

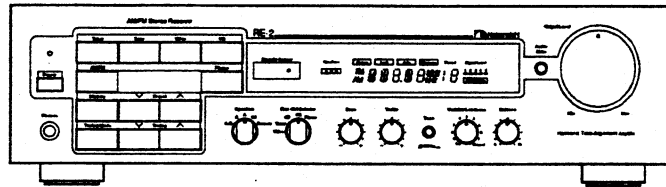


NAKA-00162

DER GUTE TON
DIP.-ING. MICHAEL HENKEMEIER
AUDIO-ELEKTRONIK-SERVICE
KÖRTESTR. 10, TEL./FAX 694 41 54

Service Manual

RE-2 AM/FM Stereo Receiver



DER GUTE TON
DIP.-ING. MICHAEL HENKEMEIER
AUDIO-ELEKTRONIK-SERVICE
KÖRTESTR. 10, TEL./FAX 694 41 54

 Nakamichi

CONTENTS

1. General	1
2. Mechanism Ass'y and Parts List	3
2.1. Synthesis	3
2.2. Chassis Ass'y (A01)	4
2.3. Front Chassis Ass'y (A02)	5
2.4. Heat Sink Ass'y (B01)	6
3. Mounting Diagrams and Parts List	7
3.1. AC Outlet P.C.B. Ass'y	7
3.2. Power Switch P.C.B. Ass'y	7
3.3. Headphone P.C.B. Ass'y	7
3.4. Treble P.C.B. Ass'y	7
3.5. Bass P.C.B. Ass'y	7
3.6. Balance P.C.B. Ass'y	7
3.7. Volume LED P.C.B. Ass'y	7
3.8. Loudness P.C.B. Ass'y	7
3.9. Motor Volume P.C.B. Ass'y	7
3.10. Speaker Selector P.C.B. Ass'y	8
3.11. Record Selector P.C.B. Ass'y	8
3.12. Speaker Terminal P.C.B. Ass'y	8
3.13. Power Supply P.C.B. Ass'y	8
3.14. Front P.C.B. Ass'y	8
3.15. System Remote P.C.B. Ass'y	8
3.16. Main P.C.B. Ass'y	9
4. Schematic Diagrams	14

1. GENERAL

Reference Service Manual

The base Model of RE-2 is Receiver 2. In this Service Manual, identical sections/items are omitted. So, please refer to the Service Manual of Receiver 2 (0Q06135A).

1.1. Product Code

D120

1.2. Destinations

USA, CAN

Abbreviation
 USA — U.S.A.
 CAN — Canada

1.3. Cautions/Warnings

(1) Product Safety Notice

Parts marked with the symbol  in the schematic diagram have critical characteristics.

Use ONLY replacement parts recommended by the manufacturer. It is recommended that the unit be operated from a suitable DC supply or batteries during initial check-out procedures.

(2) Leakage Current Check/Resistance Check

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamp, or if the resistance from chassis to either side of the power cord is less than 240 k ohms, the unit is defective.

WARNING — DO NOT return the unit to the customer until the problem is located and corrected.

(3) Lithium Battery Caution

Use ONLY replacement parts recommended by the manufacturer. Replacement must be done only by qualified service personnel because of risk for explosion.

WARNING

Litiumbatteri. Explosionsfara vid felaktig hantering. Byte får endast ske av sakkunnig personal enligt servicedokumentationens anvisningar.

ADVARSEL!

Lithiumbatterier. Eksplosionsfare. Udskiftning må kun foretages af en sagkyndig og som beskrevet i servicemanualen.

batterieme kun må udskiftes med batterier af samme fabrikat og type.

(4) Resetting the MPU After Repair

When the RE-2 does not work properly with the button operation after repair or after replacing the battery (the display shows abnormal indication), reset the Microprocessing Unit (MPU) U001 (uPD75208CW-A77) on the Front P.C.B. Ass'y as follows:

1. With the power turned ON, press the Reset switch S016 on the Front P.C.B. Ass'y. See Fig. 3.14.
2. Since the memory contents are cleared, reset them again.

1.4. Package Ass'y

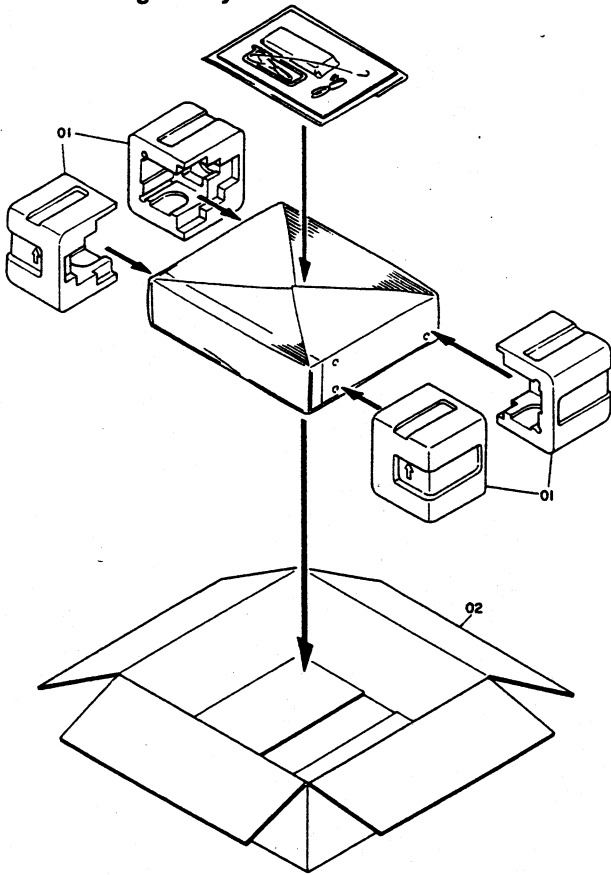
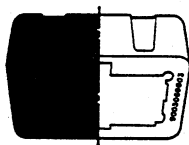
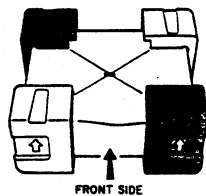


Fig. 1.1



Packing

Break each packing into 2 pcs, and mount them as follows:



FRONT SIDE

Schematic Ref. No.	Part No.	Description	Qty
Package Ass'y			
01	0N00052A	Packing	2
02	0F04722A	Carton Box	1
—	0C85457A	Soft Sheet	1

1.5. Accessory Ass'y

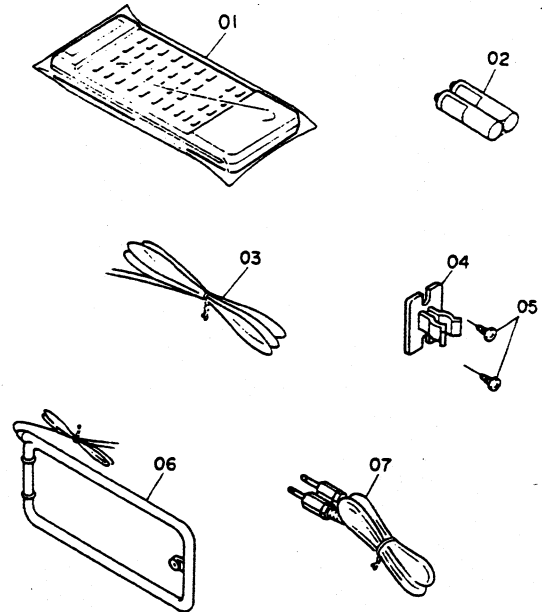


Fig. 1.2

Schematic Ref. No.	Part No.	Description	Qty
CB00119A Accessory Ass'y			1
01	HA06496A	Remote Control Ass'y	1
02	0B90341A	Battery AA Type x 2	1
03	0C85437A	Feeder Antenna	1
04	0B90319A	Loop Antenna Holder	1
05	0E03659A	3x12 + Tapping (Black Chromate)	2
06	0C85374A	Loop Antenna	1
07	0C85415A	Remote Control Cable	1
—	0D06419C	Owner's Manual (English)	1
—	0D06420C	Owner's Manual (French)	1

2. MECHANISM ASS'Y AND PARTS LIST

2.1. Synthesis

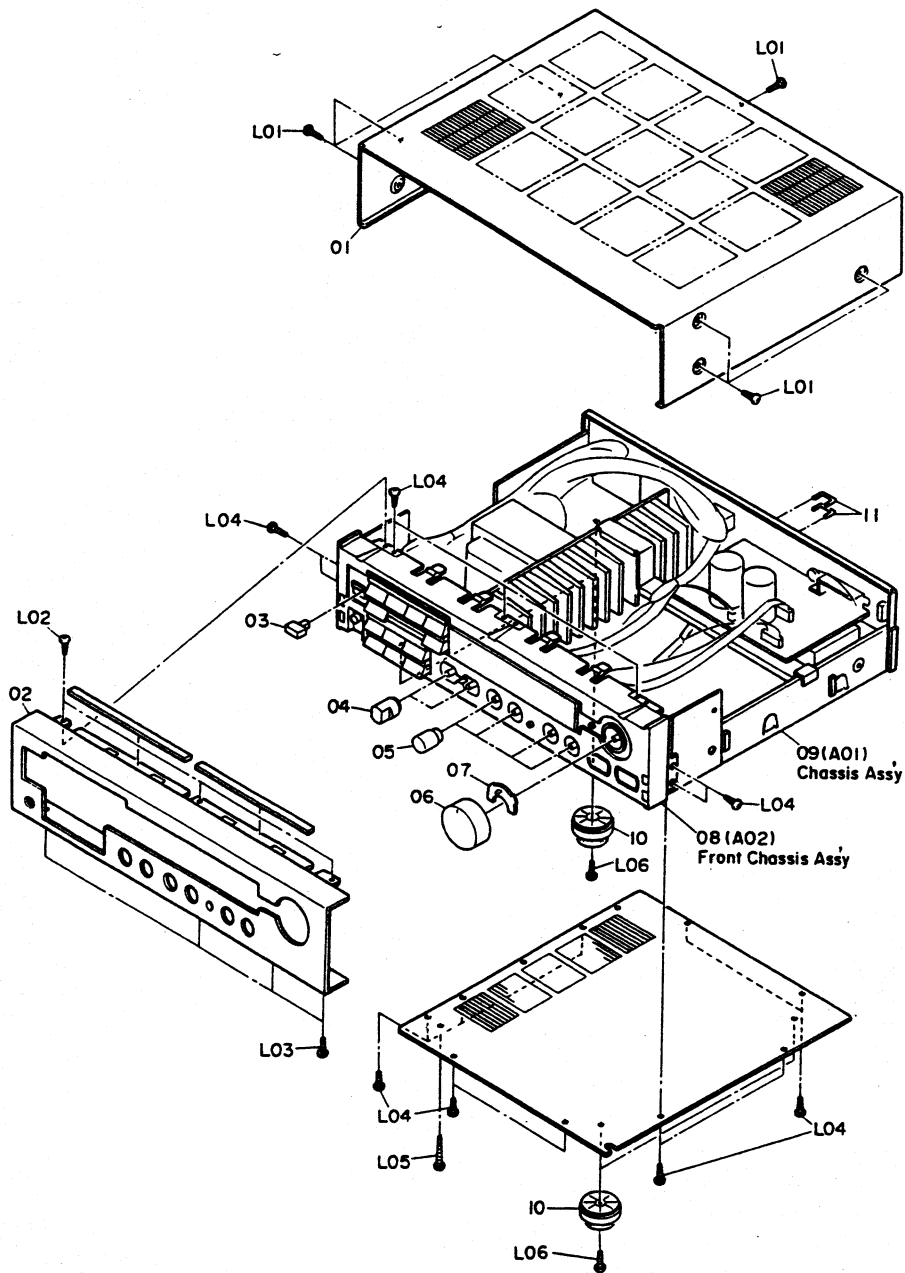


Fig. 2.1

2.1. Synthesis

Schematic Ref. No.	Part No.	Description	Qty	Schematic Ref. No.	Part No.	Description	Qty
		Synthesis					
01	0C85459B	Top Cover	1	11	0J05710A	Shorting Pin	2
02	0H06458A	Front Panel	1	L01	0E03433A	BT3x6 + Binding-Projected (Black Chromate)	
03	0H06418A	Power Knob	1	L02	0E00868A	BT3x8 + Binding	
04	HA06503A	Volume Knob Ass'y DR	2	L03	0E00948A	BT3x10 + Binding (Black Chromate)	
05	HA06502A	Volume Knob CDR Ass'y	4	L04	0E00857A	BT3x6 + Binding	
06	HA06574A	Master Volume Ass'y	1	L05	0C85577A	BT3x16 + Binding (Tapping)	
07	CB00031A	Volume LED P.C.B. Ass'y	1	L06	0E03217A	BT4x8 + Binding	
08	—	Front Chassis Ass'y	1				
09	—	Chassis Ass'y	1				
10	0H06472A	Leg	4				

2.2. Chassis Ass'y (A01)

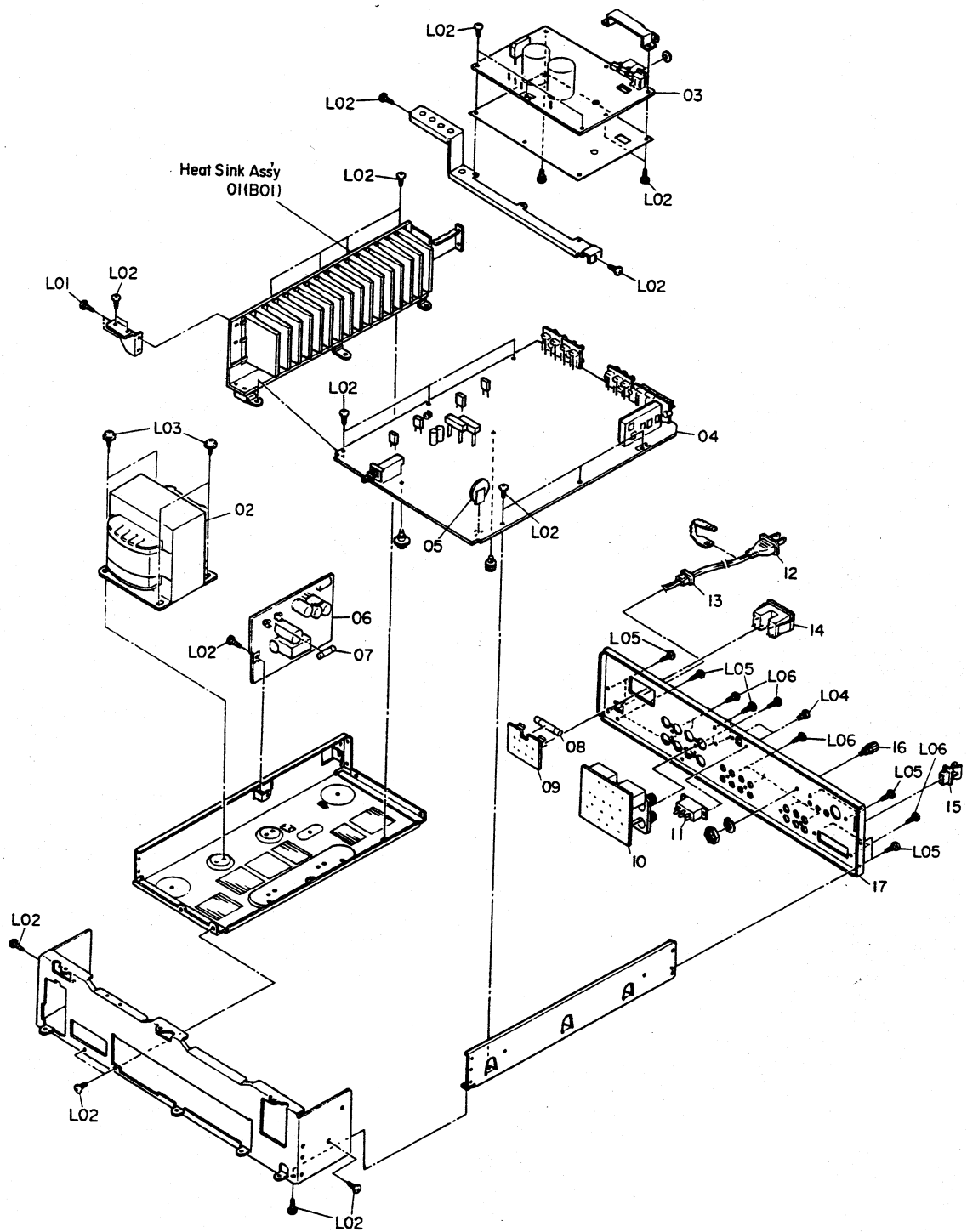


Fig. 2.2

2.3. Front Chassis Ass'y (A02)

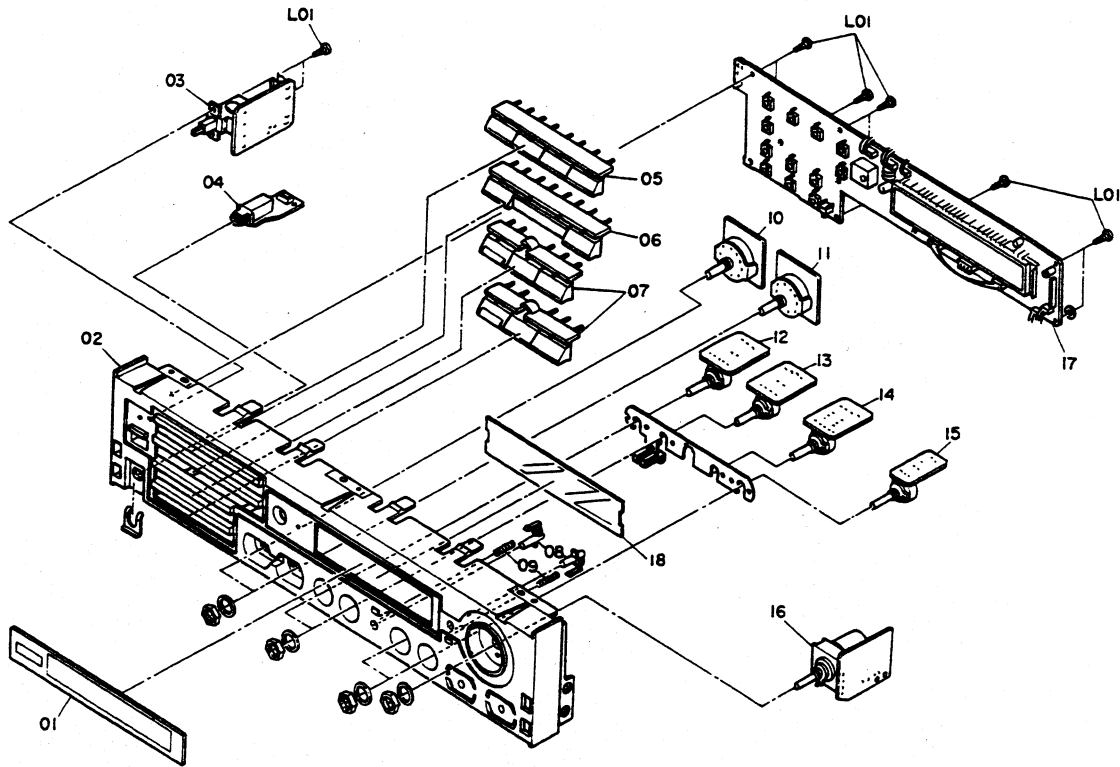


Fig. 2.3

2.2. Chassis Ass'y (A01)

Schematic Ref. No.	Part No.	Description	Qty
A01	—	Chassis Ass'y	1
01	—	Heat Sink Ass'y	1
02	0L00341A	Power Transformer	1
03	CB00105A	System Remote P.C.B. Ass'y	1
04	CB00044A	Main P.C.B. Ass'y	1
05	0B90200B	Lithium Battery	1
06	CB00049A	Power Supply P.C.B. Ass'y	1
07	0B90329A	Fuse T1A/125V	1
08	0B90346A	Fuse 4A 250V	1
09	CB00041A	AC Outlet P.C.B. Ass'y	1
10	CB00050A	Speaker Terminal P.C.B. Ass'y	1
11	0N00053A	Speaker Select Switch	1
12	0L00185A	AC Power Cord	1
13	0B90280A	Cord Bushing	1
14	0B81928A	AC Outlet	1
15	0B90316A	AM Antenna Holder	1
16	JA04383A	Ground Terminal Ass'y	1
17	0H06529A	Rear Panel	1
L01	0E00868A	BT3x8 + Binding	
L02	0E00857A	BT3x6 + Binding	
L03	0C85421A	ST4x6 + Binding Washer-Faced	
L04	0L00057A	Plastic Rivet 3x5.5	
L05	0E00860A	BT3x6 + Binding (Black Chromate)	
L06	0N00066A	PT3x10 + Binding (Black Chromate)	

2.3. Front Chassis Ass'y (A02)

Schematic Ref. No.	Part No.	Description	Qty
A02	—	Front Chassis Ass'y	1
01	HA06567B	Display Lens R Ass'y	1
02	0H06466A	Front Chassis	1
03	CB00051A	Power Switch P.C.B. Ass'y	1
04	CB00040A	Headphone P.C.B. Ass'y	1
05	0H06440B	Control Knob 4R	1
06	0H06445A	Dummy Knob R	1
07	0H06441B	Control Knob 3R	2
08	0H06447B	Push Knob	2
09	0J06253A	Push Knob Spring	1
10	CB00032A	Speaker Selector P.C.B. Ass'y	1
11	CB00047A	Record Selector P.C.B. Ass'y	1
12	CB00035A	Bass P.C.B. Ass'y	1
13	CB00036A	Treble P.C.B. Ass'y	1
14	CB00033A	Loudness P.C.B. Ass'y	1
15	CB00034A	Balance P.C.B. Ass'y	1
16	CB00043A	Motor Volume P.C.B. Ass'y	1
17	CB00046A	Front P.C.B. Ass'y	1
18	HA06570A	Filter RE Ass'y	1
L01	0C85416A	PT3x8 + Binding	

2.4. Heat Sink Ass'y (B01)

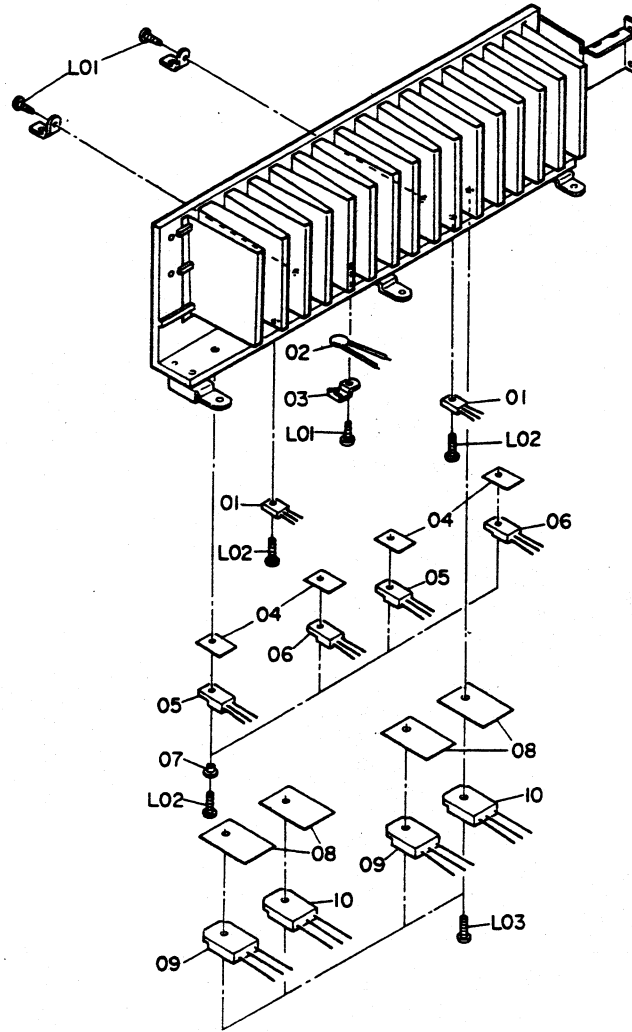


Fig. 2.4

2.4. Heat Sink Ass'y

Schematic Ref. No.	Part No.	Description	Qty
B01	—	Heat Sink Ass'y	1
01	0B10199A	Transistor 2SC3421 [Q306L,R]	2
02	0B19607A	Thermistor 50KD-5 [TH-301]	1
03	0J05615A	TH Holder	1
04	0J05672B	Insulator SIL TO-220	4
05	0B10288A	Transistor 2SC1407 [Q307L,R]	2
06	0B10289A	Transistor 2SB1016 [Q308L,R]	2
07	0B08594A	Transistor Bush TO-220	4
08	0J05671A	Insulator SIL	4
09	0B10250A	Transistor 2SC3856 [Q309L,R]	2
10	0B10294A	Transistor 2SA1492 [Q310L,R]	2
L01	0E00868A	BT3x8 + Binding	
L02	0E00986A	M3x10 + Binding	
L03	0E00994A	M3x12 + Binding	

3. MOUNTING DIAGRAMS AND PARTS LIST

3.1. AC Outlet P.C.B. Ass'y

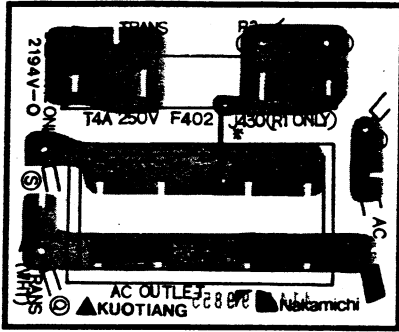


Fig. 3.1

3.2. Power Switch P.C.B. Ass'y

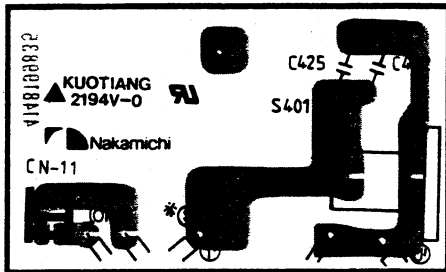


Fig. 3.2

3.3. Headphone P.C.B. Ass'y



Fig. 3.3

3.4. Treble P.C.B. Ass'y

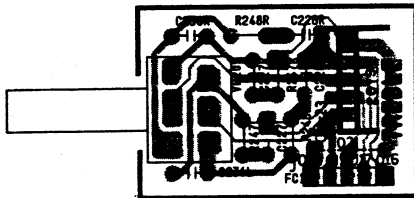


Fig. 3.4

3.5. Bass P.C.B. Ass'y

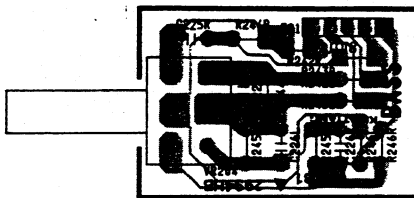


Fig. 3.5

3.6. Balance P.C.B. Ass'y

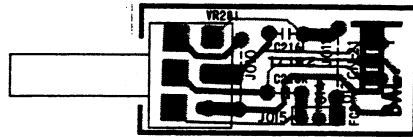


Fig. 3.6

3.7. Volume LED P.C.B. Ass'y

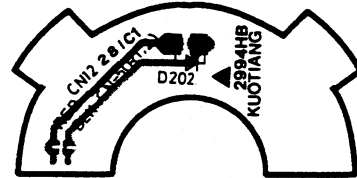


Fig. 3.7

3.8. Loudness P.C.B. Ass'y

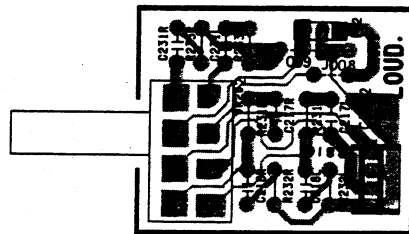


Fig. 3.8

3.9. Motor Volume P.C.B. Ass'y

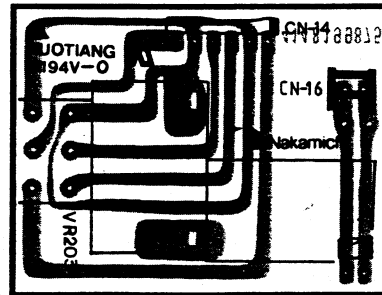


Fig. 3.9

3.10. Speaker Selector P.C.B. Ass'y

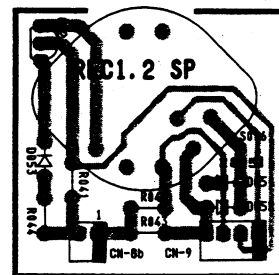


Fig. 3.10

3.15. System Remote P.C.B. Ass'y

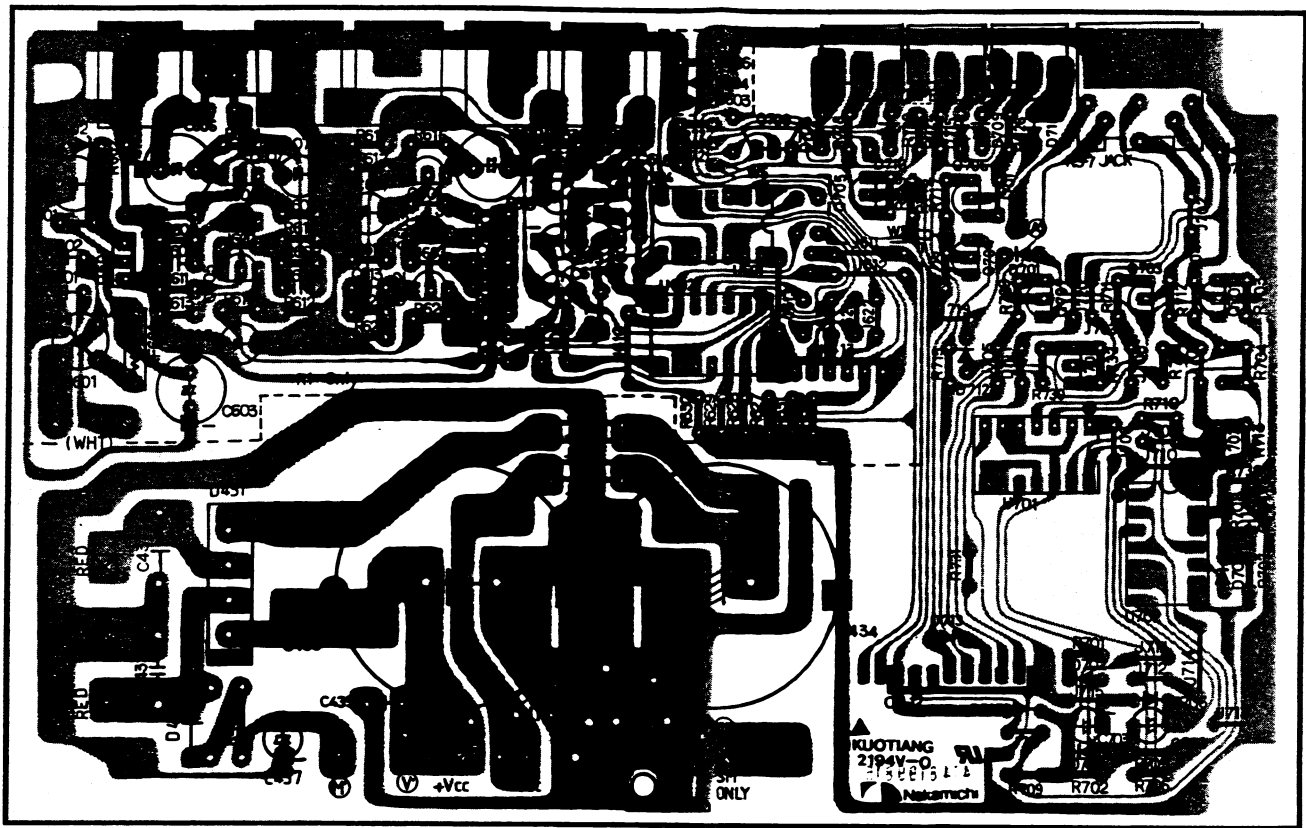


Fig. 3.15

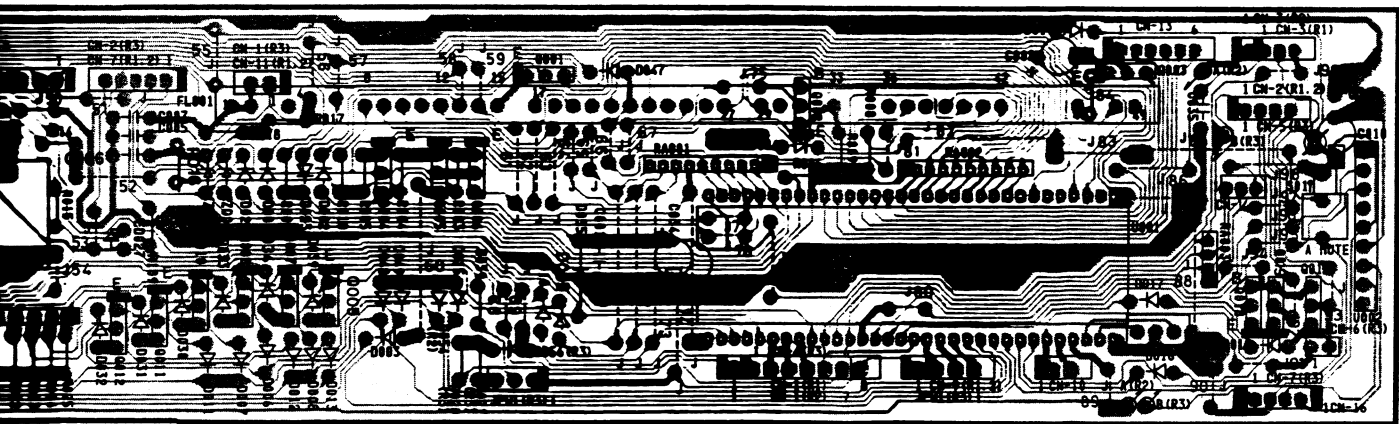
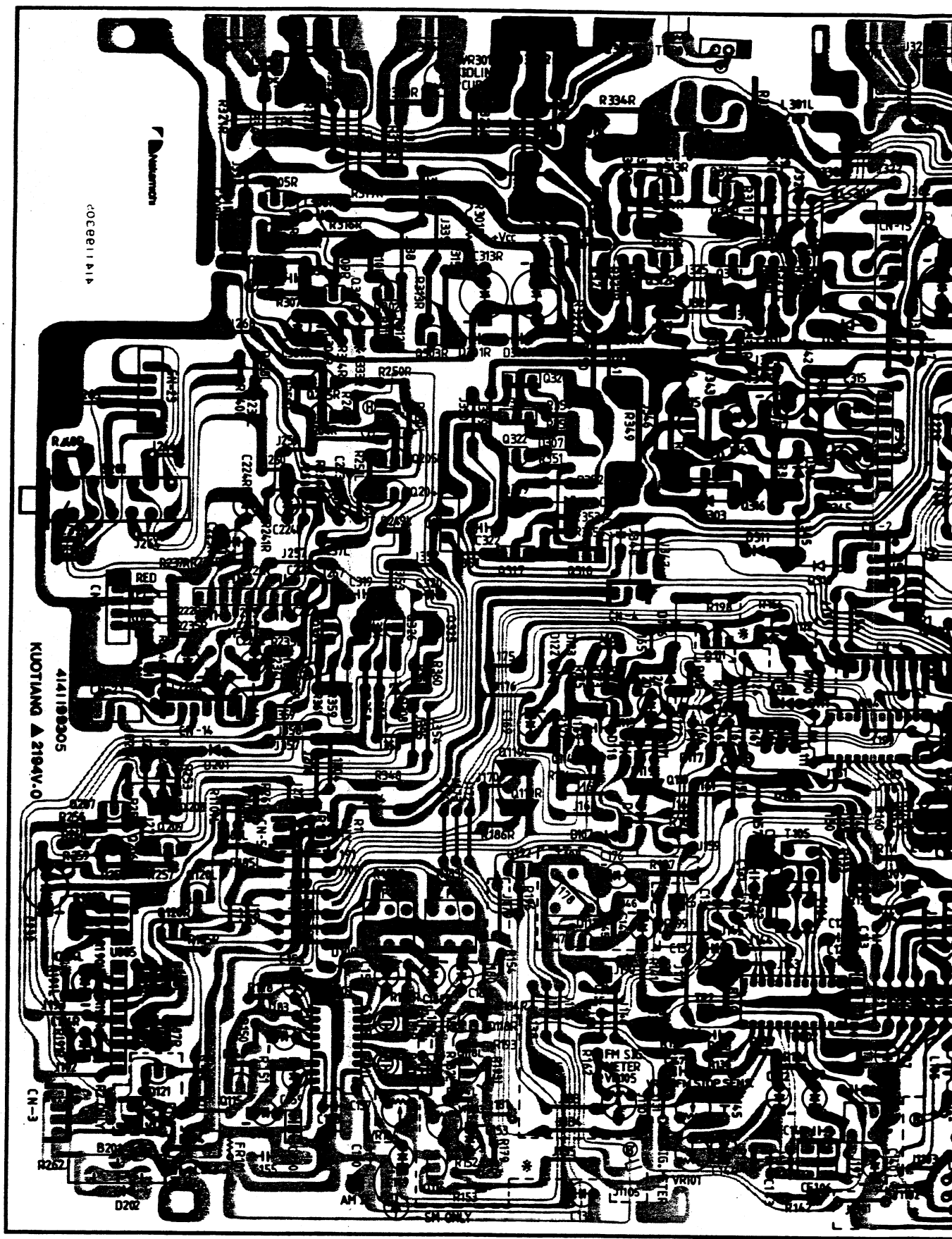


Fig. 3.14

3.16. Main P.C.B. Ass'y



NOTES: 1. Abbreviations

TR – Transistor, SID – Silicon Diode, ZD – Zener Diode, Varicap – Variable Capacitance Diode
 RK – Carbon Resistor, RM – Metal Film Resistor, RF – Fail Safe Type Resistor, RC – Cement Resistor
 CE – Electrolytic Capacitor, CML – Mylar Capacitor, CC – Ceramic Capacitor, CPP – PP Capacitor,
 CMM – Metalized Mylar Capacitor, CSP – Polystyrene Capacitor, C – Mica Capacitor,
 CT – Tantalum Capacitor

2. Description of capacitor: 10 16V = 10µ 16V

3.1. AC Outlet P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00041A	AC Outlet P.C.B. Ass'y
	0L00035A	AC Outlet P.C.B.
	0B81930A	Fuse Holder (2)

3.2. Power Switch P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00051A	Power Switch P.C.B. Ass'y
	0L00036A	Power Switch P.C.B.
C422	0B41987A	CC 0.01 250V
CN11	0B81666A	2P S-Post
S401	0B71011A	Power Switch

3.3. Headphone P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00040A	Headphone P.C.B. Ass'y
	0L00034A	Headphone P.C.B.
CN15	0C85503A	3P Connector Ass'y 400mm
HP301	0B81757A	Headphone Jack

3.4. Treble P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00036A	Treble P.C.B. Ass'y
	0L00031A	Treble P.C.B.
VR205	0L00061A	VR 100Kx2RK
R247L,R	0B09687A	RK 2.7K 1/6W J
R248L,R	0B09673A	RK 680 1/6W J
C227L,R	0B09189A	CML 2700P 50V J
C228L,R	0B05832A	CML 0.018 50V J
C236L,R	0B41495A	CC 180P 50V J
	0B81669A	5P S-Post

3.5. Bass P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00035A	Bass P.C.B. Ass'y
	0L00030A	Bass P.C.B.
VR204	0L00060A	VR 50Kx2RK
R242L,R	0B09703A	RK 12K 1/6W J
R243L,R	0B09669A	RK 470 1/6W J
R244L,R	0B09723A	RK 82K 1/6W J
R245L,R	0B09705A	RK 15K 1/6W J
R246L,R	0B09684A	RK 2K 1/6W J
C225L,R	0B05682A	CPP 0.068 100V G
C226L,R	0B41378A	CML 0.39 50V J

3.6. Balance P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00034A	Balance P.C.B. Ass'y
	0L00029A	Balance P.C.B.
VR202	0L00059A	VR 250KMx2RK
C216L,R	0B09279A	CC 22P 50V J
	0B81667A	3P S-Post (1)

3.7. Volume LED P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00031A	Volume LED P.C.B. Ass'y
	0L00026A	Volume LED P.C.B.
ED125	0C85387A	LED SLR-34DC3F
CN5	0C85405A	2P Connector Ass'y 200mm

3.8. Loudness P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00033A	Loudness P.C.B. Ass'y
	0L00028A	Loudness P.C.B.
VR201	0L00058A	VR 300Kx2RA
R231L,R	0B09709A	RK 22K 1/6W J
R232L,R	0B09699A	RK 8.2K 1/6W J
R233L,R	0B09707A	RK 18K 1/6W J
C217L,R	0B05550A	CML 1000P 50V J
C218L,R	0B05582A	CML 0.022 50V J
C231L,R	0B41476A	CML 0.1 50V J
	0B81668A	4P S-Post (1)

3.9. Motor Volume P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00043A	Motor Volume P.C.B. Ass'y
	0L00037A	Motor Volume P.C.B.
VR203	0L00057A	Volume 50KBx2
CN14	0C85506A	6P Connector Ass'y 150mm
CN16	0B81666A	2P S-Post
M1	0C85507A	Ribbon Wire 2P

3.10. Speaker Selector P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00032A	Speaker Selector P.C.B. Ass'y
	0L00027A	Speaker Selector P.C.B.
Q021	0B06100A	TR 2SC945
D051,052	0B06398A	SID 1SS176
D053	0B06398A	SID 1SS176
R041	0B09725A	RK 100K1/6W J
R042,043	0B09701A	RK 10K 1/6W J
R044	0B09701A	RK 10K 1/6W J
S016	0B70141A	Rotary Switch MSB15BP20LC
CN8	0B81674A	10P S-Post
CN9	0B81667A	3P S-Post

3.11. Record Selector P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00047A	Record Selector P.C.B. Ass'y
	0L00025A	Record Selector P.C.B.
S017	0B70141A	Rotary Switch MSB18

3.12. Speaker Terminal P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00050A	Speaker Terminal P.C.B. Ass'y
	0L00033A	Speaker Terminal P.C.B.
Q327,328	0B06142A	TR 2SC2240 (BL)
D381,382	0B12586A	SID 1N4002L
R333L,R	0B24181A	RF 10 1W J
R383,384	0B09701A	RK 10K 1/6W J
R385,386	0B24253A	RF 820 2W
C312L,R	0B05796A	CML 0.047 50V J
RL301,302	0B90331A	Relay VB-24MBU
CN6	0C85546A	4P Connector Ass'y 400mm
CN10	0B81666A	2P S-Post
	0C85545A	8P Speaker Terminal (1)

3.13. Power Supply P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00049A	Power Supply P.C.B. Ass'y
	0L00032A	Power Supply P.C.B.
U401	0B11010A	IC MC7805T
U402	0B11011A	IC MC7812
Q401,402	0B06100A	TR 2SC945
Q403	0B10049A	TR 2SC2001
Q404	0B06100A	TR 2SC945
Q405	0B10246A	TR 2SA965 (Y)
ZD404,405	0B12104A	ZD 15V B3
ZD408	0B12255A	ZD 33V B2
D401,402	0B12586A	SiD 1N4002L
D403	0B12586A	SiD 1N4002L
D406	0B12586A	SiD 1N4002L
D407	0B12713A	SiD W02G
D409,410	0B12586A	SiD 1N4002L
D411,412	0B12586A	SiD 1N4002L
D413,414	0B06398A	SiD 1SS176
FR401	0B24023A	Fuse Resistor 1 1/4W
R401	0B05622A	RK 2.2K 1/4W J
R402	0B05577A	RK 330 1/4W J
R403,404	0B01681A	RK 3.3K 1/4W J
R405	0B09685A	RK 2.2K 1/6W J
R406	0B00346A	RK 1K 1/2W J
R407	0B05622A	RK 2.2K 1/4W J
R408	0B05615A	RK 22K 1/4W J
R409	0B01888A	RK 10K 1/4W J
R410	0B09701A	RK 10K 1/6W J
R411	0B01889A	RK 100K 1/4W J
R412	0B24210A	RF 56 1W
R413	0B05919A	RK 3.3M 1/2W
R414	0B24359A	RF 120 1W
RL401	0B90334A	Relay VS-12MB-VD3
C401	0B09387A	CC 0.047 50V Z
C402	0B40124A	CE 1000 50V
C403	0B09313A	CE 100 50V
C404,405	0B09292A	CC 0.1 50V Z
C406	0B40095A	CE 1000 25V
C407,408	0B09292A	CC 0.1 50V Z
C409	0B40079A	CE 220 16V
C410	0B40123A	CE 470 50V
C411,412	0B09126A	CE 100 35V
C413	0B40123A	CE 470 50V
C414	0B01400A	CE 100 16V
C415	0B01674A	CE 10 25V
C416	0B40067A	CE 470 10V
C417	0B09292A	CC 0.1 50V Z
C421	0B41829B	CC 4700P 400V
C423	0B09372A	CE 2.2 50V
CN4	0C85542A	3P Connector Ass'y
CN7	0B81762A	5P T-Post
F401	0B81848A	Fuse Holder (2)

3.14. Front P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00046A	Front P.C.B. Ass'y
	0L00024A	Front P.C.B.
U001	0B11872A	IC uPD75208CW-A77
U002	0B11530A	IC BA6208
U003	0B11244A	IC LB1413N
U004	0C85399A	Remote Control Receiver SBX-1610
Q001,002	0B10328A	TR DTC114TF
Q003	0B10328A	TR DTC114TF
Q004	0B10328A	TR DTC114TF
Q005,006	0B10328A	TR DTC114TF
Q007,008	0B10325A	TR DTA114TF
Q009	0B10327A	TR DTA144TF
Q010	0B10325A	TR DTA114TF
Q011,012	0B10057A	TR DTA114TS
Q013,014	0B10057A	TR DTA114TS
Q015,016	0B10057A	TR DTA114TS
Q017,018	0B10062A	TR DTC144ES
Q019	0B10062A	TR DTC144ES
Q020	0B06100A	TR 2SC945
ZD024	0B06232A	ZD 9.1V B2
ZD025	0B12159A	ZD 7.5V B2
ED027	0C85387A	LED SLR-34DC3F
ED029	0C85387A	LED SLR-34DC3F
D001,002	0B06398A	SiD 1SS176
D003,004	0B06398A	SiD 1SS176
D005,006	0B06398A	SiD 1SS176
D007,008	0B06398A	SiD 1SS176
D010,011	0B06398A	SiD 1SS176
D012,013	0B06398A	SiD 1SS176
D014	0B06398A	SiD 1SS176
D016,017	0B06398A	SiD 1SS176
D018,019	0B06398A	SiD 1SS176
D020,021	0B06398A	SiD 1SS176
D022,023	0B06398A	SiD 1SS176
D026	0B06398A	SiD 1SS176
D030,031	0B06398A	SiD 1SS176
D032,033	0B06398A	SiD 1SS176
D034,035	0B06398A	SiD 1SS176
D036,037	0B06398A	SiD 1SS176
D038	0B06398A	SiD 1SS176
D039	0B06398A	SiD 1SS176
D054	0B06398A	SiD 1SS176
D055	0B12584A	SiD 1N4148
X001	0B92034A	Resonator 4.19MHz
L001	0B51291A	Choke Coil 470uH K
RA001,002	0C85397A	R Network 100Kx9
RA003	0B21119A	R Network 10Kx3
R003,004	0B09725A	RK 100K 1/6W J
R005	0B09725A	RK 100K 1/6W J
R006	0B09721A	RK 68K 1/6W J
R007	0B09709A	RK 22K 1/6W J
R008,009	0B09725A	RK 100K 1/6W J
R010	0B09725A	RK 100K 1/6W J
R011	0B09661A	RK 220 1/6W J
R013,014	0B09701A	RK 10K 1/6W J
R015	0B09661A	RK 220 1/6W J
R016	0B09701A	RK 10K 1/6W J
R017,018	0B09661A	RK 220 1/6W J
R019	0B09701A	RK 10K 1/6W J
R022,023	0B09701A	RK 10K 1/6W J
R024,025	0B09701A	RK 10K 1/6W J
R026	0B09701A	RK 10K 1/6W J
R027	0B09677A	RK 1K 1/6W J
R028	0B09723A	RK 82K 1/6W J
R030,031	0B09701A	RK 10K 1/6W J
R032,033	0B09701A	RK 10K 1/6W J
R039	0B09711A	RK 27K 1/6W J
C001	0B09291A	CC 0.022 50V Z
C002	0B01405A	CE 1 50V
C005	0B09292A	CC 0.1 50V Z
C006	0B09291A	CC 0.022 50V Z

Schematic Ref. No.	Part No.	Description
C007	0B09292A	CC 0.1 50V Z
C008,009	0B48002A	CE 10 25V
C010	0B01403A	CE 47 16V
C034	0B05885A	CE 100 10V
C035	0B09292A	CC 0.1 50V Z
S001,002	0B70214A	Tact Switch
S003,004	0B70214A	Tact Switch
S005,006	0B70214A	Tact Switch
S007,008	0B70214A	Tact Switch
S009,010	0B70214A	Tact Switch
S011	0B70214A	Tact Switch
S012,013	0B70214A	Tact Switch
FL001	0B90463A	FL Display FIP8CGM8
CN1	0B83681A	7P Connector Ass'y 300mm
CN2	0C85531A	3P Connector Ass'y 300mm
CN3	0B83495A	4P Connector Ass'y 250mm
CN7	0C85532A	5P Connector Ass'y 500mm
CN8A	0L00186A	5P Connector Ass'y 200mm
CN8B	0L00045A	2P Connector Ass' 200mm
CN9	0L00039A	4P Connector Ass'y 220mm
CN10	0C85529A	2P Connector Ass'y 500mm
CN11	0L00038A	2P Connector Ass'y 250mm
CN12	0L00043A	8P Connector Ass'y 400mm
CN16	0L00044A	2P Connector Ass'y 150mm

3.15. System Remote P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00105A	System Remote P.C.B. Ass'y
	0L00056A	System Remote P.C.B.
U701	0B06143A	IC uPD4001BC
U702	0B06219A	IC uPD4081BC
Q701	0B10113A	TR 2SC1815 (G)
Q702	0B06013A	TR 2SA733
Q703	0B10113A	TR 2SC1815 (G)
Q704,705	0B06100A	TR 2SC945
Q706,707	0B06100A	TR 2SC945
Q708	0B06100A	TR 2SC945
Q709	0B10104A	TR DTC114TS
D431	0B12718A	SiD KBU4D
D432	0B12586A	SiD 1N4002L
D701,702	0B06398A	SiD 1SS176
D703,704	0B06398A	SiD 1SS176
D705,706	0B06398A	SiD 1SS176
D707,708	0B06398A	SiD 1SS176
D709,711	0B06398A	SiD 1SS176
D712,713	0B06398A	SiD 1SS176
D714	0B06398A	SiD 1SS176
R431	0B05615A	RK 22K 1/4W J
R701	0B09693A	RK 4.7K 1/6W J
R702	0B09733A	RK 220K 1/6W J
R703	0B09701A	RK 10K 1/6W J
R704	0B09685A	RK 2.2K 1/6W J
R705	0B09731A	RK 180K 1/6W J
R706	0B20093A	RK 1.5M 1/6W J
R707	0B09739A	RK 390K 1/6W J
R708	0B09701A	RK 10K 1/6W J
R709	0B09709A	RK 22K 1/6W J
R710	0B09725A	RK 100K 1/6W J
R711	0B09701A	RK 10K 1/6W J
R712,713	0B09693A	RK 4.7K 1/6W J
R714	0B09677A	RK 1K 1/6W J
R715	0B09717A	RK 47K 1/6W J
R716	0B09701A	RK 10K 1/6W J
R717,718	0B09701A	RK 10K 1/6W J
R719,720	0B09717A	RK 47K 1/6W J
R721,722	0B09701A	RK 10K 1/6W J
R726	0B09637A	RK 22 1/6W J
R728	0B09661A	RK 220 1/6W J
R729	0B09717A	RK 47K 1/6W J
R730	0B09701A	RK 10K 1/6W J
R731	0B09677A	RK 1K 1/6W J
R732	0B09717A	RK 47K 1/6W J
R738	0B09749A	RK 1M 1/6W J
C431,432	0B41901A	CC 0.22 500V Z
C433,434	0B40516A	CE 6800 63V
C435,436	0B41176A	CML 0.22 63V J
C437	0B40836A	CE 4.7 50V
C701	0B41286A	CML 0.01 50V J
C702	0B09187A	CE 1 50V (BP)
C703	0B40836A	CE 4.7 50V
CN12	0B81765A	8P T-Post
CN18	0B81975A	2P T-Post
	0B81952A	Stereo Mini Jack HTJ-035-11 (2)
	0B81953A	6P Din Socket (1)

3.16. Main P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	CB00044A	Main P.C.B. Ass'y
	0L00023A	Main P.C.B.
U001	0B11156A	IC TA7060AP
U002	0B11875A	IC LA1266
U003	0B11876A	IC LA3401
U004	0B11877A	IC LC7218
U005	0B11050A	IC NJM4558S
U201	0B06387A	IC NJM2043DD
U202	0B11878A	IC LC7821
U203	0B11879A	IC LC7822N
U205	0B11529A	IC uPC4570HA
U302	0B11246A	IC uPC1237H
Q101	0B10181A	FET 2SK117 (GR)
Q102,103	0B10127A	FET 2SK241 (GR)
Q104	0B06115A	TR 2SC1675 (L)
Q106,107	0B06100A	TR 2SC945
Q108	0B10053A	TR DTA144ES
Q109	0B06013A	TR 2SA733
Q110	0B10053A	TR DTA144ES
Q113	0B06100A	TR 2SC945
Q114	0B06013A	TR 2SA733
Q115	0B06100A	TR 2SC945
Q119L,R	0B10053A	TR DTA144ES
Q120L,R	0B06299A	TR 2SC2878
Q121	0B06100A	TR 2SC945
Q122	0B06100A	TR 2SC945
Q201	0B06013A	TR 2SA733
Q202L,R	0B06299A	TR 2SC2878
Q203L,R	0B06299A	TR 2SC2878
Q204L,R	0B06299A	TR 2SC2878
Q205L,R	0B06299A	TR 2SC2878
Q206	0B06013A	TR 2SA733
Q207	0B06100A	TR 2SC945
Q208	0B06013A	TR 2SA733
Q209	0B06100A	TR 2SC945
Q301L,R	0B06142A	TR 2SC2240 (BL)
Q302L,R	0B06142A	TR 2SC2240 (BL)
Q303L,R	0B06142A	TR 2SC2240 (BL)
Q304L,R	0B10204A	TR 2SA1145
Q305L,R	0B10205A	TR 2SC2705
Q311L,R	0B06142A	TR 2SC2240 (BL)
Q312L,R	0B10050A	TR 2SA970 (BL)
Q313L,R	0B10205A	TR 2SC2705
Q314L,R	0B10050A	TR 2SA970 (BL)
Q315	0B06322A	TR 2SC2002 (K)
Q316	0B06372A	TR 2SA953
Q317,318	0B10248A	TR 2SD313 (E)
Q319	0B06013A	TR 2SA733
Q320,321	0B10264A	TR 2SB507 (E)
Q322,323	0B06100A	TR 2SC945
Q324,325	0B06013A	TR 2SA733
Q326	0B06100A	TR 2SC945
VD101	0B12606A	Varicap KV1236Z1
ZD303	0B06231A	ZD 11V B2
ZD306,307	0B12627A	ZD 18V B2
ZD308,309	0B12614A	ZD 12V B2
D101,102	0B06398A	SiD 1SS176
D107,108	0B06398A	SiD 1SS176
D109	0B06398A	SiD 1SS176
D111	0B06398A	SiD 1SS176
D117,118	0B06398A	SiD 1SS176
D119,120	0B06398A	SiD 1SS176
D121,122	0B06398A	SiD 1SS176
D123	0B06398A	SiD 1SS176
D124	0B12584A	SiD 1N4148
D126	0B12584A	SiD 1N4148
D201,202	0B06398A	SiD 1SS176
D301L,R	0B06398A	SiD 1SS176
D302L,R	0B06398A	SiD 1SS176
D304	0B12584A	SiD 1N4148
D305	0B12586A	SiD 1N4002L
D310	0B12586A	SiD 1N4002L

Schematic Ref. No.	Part No.	Description
D311	0B06398A	SiD 1SS176
D315L,R	0B12584A	SiD 1N4148
X101	0B92006A	X'tal 7.2MHz
CF101,102	0B41918A	Ceramic Filter SFE10.7ML-A-RED
CF103	0B41918A	Ceramic Filter SFE10.7ML-A-RED
CF106	0B41897A	Ceramic Filter SFZ450G3L
CF107	0B41927A	Resonator CSB456F
LF101,102	0B51295A	FM MPX Trap TWS-358-484
T101	0B51269A	AM Ant Coil TWS-385-638
T102	0B51270A	AM OSC Coil TWS-358-644
T103	0B51271A	AM IFT TWS-358-645
T104	0B51272A	FM DET (A) TWS-358-636
T105	0B51273A	FM DET (B) TWS-358-637
L101,102	0B51274A	Coil 22uH K
L103,104	0B51274A	Coil 22uH K
L108,109	0B51274A	Coil 22uH K
L111	0L00018A	Coil 100uH
L301L,R	0C85512A	Audio Coil 0.8uH
VR101,102	0C85452A	Semi VR 100K
VR103	0C85452A	Semi VR 100K
VR105	0C85452A	Semi VR 100K
VR301L,R	0C85510A	Semi VR 1K
R101	0B09729A	RK 150K 1/6W J
R102	0B09733A	RK 220K 1/6W J
R103	0B09749A	RK 1M 1/6W J
R104	0B09677A	RK 1K 1/6W J
R105,106	0B09725A	RK 100K 1/6W J
R107,108	0B09725A	RK 100K 1/6W J
R109	0B09749A	RK 1M 1/6W J
R110	0B09667A	RK 390 1/6W J
R111,112	0B09661A	RK 220 1/6W J
R113	0B09667A	RK 390 1/6W J
R114	0B22329A	RM 7.5K 1/4W F
R115	0B22270A	RM 2.4K 1/4W F
R116	0B09645A	RK 47 1/6W J
R117	0B09667A	RK 390 1/6W J
R118	0B09665A	RK 330 1/6W J
R119,120	0B09667A	RK 390 1/6W J
R132	0B09695A	RK 5.6K 1/6W J
R133	0B09689A	RK 3.3K 1/6W J
R134	0B09677A	RK 1K 1/6W J
R135	0B09699A	RK 3.3K 1/6W J
R136,137	0B09701A	RK 10K 1/6W J
R138,139	0B09689A	RK 3.3K 1/6W J
R140	0B09707A	RK 18K 1/6W J
R141	0B09687A	RK 2.7K 1/6W J
R142	0B09689A	RK 3.3K 1/6W J
R143	0B09651A	RK 82 1/6W J
R148,149	0B09719A	RK 56K 1/6W J
R150	0B09693A	RK 4.7K 1/6W J
R151	0B09695A	RK 5.6K 1/6W J
R154	0B09721A	RK 68K 1/6W J
R155	0B09699A	RK 8.2K 1/6W J
R156	0B09701A	RK 10K 1/6W J
R157	0B09697A	RK 6.8K 1/6W J
R158	0B09677A	RK 1K 1/6W J
R159,160	0B09701A	RK 10K 1/6W J
R162	0B09741A	RK 470K 1/6W J
R163,164	0B09701A	RK 10K 1/6W J
R167,168	0B09701A	RK 10K 1/6W J
R169	0B09725A	RK 100K 1/6W J
R170,171	0B09701A	RK 10K 1/6W J
R172	0B09709A	RK 22K 1/6W J
R173	0B09719A	RK 56K 1/6W J

Schematic			Schematic			Schematic		
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R174	0B09701A	RK 10K 1/6W J	R314L,R	0B09670A	RK 510 1/6W J	C143	0B09291A	CC 0.022 50V Z
R175	0B09725A	RK 100K 1/6W J	R315L,R	0B05641A	RK 47K 1/4W J	C144	0B40836A	CE 4.7 50V
R176	0B09727A	RK 120K 1/6W J	R316L,R	0B20530A	RK 91 1/4W J	C145,146	0B09291A	CC 0.022 50V Z
R177	0B09693A	RK 4.7K 1/6W J	R317L,R	0B01679A	RK 100 1/4W J	C147	0B09290A	CC 0.01 50V Z
R178	0B09677A	RK 1K 1/6W J	R318L,R	0B09707A	RK 18K 1/6W J	C149	0B09148A	CE 10 25V (LN)
R181L,R	0B22465A	RM 120K 1/4W F	R319L,R	0B09301A	RK 2K 1/4W J	C150	0B05682A	CML 0.068 50V Z
R182L,R	0B22286A	RM 3.3K 1/4W F	R320L,R	0B05577A	RK 330 1/4W J	C151	0B01405A	CE 1 50V
R183L,R	0B22286A	RM 3.3K 1/4W F	R321L,R	0B24516A	RF 220 1/4W J	C152,153	0B01674A	CE 10 25V
R184L,R	0B09727A	RK 120K 1/6W J	R322L,R	0B05640A	RK 180K 1/4W J	C154	0B01405A	CE 1 50V
R185L,R	0B09685A	RK 2.2K 1/6W J	R323L,R	0B24226A	RC 0.22 5W	C155	0B09291A	CC 0.022 50V Z
R186L,R	0B09695A	RK 5.6K 1/6W J	R324L,R	0B24226A	RC 0.22 5W	C157	0B05796A	CML 0.047 50V J
R187L,R	0B09725A	RK 100K 1/6W J	R325L,R	0B01888A	RK 10K 1/4W J	C158	0B09287A	CC 680P 50V K
R188L,R	0B09725A	RK 100K 1/6W J	R326L,R	0B09556A	RK 3.6K 1/4W J	C159	0B40832A	CE 0.22 50V
R189L,R	0B09725A	RK 100K 1/6W J	R327L,R	0B05560A	RK 18K 1/4W J	C160	0B01405A	CE 1 50V
R190L,R	0B09723A	RK 82K 1/6W J	R328L,R	0B01889A	RK 100K 1/4W J	C161	0B09288A	CC 1000P 50V K
R191L,R	0B09677A	RK 1K 1/6W J	R329L,R	0B05627A	RK 330K 1/4W J	C162	0B40833A	CE 0.33 50V
R192L,R	0B09725A	RK 100K 1/6W J	R330L,R	0B05627A	RK 330K 1/4W J	C163	0B40103A	CE 47 35V
R193	0B09701A	RK 10K 1/6W J	R331L,R	0B05509A	RK 33K 1/4W J	C164,165	0B09793A	CC 30P 50V J
R194	0B01680A	RK 820 1/4W J	R332L,R	0B09731A	RK 180K 1/6W J	C166	0B09291A	CC 0.022 50V Z
R196	0B09731A	RK 180K 1/6W J	R334L,R	0B24229A	RF 3.3 1W	C167	0B01403A	CE 47 16V
R198	0B09709A	RK 22K 1/6W J	R337L,R	0B09334A	RK 11K 1/4W J	C168	0B09292A	CC 0.1 50V Z
R199	0B09701A	RK 10K 1/6W J	R338L,R	0B24208A	RF 330 2W	C169	0B01405A	CE 1 50V
R201L,R	0B09657A	RK 150 1/6W J	R339	0B01888A	RK 10K 1/4W J	C170	0B09291A	CC 0.022 50V Z
R202L,R	0B09743A	RK 560K 1/6W J	R340	0B01682A	RK 6.8K 1/4W J	C171	0B01403A	CE 47 16V
R203L,R	0B09718A	RK 51K 1/6W J	R341	0B20520A	RK 1.5K 1/2W J	C172	0B01863A	CE 3.3 50V
R204L,R	0B22229A	RM 1K 1/4W F	R342	0B09391A	RK 91K 1/4W J	C173	0B09291A	CC 0.022 50V Z
R205L,R	0B09725A	RK 100K 1/6W J	R343	0B01933A	RK 220 1/4W J	C174	0B41933A	CC 15P 50V J
R206L,R	0B22542A	RM 560K 1/4W F	R344	0B01889A	RK 100K 1/4W J	C175	0B09291A	CC 0.022 50V Z
R207L,R	0B22419A	RM 47K 1/4W F	R345	0B05560A	RK 18K 1/4W J	C177	0B40832A	CE 0.22 50V
R208L,R	0B22229A	RM 1K 1/4W F	R346	0B05508A	RK 56K 1/4W J	C181L,R	0B41921A	CSP 560P 50V J
R209L,R	0B09725A	RK 100K 1/6W J	R347	0B24061A	RF 2.7 1W	C182L,R	0B09148A	CE 10 25V (LN)
R211L,R	0B09645A	RK 47 1/6W J	R348	0B09717A	RK 47K 1/6W J	C184L,R	0B09148A	CE 10 25V (LN)
R212L,R	0B09719A	RK 56K 1/6W J	R349,350	0B24357A	RC 220 5W	C201L,R	0B41201A	CPP 100P 100V J
R213L,R	0B09645A	RK 47 1/6W J	R351,352	0B09685A	RK 2.2K 1/6W J	C202L,R	0B09223A	CE 1 50V (LN)
R214L,R	0B09719A	RK 56K 1/6W J	R353,354	0B09685A	RK 2.2K 1/6W J	C204L,R	0B09148A	CE 10 25V (LN)
R215L,R	0B09645A	RK 47 1/6W J	R355,356	0B09673A	RK 680 1/6W J	C205L,R	0B41141A	CPP 4700P 100V G
R216L,R	0B09719A	RK 56K 1/6W J	R357,358	0B09685A	RK 2.2K 1/6W J	C206L,R	0B41129A	CPP 1500P 100V G
R217L,R	0B09681A	RK 1.5K 1/6W J	R359,360	0B09673A	RK 680 1/6W J	C207L,R	0B41117A	CPP 470P 100V G
R218L,R	0B09725A	RK 100K 1/6W J	R361,362	0B09677A	RK 1K 1/6W J	C208L,R	0B41105A	CPP 150P 100V G
R219L,R	0B09717A	RK 47K 1/6W J	R1101L,R	0B09725A	RK 100K 1/6W J	C209L,R	0B09223A	CE 1 50V (LN)
R225	0B09725A	RK 100K 1/6W J	FR101	0B24358A	Fuse Resistor 47 1/4W	C219L,R	0B09322A	CPP 330P 100V J
R226L,R	0B09645A	RK 47 1/6W J	FR301L,R	0B24358A	Fuse Resistor 47 1/4W	C220L,R	0B09332A	CE 2.2 50V (LN)
R227L,R	0B09719A	RK 56K 1/6W J	FR302L,R	0B24358A	Fuse Resistor 47 1/4W	C221L,R	0B41735A	CC 100P 50V J
R229,228	0B09717A	RK 47K 1/6W J	VC101	0B42010A	C Trimmer 10P	C222L,R	0B41907A	CC 47P 50V J
R230	0B09717A	RK 47K 1/6W J	C101	0B41872A	CC 18P 50V J	C223L,R	0B09333A	CE 4.7 50V (LN)
R234L,R	0B09653A	RK 100 1/6W J	C102	0B09290A	CC 0.01 50V Z	C224L,R	0B09332A	CE 2.2 50V (LN)
R235L,R	0B09729A	RK 150K 1/6W J	C103	0B05583A	CML 0.033 50V J	C232	0B40079A	CE 220 16V
R236L,R	0B09743A	RK 560K 1/6W J	C104	0B09292A	CC 0.1 50V Z	C234	0B01780A	CML 0.1 50V J
R237L,R	0B22457A	RM 100K 1/4W F	C105	0B09387A	CC 0.047 50V Z	C237L,R	0B41894A	CSP 100P 50V J
R238L,R	0B22229A	RM 1K 1/4W F	C106,107	0B09291A	CC 0.022 50V Z	C301L,R	0B05796A	CML 0.047 50V J
R239L,R	0B22351A	RM 12K 1/4W F	C108	0B09291A	CC 0.022 50V Z	C302L,R	0B09333A	CE 4.7 50V (LN)
R240L,R	0B22351A	RM 12K 1/4W F	C109	0B41735A	CC 100P 50V J	C305L,R	0B05550A	CML 1000P 50V J
R241L,R	0B09677A	RK 1K 1/6W J	C110	0B09291A	CC 0.022 50V Z	C306L,R	0B05796A	CML 0.047 50V J
R249L,R	0B09701A	RK 10K 1/6W J	C111	0B09276A	CC 5P 50V C	C307L,R	0B40078A	CE 100 16V
R250L,R	0B09701A	RK 10K 1/6W J	C112	0B41215A	CPP 390P 100V J	C308L,R	0B47198A	CC 10P 50V J
R251L,R	0B09653A	RK 100 1/6W J	C113	0B09291A	CC 0.022 50V Z	C309L,R	0B05914A	CML 0.15 50V J
R252	0B09725A	RK 100K 1/6W J	C114,115	0B09291A	CC 0.022 50V Z	C310L,R	0B41894A	CSP 100P 100V J
R253,254	0B09701A	RK 10K 1/6W J	C116,117	0B09291A	CC 0.022 50V Z	C311L,R	0B09292A	CC 0.1 50V Z
R255	0B09725A	RK 100K 1/6W J	C118,119	0B09291A	CC 0.022 50V Z	C313L,R	0B40131A	CE 100 63V
R256	0B09701A	RK 10K 1/6W J	C120	0B09291A	CC 0.022 50V Z	C314L,R	0B40131A	CE 100 63V
R257	0B09717A	RK 47K 1/6W J	C128,129	0B09291A	CC 0.022 50V Z	C315	0B40250A	CE 100 16V (BP)
R258	0B09725A	RK 100K 1/6W J	C130,131	0B09291A	CC 0.022 50V Z	C316	0B01405A	CE 1.0 50V
R259	0B09717A	RK 47K 1/6W J	C132	0B40833A	CE 0.33 50V	C317	0B40818A	CE 0.1 50V
R260	0B09725A	RK 100K 1/6W J	C133	0B01403A	CE 47 16V	C318	0B01400A	CE 100 16V
R261	0B09717A	RK 47K 1/6W J	C134,135	0B41735A	CC 100P 50V J	C319,320	0B09292A	CC 0.1 50V Z
R262	0B09665A	RK 330 1/6W J	C136	0B09288A	CC 1000P 50V K	C321,322	0B09292A	CC 0.1 50V J
R263L,R	0B01857A	RK 1K 1/4W J	C137	0B01674A	CE 10 25V	C323L,R	0B41907A	CC 47P 50V J
R301L,R	0B09733A	RK 220K 1/6W J	C138	0B09291A	CC 0.022 50V Z	RY301	0B90279A	Relay DS2Y-S-DC24V
R307L,R	0B09677A	RK 1K 1/6W J	C139	0B09387A	CC 0.047 50V Z	FE101	0B91027A	FM Front-End FE415-A03
R308L,R	0B09702A	RK 11K 1/6W J	C140	0B01403A	CE 47 16V	S201	0L00009A	Push Switch
R309L,R	0B09671A	RK 560 1/6W J	C141	0B41908A	CC 82P 50V J	CN1	0B81765A	8P T-Post
R310L,R	0B09671A	RK 560 1/6W J	C142	0B40836A	CE 4.7 50V	CN2,3	0B81761A	4P T-Post
R311L,R	0B09637A	RK 22 1/6W J				CN4	0B81760A	3P T-Post
R312L,R	0B09637A	RK 22 1/6W J				CN5	0B81759A	2P T-Post
R313L,R	0B01933A	RK 220 1/4W J						

<u>Schematic</u> <u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
CN6	0B81975A	2P T-Post
CN14	0B81763A	6P T-Post
CN15	0B81760A	3P T-Post
CN21	0L00014A	3P Connector Ass'y
CN22	0L00015A	4P Connector Ass'y
CN23	0L00016A	5P Connector Ass'y
	0B81981A	4P Pin Jack (3)
	0B81980A	2P Pin Jack (1)
	0C85375A	4P Antenna Terminal (1)

