



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 79-893

MANUFACTURER'S SPECIFICATIONS

GENERAL:

Channels	40
Frequency Range	26.965 MHz to 27.405 MHz
Semiconductors	35 Transistor, 5 FET, 50 Diode, 6 IC
Microphone	500 ohms Dynamic Type
Speaker	8 ohms 1.5W
Antenna Connector	M Type
Meter	RF Power RX Signal
Size	(D) 10-1/2" (W) 7-1/2" (H) 2-1/2"
Weight	5 pounds
Jacks & Connectors	EXT SP, PA SP, 3 5/16" Microphone, 4P, DC Power, ANT
Controls	Channel Selector, Mode Selector (AM-USB-LSB), ON-OFF Power Switch/Volume Variable, Squelch, RF Gain Attenuator, Mic Gain, Clarifier Noise Blanking Switch, PA-CB Switch, Tone Switch
Illuminations	Channel Selector, Meter (Yellow RX, Red TX)
Accessories	DC Power Cable (Fuse Built in), Microphone, Microphone Hanger, Mounting Bracket

TRANSMITTER

	UNIT	AM	SSB
Frequency tolerance (30°C to 50°C)	%	±0.005	±0.005
RF output power at no mod (AM)	W	30 to 40	*
RF output power (SSB)	W PEP	* 12 max	
Modulation distortion at 80% modulation (AM)	%	10	*
Conducted spurious emission	dB	better than 60 dB	
Carrier emission (SSB)	dB	*	40
Battery drain at no modulation (AM)	mA	2500	1200
Battery drain at 80% modulation (AM) - 8W PEP (SSB)	mA	3000	3000

UNIT AM SSB

Microphone input preamp maximum sensitivity for 50% modulation (AM)	mV	7	7
4W PEP (SSB)			

RECEIVER * Noise Blanking ON, Tone Switch High

Sensitivity for 10 dB S/N	µV	1	0.5
AGC figure of merit			
50KµV for 10dB change in audio output	dB	60	60
Bandwidth at 6dB down	KHz	3	3
Adjacent channel selectivity (10 KHz)	dB	62	65
Cross modulation	dB	60	50
Maximum audio output power	W	4.0	4.0
Maximum audio output power at 10% distortion	W	3.1	3.1
RF gain attenuation, 0.5µV standard	dB	50	50
Fidelity (1 KHz 0 dB reference) at 450 Hz	dB	10	10
Fidelity (1 KHz 0 dB reference) at 2.2 KHz	dB	18	10
Squelch sensitivity at maximum	µV	500 to 4000	500 to 4000
Squelch sensitivity at threshold	µV	0.7	0.7
S meter sensitivity for S-9 at no mod (AM)	µV	50 to 500	50 to 500
Image rejection	dB	50	50
Frontend attenuation (7.8 MHz feed through)	dB	80	80
Hum & noise ratio below antenna input 1000 µV	dB	30	26
Oscillator drop out voltage	V	11	11
Battery drain at no signal	mA	500	500
Clarifier variable range	Hz	* 1000	* 1000

PA

Output power at 10% distortion (1 KHz)	W	31	
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Courtesy of the Manufacturer

MIDLAND MODEL 79-893

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:
 CT1 thru CT4 (PLL), CT1,CT2,CT3.....8276,5000
 L6 thru L9,T1 thru T8,T10,T13.....9440
 L7,L8,L10.....9091,8728A,8728

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP10 (IC2 (PLL), Pin 8).	Ch. 19, AM	CT1 (PLL)	Adjust for 5.120MHz.
Input of frequency counter thru 47pF to TP11 (TR8 (PLL), Emitter).	Ch. 19, AM Clarifier Midrange	CT3 (PLL)	Adjust for 11.285MHz.
Input of frequency counter thru 47pF to TP12 (TR9 (PLL), Emitter).	Ch. 19, USB Clarifier Midrange	CT4 (PLL)	Adjust for 11.2858MHz.
Input of frequency counter thru 47pF to TP13 (TR7 (PLL), Emitter).	Ch. 19, LSB Clarifier Midrange	CT2 (PLL)	Adjust for 11.2842MHz.
Input of oscilloscope to TP2 (PLL).	Ch. 19, AM Clarifier Midrange	L8,L9 (PLL)	Adjust for maximum RF.
Input of DC meter to TP1 (PLL).	Ch. 19, AM	L7 (PLL)	Adjust for 2.00 volts.
Input of oscilloscope to TP14 (L6 (PLL), Secondary).	Ch. 19, AM Clarifier Midrange	L6 (PLL)	Adjust for maximum RF.
Input of frequency counter to TP14 (L6 (PLL), Secondary).	Ch. 1, AM Clarifier Midrange		Check for 34.765MHz. Check all channels. (See Truth Chart for correct frequencies.)
	Ch. 1, USB Clarifier Midrange		Check for 34.7675MHz. Check all channels. (See Truth Chart for correct frequencies.)
	Ch. 1, LSB Clarifier Midrange		Check for 34.7625MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of frequency counter to TP3 (PLL).	Ch. 1, Clarifier Midrange		Check for .910MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of oscilloscope to TP2.	Ch. 1, USB	T8	Adjust for maximum.
Input of frequency counter to TP2.	Ch. 1, USB	CT3	Adjust for 7.8025MHz.
	Ch. 1, LSB	CT2	Adjust for 7.7975MHz.
Input of frequency counter to antenna jack.	Ch. 1, AM, XMT	VR11	Adjust VR11 for 26.965MHz.

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.
Clarifier Midrange, RF Gain Maximum, Squelch MINIMUM, NB Off.

AM

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP15 (Junction XF1 and R154). 7.8MHz, 1000Hz @ 30% modulation.	Ch. 19, AM	T3, T4	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19, AM	T5, T6, T7	Adjust for maximum output. If necessary readjust T3 and T4.
Input of oscilloscope to TP1. Inject a 100pps, 1uSec. pulse at antenna jack.	Ch. 19, AM NB On	T1, T2	Adjust for maximum.

RECEIVER ALIGNMENT

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication.
AM Receiver must be aligned before SSB Receiver Alignment.
Clarifier Midrange, RF Gain Maximum, NB Off, Squelch MINIMUM, VOLUME Maximum.

SSB

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.186MHz no modulation. Output .125uV.	Ch. 19, USB	CT1	Adjust for 2 volts audio.

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication.
Clarifier Midrange, RF Gain Maximum, Squelch MINIMUM, NB Off.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output .25uV.	Ch. 19, AM Volume Maximum	VR15	AGC Adjust for 2 volts audio.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 1000uV.	Ch. 19, AM Squelch Maximum	VR2	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, AM	VR1	RX SIGNAL METER Adjust for 9 on RX SIGNAL scale of meter.

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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.

AM

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of Spectrum analyzer or harmonic meter to antenna jack.	Ch. 19	L8	Adjust for MINIMUM at 54MHz.

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.

SSB

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Inject a 1000Hz, 5mV signal at MIC input.	Ch. 19, USB	T13,T10, L10,L7	Adjust for maximum.

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.

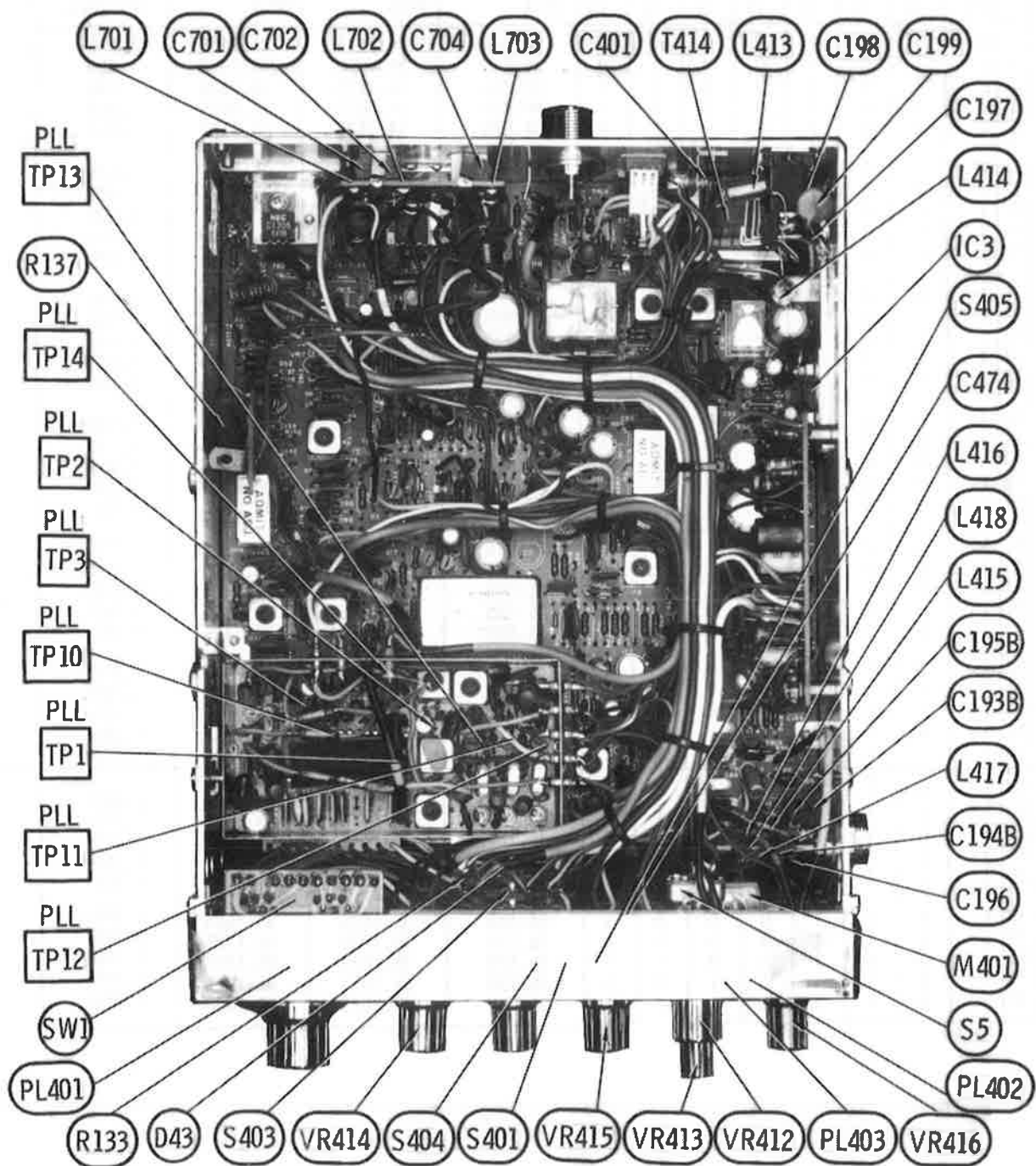
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
No signal input. Input of oscilloscope to antenna jack.	Ch. 19, USB	VR4	BALANCE Adjust for MINIMUM RF.
Input of oscilloscope or modulation meter to antenna jack. Inject a 1000Hz, 40mV signal at MIC input.	Ch. 19, USB	VR7	ALC Adjust for 11.5 watts.
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.	Ch. 19, AM	VR6	AM POWER Adjust for 3.8 watts.
Input of oscilloscope or modulation meter to antenna jack. Inject a 1000Hz, 40mV signal at MIC input.	Ch. 19, AM	RT601	MOD Adjust for 95% modulation.
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.	Ch. 19, AM	VR9	TX POWER METER Adjust so that TX Power meter reads just below the red on the TX POWER scale of meter.

TRUTH CHART

CHANNEL	1 = 4.90 Volts 0 = 0 Volts IC2 PROGRAM DIVIDER								AM (Rec) SYNTHESIZER OUTPUT IN MHz AT TP14	AM (XMT) USB (Rec & XMT) SYNTHESIZER OUTPUT IN MHz AT TP14	LSB (Rec & XMT) SYNTHESIZER OUTPUT IN MHz AT TP14	DIVIDER INPUT (AM, USB, LSB) IN MHz AT TP3 (PLL)
	PINS											
	21	20	18	17	16	15	14	13				
1	0	1	0	1	0	0	0	1	34.765	34.7675	34.7625	.910
2	0	1	0	1	0	0	1	0	34.775	34.7775	34.7725	.920
3	0	1	0	1	0	0	1	1	34.785	34.7875	34.7825	.930
4	0	1	0	1	0	1	0	1	34.805	34.8075	34.8025	.950
5	0	1	0	1	0	1	1	0	34.815	34.8175	34.8125	.960
6	0	1	0	1	0	1	1	1	34.825	34.8275	34.8225	.970
7	0	1	0	1	1	0	0	0	34.835	34.8375	34.8325	.980
8	1	0	0	0	0	0	0	0	34.855	34.8575	34.8525	1.000
9	1	0	0	0	0	0	0	1	34.865	34.8675	34.8625	1.010
10	1	0	0	0	0	0	1	0	34.875	34.8775	34.8725	1.020
11	1	0	0	0	0	0	1	1	34.885	34.8875	34.8825	1.030
12	1	0	0	0	0	1	0	1	34.905	34.9075	34.9025	1.050
13	1	0	0	0	0	1	1	0	34.915	34.9175	34.9125	1.060
14	1	0	0	0	0	1	1	1	34.925	34.9275	34.9225	1.070
15	1	0	0	0	1	0	0	0	34.935	34.9375	34.9325	1.080
16	1	0	0	1	0	0	0	0	34.955	34.9575	34.9525	1.100
17	1	0	0	1	0	0	0	1	34.965	34.9675	34.9625	1.110
18	1	0	0	1	0	0	1	0	34.975	34.9775	34.9725	1.120
19	1	0	0	1	0	0	1	1	34.985	34.9875	34.9825	1.130
20	1	0	0	1	0	1	0	1	35.005	35.0075	35.0025	1.150
21	1	0	0	1	0	1	1	0	35.015	35.0175	35.0125	1.160
22	1	0	0	1	0	1	1	1	35.025	35.0275	35.0225	1.170
23	1	0	1	0	0	0	0	0	35.055	35.0575	35.0525	1.200
24	1	0	0	1	1	0	0	0	35.035	35.0375	35.0325	1.180
25	1	0	0	1	1	0	0	1	35.045	35.0475	35.0425	1.190
26	1	0	1	0	0	0	0	1	35.065	35.0675	35.0625	1.210
27	1	0	1	0	0	0	1	0	35.075	35.0775	35.0725	1.220
28	1	0	1	0	0	0	1	1	35.085	35.0875	35.0825	1.230
29	1	0	1	0	0	1	0	0	35.095	35.0975	35.0925	1.240
30	1	0	1	0	0	1	0	1	35.105	35.1075	35.1025	1.250
31	1	0	1	0	0	1	1	0	35.115	35.1175	35.1125	1.260
32	1	0	1	0	0	1	1	1	35.125	35.1275	35.1225	1.270
33	1	0	1	0	1	0	0	0	35.135	35.1375	35.1325	1.280
34	1	0	1	0	1	0	0	1	35.145	35.1475	35.1425	1.290
35	1	0	1	1	0	0	0	0	35.155	35.1575	35.1525	1.300
36	1	0	1	1	0	0	0	1	35.165	35.1675	35.1625	1.310
37	1	0	1	1	0	0	1	0	35.175	35.1775	35.1725	1.320
38	1	0	1	1	0	0	1	1	35.185	35.1875	35.1825	1.330
39	1	0	1	1	0	1	0	0	35.195	35.1975	35.1925	1.340
40	1	0	1	1	0	1	0	1	35.205	35.2075	35.2025	1.350

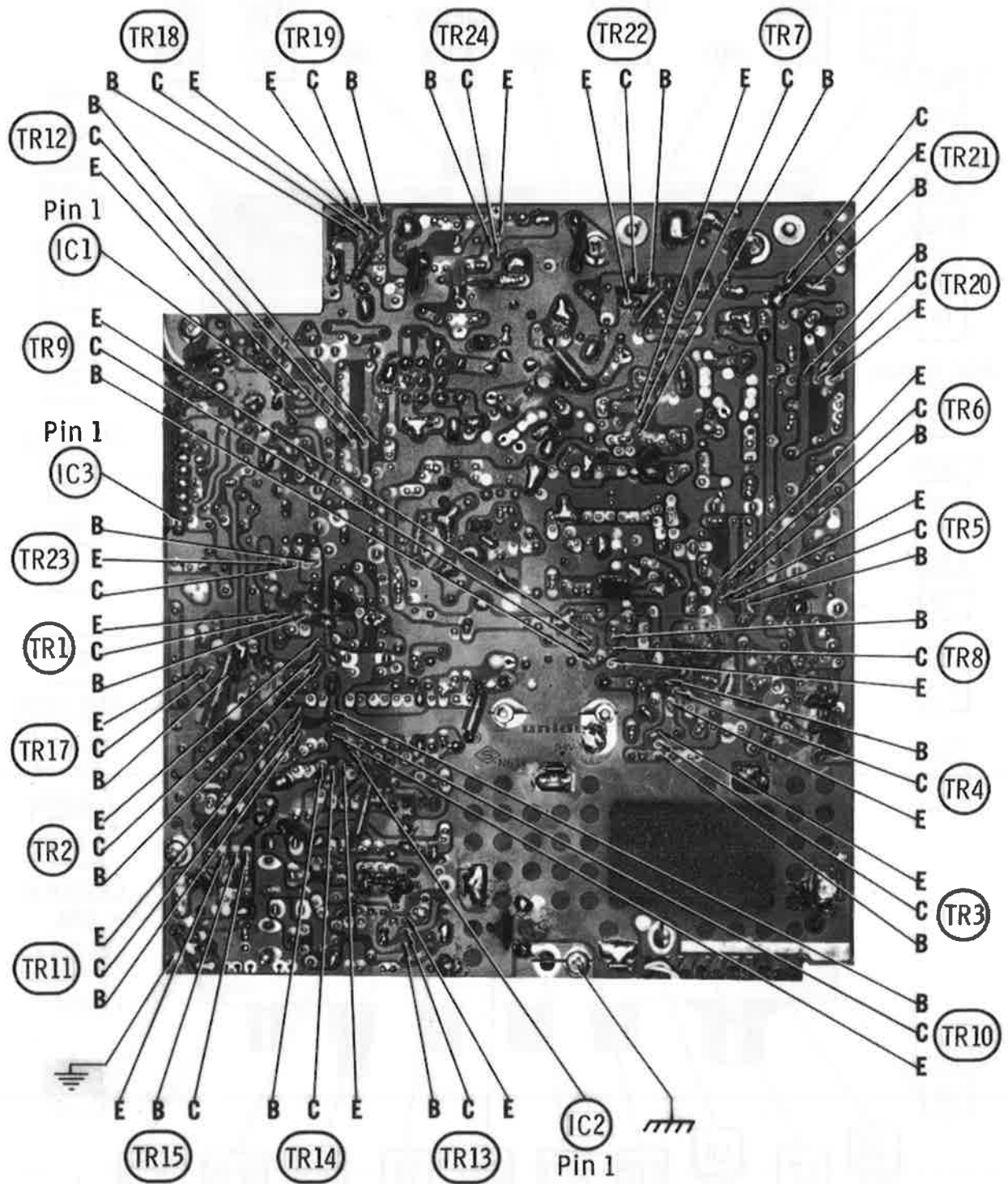
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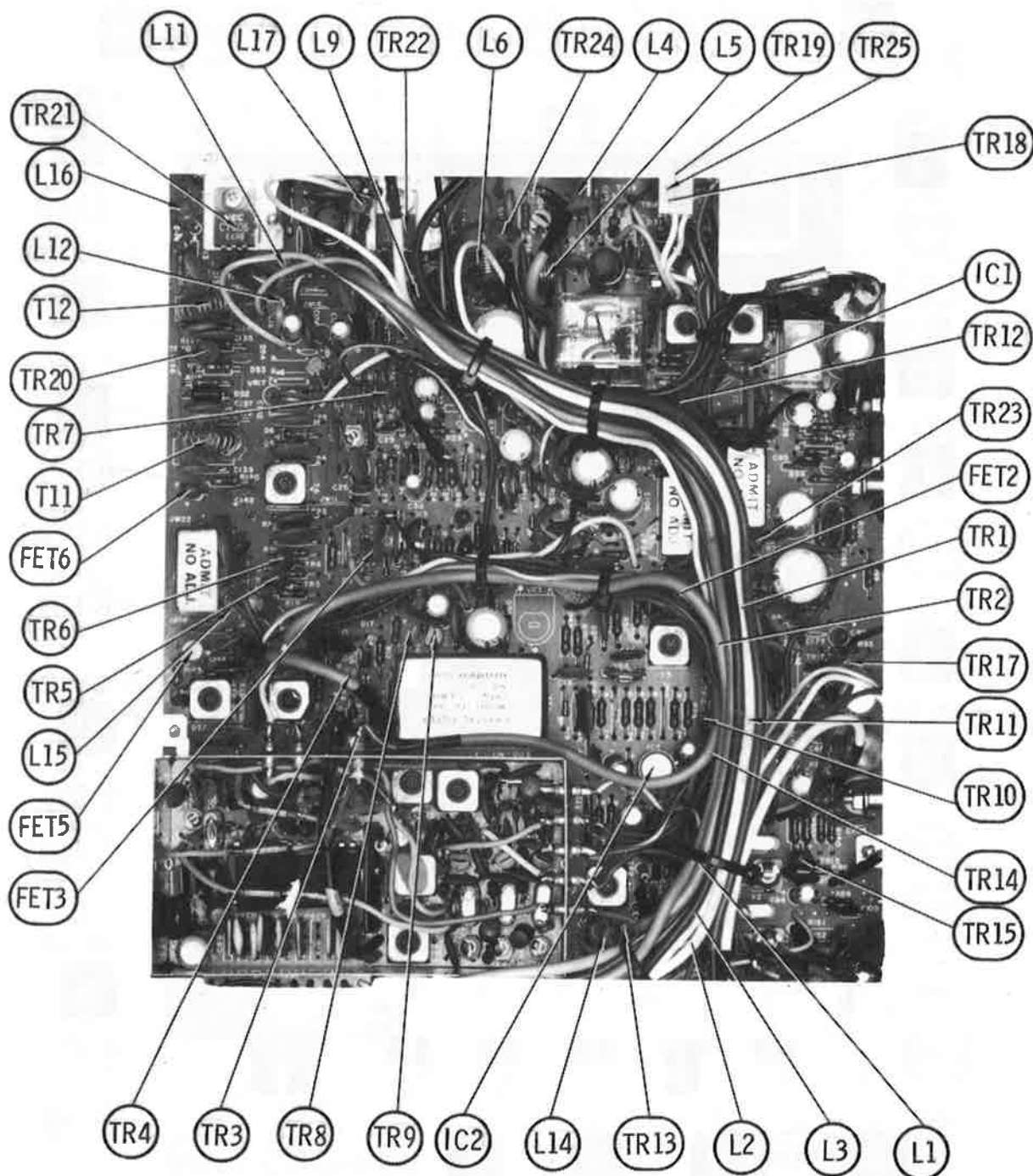
CHASSIS-BOTTOM



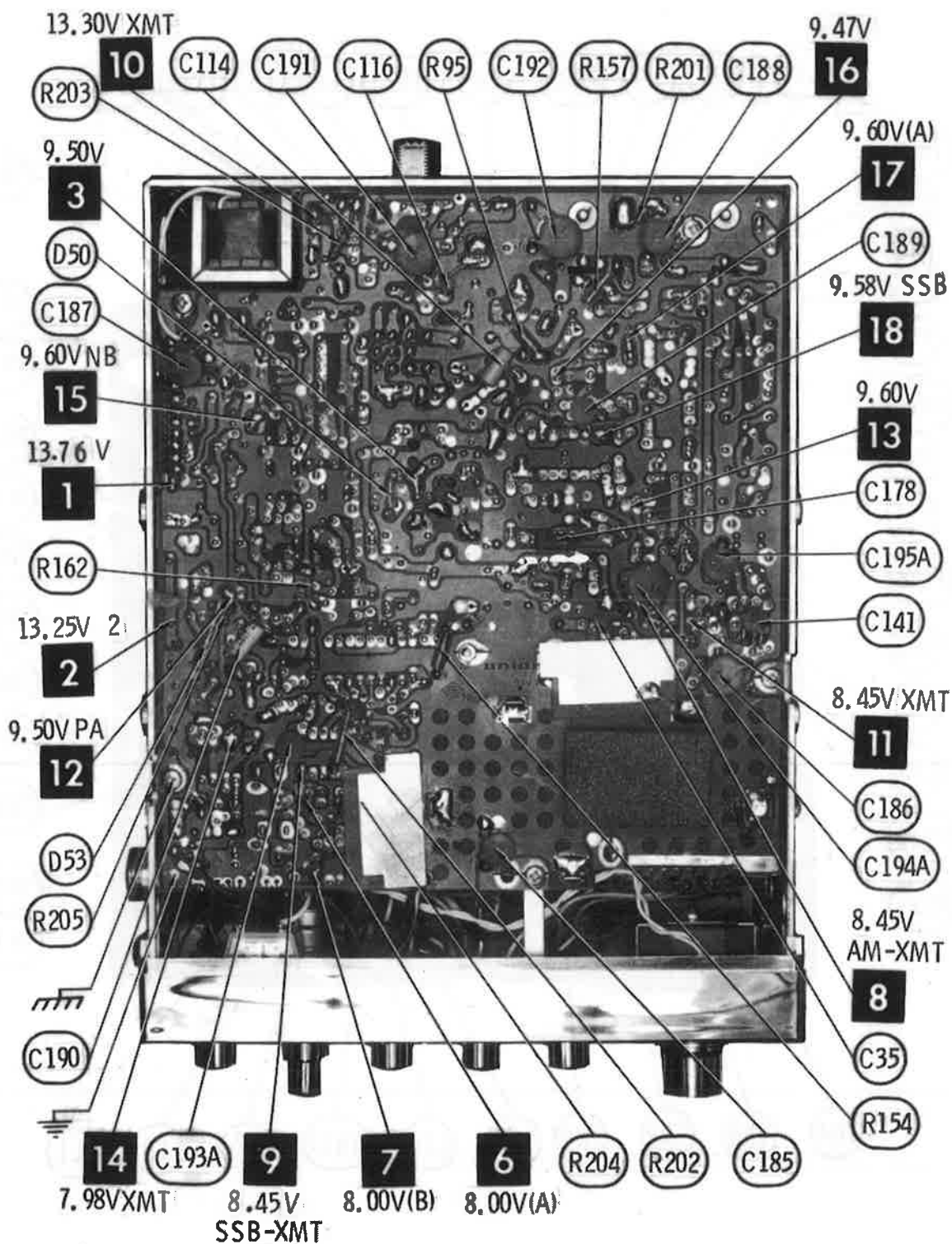
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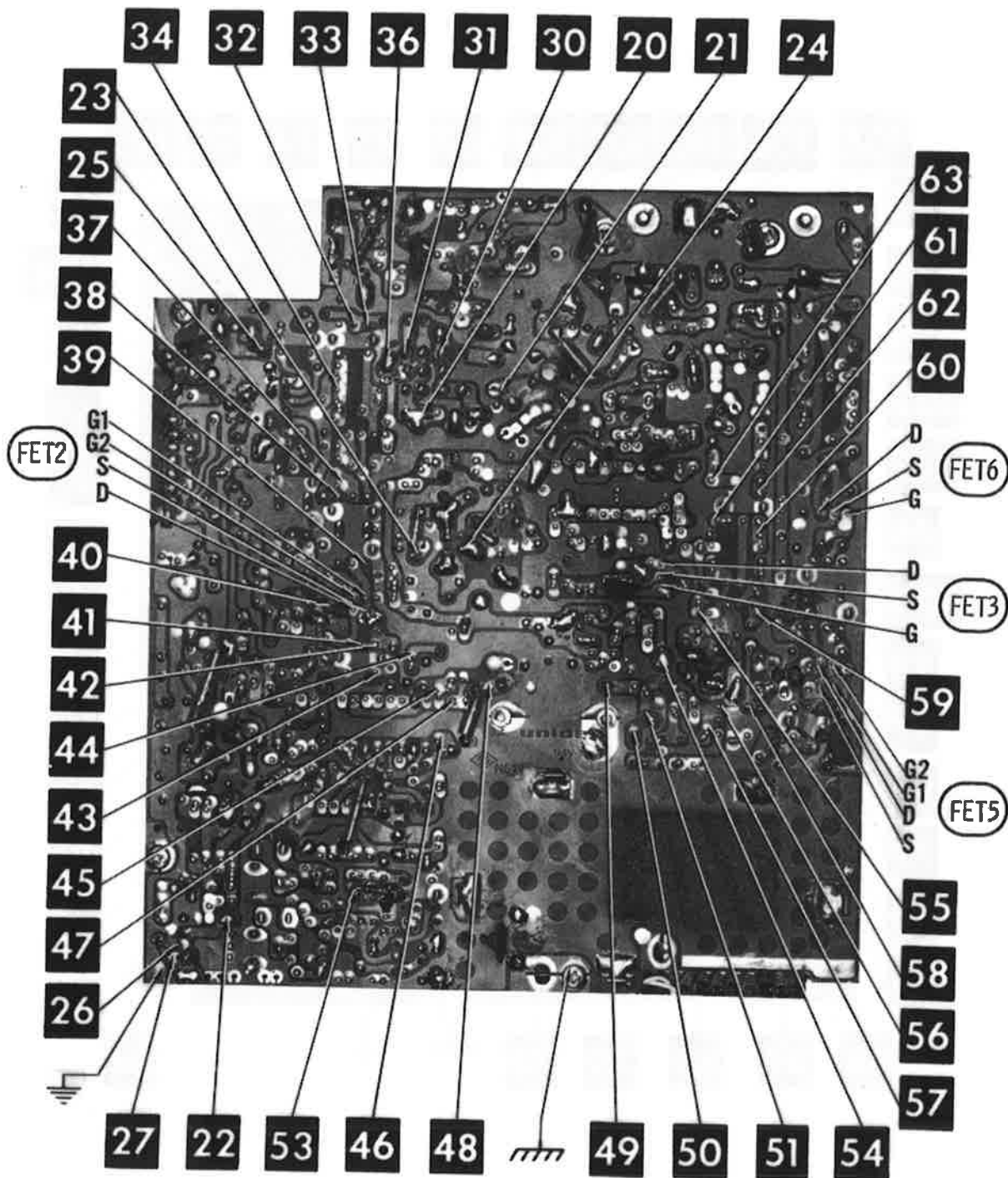
MAIN BOARD



MAIN BOARD



MAIN BOARD

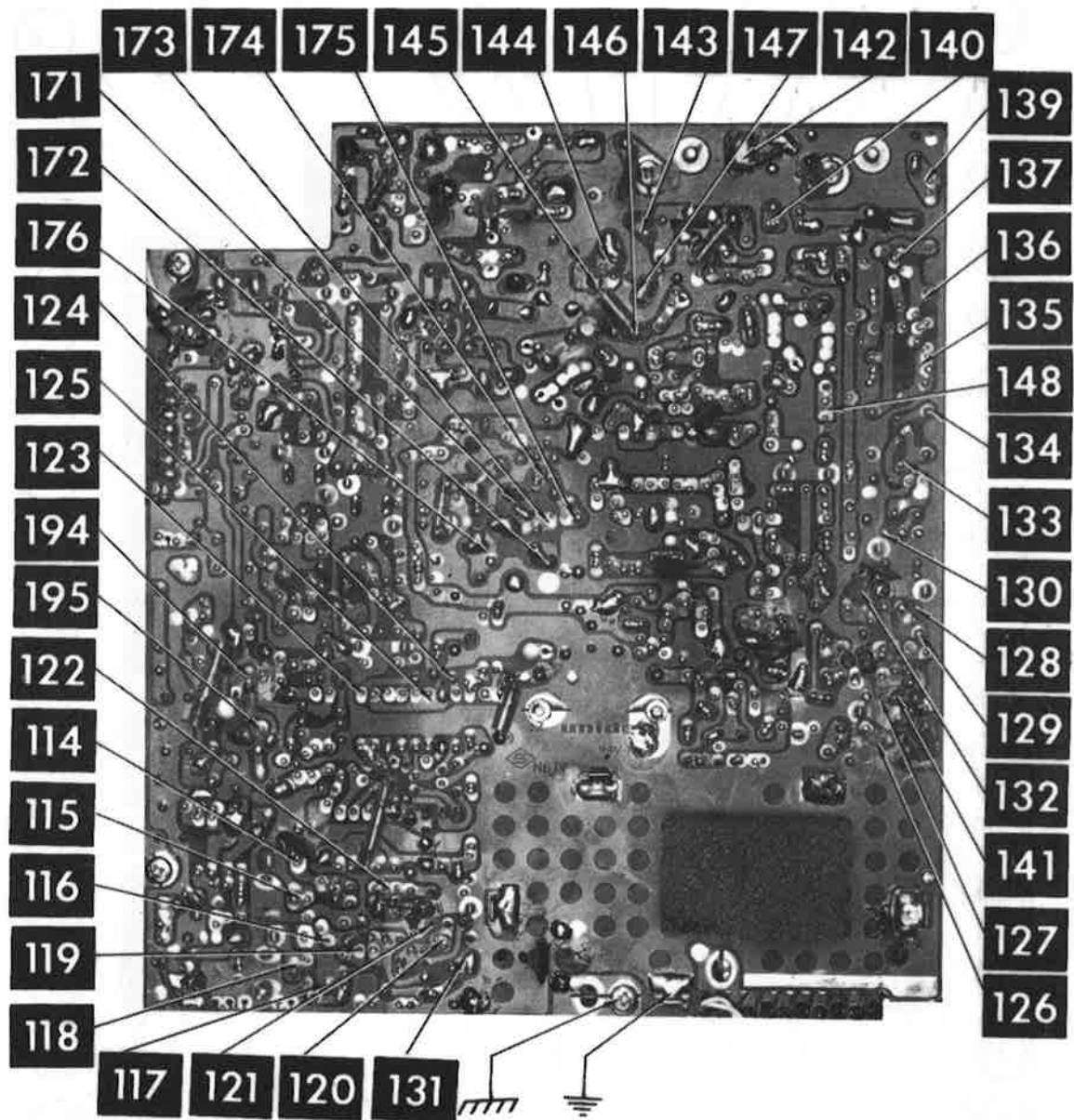


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MAIN BOARD

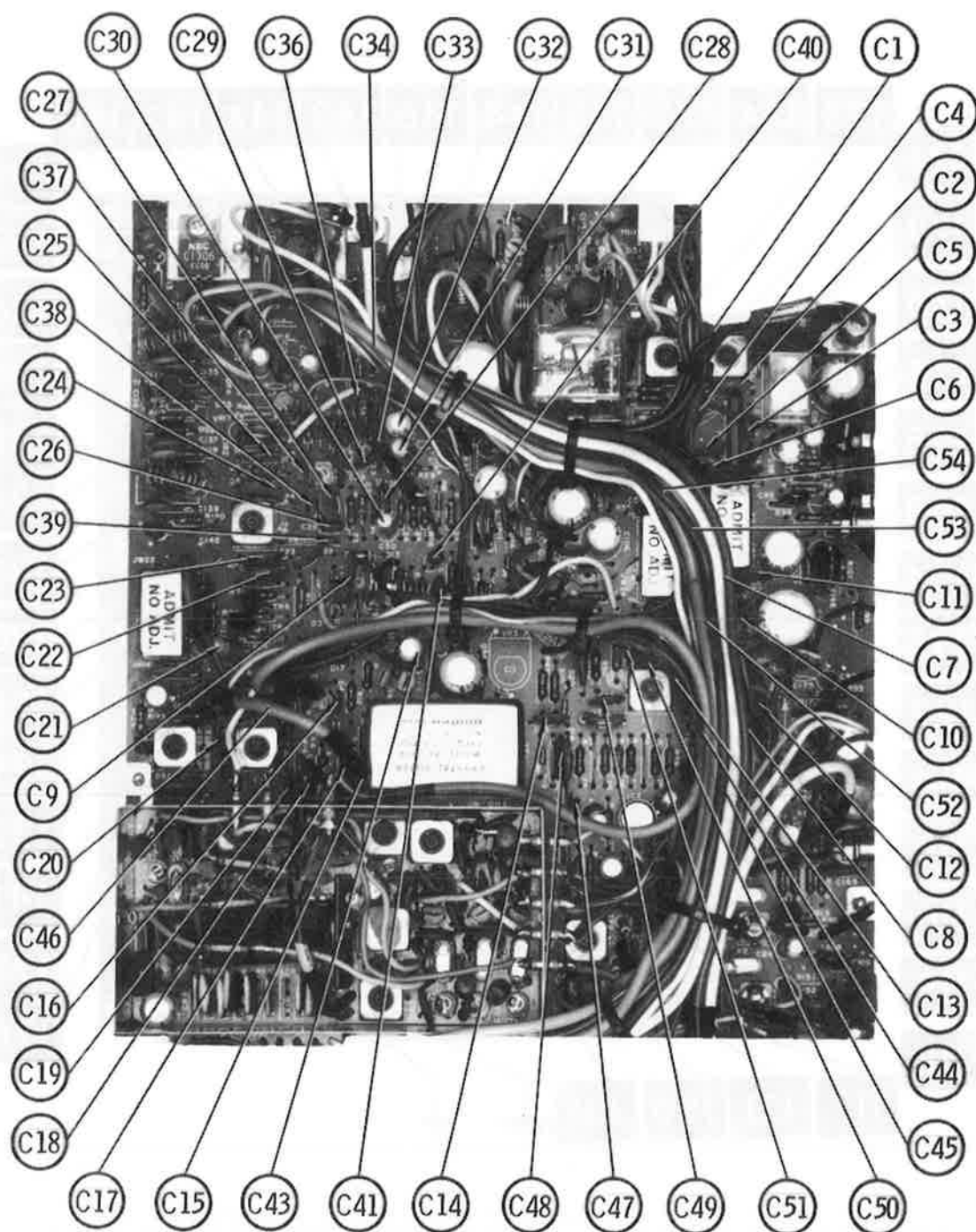


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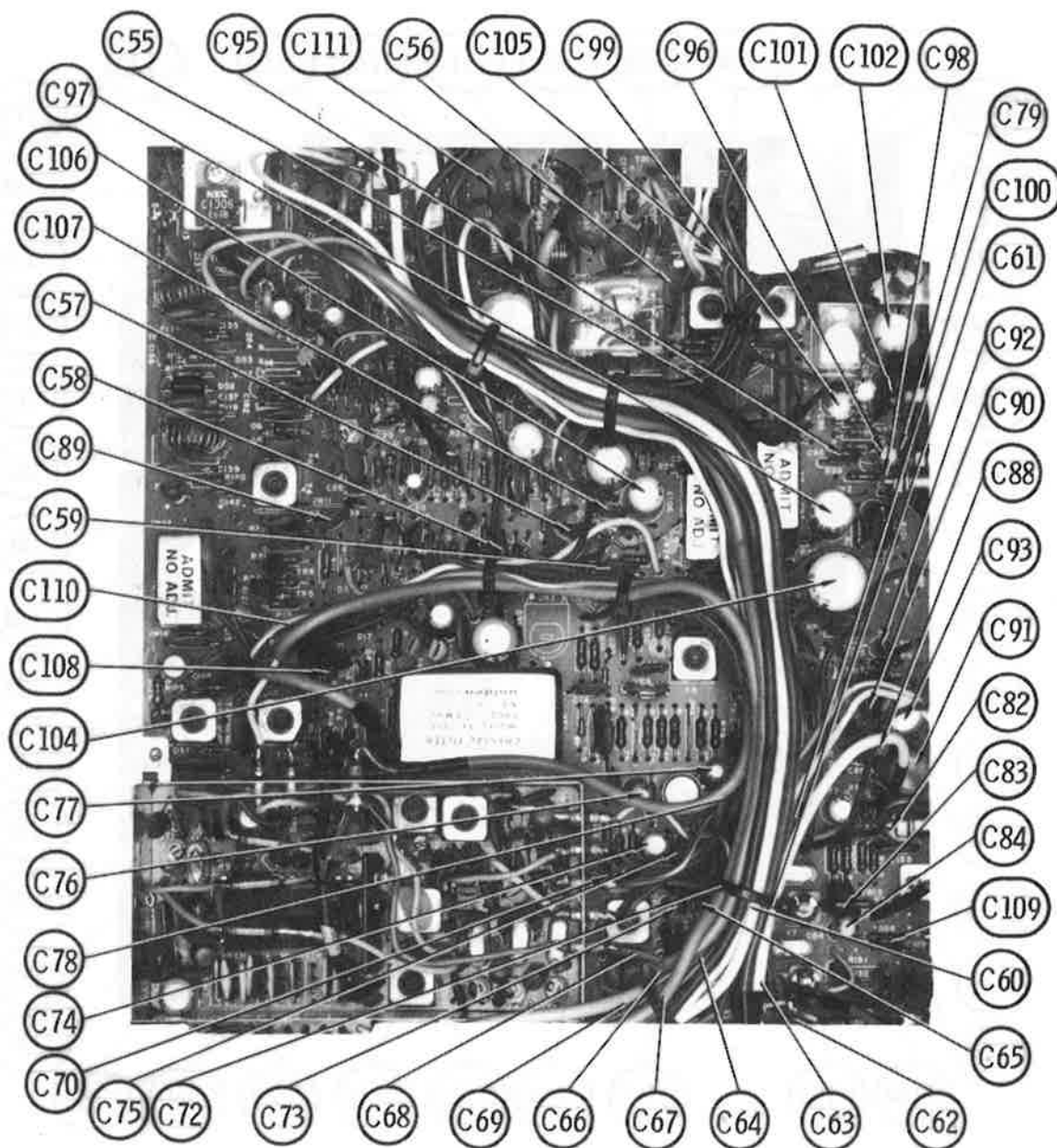


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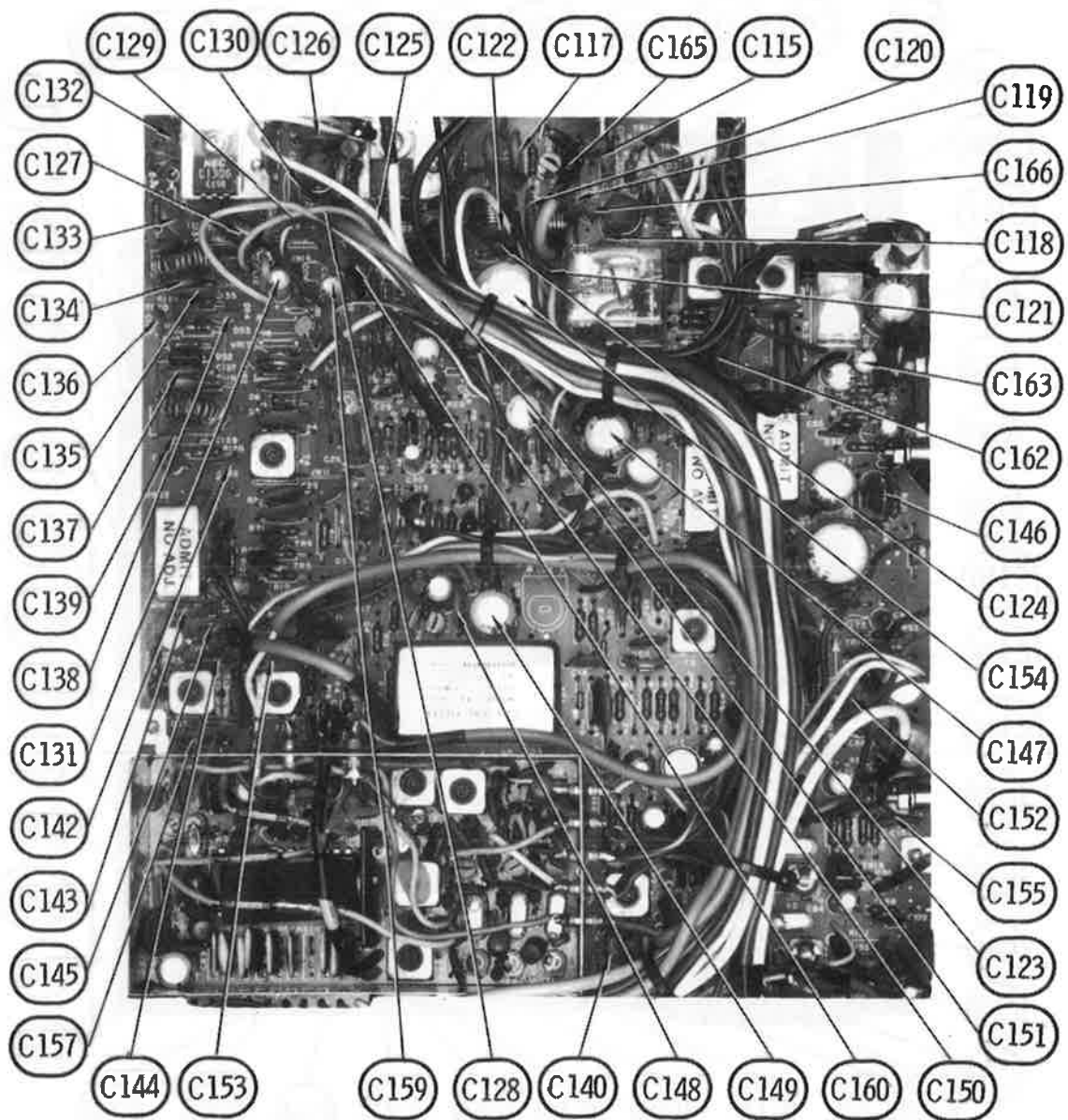
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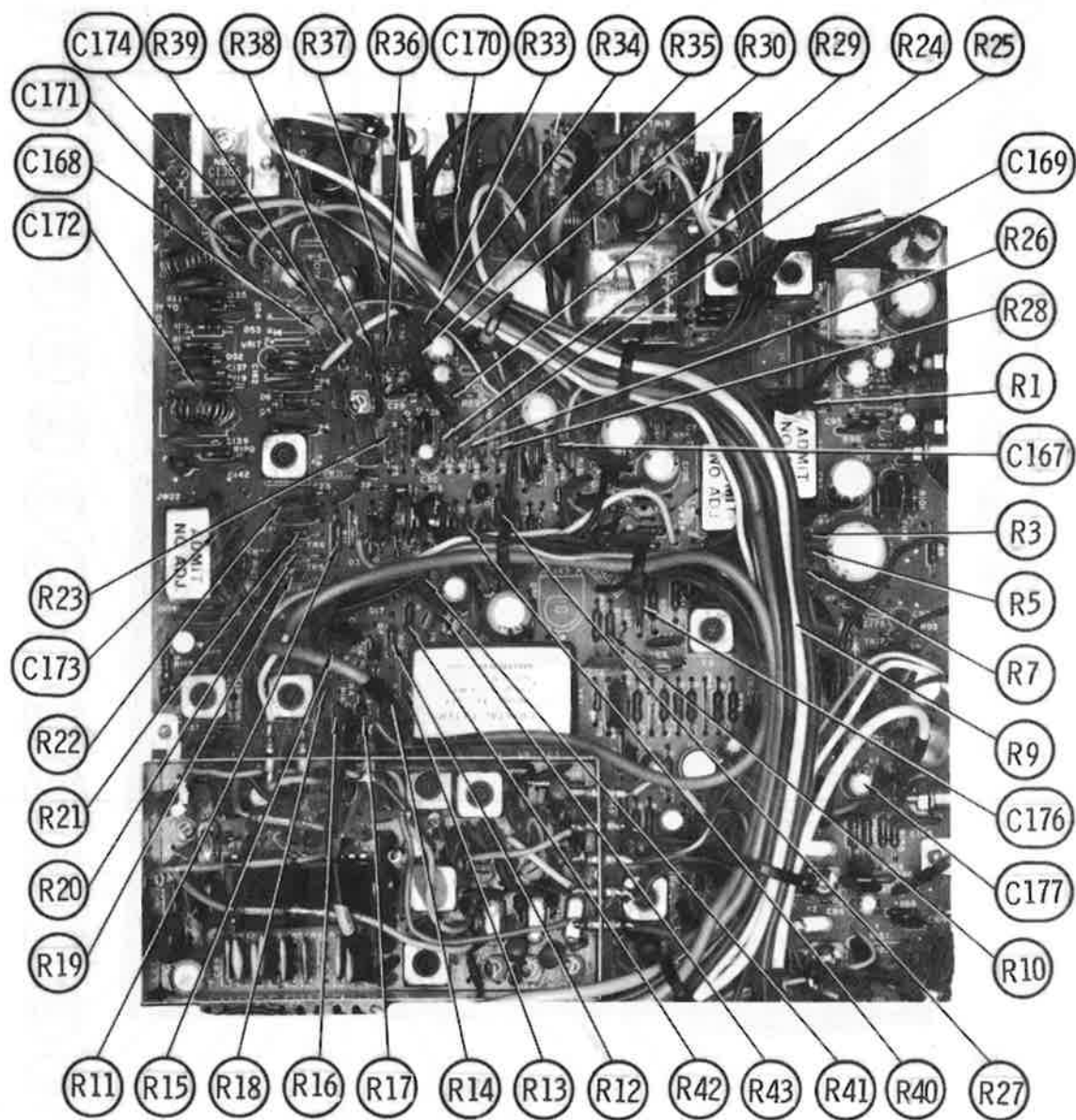
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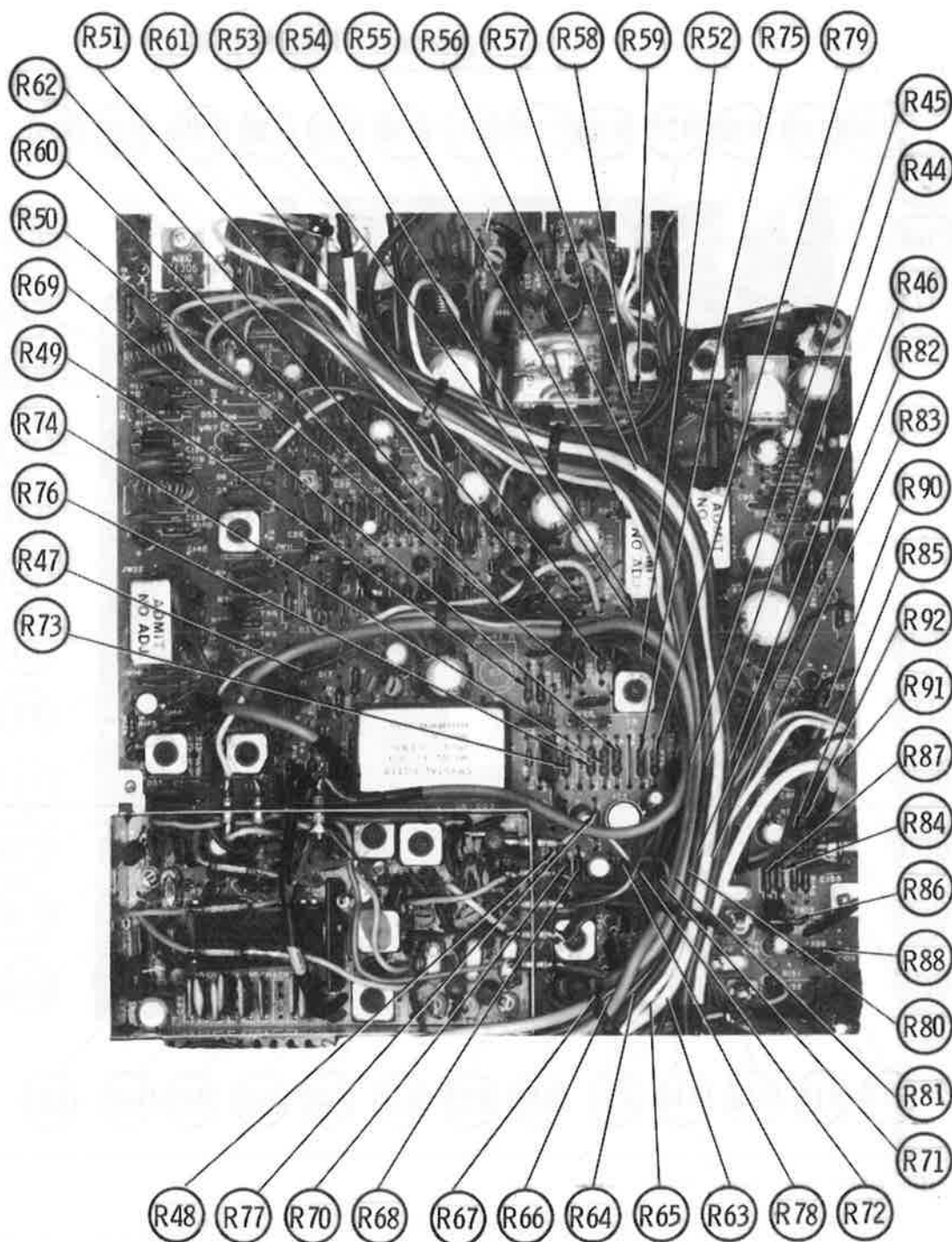
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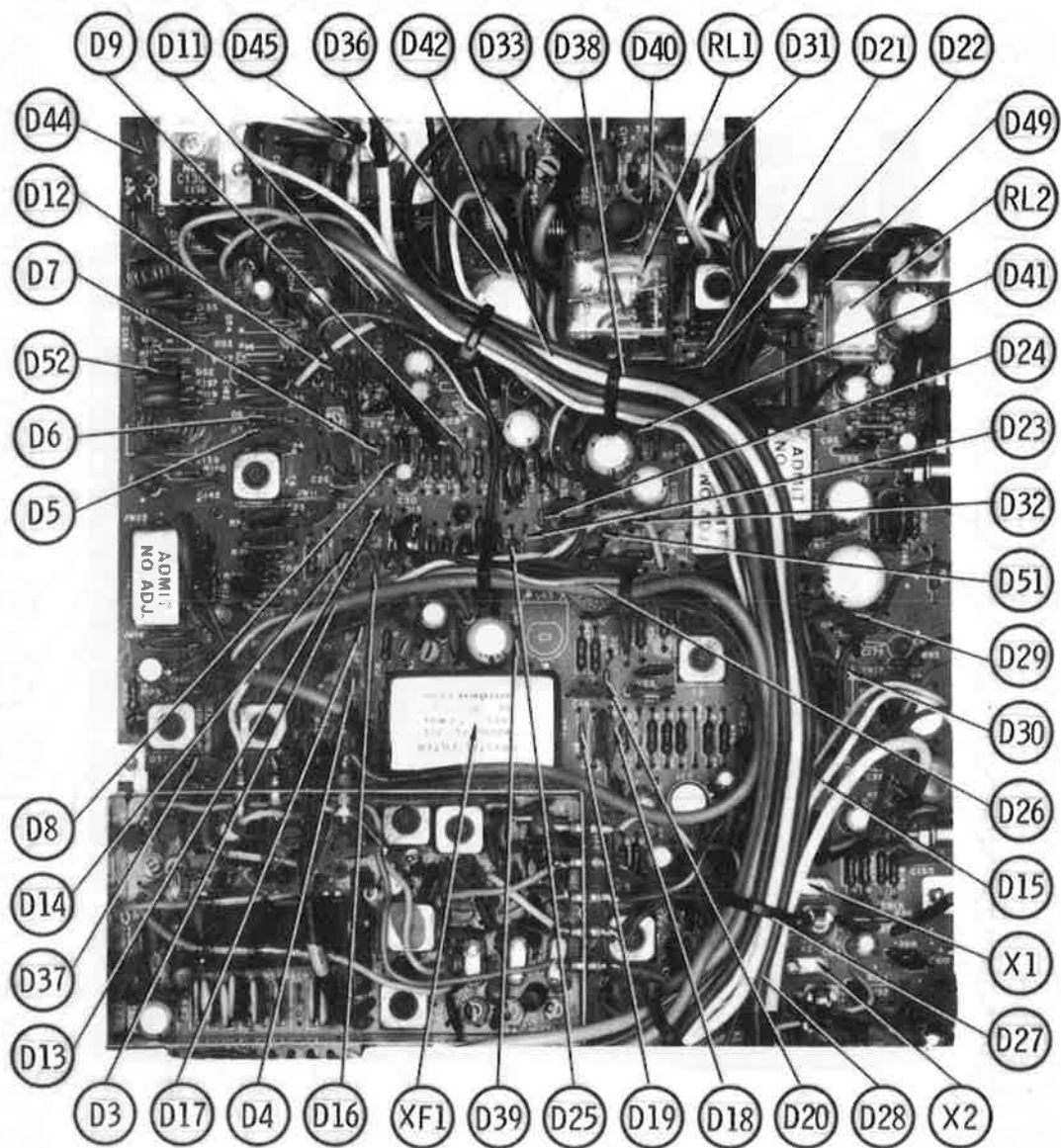
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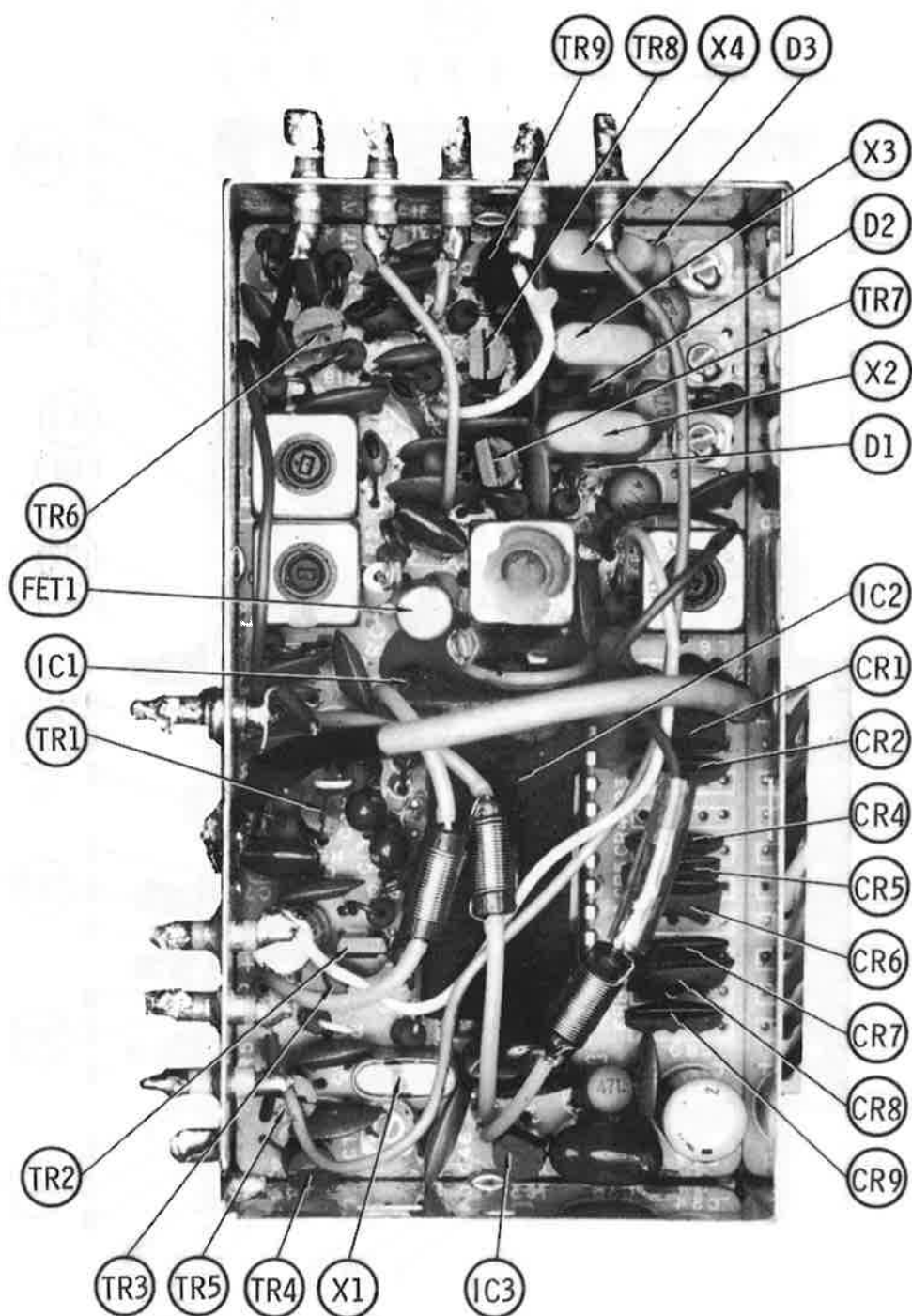
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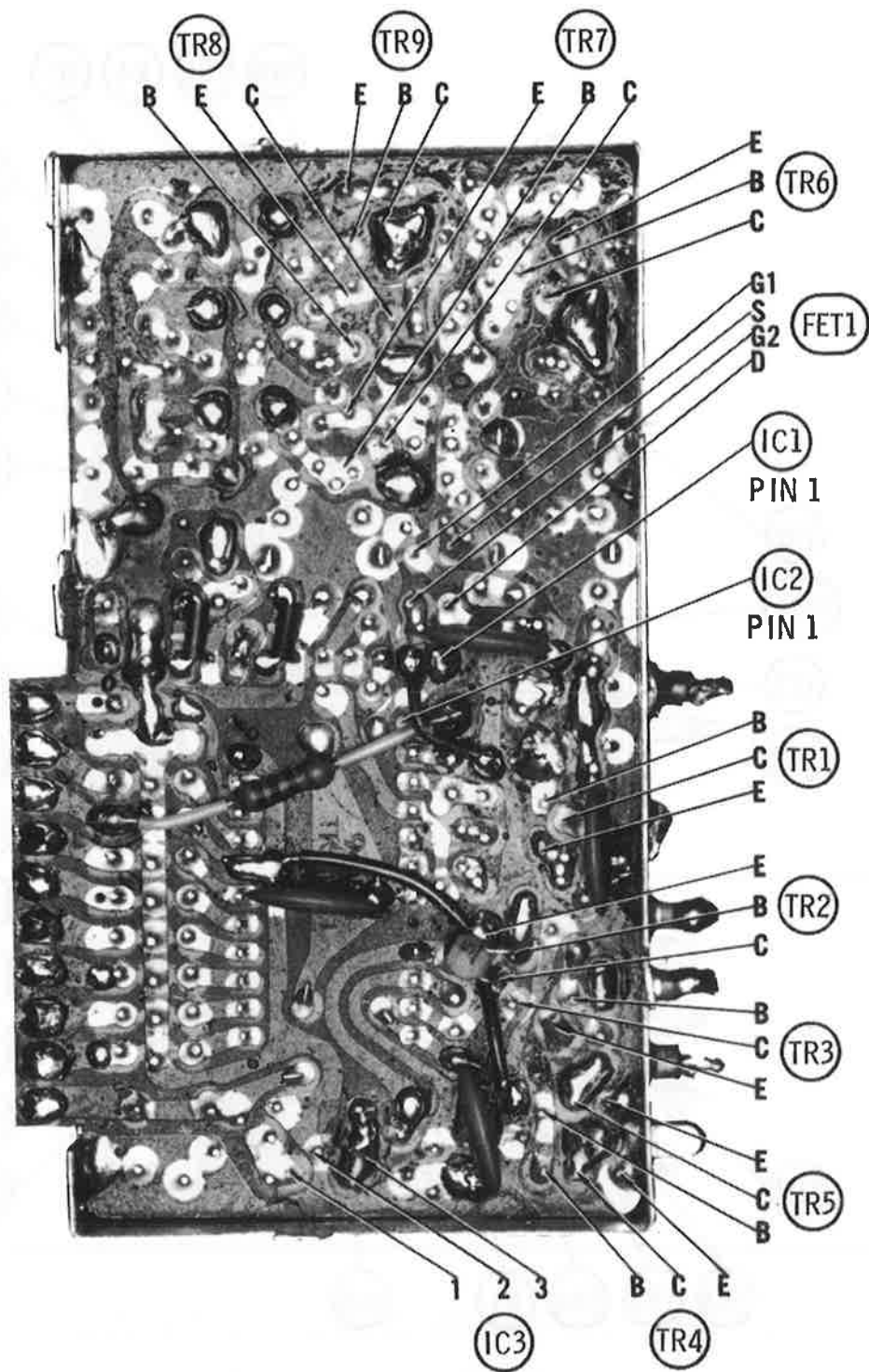
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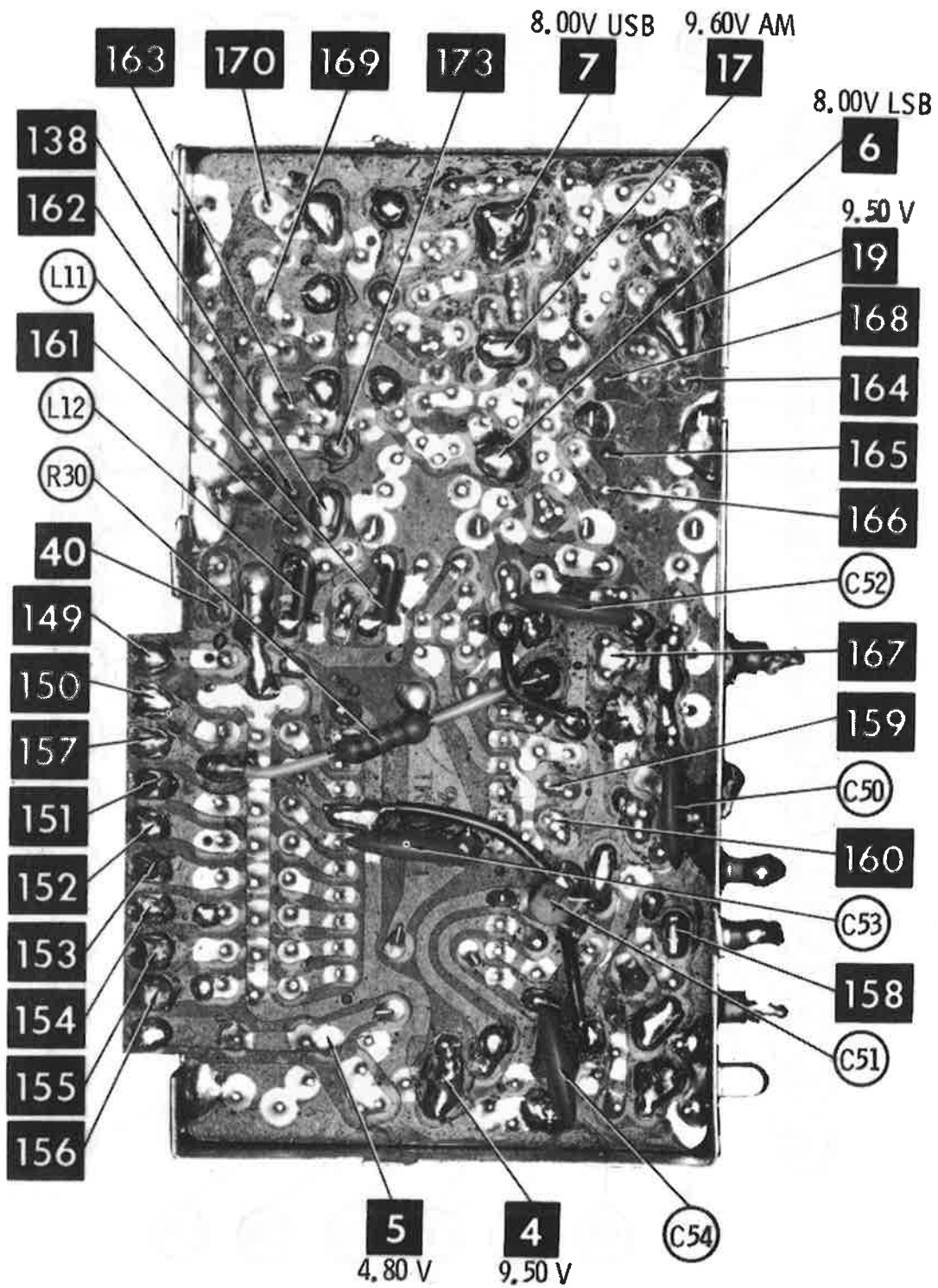
MAIN BOARD



PLL BOARD

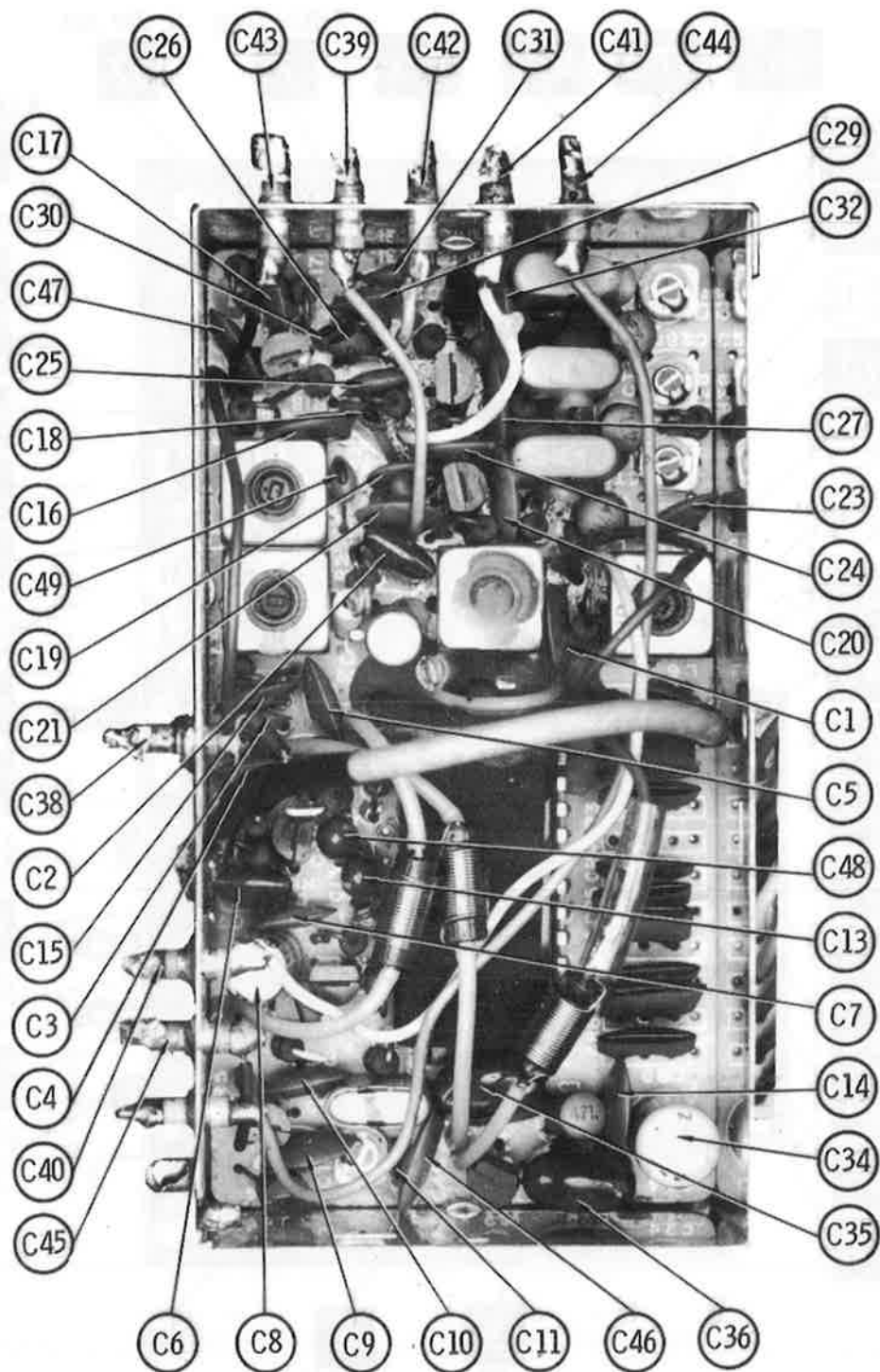


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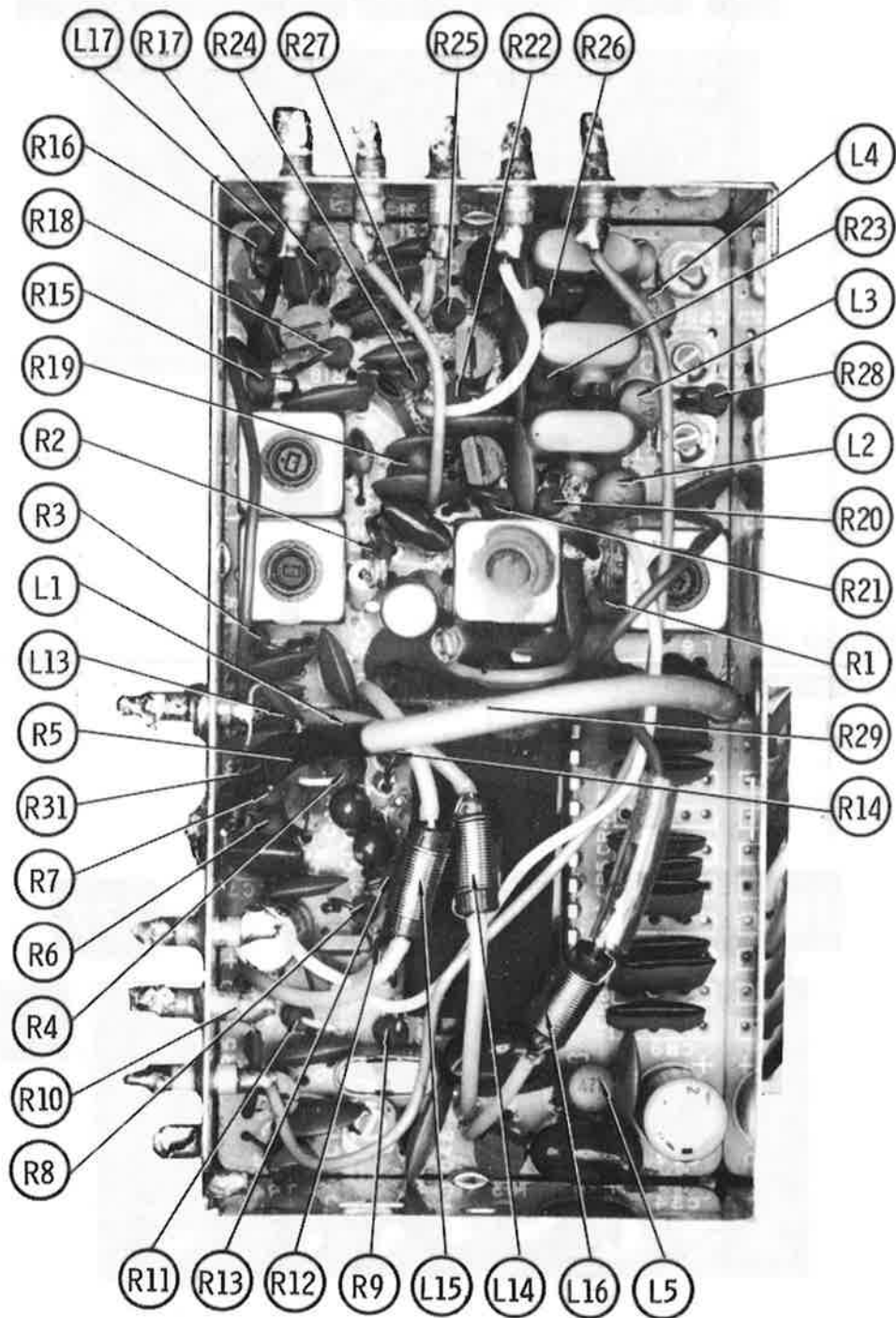


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PLL BOARD

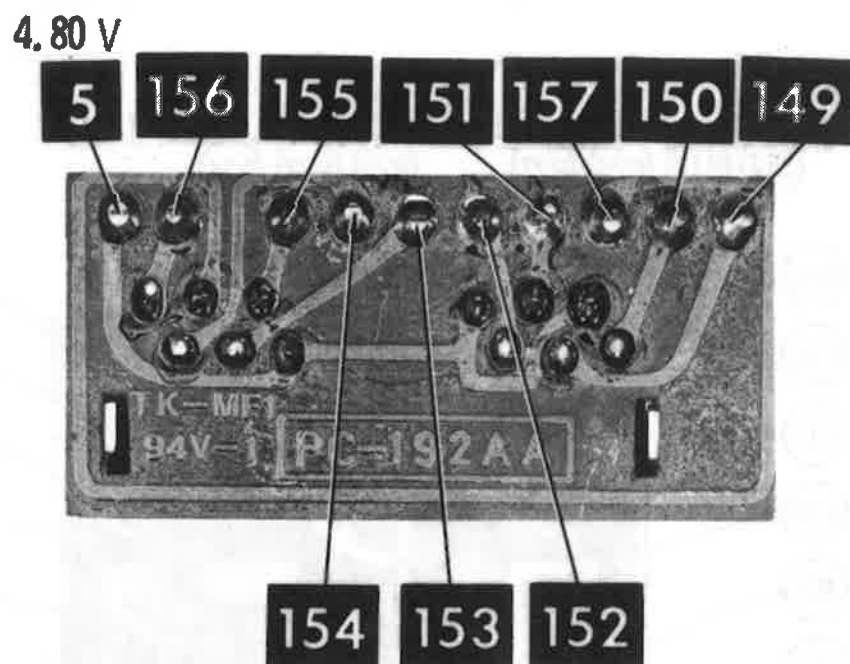


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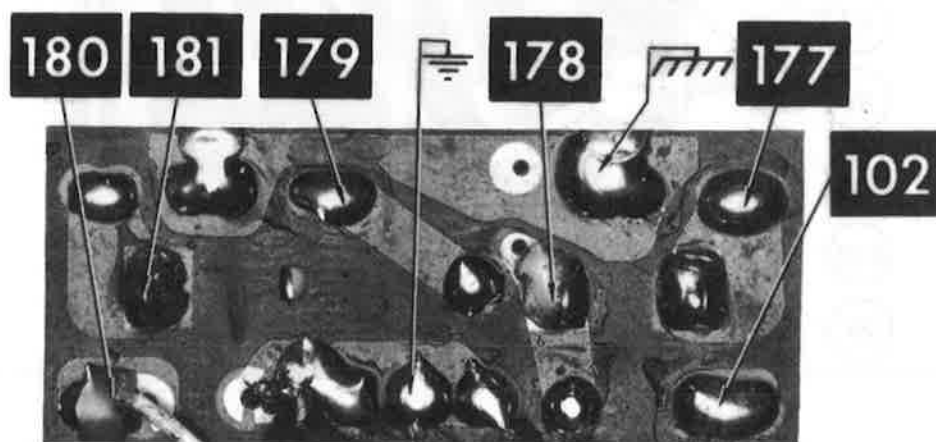


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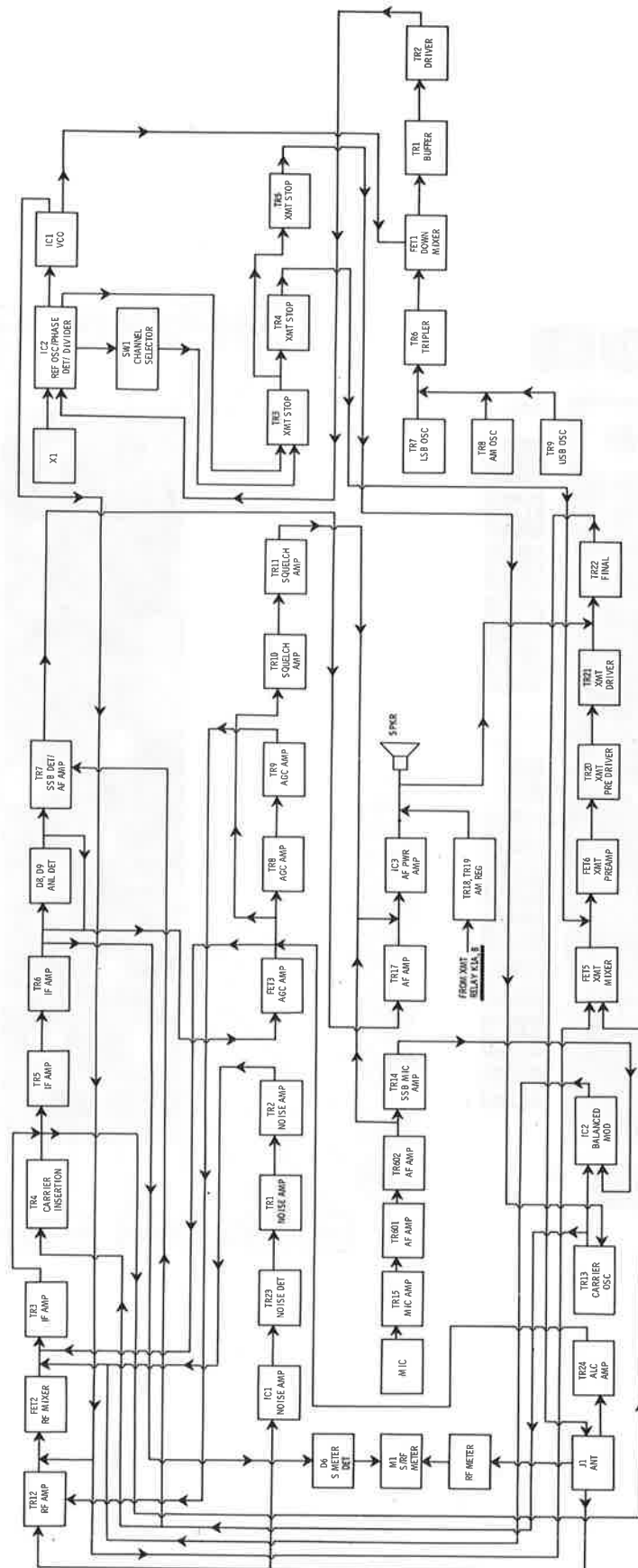
PLL BOARD



CH. SELECTOR BOARD

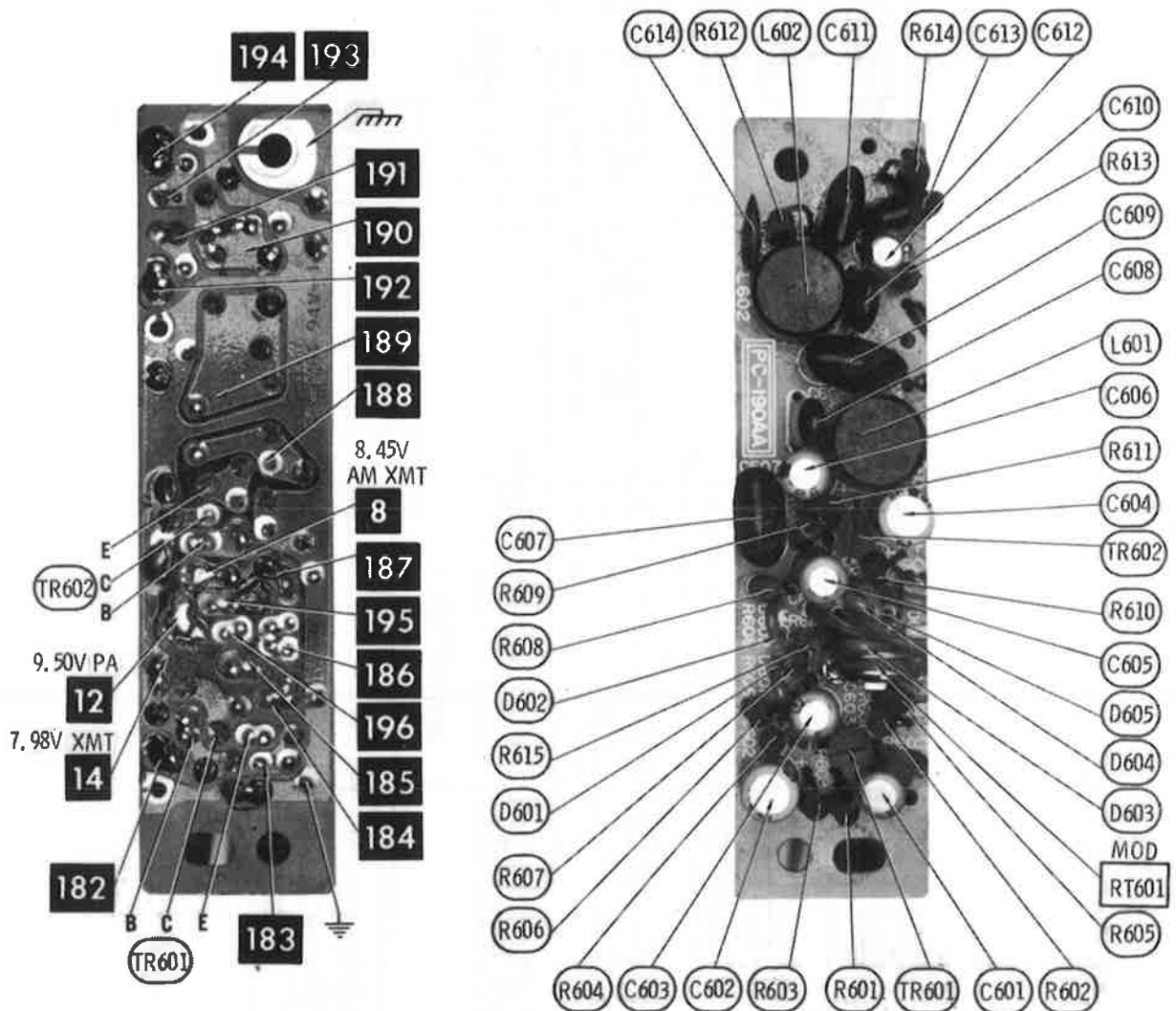


PA-SPEAKER JACK BOARD

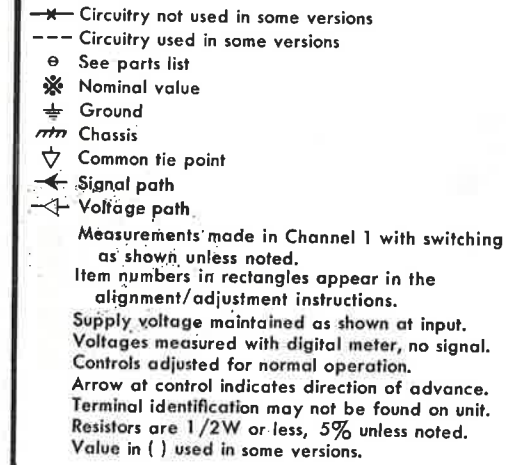


BLOCK DIAGRAM

MIDLAND MODEL 79-893



MIC AMP BOARD



WITH **CIRCUITRACE®**

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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	(6') BELDEN No. 17106	31AWG	BELDEN No. 9468 (10')
	(9') BELDEN No. 17109	4-conductor (unshielded) 23AWG	BELDEN No. 8415 (6')
		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.
MAIN BOARD												
D3	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D4	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D5	1N60P		1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D6	1N60P		1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D7	1N60P		1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D8	1N60P		1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D9	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D11	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D12	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D13	1N60P		1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D14	1N60P		1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D15	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D16	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D17	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D18	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D19	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D20	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D21	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D22	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D23	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D24	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D25	WZ061		GEZD-3.3	ZM3.3B		REN 5066	SK3330		ECG5005		WEP1405	
D26	WZ071		GEZD-7.5	ZM7.5B		REN 138		RT-239	ECG5015	1N4737A	WEP1416	
D27	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D28	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D29	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D30	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D31	WZ050		GEZD-5.1	ZM5.1B		REN 139	SK3060	RT-235	ECG5010	1N4733A	WEP1411	103-279-10
D32	CZ092		GEZD-9.1	ZB9.1A	HEPZ0412	REN 139	SK3060	RT-240	ECG139	1N4739A	WEP1109	103-272
D33	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D36	1N60		1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D37	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D38	SR1K-2		GE-504A	PTC201	HEPR0052	REN 116	SK3030	RT-213	ECG116	1N4004	WEP156	212-76-02
D39	CZ092		GEZD-9.1	ZB9.1A	HEPZ0412	REN 139	SK3060	RT-240	ECG139	1N4739A	WEP1109	103-272
D40	CZ092		GEZD-9.1	ZB9.1A	HEPZ0412	REN 139	SK3060	RT-240	ECG139	1N4739A	WEP1109	103-272
D41	SR1K-2		GE-504A	PTC201	HEPR0052	REN 116	SK3030	RT-213	ECG116	1N4004	WEP156	212-76-02
D42	SR1K-2		GE-504A	PTC201	HEPR0052	REN 116	SK3030	RT-213	ECG116	1N4004	WEP156	212-76-02
D43	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D44	1S2473K		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D45	KB162-W			PTC301		REN 601	SK3463		ECG601			
	KB162			PTC301		REN 601	SK3463		ECG601			
D49	SR1K-2		GE-504A	PTC201	HEPR0052	REN 116	SK3030	RT-213	ECG116	1N4004	WEP156	212-76-02
D50	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D51	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D52	ESSB-01-IR50		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D53	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D601	1S2473K		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D602	1S2473K		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D603	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D604	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
D605	1S2473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	1N4148	WEP925	
FET2	3SK45B	01-080045	GE-FET-4	PTC182	HEPF2007	REN 222	SK3065	RT-181	ECG222		WEP905	
FET3	JF1033	01-121033	GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312		WEP905	ZEN-123
FET5	3SK45B	01-080045	GE-FET-4	PTC182	HEPF2007	REN 222	SK3065	RT-181	ECG222		WEP905	ZEN-123
	3SK45		GE-FET-4	PTC182	HEPF2007	REN 222	SK3065	RT-181	ECG222		WEP905	ZEN-123
FET6	JF1033	01-121033	GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312		WEP905	ZEN-123
IC1	UPC577H	02-300577	GEIC-140			REN 1082	SK3461		ECG1082	UPC577H	WEP939	
IC2	LM1496H	02-151496					SK3233		ECG973			
IC3	UPC1020H	02-301020	GEIC-196				SK3243		ECG1160			
TR1	2SA733P	01-010733	GE-48	PTC127	HEPS0019*	REN 294	SK3138	RT-303	ECG294	2SA733	WEP2258	121-933
	2SA733		GE-48	PTC127	HEPS0019*	REN 294	SK3138	RT-303	ECG294	2SA733	WEP916	121-933
TR2	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
TR3	2SC1675L	01-031675	GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*		WEP956*	ZEN-127
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*		WEP956*	ZEN-127
TR4	2SC1675L	01-031675	GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*		WEP956*	ZEN-127
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*		WEP956*	ZEN-127
TR5	2SC1675L	01-031675	GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*		WEP956*	ZEN-127
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*		WEP956*	ZEN-127
TR6	2SC1675L	01-031675	GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*		WEP956*	ZEN-127
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*		WEP956*	ZEN-127
TR7	2SC1675L	01-031675	GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*		WEP956*	ZEN-127
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*		WEP956*	ZEN-127
TR8	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
TR9	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
TR10	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
TR11	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
TR12	2SC1730L	01-031730	GE-17*	PTC136*	HEPS0025*	REN 107	SK3018*	RT-107A	ECG316*		WEP535	121-888
	2SC1730		GE-17*	PTC136*	HEPS0025*	REN 107	SK3018*	RT-107A	ECG316*		WEP535	121-888
TR13	2SC1675L	01-031675	GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*		WEP956*	ZEN-127
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*		WEP956*	ZEN-127
TR14	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000

MIDLAND MODEL 79-893

PARTS LIST AND DESCRIPTION (CONTINUED) (When ordering parts, state Model, Part Number, and Description.) **SEMICONDUCTORS (Select replacement transistor for best results)(cont)**

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA									
			GENERAL ELECTRIC PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
TR15	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
TR17	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
TR18	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
TR19	2SD325E1	01-040325	GE-28	PTC110	HEPS5027	REN 186	SK3197	RT-197	ECG186	2SD325	WEP1945	121-29000
	2SD325		GE-28	PTC110	HEPS5027	REN 186	SK3197	RT-197	ECG186	2SD325	WEP1945	121-29000
TR20	2SC11973	01-031973	GE-335	PTC186		REN 235	SK3250		ECG315	2SC11973	WEP922	
TR21	2SC1306	01-031306	GE-215	PTC186		REN 236	SK3197	RT-146	ECG235	2SC1306	WEP785	
TR22	2SC1307	01-031307	GE-216	PTC186		REN 236	SK3239	RT-158	ECG236		WEP840	
TR23	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
TR24	2SA733P	01-010733	GE-48	PTC127	HEPS0019*	REN 294	SK3138	RT-303	ECG294	2SA733	WEP916	121-933
	2SA733		GE-48	PTC127	HEPS0019*	REN 294	SK3138	RT-303	ECG294	2SA733	WEP916	121-933
TR25	2SD325E	01-040325	GE-28	PTC110	HEPS5027	REN 186	SK3197	RT-197	ECG186	2SD325	WEP1945	
	2SD325		GE-28	PTC110	HEPS5027	REN 186	SK3197	RT-197	ECG186	2SD325	WEP1945	
TR601	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
TR602	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
PLL BOARD												
D1	1S2687D				HEPR2502	REN 612			ECG612			ZEN-452
D2	1S2687D				HEPR2502	REN 612			ECG612			ZEN-452
D3	1S2687D				HEPR2502	REN 612			ECG612			ZEN-452
FET1	3SK45B	01-080045	GE-FET-4	PTC182	HEPF2007	REN 222	SK3065	RT-181	ECG222		WEP905	121-826
	3SK45		GE-FET-4	PTC182	HEPF2007	REN 222	SK3065	RT-181	ECG222		WEP905	121-826
IC1	UHTC-002	02-280002							ECG1198			
IC2	UPD858								ECG1198			
	UPC858C	02-350858							ECG977			
IC3	78L05					REN 977	SK3462		ECG977			
	UPC78L05	02-300078				REN 977	SK3462		ECG977			
TR1	2SC1675L	01-031675	GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*	2SC945	WEP956*	ZEN-127
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*	2SC945	WEP956*	ZEN-127
TR2	2SC1675L	01-031675	GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*	2SC945	WEP956*	ZEN-127
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*	2SC945	WEP956*	ZEN-127
TR3	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
TR4	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
TR5	2SC945AQ	01-030945	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
TR6	2SC1675L	01-031675	GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*	2SC945	WEP956*	ZEN-127
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*	2SC945	WEP956*	ZEN-127
TR7	2SC1675L	01-031675	GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*	2SC945	WEP956*	ZEN-127
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*	2SC945	WEP956*	ZEN-127
TR8	2SC1675L	01-031675	GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*	2SC945	WEP956*	ZEN-127
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*	2SC945	WEP956*	ZEN-127
TR9	2SC1675L	01-031675	GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*	2SC945	WEP956*	ZEN-127
	2SC1675		GE-213	PTC132*	HEPS0025*	REN 123A*	SK3246	RT-308	ECG229*	2SC945	WEP956*	ZEN-127

* Lead configuration may vary from original.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFRG. PART No.	CORNELL- DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
MAIN BOARD						
C21	4.7 25V		PC5-50	VTT47B750	QV1-27	EV-1319
C30	.1 25V			TD104M050EL	QDT1-2	SD50-R109
C31	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C32	47 10V		PC50-16	VTT47D16	QV1-73	EV-1226
C34	47 10V		PC50-16	VTT47D16	QV1-73	EV-1226
C40	2.2 25V			TD225M035FL		SD35-2R29
C43	33 10V		PC30-25	VTT33B10	QV1-61	EV-1125
C45	4.7 25V		PC5-50	VTT47B750	QV1-27	EV-1319
C74	22 16V		PC25-25	VTT22B16	QV1-55	EV-1224
C76	2.2 25V		PC2-100	VTT2R2A50	QV1-19	EV-1517
C77	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C78	47 10V		PC50-16	VTT47D16	QV1-73	EV-1226
C82	220 6.3V		PC250-10	VTT220F10	QV1-115	EV-1140
C84	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C88	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C91	220 6.3V		PC250-10	VTT220F10	QV1-115	EV-1140
C92	.1 25V			TD104M050EL	QDT1-2	SD50-R109
C93	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
C96	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C97	100 16V		PC100-16	VTT100F16	QV1-95	EV-1230
C99	47 10V		PC50-16	VTT47D16	QV1-73	EV-1226
C102	470 10V		PC500-16	VTT470K16	QV1-149	EV-1150
C104	470 16V		PC500-16	VTT470K16	QV1-151	EV-1250
C105	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
C106	100 10V		PC100-10	VTT100E10	QV1-93	EV-1130
C114	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C131	2.2 25V		PC2-100	VTT2R2A50	QV1-19	EV-1517
C147	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
C149	470 10V		PC500-16	VTT470K16	QV1-149	EV-1150
C151	100 10V		PC100-10	VTT100E10	QV1-93	EV-1130
C154	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1260
C159	4.7 25V		PC5-50	VTT47B750	QV1-27	EV-1319
C163	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C168	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C177	47 10V		PC5-50	VTT47B750	QV1-27	EV-1319
C190	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C601	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C602	47 10V		PC5-50	VTT47B750	QV1-27	EV-1319
C603	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C604	47 10V		PC5-50	VTT47B750	QV1-27	EV-1319
C605	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C606	10 16V		PC10-25	VTT10B25	QV1-41	EV-1222
C612	.22 25V			TD224M050EL	QDT1-10	SD50-R229

PARTS LIST AND DESCRIPTION (CONTINUED)

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

ELECTROLYTIC CAPACITORS(cont)

ITEM No.		REPLACEMENT DATA					
		RATING	MFGR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
PLL BOARD							
C8	33	10V		PC30-25	VTT33B10	QV1-61	EV-1125
C13	10	6.3V			TDC106M025FL	QDT1-64	SD25-109
C34	100	10V		PC100-10	VTT100E10	QV1-93	EV-1130
C48	10	6.3V			TDC106M025FL	QDT1-64	SD25-109

CAPACITORS

			REPLACEMENT DATA				
ITEM No.	RATING	MFRG. PART No.	CENTRALAB	CORNELL-DUBILIER	MALLORY	SPRAGUE	PART No.
			PART No.	PART No.	PART No.	Q-LINE	GENERAL LINE
MAIN BOARD							
C1	39 NPO		DC-103	MGP01	CN0439		10TCC-Q39
C2	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C3	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C4	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C5	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C6	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C7	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C8	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C9	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C10	100 NPO		DTZ-100	NP0100	CN0310		10TCC-T10
C11	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C12	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C13	.0047		DD-472	GP4700	GP247		5GA-D47
C14	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C15	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C16	6 NPO		DTZ-6R8	NP06P8	CN0568		10TCC-V68
C17	.1		DC-104	MGP1	TA010	QC2-233	TG-P10
C18	.039			DPMS6S39	PVC6139		6PS-S39
C19	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C20	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C22	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C23	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C24	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C25	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C26	22 NPO		DTZ-22	NP022	CN0422		10TCC-Q22
C27	.01			WMF1S1	EWF1A110	QF1-91	1PB-S10
C28	.0047			WMF1D47	EWF1A247	QF1-57	1PB-D47
C29	.01			WMF1S1	EWF1A110	QF1-91	1PB-S10
C33	.01			WMF1S1	EWF1A110	QF1-91	1PB-S10
C35	3		DTZ-3R3	NP03P3	CN0533		10TCC-V33
C36	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C37	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C38	2 NPO		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C39	5 NPO		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C41	.039				GP140		5GA-S40
C44	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C46	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C47	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C48	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C49	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C50	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C51	.039			DPMS6S39	PVC6139		6PS-S39
C52	.0033		DD-332	GP3300	GP233	QC2-107	5GA-D33
C53	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C54	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C55	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C56	.0047		DD-472	GP4700	GP247		5GA-D47
C57	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C58	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C59	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C60	.022		DC-203	MGP02	TA120	QC2-157	TG-S20
C61	18 NPO				CN0418		10TCC-Q18
C62	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C63	18 NPO				CN0418		10TCC-Q18
C64	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C65	4 NPO		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C66	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C67	100 NPO		DTZ-100	NP0100	CN0310		10TCC-T10
C68	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C69	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C70	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C72	10 NPO		DTZ-10	NP010	CN0410		10TCC-Q10
C73	10 NPO		DTZ-10	NP010	CN0410		10TCC-Q10
C75	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C79	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C83	.039			DPMS6S39	PVC6139		6PS-S39
C89	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C90	.039			DPMS6S39	PVC6139		6PS-S39
C95	.01			WMF1S1	EWF1A110	QF1-91	1PB-S10
C98	.001			DPMS6D1	EWF1A210	QF1-1	1PB-D10
C100	470		DD-471	GP470	GP347		10TS-T47
C101	.2			DPMS2P2	PVC602		2PS-P20
C107	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C108	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C109	.01			WMF1S1	EWF1A110	QF1-91	1PB-S10
C110	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C111	.0047		DD-472	GP4700	GP247		5GA-D47
C115	.0047		DD-472	GP4700	GP247		5GA-D47
C116	1.5		DTZ-1R5	NP01P5	CN0515		10TCC-V15
C117	.0047		DD-472	GP4700	GP247		5GA-D47
C118	39 NPO				CN0439		10TCC-Q39
C119	68 NPO		DTZ-68	NP068	CN0468		10TCC-Q68
C120	150 NPO		DTZ-150		CN0315		10TCC-T15
C121	.0047		DD-472	GP4700	GP247		5GA-D47
C122	330		DD-331	GP330	GP333		10TS-T33
C123	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C124	1 NPO				CN0510		10TCC-V10
C125	.1		DC-104	MGP1	TA010	QC2-233	TG-P10
C126	.1		DC-104	MGP1	TA010	QC2-233	TG-P10
C127	.1			DPMS2P1	EWF1A010	QF1-215	1PB-P10
C128	150 NPO		DTZ-150		CN0315		10TCC-T15

MIDLAND MODEL 79-893

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS(cont)

ITEM No.	RATING	MFG. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C129	56 NPO				CN0456		10TCC-Q56
C130	56 NPO				CN0456		10TCC-Q56
C132	.0047		DD-472	GP4700	GP247		5GA-D47
C133	.0047		DD-472	GP4700	GP247		5GA-D47
C134	.0047		DD-472	GP4700	GP247		5GA-D47
C135	100 NPO		DTZ-100	NP0100	CN0310		10TCC-T10
C136	.0047		DD-472	GP4700	GP247		5GA-D47
C137	.0047		DD-472	GP4700	GP247		5GA-D47
C138	.0047		DD-472	GP4700	GP247		5GA-D47
C139	.0047		DD-472	GP4700	GP247		5GA-D47
C140	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C141	33 NPO		DTZ-33	NP033	CN0433		10TCC-Q33
C142	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C143	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C144	.039			DPMS6S39	PVC6139		6PS-S39
C145	.0033		DD-332	GP3300	GP233	QC2-107	5GA-D33
C146	.1			DPMS2P1	EWFA010	QF1-215	1PB-P10
C148	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C150	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C152	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C153	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C155	.047		DC-503	MGP05	TA150	QC2-207	TG-S50
C156	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C157	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C158	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C160	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C162	33 NPO		DTZ-33	NP033	CN0433		10TCC-Q33
C165	.039			DPMS6S39	PVC6139		6PS-S39
C166	5			NP04P7	CN0547		10TCC-V47
C167	.01		DTZ-4R7	MGP01	TA110	QC2-141	TG-S10
C169	.2		DC-103	DPMS2P2	PVC602		2PS-P20
C170	470		DD-471	GP470	GP347		10TS-T47
C171	.01			WMF1S1	EWFA1A110	QF1-91	1PB-S10
C172	.0047		DD-472	GP4700	GP247		5GA-D47
C173	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C174	.0047		DD-472	GP4700	GP247		5GA-D47
C176	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C178	.002			DPMS6D2	PVC622		6PS-D20
C185	.047		DC-503	MGP05	TA150	QC2-207	TG-S50
C186	.1		DC-104	MGP1	TA010	QC2-233	TG-P10
C187	.047		DC-503	MGP05	TA150	QC2-207	TG-S50
C188	68 NPO		DTZ-68	NP068	CN0468		10TCC-Q68
C189	39 NPO				CN0439		10TCC-Q39
C191	.1		DC-104	MGP1	TA010	QC2-233	TG-P10
C192	.1		DC-104	MGP1	TA010	QC2-233	TG-P10
C193A	.02		DC-203	MGP02	TA120	QC2-157	TG-S20
C193B	.022		DC-203	MGP02	TA120	QC2-157	TG-S20
C194A	.1		DC-104	MGP1	TA010	QC2-233	TG-P10
C194B	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C195A	.047		DC-503	MGP05	TA150	QC2-207	TG-S50
C195B	.001		DC-103	MGP01	TA110	QC2-141	TG-S10
C196	.001		DC-103	MGP01	TA110	QC2-141	TG-S10
C197	.022		DC-203	MGP02	TA120	QC2-157	TG-S20
C198	.022		DC-203	MGP02	TA120	QC2-157	TG-S20
C199	.022		DC-203	MGP02	TA120	QC2-157	TG-S20
C401	.001						
C474	.1			DPMS2P1	EWFA010	QF1-215	1PB-P10
C607	.1			DPMS2P1	EWFA010	QF1-215	1PB-P10
C608	.01			WMF1S1	EWFA1A110	QF1-91	1PB-S10
C609	.1			DPMS2P1	EWFA010	QF1-215	1PB-P10
C610	.022			DPMS2S22	EWFA1A122	QF1-127	1PB-S22
C611	.068			WMF1S68	EWFA1A168	QF1-195	1PB-S68
C613	.039			DPMS6S39	PVC6139		6PS-S39
C614	.0047		DD-472	GP4700	GP247		5GA-D47
C701	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C702	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C704	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
CT1	20	79-123001					
CT2	20	13-123062					
CT3	20	13-123062					
PLL BOARD							
C1	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C2	.039			DPMS6S39	PVC6139		6PS-S39
C3	47		DTZ-47	NP047	CN0447		10TCC-Q47
C4	47		DTZ-47	NP047	CN0447		10TCC-Q47
C5	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C6	.039			DPMS6S39	PVC6139		6PS-S39
C7	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C9	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C10	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C11	5 NPO		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C14	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C15	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C16	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C17	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C18	10 NPO		DTZ-10	NP010	CN0410		10TCC-Q10
C19	220		DD-221	GP470	GP322		10TS-T22
C20	470		DD-471	GP470	GP347		10TS-T47
C21	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C22	5		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C23	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C24	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C25	220		DD-221	GP470	GP322		10TS-T22
C26	10 NPO		DTZ-10	NP010	CN0410		10TCC-Q10
C27	470		DD-471	GP470	GP347		10TS-T47
C28	5		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C29	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C30	10 NPO		DTZ-10	NP010	CN0410		10TCC-Q10
C31	220		DD-221	GP470	GP322		10TS-T22
C32	470		DD-471	GP470	GP347		10TS-T47
C33	5		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C35	.1			DPMS2P1	EWFA010	QF1-215	1PB-P10

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS(cont)

ITEM No.	RATING	MFG. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C36	.1			DPMS2P1	EWFA010	QF1-215	1PB-P10
C38	3						
C39	.001						
C40	.001						
C41	.001						
C42	.001						
C43	.001						
C44	.001						
C45	.001						
C46	100		DD-101	GP100	GP310		10TS-T10
C47	.01		DC-103	MGP01	TA110	QC2-141	TG-S10
C49	1 NPO				CN0510		10TCC-V10
C50	.047		DC-503	MGP05	TA150	QC2-207	TG-S50
C51	5 NPO		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C52	.047		DC-503	MGP05	TA150	QC2-207	TG-S50
C53	.047		DC-503	MGP05	TA150	QC2-207	TG-S50
C54	.047		DC-503	MGP05	TA150	QC2-207	TG-S50
CT1	20	79-123001					
CT2	20	79-123001					
CT3	20	79-123001					
CT4	20	79-123001					

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

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA			
			MFG. PART No.	CENTRALAB PART No.	MALLORY PART No.	TRW PART No.
RT601	Mod	100K				X260R104B
VR1	S Meter	10K				X201R103B(2)
		30K	79-164005	T-10K(2)	MTC14L1(2)	
VR2	Squelch Range	100K	79-164006	T-100K(2)	MTC15L1(2)	X201R104B(2)
VR4	Carrier Balance	50K	79-164007	T-50K	MTC54L1	X201R503B
VR6	AM Reg	10K	79-164008	T-10K(2)	MTC14L1(2)	X201R103B(2)
VR7	SSB ALC	10K	79-164008	T-10K(2)	MTC14L1(2)	X201R103B(2)
VR9	RF Meter	100K	79-164006			
VR11	XMT Frequency	5000		T-5000	MTC53L1	X201R502B
VR15	AGC Range	10K	79-1640011	T-10K	MTC14L1	X201R103B
VR412	Squelch	100K	13-160109(18)			
VR413	Volume/Power Switch	10K				
VR414	Clarifier	20K	13-160108			
VR415	RF Gain	50K	79-160002			
VR416	Mic Gain	10K	13-160110			

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

(18) Includes VR412, VR413 and Power Switch.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
MAIN BOARD					
L1	RF Choke (470uH)	79-178014	LZ-012		
L2	RF Choke (470uH)	79-178014	LZ-012		
L3	RF Choke (470uH)	79-178014	LZ-012		
L4	RF Choke (470uH)	79-178014	LZ-012		
L5	RF Choke	79-176006	LE-051		
L6	RF Choke	79-176006	LE-051		
L7	Final (27MHz)	79-178015	LC-019	CB305	
L8	TVI Trap (54MHz)	13-094173	LC-018	CB304	
L9	RF Choke	79-176007	LD-018		
L10	XMT Driver (27MHz)	13-094173	LC-018	CB304	
L11	RF Choke	79-176007	LD-018		
L12	RF Choke	79-176007	LD-018		
L14	RF Choke (470uH)	79-178014	LZ-012		
L15	RF Choke (470uH)	79-178014	LZ-012		
L16	RF Choke (1uH)	79-178016	LZ-002		
L17	RF Choke (1uH)	79-178016	LZ-002		
L413	RF Choke	13-178189	LE-003		
L414	RF Choke	13-178189	LE-003		
L415	RF Choke		LD-046		
L416	RF Choke		LD-046		
L417	RF Choke		LD-046		
L418	RF Choke		LD-046		
L601	RF Choke (68mH)	79-178018	LZ-015		
L602	RF Choke (56mH)	79-178019	LZ-015		
L701	RF Choke		LD-046		
L702	RF Choke		LD-046		
L703	RF Choke		LD-046		
T1	Noise Amp (23.5MHz)	79-090007	LA-029	CB5740-T	
T2	Noise Amp (23.5MHz)	79-090008	LA-155		
T3	IF (7.8MHz)	13-094188	LA-038	CB5512-7TC	
T4	IF (7.8MHz)	13-090333	LA-096	CB5511-7TC	
T5	IF (7.8MHz)	13-094188	LA-038	CB5512-7TC	
T6	Rec Mixer (27MHz)	79-090009	LA-156		
T7	Rec Antenna (27MHz)	79-090010	LA-152		
T8	Carrier Oscillator (7.8MHz)	13-094188	LA-038	CB5512-7TC	
T10	XMT Mixer (27MHz)	79-090011	LA-157		
T11	XMT Buffer (27MHz)	79-090012	LD-057		
T12	XMT Driver (27MHz)	79-090012	LD-057		
T13	XMT Oscillator (7.8MHz)	13-094188	LA-038	CB5512-7TC	
PLL BOARD					
L1	RF Choke (100uH)	79-178017	LZ-012		
L2	RF Choke (470uH)	79-178014	LZ-012		
L3	RF Choke (470uH)	79-178014	LZ-012		
L4	RF Choke (470uH)	79-178014	LZ-012		

MIDLAND MODEL 79-893

PARTS LIST AND DESCRIPTION (CONTINUED)

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

COILS (RF-IF)(cont)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L5	RF Choke (470uH)	79-178014	LZ-012		
L6	VCO (34MHz)	79-176008	LA-160		
L7	VCO	79-176009	LA-161		
L8	Trippler (33MHz)	79-176008	LA-160		
L9	Trippler (33MHz)	13-094194	LA-112		
L14	RF Choke	79-176007	LD-018		
L15	RF Choke	79-176007	LD-018		
L16	RF Choke	79-176007	LD-018		
L17	RF Choke (100uH)	79-178017	LZ-012		

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T414	8	13.52	79-096002 TF-088 (1)			(1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3 1/2" PM 8 Ohms	13-060099	3A0528	

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	2 Amp	13-204004	13-034074	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	13-038062	18-032	18-034	18-010	18-092	1	2	4	NC	NC	3	

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
MAIN BOARD			
J401	Jack	13-159190	Antenna
J402	Jack	13-153081	External Speaker
J403	Jack	13-153081	PA
J404	Jack	13-159189	Microphone
J405	Jack	13-153092	Power
M401	Meter	13-200057	S/R
PL401	Lamp	79-201001	Channel (12.60V @ 48mA)
PL402	Lamp	73-201085	Meter (12.70V @ 43mA)
PL403	Lamp	79-201002	XMT (12.18V @ 42mA)
RL1	Relay	79-105001	XMT/Rec
RL2	Relay	79-105002	XMT/Rec
S5	Switch		Power (Part of Volume Control)
S401	Switch	13-183194	NR/ANL
S402	Switch	79-180004	AM/USB/LSB
S404	Switch	13-183193	CB/PA
S405	Switch	13-183194	Tone
SW1	Switch	79-180003	Channel Selector
X1	Crystal	79-128004	7.7975MHz
X2	Crystal	79-128005	7.8025MHz
XF1	Crystal Filter	79-179003	7.8MHz
PLL BOARD			
CR1	Component Combination		Ref Osc Network
CR2	Component Combination		Ref Osc Network
CR3	Component Combination		Ref Osc Network
CR4	Component Combination		Ref Osc Network
CR5	Component Combination		Ref Osc Network
CR6	Component Combination		Ref Osc Network
CR7	Component Combination		Ref Osc Network
CR8	Component Combination		Ref Osc Network
CR9	Component Combination		Ref Osc Network
L11	Ferrite Bead	79-176010	LD077
L12	Ferrite Bead	79-176010	LD077
L13	Ferrite Bead	79-176010	LD077
X1	Crystal	79-128006	10.240MHz
X2	Crystal	79-128007	11.2842MHz
X3	Crystal	79-128008	11.2850MHz
X4	Crystal	79-128009	11.2858MHz

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

ITEM	PART No.	ITEM	PART No.
Mounting Bracket	13-158344	Knob, Control	13-110171
Microphone Holder	13-158341	Knob, Volume	13-110172
Cabinet, Top	13-010253	Knob, Squelch	13-110173
Cabinet, Bottom	13-010254	Knob, Channel Selector	13-115105
Escutcheon	13-010252	Disc, Channel Selector	13-020591