



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 RJ-3250

MANUFACTURER'S SPECIFICATIONS

Power Source	13.8 V, DC
Receiver Section	
Frequency Range:	26.965 MHz to 27.405 MHz
Sensitivity:	Less than -6 dB (0.5 mV) for 10 dB S/N at 1 kHz, 30% modulation
Selectivity:	Bandwidth 5 kHz min. for 6 dB
Adjacent Channel Rejection:	55 dB
Audio Distortion at 1 kHz:	Less than 10% at 2 W
Cross Modulation Rejection:	Better than 40 dB
Squelch Sensitivity:	2 dB, approx.
Delta Tuning:	±1 kHz
Transmitter Section	
Frequency Range:	26.965 MHz to 27.405 MHz
Power Output at 13.8 V, DC:	4 W Maximum
Modulation:	Less than 100%
Emission (Class D Operation):	6A3
Spurious Emission:	-60 dB
Frequency Tolerance:	±0.005%
Antenna Impedance:	50 Ω
Speaker:	3"(8 cm) PM Dynamic Speaker
Dimensions:	9"(Wide) × 2 ⁹ / ₁₆ "(High) × 10 ¹ / ₂ "(Deep) (228 × 65 × 266 mm)
Weight:	5 lb 5 oz (2.4 kg) without Microphone & Car-bracket
Impedance:	Speaker8 Ω Microphone Socket ...600 Ω EXT Speaker Jack8 Ω PA Speaker Jack8 Ω Antenna Socket50 Ω

Courtesy of the Manufacturer

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

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PANASONIC MODEL RJ-3250

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.
 Connect microphone.

Suggested Alignment Tools: GC ELECTRONICS
 FL1. 9304, 9300, 9302
 L8, L16, L18 9440
 C39, C55, C59, C70 8276, 5000
 T1 thru T4, T6 thru T15. 5009, 8728-A, 8728

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP10 (TR7, Emitter).	Ch. 19		Check for 10.240MHz <u>+650Hz</u> .
Input of oscilloscope to TP3 (T10, Secondary).	Ch. 19 Delta Tune 0	T10	Adjust for maximum. Then turn core counter-clockwise 1/8 turn.
Input of frequency counter to TP3 (T10, Secondary).	Ch. 19 Delta Tune 0	C55	Adjust for 35.740MHz <u>+300Hz</u>
	Ch. 19 Delta Tune -	C59	Adjust for 35.7388MHz.
Input of DC meter to TP5. (Junction R47 & R48).	Ch. 20	C70	Adjust for 2.5V <u>+.1</u> volt. Check for approx. 1.4 volt on Ch. 1. Check for approx. 3.7 volt on Ch. 40.
Input of oscilloscope to TP4 (T9, Secondary)	Ch. 19 Delta Tune 0	T9	Adjust for maximum.
Input of frequency counter to TP4 (T9, Secondary)	Ch. 1 Delta Tune 0		Check for 37.660MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of frequency counter to TP4 (T9, Secondary)	Ch. 1 Delta Tune 0		Check for 37.660MHz. Check all channels. (See Truth Chart for correct frequencies).
Input of frequency counter to TP20 (IC5, pin 13)	Ch.1		Check for 1.920MHz. Check all channels. (See Truth Chart for correct frequencies).
Input of frequency counter to TP6 (Junction C49, R33 & CF3)	Ch. 19, XMT	C39	Adjust for 10.695MHz <u>+300Hz</u> .

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.
RF Att 0, Squelch MINIMUM, Delta Tune 0, NB/ANL Off.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP8 (IC1, pin 9) 455kHz, 1000Hz @ 30% modulation.	Ch. 19	T4,T3,T2	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19	T1,T8,T7,T6	Adjust for maximum output. If necessary readjust T2, T3 and T4.

RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication.
RF Att 0, Squelch MINIMUM, Delta Tune 0, NB/ANL Off.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19 Squelch Maximum	R24	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	R22	S METER Adjust for 9 on scale of meter.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 1000uV.	Ch. 19 Volume Max	R105	VU/MOD METER Adjust for 9 on VU/MOD meter.

TRANSMITTER ALIGNMENT

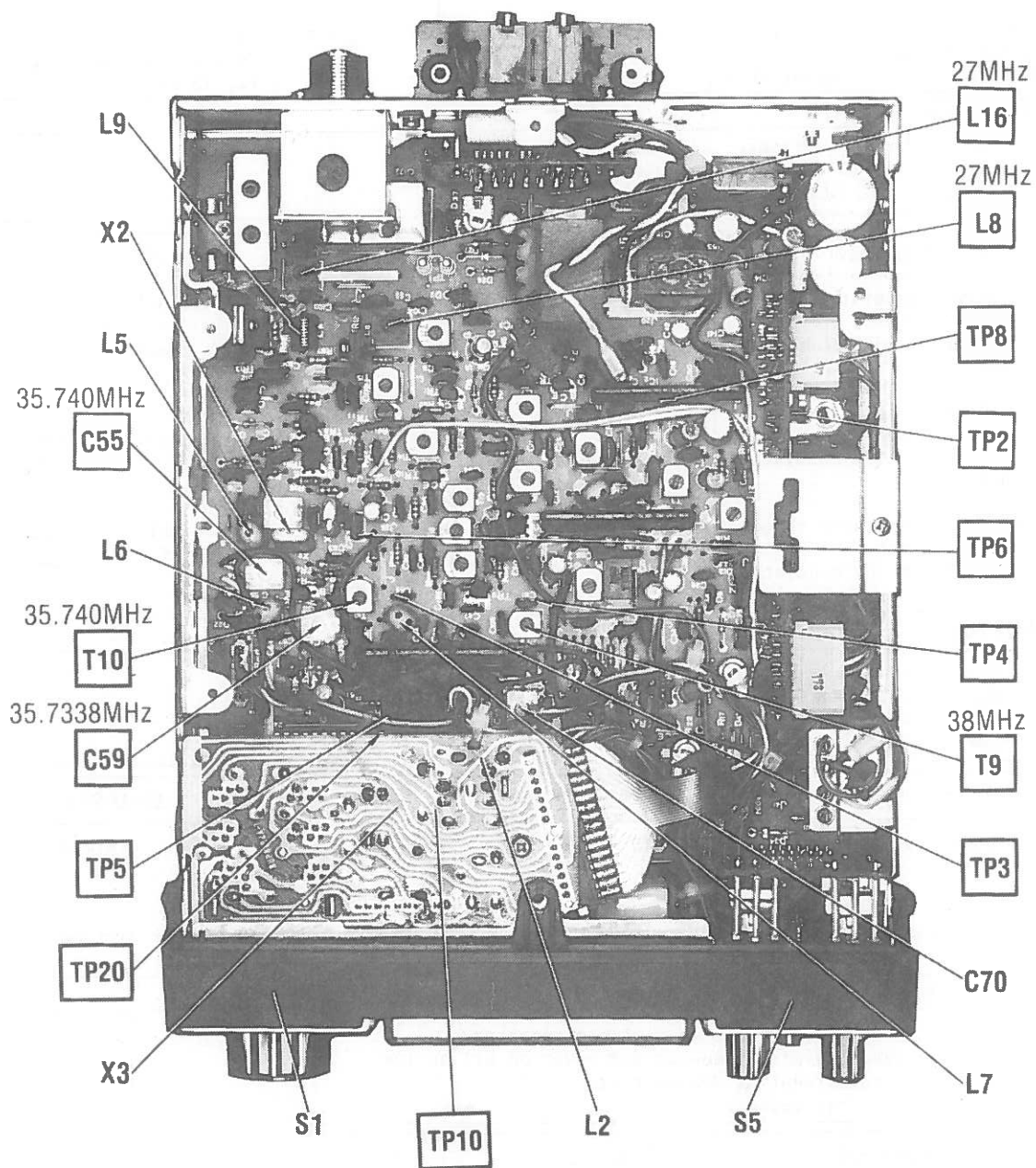
Connect a 50-ohm, 25-watt dummy load to antenna connector.
NOTE: Be sure to check transmit frequency and power on all active channels after alignment of transmitter.
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of RF wattmeter to antenna input.	Ch. 19	T11,T12,T13, T14,T15,L8, L16,FL1,L18	Adjust for maximum.
Input of RF wattmeter to antenna input.	Ch. 19	L16,L18	Adjust for maximum.

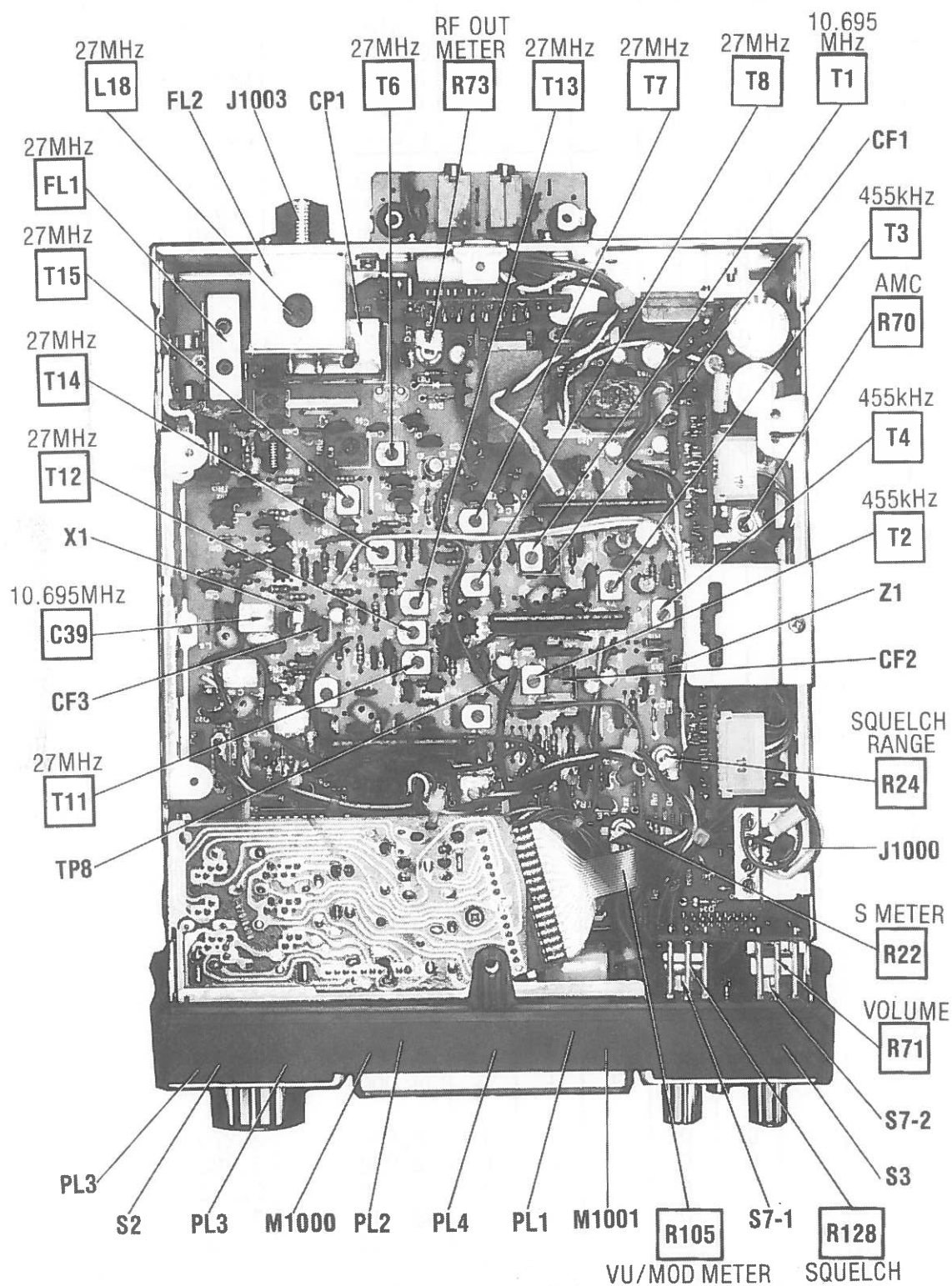
TRANSMITTER ADJUSTMENTS

Connect a 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
Input of DC meter to TP2.	Ch. 19	R70	AMC This adjustment made in receive mode. Adjust R70 for 0.7 volt $\pm$.02 volt volts.
Input of RF wattmeter to antenna input.	Ch. 19	R73	RF OUT METER Adjust for a reading in the center of the red on RF OUT scale of meter.



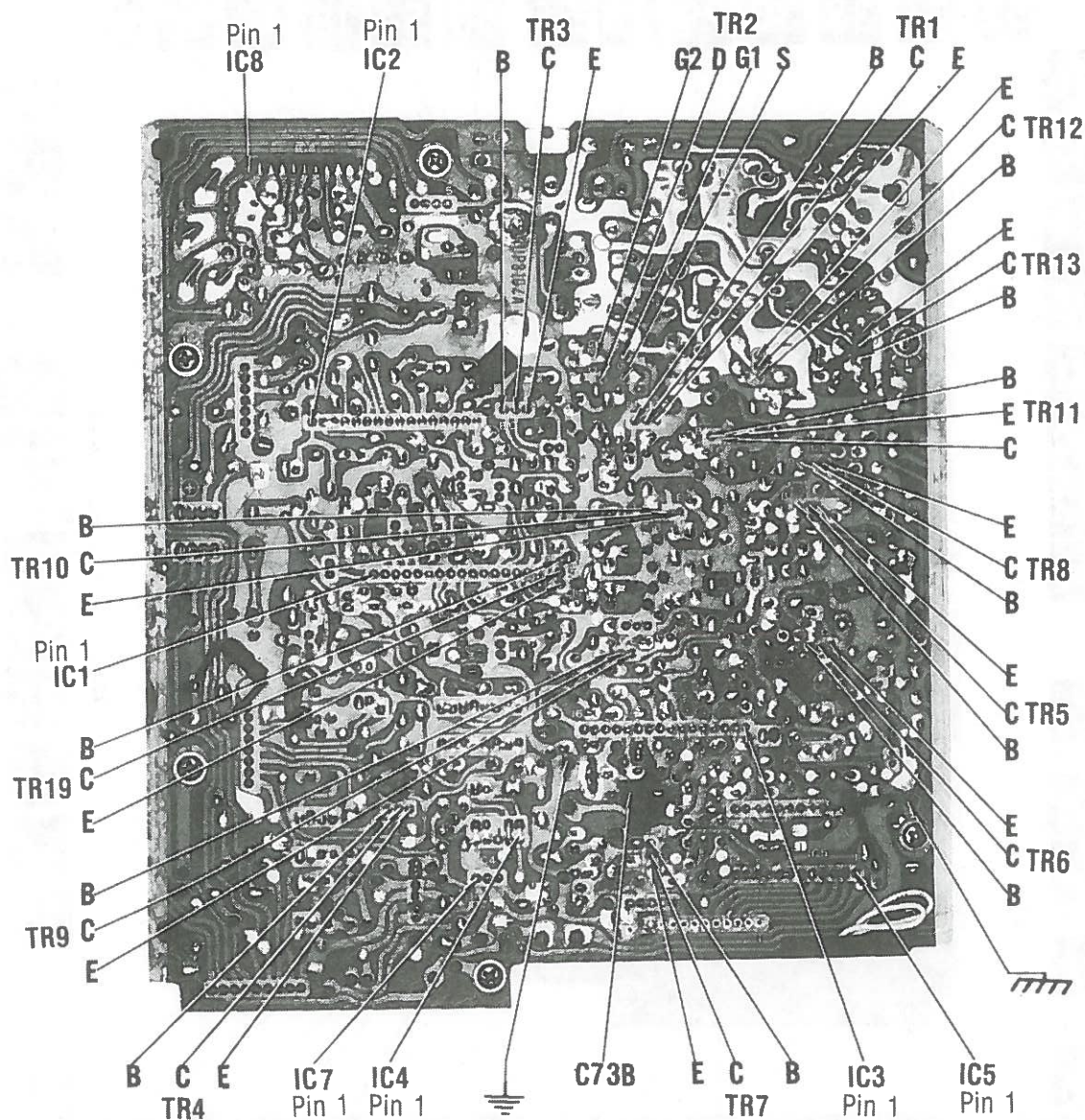
CHASSIS - BOTTOM



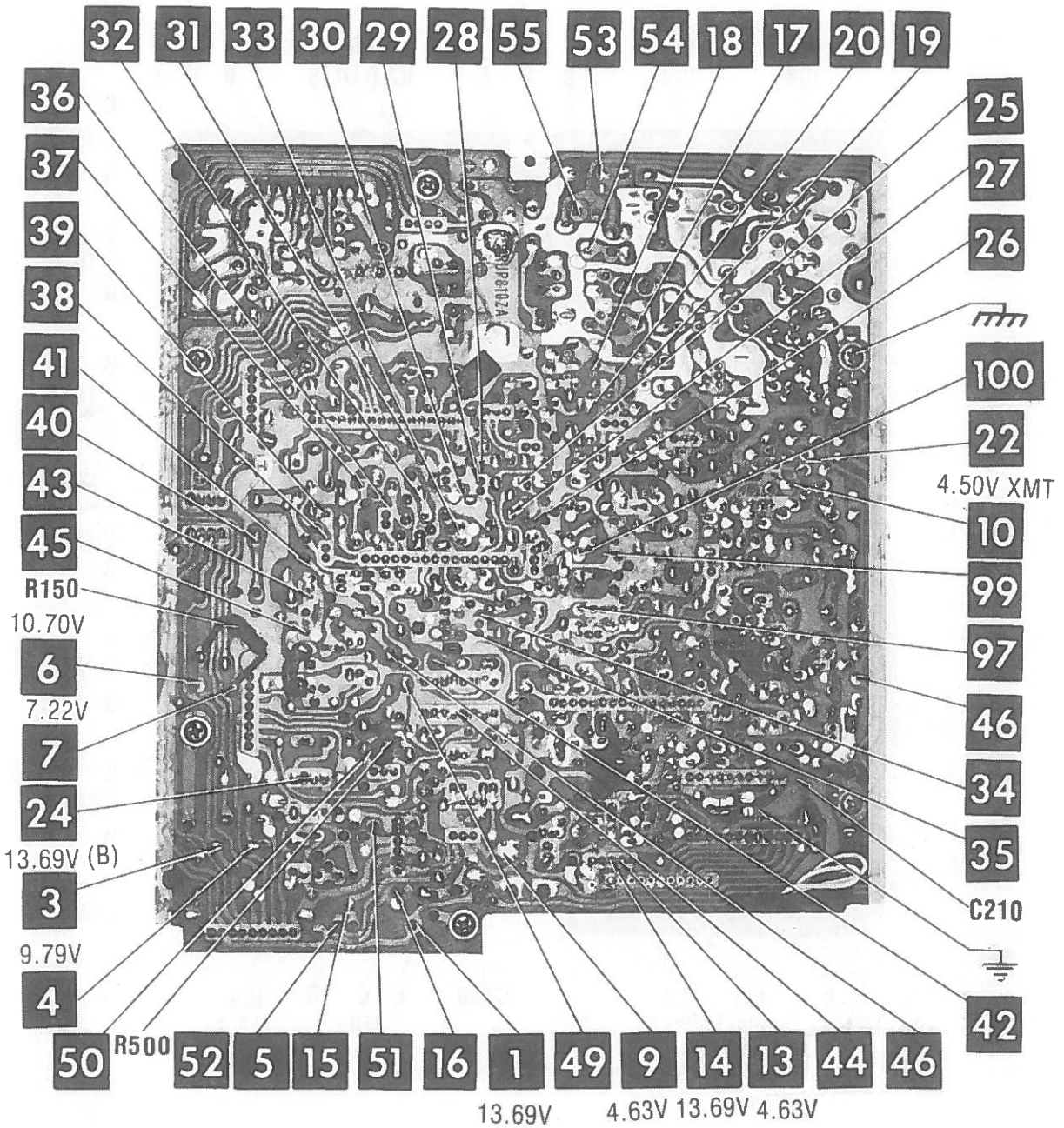
CHASSIS - BOTTOM

TRUTH CHART

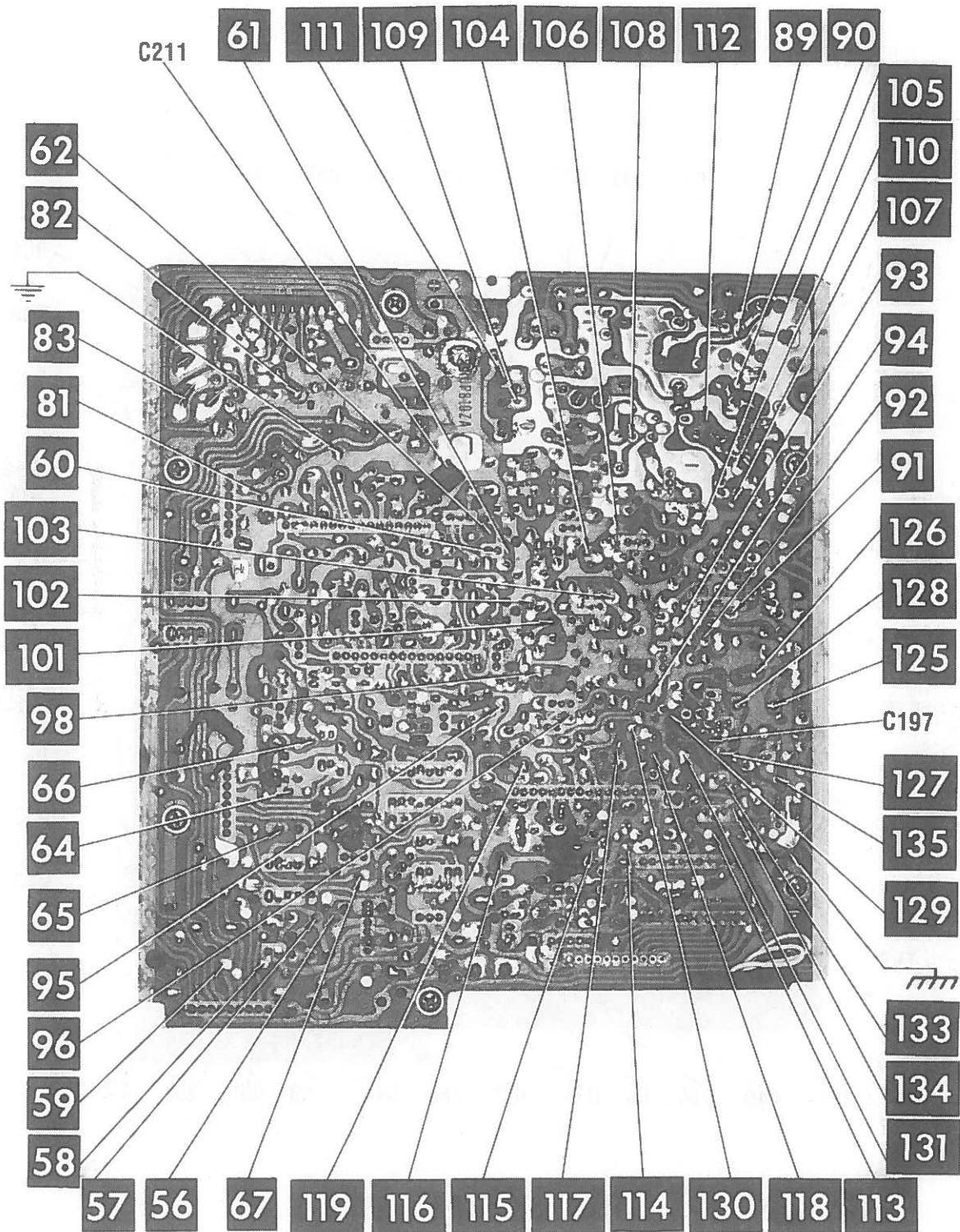
CHANNEL	1 = 4.63 Volts 0 = 0 Volts IC5 PROGRAM DIVIDER							REC & XMT SYNTHESIZER OUTPUT IN MHz AT TP4 (T9, Sec.)	REC & XMT DIVIDER INPUT IN MHz AT TP20 (IC5,Pin 13)		
	PINS										
			6	5	4	3	2				1
1			0	0	0	0	0	0	37.660	1.920	
2			0	0	0	0	0	1	37.670	1.930	
3			0	0	0	0	1	0	37.680	1.940	
4			0	0	0	1	0	0	37.700	1.960	
5			0	0	0	1	0	1	37.710	1.970	
6			0	0	0	1	1	0	37.720	1.980	
7			0	0	0	1	1	1	37.730	1.990	
8			0	0	1	0	0	1	37.750	2.010	
9			0	0	1	0	1	0	37.760	2.020	
10			0	0	1	0	1	1	37.770	2.030	
11			0	0	1	1	0	0	37.780	2.040	
12			0	0	1	1	1	0	37.800	2.060	
13			0	0	1	1	1	1	37.810	2.070	
14			0	1	0	0	0	0	37.820	2.080	
15			0	1	0	0	0	1	37.830	2.090	
16			0	1	0	0	1	1	37.850	2.110	
17			0	1	0	1	0	0	37.860	2.120	
18			0	1	0	1	0	1	37.870	2.130	
19			0	1	0	1	1	0	37.880	2.140	
20			0	1	1	0	0	0	37.900	2.160	
21			0	1	1	0	0	1	37.910	2.170	
22			0	1	1	0	1	0	37.920	2.180	
23			0	1	1	1	0	1	37.950	2.210	
24			0	1	1	0	1	1	37.930	2.190	
25			0	1	1	1	0	0	37.940	2.200	
26			0	1	1	1	1	0	37.960	2.220	
27			0	1	1	1	1	1	37.970	2.230	
28			1	0	0	0	0	0	37.980	2.240	
29			1	0	0	0	0	1	37.990	2.250	
30			1	0	0	0	1	0	38.000	2.260	
31			1	0	0	0	1	1	38.010	2.270	
32			1	0	0	1	0	0	38.020	2.280	
33			1	0	0	1	0	1	38.030	2.290	
34			1	0	0	1	1	0	38.040	2.300	
35			1	0	0	1	1	1	38.050	2.310	
36			1	0	1	0	0	0	38.060	2.320	
37			1	0	1	0	0	1	38.070	2.330	
38			1	0	1	0	1	0	38.080	2.340	
39			1	0	1	0	1	1	38.090	2.350	
40			1	0	1	1	0	0	38.100	2.360	



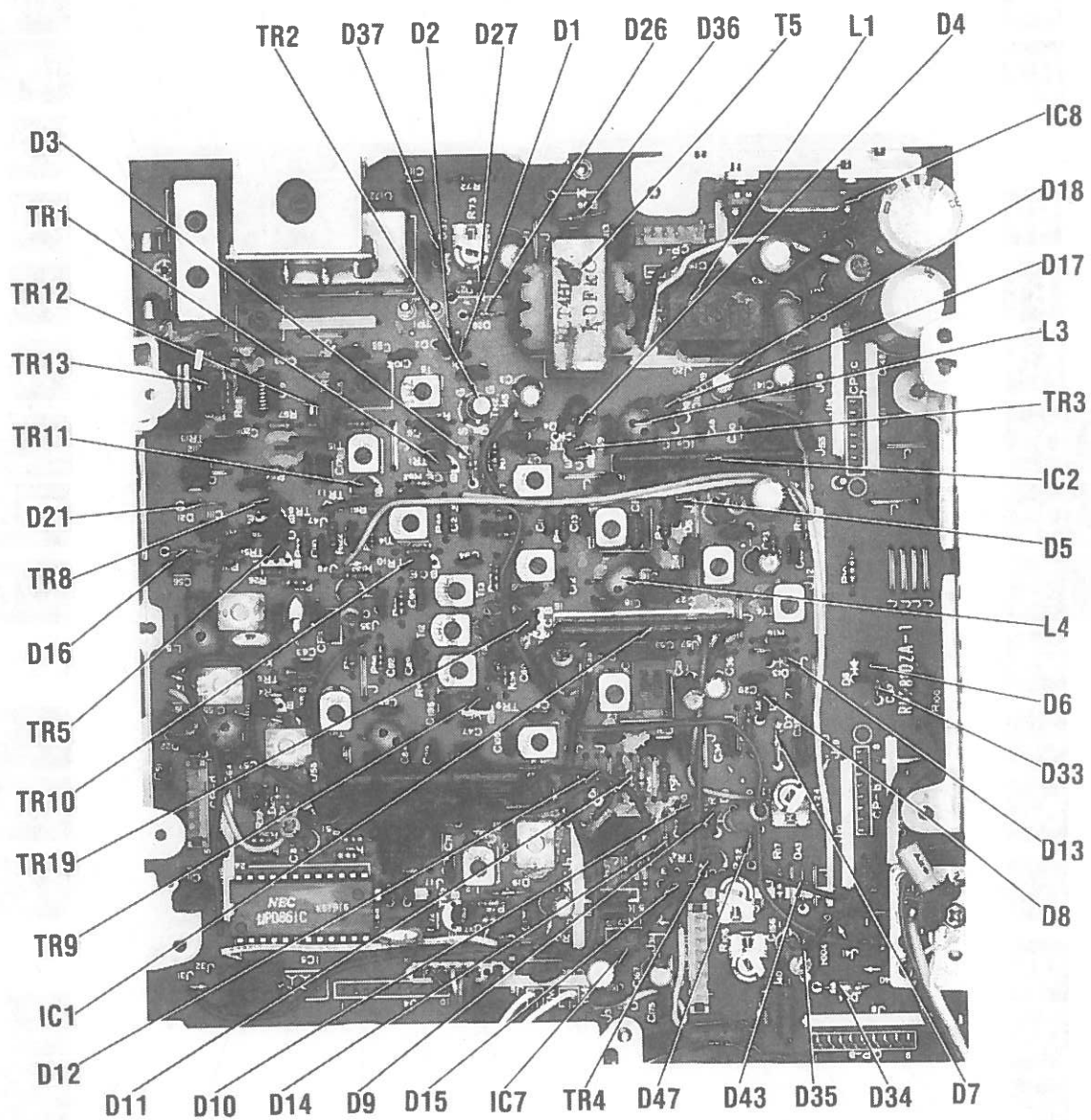
MAIN BOARD



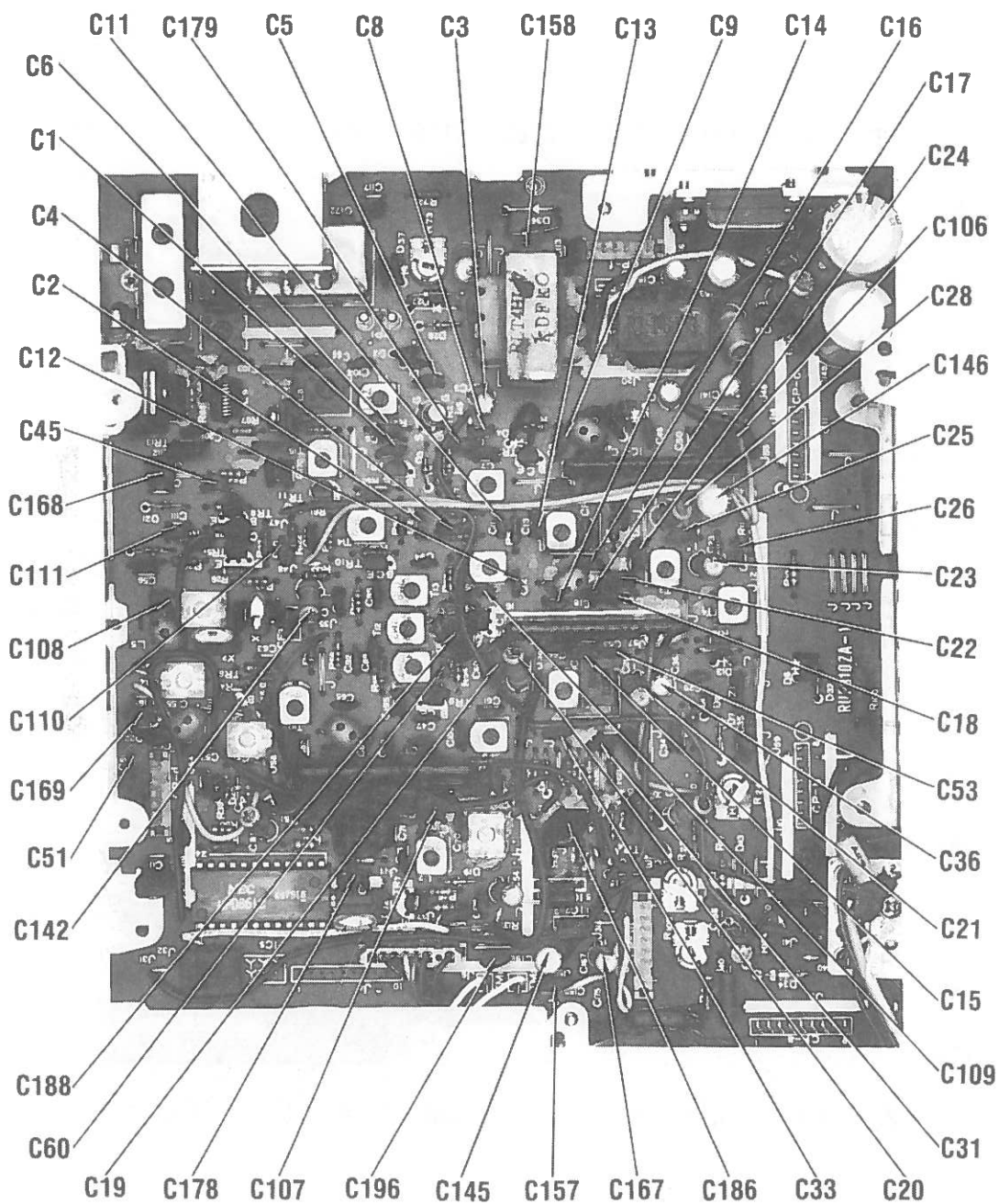
MAIN BOARD



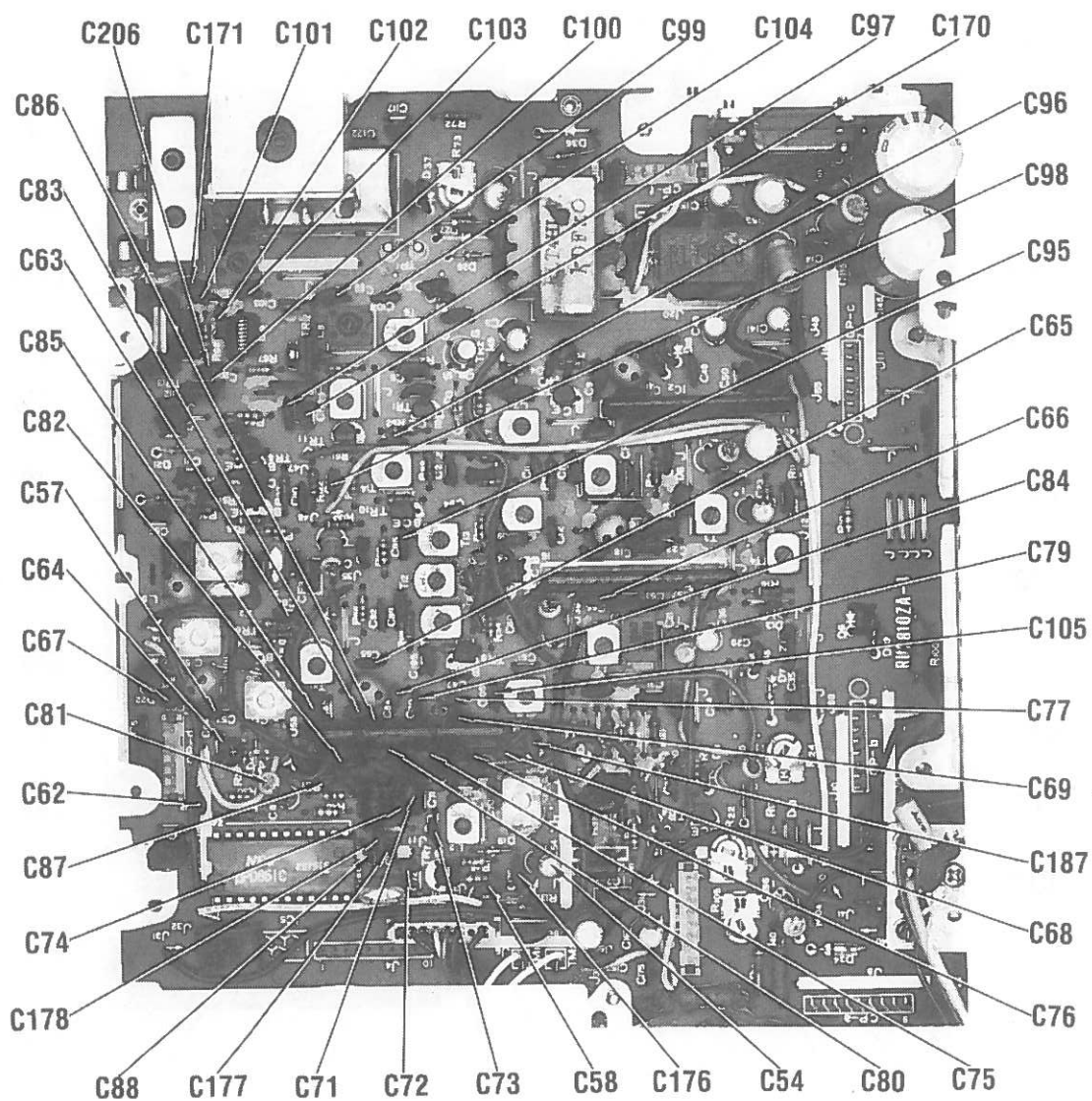
MAIN BOARD



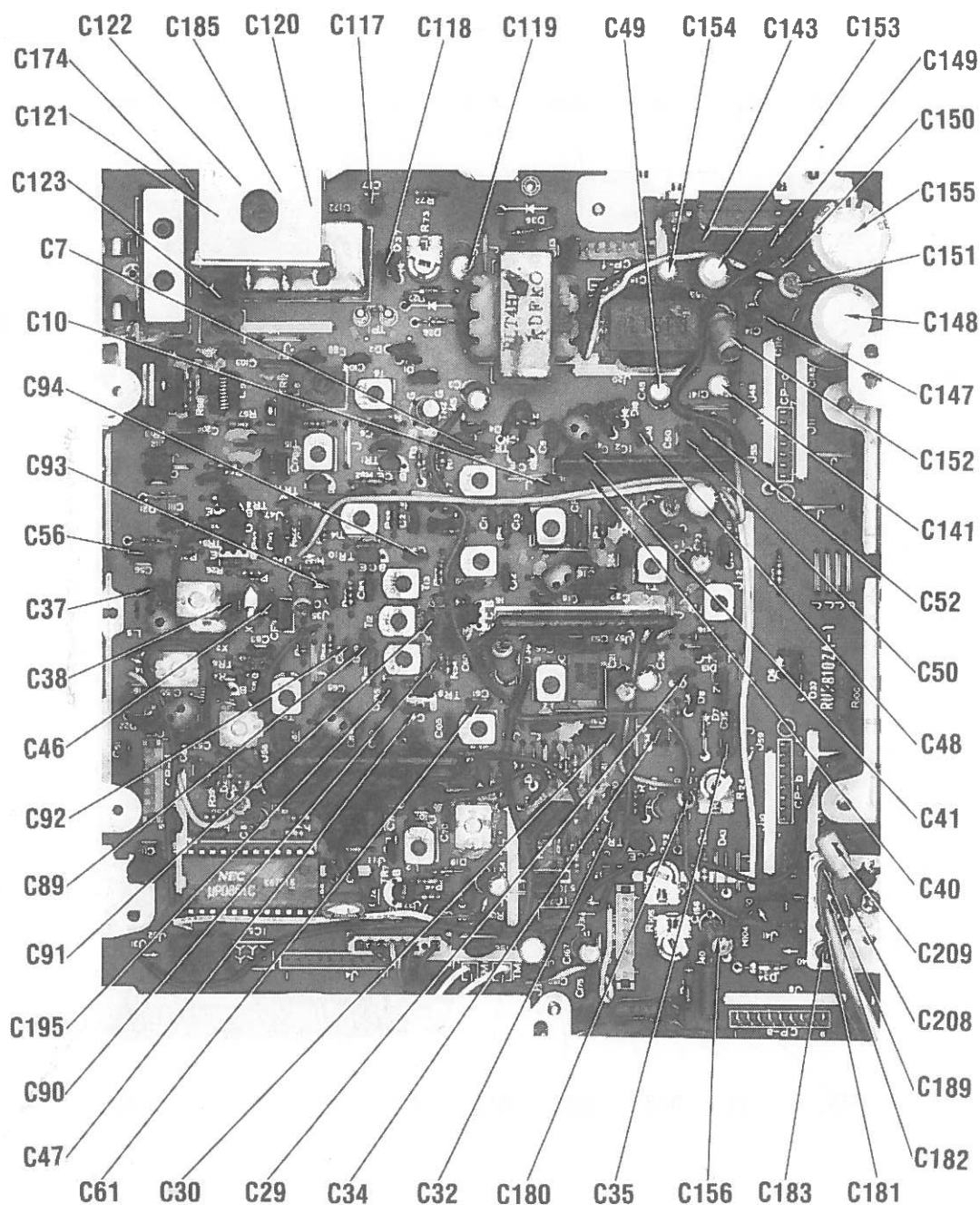
MAIN BOARD



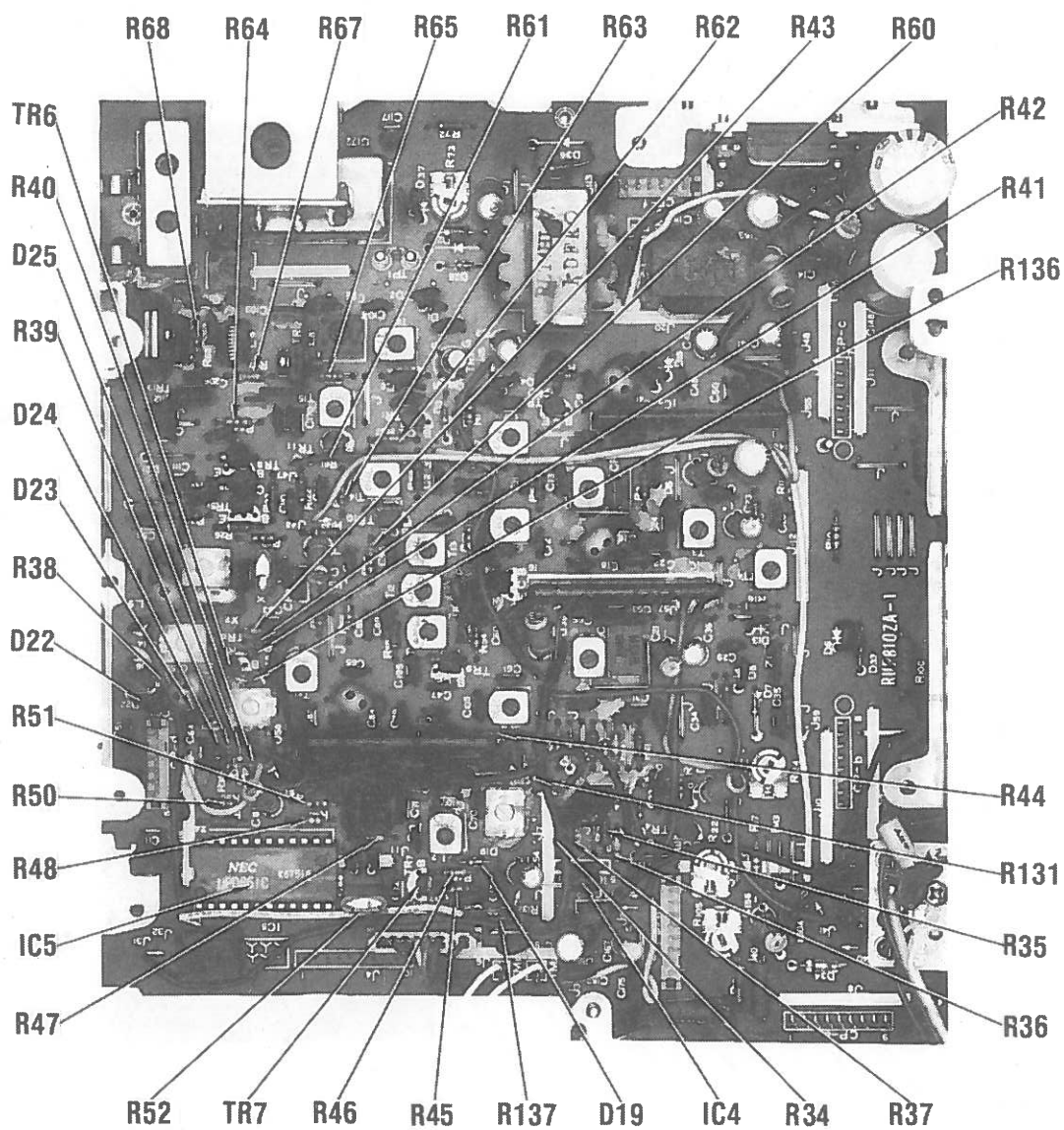
MAIN BOARD



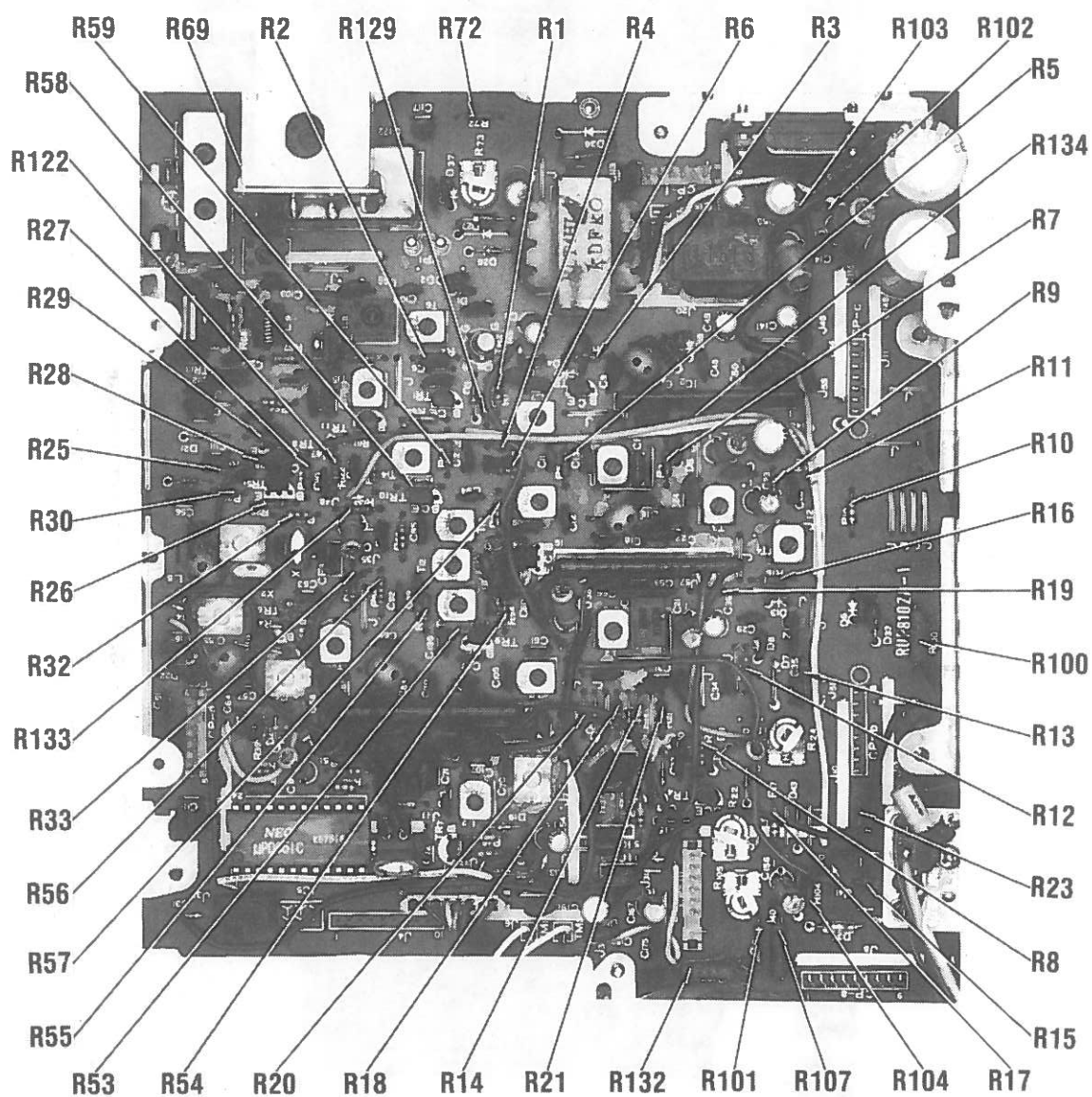
MAIN BOARD



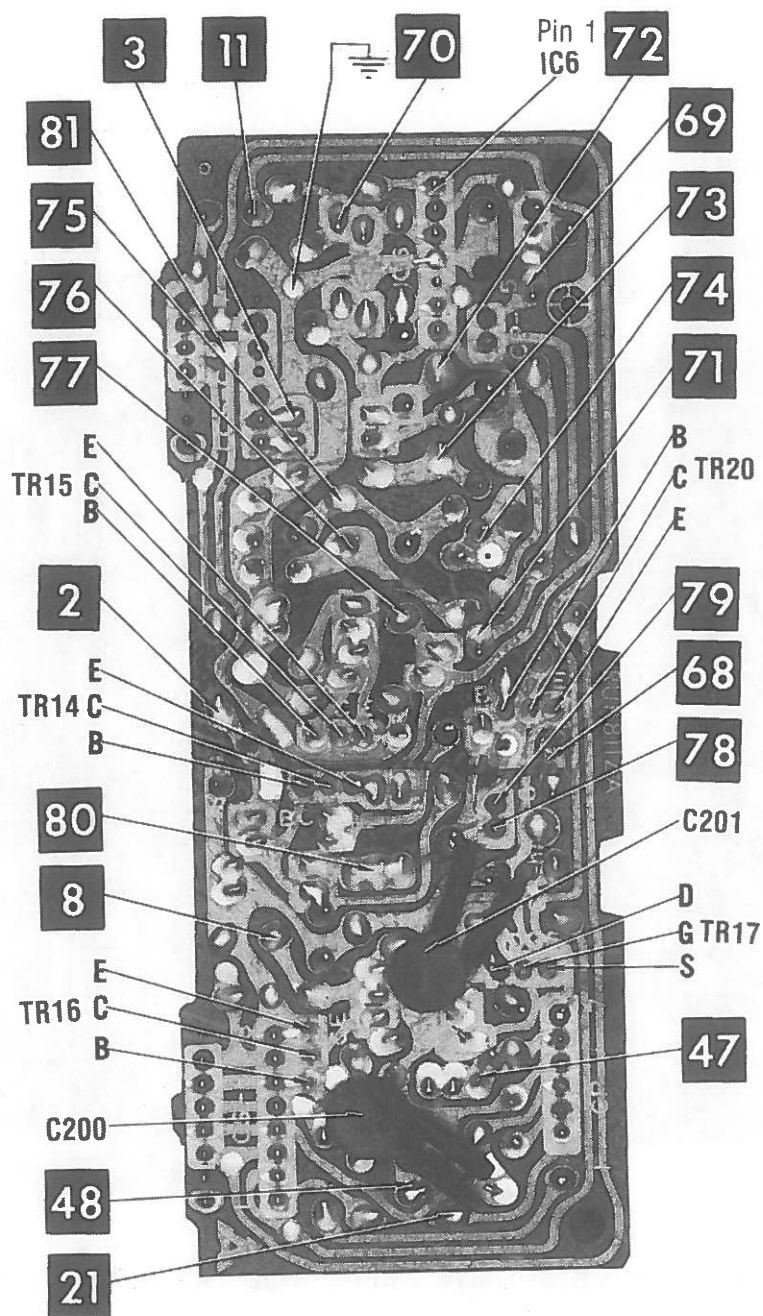
MAIN BOARD



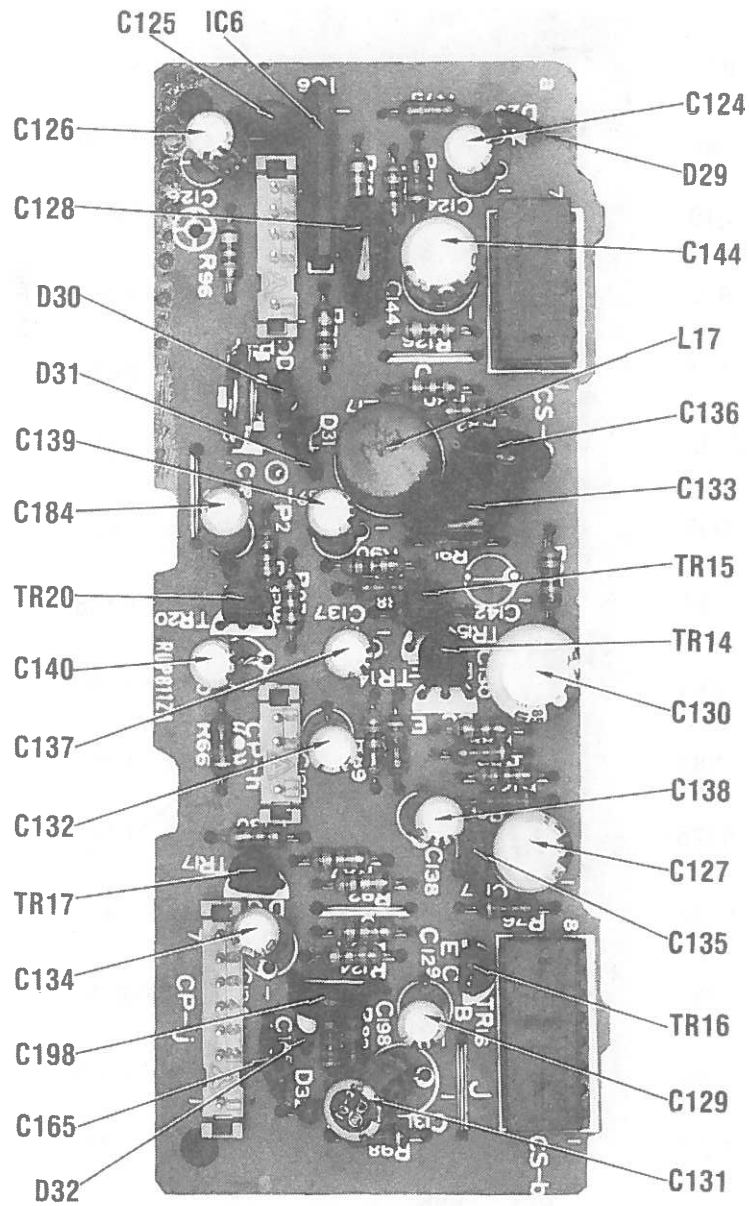
MAIN BOARD

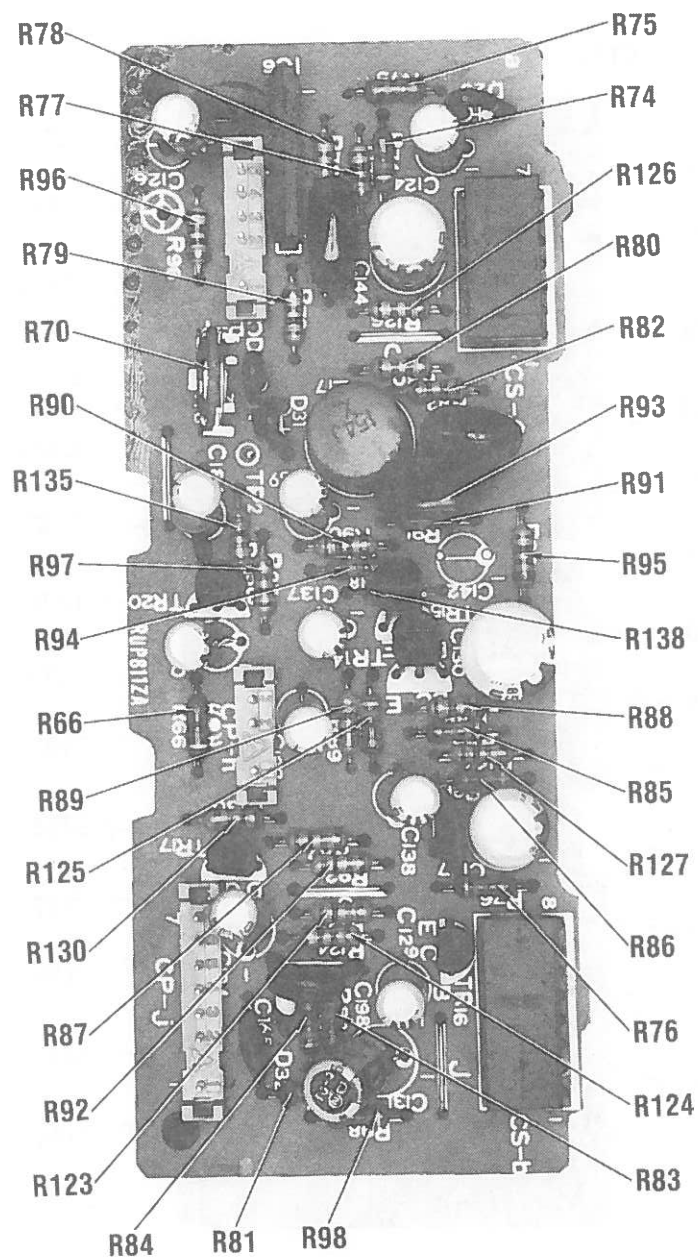


MAIN BOARD

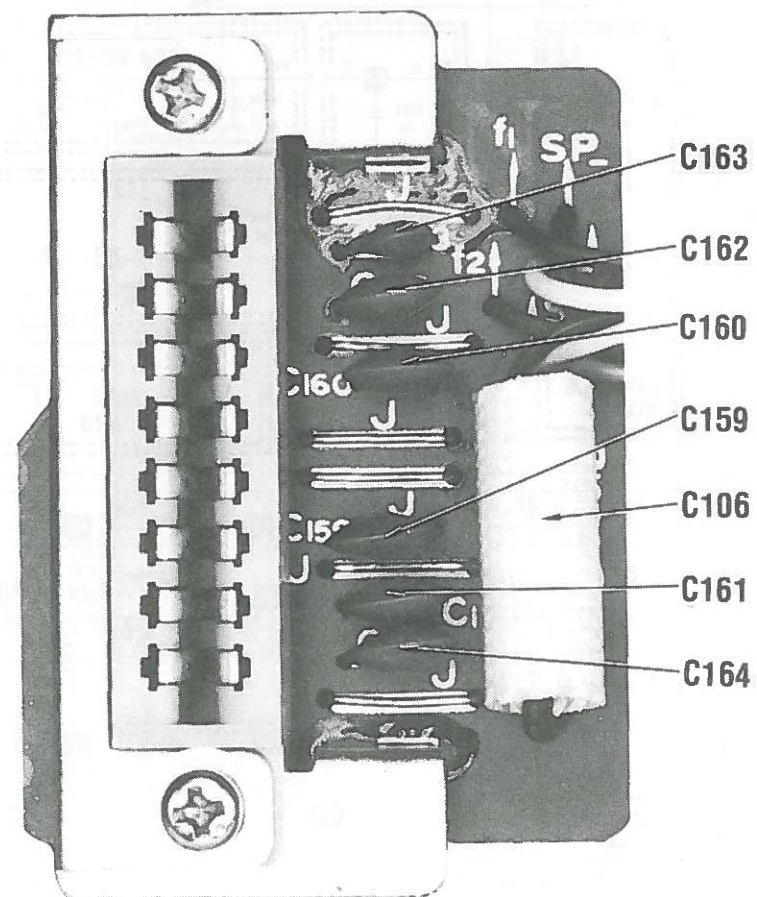
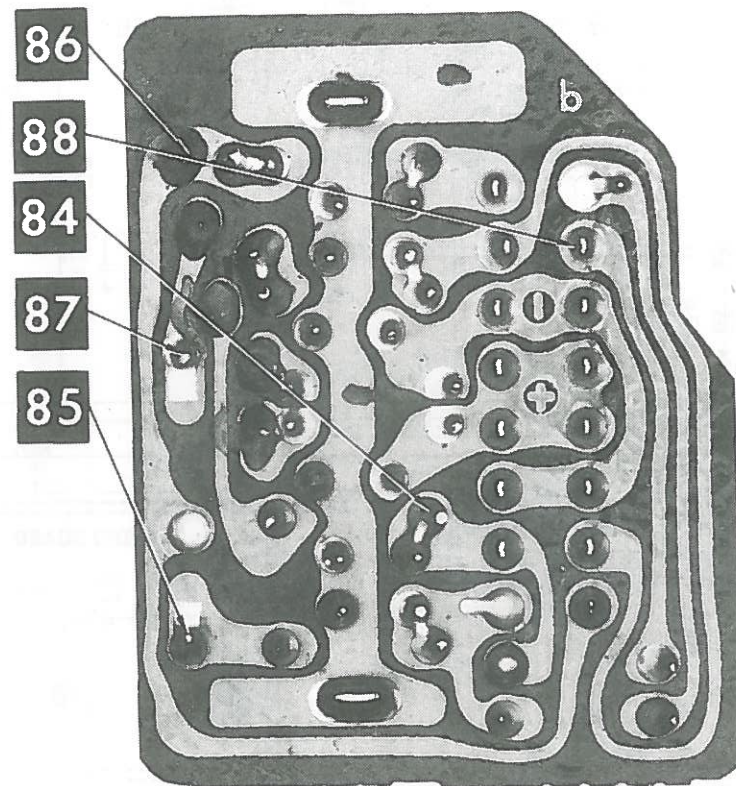


AUDIO BOARD



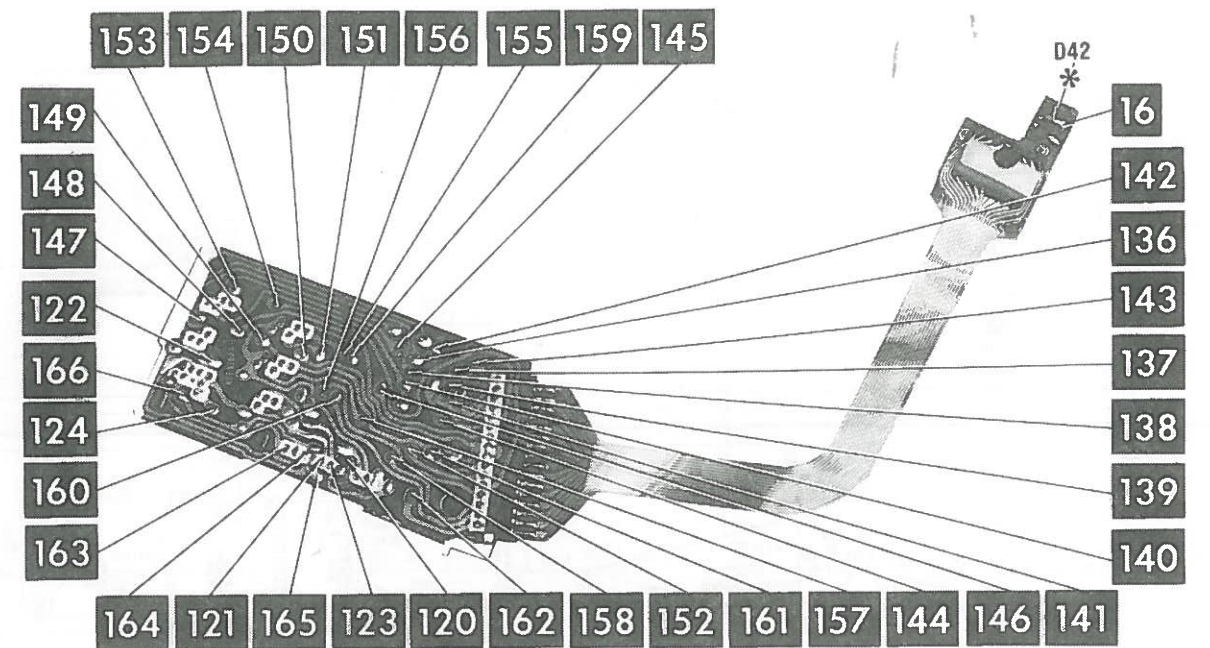


AUDIO BOARD



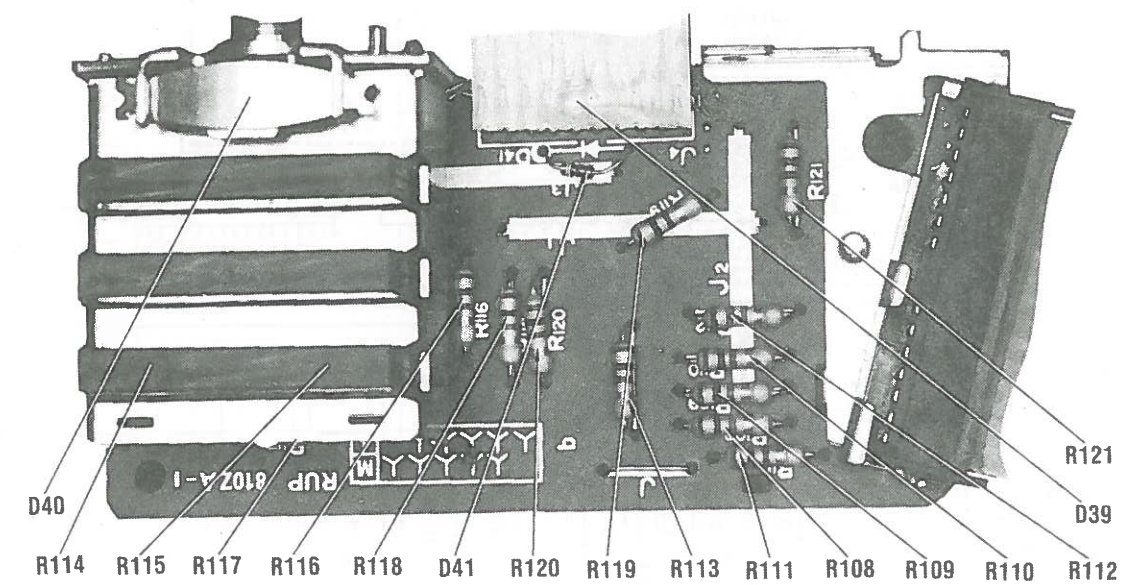
SPEAKER BOARD

PANASONIC MODEL RJ-3250



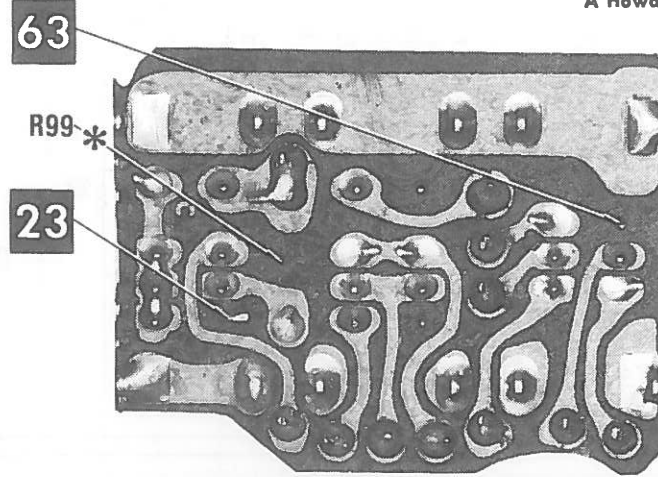
* On other side of board

CH. SELECTOR & LED BOARD



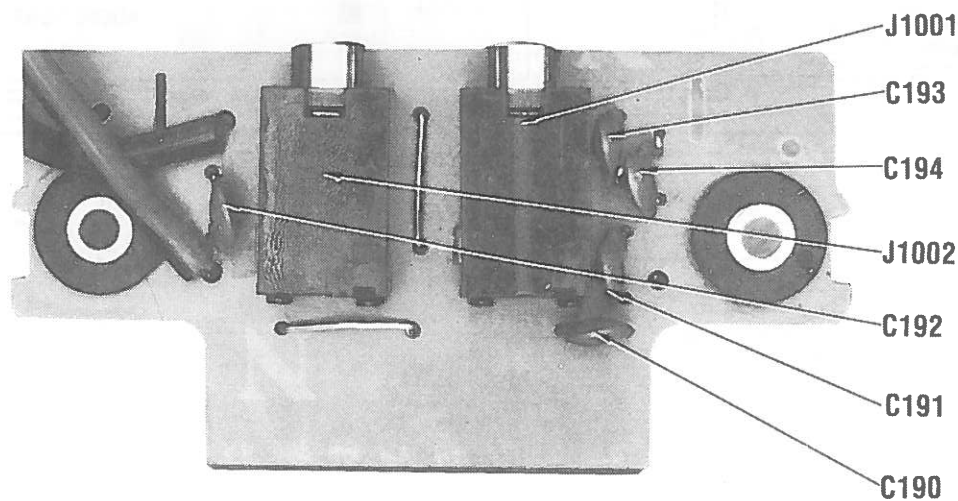
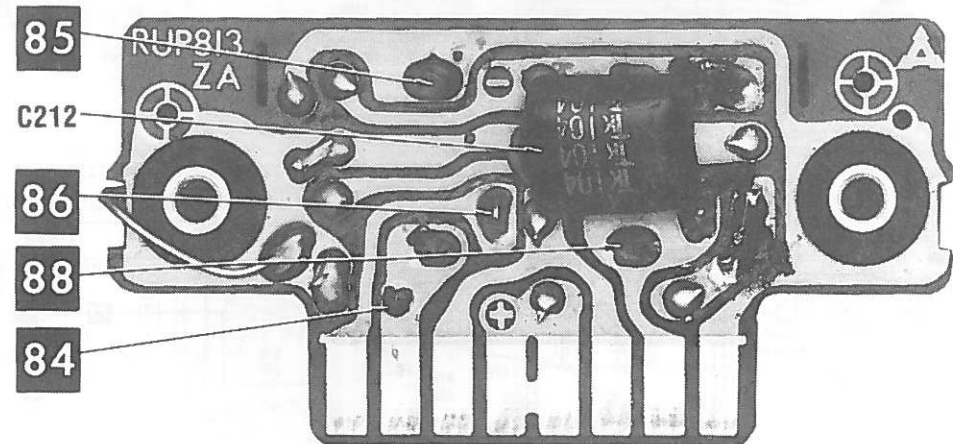
CH. SELECTOR BOARD

PANASONIC MODEL RJ-3250



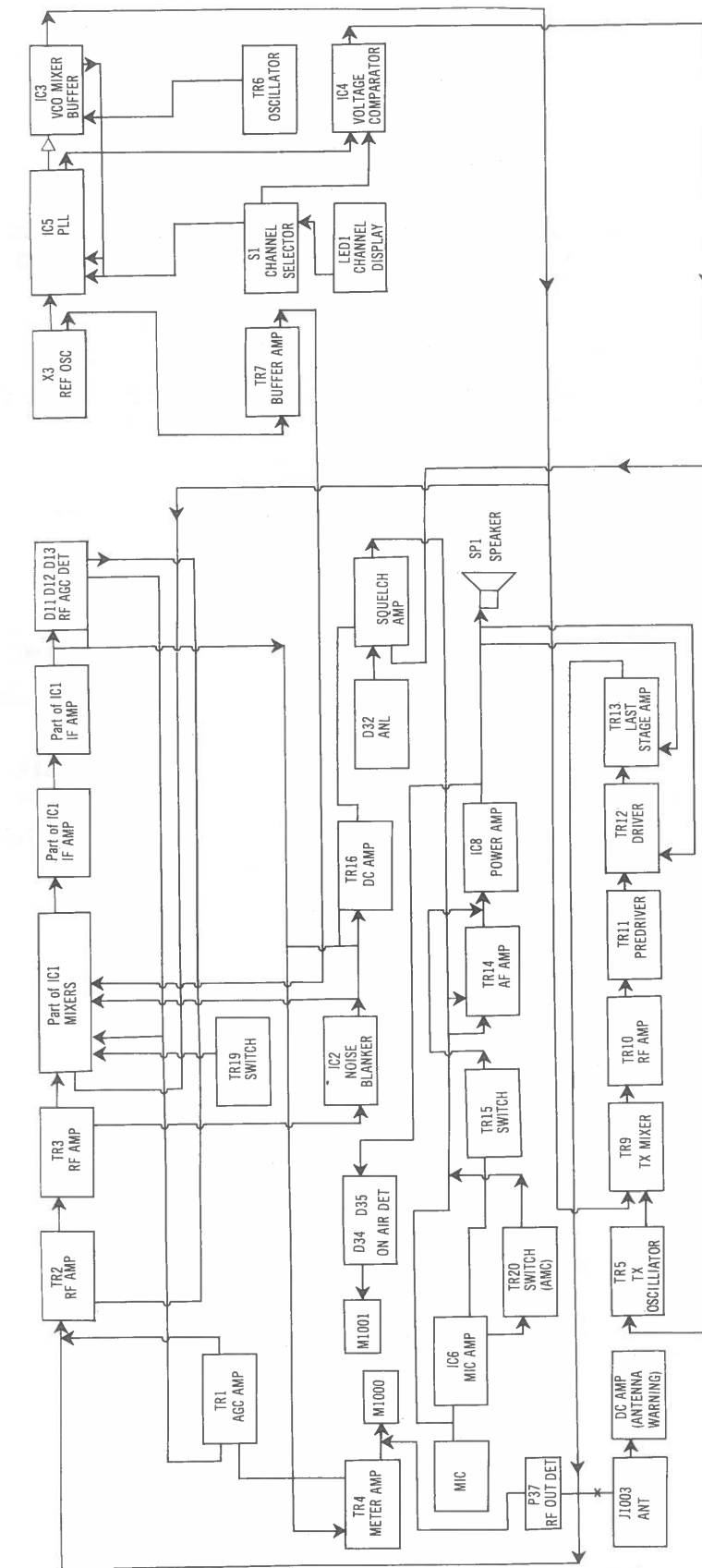
* Located on top of board

SWITCH BOARD



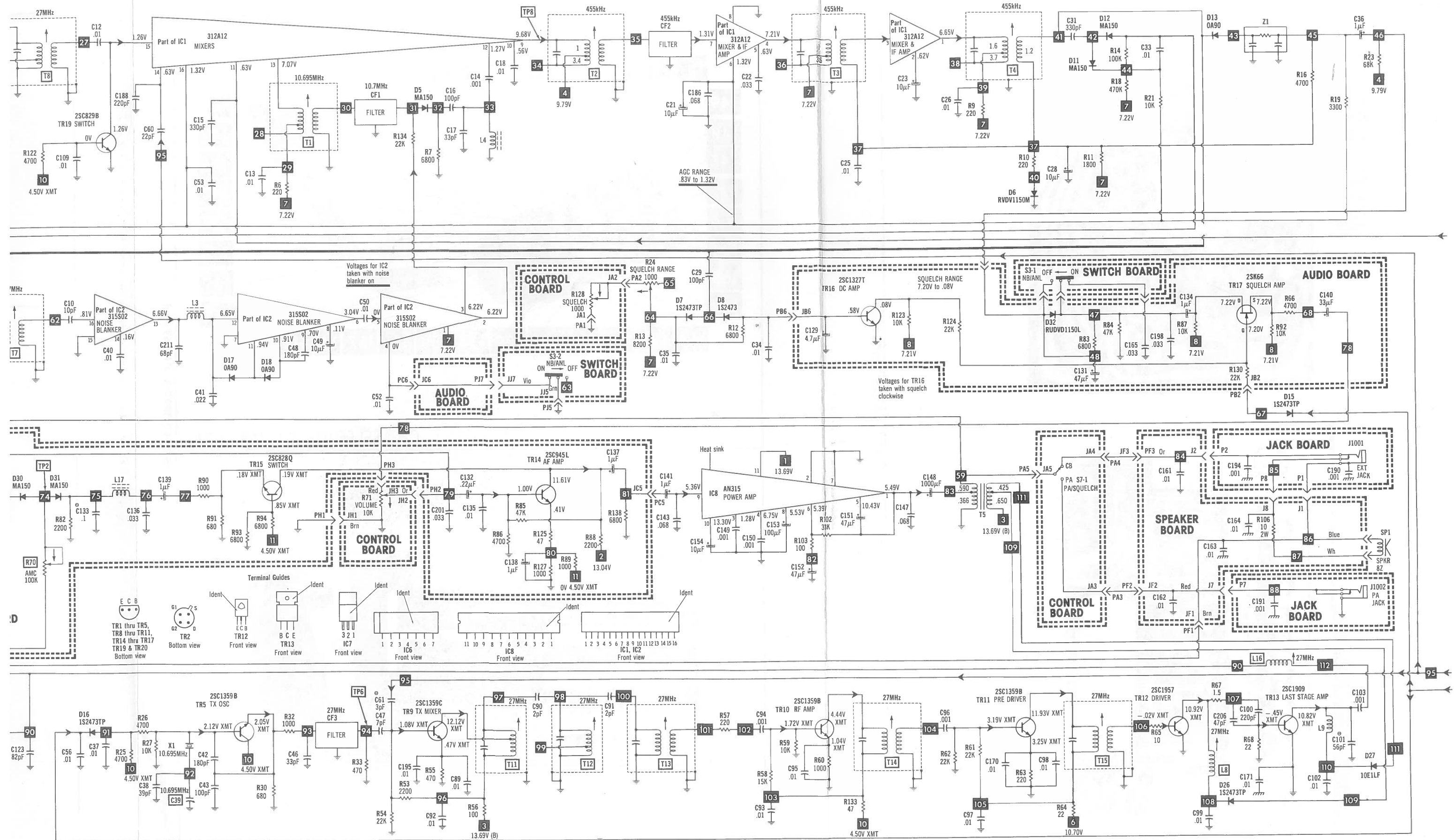
JACK BOARD

PANASONIC MODEL RJ-3250



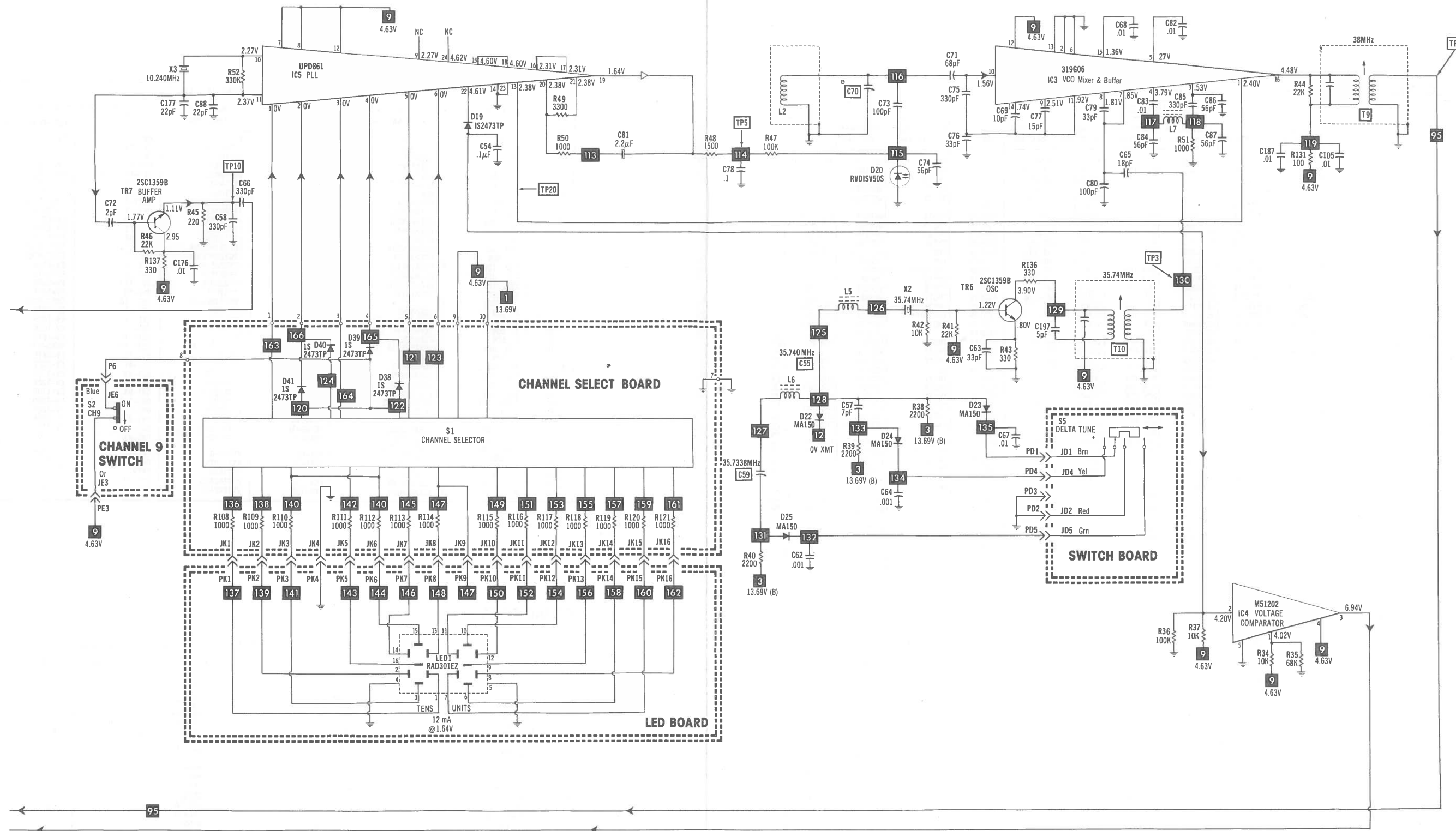
BLOCK DIAGRAM

PANASONIC MODEL RJ-3250



MAIN SCHEMATIC

PANASONIC MODEL RJ-3250

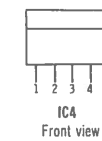
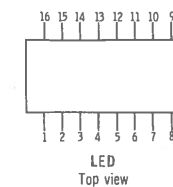
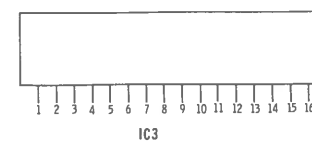
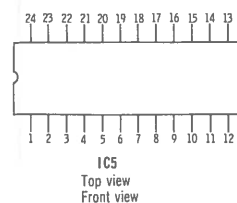


For SAFETY use only equivalent replacement part.
 * Circuitry not used in some versions
 --- Circuitry used in some versions
 Chassis
 Common tie point
 Signal path
 Voltage path
 A PHOTOFAC STANDARD NOTATION SCHEMATIC
 WITH CIRCUITRACE[®]
 © Howard W. Sams & Co., Inc. 1978

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.

PLL SCHEMATIC

Terminal Guides



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

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.	
D1	MA150	RVD1150M	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131	
D2	MA150		GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131	
D3	152473TP		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287	
D4	MA150		GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131	
D5	MA150		GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131	
D6	VD1150M		PTC301			REN 601	SK3463		ECG601				
D7	152473TP		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287	
D8	152473		GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287	
D9	0A90		1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001	
D10	0A90		1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001	
D11	MA150	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131		
D12	MA150	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131		
D13	0A90	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001		
D14	152473TP	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287		
D15	152473TP	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287		
D16	152473TP	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287		
D17	0A90	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001		
D18	0A90	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	TM109/**	WEP134	103-29001		
D19	152473TP	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287		
D20	15B505	GE-90		HEPR2503	REN 614		RT-262	ECG614		WEP200			
D21	152473TP	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287		
D22	MA150	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131		
D23	MA150	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131		
D24	MA150	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131		
D25	MA150	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131		
D26	152473TP	GE-514	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG519	TM519	WEP925	103-287		
D27	10E1LF	RVD1001LF	GE-504A	PTC201	HEPR0052	REN 116	SK3311	RT-213	ECG116	TM116	WEP156	212-76-02	
D29	MA150	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131		
D30	MA150	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131		
D31	MA150	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131		
D32	VD1150L	RVDVD1150L		PTC301		REN 601	SK3463		ECG601				
D33	RD7R5FB	RVD7R5FB	GEZD-7.5	ZB7.5B		REN 138	SK3059	RT-239	ECG138A	TM138/**	WEP1107		

* Lead configuration may vary from original.
/** Also available as exact type replacement.

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

ITEM No.	RATING	REPLACEMENT DATA				
		MFRG. PART No.	CORNELL- DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C3	1 50V	ECEA50V1	PC1-50	VTT1A50	QV1-11	EV-1615
C20	4.7 35V	ECEA35V4R7	PC5-50	VTT4R7B50	QV1-29	EV-1519
C21	10 16V	ECEA16V10	PC10-25	VTT10B25	QV1-41	EV-1222
C23	10 16V	ECEA16V10	PC10-25	VTT10B25	QV1-41	EV-1222
C28	10 16V	ECEA16V10	PC10-25	VTT10B25	QV1-41	EV-1222
C36	1 50V	ECEA50V1	PC1-50	VTT1A50	QV1-11	EV-1615
C49	10 16V	ECEA16V10	PC10-25	VTT10B25	QV1-41	EV-1222
C54	.1 50V	ECEA50ZR1		TDCC104M050EL	QDT1-2	SD50-R109
C81	2.2 25V	ECEA25N2R2	PC2-100	VTT2R2A50	QV1-19	EV-1517
C115	2.2 25V	ECEA25N2R2	PC2-100	VTT2R2A50	QV1-19	EV-1517
C119	47 16V	ECEA16V47	PC50-16	VTT47D16	QV1-73	EV-1226
C124	10 16V	ECEA16V10	PC10-25	VTT10B25	QV1-41	EV-1222
C126	.33 50V	ECEA50VR33		TDCC334M050EL	QDT1-14	SD50-R339
	.1 50V	ECEA50ZR1		TDCC104M050EL	QDT1-2	SD50-R109
C127	100 10V	ECEA10V100	PC100-10	VTT100E10	QV1-93	EV-1130
C129	4.7 35V	ECEA35V4R7	PC5-50	VTT4R7B50	QV1-29	EV-1519
C130	220 16V	ECEA16V220	PC250-25	VTT220H16	QV1-117	EV-1240
C131	47 16V	ECEA16V47	PC50-16	VTT47D16	QV1-73	EV-1226
C132	.22 50V			TDCC224M050EL	QDT1-10	SD50-R229
C134	1 50V	ECEA50V1	PC1-50	VTT1A50	QV1-11	EV-1615
C137	1 50V	ECEA50V1	PC1-50	VTT1A50	QV1-11	EV-1615
C138	1 50V	ECEA50V1	PC1-50	VTT1A50	QV1-11	EV-1615
C139	1 50V	ECEA50V1	PC1-50	VTT1A50	QV1-11	EV-1615
C140	.33 50V	ECEA50ZR33		TDCC334M050EL	QDT1-14	SD50-R339
C141	1 50V	ECEA50V1	PC1-50	VTT1A50	QV1-11	EV-1615
C142	10 16V	ECEA16V10	PC10-25	VTT10B25	QV1-41	EV-1222
C144	100 10V	ECEA10V100	PC100-10	VTT100E10	QV1-93	EV-1130
C145	47 16V	ECEA16V47	PC50-16	VTT47D16	QV1-73	EV-1226
C146	100 10V	ECEA10V100	PC100-10	VTT100E10	QV1-93	EV-1130
C148	1000 16V	ECEA16V1000	PC1000-16	VTT1000L16	QV1-183	EV-1260
C151	47 16V	ECEA16V47	PC50-16	VTT47D16	QV1-73	EV-1226
C152	47 16V	ECEA16V47	PC50-16	VTT47D16	QV1-73	EV-1226
C153	100 10V	ECEA10V100	PC100-10	VTT100E10	QV1-93	EV-1130
C154	10 16V	ECEA16V10	PC10-25	VTT10B25	QV1-41	EV-1222
C155	2200 16V	ECEA16V2200				
C156	1 50V	ECEA50V1	PC1-50	VTT1A50	QV1-11	EV-1615
C167	10 16V	ECEA16V10	PC10-25	VTT10B25	QV1-41	EV-1222
C180	1 50V	ECEA50V1	PC1-50	VTT1A50	QV1-11	EV-1615
C184	2.2 25V	ECEA25N2R2	PC2-100	VTT2R2A50	QV1-19	EV-1517
C209	2.2 25V	ECEA25N2R2	PC2-100	VTT2R2A50	QV1-19	EV-1517

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
C1	.01 50V	ECCD1HD20C	UK50-103	NP010	MAG5011		
C2	.01 50V		UK50-103		MAG5011		
C4	.01 50V		UK50-103		MAG5011		
C5	.01 50V		UK50-103		MAG5011		
C6	.01 50V		UK50-103		MAG5011		
C7	.01 50V		UK50-103		MAG5011		
C8	.01 50V		DD-102		GP210		10TS-D10
C9	.01 50V		UK50-103		MAG5011		10TCC-Q10
C10	10 NPO 10%		DTZ-10		CN0410		
C11	2 NPO +.25						
C12	.01 50V		UK50-103	GP330 NP0100 NP033	MAG5011		
C13	.01 50V		UK50-103		MAG5011		
C14	.001 50V		DD-102		GP210		10TS-D10
C15	330 50V 10%		DD-331		GP333		10TS-T33
C16	100 50V 10%		DTZ-100		CN0310		10TCC-T10
C17	33 NPO 10%		DTZ-33		CN0433		10TCC-Q33
C18	.01 50V		UK50-103		MAG5011		
C19	.01 50V		UK50-103		MAG5011		
C22	.033 50V		UK50-333		MAG50133		
C24	.01 50V		UK50-103		MAG5011		
C25	.01 50V		UK50-103		MAG5011		
C26	.01 50V		UK50-103		MAG5011		
C29	100 50V 10%		DTZ-100	NP0100 GP330 GP330	CN0310		10TCC-T10
C30	330 50V 10%		DD-331		GP333		10TS-T33
C31	330 50V 10%		DD-331		GP333		10TS-T33
C32	.01 50V	RCV1PX30AG	UK50-103		MAG5011		
C33	.01 50V		UK50-103		MAG5011		
C34	.01 50V		UK50-103		MAG5011		
C35	.01 50V		UK50-103		MAG5011		
C37	.01 50V		UK50-103		MAG5011		
C38	39 NPO 10%				CN0439		10TCC-Q39
C39							
C40	.01 50V		UK50-103		MAG5011		
C41	.022 50V				MT192P2239R8		192P2239R8
C42	180 50V 10%		DTZ-180				10TCC-T18

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
C43	100 50V 10%	RCV1PX20AG	DTZ-100	NP0100	CN0310	QW1-23	10TCC-T10
C44	.001 50V		DD-102		GP210		10TS-D10
C45	.01 50V		UK50-103		MAG5011		
C46	33 NPO 10%		DTZ-33	NP033	CN0433		10TCC-Q33
C47	7 NPO +.5		DTZ-6R8	NP06P8	CN0568		10TCC-V68
C48	180 50V 10%		DTZ-180				10TCC-T18
C50	.01 50V		UK50-103		MAG5011		
C51	.01 50V		UK50-103		MAG5011		
C52	.01 50V		UK50-103		MAG5011		
C53	.01 50V		UK50-103		MAG5011		
C55		RCV1PX20AG				QW1-23	
C56	.01 50V		UK50-103		MAG5011		
C57	7 NPO +.5		DTZ-6R8	NP06P8	CN0568		10TCC-V68
C58	33 50V 10%		DTZ-33	NP033	CN0433		10TCC-Q33
C59							
C60	22 NPO 10%	ECCD1H030C	DTZ-22	NP022	CN0422	QW1-23	10TCC-Q22
C61	3		DTZ-3R3	NP03P3	CN0533		10TCC-V33
C62	7 50V +.25						
C63	.01 50V		UK50-103		MAG5011		
C64	33 NPO 10%		DTZ-33	NP033	CN0433		10TCC-Q33
C65	.001 50V	RCV1PX30AG	DD-102		GP210	QW1-23	10TS-D10
C66	18 NPO 10%				CN0418		10TCC-Q18
C67	330 50V 10%		DD-331	GP330	GP333		10TS-T33
C68	.001 50V		DD-102		GP210		10TS-D10
C69	.01 50V		UK50-103		MAG5011		
C70	10 NPO 10%		DTZ-10	NP010	CN0410		10TCC-Q10
C71							
C72	68 50V 10%			CD15ED680J03	SX468		MWA-680
C73A	2 50V +.25						
C73B	100 N750 10%						
C74	33 NPO 10%	ECCD1H560KU	DTZ-33	NP033	CN0433	QW1-35	10TCU-T10
C75	.001 50V				*		10TCC-Q33
C76	56 N750 10%				*		10TCT-Q56
C77	330 50V 5%		DD-331	GP330	GP333		10TS-T33
C78	33 NPO 10%		DTZ-33	NP033	CN0433		10TCC-Q33
C79	15 NPO 10%		DTZ-15	NP015	CN0415		10TCC-Q15
C80	.1 50V			WMF05P1	ENF05010		431P1049R5
C81	33 NPO 10%		DTZ-33	NP033	CN0433		10TCC-Q33
C82	100 10%		DTZ-100	NP0100	CN0310		10TCC-T10
C83	.01 50V		UK50-103		MAG5011		
C84	.01 50V	ECCD1H020C	UK50-103		MAG5011	QW1-35	
C85	56 50V 10%				CN0456		10TCC-Q56
C86	330 50V 10%		DD-331	GP330	GP333		10TS-T33
C87	56 50V 10%				CN0456		10TCC-Q56
C88	56 50V 10%				CN0456		10TCC-Q56
C89	22 NPO 10%		DTZ-22	NP022	CN0422		10TCC-Q22
C90	.01 50V		UK50-103		MAG5011		
C91	2 50V +.25						
C92	2 50V +.25						
C93	.01 50V	ECCD1H020C	UK50-103		MAG5011	QW1-35	
C94	.001 50V		UK50-103		MAG5011		
C95	.01 50V		DD-102		GP210		10TS-D10
C96	.001 50V		UK50-103		MAG5011		
C97	.001 50V		DD-102		GP210		10TS-D10
C98	.01 50V		UK50-103		MAG5011		
C99	.01 50V		UK50-103		MAG5011		
C100	.01 50V		UK50-103		MAG5011		
C101	220 50V 5%			CD15FD221J03	SX322		MWA-221
C102	56 50V 10%		DTZ-47	NP047	CN0456		10TCC-Q56
C103	.01	ECCD1H020C	UK50-103		CN0447	QW1-25	10TCC-Q47
C104	.001		DD-102		MAG5011		
C105	68 50V 10%		DTZ-68	NP068	GP210		10TS-D10
C106	.01 50V		UK50-103		CN0468		10TCC-Q68
C107	.01 50V		UK50-103		MAG5011		
C108	.01 50V		UK50-103		MAG5011		
C109	.01 50V		UK50-103		MAG5011		
C110	.01 50V		UK50-103		MAG5011		
C111	.01 50V		UK50-103		MAG5011		
C112	.033 50V		UK50-333		MAG50133		
C113	.033 50V	ECCD1H020C	UK50-333		MAG50133	QW1-195	
C114	.033 50V		UK50-333		MAG50133		
C115	.033 50V		UK50-333		MAG50133		
C116	.033 50V		DTZ-6R8	NP06P8	CN0568		10TCC-V68
C117	7 NPO +.5				M192P2239R8		192P2239R8
C118	.022 50V				CN0456		10TCC-Q56
C119	56 50V 10%				CN0456		10TCC-Q56
C120	56 50V 10%				CN0415		10TCC-Q15
C121	15 50V 10%		DTZ-15	NP015	SX482		MWA-820
C122	82 50V 10%		UK50-333	CD15ED820J03	MAG50133		
C123	.033 50V	ECCD1H020C			ENF05010	QF1-195	431P1049R5
C124	.1 50V				EW1A168		1PB-S68
C125	.068 50V				ENF05010		431P1049R5
C126	.1 50V				M192P3339R8		192P3339R8
C127	.033 50V				MAG5011		
C128	.01 50V				M192P3339R8		192P3339R8
C129	.033 25V		UK50-103		MAG50168		
C130	.068 50V		UK50-683		EW1A168		1PB-S68
C131	.068 50V			WMF1S68	GP210		10TS-D10
C132	.001 50V		DD-102		GP210		10TS-D10
C133	.001 50V	ECCD1H020C	DD-102		MAG5011	QF1-195	
C134	.01 50V		UK50-103		MAG5011		
C135	.01 50V		UK50-103		MAG5011		
C136	.01 50V		UK50-103		MAG5011		
C137	.01 50V		UK50-103		MAG5011		
C138	.01 50V		UK50-103		MAG5011		
C139	.01 50V		UK50-103		MAG5011		
C140	.01 50V		UK50-103		MAG5011		
C141	.01 50V		UK50-103		MAG5011		
C142	.01 50V		UK50-103		MAG5011		

PANASONIC MODEL R.J-3250

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 Q-LINE	PART No. GENERAL LINE
C163	.01 50V	ECKL1H102PF1	UK50-103	WMF1S68	MAG5011	QF1-195	HY-730
C164	.01 50V		UK50-103		MAG5011		
C165	.033 25V		UK25-333		MAG25133		
C168	.01 50V		UK50-103		MAG5011		
C169	.01 50V		UK50-103		MAG5011		
C170	.01 50V		UK50-103		MAG5011		
C171	.01 50V		UK50-103		MAG5011		
C172	.01 50V		UK50-103		MAG5011		
C174	.01 50V		UK50-103		MAG5011		
C175	.01 50V		UK50-103		MAG5011		
C176	.01 50V	ECKL1H102PF1	UK50-103	CD15FD221J03	MAG5011	QW1-35	10TCC-Q12 1PB-S68
C177	22 NPO 10%		UK50-103		MAG5011		
C178	.01 50V		UK50-103		MAG5011		
C179	.01 50V		UK50-103		MAG5011		
C181	.001 Feed thru				CN0412		
C182	.001 Feed thru				EW1A168		
C183	.001 Feed thru				MAG5011		
C185	12 50V 10%				SX322		
C186	.068 50V						
C187	.01 50V		UK50-103				
C188	220 50V 5%	ECKL1H102PF1		NP047	GP210	QW1-23	MWA-221
C189	.001 Feed thru				GP210		
C190	.001 50V		DD-102		GP210		
C191	.001 50V		DD-102		GP210		
C192	.001 50V		DD-102		GP210		
C193	.001 50V		DD-102		GP210		
C194	.001 50V		DD-102		GP210		
C195	.01 50V		UK50-103		MAG5011		
C196	.01 50V		UK50-103		MAG5011		
C197	5 NPO +.25						
C198	.033 50V	ECCD1H050CC		CD15ED680J03	M192P3339R8	QW1-23	192P3339R8
C200	.033 50V		UK50-333		MAG50133		
C201	.033 50V		UK50-333		MAG50133		
C202	.001 50V		DD-102		GP210		
C203	.001 50V		DD-102		GP210		
C204	.001 50V		DD-102		GP210		
C205	.001 50V		DD-102		GP210		
C206	47 NPO 10%		DTZ-47		CN0447		
C208	.033 50V		UK50-333		MAG50133		
C210	.001 50V		DD-102		GP210		
C211	68 50V 10%			WMF05P1	SX468		10TS-D10 10TS-D10 10TS-D10 10TS-D10 10TS-D10 10TS-D10 10TCC-Q47 10TS-D10 MWA-680 431P1049R5 192P3339R8
C212	.1 50V				EWFO5010		
	.033 50V				M192P3339R8		

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

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

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA			
			MFR. PART No.	CENTRALAB PART No.	MALLORY PART No.	TRW PART No.
R22	S Meter	5000	EVNK4AA00B53	T-100K(2)	MTC15L1(2)	U260R502B
R24	Squelch Range	1000	EVNK4AA00B13			U260R102B
R70	AMC	100K	EVLTOAA00B15			X201R104B
R71	Volume/Power Switch	10K	EVHEXG087D14			
R73	RF Output Meter	50K	EVNK4AA00B54			U260R503B
R105	VU/Mod Meter	2000	EVNK4AA00B23			U260R252B
R128	Squelch/CB/PA/Switch	1000	EVHEYQ87B13			

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

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.
# R100	68 5% 1W Film	22-3068	ERGIANJ680	R132	47 5% 1W Film	22-3064	ERGIANJ470
# R107	4700 5% 1W Film	22-3112	ERGIANJ471				

For SAFETY use only equivalent replacement parts.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L2	VCO	RLA7M5	7M5		
L3	RF Choke				
L4	RF Choke				
L5	RF Choke				
L6	RF Choke				
L7	RF Choke				
L8	Driver (27MHz)	RLD7M1			
L9	RF Choke				
L16	Final (27MHz)	RLD7M2			
L17	RF Choke		154J		
L18	TX RF (27MHz)	RLD7M2			
T1	Mixer (10.695MHz)	RLI4M101	FI101MJTQ3		
T2	Mixer (455kHz)	RLI2M205	AI205MJTE3		
T3	IF (455kHz)	RLI2M205	AI205MJTE3		
T4	IF (455kHz)	RLI2M402	AI402MOLE3		
T6	Antenna (27MHz)	RLA7M1	7M7		
T7	Detector (27MHz)	RLA7M2	7M2		
T8	Detector (27MHz)	RLA7M3	7M3		
T9	VCO	RLA7M4	7M4		
T10	Oscillator	RLA7M6	7M6		
T11	Mixer (27MHz)	RLA7M7	7M7		
T12	Mixer (27MHz)	RLA7M7	7M7		
T13	Mixer (27MHz)	RLA7M8	7M8		
T14	RF Amp (27MHz)	RLA7M9	7M9		
T15	Pre Driver (27MHz)	RLA7M10	7M10		

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.	
L1	1.4A	2	1.54mH	RLT6F3			

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T5	8	8	RLT4H1			

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3" PM 8 Ohms	EAS8P65G BP65G(1)	30A05Z8R	(1) Number on unit.

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA					
		PART No.		BUSS PART No.		LITTELFUSE PART No.	
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER
# F1	2A Quick Acting	XBA1E20NR5		AGC2	HRK	312002	150145

For SAFETY use only equivalent replacement part.

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	RJM131X-H	18-032	18-034	18-010	*	1	2	3	4	NC	2

PARTS LIST AND DESCRIPTION (CONTINUED)

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

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF1	Filter	RVF107MFNR	10.7MHz
CF2	Filter	RVFCFW455H4	455kHz
CF3	Filter	RVF107MFR	27MHz
CP1	Component Combination	RLE5007	Directional Coupler
D42	LED	RVDGL31AR	On Air (23mA @ 1.61V)
FL1	Filter	RLE5006	Low Pass 27MHz
FL2	Filter		(Contains L18, C120, C121 & C122)
J1000	Jack	RJS263Z-H	Microphone
J1001	Jack	RJJ111Z-U	External Speaker
J1002	Jack	RJJ111Z-U	PA Speaker
J1003	Jack	RJS258X-R	Antenna
LED1	LED	RAD301ZE	Channel Indicator, Tens & Units (12.1mA @ 1.64V)
M1000	Meter	RSM9501Z-K	RF Out/S
M1001	Meter	RSM9502Z-K	Vu/Modulation
PL1	Lamp	XAMR48T150	S/RF Meter (27Ma @ 11.11V)
PL2	Lamp		Vu/Modulation Meter (27mA @ 11.11V)
PL3	Lamp	XAMR24S75	Ch 9 Indicator (80mA @ 13.71V)
PL4	Lamp		Antenna Warning (30mA @ 8.44V)
P1000	Connector	RJS263Z-H	Microphone
S1	Switch	RSRX003Z-A	Channel Selector
S2	Switch	RSH2B02Z-A	Ch 9 On/Off
S3	Switch	RST2B07Z-H	NB/ANL
S4	Switch	RST3B03Z-H	RF Attenuator
S5	Switch	RST3B03Z-H	Delta Tune
S6	Switch		Microphone XMT/REC
S7-1	Switch		CB/PA (Part of squelch control)
S7-2	Switch		Power On/Off (Part of volume control)
X1	Crystal	RVCX10695R4Z	10.695MHz
X2	Crystal	RVCX35740R4Z	35.74MHz
X3	Crystal	RVCX10240Q4Z	10.240MHz
Z1	Filter	EXAF203Z471R	
	Connector	RJS126Z-R	Antenna (Car Bracket)
	Cord	RXE1J3250M	Power DC Assembly
	PCB	RXE2J3250M	Assembly Power Source, PA Speaker, External Speaker
	PCB	RUP809Z	Channel Display
	Plug	RJP159Z	(9 Terminals) PCB Vol & PA/Squelch
	Plug	RJP163Z	(8 Terminals) PCB Vol & PA/Squelch
	Plug	EMCS0701	(7 Terminals) Ch 9, NB/Attenuator Switch
	Plug	RJP158Z	(7 Terminals) PCB
	Plug	EMCS0501	(5 Terminals) Ext Speaker, Microphone
	Plug	EMCS0301	(3 Terminals) Volume & PA/Squelch
	Socket	RJS265Z	Channel Display
	Socket	RJJ111Z-U	PA External Speaker & Power Source
	Socket	RJS128Z	(9 Terminals) PCB Vol & PA/SQ
	Socket	RJS130Z	(8 Terminals) PCB
	Socket	EMCB0716A02	(7 Terminals) Meter
	Socket	EMCB0720A05	(7 Terminals) NB/ANL, Delta Tune & RF Att
	Socket	RJS127Z	(7 Terminals) PCB
	Socket	EMCB0520B01X	(5 Terminals) Microphone
	Socket	EMCB0530A02	(5 Terminals) NB/ANL
	Socket	EMCB0510A05	(5 Terminals) PA & External Speaker
	Socket	EMCB0316A05	(3 Terminals) Volume & PA/Squelch

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

ITEM	PART No.	ITEM	PART No.
Button, Ch 9	RBC121Z	Front Panel Assembly	RYPJ3250M
Cover, Lower Side	RDF355Z	Knob, Selector	RBN402Z
Cover, Upper Side	RKF354Z	Knob, Volume, PA Squelch	RBN401Z

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')