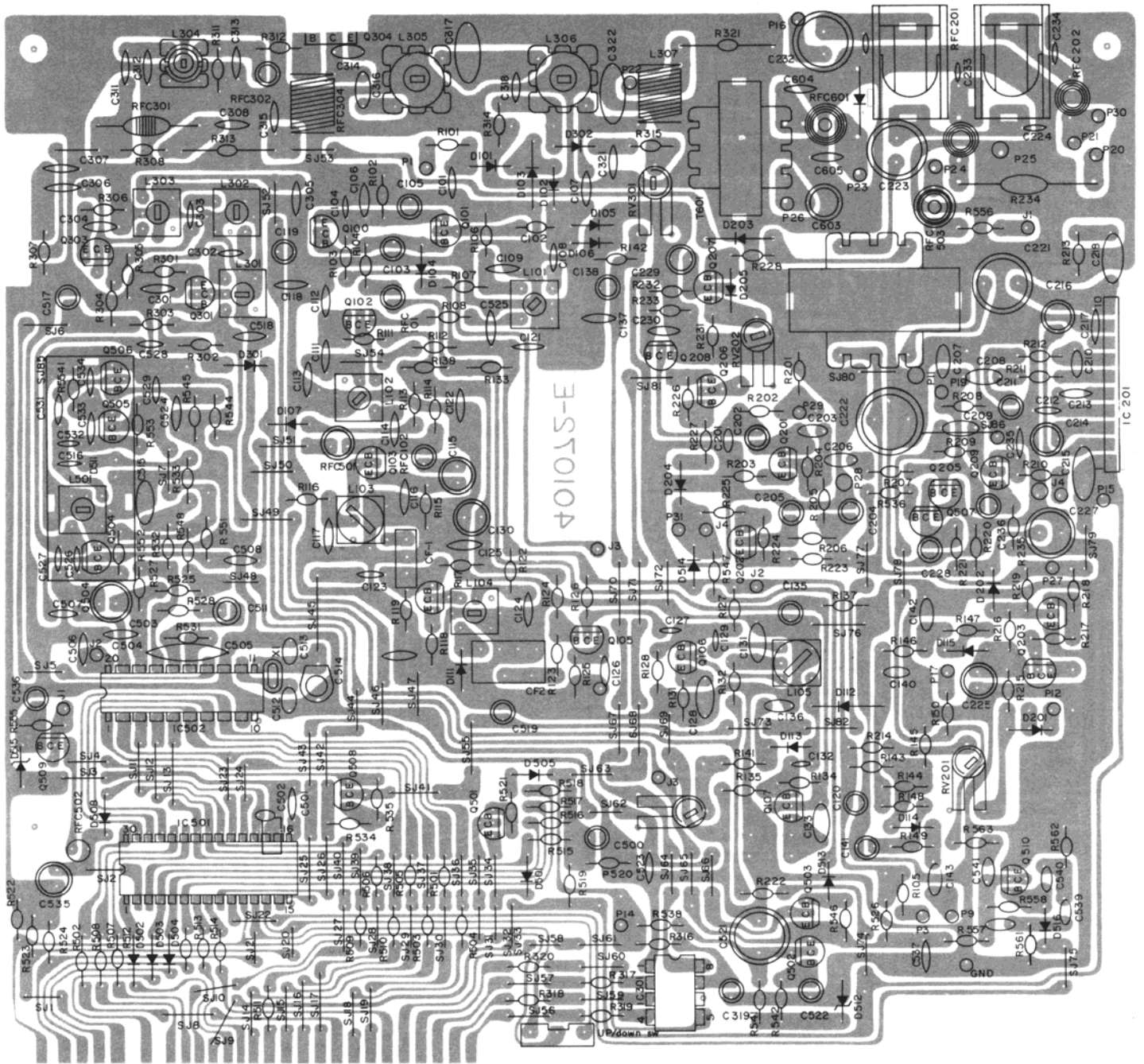


TROUBLESHOOTING

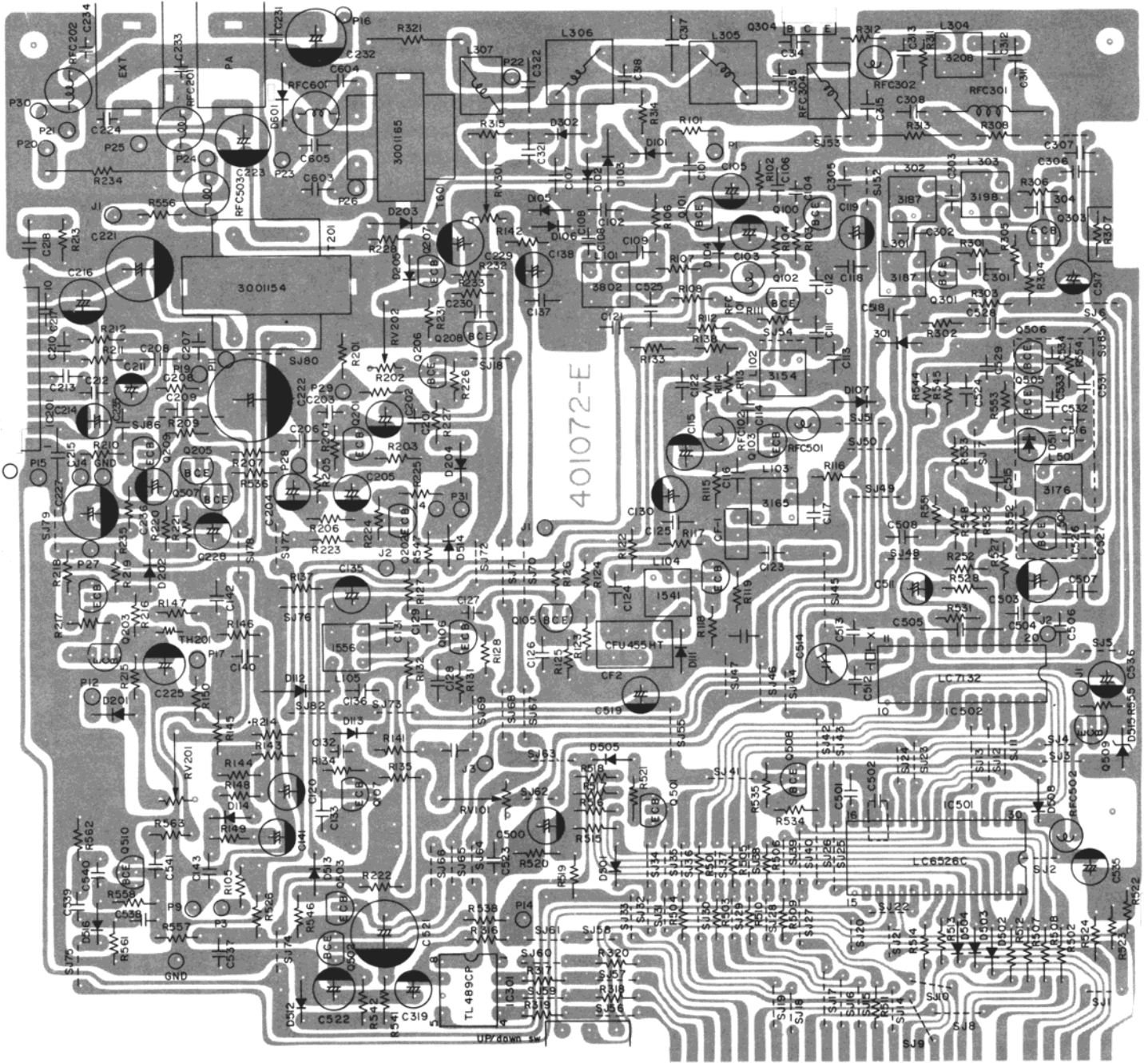
SYMPTOM	PROBABLE CAUSE	REMEDY
Unit does not work at all	<ol style="list-style-type: none"> 1. Defective power switch VR102 2. Blown fuse 3. Broken DC power cord 4. Defective IC501 or IC502 	<ol style="list-style-type: none"> 1. Replace 2. Replace 3. Replace 4. Replace
No output from speaker at all	<ol style="list-style-type: none"> 1. Defective external speaker Jack 2. Poor connection on microphone connector 3. Defective push switch on microphone 4. Defective internal speaker 5. Defective D112, VR101, VR102, RV201 IC201 or other components 	<ol style="list-style-type: none"> 1. Repair or Replace 2. Repair or Replace 3. Repair or Replace 4. Replace 5. Replace the defective components
No noise on speaker	<ol style="list-style-type: none"> 1. Measure all the voltage of Q101 Q102, Q103, Q104, 105, 106, 107 and IC201 with voltage chart on the page 20 2. Defective squelch circuit components (RV201, VR201, IC201, Q203 Q204, Q205, Q507, Q508) 	<ol style="list-style-type: none"> 1. Replace 2. Replace 3. Replace
Squelch does not work	<ol style="list-style-type: none"> 1. Defective VR201, RV201, Q203, Q204, Q205, Q507, Q508 2. Improperly adjusted RV201 	<ol style="list-style-type: none"> 1. Replace defective components 2. Readjust
No modulation	<ol style="list-style-type: none"> 1. Defective microphone 2. Poor Audio output and defective modulation microphone amplifier components (Q201, Q202, IC201) 3. Defective microphone connector component 4. Defective ALC Circuit (Q206, Q207, Q208, D204, D205) 	<ol style="list-style-type: none"> 1. Replace 2. Replace the defective component(s) 3. Replace 4. Replace the defective component(s)
LED meter does not work	<ol style="list-style-type: none"> 1. Defective D303, D304, D305, D306 2. Defective IC301 3. Defective D302, RV301 	<ol style="list-style-type: none"> 1. Replace 2. Replace 3. Replace
LED Display does not work	<ol style="list-style-type: none"> 1. Defective orange wire fuse 2. Defective LED501, IC501 	<ol style="list-style-type: none"> 1. Replace 2. Replace
P.A does not work	<ol style="list-style-type: none"> 1. Defective VR201 2. Defective Q501, D505 	<ol style="list-style-type: none"> 1. Replace 2. Replace
Channel selector does not work	<ol style="list-style-type: none"> 1. Defective IC501, SW509 	<ol style="list-style-type: none"> 1. Replace
Memory function does not work	<ol style="list-style-type: none"> 1. Defective SW501, SW502, SQ503, SQ504, SW505, SW506, SW507 2. Defective D501, D502, D503, D504 	<ol style="list-style-type: none"> 1. Replace the defective component(s) 2. Replace the defective component(s)

PRINTED CIRCUIT BOARD(TOP/BOTTOM VIEWS)

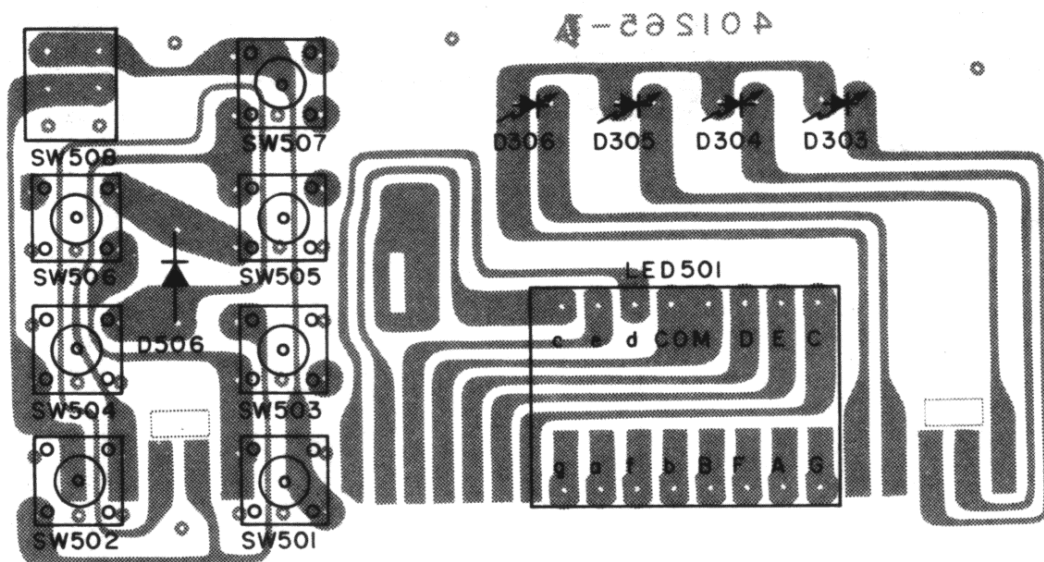
MAIN PCB(TOP VIEW)



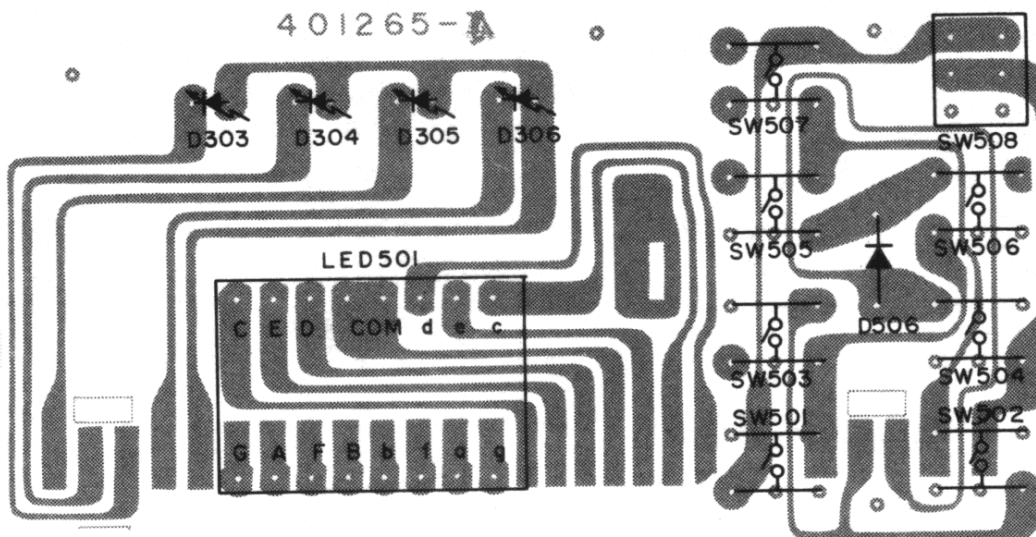
MAIN PCB (BOTTOM VIEW)



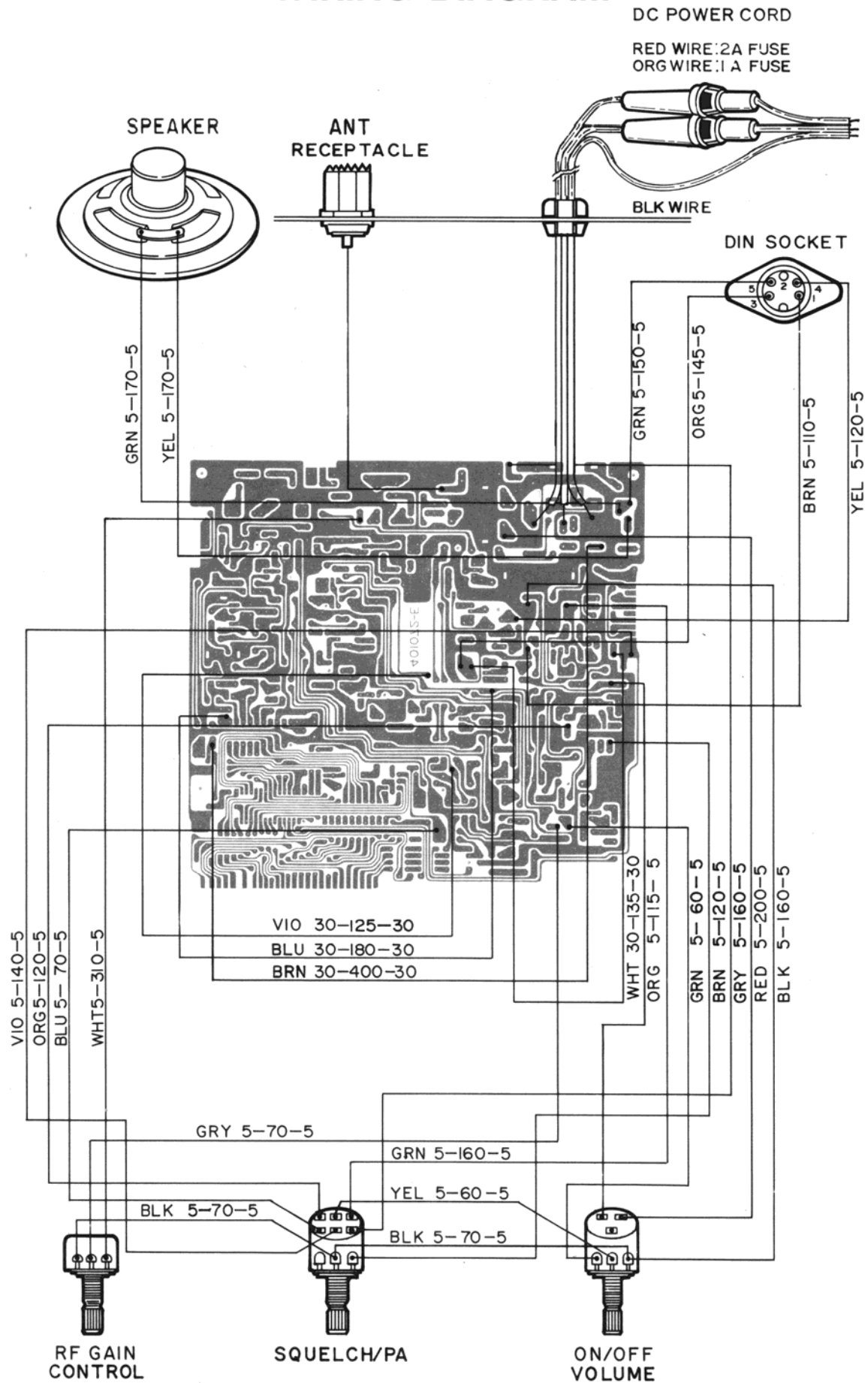
LED DISPLAY & SW PCB TOP VIEW



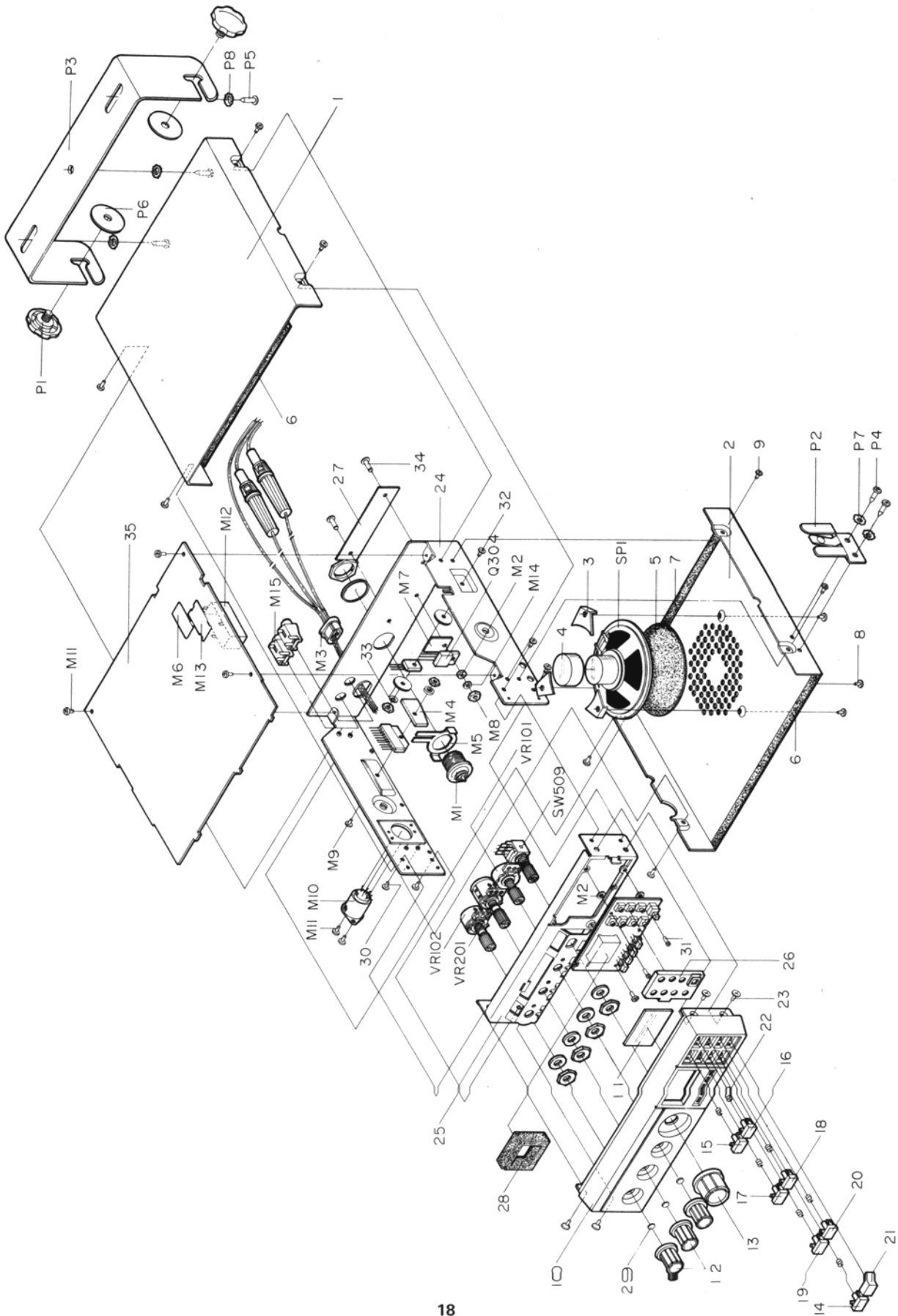
BOTTOM VIEW



WIRING DIAGRAM



EXPLODED VIEW/DISASSEMBLY



EXPLODED VIEW PARTS LIST

Ref. No.	Description	RS Location	Mfr's Part No.
1	Upper Cover	Z-1243	715-700
2	Bottom Cover	Z-1354	715-710
3	Holder - Speaker Mounting		730-015
4	Cap-Speaker		830-043
5	Felt-Speaker		900-203
6	Felt Strip-Escutcheon		901-226
7	Felt Strip		904-000
8	(+) Tapping Screw, B.H 3×8 BLK		623-104
9	(+) Tapping Screw, B.H 3×6 BLK		633-082
10	Escutcheon, BLK		800-990
11	Lens		813-250
12	Knob (Control)		820-102
13	Knob (Channel)		820-111
14	Knob (MEM)		823-970
15	Knob (M1)		823-971
16	Knob (M2)		823-972
17	Knob (M3)		823-973
18	Knob (M4)		823-974
19	Knob (M5)		823-975
20	Knob (M6)		823-976
21	Knob (CH-9)		823-980
22	Spring		880-730
23	(+) Machine Screw, F.H M3×6		613-183
24	Main Body		701-470
25	Front Body		701-550
26	Shield Plate		770-390
27	Name Plate		793-910
28	Sponge		893-110
29	Insulation Ring		900-504
30	(+) Machine Screw (P.H) M3×4		613-004
31	(+) Machine Screw (P.H) M3×5		613-022
32	(+) Machine Screw (B.H) M3×10		613-332
33	Washer Flat		660-572
34	Rivet Blind		670-025
35	Main P.C.B.		401-072-H
M1	ANT Receptacle	J-0843	992-440
M2	Bushing	HC-3805	441-004-5
M3	Cord Stopper		750-765
M4	Heat Sink		760-704
M5	Holder (ANT Mounting)		731-790
M6	Insulation Plate		902-050
M7	Mica	HC-3816	440-004-0
M8	Nut		651-024
M9	(+) Machine Screw (BH) M3×8		613-305
M10	5 pin Socket	J-7648	992-486
M11	Tapping Screw (BH) 3×5-2S		623-238
M12	Shield Plate 90×25×0.3		770-336
M13	Shield Plate 26×17×0.3	HC-3806	770-390
M14	Washer		662-305
M15	Jack, Earphone	J-1545	420-707-6

Ref. No.	Description	RS Location	Mfr's Part No.
P1	Securing Screw		600-060
P2	Bracket (MIC)		720-094
P3	Bracket (SET)		722-750
P4	(+) Tapping Screw (B.H) 3.5 × 10		624-066
P5	(+) Tapping Screw (T.H) 5 × 12		625-007
P6	Washer-Rubber		660-138
P7	Washer-Lock M3.5		664-411
P8	Washer-Lock M5		664-518
Q304	KTC2075	2SC-2075	202-057-5
SP-1	Speaker 3" 8 ohm 2W	SP-5396	420-102-9
VR101	Without/SW, B50K ohm ± 20%	P-8073	450-601-2
VR102	With/OFF-ON SW, A50K ohm ± 20%	P-8074	450-602-3
VR201	With/DPDT SW, B10K ohm ± 20%	P-8075	450-403-0

ELECTRICAL PARTS LIST

Ref. No.	Description	RS Location	Mfr's Part No.
MAIN P.C.B ASS'Y		XB-1695	501-43M-P
CAPACITORS			
C101	Ceramic 0.01 μ F 50WV +80%/-20%		130-102-9
C102	Ceramic 0.022 μ F 50WV +80%/-20%		130-207-1
C103	Elect 10 μ F 16WV \pm 20%		101-012-7
C104	Ceramic 0.0047 μ F 50WV +80%/-20%		130-402-0
C105	Elect 22 μ F 16WV \pm 20%		102-210-4
C106	Ceramic 0.01 μ F 50WV SL +80%/-20%		130-102-9
C107	Ceramic 22pF 50WV \pm 10%		132-201-5
C108	Ceramic 0.001 μ F 50WV +90%/-20%		130-101-8
C109	Ceramic 0.01 μ F 50WV +80%/-20%		130-102-9
C110	Not Used		
C111	Ceramic 0.022 μ F 50WV +80%/-20%		130-207-1
C112-C113	Ceramic 0.01 μ F 50WV +80%/-20%		130-102-9
C114	Ceramic 0.047 μ F 50WV \pm 20%		130-405-3
C115	Elect 0.47 μ F 50WV \pm 20%		100-405-4
C116-C117	Ceramic 0.01 μ F 50WV +80%/-20%		130-102-9
C118	Ceramic 0.047 μ F 50WV \pm 20%		130-405-3
C119-C120	Elect 10 μ F 16WV \pm 20%		101-012-7
C121	Ceramic 0.047 μ F 50WV \pm 20%		130-405-3
C122	Ceramic 0.022 μ F 50WV +80%/-20%		130-207-1
C123	Ceramic 10pF (NPO) 50WV \pm 10%	CF-1902	131-011-5
C124	Ceramic 0.022 μ F 50WV +80%/-20%		130-207-1
C125	Ceramic 0.01 μ F 50WV +80%/-20%		130-102-9
C126	M.P 0.022 μ F 50WV \pm 5%		192-203-5
C127	Ceramic 0.001 μ F 50WV +80%/-20%		130-101-8
C128	M.P 0.047 μ F 50WV \pm 5%		194-702-9
C129	Ceramic 2pF 50WV \pm 10%		132-003-3
C130	Elect 0.47 μ F 50WV \pm 10%		100-405-4
C131	M.P 0.047 μ F 50WV \pm 5%		194-702-9
C132	Ceramic 5pF 50WV \pm 10%		135-005-0
C133	M.P 0.047 μ F 50WV \pm 5%		194-702-9
C134	Not used		
C135	Elect 10 μ F 16WV \pm 20%		101-012-7
C136	M.P 0.01 μ F 50WV \pm 10%		191-004-7
C137	Ceramic 0.01 μ F 50WV +80%/-20%		130-102-9
C138	Elect 4.7 μ F 50WV +80%/-20%		104-707-7
C139	Not used		
C140	M.P 0.001 μ F 50WV \pm 5%		191-002-5
C141	Elect 1 μ F 50WV \pm 20%		101-006-2
C142	M.P 0.047 μ F 50WV \pm 5%		194-702-9
C143	M.P 0.0082 μ F 50WV \pm 10%		198-201-3
C200	M.P 0.022 μ F 50WV \pm 10%		192-203-5
C201	M.P 0.0047 μ F 50WV \pm 5%		194-701-8
C202	Elect 1 μ V 50WV \pm 20%		101-006-2
C203	M.P 0.01 μ F 50WV \pm 5%		191-004-9
C204	Elect 47 μ F 16WV \pm 20%		104-712-1
C205	Elect 10 μ F 16WV \pm 20%		101-012-7

Ref. No.	Description	RS Location	Mfr's Part No.
C206	M.P 0.022 μ F 50WV \pm 5%		192-203-5
C207	M.P 0.015 μ F 50WV \pm 5%		191-504-2
C208-C209	M.P 0.022 μ F 50WV \pm 5%		192-203-5
C210	M.P 0.022 μ F 50WV \pm 5%		192-201-3
C211	Tantal 3.3 μ F 16WV \pm 20%		143-301-0
C212	Ceramic 68pF 50WV \pm 10%		136-801-7
C213	Ceramic 150pF 50WV \pm 10%		131-503-3
C214	Elect 47 μ F 10WV \pm 20%		104-711-0
C215	M.P 0.068 μ F 50WV \pm 10%		196-803-7
C216	Elect 47 μ F 16WV \pm 20%		104-712-1
C217	Ceramic 220pF 50WV \pm 10%		132-204-8
C218	M.P 0.068 μ F 50WV \pm 10%		196-803-7
C219-C220	Not used		
C221	Elect 220 μ F 16WV \pm 10%		102-242-3
C222	Elect 1000 μ F 16WV \pm 20%		101-048-0
C223	Elect 100 μ F 16WV \pm 10%		101-022-6
C224	Ceramic 0.001 μ F 50WV +80%/-20%		130-101-8
C225	Elect 33 μ F 16WV \pm 20%		103-313-9
C226	Not used		
C227	Elect 100 μ F 16WV \pm 20%		101-022-6
C228	Elect 10 μ F 16WV \pm 20%		101-012-7
C229	Elect 47 μ F 16WV \pm 20%		104-712-1
C230	Ceramic 0.047 μ F 50WV \pm 20%		130-405-3
C231	Ceramic 0.001 μ F 50WV +80%/-20%		130-101-3
C232	Elect 100 μ F 16WV \pm 20%		101-022-6
C233-C234	Ceramic 0.001 μ F 50WV +80%/-20%		130-101-8
C235	Ceramic 0.01 μ F 50WV +80%/-20%		130-102-9
C236	Elect 1 μ F 50WV \pm 20%		101-006-2
C237	Elect 1 μ F 16WV \pm 20%		101-006-2
C301	Ceramic 0.01 μ F 50WV +80%/-20%		130-102-9
C302	Ceramic 4pF (NPO) 50WV \pm 10%	CF-1950	134-006-6
C303	Ceramic 100pF (NPO) 50WV \pm 10%	CF-1424	131-015-9
C304	Ceramic 0.01 μ F 50WV +80%/-20%		130-102-9
C305	Ceramic 0.047 μ F 50WV +80%/-20%		130-405-3
C306	Ceramic 100pF (NPO) 50WV \pm 10%	CF-1424	131-015-9
C307	Ceramic 330pF 50WV \pm 10%		133-302-8
C308	Ceramic 0.01 μ F 50WV +80%/-20%		130-102-9
C309-C310	Not used		
C311	Ceramic 60pF (NPO) 50WV \pm 10%	CF-7442	136-002-2
C312	Ceramic 220pF (NPO) 50WV \pm 10%	CF-1485	132-214-9
C313	Ceramic 60pF (NPO) 50WV \pm 10%	CF-7442	136-002-2
C314	Mica 100pF 50WV \pm 5%		161-005-9
C315	Ceramic 0.01 μ F 50WV +80%/-20%		130-102-9
C316	Mica 100pF 50WV \pm 10%		161-005-9
C317	Mica 270pF 50WV \pm 10%		162-702-0
C318	Ceramic 1.5pF 50WV \pm 10%		131-506-6
C319	Elect 10 μ F 16WV \pm 20%		101-012-7
C320	Not used		
C321	Ceramic 0.01 μ F 50WV +80%/-20%		130-102-9
C322	Mica 270pF 50WV \pm 10%		162-702-0
C323	Capacitor Mica 150pF 50WV \pm 10%		161-502-1
C500	Elect 10 μ F 16WV \pm 20%		101-012-7

Ref. No.	Description	RS Location	Mfr's Part No.
C501	Ceramic 180pF 50WV ±10%		131-802-3
C502	Tantal 0.1μF 50WV ±20%		140-106-6
C503	Elect 33μF 17WV ±20%		103-313-9
C504	Ceramic 0.01μF 50WV +80%/-20%		130-102-9
C505	Ceramic 0.047μF 50WV ±20%		130-405-3
C506	Capacitor Ceramic 0.01μF 50WV +80%/-20%		130-102-9
C507	Ceramic 15pF 50WV +80%/-20%		131-501-1
C508	Ceramic 6pF 50WV ±10%		136-001-1
C509-C510	Not used		
C511	Tantal 1μF 16WV ±20%		141-008-6
C512	Mica 56pF 50WV ±5%		165-601-7
C513	Mica 47pF 50WV ±5%		164-701-9
C514	Trimmer 20pF TZ03R200E	C-1444	172-002-4
C515	M.P 0.047μF 50WV ±5%		194-701-8
C516	Mica 35pF 50WV ±5%		163-501-0
C517	Elect 2.2μF 50WV ±20%		102-207-2
C518	Ceramic 0.01μF 50WV +80%/-20%		130-102-9
C519	Elect 1μF 50WV ±20%		101-006-2
C520	Not used		
C521	Elect 220μF 16WV ±20%		102-223-6
C522	Elect 47μF 16WV ±20%		104-712-1
C523-C524	Ceramic 0.01μF 50WV +80%/-20%		130-102-9
C525	Ceramic 0.047μF 50WV ±20%		130-405-3
C526	Ceramic 18pF 50WV ±10%		131-801-2
C527	Ceramic 22pF 50WV ±10%		132-201-5
C528	Ceramic 39pF 50WV ±10%		133-901-9
C529	Ceramic 0.0047μF 50WV +80%/-20%		130-402-0
C530	Not used		
C531	Ceramic 27pF 50WV ±10%		132-701-0
C532	Ceramic 33pF 50WV ±10%		133-310-7
C533	Ceramic 220μF 50WV ±10%		132-204-8
C534	Elect 120pF 50WV ±10%		131-202-1
C535	Elect 68μF 10WV ±20%		106-811-7
C536	Elect 10μF 16WV ±20%		101-012-7
C537	Ceramic 0.01μF 50WV +80%/-20%		130-102-9
C538-C541	M.P 0.0022μF 50WV ±5%		192-201-3
C601-C602	Capacitor Ceramic 0.01μF 50WV +80%/-20%		130-101-3
C603	Elect 1000μF 16WV ±20%		101-047-9
C604-C605	Ceramic 0.01μF 50WV +80%/-20%		130-102-9
COILS			
L101	27MHz, RX ANT.	CA-1337	320-380-2
L102	27MHz, RF AMP (RX)	CA-9047	320-315-4
L103	10.6MHz, RF 1st MIXER (RX)	CA-9048	320-316-5
L104	IFT 455kHz-A	CA-9049	320-154-5
L105	IFT 455kHz-B	CA-9050	320-155-6
L301-L302	27MHz, RF PRE AMP A (TX)	CA-9517	320-318-7
L303	27MHz, RF PRE AMP B (TX)	CA-9518	320-319-8
L304	27MHz, PRE AMP B (TX)	CA-9519	320-320-8
L305	AM, TX ANT, 27MHz B	CA-9514	320-033-9
L306	AM, IFT 27MHz, TX ANT	CA-9515	320-034-0
L307	AM, TX ANT, 27MHz A	CA-9513	320-032-8

Ref. No.	Description	RS Location	Mfr's Part No.
L501	VCO	CA-9516	320-317-6
RFC101	Choke 100 μ H Mold Type, Filter	CB-2583	310-096-3
RFC102	Inductor 200 μ H PC Type, Filter	CB-2682	310-136-6
RFC201-RFC202	RF Choke 0.8 μ H, Spring	CB-2680	310-072-1
RFC301	Choke, 1 μ H, Bobbin	CB-2676	310-025-9
RFC302	Inductor, 6.8 μ H, Mold Type	CB-2679	310-121-2
RFC303	Not used		
RFC304	RF Choke, 0.5 μ H, Spring	CB-2108	310-065-5
RFC501	Inductor, 6.8 μ H, Mold Type	CB-2679	310-121-2
RFC502	Choke, 100 μ H, Mold Type	CB-2583	310-096-3
RFC503	RF Choke, 20 μ H, Core	CB-2677	310-034-7
RFC601	RF Choke, 20 μ H, Core	CB-2677	310-034-7
CRYSTAL			
X1	10.240MHz, HC-18/U	CX-2010	260-003-3
DIODES			
D101-D102	1S2473, Silicon	DX-0684	243-004-3
D103	GE0A90, Silicon	DX-0576	244-003-7
D104-D107	1S2473, Silicon	DX-0684	243-004-3
D111	1S2473, Silicon	DX-0684	243-004-3
D112	GE0A90, Silicon	DX-0576	244-003-7
D113-D115	1S2473, Silicon	DX-0684	243-004-3
D201-D202	1S2473, Silicon	DX-0684	243-004-3
D203	1N4002, Silicon	DX-0206	245-001-0
D204-D206	1S2473, Silicon	DX-0684	243-004-3
D301-D302	1S2473, Silicon	DX-0684	243-004-3
D501-D505	1S2473, Silicon	DX-0684	243-004-3
D506	Not used		
D507	Not used		
D508	1S2473, Silicon	DX-0684	243-004-3
D509-D510	Not used		
D511	Varicap, MV2209	DX-1167	242-002-6
D512	Zener, UZ9.1B	DX-1978	241-020-7
D513-D514	1S2473, Silicon	DX-0684	243-004-3
D515	Zener silicon, UZ5.1B 500mW	DX-2241	241-046-1
D516-D517	1S2473, Silicon	DX-0684	243-004-3
D601	1N4002, Silicon	DX-0206	245-001-01