

# Service Manual

## CD Stereo System



### SA-AK270EB SA-AK270EG

Colour

(K)... Black Type

Remote Control  
SB-AK270

SA-AK270

SB-AK270

**Notes:** This model's CD mechanism changer unit is CRS1. Please refer to the original Service Manual (Order No. MD0509368C0) for this mechanism.

## Specifications

### ■ AMPLIFIER SECTION

RMS output power stereo mode

THD 10%, both channels driven

1 kHz

125 W per channel (3  $\Omega$ )

Total RMS stereo mode power

250 W

### ■ FM/AM TUNER, TERMINALS SECTION

Preset station

FM 25 stations

AM 15 stations

Frequency Modulation (FM)

Frequency range

87.50 to 108.00 MHz (50 kHz steps)

Antenna terminal(s)

75  $\Omega$  (unbalanced)

Amplitude Modulation (AM)

Frequency range

522 to 1629 kHz (9 kHz step)

Music Port (front) jack

Sensitivity

100 mV, 4.0 k $\Omega$ 

Terminal

Stereo, 3.5 mm jack

Headphone jack

Terminal

Stereo, 3.5 mm jack

Output impedance

32  $\Omega$  (Max)

### ■ CASSETTE DECK SECTION

Type

1 way

Track system

4 track, 2 channel

Heads

Record/playback

Solid permalloy head

Erasure

Double gap ferrite head

Motor

DC servo motor

Recording system

AC bias 100 kHz

Erase system

AC erase 100 kHz

Tape speed

4.8 cm/s

Overall frequency response (+3, -6 dB) at DECK OUT

NORMAL

35 Hz to 14 kHz

S/N ratio

50 dB (A weighted)

Wow and flutter

0.18 % (WRMS)

Fast forward and rewind time

Approx. 120 seconds with C-60 cassette tape

### ■ DISC SECTION

Disc played [8 cm or 12 cm]

(1) CD-Audio (CD-DA)

(2) CD-R/RW (CD-DA, MP3\* formatted disc)

(3) MP3\*

\* MPEG-1 Layer 3, MPEG-2 Layer 3

Pick up

Wavelength

780 nm

Beam Source

Semiconductor laser

Audio output (Disc)

Number of channels

2 (FL, FR)

# Panasonic®

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**■ USB SECTION**

USB Port	
USB Standard	USB 2.0 full speed
Media file format support	
MP3 (*.mp3)	
USB device file system	
FAT 12	
FAT 16	
FAT 32	
USB port power	500 mA (Max)

**■ GENERAL**

Power supply	
	AC 230 to 240 V, 50Hz
Power consumption	65 W
Dimensions (W x H x D)	250 x 331 x 342 mm
Mass	4.7 kg

Operating temperature range	0 to 40°C
Operating humidity range	35% to 80% RH (no condensation)
Power consumption in standby mode	0.4 W

**■ SYSTEM**

SC-AK270 (EB)	Music center: SA-AK270 (EB) Speaker: SB-AK270 (PL)
SC-AK270 (EG)	Music center: SA-AK270 (EG) Speaker: SB-AK270 (PL)

For information on speaker system, please refer to the original Service Manual (Order No. MD0802018CE) for SB-AK270PL-K.

**Notes:**

1. Specifications are subject to change without notice. Mass and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

**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.

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# 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 and 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  $1\text{M}\Omega$  and  $5.2\text{M}\Omega$ .  
When the exposed metal does not have a return path to the chassis, the reading must be  $\infty$ .

### 1.1.2. Leakage Current Hot Check (See Figure 1)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a  $1.5\text{k}\Omega$ , 10 watts resistor, in parallel with a  $0.15\mu\text{F}$  capacitor, 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 out of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

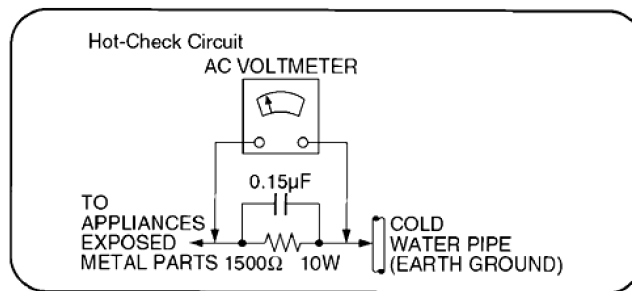


Fig. 1

## 1.2. Caution for AC Mains Lead



(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

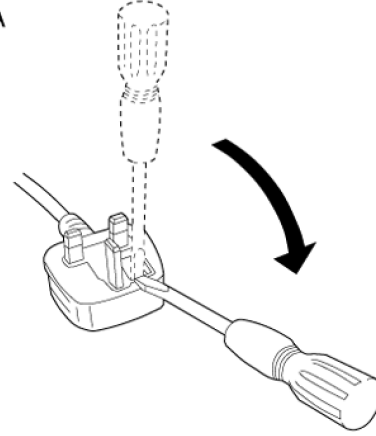
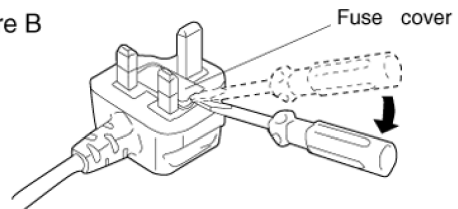


Figure B



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

Figure A

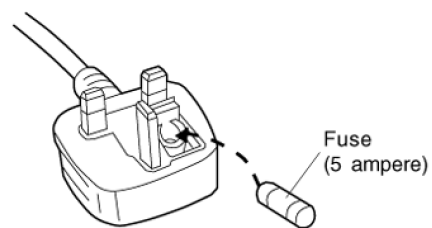
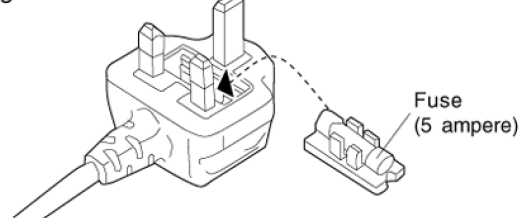


Figure B



## 1.3. Before repair and adjustment

Disconnect AC power, discharge AC Capacitors C5700, C5701, C5703, C5704, C5705, C5706 and C5707 through a 10Ω, 5W



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 230V - 240V, 50 Hz in NO SIGNAL mode (volume min at CD mode) should be ~ 500mA.

## 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  $\triangle$  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
18	RGRX0070C-A	REAR PANEL	[M] EG $\triangle$
18	RGRX0070C-B	REAR PANEL	[M] EB $\triangle$
36	RKMX0144-K	TOP CABINET	[M] $\triangle$
68	REXX0684	PRIMARY WIRE 1 (BLACK)	[M] $\triangle$
69	REXX0685	PRIMARY WIRE 2 (RED)	[M] $\triangle$
360	RAE0165A-V	TRAVERSE ASSEMBLY	[M] $\triangle$
PCB1	REPX0622J	SMPS P.C.B.	[M] (RTL) $\triangle$
A2	K2CQ2CA00006	AC CORD	[M] EG $\triangle$
A2	K2CT3CA00004	AC CORD	[M] EB $\triangle$
DZ5701	ERZV10V511CS	ZENER	[M] $\triangle$
L5001	G0B9R5K00003	LINE FILTER	[M] $\triangle$
L5002	G0B9R5K00004	LINE FILTER	[M] $\triangle$
L5701	ELF15N035AN	LINE FILTER	[M] $\triangle$
L5703	ELF22V020A	LINE FILTER	[M] $\triangle$
T2900	G4D1A0000117	TRANSFORMER	[M] $\triangle$
T5701	ETS42BN1A6AD	MAIN SW TRANSFORMER	[M] $\triangle$
T5751	ETS19AB256AG	BACKUP TRANSFORMER	[M] $\triangle$
PC5701	B3PBA0000402	PHOTO COUPLER	[M] $\triangle$
PC5702	B3PBA0000402	PHOTO COUPLER	[M] $\triangle$
PC5720	B3PBA0000402	PHOTO COUPLER	[M] $\triangle$
PC5799	B3PBA0000402	PHOTO COUPLER	[M] $\triangle$
F1	K5D502BNA005	FUSE	[M] $\triangle$
FP2901	K5G4013A0001	FUSE PROTECTOR	[M] $\triangle$
TH5701	D4CAC8R00002	THERMISTOR	[M] $\triangle$
TH5860	D4CC11040013	THERMISTOR	[M] $\triangle$
P5701	K2AA2B000017	AC INLET	[M] $\triangle$
C5700	F1BAF1020020	1000pF	[M] $\triangle$
C5701	F0CAF334A087	0.33uF	[M] $\triangle$
C5703	F0C2H1040001	0.1uF 500V	[M] $\triangle$
C5704	F1BAF1020020	1000pF	[M] $\triangle$
C5705	F1BAF1020020	1000pF	[M] $\triangle$
C5706	F1BAF1020020	1000pF	[M] $\triangle$
C5707	F1BAF1020020	1000pF	[M] $\triangle$

## 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-equipped 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 equipped 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).

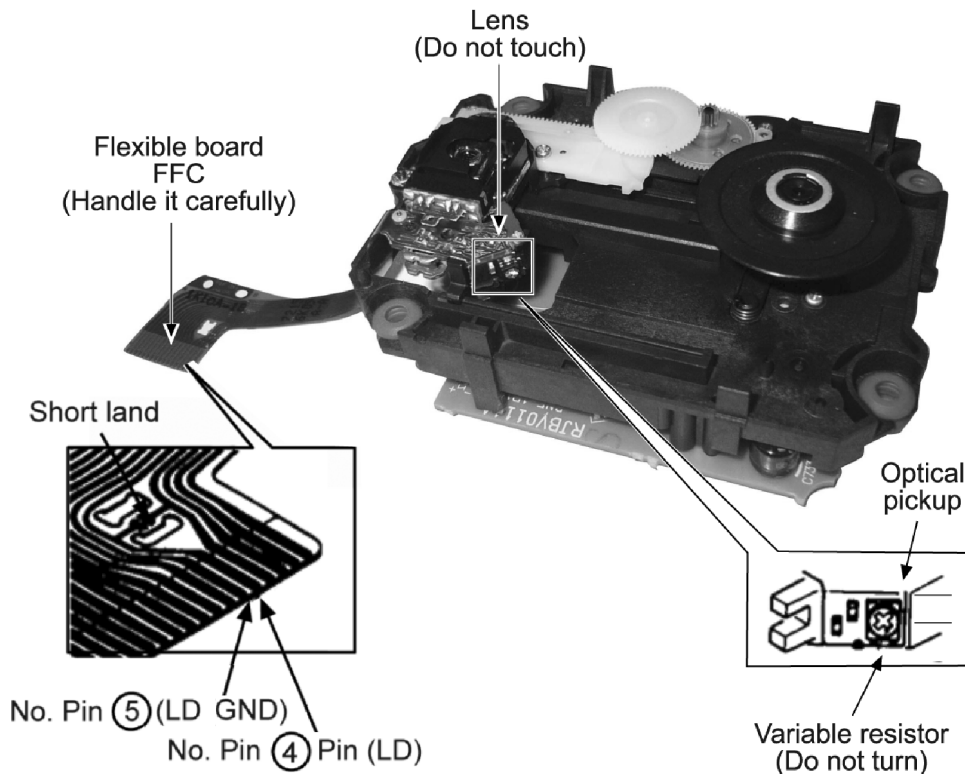
### 3 Handling Precautions For Traverse Unit

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

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

• **Way of handling the 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. To prevent the breakdown of the laser diode, an antistatic shorting pin is inserted into the flexible board (FFC board).
3. Do not to apply excessive stress to the flexible board (FFC board). When removing or connecting the short pin, finish the job in as short time as possible.
4. Do not turn the variable resistor for laser power adjustment. (It is pre-adjusted during production time)



**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

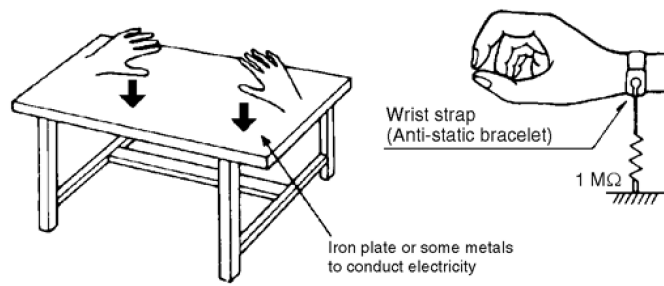
Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is place, and ground the sheet.

**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).

**Caution when replacing the Traverse Deck**

The traverse deck 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.



## 4 Precaution of Laser Diode

### Caution :

This product utilizes a laser diode with the unit turned "ON", invisible laser radiation is emitted from the pick up lens.

Wavelength : 780 nm

Maximum output radiation power from pick up : 100  $\mu$ W/VDE

Laser radiation from pick up unit is safety level, but be sure the followings:

1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pick up lens for a long time.

### ACHTUNG :

Dieses Produkt enthält eine Lasereinheit. Im eingeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit abgestrahlt.

Wellenlänge : 780nm

Maximale Strahlungsleistung der Lasereinheit :100  $\mu$ W/VDE

Die Strahlung an der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Lasereinheit gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinheit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.
4. Nicht über längere Zeit in die Fokussierlinse blicken.

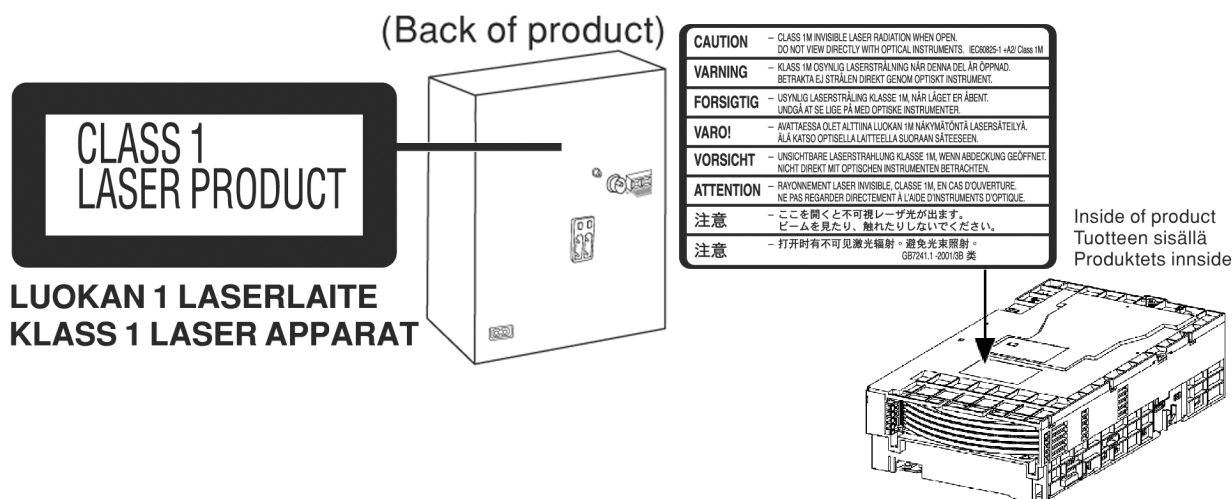
**ADVASEL: I dette a apparat anvendes laser.**

### 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.

■ Use of caution label



## 5 About Lead Free Solder (PbF)

### 5.1. Service caution based on legal restrictions

#### 5.1.1. 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

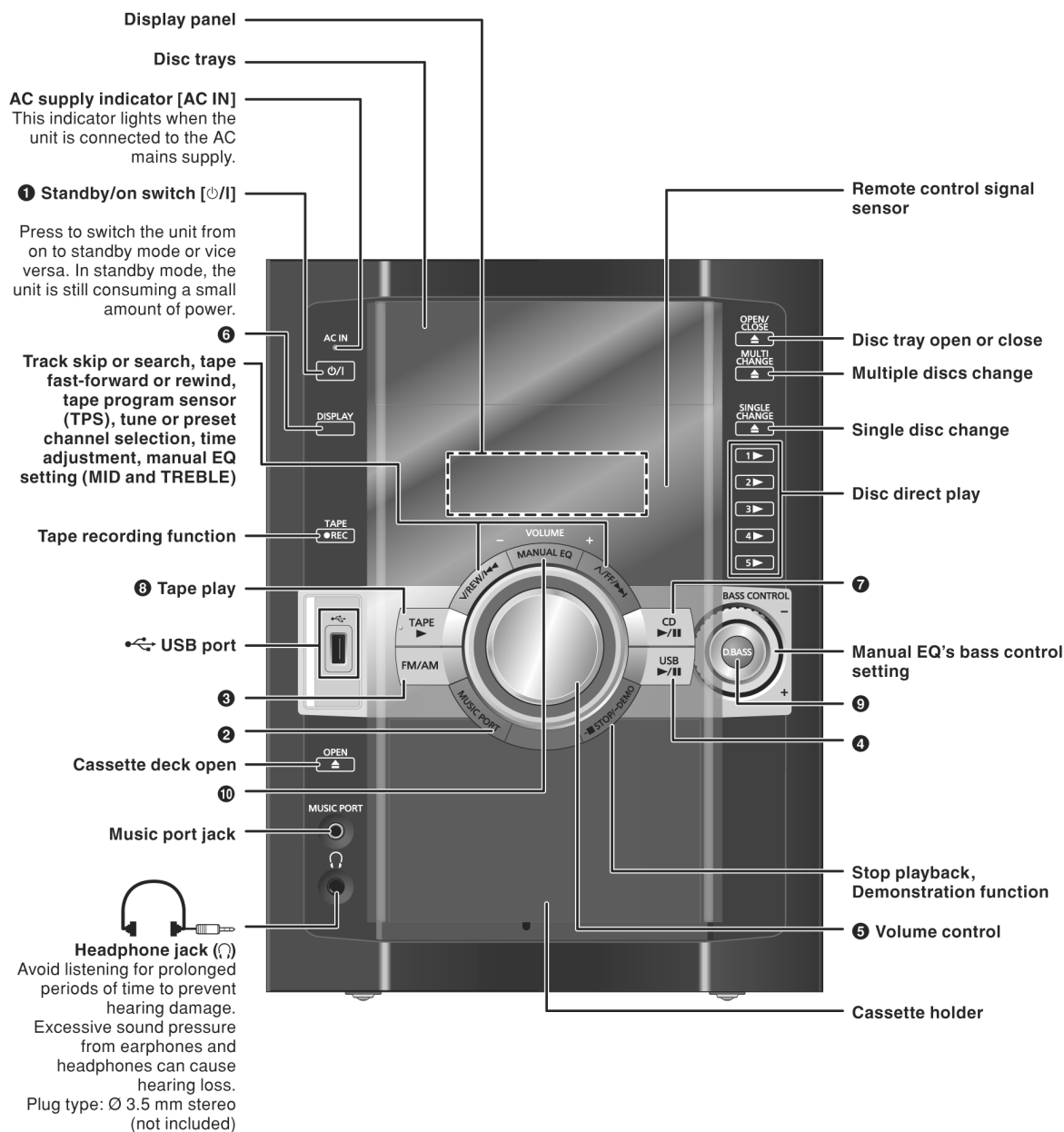
\* Ingredient: Tin (Sn), 96.5%, Silver (Ag) 3.0%, Copper (Cu) 0.5%, Cobalt (Co) / Germanium (Ge) 0.1 to 0.3%

## 6 Operation Procedures

## 6.1. Main Unit Key Buttons Operations

## Main unit

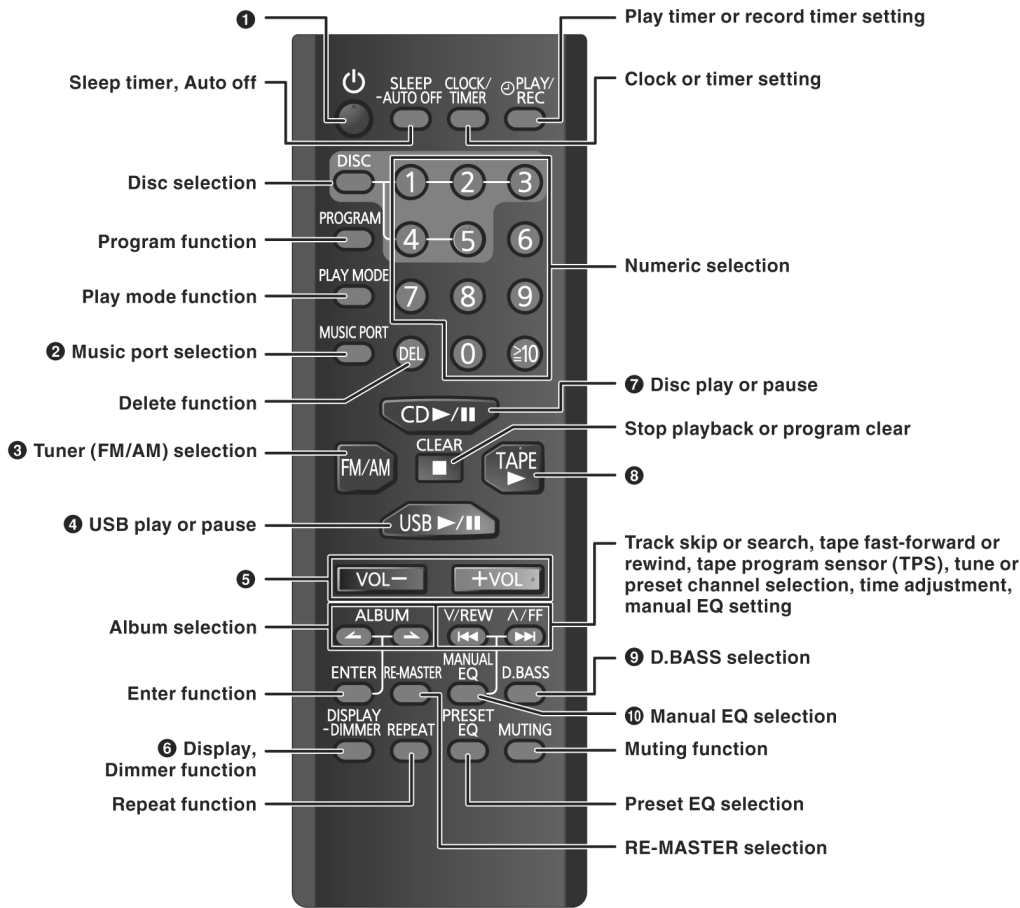
Refer to the numbers in parentheses for page reference. Buttons labelled such as **1** function in exactly the same way as the controls on the remote control.



## 6.2. Remote Control Key Buttons Operations

### Remote control

Buttons labelled such as ❶ function in exactly the same way as the controls on the main unit.



<div><div>SLEEP -AUTO OFF</div><div></div></div> <p>This auto off function allows you to turn off the unit in <b>disc, tape or USB</b> mode only after left unused for 10 minutes.</p> <ul style="list-style-type: none"><li>• Press and hold [SLEEP, -AUTO OFF] to activate the function.</li><li>• Press and hold [SLEEP, -AUTO OFF] again to cancel.</li><li>• The setting is maintained even if the unit is turned off.</li></ul>	<div><div>DISPLAY -DIMMER</div><div></div></div> <p>To dim the display panel.</p> <ul style="list-style-type: none"><li>• Press and hold [DISPLAY, -DIMMER] to activate.</li><li>• Press and hold [DISPLAY, -DIMMER] again to cancel.</li></ul>	<div><div>MUTING</div><div></div></div> <p>To mute the sound.</p> <ul style="list-style-type: none"><li>• Press the button to activate.</li><li>• Press the button again or adjust the volume to cancel.</li></ul>
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**NOTE on CDs**

- This unit can access up to 99 tracks.
- Choose disc with this mark.



- This unit can play MP3 files and CD-DA format audio CD-R/RW that have been finalised.
- It may not be able to play some CD-R/RW due to the condition of the recording.
- Do not use irregularly shaped disc.
- Do not use disc with labels and stickers that are coming off or with adhesive exuding from under labels and stickers.
- Do not attach extra labels or stickers on the disc.
- Do not write anything on the disc.

**Note about using a DualDisc**

The digital audio content side of a DualDisc does not meet the technical specifications of the Compact Disc Digital Audio (CD-DA) format so playback may not be possible.

**NOTE on MP3**

- Files are treated as tracks and folders are treated as albums.
- This unit can access up to 999 tracks, 255 albums and 20 sessions.
- Disc must conform to ISO9660 level 1 or 2 (except for extended formats).
- To play in a certain order, prefix the folder and file names with 3-digits numbers in the order you want to play them.

When "NOT MP3/ERROR1" appears on the display, an unsupported MP3 format is being played. The unit will skip that track and play the next one.

**Limitations on MP3 play**

- If you have recorded MP3 on the same disc as CD-DA, only the format recorded in the first session can be played.
- Some MP3s may not be played due to the condition of the disc or recording.
- Recordings will not necessarily be played in the order you recorded them.

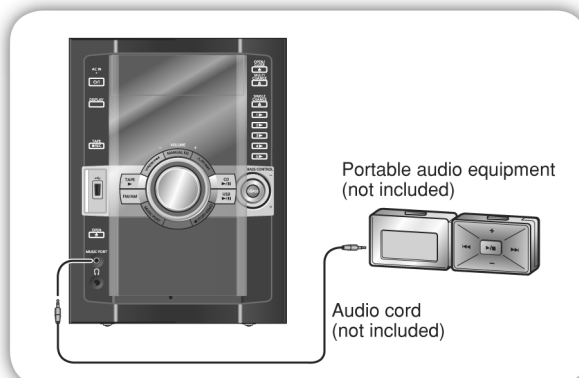
## 7 New Features

### 7.1. Using the Music Port

This feature enables you to enjoy music from a portable audio equipment.

#### Connecting to a portable audio equipment

This feature enables you to enjoy music from a portable audio equipment.



#### Playing or recording from a portable audio equipment

Switch off the equaliser function (if there is any) of the portable audio equipment before you plug into the MUSIC PORT jack. Otherwise, sound from the speaker may be distorted.

- 1** Plug the audio cord into the MUSIC PORT jack.
- 2** Press [MUSIC PORT] repeatedly until "MUSIC PORT" is displayed.  
**For listening** : Proceed to step 3.  
**For recording** : Press [● REC, TAPE] on the main unit to start recording.
- 3** Play the portable audio equipment. (See the portable audio equipment's instruction manual.)

## 7.2. Connecting and Playing a USB Mass Storage Class Device

### Connecting and playing a USB mass storage device

#### MP3

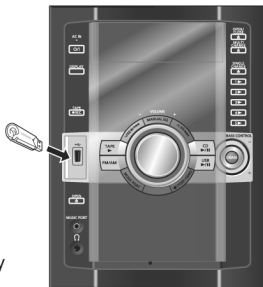
The USB connectivity enables you to connect and play MP3 tracks from USB mass storage class. Typically, USB memory devices. (Bulk only transfer)

#### Preparation

Before connecting any USB mass storage device to the unit, ensure that the data stored therein has been backed up.

It is not recommended to use a USB extension cable. The USB device is not recognised by this unit.

**USB enabled device**  
(not included)  
It is not recommended to use a USB extension cable. The device connected via the cable will not be recognised by this unit.



- 1** Reduce the volume and connect the USB mass storage device.
- 2** Press [▶/II, USB] to start play.

#### TAPE

#### REC

### Recording from a USB mass storage device

- 1** Press [◀◀, √/REW] or [▶▶, ∧/FF] to select the desired track for recording.
- 2** Press [● REC, TAPE] on the main unit to start recording.

### Compatible devices

**Devices which are defined as USB mass storage class:**

- USB devices that support bulk only transfer.
- USB devices that support USB 2.0 full speed.

### Supported format

Files must have the extension “.mp3” or “.MP3”.

#### Note:

- CBI (Control/Bulk/Interrupt) is not supported.
- A device using NTFS file system is not supported. [Only FAT 12/16/32 (File Allocation Table 12/16/32) file system is supported].
- Depending on the sector size, some files may not work.
- This unit can access up to 255 albums (including blank folders) and 2500 tracks.
- The maximum number of tracks in a folder are 999 tracks.
- Only one memory card will be selected when connecting a multiport USB card reader. Typically the first memory card inserted.
- Disconnect the USB card reader from the unit when you remove the memory card. Failure to do so may cause malfunction to the device.
- When you connect your digital audio player to the USB port, it charges all the time except in standby mode or during tape recording.

## 8 Self diagnosis and special mode setting

This unit is equipped with functions for checking and inspecting namely: Self-Diagnostic and Test Mode.

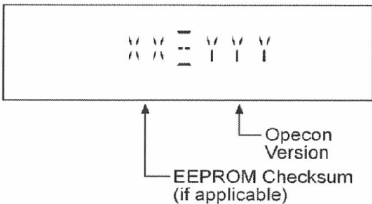
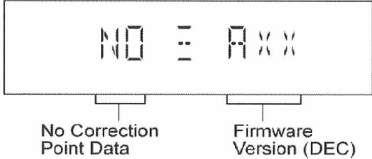
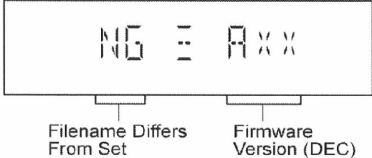
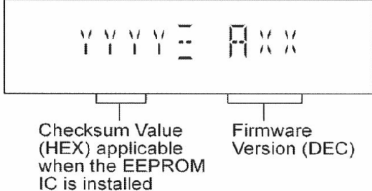
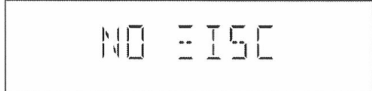
### 8.1. Service Mode Summary Table

The service modes 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 button	Remote control unit buttons	Application	Note
[ ■, STOP ]	[4], [7]	Entering into Doctor Mode	Refer to the section, "8.2 Special Mode Table 1" for more information.

Mode	Remote control unit buttons	Application	Note
In Doctor Mode	Main unit [ ■, STOP ], [4]+[7] or [IDDF] (special Remocon)	Display firmware version and EEPROM checksum	Refer to the section, "8.2" for more information.
	[4]	Set for cold start when reset start is executed the time	Refer to the section, "8.3" for more information.
	[ENTER]	Exit inspection mode	Refer to the section, "8.3" for more information.
	[Muting]	Clock Setting	Refer to the section, "8.3" for more information.
	[0]	Tape Eject Test	Refer to the section, "8.3" for more information.
	[2]	All segment display for the FL ON	Refer to the section, "8.3" for more information.
	[DISC]	CRS1 Inspection	Refer to the section, "8.3" for more information.
	[3]	Execute operations keys and segments display check mode	
	[7]	Volume 50 Setting check	
	[8]	Volume 41 Setting check	
	[9]	Volume 35 Setting check	
	[ >10 ]	Volume 0 Setting check	
	[PRESET EQ]	EQ Off	
	[D. Bass]	EQ Heavy	
	[PROGRAM]	HIC force MUTE ON/ OFF	
	[PLAYMODE]	WOW flutter check	
	[5]	CD To Tape recording Inspection	
	[6]	Tape record's playback	
	[SLEEP]	TPS Inspection	
	[<]	FM Tuning check	
	[>]	Tuner STEREO/ forced MONO	
	[ ◀▶ ]	FM OK/ NG (98.1 MHz)	
	[ ▶▶ ]	AM OK/ NG (1000 KHz)	
	[DISPLAY]	RDS checking	
	[1]	MP3 DISC check	
	[DELETE]	USB MP3 checking	

## 8.2. Service Mode Table 1

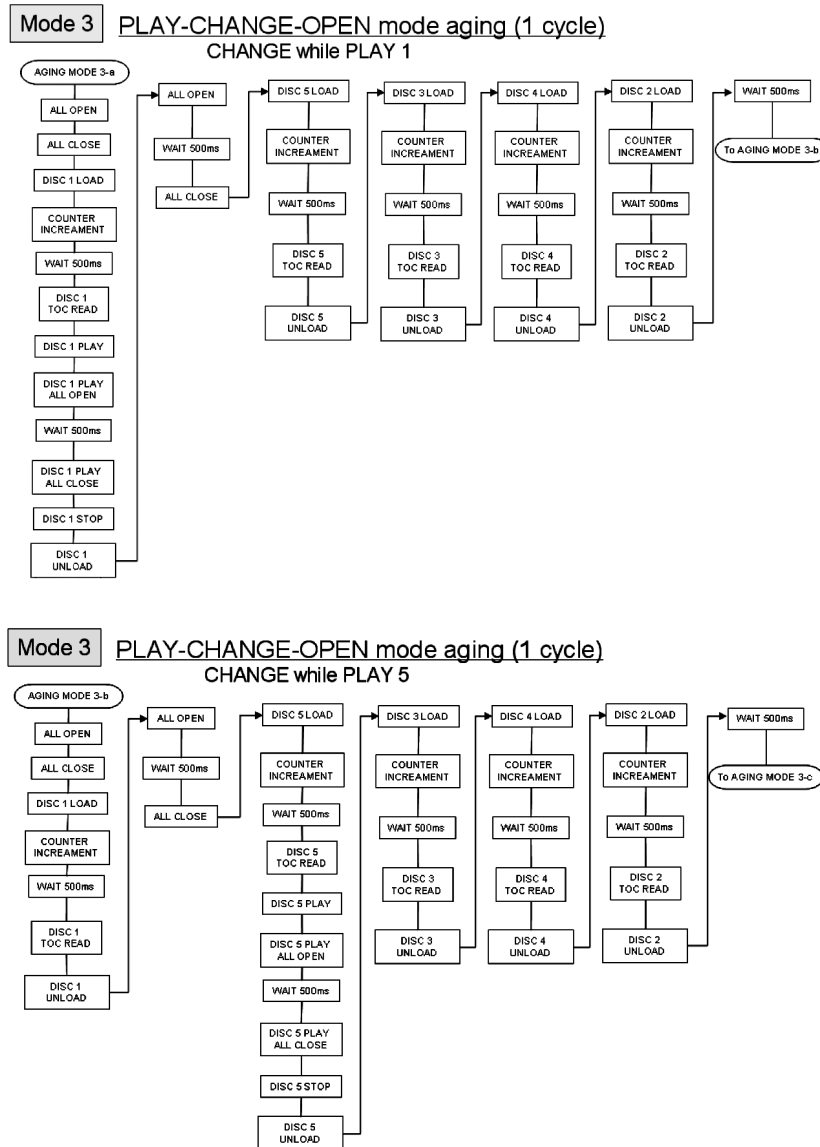
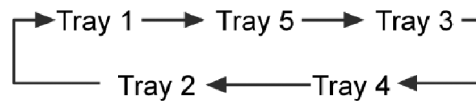
Item		FL Display	Key Operation
Mode Name	Description		Front Key
Doctor Mode	<p>To enter into Doctor Mode for checking of various items and displaying EEPROM and firmware version,</p> <p>Note: The micro-processor version as shown is an example. It will be revise when there is an updates.</p> <p>FL Display sequence: Display 1 → 2</p>	<p>(Display 1)</p>  <p>1. The Check Sum of EEPROM and firmware version will be display * ROM correction. **Firmware version No:</p> <p>checksum : (Conditon 1)</p>  <p>(a) If there is NO EEPROM header string OR (b) If there is no EEPROM (no data is received by micro-processor) [NO] is displayed.</p> <p>checksum : (Conditon 2)</p>  <p>If the version of the EEPROM does not match or not working properly [NG] is display.</p> <p>checksum : (Conditon 3)</p>  <p>If the EEPROM version matches, checksum [YYYY] is displayed.</p> <p>(Display 2)</p> 	<p>In CD Mode: 1. Press [ STOP, ■ ] button on main unit follow by [4] and [7] on remote control.</p> <p>To exit, press [ENTER] button on remote control or press [⏻/I, POWER] button on main unit or remote control.</p>

## 8.3. Service Mode Table 2

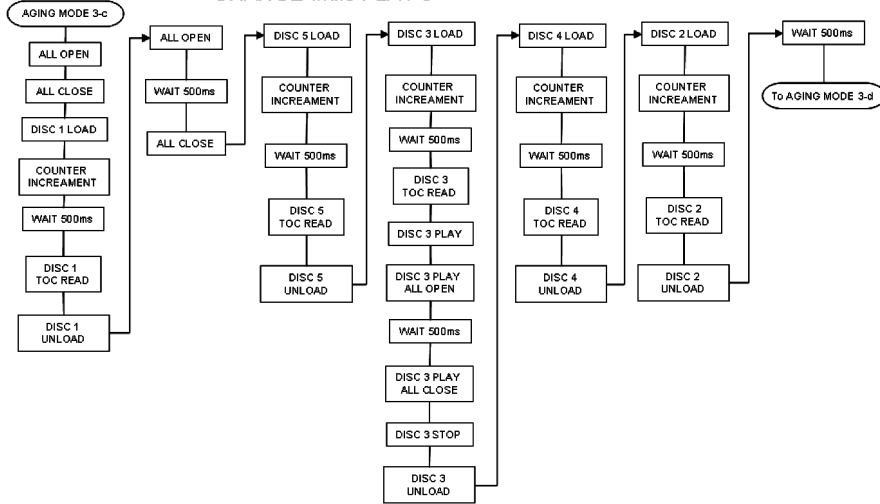
Item		FL Display	Key Operation
Mode Name	Description		Front Key
Self-Diagnostic Mode	To enter into self diagnostic checking for main unit.		1. Select [TAPE, ►] for TAPE mode (Ensure no tape is inserted). 2. Press and hold [STOP, ■] button for 3 seconds follow by [FF/►►]. To exit, press [◄/I, POWER] button on main unit or remote control.
CD Test Mode	To enter into checking the reliability of mechanism unit.		In any mode: 1. Select [CD, ►/■] for CD mode. 2. Press and hold [STOP, ■] button for 3 seconds follow by [FF/►►]. To exit, press [◄/I, POWER] button on main unit or remote control.
CD Auto Adjustment	To check the CD auto adjustment result for FLOCK, TLOCK and CLVS.  FLOCK: Focus Lock TLOCK: Traverse Lock CLVS: Constant Linear Velocity Speed		In CD Test Mode: 1. Press [0] button on the remote control.  To exit, press [◄/I, POWER] button on main unit or remote control.
CD Chagner Reliability Text (CRS1)	To determine the reliability of mechanism unit. (For more information, refer to section 8.4)		In Self-Diagnostic Mode: 1. Select [CD, ►/■] for CD mode. 2. Press [REW/◄◄] button. To exit, press [◄/I, POWER] button on main unit.  (The tray will return to PLAY position and then power off)
SRVC_TRV	To unlock the traverse unit for service. FL Display sequence: Display 1 → 2	(Display 1)   (Display 2) 	In Tape mode: 1. With no cassette tape inserted. 2. Press [STOP, ■], [FF/►►] button on main unit. 3. Press [SINGLE CHANGE] on main unit.  To exit, press [◄/I, POWER] button on main unit.
Open/ Close Test	To check the function operation of mechanism unit. (For more information, refer to 8.4)		In Doctor mode: 1. Press [DISC] on remote control. To exit, press [ENTER] button on remote control or [◄/I, POWER] button on main unit.
Tape Eject Test	To check on the tape eject function (For deck 1/2)		In Doctor mode: 1. Press [0] button on remote control.
FL Display Text	To check the FL segments display (All segments will light up and LED will blink at 0.5 second interval)		In Doctor mode: 1. Press [2] button on remote control.
Cold Start	To activate cold start upon next AC power up.		In Doctor mode: 1. Press [4] button on remote control. To exit, press [ENTER] button on remote control or [◄/I, POWER] button on main unit.
Clock Setting Check	To indicate that a clock time was set properly		In Doctor mode: 1. Press [MUTING] button on remote control.

## 8.4. Reliability Test Mode (CRS1 Mechanism)

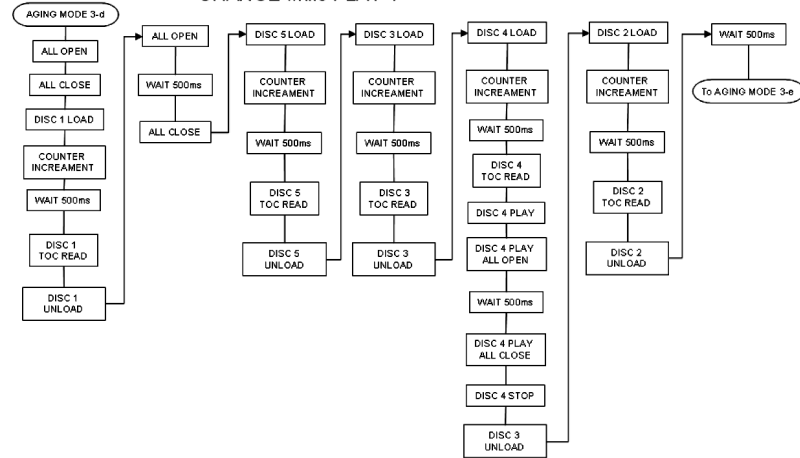
Below is the process flow chart of ageing for the Mechanism unit. (CRS1)



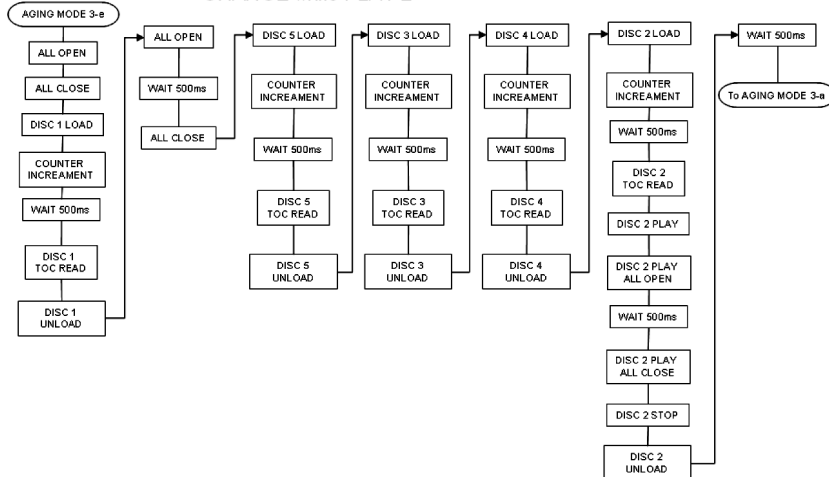
### Mode 3 PLAY-CHANGE-OPEN mode aging (1 cycle) CHANGE while PLAY 3



### Mode 3 PLAY-CHANGE-OPEN mode aging (1 cycle) CHANGE while PLAY 4



### Mode 3 PLAY-CHANGE-OPEN mode aging (1 cycle) CHANGE while PLAY 2







## 8.5. Error code Table Display

Self-Diagnosis Function (refer Section “8.2 Service Mode Table 1”) provides information on any problems occurring for the unit and its respective components by displaying the 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.

### 8.5.1. Error Code Table (For Deck Mechanism)

Error Code	Diagnosis Contents	Description of Error	Automatic FL Display	Remarks
H01	Mode SW, plunger and capstan motor abnormal	Normal operation during mecha transition, MODE SW abnormal is memorized. The content of abnormality can be confirmed in the abnormal detection mode explained in the later section.		For deck mechanism unit. Press [STOP, ■] on main unit for next error.
H02	Rec INH SW abnormal	The content of abnormality can be confirmed in the abnormal detection mode explained in the later section.		For deck mechanism unit. Press [STOP, ■] on main unit for next error.
H03	HALF SW abnormal			For deck mechanism unit. Press [STOP, ■] on main unit for next error.
F01	Reel pulse abnormal			For deck mechanism unit. Press [STOP, ■] on main unit for next error.

## 8.5.2. Error Code Table (For CD Changer)

Error Code	Diagnosis Contents	Description of Error	Automatic FL Display	Remarks
F15	RESET SW abnormal	REST SW: ON is not detected within the specified time.	F 15	For CD unit (For Traverse). Press [STOP, ■] on main unit for next error.
F26	Transmission error between CD Servo LSI IC and microprocessor IC	When set to CD mode, the sense signal does not turn "Low", a fail safe time after system command transmission is sent.	F 26	For CD unit (For Traverse). Press [STOP, ■] on main unit for next error.
IHMS	Cam gear abnormality	Cam gear does not rotate to "HOME" position.	I H M S	For Mechanism Unit (CRS1). Press [STOP, ■] on main unit for next error.
ICSL	Cam gear/gear units abnormal	Cam gear does not rotate to "PLAY" driving position and hence does not drive playing tray to "STOCK" position.	I C L S	For Mechanism Unit (CRS1). Press [STOP, ■] on main unit for next error.
ISTK	Drive rack/gear assembly abnormal	The tray drive rack does not move to "STOCK" position. (Tray does not move to "STOCK" position)	I S T K	For Mechanism Unit (CRS1). Press [STOP, ■] on main unit for next error.
IPLY	Drive rack/gear assembly abnormal	The tray drive rack does not move to "PLAY" position. (Tray does not move to "PLAY" position)	I P L Y	For Mechanism Unit (CRS1). Press [STOP, ■] on main unit for next error.
ITOP	UD assembly	UD Rack does not move to front direction. This lead to UD base not raise to top position.	I T O P	For Mechanism Unit (CRS1). Press [STOP, ■] on main unit for next error.
IUDS	UD assembly	After TOP SW is detected, UD rack does not move into tray 1 position.	I U D S	For Mechanism Unit (CRS1). Press [STOP, ■] on main unit for next error.
HOME	Cam gear/gear assembly abnormal	Cam gear does not move to "HOME" position under following conditions 1. After tray is load to "PLAY" position. 2. After tray is unload to "STOCK" position.	H O M E	For Mechanism Unit (CRS1). Press [STOP, ■] on main unit for next error.
LOAD	Tray drive assembly abnormal	Tray unit does not move from "STOCK" to "PLAY" position	L O A D	For Mechanism Unit (CRS1). Press [STOP, ■] on main unit for next error.
UNLD	Tray drive assembly abnormal	Tray unit does not move from "PLAY" to "STOCK" position	U N L D	For Mechanism Unit (CRS1). Press [STOP, ■] on main unit for next error.
PDRV	Cam gear/gear assembly abnormal	Cam gear does not move from "HOME" to "PLAY" drive position.	P D R V	For Mechanism Unit (CRS1). Press [STOP, ■] on main unit for next error.

Error Code	Diagnosis Contents	Description of Error	Automatic FL Display	Remarks
UDU	UD base assembly abnormal	UD Base assembly does not move upwards from tray 5 to tray 2.	UDU	For CD unit (For Traverse). Press [STOP, ■] on main unit for next error.
UDD	UD base assembly abnormal	UD Base assembly does not move downwards from tray 1 to tray 5.	UDD	For CD unit (For Traverse). Press [STOP, ■] on main unit for next error.
F1NG	Fail - safe mode. (For open/close tray unit(s))	When the tray open operation is performed, it fails to open. It will automatically close all trays after the time-out by the microprocessor. During this time when it fails, the error code will appear.	F1NG	For Mechanism unit (CRS1). Press [STOP, ■] on main unit for next error.
F2NG	Fail - safe mode. (For open/close tray unit(s))	When the tray close operation is performed, it fails to close. It will automatically open all trays after the time-out by the microprocessor. During this time when it fails, the error code will appear.	F2NG	For Mechanism unit (CRS1). Press [STOP, ■] on main unit for next error.
SRVC_TRV	To unlock the traverse unit for service	1. All trays set to "STOCK" position 2. Mechanism set to tray 5 3. Cam gear set to "HOME" position	SRVC TRV	For Mechanism unit (CRS1). Press [STOP, ■] on main unit for next error.
RSET	Cam gear jam/close sensor faulty	During tray re-open, the cam gear will rotate in the opposite direction to reset the cam gear position. When it fails, the error code will	RSET	For Mechanism unit (CRS1). Press [STOP, ■] on main unit for next error.

### 8.5.3. Error Code Table (For Power Supply)

Error Code	Diagnosis Contents	Description of Error	Automatic FL Display	Remarks
F61	Power Amp IC output abnormal	Upon power on, PCONT=HIGH, DCDT=L after checking LSI.	F61	For power. Press [STOP, ■] on main unit for next error.
F76		DCDET1=L (NG)	F76	
F61 - 76		Both DCDT1 and DCDT2 "L" (NG)	F61-F76	

### 8.5.4. CRS1 Error Code display

#### CRS1 Error Code display

1. The errors that occurred in CRS1 Mechanism can be recalled and displayed, in the order of the occurrence under self-diagnostic for procedures to enter this mode.

- Only the first 5 errors will be memorized (in backup memory). The subsequent error shall be ignored and not memorized.

For system with EEPROM as memory backup, memory space in EEPROM is necessary.

2. To display all error code memorized

In CRS1 Self-Diagnostic mode, press [DISC EXCHANGE] to display subsequent error code.

It shall repeat after reaching error no. 5.

e.g.:

[1 \_ \_ \_ \_ I H M S] → [DISC EXCHANGE]

[2 \_ \_ \_ \_ I T O P] → [DISC EXCHANGE]

[3 \_ \_ \_ \_ H O M E] → [DISC EXCHANGE]

[4 \_ \_ \_ \_ L O A D] → [DISC EXCHANGE]

[5 \_ \_ \_ \_ U D D] → [DISC EXCHANGE]

3. To clear the error code memory

In CRS1 Self-Diagnostic mode, long press [DISC EXCHANGE] key (2s or more)

4. To exit CRS1 Self Diagnostic mode, turn off the set.

# 9 Assembling and Disassembling

## 9.1. Caution

### Special Note:

This model uses a new Mechanism unit (CRS1). In this following section does not contain the necessary disassembly & assembly information for the Mechanism unit (CRS1) except the disassembly & assembly of traverse unit. Kindly refer to the original service manual for the Mechanism unit. (Order No. MD0509368C0).

### “Attention Servicer”

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.  
Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.
4. Refer to the Parts No. on the page of “Replacement Parts List” (Section 23), if necessary.

### CAUTION NOTE:

Please use original screws and at correct locations.

### Caution:

After replacing of Mechanism Unit (CRS1), ageing test is necessary. Please confirm operation for Mechanism Unit (CRS1).

Below is the list of disassembly sections

- Disassembly of Top Cabinet
- Disassembly of Mechanism Unit (CRS1)
- Disassembly of Rear Panel
- Disassembly of Front Panel Unit
- Disassembly of Panel P.C.B., Tact Switch P.C.B. & Remote Sensor P.C.B.
- Disassembly of USB P.C.B.
- Disassembly of Music Port P.C.B.
- Disassembly of CD Lid
- Disassembly of Deck Mechanism Unit
- Disassembly of Deck P.C.B.
- Disassembly of Deck Mechanism
- Disassembly of Deck Mechanism P.C.B.
- Disassembly of Cassette Lid
- Rectification for Tape Jam Problem
- Disassembly of Traverse Unit
- Disassembly of D-Amp P.C.B.
- Replacement of Digital Power Amp IC
- Disassembly of Main P.C.B.
- Replacement for Switch (Q2751)
- Disassembly of SMPS P.C.B.
- Replacement for Switch Regulator IC (IC5701)
- Replacement for Switch Regulator Diode (D5702)
- Replacement for Regulator Diode (D5801)
- Replacement for Regulator Diode (D5802)
- Replacement for Regulator Diode (D5803)
- Disassembly of AC Inlet P.C.B.

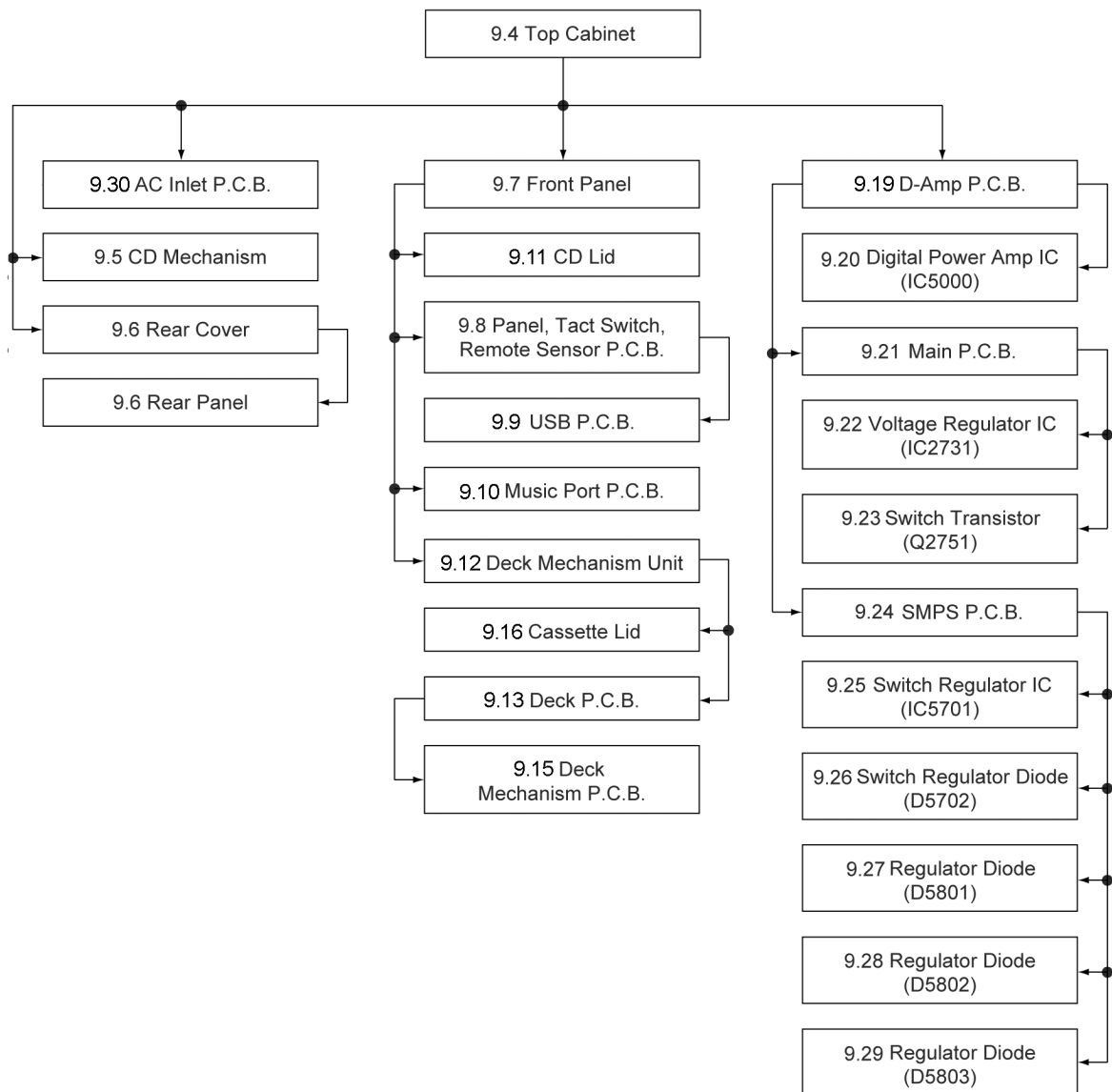
Below shown is part no. of different screws types used:

<b>a</b>	:RHD30007-K2J	<b>h</b>	:XTW3+8TFJ
<b>b</b>	:RHD30119-S	<b>i</b>	:XTB3+10JFJ
<b>c</b>	:XTW3+12TFJ	<b>j</b>	:XTW2+10LFJ
<b>d</b>	:RHD26046-L	<b>k</b>	:XYC2+JF17FJ
<b>e</b>	:XTV3+10GFJ-M	<b>q</b>	:XTW26+10SFJ
<b>f</b>	:XTW2+5LFJ	<b>r</b>	:RHD26022-1
<b>g</b>	:RHD30111-3		

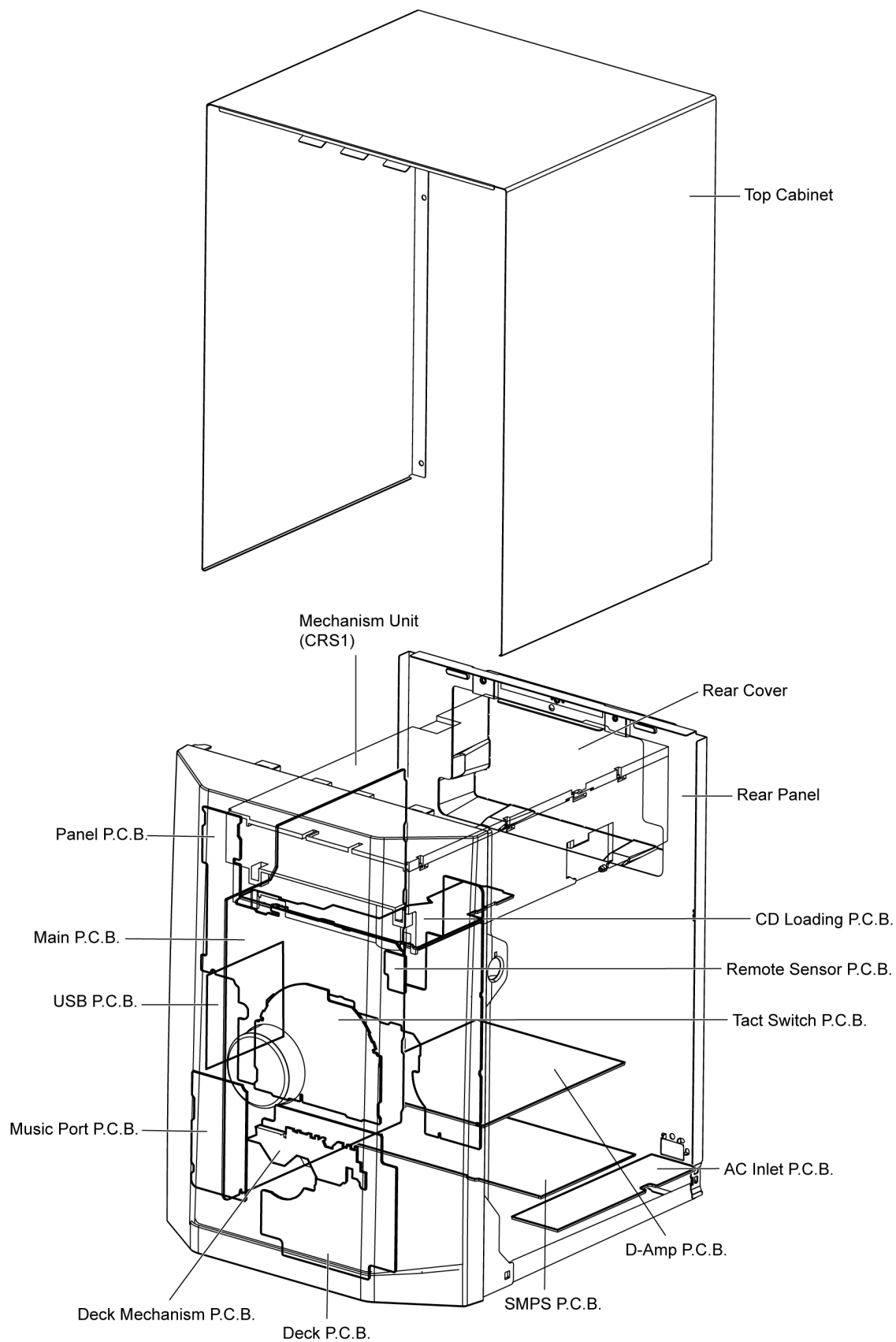
## 9.2. Disassembly flow chart

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 as below.



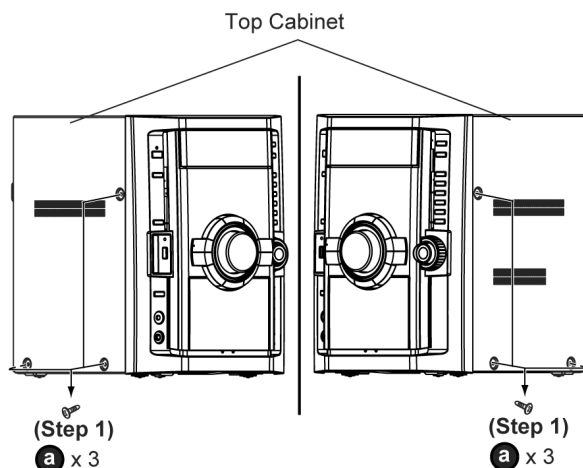
## 9.3. Main Components and P.C.B. Location



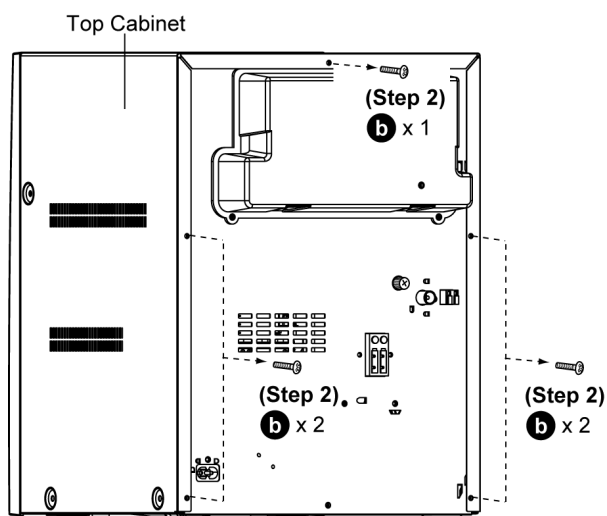


## 9.4. Disassembly of Top Cabinet

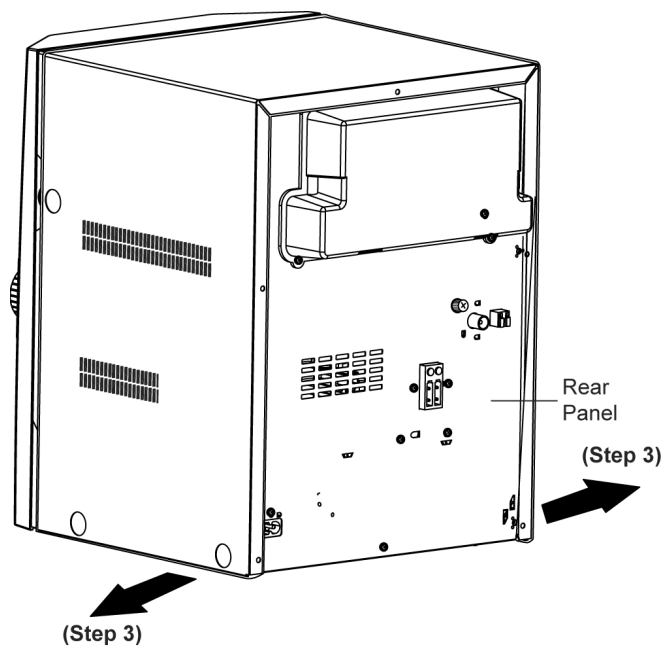
**Step 1** Remove 3 screws on both sides of the top cabinet.



**Step 2** Remove 5 screws at the rear panel.

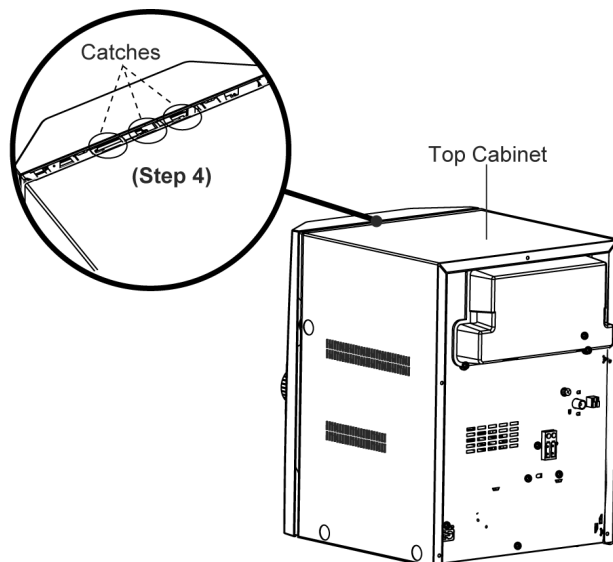


**Step 3** Lift the sides of top cabinet outwards as arrow shown.

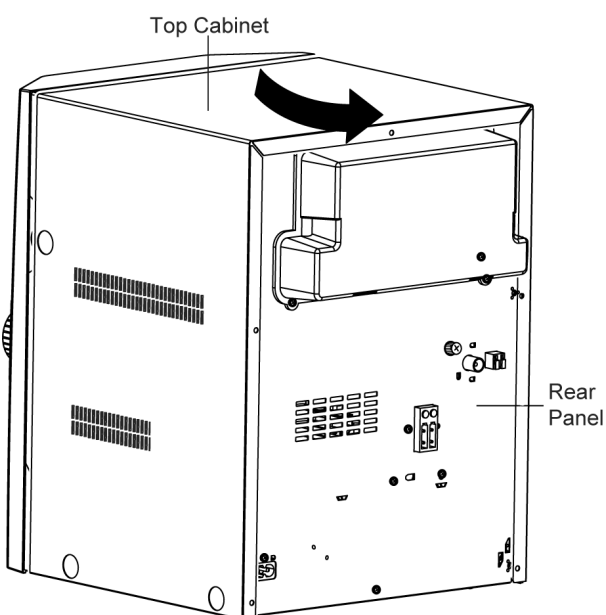


**Step 4** Push the top cabinet backwards as arrow shown to

release the catches.



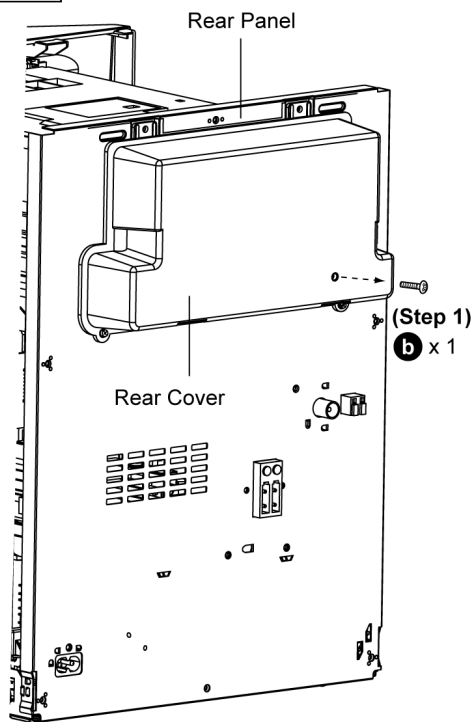
**Step 5** Lift up the top cabinet and remove it in the direction of arrow.



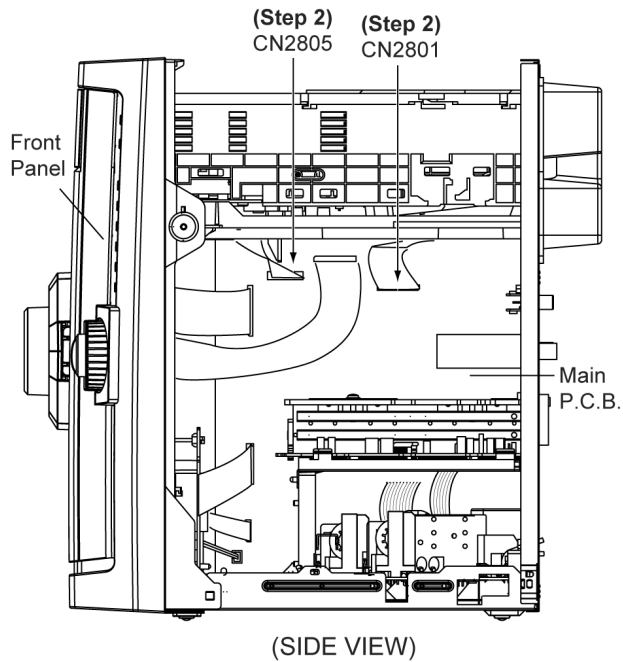
## 9.5. Disassembly of Mechanism Unit (CRS1)

- Follow the (Step 1) - (Step 5) of Item 9.4

**Step 1** Remove 1 screw at rear cover.

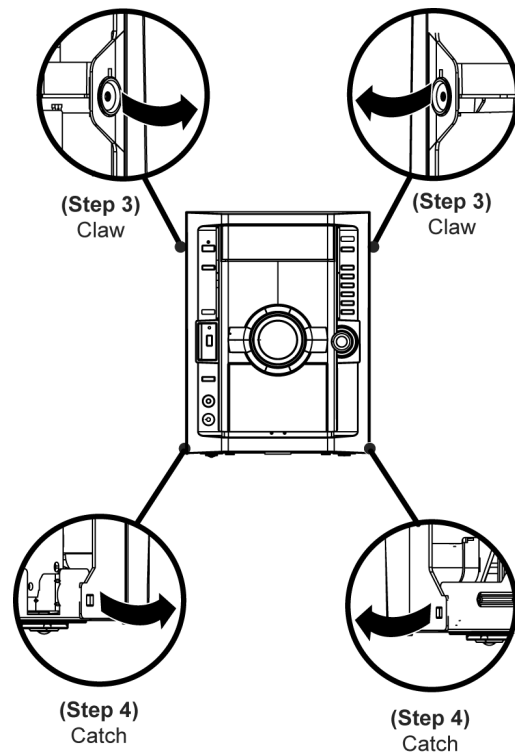


**Step 2** Detach the FFC cables at connectors (CN2801 & CN2805) at Main P.C.B..



**Step 3** Release the claws outdoors on both sides.

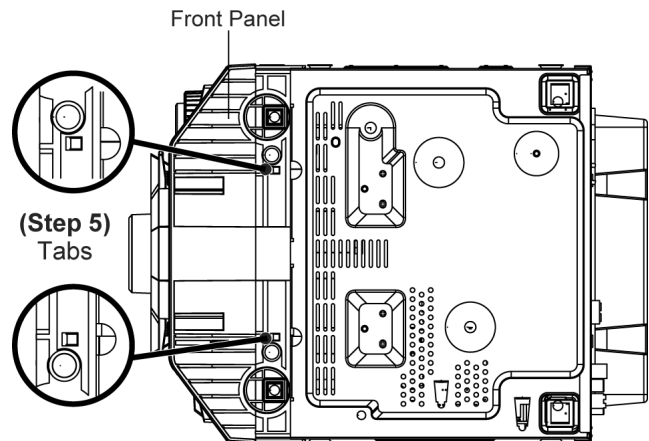
**Step 4** Release catches at both sides.



**Special Note:** During reassembling procedure, ensure both the claws and catches are fully caught.

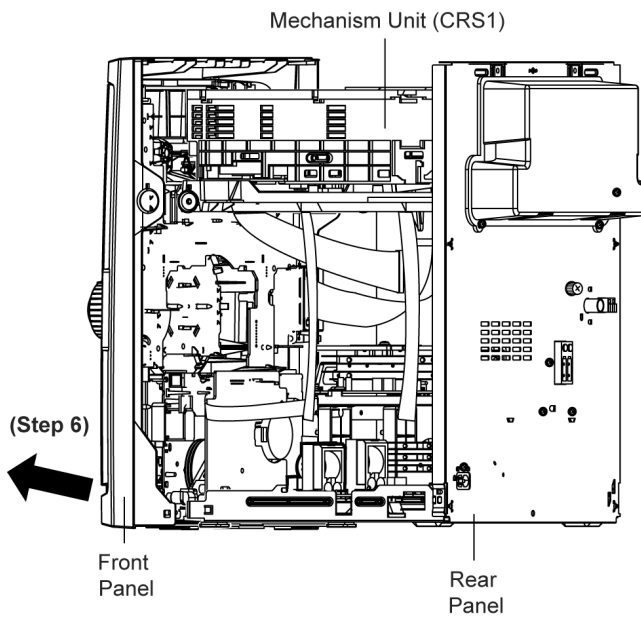
Assembly is secured upon hearing a click sound.

**Step 5** Release the tabs at the bottom of the front panel.

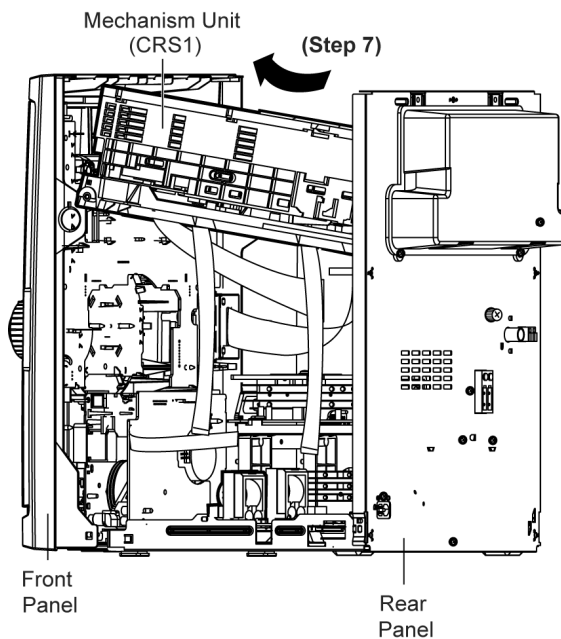


**Caution:** Do not exert strong force when releasing the tabs.

**Step 6** Shift the front panel unit slightly forward in the direction of arrows.



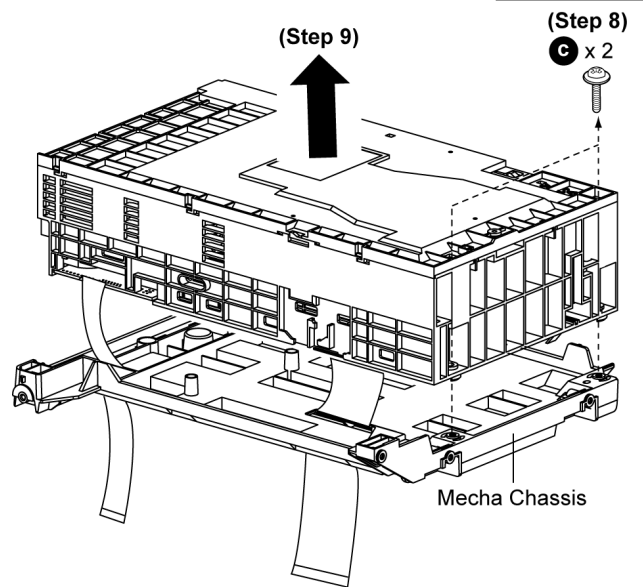
**Step 7** Lift up the Mechanism Unit (CRS1).



• **Disassembly of Mecha Chassis**

**Step 8** Remove 2 screws.

**Step 9** Remove the Mecha Chassis as arrow shown.

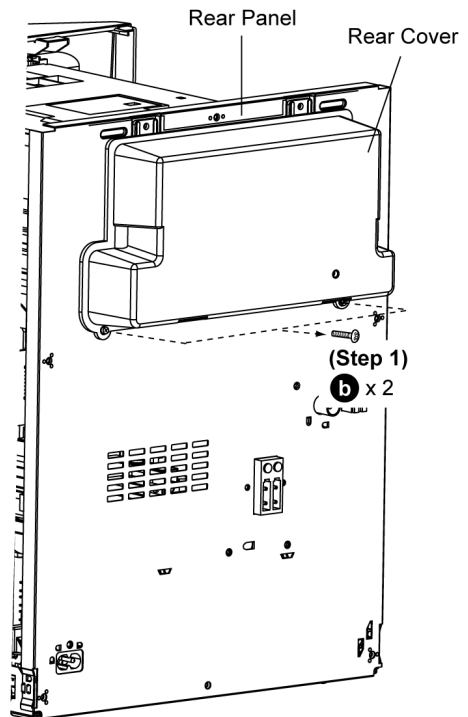


**Note:** For disassembly & assembly of traverse unit, please refer to original Service Manual for the Disassembly and Assembly of the Mechanism Unit (CRS1).

## 9.6. Disassembly of Rear Panel

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 1) of Item 9.5
- **Disassembly of Rear Cover**

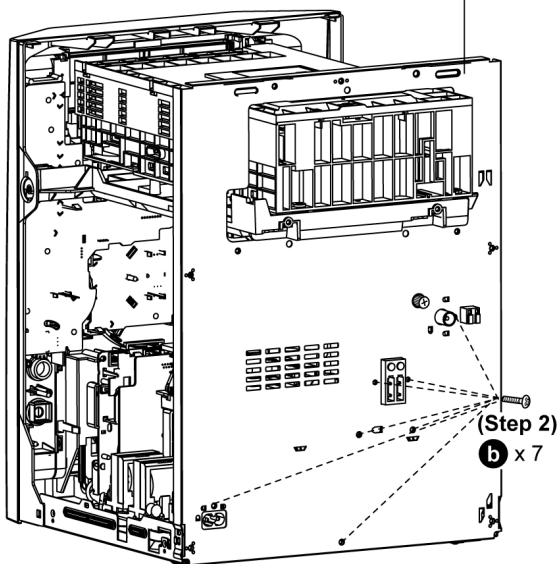
**Step 1** Remove 2 screws at rear cover.



• **Disassembly of Rear Panel**

**Step 2** Remove 7 screws at rear panel.

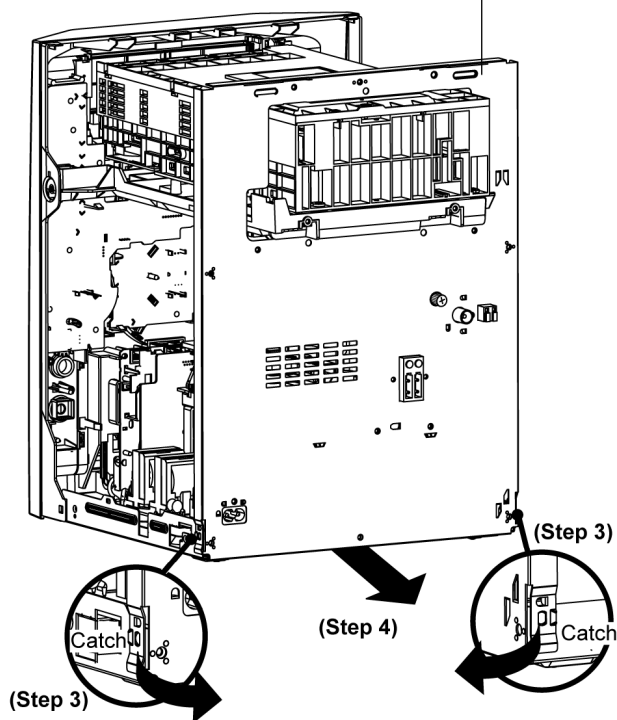
Rear Panel



**Step 3** Release 2 catches from the side panel.

**Step 4** Remove the rear panel as arrow shown.

Rear Panel



## 9.7. Disassembly of Front Panel Unit

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 3) - (Step 5) of Item 9.5

**Step 1** Detach 27P FFC cable at connector (CN2806) at Main P.C.B..

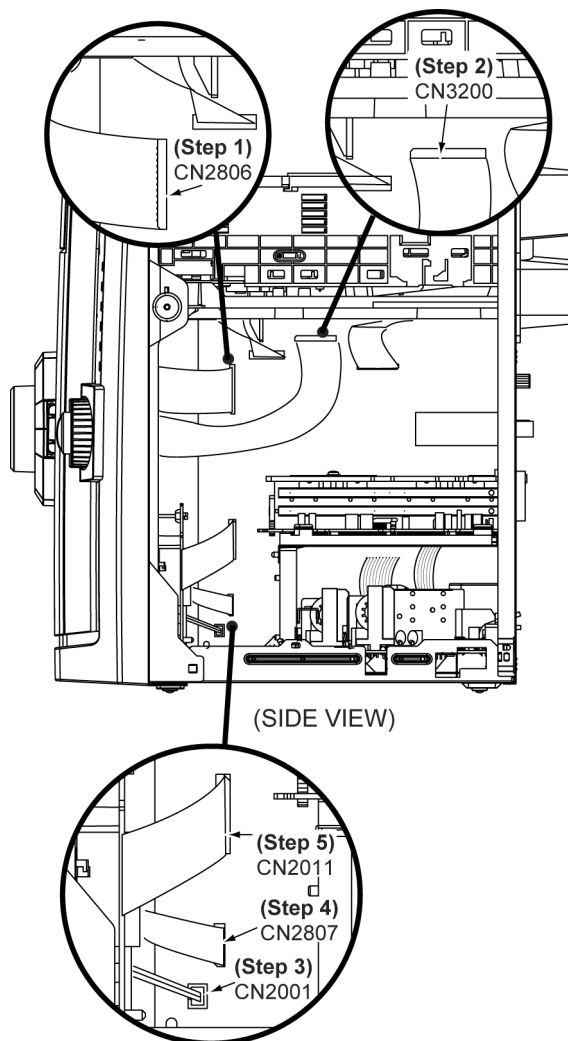
**Step 2** Detach 21P FFC cable at connector (CN3200) at Main P.C.B..

**Step 3** Detach 2P wired cable at connector (CN2001) at Main P.C.B..

**Step 4** Detach 10P FFC cable at connector (CN2807) at Main

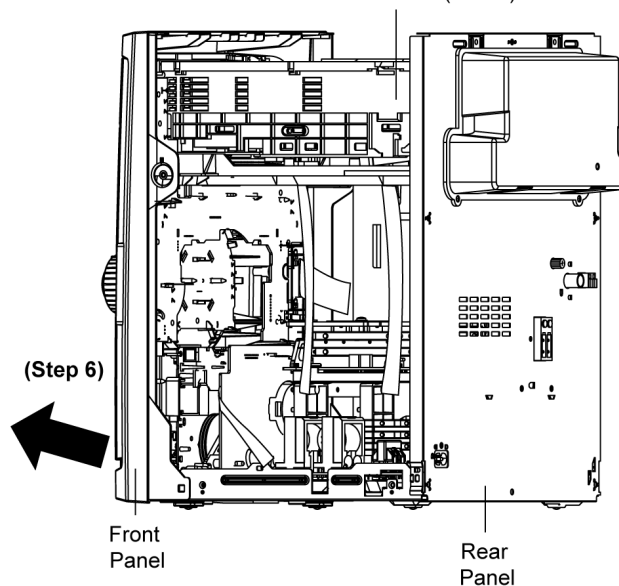
P.C.B..

**Step 5** Detach 22P FFC cable at connector (CN2011) at Main P.C.B..



**Step 6** Remove the front panel unit.

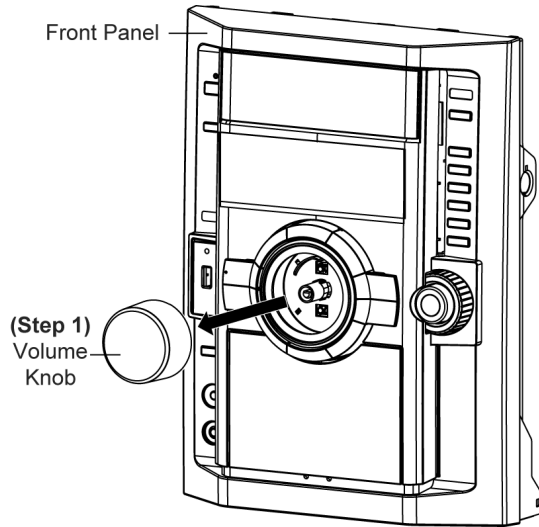
Mechanism Unit (CRS1)



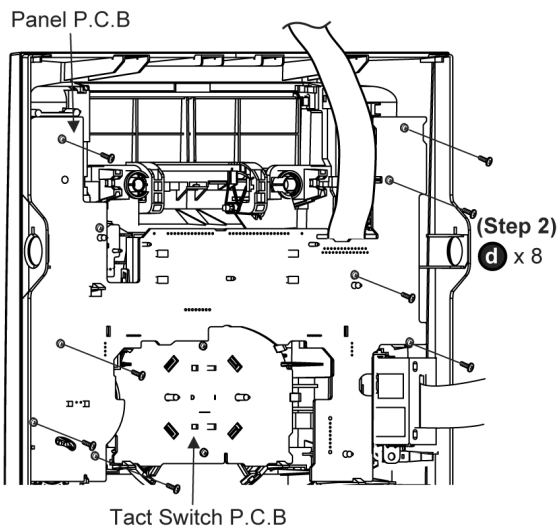
## 9.8. Disassembly of Panel P.C.B., Tact Switch P.C.B. & Remote Sensor P.C.B.

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 3) - (Step 5) of Item 9.5
- Follow the (Step 1) - (Step 6) of Item 9.7

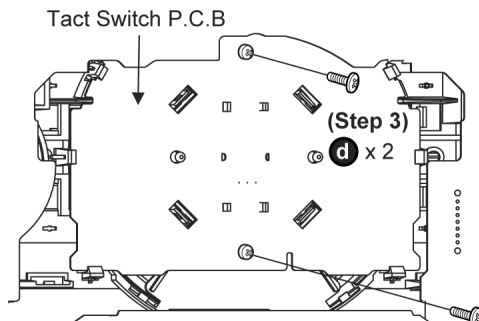
**Step 1** Remove Volume knob as arrow shown.



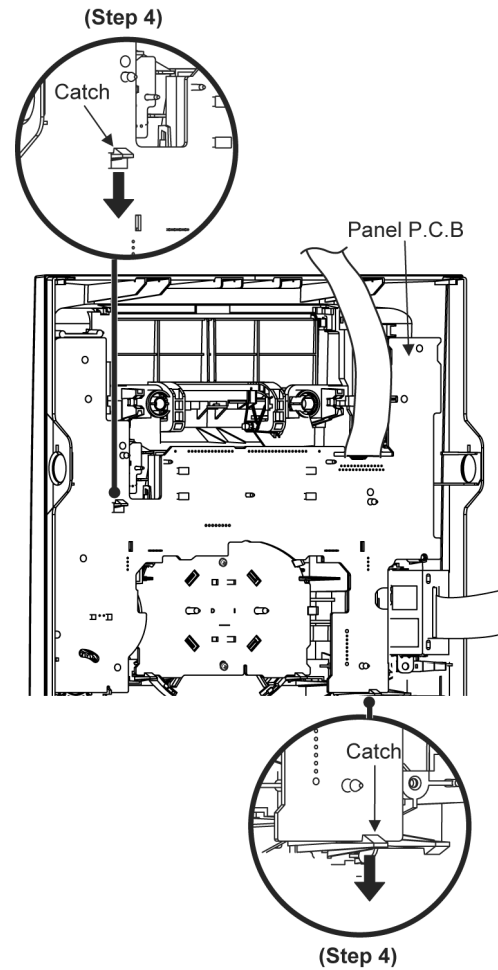
**Step 2** Remove 8 screws at Panel P.C.B..



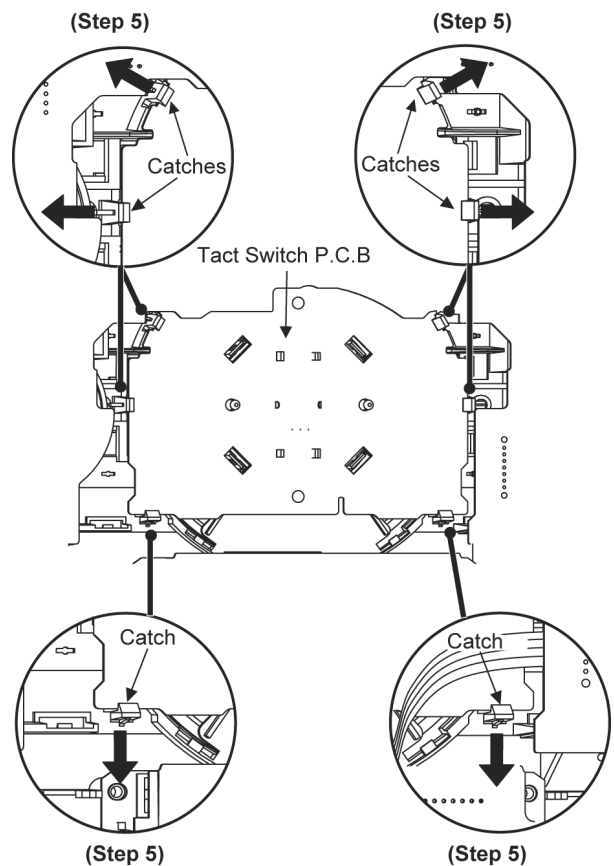
**Step 3** Remove 2 screws at Tact Switch P.C.B..

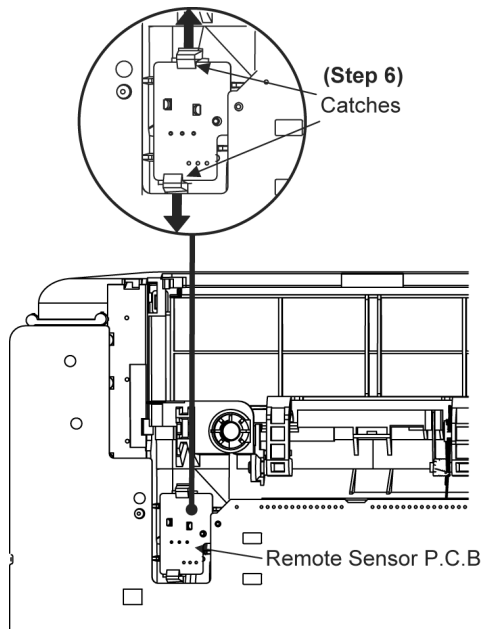


**Step 4** Release 2 catches at Panel P.C.B..

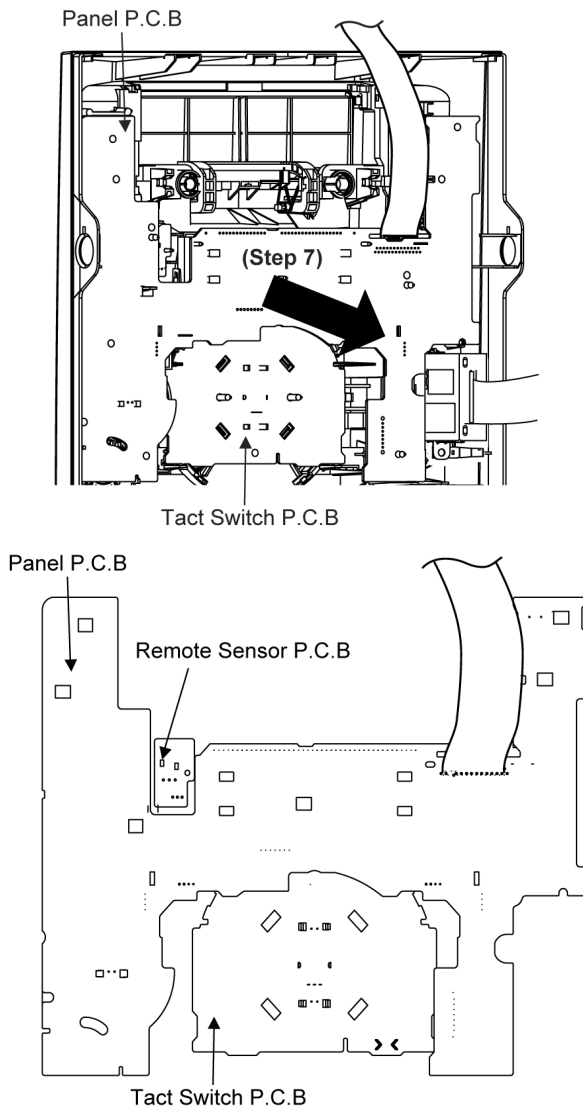


**Step 5** Release 6 catches at Tact Switch P.C.B..

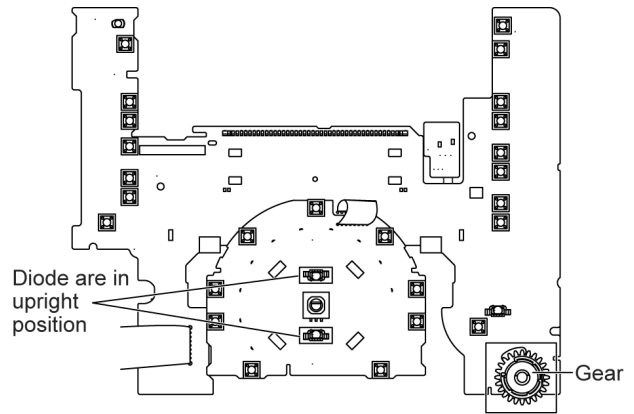


**Step 6** Release 2 catches at Sensor P.C.B..

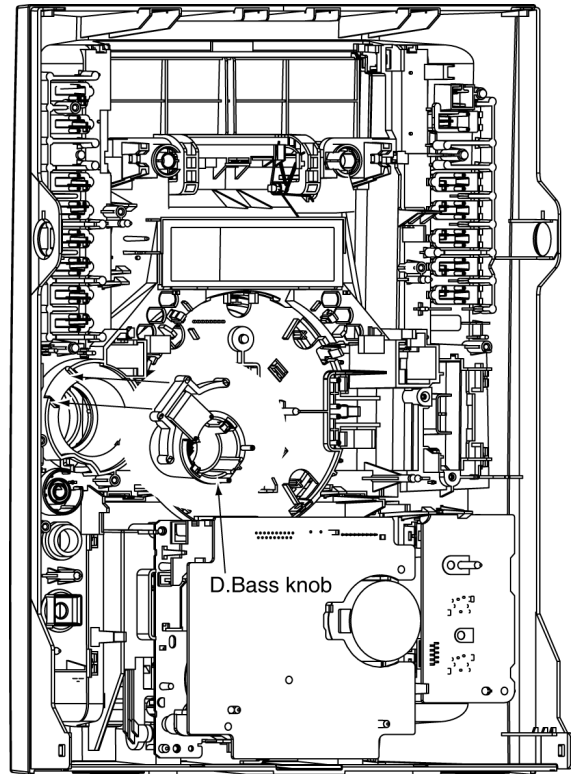
**Step 7** Lift up the Panel P.C.B., Tact Switch P.C.B. & Remote Sensor P.C.B. altogether as arrow shown.

**Caution Notes:**

1. During assembling of the P.C.B.s, ensure that the diode shown on Tact Switch P.C.B. are in upright position.

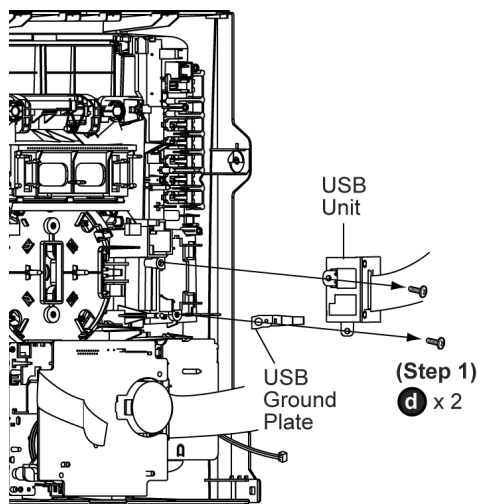


2. During reassembling procedures, ensure that D-Bass knob is seated properly.

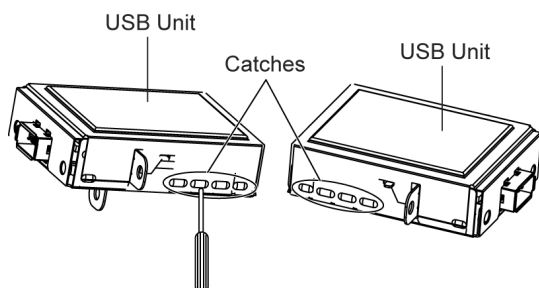
**9.9. Disassembly of USB P.C.B.**

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 3) - (Step 6) of Item 9.5
- Follow the (Step 1) - (Step 6) of Item 9.7
- Follow the (Step 1) - (Step 7) of Item 9.8

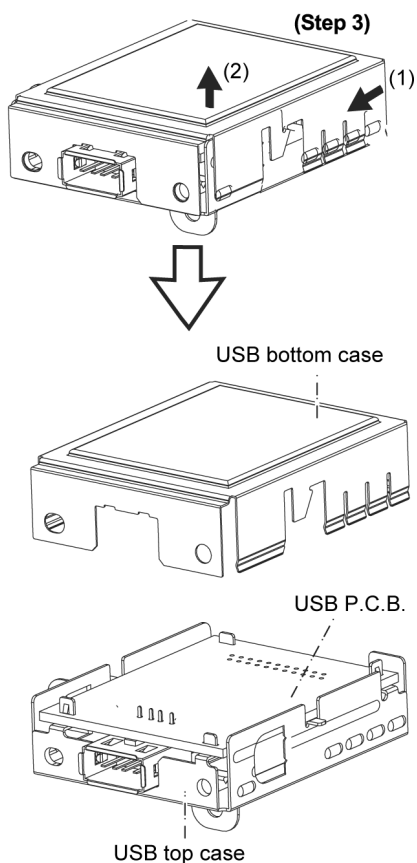
**Step 1** Remove 2 screws at USB unit.



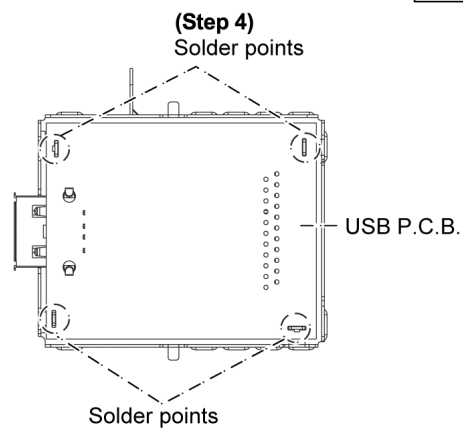
**Step 2** Use a screwdriver to release the catches at both side of the USB unit.



**Step 3** Remove USB bottom case as arrow shown.



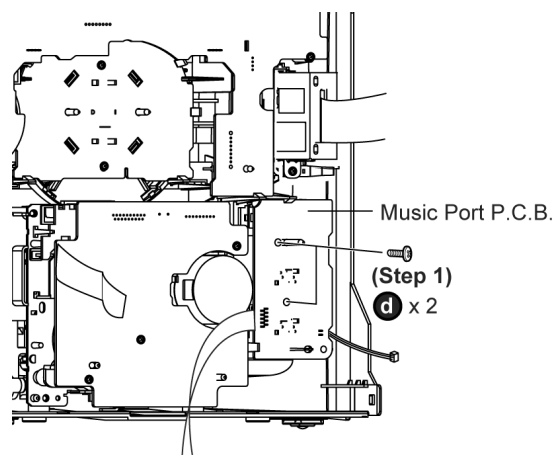
**Step 4** Unsolder the solder point to remove USB P.C.B..



## 9.10. Disassembly of Music Port P.C.B.

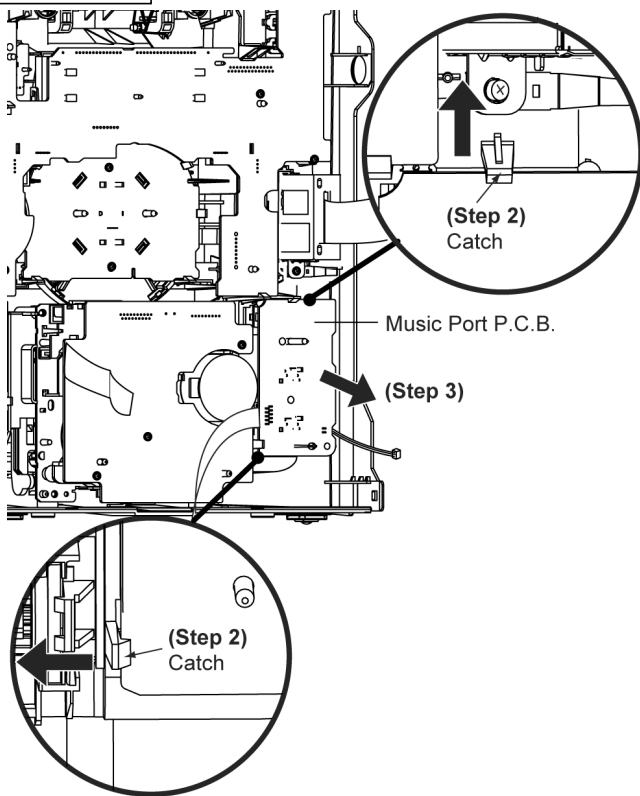
- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 3) - (Step 5) of Item 9.5
- Follow the (Step 1) - (Step 6) of Item 9.7

**Step 1** Remove 2 screws at Music Port P.C.B..



**Step 2** Release 2 catches.

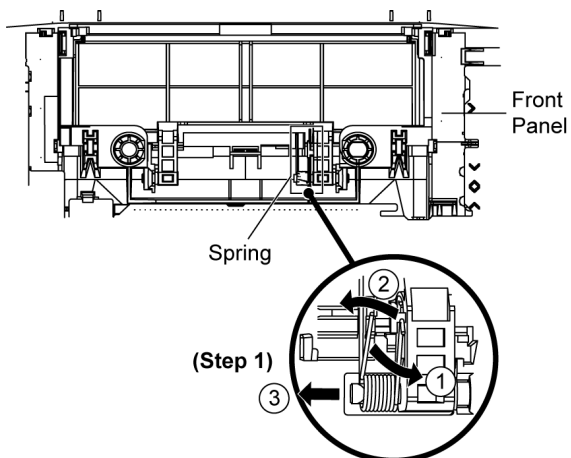
**Step 3** Lift up the Music Port P.C.B..



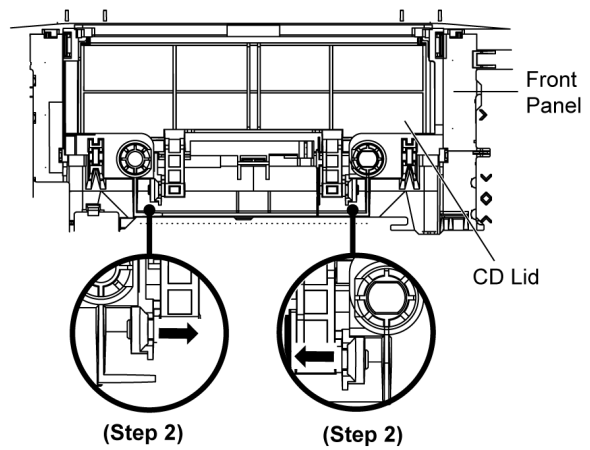
### 9.11. Disassembly of CD Lid

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 3) - (Step 6) of Item 9.5
- Follow the (Step 1) - (Step 6) of Item 9.7

**Step 1** Remove the spring as arrow shown in order of sequences (1) to (3).



**Step 2** Remove CD Lid as arrow shown.

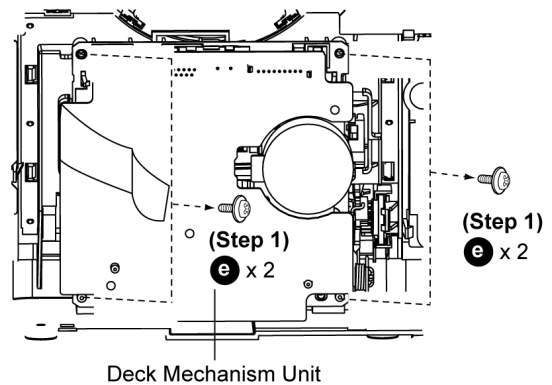


**Note:** Please ensure that the spring is assembly at right position.

### 9.12. Disassembly of Deck Mechanism Unit

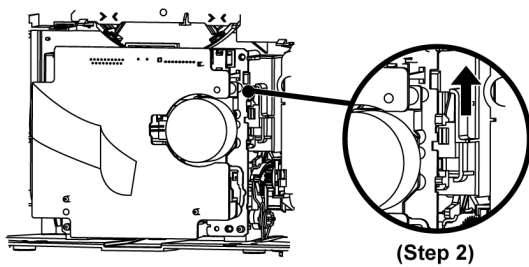
- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 3) - (Step 5) of Item 9.5
- Follow the (Step 1) - (Step 6) of Item 9.7

**Step 1** Remove 4 screws at Deck Mechanism.

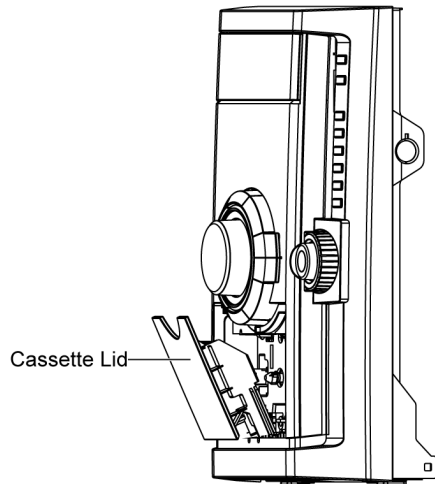


**Step 2** Push the lever upward as arrow shown to open the cassette lid ass'y.



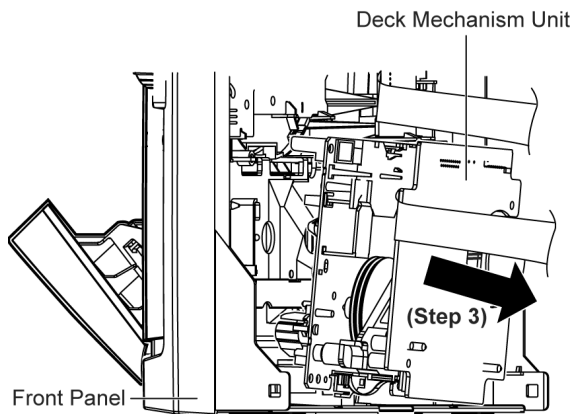


(Step 2)



Cassette Lid

**Step 3** Remove the deck mechanism unit as arrow shown.



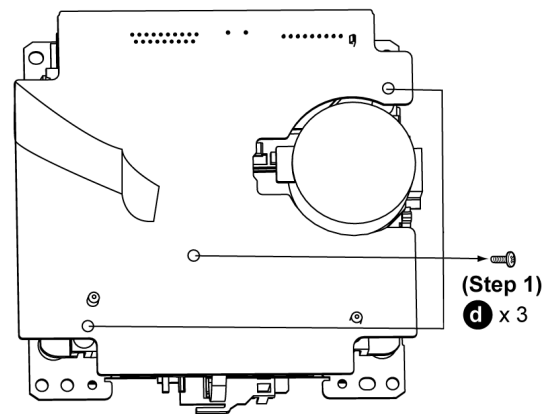
Deck Mechanism Unit

Front Panel

### 9.13. Disassembly of Deck P.C.B.

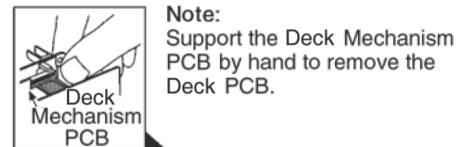
- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 3) - (Step 5) of Item 9.5
- Follow the (Step 1) - (Step 6) of Item 9.7
- Follow the (Step 1) - (Step 3) of Item 9.12

**Step 1** Remove 3 screws.

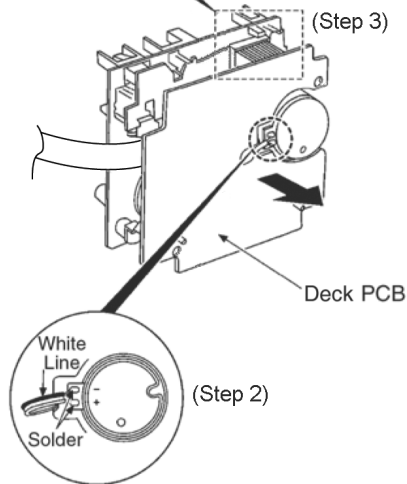
(Step 1)  
d x 3

**Step 2** Desolder 2P wires at the motor terminal.

**Step 3** Detach 9P cable at connector (CP1902) on Deck P.C.B..

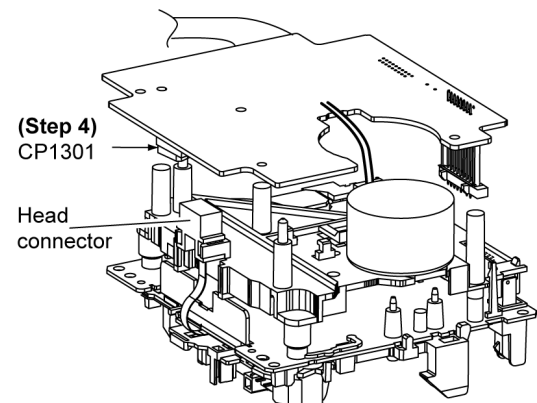


**Note:**  
Support the Deck Mechanism PCB by hand to remove the Deck PCB.



Deck PCB

**Step 4** Detach connector CP1301 from the Head connector.

(Step 4)  
CP1301

Head connector

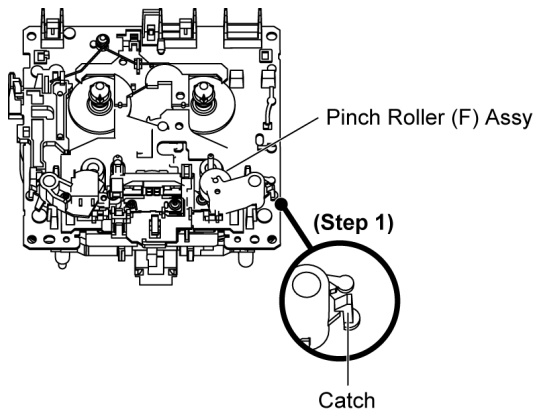
### 9.14. Disassembly of Deck Mechanism

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 3) - (Step 5) of Item 9.5

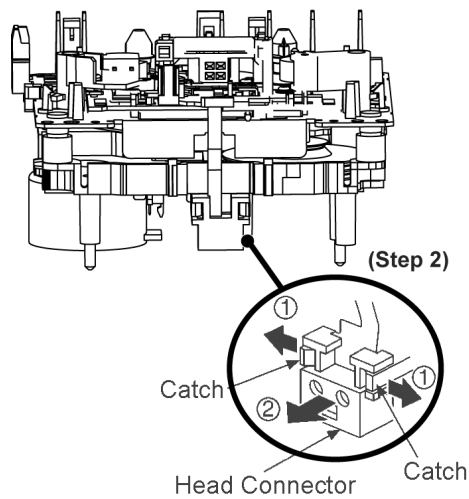
- Follow the (Step 1) - (Step 6) of Item 9.7
- Follow the (Step 1) - (Step 3) of Item 9.12
- Follow the (Step 1) - (Step 4) of Item 9.14

### 9.14.1. Replacement of Pinch Roller and Head Block

**Step 1** Release catch to remove the pinch roller (F) Assy.

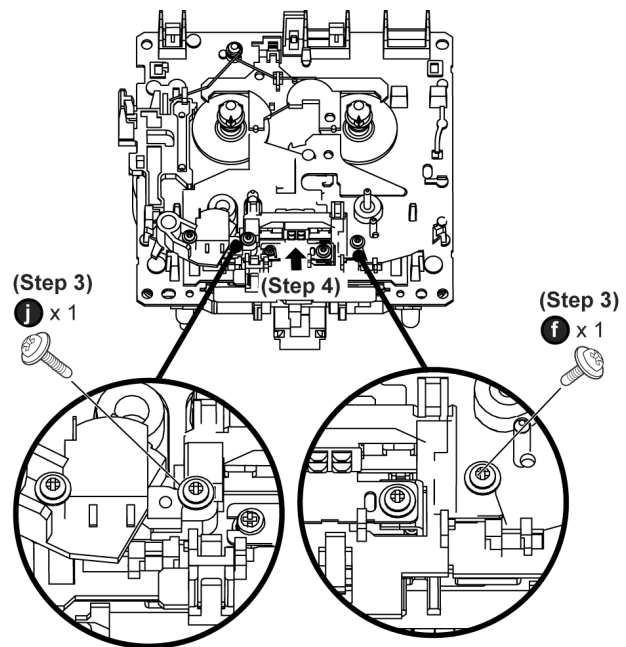


**Step 2** Release the catches to remove the head connector.

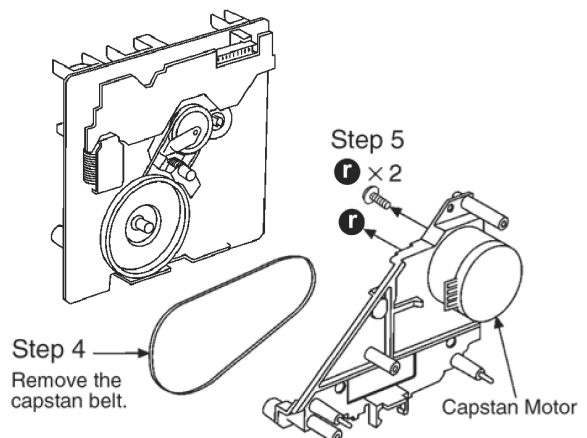
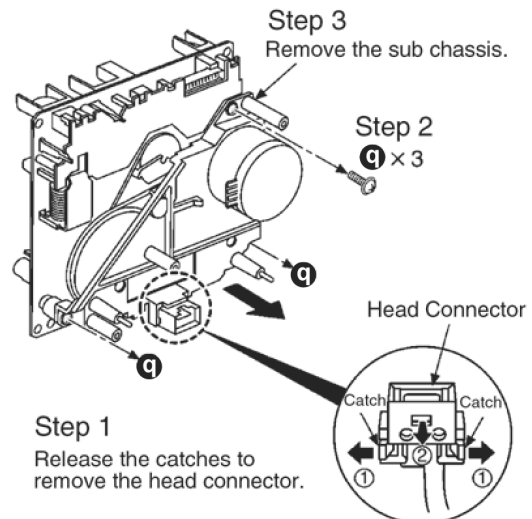


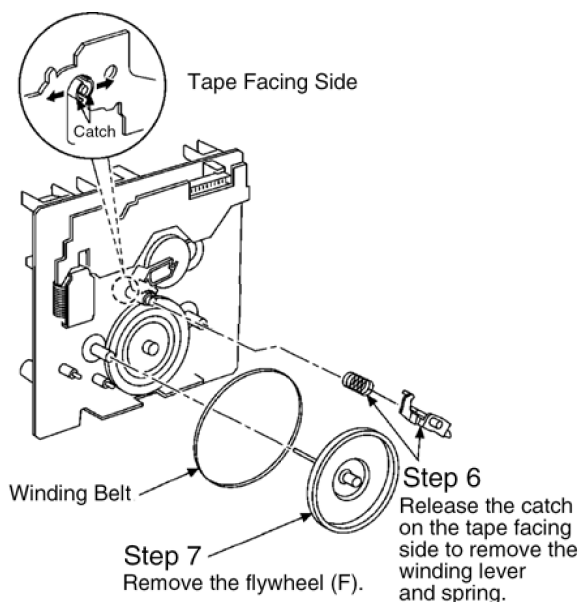
**Step 3** Remove 2 screws at the Deck Mechanism unit.

**Step 4** Remove head block.

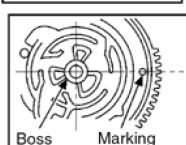


### 9.14.2. Replacement of Motor, Capstan Belt A, Capstan Belt B, and Winding Belt



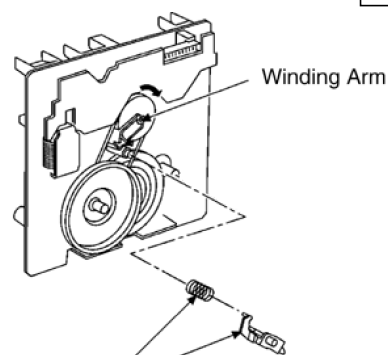
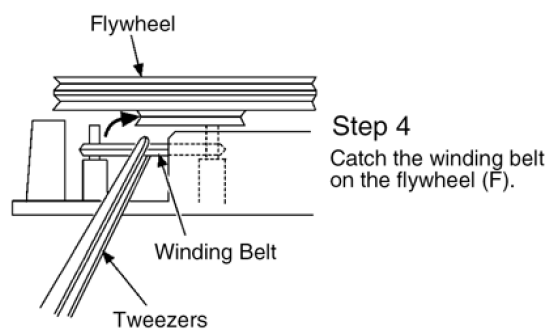
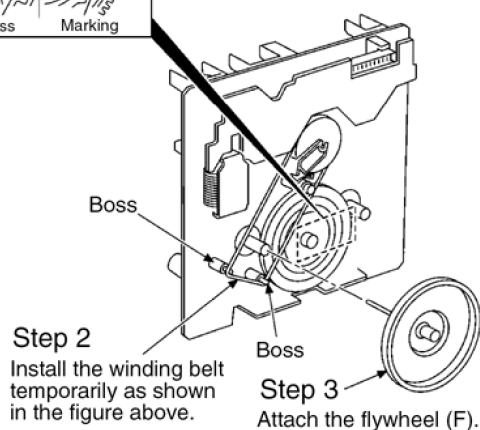


## Installing Belt



## Step 1

The positions of boss and marking hole should be horizontal to each other.

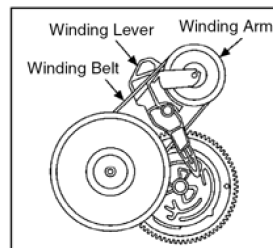


## Step 5

Install the winding lever and spring while the winding arm is pressed to the arrow direction. (Be sure that the winding lever is firmly inserted and the catch is hooked.)

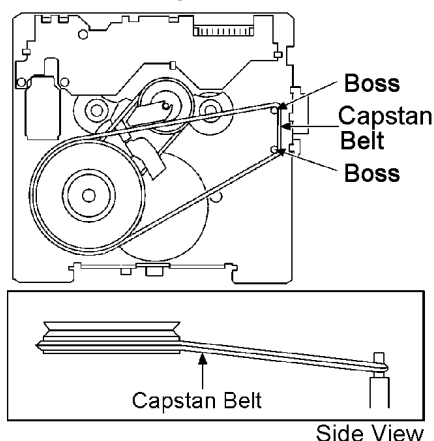
## Note:

The winding lever should be positioned as shown in the right figure.



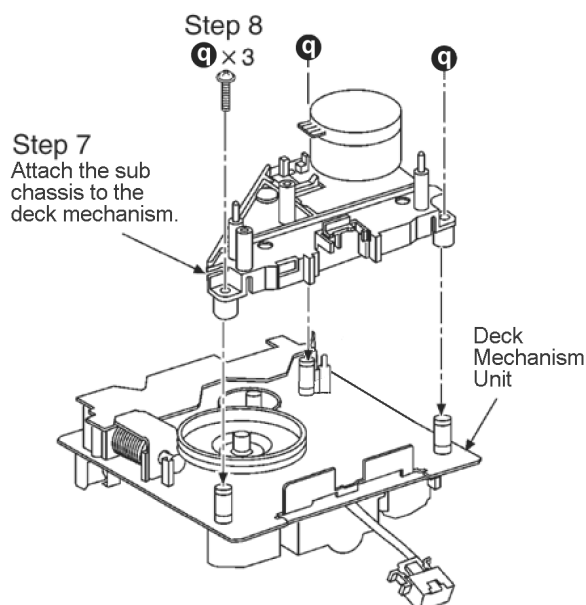
## Step 6

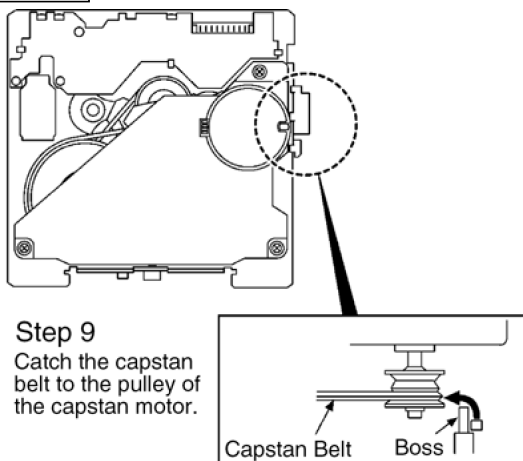
Install the capstan belt temporarily as shown in the figure below.



## Note:

Keep the belt away from grease.

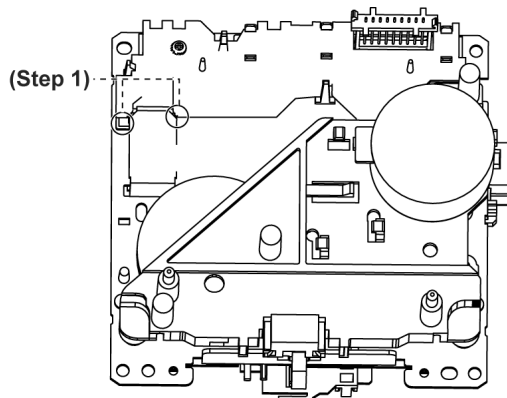




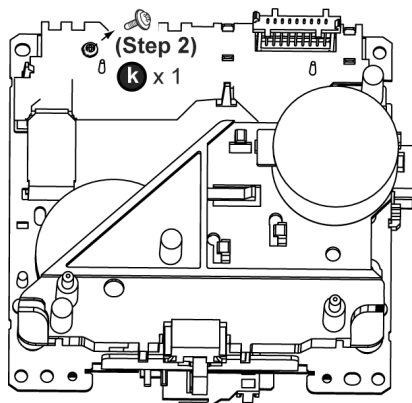
## 9.15. Disassembly of Deck Mechanism P.C.B.

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 3) - (Step 6) of Item 9.5
- Follow the (Step 1) - (Step 6) of Item 9.7
- Follow the (Step 1) - (Step 3) of Item 9.12
- Follow the (Step 1) - (Step 4) of Item 9.13

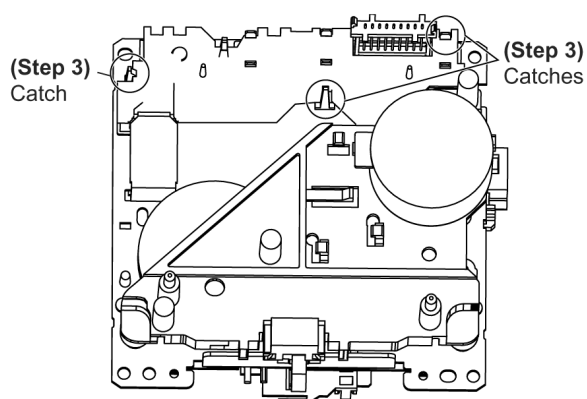
**Step 1** Desolder plunger terminals.



**Step 2** Remove 1 screw at Deck Mechanism P.C.B..



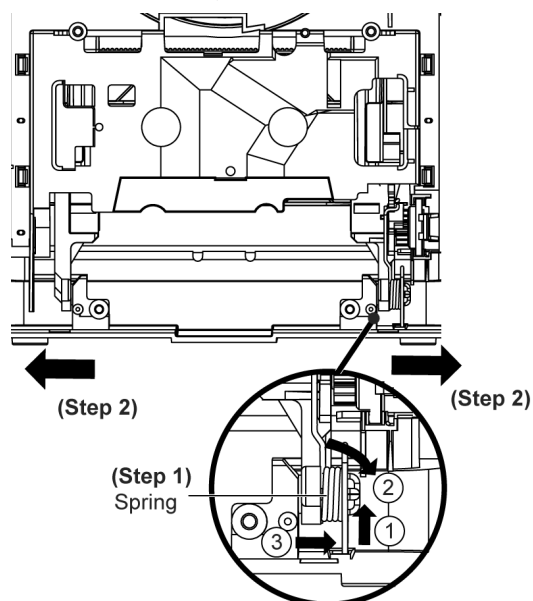
**Step 3** Release 3 catches to remove the Deck Mechanism P.C.B..



## 9.16. Disassembly of Cassette Lid

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 3) - (Step 5) of Item 9.5
- Follow the (Step 1) - (Step 6) of Item 9.7
- Follow the (Step 1) - (Step 3) of Item 9.12

**Step 1** Remove the spring.

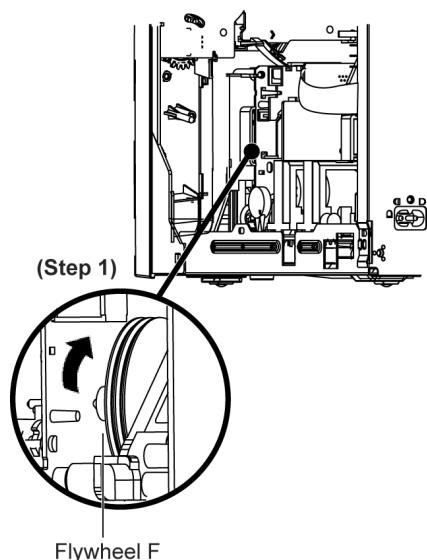


**Step 2** Push the cassette lid in the direction of arrows.

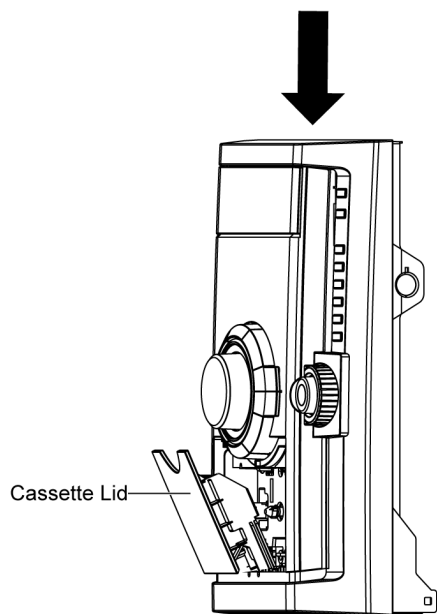
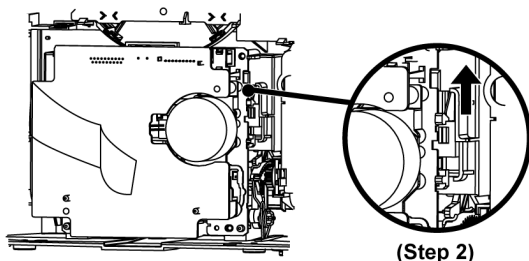
## 9.17. Rectification for Tape Jam Problem

- Follow the (Step 1) - (Step 5) of Item 9.4

**Step 1** If a cassette tape cannot be removed from the deck (the tape is caught by the capstan or pinch roller during playback or recording), rotate the flywheel F in the direction of the arrow to remove it.



**Step 2** Push the lever upward and open the cassette lid.

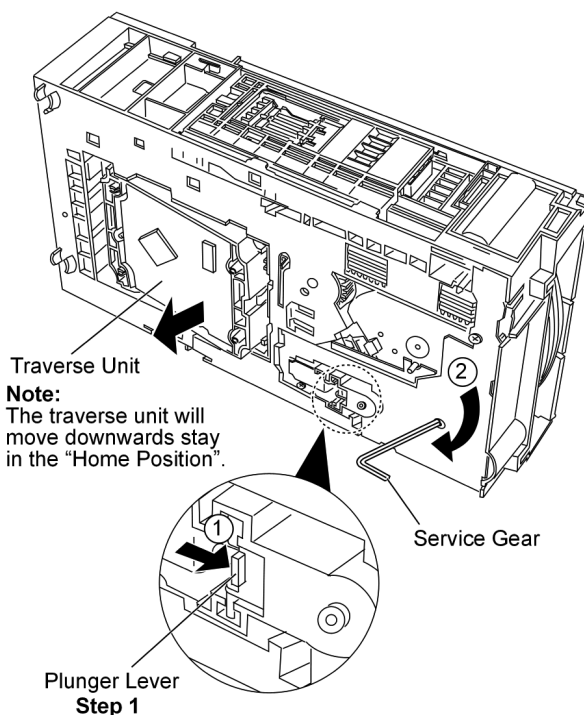


**Note:** Follow Disassembly of Cassette Lid. Remove the cassette tape.

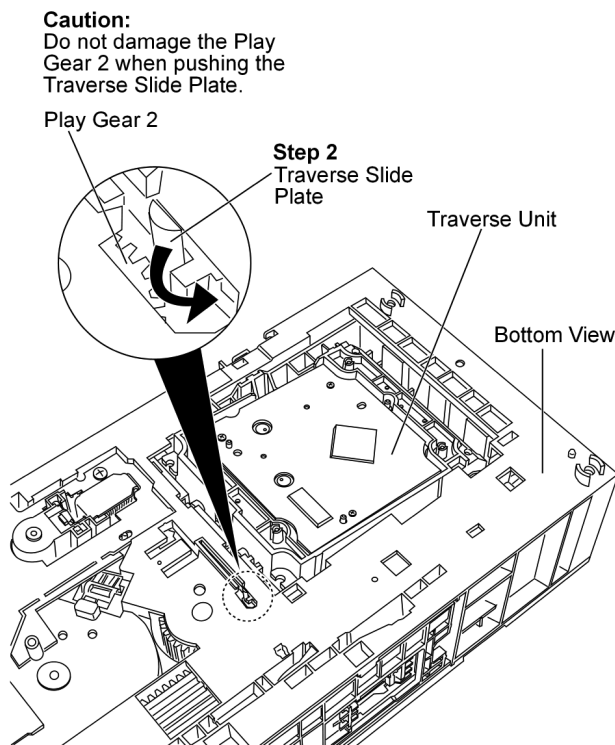
## 9.18. Disassembly of Traverse Unit

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 1) - (Step 9) of Item 9.5

**Important notes:** Ensure all the trays are in the “STOCK” position before proceeding to the disassemble of traverse unit. For procedures to set the trays in “STOCK” position, please refer to (5.3 Setting the Tray In “STOCK” position for CRS1 Service Manual order no. MD0509368C0)

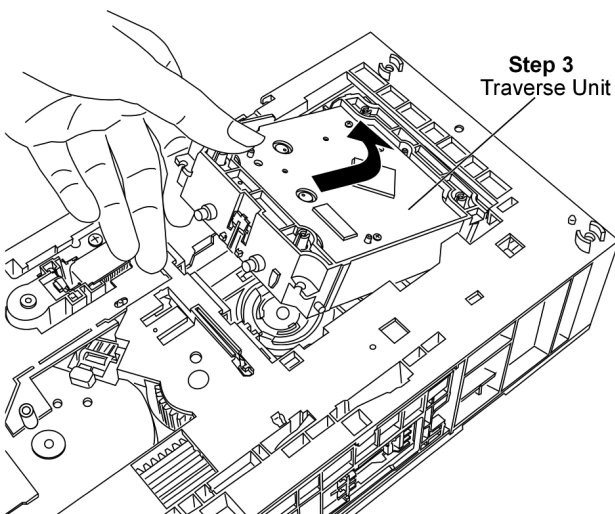


Step 1: Press and hold the plunger lever and rotate the gear as arrows shown until it stop.



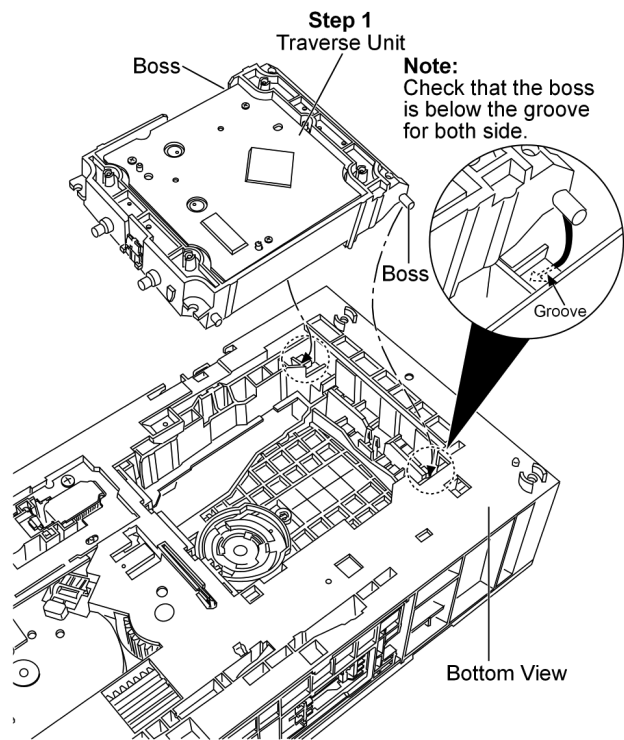
Step 2: Push the traverse slide plate as arrow shown to release the traverse unit.

**Caution:** Do not exert strong force on the traverse slide plate.



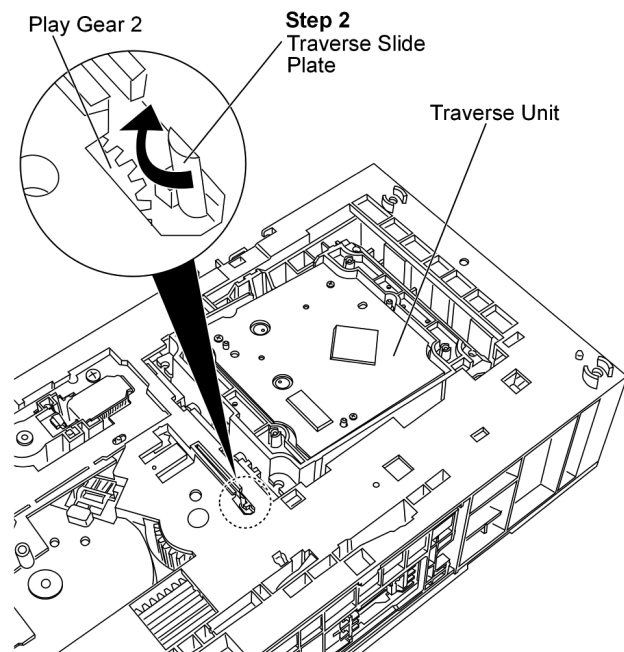
Step 3: Remove the traverse unit as arrow shown.

- Assembly of Traverse Unit



Step 1: Turn over the unit and install the traverse unit.

**Caution:**  
Do not damage the Play Gear 2 when pushing the Traverse Slide Plate.

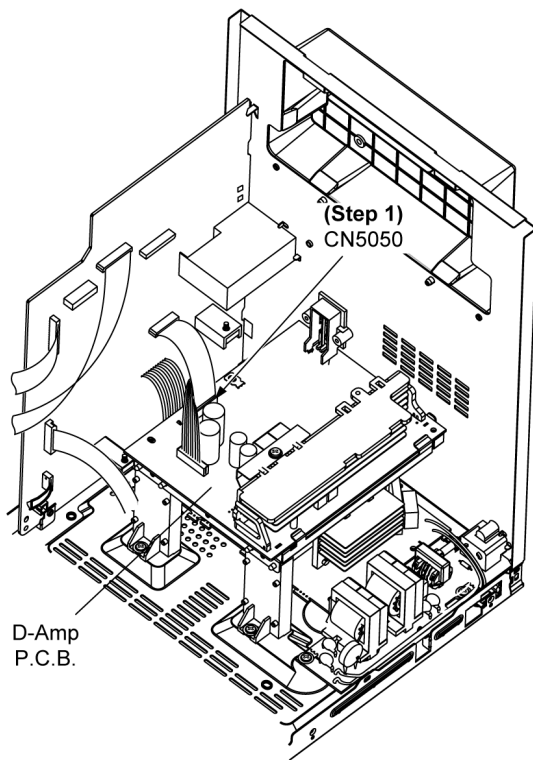


Step 2: Push the traverse slide plate as arrow shown to lock the traverse unit.

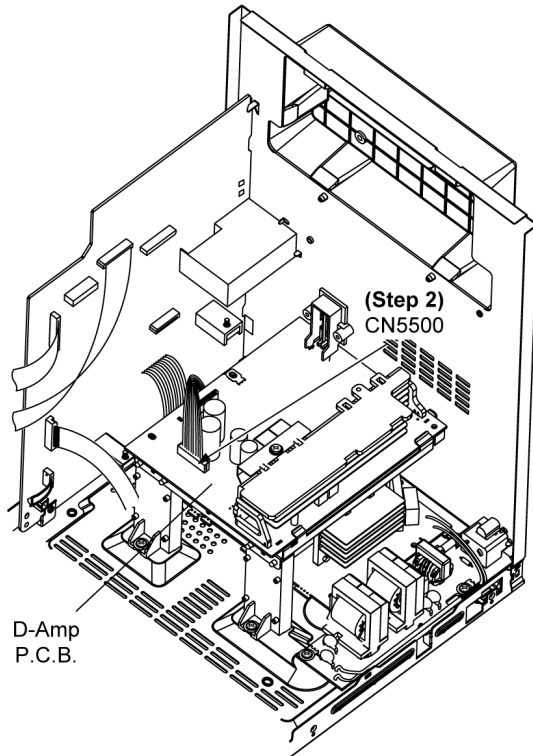
## 9.19. Disassembly of D-Amp P.C.B.

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 3) - (Step 7) of Item 9.5

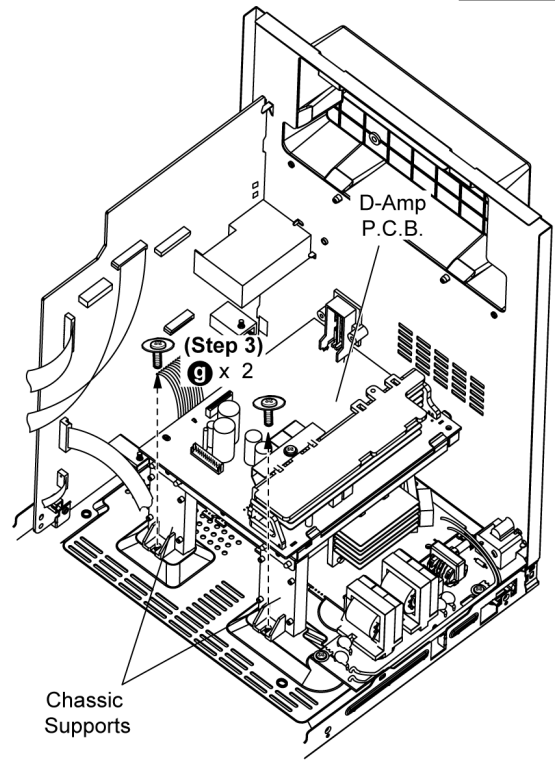
**Step 1** Detach 17P FFC cable at connector (CN5050) at D-Amp P.C.B..



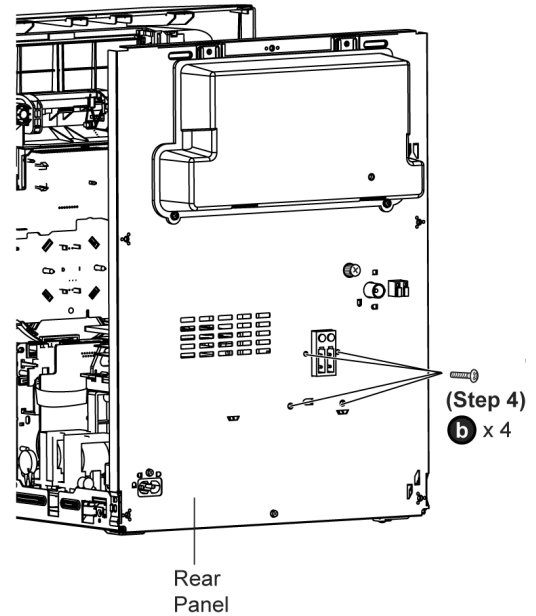
**Step 2** Detach 8P wire connector (CN5500) at D-Amp P.C.B..



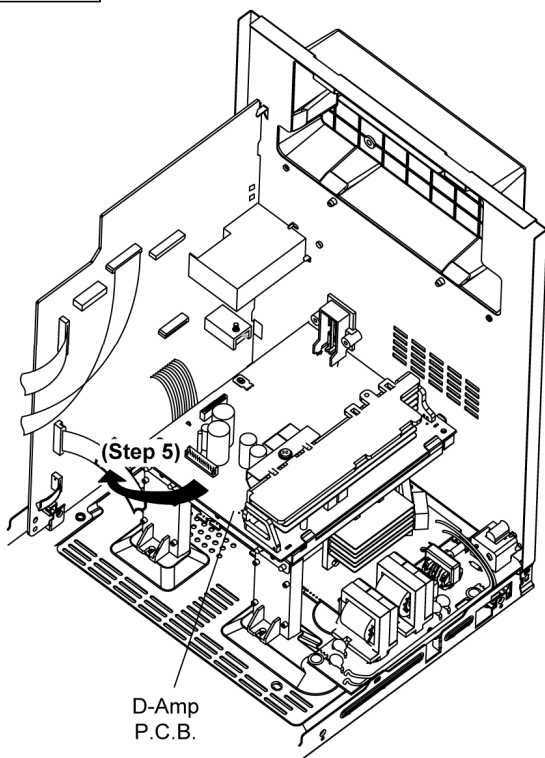
**Step 3** Remove 2 screws at D-Amp P.C.B. chassis support .



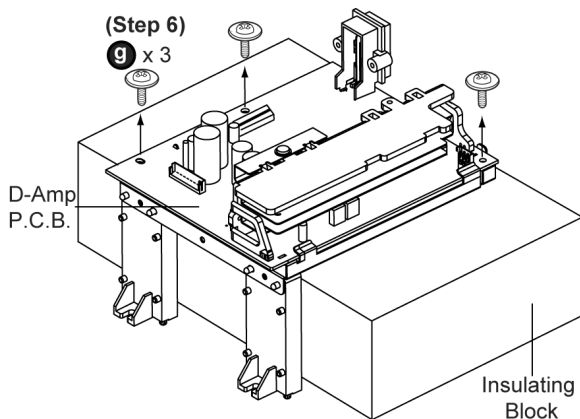
**Step 4** Remove 4 screws at the rear panel.



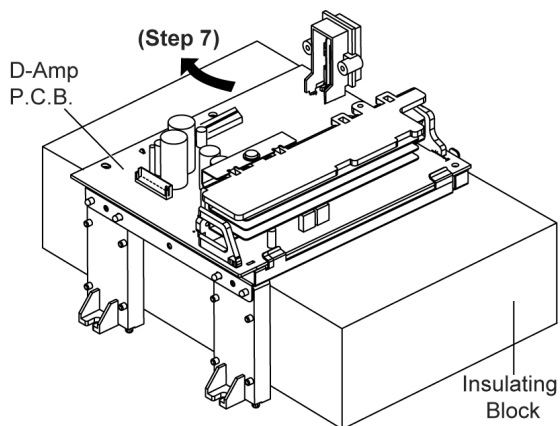
**Step 5** Lift up the D-Amp P.C.B. together with the chassis support as arrow shown.



**Step 6** Remove 3 screws from D-Amp P.C.B..



**Step 7** Lift up D-Amp P.C.B. as arrow shown.



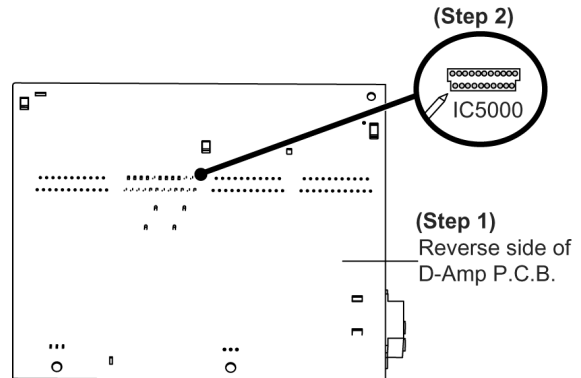
**Note:** During reassembling procedures, ensure the P.C.B. is seated properly at the chassis support.

## 9.20. Replacement of Digital Amp IC (IC5000)

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 1) - (Step 7) of Item 9.5
- Follow the (Step 1) - (Step 7) of Item 9.19

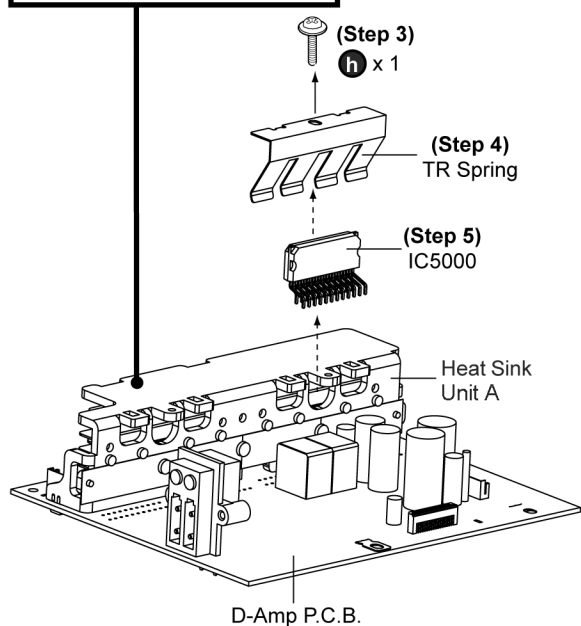
**Step 1** Flip over D-Amp P.C.B..

**Step 2** Desolder pins of the Digital Power Amp IC (IC5000) on the reverse side of D-Amp P.C.B..



**Step 3** Remove 1 screw.

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



**Step 4** Remove TR Spring in the direction of arrow shown.

**Step 5** Remove Digital Power Amp IC (IC5000) from the heat sink unit A.

**Caution:** Handle the heat sink power unit A with caution due to its high temperature after prolonged use. Touching it, may lead to injuries.

### 9.20.1. Assembly of Digital Power Amp IC (IC5000)

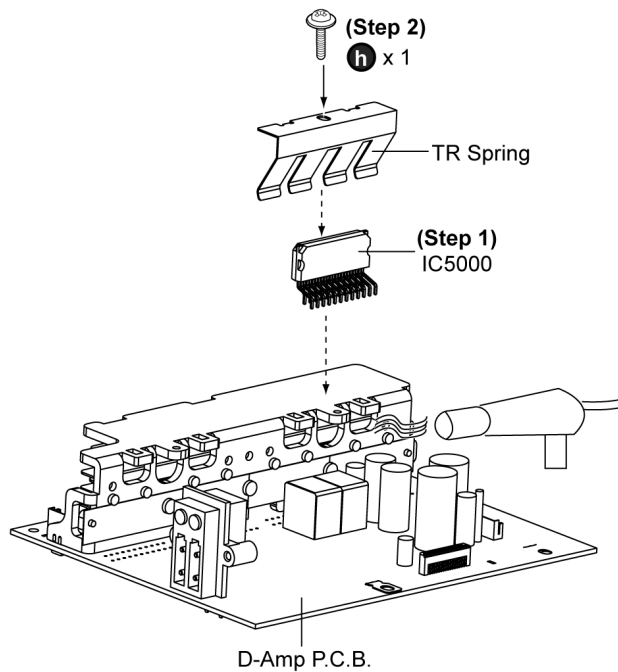
**Step 1** Fix the Digital Power Amp IC onto the heat sink unit A.

**Step 2** Screw back TR Spring onto the heat sink unit A.



Make sure it is well tighten to prevent overheat.

**Note:** Use a blower to remove the minute particles that might caused left on the TR Spring.



## 9.21. Disassembly of Main P.C.B.

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 1) - (Step 7) of Item 9.5
- Follow the (Step 1) - (Step 5) of Item 9.19

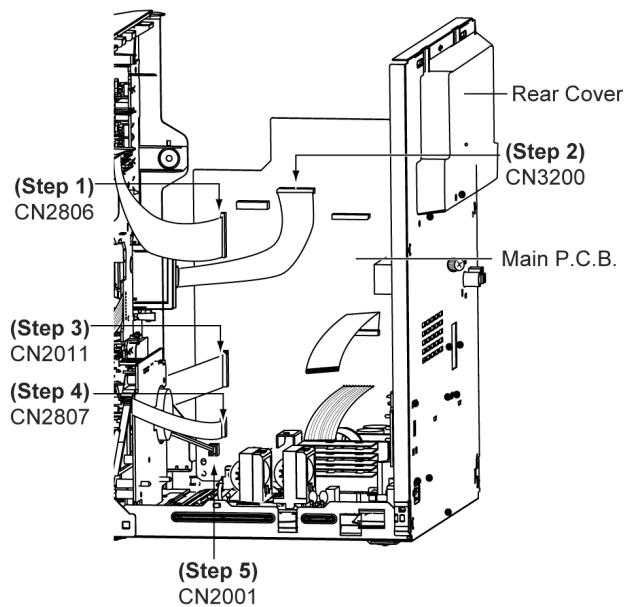
**Step 1** Detach 27P FFC cable at connector (CN2806) at Main P.C.B..

**Step 2** Detach 21P FFC cable at connector (CN3200) at Main P.C.B..

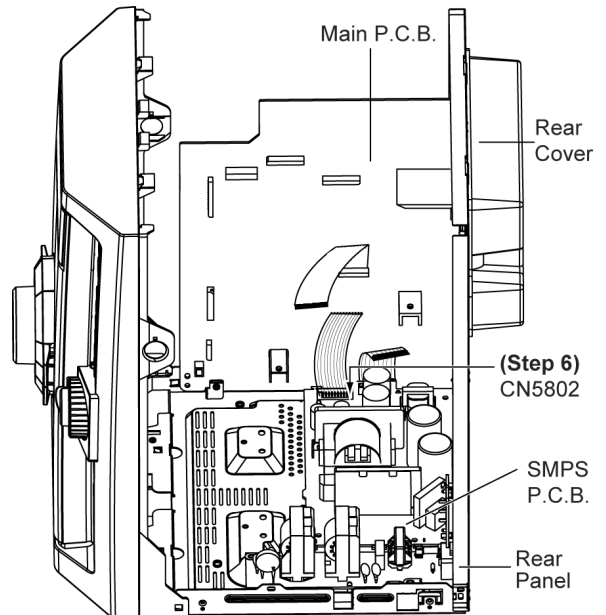
**Step 3** Detach 22P FFC cable at connector (CN2011) at Main P.C.B..

**Step 4** Detach 10P FFC cable at connector (CN2807) at Main P.C.B..

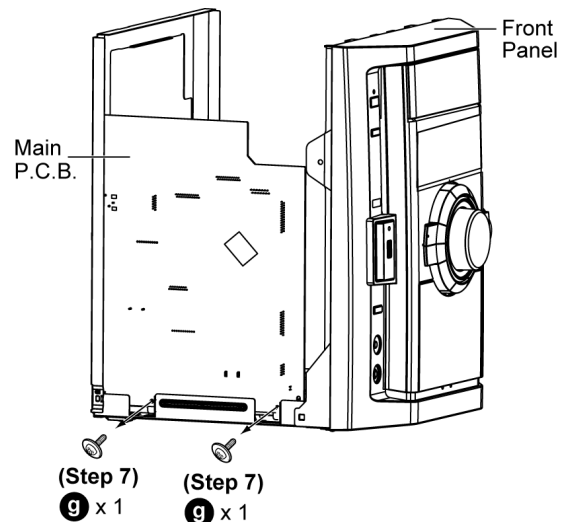
**Step 5** Detach 2P wired cable at connector (CN2001) at Main P.C.B..



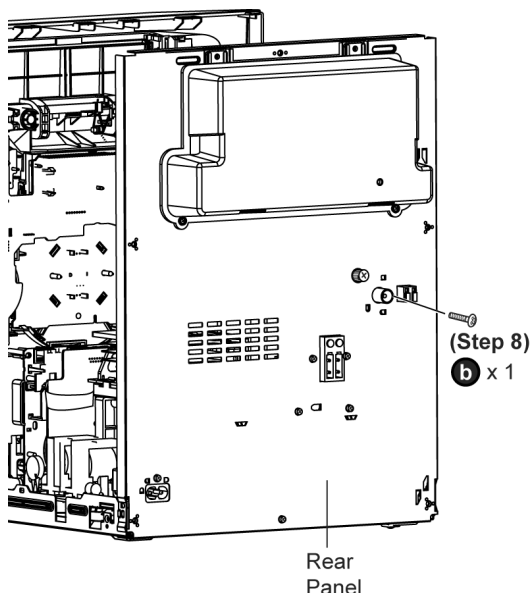
**Step 6** Detach 11P wires cable at connector (CN5802) at SMPS P.C.B..



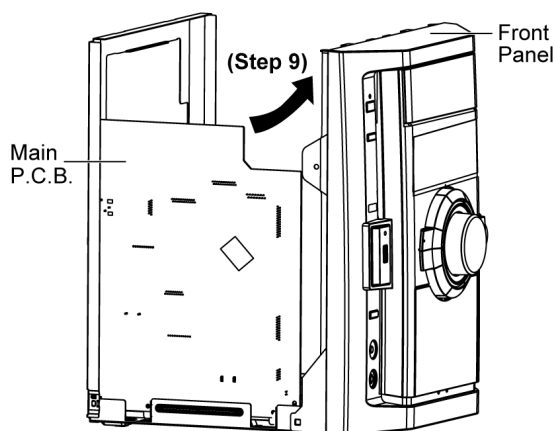
**Step 7** Remove 2 screws.



**Step 8** Remove 1 screw at rear panel.



**Step 9** Lift up Main P.C.B. as arrow shown.

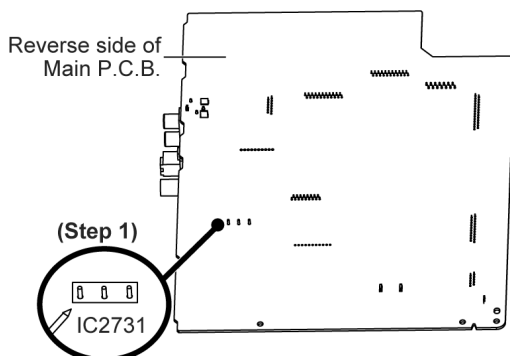


**Caution Note:** While lifting up Main P.C.B., please handle Jack (JK2801) and Tuner Pack with care.

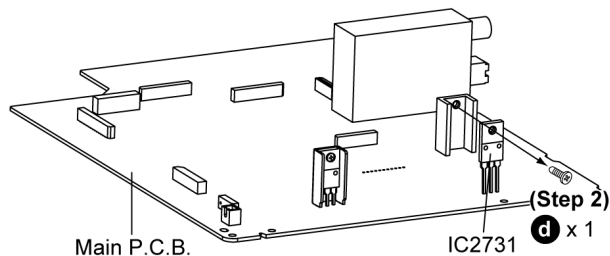
## 9.22. Replacement of Voltage Regulator IC (IC2731)

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 1) - (Step 7) of Item 9.5
- Follow the (Step 1) - (Step 5) of Item 9.19
- Follow the (Step 1) - (Step 8) of Item 9.21

**Step 1** Desolder pins of the Voltage Regulator IC (IC2731) on the reverse side of Main P.C.B..



**Step 2** Remove 1 screw form the Main P.C.B..



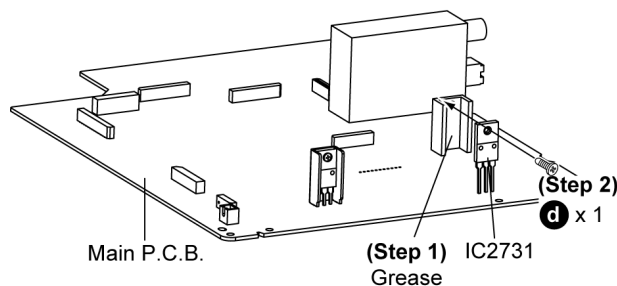
**Step 3** Remove the Voltage Regulator IC (IC2731) from the heat sink.

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

### 9.22.1. Assembly of Voltage Regulator IC (IC2731)

**Step 1** Apply grease to heat sink.

**Step 2** Fix and screw the Voltage Regulator IC (IC2731) to the heat sink.

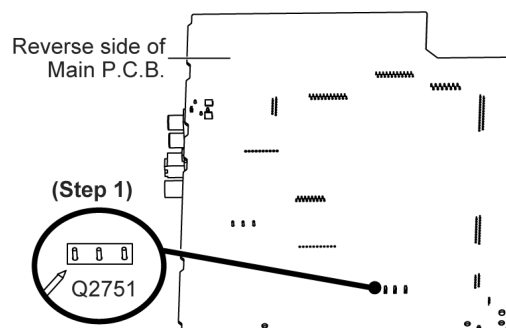


**Note:** Ensure the Voltage Regulator IC (IC2731) is tightly screwed to the heat sink.

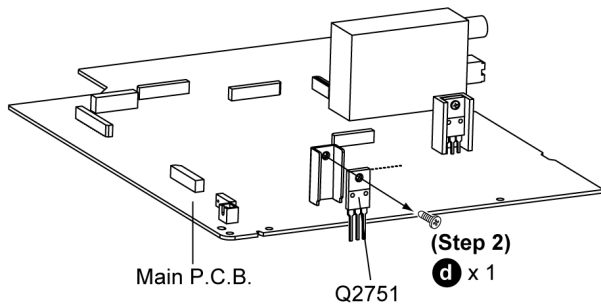
## 9.23. Replacement of Switch (Q2751)

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 1) - (Step 7) of Item 9.5
- Follow the (Step 1) - (Step 5) of Item 9.19
- Follow the (Step 1) - (Step 8) of Item 9.21

**Step 1** Desolder pins of the Switch (Q2751) on the reverse side of Main P.C.B..



**Step 2** Remove 1 screw form the Main P.C.B..



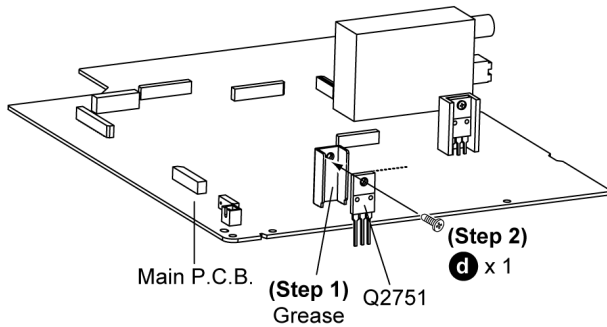
**Step 3** Remove the Switch (Q2751) from the heat sink.

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

### 9.23.1. Assembly of Switch (Q2751)

**Step 1** Apply grease to heat sink.

**Step 2** Fix and screw the Switch (Q2751) to the heat sink.

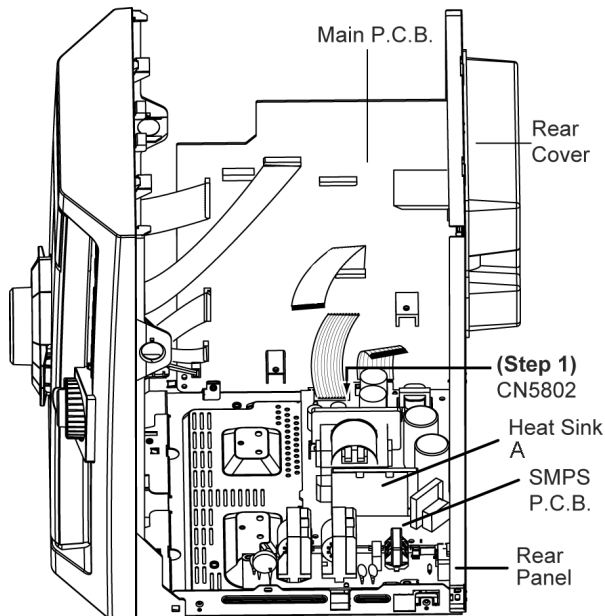


**Note:** Ensure the Switch (Q2751) is tightly screwed to the heat sink.

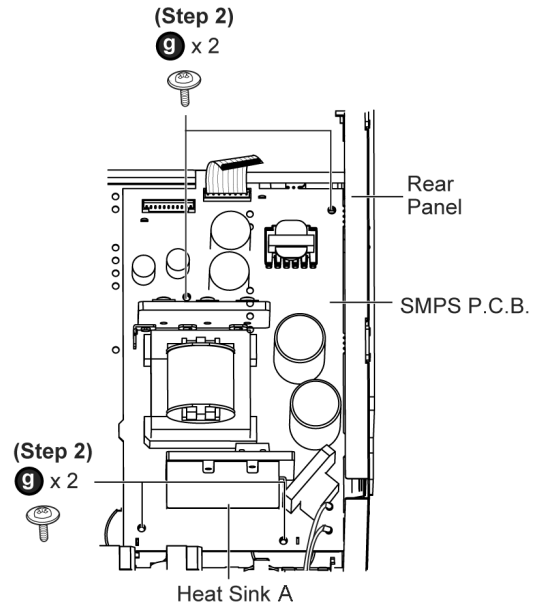
### 9.24. Disassembly of SMPS P.C.B.

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 1) - (Step 7) of Item 9.5
- Follow the (Step 1) - (Step 5) of Item 9.19

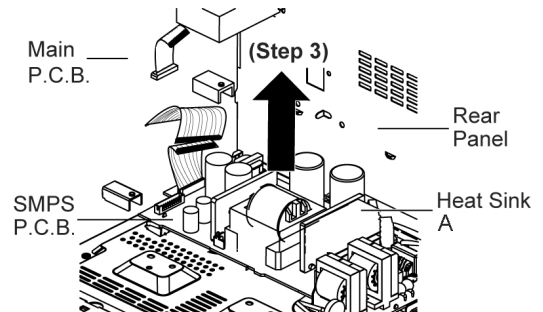
**Step 1** Detach 8P wires at connector (CN5802) at SMPS P.C.B..



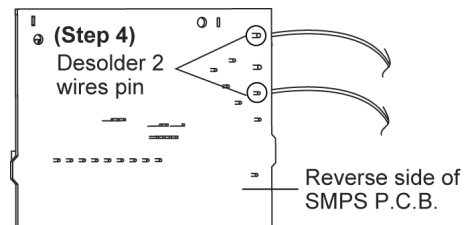
**Step 2** Remove 4 screws at SMPS P.C.B..



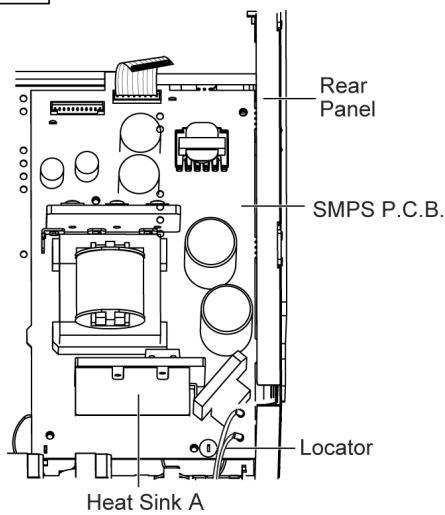
**Step 3** Lift up the SMPS P.C.B. as arrow shown.



**Step 4** Flip the SMPS P.C.B. and desolder 2 wires pins (red and black).



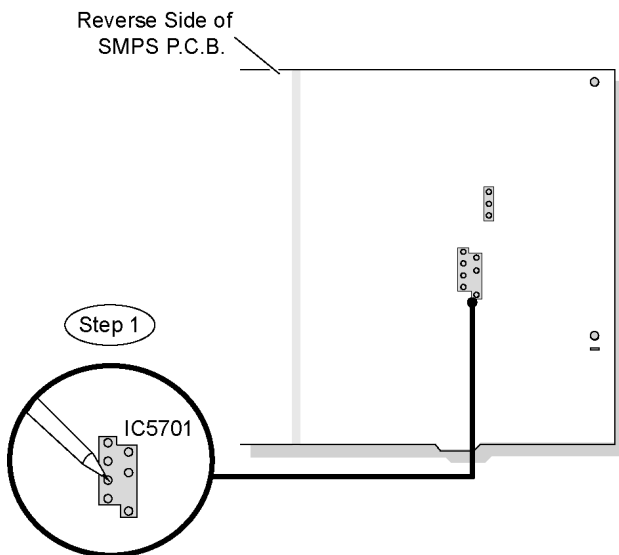
**Note:** During reassembling procedures, ensure the P.C.B. is seated properly at the locator.



## 9.25. Replacement of Switch Regulator IC (IC5701)

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 1) - (Step 7) of Item 9.5
- Follow the (Step 1) - (Step 5) of Item 9.19
- Follow the (Step 1) - (Step 4) of Item 9.24

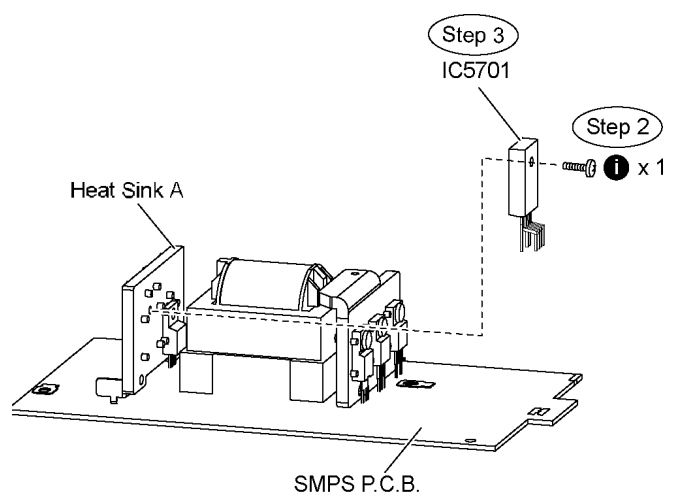
**Step 1** Desolder pins of the switch regulator IC (IC5701) on the reverse side of SMPS P.C.B..



**Step 2** Remove 1 screw from the switch regulator IC (IC5701).

**Step 3** Remove the switch regulator IC (IC5701) from the heat sink A.

**Caution:** Handle the heat sink A with caution due to its high temperature after prolonged use. Touching it may lead to injuries.



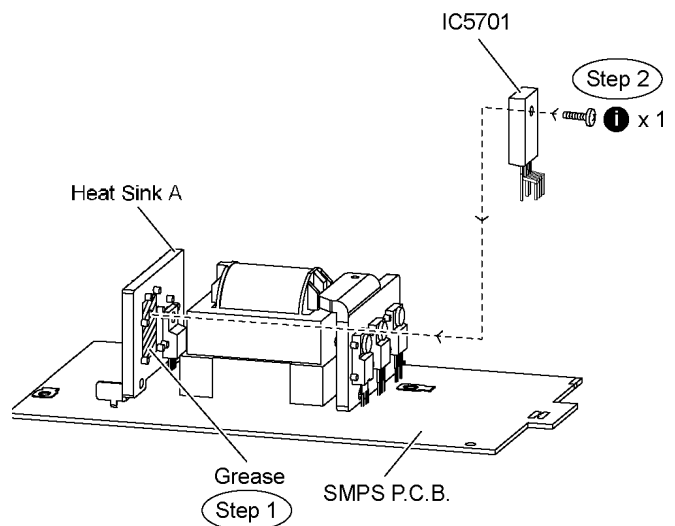
**Note :** Refer to the diagrams of SMPS P.C.B. (Item 19.6.) for location of the part.

### 9.25.1. Assembly of Switch Regulator IC (IC5701)

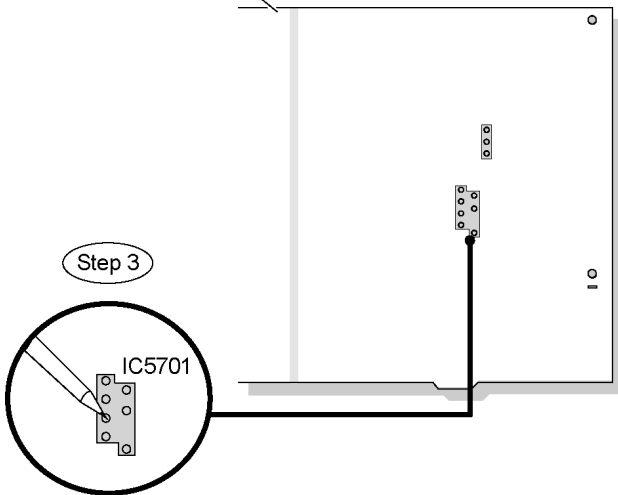
**Step 1** Apply grease to the heat sink A.

**Step 2** Fix and screw the switch regulator IC (IC5701) to the heat sink A.

**Special Note:** Ensure the switch regulator IC (IC5701) is tightly screwed to the heat sink A.



**Step 3** Solder pins of the switch regulator IC (IC5701) on the reverse side of SMPS P.C.B..

Reverse Side of  
SMPS P.C.B.

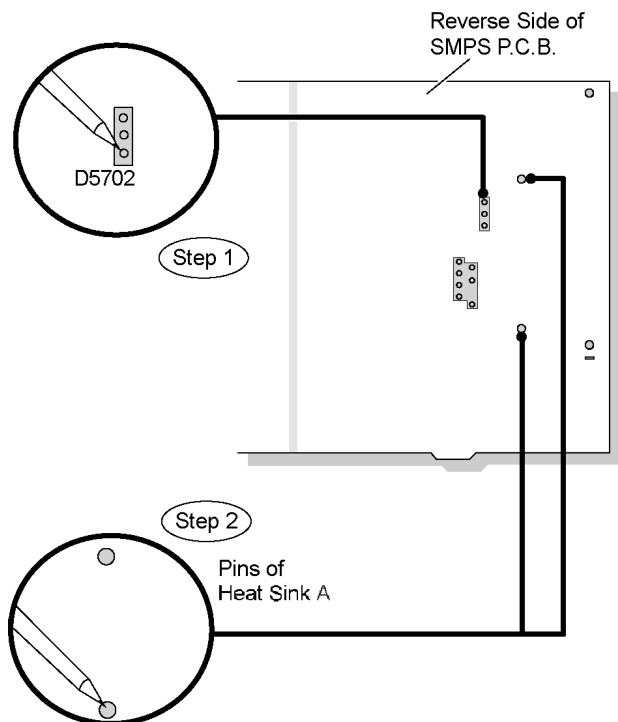
**Special Note:** Ensure pins of the switch regulator IC (IC5701) are properly seated and soldered on SMPS P.C.B..

## 9.26. Replacement of Switch Regulator Diode (D5702)

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 1) - (Step 7) of Item 9.5
- Follow the (Step 1) - (Step 5) of Item 9.19
- Follow the (Step 1) - (Step 4) of Item 9.24

**Step 1** Desolder pins of the switch regulator diode (D5702) on the reverse side of SMPS P.C.B..

**Step 2** Desolder pins of the heat sink A.



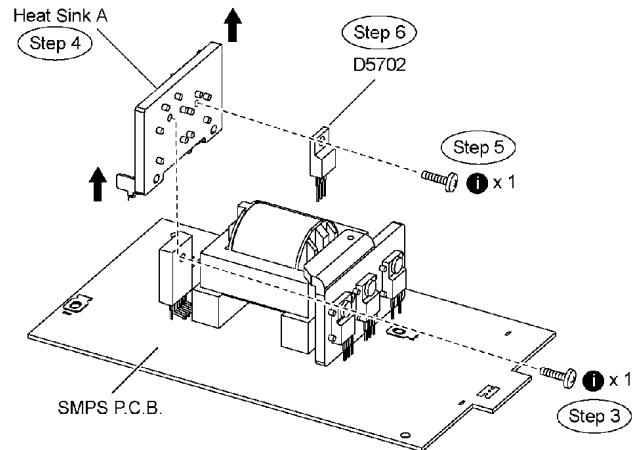
**Step 3** Remove 1 screw from the switch regulator IC (IC5701).

**Step 4** Remove the heat sink A in the direction of arrows.

**Step 5** Remove 1 screw from the switch regulator diode. (D5702).

**Step 6** Remove the switch regulator diode (D5702) from the heat sink A.

**Caution:** Handle the heat sink A with caution due to its high temperature after prolonged use. Touching it may lead to injuries.



**Note :** Refer to the diagrams of SMPS P.C.B.. (Item 19.6.) for location of the part.

### 9.26.1. Assembly of Switch Regulator Diode (D5702)

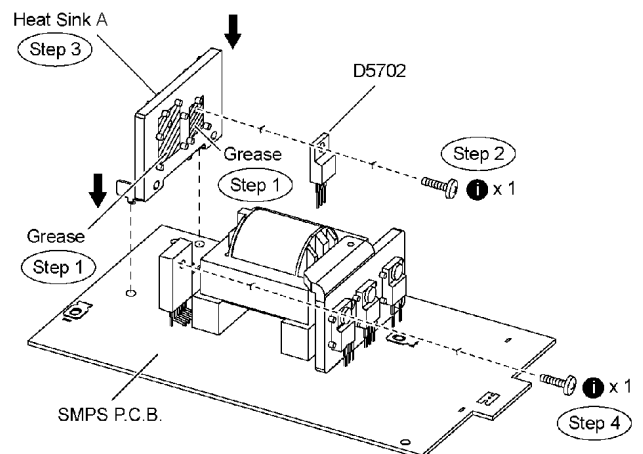
**Step 1** Apply grease to the heat sink A.

**Step 2** Fix and screw the switch regulator diode (D5702) to the heat sink A.

**Special Note:** Ensure the switch regulator diode (D5702) is tightly screwed to the heat sink A.

**Step 3** Fix the heat sink A on SMPS P.C.B. in the direction of arrows.

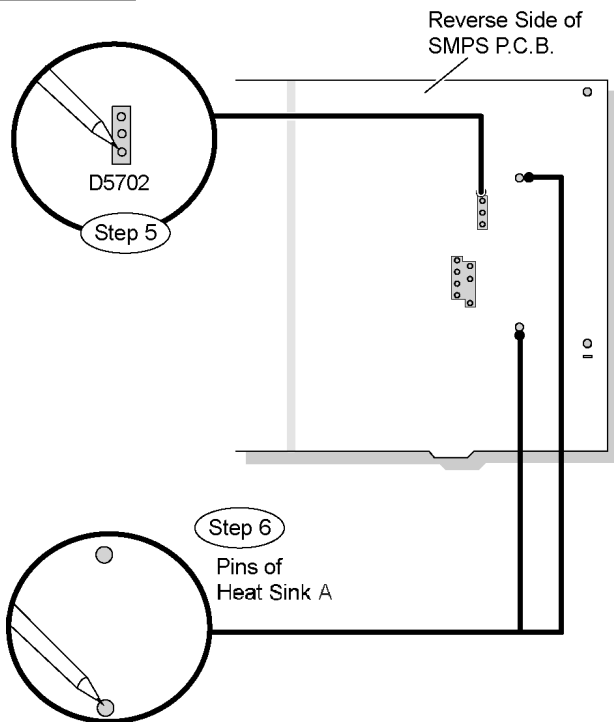
**Step 4** Fix and screw the switch regulator IC (IC5701) to the heat sink A.



**Special Note:** Ensure the heat sink A is properly seated on SMPS P.C.B..

**Step 5** Solder pins of the switch regulator diode (D5702) on the reverse side of SMPS P.C.B..

**Step 6** Solder pins of the heat sink A on the reverse side of SMPS P.C.B..

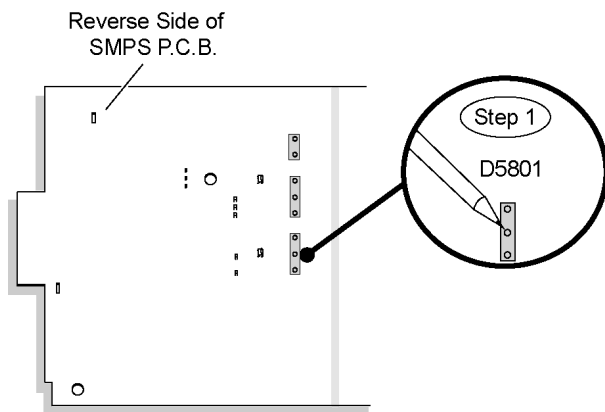


**Special Note:** Ensure pins of the switch regulator diode (D5702) are properly seated and soldered on SMPS P.C.B..

## 9.27. Replacement of Regulator Diode (D5801)

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 1) - (Step 7) of Item 9.5
- Follow the (Step 1) - (Step 5) of Item 9.19
- Follow the (Step 1) - (Step 4) of Item 9.24

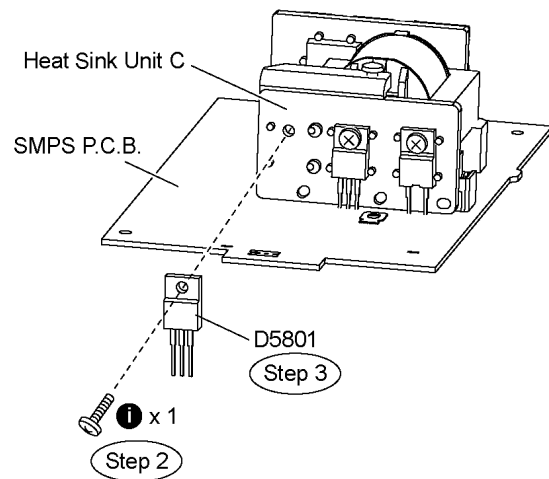
**Step 1** Desolder pins of the regulator diode (D5801) on the reverse side of SMPS P.C.B..



**Step 2** Remove 1 screw from the regulator diode (D5801).

**Step 3** Remove the regulator diode (D5801) from the heat sink unit C.

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



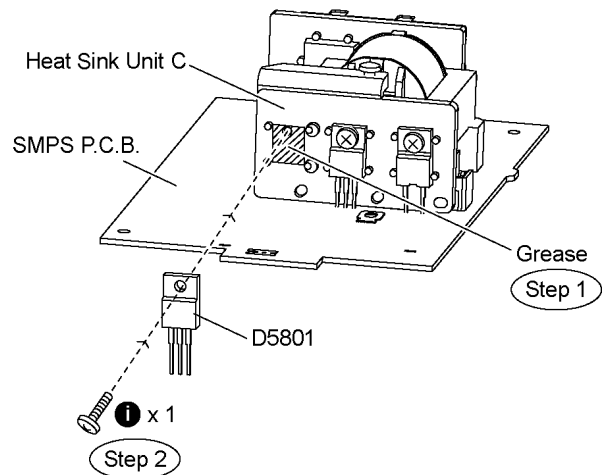
**Note:** Refer to the diagrams of SMPS P.C.B. (Item 19.6.) for location of the part.

### 9.27.1. Assembly of Regulator Diode (D5801)

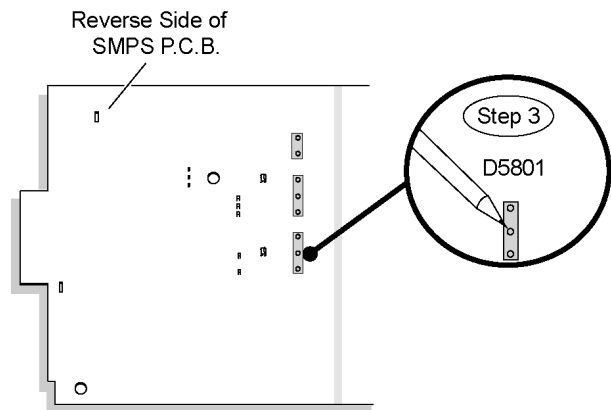
**Step 1** Apply grease to the heat sink unit C.

**Step 2** Fix and screw the regulator diode (D5801) to the heat sink unit C.

**Special Note:** Ensure the regulator diode (D5801) is tightly screwed to the heat sink unit C.



**Step 3** Solder pins of the regulator diode (D5801) on the reverse side of SMPS P.C.B..

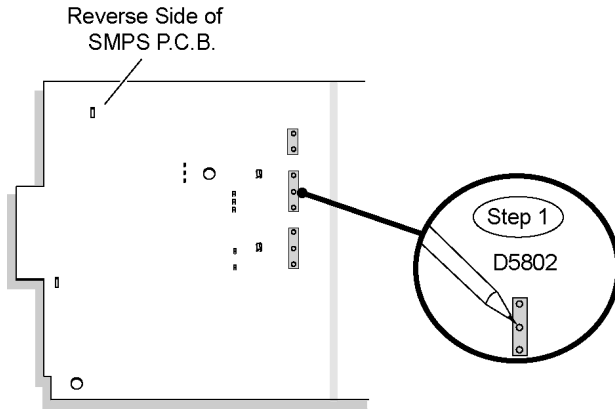


**Special Note:** Ensure pins of the regulator diode (D5801) are properly seated and soldered on SMPS P.C.B..

## 9.28. Replacement of Regulator Diode (D5802)

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 1) - (Step 7) of Item 9.5
- Follow the (Step 1) - (Step 5) of Item 9.19
- Follow the (Step 1) - (Step 4) of Item 9.24

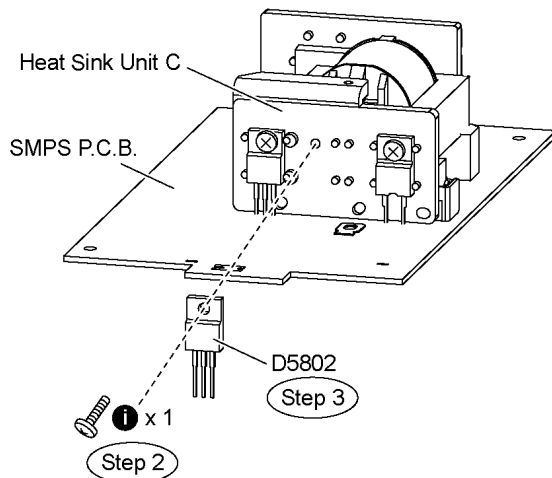
**Step 1** Desolder pins of the regulator diode (D5802) on the reverse side of SMPS P.C.B..



**Step 2** Remove 1 screw from the regulator diode (D5802).

**Step 3** Remove the regulator diode (D5802) from the heat sink unit C.

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



**Note:** Refer to the diagrams of SMPS P.C.B. (Item 19.6.) for location of the part.

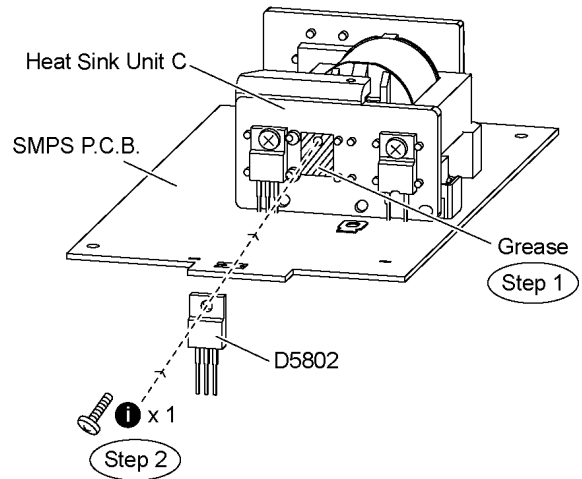
### 9.28.1. Assembly of Regulator Diode (D5802)

**Step 1** Apply grease to the heat sink unit C.

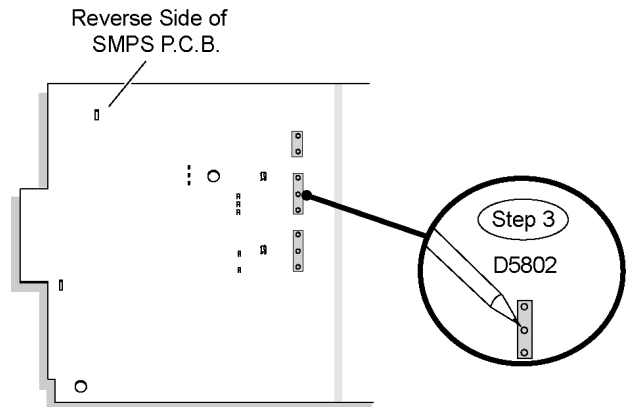
**Step 2** Fix and screw the regulator diode (D5802) to the heat sink unit C.

**Special Note:** Ensure the regulator diode (D5802) is tightly

screwed to the heat sink unit C.



**Step 3** Solder pins of the regulator diode (D5802) on the reverse side of SMPS P.C.B..

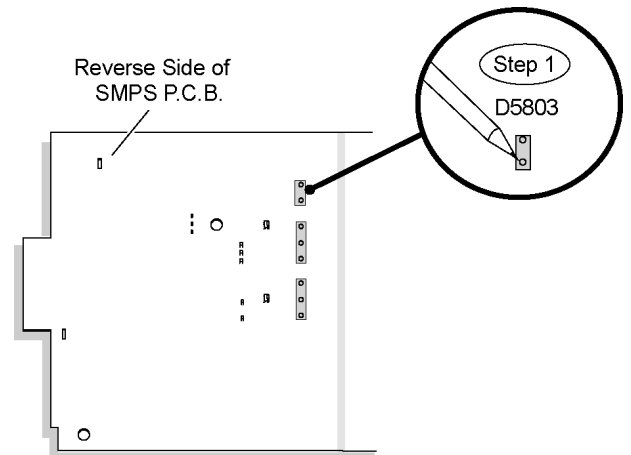


**Special Note:** Ensure pins of the regulator diode (D5802) are properly seated and soldered on SMPS P.C.B..

## 9.29. Replacement of Regulator Diode (D5803)

- Follow the (Step 1) - (Step 5) of Item 9.4
- Follow the (Step 1) - (Step 7) of Item 9.5
- Follow the (Step 1) - (Step 5) of Item 9.19
- Follow the (Step 1) - (Step 4) of Item 9.24

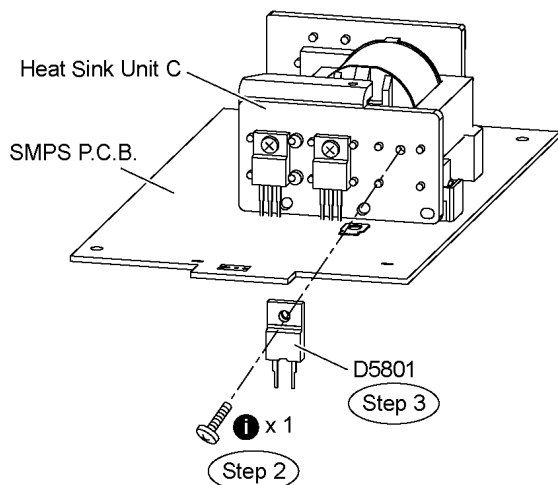
**Step 1** Desolder pins of the regulator diode (D5803) on the reverse side of SMPS P.C.B..



**Step 2** Remove 1 screw from the regulator diode (D5803).

**Step 3** Remove the regulator diode (D5803) from the heat sink unit C.

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



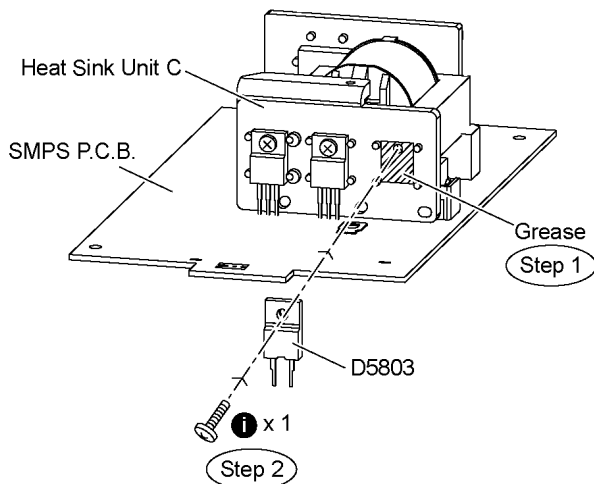
**Note:** Refer to the diagrams of SMPS P.C.B.. (Item 19.6.) for location of the part.

### 9.29.1. Assembly of Regulator Diode (D5803)

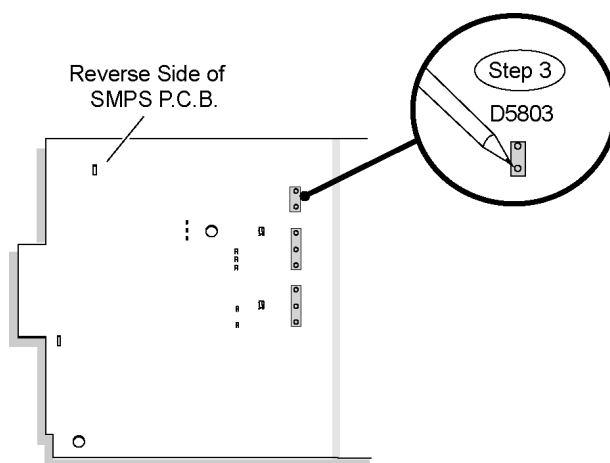
**Step 1** Apply grease to the heat sink unit C.

**Step 2** Fix and screw the regulator diode (D5803) to the heat sink unit C.

**Special Note:** Ensure the regulator diode (D5803) is tightly screwed to the heat sink unit C.



**Step 3** Solder pins of the regulator diode (D5803) on the reverse side of SMPS P.C.B..

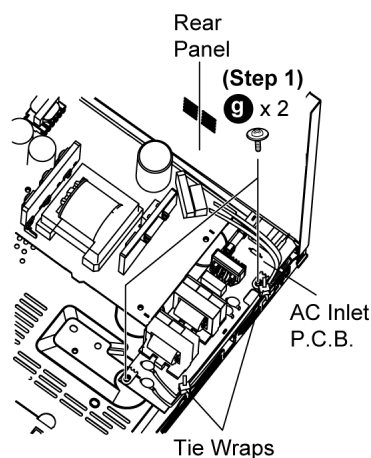


**Special Note:** Ensure pins of the regulator diode (D5803) are properly seated and soldered on SMPS P.C.B..

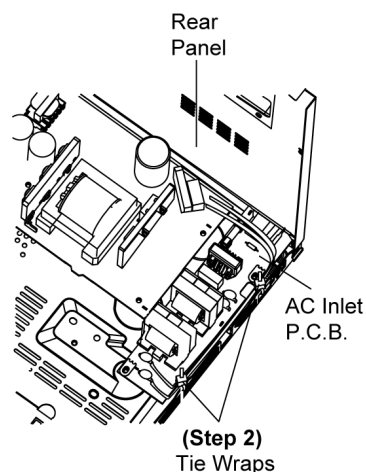
## 9.30. Disassembly of AC Inlet P.C.B.

• Follow the (Step 1) - (Step 5) of Item 9.4

**Step 1** Remove 2 screws at AC Inlet P.C.B..

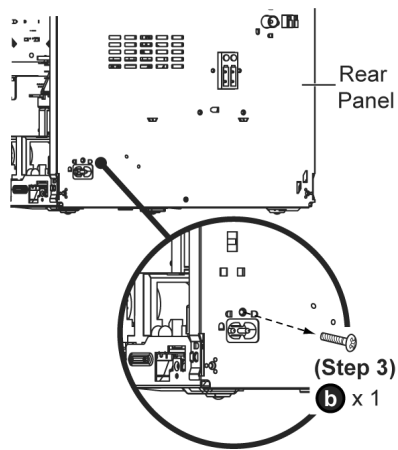


**Step 2** Cut 2 tie wraps.

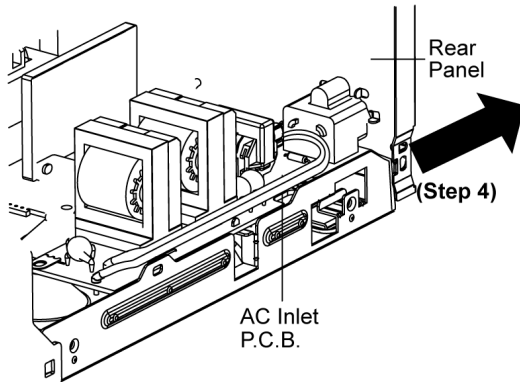


**Step 3** Remove 1 screw at the rear panel.

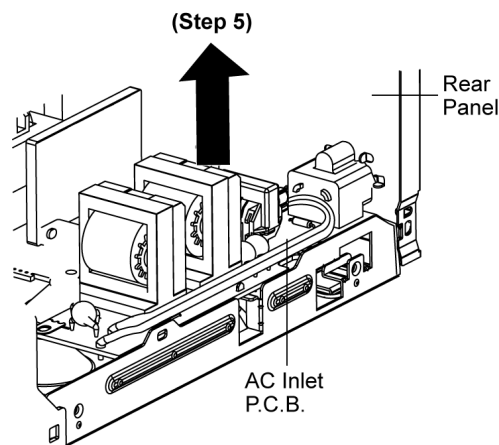




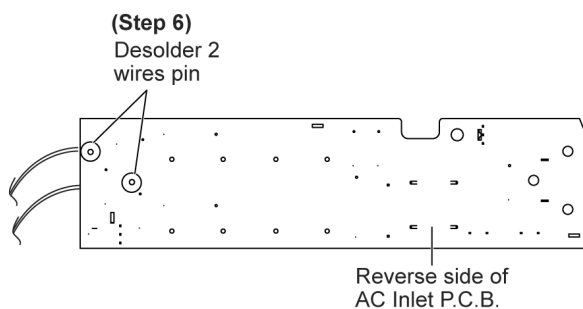
**Step 4** Detach the rear panel slightly backward as arrow shown.



**Step 5** Lift up the AC Inlet P.C.B..



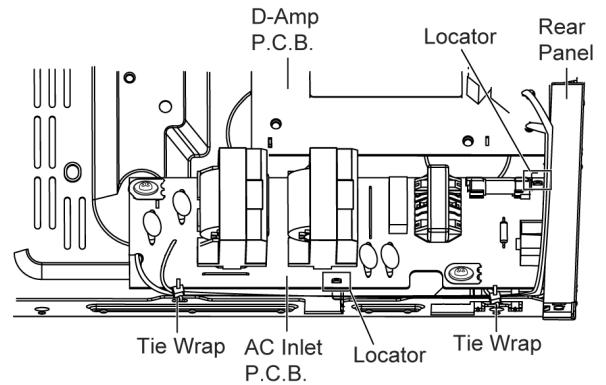
**Step 6** Flip over the AC Inlet P.C.B. and desolder 2 wires pins (red and black).



**Caution:** Remember to use tie wraps to tie red/ black wires

between AC Inlet P.C.B. to the chassis.

**Note:** During reassembling procedures, ensure the P.C.B. is seated properly at the locators.



## 10 Service Fixture and Tools

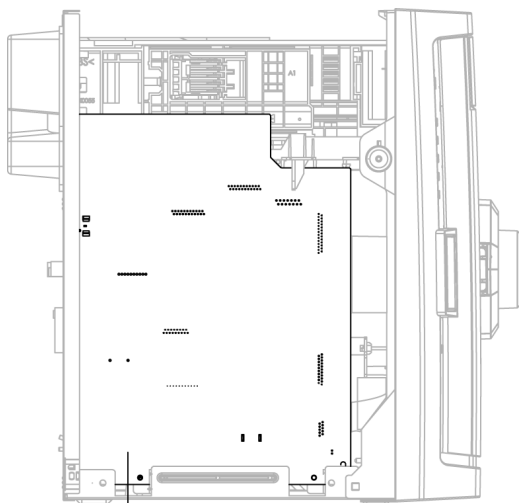
Service Tools	
Extension FFC	
(A) Main P.C.B. (CN2341) - D-Amp P.C.B. (CN5050)	REEX0930 (17P FFC Wires)
(B) Main P.C.B. (CN2701) - SMPS P.C.B. (CN5802)	REXX0680 (11P Wires)
(C) SMPS P.C.B. (H5801) - D-Amp P.C.B. (CN5500)	REXX0683 (8 Pin Flat Wires)

## 11 Service Positions

**Note:** For description of the disassembly procedures, see the Section 9.

### 11.1. Checking and Repairing of Main P.C.B.

**Step 1** Remove the top cabinet .



Main P.C.B.

**Note:** Main P.C.B. can be checked at its original position.

### 11.2. Checking and Repairing Panel, Deck P.C.B., Tact Switch P.C.B., and Music Port P.C.B.

**Step 1** Remove the top cabinet.

**Step 2** Remove Mechanism unit (CRS1).

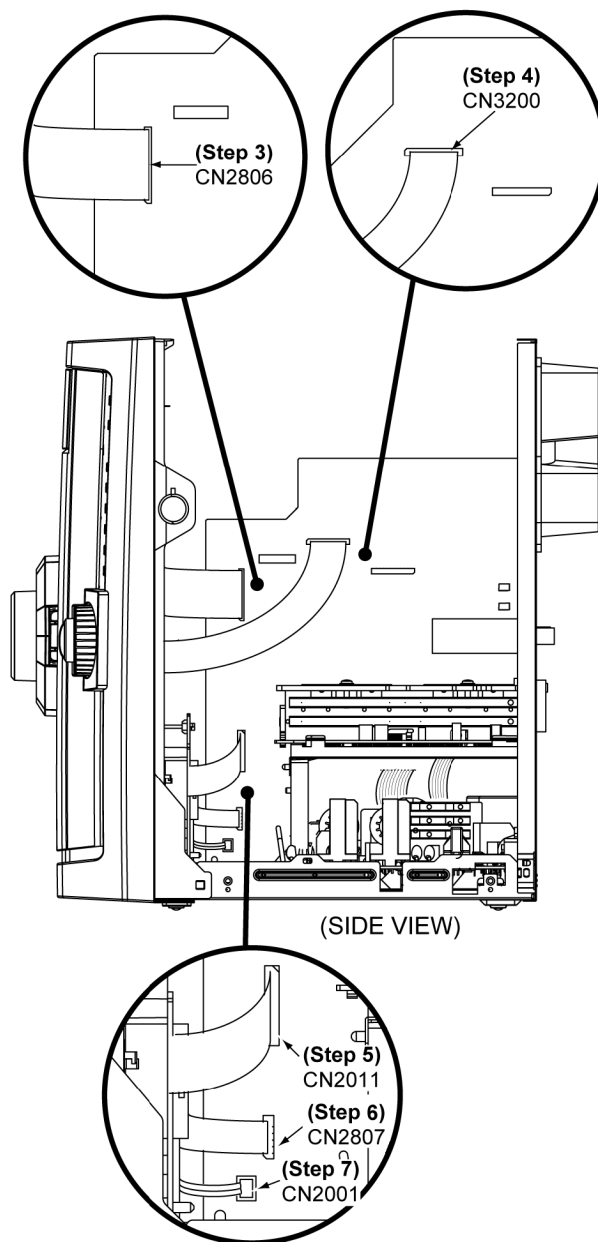
**Step 3** Detach 27P FFC cables at connector (CN2806) at Main P.C.B..

**Step 4** Detach 21P FFC cables at connector (CN3200) at Main P.C.B..

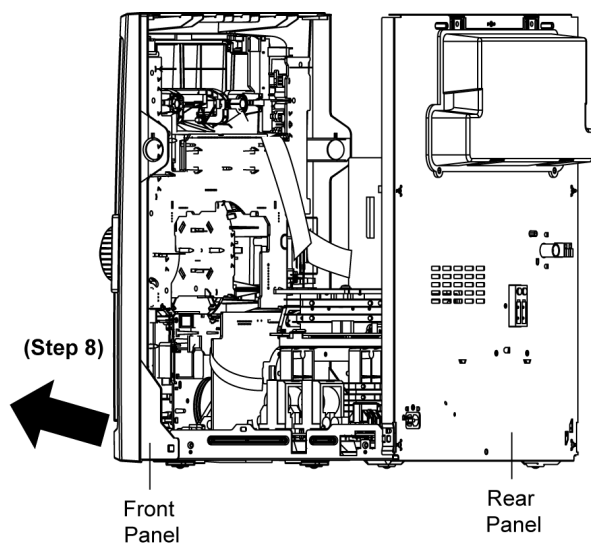
**Step 5** Detach 22P FFC cables at connector (CN2011) at Main P.C.B..

**Step 6** Detach 10P FFC cables at connector (CN2807) at Main P.C.B..

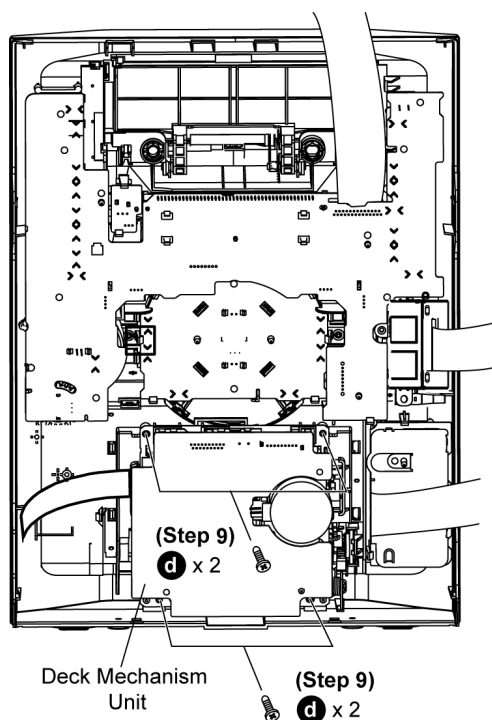
**Step 7** Detach 2P wired cable at connector (CN2001) at Main P.C.B..



**Step 8** Remove the front panel unit.

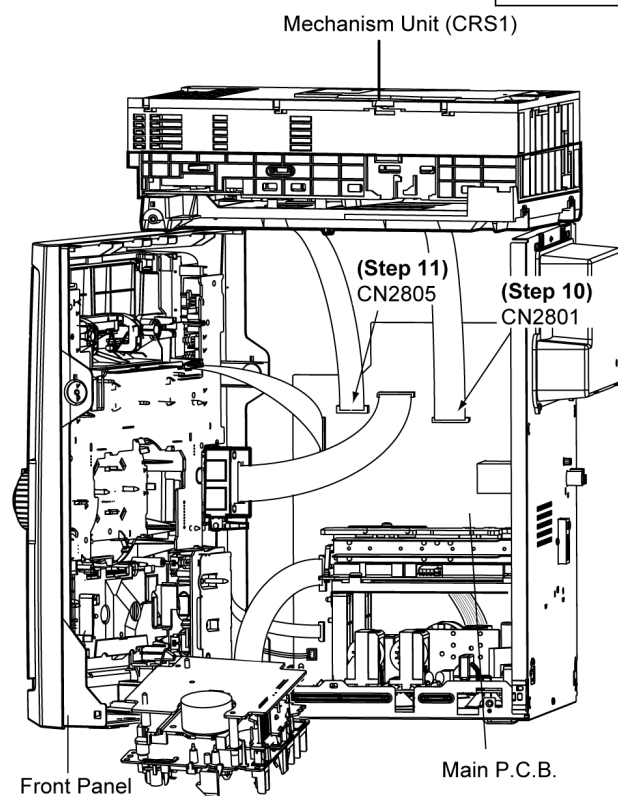


**Step 9** Remove 4 screws at the Deck Mechanism unit.



**Step 10** Connect 22P FFC cable at connector (CN2801) at Main P.C.B..

**Step 11** Connect 14P FFC cable at connector (CN2805) at Main P.C.B..



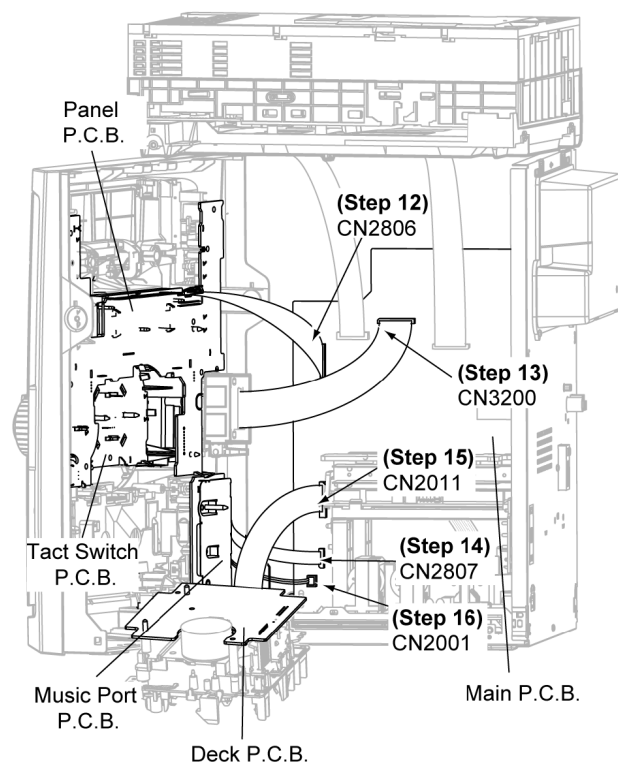
**Step 12** Connect 27P FFC cable at connector (CN2806) at Main P.C.B..

**Step 13** Connect 21P FFC cable at connector (CN3200) at Main P.C.B..

**Step 14** Connect 10P FFC cable at connector (CN2807) at Main P.C.B..

**Step 15** Connect 22P FFC cable at connector (CN2011) at Main P.C.B..

**Step 16** Connect 2P wired cable at connector (CN2001) at Main P.C.B..



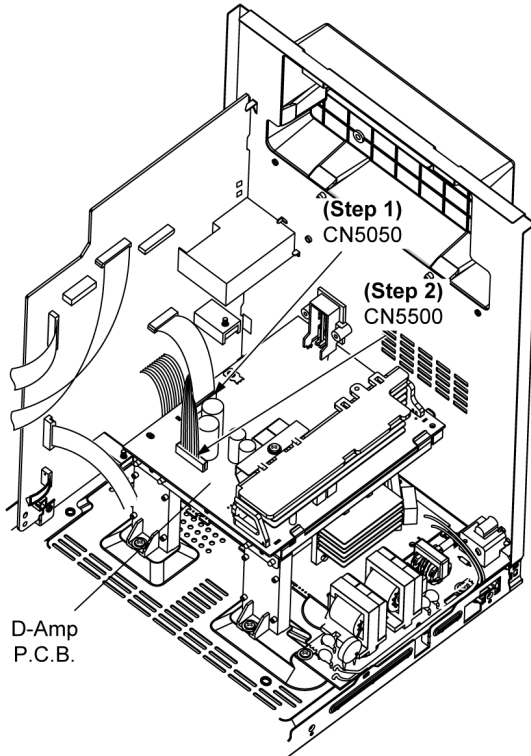
**Step 17** Check and repair Panel P.C.B., Deck P.C.B., Tact Switch P.C.B., and Music port P.C.B..

### 11.3. Checking and Repairing of D-Amp P.C.B.

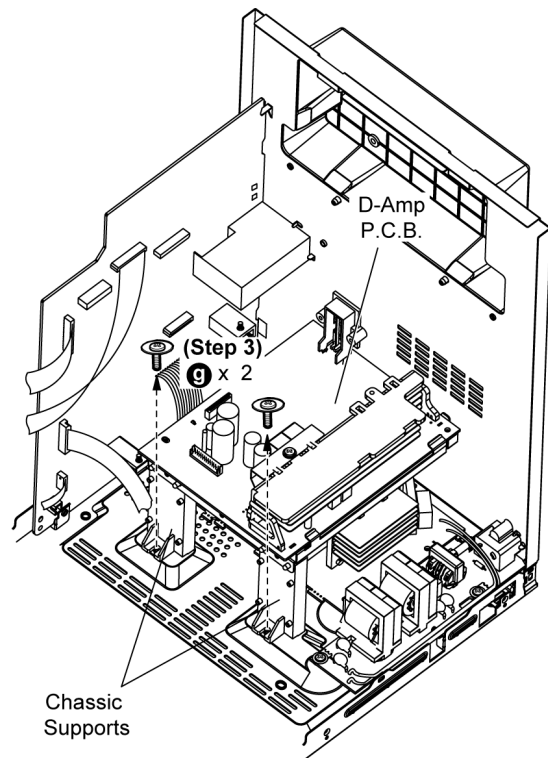
- Follow (Step 1) - (Step 2) of item 11.2

**Step 1** Detach 17P FFC cable at connector (CN5050) at D-Amp P.C.B..

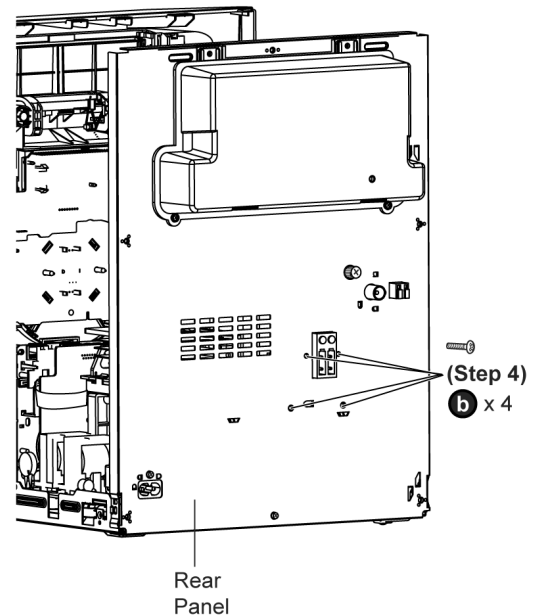
**Step 2** Detach 8P wires cable at connector (CN5500) at D-Amp P.C.B..



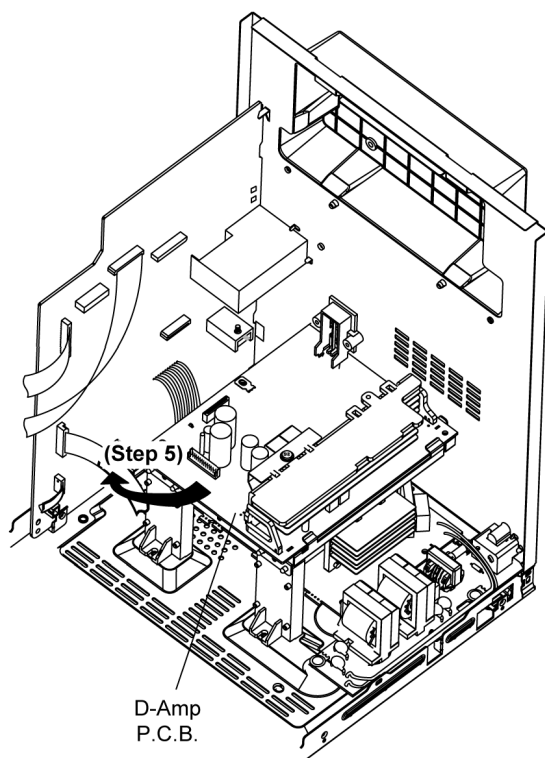
**Step 3** Remove 2 screws at chassis supports.



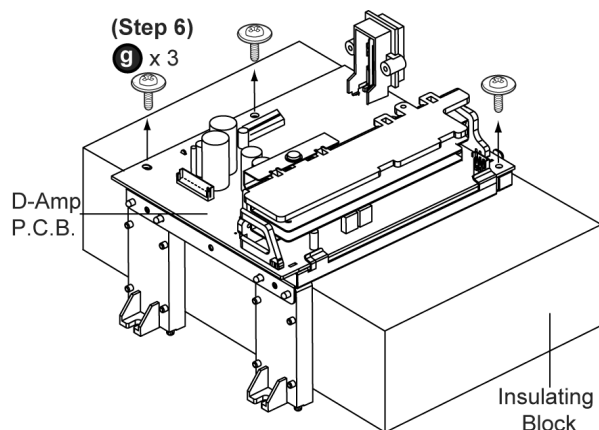
**Step 4** Remove 4 screws at the rear panel.



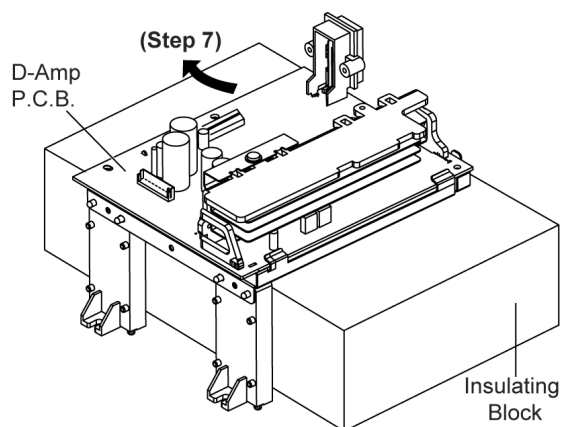
**Step 5** Lift up the D-Amp P.C.B. together with the chassis support as arrow shown.



**Step 6** Remove 3 screws from D-Amp P.C.B..

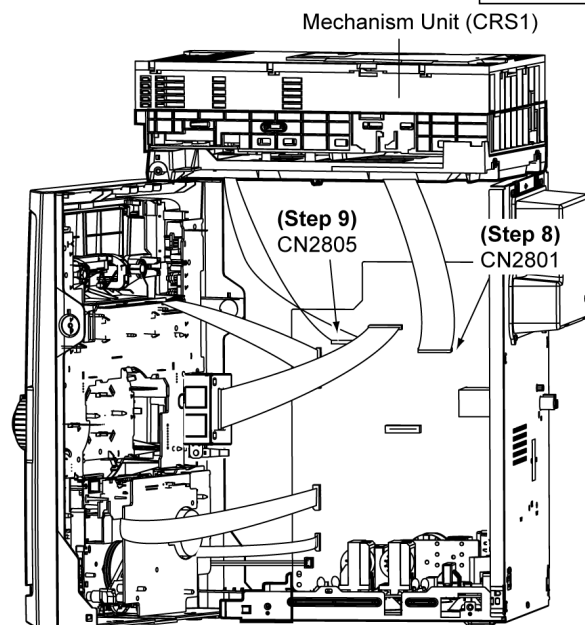


**Step 7** Lift up D-Amp P.C.B. as arrow shown.



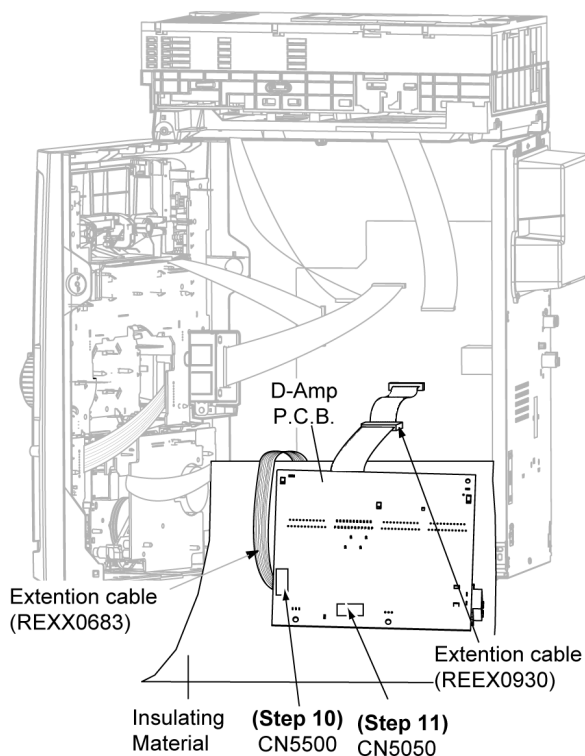
**Step 8** Connect 22P cable at the connector (CN2801) on Main P.C.B..

**Step 9** Connect 14P cable at the connector (CN2805) on Main P.C.B..



**Step 10** Attach original cable with extension cable (REXX0683) (8P cable from H5801 to CN5500).

**Step 11** Connect extension cable (REEX0930) (17P cable from CN2341 to CN5050).

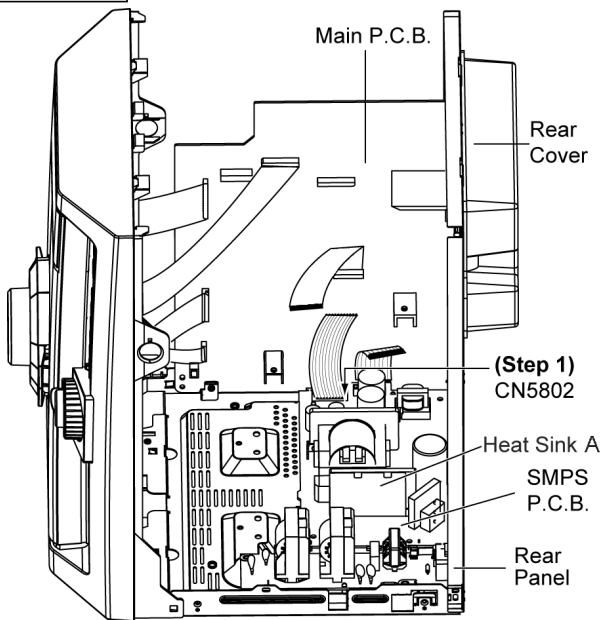


**Step 13** Check and repair D-Amp P.C.B. according to the diagram shown.

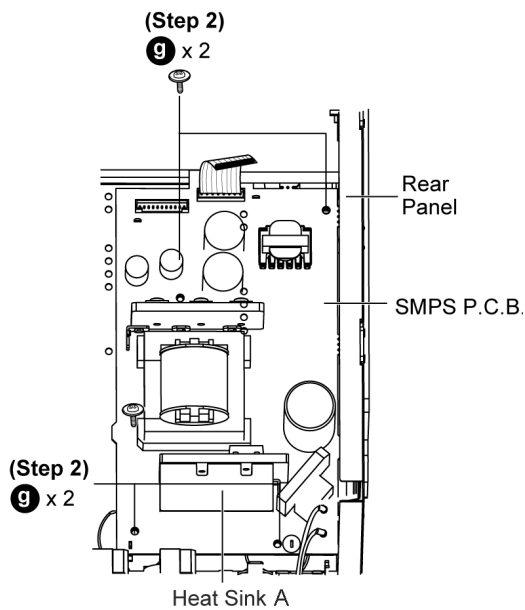
## 11.4. Checking and Repairing of AC Inlet P.C.B. & SMPS P.C.B.

- Follow (Step 1) - (Step 7) of item 11.2
- Follow (Step 1) - (Step 5) of item 11.3

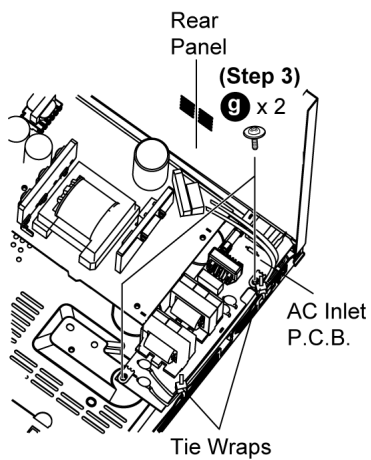
**Step 1** Detach wire connector at connector CN5802 at SMPS P.C.B..



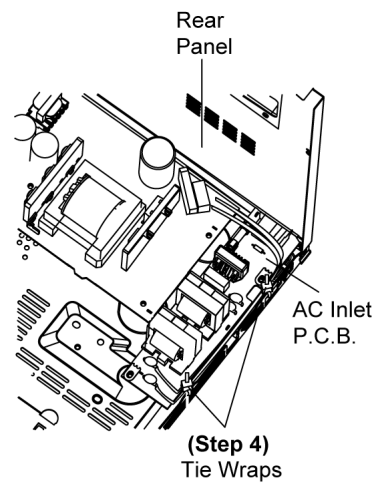
**Step 2** Remove 4 screws.



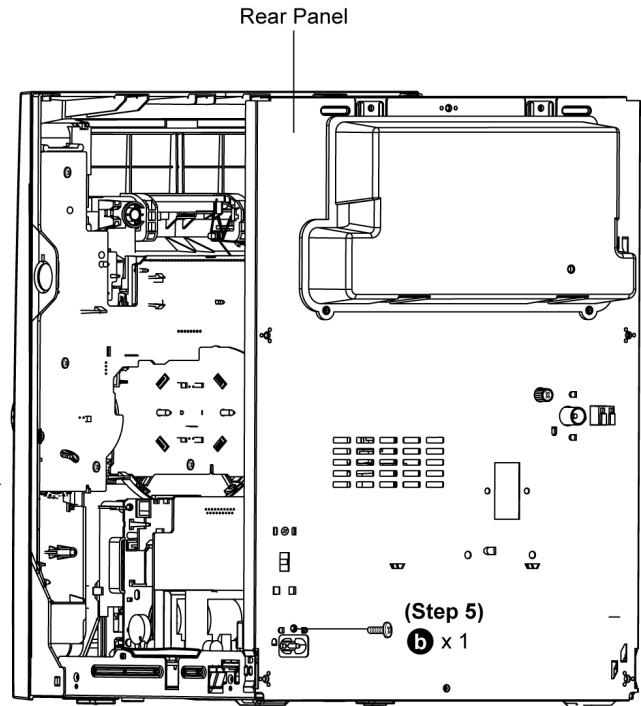
**Step 3** Remove 2 screws at AC Inlet P.C.B..



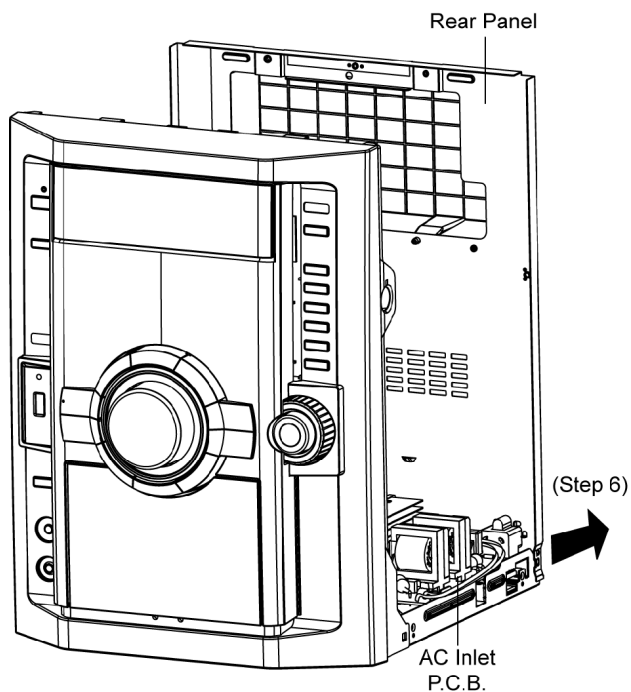
**Step 4** Cut 2 tie wraps onto wires.



**Step 5** Remove 1 screw at the rear panel.



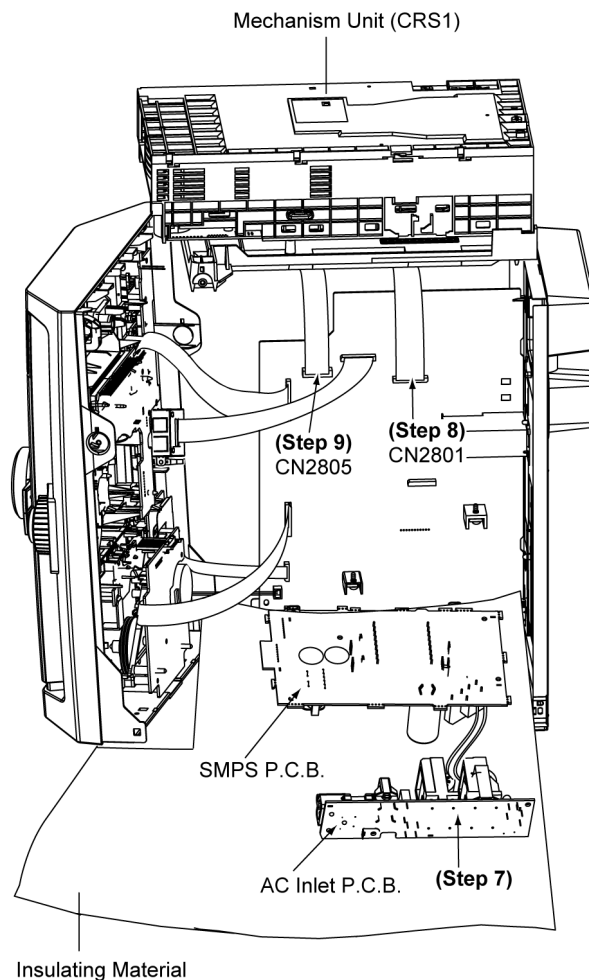
**Step 6** Move the rear panel slightly backward as arrow shown, lift up the AC Inlet P.C.B. together with the SMPS P.C.B..



**Step 7** Position SMPS P.C.B. & AC Inlet P.C.B. according to the diagram shown.

**Step 8** Connect 22P cable at the connector (CN2801) on Main P.C.B..

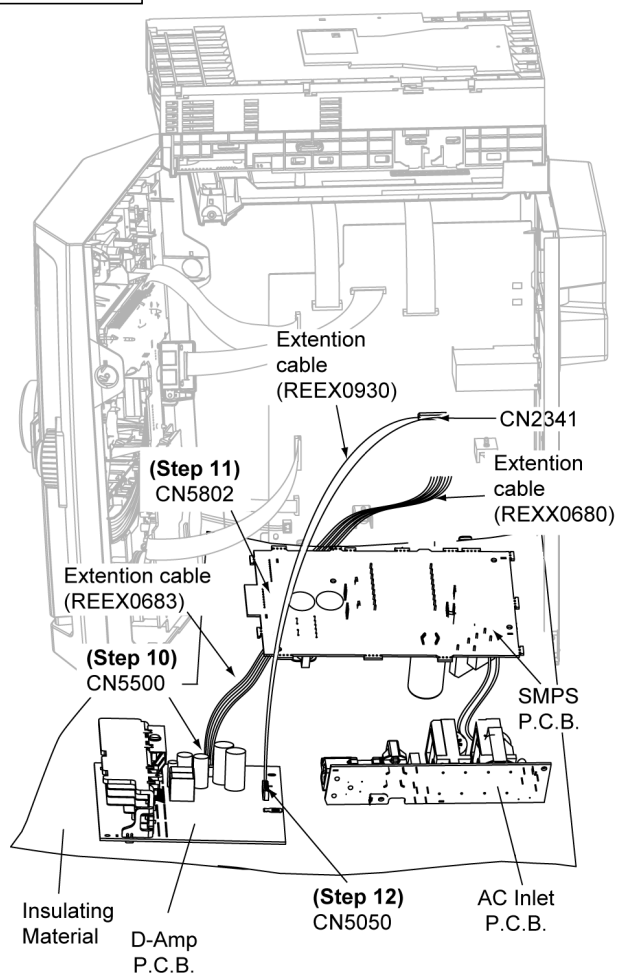
**Step 9** Connect 14P cable at the connector (CN2805) on Main P.C.B..



**Step 10** Attach original cable with extension cable (REXX0683) (8P cable from H5801 to CN5500).

**Step 11** Attach original cable with extension cable (REXX0680) (11P cable from CN2701 to CN5802).

**Step 12** Connect extension cable (REEX0930) (17P cable from CN2341 to CN5050).



**Step 13** Service AC Inlet P.C.B. & SMPS P.C.B. respectively.



## 12 Procedure for Checking Operation of Individual Parts of Deck Mechanism Unit

### 12.1. Operation Check with Cassette Tape

1. Pull up the EJECT lever using a rubber band. (Fig. 6)
2. Supply DC5V to MOTOR. (→ MOTOR rotates.) (Fig. 5)
3. Insert a cassette tape to the unit.
4. Supply DC9V to the plunger, and turn the power ON and OFF. (→ Power +PL, -PL) (Fig. 5)
  - a. FWD PLAY: Supply the plunger power in a flash. (ON: approx. 5msec)
  - b. FWD FF: Supply the plunger power in a flash at PLAY mode. (ON: approx. 5msec)
  - c. STOP: Supply the plunger power in a flash at FWD FF mode. (ON: approx. 5msec)
  - d. REV PLAY: Supply the plunger power in a normal timing at STOP mode. (ON: approx. 200msec)
  - e. REV REW: Supply the plunger power in a flash at REV PLAY mode. (ON: approx. 50msec)
  - f. STOP: Supply the plunger power in a flash at FF mode. (ON: approx. 50msec)

Repeat the operation (→ FWD PLAY)

(Note) Other operation may start if a timing of supplying the plunger power is missed.

#### 12.1.1. Connection Status between Mechanism and Power Supply (Motor, Plunger)

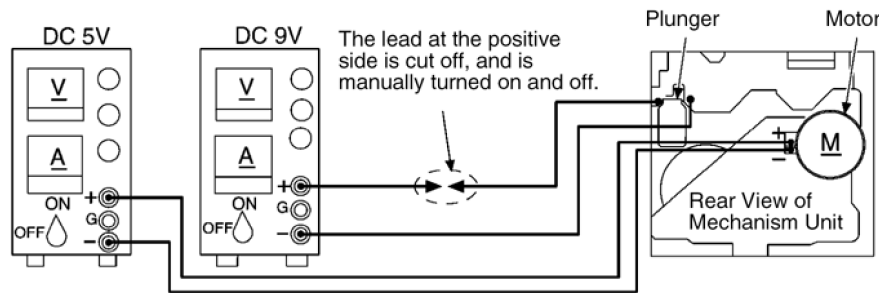


Fig. 5

#### 12.1.2. Operative Parts of Deck Mechanism Unit (EJECT lever fitted with rubber band, Plunger/Rib operation)

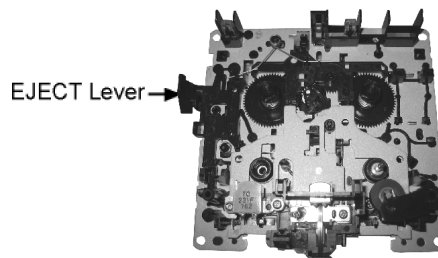
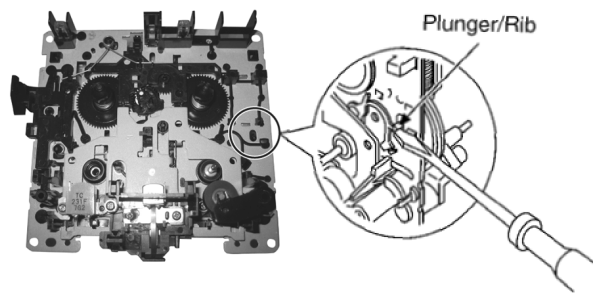


Fig. 6

### 12.2. Operation Check without Cassette Tape

1. Pull up the EJECT lever using a rubber band. (Fig. 6)
2. Supply DC5V to MOTOR. (→ MOTOR rotates.)
3. Lift up the mechanism unit's plunger/rib with the tip of a negative screwdriver, and operate the unit in the same timing as supplying the power. (Fig. 7)



## 13 Measurement And Adjustments

### 13.1. Cassette Deck Section

#### 13.1.1. Requirements

- Test tape (QZZCFM) (QZZCWAT)
- Normal blank cassette tape (QZZCRA)
- Digital frequency counter
- Oscilloscope
- Electrical voltmeter
- Headphone jack output jig (Fig 8)

#### 13.1.2. Setting of Unit

- VOLUME: MAX

#### 13.1.3. Preparations

1. Apply under [9. Assembling and Disassembling].
2. Remove 4 screws from the mechanism unit to disassemble. under [9.13 Disassembly of Deck Mechanism Unit].
3. Connect the headphone jack output jig (Fig 8) to headphone jack.

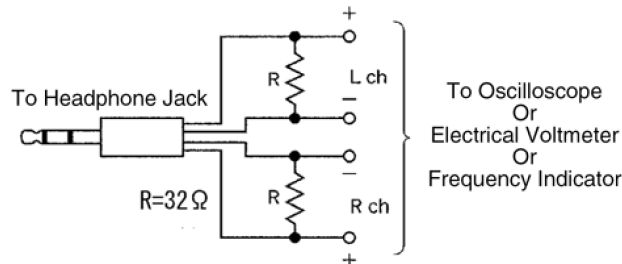


Fig. 8

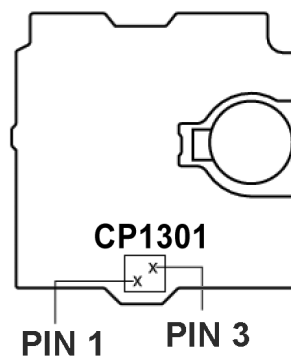


Fig. 9

#### 13.1.4. Tape Speed Adjustment

- Normal speed adjustment (only during forward playback)

(Product reference value:  $3,000 \pm 90\text{Hz}$ )

1. Connect a frequency indicator. (Fig 10)
  2. Playback the middle portion of the test tape (QZZCWAT).
  3. Adjust the motor screw so that the following output level is produced. (Fig 11)
- Adjustment Range:  $3,000 \pm 90\text{Hz}$  (a constant speed)

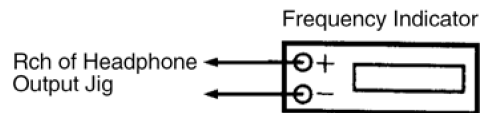


Fig. 10

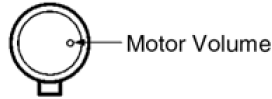


Fig. 11

### 13.1.5. Bias Voltage Check

1. Connect an electrical voltmeter. (Fig 12) (Fig 9 for location of Test point)
2. Set the function to "TAPE" position.
3. Insert a normal blank cassette tape (QZZCRA).
4. While pressing and holding down [REC( ● )] button, press [TAPE( TAPE ► )] button to pause the recording mode. (Repeat pressing the buttons till the recording pause mode is activated.)
5. Check that the output level is within the standard range.

Standard Range:  $20 \pm 3\text{mV}$

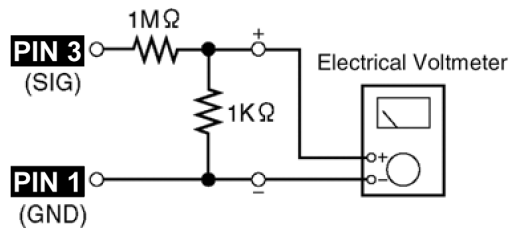


Fig. 12

### 13.1.6. Bias Frequency Check

1. Connect a digital frequency counter (Fig 13).
2. Set the function to "TAPE" position.
3. Insert a normal blank cassette tape (QZZCRA) and press "REC" mode on main unit.
4. Check that the output frequency is within the standard range.

Standard Value:  $100 \pm 8\text{ kHz}$

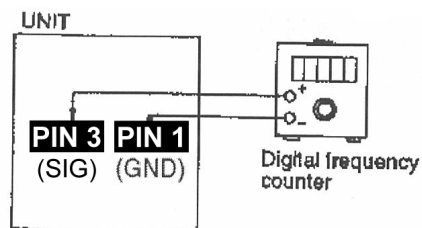


Fig. 13

# 14 Voltage Measurement and Waveform Chart

## Note:

Circuit voltage and waveform described herein shall be regarded as reference information when probing defect point, because it may differ from an actual measuring value due to difference of Measuring instrument and its measuring condition and product itself.

## 14.1. Voltage Measurement

### 14.1.1. CD Servo P.C.B. & Tact Switch 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	0	0	0	0	0	0	0	3.2V
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	1.6V	0	1.6V	1.6V	1.8V	0	3.2V	1.5V	3.2V	3.2V	0	1.6V	1.6V	0	0	1.9V	1.9V	0	1.7V	1.7V
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	0.2V	2.4V	1.8V	1.9V	1V	0	3.2V	1.2V	0	1.02V	1.6V	1.6V	0.9V	1.4V	1.5V	1.5V	0	3.2V	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	3.2V	1.6V	0	0	0	0	0	3V	3V	2.9V	0	3.2V	0	1.65V	0	1.6V	3.2V	0	3.2V	1.6V
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	1.6V	1.6V	0	0	0	0	0	0	0	0	0	0	3.2V	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	1.6V	0	1.6V	0	0	0	0	0	0	0	1.7V	3.2V	3.2V	3.2V	2.8V	2.8V	3.2V	3.2V	0	7.1V
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	7.1V	1.6V	1.6V	1.6V	0	0										
STANDBY	0	0	0	0	0	0	0	0	0	0										
Ref No.	Q7601																			
MODE	E	C	B																	
CD PLAY	3.1V	2V	2.4V																	
STANDBY	0	0.1V	0																	

SA-AK270EB/EG CD SERVO P.C.B.

Ref No.	Q6511																			
MODE	E	C	B																	
CD PLAY	0	4.5V	0																	
STANDBY	0	4.7V	0																	

SA-AK270EB/EG TACT SWITCH P.C.B.

## 14.1.2. Main P.C.B.

Ref No.	IC2801																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.5v	86	60	70	-0.58v	-0.6v	-0.6v	-0.58v	-0.6v	88	1v	-157	-0.6v	-0.6v	-0.6v	-0.6v	-0.58v	0.9	-0.6v	-0.6v
STANDBY	1.6v	1.6v	1.6v	1.6v	1.6v	1.6v	0	-0.9v	-0.9v	1v	0.6v	-3v	1.6v	0.2v	1.6v	3.3v	3.3v	3.3v	0	2v
Ref No.	IC2801																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	-1.3v	-0.5v	-174	-140	-0.6v	-134	-0.6v	-0.4v	-0.65v	1.9v	-174	-1.5v	-175	-170	1.9v	-2.1v	-1v	-174	-0.5v	-0.2v
STANDBY	2.6v	2.6	2.6v	2.6v	2.6v	2.8v	2.8v	0	3.3v	-174	3.5v	3.6v	4.3v	4.3v	55.4v	55.6v	0.6v	-0.6v	4.1v	3.2v
Ref No.	IC2801																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	-192	-194	1v	-0.8v	1v	-0.2v	-0.9v	-2v	-0.9v	-0.7v	-0.2v	-158	2.6v	0.7v	-1.3v	0.37v	1.3v	-0.5v	-0.5v	-195
STANDBY	3.9v	3.8v	1.6v	0.5v	3.6v	-0.6v	0	3.2v	3.2	3.1	2.9v	2.8v	-0.5v	2.6v	2.5v	2.1v	-0.5v	1.7v	2.1v	2v
Ref No.	IC2801																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	2.6v	1.2v	-2.1v	-0.6v	-0.3v	-176	2.7v	1.6v	-1.8v	-1v	-0.5v	-0.3v	-171	0.8v	0.48v	0.9v	-0.5v	0.4v	0.8v	-2.1v
STANDBY	2.2v	3.3v	1.6v	0.5v	1.5v	1.6v	6v	6.1v	6.2v	0.6v	1.9v	6.3v	0.6v	2v	2v	2.1v	2.1v	2.1v	2.6v	0.6v
Ref No.	IC2801																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	1.8v	-1.8v	-0.4v	-139	2.2v	-1.5v	-0.8v	-0.5v	2.4v	-110v	-1.2v	1.6v	1v	0.3v	173	-2.6v	1.6v	0.7v	0.4v	0.25v
STANDBY	2.2v	2.2v	2.2v	2.2v	3.3v	0.5v	2.2v	2.2v	3v	2.5v	2.2	3.3v	3.3v	2.95v	2.5	0.5v	2.5v	3.3v	3.3v	3.3v
Ref No.	IC2951										IC2731									
MODE	1	2	3	4	5	6	7	8			1	2	3			1	2	3	4	5
CD PLAY	-0.68v	-0.59v	-2.3v	-1.4v	0.5v	0.34v	-1.1v	2.3v			9.2v	-8v	4.3v			-1.6v	-5v	2.1v	-1.3v	-1.2v
STANDBY	-0.7v	3.3v	3.9v	3.8	1.6v	1.6v	0.5	3.2v			11.9v	-1.9	16.5v			5.8v	-1.3	5.8v	-0.37v	3.3v
Ref No.	IC2809																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
CD PLAY	54.3	1v	1.6v	1.6v	3.2v	4.1	1.6v	1.6v	4.2	4.1	4.3	3.2v	1.5v	1.6v	4.1	3.2				
STANDBY	52.3	1v	1.6v	1.6v	3.3v	1.9	1.6v	1.6v	1.9	1.9	1.9	3.3v	1.6v	1.6v	1.9	3.3v				
Ref No.	IC2804										IC2701									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5					
CD PLAY	-6v	176	-167	-8.1v	3.1v	1.1v	0.2v	7.9v			6v	-4.7v	-8.5v	-3.1v	6v					
STANDBY	-4.4	-0.8v	-0.8v	-9.1v	-0.9	-0.6	-4.2	9.3v			16.5v	7.8v	-2.2	0.9v	11v					
Ref No.	IC2803																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	-0.6v	-157	-0.7v	0.6v	0.4v	0.2v	183	0.18v	142	173	162	144	165	188	180	172	180	-0.7v	163	170
STANDBY	-0.8v	0.5v	0.4v	0.4v	0.4v	0.4v	0.4v	0.15	0.15	-0.16	-0.16	0.64	0.5v	0.4v	0.4v	0.4v	0.4v	0	136	137
Ref No.	IC2803																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	4.1v	-1.4v	-0.7v	-0.24v	-3v	-0.6v	1.2v	0.7v	0.4v	0.25v	183	146	148	167	175	176	174	176	-0.46v	176
STANDBY	108	0.4	0.4	0.4v	0.3v	0	0.36v	169	149	136	138	140	-0.27v	0.29v	0.26v	0.28v	0.27v	0.26v	-0.82v	0.26v
Ref No.	IC2803										Q2743									
MODE	41	42	43	44	45	46	47	48	49	50	51	52								
CD PLAY	-0.5v	177	-0.46v	176	173	183	161	-0.45v	-0.43v	0.21v	-0.43v	194								
STANDBY	-0.6v	0.24v	0.6v	0.23v	0.47v	0.22v	0.22v	-0.6v	180	-0.43v	0.31v	0.2v								
Ref No.	Q2711					Q2745					Q2743					Q2336				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	3.9v	5.7v	3.2v			3.3v	47	-0.9			2.6v	3.3v	3.3v			-2.6	-2.6	0.59v		
STANDBY	3.4v	5.7v	4v			-1.5	46.6	3.3v			3.3v	3.3v	2.6v			-2.6	-2.6	0.59v		
Ref No.	Q2735					Q2312					Q2311					Q2771				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	8v	10v	8.4			-0.8	-0.8	0.59v			-0.8	-0.8	0.59v			-2.3	3.1v	-18.4		
STANDBY	8v	11.2v	8.6v			-0.8	-0.8	0.59v			-0.8	-0.8	0.59			-2.4	3.1v	-18.4		
Ref No.	QR2317					Q2937					Q2970					Q2012				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	-1.1	-7.5v	3.3			0.9	11.7v	2			3.3	-0.4	3			3.3	11.7v	3		
STANDBY	1.7v	1.7v	-0.9			0.9	11.9v	2			3.3v	-0.4	3v			3.4	11.9v	3.3		
Ref No.	Q2763					Q2900					Q2751					Q2812				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	-1	-8v	-0.6v			3.2	17.8v	-0.3v			9.44	16.7v	10v			1.3	3.3v	-0.3		
STANDBY	-1.9	-9.8v	-0.61v			3.2	17.8v	-0.3v			9.4v	16.48v	10v			-0.1	3.3	0		
Ref No.	Q2359					Q2936					Q2761									
MODE	E	C	B			E	C	B			E	C	B							
CD PLAY	-2.6	-2.6	0.62v			11.9v	11.5v	11.8v			-9.2v	-11.6v	11.8v							
STANDBY	-2.6	-2.6	0.62v			11.9v	3.1	11.9v			-9.2v	-11.4v	-9.8v							

SA-AK270EB/EG MAIN P.C.B.

## 14.1.3. SMPS P.C.B., D-Amp P.C.B. &amp; Panel P.C.B.

Ref No.	IC5801				IC5701							IC5899								
MODE	1	2	3		1	2	3	4	5	6	7	1	2	3						
CD PLAY	-2.2	-29.5	-26.8		162	0	0	19.3	0.1	1.4	0.5	25.4V	2.5V	0						
STANDBY	-2.2	-29.5	-26.8		162	0	0	19.3	0.1	1.4	0.5	25.3V	2.5V	0						
Ref No.	IC5799																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	6.0	1.6	1.8	20.3	162.2	-	0	0												
STANDBY	6.0	1.6	2.0	20.3	163.0	-	0	0												
Ref No.	Q5860				Q5861				Q5862				Q5721				Q5720			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	3.3V	-0.1	2.7V		3.2V	-0.1	2.8V		3.2V	-0.1V	2.8V		3V	-0.2V	3V		-11.6V	-11.3V	-11.6V	
STANDBY	3.3V	0	2.8V		3.3	0	2.9V		3.3V	0	2.9V		3.1V	0	2.7V		-11.6V	-11.1V	-11.4V	
Ref No.	Q5722				Q5898				Q5802				Q5803				QR5801			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	3V	-0.2V	3V		3.1V	-0.1V	2.8V		3.3V	-0.1V	2.2V		-11.4V	-11.4V	-11.5V		0	5.0	0	
STANDBY	3.1V	0	2.7V		3.2V	0	2.9V		3.4V	0	2.7V		-11.5V	-11.6V	-11.3V		0	5.0	0	
Ref No.	QR5802				QR5810															
MODE	E	C	B		E	C	B													
CD PLAY	0	4.5	0		0	0.1	5													
STANDBY	1.5	1.5	0		0	0	5													

SA-AK270EB/EG SMPS P.C.B.

Ref No.	IC5000																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.5	0.1	0.1	2.9	0	-29.3	-29.3	29.3	11	-0.1	-29.5	-17.3	-29.5	-0.1	11	29.3	-29.3	-29.3	0	29
STANDBY	2.5	0.1	0.1	2.9	0	-29.3	-21	29.3	11	-0.1	-29.5	-17.3	-29.5	-0.1	11	29.3	-29.3	-29.2	0	29
Ref No.	IC5000				IC5600															
MODE	21	22	23		1	2	3	4	5	6	7	8	9	10	11	12	13	14		
CD PLAY	-0.1	-0.1	2.5		0	5.2	5	0	2.7	2.2	0	2.5	2.6	2.6	2.5	0	5.2	5.2		
STANDBY	-0.1	-0.1	2.5		0	5.2	5	0	2.7	2.2	0	2.5	2.6	2.6	2.5	0	5.2	5.2		
Ref No.	IC5501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
CD PLAY	2.5	2.6	2.5	0	2.6	0	0	0	0	0	0	0	5.2	5.2						
STANDBY	2.5	2.6	2.5	0	2.6	0	0	0	0	0	0	0	5.2	5.2						
Ref No.	Q5603				Q5604				Q5601				Q5101				Q5102			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	3.2V	-0.1V	2.8V		-0.1V	3.1V	-0.1V		-0.3V	3V	-0.3V		-0.1V	3V	-0.1V		-0.3V	3V	-0.3V	
STANDBY	3.3V	0	2.9V		0	3.2V	0		0	3.1V	0		0	3V	0		0	3.2V	0	

SA-AK270EB/EG D-AMP P.C.B.

Ref No.	IC6601																			
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	1.8V	1.2V	0.4V	0	2.5V	0	0	0	3.3V	-14V	-14V	-20V	-22.3V	-24V	-20.6V	-20.6V
STANDBY	0	0	0	0	1.9V	1V	0	3.4V	2.6V	0	0	0	3.3V	-14V	-14V	-18.5V	-22.6V	-22V	-22.6V	-20V
Ref No.	IC6601																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	-16.7V	-24.5V	-24.6V	-22.6V	-14.7V	-22.6V	-16.7V	-22.7V	-22.7V	-25.1V	-23.3V	-22.8V	-23.1V	-22.8V	-22.8V	-22.9V	-22.7V	-22.8V	-22.7V	-22.9V
STANDBY	-16.7V	-24.5V	-22.6V	-22.2V	-20.7V	-22.6V	-23V	-22.6V	-24.6V	-25	-22.3V	-21V	-22V	-22.8V	-22.4V	-23V	-22V	-22.2V	-22.8V	-22.8V
Ref No.	IC6601																			
MODE	41	42	43	44																
CD PLAY	-22.9V	-22.5V	3.3V	0																
STANDBY	-22.2V	-22.8V	3.3V	0																

SA-AK270EB/EG PANEL P.C.B.

## 14.1.4. Deck P.C.B., Deck Mechanism P.C.B. &amp; USB P.C.B.

Ref No.	IC1001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0.3V	0.3V	0.1V	0	0	0	0.1V	0	0	0	0	0	0	0.1V	0	0	0	0.1V	0.3V
STANDBY	0	0.3V	0.3V	0.1V	0	0	0	0.1V	0	0	0	0	0	0	0.1V	0	0	0	0.1V	0.3
Ref No.	IC1001				IC1000															
MODE	21	22		1	2	3	4	5												
CD PLAY	0.3V	0		0	0	0	0	0												
STANDBY	0.3V	0		0	0	0	0	0												
Ref No.	Q1303				Q1304				Q1309				Q1310				Q1312			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0	0		0	0	0		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	
Ref No.	Q1314				Q1315				Q1316				Q1317							
MODE	E	C	B		E	C	B		E	C	B		E	C	B					
CD PLAY	3V	3V	0.5V		3V	1.7V	9.1V		1.7V	1.7V	2.4V		0	0	0					
STANDBY	2.2V	2.2V	0.3V		2.2V	2.2V	1.5V		2.1V	2.1V	2.2V		0	0	0					

SA-AK270EB/EG DECK P.C.B.

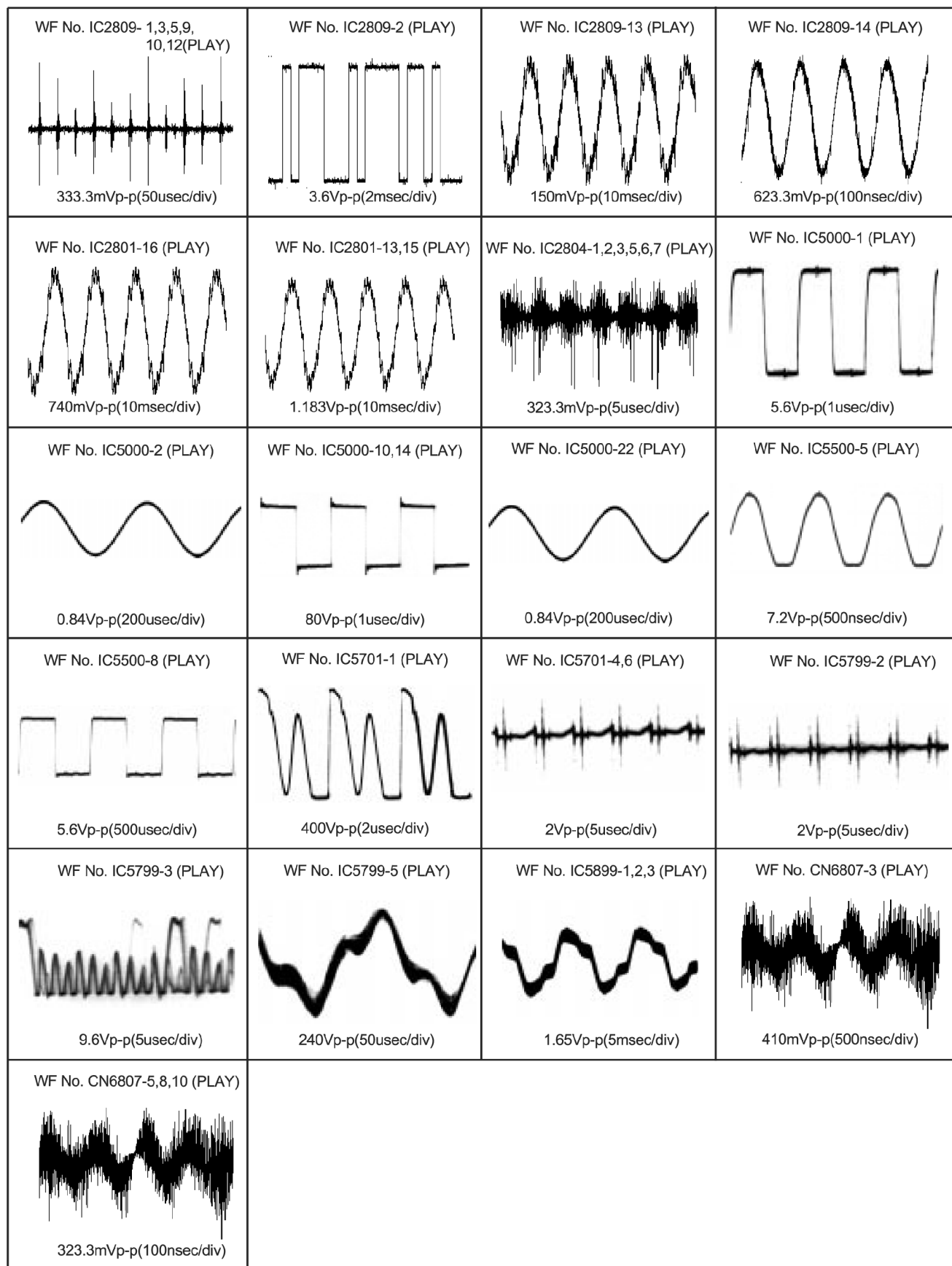
Ref No.	IC971																			
MODE	1	2	3	4																
CD PLAY	0.5	0	3.9	5																
STANDBY	0	0	0	0																

SA-AK270EB/EG DECK MECHANISM 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	1.8	0	1.5	0	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				IC951															
MODE	61	62	63	64		1	2	3	4	5	6	7	8							
CD PLAY	0	1.8	1.4	3.2		0	5	5	3.2	3.3	0.5	0.5	0.5							
STANDBY	0	0.6	0	0		0	0	0	0.6	0	0	0	0							

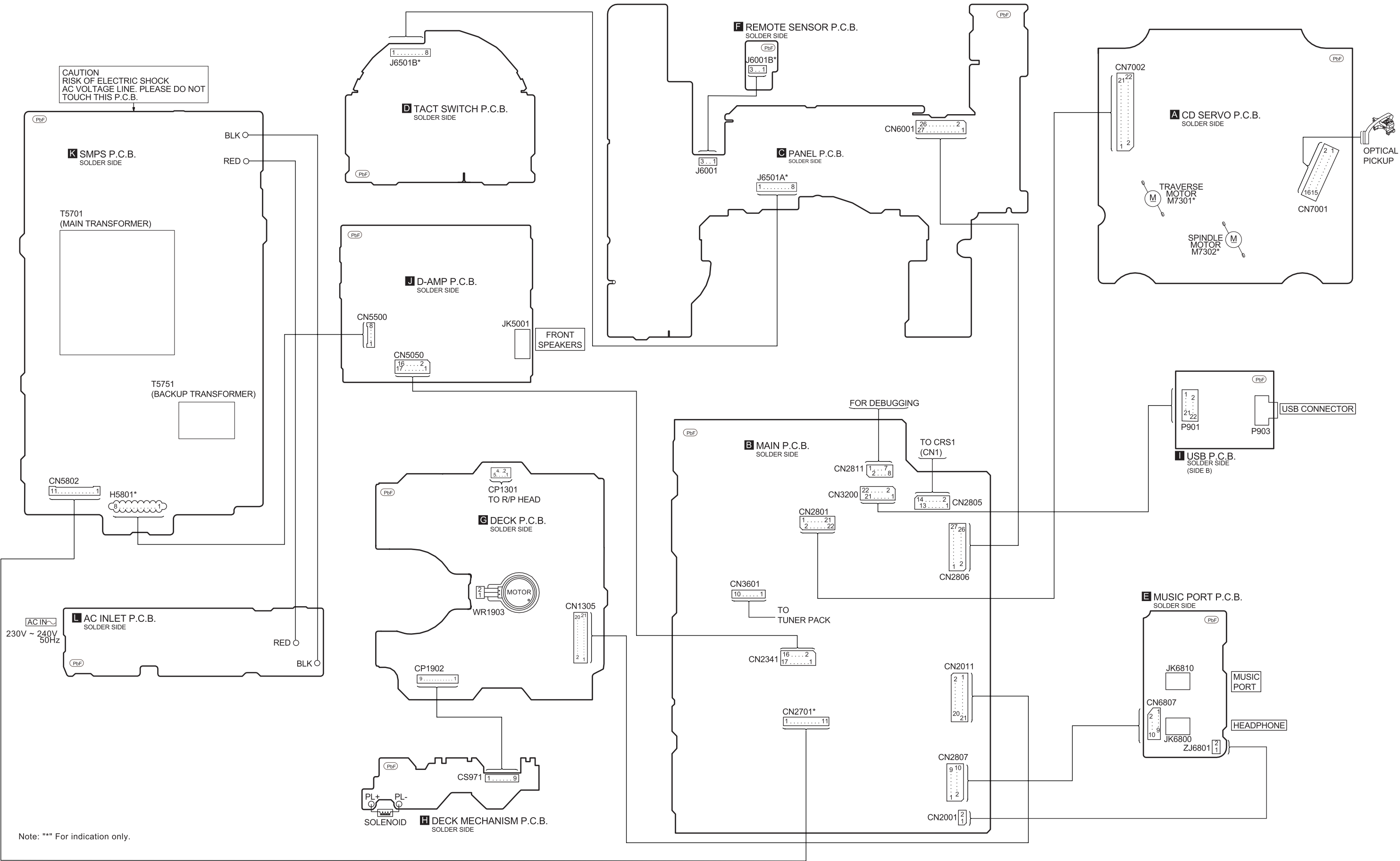
SA-AK270EB/EG USB P.C.B.

## 14.2. Waveform Chart





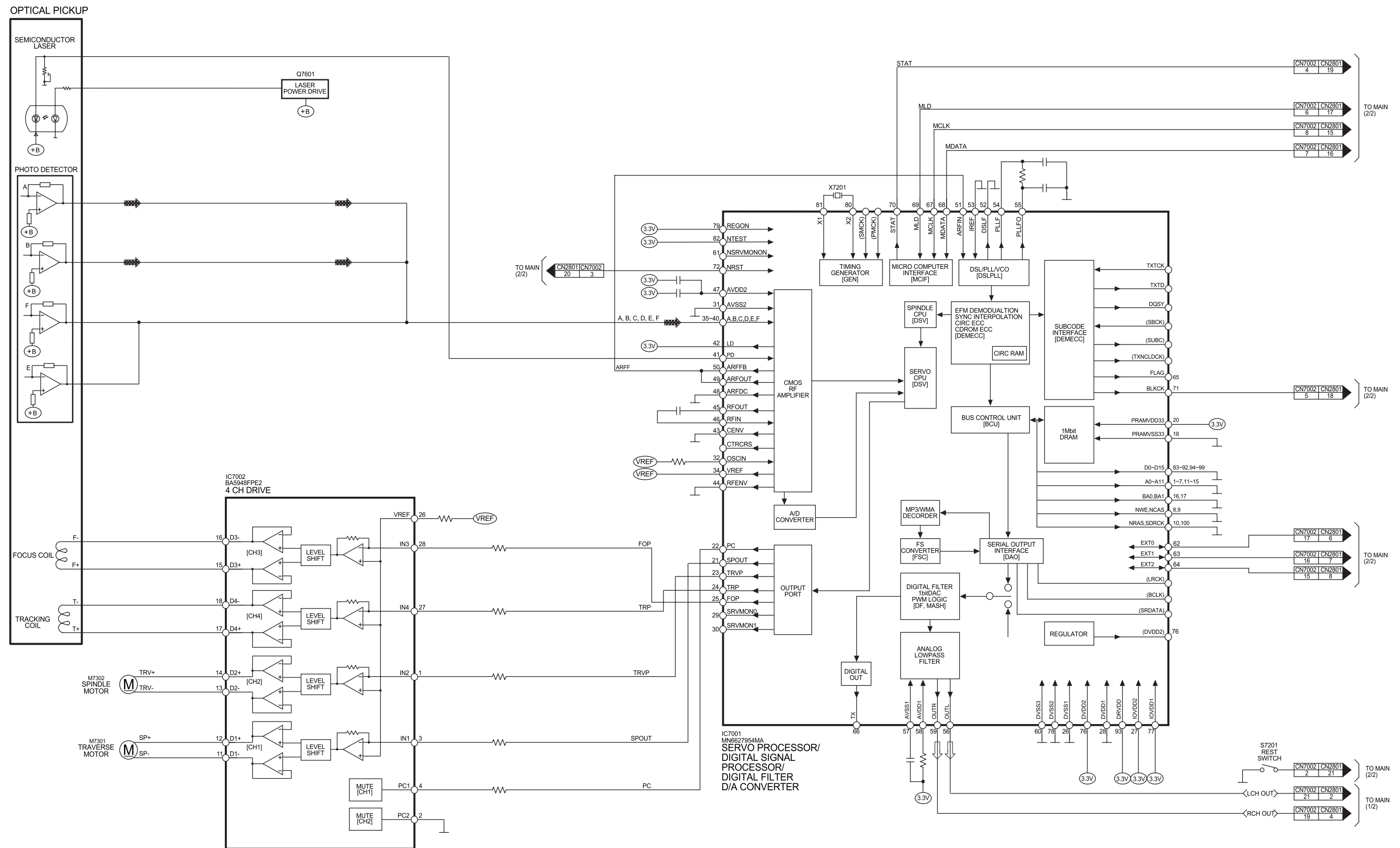
15 Wiring Connection Diagram





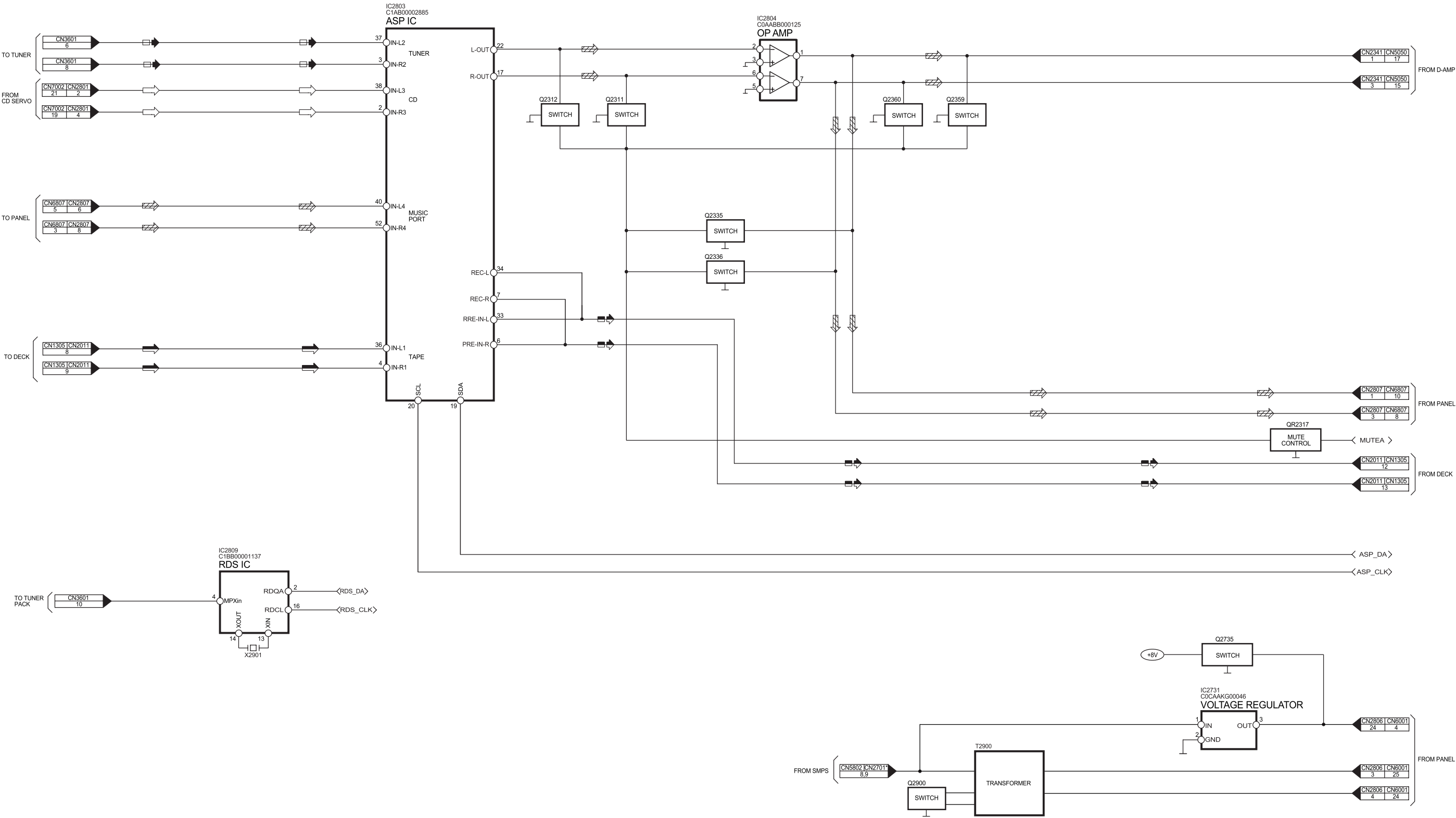
# 16 Block Diagram

## 16.1. CD Servo Diagram

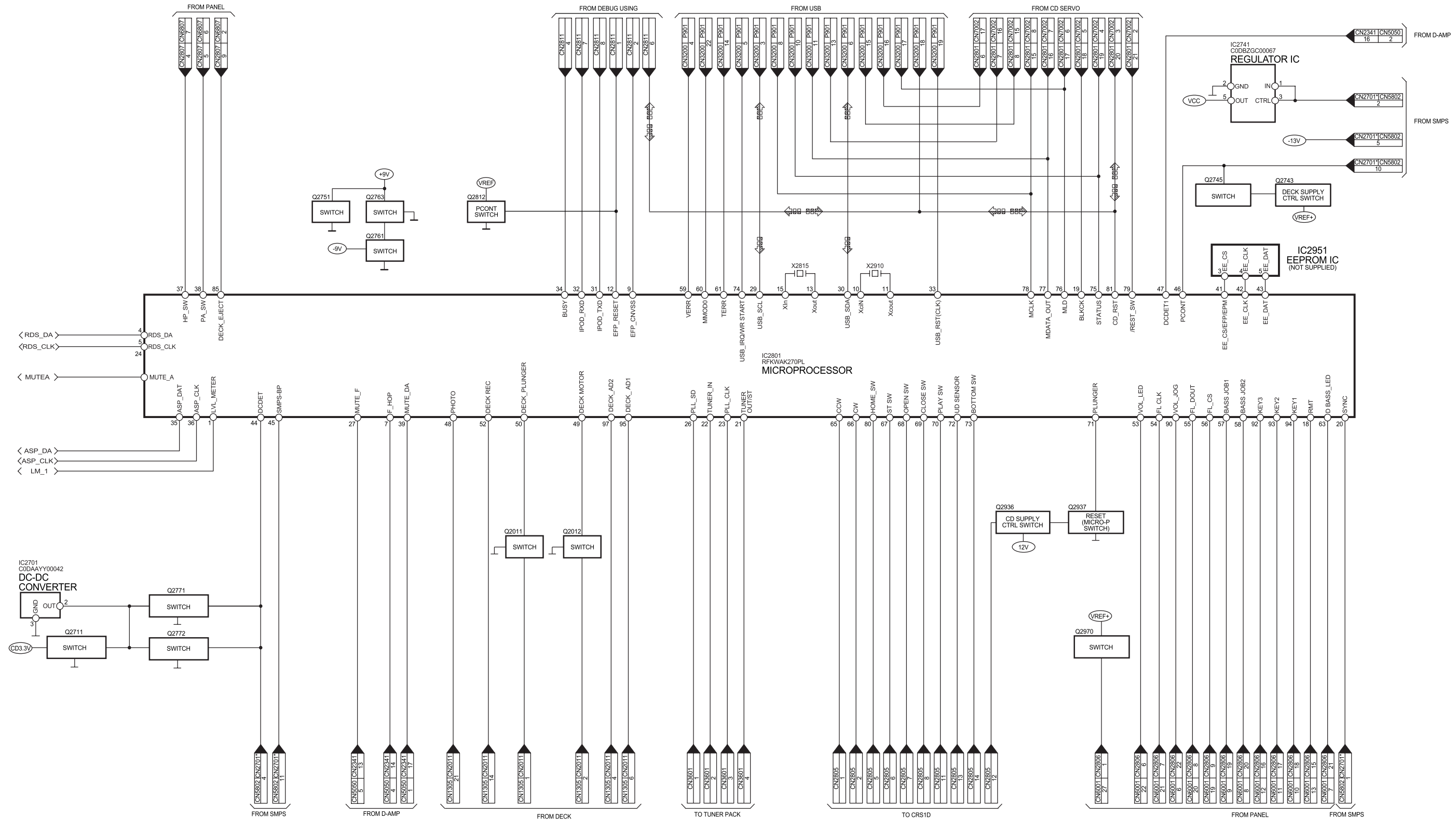


SA-AK270EB/EG CD SERVO BLOCK DIAGRAM

16.2. Main Diagram

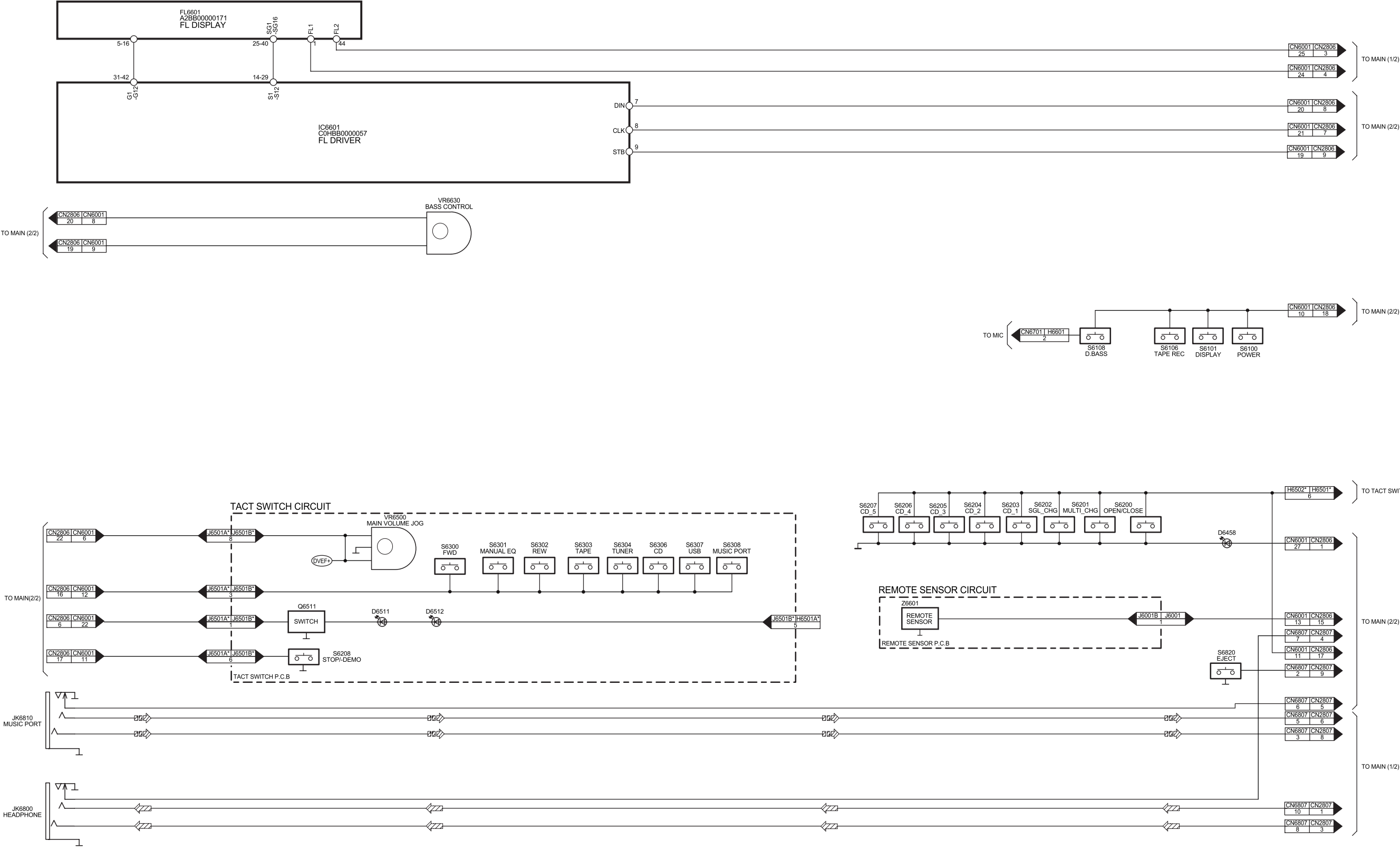


SA-AK270EB/EG MAIN (1/2) BLOCK DIAGRAM



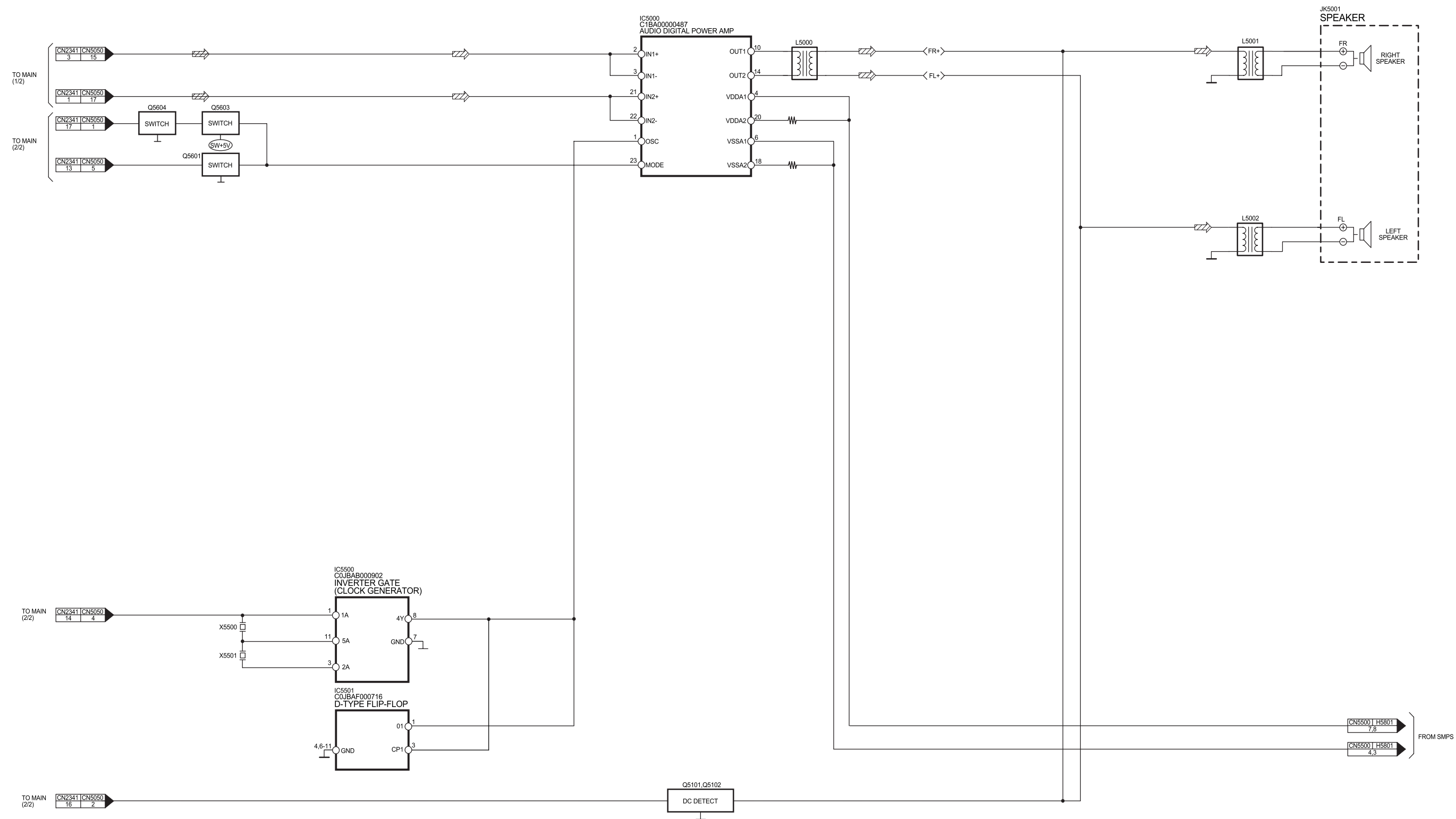
SA-AK270EB/EG MAIN (2/2) BLOCK DIAGRAM

16.3. Panel, Remote Sensor, Music Port, Headphone & Tact Switch Diagram



SA-AK270EB/EG PANEL / REMOTE SENSOR / MUSIC PORT / HEADPHONE / TACT SWITCH BLOCK DIAGRAM

16.4. D-Amp Diagram

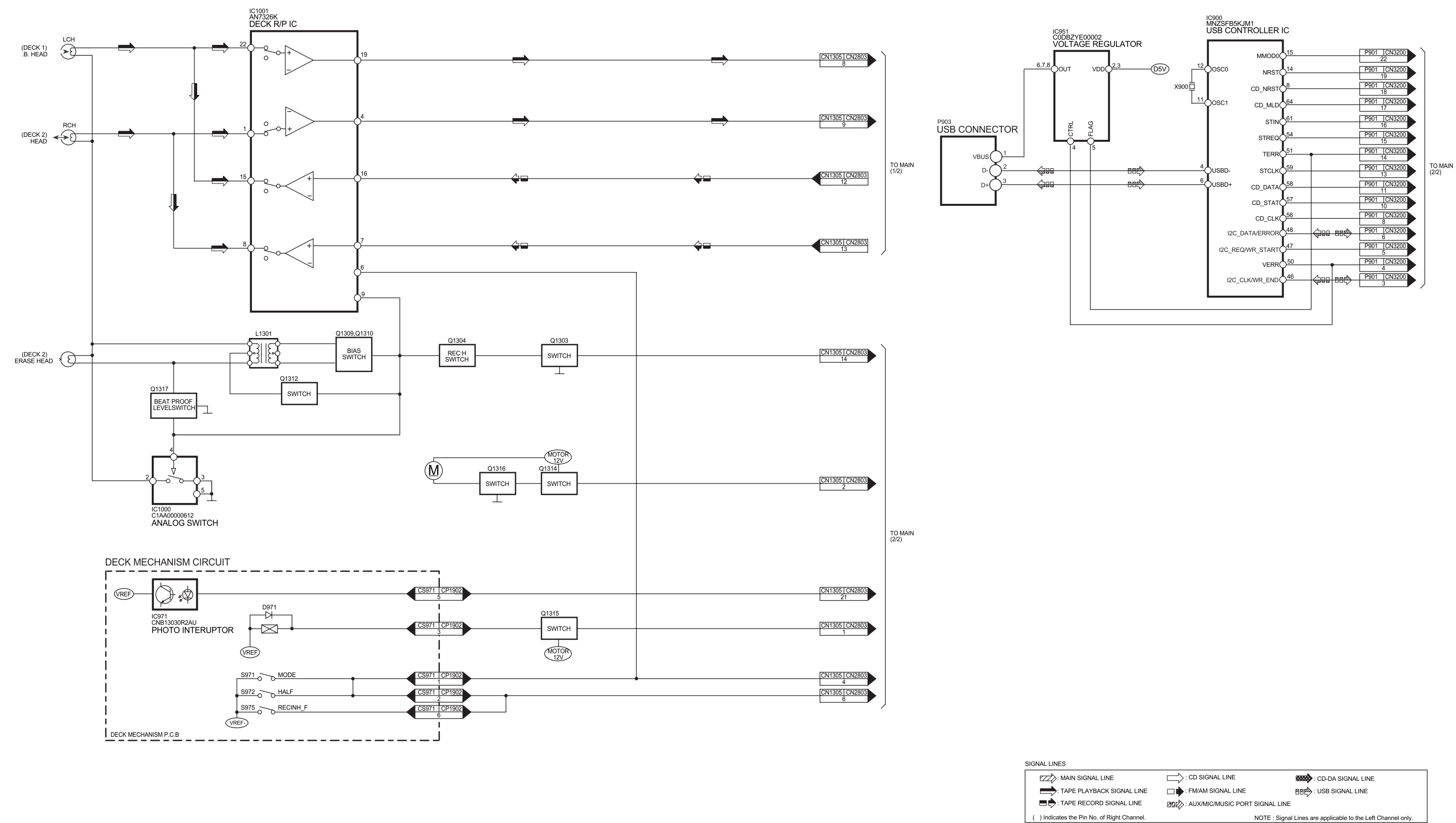


SA-AK270EB/EG D-AMP BLOCK DIAGRAM





16.6. Deck, Deck Mechanism & USB Diagram























SA-AK270EB/EG DECK/DECK MECHANISM/USB CIRCUIT BLOCK DIAGRAM



# 17 Notes Of Schematic Diagram











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

## Notes:

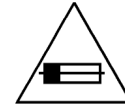
<b>S971:</b>	Mode switch.
<b>S972:</b>	Half switch.
<b>S975:</b>	RECINH_F switch.
<b>S6100:</b>	Power (  / I ) switch.
<b>S6101:</b>	Display switch.
<b>S6106:</b>	Tape Rec ( <b>TAPE</b>  <b>REC</b> ) switch.
<b>S6108:</b>	D.Bass switch.
<b>S6200:</b>	Open/Close (  ) switch.
<b>S6201:</b>	Multi Change (  ) switch.
<b>S6202:</b>	Single Change (  ) switch.
<b>S6203:</b>	CD1 ( 1  ) switch.
<b>S6204:</b>	CD2 ( 2  ) switch.
<b>S6205:</b>	CD3 ( 3  ) switch.
<b>S6206:</b>	CD4 ( 4  ) switch.
<b>S6207:</b>	CD5 ( 5  ) switch.
<b>S6208:</b>	Stop/Demo switch.
<b>S6300:</b>	FWD (  / FF /  ) switch.
<b>S6301:</b>	Manual EQ switch.
<b>S6302:</b>	REW (  / REW /  ) switch.
<b>S6303:</b>	Tape ( <b>TAPE</b>  ) switch.
<b>S6304:</b>	Tuner switch.
<b>S6306:</b>	CD ( CD  /  ) switch.
<b>S6307:</b>	USB (  /  ) switch.
<b>S6308:</b>	Music Port switch.
<b>S6820:</b>	Eject ( <b>OPEN</b>  ) switch.
<b>S7201:</b>	Rest switch.
<b>VR6500:</b>	VR Volume Jog
<b>VR6630:</b>	VR Volume Encoder

• \* FOR INDICATION ONLY.

• Voltage and Signal lines:


	: +B Signal line
	: -B Signal line
	: CD DA signal line
	: CD signal line
	: Tape Record signal line
	: Tape Playback signal line
	: FM/AM signal line
	: Main signal line
	: Music Port signal line
	: USB signal line

**CAUTION:** FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F1 T5AH, 250V FUSE



RISK OF FIRE-REPLACE FUSE AS MARKED.

## • 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.

- In case of AC rated voltage Capacitor, the part no. and values will be indicated in the Schematic Diagram.

AC rated voltage capacitor:

C5700, C5701, C5703, C5704, C5705, C5706, C5707

## • Resistor

Unit of resistance is OHM [ $\Omega$ ] (K=1,000,000).

## • Capacitor

Unit of resistance is  $\mu$ F, unless otherwise noted. F=Farad, pF=Pico-Farad

## • Coil

Unit of inductance is H, unless otherwise noted.

## FUSE CAUTION



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





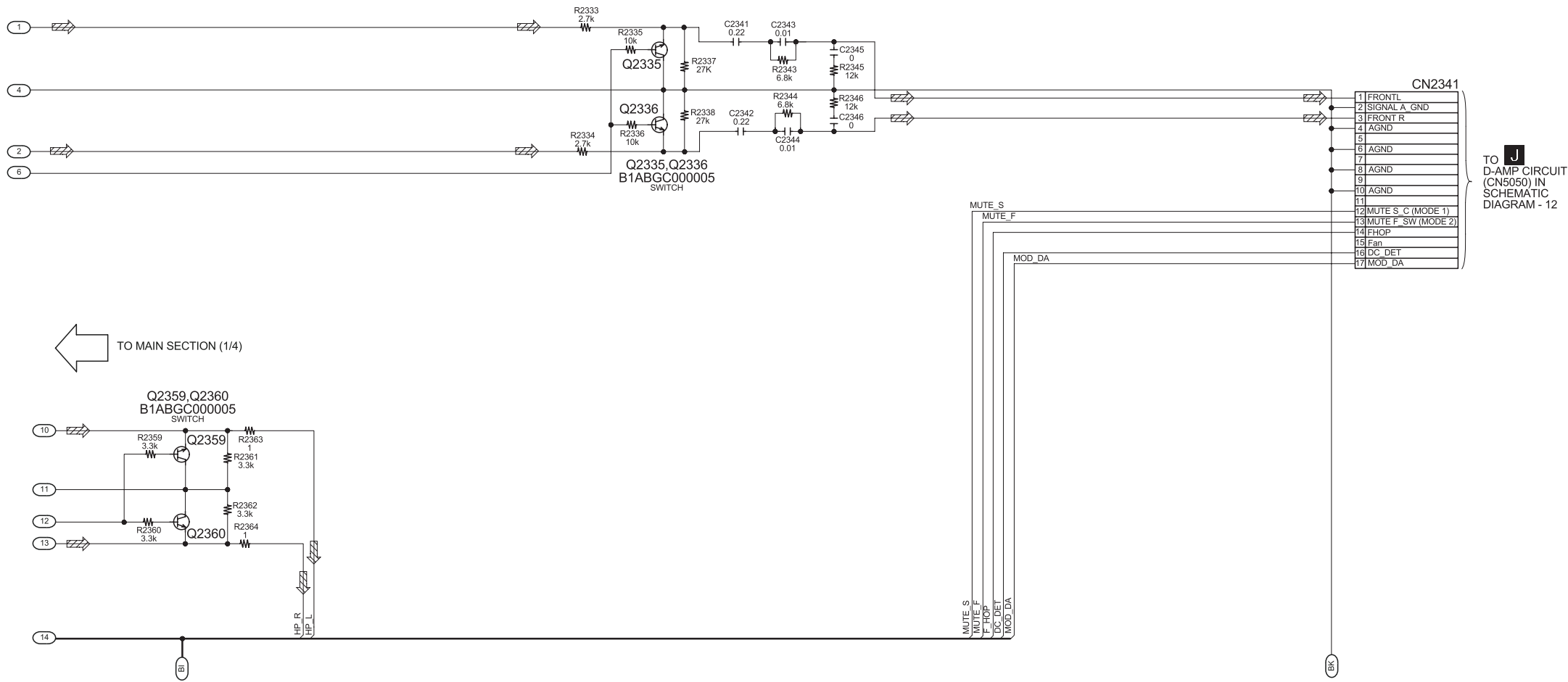
### 18.2. (B) Main Circuit



SCHEMATIC DIAGRAM - 3

**B** MAIN CIRCUIT

⚡ : MAIN SIGNAL LINE



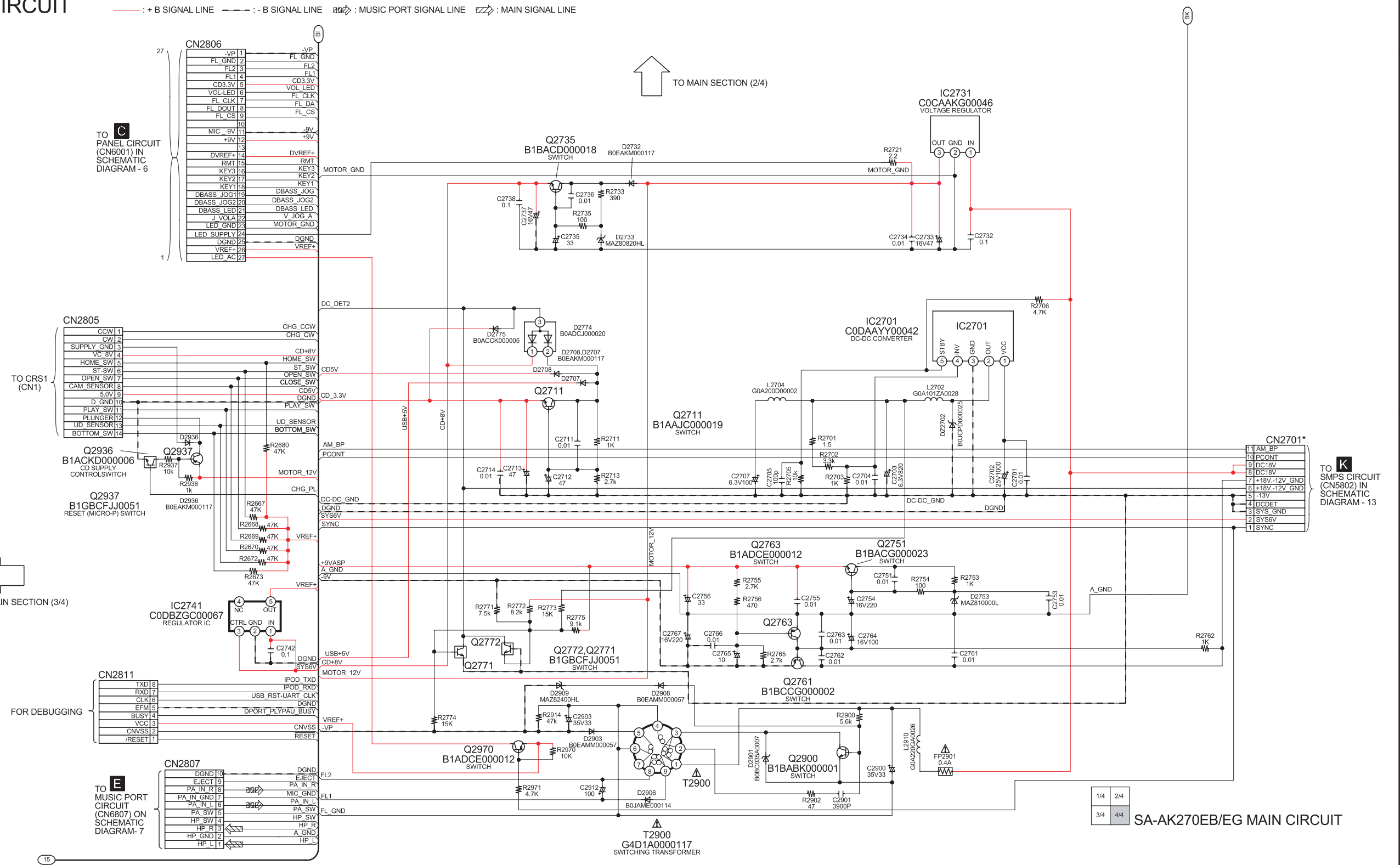
SA-AK270EB/EG MAIN CIRCUIT





SCHEMATIC DIAGRAM - 5

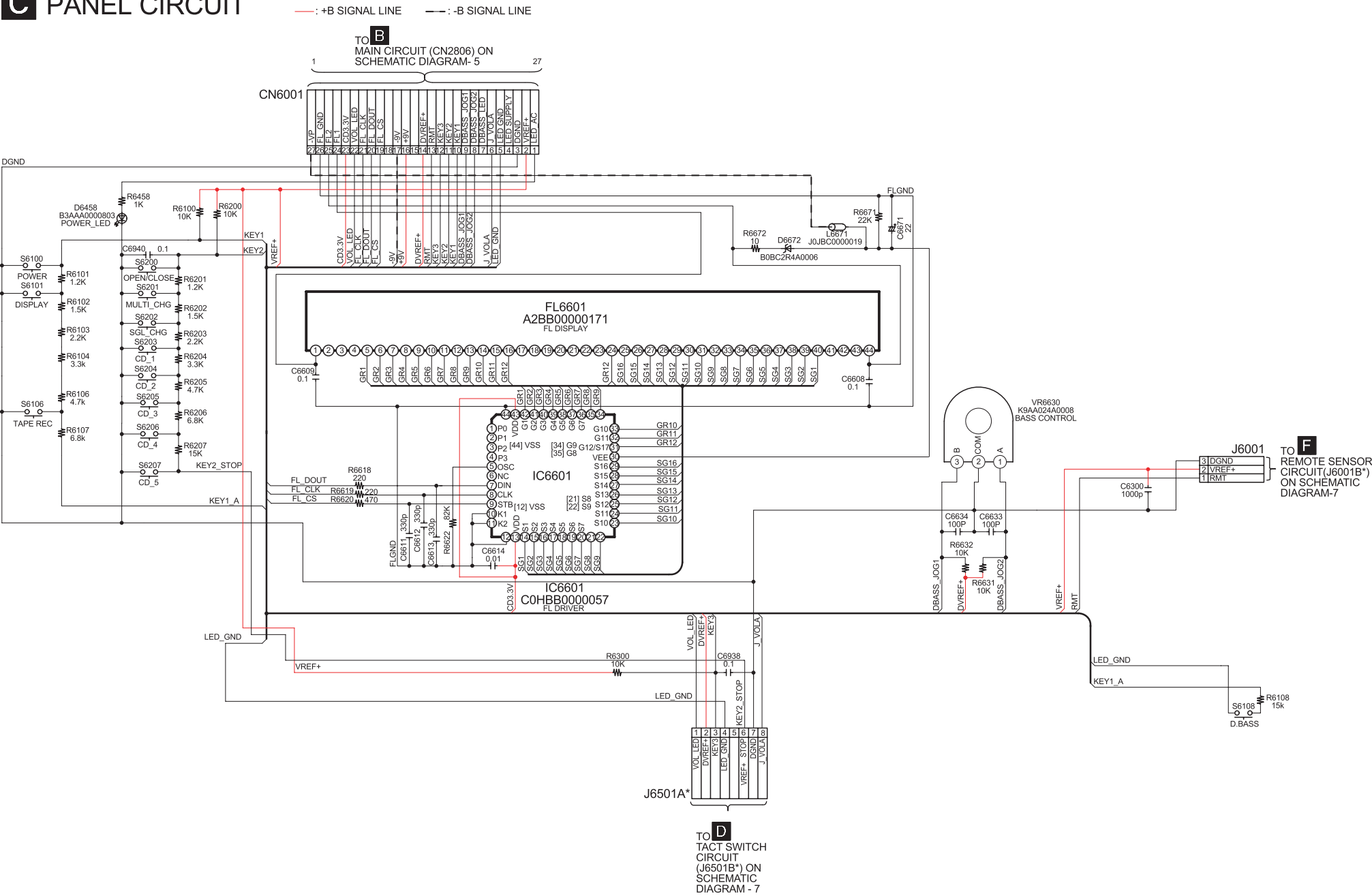
## B MAIN CIRCUIT



18.3. (C) Panel Circuit

SCHEMATIC DIAGRAM-6

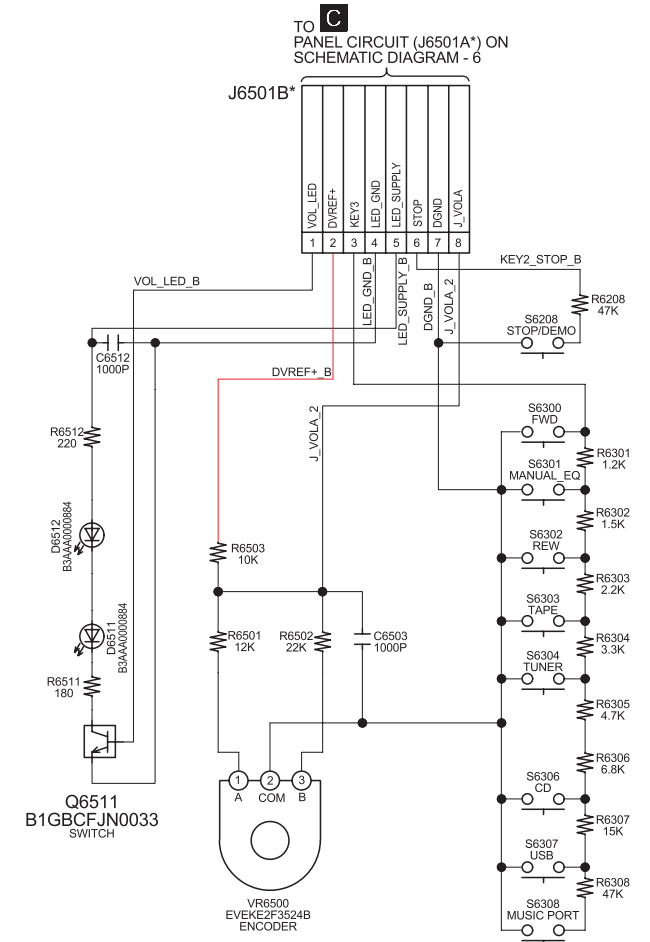
**C** PANEL CIRCUIT



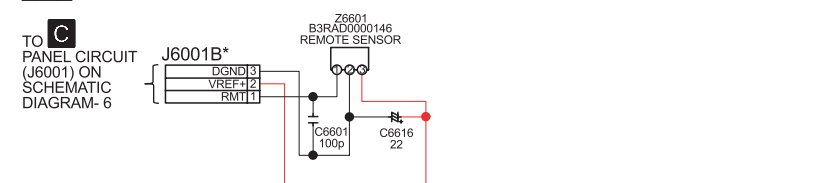
#### 18.4. (D) Tact Switch Circuit, (E) Music Port Circuit & (F) Remote Sensor Circuit

SCHEMATIC DIAGRAM - 7

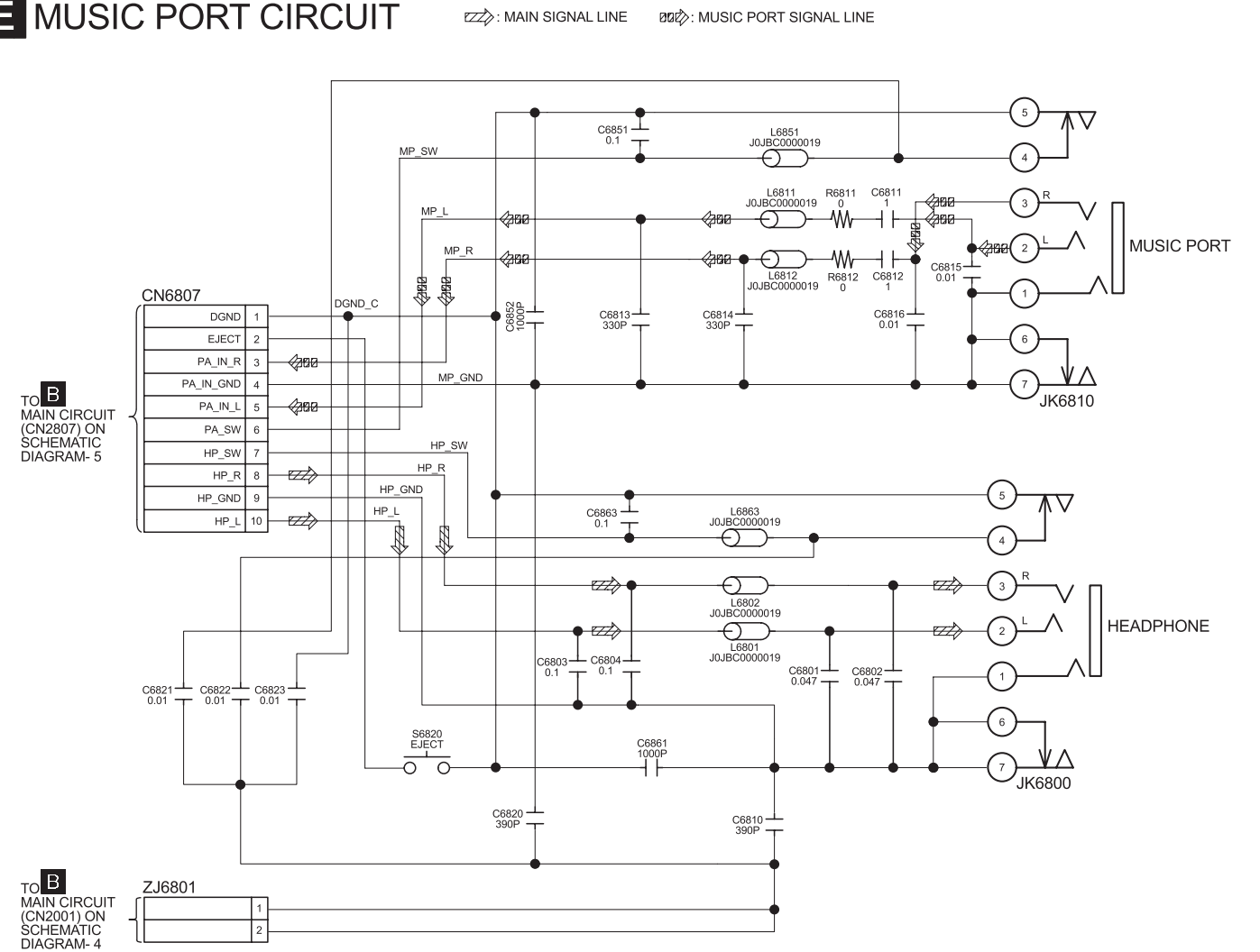
## D TACT SWITCH CIRCUIT



## F REMOTE SENSOR CIRCUIT

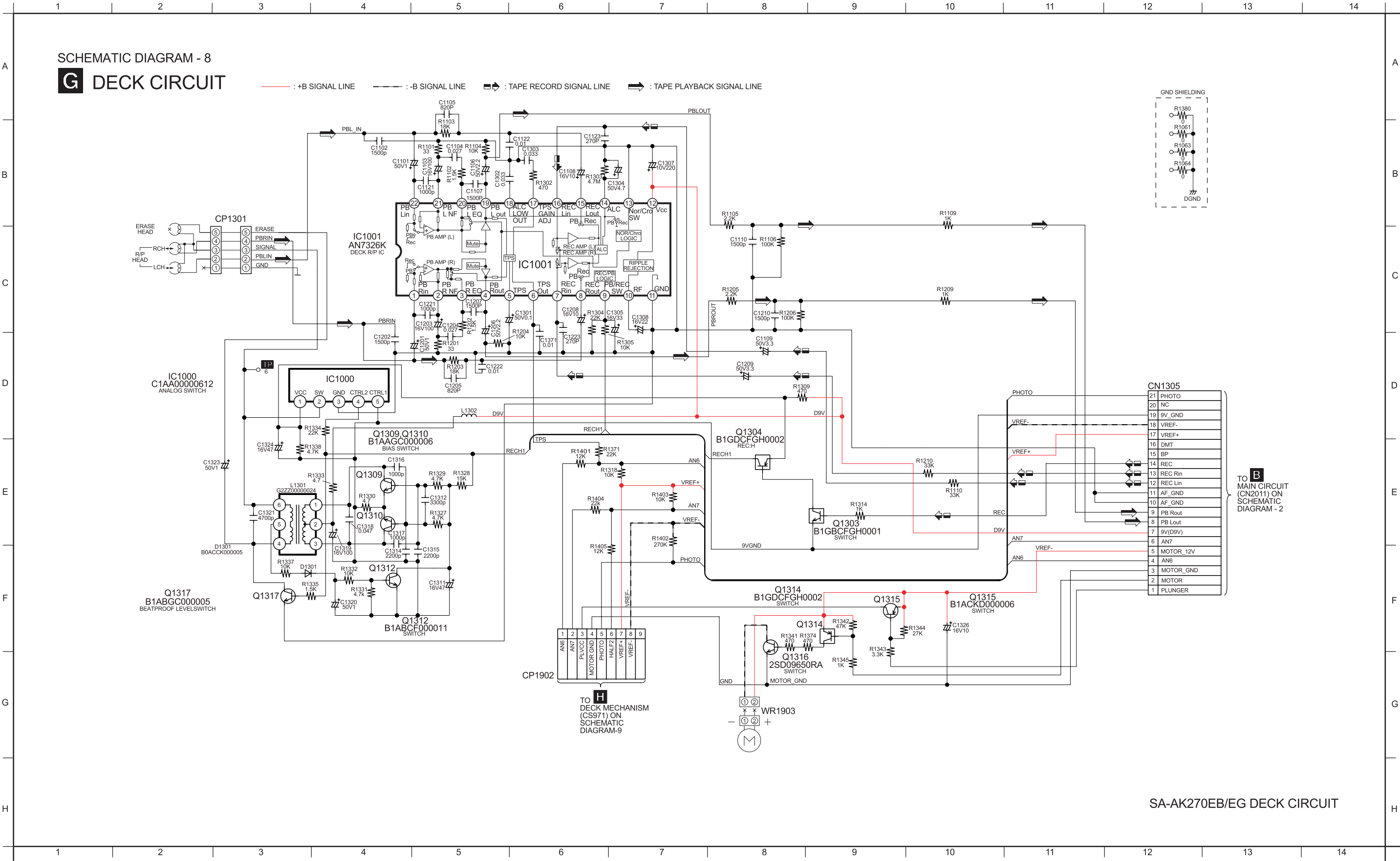


## E MUSIC PORT CIRCUIT

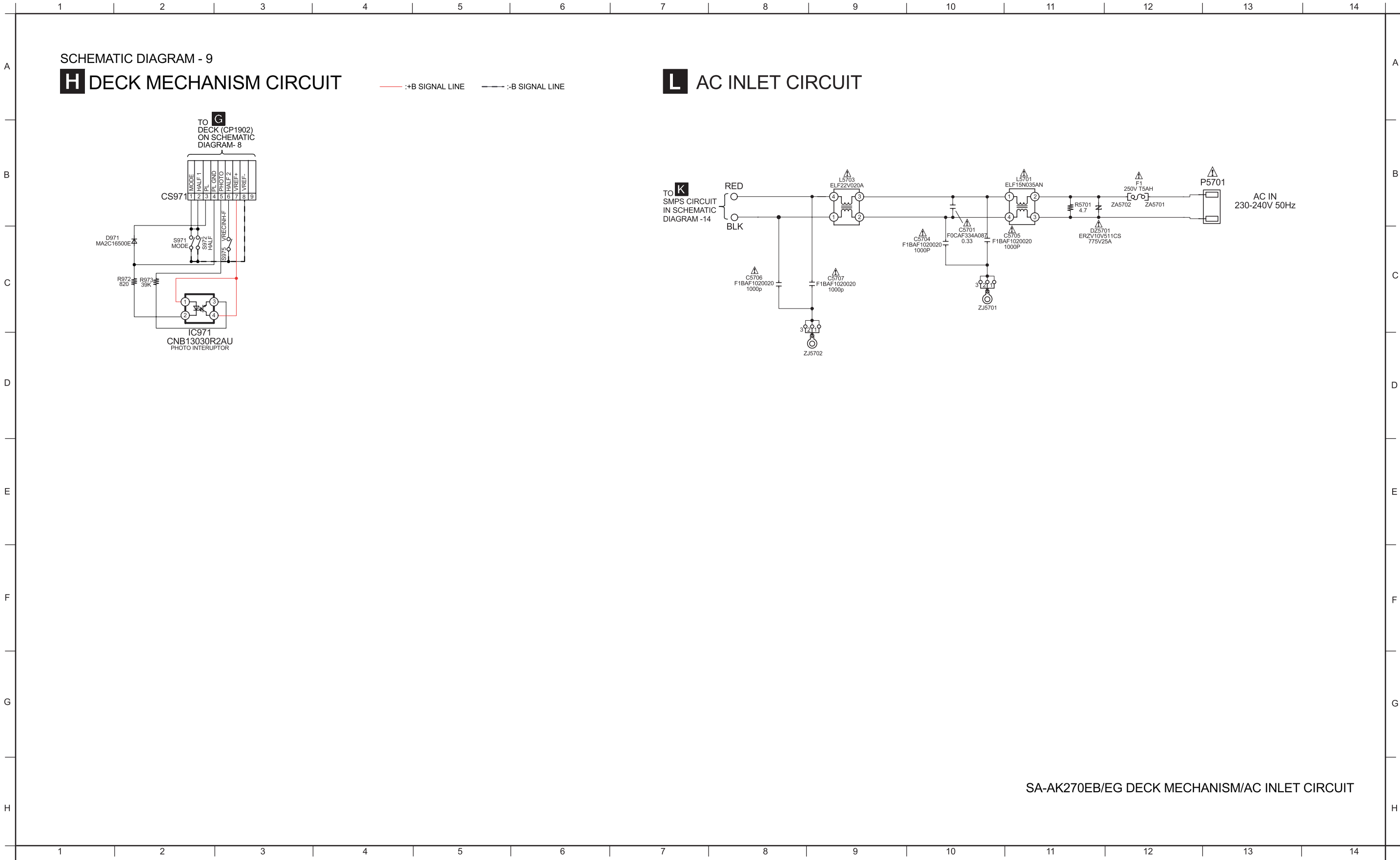


SA-AK270EB/EG TACT SWITCH/MUSIC PORT/REMOTE SENSOR CIRCUIT

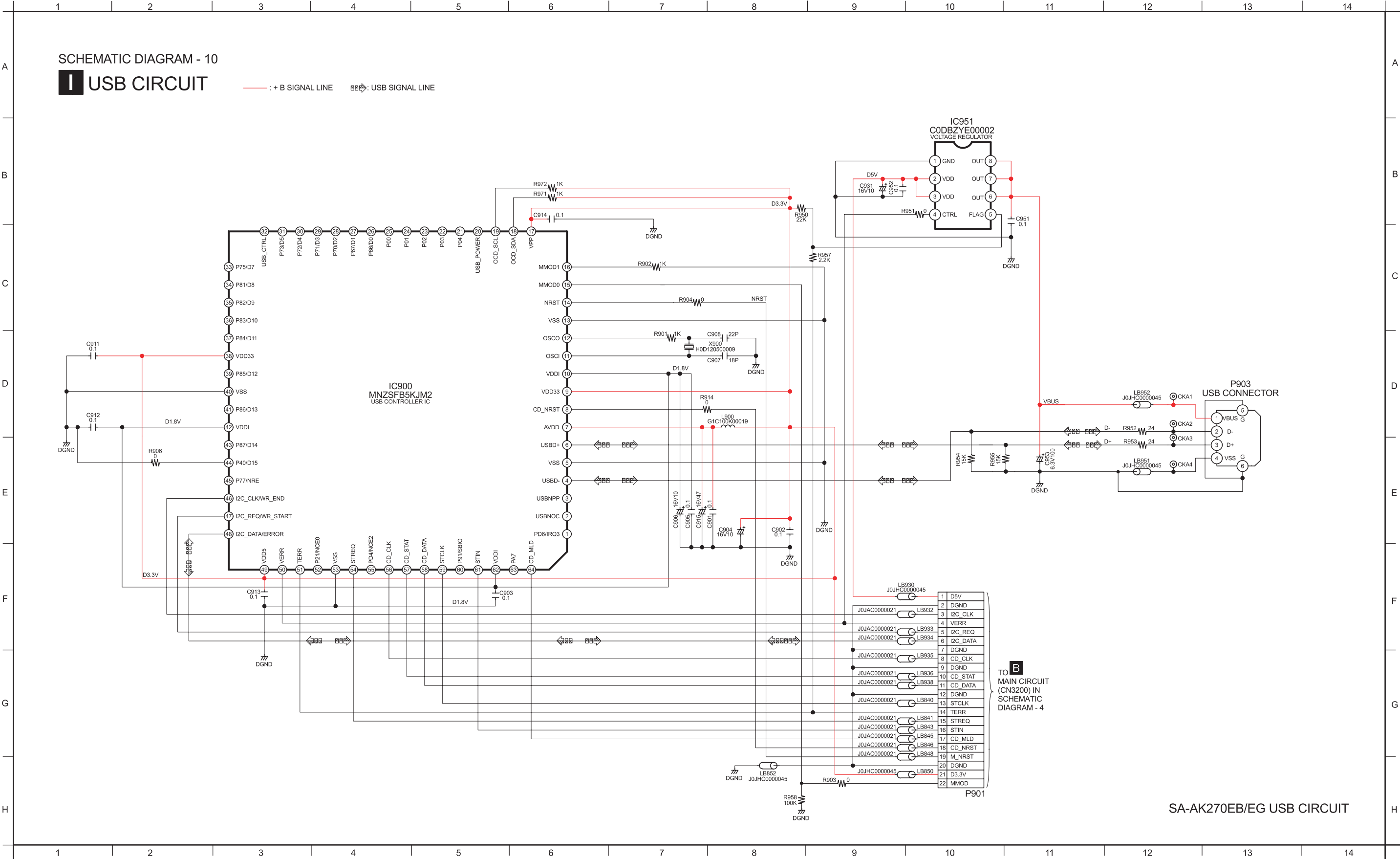
18.5. (G) Deck Circuit



18.6. (H) Deck Mechanism Circuit & (L) AC Inlet Circuit



18.7. (I) USB Circuit

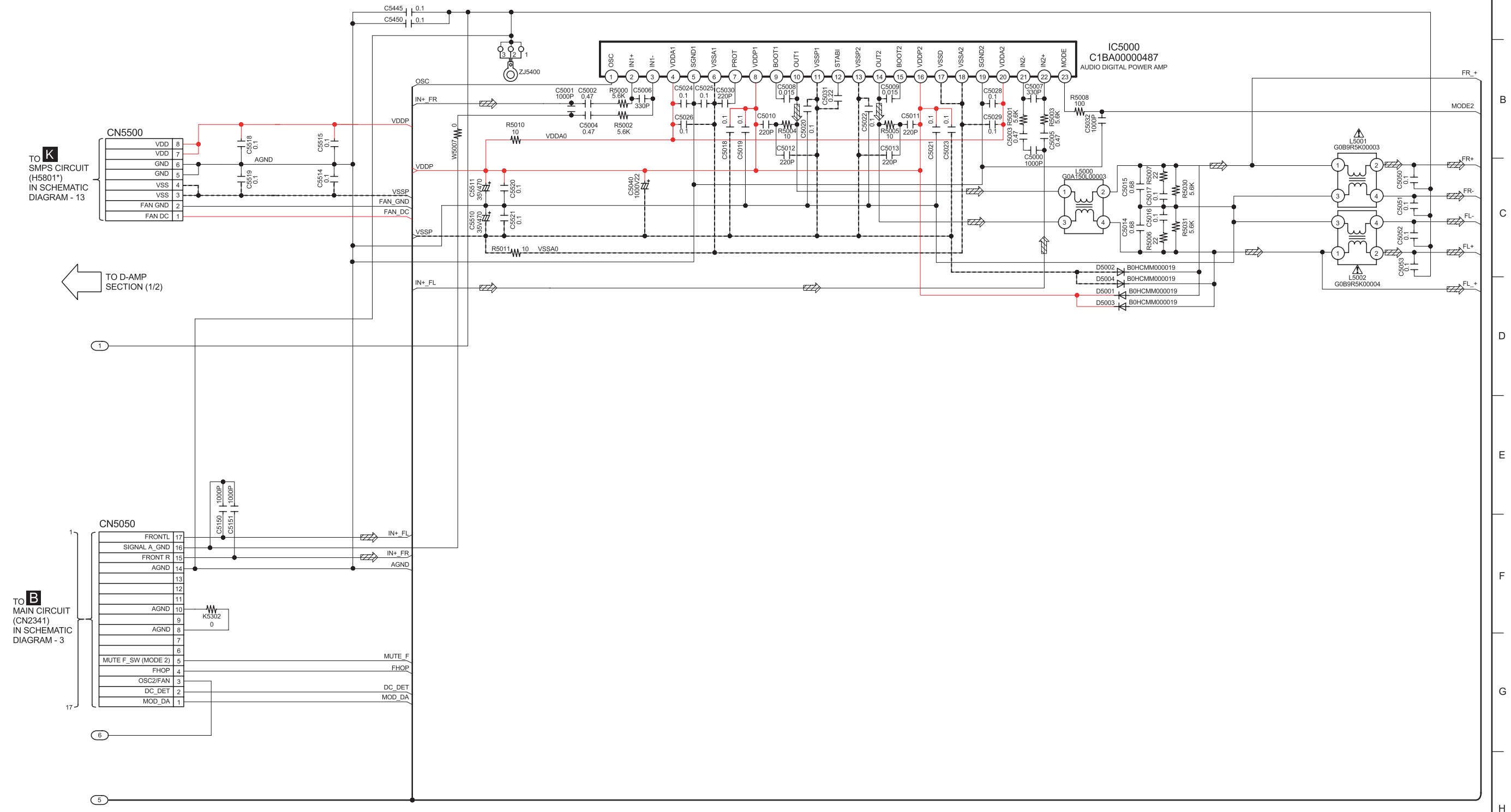




SCHEMATIC DIAGRAM - 12

## J D-AMP CIRCUIT

— : +B SIGNAL LINE      - - - : -B SIGNAL LINE       : MAIN SIGNAL LINE



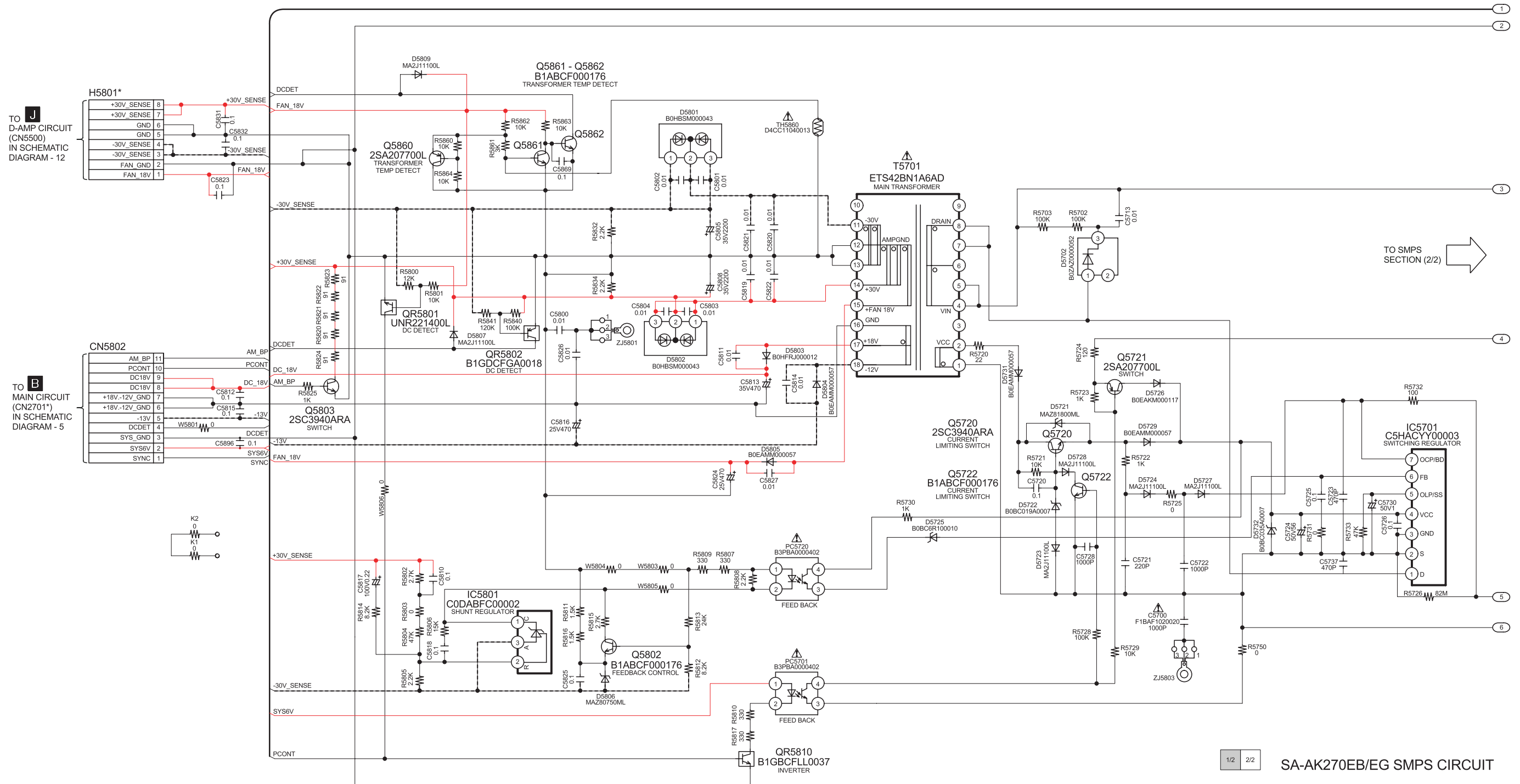


## 18.9. (K) SMPS Circuit

SCHEMATIC DIAGRAM - 13

**K** SMPS CIRCUIT

— : +B SIGNAL LINE    --- : -B SIGNAL LINE



1/2 2/2

SA-AK270EB/EG SMPS CIRCUIT

— : +B SIGNAL LINE

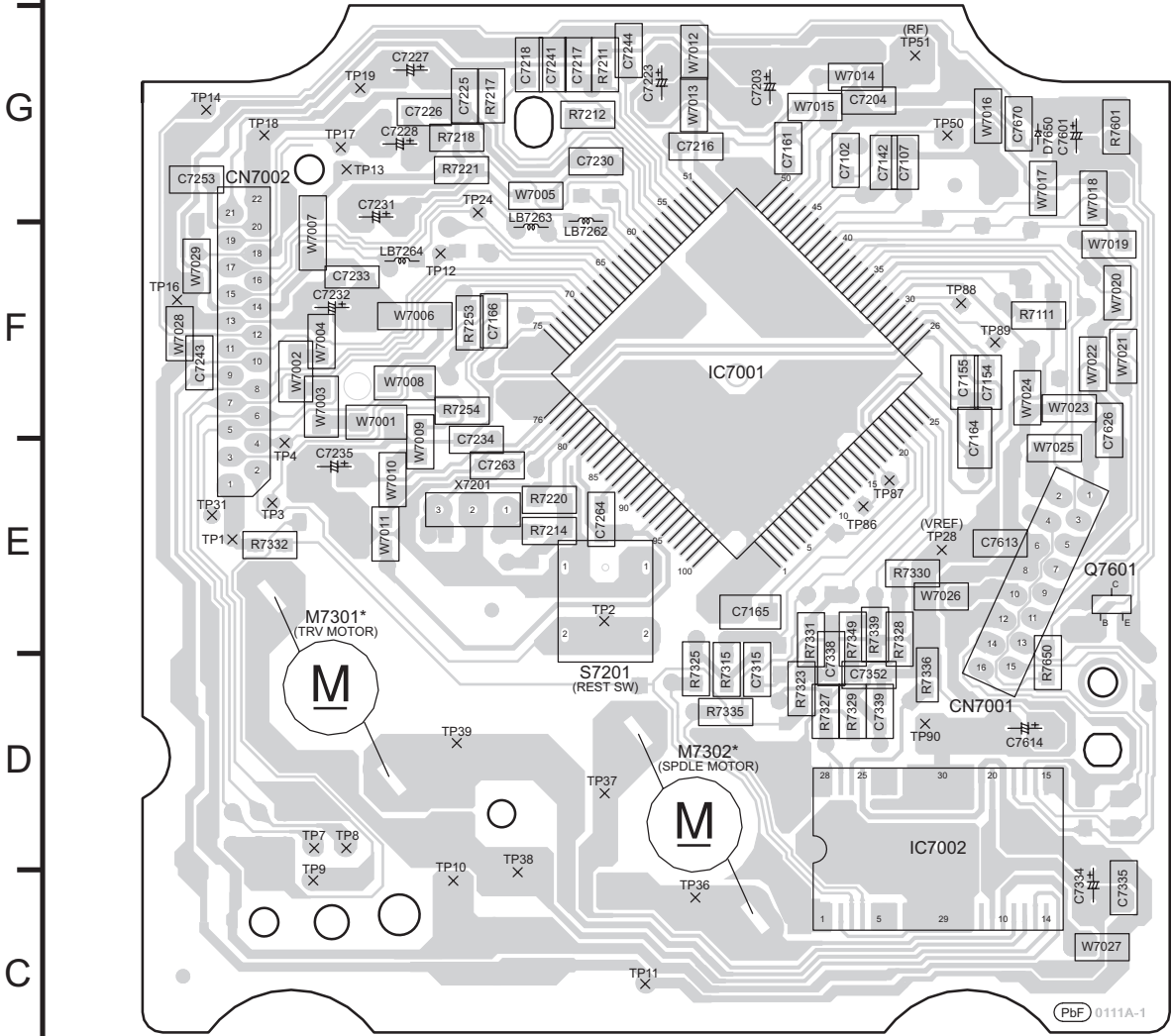


# 19 Printed Circuit Board

Note: Circuit board diagrams may be modified at any time with the development of new technology.

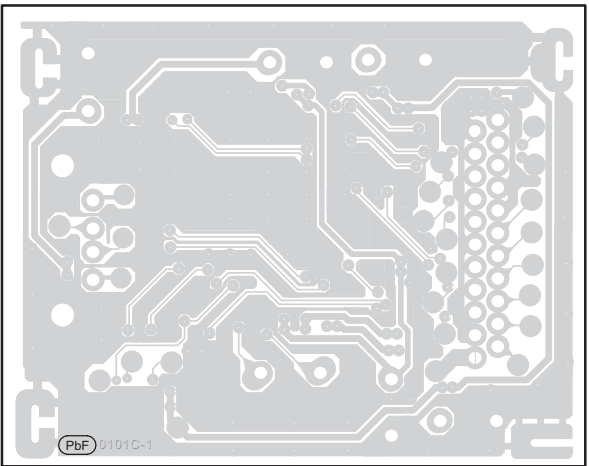
19.1. (A) CD Servo P.C.B. & (I) USB P.C.B.

**A** CD SERVO P.C.B. (REPV0111A)

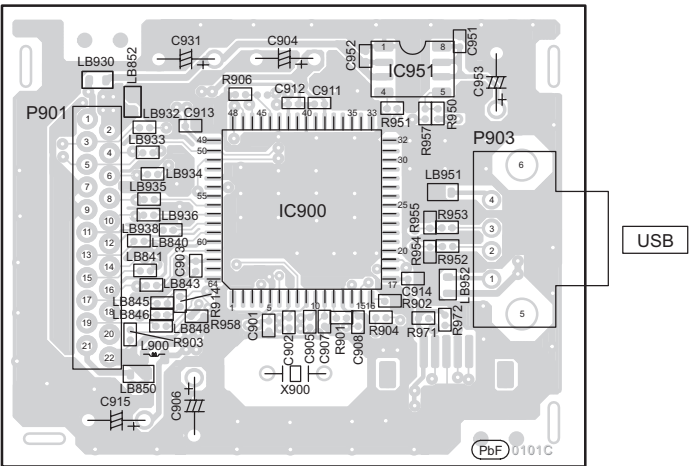


\* FOR INDICATION ONLY

**I** USB P.C.B. (REPV0101C)



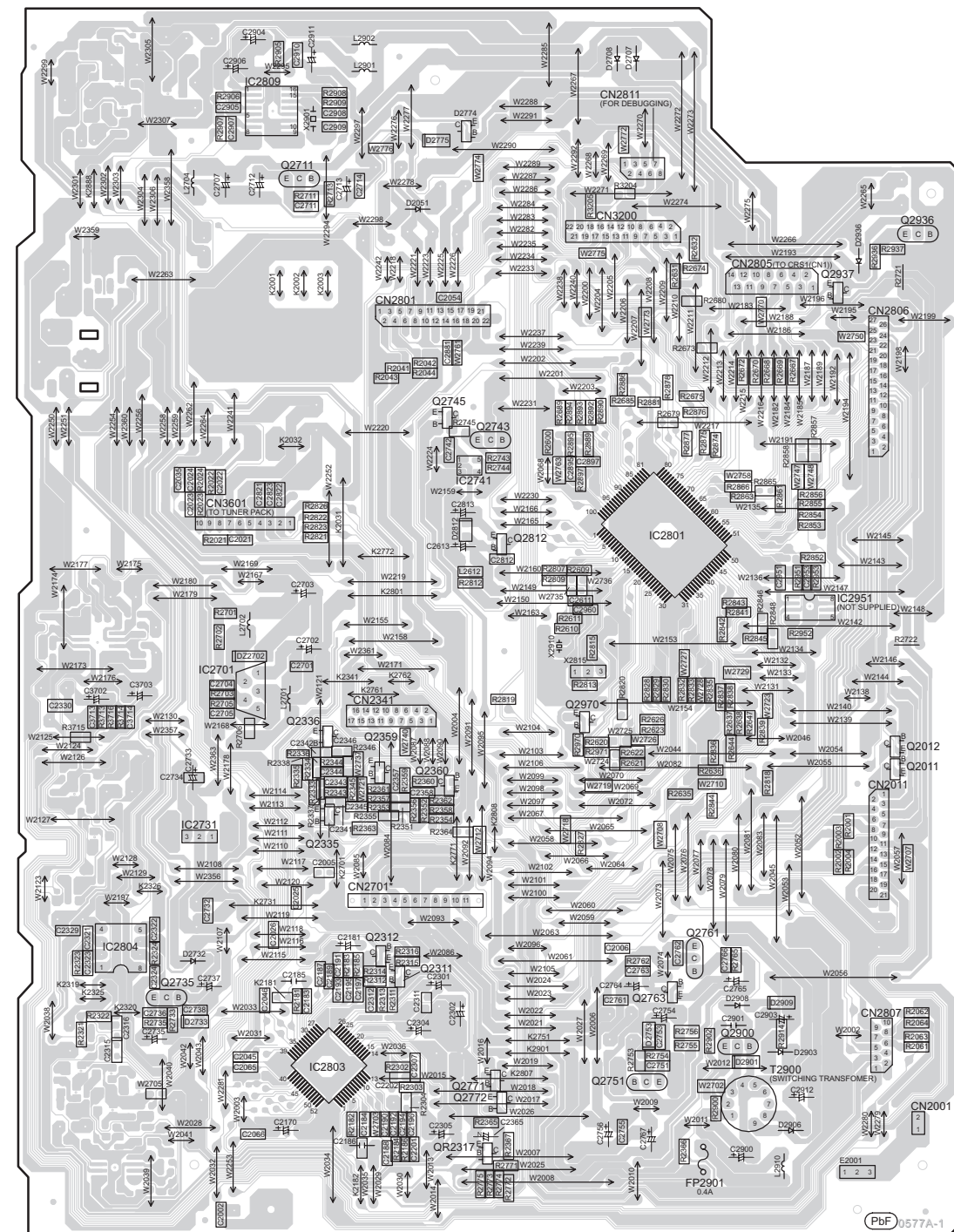
(SIDE A)



(SIDE B)

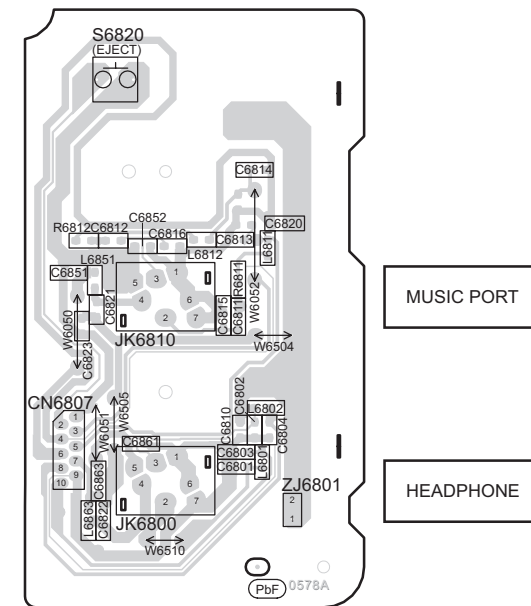
### 19.2. (B) Main P.C.B. & (E) Music Port P.C.B.

**B** MAIN P.C.B. (REPX0648C)



\*FOR INDICATION ONLY

**E** MUSIC PORT P.C.B. (REPX0649D)

SA-AK270EB/EG  
MAIN / MUSIC PORT P.C.B.

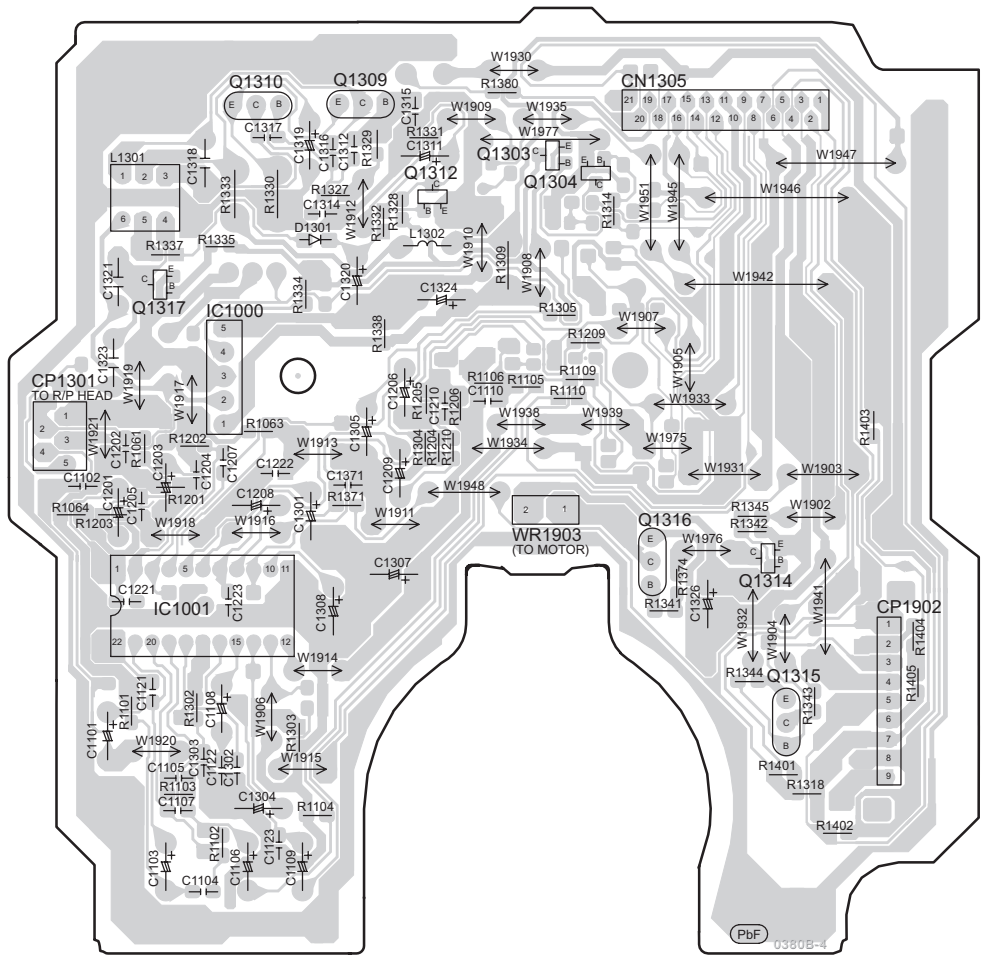




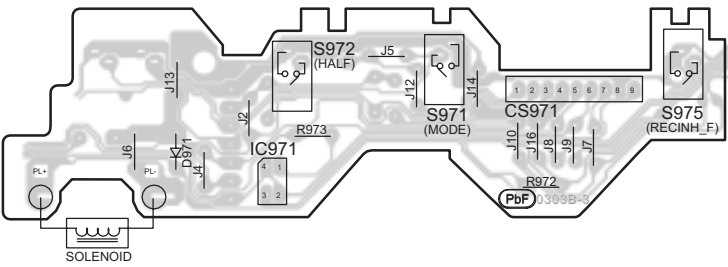
19.4. (G) Deck P.C.B., (H) Deck Mechanism P.C.B. & (L) AC Inlet P.C.B.

H  
G  
F  
E  
D  
C  
B  
A

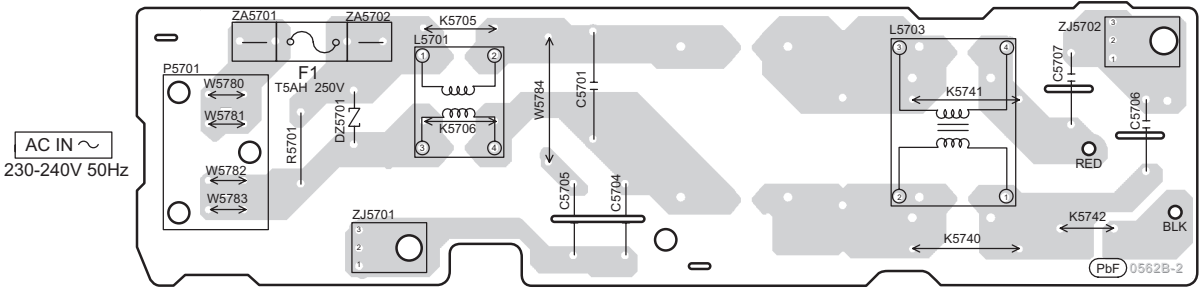
**G** DECK P.C.B. (REPX0647A)



**H** DECK MECHANISM P.C.B. (REPX0321L)



**L** AC INLET P.C.B. (REPX0622J)



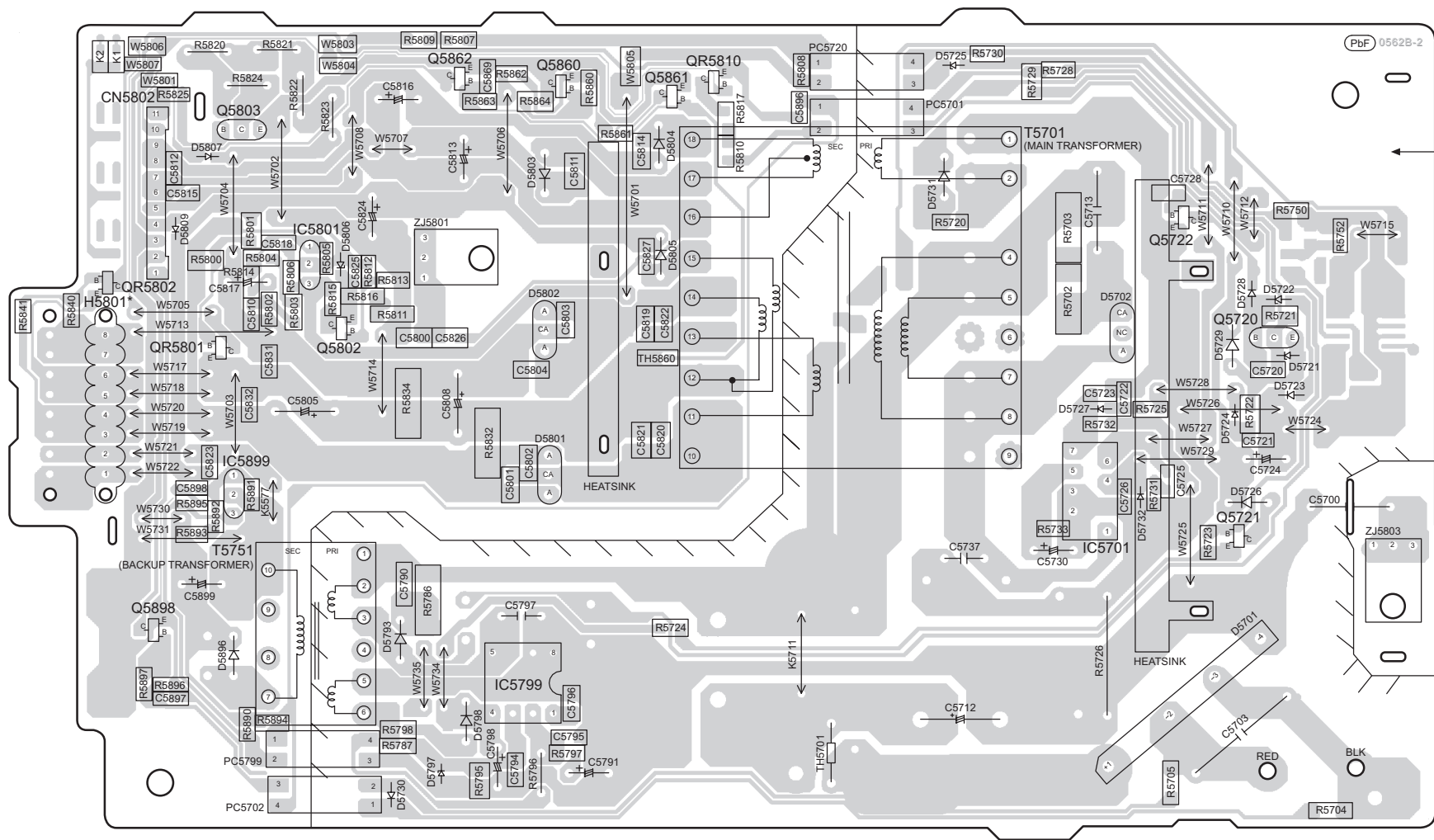
**J** D-AMP P.C.B. (REPX0638G)





## 19.6. (K) SMPS P.C.B.

**K** SMPS P.C.B. (REPX0622J)



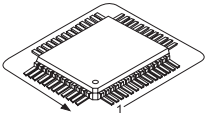
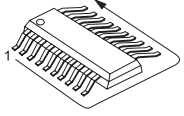
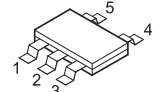
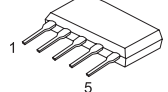
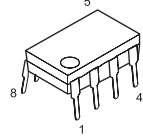
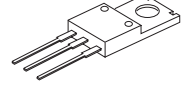
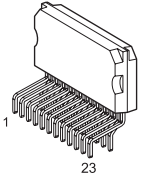
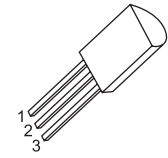
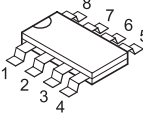
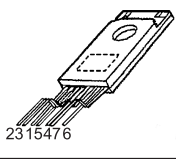
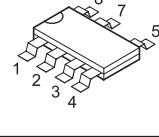
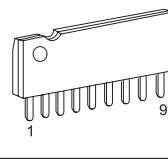
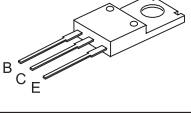
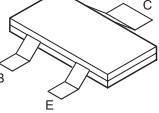
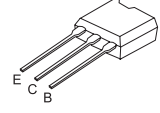
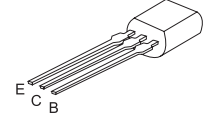
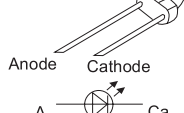
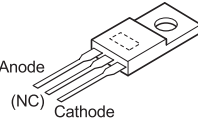
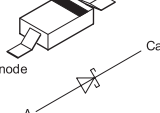
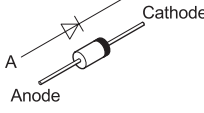
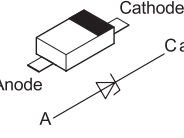
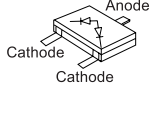
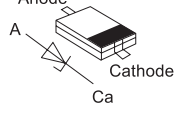
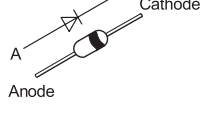
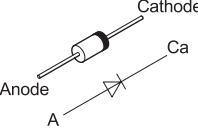
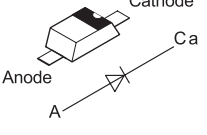
CAUTION  
RISK OF ELECTRIC SHOCK  
AC VOLTAGE LINE.  
PLEASE DO NOT TOUCH THIS P.C.B

\* FOR INDICATION ONLY

SA-AK270EB/EG  
SMPS P.C.B.



# 20 Illustration of ICs, Transistors and Diodes

MN6627954MA (100P) C0HBB0000057 (44P) MNZSFB5KJM2 (64P) C1AB00002885 (52P) RFKWAK270PL (100P)		C0JBAB000902 (14P) C0JBAF000716 (14P) C1BB00001137 (16P)		C0DBZGC00067 (5P)		C1AA00000612 (5P)		C0AABB000125 (8P)	
AN7326K (22P)	BA5948FPE2	C0CAAKG00046		C1BA00000487 (23P)		C0DABFC00002 (3P) C0DAEMZ00001 (3P)		C0DBZYE00002	
C0DAAYY00042 (5P)	CNB13030R2AU	C5HACYY00003 (7P)		MIP4110MSSCF		C0GAG0000007		B1BACG000023 B1BCCG000002	
2SC3940A0A B1AAJC000019	B1ABGC000005 B1GBCFJJ0051 B1ABCF000176 B1ADCF000001 B1ADCE000012 B1GBCFJN0033 B1GBCFGH0001	B1GBCFLL0037 B1GDCFGA0018 B1ABCF000011 B1GDCFGH0002 2SA207700L UNR221400L		B1BABK000001		2SD09650RA B1ACKD000006			
B1AAGC000006	B1BACD000018	B3AAA0000803 B3AAA0000884		B0ZAZ0000052		B0HCMM000019		B0EAKM000117	
B0HFRJ000012	MAZ80560ML MAZ80510ML MAZ80750ML MAZ80820HL MAZ810000L MAZ81800ML MAZ82400HL		B0ADCJ000020		B0JCPD000025		MA2C16500E		
B0ACCK000005	B0FBAR000041	B0JAME000114 B0EAMM000057 B0HAMP000094		B0BC019A0007 B0BC035A0007 B0BC2R4A0006 B0BC6R100010					
B0HBSM000043	MA2J11100L MA2J72800L								

## 21 Terminal Function of Integrated Circuits

### 21.1. IC2801 (RFKWAK270PL) System Microprocessor

Pin No.	Mark	I/O	Function
1	Lvl Meter	O	Level Meter
2	NC	-	NC
3	NC	-	NC
4	RDS_Dat	I	RDS Data Input
5	RDS_CLK	I	RDS CLK Input
6	NC	-	NC
7	F_HOP	O	F_Hop for Digital Amp
8	BYTE	-	External Data Bus Width Select Input (Connect to Ground)
9	EFP_CNVSS	-	Flash Mode Terminal
10	Xcin	-	32.768 kHz Sub Clock
11	Xcout	-	32.768 kHz Sub Clock
12	EFP_RESET	-	/RESET Input (Active L)
13	Xout	-	10 MHz Main Clock
14	Vss	-	Ground (0V)
15	Xin	-	10 MHz Main Clock
16	VCC	-	Power Supply (+3.3V)
17	/NMI	-	Connected to vcc (+3.3V)
18	RMT	I	Remote Control Input
19	BLKCK	I	CD Block Clock Input
20	SYNC	I	AC Failure Detect Input
21	Tuner OUT/ST	O	Serial Output Data
22	Tuner IN	I	Serial Input Data
23	PLL_CLK	I/O	Tuner PLL CLK
24	SW_LVL1	-	NC
25	SW_LVL2	-	NC
26	PLL_SD	I	Tuner CE
27	MUTE_F	O	DAMP MUTE_F
28	MUTE_S	O	DAMP MUTE_S
29	USB_SCL	I/O	USB I2C clock line
30	USB_SDA	I/O	USB I21C data line
31	IPOD_TXD	-	NC
32	IPOD_RXD	-	NC
33	USB_RST (CLK)	O	USB reset pin. (Flash Clock for on board writer)
34	BUSY	I	Flash Busy for On board writer
35	ASP_DAT	I/O	ASP DATA
36	ASP_CLK	I/O	ASP_CLK
37	HP_SW	I	Headphone SW
38	PA_SW	I	Music Port SW
39	MUTE_DA	O	For Digital Amp Mute
40	MUTE_A	O	Audio Mute
41	EE_CS/EFP/EPM	O	EEPROM chip select (Flash EPM for On board writer)
42	EE_CLK	O	EEPROM clock
43	EE_DAT	I/O	EEPROM data
44	DCDET	I	DC detect input
45	SMPS_BP	O	SMPS Beat Proof
46	SMPS_PCONT	O	Main transformer control output
47	DC DET 1	I	DC detect input 1
48	Deck Photo	I	Deck Photo
49	Deck Motor	I/O	Deck Motor, L=OFF
50	Deck Plunger	O	Deck Plunger
51	DMT	O	Deck Mute L= Mute Off, H= Mute On
52	DECK REC	I/O	H when record circuit is operating
53	VOL_LED	O	Volume LED
54	FL_CLK	O	Serial Clock to FL driver
55	FL_DOUT	O	Serial Data to FL driver
56	FL_CS	O	FL driver CS
57	BASS_JOG1	I	Bass Jog 1

Pin No.	Mark	I/O	Function
58	BASS_JOG2	I	Bass Jog 2
59	VERR	I/O	verify error for USB version up using CD
60	MMOD0	I/O	Micon mode switching for USB version up
61	TERR	I/O	Time Out Error for USB
62	VCC	-	Power Supply (+3.3V)
63	DBASS LED	-	NC
64	VSS	-	Ground (0V)
65	CCW	O	CRS1 CCW
66	CW	O	CRS1 CW
67	ST SW	I	CRS1 ST SW
68	OPEN SW	I	CRS1 Open SW
69	CLOSE SW	I	CRS1 Close SW
70	PLAY SW	I	CRS1 Play SW
71	PLUNGER	O	CRS1 PLUNGER
72	UD SENSOR	I	CRS1 UD Sensor
73	Bottom SW	I	CRS1 Bottom SW
74	USB_REQ	I	USB request
	WR Start	I/O	Write start flag for USB version up.
75	STATUS	I	CD Servo LSI status input
76	MLD	O	CD Command load output
77	MDATA_Out	O	CD Command data output
78	MCLK	O	CD Command CLK output
79	/Reset_SW	I	CD limit SW Input for the most inner point (activeLow)
80	HOME_SW	I	Home SW for CRS1
81	CD RST	I/O	CD reset Output
82	NC	I	NC
83	NC	-	NC
84	NC	-	NC
85	DECK_EJECT	I	Deck Eject button
86	CS	I	Chip Select pin
87	NC	-	NC
88	NC	-	NC
89	REG	I	Region Setting
90	VOL_JOG	AD	Volume Jog
91	NC	-	NC
92	Key 3	I	Key 3 Input
93	Key 2	I	Key 2 Input
94	Key 1	I	Key 1 Input
95	DECK_AD1	I	Deck AD Input 1
96	AVSS	-	Analog power supply input (Connect to GND)
97	DECK_AD2	I	Deck AD Input 2
98	Vref	-	Reference for AD (3.3V)
99	Avcc	-	Analog power supply input
100	DEMO_SEL	I	(H= default demo ON, L= default demo OFF)

### 21.2. IC6601 (C0HBB0000057) FL DISPLAY

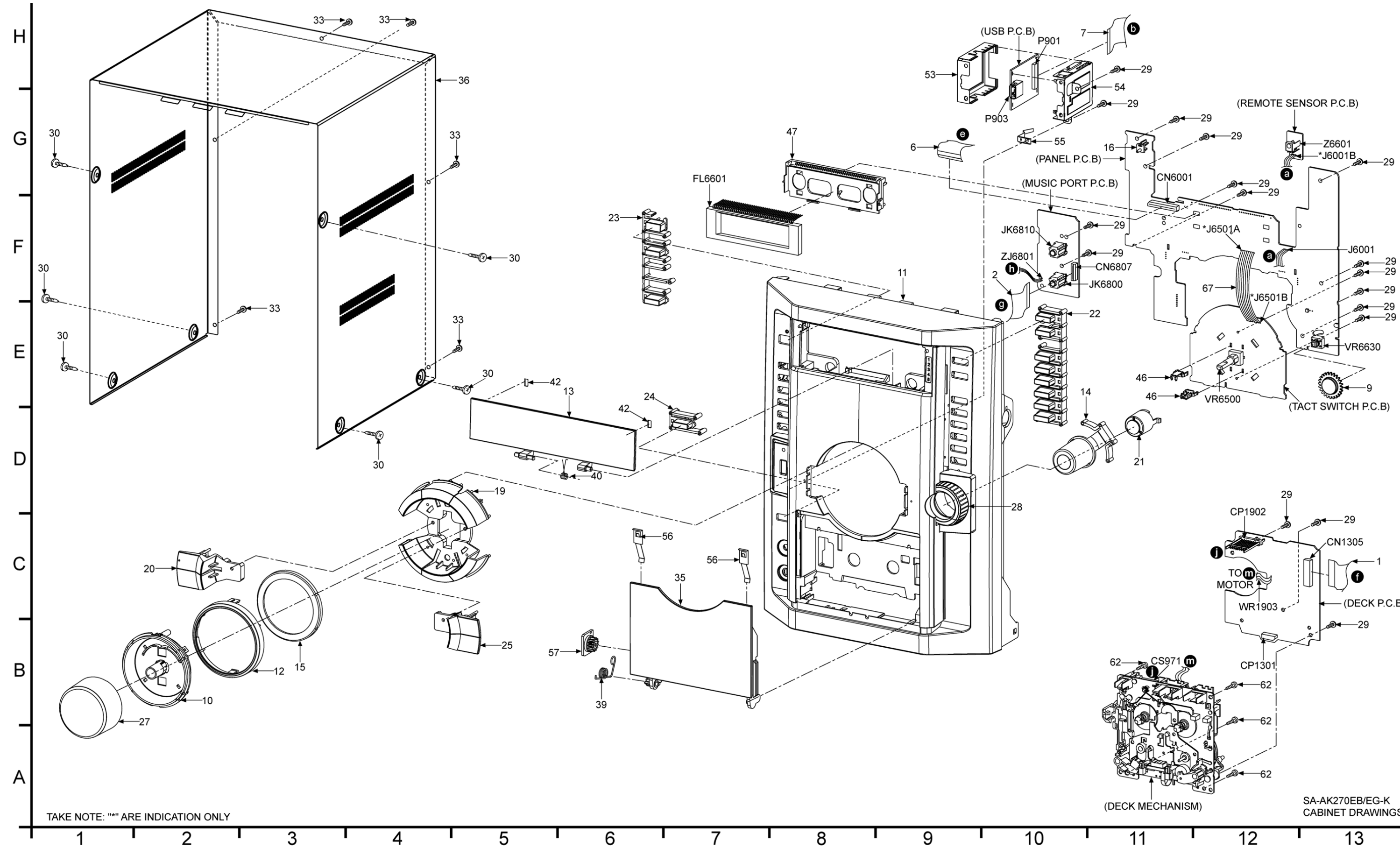
Pin No.	Mark	I/O	Function
1	P0	-	NC
2	P1	-	NC
3	P2	-	NC
4	P3	-	NC
5	OSC	I	Oscillator Input
6	NC	-	NC
7	DIN	I	Data Input
8	CLK	I	Clock Input
9	STB	I	Serial Interface Strobe

Pin No.	Mark	I/O	Function
10	K1	-	Key Data Input 1 (No Connection)
11	K2	-	Key Data Input 1 (No Connection)
12	Vss	-	Supply Voltage, Negative Terminal
13	VCC	-	Power Supply (+5V)
14	S1	O	Segment Output 18
15	S2	O	Segment Output 17
16	S3	O	Segment Output 16
17	S4	O	Segment Output 15
18	S5	O	Segment Output 14
19	S6	O	Segment Output 13
20	S7	O	Segment Output 12
21	S8	O	Segment Output 11
22	S9	O	Segment Output 10
23	S10	O	Segment Output 9
24	S11	O	Segment Output 8
25	S12	O	Segment Output 7
26	S13	O	Segment Output 6
27	S14	O	Segment Output 5
28	S15	O	Segment Output 4
29	S16	O	Segment Output 3
30	VEE	-	Voltage Supply
31	S17	O	Segment Output 2
32	G11	O	Segment Output 1
33	G10	O	Grid Segment Output 1
34	G9	O	Grid Segment Output 2
35	G8	O	Grid Segment Output 3
36	G7	O	Grid Segment Output 4
37	G6	O	Grid Segment Output 5
38	G5	O	Grid Segment Output 6
39	G4	O	Grid Segment Output 7
40	G3	O	Grid Segment Output 8
41	G2	O	Grid Segment Output 9
42	G1	O	Grid Segment Output 10
43	VDD	-	Voltage Supply (+5V)
44	VSS	-	Power Supply



22 Exploded Views

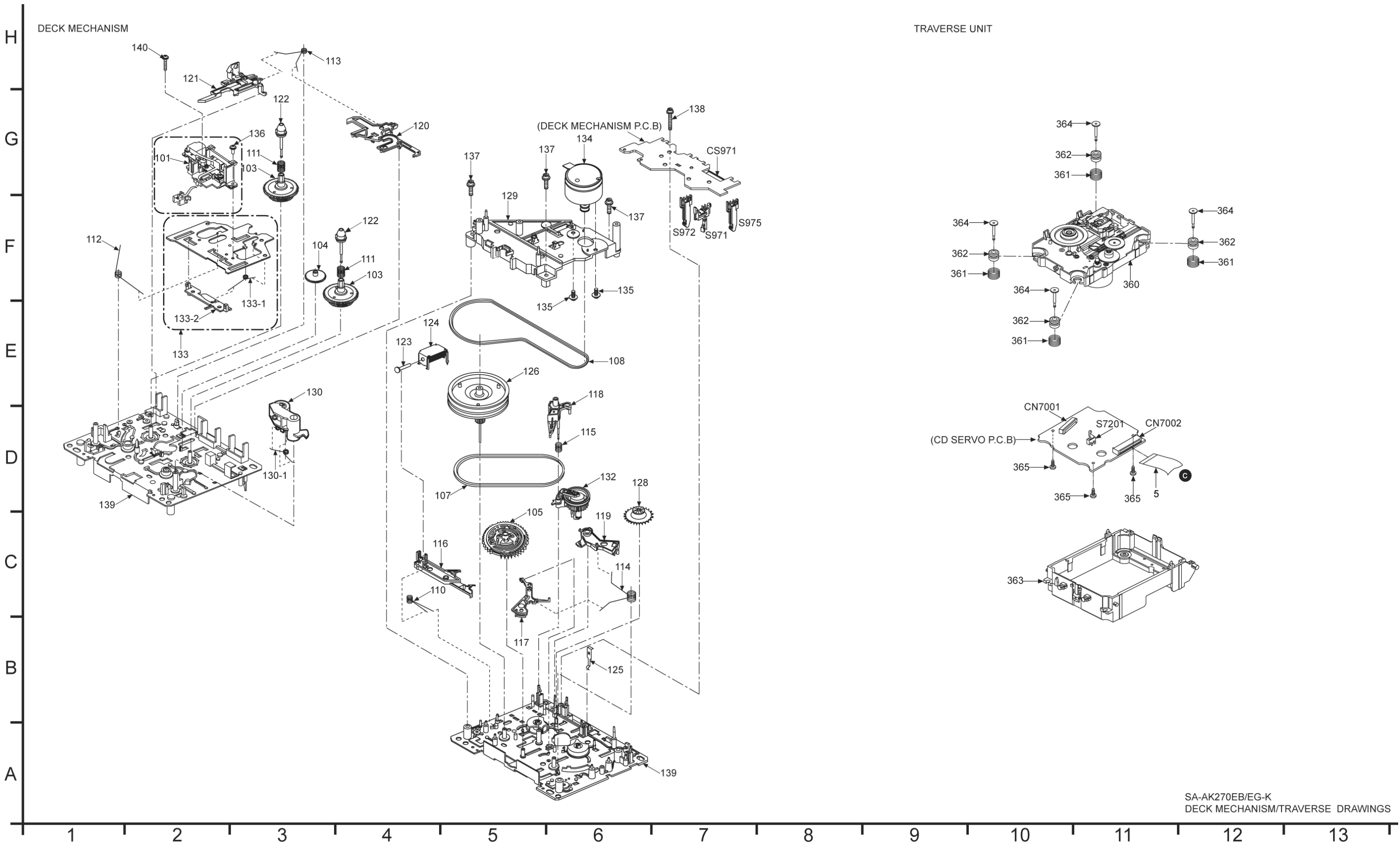
22.1. Cabinet Parts Location



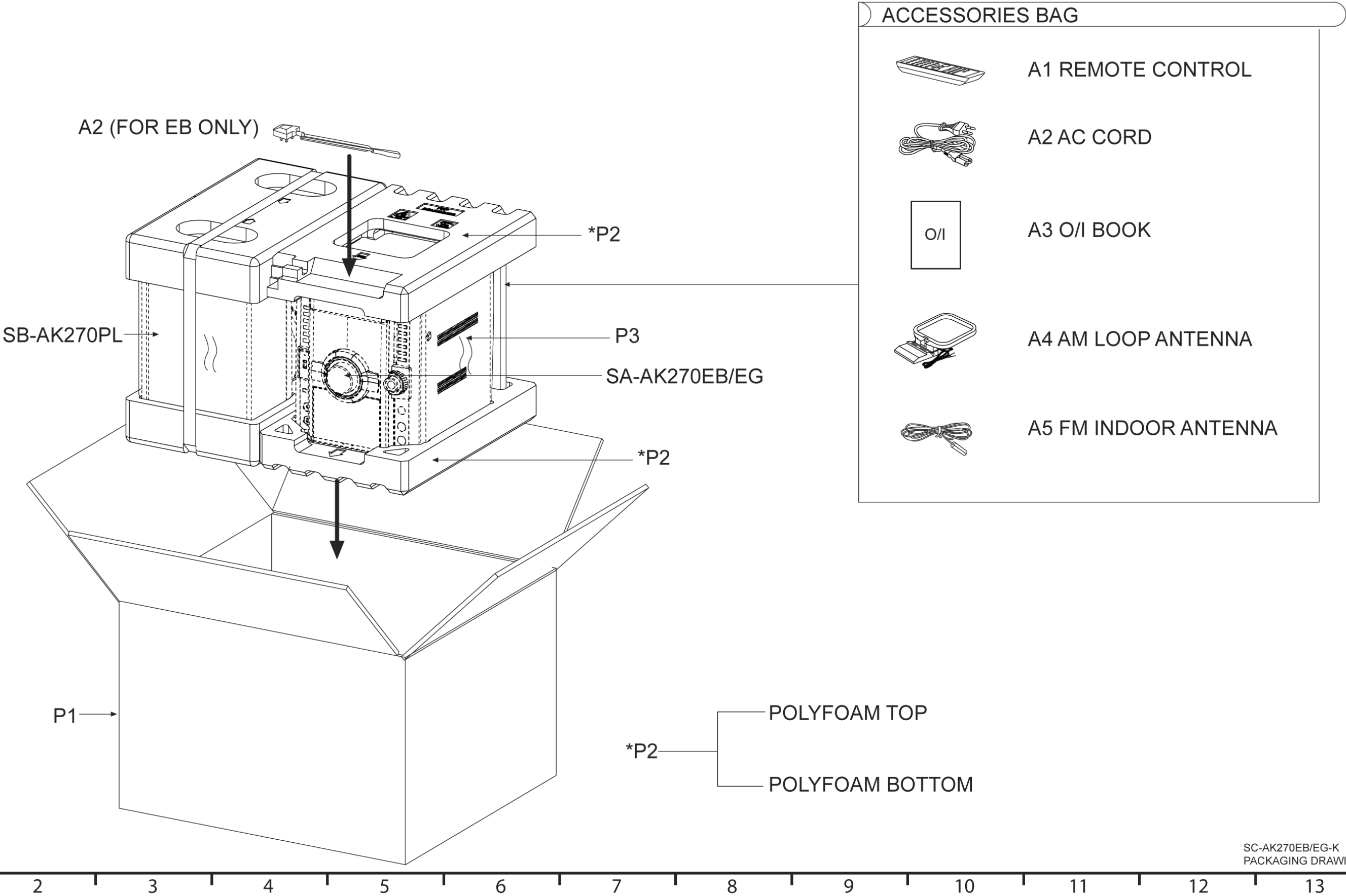




22.2. Deck Mechanism Parts Locations (RAA4407-S)




22.3. Packaging



# 23 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 caution statements on "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	REEV0139	21P FFC CABLE (DECK-MAIN)	[M]
2	REEX0740	10P FFC CABLE	[M]
3	REEX0747	14P FFC CABLE	[M]
4	REEX0881	17P FFC CABLE (MAIN-DAMP)	[M]
5	REEX0882	21P FFC CABLE (DECK-MAIN)	[M]
6	REEX0883	27P FFC CABLE (MAIN-PANEL)	[M]
7	REEX0908	22P CABLE (USB-MAIN)	[M]
8	J3CCBC000016	TUNER PACK	[M]
9	RDGX0040	VOLUME GEAR	[M]
10	RGCX0010-W	LIGHT REFLECTOR	[M]
11	RFKGAAK270EB	FRONT PANEL ASS'Y	[M]
12	RGKX0482-S	VOLUME ORNAMENT	[M]
13	RGKX0483-K	CD LID	[M]
14	RGKX0488-R	DYNAMIC BASS ORNAMENT	[M]
15	RGLX0164-Q	VOLUME LIGHT PIECE	[M]
16	RGLX0167-Q	POWER LIGHT PIECE	[M]
17	RGPX0350-K	REAR COVER	[M]
18	RGRX0070C-A	REAR PANEL	[M] EG
18	RGRX0070C-B	REAR PANEL	[M] EB
19	RGUX0763A-S	RING BUTTON	[M]
20	RGUX0764-S	MAIN FUNCTION BUTTON L	[M]
21	RGUX0765-S	BASS BUTTON	[M]
22	RGUX0766-K	5CD CHANGE BUTTON	[M]
23	RGUX0767-K	POWER CONTROL BUTTON	[M]
24	RGUX0768-K	CASS EJECT BUTTON	[M]
25	RGUX0777-S	MAIN FUNCTION BUTTON R	[M]
27	RGWX0072A-2S	VOLUME KNOB	[M]
28	RGWX0110-S	BASS VOLUME KNOB	[M]
29	RHD26046-L	SCREW	[M]
30	RHD30007-K2J	SCREW	[M]
31	RHD30070	EARTH TERMINAL SCREW	[M]
32	RHD30111-3	SCREW	[M]
33	RHD30119-S	SCREW	[M]
34	RKA0072-KJ	LEG CUSHION	[M]
35	RKFX0143-K	CASSETTE LID	[M]
36	RKMX0144-K	TOP CABINET	[M] 

Ref. No.	Part No.	Part Name & Description	Remarks
38	RMAX0333	CHASSIS SUPPORT	[M]
39	RMBV0042-2	CASSETTE LID SPRING	[M]
40	RMBX0086	CD LID OPEN SPRING	[M]
41	RMCO465	TR SPRING	[M]
42	RMGX0033	CUSHION RUBBER	[M]
43	RMKX0113B-5	CD CHASSIS	[M]
44	RMKX0148	BOTTOM CHASSIS	[M]
45	RMKX0149	INNER CHASSIS	[M]
46	RMNV0059	LED HOLDER	[M]
47	RMNV0079-1	FL HOLDER	[M]
49	RMV0285	HEAT SINK	[M]
50	RXXX0105	HEAT SINK UNIT C	[M]
52	RMZX0041	IC INSULATOR SHEET	[M]
53	RSCV0086-2	USB CASING BTM	[M]
54	RSCV0087B-1	USB CASING TOP	[M]
55	RSCX0184	USB GROUND PLATE	[M]
56	RUS757ZAA	CASSETTE HALF SPRING	[M]
57	RXGX0002	DAMPER GEAR	[M]
58	RXXX0085A-1J	HEAT SINK UNIT A	[M]
59	RXXX0104A	HEAT SINK A	[M]
60	XTB3+10JFJ	SCREW	[M]
62	XTV3+10GFJ-M	SCREW	[M]
63	XTW3+12TFJ	SCREW	[M]
64	XTW3+8TFJ	SCREW	[M]
65	REXX0680	11P WIRE (MAIN-SMPS)	[M]
67	RWJ1108055SS	8P WIRE (PANEL - TACT SW)	[M]
68	REXX0684	PRIMARY WIRE 1 (BLACK)	[M] 
69	REXX0685	PRIMARY WIRE 2 (RED)	[M] 
72	REXX0683	8P WIRE (SMPS-DAMP)	[M]
		CASSETTE DECK	
101	REDX0001	R/P HEAD BLOCK SUB ASSY	[M]
103	RDG0300	REEL BASE GEAR	[M]
104	RDG0301	WINDING RELAY GEAR	[M]
105	RDK0026-4	MAIN GEAR	[M]
107	RDV0033-4	WINDING BELT	[M]
108	RDV0064-1	CAPSTAN BELT	[M]
110	RMB0312	TRIGGER LEVER SPRING	[M]
111	RMB0400	REEL SPRING	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
112	RMB0403	HEAD PANEL SPRING	[M]
113	RMB0404	BRAKE ROD SPRING	[M]
114	RMB0406-5	FR LEVER SPRING	[M]
115	RMB0408	THRUST SPRING	[M]
116	RML0370-4	TRIGGER LEVER	[M]
117	RML0371	FR LEVER	[M]
118	RML0372-2	WINDING LEVER	[M]
119	RML0374-2	EJECT LEVER	[M]
120	RMM0131-1	BRAKE ROD	[M]
121	RMM0133-1	EJECT ROD	[M]
122	RMQ0519	REEL HUB	[M]
123	RMS0398-1	MOVING CORE	[M]
124	RXQ0470-2	PLUNGER ASSY	[M]
125	RMC0061	PACK SPRING	[M]
126	RXF0061-1	FLYWHEEL F ASSY	[M]
128	RXG0040	FF RELAY GEAR ASSY	[M]
129	RMK0283A-2	SUB-CHASSIS	[M]
130	RXL0124	PINCH ROLLER F ASSY	[M]
130-1	RMB0401	PINCH ARM SPRING 'F'	[M]
132	RXL0126	WINDING ARM ASSY	[M]
133	RXQ0412-3	HEAD PANEL ASSY	[M]
133-1	RMB0405-1	FR ROD SPRING	[M]
133-2	RMM0132-1	FR ROD	[M]
134	REM0120	CAP MOTOR ASS'Y	[M]
135	RHD26022-1	MOTOR SCREW	[M]
136	XTW2+5LFJ	HEAD BLOCK UNIT SCREW	[M]
137	XTW26+10SFJ	SUB-CHASSIS SCREW	[M]
138	XYC2+JF17FJ	PCB EARTH SCREW	[M]
139	RFKJSTR280PP	MECHA CHASSIS ASS'Y	[M]
140	XTW2+10LFJ	SCREW	[M]
		TRAVERSE UNIT	
360	RAE0165A-V	TRAVERSE ASSEMBLY	[M] △
361	RME0109-1	FLOATING SPRING	[M]
362	RMG0703-R	FLOATING RUBBER	[M]
363	RMRX0064-1	MIDDLE CHASSIS	[M]
364	RMS0757-1	FIXED PIN	[M]
365	XTN2+6GFJ	SCREW	[M]
		PRINTED CIRCUIT BOARDS	
PCB1	REPX0622J	SMPS P.C.B.	[M] (RTL) △
PCB2	REPX0638G	D-AMP P.C.B.	[M] (RTL)
PCB3	REPX0647A	DECK P.C.B.	[M] (RTL)
PCB4	REPX0648C	MAIN P.C.B.	[M] (RTL)
PCB5	REPX0649D	PANEL P.C.B.	[M] (RTL)
PCB6	REP0111A	CD SERVO P.C.B.	[M] (RTL)
PCB8	REP0101C	USB P.C.B.	[M] (RTL)
PCB9	REPX0321L	DECK MECHANISM P.C.B.	[M] (RTL)
		PACKING MATERIALS	
P1	RPGX1906	PACKING CASE	[M] EG
P1	RPGX1907	PACKING CASE	[M] EB
P2	RPNX0548	POLYFOAM	[M]
P3	RPF0007-2	MIRAMAT BAG	[M]
		ACCESSORIES	
A1	N2QAYB000243	REMOTE CONTROL	[M]
A1-1	RKK-HTR0283	R/C BATTERY COVER	[M]
A2	K2CQ2CA00006	AC CORD	[M] EG △
A2	K2CT3CA00004	AC CORD	[M] EB △
A3	RQTV0276-E	O/I BOOK (Sp)	[M] EG

Ref. No.	Part No.	Part Name & Description	Remarks
A3	RQTV0277-D	O/I BOOK (Ge/Fr/It)	[M] EG
A3	RQTV0278-H	O/I BOOK (Da/Sw/Du)	[M] EG
A3	RQTV0279-B	O/I BOOK (En)	[M]
A4	N1DY000003	AM LOOP ANTENNA	[M]
A5	RSA0007-L1	FM INDOOR ANTENNA	[M]
		INTEGRATED CIRCUITS	
IC900	MNZSFB5KJM2	IC USB CONTROLLER	[M]
IC951	C0DBZYB00002	IC VOLTAGE REGULATOR	[M]
IC971	CNB13030R2AU	IC PHOTO INTERRUPTOR	[M]
IC1000	C1AA00000612	IC ANALOG SWITCH	[M]
IC1001	AN7326K	IC DECK R/P	[M]
IC2701	C0DAAYY00042	IC DC-DC CONVERTER	[M]
IC2731	C0CAAKG00046	IC DC-DC CONVERTER	[M]
IC2741	C0DBZGC00067	IC +3.3V VOLTAGE REGULATOR	[M]
IC2801	RFKWK270PL	IC MICRO-PROCESSOR	[M]
IC2803	C1AB00002885	IC AUDIO SOUND PROCESSOR	[M]
IC2804	C0AABB000125	IC OP-AMP	[M]
IC2809	C1BB00001137	IC RDS	[M]
IC5000	C1BA00000487	IC AUDIO DIGITAL AMP	[M]
IC5500	C0JBAB000902	IC INVERTER GATE	[M]
IC5501	C0JBAF000716	IC D-TYPE FLIP FLOP	[M]
IC5701	C5HACY000003	IC SHUNT REGULATOR	[M]
IC5799	MIP4110MSSCF	IC SWITCHING REGULATOR	[M]
IC5801	C0DABFC00002	IC SHUNT REGULATOR	[M]
IC5899	C0DAEMZ00001	IC SHUNT REGULATOR	[M]
IC6601	C0HBB0000057	IC FL DRIVER	[M]
IC7001	MN6627954MA	IC SERVO PROCESSOR	[M]
IC7002	BA5948FPE2	IC 4 CH DRIVER	[M]
		TRANSISTORS	
Q1303	B1GBCFGH0001	TRANSISTOR	[M]
Q1304	B1GDCFGH0002	TRANSISTOR	[M]
Q1309	B1AAGC000006	TRANSISTOR	[M]
Q1310	B1AAGC000006	TRANSISTOR	[M]
Q1312	B1ABCF000011	TRANSISTOR	[M]
Q1314	B1GDCFGH0002	TRANSISTOR	[M]
Q1315	B1ACKD000006	TRANSISTOR	[M]
Q1316	2SD09650RA	TRANSISTOR	[M]
Q1317	B1ABGC000005	TRANSISTOR	[M]
Q2011	B1GBCFJJ0051	TRANSISTOR	[M]
Q2012	B1GBCFJJ0051	TRANSISTOR	[M]
Q2311	B1ABGC000005	TRANSISTOR	[M]
Q2312	B1ABGC000005	TRANSISTOR	[M]
Q2335	B1ABGC000005	TRANSISTOR	[M]
Q2336	B1ABGC000005	TRANSISTOR	[M]
Q2359	B1ABGC000005	TRANSISTOR	[M]
Q2360	B1ABGC000005	TRANSISTOR	[M]
Q2711	B1AAJC000019	TRANSISTOR	[M]
Q2735	B1BACD000018	TRANSISTOR	[M]
Q2743	B1ACKD000006	TRANSISTOR	[M]
Q2745	B1GBCFLL0037	TRANSISTOR	[M]
Q2751	B1BACG000023	TRANSISTOR	[M]
Q2761	B1BCCG000002	TRANSISTOR	[M]
Q2763	B1ADCE000012	TRANSISTOR	[M]
Q2771	B1GBCFJJ0051	TRANSISTOR	[M]
Q2772	B1GBCFJJ0051	TRANSISTOR	[M]
Q2812	B1GBCFLL0037	TRANSISTOR	[M]
Q2900	B1BARK000001	TRANSISTOR	[M]
Q2936	B1ACKD000006	TRANSISTOR	[M]
Q2937	B1GBCFJJ0051	TRANSISTOR	[M]
Q2970	B1ADCE000012	TRANSISTOR	[M]
Q5101	B1ABCF000176	TRANSISTOR	[M]
Q5102	B1ABCF000176	TRANSISTOR	[M]
Q5601	B1ABCF000176	TRANSISTOR	[M]
Q5603	B1ADCE000012	TRANSISTOR	[M]
Q5604	B1ABCF000176	TRANSISTOR	[M]
Q5720	2SC3940ARA	TRANSISTOR	[M]
Q5721	2SA207700L	TRANSISTOR	[M]
Q5722	B1ABCF000176	TRANSISTOR	[M]
Q5802	B1ABCF000176	TRANSISTOR	[M]
Q5803	2SC3940ARA	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q5860	2SA207700L	TRANSISTOR	[M]
Q5861	B1ABCF000176	TRANSISTOR	[M]
Q5862	B1ABCF000176	TRANSISTOR	[M]
Q5898	B1ABCF000176	TRANSISTOR	[M]
Q6511	B1GBCFJN0033	TRANSISTOR	[M]
Q7601	B1ADCF000001	TRANSISTOR	[M]
QR2317	B1GDCFGA0018	TRANSISTOR	[M]
QR5801	UNR221400L	TRANSISTOR	[M]
QR5802	B1GDCFGA0018	TRANSISTOR	[M]
QR5810	B1GBCFLL0037	TRANSISTOR	[M]
		DIODES	
D971	MA2C16500E	DIODE	[M]
D1301	B0ACCK000005	DIODE	[M]
D2051	B0JAME000114	DIODE	[M]
D2707	B0EAKM000117	DIODE	[M]
D2708	B0EAKM000117	DIODE	[M]
D2732	B0EAKM000117	DIODE	[M]
D2733	MAZ80820HL	DIODE	[M]
D2753	MAZ810000L	DIODE	[M]
D2774	B0ADCF000020	DIODE	[M]
D2775	B0ACCK000005	DIODE	[M]
D2812	B0ACCK000005	DIODE	[M]
D2901	B0BC035A0007	DIODE	[M]
D2903	B0EAMM000057	DIODE	[M]
D2906	B0JAME000114	DIODE	[M]
D2908	B0EAMM000057	DIODE	[M]
D2909	MAZ82400HL	DIODE	[M]
D2936	B0EAKM000117	DIODE	[M]
D5001	B0HCMM000019	DIODE	[M]
D5002	B0HCMM000019	DIODE	[M]
D5003	B0HCMM000019	DIODE	[M]
D5004	B0HCMM000019	DIODE	[M]
D5501	MA2J11100L	DIODE	[M]
D5502	MA2J11100L	DIODE	[M]
D5503	MAZ80510ML	DIODE	[M]
D5701	B0FBAR000041	DIODE	[M]
D5702	B0ZAZ0000052	DIODE	[M]
D5721	MAZ81800ML	DIODE	[M]
D5722	B0BC019A0007	DIODE	[M]
D5723	MA2J11100L	DIODE	[M]
D5724	MA2J11100L	DIODE	[M]
D5725	B0BC6R100010	DIODE	[M]
D5726	B0EAKM000117	DIODE	[M]
D5727	MA2J11100L	DIODE	[M]
D5728	MA2J11100L	DIODE	[M]
D5729	B0EAMM000057	DIODE	[M]
D5730	MA2J11100L	DIODE	[M]
D5731	B0EAMM000057	DIODE	[M]
D5732	B0BC035A0007	DIODE	[M]
D5793	B0HAMP000094	DIODE	[M]
D5797	MA2J72800L	DIODE	[M]
D5798	B0HAMP000094	DIODE	[M]
D5801	B0HBSM000043	DIODE	[M]
D5802	B0HBSM000043	DIODE	[M]
D5803	B0HFRJ000012	DIODE	[M]
D5804	B0EAMM000057	DIODE	[M]
D5805	B0EAMM000057	DIODE	[M]
D5806	MAZ80750ML	DIODE	[M]
D5807	MA2J11100L	DIODE	[M]
D5809	MA2J11100L	DIODE	[M]
D5896	B0EAMM000057	DIODE	[M]
D6458	B3AAA0000803	DIODE	[M]
D6511	B3AAA0000884	DIODE	[M]
D6512	B3AAA0000884	DIODE	[M]
D6672	B0BC2R4A0006	DIODE	[M]
D7650	MAZ80560ML	DIODE	[M]
DZ2702	B0JCPD000025	DIODE	[M]
DZ5701	ERZV10V511CS	ZENER	[M] △
		VARIABLE RESISTORS	
VR6500	EVEKE2F3524B	ENCODER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
VR6630	K9AA024A0008	VOLUME ENCODER	[M]
		SWITCHES	
S971	K0J1BB000017	SW MODE	[M]
S972	K0J1BB000021	SW HALF	[M]
S975	K0J1BB000021	SW RECINH_F	[M]
S6100	EVQ21405RJ	SW POWER	[M]
S6101	EVQ21405RJ	SW DISPLAY	[M]
S6106	EVQ21405RJ	SW TAPE/REC	[M]
S6108	EVQ21405RJ	SW D.BASS	[M]
S6200	EVQ21405RJ	SW OPEN/CLOSE	[M]
S6201	EVQ21405RJ	SW MUTLI CHANGE	[M]
S6202	EVQ21405RJ	SW SINGLE CHANGE	[M]
S6203	EVQ21405RJ	SW CD1	[M]
S6204	EVQ21405RJ	SW CD2	[M]
S6205	EVQ21405RJ	SW CD3	[M]
S6206	EVQ21405RJ	SW CD4	[M]
S6207	EVQ21405RJ	SW CD5	[M]
S6208	EVQ21405RJ	SW STOP/DEMO	[M]
S6300	EVQ21405RJ	SW FWD	[M]
S6301	EVQ21405RJ	SW MANUAL EQ	[M]
S6302	EVQ21405RJ	SW REW	[M]
S6303	EVQ21405RJ	SW TAPE	[M]
S6304	EVQ21405RJ	SW TUNER	[M]
S6306	EVQ21405RJ	SW CD	[M]
S6307	EVQ21405RJ	SW USB	[M]
S6308	EVQ21405RJ	SW MUSIC PORT	[M]
S6820	EVQ21405RJ	SW EJECT	[M]
S7201	RSH1A048-A	SW REST	[M]
		CONNECTORS	
CN1305	K1MN21B00010	21P CONNECTOR	[M]
CN2001	K1KA02AA0186	2P CONNECTOR	[M]
CN2011	K1MN21A00005	21P CONNECTOR	[M]
CN2341	K1MN17AA0004	17P CONNECTOR	[M]
CN2801	K1MN22AA0004	22P CONNECTOR	[M]
CN2805	K1MN14A00049	14P CONNECTOR	[M]
CN2806	K1MY27AA0124	27P CONNECTOR	[M]
CN2807	K1MN10AA0003	10P CONNECTOR	[M]
CN2811	K1MN08AA0003	8P CONNECTOR	[M]
CN3200	K1MN22AA0004	22P CONNECTOR	[M]
CN3601	K1KA10AA0031	10P CONNECTOR	[M]
CN5050	K1MN17AA0004	17P CONNECTOR	[M]
CN5500	K1KA08AA0180	8P CONNECTOR	[M]
CN5802	K1KA11AA0194	11P CONNECTOR	[M]
CN6001	K1MY27AA0124	27P CONNECTOR	[M]
CN6807	K1MN10AA0003	10P CONNECTOR	[M]
CN7001	K1MN16B00154	16P CONNECTOR	[M]
CN7002	K1MN22BA0005	22P CONNECTOR	[M]
CP1301	K1MY05AA0043	5P CONNECTOR	[M]
CP1902	K1KA09BA0153	9P CONNECTOR	[M]
CS971	RJU071H09M1	9P CONNECTOR	[M]
P901	K1MN22BA0005	22P CONNECTOR	[M]
P903	K1FY104B0011	CONNECTOR	[M]
		COILS AND INDUCTORS	
L900	G1C100K00019	INDUCTOR	[M]
L1301	G2ZZ00000024	BIAS OSC COIL	[M]
L1302	G0C470JA0052	INDUCTOR	[M]
L2702	G0A101ZA0028	CHOKE COIL	[M]
L2704	G0A200D00002	CHOKE COIL	[M]
L2901	G0C101JA0052	INDUCTOR	[M]
L2902	G0C101JA0052	INDUCTOR	[M]
L2910	G0A220GA0026	CHOKE COIL	[M]
L5000	G0A150L00003	CHOKE COIL	[M]
L5001	G0B9R5K00003	LINE FILTER	[M] △
L5002	G0B9R5K00004	LINE FILTER	[M] △
L5701	ELF15N035AN	LINE FILTER	[M] △
L5703	ELF22V020A	LINE FILTER	[M] △
L6671	J0JBC0000019	INDUCTOR	[M]
L6801	J0JBC0000019	INDUCTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
L6802	J0JBC0000019	INDUCTOR	[M]
L6811	J0JBC0000019	INDUCTOR	[M]
L6812	J0JBC0000019	INDUCTOR	[M]
L6851	J0JBC0000019	INDUCTOR	[M]
L6863	J0JBC0000019	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]
		TRANSFORMERS	
T2900	G4D1A0000117	TRANSFORMER	[M] △
T5701	ETS42BN1A6AD	MAIN SW TRANSFORMER	[M] △
T5751	ETS19AB256AG	BACKUP TRANSFORMER	[M] △
		COMPONENT COMBINATIONS	
Z6601	B3RAD0000146	REMOTE SENSOR	[M]
ZA5701	K3GE1ZZ00001	FUSE HOLDER	[M]
ZA5702	K3GE1ZZ00001	FUSE HOLDER	[M]
		PHOTO COUPLERS	
PC5701	B3PBA0000402	PHOTO COUPLER	[M] △
PC5702	B3PBA0000402	PHOTO COUPLER	[M] △
PC5720	B3PBA0000402	PHOTO COUPLER	[M] △
PC5799	B3PBA0000402	PHOTO COUPLER	[M] △
		OSCILLATORS	
X900	H0D120500009	CRYSTAL OSCILLATOR	[M]
X2815	H2B100500004	CRYSTAL OSCILLATOR	[M]
X2901	H0H433400002	CRYSTAL OSCILLATOR	[M]
X2910	H0A327200115	CRYSTAL OSCILLATOR	[M]
X5500	H2A6023A0011	CRYSTAL OSCILLATOR	[M]
X5501	H2A7003A0011	CRYSTAL OSCILLATOR	[M]
X7201	H2B169500005	CRYSTAL OSCILLATOR	[M]
		FL DISPLAY	
FL6601	A2BB00000171	LCD DISPLAY	[M]
		FUSE	
F1	K5D502BNA005	FUSE	[M] △
		FUSE PROTECTOR	
FP2901	K5G4013A0001	FUSE PROTECTOR	[M] △
		THERMISTORS	
TH5701	D4CAC8R00002	THERMISTOR	[M] △
TH5860	D4CC11040013	THERMISTOR	[M] △
		JACKS	
JK5001	K4AL04B00001	JK SPEAKER	[M]
JK6800	K2HC103A0031	JK HP	[M]
JK6810	K2HC1YYA0002	JK MUSIC PORT	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
P5701	K2AA2B000017	AC INLET	[M] △
		EARTH TERMINALS	
E2001	K9ZZ00001279	EARTH PLATE	[M]
ZJ5400	K4CZ01000027	EARTH PLATE	[M]
ZJ5410	K4CZ01000027	EARTH PLATE	[M]
ZJ5701	K4CZ01000027	EARTH PLATE	[M]
ZJ5702	K4CZ01000027	EARTH PLATE	[M]
ZJ5801	K4CZ01000027	EARTH PLATE	[M]
ZJ5803	K4CZ01000027	EARTH PLATE	[M]
		CHIP JUMPERS	
L2612	D0GBR00JA008	0 1/16W	[M]
LB7262	D0GBR00JA008	0 1/16W	[M]
LB7263	D0GBR00JA008	0 1/16W	[M]
LB7264	D0GBR00JA008	0 1/16W	[M]
W2702	D0GDR00JA017	0 1/10W	[M]
W2703	D0GBR00JA008	0 1/16W	[M]
W2705	D0GBR00JA008	0 1/16W	[M]
W2707	D0GBR00JA008	0 1/16W	[M]
W2708	D0GDR00JA017	0 1/10W	[M]
W2710	ERJ8GEY0R00V	0 1/4W	[M]
W2712	D0GDR00JA017	0 1/10W	[M]
W2718	ERJ8GEY0R00V	0 1/4W	[M]
W2719	D0GDR00JA017	0 1/10W	[M]
W2721	D0GBR00JA008	0 1/16W	[M]
W2723	D0GBR00JA008	0 1/16W	[M]
W2724	D0GBR00JA008	0 1/16W	[M]
W2725	D0GDR00JA017	0 1/10W	[M]
W2726	D0GBR00JA008	0 1/16W	[M]
W2727	D0GBR00JA008	0 1/16W	[M]
W2728	D0GBR00JA008	0 1/16W	[M]
W2729	D0GDR00JA017	0 1/10W	[M]
W2735	D0GBR00JA008	0 1/16W	[M]
W2736	D0GBR00JA008	0 1/16W	[M]
W2737	D0GBR00JA008	0 1/16W	[M]
W2740	D0GDR00JA017	0 1/10W	[M]
W2747	D0GDR00JA017	0 1/10W	[M]
W2748	D0GDR00JA017	0 1/10W	[M]
W2750	D0GBR00JA008	0 1/16W	[M]
W2758	D0GBR00JA008	0 1/16W	[M]
W2761	D0GBR00JA008	0 1/16W	[M]
W2763	D0GDR00JA017	0 1/10W	[M]
W2770	D0GBR00JA008	0 1/16W	[M]
W2772	D0GBR00JA008	0 1/16W	[M]
W2773	D0GDR00JA017	0 1/10W	[M]
W2774	D0GBR00JA008	0 1/16W	[M]
W2775	D0GBR00JA008	0 1/16W	[M]
W2776	D0GBR00JA008	0 1/16W	[M]
W5007	ERJ6GEY0R00V	0 1/8W	[M]
W5032	ERJ8GEY0R00V	0 1/4W	[M]
W5059	ERJ6GEY0R00V	0 1/8W	[M]
W5071	ERJ3GEY0R00V	0 1/10W	[M]
W5780	ERJ6GEY0R00V	0 1/8W	[M]
W5801	ERJ3GEY0R00V	0 1/10W	[M]
W5803	ERJ6GEY0R00V	0 1/8W	[M]
W5804	ERJ3GEY0R00V	0 1/10W	[M]
W5805	ERJ6GEY0R00V	0 1/8W	[M]
W5806	ERJ6GEY0R00V	0 1/8W	[M]
W5807	ERJ6GEY0R00V	0 1/8W	[M]
W6541	D0GDR00JA017	0 1/10W	[M]
W6570	D0GBR00JA008	0 1/16W	[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	
J6001	RWJ1103055SS	3P WIRE (PANEL-REMOTE SENSOR)	[M]
WR1903	RWJ0102050KR	2P WIRE	[M]
ZJ6801	REXX0681	3P WIRE (PANEL-REMOTE)	[M]
		RESISTORS	
R901	ERJ2GEJ102X	1K 1/16W	[M]
R902	ERJ2GEJ102X	1K 1/16W	[M]
R903	ERJ2GE0R00X	0 1/16W	[M]
R904	ERJ2GE0R00X	0 1/16W	[M]
R906	ERJ2GE0R00X	0 1/16W	[M]
R914	ERJ2GE0R00X	0 1/16W	[M]
R950	ERJ2GEJ223X	22K 1/16W	[M]
R951	ERJ2GE0R00X	0 1/16W	[M]
R952	ERJ2GEJ240X	24 1/16W	[M]
R953	ERJ2GEJ240X	24 1/16W	[M]
R954	ERJ2GEJ153X	15K 1/16W	[M]
R955	ERJ2GEJ153X	15K 1/16W	[M]
R957	ERJ2GEJ222X	2.2K 1/16W	[M]
R958	ERJ2GEJ104X	100K 1/16W	[M]
R971	ERJ2GEJ102X	1K 1/16W	[M]
R972	ERJ2GEJ102X	1K 1/16W	[M]
R972	D0AE821JA178	820 1/4W	[M]
R973	D0AE393JA178	39K 1/4W	[M]
R1061	D0GBR00JA008	0 1/16W	[M]
R1063	D0GBR00JA008	0 1/16W	[M]
R1064	D0GBR00JA008	0 1/16W	[M]
R1101	D0GB330JA008	33 1/16W	[M]
R1102	D0GB152JA008	1.5K 1/16W	[M]
R1103	D0GB183JA008	18K 1/16W	[M]
R1104	D0GB103JA008	10K 1/16W	[M]
R1105	D0GB222JA008	2.2K 1/16W	[M]
R1106	D0GB104JA008	100K 1/16W	[M]
R1109	D0GB102JA008	1K 1/16W	[M]
R1110	D0GB333JA008	33K 1/16W	[M]
R1201	D0GB330JA008	33 1/16W	[M]
R1202	D0GB152JA008	1.5K 1/16W	[M]
R1203	D0GB183JA008	18K 1/16W	[M]
R1204	D0GB103JA008	10K 1/16W	[M]
R1205	D0GB222JA008	2.2K 1/16W	[M]
R1206	D0GB104JA008	100K 1/16W	[M]
R1209	D0GB102JA008	1K 1/16W	[M]
R1210	D0GB333JA008	33K 1/16W	[M]
R1302	D0GB471JA008	470 1/16W	[M]
R1303	D0GB475JA008	4.7M 1/16W	[M]
R1304	D0GB223JA008	22K 1/16W	[M]
R1305	D0GB103JA008	10K 1/16W	[M]
R1309	D0AF471JA039	470 1/2W	[M]
R1314	D0GB102JA008	1K 1/16W	[M]
R1318	D0GB103JA008	10K 1/16W	[M]
R1327	D0GB472JA008	4.7K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R1328	D0GB153JA008	15K 1/16W	[M]
R1329	D0GB472JA008	4.7K 1/16W	[M]
R1330	ERD2FCVJ4R7T	4.7 1/4W	[M]
R1331	D0GB472JA008	4.7K 1/16W	[M]
R1332	D0GB103JA008	10K 1/16W	[M]
R1333	ERD2FCVJ4R7T	4.7 1/4W	[M]
R1334	D0GB223JA008	22K 1/16W	[M]
R1335	D0GB152JA008	1.5K 1/16W	[M]
R1337	D0GB103JA008	10K 1/16W	[M]
R1338	D0GB472JA008	4.7K 1/16W	[M]
R1341	D0GB471JA008	470 1/16W	[M]
R1342	D0GB473JA008	47K 1/16W	[M]
R1343	D0GB332JA008	3.3K 1/16W	[M]
R1344	D0GB273JA008	27K 1/16W	[M]
R1345	D0GB102JA008	1K 1/16W	[M]
R1371	D0GB223JA008	22K 1/16W	[M]
R1374	D0GB471JA008	470 1/16W	[M]
R1380	D0GBR00JA008	0 1/16W	[M]
R1401	D0GB123JA008	12K 1/16W	[M]
R1402	D0GB274JA008	270K 1/16W	[M]
R1403	D0GB103JA008	10K 1/16W	[M]
R1404	D0GB223JA008	22K 1/16W	[M]
R1405	D0GB123JA008	12K 1/16W	[M]
R2001	D0GB332JA008	3.3K 1/16W	[M]
R2002	D0GB332JA008	3.3K 1/16W	[M]
R2003	D0GB562JA008	5.6K 1/16W	[M]
R2004	D0GB562JA008	5.6K 1/16W	[M]
R2021	D0GB562JA008	5.6K 1/16W	[M]
R2022	D0GB562JA008	5.6K 1/16W	[M]
R2023	D0GB752JA008	7.5K 1/16W	[M]
R2024	D0GB752JA008	7.5K 1/16W	[M]
R2041	D0GB272JA008	2.7K 1/16W	[M]
R2042	D0GB272JA008	2.7K 1/16W	[M]
R2043	D0GB472JA008	4.7K 1/16W	[M]
R2044	D0GB472JA008	4.7K 1/16W	[M]
R2061	D0GB471JA008	470 1/16W	[M]
R2062	D0GB471JA008	470 1/16W	[M]
R2063	D0GB392JA008	3.9K 1/16W	[M]
R2064	D0GB392JA008	3.9K 1/16W	[M]
R2181	D0GB681JA008	680 1/16W	[M]
R2182	D0GB681JA008	680 1/16W	[M]
R2183	D0GB103JA008	10K 1/16W	[M]
R2184	D0GB103JA008	10K 1/16W	[M]
R2185	D0GB562JA008	5.6K 1/16W	[M]
R2186	D0GB562JA008	5.6K 1/16W	[M]
R2302	D0GB683JA008	68K 1/16W	[M]
R2303	D0GB223JA008	22K 1/16W	[M]
R2304	D0GB103JA008	10K 1/16W	[M]
R2311	D0GB471JA008	470 1/16W	[M]
R2312	D0GB471JA008	470 1/16W	[M]
R2313	D0GB104JA008	100K 1/16W	[M]
R2314	D0GB104JA008	100K 1/16W	[M]
R2315	D0GB103JA008	10K 1/16W	[M]
R2316	D0GB103JA008	10K 1/16W	[M]
R2321	D0GB103JA008	10K 1/16W	[M]
R2322	D0GB103JA008	10K 1/16W	[M]
R2323	D0GB683JA008	68K 1/16W	[M]
R2324	D0GB683JA008	68K 1/16W	[M]
R2333	D0GB272JA008	2.7K 1/16W	[M]
R2334	D0GB272JA008	2.7K 1/16W	[M]
R2335	ERJ6GEYJ103V	10K 1/8W	[M]
R2336	D0GB103JA008	10K 1/16W	[M]
R2337	D0GB273JA008	27K 1/16W	[M]
R2338	D0GB273JA008	27K 1/16W	[M]
R2343	D0GB682JA008	6.8K 1/16W	[M]
R2344	D0GB682JA008	6.8K 1/16W	[M]
R2345	D0GB123JA008	12K 1/16W	[M]
R2346	D0GB123JA008	12K 1/16W	[M]
R2351	D0GB180JA008	18 1/16W	[M]
R2352	D0GB180JA008	18 1/16W	[M]
R2353	D0GB180JA008	18 1/16W	[M]
R2354	D0GB180JA008	18 1/16W	[M]
R2355	D0GB180JA008	18 1/16W	[M]
R2356	D0GB180JA008	18 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2357	D0GB180JA008	18 1/16W	[M]
R2358	D0GB180JA008	18 1/16W	[M]
R2359	D0GD332JA017	3.3K 1/10W	[M]
R2360	D0GB332JA008	3.3K 1/16W	[M]
R2361	D0GB332JA008	3.3K 1/16W	[M]
R2362	D0GB332JA008	3.3K 1/16W	[M]
R2363	ERJ6GEYJ1R0V	1.0 1/8W	[M]
R2364	D0GB1R0JA008	1.0 1/16W	[M]
R2365	D0GB104JA008	100K 1/16W	[M]
R2366	D0GB821JA008	820 1/16W	[M]
R2367	D0GB223JA008	22K 1/16W	[M]
R2378	D0GB102JA008	1K 1/16W	[M]
R2600	D0GB104JA008	100K 1/16W	[M]
R2609	D0GB103JA008	10K 1/16W	[M]
R2610	D0GB106JA008	10M 1/16W	[M]
R2611	D0GBR00JA008	0 1/16W	[M]
R2620	D0GB223JA008	22K 1/16W	[M]
R2621	D0GD682JA017	6.8K 1/10W	[M]
R2622	ERJ6GEYJ473V	47K 1/8W	[M]
R2623	D0GB103JA008	10K 1/16W	[M]
R2626	D0GB103JA008	10K 1/16W	[M]
R2631	D0GB472JA008	4.7K 1/16W	[M]
R2632	D0GB472JA008	4.7K 1/16W	[M]
R2635	D0GB392JA008	3.9K 1/16W	[M]
R2636	D0GB392JA008	3.9K 1/16W	[M]
R2637	D0GB473JA008	47K 1/16W	[M]
R2638	D0GB473JA008	47K 1/16W	[M]
R2644	D0GB473JA008	47K 1/16W	[M]
R2647	D0GB473JA008	47K 1/16W	[M]
R2667	D0GB473JA008	47K 1/16W	[M]
R2668	D0GB473JA008	47K 1/16W	[M]
R2669	D0GB473JA008	47K 1/16W	[M]
R2670	D0GB473JA008	47K 1/16W	[M]
R2672	D0GB473JA008	47K 1/16W	[M]
R2673	D0GB473JA008	47K 1/16W	[M]
R2674	D0GB103JA008	10K 1/16W	[M]
R2675	D0GB472JA008	4.7K 1/16W	[M]
R2679	D0GB103JA008	10K 1/16W	[M]
R2680	D0GB473JA008	47K 1/16W	[M]
R2685	D0GB103JA008	10K 1/16W	[M]
R2689	D0GB103JA008	10K 1/16W	[M]
R2701	ERJ3GEYF152V	1.5 1/10W	[M]
R2702	ERJ3GEYF332V	3.3K 1/10W	[M]
R2703	ERJ3GEYF102V	1K 1/10W	[M]
R2705	D0GB103JA008	10K 1/16W	[M]
R2706	D0GB472JA008	4.7K 1/16W	[M]
R2711	D0GB102JA008	1K 1/16W	[M]
R2713	D0GB272JA008	2.7K 1/16W	[M]
R2721	D0AF2R2JA039	2.2 1/2W	[M]
R2722	D0AF2R2JA039	2.2 1/2W	[M]
R2733	D0GB391JA008	390 1/16W	[M]
R2735	D0GB101JA008	100 1/16W	[M]
R2743	D0GB474JA008	470K 1/16W	[M]
R2744	D0GB472JA008	4.7K 1/16W	[M]
R2745	D0GB102JA008	1K 1/16W	[M]
R2753	D0GB102JA008	1K 1/16W	[M]
R2754	D0GB101JA008	100 1/16W	[M]
R2755	D0GB272JA008	2.7K 1/16W	[M]
R2756	D0GD471JA017	470 1/10W	[M]
R2762	D0GB102JA008	1K 1/16W	[M]
R2765	D0GB272JA008	2.7K 1/16W	[M]
R2771	D0GB752JA008	7.5K 1/16W	[M]
R2772	D0GB822JA008	8.2K 1/16W	[M]
R2773	D0GB153JA008	15K 1/16W	[M]
R2774	D0GB153JA008	15K 1/16W	[M]
R2775	D0GB912JA041	9.1K 1/10W	[M]
R2807	D0GB101JA008	100 1/16W	[M]
R2809	D0GB101JA008	100 1/16W	[M]
R2812	D0GB473JA008	47K 1/16W	[M]
R2813	D0GB105JA008	1M 1/16W	[M]
R2815	D0GB221JA008	220 1/16W	[M]
R2818	D0GB102JA008	1K 1/16W	[M]
R2819	D0GB102JA008	1K 1/16W	[M]
R2820	D0GB103JA008	10K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2821	D0GB101JA008	100 1/16W	[M]
R2822	D0GB101JA008	100 1/16W	[M]
R2823	D0GB101JA008	100 1/16W	[M]
R2826	D0GB101JA008	100 1/16W	[M]
R2827	D0GB101JA008	100 1/16W	[M]
R2828	D0GB101JA008	100 1/16W	[M]
R2829	D0GB101JA008	100 1/16W	[M]
R2830	D0GB101JA008	100 1/16W	[M]
R2832	D0GB101JA008	100 1/16W	[M]
R2833	D0GB101JA008	100 1/16W	[M]
R2835	D0GB101JA008	100 1/16W	[M]
R2836	D0GB101JA008	100 1/16W	[M]
R2837	D0GB102JA008	1K 1/16W	[M]
R2838	D0GB102JA008	1K 1/16W	[M]
R2839	D0GB101JA008	100 1/16W	[M]
R2841	D0GB101JA008	100 1/16W	[M]
R2842	D0GB101JA008	100 1/16W	[M]
R2843	D0GB101JA008	100 1/16W	[M]
R2844	D0GB102JA008	1K 1/16W	[M]
R2845	D0GB101JA008	100 1/16W	[M]
R2846	D0GB101JA008	100 1/16W	[M]
R2848	D0GB102JA008	1K 1/16W	[M]
R2852	D0GB102JA008	1K 1/16W	[M]
R2853	D0GB101JA008	100 1/16W	[M]
R2854	D0GB101JA008	100 1/16W	[M]
R2855	D0GB101JA008	100 1/16W	[M]
R2856	D0GB101JA008	100 1/16W	[M]
R2857	D0GD101JA017	100 1/10W	[M]
R2858	D0GD101JA017	100 1/10W	[M]
R2861	D0GB102JA008	1K 1/16W	[M]
R2863	D0GB101JA008	100 1/16W	[M]
R2865	D0GB101JA008	100 1/16W	[M]
R2866	D0GB101JA008	100 1/16W	[M]
R2874	D0GB102JA008	1K 1/16W	[M]
R2875	D0GB102JA008	1K 1/16W	[M]
R2876	D0GB102JA008	1K 1/16W	[M]
R2877	D0GB101JA008	100 1/16W	[M]
R2878	D0GB101JA008	100 1/16W	[M]
R2881	D0GB102JA008	1K 1/16W	[M]
R2886	D0GB332JA008	3.3K 1/16W	[M]
R2889	D0GB562JA008	5.6K 1/16W	[M]
R2890	D0GB102JA008	1K 1/16W	[M]
R2892	D0GB101JA008	100 1/16W	[M]
R2893	D0GB101JA008	100 1/16W	[M]
R2894	D0GB101JA008	100 1/16W	[M]
R2895	D0GB102JA008	1K 1/16W	[M]
R2897	D0GB102JA008	1K 1/16W	[M]
R2900	D0GB562JA008	5.6K 1/16W	[M]
R2902	D0GB470JA008	47 1/16W	[M]
R2905	D0GB222JA008	2.2K 1/16W	[M]
R2906	D0GB221JA008	220 1/16W	[M]
R2907	D0GB102JA008	1K 1/16W	[M]
R2908	D0GB221JA008	220 1/16W	[M]
R2909	D0GB102JA008	1K 1/16W	[M]
R2914	D0GB473JA008	47K 1/16W	[M]
R2936	D0GB102JA008	1K 1/16W	[M]
R2937	D0GB103JA008	10K 1/16W	[M]
R2951	D0GB223JA008	22K 1/16W	[M]
R2952	D0GB223JA008	22K 1/16W	[M]
R2953	D0GB472JA008	4.7K 1/16W	[M]
R2970	D0GB103JA008	10K 1/16W	[M]
R2971	D0GB472JA008	4.7K 1/16W	[M]
R3204	D0GBR00JA008	0 1/16W	[M]
R3205	D0GB104JA008	100K 1/16W	[M]
R3713	D0GB273JA008	27K 1/16W	[M]
R3714	D0GB273JA008	27K 1/16W	[M]
R3715	D0GB122JA008	1.2K 1/16W	[M]
R3716	D0GB122JA008	1.2K 1/16W	[M]
R5000	ERJ3GEYJ562V	5.6K 1/10W	[M]
R5001	ERJ3GEYJ562V	5.6K 1/10W	[M]
R5002	ERJ3GEYJ562V	5.6K 1/10W	[M]
R5003	ERJ3GEYJ562V	5.6K 1/10W	[M]
R5004	D0GF100JA014	10 1/8W	[M]
R5005	D0GF100JA014	10 1/8W	[M]



Ref. No.	Part No.	Part Name & Description	Remarks
R5006	D0GZ220JA012	22 1W	[M]
R5007	D0GZ220JA012	22 1W	[M]
R5008	ERJ3GEYJ101V	100 1/10W	[M]
R5010	D0GF100JA014	10 1/8W	[M]
R5011	D0GF100JA014	10 1/8W	[M]
R5019	ERJ3GEYJ683V	68K 1/10W	[M]
R5020	ERJ3GEYJ683V	68K 1/10W	[M]
R5023	ERJ3GEYJ122V	1.2K 1/10W	[M]
R5030	ERJ3GEYJ562V	5.6K 1/10W	[M]
R5031	ERJ3GEYJ562V	5.6K 1/10W	[M]
R5110	ERJ3GEYJ682V	6.8K 1/10W	[M]
R5504	ERJ3GEYJ220V	22 1/10W	[M]
R5505	ERJ3GEYJ101V	100 1/10W	[M]
R5506	ERJ3GEYJ105V	1M 1/10W	[M]
R5507	ERJ3GEYJ105V	1M 1/10W	[M]
R5508	ERJ3GEYJ105V	1M 1/10W	[M]
R5510	ERG2SJ471E	470 2W	[M]
R5511	ERJ3GEYJ220V	22 1/10W	[M]
R5602	ERJ3GEYJ103V	10K 1/10W	[M]
R5603	ERJ3GEYJ103V	10K 1/10W	[M]
R5604	ERJ3GEYJ122V	1.2K 1/10W	[M]
R5608	ERJ3GEYJ103V	10K 1/10W	[M]
R5609	ERJ3GEYJ103V	10K 1/10W	[M]
R5611	ERJ3GEYJ122V	1.2K 1/10W	[M]
R5671	ERJ3GEY0R00V	0 1/10W	[M]
R5701	ERDS1TJ475B	4.7K 1/2W	[M]
R5702	ERJ1TYJ104U	100K 1W	[M]
R5703	ERJ1TYJ104U	100K 1W	[M]
R5704	ERJ8GEYJ394V	390K 1/4W	[M]
R5705	ERJ8GEYJ394V	390K 1/4W	[M]
R5720	ERJ6GEYJ220V	22 1/8W	[M]
R5721	ERJ6GEYJ103V	10K 1/8W	[M]
R5722	ERJ6GEYJ102V	1K 1/8W	[M]
R5723	ERJ3GEYJ102V	1K 1/10W	[M]
R5724	ERJ6GEYJ121V	120 1/8W	[M]
R5725	ERJ3GEY0R00V	0 1/10W	[M]
R5726	ERX2LJ82MP	82m 2W	[M]
R5728	ERJ3GEYJ104V	100K 1/10W	[M]
R5729	ERJ6GEYJ103V	10K 1/8W	[M]
R5730	ERJ3GEYJ102V	1K 1/10W	[M]
R5731	ERJ3GEY0R00V	0 1/10W	[M]
R5732	ERJ3GEYJ101V	100 1/10W	[M]
R5733	ERJ3GEYJ473V	47K 1/10W	[M]
R5750	ERJ3GEY0R00V	0 1/10W	[M]
R5786	ERJ1TYJ204U	200K 1W	[M]
R5787	ERJ3GEYJ753V	75K 1/10W	[M]
R5795	ERJ6GEYJ433V	43K 1/8W	[M]
R5796	ERDS1FVJ222T	2.2K 1/2W	[M]
R5797	ERJ6GEYJ472V	4.7K 1/8W	[M]
R5798	ERJ6GEYJ100V	10 1/8W	[M]
R5800	ERJ6GEYJ123V	12K 1/8W	[M]
R5801	ERJ6GEYJ103V	10K 1/8W	[M]
R5802	ERJ3RBD272V	2.7K 1/16W	[M]
R5803	ERJ6GEY0R00V	0 1/8W	[M]
R5804	ERJ6RBD473V	47K 1/10W	[M]
R5805	ERJ3RBD222V	2.2K 1/16W	[M]
R5806	ERJ3GEYJ153V	15K 1/10W	[M]
R5807	ERJ6GEYJ331V	330 1/8W	[M]
R5808	ERJ6GEYJ222V	2.2K 1/8W	[M]
R5809	ERJ6GEYJ331V	330 1/8W	[M]
R5810	ERJ3GEYJ331V	330 1/10W	[M]
R5811	ERJ8GEYJ152V	1.5K 1/4W	[M]
R5812	ERJ3RBD822V	8.2K 1/16W	[M]
R5813	ERJ3RBD243V	24K 1/16W	[M]
R5814	ERJ3GEYJ822V	8.2K 1/10W	[M]
R5815	ERJ3GEYJ272V	2.7K 1/10W	[M]
R5816	ERJ8GEYJ152V	1.5K 1/4W	[M]
R5817	ERJ3GEYJ331V	330 1/10W	[M]
R5820	ERG2SJ910E	91 2W	[M]
R5821	ERG2SJ910E	91 2W	[M]
R5822	ERG2SJ910E	91 2W	[M]
R5823	ERG2SJ910E	91 2W	[M]
R5824	ERG2SJ910E	91 2W	[M]
R5825	ERJ3GEYJ102V	1K 1/10W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R5832	ERJ1TYJ222U	2.2K 1W	[M]
R5834	ERJ1TYJ222U	2.2K 1W	[M]
R5840	ERJ3GEYJ823V	82K 1/10W	[M]
R5841	ERJ3GEYJ124V	120K 1/10W	[M]
R5860	ERJ3GEYF103V	10K 1/10W	[M]
R5861	ERJ3GEYF302V	3K 1/10W	[M]
R5862	ERJ6GEYJ103V	10K 1/8W	[M]
R5863	ERJ6GEYJ103V	10K 1/8W	[M]
R5864	ERJ6GEYF103V	10K 1/8W	[M]
R5890	ERJ3GEYJ222V	2.2K 1/10W	[M]
R5891	ERJ3RBD333V	33K 1/16W	[M]
R5892	ERJ3RBD472V	4.7K 1/16W	[M]
R5893	ERJ3RBD393V	39K 1/16W	[M]
R5894	ERJ3GEYJ102V	1K 1/10W	[M]
R5895	ERJ3GEYJ101V	100 1/10W	[M]
R5896	ERJ3GEYJ104V	100K 1/10W	[M]
R5897	ERJ3GEYJ101V	100 1/10W	[M]
R6100	D0GB103JA008	10K 1/16W	[M]
R6101	D0GB122JA008	1.2K 1/16W	[M]
R6102	D0GB152JA008	1.5K 1/16W	[M]
R6103	D0GB222JA008	2.2K 1/16W	[M]
R6104	D0GB332JA008	3.3K 1/16W	[M]
R6106	D0GB472JA008	4.7K 1/16W	[M]
R6107	D0GB682JA008	6.8K 1/16W	[M]
R6108	D0GB153JA008	15K 1/16W	[M]
R6200	D0GB103JA008	10K 1/16W	[M]
R6201	D0GB122JA008	1.2K 1/16W	[M]
R6202	D0GB152JA008	1.5K 1/16W	[M]
R6203	D0GB222JA008	2.2K 1/16W	[M]
R6204	D0GB332JA008	3.3K 1/16W	[M]
R6205	D0GB472JA008	4.7K 1/16W	[M]
R6206	D0GB682JA008	6.8K 1/16W	[M]
R6207	D0GB153JA008	15K 1/16W	[M]
R6208	D0GB473JA008	47K 1/16W	[M]
R6300	D0GB103JA008	10K 1/16W	[M]
R6301	D0GB122JA008	1.2K 1/16W	[M]
R6302	D0GB152JA008	1.5K 1/16W	[M]
R6303	D0GB222JA008	2.2K 1/16W	[M]
R6304	D0GB332JA008	3.3K 1/16W	[M]
R6305	D0GB472JA008	4.7K 1/16W	[M]
R6306	D0GB682JA008	6.8K 1/16W	[M]
R6307	D0GB153JA008	15K 1/16W	[M]
R6308	D0GB473JA008	47K 1/16W	[M]
R6458	D0GB102JA008	1K 1/16W	[M]
R6501	D0GB123JA008	12K 1/16W	[M]
R6502	D0GB223JA008	22K 1/16W	[M]
R6503	D0GB103JA008	10K 1/16W	[M]
R6511	D0GB181JA008	180 1/16W	[M]
R6512	D0GB221JA008	220 1/16W	[M]
R6618	D0GB221JA008	220 1/16W	[M]
R6619	D0GB221JA008	220 1/16W	[M]
R6620	D0GB471JA008	470 1/16W	[M]
R6622	D0GB823JA008	82K 1/16W	[M]
R6631	D0GB103JA008	10K 1/16W	[M]
R6632	D0GB103JA008	10K 1/16W	[M]
R6671	D0GB223JA008	22K 1/16W	[M]
R6672	D0GB100JA008	10 1/16W	[M]
R6811	D0GBR00JA008	0 1/16W	[M]
R6812	D0GBR00JA008	0 1/16W	[M]
R7111	D0GB103JA008	10K 1/16W	[M]
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]

Ref. No.	Part No.	Part Name & Description	Remarks
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]
K1	ERJ3GEY0R00V	0 1/10W	[M]
K2	ERJ3GEY0R00V	0 1/10W	[M]
K2181	D0GBR00JA008	0 1/16W	[M]
K2182	D0GBR00JA008	0 1/16W	[M]
K5251	ERJ3GEY0R00V	0 1/10W	[M]
K5253	ERJ3GEY0R00V	0 1/10W	[M]
K5255	ERJ3GEY0R00V	0 1/10W	[M]
K5302	ERJ3GEY0R00V	0 1/10W	[M]
		CAPACITORS	
C1	F2A1C101A147	100uF 16V	[M]
C901	F1G1C104A083	0.1uF 16V	[M]
C902	F1G1C104A083	0.1uF 16V	[M]
C903	F1G1C104A083	0.1uF 16V	[M]
C904	F2A1C100A234	10uF 16V	[M]
C905	F1G1C104A083	0.1uF 16V	[M]
C906	F2A1C100A234	10uF 16V	[M]
C907	F1G1H180A565	18pF 50V	[M]
C908	F1G1H220A565	22pF 50V	[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]
C951	F1G1C104A083	0.1uF 16V	[M]
C952	F1G1C104A083	0.1uF 16V	[M]
C953	F2A0J101A245	100uF 6.3V	[M]
C1101	F2A1H1R0A145	1.0uF 50V	[M]
C1102	F1H1H152A219	1500pF 50V	[M]
C1103	F2A1C101A147	100uF 16V	[M]
C1104	F1H1E273A002	0.027uF 25V	[M]
C1105	F1H1H8210002	820pF 50V	[M]
C1106	F2A1H2R2A145	2.2uF 50V	[M]
C1107	F1H1H152A219	1500pF 50V	[M]
C1108	F2A1C100A147	10uF 16V	[M]
C1109	F2A1H3R3A145	3.3uF 50V	[M]
C1110	F1H1H152A219	1500pF 50V	[M]
C1121	F1H1H102A219	1000pF 50V	[M]
C1122	F1H1E103A029	0.01uF 25V	[M]
C1123	ECJ1VB1H271K	270pF 50V	[M]
C1201	F2A1H1R0A145	1.0uF 50V	[M]
C1202	F1H1H152A219	1500pF 50V	[M]
C1203	F2A1C101A147	100uF 16V	[M]
C1204	F1H1E273A002	0.027uF 25V	[M]
C1205	F1H1H8210002	820pF 50V	[M]
C1206	F2A1H2R2A145	2.2uF 50V	[M]
C1207	F1H1H152A219	1500pF 50V	[M]
C1208	F2A1C100A147	10uF 16V	[M]
C1209	F2A1H3R3A145	3.3uF 50V	[M]
C1210	F1H1H152A219	1500pF 50V	[M]
C1221	F1H1H102A219	1000pF 50V	[M]
C1222	F1H1E103A029	0.01uF 25V	[M]
C1223	ECJ1VB1H271K	270pF 50V	[M]
C1301	ECEA1HKA0R1B	0.1uF 50V	[M]
C1302	F1H1C333A071	0.033uF 16V	[M]
C1303	F1H1C333A071	0.033uF 16V	[M]
C1304	F2A1H4R7A234	4.7uF 50V	[M]
C1305	F2A1C330A234	33uF 16V	[M]
C1307	ECA1AAK221XQ	220uF 10V	[M]
C1308	F2A1C220A234	22uF 16V	[M]
C1311	F2A1C470A234	47uF 16V	[M]
C1312	F1H1H332A013	3300pF 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C1314	F1H1H222A013	2200pF 50V	[M]
C1315	F1H1H222A013	2200pF 50V	[M]
C1316	F1H1H102A219	1000pF 50V	[M]
C1317	F1H1H102A219	1000pF 50V	[M]
C1318	ECQV1H473JL3	0.047uF 50V	[M]
C1319	F2A1C101A147	100uF 16V	[M]
C1320	F2A1H1R0A145	1.0uF 50V	[M]
C1321	F0A2A472A019	4700pF 100V	[M]
C1323	ECEA1HKN010B	1uF 50V	[M]
C1324	F2A1C470A234	47uF 16V	[M]
C1326	F2A1C100A147	10uF 16V	[M]
C1371	F1H1E103A029	0.01uF 25V	[M]
C2002	F1H1H103A219	0.01uF 50V	[M]
C2005	F1H0J1050013	1uF 6.3V	[M]
C2006	F1H0J1050013	1uF 6.3V	[M]
C2021	F1H0J1050013	1uF 6.3V	[M]
C2022	F1H0J1050013	1uF 6.3V	[M]
C2023	F1H1H392A013	3900pF 50V	[M]
C2024	F1H1H392A013	3900pF 50V	[M]
C2025	F1H0J1050013	1uF 6.3V	[M]
C2026	F1H0J1050013	1uF 6.3V	[M]
C2035	F1H1H101A720	100pF 50V	[M]
C2045	F1H0J1050013	1uF 6.3V	[M]
C2046	F1H0J1050013	1uF 6.3V	[M]
C2054	F1H1C104A042	0.1uF 16V	[M]
C2065	F1H0J1050013	1uF 6.3V	[M]
C2066	F1H0J1050013	1uF 6.3V	[M]
C2170	F2A1A330A159	33uF 10V	[M]
C2181	F2A1H3R3A213	3.3uF 50V	[M]
C2183	F1H1A5640001	0.56uF 10V	[M]
C2184	F1H1A5640001	0.56uF 10V	[M]
C2185	ECQV1H474JL3	0.47uF 50V	[M]
C2186	ECQV1H474JL3	0.47uF 50V	[M]
C2187	F1H1H392A013	3900pF 50V	[M]
C2188	F1H1H392A013	3900pF 50V	[M]
C2189	F1H1H103A219	0.01uF 50V	[M]
C2190	F1H1H103A219	0.01uF 50V	[M]
C2191	F1H1H103A219	0.01uF 50V	[M]
C2192	F1H1H103A219	0.01uF 50V	[M]
C2193	F1H1C823A001	0.082uF 16V	[M]
C2194	F1H1C823A001	0.082uF 16V	[M]
C2195	ECJ1VB1A684K	0.68uF 10V	[M]
C2196	ECJ1VB1A684K	0.68uF 10V	[M]
C2197	F1H1H332A013	3300pF 50V	[M]
C2201	F1H0J4750003	4.7uF 6.3V	[M]
C2202	F1H1C823A001	0.082uF 16V	[M]
C2301	F2A1H3R3A213	3.3uF 50V	[M]
C2302	F2A1H1R0A213	1.0uF 50V	[M]
C2304	F2A1H3R3A213	3.3uF 50V	[M]
C2305	F2A1H3R3A213	3.3uF 50V	[M]
C2307	F1H1C823A001	0.082uF 16V	[M]
C2311	F1H0J1050013	1uF 6.3V	[M]
C2312	F1H0J1050013	1uF 6.3V	[M]
C2315	F1H0J1050013	1uF 6.3V	[M]
C2316	F1H0J1050013	1uF 6.3V	[M]
C2321	F1H1H470A004	47pF 50V	[M]
C2322	F1H1H470A004	47pF 50V	[M]
C2323	F1H1H470A004	47pF 50V	[M]
C2324	F1H1H470A004	47pF 50V	[M]
C2329	F1H1H103A219	0.01uF 50V	[M]
C2330	F1H1H103A219	0.01uF 50V	[M]
C2341	F1H1A224A007	0.22uF 10V	[M]
C2342	F1H1A224A007	0.22uF 10V	[M]
C2343	F1H1H103A219	0.01uF 50V	[M]
C2344	F1H1H103A219	0.01uF 50V	[M]
C2345	D0GBR00JA008	0 1/16W	[M]
C2346	D0GBR00JA008	0 1/16W	[M]
C2357	F1H1H102A219	1000pF 50V	[M]
C2358	F1H1H102A219	1000pF 50V	[M]
C2365	ECEA1EKN4R7B	4.7uF 25V	[M]
C2611	F1H1H220A004	22pF 50V	[M]
C2613	F2A0J221A181	220uF 6.3V	[M]
C2701	F1H1H103A219	0.01uF 50V	[M]
C2702	F2A1E102A207	1000uF 25V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2703	EEUFC0J821B	820uF 6.3V	[M]
C2704	F1H1H103A219	0.01uF 50V	[M]
C2705	F1H1H101A720	100pF 50V	[M]
C2707	F2A0J101A181	100uF 6.3V	[M]
C2711	F1H1H103A219	0.01uF 50V	[M]
C2712	F2A0J470A167	47uF 6.3V	[M]
C2713	F2A0J470A167	47uF 6.3V	[M]
C2714	F1H1H103A219	0.01uF 50V	[M]
C2732	F1H1C104A042	0.1uF 16V	[M]
C2733	F2A1C470A180	47uF 16V	[M]
C2734	F1H1H103A219	0.01uF 50V	[M]
C2735	F2A1A330A159	33uF 10V	[M]
C2736	F1H1H103A219	0.01uF 50V	[M]
C2737	F2A1C470A180	47uF 16V	[M]
C2738	F1H1C104A042	0.1uF 16V	[M]
C2742	F1H1C104A042	0.1uF 16V	[M]
C2751	F1H1H103A219	0.01uF 50V	[M]
C2753	F1H1H103A219	0.01uF 50V	[M]
C2754	F2A1C221A019	220uF 16V	[M]
C2755	F1H1H103A219	0.01uF 50V	[M]
C2756	F2A1A330A159	33uF 10V	[M]
C2761	F1H1H103A219	0.01uF 50V	[M]
C2762	F1H1H103A219	0.01uF 50V	[M]
C2763	F1H1H103A219	0.01uF 50V	[M]
C2764	F2A1C101A208	100uF 16V	[M]
C2765	F2A1C100A207	10uF 16V	[M]
C2766	F1H1H103A219	0.01uF 50V	[M]
C2767	F2A1C221A019	220uF 16V	[M]
C2812	F1H0J1050013	1uF 6.3V	[M]
C2813	F2A1H3R3A213	3.3uF 50V	[M]
C2821	F1H1H101A720	100pF 50V	[M]
C2822	F1H1H561A013	560pF 50V	[M]
C2823	F1H1H561A013	560pF 50V	[M]
C2881	F1H1H102A219	1000pF 50V	[M]
C2895	F1H1H561A013	560pF 50V	[M]
C2897	F1H1H561A013	560pF 50V	[M]
C2900	F2A1V330A379	33uF 35V	[M]
C2901	ECQB1H392KF3	3900pF 50V	[M]
C2903	F2A1V330A379	33uF 35V	[M]
C2904	F2A1H4R7A213	4.7uF 50V	[M]
C2905	F1H1H471A219	470pF 50V	[M]
C2906	F2A0J470A167	47uF 6.3V	[M]
C2907	F1H1H561A013	560pF 50V	[M]
C2908	F1H1H470A004	47pF 50V	[M]
C2909	F1H1H470A004	47pF 50V	[M]
C2910	F1H1H471A219	470pF 50V	[M]
C2911	F2A0J470A167	47uF 6.3V	[M]
C2912	ECEA1CKS101B	100uF 16V	[M]
C2951	F1H1H223A219	0.022uF 50V	[M]
C2953	F1H1H331A013	330pF 50V	[M]
C2960	F1H1H180A230	18pF 50V	[M]
C3702	F2A1H1R0A213	1.0uF 50V	[M]
C3703	F2A1H1R0A213	1.0uF 50V	[M]
C5000	ECJ1VB1H102K	1000pF 50V	[M]
C5001	ECJ1VB1H102K	1000pF 50V	[M]
C5002	F1H1A474A001	0.47uF 10V	[M]
C5003	F1H1A474A001	0.47uF 10V	[M]
C5004	F1H1A474A001	0.47uF 10V	[M]
C5005	F1H1A474A001	0.47uF 10V	[M]
C5006	ECJ1VB1H331K	330pF 50V	[M]
C5007	ECJ1VB1H331K	330pF 50V	[M]
C5008	ECJ1VB1H153K	0.015uF 50V	[M]
C5009	ECJ1VB1H153K	0.015uF 50V	[M]
C5010	ECJ2VC2A221J	220pF 100V	[M]
C5011	ECJ2VC2A221J	220pF 100V	[M]
C5012	ECJ2VC2A221J	220pF 100V	[M]
C5013	ECJ2VC2A221J	220pF 100V	[M]
C5014	ECQV1H684JL3	0.68uF 50V	[M]
C5015	ECQV1H684JL3	0.68uF 50V	[M]
C5016	ECJ1VB1H104K	0.1uF 50V	[M]
C5017	ECJ1VB1H104K	0.1uF 50V	[M]
C5018	F1K2A1040007	0.1uF 100V	[M]
C5019	ECJ1VB1H104K	0.1uF 50V	[M]
C5020	ECJ1VB1H104K	0.1uF 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C5021	ECJ1VB1H104K	0.1uF 50V	[M]
C5022	ECJ1VB1H104K	0.1uF 50V	[M]
C5023	F1K2A1040007	0.1uF 100V	[M]
C5024	ECJ1VB1H104K	0.1uF 50V	[M]
C5025	ECJ1VB1H104K	0.1uF 50V	[M]
C5026	F1K2A1040007	0.1uF 100V	[M]
C5028	ECJ1VB1H104K	0.1uF 50V	[M]
C5029	F1K2A1040007	0.1uF 100V	[M]
C5030	ECJ1VC1H221J	220pF 50V	[M]
C5031	ECJ1VB1C224K	0.22uF 16V	[M]
C5032	ECJ1VB1H102K	1000pF 50V	[M]
C5033	ECJ1VB1H104K	0.1uF 50V	[M]
C5040	F2A2A2200035	22uF 100V	[M]
C5050	ECJ1VB1H104K	0.1uF 50V	[M]
C5051	ECJ1VB1H104K	0.1uF 50V	[M]
C5052	ECJ1VB1H104K	0.1uF 50V	[M]
C5053	ECJ1VB1H104K	0.1uF 50V	[M]
C5133	F2A0J101A245	100uF 6.3V	[M]
C5150	ECJ1VB1H102K	1000pF 50V	[M]
C5151	ECJ1VB1H102K	1000pF 50V	[M]
C5445	ECJ1VB1H104K	0.1uF 50V	[M]
C5450	ECJ1VB1H104K	0.1uF 50V	[M]
C5510	F2A1V4710074	470uF 35V	[M]
C5511	F2A1V4710074	470uF 35V	[M]
C5514	ECJ1VB1H104K	0.1uF 50V	[M]
C5515	ECJ1VB1H104K	0.1uF 50V	[M]
C5518	ECJ1VB1H104K	0.1uF 50V	[M]
C5519	ECJ1VB1H104K	0.1uF 50V	[M]
C5520	ECJ1VB1H104K	0.1uF 50V	[M]
C5521	ECJ1VB1H104K	0.1uF 50V	[M]
C5550	ECJ1VB1H103K	0.01uF 50V	[M]
C5551	ECJ1VB1H391K	390pF 50V	[M]
C5552	ECJ1VB1H391K	390pF 50V	[M]
C5553	ECJ1VC1H101J	100pF 50V	[M]
C5554	ECJ1VB1H104K	0.1uF 50V	[M]
C5555	F1K1C1060001	10uF 16V	[M]
C5556	ECJ1VB1H103K	0.01uF 50V	[M]
C5557	ECJ1VC1H101J	100pF 50V	[M]
C5558	ECJ1VC1H470J	47pF 50V	[M]
C5559	ECJ1VC1H470J	47pF 50V	[M]
C5560	ECJ1VB1H104K	0.1uF 50V	[M]
C5561	ECJ1VC1H101J	100pF 50V	[M]
C5562	F2A0J102A016	1000uF 6.3V	[M]
C5601	ECA1CAK100XB	10uF 16V	[M]
C5700	F1BAF1020020	1000pF	[M] △
C5701	F0CAF334A087	0.33uF	[M] △
C5703	F0C2H1040001	0.1uF 500V	[M] △
C5704	F1BAF1020020	1000pF	[M] △
C5705	F1BAF1020020	1000pF	[M] △
C5706	F1BAF1020020	1000pF	[M] △
C5707	F1BAF1020020	1000pF	[M] △
C5712	F2B2G1810011	180uF 400V	[M]
C5713	F0C2J1030005	0.01uF 630V	[M]
C5720	ECJ1VB1H104K	0.1uF 50V	[M]
C5721	ECJ1VB1H221K	220pF 50V	[M]
C5722	ECJ1VB1H102K	1000pF 50V	[M]
C5723	ECJ1VB1H471K	470pF 50V	[M]
C5724	F2A1H5600009	56uF 50V	[M]
C5725	ECJ1VB1H104K	0.1uF 50V	[M]
C5726	ECJ1VB1H104K	0.1uF 50V	[M]
C5728	ECJ1VB1H102K	1000pF 50V	[M]
C5730	ECEA1HKS010B	1uF 50V	[M]
C5737	F1A3A471A035	470pF 1000V	[M]
C5790	ECJ3YB2J222K	2200pF	[M]
C5791	ECEA1HKA2R2B	2.2uF 50V	[M]
C5794	ECJ1VC1H220J	22pF 50V	[M]
C5795	ECJ2VC1H222J	2200pF 50V	[M]
C5796	F1J1H104A717	0.1uF 50V	[M]
C5797	F1A3A470A023	47pF 1000V	[M]
C5798	F2A1H5600009	56uF 50V	[M]
C5800	F1J2E1030004	0.01uF 250V	[M]
C5801	F1J2E1030004	0.01uF 250V	[M]
C5802	F1J2E1030004	0.01uF 250V	[M]
C5803	F1J2E1030004	0.01uF 250V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C5804	F1J2E1030004	0.01uF 250V	[M]
C5805	F2B1V222A007	2200uF 35V	[M]
C5808	F2B1V222A007	2200uF 35V	[M]
C5810	ECJ1VB1H104K	0.1uF 50V	[M]
C5811	F1J2E1030004	0.01uF 250V	[M]
C5812	ECJ1VB1H104K	0.1uF 50V	[M]
C5813	F2A1V4710035	470uF 35V	[M]
C5814	F1J2E1030004	0.01uF 250V	[M]
C5815	ECJ1VB1H104K	0.1uF 50V	[M]
C5816	F2A1E471A652	470uF 25V	[M]
C5817	F2A2AR22A358	0.22uF 100V	[M]
C5818	ECJ1VB1H104K	0.1uF 50V	[M]
C5819	F1J2E1030004	0.01uF 250V	[M]
C5820	F1J2E1030004	0.01uF 250V	[M]
C5821	F1J2E1030004	0.01uF 250V	[M]
C5822	F1J2E1030004	0.01uF 250V	[M]
C5823	ECJ1VB1H104K	0.1uF 50V	[M]
C5824	F2A1E471A652	470uF 25V	[M]
C5825	ECJ1VB1H104K	0.1uF 50V	[M]
C5826	F1J2E1030004	0.01uF 250V	[M]
C5827	F1J2E1030004	0.01uF 250V	[M]
C5831	ECJ1VB1H104K	0.1uF 50V	[M]
C5832	ECJ1VB1H104K	0.1uF 50V	[M]
C5869	ECJ1VB1H104K	0.1uF 50V	[M]
C5896	ECJ1VB1H104K	0.1uF 50V	[M]
C5897	ECJ1VB1H104K	0.1uF 50V	[M]
C5898	ECJ1VB1H104K	0.1uF 50V	[M]
C5899	F2A1C221A104	220uF 16V	[M]
C6300	F1H1H102A219	1000pF 50V	[M]
C6503	F1H1H102A219	1000pF 50V	[M]
C6512	F1H1H102A219	1000pF 50V	[M]
C6601	F1H1H101A720	100pF 50V	[M]
C6608	F1H1H104A013	0.1uF 50V	[M]
C6609	F1H1H104A013	0.1uF 50V	[M]
C6611	F1H1H331A013	330pF 50V	[M]
C6612	F1H1H331A013	330pF 50V	[M]
C6613	F1H1H331A013	330pF 50V	[M]
C6614	F1H1H103A219	0.01uF 50V	[M]
C6616	F2A1H220A182	22uF 50V	[M]
C6633	F1H1H101A720	100pF 50V	[M]
C6634	F1H1H101A720	100pF 50V	[M]
C6671	F2A1H220A182	22uF 50V	[M]
C6801	F1H1H473A783	0.047uF 50V	[M]
C6802	F1H1H473A783	0.047uF 50V	[M]
C6803	F1H1C104A042	0.1uF 16V	[M]
C6804	F1H1C104A042	0.1uF 16V	[M]
C6810	ECJ1VB1H391K	390pF 50V	[M]
C6811	F1H0J1050013	1uF 6.3V	[M]
C6812	F1H0J1050013	1uF 6.3V	[M]
C6813	F1H1H331A013	330pF 50V	[M]
C6814	F1H1H331A013	330pF 50V	[M]
C6815	F1H1H103A219	0.01uF 50V	[M]
C6816	F1H1H103A219	0.01uF 50V	[M]
C6820	ECJ1VB1H391K	390pF 50V	[M]
C6821	F1H1H103A219	0.01uF 50V	[M]
C6822	F1H1H103A219	0.01uF 50V	[M]
C6823	F1H1H103A219	0.01uF 50V	[M]
C6851	F1H1C104A042	0.1uF 16V	[M]
C6852	F1H1H102A219	1000pF 50V	[M]
C6861	F1H1H102A219	1000pF 50V	[M]
C6863	F1H1C104A042	0.1uF 16V	[M]
C6938	F1H1C104A042	0.1uF 16V	[M]
C6940	F1H1C104A042	0.1uF 16V	[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]

Ref. No.	Part No.	Part Name & Description	Remarks
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]
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]