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 3-5869A

MANUFACTURER'S SPECIFICATIONS

GENERAL

CHANNELS: 40 channels, PLL digital logic synthesizer circuitry
POWER REQUIREMENT: Consumption: 18 watts; current drain: 1.3 amps (100% mod.) at 13.8-volt DC
POWER SUPPLY: 12 volts DC nominal (positive or negative ground) or 120 volts A.C 60 Hz
SEMICONDUCTORS: Integrated circuits, transistors, and diodes
OPERATING TEMPERATURE RANGE: −30 to +50°C
MICROPHONE: Dynamic with push-to-talk switch, 500-ohm
BUILT-IN SPEAKER: 8 ohms impedance, 77mm (3 inches) in size
CONTROLS: Volume with ON/OFF switch, squelch control, RF Gain control, channel selector switch, automatic noise limiter switch
CONNECTORS: External speaker jack 3.5mm (8 ohms impedance), antenna receptacle to match PL-259 coax plug (50 ohms impedance), 12-volt DC power jack (polarized type)
CIRCUIT PROTECTION: Prevents transistor burn-out when transmitting without antenna (5-minute continuous transmit limit); 2-amp fuse in DC power cord

RECEIVER

SENSITIVITY: Better than 0.5uv for 500mw audio output at "MIN." position, squelch setting
FREQUENCY COVERAGE: 26.965 to 27.405 MHz
ADJACENT CHANNEL SELECTIVITY: Better than 55 db
AUDIO OUTPUT POWER (power to speaker): @ 10% DIST., better than 2.2 watts
SPURIOUS REJECTION: Better than 40 db
IF FREQUENCIES: 455 kHz, 10.695 MHz
SQUELCH RANGE (SENSITIVITY): 0.5 to 500 uv nominal
IMAGE REJECTION RATIO: Better than 60 db

TRANSMITTER

FREQUENCY RESPONSE: 400 Hz to 2.5 kHz
FREQUENCY COVERAGE: 26.965 to 27.405 MHz
TRANSMIT POWER OUTPUT [RF (radio frequency) power to antenna]: 4 watts maximum as limited by FCC Regulations at 13.8 volts DC
MODULATION: Capable of 100%; factory pre-set limit 85-100%
FREQUENCY TOLERANCE: Better than .005% MAX.

Courtesy of the Manufacturer

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

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.
Connect low sides of test equipment to ground unless specified otherwise.
Connect 50-ohm dummy load or antenna before keying transmitter.
Connect microphone.

Suggested Alignment Tools: GC Electronics: otherwise.

T6,T7,T8,T9	5009
T1 thru T5,L3	9440
L5,L9,L10	9304
CT1,CT2	5000

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter thru 47pF capacitor to jumper J4 (Base of Q8).	Ch. 19	CT1	Adjust for 10.240MHz ±50Hz.
Input of DC meter to TP8 (Junction R8 & R9).	Ch. 1	T1	Adjust for 2.0 volts ±.1 volt.
	Ch. 1, XMT	CT2	Adjust for 2.0 volts ±.1 volt.
Input of frequency counter to J5 (Junction C59, C60 & R29).	Ch. 1		Check for 16.270MHz. Repeat for all channels. (Channel frequency - 10.695MHz = frequency counter).
Input of frequency counter to TP1 (Pin 9 of IC3).	Ch. 1, XMT		Check for 26.965MHz. Repeat for all channels. (Should indicate channel frequency)

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 J4 (Base of Q8). 455kHz,1000Hz @ 30% modulation.	Ch. 19, Squelch MINIMUM ANL Off RF Gain Maximum	T9,T8,T7	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz,1000Hz @ 30% modulation.	Ch. 19, Squelch MINIMUM ANL Off RF Gain Maximum	T6,T5,T4, T3	Adjust for maximum output. If necessary readjust T7, T8, and T9.

RECEIVER ADJUSTMENTS

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

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.185MHz,1000Hz @ 30% modulation. Output 500uV.	Ch. 19, ANL Off RF Gain Maximum	RV1 (On main board)	SQUELCH RANGE Set squelch Control VR2 fully clockwise. Adjust RV1 so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.185MHz,1000Hz @ 30% modulation. Output 100uV.	Ch. 19, ANL Off RF Gain Maximum	RV3	S METER Adjust RV3 for 9 on S scale of meter.

TRANSMITTER ALIGNMENT

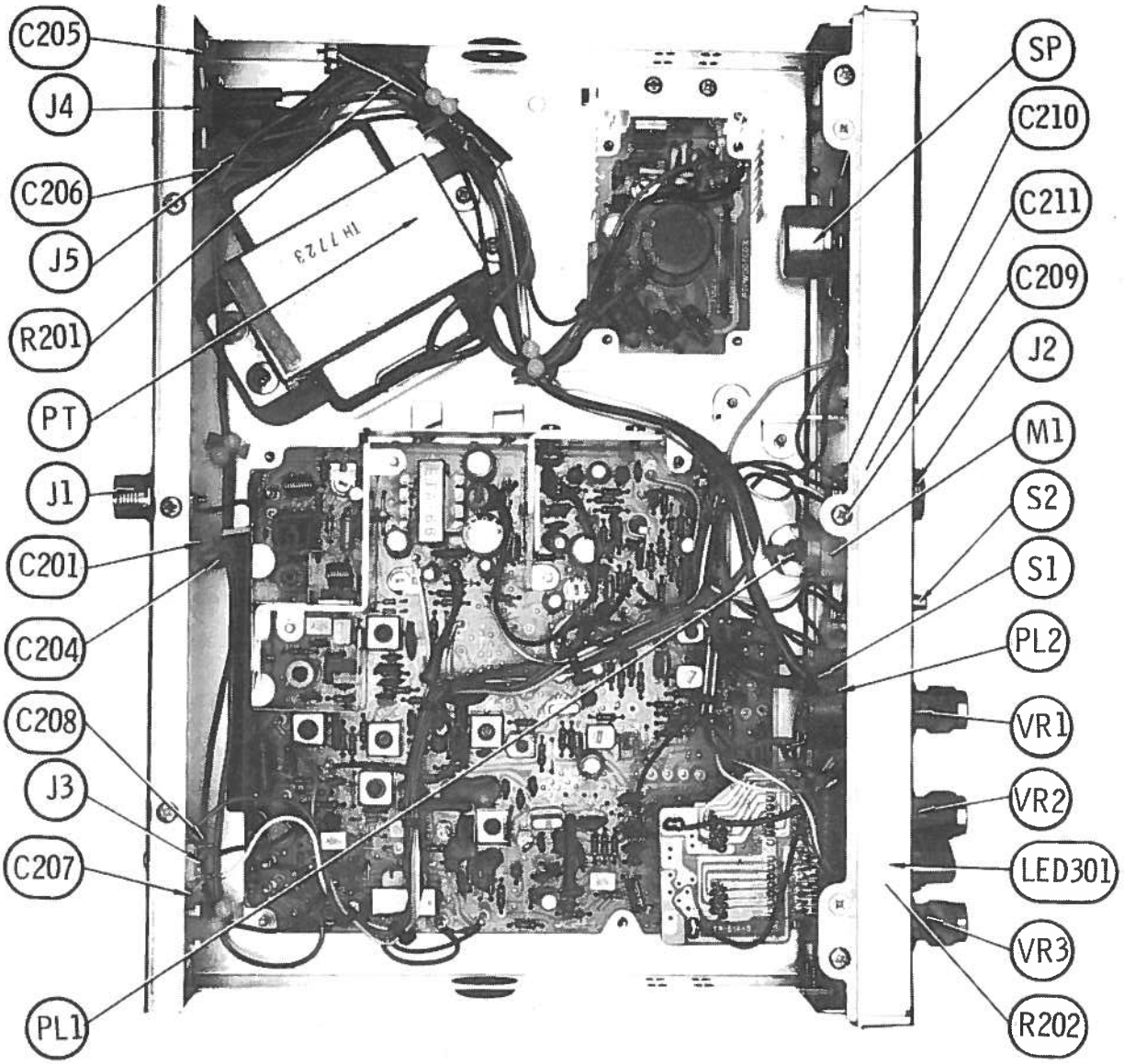
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector at all times.
NOTE: Be sure to check transmit frequency and power on all active channels after alignment of transmitter.
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
RF Wattmeter (See connection above).	Ch. 19	T2,L3,L5, L5,L9,L10	Adjust for maximum.
	Ch. 19	L10	Adjust for 3.8 watts.

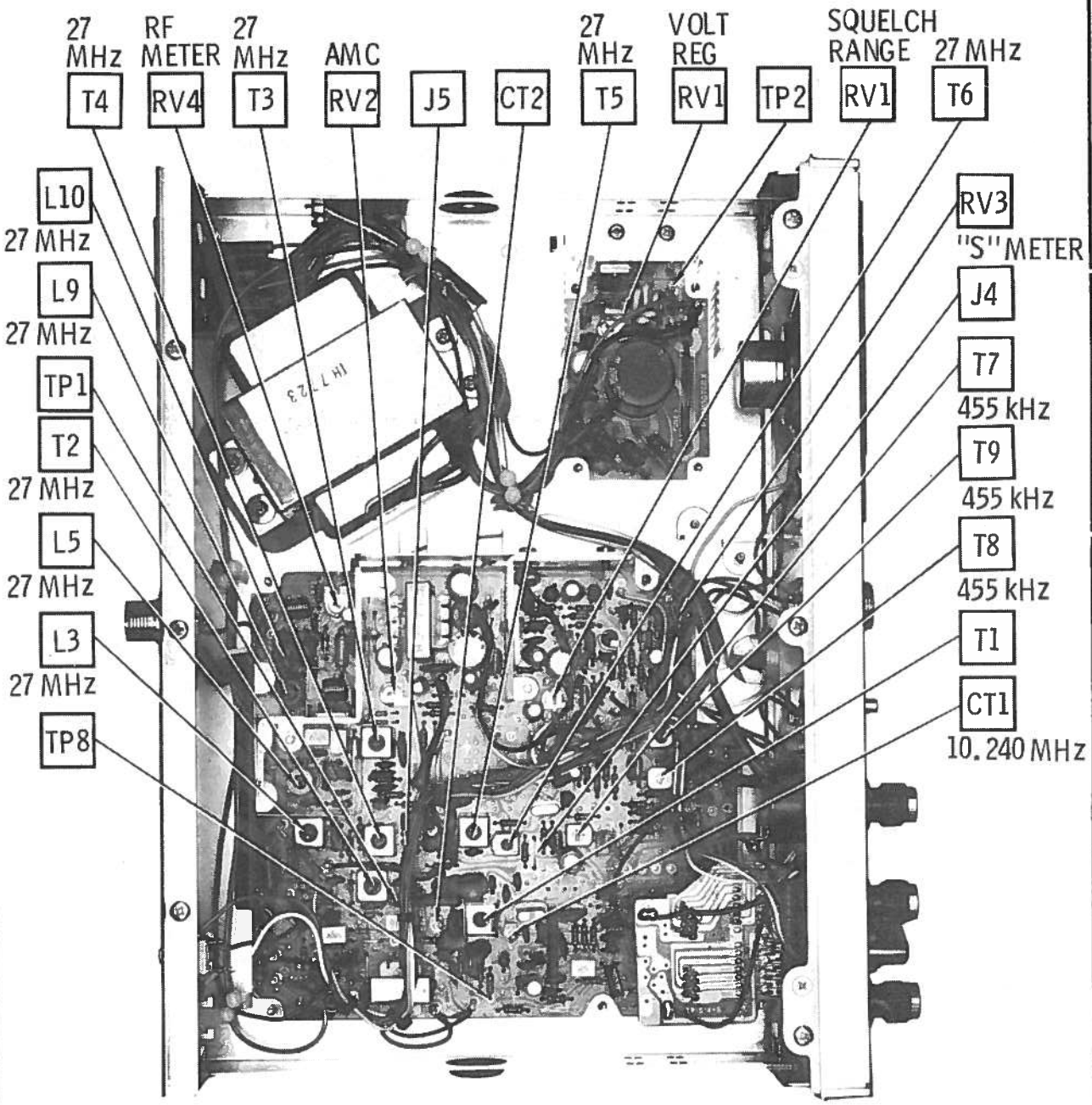
TRANSMITTER ADJUSTMENTS

Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector at all times.
NOTE: Be sure to check transmit frequency and power on all active channels after adjustment of transmitter.
See page 4 for channel frequencies.

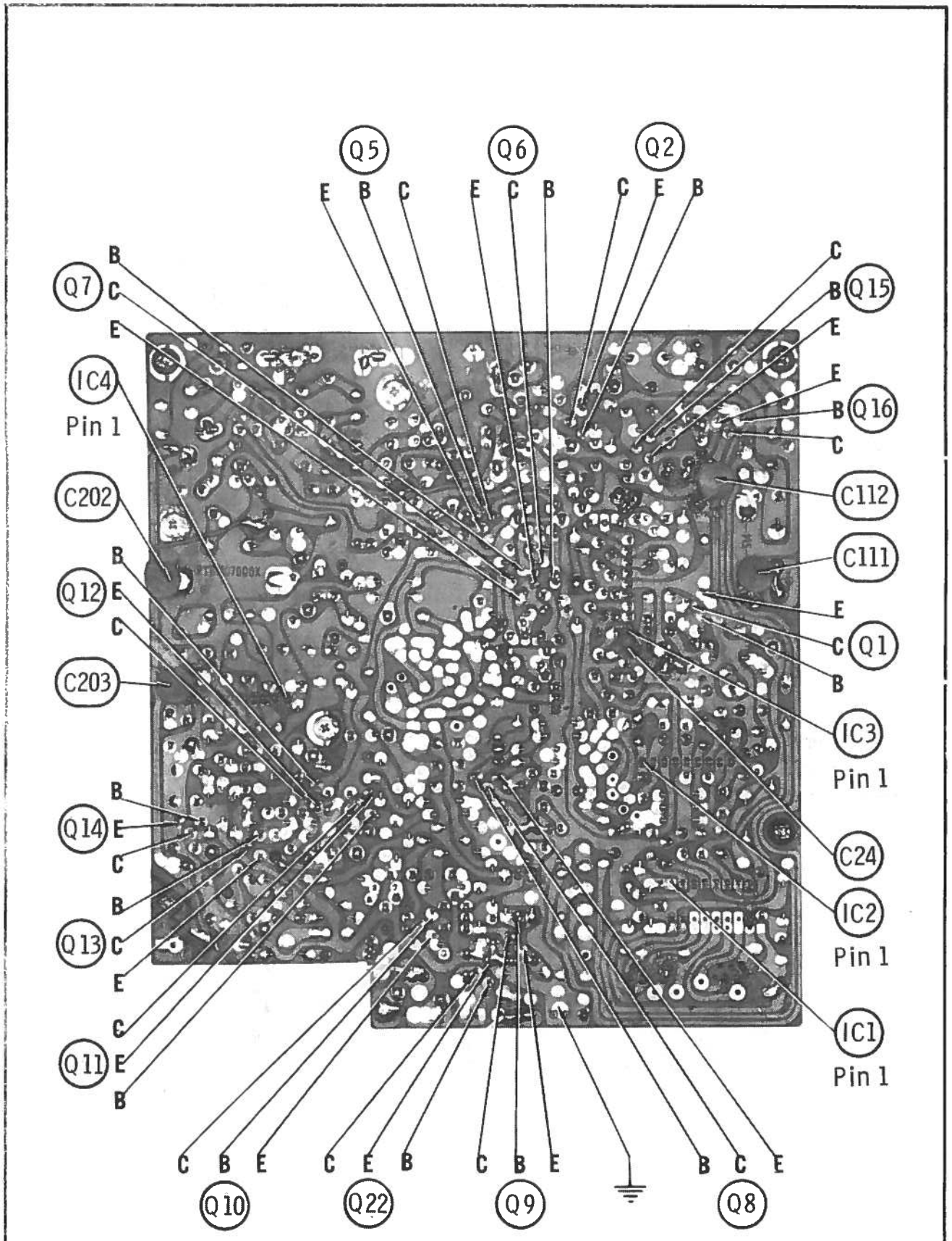
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of DC meter to TP2 (Emitter of Q3).	Ch. 19	RV1 (Power Supply Board)	VOLT REG Adjust RV1 for 13.8 volts. Voltages should not vary when keying transmitter.
Modulation meter to antenna jack. Inject a 1000Hz,20mV signal at MIC input.	Ch. 19	RV2	AMC Adjust RV2 for 90% modulation.
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.	Ch. 19	RV4	RF PANEL METER Adjust RV4 so that RF panel meter agrees with RF wattmeter.



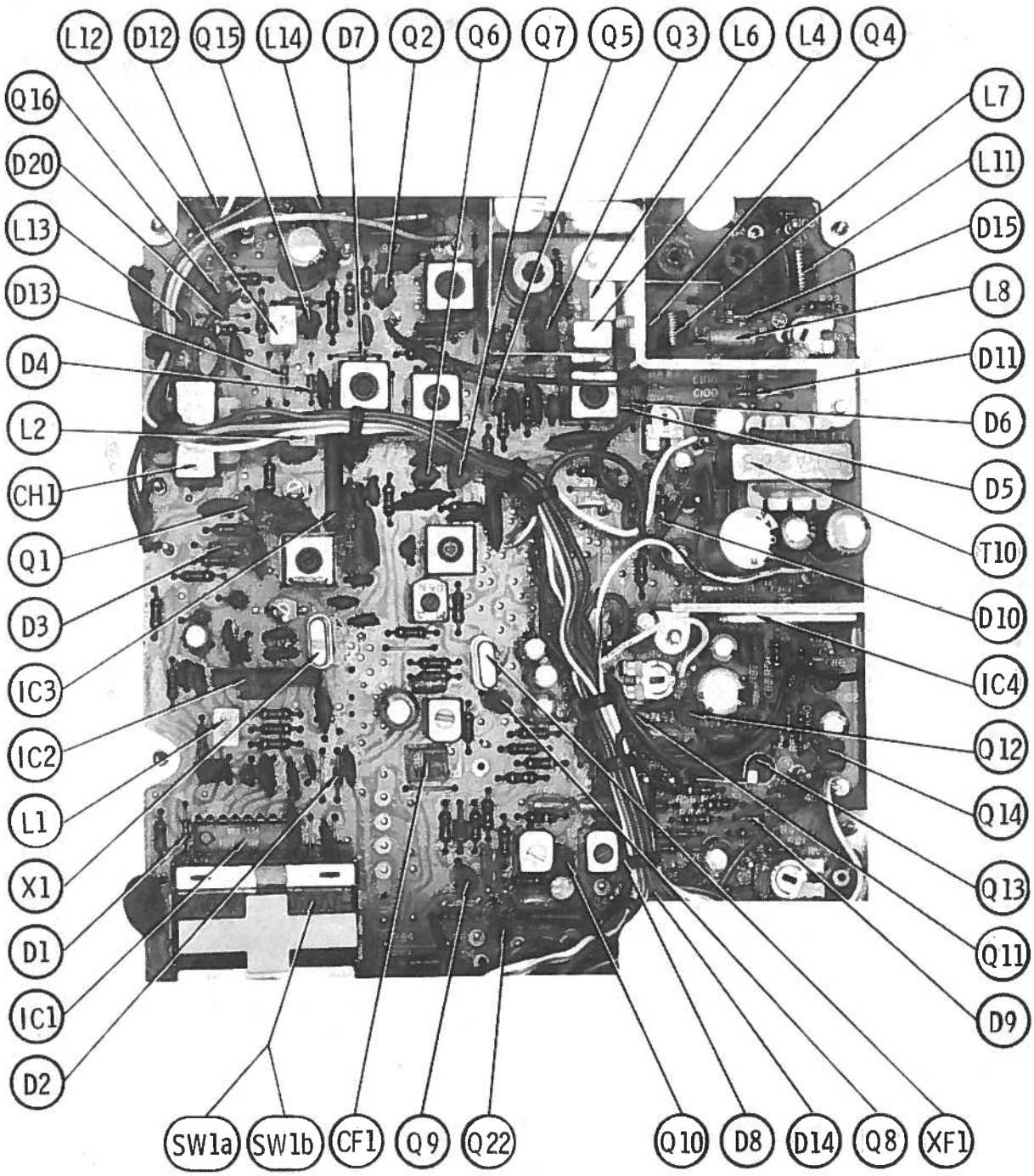
CHASSIS-BOTTOM



CHASSIS-BOTTOM


Q5
E B C
Q6
E C B
Q2
C E B
Q7
B
C
E
Q15
C
B
E
IC4
Pin 1
Q16
E
B
C
C202
C112
C111
Q12
B
E
C
Q1
E
C
B
C203
IC3
Pin 1
C24
IC2
Pin 1
Q14
B
E
C
Q13
B
C
E
IC1
Pin 1
Q11
C
E
B
Q10
C B E
Q22
C E B
Q9
C B E
Q8
B C E

MAIN BOARD


L12
D12
Q15
L14
D7
Q2
Q6
Q7
Q5
Q3
L6
L4
Q4
Q16
D20
L13
D13
D4
L2
CH1
Q1
D3
IC3
IC2
L1
X1
D1
IC1
D2
L7
L11
D15
L8
D11
D6
D5
T10
D10
IC4
Q12
Q14
Q13
Q11
D9
SW1a
SW1b
CF1
Q9
Q22
Q10
D8
D14
Q8
XF1

MAIN BOARD

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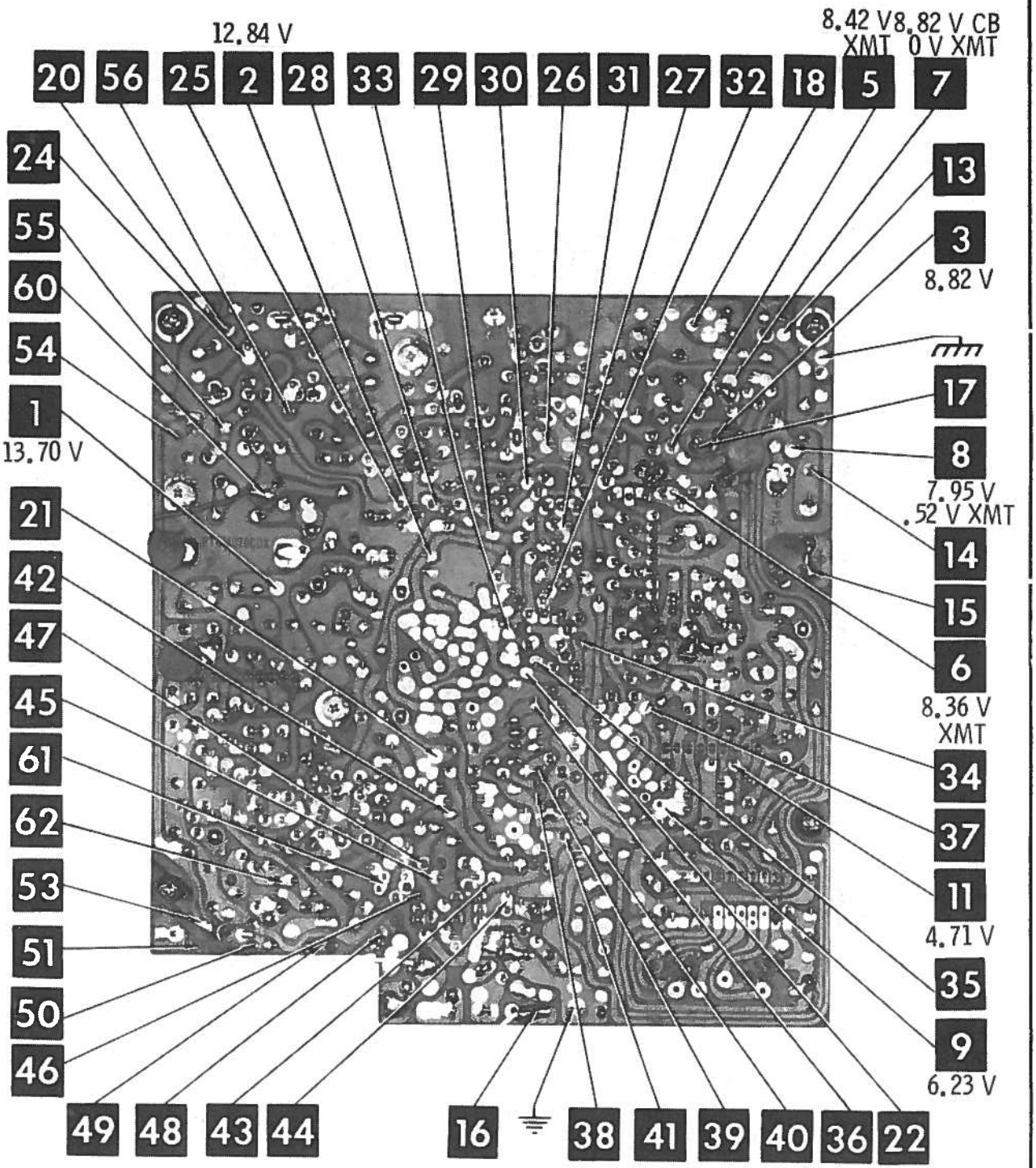
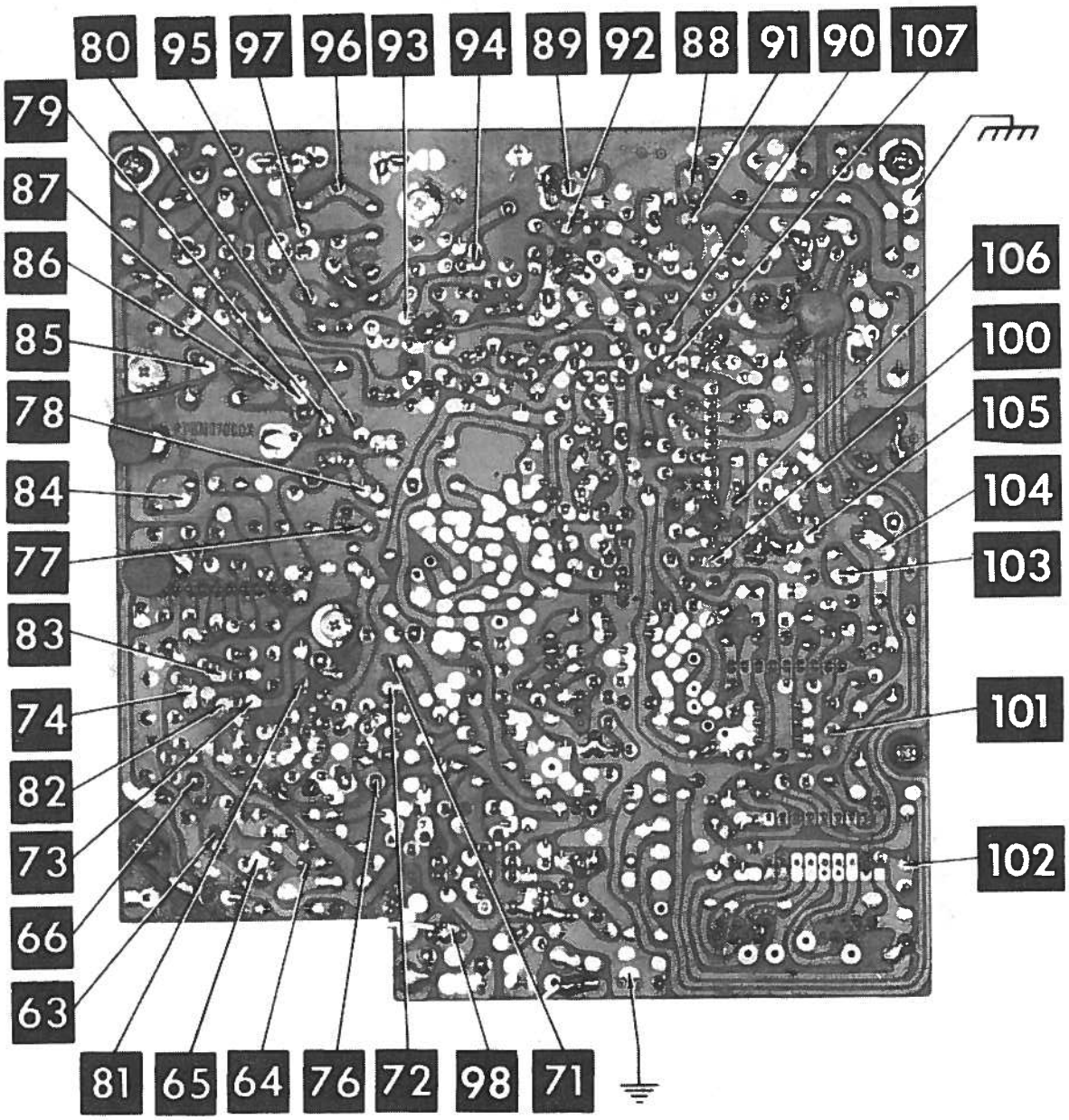


MAIN BOARD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100
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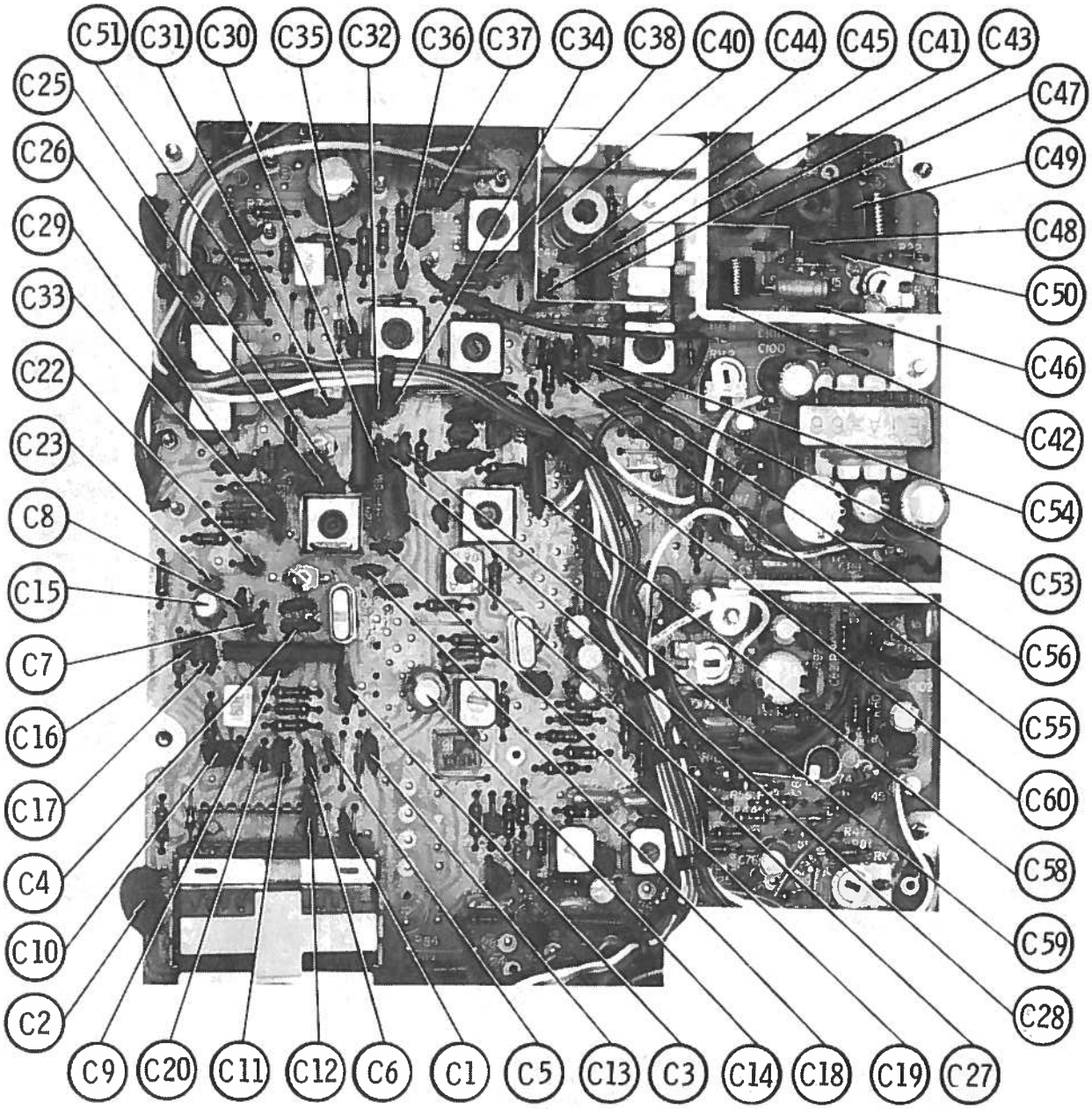
101
102

MAIN BOARD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C31
C30
C35
C32
C36
C37
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C38
C40
C44
C45
C41
C43
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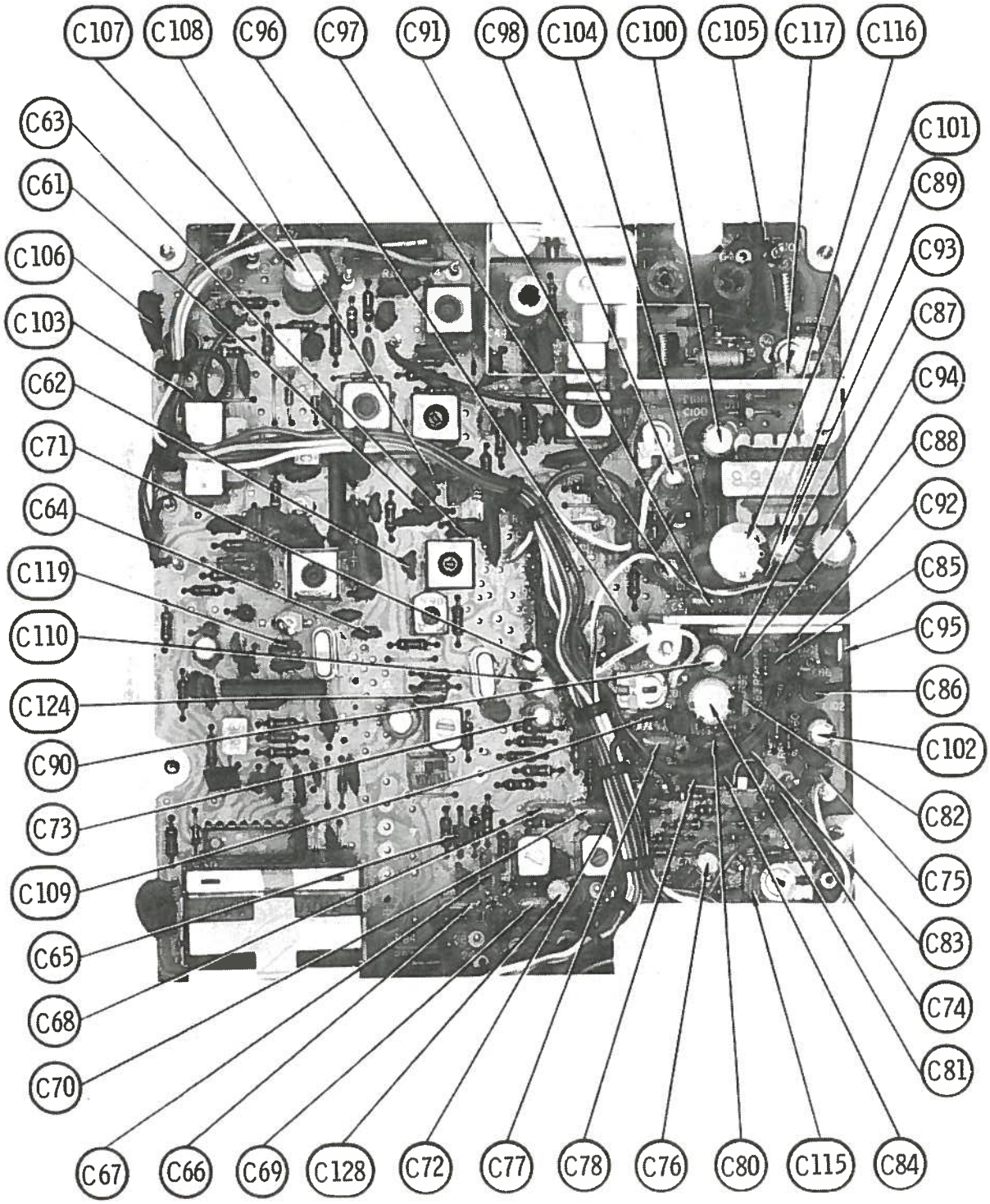
C26
C49
C29
C48
C33
C50
C22
C46
C23
C42
C8
C54
C15
C53
C7
C56
C16
C55
C17
C60
C4
C58
C10
C59
C2
C28
C9
C20
C11
C12
C6
C1
C5
C13
C3
C14
C18
C19
C27

MAIN BOARD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C96
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C91
C98
C104
C100
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C117
C116
C63
C61
C106
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C71
C64
C119
C110
C124
C90
C73
C109
C65
C68
C70
C67
C66
C69
C128
C72
C77
C78
C76
C80
C115
C84
C101
C89
C93
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C88
C92
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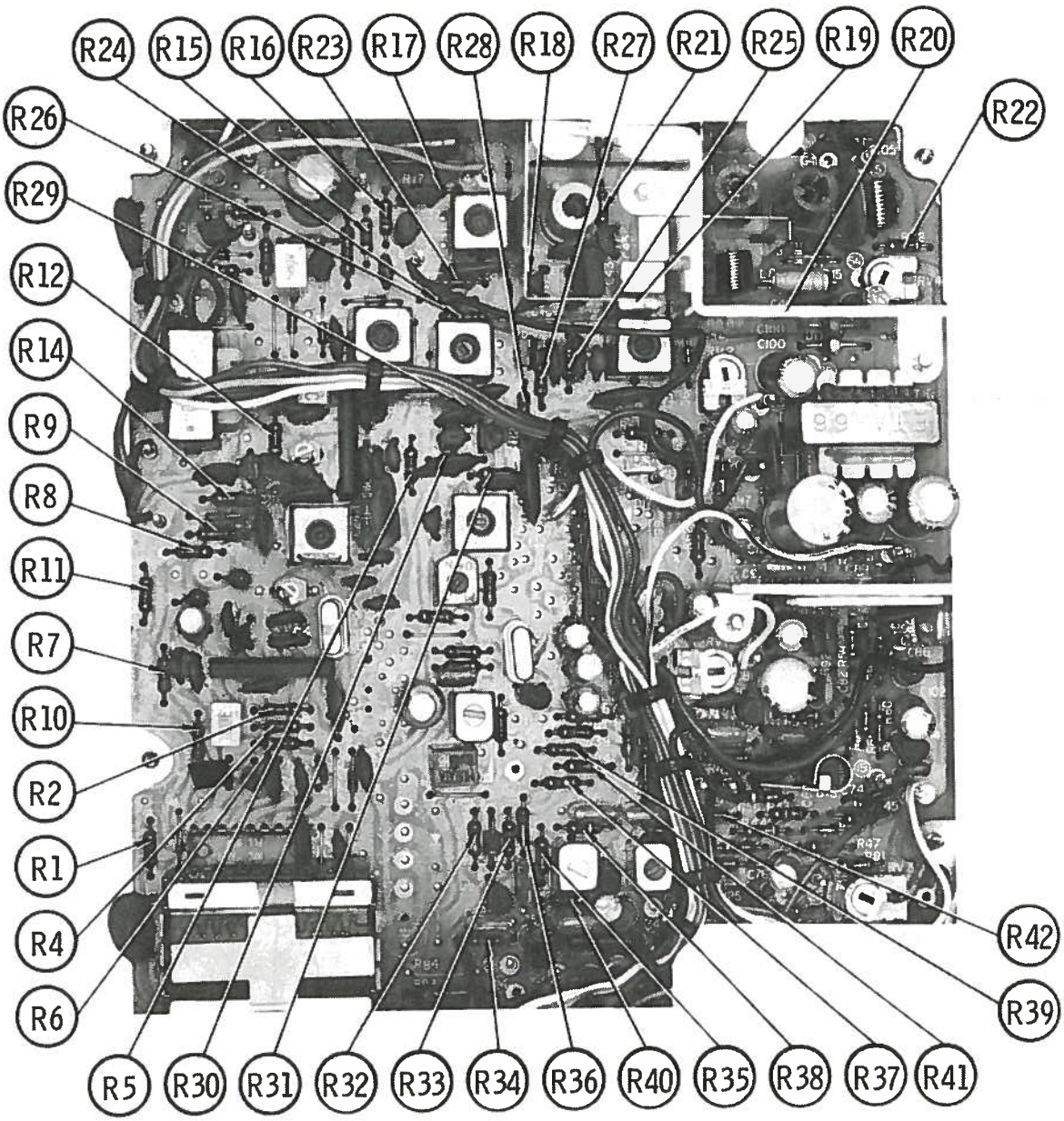
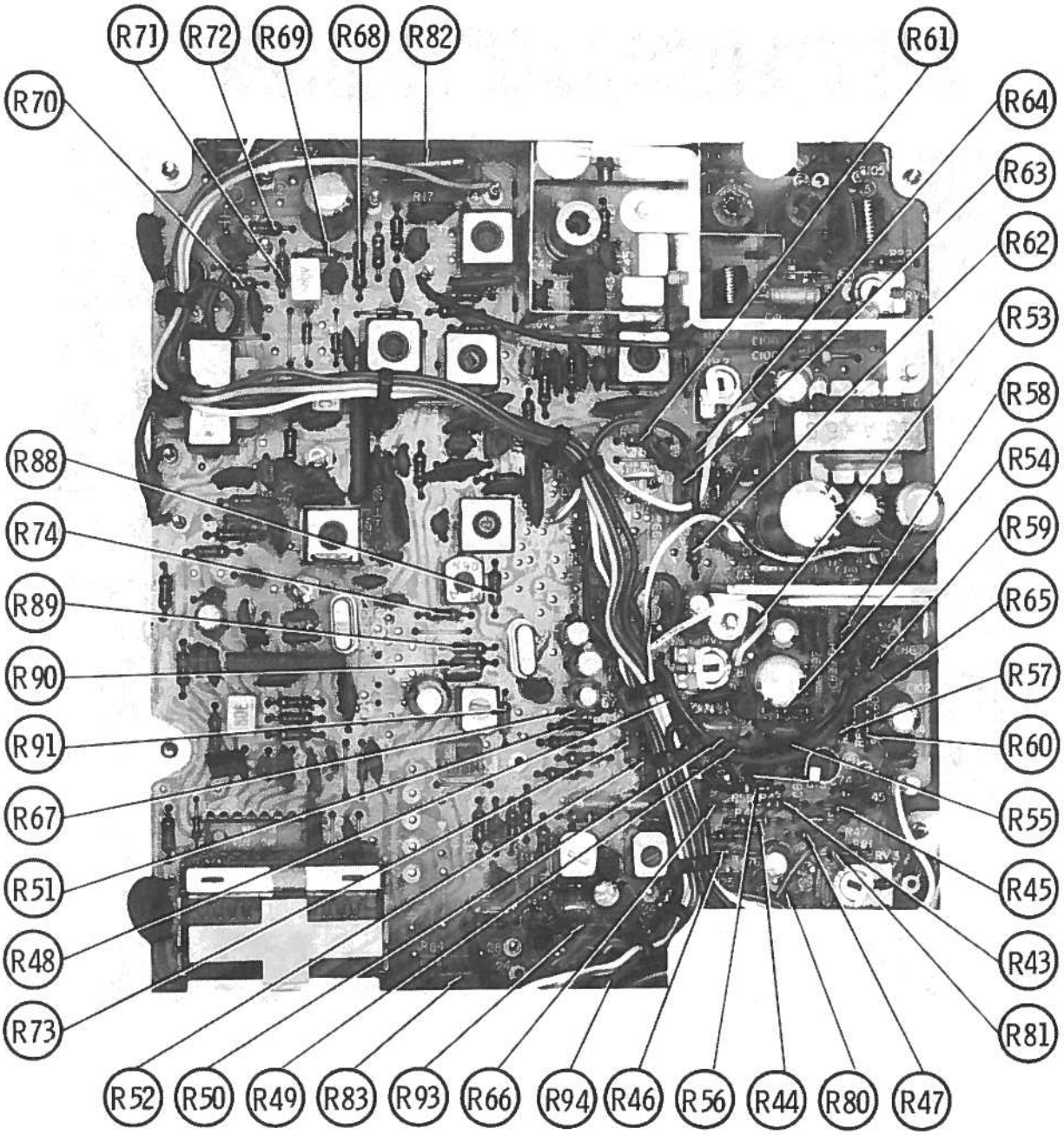
C95
C86
C102
C82
C75
C83
C74
C81

MAIN BOARD


R24
R15
R16
R23
R17
R28
R18
R27
R21
R25
R19
R20
R22
R26
R29
R12
R14
R9
R8
R11
R7
R10
R2
R1
R4
R6
R5
R30
R31
R32
R33
R34
R36
R40
R35
R38
R37
R41
R42
R39

MAIN BOARD


R71
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R58
R54
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R60
R55
R45
R43
R81
R88
R74
R89
R90
R91
R67
R51
R48
R73
R52
R50
R49
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R93
R66
R94
R46
R56
R44
R80
R47

MAIN BOARD

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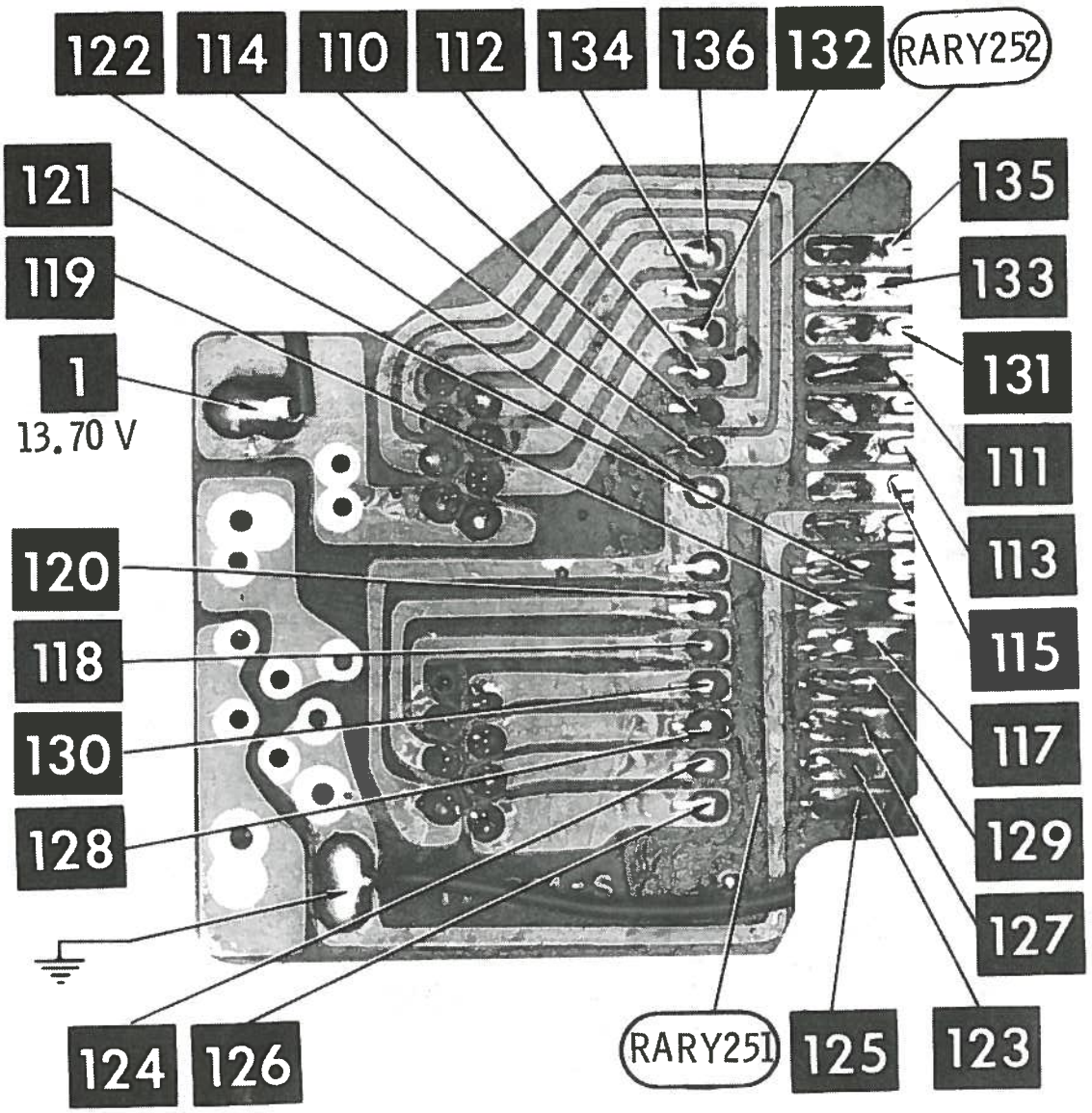
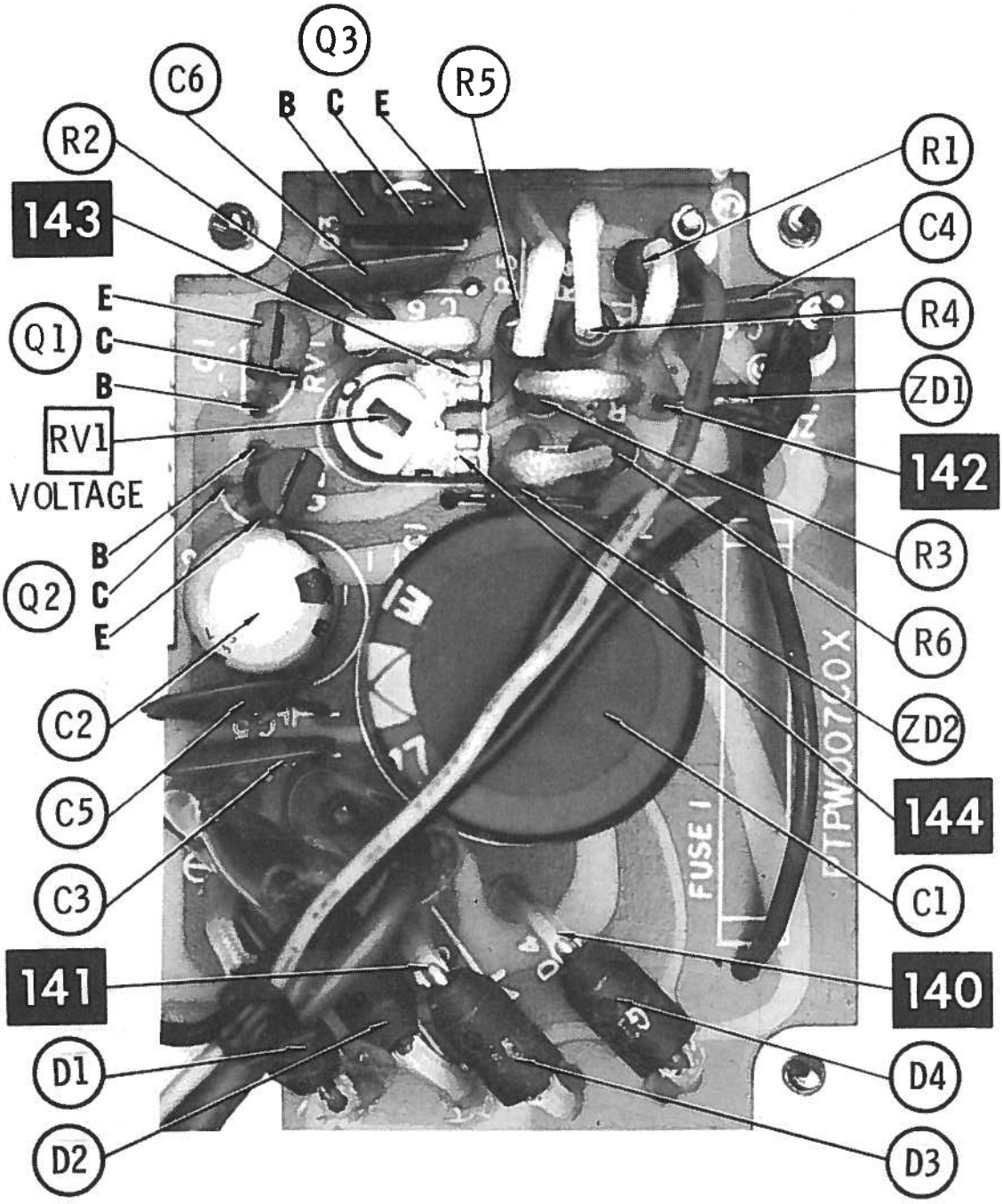
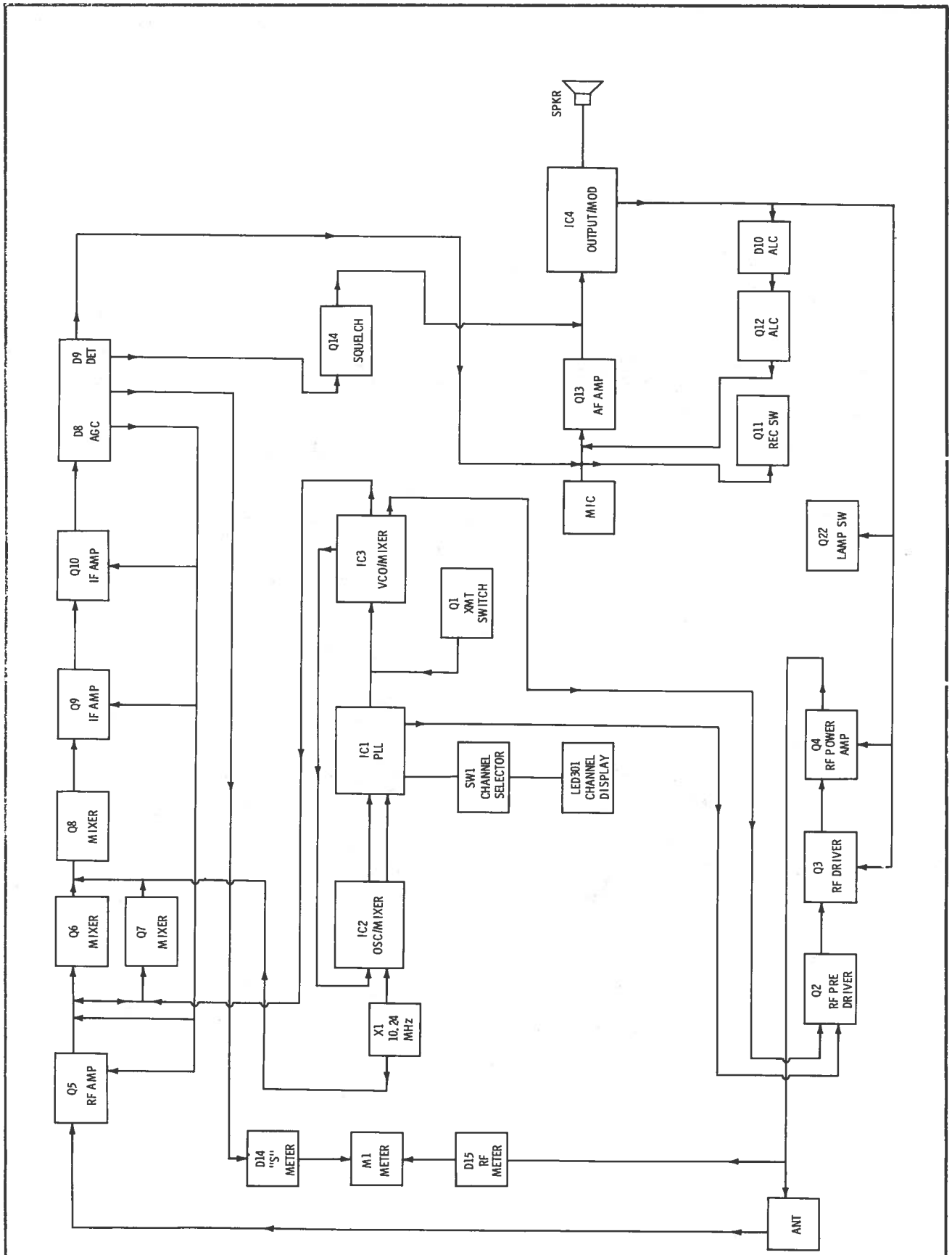


CH. SELECTOR BOARD



POWER SUPPLY BOARD



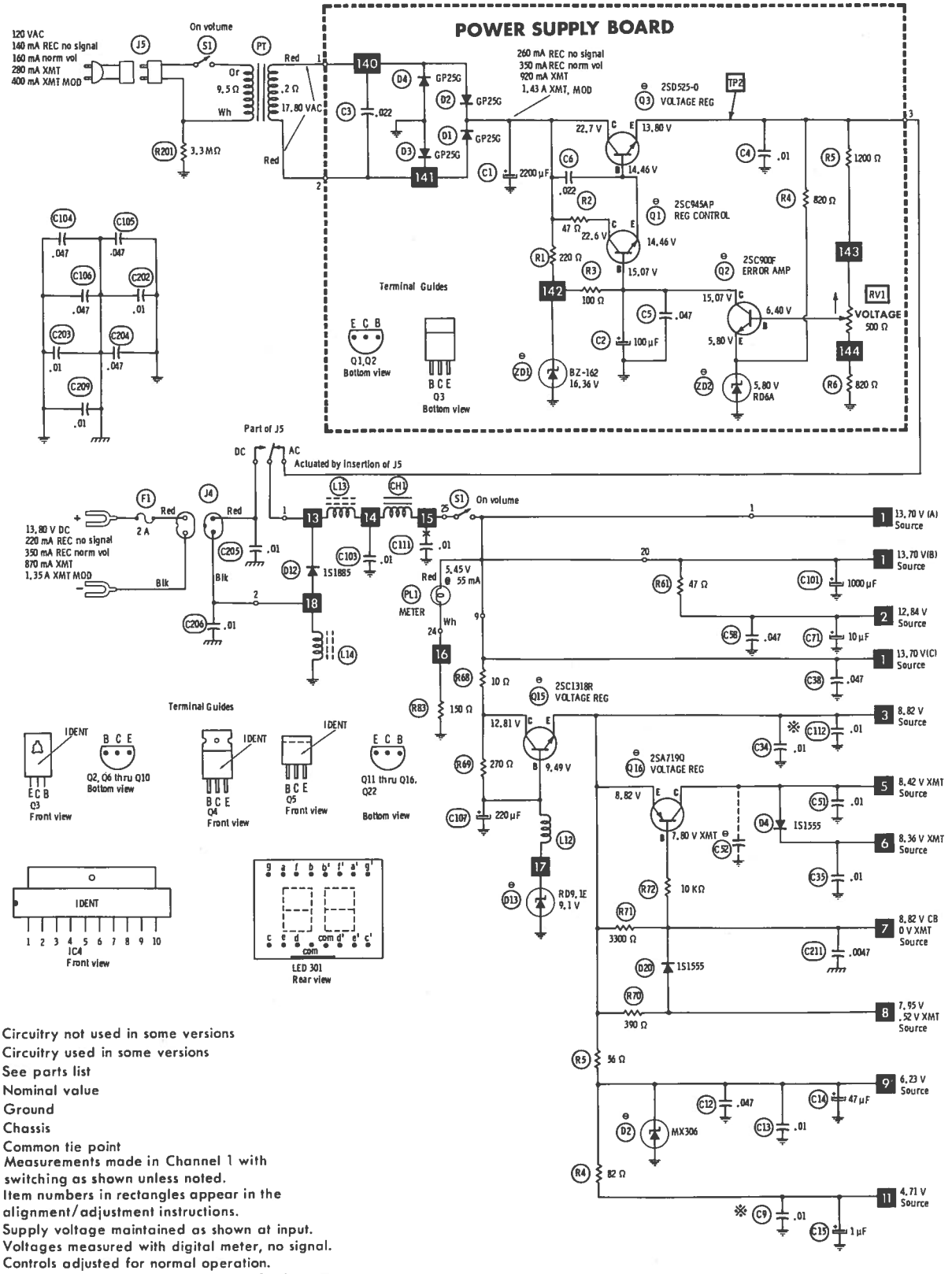
BLOCK DIAGRAM

PARTS LIST AND DESCRIPTION

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

SEMICONDUCTORS (Select replacement transistor for best results)

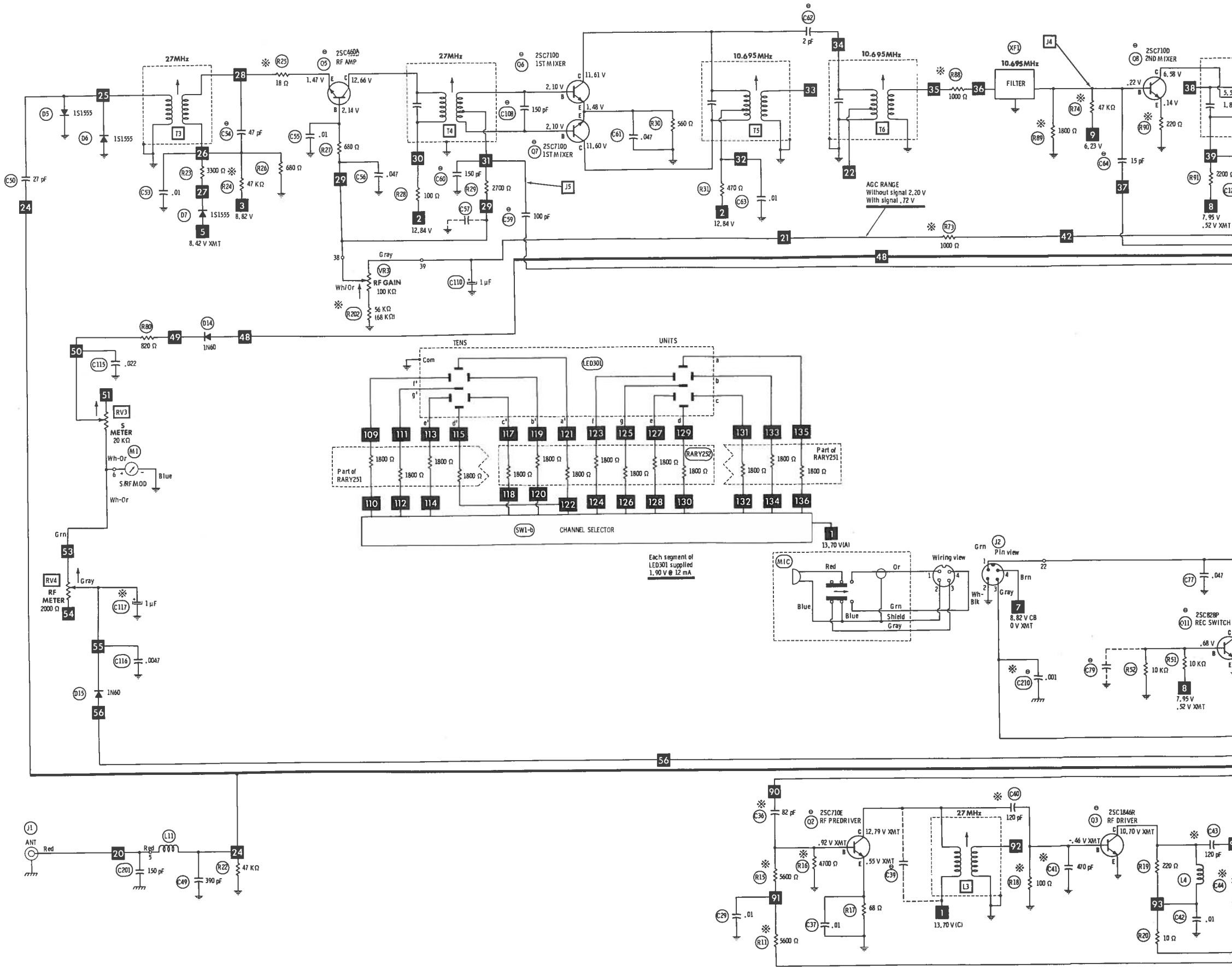
ITEM No.	TYPE No.	MFGR. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	IR WORKMAN PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
MAIN BOARD										
D1	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D2	MZ306						RE 108			ECG5070A
	MZ306C	EA16X163(1)					RE 108			ECG5070A
D3	ITT-410	EA16X106				HEPR2502				ECG612
	BB122	(1)				HEPR2502				ECG612
	MV201	(1)				HEPR2502				ECG612
D4	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D5	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D6	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D7	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D8	1N60	EA16X48	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D9	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D10	1N60	EA16X48	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D11	V06C	EA57X14	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D12	1S1885	RV1189	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D13	RD9.1E	EA16X137	GEZD-9.1	Z1209	ZB9.1A	HEPZ0412	RE 114	SK3060	RT-240	ECG139
D14	1N60	EA16X48	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D15	1N60	EA16X48	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D20	1S1555	RT5217	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
IC1	PLL03A	EA33X8501								
	PLL03	(1)								
IC2	C3001A	EA33X8394								ECG1192
	C3001	(1)								ECG1192
	TA7310P	EA33X8392(1)								ECG1192
IC3	C3001A	EA33X8394								ECG1192
	C3001	(1)								ECG1192
	TA7310P	EA33X8392(1)								ECG1192
IC4	TA7205AP		GEIC-179	WEP949	PTC780		RE 357-IC	SK3231	TVCM-81	ECG1155
	TA7205P	EA33X8396(1)	GEIC-179	WEP949	PTC780		RE 357-IC	SK3231	TVCM-81	ECG1155
	TA7205	(1)	GEIC-179	WEP949	PTC780		RE 357-IC	SK3231	TVCM-81	ECG1155
Q1	2SC710E		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710	(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710D	EA15X364(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q2	2SC710E		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710	(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710D	EA15X364(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q3	2SC1846R	(12)	GE-336				RE 209			ECG295
	2SC1846	EA15X383(1)	GE-336				RE 209			ECG295
	2SC1760	(1)	GE-276	WEP1014			RE 224		RT-310	ECG306
	2SC2036	(1)	GE-276	WEP1014			RE 224		RT-310	ECG306
Q4	2SC1974C	(13)	GE-337	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC1306	EA15X381(1)	GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC2075	(1)	GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC1678	(1)	GE-322	WEP1678	PTC186		RE 203	SK3197	RT-146	ECG235
	2SC1974	(1)	GE-337	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
Q5	2SC460A	RT6204	GE-61 *	(IR)2SC460B	PTC136 *	HEPS0014 *	RE 9	SK3018 *	RT-134	ECG107
	2SC1047	RT8527(1)	GE-60 *	(IR)2SC829B	PTC132 *	HEPS0016 *	RE 28 *	SK3018 *	RT-107	ECG161 *
	2SC460	(1)	GE-61 *	(IR)2SC460B	PTC136 *	HEPS0014 *	RE 9	SK3018 *	RT-134	ECG107
Q6	2SC710D	EA15X364	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710	(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q7	2SC710D	EA15X364	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710	(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q8	2SC710D	EA15X364	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710	(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC829	RT6732(1)	GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
Q9	2SC710D	EA15X364	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710	(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC829B	RT6732(1)	GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
Q10	2SC710D	EA15X364	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC710	(1)	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
	2SC829B	RT6732(1)	GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
Q11	2SC828P		GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
	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
	2SC828R	EA15X325(1)	GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
	2SC945Q	EA15X404(1)	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q12	2SA564R		GE-65	(IR)2SA564A	PTC103 *	HEPS0019 *	RE 193	SK3114	RT-303	ECG234
	2SA564	RV2353(1)	GE-65	(IR)2SA564A	PTC103 *	HEPS0019 *	RE 193	SK3114	RT-303	ECG234
	2SA733	(1)	GE-48	TR-31	PTC103 *	HEPS0019 *	RE 26 *	SK3138	RT-303	ECG294
	2SA733P	EA15X385(1)	GE-48	TR-31	PTC103 *	HEPS0019 *	RE 26 *	SK3138	RT-303	ECG294
Q13	2SC1327T	EA15X386	GE-85 *	(IR)2SC945	PTC139 *	HEPS0024 *	RE 192	SK3124	RT-107A	ECG199
	2SC1327	(1)	GE-85 *	(IR)2SC945	PTC139 *	HEPS0024 *	RE 192	SK3124	RT-107A	ECG199
	2SC900	EA4025(1)	GE-62	(IR)2SC644	PTC139 *	HEPS0015 *	RE 192	SK3124	RT-302	ECG199
	2SC945	(1)	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
	2SC945Q	EA15X404(1)	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q14	2SC828P		GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
	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
	2SC372	EA15X180(1)	GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
	2SC828R	EA15X325(1)	GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
	2SC945Q	EA15X404(1)	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q15	2SC1318R		GE-210 *	TR-21 *	PTC178	HEPS0015 *	RE 17 *	SK3122	RT-302	ECG128 *
	2SC1318	(1)	GE-210 *	TR-21 *	PTC178	HEPS0015 *	RE 17 *	SK3122	RT-302	ECG128 *
	2SC1318Q	EA15X378(1)	GE-210 *	TR-21 *	PTC178	HEPS0015 *	RE 17 *	SK3122	RT-302	ECG128 *
Q16	2SA719Q	EA15X395	GE-269	TR-28 *	PTC103 *	HEPS0019 *	RE 26 *	SK3114	RT-305	ECG290
	2SA719	(1)	GE-269	TR-28 *	PTC103 *	HEPS0019 *	RE 26 *	SK3114	RT-305	ECG290
	2SA720	(1)	GE-269	TR-28 *	PTC103 *	HEPS0019 *	RE 26 *	SK3114	RT-305	ECG290
Q22	2SC945AQ		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
	2SC945	(1)	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
	2SC945Q	EA15X404(1)	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199

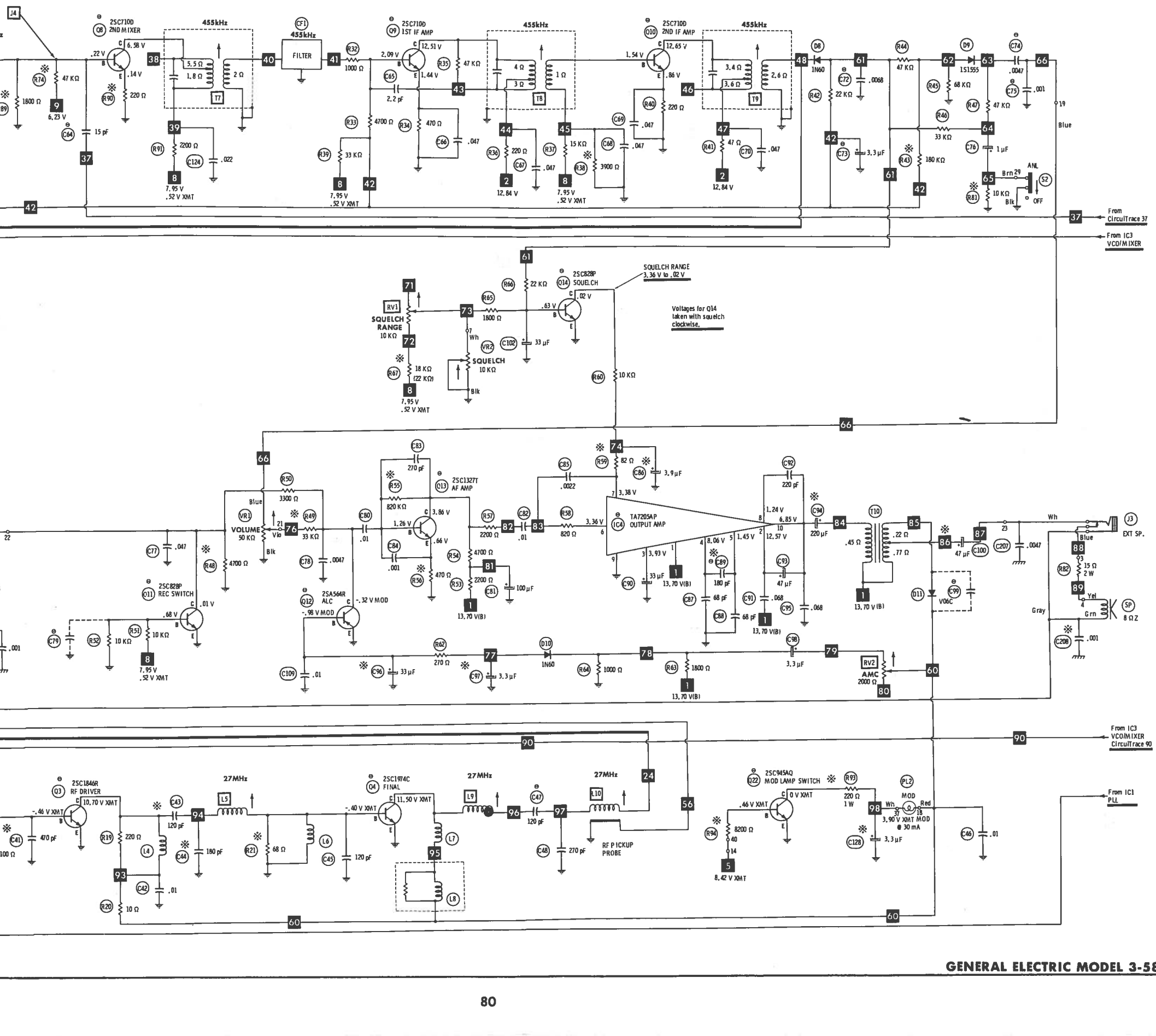


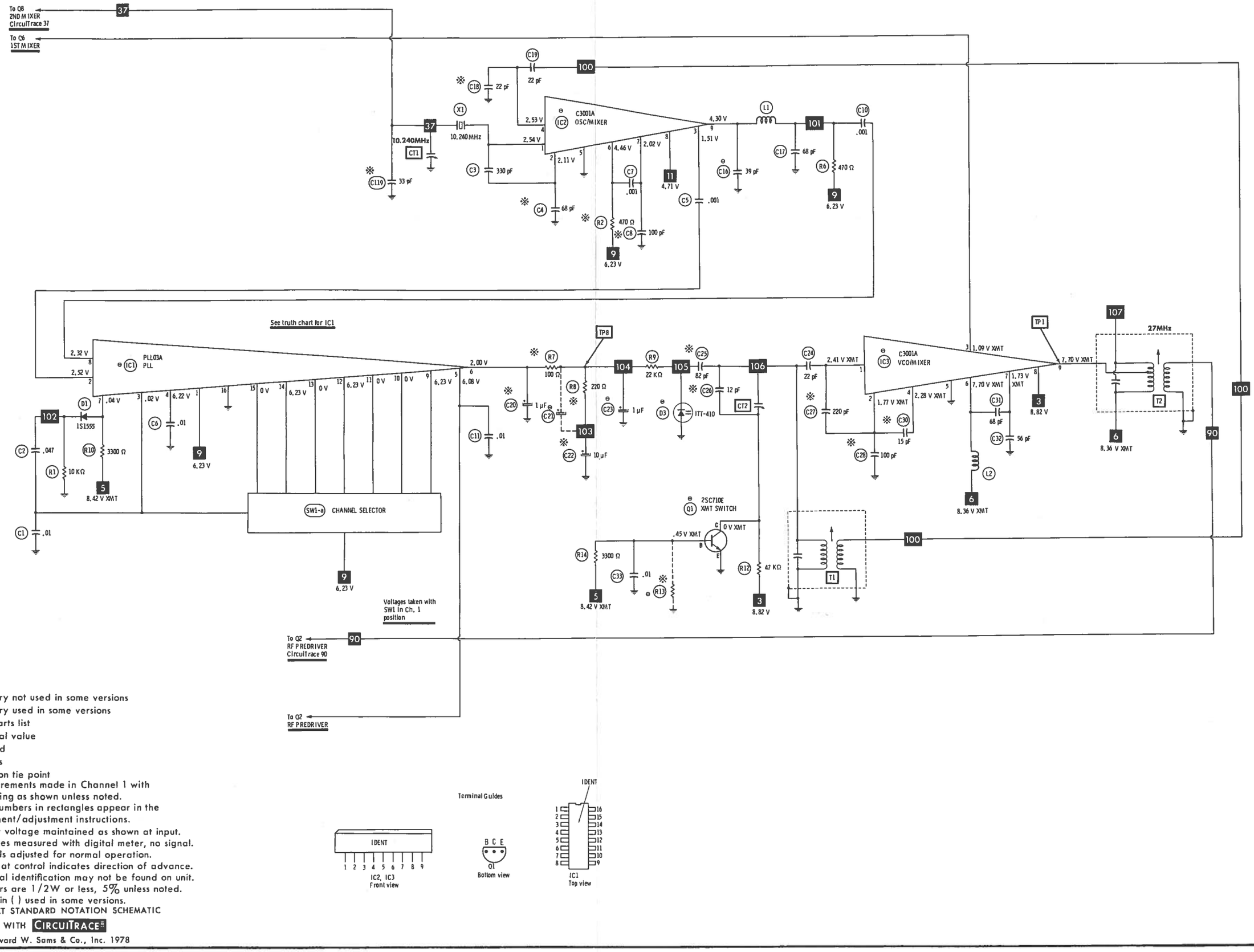
- Circuitry not used in some versions
- Circuitry used in some versions
- ⊖ See parts list
- ※ Nominal value
- Ground
- Chassis
- Common tie point

Measurements made in Channel 1 with switching as shown unless noted.
Item numbers in rectangles appear in the alignment/adjustment instructions.
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 PHOTOFACT STANDARD NOTATION SCHEMATIC
WITH CIRCUITRACE®


27MHz
2SC460A RF AMP
27MHz
2SC710D 1ST MIXER
10.695MHz
10.695MHz
2 pF
FILTER
2SC710D 2ND MIXER
AGC RANGE
Without signal 2.20 V
With signal .72 V
RF GAIN 100 KΩ
VR3
TENS
UNITS
LED301
CHANNEL SELECTOR
Each segment of LED301 supplied 1.90 V @ 12 mA
S METER 20 KΩ
RV3
RF METER 2000 Ω
RV4
MIC
Wiring view
Pin view
2SC828P REC SWITCH
2SC710E RF PREDRIVER
27MHz
2SC1846R RF DRIVER
ANT
1N60
1S1555


J4
Q8 2SC710D 2ND MIXER
455kHz
CF1 455kHz FILTER
Q9 2SC710D 1ST IF AMP
Q10 2SC710D 2ND IF AMP
D8 1N60
D9 1S1555
From CircuitTrace 37
From IC3 VCO/MIXER
SQUELCH RANGE 3.36 V to .02 V
Q14 2SC828P SQUELCH
RV1 SQUELCH RANGE 10 KΩ
VR2 SQUELCH 10 KΩ
Voltages for Q14 taken with squelch clockwise.
VR1 VOLUME 50 KΩ
Q13 2SC1327T AF AMP
IC4 TA7205AP OUTPUT AMP
T10
J3 EXT SP.
Q11 2SC828P REC SWITCH
Q12 2SA564R ALC
-.98 V MOD
-.32 V MOD
D10 1N60
RV2 AMC 2000 Ω
From IC3 VCO/MIXER CircuitTrace 90
Q3 2SC1846R RF DRIVER
27MHz
Q4 2SC1974C FINAL
RF PICKUP PROBE
Q22 2SC945AQ MOD LAMP SWITCH
PL2 MOD
From IC1 PLL
ANL
OFF
GENERAL ELECTRIC MODEL 3-5869A



Circuitry not used in some versions
Circuitry used in some versions
⊖ See parts list
※ Nominal value
Ground
Chassis
Common tie point
Measurements made in Channel 1 with switching as shown unless noted.
Item numbers in rectangles appear in the alignment/adjustment instructions.
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 PHOTOFACT STANDARD NOTATION SCHEMATIC
WITH CIRCUITRACE®

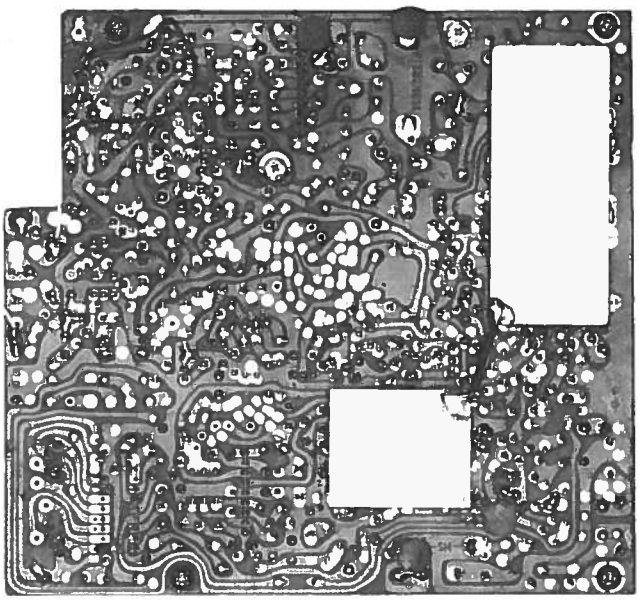
TRUTH CHART

1 = 6.23 Volts 0 = 0 Volts

CHANNEL	IC1 PROGRAM DIVIDER PINS 9	10	11	12	13	14	15	REC VCO OUTPUT IN MHz AT J5	XMT VCO OUTPUT IN MHz AT TP1
1	1	0	0	1	0	1	0	16.270	26.965
2	1	0	0	1	0	0	1	16.280	26.975
3	1	0	0	1	0	0	0	16.290	26.985
4	1	0	0	0	1	1	0	16.310	27.005
5	1	0	0	0	1	0	1	16.320	27.015
6	1	0	0	0	1	0	0	16.330	27.025
7	1	0	0	0	0	1	1	16.340	27.035
8	1	0	0	0	0	0	1	16.360	27.055
9	1	0	0	0	0	0	0	16.370	27.065
10	0	1	1	1	1	1	1	16.380	27.075
11	0	1	1	1	1	1	0	16.390	27.085
12	0	1	1	1	1	0	0	16.410	27.105
13	0	1	1	1	0	1	1	16.420	27.115
14	0	1	1	1	0	1	0	16.430	27.125
15	0	1	1	1	0	0	1	16.440	27.135
16	0	1	1	0	1	1	1	16.460	27.155
17	0	1	1	0	1	1	0	16.470	27.165
18	0	1	1	0	1	0	1	16.480	27.175
19	0	1	1	0	1	0	0	16.490	27.185
20	0	1	1	0	0	1	0	16.510	27.205

1 = 6.23 Volts 0 = 0 Volts

CHANNEL	IC1 PROGRAM DIVIDER PINS 9	10	11	12	13	14	15	REC VCO OUTPUT IN MHz AT J5	XMT VCO OUTPUT IN MHz AT TP1
21	0	1	1	0	0	0	1	16.520	27.215
22	0	1	1	0	0	0	0	16.530	27.225
23	0	1	0	1	1	0	1	16.560	27.255
24	0	1	0	1	1	1	1	16.540	27.235
25	0	1	0	1	1	1	0	16.550	27.245
26	0	1	0	1	1	0	0	16.570	27.265
27	0	1	0	1	0	1	1	16.580	27.275
28	0	1	0	1	0	1	0	16.590	27.285
29	0	1	0	1	0	0	1	16.600	27.295
30	0	1	0	1	0	0	0	16.610	27.305
31	0	1	0	0	1	1	1	16.620	27.315
32	0	1	0	0	1	1	0	16.630	27.325
33	0	1	0	0	1	0	1	16.640	27.335
34	0	1	0	0	1	0	0	16.650	27.345
35	0	1	0	0	0	1	1	16.660	27.355
36	0	1	0	0	0	1	0	16.670	27.365
37	0	1	0	0	0	0	1	16.680	27.375
38	0	1	0	0	0	0	0	16.690	27.385
39	0	0	1	1	1	1	1	16.700	27.395
40	0	0	1	1	1	1	0	16.710	27.405



SHIELD LOCATION

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.	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.
POWER SUPPLY BOARD										
D1	GP25G	EA16X149	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D2	GP25G	EA16X149	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D3	GP25G	EA16X149	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D4	GP25G	EA16X149	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
Q1	2SC945AP		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
	2SC945Q	EA15X404(1)	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q2	2SC900F		GE-62	(IR)2SC644	PTC139 *	HEPS0015 *	RE 192	SK3124	RT-302	ECG199
	2SC900	EA4025(1)	GE-62	(IR)2SC644	PTC139 *	HEPS0015 *	RE 192	SK3124	RT-302	ECG199
Q3	2SD525-0	(14)	GE-66	TR-76	PTC167	HEPS5000	RE 21	SK3054	RT-197	ECG152
	2SD525	EA15X416(1)	GE-66	TR-76	PTC167	HEPS5000	RE 21	SK3054	RT-197	ECG152
ZD1	BZ-162	EA16X164	GEZD-16		ZB168				RT-246	ECG5075
ZD2	RD6A		GEZD-5.6	Z1204	ZB5.6A	HEPZ0407	RE 107	SK3057	RT-236	ECG136
	RD5.6E	EA16X165	GEZD-5.6		ZB5.6B		RE 107		RT-236	ECG136A

* Lead configuration may vary from original.
(1) Used in some versions.
(12) Rating 12 W @ 1 A.
(13) Rating 12 W @ 2 A.
(14) Rating 40 W @ 4 A.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFGR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
MAIN BOARD						
C14	47 10V	EA31X214	PC50-25	VTT47E25	QV1-75	EV-1326
C15	1 50V	EA31X204	PC1-50	VTT1A50	QV1-11	EV-1615
C20	1 10V	EA31X254		TDC105M035EL		SD35-19
C22	10 10V	EA31X249		TDC106M025FL	QDT1-64	SD25-109
C23	1 10V	EA31X254		TDC105M035EL		SD35-19
C71	10 16V	EA31X246	PC10-25	VTT10B25	QV1-41	EV-1222
C73	3.3 25V	EA31X260	PC5-50	VTT3R3A50	QV1-23	EV-1318
C76	1 50V	EA31X204	PC1-50	VTT1A50	QV1-11	EV-1615
C81	100 16V	EA31X235	PC100-16	VTT100F16	QV1-95	EV-1230
C86	3.9 25V	EA31X261		TOC475M010EL	QDT1-48	SD10-4R79
C90	33 6.3V	RT5269	PC30-25	VTT33B10	QV1-61	EV-1125
C93	47 16V	EA2510	PC50-16	VTT47D16	QV1-73	EV-1226
C94	220 16V	RT5047	PC250-25	VTT220H16	QV1-117	EV-1240
C96	33 10V	RT2315	PC30-25	VTT33B10	QV1-61	EV-1125
C97	3.3 25V	EA31X260	PC5-50	VTT3R3A50	QV1-23	EV-1318
C98	3.3 25V	EA31X260	PC5-50	VTT3R3A50	QV1-23	EV-1318
C100	47 25V	RT4632	PC50-25	VTT47E25	QV1-75	EV-1326
C101	1000 16V	EA31X200	PC1000-16	VTT1000L16	QV1-183	EV-1260
C102	33 6.3V	RT5269	PC30-25	VTT33B10	QV1-61	EV-1125
C107	220 10V	EA2777	PC250-10	VTT220F10	QV1-115	EV-1140
C110	1 50V	EA31X204	PC1-50	VTT1A50	QV1-11	EV-1615
C117	1 50V	EA31X204	PC1-50	VTT1A50	QV1-11	EV-1615
C128	3.3 50V	EA31X260	PC5-50	VTT3R3A50	QV1-25	EV-1618
POWER SUPPLY BOARD						
C1	2200 25V	RT7896	WBR2000-25	TC2520A	QE1-645	TVA-1213.5
C2	100 25V	EA31X217	PC100-25	VTT100G25	QV1-97	EV-1330

CAPACITORS

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
MAIN BOARD							
C1	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C2	.047 50V		UK50-503		MAG5015		
C3	330 50V		DD-331	GP330	GP333		10TS-T33
C5	68 N150 50V	EA18X173			*		10TCP-Q68
C5	.001 50V			DPMS6D1	EWF1A210	QF1-1	1PB-D10
C6	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C7	.001 50V			DPMS6D1	EWF1A210	QF1-1	1PB-D10
C8	100 50V		DD-101	GP100	GP310		10TS-T10
C9	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C10	.001 50V			DPMS6D1	EWF1A210	QF1-1	1PB-D10
C11	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C12	.047 50V		UK50-503		MAG5015		
C13	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C16	39 50V				CN0439		10TCC-Q39

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.	
						Q-LINE	GENERAL LINE
C17	68 N150 50V	EA18X173			*		10TCP-Q68
C18	22 N150 50V	EA18X151			*		10TCP-Q22
C19	22 N150 50V	EA18X151			*		10TCP-Q22
C24	22 N150 50V	EA18X151			*		10TCP-Q22
C25	82 N150 50V	EA18X234			*		10TCP-Q22
C26	10 N150 50V	EA18X152			*		10TCP-Q10
C27	220 50V		DD-221		GP322		10TS-T22
C28	100 50V		DD-101	GP100	GP310		10TS-T10
C29	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C30	15 50V		DTZ-15	NP015	CN0415		10TCC-Q15
C31	68 N150 50V	EA18X173			*		10TCP-Q68
C32	56 50V		DD-560		GP456		10TS-Q56
C33	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C34	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C35	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C36	82 N150	EA18X234			*		10TCP-Q82
C37	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C38	.047 50V		UK50-503		MAG5015		
C39		(1)(2)					
C40	120 50V		DTZ-120		CN0312		10TCC-T12
C41	470 50V		DD-471	GP470	GP347		10TS-T47
C42	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C43	120 50V		DTZ-120		CN0312		10TCC-T12
C44	150 50V		DD-181		GP318		10TS-T18
C45	120 50V		DTZ-120		CN0312		10TCC-T12
C46	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C47	120 50V		DTZ-120		CN0312		10TCC-T12
C48	270 50V		DD-271	GP270	GP327		10TS-T27
C49	390 50V		DD-391	GP390	GP339		10TS-T39
C50	27 50V				CN0427		10TCC-Q27
C51	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C52	.01 50V	(1)	DC-103	MGP01	TA110	QC2-141	TG-S10
C53	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C54	47 50V		DTZ-47	NP047	CN0447		10TCC-Q47
C55	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C56	.047 50V		UK50-503		MAG5015		
C57	.047 50V	(1)	UK50-503		MAG5015		
C58	.047 50V		UK50-503		MAG5015		
C59	100 50V		DD-101	GP100	GP310		10TS-T10
C60	150 50V		DD-151		GP315		10TS-T15
C61	.047 50V		UK50-503		MAG5015		
C62	2 50V		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C63	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C64	15 50V		DTZ-15	NP015	CN0415		10TCC-Q15
C65	2.2 500V		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C66	.047 50V			DPMS2S47	EWF1A147	QF1-171	1PB-S47
C67	.047 50V			DPMS2S47	EWF1A147	QF1-171	1PB-S47
C68	.047 50V			DPMS2S47	EWF1A147	QF1-171	1PB-S47
C69	.047 50V			DPMS2S47	EWF1A147	QF1-171	1PB-S47
C70	.047 50V			DPMS2S47	EWF1A147	QF1-171	1PB-S47
C72	.0068 50V			WMF1D68	EWF1A268	QF1-73	1PB-D68
C74	.0047 50V			WMF1D47	EWF1A247	QF1-57	1PB-D47
C75	100 50V		DD-101	GP100	GP310		10TS-T10
C77	.047 50V			DPMS2S47	EWF1A147	QF1-171	1PB-S47
C78	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C80	.01 50V			WMF1S1	EWF1A110	QF1-91	1PB-S10
C82	.01 50V			WMF1S1	EWF1A110	QF1-91	1PB-S10
C83	270 50V		DD-271	GP270	GP327		10TS-T27
C84	.001 50V			DPMS6D1	EWF1A210	QF1-1	1PB-D10
C85	.0022 50V		DD-222		GP222	QC2-97	5GA-D22
C87	68 N150 50V	EA18X173			*		10TCP-Q68
C88	68 N150 50V	EA18X173			*		10TCP-Q68
C89	180 50V		DD-181		GP318		10TS-T18
C91	.068 50V			WMF1S68	EWF1A168	QF1-195	1PB-S68
C92	220 50V		DD-221		GP322		10TS-T22
C95	.068 50V			WMF1S68	EWF1A168	QF1-195	1PB-S68
C103	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C104	.047 50V		UK50-503		MAG5015		
C105	.047 50V		UK50-503		MAG5015		
C106	.047 50V		UK50-503		MAG5015		
C108	150 50V		DD-151		GP315		10TS-T15
C109	.01 50V			WMF1S1	EWF1A110	QF1-91	1PB-S10
C111	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C112	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C115	.022 50V			DPMS2S22	EWF1A122	QF1-127	1PB-S22
C116	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C119	33 N150 50V	EA18X232			*		10TCP-Q33
C124	.022 50V			DPMS2S22	EWF1A122	QF1-127	1PB-S22
C201	150 50V		DD-151		GP315		10TS-T15
C202	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C203	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C204	.047 50V		UK50-503		MAG5015		
C205	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C206	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C207	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C208	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C209	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C210	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C211	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C212	.001 50V		DD-102G	GP1000	GP210	QC2-81	5GA-D10

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.	
						Q-LINE	GENERAL LINE
C213	.001 50V		DD-102G	GP1000	GP210	QC2-81	5GA-D10
CT1	20 50V	EA30X52					
CT2	20 50V	EA30X52					
POWER SUPPLY BOARD							
C3	.022 50V		DC-253	MGP025	TA125		TG-S25
C4	.01 50V		DC-103	MGP01	TA110	QC2-141	TG-S10
C5	.047 50V		UK50-503		MAG5015		

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.
(1) Used in some versions.
(2) Value may vary, replace with original value.

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.
MAIN BOARD							
RV1	Squelch Range	10K	EA49X330				
RV2	AMC	2000	EA49X331				
RV3	S Meter	20K	EA49X332				
RV4	RF Meter	2000	EA49X331				
VR1	Volume/Power Switch	50K	EA49X417	F2-50K (1), SSK012,KR7	NP-50K-Z (1), UP-C-400,NWE-23	RU54A,SL36,SL1500, US43	BU1 (1),CF63, SS1,WF
VR2	Squelch	10K	EA49X393				
VR3	RF Gain	100K	EA49X395				
POWER SUPPLY BOARD							
RV1	Voltage	5000	EA49X362				

(1) Enlarge mounting hole.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFGR. PART No.
RARY251	Resistor Network		EA62X167 (1)

ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFGR. PART No.
RARY252	Resistor Network		EA62X167 (1)

(1) Consists of seven 1800 Ohm resistor.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	RF Choke (18uH)	EA36X334			
L2	RF Choke (1uH)	EA36X335			
L3	XMT Pre Driver (27MHz)	EA36X248			
L4	RF Choke (2.2uH)	EA36X237			
L5	XMT Driver (27MHz)	EA36X238			
L6	RF Choke (68uH)	EA36X239			
L7	RF Choke (.55uH)	EA36X245			
L8	RF Choke (1uH)	EA36X240			
L9	Final (27MHz)	EA36X241			
L10	Pi Filter (27MHz)	EA36X242			
L11	RF Choke (.4uH)	EA36X336			
L12	RF Choke (68uH)	EA36X239			
L13	RF Choke (1.15uH)	EA36X263			
L14	RF Choke (1.15uH)	EA36X263			
T1	VCO (18MHz)	EA36X337			
T2	VCO Mixer (27MHz)	EA36X260			
T3	Rec Antenna (27MHz)	EA36X338			
T4	Rec RF (27MHz)	EA36X339			
T5	IF (10.695MHz)	EA36X340			
T6	IF (10.695MHz)	EA61X204			
T7	IF (455kHz)	EA61X188			
T8	IF (455kHz)	EA61X189			
T9	IF (455kHz)	EA61X190			

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.	
CH1	1.35A	.24	3.72mH	EA36X256 LJ119H004W (1)			(1) Number on unit.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
PT	120V AC @ 400mA AC	17.80V AC @ 1.425A DC	EA88X161 TPH66U002T (1)			(1) Number on unit.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE			REPLACEMENT DATA			NOTES
	PRI.	SEC.		MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T10	2.88	1 8	2 13.52	EA64X30 ETA-66 (1)	TR723	MCB-16	(1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3" PM 8 Ohms	EA95X115	30A05Z8R	

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	EA68X64	EA68X119	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	EA68X123B	18-032	18-034	18-010	18-092	1	2	4	3	NC	2

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF1	Ceramic Filter	EA36X332	455kHz
J1	Jack	EA41X155	Antenna
J2	Jack	EA41X176	Microphone
J3	Jack	EA41X135	External Speaker
J4	Jack	EA41X136	Power, DC
J5	Jack	EA38X27	Power, AC
LED301	LED		Channel Display (TR3207D)
M1	Meter	EA62X166	S/RF
PL1	Lamp	EA41X178	Meter (55mA @ 5.45V)
PL2	Lamp	EA41X145	MOD (30mA @ 3.90V)
S1	Switch		Power (Part of Volume Control)
S2	Switch	EA39X225	ANL
SW1	Switch	EA55X141	Channel Selector
X1	Crystal	EA75X6	10.24MHz
XF1	Crystal Filter	EA36X333	10.695MHz
	AC Power Cord	EA66X45	
	DC Power Cord	EA68X119	
	Flex Cable	EA65X9	15 Conductor
	Printed Circuit Board	EA93X319	Main (PTBM070C0X)
	Printed Circuit Board	EA93X320	Channel Selector Switch (PTSW033C0X)
	Printed Circuit Board	EA93X322	Channel Indicator (PTLD022C0X)

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

ITEM	PART No.
Escutcheon	EA98X546
Knob, Channel Selector	EA43X728
Knob, Control	EA43X727
Cabinet Top	EA98X548

ITEM	PART No.
Cabinet Bottom	EA98X547
Mobile Mounting Kit	EA68X55
Microphone Hanger	EA68X65

WIRING DATA

General-use Hook-up Wire (available in 5 colors) BELDEN No. 8523
Shielded Hook-up Wire (spiral wrapped) . . . . . BELDEN No. 8421
(braided) . . . . . BELDEN No. 8401
Speaker Cable (available in 4 colors) . . . . . BELDEN No. 8782
Bonding Strap . . . . . BELDEN No. 8672
AC Power Cord . . . . . (6') BELDEN No. 17106
(9') BELDEN No. 17109

Coiled Microphone Cable
3-conductor (1 shielded) 23AWG BELDEN No. 9471 (5')
BELDEN No. 8497 (6')
BELDEN No. 9472 (7-1/2')
28AWG BELDEN No. 9466 (6')
31AWG BELDEN No. 9468 (10')
4-conductor (unshielded) 23AWG BELDEN No. 8415 (6')
5-conductor (1 shielded) 28AWG BELDEN No. 9467 (6')
BELDEN No. 9465 (7-1/2')