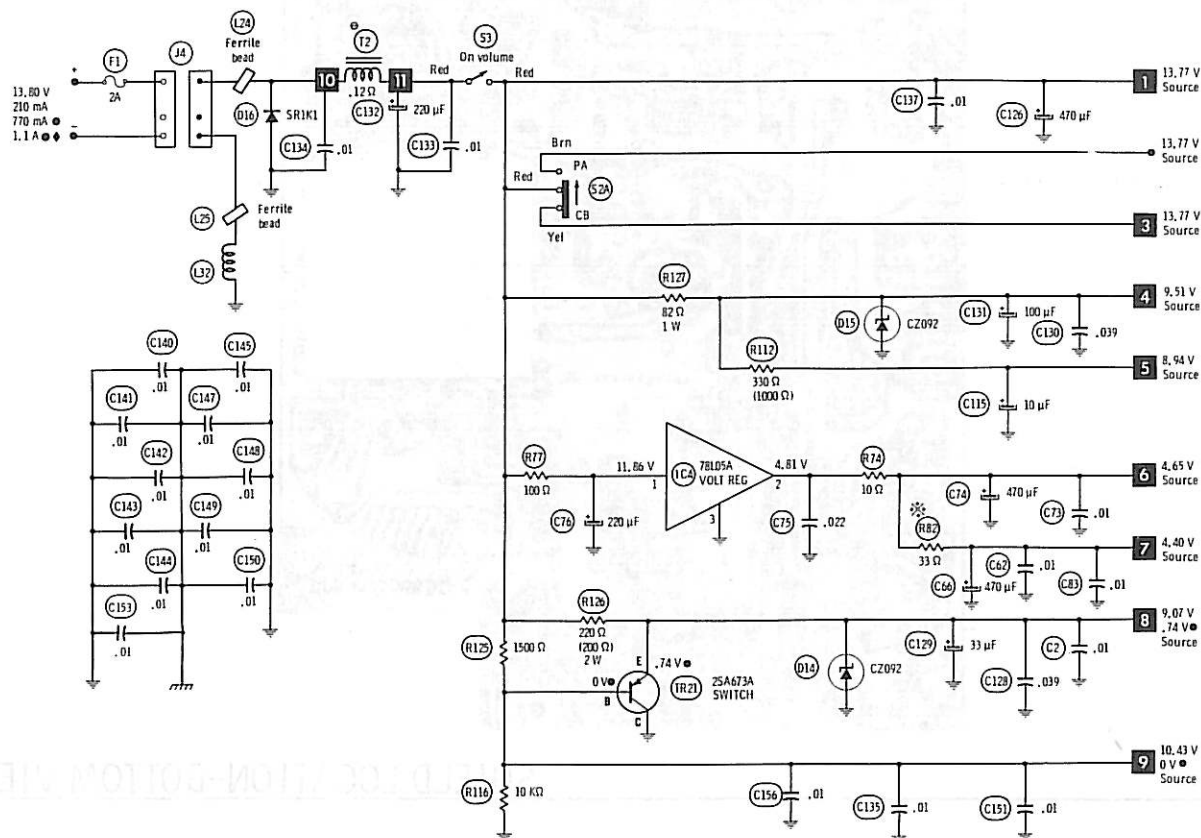
SHIELD LOCATION-BOTTOM VIEW

PARTS LIST AND DESCRIPTION

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

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFG. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	IR WORKMAN PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D1	1S2473	2000-302	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D2	1S2473	2000-302	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D3	1S2473	2000-302	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D4	1N60AM	2000-301	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D5	1N60AM	2000-301	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D6	1S2473K	2000-303	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D7	1N60AM	2000-301	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D8	1S2473	2000-302	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D9	1S2473	2000-302	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D10	SR1K-1	2000-304	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D11	1S2473K	2000-303	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D12	1S2473K	2000-303	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D13	1S2473	2000-302	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D14	CZ-092	2000-305	GEZD-9.1	WEPI04	ZB9.1B		RE 114		RT-240	ECG139
D15	CZ-092	2000-305	GEZD-9.1	WEPI04	ZB9.1B		RE 114		RT-240	ECG139
D16	SR1K-1	2000-304	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D17	1S2473	2000-302	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D20	1S2473		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D21	1S2473		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D24	1S2473(1)		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
IC1	UPD858C	2000-001								
IC2	MP84011U	2000-002								
IC3	UHC004	2000-003								



Terminal Guides



TR1, TR3
TR4, TR5
TR10, TR12
TR14, TR17
TR19
Front view



TR2
Front view



TR6
Front view



TR7
Front view



TR18
Bottom view



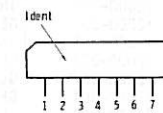
TR8, TR11
TR15, TR16
Bottom view



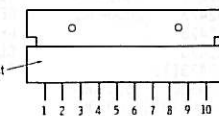
TR9, TR13
Bottom view



IC4
Bottom view



IC6
Front view



IC5
Front view

--- Circuitry not used in some versions

--- Circuitry used in some versions

⊙ See parts list

* Nominal value

⊥ Ground

⏏ Chassis

Measurements with switching as shown unless noted:

■ Squelch fully clockwise ◆ 100% modulation

● Transmit

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.

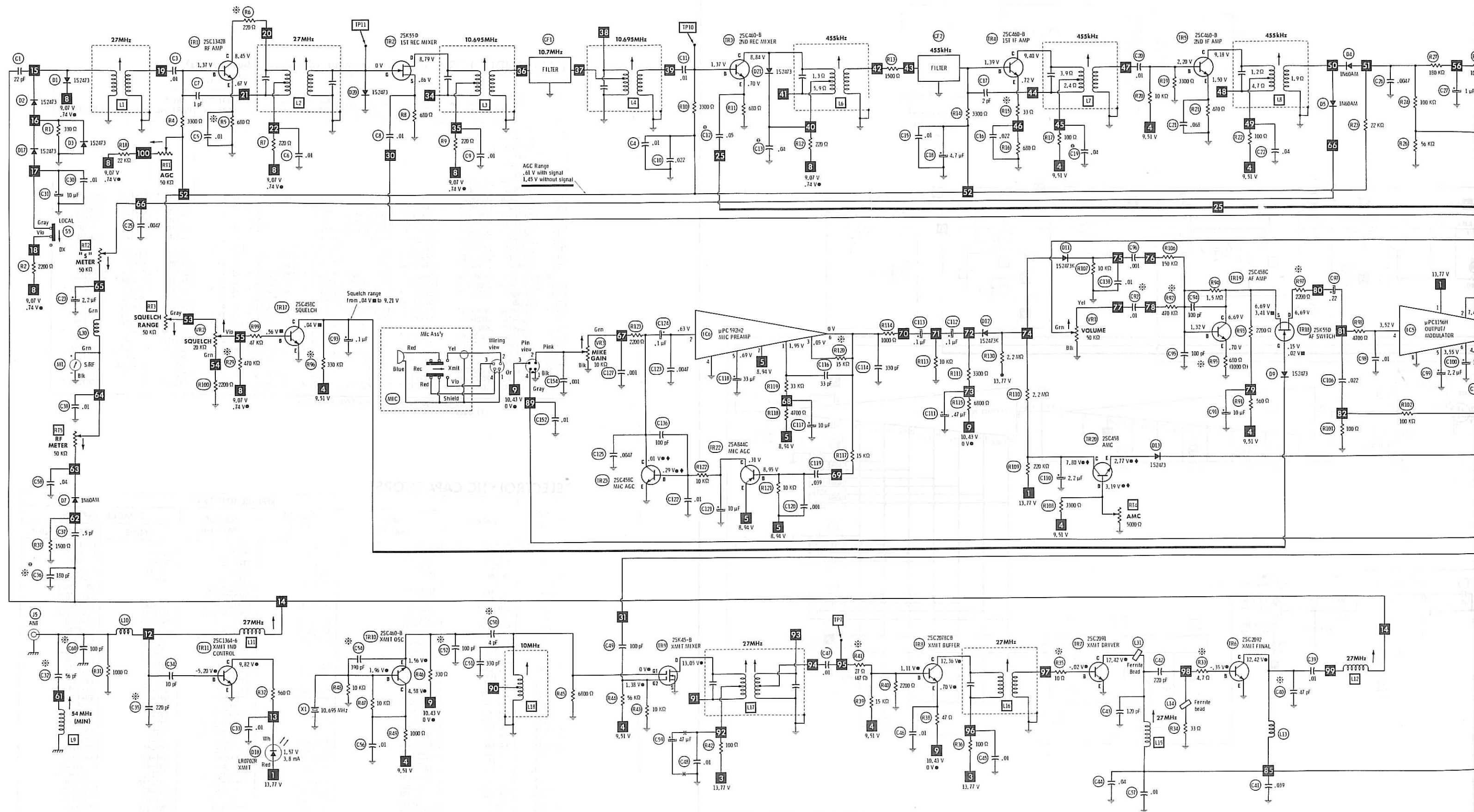
Resistors are 1/2W or less, 5% unless noted.

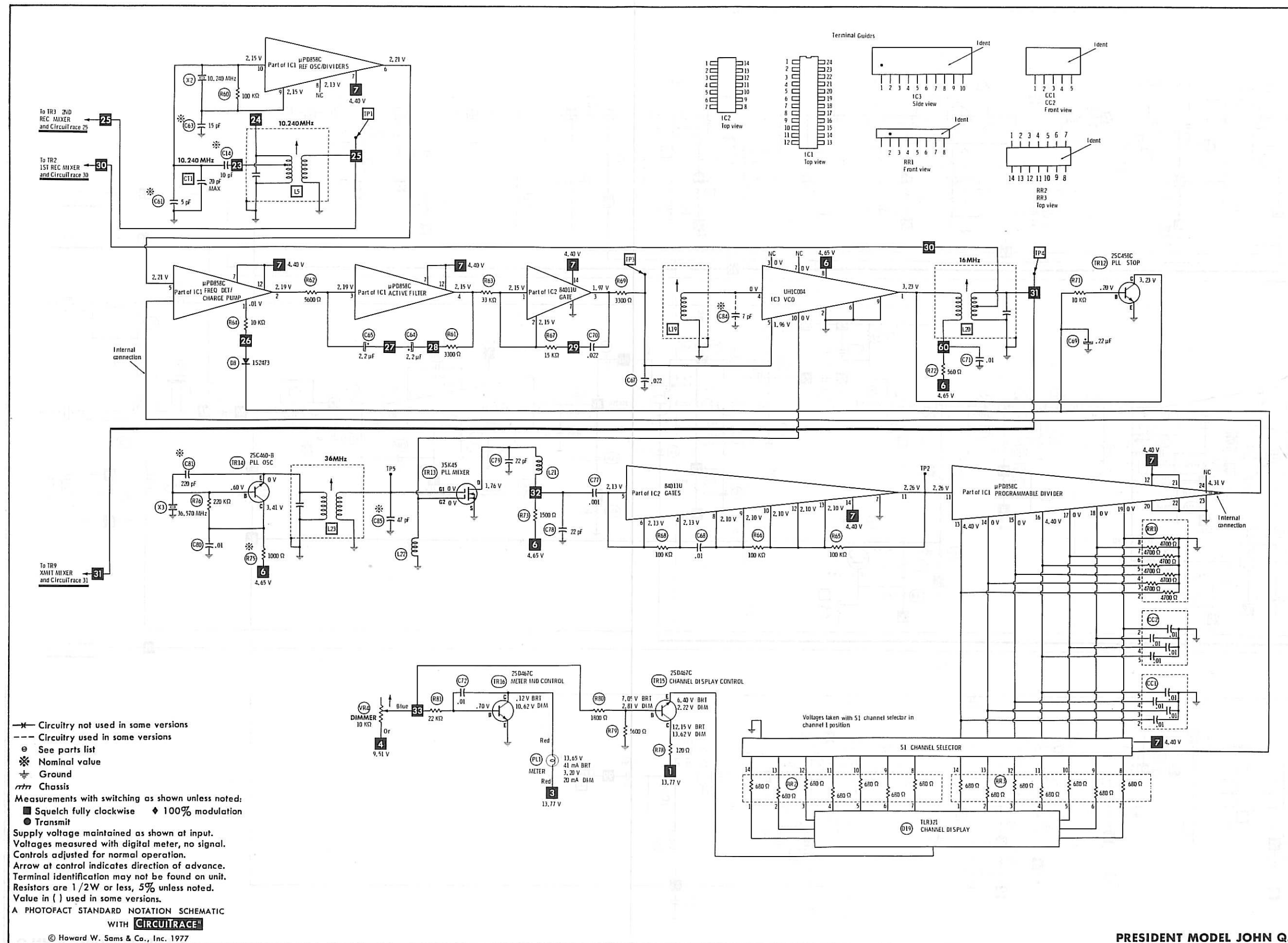
Value in () used in some versions.

A PHOTOFAC STANDARD NOTATION SCHEMATIC

WITH CIRCUITACE

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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.	IR WORKMAN PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
IC4	MC78L05CP NJM78L05A UPC78L05 (1) 78L05-AV (1)	2000-004(1)								
IC5	UPC1156H	2000-005								
IC6	UPC592H2	2000-006								
TR1	2SC1342B	2000-205	GE-61 *	TR-24 *	PTC136 *	HEPS0014 *	RE 9 *	SK3018 *	RT-108A *	ECG229 *
TR2	2SK550	2000-101	GE-FET-2	FE-100	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312
TR3	2SC460-B	2000-204	GE-61 *	(IR)2SC460B	PTC136 *	HEPS0014 *	RE 9	SK3018 *	RT-134	ECG107
TR4	2SC460-B	2000-204	GE-61 *	(IR)2SC460B	PTC136 *	HEPS0014 *	RE 9	SK3018 *	RT-134	ECG107
TR5	2SC460-B	2000-204	GE-61 *	(IR)2SC460B	PTC136 *	HEPS0014 *	RE 9	SK3018 *	RT-134	ECG107
TR6	2SC2092	2000-208	GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
TR7	2SC2091	2000-207	GE-270	WEP913	PTC180		RE 209			ECG295
TR8	2SC2078CB	2000-206	GE-210 *	TR-21 *	PTC123 *	HEPS0014 *	RE 13 *	SK3122	RT-308 *	ECG289
TR9	3SK45-B	2000-102	GE-FET-4	WEP905	PTC101	HEPF2004	RE 99	SK3050	RT-181	ECG222
TR10	2SC460-B	2000-204	GE-61 *	(IR)2SC460B	PTC136 *	HEPS0014 *	RE 9	SK3018 *	RT-134	ECG107
TR11	2SC1364-6	2000-210	GE-210	(IR)2SC829B	PTC121	HEPS0015	RE 13	SK3122	RT-308	ECG123A
TR12	2SC458C	2000-203	GE-210 *	(IR)2SC458B	PTC121 *	HEPS0009 *	RE 13 *	SK3124	RT-187	ECG123A *
TR13	3SK45		GE-FET-4	WEP905	PTC181	HEPF2004	RE 199	SK3050	RT-181	ECG222
TR14	2SC460-B	2000-204	GE-61 *	(IR)2SC460B	PTC136 *	HEPS0014 *	RE 9	SK3018 *	RT-134	ECG107
TR15	2SD467C	2000-209	GE-88 *	TR-87 *	PTC178	HEPS3001 *	RE 17 *	SK3020 *	RT-114	ECG128
TR16	2SD467C	2000-209	GE-88 *	TR-87 *	PTC178	HEPS3001 *	RE 17 *	SK3020 *	RT-114	ECG128
TR17	2SC458C	2000-203	GE-210 *	(IR)2SC458B	PTC121 *	HEPS0009 *	RE 13 *	SK3124	RT-187	ECG123A *
TR18	2SK550	2000-101	GE-FET-2	FE-100	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312
TR19	2SC458C	2000-203	GE-210 *	(IR)2SC458B	PTC121 *	HEPS0009 *	RE 13 *	SK3124	RT-187	ECG123A *
TR20	2SC458C	2000-203	GE-210 *	(IR)2SC458B	PTC121 *	HEPS0009 *	RE 13 *	SK3124	RT-187	ECG123A *
TR21	2SA673C	2000-201	GE-269	TR-30	PTC103	HEPS0013	RE 26	SK3114	RT-126A	ECG159
TR22	2SA844C	2000-202	GE-21	TR-54	PTC103	HEPS0019	RE 18	SK3114	RT-126A	ECG129
TR23	2SC458C	2000-203	GE-210 *	(IR)2SC458B	PTC121 *	HEPS0009 *	RE 13 *	SK3124	RT-187	ECG123A *

* Lead configuration may vary from original.
(1) Used in some versions.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C18	4.7 25V	1800-304	PC5-50	VTT4R7A50	QV1-27	EV-1319
C23	2.2 25V	1800-303	PC2-100	VTT2R2A50	QV1-19	EV-1517
C27	1 50V	1800-302	PC1-50	VTT1B63	QV1-11	EV-1615
C31	10 16V	1800-306	PC10-25	VTT10A25	QV1-41	EV-1222
C59	47 16V		PC50-16	VTT47D16	QV1-73	EV-1226
C64	2.2 16V	1800-202		TDC225M035FL		SD35-2R29
C65	2.2 16V	1800-202		TDC225M035FL		SD35-2R29
C66	470 6.3V	1800-311	PC500-16	VTT47QJ16	QV1-149	EV-1150
C69	.22 16V	1800-502		TDC224M050EL	QDT1-10	SD50-R229
C74	470 6.3V	1800-311	PC500-16	VTT47QJ16	QV1-149	EV-1150
C76	220 16V	1800-308	PC250-25	VTT220G16	QV1-117	EV-1240
C91	10 16V	1800-306	PC10-25	VTT10A25	QV1-41	EV-1222
C93	.1 16V	2800-501		TDC104M050EL	QDT1-2	SD50-R109
C97	.22 16V	1800-502		TDC224M050EL	QDT1-10	SD50-R229
C99	2.2 25V	1800-303	PC2-100	VTT2R2A50	QV1-19	EV-1517
C100	33 16V	1800-307	PC30-25	VTT33D25	QV1-63	EV-1325
C104	33 16V	1800-307	PC30-25	VTT33D25	QV1-63	EV-1325
C107	220 16V	1800-308	PC250-25	VTT220G16	QV1-117	EV-1240
C109	220 16V	1800-308	PC250-25	VTT220G16	QV1-117	EV-1240
C110	2.2 25V	1800-303	PC2-100	VTT2R2A50	QV1-19	EV-1517
C111	.47 50V	1800-301	PC1-50	VTT47B63	QV1-3	EV-1610
C112	.1 16V	2800-501		TDC104M050EL	QDT1-2	SD50-R109
C113	.1 16V	2800-501		TDC104M050EL	QDT1-2	SD50-R109
C115	10 16V	1800-306	PC10-25	VTT10A25	QV1-41	EV-1222
C117	10 16V	1800-306	PC10-25	VTT10A25	QV1-41	EV-1222
C118	33 16V	1800-307	PC30-25	VTT33D25	QV1-63	EV-1325
C121	10 16V	1800-306	PC10-25	VTT10A25	QV1-41	EV-1222
C124	.1 16V	2800-501		TDC104M050EL	QDT1-2	SD50-R109
C126	470 16V	1800-309	PC250-25	VTT220G16	QV1-117	EV-1240
C129	33 16V	1800-307	PC30-25	VTT33D25	QV1-63	EV-1325
C131	100 10V	1800-310	PC100-10	VTT100E10	QV1-93	EV-1130
C132	220 25V	1800-305	PC250-25	VTT220H25	QV1-119	EV-1340

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
C98	.01 10%	1800-034 1800-034	DD-680	WMF1S1	EWFA1110	QF1-91	1PB-S10
C102	68			GP68	GP468		10TS-Q68
C103	.068 10%			WMF1S68	EWFA1A168	QF1-195	1PB-S68
C105	220		DD-221		GP322		10TS-T22
C106	.022 10%			DPMS2S22	EWFA1A122	QF1-127	1PB-S22
C108	.068 10%			WMF1S68	EWFA1A168	QF1-195	1PB-S68
C114	330		DD-331	GP330	GP333		10TS-T33
C116	33			NP033	CN0433		10TCC-Q33
C119	.039				M192P3939R8		192P3939R8
C120	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C122	.01			MGP01	TA110	QC2-141	TG-S10
C123	.0047 10%			GP4700	GP247		5GA-D47
C125	.0047 10%	(1)	DD-472	GP4700	GP247		5GA-D47
C127	.001			GP1000	GP210	QC2-81	5GA-D10
C128	.039						
C130	.039		DC-103	MGP01	TA110	QC2-141	TG-S10
C133	.01			MGP01	TA110	QC2-141	TG-S10
C134	.01			MGP01	TA110	QC2-141	TG-S10
C135	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C136	100			GP100	GP310		10TS-T10
C137	.01			MGP01	TA110	QC2-141	TG-S10
C138	.01 10%		DC-103	WMF1S1	EWFA1110	QF1-91	1PB-S10
C140	.01			MGP01	TA110	QC2-141	TG-S10
C141	.01			MGP01	TA110	QC2-141	TG-S10
C142	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C143	.01			MGP01	TA110	QC2-141	TG-S10
C144	.01			MGP01	TA110	QC2-141	TG-S10
C145	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C147	.01			MGP01	TA110	QC2-141	TG-S10
C148	.01			MGP01	TA110	QC2-141	TG-S10
C149	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C150	.01			MGP01	TA110	QC2-141	TG-S10
C151	.01			MGP01	TA110	QC2-141	TG-S10
C152	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C153	.01			MGP01	TA110	QC2-141	TG-S10
C154	.001			GP1000	GP210	QC2-81	5GA-D10
C155	15	(1)	DTZ-15	NP015	CN0415		10TCC-Q15
C156	.01	1800-201	DC-103	MGP01	TA110	QC2-141	TG-S10
TC1	20						6K820000
CC1	.01						
CC2	.01						

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

(1) Used in some versions.

(2) Includes four (.01) capacitors.

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

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA				
			MFR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
RT1	AGC	50K	1900-202				
RT2	S Meter	50K	1900-202				
RT3	Squelch Range	50K	1900-202				
RT4	AMC	5000	1900-201				
RT5	RF Meter	50K	1900-202				
VR1	Volume/Switch	50K	1900-104				
VR2	Squelch	20K	1900-101				
VR3	Mike Gain	10K	1900-102				
VR4	Dimmer	10K	1900-103				

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.
RR1	4.7K		1900-401 (1)	RR3	680		1900-402 (2)
RR2	680		1900-402 (2)				

(1) Includes seven 4.7K Ohm resistors.

(2) Includes seven 680 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.	
L1	Rec Antenna (27MHz)	2200-001	LA-029-6014		
L2	Rec RF (27MHz)	2200-014	LA-194-6N14		
L3	Rec Mixer (10.695MHz)	2200-003			
L4	Rec Mixer (10.695MHz)	2200-004	LA-181-6014		
L5	Ref Osc (10.240MHz)	2200-005	LA-182-6014		
L6	Rec Mixer (455kHz)	2200-002	LA-163-6912		
L7	IF (455kHz)	2200-006	LA-183-6912		
L8	IF (455kHz)	2200-007	LA-183-6912		
L9	TVI Trap (54MHz)	2200-015			
L10	RF Choke	2200-018			
L11	Antenna Match (27MHz)	2200-016			
L12	Final Amp (27MHz)	2200-016			
L13	RF Choke	2200-017			
L15	Xmit Driver (27MHz)	2200-015			
L16	Xmit Buffer (27MHz)	2200-012	LA-189-6014		
L17	Xmit Mixer (27MHz)	2200-008	LA-185-6934		
L18	Xmit Osc (10MHz)	2200-013	LA-193-6014		
L19	VCO	2200-010	LA-187-6024		
L20	VCO (16MHz)	2200-011	LA-188-6014		
L21	RF Choke (110uH)	2200-202			
L22	RF Choke (1.5uH)	2200-201			
L23	PLL Osc (36MHz)	2200-009	LA-186-6014		
L27	RF Choke	2200-019			
L28	RF Choke	2200-019			
L29	RF Choke	2200-019			
L30	RF Choke	2200-019			
L32	RF Choke	2200-017			
L33	RF Choke				

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	1.1A	.12	1mH	2300-001 TF-083 (1)	TR507		(1) Number on unit.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	67	1' 8 2 54	2600-001 TF-107 (1)			(1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	4" PM 8 Ohms	3100-001	4A05ZBR	

PARTS LIST AND DESCRIPTION (CONTINUED)

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

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER	DEVICE
F1	2A Fast Acting	2800-001		AGC2	HDJ	312002	150145	FG2-2

MICROPHONE

ITEM No.	REPLACEMENT DATA				CONNECTION DATA						
	MFGR. PART No.	GC PART No.	GC NOISE CANCEL	GC POWER	GC CONNECTOR	GC Red	GC Shield	GC Yellow	GC Blue	GC White	GC Black
MIC	3200-001	18-032	18-034	18-010	18-092	2	1	3	4	HC	1

CRYSTALS

ITEM No.	CRYSTAL FREQUENCY IN MHz	MFGR. PART No.	CTS KNIGHTS PART No.	CHANNEL	ITEM No.	CRYSTAL FREQUENCY IN MHz	MFGR. PART No.	CTS KNIGHTS PART No.	CHANNEL
X1	10.695	2100-002	CC80W10695	Xmit Osc.	X3	36.570	2100-003		PLL Osc.
X2	10.240	2100-001		Ref.Osc.					

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF1	Filter	2200-301	10.7MHz
CF2	Filter	2200-302	455kHz
D13	LED	2000-307	Xmit Indicator (LR0702R)
D19	LED	2000-306	Channel Display (TLR-321)
M1	Meter	2900-001	S/R
S1	Switch	3000-101	Channel Selector
S2	Switch	3000-001	CB/PA
S3	Switch	1900-104	On/Off (Part of Volume Control)
S4	Switch	3000-001	ANL
S5	Switch	3000-001	Local/DX
	Printed Circuit Board	3500-001	Main (PC-199AA1/2)
	Printed Circuit Board	3500-002	Channel Selector Board (PC-209AA) (Flexible)
	Printed Circuit Board	3500-003	Mike Jack Board (PC-181AA)
	Flat Cable	2700-101	{WF-004}

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

ITEM	PART No.	ITEM	PART No.
Cabinet, Upper	3300-101	Knob, Channel Selector	1300-001
Cabinet, Lower	3300-102	Knob, Control	1300-002
Chassis	3300-001	Knob, Push	1300-003
Bracket (MOB)	3300-201	Panel, Front	3300-502
Hanger, Microphone	3300-401		

WIRING DATA

General-use Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 13 Colors
	8524 (Stranded) Available in 13 Colors
Shielded Antenna Lead	Use BELDEN No. 8214 Lowest-loss (RG-8/U Type)
	8237 Low-loss (RG-8/U)
	8240 (Solid) Miniature (RG-58/U)
	8259 (Stranded) Miniature (RG-58A/U)
Coiled Microphone Cable	Use BELDEN No. 8497 3-Conductor (1 shielded for Press-to-Talk) Neoprene