ORDER NO. MD0803005CE

Service Manual

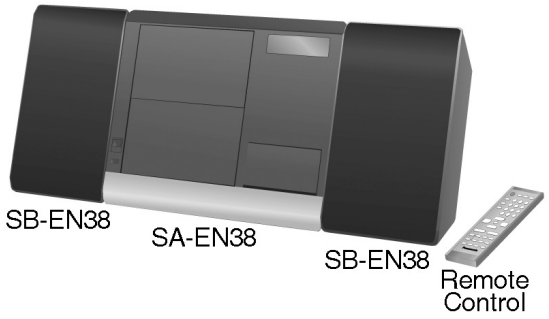
CD Stereo System

Digital Audio Broadcasting

SC-EN38DBEB

Colour

(K)... Black Type



Specifications

■ AMPLIFIER SECTION	
RMS OUTPUT POWER both channel driven simultaneously	
10% total harmonic distortion (THD)	
1 kHz	3 W per channel (6 Ω)
Input Music Port	
Sensitivity	100 mv, 15 kΩ
Terminal	Stereo, 3.5 mm jack
Output Headphone	
Terminal	Stereo, 3.5 mm jack (16 Ω to 32 Ω)
Option Port	Version 1

■ TUNER SECTION	
FM	
Frequency range	
	87.50 MHz to 108.00 MHz (50 kHz)

■ CD SECTION	
Disc played [8cm or 12cm]	
(1) CD-Audio (CD-DA)	
(2) CD-R/RW (CD-DA, MP3)	
(3) MP3	
Sampling frequency	
CD	44.1 kHz
MP3	32 kHz, 44.1 kHz, 48 kHz
Bit rate	
MP3	32 kbps to 384 kbps

Decoding	16/20/24 bit linear
Pick up	
Wavelength	785 nm
Laser power	CLASS 1
Audio Output (Disc)	
Number of channels	2 channel
Audio performance	
Frequency response (CD-Audio)	20 Hz to 20 kHz
Wow and flutter	Below measurement limit
Digital filter	8
D/A converter	MASH (1 bit DAC)

■ USB SECTION	
Media file format support	MP3 (*.mp3)
■ DAB SECTION	
DAB memories	20 channels
Frequency Band (Wavelength)	
Band III (UK only)	
	11B to 12D (218.640 MHz to 229.072 MHz)
DAB External Antenna	
Terminal	F-Connector (75 Ω)
■ SPEAKER SECTION	
Type	1 Way, 1 speaker system (Bass reflex)
Speaker (s)	
Full range Speaker	7 cm cone type

Panasonic®

Impedance	6 Ω
Input power (IEC)	3 W (MAX)
Dimension (W x H x D)	120 mm x 202.8 mm x 133.5 mm

■ **GENERAL**

Power supply	AC 230 to 240 V, 50 Hz
Power consumption	30 W
Dimension (W x H X D)	252.5mm x 202.8mm x 133.5 mm
Mass	
With speakers	Approx. 3.20 kg
Without speakers	Approx. 1.90 kg

Operating temperature range	0 °C to +40 °C
Operation humidity range	35% to 80% RH (no condensation)
Power consumption in standby mode:	2.6 W (approx.)

Notes:

- Specifications are subject to change without notice.
- Total harmonic distortion is measured by the digital spectrum analyzer.

■ System : SC-EN38DBEBK Main Unit: SA-EN38DBEBK

Speaker: SB-EN38P-K

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

CONTENTS

1 Safety Precautions

1.1. General Guidelines

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, ensure that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, check for leakage current checks to prevent from being exposed to shock hazards.

1.1.1. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Using an ohmmeter measure the resistance value, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1MΩ and 5.2Ω.
   When the exposed metal does not have a return path to the chassis, the reading must be ∞.

1.1.2. Leakage Current Hot Check

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15μF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. should the measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and re-checked before it is returned to the customer.

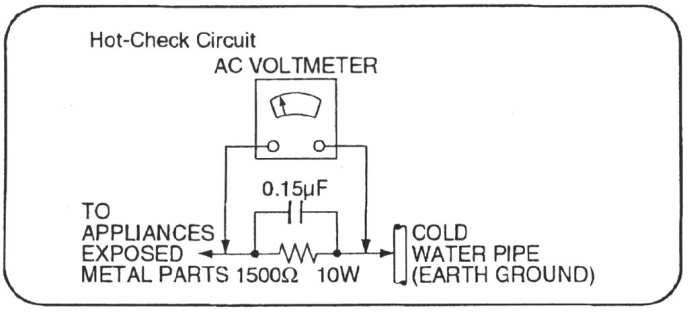


Fig. 1

1.2. Caution for AC Cord

(For "EB" area code model only.)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark or the BSI mark on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION!
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OFF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted, please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:

Blue:	Neutral
Brown:	Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL ⏚ OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use
Remove the connector cover.

How to replace the fuse
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

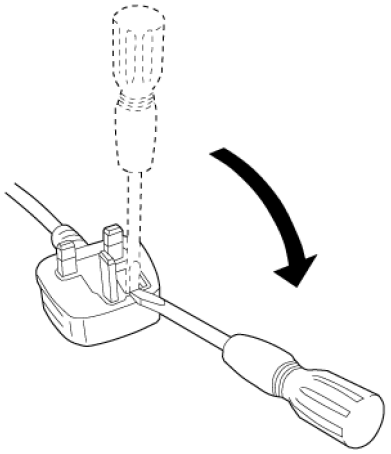
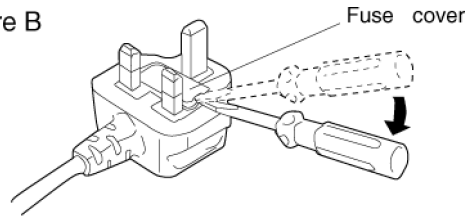


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

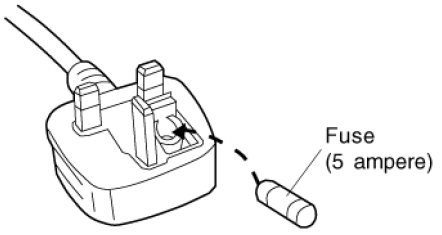
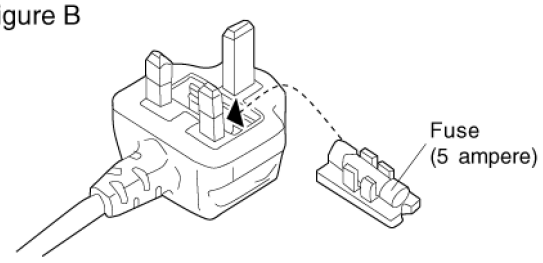


Figure B



1.3. Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C501 through a 10Ω, 1W resistor to ground.

DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices.

After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

- Current consumption at AC 230-240 V, 50 Hz in NO SIGNAL mode should be ~300 mA.

1.4. Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note:

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

1.5. Safety Part Information

Safety Parts List:

There are special components used in this equipment which are important for safety.These parts are marked by ⚠ in the Schematic Diagrams & Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

Table 1

Reference No.	Part No.	Part Name & Description	Remarks
A2	K2CT3CA00004	AC CORD	[M] ⚠
JK600	K2AA2B000017	AC INLET	[M] ⚠
T600	G4CYAYY00176	TRANSFORMER	[M] ⚠
F1	K5D202BLA013	FUSE	[M] ⚠
L600	ELF15N035AN	LINE FILTER	[M] ⚠
301	RAE0165T-V	TRAVERSE (W/O CD SERVO P. C. B.)	[M] ⚠ (RTL)
FP841	K5G251A00008	FUSE PROTECTOR	[M] ⚠
FP600	K5G302AA0002	FUSE PROTECTOR	[M] ⚠
R260	ERD2FCVG470T	RESISTOR	[M] ⚠
PCB6	REPX0652A	TRANSFORMER P.C.B.	[M] ⚠ (RTL)
PCB7	REPX0652C	AC INLET P.C.B	[M] ⚠ (RTL)

2 Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor “chip” components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equiped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equiped with ES devices, place the assembly on a conductive surface such as aluminium foil, to prevent electrostatic charge build up or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder remover device. Some solder removal devices not classified as “anti-static (ESD protected)” can generate electrical charge to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminium foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   Caution

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize body motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

3 Precaution of Laser Diode

CAUTION:

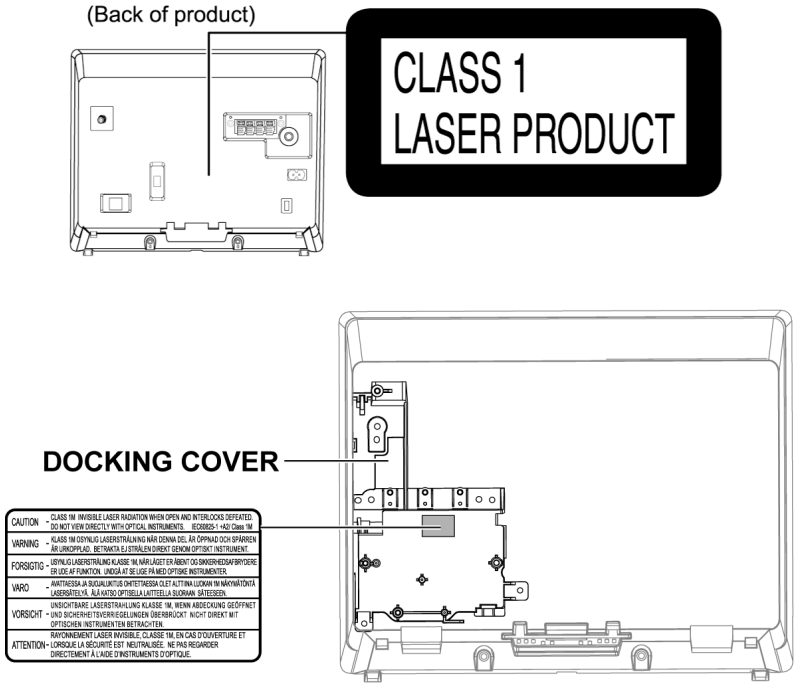
This unit utilizes a class 1 laser (Wavelength: 785 nm).

Invisible laser radiation is emitted from the optical pickup lens.

When the unit is turned on:

1. Do not look directly into the pick up lens.
2. Do not use optical instruments to look at the pick up lens.
3. Do not adjust the preset variable resistor on the pickup lens.
4. Do not disassemble the optical pick up unit.
5. If the optical pick up is replaced, use the manufacturer's specified replacement pick up only.
6. Use of control or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.



4 Handling Precautions For Traverse Deck

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body.

So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

● **Handling of CD traverse deck (optical pickup)**

1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
2. The short land between the No.4 (LD) and No.5 (GND) pins on the flexible board (FFC) is shorted with a solder build-up to prevent damage to the laser diode.
3. Take care not to apply excessive stress to the flexible board (FFC board) (Fig 4.1).
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

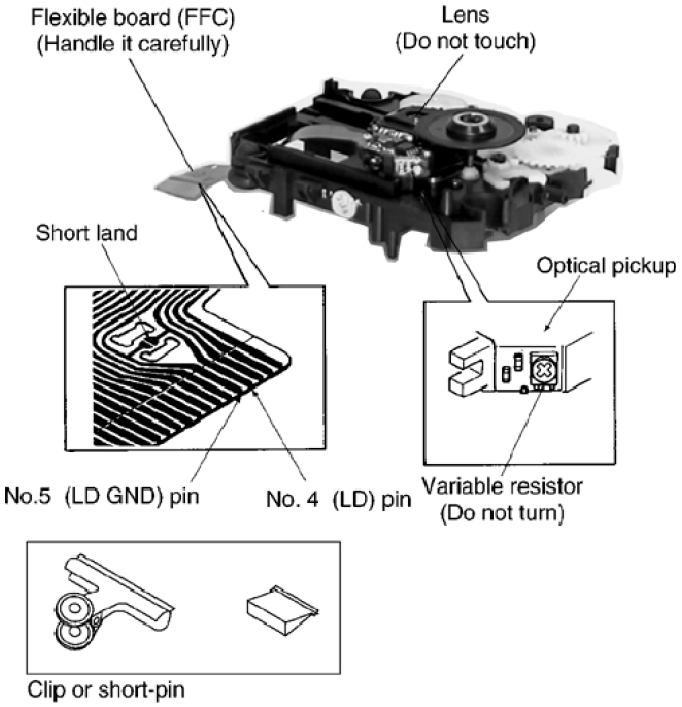


Fig 4.1

● **Grounding for electrostatic breakdown prevention**

1. Human body grounding ()

   Use the anti-static wrist strap to discharge the static electricity from your body.

2. Work table grounding ()

   Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

Caution :

The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).

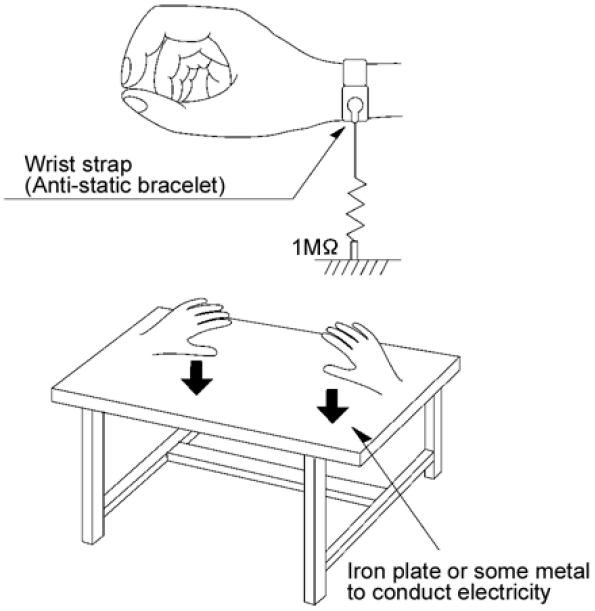


Fig 4.2

Caution when Replacing the Optical Pickup :

The traverse has a short point shorted with solder to protect the laser diode against electrostatics breakdown. Be sure to remove the solder from the short point before making connections.

5 Handling the Lead free Solder

5.1. General description about Lead Free Solder (PbF)

The lead free solder has been used in the mounting process of all electrical components on the printed circuit boards used for this equipment in considering the globally environmental conservation.

The normal solder is the alloy of tin (Sn) and lead (Pb). On the other hand, the lead free solder is the alloy mainly consists of tin (Sn), silver (Ag) and Copper (Cu), and the melting point of the lead free solder is higher approx.30 degrees C (86°F) more than that of the normal solder.

Definition of PCB Lead Free Solder being used

The letter of “PbF” is printed either foil side or components side on the PCB using the lead free solder. (See right figure)	PbF

Service caution for repair work using Lead Free Solder (PbF)

- The lead free solder has to be used when repairing the equipment for which the lead free solder is used.
  (Definition: The letter of “PbF” is printed on the PCB using the lead free solder.)
- To put lead free solder, it should be well molten and mixed with the original lead free solder.
- Remove the remaining lead free solder on the PCB cleanly for soldering of the new IC.
- Since the melting point of the lead free solder is higher than that of the normal lead solder, it takes the longer time to melt the lead free solder.
- Use the soldering iron (more than 70W) equipped with the temperature control after setting the temperature at 350±30 degrees C (662±86°F).

Recommended Lead Free Solder (Service Parts Route.)

- The following 3 types of lead free solder are available through the service parts route.
  RFKZ03D01K----------(0.3mm 100g Reel)
  RFKZ06D01K----------(0.6mm 100g Reel)
  RFKZ10D01K----------(1.0mm 100g Reel)

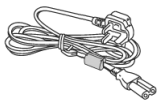
Note

* Ingredient: Tin (Sn), 96.5%, Silver (Ag) 3.0%, Copper (Cu) 0.5%, Cobalt (Co) / Germanium (Ge) 0.1 to 0.3%

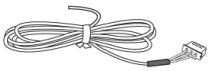
6 Accessories

Note : Refer to Packing Materials & Accessories (Section 21) for part number.

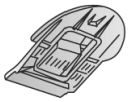
Remote control



AC cord



AM antenna



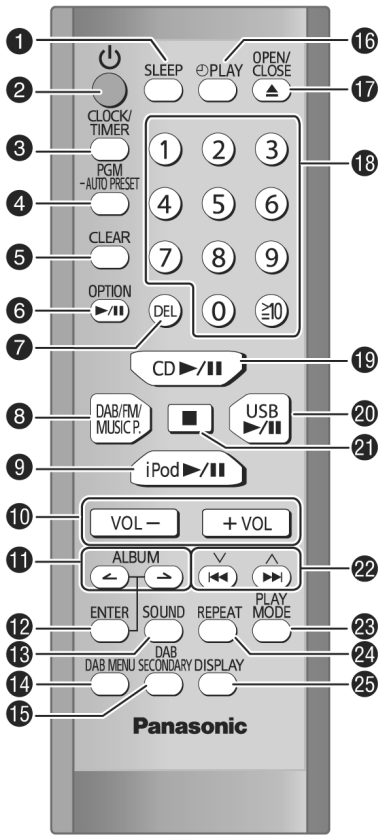
Support stand

DAB antenna

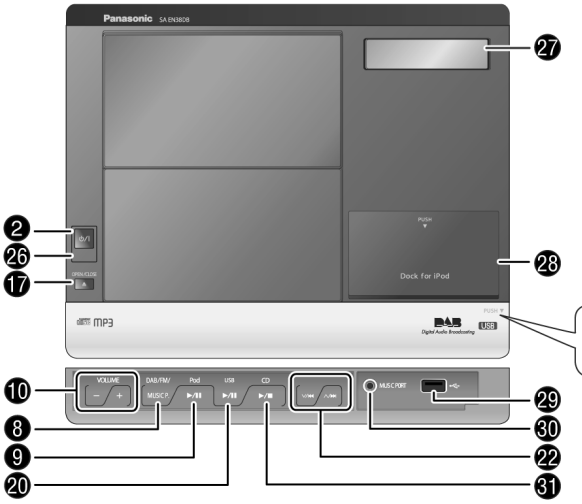
7 Operation Procedures

7.1. Main Unit & Remote Control Key Buttons Operation

1. **[SLEEP]** Sleep timer setting
2. **Standby/on switch [⏻], [⏻/I]**
   Press to switch the unit from on to standby mode or vice versa.
   In standby mode, the unit is still consuming a small amount of power.
3. **[CLOCK/TIMER]** Clock and Timer setting
4. **[PGM, -AUTO PRESET]**
   CD/MP3 Program, Tuner Preset (Manual)
   [Long press] Tuner Preset (Auto)
5. **[CLEAR] CD/MP3/USB:** Delete all programs
6. **[▶/❚❚, OPTION]**
   Selector switch to Bluetooth
   Direct Bluetooth Play/Bluetooth Pause
7. **[DEL]** Delete last programmed track
8. **[DAB/FM/MUSIC P.]**
   DAB/FM/MUSIC PORT select button
9. **[iPod ▶/❚❚] (10)**
   Selector switch to iPod
   Direct iPod Play/iPod Pause
10. **[VOL-], [+VOL], [VOLUME -, +]**
    To adjust the volume
11. **[◅,▻, ALBUM]**
    MP3: Previous/Next Album
    DAB Menu Selection
12. **[ENTER]**
    MP3/USB: Confirm track selection during Program Mode
    Confirm DAB Menu Selection
13. **[SOUND]** Sound mode selection
14. **[DAB MENU]**
    Enter/cancel DAB Menu mode
15. **[DAB SECONDARY]**
    Select the secondary service

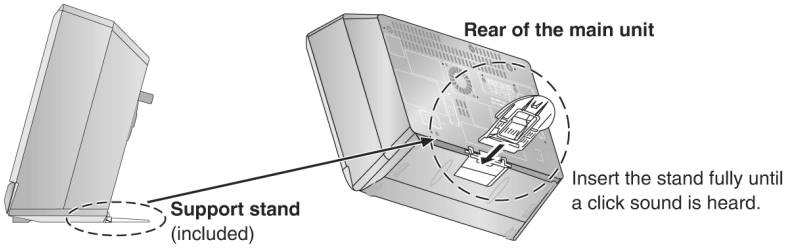


16. Play timer on/off **[PLAY]**
17. Open and Close CD lid **[▲, OPEN/CLOSE]**
18. Numbered buttons **[1-9, 0, ≧10]**
    To select a 2-digit number
    e.g. 16: [≧10] → [1] → [6]
    To select a 3-digit number
    e.g. 226: [≧10] → [≧10] → [2] → [2] → [6]
19. **[CD ▶/❚❚]**
    Selector switch to CD
    Direct CD Play/CD Pause
20. **[USB ▶/❚❚]**
    Selector switch to USB
    Direct USB Play/USB Pause
21. Stop button **[■]**
22. **[◅◅, ∨], [▶▶▏, ∧], [∨/◅◅], [∧/▶▶▏]**
    CD: Skip/Search
    MP3/USB: Track Skip
    Tuner: Tune up/down
    [Long press] Auto tuning
23. Play mode button **[PLAY MODE]**
24. Repeat on/off **[REPEAT]**
25. **[DISPLAY]**
    CD: CD Display (Elapsed play time/Remaining play time)
    MP3: MP3 Display [Elapsed time/Album name/Track name/ID3 (Album)/ID3 (Track)/ID3 (Artist)]
    USB: USB Display [Elapsed time/Remaining time/Album name/Track name/ID3 (Album)/ID3 (Track)/ID3 (Artist)]
    DAB: DAB Display (Dynamic label/PTY display/Ensemble label/Frequency display/Time display)



26. Remote control signal sensor
27. Display
28. Built-in iPod Dock
29. USB port
30. Music port jack
31. **[CD ▶/■]**
    Selector switch to CD
    CD Play/Stop button

7.2. Attach the stand to the unit



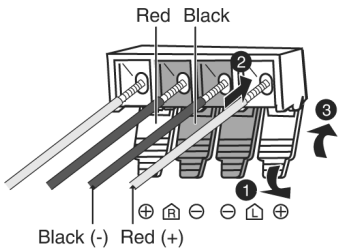
Ensure the stand is securely attached to the main unit for stabilization.

Note

- The supplied stand is specially designed for use with this unit.
- Only use as indicated in this setup.

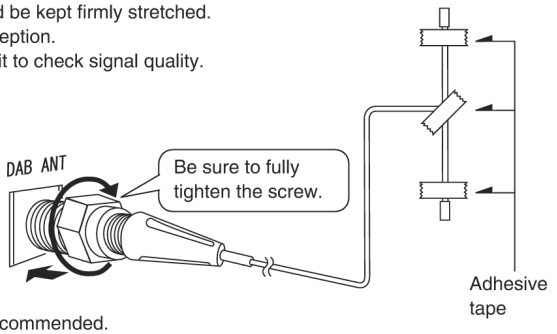
7.3. Connection

❶ Speakers



❷ DAB "T" antenna

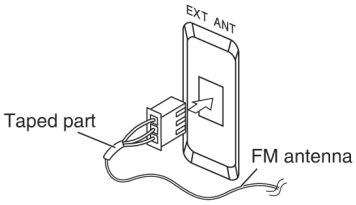
The cross bar of the T should be kept firmly stretched.
Find a position with good reception.
There is a function on the unit to check signal quality.



For best reception
A DAB outdoor antenna is recommended.

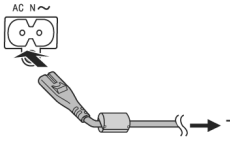
❸ FM antenna

Stand the antenna up on its base.



Unplug the antenna connector by holding the taped part.

❹ AC mains lead

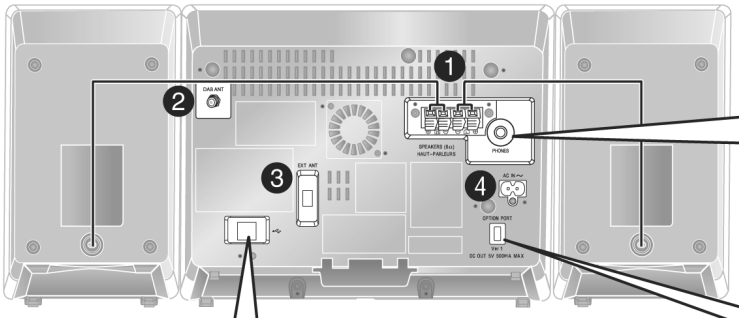


READ THE CAUTION FOR THE AC MAINS LEAD ON BACK COVER BEFORE CONNECTION.

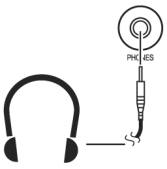
Connect the AC mains lead after all other connections are complete.

Note

If the unit is left unplugged for longer than approximately two weeks, all settings will revert to the factory settings.
Remember to reset the radio stations and any other memory items before using the unit again.



Headphones (not included)



Reduce the volume level and connect the headphones.
Plug type: 3.5 mm stereo.

Note

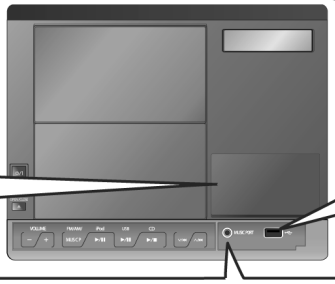
- To prevent hearing damage, avoid listening for prolonged periods of time.
- Excessive sound pressure from earphones and headphones can cause hearing loss.

PC Sync

Connect your PC to the PC Sync port.

iPod connection

Insert your iPod into the Built-in iPod Dock.



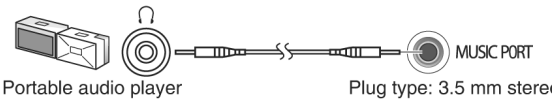
Bluetooth connection

Connect the Bluetooth Receiver to the option port.

USB connection

Connect your USB enabled device to the USB port.

Portable audio equipment (Cords and equipment not included)



Portable audio player — Plug type: 3.5 mm stereo

Start playback from the portable audio source.

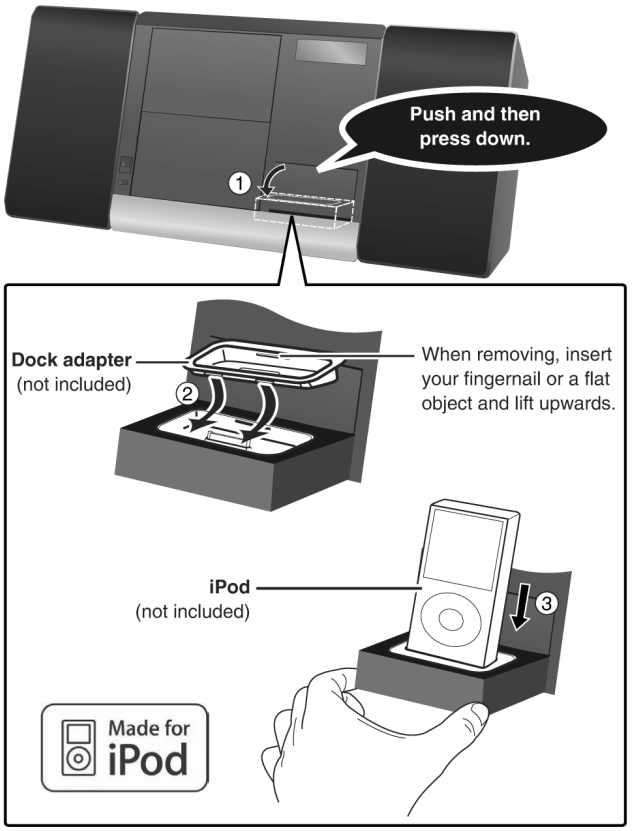
Note

- Adjust the volume and sound quality of this unit and the other equipment.
- For details, refer to the instruction manual of the other equipment.

7.4. External unit

■ Inserting the iPod

① **Push to open the Built-in iPod Dock and then press down until a click sound is heard.**
② **Insert the suitable dock adapter for your iPod.**
③ **Insert your iPod into the dock.**
- Hold the dock when connecting/disconnecting the iPod.
- Recharging starts when the iPod is inserted.



Note
It is recommended to use the dock adapter from Apple.

■ Playing the iPod

Preparation:
- Reduce the volume of the main unit.
- Confirm the iPod connection. (➡ above)
- Confirm the USB cable is removed. (➡ PC Sync, right)

① **Press [iPod ▶/❚❚] to play the iPod.**
② **Adjust the volume of the main unit.**

	Remote control	Main unit
To pause track	iPod ▶/❚❚ ■	iPod ▶/❚❚
To skip a track (During play/pause)	⏮ ⏭	∨/⏮ ∧/⏭
To search the current track (During play/pause)	press and hold ⏮ ⏭	press and hold ∨/⏮ ∧/⏭

Note
When you select another source or turn the main unit off, the iPod turns off.

■ Charging the iPod

- iPod will start recharging regardless of whether this unit is in On or Standby condition.
- "IPOD ✳" will be shown on the main unit's display during iPod charging in main unit standby mode.
- Check iPod to see if the battery is fully recharged.
- If you are not using iPod for an extended period of time after recharging has completed, disconnect it from main unit, as the battery will be depleted naturally. (Once fully recharged, additional recharging will not occur.)

■ Compatible iPod

Name	Memory size
iPod touch	8GB, 16GB
iPod nano 3rd generation (video)	4GB, 8GB
iPod classic	80GB, 160GB
iPod nano 2nd generation (aluminum)	2GB, 4GB, 8GB
iPod 5th generation (video)	60GB, 80GB
iPod 5th generation (video)	30GB
iPod nano 1st generation	1GB, 2GB, 4GB
iPod 4th generation (colour display)	40GB, 60GB
iPod 4th generation (colour display)	20GB, 30GB
iPod 4th generation	40GB
iPod 4th generation	20GB
iPod mini	4GB, 6GB

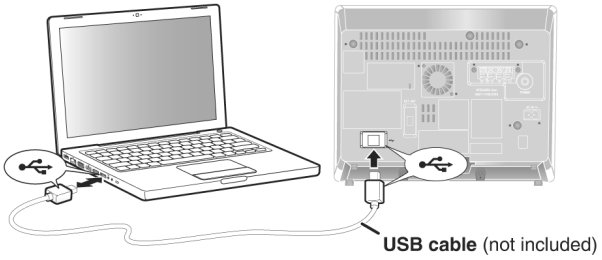
- Compatibility depends on the software version of your iPod.

■ PC Sync

Enables data synchronization between PC and iPod without unplugging iPod from the set.

Preparation:
Confirm the iPod is well inserted into the dock. (➡ left)

① **Connect your PC to the main unit through USB cable.** (PC will automatically detect iPod.)
To transfer songs to iPod, refer to iPod instruction manual.
② **Before disconnecting the USB cable, make sure the procedure of safe eject of hardware from PC is done.**



Note
PC Sync will function only when the main unit is in Standby or On condition.

Recording and operating problems may occur on some computer systems.
Please note that Panasonic and Panasonic dealers cannot be held liable for any lost audio data or other direct or indirect damage except in cases of intentional or gross negligence.

iPod is a trademark of Apple Inc., registered in the U.S. and other countries.

7.5. Disc Information

Note on CD-R and CD-RW

This unit can play CD-R and CD-RW recorded with CD-DA or MP3. Use an audio recording disc for CD-DA and finalize* it when you finish recording. The unit may not be able to play some discs due to the condition of the recording.

* A process performed after recording that enables CD-R/CD-RW players to play audio CD-R and CD-RW.

Caution

Choose discs with this mark:

Do not:

- use irregularly shaped CDs.
- attach extra labels and stickers.
- use CDs with labels and stickers that are coming off or with adhesive exuding from under labels and stickers.
- attach scratch-proof covers or any other kind of accessory.
- write anything on the CD.
- clean CDs with liquids (Wipe with a soft, dry cloth.).

MP3

The unit can play MP3, a method of compressing audio without overly hurting audio quality.

When creating MP3 files to play on this unit

- Maximum number of tracks and albums: 999 tracks and 256 albums.
- Compatible compression rate: Between 64 kbps and 320 kbps (stereo). 128 kbps (stereo) is recommended.
- Disc formats: ISO9660 level 1 and level 2 (except for extended formats).
- The time for reading TOC depends on the number of the tracks, the folders or folder structures.

Limitations on MP3

- This unit is compatible with multi-session but if there are a lot of sessions it takes more time for play to start. Keep the number of sessions to a minimum to avoid this.
- This unit cannot play files recorded using packet write.
- If the disc includes both MP3 and normal audio data (CD-DA), the unit plays the type recorded in the inner part of the disc.
  If the disc includes both MP3 and other types of audio data (e.g. WMA or WAV), the unit plays only the MP3.
- Depending on how you create MP3 files, they may not play in the order you numbered them or may not play at all.

8 Self diagnosis and special mode setting

This unit is equipped with features of self-diagnostic & special mode setting for checking the functions & reliability.

8.1. Service Mode Summary Table

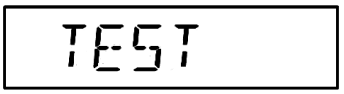
The service mode can be activated by pressing various button combination on the main unit and remote control unit. Below is the summary for the various modes for checking:-

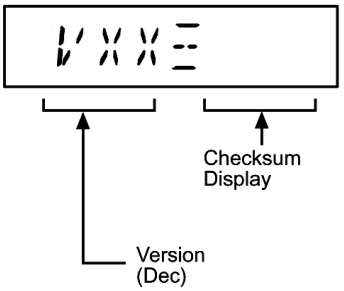
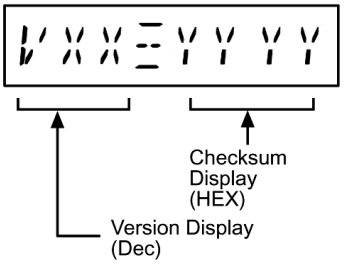
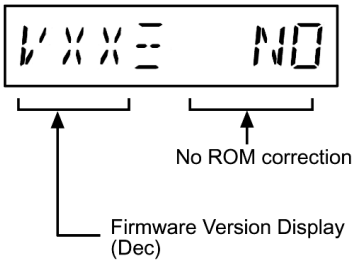
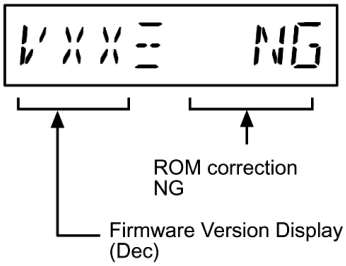
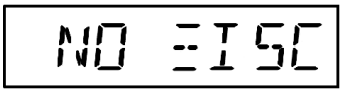
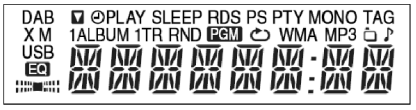
Player buttons	Remote control unit buttons	Application	Note
[Volume -]	[4], [7]	To enter into doctor mode for various item checking.	(Refer to the section 8.2 for more information.)

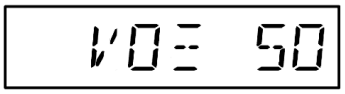
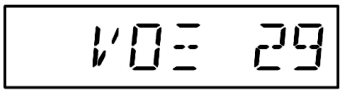
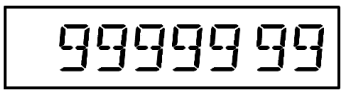
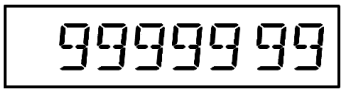
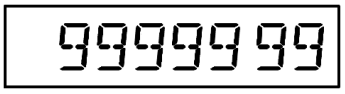
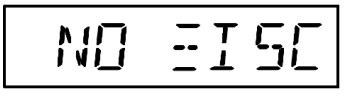
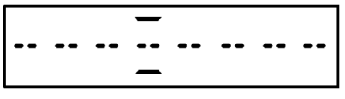
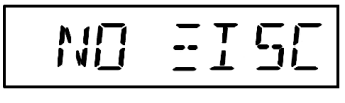
Mode	Remote control unit buttons	Application	Note
Doctor Mode	[2]	FL ALL Segment inspection	(Refer to the section 8.2 for more information.)
	[7], [8], [9]	Forced VOL setting	(Refer to the section 8.2 for more information.)
	[≧10], [1], [1]	CD Loading Test	(Refer to the section 8.2 for more information.)
	[≧10], [1], [2]	CD Traverse Test	(Refer to the section 8.2 for more information.)
	[≧10], [1], [3]	CD Combination Test	(Refer to the section 8.2 for more information.)
	[≧10], [1], [4]	CD Auto Adjustment Display	(Refer to the section 8.2 for more information.)
	[SLEEP]	Cold Start setting	(Refer to the section 8.2 for more information.)
	[2]	USB TEST	(Refer to the section 8.2 for more information.)

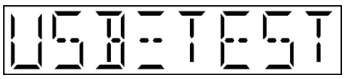
8.2. Service Mode Table 1

Below is the various special modes for checking:-

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Self-Diagnostic Mode	To enter into self diagnostic checking for main unit.		1. Select [CD] for CD mode (Ensure no CD inserted.) 2. Press and hold [Volume -] button for 2 seconds follow by [FF] To exit, press [**POWER** ⏻/I] button on main unit or remote control.

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Doctor Mode	To enter into Doctor Mode for checking of various items and displaying EEPROM and firmware version. Note: The micro-processor version as shown is an example. It will be revise when there is an updates. FL Display sequence Display 1 → 2	DIsplay 1  Checksum (Condition 1) When EEPROM IC detected and has ROM correction.  Checksum (Condition 2) When EEPROM IC is detected and there is no ROM correction.  Checksum (Condition 3) When EEPROM IC is detected and has ROM correction but not working properly.  Display 2  The Check Sum of EEPROM and firmware version will be display for 1 sec. * ROM correction ** Firmware version No:	In any mode: 1. Press [Volume -] button on main unit follow by [4] and [7] on remote control. To exit, press [**POWER** ⏻/I] button on main unit or remote control.
FL Display Test	To check the FL segments display (All segments will light up)		In doctor mode: 1. Press [2] button on remote control. To cancel, press [0] button remote control. To exit, press [**POWER** ⏻/I] button on main unit or remote control.

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Volume Setting Mode	To check for the volume setting of the main unit. The volume will be automatically set to its respective level (in dB). During the mode, treble/bass/EQ will be set to “0” dB & OFF.		In doctor mode: 1. Press [7] button on remote control.
			2. Press [8] button on remote control.
			3. Press [9] button on remote control. To exit, press [**POWER** ⏻/I] button on main unit or remote control.
CD Loading Test Mode	To determine the reliability of CD Loading unit. To check for the Open/Close operation for the CD loading unit. It fails when there is abnormality in opening or closing.	 The counter will increment by 1 until reach 9999999 ↓ 	In doctor mode: 1. Press [≧10], [1] & [1] button on remote control. To cancel, press [0] button remote control. To exit, press [**POWER** ⏻/I] button on main unit or remote control.
CD Traverse Unit Test Mode	To check for the traverse unit operation. In this mode, the first & last track is access & read. (TOC). It fails when TOC is not completed by IOS or the traverse is out of focus.	 The counter will increment by 1 until reach 9999999 ↓ 	In doctor mode: 1. Press [≧10], [1] & [2] button on remote control. To cancel, press [0] button remote control. To exit, press [**POWER** ⏻/I] button on main unit or remote control.
CD Combination Test Mode	A combination of CD loading & traverse unit test.	 The counter will increment by 1 until reach 9999999 ↓ 	In doctor mode: 1. Press [≧10], [1] & [3] button on remote control. To cancel, press [0] button remote control. To exit, press [**POWER** ⏻/I] button on main unit or remote control.
CD Auto Adjustment Display	To display result of self adjustment for CD. For more information, please refer to Section 8.2.1.	 The [NO DISC] display will appear after 3s, 	In doctor mode: 1. Press [≧10], [1] & [4] button on remote control. To cancel, press [0] button remote control. To exit, press [**POWER** ⏻/I] button on main unit or remote control.
Cold Start	To activate cold start upon next AC power up.	 The [NO DISC] display will appear after 3s, 	In doctor mode: 1. Press [SLEEP] button on remote control. To exit, press [**POWER** ⏻/I] button on main unit or remote control.

Item		FL Display	Key Operation
Mode Name	Description		Front Key
USB Test Mode	To Inspect USB Testing.	 The display will appear after 3s, 	In doctor mode: 1. Select [USB ▶/❚❚] for USB mode. 2. Press [2] button on remote control. To exit, press [POWER ⏻/I] button on main unit or remote control.

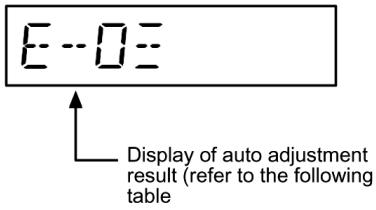
8.2.1. CD Self-Adjustment (AJST) Result Display

Purpose: To display result of self-adjustment for CD.

Below is the procedures for this mode.

Step 1: Enter into Doctor mode (For more information refer to section 8.2 on key operation to enter into this mode).

Step 2: When [≧10], [1] & [4] are pressed at the doctor mode, the following shall be displayed for 3s. The result shall correspond to the condition met as shown in the table below:



Error Code / Status Condition	0	1	2	4	6	8	A	C	E	F
AOC1/AOC2	O	□	O	O	O	O	O	O	O	-
ABC1/ABC1	O	-	X	O	X	O	X	O	X	-
2nd AOC1	O	-	O	X	X	O	O	X	X	-
FAGC/TAGC	O	-	O	O	O	X	X	X	X	-
AGC2	O	-	O	O	O	O	O	O	O	△

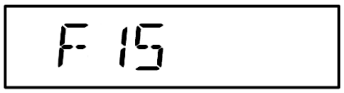
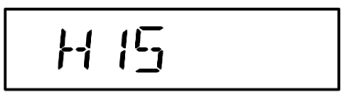
O : OK
X : NG (In case that time out happens.)
□ : Either one of FO AOC, TR AOC and FO coarce AGC is NG
△ : If the AGC is NG (other don't care).

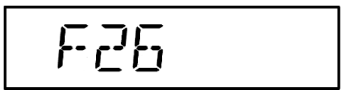
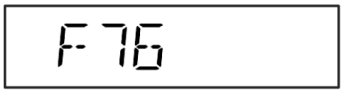
8.3. Error Code Table 1

8.3.1. Mechanism Error Code Table

Self-Diagnosis Function provides information on any problems occuring for the unit and its respective components by displaying error codes. These error code such as U**, H** and F** are stored in memory and held unless it is cleared.

The error code is automatically display after entering into self-diagnostic mode.

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F15	CD REST SW abnormal	CD traverse position initial setting operation fail-safe counter (1000ms) waiting for REST SW to turn on. Error no. shall be clear by force or during cold start.		For CD unit.(For traverse). Press [■] on main unit for next error.
H15	CD OPEN SW abnormal	During normal operation, if CD OPEN SW ON is not detected within 4 sec, and then H15 shall be memorized. The error code can be cleared only at the start up of micro-p after reset.		For CD unit.(For traverse). Press [■] on main unit for next error.

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F26	Communication between CD servo LSI and micro-p abnormal.	CD function DTMS command, after system setting, if SENSE = "L" cannot be detected. Memory shall contain F26code. After power on, CD function shall continue, error display shall be "NO DISC". Error no. shall be clear by force or cold start.		For CD unit.(For traverse). Press [■] on main unit for next error.
F76	Abnormality in the output voltage of stabilized power supply.	In normal operation when "DCDET" is detected "L" (IOIO) for two consecutive times, this error code will be displayed for 2s & after PCONT will be turned to "L" (Low).		Press [■] on main unit for next error.

9 Assembling and Disassembling

9.1. Caution

"ATTENTION SERVICER"

Be careful when disassembling and servicing.

Some chassis components may have sharp edges.

Special Note:

1. **This section describes the disassembly procedures for all the major printed circuit boards and main components.**
2. **Before the disassembly process was carried out, do take special note that all safety precautions are to be carried out. (Ensure that no AC power supply is connected during disassembling.)**
3. **For assembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.**
4. **Do take note of the locators on each printed circuit board during reassembling procedures.**
5. **The Switch Regulator IC may have high temperature after prolonged use.**
6. **Use caution when removing the top cabinet and avoid touching heat sinks located in the unit.**

CAUTION: HOT!!
PLEASE DO NOT
TOUCH THE HEAT SINK

7. **Select items from the following index when checks or replacement are required.**

- **Disassembly of Rear Panel**
- **Disassembly of Transformer P.C.B., AC Inlet P.C.B. & Transformer**
- **Disassembly of Option Port P.C.B.**
- **Disassembly of USB P.C.B.**
- **Disassembly of Tuner P.C.B.**
- **Disassembly of DAB Module Unit**
- **Disassembly of Main P.C.B.**
- **Replacement of Voltage Regulator IC (IC501)**
- **Replacement of Voltage Regulator IC (IC502)**
- **Replacement of Voltage Regulator Transistor (Q501)**
- **Replacement of Power AMP IC (IC700)**
- **Replacement of Regulator Transistor (Q502)**
- **Disassembly of Tact Switch & Sensor P.C.B.**
- **Disassembly of CD Mechanism Unit**
- **Disassembly of Traverse Cover**
- **Disassembly of CD Servo P.C.B.**
- **Disassembly of Motor Unit & Motor P.C.B.**
- **Disassembly of Ipod Cradle P.C.B.**
- **Disassembly of Panel & LED P.C.B.**
- **Disassembly of Detector P.C.B.**
- **Disassembly of CD Lid**
- **Disassembly of Docking Lid**
- **Disassembly of Function Lid Ass'y**
- **Disassembly of Speaker**

CAUTION NOTE:

Please use original screw and at correct locations.

Below shown is part no. of different screw types used:

ⓐ : XTB3+10JFJ

ⓑ : RHD26046-L

ⓒ : XTB3+10JFJK

ⓓ : XYN26+C6FJ

ⓔ : XTN2+6GFJ

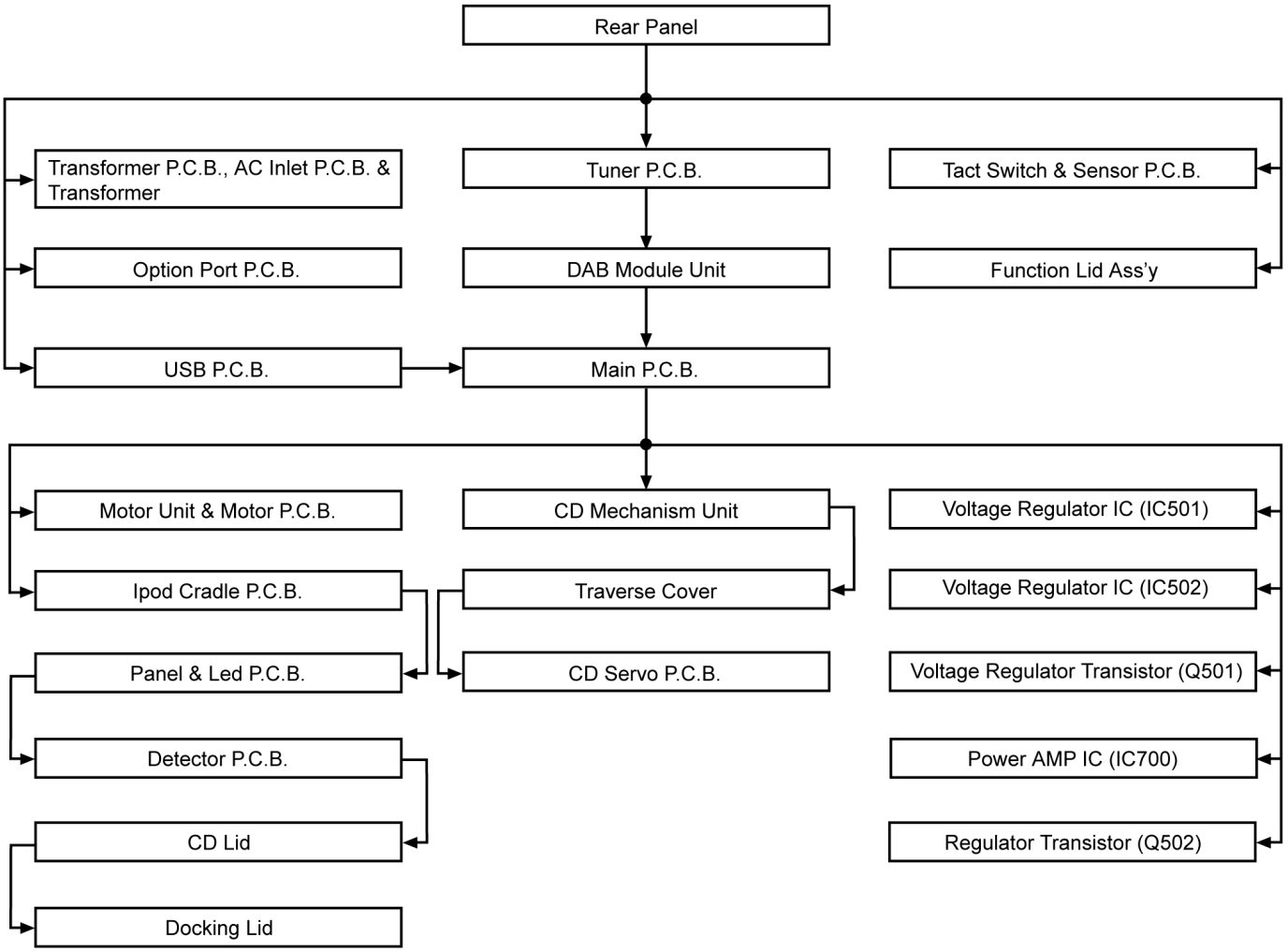
ⓕ : XTB3+10GFJK

9.2. Disassembly flow chart

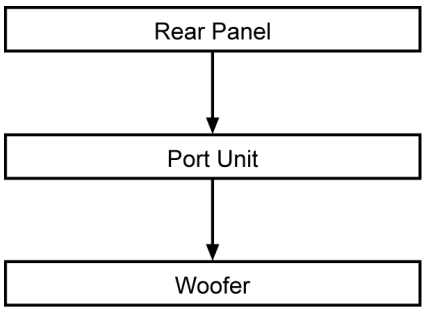
The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.

To assemble the unit, reverse the steps shown in the chart below.

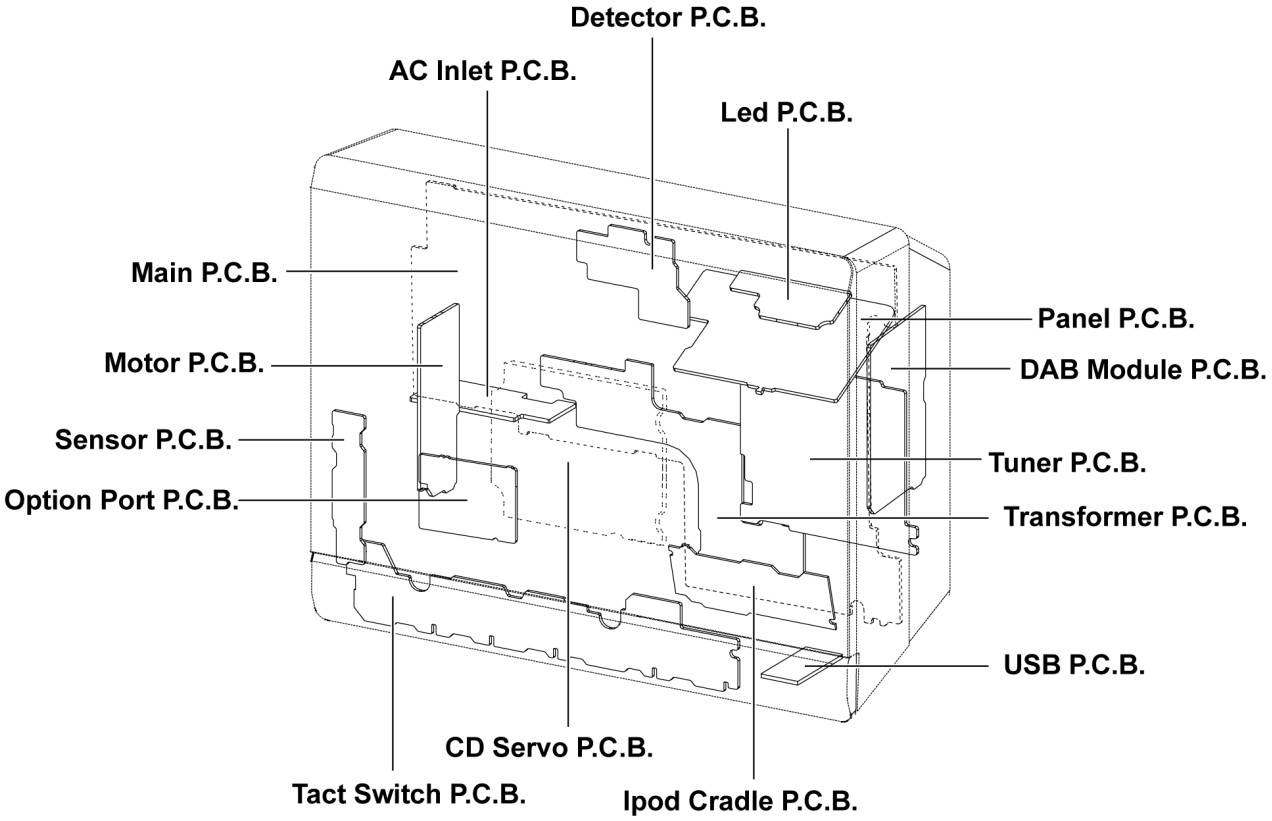
9.2.1. For Main unit



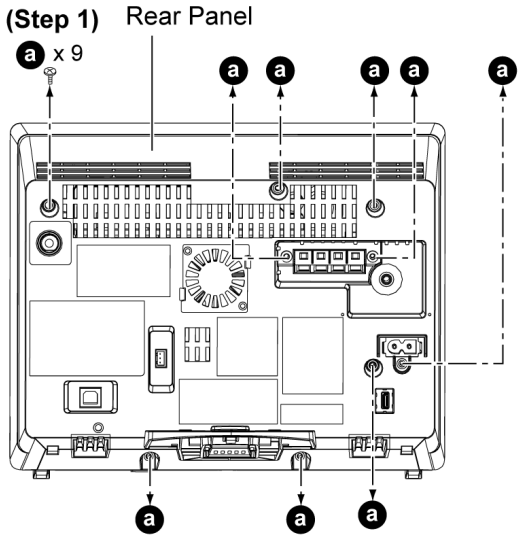
9.2.2. For Speaker unit (SB-EN38)



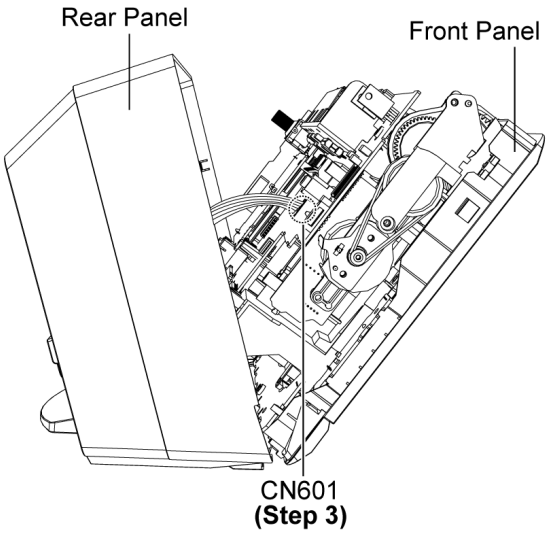
9.3. Main Parts Location Diagram



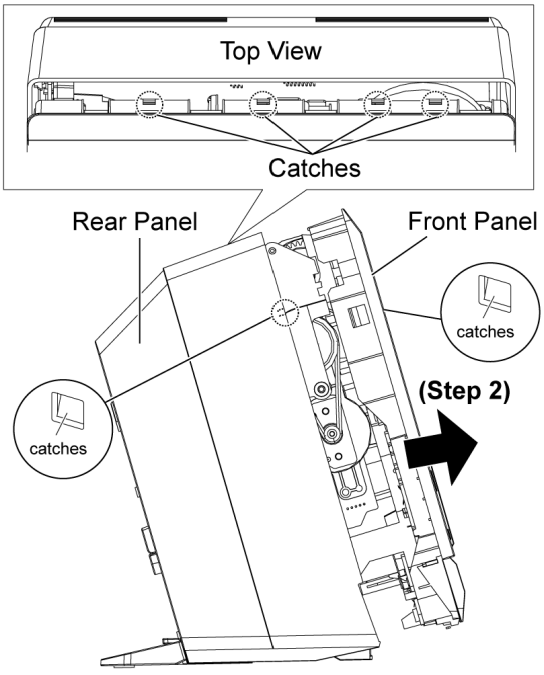
9.4. Disassembly of Rear Panel



Step 1 : Remove 9 screws.



Step 3 : Detach 3P cable at connector (CN601) on Main P.C.B. and remove Rear Panel.

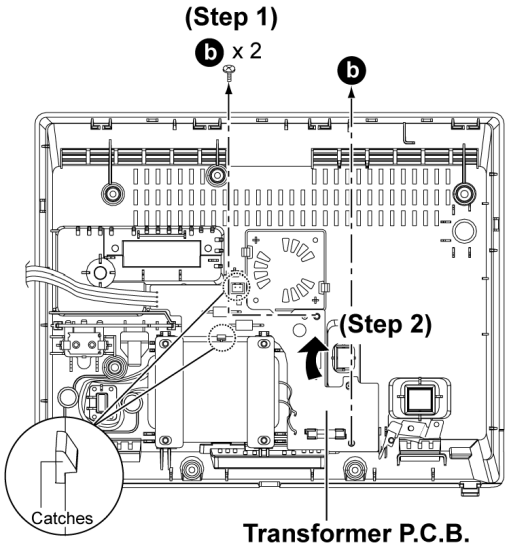


Step 2 : Release 6 catches and slightly push the Rear Panel as arrow shown.

9.5. Disassembly of Transformer P.C.B., AC Inlet P.C.B. & Transformer

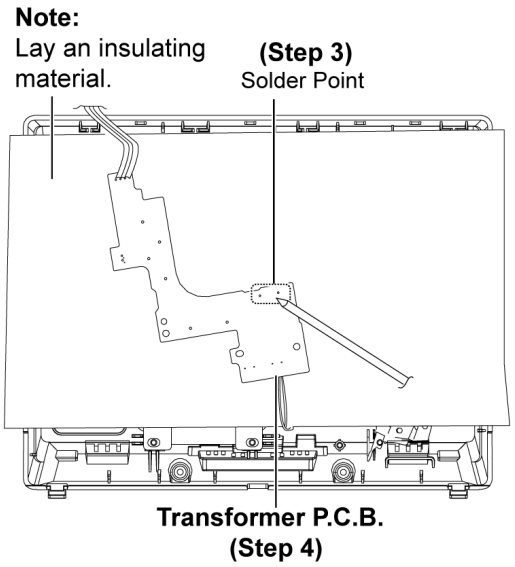
- Follow the (Step 1) - (Step 3) of item 9.4.

- **Disassembly of Transformer P.C.B.**



Step 1 : Remove 2 screws.

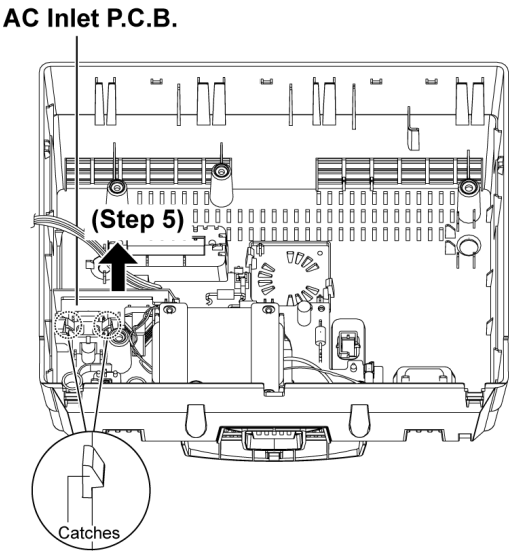
Step 2 : Release 2 catches and remove Transformer P.C.B. as arrow show.



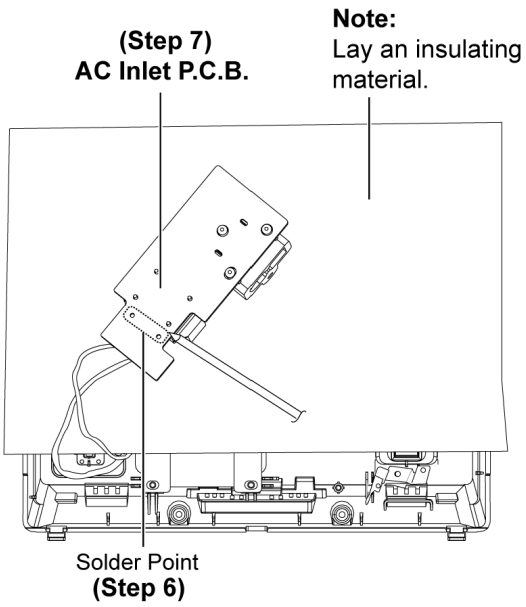
Step 3 : Desolder 2 solder point from Transformer P.C.B..

Step 4 : Remove Transformer P.C.B..

- **Disassembly of AC Inlet P.C.B.**



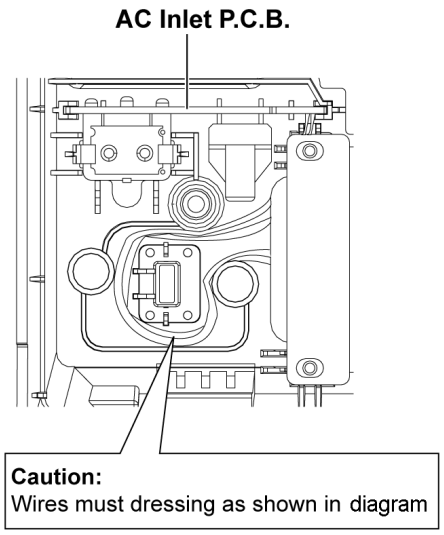
Step 5 : Release 2 catches and remove AC Inlet P.C.B. as arrow shown.



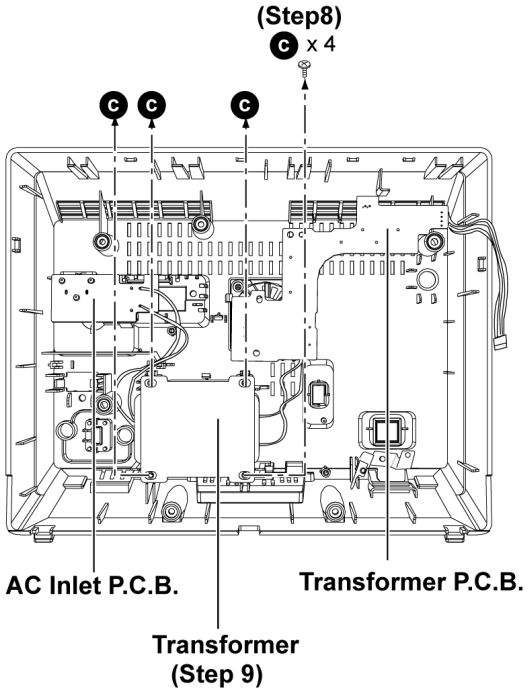
Step 6 : Desolder 2 solder point from AC Inlet P.C.B..

Step 7 : Remove AC Inlet P.C.B..

Caution : During reassembling procedures, ensure the cable are properly dressed.

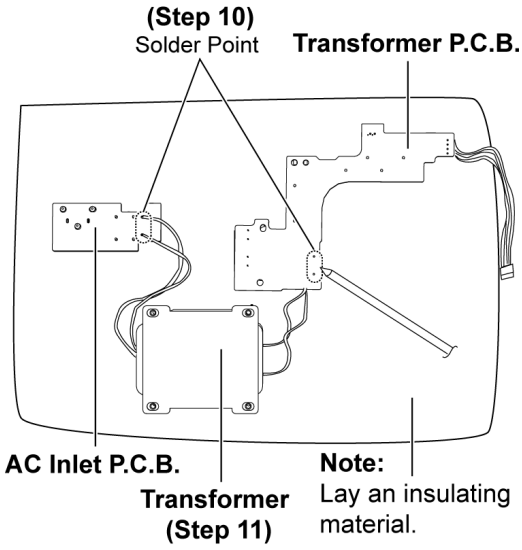


- **Disassembly of Transformer**
  - Follow the (Step 1) - (Step 2) of (Disassembly of Transformer P.C.B.)
  - Follow the (Step 5) of (Disassembly of AC Inlet P.C.B.)



Step 8 : Remove 4 screws.

Step 9 : Remove Transformer with AC Inlet & Transformer P.C.B..

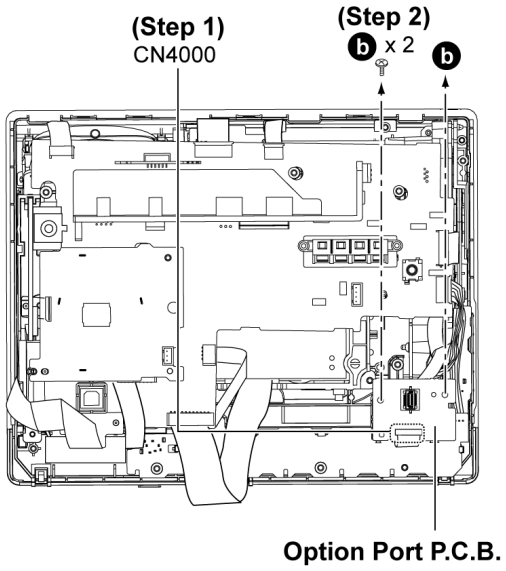


Step 10 : Desolder 4 solder point.

Step 11 : Remove Transformer.

9.6. Disassembly of Option Port P.C.B.

- Follow the (Step 1) - (Step 3) of item 9.4.

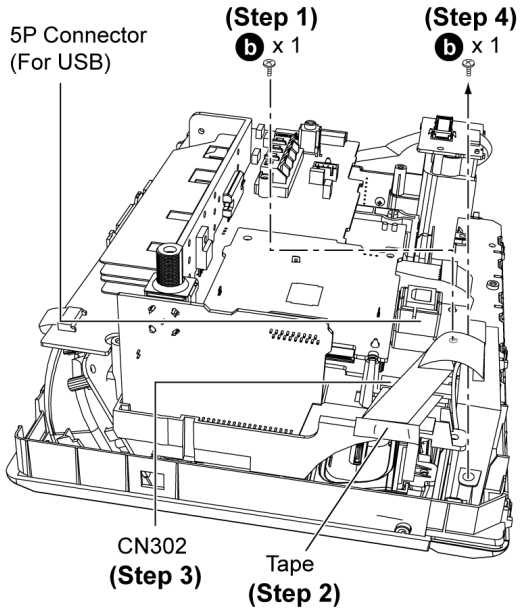


Step 1 : Detach 14P FFC cable at connector (CN4000) on Option Port P.C.B..

Step 2 : Remove 2 screws.

9.7. Disassembly of USB P.C.B.

- Follow the (Step 1) - (Step 3) of item 9.4.

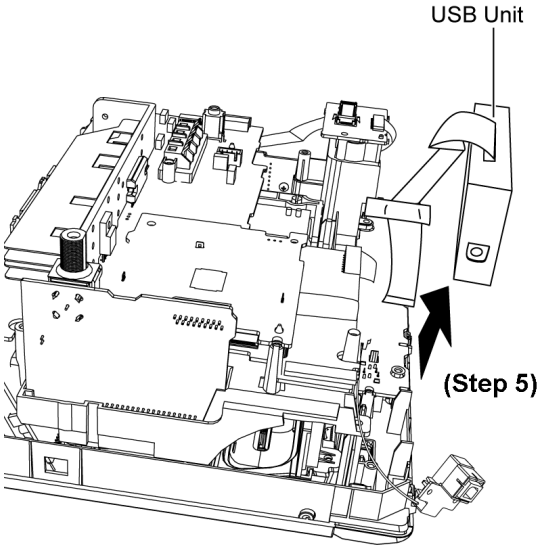


Step 1 : Remove 1 screw and 5P Connector (For USB).

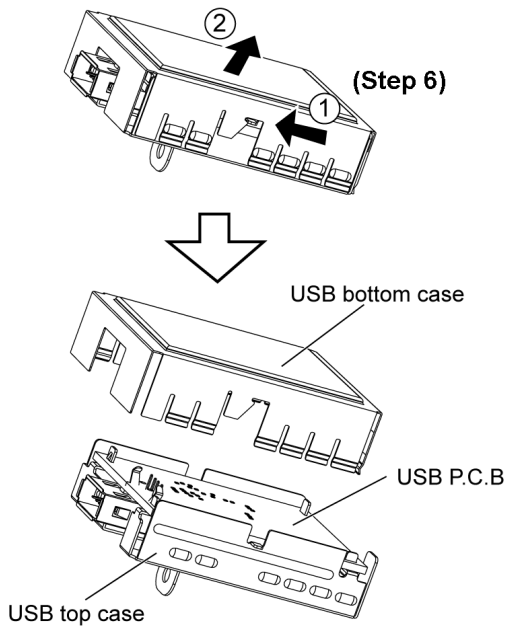
Step 2 : Remove Tape.

Step 3 : Detach 22P FFC cable at connector (CN302) on Main P.C.B..

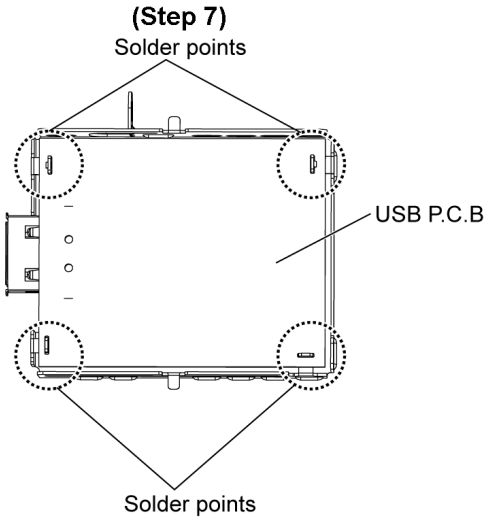
Step 4 : Remove 1 screw.



Step 5 : Remove USB Unit.



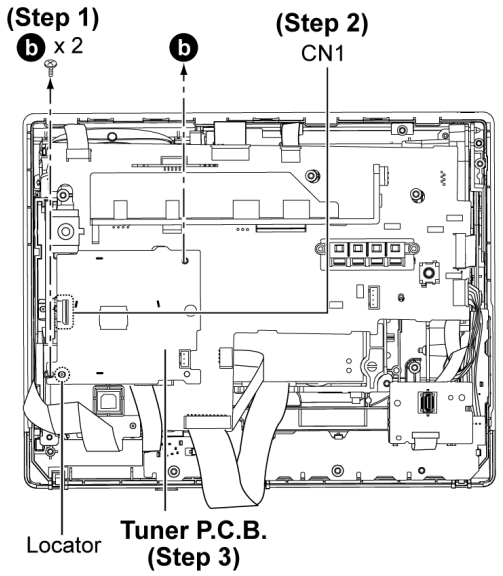
Step 6 : Remove USB bottom case as arrow shown.



Step 7 : Unsolder the solder point to remove USB P.C.B..

9.8. Disassembly of Tuner P.C.B.

- Follow the (Step 1) - (Step 3) of item 9.4.



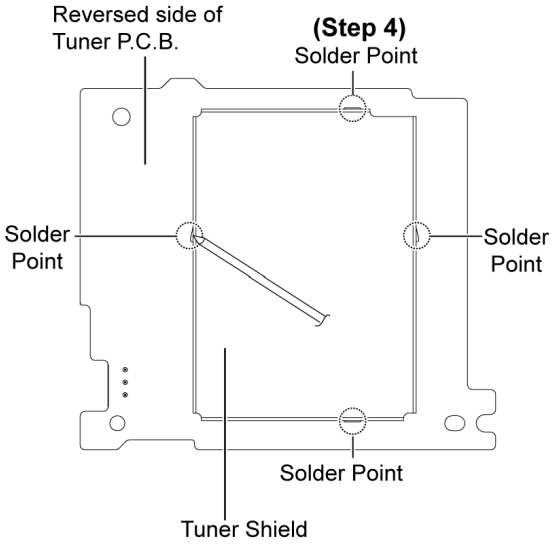
Step 1 : Remove 2 screws.

Step 2 : Detach 12P FFC cable at connector (CN1) on Tuner P.C.B..

Step 3 : Remove Tuner P.C.B..

Caution : Take extra care for the locator on the Tuner P.C.B. during removal and assembly of the Tuner P.C.B..

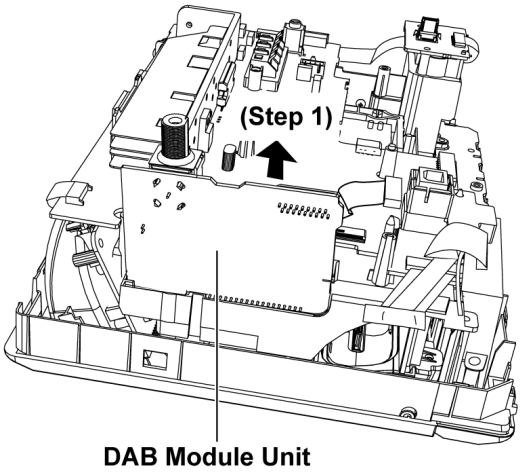
- **Disassembly of Tuner Shield**



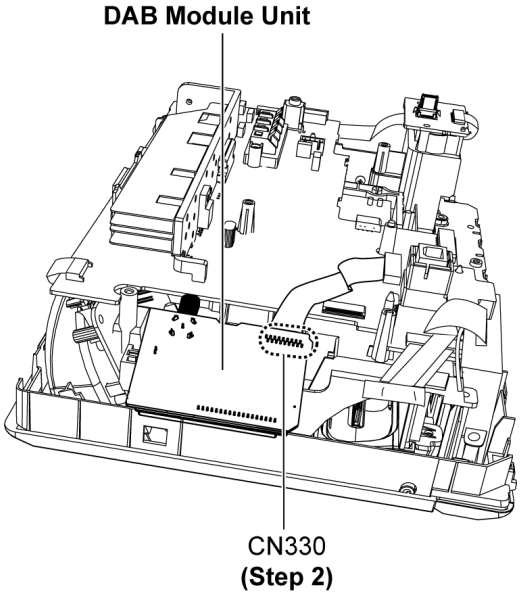
Step 4 : Desolder 4 solder point from Tuner P.C.B. to remove Tuner Shield.

9.9. Disassembly of DAB Module Unit

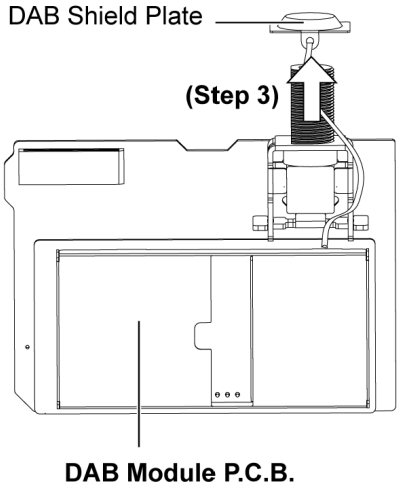
- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.



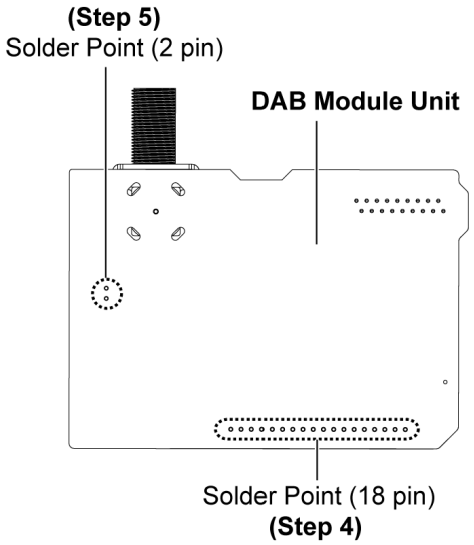
Step 1 : Remove DAB Module unit as arrow shown.



Step 2 : Detach 18P FFC cable at connector (CN330) on DAB Module unit.

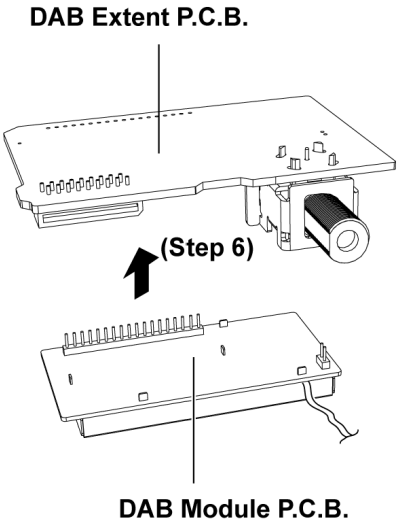


Step 3 : Remove DAB Shield Plate as arrow shown.

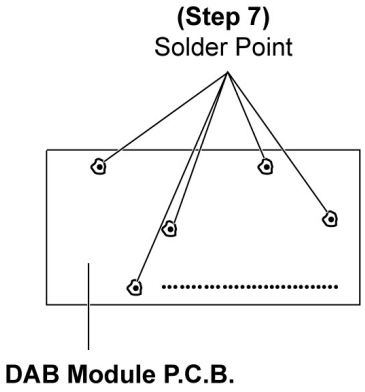


Step 4 : Desolder 18P (P1).

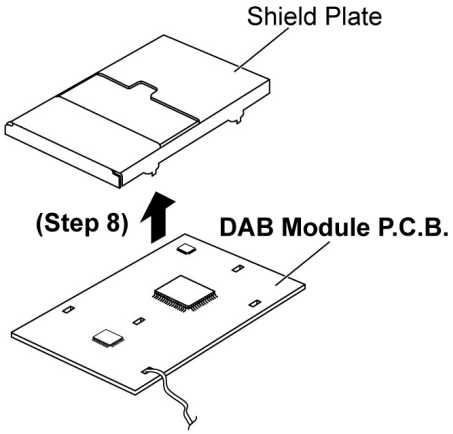
Step 5 : Desolder 2P (P201).



Step 6 : Remove DAB Extent P.C.B. as arrow shown.



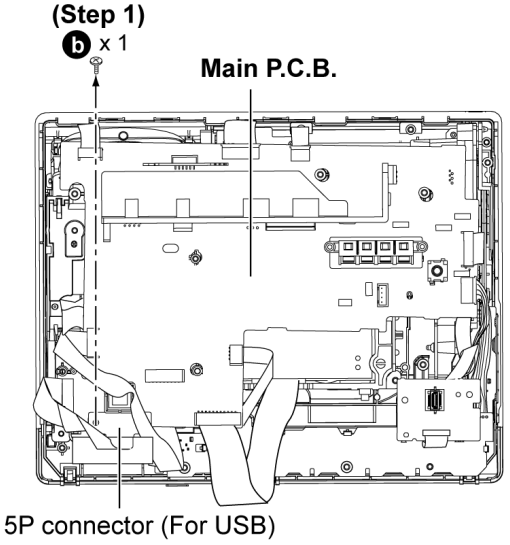
Step 7 : Desolder 5 solder point.



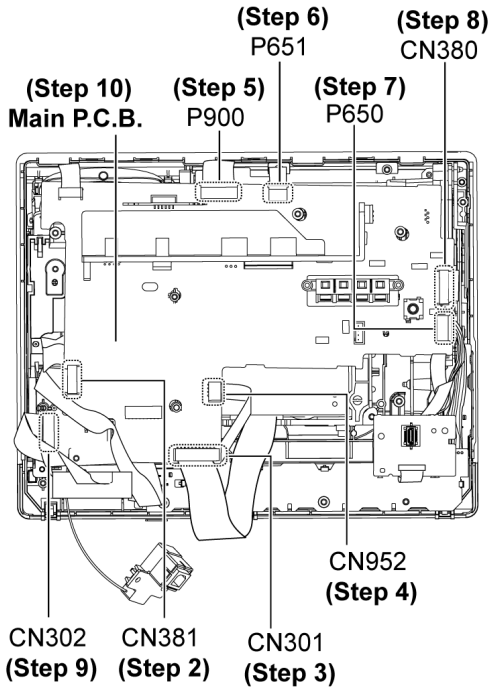
Step 8 : Remove shield plate as arrow shown.

9.10. Disassembly of Main P.C.B.

- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.



Step 1 : Remove 1 screw and 5P connector (For USB).



Step 2 : Detach 14P FFC cable at connector (CN381) on Main P.C.B..

Step 3 : Detach 22P FFC cable at connector (CN301) on Main P.C.B..

Step 4 : Detach 8P FFC cable at connector (CN952) on Main P.C.B..

Step 5 : Detach 8P cable at connector (P900) on Main P.C.B..

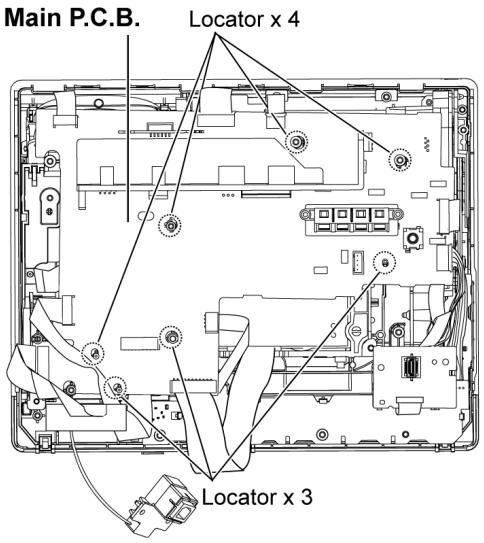
Step 6 : Detach 3P cable at connector (P651) on Main P.C.B..

Step 7 : Detach 5P cable at connector (P650) on Main P.C.B..

Step 8 : Detach 14P FFC cable at connector (CN380) on Main P.C.B..

Step 9 : Detach 22P FFC cable at connector (CN302) on Main P.C.B..

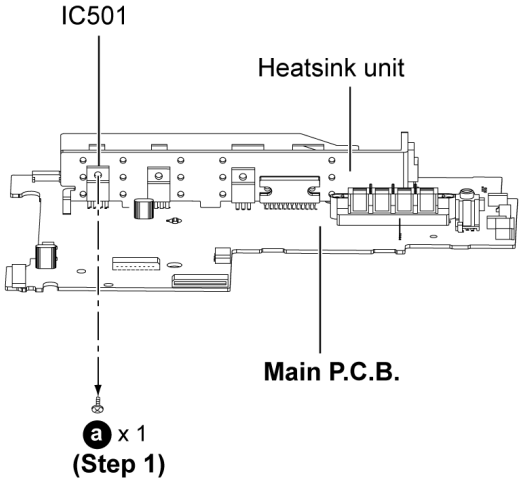
Step 10 : Remove Main P.C.B..



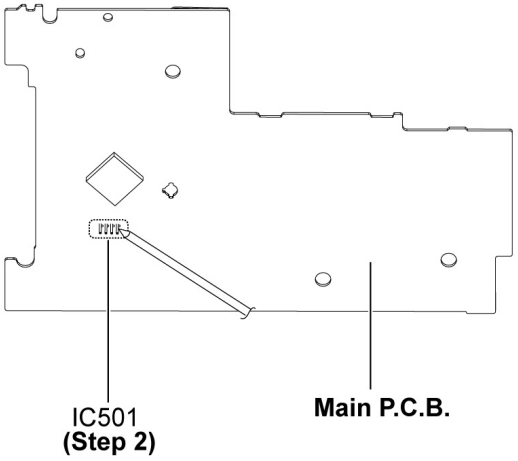
Caution : Take extra care for the locator on the Main P.C.B. during removal and assembly of the Main P.C.B..

9.11. Replacement of Voltage Regulator IC (IC501)

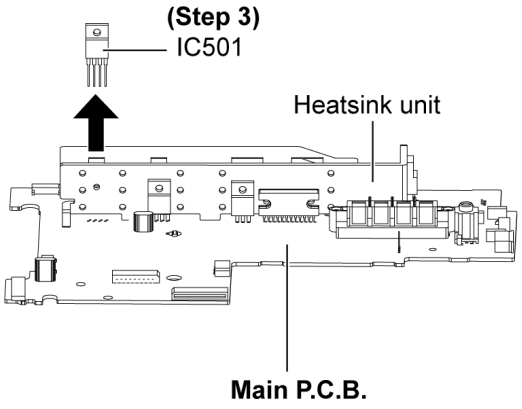
- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.



Step 1 : Remove 1 screw.



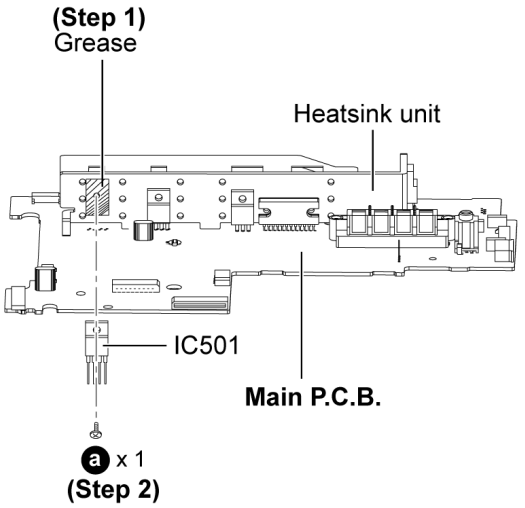
Step 2 : Desolder pins of Voltage Regulator IC (IC501) on the reverse side of Main P.C.B..



Step 3 : Remove Voltage Regulator IC (IC501) from the heatsink unit.

Caution : Handle the heatsink unit with caution due to its high temperature after prolonged use. Touching it may lead to injuries.

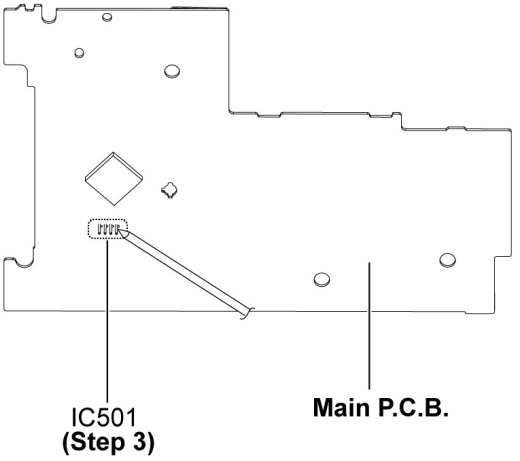
9.11.1. Assembly of Voltage Regulator IC (IC501)



Step 1 : Apply grease to the heatsink unit.

Step 2 : Fix and screws the Voltage Regulator IC (IC501) to the heatsink unit.

Note : Ensure the Voltage Regulator IC (IC501) is tightly screwed to the heatsink unit.

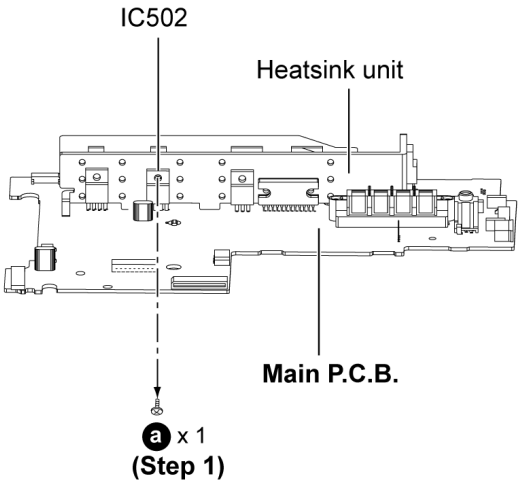


Step 3 : Solder pin of the Voltage Regulator IC (IC501) on the reversed side of Main P.C.B..

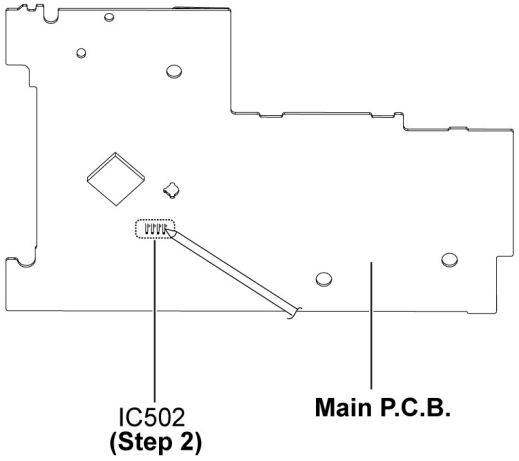
Note : Ensure pins of the Voltage Regulator IC (IC501) are properly seated and soldered on the Main P.C.B..

9.12. Replacement of Voltage Regulator IC (IC502)

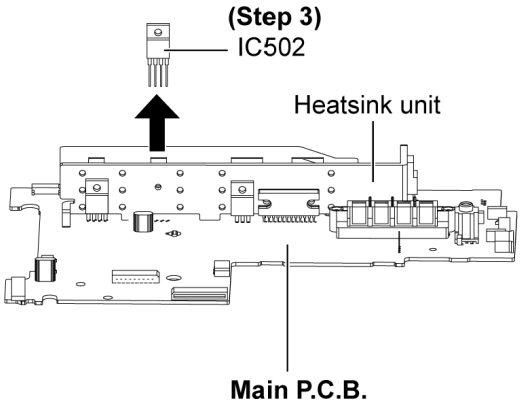
- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.



Step 1 : Remove 1 screw.



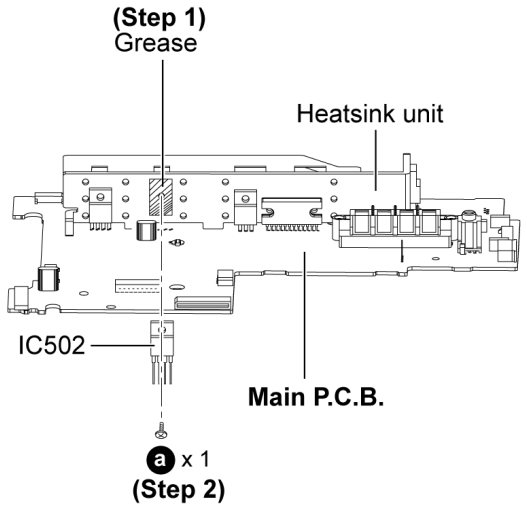
Step 2 : Desolder pins of Voltage Regulator IC (IC502) on the reverse side of Main P.C.B..



Step 3 : Remove Voltage Regulator IC (IC502) from the heatsink unit.

Caution : Handle the heatsink unit with caution due to its high temperature after prolonged use. Touching it may lead to injuries.

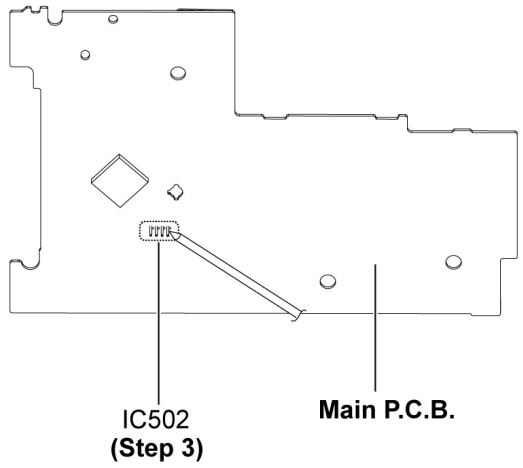
9.12.1. Assembly of Voltage Regulator IC (IC502)



Step 1 : Apply grease to the heatsink unit.

Step 2 : Fix and screws the Voltage Regulator IC (IC502) to the heatsink unit.

Note : Ensure the Voltage Regulator IC (IC502) is tightly screwed to the heatsink unit.

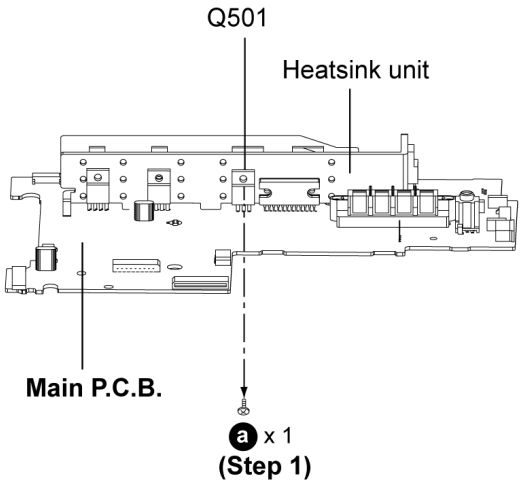


Step 3 : Solder pin of the Voltage Regulator IC (IC502) on the reversed side of Main P.C.B..

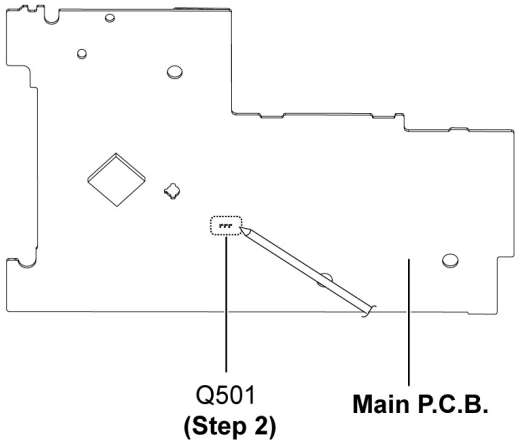
Note : Ensure pins of the Voltage Regulator IC (IC502) are properly seated and soldered on the Main P.C.B..

9.13. Replacement of Voltage Regulator Transistor (Q501)

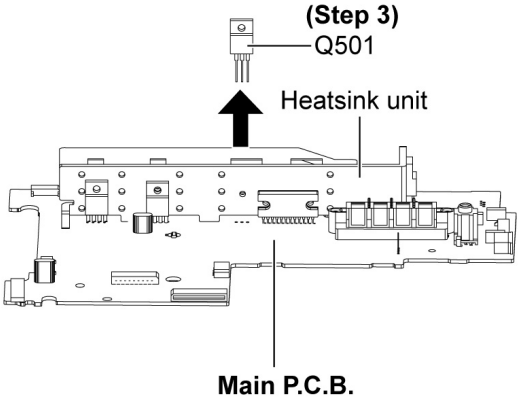
- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.



Step 1 : Remove 1 screw.



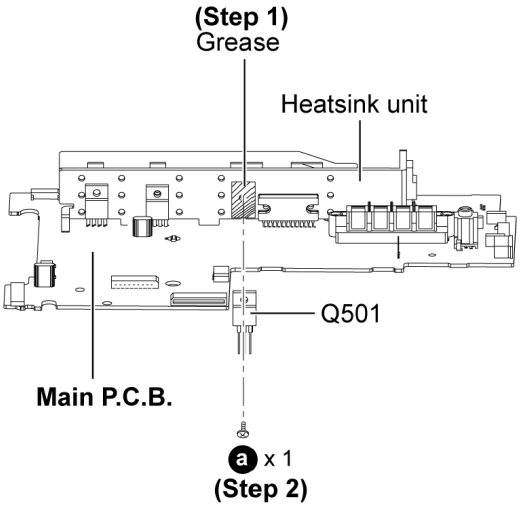
Step 2 : Desolder pins of Voltage Regulator Transistor (Q501) on the reverse side of Main P.C.B..



Step 3 : Remove Voltage Regulator Transistor (Q501) from the heatsink unit.

Caution : Handle the heatsink unit with caution due to its high temperature after prolonged use. Touching it may lead to injuries.

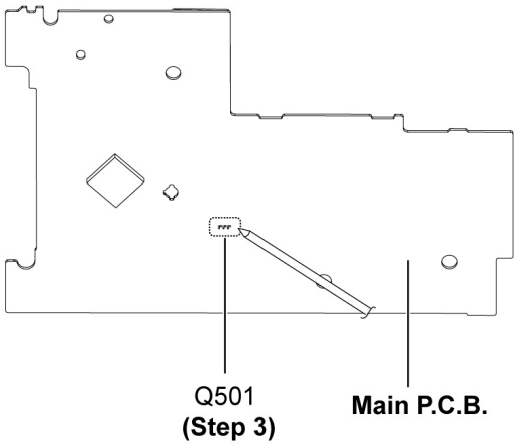
9.13.1. Assembly of Voltage Regulator Transistor (Q501)



Step 1 : Apply grease to the heatsink unit.

Step 2 : Fix and screws the Voltage Regulator Transistor (Q501) to the heatsink unit.

Note : Ensure the Voltage Regulator Transistor (Q501) is tightly screwed to the heatsink unit.

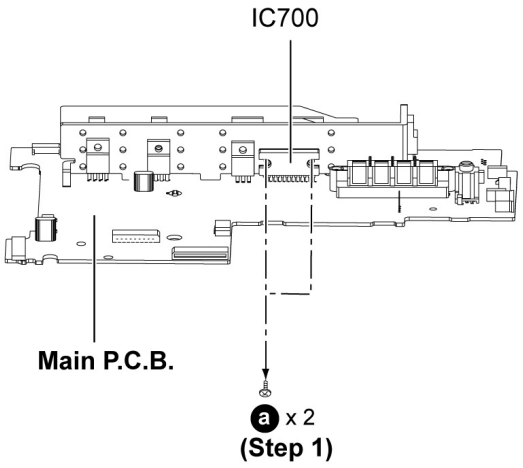


Step 3 : Solder pin of the Voltage Regulator Transistor (Q501) on the reversed side of Main P.C.B..

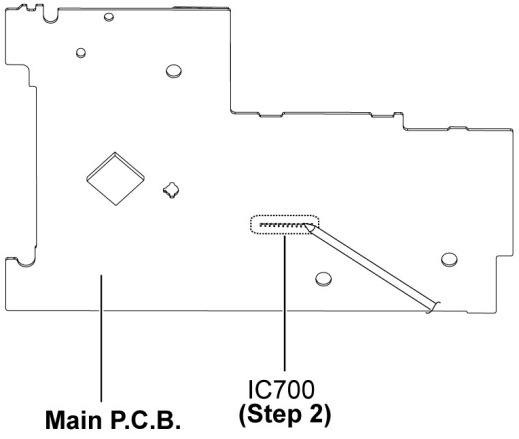
Note : Ensure pins of the Voltage Regulator Transistor (Q501) are properly seated and soldered on the Main P.C.B..

9.14. Replacement of Power AMP IC (IC700)

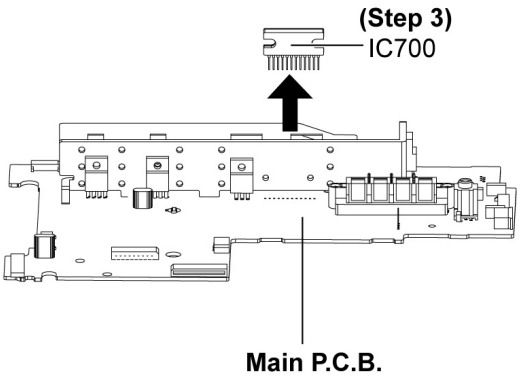
- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.



Step 1 : Remove 2 screws.



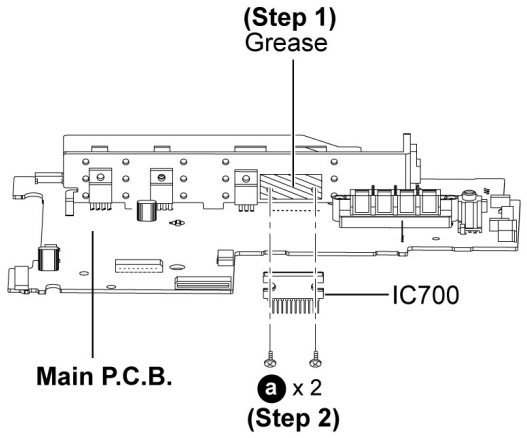
Step 2 : Desolder pins of Power AMP IC (IC700) on the reverse side of Main P.C.B..



Step 3 : Remove Power AMP IC (IC700) from the heatsink unit.

Caution : Handle the heatsink unit with caution due to its high temperature after prolonged use. Touching it may lead to injuries.

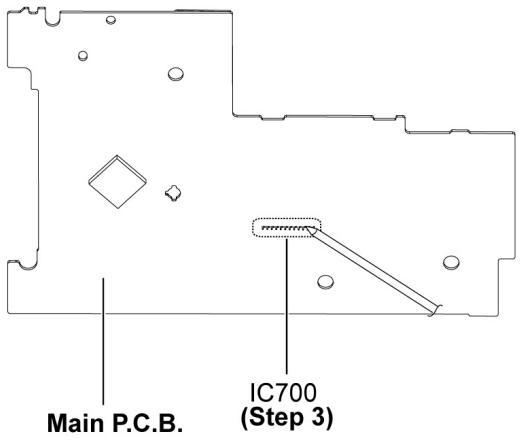
9.14.1. Assembly of Power AMP IC (IC700)



Step 1 : Apply grease to the heatsink unit.

Step 2 : Fix and screws the Power AMP IC (IC700) to the heatsink unit.

Note : Ensure the Power AMP IC (IC700) is tightly screwed to the heatsink unit.

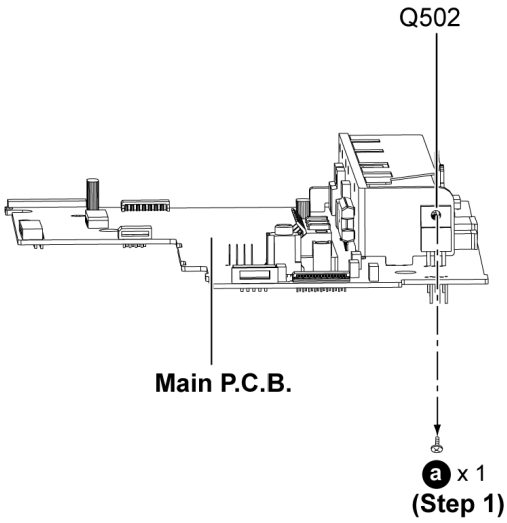


Step 3 : Solder pin of the Power AMP IC (IC700) on the reversed side of Main P.C.B..

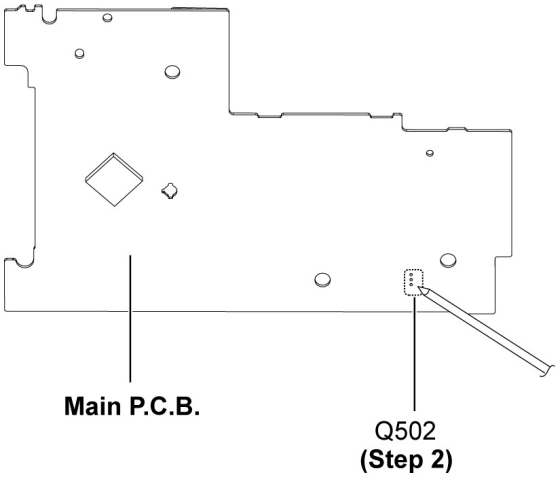
Note : Ensure pins of the Power AMP IC (IC700) are properly seated and soldered on the Main P.C.B..

9.15. Replacement of Regulator Transistor (Q502)

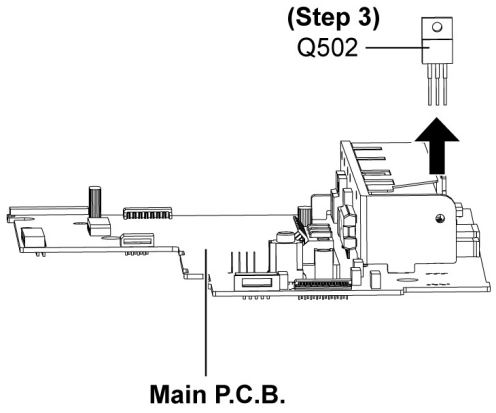
- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.



Step 1 : Remove 1 screw.



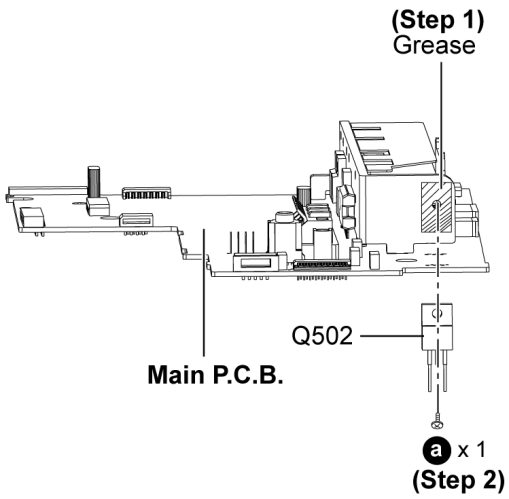
Step 2 : Desolder pins of Regulator Transistor (Q502) on the reverse side of Main P.C.B..



Step 3 : Remove Regulator Transistor (Q502) from the heatsink unit.

Caution : Handle the heatsink unit with caution due to its high temperature after prolonged use. Touching it may lead to injuries.

9.15.1. Assembly of Regulator Transistor (Q502)



Step 1 : Apply grease to the heatsink unit.

Step 2 : Fix and screws the Regulator Transistor (Q502) to the heatsink unit.

Note : Ensure the Regulator Transistor (Q502) is tightly screwed to the heatsink unit.

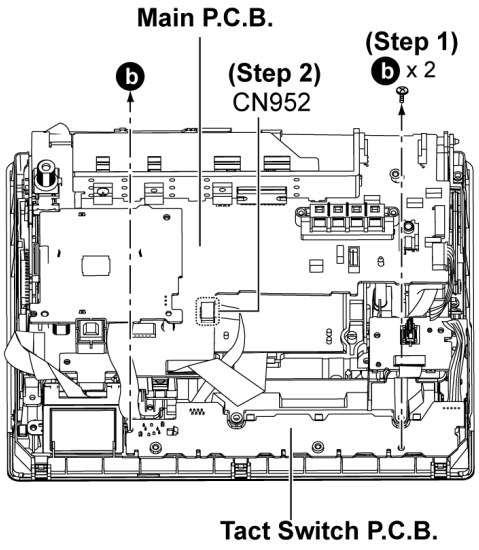
Step 3 : Solder pin of the Regulator Transistor (Q502) on the reversed side of Main P.C.B..

Note : Ensure pins of the Regulator Transistor (Q502) are properly seated and soldered on the Main P.C.B..

9.16. Disassembly of Tact Switch & Sensor P.C.B.

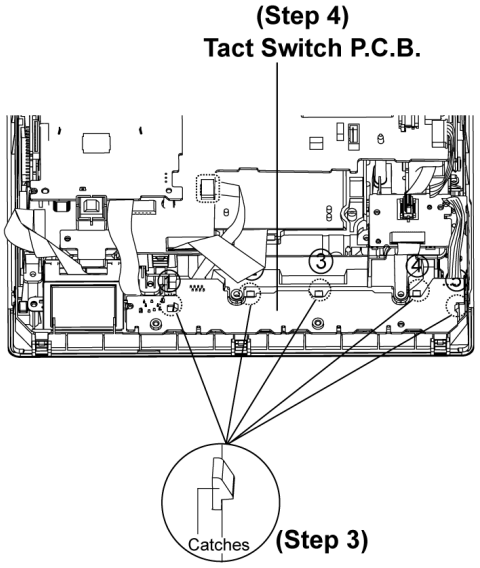
- Follow the (Step 1) - (Step 3) of item 9.4.

- **Disassembly of Tact Switch P.C.B.**



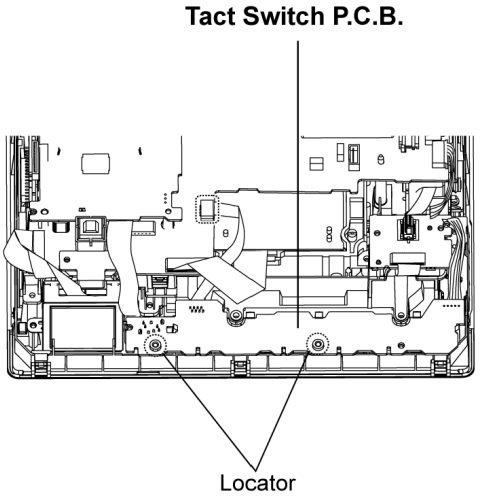
Step 1 : Remove 2 screws.

Step 2 : Detach 8P FFC cable at connector (CN952) on Main P.C.B..



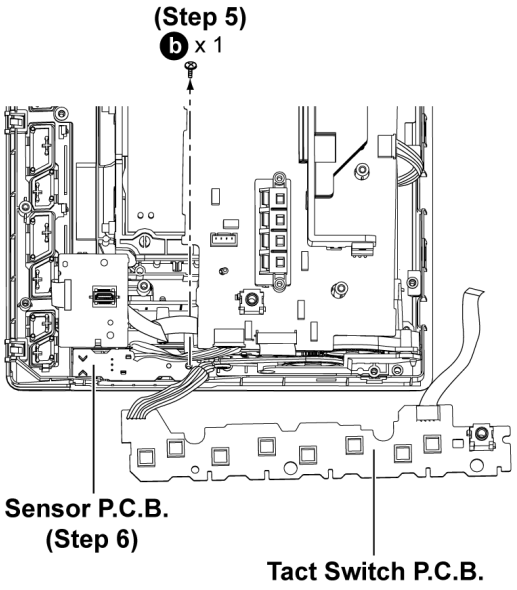
Step 3 : Release 5 catches in order of sequence.

Step 4 : Remove Tact Switch P.C.B..



Caution : Take extra care for the locator on the Main P.C.B. during removal and assembly of the Main P.C.B..

- **Disassembly of Sensor P.C.B.**

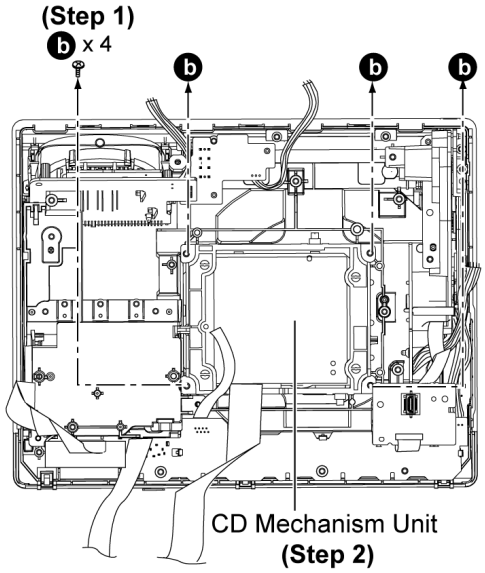


Step 5 : Remove 1 screw.

Step 6 : Remove Sensor P.C.B..

9.17. Disassembly of CD Mechanism Unit

- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.

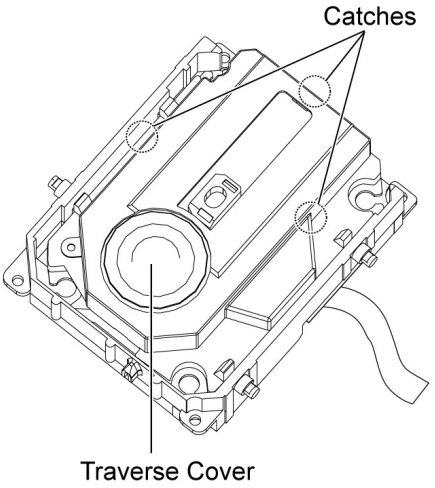


Step 1 : Remove 4 screws.

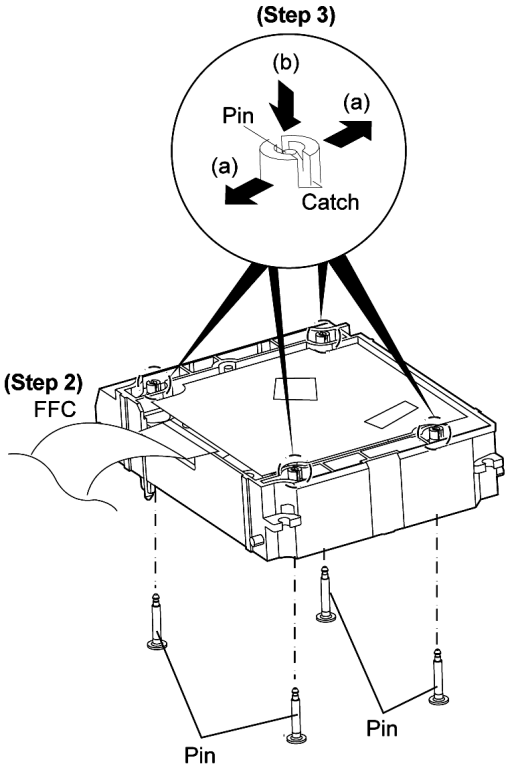
Step 2 : Remove CD Mechanism Unit.

9.18. Disassembly of Traverse Cover

- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.
- Follow the (Step 1) - (Step 2) of item 9.17.

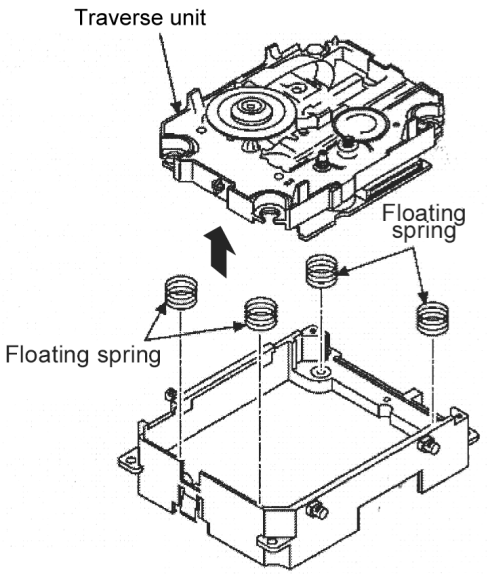


Step 1 : Release 3 catches and remove the Traverse Cover.



Step 2 : Pull out FFC cable.

Step 3 : Widening the catch, push the fixed pin in. (a) → (b).

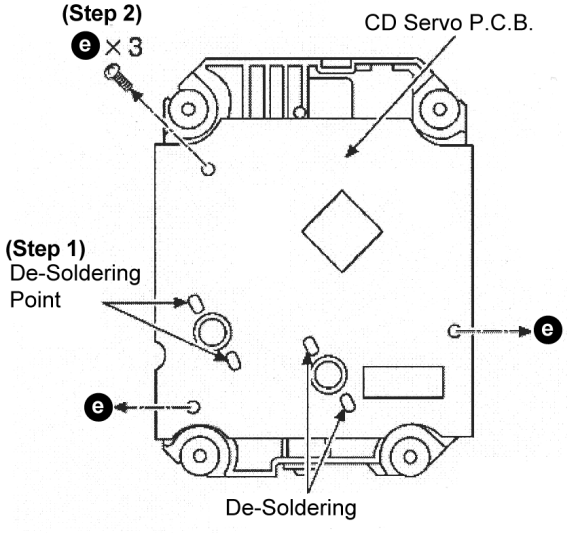


Step 4 : Lift up the traverse unit to remove it.

Caution : Keep the floating springs (x 4) in safe place & avoid losing them

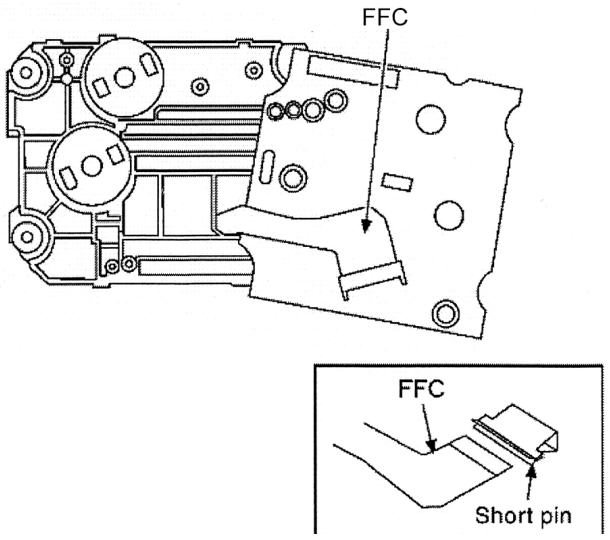
9.19. Disassembly of CD Servo P.C.B.

- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.
- Follow the (Step 1) - (Step 2) of item 9.17.
- Follow the (Step 1) - (Step 4) of item 9.18.



Step 1 : Desolder the terminal.

Step 2 : Remove 3 screws.



Step 3 : Flip the CD Servo P.C.B. over to one side.

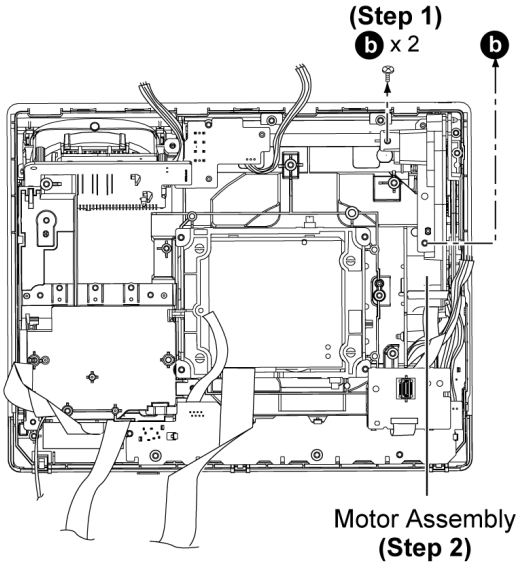
Step 4 : Detach FFC out from the connector.

Step 5 : Attach a short pin to the unit.

Caution : Insert a short pin into FFC of the optical pickup. [See "Handling Precautions for traverse unit"]

9.20. Disassembly of Motor Unit & Motor P.C.B.

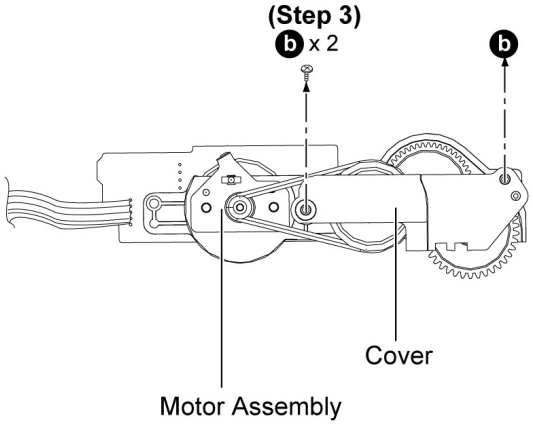
- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.



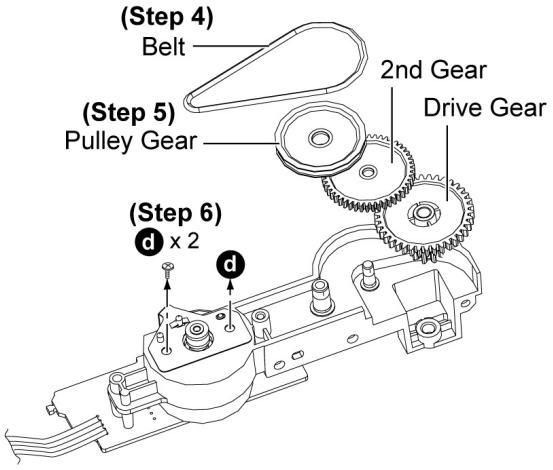
Step 1 : Remove 2 screws.

Step 2 : Remove motor assembly.

- **Disassembly of motor assembly (gears & belt)**



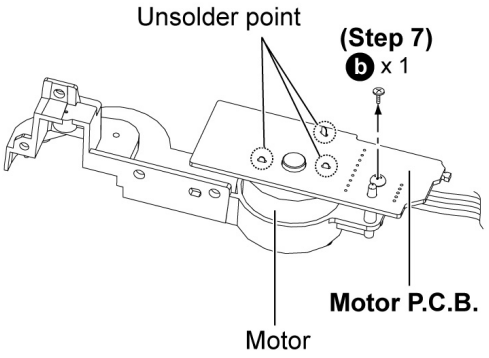
Step 3 : Remove 2 screws.



Step 4 : Remove the belt.

Step 5 : Remove pulley gear, 2nd gear and drive gear.

Step 6 : Remove 2 screws at motor unit.

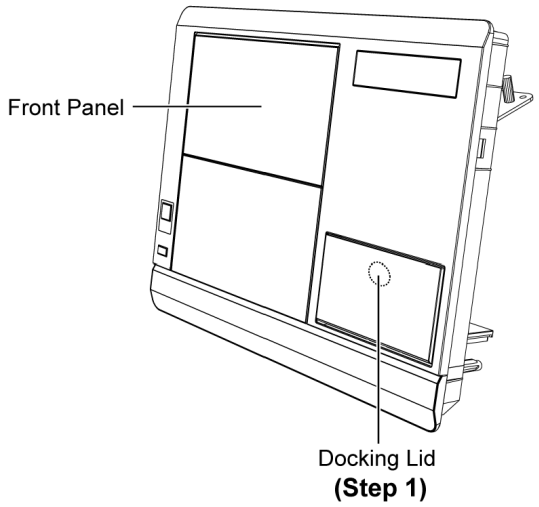


Step 7 : Remove 1 screw and unsolder 3 points at gear base.

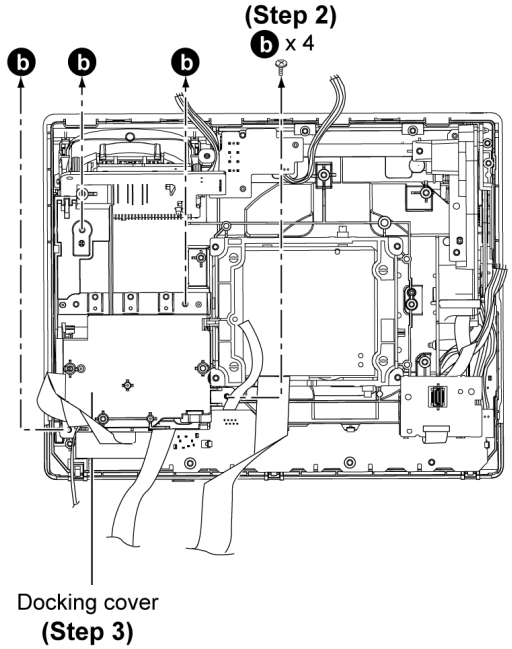
9.21. Disassembly of Ipod Cradle P.C.B.

- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.

- **Disassembly CD Base**



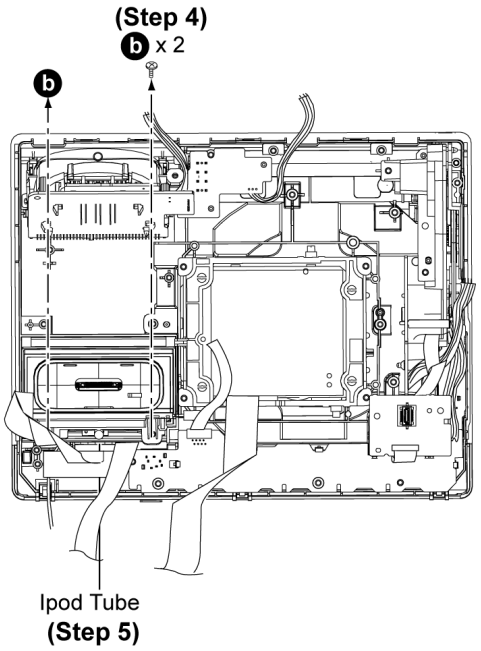
Step 1 : Press to open Dockling lid.



Step 2 : Remove 4 screws.

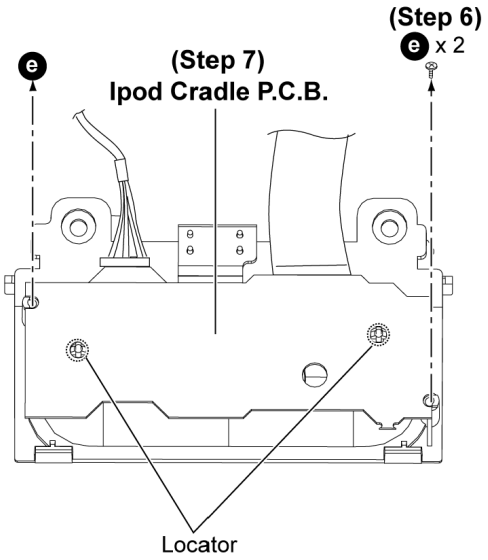
Step 3 : Remove Docking cover.

- **Disassembly of Ipod Cradle P.C.B.**



Step 4 : Remove 2 screws.

Step 5 : Remove Ipod Tube.



Step 6 : Remove 2 screws.

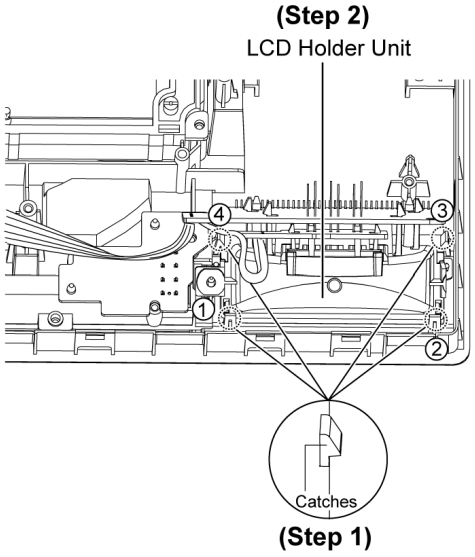
Step 7 : Remove Ipod Cradle P.C.B..

Caution : Take extra care for the locator on the Ipod Cradle P.C.B. during removal and assembly of the Ipod Cradle P.C.B..

9.22. Disassembly of Panel & LED P.C.B.

- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.
- Follow the (Step 1) - (Step 3) of item 9.21.

- **Disassembly of LCD Holder Unit**

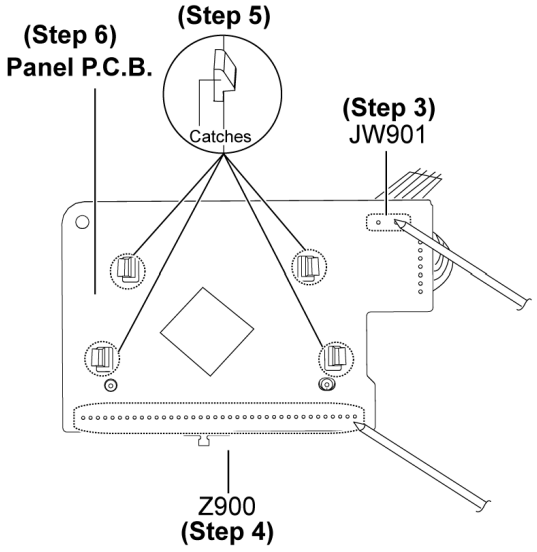


Step 1 : Release 4 catches in order of sequence.

Step 2 : Remove LCD Holder Unit.

Caution : Take extra care for the catches on the LCD Holder Unit during removal and assembly of the LCD Holder Unit.

- **Disassembly of Panel P.C.B.**



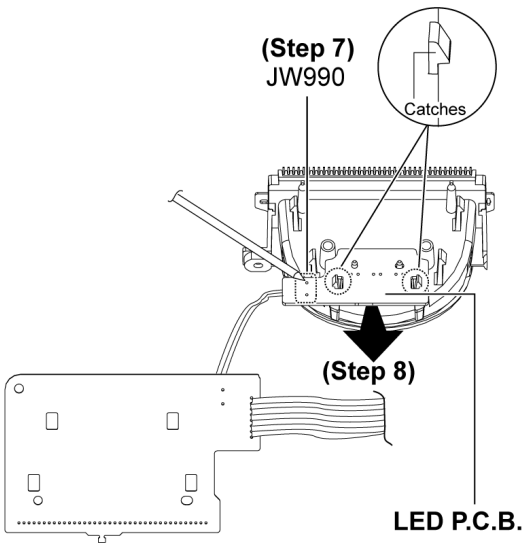
Step 3 : Desolder 2P cable JW901 on Panel P.C.B..

Step 4 : Desolder Z900 on Panel P.C.B..

Step 5 : Release 4 catches.

Step 6 : Remove Panel P.C.B..

- **Disassembly of LED P.C.B.**

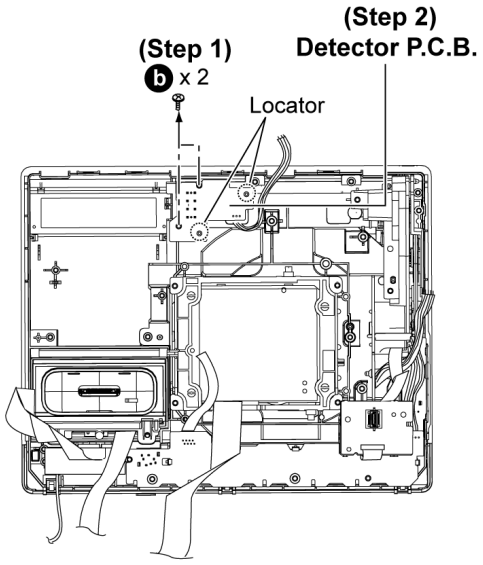


Step 7 : Desolder 2P cable JW990 on LED P.C.B..

Step 8 : Remove LED P.C.B. as arrow shown and becareful the catches.

9.23. Disassembly of Detector P.C.B.

- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.
- Follow the (Step 1) - (Step 3) of item 9.21.
- Follow the (Step 1) - (Step 2) of item 9.22.



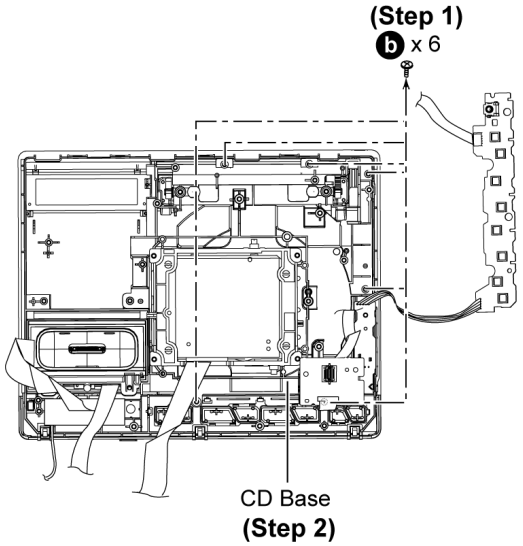
Step 1 : Remove 2 screws.

Step 2 : Remove Detector P.C.B..

Caution : Take extra care for the locator on the Detector P.C.B. during removal and assembly of the Detector P.C.B..

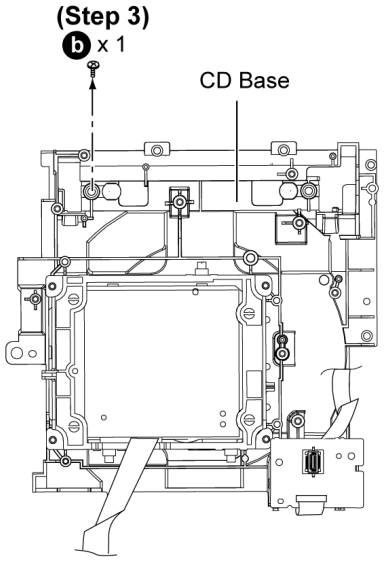
9.24. Disassembly of CD Lid

- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.
- Follow the (Step 1) - (Step 4) of item 9.16.
- Follow the (Step 1) - (Step 2) of item 9.20.
- Follow the (Step 1) - (Step 3) of item 9.21.
- Follow the (Step 1) - (Step 2) of item 9.22.
- Follow the (Step 1) - (Step 2) of item 9.23.

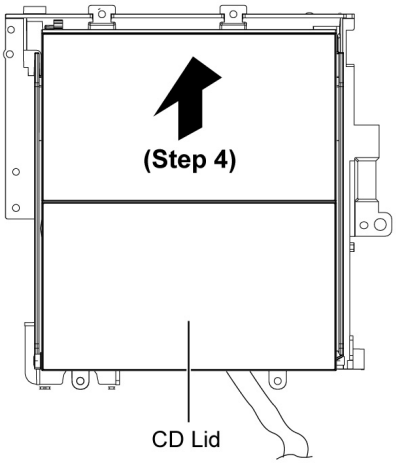


Step 1 : Remove 6 screws.

Step 2 : Remove CD Base.



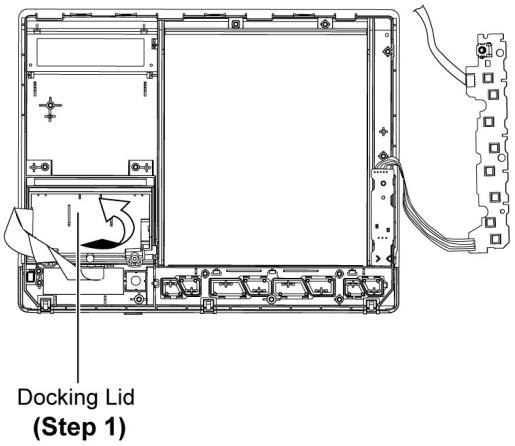
Step 3 : Remove 1 screw.



Step 3 : Remove CD lid.

9.25. Disassembly of Docking Lid

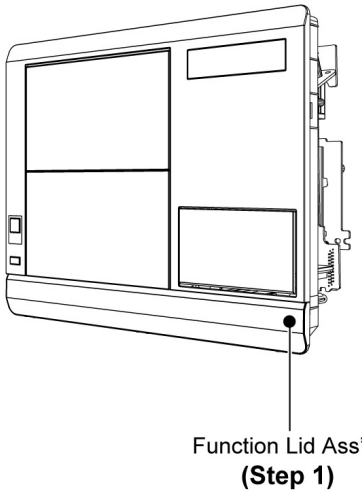
- Follow the (Step 1) - (Step 3) of item 9.4.
- Follow the (Step 1) - (Step 3) of item 9.8.
- Follow the (Step 1) - (Step 2) of item 9.9.
- Follow the (Step 1) - (Step 10) of item 9.10.
- Follow the (Step 1) - (Step 4) of item 9.16.
- Follow the (Step 1) - (Step 2) of item 9.20.
- Follow the (Step 1) - (Step 3) of item 9.21.
- Follow the (Step 1) - (Step 2) of item 9.22.
- Follow the (Step 1) - (Step 2) of item 9.23.
- Follow the (Step 1) - (Step 2) of item 9.24.



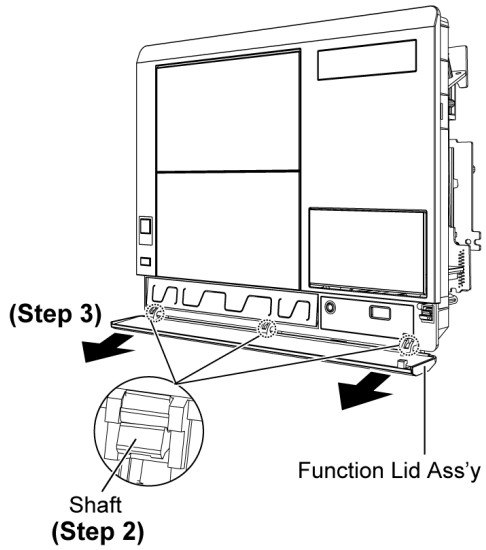
Step 1 : Remove Docking Lid as arrow shown.

9.26. Disassembly of Function Lid Ass'y

- Follow the (Step 1) - (Step 3) of item 9.4.



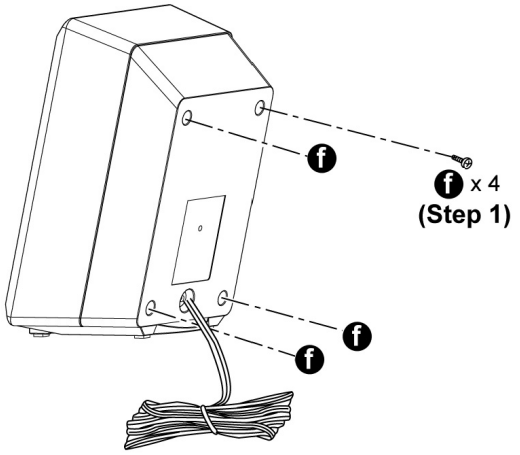
Step 1 : Press and open the Function Lid Ass'y.



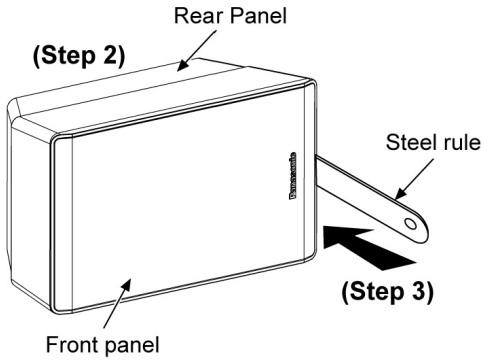
Step 2 : Align the Function Lid Ass'y until the shaft is completely seen.

Step 3 : Release the shaft from the catch and remove the Function Lid Ass'y in the direction of arrow.

9.27. Disassembly of Speaker

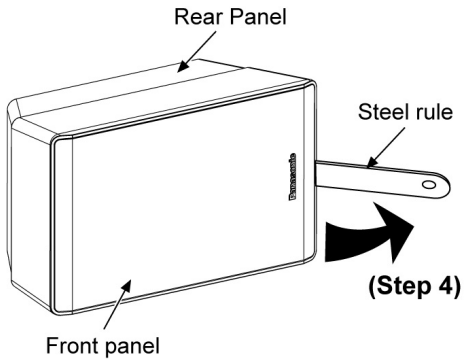


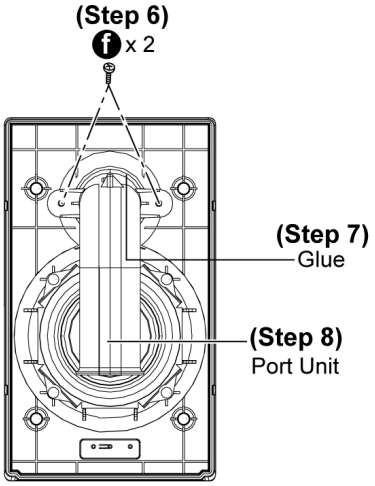
Step 1 : Remove 4 screws.



Step 2 : Upset the speaker unit as shown above.

Step 3 : Insert a steel rule into the bottom of the rear cabinet assembly as arrow shown.





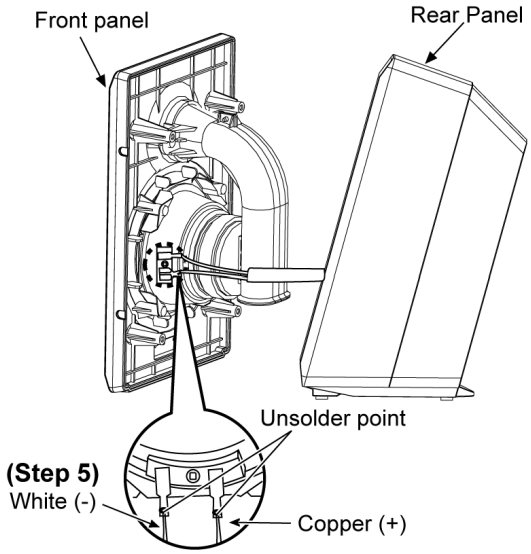
Step 4 : Apply light force to push out the Rear Panel as arrow shown.

Caution : Do not exert strong force as it may damage the rear cabinet assembly

Step 6 : Remove 2 screws.

Step 7 : Remove glue.

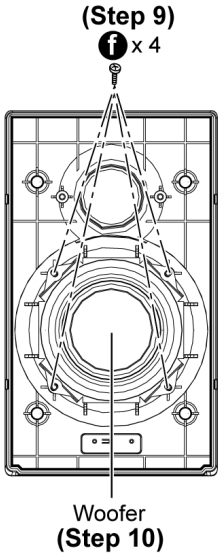
Step 8 : Remove port unit.



Step 5 : Desolder the White (-) and Copper (+) wires.

- **Disassembly of Port Unit**

- **Disassembly of Woofer**



Step 9 : Remove 4 screws.

Step 10 : Remove Woofer.

10 Service Fixture and Tools

Service Tools		Remarks
Main P.C.B. (CN301) - CD Servo P.C.B. (CN7002)	REEX0924 (22 pin FFC cable)	[M] (RTL)
Main P.C.B. (CN952) - Tact Switch P.C.B. (CN953)	REEX0923 (8 pin FFC cable)	[M] (RTL)

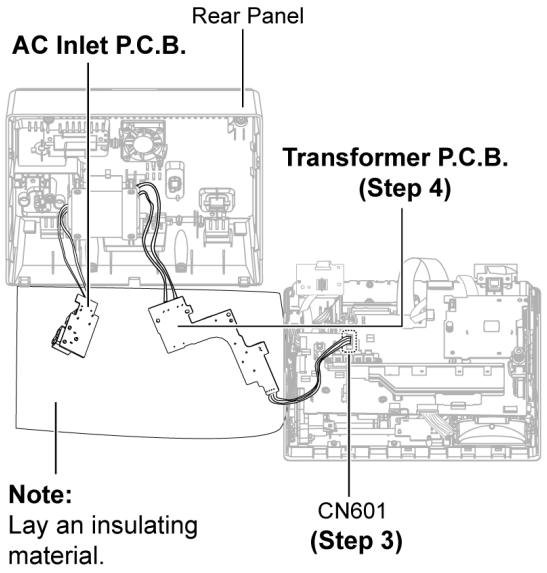
11 Service Position

Note : For description of the disassembly procedures, see the section 9

11.1. Checking & Repairing Transformer & AC Inlet P.C.B

Step 1 : Remove Rear Panel.

Step 2 : Remove Transformer & AC Inlet P.C.B..



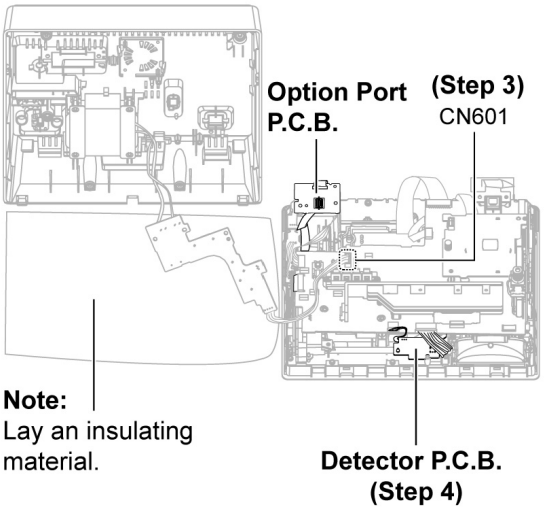
Step 3 : Connect 3P cable at the connector (CN601) on Main P.C.B..

Step 4 : Check & repair AC Inlet & Transformer P.C.B. according to the diagram shown.

11.2. Checking & Repairing Detector P.C.B and Option Port P.C.B.

Step 1 : Remove Rear Panel.

Step 2 : Remove Transformer P.C.B..



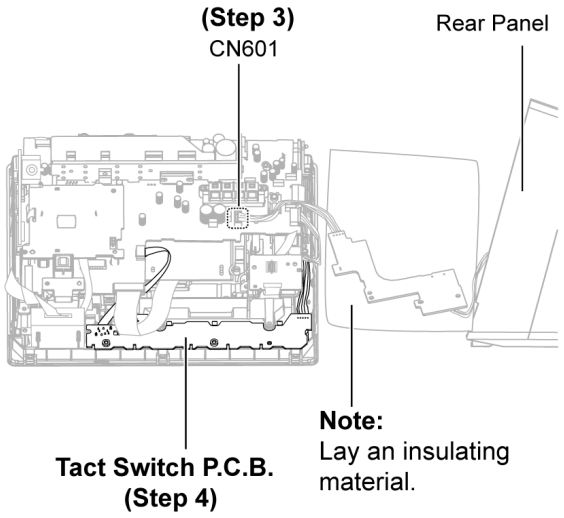
Step 3 : Connect 3P cable at the connector (CN601) on Main P.C.B..

Step 4 : Detector P.C.B. and Option Port P.C.B. can be checked at its original position.

11.3. Checking & Repairing Tact Switch P.C.B

Step 1 : Remove Rear Panel.

Step 2 : Remove Transformer P.C.B..



Step 3 : Connect 3P cable at the connector (CN601) on Main P.C.B..

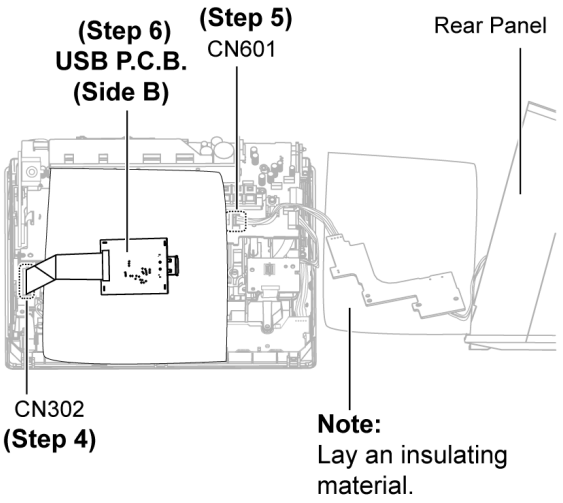
Step 4 : Tact Switch P.C.B. can be checked at its original position.

11.4. Checking & Repairing USB P.C.B

Step 1 : Remove Rear Panel.

Step 2 : Remove Transformer P.C.B..

Step 3 : Remove USB P.C.B..



Step 4 : Connect 22P FFC cable at the connector (CN302) on Main P.C.B..

Step 5 : Connect 3P cable at the connector (CN601) on Main P.C.B..

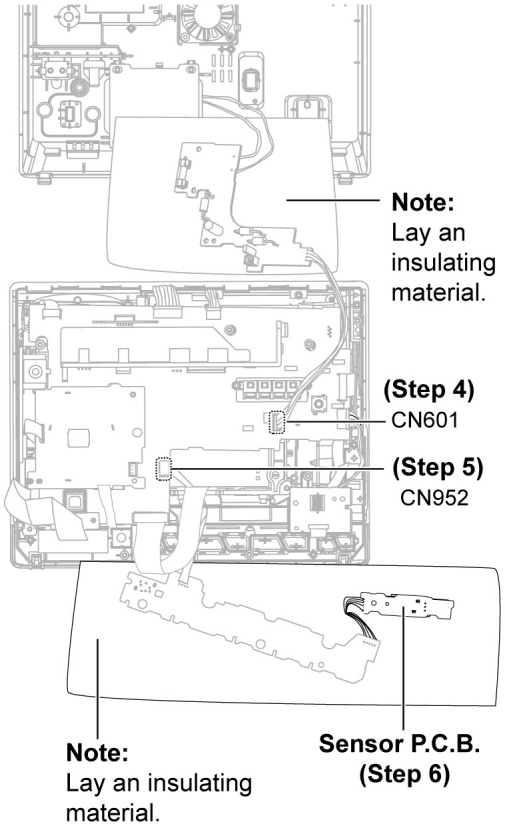
Step 6 : Check & repair USB P.C.B. according to the diagram shown.

11.5. Checking & Repairing Sensor P.C.B

Step 1 : Remove Rear Panel.

Step 2 : Remove Transformer P.C.B..

Step 3 : Remove Tact Switch P.C.B. & Sensor P.C.B..



Step 4 : Connect 3P cable at the connector (CN601) on Main P.C.B..

Step 5 : Connect 8P FFC cable at the connector (CN952) on Main P.C.B..

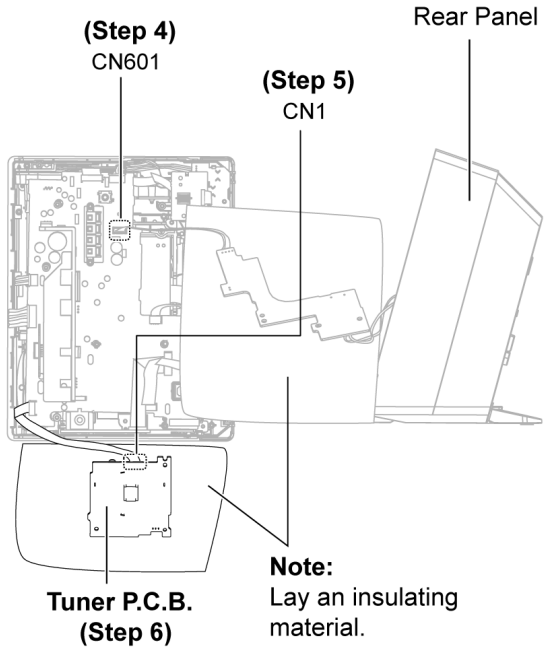
Step 6 : Check & repair Sensor P.C.B. according to the diagram shown.

11.6. Checking & Repairing Tuner P.C.B

Step 1 : Remove Rear Panel.

Step 2 : Remove Transformer P.C.B..

Step 3 : Remove Tuner P.C.B..



Step 4 : Connect 3P cable at the connector (CN601) on Main P.C.B..

Step 5 : Connect 12P FFC cable at the connector (CN1) on Tuner P.C.B..

Step 6 : Check & repair Tuner P.C.B. according to the diagram shown.

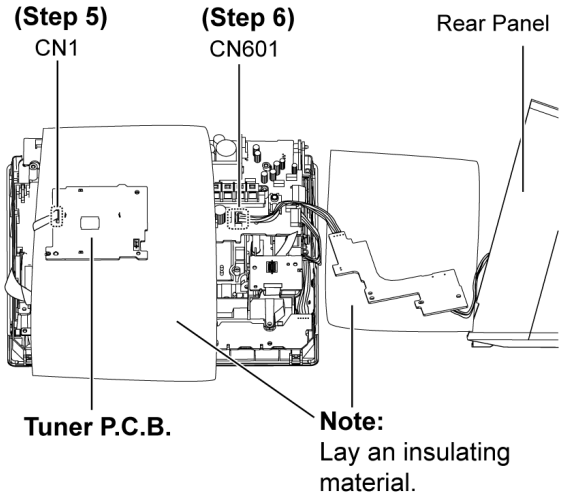
11.7. Checking & Repairing DAB Module P.C.B

Step 1 : Remove Rear Panel.

Step 2 : Remove Transformer P.C.B..

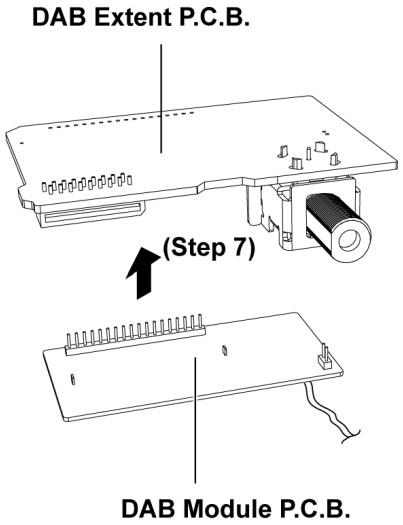
Step 3 : Remove Tuner P.C.B..

Step 4 : Remove DAB Module Unit.

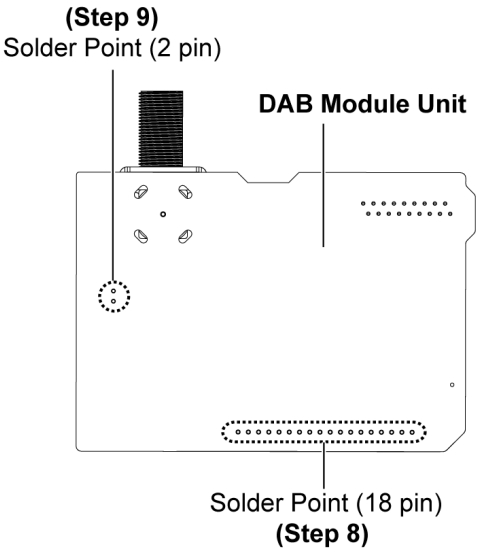


Step 5 : Connect 12P FFC cable at the connector (CN1) on Tuner P.C.B..

Step 6 : Connect 3P cable at the connector (CN601) on Main P.C.B..

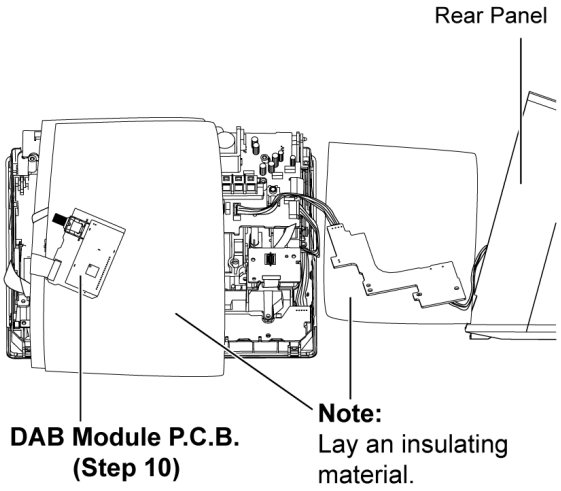


Step 7 : Connect DAB Module P.C.B. to DAB Extent P.C.B. as arrow shown.



Step 8 : Solder 18P (P1).

Step 9 : Solder 2P (P201).



Step 10 : Check & repair DAB Module unit P.C.B. according to the diagram shown.

11.8. Checking & Repairing Main P.C.B

Note : Insert CD before Checking Main P.C.B.

Step 1 : Remove Rear Panel.

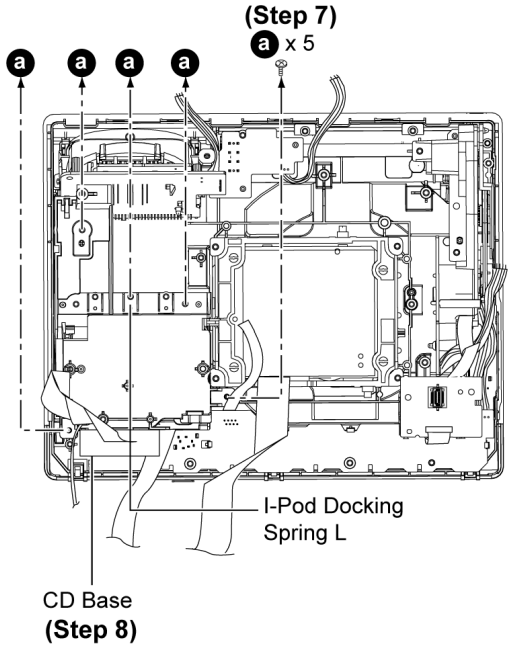
Step 2 : Remove Transformer P.C.B..

Step 3 : Remove Tuner P.C.B..

Step 4 : Remove DAB Module Unit.

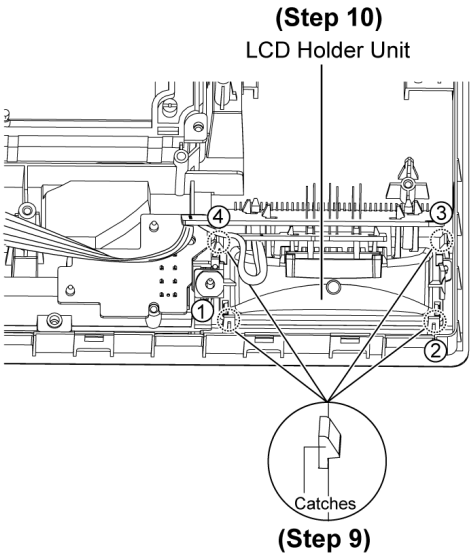
Step 5 : Remove Main P.C.B..

Step 6 : Remove USB P.C.B..



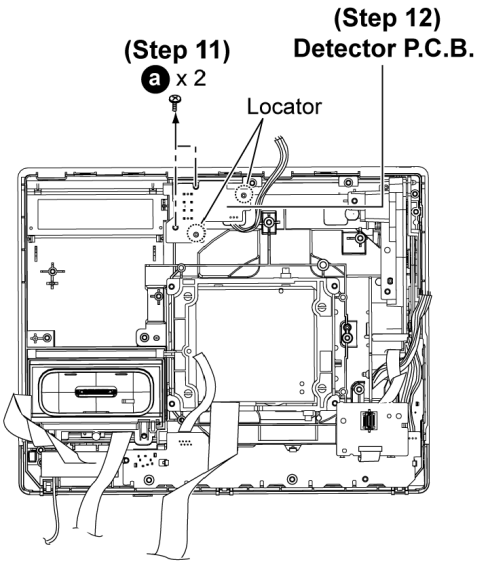
Step 7 : Remove 5 screws and I-Pod Docking Spring L together.

Step 8 : Remove CD Base.



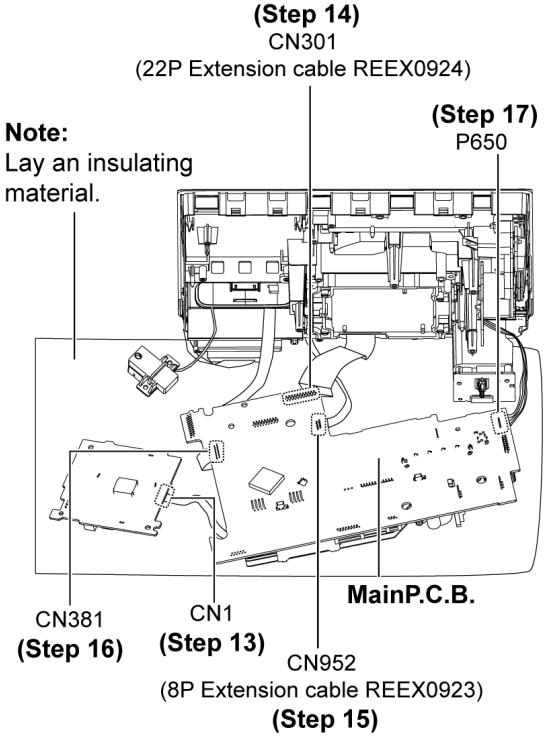
Step 9 : Release 4 catches in order of sequence.

Step 10 : Remove LCD Holder Unit.



Step 11 : Remove 2 screws.

Step 12 : Remove Detector P.C.B..



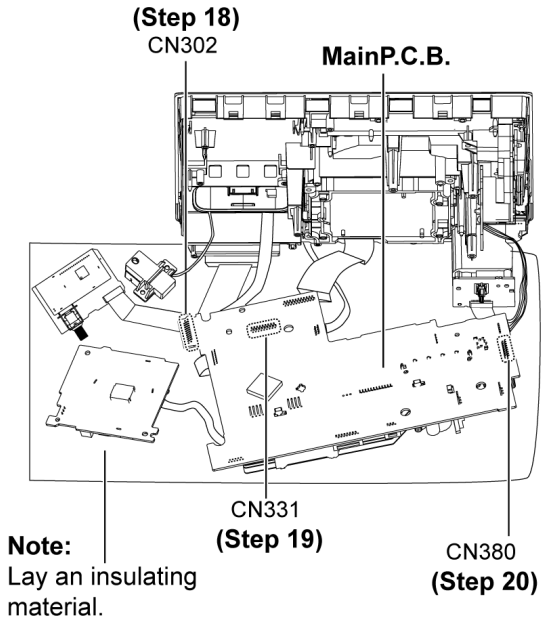
Step 13 : Connect 12P FFC cable at the connector (CN1) on Tuner P.C.B..

Step 14 : Connect 22P FFC cable at the connector (CN301) on Main P.C.B. using the extension cable (REEX0924).

Step 15 : Connect 8P FFC cable at the connector (CN952) on Main P.C.B. using the extension cable (REEX0923).

Step 16 : Connect 14P FFC cable at the connector (CN381) on Main P.C.B..

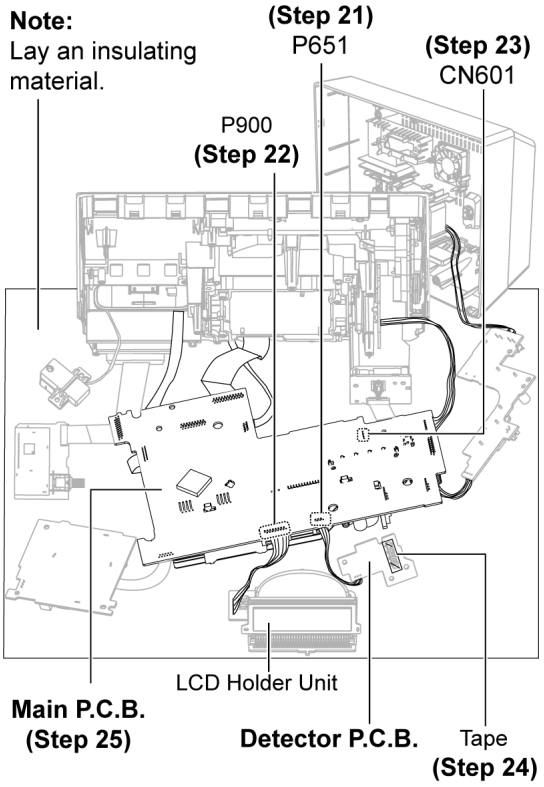
Step 17 : Connect 5P cable at the connector (P650) on Main P.C.B..



Step 18 : Connect 22P FFC cable at the connector (CN302) on Main P.C.B..

Step 19 : Connect 18P FFC cable at the connector (CN331) on Main P.C.B..

Step 20 : Connect 14P FFC cable at the connector (CN380) on Main P.C.B..



Step 21 : Connect 3P cable at the connector (P651) on Main P.C.B..

Step 22 : Connect 8P cable at the connector (P900) on Main P.C.B..

Step 23 : Connect 3P cable at the connector (CN601) on Main P.C.B..

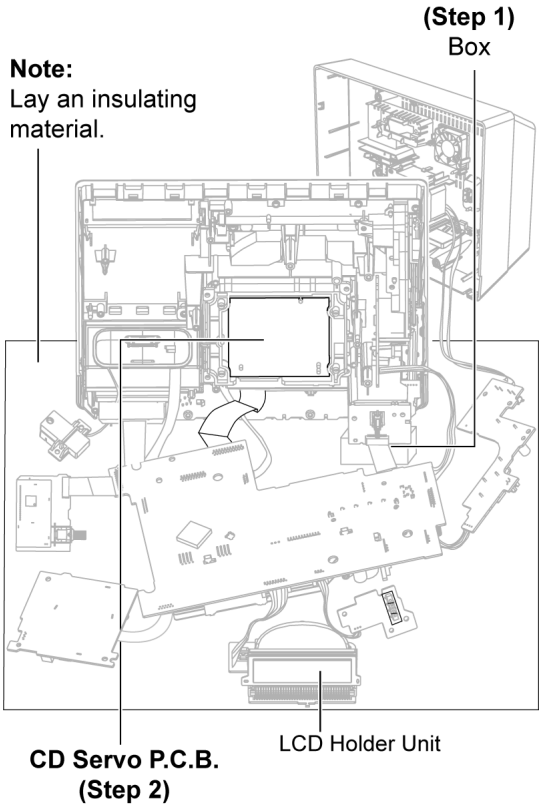
Step 24 : Use tape to keep the sensors depressed so testing can proceed.

Step 25 : Check & repair Main P.C.B. according to the diagram shown.

11.9. Checking & Repairing CD Servo P.C.B

Note : Insert CD before Checking CD Servo P.C.B.

- Follow (Step 1 - Step 24) of item 11.8



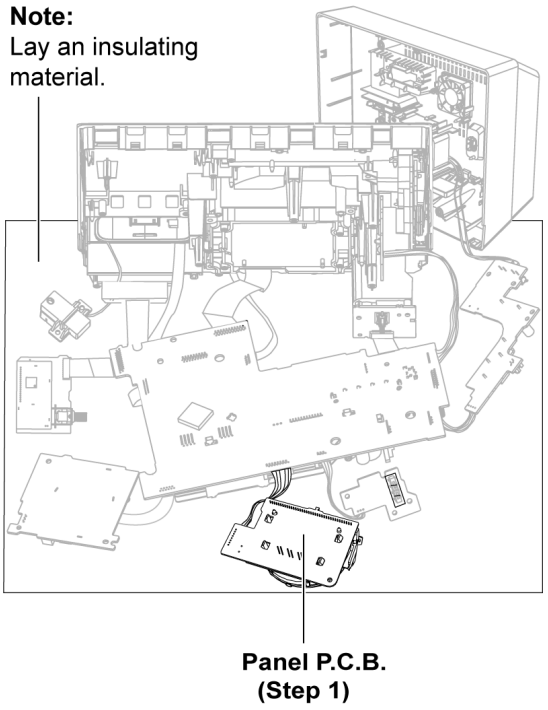
Step 1 : Place a box underneath the Rear Panel to adjust its position higher.

Step 2 : Check & repair CD Servo P.C.B. according to the diagram shown.

11.10. Checking & Repairing Panel & LED P.C.B

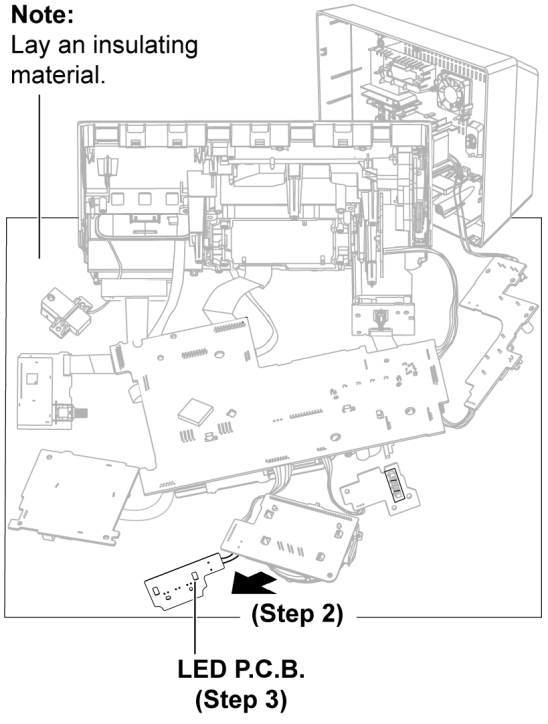
Note : Insert CD before Checking Panel & LED P.C.B.

- **Checking Panel P.C.B.**
- Follow (Step 1 - Step 24) of item 11.8



Step 1 : Flip LCD Holder Unit to check Panel P.C.B. according to the diagram shown.

- **Checking LED P.C.B.**



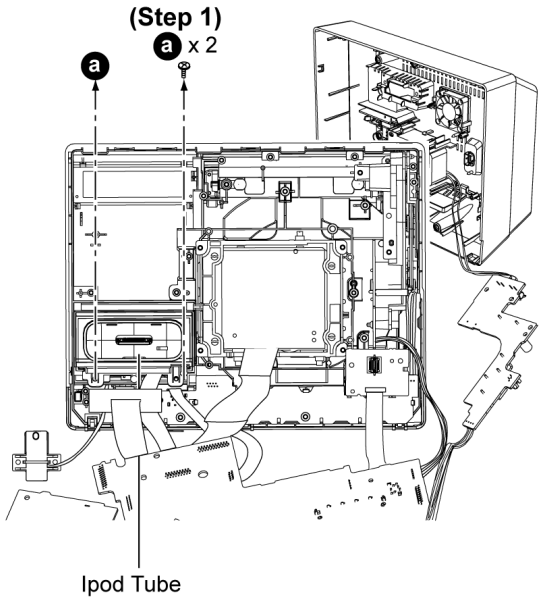
Step 2 : Remove LED P.C.B. as arrow shown.

Step 3 : Check & repair LED P.C.B. according to the diagram shown.

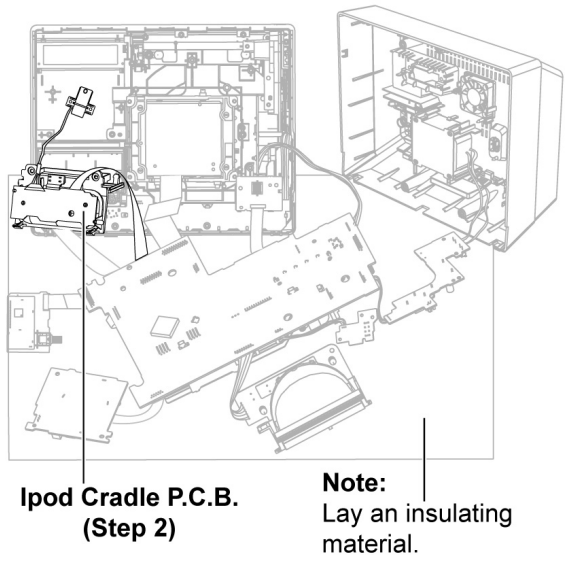
11.11. Checking & Repairing Ipod Cradle P.C.B

Note : Insert CD before Checking Ipod Cradle P.C.B.

- Follow (Step 1 - Step 24) of item 11.8



Step 1 : Remove 2 screws.



Step 2 : Check Ipod Cradle P.C.B..

12 Voltage Measurement & Waveform Chart

Note:

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.

  Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
- Circuit voltage and waveform described herein shall be regarded as reference information when probing defect point because it may differ from actual measuring value due to difference of Measuring instrument and its measuring condition and product itself.

12.1. Voltage Measurement

12.1.1. PANEL P.C.B.

Ref No.	IC900																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.72	1.72	1.71	17.1	17.1	1.72	1.71
STANDBY	0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Ref No.	IC900																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.72	1.71	1.7	1.7	1.71	3.44	3.44
STANDBY	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.4	3.4
Ref No.	IC900																			
MODE	41	42	43	44	45	46	47	48												
CD PLAY	2.35	1.17	0	0	3.39	0.11	0.1	0.2												
STANDBY	2.24	1.17	0	2.5	3.4	0.23	0	0.28												
SC-EN38DBEB PANEL P.C.B.																				

12.1.2. MAIN P.C.B.

Ref No.	IC200																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	4.32	4.32	4.32	4.34	4.34	4.33	4.33	4.34	4.33	0	4.33	4.34	4.34	4.34	4.34	4.34	0	3.43	3.43
STANDBY	0	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.22	0.1	0.4	0.33	0.33	0.33	0.33	0.33	0	0
Ref No.	IC101																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	8.59	4.34	4.33	4.34	0.72	0.02	4.34	4.32	4.34	4.32	4.34	0	4.33	4.34	4.34	4.32	4.32	4.32	0	4.32
STANDBY	0	0	0.33	0.33	0.33	0	0.33	0.33	0.33	0.33	0.33	0	0.24	0.24	0.24	0.21	0.24	0.24	0	0.17
Ref No.	IC200																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52								
CD PLAY	0	4.32	0	4.32	4.33	4.33	4.32	0	0	4.32	0	4.32								
STANDBY	0.21	0.21	0.21	0.21	0.41	0.21	0.21	0	0	0	0	0								
Ref No.	IC350																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
CD PLAY	3.34	0	1.67	1.66	3.34	0	1.66	1.65	0	0	0	3.34	1.68	1.69	0	0				
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ref No.	IC360																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	4.34	4.39	4.34	0	4.34	4.36	4.39	9.06												
STANDBY	0	0	0	0	0	0	0	0												
Ref No.	IC502																			
MODE	1	2	3	4																
CD PLAY	8.28	0	0	0																
STANDBY	8.2	0	0	0																
Ref No.	IC503																			
MODE	1	2	3	4	5															
CD PLAY	5.2	0	2.2	0	3.34															
STANDBY	0	0	0	0	0															
Ref No.	IC700																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12								
CD PLAY	7.29	14.9	6.98	0	0	1.41	7.4	10.3	1.45	1.44	0	0								
STANDBY	3.31	16.6	0	0	0	0	0.38	1.23	0	0	0	0								
Ref No.	IC801																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.36	0	0	0.13	0.13	0.1	3.39	0	0	0	0	1.6	1.5	0	1.3	1.7	3.4	1.79	3.39	0
STANDBY	0	0	0	0	0.1	0.1	3.4	0	0	0	0	1.6	1.5	0	1.3	1.7	3.4	1.7	3.4	0
Ref No.	IC801																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	0	0	3.33	3.42	2.13	0.63	0	0.65	0.66	3.39	0.65	3.39	0.05	0	0.05	1.79	3.33	0	3.4
STANDBY	0	0	0	0	3.42	2.15	0.26	0	0.26	0.21	0	0.3	0	0	0	0	1.79	0	0	0
Ref No.	IC801																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	3.4	3.39	3.43	3.39	0.02	3.4	3.4	0	0	0.7	0	0	0	0	0	0	0	0	0	0
STANDBY	0	0	3.43	0	0	3.43	3.43	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC801																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	0	3.39	0	3.39	0	0	0	0	0	0	0	0.31	0	0	0.32	3.1	0	0	3.37	3.43
STANDBY	0.99	0	0	3.4	0	0	0	0	0	0	0	0	0	0	0	3.1	0	0	3.3	3.4
Ref No.	IC801																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	0	0	0	0	0	3.43	0.54	0	0	0	3.43	0	0.64	0	2.45	0.26	0	0	3.44
STANDBY	0	0	0	0	0	0	3.4	0	0	0	0	3.4	0	0.43	0	0	0.26	0	0	3.4
Ref No.	Q301				Q380				Q381				Q382				Q500			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	3.33	0	3.34		3.4	0	2.9		0	3.37	0		0.19	0	0.19		16	15.9	15.1	
STANDBY	0	0	3.4		3.43	0	2.9		0	3.37	0		0.28	0	0.29		18.8	0	18.3	

Ref No.	Q501				Q502				Q503				Q504				Q505			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	8.4	15.9	9		14.1	9.08	14.1		8.39	15.6	8.98		7.56	5.19	6.95		4.45	6.95	4.01	
STANDBY	8.4	18.8	9		0.04	0	0.07		0	4.57	0		0.18	0	0.11		0	0	0.11	
Ref No.	Q508				Q509				Q510				Q511				Q512			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	2.76	7.3	3.2		7.25	5.6	7.3		2.76	7.8	3.41		7.04	8.6	7.6		9.08	7.85	8.45	
STANDBY	0	0	0		0	0	0.03		0	0	0.03		0	0.14	0		0	0	0.15	
Ref No.	Q720				Q740				Q841				Q851				Q852			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0	0.66		0	0	0.66		9.22	14.7	4.79		0	0.36	0		0	0.2	0	
STANDBY	0	0	0.68		0	0	0.68		4.23	16.4	4.83		0	0.46	0		0	0.36	0	
Ref No.	QR384				QR501				QR504				QR380				QR381			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0.18	0		0	0.22	0		0	0.66	0		0	0	3.2		0	0	3.2	
STANDBY	0	0.28	0		0	16	0		0	0	0		0	0	3.2		0	0	3.2	
Ref No.	QR382				QR383				QR503				QR505				QR506			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0	3.2		0	0	3.2		0	4.58	0		5.62	3.4	5.62		0	5.6	0	
STANDBY	0	0	3.2		0	0	3.2		0	-0.1	0.34		0	0	0		0	0	0	
Ref No.	QR804				QR841															
MODE	E	C	B		E	C	B													
CD PLAY	3.34	3.37	0.28		0	3.39	0													
STANDBY	3.43	3.37	0.27		0	3.4	0													

SC-EN38DBEB MAIN P.C.B.

12.1.3. TUNER P.C.B.

Ref No.	IC1																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.2	2.2	2.2	0	5	5	2.2	4.7	2.2	3.2	3.8	0	2.3	0	0	3.2	3.2	0.1	1.1	0.8
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC1																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
CD PLAY	2.3	2.2	0.9	2	0.9	2	2	0.9	0	1.4	5	5	5	5	0	0				
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ref No.	Q2																			
MODE	E	C	B																	
CD PLAY	1.6	0	0.9																	
STANDBY	0.4	0	0																	

SC-EN38DBEB TUNER P.C.B.

12.1.4. CD SERVO P.C.B.

Ref No.	IC7001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	4.34	0	0	0	0	0	0	3.2
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC7001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	1.6	0	1.6	1.6	1.8	0	3.2	1.5	3.2	3.2	0	1.6	1.6	0	0	1.9	1.9	0	1.7	1.7
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC7001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0.2	2.4	1.7	1.9	1	0	3.2	1.2	0	1.2	1.6	1.6	0.9	1.4	1.5	1.5	0	3.2	0	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC7001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	3.2						3	3	3	2.9	0	3.2	0	1.6	0	1.6	3.2	0	3.2	1.6
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC7001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	1.6	1.6	0	0	0	0	0	0	0	0	0	0	3.2	0	0	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC7002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.6	0	1.5	0	0	0	0	0	0	0	1.7	3.2	3.2	3.2	2.8	3.8	3.2	3.2	0	7.1
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC7002																			
MODE	21	22	23	24	25	26	27	28	29	30										
CD PLAY	0	0	0	0	7.1	1.6	1.6	1.6	0	0										
STANDBY	0	0	0	0	0	0	0	0	0	0										
Ref No.	Q7601																			
MODE	E	C	B																	
CD PLAY	3.1	2	2.4																	
STANDBY	0	0.1	0																	

SC-EN38DBEB CD SERVO P.C.B.

12.1.5. TRANSFORMER P.C.B.

Ref No.	Q7601																			
MODE	E	C	B																	
CD PLAY	0	2.1	0.25																	
STANDBY	0	2.1	0.27																	

SC-EN38DBEB TRANSFORMER P.C.B.

12.1.6. IPOD CRADLE P.C.B.

Ref No.	Q1007				QR1005				QR1006				QR1007				QR1008			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	4.7	0		0	0	4.6		0	0	4.6		0	0	2.59		0	0	0.01	
STANDBY	0	4.79	0		0	0	0		0	0.28	0		0	0	2.59		0	0	0	

SC-EN38DBEB IPOD CRADLE P.C.B.

12.1.7. MOTOR P.C.B.

Ref No.	IC650																			
MODE	1	2	3	4	5	6	7	8	9											
CD PLAY	0	0	0	0	0	5.62	0	0	0.08											
STANDBY	0	0	0	0	0	0	0	0	0											
SC-EN38DBEB MOTOR P.C.B.																				

12.1.8. DAB MODULE P.C.B.

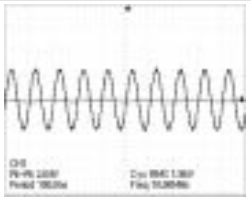
Ref No.	IC1																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	1.7	1.7	3.3	2.2	1.2	1.2	0	0	0	0	0	0	0	0	0	0	0	0	3.3
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC1																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	0	0	0	0	0	0	1.2	0	3.3	0	0	0	0	1.3	1.7	1.6	0	1.2	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC1																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0	0	0	3.3	1.2	0	3.3	3.2	0	0	3.2	0	0	0	0	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC1																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	0	0	3.3	3.3	1.7	1.5	0	0	0	3.3	1.2	0	3.3	0	0	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC3																			
MODE	1	2	3	4	5															
CD PLAY	0	0	3.1	5	3.3															
STANDBY	0	0	0	0	0															
Ref No.	IC4																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
CD PLAY	1.3	1.6	0	1.7	3.1	0	0	0	3.3	1.8	0	1.8	0	3.3	3.3	3.3				
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ref No.	IC201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.6	3.3	2.5	3.3	0	0	0	0	1.5	0.6	0.6	0.6	0	3.3	0	3.3	0	0	3.2	2.4
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC201																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	3.2	1.6	1.6	1.8	1.7	1.2	1.7	1.7	3.1	2.3	3.3	0	1.5	0	0	0	3.1	0	1. 6	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	Q1				Q2				Q201				Q202							
MODE	E	C	B		E	C	B		E	C	B		E	C	B					
CD PLAY	0	1.3	0		0	1.5	1		3.3	3.3	0		0	0	1.5					
STANDBY	0	0	0		0	0	0		0	0	0		0	0	0					
SC-EN38DBEB DAB MODULE P.C.B.																				

12.1.9. USB P.C.B.

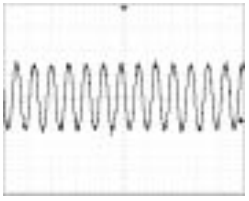
Ref No.	IC900																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.3	3.2	3.2	0	0	0	3.2	3.2	3.2	1.8	0	1.5	0	0	0	0	3.2	0	0	0
STANDBY	0	0	0	0	0	0	0.6	0	0.6	0.6	0	0	0	0	0	0	0	0	0	0
Ref No.	IC900																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	3.3	3.3	3.3	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	3.3	1.4	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0
Ref No.	IC900																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	1.4	1.2	1.8	0	1.4	3.2	3.2	0.1	3.2	0	0	1.2	0.1	0	1.4	3.1	3.1	3.1	0	1.3
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC900																			
MODE	61	62	63	64																
CD PLAY	0	1.8	1.4	3.2																
STANDBY	0	0.6	0	0																
Ref No.	IC951																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	5	5	3.2	3.3	0.5	0.5	0.5												
STANDBY	0	0	0	0.6	0	0	0	0												

SC-EN38DBEB USB P.C.B.

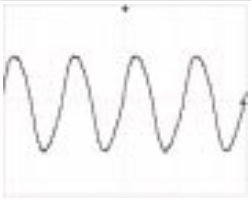
12.2. Waveform Chart



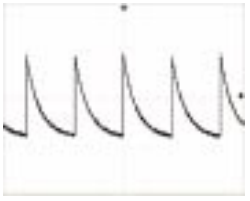
IC200 PIN 40, 52
CD PLAY
115.3mVp-p (500msec.div)



IC801 PIN 16
CD PLAY
2.70Vp-p (10msec.div)

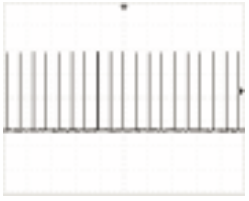


IC801 PIN 12
CD PLAY
1.68Vp-p (50msec.div)



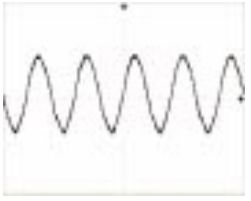
IC801 PIN 94
CD PLAY
212mVp-p (500msec.div)

IC801 PIN 6
CD PLAY
13.68Vp-p (50msec.div)

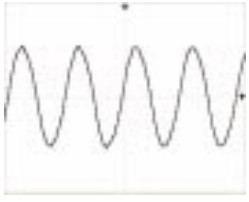


IC801 PIN 29
CD PLAY
3.36Vp-p (25msec.div)

IC801 PIN 33
CD PLAY
3.60Vp-p (10msec.div)

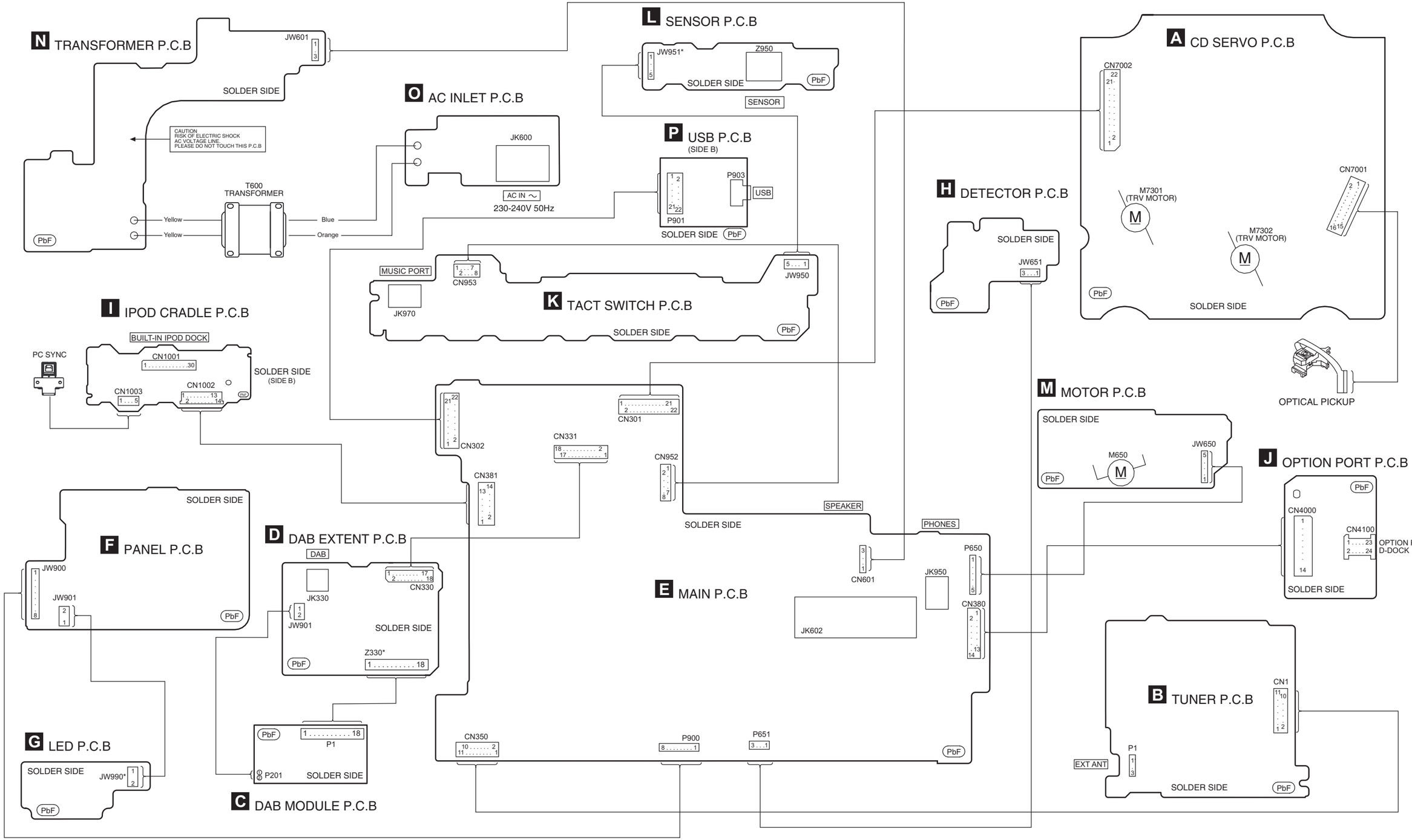


IC7001 PIN 38
CD PLAY
448mVp-p (10msec.div)



IC7001 PIN 80
CD PLAY
872mVp-p (25msec.div)

13 Wiring Connection Diagram

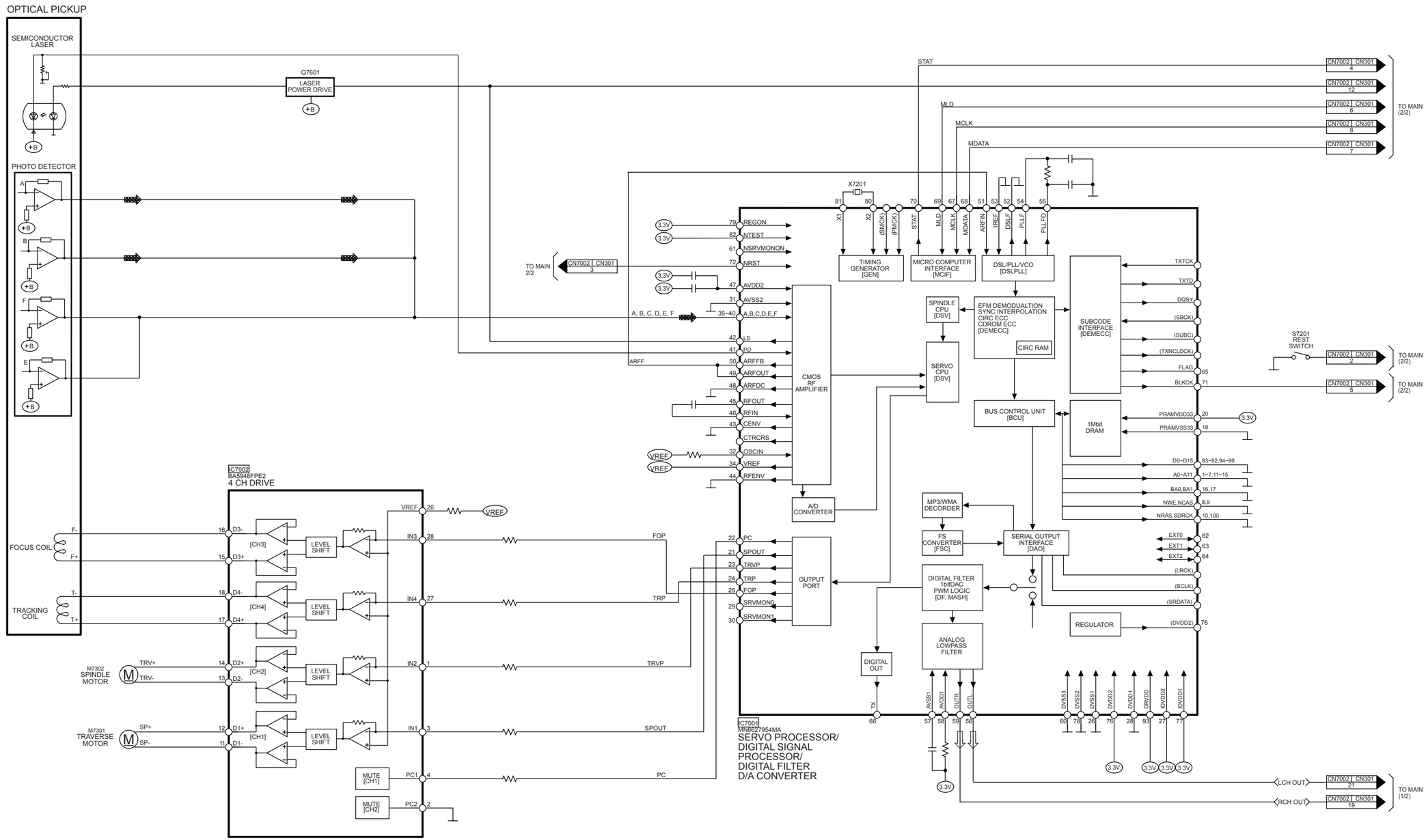


Note : * For indication only

SC-EN38DBEB

14 Block Diagram

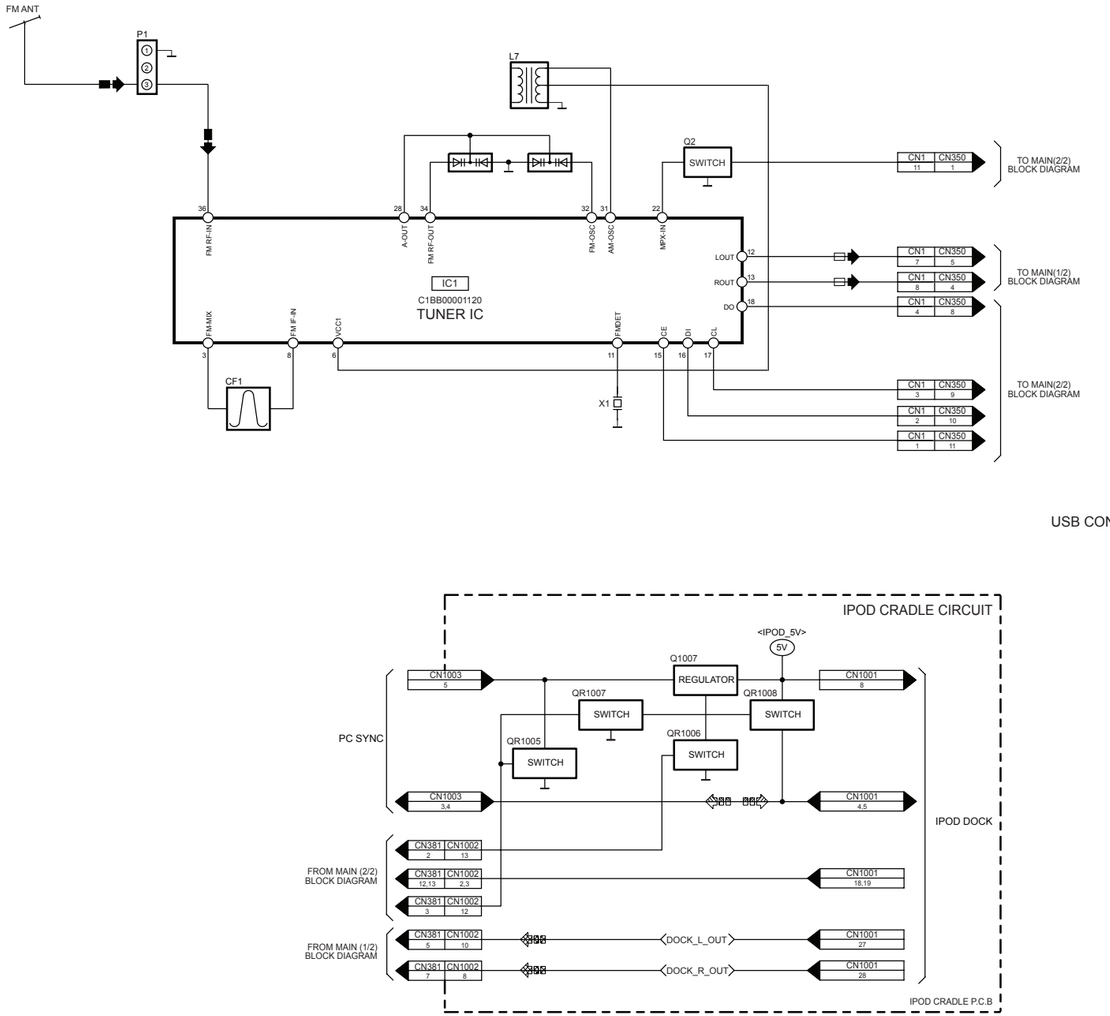
14.1. CD SERVO BLOCK DIAGRAM

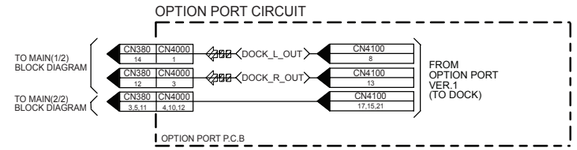


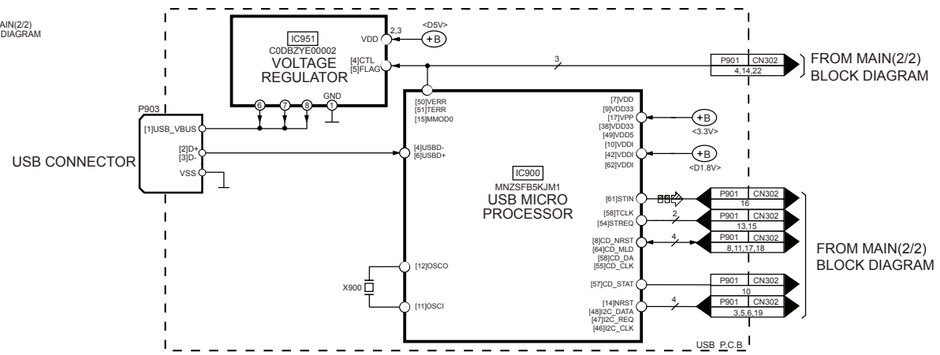
CD SERVO P.C.B

SA-EN38DBEB CD SERVO BLOCK DIAGRAM

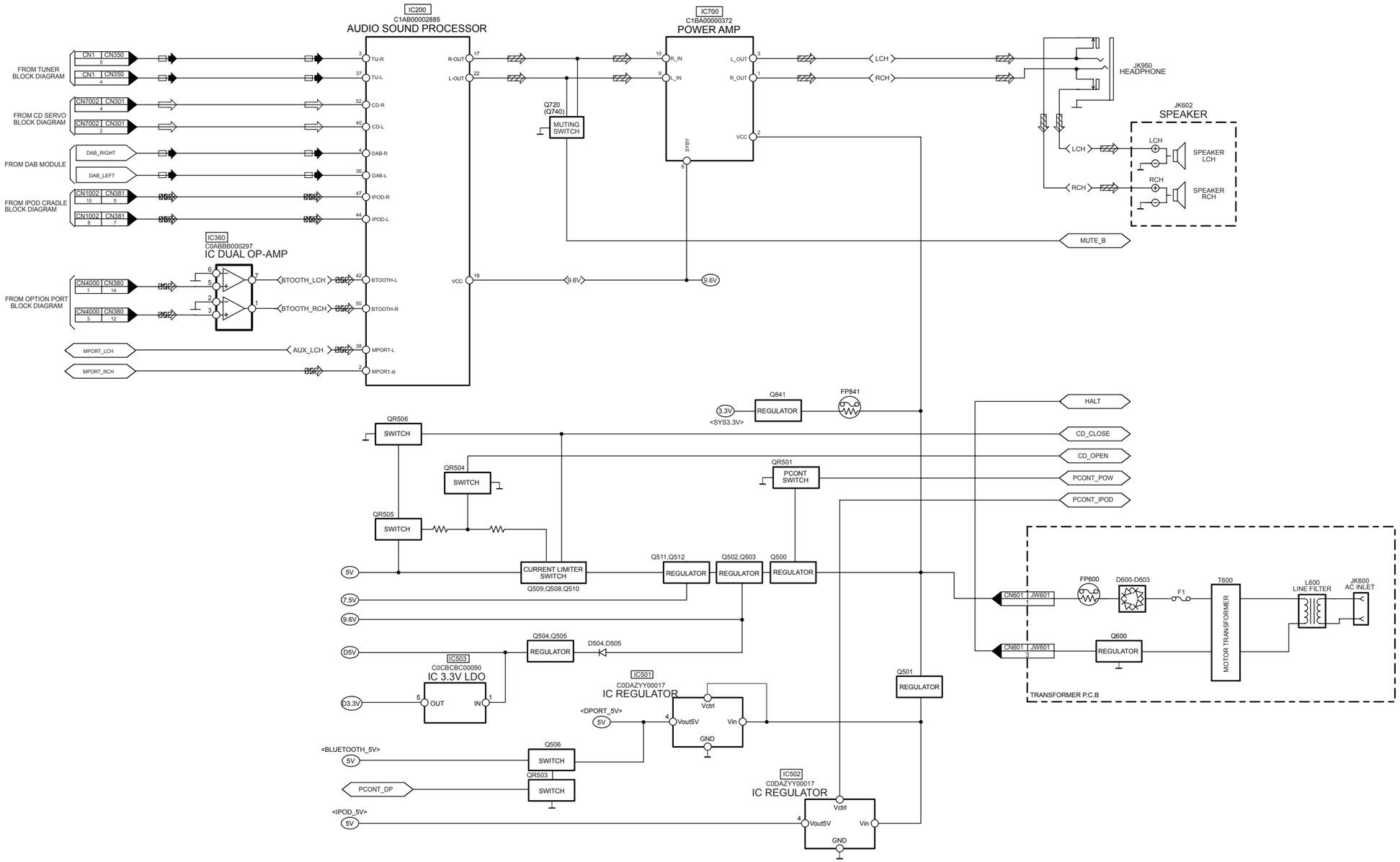
14.2. TUNER / IPOD CRADLE / USB / OPTION PORT BLOCK DIAGRAM





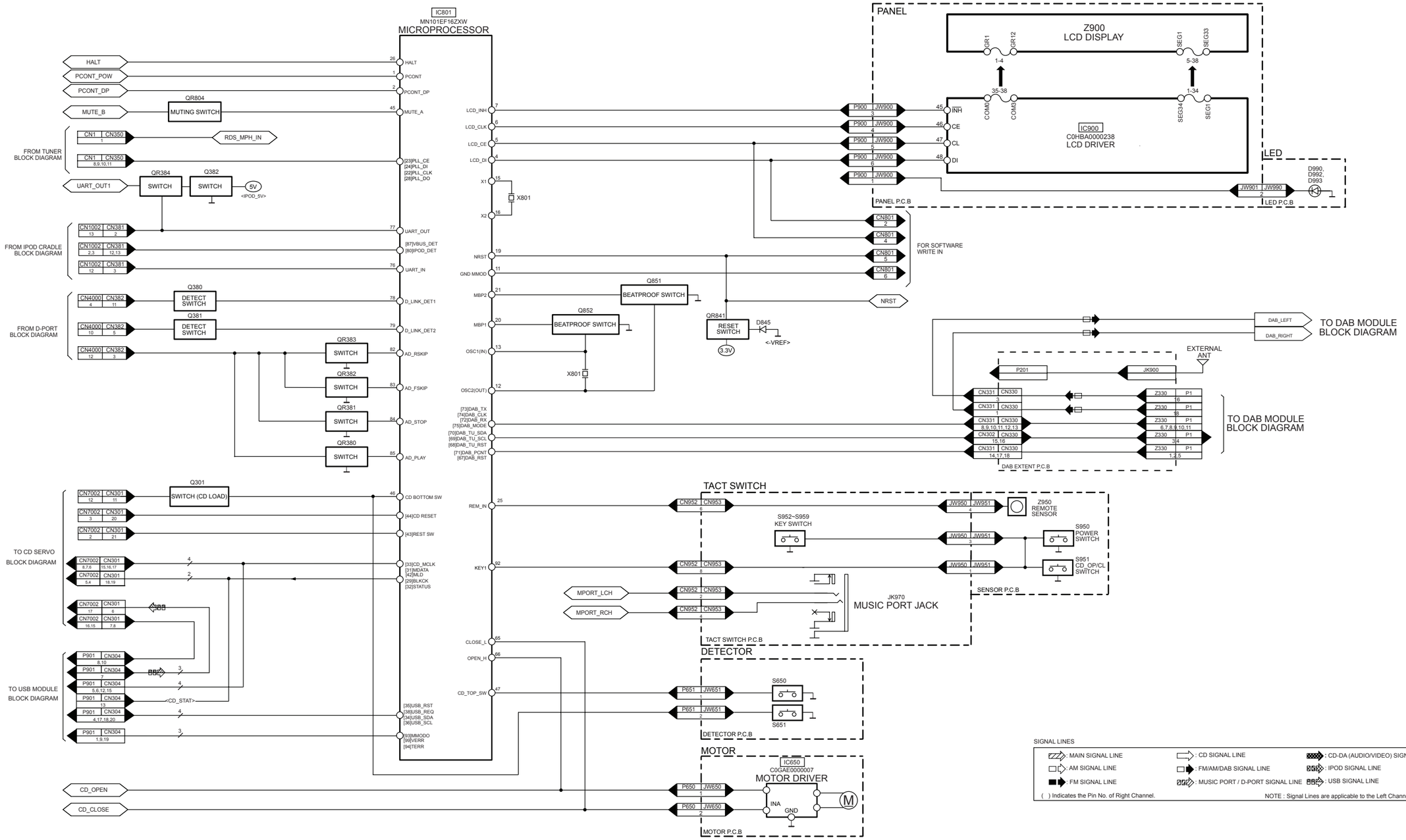


14.3. MAIN (1/2) / TRANSFORMER BLOCK DIAGRAM



SA-EN38DBEB MAIN (1/2) / TRANSFORMER BLOCK DIAGRAM

14.4. MAIN (2/2) / PANEL / SENSOR / DAB EXTENT / TACT SWITCH / DETECTOR / MOTOR BLOCK DIAGRAM



SIGNAL LINES

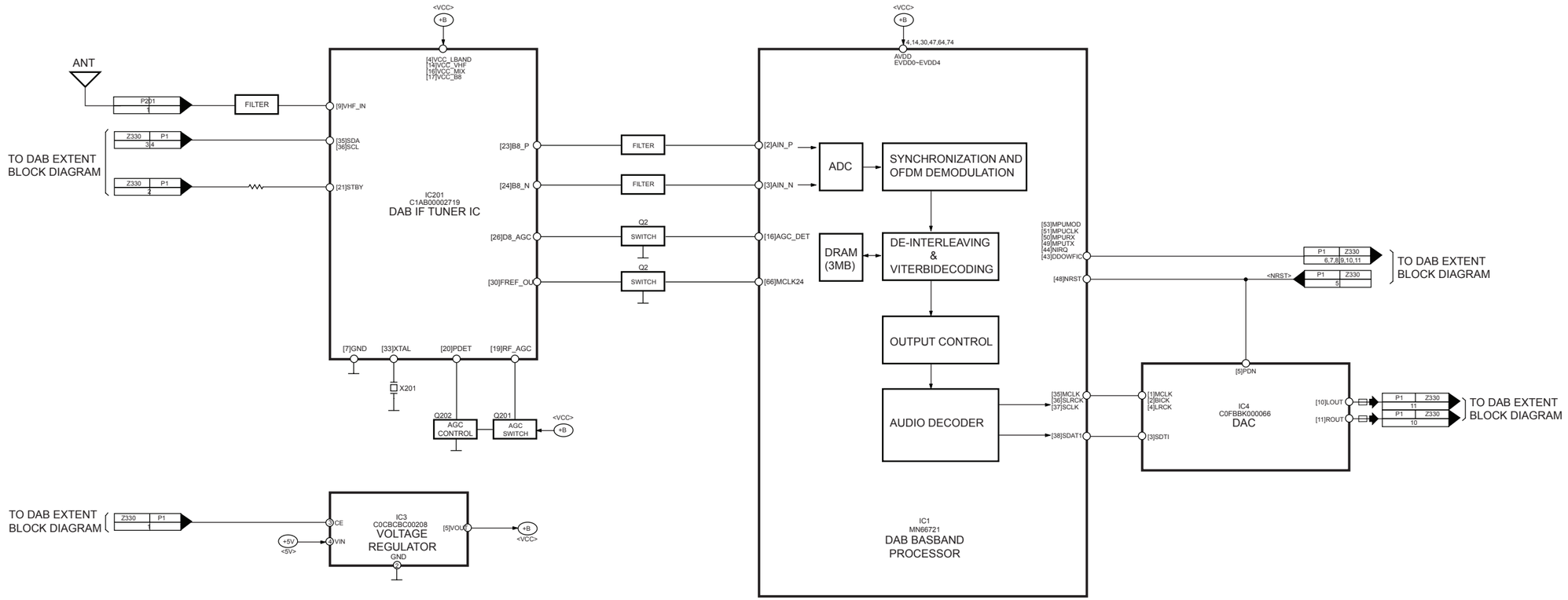
: MAIN SIGNAL LINE	: CD SIGNAL LINE	: CD-DA (AUDIO/VIDEO) SIGNAL LINE
: AM SIGNAL LINE	: FM/AM/DAB SIGNAL LINE	: IPOD SIGNAL LINE
: FM SIGNAL LINE	: MUSIC PORT / D-PORT SIGNAL LINE	: USB SIGNAL LINE

( ) Indicates the Pin No. of Right Channel.

NOTE : Signal Lines are applicable to the Left Channel only.

SA-EN38DBEB MAIN (2/2) / PANEL /SENSOR / DAB EXTENT / TACT SWITCH / DETECTOR / MOTOR BLOCK DIAGRAM

14.5. DAB MODULE BLOCK DIAGRAM



DAB MODULE P.C.B

SA-EN38DBEB DAB MODULE BLOCK DIAGRAM

SC-EN38DBEB

15 Notes Of Schematic Diagram

(All schematic diagrams may be modified at any time with the development of new technology)

Notes:

S650:	CD Top switch.
S651:	CD Bottom switch.
S950:	Power switch. (Power ⏻/I)
S951:	CD Open/Close. (CD Open/Close ⏏)
S952:	Vol-. (Volume -)
S953:	Vol+. (Volume +)
S954:	FM/AM / Music Port.
S955:	Ipod switch. (ipod ▶/II)
S956:	Stop switch. (■)
S957:	CD switch. (CD ▶/II)
S958:	REV_Skip switch. (∨ / I◀◀)
S959:	FWD_Skip switch. (∧ / ▶▶I)
S7201:	Rest switch.

- * For Indication only.

- **Importance safety notice :**

  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
  When replacing any of components, be sure to use only manufacturer´s specified parts shown in the parts list.

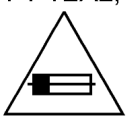
- Capacitor values are in microfarad(μF) unless specified otherwise, F=Farad, pF=Pico-Farad

  Resistance values are in ohm(Ω), unless specified otherwise, 1K=1,000Ω, 1M=1,000KΩ

- **Voltage and Signal lines:**

  : +B Signal line
  : CD-DA signal line
  : CD signal line
  : DAB/AM/FM signal line
  : FM signal line
  : AM signal line
  : MAIN signal line
  : Music Port / D-DOCK signal line
  : USB signal line
  : Ipod Audio signal line
  : RF signal line

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F1 T2AL, 250V FUSE



RISK OF FIRE-REPLACE FUSE AS MARKED.

FUSE CAUTION

These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire harzard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.

16 Schematic Diagram

16.1. CD SERVO CIRCUIT

SCHEMATIC DIAGRAM-1

⚠ OPTICAL PICKUP CIRCUIT (FOR REFERENCE ONLY)

A CD SERVO CIRCUIT

—— : + B SIGNAL LINE ⇒ : CD-DA SIGNAL LINE ⇨ : CD SIGNAL LINE

LASER DIODE

CN7001

Q7601
B1ADCF000001
LASER POWER DRIVE

IC7001
MN6627954MA
SERVO PROCESSOR/
DIGITAL SIGNAL PROCESSOR/
DIGITAL FILTER D/A CONVERTER

IC7002
BA5948FPE2
4 CH DRIVE IC

CN7002

LB7262-LB7264
D0GBR00JA008

D7650
MAZ80560ML

X7201
H2B169500005

S7201
REST SW

TRAVERSE MOTOR
M7301*

SPINDLE MOTOR
M7302*

TO **E**
MAIN CIRCUIT
(CN301) IN
SCHEMATIC
DIAGRAM-7

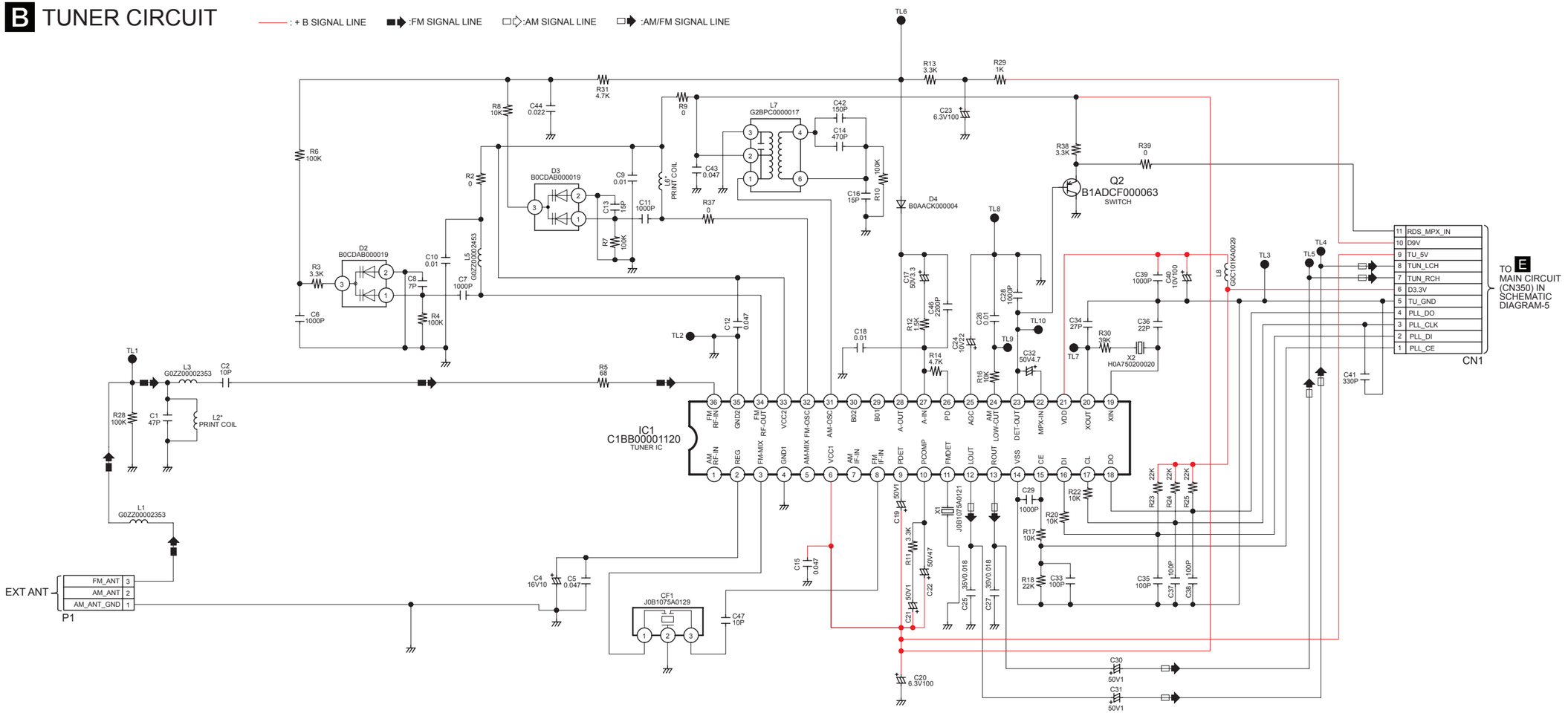
SA-EN38DBEB CD SERVO CIRCUIT

16.2. TUNER CIRCUIT

SCHEMATIC DIAGRAM-2

B TUNER CIRCUIT

: + B SIGNAL LINE :FM SIGNAL LINE :AM SIGNAL LINE :AM/FM SIGNAL LINE



SA-EN38DBEB TUNER CIRCUIT

16.3. DAB MODULE CIRCUIT

SCHEMATIC DIAGRAM-3

C DAB MODULE CIRCUIT

: + B SIGNAL LINE : DAB SIGNAL LINE : RF SIGNAL LINE

IC201
C1AB00002719
DAB IF TUNER IC

IC1
MN66721
DAB BASEBAND PROCESSOR

IC3
C0CBCBC00208
VOLTAGE REGULATOR

IC4
C0FBBK000066
DAC

Q2
2SC4627J0L
SWITCH

Q1
UNR9211J0L
SWITCH

Q201
UNR9111J0L
SWITCH

Q202
UNR9211J0L
SWITCH

TO D DAB EXTENT CIRCUIT IN SCHEMATIC DIAGRAM-4

TO D DAB EXTENT CIRCUIT (Z330*) IN SCHEMATIC DIAGRAM-4

P201: RF_INPUT, RF_GND

P1: DAB_PON, RF_RST, PLL_SCL, PLL_SDA, NRST, MPUMOD, MPUCLK, MPURX, MPUTX, NIRQ, D_DOWFIC, GND, GND, 5V, 5V, DAB_LCH, AGND, DAB_RCH

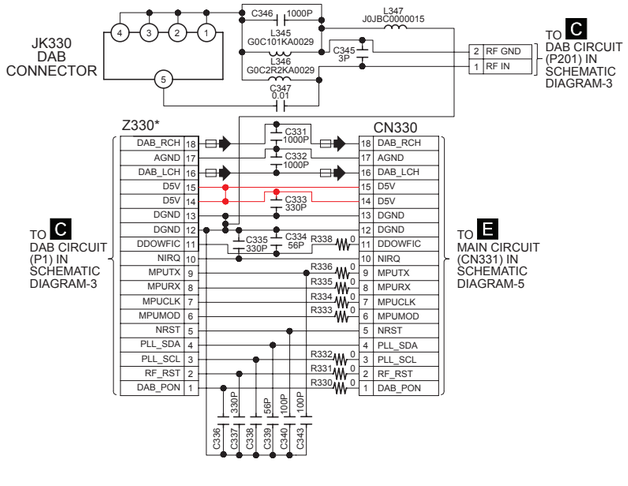
SA-EN38DBEB DAB MODULE CIRCUIT

16.4. DAB EXTENT CIRCUIT

SCHEMATIC DIAGRAM-4

D DAB EXTENT CIRCUIT

: +B SIGNAL LINE : DAB SIGNAL LINE



SA-EN38DBEB DAB EXTENT CIRCUIT

16.5. MAIN CIRCUIT

SCHEMATIC DIAGRAM-5

E MAIN CIRCUIT

—— : +B SIGNAL LINE : MAIN SIGNAL LINE : IPOD AUDIO SIGNAL LINE : FM/AM SIGNAL LINE : MUSIC PORT / D-DOCK SIGNAL LINE

TO B TUNER CIRCUIT (CN1) IN SCHEMATIC DIAGRAM-2

TO D DAB EXTENT CIRCUIT (CN330) IN SCHEMATIC DIAGRAM-4

CN350: PLL_CE, PLL_DI, PLL_CLK, PLL_DO, TU_GND, D3.3V, TUN_RCH, TUN_LCH, TU_5V, D9V, RDS_MPX_IN

CN331: DAB_RCH, AGND, DAB_LCH, D5V, D5V, DGND, DGND, DDOWFIC, NIRQ, MPUTX, MPURX, MPUCLK, MPUMOD, NRST, PLL_SDA, PLL_SCL, RF_RST, DAB_PON

IC200 C1AB00002885 ASP IC

IC360 C0ABBB000297 DUAL OP-AMP IC

IC700 C1BA00000372 POWER AMP IC

Q720, Q740 B1ABGD000022 MUTING SWITCH

Q380 B1ADCE000012 DOCK DETECT SWITCH

Q381 B1ABEB000002 DOCK DETECT SWITCH

QR380 - QR383 B1GBCFGN0016 SWITCH

Q382 B1ADCE000012 SWITCH

QR384 B1GBCFJJ0051 SWITCH

JK602 SPEAKERS

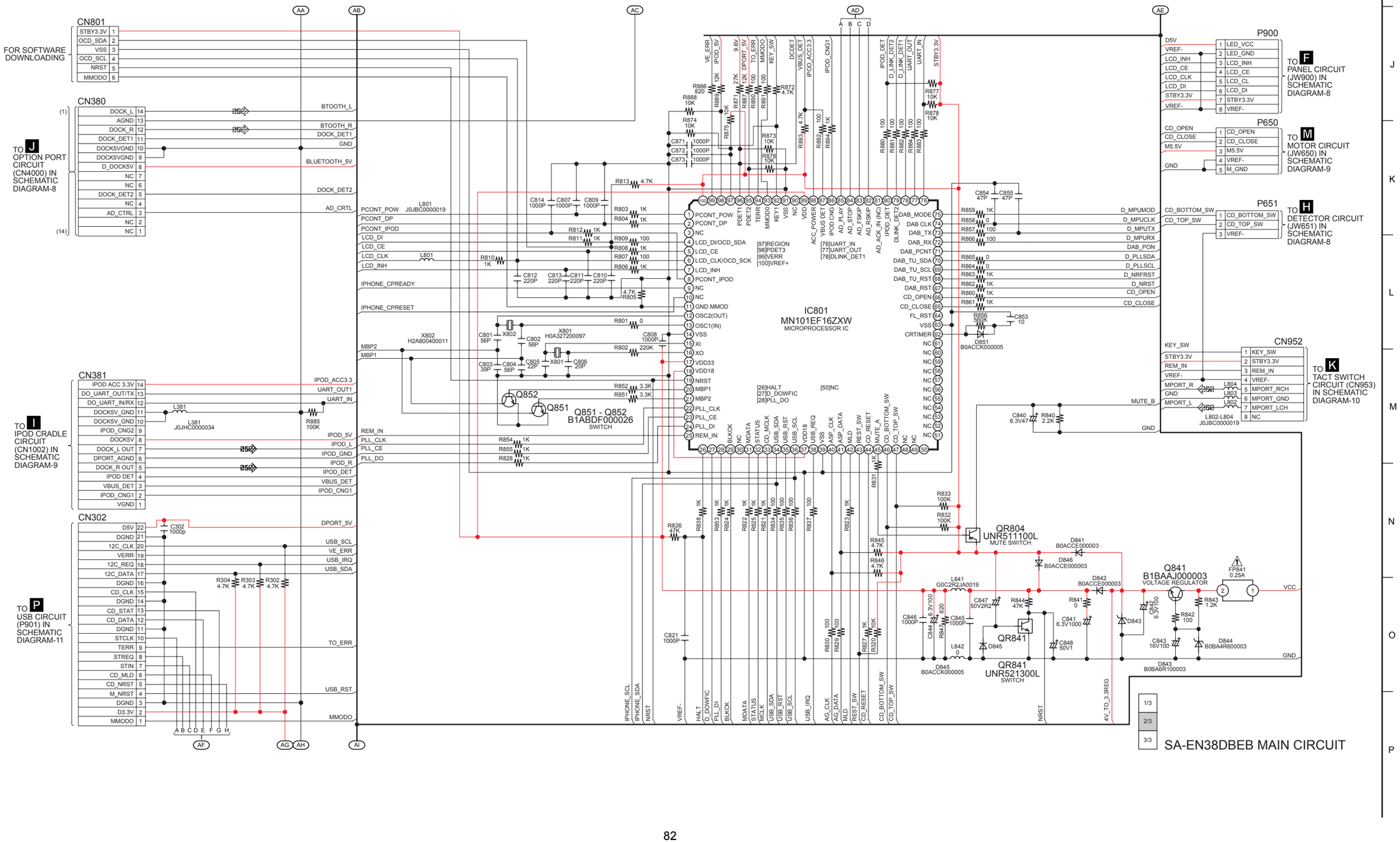
JK950 PHONES

SA-EN38DBEB MAIN CIRCUIT

SCHEMATIC DIAGRAM-6

E MAIN CIRCUIT

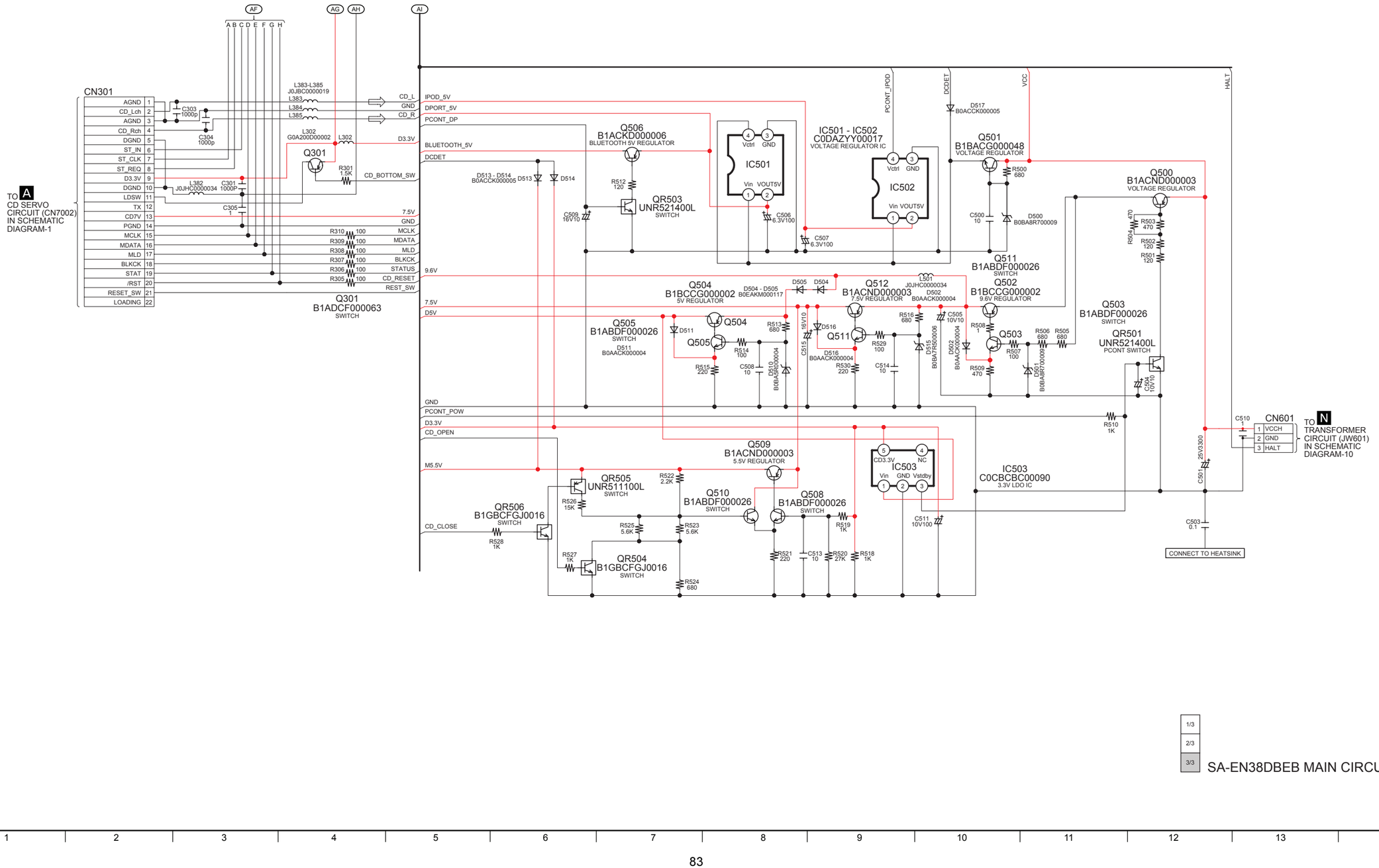
——: +B SIGNAL LINE　　: MUSIC PORT / D-DOCK SIGNAL LINE　　: IPOD AUDIO SIGNAL LINE



SCHEMATIC DIAGRAM-7

E MAIN CIRCUIT

—— : +B SIGNAL LINE ⇨: CD SIGNAL LINE



1/3
2/3
3/3

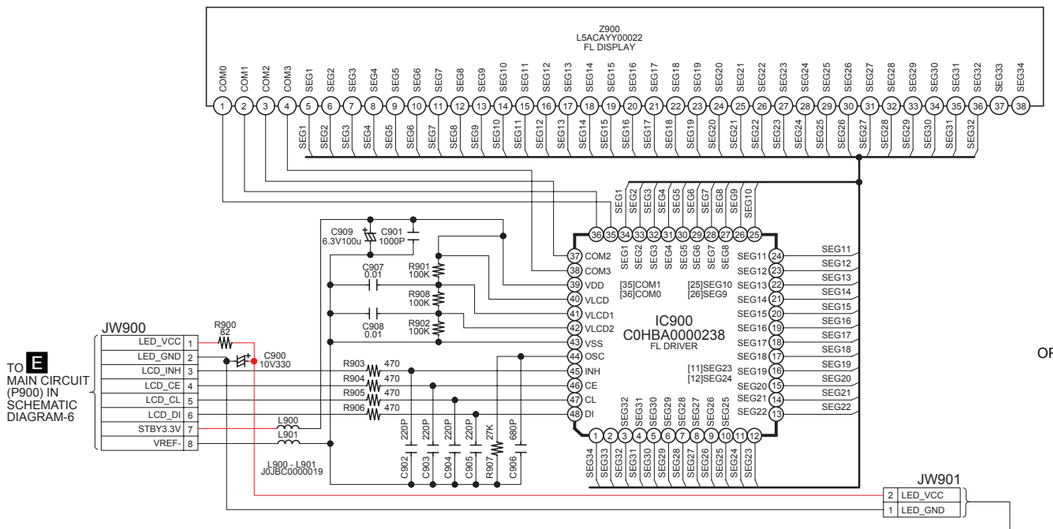
SA-EN38DBEB MAIN CIRCUIT

16.6. PANEL CIRCUIT, LED CIRCUIT, DETECTOR CIRCUIT and OPTION PORT CIRCUIT

SCHEMATIC DIAGRAM-8

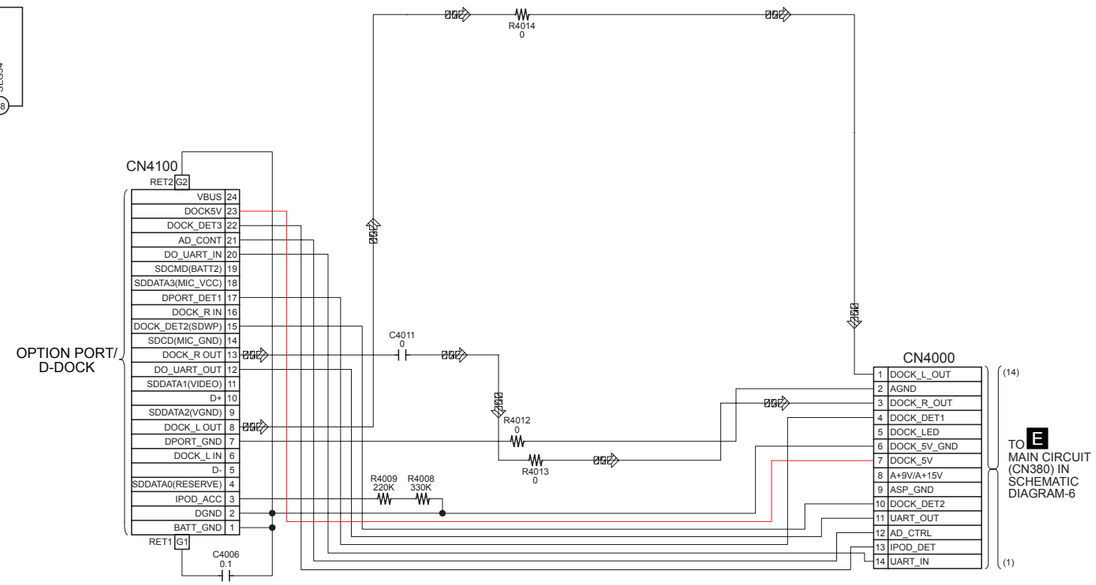
F PANEL CIRCUIT

: +B SIGNAL LINE

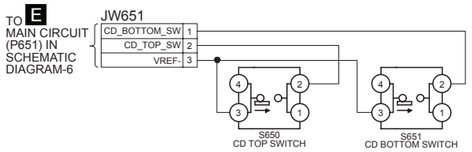


J OPTION PORT CIRCUIT

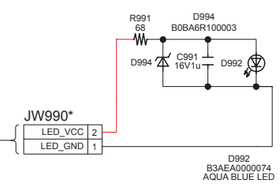
: D-DOCK SIGNAL LINE



H DETECTOR CIRCUIT



G LED CIRCUIT



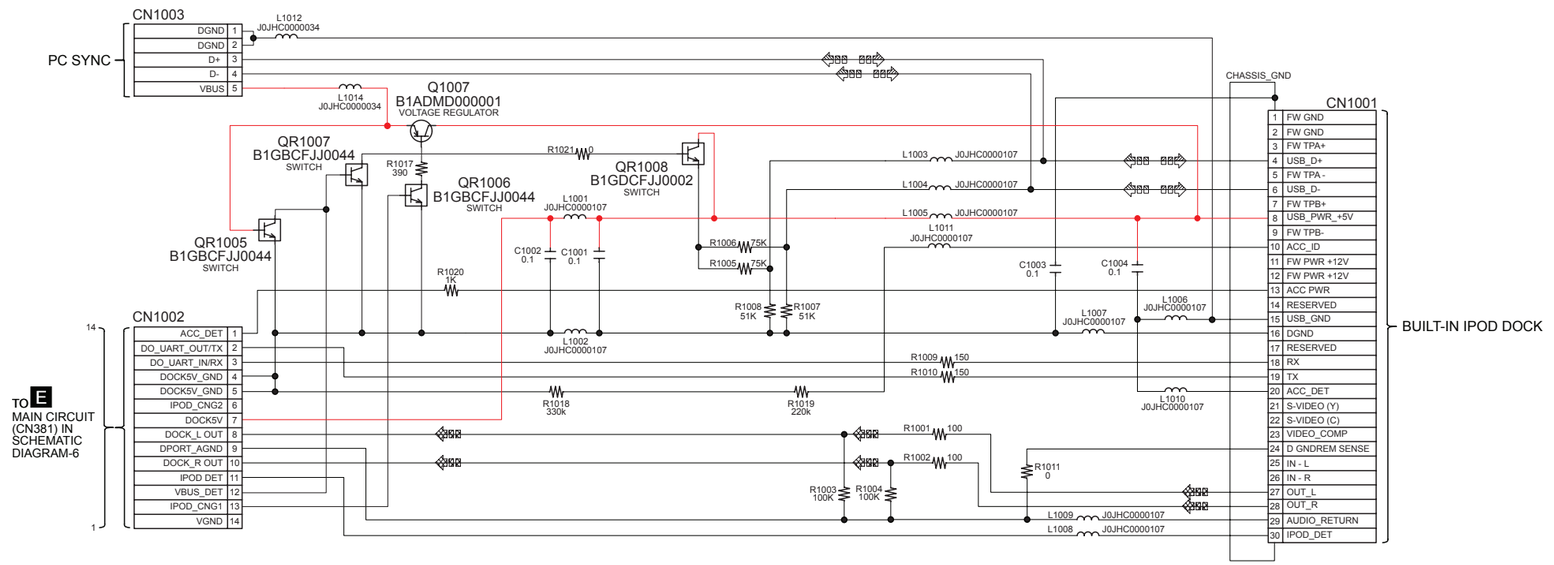
SA-EN38DBEB PANEL / LED / DETECTOR / OPTION PORT CIRCUIT

16.7. IPOD CRADLE CIRCUIT and MOTOR CIRCUIT

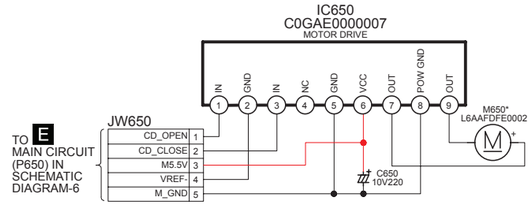
SCHEMATIC DIAGRAM-9

I IPOD CRADLE CIRCUIT

—— : +B SIGNAL LINE : IPOD AUDIO SIGNAL LINE : USB SIGNAL LINE



M MOTOR CIRCUIT

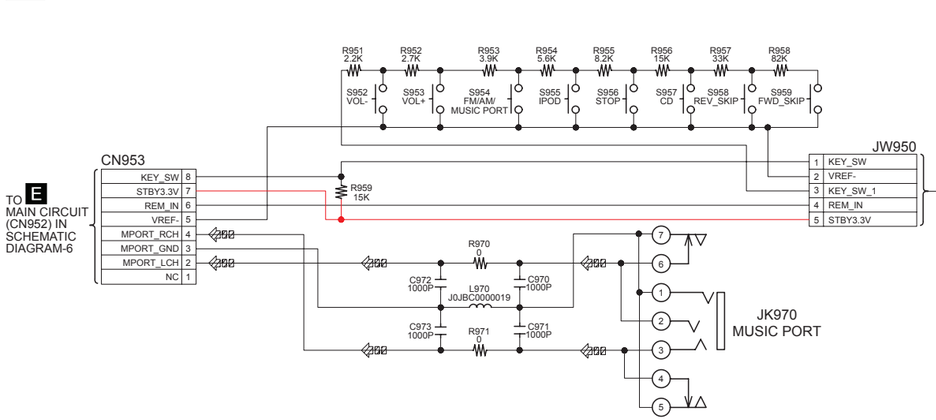


SA-EN38DBEB IPOD CRADLE / MOTOR CIRCUIT

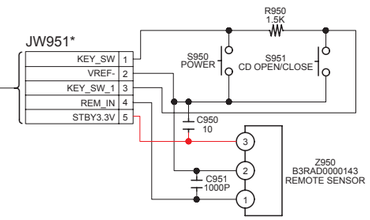
16.8. TACT SWITCH CIRCUIT, SENSOR CIRCUIT, TRANSFORMER CIRCUIT and AC INLET CIRCUIT

SCHEMATIC DIAGRAM-10

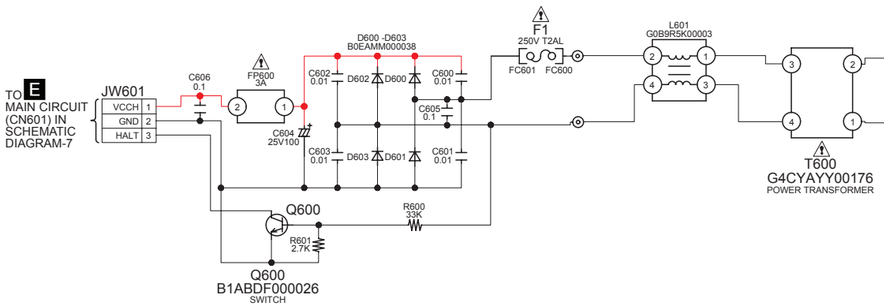
K TACT SWITCH CIRCUIT



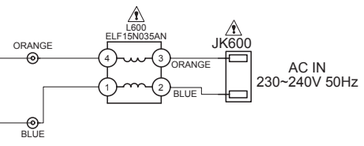
L SENSOR CIRCUIT



N TRANSFORMER CIRCUIT



O AC INLET CIRCUIT



SA-EN38DBEB TACT SWITCH/SENSOR/TRANSFORMER/AC INLET CIRCUIT

16.9. USB CIRCUIT

SCHEMATIC DIAGRAM-11

P USB CIRCUIT

: + B SIGNAL LINE : USB SIGNAL LINE

IC900
MNZSFB5KJM1
USB MICRO-PROCESSOR IC

IC951
C0DBZYE00002
VOLTAGE REGULATOR

P903
TO USB

P901

TO E MAIN CIRCUIT (CN302) IN SCHEMATIC DIAGRAM-6

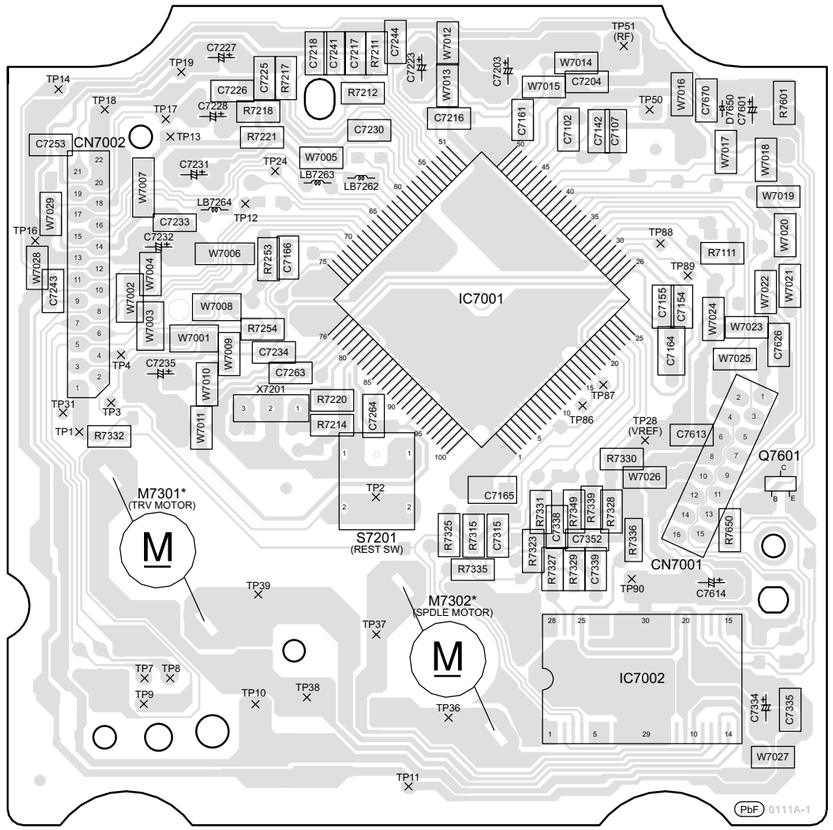
SA-EN38DBEB USB CIRCUIT

SC-EN38DBEB

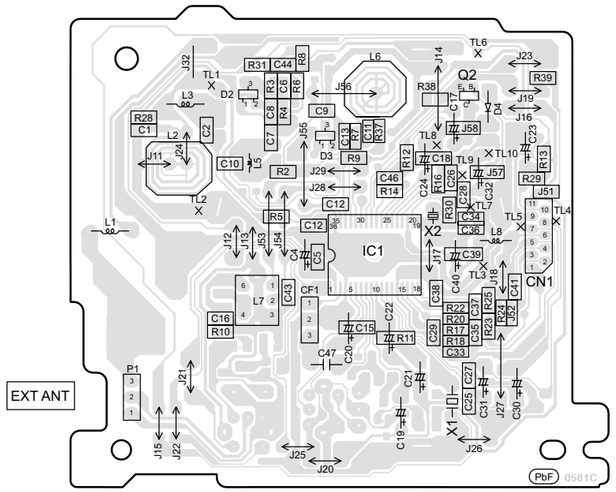
17 Printed Circuit Board

17.1. CD SERCO P.C.B. and TUNER P.C.B.

A CD SERVO P.C.B (REPV0111A)



B TUNER P.C.B. (REPX0652C)

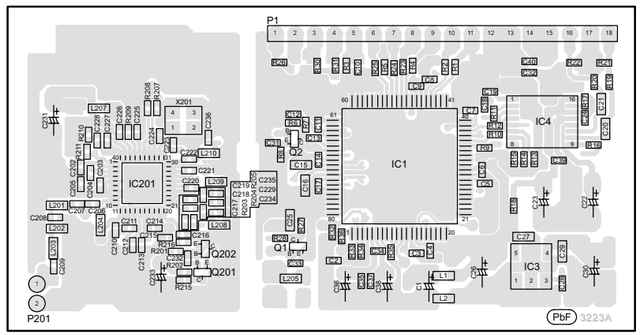


*FOR INDICATION ONLY

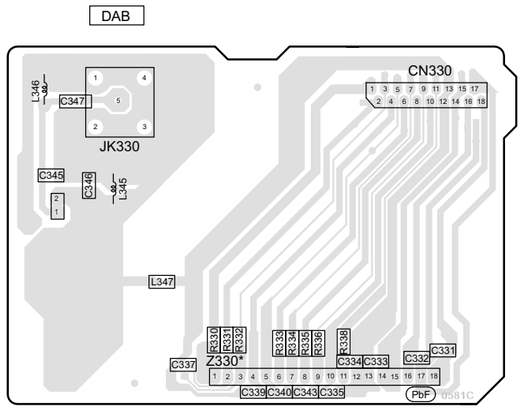
SC-EN38DBEB
CD SERVO/ TUNER P.C.B.

17.2. DAB MODULE P.C.B., DAB EXTENT P.C.B., PANEL P.C.B., LED P.C.B. and DETECTOR P.C.B.

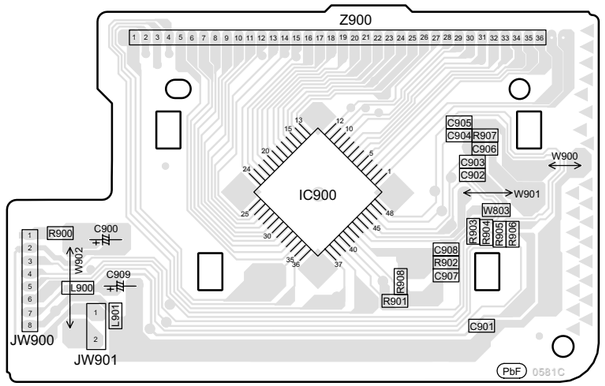
C DAB MODULE P.C.B. (REP4246A)



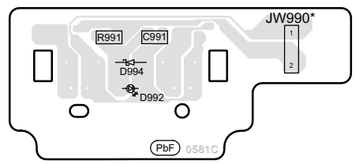
D DAB EXTENT P.C.B. (REPX0652C)



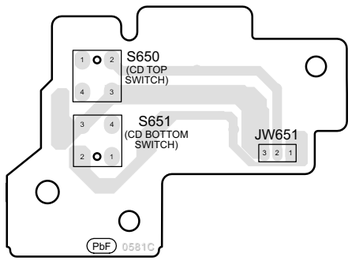
F PANEL P.C.B. (REPX0652C)



G LED P.C.B. (REPX0652C)



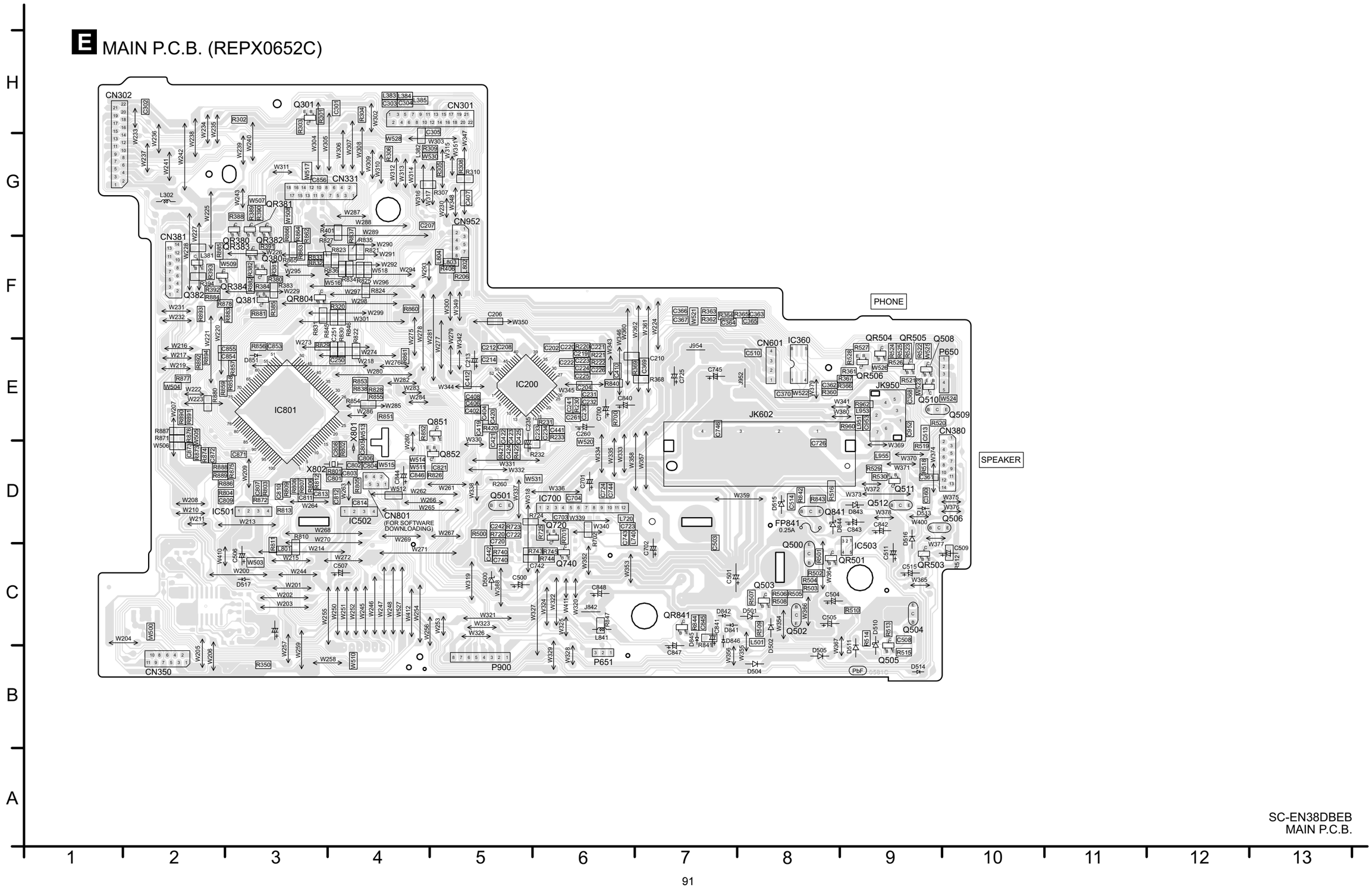
H DETECTOR P.C.B. (REPX0652C)



*FOR INDICATION ONLY

17.3. MAIN P.C.B.

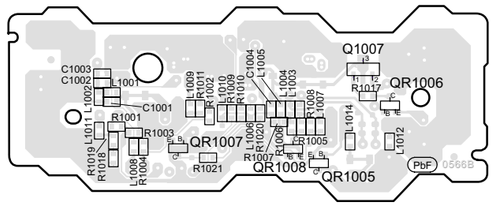
E MAIN P.C.B. (REPX0652C)



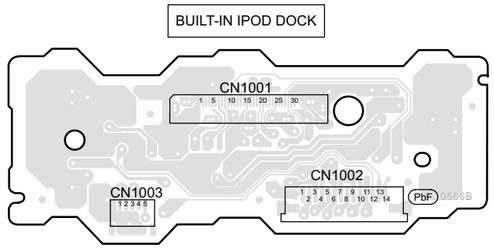
SC-EN38DBEB
MAIN P.C.B.

17.4. IPOD CRADLE P.C.B., OPTION PORT P.C.B., TACT SWITCH P.C.B., SENSOR P.C.B. and MOTOR P.C.B.

I IPOD CRADLE P.C.B. (REPX0631B)



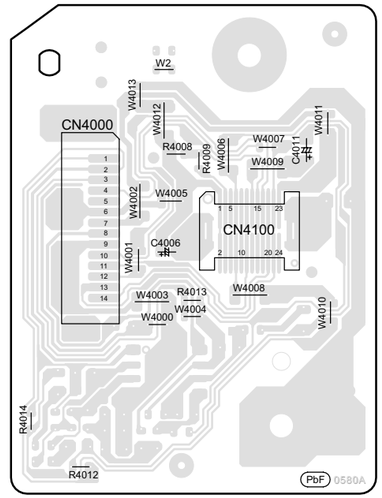
(SIDE A)



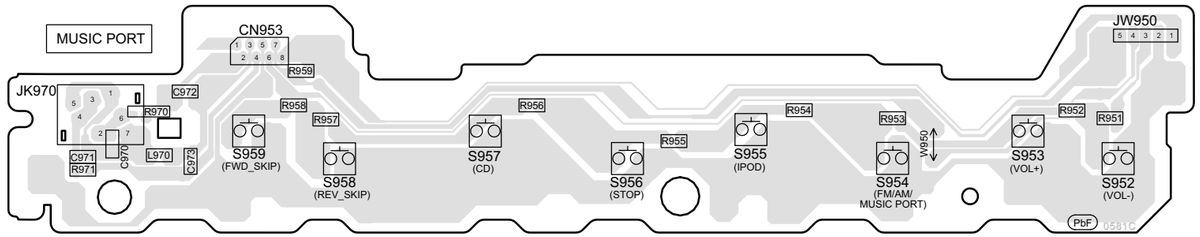
(SIDE B)

PC SYNC

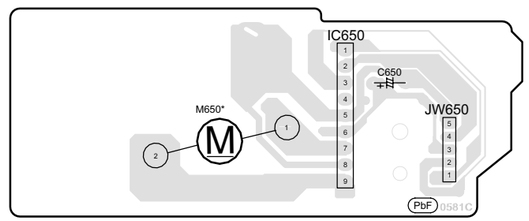
J OPTION PORT P.C.B. (REPX0651B)



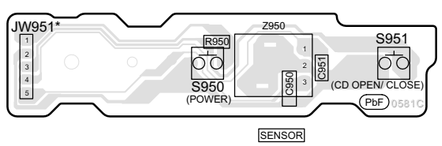
K TACT SWITCH P.C.B. (REPX0652C)



M MOTOR P.C.B. (REPX0652C)



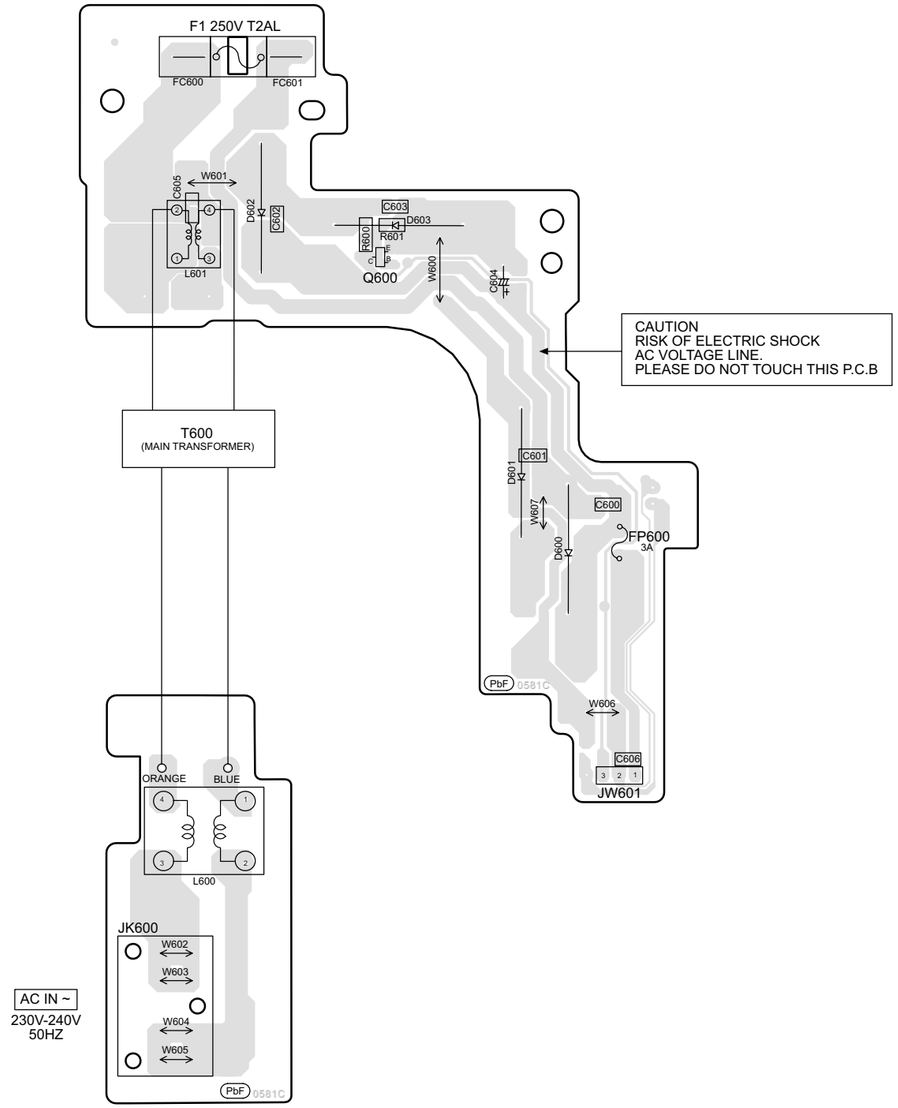
L SENSOR P.C.B. (REPX0652C)



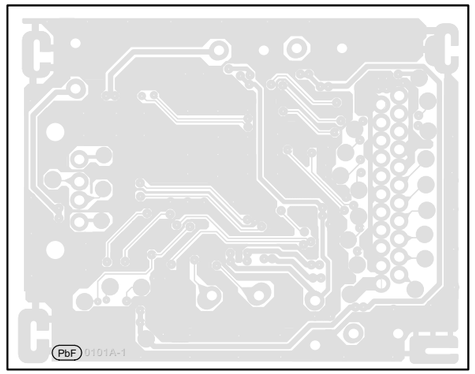
*FOR INDICATION ONLY

17.5. TRANSFORMER P.C.B., AC INLET P.C.B. and USB P.C.B.

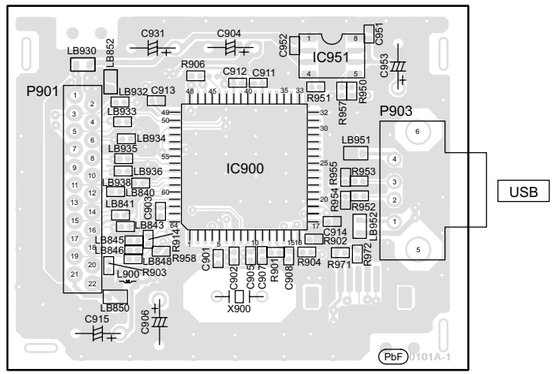
N TRANSFORMER P.C.B. (REPX0652C)



P USB P.C.B (REPV0101A)



(SIDE A)



(SIDE B)

O AC INLET P.C.B. (REPX0652C)

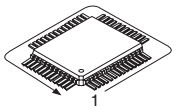
*FOR INDICATION ONLY

SC-EN38DBEB
TRANSFORMER/ AC INLET/ USB P.C.B.

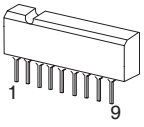
SC-EN38DBEB

18 Illustration of IC's, Transistors and Diodes

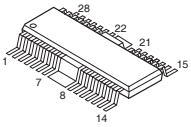
C0HBA0000238 (48P)
MN6627954MA (100P)
C1AB00002885 (52P)
MN101EF16ZXW (100P)
C1AB00002719 (40P)
MNZSFB5KJM1 (64P)
MN66721 (80P)



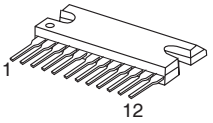
C0GAE0000007



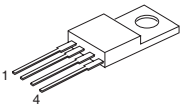
BA5948FPE2



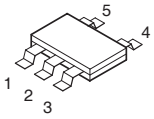
C1BA00000372



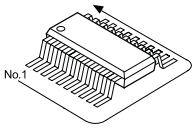
C0DAZYY00017



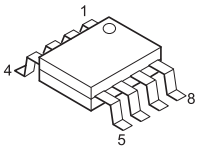
C0CBCBC00090



C1BB00001120 (36P)
C0DBZYE00002 (8P)
C0FBBK000066 (16P)



C0ABBB000297



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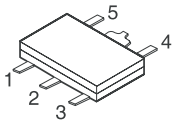

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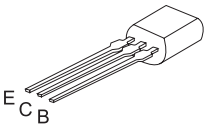

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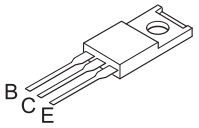

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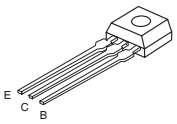

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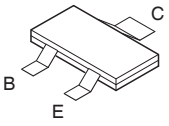

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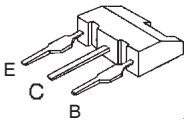

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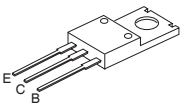

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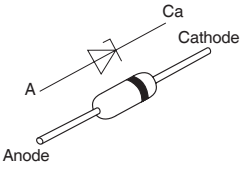

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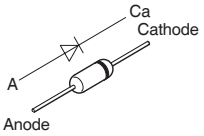

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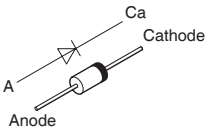

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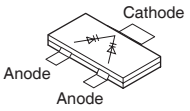

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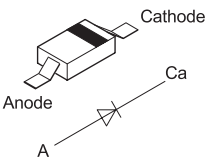

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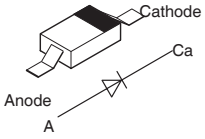

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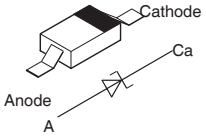

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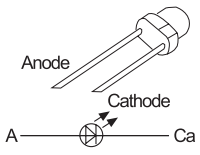


19 Terminal Function of IC's

19.1. IC7001 (MN6627954MA) IC SERVO PROCESSOR/DIGITAL SIGNAL PROCESSOR/DIGITAL FILTER D/A CONVERTER

Pin No.	Mark	I/O	Function
1	A11	O	DRAM address signal O/P 11
2	A9	O	DRAM address signal O/P 9
3	A8	O	DRAM address signal O/P 8
4	A7	O	DRAM address signal O/P 7
5	A6	O	DRAM address signal O/P 6
6	A5	O	DRAM address signal O/P 5
7	A4	O	DRAM address signal O/P 4
8	NWE	O	Write Enable Signal (DRAM)
9	NCAS	O	DRAM CAS Control Signal
10	NRAS	O	DRAM ARS Control Signal
11	A3	O	DRAM address Signal O/P 3
12	A2	O	DRAM address Signal O/P 2
13	A1	O	DRAM address Signal O/P 1
14	A0	O	DRAM address Signal O/P 0
15	A10	O	DRAM address Signal O/P 10
16	BA0	-	Motor O/P (0);/Serial I/P
17	BA1	-	Motor O/P (1);/Serial I/P
18	PRAMVSS33	-	GND (DRAM)
19	PRAMVDD15	-	Power Supply Voltage (DRAM)
20	PRAMVDD33	-	Power Supply Voltage (+1.6V)
21	SPOUT	O	Spindle Drive O/P
22	PC	I/O	Spindle motor drive O/P signal serial data/Monitoring I/P
23	TRVP	O	Traverse Drive O/P (+ve)
24	TRP	O	Tracking Drive O/P (+ve)
25	FOP	O	Focusing Drive O/P (+ve)
26	DVSS1	-	GND
27	IOVDD2	-	Digital Power Supply Voltage 2 (I/O)
28	DVDD1	-	Digital Power Supply Voltage 1 (Built-In)
29	SRVMON0	-	No Connection
30	SRVMON1	-	No Connection
31	AVSS2	-	GND
32	OSCIN	I	Oscillating Input
33	CTRCRS	-	Tracking Cross Comparator
34	VREF	-	+Vref Supply Voltage
35	E	I	Tracking Input Signal 1
36	F	I	Tracking Input Signal 2
37	D	I	Focusing Input Signal 4
38	B	I	Focusing Input Signal 2
39	C	I	Focusing Input Signal 3
40	A	I	Focusing Input Signal 1
41	PD	I	APC Amp I/P
42	LD	O	Laser Drive Current O/P
43	CENV	-	Detection Capacitance Connection terminal
44	RFENV	O	RF Envelope O/P
45	RFOUT	O	RF Summing Amp O/P
46	RFIN	I	SGC I/P
47	AVDD2	-	Analog Power Supply voltage 2 (For DSL/PLL)
48	ARFDC	-	AGC Capacitive Connection Terminal
49	ARFOUT	O	AGC Output
50	ARFFB	I	ARF Feedback Signal I/P
51	ARFIN	I	Audio RF Signal I/P
52	DSLF	I	Loop Filter Terminal (For DSL)

Pin No.	Mark	I/O	Function
53	IREF	I	Reference I/P
54	PLLF	-	PLL Loop Filter Terminal (Phase Compare)
55	PLLF0	-	PLL Loop Filter Terminal (Speed Compare)
56	OUTL\	O	Audio O/P (LCH)
57	AVSS1	-	GND
58	AVDD1	-	Analog Power Supply Voltage 1
59	OUTR	O	Audio O/P (RCH)
60	DVSS3	-	GND3 (Digital Circuit)
61	NSRVMONON	I	Servo Motor O/P Enabling
62	EXT0	-	Expansion O/P Port 0
63	EXT1	-	Expansion O/P Port 1
64	EXT2	-	Expansion O/P Port 2
65	FLAG	-	Flag Signal O/P
66	TX	-	Digital Audio Interface O/P signal
67	MCLK	I	Micro-Computer Command Clock I/P
68	MDATA	I	Micro-Computer Data I/P
69	MLD	I	Micro-Computer Load I/P
70	STAT	O	Status Signal O/P
71	BLKCK	O	Subcode Blk Clock
72	NRST	O	LSI Reset Signal
73	DQSYTXT	-	Pack Signal O/P for CD-Text data
74	SMCK	-	Micro-Computer Clock O/P
75	PMCK	-	IOCNT Serial data O/P (Synchronous O/P)
76	DVDD2	-	Digital Power Supply Voltage 2 (+1.5V)
77	IOVDD1	-	Digital Power Supply Voltage 1 (For I/O)
78	DVSS2	-	GND2 (For Digital Circuit)
79	NTEST2	I	Test Mode Setting (ON:H)
80	X2	O	Crystal Oscillating Circuit O/P
81	X1	I	Crystal Oscillating Circuit I/P
82	NTEST	I	Test Mode Setting I/P (ON:H)
83	D2	O	Data Sigmal O/P 2
84	D1	O	Data Signal O/P 1
85	D0	O	Data Signal O/P 0
86	D3	O	Data Signal O/P 3
87	D4	O	Data Signal O/P 4
88	D5	O	Data Signal O/P 5
89	D6	O	Data Signal O/P 6
90	D7	O	Data Signal O/P 7
91	D15	O	Data Signal O/P 15
92	D14	O	Data Signal O/P 14
93	DRVDD	-	I/O Power Supply Voltage (DRAM)
94	D13	O	Data Signal O/P 13
95	D12	O	Data Signal O/P 12
96	D11	O	Data Signal O/P 11
97	D10	O	Data Signal O/P 10
98	D9	O	Data Signal O/P 9
99	D8	O	Data Signal O/P 8
100	SDRCK	O	Clock Signal O/P

19.2. IC7002 (BA5948FPE2) IC 4CH Drive

Pin No.	Mark	I/O	Function
1	IN2	I	Motor Driver Input
2	PC2	I	Turntable Motor Drive Signal (“L”:ON)
3	IN1	I	Motor Drive (1) Input
4	PC1	-	Traverse Motor Drive Signal (“L”): ON)
5-8	N.C.	-	No Connection
9	PGND1	-	Ground Connection (1) for Drive
10	PVCC1	-	Power Supply (1) for Drive
11	D1-	O	Motor Drive (1) reverse - action output
12	D1+	O	Motor Drive (1) forward - action output
13	D2-	O	Motor Drive (2) reverse - action output
14	D2+	O	Motor Drive (2) forward - action output
15	D3-	O	Motor Drive (3) reverse - action output
16	D3+	O	Motor Drive (3) forward - action output
17	D4-	O	Motor Drive (4) reverse - action output
18	D4+	O	Motor Drive (4) forward - action output
19	PVCC2	-	Power Supply (2) for Driver
20	PGND2	-	Ground Connection (2) for Driver
21-24	N.C.	-	No Connection
25	VCC	I	Power Supply terminal
26	VREF	I	Reference Voltage Input
27	IN4	I	Motor Driver (4) Input
28	IN3	I	Motor Driver (3) Input

19.3. IC801 (MN101EF16ZXW) MICROPROCESSOR

Pin No.	Mark	I/O	Function
1	PCONT_POW	O	Power Control Output (PWR Sply Active HIGH)
2	PCONT_DP	O	5.3V Regulator Control
3	N.C.	-	No connection
4	LCD_DI / OCD_SDA	O	LCD Data Output
5	LCD_CE	O	LCD chip select
6	LCD_CLK / OCD_SCK	O	LCD CLK Output
7	LCD_INH	O	LCD lighting terminal
8	PCONT_IPOD	O	IPOD regulator control
9	N.C.	-	No Connection
10	N.C.	-	No Connection
11	GND (MMOD)	I	Memory mode selection
12	OSC2 (OUT)	O	Main Oscillator output (8MHz)
13	OSC1 (In)	I	Main Oscillator input (8MHz)
14	VSS	-	Micom GND
15	XI	I	Slow Oscillator input (32KHz)
16	XO	O	Slow Oscillator output (32KHz)
17	VDD33	-	3.3V
18	VDD18	-	Internal output (1.8v)
19	NRST	I	MICOM RESET IN (L: reset)
20	MBP1	O	Micro-P Beat Proof 1
21	MBP2	O	Micro-P Beat Proof 2
22	PLL_CLK	O	PLL clock
23	PLL_CE	O	PLL chip select
24	PLL_DI	O	PLL Data Input
25	REM_IN	I	Remote Control Input
26	HALT	I	AC detection
27	D_DOWFIC	I	DAB LSI 24ms synchronization interrupt
28	PLL_DO	I/O	PLL Data Output
29	BLKCK	I	CD Subcode Block Clock Input
30	N.C.	-	No connection
31	MDATA	O	CD LSI Command Data
32	STATUS	I	CD LSI Status Input
33	CD_MCLK	O	CD LSI Command Clock
34	USB_SDA	I/O	USB I2C Data Line
35	USB_RST	O	USB reset pin
36	USB_SCL	I	USB I2C Clock Line
37	VDD18	-	Power supply (1.8V)
38	USB_REQ	I	USB interrupt request
39	VSS	-	Micon GND
40	ASP_CLK	O	ASP Sound Processor Serial Clock Output
41	ASP_DATA	O	ASP Sound Processor Serial Data Output
42	MLD	O	CD LSI command load
43	REST_SW	I	Reset SW (L: Inner)
44	CD_RST	O	CD LSI Reset Output (L: reset)
45	MUTE_A	O	Analog Mute Output (L: Mute on)
46	CD_BOTTOM_SW	I/O	CD bottom switch
47	CD_TOP_SW	I/O	CD top switch
48	N.C.	-	No connection
49	N.C.	-	No connection
50	N.C.	-	No connection
51	N.C.	-	No connection
52	N.C.	-	No connection
53	N.C.	-	No connection
54	N.C.	-	No connection
55	N.C.	-	No connection
56	N.C.	-	No connection
57	N.C.	-	No connection
58	N.C.	-	No connection
59	N.C.	-	No connection
60	N.C.	-	No connection
61	N.C.	-	No connection
62	CRTIMER	O	CR TIMER
63	VSS	-	Micon GND
64	FL_RST	-	No Connection
65	CD_CLOSE	O	CD Tray Close Control (Active H)
66	CD_OPEN	O	CD Tray Open Control (Active H)
67	DAB_RST	O	DAB LSI reset
68	DAB_TU_RST	O	DAB tuner reset
69	DAB_TU_SCL	O	DAB tuner I2C clock
70	DAB_TU_SDA	O	DAB tuner I2C data
71	DAB_PCNT	O	DAB module power contrl
72	DAB_RX	O	DAB LSI receive data
73	DAB_TX	I	DAB LSI transmit data
74	DAB_CLK	O	DAB LSI clock
75	DAB MODE	O	DAB LSI communication mode
76	UART_IN	I	Serial UART communication

Pin No.	Mark	I/O	Function
77	UART_OUT	O	Serial UART communication
78	D_LINK_DET 1	I	Detect connecting unit
79	D_LINK_DET2	I	Detect connecting unit
80	IPOD_DET	I	IPOD detection
81	N.C.	-	No connection
82	AD_RSKIP	O	Dport AD_CNTL
83	AD_FSKIP	O	Dport AD_CNTL
84	AD_STOP	O	Dport AD_CNTL
85	AD_PLAY	O	Dport AD_CNTL
86	IPOD CNFG_PC	O	PC to IPOD control_PC to IPOD
87	VBUS DET	I	PC to IPOD detection
88	ACC_POWER	I	IPOD signal ready detection
89	VDD	-	Micon VDD+3.3V

Pin No.	Mark	I/O	Function
90	N.C.	-	No connection
91	VSS	-	GND
92	KEY1	I	Key 1 Input
93	MM0D0	O	Memory Mode for USB Normal/Write Mode
94	TERR	I	Timeout Error for USB
95	PDET2	I	Level detection for 5.3V regulator
96	PDET1	I	DC Level Detection Input
97	REGION	I	Region Setting Input
98	PDET3	-	IPOD regulator level detection
99	VERR	-	Verify Error for USB
100	VREF+	-	A/D Converter reference voltage +3.3V

19.4. IC1 (MN66721) DAB BASEBAND PROCESSOR

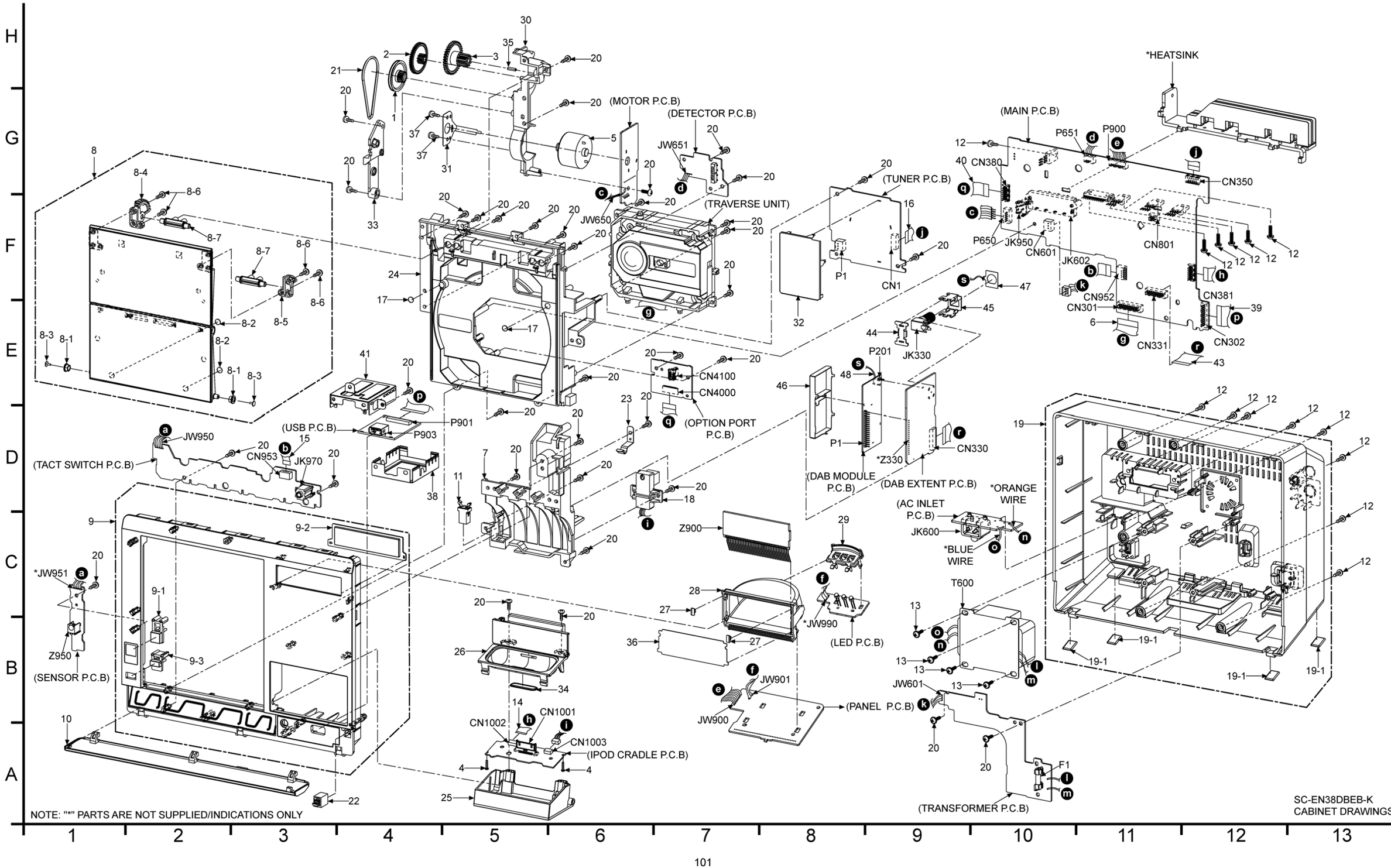
Pin No.	Mark	I/O	Function
1	AVSS	-	Analogue (ADC) VSS
2	AINP	I	IF Input Positive
3	AINN	I	IF Input Negative
4	AVDD	-	Analogue (ADC) VDD
5	VREFH	O	Internal ADC top reference voltage
6	VREFL	O	Internal ADC bottom reference voltage
7	IREF	O	ADC bias current
8	ADCOVR	O	ADC Overflow Monitor Output
9	NADCPD	I	ADC power down control
10	NADCPSC	O	ADC power save control
11	NULMON	O	Null signal detection output
12	IVDD0	-	Core (internal) Digital VDD
13	VSS0	-	Digital VSS
14	EVDD0	-	I/O (external) Digital VDD
15	FSYO	O	Frame synchronization monitor signal output
16	AGCDAT	O	External AGC control signal output
17	TESTOUT	O	Test output
18	SDOWD	O	Serial Data Output - data output window
19	SDODT	O	Serial Data Output - data output
20	SDOCK	O	Serial Data Output - clock
21	VSS1	-	Digital VSS
22	DDODAT	O	Direct Data Output - data output
23	DDOCLK	O	Direct Data Output - clock (2.048MHz)
24	DDOERF	O	Direct Data Output - error flag output (H: error)
25	DDOWMSC	O	Direct Data Output - MSC data window output
26	DDOMNO0	O	Direct Data Output - Sub-channel ID output
27	DDOMNO1	O	Direct Data Output - Sub-channel ID output
28	IVDD1	-	Core VDD
29	VSS2	-	Digital VSS
30	EVDD1	-	I/O (external) Digital VDD
31	DDOMNO2	O	Direct Data Output - Sub-channel ID output
32	DDOMNO3	O	Direct Data Output - Sub-channel ID output
33	DDOMNO4	O	Direct Data Output - Sub-channel ID output
34	DDOMNO5	O	Direct Data Output - Sub-channel ID output
35	SMCK	O	Audio DAC Master Clock Output (256Fs)

Pin No.	Mark	I/O	Function
36	SLRCK	O	Audio DAC L/R Clock Output (Fs: 48KHz)
37	SCLK	O	Audio DAC Serial Clock Output (64Fs)
38	SDAT1	O	Audio DAC Serial Data Output 1
39	IVDD2	-	Core (internal) Digital VDD
40	VSS3	-	Digital VSS
41	SDAT2	O	Audio DAC Serial Data Output 2
42	DAOUT	O	Digital audio interface output (IEC 958)
43	DDOWFIC	O	Direct Data Output - FIC data window output
44	NIRQ	O	Interrupt Request Output
45	IVDD3	-	Core (internal) Digital VDD
46	VSS4	-	Digital VSS
47	EVDD2	-	I/O (external) Digital VDD
48	NRST	I	Master reset input
49	MPUTX	O	MPU Interface - serial data output
50	MPURX	I	MPU Interface - serial data input
51	MPUCLK	I	MPU Interface - clock input
52	NMPUEM	I	MPU Interface - chip enable input
53	MPUMOD	I	MPU Interface - mode (address or data)
54	VSS5	-	Digital VSS
55	TSCLK	O	Transport Stream Interface - clock
56	TSSYNC	O	Transport Stream Interface - sync
57	TSDAT	O	Transport Stream Interface - data
58	DIAG0	I/O	Development Diagnostic I/O
59	DIAG1	I/O	Development Diagnostic I/O
60	DIAG2	I/O	Development Diagnostic I/O
61	DIAG3	I/O	Development Diagnostic I/O
62	PWMVCXO	O	Master clock PWM output for VCXO
63	MCLKEN	I	Master clock enable
64	EVDD3	-	I/O (external) Digital VDD
65	MCLKO	O	Master clock oscillator output
66	MCLK24	I	Master clock input (24.576MHz)
67	VSS6	-	Digital VSS
68	LON	I	Internal on-chip regulator on/off
69	RVSS	-	Analogue (Regulator) VSS
70	RVDD	-	Analogue (Regulator) VDD
71	VOUT	-	Regulator Output (1.2V)
72	VSS7	-	Digital VSS
73	IVDD4	-	Core (internal) Digital VDD
74	EVDD4	-	I/O (external) Digital VDD

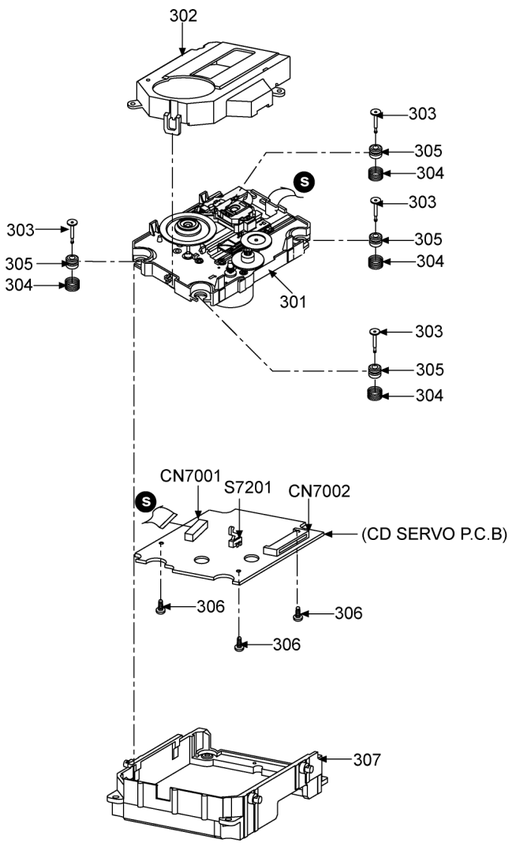
Pin No.	Mark	I/O	Function
75	DIAG4	-	Development Diagnostic I/O
76	DIAG5	-	Development Diagnostic I/O
77	DIAG6	-	Development Diagnostic I/O
78	DIAG7	-	Development Diagnostic I/O
79	TEST1	I	Test selection mode
80	TEST2	I	Test selection mode

20 Exploded Views

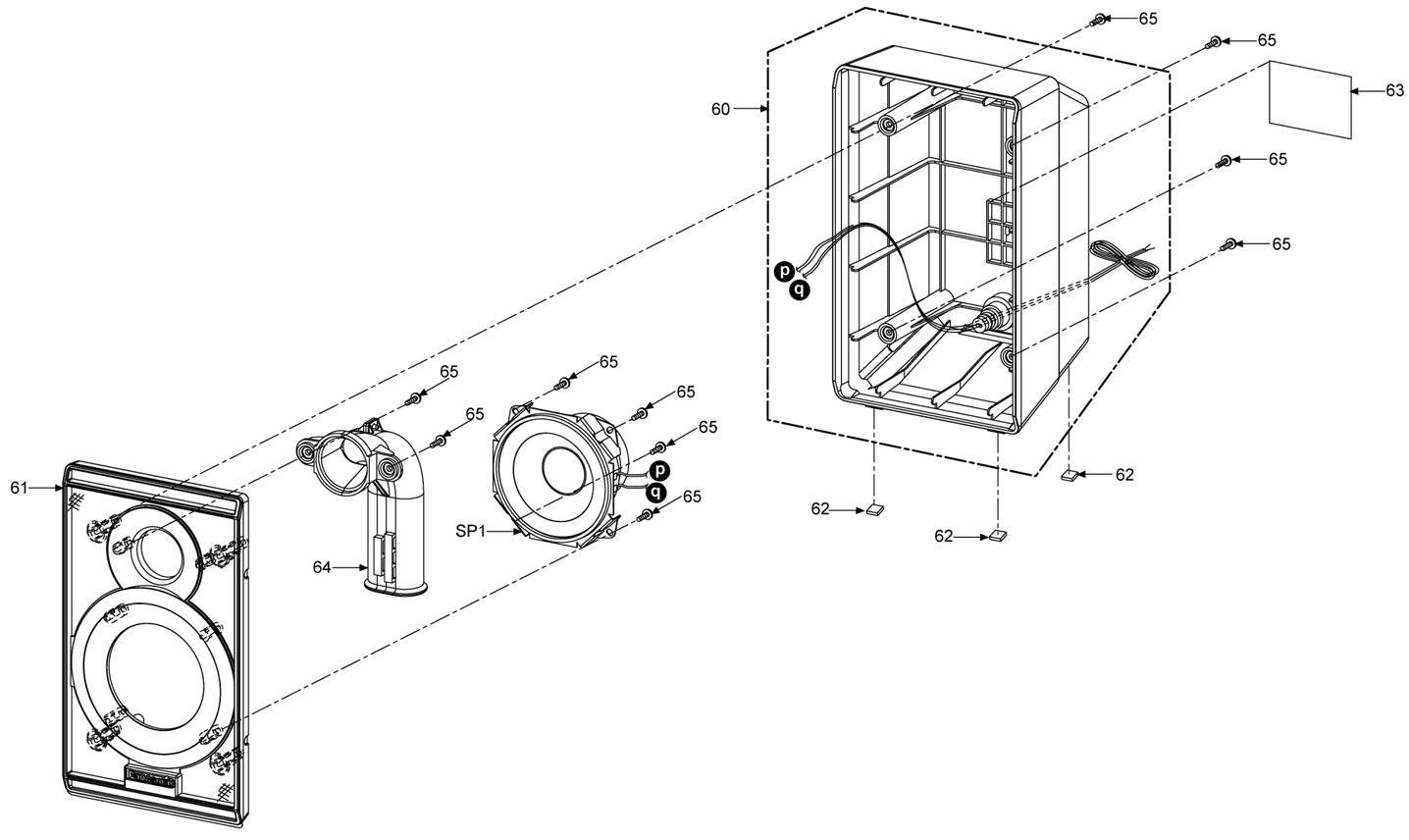
20.1. Cabinet Parts Location



TRAVERSE UNIT

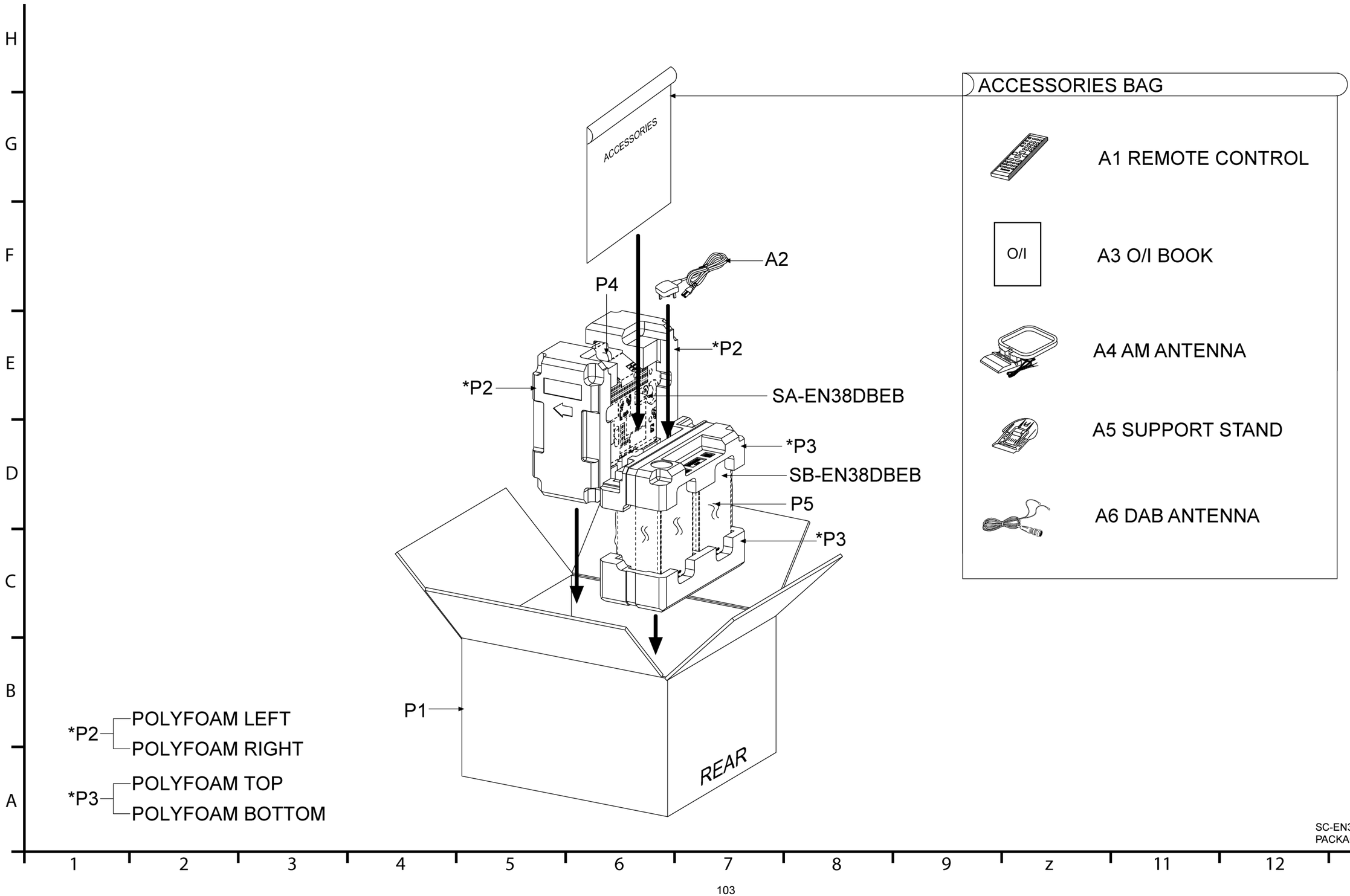


SPEAKER



SC-EN38DBEB-K
TRAVERSE UNIT/
SPEAKER DRAWINGS

20.2. Packaging



SC-EN38DBEB-K
PACKAGING DRAWINGS

SC-EN38DBEB

21 Replacement Parts List

Notes:

- Important safety notice:

  Components identified by ⚠ mark have special characteristics important for safety.

  Furthermore, special parts which have purposes of fire-retardent (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.

  When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.
- The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour)

  Parts without these indications can be used for all areas.
- Warning: This product uses a laser diode. Refer to "Precaution of Laser Diode".
- Capacitor values are in microfarads (μF) unless specified otherwise, P= Pico-farads (pF), F= Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).
- The marking (RTL) indicates that the Retention Time is limited for this items. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of a availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
- [M] Indicates in the Remarks columns indicates parts supplied by **PAVCSG.**
- Reference for O/I book languages are as follows:

Ar:	Arabic	Du:	Dutch	It:	Italian	Sp:	Spanish
Cf:	Canadian French	En:	English	Ko:	Korean	Sw:	Swedish
Cz:	Czech	Fr:	French	Po:	Polish	Co:	Traditional Chinese
Da:	Danish	Ge:	German	Ru:	Russian	Cn:	Simplified Chinese
Pe:	Persian	Ur:	Ukraine	Pr:	Portuguese		

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RDG0612	PULLEY GEAR	[M]
2	RDGV0001	2ND GEAR	[M]
3	RDGV0002	DRIVE GEAR	[M]
4	XTN2+6GFJ	SCREW	[M]
5	RFKPAEN37EBK	MOTOR ASS'Y	[M]
6	REEX0862	22P FFC CABLE (CD TO MAIN)	[M]
7	RGKX0477	DOCKING COVER	[M]
8	RYQX0521-K	CD LID ASSEMBLY	[M]
8-1	RDPV0001	LID ROLLER	[M]
8-2	RMG0699-KJ	LID CUSHION	[M]
8-3	RHD14136	SCREW	[M]
8-4	RDGV0003	LID GEAR	[M]
8-5	RMLV0001	SW LEVER	[M]
8-6	XTN2+6GFJ	SCREW	[M]
8-7	RMSV0001	LID BEARING	[M]
9	RYPX0267B-K	FRONT CABINET UNIT	[M]
9-1	RGUX0761-K	POWER BUTTON	[M]
9-2	RGPX0343-Q	LCD WINDOW	[M]
9-3	RGUX0762-K	CD EJECT BUTTON	[M]
10	RYPX0269A-K	FUNCTION LID UNIT	[M]
11	RHQX0002	LATCH	[M]
12	XTB3+10JFJ	SCREW	[M]
13	XTB3+10JFJK	SCREW	[M]
14	REEX0863	14P FFC CABLE (IPOD-MAIN)	[M]
15	REEX0902	8P FFC CABLE (PANEL-MAIN)	[M]
16	REEX0903-1	11P FFC CABLE (TUN-MAIN)	[M]
17	RMG0699-KJ	LID CUSHION	[M]
18	K2NY9YY00001	5P CONNECTOR (USB)	[M]
19	RYPX0268D-K	REAR CABINET UNIT	[M]
19-1	RKA0162-KJ	LEG RUBBER	[M]
20	RHD26046-L	SCREW	[M]
21	RMG0268-K1	BELT	[M]
22	RHQX0003	MINI SIDE LOCK	[M]
23	RMBX0077	I-POD DOCKING SPRING L	[M]
24	RGKX0469-K	CD BASE	[M]
25	RGKX0471-K	DOCKING LID	[M]
26	RYPX0270-K	I-POD TUB UNIT	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
27	RMNV0080-1	LCD FIX PIECE	[M]
28	RMNV0082A	LCD HOLDER	[M]
29	RMNV0083	LED HOLDER	[M]
30	RMKV0064-2	GEAR BASE	[M]
31	RSC0732J	EARTH PLATE	[M]
32	RSC0733J	TUNER SHIELD	[M]
33	RMQV0077-1	GEAR FIXTURE	[M]
34	RMVX0117-K	CONNECTOR COVER	[M]
35	RMSV0002	GEAR SHAFT	[M]
36	RMXV0032	LCD SPACER SHEET	[M]
37	XYN26+C6FJ	SCREW	[M]
38	RSCV0086-2	USB CASING (BOTTOM)	[M]
39	REEX0861-2	22P FFC CABLE (DAB MODULE-MAIN)	[M]
40	REEX0864	14P FFC CABLE (D-PORT-MAIN)	[M]
41	RSCV0087B-1	USB CASING (TOP)	[M]
43	REEX0865	18P FFC CABLE (DAB - MAIN)	[M]
44	RMAV0039	SUPPORT A	[M]
45	RMAV0040	SUPPORT B	[M]
46	RSC0815	DAB SHIELD	[M]
47	RSCV0093	DAB SHIELD PLATE	[M]
48	REUV37K060XX	DAB GROUND WIRE	[M]
60	RYBX0178-K	REAR CABINET UNIT	[M]
61	RYPX0274-K	FRONT CABINET UNIT	[M]
62	RKAX0011-KJ	LEG FELT	[M]
63	RGNX0625-K	SPEC LABEL	[M]
64	RYTX0003-K	SPEAKER PORT UNIT	[M]
65	XTB3+10GFJK	SCREW	[M]
		SPEAKER	
SP1	L0AA07A00007	SPEAKER	[M]
		PRINTED CIRCUIT BOARDS	
PCB1	REPV0111A	CD SERVO P.C.B	[M] (RTL)
PCB2	REPX0631B	IPOD CRADLE P.C.B	[M] (RTL)

Ref. No.	Part No.	Part Name & Description	Remarks
PCB3	REPX0652C	MAIN P.C.B	[M] (RTL)
PCB4	REPX0652C	TACT SWITCH P.C.B	[M] (RTL)
PCB5	REPX0652C	SENSOR P.C.B	[M] (RTL)
PCB6	REPX0652C	TRANSFORMER P.C.B	[M] (RTL) ⚠
PCB7	REPX0652C	AC INLET P.C.B	[M] (RTL) ⚠
PCB8	REPX0652C	DETECTOR P.C.B	[M] (RTL)
PCB9	REPX0652C	PANEL P.C.B	[M] (RTL)
PCB10	REPX0652C	LED P.C.B	[M] (RTL)
PCB11	REPX0652C	MOTOR P.C.B	[M] (RTL)
PCB12	REPX0652C	TUNER P.C.B	[M] (RTL)
PCB13	REPX0652C	DAB MODULE EXTENT P.C.B	[M] (RTL)
PCB14	REPX0651B	OPTION P.C.B	[M] (RTL)
PCB15	REP4246A	DAB MODULE P.C.B	[M] (RTL)
PCB16	REPV0101A	USB P.C.B	[M] (RTL)
		TRAVERSE DECK	
301	RAE0165T-V	TRAVERSE UNIT	[M] (RTL) ⚠
302	RMR1396-K	TRAVERSE COVER	[M]
303	RMS0757-1	FIXED PIN	[M]
304	RME0109-1	FLOATING SPRING	[M]
305	RMG0730-G	FLOATING RUBBER	[M]
306	XTN2+6GFJ	SCREW	[M]
307	RMR1395-X	MIDDLE CHASSIS	[M]
		INTERGRATED CIRCUITS	
IC1	C1BB00001120	IC TUNER	[M]
IC1	MN66721	IC DAB BASEBAND PROCESSOR	[M]
IC3	C0CBCBC00208	IC LDO REGULATOR	[M]
IC4	C0FBBK000066	IC AUDIO DA CONVERTER	[M]
IC200	C1AB00002885	IC AUDIO SOUND PROCESSOR	[M]
IC201	C1AB00002719	IC DAB IF TUNER	[M]
IC360	C0ABBB000297	IC OP-AMP	[M]
IC501	C0DAZYY00017	IC VOLTAGE REGULATOR	[M]
IC502	C0DAZYY00017	IC VOLTAGE REGULATOR	[M]
IC503	C0CBCBC00090	IC +3.3V LDO	[M]
IC650	C0GAE0000007	IC MOTOR DRIVE	[M]
IC700	C1BA00000372	IC POWER AMP	[M]
IC801	MN101EF16ZXW	IC MICRO-PROCESSOR	[M]
IC900	C0HBA0000238	IC FL DISPLAY DRIVER	[M]
IC900	MNZSFB5KJM1	IC MICRO-PROCESSOR	[M]
IC951	C0DBZYE00002	IC USB SWITCH	[M]
IC7001	MN6627954MA	IC SERVO PROCESSOR / DSP / DIGITAL FILTER D/A CONVERTER	[M]
IC7002	BA5948FPE2	IC 4 CH DRIVE	[M]
		TRANSISTORS	
Q1	UNR9211J0L	TRANSISTOR	[M]
Q2	2SC4627J0L	TRANSISTOR	[M]
Q2	B1ADCF000063	TRANSISTOR	[M]
Q201	UNR9111J0L	TRANSISTOR	[M]
Q202	UNR9211J0L	TRANSISTOR	[M]
Q301	B1ADCF000063	TRANSISTOR	[M]
Q380	B1ADCE000012	TRANSISTOR	[M]
Q381	B1ABEB000002	TRANSISTOR	[M]
Q382	B1ADCE000012	TRANSISTOR	[M]
Q500	B1ACND000003	TRANSISTOR	[M]
Q501	B1BACG000048	TRANSISTOR	[M]
Q502	B1BCCG000002	TRANSISTOR	[M]
Q503	B1ABDF000026	TRANSISTOR	[M]
Q504	B1BCCG000002	TRANSISTOR	[M]
Q505	B1ABDF000026	TRANSISTOR	[M]
Q506	B1ACKD000006	TRANSISTOR	[M]
Q508	B1ABDF000026	TRANSISTOR	[M]
Q509	B1ACND000003	TRANSISTOR	[M]
Q510	B1ABDF000026	TRANSISTOR	[M]
Q511	B1ABDF000026	TRANSISTOR	[M]
Q512	B1ACND000003	TRANSISTOR	[M]
Q600	B1ABDF000026	TRANSISTOR	[M]
Q720	B1ABGD000022	TRANSISTOR	[M]
Q740	B1ABGD000022	TRANSISTOR	[M]
Q841	B1BAAJ000003	TRANSISTOR	[M]
Q851	B1ABDF000026	TRANSISTOR	[M]
Q852	B1ABDF000026	TRANSISTOR	[M]
Q1007	B1ADMD000001	TRANSISTOR	[M]
Q7601	B1ADCF000001	TRANSISTOR	[M]
QR380	B1GBCFGN0016	TRANSISTOR	[M]
QR381	B1GBCFGN0016	TRANSISTOR	[M]
QR382	B1GBCFGN0016	TRANSISTOR	[M]
QR383	B1GBCFGN0016	TRANSISTOR	[M]
QR384	B1GBCFJJ0051	TRANSISTOR	[M]
QR501	UNR521400L	TRANSISTOR	[M]
QR503	UNR521400L	TRANSISTOR	[M]
QR504	B1GBCFGJ0016	TRANSISTOR	[M]
QR505	UNR511100L	TRANSISTOR	[M]
QR506	B1GBCFGJ0016	TRANSISTOR	[M]
QR804	UNR511100L	TRANSISTOR	[M]
QR841	UNR521300L	TRANSISTOR	[M]
QR1005	B1GBCFJJ0044	TRANSISTOR	[M]
QR1006	B1GBCFJJ0044	TRANSISTOR	[M]
QR1007	B1GBCFJJ0044	TRANSISTOR	[M]
QR1008	B1GDCFJJ0002	TRANSISTOR	[M]
		DIODES	
D2	B0CDAB000019	DIODE	[M]
D3	B0CDAB000019	DIODE	[M]
D4	B0AACK000004	DIODE	[M]
D500	B0BA8R700009	DIODE	[M]
D501	B0BA8R700009	DIODE	[M]
D502	B0AACK000004	DIODE	[M]
D504	B0EAKM000117	DIODE	[M]
D505	B0EAKM000117	DIODE	[M]
D510	B0BA5R000004	DIODE	[M]
D511	B0AACK000004	DIODE	[M]
D513	B0ACCK000005	DIODE	[M]
D514	B0ACCK000005	DIODE	[M]
D515	B0BA7R500006	DIODE	[M]
D516	B0AACK000004	DIODE	[M]
D517	B0ACCK000005	DIODE	[M]
D600	B0EAMM000038	DIODE	[M]
D601	B0EAMM000038	DIODE	[M]
D602	B0EAMM000038	DIODE	[M]
D603	B0EAMM000038	DIODE	[M]
D841	B0ACCE000003	DIODE	[M]
D842	B0ACCE000003	DIODE	[M]
D843	B0BA6R100003	DIODE	[M]
D844	B0BA4R600003	DIODE	[M]
D845	B0ACCK000005	DIODE	[M]
D846	B0ACCE000003	DIODE	[M]
D851	B0ACCK000005	DIODE	[M]
D992	B3AEA0000074	DIODE	[M]
D994	B0BA6R100003	DIODE	[M]
D7650	MAZ80560ML	DIODE	[M]
		SWITCHES	
S650	K0L1BA000078	SW CD TOP SWITCH	[M]
S651	K0L1BA000078	SW CD BOTTOM SWITCH	[M]
S950	EVQ21405RJ	SW POWER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
S951	EVQ21405RJ	SW CD OPEN/CLOSE	[M]
S952	EVQ21405RJ	SW VOL-	[M]
S953	EVQ21405RJ	SW VOL+	[M]
S954	EVQ21405RJ	SW FM/AM/MUSIC PORT	[M]
S955	EVQ21405RJ	SW IPOD	[M]
S956	EVQ21405RJ	SW STOP	[M]
S957	EVQ21405RJ	SW CD	[M]
S958	EVQ21405RJ	SW REV_SKIP	[M]
S959	EVQ21405RJ	SW FWD_SKIP	[M]
S7201	RSH1A048-A	SW REST	[M]
		CONNECTORS	
CN1	K1MN11AA0003	11P CONNECTOR	[M]
CN301	K1MN22BA0005	22P CONNECTOR	[M]
CN302	K1MN22AA0004	22P CONNECTOR	[M]
CN330	K1MN18B00013	18P CONNECTOR	[M]
CN331	K1MN18B00013	18P CONNECTOR	[M]
CN350	K1MN11BA0004	11P CONNECTOR	[M]
CN380	K1MN14BA0004	14P CONNECTOR	[M]
CN381	K1MN14BA0004	14P CONNECTOR	[M]
CN601	K1KA03AA0180	3P CONNECTOR	[M]
CN801	K1MY06AA0124	6P FFC CONNECTOR	[M]
CN952	K1MN08B00013	8P FFC CONNECTOR	[M]
CN953	K1MN08B00013	8P FFC CONNECTOR	[M]
CN1001	MFI514S0117	30P CONNECTOR	[M]
CN1002	K1MN14BA0141	14P CONNECTOR	[M]
CN1003	K1KA05BA0014	5P CONNECTOR	[M]
CN4000	K1MN14BA0147	14P CONNECTOR	[M]
CN4100	K1FY124DA001	CONNECTOR	[M]
CN7001	K1MN16B00154	16P CONNECTOR	[M]
CN7002	K1MN22BA0005	22P CONNECTOR	[M]
P1	K1KA03AA0186	3P CONNECTOR	[M]
P1	K4AD18A00001	18P CONNECTOR	[M]
P201	K4AD02A00001	2P CONNECTOR	[M]
P650	K1MP05B00008	5P CONNECTOR	[M]
P651	K1MP03B00001	3P CONNECTOR	[M]
P900	K1MP08B00001	8P CONNECTOR	[M]
P901	K1MN22BA0005	22P CONNECTOR	[M]
P903	K1FY104B0011	CONNECTOR	[M]
		COILS AND INDUCTORS	
L1	G0ZZ00002353	COIL	[M]
L1	J0JBC0000019	INDUCTOR	[M]
L2	J0JBC0000019	INDUCTOR	[M]
L3	G0ZZ00002353	COIL	[M]
L5	G0ZZ00002453	COIL	[M]
L7	G2BPC0000017	AM IFT COIL	[M]
L8	G0C101KA0029	INDUCTOR	[M]
L201	G1CR10GA0028	INDUCTOR	[M]
L202	G1C18NGA0028	INDUCTOR	[M]
L203	G1CR10GA0028	INDUCTOR	[M]
L204	G1C91NGA0028	INDUCTOR	[M]
L205	J0JBC0000019	INDUCTOR	[M]
L207	J0JBC0000019	INDUCTOR	[M]
L208	G1CR33GA0028	INDUCTOR	[M]
L209	G1CR33GA0028	INDUCTOR	[M]
L210	G1CR33GA0028	INDUCTOR	[M]
L302	G0A200D00002	CHOKE COIL	[M]
L345	G0C101KA0029	INDUCTOR	[M]
L346	G0C2R2KA0029	INDUCTOR	[M]
L347	J0JBC0000015	INDUCTOR	[M]
L381	J0JHC0000034	INDUCTOR	[M]
L382	J0JHC0000034	INDUCTOR	[M]
L383	J0JBC0000019	INDUCTOR	[M]
L384	J0JBC0000019	INDUCTOR	[M]
L385	J0JBC0000019	INDUCTOR	[M]
L802	J0JBC0000019	INDUCTOR	[M]
L803	J0JBC0000019	INDUCTOR	[M]
L804	J0JBC0000019	INDUCTOR	[M]
L501	J0JHC0000034	INDUCTOR	[M]
L600	ELF15N035AN	LINE FILTER	[M] ⚠

Ref. No.	Part No.	Part Name & Description	Remarks
L601	G0B9R5K00003	LINE FILTER	[M]
L720	J0JHC0000032	INDUCTOR	[M]
L740	J0JHC0000032	INDUCTOR	[M]
L801	J0JBC0000019	INDUCTOR	[M]
L841	G0C2R2JA0019	INDUCTOR	[M]
L900	G1C100K00019	INDUCTOR	[M]
L900	J0JBC0000019	INDUCTOR	[M]
L901	J0JBC0000019	INDUCTOR	[M]
L970	J0JBC0000019	INDUCTOR	[M]
L1001	J0JHC0000107	INDUCTOR	[M]
L1002	J0JHC0000107	INDUCTOR	[M]
L1003	J0JHC0000107	INDUCTOR	[M]
L1004	J0JHC0000107	INDUCTOR	[M]
L1005	J0JHC0000107	INDUCTOR	[M]
L1006	J0JHC0000107	INDUCTOR	[M]
L1007	J0JHC0000107	INDUCTOR	[M]
L1008	J0JHC0000107	INDUCTOR	[M]
L1009	J0JHC0000107	INDUCTOR	[M]
L1010	J0JHC0000107	INDUCTOR	[M]
L1011	J0JHC0000107	INDUCTOR	[M]
L1012	J0JHC0000034	INDUCTOR	[M]
L1014	J0JHC0000034	INDUCTOR	[M]
LB840	J0JAC0000021	INDUCTOR	[M]
LB841	J0JAC0000021	INDUCTOR	[M]
LB843	J0JAC0000021	INDUCTOR	[M]
LB845	J0JAC0000021	INDUCTOR	[M]
LB846	J0JAC0000021	INDUCTOR	[M]
LB848	J0JAC0000021	INDUCTOR	[M]
LB850	J0JHC0000045	INDUCTOR	[M]
LB852	J0JHC0000045	INDUCTOR	[M]
LB930	J0JHC0000045	INDUCTOR	[M]
LB932	J0JAC0000021	INDUCTOR	[M]
LB933	J0JAC0000021	INDUCTOR	[M]
LB934	J0JAC0000021	INDUCTOR	[M]
LB935	J0JAC0000021	INDUCTOR	[M]
LB936	J0JAC0000021	INDUCTOR	[M]
LB938	J0JAC0000021	INDUCTOR	[M]
LB951	J0JHC0000045	INDUCTOR	[M]
LB952	J0JHC0000045	INDUCTOR	[M]
		TRANSFORMER	
T600	G4CYAYY00176	TRANSFORMER	[M] ⚠
		COMPOMENT COMBINATION	
Z900	L5ACAYY00022	LCD DISPLAY	[M]
Z950	B3RAD0000143	REMOTE SENSOR	[M]
		CERAMIC FILTER	
CF1	J0B1075A0129	CERAMIC FILTER	[M]
		OSCILLATORS	
X1	J0B1075A0121	CRYSTAL OSCILLATOR	[M]
X2	H0A750200020	CRYSTAL OSCILLATOR	[M]
X201	H0J245500084	CRYSTAL OSCILLATOR	[M]
X801	H0A327200097	CRYSTAL OSCILLATOR	[M]
X802	H2A800400011	CRYSTAL OSCILLATOR	[M]
X900	H0D120500009	CRYSTAL OSCILLATOR	[M]
X7201	H2B169500005	CRYSTAL OSCILLATOR	[M]
		FUSE	
F1	K5D202BLA013	FUSE	[M] ⚠
		FUSE HOLDERS	
FC600	EYF52BCY	FUSE HOLDER	[M]
FC601	EYF52BCY	FUSE HOLDER	[M]
		FUSE PROTECTORS	

Ref. No.	Part No.	Part Name & Description	Remarks
FP600	K5G302AA0002	FUSE PROTECTOR	[M] ⚠
FP841	K5G251A00008	FUSE PROTECTOR	[M] ⚠
		JACKS	
JK330	K1QKB1BB0002	DAB CONNECTOR	[M]
JK600	K2AA2B000017	AC INLET	[M] ⚠
JK602	K4AC04B00008	JK SPEAKER	[M]
JK950	K2HC103A0031	JK PHONE	[M]
JK970	K2HC1YYA0002	JK MUSIC PORT	[M]
		CHIP JUMPERS	
L951	D0GBR00JA008	0 1/16W	[M]
L953	D0GBR00JA008	0 1/16W	[M]
L955	D0GBR00JA008	0 1/16W	[M]
LB7262	D0GBR00JA008	0 1/16W	[M]
LB7263	D0GBR00JA008	0 1/16W	[M]
LB7264	D0GBR00JA008	0 1/16W	[M]
W2	D0GBR00JA008	0 1/16W	[M]
W500	D0GBR00JA008	0 1/16W	[M]
W503	D0GDR00JA017	0 1/10W	[M]
W504	D0GDR00JA017	0 1/10W	[M]
W505	D0GBR00JA008	0 1/16W	[M]
W506	D0GBR00JA008	0 1/16W	[M]
W507	D0GDR00JA017	0 1/10W	[M]
W508	D0GBR00JA008	0 1/16W	[M]
W509	D0GDR00JA017	0 1/10W	[M]
W510	D0GBR00JA008	0 1/16W	[M]
W511	D0GBR00JA008	0 1/16W	[M]
W512	D0GDR00JA017	0 1/10W	[M]
W513	D0GBR00JA008	0 1/16W	[M]
W514	D0GBR00JA008	0 1/16W	[M]
W515	D0GDR00JA017	0 1/10W	[M]
W516	ERJ8GEY0R00V	0 1/4W	[M]
W517	D0GDR00JA017	0 1/10W	[M]
W518	D0GBR00JA008	0 1/16W	[M]
W520	D0GBR00JA008	0 1/16W	[M]
W521	D0GDR00JA017	0 1/10W	[M]
W522	D0GBR00JA008	0 1/16W	[M]
W523	D0GBR00JA008	0 1/16W	[M]
W524	D0GDR00JA017	0 1/10W	[M]
W525	D0GBR00JA008	0 1/16W	[M]
W526	D0GBR00JA008	0 1/16W	[M]
W528	D0GBR00JA008	0 1/16W	[M]
W530	D0GBR00JA008	0 1/16W	[M]
W531	D0GDR00JA017	0 1/10W	[M]
W803	D0GDR00JA017	0 1/10W	[M]
W4000	D0GBR00JA008	0 1/16W	[M]
W4001	D0GDR00JA017	0 1/10W	[M]
W4002	ERJ8GEY0R00V	0 1/4W	[M]
W4003	ERJ8GEY0R00V	0 1/4W	[M]
W4004	D0GBR00JA008	0 1/16W	[M]
W4005	D0GDR00JA017	0 1/10W	[M]
W4006	ERJ8GEY0R00V	0 1/4W	[M]
W4007	D0GBR00JA008	0 1/16W	[M]
W4008	ERJ8GEY0R00V	0 1/4W	[M]
W4009	ERJ8GEY0R00V	0 1/4W	[M]
W4010	D0GDR00JA017	0 1/10W	[M]
W4011	D0GDR00JA017	0 1/10W	[M]
W4012	ERJ8GEY0R00V	0 1/4W	[M]
W4013	D0GDR00JA017	0 1/10W	[M]
W7001	D0GDR00JA017	0 1/10W	[M]
W7002	D0GDR00JA017	0 1/10W	[M]
W7003	D0GDR00JA017	0 1/10W	[M]
W7004	D0GBR00JA008	0 1/16W	[M]
W7005	D0GBR00JA008	0 1/16W	[M]
W7006	ERJ8GEY0R00V	0 1/4W	[M]
W7007	ERJ8GEY0R00V	0 1/4W	[M]
W7008	D0GDR00JA017	0 1/10W	[M]
W7009	D0GBR00JA008	0 1/16W	[M]
W7010	D0GBR00JA008	0 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
W7011	D0GBR00JA008	0 1/16W	[M]
W7012	D0GBR00JA008	0 1/16W	[M]
W7013	D0GBR00JA008	0 1/16W	[M]
W7014	D0GBR00JA008	0 1/16W	[M]
W7015	D0GBR00JA008	0 1/16W	[M]
W7016	D0GBR00JA008	0 1/16W	[M]
W7017	D0GBR00JA008	0 1/16W	[M]
W7018	D0GBR00JA008	0 1/16W	[M]
W7019	D0GBR00JA008	0 1/16W	[M]
W7020	D0GBR00JA008	0 1/16W	[M]
W7021	D0GBR00JA008	0 1/16W	[M]
W7022	D0GBR00JA008	0 1/16W	[M]
W7023	D0GBR00JA008	0 1/16W	[M]
W7024	D0GBR00JA008	0 1/16W	[M]
W7025	D0GBR00JA008	0 1/16W	[M]
W7026	D0GBR00JA008	0 1/16W	[M]
W7027	D0GBR00JA008	0 1/16W	[M]
W7028	D0GBR00JA008	0 1/16W	[M]
W7029	D0GBR00JA008	0 1/16W	[M]
		WIRES	
JW601	REXX0668	3P WIRE (TRANS-MAIN)	[M]
JW650	REXX0671	3P WIRE (MOTOR-MAIN)	[M]
JW651	REXX0669	3P WIRE (DETECTOR-MAIN)	[M]
JW900	REXX0665	8P WIRE (PAN-MAIN)	[M]
JW901	REXX0666	2P WIRE (PAN-LED)	[M]
JW950	REXX0663	5P WIRE (TACT - SENSOR)	[M]
		PACKING MATERIALS	
P1	RPGX1896	PACKING CASE	[M]
P2	RPNX0536	POLYFOAM (MAIN SET)	[M]
P3	RPNX0537	POLYFOAM (SPEAKER)	[M]
P4	RPFX0235	MIRAMAT SHEET (MAIN SET)	[M]
P5	RPFX0236	MIRAMAT (SPEAKER)	[M]
		ACCESSORIES	
A1	N2QAYB000245	REMOTE CONTROL	[M]
A1-1	RKK-HTR0283	R/C BATTERY COVER	[M]
A2	K2CT3CA00004	AC CORD	[M] ⚠
A3	RQTV0294-B	O/I BOOK (En)	[M]
A4	N1DADYY00003	AM LOOP ANTENNA	[M]
A5	RGKX0474-K	SUPPORT STAND	[M]
A6	N1EADY000001	DAB ANTENNA	[M]
		RESISTORS	
R1	ERJ2GEJ101X	100 1/16W	[M]
R2	ERJ2GEJ101X	100 1/16W	[M]
R2	ERJ3GEY0R00V	0 1/10W	[M]
R3	D0GB332JA008	3.3K 1/16W	[M]
R3	ERJ2GEJ104X	100K 1/16W	[M]
R4	D0GB104JA008	100K 1/16W	[M]
R4	ERJ2GEJ101X	100 1/16W	[M]
R5	D0GB680JA007	68 1/10W	[M]
R5	ERJ2GE0R00X	0 1/16W	[M]
R6	D0GB104JA008	100K 1/16W	[M]
R6	ERJ2GEJ393X	39K 1/16W	[M]
R7	D0GB104JA008	100K 1/16W	[M]
R7	ERJ2GEJ102X	1K 1/16W	[M]
R8	D0GB103JA008	10K 1/16W	[M]
R8	ERJ2GEJ101X	100 1/16W	[M]
R9	ERJ2GEJ101X	100 1/16W	[M]
R9	ERJ3GEY0R00V	0 1/10W	[M]
R10	D0GB104JA008	100K 1/16W	[M]
R10	ERJ2GEJ101X	100 1/16W	[M]
R11	D0GB332JA008	3.3K 1/16W	[M]
R11	ERJ2GEJ101X	100 1/16W	[M]
R12	ERJ2GEJ101X	100 1/16W	[M]
R12	ERJ3GEYJ152V	1.5K 1/10W	[M]
R13	D0GB332JA008	3.3K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R13	ERJ2GEJ103X	10K 1/16W	[M]
R14	D0GB472JA008	4.7K 1/16W	[M]
R14	ERJ2GEJ103X	10K 1/16W	[M]
R15	ERJ2GEJ103X	10K 1/16W	[M]
R16	D0GB103JA008	10K 1/16W	[M]
R16	ERJ2GEJ103X	10K 1/16W	[M]
R17	D0GB103JA008	10K 1/16W	[M]
R17	ERJ2GEJ103X	10K 1/16W	[M]
R18	D0GB223JA008	22K 1/16W	[M]
R18	ERJ2GEJ100X	10 1/16W	[M]
R19	ERJ2GEJ182X	1.8K 1/16W	[M]
R20	D0GB103JA008	10K 1/16W	[M]
R20	ERJ2GEJ182X	1.8K 1/16W	[M]
R21	ERJ2GEJ822X	8.2K 1/16W	[M]
R22	D0GB103JA008	10K 1/16W	[M]
R22	ERJ2GEJ822X	8.2K 1/16W	[M]
R23	D0GB223JA008	22K 1/16W	[M]
R23	ERJ2GEJ101X	100 1/16W	[M]
R24	D0GB223JA008	22K 1/16W	[M]
R24	ERJ2GEJ101X	100 1/16W	[M]
R25	D0GB223JA008	22K 1/16W	[M]
R25	ERJ2GEJ101X	100 1/16W	[M]
R26	ERJ2GEJ101X	100 1/16W	[M]
R27	ERJ2GEJ332X	3.3K 1/16W	[M]
R28	D0GB104JA008	100K 1/16W	[M]
R28	ERJ2GEJ683X	68K 1/16W	[M]
R29	D0GB102JA008	1K 1/16W	[M]
R30	D0GB393JA008	39K 1/16W	[M]
R30	ERJ2GEJ222X	2.2K 1/16W	[M]
R31	D0GB472JA008	4.7K 1/16W	[M]
R31	ERJ2GEJ222X	2.2K 1/16W	[M]
R32	ERJ2RHD473X	47K 1/16W	[M]
R33	ERJ2RHD473X	47K 1/16W	[M]
R34	ERJ2RHD473X	47K 1/16W	[M]
R35	ERJ2GEJ473X	47K 1/16W	[M]
R36	ERJ2RHD473X	47K 1/16W	[M]
R37	ERJ3GEY0R00V	0 1/10W	[M]
R38	D0GB332JA008	3.3K 1/16W	[M]
R39	ERJ3GEY0R00V	0 1/10W	[M]
R201	ERJ2GEJ273X	27K 1/16W	[M]
R201	D0GBR00JA008	0 1/16W	[M]
R202	ERJ2GEJ103X	10K 1/16W	[M]
R203	ERJ2GEJ102X	1K 1/16W	[M]
R204	ERJ2GEJ270X	27 1/16W	[M]
R205	ERJ2GEJ270X	27 1/16W	[M]
R206	D0GB153JA007	15K 1/10W	[M]
R207	ERJ2GEJ101X	100 1/16W	[M]
R208	ERJ2GEJ101X	100 1/16W	[M]
R209	ERJ2GEJ270X	27 1/16W	[M]
R210	ERJ2GEJ271X	270 1/16W	[M]
R211	ERJ2GE0R00X	0 1/16W	[M]
R215	ERJ2GEJ333X	33K 1/16W	[M]
R216	ERJ2GEJ103X	10K 1/16W	[M]
R220	D0GB471JA008	470 1/16W	[M]
R221	D0GB822JA008	8.2K 1/16W	[M]
R222	D0GB472JA008	4.7K 1/16W	[M]
R230	D0GB472JA008	4.7K 1/16W	[M]
R231	D0GB823JA008	82K 1/16W	[M]
R232	D0GB223JA008	22K 1/16W	[M]
R233	D0GB223JA008	22K 1/16W	[M]
R260	ERD2FCVG470T	47 1/4W	[M] ⚠
R301	D0GB152JA007	1.5K 1/10W	[M]
R302	D0GB472JA008	4.7K 1/16W	[M]
R303	D0GB472JA008	4.7K 1/16W	[M]
R304	D0GB472JA008	4.7K 1/16W	[M]
R305	D0GB101JA007	100 1/10W	[M]
R306	D0GB101JA007	100 1/10W	[M]
R307	D0GB101JA007	100 1/10W	[M]
R308	D0GB101JA007	100 1/10W	[M]
R309	D0GB101JA007	100 1/10W	[M]
R310	D0GB101JA007	100 1/10W	[M]
R320	D0GB103JA008	10K 1/16W	[M]
R330	D0GBR00JA008	0 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R331	D0GBR00JA008	0 1/16W	[M]
R332	D0GBR00JA008	0 1/16W	[M]
R333	D0GBR00JA008	0 1/16W	[M]
R334	D0GBR00JA008	0 1/16W	[M]
R335	D0GBR00JA008	0 1/16W	[M]
R336	D0GBR00JA008	0 1/16W	[M]
R338	D0GBR00JA008	0 1/16W	[M]
R350	D0GBR00JA008	0 1/16W	[M]
R360	D0GB103JA008	10K 1/16W	[M]
R361	D0GB103JA008	10K 1/16W	[M]
R362	D0GB103JA008	10K 1/16W	[M]
R363	D0GB103JA008	10K 1/16W	[M]
R364	D0GB103JA008	10K 1/16W	[M]
R365	D0GB103JA008	10K 1/16W	[M]
R366	D0GB103JA008	10K 1/16W	[M]
R367	D0GB103JA008	10K 1/16W	[M]
R368	D0GB102JA008	1K 1/16W	[M]
R369	D0GB122JA008	1.2K 1/16W	[M]
R380	D0GB155JA007	1.5M 1/10W	[M]
R381	D0GB125JA007	1.2M 1/10W	[M]
R382	D0GB224JA007	220K 1/10W	[M]
R383	D0GB224JA007	220K 1/10W	[M]
R384	D0GB224JA007	220K 1/10W	[M]
R385	D0GB224JA007	220K 1/10W	[M]
R388	D0GB562JA008	5.6K 1/16W	[M]
R389	D0GB682JA008	6.8K 1/16W	[M]
R390	D0GB103JA007	10K 1/10W	[M]
R391	D0GB153JA007	15K 1/10W	[M]
R392	D0GB104JA008	100K 1/16W	[M]
R393	D0GB472JA008	4.7K 1/16W	[M]
R394	D0GB473JA008	47K 1/16W	[M]
R401	D0GBR00JA008	0 1/16W	[M]
R406	D0GB153JA007	15K 1/10W	[M]
R420	D0GB471JA008	470 1/16W	[M]
R421	D0GB822JA008	8.2K 1/16W	[M]
R422	D0GB472JA008	4.7K 1/16W	[M]
R500	D0GB681JA008	680 1/16W	[M]
R501	D0GB121JA008	120 1/16W	[M]
R502	D0GB121JA008	120 1/16W	[M]
R503	D0GB471JA008	470 1/16W	[M]
R504	D0GB471JA008	470 1/16W	[M]
R505	D0GB681JA008	680 1/16W	[M]
R506	D0GB681JA008	680 1/16W	[M]
R507	D0GB101JA008	100 1/16W	[M]
R508	D0GB1R0JA007	1.0 1/10W	[M]
R509	D0GB471JA008	470 1/16W	[M]
R510	D0GB102JA008	1K 1/16W	[M]
R512	D0GB121JA008	120 1/16W	[M]
R513	D0GB681JA008	680 1/16W	[M]
R514	D0GB101JA007	100 1/10W	[M]
R515	D0GB221JA007	220 1/10W	[M]
R516	D0GB681JA008	680 1/16W	[M]
R518	D0GB102JA008	1K 1/16W	[M]
R519	D0GB102JA008	1K 1/16W	[M]
R520	D0GB273JA007	27K 1/10W	[M]
R521	D0GB221JA007	220 1/10W	[M]
R522	D0GB222JA008	2.2K 1/16W	[M]
R523	D0GB562JA008	5.6K 1/16W	[M]
R524	D0GB681JA008	680 1/16W	[M]
R525	D0GB562JA008	5.6K 1/16W	[M]
R526	D0GB153JA007	15K 1/10W	[M]
R527	D0GB102JA008	1K 1/16W	[M]
R528	D0GB102JA008	1K 1/16W	[M]
R529	D0GB101JA007	100 1/10W	[M]
R530	D0GB221JA007	220 1/10W	[M]
R600	D0GB333JA008	33K 1/16W	[M]
R601	D0GB272JA008	2.7K 1/16W	[M]
R700	D0GB222JA008	2.2K 1/16W	[M]
R701	D0GB222JA008	2.2K 1/16W	[M]
R702	D0GB822JA008	8.2K 1/16W	[M]
R720	D0GB103JA007	10K 1/10W	[M]
R723	D0GB103JA008	10K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R724	D0GB332JA008	3.3K 1/16W	[M]
R725	D0GB821JA008	820 1/16W	[M]
R740	D0GB103JA007	10K 1/10W	[M]
R743	D0GB103JA008	10K 1/16W	[M]
R744	D0GB332JA008	3.3K 1/16W	[M]
R745	D0GB821JA008	820 1/16W	[M]
R801	D0GBR00JA008	0 1/16W	[M]
R802	D0GB224JA007	220K 1/10W	[M]
R803	D0GB102JA008	1K 1/16W	[M]
R804	D0GB102JA008	1K 1/16W	[M]
R805	D0GB472JA008	4.7K 1/16W	[M]
R806	D0GB102JA008	1K 1/16W	[M]
R807	D0GB101JA007	100 1/10W	[M]
R808	D0GB102JA008	1K 1/16W	[M]
R809	D0GB101JA007	100 1/10W	[M]
R810	D0GB102JA008	1K 1/16W	[M]
R811	D0GB102JA008	1K 1/16W	[M]
R812	D0GB102JA008	1K 1/16W	[M]
R813	D0GB472JA008	4.7K 1/16W	[M]
R821	D0GB102JA008	1K 1/16W	[M]
R822	D0GB102JA008	1K 1/16W	[M]
R823	D0GB102JA008	1K 1/16W	[M]
R824	D0GB102JA008	1K 1/16W	[M]
R825	D0GB102JA008	1K 1/16W	[M]
R826	D0GB473JA008	47K 1/16W	[M]
R827	D0GB102JA008	1K 1/16W	[M]
R828	D0GB102JA008	1K 1/16W	[M]
R829	D0GB101JA007	100 1/10W	[M]
R830	D0GB101JA007	100 1/10W	[M]
R831	D0GB102JA008	1K 1/16W	[M]
R832	D0GB104JA008	100K 1/16W	[M]
R833	D0GB104JA008	100K 1/16W	[M]
R834	D0GB101JA007	100 1/10W	[M]
R835	D0GB101JA007	100 1/10W	[M]
R836	D0GB101JA007	100 1/10W	[M]
R837	D0GB101JA007	100 1/10W	[M]
R838	D0GB102JA008	1K 1/16W	[M]
R840	D0GB222JA008	2.2K 1/16W	[M]
R841	D0GBR00JA008	0 1/16W	[M]
R842	D0GB101JA007	100 1/10W	[M]
R843	D0GB122JA008	1.2K 1/16W	[M]
R844	D0GB473JA008	47K 1/16W	[M]
R845	D0GB472JA008	4.7K 1/16W	[M]
R846	D0GB472JA008	4.7K 1/16W	[M]
R847	D0GB821JA008	820 1/16W	[M]
R851	D0GB332JA007	3.3K 1/10W	[M]
R852	D0GB332JA007	3.3K 1/10W	[M]
R853	D0GB102JA008	1K 1/16W	[M]
R854	D0GB102JA008	1K 1/16W	[M]
R855	D0GB102JA008	1K 1/16W	[M]
R856	ERJ3GEYJ564V	560K 1/10W	[M]
R857	D0GB101JA007	100 1/10W	[M]
R858	D0GBR00JA008	0 1/16W	[M]
R859	D0GB102JA008	1K 1/16W	[M]
R860	D0GB102JA008	1K 1/16W	[M]
R861	D0GB102JA008	1K 1/16W	[M]
R862	D0GB102JA008	1K 1/16W	[M]
R863	D0GB102JA008	1K 1/16W	[M]
R864	D0GBR00JA008	0 1/16W	[M]
R865	D0GBR00JA008	0 1/16W	[M]
R866	D0GB101JA007	100 1/10W	[M]
R871	D0GB273JA007	27K 1/10W	[M]
R872	D0GB472JA008	4.7K 1/16W	[M]
R873	D0GB103JA007	10K 1/10W	[M]
R874	D0GB103JA007	10K 1/10W	[M]
R875	D0GB103JA007	10K 1/10W	[M]
R876	D0GB103JA007	10K 1/10W	[M]
R877	D0GB103JA007	10K 1/10W	[M]
R878	D0GB103JA007	10K 1/10W	[M]
R880	D0GB101JA007	100 1/10W	[M]
R881	D0GB101JA007	100 1/10W	[M]
R882	D0GB101JA007	100 1/10W	[M]
R883	D0GB101JA007	100 1/10W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R884	D0GB101JA007	100 1/10W	[M]
R885	D0GB104JA008	100K 1/16W	[M]
R886	D0GB821JA008	820 1/16W	[M]
R887	D0GB123JA007	12K 1/10W	[M]
R888	D0GB103JA007	10K 1/10W	[M]
R889	D0GB123JA007	12K 1/10W	[M]
R890	D0GB101JA007	100 1/10W	[M]
R891	D0GB101JA007	100 1/10W	[M]
R892	D0GB101JA007	100 1/10W	[M]
R893	D0GB472JA008	4.7K 1/16W	[M]
R894	D0GB102JA008	1K 1/16W	[M]
R900	D0GB820JA008	82 1/16W	[M]
R901	D0GB104JA008	100K 1/16W	[M]
R901	ERJ2GEJ102X	1K 1/16W	[M]
R902	D0GB104JA008	100K 1/16W	[M]
R902	ERJ2GEJ102X	1K 1/16W	[M]
R903	D0GB471JA008	470 1/16W	[M]
R903	ERJ2GE0R00X	0 1/16W	[M]
R904	D0GB471JA008	470 1/16W	[M]
R904	ERJ2GE0R00X	0 1/16W	[M]
R905	D0GB471JA008	470 1/16W	[M]
R906	D0GB471JA008	470 1/16W	[M]
R906	ERJ2GE0R00X	0 1/16W	[M]
R907	D0GB273JA007	27K 1/10W	[M]
R908	D0GB104JA008	100K 1/16W	[M]
R914	ERJ2GE0R00X	0 1/16W	[M]
R950	D0GB152JA007	1.5K 1/10W	[M]
R950	ERJ2GEJ223X	22K 1/16W	[M]
R951	D0GB222JA008	2.2K 1/16W	[M]
R951	ERJ2GE0R00X	0 1/16W	[M]
R952	D0GB272JA008	2.7K 1/16W	[M]
R952	ERJ2GEJ240X	24 1/16W	[M]
R953	D0GB392JA008	3.9K 1/16W	[M]
R953	ERJ2GEJ240X	24 1/16W	[M]
R954	D0GB562JA008	5.6K 1/16W	[M]
R954	ERJ2GEJ153X	15K 1/16W	[M]
R955	D0GB822JA008	8.2K 1/16W	[M]
R955	ERJ2GEJ153X	15K 1/16W	[M]
R956	D0GB153JA007	15K 1/10W	[M]
R957	D0GB333JA008	33K 1/16W	[M]
R957	ERJ2GEJ222X	2.2K 1/16W	[M]
R958	D0GB823JA008	82K 1/16W	[M]
R958	ERJ2GEJ104X	100K 1/16W	[M]
R959	D0GB153JA007	15K 1/10W	[M]
R960	D0GB471JA008	470 1/16W	[M]
R962	D0GB471JA008	470 1/16W	[M]
R970	D0GBR00JA008	0 1/16W	[M]
R971	D0GBR00JA008	0 1/16W	[M]
R971	ERJ2GEJ102X	1K 1/16W	[M]
R972	ERJ2GEJ102X	1K 1/16W	[M]
R991	D0GB680JA007	68 1/10W	[M]
R1001	D0GB101JA008	100 1/16W	[M]
R1002	D0GB101JA008	100 1/16W	[M]
R1003	D0GB104JA008	100K 1/16W	[M]
R1004	D0GB104JA008	100K 1/16W	[M]
R1005	ERJ3GEYF753V	75K 1/10W	[M]
R1006	ERJ3GEYF753V	75K 1/10W	[M]
R1007	ERJ3GEYF513V	51K 1/10W	[M]
R1008	ERJ3GEYF513V	51K 1/10W	[M]
R1009	D0GB151JA008	150 1/16W	[M]
R1010	D0GB151JA008	150 1/16W	[M]
R1011	D0GBR00JA008	0 1/16W	[M]
R1017	D0GB391JA008	390 1/16W	[M]
R1018	D0GB334JA008	330K 1/16W	[M]
R1019	D0GB224JA008	220K 1/16W	[M]
R1020	D0GB102JA008	1K 1/16W	[M]
R1021	D0GBR00JA008	0 1/16W	[M]
R4008	ERJ3RED334V	330K 1/10W	[M]
R4009	ERJ3RED224V	220K 1/10W	[M]
R4012	D0GBR00JA008	0 1/16W	[M]
R4013	D0GBR00JA008	0 1/16W	[M]
R4014	D0GBR00JA008	0 1/16W	[M]
R7111	D0GB103JA008	10K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R7211	ERJ3GEYJ823V	82K 1/10W	[M]
R7212	ERJ3GEYJ821V	820 1/10W	[M]
R7214	ERJ3GEYJ471V	470 1/10W	[M]
R7217	D0GB102JA008	1K 1/16W	[M]
R7218	D0GB102JA008	1K 1/16W	[M]
R7220	ERJ3GEYJ105V	1M 1/10W	[M]
R7221	ERJ3GEYJ101V	100 1/10W	[M]
R7253	ERJ3GEYJ100V	10 1/10W	[M]
R7254	D0GB102JA008	1K 1/16W	[M]
R7315	ERJ3GEYJ332V	3.3K 1/10W	[M]
R7323	ERJ3GEYJ332V	3.3K 1/10W	[M]
R7325	ERJ3GEYJ331V	330 1/10W	[M]
R7327	D0GB102JA008	1K 1/16W	[M]
R7328	D0GB103JA008	10K 1/16W	[M]
R7329	D0GB102JA008	1K 1/16W	[M]
R7330	ERJ3GEYJ562V	5.6K 1/10W	[M]
R7331	D0GB223JA008	22K 1/16W	[M]
R7332	D0GB102JA008	1K 1/16W	[M]
R7335	ERJ3GEYJ101V	100 1/10W	[M]
R7336	ERJ3GEYJ100V	10 1/10W	[M]
R7339	D0GB102JA008	1K 1/16W	[M]
R7349	ERJ3GEYJ183V	18K 1/10W	[M]
R7601	ERJ3GEYJ4R7V	4.7 1/10W	[M]
R7650	ERJ3GEYJ5R6V	5.6 1/10W	[M]
		CAPACITORS	
C1	ECJ1VC1H470J	47pF 50V	[M]
C1	F3F1A106A026	10uF 10V	[M]
C2	ECJ0EB1A104K	0.1uF 10V	[M]
C2	ECJ1VC1H100D	10pF 50V	[M]
C3	ECJ0EB1A104K	0.1uF 10V	[M]
C4	ECJ0EB1A104K	0.1uF 10V	[M]
C4	F2A1C100A147	10uF 16V	[M]
C5	ECJ0EB1A104K	0.1uF 10V	[M]
C5	ECJ1VB1C473K	0.047uF 16V	[M]
C6	ECJ0EB1A104K	0.1uF 10V	[M]
C6	F1H1H102A219	1000pF 50V	[M]
C7	ECJ0EB1A104K	0.1uF 10V	[M]
C7	F1H1H102A219	1000pF 50V	[M]
C8	ECJ0EB1A104K	0.1uF 10V	[M]
C8	ECJ2VC1H070D	7pF 50V	[M]
C9	ECJ0EB1A104K	0.1uF 10V	[M]
C9	F1H1E103A029	0.01uF 25V	[M]
C10	ECJ0EB1C103K	0.01uF 16V	[M]
C10	F1H1E103A029	0.01uF 25V	[M]
C11	ECJ0EB1A104K	0.1uF 10V	[M]
C11	F1H1H102A219	1000pF 50V	[M]
C12	ECJ0EB1E102K	1000pF 25V	[M]
C12	ECJ1VB1C473K	0.047uF 16V	[M]
C13	ECJ0EB1C103K	0.01uF 16V	[M]
C13	ECJ1VC1H150J	15pF 50V	[M]
C14	ECJ0EB1C103K	0.01uF 16V	[M]
C15	ECJ1VB0J105K	1uF 6.3V	[M]
C15	ECJ1VB1C473K	0.047uF 16V	[M]
C16	ECJ1VB0J105K	1uF 6.3V	[M]
C16	ECJ1VC1H150J	15pF 50V	[M]
C17	ECJ0EB1A104K	0.1uF 10V	[M]
C17	F2A1H3R3A145	3.3uF 50V	[M]
C18	ECJ0EC1H101J	100pF 50V	[M]
C18	F1H1E103A029	0.01uF 25V	[M]
C19	ECJ0EC1H330J	33pF 50V	[M]
C19	F2A1H1R0A145	1.0uF 50V	[M]
C20	ECJ1VB0J105K	1uF 6.3V	[M]
C20	F2A0J101A167	100uF 6.3V	[M]
C21	ECJ1VB0J105K	1uF 6.3V	[M]
C21	F2A1H1R0A145	1.0uF 50V	[M]
C22	EEE1EA4R7SR	4.7uF 25V	[M]
C22	F2A1HR47A013	0.47uF 50V	[M]
C23	EEE0JA470WR	47uF 6.3V	[M]
C23	F2A0J101A167	100uF 6.3V	[M]
C24	ECEA1AKA220B	22uF 10V	[M]
C24	ECJ0EB1A104K	0.1uF 10V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C25	ECJ1VB0J105K	1uF 6.3V	[M]
C25	ECJ1VB1C183K	0.018uF 16V	[M]
C26	EEE0JA470WR	47uF 6.3V	[M]
C26	F1H1E103A029	0.01uF 25V	[M]
C27	ECJ1VB0J105K	1uF 6.3V	[M]
C27	ECJ1VB1C183K	0.018uF 16V	[M]
C28	ECJ0EB1A104K	0.1uF 10V	[M]
C28	F1H1H102A219	1000pF 50V	[M]
C29	ECJ1VB0J105K	1uF 6.3V	[M]
C29	F1H1H102A219	1000pF 50V	[M]
C30	EEE1AA220WR	22uF 10V	[M]
C30	F2A1H1R0A145	1.0uF 50V	[M]
C31	ECJ0EB1C103K	0.01uF 16V	[M]
C31	F2A1H1R0A145	1.0uF 50V	[M]
C32	ECJ0EB1E331K	330pF 25V	[M]
C32	F2A1H4R7A145	4.7uF 50V	[M]
C33	ECJ0EB1A104K	0.1uF 10V	[M]
C33	F1H1H101A230	100pF 50V	[M]
C34	ECJ0EB1A104K	0.1uF 10V	[M]
C34	ECJ1VC1H270J	27pF 50V	[M]
C35	ECJ0EB1A104K	0.1uF 10V	[M]
C35	F1H1H101A230	100pF 50V	[M]
C36	ECJ1VC1H220J	22pF 50V	[M]
C36	F3F1A106A026	10uF 10V	[M]
C37	ECJ0EB1A104K	0.1uF 10V	[M]
C37	F1H1H101A230	100pF 50V	[M]
C38	F1H1H101A230	100pF 50V	[M]
C38	F3F1A106A026	10uF 10V	[M]
C39	ECJ0EB1E471K	470pF 25V	[M]
C39	F1H1H102A219	1000pF 50V	[M]
C40	ECJ0EB1E471K	470pF 25V	[M]
C40	F2A0J101A167	100uF 6.3V	[M]
C41	F1H1H331A013	330pF 50V	[M]
C43	ECJ1VB1C473K	0.047uF 16V	[M]
C44	ECJ1VB1H223K	0.022uF 50V	[M]
C46	F1H1H222A219	2200pF 50V	[M]
C47	F1D1H100A015	10pF 50V	[M]
C202	ECJ0EB1E102K	1000pF 25V	[M]
C202	F1H1C105A097	1uF 16V	[M]
C203	ECJ0EC1H101J	100pF 50V	[M]
C204	ECJ0EB1A104K	0.1uF 10V	[M]
C204	F1H1C105A097	1uF 16V	[M]
C205	ECJ0EB1A104K	0.1uF 10V	[M]
C206	ECJ0EB1E102K	1000pF 25V	[M]
C206	F1H1C105A097	1uF 16V	[M]
C207	ECJ0EC1H080D	8pF 50V	[M]
C207	F1H1H221A748	220pF 50V	[M]
C208	ECJ0EC1H330J	33pF 50V	[M]
C208	F1H1C105A097	1uF 16V	[M]
C209	ECJ0EC1H080D	8pF 50V	[M]
C210	ECJ0EB1E102K	1000pF 25V	[M]
C210	F1H1C105A097	1uF 16V	[M]
C211	ECJ0EB1E102K	1000pF 25V	[M]
C212	ECJ0EB1E102K	1000pF 25V	[M]
C212	F1H1C105A097	1uF 16V	[M]
C213	ECJ0EB1E102K	1000pF 25V	[M]
C213	F2A1C470A234	47uF 16V	[M]
C214	ECJ0EB1A104K	0.1uF 10V	[M]
C214	F1H1C105A097	1uF 16V	[M]
C215	ECJ0EB1C103K	0.01uF 16V	[M]
C216	ECJ0EB1C103K	0.01uF 16V	[M]
C217	ECJ0EB1E102K	1000pF 25V	[M]
C218	ECJ0EB1A104K	0.1uF 10V	[M]
C219	ECJ0EB1A104K	0.1uF 10V	[M]
C219	F1H1A5640001	0.56uF 10V	[M]
C220	F1G0J224A001	0.22uF 6.3V	[M]
C220	F1H1A5640001	0.56uF 10V	[M]
C221	F1G0J224A001	0.22uF 6.3V	[M]
C221	F1H1H332A013	3300pF 50V	[M]
C222	ECJ0EC1H121J	120pF 50V	[M]
C222	F1H1H223A219	0.022uF 50V	[M]
C223	ECJ0EB1A104K	0.1uF 10V	[M]
C223	F1H1H223A219	0.022uF 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C224	ECJ0EC1H080D	8pF 50V	[M]
C224	ECJ1VB1H473K	0.047uF 50V	[M]
C225	ECJ0EB1A104K	0.1uF 10V	[M]
C225	ECJ1VB1C224K	0.22uF 16V	[M]
C226	ECJ0EB1A104K	0.1uF 10V	[M]
C226	F1H1H332A013	3300pF 50V	[M]
C227	ECJ0EB1C103K	0.01uF 16V	[M]
C228	ECJ0EB1A104K	0.1uF 10V	[M]
C229	ECJ0EB1E681K	680pF 25V	[M]
C230	F1H1C105A097	1uF 16V	[M]
C231	EEE0JA470WR	47uF 6.3V	[M]
C231	F1H1C105A097	1uF 16V	[M]
C232	ECJ0EB1A104K	0.1uF 10V	[M]
C232	F1H1C105A097	1uF 16V	[M]
C233	F1H1C333A071	0.033uF 16V	[M]
C233	F3F1A106A026	10uF 10V	[M]
C234	ECJ0EB1E471K	470pF 25V	[M]
C234	F1H1C2730001	0.027uF 16V	[M]
C235	ECA1HAK4R7XB	4.7uF 50V	[M]
C235	ECJ0EB1E471K	470pF 25V	[M]
C236	ECJ0EC1H100D	10pF 50V	[M]
C241	F1J0J475A008	4.7uF 6.3V	[M]
C242	F1H1C105A097	1uF 16V	[M]
C250	ECJ1VB1H681K	680pF 50V	[M]
C251	ECJ1VB1H681K	680pF 50V	[M]
C260	ECA1CAK101XB	100uF 16V	[M]
C261	F1H1C104A042	0.1uF 16V	[M]
C301	F1H1H102A219	1000pF 50V	[M]
C302	F1H1H102A219	1000pF 50V	[M]
C303	F1H1H102A219	1000pF 50V	[M]
C304	F1H1H102A219	1000pF 50V	[M]
C305	F1H1C105A097	1uF 16V	[M]
C331	F1H1H102A219	1000pF 50V	[M]
C332	F1H1H102A219	1000pF 50V	[M]
C333	F1H1H331A013	330pF 50V	[M]
C334	ECJ1VC1H560J	56pF 50V	[M]
C335	F1H1H331A013	330pF 50V	[M]
C337	F1H1H331A013	330pF 50V	[M]
C339	ECJ1VC1H560J	56pF 50V	[M]
C340	F1H1H101A230	100pF 50V	[M]
C343	F1H1H101A230	100pF 50V	[M]
C345	ECJ1VC1H030C	3pF 50V	[M]
C346	F1H1H102A219	1000pF 50V	[M]
C347	F1H1H103A219	0.01uF 50V	[M]
C360	F1J0J106A020	10uF 6.3V	[M]
C361	F1J0J106A020	10uF 6.3V	[M]
C362	F1H1H101A230	100pF 50V	[M]
C363	F1H1H101A230	100pF 50V	[M]
C364	ECJ1VC1H330J	33pF 50V	[M]
C365	ECJ1VC1H330J	33pF 50V	[M]
C366	ECJ1VB1A105K	1uF 10V	[M]
C367	ECJ1VB1A105K	1uF 10V	[M]
C368	F1J0J106A020	10uF 6.3V	[M]
C369	F1J0J106A020	10uF 6.3V	[M]
C370	F1K1C106A062	10uF 16V	[M]
C402	F1H1C105A097	1uF 16V	[M]
C404	F1H1C105A097	1uF 16V	[M]
C406	F1H1C105A097	1uF 16V	[M]
C407	F1H1H221A748	220pF 50V	[M]
C408	F1H1C105A097	1uF 16V	[M]
C410	F1H1C105A097	1uF 16V	[M]
C412	F1H1C105A097	1uF 16V	[M]
C419	F1H1A5640001	0.56uF 10V	[M]
C420	F1H1A5640001	0.56uF 10V	[M]
C421	F1H1H332A013	3300pF 50V	[M]
C422	F1H1H223A219	0.022uF 50V	[M]
C423	F1H1H223A219	0.022uF 50V	[M]
C424	ECJ1VB1C473K	0.047uF 16V	[M]
C425	ECJ1VB1C224K	0.22uF 16V	[M]
C441	F1J0J475A008	4.7uF 6.3V	[M]
C442	F1H1C105A097	1uF 16V	[M]
C500	F2A1C100A147	10uF 16V	[M]
C501	ECA1EM332E	3300uF 25V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C503	F1H1C104A042	0.1uF 16V	[M]
C504	F2A1C100A147	10uF 16V	[M]
C505	F2A1C100A147	10uF 16V	[M]
C506	ECA0JAK101XB	100uF 6.3V	[M]
C507	ECA0JAK101XB	100uF 6.3V	[M]
C508	F1K1A1060017	10uF 10V	[M]
C509	F2A1C100A147	10uF 16V	[M]
C510	F1K1H105A138	1uF 50V	[M]
C511	F2A1A101A159	100uF 10V	[M]
C513	F1J0J106A020	10uF 6.3V	[M]
C514	F1K1A1060017	10uF 10V	[M]
C515	F2A1C100A147	10uF 16V	[M]
C600	F1H1H103A219	0.01uF 50V	[M]
C601	F1H1H103A219	0.01uF 50V	[M]
C602	F1H1H103A219	0.01uF 50V	[M]
C603	F1H1H103A219	0.01uF 50V	[M]
C604	ECA1EAM101XB	100uF 25V	[M]
C605	F1H1C104A042	0.1uF 16V	[M]
C606	F1H1C104A042	0.1uF 16V	[M]
C650	ECA1AM221B	220uF 10V	[M]
C700	F2A0J470A013	47uF 6.3V	[M]
C701	F2A1C470A016	47uF 16V	[M]
C702	F2A1C100A147	10uF 16V	[M]
C703	F1H1H102A219	1000pF 50V	[M]
C704	F1H1H102A219	1000pF 50V	[M]
C720	ECJ1VB1H822K	8200pF 50V	[M]
C722	F1H1E103A029	0.01uF 25V	[M]
C723	ECJ1VB1C224K	0.22uF 16V	[M]
C724	F1H1H471A219	470pF 50V	[M]
C725	F2A1A1020051	1000uF 10V	[M]
C726	F1H1E103A029	0.01uF 25V	[M]
C740	ECJ1VB1H822K	8200pF 50V	[M]
C742	F1H1E103A029	0.01uF 25V	[M]
C743	ECJ1VB1C224K	0.22uF 16V	[M]
C744	F1H1H471A219	470pF 50V	[M]
C745	F2A1A1020051	1000uF 10V	[M]
C746	F1H1E103A029	0.01uF 25V	[M]
C801	ECJ1VC1H560J	56pF 50V	[M]
C802	ECJ1VC1H560J	56pF 50V	[M]
C803	ECJ1VC1H390J	39pF 50V	[M]
C804	ECJ1VC1H560J	56pF 50V	[M]
C805	ECJ1VC1H220J	22pF 50V	[M]
C806	ECJ1VC1H200J	20pF 50V	[M]
C807	F1H1H102A219	1000pF 50V	[M]
C808	F1H1H102A219	1000pF 50V	[M]
C809	F1H1H102A219	1000pF 50V	[M]
C810	F1H1H221A748	220pF 50V	[M]
C811	F1H1H221A748	220pF 50V	[M]
C812	F1H1H221A748	220pF 50V	[M]
C813	F1H1H221A748	220pF 50V	[M]
C814	F1H1H102A219	1000pF 50V	[M]
C821	F1H1H102A219	1000pF 50V	[M]
C840	F2A0J470A013	47uF 6.3V	[M]
C841	ECA0JAM102XB	1000uF 6.3V	[M]
C842	F2A0J101A167	100uF 6.3V	[M]
C843	F2A1C101A147	100uF 16V	[M]
C844	F2A0J101A167	100uF 6.3V	[M]
C845	F1H1H102A219	1000pF 50V	[M]
C846	F1H1H102A219	1000pF 50V	[M]
C847	F2A1H2R2A234	2.2uF 50V	[M]
C848	F2A1H1R0A145	1.0uF 50V	[M]
C853	F1J0J106A020	10uF 6.3V	[M]
C854	F1H1H470A004	47pF 50V	[M]
C855	F1H1H470A004	47pF 50V	[M]
C856	F1H1H470A004	47pF 50V	[M]
C871	F1H1H102A219	1000pF 50V	[M]
C872	F1H1H102A219	1000pF 50V	[M]
C873	F1H1H102A219	1000pF 50V	[M]
C900	ECA1AM331B	330uF 10V	[M]
C901	F1G1C104A083	0.1uF 16V	[M]
C901	F1H1H102A219	1000pF 50V	[M]
C902	F1G1C104A083	0.1uF 16V	[M]
C902	F1H1H221A748	220pF 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C903	F1G1C104A083	0.1uF 16V	[M]
C903	F1H1H221A748	220pF 50V	[M]
C904	F1H1H221A748	220pF 50V	[M]
C904	F2A1C100A234	10uF 16V	[M]
C905	F1G1C104A083	0.1uF 16V	[M]
C905	F1H1H221A748	220pF 50V	[M]
C906	ECJ1VB1H681K	680pF 50V	[M]
C906	F2A1C100A234	10uF 16V	[M]
C907	F1G1H180A565	18pF 50V	[M]
C907	F1H1H103A219	0.01uF 50V	[M]
C908	F1G1H220A565	22pF 50V	[M]
C908	F1H1H103A219	0.01uF 50V	[M]
C909	F2A0J101A167	100uF 6.3V	[M]
C911	F1G1C104A083	0.1uF 16V	[M]
C912	F1G1C104A083	0.1uF 16V	[M]
C913	F1G1C104A083	0.1uF 16V	[M]
C914	F1G1C104A083	0.1uF 16V	[M]
C915	F2A1C470A234	47uF 16V	[M]
C931	F2A1C100A234	10uF 16V	[M]
C950	F1J0J106A020	10uF 6.3V	[M]
C951	F1G1C104A083	0.1uF 16V	[M]
C951	F1H1H102A219	1000pF 50V	[M]
C952	F1G1C104A083	0.1uF 16V	[M]
C952	F1H1E103A029	0.01uF 25V	[M]
C953	F1H1E103A029	0.01uF 25V	[M]
C953	F2A0J101A245	100uF 6.3V	[M]
C970	F1H1H102A219	1000pF 50V	[M]
C971	F1H1H102A219	1000pF 50V	[M]
C972	F1H1H102A219	1000pF 50V	[M]
C973	F1H1H102A219	1000pF 50V	[M]
C991	F1H1C105A097	1uF 16V	[M]
C1001	ECJ1VB1H104K	0.1uF 50V	[M]
C1002	ECJ1VB1H104K	0.1uF 50V	[M]
C1003	ECJ1VB1H104K	0.1uF 50V	[M]
C1004	ECJ1VB1H104K	0.1uF 50V	[M]
C4006	F1H1H104A013	0.1uF 50V	[M]
C4011	D0GDR00JA017	0 1/10W	[M]
C7102	F1H1A474A025	0.47uF 10V	[M]
C7107	ECJ1VB1H223K	0.022uF 50V	[M]
C7142	ECJ1VB1H332K	3300pF 50V	[M]
C7154	ECJ1VB1C104K	0.1uF 16V	[M]
C7155	ECJ1VB1C104K	0.1uF 16V	[M]
C7161	ECJ1VB1C104K	0.1uF 16V	[M]
C7164	ECJ2FF1A106Z	10uF 10V	[M]
C7165	ECJ2FF1A106Z	10uF 10V	[M]
C7166	F1H1H103A219	0.01uF 50V	[M]
C7203	F2A0J221A200	220uF 6.3V	[M]
C7204	ECJ1VB1C104K	0.1uF 16V	[M]
C7216	ECJ1VB1H681K	680pF 50V	[M]
C7217	ECJ1VB1C104K	0.1uF 16V	[M]
C7218	ECJ1VB1C823K	0.082uF 16V	[M]
C7223	F2A1H4R70037	4.7uF 50V	[M]
C7225	F1H1H102A219	1000pF 50V	[M]
C7226	F1H1H102A219	1000pF 50V	[M]
C7227	ECA1HAK010XI	1uF 50V	[M]
C7228	ECA1HAK010XI	1uF 50V	[M]
C7230	ECJ1VB1C104K	0.1uF 16V	[M]
C7231	F2A0J221A200	220uF 6.3V	[M]
C7232	F2A0J221A200	220uF 6.3V	[M]
C7233	F1H1C104A008	0.1uF 16V	[M]
C7234	ECJ1VB1C104K	0.1uF 16V	[M]
C7235	F2A1C100A133	10uF 16V	[M]
C7241	F1H1H102A219	1000pF 50V	[M]
C7243	F1H1C104A008	0.1uF 16V	[M]
C7244	ECJ1VB1C153K	0.015uF 16V	[M]
C7253	F1H1H471A219	470pF 50V	[M]
C7263	ECJ1VB1C104K	0.1uF 16V	[M]
C7264	ECJ1VB1C104K	0.1uF 16V	[M]
C7315	F1H1A474A025	0.47uF 10V	[M]
C7334	ECEA1AKA221I	220uF 10V	[M]
C7335	F1H1C104A008	0.1uF 16V	[M]
C7338	ECJ1VB1C563K	0.056uF 16V	[M]
C7339	ECJ1VB1C183K	0.018uF 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C7352	ECJ1VB1C183K	0.018uF 16V	[M]
C7601	ECEA0JKA330I	33uF 6.3V	[M]
C7613	ECJ1VB1C104K	0.1uF 16V	[M]
C7614	F2A0J101A198	100uF 6.3V	[M]
C7626	ECJ1VB1C104K	0.1uF 16V	[M]
C7670	ECJ1VB1C104K	0.1uF 16V	[M]