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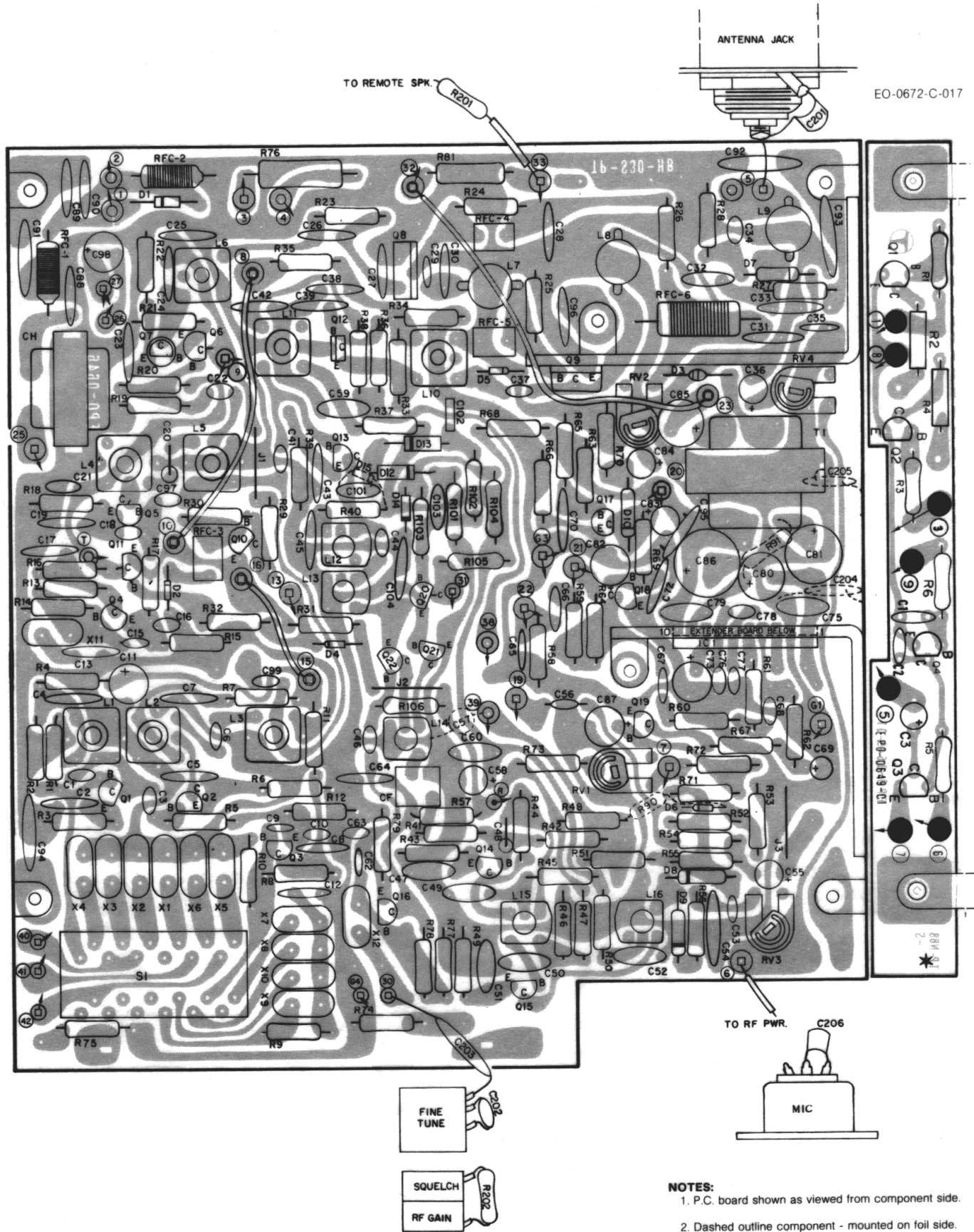
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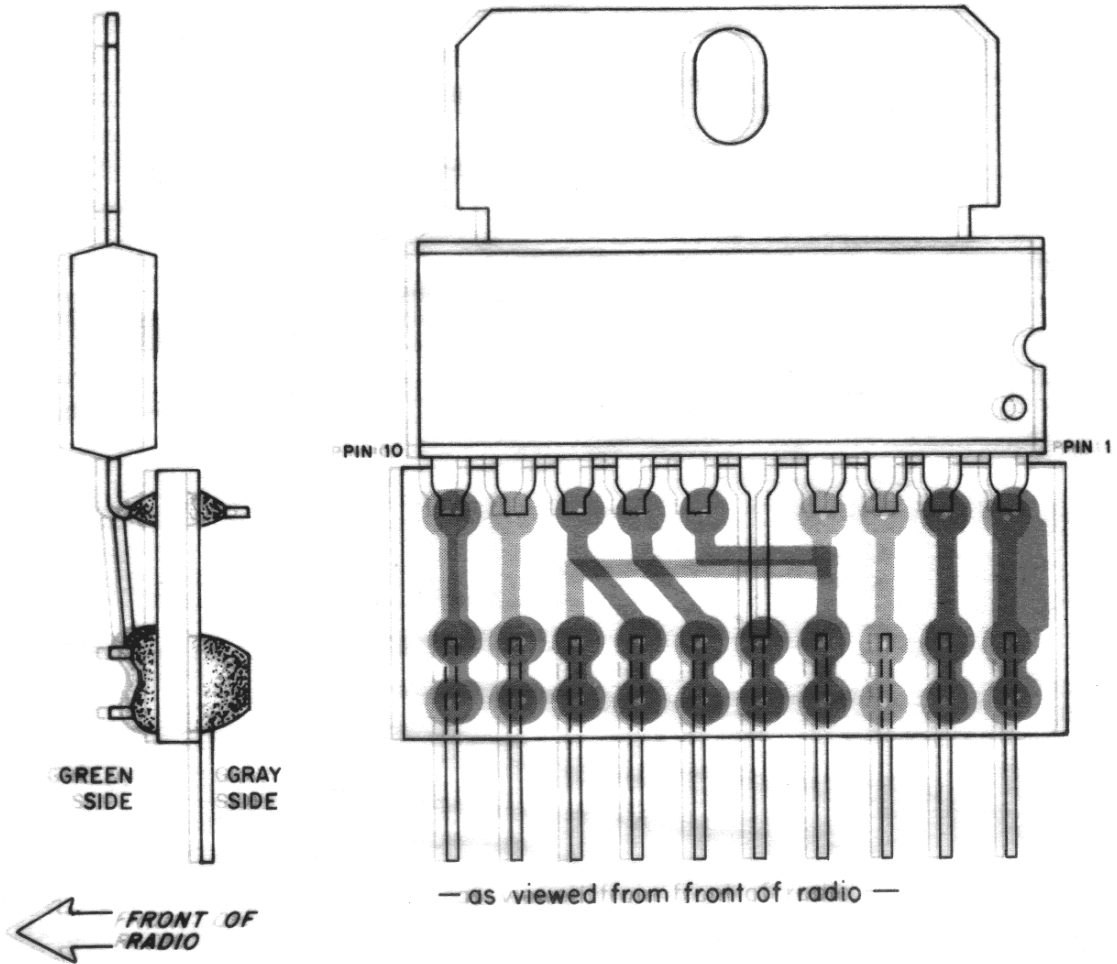
**P.C. Board Drawings  
Stage 2**





**Figure 4-2. P.C. Board, Component Outline, Stage 2**

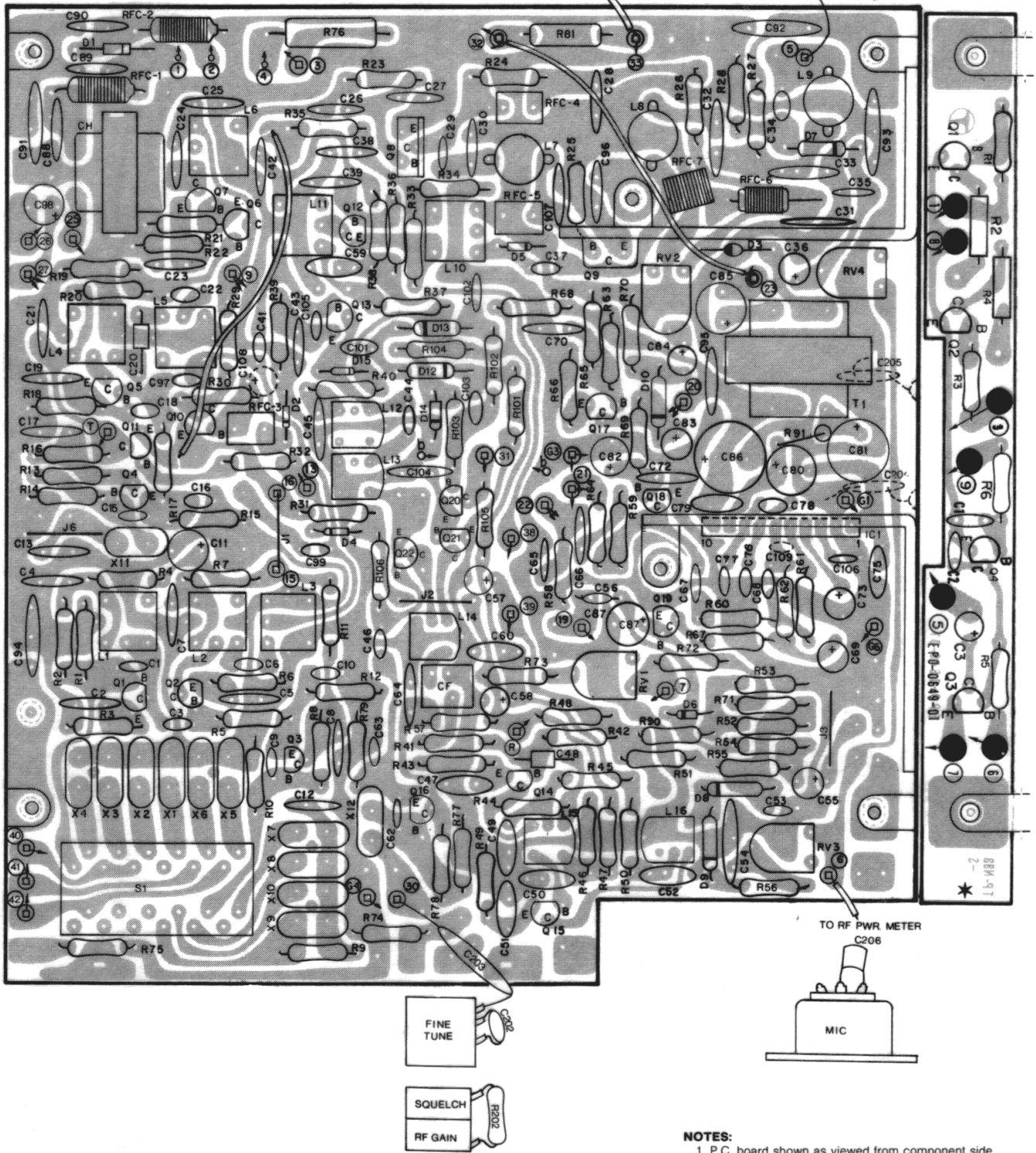
- NOTES:**
1. P.C. board shown as viewed from component side.
  2. Dashed outline component - mounted on foil side.
- ★ Front Panel Lamp Controller P.C. Board.



**Figure 4-3. Audio IC Mounted on Extender P.C. Board**

**P.C. Board Drawings,  
Stage 3**



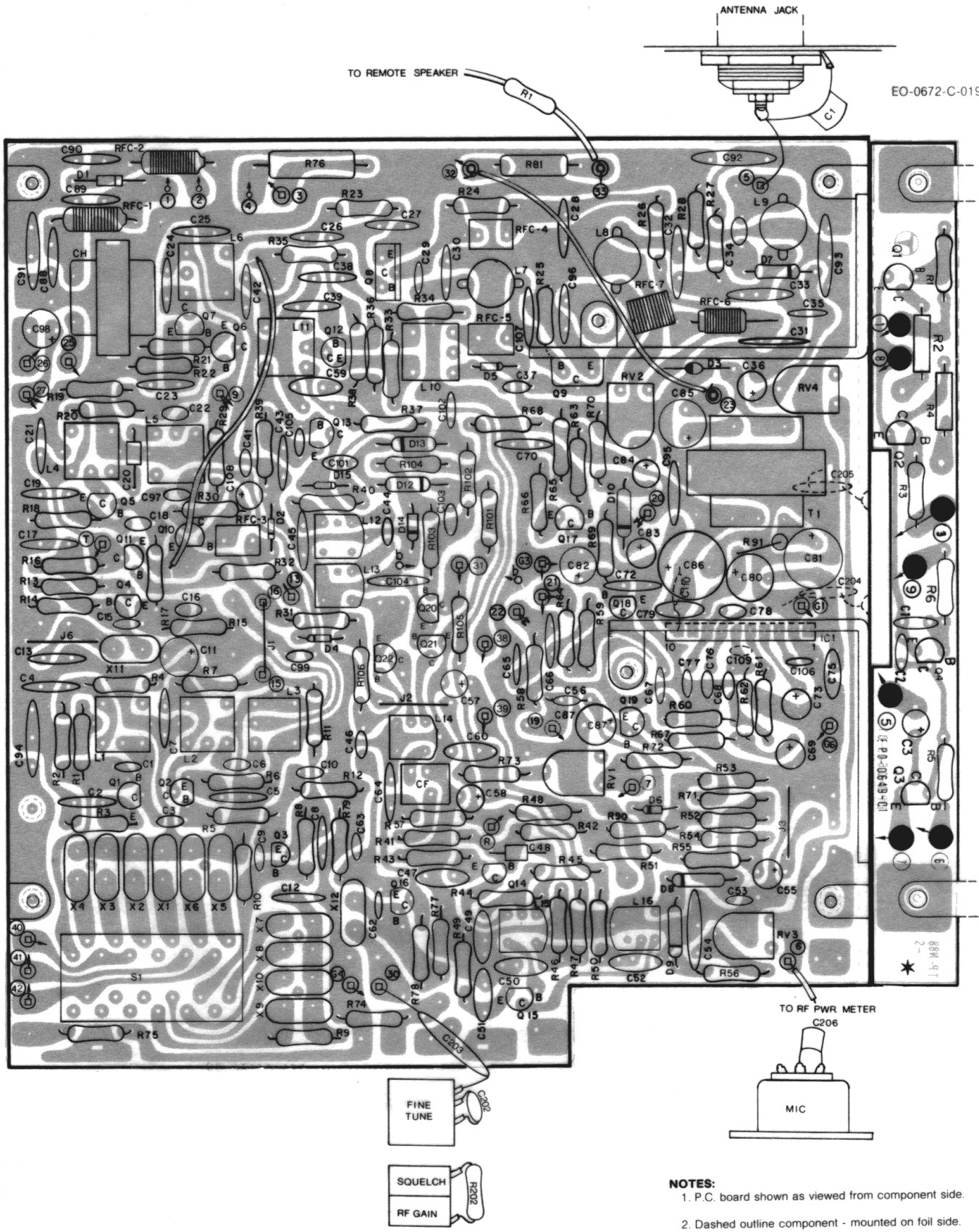


- NOTES:**
- 1. P.C. board shown as viewed from component side.
  - 2. Dashed outline component - mounted on foil side.
  - ★ Front Panel Lamp Controller P.C. Board.

**Figure 4-4. P.C. Board, Component Outline, Stage 3**

**P.C. Board Drawings,  
Stage 4**





- NOTES:**
1. P.C. board shown as viewed from component side.
  2. Dashed outline component - mounted on foil side.
- ★ Front Panel Lamp Controller P.C. Board.

**Figure 4-5. P.C. Board, Component Outline, Stage 4**



**Voltage Charts  
(All Stages)**



## VOLTAGE CHARTS, 672B (All stages)

### MAIN P.C. BOARD

Ref. Desig.	E	B	C
Q1	2.8	—	8.8
Q2	2.7	—	8.8
Q3	2.4	—	8.8
Q4	2.3	—	8.4
Q5	Δ 1.4	Δ 1.9	Δ 9.0
Q6	Δ 2.3	Δ 2.8	13.8
Q7	Δ 1.7	Δ 2.3	13.8
Q8	GND	Δ -.05	13.4
Q9	GND	Δ -.07	13.4
Q10	9.0	9.7	12.8
Q11	9.0	Δ 8.3	Δ 9.0
		9.0	0
Q12	1.4	2.0	12.8
Q13	1.4	2.0	12.0
Q14	1.3	1.8	12.0
Q15	.75	1.4	12.0
Q16	1.9	—	6.4
Q17	Δ .05	Δ 0.6	Δ 0.6
	Δ <sub>M</sub> 0.5	Δ <sub>M</sub> 0.9	Δ <sub>M</sub> 0.6
Q18	GND	Δ .05	Δ 0
		Δ <sub>M</sub> 0.5	Δ <sub>M</sub> 0.6
Q19	GND	□ 0	□ 3.5
<b>The following voltages are measured with Noise Blanker in the "ON" position.</b>			
Q20	0.2	0.5	13
Q21	0	0.9	0
Q22	0	-1.6	0

### FRONT PANEL LAMP CONTROLLER P.C. BOARD (All Stages)

Reference Designator		E	B	C
Q1	Rx	0	0.7	0
	Tx	0	0.7	12
Q2	Rx	0	0	13
	Tx	0	0.7	0
Q3	Rx	0	0	0
	Tx	0	0	0
Q4	Rx	0	0.6	0
	Tx	0	0.6	0

**NOTES:**

1. All voltages are measured with exactly 13.8 VDC power input.
2. All measurements are made in the receive mode with no signal and unscelched (except as noted).
3. Symbols used.
  - — receive voltage, squelched
  - Δ — transmit voltage, unmodulated
  - Δ<sub>M</sub> — transmit voltage, modulated

### IC1

Pin No.	1	2	3	4	5	6	7	8	9	10
<b>Voltage</b>	6.9	GND	1.3	4.2	—	3.4	8.3	1.3	—	13.8

**Parts List**



## Main P.C. Board

- Stage 1
- Stage 2
- Stage 3
- ★ Stage 4

Unmarked components are common to all four stages

Reference Designator	Description	Part No.
	□ ■ main p.c. board, complete	EPA-0646-01
	● ★ main p.c. board, complete	EPA-0646-01
	□ ■ main p.c. board, plated and drilled	EPA-0646C
	● ★ main p.c. board, plated and drilled	EPA-0646C
C1	2pF, 50V, ceramic disc.	DD340-65SL020C50
C2	220pF, 50V, ceramic disc.	DD310-65SL221K50
C3	6pF, 50V, ceramic disc.	DD340-65SL060D50
C4	.01uF, 50V, ceramic disc.	DD310-65E103P50
C5	.01uF, 50V, ceramic disc.	DD310-65E103P50
C6	1pF, 50V, ceramic disc.	DD340-65SI010C50
C7	.01uF, 50V, ceramic disc.	DD310-65E103P50
C8	.01uF, 50V, ceramic disc.	DD310-65E103P50
C9	560pF, 50V, mylar	FW-561K50
C10	68pF, 50V, ceramic disc.	DD350-65SL680K50
C11	33uF, 16V, electrolytic	ECE-A16V33LE
C12	220pF, 50V, ceramic disc.	DD310-65SL221K50
C13	270pF, 50V, ceramic disc.	DD310-65SL271K50
C14	(not used)	
C15	1000pF, 50V, mylar	FW-102K50
C16	68pF, 50V, ceramic disc.	DD350-65SL680K50
C17	.01pF, 50V, ceramic disc.	DD310-65E103P50
C18	68pF, 50V, ceramic disc.	DD350-65SL680K50
C19	.01uF, 50V, ceramic disc.	DD310-65E103P50
C20	1.5pF, 50V, ceramic disc.	ECG-N51R5K
C21	.002uF, 50V, mylar	FW-223K50
C22	22pF, 50V, ceramic disc.	DD340-65SL220K50
C23	.01uF, 50V, ceramic disc.	DD310-65E103P50
C24	82pF, 50V, ceramic disc.	DD310-65PH820K50
C25	.01uF, 50V, ceramic disc.	DD310-65E103P50
C26	.01uF, 50V, ceramic disc.	DD310-65E103P50
C27	□ ■ 330pF, 50V, ceramic disc.	DD310-65SL331K50
	● ★ 390pF, 50V, ceramic disc.	DD310-65SL391K50
C28	.01uF, 50V, ceramic disc.	DD310-65E103P50
C29	120pF, 50V, ceramic disc.	DD360-65SL121K50
C30	220pF, 50V, ceramic disc.	DD310-65SL221K50
C31	.01uF, 50V, ceramic disc.	DD310-65E103P50
C32	100pF, 50V, mica	FM09ZC101K5
C33	270pF, 50V, ceramic disc.	FM13ZC271K5
C34	2pF, 50V, ceramic disc.	DD340-65SL020C50
C35	.0047uF, 50V, ceramic disc.	DD380-65E472P50
C36	1uF, 50V, electrolytic	ECE-A50V1LE
C37	27pF, 50V, ceramic disc.	DD340-65SL270K50
C38	.01uF, 50V, ceramic disc.	DD310-65E103P50
C39	.01uF, 50V, ceramic disc.	DD310-65E103P50
C40	(not used)	
C41	12pF, 50V, ceramic disc.	DD340-65SL120K50
C42	.01uF, 50V, ceramic disc.	DD310-65E103P50
C43	.01uF, 50V, ceramic disc.	DD310-65E103P50
C44	2pF, 50V, ceramic disc.	DD340-65SL020C50
C45	.01uF, 50V, ceramic disc.	DD310-65E103P50
C46	39pF, 50V, ceramic disc.	DD340-65SL390K50
C47	.047uF, 50V, mylar	FW-473K50
C48	2.2 pF, 50 V, ceramic disc	ECG-N52R2K
C49	.047 uF, 50 V, mylar	FW-473K50
C50	.047 uF, 50 V, mylar	FW-473K50
C51	.047 uF, 50 V, mylar	FW-473K50
C52	.047 uF, 50 V, mylar	FW-473K50
C53	.0047 uF, 50 V, mylar	FW-472K50
C54	.022 uF, 50 V, ceramic disc	DD314-66E223Z50
C55	1 uF, 50 V, electrolytic	ECE-A50V1LE
C56	□ ★ 2200 pF, 50 V, mylar	FW-222K50
	■ ● .047 uF, 50 V, mylar	FW-473K50
C57	3.3 uF, 25 V, electrolytic	ECE-A25V3R3LE
C58	10 uF, 16 V, electrolytic	ECE-A16V10LE
C59	.047 uF, 50 V, mylar	FW-473K50
C60	.047 uF, 50 V, mylar	FW-473K50

Reference Designator	Description	Part No.
C61	(not used)	
C62	560 pF, 50 V, mylar	FW-561K50
C63	68 pF, 50 V, ceramic disc	DD350-65SL680K50
C64	.01 uF, 50 V, ceramic disc	DD310-65E103P50
C65	2200 pF, 50 V, ceramic disc	DD360-65B222K50
C66	.022 uF, 50 V, mylar	FW-223K50
C67	.01 uF, 50 V, mylar	FW-103K50
C68	2200 pF, 50 V, ceramic disc	DD350-65E222P50
C69	□ 3.9 uF, 25 V, tantalum	ECS-A25EF3R90
	■ • ★ 5.6 uF, 25 V, tantalum	ECS-A25EF5R60
C70	.01 uF, 50 V, ceramic disc	DD310-65E103P50
C71	(not used)	
C72	.01 uF, 50 V, ceramic disc	DD310-65E103P50
C73	33 uF, 6.3 V, electrolytic	ECE-A6V33LE
C74	□ 100 pF, 50 V, ceramic disc	DD360-65SL101K50
	■ • ★ (not used)	
C75	.068 uF, 50 V, mylar	FW-683K50
C76	68 pF, 50 V, ceramic disc	DD350-65SL680K50
C77	68 pF, 50 V, ceramic disc	DD350-65SL680K50
C78	□ 100 pF, 50 V, ceramic disc	DD360-65SL101K50
	■ • ★ 390 pF, 50 V, ceramic disc	DD350-65SL391K50
C79	.068 uF, 50 V, mylar	FW-683K50
C80	47 uF, 16 V, electrolytic	ECE-A16V47LE
C81	220 uF, 10 V, electrolytic	ECE-A10Z220E
C82	33 uF, 6.3 V, electrolytic	ECE-A6V33LE
C83	10 uF, 16 V, electrolytic	ECE-A16V10LE
C84	1 uF, 50 V, electrolytic	ECE-A50V1LE
C85	47 uF, 16 M, electrolytic	ECE-A16Z47
C86	1000 uF, 16 V, electrolytic	ECE-A16V1000W
C87	EE uF, 6.3 V, electrolytic	ECE-A6V33LE
C88	.01 uF, 50 V, ceramic disc	DD310-65E103P50
C89	.01 uF, 50 V, ceramic disc	DD310-65E103P50
C90	.01 uF, 50 V, ceramic disc	DD310-65E103P50
C91	.047 uF, 50 V, ceramic disc	DD314-66F473Z50
C92	.047 uF, 50 V, ceramic disc	DD314-66F473Z50
C93	.047 uF, 50 V, ceramic disc	DD314-66F473Z50
C94	.047 uF, 50 V, ceramic disc	DD314-66F473Z50
C95	.047 uF, 50 V, ceramic disc	DD314F473Z50V02
C96	.01 uF, 50 V, ceramic disc	DD310-65E103P50
C97	22 pF, 50 V, ceramic disc	DD340-65SL220K50
C98	33uF, 16 V, electrolytic	ECE-A16V33LE
C99	47 pF, 50 V, ceramic disc	DD340-65SL470K50
C100	(not used)	
C101	7 pF, 50 V, ceramic disc	DD340-65SL070D50
C102	3300 pF, 50 V, mylar	FW-332K50
C103	100 pF, 50 V, ceramic disc	DD360-65SL101K50
C104	330 pF, 50 V, ceramic disc	DD310-65SL331K50
C105	□ ■ (not used)	
	• ★ 39 pF, 50 V, ceramic disc	DD340-65SL390K50
C106	□ ■ (not used)	
	• ★ .01 uF, 50 V, ceramic disc	DD310-65E103P50
C107	□ ■ (not used)	
	• ★ 100 pF, 50 V, ceramic disc	DD360-65SL101K50
C108	□ ■ (not used)	
	• ★ 10 uF, 50 V, electrolytic	ECE-A16V10LE
C109	□ ■ (not used)	
	• ★ 390 pF, 50 V, ceramic disc	DD310-65SL391K50
C110	□ ■ • (not used)	
	★ .01 uF, 50 V, ceramic disc	DD310-65E103P50
CF	ceramic filter	EFC-0040
CH1	audio choke coil	ELA-0016
D1	10D1, silicon	EDS-0002
D2	RD91E, silicon, zener	EZR-0045
D3	V06C, silicon	EDS-0004
D4	1S1555, silicon	EDS-0001
D5	1S1555, silicon	EDS-0001
D6	1S1555, silicon	EDS-0001
D7	1N60, germanium	EDG-0001
D7	1N60, germanium	EDG-0003
D8	1N60, germanium	EDG-0003
D9	1N60, germanium	EDG-0003
D10	1N60, germanium	EDG-0003
D11	(not used)	
D12	1N60, germanium	EDG-0003
D13	1N60, germanium	EDG-0003

Reference Designator	Description	Part No.
D14	1S1555, silicon .....	EDS-0001
D15	1S1555, silicon .....	EDS-0001
IC1	<input type="checkbox"/> (TOSHIBA) TA72D5P .....	EICM-0060
	<input checked="" type="checkbox"/> (TOYO DENGU) BA511A (straight leads) .....	QQ-MBA511AX
	or (TOYO) BA511A (mounted on extender p.c. bd.) .....	AZQQ-001GEA
	<input checked="" type="checkbox"/> (TOYO DENGU) BA511A (has formed leads) .....	QQ-MBA511BX
	<input checked="" type="checkbox"/> (TOYO DENGU) BA521 .....	QQ-MBA521AX
L1	rf coil .....	ETR-0336
L2	rf coil .....	ETR-0337
L3	rf coil .....	ETR-0338
L4	rf coil .....	ETR-0339
L5	rf coil .....	ETR-0340
L6	rf coil .....	ETR-0341
L7	rf coil .....	ETR-0342
L8	rf coil .....	ETR-0343
L9	rf coil .....	ETR-0344
L10	rf coil .....	ETR-0333
L11	rf coil .....	ETR-0334
L12	rf coil .....	ETR-0335
L13	rf coil .....	ETR-0335
L14	i-f coil .....	ETI-0122
L15	i-f coil .....	ETI-0123
L16	i-f coil .....	ETI-0129
Q1	(NEC) 2SC839 (H) .....	EQS-0100
Q2	(MITSUBISHI) 2SC710 (C) .....	EQS-0195
Q3	(NEC) 2SC839 (H) .....	EQS-0100
Q4	(NEC) 2SC839 (H) .....	EQS-0100
Q5	(MITSUBISHI) 2SC710 (C) .....	EQS-0195
Q6	(MITSUBISHI) 2SC710 (C) .....	EQS-0195
Q7	(TOSHIBA) 2SC735 (O) .....	EQS-0192
Q8	(SONY) 2SC1760-3 .....	EQS-0184
Q9	(NEC) 2SC1306 .....	EQS-0160
Q10	(MATSUSHITA) 2SC1318 (Q) .....	EQS-0165
Q11	(MATSUSHITA) 2SA719 (Q) .....	EQR-0038
Q12	(HITACHI) 2SC460 (A) .....	EQS-0018
Q13	(MITSUBISHI) 2SC710 (C) .....	EQS-0195
Q14	(MITSUBISHI) 2SC710 (C) .....	EQS-0195
Q15	(MITSUBISHI) 2SC710 (C) .....	EQS-0195
Q16	(NEC) 2SC839 (H) .....	EQS-0100
Q17	(NEC) 2SC945 (R) .....	EQS-0061
Q18	(NEC) 2SC945 (R) .....	EQS-0061
Q19	(NEC) 2SC945 (R) .....	EQS-0061
Q20	2SC900 (U) .....	EQS-0102
Q21	2SC900 (U) .....	EQS-0102
Q22	(NEC) 2SC839 (H) .....	EQS-0100
R1	3.9 k, 5%, 1/4 w, carbon film .....	FCR14-A392
R2	12 k, 5%, 1/4 w, carbon film .....	FCR14-A123
R3	330, 5%, 1/4 w, carbon film .....	FCR14-A331
R4	47, 5%, 1/4 w, carbon film .....	FCR14-A470
R5	1 k, 5%, 1/4 w, carbon film .....	FCR14-A102
R6	680, 5%, 1/4 w, carbon film .....	FCR14-A681
R7	47, 5%, 1/4 w, carbon film .....	FCR14-A470
R8	6.8 k, 5%, 1/4 w, carbon film .....	FCR14-A682
R9	5.6 k, 5%, 1/4 w, carbon film .....	FCR14-A562
R10	3.3 k, 5%, 1/4 w, carbon film .....	FCR14-A332
R11	47, 5%, 1/4 w, carbon film .....	FCR14-A470
R12	470, 5%, 1/4 w, carbon film .....	FCR14-A471
R13	6.8 k, 5%, 1/4 w, carbon film .....	FCR14-A682
R14	3.3 k, 5%, 1/4 w, carbon film .....	FCR14-A332
R15	470, 5%, 1/4 w, carbon film .....	FCR14-A471
R16	100, 5%, 1/4 w, carbon film .....	FCR14-A101
R17	3.9 k, 5%, 1/4 w, carbon film .....	FCR14-A392
R18	270, 5%, 1/4 w, carbon film .....	FCR14-A271
R19	2.7 k, 5%, 1/4 w, carbon film .....	FCR14-A272
R20	5.6 k, 5%, 1/4 w, carbon film .....	FCR14-A562
R21	220, 5%, 1/4 w, carbon film .....	FCR14-A221
R22	68, 5%, 1/4 w, carbon film .....	FCR14-A680
R23	100, 5%, 1/4 w, carbon film .....	FCR14-A101
R24	220, 5%, 1/4 w, carbon film .....	FCR14-A221
R25	47, 5%, 1/4 w, carbon film .....	FCR14-A470
R26	10, 5%, 1/2 w, metal oxide .....	ERX-12ANJ100
R27	47 k, 5%, 1/4 w, carbon film .....	FCR14-A473
R28	1 k, 5%, 1/4 w, carbon film .....	FCR14-A102
R29	22, 5%, 1/2 w, metal oxide .....	ERG-12ANJ220

Reference Designator	Description	Part No.
R30	1 k, 5%, ¼ w, carbon film	FCR14-A102
R31	390, 5%, ¼ w, carbon film	FCR14-A391
R32	3.3 k, 5%, ¼ w, carbon film	FCR14-A332
R33	330, 5%, ¼ w, carbon film	FCR14-A331
R34	1 k, 5%, ¼ w, carbon film	FCR14-A102
R35	33 k, 5%, ¼ w, carbon film	FCR14-A333
R36	680, 5%, ¼ w, carbon film	FCR14-A681
R37	220, 5%, ¼ w, carbon film	FCR14-A221
R38	1.8 k, 5%, ¼ w, carbon film	FCR14-A182
R39	560, 5%, ¼ w, carbon film	FCR14-A561
R40	470, 5%, ¼ w, carbon film	FCR14-A471
R41	1 k, 5%, ¼ w, carbon film	FCR14-A102
R42	4.7 k, 5%, ¼ w, carbon film	FCR14-A472
R43	470, 5%, ¼ w, carbon film	FCR14-A471
R44	□ ■ 33 k, 5%, ¼ w, carbon film	FCR14-A333
	• ★ 47 k, 5%, ¼ w, carbon film	FCR14-A473
R45	470, 5%, ¼ w, carbon film	FCR14-A471
R46	□ ■ 4.7 k, 5%, ¼ w, carbon film	FCR14-A472
	• ★ 3.3 k, 5%, ¼ w, carbon film	FCR14-A332
R47	12 k, 5%, ¼ w, carbon film	FCR14-A123
R48	33 k, 5%, ¼ w, carbon film	FCR14-A223
R49	□ ■ 330, 5%, ¼ w, carbon film	FCR14-A331
	• ★ 220, 5%, ¼ w, carbon film	FCR14-A221
R50	□ ■ 470, 5%, ¼ w, carbon film	FCR14-A471
	• ★ 47, 5%, ¼ w, carbon film	FCR14-A470
R51	22 k, 5%, ¼ w, carbon film	FCR14-A223
R52	47 k, 5%, ¼ w, carbon film	FCR14-A473
R53	68 k, 5%, ¼ w, carbon film	FCR14-A683
R54	47 k, 5%, ¼ w, carbon film	FCR14-A473
R55	33 k, 5%, ¼ w, carbon film	FCR14-A333
R56	820, 5%, ¼ w, carbon film	FCR14-A821
R57	100, 5%, ¼ w, carbon film	FCR14-A101
R58	□ 5.6 k, 5%, ¼ w, carbon film	FCR14-A562
	■ • ★ 3.3 k, 5%, ¼ w, carbon film	FCR14-A332
R59	3.3 k, 5%, ¼ w, carbon film	FCR14-A332
R60	2.2 k, 5%, ¼ w, carbon film	FCR14-A222
R61	820, 5%, ¼ w, carbon film	FCR14-A821
R62	47, 5%, ¼ w, carbon film	FCR14-A470
R63	220 k, 5%, ¼ w, carbon film	FCR14-A224
R64	27 k, 5%, ¼ w, carbon film	FCR14-A273
R65	22 k, 5%, ¼ w, carbon film	FCR14-A223
R66	150, 5%, ¼ w, carbon film	FCR14-A151
R67	10 k, 5%, ¼ w, carbon film	FCR14-A103
R68	82, 5%, ¼ w, carbon film	FCR14-A820
R69	270, 5%, ¼ w, carbon film	FCR14-A271
R70	680, 5%, ¼ w, carbon film	FCR14-A681
R71	22 k, 5%, ¼ w, carbon film	FCR14-A223
R72	1.8 k, 5%, ¼ w, carbon film	FCR14-A182
R73	□ ■ 12 k, 5%, ¼ w, carbon film	FCR14-A123
	• ★ 15 k, 5%, ¼ w, carbon film	FCR14-A153
R74	□ ■ 150, 5%, ½ w, metal oxide	ERG-12ANJ151
	• ★ 150, 5%, 1 w, metal oxide	ERG-1ANJ151
R75	270, 5%, ½ w, metal oxide	ERG-12ANJ271
R76	150, 5%, 2 w, metal oxide	ERX-2ANJ150
R77	3.3 k, 5%, ¼ w, carbon film	FCR14-A332
R78	5.6 k, 5%, ¼ w, carbon film	FCR14-A562
R79	560, 5%, ¼ w, carbon film	FCR14-A561
R80	(not used)	
R81	150, 5%, 1 w, metal oxide	ERG-1ANJ151
R82 through R89	(not used)	
R90	□ ■ 390, 5%, ¼ w, solid carbon	ERC-12GIC394
	• ★ 220, 5%, ¼ w, solid carbon	ERC-12GIC224
R91	□ (not used)	
	■ • ★ 100, 5%, ¼ w, carbon film	FCR14-A101
R92 through R100	(not used)	
R101	820 k, 5%, ¼ w, carbon film	FCR14-A824
R102	820 k, 5%, ¼ w, carbon film	FCR14-A824
R103	220 k, 5%, ¼ w, carbon film	FCR14-A224
R104	4.7 k, 5%, ¼ w, carbon film	FCR14-A472
R105	22 k, 5%, ¼ w, carbon film	FCR14-A223
R106	470 k, 5%, ¼ w, carbon film	FCR14-A474
RFC1	rf choke coil	ELR-0011
RFC2	rf choke coil	ELR-0011
RFC3	rf choke coil	ELR-0125

Reference Designator	Description	Part No.
RFC4	□ ■ 15 uH, rf choke coil .....	ELR-0126
	• ★ 2.2 uH, rf choke coil .....	ELR-0128
RFC5	rf choke coil .....	ELR-0125
RFC6	rf choke coil .....	ELR-0127
RFC7	□ ■ (not used)	
	• ★ 0.55 uH, rf choke coil .....	LA1KE1011A
RV1	10 k, potentiometer .....	ERP-0041
RV2	2 k, potentiometer .....	ERP-0047
RV3	20 k, potentiometer .....	ERP-0022
RV4	20 k, potentiometer .....	ERP-0022
SW1	switch, rotary wafer .....	ESR-0171
T1	audio transformer .....	ETA-0066
X1	23.290 MHz crystal .....	EXT-002S02390
X2	23.340 MHz crystal .....	EXT-002S023340
X3	23.390 MHz crystal .....	EXT-002S023390
X4	23.440 MHz crystal .....	EXT-002S023440
X5	23.490 MHz crystal .....	EXT-002S023490
X6	23.540 MHz crystal .....	EXT-002S023540
X7	14.950 MHz crystal .....	EXT-002S014950
X8	14.960 MHz crystal .....	EXT-002S014960
X9	14.970 MHz crystal .....	EXT-002S014970
X10	14.990 Mhz crystal .....	EXT-002S014990
X11	11.275 MHz crystal .....	EXT-002Z011275
X12	11.730 MHz crystal .....	EXT-002Z011730



## Front Panel Lamp Controller P.C. Board

Reference Designator	Description	Part No.
	p.c. board, complete .....	EPA-0649A
	p.c. board, plated and drilled .....	EPO-0649
C1	.01 uF, 50 V, ceramic disc .....	DD310-65E103P50
C2	.01 uF, 50 V, ceramic disc .....	DD310-65E103P50
C3	10 pF, 16 V, electrolytic .....	ECE-A16V10LE
C4 through C7	(not used)	
C8	1 uF, 50 V, electrolytic .....	ECE-A50V1LE
Q1	2SC945 (R) .....	EQS-0061
Q2	2SC945 (R) .....	EQS-0061
Q3	2SC945 (R) .....	EQS-0061
Q4	2SC945 (R) .....	EQS-0061
R1	10 k, 5%, ¼ w, carbon film .....	ERD-14TJ103
R2	270, 5%, ½ w, solid carbon .....	ERC-12GK271
R3	15 k, 5%, ¼ w, carbon film .....	ERD-14TJ153
R4	330, 5%, ½ w, solid carbon .....	ERC-12GK331
R5	330 k, 5%, ¼ w, carbon film .....	ERD-14TJ334
R6	100 k, 5%, ¼ w, carbon film .....	ERD-14TJ104

## Chassis-Mounted Components

Reference Designator	Description	Part No.
C201	220 pF, 50 V, mica .....	FM11ZC221K5
C202	8 pF, 50 V, ceramic disc .....	ECC-D1H080FP
C203	150 pF, 50 V, ceramic disc .....	ECC-D1H151KP
C204	.01 uF, 50 V, ceramic disc .....	DD310E103P50
C205	.01 uF, 50 V, ceramic disc .....	DD310E103P50
C206	.01 uF, 50 V, ceramic disc .....	DD310E103P50
J201	SO-239 UHF jack .....	EZS-0060
J202	5-pin, DIN microphone jack .....	EZS-0084
J203	3.5 mm, phone jack .....	EZS-0056
J204	3.5 mm, phone jack .....	EZS-0056
J205	¼" dia., 3-conductor phone jack .....	EZS-0126
M1	meter .....	EMM-0046
PL201	pilot lamp .....	EZP-0024A
PL202	pilot lamp .....	EZP-0024C
PL203	pilot lamp .....	EZP-0024C
R201	82, 5%, ¼ w, carbon film .....	ERD-14TJ823
R202	8.2, 5%, ¼ w, carbon film .....	ERD-14TJ8R2
S201	on/off switch (part of volume control) .....	ERV-0176
S202	DPDT toggle switch .....	EST-0004
SP	8 ohm, 77 mm, speaker .....	EAS-0003
VC201	fine tune .....	ESR-0144
VR201	50k, potentiometer (volume control w/power switch) .....	ERV-0176
VR202	10 k, potentiometer (squelch) .....	ERV-0180
VR203	50 k, potentiometer (rf gain) .....	ERV-0180
	2 A, 30 mm, fuse .....	EZF-0005
	heat sink (A) — for IC1 .....	MC092P007
	heat sink (B) — for Q8 .....	MC092P008

### Mechanical Parts

Part No.	Description	Qty
MC090A001	front panel, plastic .....	1
MC090P001	chassis, main frame .....	1
MC090P002	chassis, front frame .....	1
MC090P003	case (upper) .....	1
MC090P004	case (lower) .....	1
MC051P005	dial plate, channel selector .....	1
MC051P005	bracket, meter .....	1
MC090P007	lamp holder .....	3
MWO-0345	knob, channel selector .....	1
MWO-0346	knob, delta tune .....	1
MTO-0003	knob, squelch .....	1
MTO-0022	knob, volume .....	1
MTO-0020	bracket, speaker .....	3
MTO-0022	fuse holder .....	1
MYO-0142	power cord set .....	1
EZS-0001	bushing, power cord .....	1
ENO-0090		
EZZ-0025		

### Accessory Parts

Part No.	Description	Qty
MC051P008	mounting bracket .....	1
MMO-0108A	handscrew .....	2
MYO-0025	microphone holder .....	1
STPT50132SN	self-tapping screw, M5 x 13 .....	4
ZTS050000SX	outside tooth washer, M5 .....	4
STPN40102SN	self-tapping screw, M4 x 10 .....	2
ZTU040000SX	outside tooth washer, M4 .....	2
EAM-0032	microphone .....	1



**Schematic Diagram**

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