

# Service Manual

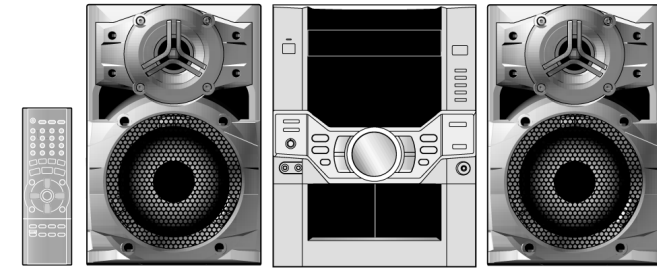
## CD Stereo System



### SA-VK31GC SA-VK31GS

Colour

(S)... Silver Type

Remote  
Control  
Transmitter

SB-VK31

SA-VK31

SB-VK31

## Specifications

### ■ AMPLIFIER SECTION

PMPO	2500 W
RMS power output	
THD 10% both channels driven	
1 kHz (Low channel)	75 W per channel (6 Ω)
10kHz (High channel)	75 W per channel (6 Ω)
Total Bi-Amp power	150 W per channel
AUX	
Input sensitivity	250 mV
Input Impedance	13.3 kΩ
Phone jack	
Terminal	Stereo, 3.5 mm jack
MIC jack	
Sensitivity	0.7 mV, 680 Ω
Terminal	Mono, 3.5 mm jack (2 system)

### ■ FM TUNER SECTION

Frequency range	87.50 - 108.00 MHz (50 kHz steps)
Sensitivity	2.5μV (IHF)
S/N 26 dB	2.2 μV
Antenna terminal(s)	75 Ω (unbalanced)

### ■ AM TUNER SECTION

Frequency range	522 - 1629 kHz (9 kHz steps) 520 - 1630 kHz (10 kHz steps)
Sensitivity	

S/N 20 dB (at 999 kHz) 560 μV/m

### ■ CASSETTE DECK SECTION

Track system	4 track, 2 channel
Heads	
Record/playback	Solid permalloy head
Erasere	Double gap ferrite head
Motor	DC servo motor
Recording system	AC bias 100 kHz
Erasing system	AC erase 100 kHz
Tape speed	4.8 cm/s
Overall frequency response (+3 dB, -6 dB at DECK OUT)	
NORMAL (TYPE I)	35 Hz - 14 kHz
S/N	50 dB (A weighted)
Wow and flutter	0.18 % (WRMS)
Fast forward and rewind time	Approx. 120 seconds with C-60 cassette tape

### ■ CD SECTION

Discs played [8 cm or 12 cm]	
(1) CD- Audio (CD-DA)	
(2) Video CD	
(3) CD-R/RW (CD-DA, MP3 disc)	
(4) MP3	
Sampling frequency	44.1 kHz
Decoding	16 bit linear

# Panasonic

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Pickup		Power consumption	251 W
Beam source/wavelength	Semiconductor laser/780 nm	Dimensions (W x H x D)	250 x 330 x 358 mm
Number of channels	Stereo	Mass	7.9kg
Frequency response	20 Hz - 20 kHz (+1, -2 dB)	Power consumption in standby mode: 0.85 W	
Wow and flutter	Below measurable limit		
Digital filter	8 fs	<b>n SYSTEM</b>	
D/A converter	MASH (1 bit DAC)	SC-VK31 (GC)	Music center: SA-VK31 (GC)
Video		SC-VK31 (GS)	Front speaker: SB-VK31 (GC)
Video signal system	PAL625/50, PAL525/60, NTSC		Music center: SA-VK31 (GS)
Output level	Composite video, 1 Vp-p, 75 Ω		Front speaker: SB-VK31 (GC)
Terminal	Pin jack (1 system)	<b>Note:</b>	
MP3			
Bit rate	32 kbps-320 kbps	1. Specifications are subject to change without notice. Mass and dimensions are approximate.	
Sampling frequency	32 kHz, 44.1 kHz, 48kHz	2. Total harmonic distortion is measured by the digital spectrum analyzer.	
<b>n GENERAL</b>		3. HIGH stands for High Frequency. LOW stands for Low Frequency.	
Power Supply	AC 110 V/127 V/220-230 V/240 V, 50/60Hz		

### **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 (for GS only)

**Note on AC power supply cord (For Saudi Arabia and Kuwait only)**

## Before use

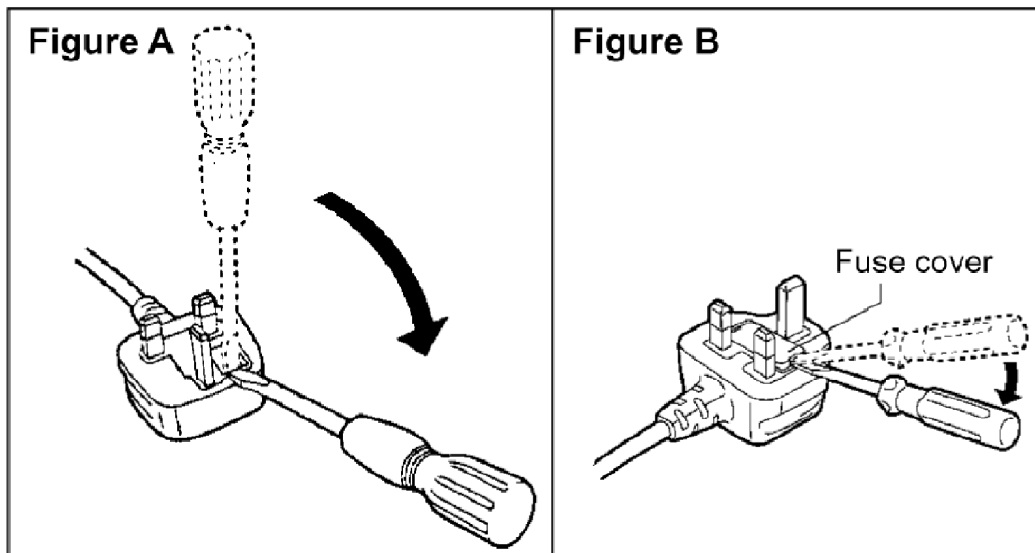
Remove the connector cover.

## How to replace the fuse

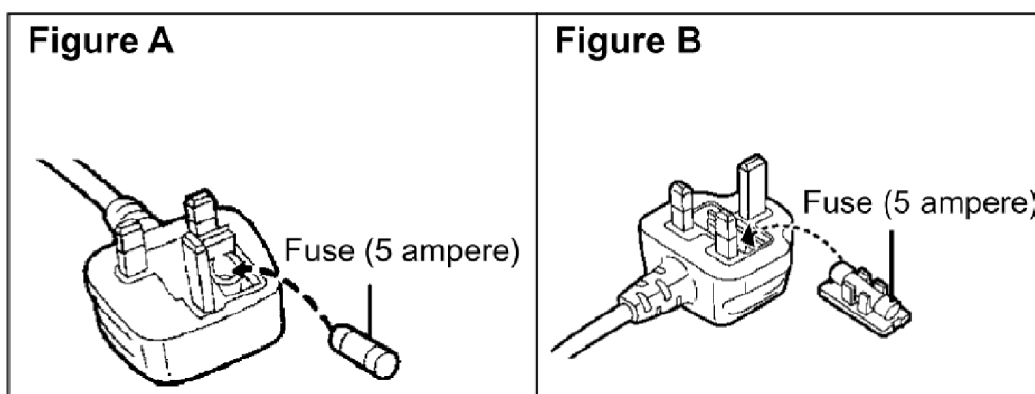
The location of the fuse differs according to the type of AC power supply cord (figures A and B). Confirm the AC power supply cord fitted and follow the instructions below.

Illustrations may differ from actual AC power supply cord.

1. Open the fuse cover with a screwdriver.



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





## 2 Before Use (For GC Only)

Be sure to disconnect the mains cord before adjusting the voltage selector.

Use a minus(-) screwdriver to set the voltage selector (on the rear panel) to the voltage setting for the area in which the unit will be used. (If the power supply in your area is 117V or 120V, set to the "127V" position.)

Note that this unit will be seriously damaged if this setting is not made correctly. (There is no voltage selector for some countries, the correct voltage is already set.)

## 3 Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C950, C5820 and C5820 through a 10 $\Omega$ , 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 110V, 50/60 Hz and AC 240V, 50 Hz in NO SIGNAL mode should be ~650mA and ~600mA respectively.

## 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.

## 5 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 bodily 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).

### IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by  $\Delta$  in the schematic diagrams, Exploded Views and 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.

## 6 Handling the Lead Solder

### 6.1. About lead free solder (PbF)

#### Distinction of PbF P.C.B. :

P.C.B.s (manufactured) using lead free solder will have a PbF stamp on the P.C.B.

#### Caution:

- Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to 700 ± 20°F (370 ± 10°C).
- Pb free solder will tend to splash when heated too high (about 1100°F/600°C).
- When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

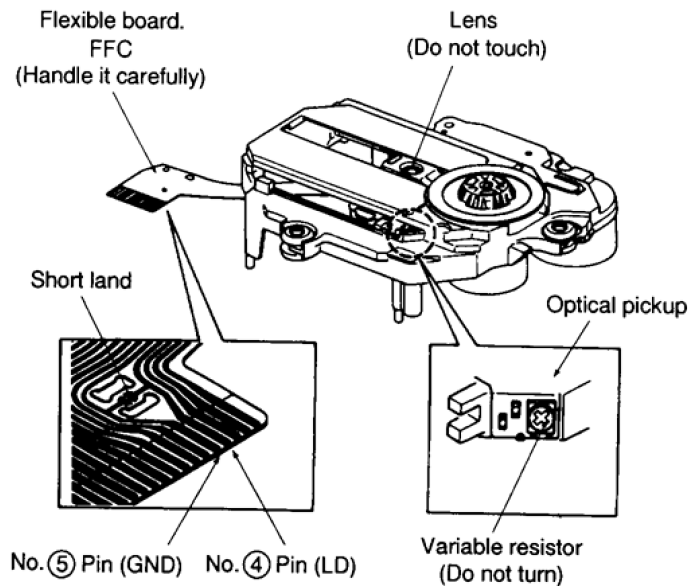
## 7 Handling Precautions For Traverse Deck

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

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

### • Handling of traverse deck (optical pickup)

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



### • Grounding for electrostatic breakdown prevention

#### 1. Human body grounding

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

#### 2. Work table grounding

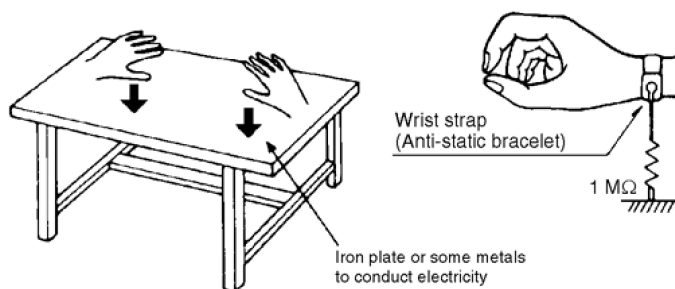
Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

### Caution :

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

### 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.



## 8 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:

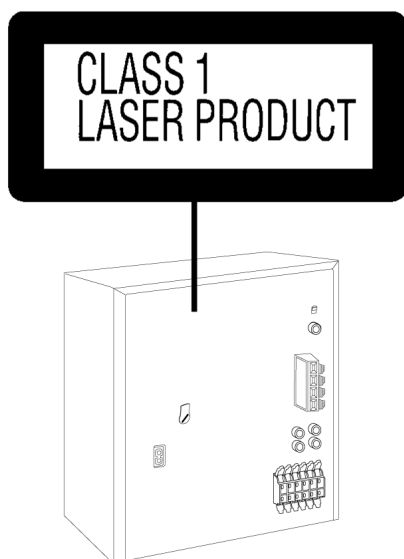
1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Do not look at pick up lens.

### 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.

### n Use of Caution Labels



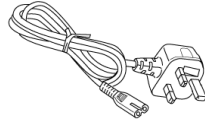
<b>CAUTION</b>	- INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM. IEC60825-1 / Class 3b
<b>VARNING</b>	- OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRÄKTA EJ STRÅLEN.
<b>ADVARSEL</b>	- USYNLIG LASERSTRÅLING VED ÅBNING UNDGÅ UDSÆTTELSE FOR STRÅLING.
<b>ADVARSEL</b>	- USYNLIG LASERSTRÅLING NÄR DEKSEL ÄPNES. UNINGÅ EKSPONERING FOR STRÅLEN.
<b>VARO!</b>	AVATTAESSA OLET NÄKYMÄTÖNTÄ ALLTIINA LASERSÄTEILYLLÄ. ÄLÄ KATSO SÄTEESEEN.
<b>VORSICHT</b>	- UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.
<b>ATTENTION</b>	- RAYONNEMENT LASER INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.
<b>注意</b>	- 打开时有不可见激光辐射。避免激光照射。
<b>注意</b>	- ここを開くと不可視レーザー光が出ます。 ビームを見たり、触れたりしないで下さい。

Inside of product

## 9 Accessories



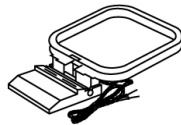
AC power supply cord  
(For GC only)



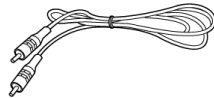
AC power supply cord  
(For GS only)



FM indoor antenna



AM loop antenna



Video connection cable

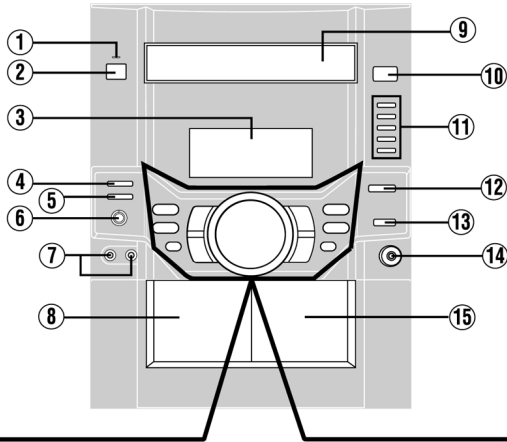


Remote control  
transmitter

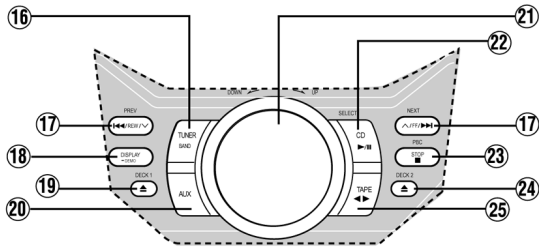
# 10 Operation Procedures

## Front panel controls

### Main unit



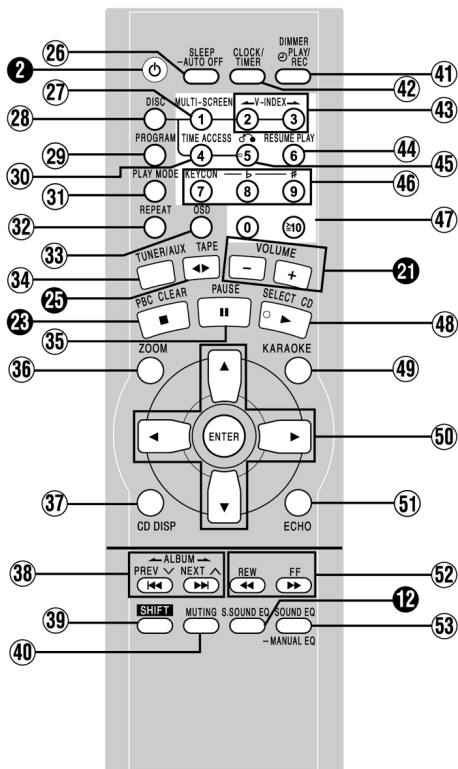
- ① **AC supply indicator [AC IN]**  
This indicator lights when the unit is connected to the AC mains supply.
- ② **Standby/on switch [⏻/⏻]**  
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ③ **Display**
- ④ **Deck select button [DECK 1/2]**
- ⑤ **Record button [● REC]**
- ⑥ **Microphone volume control [MIC VOL]**
- ⑦ **Microphone jacks [MIC 1, 2]**
- ⑧ **Deck 1 cassette holder**
- ⑨ **Disc tray**
- ⑩ **CD tray open/close button [△ OPEN/CLOSE]**
- ⑪ **CD direct play buttons [1-5]**
- ⑫ **Super sound EQ button [SUPER SOUND EQ]**
- ⑬ **Built-in sound equalizer button [SOUND EQ]**
- ⑭ **Headphones jack [PHONES]**
- ⑮ **Deck 2 cassette holder**



### Center console

- ⑯ **Tuner/band select button [TUNER, BAND]**
- ⑰ **CD skip/search/previous/next, VCD slow advance, tape fast-forward/rewind, tune/preset channel select, time adjust buttons [◀◀/REW/V, PREV, ▲/FF/▶▶, NEXT]**
- ⑱ **Display, demonstration button [DISPLAY, -DEMO]**
- ⑲ **Deck 1 open button [△ DECK 1]**
- ⑳ **AUX button [AUX]**
- ㉑ **Volume control [VOLUME DOWN, UP]**
- ㉒ **CD play/pause, select button [▶/|| CD, SELECT]**
- ㉓ **Stop/program clear, PBC on/off button [■ STOP, PBC]**
- ㉔ **Deck 2 open button [△ DECK 2]**
- ㉕ **Tape play/direction button [◀ ▶ TAPE]**

### Remote control



Buttons such as ② function in exactly the same way as the buttons on the main unit.

- ⑳ **Sleep timer + Auto off button [SLEEP, -AUTO OFF]**
- ㉑ **Multi screen button [MULTI-SCREEN]**
- ㉒ **Disc button [DISC]**
- ㉓ **Program button [PROGRAM]**
- ㉔ **Time access button [TIME ACCESS]**
- ㉕ **Play mode select button [PLAY MODE]**
- ㉖ **Repeat button [REPEAT]**
- ㉗ **On-screen display button [OSD]**
- ㉘ **Tuner/band select, AUX button [TUNER/AUX]**
- ㉙ **CD pause button [|| PAUSE]**
- ㉚ **Zoom button [ZOOM]**
- ㉛ **CD display button [CD DISP]**
- ㉜ **CD skip/search/previous/next, album skip, preset channel select, time adjust buttons [◀◀▶▶, ◀ ALBUM ▶, PREV V NEXT ▲]**
- ㉝ **Shift button [SHIFT]**  
To use functions labeled in orange:  
While pressing [SHIFT], press the corresponding button.
- ㉞ **Muting button [MUTING]**
- ㉟ **Dimmer + Play timer/record timer button [DIMMER, ⊙PLAY/REC]**
- ㊱ **Clock/timer button [CLOCK/TIMER]**
- ㊲ **Video index buttons [◀ V-INDEX ▶]**
- ㊳ **Resume play button [RESUME PLAY]**
- ㊴ **Return button [⊙]**
- ㊵ **Key control buttons [KEYCON, b, #]**
- ㊶ **Numbered buttons [≥10, 1-9, 0]**
- ㊷ **CD play, select button [▶ CD, SELECT]**
- ㊸ **Karaoke button [KARAOKE]**
- ㊹ **Cursor buttons [▲, ▼, ◀, ▶]Enter button [ENTER]**
- ㊺ **Echo button [ECHO]**
- ㊻ **Tape fast-forward/rewind, manual tuning, VCD slow advance buttons [◀◀▶▶, REW FF]**
- ㊼ **Built-in sound equalizer/manual EQ button [SOUND EQ, -MANUAL EQ]**

# 11 Operation Checks and Main Component Replacement Procedures

## “ATTENTION SERVICER”

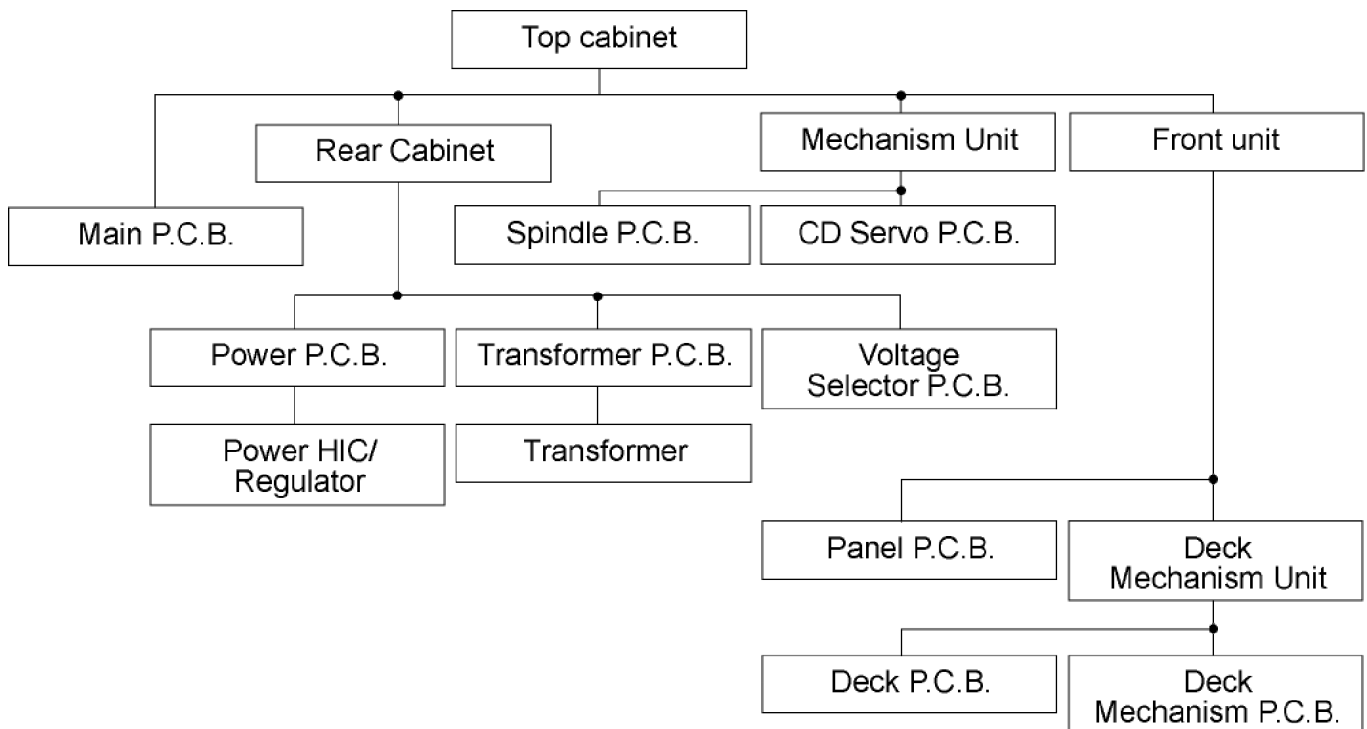
Some chassis components may have sharp edges.

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.

### Warning:

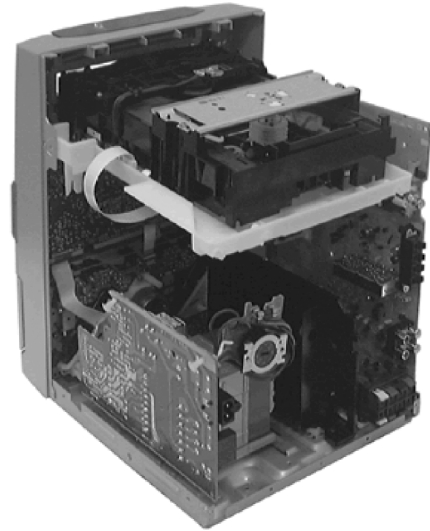
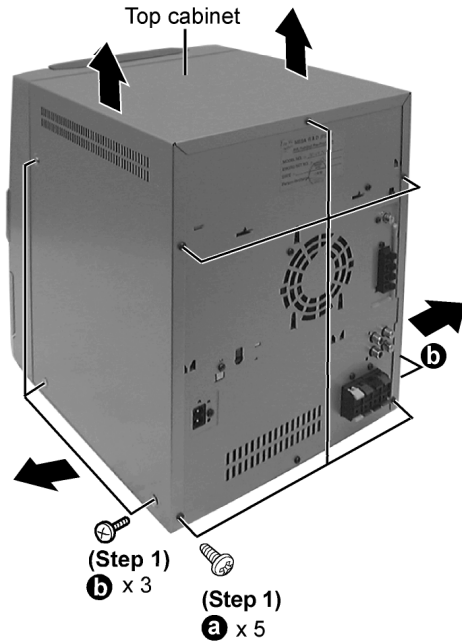
This product uses a laser diode. Refer to caution statement Precaution of Laser Diode.



## 11.1. Disassembly of Top Cabinet and Rear Panel

**Step 1** Remove 3 screws each side and 5 screws at rear panel.

**Step 2** Lift up both sides of cabinet ass'y, push the cabinet ass'y toward the rear and remove the cabinet ass'y.



### 11.1.1. Disassembly for CD Lid

(The CD changer unit can be removed after the CD Lid is removed)

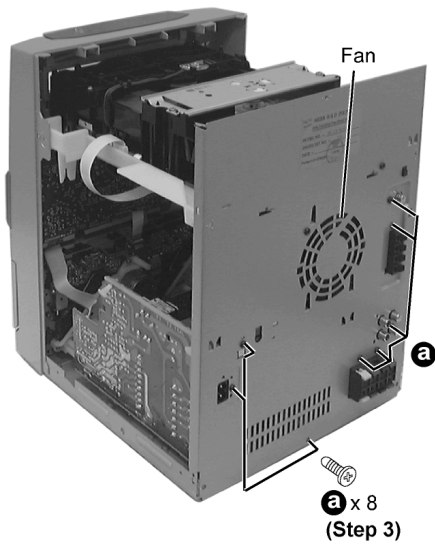
- Follow the (Step 1) - (Step 2) of Item 11.1 - Disassembly of Top Cabinet and Rear Panel

**When opening the disc tray automatically (Using Power Supply)**

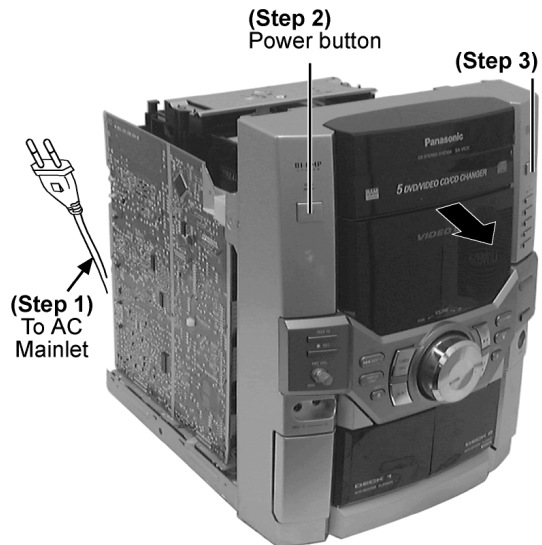
**Step 1** Connect the AC power cord.

**Step 2** Press the POWER button to power up the main unit.

#### Disassembly of Rear Panel

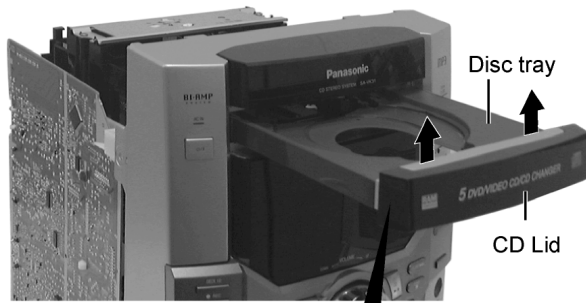


**Step 3** Remove 8 screws and disconnect wire at CN305 (Fan) at rear cabinet as shown.

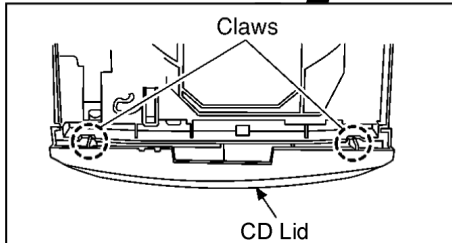
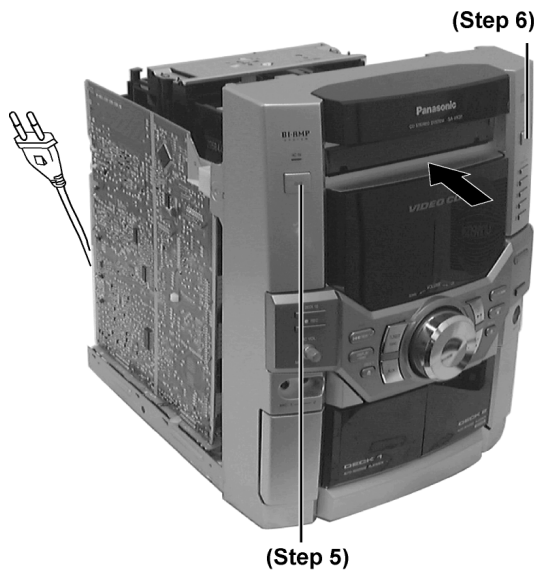
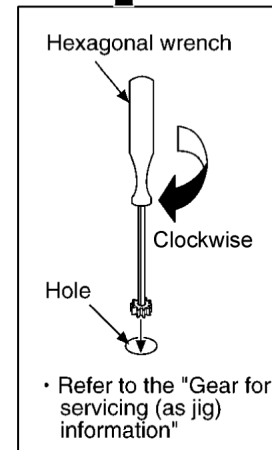
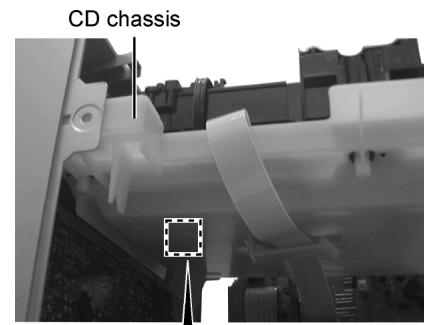


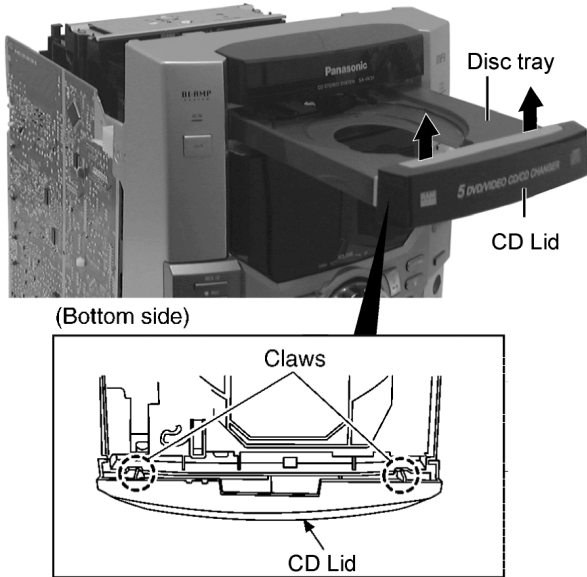
**Step 3** Press the OPEN/CLOSE button, the disc tray will be open automatically.



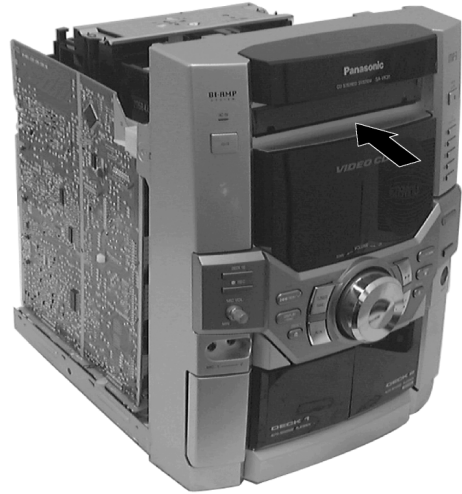


(Bottom side)

**Step 4** Release the 2 claws, and then remove the CD Lid.**Step 5** Press the POWER button to turn the power on.**Step 6** Press the OPEN/CLOSE button, the disc tray will be close.**[Open the disc tray manually (Using service tools)]****Step 1** Insert the gear tool into the hole on the underside of CD chassis and then rotate in the direction of arrow. The disc tray will be open.**Step 2** Release the 2 claws, and then remove the CD lid cover.



**Step 3** Repeat Step 2 but rotate the gear tools in anti-clockwise direction.

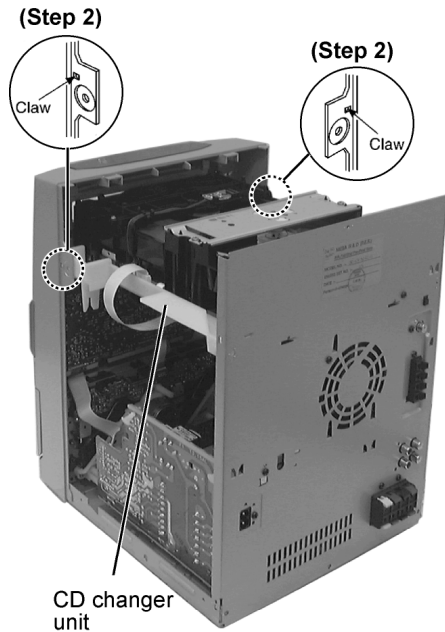


**Step 4** The disc tray will be close.

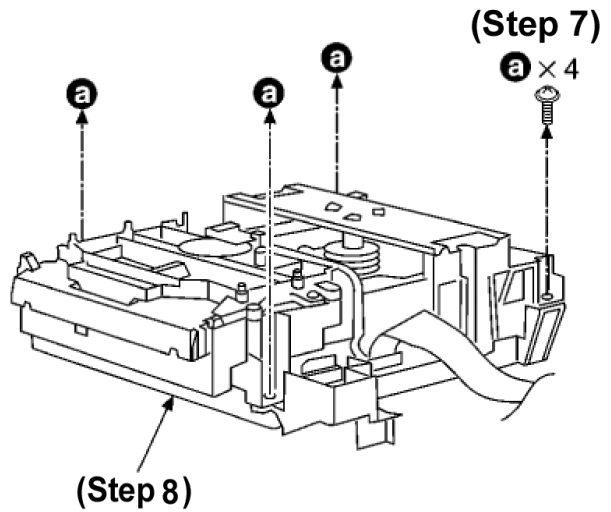
## 11.2. Disassembly of CD Mechanism Unit

- Follow the (Step 1) - (Step 3) of Item 11.1 - Disassembly of Top Cabinet and Rear Panel
- Follow the (Step 1) - (Step 6) of Item 11.1.1 - Disassembly for CD Lid

**Step 1** Detach the FFC boards (CN309 & CN310).



**Step 2** Release the claws of both ends, and then lift up the CD Mechanism Unit.



**Step 3** Remove 4 screws.

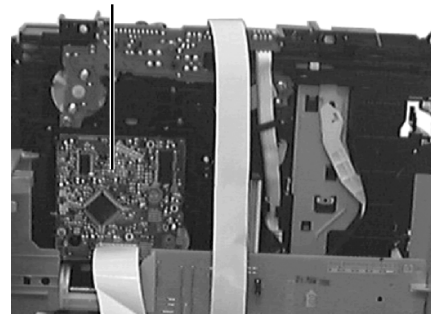
**Step 4** Remove the CD chassis.

**Step 5** Lay the CD mechanism unit as shown.

• **Note:**

For disassembly of CD mechanism unit, please refer to Section 11.6 of this manual.

CD Servo P.C.B.

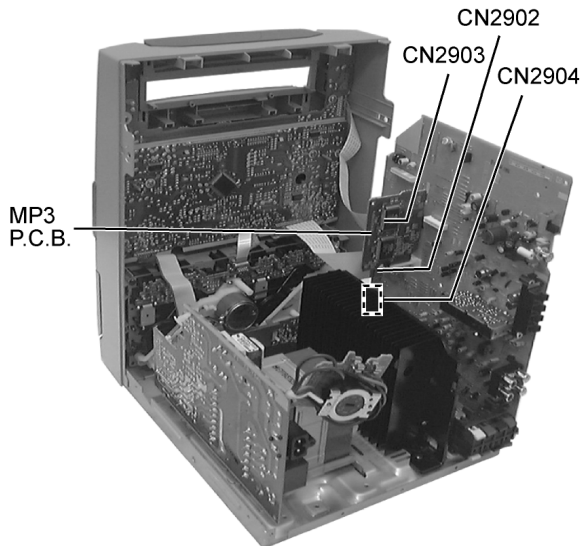


## 11.3. Disassembly Main P.C.B., Transformer P.C.B. & MP3 P.C.B.

### 11.3.1. Disassembly for the Main P.C.B.

- Follow the (Step 1) - (Step 3) of Item 11.1 - Disassembly of Top Cabinet and Rear Panel
- Follow the (Step 1) - (Step 6) of Item 11.1.1 - Disassembly for CD Lid
- Follow the (Step 1) - (Step 5) of Item 11.2 - Disassembly for the CD Mechanism Unit

**Step 1** Disconnect FFC at CN2902, CN2903 & CN2904 from Panel P.C.B.

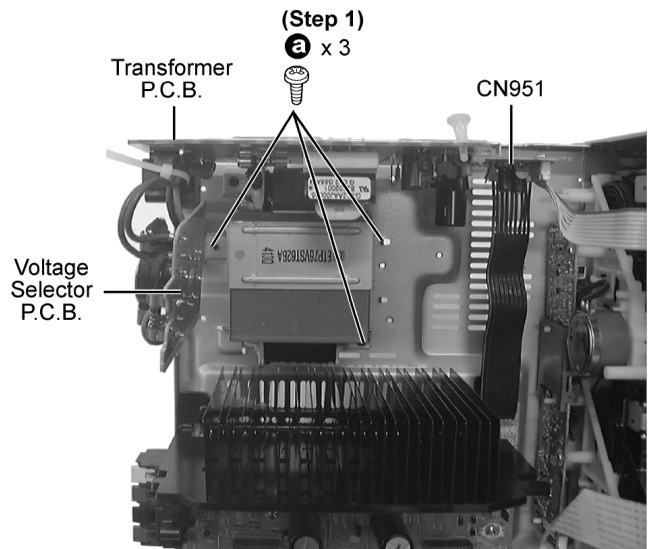


**Step 2** Lift up Main P.C.B. by disconnect CN500 & CN501 as arrow shown above.

### 11.3.2. Disassembly of the Transformer P.C.B. & Voltage Selector P.C.B.

- Follow the (Step 1) - (Step 3) of Item 11.1 - Disassembly of Top Cabinet and Rear Panel
- Follow the (Step 1) - (Step 6) of Item 11.1.1 - Disassembly for CD Lid
- Follow the (Step 1) - (Step 5) of Item 11.2 - Disassembly for the CD Mechanism Unit
- Follow the (Step 1) - (Step 2) of Item 11.3.1 - Disassembly for the Main P.C.B.

**Step1** Remove 3 screws, disconnect connector CN951.

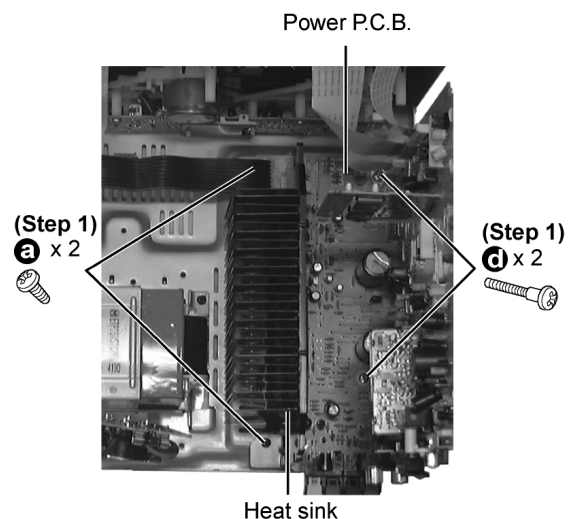


### 11.3.3. Disassembly of the Power P.C.B.

- Follow the (Step 1) - (Step 2) of Item 11.1 - Disassembly of Top Cabinet and Rear Panel
- Follow the (Step 1) - (Step 6) of Item 11.1.1 - Disassembly for CD Lid
- Follow the (Step 1) - (Step 5) of Item 11.2 - Disassembly of the CD Mechanism Unit
- Follow the (Step 1) - (Step 2) of Item 11.3.1 - Disassembly for the Main P.C.B.
- Follow the (Step 1) of Item 11.3.2 - Disassembly for the Transformer P.C.B.

**Step 1** Remove 2 screws fixed to the Main P.C.B.

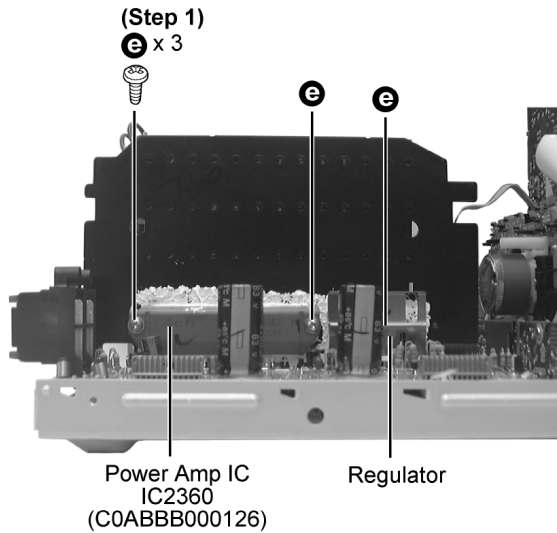
**Step 2** Remove the 2 screws fixed at heat sink.



#### NOTE:

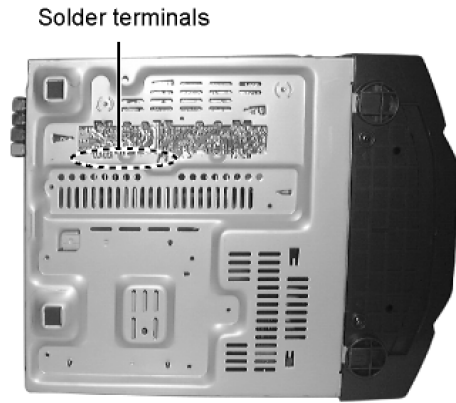
Insulate Power P.C.B. with insulation material to avoid short circuit.

- Replacement of Power Amplifier IC & Voltage Regulator

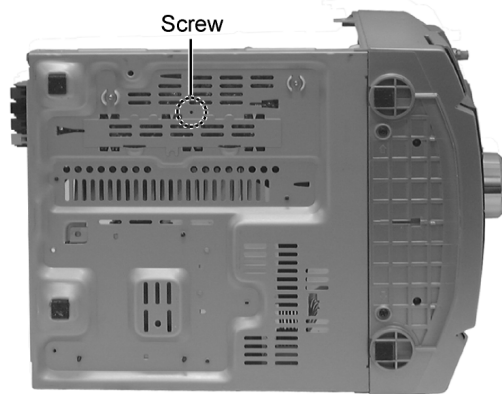
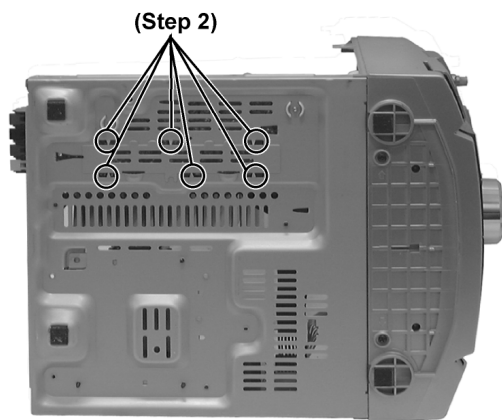


**Step 1** Break the joint with a metal cutter as shown below.

**Step 2** Unsolder the terminals of Power Amp IC, transistor and replace the components.



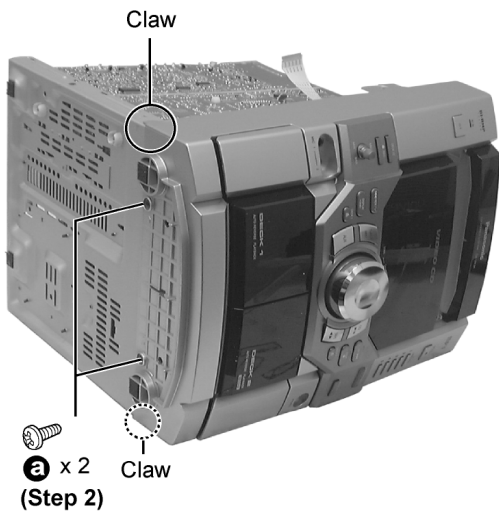
**Step 3** Fix back the cutted portion with a screw as shown.



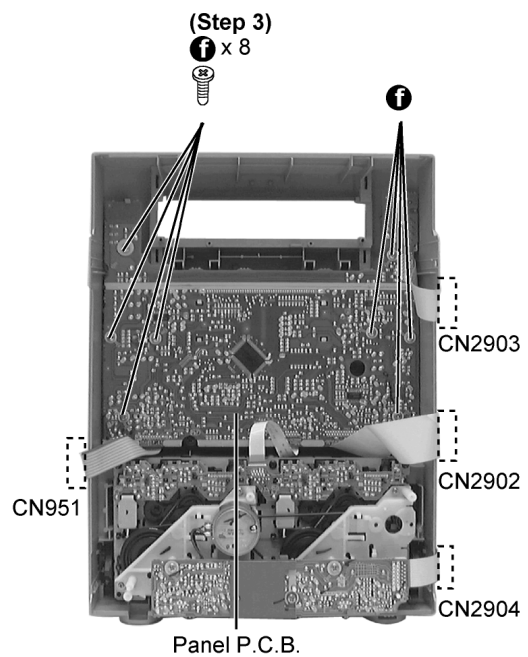
### 11.4. Disassembly of Panel P.C.B. & Tact Switch P.C.B.

- Follow the (Step 1) - (Step 6) of Item 11.1.
- Follow the (Step 1) - (Step 6) Disassembly for the CD Lid of Item 11.1.1.
- Follow the (Step 1) - (Step 6) Disassembly for the CD Changer Unit of Item 11.1.2.

**Step 1** Lay the unit as shown below.



**Step 2** Remove 2 screws, release 2 claws, and then draw the front panel ass'y forward.

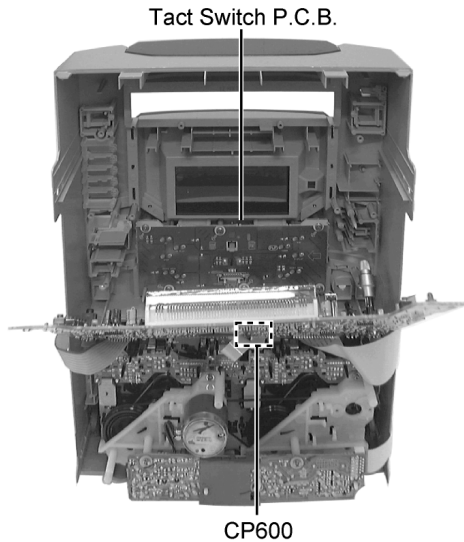


**Step 3** Remove the 8 screws.

**Step 4** Disconnect FFC Boards (CN951, CN2903, CN2902 & CN2904).

- Disassembly of Tact Switch P.C.B.

**Step 5** Disconnect connector CP600.



**Step 6** Pull out the volume knob.

**Step 7** Pull Panel P.C.B. forward.

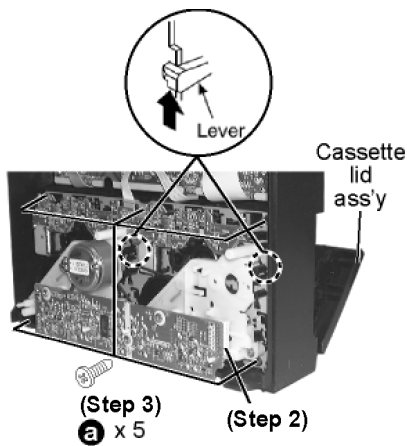
## 11.5. Disassembly of Deck Mechanism Unit & Deck P.C.B.

- Follow the (Step 1) - (Step 3) of Item 11.1 - Disassembly of Top Cabinet and Rear Panel
- Follow the (Step 1) - (Step 6) of Item 11.1.1 - Disassembly for CD Lid
- Follow the (Step 1) - (Step 5) of Item 11.2 - Disassembly for the CD Mechanism Unit

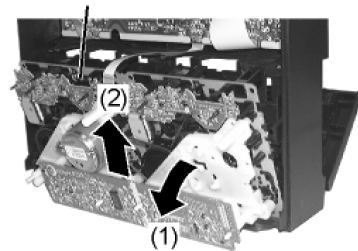
**Step 1** Detach FFC board. (CN951, CN2902, CN2903 & CN2904)

**Step 2** Disconnect FFC flat cable from the connector (CN2903).

**Step 3** Remove the 5 screws.



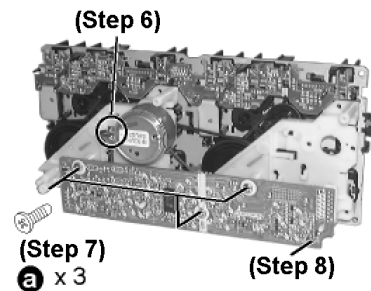
Cassette mechanism



**Step 4** Push the lever upward, and then open the cassette lid ass'y (For DECK1 and DECK2).

**Step 5** Tilt the cassette mechanism unit in the direction of arrow (1), and then remove it in the direction of arrow (2).

- For replacement of Deck P.C.B.



**Step 6** Unsolder the motor terminals.

**Step 7** Remove 4 screws.

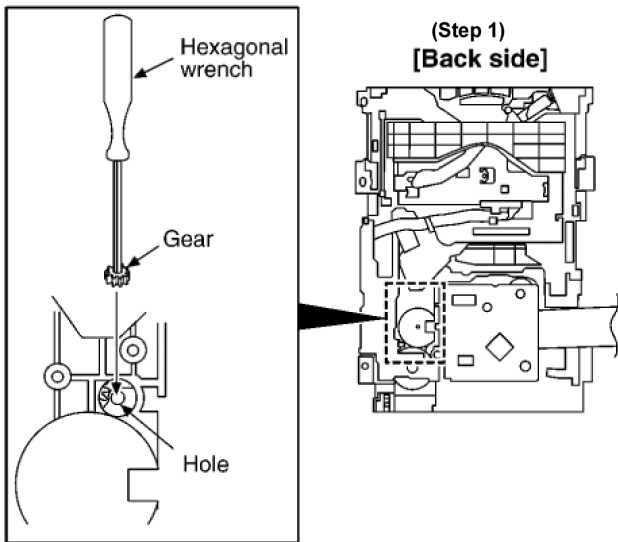
**Step 8** Remove Deck P.C.B.

## 11.6. CD Mechanism Main Component Replacement Procedures

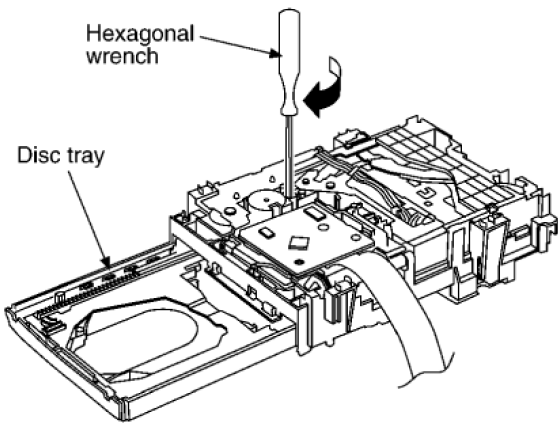
- Follow the (Step 1) - (Step 3) of Item 11.1 - Disassembly of Top Cabinet and Rear Panel
- Follow the (Step 1) - (Step 6) of Item 11.1.1 - Disassembly for CD Lid
- Follow the (Step 1) - (Step 5) of Item 11.2 - Disassembly for the CD Mechanism Unit

### 11.6.1. Replacement of the Traverse Deck

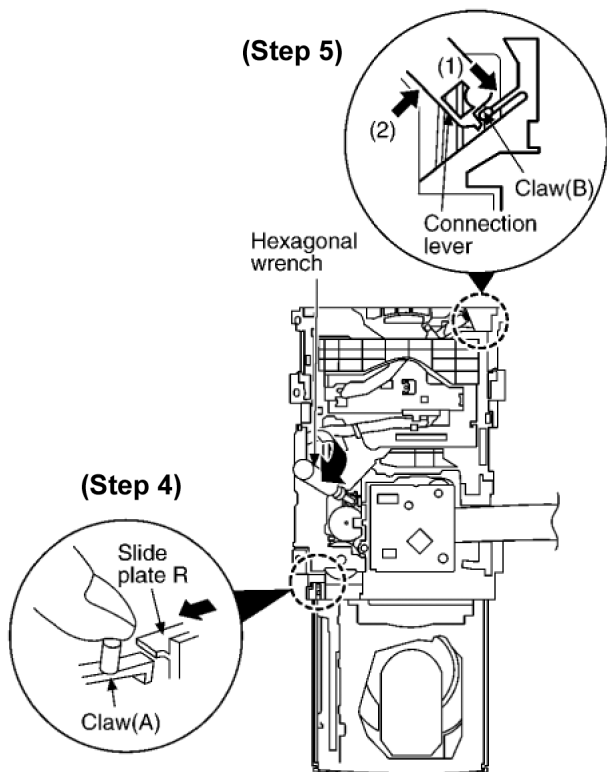
**Step 1** Remove the CD changer unit.



**Step 2** Insert the gear with hexagonal wrench into the hole.

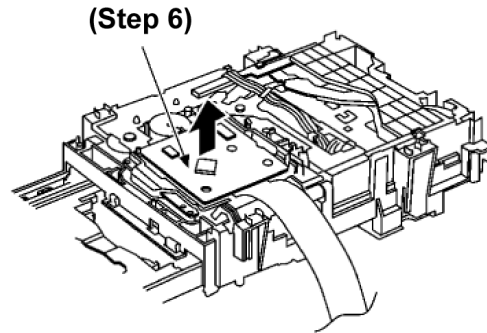


**Step 3** Rotate the hexagonal wrench in the direction of arrow (clockwise), and then open the disc tray fully.

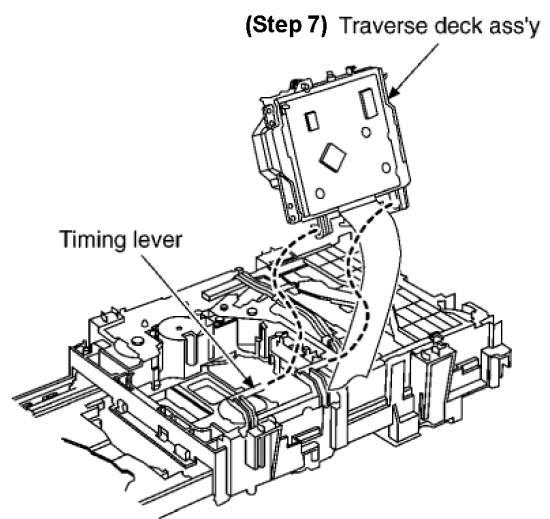


**Step 4** With pressing the claw (A), rotate the hexagonal wrench clockwise. (The slide plate R moves for a little amount.)

**Step 5** Pressing the claw (B) in the direction of arrow (1), the connection lever moves in the direction of arrow (2).



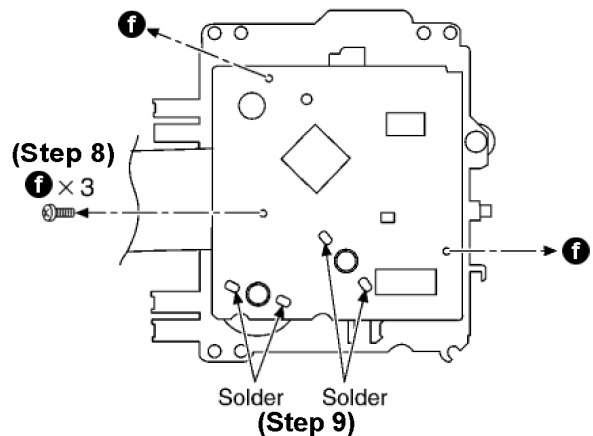
**Step 6** Lift up the traverse deck ass'y.



**Step 7** Remove the traverse deck ass'y from the timing lever.

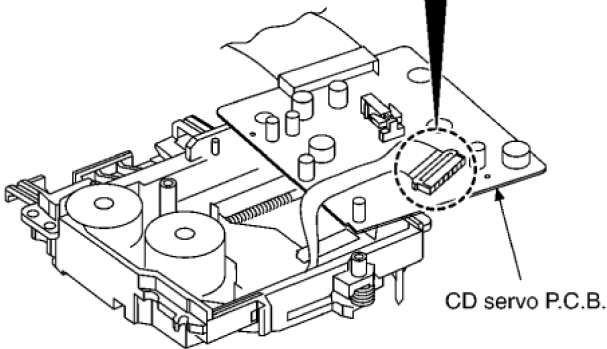
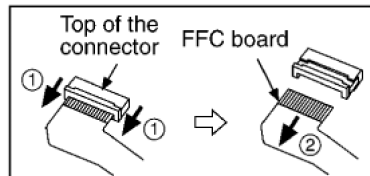
**Caution:**

When removing or inserting the traverse deck avoid touching the OPU lens and pressing onto the turntable.

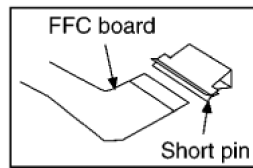


**Step 8** Remove 3 screws.

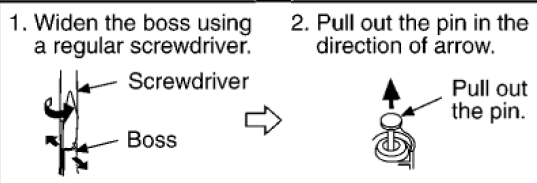
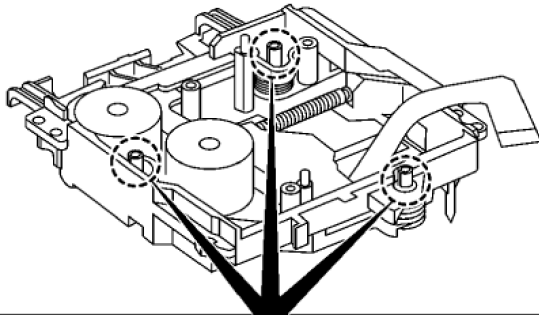
**Step 9** Unsolder the motor terminals (4 points).

**(Step 10)****Caution:**

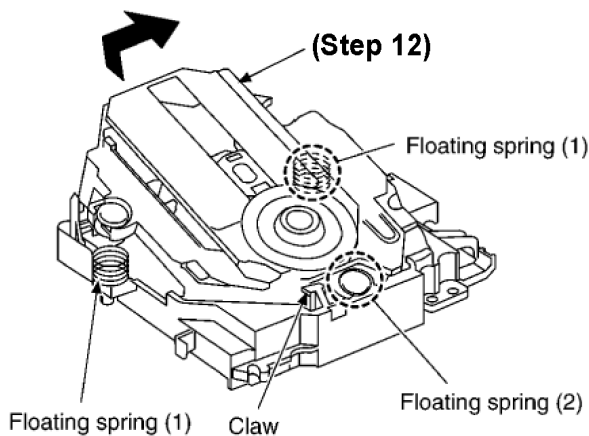
Insert a short pin into the traverse unit FFC board.  
(Refer to "Handling Precautions for Traverse Deck".)



**Step 10** Remove the FFC board from the connector, and then remove the CD Servo P.C.B.



**Step 11** Remove the pin.



**Step 12** Release the claw, and then remove the traverse deck ass'y.

**Note:**

Be careful not to lose the 3 floating spring because those will also be removed on removal of the traverse deck ass'y.

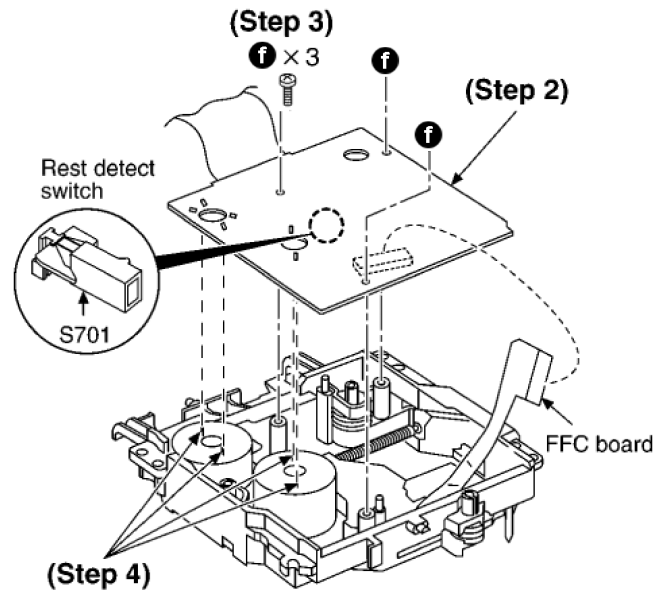
· Installation of the CD Servo P.C.B. after replacement

**Step 1** Connect the FFC board.

**Step 2** Install the CD servo P.C.B. in the traverse deck ass'y.

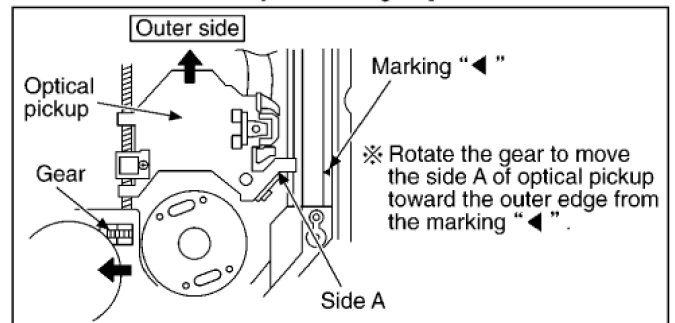
**Step 3** Remove 3 screws.

**Step 4** Solder.

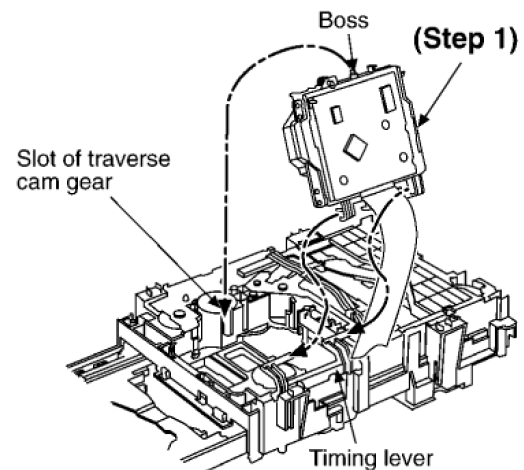


· Note for installation of the CD servo P.C.B.

Before installing the CD servo P.C.B., move the optical pickup toward the outer edge from the mark "◀".  
[Otherwise, the rest detect switch (S701) mounted on the CD servo P.C.B. may be damaged.]

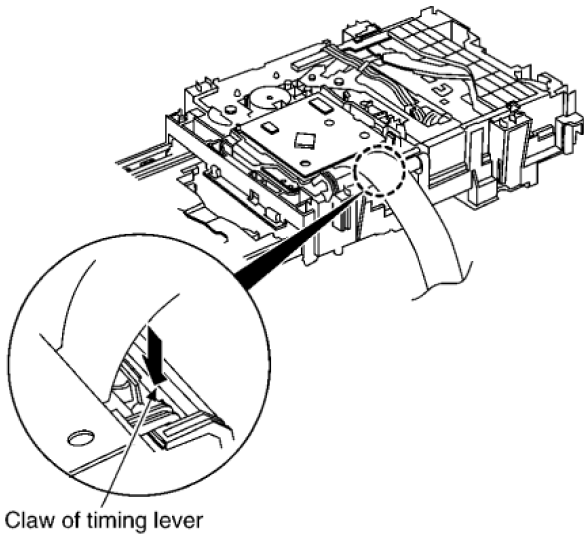


· Installation for traverse deck ass'y

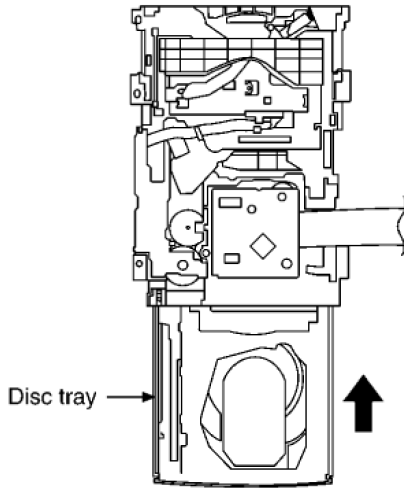


**Step 1** Install the traverse deck ass'y to the timing lever.

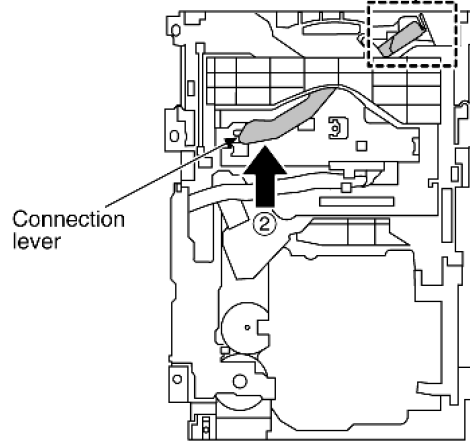
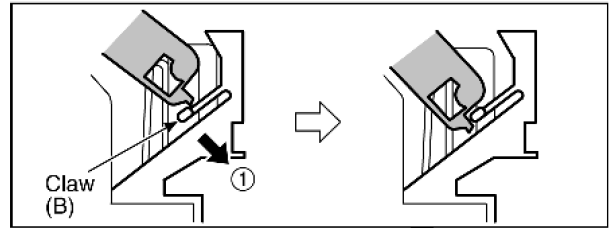
**Step 2** Align the boss of traverse deck ass'y with the slot of traverse cam gear.



**Step 3** Force the claw of timing lever.



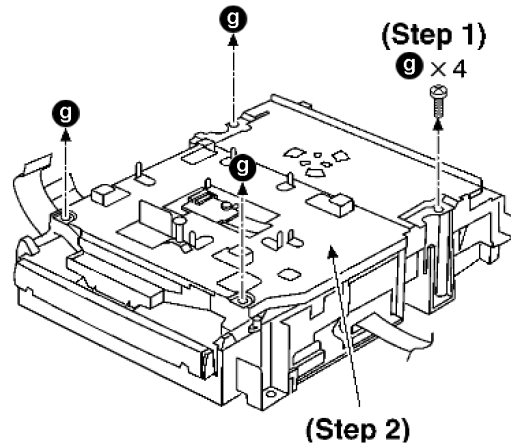
**Step 4** Force the disc tray fully.



**Step 5** With pressing the claw (B) in the direction of arrow (1), force the connection lever in the direction of arrow (2).

### 11.6.2. Replacement for the Disc Tray

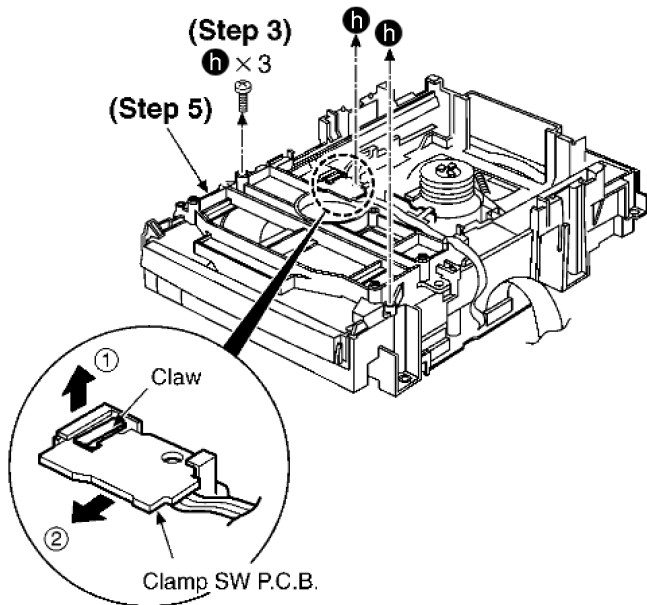
**Step 1** Remove 4 screws.



**Step 2** Remove the upper plate.

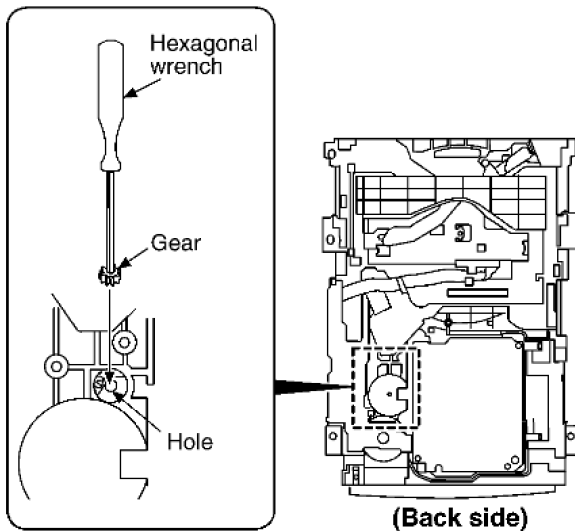
**Step 3** Remove 3 screws.



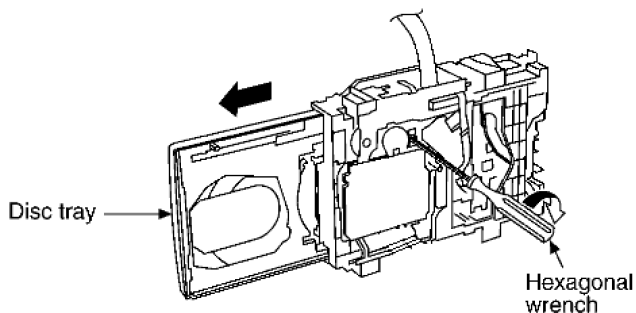


**Step 4** With lifting the claw in the direction of (1), draw the CD Detect P.C.B. in the direction of arrow (2).

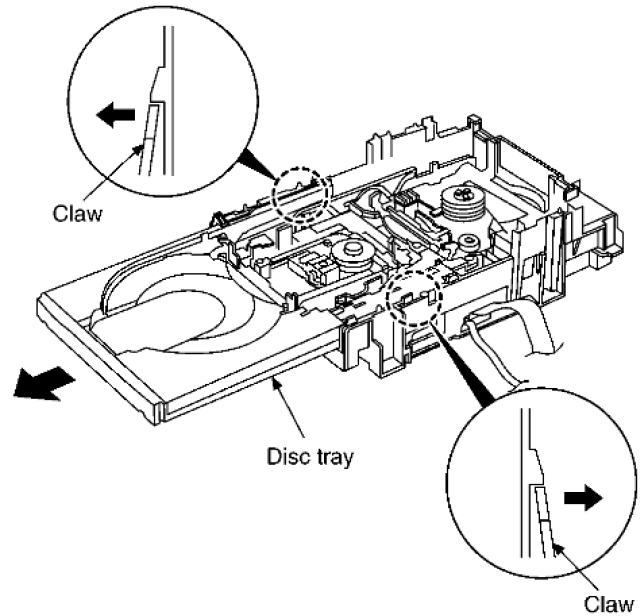
**Step 5** Remove the mechanism cover.



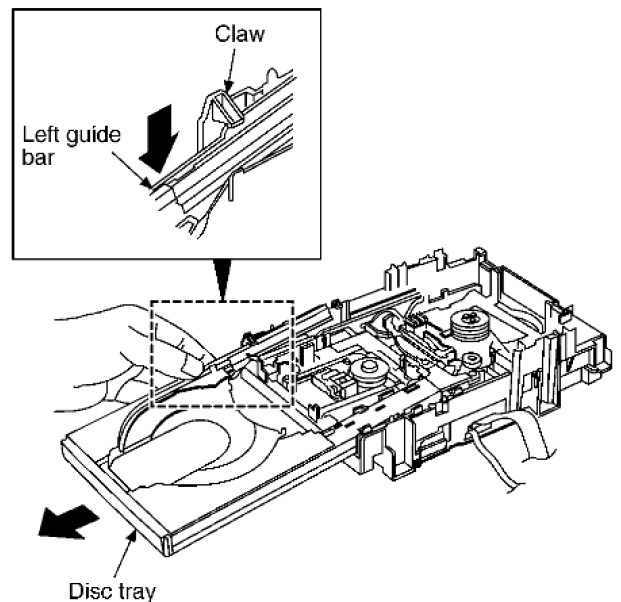
**Step 6** Insert the gear with hexagonal wrench into the hole.



**Step 7** Rotate the hexagonal wrench in the direction of arrow, and then open the disc tray fully.

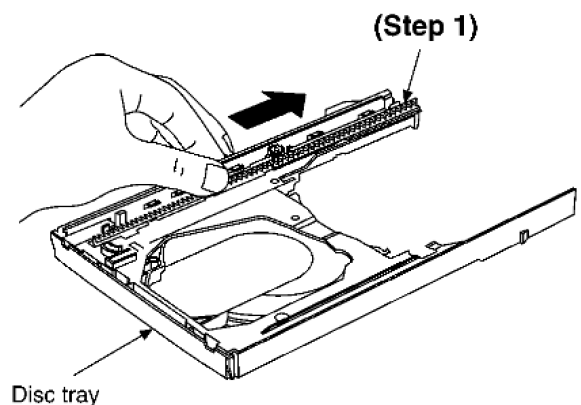


**Step 8** Release the both claws, and then draw the disc tray.

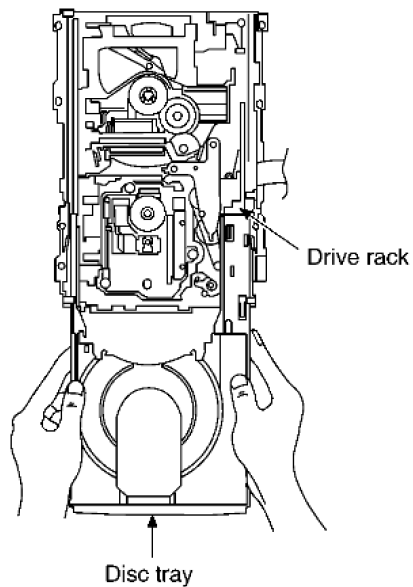


**Step 9** With forcing the left guide bar manually because the left guide bar interferes with claw, draw the disc tray.

**[Installation of the disc tray after replacement]**

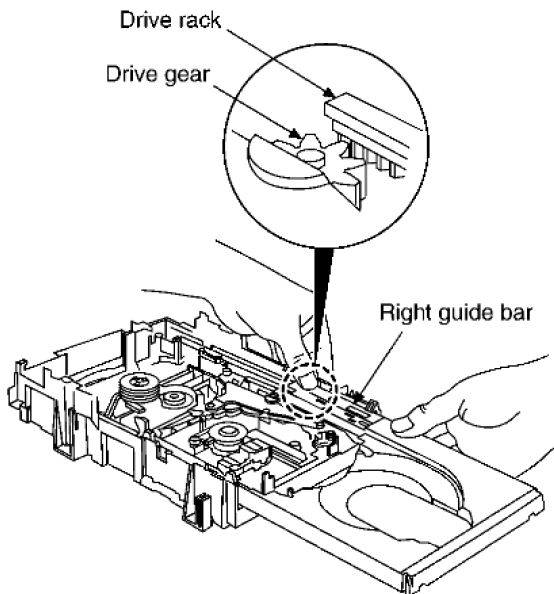


**Step 1** Slide the drive rack fully in the direction of arrow.



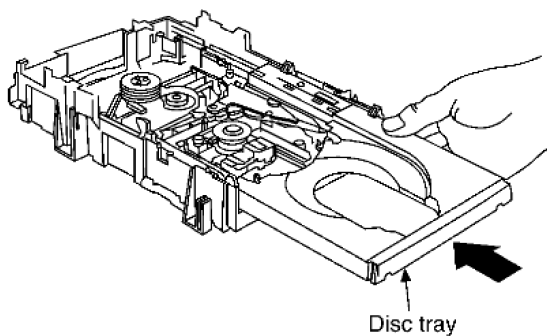
**Step 2** Holding the drive rack not to move, install the disc tray.

**Step 3** Align the drive rack with the drive gear.



**NOTE:**

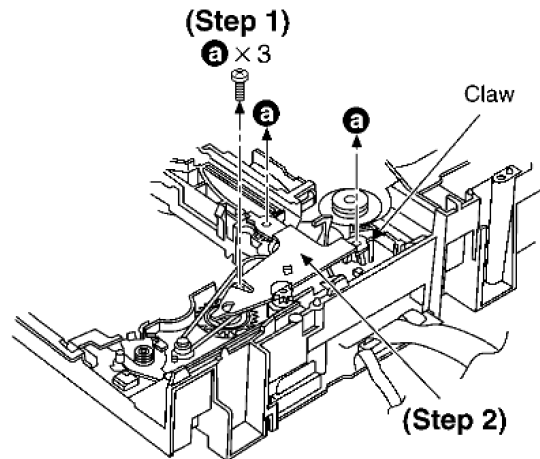
Force the right guide bar of tray base manually not to move upwards.



**Step 4** Holding the disc tray manually, push the disc tray in the direction of the arrow.

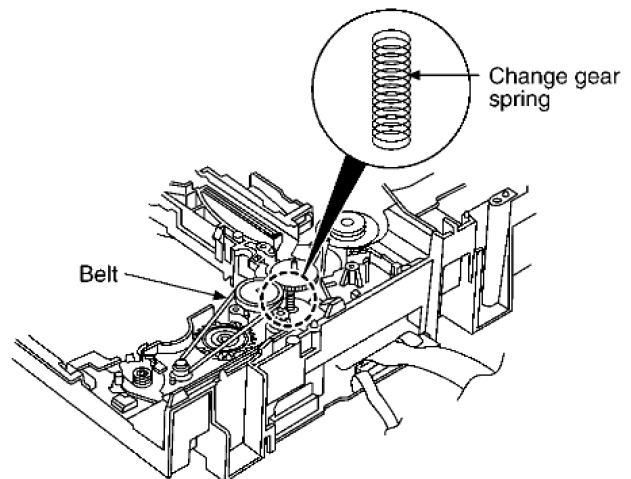
### 11.6.3. Disassembly and reassembly for mechanism base drive unit

**Step 1** Remove 3 screws.



**Step 2** Release the claw, and then remove the gear holder.

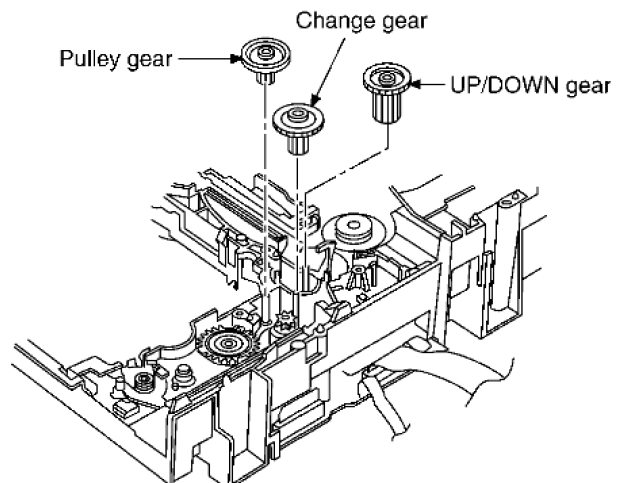
**Step 3** Remove the belt and change gear spring.



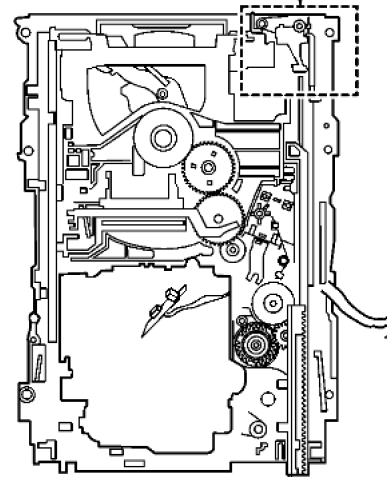
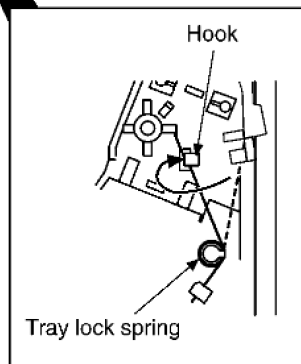
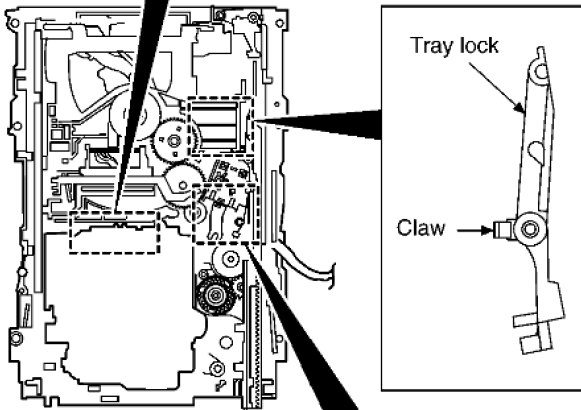
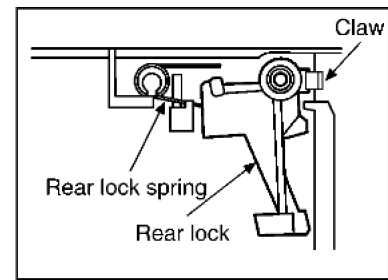
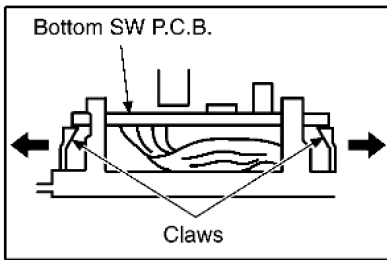
**NOTE:**

Take care not to lose the change gear spring.

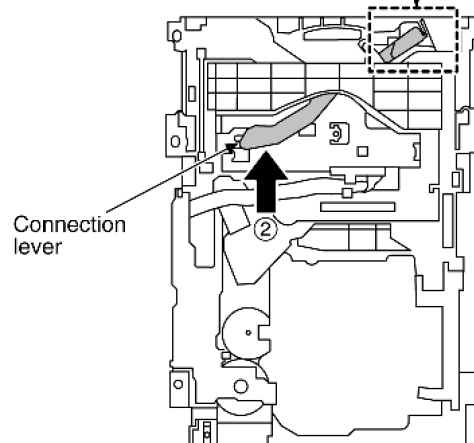
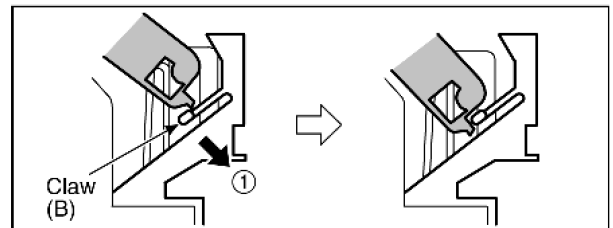
**Step 4** Remove the pulley gear, change gear and UP/DOWN gear.



**Step 5** Release the 2 claws, and then remove the bottom SW P.C.B..



**Step 9** Pressing the claw (B) in the direction of arrow (1), force the connection lever in the direction of arrow (2).

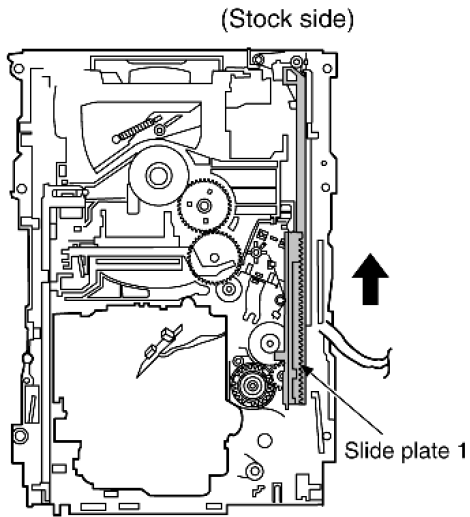


**Step 6** Install the tray lock spring to hook temporary.

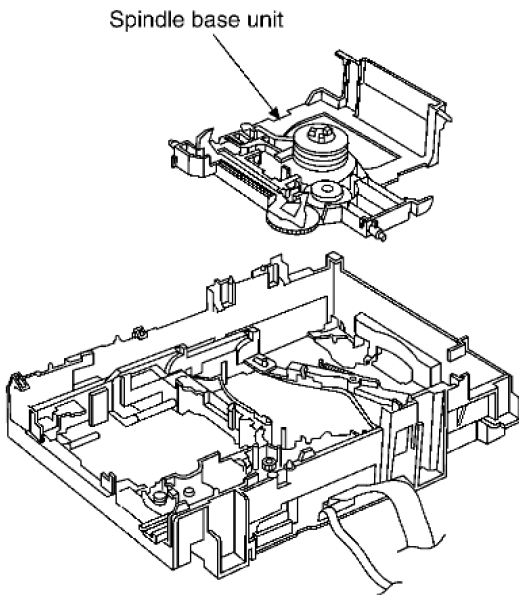
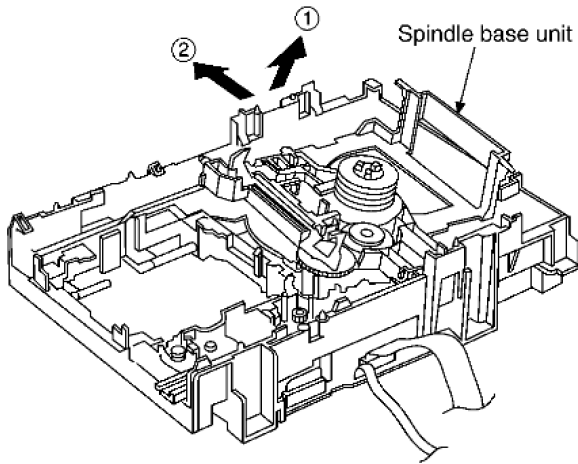
**Step 7** Release the claw, and then remove the tray lock.

**Step 8** Release the claw, and then remove the rear lock.

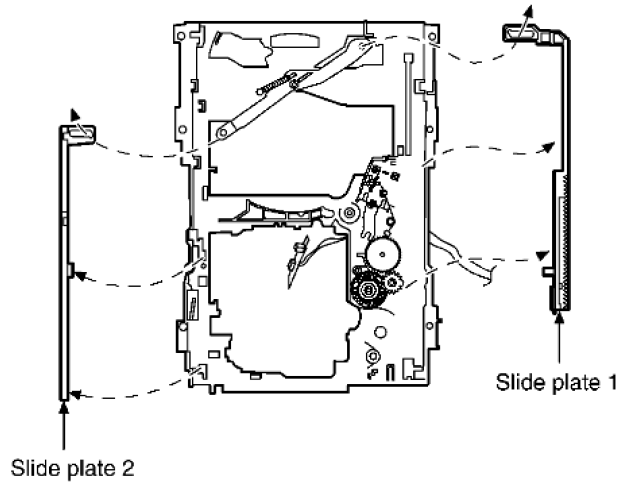
**Step 10** Move the slide plate 1 to the end of stock side.



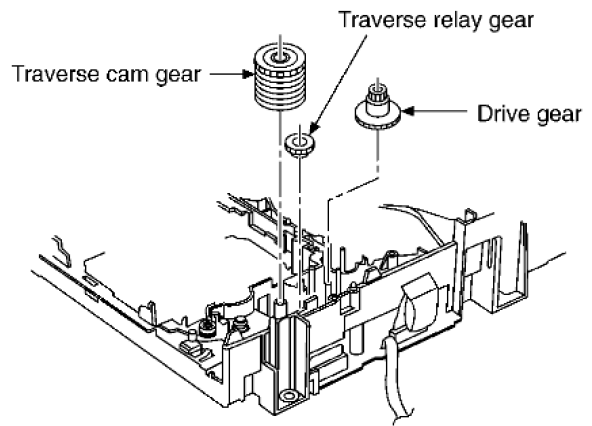
**Step 11** Lift up the left end of spindle base unit in the direction of arrow (1), and then remove the unit in the direction of arrow (2).



**Step 12** Remove slide plate 1 and slide plate 2.

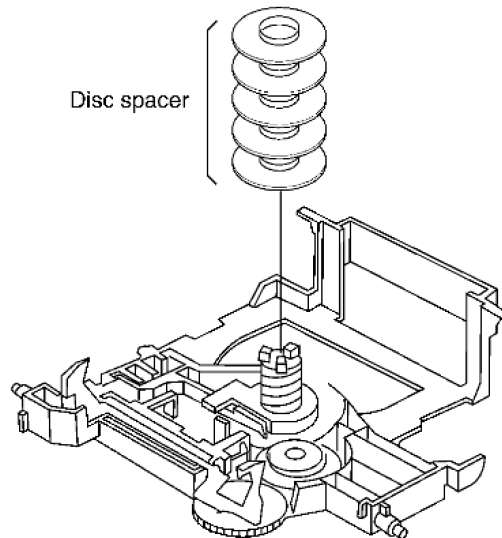


**Step 13** Remove the traverse relay gear, traverse cam gear and drive gear.

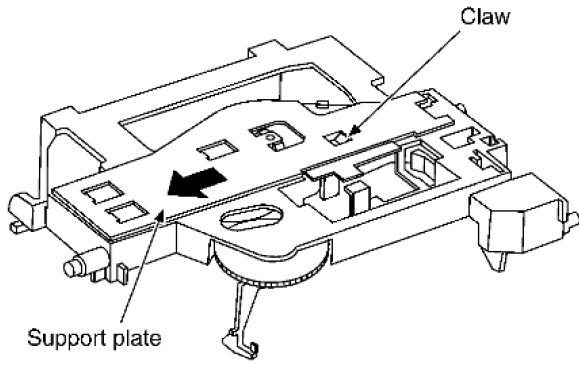


[Disassembly/reassembly for the spindle base unit]

**Step 1** Draw the 5 disc spacers.

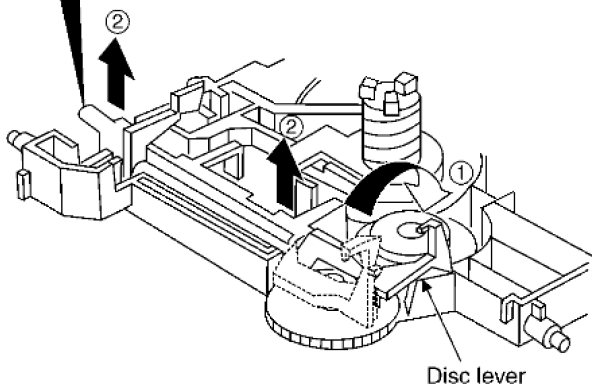
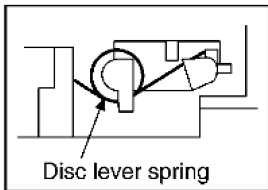


**Step 2** Pushing the claw, slide the support plate in the direction of arrow, and then remove it.



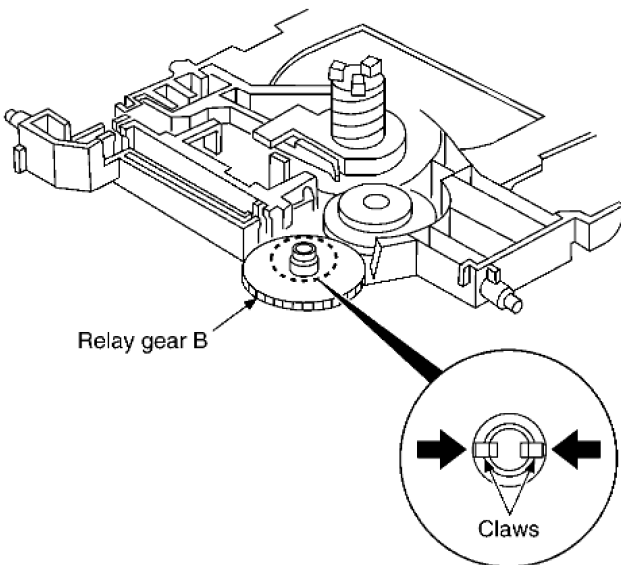
**Step 3** Rotate the disc lever in the direction of arrow (1), draw the disc lever.

(Installation for disc lever spring)



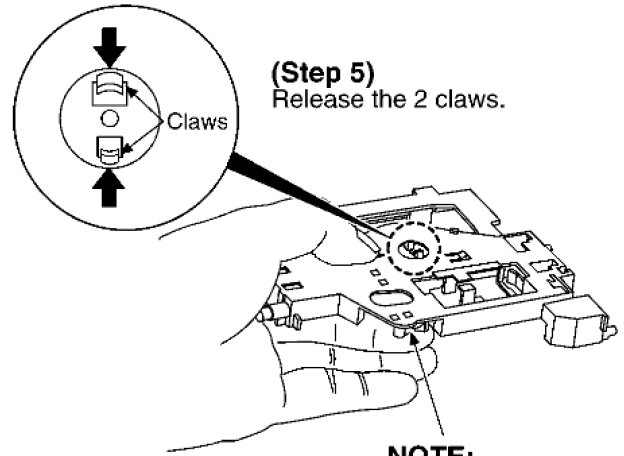
**NOTE:**

Take care not to lose the disc lever spring.



**Step 4** Release the 2 claws, and then draw the relay gear B.

**Step 5** Release the 2 claws as shown below.

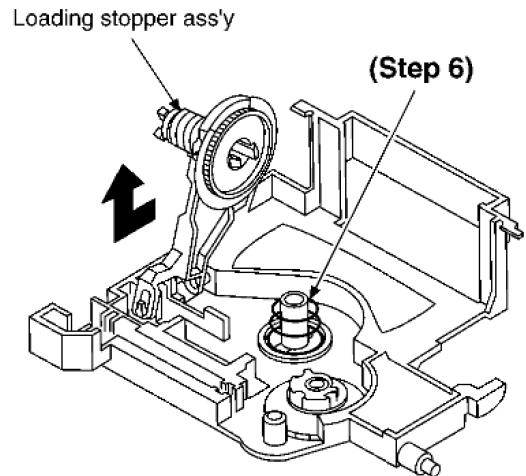


**NOTE:**

Hold the loading stopper ass'y manually because it is flipped by spring.

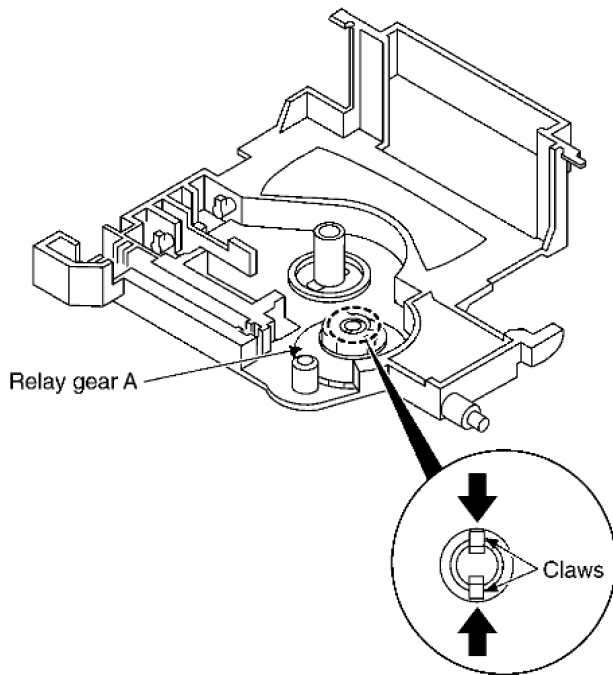
**NOTE:**

Hold the loading stopper ass'y manually because it is flipped by spring.



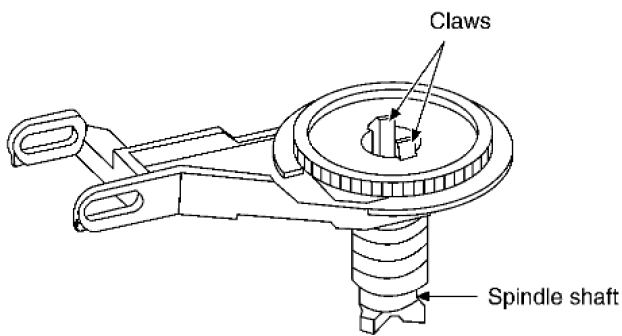
**Step 6** Remove the cushion spring.

**Step 7** Remove the loading stopper ass'y in the direction of arrow.

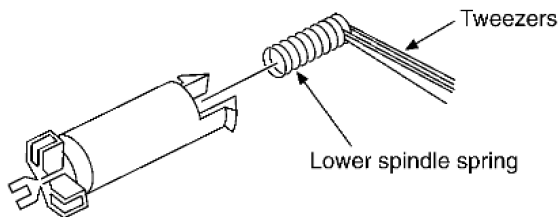


**Step 8** Release the 2 claws, and then remove the relay gear A.

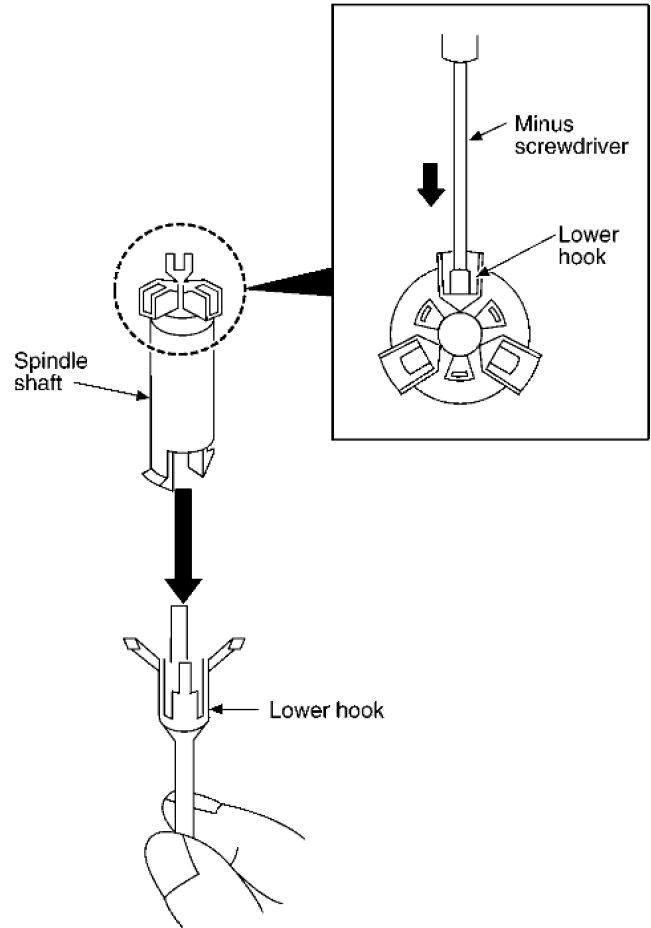
**Step 9** Release the 2 claws, and then remove the spindle shaft.



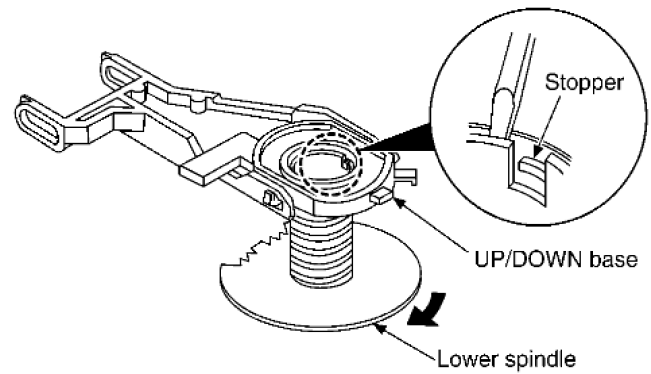
**Step 10** Remove the lower spindle spring with tweezers.



**Step 11** Force the lower hook with thin tip of minus screwdriver.

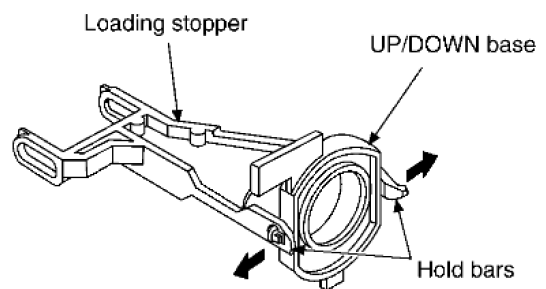


**Step 12** Squeeze the shaft of lower hook, and then draw it.



**Step 13** Rotate the lower spindle in the direction of arrow until the lower spindle interferes with stopper.

**Step 14** Insert the thin tip of minus screwdriver between the lower spindle and UP/DOWN base, and then slacken the lower spindle to release the stopper. Then, rotate the lower spindle and remove it.

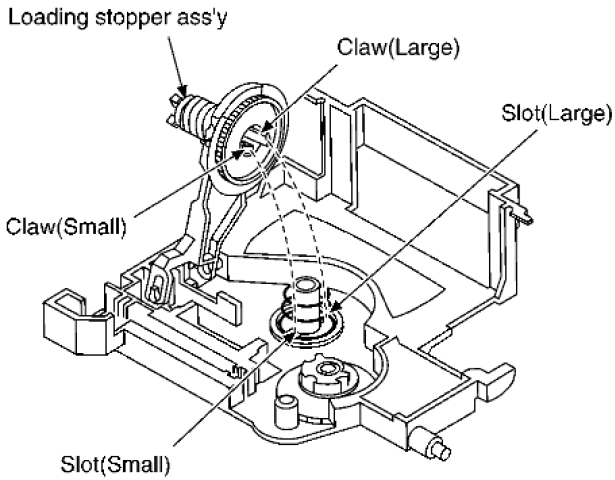


**Step 15** Rotate the UP/DOWN base at a 90° angle. Then,

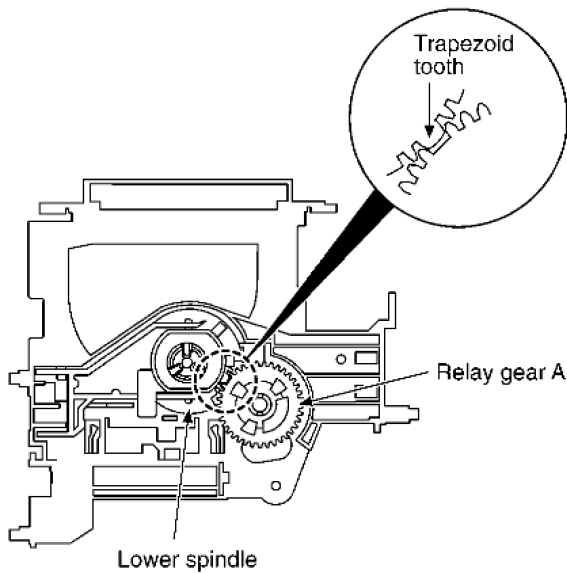
spread the hold bars of loading stopper and remove the UP/DOWN base.

**[Installation for loading stopper ass'y]**

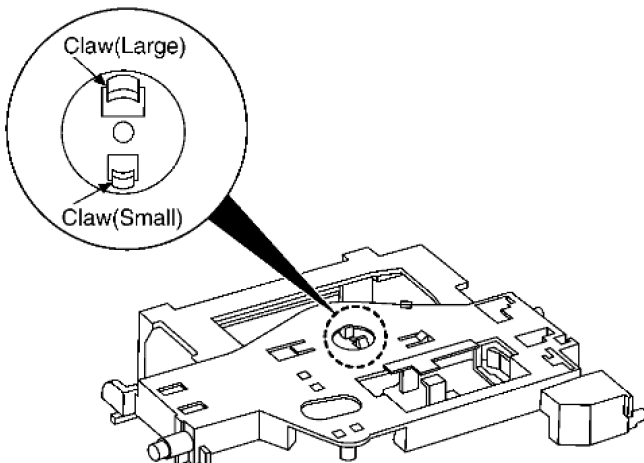
**Step 1** Align the claw of loading stoppers ass'y with the slot of spindle base. (Caution should be exercised when alignment of claw due to the size of claws.)



**Step 2** Lower the loading stopper ass'y, and then align the lower spindle with the trapezoid tooth of relay gear A.



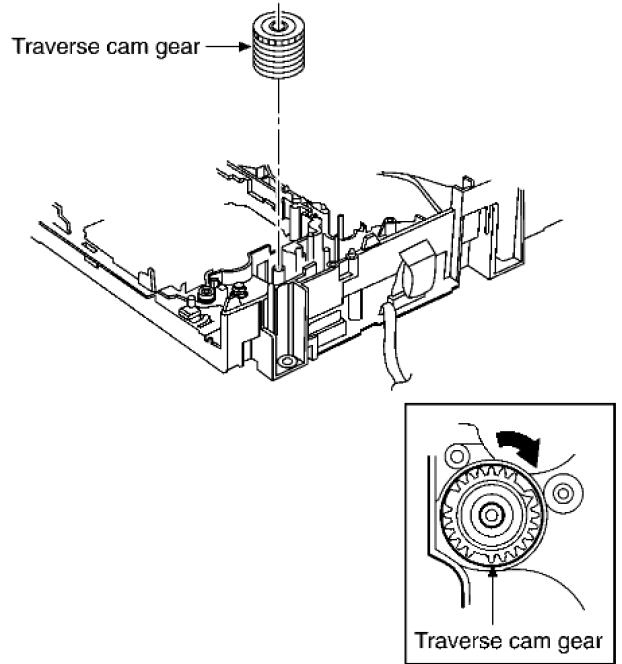
**Step 3** Force the loading stopper ass'y, latch the claw firmly.



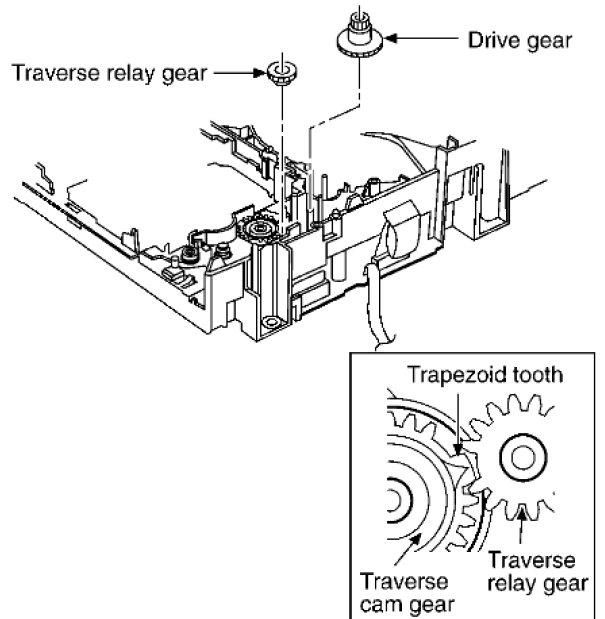
**[Reassembly for mechanism base drive unit]**

**Step 1** Install the traverse cam gear.

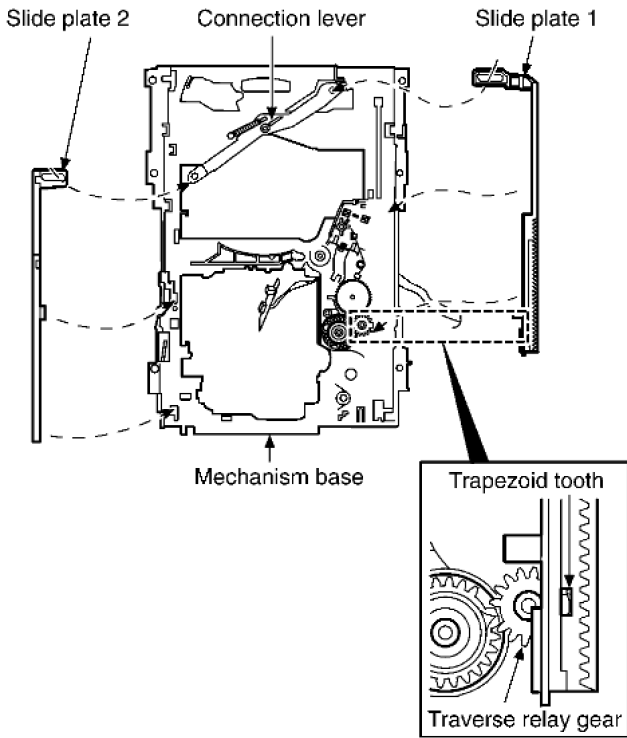
**Step 2** Rotate the traverse cam gear to the direction of arrow.



**Step 3** Install the drive gear and traverse relay gear.

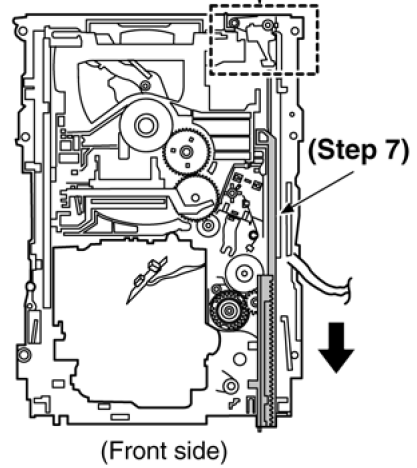
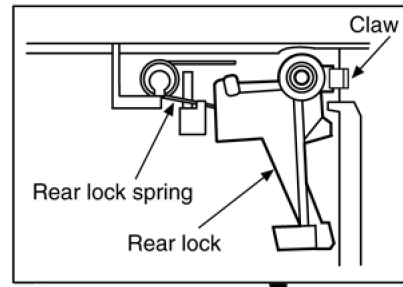


\*When installing the traverse relay gear, align the trapezoid tooth of gear with tooth of traverse cam gear.



**Step 4** Install the slide plate 2 to the mechanism base, and then match to the connection lever.

**Step 5** Install the slide plate 1 to the mechanism base, and then match to the connection lever and align the trapezoid tooth of traverse relay gear with the slide plate 1.

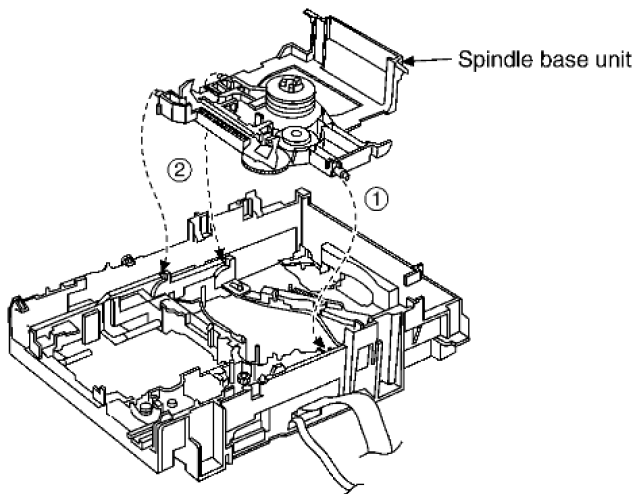


**Step 7** Move the slide plate 1 to forward fully.

**Step 8** Install the rear lock. (The claw should be latched.)

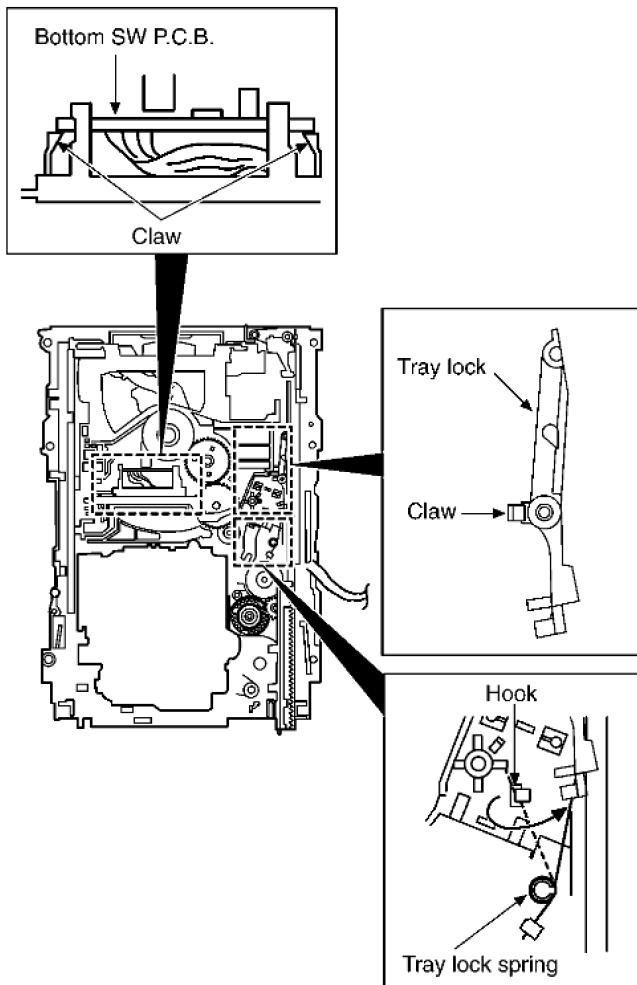
**Step 9** Install the Spindle Position P.C.B.. (The claw should be latched.)

**Step 10** Install the tray lock. (The claw should be latched.)



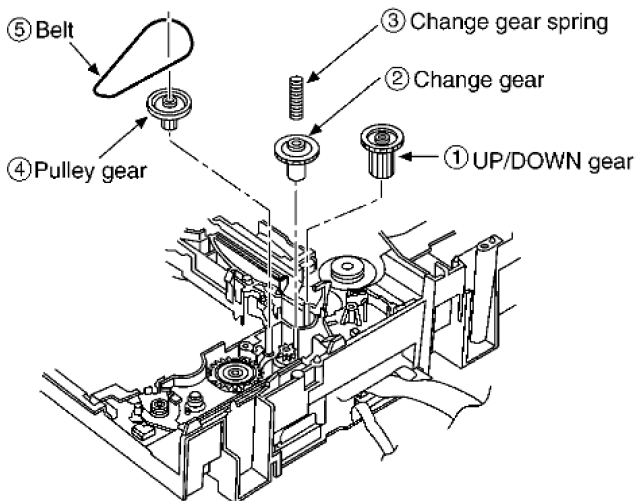
**Step 6** Install the spindle base unit. (First, slide plate 1.)



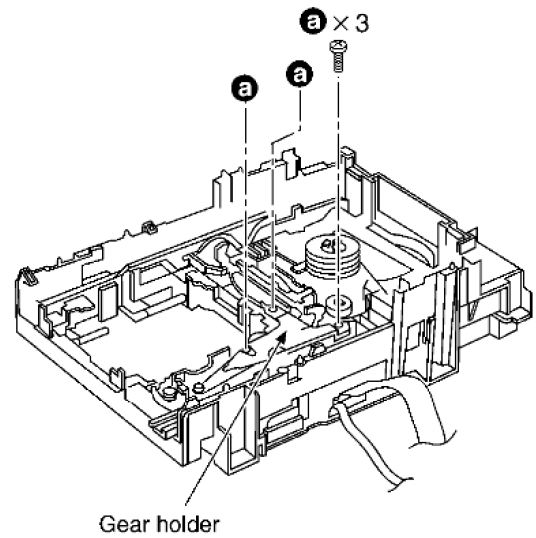


**Step 11** Remove the tray lock spring from hook, and then latch to the tray lock.

**Step 12** Install the UP/DOWN gear, change gear, change gear spring, pulley gear and belt in the order of (1) - (5).



**Step 13** Install the gear holder, and then tighten the screw (a).



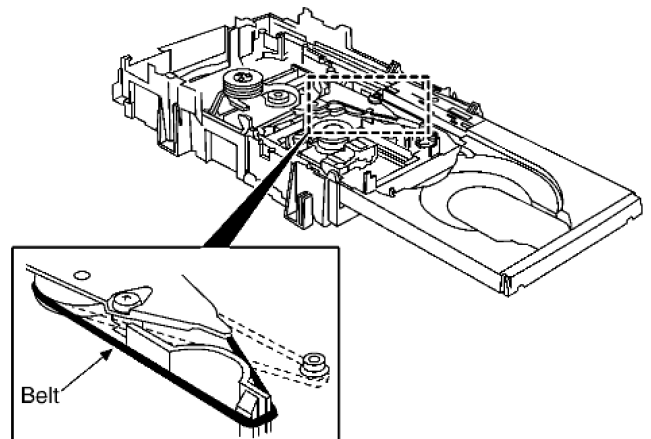
**Step 14** Install the tray base, traverse ass'y, mechanism cover and upper plate.

[Operation check after servicing]

Check the proper operation of following items with gear and hexagonal screwdriver.

1. Open/close of tray base.
2. Moving the tray base to the stock side.
3. UP/DOWN operation of spindle base unit.
4. UP/DOWN operation of traverse ass'y.

#### 11.6.4. Replacement for the motor ass'y



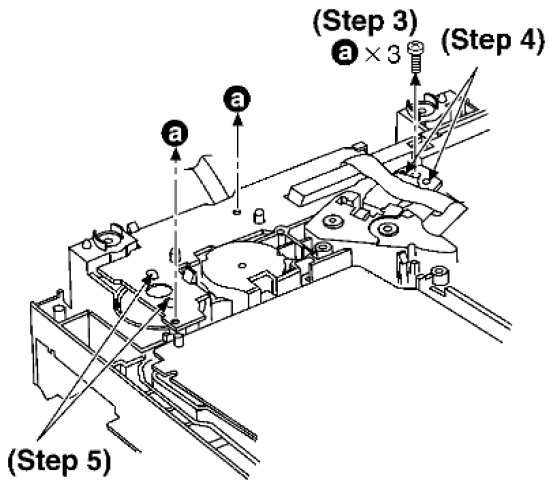
**Step 1** Install the belt temporarily.

**NOTE:**

Take care not apply the grease to the belt.

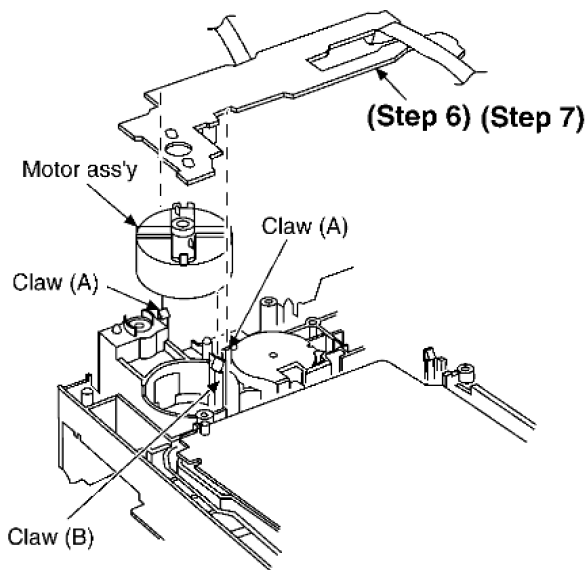
**Step 2** Upset the CD loading unit.

**Step 3** Remove 3 screws.



**Step 4** Unsolder the plunger terminals (2 points).

**Step 5** Unsolder the motor terminals (2 points).

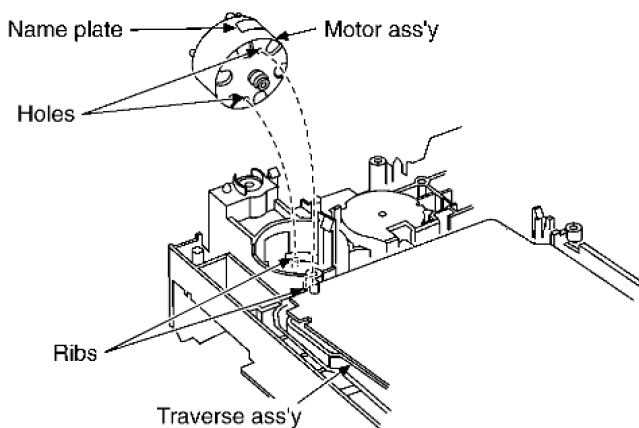


**Step 6** Release the 2 claws (A), and then remove the Motor P.C.B.

**Step 7** Release the claw (B), and then remove the motor ass'y.

**[Notice for motor ass'y installation]**

1. Locate the name plate of motor to the traverse ass'y.
2. Align the hole of motor with the ribs.

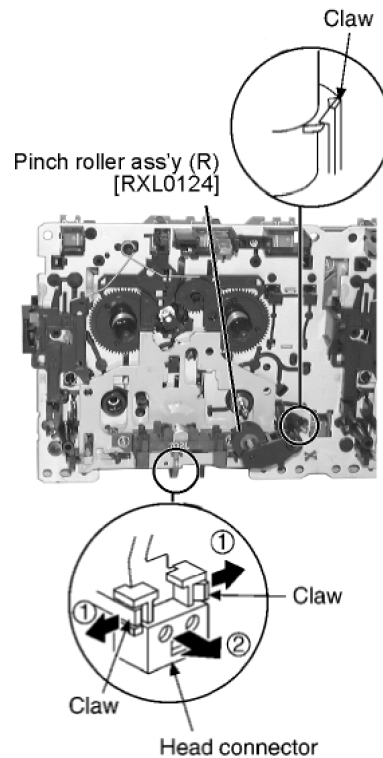


## 11.7. Disassembly Deck Mechanism

### 11.7.1. Replacement for the pinch roller ass'y and head block

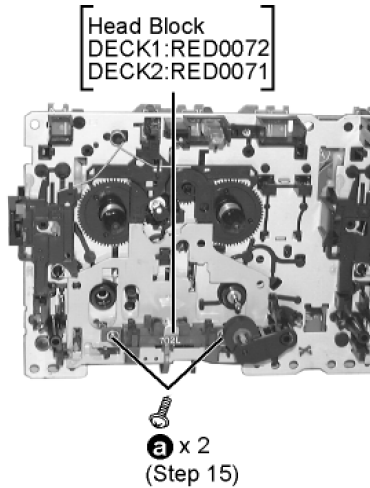
- Follow the (Step 1) - (Step 2) of Item 11.1 - Disassembly of Top Cabinet and Rear Panel
- Follow the (Step 1) - (Step 6) of Item 11.1.1 - Disassembly for CD Lid
- Follow the (Step 1) - (Step 2) of Item 11.2 - Disassembly for the CD Mechanism Unit
- Follow the (Step 1) of Item 11.3 - Disassembly for the Main P.C.B. & Transformer P.C.B.
- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly for the Panel P.C.B. & Tact Switch P.C.B.
- Follow the (Step 1) - (Step 5) of Item 11.5 - Disassembly for the Deck Mechanism Unit & Deck P.C.B.

\* The mechanism as shown below is for DECK1. For the one of DECK 2, perform the same procedures.



**Step 1** Release the 2 claws, and then remove the pinch roller (R), (F).

**Step 2** Release the 2 claws, and then remove the head connector.



**Step 3** Remove 2 screws.

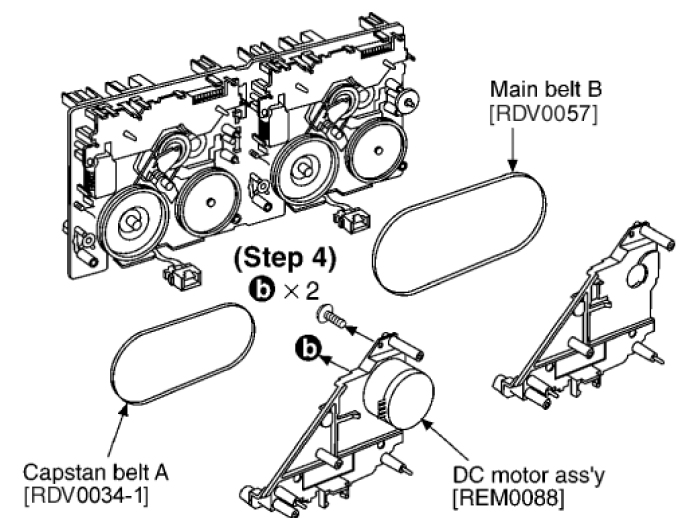
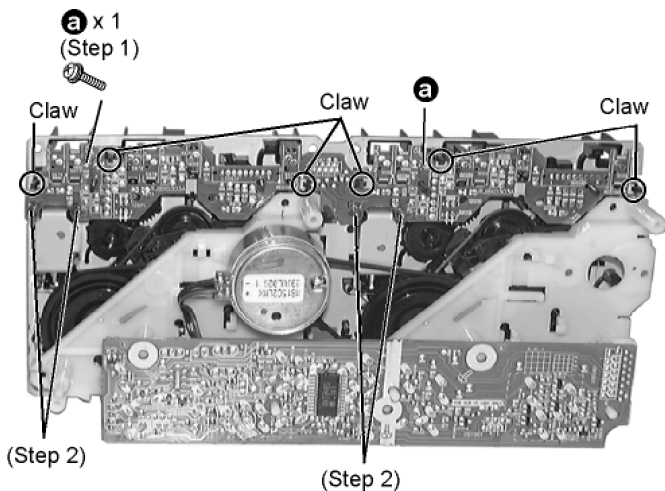
### 11.7.2. Replacement for the Deck motor ass'y, capstan belt A, capstan belt B and winding belt

- Follow the (Step 1) - (Step 2) of Item 11.1 - Disassembly of Top Cabinet and Rear Panel
- Follow the (Step 1) - (Step 6) of Item 11.1.1 - Disassembly for CD Lid
- Follow the (Step 1) - (Step 2) of Item 11.2 - Disassembly for the CD Mechanism Unit
- Follow the (Step 1) of Item 11.3 - Disassembly for the Main P.C.B. & Transformer P.C.B.
- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly for the Panel P.C.B. & Tact Switch P.C.B.
- Follow the (Step 1) - (Step 5) of Item 11.5 - Disassembly for the Deck Mechanism Unit & Deck P.C.B.

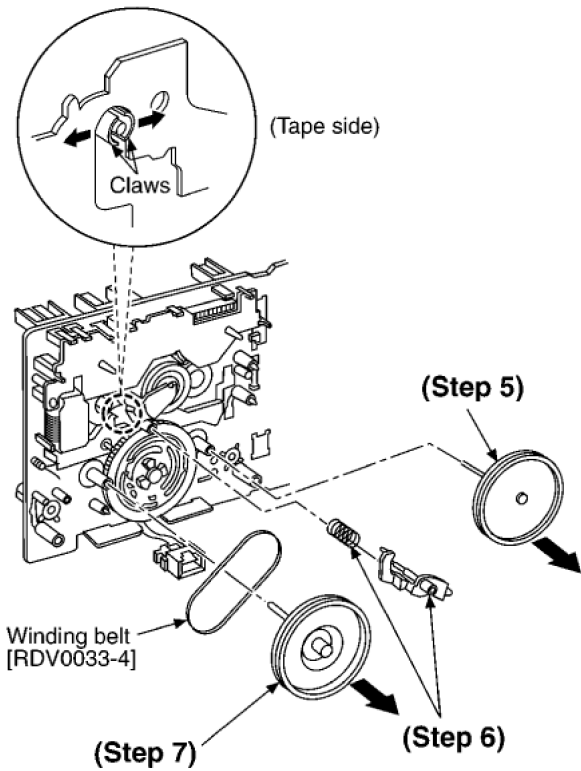
**Step 1** Release the 2 claws, and then remove the head connector.

**Step 2** De-solder plunger point.

**Step 3** Remove the Deck Mechanism P.C.B.



**Step 4** Remove 3 screws.



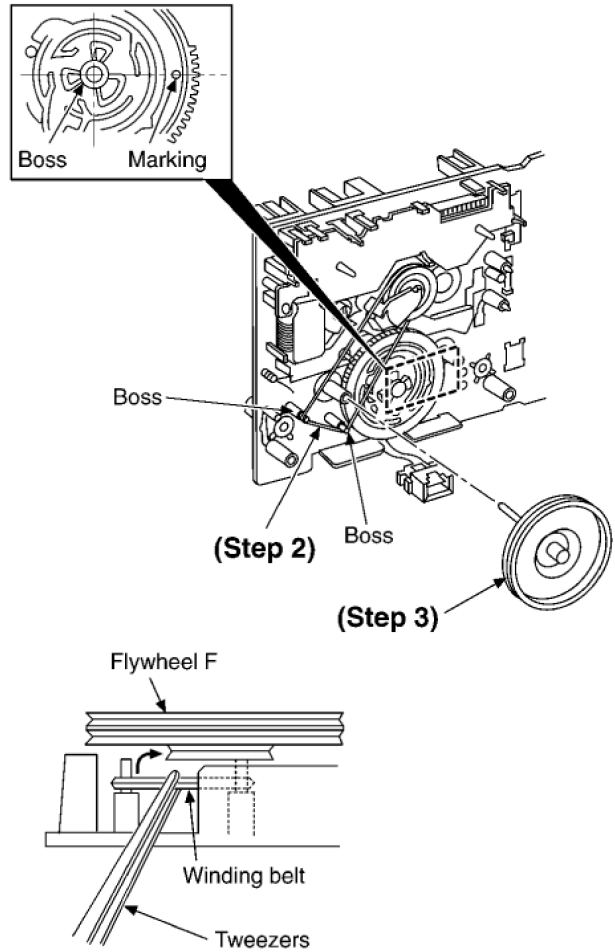
**Step 5** Remove the flywheel R.

**Step 6** Release the claw of tape side, and then remove the winding lever and spring.

**Step 7** Remove the flywheel F.

**[Installation of the belt]**

**Step 1** The boss and marking should be positioned horizontally.



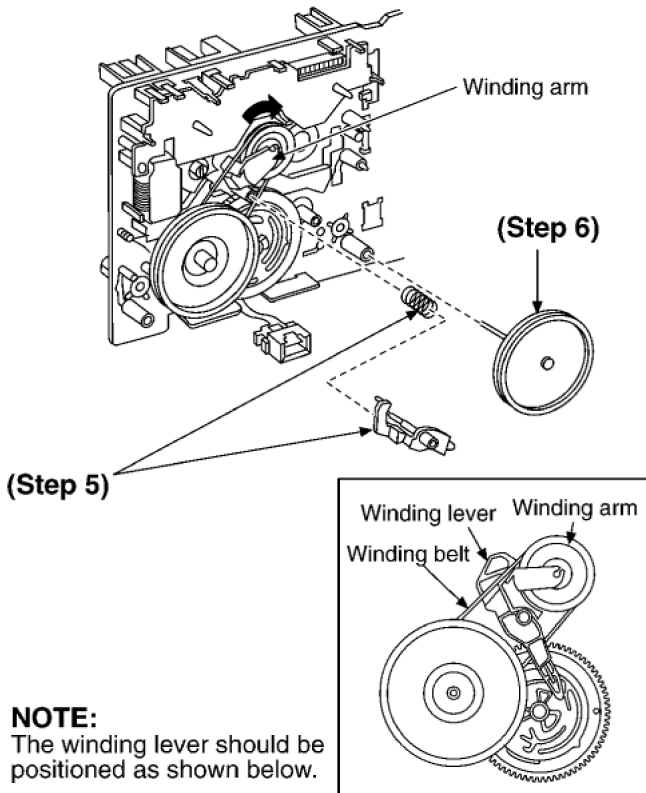
**Step 2** Put the winding belt on the pulley temporarily.

**Step 3** Install the flywheel F.

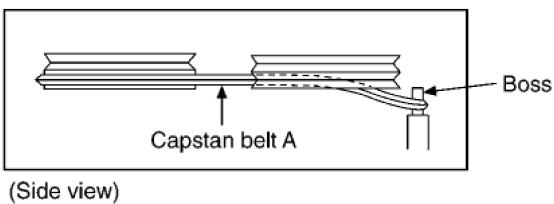
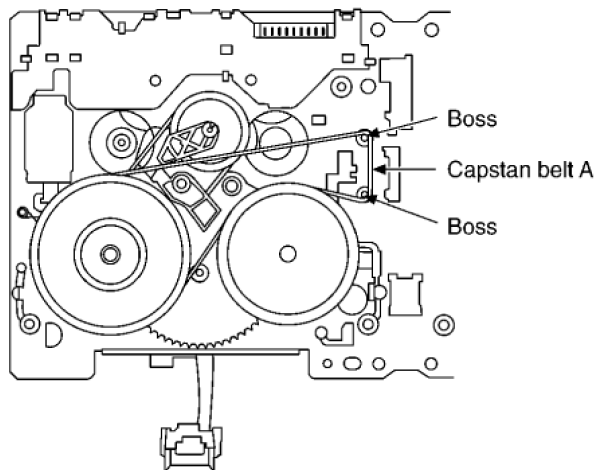
**Step 4** Put the winding belt on the flywheel F.

**Step 5** Install the winding lever and spring while pressing the winding arm in the direction of arrow.

**Step 6** Install the flywheel R.

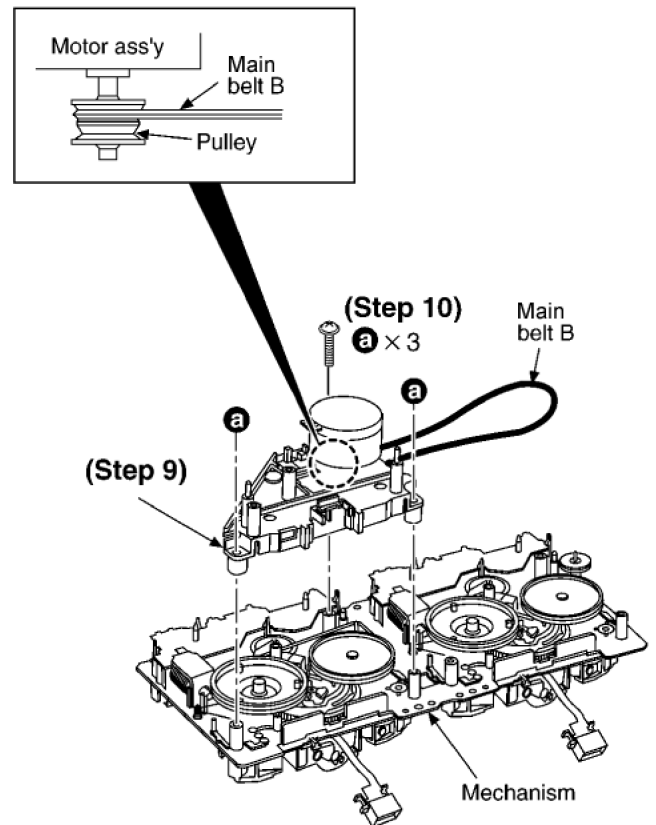


**Step 7** Put the capstan belt A temporarily as shown below.



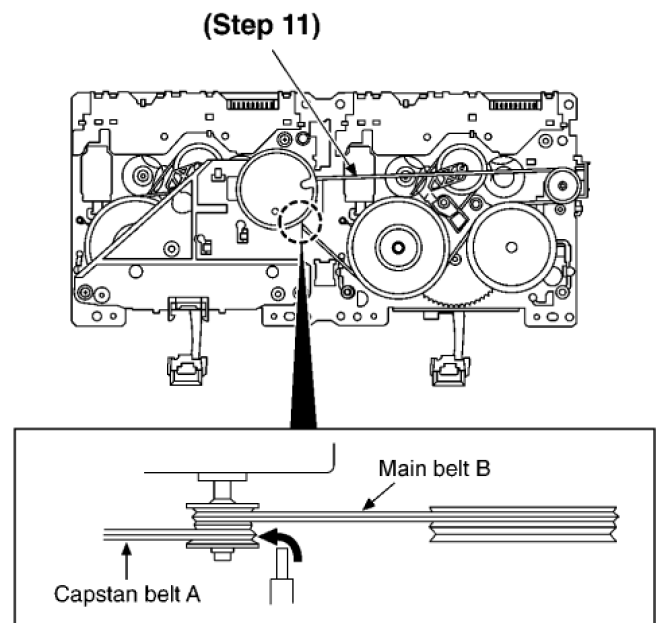
**Step 8** Put the capstan belt B on the motor ass'y pulley.

**Step 9** Install the sub chassis to the mechanism, and then tighten screws.



**Step 10** Remove 3 screws.

**Step 11** Put the capstan belt B as shown below.

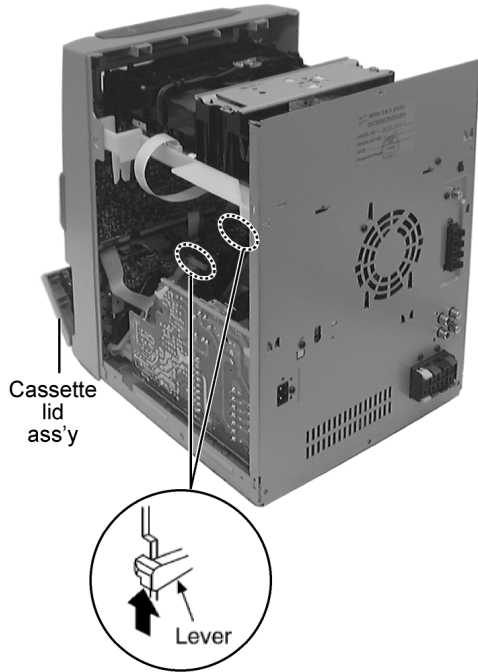


**Step 12** Put the capstan belt A on the motor ass'y pulley.

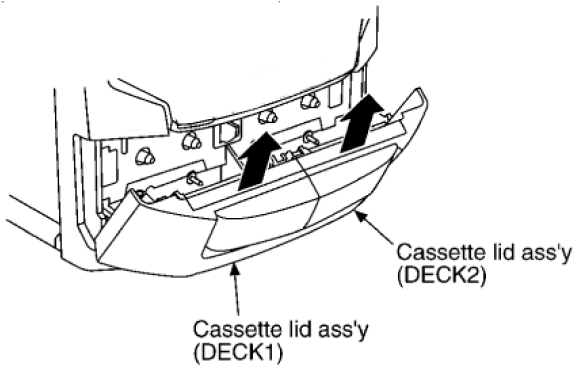
## 11.8. Replacement for the cassette lid ass'y

· Follow the (Step 1) - (Step 2) of Item 11.1 - Disassembly of Top Cabinet and Rear Panel

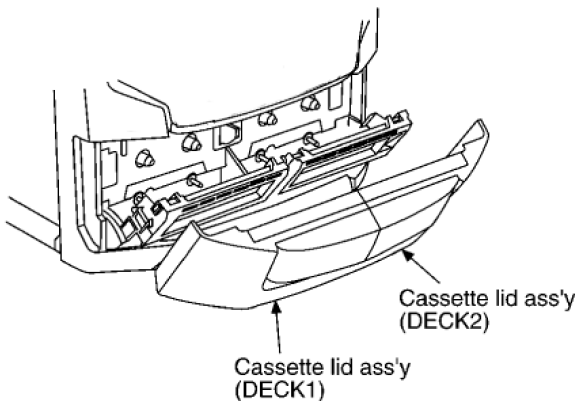
**Step 1** Push the lever upward, open the cassette lid ass'y. (For DECK1 and DECK2)



**Step 2** Lift up the cassette lid ass'y in the direction of arrow. (For DECK1 and DECK2).



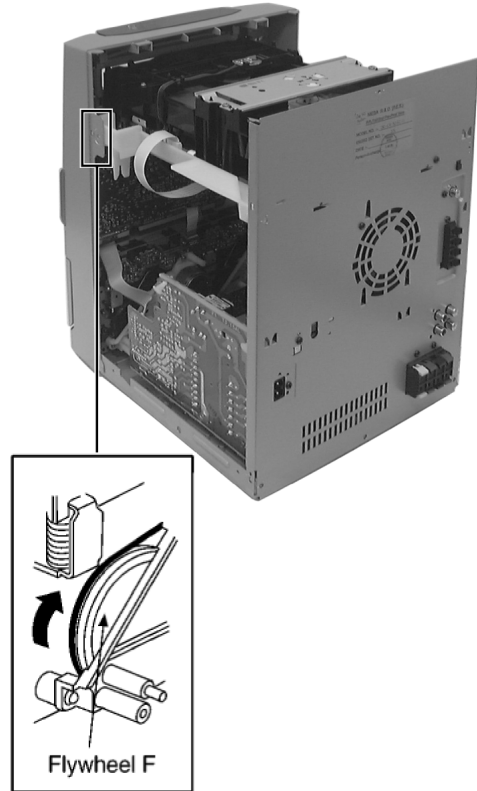
**Step 3** Remove the cassette lid ass'y. (For DECK1 and DECK2).



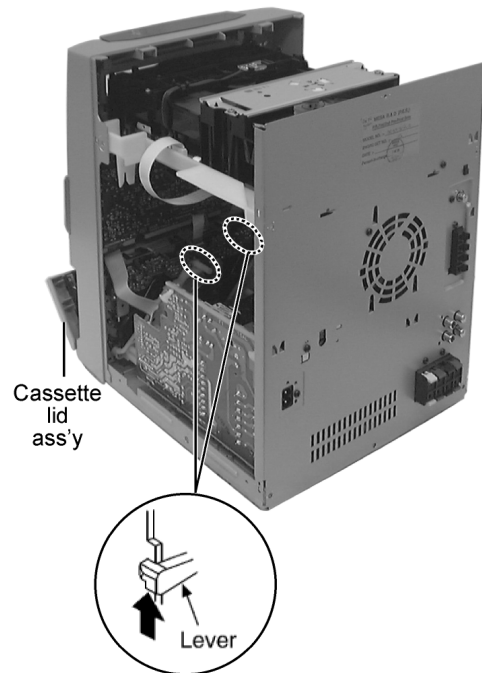
## 11.9. Measure for tape trouble

· Follow the (Step 1) - (Step 2) of Item 11.1 - Disassembly of Top Cabinet and Rear Panel

**Step 1** If a cassette tape cannot be removed from the deck since 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 the tape.



**Step 2** Push the lever upward and open the cassette lid ass'y. Take the cassette tape off.



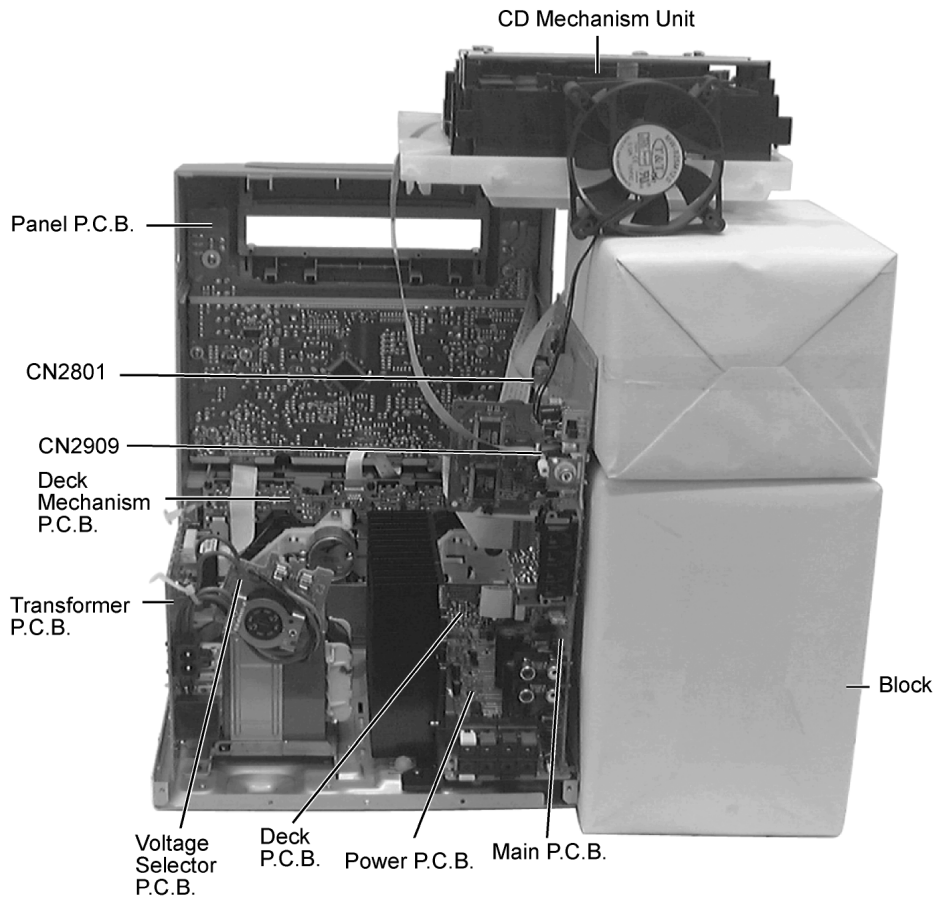
## 12 Service Position

**Note:**

For the disassembling procedure, see Section 11.

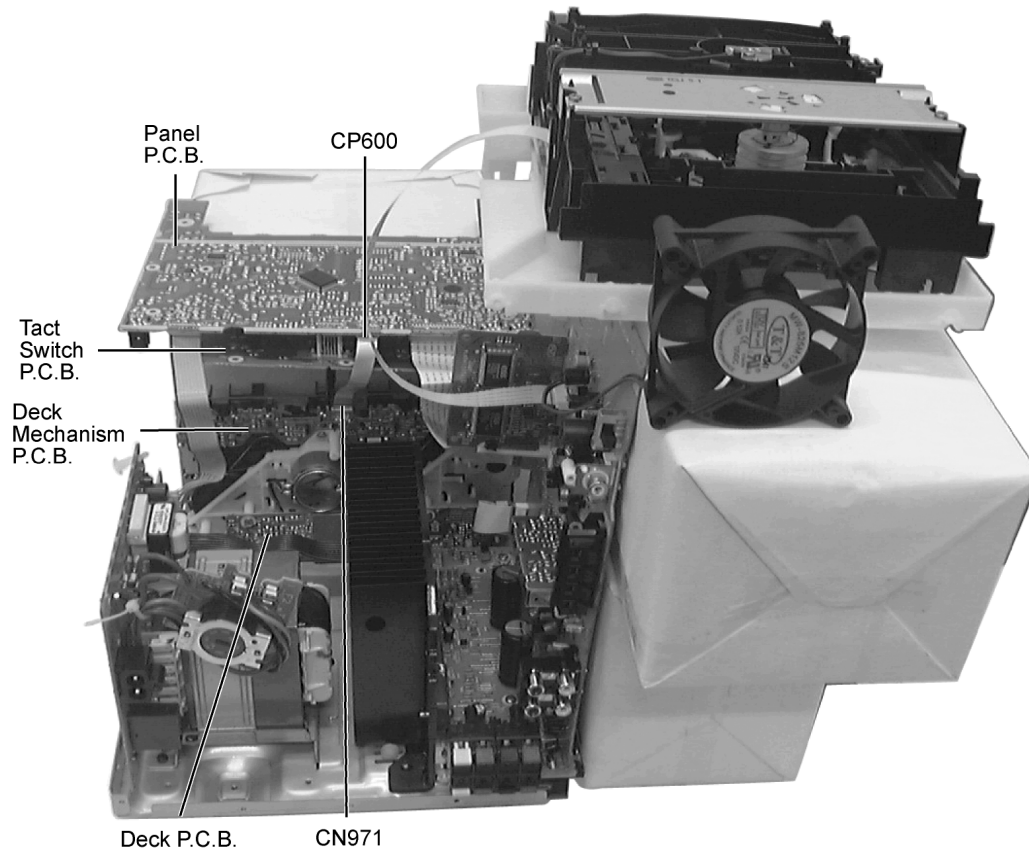
### 12.1. Checking the Main P.C.B., Power P.C.B., Transformer P.C.B. and Voltage Selector P.C.B.

1. Disassembly of Top Cabinet and Rear Panel.
2. Disassembly of CD Lid.
3. Disassembly of CD Mechanism Unit.
4. Connect FFC board (CN309 & CN310) from CD Mechanism Unit.



## 12.2. Checking the Panel P.C.B., Tact Switch P.C.B., Deck P.C.B. & Deck Mechanism P.C.B.

1. Disassembly of Top Cabinet and Rear Panel.
2. Disassembly of CD Lid.
3. Disassembly of CD Mechanism Unit.
4. Remove volume knob at front panel.
5. Disassembly of Panel P.C.B. & Tact Switch P.C.B.
6. Disassembly of Deck Mechanism P.C.B.
7. Use the extension cable (REEX0310 - 10 Pins) to reconnect (CP600) Panel P.C.B. and (CN971) Deck Mechanism P.C.B.





## 13 Description of Error Code

### 13.1. Abnormality Detection for DECK Mechanism

No.	Error	Error Display	Problem condition
1	MODE SW abnormal	H01	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.
2	REC INH SW abnormal	H02	
3	HALF SW abnormal	H03	
4	abnormal	F01	

### 13.2. Abnormality detection for CD/Changer Block

No.	Error	Error Display	Problem condition
1	REST SW abnormal	F15	Under normal operation (Self-Diagnostic Mode inclusive), this error occurs when the RESTSW ON is not detected within the specified time and shall be memorized.
2	Transmission error between CD servo LSI and micon	F26	Under normal operation (Self-Diagnostic mode inclusive), this error occurs when the selection is set to CD and SENSE="H" is detected and SENSE="L" is not detected within a fail safe time (20ms) after system command transmission was sent.
3	CLAMP SW abnormal	F16	Refer to CR20 control specification section 5-2 [ERROR CODE] table M-0A error is detected.
4	BOTTOM SW abnormal	F17	Refer to CR20 control specification section 5-2 [ERROR CODE] table M-09 error is detected.
5	POSITION SW abnormal	F27	Refer to CR20 control specification section 5-2 [ERROR CODE] table M-05 ~ M-08 error is detected.
6	SW1 abnormal	F28	Refer to CR20 control specification section 5-2 [ERROR CODE] table M-02 ~ M-08 error is detected.
7	SW2 abnormal	F29	
8	OPEN SW abnormal	H15	Refer to CR20 control specification section 5-2 [ERROR CODE] table M-01 error is detected.

### 13.3. Power Supply Related Error Detection

No.	Error	Error Display	Problem condition
1	POWER AMP output abnormal	F61	During normal operation, if DCDET 1/2 becomes "L", normal POWER OFF process shall not be executed, PCNT shall be switched to "L" immediately. GOODBYE shall not be displayed and the error display F61 will be displayed instead. 2 seconds after the F61 display, ECONO shall be set to "L" and FL display shall be turned off. The error content shall be memorized when the abnormality occurs and can be displayed in the C-mecha self-diagnostic mode described later.

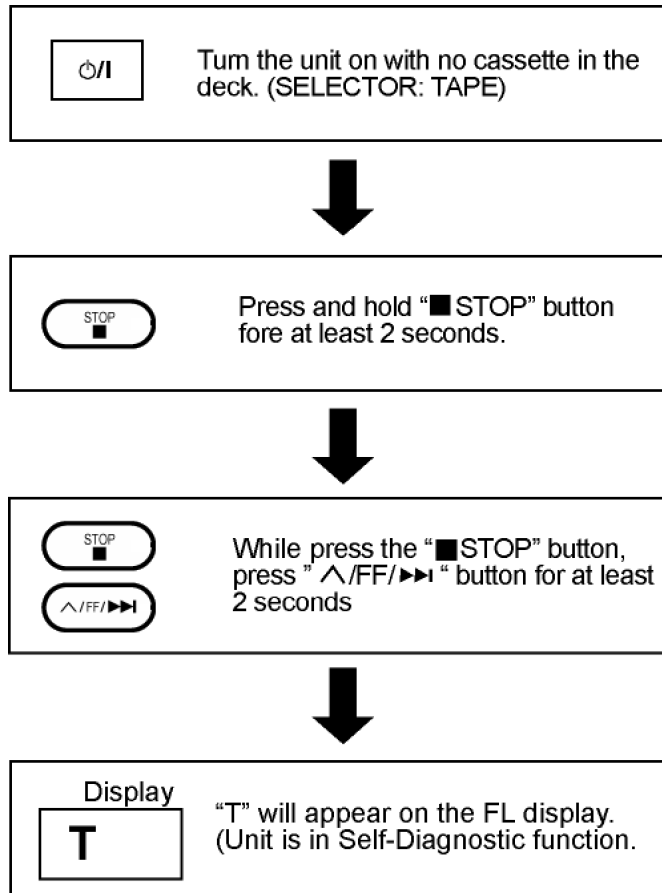
## 14 Self-Diagnostic Function

### 14.1. Self-diagnostic display

This unit is equipped with a self-diagnostic display function which, if a problem occurs, will display an error code corresponding to the problem.

Use this function when performing maintenance on the unit.

### 14.2. How to enter the Self-Diagnostic Function



### 14.3. Cassette Mechanism Test (For error code H01, H02, H03, F01)

1. Press "TAPE, DECK 1/2" to select Deck 2.
2. Load a cassette tape with the erasure prevention tab, remove from left side only and close the cassette holder.
3. Press "FAST FORWARD" (Tape will be stop after 2 seconds)
4. Load a cassette tape with the erasure prevention tab, remove from right side only and close the cassette holder.
5. Press "REVERSE" (Tape will be stop after 2 seconds)
6. Load a pre-recorded tape with both side record tabs intact and close the cassette holder.
7. Press "PLAY" (After TPS function, tape will stop automatically)
8. Press "REC" (Tape will not move)
9. Press "STOP" to indicate Error code.
  - If several problem exist, error code will change each time when "n /STOP" is pressed.  
(e.g. H01 → H03 → F01 .....etc.)
10. Press "TAPE, DECK 1/2" to select Deck 1.
11. Repeat step 2 to 9 to test Deck 1. (Tape Deck 1 will not check H02 because of no recording function)

## 14.4. CD Mechanism Test (F15, F26, F16, F17, F27, F28, F29, H15)

1. Press "CD".
2. Press "OPEN/CLOSE (1)" and place a CD.
3. Press "OPEN/CLOSE (1)" to close the tray.
4. Press "OPEN/CLOSE (5)" and wait until the tray is open.
5. Press "OPEN/CLOSE (1)" and remove the CD.
6. Press "OPEN/CLOSE (1)" to close the tray.
7. Press "n/STOP" to indicate Error Code.

· If several problem exist, error code will change each time when "n/STOP" is pressed. (e.g. F15 → F26 → F16 ....etc).

## 14.5. To clear all Error code

1. Press "STOP/TUNE MODE" button for 5 seconds.
2. FL indicator shows "CLEAR" for 1 second and change to "T".

## 14.6. How to get out from Self-Diagnostic function

1. Press "Power" button OFF.

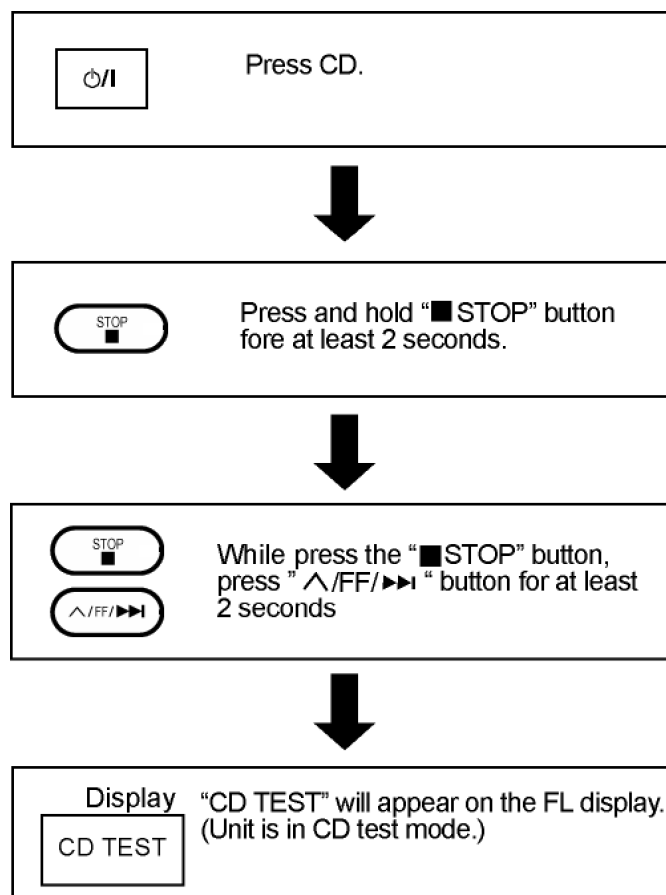
## 14.7. Power Amplifier Failure (F61)

1. When power amplifier fail, F61 will indicate automatically.

## 15 CD Test Mode Function

This CD test mode is provided to check CD unit without connecting to changer loading mechanism. This mode shall operate CD PLAY with CD unit being connected only and CD Automatic Alignment result is shown on FL display.

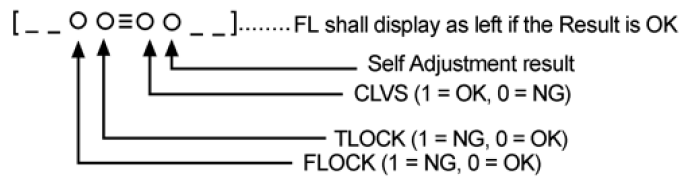
### 15.1. How to set CD test mode



### 15.2. CD Automatically Adjustment result indication

Under CD test mode, pressing the numeric key '0' on the remote controller will display the auto adjustment result. FLOCK, TLOCK


and CLVS status shall be shown as below:



During the above display, executing CD PLAY will display auto adjustment result for CD PLAY mode.

# 16 Measurements and Adjustments

## 16.1. Cassette Deck Section

- Measurement Condition
  - Reverse-mode selector switch: 
  - Tape edit: NORMAL
  - Make sure head, capstan and press roller are clean.
  - Judgeable room temperature  $20 \pm 5 \text{ }^\circ\text{C}$  ( $68 \pm 9^\circ\text{F}$ )
- Measuring instrument
  - EVM (DC Electronic Voltmeter)
  - Digital frequency counter
- Test Tape
  - Tape speed gain adjustment (3 kHz, -10 dB); QZZCWAT

### 16.1.1. Head Azimuth Adjustment (Deck 1/2)

#### Caution:

- Please replace both azimuth adjustment screw and springs simultaneously when readjusting the head azimuth. (shown in Fig. 2) Even if you wish to readjust the head azimuth without replacing the screws and springs, a fine adjustment to the azimuth screw and spring.
- Please remove the screw-locking bond left on the head base when replacing the azimuth screw.
- If you wish to readjust the head azimuth, be sure to adjust with adhering the cassette tape closely to the mechanism by pushing the center of cassette tape with your finger. (shown in Fig. 3)

1. Playback the azimuth adjustment portion (8 kHz, -20dB) of the test tape (QZZCFM) in the forward play mode. Vary the azimuth adjustment screw until the output of the R-CH (PB OUT-R) are maximized.
2. Perform the same adjustment in the reverse play mode.
3. After the adjustment, apply screwlock to the azimuth adjusting screw.

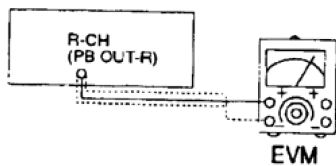


Fig. 1


-  Screw
-  Springs

Fig. 2

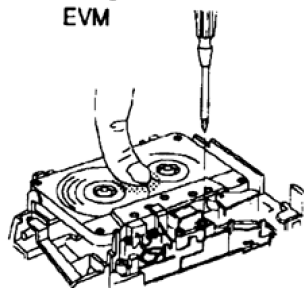


Fig. 3

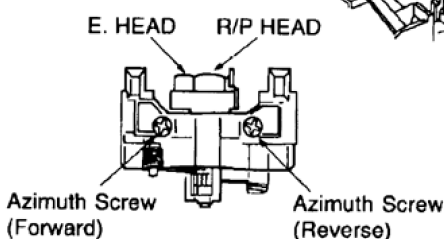


Fig. 4

### 16.1.2. Tape Speed Adjustment (Deck 1/2)

1. Set the tape edit button to "NORMAL" position.
2. Insert the test tape (QZZCWAT) to DECK 2 and playback (FWD side) the middle portion of it.
3. Adjust Motor VR (DECK 2) for the output value shown below.

Adjustment target: 2940 ~ 3060 Hz (NORMAL speed)

4. After alignment, assure that the output frequency of the DECK 1 FWD are within  $\pm 60$  Hz of the value of the output frequency of DECK 2 FWD.

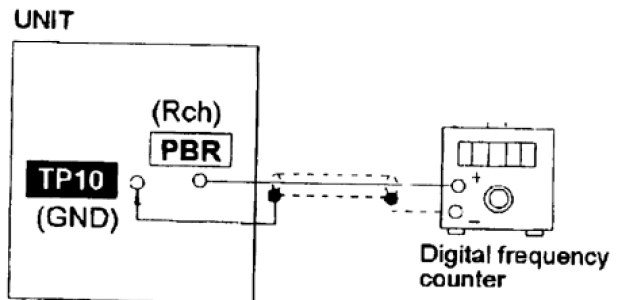


Fig. 1

### 16.1.3. Bias and Erase Voltage Check

1. Set the unit "AUX" position.
2. Insert the Normal blank tape (QZZCRA) into DECK 2 and the unit to "REC" mode (use "1 REC/STOP" key).
3. Measure and make sure that the output is within the standard value.

Bias voltage for Deck 2	14 $\pm$ 4mV (Normal)
Erase voltage for Deck 2	80mV (Normal)

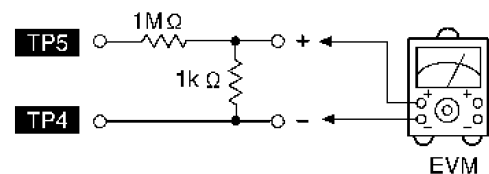


Fig. 2

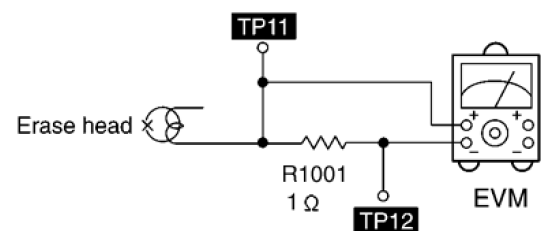


Fig. 3

### 16.1.4. Bias Frequency Adjustment (Deck 1/2)

1. Set the unit to "AUX" position.
2. Insert the Normal blank tape (QZZCRA) into DECK 2 and set the unit to "REC" mode (I use "REC/STOP" key).
3. Adjust L1002 so that the output frequency is within the standard value.

Standard Value: 97 ±8 kHz

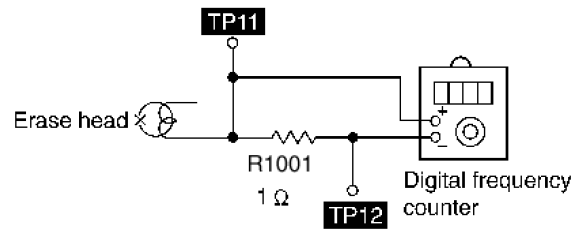


Fig. 4

## 16.2. Tuner Section

### 16.2.1. AM-IF Alignment

1. Connect the instrument as shown in Fig. 5.
2. Set the unit to AM mode.
3. Apply signal as shown in Fig. 5 from AM-SG.
4. Adjust Z102 so that the output frequency is maximized in Fig. 6.

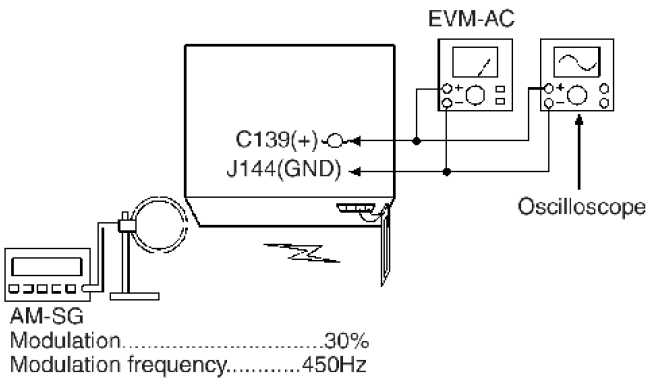


Fig. 5

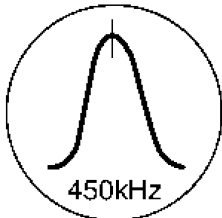


Fig. 6

### 16.2.2. AM RF Adjustment

1. Connect the instrument as shown in Fig. 7.
2. Set the unit to AM mode.
3. Set AM-SG to 520kHz.
4. Receive 520kHz in the unit.
5. Adjust Z101 (OSC) so that the EVM-AC is maximized.
6. Set AM-SG to 600Hz.
7. Receive 600Hz in the unit.
8. Adjust Z101 (ANT) so that the EVM-SG is maximized.
9. Set AM-SG to 520kHz.
10. Receive 520kHz in the unit.
11. Adjust Z101 (OSC) so that the EVM-DC value is with 1.1±0.5V.

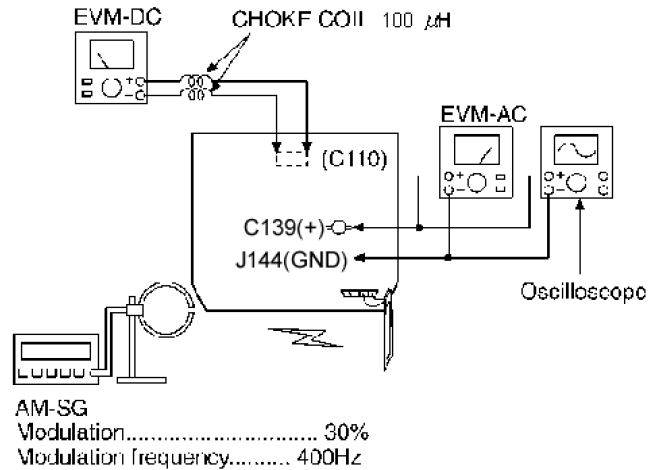
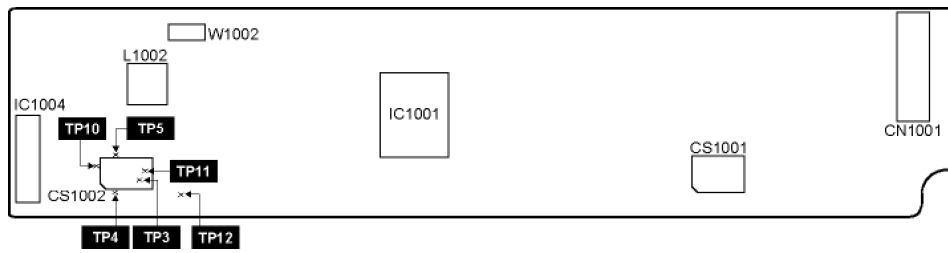


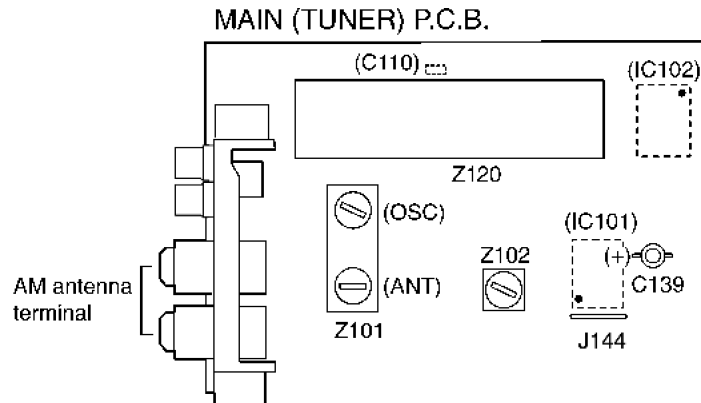
Fig. 7

## 16.3. Alignment Points

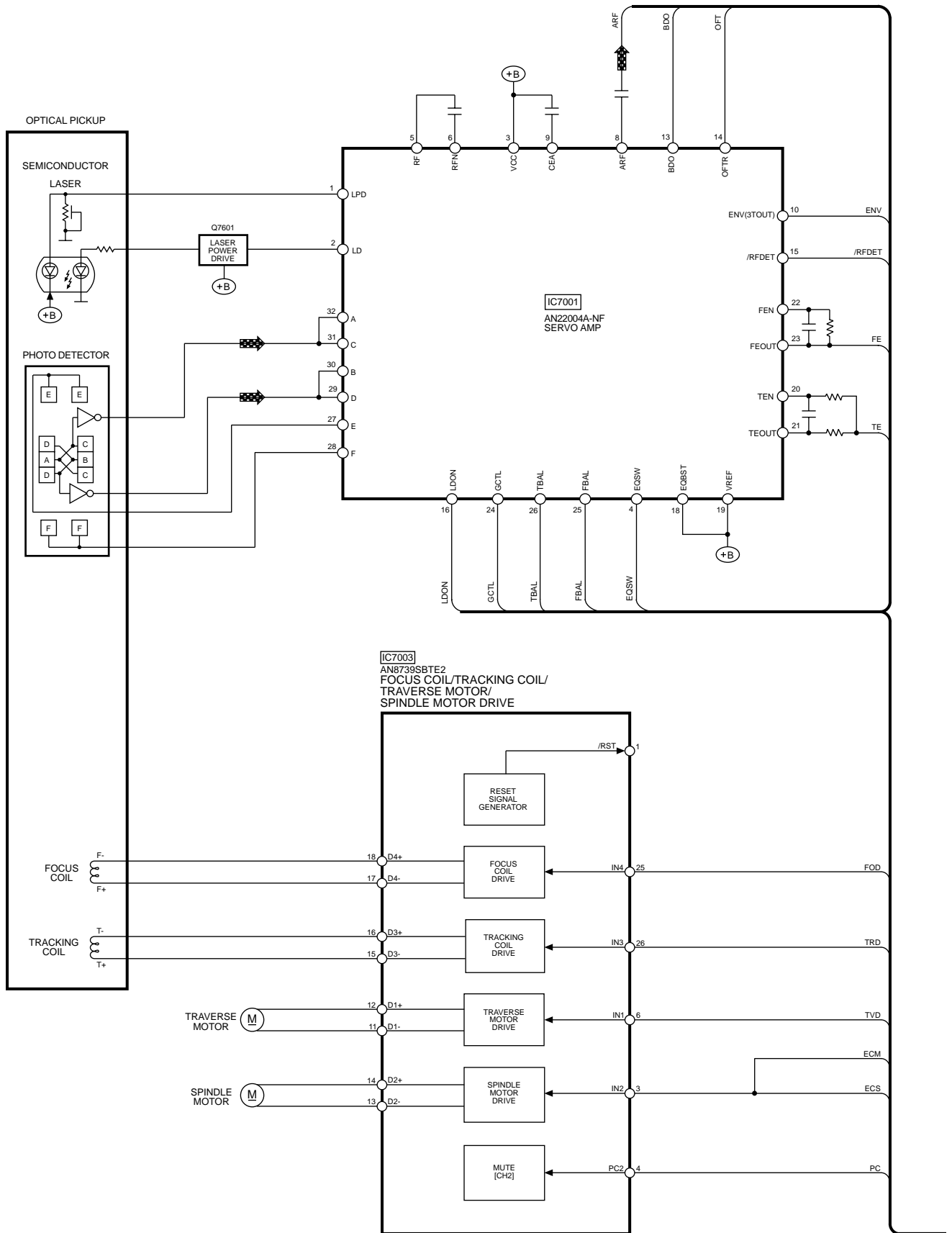
### 16.3.1. Cassette Deck Section



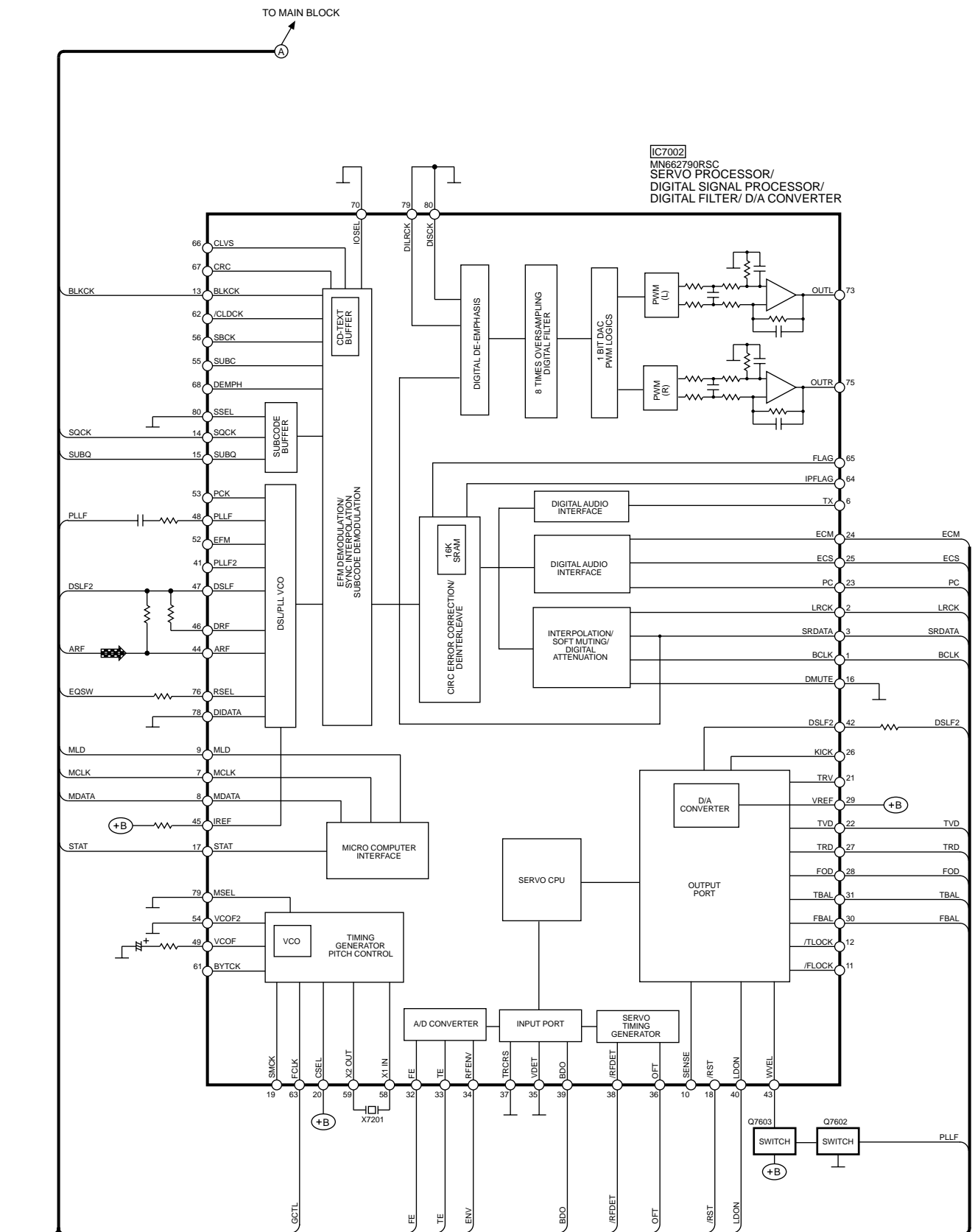
### 16.3.2. Adjustment Point

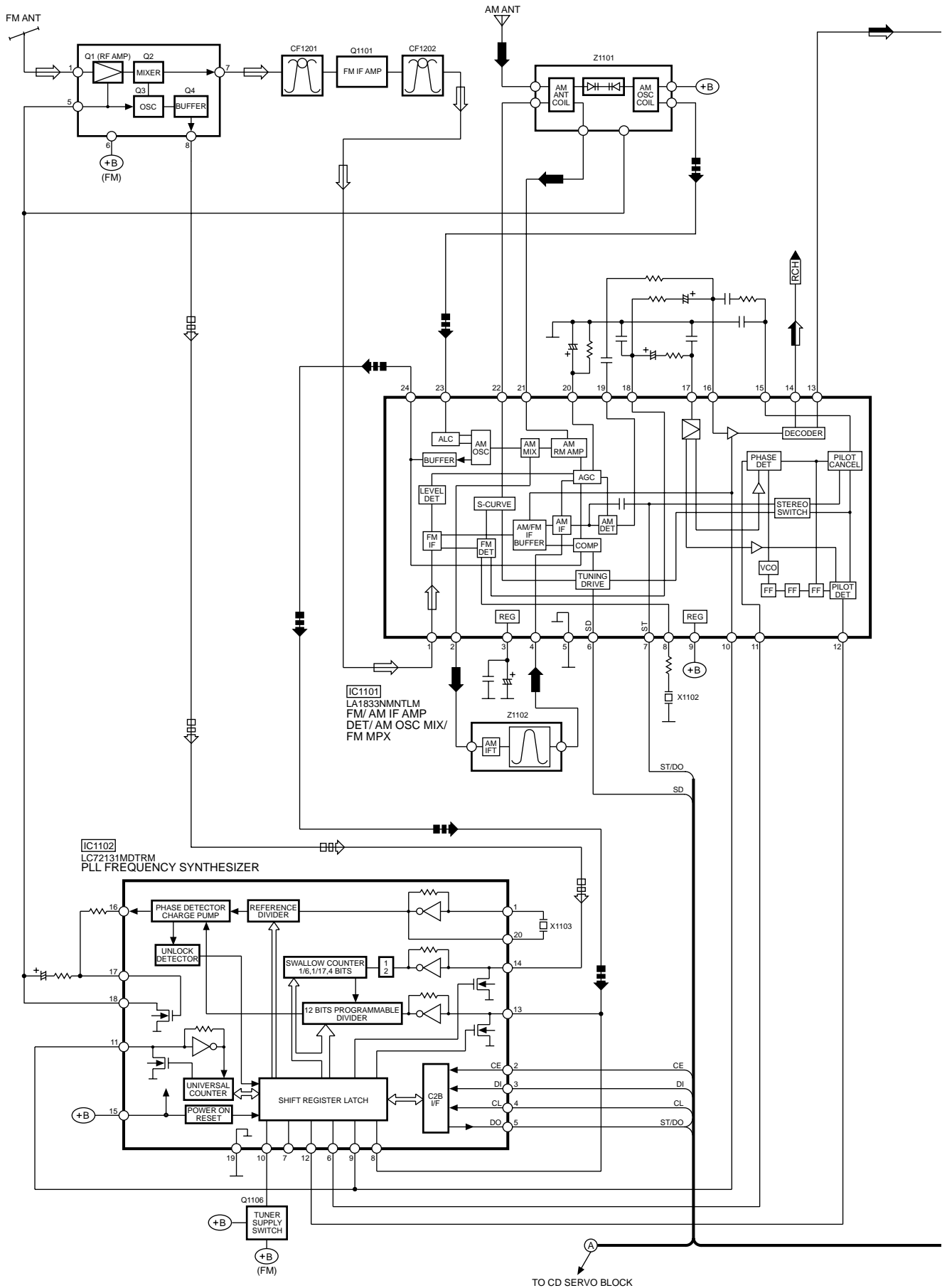


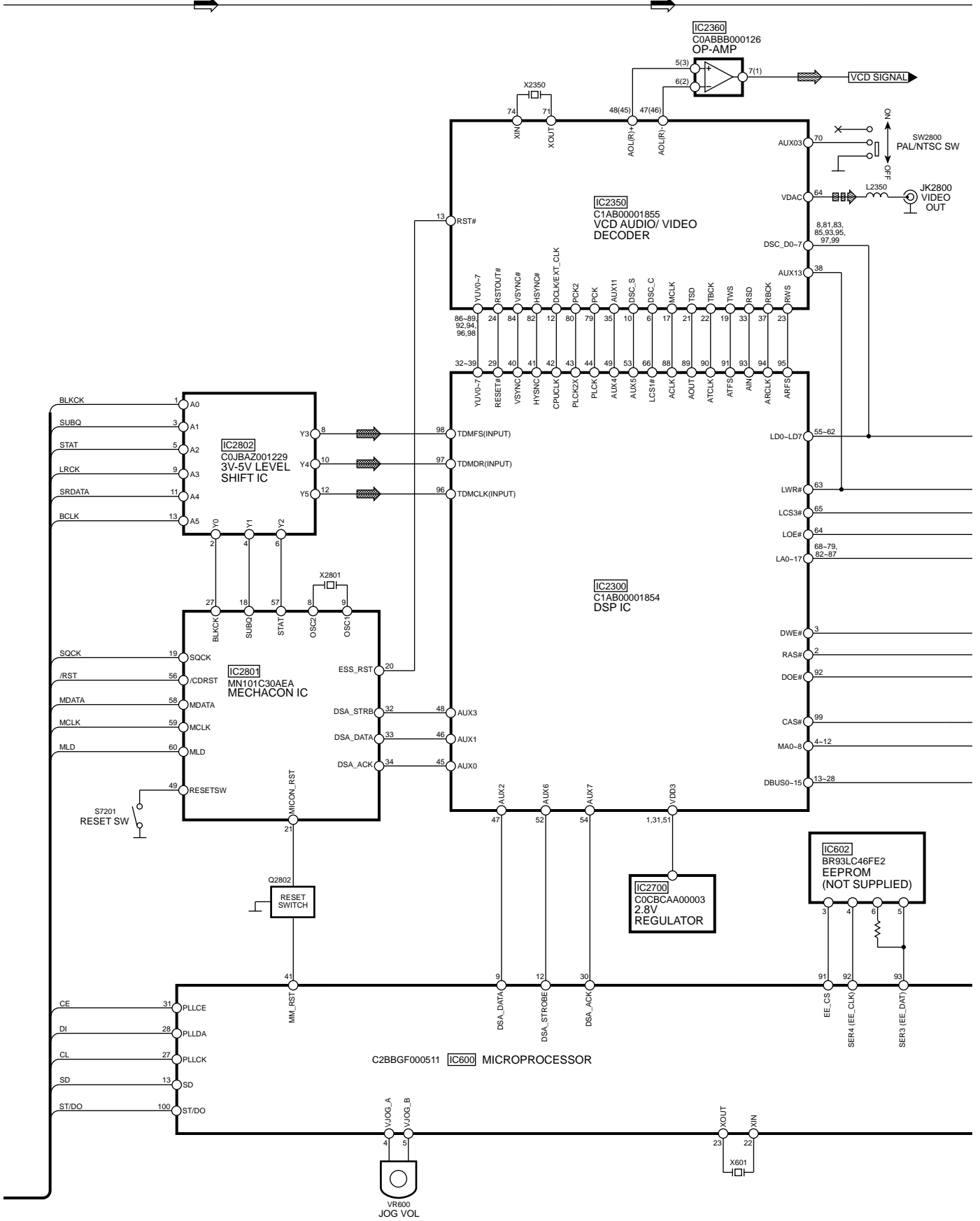
# 17 Block Diagram

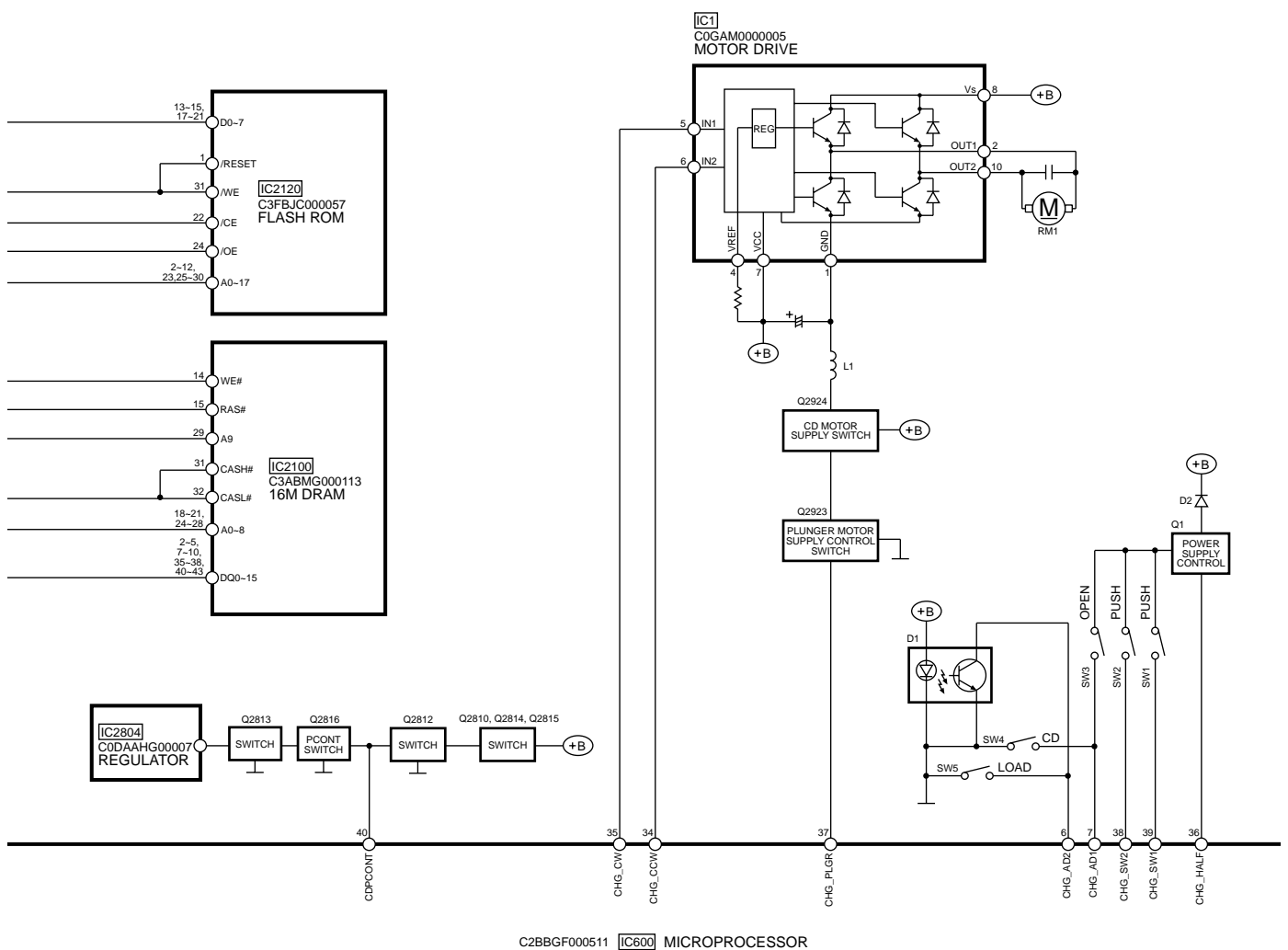


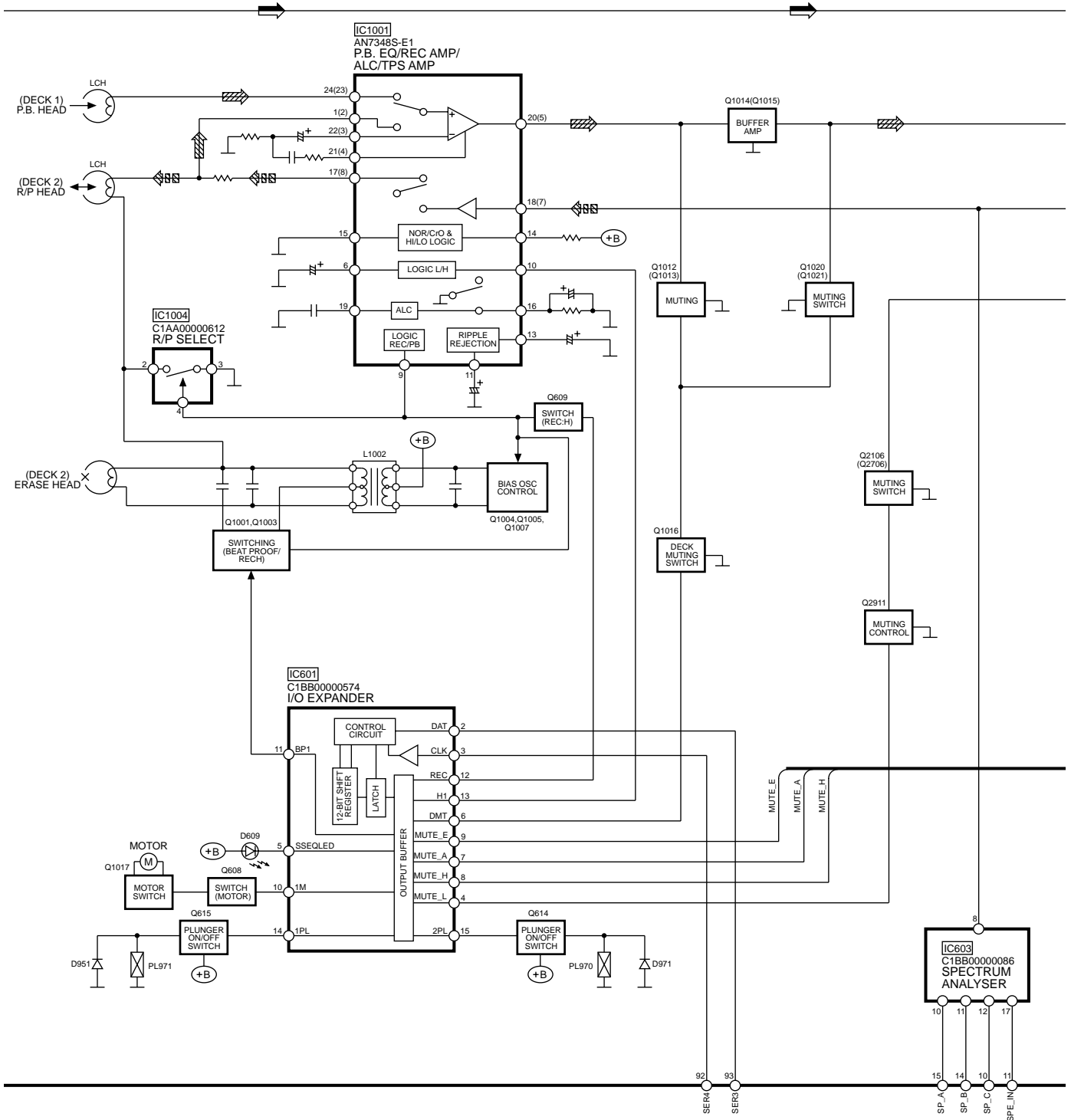




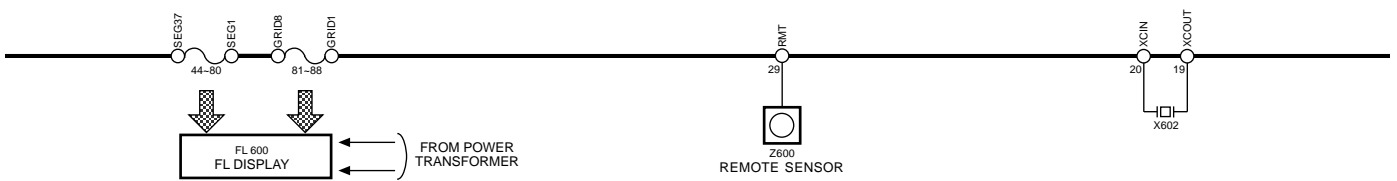


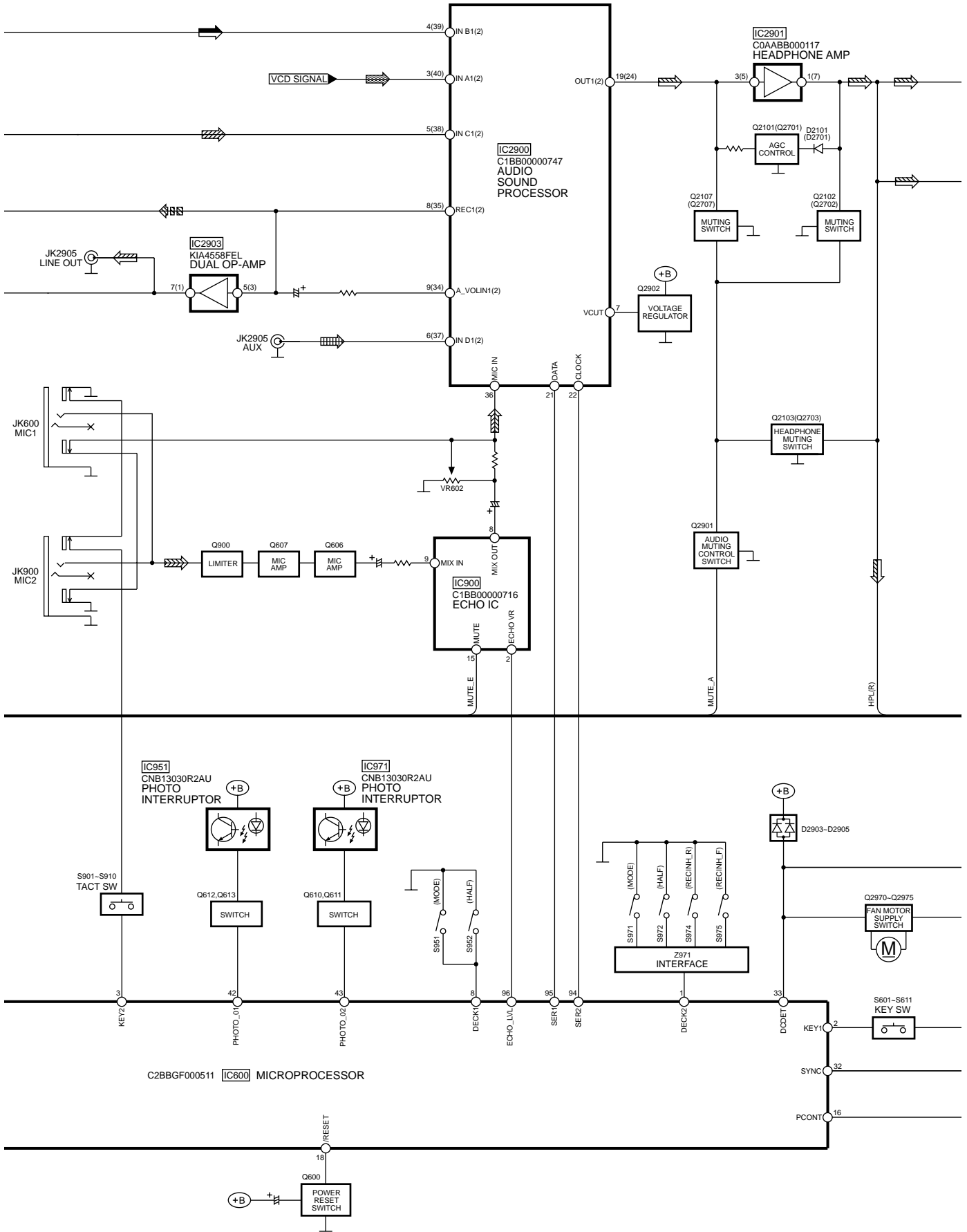


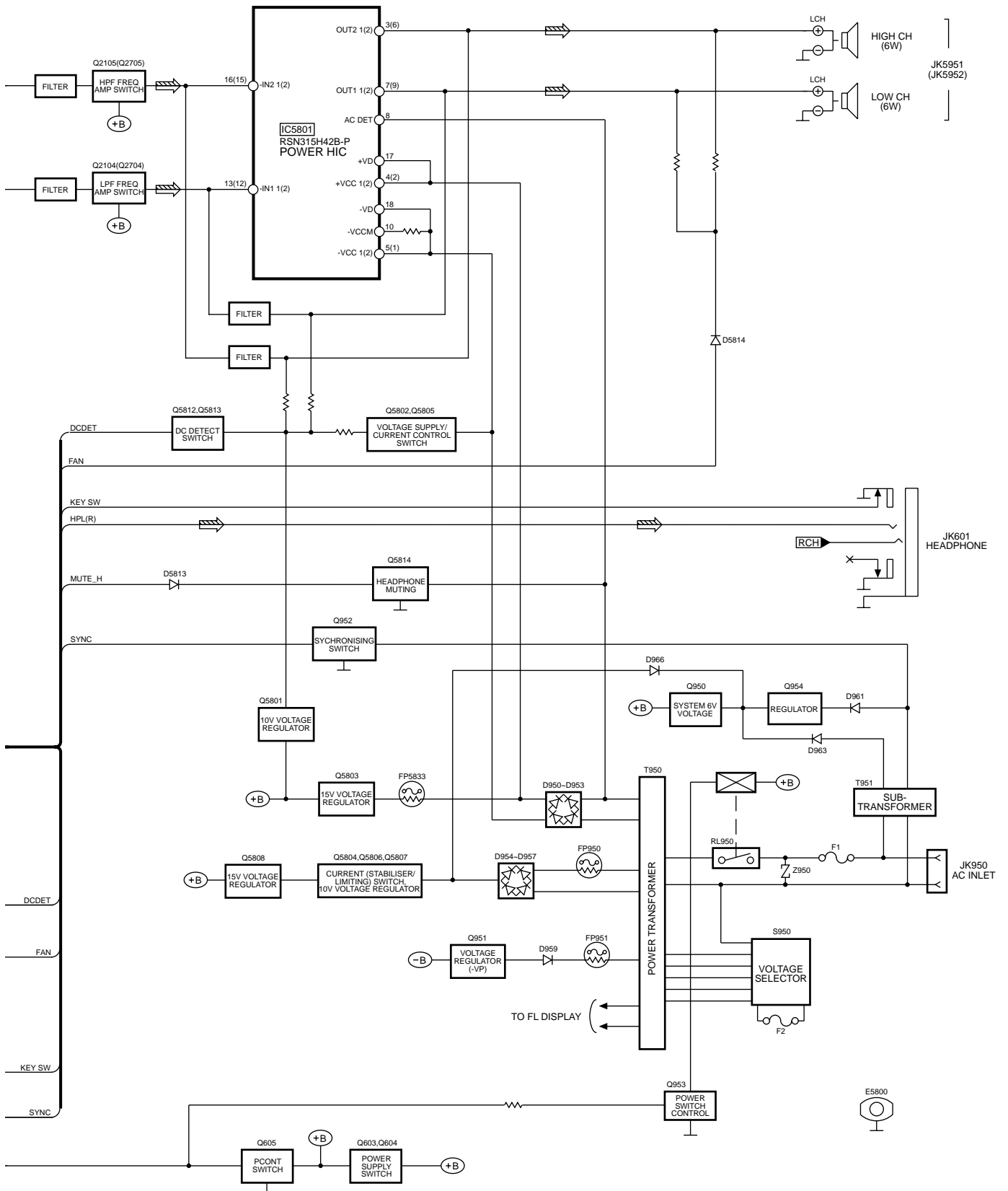




C2BBGF000511 IC600 MICROPROCESSOR







SIGNAL LINES

	: MAIN SIGNAL LINE		: AM SIGNAL LINE		: CD-DA (AUDIO /VIDEO) SIGNAL LINE		: PLAYBACK SIGNAL LINE
	: FM SIGNAL LINE		: AM OSC SIGNAL LINE		: VCD AUDIO SIGNAL LINE		: RECORD SIGNAL LINE
	: FM OSC SIGNAL LINE		: FM /AM SIGNAL LINE		: VCD VIDEO SIGNAL LINE		: MIC SIGNAL LINE
	: AUX SIGNAL LINE						

( ) Indicates the Pin No. of Right Channel.

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

## 18 Schematic Diagram

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


Note:

<b>SW1</b>	: Push switch
<b>SW2</b>	: Push switch
<b>SW3</b>	: Open switch
<b>SW4</b>	: CD switch
<b>SW5</b>	: Load switch
<b>SW2800</b>	: PAL/NTSC switch
<b>S601</b>	: Power switch
<b>S602</b>	: Deck 1/2 switch
<b>S603</b>	: Rec switch
<b>S604</b>	: Open/ Close switch
<b>S605</b>	: CD 1 switch
<b>S606</b>	: CD 2 switch
<b>S607</b>	: CD 3 switch
<b>S608</b>	: CD 4 switch
<b>S609</b>	: CD 5 switch
<b>S610</b>	: SSEQ switch
<b>S611</b>	: SEQ switch
<b>S901</b>	: REW switch
<b>S902</b>	: Tuner switch
<b>S903</b>	: CD Play switch
<b>S904</b>	: FF switch
<b>S905</b>	: Stop switch
<b>S906</b>	: Deck 2 Open switch
<b>S907</b>	: Tape switch
<b>S908</b>	: AUX switch
<b>S909</b>	: Deck 1 Open switch
<b>S910</b>	: Display switch
<b>S950</b>	: Voltage Selector switch
<b>S951</b>	: Mode switch
<b>S952</b>	: Half switch
<b>S971</b>	: Mode switch
<b>S972</b>	: Half switch
<b>S974</b>	: Recinh_R switch
<b>S975</b>	: Recinh_F switch
<b>S7201</b>	: Rest switch
<b>VR600</b>	: VR Volume Jog
<b>VR602</b>	: MIC Volume Jog

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

No mark : Playback << >> : Rec < > : FM  
 (( )) : CD

### • 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.

### Caution !

IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during

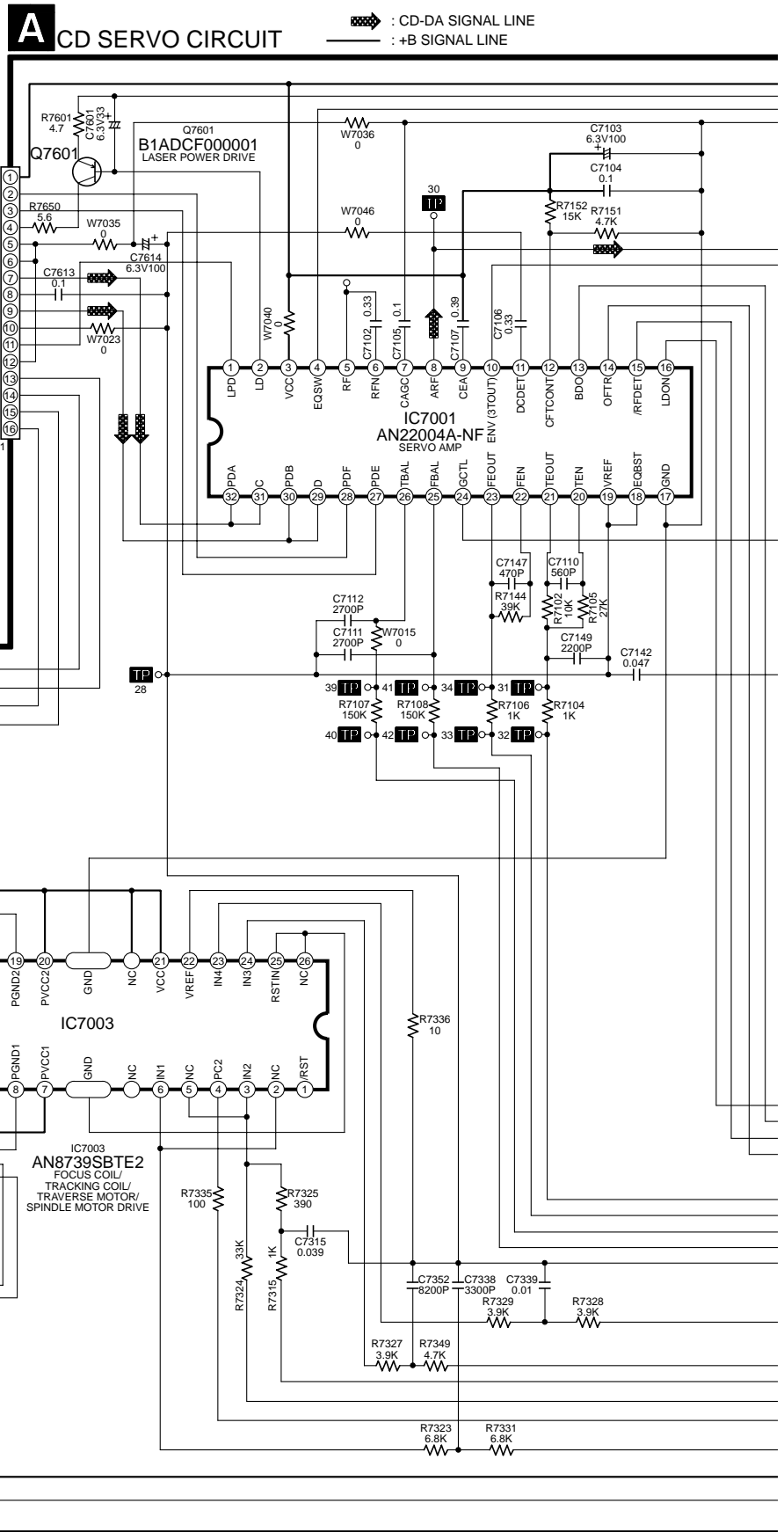
repair.

- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.



# 18.1. (A) CD Servo Circuit

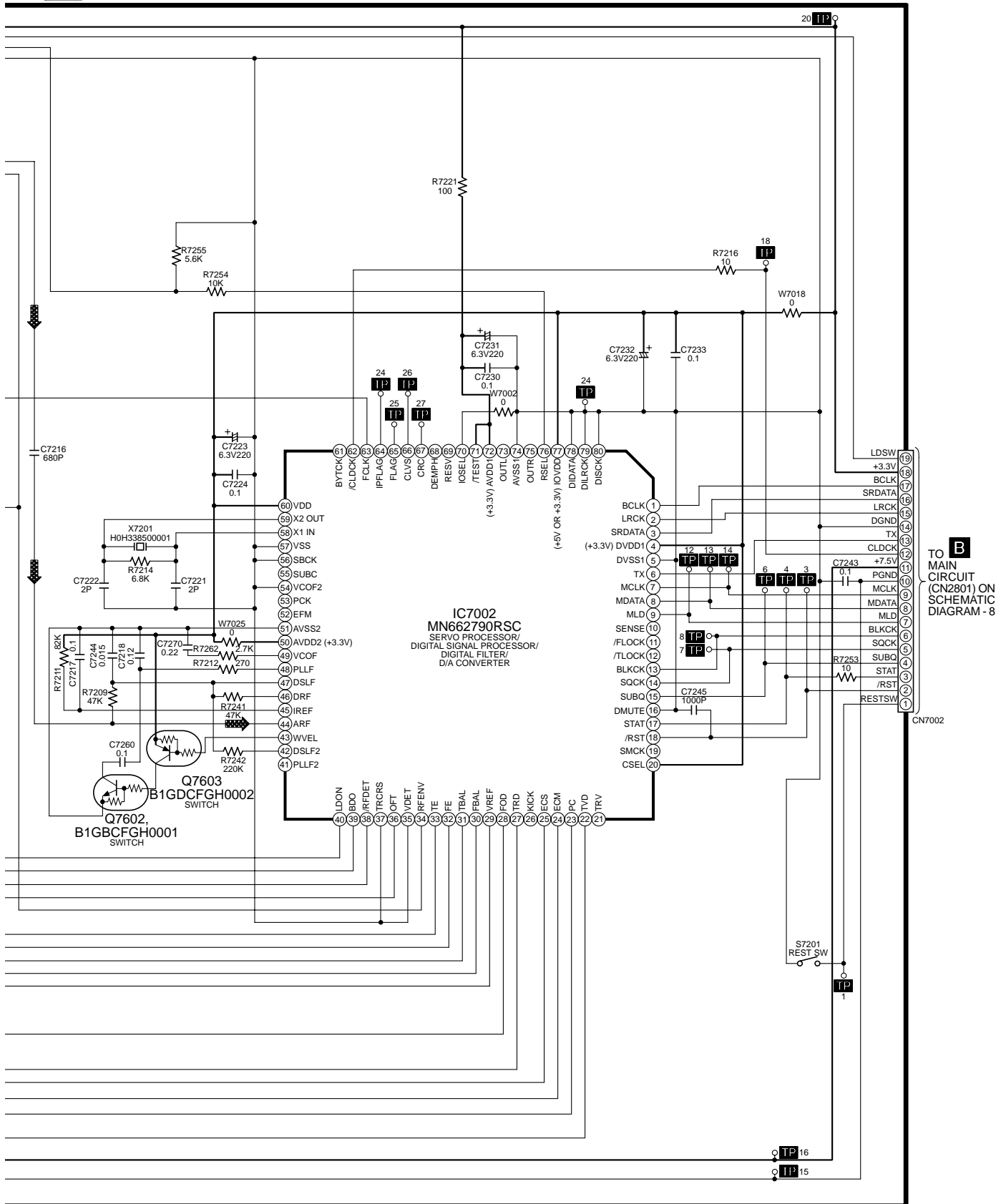
SCHEMATIC DIAGRAM - 1



SCHEMATIC DIAGRAM - 2

**A** CD SERVO CIRCUIT

⬮ : CD-DA SIGNAL LINE  
 — : +B SIGNAL LINE

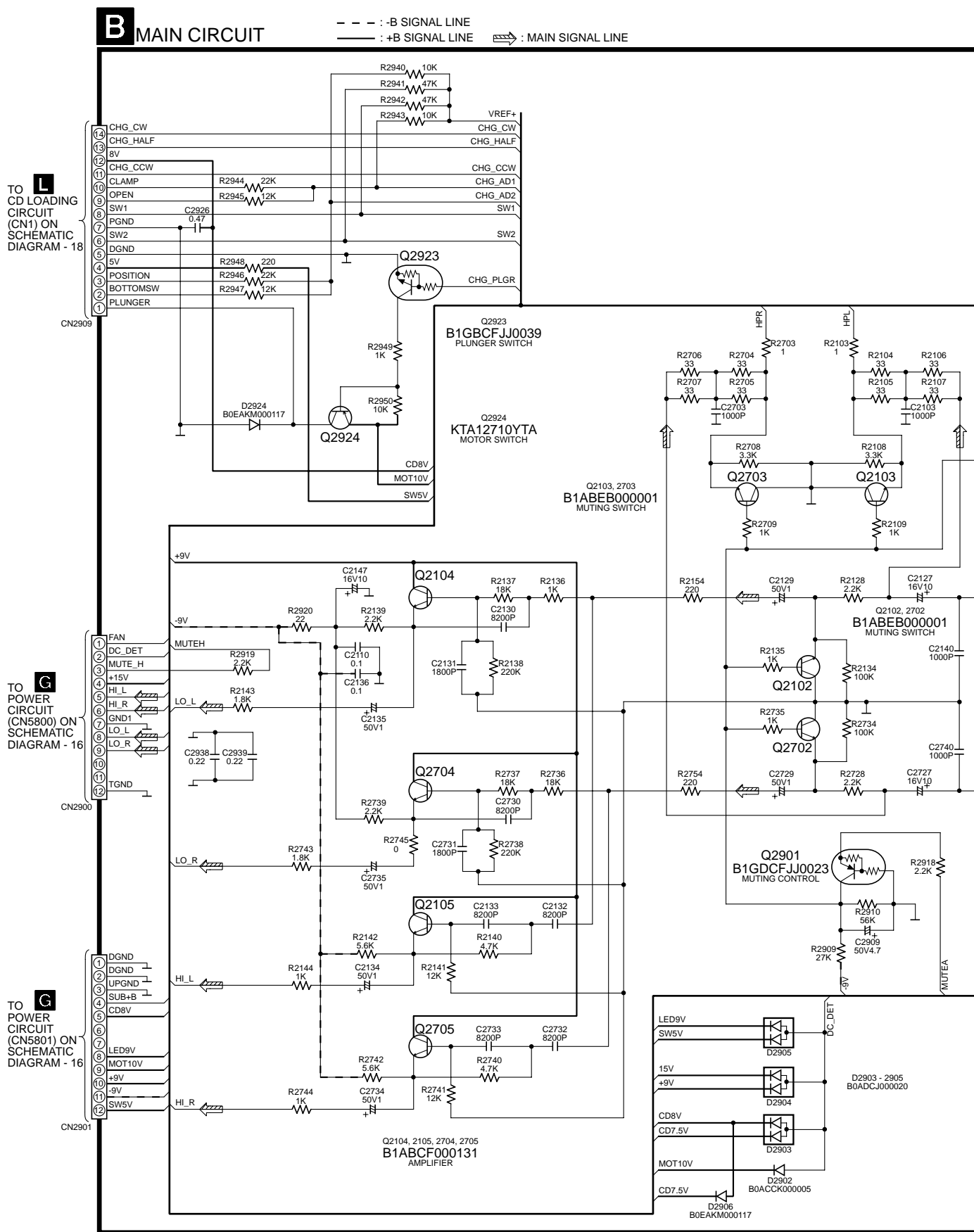


**B**  
 TO MAIN CIRCUIT (CN2801) ON SCHEMATIC DIAGRAM - 8



# 18.3. (B) Main Circuit




SCHEMATIC DIAGRAM - 4

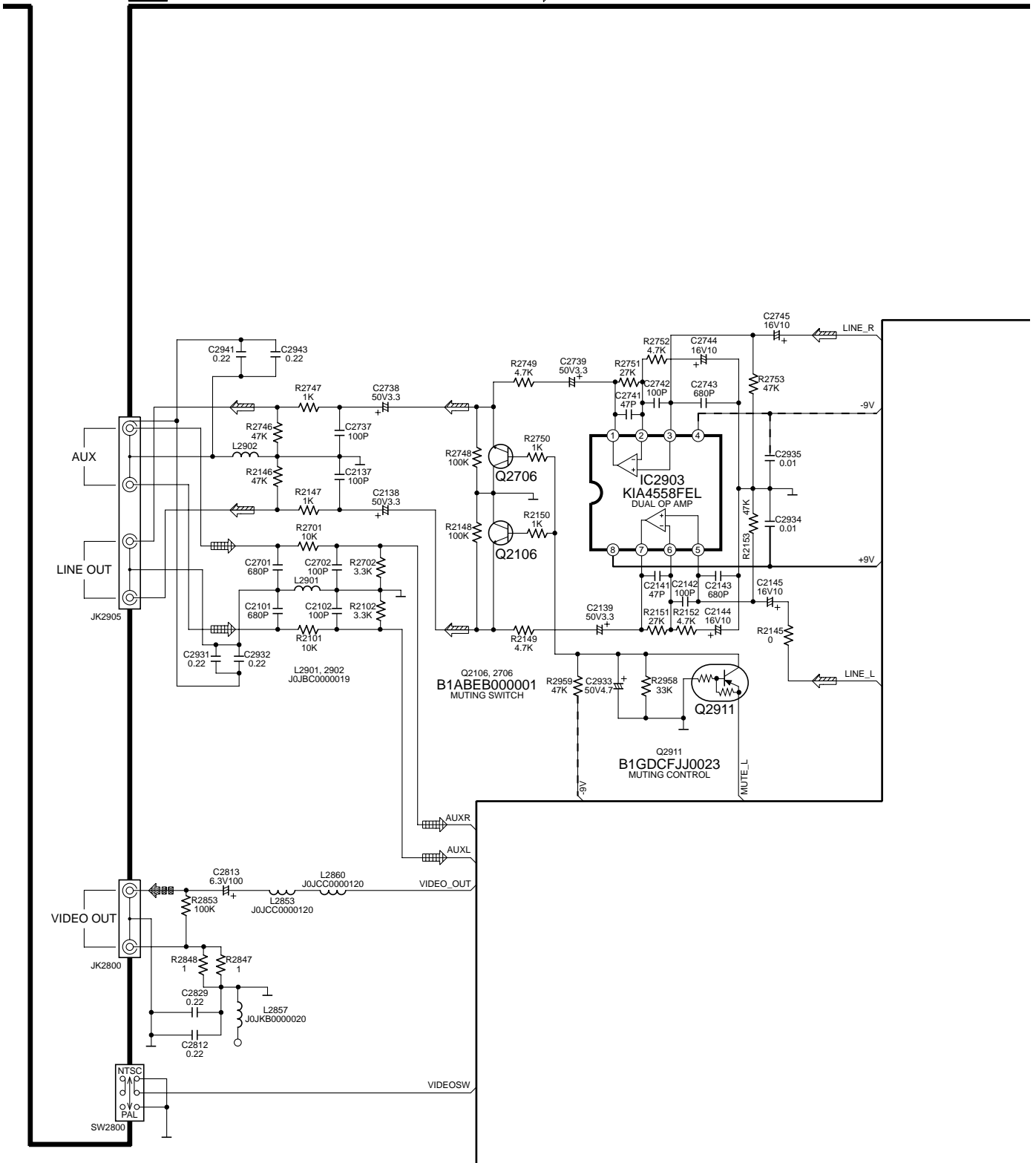




SCHEMATIC DIAGRAM - 6





**B** MAIN CIRCUIT

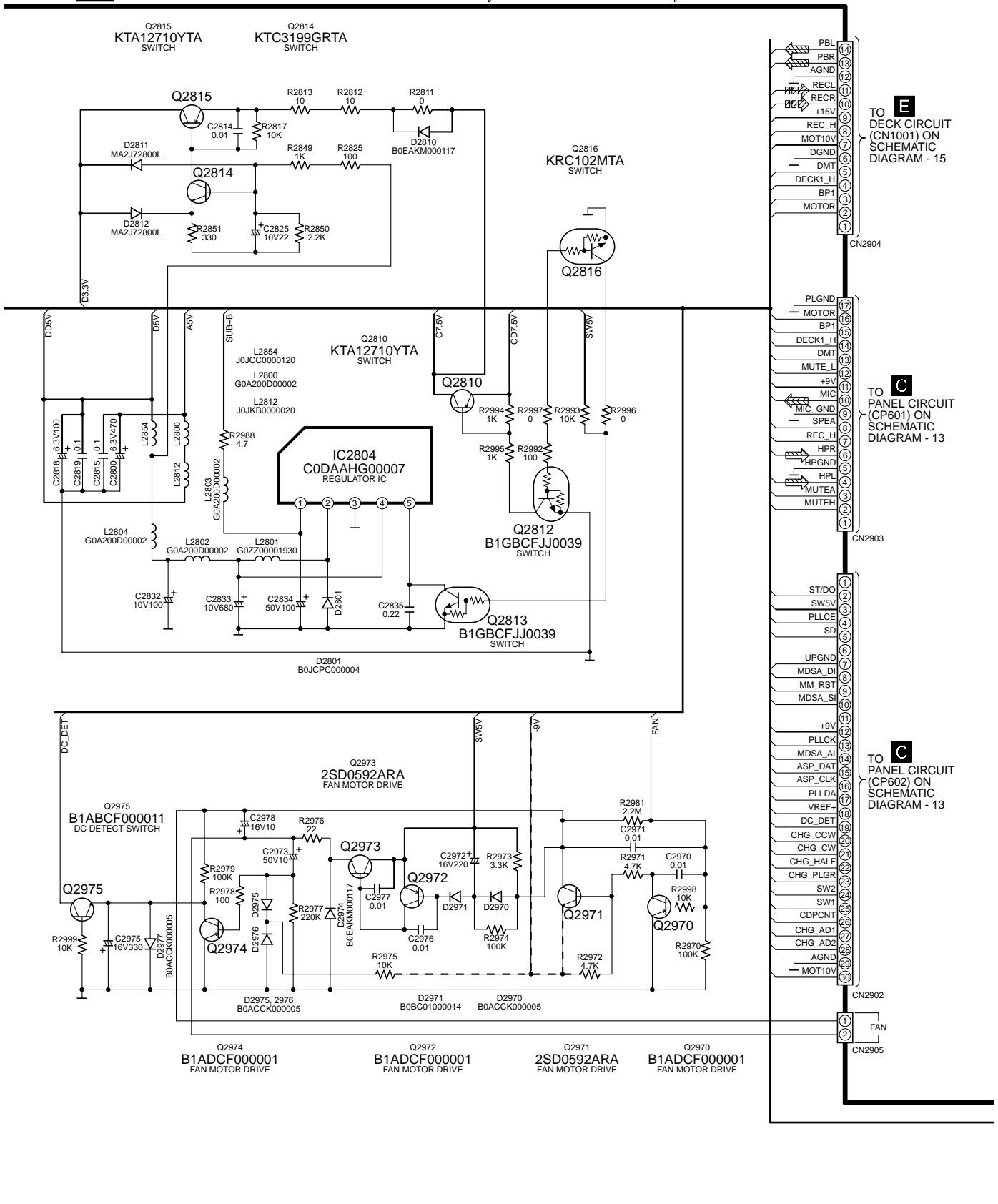
- - - : -B SIGNAL LINE
- : +B SIGNAL LINE
-  : AUX SIGNAL LINE
-  : VCD VIDEO SIGNAL LINE
-  : MAIN SIGNAL LINE



SCHEMATIC DIAGRAM - 7

**B** MAIN CIRCUIT

--- : -B SIGNAL LINE     : PLAYBACK SIGNAL LINE     : MIC SIGNAL LINE  
 — : +B SIGNAL LINE     : RECORD SIGNAL LINE     : MAIN SIGNAL LINE

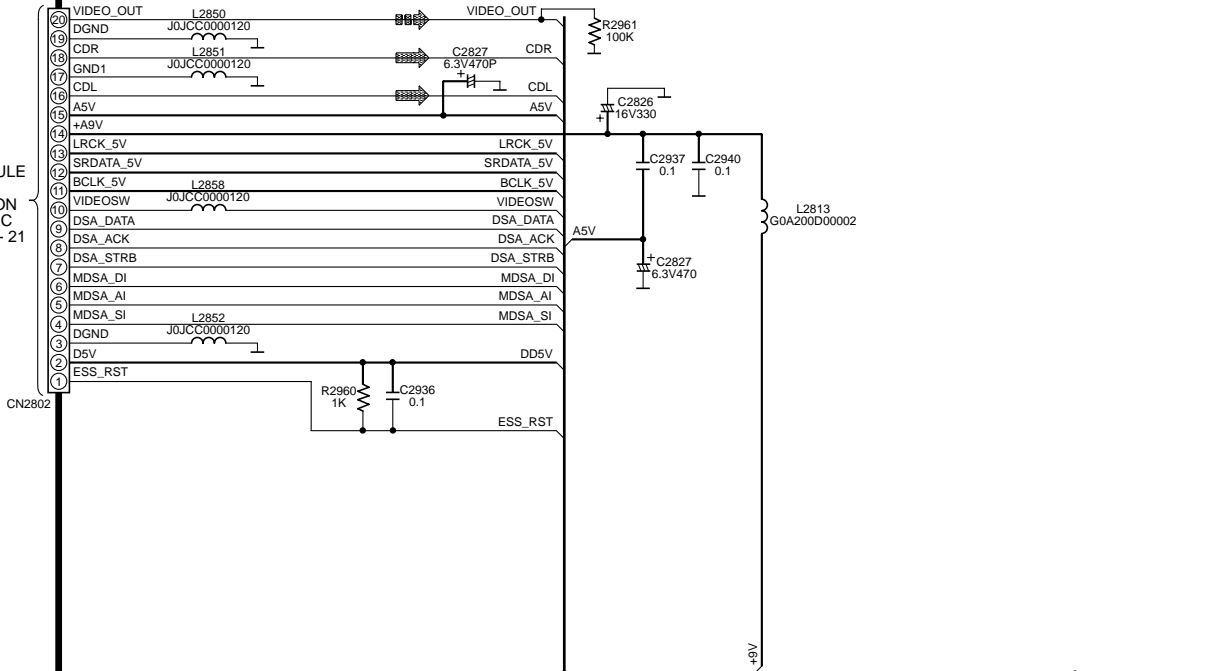


SCHEMATIC DIAGRAM - 8

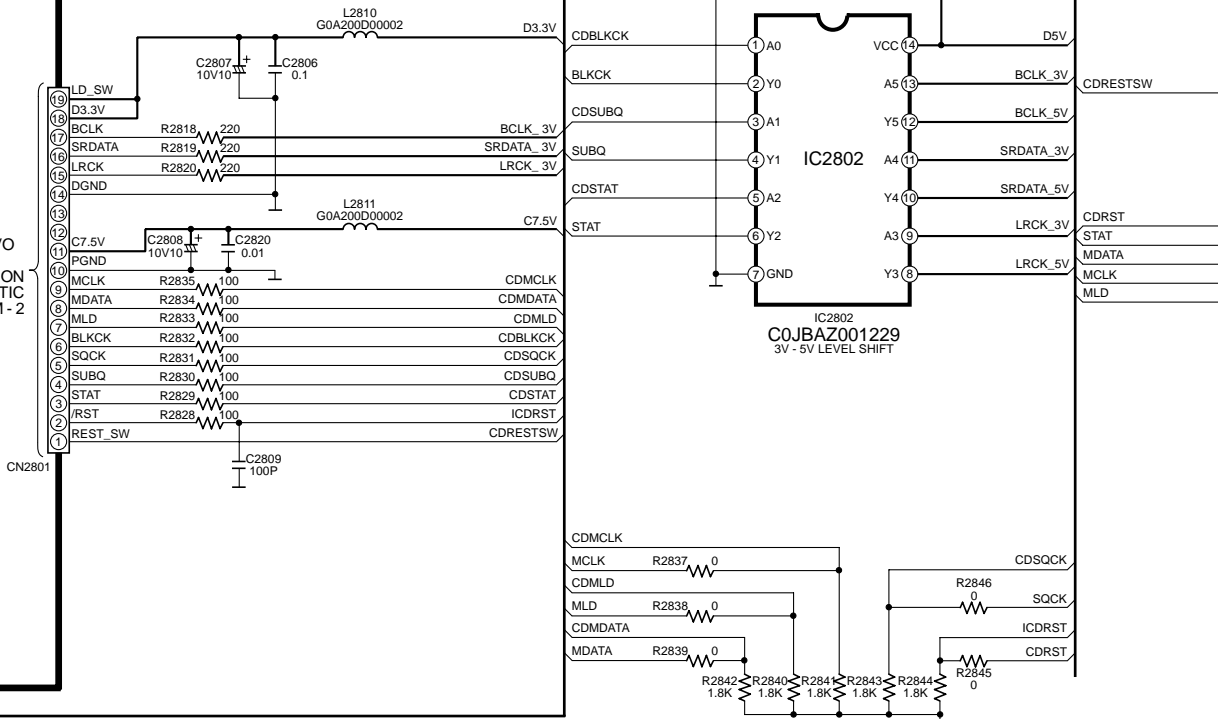
**B** MAIN CIRCUIT

— : +B SIGNAL LINE  
 : VCD AUDIO SIGNAL LINE  
 : VCD VIDEO SIGNAL LINE

TO **M**  
 VCD MODULE  
 CIRCUIT (CN2000) ON  
 SCHEMATIC  
 DIAGRAM - 21



TO **A**  
 CD SERVO  
 CIRCUIT (CN7002) ON  
 SCHEMATIC  
 DIAGRAM - 2

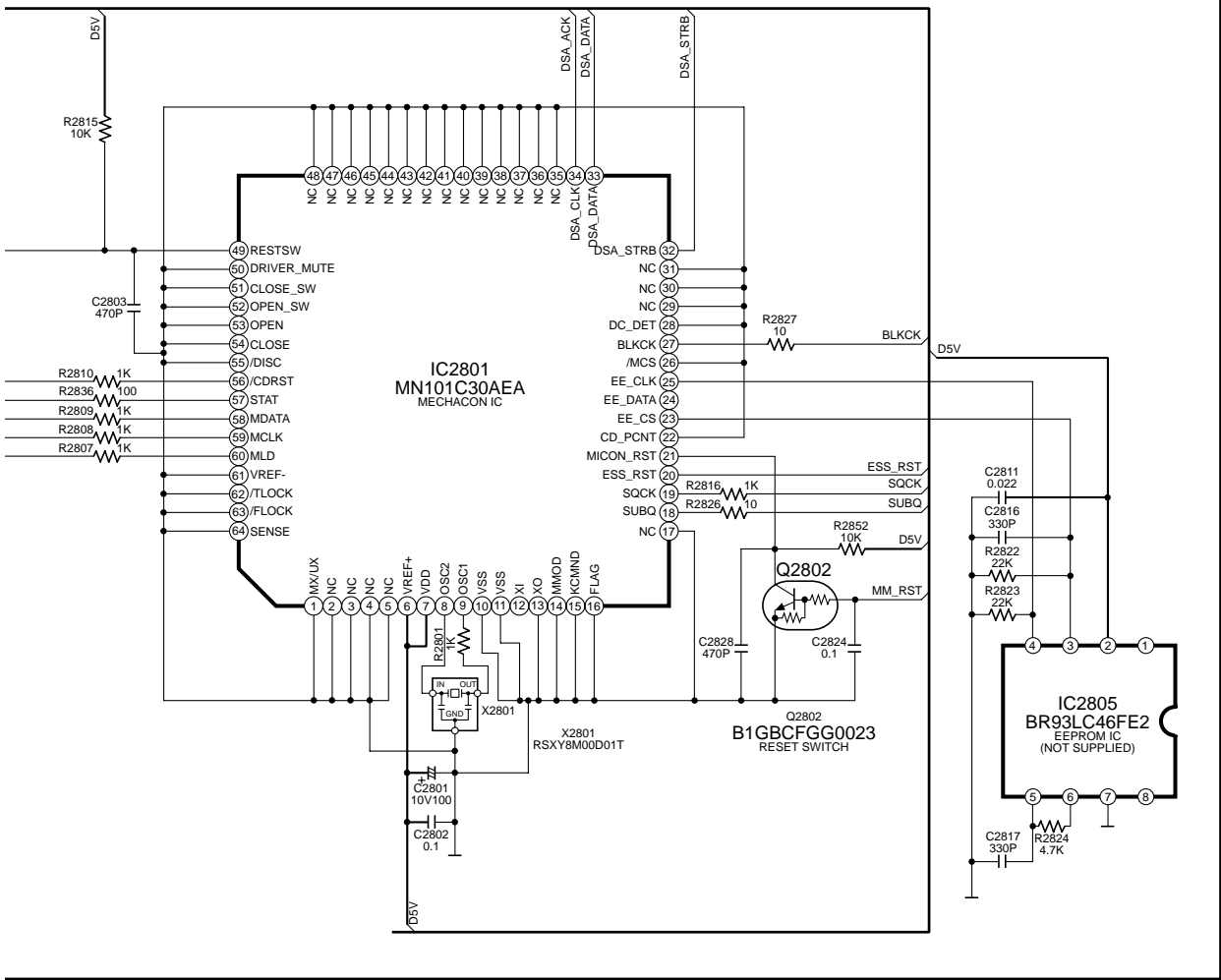




SCHEMATIC DIAGRAM - 9

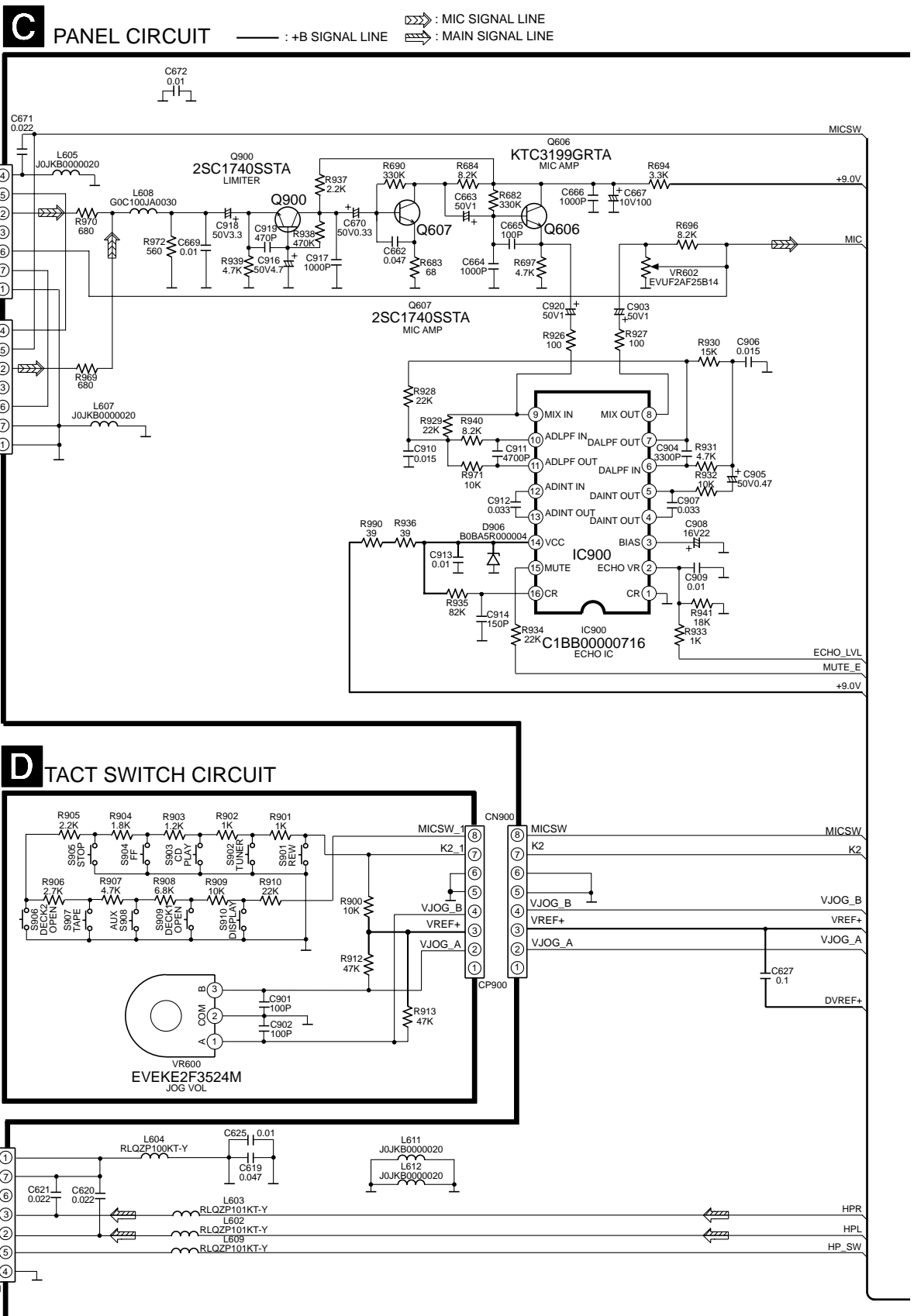
**B** MAIN CIRCUIT

— : +B SIGNAL LINE



# 18.4. (C) Panel Circuit & (D) Tact Switch Circuit

SCHEMATIC DIAGRAM - 10

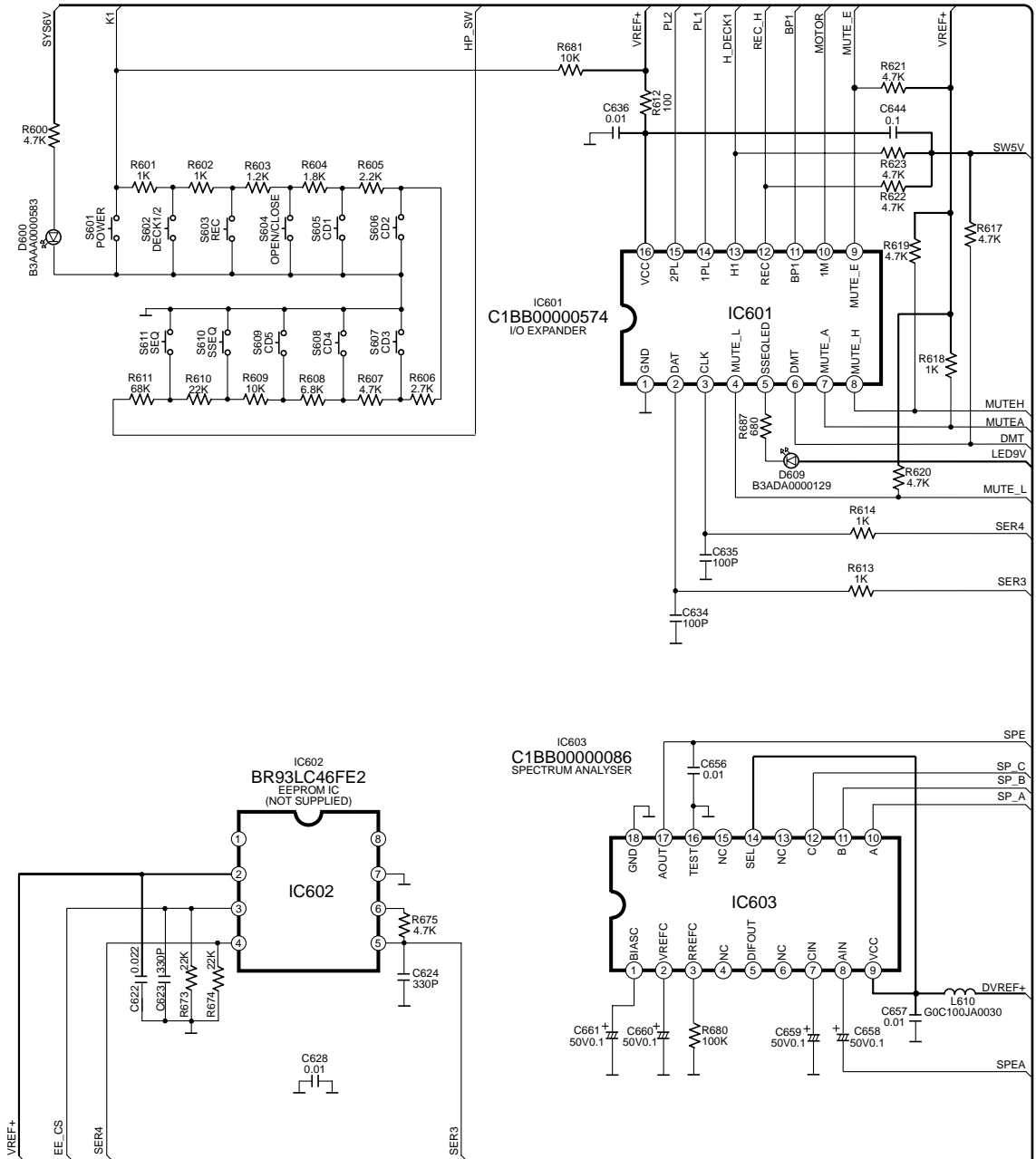


SCHEMATIC DIAGRAM - 11



PANEL CIRCUIT

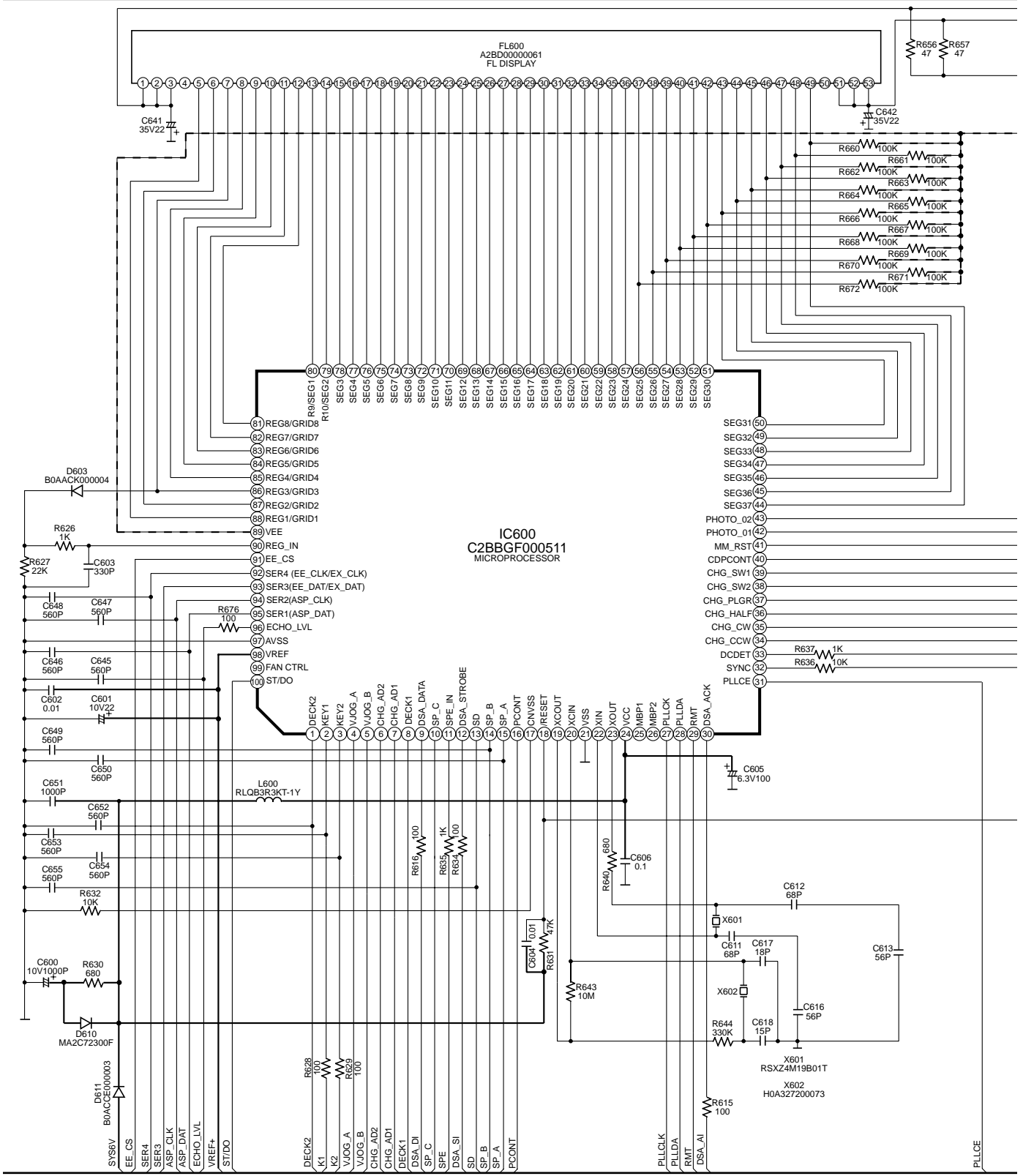
— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 12



**C** PANEL CIRCUIT

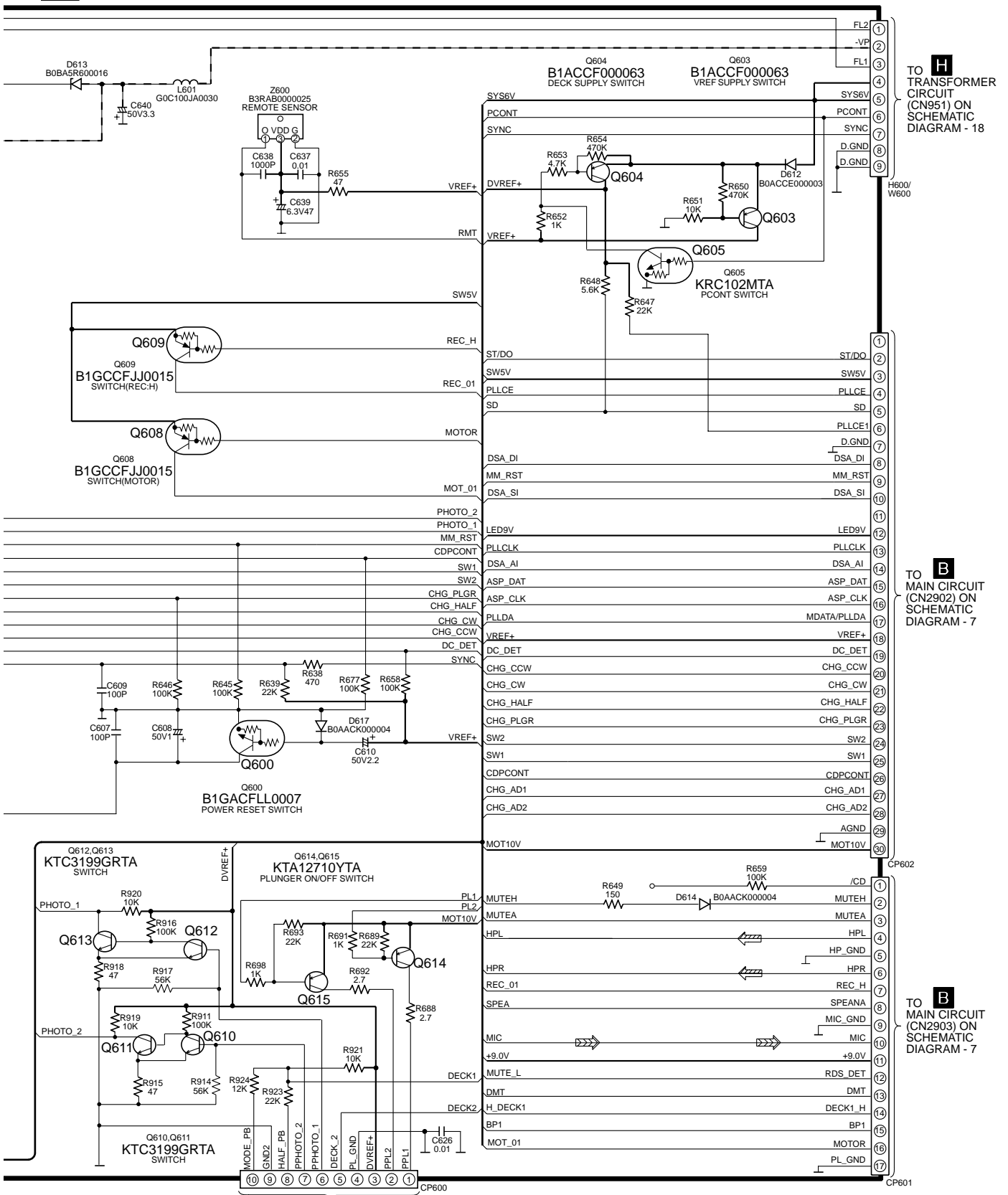
- - - : -B SIGNAL LINE  
— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 13

**C** PANEL CIRCUIT

--- : -B SIGNAL LINE  
 --- : +B SIGNAL LINE  
 : MIC SIGNAL LINE  
 : MAIN SIGNAL LINE



TO **F** DECK MECHANISM CIRCUIT (CN971) ON SCHEMATIC DIAGRAM - 15

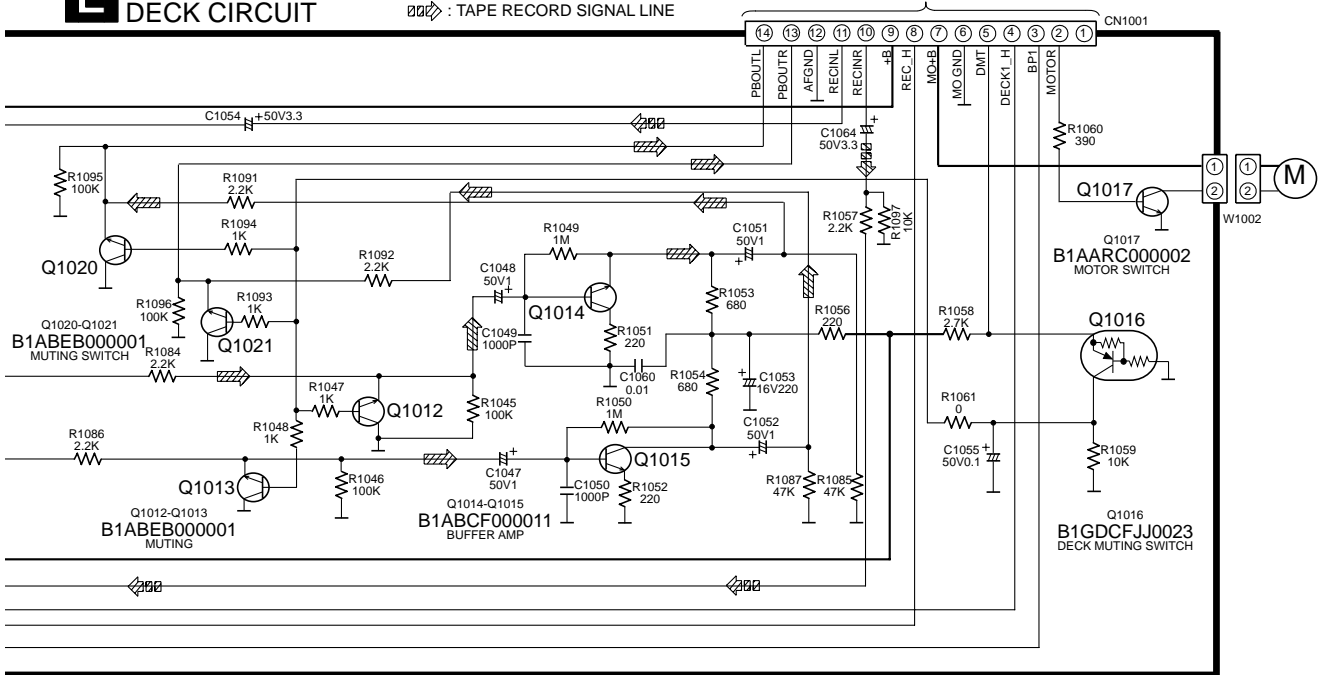


**SCHEMATIC DIAGRAM - 15**

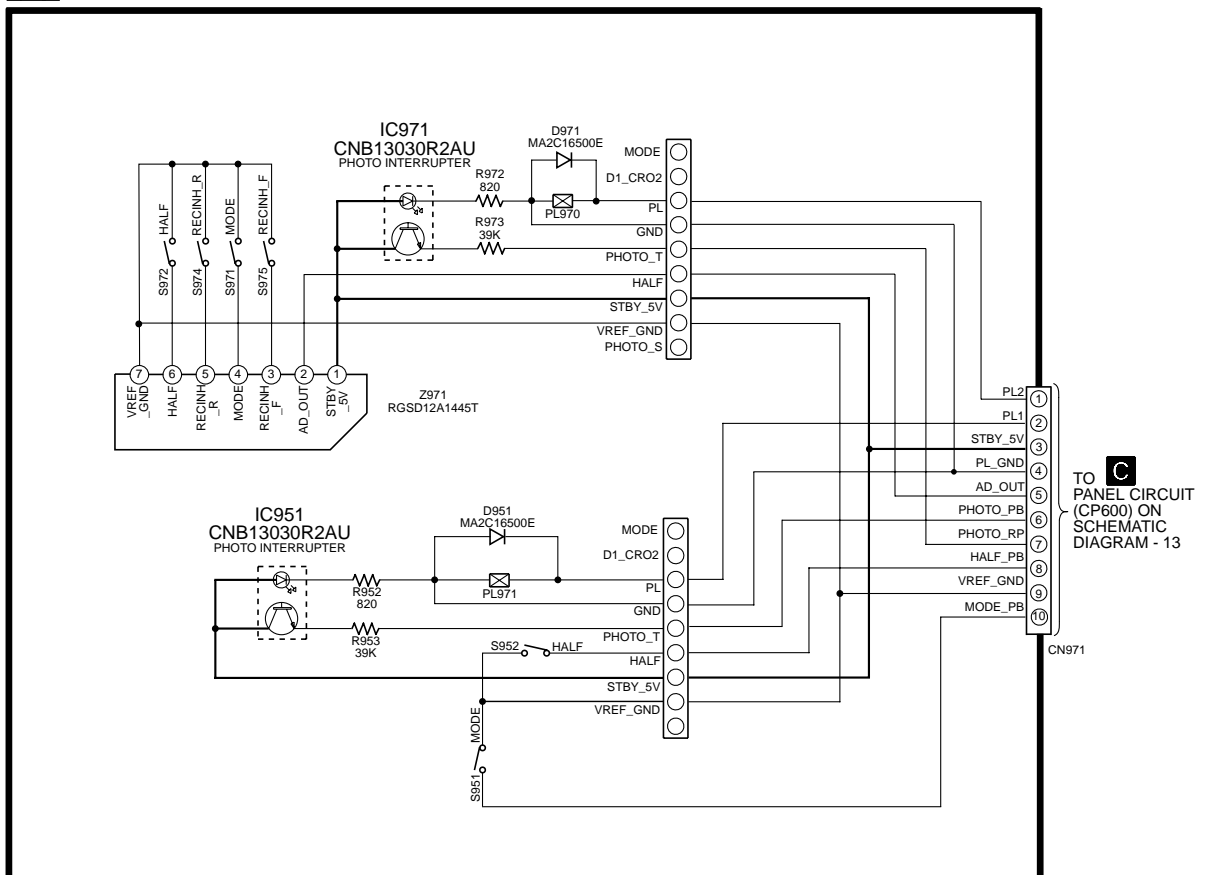
**E DECK CIRCUIT**

— : +B SIGNAL LINE  
 ▨ : TAPE PLAYBACK SIGNAL LINE  
 ▩ : TAPE RECORD SIGNAL LINE

TO MAIN CIRCUIT (CN2904) ON SCHEMATIC DIAGRAM - 7



**F DECK MECHANISM CIRCUIT**



TO PANEL CIRCUIT (CP600) ON SCHEMATIC DIAGRAM - 13

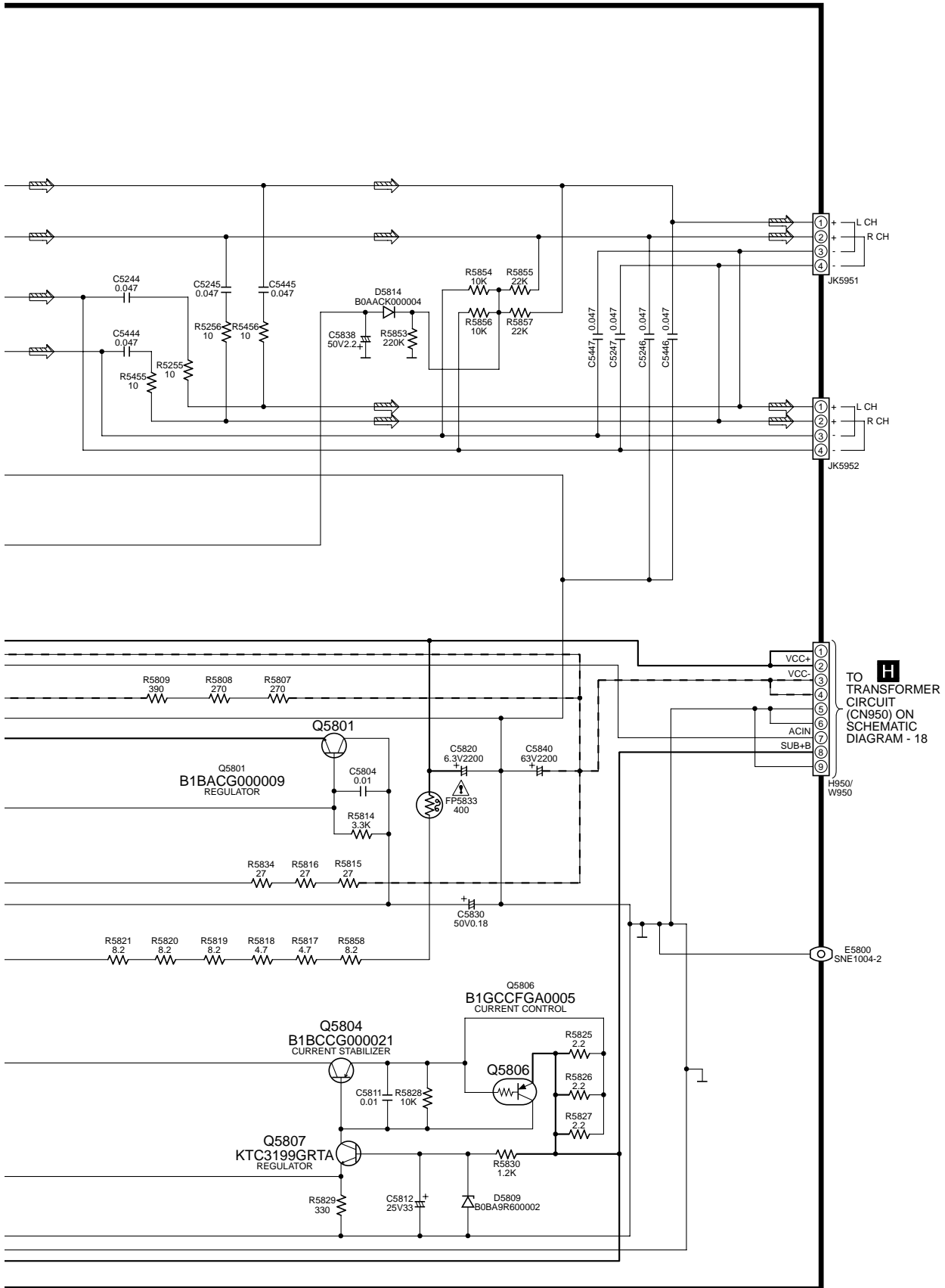




SCHEMATIC DIAGRAM - 17

**G** POWER CIRCUIT

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

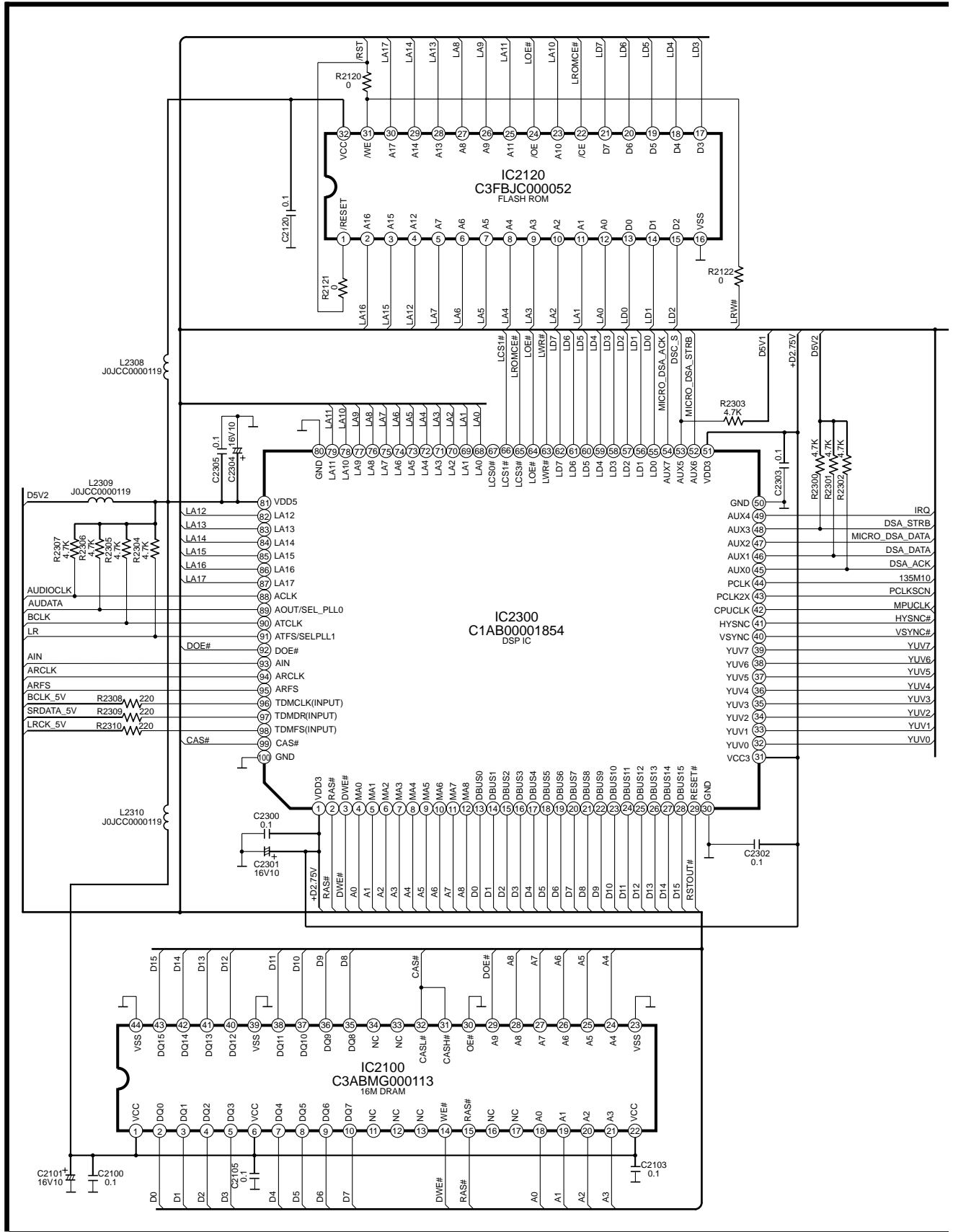




# 18.8. (M) VCD Module Circuit

SCHEMATIC DIAGRAM - 19

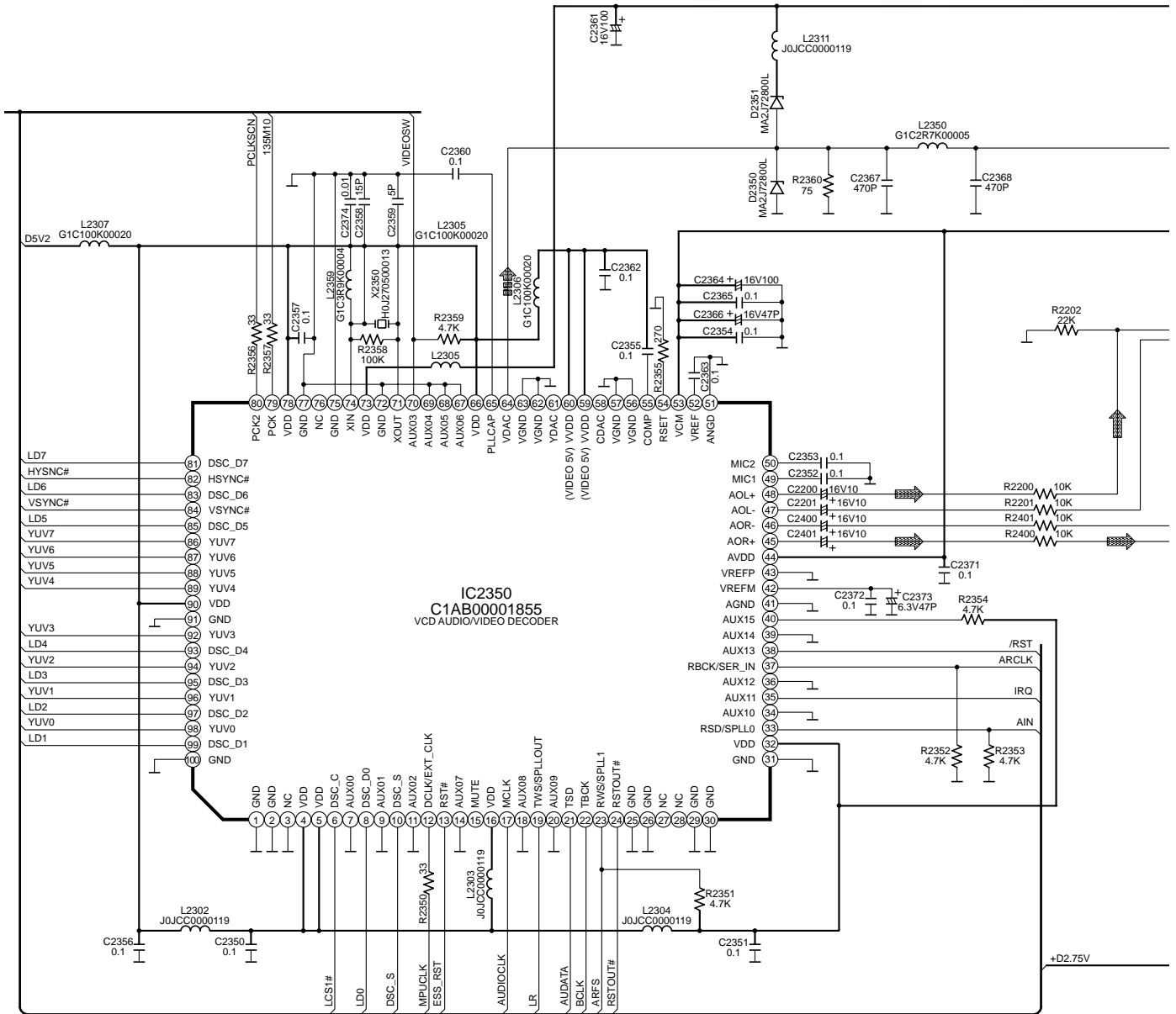
**M** VCD MODULE CIRCUIT — : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 20

**M** VCD MODULE CIRCUIT

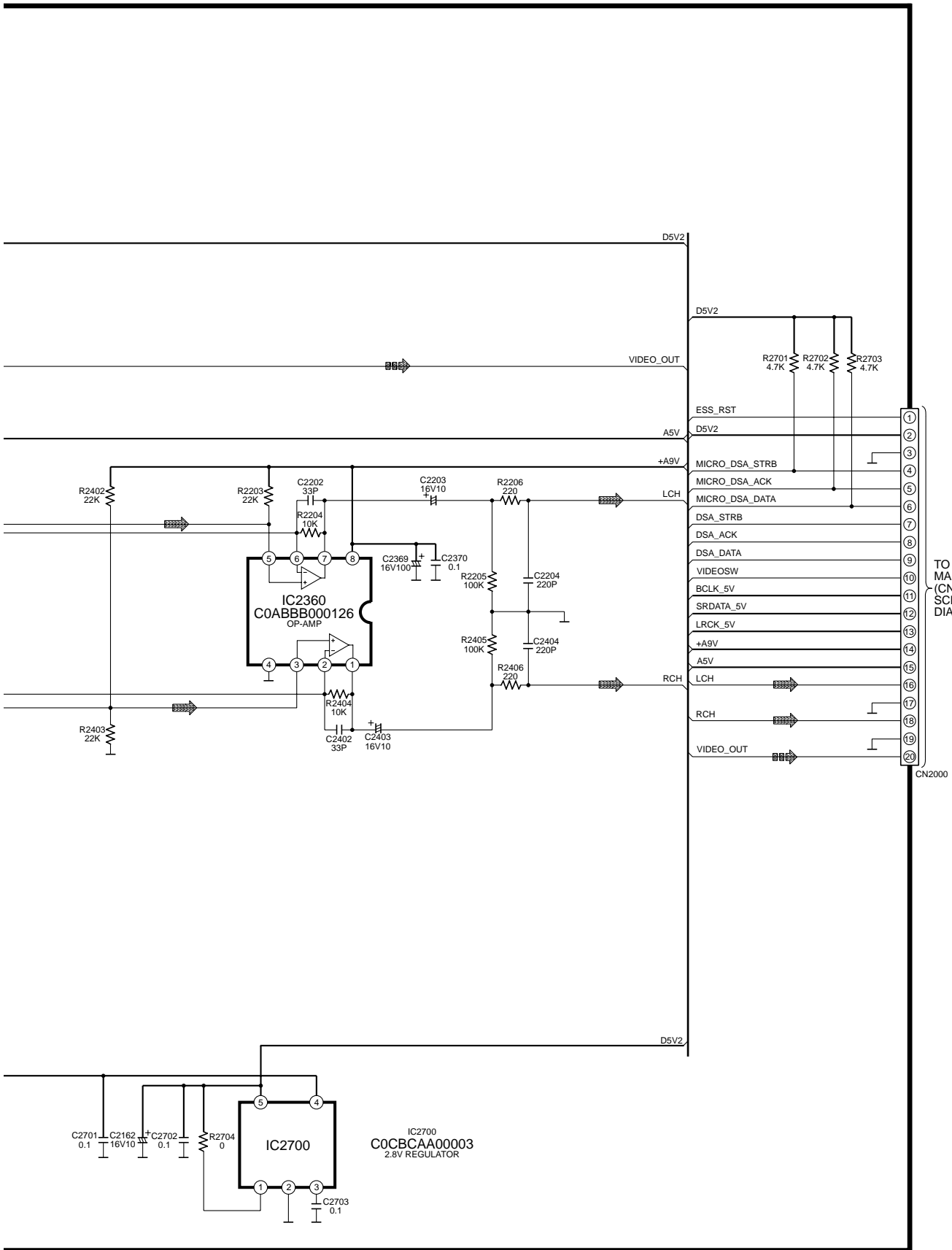
— : +B SIGNAL LINE  
 : VCD AUDIO SIGNAL LINE  
 : VCD VIDEO SIGNAL LINE



SCHEMATIC DIAGRAM - 21

**M** VCD MODULE CIRCUIT

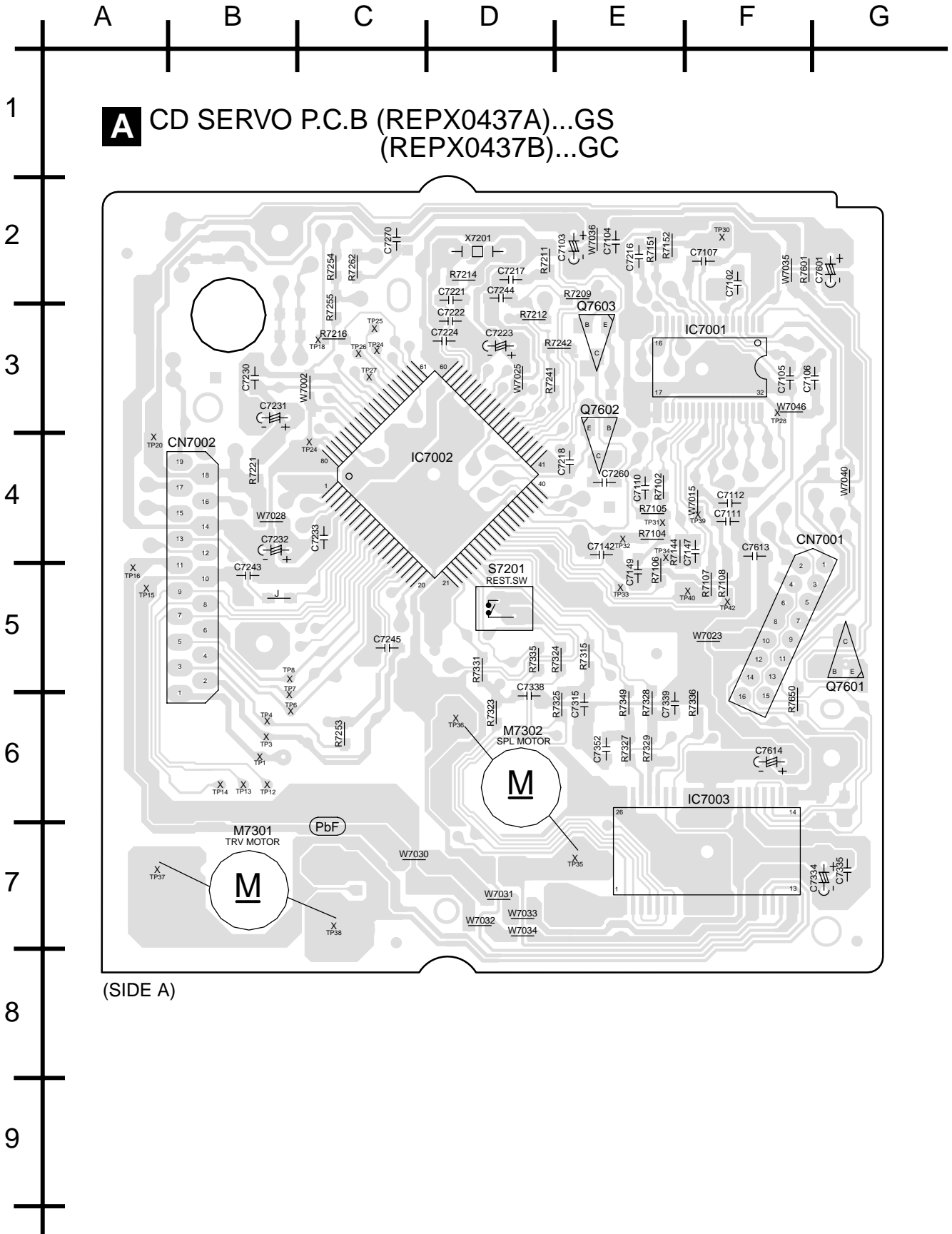
— : +B SIGNAL LINE  
 : VCD AUDIO SIGNAL LINE  
 : VCD VIDEO SIGNAL LINE

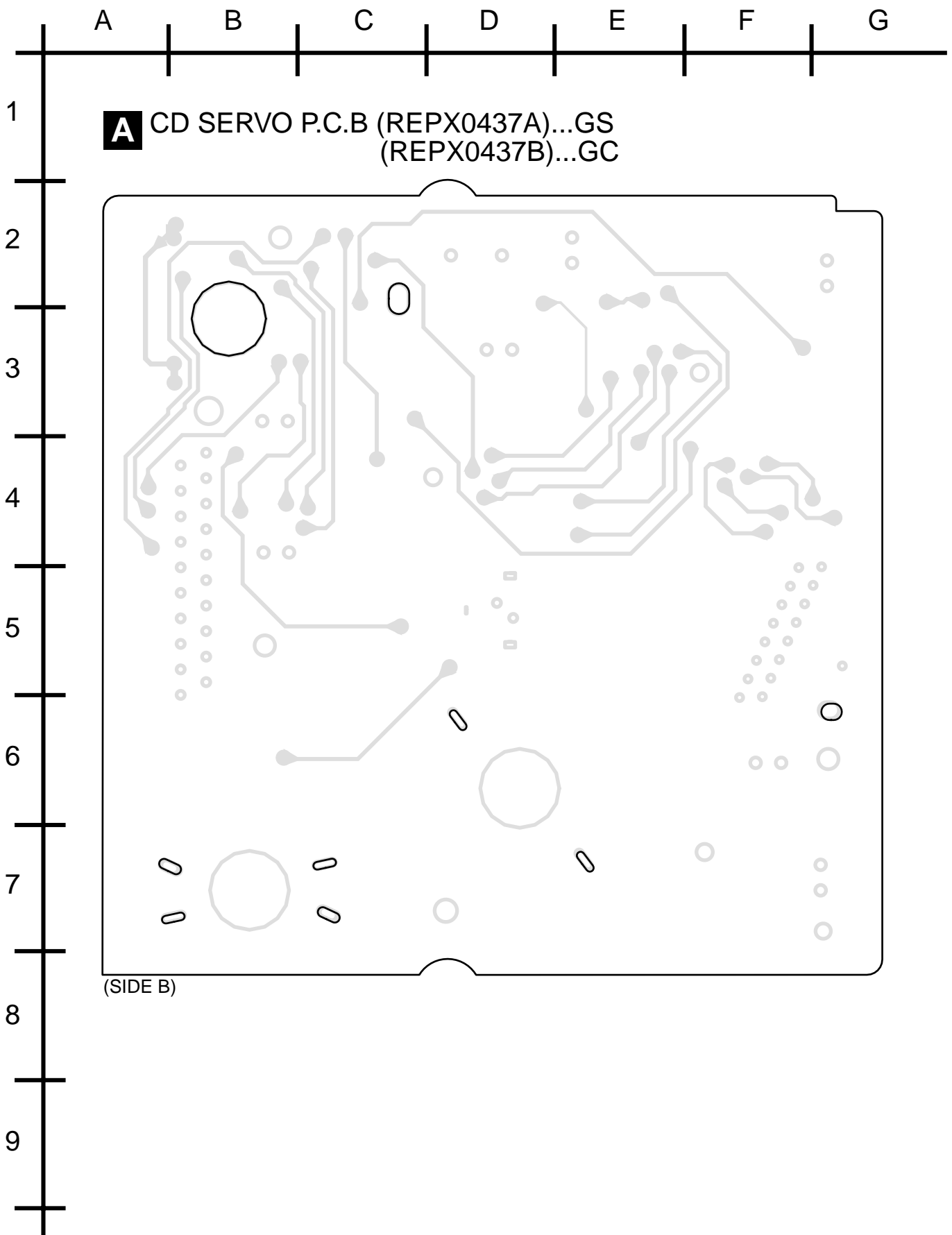


# 19 Printed Circuit Board

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

## 19.1. (A) CD Servo P.C.B. (Side A & B)

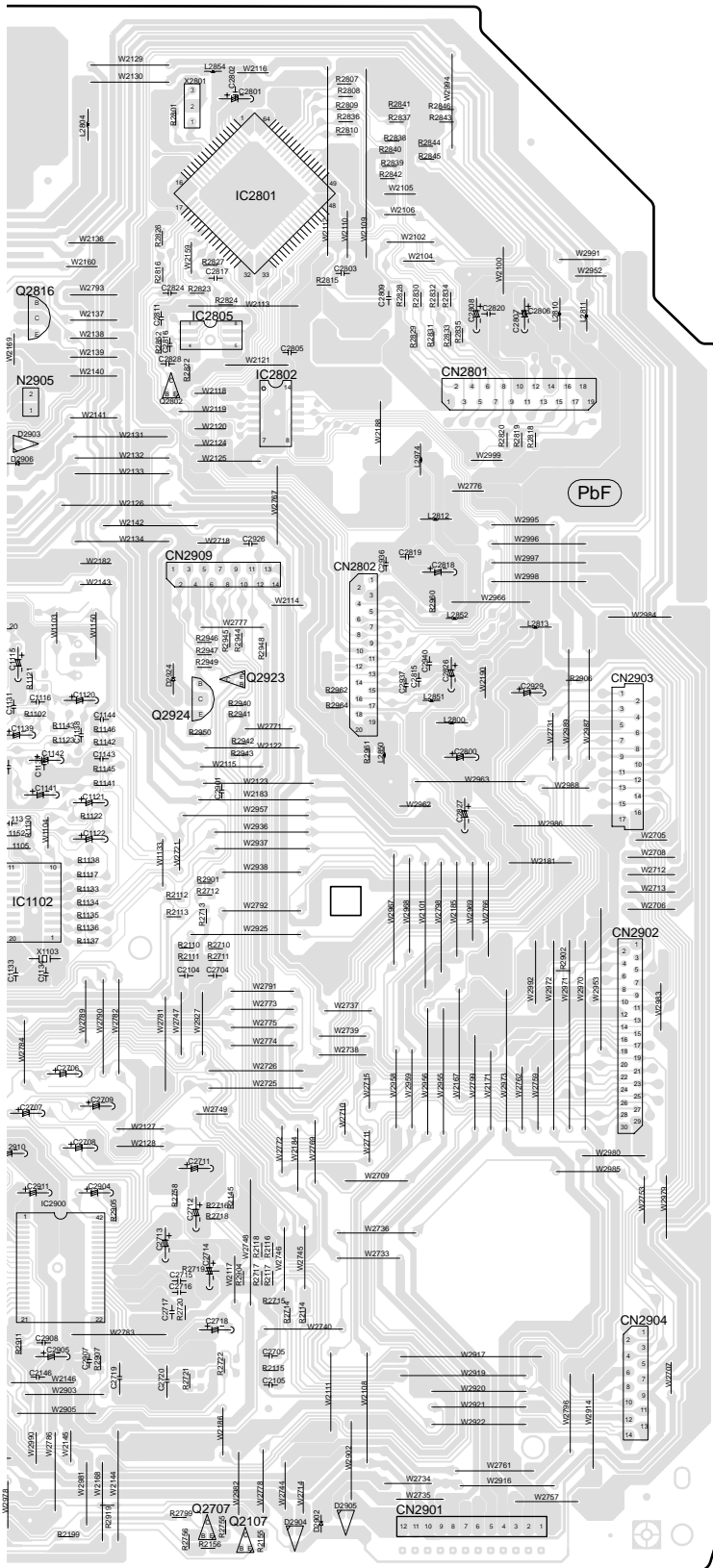




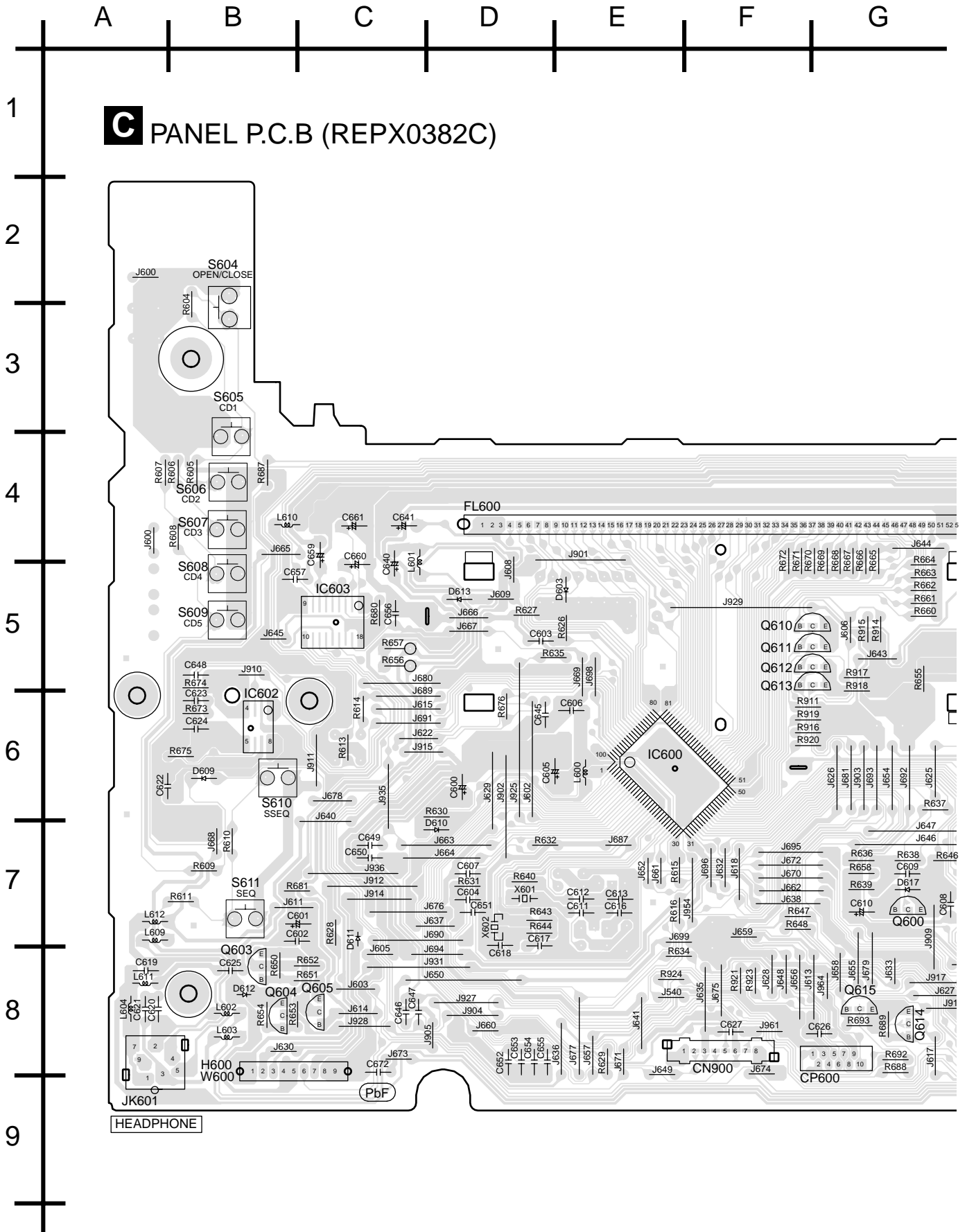




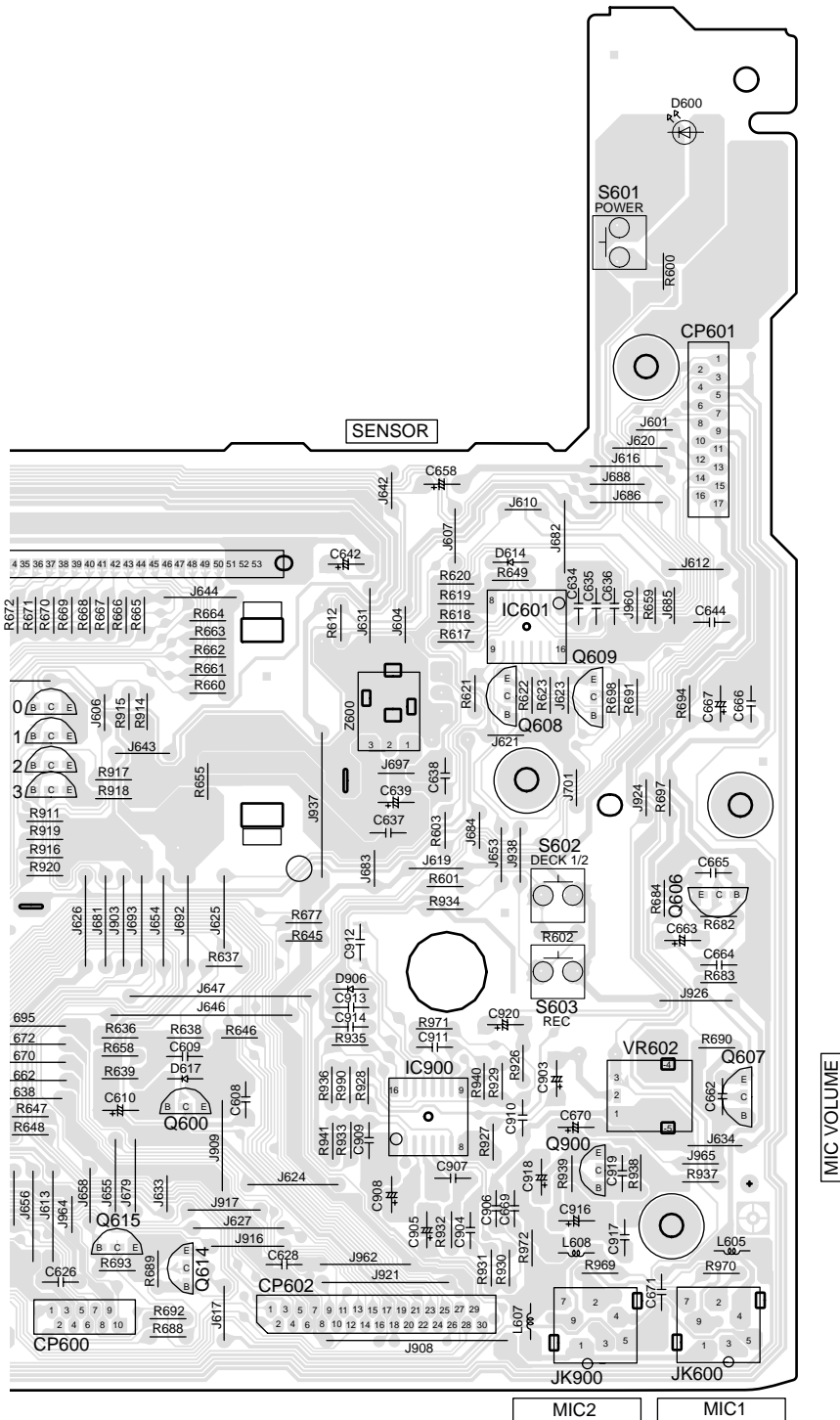
G | H | I | J | K | L | M



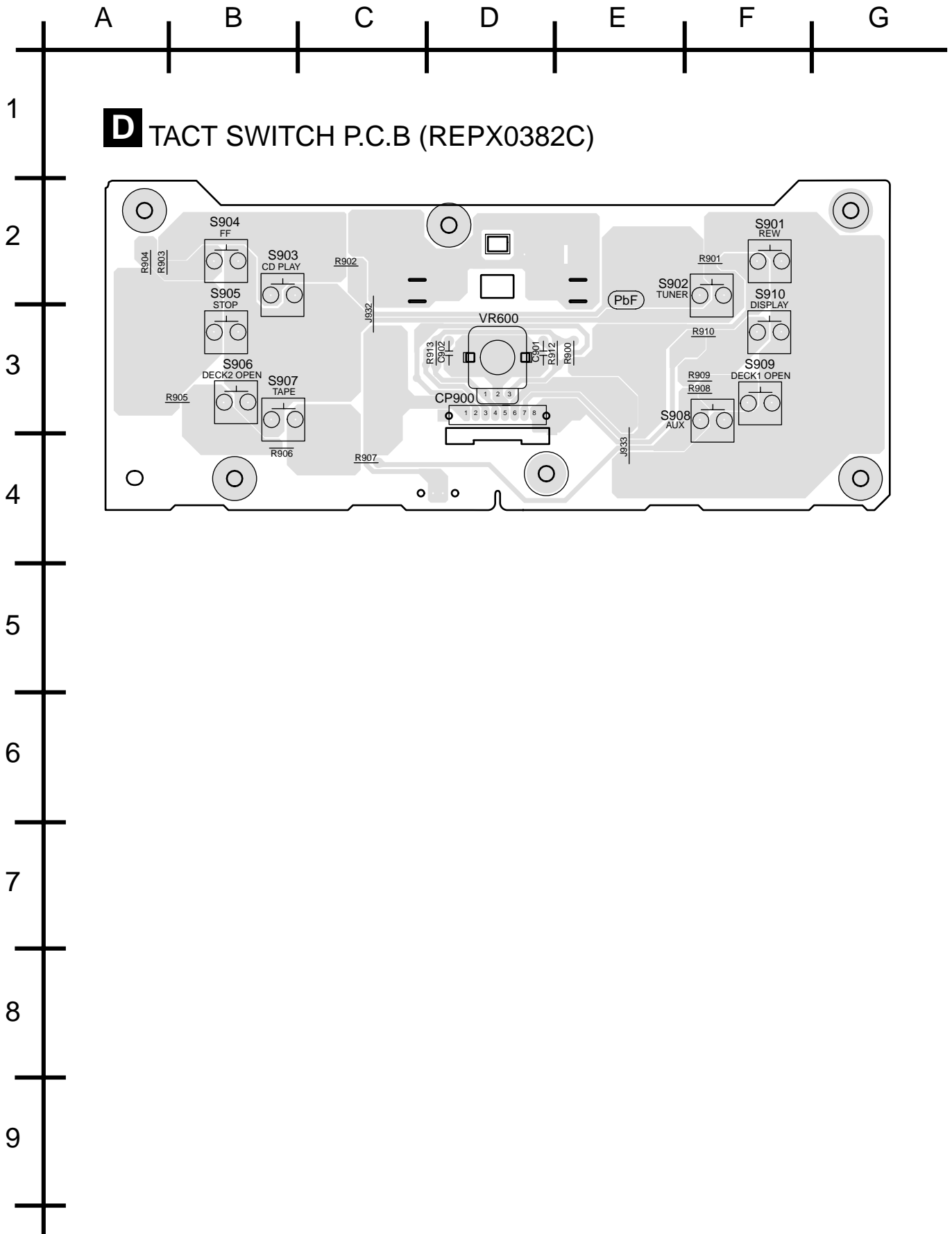
### 19.3. (C) Panel P.C.B.



G | H | I | J | K | L | M



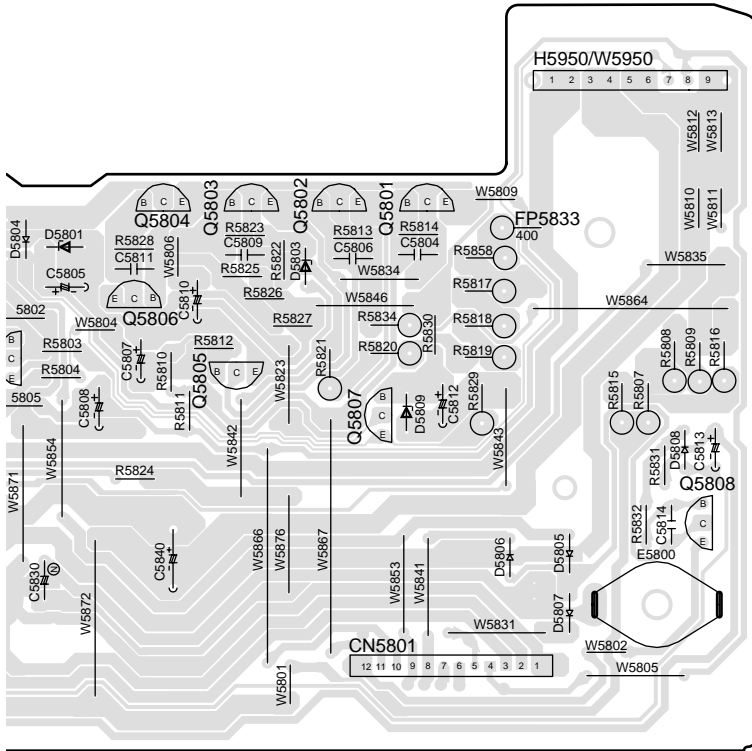
19.4. (D) Tact Switch P.C.B.



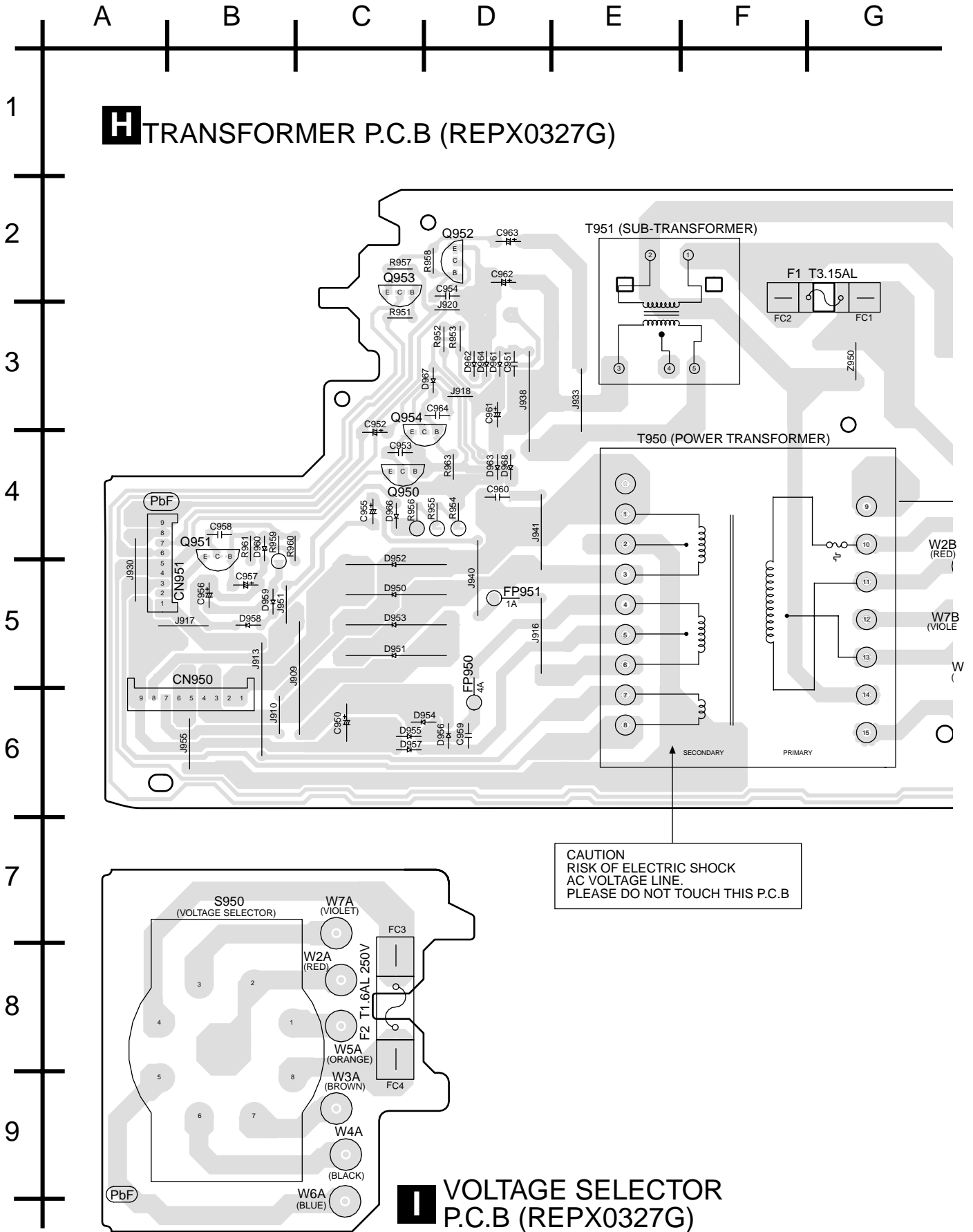




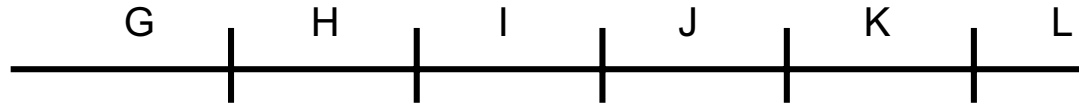
G H I J K L M



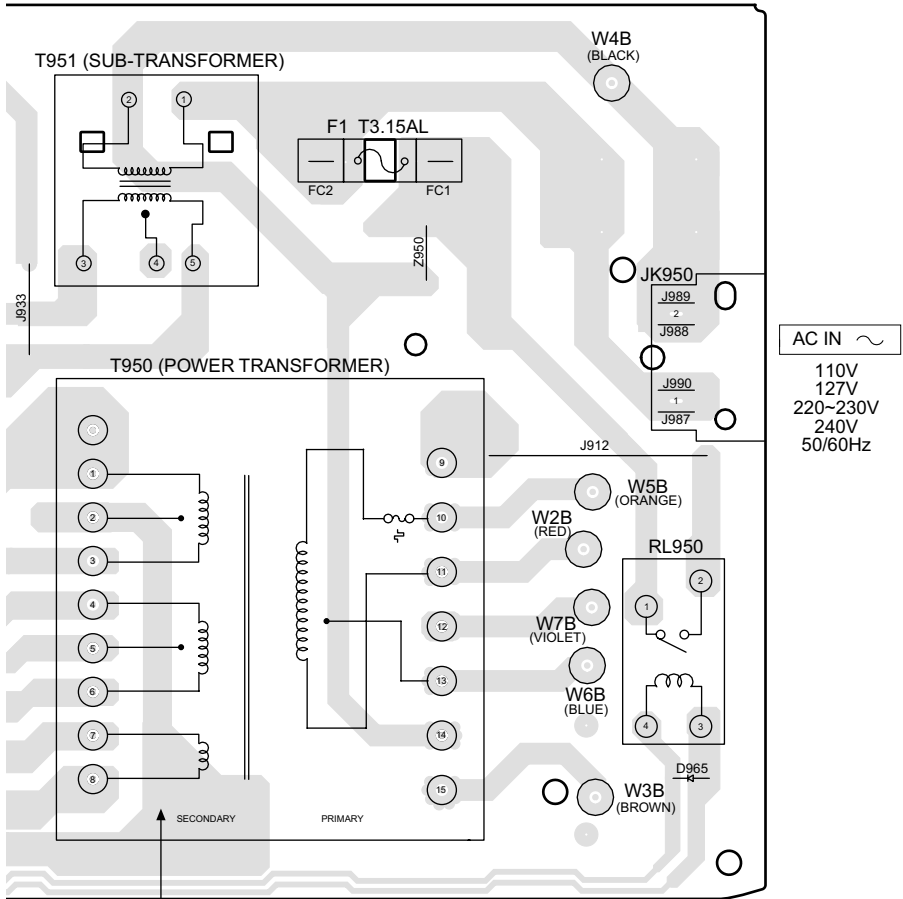
### 19.7. (H) Transformer P.C.B. & (I) Voltage Selector P.C.B.





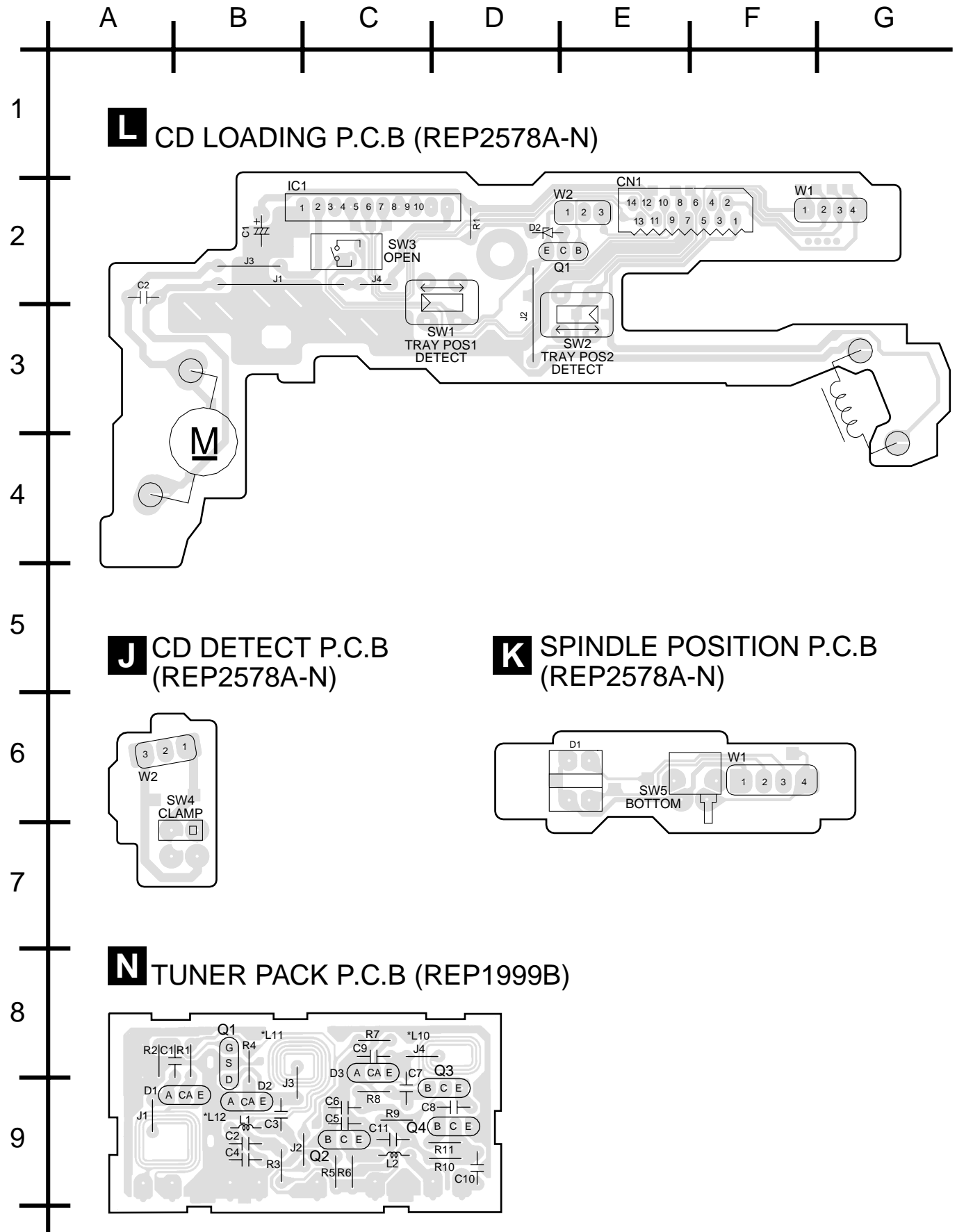


27G)



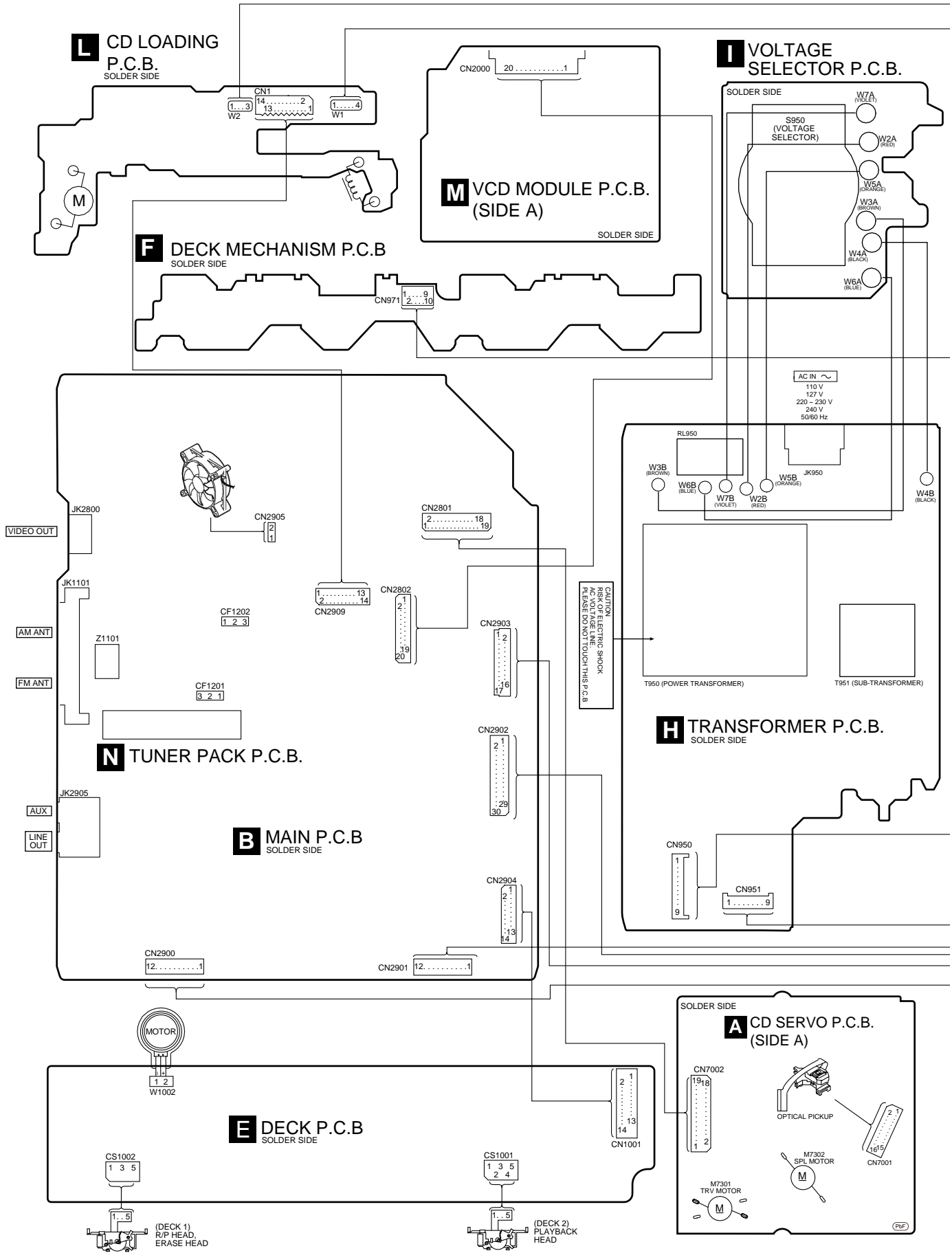
CAUTION  
RISK OF ELECTRIC SHOCK  
AC VOLTAGE LINE.  
PLEASE DO NOT TOUCH THIS P.C.B

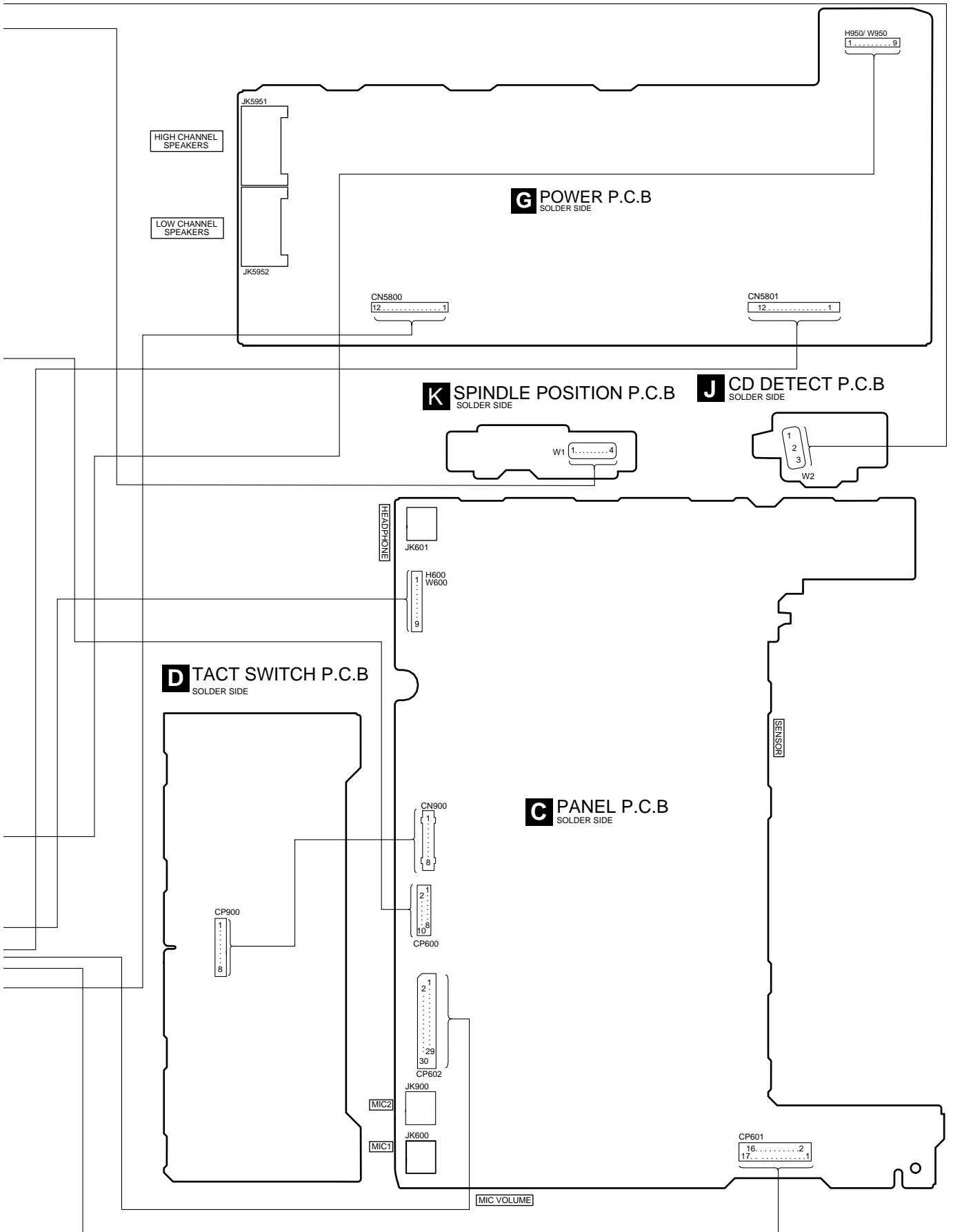
19.8. (J) CD Detect P.C.B., (K) Spindle Position P.C.B., (L) CD Loading P.C.B. & (N) Tuner Pack P.C.B.



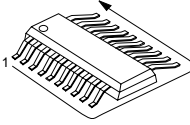
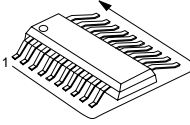
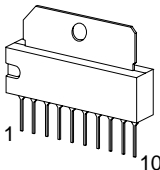
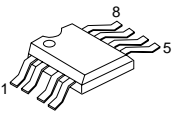
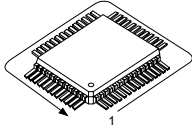
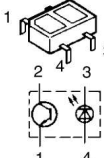
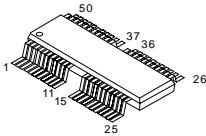
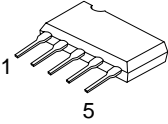
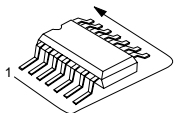
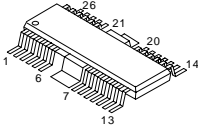
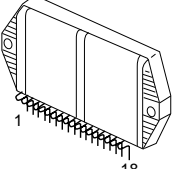
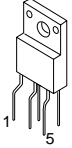
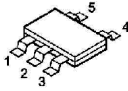
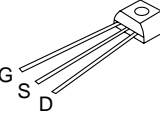
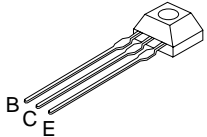
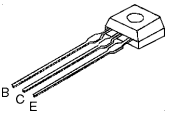
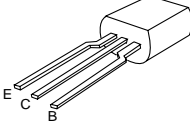
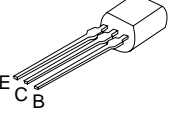
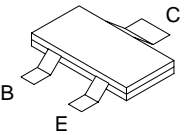
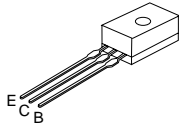
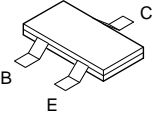

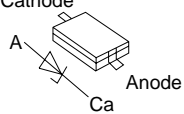
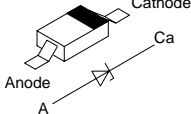
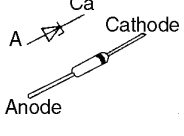
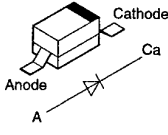
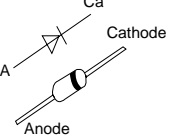
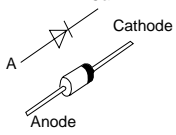
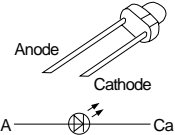
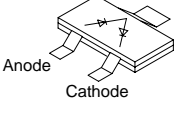
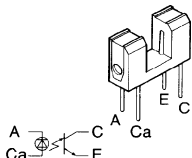
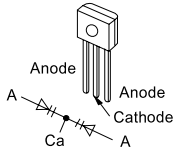
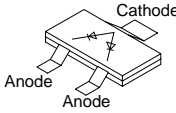
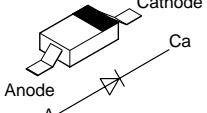
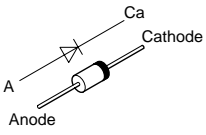


# 20 Wiring Connection Diagram





# 21 Illustration of IC's, Transistors and Diodes

<p>C1BB0000086 (18p) C1BB0000074 (16p) C1BB00000747 (42p) C1BB00000716 (16p) LA1833NMNTLM (24p) LC72131MDTRM (20p) C0ABBB000126 (8p) KIA4558FEL (8p) AN22004A-NF (32p)</p> 	<p>C3FBJC000057</p> 	<p>C0GAM0000005 (10p)</p> 	<p>C0AABB000117</p> 	<p>MN662790RSC (80p) MN101C30AEA (64p) C1AB00001854 (100p) C1AB00001855 (100p) C2BBGF000511 (100p)</p> 	
<p>CNB13030R2AU</p> 	<p>C3ABMG000113</p> 	<p>C1AA00000612 (5p)</p> 	<p>C0JBAZ001229 (14p)</p> 	<p>AN8739SBTE2 (26p)</p> 	<p>RSN315H42B-P (18p)</p> 
<p>C0DAAHG000007 (5p)</p> 	<p>C0CBCAA000003 (5p)</p> 	<p>2SK544F-AC</p> 	<p>B1ACCF000063</p> 	<p>B1AAGC000007 KRC102MTA 2SC1740SSTA KTC3199GRTA 2SC2786MTA 2SC2787FL1TA</p> 	
<p>B1GCCFJJ0015 B1GCCFGA0005 B1GACFL0007 B1AARC000002</p> 	<p>2SB621ARSTA 2SD0592ARA KTA12710YTA</p> 	<p>B1ABCF000011 B1ADCF000001 B1ABEB000001 B1GDCFJJ0023 B1GBCFJJ0039 B1GBCFGH0001 B1GDCF000002 B1GBCFGG0023 B1BACG000009</p> 	<p>B1BACD000017</p> 		
<p>B1ABCF000131 B1GBCFNA0019</p> 	<p>2SC2058SPTA</p> 	<p>B0ACCK000005 B0BC3R700004</p> 	<p>B0BC7R500001 B0BC5R000009</p> 	<p>B0BA4R600003 B0BA01500003 B0BA9R600002 B0BA5R600016 B0BA5R000004 B0BA7R000005 B0BA02400030</p> 	
<p>B0JCPC000004</p> 	<p>B0AACK000004 MA2J72800L MA2C16500E MA2C72300F</p> 	<p>B0EAMM000038 B0EAKM000122</p> 	<p>SLI325URCT31</p> 	<p>B1GACFGG0004</p> 	
<p>GP1S94</p> 	<p>SVC211SPA-AL</p> 	<p>B0ADCJ000020</p> 	<p>B0ACCE000003</p> 	<p>B0EAKM000125 B0EAKM000117 B0BC01000014</p> 	

## 22 Terminal Function of IC's

### 22.1. IC7001 (AN22004A-NF) Servo Amplifier

Pin No.	Mark	I/O	Function
1	LPD	I	Tracking signal input 1
2	LD	I	Tracking signal input 2
3	VCC	-	Power supply input
4	EQSW	I	Focus signal input terminal 1
5	RF	I	Focus signal input terminal 2
6	RFN	I	AGC amp input
7	CAGC	O	AGC loop Alter connecting capacitor terminal
8	ARF	O	RF summing output
9	CEA	I	Detector's input
10	ENV	I	3TOUT output
11	DCDET	I	Capacitor for HPF amp connection
12	CFTCONT	I/O	OFTR detect
13	BDO	O	BDO output ("H": drop out)
14	OFTR	O	OFTR output
15	/RFDET	O	NRFDET output ("L" : detection)
16	LDON	I	LDON Terminal
17	GND	-	GND
18	EQBST	-	
19	VREF	-	VREF output Terminal
20	TEN	I	TE Amp Input (Low)
21	TEOUT	-	TE Amp output
22	FEN	I	FE Amp Input (Low)
23	FEOUT	O	FE Amp output
24	GCTL	I/O	GCTL Terminal
25	FBAL	I/O	Focus Balance control Terminal
26	TBAL		TBAL control Terminal
27	PDE	I	Photo-diode Input
28	PDF	I	Photo-diode Input
29	D	I	
30	PDB	I	Photo-diode Input
31	C	I	
32	PDA	I	Photo-diode Input

### 22.2. IC7002 (MN662790RSC) Servo Processor/ Digital Signal Processor/ Digital Filter/ D/A Converter

Pin No.	Mark	I/O	Function
1	BCLK	O	Serial bit clock output
2	LRCK	O	L/R discriminating signal output
3	SRDATA	-	Serial data signal output
4	DVDD1	-	Power supply input ( for digital circuit)
5	DVSS1	-	GND (digital circuit)
6	TX	O	Digital audio interface signal output (Latches data at first transition)
7	MCLK	I	Microprocessor command clock signal input
8	MDATA	I	Microprocessor command data signal input
9	MLD	I	Microprocessor command load signal input
10	SENSE	O	Sense signal output (OFT,FESL,MAGEND,NAJEND,POSAD,SFG) (not used,open)
11	/FLOCK	O	Focus servo feeding signal output ("L" : Feed)

Pin No.	Mark	I/O	Function
12	/TLOCK	O	Tracking servo feeding signal output ("L" : Feed)
13	BLKCK	O	Sub-code block clock signal output (BLKCKf = 75Hz during normal playback)
14	SQCK	I	External clock signal input for sub-code Q resistor
15	SUBQ	I	sub-code Q code output
16	DMUTE	I	Muting input ("H" : mute)
17	STAT	O	Status signal output (CRC,CUE,CLVS,TTSTVP,FCLV,SQCK)
18	/RST	I	Reset signal input
19	SMCK	-	1/2-divided clock signal of crystal oscillating at MSEL = "H" (SMCK = 8.4672 MHz) 1/4 divided clock signal of crystal oscillating at MSEL = :L: (fSMCK = 4.2336MHz) (Not connected, open)
20	CSEL	I	Frequency Selection Terminal H = 33.8688 MHz ; L = 16.9344MHz
21	TRV	-	(Not connected, open)
22	TVD	O	Traverse drive output
23	PC	O	Spindle motor ON output ("L" : N)
24	ECM	O	Spindle motor drive signal output (focred mode output)
25	ECS	O	Spindle motor drive signal output (servo error signal output)
26	KICK	-	(Not connected, open)
27	TRD	O	Tracking drive output
28	FOD	O	Focus drive output
29	VREF	I	D/A (drive) output (TVD, ECS, TRD, FOD, FBAL, TBAL Reference voltage input
30	FBAL	O	Focus balance adjustment output
31	TBAL	O	Tracking balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input
35	VDET	I	Vibration detection signal input ("H" ;detection)
36	OFT	I	Off-track signal input ("H" : off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal input ("L" : detection)
39	BDO	I	Dropout signal input ("H" : Dropout)
40	LDON	O	Laser on signal output ("H" : ON)
41	PLL2	-	(Not connected, open)
42	DSL2	O	Tracking Offset alignment output/DSL Balance Output (DA Output)
43	WVEL	-	N.C.
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias terminal (not used, open)
47	DSL2	I/O	DSL loop filter terminal
48	PLL2	I/O	PLL loop filter terminal
49	VCOF	I/O	VCO loop filter terminal
50	AVDD2	-	Power supply input (for analog circuit)
51	AVSS2	-	GND (for analog circuit)
52	EFM	-	FM signal output (Not connected, open)

Pin No.	Mark	I/O	Function
53	PCK	-	PLL extraction clock output (fPCK = 4.321 MHz during normal playback) (Not connected, open)
54	VCOF2	I/O	VCO Loop filter for 33.8688MHz conversation terminal for 16.9344 MHz crystal mode, must use other circuit
55	SUBC	-	Sub-code serial data output (Not connected, open)
56	SBCK	I	Clock input for sub-code serial data
57	VSS	-	GND
58	X1 IN	I	Crystal oscillating circuit input (f = 16.9344MHz)
59	X2 OUT	O	Crystal oscillating circuit input (f = 16.9344MHz)
60	VDD	-	Power supply input (for oscillating circuit)
61	BYTCK	-	Byte clock output (Not connected, open)
62	/CLDCK	-	Sub-code frame clock signal output (fCLDCK = 7.35 kHz during normal playback)
63	FCLK	-	Crystal frame clock signal output (fCLK = 7.35 kHz, double = 14.7 kHz)
64	IPFLAG	-	Interpolation flag output ("H" : Interpolation) (Not connected, open)
65	FLAG	-	Flag output (Not connected, open)
66	CLVS	-	Spindle servo phase synchronizing signal output ("H" : CLV, "L" : rough servo) (Not connected, open)
67	CRC	-	Sub-code CRC checked output ("H" : OK, "L" : NG) (Not connected, open)
68	DEMPH	-	De-emphasis ON signal output ("H" : ON) (Not connected, open)
69	RESV	-	Frame re-synchronizing signal output (Not connected, open)
70	IOSEL	I/O	Mode Switching Terminal
71	/TEST	I	Test input
72	AVDD1	I	Power supply input (for analog circuit)
73	OUTL	I	Left channel audio signal output
74	AVSS1	I	GND
75	OUTR	O	Right channel audio signal output
76	RSEL	I	RF signal polarity assignment input (at "H" level, RSEL="H", at "L" level, RSEL = "L")
77	IOVOD	I	5V supply input
78	DIDATA	I	Test terminal (connected to Gnd)
79	DILRCK	I	SMCK oscillating frequency designation input ("L":4.2336 MHz, "H":8.4672 MHz)
80	DISCK	I	SUBQ output mode select ("H":Q-code buffer mode)

### 22.3. IC7003 (AN8739SBTE2) Focus Coil/ Tracking Coil/ Traverse Motor/ Spindle Motor Driver

Pin No.	Mark	I/O	Function
1	/RST	O	RESET output terminal
2	NC	-	N.C.
3	IN2	I	Motor drive (2) input
4	PC2	I	Turntable motor drive signal ("L" :ON)
5	NC	-	N.C.

Pin No.	Mark	I/O	Function
6	IN1	I	Motor driver (1) input
7	PVCC1	-	N.C.
8	PGND1	-	Power supply (1) for driver
9	PGND1	-	Ground connection (1) for driver
10	D1-	-	N.C.
11	D1+	O	Motor driver (1) reverse-action output
12	D2-	O	Motor driver (1) forward-action output
13	D2+	O	Motor driver (2) reverse-action output
14	D3-	O	Motor driver (2) forward-action output
15	D3+	O	Motor driver (3) reverse-action output
16	D4-	O	Crystal oscillating circuit input (f = 16.9344MHz)
17	D4+	O	Motor driver (4) reverse-action output
18	NC	O	Motor driver (4) forward-action output
19	PGND2	-	N.C.
20	PVCC2	-	Ground connection (2) for driver
21	VCC	-	Power supply (2) for driver
22	VREF	-	N.C.
23	IN4	-	Power supply terminal
24	IN3	-	Reference voltage input
25	RSTIN	I	Motor driver (4) input
26	NC	I	Motor driver (3) input

### 22.4. IC2801 (MN101C30AEA) Mechacon IC

Pin No.	Mark	I/O	Function
1	MX/UX	-	Not used (GND)
2-5	N.C.	-	Not used (GND)
6	VREF+	-	A-D Converter + V reference voltage
7	VDD	-	Power supply (+5V)
8	OSC2	I	Oscillation Input
9	OSC1	I	Oscillation Input
10	VSS	-	Analog Ground
11	VSS	-	Not used
12	XI	-	Not used
13	XO	-	Not used (GND)
14	MMOD	-	Not used (GND)
15	KCMND	-	Not used (GND)
16	FLAG	-	Not used (GND)
17	NC	-	Not used (GND)
18	SUBQ	I	CD Servo LSI sub-code data
19	SQCK	O	Clock for reading CD servo LSI sub-code
20	ESS_RST	O	ESS Chip Reset
21	MICON_RST	I	Reset Input
22	CD_PCNT	-	Not used (GND)
23	EE_CS	I/O	EEPROM Chip Select
24	EE_DATA	I/O	EEPROM Data
25	EE_CLK	I/O	EEPROM Clock
26	/MCS	-	Not used (GND)
27	BLKCK	I	Block Clock used for reading sub-code data
28	DC_DET	-	Not used (GND)
29	NC	-	Not used (GND)
32	DSA_STRB	I/O	Strobe line for DSA
33	DSA_DATA	I/O	Data line for DSA
34	DSA_CLK	I/O	Acknowledge line for DSA
35-48	N.C.	-	No connection



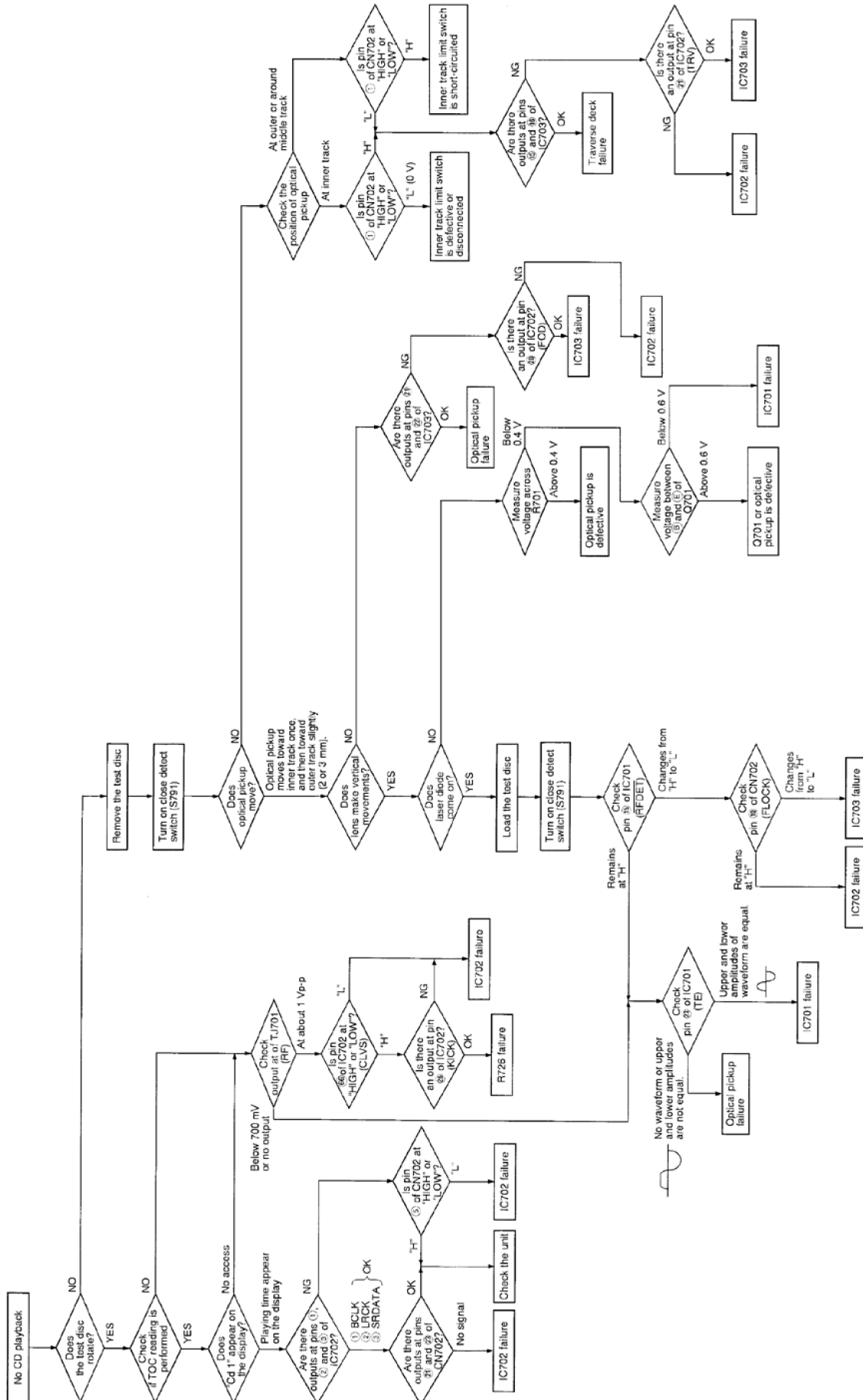
Pin No.	Mark	I/O	Function
49	RESTSW	I	CD pickup head limit switch input
50	DRIVER_MUTE	-	Not used (GND)
51	CLOSE_SW	-	Not used (GND)
52	OPEN_SW	-	Not used (GND)
53	OPEN	-	Not used (GND)
54	CLOSE	-	Not used (GND)
55	/DISC	-	Not used (GND)
56	/CDRST	O	CD servo LSI reset output
57	STAT	I	CD servo LSI status signal input
58	MDATA	O	CD servo LSI command DATA output
59	MCLK	O	CD servo LSI command clock output
60	MLD	O	CD servo LSI command LOAD command
61	VREF-	-	A-D Converter -V reference voltage
62	/TLOCK	-	Not used (GND)
63	/FLOCK	-	Not used (GND)
64	SENSE	-	Not used (GND)

## 22.5. IC600 (C2BBGF000511) Microprocessor

Pin No.	Mark	I/O	Function
1	DECK2	I	RECI_F/MODE2/RECI_R/HALF2
2	KEY1	I	Key 1 input
3	KEY2	I	Key 2 input
4	V_JOG_A	I	Volume Jog Detection A
5	V_JOG_B	I	Volume Jog Detection B
6	CHG_AD2	I	Changer AD Detection Input (Position/Bottom)
7	CHG_AD1	I	Changer AD Detection Input (Open/Clamp)
8	DECK1	O	HALF1/MODE1
9	DSA_DATA	I/O	Micro DSA Data
10	SP_C	O	Speana Control Output C
11	SPE_IN	I	Speana AD Input
12	DSA_STROBE	I/O	Micro DSA Strobe
13	SD	I	Tuner Signal Detect Input
14	SP_B	O	SPEANA Control Output B
15	SP_A	O	SPEANA Control Output A
16	PCONT	O	Main Transformer Control Output
17	CNVss	-	Flash Mode Terminal (Connected To Ground)
18	/RESET	I	Reset input
19	XCOU	-	32.768 kHz Sub Clock
20	XCIN	-	32.768 kHz Sub Clock
21	VSS	-	Ground
22	XIN	-	4.19 MHz Main Clock
23	XOUT	-	4.19 MHz Main Clock
24	VCC	-	Power Supply (+5V)
25	MBP1	-	Microcomputer Beat Proof Output 1 (Not connected, open)
26	MBP2	-	Microcomputer Beat Proof Output 2 (Not connected, open)
27	PLLCK	O	Tuner PLL Clock Output
28	PLLDA	O	Tuner PLL Data Output
29	RMT	I	Remote Control Input
30	DSA_ACK	I/O	DSA Acknowledge
31	PLLCE	O	Tuner PLL Chip Enable
32	SYNC	I	AC Failure Detect Input
33	DCDET	I	DC Detect Input
34	CHG_CCW	O	Changer Motor Counterclockwise Output
35	CHG_CW	O	Changer Motor Clockwise Output
36	CHG_HALF	O	Changer Half Drive Output

Pin No.	Mark	I/O	Function
37	CHG_PLGR	O	Changer Plunger Output
38	CHG_SW2	I	CD Changer Switch 2 Input
39	CHG_SW1	I	CD Changer Switch 1 Input
40	CDPCONT	O	CD Power Control (Active Level: L)
41	MM_RST	O	Mechacon Reset (Active: L)
42	PHOTO_01	I	Deck 1 Photo Detect Signal
43	PHOTO_02	I	Deck 2 Photo Detect Signal
44-78	SEG37-3	O	Segment Drive Output (Anode Drive Output)
79-80	R9/ SEG1- R10/ SEG2	O	Segment Drive Output (Anode Drive Output)
81-88	REG8/ GRID8- REG1/ GRID1	O	Digit Drive Output (Grid Drive Output) For regional setting/Function Selection Use
89	VEE	-	Power supply (-30V)
90	REG_IN	I	Region and Function Setting Input
91	EE_CS	O	EEPROM Chip Select
92	SER4	O	EE_CLK/EX1_CLK
93	SER3	O	EE_DAT/EX1_DAT
94	SER2	O	ASP_CLK
95	SER1	O	ASP_DAT
96	ECHO_LVL	O	Echo Level D/A Output
97	AVSS	-	Analog Ground
98	VREF	-	Reference for A-D
99	FAN_CTRL	-	Fan Control (Active Level: H) (Not connected, open)
100	ST/DO	I	Tuner IF Data/Stereo Input

# 23 Troubleshooting Guide



## 24 Parts Location and Replacement Parts List

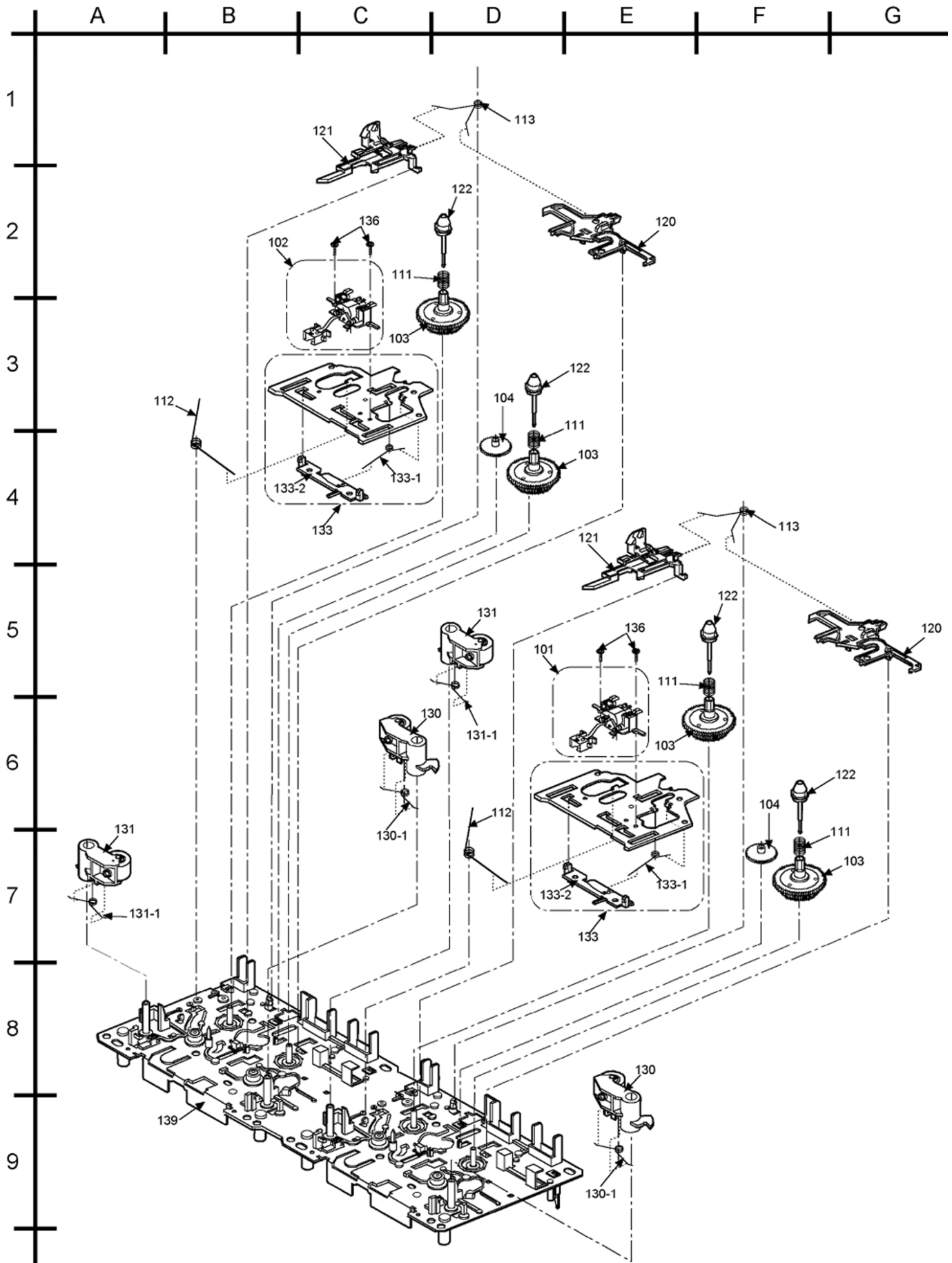
### Notes:

- Important safety notice:  
Components identified by  $\triangle$  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 teh 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 ( $\mu$ F) 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						

## 24.1. Deck Mechanism (RAA3412-S)

### 24.1.1. Deck Mechanism Parts Location



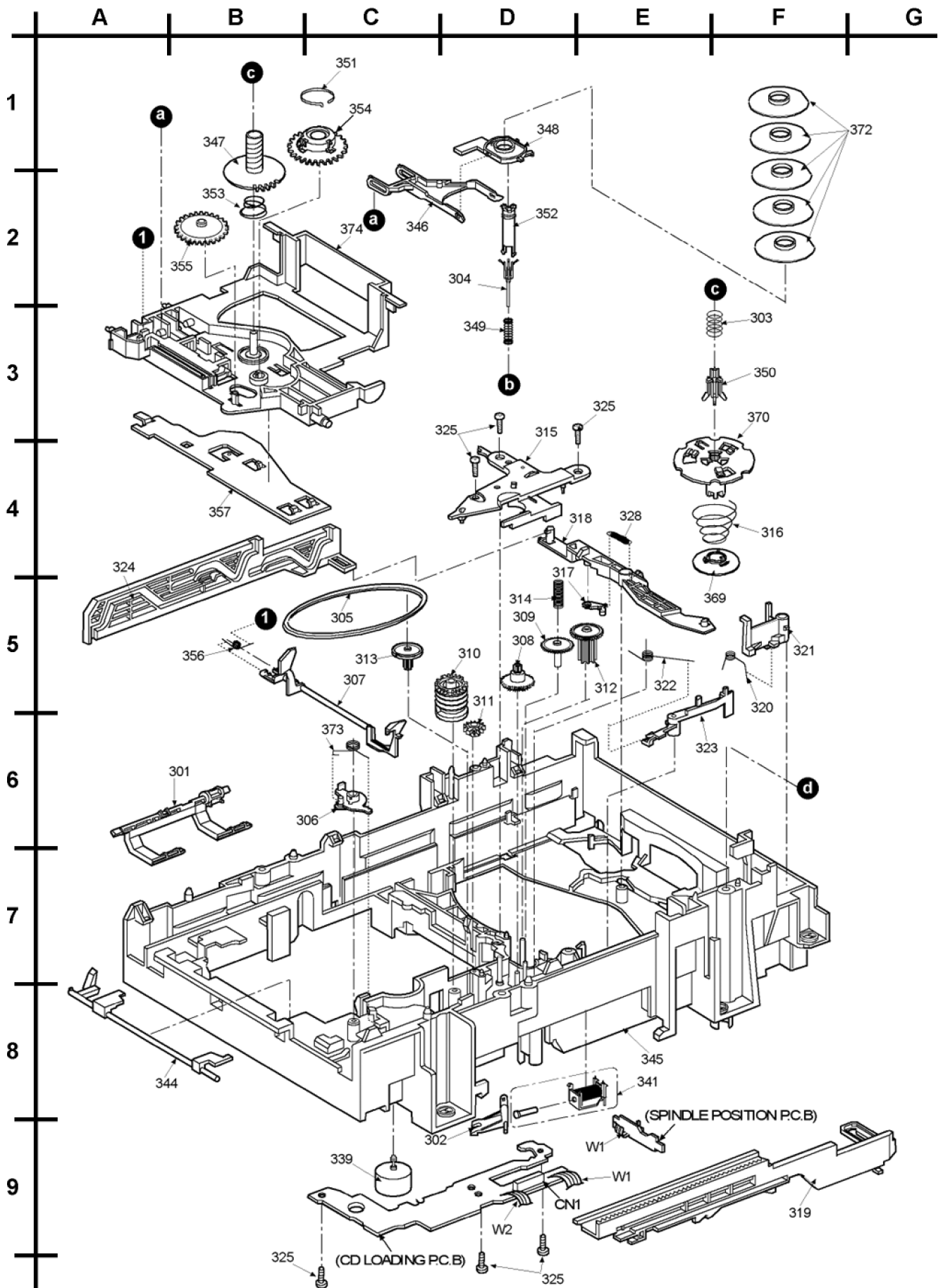


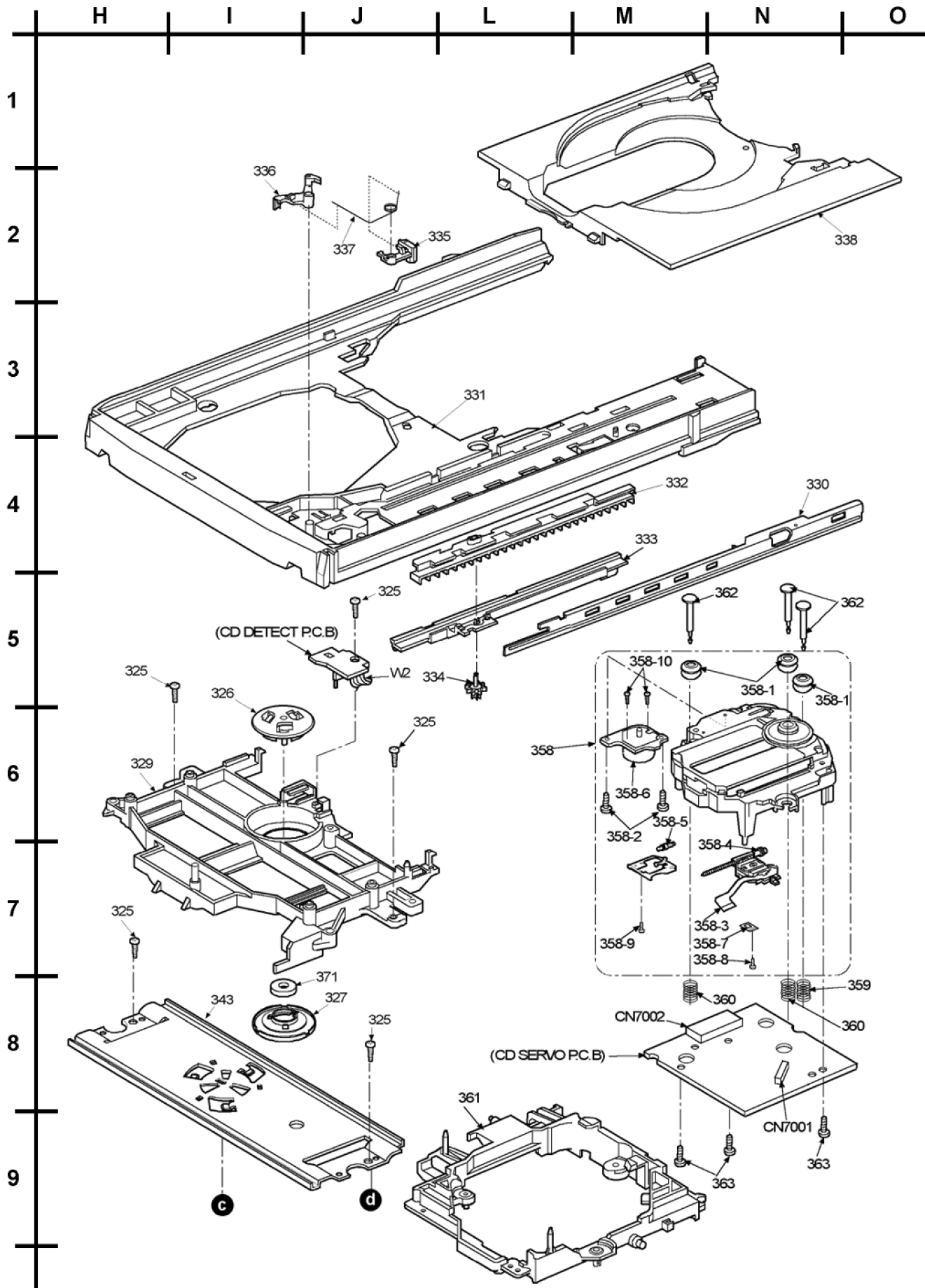
## 24.1.2. Deck Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RED0071	R/P HEAD BLOCK UNIT	[M]
102	RED0072	P/B HEAD BLOCK UNIT	[M]
103	RDG0300	REEL BASE GEAR	[M]
104	RDG0301	WINDING RELAY GEAR	[M]
105	RDK0026	MAIN GEAR	[M]
106	RDR0029-3	RELAY PULLEY	[M]
107	RDV0033-4	WINDING BELT	[M]
108	RDV0034-1	CAPSTAN BELT A	[M]
109	RDV0057	MAIN BELT B	[M]
110	RMB0312	TRIGGER LEVER SPRING	[M]
111	RMB0400	REEL SPRING	[M]
112	RMB0403	HEAD PANEL SPRING	[M]
113	RMB0404	BRAKE ROD SPRING	[M]
114	RMB0406	FR LEVER SPRING	[M]
115	RMB0408	THRUST SPRING	[M]
116	RML0370	TRIGGER LEVER	[M]
117	RML0371	FR LEVER	[M]
118	RML0372	WINDING LEVER	[M]
119	RML0374	EJECT LEVER	[M]
120	RMM0131	BRAKE ROD	[M]
121	RMM0133-1	EJECT ROD	[M]
122	RMQ0519	REEL HUB	[M]
123	RMS0398-1	MOVING CORE	[M]
124	RSJ0003	PLUNGER ASS'Y	[M]
125	RMC0061	PACK SPRING	[M]
126	RXF0049	FLYWHEEL F ASS'Y	[M]
127	RXF0050	FLYWHEEL R ASS'Y	[M]
128	RXG0040	FF RELAY GEAR ASS'Y	[M]
129	RMK0283A-J	SUB-CHASSIS	[M]
130	RXL0124	PINCH ROLLER F ASS'Y	[M]
130-1	RMB0401	PINCH ARM SPRING F	[M]
131	RXL0125	PINCH ROLLER R ASS'Y	[M]
131-1	RMB0402	PINCH ARM SPRING R	[M]
132	RXL0126	WINDING ARM ASS'Y	[M]
133	RXQ0412	HEAD PANEL ASS'Y	[M]
133-1	RMB0405	FR ROD SPRING	[M]
133-2	RMM0132	FR ROD	[M]
134	REM0088	CAP MOTOR ASS'Y	[M]
135	RHD26022	MOTOR SCREW	[M]
136	XTW2+5L	HEAD BLOCK UNIT SCREW	[M]
137	XTW26+10S	SUB-CHASSIS SCREW	[M]
138	XYC2+JF17	PCB EARTH SCREW	[M]
139	RFKJXED70-K	MAIN CHASSIS	[M]

## 24.2. CD Loading Mechanism (RD-DAC026-S)

### 24.2.1. CD Loading Mechanism Parts Location





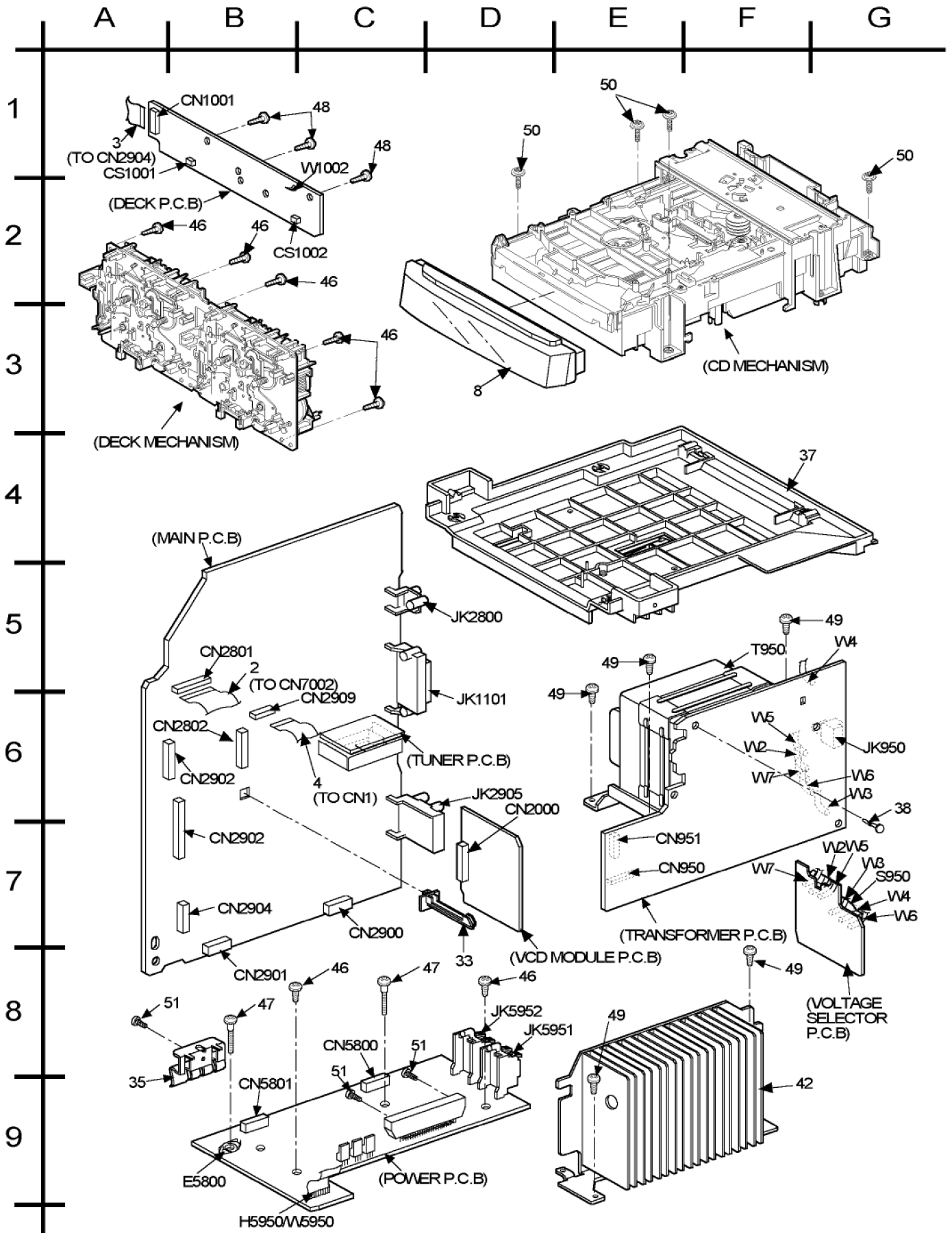


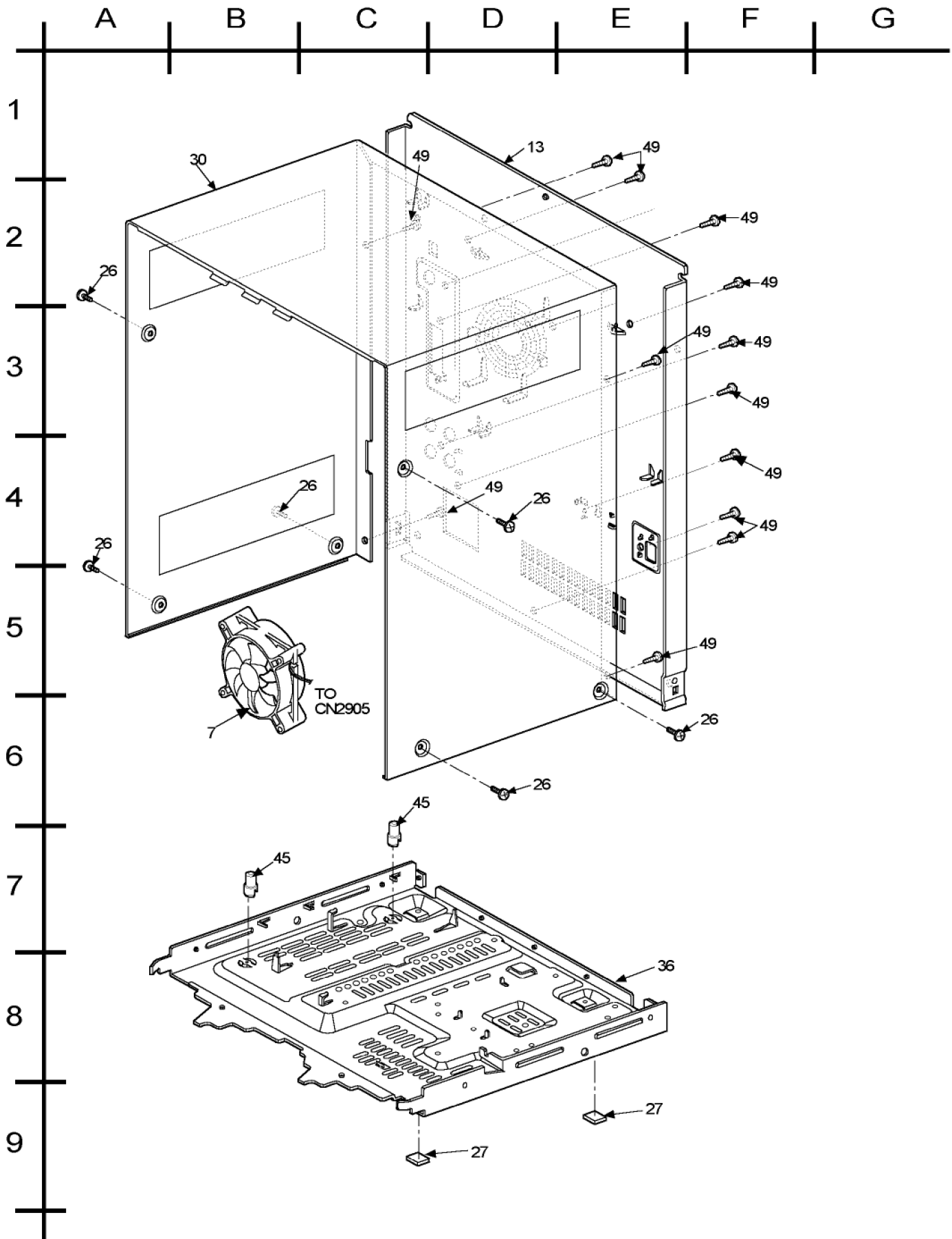
## 24.2.2. CD Loading Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK	
301	RML0517	TIMING LEVER	[M]
302	RML0516	PLUNGER LEVER	[M]
303	RMB0551	UPPER SPINDLE SPRING	[M]
304	RMQ0744	LOWER HOOK	[M]
305	RDV0056	BELT	[M]
306	RML0525	FRONT LOCK LEVER	[M]
307	RML0526	DISC LEVER	[M]
308	RDG0424	DRIVE GEAR	[M]
309	RDG0425	CHANGE GEAR	[M]
310	RDG0427	TRAVERSE CAM GEAR	[M]
311	RDG0428	TRAVERSE RELAY GEAR	[M]
312	RDG0426	UP/DOWN GEAR	[M]
313	RDG0429	PULLEY GEAR	[M]
314	RMB0549-1	CHANGE GEAR SPRING	[M]
315	RMQ0748	PITCH PLATE	[M]
316	RMB0553	PUSH SPRING	[M]
317	RML0530	ASSIST LEVER	[M]
318	RML0518	CONNECTION LEVER	[M]
319	RMM0201	SLIDE PLATE 1	[M]
320	RME0258	REAR LOCK SPRING	[M]
321	RML0521	REAR LOCK	[M]
322	RME0257	TRAY LOCK LEVER SPRING	[M]
323	RML0520	TRAY LOCK	[M]
324	RMM0202	SLIDE PLATE 2	[M]
325	XTB3+10J	SCREW	[M]
326	RMR0334	FIXED PLATE	[M]
327	RMR0624-W2	CLAMPER	[M]
328	RMB0561	ASSIST LEVER SPRING	[M]
329	RMR1121-K	MECHA COVER	[M]
330	RMA1110-2	TRAY ANGLE	[M]
331	RMR1122-H1	TRAY BASE	[M]
332	RMM0204	CARRIER	[M]
333	RMM0203	DRIVE RACK	[M]
334	RDG0432	SPEED UP GEAR	[M]
335	RML0524	SLIDE LOCK	[M]
336	RML0523	CARRIER LOCK	[M]
337	RME0260-1	SLIDE LOCK SPRING	[M]
338	RMR1123-H	TRAY	[M]
339	RXQ0595	MOTOR SUB ASS'Y	[M]
341	RSJ0003	SOLENOID ASS'Y	[M]
343	RMA1106	UPPER PLATE	[M]
344	RML0519	CD LEVER	[M]
345	RFKNAAK27GCS	MECHA BASE ASS'Y	[M]
346	RML0522	TURNING STOPPER	[M]
347	RMQ0745	LOWER SPINDLE	[M]
348	RMQ0746	UP/DOWN BASE	[M]
349	RMB0550	LOWER SPINDLE SPRING	[M]
350	RMQ0747	UPPER HOOK	[M]
351	RME0263	CLICK SPRING	[M]
352	RMQ0743	SPINDLE SHAFT	[M]
353	RMB0552	CUSHION SPRING	[M]
354	RDG0430	RELAY GEAR 'A'	[M]
355	RDG0431	RELAY GEAR 'B'	[M]
356	RME0262	DISK LEVER SPRING	[M]
357	RMA1105	SUPPORT PLATE	[M]
358	RAE0153Z-1S	TRAVERSE	[M] GC
358	RAE0153Z-S	TRAVERSE	[M] GS
358-1	SHGD113-1	FLOATING CUSHION	[M]
358-2	SNSD38	TRV MOTOR ASSY SCREW	[M]
358-3	RAF0152A-S	152A CD OPU	[M]
358-4	RDG0247	DRIVE GEAR	[M]
358-5	RDG0248	RELAY GEAR	[M]
358-6	RXQ0339	TRAVERSE MOTOR ASS'Y	[M]
358-7	RXQ0304-1	NUT PLATE ASS'Y	[M]
358-8	XQN17+CG5	NUT PLATE ASSY SCREW	[M]
358-9	XQS2+A3FZ	SPINDLE MOTOR SCREW	[M]
358-10	XQS17+A35FZ	TRV MOTOR SCREW	[M]
359	RME0142	FLOATING SPRING A	[M]
360	RME0109	FLOATING SPRING B	[M]
361	RMR1124A-K	TRAVERSE CHASSIS	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
362	RMS0632	TRAVERSE PIN	[M]
363	XTN2+6G	SCREW	[M]
369	RMX0141	PUSH SPACER	[M]
370	RMQ0749	UPPER SPINDLE	[M]
371	RHM0001	MAGNET	[M]
372	RMX0140	DISC SPACER	[M]
373	RME0261	FRONT LOCK SPRING	[M]
374	RMQ0742	SPINDLE BASE	[M]







## 24.3.2. Cabinet Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	REEX0202	10P FFC	[M]
2	REEX0391	19P FCC	[M]
3	REEX0211	14P FFC WIRE	[M]
4	REEX0212	14P FFC WIRE	[M]
5	REEX0215	30P FFC	[M]
6	REEX0291	17P FFC	[M]
7	L6FALEFH0023	FAN	[M]
8	RYQX0093-S	CD LID UNIT	[M]
9	RGKX0209B-V	TOP ORNAMENT	[M]
10	RGKX0211-2S	CONTROL PANEL	[M]
11	RGLX0069-Q	POWER LIGHT CHIP	[M]
12	RGPX0110C-S	FRONT PANEL	[M]
13	RGRX0023N-BA	REAR PANEL	[M] GC
13	RGRX0023N-CA	REAR PANEL	[M] GS
14	RGUX0527-S	POWER BUTTON	[M]
15	RGUX0528-S	DECK 1/2 BUTTON	[M]
16	RGUX0529-S	CONTROL BUTTON (L)	[M]
17	RGUX0530-S	CONTROL BUTTON (R)	[M]
18	RGUX0531-S	FUNCTION BUTTON (L)	[M]
19	RGUX0532-S	FUNCTION BUTTON (R)	[M]
20	RGUX0533-S	PRESET EQ BUTTON	[M]
21	RGUX0534A-Q	SS EQ BUTTON	[M]
22	RGUX0535-S	CD EJECT BUTTON	[M]
23	RGUX0536-S	5 CD CONTROL BUTTON	[M]
24	RGWX0056-S	MIC KNOB	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
25	RGWX0080-S	VOLUME KNOB	[M]
26	RHD30004-2S	SCREW	[M]
27	RKA0059-K	LEG RUBBER	[M]
28	RKFX0093-K	CASS. HOLDER (L)	[M]
29	RKFX0094-K	CASS. HOLDER (R)	[M]
30	RKMX0077-S	TOP CABINET (BENT)	[M]
31	RKWX0210-V	FL WINDOW	[M]
32	RKWX0216-1	FL FILTER	[M]
33	RMR1093-W	P-BASE SUPPORT	[M]
34	RMBX0021	CASS OPEN SPRING	[M]
35	RMXX0021	TRANSISTOR CLIP	[M]
36	RMXX0064	BOTTOM CHASSIS	[M]
37	RMXX0066-1L	CD CHASSIS	[M]
38	RMNX0019	PCB SPACER	[M]
39	RMNX0079	FL HOLDER	[M]
40	RUS757ZAA	CASS HALF SPRING	[M]
41	RXGX0002	DAMPER GEAR	[M]
42	RXXX0039A	HEAT SINK UNIT	[M]
43	RYFX0127-S	CASS LID UNIT (L)	[M]
44	RYFX0128-S	CASS LID UNIT (R)	[M]
45	SHE187-5J	PCB SUPPORT	[M]
46	XTB3+10JFZ	SCREW	[M]
47	XTB3+20J	SCREW	[M]
48	XTBS26+10J	SCREW	[M]
49	XTBS3+8JFZ1	SCREW	[M]
50	XTW3+12T	SCREW	[M]
51	XTW3+15T	SCREW	[M]

## 24.4. Electrical Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARD	
	REPX0437A	CD SERVO P.C.B. (SIDE A & B)	[M] (RTL) GS
	REPX0437B	CD SERVO P.C.B. (SIDE A & B)	[M] (RTL) GC
	REPX0439A	MAIN P.C.B.	[M] (RTL) GC
	REPX0439C	MAIN P.C.B.	[M] (RTL) GS
	REPX0382C	PANEL P.C.B.	[M] (RTL)
	REPX0382C	TACT SWITCH P.C.B.	[M] (RTL)
	REPX0331A	DECK P.C.B.	[M] (RTL)
	REPX0321B	DECK MECHANISM P.C.B.	[M] (RTL)
	REPX0440A	POWER P.C.B.	[M] (RTL)
	REPX0327G	TRANSFORMER P.C.B.	[M] (RTL)
	REPX0327G	VOLTAGE SELECTOR P.C.B.	[M] (RTL)
	REP2578A-N	CD DETECT P.C.B.	[M] (RTL)
	REP2578A-N	SPINDLE POSITION P.C.B.	[M] (RTL)
	REP2578A-N	CD LOADING P.C.B.	[M] (RTL)
	REPX0343B	VCD P.C.B. (SIDE A & B)	[M] (RTL)
	REP1999B	TUNER PACK P.C.B.	[M] (RTL)
		INTEGRATED CIRCUITS	
IC1	COGAM0000005	IC MOTOR DRIVE	[M]
IC600	C2BBGF000511	IC MICROPROCESSOR	[M]
IC601	C1BB00000574	IC I/O EXPANDER	[M]
IC603	C1BB00000086	IC SPECTRUM ANALYSER	[M]
IC900	C1BB00000716	IC ECHO	[M]
IC951	CNB13030R2AU	IC PHOTO INTERRUPTER	[M]
IC971	CNB13030R2AU	IC PHOTO INTERRUPTER	[M]
IC1001	AN7348S-E1	IC P.B EQ/REC AMP/ ALC/TPS AMP	[M]
IC1004	C1AA00000612	IC R/P SELECT	[M]
IC1101	LA1833NMNTLM	IC FM/AM IF AMP/ DET/AM OSC MIX/ FM MPX	[M]
IC1102	LC72131MDTRM	IC PLL FREQUENCY SYNTHESIZER	[M]
IC2100	C3ABMG000113	IC 16M DRAM	[M]
IC2120	C3FBJC000057	IC FLASH ROM	[M]
IC2300	C1AB00001854	IC DSP	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
IC2350	C1AB00001855	IC VCD AUDIO/VIDEO DECODER	[M]
IC2360	COABBB000126	IC OP-AMP	[M]
IC2700	COBCAA000003	IC 2.8V REGULATOR	[M]
IC2801	MN101C30AEA	IC MECHACON	[M]
IC2802	COJBAZ001229	IC 3V - 5V LEVEL SHIFT	[M]
IC2804	CODAAHG000007	IC REGULATOR	[M]
IC2900	C1BB00000747	IC ASP	[M]
IC2901	COAABB000117	IC HEADPHONE AMP	[M]
IC2903	KIA4558FEL	IC DUAL OP-AMP	[M]
IC5801	RSN315H42B-P	IC POWER HIC	[M]
IC7001	AN22004A-NF	IC SERVO AMP	[M]
IC7002	MN662790RSC	IC SERVO PROCESSOR/ DIGITAL SIGNAL PROCESSOR/ DIGITAL FILTER/ D/A CONVERTER	[M]
IC7003	AN8739SBTE2	IC FOCUS COIL/ TRACKING COIL/ TRAVERSE MOTOR/ SPINDLE MOTOR DRIVE	[M]
		TRANSISTORS	
Q1	2SK544F-AC	TRANSISTOR	[M]
Q1	B1GACFGG0004	TRANSISTOR	[M]
Q2	2SC2786MTA	TRANSISTOR	[M]
Q3	2SC2787FL1TA	TRANSISTOR	[M]
Q4	2SC2787FL1TA	TRANSISTOR	[M]
Q600	B1GACFLL0007	TRANSISTOR	[M]
Q603	B1ACCF000063	TRANSISTOR	[M]
Q604	B1ACCF000063	TRANSISTOR	[M]
Q605	KRC102MTA	TRANSISTOR	[M]
Q606	KTC3199GRTA	TRANSISTOR	[M]
Q607	2SC1740SSTA	TRANSISTOR	[M]
Q608	B1GCCFJJ0015	TRANSISTOR	[M]
Q609	B1GCCFJJ0015	TRANSISTOR	[M]
Q610	KTC3199GRTA	TRANSISTOR	[M]
Q611	KTC3199GRTA	TRANSISTOR	[M]
Q612	KTC3199GRTA	TRANSISTOR	[M]
Q613	KTC3199GRTA	TRANSISTOR	[M]
Q614	KTA12710YTA	TRANSISTOR	[M]
Q615	KTA12710YTA	TRANSISTOR	[M]
Q900	2SC1740SSTA	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q950	B1BACD000017	TRANSISTOR	[M]
Q951	2SB621ARSTA	TRANSISTOR	[M]
Q952	KRC102MTA	TRANSISTOR	[M]
Q953	B1AAGC000007	TRANSISTOR	[M]
Q954	B1AAGC000007	TRANSISTOR	[M]
Q1001	B1ABCF000131	TRANSISTOR	[M]
Q1003	B1AAGC000007	TRANSISTOR	[M]
Q1004	B1AAGC000007	TRANSISTOR	[M]
Q1005	B1AAGC000007	TRANSISTOR	[M]
Q1007	B1ABCF000131	TRANSISTOR	[M]
Q1012	B1ABEB000001	TRANSISTOR	[M]
Q1013	B1ABEB000001	TRANSISTOR	[M]
Q1014	B1ABCF000011	TRANSISTOR	[M]
Q1015	B1ABCF000011	TRANSISTOR	[M]
Q1016	B1GDCFJJ0023	TRANSISTOR	[M]
Q1017	B1AARC000002	TRANSISTOR	[M]
Q1020	B1ABEB000001	TRANSISTOR	[M]
Q1021	B1ABEB000001	TRANSISTOR	[M]
Q1101	2SC2058SPTA	TRANSISTOR	[M]
Q1106	B1GCCFJJ0015	TRANSISTOR	[M]
Q2101	B1ABCF000131	TRANSISTOR	[M]
Q2102	B1ABEB000001	TRANSISTOR	[M]
Q2103	B1ABEB000001	TRANSISTOR	[M]
Q2104	B1ABCF000131	TRANSISTOR	[M]
Q2105	B1ABCF000131	TRANSISTOR	[M]
Q2106	B1ABEB000001	TRANSISTOR	[M]
Q2107	B1ABEB000001	TRANSISTOR	[M]
Q2701	B1ABCF000131	TRANSISTOR	[M]
Q2702	B1ABEB000001	TRANSISTOR	[M]
Q2703	B1ABEB000001	TRANSISTOR	[M]
Q2704	B1ABCF000131	TRANSISTOR	[M]
Q2705	B1ABCF000131	TRANSISTOR	[M]
Q2706	B1ABEB000001	TRANSISTOR	[M]
Q2707	B1ABEB000001	TRANSISTOR	[M]
Q2802	B1GBCFGG0023	TRANSISTOR	[M]
Q2810	KTA12710YTA	TRANSISTOR	[M]
Q2812	B1GBCFJJ0039	TRANSISTOR	[M]
Q2813	B1GBCFJJ0039	TRANSISTOR	[M]
Q2814	KTC3199GRTA	TRANSISTOR	[M]
Q2815	KTA12710YTA	TRANSISTOR	[M]
Q2816	KRC102MTA	TRANSISTOR	[M]
Q2901	B1GDCFJJ0023	TRANSISTOR	[M]
Q2902	B1ABCF000131	TRANSISTOR	[M]
Q2911	B1GDCFJJ0023	TRANSISTOR	[M]
Q2923	B1GBCFJJ0039	TRANSISTOR	[M]
Q2924	KTA12710YTA	TRANSISTOR	[M]
Q2970	B1ADCF000001	TRANSISTOR	[M]
Q2971	2SD0592ARA	TRANSISTOR	[M]
Q2972	B1ADCF000001	TRANSISTOR	[M]
Q2973	2SD0592ARA	TRANSISTOR	[M]
Q2974	B1ADCF000001	TRANSISTOR	[M]
Q2975	B1ABCF000011	TRANSISTOR	[M]
Q5801	B1BACG000009	TRANSISTOR	[M]
Q5803	B1BACG000009	TRANSISTOR	[M]
Q5806	B1GCCFGA0005	TRANSISTOR	[M]
Q5807	KTC3199GRTA	TRANSISTOR	[M]
Q5808	B1BACD000017	TRANSISTOR	[M]
Q5812	B1AAGC000007	TRANSISTOR	[M]
Q5813	B1AAGC000007	TRANSISTOR	[M]
Q5814	B1AAGC000007	TRANSISTOR	[M]
Q7601	B1ADCF000001	TRANSISTOR	[M]
Q7602	B1GBCFGH0001	TRANSISTOR	[M]
Q7603	B1GDCFGH0002	TRANSISTOR	[M]
Q5802	B1BCCG000021	TRANSISTOR	[M]
Q5804	B1BCCG000021	TRANSISTOR	[M]
Q5805	B1ACCF000063	TRANSISTOR	[M]
		DIODES	
D1	GP1S94	PHOTO INTERRUPTOR	[M]
D1	SVC211SPA-AL	DIODE	[M]
D2	B0BA4R600003	DIODE	[M]
D2	SVC211SPA-AL	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D3	SVC211SPA-AL	DIODE	[M]
D600	SLI325URCT31	DIODE	[M]
D603	B0AACK000004	DIODE	[M]
D609	B3ADA0000129	DIODE	[M]
D610	MA2C72300F	DIODE	[M]
D611	B0ACCE000003	DIODE	[M]
D612	B0ACCE000003	DIODE	[M]
D613	B0BA5R600016	DIODE	[M]
D614	B0AACK000004	DIODE	[M]
D617	B0AACK000004	DIODE	[M]
D906	B0BA5R000004	DIODE	[M]
D950	B0EAMM000038	DIODE	[M]
D951	B0EAMM000038	DIODE	[M]
D951	MA2C16500E	DIODE	[M]
D952	B0EAMM000038	DIODE	[M]
D953	B0EAMM000038	DIODE	[M]
D954	B0EAKM000125	DIODE	[M]
D955	B0EAKM000125	DIODE	[M]
D956	B0EAKM000125	DIODE	[M]
D957	B0EAKM000125	DIODE	[M]
D958	B0EAKM000125	DIODE	[M]
D959	B0EAKM000125	DIODE	[M]
D960	B0BA02400030	DIODE	[M]
D961	B0EAKM000122	DIODE	[M]
D962	B0EAKM000122	DIODE	[M]
D963	B0EAKM000122	DIODE	[M]
D964	B0BA7R000005	DIODE	[M]
D965	B0EAKM000122	DIODE	[M]
D966	B0EAKM000122	DIODE	[M]
D967	B0EAKM000122	DIODE	[M]
D968	B0AACK000004	DIODE	[M]
D971	MA2C16500E	DIODE	[M]
D1003	B0ACCK000005	DIODE	[M]
D1004	B0BC3R700004	DIODE	[M]
D1101	B0BC5R000009	DIODE	[M]
D2101	MA2J72800L	DIODE	[M]
D2350	MA2J72800L	DIODE	[M]
D2351	MA2J72800L	DIODE	[M]
D2701	MA2J72800L	DIODE	[M]
D2801	B0JCPC000004	DIODE	[M]
D2810	B0EAKM000117	DIODE	[M]
D2811	MA2J72800L	DIODE	[M]
D2812	MA2J72800L	DIODE	[M]
D2901	B0BC7R500001	DIODE	[M]
D2902	B0ACCK000005	DIODE	[M]
D2903	B0ADJC000020	DIODE	[M]
D2904	B0ADCC000020	DIODE	[M]
D2905	B0ADCC000020	DIODE	[M]
D2906	B0EAKM000117	DIODE	[M]
D2924	B0EAKM000117	DIODE	[M]
D2970	B0ACCK000005	DIODE	[M]
D2971	B0BC01000014	DIODE	[M]
D2974	B0EAKM000117	DIODE	[M]
D2975	B0ACCK000005	DIODE	[M]
D2976	B0ACCK000005	DIODE	[M]
D2977	B0ACCK000005	DIODE	[M]
D5801	B0BA9R600002	DIODE	[M]
D5802	B0BA01500003	DIODE	[M]
D5803	B0BA01500003	DIODE	[M]
D5804	B0AACK000004	DIODE	[M]
D5805	B0EAKM000125	DIODE	[M]
D5806	B0EAKM000125	DIODE	[M]
D5807	B0EAKM000125	DIODE	[M]
D5808	B0BA5R600016	DIODE	[M]
D5809	B0BA9R600002	DIODE	[M]
D5813	B0AACK000004	DIODE	[M]
D5814	B0AACK000004	DIODE	[M]
		VARIABLE RESISTORS	
VR600	EVEKE2F3524M	VR VOLUME JOG	[M]
VR602	EVUF2AF25B14	VR MIC VOLUME	[M]
		SWITCHES	

Ref. No.	Part No.	Part Name & Description	Remarks
S601	EVQ21405R	SW POWER	[M]
S602	EVQ21405R	SW DECK 1/2	[M]
S603	EVQ21405R	SW REC	[M]
S604	EVQ21405R	SW OPEN/ CLOSE	[M]
S605	EVQ21405R	SW CD 1	[M]
S606	EVQ21405R	SW CD 2	[M]
S607	EVQ21405R	SW CD 3	[M]
S608	EVQ21405R	SW CD 4	[M]
S609	EVQ21405R	SW CD 5	[M]
S610	EVQ21405R	SW SSEQ	[M]
S611	EVQ21405R	SW SEQ	[M]
S901	EVQ21405R	SW REW	[M]
S902	EVQ21405R	SW TUNER	[M]
S903	EVQ21405R	SW CD	[M]
S904	EVQ21405R	SW FF	[M]
S905	EVQ21405R	SW STOP	[M]
S906	EVQ21405R	SW DECK 2	[M]
S907	EVQ21405R	SW TAPE	[M]
S908	EVQ21405R	SW AUX	[M]
S909	EVQ21405R	SW DECK 1	[M]
S910	EVQ21405R	SW DISPLAY	[M]
S950	K0AFZA000005	SW VOLTAGE SELECTOR	[M] △
S951	RSH1A018-3U	SW MODE	[M]
S952	RSH1A019-2U	SW HALF	[M]
S971	RSH1A018-3U	SW MODE	[M]
S972	RSH1A019-2U	SW HALF	[M]
S974	RSH1A019-2U	SW RECINH R	[M]
S975	RSH1A019-2U	SW RECINH F	[M]
S7201	RSH1A043-U	SW REST	[M]
SW1	RSH1A032-U	SW PUSH	[M]
SW2	RSH1A032-U	SW PUSH	[M]
SW3	RSH1A005-1U	SW OPEN	[M]
SW4	RSH1A91ZA-A	SW CD	[M]
SW5	K0L1BB000005	SW LOAD	[M]
SW2800	K0D112B00127	SW	[M]
		CONNECTORS	
CN1	K1MN14A00049	14P FFC CONNECTOR	[M]
CN900	RJT066H08B	8P CONNECTOR	[M]
CN950	RJT119W09V	9P CONNECTOR	[M]
CN951	K1KA09A00047	9P CONNECTOR	[M]
CN971	K1MN10B00104	10P FFC CONNECTOR	[M]
CN1001	K1MN14B00058	14P CONNECTOR	[M]
CN2000	K1KA20B00022	20P CONNECTOR	[M]
CN2801	K1MN30A00046	30P FFC CONNECTOR	[M]
CN2802	K1KA20A00108	20P CONNECTOR	[M]
CN2900	K1KB12B00036	12P CONNECTOR	[M]
CN2901	K1KB12B00036	12P CONNECTOR	[M]
CN2902	K1MN30A00046	30P FFC CONNECTOR	[M]
CN2903	RJS1A9417	FFC CONNECTOR	[M]
CN2904	RJS1A9414-1	14P CONNECTOR	[M]
CN2905	K1KA02A00008	2P CONNECTOR	[M]
CN2909	RJS1A9414-1	14P CONNECTOR	[M]
CN5800	K1KA12A00184	12P CONNECTOR	[M]
CN5801	K1KA12A00184	12P CONNECTOR	[M]
CN7001	RJS2A8616	16P FFC CONNECTOR	[M]
CN7002	RJS1A6719-1Q	19P FFC CONNECTOR	[M]
CP600	K1MN10B00104	10P FFC CONNECTOR	[M]
CP601	RJS1A9417	FFC CONNECTOR	[M]
CP602	K1MN30A00046	30P FFC CONNECTOR	[M]
CP900	RJU066H08	8P SOCKET	[M]
CS1001	RJS1A6805-J	5P CONNECTOR	[M]
CS1002	RJS1A6805-J	5P CONNECTOR	[M]
		COILS & TRANSFORMERS	
		CHIP INDUCTOR	
L1	RLQZP1R2KT-Y	COIL	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
L2	RLQZPR47KT-Y	COIL	[M]
L600	RLQB3R3KT-1Y	COIL	[M]
L601	G0C100JA0030	INDUCTOR	[M]
L602	RLQZP101KT-Y	AXIAL COIL	[M]
L603	RLQZP101KT-Y	AXIAL COIL	[M]
L604	RLQZP100KT-Y	AXIAL COIL	[M]
L605	J0JKB0000020	EMI BEAD CORE	[M]
L607	J0JKB0000020	EMI BEAD CORE	[M]
L608	G0C100JA0030	INDUCTOR	[M]
L609	RLQZP100KT-Y	AXIAL COIL	[M]
L610	G0C100JA0030	INDUCTOR	[M]
L611	J0JKB0000020	EMI BEAD CORE	[M]
L612	J0JKB0000020	EMI BEAD CORE	[M]
L1001	G0C470JA0030	RF CHOKE COIL	[M]
L1002	7L1A62N	BIAS OSC COIL	[M]
L2302	J0JCC0000119	CHIP INDUCTOR	[M]
L2303	J0JCC0000119	CHIP INDUCTOR	[M]
L2304	J0JCC0000119	CHIP INDUCTOR	[M]
L2305	G1C100K00020	CHIP INDUCTOR	[M]
L2306	G1C100K00020	CHIP INDUCTOR	[M]
L2307	G1C100K00020	CHIP INDUCTOR	[M]
L2308	J0JCC0000119	CHIP INDUCTOR	[M]
L2309	J0JCC0000119	CHIP INDUCTOR	[M]
L2310	J0JCC0000119	CHIP INDUCTOR	[M]
L2311	J0JCC0000119	CHIP INDUCTOR	[M]
L2350	G1C2R7K00005	CHIP INDUCTOR	[M]
L2359	G1C3R9K00004	CHIP INDUCTOR	[M]
L2800	G0A200D00002	COIL	[M]
L2801	G0ZZ00001930	COIL	[M]
L2802	G0A200D00002	COIL	[M]
L2803	G0A200D00002	COIL	[M]
L2804	ELELN470KA	COIL	[M]
L2810	G0A200D00002	COIL	[M]
L2811	G0A200D00002	COIL	[M]
L2812	J0JKB0000020	EMI BEAD CORE	[M]
L2813	G0A200D00002	COIL	[M]
L2850	VLP0145-T	CHIP INDUCTOR	[M]
L2851	VLP0145-T	CHIP INDUCTOR	[M]
L2852	VLP0145-T	CHIP INDUCTOR	[M]
L2853	VLP0145-T	CHIP INDUCTOR	[M]
L2854	VLP0145-T	CHIP INDUCTOR	[M]
L2857	J0JKB0000020	EMI BEAD CORE	[M]
L2858	VLP0145-T	CHIP INDUCTOR	[M]
L2860	VLP0145-T	CHIP INDUCTOR	[M]
L2901	J0JBC0000019	CHIP INDUCTOR	[M]
L2902	J0JBC0000019	CHIP INDUCTOR	[M]
L2974	ELELN470KA	COIL	[M]
L5201	G0AR76Y00001	CHOKE COIL	[M]
L5202	G0AR76Y00001	CHOKE COIL	[M]
L5401	G0AR76Y00001	CHOKE COIL	[M]
L5402	G0AR76Y00001	CHOKE COIL	[M]
T950	ETP76VST62BA	MAIN TRANSFORMER	[M] △
T951	G4C2AAJ00005	BACK-UP TRANSFORMER	[M] △
		COMPONENT COMBINATIONS	
Z600	B3RAB0000025	REMOTE SENSOR	[M]
Z950	ERZV10V511CS	ZENER	[M] △
Z971	RGSD12A1445T	RADA RESISTOR	[M]
Z1101	RLA2Z007-T	COIL	[M]
Z1102	G2BAE0000003	AM IF BLOCK	[M]
		CERAMIC FILTERS	
CF1201	RLFFETWND01M	FM CF	[M]
CF1202	RLFFETWND01M	FM CF	[M]
		RELAY	
RL950	RSY0040M-0	PRIMARY RELAY	[M] △
		OSCILLATORS	

Ref. No.	Part No.	Part Name & Description	Remarks
X601	RSXZ4M19D01T	CERAMIC OSCILLATOR	[M]
X602	H0A327200073	CERAMIC OSCILLATOR	[M]
X1102	RLFDF22DD	DISCRIMINATOR	[M]
X1103	RSXC7M20S05T	CRYSTAL OSCILLATOR	[M]
X2350	H0J270500013	CRYSTAL RESONATOR	[M]
X2801	RSXY8M00D01T	CERAMIC RESONATOR	[M]
X7201	H0H338500001	CRYSTAL OSCILLATOR	[M]
		DISPLAY TUBE	
FL600	A2BD00000061	FL DISPLAY	[M]
		FUSES	
F1	K5D312BK0010	3.15A FUSE	[M] △
F2	K5D162BK0005	1.6A FUSE	[M] △
		FUSE HOLDERS	
FC1	EYF52BC	FUSE HOLDER	[M]
FC2	EYF52BC	FUSE HOLDER	[M]
FC3	EYF52BC	FUSE HOLDER	[M]
FC4	EYF52BC	FUSE HOLDER	[M]
		FUSE PROTECTORS	
FP950	K5G402AA0002	FUSE PROTECTOR	[M] △
FP951	K5G102AA0002	FUSE PROTECTOR	[M] △
FP5833	K5G400A00001	FUSABLE RESISTOR	[M] △
		HOLDERS	
H600	K1YZ09000002	WIRE HOLDER	[M]
H5950	RJS1A5509	9P CABLE HOLDER	[M]
		JACKS	
JK600	K2HC103A0023	JK SMALL SIGN	[M]
JK601	K2HC103A0023	JK SMALL SIGN	[M]
JK900	K2HC103A0023	JK SMALL SIGN	[M]
JK950	K2AA2B000004	JK AC INLET	[M] △
JK1101	RJH5414-1	JK ANTENNA	[M]
JK2800	SJFD7-6	JK VIDEO OUT	[M]
JK2905	RJH2405N-2	JK RCA	[M]
JK5951	K4BC04B00050	JK TERMINAL SPEAKER	[M]
JK5952	K4BC04B00046	JK SPEAKER	[M]
		EARTH TERMINAL	
E5800	SNE1004-2	EARTH TERMINAL	[M]
		WIRE	
W1	REZ1023-1	4P WIRE	[M]
W2	REEX0253	PRI WIRE (RED)	[M]
W2	REZ1024	3P WIRE	[M]
W3	REE0973	WIRE (BROWN)	[M]
W4	REEX0061	WIRE (BLACK)	[M]
W5	REEX0254	PRIMARY WIRE (ORANGE)	[M]
W6	REEX0059	WIRE (BLUE)	[M]
W7	REEX0255	PRIMARY WIRE (VIOLET)	[M]
W600	REXX0324	9P FLAT WIRE	[M]
W1002	RWJ0102050CK	MAIN-MECHA MOTOR WIRE	[M]
W5950	REXX0325	9P FLAT WIRE	[M]
		RESISTORS	
R1	ERDS2TJ102T	1K 1/4W	[M]
R1	ERDS2TJ104T	100K 1/4W	[M]
R2	ERDS2TJ104T	100K 1/4W	[M]
R3	ERDS2TJ221T	220 1/4W	[M]
R4	ERDS2TJ104T	100K 1/4W	[M]
R5	ERDS2TJ564T	560K 1/4W	[M]
R6	ERDS2TJ391T	390 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R7	ERDS2TJ272T	2.7K 1/4W	[M]
R8	ERDS2TJ684T	680K 1/4W	[M]
R9	ERDS2TJ391T	390 1/4W	[M]
R10	ERDS2TJ391T	390 1/4W	[M]
R11	ERDS2TJ684T	680K 1/4W	[M]
R600	ERDS2TJ472T	4.7K 1/4W	[M]
R601	ERDS2TJ102T	1K 1/4W	[M]
R602	ERDS2TJ102T	1K 1/4W	[M]
R603	ERDS2TJ122T	1.2K 1/4W	[M]
R604	ERDS2TJ182T	1.8K 1/4W	[M]
R605	ERDS2TJ222T	2.2K 1/4W	[M]
R606	ERDS2TJ272T	2.7K 1/4W	[M]
R607	ERDS2TJ472T	4.7K 1/4W	[M]
R608	ERDS2TJ682T	6.8K 1/4W	[M]
R609	ERDS2TJ103T	10K 1/4W	[M]
R610	ERDS2TJ223T	22K 1/4W	[M]
R611	ERDS2TJ683T	68K 1/4W	[M]
R612	ERDS2TJ101T	100 1/4W	[M]
R613	ERDS2TJ102T	1K 1/4W	[M]
R614	ERDS2TJ102T	1K 1/4W	[M]
R615	ERDS2TJ101T	100 1/4W	[M]
R616	ERDS2TJ101T	100 1/4W	[M]
R617	ERDS2TJ472T	4.7K 1/4W	[M]
R618	ERDS2TJ102T	1K 1/4W	[M]
R619	ERDS2TJ472T	4.7K 1/4W	[M]
R620	ERDS2TJ472T	4.7K 1/4W	[M]
R621	ERDS2TJ472T	4.7K 1/4W	[M]
R622	ERDS2TJ472T	4.7K 1/4W	[M]
R623	ERDS2TJ472T	4.7K 1/4W	[M]
R626	ERDS2TJ102T	1K 1/4W	[M]
R627	ERDS2TJ223T	22K 1/4W	[M]
R628	ERDS2TJ101T	100 1/4W	[M]
R629	ERDS2TJ101T	100 1/4W	[M]
R630	ERDS2TJ681T	680 1/4W	[M]
R631	ERDS2TJ473T	47K 1/4W	[M]
R632	ERDS2TJ103T	10K 1/4W	[M]
R634	ERDS2TJ101T	100 1/4W	[M]
R635	ERDS2TJ102T	1K 1/4W	[M]
R636	ERDS2TJ103T	10K 1/4W	[M]
R637	ERDS2TJ102T	1K 1/4W	[M]
R638	ERDS2TJ471T	470 1/4W	[M]
R639	ERDS2TJ223T	22K 1/4W	[M]
R640	ERDS2TJ681T	680 1/4W	[M]
R643	ERDS2TJ106T	10M 1/4W	[M]
R644	ERDS2TJ334T	330K 1/4W	[M]
R645	ERDS2TJ104T	100K 1/4W	[M]
R646	ERDS2TJ104T	100K 1/4W	[M]
R647	ERDS2TJ223T	22K 1/4W	[M]
R648	ERDS2TJ562T	5.6K 1/4W	[M]
R649	ERDS2TJ151T	150 1/4W	[M]
R650	ERDS2TJ474T	470K 1/4W	[M]
R651	ERDS2TJ103T	10K 1/4W	[M]
R652	ERDS2TJ102T	1K 1/4W	[M]
R653	ERDS2TJ472T	4.7K 1/4W	[M]
R654	ERDS2TJ474T	470K 1/4W	[M]
R655	ERDS2TJ470T	47 1/4W	[M]
R656	ERD2FCVG470T	47 1/4W	[M]
R657	ERD2FCVG470T	47 1/4W	[M]
R658	ERDS2TJ104T	100K 1/4W	[M]
R659	ERDS2TJ104T	100K 1/4W	[M]
R660	ERDS2TJ104T	100K 1/4W	[M]
R661	ERDS2TJ104T	100K 1/4W	[M]
R662	ERDS2TJ104T	100K 1/4W	[M]
R663	ERDS2TJ104T	100K 1/4W	[M]
R664	ERDS2TJ104T	100K 1/4W	[M]
R665	ERDS2TJ104T	100K 1/4W	[M]
R666	ERDS2TJ104T	100K 1/4W	[M]
R667	ERDS2TJ104T	100K 1/4W	[M]
R668	ERDS2TJ104T	100K 1/4W	[M]
R669	ERDS2TJ104T	100K 1/4W	[M]
R670	ERDS2TJ104T	100K 1/4W	[M]
R671	ERDS2TJ104T	100K 1/4W	[M]
R672	ERDS2TJ104T	100K 1/4W	[M]
R673	ERDS2TJ223T	22K 1/4W	[M]



Ref. No.	Part No.	Part Name & Description	Remarks
R674	ERDS2TJ223T	22K 1/4W	[M]
R675	ERDS2TJ472T	4.7K 1/4W	[M]
R676	ERDS2TJ101T	100 1/4W	[M]
R677	ERDS2TJ104T	100K 1/4W	[M]
R680	ERDS2TJ104T	100K 1/4W	[M]
R681	ERDS2TJ103T	10K 1/4W	[M]
R682	ERDS2TJ334T	330K 1/4W	[M]
R683	ERDS2TJ680T	68 1/4W	[M]
R684	ERDS2TJ822T	8.2K 1/4W	[M]
R687	ERDS2TJ681T	680 1/4W	[M]
R688	ERDS2TJ2R7T	2.7 1/4W	[M]
R689	ERDS2TJ223T	22K 1/4W	[M]
R690	ERDS2TJ334T	330K 1/4W	[M]
R691	ERDS2TJ102T	1K 1/4W	[M]
R692	ERDS2TJ2R7T	2.7 1/4W	[M]
R693	ERDS2TJ223T	22K 1/4W	[M]
R694	ERDS2TJ332T	3.3K 1/4W	[M]
R697	ERDS2TJ472T	4.7K 1/4W	[M]
R698	ERDS2TJ102T	1K 1/4W	[M]
R900	ERDS2TJ103T	10K 1/4W	[M]
R901	ERDS2TJ102T	1K 1/4W	[M]
R902	ERDS2TJ102T	1K 1/4W	[M]
R903	ERDS2TJ122T	1.2K 1/4W	[M]
R904	ERDS2TJ182T	1.8K 1/4W	[M]
R905	ERDS2TJ222T	2.2K 1/4W	[M]
R906	ERDS2TJ272T	2.7K 1/4W	[M]
R907	ERDS2TJ472T	4.7K 1/4W	[M]
R908	ERDS2TJ682T	6.8K 1/4W	[M]
R909	ERDS2TJ103T	10K 1/4W	[M]
R910	ERDS2TJ223T	22K 1/4W	[M]
R911	ERDS2TJ104T	100K 1/4W	[M]
R912	ERDS2TJ473T	47K 1/4W	[M]
R913	ERDS2TJ473T	47K 1/4W	[M]
R914	ERDS2TJ563T	56K 1/4W	[M]
R915	ERDS2TJ470T	47 1/4W	[M]
R916	ERDS2TJ104T	100K 1/4W	[M]
R917	ERDS2TJ563T	56K 1/4W	[M]
R918	ERDS2TJ470T	47 1/4W	[M]
R919	ERDS2TJ103T	10K 1/4W	[M]
R920	ERDS2TJ103T	10K 1/4W	[M]
R921	ERDS2TJ103T	10K 1/4W	[M]
R923	ERDS2TJ223T	22K 1/4W	[M]
R924	ERDS2TJ123T	12K 1/4W	[M]
R926	ERDS2TJ101T	100 1/4W	[M]
R927	ERDS2TJ101T	100 1/4W	[M]
R928	ERDS2TJ223T	22K 1/4W	[M]
R929	ERDS2TJ223T	22K 1/4W	[M]
R930	ERDS2TJ153T	15K 1/4W	[M]
R931	ERDS2TJ472T	4.7K 1/4W	[M]
R932	ERDS2TJ103T	10K 1/4W	[M]
R933	ERDS2TJ102T	1K 1/4W	[M]
R934	ERDS2TJ223T	22K 1/4W	[M]
R935	ERDS2TJ823T	82K 1/4W	[M]
R936	ERDS2TJ390T	39 1/4W	[M]
R937	ERDS2TJ222T	2.2K 1/4W	[M]
R938	ERDS2TJ474T	470K 1/4W	[M]
R939	ERDS2TJ472T	4.7K 1/4W	[M]
R940	ERDS2TJ822T	8.2K 1/4W	[M]
R941	ERDS2TJ183T	18K 1/4W	[M]
R951	ERDS2TJ332T	3.3K 1/4W	[M]
R952	ERDS2TJ122T	1.2K 1/4W	[M]
R952	ERDS2TJ821T	820 1/4W	[M]
R953	ERDS2TJ152T	1.5K 1/4W	[M]
R953	ERDS2TJ393T	39K 1/4W	[M]
R954	ERDS1FVJ100T	10 1/2W	[M]
R955	ERDS1FVJ100T	10 1/2W	[M]
R956	ERDS1FVJ100T	10 1/2W	[M]
R957	ERDS2TJ103T	10K 1/4W	[M]
R958	ERDS2TJ103T	10K 1/4W	[M]
R959	ERD2FCVJ4R7T	4.7 1/4W	[M]
R960	ERDS2TJ472T	4.7K 1/4W	[M]
R961	ERDS2TJ151T	150 1/4W	[M]
R963	ERDS2TJ824T	820K 1/4W	[M]
R969	ERDS2TJ681T	680 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R970	ERDS2TJ681T	680 1/4W	[M]
R971	ERDS2TJ103T	10K 1/4W	[M]
R972	ERDS2TJ561T	560 1/4W	[M]
R972	ERDS2TJ821T	820 1/4W	[M]
R973	ERDS2TJ393T	39K 1/4W	[M]
R990	ERDS2TJ390T	39 1/4W	[M]
R1001	D0GB1R0JA002	1 1/16W	[M]
R1003	ERJ3GEYJ103V	10K 1/16W	[M]
R1004	D0GB152JA002	1.5K 1/16W	[M]
R1005	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1006	ERJ3GEYJ102V	1K 1/16W	[M]
R1007	ERD25FVJ4R7T	4.7 1/4W	[M]
R1009	D0GB183JA002	18K 1/16W	[M]
R1010	D0GB183JA002	18K 1/16W	[M]
R1011	ERJ3GEYJ103V	10K 1/16W	[M]
R1012	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1013	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1014	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1015	ERJ3GEYJ470V	47 1/16W	[M]
R1016	ERJ3GEYJ470V	47 1/16W	[M]
R1017	ERJ3GEYJ822V	8.2K 1/16W	[M]
R1018	D0GB392JA002	3.9K 1/16W	[M]
R1019	D0GB392JA002	3.9K 1/16W	[M]
R1022	ERJ3GEYJ103V	10K 1/16W	[M]
R1026	ERJ3GEYJ102V	1K 1/16W	[M]
R1028	ERJ3GEYJ822V	8.2K 1/16W	[M]
R1029	D0GB475JA008	4.7M 1/16W	[M]
R1030	D0GB101JA002	100 1/16W	[M]
R1031	D0GB273JA002	27K 1/16W	[M]
R1032	ERJ3GEYJ103V	10K 1/16W	[M]
R1035	ERJ3GEYJ103V	10K 1/16W	[M]
R1038	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1039	ERJ3GEYJ153V	15K 1/16W	[M]
R1040	ERJ3GEYJ000V	0 1/16W	[M]
R1045	ERJ3GEYJ104V	100K 1/16W	[M]
R1046	ERJ3GEYJ104V	100K 1/16W	[M]
R1047	ERJ3GEYJ102V	1K 1/16W	[M]
R1048	ERJ3GEYJ102V	1K 1/16W	[M]
R1049	D0GB105JA002	1M 1/16W	[M]
R1050	D0GB105JA002	1M 1/16W	[M]
R1051	ERJ3GEYJ221V	220 1/16W	[M]
R1052	ERJ3GEYJ221V	220 1/16W	[M]
R1053	ERJ3GEYJ681V	680 1/16W	[M]
R1054	ERJ3GEYJ681V	680 1/16W	[M]
R1055	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1056	ERJ3GEYJ221V	220 1/16W	[M]
R1057	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1058	D0GB272JA002	2.7K 1/16W	[M]
R1059	ERJ3GEYJ103V	10K 1/16W	[M]
R1060	ERJ3GEYJ391V	390 1/16W	[M]
R1061	ERJ3GEYJ000V	0 1/16W	[M]
R1084	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1085	ERJ3GEYJ473V	47K 1/16W	[M]
R1086	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1087	ERJ3GEYJ473V	47K 1/16W	[M]
R1090	ERJ3GEYJ221V	220 1/16W	[M]
R1091	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1092	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1093	ERJ3GEYJ102V	1K 1/16W	[M]
R1094	ERJ3GEYJ102V	1K 1/16W	[M]
R1095	ERJ3GEYJ104V	100K 1/16W	[M]
R1096	ERJ3GEYJ104V	100K 1/16W	[M]
R1097	ERJ3GEYJ103V	10K 1/16W	[M]
R1098	ERJ3GEYJ103V	10K 1/16W	[M]
R1101	ERJ3GEYJ000V	0 1/16W	[M]
R1102	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1103	D0GB271JA002	270 1/16W	[M]
R1104	ERJ3GEYJ102V	1K 1/16W	[M]
R1105	ERJ3GEYJ471V	470 1/16W	[M]
R1106	ERJ3GEYJ474V	470K 1/16W	[M]
R1107	ERJ3GEYJ331V	330 1/16W	[M]
R1110	ERJ3GEYJ102V	1K 1/16W	[M]
R1111	ERJ3GEYJ391V	390 1/16W	[M]
R1112	ERJ3GEYJ104V	100K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R1113	ERJ3GEYJ103V	10K 1/16W	[M]
R1114	D0GB562JA002	5.6K 1/16W	[M]
R1115	ERJ3GEYJ561V	560 1/16W	[M]
R1116	ERJ3GEYJ102V	1K 1/16W	[M]
R1117	ERJ3GEYJ473V	47K 1/16W	[M]
R1118	D0GB332JA002	3.3K 1/16W	[M]
R1119	D0GB332JA002	3.3K 1/16W	[M]
R1120	ERJ3GEYJ473V	47K 1/16W	[M]
R1121	ERJ3GEYJ223V	22K 1/16W	[M]
R1122	D0GB272JA002	2.7K 1/16W	[M]
R1123	D0GB683JA002	68K 1/16W	[M]
R1124	ERJ3GEYJ330V	33 1/16W	[M]
R1125	ERJ3GEYJ471V	470 1/16W	[M]
R1126	ERJ3GEYJ102V	1K 1/16W	[M]
R1127	ERJ3GEYJ471V	470 1/16W	[M]
R1128	ERJ3GEYJ820V	82 1/16W	[M]
R1129	D0GB273JA002	27K 1/16W	[M]
R1130	ERJ3GEYJ103V	10K 1/16W	[M]
R1131	D0GB121JA002	120 1/16W	[M]
R1132	ERJ3GEYJ103V	10K 1/16W	[M]
R1133	ERJ3GEYJ102V	1K 1/16W	[M]
R1134	ERJ3GEYJ471V	470 1/16W	[M]
R1135	ERJ3GEYJ102V	1K 1/16W	[M]
R1136	ERJ3GEYJ102V	1K 1/16W	[M]
R1137	ERJ3GEYJ102V	1K 1/16W	[M]
R1138	D0GB332JA002	3.3K 1/16W	[M]
R1141	ERJ3GEYJ682V	6.8K 1/16W	[M]
R1142	ERJ3GEYJ682V	6.8K 1/16W	[M]
R1143	ERJ3GEYJ223V	22K 1/16W	[M]
R1144	D0GB121JA002	120 1/16W	[M]
R1145	ERJ3GEYJ104V	100K 1/16W	[M]
R1146	ERJ3GEYJ104V	100K 1/16W	[M]
R1151	ERJ3GEYJ820V	82 1/16W	[M]
R1152	ERJ3GEY0R00V	0 1/16W	[M]
R2101	ERJ3GEYJ103V	10K 1/16W	[M]
R2102	D0GB332JA002	3.3K 1/16W	[M]
R2103	D0GB1R0JA002	1 1/16W	[M]
R2104	ERJ3GEYJ330V	33 1/16W	[M]
R2105	ERJ3GEYJ330V	33 1/16W	[M]
R2106	ERJ3GEYJ330V	33 1/16W	[M]
R2107	ERJ3GEYJ330V	33 1/16W	[M]
R2108	D0GB332JA002	3.3K 1/16W	[M]
R2109	ERJ3GEYJ102V	1K 1/16W	[M]
R2110	D0GB562JA002	5.6K 1/16W	[M]
R2111	D0GB562JA002	5.6K 1/16W	[M]
R2112	ERJ3GEYJ102V	1K 1/16W	[M]
R2113	ERJ3GEYJ473V	47K 1/16W	[M]
R2114	ERJ3GEYJ102V	1K 1/16W	[M]
R2115	ERJ3GEYJ473V	47K 1/16W	[M]
R2116	ERJ3GEYJ104V	100K 1/16W	[M]
R2117	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2118	D0GB563JA002	56K 1/16W	[M]
R2119	D0GB122JA019	1.2K 1/16W	[M]
R2120	D0GB152JA002	1.5K 1/16W	[M]
R2121	D0GB273JA002	27K 1/16W	[M]
R2122	ERJ3GEY0R00V	0 1/16W	[M]
R2122	ERJ3GEYJ681V	680 1/16W	[M]
R2123	D0GB392JA002	3.9K 1/16W	[M]
R2124	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2125	ERJ3GEYJ473V	47K 1/16W	[M]
R2126	D0GB272JA002	2.7K 1/16W	[M]
R2127	D0GB563JA002	56K 1/16W	[M]
R2128	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2129	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2130	ERJ3GEYJ102V	1K 1/16W	[M]
R2131	ERJ3GEYJ104V	100K 1/16W	[M]
R2132	D0GB332JA002	3.3K 1/16W	[M]
R2133	ERJ3GEYJ102V	1K 1/16W	[M]
R2134	ERJ3GEYJ104V	100K 1/16W	[M]
R2135	ERJ3GEYJ102V	1K 1/16W	[M]
R2136	D0GB183JA002	18K 1/16W	[M]
R2137	D0GB183JA002	18K 1/16W	[M]
R2138	ERJ3GEYJ224V	220K 1/16W	[M]
R2139	ERJ3GEYJ222V	2.2K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2140	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2141	ERJ3GEYJ123V	12K 1/16W	[M]
R2142	D0GB562JA002	5.6K 1/16W	[M]
R2143	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2144	ERJ3GEYJ102V	1K 1/16W	[M]
R2145	ERJ3GEY0R00V	0 1/16W	[M]
R2146	ERJ3GEYJ473V	47K 1/16W	[M]
R2147	ERJ3GEYJ102V	1K 1/16W	[M]
R2148	ERJ3GEYJ104V	100K 1/16W	[M]
R2149	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2150	ERJ3GEYJ102V	1K 1/16W	[M]
R2151	D0GB273JA002	27K 1/16W	[M]
R2152	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2153	ERJ3GEYJ473V	47K 1/16W	[M]
R2154	ERJ3GEYJ221V	220 1/16W	[M]
R2155	ERJ3GEYJ104V	100K 1/16W	[M]
R2156	ERJ3GEYJ102V	1K 1/16W	[M]
R2158	ERJ3GEY0R00V	0 1/16W	[M]
R2159	ERJ3GEY0R00V	0 1/16W	[M]
R2160	ERJ3GEY0R00V	0 1/16W	[M]
R2199	ERJ3GEY0R00V	0 1/16W	[M]
R2200	ERJ3GEYJ103V	10K 1/16W	[M]
R2201	ERJ3GEYJ103V	10K 1/16W	[M]
R2202	ERJ3GEYJ223V	22K 1/16W	[M]
R2203	ERJ3GEYJ223V	22K 1/16W	[M]
R2204	ERJ3GEYJ103V	10K 1/16W	[M]
R2205	ERJ3GEYJ104V	100K 1/16W	[M]
R2206	ERJ3GEYJ221V	220 1/16W	[M]
R2300	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2301	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2302	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2303	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2304	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2305	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2306	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2307	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2308	ERJ3GEYJ221V	220 1/16W	[M]
R2309	ERJ3GEYJ221V	220 1/16W	[M]
R2310	ERJ3GEYJ221V	220 1/16W	[M]
R2350	ERJ3GEYJ330V	33 1/16W	[M]
R2351	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2352	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2353	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2354	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2355	D0GB271JA002	270 1/16W	[M]
R2356	ERJ3GEYJ330V	33 1/16W	[M]
R2357	ERJ3GEYJ330V	33 1/16W	[M]
R2358	ERJ3GEYJ104V	100K 1/16W	[M]
R2359	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2360	ERJ3GEYD750V	75 1/16W	[M]
R2400	ERJ3GEYJ103V	10K 1/16W	[M]
R2401	ERJ3GEYJ103V	10K 1/16W	[M]
R2402	ERJ3GEYJ223V	22K 1/16W	[M]
R2403	ERJ3GEYJ223V	22K 1/16W	[M]
R2404	ERJ3GEYJ103V	10K 1/16W	[M]
R2405	ERJ3GEYJ104V	100K 1/16W	[M]
R2406	ERJ3GEYJ221V	220 1/16W	[M]
R2701	ERJ3GEYJ103V	10K 1/16W	[M]
R2701	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2702	D0GB332JA002	3.3K 1/16W	[M]
R2702	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2703	D0GB1R0JA002	1 1/16W	[M]
R2703	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2704	ERJ3GEY0R00V	0 1/16W	[M]
R2704	ERJ3GEYJ330V	33 1/16W	[M]
R2705	ERJ3GEYJ330V	33 1/16W	[M]
R2706	ERJ3GEYJ330V	33 1/16W	[M]
R2707	ERJ3GEYJ330V	33 1/16W	[M]
R2708	D0GB332JA002	3.3K 1/16W	[M]
R2709	ERJ3GEYJ102V	1K 1/16W	[M]
R2710	D0GB562JA002	5.6K 1/16W	[M]
R2711	D0GB562JA002	5.6K 1/16W	[M]
R2712	ERJ3GEYJ102V	1K 1/16W	[M]
R2713	ERJ3GEYJ473V	47K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2714	ERJ3GEYJ102V	1K 1/16W	[M]
R2715	ERJ3GEYJ473V	47K 1/16W	[M]
R2716	ERJ3GEYJ104V	100K 1/16W	[M]
R2717	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2718	D0GB563JA002	56K 1/16W	[M]
R2719	D0GB122JA019	1.2K 1/16W	[M]
R2720	D0GB152JA002	1.5K 1/16W	[M]
R2721	D0GB273JA002	27K 1/16W	[M]
R2722	ERJ3GEYJ681V	680 1/16W	[M]
R2723	D0GB392JA002	3.9K 1/16W	[M]
R2724	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2725	ERJ3GEYJ473V	47K 1/16W	[M]
R2726	D0GB272JA002	2.7K 1/16W	[M]
R2727	D0GB563JA002	56K 1/16W	[M]
R2728	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2729	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2730	ERJ3GEYJ102V	1K 1/16W	[M]
R2731	ERJ3GEYJ104V	100K 1/16W	[M]
R2732	D0GB332JA002	3.3K 1/16W	[M]
R2733	ERJ3GEYJ102V	1K 1/16W	[M]
R2734	ERJ3GEYJ104V	100K 1/16W	[M]
R2735	ERJ3GEYJ102V	1K 1/16W	[M]
R2736	D0GB183JA002	18K 1/16W	[M]
R2737	D0GB183JA002	18K 1/16W	[M]
R2738	ERJ3GEYJ224V	220K 1/16W	[M]
R2739	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2740	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2741	ERJ3GEYJ123V	12K 1/16W	[M]
R2742	D0GB562JA002	5.6K 1/16W	[M]
R2743	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2744	ERJ3GEYJ102V	1K 1/16W	[M]
R2745	ERJ3GEY0R00V	0 1/16W	[M]
R2746	ERJ3GEYJ473V	47K 1/16W	[M]
R2747	ERJ3GEYJ102V	1K 1/16W	[M]
R2748	ERJ3GEYJ104V	100K 1/16W	[M]
R2749	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2750	ERJ3GEYJ102V	1K 1/16W	[M]
R2751	D0GB273JA002	27K 1/16W	[M]
R2752	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2753	ERJ3GEYJ473V	47K 1/16W	[M]
R2754	ERJ3GEYJ221V	220 1/16W	[M]
R2755	ERJ3GEYJ104V	100K 1/16W	[M]
R2756	ERJ3GEYJ102V	1K 1/16W	[M]
R2758	ERJ3GEY0R00V	0 1/16W	[M]
R2759	ERJ3GEY0R00V	0 1/16W	[M]
R2760	ERJ3GEY0R00V	0 1/16W	[M]
R2799	ERJ3GEY0R00V	0 1/16W	[M]
R2801	ERJ3GEYJ102V	1K 1/16W	[M]
R2807	ERJ3GEYJ102V	1K 1/16W	[M]
R2808	ERJ3GEYJ102V	1K 1/16W	[M]
R2809	ERJ3GEYJ102V	1K 1/16W	[M]
R2810	ERJ3GEYJ102V	1K 1/16W	[M]
R2811	ERJ3GEY0R00V	0 1/16W	[M]
R2812	D0GB100JA002	10 1/16W	[M]
R2813	D0GB100JA002	10 1/16W	[M]
R2815	ERJ3GEYJ103V	10K 1/16W	[M]
R2816	ERJ3GEYJ102V	1K 1/16W	[M]
R2817	ERJ3GEYJ103V	10K 1/16W	[M]
R2818	ERJ3GEYJ221V	220 1/16W	[M]
R2819	ERJ3GEYJ221V	220 1/16W	[M]
R2820	ERJ3GEYJ221V	220 1/16W	[M]
R2821	ERJ3GEYJ221V	220 1/16W	[M]
R2822	ERJ3GEYJ223V	22K 1/16W	[M]
R2823	ERJ3GEYJ223V	22K 1/16W	[M]
R2824	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2825	D0GB101JA002	100 1/16W	[M]
R2826	D0GB100JA002	10 1/16W	[M]
R2827	D0GB100JA002	10 1/16W	[M]
R2828	D0GB101JA002	100 1/16W	[M]
R2829	D0GB101JA002	100 1/16W	[M]
R2830	D0GB101JA002	100 1/16W	[M]
R2831	D0GB101JA002	100 1/16W	[M]
R2832	D0GB101JA002	100 1/16W	[M]
R2833	D0GB101JA002	100 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2834	D0GB101JA002	100 1/16W	[M]
R2835	D0GB101JA002	100 1/16W	[M]
R2836	D0GB101JA002	100 1/16W	[M]
R2837	ERJ3GEY0R00V	0 1/16W	[M]
R2838	ERJ3GEY0R00V	0 1/16W	[M]
R2839	ERJ3GEY0R00V	0 1/16W	[M]
R2840	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2841	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2842	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2843	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2844	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2845	ERJ3GEY0R00V	0 1/16W	[M]
R2846	ERJ3GEY0R00V	0 1/16W	[M]
R2847	D0GB1R0JA002	1 1/16W	[M]
R2848	D0GB1R0JA002	1 1/16W	[M]
R2849	ERJ3GEYJ102V	1K 1/16W	[M]
R2850	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2851	ERJ3GEYJ331V	330 1/16W	[M]
R2852	ERJ3GEYJ103V	10K 1/16W	[M]
R2853	ERJ3GEYJ104V	100K 1/16W	[M]
R2901	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2902	ERJ3GEYJ103V	10K 1/16W	[M]
R2903	ERDS1FVJ270T	27 1/2W	[M]
R2904	ERJ3GEYJ103V	10K 1/16W	[M]
R2905	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2906	D0GB101JA002	100 1/16W	[M]
R2907	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2908	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2909	D0GB273JA002	27K 1/16W	[M]
R2910	D0GB563JA002	56K 1/16W	[M]
R2911	ERJ3GEY0R00V	0 1/16W	[M]
R2918	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2919	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2920	ERJ3GEYJ220V	22 1/16W	[M]
R2940	ERJ3GEYJ103V	10K 1/16W	[M]
R2941	ERJ3GEYJ473V	47K 1/16W	[M]
R2942	ERJ3GEYJ473V	47K 1/16W	[M]
R2943	ERJ3GEYJ103V	10K 1/16W	[M]
R2944	ERJ3GEYJ223V	22K 1/16W	[M]
R2945	ERJ3GEYJ123V	12K 1/16W	[M]
R2946	ERJ3GEYJ223V	22K 1/16W	[M]
R2947	ERJ3GEYJ123V	12K 1/16W	[M]
R2948	ERJ3GEYJ221V	220 1/16W	[M]
R2949	ERJ3GEYJ102V	1K 1/16W	[M]
R2950	ERJ3GEYJ103V	10K 1/16W	[M]
R2955	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2956	ERJ3GEYJ221V	220 1/16W	[M]
R2957	ERJ3GEYJ223V	22K 1/16W	[M]
R2958	D0GB333JA002	33K 1/16W	[M]
R2959	ERJ3GEYJ473V	47K 1/16W	[M]
R2960	ERJ3GEYJ102V	1K 1/16W	[M]
R2961	ERJ3GEYJ104V	100K 1/16W	[M]
R2962	ERJ3GEY0R00V	0 1/16W	[M]
R2964	ERJ3GEY0R00V	0 1/16W	[M]
R2970	ERJ3GEYJ104V	100K 1/16W	[M]
R2971	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2972	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2973	D0GB332JA002	3.3K 1/16W	[M]
R2974	ERJ3GEYJ104V	100K 1/16W	[M]
R2975	ERJ3GEYJ103V	10K 1/16W	[M]
R2976	ERDS1FVJ220T	22 1/2W	[M]
R2977	ERJ3GEYJ224V	220K 1/16W	[M]
R2978	D0GB101JA002	100 1/16W	[M]
R2979	ERJ3GEYJ104V	100K 1/16W	[M]
R2981	ERJ3GEYJ225V	2.2M 1/16W	[M]
R2988	ERDS2FVJ4R7T	4.7 1/4W	[M]
R2992	D0GB101JA002	100 1/16W	[M]
R2993	ERJ3GEYJ103V	10K 1/16W	[M]
R2994	ERJ3GEYJ102V	1K 1/16W	[M]
R2995	ERJ3GEYJ102V	1K 1/16W	[M]
R2996	ERJ3GEY0R00V	0 1/16W	[M]
R2997	ERJ3GEY0R00V	0 1/16W	[M]
R2998	ERJ3GEYJ103V	10K 1/16W	[M]
R2999	ERJ3GEYJ103V	10K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R5245	ERDS2TJ332T	3.3K 1/4W	[M]
R5246	ERDS2TJ153T	15K 1/4W	[M]
R5247	ERDS2TJ332T	3.3K 1/4W	[M]
R5248	ERDS2TJ153T	15K 1/4W	[M]
R5249	ERDS2TJ683T	68K 1/4W	[M]
R5250	ERDS2TJ683T	68K 1/4W	[M]
R5251	ERDS2TJ154T	150K 1/4W	[M]
R5252	ERDS2TJ104T	100K 1/4W	[M]
R5253	ERDS2TJ100T	10 1/4W	[M]
R5254	ERDS2TJ100T	10 1/4W	[M]
R5255	ERDS1FVJ100T	10 1/2W	[M]
R5256	ERDS1FVJ100T	10 1/2W	[M]
R5445	ERDS2TJ332T	3.3K 1/4W	[M]
R5446	ERDS2TJ153T	15K 1/4W	[M]
R5447	ERDS2TJ332T	3.3K 1/4W	[M]
R5448	ERDS2TJ153T	15K 1/4W	[M]
R5449	ERDS2TJ683T	68K 1/4W	[M]
R5450	ERDS2TJ683T	68K 1/4W	[M]
R5451	ERDS2TJ563T	56K 1/4W	[M]
R5452	ERDS2TJ224T	220K 1/4W	[M]
R5453	ERDS2TJ100T	10 1/4W	[M]
R5454	ERDS2TJ100T	10 1/4W	[M]
R5455	ERDS1FVJ100T	10 1/2W	[M]
R5456	ERDS1FVJ100T	10 1/2W	[M]
R5801	ERDS2TJ103T	10K 1/4W	[M]
R5802	ERDS2TJ223T	22K 1/4W	[M]
R5803	ERDS2TJ123T	12K 1/4W	[M]
R5804	ERDS2TJ473T	47K 1/4W	[M]
R5805	ERDS2TJ473T	47K 1/4W	[M]
R5806	ERDS2TJ104T	100K 1/4W	[M]
R5807	ERDS1FVJ271T	270 1/2W	[M]
R5808	ERDS1FVJ271T	270 1/2W	[M]
R5809	ERDS1FVJ391T	390 1/2W	[M]
R5810	ERDS2TJ272T	2.7K 1/4W	[M]
R5811	ERDS2TJ561T	560 1/4W	[M]
R5812	ERDS2TJ272T	2.7K 1/4W	[M]
R5813	ERDS2TJ332T	3.3K 1/4W	[M]
R5814	ERDS2TJ332T	3.3K 1/4W	[M]
R5815	ERDS1FVJ270T	27 1/2W	[M]
R5816	ERDS1FVJ150T	15 1/2W	[M]
R5817	DOCl4R7JA020	4.7 1W	[M]
R5818	DOCl4R7JA020	4.7 1W	[M]
R5819	DOCl8R2JA020	8.2 1W	[M]
R5820	DOCl8R2JA020	8.2 1W	[M]
R5821	DOCl8R2JA020	8.2 1W	[M]
R5822	ERDS2TJ332T	3.3K 1/4W	[M]
R5823	ERDS2TJ471T	470 1/4W	[M]
R5824	ERDS2TJ2R2T	2.2 1/4W	[M]
R5825	ERDS2TJ2R2T	2.2 1/4W	[M]
R5826	ERDS2TJ2R2T	2.2 1/4W	[M]
R5827	ERDS2TJ2R2T	2.2 1/4W	[M]
R5828	ERDS2TJ103T	10K 1/4W	[M]
R5829	ERDS1FVJ331T	330 1/2W	[M]
R5830	ERDS2TJ122T	1.2K 1/4W	[M]
R5831	ERDS2TJ222T	2.2K 1/4W	[M]
R5832	ERDS2TJ151T	150 1/4W	[M]
R5834	ERDS1FVJ270T	27 1/2W	[M]
R5853	ERDS2TJ224T	220K 1/4W	[M]
R5854	ERDS2TJ103T	10K 1/4W	[M]
R5855	ERDS2TJ223T	22K 1/4W	[M]
R5856	ERDS2TJ103T	10K 1/4W	[M]
R5857	ERDS2TJ223T	22K 1/4W	[M]
R5858	DOCl8R2JA020	8.2 1W	[M]
R7102	ERJ3GEYJ103V	10K 1/16W	[M]
R7104	ERJ3GEYJ102V	1K 1/16W	[M]
R7105	DOGB273JA002	27K 1/16W	[M]
R7106	ERJ3GEYJ102V	1K 1/16W	[M]
R7107	ERJ3GEYJ154V	150K 1/16W	[M]
R7108	ERJ3GEYJ154V	150K 1/16W	[M]
R7144	DOGB393JA002	39K 1/16W	[M]
R7151	ERJ3GEYJ472V	4.7K 1/16W	[M]
R7152	ERJ3GEYJ153V	15K 1/16W	[M]
R7209	ERJ3GEYJ473V	47K 1/16W	[M]
R7211	ERJ3GEYJ823V	82K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R7212	DOGB271JA002	270 1/16W	[M]
R7214	ERJ3GEYJ682V	6.8K 1/16W	[M]
R7216	DOGB100JA002	10 1/16W	[M]
R7221	DOGB101JA002	100 1/16W	[M]
R7241	ERJ3GEYJ473V	47K 1/16W	[M]
R7242	ERJ3GEYJ224V	220K 1/16W	[M]
R7253	DOGB100JA002	10 1/16W	[M]
R7254	ERJ3GEYD103V	10K 1/16W	[M]
R7255	ERJ3GEYD562V	5.6K 1/16W	[M]
R7262	DOGB272JA002	2.7K 1/16W	[M]
R7315	ERJ3GEYJ102V	1K 1/16W	[M]
R7323	ERJ3GEYJ682V	6.8K 1/16W	[M]
R7324	DOGB333JA002	33K 1/16W	[M]
R7325	ERJ3GEYJ391V	390 1/16W	[M]
R7327	DOGB392JA002	3.9K 1/16W	[M]
R7328	DOGB392JA002	3.9K 1/16W	[M]
R7329	DOGB392JA002	3.9K 1/16W	[M]
R7331	ERJ3GEYJ682V	6.8K 1/16W	[M]
R7335	DOGB101JA002	100 1/16W	[M]
R7336	DOGB100JA002	10 1/16W	[M]
R7349	ERJ3GEYJ472V	4.7K 1/16W	[M]
R7601	DOGB4R7JA008	4.7 1/16W	[M]
R7650	ERJ3GEYJ5R6V	5.6 1/16W	[M]
		CAPACITORS	
C1	ECBT1H5R6KC5	5.6P 50V	[M]
C1	ECEA1CKA101B	100 16V	[M]
C2	ECBT1E103ZF5	0.01 25V	[M]
C2	RCBS1H102KBY	1000P 50V	[M]
C3	ECBT1H2R2KC5	2.2P 50V	[M]
C4	ECBT1H181KB5	180P 50V	[M]
C5	ECBT1H5R6KC5	5.6P 50V	[M]
C6	ECBT1H3R3KC5	3.3P 50V	[M]
C7	ECBT1H4R7KC5	4.7P 50V	[M]
C8	ECBT1H3R3KC5	3.3P 50V	[M]
C9	ECBT1H2R2KC5	2.2P 50V	[M]
C10	ECBT1H180JC5	18P 50V	[M]
C11	RCBS1H102KBY	1000P 50V	[M]
C600	RCE1AM102B	1000 10V	[M]
C601	ECEA1AKA220B	22 10V	[M]
C602	ECBT1E103ZF5	0.01 25V	[M]
C603	ECBT1H331KB5	330P 50V	[M]
C604	ECBT1E103ZF5	0.01 25V	[M]
C605	ECEA0JKA101B	100 6.3V	[M]
C606	ECBT1H104ZF5	0.1 50V	[M]
C607	ECBT1H101KB5	100P 50V	[M]
C608	ECEA1HKA010B	1 50V	[M]
C609	ECBT1H101KB5	100P 50V	[M]
C610	ECEA1HKA2R2B	2.2 50V	[M]
C611	ECBT1H680J5	68P 50V	[M]
C612	ECBT1H680J5	68P 50V	[M]
C613	ECBT1H560J5	56P 50V	[M]
C616	ECBT1H560J5	56P 50V	[M]
C617	ECBT1H180JC5	18P 50V	[M]
C618	ECBT1H150JC5	15P 50V	[M]
C619	F1D1H473A012	0.047 50V	[M]
C620	ECBT1E223ZF5	0.022 25V	[M]
C621	ECBT1E223ZF5	0.022 25V	[M]
C622	ECBT1E223ZF5	0.022 25V	[M]
C623	ECBT1H331KB5	330P 50V	[M]
C624	ECBT1H331KB5	330P 50V	[M]
C625	ECBT1H103KB5	0.01 50V	[M]
C626	ECBT1H103KB5	0.01 50V	[M]
C627	F1D1H1040002	0.1 50V	[M]
C628	ECBT1H103KB5	0.01 50V	[M]
C634	ECBT1H101KB5	100P 50V	[M]
C635	ECBT1H101KB5	100P 50V	[M]
C636	ECBT1H104ZF5	0.1 50V	[M]
C637	ECBT1E103ZF5	0.01 25V	[M]
C638	ECBT1H102KB5	1000P 50V	[M]
C639	ECEA0JKA470B	47 6.3V	[M]
C640	ECEA1HKA3R3B	3.3 50V	[M]
C641	ECEA1VKA220B	22 35V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C642	ECEA1VKA220B	22 35V	[M]
C644	F1D1H1040002	0.1 50V	[M]
C645	ECBT1H561KB5	560P 50V	[M]
C646	ECBT1H561KB5	560P 50V	[M]
C647	ECBT1H561KB5	560P 50V	[M]
C648	ECBT1H561KB5	560P 50V	[M]
C649	ECBT1H561KB5	560P 50V	[M]
C650	ECBT1H561KB5	560P 50V	[M]
C651	ECBT1H102KB5	1000P 50V	[M]
C652	ECBT1H561KB5	560P 50V	[M]
C653	ECBT1H561KB5	560P 50V	[M]
C654	ECBT1H561KB5	560P 50V	[M]
C655	ECBT1H561KB5	560P 50V	[M]
C656	ECBT1E103ZF5	0.01 25V	[M]
C657	ECBT1E103ZF5	0.01 25V	[M]
C658	ECEA1HKA0R1B	0.1 50V	[M]
C659	ECEA1HKA0R1B	0.1 50V	[M]
C660	ECEA1HKA0R1B	0.1 50V	[M]
C661	ECEA1HKA0R1B	0.1 50V	[M]
C662	ECBT1H473ZF5	0.047 50V	[M]
C663	ECEA1HKA010B	1 50V	[M]
C664	ECBT1H102KB5	1000P 50V	[M]
C665	ECBT1H101KB5	100P 50V	[M]
C666	ECBT1H102KB5	1000P 50V	[M]
C667	ECEA1AKA101B	100 10V	[M]
C669	ECBT1E103ZF5	0.01 25V	[M]
C670	ECEA1HKAR33B	0.33 50V	[M]
C671	ECBT1E223ZF5	0.022 25V	[M]
C672	ECBT1H103KB5	0.01 50V	[M]
C901	ECBT1H101KB5	100P 50V	[M]
C902	ECBT1H101KB5	100P 50V	[M]
C903	ECEA1HKA010B	1 50V	[M]
C904	ECBT1C332KR5	3300P 16V	[M]
C905	ECEA1HKAR47B	0.47 50V	[M]
C906	ECBT0J153MS5	0.015 6.3V	[M]
C907	F1C1C333A004	0.033 16V	[M]
C908	ECEA1CKA220B	22 16V	[M]
C909	ECBT1E103ZF5	0.01 25V	[M]
C910	ECBT0J153MS5	0.015 6.3V	[M]
C911	ECBT1C472KR5	4700P 16V	[M]
C912	F1C1C333A004	0.033 16V	[M]
C913	ECBT1E103ZF5	0.01 25V	[M]
C914	ECBT1H151KB5	150P 50V	[M]
C916	ECEA1HKA4R7B	4.7 50V	[M]
C917	ECBT1H102KB5	1000P 50V	[M]
C918	ECEA1HKA3R3B	3.3 50V	[M]
C919	ECBT1H471KB5	470P 50V	[M]
C920	ECEA1HKA010B	1 50V	[M]
C950	ECA1EM472B	4700 25V	[M]
C951	ECKR1H103ZF5	0.01 50V	[M]
C952	ECEA1AKA470B	47 10V	[M]
C953	ECKR1H103MD5	0.01 50V	[M]
C954	ECKR1H103ZF5	0.01 50V	[M]
C955	ECA1HM101B	100 50V	[M]
C956	ECA1JM101B	100 63V	[M]
C957	ECEA2AU100B	10 100V	[M]
C958	ECKR1H103MD5	0.01 50V	[M]
C959	ECKR2H103ZF5	0.01 500V	[M]
C960	ECQE1104KF3	0.1 100V	[M]
C961	ECA1CM102B	1000 16V	[M]
C962	ECA1CM102B	1000 16V	[M]
C963	ECEA1VKA4R7B	4.7 35V	[M]
C964	ECKR1H102ZF5	1000P 50V	[M]
C1001	F1H1H103A753	0.01 50V	[M]
C1002	ECEA1HKN2R2B	2.2 50V	[M]
C1003	ECUV1H152KBV	1500P 50V	[M]
C1006	ECEA1HKA010B	1 50V	[M]
C1007	F0A2A472A015	4700P 100V	[M]
C1008	ECEA1HKA010B	1 50V	[M]
C1009	ECEA1CKA470B	47 16V	[M]
C1010	ECA1EM101B	100 25V	[M]
C1011	ECQV1H473JZ3	0.047 50V	[M]
C1012	ECJ1VB1H102K	1000P 50V	[M]
C1013	ECJ1VB1H102K	1000P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C1014	ECJ1VB1H102K	1000P 50V	[M]
C1015	ECJ1VB1H102K	1000P 50V	[M]
C1016	ECJ1VB1H222K	2200P 50V	[M]
C1017	ECJ1VB1H222K	2200P 50V	[M]
C1018	ECJ1VB1H103K	0.01 50V	[M]
C1019	ECJ1VB1H102K	1000P 50V	[M]
C1020	ECJ1VB1H471K	470P 50V	[M]
C1021	ECJ1VB1H471K	470P 50V	[M]
C1022	ECJ1VB1H102K	1000P 50V	[M]
C1023	ECJ1VB1H102K	1000P 50V	[M]
C1026	ECEA0JKA470B	47 6.3V	[M]
C1027	ECJ1VB1H102K	1000P 50V	[M]
C1030	ECEA1AKA101B	100 10V	[M]
C1031	ECEA1AKA101B	100 10V	[M]
C1032	F1C1C183A001	0.018 16V	[M]
C1033	F1C1C183A001	0.018 16V	[M]
C1034	ECEA1HKA3R3B	3.3 50V	[M]
C1035	ECEA1HKA3R3B	3.3 50V	[M]
C1036	ECJ1VB1C333K	0.033 16V	[M]
C1037	ECEA1HKA3R3B	3.3 50V	[M]
C1038	ECJ1VB1H221K	220P 50V	[M]
C1039	ECJ1VB1H221K	220P 50V	[M]
C1040	ECEA1CKA100B	10 16V	[M]
C1041	ECEA1CKA100B	10 16V	[M]
C1042	ECEA1CKA220B	22 16V	[M]
C1043	ECEA1HKA4R7B	4.7 50V	[M]
C1044	ECEA1AKA330B	33 10V	[M]
C1045	ECEA1AKA220B	22 10V	[M]
C1046	ECEA1CKA221B	220 16V	[M]
C1047	ECEA1HKA010B	1 50V	[M]
C1048	ECEA1HKA010B	1 50V	[M]
C1049	ECJ1VB1H102K	1000P 50V	[M]
C1050	ECJ1VB1H102K	1000P 50V	[M]
C1051	ECEA1HKA010B	1 50V	[M]
C1052	ECEA1HKA010B	1 50V	[M]
C1053	ECA1CM221B	220 16V	[M]
C1054	ECEA1HKA3R3B	3.3 50V	[M]
C1055	ECEA1HKA0R1B	0.1 50V	[M]
C1056	ECEA1CKA100B	10 16V	[M]
C1057	ECJ1VB1H102K	1000P 50V	[M]
C1058	ECJ1VB1H102K	1000P 50V	[M]
C1059	ECJ1VB1H103K	0.01 50V	[M]
C1060	ECJ1VB1H103K	0.01 50V	[M]
C1064	ECEA1HKA3R3B	3.3 50V	[M]
C1101	ECJ1VB1E103K	0.01 25V	[M]
C1102	ECEA1CKA100B	10 16V	[M]
C1103	ECJ1VB1E103K	0.01 25V	[M]
C1104	ECJ1VB1H102K	1000P 50V	[M]
C1106	ECJ1VB1E103K	0.01 25V	[M]
C1107	ECJ1VF1E473Z	0.047 25V	[M]
C1108	ECJ1VC1H080D	8P 50V	[M]
C1109	ECJ1VB1H102K	1000P 50V	[M]
C1110	ECJ1VB1E103K	0.01 25V	[M]
C1111	ECEA1HKA4R7B	4.7 50V	[M]
C1112	ECJ1VB1E103K	0.01 25V	[M]
C1113	ECJ1VB1H102K	1000P 50V	[M]
C1114	ECEA1HKA3R3B	3.3 50V	[M]
C1115	ECEA1HKA4R7B	4.7 50V	[M]
C1116	ECJ1VB1C333K	0.033 16V	[M]
C1117	ECJ1VB1E103K	0.01 25V	[M]
C1118	ECJ1VB1E103K	0.01 25V	[M]
C1119	F0A2A681A010	680P 100V	[M]
C1120	ECEA1CKA100B	10 16V	[M]
C1121	ECEA1HKAR47B	0.47 50V	[M]
C1122	ECEA1HKA010B	1 50V	[M]
C1123	ECEA1HKA010B	1 50V	[M]
C1124	ECJ1VC1H101K	100P 50V	[M]
C1125	ECEA1CKA220B	22 16V	[M]
C1126	ECJ2VF1C105Z	1 16V	[M]
C1127	ECEA1CKA220B	22 16V	[M]
C1129	ECEA0JKA101B	100 6.3V	[M]
C1130	ECEA0JKA101B	100 6.3V	[M]
C1131	ECJ1VC1H151J	150P 50V	[M]
C1132	ECJ1VB1H102K	1000P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C1133	ECJ1VC1H270J	27P 50V	[M]
C1134	ECJ1VC1H270J	27P 50V	[M]
C1136	ECJ1VB1H102K	1000P 50V	[M]
C1137	ECJ1VB1H332K	3300P 50V	[M]
C1138	ECJ1VB1E103K	0.01 25V	[M]
C1139	ECEA1HKA4R7B	4.7 50V	[M]
C1141	ECEA1HKA010B	1 50V	[M]
C1142	ECEA1HKA010B	1 50V	[M]
C1143	ECJ1VB1H472K	4700P 50V	[M]
C1144	ECJ1VB1H472K	4700P 50V	[M]
C1147	ECJ1VB1H102K	1000P 50V	[M]
C1148	ECJ1VB1E103K	0.01 25V	[M]
C1149	ECUV1C104ZFV	0.1 16V	[M]
C2100	ECUVNC104KBV	0.1 16V	[M]
C2101	ECEV1CA100SR	10 16V	[M]
C2101	ECJ1VB1H681K	680P 50V	[M]
C2102	ECJ1VC1H101K	100P 50V	[M]
C2103	ECJ1VB1H102K	1000P 50V	[M]
C2103	ECUVNC104KBV	0.1 16V	[M]
C2104	ECJ1VB1H221K	220P 50V	[M]
C2105	ECJ1VB1H221K	220P 50V	[M]
C2105	ECUVNC104KBV	0.1 16V	[M]
C2106	ECEA1CKA100B	10 16V	[M]
C2107	ECEA1CKA100B	10 16V	[M]
C2108	ECEA1CKA100B	10 16V	[M]
C2109	ECEA1CKA100B	10 16V	[M]
C2110	ECUVNC104KBV	0.1 16V	[M]
C2111	ECEA1CKA100B	10 16V	[M]
C2112	ECEA1CKA100B	10 16V	[M]
C2113	ECEA1HKAR33B	0.33 50V	[M]
C2114	ECEA1HKAR33B	0.33 50V	[M]
C2115	ECJ2VB1E273K	0.027 25V	[M]
C2116	ECJ2VB1E273K	0.027 25V	[M]
C2117	ECJ1VB1H222K	2200P 50V	[M]
C2118	ECEA1CKA100B	10 16V	[M]
C2119	ECQV1H474JZ3	0.47 50V	[M]
C2120	ECQV1H474JZ3	0.47 50V	[M]
C2120	ECUVNC104KBV	0.1 16V	[M]
C2121	ECEA1CKA100B	10 16V	[M]
C2122	ECJ2VB1E104K	0.1 25V	[M]
C2123	ECJ1VB1H222K	2200P 50V	[M]
C2124	ECEA1HKA3R3B	3.3 50V	[M]
C2125	ECJ1VC1H101K	100P 50V	[M]
C2126	ECJ1VC1H470J	47P 50V	[M]
C2127	ECEA1CKA100B	10 16V	[M]
C2128	ECEA1CKA100B	10 16V	[M]
C2129	ECEA1HKA010B	1 50V	[M]
C2130	F1H1H822A022	8200P 50V	[M]
C2131	ECJ1VB1H182K	1800P 50V	[M]
C2132	F1H1H822A022	8200P 50V	[M]
C2133	F1H1H822A022	8200P 50V	[M]
C2134	ECEA1HKA010B	1 50V	[M]
C2135	ECEA1HKA010B	1 50V	[M]
C2137	ECJ1VC1H101K	100P 50V	[M]
C2138	ECEA1HKA3R3B	3.3 50V	[M]
C2139	ECEA1HKA3R3B	3.3 50V	[M]
C2140	ECJ1VB1H102K	1000P 50V	[M]
C2141	ECJ1VC1H470J	47P 50V	[M]
C2142	ECJ1VC1H101K	100P 50V	[M]
C2143	ECJ1VB1H681K	680P 50V	[M]
C2144	ECEA1CKA100B	10 16V	[M]
C2145	ECEA1CKA100B	10 16V	[M]
C2146	ECJ2VB1E104K	0.1 25V	[M]
C2147	ECEA1CKA100B	10 16V	[M]
C2162	ECEV1CA100SR	10 16V	[M]
C2200	ECEV1CA100SR	10 16V	[M]
C2201	ECEV1CA100SR	10 16V	[M]
C2202	ECJ1VC1H330J	33P 50V	[M]
C2203	ECEV1CA100SR	10 16V	[M]
C2204	ECJ1VB1H221K	220P 50V	[M]
C2300	ECUVNC104KBV	0.1 16V	[M]
C2301	ECEV1CA100SR	10 16V	[M]
C2302	ECUVNC104KBV	0.1 16V	[M]
C2303	ECUVNC104KBV	0.1 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2304	ECEV1CA100SR	10 16V	[M]
C2305	ECUVNC104KBV	0.1 16V	[M]
C2350	ECUVNC104KBV	0.1 16V	[M]
C2351	ECUVNC104KBV	0.1 16V	[M]
C2352	ECUVNC104KBV	0.1 16V	[M]
C2353	ECUVNC104KBV	0.1 16V	[M]
C2354	ECUVNC104KBV	0.1 16V	[M]
C2355	ECUVNC104KBV	0.1 16V	[M]
C2356	ECUVNC104KBV	0.1 16V	[M]
C2357	ECUVNC104KBV	0.1 16V	[M]
C2358	ECJ1VC1H150J	15P 50V	[M]
C2359	ECJ1VC1H050D	5P 50V	[M]
C2360	ECUVNC104KBV	0.1 16V	[M]
C2361	ECEV1CA101WP	100 16V	[M]
C2362	ECUVNC104KBV	0.1 16V	[M]
C2363	ECUVNC104KBV	0.1 16V	[M]
C2364	ECEV1CA101WP	100 16V	[M]
C2365	ECUVNC104KBV	0.1 16V	[M]
C2366	EEVFC1C470P	47P 16V	[M]
C2367	ECJ1VC1H471J	470P 50V	[M]
C2368	ECJ1VC1H471J	470P 50V	[M]
C2369	ECEV1CA101WP	100 16V	[M]
C2370	ECUVNC104KBV	0.1 16V	[M]
C2371	ECUVNC104KBV	0.1 16V	[M]
C2372	ECUVNC104KBV	0.1 16V	[M]
C2373	EEVHB0J470R	47P 6.3V	[M]
C2374	ECJ1VB1C103K	0.01 16V	[M]
C2400	ECEV1CA100SR	10 16V	[M]
C2401	ECEV1CA100SR	10 16V	[M]
C2402	ECJ1VC1H330J	33P 50V	[M]
C2403	ECEV1CA100SR	10 16V	[M]
C2404	ECJ1VB1H221K	220P 50V	[M]
C2701	ECJ1VB1H681K	680P 50V	[M]
C2701	ECUVNC104KBV	0.1 16V	[M]
C2702	ECJ1VC1H101K	100P 50V	[M]
C2702	ECUVNC104KBV	0.1 16V	[M]
C2703	ECJ1VB1H102K	1000P 50V	[M]
C2703	ECUVNC104KBV	0.1 16V	[M]
C2704	ECJ1VB1H221K	220P 50V	[M]
C2705	ECJ1VB1H221K	220P 50V	[M]
C2706	ECEA1CKA100B	10 16V	[M]
C2707	ECEA1CKA100B	10 16V	[M]
C2708	ECEA1CKA100B	10 16V	[M]
C2709	ECEA1CKA100B	10 16V	[M]
C2711	ECEA1CKA100B	10 16V	[M]
C2712	ECEA1CKA100B	10 16V	[M]
C2713	ECEA1HKAR33B	0.33 50V	[M]
C2714	ECEA1HKAR33B	0.33 50V	[M]
C2715	ECJ2VB1E273K	0.027 25V	[M]
C2716	ECJ2VB1E273K	0.027 25V	[M]
C2717	ECJ1VB1H222K	2200P 50V	[M]
C2718	ECEA1CKA100B	10 16V	[M]
C2719	ECQV1H474JZ3	0.47 50V	[M]
C2720	ECQV1H474JZ3	0.47 50V	[M]
C2721	ECEA1CKA100B	10 16V	[M]
C2722	ECJ2VB1E104K	0.1 25V	[M]
C2723	ECJ1VB1H222K	2200P 50V	[M]
C2724	ECEA1HKA3R3B	3.3 50V	[M]
C2725	ECJ1VC1H101K	100P 50V	[M]
C2726	ECJ1VC1H470J	47P 50V	[M]
C2727	ECEA1CKA100B	10 16V	[M]
C2728	ECEA1CKA100B	10 16V	[M]
C2729	ECEA1HKA010B	1 50V	[M]
C2730	F1H1H822A022	8200P 50V	[M]
C2731	ECJ1VB1H182K	1800P 50V	[M]
C2732	F1H1H822A022	8200P 50V	[M]
C2733	F1H1H822A022	8200P 50V	[M]
C2734	ECEA1HKA010B	1 50V	[M]
C2735	ECEA1HKA010B	1 50V	[M]
C2737	ECJ1VC1H101K	100P 50V	[M]
C2738	ECEA1HKA3R3B	3.3 50V	[M]
C2739	ECEA1HKA3R3B	3.3 50V	[M]
C2740	ECJ1VB1H102K	1000P 50V	[M]
C2741	ECJ1VC1H470J	47P 50V	[M]



Ref. No.	Part No.	Part Name & Description	Remarks
W7033	ERJ3GEY0R00V	0 1/16W	[M]
W7034	ERJ3GEY0R00V	0 1/16W	[M]
W7035	ERJ3GEY0R00V	0 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
W7036	ERJ3GEY0R00V	0 1/16W	[M]
W7040	ERJ3GEY0R00V	0 1/16W	[M]
W7046	ERJ3GEY0R00V	0 1/16W	[M]

## 24.5. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX1328	PACKING CASE	[M] GC
P1	RPGX1329	PACKING CASE	[M] GS
P2	RPNX0269	POLYFOAM	[M]
P3	RPFX0007	MIRAMAT BAG	[M]
		ACCESSORIES	

Ref. No.	Part No.	Part Name & Description	Remarks
A1	N2QAJB000117	REMOTE CONTROL	[M]
A1-1	RKK-HTR0283G	R/C BATTERY COVER	[M]
A2	RJA0019-2A	AC CORD	[M] △
A2	RJA0053-3X	AC CORD	[M] GS △
A3	RQT7703-L	O/I BOOK (En/Pe/Ar)	[M]
A4	RSA0006-J	FM ANTENNA	[M]
A5	N1DADYY00002	AM LOOP ANTENNA	[M]
A6	RJL1P016B15A	VIDEO CABLE	[M]

## 24.6. Packaging

P2 (RPNX0269) -   
 \*P2 (A)   
 \*P2 (B)

ACCESSORIES CASE  
A1: REMOTE CONTROL  
A2: AC CORD  
A3: O/I BOOK  
A4: FM ANTENNA  
A5: AM LOOP ANTENNA  
A6: VIDEO CABLE  
A7: AC CORD ADAPTOR

