



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 CB113

PAGE MODEL CB113

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

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ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:	GC Electronics:
L1, L2 thru L11, T1 thru T6.....	9440

SYNTHESIZER

INDICATOR	CHANNEL	ADJUST	FREQUENCY	REMARKS
Input of frequency counter & RF VTVM to L3 secondary, common to ground.	13	L3	37.750MHz	Adjust L3 for 37.750MHz with maximum output.
Input of frequency counter to L3 secondary, common to ground.	17 21 1 5 9		37.800MHz 37.850MHz 37.600MHz 37.650MHz 37.700MHz	Check for proper frequency.
Input of frequency counter to TP2, common to ground.	1 2 3 4		10.180MHz 10.170MHz 10.160MHz 10.140MHz	Check for proper frequency.
Input of frequency counter & RF VTVM to TP4, common to ground.	1		10.635MHz	Key transmitter. Adjust for proper frequency with maximum output.
Input of frequency counter to TP4, common to ground.	2 3 4		10.625MHz 10.615MHz 10.595MHz	Check for proper frequency.

RECEIVER

Connect an AC VTVM or AF Wattmeter across speaker voice coil. Adjustments made with 14-volt DC input or 120-volt AC input to power supply, Adjust volume control to obtain suitable reading.
--

SIGNAL GENERATOR	GEN FREQ	CHANNEL	ADJUST	REMARKS
High side thru .01uF to TP2, low side to ground.	455kHz, 1000Hz @ 30% modulation.	13	T5,T4,T3	Set generator output low enough to prevent AGC limiting. Adjust for maximum.
High side thru .01uF to antenna jack, low side to ground.	27.115MHz, 1000Hz @ 30% modulation.	13	T2,T1, L2,L1	Set generator output low enough to prevent AGC limiting. Adjust for maximum.

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF Wattmeter across speaker voice coil.
These adjustments made with 14-volt DC input or 120-volt AC input to power supply.
Adjust volume control to obtain a suitable reading.

SIGNAL GENERATOR	GEN FREQ	CHANNEL	ADJUST	REMARKS
SQUELCH RANGE High side thru .01uF to antenna jack, low side to ground.	27.115MHz, 1000Hz @ 30% modulation, output 25,000uV.	13	VR4	Set squelch control fully clockwise. Adjust VR4 so that squelch just breaks.
S METER High side thru .01uF to antenna jack, low side to ground.	27.115MHz 1000Hz @ 30% modulation, output 10,000uV.	13	VR3	Adjust for 9 on S scale of meter.

TRANSMITTER

Connect an RF Wattmeter or 50-ohm, 25-watt dummy load to antenna connector.
Adjustments made with 14-volt DC input or 120-volt AC input to power supply.

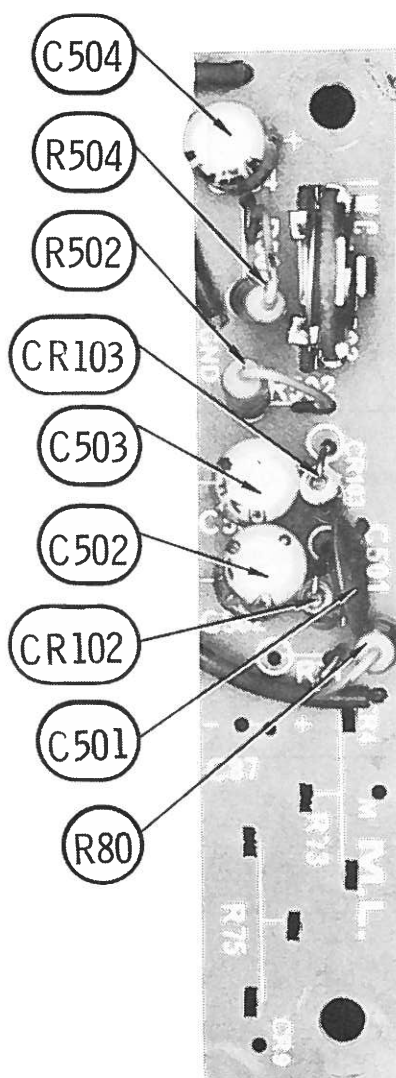
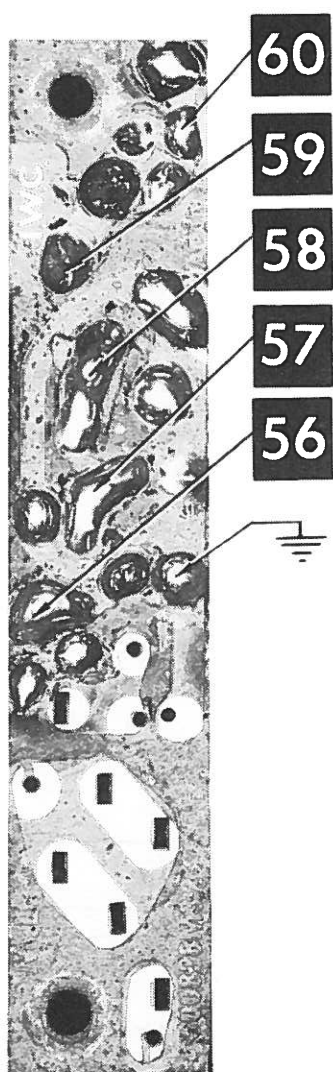
INDICATOR	ADJUST	REMARKS
MIXER, BUFFER, XMIT AMP, DRIVER, FINAL Input of RF Wattmeter to antenna jack, common to ground.	L4,L5,L6, L7,L8,19, L10,L11	Channel selector to CH. 13. Key transmitter. Adjust for maximum.
OUTPUT POWER Input of RF Wattmeter to antenna jack, common to ground.	L10,L11, L9	Key transmitter. Adjust for 4 watts output.

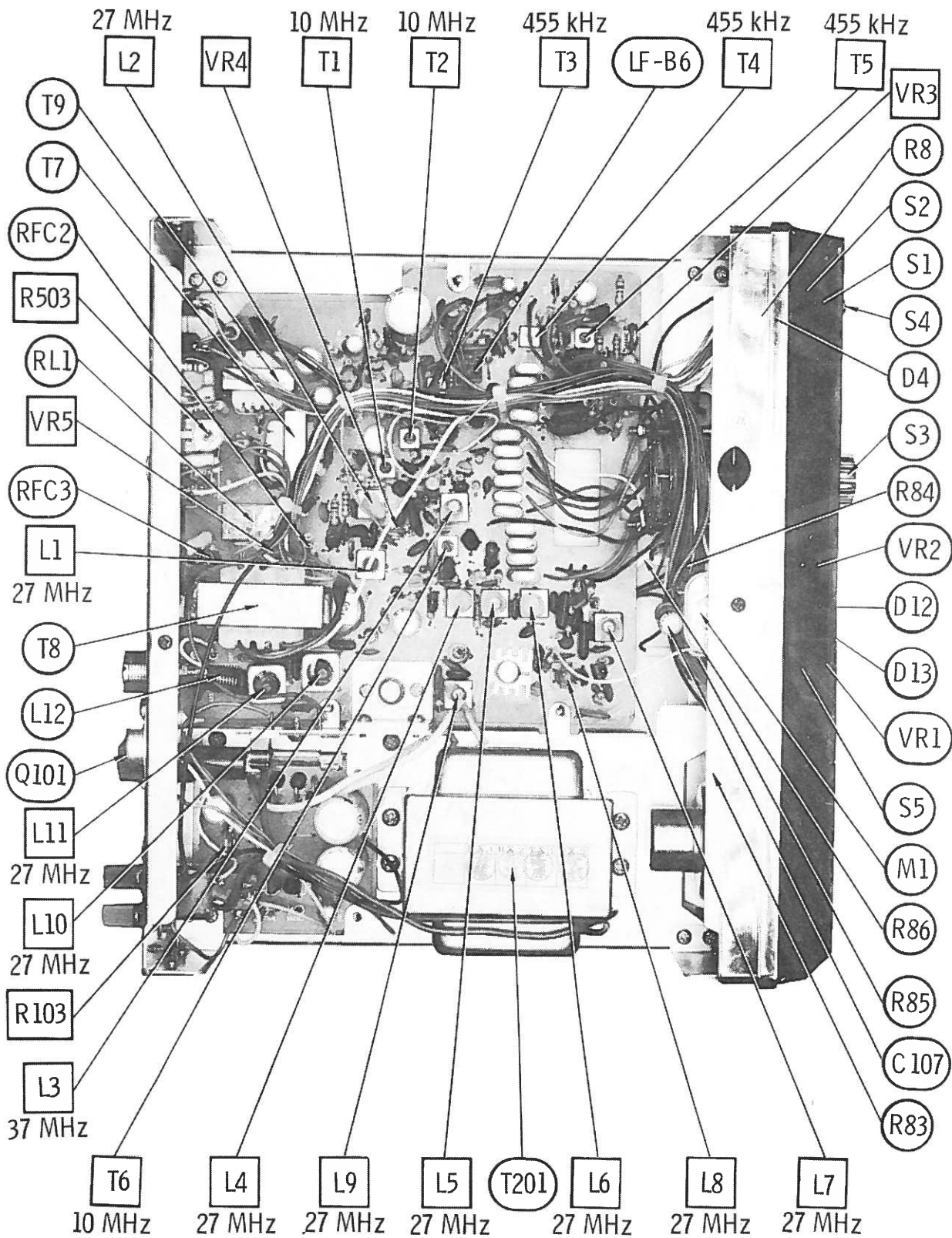
TRANSMITTER ADJUSTMENTS

Connect an RF Wattmeter or 50-ohm, 25-watt dummy load to antenna connector.
Adjustments made with 14-volt DC input or 120-volt AC input to power supply.

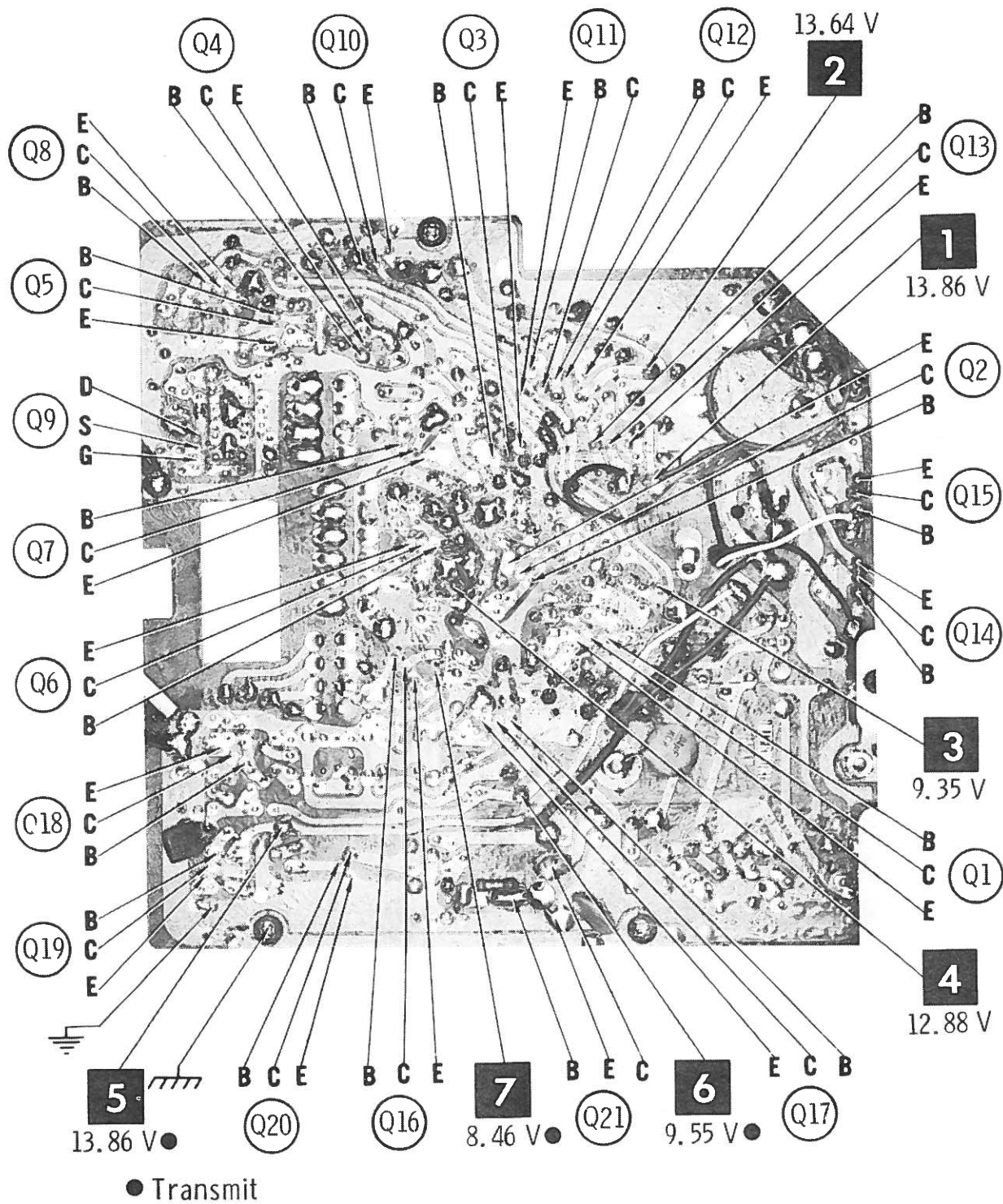
INDICATOR	ADJUST	REMARKS
VOLTAGE REGULATOR Input of DC Voltmeter connected to Emitter of Q101, common to ground.	R103	Adjust R103 for 14 VDC. Key transmitter. Voltage should not vary.
AMC Input of Modulation Meter to antenna jack, common to ground.	R503	Disable AMC. Inject a 1000Hz audio signal at mic input. Key transmitter. Adjust signal for overmodulation. Restore AMC. Adjust R503.
RF PANEL METER Input of RF Wattmeter to antenna jack, common to ground.	VR5	Key transmitter. Adjust VR5 so that panel RF meter agrees with RF Wattmeter.

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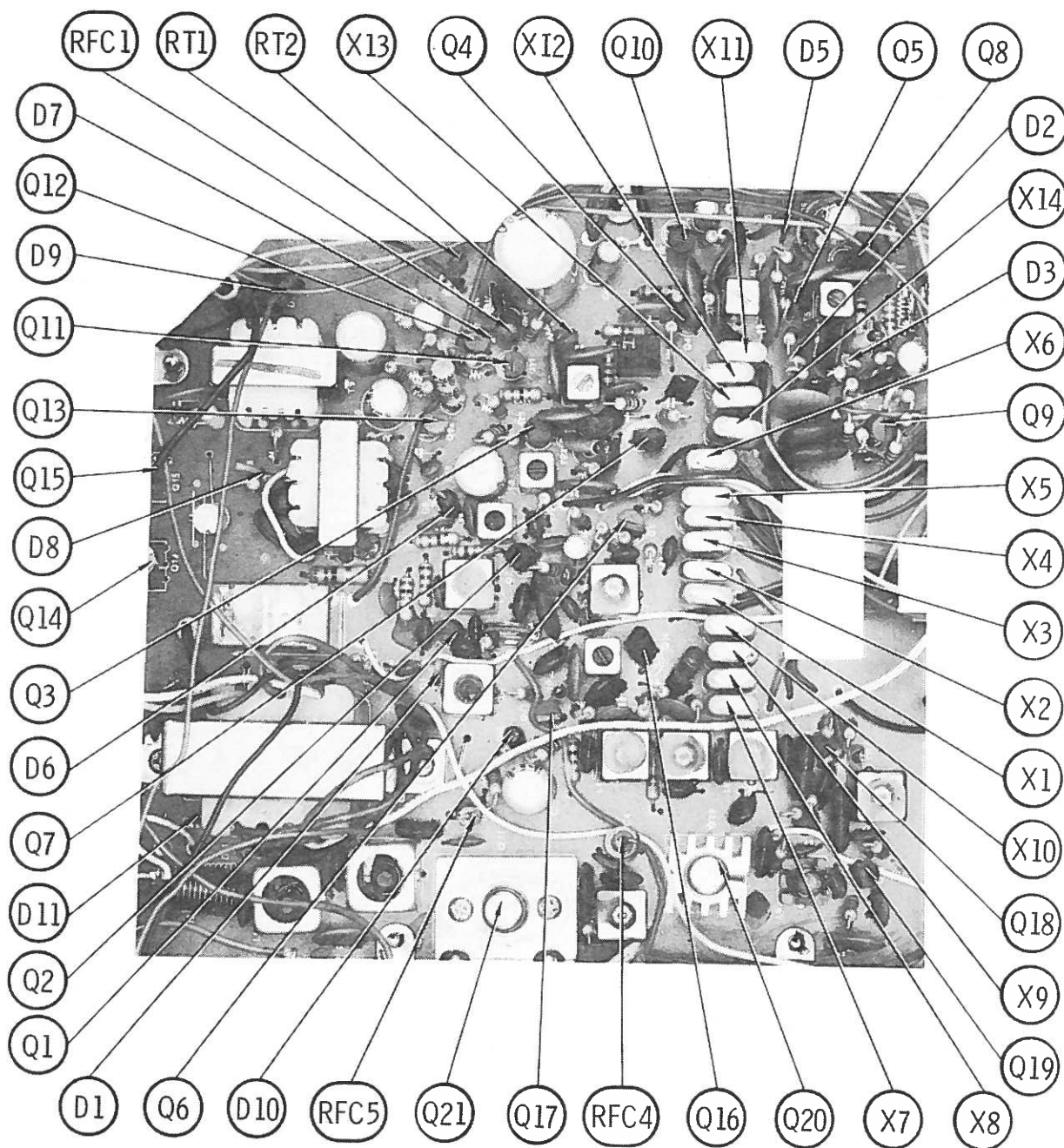




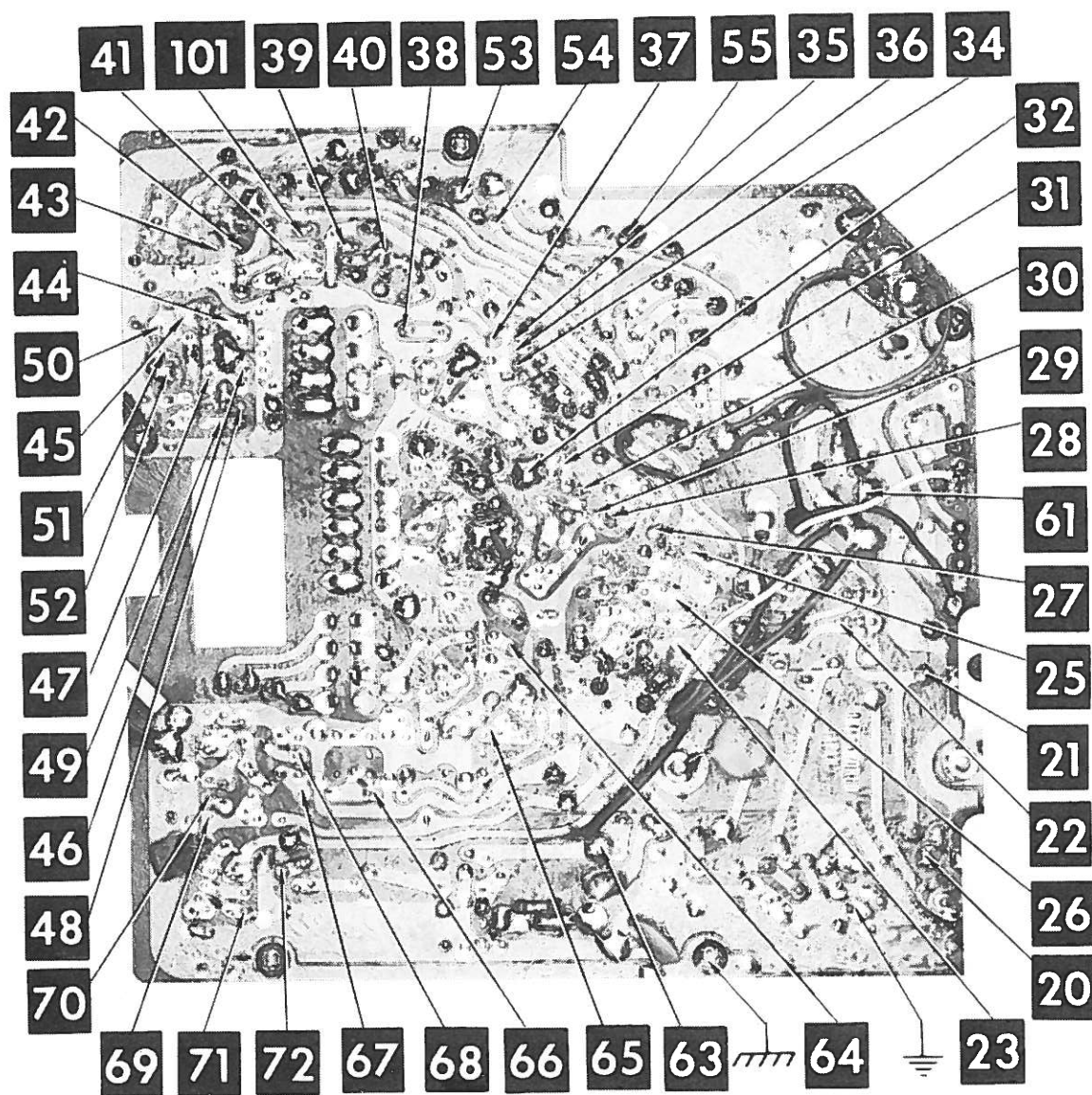
CHASSIS-TOP



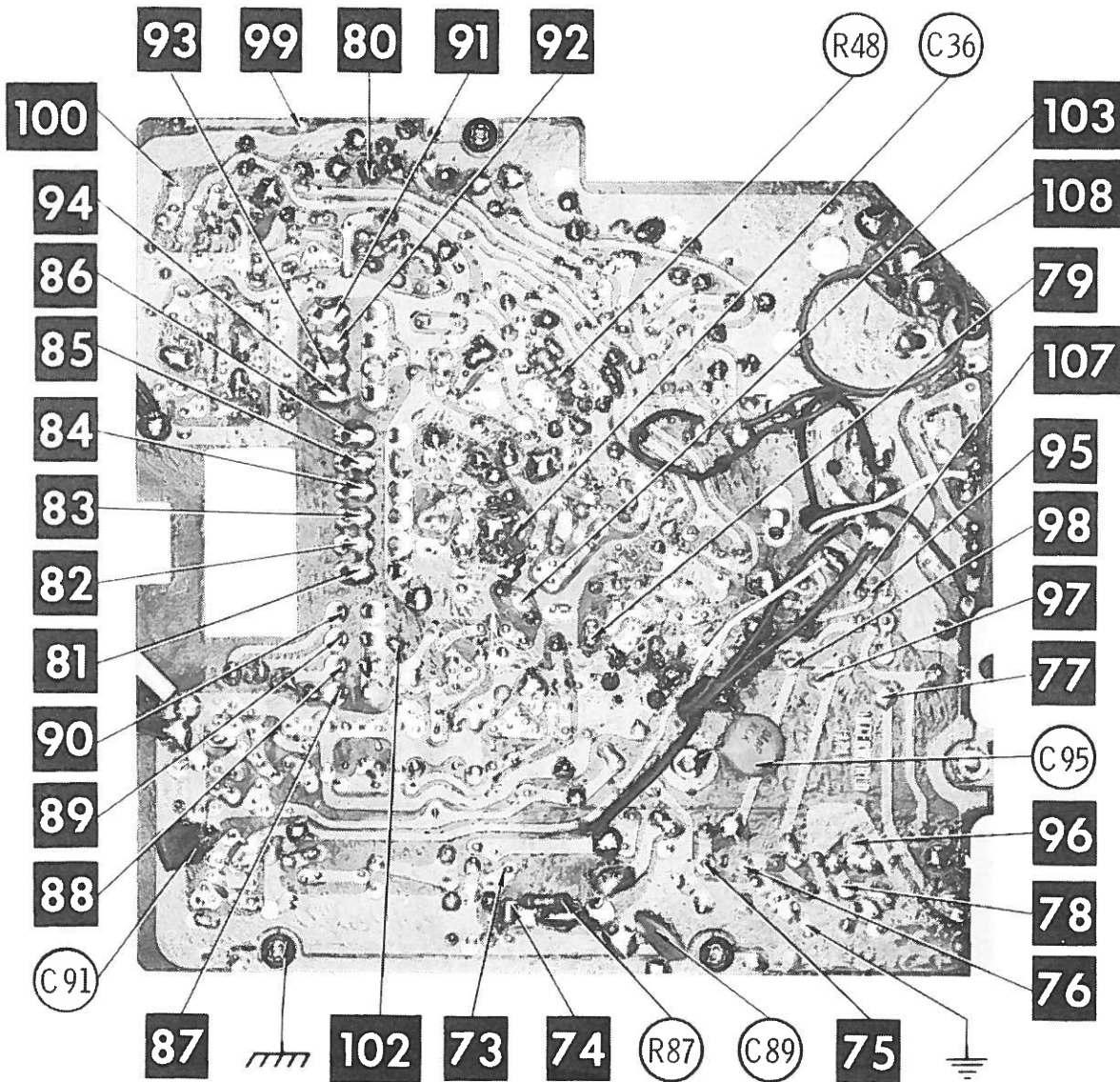
MAIN BOARD



MAIN BOARD

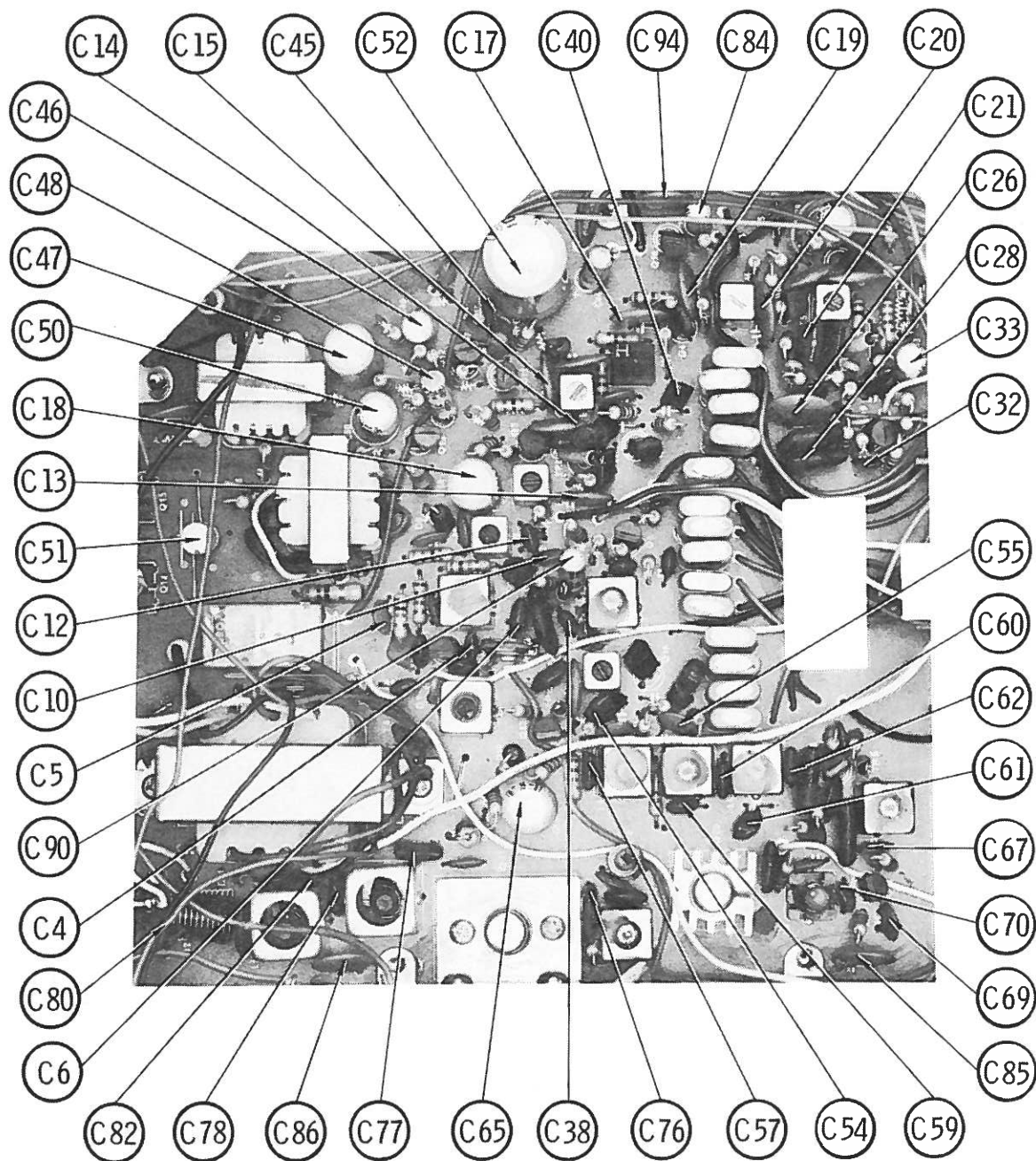


MAIN BOARD

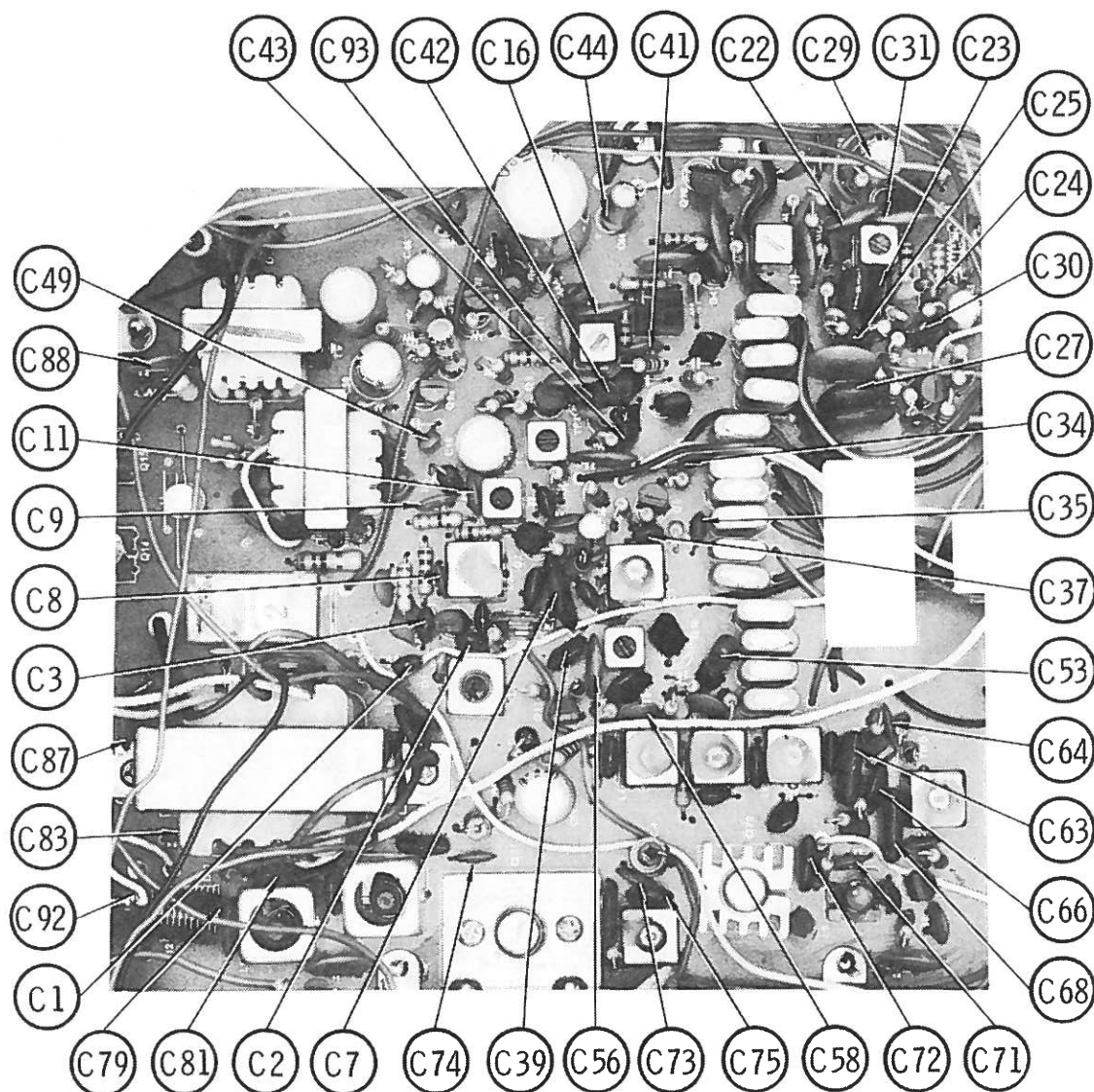


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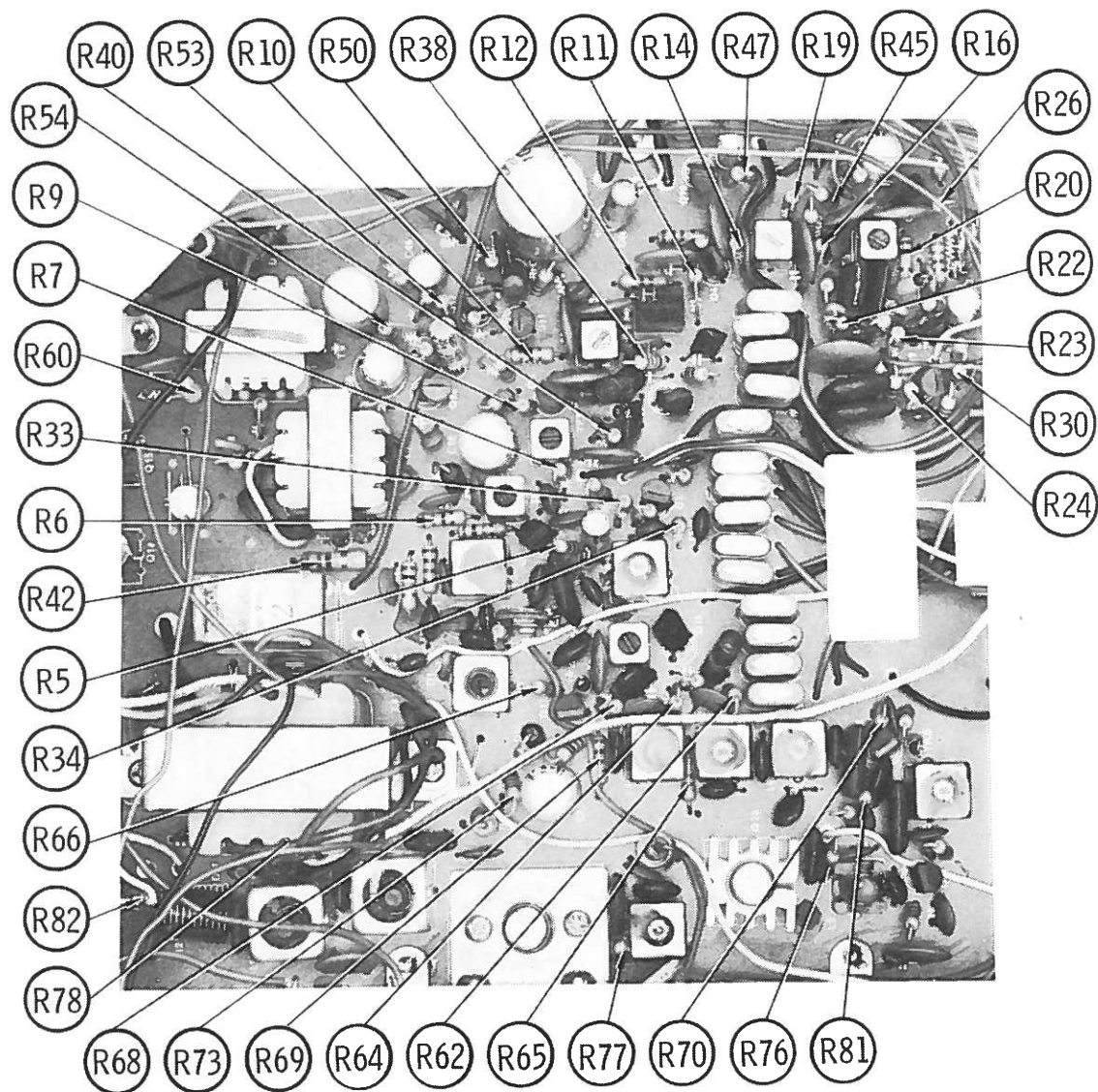
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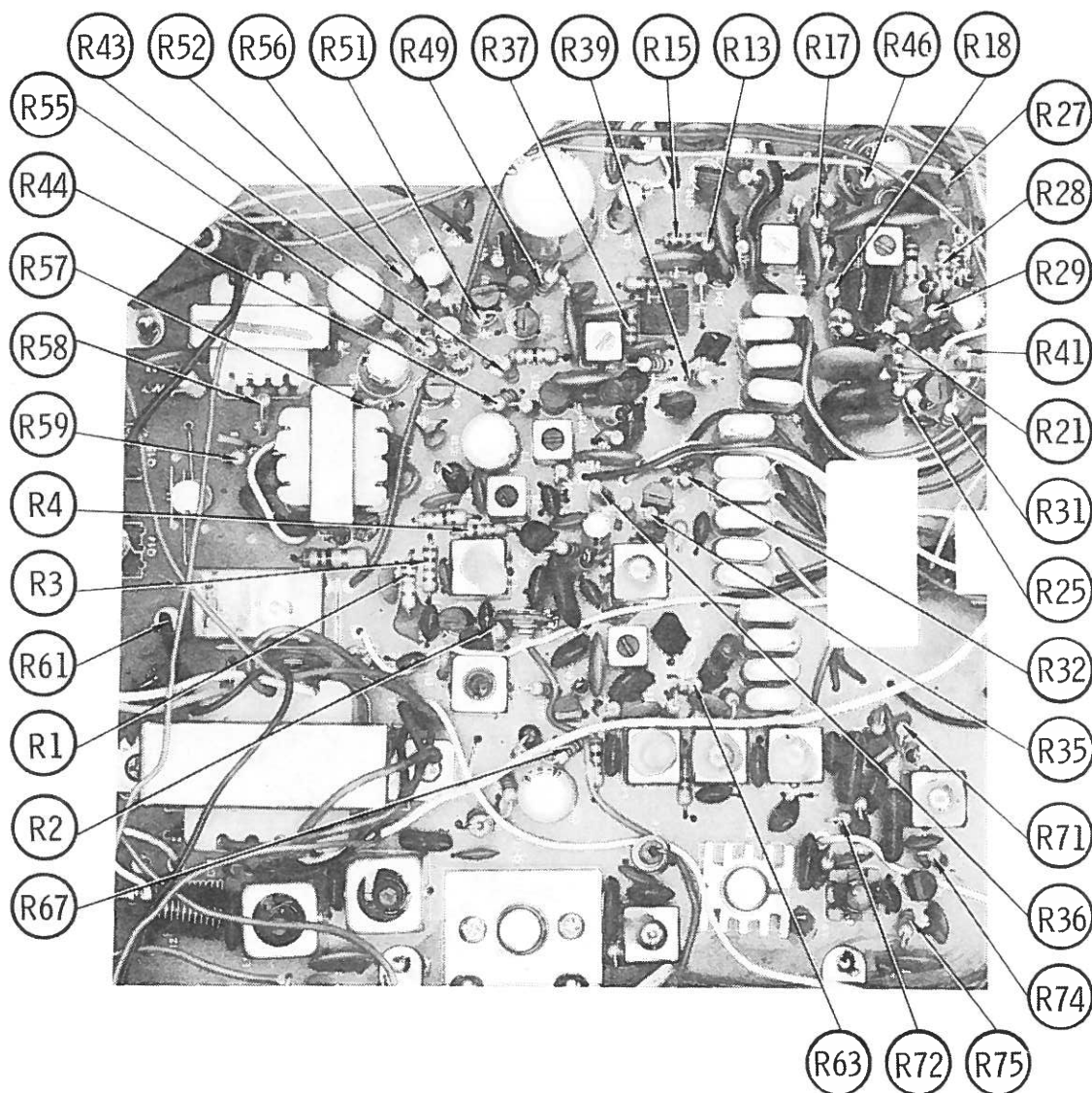
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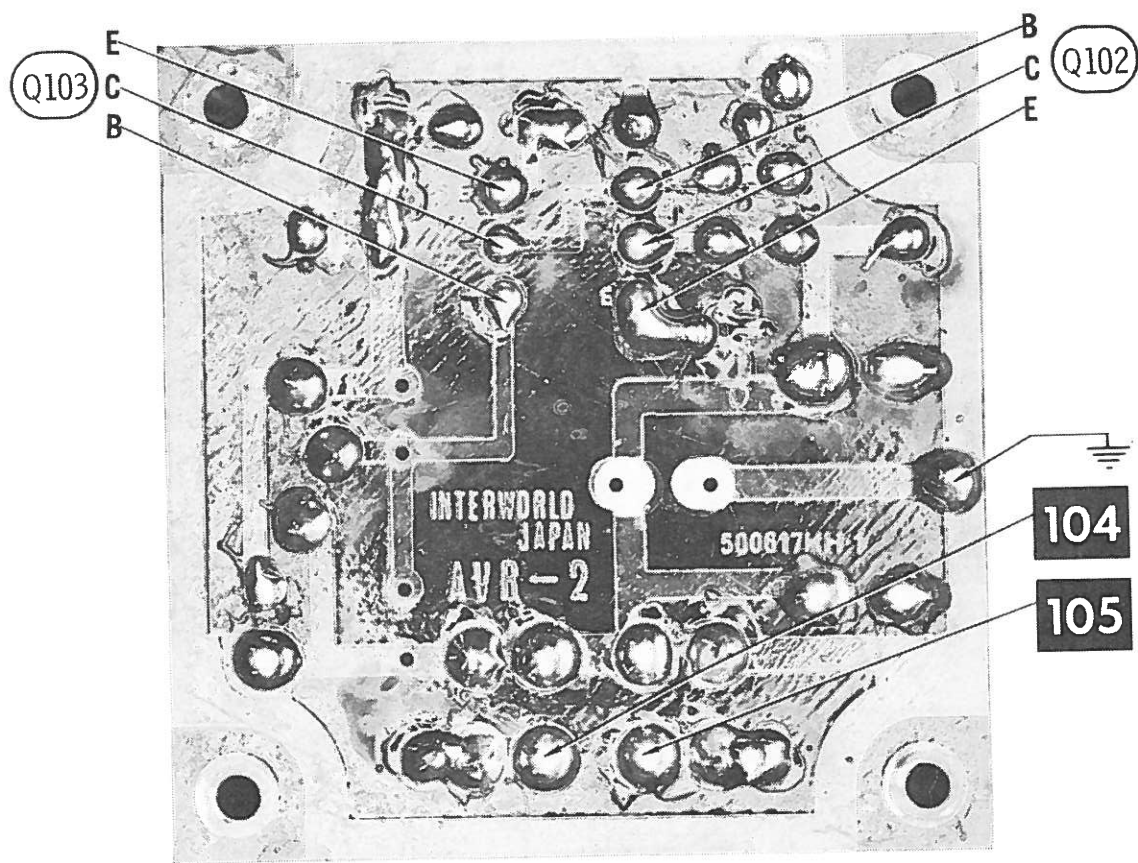
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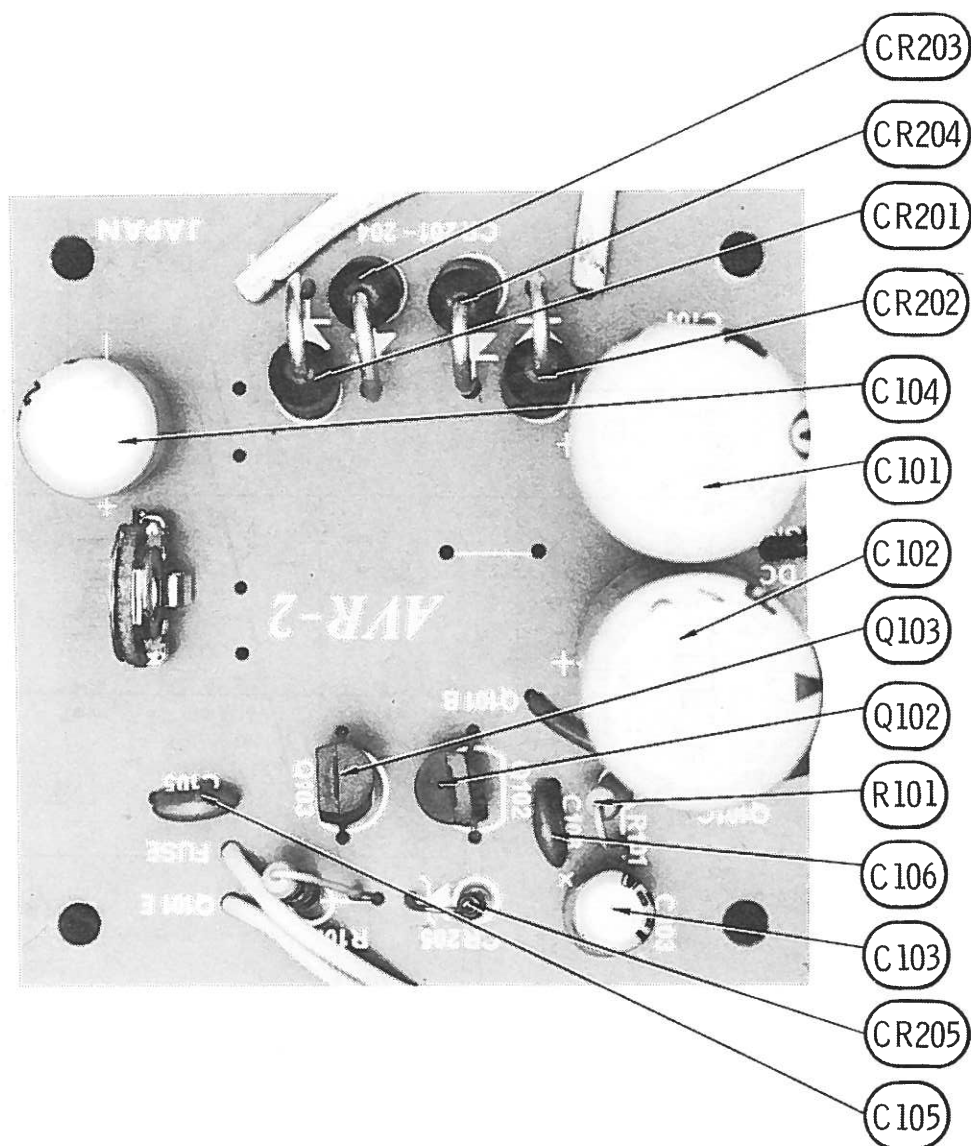
MAIN BOARD



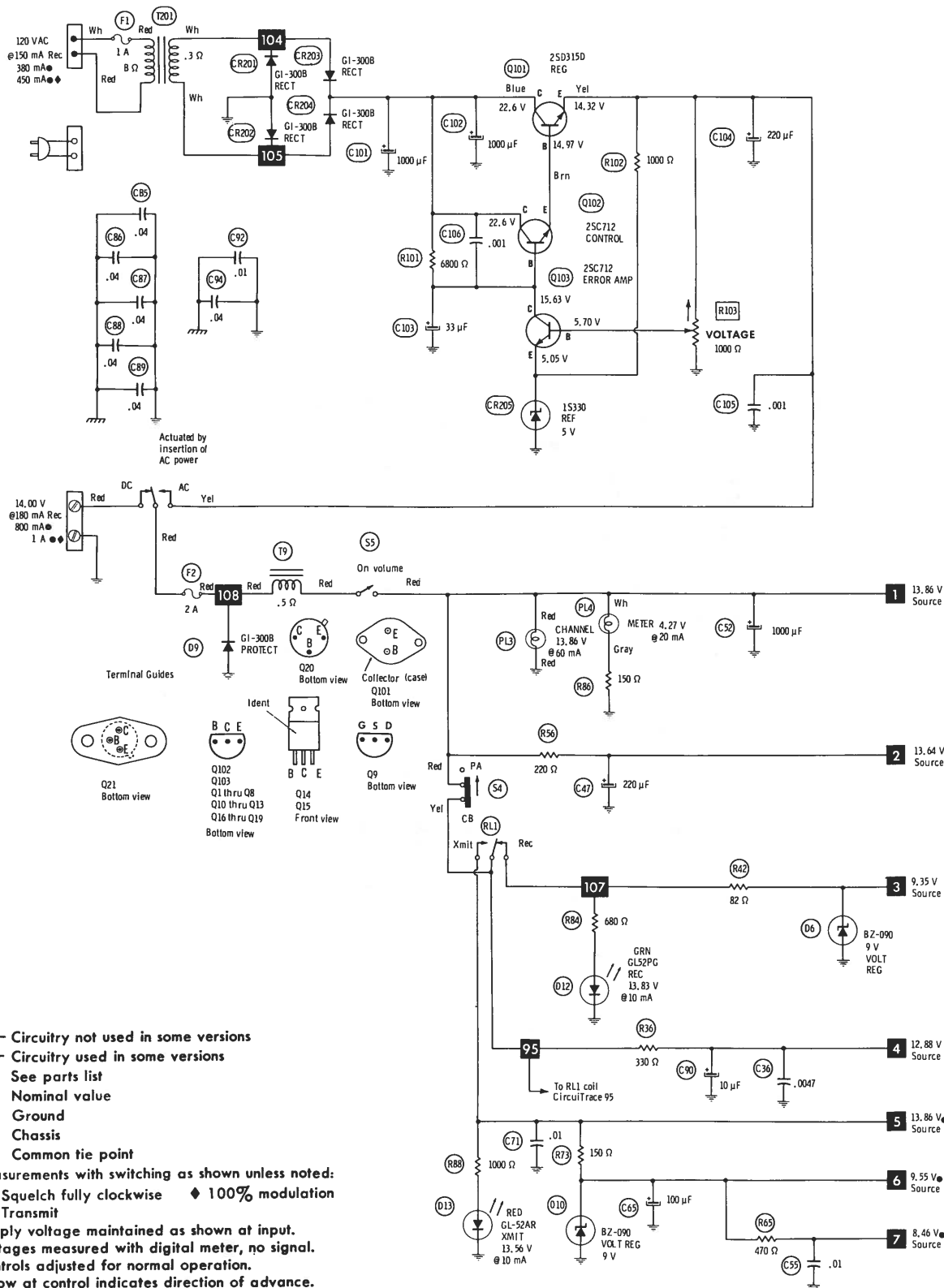
MAIN BOARD



POWER SUPPLY BOARD



POWER SUPPLY BOARD



— Circuitry not used in some versions

--- Circuitry used in some versions

⊙ See parts list

✱ Nominal value

⊕ Ground

Chassis

▽ Common tie point

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 **CIRCUITRACE**

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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.	
L9	Xmit Driver (27MHz)	IP21-0022	TKXN34385HM		
L10	RF Choke	IP21-0028	HL, 113		
L11	Pi Network (27MHz)	IP21-0028	HL, 113		
L12	Pi Network (27MHz)	IP21-0029	RF, HL-112		
RFC1	RF Choke (100uH)	IP21-0285			
RFC2	RF Choke	IP21-0027	RF, HL-109		
RFC3	RF Choke	IP21-0027	RF, HL-109		
RFC4	RF Choke	IP21-0023	RF, HL-111		
RFC5	RF Choke	IP21-0016	RF, HL-110		
T1	Rec Mixer (10MHz)	IP21-0038	85AC2531		
T2	Rec Mixer (10MHz)	IP21-0038	85AC2531		
T3	IF (455kHz)	IP21-0032	LMC3054 (70B)		
T4	IF (455kHz)	IP21-0033	(4201) (5N17)		
T5	IF (455kHz)	IP21-0034	LMC4202A(700)		
T6	Xmit Osc (10MHz)	IP21-0038	85AC2531		

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.	
T9	1.6A	.5	3.2mH	IP21-0037			

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T8	50	8	IP21-0046	TR764		

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T201	120V AC @ 450mA AC	18V AC @ 2.7A AC	IP21-0284			

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3" PM 8 Ohms	IP29-0019	30A05Z8	

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	1A AC Quick Acting	IP36-0004	IP34-0008	AGC1	HKP	312001	342012	FG1-2
F2	2A DC Quick Acting	IP36-0002	IP34-0011	AGC2	4406	312002	357001	FG2-2

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PARTS LIST AND DESCRIPTION (CONTINUED)

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

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	IP29-0010	18-032	18-034	18-010	18-092	1	2	4	NC	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
X1	37.600	IP31-0001	DA20M37.600	1,2,3,4	X8	10.625	IP31-0008	DB40M10.625	2,6,10,14,18,22
X2	37.650	IP31-0002	DA20M37.650	5,6,7,8	X9	10.615	IP31-0009	DB40M10.615	3,7,11,15,19
X3	37.700	IP31-0003	DA20M37.700	9,10,11,12	X10	10.595	IP31-0010	DB40M10.595	4,8,12,16,20,23
X4	37.750	IP31-0004	DA20M37.750	13,14,15,16	X11	10.180	IP31-0011	DC40M10.180	1,5,9,13,17,21
X5	37.800	IP31-0005	DA20M37.800	17,18,19,20	X12	10.170	IP31-0012	DC40M10.170	2,6,10,14,18,22
X6	37.850	IP31-0006	DA20M37.850	24,22,23	X13	10.160	IP31-0013	DC40M10.160	3,7,11,15,19
X7	10.635	IP31-0007	DB40M10.635	1,5,9,13,17,21	X14	10.140	IP31-0014	DC40M10.140	4,8,12,16,20,23

MISCELLANEOUS

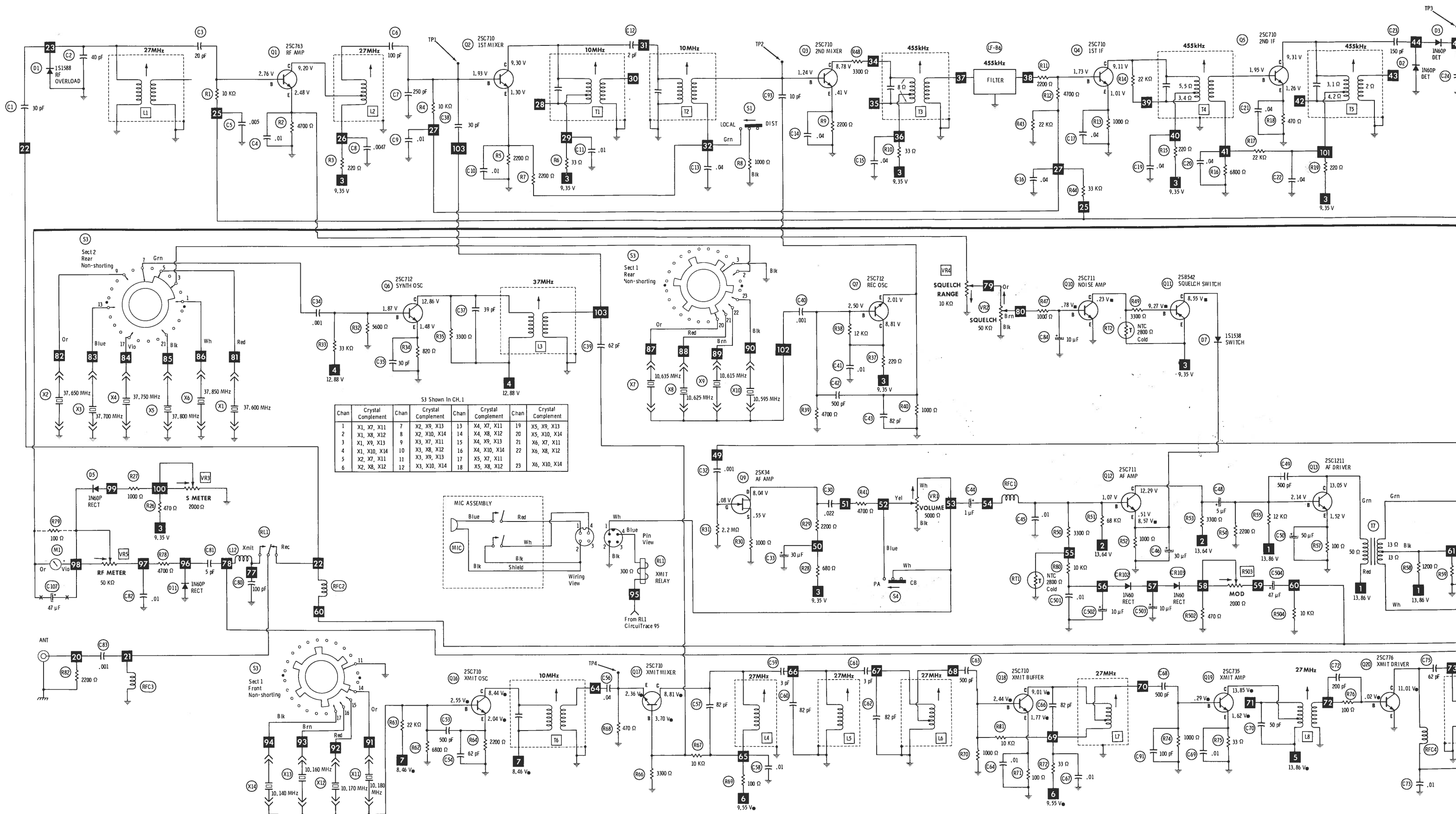
ITEM No.	PART NAME	PART No.	NOTES
LFB6	Filter	IP31-0091	455kHz Ceramic CFU
M1	Meter	IP27-0013	S/RF
RLY1	Relay	IP32-0004	Xmit/Rec
S1	Switch	IP25-0040	Local/Distance
S2	Switch	IP25-0040	ANL
S3	Switch	IP25-0046	Channel Selector
S4	Switch	IP25-0040	PA/CB
S5	Switch	TP24-0050	On/Volume (Part of VR1)
	Socket	IP34-0001	Crystal
	Line Cord	IP35-0003	AC/Plug

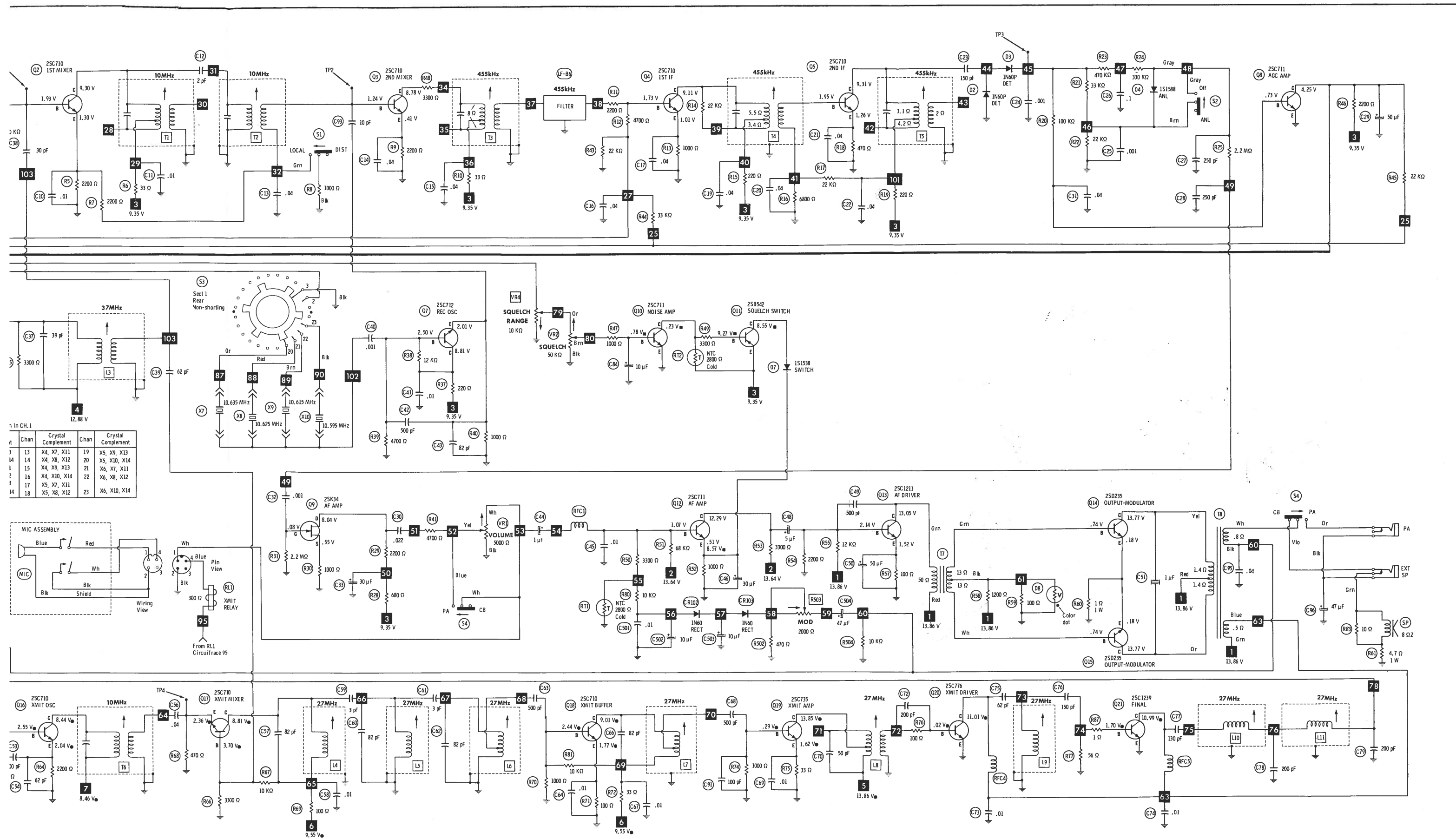
CABINETS & CABINET PARTS (When ordering specify model, chassis & color)

ITEM	PART No.	ITEM	PART No.
Cover, Bottom	IP30-0196	Knob Channel Selector	IP30-0189
Cover, Top	IP30-0195	Knob Control	IP30-0190
Bracket, Mounting	IP30-0187		

WIRING DATA

General-use Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors
Power Cord, 2-Wire	8524 (Stranded) Available in 12 Colors
Shielded Antenna Lead	Use BELDEN No. 17106 (Plastic) or 17126 (Rubber) -6 feet
	17109 (Plastic) or 17129 (Rubber) -9 feet
	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
	8491 4-Conductor (2 shielded, 2 unshielded) Neoprene
Ignition Noise Suppression	Use BELDEN No. 7300-Series Spark-Plug Sets
Bonding Strap	Use BELDEN No. 8661 (3/8 inch)





PARTS LIST AND DESCRIPTION

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

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFG. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	IR WORKMAN PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
CR102	1N60P	IP20-0016	1N60	1N60	PTC206	HEPR9135	RE 47			
CR103	1N60P	IP20-0016	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
CR201	GI-300B	IP20-0167	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CR202	GI-300B	IP20-0167	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CR203	GI-300B	IP20-0167	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CR204	GI-300B	IP20-0167	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CR205	1S330	IP20-0086	GEZD-5.1	Z1203		HEPR0406	RE 105	SK3056	RT-235	ECG135
D1	1S1588	IP20-0061	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D2	1N60P	IP20-0016	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D3	1N60P	IP20-0016	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D4	1S1588	IP20-0061	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D5	1N60P	IP20-0016	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D6	BZ-090	IP20-0019	GEZD-9.1		ZB9.1B					
D7	1S1588	IP20-0061	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D8	MV-3	IP20-0055			PTC301					
D9	GI-300B	IP20-0167	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D10	BZ-090	IP20-0019	GEZD-9.1		ZB9.1B					
D11	1N60P	IP20-0016	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-240	ECG139
D12	GL52PG	IP28-0017							RT-263	ECG109
D13	GL52AR	IP28-0017								
Q1	2SC763D	IP20-0110	GE-61	(IR)2SC710	PTC115	HEPS0020	RE 10	SK3018	RT-108A	ECG108
	2SC784	IP20-0037(1)	GE-60	(IR)2SC380A	PTC132	HEPS0016	RE 28	SK3018	RT-108A	ECG229
Q2	2SC710C	IP20-0029	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
	2SC394	IP20-0038(1)	GE-61	(IR)2SC537B	PTC121	HEPS0014	RE 9	SK3124	RT-107A	ECG229
Q3	2SC710C	IP20-0029	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
	2SC371	IP20-0040(1)	GE-61	(IR)2SC537B	PTC101	HEPS0011	RE 13	SK3124	RT-172	ECG123A
Q4	2SC710C	IP20-0029	GE-11	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
	2SC371	IP20-0040(1)	GE-61	(IR)2SC537B	PTC101	HEPS0011	RE 13	SK3124	RT-172	ECG123A
Q5	2SC710C	IP20-0029	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
	2SC371	IP20-0040(1)	GE-61	(IR)2SC537B	PTC101	HEPS0011	RE 13	SK3124	RT-172	ECG123A
Q6	2SC712C	IP20-0032	GE-47	(IR)2SC644	PTC121	HEPS0011	RE 13	SK3124	RT-172	ECG123A
	2SC371	IP20-0040(1)	GE-61	(IR)2SC537B	PTC101	HEPS0011	RE 13	SK3124	RT-172	ECG123A
Q7	2SC712C	IP20-0032	GE-47	(IR)2SC644	PTC121	HEPS0011	RE 13	SK3124	RT-172	ECG123A
	2SC371	IP20-0040(1)	GE-61	(IR)2SC537B	PTC101	HEPS0011	RE 13	SK3124	RT-172	ECG123A
Q8	2SC711G	IP20-0034	GE-62	(IR)2SC373	PTC121	HEPS0024	RE 192	SK3018	RT-105	ECG199
	2SC372	IP20-0039(1)	GE-210	(IR)2SC372	PTC121	HEPS0015	RE 13	SK3122	RT-105	ECG123A
Q9	2SK34	IP20-0011	GE-FET-2	FE-100	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312
	2SK19	IP20-0012(1)	GE-FET-2	FE-100	PTC161	HEPF0021	RE 45	SK3116	RT-175	ECG312
Q10	2SC711G	IP20-0034	GE-212	(IR)2SC373	PTC121	HEPS0024	RE 192	SK3018	RT-105	ECG199
	2SC372	IP20-0039(1)	GE-212	(IR)2SC372	PTC121	HEPS0015	RE 13	SK3122	RT-105	ECG123A
Q11	2SB542D	IP20-0213	GE-221	TR-54	PTC103	HEPS0012	RE 26	SK3114	RT-126A	ECG290
	2SA562	IP20-0046(1)	GE-82	TR-54	PTC103	HEPS0012	RE 26	SK3114	RT-126A	ECG290
Q12	2SC711G	IP20-0034	GE-62	(IR)2SC373	PTC121	HEPS0024	RE 192	SK3018	RT-105	ECG199
	2SC372	IP20-0039(1)	GE-61	(IR)2SC372	PTC121	HEPS0015	RE 13	SK3122	RT-105	ECG123A
Q13	2SC1211E	IP20-0214	GE-81	TR-21	PTC125	HEPS0015	RE 13	SK3020	RT-172	ECG123A
	2SC735	IP20-0041(1)	GE-210	TR-33	PTC136	HEPS0014	RE 13	SK3122	RT-172	ECG289
Q14	2SD235R	IP20-0036(10)	GE-66	TR-76	PTC167	HEPS5027	RE 21	SK3054	RT-197	ECG152
	2SD360	IP20-0083(1)	GE-66	TR-76	PTC110	HEPS5027		SK3041	RT-197	
Q15	2SD235R	IP20-0036	GE-66	TR-76	PTC167	HEPS5027	RE 21	SK3054	RT-197	ECG152
	2SD360	IP20-0083(1)	GE-66	TR-76	PTC110	HEPS5027		SK3041	RT-197	
Q16	2SC710C	IP20-0029	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
	2SC371	IP20-0040(1)	GE-61	(IR)2SC537B	PTC101	HEPS0011	RE 13	SK3124	RT-172	ECG123A
Q17	2SC710C	IP20-0029	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
	2SC394	IP20-0038(1)	GE-61	(IR)2SC537B	PTC121	HEPS0014	RE 9	SK3124	RT-107A	ECG229
Q18	2SC710C	IP20-0029	GE-211	(IR)2SC710	PTC115	HEPS0016	RE 13	SK3018	RT-105	ECG123A
	2SC394	IP20-0038(1)	GE-61	(IR)2SC537B	PTC121	HEPS0014	RE 9	SK3124	RT-107A	ECG229
Q19	2SC620E	IP20-0122	GE-88	(IR)2SC644	PTC136	HEPS0014	RE 13	SK3122	RT-172	ECG289
	2SC735	IP20-0041(1)	GE-210	TR-33	PTC136	HEPS0014	RE 13	SK3122	RT-172	ECG289
Q20	2SC776	IP20-0048(12)	GE-219	TR-65	PTC158	HEPS3001	RE 79	SK3048	RT-182	ECG195A
Q21	2SC1239	IP20-0005(13)	GE-46		PTC176		RE 198			ECG237
Q101	2SD315D	IP20-0212(14)	GE-233	TR-81	PTC148	HEPS5019	RE 34	SK3026	RT-145	ECG175
Q102	2SC712C	IP20-0032	GE-47	(IR)2SC644	PTC121	HEPS0011	RE 13	SK3124	RT-172	ECG123A
	2SC372	IP20-0039(1)	GE-61	(IR)2SC372	PTC121	HEPS0015	RE 13	SK3122	RT-105	ECG123A
Q103	2SC712C	IP20-0032	GE-47	(IR)2SC644	PTC121	HEPS0011	RE 13	SK3124	RT-172	ECG123A
	2SC372	IP20-0039(1)	GE-61	(IR)2SC372	PTC121	HEPS0015	RE 13	SK3122	RT-105	ECG123A

(1) Used in some versions.

(10) Rating, 25 watts @ 3.0 Amp.

(11) Rating, 10 watts @ 800mA.

(12) Rating, 1.0 watts @ 1.0 Amp.

(13) Rating, 12 Watts @ 4.0 Amp.

(14) Rating, 35 Watts @ 4.0 Amp.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA			
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C18	100 16V	IP22-0008	WBR50-450	TC79B	TVA-1713
C29	50 16V	IP22-0007	PC50-16	MTV50CB15	TVA-1150
C33	33 16V	IP22-0005	PC30-25	VTT33D25	EV-1325
C44	1 16V	IP22-0001	PC1-50	TT15X1	EV-1315
C46	33 16V	IP22-0005	PC30-25	VTT33D25	EV-1325
C47	220 16V	IP22-0009	PC250-25	VTT220G16	EV-1240
C48	4.7 16V	IP22-0003	PC5-50	VTT4R7A50	EV-1319
C50	50 16V	IP22-0007	PC50-16	MTV50CB15	TVA-1150
C51	1 33V NP	IP22-0031	WNP1-50	TCN501A	TVAN-1560
C52	1000 16V	IP22-0011	PC1000-16	VTT1000L16	EV-1260
C65	100 16V	IP22-0008	WBR50-450	TC79B	TVA-1713
C84	10 16V	IP22-0004	PC10-25	VTT10A25	EV-1222
C90	10 16V	IP22-0004	PC10-25	VTT10A25	EV-1222
C96	47 16V	IP22-0089	WBR50-25	MTA50E15	TVA-1150
C101	1000 35V	IP22-0088	WBR1000-50	TC50100C	TVA-1316
C102	1000 35V	IP22-0088	WBR1000-50	TC50100C	TVA-1316
C103	33 16V	IP22-0005	PC30-25	VTT33D25	EV-1325
C104	220 16V	IP22-0009	PC250-25	VTT220G16	EV-1240
C107	47 16V	IP22-0089	PC50-16	VTT47D16	EV-1226
C502	10 16V	IP22-0004	PC10-25	VTT10A25	EV-1222
C503	10 16V	IP22-0004	PC10-25	VTT10A25	EV-1222
C504	4.7 16V	IP22-0003	PC5-50	VTT4R7A50	EV-1319

CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA			
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	30			CD15ED300J03	SX430	MWA-300
C2	39			CD15ED390J03	SX439	MWA-390
C3	20			CD15ED200J03	SX420	MWA-200
C4	.01 10%			WMF1S1	EWFA1110	1PB-S10
C5	.005		DC-502	MGP005	TA250	TC-D50
C6	100 10%			CD15FD101J03	SX310	MWA-101
C7	250 10%			CD15FD241J03	SX324	MWA-241
C8	.0047			GP4700	GP247	5GA-D47
C9	.01		DD-472		MAG5011	
C10	.01		UK50-103		MAG5011	
C11	.01		UK50-103		MAG5011	
C12	2			CD020D03		
C13	.04					
C14	.04					
C15	.04					
C16	.04					
C17	.04					
C19	.04					
C20	.04					
C21	.039 10%				M192P3939R8	192P3939R8
C22	.04					
C23	150 10%			CD15FD151J03	SX315	MWA-151
C24	.001 10%			CD19FD102J03	SX210	MWC-102
C25	.001		CK-104	DPMS6D1	EWFA210	1PB-D10
C26	.1				MAG5001	
C27	250 10%			CD15FD241J03	SX324	MWA-241
C28	250 10%			CD15FD241J03	SX324	MWA-241
C30	.022 10%				M192P2229R8	192P2229R8
C31	.04					
C32	.001			DPMS6D1	EWFA210	1PB-D10
C34	.001			DPMS6D1	EWFA210	1PB-D10
C35	30			CD15ED300J03	SX430	MWA-300
C36	.0047		DD-472	GP4700	GP247	5GA-D47
C37	39			CD15ED390J03	SX439	MWA-390
C38	30			CD15ED300J03	SX430	MWA-300
C39	62 10%			CD15ED620J03	SX462	MWA-620
C40	.001		DD-102G	GP1000	GP210	5GA-D10
C41	.01		UK50-103		MAG5011	
C42	500			CD15FD501J03		
C43	82 10%			CD15ED820J03	SX482	MWA-820
C45	.01			WMF1S1	EWFA1110	1PB-S10
C49	500		DD-501	GP500	GP350	10TS-T50
C53	500			CD15FD501J03		
C54	62 10%			CD15ED620J03	SX462	MWA-620
C55	.01		UK50-103		MAG5011	
C56	.04					

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.
C57	82 10%		UK50-103	CD15ED820J03	SX482	MWA-820
C58	.01				MAG5011	
C59	3			CD030D03		
C60	82			CD15ED820J03	SX482	MWA-820
C61	3			CD030D03		
C62	82		UK50-103	CD15ED820J03	SX482	MWA-820
C63	500 10%			CD15FD501J03		
C64	.01				MAG5011	
C66	82 10%			CD15ED820J03	SX482	MWA-820
C67	.01				MAG5011	
C68	500 10%		UK50-103	CD15FD501J03		
C69	.01		UK50-103		MAG5011	
C70	50		UK50-103	CD15ED500J03		
C71	.01				MAG5011	
C72	200 10%			CD15FD201J03	SX320	MWA-201
C73	.01				MAG5011	
C74	.01				MAG5011	
C75	62 10%		UK50-103	CD15ED620J03	SX462	MWA-620
C76	150 10%			CD15FD151J03	SX315	MWA-151
C77	130 5%			CD15FD131J03	SX313	MWA-131
C78	200			CD15FD201J03	SX320	MWA-201
C79	200 10%			CD15FD201J03	SX320	MWA-201
C80	100			CD15FD101J03	SX310	MWA-101
C81	5			CD15CD050D03		MWA-050
C82	.01				MAG5011	
C83	.001			DPMS6D1	EWFI A210	1PB-D10
C85	.04					
C86	.04					
C87	.04					
C88	.04					
C89	.04					
C91	100 10%			CD15FD101J03	SX310	MWA-101
C92	.04					
C93	10			CD15CD100J03		MWA-100
C94	.04					
C95	.04					
C105	.001 10%		DD-102		GP210	10TS-D10
C106	.001 10%		DD-102		GP210	10TS-D10
C501	.01		UK50-103		MAG5011	

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

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA				
			MFR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
R103	B+ Voltage	1000	IP24-0033	T-1000	C-102	MTC13L1	X201R102B
R503	Modulator	2000	IP24-0011	T2500	C-252	MTC23L1	X201R252B
VR1	Volume/Switch	5000	IP24-0050				
VR2	Squelch	50K	IP24-0010				
VR3	S Meter	2000	IP24-0011	T-2500	C252	MTC23L1	X201R252B
VR4	Squelch Range	10K	IP24-0003	T-10K	C-103	MTC14L1	X201R103B
VR5	RF Meter	50K	IP24-0006	T-50K	C-503	MTC54L1	X201R503B

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFR. PART No.			WORKMAN PART No.	MFR. PART No.
RT1	2.8K	FR1008	IP20-0057	RT2	2.8K	FR1008	IP20-0057

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	Rec Ant (27MHz)	IP21-0019	TKXN34386HM		
L2	Rec RF (27MHz)	IP21-0020	TKXN34387Y		
L3	Synth Osc (37MHz)	IP21-0021	TKXN34834BM		
L4	Xmit Mixer (27MHz)	IP21-0019	TKXN34386HM		
L5	Harmonic Suppressor (27MHz)	IP21-0019	TKXN34386HM		
L6	Harmonic Suppressor (27MHz)	IP21-0020	TKXN34387Y		
L7	Xmit Buffer (27MHz)	IP21-0020	TKXN34387Y		
L8	Xmit Amp (21MHz)	IP21-0025	HL119		