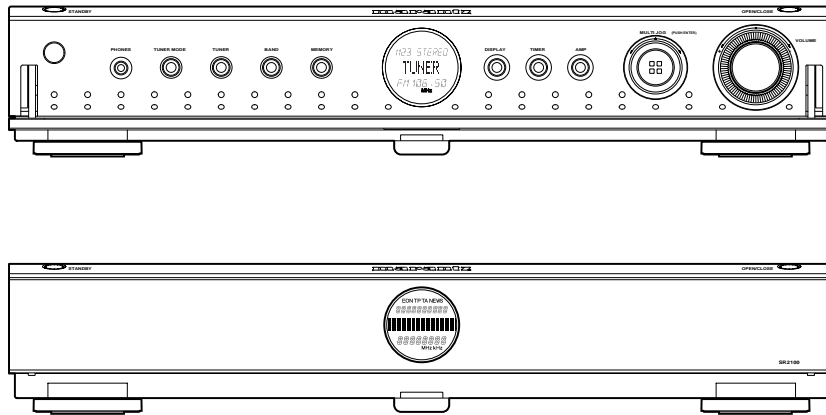


# Service Manual

SR2100/N1S, /C1S

Tuner Amplifier



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Please use this service manual with referring to the user guide (D.F.U) without fail.

# marantz®

## SR2100

327J855010 AO  
3120 785 22530  
First Issue:2001.04

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Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

### ORDERING PARTS :

Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

#### USA

**MARANTZ AMERICA, INC.**  
440 MEDINAH ROAD  
ROSELLE, ILLINOIS 60172  
USA  
PHONE : 630 - 307 - 3100  
FAX : 630 - 307 - 2687

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PHONE : 630 - 820 - 4800  
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**PROFESSIONAL AUSTRALIA  
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558 DARLING STREET,  
BALMAIN, NSW 2041,  
AUSTRALIA  
PHONE : 61 - 2 - 9810 - 5300  
FAX : 61 - 2 - 9810 - 5355

#### CANADA

**LENBROOK INDUSTRIES LIMITED**  
633 GRANITE COURT,  
PICKERING, ONTARIO L1W 3K1  
CANADA  
PHONE : 905 - 831 - 6333  
FAX : 905 - 831 - 6936

#### AUSTRALIA

**QualiFi Pty Ltd,**  
24 LIONEL ROAD,  
MT. WAVERLEY VIC 3149  
AUSTRALIA  
PHONE : +61 - (0)3 - 9543 - 1522  
FAX : +61 - (0)3 - 9543 - 3677

#### THAILAND

**MRZ STANDARD CO.,LTD**  
746 - 754 MAHACHAI ROAD.,  
WANGBURAPAPIROM, PHRANAKORN,  
BANGKOK, 10200 THAILAND  
PHONE : +66 - 2 - 222 9181  
FAX : +66 - 2 - 224 6795

#### SINGAPORE

**WO KEE HONG DISTRIBUTION PTE LTD**  
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#03-02 OLIVINE BUILDING  
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PHONE : +65 858 5535 / +65 381 8621  
FAX : +65 858 6078

#### NEW ZEALAND

**WILDASH AUDIO SYSTEMS NZ**  
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AUCKLAND NEW ZEALAND  
PHONE : +64 - 9 - 8451958  
FAX : +64 - 9 - 8463554

#### TAIWAN

**PAI- YUING CO., LTD.**  
6 TH FL NO, 148 SUNG KIANG ROAD,  
TAIPEI, 10429, TAIWAN R.O.C.  
PHONE : +886 - 2 - 25221304  
FAX : +886 - 2 - 25630415

#### MALAYSIA

**WO KEE HONG ELECTRONICS SDN. BHD.**  
SUITE 8.1, LEVEL 8, MENARA GENESIS,  
NO. 33, JALAN SULTAN ISMAIL,  
50250 KUALA LUMPUR, MALAYSIA  
PHONE : +60 3 - 2457677  
FAX : +60 3 - 2458180

#### JAPAN *Technical*

**MARANTZ JAPAN, INC.**  
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SAGAMIHARA - SHI, KANAGAWA  
JAPAN 228-8505  
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FAX : +81 42 741 9190

#### 日本マランツ株式会社

本社 〒228-8505  
神奈川県相模原市相模大野7-35-1  
営業本部 〒150-0022  
東京都渋谷区恵比寿南1-11-9

#### KOREA

**MK ENTERPRISES LTD.**  
ROOM 604/605, ELECTRO-OFFICETEL, 16-58,  
3GA, HANGANG-RO, YONGSAN-KU, SEOUL  
KOREA  
PHONE : +822 - 3232 - 155  
FAX : +822 - 3232 - 154

### SHOCK, FIRE HAZARD SERVICE TEST :

**CAUTION :** After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins ( with unit NOT connected to AC mains and its Power switch ON ), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard No. 1492.

In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

# 1. TECHNICAL SPECIFICATIONS

## FM TUNER SECTION

Frequency Range .....	87.5 - 108.0 MHz
Usable Sensitivity .....	IHF 1.8 $\mu$ V/16.4 dBf
Signal to Noise Ratio .....	Mono/Stereo 76/72 dB
Distortion .....	Mono/Stereo 0.2/0.3 %
Stereo Separation .....	1 kHz 45 dB
Alternate Channel Selectivity .....	$\pm$ 300 kHz 60 dB
Image Rejection .....	98 MHz 70 dB
Tuner Output Level .....	1 kHz, $\pm$ 40 kHz Dev 800 mV

## AM TUNER SECTION

Frequency Range .....	LW: 152 - 282 kHz, MW: 531 - 1602 kHz
Signal to Noise Ratio .....	50 dB
Usable Sensitivity .....	Loop 400 $\mu$ V
Distortion .....	400 Hz, 30 % Mod. 0.5 %
Selectivity .....	$\pm$ 18 kHz 40 dB

## AUDIO SECTION

Continuous Power Output (40 Hz - 20 kHz) .....	8 ohms 50W / Ch (DIN)
THD (40 Hz - 20 kHz) at 40 W output .....	8 ohms 0.05 %
Input Sensitivity/Impedance Linear .....	220 mV/ 47 Kohms
Signal to Noise Ratio Linear (1 W) .....	77 dB

## GENERAL

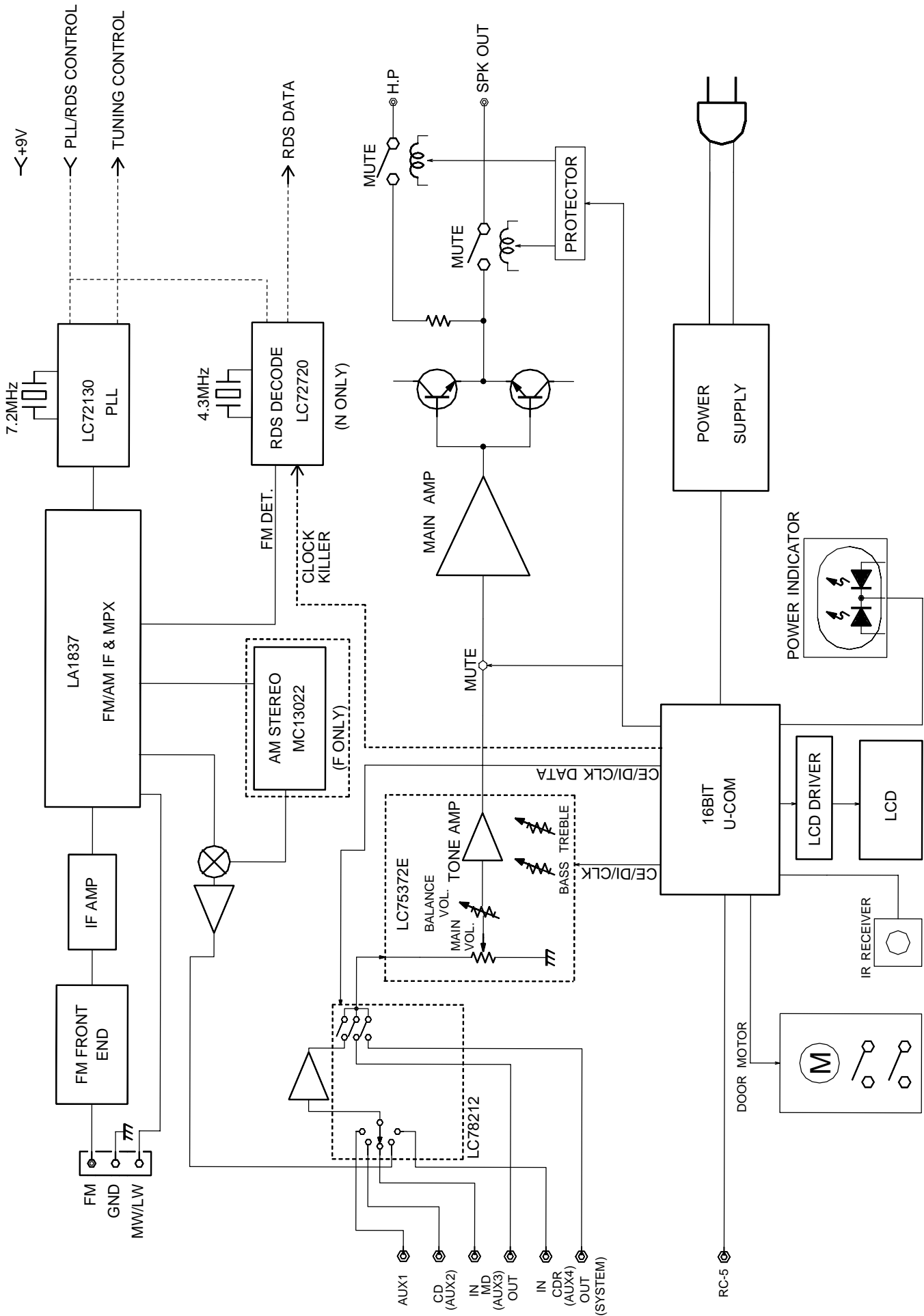
Power Requirement N Version .....	AC 230 V 50 Hz
C Version .....	AC 220 V 60 Hz
Power Consumption (STEREO MODE RATED POWER) .....	220 W
Dimension (MAX) Width .....	420 mm
Height .....	76 mm
Depth .....	322 mm
Weight .....	6.5 Kg

## ACCESSORIES

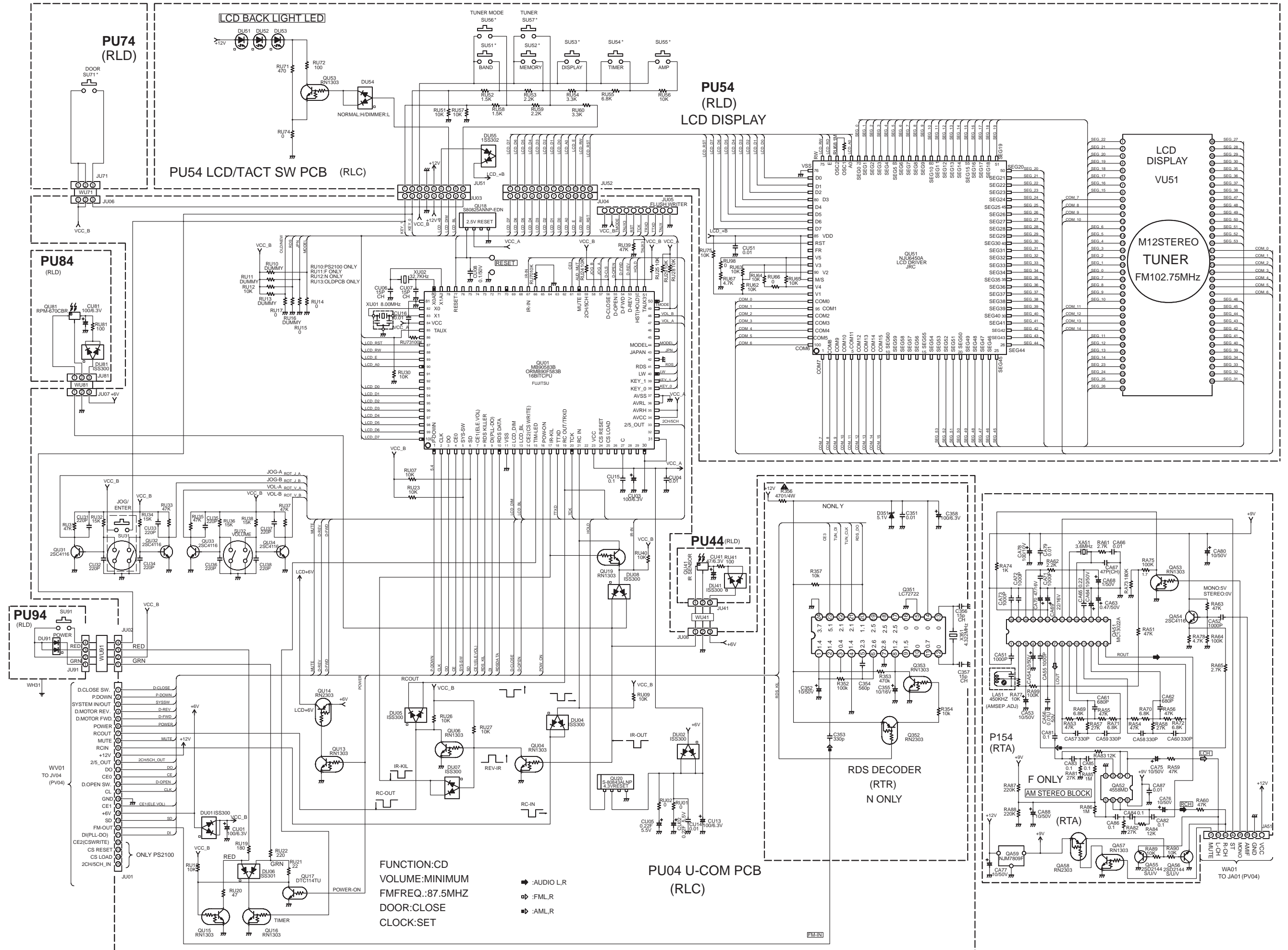
Remote Control Unit RC2100SR .....	1
AAA-size batteries .....	2
FM Feeder Antenna .....	1
AM Loop Antenna .....	1
AC Cord .....	1
Remote BUS Cable .....	1

Specifications subject to change without prior notice.

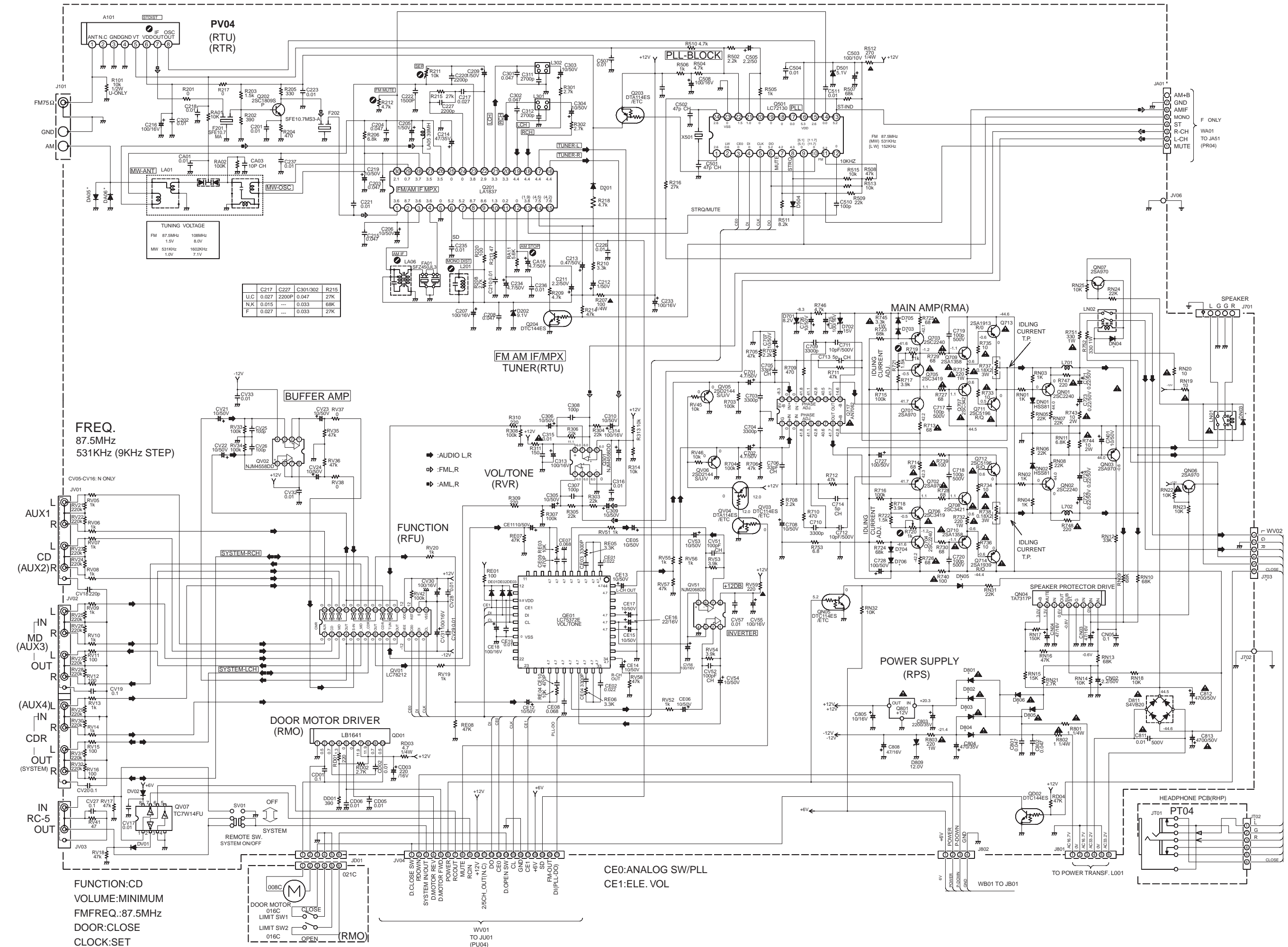
## 2. BLOCK DIAGRAM



### 3. SCHEMATIC DIAGRAM AND PARTS LOCATION

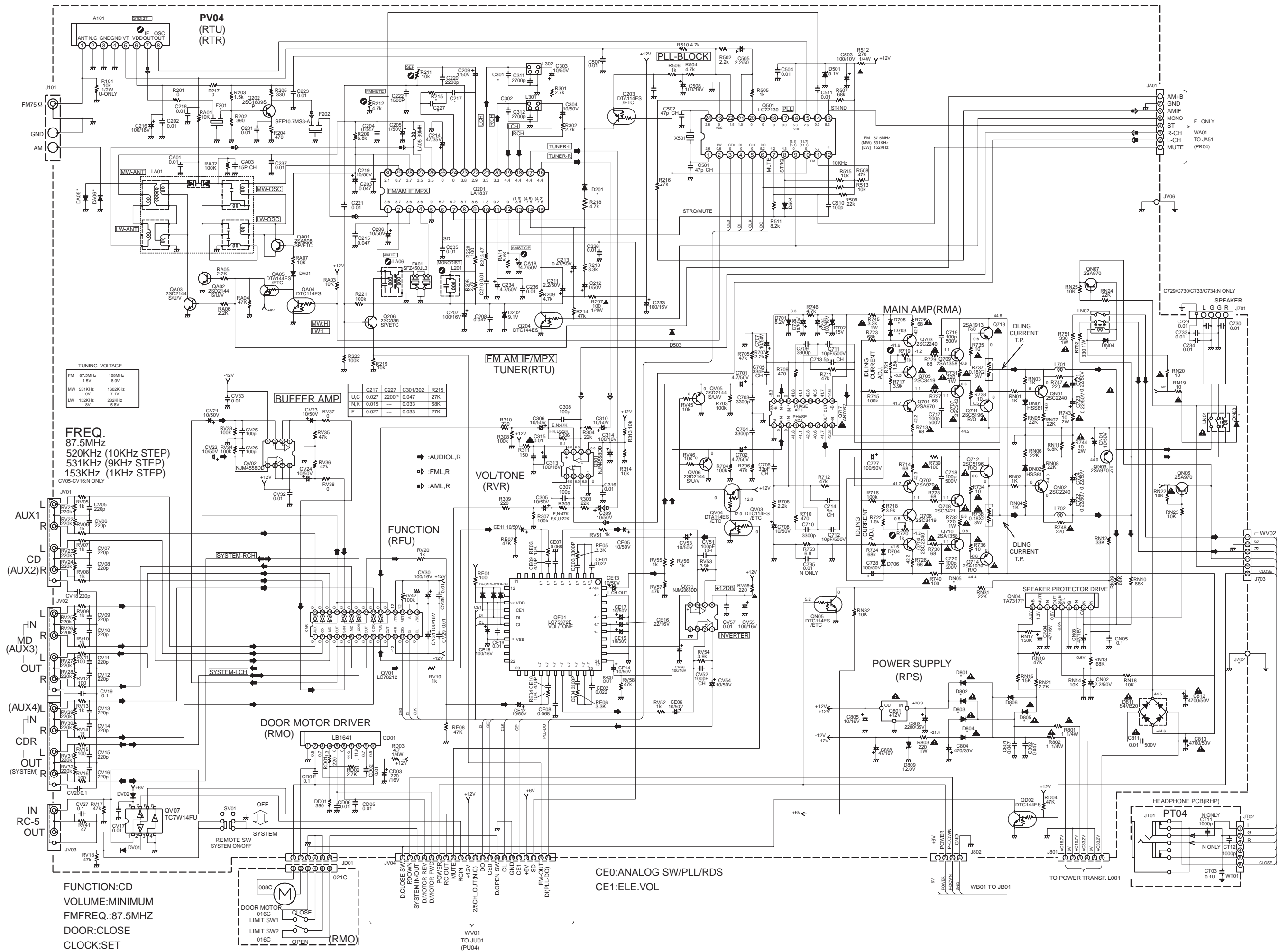


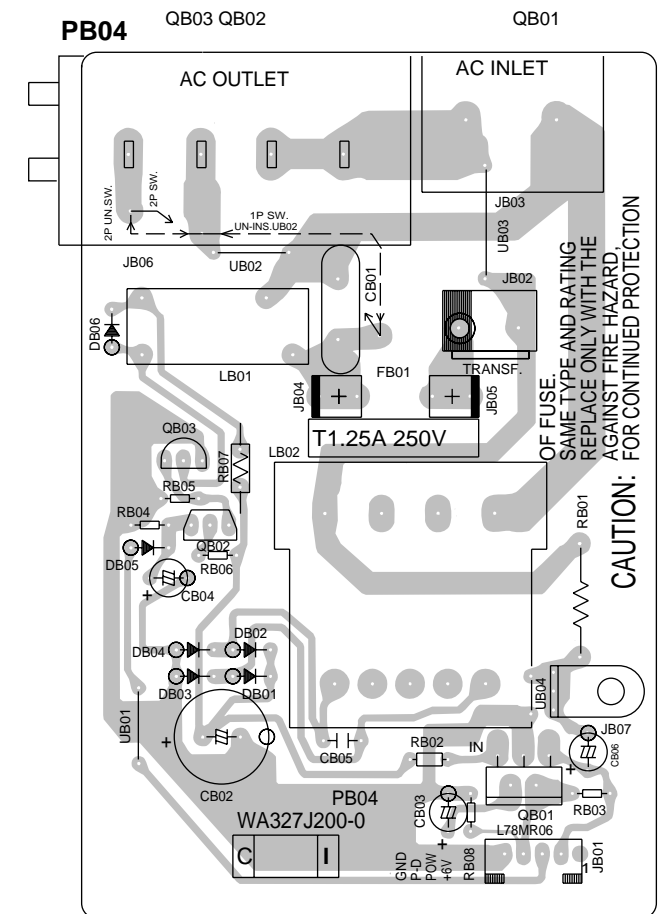
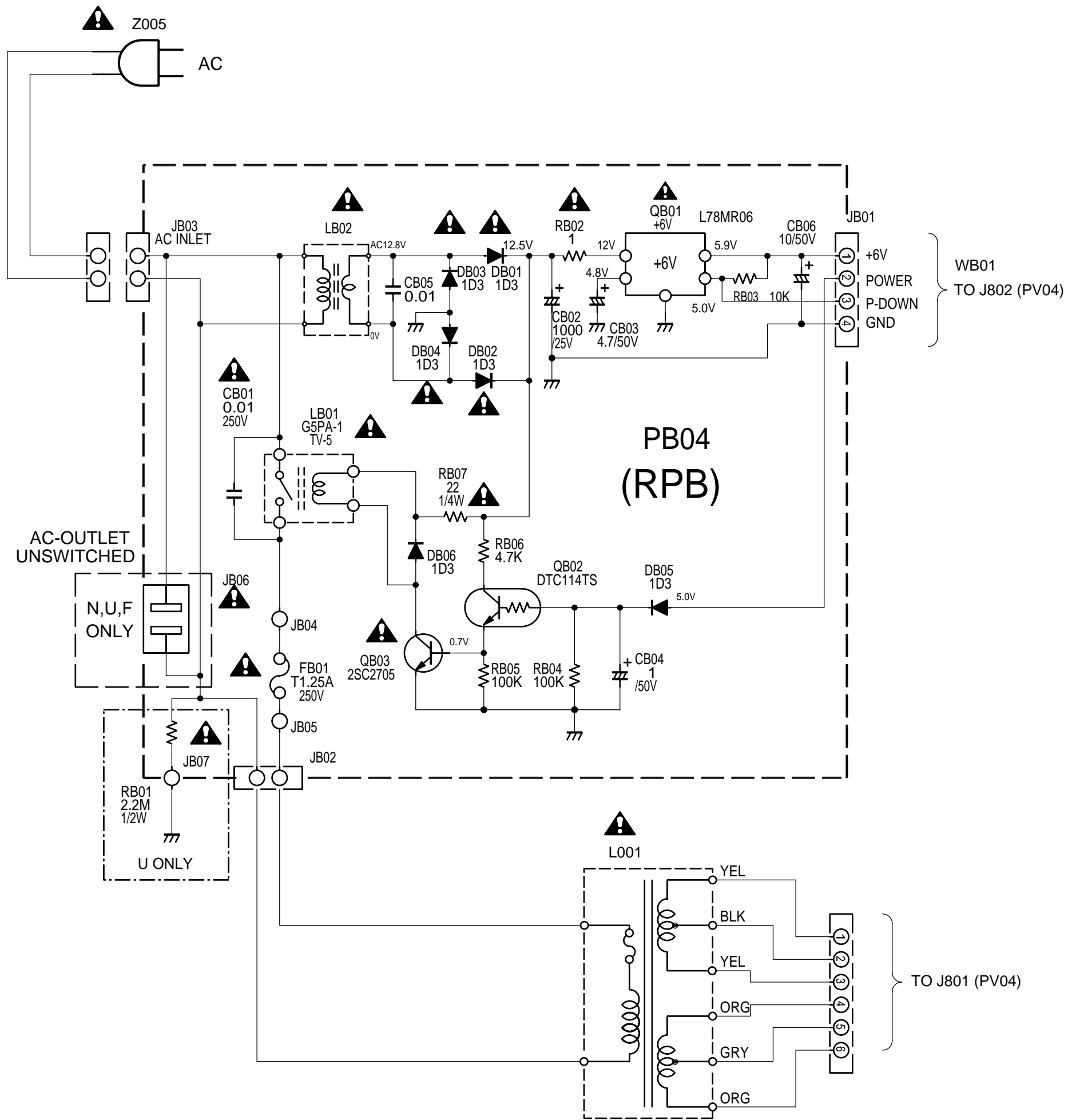
C VERSION





N VERSION







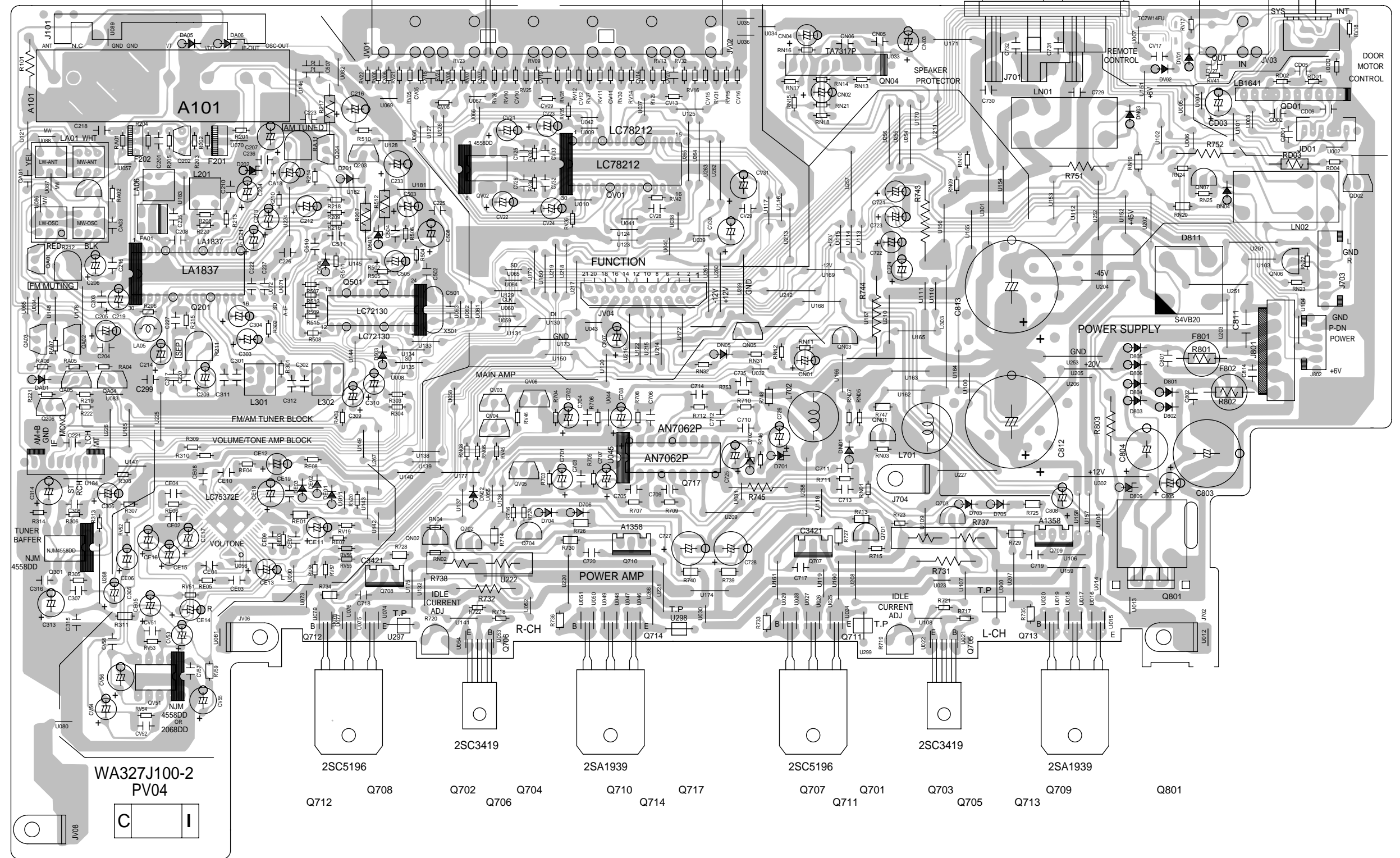
QA01 QA02 QA04 Q202  
 QA03 QA05 Q201  
 Q206 Q301 QV51

QN02 QV02 QV06 QV01  
 QV03 QV05

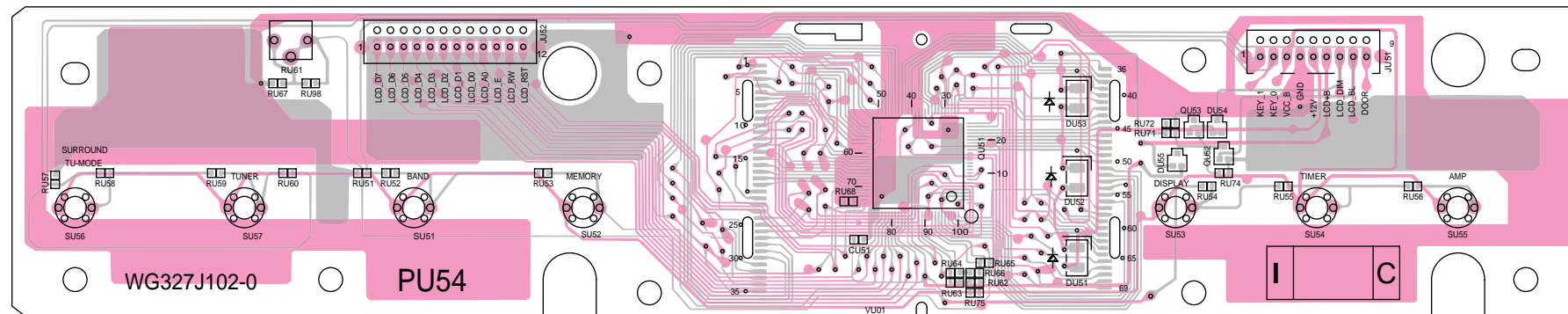
QN05 QN03 QN04  
 QN01

QN07 QN06 QD02

PV01



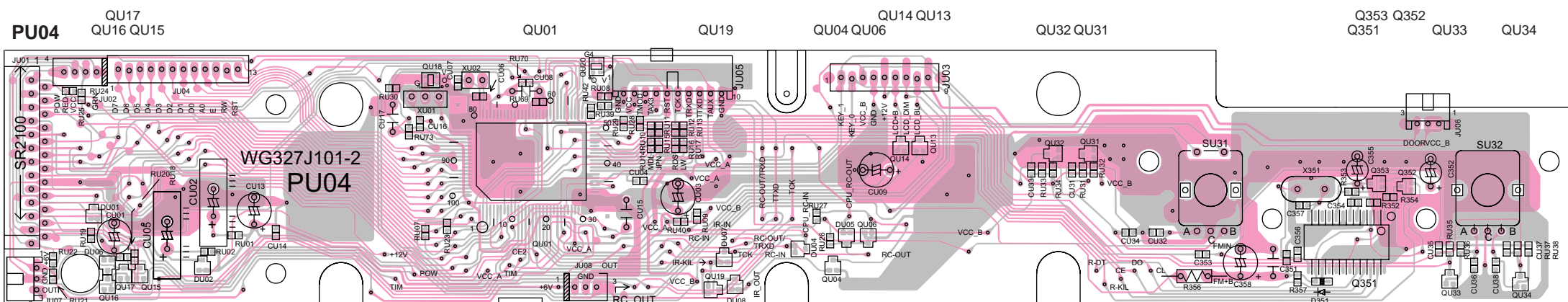
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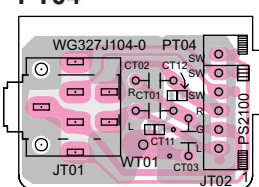
QU51

QU53 QU52

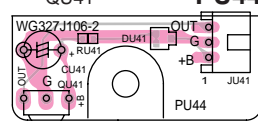
PU04



PT04

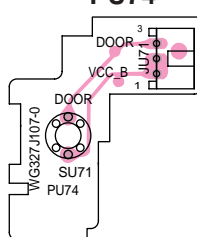


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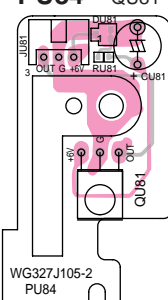


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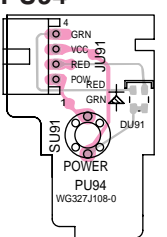
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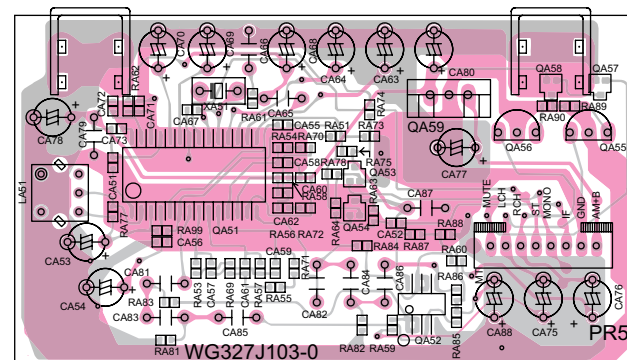
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PU94



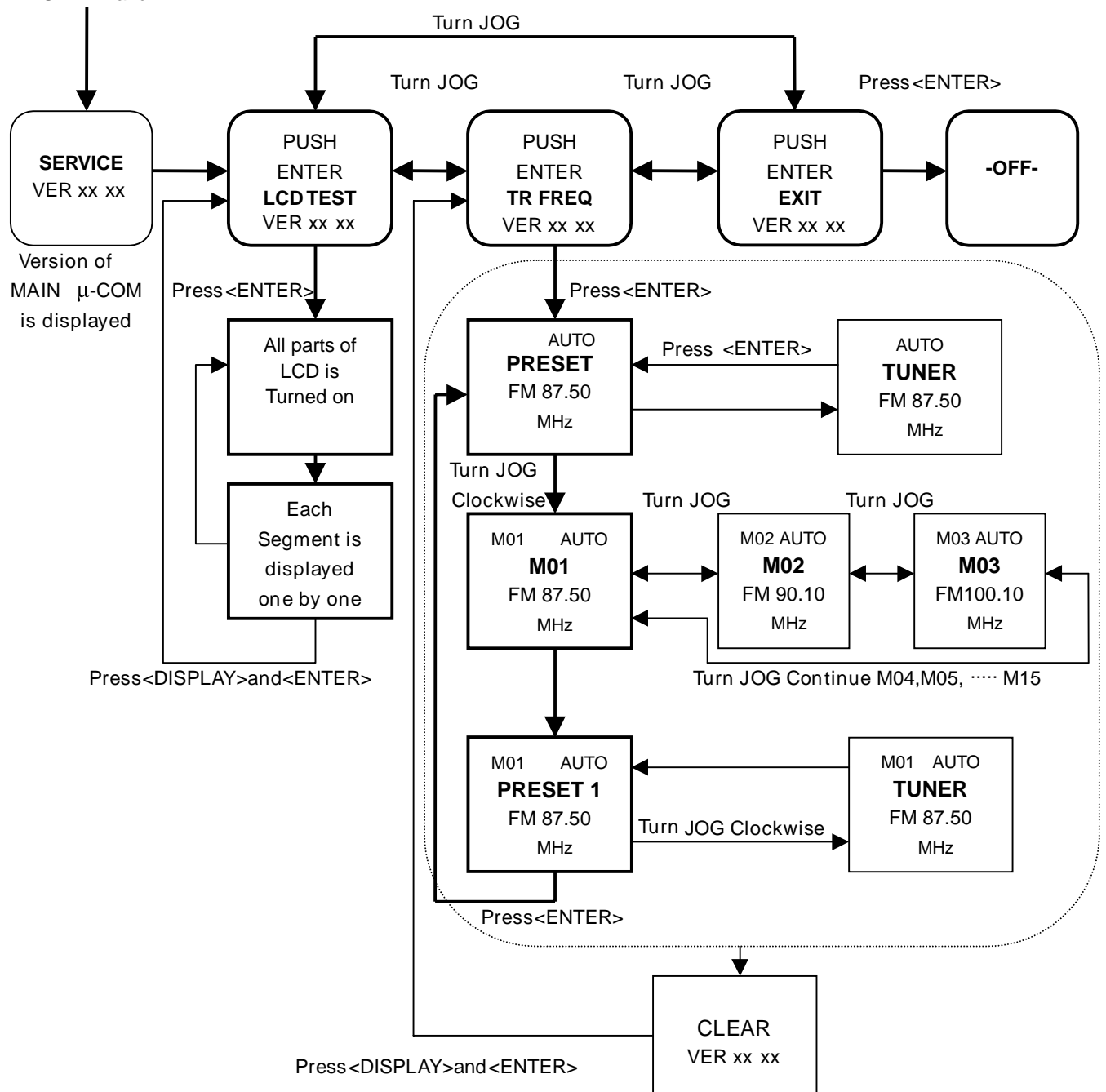
PR54



## 4. SERVICE MODE

### 1. Tracking point memory of present memory / LCD segment luminous

Connect an AC cable plug to mains while pressing  
<DISPLAY>and<ENTER>



Band	Version	M01	M02	M03	M04	M05
FM AUTO [MHz]	C, N	87.50	90.10	100.10	106.10	108.00

Band	SCAN STEP	M06	M07	M08	M09	M10	M11	M12	M13	M14	M15
AM [kHz]	9kHz (C)	552	612	999	1503	1620	—	—	—	—	—
	MW/LW (N)	552	612	999	1503	1620	146	164	218	272	290

## 5. AUDIO ADJUSTMENT

### Main Amplifier Idle Current Adjustment

#### 1. Test Point:

Lch: U299 (+), U300 (-) or R737, 0.18 ohms X2

Rch: U297 (+), U298 (-) or R738, 0.18 ohms X2

#### 2. Adjust Resistor

Lch: R719, Rch: R720

#### 3. Procedures

(1) Before switching the power ON, do not input signal to input terminal.

Then, rotate the above semi-fixed resistors R719 and R720 on the PC board PV04 to center position.

For preliminary setting, Volume control to the minimum position and the Tone control to the center position at turned on.

(2) Connect a digital voltmeter set for the DC voltage input to the pertinent test point on the PV04.

(3) After the component of the above setup.

Switch the power ON and adjust the semi-fixed resistor R719 and R720 on the PV04 according to the reading of the digital voltmeter.

The setting values are 5mV(14mA) of the both channels.

Refer to the table below.

Time of after Power-ON:

30sec	3.0mV ( 8.3mA)
60sec	4.0mV (11.1mA)
More than 5 minute	7.0mV (19.4mA)

## 6. TUNER ADJUSTMENT

### 1. AM auto stop Level Check

Step	Input Signal Connection	Signal Frequency	Source Signal Output Level and Modulation	P-No.	Reception Frequency	Adjust. point	Adjustment Value
1	Signal generator output to transmission loop antenna. ('Standard required loop)	999 kHz	Level 54 dB/m (500uV/m)	M08	999 kHz	---	"TUNED" indicates on LCD
2			Level 60 dB/m (1000uV/m)	<b>AUTO SCAN</b>		Only Confirm	<b>Stop scan and "TUNED"</b> Indicates on LCD

\*Auto scan mode activates that push and hold [▶▶] button on the remote controller RC2100SR.

### 2. FM Adjustment

#### 2.1 FM MONO. Distortion Adjustment.

Step	Input Signal Connection	Signal Frequency	Source Signal Output Level and Modulation	P-No.	Reception Frequency	Adjust. Point	Adjustment Value
1	Signal generator output to FM antenna terminal (75ohms)	100.1MHz	Level 500uV (54 dB) Mono 1kHz Dev. 75kHz 100%(C) Dev. 40kHz 53%(N)	M03 <b>MONO</b>	100.1MHz	L201	Distortion Level <b>Minimum</b> at TAPE-OUT

#### 2.2 FM Muting Threshold Check

First of all, check illuminates "AUTO" on LCD. If shows "MONO" on LCD, press [TUNER MODE] button on unit or remote that to set the AUTO mode. LCD shows "AUTO". Input the signal and receipt it.

Step	Input Signal Connection	Signal Frequency	Source Signal Output Level and Modulation	P-No.	Reception Frequency	Adjust. point	Adjustment Value
1	Signal generator output to FM antenna terminal (75ohms)	98MHz	Level 6.3uV(16dB) Mono 1kHz/ Dev. 75kHz (C) 40kHz (N)	M02	98MHz	---	"TUNED" indicates on LCD
2			Level 12uV(22dB)	<b>AUTO SCAN</b>		Only Confirm	<b>Stop scan and "TUNED"</b> Indicates on LCD

**Remark:** AUTO MODE: [MODE] button in tuner mode on remote.

### 2.3 FM STEREO Distortion Adjustment

Adjust the L-channel with the RF signal modulated only L-channel first and confirm the R-channel with RF signal modulated only R-channel.

Step	Input Signal Connection	Signal Frequency	Source Signal Output Level and Modulation	P-No.	Reception Frequency	Adjust. point	Adjustment Value
1	Signal generator output to FM antenna terminal (75ohms)	98MHz	Level 500uV(54dB)	M02	98MHz	IF COIL in Front End	Distortion Level <b>Minimum</b> at TAPE-OUT L-ch.
2			Only L-ch 1kHz/ Dev. 67.5kHz 90% (C) 40kHz 53.3% (N) Pilot 19kHz/ Dec. 6.75kHz 9% (C) 6kHz 8% (N)				
3			Only R-ch			Only Confirm	Distortion Level <b>Similar</b> as L-ch at TAPE-OUT R-ch.

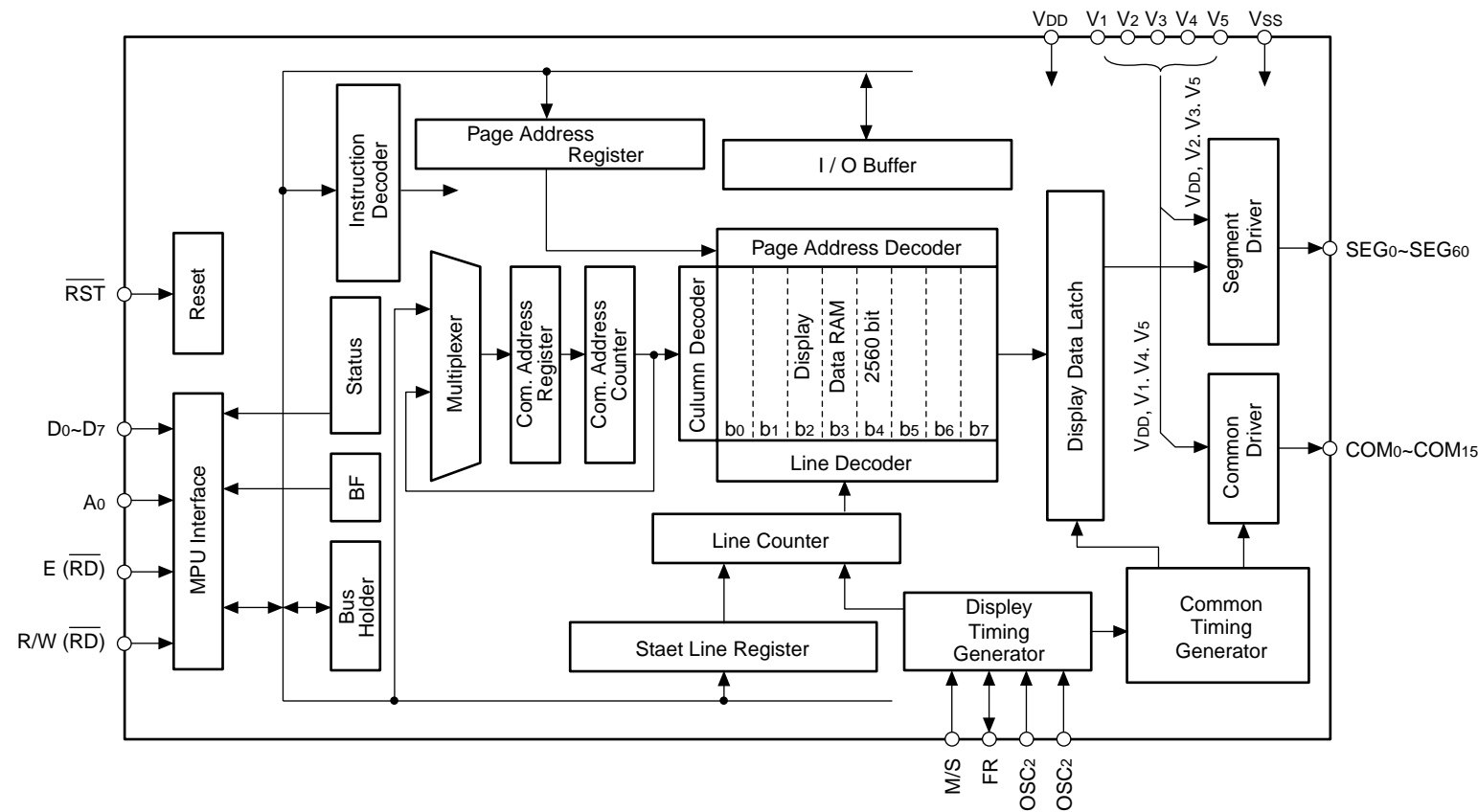
### 2.4 FM STEREO Separation Adjustment

Step	Input Signal Connection	Signal Frequency	Source Signal Output Level and Modulation	P-No.	Reception Frequency	Adjust. point	Adjustment Value
1	Signal generator output to FM antenna terminal (75ohms)	98MHz	Level 500uV(54dB)	M02	98MHz	R211	Output Level <b>Minimum</b> at TAPE-OUT R-ch.
2			Only L-ch 1kHz/ Dev. 67.5kHz 90% (C) 40kHz 53.3% (N) Pilot 19kHz/ Dec. 6.75kHz 9% (C) 6kHz 8% (N)				
3			Only R-ch				Output Level <b>Similar</b> as R-ch at TAPE-OUT L-ch.

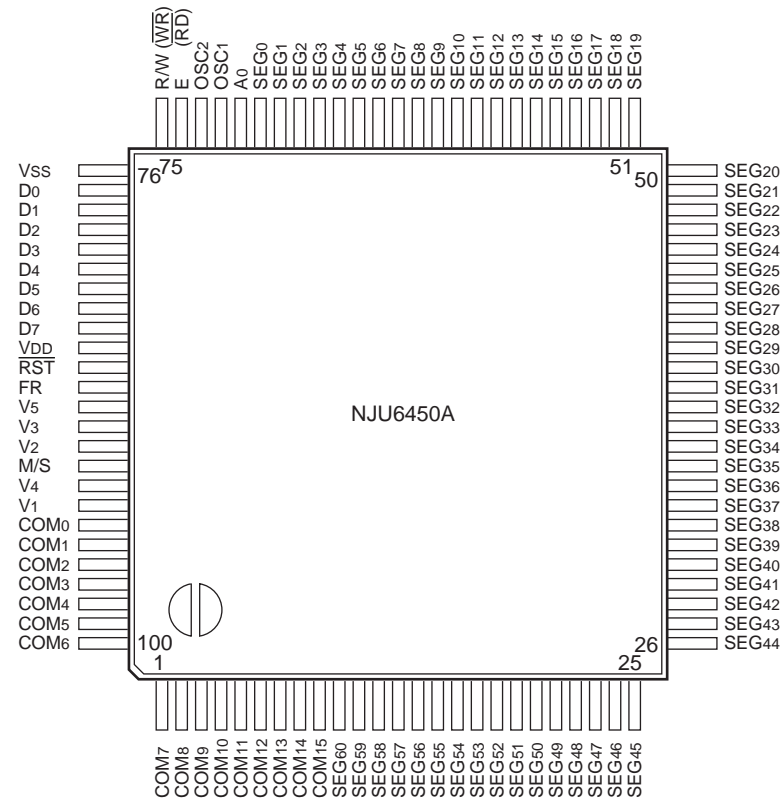


# 7. IC DATA

**QU51:NJU6450A  
BLOCK DIAGRAM**



**PIN CONFIGURATION**



**PIN FUNCTION**

No.	Terminal Name	X=(um)	Y=(um)
1	COM <sub>5</sub>	-2130	-1865
2	COM <sub>6</sub>	-1970	-1865
3	COM <sub>7</sub>	-1810	-1865
4	COM <sub>8</sub>	-1650	-1865
5	COM <sub>9</sub>	-1490	-1865
6	COM <sub>10</sub>	-1330	-1865
7	COM <sub>11</sub>	-1190	-1865
8	COM <sub>12</sub>	-1050	-1865
9	COM <sub>13</sub>	- 910	-1865
10	COM <sub>14</sub>	- 770	-1865
11	COM <sub>15</sub>	- 630	-1865
12	SEG <sub>60</sub>	- 490	-1865
13	SEG <sub>59</sub>	- 350	-1865
14	SEG <sub>58</sub>	- 210	-1865
15	SEG <sub>57</sub>	- 70	-1865
16	SEG <sub>56</sub>	70	-1865
17	SEG <sub>55</sub>	210	-1865
18	SEG <sub>54</sub>	350	-1865
19	SEG <sub>53</sub>	490	-1865
20	SEG <sub>52</sub>	630	-1865
21	SEG <sub>51</sub>	770	-1865
22	SEG <sub>50</sub>	910	-1865
23	SEG <sub>49</sub>	1050	-1865
24	SEG <sub>48</sub>	1190	-1865
25	SEG <sub>47</sub>	1330	-1865
26	SEG <sub>46</sub>	1490	-1865
27	SEG <sub>45</sub>	1650	-1865
28	SEG <sub>44</sub>	1810	-1865
29	SEG <sub>43</sub>	1970	-1865
30	SEG <sub>42</sub>	2130	-1865
31	SEG <sub>41</sub>	2213	-1354
32	SEG <sub>40</sub>	2213	-1214
33	SEG <sub>39</sub>	2213	-1074
34	SEG <sub>38</sub>	2213	- 934
35	SEG <sub>37</sub>	2213	- 794
36	SEG <sub>36</sub>	2213	- 654
37	SEG <sub>35</sub>	2213	- 514
38	SEG <sub>34</sub>	2213	- 374
39	SEG <sub>33</sub>	2213	- 234
40	SEG <sub>32</sub>	2213	- 94
41	SEG <sub>31</sub>	2213	46
42	SEG <sub>30</sub>	2213	186
43	SEG <sub>29</sub>	2213	326
44	SEG <sub>28</sub>	2213	466
45	SEG <sub>27</sub>	2213	606
46	SEG <sub>26</sub>	2213	746
47	SEG <sub>25</sub>	2213	886
48	SEG <sub>24</sub>	2213	1026
49	SEG <sub>23</sub>	2213	1166
50	SEG <sub>22</sub>	2213	1306

\* Pad Size 92um x 92um

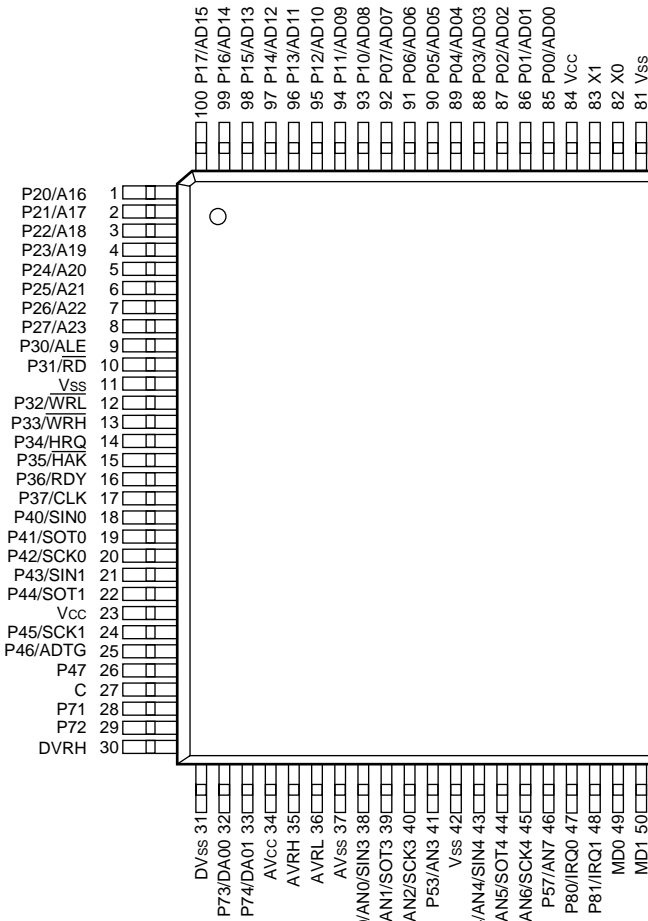
Chip Size 4860um x 4160um(Chip Center X=0um,Y=0um)

No.	Terminal Name	X=(um)	Y=(um)
51	SEG <sub>21</sub>	2130	1865
52	SEG <sub>20</sub>	1970	1865
53	SEG <sub>19</sub>	1810	1865
54	SEG <sub>18</sub>	1650	1865
55	SEG <sub>17</sub>	1490	1865
56	SEG <sub>16</sub>	1330	1865
57	SEG <sub>15</sub>	1190	1865
58	SEG <sub>14</sub>	1050	1865
59	SEG <sub>13</sub>	910	1865
60	SEG <sub>12</sub>	770	1865
61	SEG <sub>11</sub>	630	1865
62	SEG <sub>10</sub>	490	1865
63	SEG <sub>9</sub>	350	1865
64	SEG <sub>8</sub>	210	1865
65	SEG <sub>7</sub>	70	1865
66	SEG <sub>6</sub>	- 70	1865
67	SEG <sub>5</sub>	- 210	1865
68	SEG <sub>4</sub>	- 350	1865
69	SEG <sub>3</sub>	- 490	1865
70	SEG <sub>2</sub>	- 630	1865
71	SEG <sub>1</sub>	- 770	1865
72	SEG <sub>0</sub>	- 910	1865
73	A <sub>0</sub>	-1050	1865
74	OSC <sub>1</sub>	-1190	1865
75	OSC <sub>2</sub>	-1330	1865
76	E	-1490	1865
77	R/W	-1650	1865
78	V <sub>SS</sub>	-1810	1865
79	DB <sub>0</sub>	-1970	1865
80	DB <sub>1</sub>	-2130	1865
81	DB <sub>2</sub>	-2213	1330
82	DB <sub>3</sub>	-2213	1190
83	DB <sub>4</sub>	-2213	1050
84	DB <sub>5</sub>	-2213	910
85	DB <sub>6</sub>	-2213	770
86	DB <sub>7</sub>	-2213	630
87	V <sub>DD</sub>	-2213	490
88	RST	-2213	350
89	FR	-2213	210
90	V <sub>5</sub>	-2213	70
91	V <sub>3</sub>	-2213	- 70
92	V <sub>2</sub>	-2213	- 210
93	M/S	-2213	- 350
94	V <sub>4</sub>	-2213	- 490
95	V <sub>1</sub>	-2213	- 630
96	COM <sub>0</sub>	-2213	- 770
97	COM <sub>1</sub>	-2213	- 910
98	COM <sub>2</sub>	-2213	-1050
99	COM <sub>3</sub>	-2213	-1190
100	COM <sub>4</sub>	-2213	-1330

**QU01 : MB90583B**  
**PIN FUNCTION**

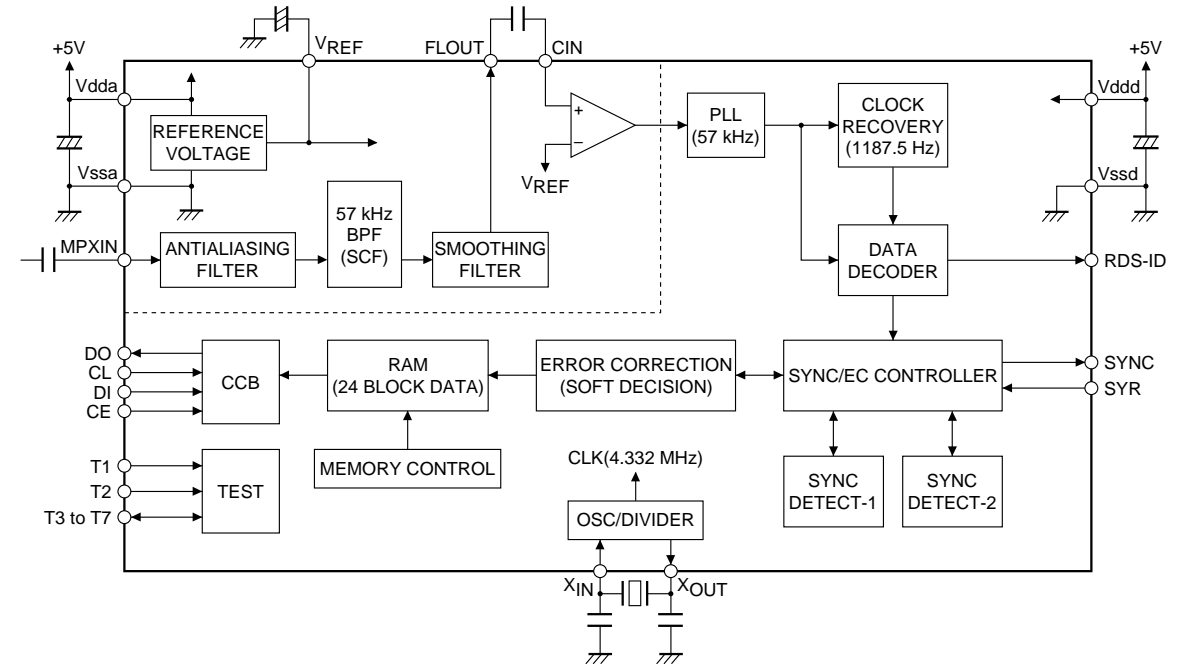
Pin	PORT	Name of port	I/O	Description
1	P20/A16	P-DOWN	I	Power Detect , LOW:SUB-CLOCK
2	P21/A17	CLK	O	ANA_SW/PLL/RDS CLOCK
3	P22/A18	DO	O	ANA_SW/PLL/RDS DATA OUT
4	P23/A19	CE0	O	ANA_SW/PLL/RDS CE
5	P24/A20	SYS_SW	I	System Switch INPUT
6	P25/A21	SD	I	TUNER SD INPUT
7	P26/A22	CE1	O	ELE.VOLUME CE
8	P27/A23	RDS-KIL	O	RDS DECODER OSC KILLER
9	P30/ALE	PLL-DI	I	DATA INPUT FROM PLL
10	P31/RD	RDS-DI	I	DATA INPUT FROM RDS
11	VSS	GND		
12	P32/WRL	LCD_DIM	O	LCD BACK LIGHT DIMMER
13	P33/WRH	AM BEAT CANCEL (AM_BT_CNCL)	O	AM BEAT CANCEL
14	P34/HRQ	CE2	O	CSWRITE
15	P35/HAK	Timer-LED	O	Timer-LED,TIMER:ACTIVE
16	P36/RDY	POWER_ON	O	Power Control
17	P37/CLK	IR-KILL	O	IR Sensor KILLER
18	P40/SIN0	TTXD	I	Flash Writer Connection
19	P41/SOT0	RC-OUT TRXD	O	REMOTE Control bus Output Flash Writer Connection
20	P42/SCK0	TCK	I	Flash Writer Connection
21	P43/SIN1	RC-IN	O	REMOTE Control bus(U-ART)INPUT
22	P44/SOT1	N.C		
23	VCC	+5STB	--	Vcc
24	P45/SCK1	CS RESET	O	CS RESET Output
25	P46/ADTG	CS Load	O	CS Load Output
26	P47	N.C.		
27	C	C		
28	P71	N.C		
29	P72	N.C		
30	DVRH	GND	I	
31	DVSS	GND	I	
32	P73/DA00	N.C.	I	
33	P74/DA01	2/5 OUT	O	2CH/5CH CONTROL Output
34	AVCC	+5STB	--	Vcc
35	AVRH	+5STB	--	Vcc
36	AVRL	GND	--	Vcc
37	AVSS	GND		
38	P50/AN0/SIN3	KEY_IN_0	I	KEY_0 Input
39	P51/AN1/SOT3	KEY_IN_1	I	KEY_1 Input
40	P52/AN2/SCK3	OLD/NEW	I	OLD/NEW mode set
41	P53/AN3	RDS	I	RDS mode set
42	VSS	GND		
43	P54/AN4/SIN4	JPN	I	JAPAN Destination. set
44	P55/AN5/SOT4	MODEL	I	SR/PS MODEL set
45	P56/AN6/SCK4	N.C.	I	
46	P57/AN7	N.C.	I	
47	P80/IRQ0	ROT_V_A	I	Rotary Encoder(Volume) Input A
48	P81/IRQ1	ROT_V_B	I	Rotary Encoder(Volume) Input B
49	MD0	TMODE	I	CPU mode set ,Flush Writer connection
50	MD1	MD1	I	CPU mode set
51	MD2	TAUX3	I/O	CPU mode set, Flush Writer connection
52	HST	HST	I	Hardware standby HOLD
53	P82/IRQ2	D_MOTOR_REV	O	Door REV. Motor ON
54	P83/IRQ3	D_MOTOR_FWD	O	Door FWD. Motor ON
55	P84/IRQ4	D_OPEN_SW	I	Door Open detect
56	P85/IRQ5	D_CLOSE_SW	I	Door Close detect
57	P86/IRQ6	ROT_J_A	I	Rotary Encoder(JOG) Input A
58	P87/IRQ7	ROT_J_B	I	Rotary Encoder(JOG) Input B
59	P60/SIN2	H.P_SW	I	Mode set by Headphone Switch
60	P61/SOT2	MUTE	O	Audio Mute output
61	P62/SCK2	CE3	O	RDS Decoder CE output
62	P63/PPG1	N.C.	I	
63	P64/PPG0	N.C	I	
64	P65/CKOT	N.C.	I	
65	TX	N.C.	O	
66	RX	N.C.	I	Fixed LOW
67	P90/TIN0/INO	RC_IN	I	IR/RC5 INPUT
68	P91/TIN1/IN1	N.C.	I	
69	P92/TIN2/IN2	N.C.	I	
70	P93/TOT0/IN3	N.C.	I	
71	P94/TOT1/OUT0	N.C.	I	
72	P95/TOT2/OUT1	N.C.	I	
73	P96/PWC	N.C.	I	
74	P97/POT	N.C.	I	
75	PA0	N.C.	I	
76	PA1	N.C.	I	
77	RST	RST	I	CPU RESET
78	PA2	N.C.	I	
79	X1A	32kHz X'tal	--	32kHz X-tal Connect.
80	X0A	32kHz X'tal	--	32kHz X-tal Connect.
81	VSS	GND		
82	X0	8MHz X'tal	--	8MHz Ceramic Resonator Connect
83	X1	8MHz X'tal	--	8MHz Ceramic Resonator Connect
84	VCC	+5STB	--	Vcc
85	P00/AD00	TAUX	I/O	Flush Writer Connection
86	P01/AD01	---	I	CPU mode set
87	P02/AD02	RST	O	LCD Driver RESET
88	P03/AD03	LCD_RW	O	LCD Driver R/W
89	P04/AD04	LCD_RD	O	LCD Driver RD
90	P05/AD05	A0	O	LCD Driver mode set
91	P06/AD06	N.C	I	
92	P07/AD07	N.C	I	
93	P10/AD08	D0	I/O	LCD Driver data set
94	P11/AD09	D1	I/O	LCD Driver data set
95	P12/AD10	D2	I/O	LCD Driver data set
96	P13/AD11	D3	I/O	LCD Driver data set
97	P14/AD12	D4	I/O	LCD Driver data set
98	P15/AD13	D5	I/O	LCD Driver data set
99	P16/AD14	D6	I/O	LCD Driver data set
100	P17/AD15	D7	I/O	LCD Driver data set

**QU01 : PIN CONFIGURATION**

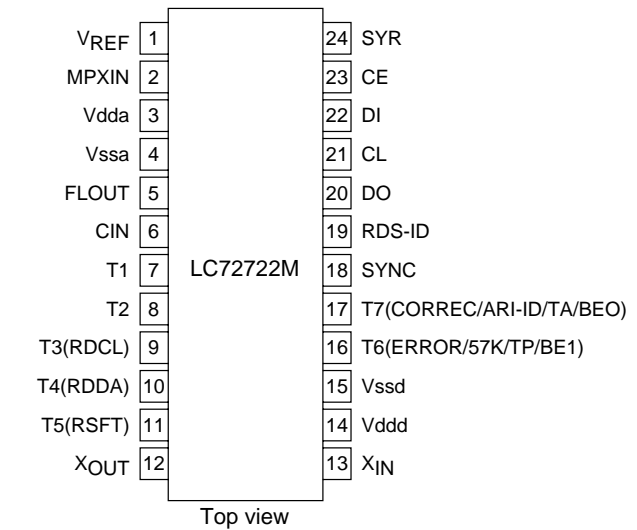


\* : N.C. pin on the MB90587

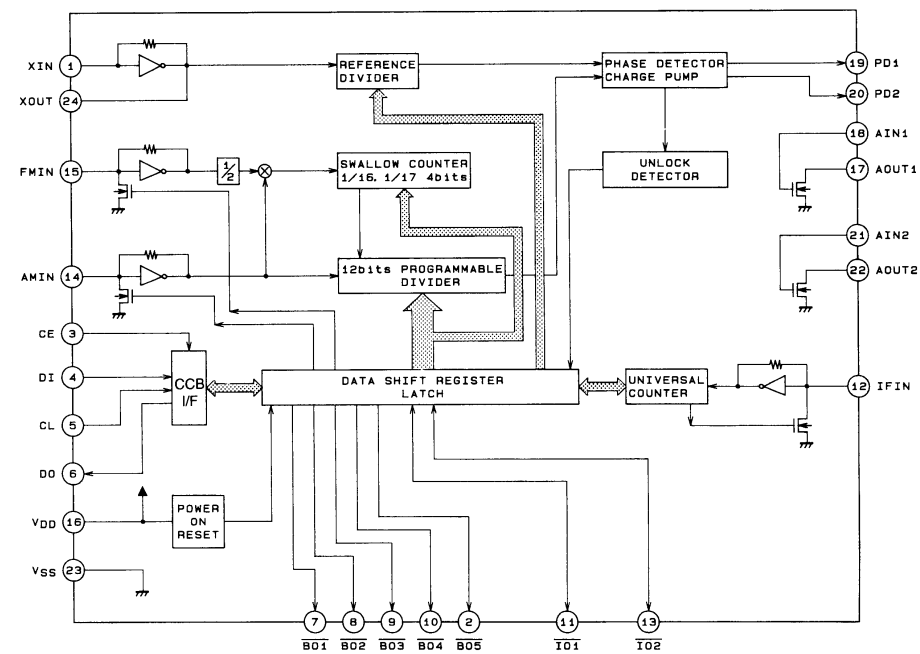
**Q351:LC72722M**  
**BLOCK DIAGRAM**



**Q351 : PIN CONFIGURATION**

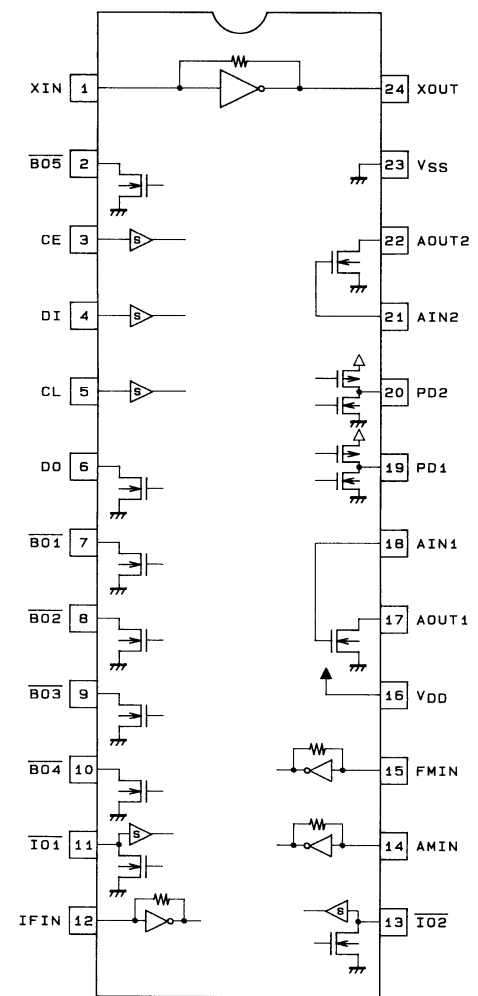


**Q501:LC72130  
BLOCK DIAGRAM**



A03482

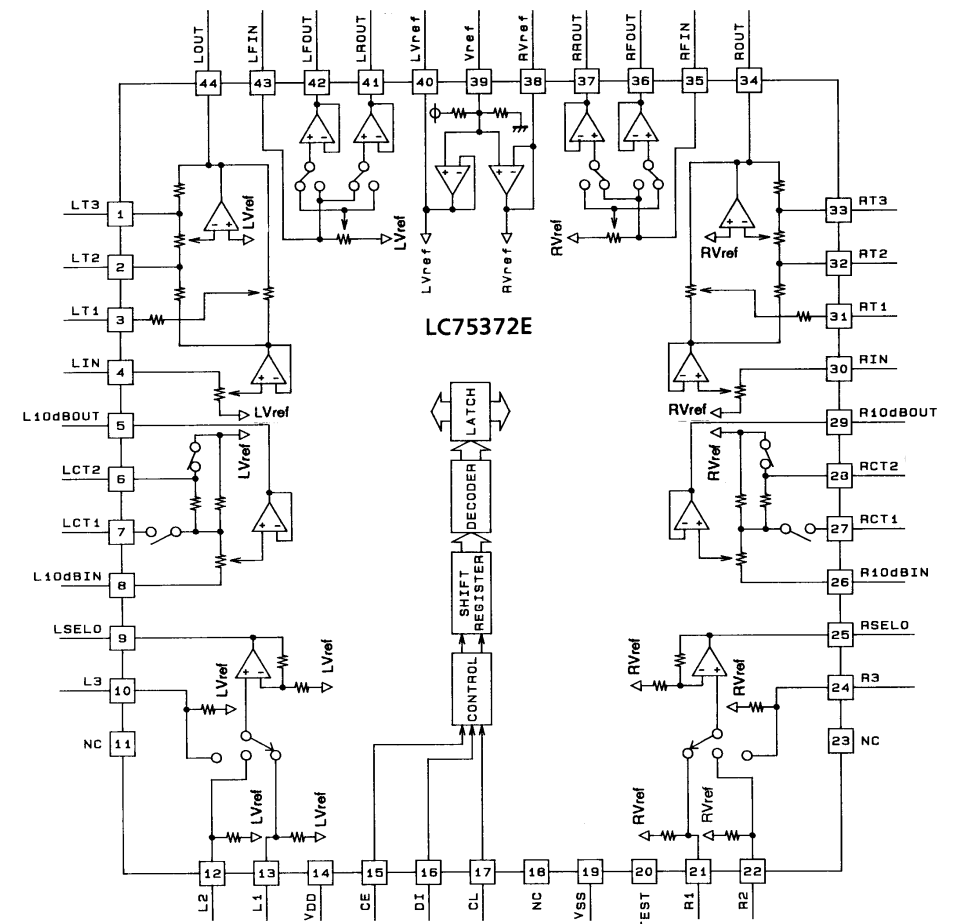
**PIN CONFIGURATION**



Top view

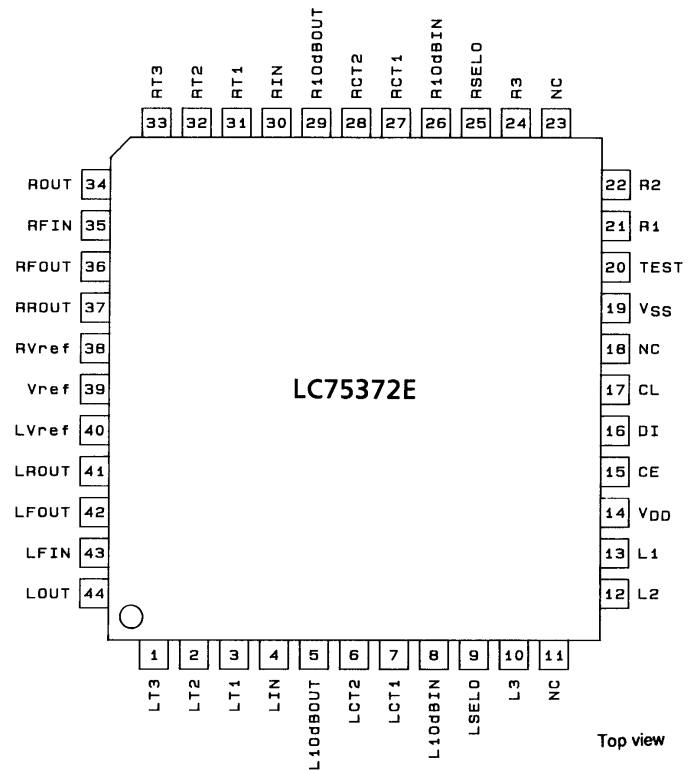
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**QE01:LC75372E  
BLOCK DIAGRAM**



LC75372E

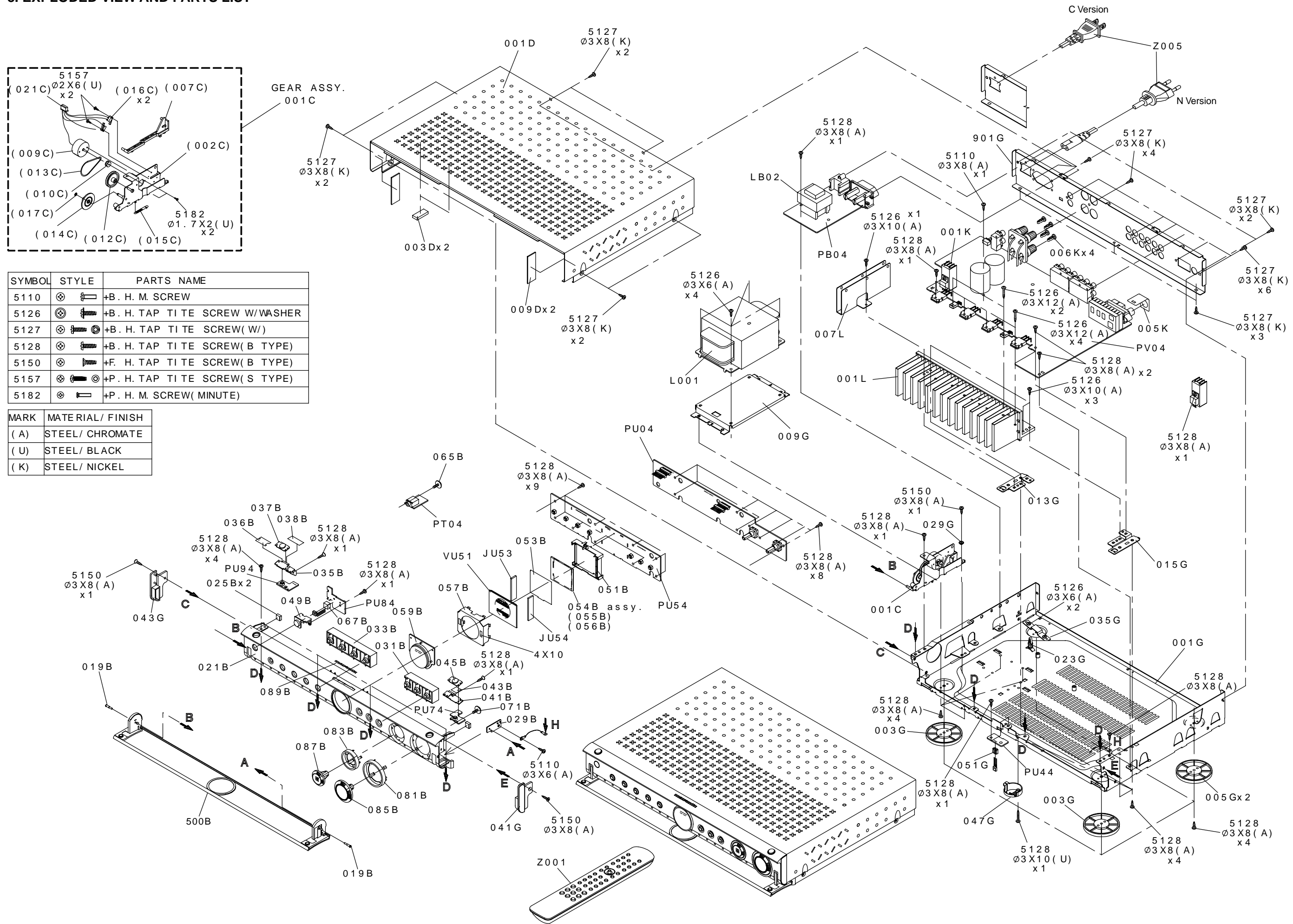
**PIN CONFIGURATION**



Top view

A05024

# 8. EXPLODED VIEW AND PARTS LIST



SYMBOL	STYLE	PARTS NAME
5110	⊕ ⊓	+B. H. M. SCREW
5126	⊕ ⊓	+B. H. TAP TITE SCREW W/WASHER
5127	⊕ ⊓	+B. H. TAP TITE SCREW( W/ )
5128	⊕ ⊓	+B. H. TAP TITE SCREW( B TYPE)
5150	⊕ ⊓	+F. H. TAP TITE SCREW( B TYPE)
5157	⊕ ⊓	+P. H. TAP TITE SCREW( S TYPE)
5182	⊕ ⊓	+P. H. M. SCREW( MINUTE)

MARK	MATERIAL/ FINISH
( A )	STEEL/ CHROMATE
( U )	STEEL/ BLACK
( K )	STEEL/ NICKEL

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJ)
019B		9965 000 08290	SCREW FOR ESCUTCHEON	327J010110
021B		9965 000 08291	FRONT PANEL	327J248010
025B		4822 526 20213	MAGNET KIT	271K305500
031B		9965 000 08292	BUTTON L	327J270050
033B		9965 000 08293	BUTTON R	327J270060
035B		9965 000 08294	BUTTON STANDBY	327J270010
037B		9965 000 08295	LENS STANDBY BUTTON	327J355010
041B		9965 000 08296	BUTTON OPEN FOR PANEL	399K270040
045B		9965 000 08297	LENS OPEN BUTTON	327J355020
049B		9965 000 08298	LENS FOR IR UPPER	327J355030
054B		9965 000 08299	INTRODUCER ASSY FOR LCD	327J151500
059B		9965 000 08300	WINDOW FOR LCD COVER	327J158010
081B		9965 000 08301	RING VOLUME	327J353010
083B		9965 000 08302	RING PUSH	327J353020
085B		9965 000 08303	VOLUME KNOB	327J154010
087B		9965 000 08304	PUSH KNOB	327J154020
089B		9965 000 08305	BADGE	327J251110
500B		9965 000 08289	ESCUTCHEON DOOR ASSY	327J063500
001C		4822 522 33389	GEAR ASSY	446T058500
007C		4822 404 21283	LEVER	446T354010
008C		9965 000 00694	D.C. MOTOR ASSY	*MM000630R
009C		4822 361 11027	D.C. MOTOR	MM00200010
012C		4822 528 40363	PULLEY	446T262020
013C		4822 358 31264	BELT	446T264010
014C		4822 522 33388	GEAR	446T058010
015C		4822 492 33411	SPRING	446T115010
016C		4822 271 30768	MINI LEAF SW	SM01011530
017C		4822 462 71954	STOPPER WASHER	204K114210
003G		9965 000 08217	LEG FRONT	271K057270
005G		9965 000 08218	LEG REAR	271K057280
041G		9965 000 08215	BUSHING R	327J259010
043G		9965 000 08216	BUSHING L	327J259020
047G		9965 000 01079	LENS FOR PANEL UNDER	282J355020
▲ L001		9965 000 08310	MAINS TRANSF. 230V	TS17805140
			<b>PACKING CASE</b>	
001T	C		USER GUIDE C	327J851350
001T	N	9965 000 08306	USER GUIDE EURO	327J851310
001Z		9965 000 08331	UNIT KIT REMOTE CONTROLLER RC2100SR	ZK327J0010
▲ Z005	C		MAINS CORD 250V 3A	ZC02009020
▲ Z005	N	4822 321 11211	MAINS CORD 250V 2.5A	ZC02003150
			<b>NOT STANDARD SPARE PARTS</b>	
001S			PACKING CASE	327J801010
003S			CUSHION L	327J809010
005S			CUSHION R	327J809020
013S			CUSHION FOR SET TOP SIDE	327J809110

## 9. ELECTRICAL PARTS LIST

### ASSIGNMENT OF COMMON PARTS CODES.

#### RESISTORS

R\*\*\* : 1) GD05 x x x 140, Carbon film fixed resistor, ±5% 1/4W  
 R\*\*\* : 2) GD05 x x x 160, Carbon film fixed resistor, ±5% 1/6W  
 ↓ Resistance value

Examples

① Resistance value  
 0.1Ω ..... 001    10Ω ..... 100    1kΩ ..... 102    100kΩ ..... 104  
 0.5Ω ..... 005    18Ω ..... 180    2.7kΩ ..... 272    680kΩ ..... 684  
 1Ω ..... 010    100Ω ..... 101    10kΩ ..... 103    1MΩ ..... 105  
 6.8Ω ..... 068    390Ω ..... 391    22kΩ ..... 223    4.7MΩ ..... 475

**Note** : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

#### CAPACITORS

C\*\*\* : CERAMIC CAP.

3) DD1 x x x x 370, Ceramic capacitor  
 ↓ Disc type  
 ↓ Temp. coeff. P350~N1000, 50V  
 ↓ Capacity value  
 ↓ Tolerance

Examples

② Tolerance (Capacity deviation)

±0.25 pF ..... 0  
 ±0.5 pF ..... 1  
 ±5 % ..... 5

Tolerance of COMMON PARTS handled here are as follows :

0.5 pF - 5 pF ..... ± 0.25 pF  
 6 pF - 10 pF ..... ± 0.5 pF  
 12 pF - 560 pF ... ± 5 %

③ Capacity value

0.5 pF .... 005    3 pF ..... 030    100 pF ..... 101  
 1 pF .... 010    10 pF ..... 100    220 pF ..... 221  
 1.5 pF .... 015    47 pF ..... 470    560 pF ..... 561

C\*\*\* : CERAMIC CAP.

4) DK16 x x x 300, High dielectric constant ceramic capacitor  
 ↓ Disc type  
 ↓ Temp. chara. 2B4, 50V  
 ↓ Capacity value

Examples

④ Capacity value

100 pF ..... 101    1000 pF .... 102    10000 pF .... 103  
 470 pF ..... 471    2200 pF .... 222

C\*\*\* : 5) ELECTROLY CAP. (  ), 6) FILM CAP (  )

5) EA x x x x x 10, Electrolytic capacitor  
 ↓ One-way lead type, Tolerance ±20%  
 ↓ Working voltage  
 ↓ Capacity value

Examples

⑤ Capacity value

0.1 μF .... 104    4.7 μF .... 475    100 μF ..... 107  
 0.33 μF .... 334    10 μF ..... 106    330 μF ..... 337  
 1 μF .... 105    22 μF ..... 226    1100 μF ..... 118  
 2200 μF .... 228

⑥ Working voltage

6.3 V ..... 006    25 V ..... 025  
 10 V ..... 010    35 V ..... 035  
 16 V ..... 016    50 V ..... 050

6) DF15 x x x 350 → Plastic film capacitor  
 DF15 x x x 310 → One-way type, Mylar ±5% 50V  
 DF16 x x x 310 → Plastic film capacitor  
 ↓ One-way type, Mylar ±10% 50V  
 ↓ Capacity value

Examples

⑦ Capacity value

0.001 μF (1000 pF) ..... 102    0.1 μF ..... 104  
 0.0018 μF ..... 182    0.56 μF ..... 564  
 0.01 μF ..... 103    1 μF ..... 105  
 0.015 μF ..... 153

**NOTE** 1) The above CODES (R\*\*\*, R\*\*\*, C\*\*\*, C\*\*\* and C\*\*\*) are omitted on the schematic diagram in some case.

2) On the occasion, be confirmed the common parts on the parts list.

3) Refer to "Common Parts List" for the other common parts (RI05, DD4, DK4).

### NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows ;

1. KOA Corporation

Part No.(MJI)	Type No.(KOA)	Description
NH05 x x x 140	RF25S x x x x Ω	J ±5% (1/4W)
NH05 x x x 120	RF50S x x x x Ω	J ±5% (1/2W)
NH85 x x x 110	RF73B2A x x x x Ω	J ±5% (1/10W)
NH95 x x x 140	RF73B2E x x x x Ω	J ±5% (1/4W)

\* Resistance value

Resistance value(0.1Ω - 10kΩ)

2. Matsushita Electronic Components Co., Ltd

Part No.(MJI)	Type No.(MEC)	Description
NF05 x x x 140	ERD-2FCJ x x x	(±5% 1/4W)
RF05 x x x 140		
NF02 x x x 140	ERD-2FCG x x x	(±2% 1/4W)
RF02 x x x 140		

\* Resistance value



Examples

\* Resistance value  
 0.1Ω ..... 001    10Ω ..... 100    1kΩ ..... 102    100kΩ ..... 104  
 0.5Ω ..... 005    18Ω ..... 180    2.7kΩ ..... 272    680kΩ ..... 684  
 1Ω ..... 010    100Ω ..... 101    10kΩ ..... 103    1MΩ ..... 105  
 6.8Ω ..... 068    390Ω ..... 391    22kΩ ..... 223    4.7MΩ ..... 475


### ABBREVIATION AND MARKS

ANT. : ANTENNA	BATT. : BATTERY
CAP. : CAPACITOR	CER. : CERAMIC
CONN. : CONNECTING	DIG. : DIGITAL
HP : HEADPHONE	MIC. : MICROPHONE
μ-PRO : MICROPROCESSOR	REC. : RECORDING
RES. : RESISTOR	SPK : SPEAKER
SW : SWITCH	TRANSF. : TRANSFORMER
TRIM. : TRIMMING	TRS. : TRANSISTOR
VAR. : VARIABLE	X' TAL : CRYSTAL

### NOTE ON SAFETY:

Symbol  Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol  Any other component substitution ( other than original type), may increase risk of fire or electrical shock hazard.

### 安全上の注意 :

 がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。



POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
<b>PB04-BACK UP POWER SUPPLY CIRCUIT BOARD</b>				
<b>PB04-CAPACITORS</b>				
▲ CB01		9965 000 06706	CER. 0.01μF	DK17103910
CB02		4822 124 22723	ELECT 1000μF M 25V	OA10802520
CB03		4822 124 22274	ELECT 4.7μF M 50V	OA47505020
CB04		4822 124 41543	ELECT 1μF M 50V	OA10505020
CB05		4822 122 30043	CER. 0.01μF Z 50V	DK18103310
CB06		4822 124 22571	ELECT 10μF M 50V	OA10605020
<b>PB04-RESISTORS</b>				
▲ RB02		4822 116 82805	1 Ω ±5% 1/6W	GG05010160
▲ RB07		4822 050 22209	22 Ω ±5% 1/4W	GG05220140
<b>PB04-SEMICONDUCTORS</b>				
▲ DB01		4822 130 82421	DIODE 1D3 1A/200V	HD20002710
∫				
▲ DB06		4822 209 32514	IC L78MR06 +6V 1A	HC10263030
▲ QB01		4822 130 61189	SEMICON.COMP DTC114TS	BA20004000
QB02			UN421510K	
QB03		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
<b>PB04-MISCELLANEOUS</b>				
▲ FB01		4822 070 31252	FUSE T1.25A 250V BSLISTED	FS10125850
▲ JB03		9965 000 08227	JACK MAINS INLET 2.5A 250V	YJ04002490
▲ JB06	N	9965 000 08228	JACK MAINS OUTLET 1P S2-770T-210	YJ04002500
▲ LB01		9965 000 00681	RELAY G5PA-1 5A	LY10120400
▲ LB02		9965 000 05888	MAINS TRANSF.SUB 230V	TS12812020
<b>PT04-HEADPHONE CIRCUIT BOARDS</b>				
<b>PT04-CAPACITORS</b>				
CT03	N	4822 122 40617	CER. 0.1μF +80 -20% 50V	DD38104010
CT11	N		CER. CHIP 1000pF ±10%B 50V	DK96102300
CT12	N		CER. CHIP 1000pF ±10%B 50V	DK96102300
<b>PT04-MISCELLANEOUS</b>				
JT01		9965 000 08313	HEADPHONE JACK BLACK	YJ01004710
<b>PU04-CPU RDS CIRCUIT BOARD</b>				
<b>PU04-CAPACITORS</b>				
CU01		4822 126 10935	ELECT 100μF 6.3V	EJ10700610
CU02		9965 000 08314	BIG ELECT 0.22F 5.5V DX-5R5L224	EX22400540
CU03		4822 126 10935	ELECT 100μF 6.3V	EJ10700610
CU04		4822 126 14417	CER. 0.01μF ±10% 50V	DK96103300
CU05		9965 000 08314	BIG ELECT 0.22F 5.5V DX-5R5L224	EX22400540
CU06		4822 122 33752	CER. 15pF ±5% CG 50V	DD95150300
CU07		4822 122 33752	CER. 15pF ±5% CG 50V	DD95150300
CU09		4822 126 10935	ELECT 100μF M 6.3V	EJ10700610
CU13		4822 126 10935	ELECT 100μF 6.3V	EJ10700610
CU14		4822 126 14417	CER. 0.01μF ±10% 50V	DK96103300
CU16		4822 126 14417	CER. 0.01μF ±10% 50V	DK96103300
CU31				
∫				
CU38		4822 126 11682	CER. 220pF ±10%	DK96221300
C351	N	4822 126 14417	CER. 0.01μF ±10% 50V	DK96103300
C352	N	4822 124 21894	ELECT 10μF 16V	EJ10601610
C353	N	4822 126 13267	CER. 220pF ±10%	DK96331300
C354	N	4822 126 14249	CER. 560pF ±10%	DK96561300
C355	N	4822 124 21894	ELECT 10μF 16V	EJ10601610
C356	N	4822 122 33752	CER. 15pF ±5% CG 50V	DD95150300
C357	N	4822 122 33752	CER. 15pF ±5% CG 50V	DD95150300
C358	N	4822 126 10935	ELECT 100μF 6.3V	EJ10700610

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
<b>PU04-CAPACITORS(COMMON)</b>				
PLASTIC FILM CAPACITOR ±5% 50V : CU08 CU15				
<b>PU04-RESISTORS</b>				
			CHIP 0 Ω ±5% 1/16W	NN05000610
RU01		4822 116 82487	CHIP 0 Ω ±5% 1/16W	NN05000610
RU02		4822 116 82487	CHIP 10k Ω ±5% 1/16W	NN05103610
RU07		4822 051 30103	CHIP 10k Ω ±5% 1/16W	NN05103610
RU09		4822 051 30103	CHIP 10k Ω ±5% 1/16W	NN05103610
RU12	N	4822 051 30103	CHIP 10k Ω ±5% 1/16W	NN05103610
RU13		4822 051 30103	CHIP 10k Ω ±5% 1/16W	NN05103610
RU14		4822 116 82487	CHIP 0 Ω ±5% 1/16W	NN05000610
RU15		4822 116 82487	CHIP 0 Ω ±5% 1/16W	NN05000610
RU16	C		CHIP 0 Ω ±5% 1/16W	NN05000610
RU17		4822 116 82487	CHIP 0 Ω ±5% 1/16W	NN05000610
RU18		4822 051 30103	CHIP 10k Ω ±5% 1/16W	NN05103610
RU19		4822 051 30181	CHIP 180 Ω ±5% 1/16W	NN05181610
RU20		4822 051 30479	CHIP 47 Ω ±5% 1/16W	NN05470610
RU21		4822 117 12139	CHIP 22 Ω ±5% 1/16W	NN05220610
RU22		4822 051 30221	CHIP 220 Ω ±5% 1/16W	NN05221610
RU23				
∫				
RU30		4822 051 30103	CHIP 10k Ω ±5% 1/16W	NN05103610
RU31		4822 051 30473	CHIP 47k Ω ±5% 1/16W	NN05473610
RU32		4822 051 30153	CHIP 15k Ω ±5% 1/16W	NN05153610
RU33		4822 051 30473	CHIP 47k Ω ±5% 1/16W	NN05473610
RU34		4822 051 30153	CHIP 15k Ω ±5% 1/16W	NN05153610
RU35		4822 051 30473	CHIP 47k Ω ±5% 1/16W	NN05473610
RU36		4822 051 30153	CHIP 15k Ω ±5% 1/16W	NN05153610
RU37		4822 051 30473	CHIP 47k Ω ±5% 1/16W	NN05473610
RU38		4822 051 30153	CHIP 15k Ω ±5% 1/16W	NN05153610
RU39		4822 051 30473	CHIP 47k Ω ±5% 1/16W	NN05473610
RU40		4822 051 30103	CHIP 10k Ω ±5% 1/16W	NN05103610
RU70		4822 051 30103	CHIP 10k Ω ±5% 1/16W	NN05103610
RU73		4822 051 30104	CHIP 100k Ω ±5% 1/16W	NN05104610
R352	N	4822 051 30104	CHIP 100k Ω ±5% 1/16W	NN05104610
R353	N	4822 051 30474	CHIP 470k Ω ±5% 1/16W	NN05474610
R354	N	4822 051 30103	CHIP 10k Ω ±5% 1/16W	NN05103610
R356	N	4822 050 24701	470 Ω ±5% 1/4W	GG05471140
R357	N	4822 051 30103	CHIP 10k Ω ±5% 1/16W	NN05103610
<b>PU04-SEMICONDUCTORS</b>				
DU01		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000
DU02		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000
DU04				
∫				
DU08		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000
D351	N	9322 127 99685	CHIP DIODE Udz5.1B	HZ30004210
QU01		9965 000 08321	IC PROGRAMMED MICROPROCESSOR	*HU100490R
QU04		4822 130 61553	SEMICON.COMP DTA124EU RN303	BA21303000
QU06		4822 130 61553	SEMICON.COMP DTA124EU RN303	BA21303000
QU13		4822 130 61553	SEMICON.COMP DTC124EU RN303	BA21303000
QU14		4822 130 42593	SEMICON.COMP DTA124EU RN2303	BA12303000
QU15		4822 130 61553	SEMICON.COMP DTC124EU RN303	BA21303000
QU16		4822 130 61553	SEMICON.COMP DTC124EU RN303	BA21303000
QU17		4822 130 63496	SEMICON.COMP RN311 DTC114TU	BA21311000
QU18		9965 000 08322	IC S-80825ANNP-EDN-T2	HC10097530
QU19		4822 130 61553	SEMICON.COMP DTC124EU RN303	BA21303000

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
QU20		9965 000 08323	IC S-80843ALNP-EA7-T2	HC10098530	QU51		9965 000 08223	IC NJU6450A	HC10215090
QU31		4822 130 61541	CHIP TRS. 2SC4116 Y OR GR	HX341162B0	QU53		4822 130 61553	SEMICON.COMP DTC124EU RN303	BA21303000
QU34									
Q351	N	9965 000 06293	IC LC72722M RDS DECODER	HC10404030				<b>PU54-MISCELLANEOUS</b>	
Q352	N	4822 130 42593	SEMICON.COMP DTA124EU RN2303	BA12303000	JU51		9965 000 08318	JACK 9P JACK 9117S-09D	YJ07008090
Q353	N	4822 130 61553	SEMICON.COMP DTC124EU RN303	BA21303000	JU52		9965 000 08319	JACK 12P JACK 9117S-12D	YJ07008120
					SU31		9965 000 05915	ROTARY SWITCH ROTARY WITH PUSH	SR03030030
					SU32		9965 000 08324	ROTARY SWITCH ROTARY 16PULSE	SR03030050
JU01		9965 000 08315	<b>PU04-MISCELLANEOUS</b> JACK FFC CONNECTOR 21P 9604S-21F	YJ07011140	SU51		4822 276 14009	PUSH SWITCH SKQNAE H/5MM 160GF	SP01013310
JU03		9965 000 08316	PLUG 9P BASE POST 9210B-1-09T	YP07005390	SU57		9965 000 08325	DISPLAY UNIT LCD	HQ21001800
JU04		9965 000 08317	PLUG 12P BASE POST 9210B-1-12T	YP07004600	VU51			<b>PU74-DOOR TACT SW CIRCUIT BOARD</b>	
XU01		4822 242 72066	CERAMIC VIB. CST8.0MHz	FQ08004010	SU71		4822 276 14009	PUSH SWITCH SKQNAE H/5MM 160GF	SP01013310
XU02		4822 242 72236	DT-38 32.768KHz	XO001001T2				<b>PU84-IR SENSOR (LEFT) CIRCUIT BOARD</b>	
X351	N	4822 242 10857	CRYSTAL 4.332MHz	JX04003260	CU81		4822 126 10935	ELECT CAP. 100µF 6.3V	EJ10700610
					RU81		4822 051 30101	CHIP RES. 100 Ω ±5% 1/16W	NN05101610
CU41		4822 124 21901	ELECT CAP. 47µF 6.3V	EJ47600610	DU81		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000
RU41		4822 051 30101	CHIP RES. 100 Ω ±5% 1/16W	NN05101610	QU81		4822 130 11494	PHOTO UNIT RPM6936-V4 (IR SENSOR)	HW10004210
DU41		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000				<b>PU94-POWER TACT SW/LED CIRCUIT BOARD</b>	
QU41		4822 130 11515	PHOTO UNIT RPM6936 IR RECEIVER 36KHz	HW10005210	DU91		4822 130 70023	L.E.D. SML-020MVT89 LED RED/GREEN	HI10096210
					SU91		4822 276 14009	PUSH SWITCH SKQNAE H/5MM 160GF	SP01013310
CU51		4822 126 14417	CER. 0.01µF ±10% 50V	DK96103300				<b>PV04-MAIN AMP CIRCUIT BOARD</b>	
								<b>PV04-CAPACITORS</b>	
RU51		4822 051 30103	10k Ω ±5% 1/16W	NN05103610	CA01		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
RU52		4822 051 30152	1.5k Ω ±5% 1/16W	NN05152610	CA03	C		CER. 10pF C CH 50V BLK	DD11100300
RU53		4822 051 30222	2.2k Ω ±5% 1/16W	NN05222610	CA03	N	4822 122 31823	CER. 15pF J 50V CH	DD15150300
RU54		4822 051 30332	3.3k Ω ±5% 1/16W	NN05332610	CA18		4822 124 22274	ELECT 4.7µF M 50V	OA47505020
RU55		4822 051 30682	6.8k Ω ±5% 1/16W	NN05682610	CD01		4822 122 40617	CER. 0.1µF +80 -20% 50V	DD38104010
RU56		4822 051 30103	10k Ω ±5% 1/16W	NN05103610	CD02		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
RU57		4822 051 30103	10k Ω ±5% 1/16W	NN05103610	CD03		4822 124 90354	ELECT 100µF M 16V	OA10701620
RU58		4822 051 30152	1.5k Ω ±5% 1/16W	NN05152610	CD05		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
RU59		4822 051 30222	2.2k Ω ±5% 1/16W	NN05222610	CD06		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
RU60		4822 051 30332	3.3k Ω ±5% 1/16W	NN05332610	CE05		4822 124 90358	ELECT 22µF M 16V	OA22601620
RU62					CE06		4822 124 90358	ELECT 22µF M 16V	OA22601620
RU65		4822 051 30103	10k Ω ±5% 1/16W	NN05103610	CE09		4822 121 42327	FILM 470pF J M 50V	DF15471350
RU66		4822 116 82487	0 Ω ±5% 1/16W	NN05000610	CE10		4822 121 42327	FILM 470pF J M 50V	DF15471350
RU67		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610	CE11		4822 124 22571	ELECT 10µF M 50V	OA10605020
RU68		4822 051 30105	1M Ω ±5% 1/16W	NN05105610	CE15		4822 124 90358	ELECT 22µF M 16V	OA22601620
RU71		4822 051 30471	470 Ω ±5% 1/16W	NN05471610	CE17		4822 124 22571	ELECT 10µF M 50V	OA10605020
RU72		4822 051 30101	100 Ω ±5% 1/16W	NN05101610	CE18		4822 124 90354	ELECT 100µF M 16V	OA10701620
RU74		4822 116 82487	0 Ω ±5% 1/16W	NN05000610	CE19		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
RU75		4822 051 30103	10k Ω ±5% 1/16W	NN05103610	CN01		4822 124 22571	ELECT 10µF M 50V	OA10605020
RU98		4822 116 82487	0 Ω ±5% 1/16W	NN05000610	CN02		4822 124 90357	ELECT 2.2µF M 50V	OA22505020
					CN03		4822 124 41539	ELECT 47µF M 16V	OA47601620
DU51		9965 000 08222	<b>PU54-SEMICONDUCTORS</b> L.E.D. NSCW100 WHITE LED	HI10002980					
DU52		9965 000 08222	L.E.D. NSCW100 WHITE LED	HI10002980					
DU53		9965 000 08222	L.E.D. NSCW100 WHITE LED	HI10002980					
DU54		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000					
DU55		4822 130 81324	CHIP DIODE 1SS302	HZ20018050					



POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJJ)
▲ R725 }		4822 050 26809	68 Ω ±5% 1/6W	GG05680160
▲ R730				
▲ R731		4822 053 10221	220 Ω ±5% 1W	GA05221010
▲ R732		4822 053 10221	220 Ω ±5% 1W	GA05221010
▲ R733 }		4822 052 10109	10 Ω ±5% 1/6W	GG05100160
▲ R736				
▲ R737		4822 116 82049	FIXED 0.18 Ω X 2 3W	BZ10182010
▲ R738		4822 116 82049	FIXED 0.18 Ω X 2 3W	BZ10182010
R739		4822 052 10101	100 Ω ±5% 1/6W	GG05101160
R740		4822 052 10101	100 Ω ±5% 1/6W	GG05101160
▲ R743		4822 053 11109	10 Ω ±5% 2W	GA05100020
▲ R744		4822 053 11109	10 Ω ±5% 2W	GA05100020
▲ R745		4822 053 10332	3.3k Ω ±5% 1W	GA05332010
▲ R747		4822 052 10221	220 Ω ±5% 1/6W	GG05221160
▲ R748		4822 052 10221	220 Ω ±5% 1/6W	GG05221160
▲ R751		4822 053 10331	330 Ω ±5% 1W	GA05331010
▲ R752		4822 053 10331	330 Ω ±5% 1W	GA05331010
▲ R801		4822 117 10158	1 Ω ±5% 1/4W	GG05010140
▲ R802		4822 117 10158	1 Ω ±5% 1/4W	GG05010140
▲ R803		4822 053 10221	220 Ω ±5% 1W	GA05221010
R***			<b>PV04-RESISTORS(COMMON)</b> CARBON FILM FIXED RES. ±5% 1/6W : DD01 RA01 RA02 [RA03-RA07(N)] RA11 RB03-RB06 RB08 RD01 RD02 RD04 RE03-RE08 RN01-RN8 RN21-RN25 RN31 RN32 RV05-RV36 RV41 RV42 RV45 RV46 RV51-RV58 R202-R206 R208-R210 R212-R214 [R215 (C,N)] R216 R218 [R219(N)] R220 [R221 R222(N)] R301-R304 [R305 R306(C,N)] R307-R310 R313 R314 R502 R504-R511 R513 R515 R703-R712 R715-R718 R721-R724 R746 R753	
DA01	N	4822 130 32362	<b>PV04-SEMICONDUCTORS</b> DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DA05		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DA06		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DE01		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DE02		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DE03		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DN01		4822 130 80837	DIODE HSS81	HD20027010
DN02		4822 130 80837	DIODE HSS81	HD20027010
DN03		4822 130 82421	DIODE 1D3 1A/200V	HD20002710
DN04		4822 130 82421	DIODE 1D3 1A/200V	HD20002710
DN05		4822 130 82421	DIODE 1D3 1A/200V	HD20002710
DV01		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DV02		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D201		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D202		4822 130 80319	ZENER DIODE 9.1V	HD30911000
D501		4822 130 80317	ZENER DIODE 5.1V	HD30511000

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJJ)
D503	N	4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D504		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D701		4822 130 80273	ZENER DIODE 8.2V	HD30821000
D702		4822 130 80322	ZENER DIODE 15V	HD31501000
D703 } D706		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D801 } D806 D809 ▲ D811		4822 130 82421	DIODE 1D3 1A/200V	HD20002710
QA01	N	4822 130 42715	TRS. 2SA1048 2SA933S 2SA1267	HT10001000
QA02	N	4822 130 61892	TRS. 2SD2144S U OR V	HT421442A0
QA03	N	4822 130 61892	TRS. 2SD2144S U OR V	HT421442A0
QA04	N	4822 130 60588	SEMICON.COMP DTC114ES UN4211 10K 10K	BA20001000
QA05	N	4822 130 42682	SEMICON.COMP DTA144ES UN4113 47K 47K	BA10002000
QD01		4822 209 30193	IC LB1641	HC10279030
QD02		4822 130 42594	SEMICON.COMP DTC144ES UN4213 47K 47K	BA20002000
QE01		9965 000 08330	IC LC75372E	HC10395030
QN01		4822 130 43233	TRS. 2SC2240	HT322402A0
QN02		4822 130 43233	TRS. 2SC2240	HT322402A0
QN03		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
QN04		4822 209 83312	IC IC TA7317P	HC10042050
QN05		4822 130 60588	SEMICON.COMP DTC114ES UN4211 10K 10K	BA20001000
QN06		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
QN07		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
QV01		4822 209 32553	IC LC78212	HC10309030
QV02		4822 209 83631	IC NJM4558D-D	HC10008090
QV03		4822 130 60588	SEMICON.COMP DTC114ES UN4211 10K 10K	BA20001000
QV04		4822 130 42682	SEMICON.COMP DTA144ES UN4113 47K 47K	BA10002000
QV05		4822 130 61892	TRS. 2SD2144S U OR V	HT421442A0
QV06		4822 130 61892	TRS. 2SD2144S U OR V	HT421442A0
QV07		5322 209 13487	IC TC7W14FU 932206827682	HC10442050
QV51		4822 209 73064	IC NJM-2068-DD	HC10053090
Q201		9965 000 01369	IC LA1837	HC10384030
Q202		4822 130 62294	TRS. 2SC1809S (P) 150MW 500MHZ	HT318091P0
Q203		4822 130 61227	SEMICON.COMP DTA114ES UN4111 10 10K	BA10001000
Q204		4822 130 42594	SEMICON.COMP DTC144ES UN4213 47K 47K	BA20002000
Q206	N	4822 130 41947	TRS. 2SC536SP 2SC2458 2SC3311 2SC1740S	HT30001000
Q301		4822 209 83631	IC NJM4558D-D	HC10008090
Q501		9965 000 01370	IC LC72130	HC10394030
Q701		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
Q702		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
Q703		4822 130 43233	TRS. 2SC2240	HT322402A0
Q704		4822 130 43233	TRS. 2SC2240	HT322402A0
▲ Q705		4822 130 60117	TRS. 2SC3419 Y	HT334191Y0
▲ Q706		4822 130 60117	TRS. 2SC3419 Y	HT334191Y0
Q707		4822 130 60354	TRS. 2SC3421 O Y 120V 1A	HT334212A0
Q708		4822 130 60354	TRS. 2SC3421 O Y 120V 1A	HT334212A0
Q709		4822 130 60353	TRS. 2SA1358 O Y 120V 1A	HT113582A0
Q710		4822 130 60353	TRS. 2SA1358 O Y 120V 1A	HT113582A0
▲ Q711		4822 130 11033	TRS. 2SC5196 R OR O	HT351962A0

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJ)
▲ Q712		4822 130 11033	TRS. 2SC5196 R OR O	HT351962A0
▲ Q713		4822 130 11034	TRS. 2SA1939 R OR O	HT119392A0
▲ Q714		4822 130 11034	TRS. 2SA1939 R OR O	HT119392A0
▲ Q717		4822 209 83732	IC AN7062 V-AMP IC	HC10066020
▲ Q801		4822 209 60826	IC NJM7812FA +12V	HC38912090
			<b>PV04-MISCELLANEOUS</b>	
A101		9965 000 03387	VHF TUNER FM FRONT END EF415-G23	AV01202270
FA01		4822 242 10708	CERAMIC FILTER SFZ450JL3 451K	FF10045410
F201	C	4822 242 70911	CERAMIC FILTER SFF10.7MA8-A	FF11070610
F201	N	4822 242 70665	CERAMIC FILTER SFE10.7MS3-A	FF11070620
F202		4822 242 70665	CERAMIC FILTER SFE10.7MS3-A	FF11070620
JV01		4822 267 31823	TERMINAL RCA PIN JACK 4P	YT02040940
JV02		4822 267 31451	TERMINAL RCA PIN JACK 8P	YT02080110
JV03		4822 267 41009	TERMINAL RCA PIN JACK 2P	YT02020890
JV04		9965 000 08311	JACK 21FE-BT-VK-N 21PIN	YJ07020540
J101		4822 290 81632	TERMINAL YKD31-0215A	YT03030020
J701		4822 265 11198	SPEAKER TERMINAL 4P	YT01040790
▲ K701		9965 000 08327	TRS. KIT 2SA1939 2SC5196 RR OR OO	HK193919C0
▲ K702		9965 000 08327	TRS. KIT 2SA1939 2SC5196 RR OR OO	HK193919C0
LA01	C		MW ANT/OSC COIL BLOCK	LA70635010
LA01	N	9965 000 08328	MW/LW ANT/OSC COIL BLOCK	LA70625010
LA05		4822 157 53589	CHOKO COIL TL-8 393J	LC23960710
LA06		4822 148 81095	I.F.T. COIL AM IFT K7-H5	LI70033510
▲ LN01		9965 000 05895	RELAY G5PA-28 5A/250VAC	LY20240490
▲ LN02		9965 000 05895	RELAY G5PA-28 5A/250VAC	LY20240490
L201		4822 157 63904	I.F.T. COIL FM DET M292BEAS-5968Z	LI70376010
L301		9965 000 08329	M.P.X. COIL 19.38KHz LpF	LS70425010
L302		9965 000 08329	M.P.X. COIL 19.38KHz LpF	LS70425010
L701		4822 157 70022	AIR CHOCK COIL	ML08010030
L702		4822 157 70022	AIR CHOCK COIL	ML08010030
SV01		4822 277 21712	SLIDE SWITCH	SS02021470
X501		4822 242 72333	CRYSTAL AD0618CTB 7.2MHz	JX07001260