

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 WV-23A

ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:

L3, L4, L5, L6 GC ELECTRONICS #5000, 8290
ALL other tuneable coils and transformers 9440

ROBYN MODEL WV-23A

RECEIVER

Connect an AC VTVM or AF Wattmeter across speaker voice coil.
Adjustments made with 14-volt DC input.
Adjust volume control to obtain suitable reading.

SIGNAL GENERATOR	GEN FREQ	CHANNEL	ADJUST	REMARKS
High side thru .01uF to TR3 base, low side to ground.	455 kHz, 1000Hz @ 30% modulation	Any	L5,L6	Set generator output low enough to prevent AGC limiting. Adjust for maximum.
High side thru .01uF to antenna jack, low side to ground.	27.115MHz, 1000Hz @ 30% modulation	13	L1,L2,L7, L3,L4	Set generator output low enough to prevent AGC limiting. Adjust for maximum.

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

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RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF Wattmeter across speaker voice coil.
These adjustments made with 14-volt DC input.
Adjust volume control to obtain a suitable reading.

SIGNAL GENERATOR	GEN FREQ	CHANNEL	ADJUST	REMARKS
SQUELCH RANGE High side thru .01uF to antenna jack, low side to ground.	27.115MHz, 1000Hz @ 30% modulation, output .20uV	13	VR3	Set squelch control fully clockwise. Adjust so that squelch just breaks.
S METER High side thru .01uF to antenna jack, low side to ground.	27.115MHz 1000Hz @ 30% modulation output 100uV	13	VR6	Adjust for 9 on S Meter.

TRANSMITTER

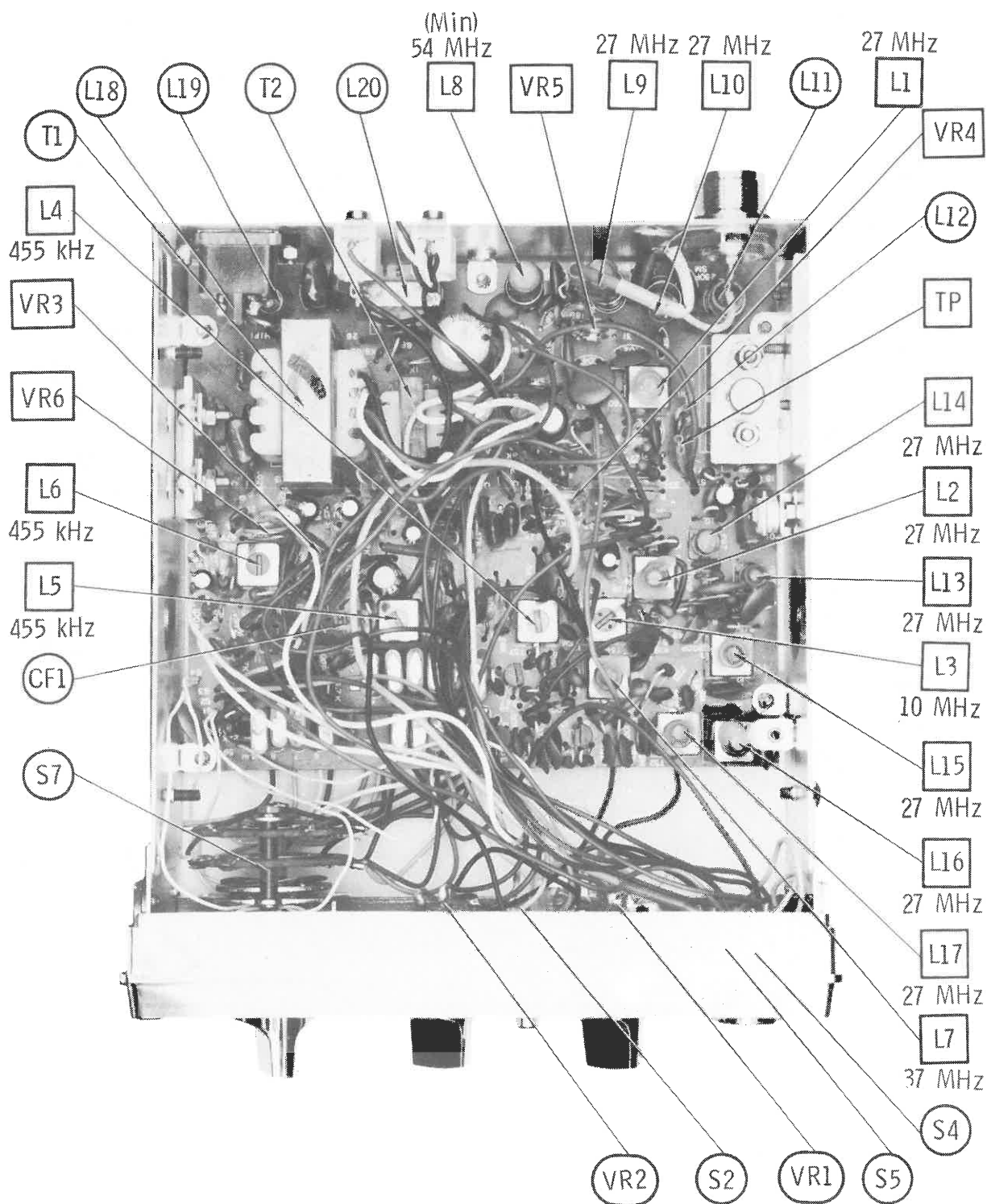
Connect an RF Wattmeter or 50-ohm, 25-watt dummy load to antenna connector.
Adjustments made with 14-volt DC input.

INDICATOR	ADJUST	REMARKS
OSCILLATOR, MIXER, BUFFER, DRIVER, FINAL RF Wattmeter	L17,L16, L15,L14, L13,L11, L10,L9	Channel selector to Ch. 13. Key transmitter. Adjust for maximum.
TVI TRAP TV (Ch. 2)	L8	Key transmitter. Adjust for MINIMUM interference on TV.
FINAL INPUT POWER Remove jumper at TP and connect 0-500 DC milliammeter.	L9	Adjust for 5 watts (Max.)

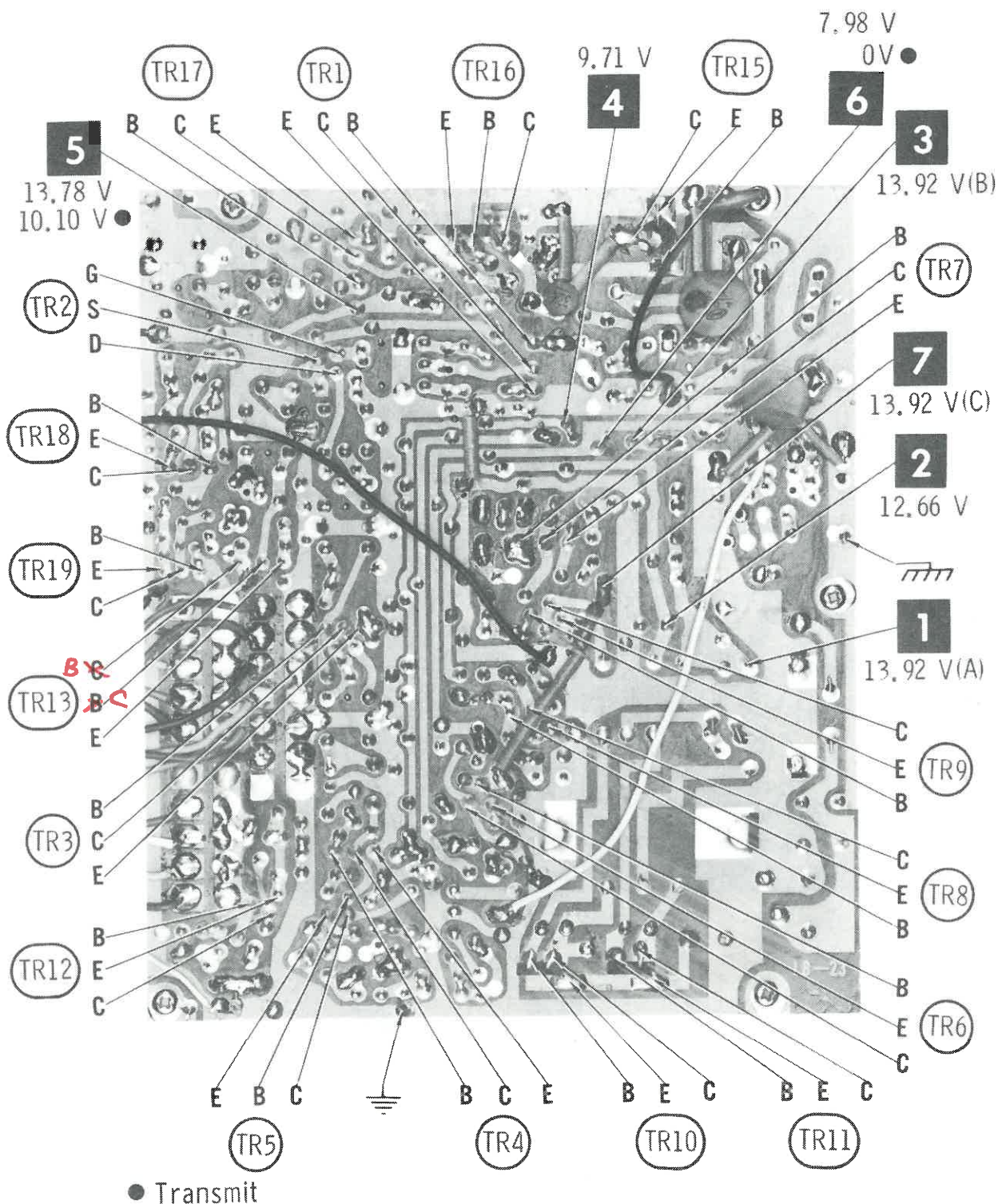
TRANSMITTER ADJUSTMENTS

Connect an RF wattmeter or 50-ohm, 25-watt dummy load to antenna aconnector.
Adjustments made with 14-volt DC input.

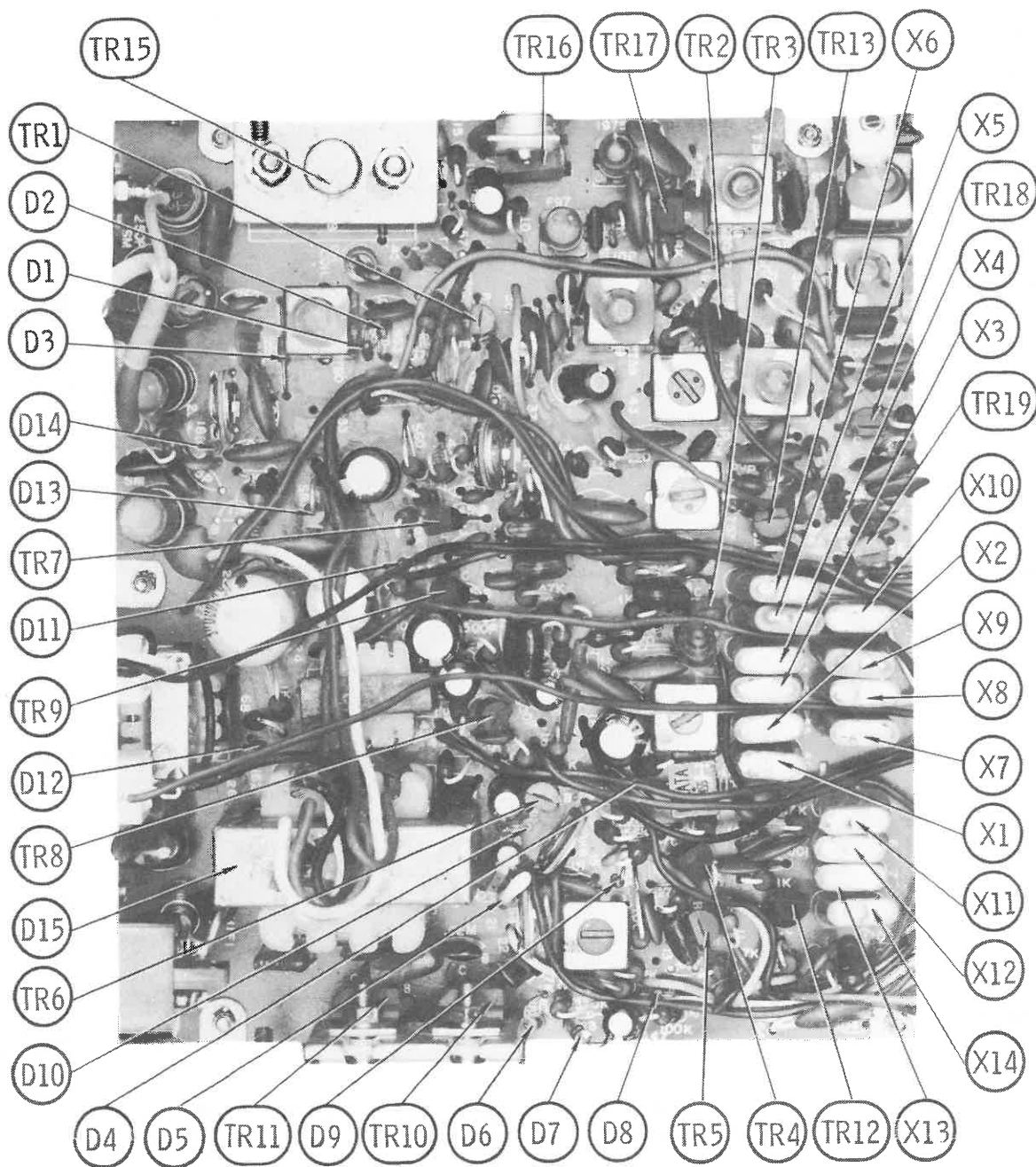
INDICATOR	ADJUST	REMARKS
AMC Modulation Meter connected to antenna jack.	VR4	Inject a 1000Hz 225mV audio signal at mic input. Key transmitter. Adjust for 100% modulation maximum.
RF PANEL METER RF Wattmeter	VR5	Key transmitter. Adjust so that panel RF meter agrees with RF Wattmeter.



CHASSIS-BOTTOM



MAIN BOARD

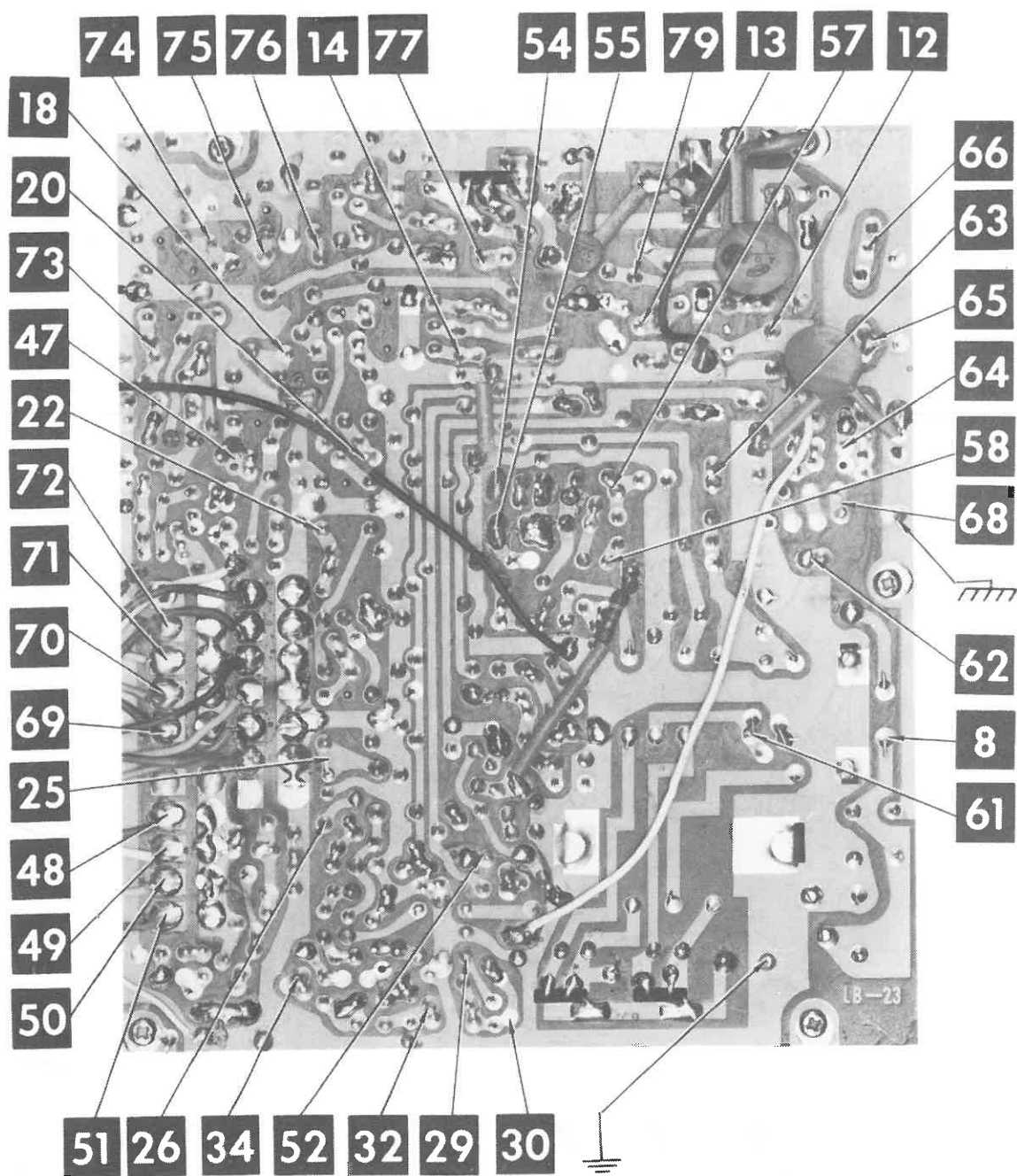


MAIN BOARD

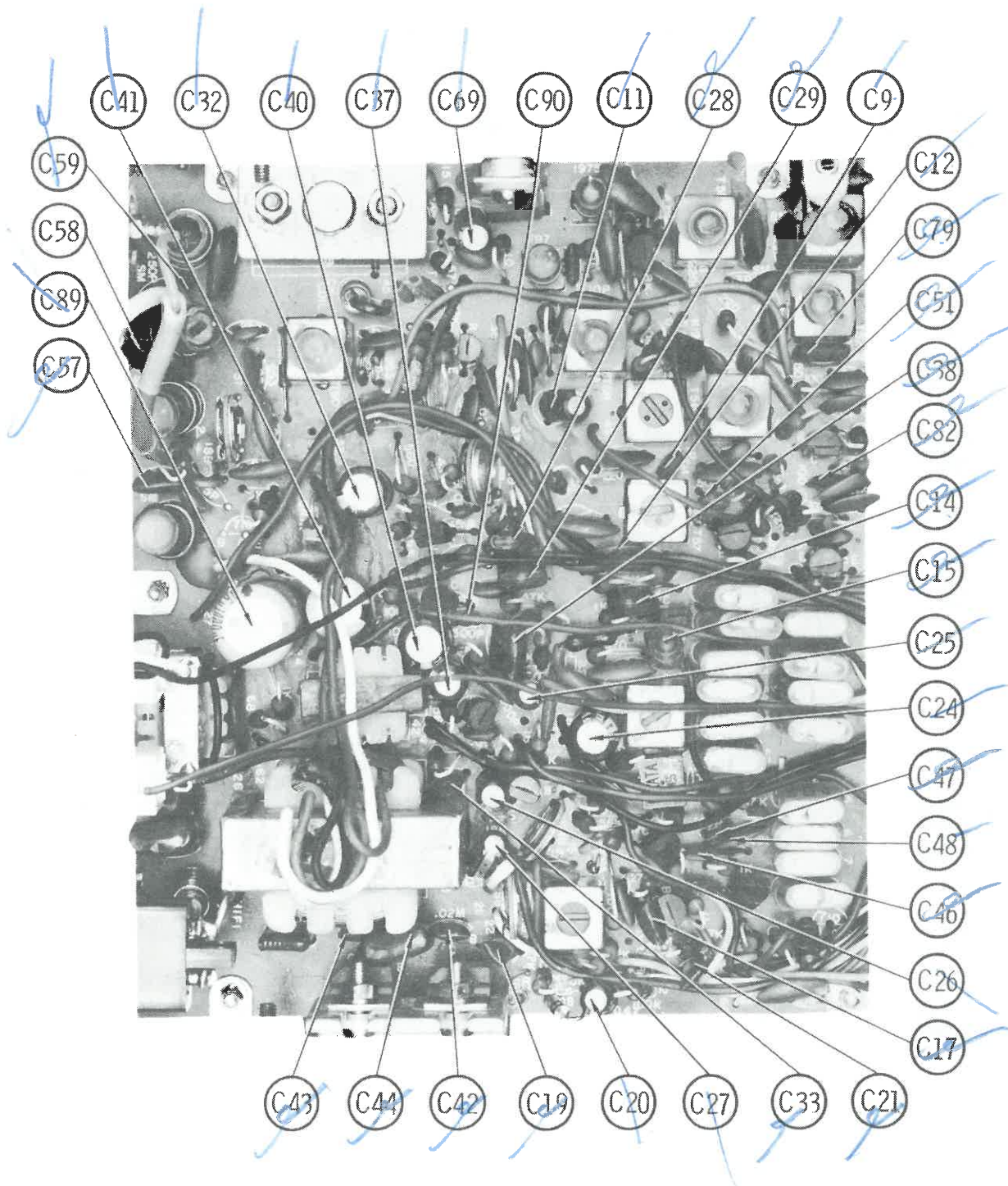


MAIN BOARD

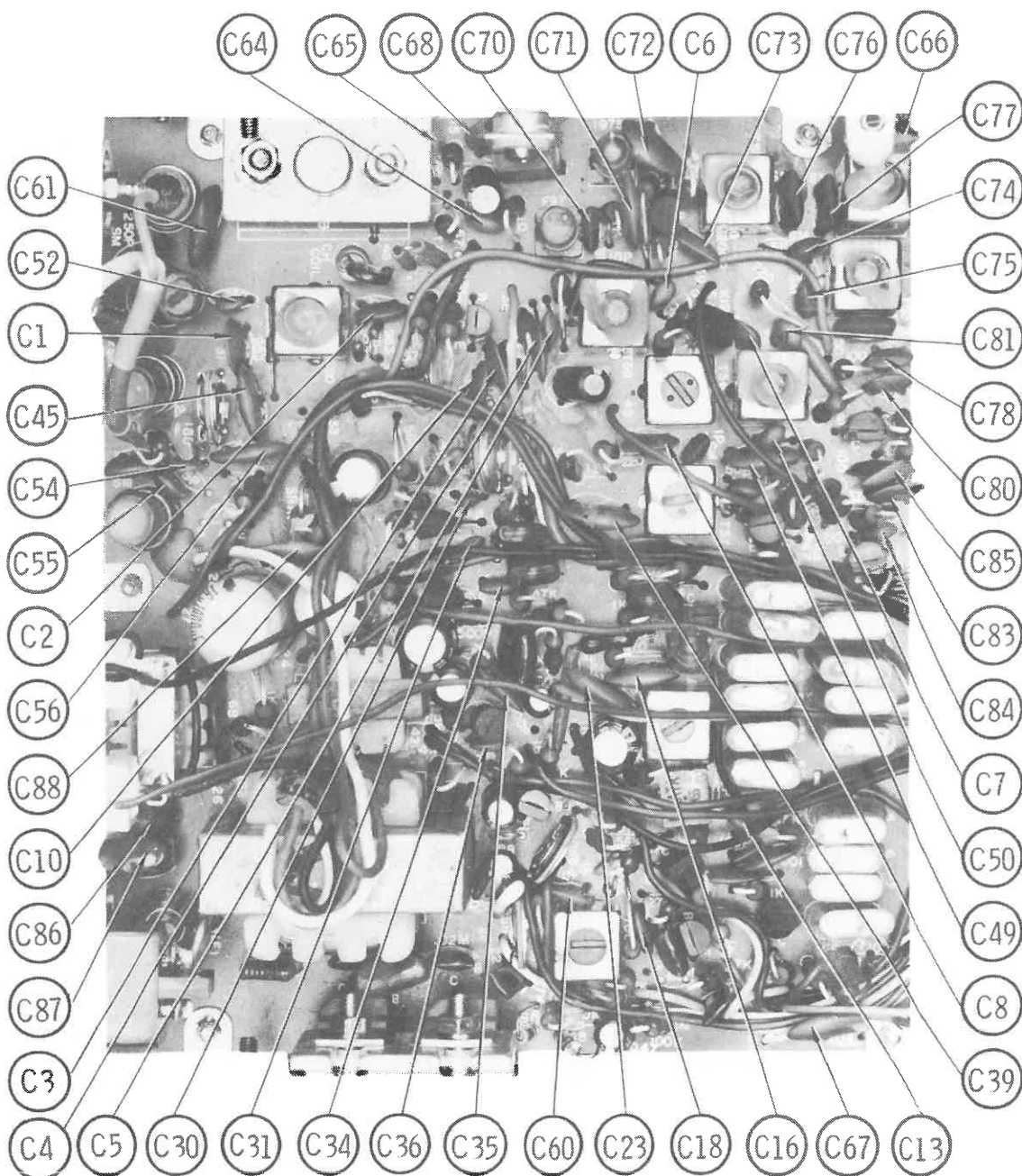
ROBYN MODEL WV-23A



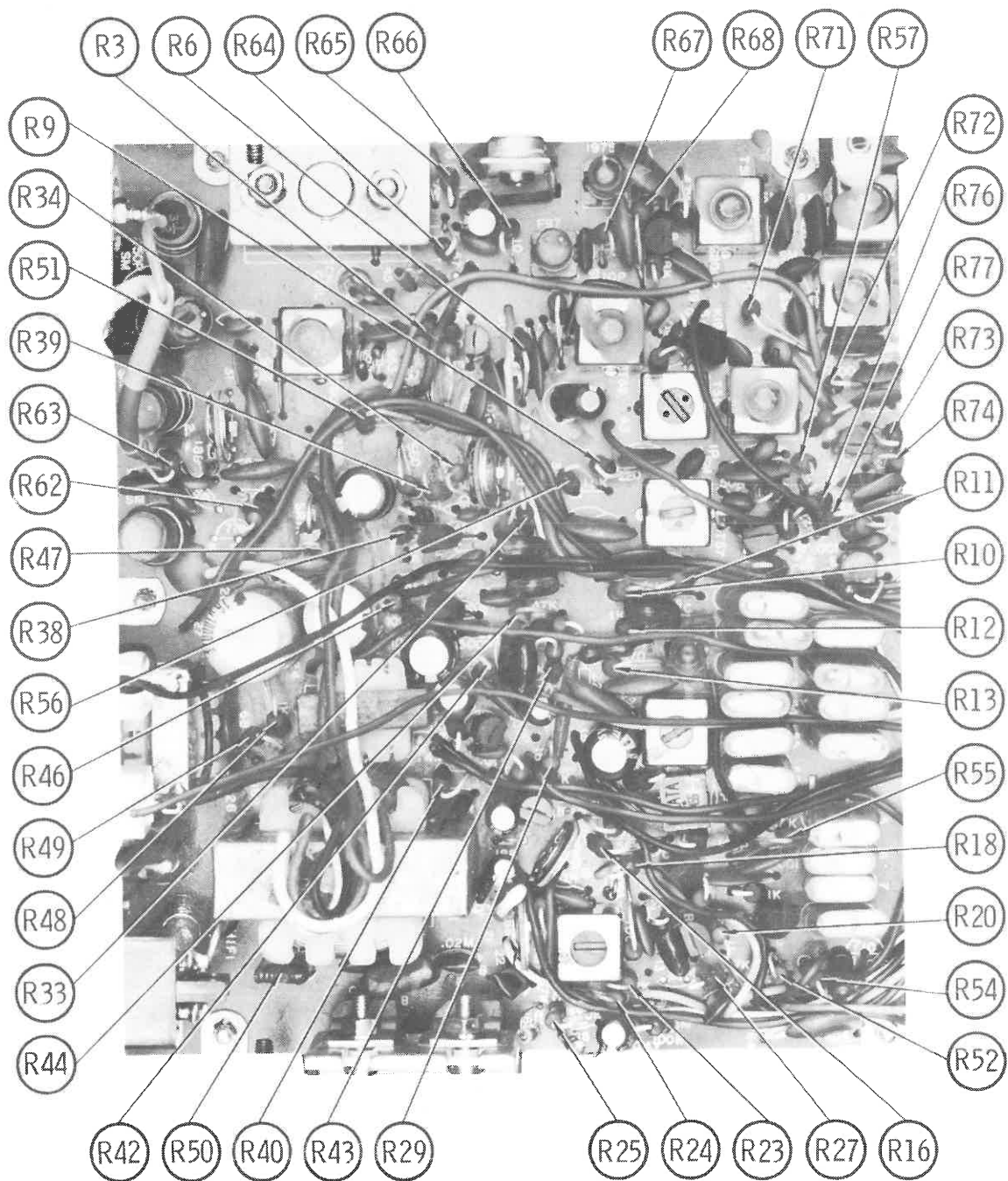
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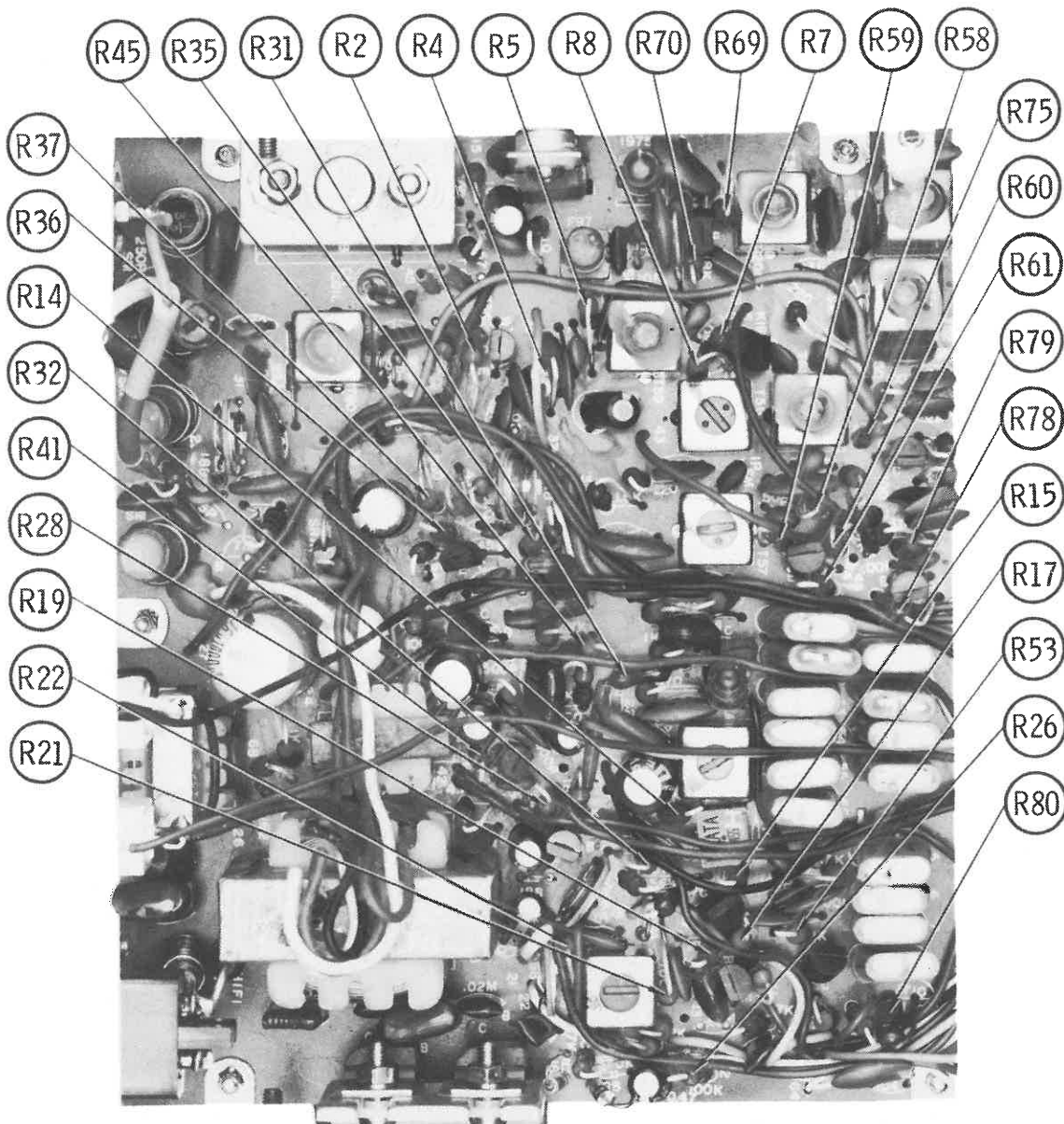
MAIN BOARD



MAIN BOARD

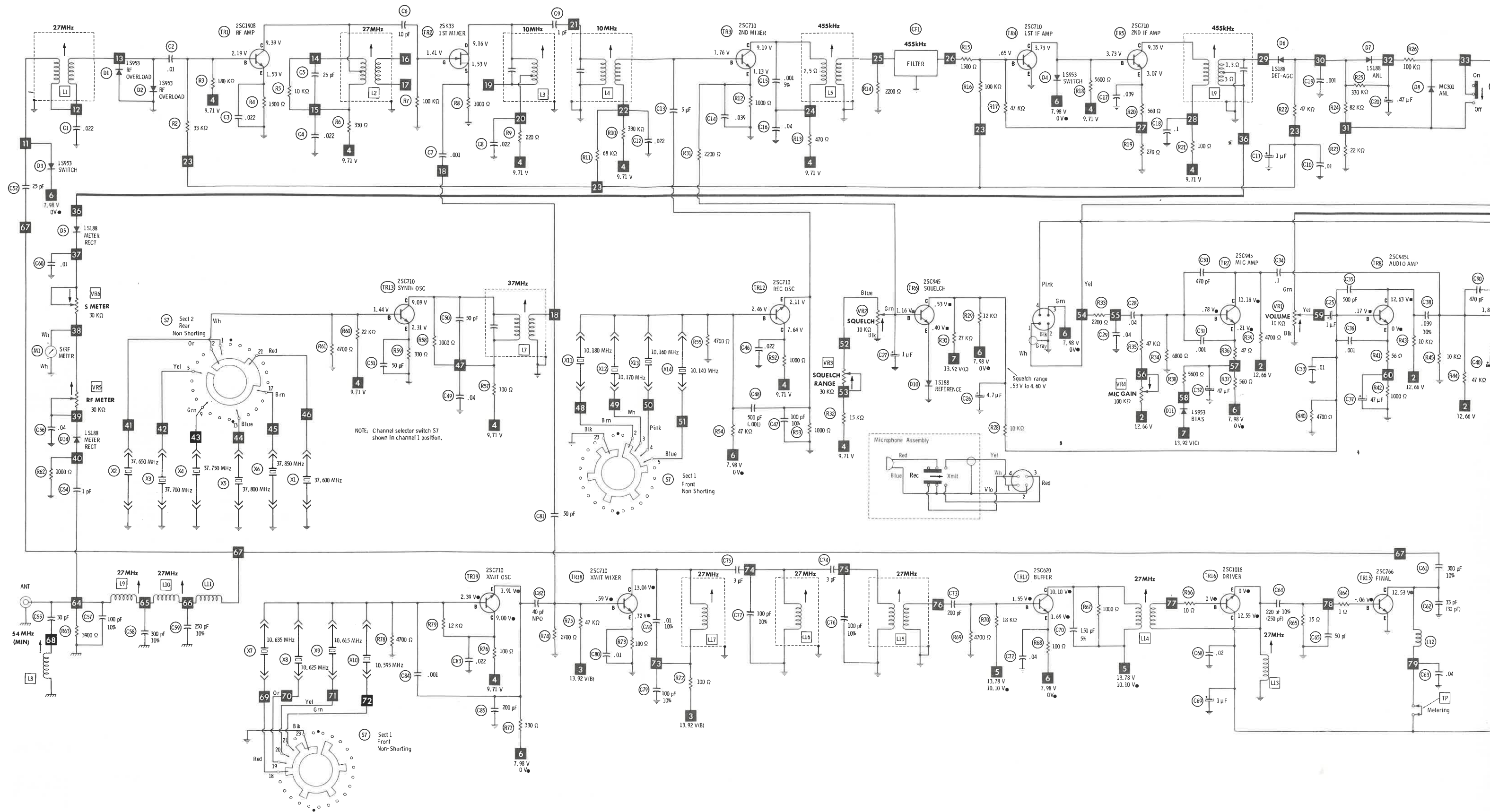


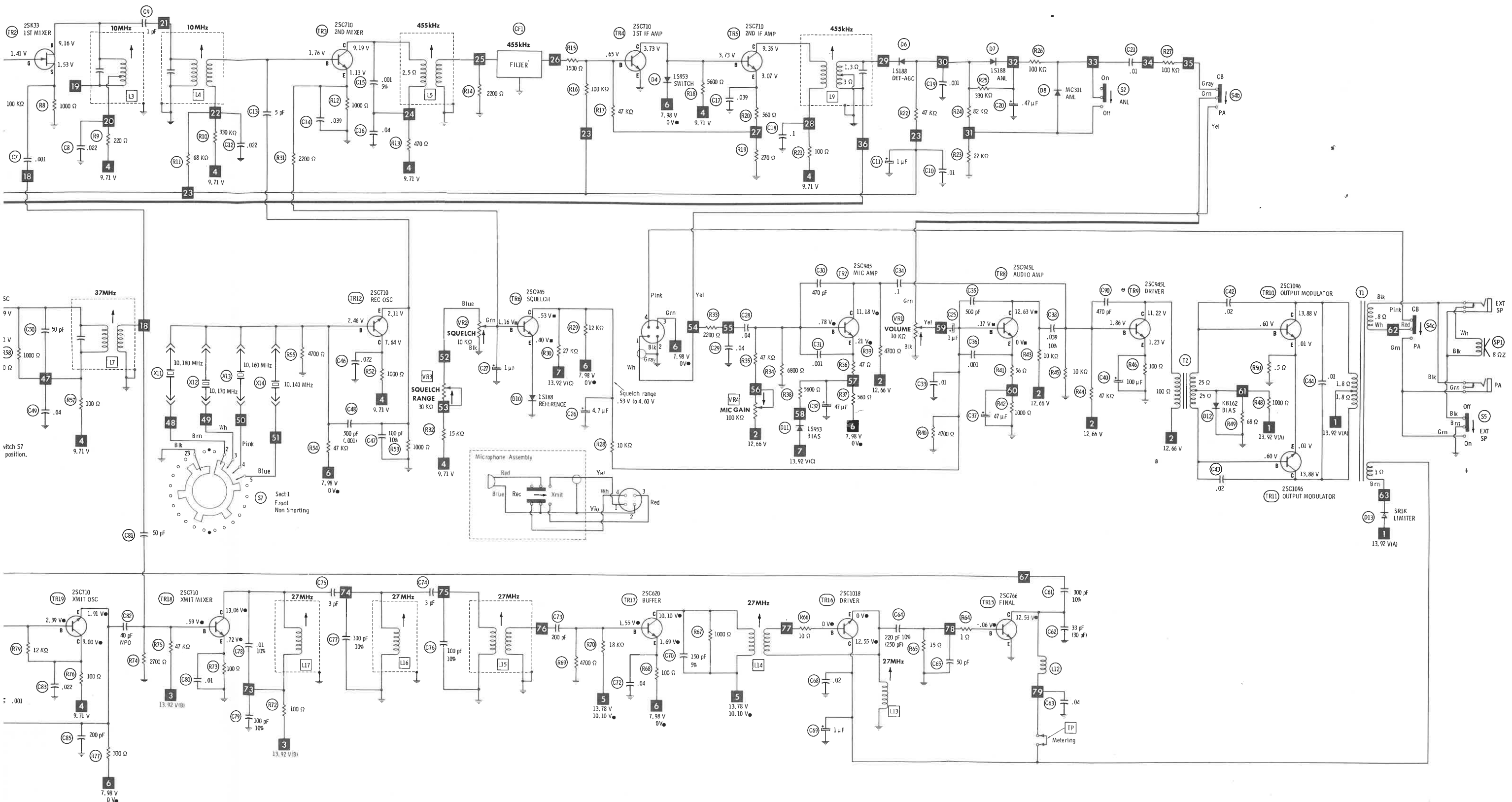
MAIN BOARD



MAIN BOARD

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PARTS LIST AND DESCRIPTION
(When ordering parts, state Model, Part Number, and Description.)

WIRING DATA

Table with 2 columns: Description, Replacement Data. Rows include General-use Hook-up Wire, Power Cord, 2-Wire, Shielded Antenna Lead, Coiled Microphone Cable, and Ignition Noise Suppression.

SEMICONDUCTORS (Select replacement transistor for best results)

Table with 10 columns: 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. Rows list various semiconductor components and their equivalents.

(1) Used in some versions.

PARTS LIST AND DESCRIPTION (CONTINUED)
(When ordering parts, state Model, Part Number, and Description.)

ELECTROLYTIC CAPACITORS

Table with 6 columns: ITEM No., RATING, MFR. PART No., CORNELL-DUBILIER PART No., MALLORY PART No., SPRAGUE PART No. Rows list electrolytic capacitor specifications.

CAPACITORS

Table with 6 columns: ITEM No., RATING, MFR. PART No., CENTRALAB PART No., CORNELL-DUBILIER PART No., MALLORY PART No., SPRAGUE PART No. Rows list various capacitor specifications.

PARTS LIST AND DE
(When ordering parts, state Mode

CAPACITORS(cont)

Table with 2 columns: ITEM No., RATING. Rows list capacitor ratings and part numbers.

CONTROLS (All watt

Table with 2 columns: ITEM No., FUNCTION. Rows list control components and their functions.

(2) Cut off one of the end te

PARTS LIST AND DESCRIPTION (CONTINUED)

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

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA			
		MFGR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C11	.47 50V		PC1-50	MTV1CB50	EV-1615
C20	.47 50V		PC1-50	VTT47B63	EV-1610
C24	47 16V		PC50-16	VTT47D16	EV-1226
C25	1 50V		PC1-50	MTV1CB50	EV-1615
C26	4.7 16V		PC5-50	VTT4R7A50	EV-1319
C27	1 50V		PC1-50	MTV1CB50	EV-1615
C32	47 16V		PC50-16	VTT47D16	EV-1226
C37	47 16V		PC50-16	VTT47D16	EV-1226
C40	100 6.3V		PC100-10	MTV100CB6	EV-1030
C41	100 16V		PC100-16	VTT100F16	EV-1230
C69	1 50V		PC1-50	MTV1CB50	EV-1615
C89	1000 16V		PC1000-16	VTT1000L16	EV-1260

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS(cont)

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA			
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C47	100 10%		DTZ-100	NP0100	CN0310	10TCC-T10
C48	500		DD-501	GP500	GP350	10TS-T50
C49	.04				GP140	5GA-S40
C50	50		DTZ-50	NP050	CN0450	10TCC-Q50
C51	50		DTZ-50	NP050	CN0450	10TCC-Q50
C52	25		DTZ-25	NP025	CN0425	10TCC-Q25
C54	1				CN0510	10TCC-V10
C55	30			CD6ED300J03	SX430	
C56	.04				GP140	5GA-S40
C57	100 10%			CD10FD101J03	SX310	424MC1000J501
C58	300 10%			CD15FD301J03	SX330	424ME3000J501
C59	250 10%			CD10FD251J03	SX330	
C60	.01		DC-103	GP10000	MAG5011	2SS-S10
C61	300 10%			CD15FD301J03	SX330	424ME3000J501
C62	33 10%		DTZ-33	NP033	CN0433	10TCC-Q33
C63	.04				GP140	5GA-S40
C64	220 10%		DD-221		GP322	10TS-T22
C65	50		DTZ-50	NP050	CN0450	10TCC-Q50
C66	.04				GP140	5GA-S40
C67	.04				GP140	5GA-S40
C68	.02		DC-203		MAG5012	2SS-S20
C70	150 5%			CD7FD151J03	SX315	424MC1500J501
C71	.04				GP140	5GA-S40
C72	.04				GP140	5GA-S40
C73	200 10%		DD-201		GP320	10TS-T20
C74	3		DTZ-3R3	GP200	NP03P3	10TCC-V33
C75	3		DTZ-3R3	NP03P3	CN0533	10TCC-V33
C76	100 10%			CD10FD101J03	SX310	424MC1000J501
C77	100 10%			CD10FD101J03	SX310	424MC1000J501
C78	.01		DC-103	GP10000	MAG5011	2SS-S10
C79	100 10%			CD10FD101J03	SX310	424MC1000J501
C80	.01		DC-103	GP10000	MAG5011	2SS-S10
C81	50		DTZ-50	NP050	CN0450	10TCC-Q50
C82	40 NPO				CN0439	10TCC-Q39
C83	.022		DC-203		MAG5012	2SS-S20
C84	.001		DD-102	GP1000	GP210	2SS-D10
C85	220		DD-221		GP322	10TS-T22
C86	.1 50V			DPMS2P1	EWF1A010	1PB-P10
C87	.1 50V			DPMS2P1	EWF1A010	1PB-P10
C88	.04				GP140	5GA-S40
C90	470		DD-471	GP470	GP347	10TS-T47
C91	.04				GP140	5GA-S40
C92	.04				GP140	5GA-S40

CAPACITORS

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA			
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	.022		DC-203		MAG5012	2SS-S20
C2	.01		DC-103	GP10000	MAG5011	2SS-S10
C3	.022		DC-203		MAG5012	2SS-S20
C4	.022		DC-203		MAG5012	2SS-S20
C5	25		DTZ-25	NP025	CN0425	10TCC-Q25
C6	10		DTZ-10	NP010	CN0410	10TCC-Q10
C7	.001		DD-102	GP1000	GP210	2SS-D10
C8	.022		DC-203		MAG5012	2SS-S20
C9	1				CN0510	10TCC-V10
C10	.01		DC-103	GP10000	MAG5011	2SS-S10
C12	.022		DC-203		MAG5011	2SS-S10
C13	5				MAG5012	2SS-S20
C14	.039 50V				10TCC-V50	
C15	.001 5%			DPMS6S39	PVC6139	6PS-S39
C16	.04			CD19FD102J03	SX210	424ME1001J501
C17	.039 50V				GP140	5GA-S40
C18	.1 12V		DC-104	DPMS6S39	PVC6139	6PS-S39
C19	.001 50V			MGP1	MAG5001	TG-P10
C21	.01 50V			DPMS6D1	EWF1A210	1PB-D10
C23	.04			DPMS4S1	EWF1A110	1PB-S10
C28	.04				GP140	5GA-S40
C29	.04			DPMS6S39	PVC6139	6PS-S39
C30	470			DPMS6S39	PVC6139	6PS-S39
C31	.001		DD-471	GP470	GP347	10TS-T47
C33	.01 50V		DD-102	GP1000	GP210	2SS-D10
C34	.1 12V			DPMS4S1	EWF1A110	1PB-S10
C35	500		DC-104	MGP1	MAG5001	TG-P10
C36	.001		DD-501	GP500	GP350	10TS-T50
C38	.039 10% 50V		DD-102	GP1000	GP210	2SS-D10
C39	.04			DPMS6S39	PVC6139	6PS-S39
C42	.02				GP140	5GA-S40
C43	.02			DPMS2S2	PVC212	2PS-S20
C44	.01			DPMS2S2	PVC212	2PS-S20
C45	.04		DC-104	DPMS6D56	PVC6256	6PS-D56
C46	.022		DC-203	MGP1	MAG5001	TG-P10
					MAG5012	2SS-S20

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

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
VR1	Volume/Power Switch	10K					
VR2	Squelch	10K					
VR3	Squelch Range	30K					
VR4	MIC Gain	100K		T-50K (2)	C-503 (2)	MTC54L1 (2)	X201R503B (2)
VR5	RF Meter	30K		T-100K (2)	C-104 (2)	MTC15L1 (2)	X201R104B (2)
VR6	S Meter	30K		T-50K (2)	C-503 (2)	MTC54L1 (2)	X201R503B (2)
						MTC54L1 (2)	X201R503B (2)

(2) Cut off one of the end terminals and bend to fit PC board.

PARTS LIST AND DESCRIPTION (CONTINUED) (When ordering parts, state Model, Part Number, and Description.)

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA			
		MFG. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C11	.47 50V		PC1-50	MTV1CB50	EV-1615
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C40	100 6.3V		PC50-16	MTV100CB6	EV-1030
C41	100 16V		PC100-10	VTT100F16	EV-1230
C69	1 50V		PC100-16	MTV1CB50	EV-1615
C89	1000 16V		PC1-50	VTT100L16	EV-1260
			PC1000-16		