

Service Manual

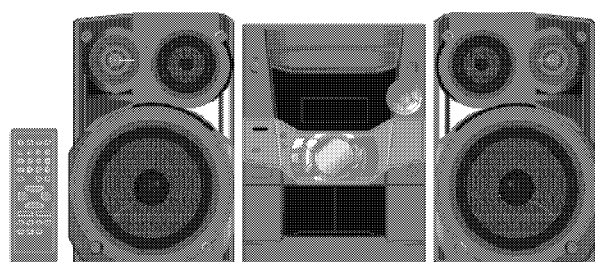
CD Stereo System



SA-AK411GCP

Colour

(S)... Silver Type



Remote Control Transmitter

SA-AK411

SB-AK410

TAPE SECTION :
SG-2W MECHANISM SERIES

Specifications

■ AMPLIFIER SECTION

Power output	
10% Total harmonic distortion	
1kHz, both channels driven	
(Low channel)	75 W per channel (6 Ω)
10kHz, both channels driven	
(High channel)	75 W per channel (6 Ω)
Total Bi-Amp power	150 W per channel
Input sensitivity	
AUX	250 mV
Input Impedance	
AUX	13.3 k Ω

■ FM TUNER SECTION

Frequency range	87.50 - 108.00 MHz (50 kHz steps)
Sensitivity	2.5 μ V (IHF)
S/N 26 dB	2.2 μ V
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 μ V/m

■ CASSETTE DECK SECTION

Track system	4 track, 2 channel
Heads	

Record/playback	Solid permalloy head
Erase	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 (1 7/8 ips)
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

Sampling frequency	44.1 kHz
Decoding	16 bit linear
Beam source/wave length	Semiconductor laser/780 nm
Number of channels	Stereo
Frequency response	20 Hz - 20 kHz (+1, -2 dB)
Wow and flutter	Below measurable limit
Digital filter	8 fs
D/A converter	MASH (1 bit DAC)

■ GENERAL

Power Supply	AC 110/127/220-230/240 V, 50/60Hz
Power consumption	

Panasonic

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For GC only	251 W
Power Consumption in standby mode	0.85 W
Dimensions (W x H x D)	250 x 330 x 370 mm
Mass	7.8kg
■ SYSTEM	
SC-AK411 (GCP)	Music center: SA-AK411 (GCP)

Speaker: SB-AK410 (GC)

Notes:

1. Specifications are subject to change without notice. Mass and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.
3. The labels "HIGH" and "LOW" on the rear of the speakers refer to High frequency and Low frequency.

⚠ 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 Before Use

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.)

2 Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C520 and C540 through a 10 Ω , 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 240V, 50Hz in NO SIGNAL mode should be ~350mA.

3 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.

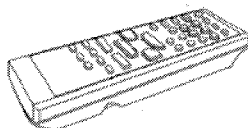
If this occurs, follow the procedure outlines below:

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.

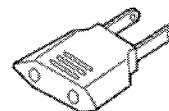
Note:

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

4 Accessories



Remote control transmitter



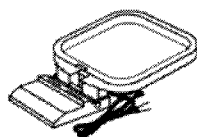
Power plug adaptor



FM indoor antenna



AC power supply cord

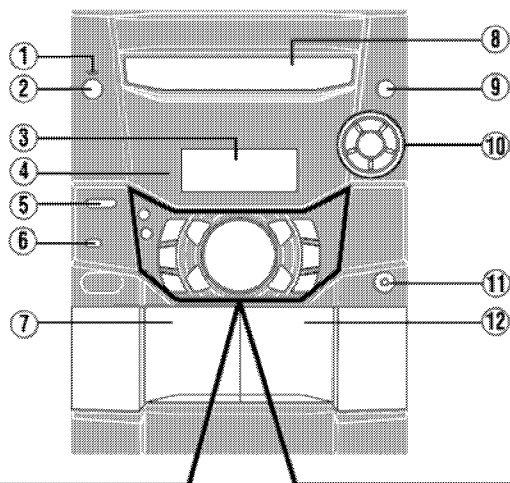


AM Loop antenna

5 Operation Procedures

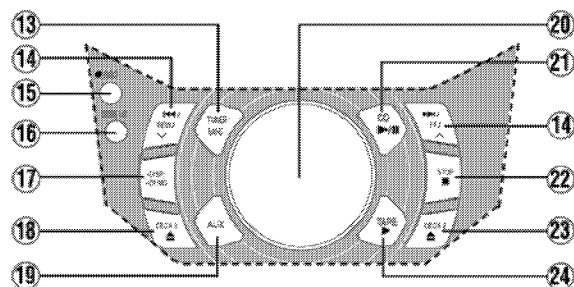
Front panel controls

Main unit



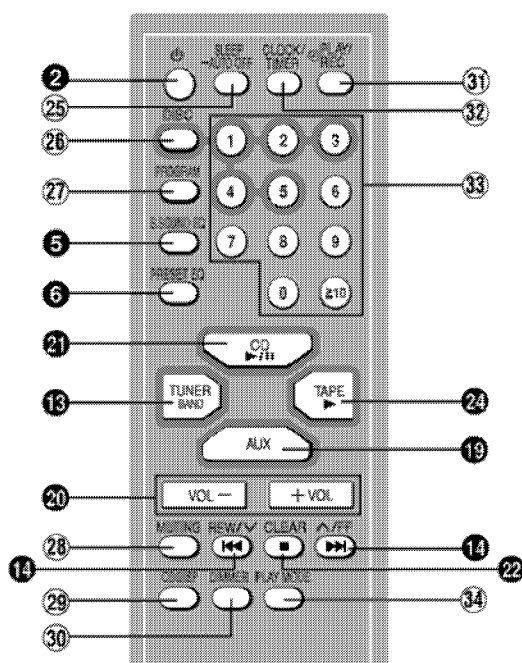
- ① **AC supply indicator (AC IN)**
This indicator lights when the unit is connected to the AC mains supply.
- ② **Standby/on switch (⏻/⏻)**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ③ **Display**
- ④ **Remote control signal sensor**
- ⑤ **Super sound EQ button (SUPER SOUND EQ)**
- ⑥ **Preset EQ select button (PRESET EQ)**
- ⑦ **Deck 1 cassette holder**
- ⑧ **Disc tray**
- ⑨ **CD tray open/close button (⏻, OPEN/CLOSE)**
- ⑩ **Disc direct play buttons (1 ~ 5)**
- ⑪ **Headphones jack (PHONES)**
- ⑫ **Deck 2 cassette holder**

Center console



- ⑬ **Tuner/band select button (TUNER/BAND)**
- ⑭ **CD skip/search, tape fast-forward/rewind, tune/preset channel select, time adjust buttons (◀◀/REW/V, ▶▶/FF/△)**
- ⑮ **Record button (● REC)**
- ⑯ **Deck select button (DECK 1/2)**
- ⑰ **Display, demonstration button (-DISP/-DEMO)**
- ⑱ **Deck 1 open button (⏻, DECK 1)**
- ⑲ **AUX button (AUX)**
- ⑳ **Volume control (VOLUME DOWN, UP)**
- ㉑ **CD play/pause button (▶/II, CD)**
- ㉒ **Stop/program clear button (■, STOP)**
- ㉓ **Deck 2 open button (⏻, DECK 2)**
- ㉔ **Tape play button (▶, TAPE)**

Remote control



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

- ㉕ **Sleep timer/auto off button (SLEEP, -AUTO OFF)**
- ㉖ **Disc button (DISC)**
- ㉗ **Program button (PROGRAM)**
- ㉘ **Muting button (MUTING)**
- ㉙ **CD display button (CD DISP)**
- ㉚ **Dimmer button (DIMMER)**
- ㉛ **Play timer/record timer button (⌚PLAY/REC)**
- ㉜ **Clock/timer button (CLOCK/TIMER)**
- ㉝ **Numbered buttons (⌚10, 1-9, 0)**
- ㉞ **Play mode select button (PLAY MODE)**

6 Handling the Lead-free 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 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.

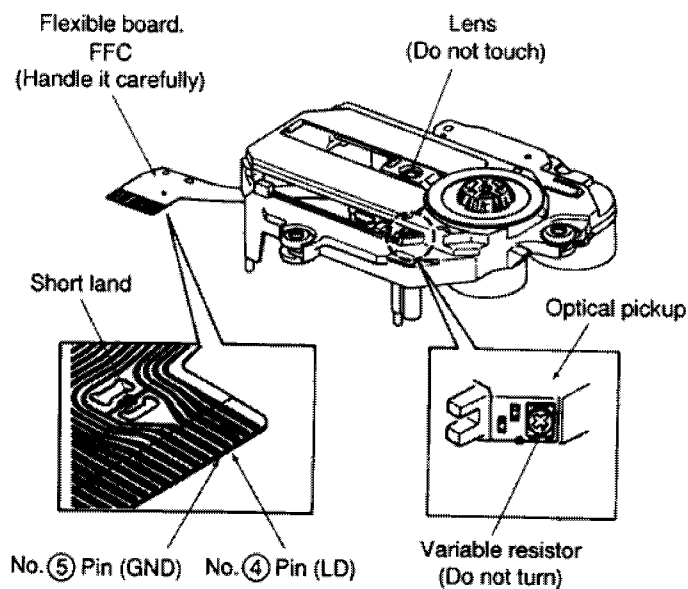
7 Handling Precautions For Traverse Deck

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

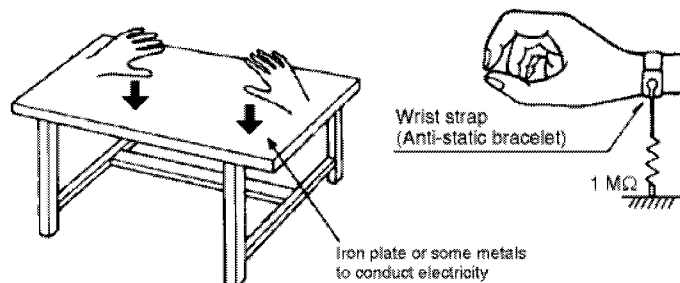
Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

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 Operation Checks and 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.

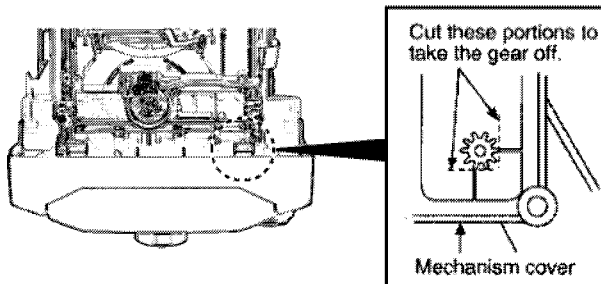
Warning:

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

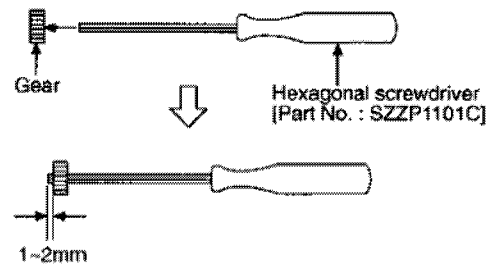
Gear for servicing (jig) information

1. This unit has a gear which is used for checking items (Open/close of disc tray, up/down operation of traverse unit by manually) when servicing.
2. For preparation of gear (for servicing), Perform the procedures as follows.
3. In case of re-servicing the same set, the "gear for servicing" may have been taken off because it has been used.
The "gear for servicing" must be stored.

1. Remove the gear provided with mechanism cover as shown below.



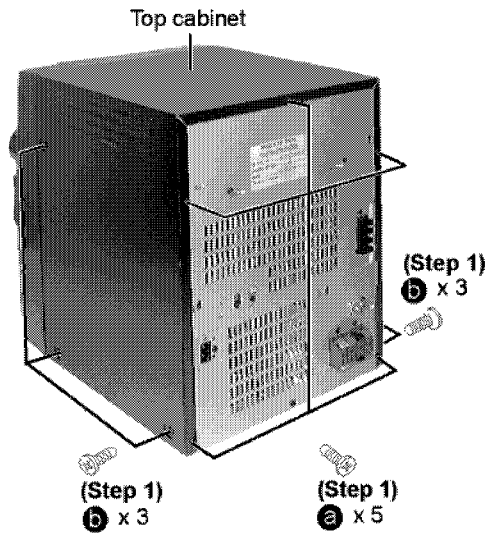
2. Insert the hexagonal screwdriver (2mm) into the gear, and then project the tip of screwdriver for 1~2mm in length.



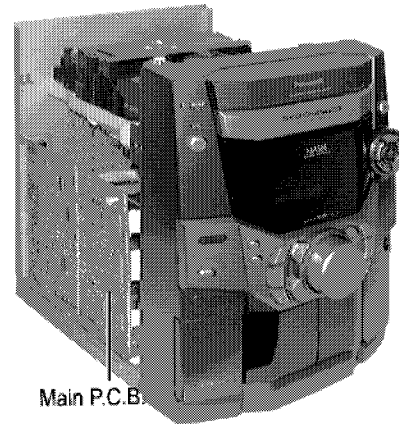
8.1. Checking for Main P.C.B.

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.



• Checking the Main P.C.B. as shown below.



8.2. Disassembly for the CD changer ass'y

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

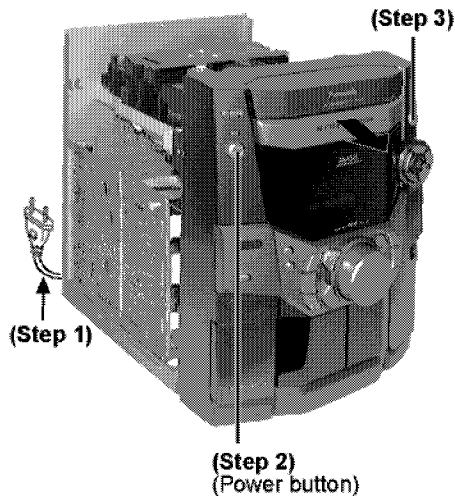
• Follow the (Step 1) - (Step 2) of Item 8.1.

When opening the disc tray automatically (Using Power Supply)

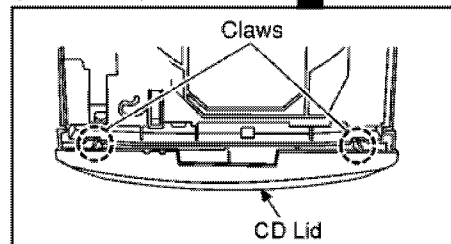
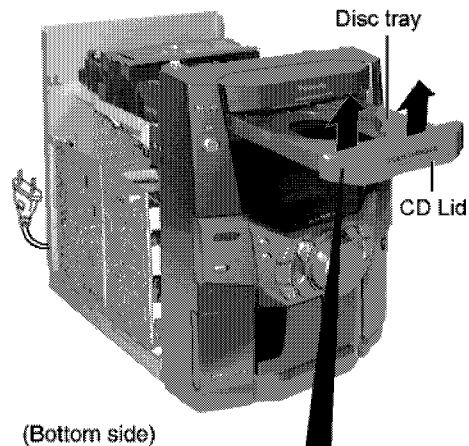
Step 1 Connect the AC power cord.

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

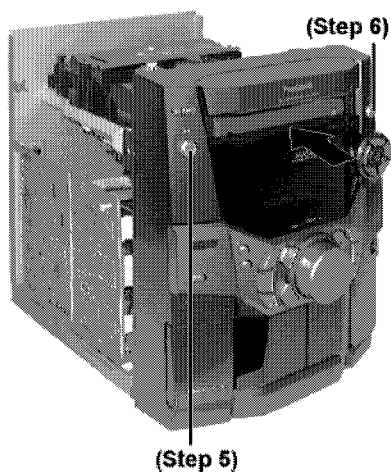
Step 3 Press the OPEN/CLOSE button, the disc tray will be open automatically.



8.2.1. Disassembly for the CD Lid



Step 4 Release the 2 claws, and then remove the CD Lid.

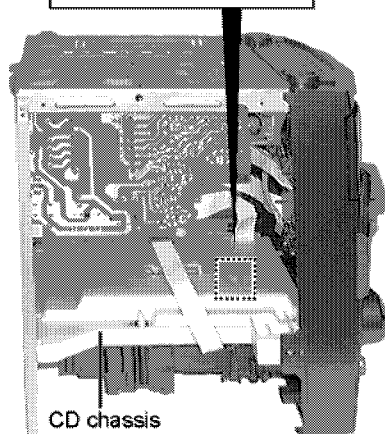
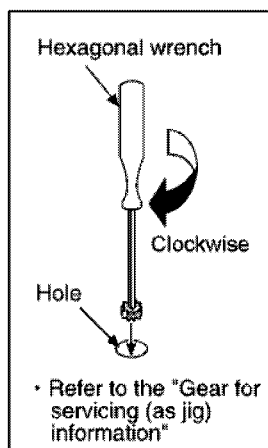


Step 5 Press the POWER button to turn the power on.

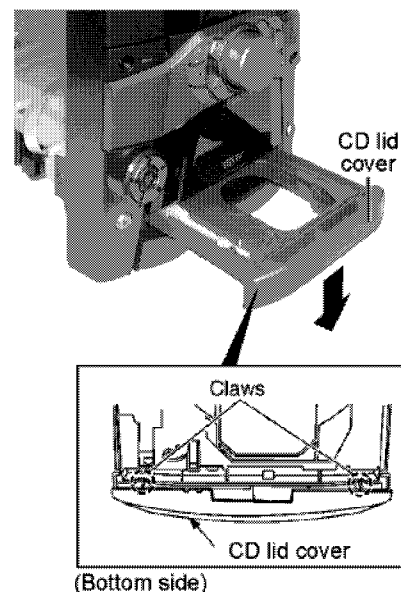
Step 6 Press the OPEN/CLOSE button, the disc tray will be close.

[Open the disc tray manually (Using service tools)]

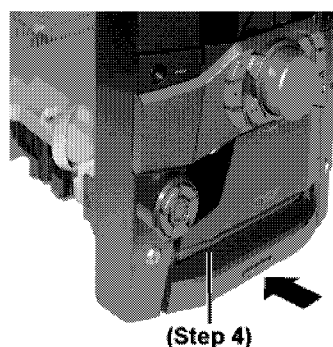
Step 1 Upset the unit as shown below.



Step 2 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 3 Release the 2 claws, and then remove the CD lid cover.



Step 4 Push the disc tray.

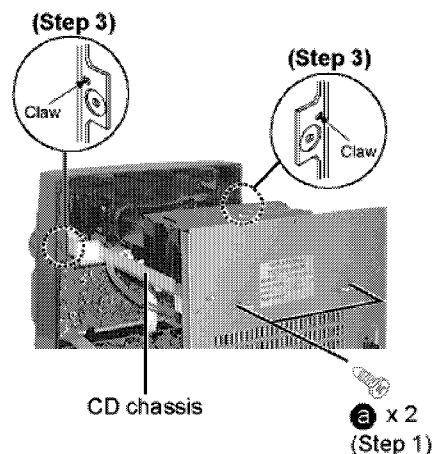
8.2.2. Disassembly for CD changer unit

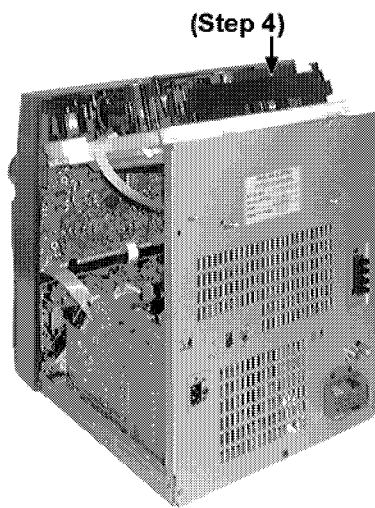
- Follow the (Step 1) - (Step 2) of Item 8.1.
- Follow the Disassembly for the CD Lid of Item 8.2.1.

Step 1 Remove 2 screws at rear cabinet as show below.

Step 2 Lift up the mechanism unit cover, and then push in the mechanism unit cover.

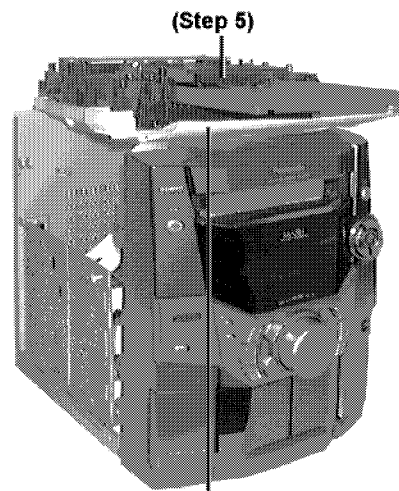
Step 3 Release the claws of both ends, and then lift up the CD changer unit.





Step 4 Upset the CD changer unit.

Step 5 Place the CD changer unit on the unit.



NOTE:
Cover the front panel
ass'y with cloth to
prevent from damage.

<The preparation of checking procedures in operational
condition is completed>

8.3. Checking for the unit operational condition

(Place the unit horizontally when loading the CD changer unit.)

8.3.1. Initial setting of CD

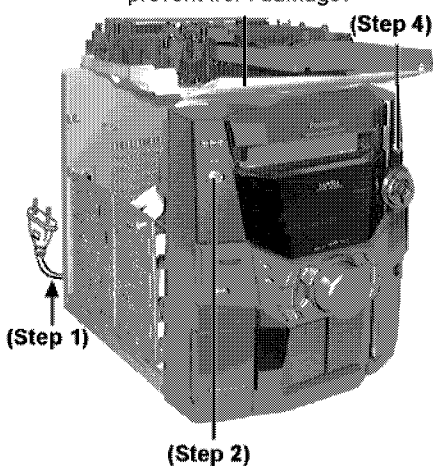
- Follow the (Step 1) - (Step 2) of Item 8.1.
- Follow the Disassembly for the CD Lid of Item 8.2.1.

Step 1 Connect the AC power cord.

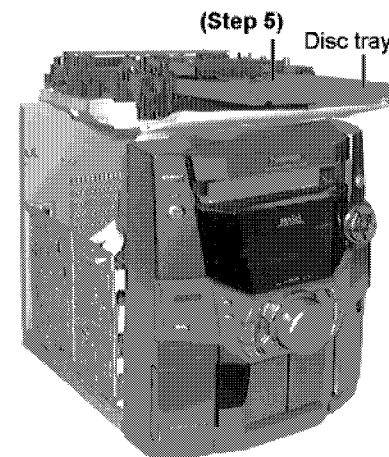
Step 2 Press POWER button to turn on power for main unit.

Step 3 Select the input select button to "CD".

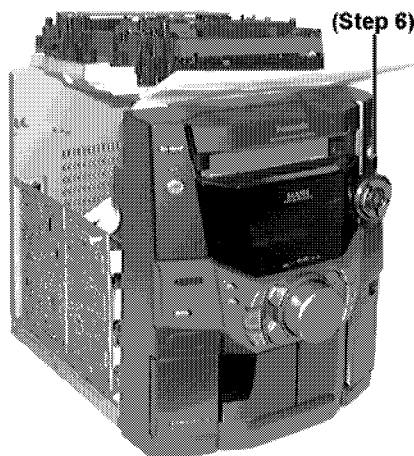
NOTE:
Cover the front panel
ass'y with cloth to
prevent from damage.



Step 4 Push the OPEN/CLOSE button, and then open the disc tray.



Step 5 Put the CD into the disc tray.



Step 6 Press the OPEN/CLOSE button 1, and then close the disc tray. (Then, the CD will load.)

<The initial setting of CD unit is completed.>

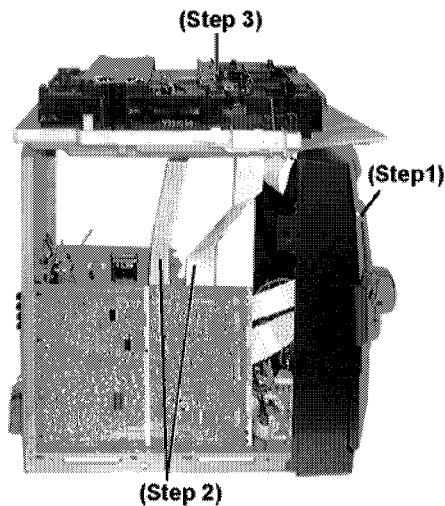
8.3.2. Checking for the CD Servo P.C.B., Panel P.C.B., Deck P.C.B., Transformer P.C.B. and Power P.C.B.

- Follow the (Step 1) - (Step 2) of Item 8.1.
- Follow the Disassembly for the CD Lid of Item 8.2.1.
- The initial setting of CD unit must be completed. (Refer to the initial setting of CD unit in Item 8.3.1).
- **Check for CD Servo P.C.B.**
- The initial setting of CD unit must be completed. (Refer to the initial setting of CD unit in item 8.3.1.)

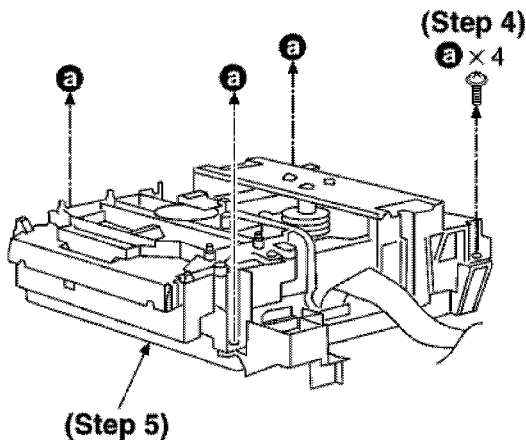
Step 1 Push the power button and the power turns OFF.

Step 2 Remove the FFC boards.

Step 3 Remove the CD changer unit.



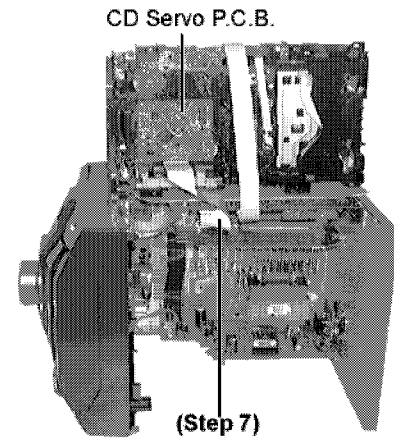
Step 4 Remove 4 screws.



Step 5 Remove the mechanism unit cover.

- Check the CD Servo P.C.B. as shown below

Step 6 Lay the unit.



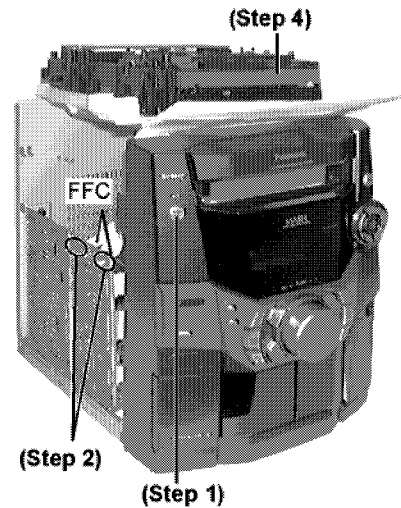
Step 7 Connect the FFC board (19 pin) from CD servo P.C.B..

Step 1 Press the POWER button and the power turns off.

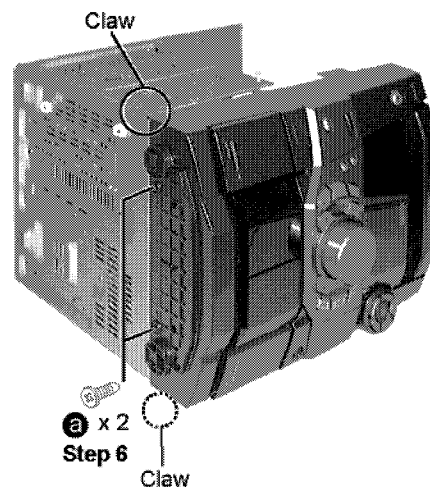
Step 2 Remove the connectors.

Step 3 Pull out the FFCs.

Step 4 Remove the CD changer unit.



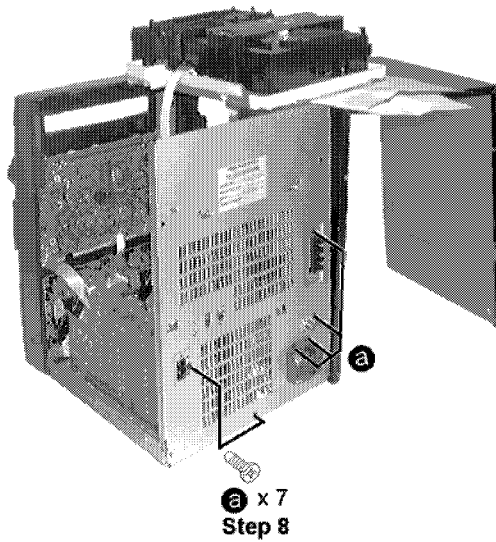
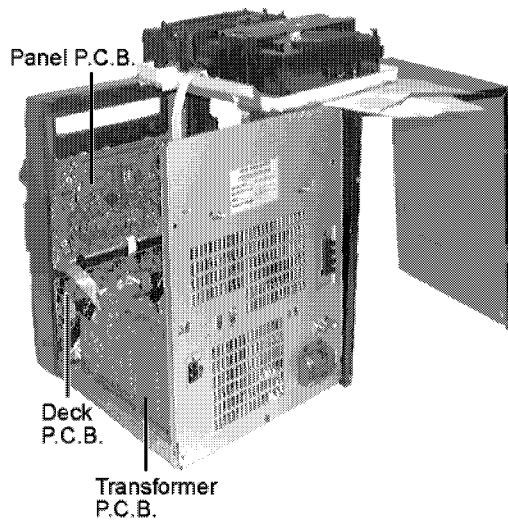
Step 5 Lay the unit as shown below.



Step 6 Remove 2 screws.

Step 7 Release the 2 claws, and then draw the front panel ass'y.

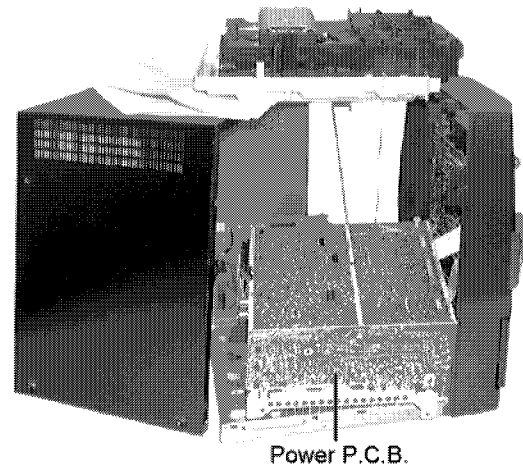
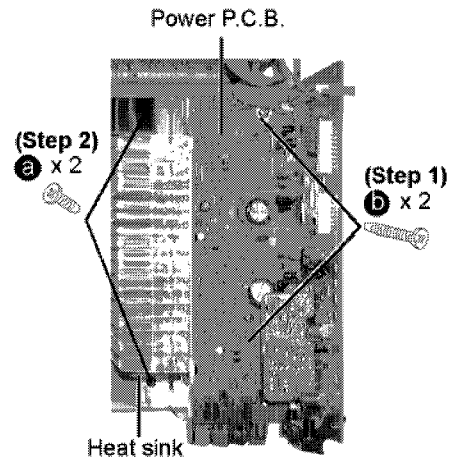
- Check the Panel P.C.B., Deck P.C.B. and Transformer P.C.B. as shown below



Step 8 Release the 6 screws, and then remove the rear cover.

- Checking the Power P.C.B. as shown below

- Follow the (Step 1) - (Step 2) of Item 8.1.
- Follow the (Step 1) - (Step 6) of Disassembly for the CD Lid of Item 8.2.1.
- Follow the (Step 1) - (Step 8) of Checking for Panel P.C.B., Deck P.C.B., Transformer P.C.B. and Power P.C.B. of Item 8.3.2.



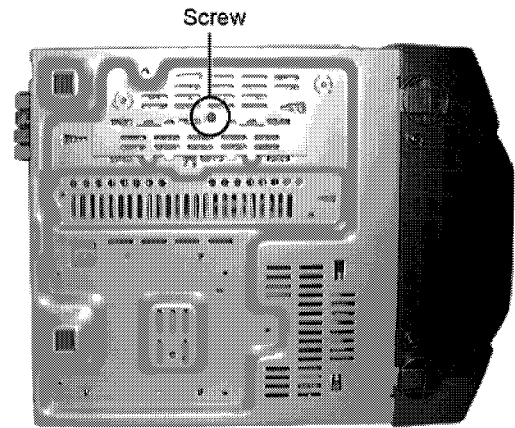
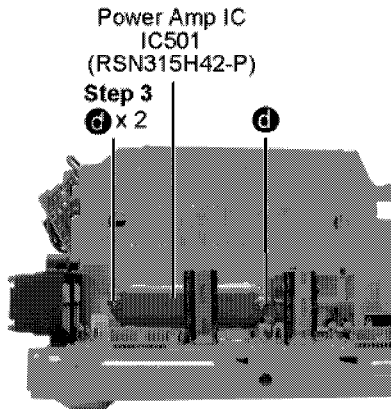
NOTE:

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

8.3.3. Replacement of the Power Amplifier IC

- Checking the Power P.C.B.
- Follow the (Step 1) - (Step 2) of Item 8.1.

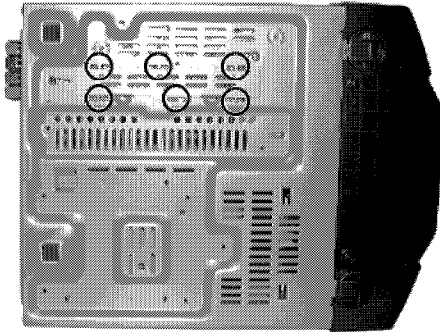
Step 1 Remove the 2 screws fixed to the Power Amplifier IC.



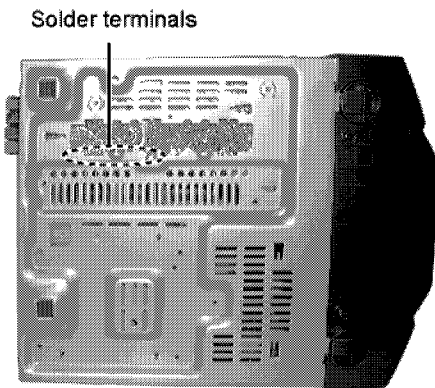
Step 5 Fix back the chassis with a screw as shown.

Step 2 Remove 2 screws fixed to the Power Amplifier IC and Transistor Holders.

Step 3 Break the joint with a metal cutter as shown below.



Step 4 Unsolder the terminals of Power Amp IC, and replace the component.

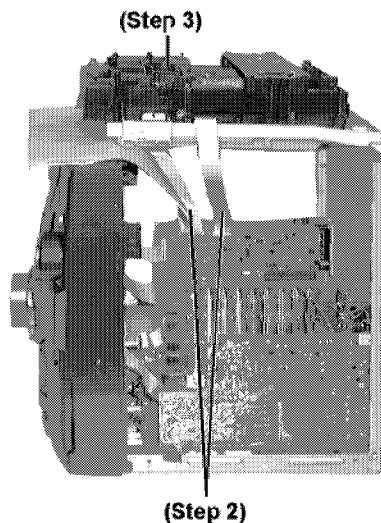


8.4. Main Component Replacement Procedures

8.4.1. Replacement of the Traverse Deck

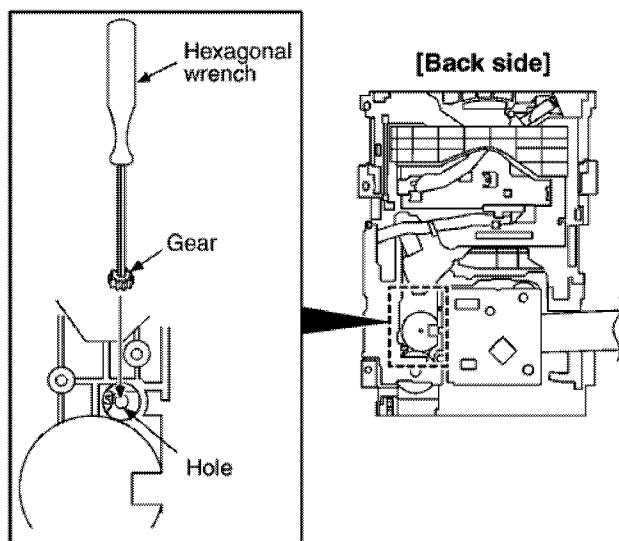
- Follow the (Step 1) - (Step 2) of Item 8.1.
- Follow the (Step 1) - (Step 6) of Disassembly for the CD Lid of Item 8.2.1.
- Follow the disassembly instruction for the CD changer unit of Item 8.2.2.

Step 1 Push the power button and the power turns OFF.

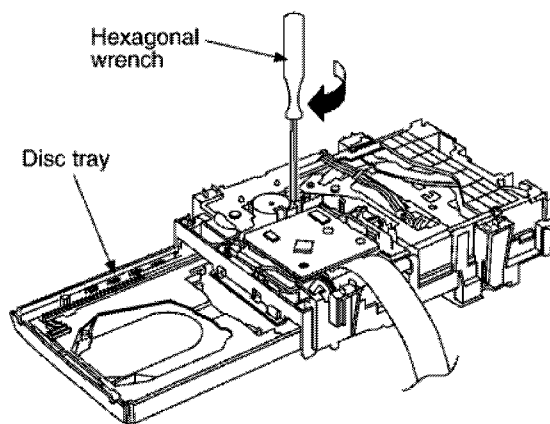


Step 2 Remove the FFC boards.

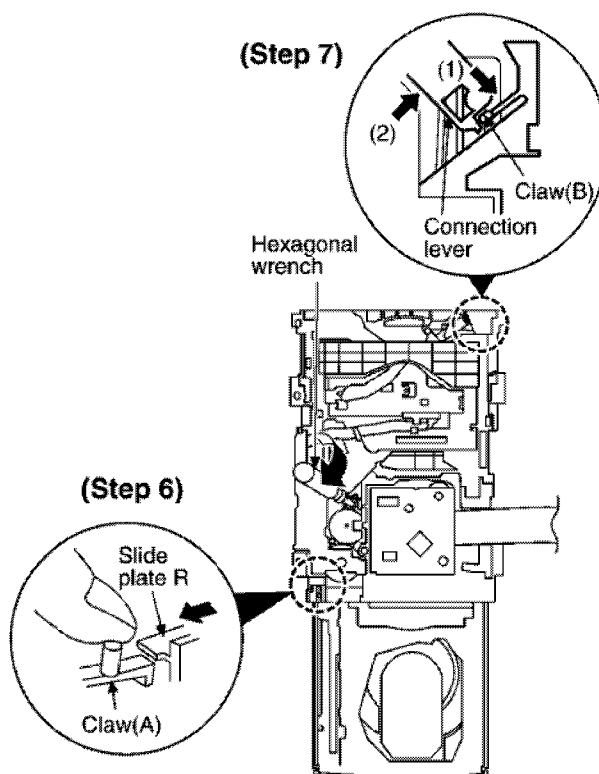
Step 3 Remove the CD changer unit.



Step 4 Insert the gear with hexagonal wrench into the hole.

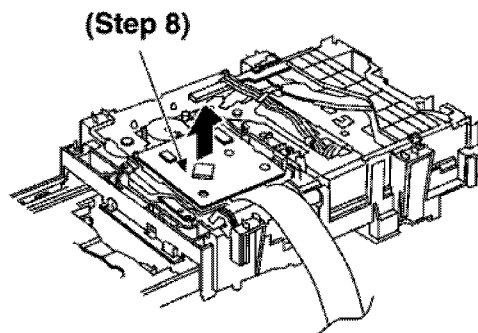


Step 5 Rotate the hexagonal wrench in the direction of arrow (clockwise), and then open the disc tray fully.

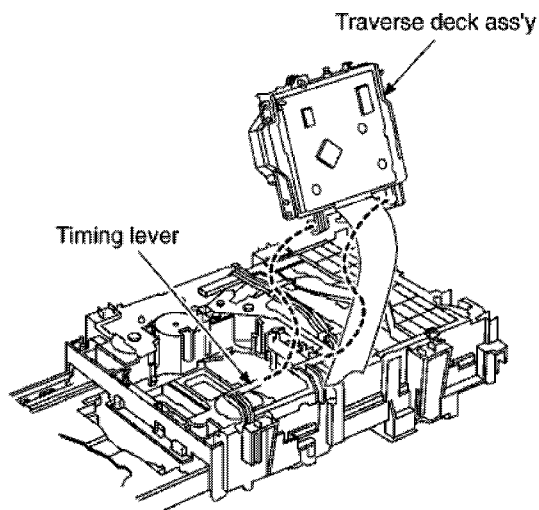


Step 6 With pressing the claw (A), rotate the hexagonal wrench clockwise. (The slide plate R moves for a little amount.)

Step 7 Pressing the claw (B) in the direction of arrow (1), the connection lever moves in the direction of arrow (2).



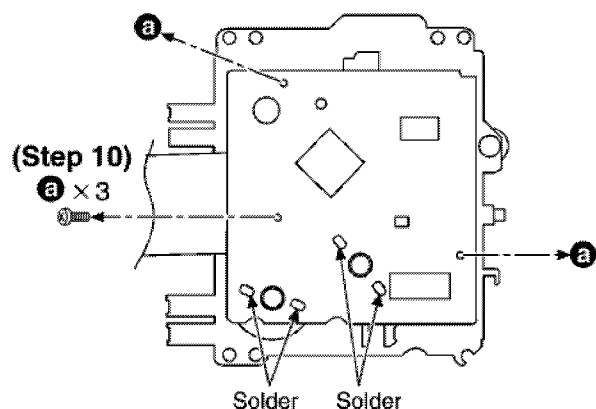
Step 8 Lift up the traverse deck ass'y.



Step 9 Remove the traverse deck ass'y from the timing lever.

Caution:

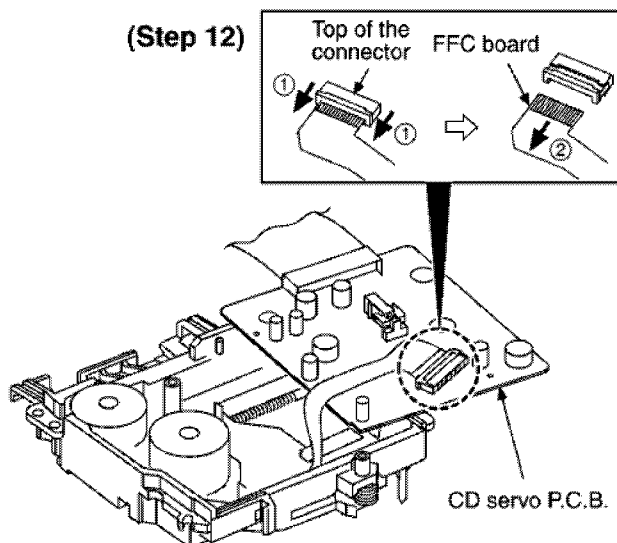
When removing or inserting the traverse deck avoid touching the OPU lens and pressing onto the turntable.



Step 10 Remove 3 screws.

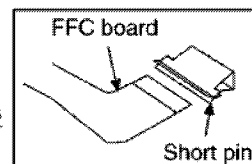
Step 11 Unsolder the motor terminals (4 points).

(Step 12)

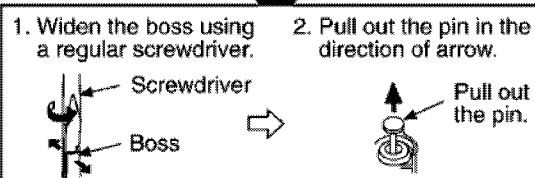
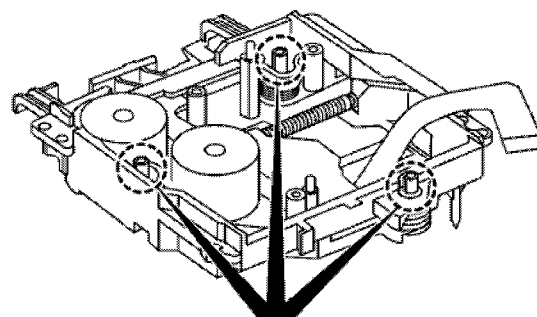


Caution:

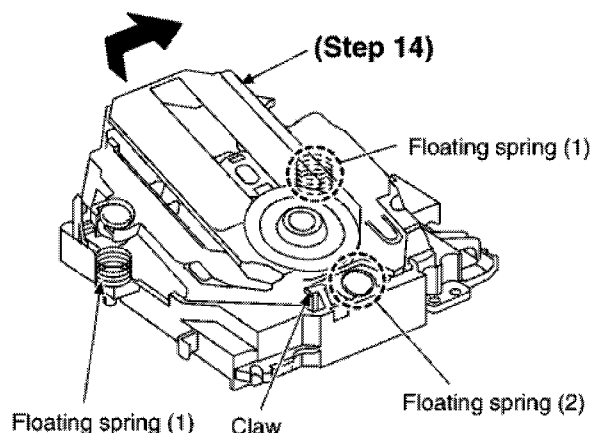
Insert a short pin into the traverse unit FFC board.
(Refer to "Handling Precautions for Traverse Deck".)



Step 12 Remove the FFC board from the connector, and then remove the CD Servo P.C.B.



Step 13 Remove the pin.



Step 14 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.

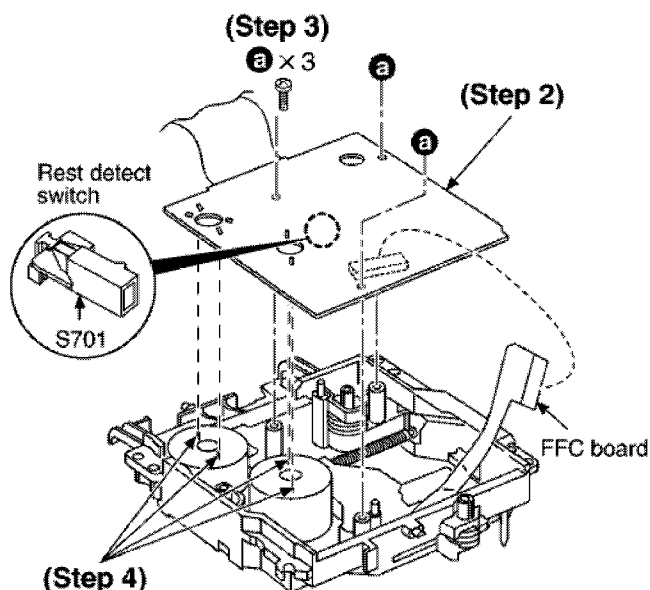
- **Installation of the CD Servo P.C.B. after replacement**

Step 1 Connect the FFC board.

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

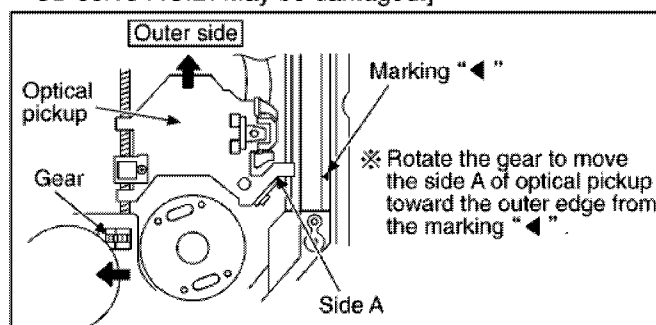
Step 3 Remove 3 screws.

Step 4 Solder.

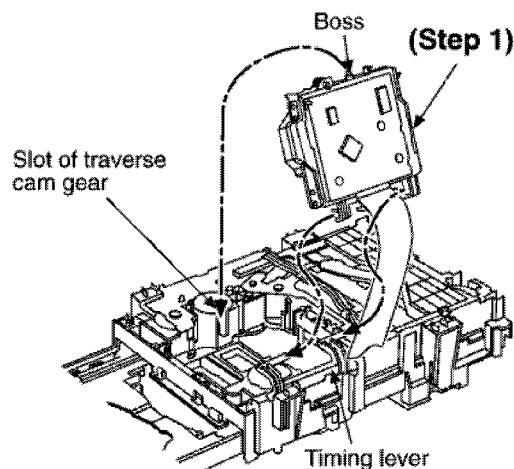


- **Note for installation of the CD servo P.C.B.**

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.]

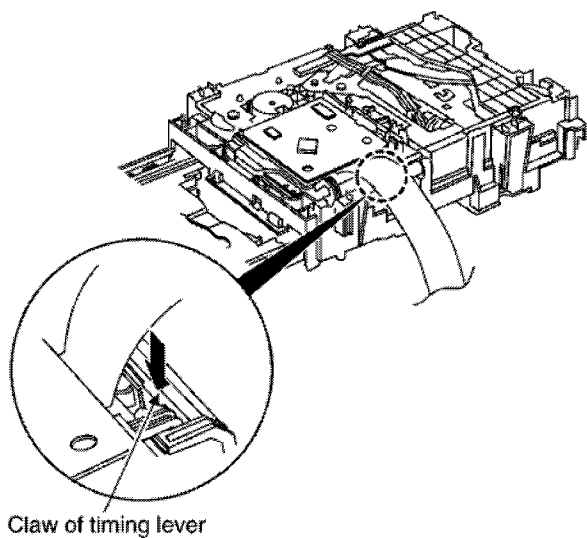


- **Installation for traverse deck ass'y**



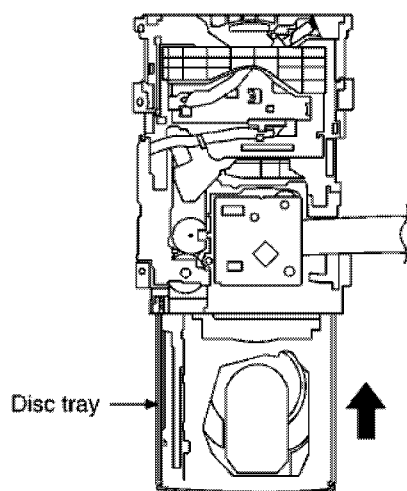
Step 1 Install the traverse deck ass'y to the timing lever.

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

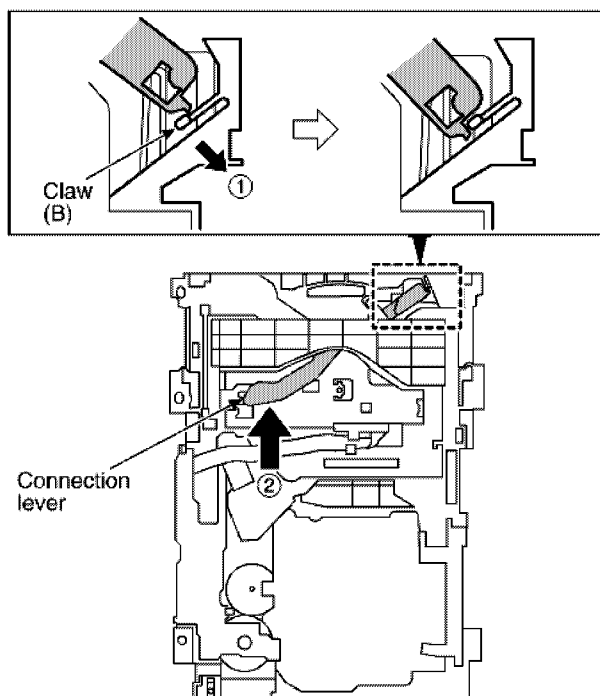


Claw of timing lever

Step 3 Force the claw of timing lever.



Step 4 Force the disc tray fully.

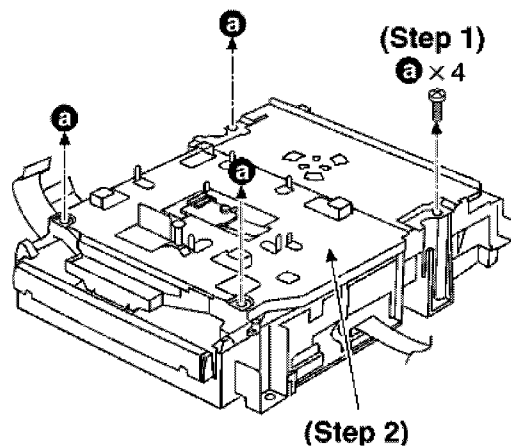


Step 5 With pressing the claw (B) in the direction of arrow (1), force the connection lever in the direction of arrow (2).

8.5. Replacement for the disc tray

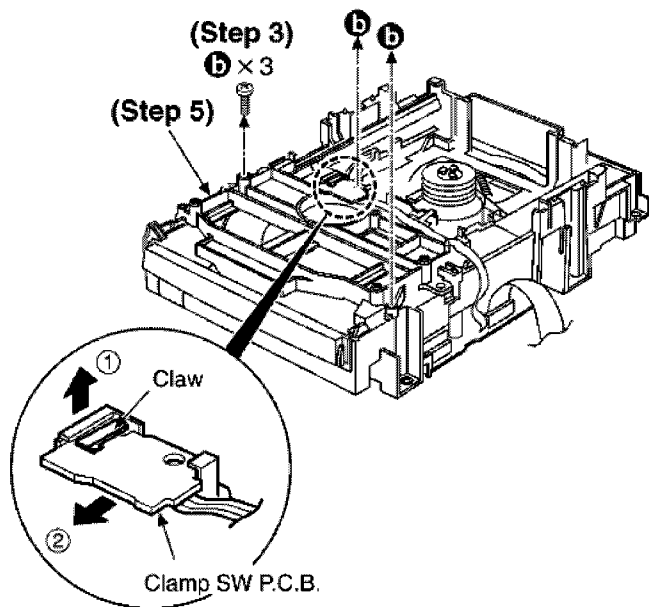
- Follow the (Step 1) - (Step 2) of Item 8.1
- Follow the Disassembly for the CD Lid of Item 8.2.1.
- Follow the Disassembly for the CD Changer Unit of Item 8.2.2.
- Follow the (Step 1) - (Step 8) of Item 8.4

Step 1 Remove 4 screws.



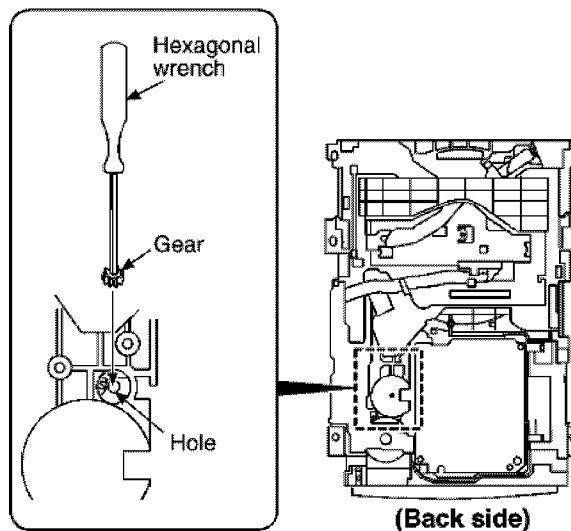
Step 2 Remove the upper plate.

Step 3 Remove 3 screws.

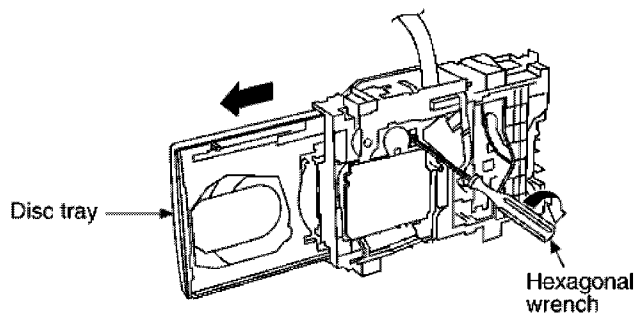


Step 4 With lifting the claw in the direction of (1), draw the clamp SW P.C.B. in the direction of arrow (2).

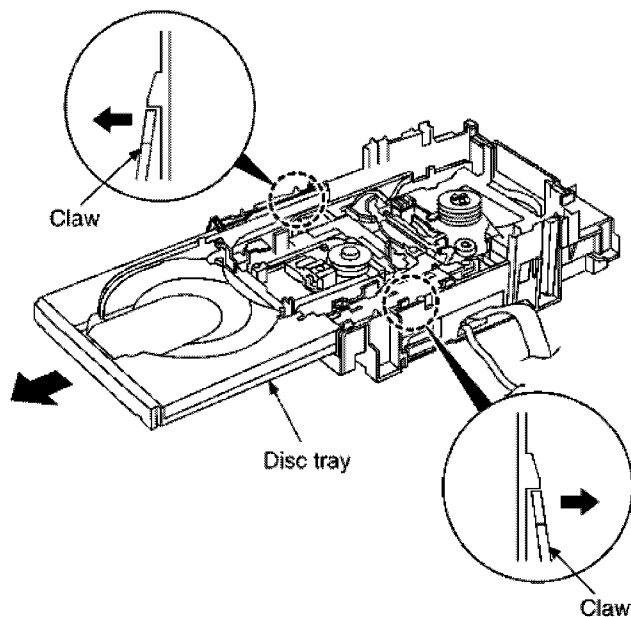
Step 5 Remove the mechanism cover.



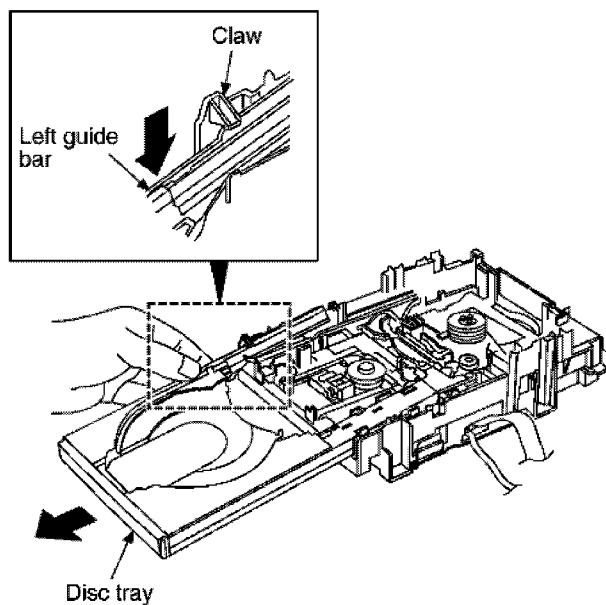
Step 6 Insert the gear with hexagonal wrench into the hole.



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

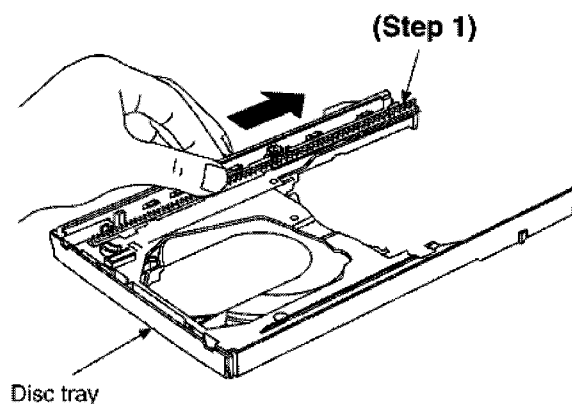


Step 8 Release the both claws, and then draw the disc tray.

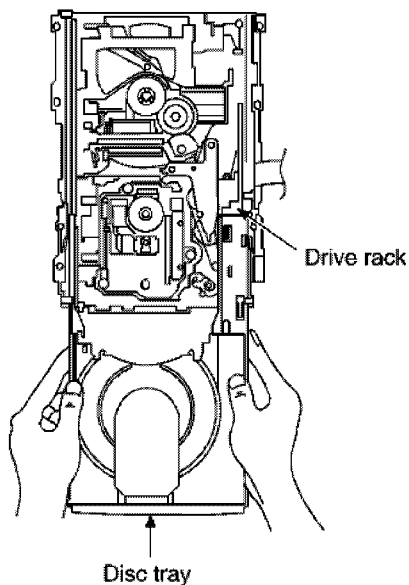


Step 9 With forcing the left guide bar manually because the left guide bar interferes with claw, draw the disc tray.

[Installation of the disc tray after replacement]

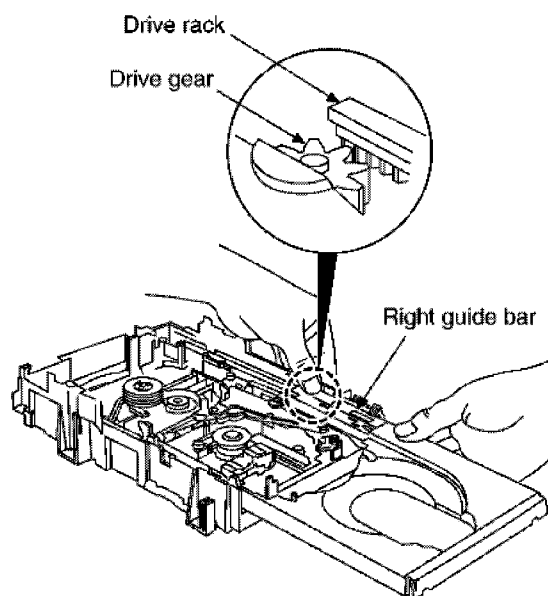


Step 1 Slide the drive rack fully in the direction of arrow.



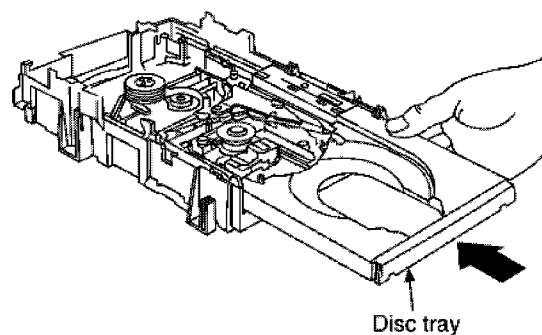
Step 2 Holding the drive rack not to move, install the disc tray.

Step 3 Align the drive rack with the drive gear.



NOTE:

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

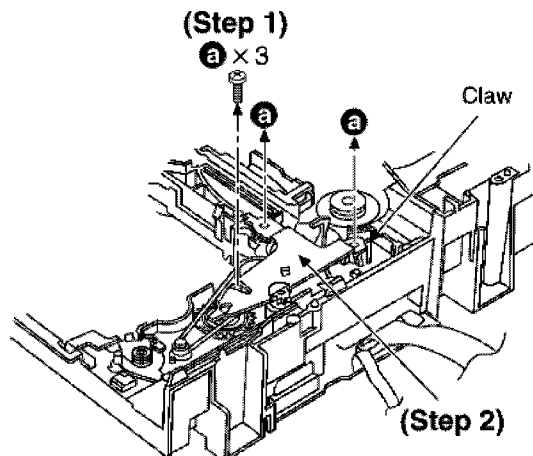


Step 4 Holding the disc tray manually, push the disc tray in the direction of the arrow.

8.6. Disassembly and reassembly for mechanism base drive unit

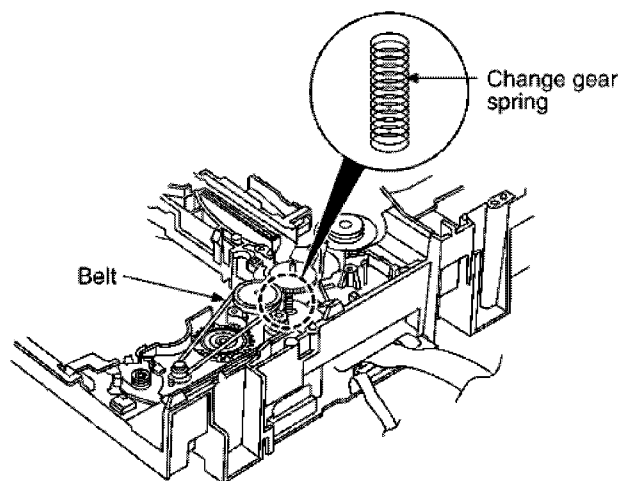
- Follow the (Step 1) - (Step 2) of Item 8.1.
- Follow the Disassembly for the CD Lid of Item 8.2.1.
- Follow the Disassembly for the CD changer unit of Item 8.2.2.
- Follow the (Step 1) - (Step 14) of Item 8.4
- Follow the (Step 1) - (Step 9) of Item 8.5

Step 1 Remove 3 screws.



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

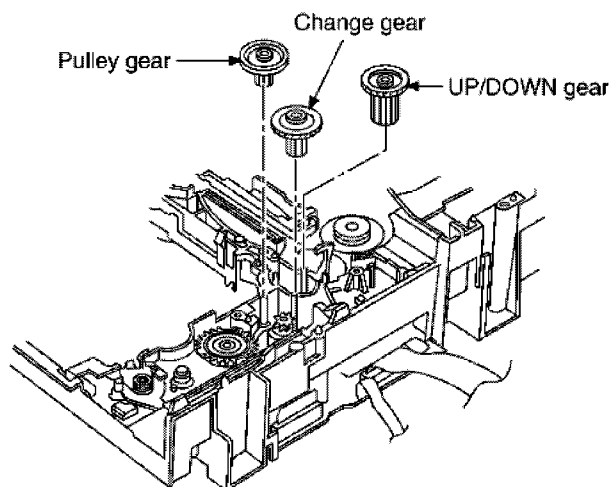
Step 3 Remove the belt and change gear spring.



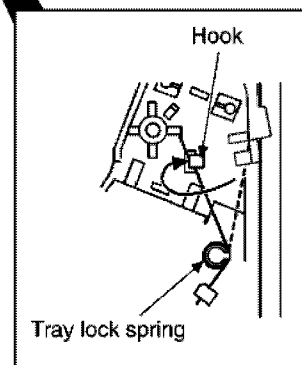
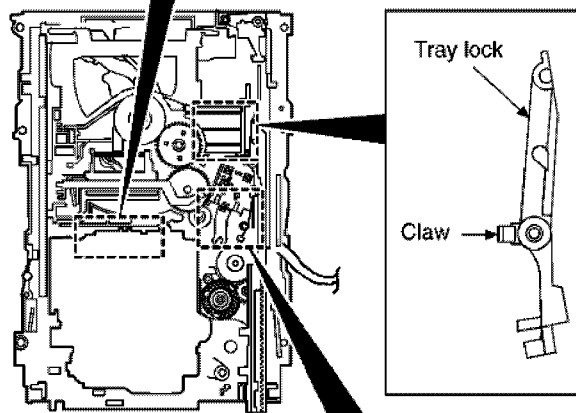
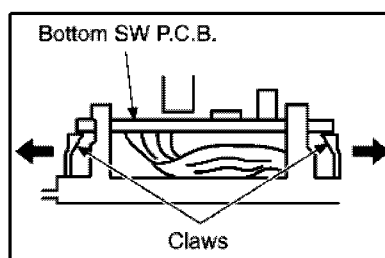
NOTE:

Take care not to lose the change gear spring.

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



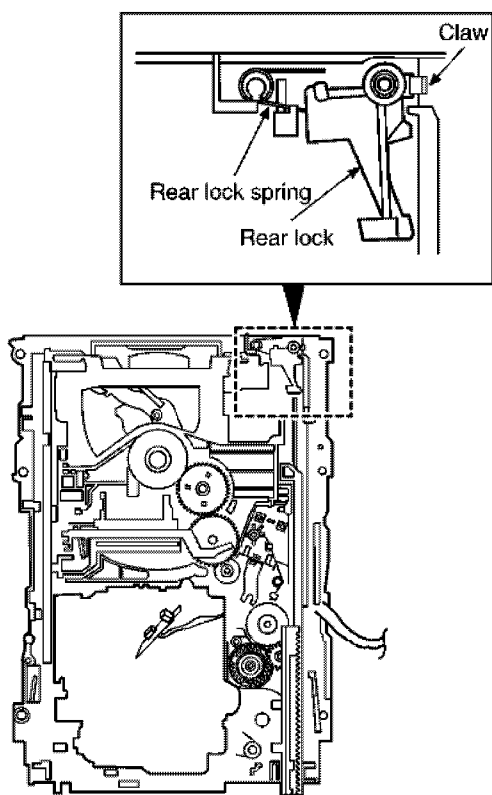
Step 5 Release the 2 claws, and then remove the bottom SW P.C.B..



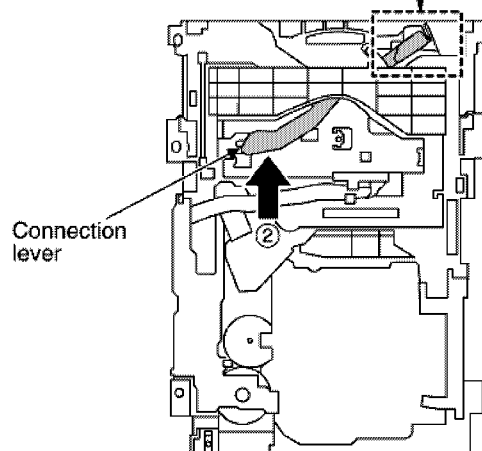
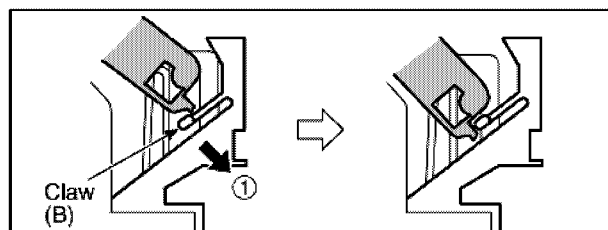
Step 6 Install the tray lock spring to hook temporary.

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

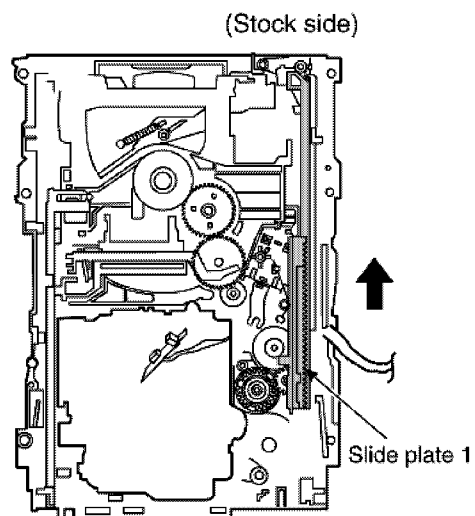
Step 8 Release the claw, and then remove the rear lock.



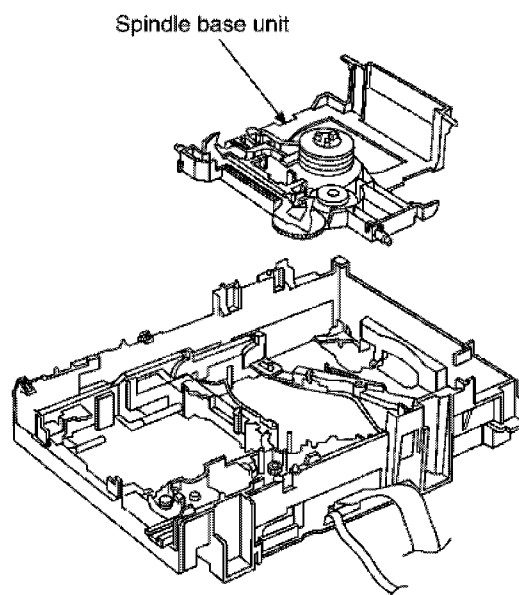
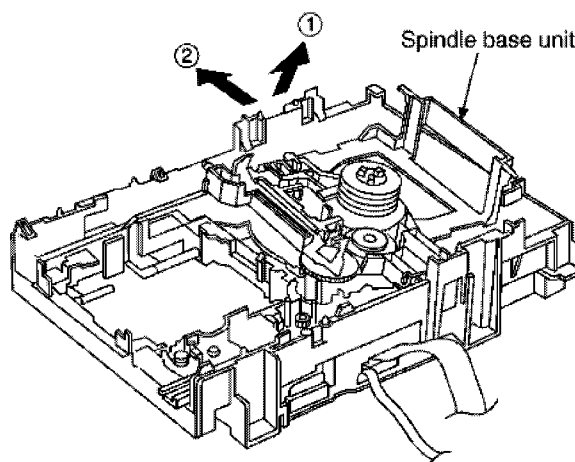
Step 9 Pressing the claw (B) in the direction of arrow (1), force the connection lever in the direction of arrow (2).



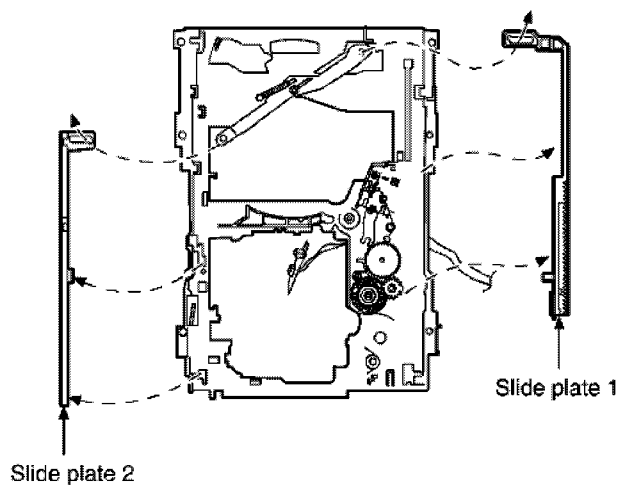
Step 10 Move the slide plate 1 to the end of stock side.



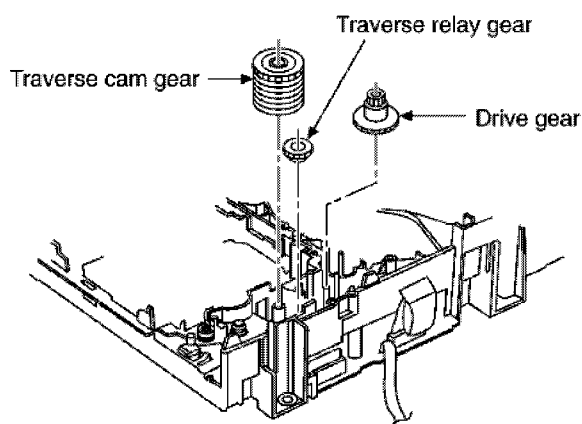
Step 11 Lift up the left end of spindle base unit in the direction of arrow (1), and then remove the unit in the direction of arrow (2).



Step 12 Remove slide plate 1 and slide plate 2.

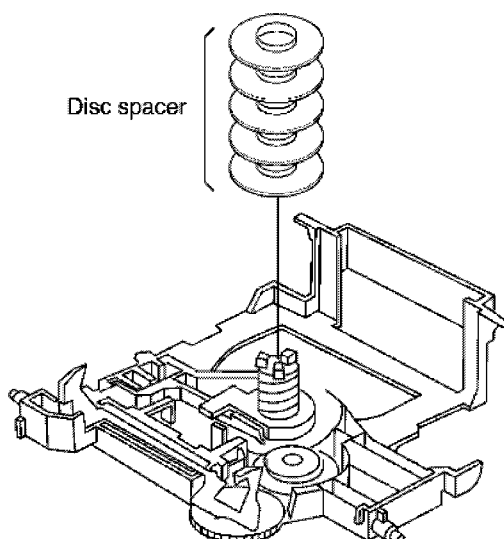


Step 13 Remove the traverse relay gear, traverse cam gear and drive gear.

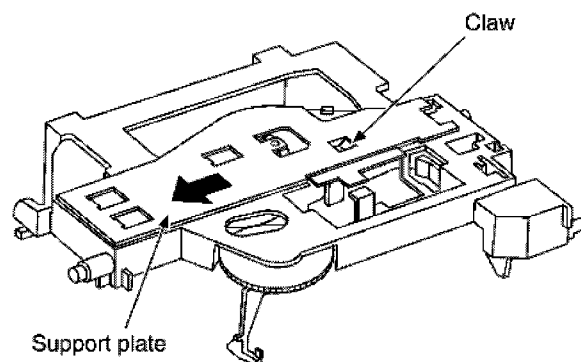


[Disassembly/reassembly for the spindle base unit]

Step 1 Draw the 5 disc spacers.

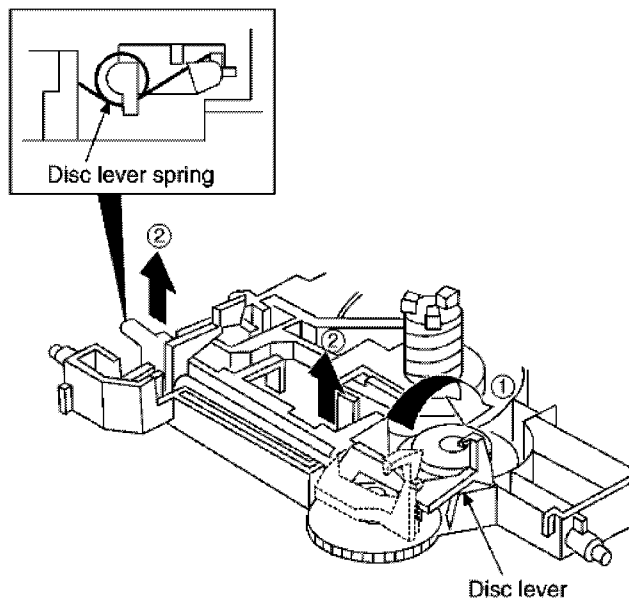


Step 2 Pushing the claw, slide the support plate in the direction of arrow, and then remove it.



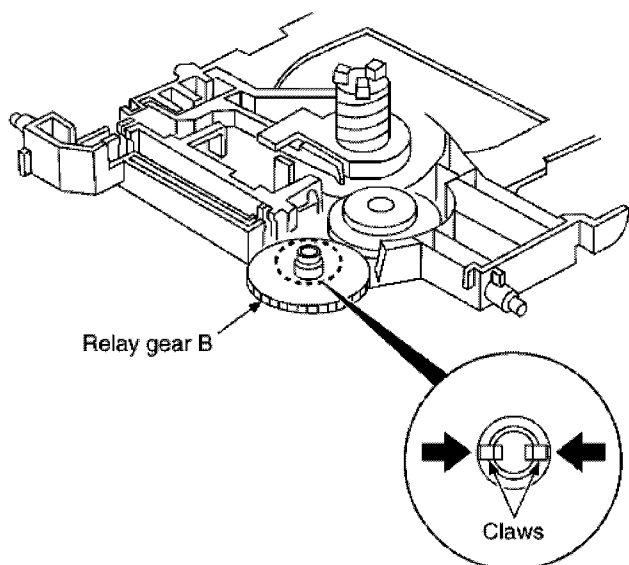
Step 3 Rotate the disc lever in the direction of arrow (1), draw the disc lever.

(Installation for disc lever spring)



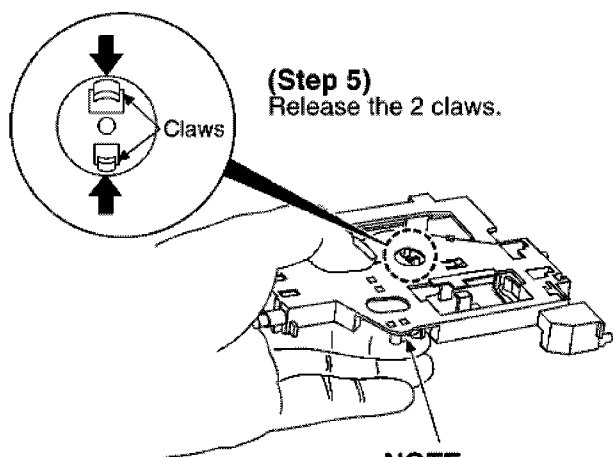
NOTE:

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.

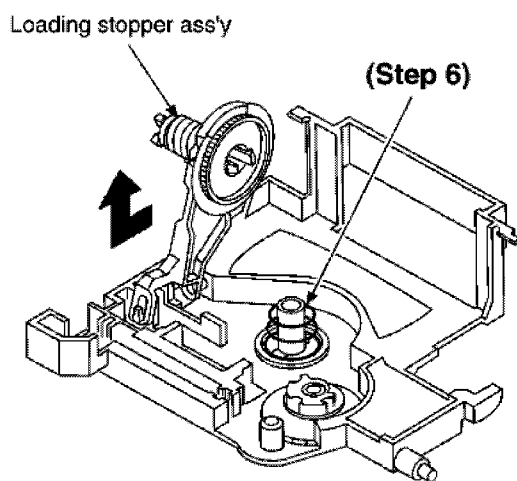


(Step 5)
Release the 2 claws.

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

NOTE:

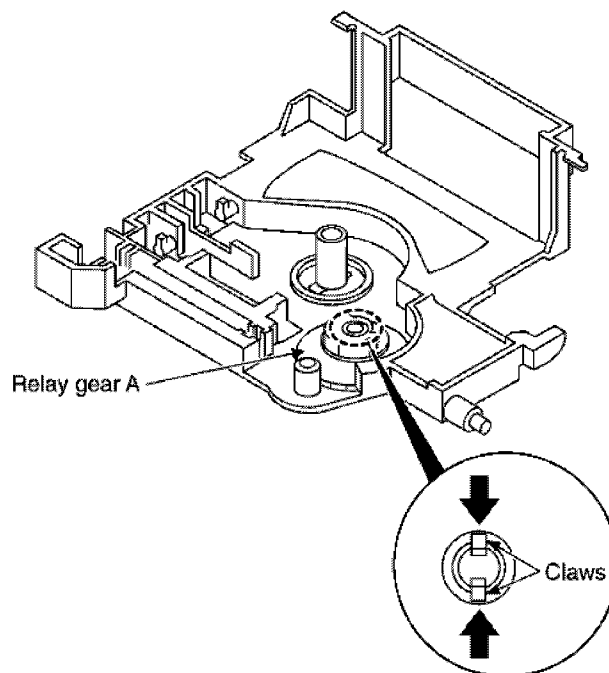
Hold the loading stopper ass'y manually because it is flipped by spring.



(Step 6)

Step 6 Remove the cushion spring.

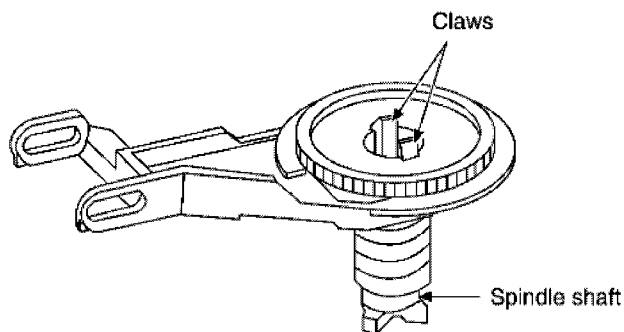
Step 7 Remove the loading stopper ass'y in the direction of arrow.



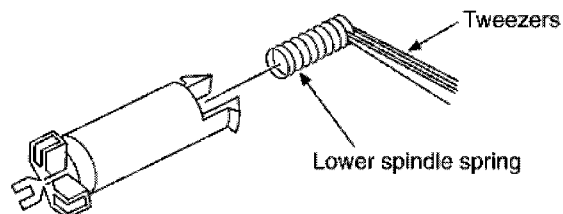
Relay gear A

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

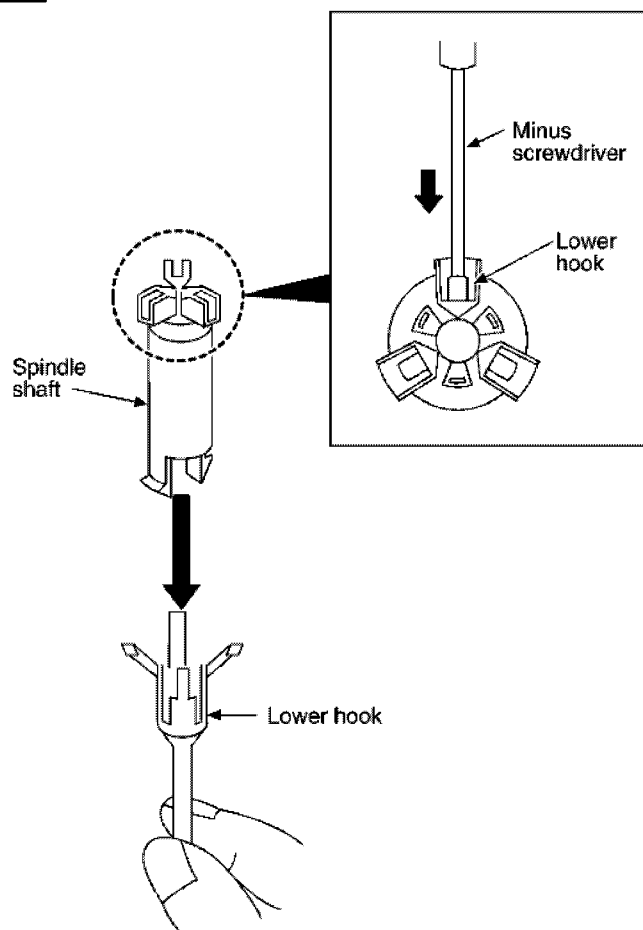
Step 9 Release the 2 claws, and then remove the spindle shaft.



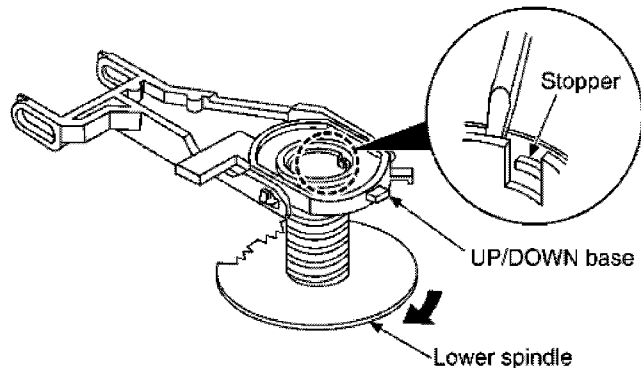
Step 10 Remove the lower spindle spring with tweezers.



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

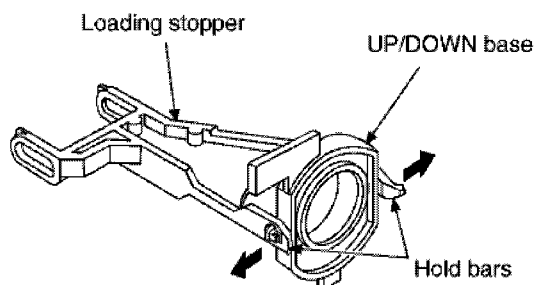


Step 12 Squeeze the shaft of lower hook, and then draw it.



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.

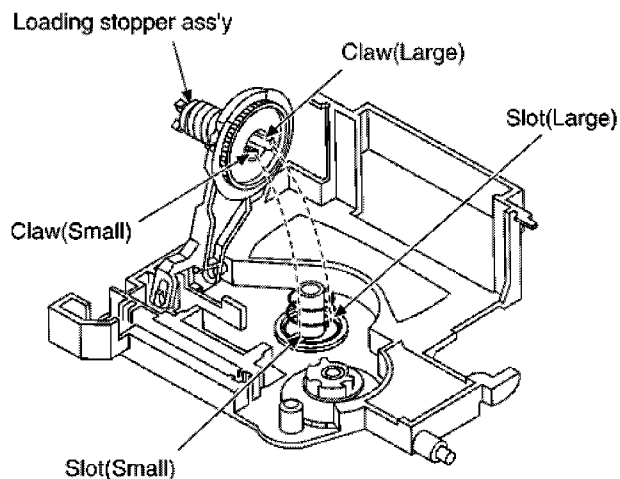


Step 15 Rotate the UP/DOWN base at a 90° angle. Then,

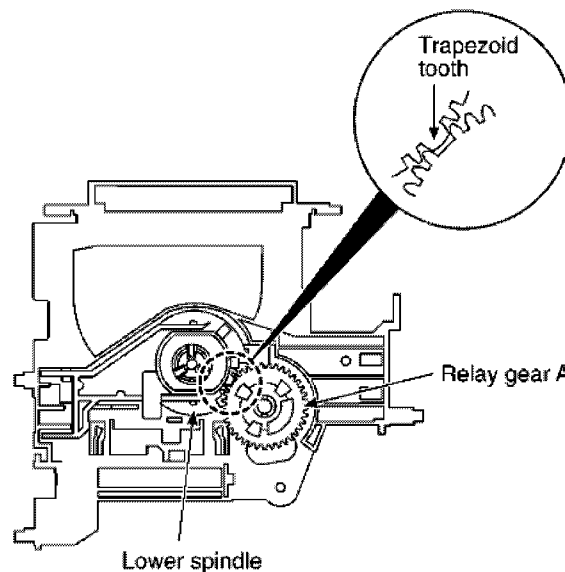
spread the hold bars of loading stopper and remove the UP/DOWN base.

[Installation for loading stopper ass'y]

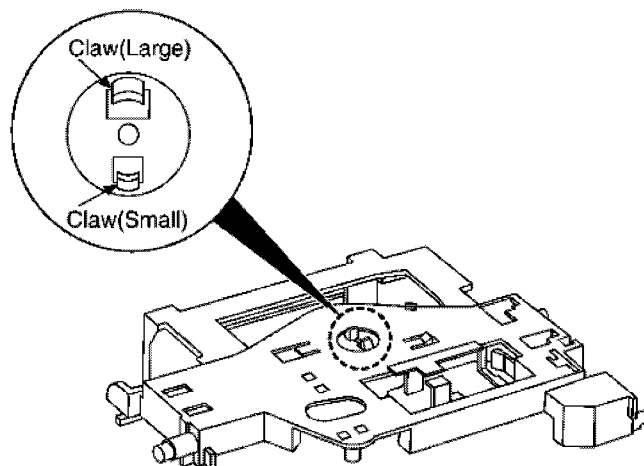
Step 1 Align the claw of loading stoppers ass'y with the slot of spindle base. (Caution should be exercised when alignment of claw due to the size of claws.)



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



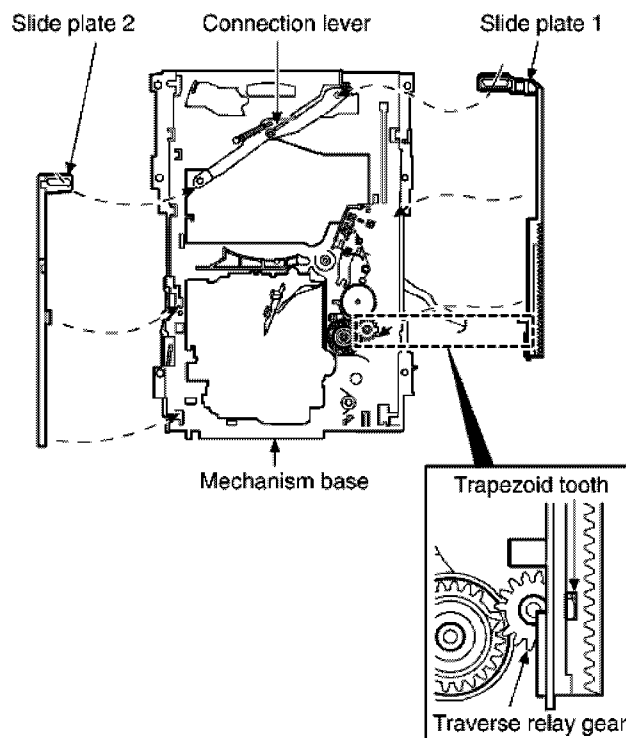
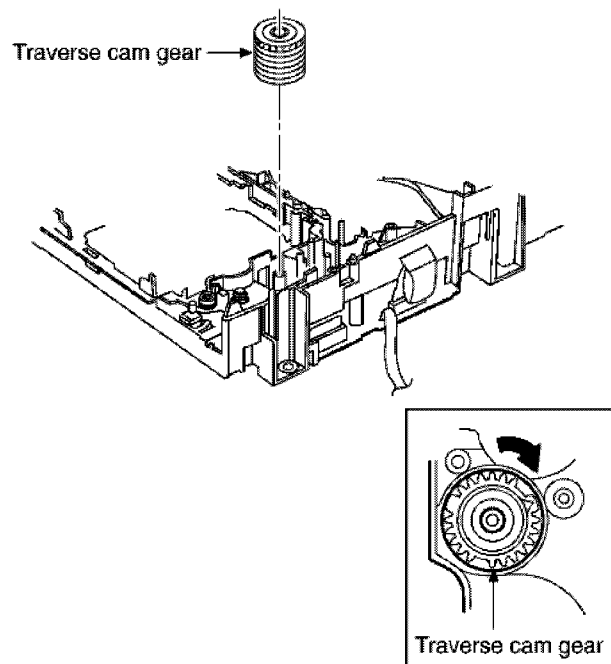
Step 3 Force the loading stopper ass'y, latch the claw firmly.



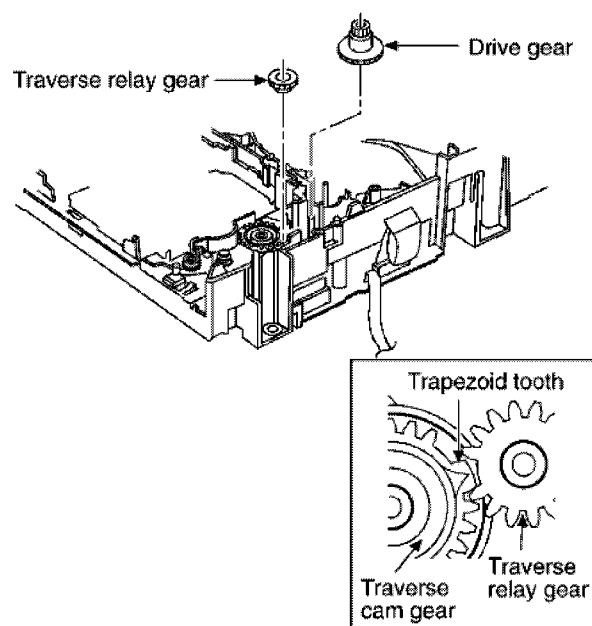
[Reassembly for mechanism base drive unit]

Step 1 Install the traverse cam gear.

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

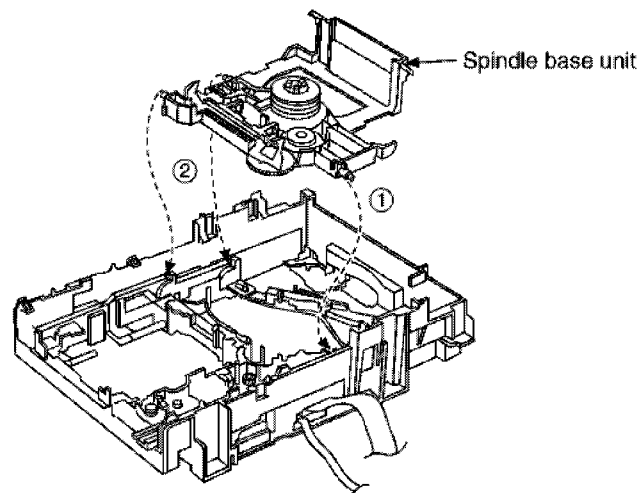


Step 3 Install the drive gear and traverse relay gear.



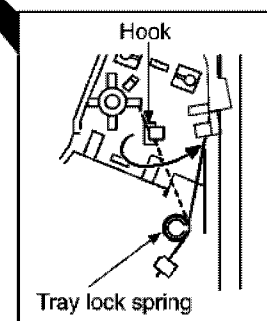
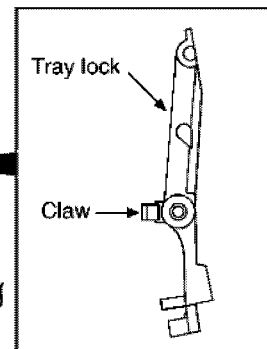
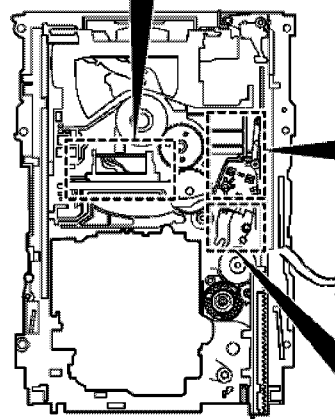
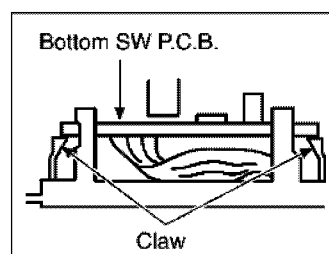
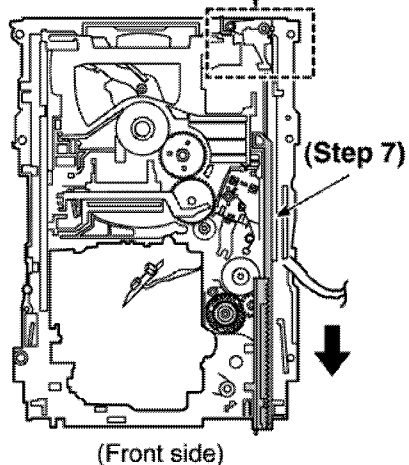
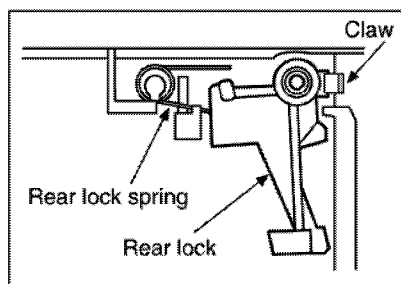
Step 4 Install the slide plate 2 to the mechanism base, and then match to the connection lever.

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.



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

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



Step 7 Move the slide plate 1 to forward fully.

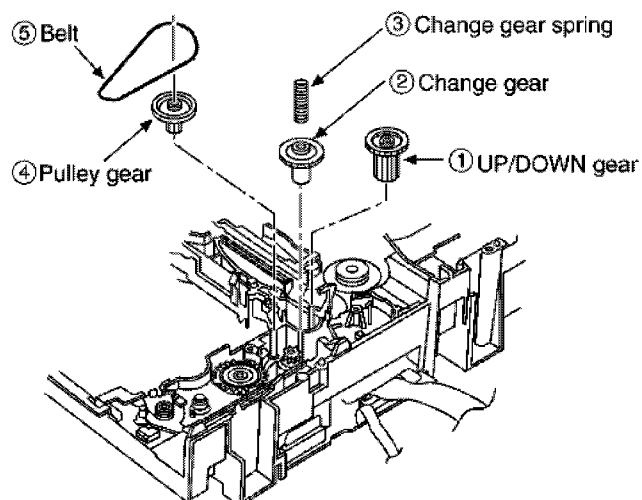
Step 8 Install the rear lock. (The claw should be latched.)

Step 9 Install the bottom SW P.C.B.. (The claw should be latched.)

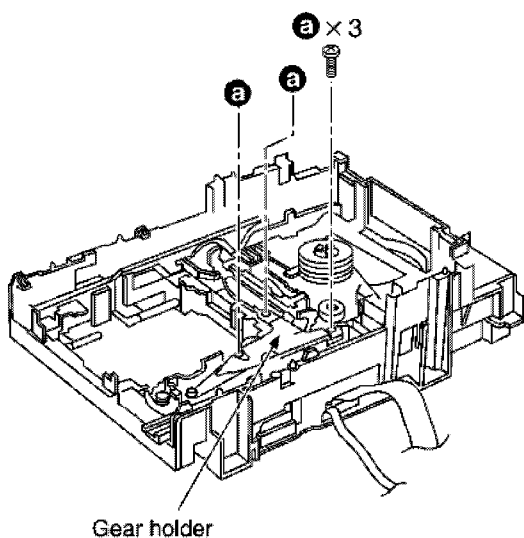
Step 10 Install the tray lock. (The claw should be latched.)

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.

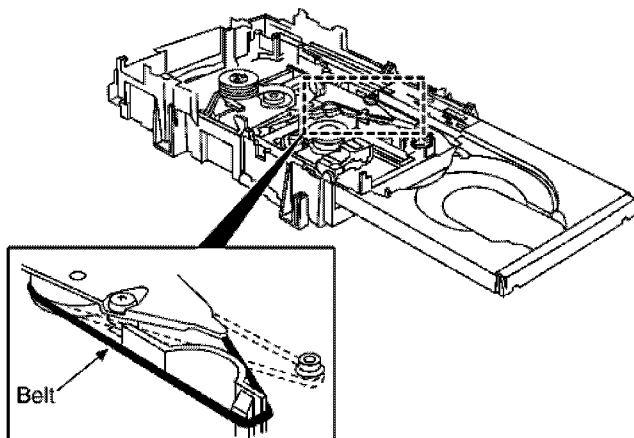
[Operation check after servicing]

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.

8.7. Replacement for the motor ass'y

- Follow the (Step 1) - (Step 2) of Item 8.1.
- Follow the Disassembly for the CD Lid of Item 8.2.1.
- Follow the Disassembly for the CD changer unit of Item 8.2.2.
- Follow the (Step 1) - (Step 8) of Item 8.4
- Follow the (Step 1) - (Step 7) of Item 8.5



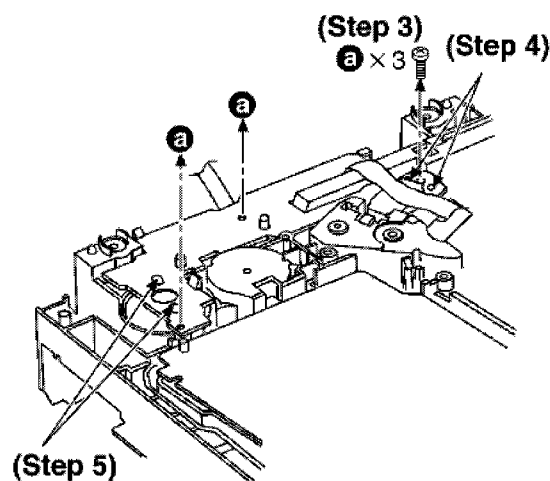
Step 1 Install the belt temporarily.

NOTE:

Take care not apply the grease to the belt.

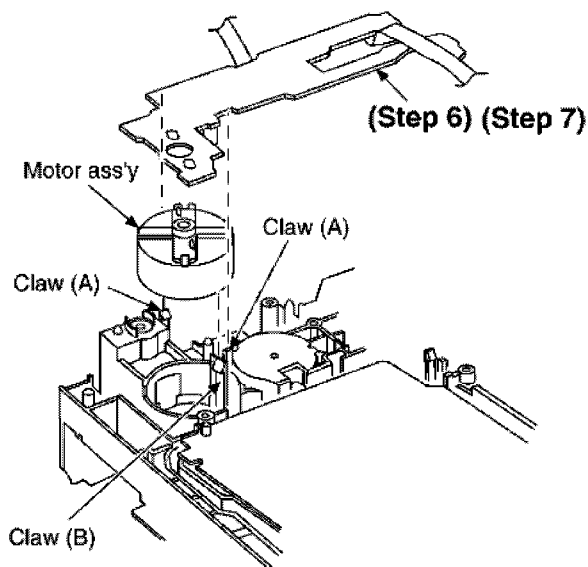
Step 2 Upset the CD loading unit.

Step 3 Remove 3 screws.



Step 4 Unsolder the plunger terminals (2 points).

Step 5 Unsolder the motor terminals (2 points).

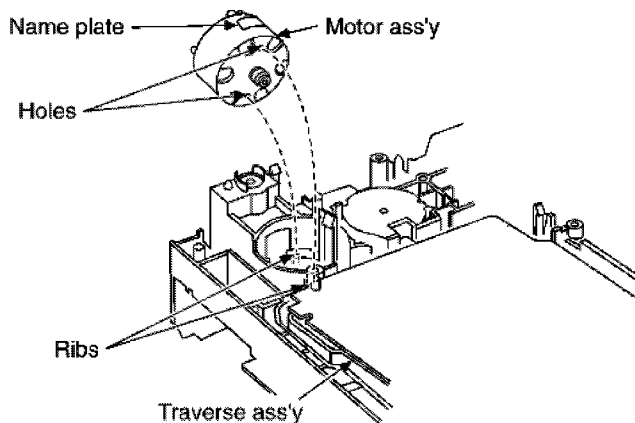


Step 6 Release the 2 claws (A), and then remove the Motor P.C.B.

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

[Notice for motor ass'y installation]

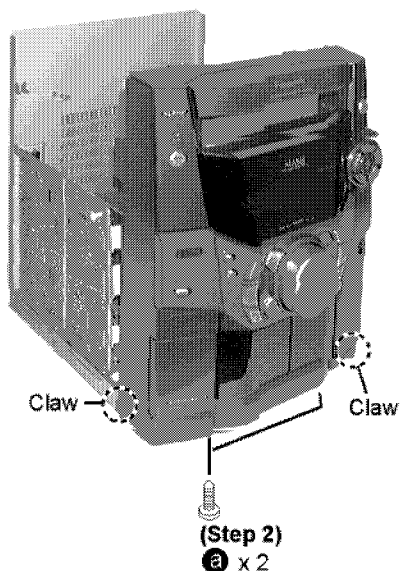
1. Locate the name plate of motor to the traverse ass'y.
2. Align the hole of motor with the ribs.



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

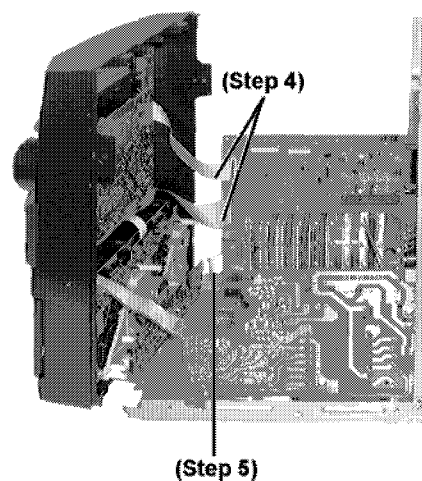
- Follow the (Step 1) - (Step 2) of Item 8.1.
- Follow the Disassembly for the CD Lid of Item 8.2.1.
- Follow the disassembly for the CD changer unit of Item 8.2.2.
- Follow the (Step 1) - (Step 14) of Item 8.4

Step 1 Remove the connector.



Step 2 Remove 2 screws.

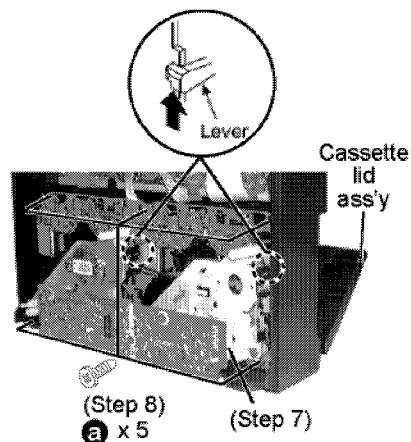
Step 3 Remove the 2 claws, and then draw the front panel ass'y.



Step 4 Pull out the FFC.

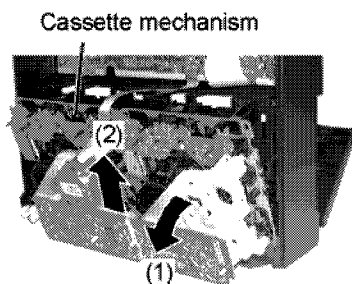
Step 5 Remove the flat cable from the connector.

Step 6 Push the lever upward, and then open the cassette lid ass'y (For DECK1 and DECK2).

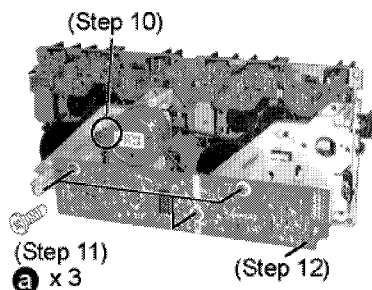


Step 7 Remove the flat cable from the connector (CN1001).

Step 8 Remove the 5 screw.



Step 9 Tilt the cassette mechanism in the direction of arrow (1), and then remove it in the direction of arrow (2).

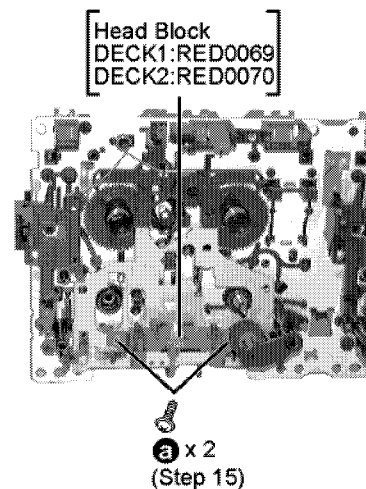


Step 10 Unsolder the motor terminals.

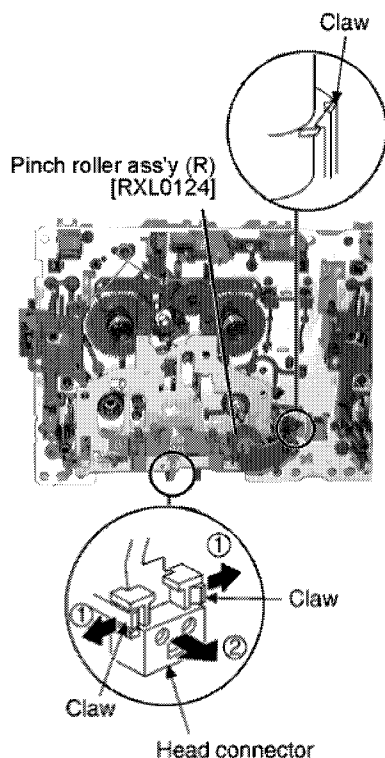
Step 11 Remove 4 screws.

Step 12 Remove mechanism Deck P.C.B.

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



Step 15 Remove 2 screws.



Step 13 Release the 2 claws, and then remove the pinch roller (R), (F).

Step 14 Release the 2 claws, and then remove the head connector.

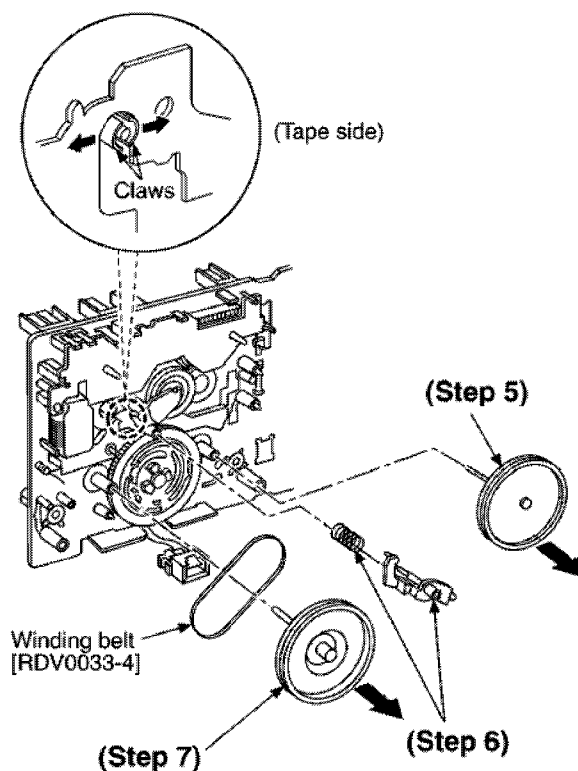
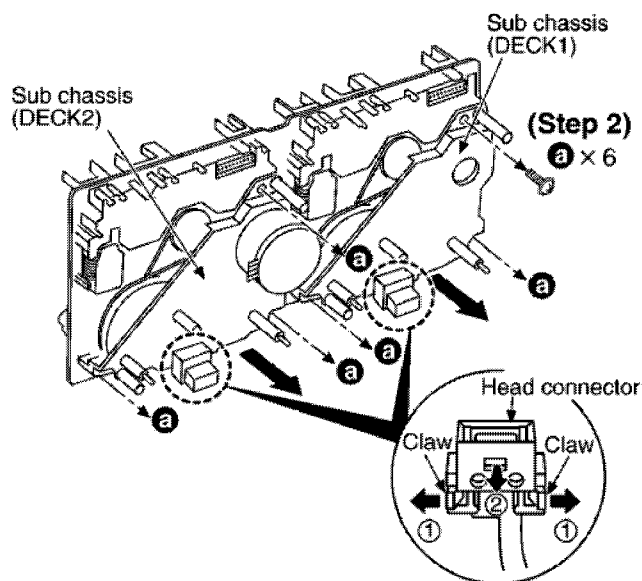
8.9. Replacement for the Deck motor ass'y, capstan belt A, capstan belt B and winding belt

- Follow the (Step 1) - (Step 2) of Item 8.1.
- Follow the Disassembly for the CD Lid of Item 8.2.1.
- Follow the Disassembly for the CD changer unit of Item 8.2.2.
- Follow the (Step 1) - (Step 14) of Item 8.4
- Follow the (Step 1) - (Step 11) of Item 8.9

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

Step 2 Remove 6 screws.

Step 3 Remove the sub chassis.



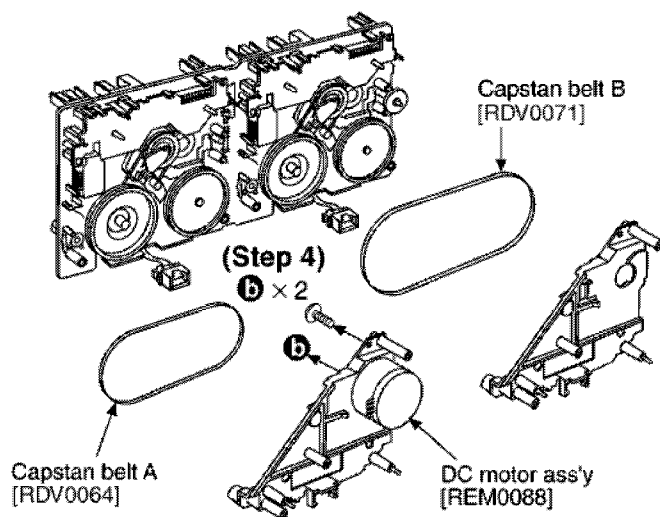
Step 5 Remove the flywheel R.

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

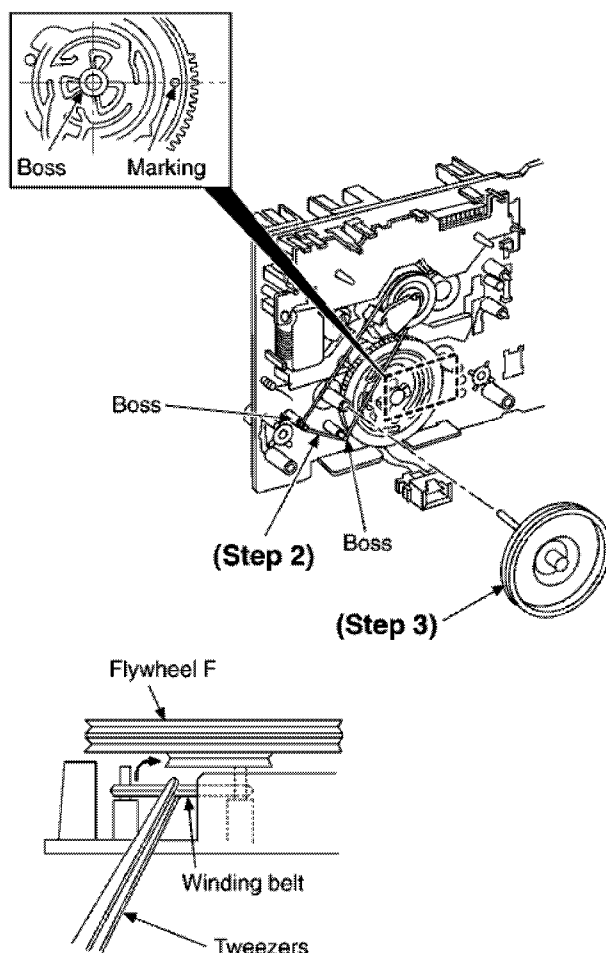
Step 7 Remove the flywheel F.

[Installation of the belt]

Step 1 The boss and marking should be positioned horizontally.



Step 4 Remove 2 screws.



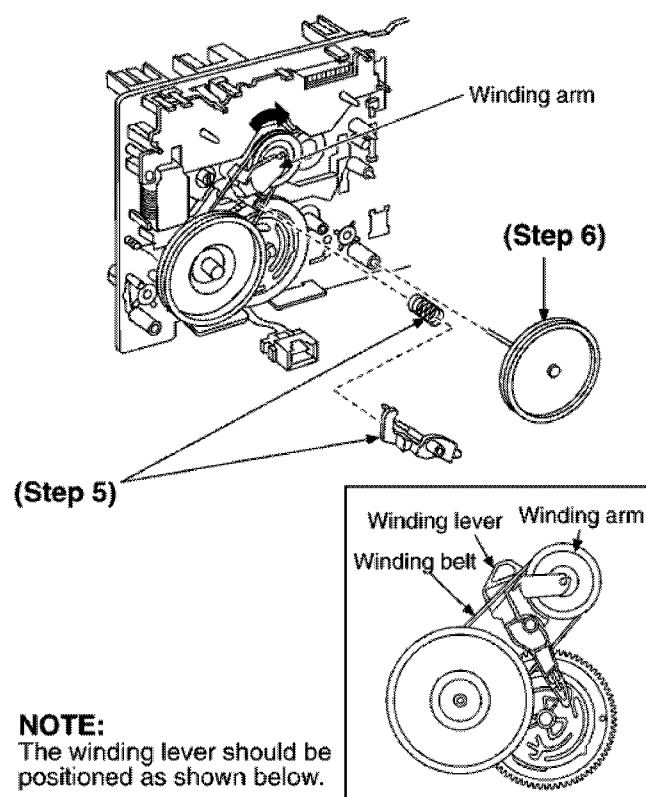
Step 2 Put the winding belt on the pulley temporarily.

Step 3 Install the flywheel F.

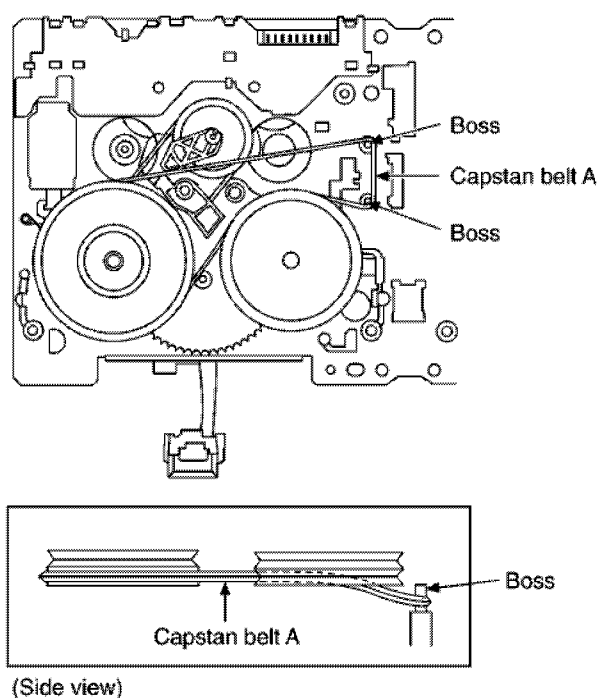
Step 4 Put the winding belt on the flywheel F.

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

Step 6 Install the flywheel R.

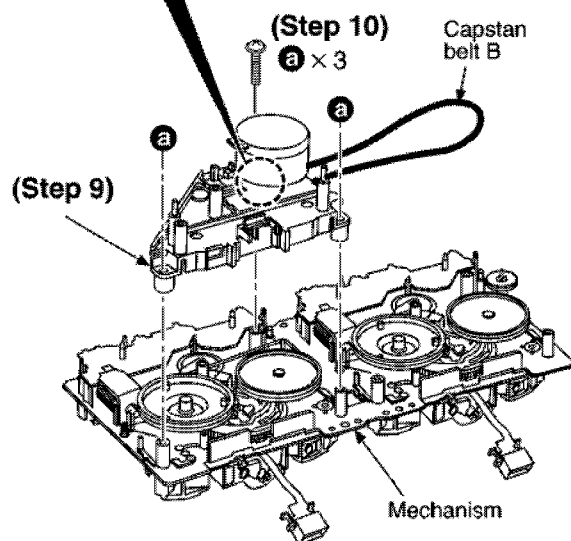
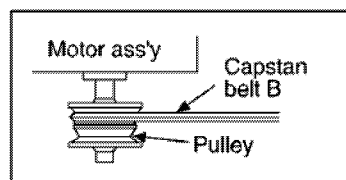


Step 7 Put the capstan belt A temporarily as shown below.



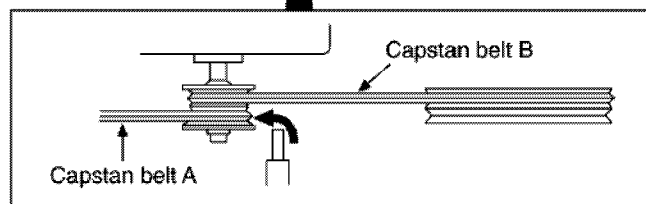
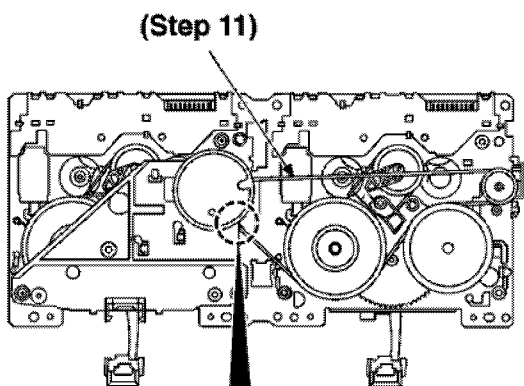
Step 8 Put the capstan belt B on the motor ass'y pulley.

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.

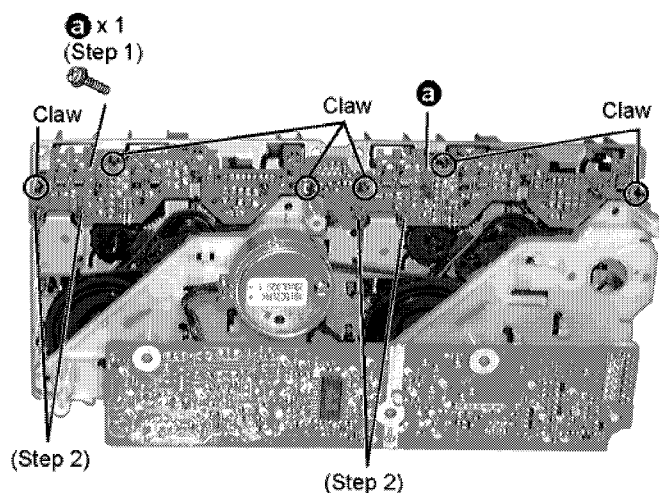
8.10. Replacement for the CD motor ass'y, capstan belt A, capstan belt B and winding belt

- Follow the (Step 1) - (Step 2) of Item 8.1.
- Follow the Disassembly for the CD Lid of Item 8.2.1.
- Follow the Disassembly for the CD changer unit of Item 8.2.2.
- Follow the (Step 1) - (Step 14) of Item 8.4
- Follow the (Step 1) - (Step 11) of Item 8.9

Step 1 Remove 2 screws.

Step 2 Unsolder the plunger terminals (2 points).

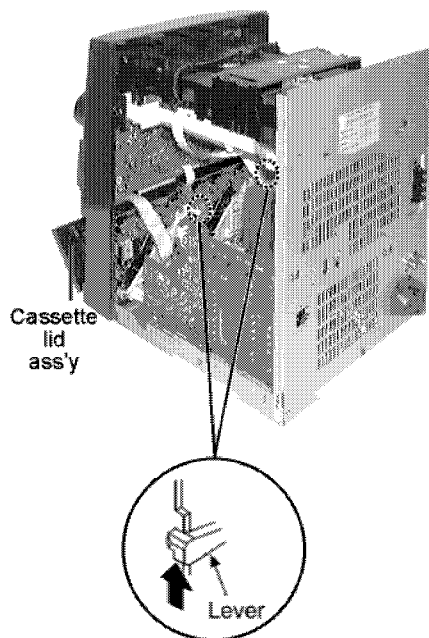
Step 3 Release the 3 claws, and then remove the mechanism P.C.B.



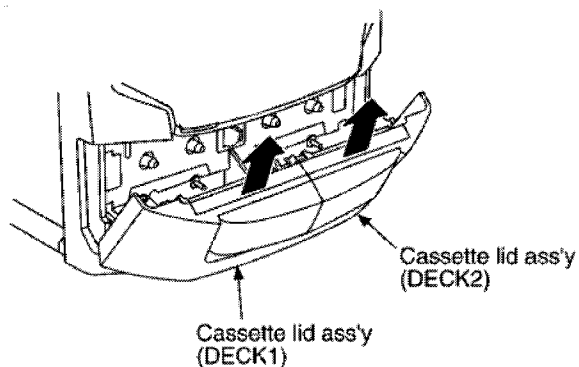
8.11. Replacement for the cassette lid ass'y

- Follow the (Step 1) - (Step 2) of Item 8.1.

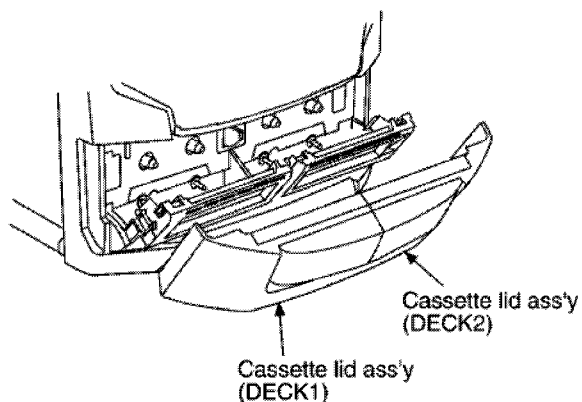
Step 1 Force the lever upward, open the cassette lid ass'y. (For DECK1 and DECK2)



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



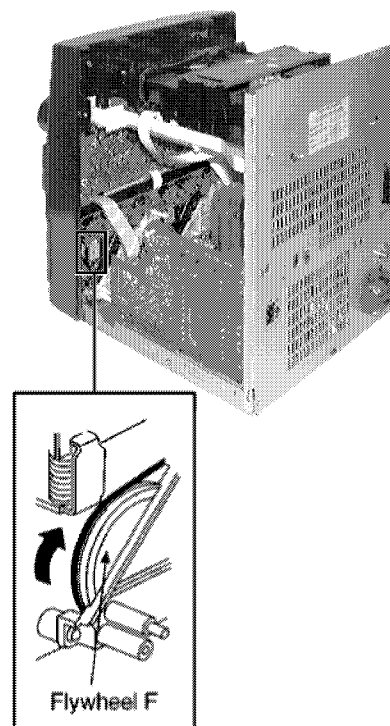
Step 3 Remove the cassette lid ass'y. (For DECK1 and DECK2).



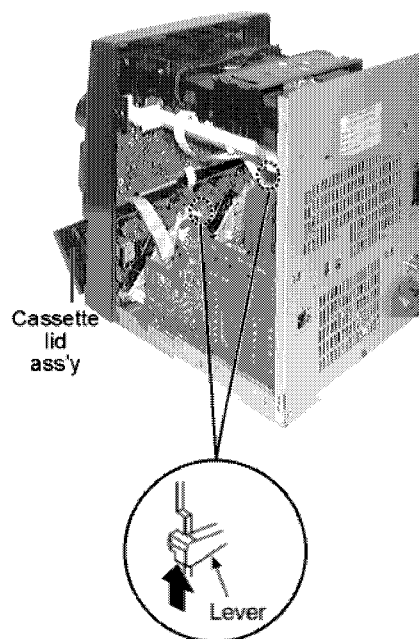
8.12. Measure for tape trouble

- Follow the (Step 1) - (Step 2) of Item 8.1.

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 Force the lever upward and open the cassette lid ass'y. Take the cassette tape off.



9 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 μ W/VDE

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

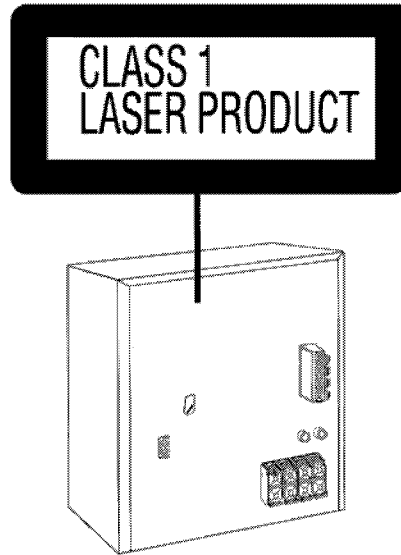
1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pick up lens for a long time.

CAUTION!

THIS PRODUCT UTILIZES A LASER.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

■ Use of Caution Labels



CAUTION	INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.	(IEC60825-1)
ATTENTION	RADIATION LASER LORSQUE OUVERT. ÉVITER TOUTE EXPOSITION AU FASCEAU.	
ADVARSEL	USYNLIG LASERSTRÅLING VED ÅBNING. NÅR SIKKERHEDSAPPARATERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.	
VARO!	AVOIMILLA LASERVALOKUUS OHTETTRESSA OLET AITTTINA NÄKYMÄTÖNÄ LASERSTRÄLÄ. ÄLÄ KATSO SÄTEESEEN.	
VARNING	OSYNLIG LASERSTRÅLNING NÄR GEMMA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRÄKTA EJ STRÅLEN.	
ADVARSEL	USYNLIG LASERSTRÅLING NÄR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNDGÅ EKSPONERING FOR STRÅLEN.	
VORSICHT	UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.	

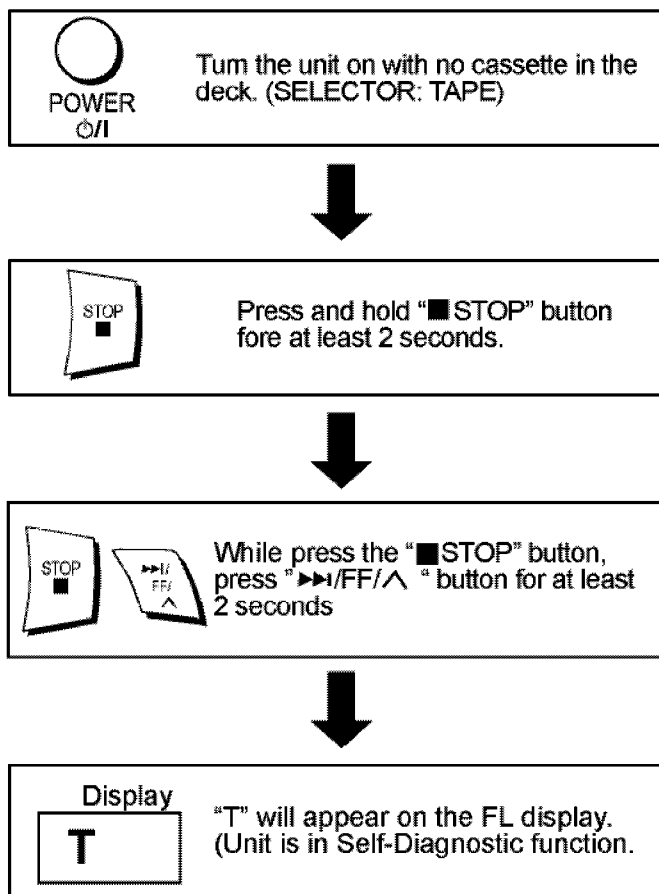
10 Self-Diagnostic Function

10.1. 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.

10.2. How to enter the Self-Diagnostic Function



10.3. Cassette Mechanism Test (For error code H01, H02, H03, F01, F02)

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 MEMORY" (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 FM MODE/BP" (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/TUNE/TIME ADJ UP" (After TPS function, tape will stop automatically)
8. Press "REC/STOP" (Tape will not move)
9. Press "STOP/TUNE MODE" to indicate Error code.
 - If several problem exist, error code will change each time when "STOP" is pressed.
(e.g. H01 → H03 → F01etc.)
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)

10.4. 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 "■/STOP" to indicate Error Code.
 - If several problem exist, error code will change each time when "■/STOP" is pressed. (e.g. F15 → F26 → F16etc).

10.5. 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".

10.6. How to get out from Self-Diagnostic function

1. Press "Power" button OFF.

10.7. Power Amplifier Failure (F61)

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

11 Description of Error Code

11.1. Error detection for Cassette Mechanism block

NO.	Error	Error Display	Problem condition
1	MODE SW detection error	H01	Faulty operation of cassette mechanism. Faulty contact or short-circuit of mechanism mode switch (S951, S971).
2	REC INH SW detection error	H02	Recording not possible. Faulty contact or short-circuit of REC INH switch (S975).
3	HALF SW detection error	H03	Playback cannot perform. Faulty contact or short-circuit of HALF switch (S952, S972).
4	Reel Pulse detection error	H04	The tape advances slightly and then stops. Faulty reel pulse, faulty hole detect IC (IC951, IC971).
5	TPS abnormal	F02	Cassette deck will not perform TPS function. Faulty playback EQ/recording amplifier IC (IC1001).

11.2. Error detection for CD Changer block

NO.	Error	Error Display	Problem condition
1	REST SW detection error	F15	CD does not function. This error occurs when the Optical Pick Up REST SW (S701) is not detected within the specified time (about 8 seconds)
2	CD tray opens automatically	F16	CLAMP switch (SW4) NG (Check & Replace)
3	Does not startup when [PLAY] button is pressed	F17	BOTTOM switch (SW5) NG (Check & Replace)
4	Transmission error between CD servo LSI and micon	F26	CD does not function. This error occurs when the POWER is ON for the CD block and an error is detected after the transmission has started.
5	Startup fails even when you insert CD or the selected disc tray does not open	F27	Tray 1 detect switch or Tray 2 detect NG (Check & Replace)
6	Cannot insert CD	F28	Tray 1 detect switch NG (Check & Replace)
7	Cannot eject CD	F29	Check if disc is stuck. Tray 2 detect switch NG (Confirm & Replace)
8	The CD tray closes	H15	CD disc tray detect switch NG (SW3) (check & Replace)

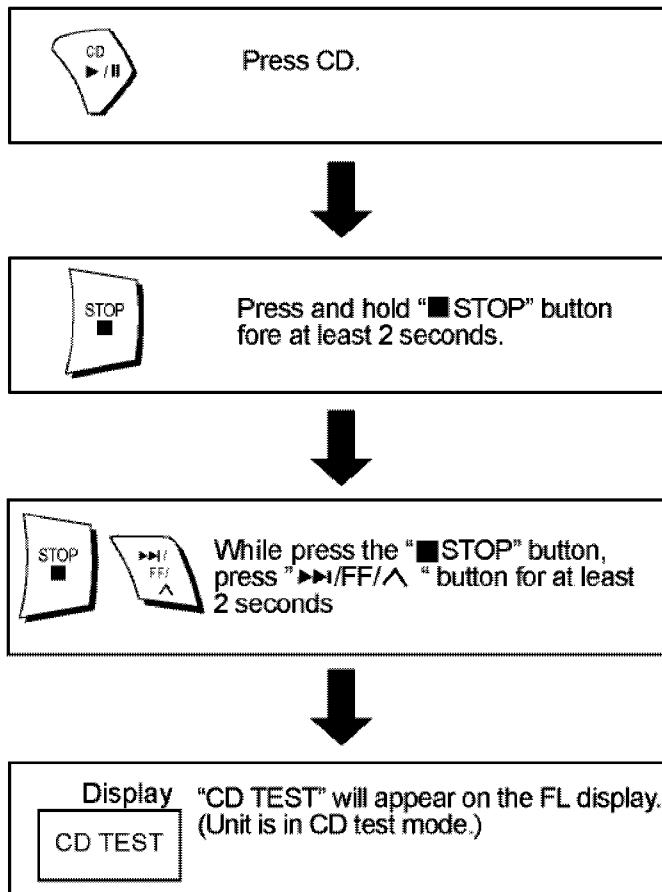
11.3. Power Supply related error detection

NO	Error	Error Display	Problem condition
1	POWER AMP output abnormal	F61	When POWER is switched on, power become off automatically. During normal operation, if DC DET become L, PCNT shall become L and the error display on the left shall be displayed. (IC501)

12 CD Test Mode Function

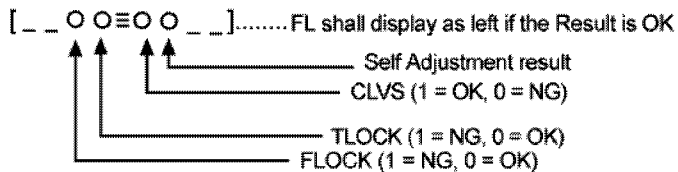
This CD test mode is provided to check CD unit without connecting to changer loading mechanism. This mode shall operate CD PLAY with CD unit being connected only and CD Automatic Alignment result is shown on FL display.

12.1. How to set CD test mode



12.2. 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.

13 Measurements and Adjustments

13.1. Cassette Deck Section

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

13.1.1. 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 ± 60 Hz of the value of the output frequency of DECK 2 FWD.

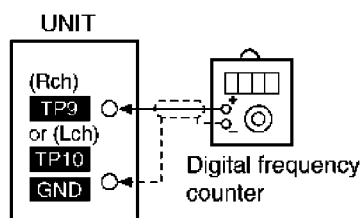


Fig. 1

13.1.2. 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 "● REC/STOP" key).
3. Measure and make sure that the output is within the

standard value.

Bias voltage for Deck 2
Erase voltage for Deck 2

$14 \pm 4\text{mV}$ (Normal)
 80mV (Normal)

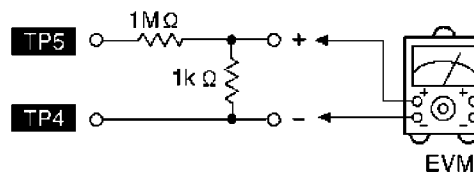


Fig. 2

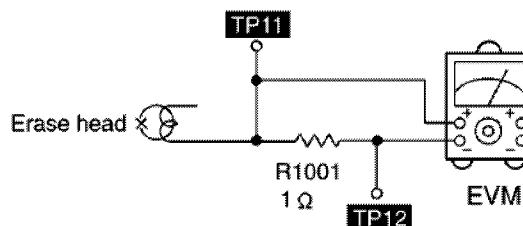


Fig. 3

13.1.3. 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 (● use "REC/STOP" key).
3. Adjust L1002 so that the output frequency is within the

Standard Value: 97 ± 8 kHz

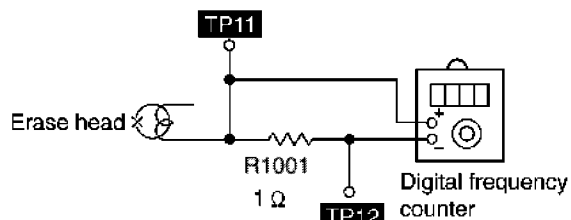


Fig. 4

13.2. Tuner Section

13.2.1. 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.

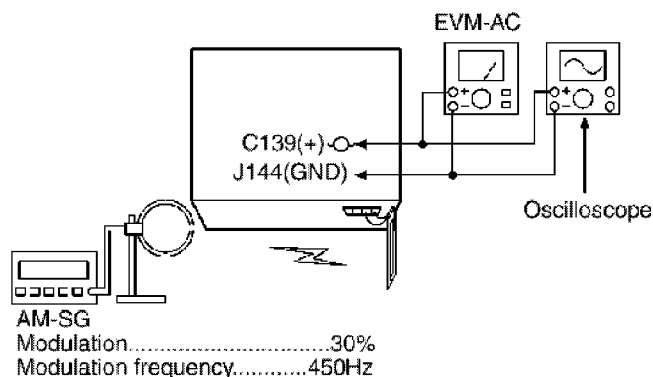


Fig. 5

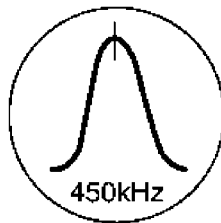


Fig. 6

13.2.2. 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 $1.1 \pm 0.5V$.

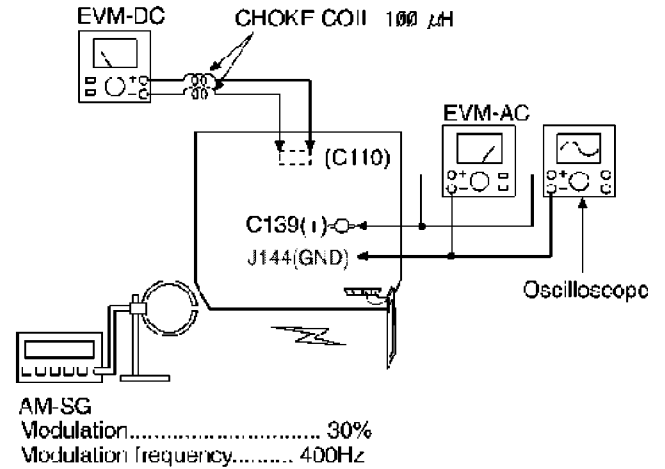
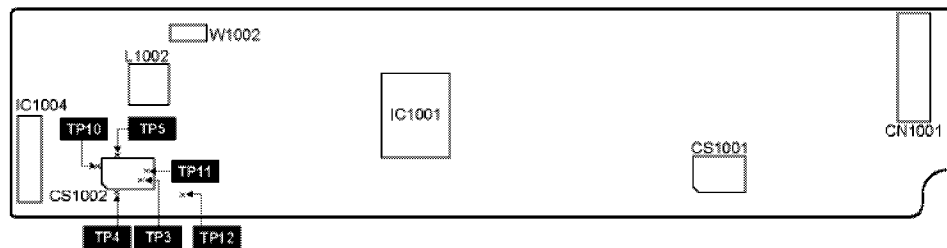


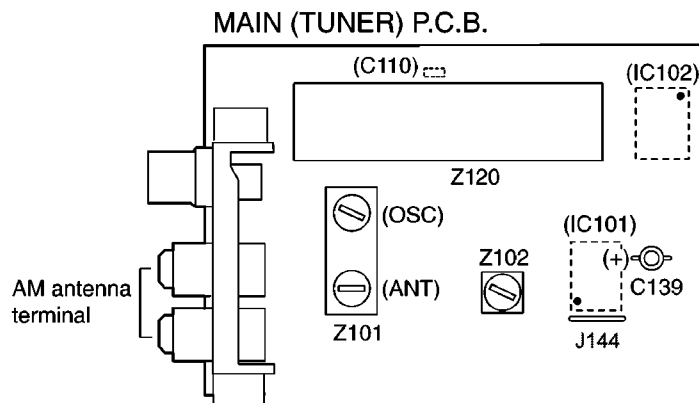
Fig. 7

13.3. Alignment Points

13.3.1. Cassette Deck Section



13.3.2. Adjustment Point



14 Schematic Diagram

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

Note:

SW1	: Push switch
SW2	: Push switch
SW3	: Open switch
SW4	: CD switch
SW5	: Load switch
S601	: Power switch
S602	: Preset EQ switch
S603	: Deck 1/2 switch
S604	: Rec switch
S605	: CD Open/ Close switch
S606	: CD 1 switch
S607	: CD 2 switch
S608	: CD 3 switch
S609	: CD 4 switch
S610	: CD 5 switch
S612	: SSEQ switch
S613	: S. Woofer switch
S614	: Up switch
S615	: Right switch
S616	: Down switch
S617	: Left switch
S618	: Title Search switch
S619	: Enter switch
S620	: Marker switch
S621	: Delete switch
S701	: Reset switch
S901	: REW switch
S902	: Tuner switch
S903	: CD switch
S904	: FF switch
S905	: Stop switch
S906	: Deck 2 switch
S907	: Tape switch
S908	: AUX switch

S909	: Deck 1 switch
S910	: Display switch
S950	: Voltage Selector switch
S951	: Mode switch
S952	: Half switch
S971	: Mode switch
S972	: Half switch
S974	: Recinh_r switch
S975	: Recinh_f switch
VR600	: VR Volume Jog
VR602	: 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.

SCHEMATIC DIAGRAM - 2

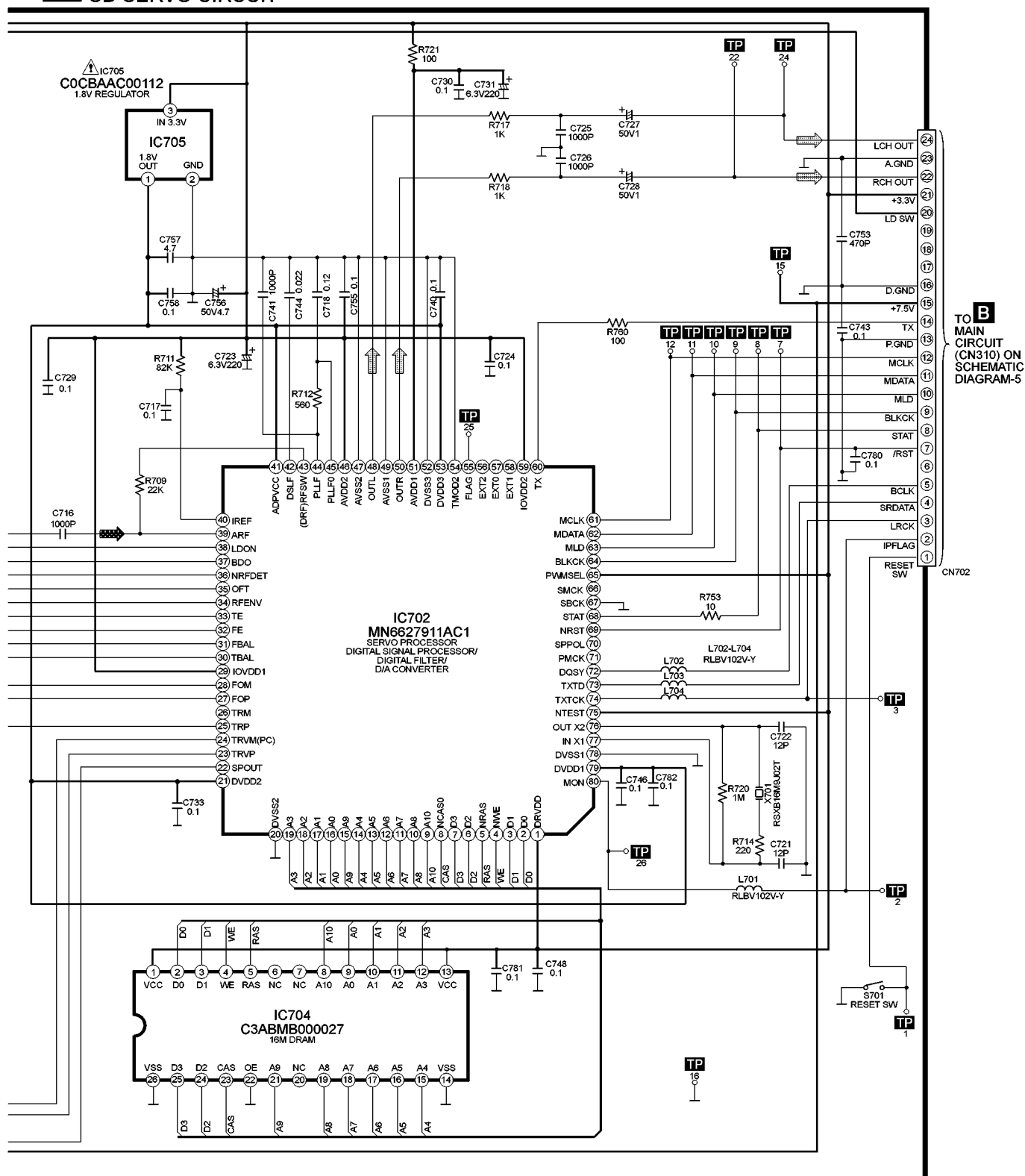
— : +B SIGNAL LINE

▢ : CD-DA SIGNAL LINE

▢ : CD SIGNAL LINE

A

CD SERVO CIRCUIT



SCHEMATIC DIAGRAM - 4

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

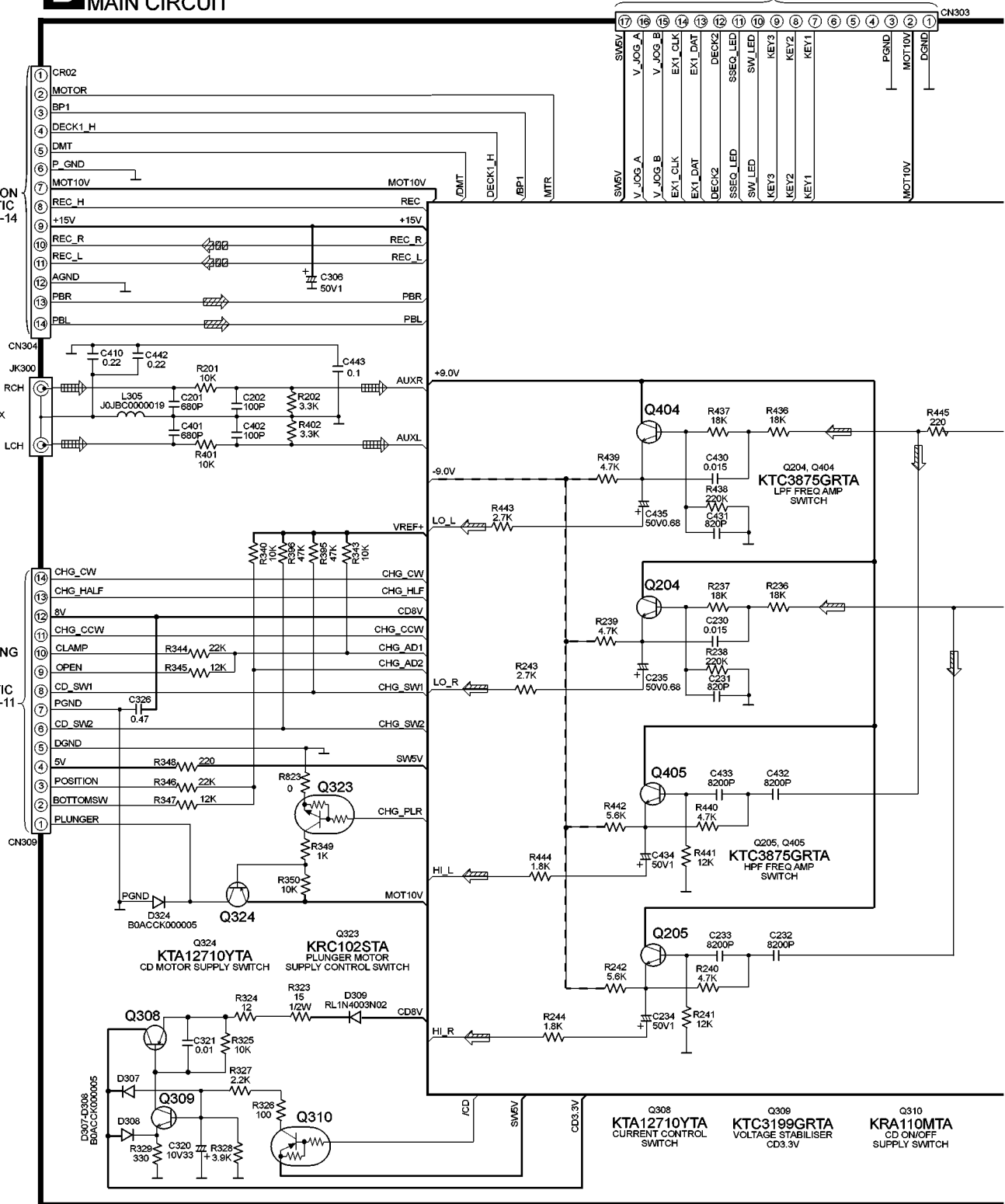
▢ : AUX SIGNAL LINE ▢ : MAIN SIGNAL LINE

TO **C**
 PANEL CIRCUIT
 (CP601) ON
 SCHEMATIC DIAGRAM-10

B MAIN CIRCUIT

TO **J**
 DECK
 CIRCUIT
 (CN1001) ON
 SCHEMATIC
 DIAGRAM-14

TO **H**
 CD LOADING
 CIRCUIT
 (CN1) ON
 SCHEMATIC
 DIAGRAM-11



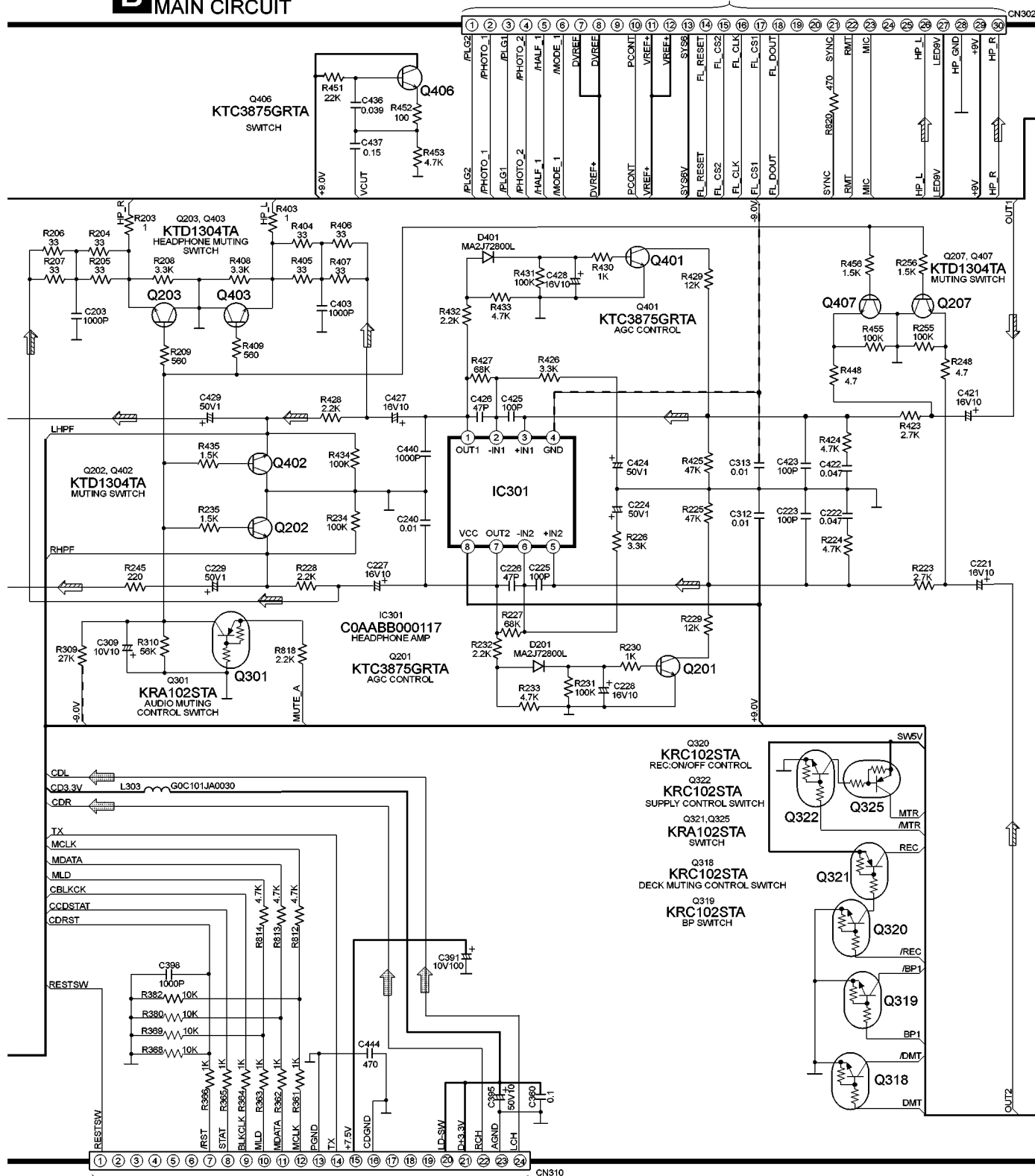
SCHEMATIC DIAGRAM - 5

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

B

 MAIN CIRCUIT

TO **C**
 PANEL CIRCUIT
 (CP602) ON
 SCHEMATIC DIAGRAM-10

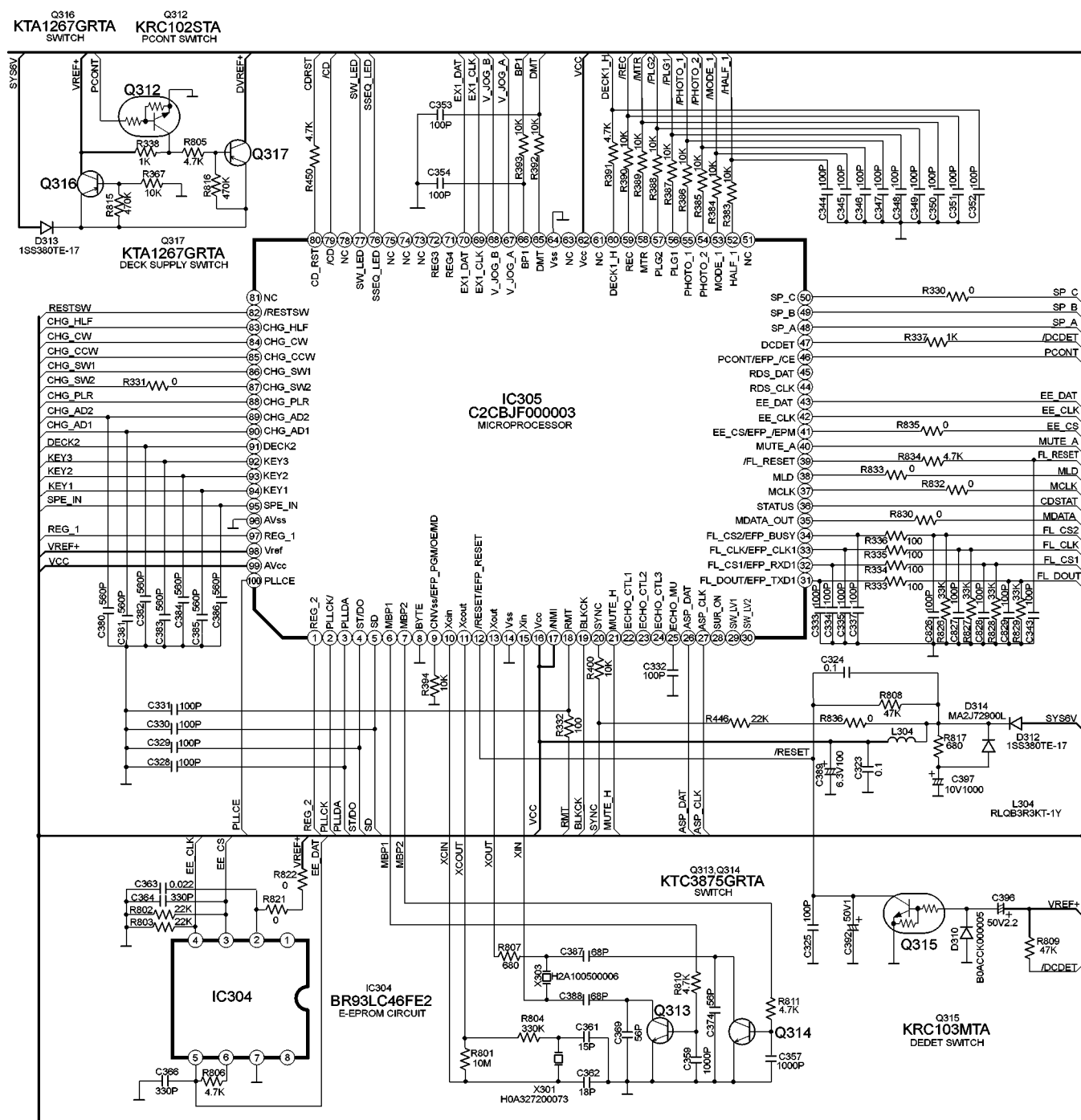


TO **A**
 SERVO CIRCUIT
 (CN702) ON
 SCHEMATIC DIAGRAM-2

SCHEMATIC DIAGRAM - 6

— : +B SIGNAL LINE

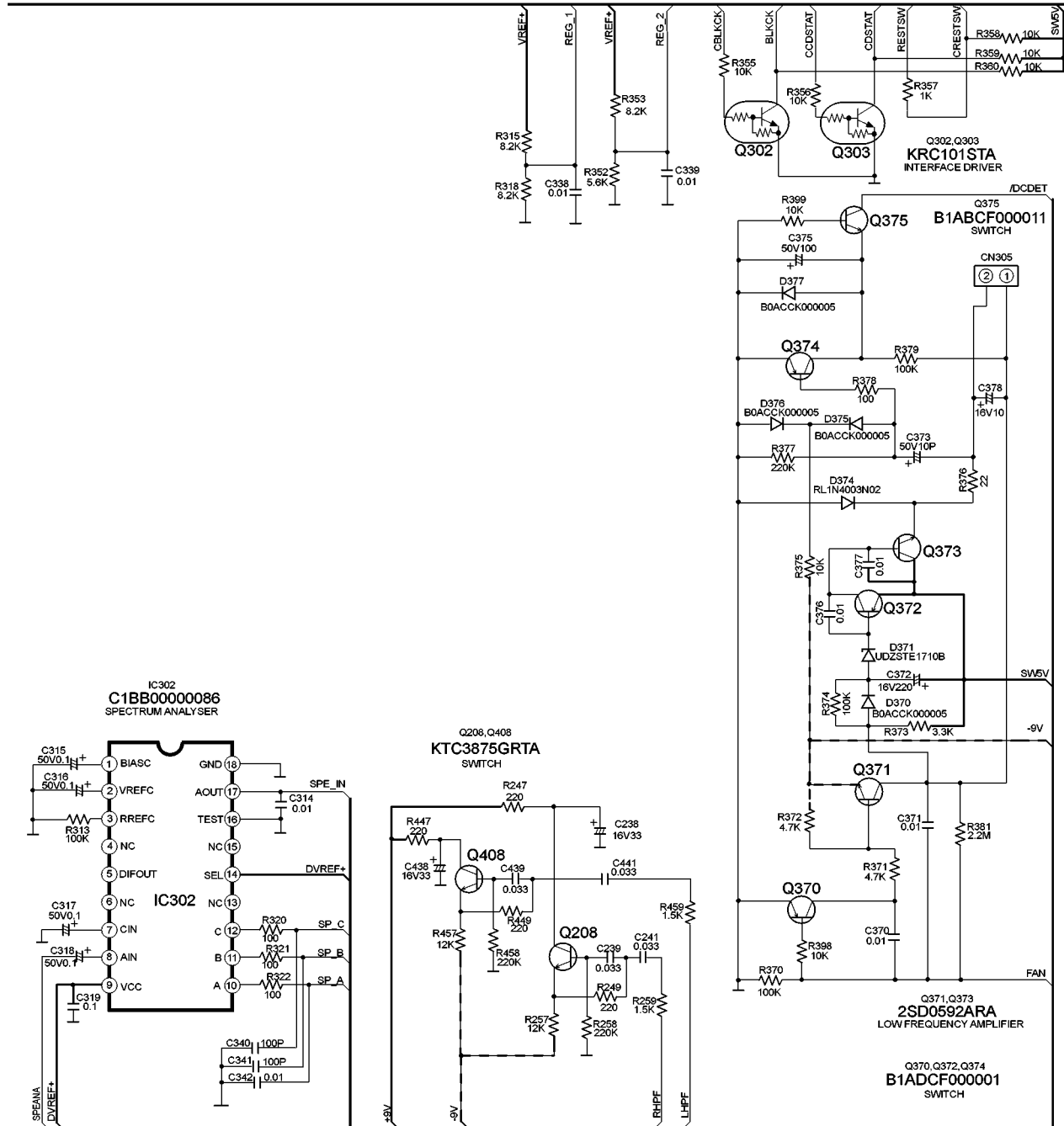
B MAIN CIRCUIT



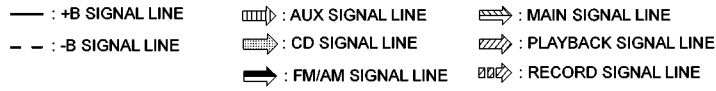
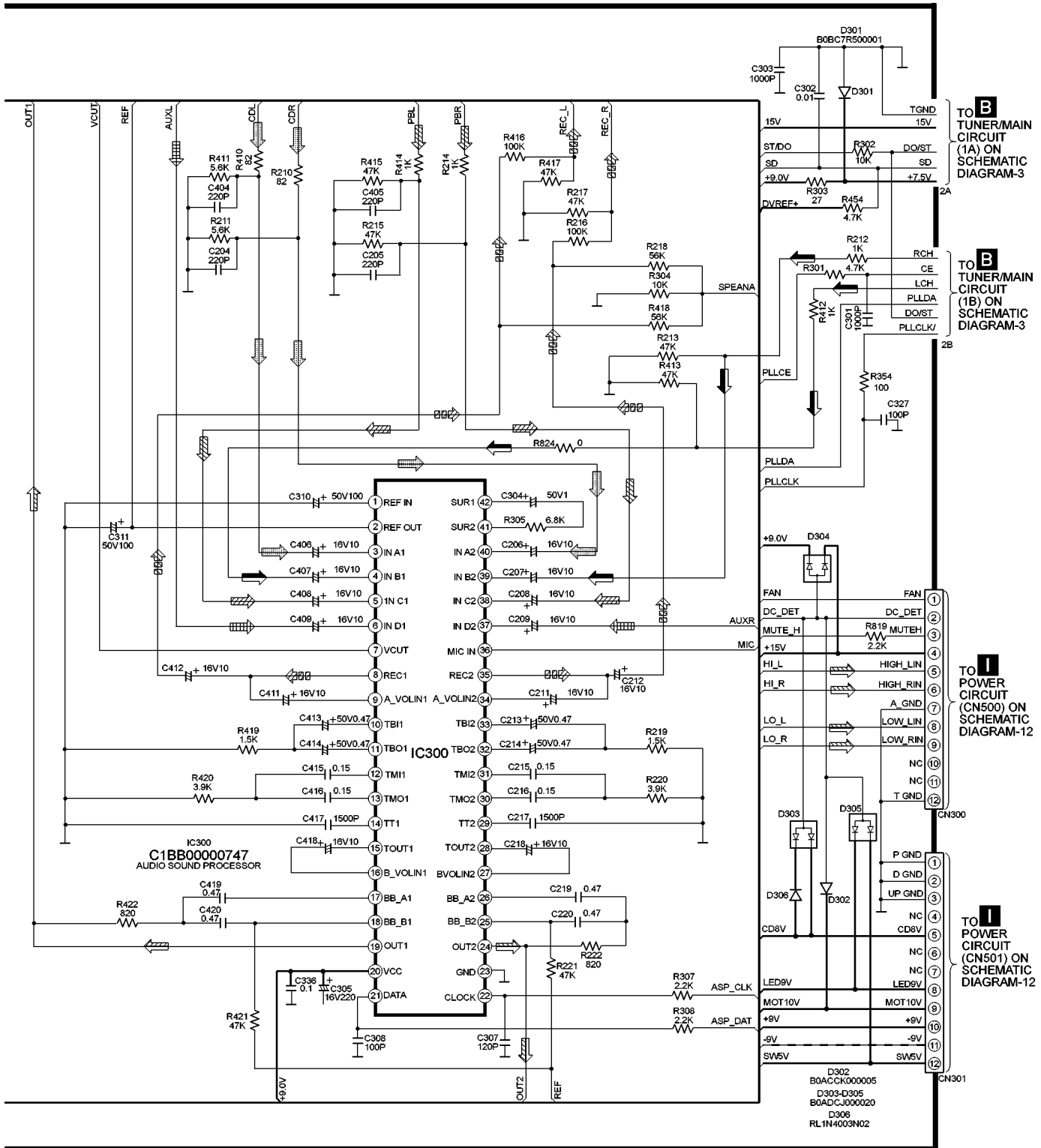
SCHEMATIC DIAGRAM - 7

— : +B SIGNAL LINE

- - : -B SIGNAL LINE

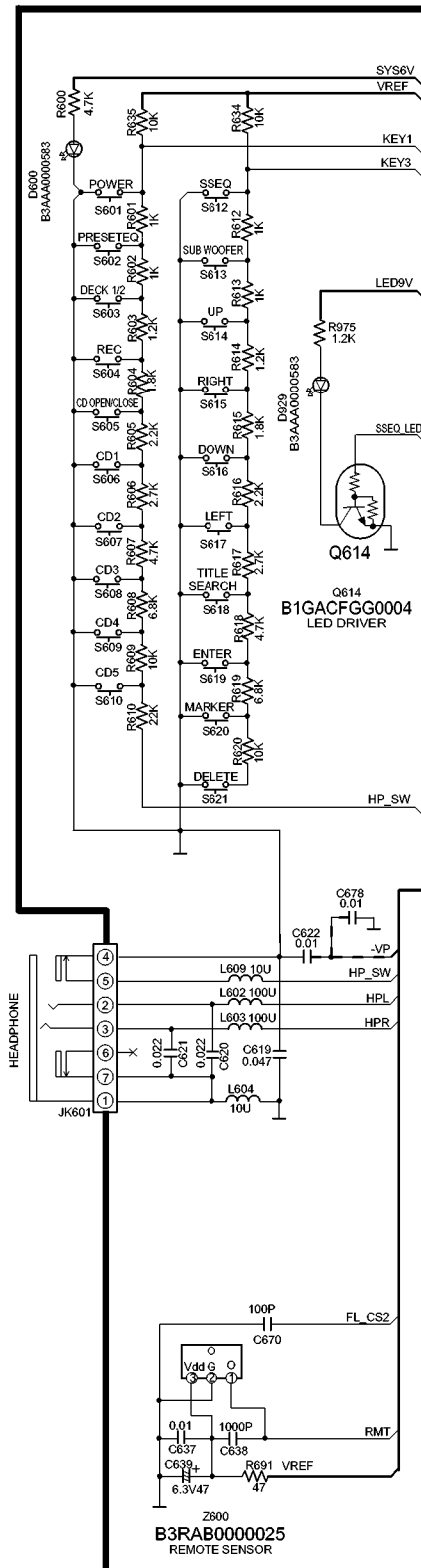
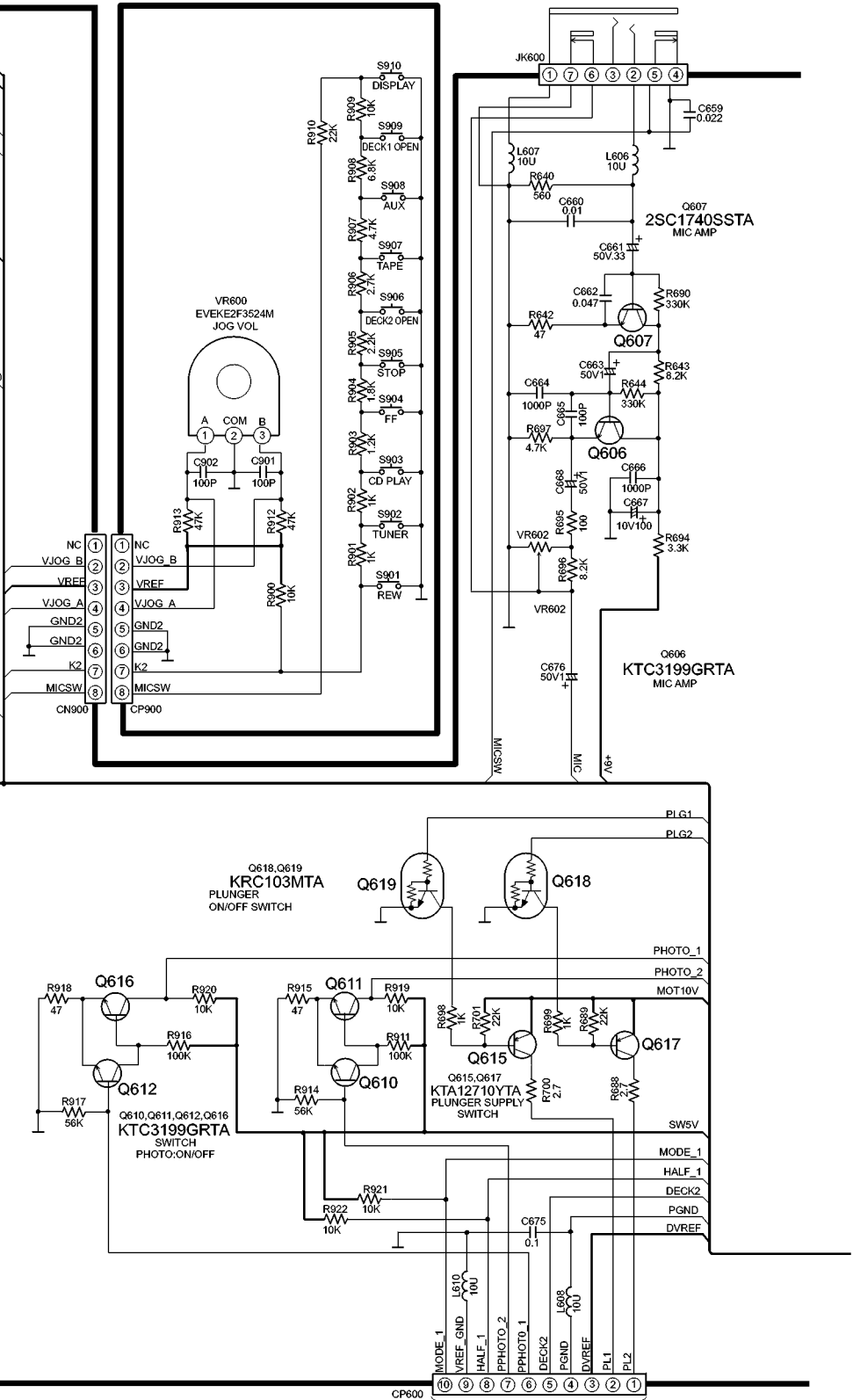
B MAIN CIRCUIT

SCHEMATIC DIAGRAM - 8

**B** MAIN CIRCUIT

SCHEMATIC DIAGRAM - 9

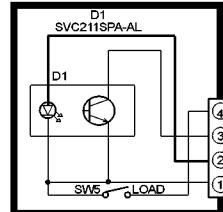
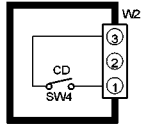
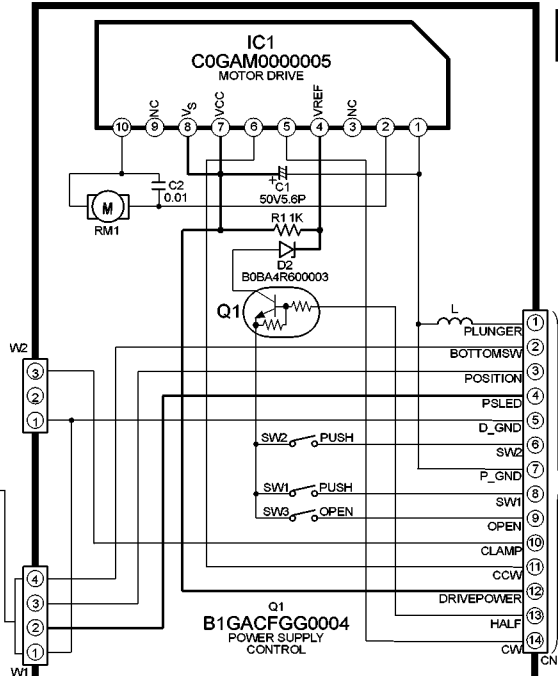
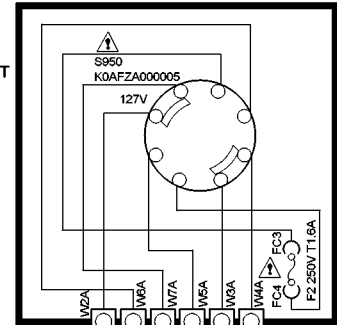
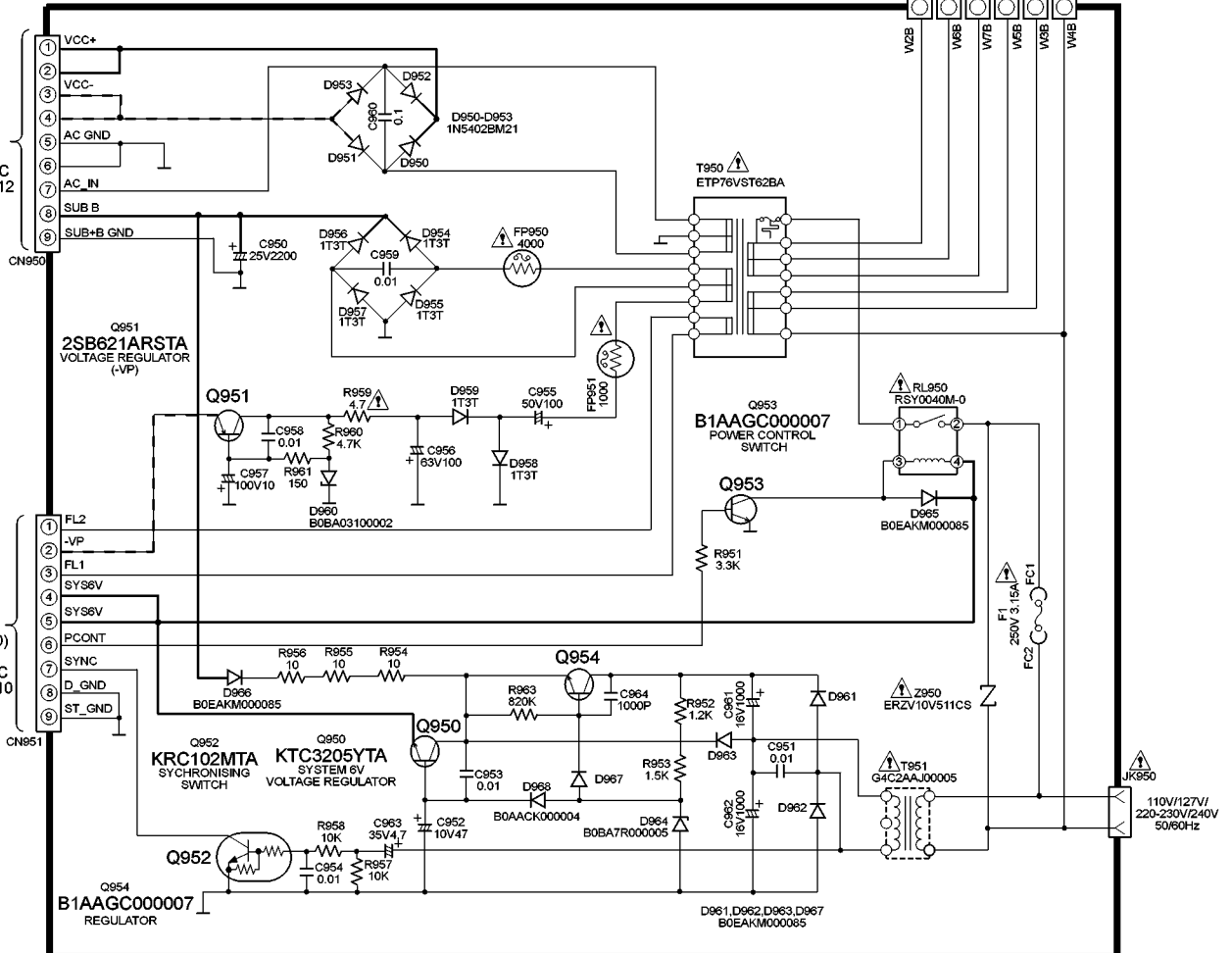
— : +B SIGNAL LINE

C PANEL CIRCUIT**D** TACT SWITCH CIRCUIT

K
MECHANISM CIRCUIT
(CN971) ON
SCHEMATIC DIAGRAM-14

SCHEMATIC DIAGRAM - 11

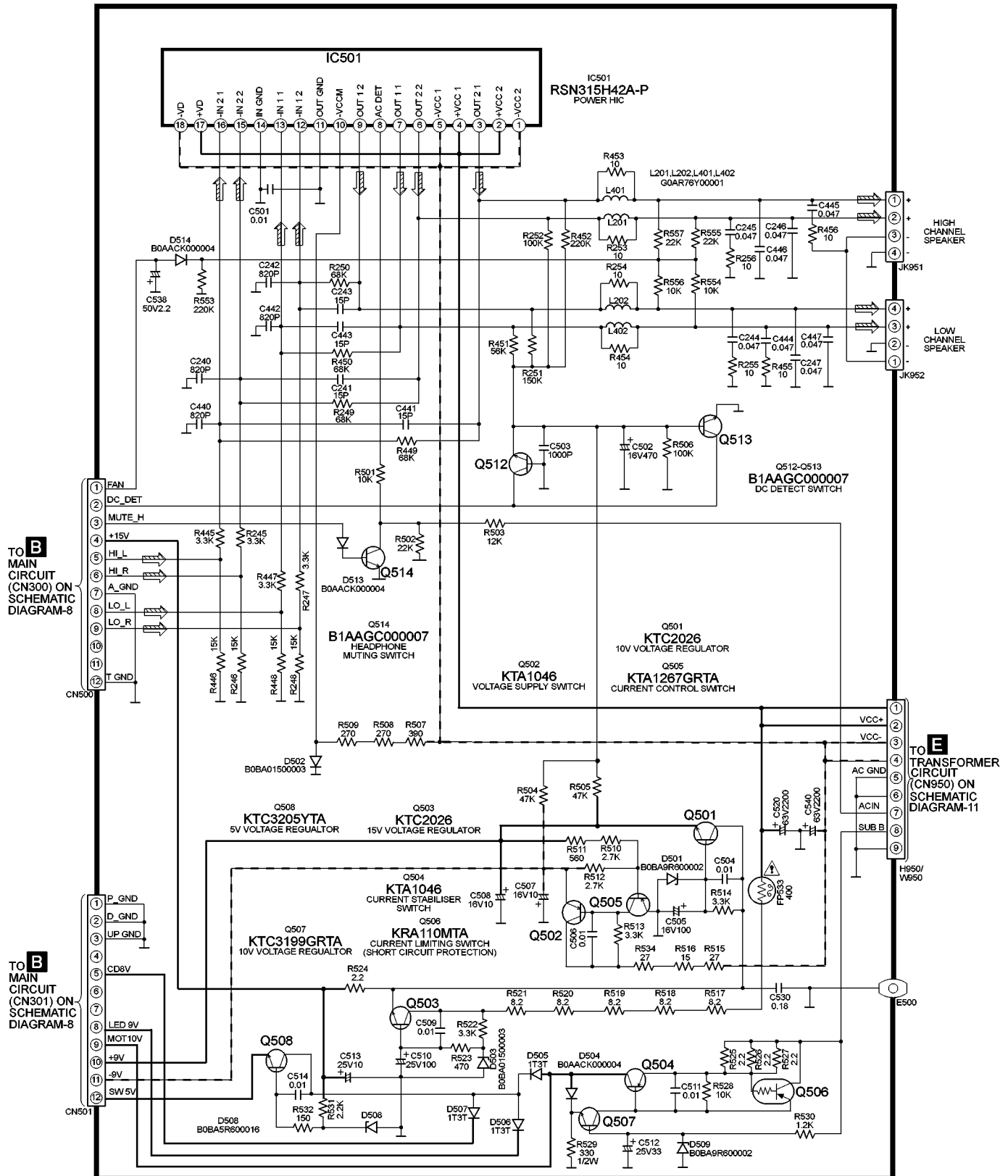
— : +B SIGNAL LINE - - - : -B SIGNAL LINE

F CD DETECT CIRCUIT**G** SPINDLE POSITION CIRCUIT**H** CD LOADING CIRCUIT**M** VOLTAGE SELECTOR CIRCUIT**E** TRANSFORMER CIRCUIT**I** TO POWER CIRCUIT (H950/W950) ON SCHEMATIC DIAGRAM-12**C** TO PANEL CIRCUIT (H600/W600) ON SCHEMATIC DIAGRAM-10

SCHEMATIC DIAGRAM - 12

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

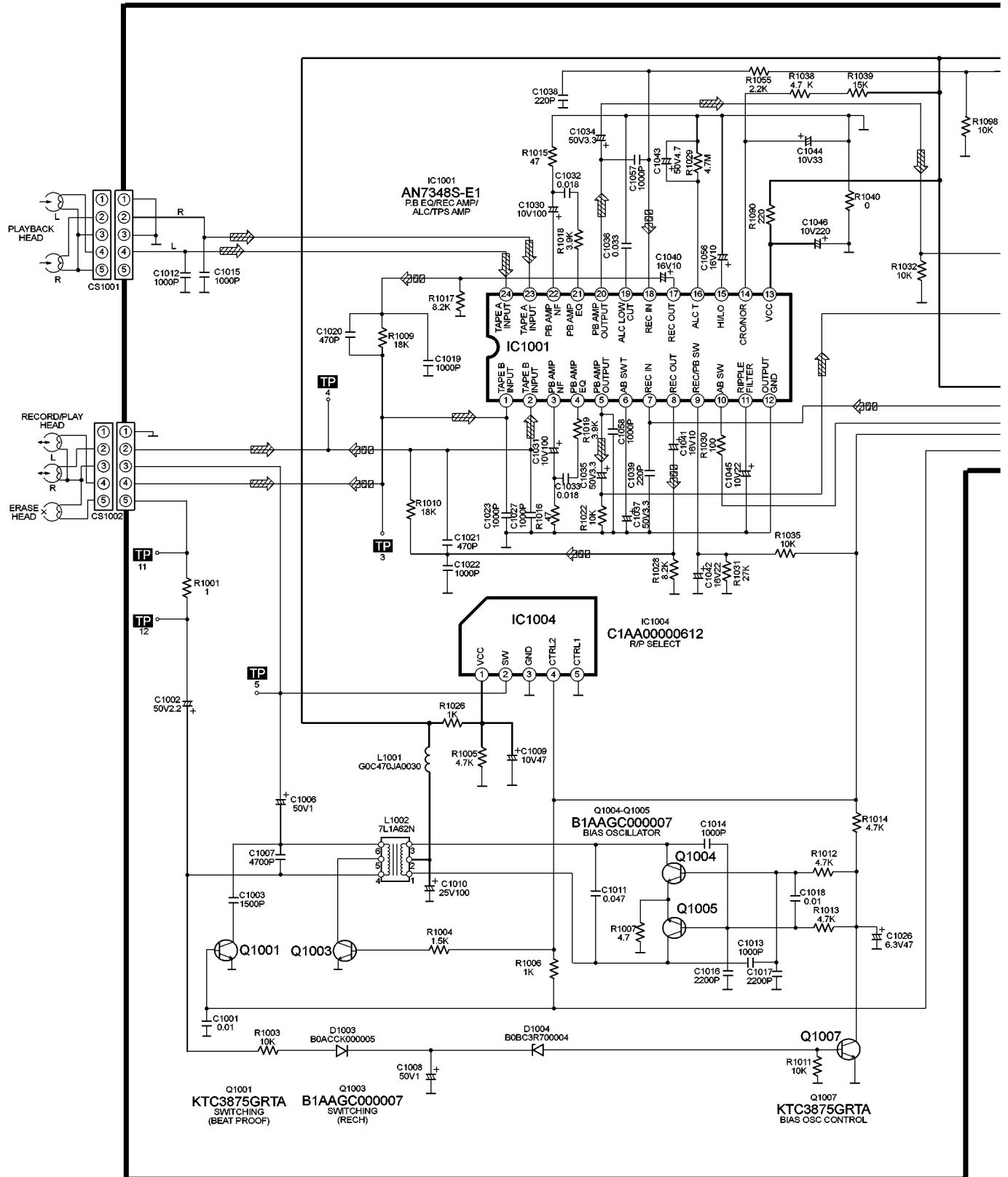
POWER CIRCUIT



SCHEMATIC DIAGRAM -13

— : +B SIGNAL LINE
 ▤ : PLAYBACK SIGNAL LINE
 ▢ : RECORD SIGNAL LINE

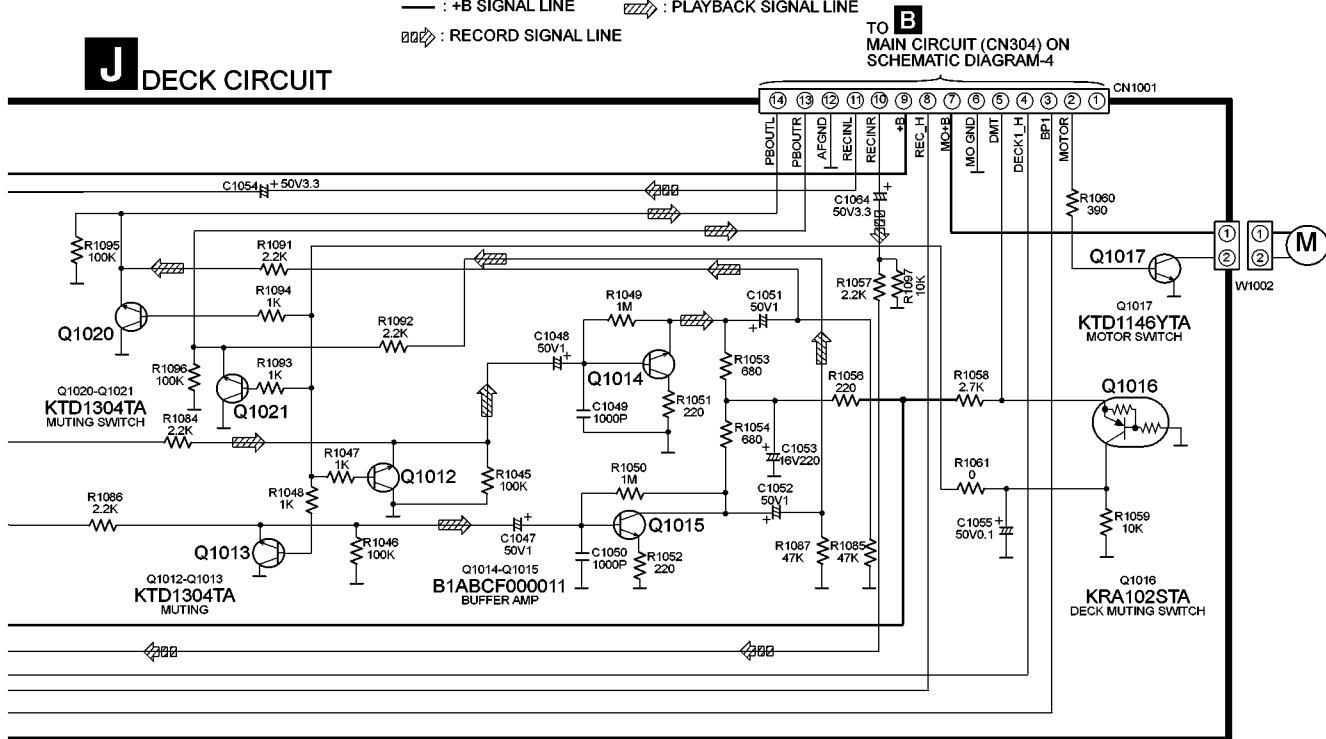
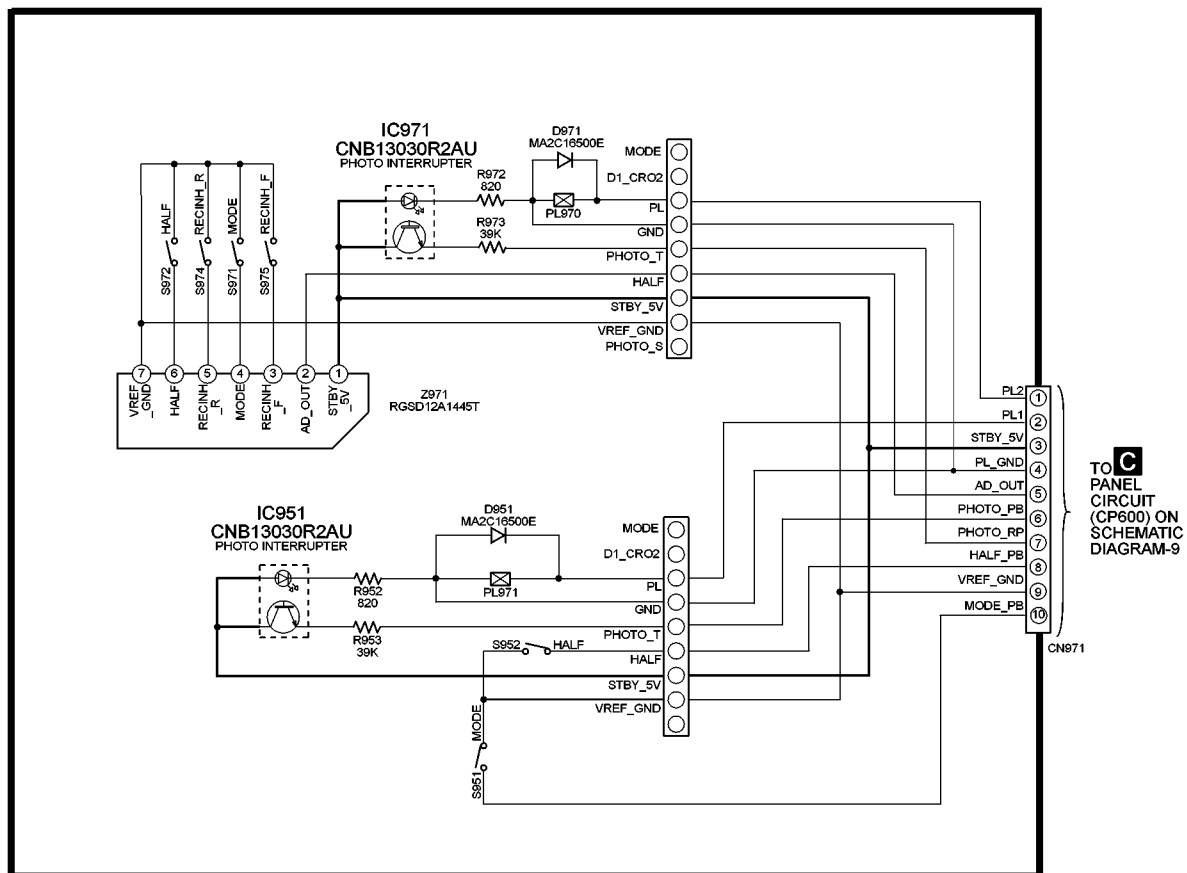
J DECK CIRCUIT



SCHEMATIC DIAGRAM - 14

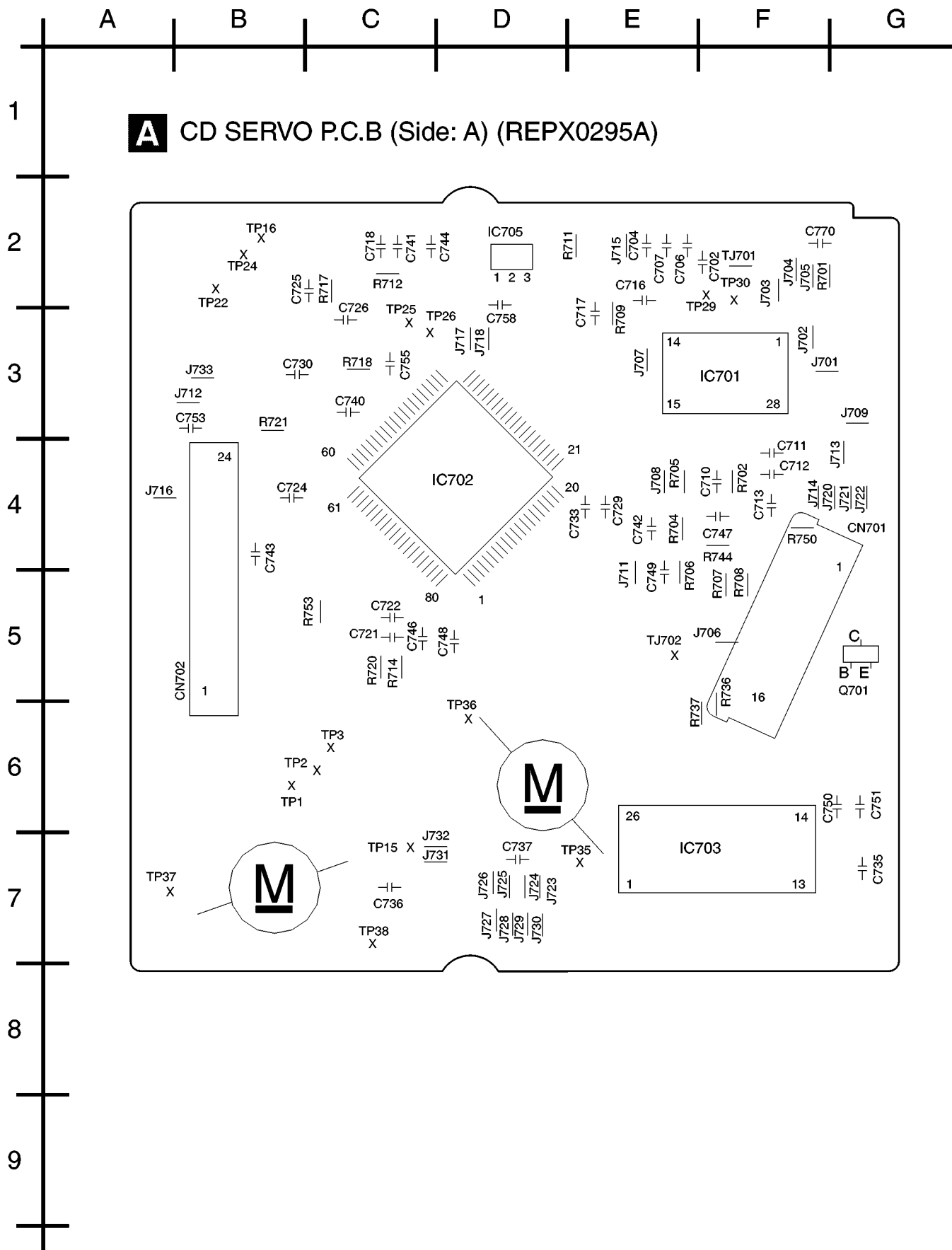
— : +B SIGNAL LINE ▨ : PLAYBACK SIGNAL LINE

▨ : RECORD SIGNAL LINE

J DECK CIRCUIT**K** MECHANISM CIRCUIT

15 Printed Circuit Board

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



A

B

C

D

E

F

G

1

A CD SERVO P.C.B (Side: B) (REPX0295A)

2

3

4

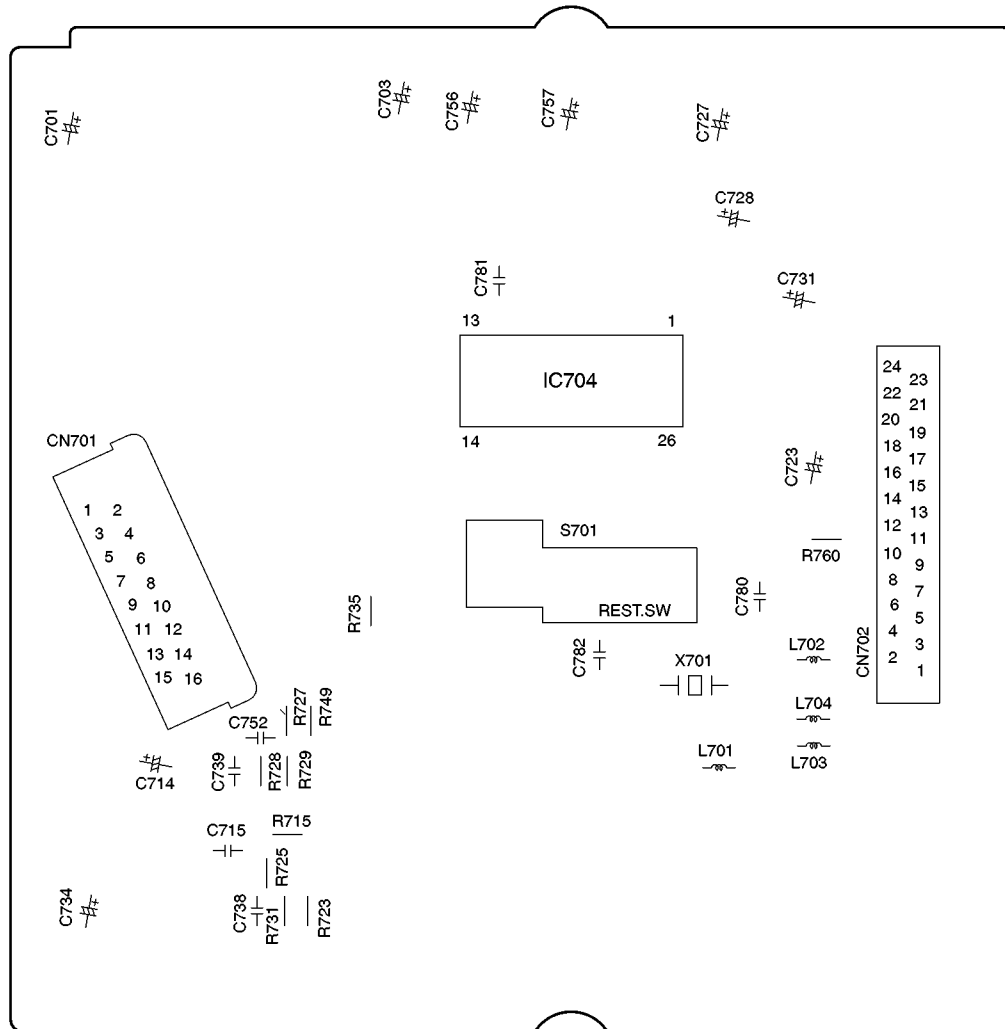
5

6

7

8

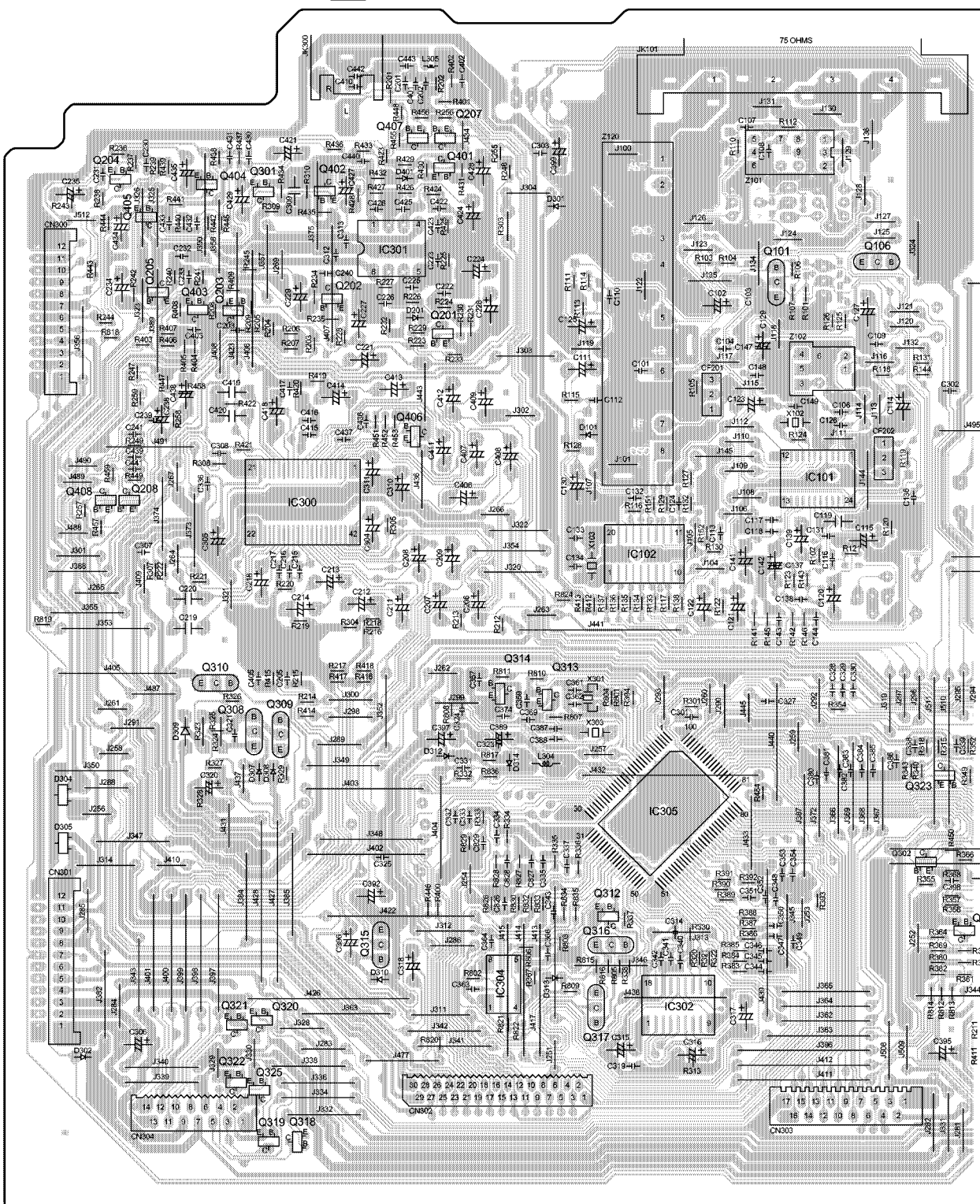
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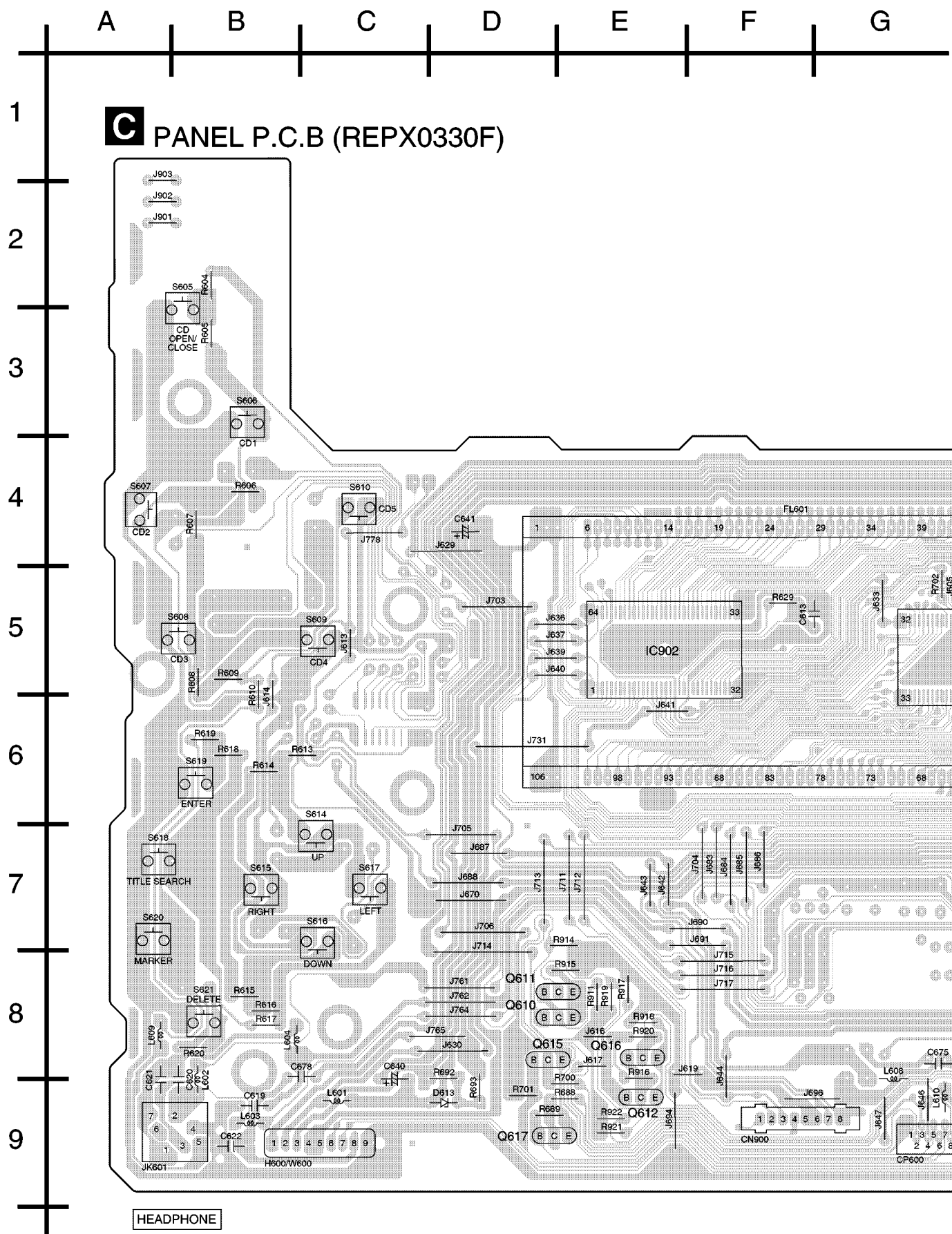
AUX

FM ANT

AM ANT

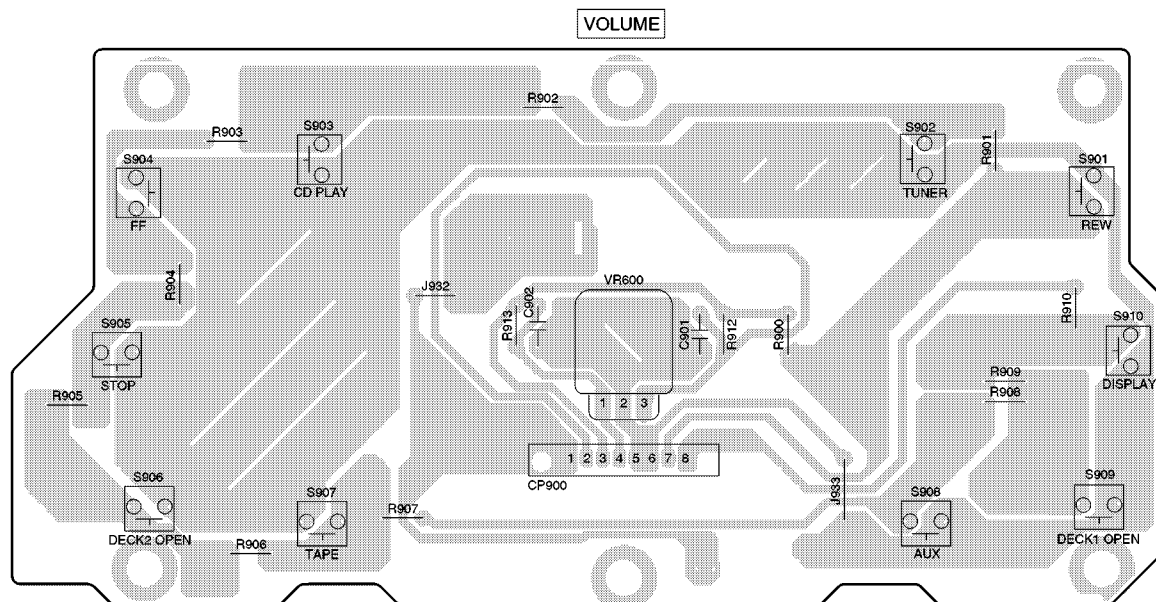




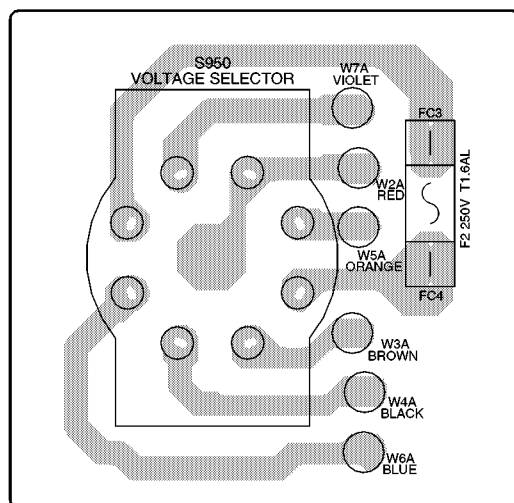




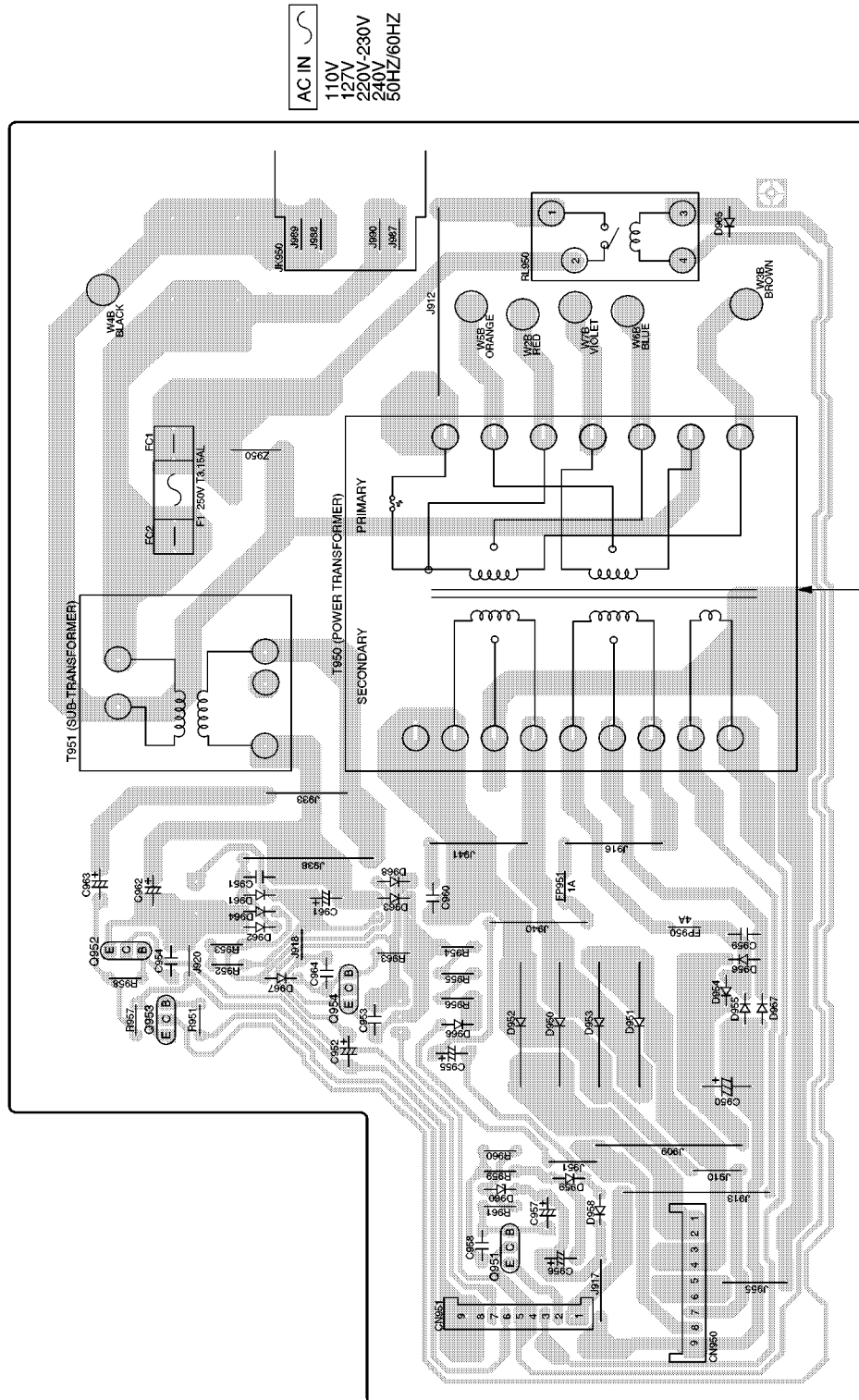
D TACT SWITCH P.C.B. (REPX0330F)



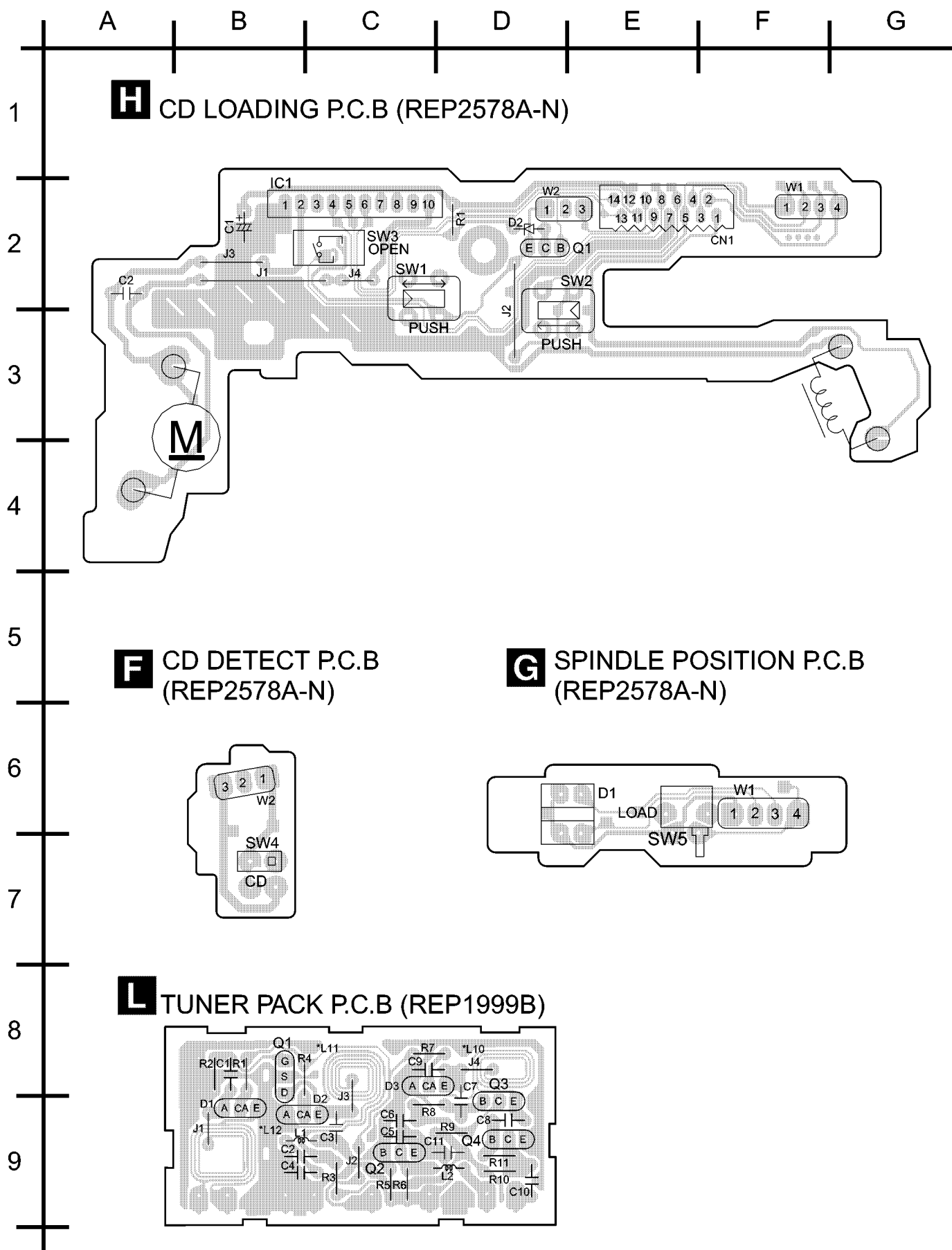
M VOLTAGE SELECTOR P.C.B. (REPX0327B)

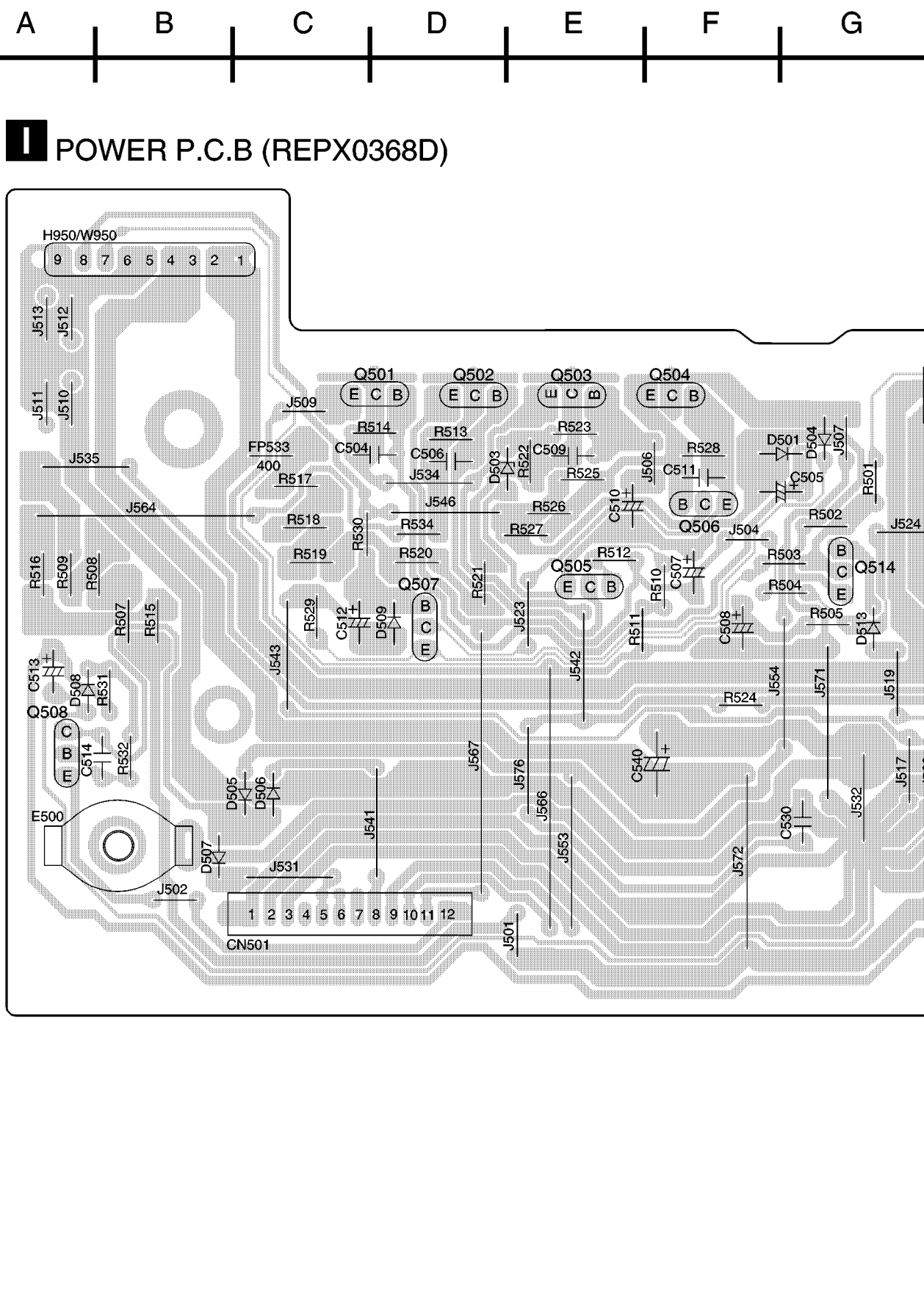


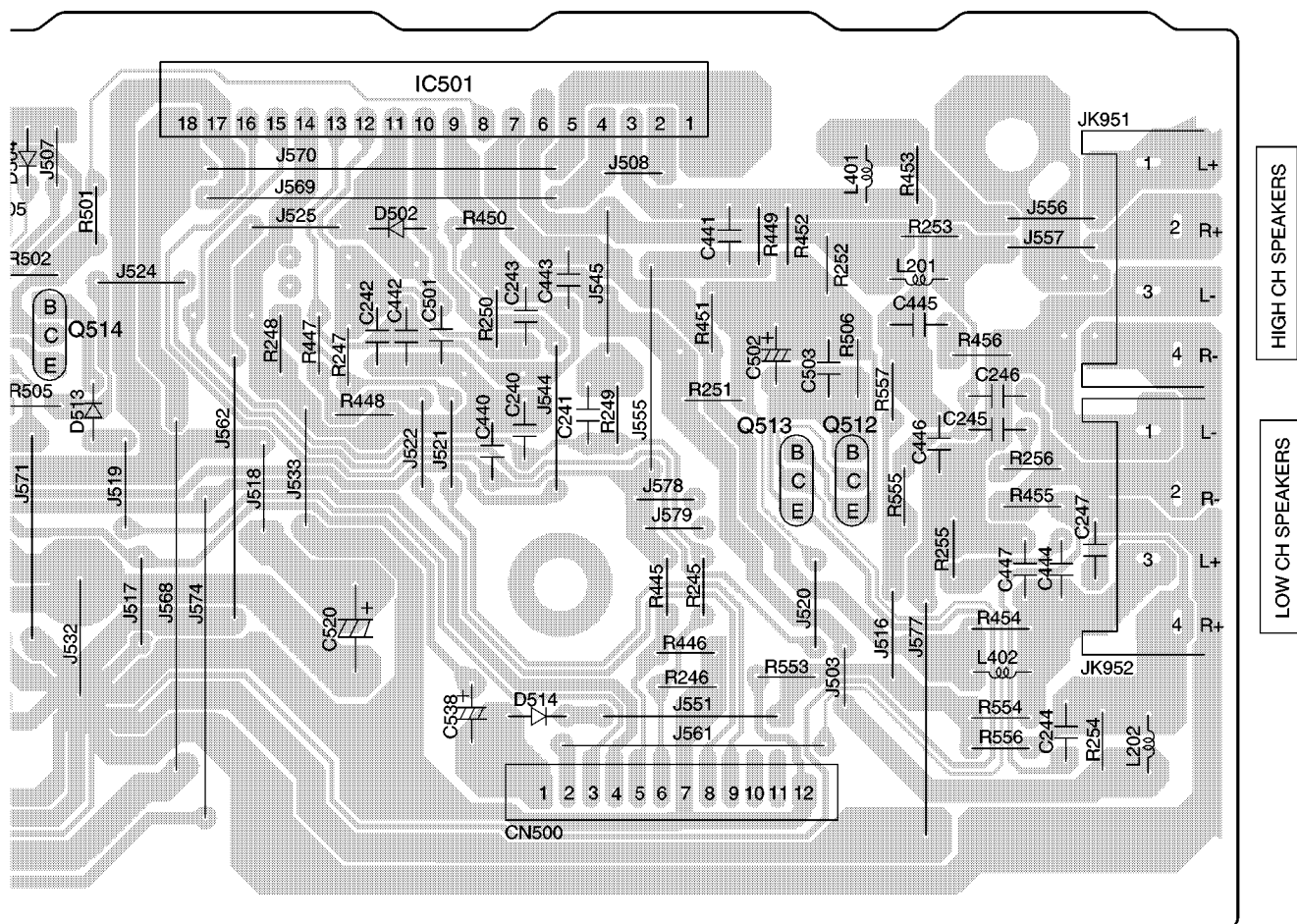
TRANSFORMER P.C.B (REPX0327B)



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







A

B

C

D

E

F

G

1

J DECK P.C.B.
(REPX0331A)

K DECK MECHANISM P.C.B.
(REPX0321B)

2

3

4

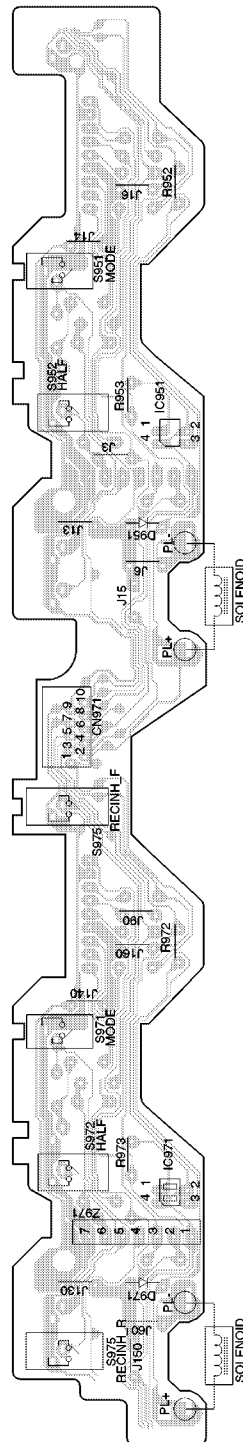
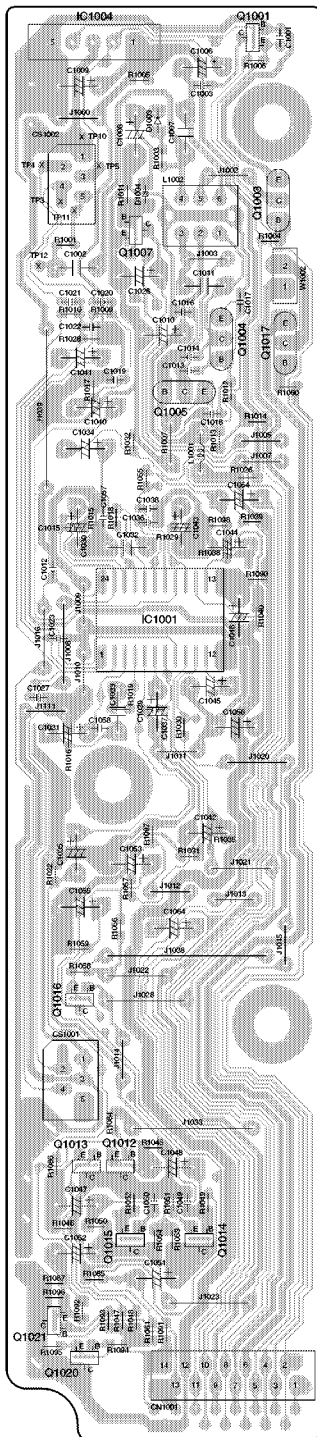
5

6

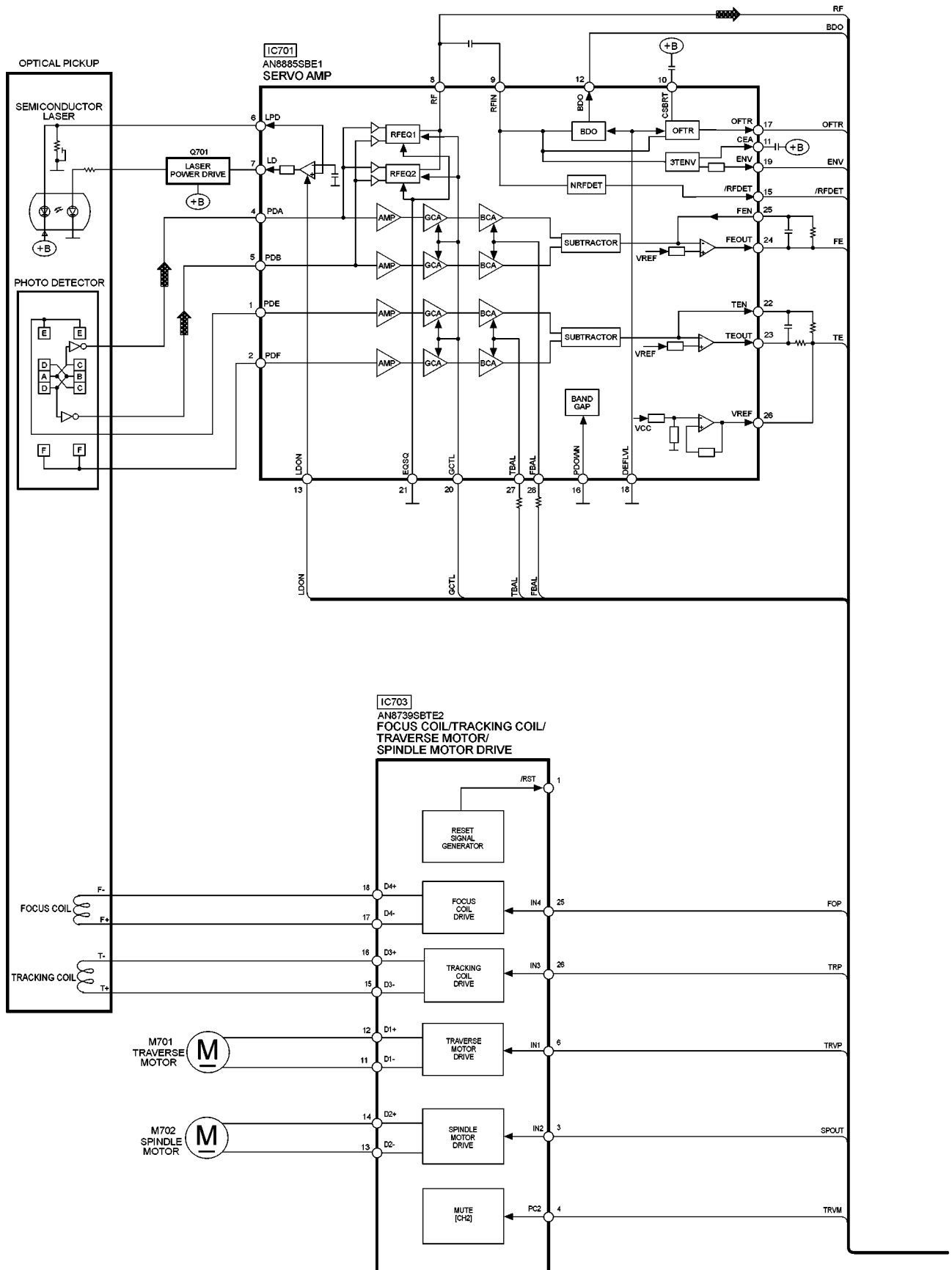
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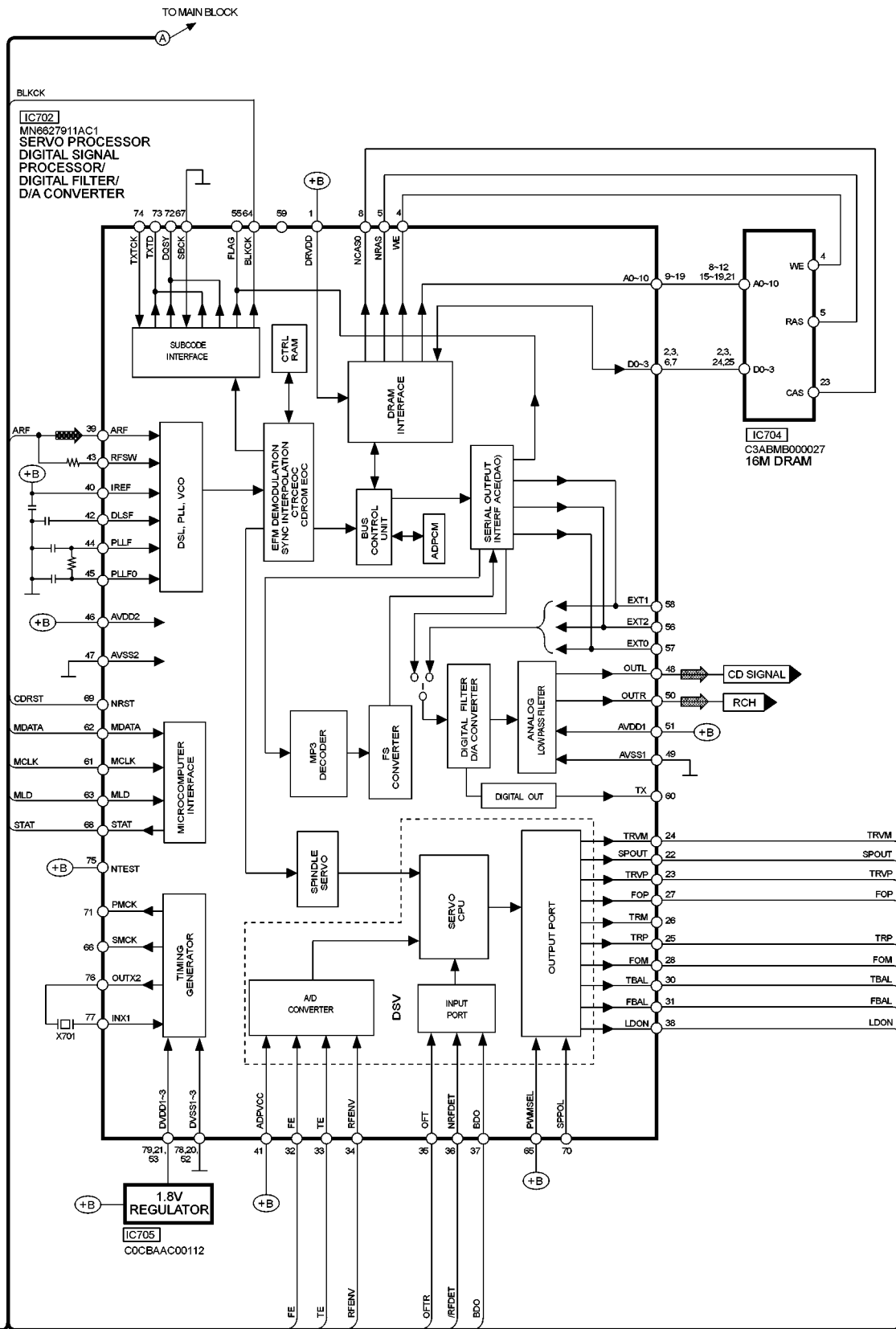
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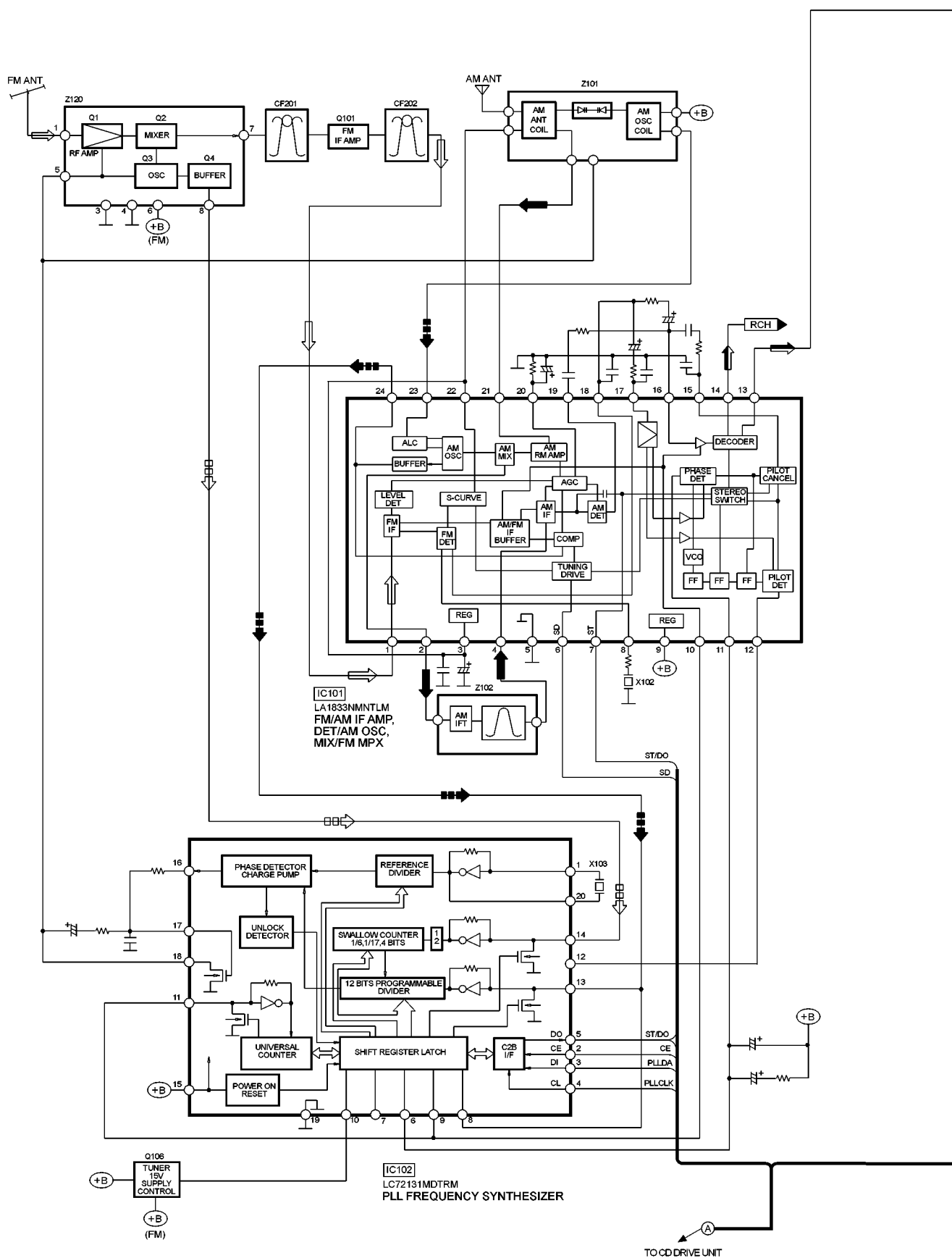
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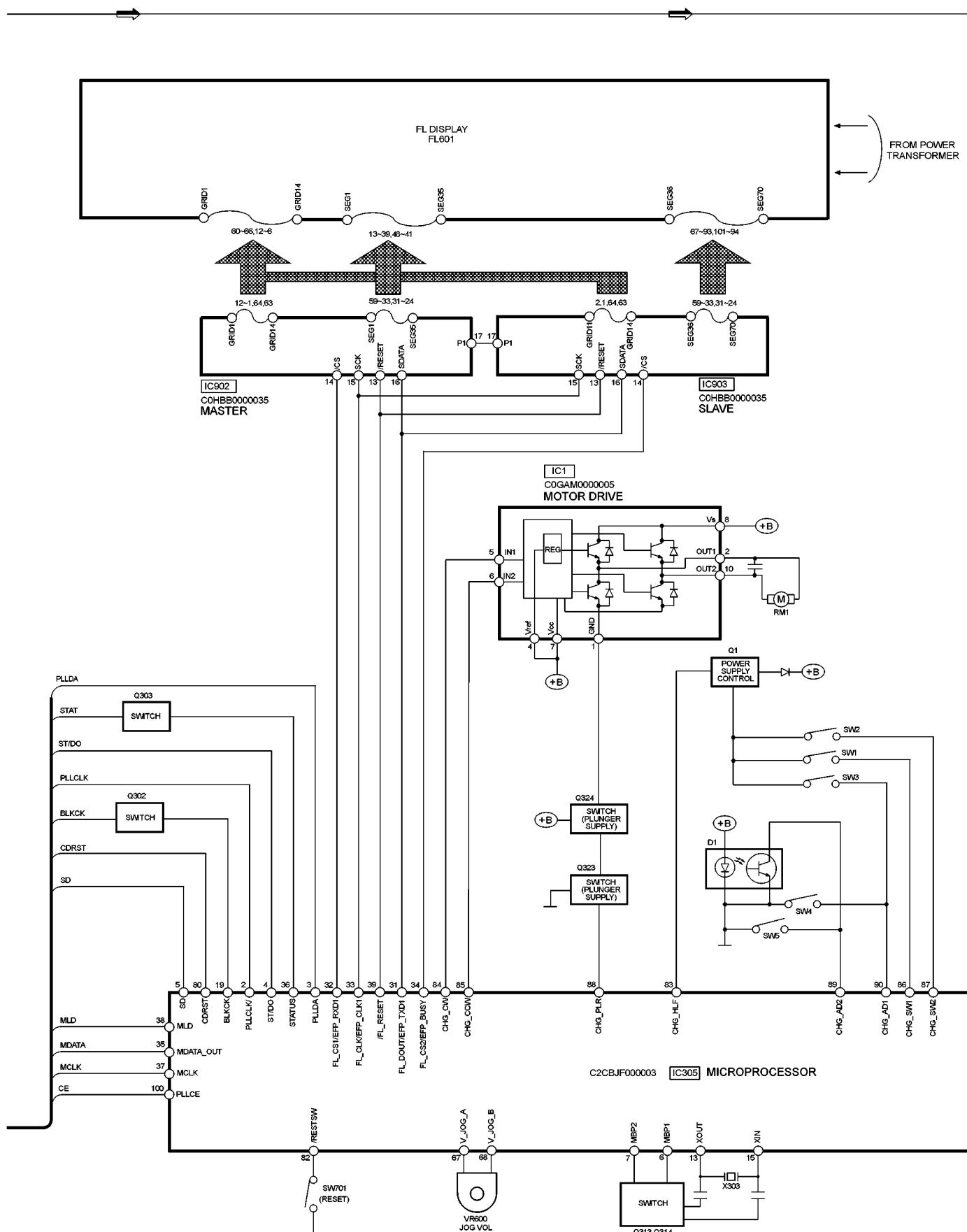


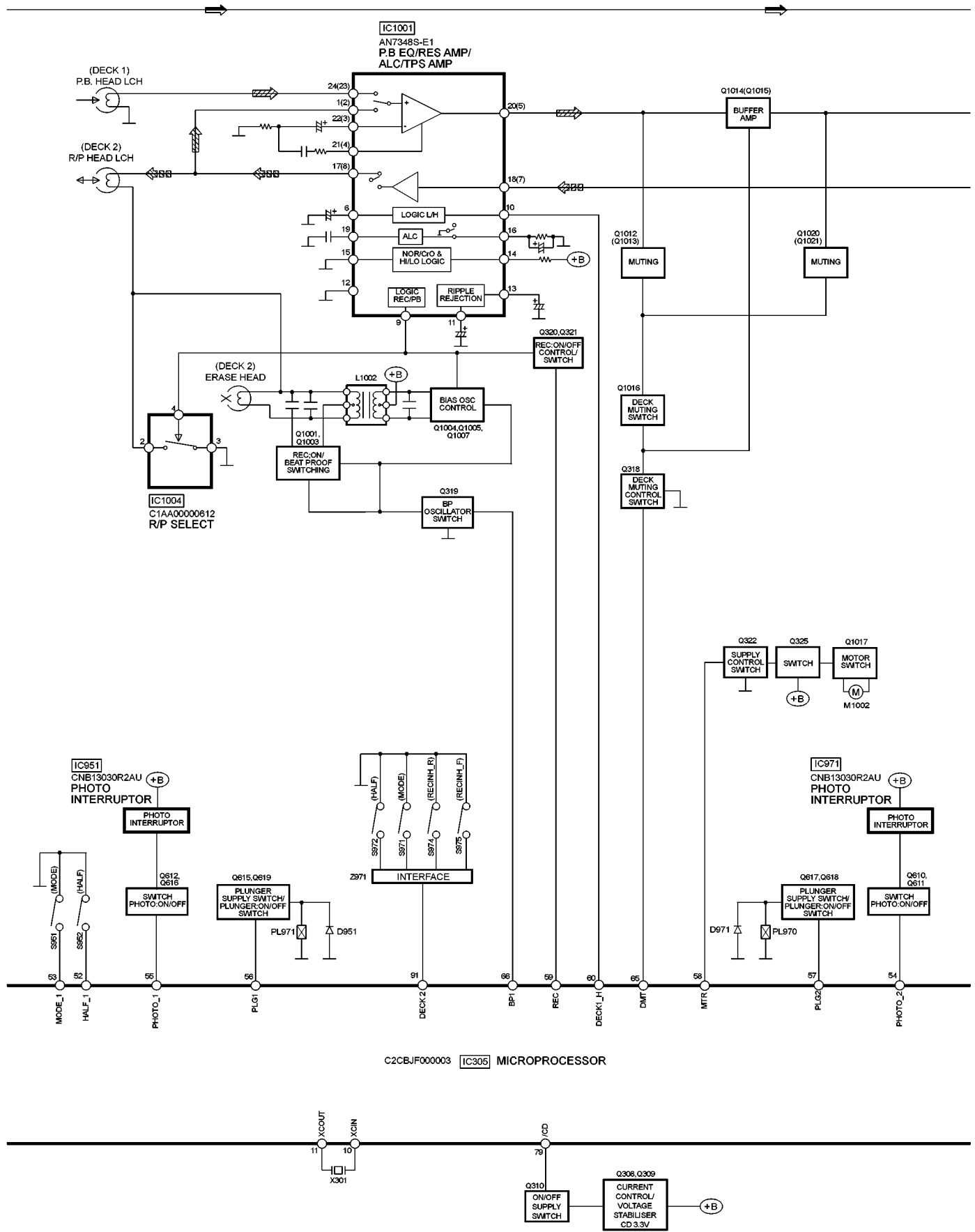
16 Block Diagram

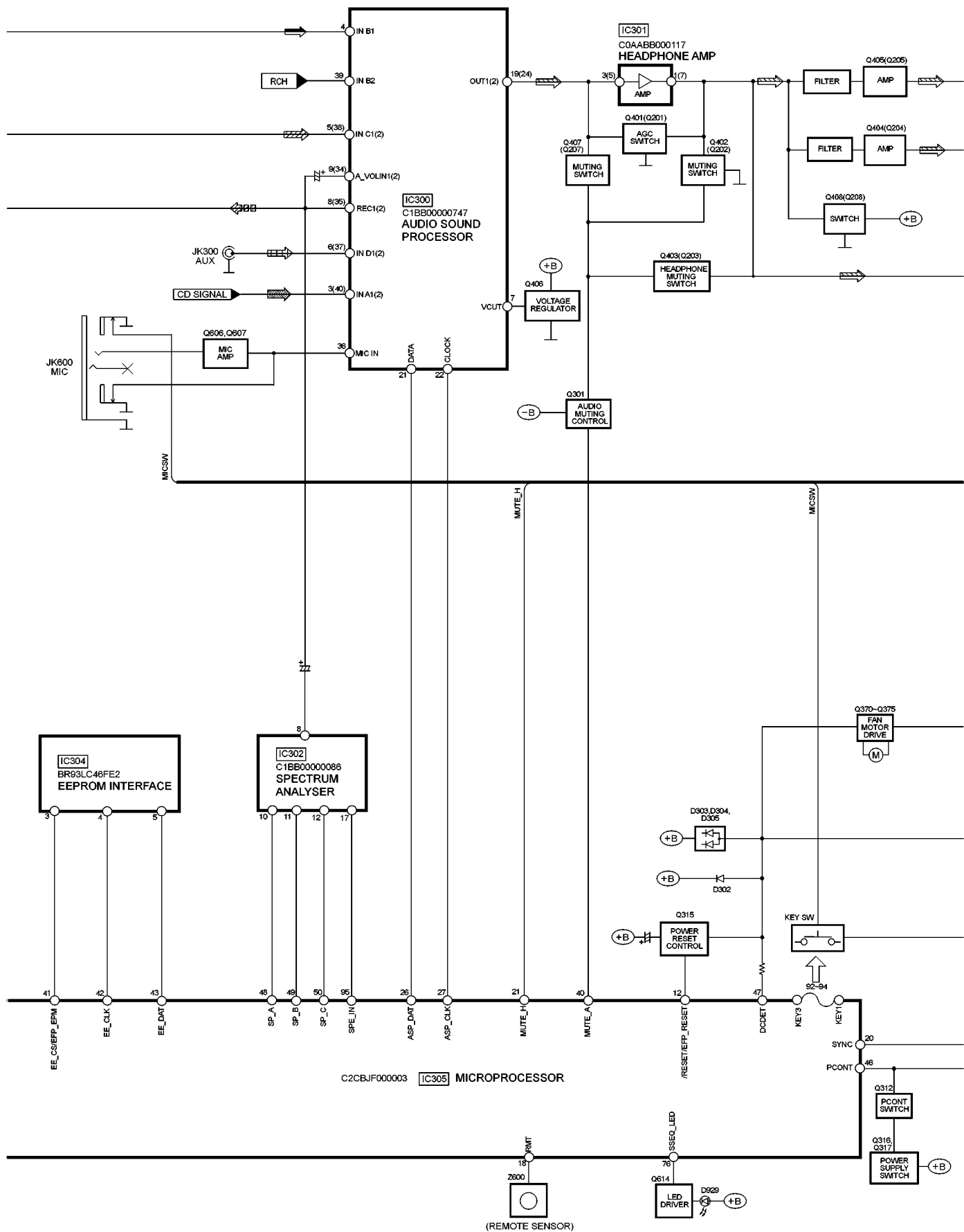


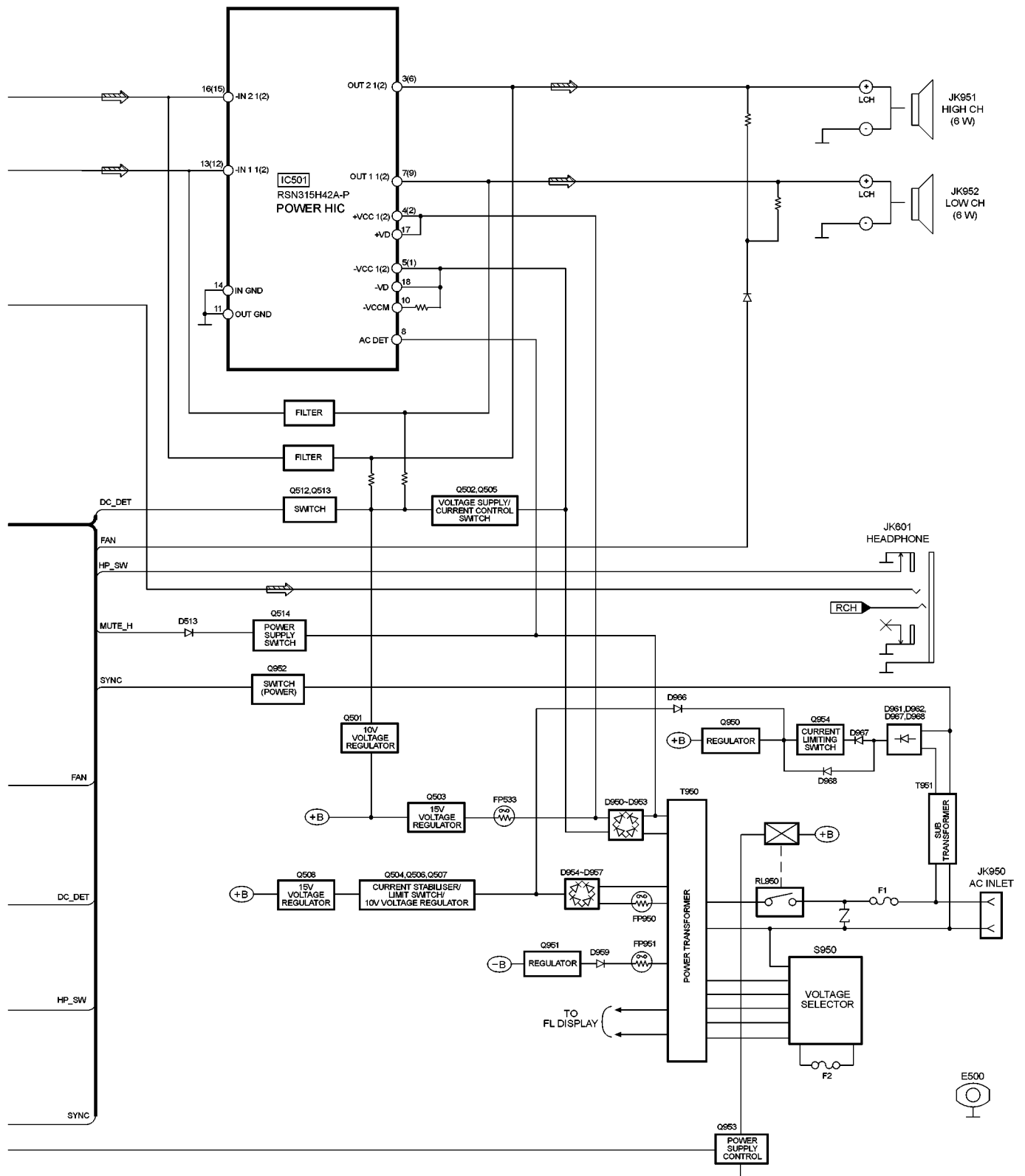












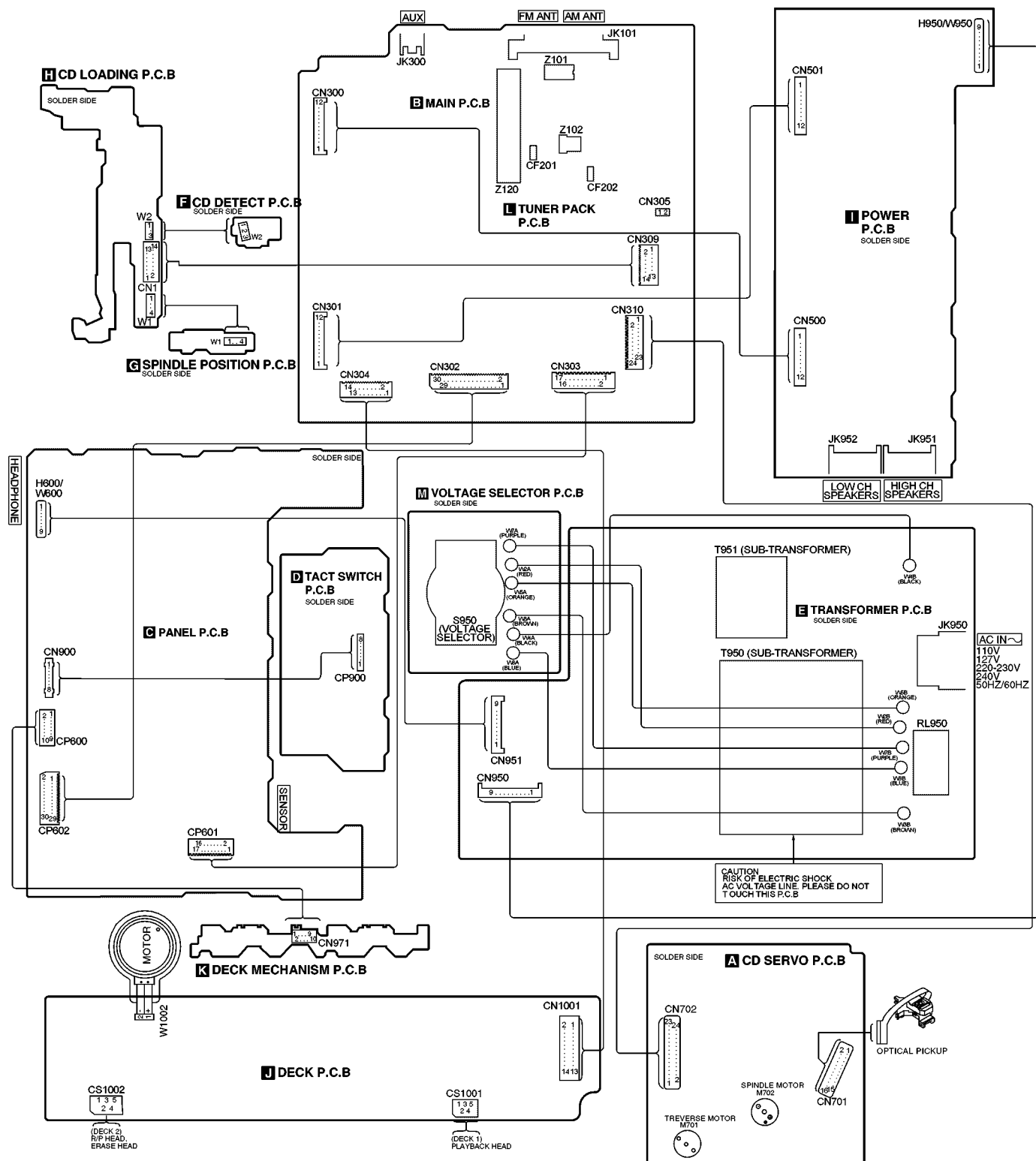
SIGNAL LINES

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

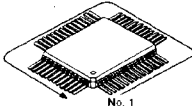
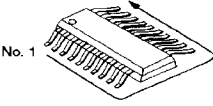
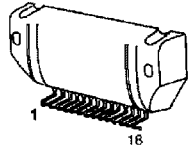
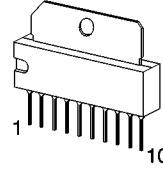
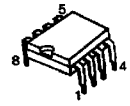
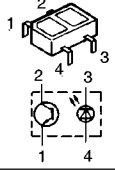
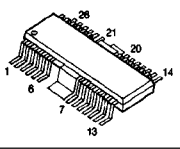
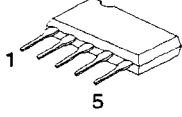
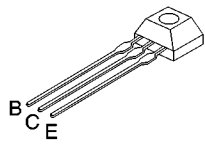
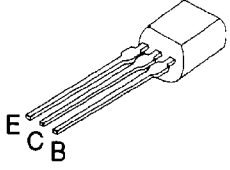
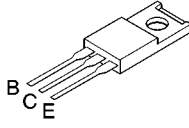
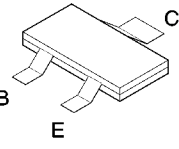
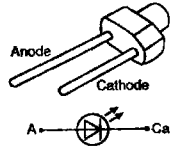
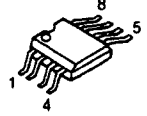
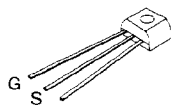
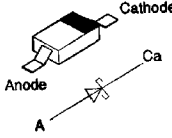
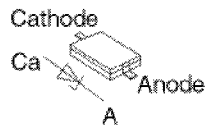
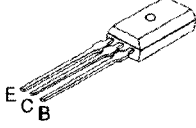
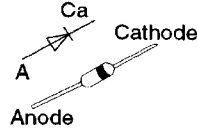
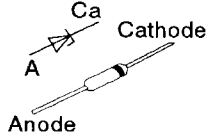
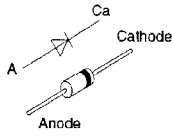
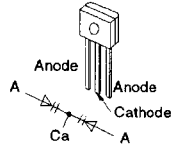
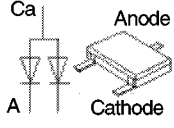
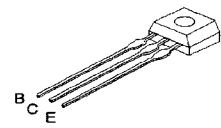
() Indicates the Pin No. of Right Channel.

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

17 Wiring Connection Diagram



18 Illustration of IC's, Transistors and Diodes

C2CBJF000003 (100P) MN6627911AC1 (80P)  No. 1	AN7348S-E1 (24P) AN8885SBE1 (28P) C0HBB0000035 (64P) C1BB00000086 (18P) C1BB00000747 (42P) C3ABMB000027 (26P) LA1833NMNTLM (24P) LC72131MDTRM (20P)  No. 1	RSN315H42A-P  1 18	C0GAM0000005  1 10	C0AABB000117  5 8 4
CNB13030R2AU  1 2 3 4	AN8739SBTE2  1 6 7 13 14 20 21 28	C1AA00000612  1 5	C0CBAAC00112 	KTC3199GRTA KTA1267GRTA KRA102MTA KRA110MTA KRC102MTA KRC103MTA  B C E
2SB621ARSTA 2SD0592ARA KTA12710YTA KTD1146YTA  E C B	KTC2026 KTA1046  B C E	2SC2058SPTA  E C B	B1ABCF000011 B1ADCF000001 KRA102STA KRC101STA KRC102STA KTC3875GRTA KTD1304TA  B C E	
B3AAA0000583  Anode Cathode A Ca	BR93LC46FE2  1 4 5 8	2SK544F-AC  G S D	MA2J72900L MA2J72800L  Anode Cathode A Ca	B0BC7R500001 B0BC3R700004 B0BC5R000009 UDZSTE1710B  Cathode Ca Anode A
KTC3205YTA  E C B	B0ACCK000005 ISS380TE-17  Cathode Ca Anode A	B0AACK000004 MA2C16500E  Ca Cathode A Anode	B0BA4R600003 B0BA03100002 B0BA9R600002 B0BA7R000005 B0BA5R600016  Ca Cathode A Anode	
1T3T 1N5402BM21 RL1N4003N02 B0EAKM000085  Anode Cathode A Ca	SVC211SPA-AL  Anode Cathode A Ca A	B0ADCJ000020  Ca Anode A Cathode	B1AAGC000007 B1GACFGG0004 2SC2787FLITA 2SC2786MTA 2SC1740SSTA  B C E	

19 Terminal Function of IC's

19.1. IC701 (AN8885SBE1) Servo Amplifier

Pin No.	Mark	I/O	Function
1	PDE	I	Tracking signal input 1
2	PDF	I	Tracking signal input 2
3	VCC	I	Power supply
4	PDA	I	Focus signal input terminal 1
5	PDB	I	Focus signal input terminal 2
6	LPD	I	APC amp input
7	LD	O	APC amp output
8	RF	O	RF summing output
9	RFIN	I	Detector's input
10	CSBRT	I	Capacitor for OFTR connection
11	CEA	I	Capacitor for HPF amp connection
12	BDO	O	BDO output ("H" : drop out)
13	LDON	I	APC control
14	GND	-	Ground
15	/RFDET	O	NRFDET output ("L" : detection)
16	PDOWN	O	Power-down input
17	OFTR	O	OFTR
18	NC	O	N.C.
19	ENV	O	3T-ENV output
20	NC	I	N.C.
21	NC	I	N.C.
22	TEN	I	TE amp input
23	TEOUT	O	TE amp output
24	FEOUT	O	FE amp output
25	FEN	I	FE amp input
26	VREF	O	Reference voltage
27	TBAL	I	Tracking balance control
28	FBAL	I	Focus balance control

19.2. IC702 (MN6627911AC1) Servo processor/ Digital signal processor/ Digital filter/ D/A converter

Pin No.	Mark	I/O	Function
1	DRVDD	I	Power supply for DRAM interface (Pin 2 to 19 and 80)
2	D0	I/O	DRAM data I/O signal 0
3	D1	I/O	DRAM data I/O signal 1
4	NWE	O	DRAM write enable signal
5	NRAS	O	DRAM RAS control signal
6	D2	I/O	DRAM data I/O signal 2
7	D3	I/O	DRAM data I/O signal 3
8	NCAS0	O	DRAM CAS control signal 0
9	A10	O	DRAM CAS control signal 10
10	A8	O	DRAM address signal 8
11	A7	O	DRAM address signal 7
12	A6	O	DRAM address signal 6
13	A5	O	DRAM address signal 5
14	A4	O	DRAM address signal 4
15	A9	O	DRAM address signal 9
16	A0	O	DRAM address signal 0
17	A1	O	DRAM address signal 1
18	A2	O	DRAM address signal 2
19	A3	O	DRAM address signal 3
20	DVSS2	I	Ground for digital circuits
21	DVDD2	I	Power supply for digital circuits
22	SPOUT	O	Spindle motor drive signal output (absolute value output)

Pin No.	Mark	I/O	Function
23	TRVP	O	Traverse drive output (positive polarity output)
24	TRVM	O	Traverse drive output (negative polarity output)
25	TRP	O	Tracking drive output (positive polarity output)
26	TRM	O	Tracking drive output (negative polarity output)
27	FOP	O	Focus drive output (positive polarity output)
28	FOM	O	Focus drive output (negative polarity output)
29	IOVDD1	I	Power supply for I/O
30	TBAL	O	Tracking balance adjustment output
31	FBAL	O	Focus 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 (analog input)
35	OFT	I	Off-track signal input High : Off track)
36	NRFDET	I	RF detection signal input Low :detection)
37	BDO	I	Dropout signal input High: Dropout
38	LDON	O	Laser ON signal output High: ON
39	ARF	I	RF signal input
40	IREF	I	Reference current input
41	ADPVCC	I	Voltage input for supply voltage monitor (analog input)
42	DSLIF	O	DSL loop filter
43	RFSW	I	DSL loop filter
44	PLLIF	O	PLL loop filter
45	PLLFO	O	PLL loop filter
46	AVDD2	I	Power supply for analog circuits (for DSL, PLL and A/D)
47	AVSS2	I	Ground for analog circuits (for DSL, PLL and A/D)
48	OUTL	O	L-ch audio output
49	AVSS1	I	Ground for analog circuits (for audio output stage)
50	OUTR	O	R-ch audio output
51	AVDD1	I	Power supply for analog circuits (for audio output stage)
52	DVSS3	I	Ground for digital circuits
53	DVDD3	I	Power supply for digital circuit
54	TMOD2	I	Test input pin Low: Normal
55	FLAG	O	Flag signal output
56	EXT2	I/O	Expansion I/O port 2
57	EXT0	I/O	Expansion I/O port 0
58	EXT1	I/O	Expansion I/O port 1
59	IOVDD2	I	Power supply for I/O
60	TX	O	Digital audio interface output signal
61	MCLK	I	Microcontroller command clock signal input (Latches data at the rising edge)
62	MDATA	I	Microcontroller command data signal input
63	MLD	I	Microcontroller command load signal input Low: Load

Pin No.	Mark	I/O	Function
64	BLKCK	O	Subcode block clock signal (f=75 Hz in normal-speed playback mode)
65	PWMSEL	I	PWM output mode selection input Low: Direct High: 3-state
66	SMCK	O	4.2336 MHz/ 8.4672 MHz clock signal output
67	SBCK	I	Clock input for subcode serial output
68	STAT	O	Status signal output
69	NRST	I	Reset input Low: Reset
70	SPPOL	O	Spindle motor drive signal output (polarity output)
71	PMCK	O	88.2-kHz clock signal output
72	DQSY	O	Pack signal output for CD-TEXT data
73	TXTD	O	CD-TEXT data signal output
74	TXTCK	O	External clock signal input for CD-TEXT register
75	NTEST	I	Test input pin High: Normal
76	OUT X2	O	Crystal oscillator circuit output pin (f=16.9355 MHz, 33.8688 MHz)
77	IN X1	I	Crystal oscillator circuit input pin (f=16.9344 MHz, 33.8688 MHz)
78	DVSS1	I	Ground for digital circuits
79	DVDD1	I	Power supply for digital circuits
80	MON	O	Monitor for evaluation

19.3. IC703 (AN8739SBTE2) Focus coil/ Tracking coil/ Traverse motor/ Spindle motor driver

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

Pin No.	Mark	I/O	Function
25	IN4	I	Motor driver (4) input
26	IN3	I	Motor driver (3) input
27	RSTIN	I	Reset terminal
28	NC	-	N.C.
29	Gnd	-	Gnd
30	Gnd	-	Gnd

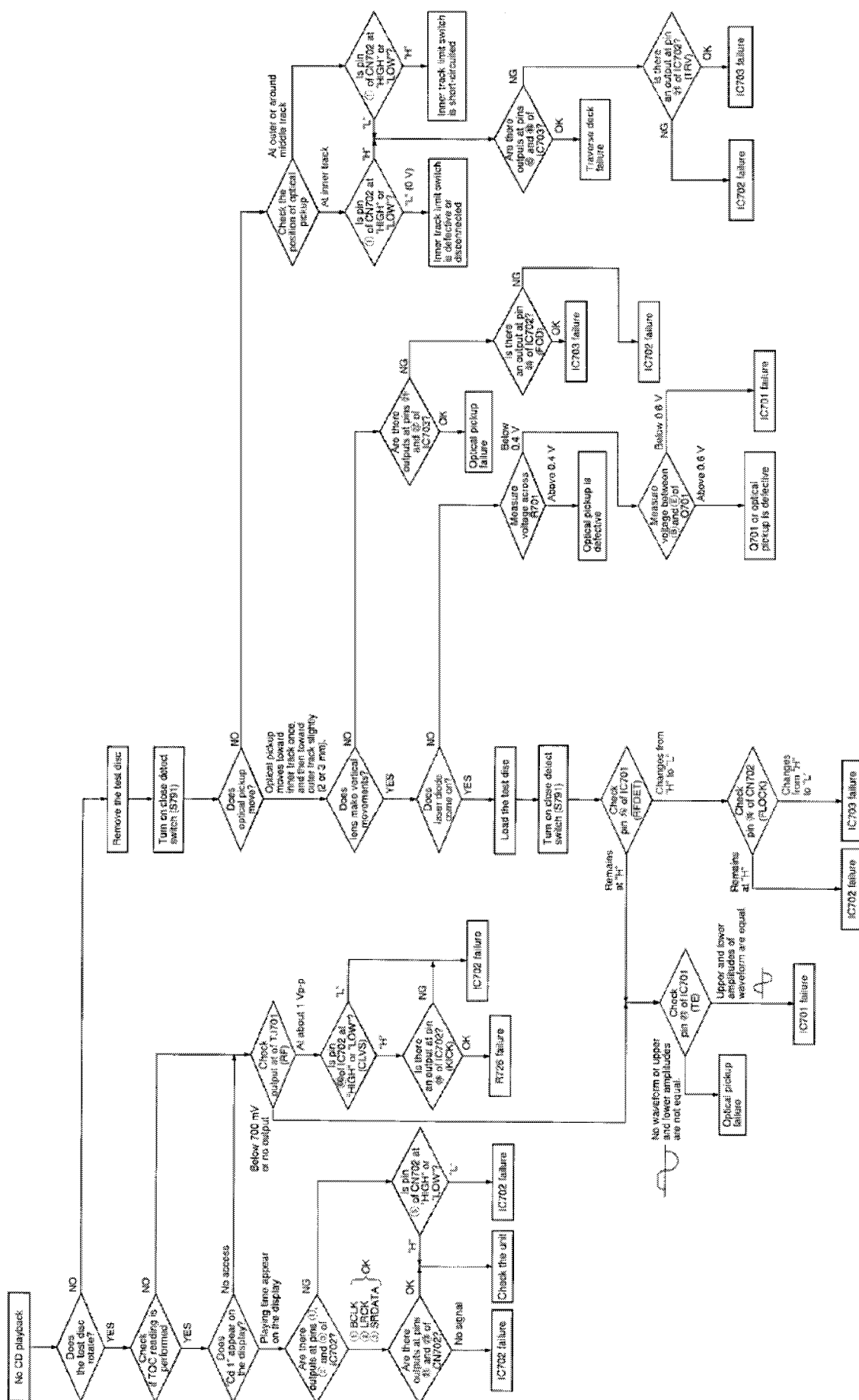
19.4. IC305 (C2CBJF000003) System Microprocessor

Pin No.	Mark	I/O	Function
1	REG_2	I/O AD	Region Setting 2
2	PLLCK	O	Tuner PLL Clock Output
3	PLLDA	O	Tuner PLL Data Output
4	ST/DO	I	Tuner IF Data / Stereo Input
5	SD	I	Tuner signal Detect Input
6	MBP1	O	Microcomputer Beat Proof Output 1 (CONTROL)
7	MBP2	O	Microcomputer Beat Proof Output 2 (CONTROL)
8	BYTE	-	External Data Bus Width Select Input (Connect to Ground)
9	CNVss/EFP_PG M/OE/MD	-	Flash Mode Terminal (Connected To Ground)
10	XCIN	-	32.768 kHz Sub Clock
11	XCOU	-	32.768 kHz Sub Clock
12	/RESET EFP_RESET	-	Reset Input (ACTIVE L)
13	XOUT	-	10 MHz Main Clock
14	Vss	-	Ground (0V)
15	XIN	-	10 MHz Main Clock
16	Vcc	-	Power Supply (+5V)
17	/NMI	-	Connect to Vcc (+5V)
18	RMT	I	Remote Control Input
19	BLKCK	I	CD Block Clock Input (Inverted)
20	SYNC	I	AC Failure Detect Input
21	MUTE_H	O	HIC Mute
22	ECHO_CTL1	O	Echo Control 1
23	ECHO_CTL2	O	Echo Control 2
24	ECHO_CTL3	O	Echo Control 3
25	ECHO_MU	O	Echo MUTE
26	ASP_DAT	O	ASP DATA
27	ASP_CLK	O	ASP CLOCK
28	SUR_ON	O	SURROUND ON / OFF
29	SW_LVL1	O	Sub Woofer Level 1
30	SW_LVL2	O	Sub Woofer Level 2
31	FL_DOUT/EFP_TxD1	O	Serial Data To FL Driver (Output)
32	FL_CS1/EFP_RxD1	I/O	FL Driver Chip Select (Master)
33	FL_CLK/EFP_CLK1	I/O	Serial Clock To FL Driver
34	FL_CS2/EFP_BUSY	I/O	FL Driver Chip Select (Slave)
35	MDATA_OUT	O	CD Command Data Output
36	STATUS	I	CD Servo LSI Status Input
37	MCLK	O	CD Command Clock Output
38	MLD	O	CD Command Load Output
39	/FL_RESET	O	Reset Input (ACTIVE L)
40	MUTE_A	O	Audio Mute
41	EE_CS/EFP_EPM	O	EEPROM Chip Select
42	EE_CLK	O	EEPROM CLOCK
43	EE_DAT	I/O	EEPROM DATA
44	RDS_CLK	I	*1 RDS Clock Input
45	RDS_DAT	I	*1 RDS Data Input

Pin No.	Mark	I/O	Function
46	PCONT/ EFP_CE	O	Main Transformer Control Output
47	DCDET	I	DC Detect Input
48	SP_A	O	SPEANA CONTROL OUTPUT A
49	SP_B	O	SPEANA CONTROL OUTPUT B
50	SP_C	O	SPEANA CONTROL OUTPUT C
51	NC	O	No Connection
52	HALF_1	I	DECK 1 HALF PLAYBACK INPUT
53	MODE_1	I	DECK 1 MODE PLAYBACK INPUT
54	PHOTO_2	I	Rotation Detection Signal (Deck 2)
55	PHOTO_1	I	Rotation Detection Signal (Deck 1)
56	PLG1	O	DECK1 plunger control
57	PLG2	O	DECK2 plunger control
58	MTR	O	DECK motor control ("H" for Motor ON)
59	REC	O	H when record circuit is operating
60	DECK1_H	O	H when DECK1 P/B head is selected
61	NC	O	No Connection
62	Vcc	-	Power Supply (+5V)
63	NC	O	No Connection
64	Vss	-	Ground (0V)
65	DMT	O	DECK Mute mecha transition ("L" for MUTE ON)
66	BP1	O	AM beatproof 1 output ("H" for BP1 ON)
67	V_JOG_A	I	Volume Jog A
68	V_JOG_B	I	Volume Jog B
69	EX1_CLK	O	I/O Expander Clock output
70	EX1_DAT	O	I/O Expander Data output
71	REG4	I	Sub Woofer Selector
72	REG3	I	WMA Selector
73	NC	I	No Connection
74	NC	O	No Connection
75	NC	O	No Connection
76	SSEQ_LED	O	Super Sound EQ LED
77	SW_LED	O	Sub Woofer LED
78	NC	O	No Connection
79	/CD	O	CD POWER CONTROL (Active Low)
80	CD_RST	O	CD Reset Output
81	NC	O	No Connection
82	/RESTSW	I	CD Limit Switch Input for the Most Inner Point (Active Low)
83	CHG_HLF	O	Changer Half Driver Output
84	CHG_CW	O	Changer Motor Clockwise Output
85	CHG_CCW	O	Changer Motor Counterclockwise Output
86	CHG_SW1	I	CD Changer Switch 1 Input
87	CHG_SW2	I	CD Changer Switch 2 Input
88	CHG_PLR	O	Changer Plunger Output
89	CHG_AD2	I	Changer AD Detection Input (Position / Bottom)
90	CHG_AD1	I	Changer AD Detection Input (Open / Clamp)
91	DECK2	I	DECK CONDITION INPUT 2 (R_INHF/MODE2/R_INHR/HALF2)
92	KEY3	I	KEY3 INPUT
93	KEY2	I	KEY2 INPUT
94	KEY1	I	KEY1 INPUT
95	SPE_IN	I	SPEANA INPUT

Pin No.	Mark	I/O	Function
96	AVss	-	Analog Power Supply Input (Connect to GND)
97	REG1	I	Region Setting 1
98	VREF	-	Reference for A-D (5V)
99	AVcc	-	Analog Power Supply Input
100	PLLCE	O	Tuner PLL Chip Enable

20 Troubleshooting Guide



21 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 the cover page for area or colour)

Parts without these indications can be used for all areas.

- Warning: This product uses a laser diode. Refer to caution statements on "Precaution of Laser Diode".

- Capacitor values are in microfarads (μ 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 **MESA**.

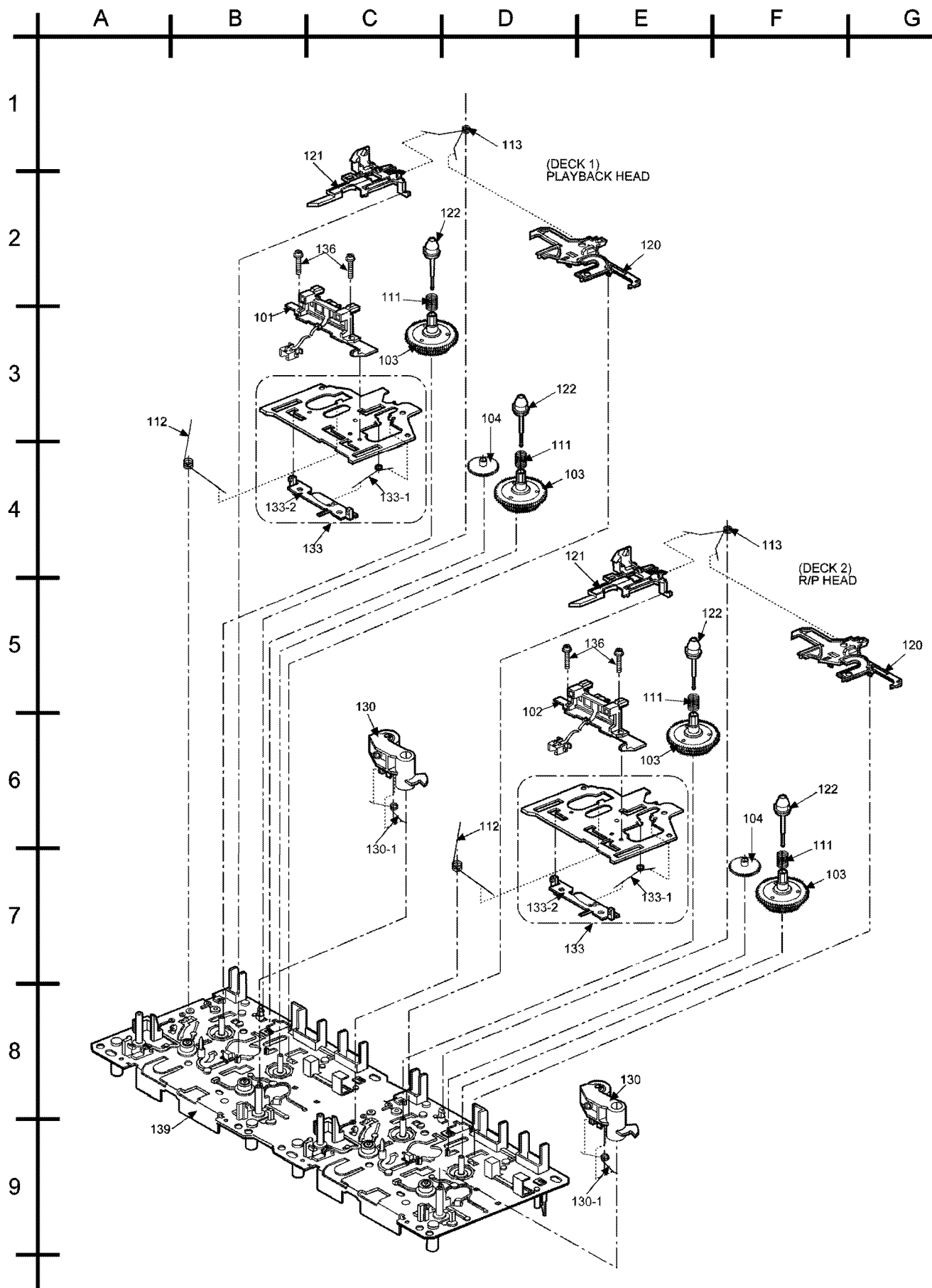
- The "(SF)" mark denotes the standard part.

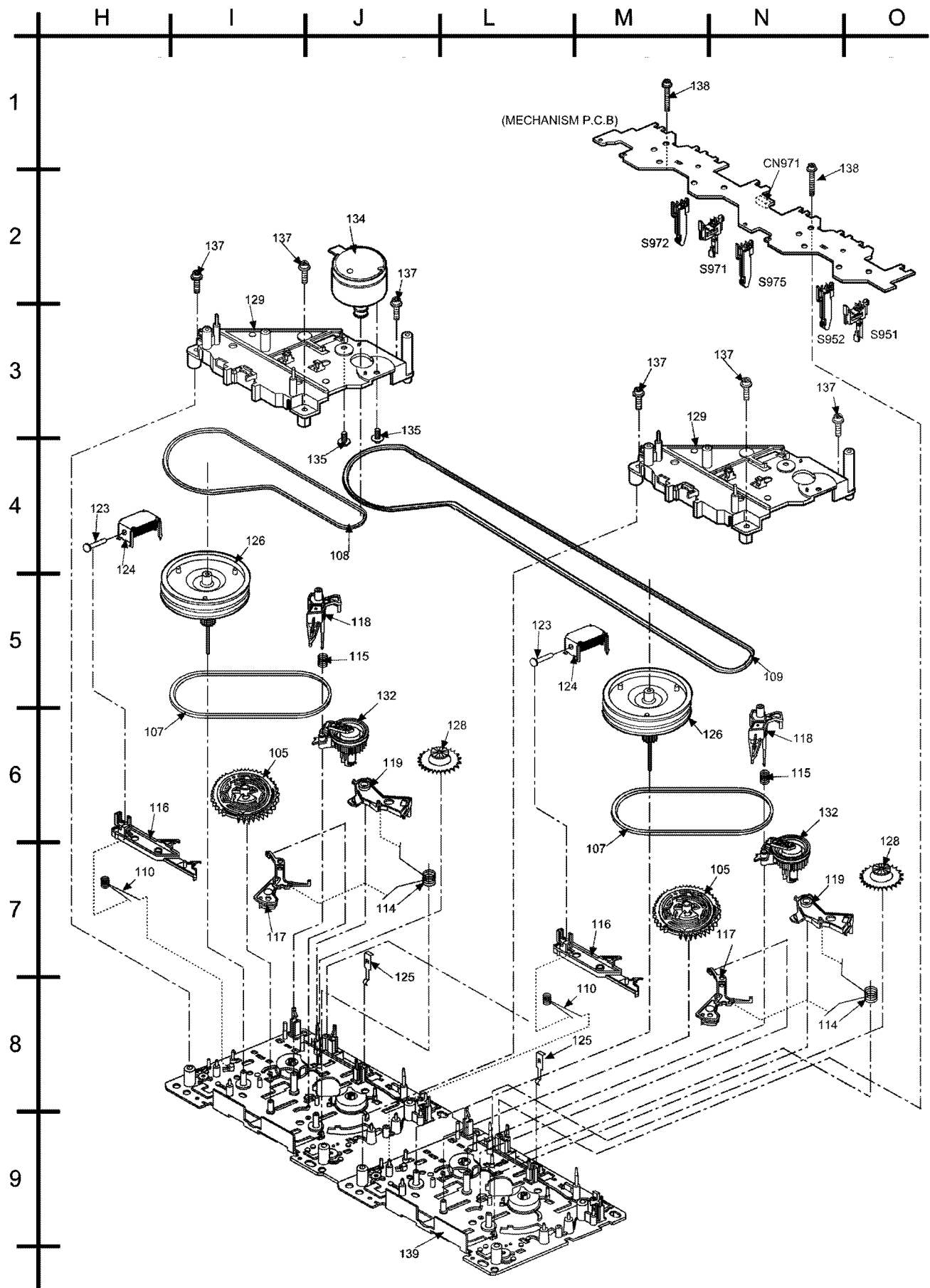
- Reference for O/I book languages are as follows:

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

21.1. Deck Mechanism (RAA3412-P)

21.1.1. Deck Mechanism Parts Location



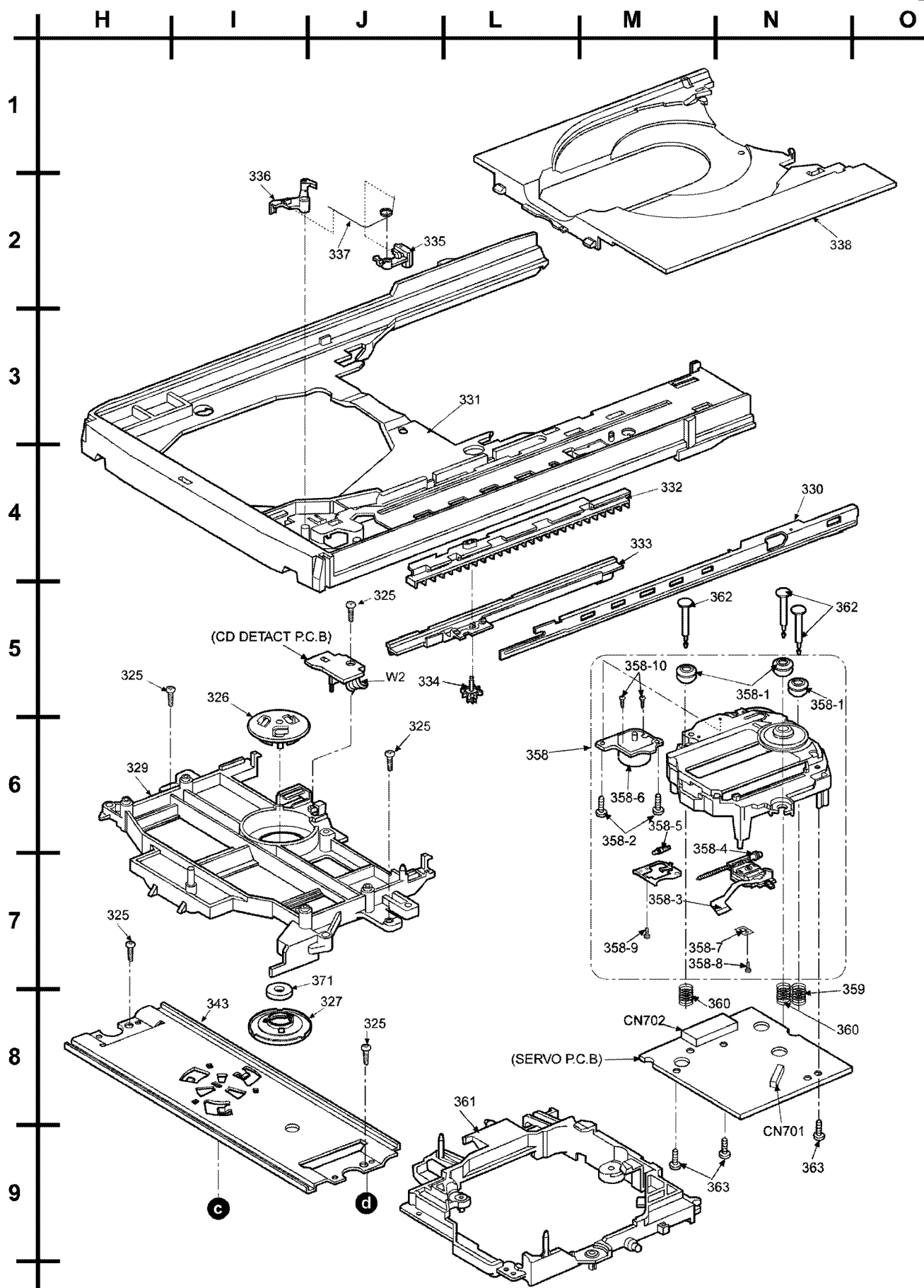


21.1.2. Deck Mechanism Parts List

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]
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	RFKJKED70-K	MAIN CHASSIS	[M]

21.2.1. CD Loading Mechanism Parts Location

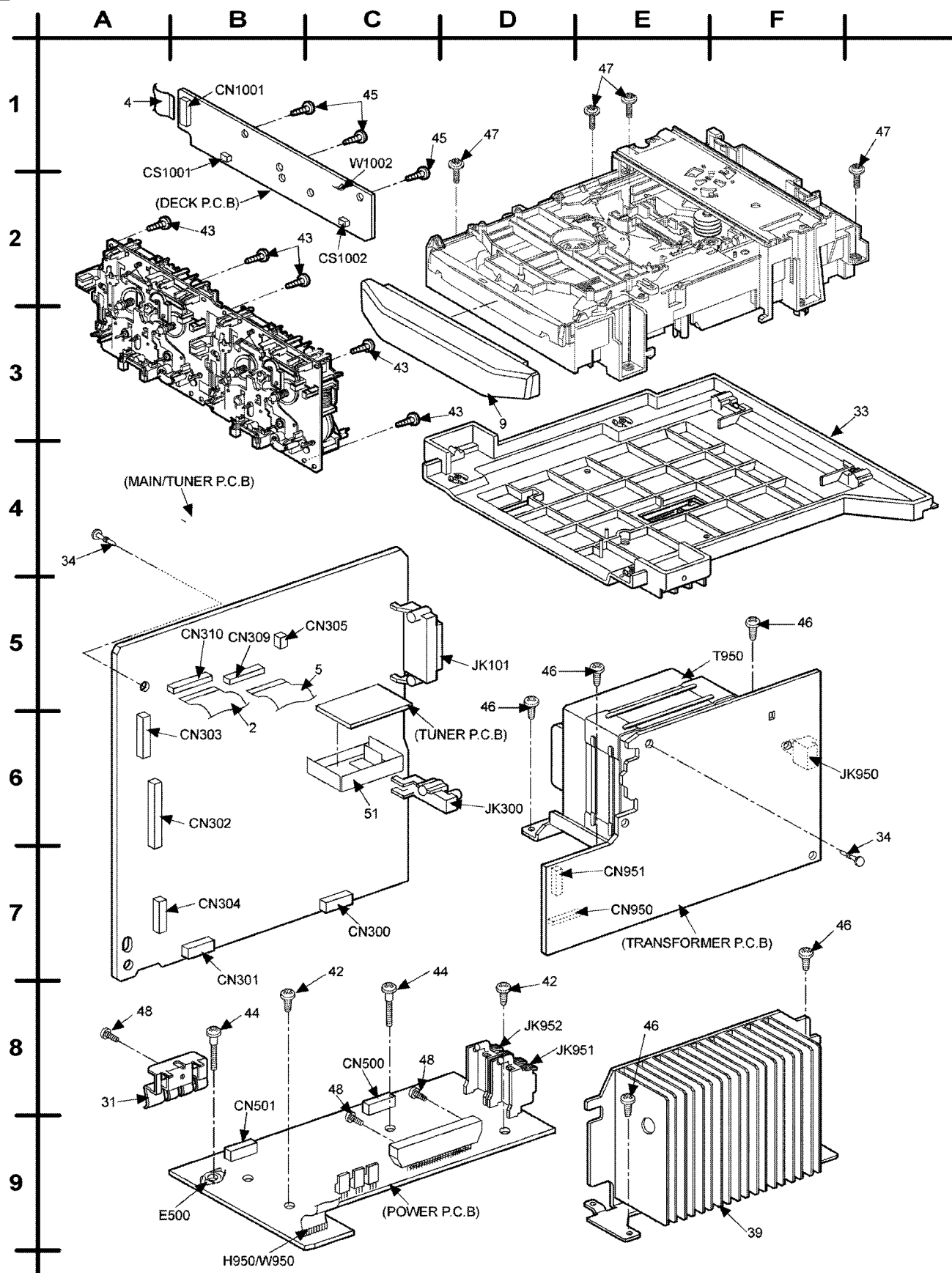


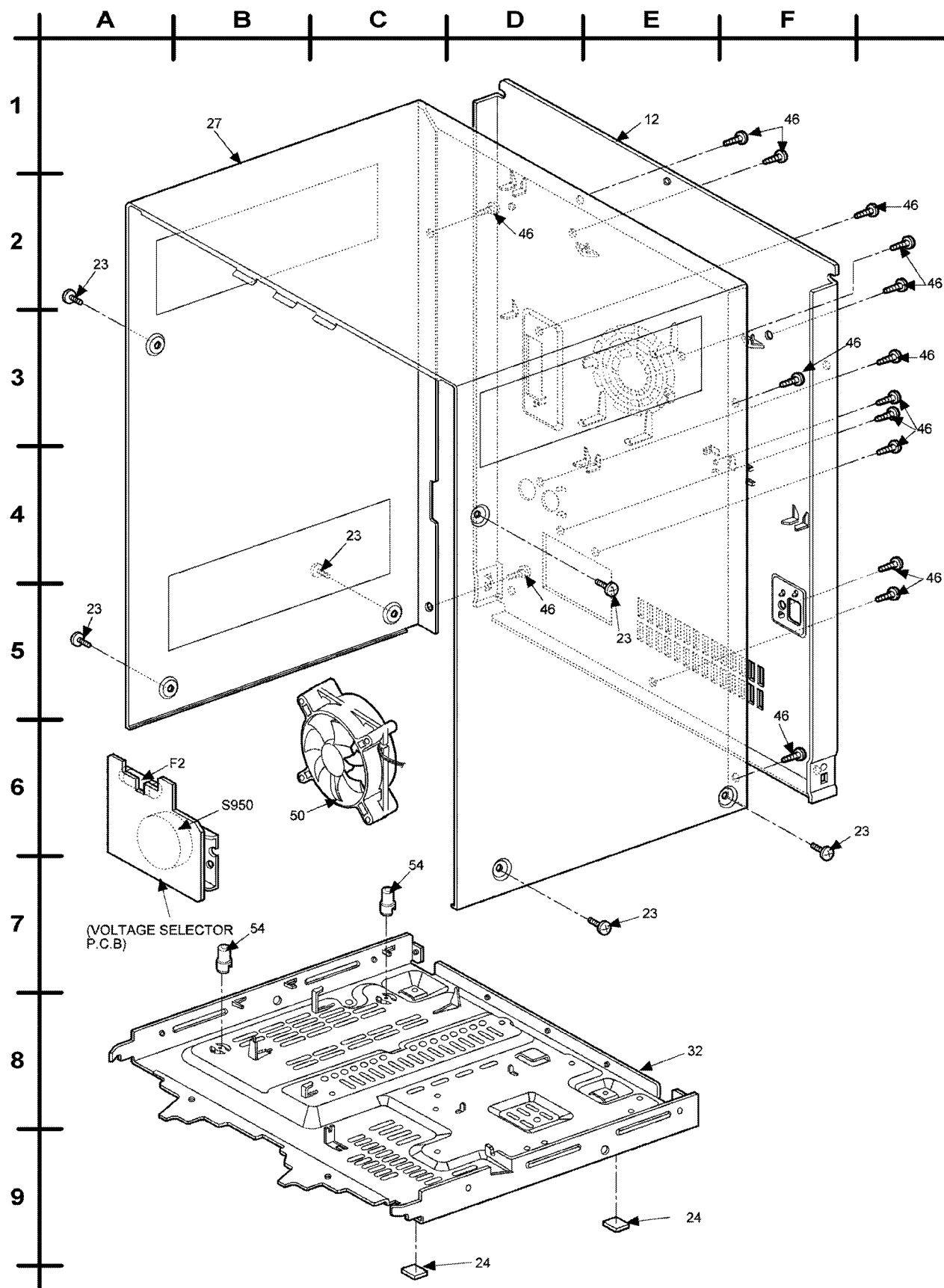


21.2.2. CD Loading Mechanism Parts List

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 SPRI	[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	8CD LEVER	[M]
345	RFFNAAK27GCS	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 SP.	[M]
357	RMA1105	SUPPORT PLATE	[M]
358	RAE0152Z-3	TRAVERSE	[M]
358-1	SHGD113-1	FLOATING CUSHION	[M]
358-2	SNSD38	TRV MOTOR ASSY SCREW	[M]
358-3	RAF0150A-4S	OPU ASS'Y	[M]
358-4	RDG0247	DRIVE GEAR	[M]
358-5	RDG0248	RELAY GEAR	[M]
358-6	RXQ0339	TRAVERSE MOTOR ASSY	[M]
358-7	RXQ0304-1	NUT PLATE ASSY	[M]
358-8	XQN17+CG5	NUT PLATE ASSY SCREW	[M]
358-9	XQS2+A3FZ	SPINDLE MOTOR SCREW	[M]
358-10	XQS17+A35FZ	TRAVERSE MOTOR SCREW	[M]
359	RME0142	FLOATING SPRING A	[M]
360	RME0109	FLOATING SPRING B	[M]
361	RMR1124A-K	TRAVERSE CHASSIS	[M]
362	RMS0632	TRAVERSE PIN	[M]

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





21.3.2. Cabinet Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	REEX0202	10P FFC	[M]
2	REEX0203	24P FCC	[M]
3	REEX0210	17P FFC	[M]
4	REEX0211	14P FFC WIRE	[M]
5	REEX0212	14P FFC WIRE	[M]
6	REEX0215	30P FFC	[M]
7	RGBX0011-S	PANA BADGE	[M]
8	RYPM0108	FRONT PANEL	[PANA]
9	RYPM0093	CD LID	[PANA]
10	RGLX0057-Q	POWER LIGHT CHIP	[M]
11	RYPM0109	CONTROL PANEL	[PANA]
12	RGRX0023C-B	REAR PANEL	[PANA]
13	RGUX0477A-R	SS EQ BUTTON	[M]
14	RYPM0111	POWER BUTTON	[PANA]
15	RYPM0112	CD EJECT BUTTON	[PANA]
16	RYPM0095	PRESET EQ BUTTON	[PANA]
17	RGUX0482-2S	DECK CONTROL BTN (L)	[M]
18	RGUX0483-2S	DECK CONTROL BTN (R)	[M]
19	RYQX0076-S	FUNCTION BTN UNIT L	[PANA]
20	RGUX0488-A	CD CONTROL BUTTON	[M]
21	RYQX0077A-S	FUNCTION BTN UNIT R	[PANA]
22	RGWX0070-S	VOLUME KNOB	[M]
23	RHD30004-S	SCREW	[PANA]
24	RKA0059-K	LEG RUBBER	[M]
25	RKFX0093-K	CASS. HOLDER (L)	[M]
26	RKFX0094-K	CASS. HOLDER (R)	[M]
27	RKMX0077-SL	TOP CABINET	[PANA]

Ref. No.	Part No.	Part Name & Description	Remarks
29	RKWX0191C-V	FL WINDOW	[M]
30	RMBX0021	CASS OPEN SPRING	[M]
31	RMCX0021	TRANSISTOR CLIP	[M]
32	RMKX0064	BOTTOM CHASSIS	[M]
33	RMKX0066	CD CHASSIS	[M]
34	RMNX0019	PCB SPACER	[M]
35	RMNX0080	FL HOLDER	[M]
37	RUS757ZAA	CASSETTE HALF SPRING	[M]
38	RXGX0002	DAMPER GEAR	[M]
39	RXXX0039A	HEAT SINK UNIT	[M]
40	RYPM0091	CASS LID (L)	[PANA]
41	RYPM0092	CASS LID (R)	[PANA]
42	XTB3+10J	SCREW	[M]
43	XTB3+10JFZ	SCREW	[M]
44	XTB3+20J	SCREW	[M]
45	XTBS26+10J	SCREW	[M]
46	XTBS3+8JFZ1	SCREW	[M]
47	XTW3+12T	SCREW	[M]
48	XTW3+15T	SCREW	[M]
50	REM0072-3	FAN	[M]
51	RSC0027-2	TUNER PACK	[M]
52	RSCX0083	FL SHIELD PLATE	[M]
53	RYQX0073-S	NAVIGATION JOY UNIT	[M]
54	SHE187-5J	PCB SUPPORT	[M]
55	RKWX0189-V1	CASS WINDOW (L)	[PANA]
56	RKWX0190-V1	CASS WINDOW (R)	[PANA]
58	RYPM0099	NAVIGATION BUTTON	[PANA]
60	RGWX0056-S	MIC VOLUME KNOB	[M]

21.4. Electrical Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARD	
	REPX0295A	CD SERVO P.C.B. (SIDE: A)	[PANA] (RTL)
	REPX0295A	CD SERVO P.C.B. (SIDE: B)	[PANA] (RTL)
	REPX0329F	MAIN P.C.B.	[PANA] (RTL)
	REPX0330F	PANEL P.C.B.	[PANA] (RTL)
	REPX0330F	TACT SWITCH P.C.B.	[PANA] (RTL)
	REPX0327B	VOLTAGE SELECTOR P.C.B.	[PANA] (RTL)
	REPX0327B	TRANSFORMER P.C.B.	[PANA] (RTL)
	REP3457A	CD LOADING P.C.B.	[PANA] (RTL)
	REP3457A	CD DETECT P.C.B.	[M] (RTL)
	REP3457A	SPINDLE POSITION P.C.B.	[M] (RTL)
	REP1999B	TUNER PACK P.C.B.	[M] (RTL)
	REPX0368D	POWER P.C.B.	[M] (RTL)
	REPX0331A	DECK P.C.B.	[M] (RTL)
	REPX0321B	DECK MECHANISM P.C.B.	[PANA] (RTL)
		INTEGRATED CIRCUITS	
IC1	C0GAM0000005	IC DRIVE	[M]
IC101	LA1833NMNTLM	IC IF & MPX	[M]
IC102	LC72131MDTRM	IC PLL	[M]
IC300	CLBB00000747	IC ASP	[M]
IC301	C0AABB000117	IC OP-AMP (HP AMP)	[M]
IC302	CLBB00000086	IC SPE ANA	[M]
IC304	BR93LC46FE2	IC EPROM	[M]
IC305	C2CBJF000003	MICRO-P	[M]
IC501	RSN315H42A-P	IC POWER AMP	[M]
IC701	AN8885SBE1	IC RFAMP	[M]
IC702	MN6627911AC1	IC LSI	[M]
IC703	AN8739SBTE2	IC 4CH DRIVER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
IC704	C3ABMB0000027	IC 16M DRAM	[M]
IC705	C0CBAA000112	IC 1.8V REGULATOR	[M]
IC902	C0HBB00000035	IC FL DRIVER	[M]
IC903	C0HBB00000035	IC FL DRIVER	[M]
IC951	CNB13030R2AU	IC PHOTO INTERRUPTOR	[M]
IC971	CNB13030R2AU	IC PHOTO INTERRUPTOR	[M]
IC1001	AN7348S-E1	IC TAPE PB	[M]
IC1004	CI1AA00000612	IC SW	[M]
		TRANSISTORS	
Q1	2SK544F-AC	TRANSISTOR	[M]
Q1	B1GACFGG0004	TRANSISTOR	[M]
Q2	2SC2786MTA	TRANSISTOR	[M]
Q3	2SC2787FL1TA	TRANSISTOR	[M]
Q4	2SC2787FL1TA	TRANSISTOR	[M]
Q101	2SC2058SPTA	TRANSISTOR	[M]
Q106	KRA102MTA	TRANSISTOR	[M]
Q201	KTC3875GRTA	TRANSISTOR	[M]
Q202	KTD1304TA	TRANSISTOR	[M]
Q203	KTD1304TA	TRANSISTOR	[M]
Q204	KTC3875GRTA	TRANSISTOR	[M]
Q205	KTC3875GRTA	TRANSISTOR	[M]
Q207	KTD1304TA	TRANSISTOR	[M]
Q208	KTC3875GRTA	TRANSISTOR	[M]
Q301	KRA102STA	TRANSISTOR	[M]
Q302	KRC1018TA	TRANSISTOR	[M]
Q303	KRC1018TA	TRANSISTOR	[M]
Q308	KTA12710YTA	TRANSISTOR	[M]
Q309	KTC3199GRTA	TRANSISTOR	[M]
Q310	KRA110MTA	TRANSISTOR	[M]
Q312	KRC1028TA	TRANSISTOR	[M]
Q313	KTC3875GRTA	TRANSISTOR	[M]
Q314	KTC3875GRTA	TRANSISTOR	[M]
Q315	KRC103MTA	TRANSISTOR	[M]
Q316	KTA1267GRTA	TRANSISTOR	[M]
Q317	KTA1267GRTA	TRANSISTOR	[M]
Q318	KRC1028TA	TRANSISTOR	[M]
Q319	KRC1028TA	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q320	KRC102STA	TRANSISTOR	[M]
Q321	KRA102STA	TRANSISTOR	[M]
Q322	KRC102STA	TRANSISTOR	[M]
Q323	KRC102STA	TRANSISTOR	[M]
Q324	KTA12710YTA	TRANSISTOR	[M]
Q325	KRA102STA	TRANSISTOR	[M]
Q370	BLADCF000001	TRANSISTOR	[M]
Q371	2SD0592ARA	TRANSISTOR	[M]
Q372	BLADCF000001	TRANSISTOR	[M]
Q373	2SD0592ARA	TRANSISTOR	[M]
Q374	BLADCF000001	TRANSISTOR	[M]
Q375	BLABCF000011	TRANSISTOR	[M]
Q401	KTC3875GRTA	TRANSISTOR	[M]
Q402	KTD1304TA	TRANSISTOR	[M]
Q403	KTD1304TA	TRANSISTOR	[M]
Q404	KTC3875GRTA	TRANSISTOR	[M]
Q405	KTC3875GRTA	TRANSISTOR	[M]
Q406	KTC3875GRTA	TRANSISTOR	[M]
Q407	KTD1304TA	TRANSISTOR	[M]
Q408	KTC3875GRTA	TRANSISTOR	[M]
Q501	KTC2026	TRANSISTOR	[M]
Q502	KTA1046	TRANSISTOR	[M]
Q503	KTC2026	TRANSISTOR	[M]
Q504	KTA1046	TRANSISTOR	[M]
Q505	KTA1267GRTA	TRANSISTOR	[M]
Q506	KRA110MTA	TRANSISTOR	[M]
Q507	KTC3199GRTA	TRANSISTOR	[M]
Q508	KTC3205YTA	TRANSISTOR	[M]
Q512	BLAAGC000007	TRANSISTOR	[M]
Q513	BLAAGC000007	TRANSISTOR	[M]
Q514	BLAAGC000007	TRANSISTOR	[M]
Q606	KTC3199GRTA	TRANSISTOR	[M]
Q607	2SC1740SSTA	TRANSISTOR	[M]
Q610	KTC3199GRTA	TRANSISTOR	[M]
Q611	KTC3199GRTA	TRANSISTOR	[M]
Q612	KTC3199GRTA	TRANSISTOR	[M]
Q614	BLGACFGG0004	TRANSISTOR	[M]
Q615	KTA12710YTA	TRANSISTOR	[M]
Q616	KTC3199GRTA	TRANSISTOR	[M]
Q617	KTA12710YTA	TRANSISTOR	[M]
Q618	KRC103MTA	TRANSISTOR	[M]
Q619	KRC103MTA	TRANSISTOR	[M]
Q701	BLADCF000001	TRANSISTOR	[M]
Q950	KTC3205YTA	TRANSISTOR	[M]
Q951	2SB621ARSTA	TRANSISTOR	[M]
Q952	KRC102MTA	TRANSISTOR	[M]
Q953	BLAAGC000007	TRANSISTOR	[M]
Q954	BLAAGC000007	TRANSISTOR	[M]
Q1001	KTC3875GRTA	TRANSISTOR	[M]
Q1003	BLAAGC000007	TRANSISTOR	[M]
Q1004	BLAAGC000007	TRANSISTOR	[M]
Q1005	BLAAGC000007	TRANSISTOR	[M]
Q1007	KTC3875GRTA	TRANSISTOR	[M]
Q1012	KTD1304TA	TRANSISTOR	[M]
Q1013	KTD1304TA	TRANSISTOR	[M]
Q1014	BLABCF000011	TRANSISTOR	[M]
Q1015	BLABCF000011	TRANSISTOR	[M]
Q1016	KRA102STA	TRANSISTOR	[M]
Q1017	KTD1146YTA	TRANSISTOR	[M]
Q1020	KTD1304TA	TRANSISTOR	[M]
Q1021	KTD1304TA	TRANSISTOR	[M]
		DIODES	
D1	SVC211SPA-AL	DIODE	[M]
D2	B0BA4R600003	DIODE	[M]
D2	SVC211SPA-AL	DIODE	[M]
D3	SVC211SPA-AL	DIODE	[M]
D101	B0BC5R000009	DIODE	[M]
D201	MA2J72800L	DIODE	[M]
D301	B0BC7R500001	DIODE	[M]
D302	B0ACCK000005	DIODE	[M]
D303	B0ADCF000002	DIODE	[M]
D304	B0ADCF000002	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D305	B0ADCF000002	DIODE	[M]
D306	RL1N4003N02	DIODE	[M]
D307	B0ACCK000005	DIODE	[M]
D308	B0ACCK000005	DIODE	[M]
D309	RL1N4003N02	DIODE	[M]
D310	B0ACCK000005	DIODE	[M]
D312	1SS380TE-17	DIODE	[M]
D313	1SS380TE-17	DIODE	[M]
D314	MA2J72900L	DIODE	[M]
D324	B0ACCK000005	DIODE	[M]
D370	B0ACCK000005	DIODE	[M]
D371	UDZSTE1710B	DIODE	[M]
D374	RL1N4003N02	DIODE	[M]
D375	B0ACCK000005	DIODE	[M]
D376	B0ACCK000005	DIODE	[M]
D377	B0ACCK000005	DIODE	[M]
D401	MA2J72800L	DIODE	[M]
D501	B0BA9R600002	DIODE	[M]
D502	B0BA01500003	DIODE	[M]
D503	B0BA01500003	DIODE	[M]
D504	B0AACK000004	DIODE	[M]
D505	1T3T	DIODE	[M]
D506	1T3T	DIODE	[M]
D507	1T3T	DIODE	[M]
D508	B0BA5R600016	DIODE	[M]
D509	B0BA9R600002	DIODE	[M]
D513	B0AACK000004	DIODE	[M]
D514	B0AACK000004	DIODE	[M]
D600	B3AAA0000583	DIODE	[M]
D613	B0BA5R600016	DIODE	[M]
D929	B3AAA0000583	DIODE	[M]
D950	1N5402BM21	DIODE	[M]
D951	1N5402BM21	DIODE	[M]
D951	MA2C16500E	DIODE	[M]
D952	1N5402BM21	DIODE	[M]
D953	1N5402BM21	DIODE	[M]
D954	1T3T	DIODE	[M]
D955	1T3T	DIODE	[M]
D956	1T3T	DIODE	[M]
D957	1T3T	DIODE	[M]
D958	1T3T	DIODE	[M]
D959	1T3T	DIODE	[M]
D960	B0BA03100002	DIODE	[M]
D961	B0EAKM000085	DIODE	[M]
D962	B0EAKM000085	DIODE	[M]
D963	B0EAKM000085	DIODE	[M]
D964	B0BA7R000005	DIODE	[M]
D965	B0EAKM000085	DIODE	[M]
D966	B0EAKM000085	DIODE	[M]
D967	B0EAKM000085	DIODE	[M]
D968	B0AACK000004	DIODE	[M]
D971	MA2C16500E	DIODE	[M]
D1003	B0ACCK000005	DIODE	[M]
D1004	B0BC3R700004	DIODE	[M]
		VARIABLE RESISTORS	
VR600	EVEKE2F3524M	VR VOLUME JOG	[M]
VR602	EVUF2AF25B14	MIC VOLUMER	[M]
		SWITCHES	
S601	EVQ21405R	SW POWER	[M]
S602	EVQ21405R	SW PRESET EQ	[M]
S603	EVQ21405R	SW DECK 1/2	[M]
S604	EVQ21405R	SW REC	[M]
S605	EVQ21405R	SW CD OPEN/CLOSE	[M]
S606	EVQ21405R	SW CD 1	[M]
S607	EVQ21405R	SW CD 2	[M]
S608	EVQ21405R	SW CD 3	[M]
S609	EVQ21405R	SW CD 4	[M]
S610	EVQ21405R	SW CD 5	[M]
S612	EVQ21405R	SW SSEQ	[M]
S613	EVQ21405R	SW S.WOOFER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
S614	EVQ11V07B	SW UP	[M]
S615	EVQ11V07B	SW RIGHT	[M]
S616	EVQ11V07B	SW DOWN	[M]
S617	EVQ11V07B	SW LEFT	[M]
S618	EVQ21405R	SW TITLE SEARCH	[M]
S619	EVQ21405R	SW ENTER	[M]
S620	EVQ21405R	SW MARKER	[M]
S621	EVQ21405R	SW DELETE	[M]
S701	RSH1A043-U	SW RESET	[M]
S901	EVQ21405R	SW REW	[M]
S902	EVQ21405R	SW TUNER	[M]
S903	EVQ21405R	SW CD PLAY	[M]
S904	EVQ21405R	SW FF	[M]
S905	EVQ21405R	SW STOP	[M]
S906	EVQ21405R	SW DECK 2 OPEN	[M]
S907	EVQ21405R	SW TAPE	[M]
S908	EVQ21405R	SW AUX	[M]
S909	EVQ21405R	SW DECK 1 OPEN	[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 HALF	[M]
S975	RSH1A019-2U	SW HALF	[M]
		SWITCHES	
SW1	K0F111B00068	SW PUSH	[M]
SW2	K0F111B00068	SW PUSH	[M]
SW3	J0J1BB000027	SW	[PANA]
SW4	RSH1A91ZA-A	SW CD	[M]
SW5	K0L1BB000005	SW LOCK	[M]
		CONNECTORS	
CN1	K1MN14A00049	14P FFC CONNECTOR	[M]
CN300	K1KB12B00036	12P P2 MQ CONNECTOR	[M]
CN301	K1KB12B00036	12P P2 MQ CONNECTOR	[M]
CN302	K1MN30A00046	30P FFC CONNECTOR	[M]
CN303	RJS1A9417	P1.25 FFC CONNECTOR	[M]
CN304	RJS1A9414-1	14P CONNECTOR	[M]
CN305	K1KA02A00008	CONNECTOR	[M]
CN309	RJS1A9414-1	14P CONNECTOR	[M]
CN310	RJS2A8024-1	24P FFC CONNECTOR	[M]
CN500	K1KA12A00184	12P P2 MQ CONNECTOR	[M]
CN501	K1KA12A00184	12P P2 MQ CONNECTOR	[M]
CN701	RJS2A8616	16P FPC CONNECTOR	[M]
CN702	K1MN24B00090	24P FFC CONNECTOR	[M]
CN900	RJT066H08B	8P BTB CONNECTOR	[M]
CN950	RJT119W09V	9P CONNECTOR	[M]
CN951	K1KA09A00047	9P PLUG IN CONNECTOR	[M]
CN971	K1MN10B00104	10P FFC CONNECTOR	[M]
CN1001	K1MN14B00058	14P CONNECTOR	[M]
CP600	K1MN10B00104	10P FFC CONNECTOR	[M]
CP601	RJS1A9417	P1.25 FFC CONNECTOR	[M]
CP602	K1MN30A00046	30P FFC CONNECTOR	[M]
CP900	RJU066H08	8P B-B SOCKET	[M]
CS1001	RJS1A6805-J	5P CONNECTOR SOCKET	[M]
CS1002	RJS1A6805-J	5P CONNECTOR SOCKET	[M]
		COILS & TRANSFORMERS	
L1	RLQZP1R2KT-Y	COIL	[M]
L2	RLQZPR47KT-Y	COIL	[M]
L201	G0AR76Y00001	CHOKE COIL	[M]
L202	G0AR76Y00001	CHOKE COIL	[M]
L303	G0C101JA0030	INDUCTOR	[M]
L304	RLQB3R3KT-1Y	COIL	[M]
L305	J0JBC0000019	CHIP INDUCTOR	[M]
L401	G0AR76Y00001	CHOKE COIL	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
L402	G0AR76Y00001	CHOKE COIL	[M]
L600	RLQB3R3KT-1Y	COIL	[M]
L601	RLQB101KT-1Y	COIL	[M]
L602	RLQZP101KT-Y	AXIAL COIL	[M]
L603	RLQZP101KT-Y	AXIAL COIL	[M]
L604	RLQZP100KT-Y	AXIAL COIL	[M]
L606	G0C100JA0030	INDUCTOR	[M]
L607	G0C100JA0030	INDUCTOR	[M]
L608	RLQB100KT-1Y	COIL	[M]
L609	RLQZP100KT-Y	AXIAL COIL	[M]
L610	RLQB100KT-1Y	COIL	[M]
L701	RLBV102V-Y	CHIP INDUCTOR	[M]
L702	RLBV102V-Y	CHIP INDUCTOR	[M]
L703	RLBV102V-Y	CHIP INDUCTOR	[M]
L704	RLBV102V-Y	CHIP INDUCTOR	[M]
L1001	G0C470JA0030	RF CHOKE COIL	[M]
L1002	7L1A62N	BIAS OSC COIL	[M]
T950	ETP76VST62BA	MAIN TRANSFORMER	[M] △
T951	G4C2AAJ00005	BACK-UP TRANSFORMER	[M] △
		COMPONENT COMBINATION	
Z101	RLA2Z007-T	COIL	[M]
Z102	G2BAE0000003	AM IF BLOCK	[M]
Z600	B3RAB0000025	REMOTE SENSOR	[M]
Z950	ERZV10V511CS	ZENER	[M] △
Z971	RGSD12A1445T	RADA RESISTOR	[M]
		CERAMIC FILTERS	
CF201	RLFFETWND01M	FM CF	[M]
CF202	RLFFETWND01M	FM CF	[M]
		RELAY	
RL950	RSY0040M-0	PRIMARY RELAY	[M] △
		OSCILLATORS	
X102	RLFDFT22DD	DISCRIMINATOR	[M]
X103	RSXC7M20S05T	CRYSTAL OSCILLATOR	[M]
X301	H0A327200073	CRYSTAL OSCILLATOR	[M]
X303	H2A100500006	10 MHZ RESONATOR	[M]
X701	RSXB16M9J02T	CRYSTAL OSCILLATOR	[M]
		DISPLAY TUBE	
FL601	A2BD00000062	FL	[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 PROTECTOR	
FP533	K5G400A00001	FUSABLE RESISTOR	[M] △
FP950	K5G402AA0002	FUSE PROTECTOR	[M] △
FP951	K5G102AA0002	FUSE PROTECTOR	[M] △
		HOLDERS	
H600	RMR0318	9P CABLE HOLDER	[M]
H950	RJS1A5509	9P CABLE HOLDER	[M]
		JACKS	

Ref. No.	Part No.	Part Name & Description	Remarks
JK101	RJH5414-1	JK ANTENNA	[M]
JK300	RJH2213N-2	JK 2P RCA	[M]
JK600	RJJ37TK07-X	JK HP/MIC	[M]
JK601	RJJ37TK07-X	JK HP/MIC	[M]
JK950	K2AA2B000004	JK AC INLET	[M] △
JK951	K4BC04B00050	JK TERMINAL SPEAKER	[M]
JK952	K4BC04B00046	JK SPEAKER	[M]
		EARTH TERMINAL	
E500	SNE1004-2	EARTH TERMINAL	[M]
		WIRES	
W1	REZ1023-1	4P WIRE	[M]
W2	REEX0253	PRIMARY WIRE (RED)	[M]
W2	REZ1024	3P WIRE	[M]
W3	REE0973	WIRE (BROWN)	[M]
W4	REEX0061	WIRE (BLACK)	[M]
W5	REEX0254	PRI WIRE (ORANGE)	[M]
W6	REEX0059	WIRE (BLUE)	[M]
W7	REEX0255	PRI WIRE (VIOLET)	[M]
W600	REXX0324	9P FLAT WIRE	[M]
W950	REXX0325	9P FLAT WIRE	[M]
W1002	RWJ0102050CK	MAIN-MECHA MOTOR WIR	[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]
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]
R101	ERJ3GEYJ000V	0 1/16W	[M]
R102	ERJ3GEYJ472V	4.7K 1/16W	[M]
R103	D0GB271JA002	270 1/16W	[M]
R104	ERJ3GEYJ102V	1K 1/16W	[M]
R105	ERJ3GEYJ471V	470 1/16W	[M]
R106	D0GB474JA002	470K 1/16W	[M]
R107	D0GB331JA002	330 1/16W	[M]
R110	ERJ3GEYJ102V	1K 1/16W	[M]
R111	ERJ3GEYJ391V	390 1/16W	[M]
R112	ERJ3GEYJ104V	100K 1/16W	[M]
R113	ERJ3GEYJ103V	10K 1/16W	[M]
R114	D0GB562JA002	5.6K 1/16W	[M]
R115	ERJ3GEYJ561V	560 1/16W	[M]
R116	ERJ3GEYJ102V	1K 1/16W	[M]
R117	ERJ3GEYJ473V	47K 1/16W	[M]
R118	D0GB332JA002	3.3K 1/16W	[M]
R119	D0GB332JA002	3.3K 1/16W	[M]
R120	ERJ3GEYJ473V	47K 1/16W	[M]
R121	ERJ3GEYJ223V	22K 1/16W	[M]
R122	D0GB272JA002	2.7K 1/16W	[M]
R123	D0GB683JA002	68K 1/16W	[M]
R124	ERJ3GEYJ330V	33 1/16W	[M]
R125	ERJ3GEYJ471V	470 1/16W	[M]
R126	ERJ3GEYJ102V	1K 1/16W	[M]
R127	ERJ3GEYJ471V	470 1/16W	[M]
R128	D0GB820JA019	82 1/16W	[M]
R129	D0GB273JA002	27K 1/16W	[M]
R130	ERJ3GEYJ103V	10K 1/16W	[M]
R131	D0GB680JA019	68 1/16W	[M]
R132	ERJ3GEYJ103V	10K 1/16W	[M]
R133	ERJ3GEYJ102V	1K 1/16W	[M]
R134	ERJ3GEYJ471V	470 1/16W	[M]
R135	ERJ3GEYJ102V	1K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R136	ERJ3GEYJ102V	1K 1/16W	[M]
R137	ERJ3GEYJ102V	1K 1/16W	[M]
R138	D0GB332JA002	3.3K 1/16W	[M]
R141	ERJ3GEYJ682V	6.8K 1/16W	[M]
R142	ERJ3GEYJ682V	6.8K 1/16W	[M]
R143	ERJ3GEYJ223V	22K 1/16W	[M]
R144	D0GB121JA002	120 1/16W	[M]
R145	ERJ3GEYJ104V	100K 1/16W	[M]
R146	ERJ3GEYJ104V	100K 1/16W	[M]
R151	D0GB820JA019	82 1/16W	[M]
R152	ERJ3GEYJ000V	0 1/16W	[M]
R201	ERJ3GEYJ103V	10K 1/16W	[M]
R202	D0GB332JA002	3.3K 1/16W	[M]
R203	D0GB1R0JA002	1 1/16W	[M]
R204	ERJ3GEYJ330V	33 1/16W	[M]
R205	ERJ3GEYJ330V	33 1/16W	[M]
R206	ERJ3GEYJ330V	33 1/16W	[M]
R207	ERJ3GEYJ330V	33 1/16W	[M]
R208	D0GB332JA002	3.3K 1/16W	[M]
R209	ERJ3GEYJ561V	560 1/16W	[M]
R210	D0GB820JA019	82 1/16W	[M]
R211	D0GB562JA002	5.6K 1/16W	[M]
R212	ERJ3GEYJ102V	1K 1/16W	[M]
R213	ERJ3GEYJ473V	47K 1/16W	[M]
R214	ERJ3GEYJ102V	1K 1/16W	[M]
R215	ERJ3GEYJ473V	47K 1/16W	[M]
R216	ERJ3GEYJ104V	100K 1/16W	[M]
R217	ERJ3GEYJ473V	47K 1/16W	[M]
R218	D0GB563JA002	56K 1/16W	[M]
R219	D0GB152JA002	1.5K 1/16W	[M]
R220	D0GB392JA002	3.9K 1/16W	[M]
R221	ERJ3GEYJ473V	47K 1/16W	[M]
R222	D0GB821JA002	820 1/16W	[M]
R223	D0GB272JA002	2.7K 1/16W	[M]
R224	ERJ3GEYJ472V	4.7K 1/16W	[M]
R225	ERJ3GEYJ473V	47K 1/16W	[M]
R226	D0GB332JA002	3.3K 1/16W	[M]
R227	D0GB683JA002	68K 1/16W	[M]
R228	ERJ3GEYJ222V	2.2K 1/16W	[M]
R229	ERJ3GEYJ123V	12K 1/16W	[M]
R230	ERJ3GEYJ102V	1K 1/16W	[M]
R231	ERJ3GEYJ104V	100K 1/16W	[M]
R232	ERJ3GEYJ222V	2.2K 1/16W	[M]
R233	ERJ3GEYJ472V	4.7K 1/16W	[M]
R234	ERJ3GEYJ104V	100K 1/16W	[M]
R235	D0GB152JA002	1.5K 1/16W	[M]
R236	D0GB183JA002	18K 1/16W	[M]
R237	D0GB183JA002	18K 1/16W	[M]
R238	ERJ3GEYJ224V	220K 1/16W	[M]
R239	ERJ3GEYJ472V	4.7K 1/16W	[M]
R240	ERJ3GEYJ472V	4.7K 1/16W	[M]
R241	ERJ3GEYJ123V	12K 1/16W	[M]
R242	D0GB562JA002	5.6K 1/16W	[M]
R243	D0GB272JA002	2.7K 1/16W	[M]
R244	ERJ3GEYJ182V	1.8K 1/16W	[M]
R245	ERDS2TJ332T	3.3K 1/4W	[M]
R245	ERJ3GEYJ221V	220 1/16W	[M]
R246	ERDS2TJ153T	15K 1/4W	[M]
R247	ERDS2TJ332T	3.3K 1/4W	[M]
R247	ERJ3GEYJ221V	220 1/16W	[M]
R248	D0GB4R7JA008	4.7 1/16W	[M]
R248	ERDS2TJ153T	15K 1/4W	[M]
R249	ERDS2TJ683T	68K 1/4W	[M]
R249	ERJ3GEYJ221V	220 1/16W	[M]
R250	ERDS2TJ683T	68K 1/4W	[M]
R251	ERDS2TJ154T	150K 1/4W	[M]
R252	ERDS2TJ104T	100K 1/4W	[M]
R253	ERDS2TJ100T	10 1/4W	[M]
R254	ERDS2TJ100T	10 1/4W	[M]
R255	ERDS1FVJ100T	10 1/2W	[M]
R255	ERJ3GEYJ104V	100K 1/16W	[M]
R256	D0GB152JA002	1.5K 1/16W	[M]
R256	ERDS1FVJ100T	10 1/2W	[M]
R257	ERJ3GEYJ123V	12K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R258	ERJ3GEYJ224V	220K 1/16W	[M]
R259	D0GB152JA002	1.5K 1/16W	[M]
R300	ERJ3GEYJ102V	1K 1/16W	[M]
R301	ERJ3GEYJ472V	4.7K 1/16W	[M]
R302	ERJ3GEYJ103V	10K 1/16W	[M]
R303	ERDS1FVJ270T	27 1/2W	[M]
R304	ERJ3GEYJ103V	10K 1/16W	[M]
R305	ERJ3GEYJ682V	6.8K 1/16W	[M]
R307	ERJ3GEYJ222V	2.2K 1/16W	[M]
R308	ERJ3GEYJ222V	2.2K 1/16W	[M]
R309	D0GB273JA002	27K 1/16W	[M]
R310	D0GB563JA002	56K 1/16W	[M]
R313	ERJ3GEYJ104V	100K 1/16W	[M]
R315	ERJ3GEYJ822V	8.2K 1/16W	[M]
R318	ERJ3GEYJ822V	8.2K 1/16W	[M]
R320	D0GB101JA002	100 1/16W	[M]
R321	D0GB101JA002	100 1/16W	[M]
R322	D0GB101JA002	100 1/16W	[M]
R323	ERDS1FVJ150T	15 1/2W	[M]
R324	ERD2FCVG120T	12 1/4W	[M]
R325	ERJ3GEYJ103V	10K 1/16W	[M]
R326	D0GB101JA002	100 1/16W	[M]
R327	ERJ3GEYJ222V	2.2K 1/16W	[M]
R328	D0GB392JA002	3.9K 1/16W	[M]
R329	D0GB331JA002	330 1/16W	[M]
R330	ERJ3GEY0R00V	0 1/16W	[M]
R331	ERJ3GEY0R00V	0 1/16W	[M]
R332	D0GB101JA002	100 1/16W	[M]
R333	D0GB101JA002	100 1/16W	[M]
R334	D0GB101JA002	100 1/16W	[M]
R335	D0GB101JA002	100 1/16W	[M]
R336	D0GB101JA002	100 1/16W	[M]
R337	ERJ3GEYJ102V	1K 1/16W	[M]
R338	ERJ3GEYJ102V	1K 1/16W	[M]
R340	ERJ3GEYJ103V	10K 1/16W	[M]
R343	ERJ3GEYJ103V	10K 1/16W	[M]
R344	ERJ3GEYJ223V	22K 1/16W	[M]
R345	ERJ3GEYJ123V	12K 1/16W	[M]
R346	ERJ3GEYJ223V	22K 1/16W	[M]
R347	ERJ3GEYJ123V	12K 1/16W	[M]
R348	ERJ3GEYJ221V	220 1/16W	[M]
R349	ERJ3GEYJ102V	1K 1/16W	[M]
R350	ERJ3GEYJ103V	10K 1/16W	[M]
R352	D0GB562JA002	5.6K 1/16W	[M]
R353	ERJ3GEYJ822V	8.2K 1/16W	[M]
R354	D0GB101JA002	100 1/16W	[M]
R355	ERJ3GEYJ103V	10K 1/16W	[M]
R356	ERJ3GEYJ103V	10K 1/16W	[M]
R357	ERJ3GEYJ102V	1K 1/16W	[M]
R358	ERJ3GEYJ103V	10K 1/16W	[M]
R359	ERJ3GEYJ103V	10K 1/16W	[M]
R360	ERJ3GEYJ103V	10K 1/16W	[M]
R361	ERJ3GEYJ102V	1K 1/16W	[M]
R362	ERJ3GEYJ102V	1K 1/16W	[M]
R363	ERJ3GEYJ102V	1K 1/16W	[M]
R364	ERJ3GEYJ102V	1K 1/16W	[M]
R365	ERJ3GEYJ102V	1K 1/16W	[M]
R366	ERJ3GEYJ102V	1K 1/16W	[M]
R367	ERJ3GEYJ103V	10K 1/16W	[M]
R368	ERJ3GEYJ103V	10K 1/16W	[M]
R369	ERJ3GEYJ103V	10K 1/16W	[M]
R370	ERJ3GEYJ104V	100K 1/16W	[M]
R371	ERJ3GEYJ472V	4.7K 1/16W	[M]
R372	ERJ3GEYJ472V	4.7K 1/16W	[M]
R373	D0GB332JA002	3.3K 1/16W	[M]
R374	ERJ3GEYJ104V	100K 1/16W	[M]
R375	ERJ3GEYJ103V	10K 1/16W	[M]
R376	ERDS1FVJ220T	22 1/2W	[M]
R377	ERJ3GEYJ224V	220K 1/16W	[M]
R378	D0GB101JA002	100 1/16W	[M]
R379	ERJ3GEYJ104V	100K 1/16W	[M]
R380	ERJ3GEYJ103V	10K 1/16W	[M]
R381	ERJ3GEYJ225V	2.2M 1/16W	[M]
R382	ERJ3GEYJ103V	10K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R383	ERJ3GEYJ103V	10K 1/16W	[M]
R384	ERJ3GEYJ103V	10K 1/16W	[M]
R385	ERJ3GEYJ103V	10K 1/16W	[M]
R386	ERJ3GEYJ103V	10K 1/16W	[M]
R387	ERJ3GEYJ103V	10K 1/16W	[M]
R388	ERJ3GEYJ103V	10K 1/16W	[M]
R389	ERJ3GEYJ103V	10K 1/16W	[M]
R390	ERJ3GEYJ103V	10K 1/16W	[M]
R391	ERJ3GEYJ472V	4.7K 1/16W	[M]
R392	ERJ3GEYJ103V	10K 1/16W	[M]
R393	ERJ3GEYJ103V	10K 1/16W	[M]
R394	ERJ3GEYJ103V	10K 1/16W	[M]
R395	ERJ3GEYJ473V	47K 1/16W	[M]
R396	ERJ3GEYJ473V	47K 1/16W	[M]
R398	ERJ3GEYJ103V	10K 1/16W	[M]
R399	ERJ3GEYJ103V	10K 1/16W	[M]
R400	ERJ3GEYJ103V	10K 1/16W	[M]
R401	ERJ3GEYJ103V	10K 1/16W	[M]
R402	D0GB332JA002	3.3K 1/16W	[M]
R403	D0GB1R0JA002	1 1/16W	[M]
R404	ERJ3GEYJ330V	33 1/16W	[M]
R405	ERJ3GEYJ330V	33 1/16W	[M]
R406	ERJ3GEYJ330V	33 1/16W	[M]
R407	ERJ3GEYJ330V	33 1/16W	[M]
R408	D0GB332JA002	3.3K 1/16W	[M]
R409	ERJ3GEYJ561V	560 1/16W	[M]
R410	D0GB820JA019	82 1/16W	[M]
R411	D0GB562JA002	5.6K 1/16W	[M]
R412	ERJ3GEYJ102V	1K 1/16W	[M]
R413	ERJ3GEYJ473V	47K 1/16W	[M]
R414	ERJ3GEYJ102V	1K 1/16W	[M]
R415	ERJ3GEYJ473V	47K 1/16W	[M]
R416	ERJ3GEYJ104V	100K 1/16W	[M]
R417	ERJ3GEYJ473V	47K 1/16W	[M]
R418	D0GB563JA002	56K 1/16W	[M]
R419	D0GB152JA002	1.5K 1/16W	[M]
R420	D0GB392JA002	3.9K 1/16W	[M]
R421	ERJ3GEYJ473V	47K 1/16W	[M]
R422	D0GB821JA002	820 1/16W	[M]
R423	D0GB272JA002	2.7K 1/16W	[M]
R424	ERJ3GEYJ472V	4.7K 1/16W	[M]
R425	ERJ3GEYJ473V	47K 1/16W	[M]
R426	D0GB332JA002	3.3K 1/16W	[M]
R427	D0GB683JA002	68K 1/16W	[M]
R428	ERJ3GEYJ222V	2.2K 1/16W	[M]
R429	ERJ3GEYJ123V	12K 1/16W	[M]
R430	ERJ3GEYJ102V	1K 1/16W	[M]
R431	ERJ3GEYJ104V	100K 1/16W	[M]
R432	ERJ3GEYJ222V	2.2K 1/16W	[M]
R433	ERJ3GEYJ472V	4.7K 1/16W	[M]
R434	ERJ3GEYJ104V	100K 1/16W	[M]
R435	D0GB152JA002	1.5K 1/16W	[M]
R436	D0GB183JA002	18K 1/16W	[M]
R437	D0GB183JA002	18K 1/16W	[M]
R438	ERJ3GEYJ224V	220K 1/16W	[M]
R439	ERJ3GEYJ472V	4.7K 1/16W	[M]
R440	ERJ3GEYJ472V	4.7K 1/16W	[M]
R441	ERJ3GEYJ123V	12K 1/16W	[M]
R442	D0GB562JA002	5.6K 1/16W	[M]
R443	D0GB272JA002	2.7K 1/16W	[M]
R444	ERJ3GEYJ182V	1.8K 1/16W	[M]
R445	ERDS2TJ332T	3.3K 1/4W	[M]
R445	ERJ3GEYJ221V	220 1/16W	[M]
R446	ERDS2TJ153T	15K 1/4W	[M]
R446	ERJ3GEYJ223V	22K 1/16W	[M]
R447	ERDS2TJ332T	3.3K 1/4W	[M]
R447	ERJ3GEYJ221V	220 1/16W	[M]
R448	D0GB4R7JA008	4.7 1/16W	[M]
R448	ERDS2TJ153T	15K 1/4W	[M]
R449	ERDS2TJ683T	68K 1/4W	[M]
R449	ERJ3GEYJ221V	220 1/16W	[M]
R450	ERDS2TJ683T	68K 1/4W	[M]
R450	ERJ3GEYJ472V	4.7K 1/16W	[M]
R451	ERDS2TJ563T	56K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R451	ERJ3GEYJ223V	22K 1/16W	[M]
R452	D0GB101JA002	100 1/16W	[M]
R452	ERDS2TJ224T	220K 1/4W	[M]
R453	ERDS2TJ100T	10 1/4W	[M]
R453	ERJ3GEYJ472V	4.7K 1/16W	[M]
R454	ERDS2TJ100T	10 1/4W	[M]
R454	ERJ3GEYJ472V	4.7K 1/16W	[M]
R455	ERDS1FVJ100T	10 1/2W	[M]
R455	ERJ3GEYJ104V	100K 1/16W	[M]
R456	D0GB152JA002	1.5K 1/16W	[M]
R456	ERDS1FVJ100T	10 1/2W	[M]
R457	ERJ3GEYJ123V	12K 1/16W	[M]
R458	ERJ3GEYJ224V	220K 1/16W	[M]
R459	D0GB152JA002	1.5K 1/16W	[M]
R501	ERDS2TJ103T	10K 1/4W	[M]
R502	ERDS2TJ223T	22K 1/4W	[M]
R503	ERDS2TJ123T	12K 1/4W	[M]
R504	ERDS2TJ473T	47K 1/4W	[M]
R505	ERDS2TJ473T	47K 1/4W	[M]
R506	ERDS2TJ104T	100K 1/4W	[M]
R507	ERDS1FVJ391T	390 1/2W	[M]
R508	ERDS1FVJ271T	270 1/2W	[M]
R509	ERDS1FVJ271T	270 1/2W	[M]
R510	ERDS2TJ272T	2.7K 1/4W	[M]
R511	ERDS2TJ561T	560 1/4W	[M]
R512	ERDS2TJ272T	2.7K 1/4W	[M]
R513	ERDS2TJ332T	3.3K 1/4W	[M]
R514	ERDS2TJ332T	3.3K 1/4W	[M]
R515	ERDS1FVJ270T	27 1/2W	[M]
R516	ERDS1FVJ150T	15 1/2W	[M]
R517	ERDS1FVJ8R2T	8.2 1/2W	[M]
R518	ERDS1FVJ8R2T	8.2 1/2W	[M]
R519	ERDS1FVJ8R2T	8.2 1/2W	[M]
R520	ERDS1FVJ8R2T	8.2 1/2W	[M]
R521	ERDS1FVJ8R2T	8.2 1/2W	[M]
R522	ERDS2TJ332T	3.3K 1/4W	[M]
R523	ERDS2TJ471T	470 1/4W	[M]
R524	ERDS2TJ2R2T	2.2 1/4W	[M]
R525	ERDS2TJ2R2T	2.2 1/4W	[M]
R526	ERDS2TJ2R2T	2.2 1/4W	[M]
R527	ERDS2TJ2R2T	2.2 1/4W	[M]
R528	ERDS2TJ103T	10K 1/4W	[M]
R529	ERDS1FVJ331T	330 1/2W	[M]
R530	ERDS2TJ122T	1.2K 1/4W	[M]
R531	ERDS2TJ222T	2.2K 1/4W	[M]
R532	ERDS2TJ151T	150 1/4W	[M]
R534	ERDS1FVJ270T	27 1/2W	[M]
R553	ERDS2TJ224T	220K 1/4W	[M]
R554	ERDS2TJ103T	10K 1/4W	[M]
R555	ERDS2TJ223T	22K 1/4W	[M]
R556	ERDS2TJ103T	10K 1/4W	[M]
R557	ERDS2TJ223T	22K 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]
R612	ERDS2TJ102T	1K 1/4W	[M]
R613	ERDS2TJ102T	1K 1/4W	[M]
R614	ERDS2TJ122T	1.2K 1/4W	[M]
R615	ERDS2TJ182T	1.8K 1/4W	[M]
R616	ERDS2TJ222T	2.2K 1/4W	[M]
R617	ERDS2TJ272T	2.7K 1/4W	[M]
R618	ERDS2TJ472T	4.7K 1/4W	[M]
R619	ERDS2TJ682T	6.8K 1/4W	[M]
R620	ERDS2TJ103T	10K 1/4W	[M]
R629	ERDS2TJ273T	27K 1/4W	[M]
R634	ERDS2TJ103T	10K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R635	ERDS2TJ103T	10K 1/4W	[M]
R640	ERDS2TJ561T	560 1/4W	[M]
R642	ERDS2TJ470T	47 1/4W	[M]
R643	ERDS2TJ822T	8.2K 1/4W	[M]
R644	ERDS2TJ334T	330K 1/4W	[M]
R648	ERDS2TJ471T	470 1/4W	[M]
R649	ERDS2TJ103T	10K 1/4W	[M]
R650	ERDS2TJ471T	470 1/4W	[M]
R651	ERDS2TJ471T	470 1/4W	[M]
R652	ERDS2TJ471T	470 1/4W	[M]
R688	ERDS2TJ2R7T	2.7 1/4W	[M]
R689	ERDS2TJ223T	22K 1/4W	[M]
R690	ERDS2TJ334T	330K 1/4W	[M]
R691	ERDS2TJ470T	47 1/4W	[M]
R692	ERD2FCVG470T	47 1/4W	[M]
R693	ERD2FCVG470T	47 1/4W	[M]
R694	ERDS2TJ332T	3.3K 1/4W	[M]
R695	ERDS2TJ101T	100 1/4W	[M]
R696	ERDS2TJ822T	8.2K 1/4W	[M]
R697	ERDS2TJ472T	4.7K 1/4W	[M]
R698	ERDS2TJ102T	1K 1/4W	[M]
R699	ERDS2TJ102T	1K 1/4W	[M]
R700	ERDS2TJ2R7T	2.7 1/4W	[M]
R701	D0GB4R7JA008	4.7 1/16W	[M]
R701	ERDS2TJ223T	22K 1/4W	[M]
R702	ERDS2TJ152T	1.5K 1/4W	[M]
R702	ERJ3GEYJ103V	10K 1/16W	[M]
R704	ERJ3GEYJ102V	1K 1/16W	[M]
R705	D0GB154JA002	150K 1/16W	[M]
R706	ERJ3GEYJ102V	1K 1/16W	[M]
R707	ERJ3GEYJ102V	1K 1/16W	[M]
R708	ERJ3GEYJ102V	1K 1/16W	[M]
R709	ERJ3GEYJ223V	22K 1/16W	[M]
R711	ERJ3GEYJ823V	82K 1/16W	[M]
R712	ERJ3GEYJ561V	560 1/16W	[M]
R714	ERJ3GEYJ221V	220 1/16W	[M]
R715	D0GB272JA002	2.7K 1/16W	[M]
R717	ERJ3GEYJ102V	1K 1/16W	[M]
R718	ERJ3GEYJ102V	1K 1/16W	[M]
R720	D0GB105JA002	1M 1/16W	[M]
R721	D0GB101JA002	100 1/16W	[M]
R723	D0GB562JA002	5.6K 1/16W	[M]
R725	ERJ3GEYJ561V	560 1/16W	[M]
R727	D0GB152JA002	1.5K 1/16W	[M]
R728	ERJ3GEYJ153V	15K 1/16W	[M]
R729	D0GB152JA002	1.5K 1/16W	[M]
R731	ERJ3GEYJ223V	22K 1/16W	[M]
R735	D0GB101JA002	100 1/16W	[M]
R736	D0GB100JA002	10 1/16W	[M]
R737	ERJ3GEYJ103V	10K 1/16W	[M]
R744	D0GB124JA002	120K 1/16W	[M]
R749	ERJ3GEYJ223V	22K 1/16W	[M]
R750	ERJ3GEYJ5R6V	5.6 1/16W	[M]
R753	D0GB100JA002	10 1/16W	[M]
R760	D0GB101JA002	100 1/16W	[M]
R801	D0GB106JA008	10M 1/16W	[M]
R802	ERJ3GEYJ223V	22K 1/16W	[M]
R803	ERJ3GEYJ223V	22K 1/16W	[M]
R804	D0GB334JA002	330K 1/16W	[M]
R805	ERJ3GEYJ472V	4.7K 1/16W	[M]
R806	ERJ3GEYJ472V	4.7K 1/16W	[M]
R807	ERJ3GEYJ681V	680 1/16W	[M]
R808	ERJ3GEYJ473V	47K 1/16W	[M]
R809	ERJ3GEYJ473V	47K 1/16W	[M]
R810	ERJ3GEYJ472V	4.7K 1/16W	[M]
R811	ERJ3GEYJ472V	4.7K 1/16W	[M]
R812	ERJ3GEYJ472V	4.7K 1/16W	[M]
R813	ERJ3GEYJ472V	4.7K 1/16W	[M]
R814	ERJ3GEYJ472V	4.7K 1/16W	[M]
R815	D0GB474JA002	470K 1/16W	[M]
R816	D0GB474JA002	470K 1/16W	[M]
R817	ERJ3GEYJ681V	680 1/16W	[M]
R818	ERJ3GEYJ222V	2.2K 1/16W	[M]
R819	ERJ3GEYJ222V	2.2K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R820	ERJ3GEYJ471V	470 1/16W	[M]
R821	ERJ3GEY0R00V	0 1/16W	[M]
R822	ERJ3GEY0R00V	0 1/16W	[M]
R823	ERJ3GEY0R00V	0 1/16W	[M]
R824	ERJ3GEY0R00V	0 1/16W	[M]
R826	DOGB333JA002	33K 1/16W	[M]
R827	DOGB333JA002	33K 1/16W	[M]
R828	DOGB333JA002	33K 1/16W	[M]
R829	DOGB333JA002	33K 1/16W	[M]
R830	ERJ3GEY0R00V	0 1/16W	[M]
R832	ERJ3GEY0R00V	0 1/16W	[M]
R833	ERJ3GEY0R00V	0 1/16W	[M]
R834	ERJ3GEYJ472V	4.7K 1/16W	[M]
R835	ERJ3GEY0R00V	0 1/16W	[M]
R836	ERJ3GEY0R00V	0 1/16W	[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]
R922	ERDS2TJ103T	10K 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]
R972	ERDS2TJ821T	820 1/4W	[M]
R973	ERDS2TJ393T	39K 1/4W	[M]
R975	ERDS2TJ122T	1.2K 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]
R1008	ERJ3GEYJ223V	22K 1/16W	[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]

Ref. No.	Part No.	Part Name & Description	Remarks
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	ERJ3GEY0R00V	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	ERJ3GEY0R00V	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]
		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]
C101	ECJ1VB1E103K	0.01 25V	[M]
C102	ECEA1CKA100B	10 16V	[M]
C103	ECJ1VB1E103K	0.01 25V	[M]
C104	ECJ1VB1H102K	1000P 50V	[M]
C106	ECJ1VB1E103K	0.01 25V	[M]
C107	FLH1E473A062	0.047 25V	[M]
C108	FLH1H8R0A787	8P 50V	[M]
C109	ECJ1VB1H102K	1000P 50V	[M]
C110	ECJ1VB1E103K	0.01 25V	[M]
C111	ECEA1HKA4R7B	4.7 50V	[M]
C112	ECJ1VB1E103K	0.01 25V	[M]
C113	ECJ1VB1H102K	1000P 50V	[M]
C114	ECEA1HKA3R3B	3.3 50V	[M]
C115	ECEA1HKA4R7B	4.7 50V	[M]
C116	ECUV1C333KBV	0.033 16V	[M]
C117	ECJ1VB1E103K	0.01 25V	[M]
C118	ECJ1VB1E103K	0.01 25V	[M]
C119	F0A2A681A010	680P 100V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C120	ECEA1CKA100B	10 16V	[M]
C121	ECEA1HKAR47B	0.47 50V	[M]
C122	ECEA1HKA010B	1 50V	[M]
C123	ECEA1HKA010B	1 50V	[M]
C124	ECJ1VC1H101K	100P 50V	[M]
C125	ECEA1CKA220B	22 16V	[M]
C126	ECUV1C105ZFN	10 16V	[M]
C127	ECEA1CKA220B	22 16V	[M]
C129	ECEA0JKA101B	100 6.3V	[M]
C130	ECEA0JKA101B	100 6.3V	[M]
C131	ECJ1VC1H151J	150P 50V	[M]
C132	ECJ1VB1H102K	1000P 50V	[M]
C133	ECJ1VC1H270J	27P 50V	[M]
C134	ECJ1VC1H270J	27P 50V	[M]
C136	ECJ1VB1H102K	1000P 50V	[M]
C137	ECJ1VB1H332K	3300P 50V	[M]
C138	ECJ1VB1E103K	0.01 25V	[M]
C139	ECEA1HKA4R7B	4.7 50V	[M]
C141	ECEA1HKA010B	1 50V	[M]
C142	ECEA1HKA010B	1 50V	[M]
C143	ECJ1VB1H472K	4700P 50V	[M]
C144	ECJ1VB1H472K	4700P 50V	[M]
C147	ECJ1VB1H102K	1000P 50V	[M]
C148	ECJ1VB1E103K	0.01 25V	[M]
C149	ECUV1C104ZFN	0.1 16V	[M]
C201	ECJ1VB1H681K	680P 50V	[M]
C202	ECJ1VC1H101K	100P 50V	[M]
C203	ECJ1VB1H102K	1000P 50V	[M]
C204	ECJ1VB1H221K	220P 50V	[M]
C205	ECJ1VB1H221K	220P 50V	[M]
C206	ECEA1CKA100B	10 16V	[M]
C207	ECEA1CKA100B	10 16V	[M]
C208	ECEA1CKA100B	10 16V	[M]
C209	ECEA1CKA100B	10 16V	[M]
C211	ECEA1CKA100B	10 16V	[M]
C212	ECEA1CKA100B	10 16V	[M]
C213	ECEA1HKAR47B	0.47 50V	[M]
C214	ECEA1HKAR47B	0.47 50V	[M]
C215	ECJ2VB1C154K	0.15 16V	[M]
C216	ECJ2VB1C154K	0.15 16V	[M]
C217	ECJ1VB1H152K	1500P 50V	[M]
C218	ECEA1CKA100B	10 16V	[M]
C219	ECQV1H474JZ3	0.47 50V	[M]
C220	ECQV1H474JZ3	0.47 50V	[M]
C221	ECEA1CKA100B	10 16V	[M]
C222	ECJ2VB1C473K	0.047 16V	[M]
C223	ECJ1VC1H101K	100P 50V	[M]
C224	ECEA1HKA010B	1 50V	[M]
C225	ECJ1VC1H101K	100P 50V	[M]
C226	ECUV1H470JCV	47P 50V	[M]
C227	ECEA1CKA100B	10 16V	[M]
C228	ECEA1CKA100B	10 16V	[M]
C229	ECEA1HKA010B	1 50V	[M]
C230	ECJ2VB1H153K	0.015 50V	[M]
C231	F1H1H821A761	820P 50V	[M]
C232	ECJ1VB1H822K	8200P 50V	[M]
C233	ECJ1VB1H822K	8200P 50V	[M]
C234	ECEA1HKA010B	1 50V	[M]
C235	ECEA1HKAR68B	0.68 50V	[M]
C238	ECEA1CKA330B	33 16V	[M]
C239	ECJ2VB1H333K	0.033 50V	[M]
C240	ECBT1H821KB5	820P 50V	[M]
C240	ECJ1VB1E103K	0.01 25V	[M]
C241	ECBT1H150JC5	15P 50V	[M]
C241	ECJ2VB1H333K	0.033 50V	[M]
C242	ECBT1H821KB5	820P 50V	[M]
C243	ECBT1H150JC5	15P 50V	[M]
C244	ECBT1H473KB5	0.047 50V	[M]
C245	ECBT1H473KB5	0.047 50V	[M]
C246	ECBT1H473KB5	0.047 50V	[M]
C247	ECBT1H473KB5	0.047 50V	[M]
C301	ECJ1VB1H102K	1000P 50V	[M]
C302	ECJ1VB1E103K	0.01 25V	[M]
C303	ECKR1H102ZF5	1000P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C304	ECEA1HKA010B	1 50V	[M]
C305	ECEA1CKA221B	220 16V	[M]
C306	ECEA1HKA010B	1 50V	[M]
C307	F1H1H121A755	120P 50V	[M]
C308	ECJ1VC1H101K	100P 50V	[M]
C309	ECEA1AKN100B	10 10V	[M]
C310	ECA1HM101B	100 50V	[M]
C311	ECA1HML01B	100 50V	[M]
C312	ECJ1VB1E103K	0.01 25V	[M]
C313	ECJ1VB1E103K	0.01 25V	[M]
C314	ECJ1VB1H103K	0.01 50V	[M]
C315	ECEA1HKA0R1B	0.1 50V	[M]
C316	ECEA1HKA0R1B	0.1 50V	[M]
C317	ECEA1HKA0R1B	0.1 50V	[M]
C318	ECEA1HKA0R1B	0.1 50V	[M]
C319	ECUV1H104KBV	0.1 50V	[M]
C320	ECEA1AKA330B	33 10V	[M]
C321	ECKR1H103MD5	0.01 50V	[M]
C323	ECUV1C104ZFN	0.1 16V	[M]
C324	ECUV1C104ZFN	0.1 16V	[M]
C325	ECJ1VC1H101K	100P 50V	[M]
C326	ECJ1VFLC474Z	0.47 16V	[M]
C327	ECJ1VC1H101K	100P 50V	[M]
C328	ECJ1VC1H101K	100P 50V	[M]
C329	ECJ1VC1H101K	100P 50V	[M]
C330	ECJ1VC1H101K	100P 50V	[M]
C331	ECJ1VC1H101K	100P 50V	[M]
C332	ECJ1VC1H101K	100P 50V	[M]
C333	ECJ1VC1H101K	100P 50V	[M]
C334	ECJ1VC1H101K	100P 50V	[M]
C335	ECJ1VC1H101K	100P 50V	[M]
C336	ECUV1H104KBV	0.1 50V	[M]
C337	ECJ1VC1H101K	100P 50V	[M]
C338	ECJ1VB1E103K	0.01 25V	[M]
C339	ECJ1VB1E103K	0.01 25V	[M]
C340	ECJ1VC1H101K	100P 50V	[M]
C341	ECJ1VC1H101K	100P 50V	[M]
C342	ECJ1VB1E103K	0.01 25V	[M]
C343	ECJ1VC1H101K	100P 50V	[M]
C344	ECJ1VC1H101K	100P 50V	[M]
C345	ECJ1VC1H101K	100P 50V	[M]
C346	ECJ1VC1H101K	100P 50V	[M]
C347	ECJ1VC1H101K	100P 50V	[M]
C348	ECJ1VC1H101K	100P 50V	[M]
C349	ECJ1VC1H101K	100P 50V	[M]
C350	ECJ1VC1H101K	100P 50V	[M]
C351	ECJ1VC1H101K	100P 50V	[M]
C352	ECJ1VC1H101K	100P 50V	[M]
C353	ECJ1VC1H101K	100P 50V	[M]
C354	ECJ1VC1H101K	100P 50V	[M]
C357	ECJ1VC1H102J	1000P 50V	[M]
C359	ECJ1VB1H102K	1000P 50V	[M]
C360	ECUV1H104KBV	0.1 50V	[M]
C361	ECJ1VC1H150J	15P 50V	[M]
C362	ECJ1VC1H180J	18P 50V	[M]
C363	F1H1H223A761	0.022 50V	[M]
C364	F1H1H331A022	330P 50V	[M]
C366	F1H1H331A022	330P 50V	[M]
C369	ECJ1VC1H560J	56P 50V	[M]
C370	ECJ1VB1E103K	0.01 25V	[M]
C371	ECJ1VB1C103K	0.01 16V	[M]
C372	ECA1CM221B	220 16V	[M]
C373	RCE1HKN100BG	10P 50V	[M]
C374	ECJ1VC1H560J	56P 50V	[M]
C375	ECA1HM101B	100 50V	[M]
C376	ECJ1VB1E103K	0.01 25V	[M]
C377	ECJ1VB1E103K	0.01 25V	[M]
C378	ECEA1CKA100B	10 16V	[M]
C380	ECUV1H561KBV	560P 50V	[M]
C381	ECUV1H561KBV	560P 50V	[M]
C382	ECUV1H561KBV	560P 50V	[M]
C383	ECUV1H561KBV	560P 50V	[M]
C384	ECUV1H561KBV	560P 50V	[M]
C385	ECUV1H561KBV	560P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C386	ECUV1H561KBV	560P 50V	[M]
C387	ECUV1H680JCV	68P 50V	[M]
C388	ECUV1H680JCV	68P 50V	[M]
C389	ECEA0JKA101B	100 6.3V	[M]
C391	ECEA1AKA101B	100 10V	[M]
C392	ECEA1HKA010B	1 50V	[M]
C395	ECEA1HKA100B	10 50V	[M]
C396	ECEA1HKA2R2B	2.2 50V	[M]
C397	RCE1AML02B	1000 10V	[M]
C398	ECJ1VB1H102K	1000P 50V	[M]
C401	ECJ1VB1H681K	680P 50V	[M]
C402	ECJ1VC1H101K	100P 50V	[M]
C403	ECJ1VB1H102K	1000P 50V	[M]
C404	ECJ1VB1H221K	220P 50V	[M]
C405	ECJ1VB1H221K	220P 50V	[M]
C406	ECEA1CKA100B	10 16V	[M]
C407	ECEA1CKA100B	10 16V	[M]
C408	ECEA1CKA100B	10 16V	[M]
C409	ECEA1CKA100B	10 16V	[M]
C410	F1H1A2240004	0.22 10V	[M]
C411	ECEA1CKA100B	10 16V	[M]
C412	ECEA1CKA100B	10 16V	[M]
C413	ECEA1HKAR47B	0.47 50V	[M]
C414	ECEA1HKAR47B	0.47 50V	[M]
C415	ECJ2VB1C154K	0.15 16V	[M]
C416	ECJ2VB1C154K	0.15 16V	[M]
C417	ECUV1H152KBV	1500P 50V	[M]
C418	ECEA1CKA100B	10 16V	[M]
C419	ECQV1H474JZ3	0.47 50V	[M]
C420	ECQV1H474JZ3	0.47 50V	[M]
C421	ECEA1CKA100B	10 16V	[M]
C422	ECJ22B1C473K	0.047 16V	[M]
C423	ECJ1VC1H101K	100P 50V	[M]
C424	ECEA1HKA010B	1 50V	[M]
C425	ECJ1VC1H101K	100P 50V	[M]
C426	ECUV1H470JCV	47P 50V	[M]
C427	ECEA1CKA100B	10 16V	[M]
C428	ECEA1CKA100B	10 16V	[M]
C429	ECEA1HKA010B	1 50V	[M]
C430	ECJ2VB1H153K	0.015 50V	[M]
C431	F1H1H821A761	820P 50V	[M]
C432	F1H1H822A022	8200P 50V	[M]
C433	F1H1H822A022	8200P 50V	[M]
C434	ECEA1HKA010B	1 50V	[M]
C435	ECEA1HKAR68B	0.68 50V	[M]
C436	F1H1C393A089	0.039 16V	[M]
C437	ECJ2VB1C154K	0.15 16V	[M]
C438	ECEA1CKA330B	33 16V	[M]
C439	ECJ2VB1H333K	0.033 50V	[M]
C440	ECBT1H821KB5	820P 50V	[M]
C440	ECJ1VB1H102K	1000P 50V	[M]
C441	ECBT1H150JC5	15P 50V	[M]
C441	ECJ2VB1H333K	0.033 50V	[M]
C442	ECBT1H821KB5	820P 50V	[M]
C442	F1H1A2240004	0.22 10V	[M]
C443	ECBT1H150JC5	15P 50V	[M]
C443	ECUV1H104KBV	0.1 50V	[M]
C444	ECBT1H473KB5	0.047 50V	[M]
C444	ECJ1VB1H471K	470P 50V	[M]
C445	ECBT1H473KB5	0.047 50V	[M]
C446	ECBT1H473KB5	0.047 50V	[M]
C447	ECBT1H473KB5	0.047 50V	[M]
C501	ECBT1H103KB5	0.01 50V	[M]
C502	ECA1CM471B	470 16V	[M]
C503	ECBT1H102KB5	1000P 50V	[M]
C504	ECKR1H103MD5	0.01 50V	[M]
C505	ECEA1CKA101B	100 16V	[M]
C506	ECKR1H103MD5	0.01 50V	[M]
C507	ECEA1CKA100B	10 16V	[M]
C508	ECEA1CKA100B	10 16V	[M]
C509	ECKR1H103MD5	0.01 50V	[M]
C510	ECEA1EM101B	100 25V	[M]
C511	ECKR1H103MD5	0.01 50V	[M]
C512	ECEA1EKA330B	33 25V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C513	ECEA1EKA100B	10 25V	[M]
C514	ECKR1H103MD5	0.01 50V	[M]
C520	ECA1JM222B	2200 63V	[M]
C530	ECQV1H184JL3	0.18 50V	[M]
C538	ECEA1HKA2R2B	2.2 50V	[M]
C540	ECA1JM222B	2200 63V	[M]
C613	ECBT1H390J5	39P 50V	[M]
C619	F1D1H473A012	0.047 50V	[M]
C620	ECBT1E223ZF5	0.022 25V	[M]
C621	ECBT1E223ZF5	0.022 25V	[M]
C622	ECBT1H103KB5	0.01 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]
C642	ECEA1VKA220B	22 35V	[M]
C659	ECBT1E223ZF5	0.022 25V	[M]
C660	ECBT1E103ZF5	0.01 25V	[M]
C661	ECEA1HKAR33B	0.33 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]
C668	ECEA1HKA010B	1 50V	[M]
C669	ECBT1H101KB5	100P 50V	[M]
C670	ECBT1H101KB5	100P 50V	[M]
C671	ECBT1H473ZF5	0.047 50V	[M]
C672	ECBT1H101KB5	100P 50V	[M]
C673	ECBT1H101KB5	100P 50V	[M]
C674	ECEA1EKA470B	47 25V	[M]
C675	ECBT1H104ZF5	0.1 50V	[M]
C676	ECEA1HKA010B	1 50V	[M]
C677	F1D1H1040002	0.1 50V	[M]
C678	ECBT1H103KB5	0.01 50V	[M]
C701	ECEA0JKA330I	33 6.3V	[M]
C702	ECUVNC104KBV	0.1 16V	[M]
C703	ECEA0JKA101I	100 6.3V	[M]
C704	ECUVNC104KBV	0.1 16V	[M]
C706	ECJ1VB1H272K	2700P 50V	[M]
C707	F1H1E273A064	0.027 25V	[M]
C710	F1H1H121A755	120P 50V	[M]
C711	ECJ1VB1C103K	0.01 16V	[M]
C712	ECJ1VB1C103K	0.01 16V	[M]
C713	ECUVNC104KBV	0.1 16V	[M]
C714	ECEA0JKA101I	100 6.3V	[M]
C715	ECUV1C224KBV	0.22 16V	[M]
C716	ECJ1VB1H102K	1000P 50V	[M]
C717	ECUVNC104ZFB	0.1 16V	[M]
C718	ECUV1A124KBV	0.12 10V	[M]
C721	ECJ1VC1H120J	12P 50V	[M]
C722	ECJ1VC1H120J	12P 50V	[M]
C723	ECEA0JKA221I	220 6.3V	[M]
C724	ECUVNC104KBV	0.1 16V	[M]
C725	ECJ1VB1H102K	1000P 50V	[M]
C726	ECJ1VB1H102K	1000P 50V	[M]
C727	ECA1HAK010XI	1 50V	[M]
C728	ECA1HAK010XI	1 50V	[M]
C729	ECUVNC104KBV	0.1 16V	[M]
C730	ECUVNC104ZFB	0.1 16V	[M]
C731	ECEA0JKA221I	220 6.3V	[M]
C733	ECUVNC104KBV	0.1 16V	[M]
C734	ECEA1AKA221I	220 10V	[M]
C735	ECUVNC104ZFB	0.1 16V	[M]
C736	ECUVNC104ZFB	0.1 16V	[M]
C737	ECUVNC104ZFB	0.1 16V	[M]
C738	F1H1C473A088	0.047 16V	[M]
C739	ECJ1VB1H103K	0.01 50V	[M]
C740	ECUVNC104KBV	0.1 16V	[M]
C741	ECJ1VB1H102K	1000P 50V	[M]
C742	F1H1E273A064	0.027 25V	[M]
C743	ECUVNC104ZFB	0.1 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C744	F1H1H223A761	0.022 50V	[M]
C746	ECUVNC104KBV	0.1 16V	[M]
C747	F1H1H181A755	180P 50V	[M]
C748	ECUVNC104KBV	0.1 16V	[M]
C749	ECJ1VB1H222K	2200P 50V	[M]
C750	ECUVNC104KBV	0.1 16V	[M]
C751	ECUVNC104KBV	0.1 16V	[M]
C752	ECJ1VB1H103K	0.01 50V	[M]
C753	ECJ1VB1H471K	470P 50V	[M]
C755	ECUVNC104KBV	0.1 16V	[M]
C756	ECEA1HKA4R7I	4.7 50V	[M]
C757	ECEA1HKA4R7I	4.7 50V	[M]
C758	ECUVNC104KBV	0.1 16V	[M]
C770	ECUVNC104KBV	0.1 16V	[M]
C780	ECUVNC104KBV	0.1 16V	[M]
C781	ECUVNC104KBV	0.1 16V	[M]
C782	ECUVNC104KBV	0.1 16V	[M]
C826	ECJ1VC1H101K	100P 50V	[M]
C827	ECJ1VC1H101K	100P 50V	[M]
C828	ECJ1VC1H101K	100P 50V	[M]
C829	ECJ1VC1H101K	100P 50V	[M]
C901	ECBT1H101KB5	100P 50V	[M]
C902	ECBT1H101KB5	100P 50V	[M]
C950	ECALEM222B	2200 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	RCA1CM102BT	1000 16V	[M]
C962	RCA1CM102BT	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	FOA2A472A015	4700P 100V	[M]
C1008	ECEA1HKA010B	1 50V	[M]
C1009	ECEA1AKA470B	47 10V	[M]
C1010	ECALEM101B	100 25V	[M]
C1011	ECQV1H473JZ3	0.047 50V	[M]
C1012	ECJ1VB1H102K	1000P 50V	[M]
C1013	ECJ1VB1H102K	1000P 50V	[M]
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]

Ref. No.	Part No.	Part Name & Description	Remarks
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	ECUV1C333KEV	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	ECEA1AKA221Q	220 10V	[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]
C1064	ECEA1HKA3R3B	3.3 50V	[M]
		CHIP JUMPER	
RJ701	ERJ3GEY0R00V	0 1/16W	[M]
RJ702	ERJ3GEY0R00V	0 1/16W	[M]
RJ703	ERJ3GEY0R00V	0 1/16W	[M]
RJ704	ERJ3GEY0R00V	0 1/16W	[M]
RJ705	ERJ3GEY0R00V	0 1/16W	[M]
RJ706	ERJ3GEY0R00V	0 1/16W	[M]
RJ707	ERJ3GEY0R00V	0 1/16W	[M]
RJ708	ERJ3GEY0R00V	0 1/16W	[M]
RJ709	ERJ3GEY0R00V	0 1/16W	[M]
RJ711	ERJ3GEY0R00V	0 1/16W	[M]
RJ712	ERJ3GEY0R00V	0 1/16W	[M]
RJ713	ERJ3GEY0R00V	0 1/16W	[M]
RJ715	ERJ3GEY0R00V	0 1/16W	[M]
RJ716	ERJ3GEY0R00V	0 1/16W	[M]
RJ717	ERJ3GEY0R00V	0 1/16W	[M]
RJ718	ERJ3GEY0R00V	0 1/16W	[M]
RJ720	ERJ3GEY0R00V	0 1/16W	[M]
RJ721	ERJ3GEY0R00V	0 1/16W	[M]
RJ722	ERJ3GEY0R00V	0 1/16W	[M]
RJ723	ERJ3GEY0R00V	0 1/16W	[M]
RJ724	ERJ3GEY0R00V	0 1/16W	[M]
RJ725	ERJ3GEY0R00V	0 1/16W	[M]
RJ726	ERJ3GEY0R00V	0 1/16W	[M]
RJ727	ERJ3GEY0R00V	0 1/16W	[M]
RJ728	ERJ3GEY0R00V	0 1/16W	[M]
RJ729	ERJ3GEY0R00V	0 1/16W	[M]
RJ730	ERJ3GEY0R00V	0 1/16W	[M]
RJ731	ERJ3GEY0R00V	0 1/16W	[M]
RJ732	ERJ3GEY0R00V	0 1/16W	[M]
RJ733	ERJ3GEY0R00V	0 1/16W	[M]

21.5. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX0987	PACKING CASE	[PANA]
P2	RPNX0158	POLYFOAM	[M]
P3	RPF00007	MIRAMAT BAG	[M]
		ACCESSORIES	

Ref. No.	Part No.	Part Name & Description	Remarks
A1	N2QAHB000037	REMOTE CONTROL	[PANA]
A1-1	RKK-HTR0283	R/C BATTERY COVER	[M]
A2	RJA0019-2K	AC CORD	[M] △
A3	RQT6705-M	O/I BOOK (Sp)	[PANA]
A4	RSA0006-J	FM ANTENNA	[M]
A5	N1DADYY00002	AM LOOP ANTENNA	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
A6	SJP5213-2	AC CORD ADAPTOR	[M]

21.6. Packaging

