

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 13-882C

MIDLAND MODEL 13-882C

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

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Printed in U. S. of America

7CY490

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
L112, T106 thru T109 5009
L106, L109, L110 9304
L103, L104, T101 thru T105, T111 9440
CT101 5000

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP1.	Ch. 13		Check for 10.2392MHz ± 0.4 kHz.
Input of frequency counter to TP2.	Ch. 1 Delta Tune-center.	CT101	Adjust for 37.659200MHz.
Input of VTVM to TP8.	Ch. 1	T101	Adjust for 1.5V $\pm .01$ volt.
Input of RF VTVM to TP3.	Ch. 13	T111	Adjust for maximum.
Input of frequency counter to TP4.	Ch. 13, Xmit		Check for 10.6942MHz ± 0.4 kHz.

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 TP5. 455kHz, 1000Hz @ 30% modulation.	Ch. 13	T109, T108, T107	Adjust for maximum output.
Output of signal generator thru .01uF to TP3. 10.694200MHz, 1000Hz @ 30% modulation.	Ch. 13	T106, L112	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation.	Ch. 13 Delta Tune-center.	T105, T104	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	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation. Output 500uV.	Ch. 13 Delta Tune-center.	RV101	SQUELCH RANGE Set squelch control VR2 fully clockwise. Adjust RV101 so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 13	RV103	S METER Adjust for 9 on S scale of meter.

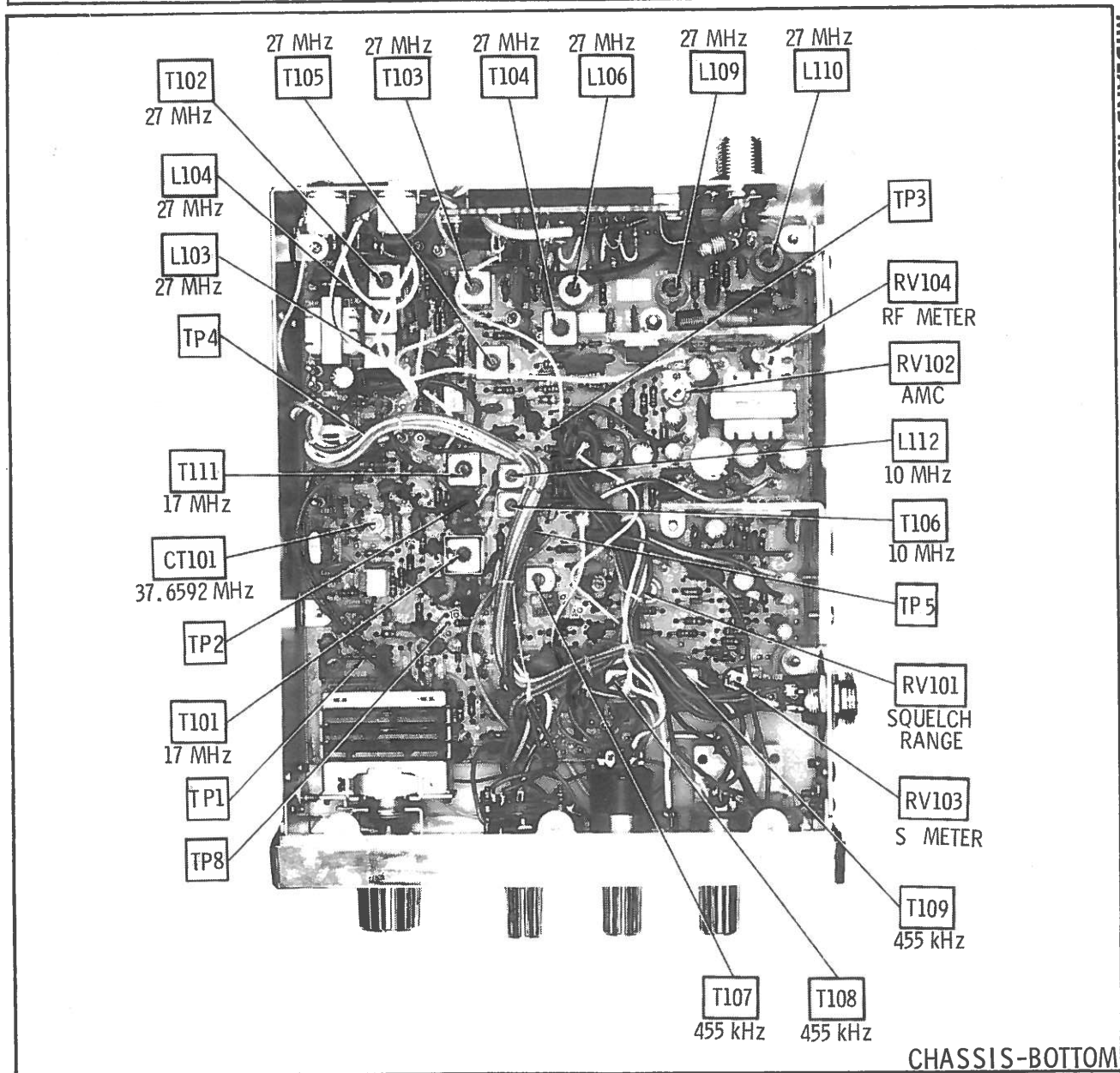
TRANSMITTER ALIGNMENT

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.

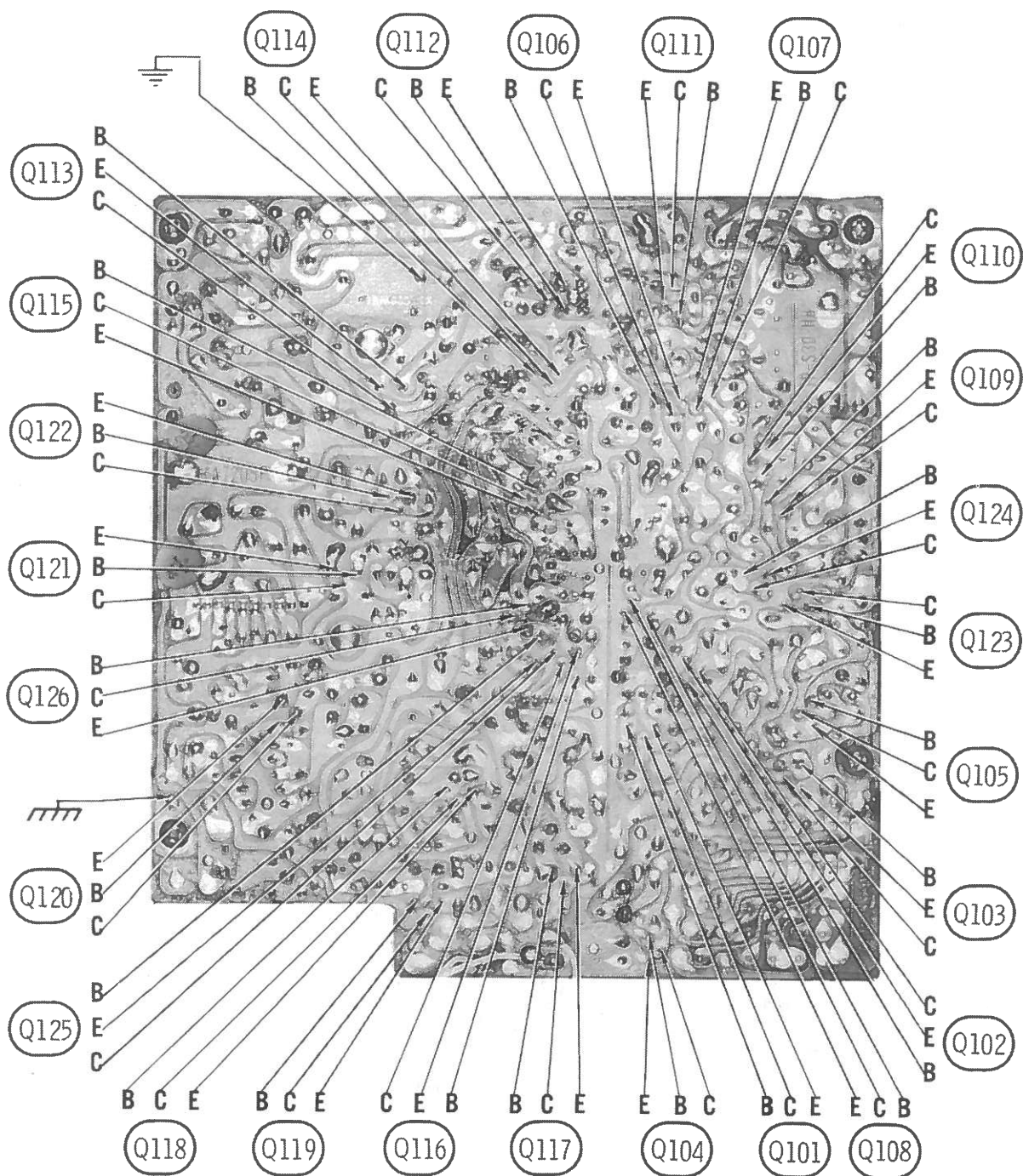
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
	Ch. 13	L103, L104, T102, T103, L106, L109, L110	Adjust for maximum output.
	Ch. 13	L110, L109	Adjust for 4 watts maximum.

TRANSMITTER ADJUSTMENTS

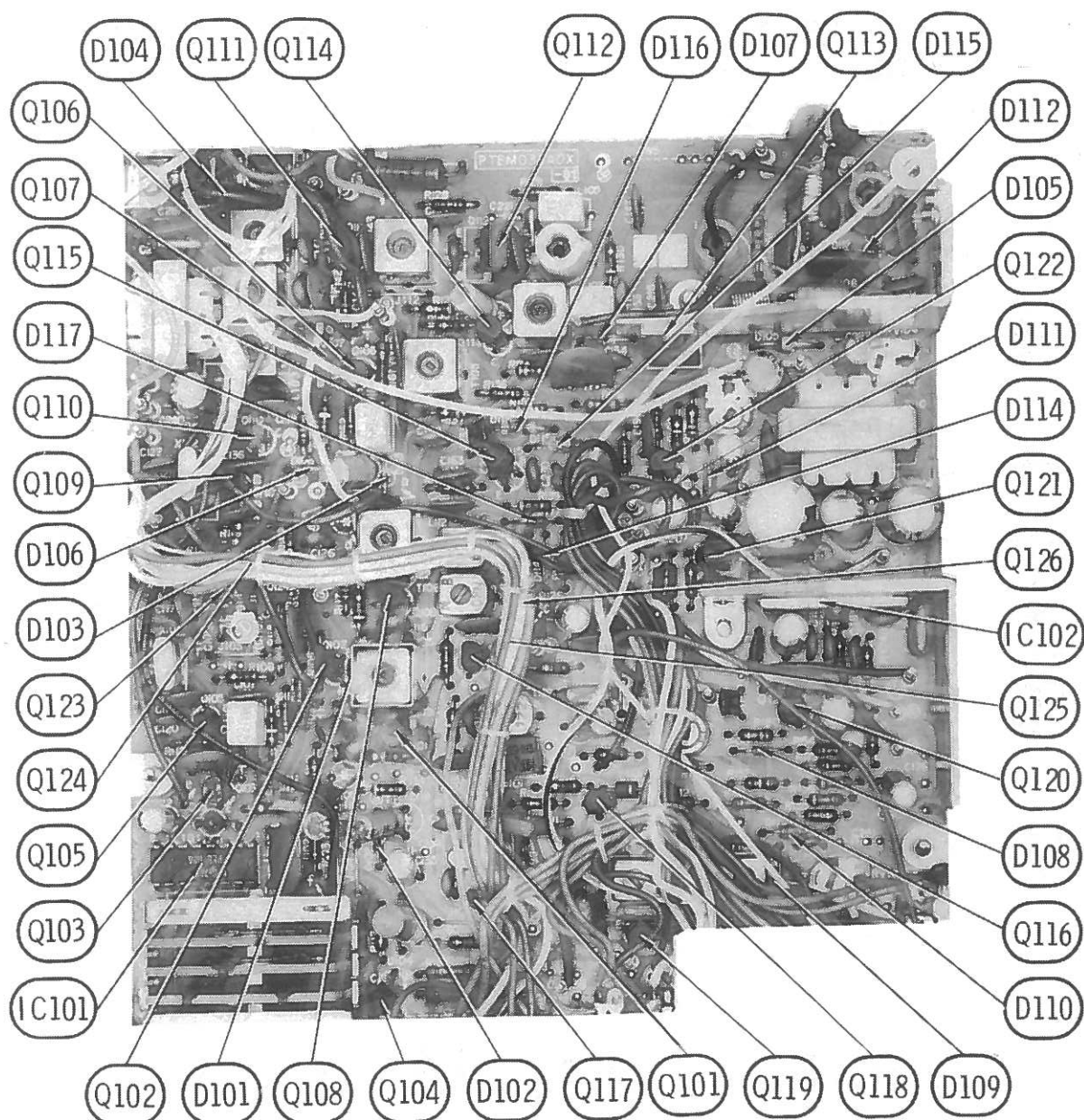
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector. NOTE: Be sure to check transmit frequency and power on all active channels after adjustments of transmitter.			
TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Modulation meter to antenna jack. Inject a 1000Hz signal at MIC input. Connect a 150-ohm non-inductive resistor to antenna jack.	Ch. 13	RV102	AMC Disconnect C209 to disable AMC. Adjust signal for over-modulation. Restore AMC operation. Adjust RV102 for 100% modulation maximum.
	Ch. 13	RV104	RF PANEL METER Adjust RV104 so that panel RF meter agrees with RF wattmeter.
	Ch. 13	RV1	ANTENNA WARNING Adjust RV1 so that antenna warning light lights.



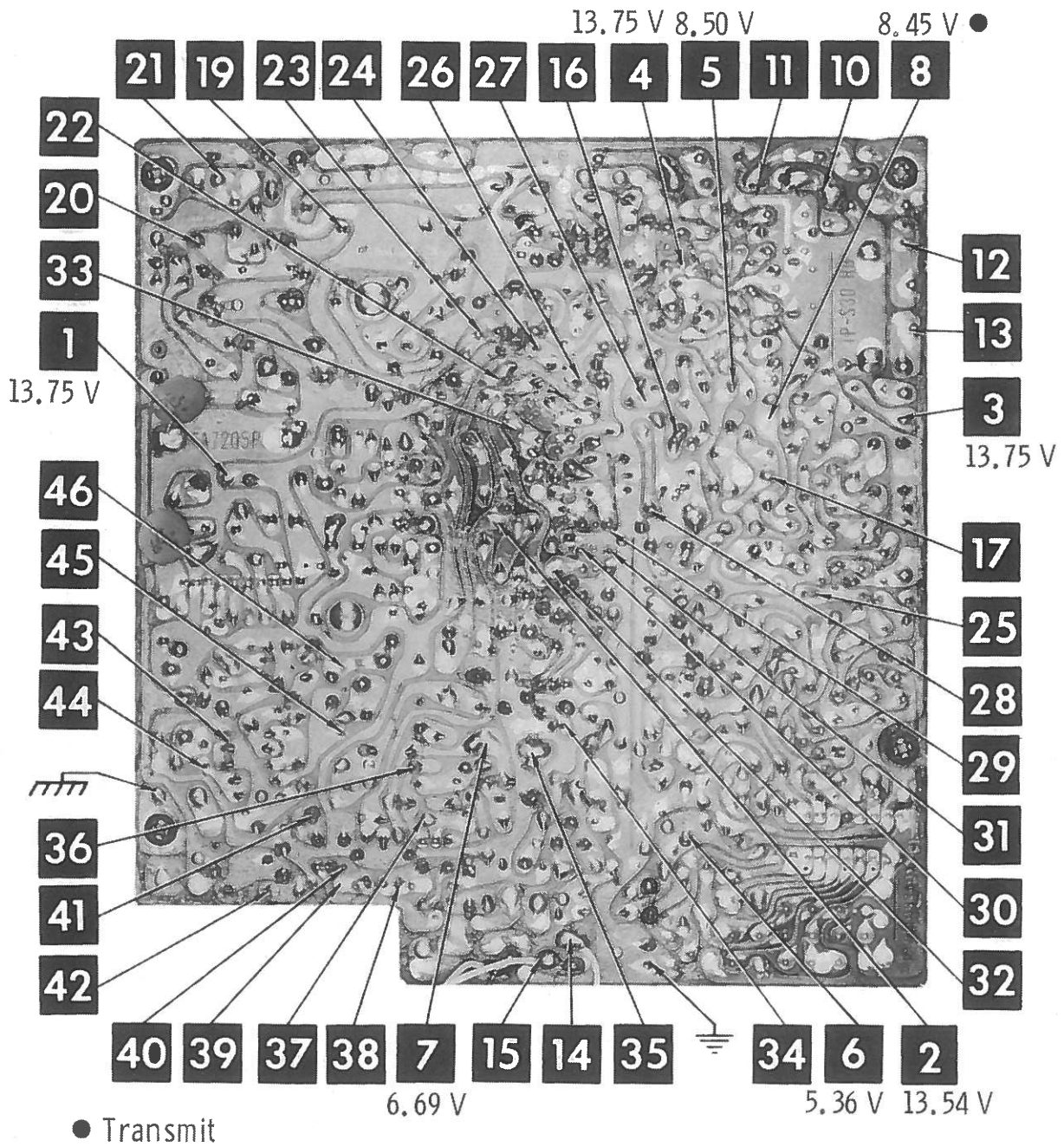
MIDLAND MODEL 13-882C



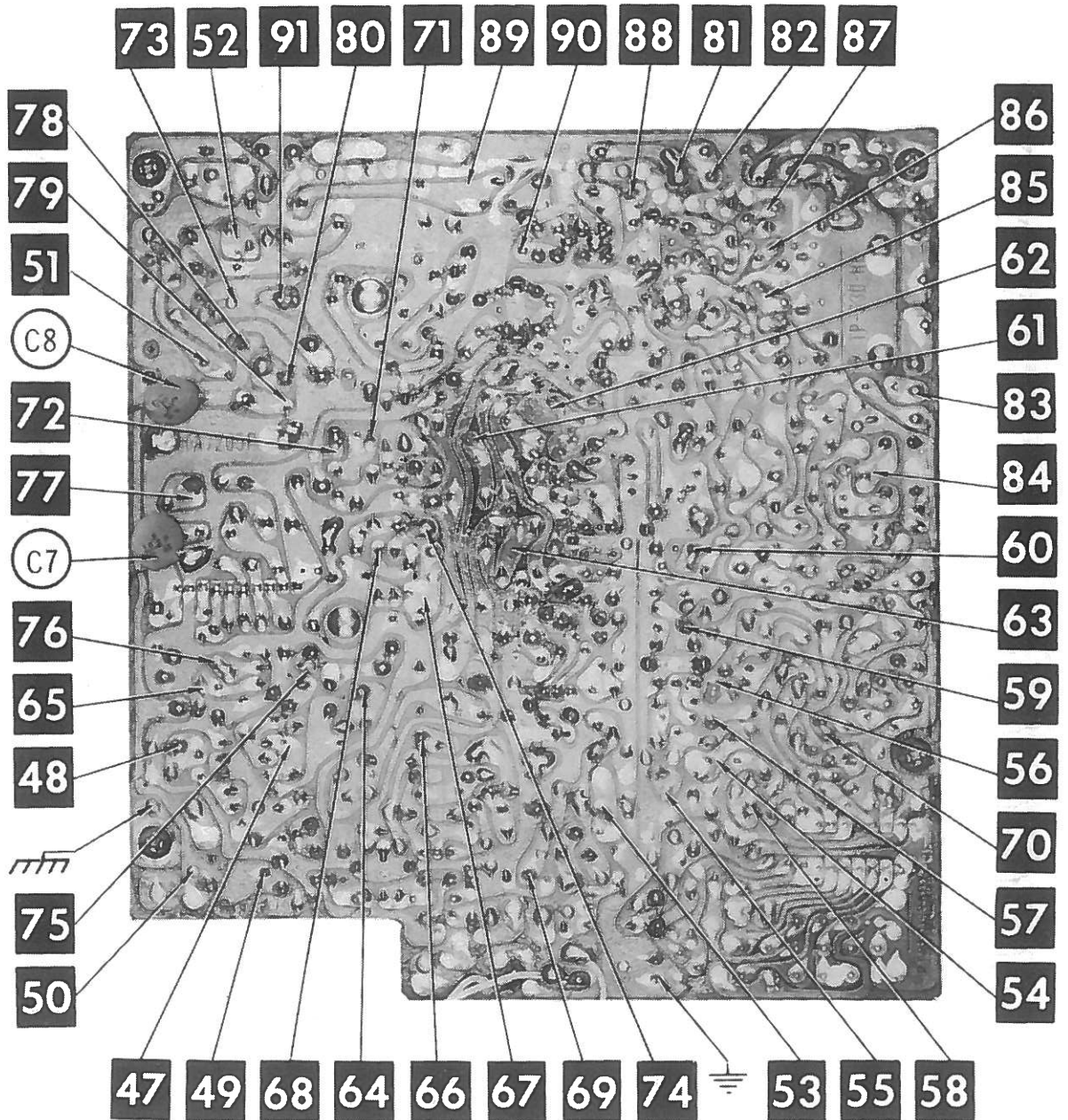
MAIN BOARD



MAIN BOARD

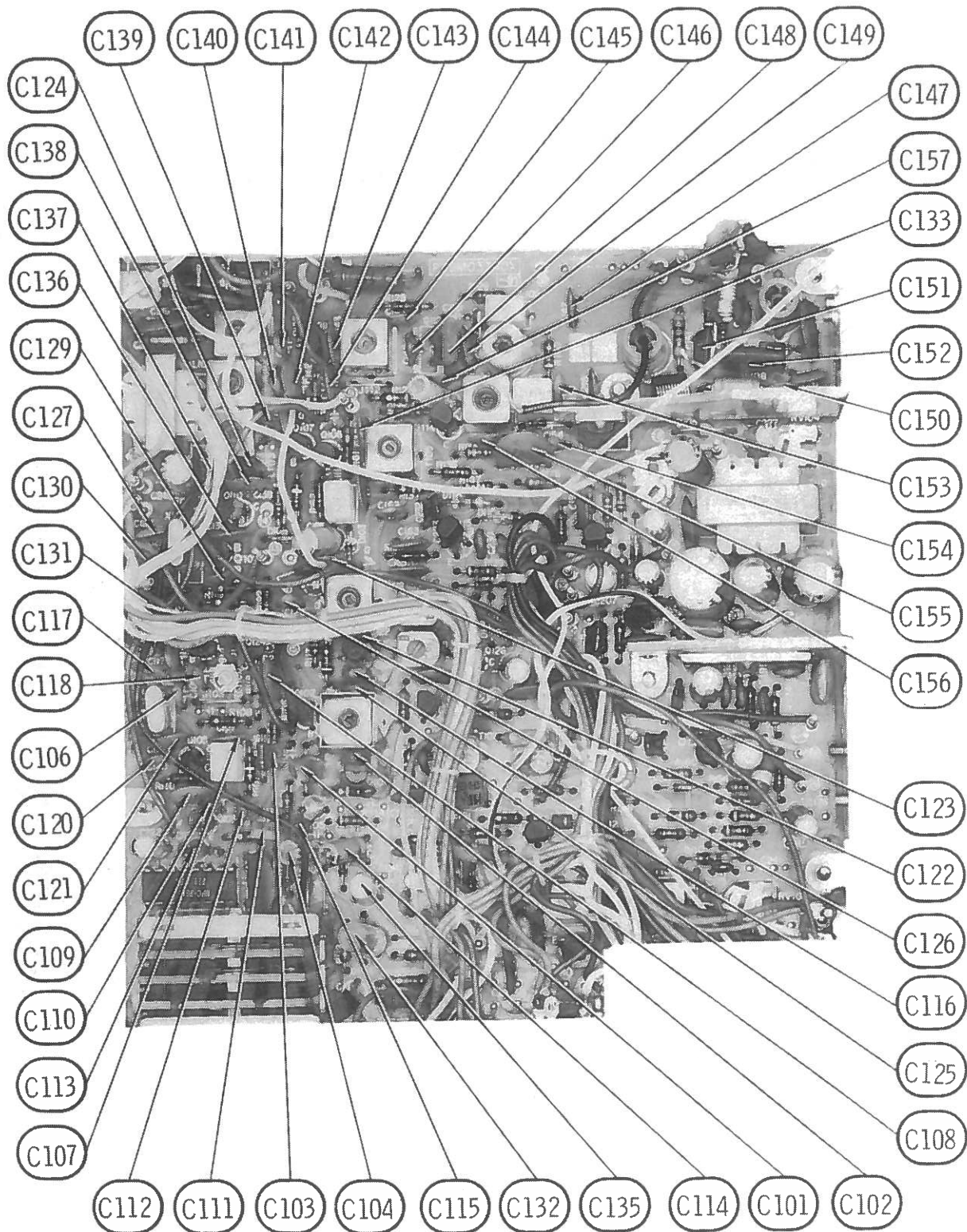


MAIN BOARD

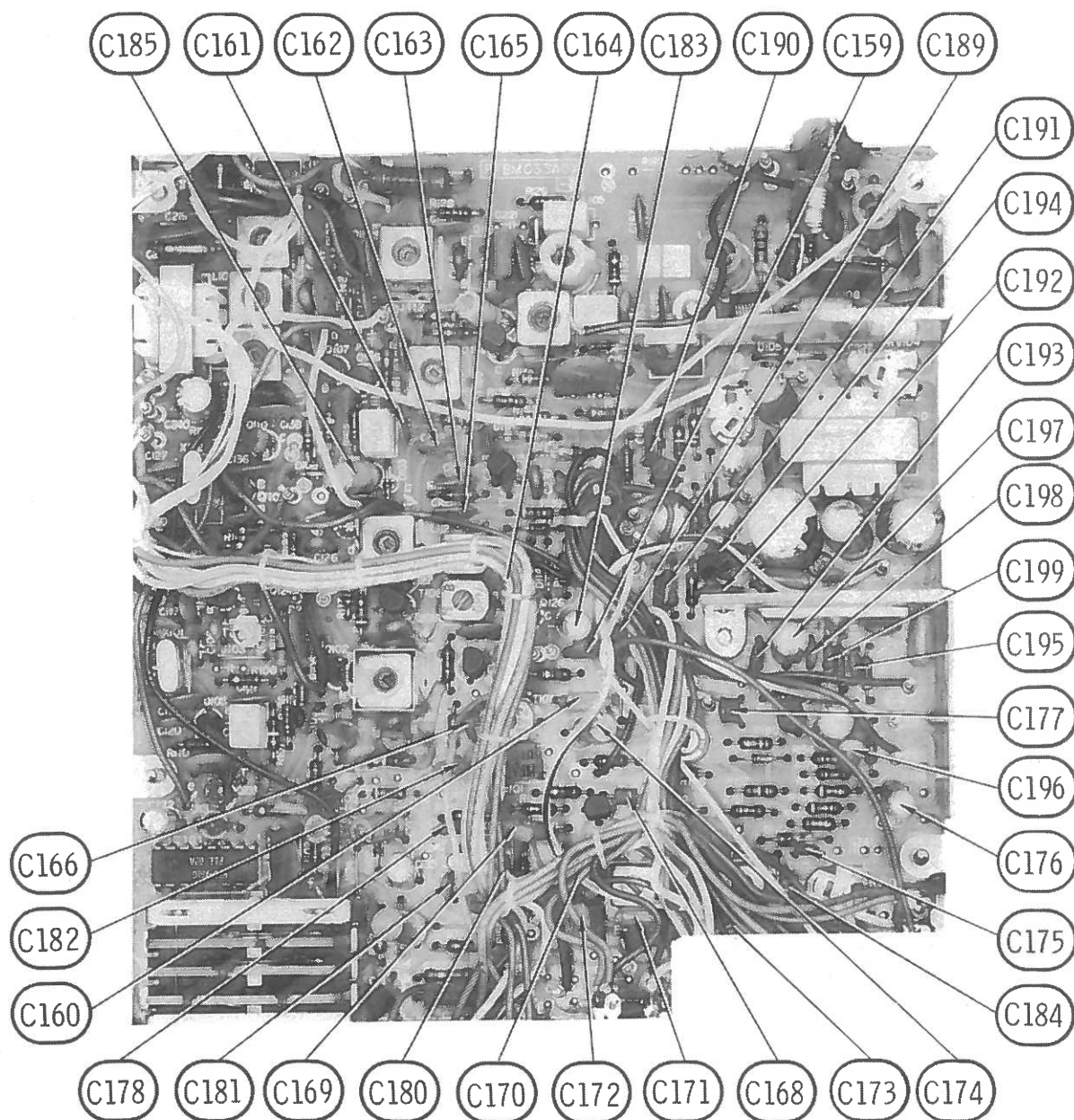


MIDLAND MODEL 13-882C

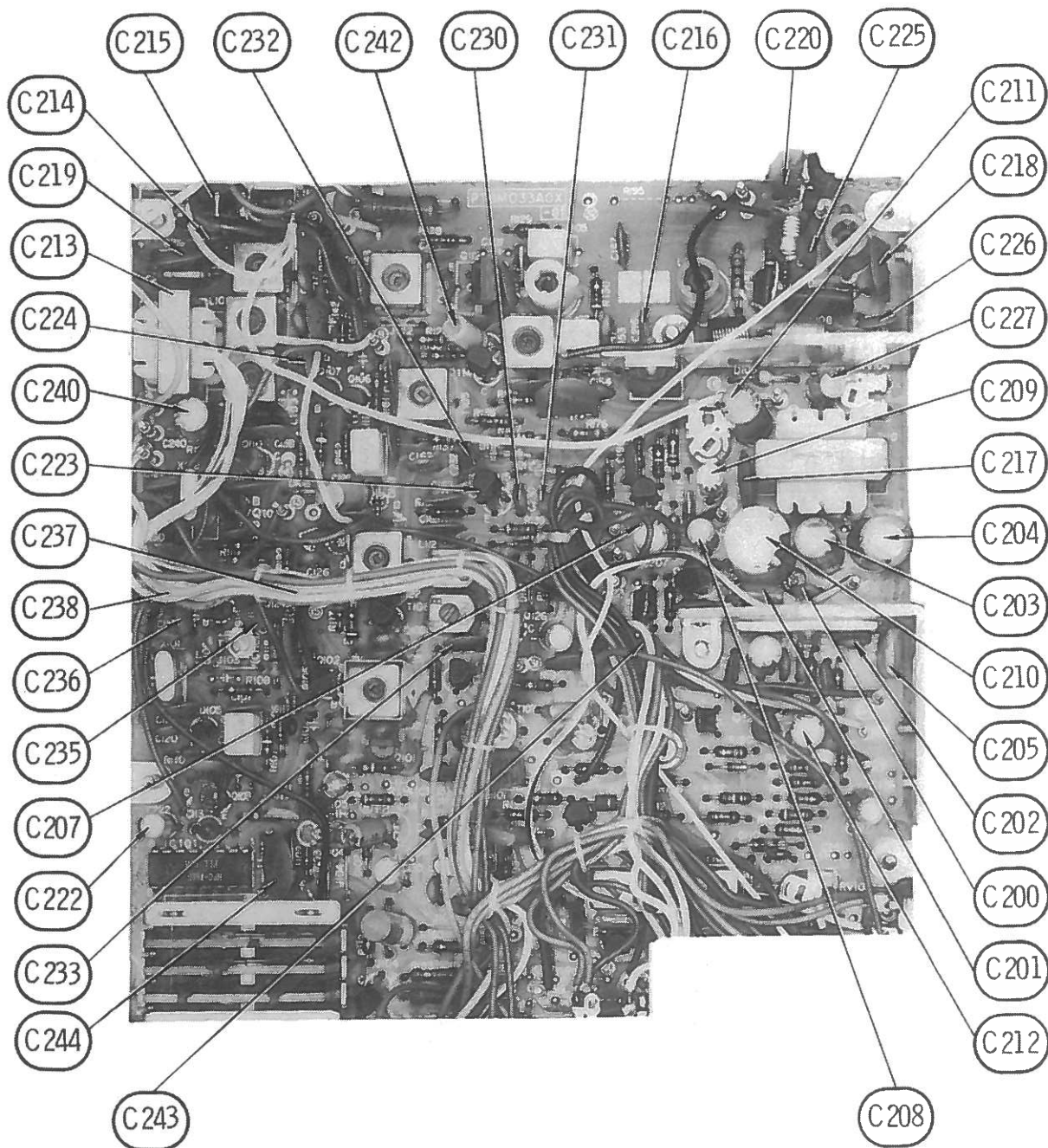
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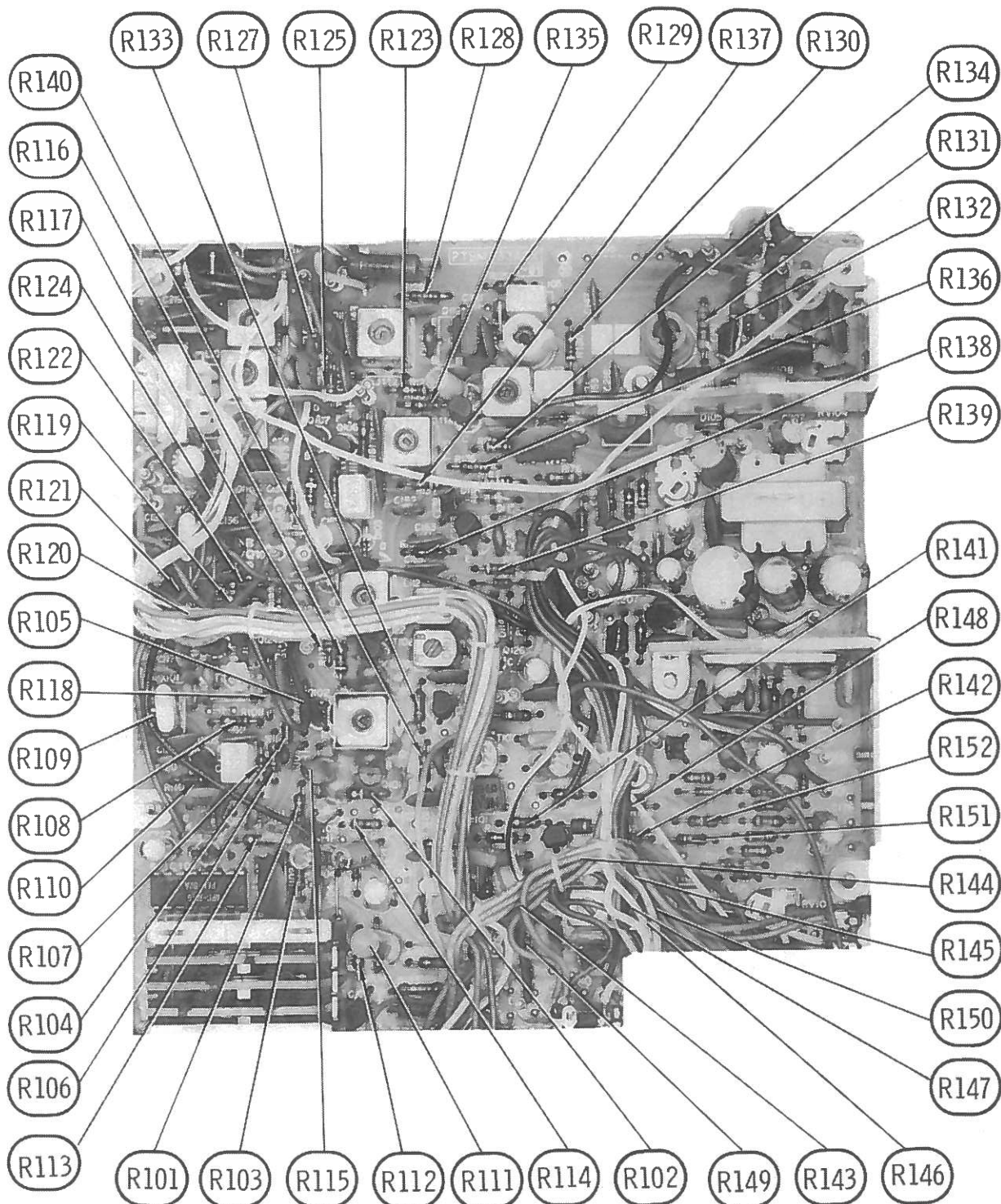
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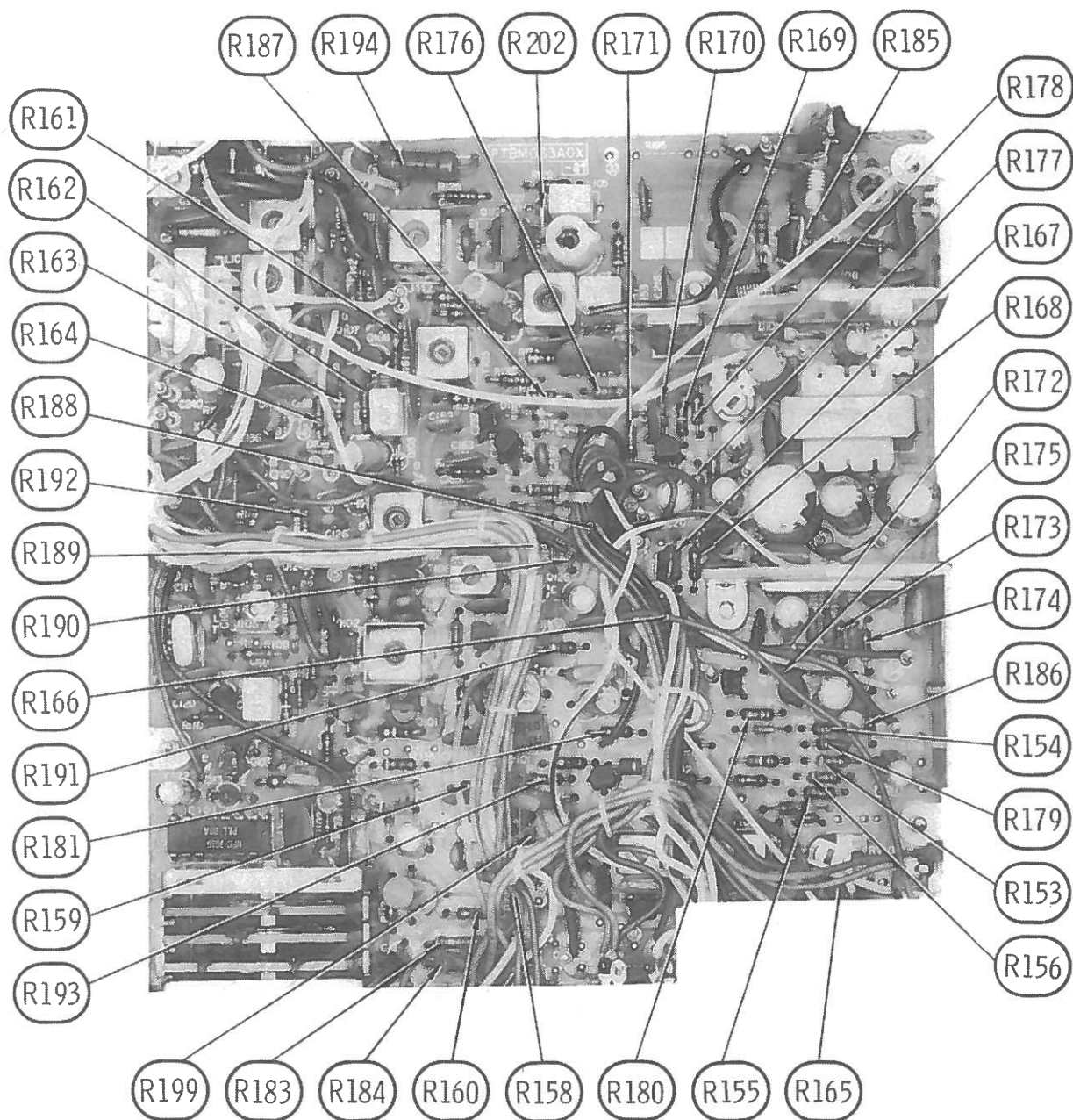
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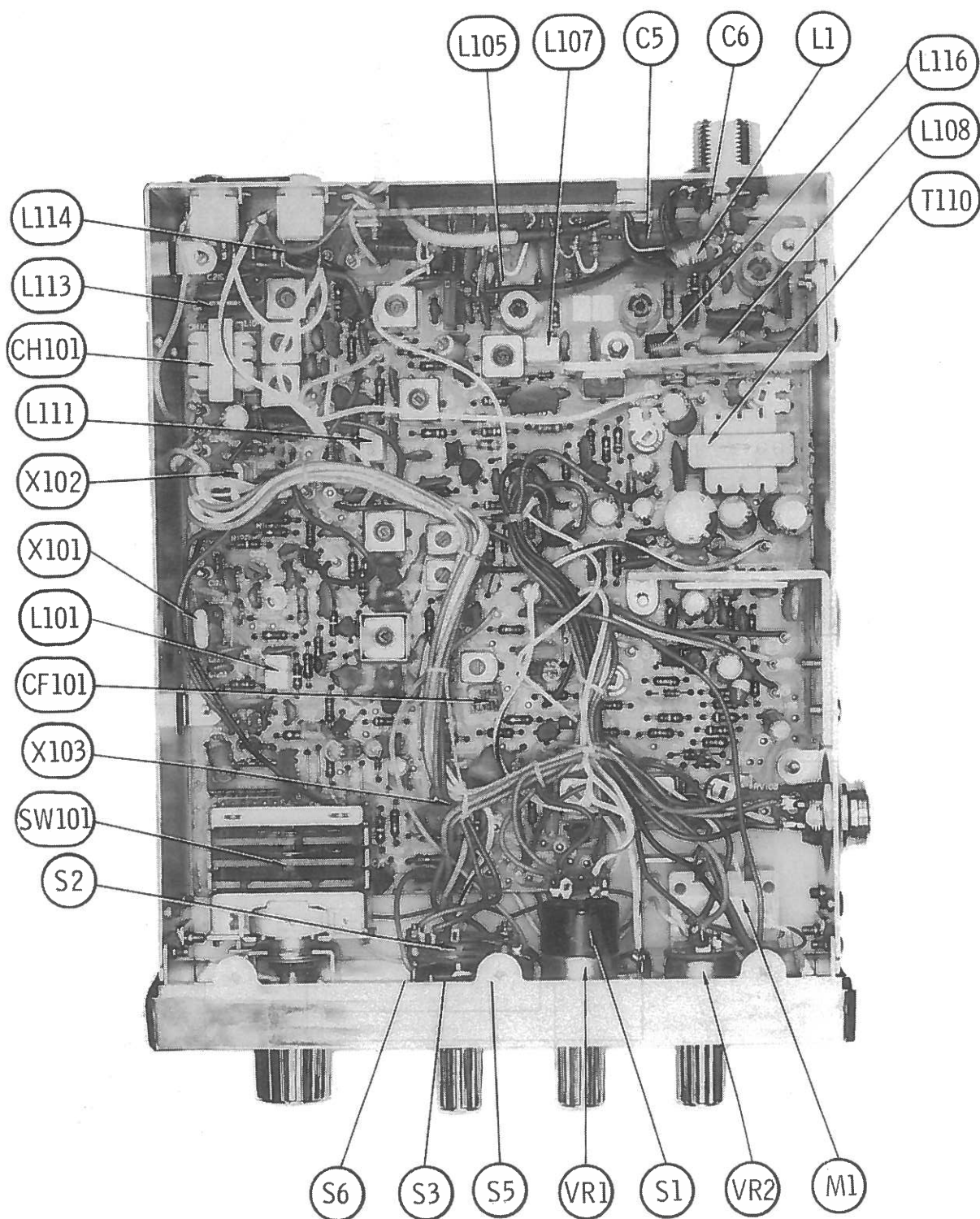
MAIN BOARD



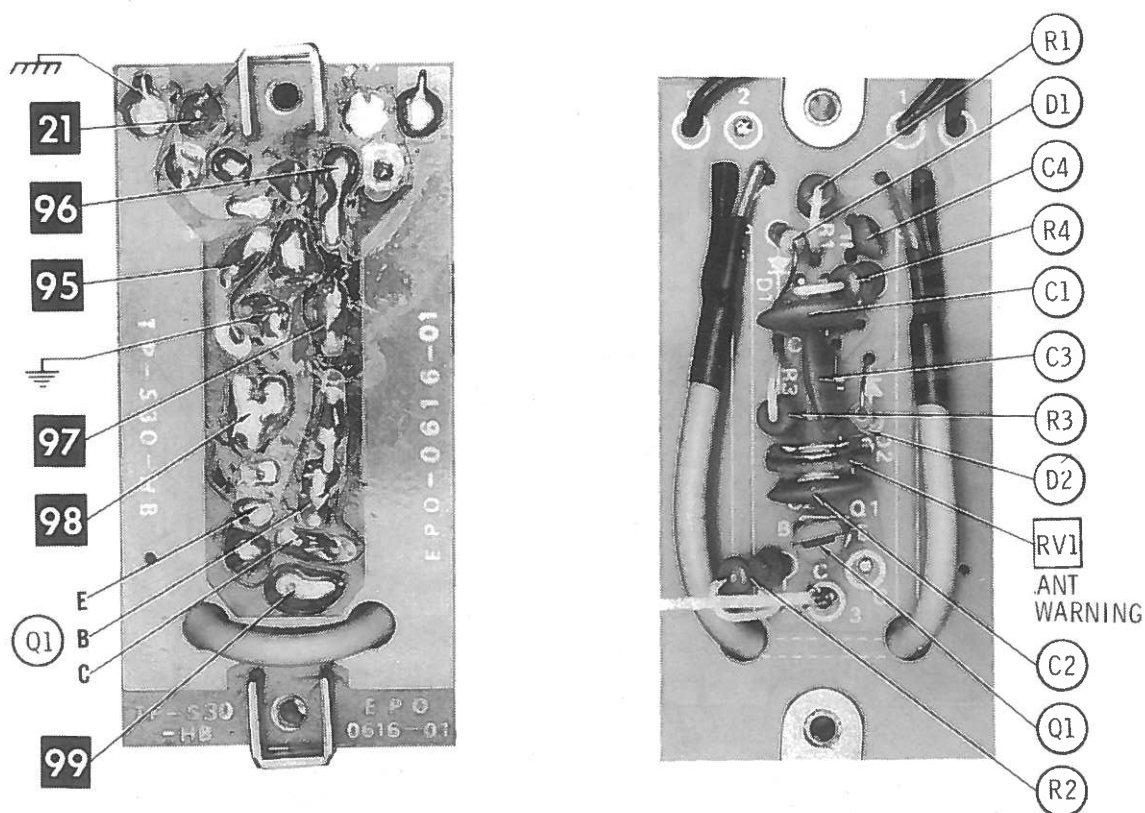
MAIN BOARD



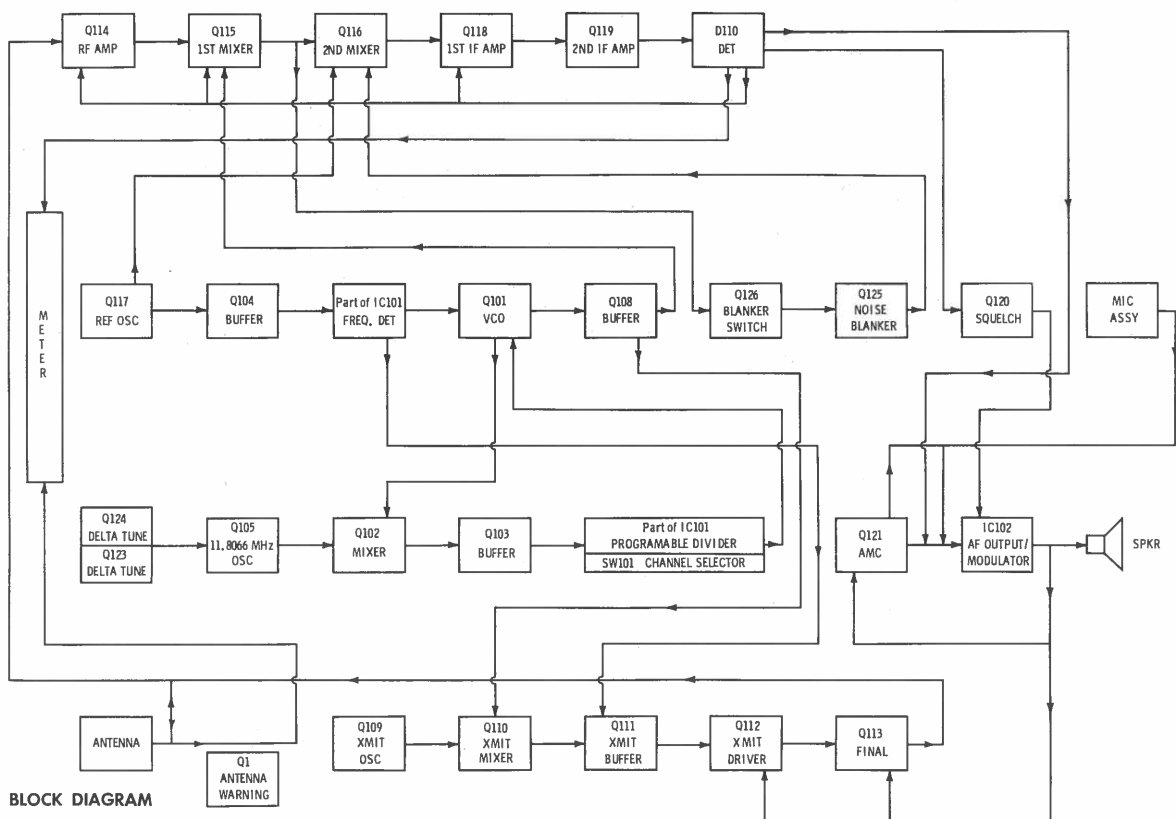
MAIN BOARD

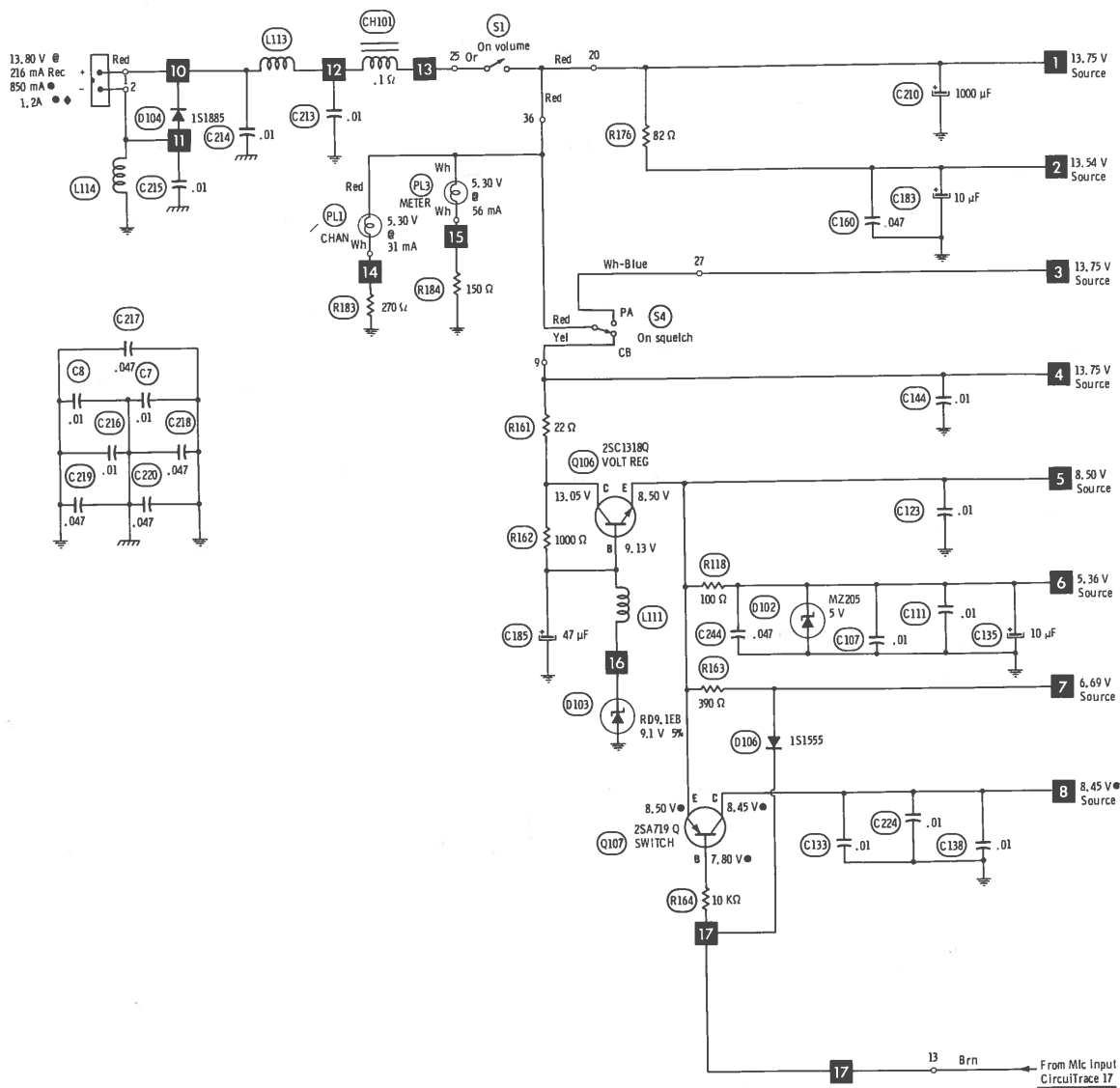


CHASSIS-BOTTOM



ANT. WARNING BOARD

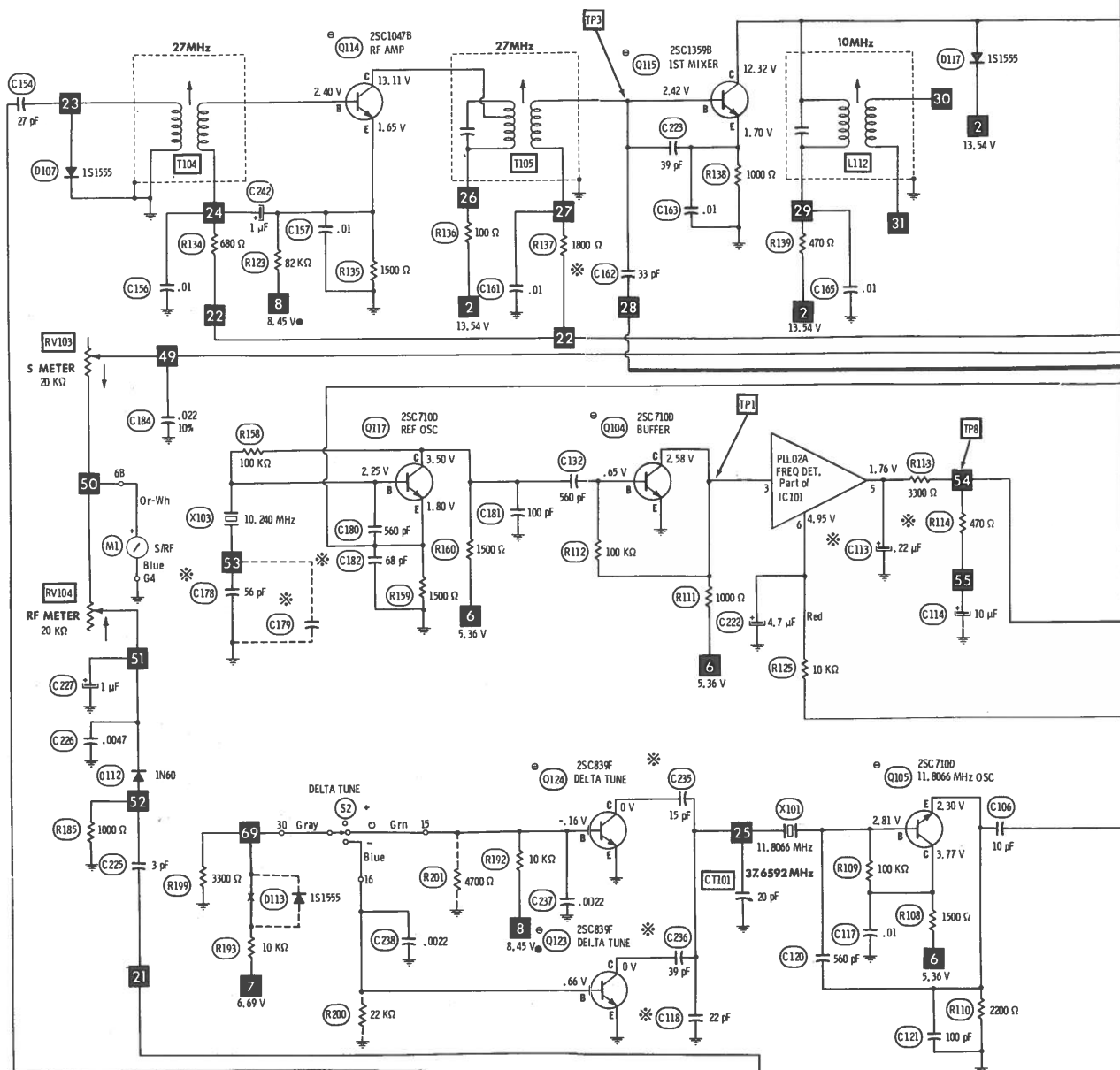




- *— Circuitry not used in some versions
 - Circuitry used in some versions
 - ⊙ See parts list
 - ⊗ Nominal value
 - ⊕ Ground
 - ⏏ Chassis
- Measurements with switching as shown unless noted:
- Squelch fully clockwise
 - ◆ 100% modulation
 - Transmit

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 CIRCUITTRACE™



✖ 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.

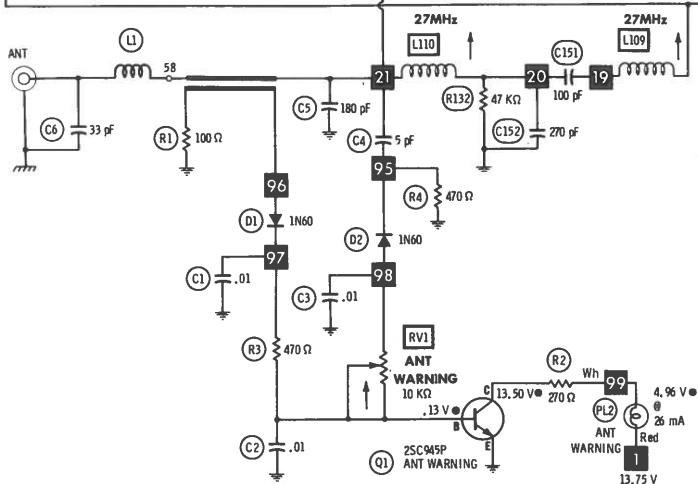
Resistors are 1/2W or less, 5% unless noted.

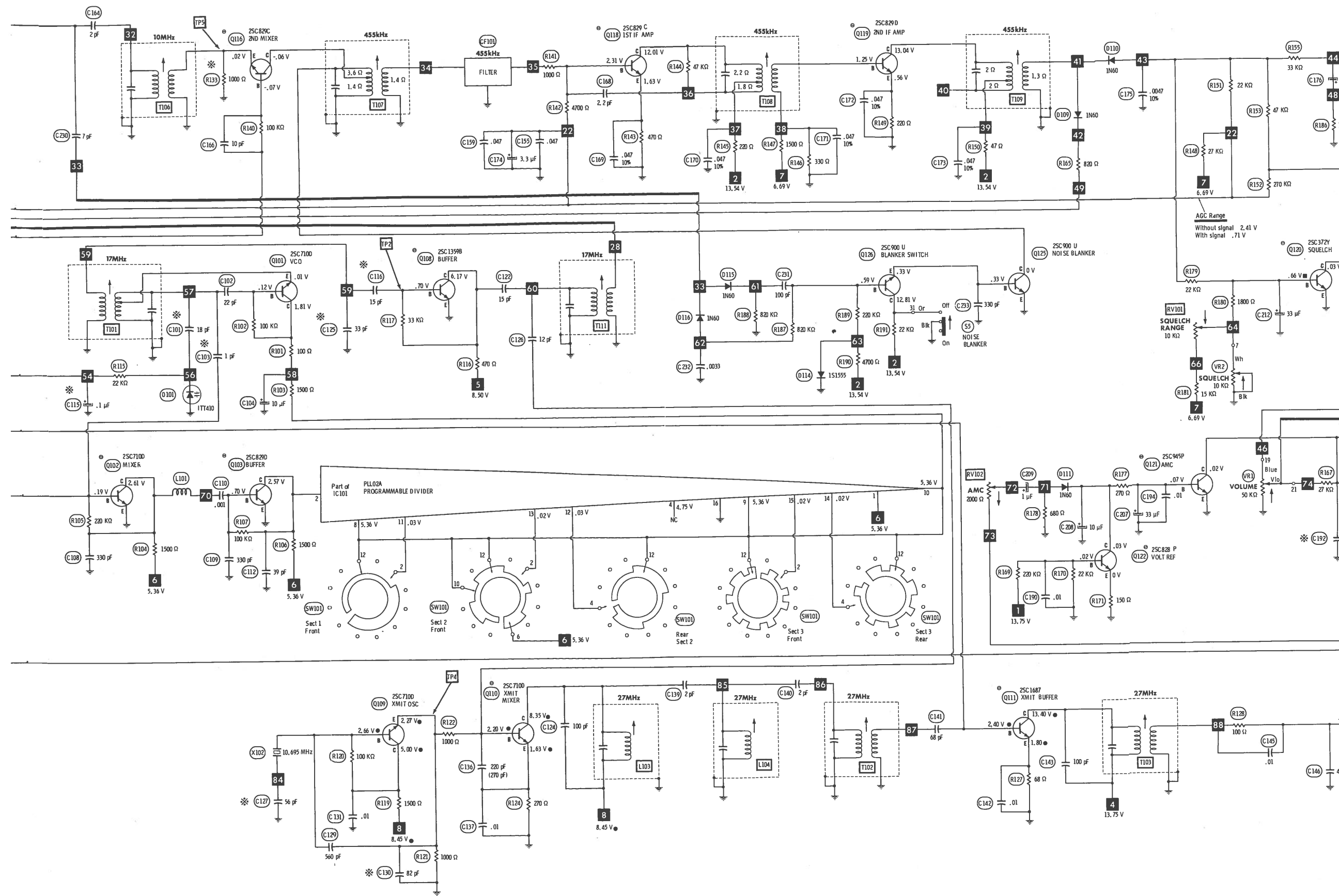
Value in () used in some versions.

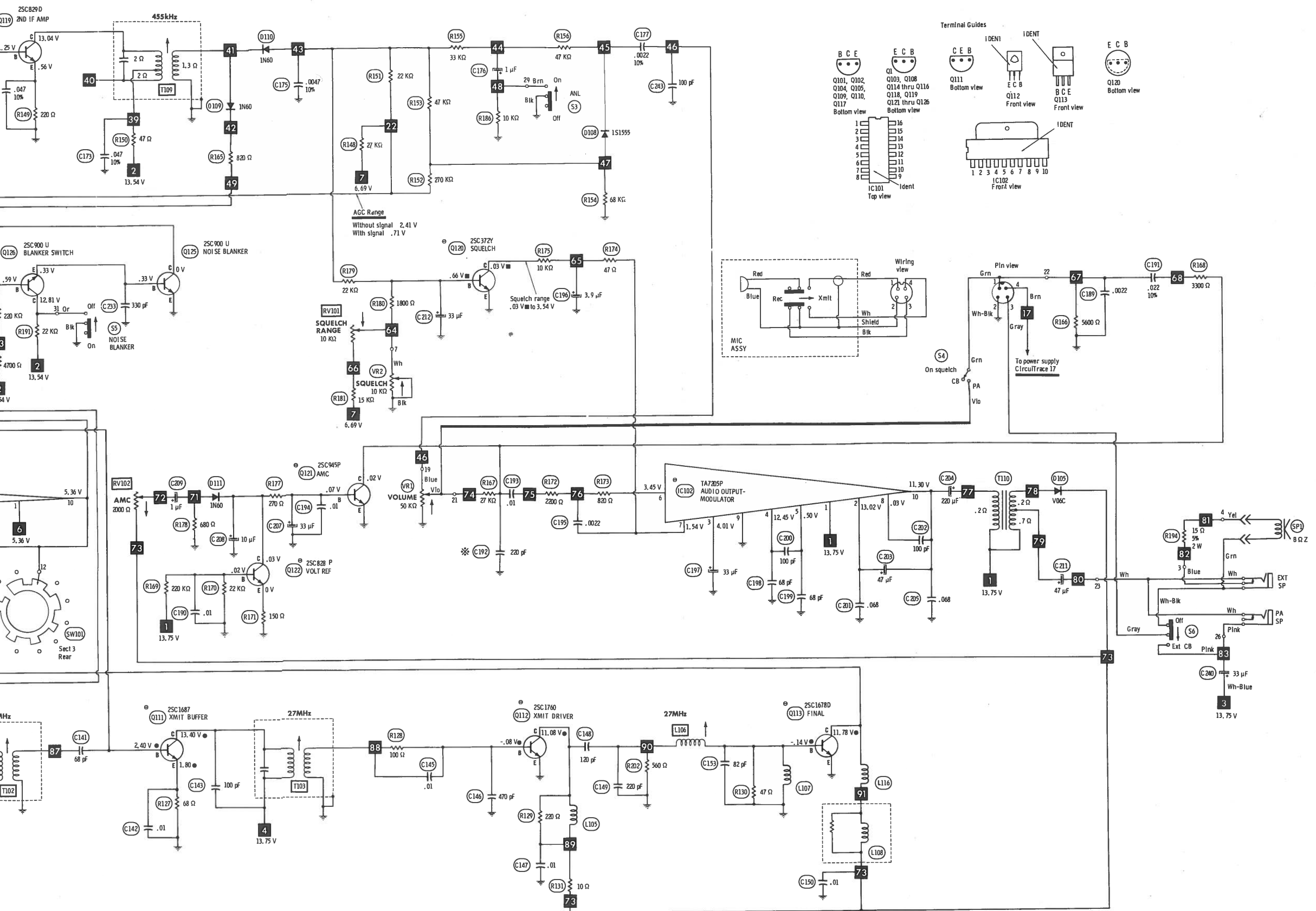
A PHOTOFAC STANDARD NOTATION SCHEMATIC

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PARTS LIST AND DESCRIPTION

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

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFGR. 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	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D2	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D101	1T7410		GE-90	D201		HEPR2503	RE 195	SK3126	RT-262	
	BB142(1)		GE-90	D201		HEPR2503	RE 195	SK3126	RT-262	
D102	MZ205		GEZD-9.1	Z1203	ZM5.1A	HEPZ0406	RE 105	SK3056	RT-235	ECG135
D103	RE9.1E		GEZD-9.1		ZB9.1B		RE 114		RT-240	ECG139
D104	1S1885		GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D105	V06C		GE-509	5A8D	PTC203	HEPR0055	RE 51	SK3032	RT-210	ECG125
D106	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D107	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D108	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D109	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D110	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D111	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D112	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D113	1S1555(1)		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D114	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D115	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D116	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D117	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
IC101	PLL02A									
IC102	TA7205P		GEIC-179		PTC780				TVCM-81	ECG1167
	BA521(1)									ECG1155
Q1	2SC945P		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q101	2SC710D		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q102	2SC710D		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC829(1)		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC839(1)		GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q103	2SC829D		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC710(1)		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC839(1)		GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q104	2SC710D		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC829(1)		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC839(1)		GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q105	2SC710D		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC829(1)		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC839(1)		GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q106	2SC1318Q		GE-210 *	TR-21 *	PTC178	HEPS0015 *	RE 17 *	SK3122	RT-302	ECG128 *
Q107	2SA719Q		GE-21 *	TR-28 *	PTC103 *	HEPS0012 *	RE 26 *	SK3114	RT-305	ECG159 *
Q108	2SC1359B		GE-212	(IR)2SC380A0	PTC121 *	HEPS0014 *	RE 192	SK3038 *	RT-308	ECG199
	2SC1047(1)		GE-60 *	(IR)2SC829B	PTC132 *	HEPS0016 *	RE 28 *	SK3018 *	RT-107	ECG161 *
Q109	2SC710D		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q110	2SC710D		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC1687(1)		GE-20 *	TR-24 *	PTC121 *	HEPS0015 *	RE 13 *	SK3018 *	RT-107A *	ECG123A *
C111	2SC1687		GE-20 *	TR-24 *	PTC121 *	HEPS0015 *	RE 13 *	SK3018 *	RT-107A *	ECG123A *
	2SC1688(1)		GE-81 *	TR-24 *	PTC121 *	HEPS0027 *	RE 13 *	SK3137 *	RT-172 *	ECG123A *
	2SC1215(1)		GE-61 *	TR-21 *	PTC133 *	HEPS0020 *	RE 10 *	SK3018 *	RT-107A *	ECG107
Q112	2SC1760(11)		GE-276						RT-310	ECG306
	2SC1846(1)		GE-336				RE 209			ECG306
Q113	2SC1678D(13)		GE-322	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC1306(1)		GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC1816(1)		GE-216	WEP1306	PTC186		RE 201	SK3197	RT-146	ECG235
Q114	2SC1047B		GE-60 *	(IR)2SC829B	PTC132 *	HEPS0016 *	RE 28 *	SK3018 *	RT-107	ECG161 *
	2SC784(1)		GE-60 *	(IR)2SC380A0	PTC132 *	HEPS0008 *	RE 28 *	SK3018 *	RT-187	ECG229 *
	2SC1359(1)		GE-212	(IR)2SC380A0	PTC121 *	HEPS0014 *	RE 192	SK3038 *	RT-308	ECG199
Q115	2SC1359B		GE-212	(IR)2SC380A0	PTC121 *	HEPS0014 *	RE 192	SK3038 *	RT-308	ECG199
	2SC710(1)		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q116	2SC829C		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC710(1)		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC839(1)		GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q117	2SC710D		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q118	2SC829C		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC710(1)		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC839(1)		GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q119	2SC829D		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
	2SC710(1)		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC839(1)		GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q120	2SC372V		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC828(1)		GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
	2SC945(1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199

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.	MFRG. 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.
Q121	2SC945R		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
	2SC828(1)		GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
	2SC372		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
Q122	2SC828P		GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
	2SC372(1)		GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC945(1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q123	2SC839F		GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
	2SC710(1)		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC829(1)		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
Q124	2SC839F		GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
	2SC710(1)		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC829(1)		GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
Q125	2SC900U		GE-62	(IR)2SC644	PTC139 *	HEPS0015 *	RE 192	SK3124	RT-302	ECG199
Q126	2SC900U		GE-62	(IR)2SC644	PTC139 *	HEPS0015 *	RE 192	SK3124	RT-302	ECG199

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

(11) Rating, 950mA @ 500mA

(12) Rating, 1.2 Watt @ 1.0 Amp. (14) Rating, 12 Watt @ 3.0 Amp.

(13) Rating, 10 Watt @ 3.0 Amp. (15) Rating 16 Watt @ 4.0 Amp.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFRG. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C104	10 16V		PC10-25	VTT10A25	QV1-41	EV-1222
C113	.22 50V			TDC224M050EL	QDT1-10	S050-R229
C114	10 16V		PC10-25	VTT10A25	QV1-41	EV-1222
C115	.1 50V			TDC104M050EL	QDT1-2	S050-R109
C135	10 16V		PC10-25	VTT10A25	QV1-41	EV-1222
C174	3.3 25V		PC5-50	VTT3R3A50	QV1-23	EV-1318
C176	1 50V		PC1-50	VTT1B63	QV1-11	EV-1615
C183	10 16V		PC10-25	VTT10A25	QV1-41	EV-1222
C185	47 10V		PC50-16	VTT47D16	QV1-73	EV-1226
C196	3.9 50V			TIM335M050POY	QDT1-43	S050-3R39
C197	33 6.3V		PC30-25	VTT33A10	QV1-61	EV-1125
C203	47 16V		PC50-16	VTT47D16	QV1-73	EV-1226
C204	220 16V		PC250-25	VTT220G16	QV1-117	EV-1240
C207	33 6.3V		PC30-25	VTT33A10	QV1-61	EV-1125
C208	10 16V		PC10-25	VTT10A25	QV1-41	EV-1222
C209	1 50V		PC1-50	VTT1B63	QV1-11	EV-1615
C210	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1260
C211	47 25V		PC50-25	VTT47E25	QV1-75	EV-1326
C212	33 6.3V		PC30-25	VTT33A10	QV1-61	EV-1125
C222	4.7 25V		PC5-50	VTT4R7A50	QV1-27	EV-1319
C227	1 50V		PC1-50	VTT1B63	QV1-11	EV-1615
C240	33 16V		PC30-25	VTT33D25	QV1-63	EV-1325
C242	1 50V		PC1-50	VTT1B63	QV1-11	EV-1615

CAPACITORS

ITEM No.	RATING	MFRG. 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	MGP01	MAG5011	QC2-141	TG-S10
C2	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C3	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C4	5 NPO		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C5	180 10%			CD15FD181J03	SX318	QW1-33	MWA-181
C6	33 10% N150				*		10TCP-Q33
C7	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C8	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C101	18 NPO				CN0418		10TCC-Q18
C102	22		DTZ-22	NP022	CN0422		10TCC-Q22
C103	1 NPO				CN0510		10TCC-V10
C106	10		DTZ-10	NP010	CN0410		10TCC-Q10
C107	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C108	330 10%		DD-331	GP330	GP333		10TS-T33
C109	330 10%		DD-331	GP330	GP333		10TS-T33
C110	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C111	.01 10%			WMF1S1	EWFA1A110	QF1-91	1PB-S10
C112	39				CN0439		10TCC-Q39
C116	15		DTZ-15	NP015	CN0415		10TCC-Q15
C117	.01 10%			WMF1S1	EWFA1A110	QF1-91	1PB-S10
C118	22 N150				*		10TCP-Q22
C120	560		DD-561		GP356		10TS-T56
C121	100		DD-101	GP100	GP310		10TS-T10
C122	15		DTZ-15	NP015	CN0415		10TCC-Q15
C123	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C124	100 10%			CD15FD101J03	SX310	QW1-27	MWA-101
C125	33		DTZ-33	NP033	CN0433		10TCC-Q33

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
C126	12	(1)	DD-561		CN0412		10TCC-Q12
C127	56 10% N150				*		10TCP-Q56
C129	560				GP356		10TS-T56
C130	82 10% N150		UK50-103	MGP01	*		10TCP-Q82
C131	.01				MAG5011	QC2-141	TG-S10
C132	560 10%				CD19FD561J03		MWC-561
C133	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C136	220 10%				GP322		10TS-T22
	270				GP327		10TS-T27
C137	.01		UK50-103	GP270	MAG5011	QC2-141	TG-S10
C138	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C139	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C140	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C141	68		DD-680	GP68	GP468		10TS-Q68
C142	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C143	100 10% N150		UK50-103	MGP01	*		10TCP-T10
C144	.01				MAG5011	QC2-141	TG-S10
C145	.01				MAG5011	QC2-141	TG-S10
C146	470		DD-471	GP470	GP347		10TS-T47
C147	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C148	120 10%		DTZ-120				10TCC-T12
C149	220 10%		DD-221		GP322		10TS-T22
C150	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C151	100 10%			CD15FD101J03	SX310	QW1-27	MWA-101
C152	270 10%			CD15FD271J03	SX327	QW1-37	MWB-271
C153	82 10%		DD-820		GP482		10TS-Q82
C154	27				CN0427		10TCC-Q27
C155	.047				MAG5015	QC2-207	TG-S50
C156	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C157	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C159	.047		UK50-503	MGP05	MAG5015	QC2-207	TG-S50
C160	.047 10%		UK50-103	MGP01	EWFTA147	QF1-171	1PB-S47
C161	.01				MAG5011	QC2-141	TG-S10
C162	33 10% N150				*		10TCP-Q33
C163	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C164	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C165	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C166	10		DTZ-10	NP010	CN0410		10TCC-Q10
C168	2.2				EWFTA147	QF1-171	1PB-S47
C169	.047 10%				EWFTA147	QF1-171	1PB-S47
C170	.047 10%				EWFTA147	QF1-171	1PB-S47
C171	.047 10%				EWFTA147	QF1-171	1PB-S47
C172	.047 10%				EWFTA147	QF1-171	1PB-S47
C173	.047 10%				EWFTA147	QF1-171	1PB-S47
C175	.0047 10%			WMF1D147	M192P4729R8	QF1-57	1PB-D47
C177	.0022 10%			DPMS6D22	M192P2229R8		192P2229R8
C178	56 10% N150		DD-561		*		10TCP-Q56
C180	560				GP356		10TS-T56
C181	100 10%		DD-101	GP100	GP310		10TS-T10
C182	68 10% N150				*		10TCP-Q68
C184	.022 10%				M192P2239R8	QF1-127	1PB-S22
C189	.0022		DD-222		GP222	QC2-97	5GA-D22
C190	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C191	.022 10%		DD-221		M192P2239R8	QF1-127	1PB-S22
C192	220 10%				GP322		10TS-T22
C193	.01 10%		UK50-103	WMF1S1	EWFTA110	QF1-91	1PB-S10
C194	.01				MAG5011	QC2-141	TG-S10
C195	.0022		DD-222	MGP01	GP222	QC2-97	5GA-D22
C198	68		DD-680	GP68	GP468		10TS-Q68
C199	68		DD-680	GP68	GP468		10TS-Q68
C200	100 10%		DD-101	GP100	GP310		10TS-T10
C201	.068 10%		DD-101		WMF1S68	QF1-195	1PB-S68
C202	100 10%				GP100		10TS-T10
C205	.068 10%				WMF1S68	QF1-195	1PB-S68
C213	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C214	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C215	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C216	.01		UK50-103	MGP01	MAG5011	QC2-141	TG-S10
C217	.047		UK50-503		MAG5015	QC2-207	TG-S50
C218	.047		UK50-503		MAG5015	QC2-207	TG-S50
C219	.047		UK50-503	MGP05	MAG5015	QC2-207	TG-S50
C220	.047		UK50-503		MAG5015	QC2-207	TG-S50
C223	39		UK50-103	MGP01	CN0439		10TCC-Q39
C224	.01				MAG5011	QC2-141	TG-S10
C225	3	DTZ-3R3	NP03P3	CN0533		10TCC-V33	
C226	.0047		DD-472	GP4700			5GA-D47
C230	7		DTZ-6R8	NP06P8	CN0568		10TCC-V68
C231	100 10%		DD-101	GP100	GP310		10TS-T10
C232	.0033 10%		DD-331	WMF1D33	M192P3329R8	QF1-43	1PB-D33
C233	330 10%			GP330	GP333		10TS-T33
C235	15 N150			*		10TCP-Q15	
C236	39 10% N150				*		10TCP-Q39
C237	.0022 10%				M192P2229R8		192P2229R8
C238	.0022 10%				M192P2229R8		192P2229R8
C243	100 10%	13-123069	DD-101	GP100	GP310		10TS-T10
C244	.047		UK50-503	MGP05	MAG5015	QC2-207	TG-S50
CT101	20						6KB20000

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

(1) Used in some versions.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
RV1	Ant. Warning	10K		T-10K (2)	C-103 (2)	MTC14L1 (2)	X201R103B (2)
RV101	Squelch Range	10K	13-164132	T-10K (3)	C-103 (3)	MTC14L1 (3)	X201R103B (3)
RV102	AMC	2000	13-164133				
RV103	S Meter	20K	13-164134				
RV104	RF Meter	20K	13-164134				
VR1	Volume/Power Switch	50K	13-160139				
VR2	Squelch/PA Switch	10K	13-166068				

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

(3) For horizontal mounting, bend the two outside terminals to fit PC board. Use jumper to connect center terminal to PC board.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	RF Choke	13-176577			
L101	RF Choke	13-178227			
L103	Harmonic Suppressor (27MHz)	13-176562			
L104	Harmonic Suppressor (27MHz)	13-176563			
L105	RF Choke	13-176564			
L106	Xmit Driver (27MHz)	13-176508			
L107	RF Choke	13-178210			
L108	RF Choke	13-176565			
L109	Final Amp (27MHz)	13-176509			
L110	Ant Match (27MHz)	13-176510			
L111	RF Choke	13-178210			
L112	Rec Mixer (10MHz)	13-176578	46F		
L113	RF Choke	13-178209			
L114	RF Choke	13-178209			
L116	RF Choke	13-176567			
T101	VCO (17MHz)	13-176579			
T102	Xmit Mixer (27MHz)	13-176580			
T103	Xmit Buffer (27MHz)	13-176581	10TCP00550		
T104	Rec Ant (27MHz)	13-176511	10TCA005SP2		
T105	Rec RF (27MHz)	13-176582			
T106	Rec Mixer (10MHz)	13-176578			
T107	Rec Mixer (455kHz)	13-090371	36		
T108	IF (455kHz)	13-090375			
T109	IF (455kHz)	13-090372			
T111	VCO Buffer (17MHz)	13-090405	10MB003S		

MIDLAND MODEL 13-882C

FILTER CHOKE

ITEM No.	RATINGS		INDUCTANCE (0 CURRENT 1000~)	REPLACEMENT DATA			NOTES
	CURRENT (Measured)	DC RES.		MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
CH101	1.2A	.11	.48mH	13-178208 ELA-16 (1)			(1) Number on unit.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE			REPLACEMENT DATA			NOTES
				MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC.					
T110	2	1 8	2 .5	13-096200 ETA-66 (1)	TR723		(1) Number on unit.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	3" PM, 8 Ohms	13-060118	30A05Z8R	

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	13-038100	18-032	18-034	18-010	18-092	1	2	4	3	NC	2

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
X101	11.8066	13-128382	CA110M118066	Osc.	X103	10.240	13-128384	CB120M10240	Ref. Osc.
X102	10.695	13-128383	CB126M10695	Xmit Osc.					

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF101	Filter	13-179059	455kHz
M1	Meter	13-200078	S/Rf
S1	Switch	13-160139	Power (Part of Volume Control)
S2	Switch	13-180117	Delta Tune
S3	Switch	13-183236	ANL
S5	Switch	13-183236	NB/Off
S6	Switch	13-183236	Ext. CB/Off
SW101	Switch	13-180116	Channel Selector
	Printed Circuit Board		Main (TA7205P)
	Printed Circuit Board		Ant. Warning (TP-S30-HB)

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

ITEM	PART No.	ITEM	PART No.
Panel, Front	13-020709	Knob, Channel	13-115141
Cabinet, Top	13-010318	Frame, Front	13-010319
Cabinet, Bottom	13-013144	Bracket, Mounting	13-158510
Knob, Volume	13-110204	Holder, Mic	13-158509

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