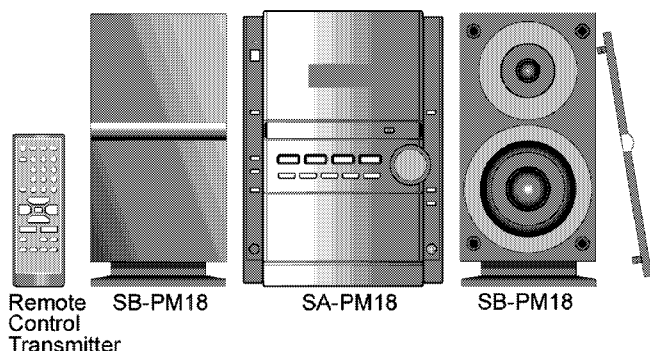


Service Manual

CD Stereo System



SA-PM18E
SA-PM18EB
SA-PM18EG

Color

(S) ... Silver Type

Specification

■ Amplifier Section

RMS Power output	
10% Total harmonic distortion	
1 kHz, both channels driven	30 W per channel (6 Ω)
(Low channel)	
8 kHz, both channels driven	30 W per channel (6 Ω)
(High channel)	
Total Bi-Amp power	60 W per channel
Input sensitivity	
AUX	250 mV
Input impedance	
AUX	19.8 k Ω

■ FM Tuner Section

Frequency range	87.5 - 108.0 MHz (50 kHz steps)
Sensitivity	1.4 μ V (IHF)
S/N 26 dB	1 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
Erasure	Double gap ferrite head
Motor	DC servo motor
Recording system	AC bias 100 kHz
Erasing system	AC erase 100 kHz
Tape speed	4.8 cm/s
Overall frequency response (+3 to -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 times	Approx. 120 seconds with C-60 cassette tape

■ CD Section

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

Panasonic

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■ General

Power supply

For EB only AC 230 - 240 V, 50 Hz

For E & EG only AC 230 V, 50 Hz

Power consumption 105 W

Power consumption (Standby mode) Approx. 0.7 W

Dimensions (W x H x D) 179 x 247 x 378 mm

Mass 5.25 kg

■ System: SC-PM18 (E) Music Center: SA-PM18 (E)

■ System: SC-PM18 (EB)

■ System: SC-PM18 (EG)

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.

Speaker: SB-PM18 (P)

Music Center: SA-PM18 (EB)

Speaker: SB-PM18 (P)

Music Center: SA-PM18 (EG)

Speaker: SB-PM18 (EG)

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 Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C506, C507, C508, C576, C587, C588, C601, C602 and C615 through a 10 Ω , 5 W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screw driver blade, for instance), as this may destroy solid state devices.

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

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

2 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.
- 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.

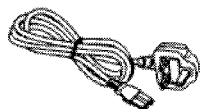
If this occurs, follow the procedure outlines below:

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.

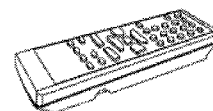
Note:

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

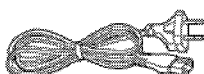
3 Accessories



AC Main Lead(For
EB only)



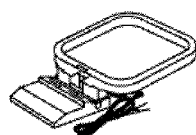
Remote Control Transmitter



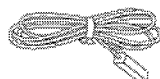
AC Main Lead(For E
& EG only)



Antenna plug
adaptor(For
EB only)



AM Loop Antenna



FM Indoor Antenna

4 Caution for AC Main Lead

(For “EB” area code model only.)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

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

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

CAUTION!

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

If a new plug is to be fitted, please observe the wiring code as shown below.

If in any doubt please consult a qualified electrician.

IMPORTANT

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

Blue: Neutral
Brown: Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

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

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

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

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

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

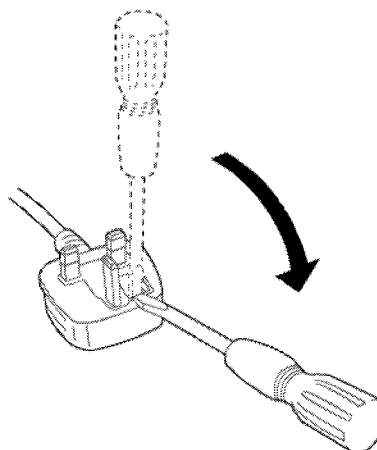
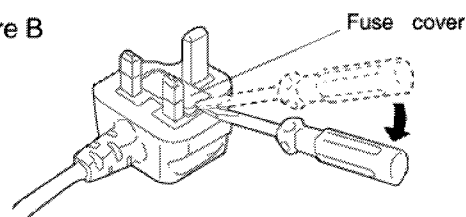


Figure B



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

Figure A

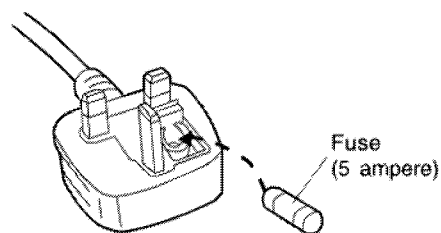
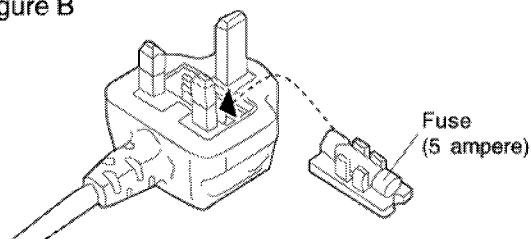
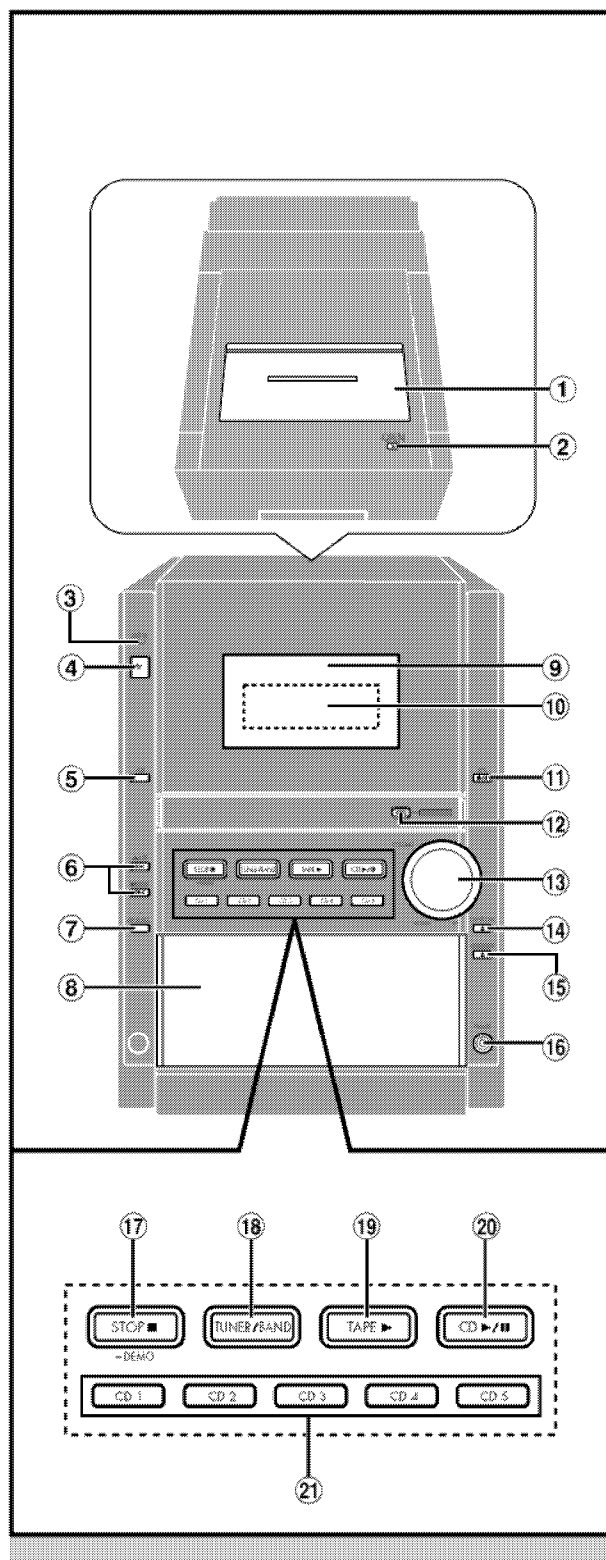


Figure B



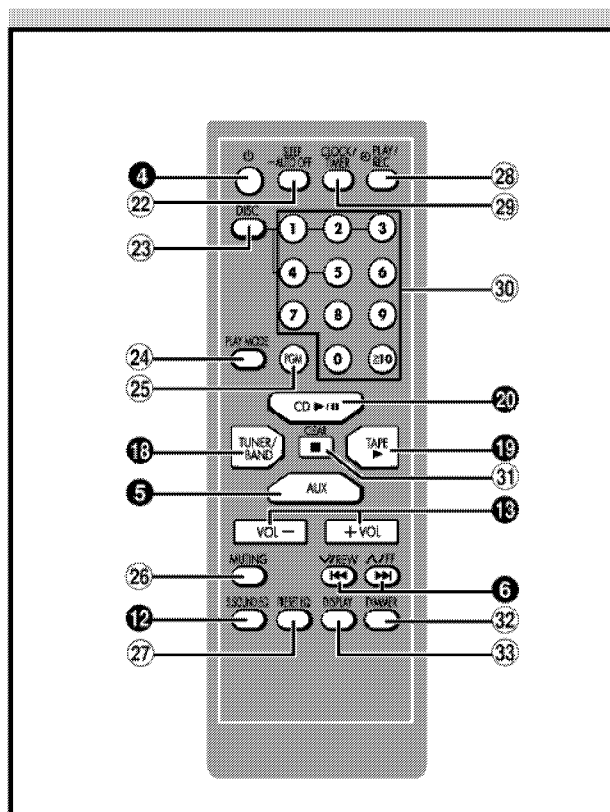
5 Front Panel Controls



Front panel controls

Main unit

- ① **Cassette lid**
- ② **Cassette open button (△ OPEN)**
- ③ **AC supply indicator (AC IN)**
This indicator lights when the unit is connected to the AC mains supply.
- ④ **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.
- ⑤ **Aux button (AUX)**
- ⑥ **CD skip/search, tape fast-forward/rewind/TPS, tune/preset channel select, time adjust buttons (▶▶ I Δ/FF, I ◀◀ V/REW)**
- ⑦ **CD check button (CD CHECK)**
- ⑧ **CD trays**
- ⑨ **Tape indicator**
This indicator changes in the following manner:
 (a) Orange (when no cassette is inserted.)
 (b) Green (when cassette is inserted.)
 (c) Red (when in recording mode.)
- ⑩ **Display**
- ⑪ **Recording start/pause button (●/|| REC)**
- ⑫ **Super sound EQ button (S.SOUND EQ)**
- ⑬ **Volume control (VOLUME DOWN, UP)**
- ⑭ **CD tray open/close button (△ OPEN/CLOSE)**
- ⑮ **CD change button (△ CD CHANGE)**
- ⑯ **Headphone jack (PHONES)**
- ⑰ **Stop/program clear and demonstration button (STOP ■, -DEMO)**
- ⑱ **Tuner/band select button (TUNER/BAND)**
- ⑲ **Cassette play button (TAPE ▶)**
- ⑳ **CD play/pause button (CD ▶/||)**
- ㉑ **Disc direct play buttons (CD 1~CD 5)**



Front panel controls

Remote Control

Buttons such as ④ function in exactly same way as the buttons on the main unit.

②② Sleep timer/auto off button (SLEEP, -AUTO OFF)

②③ Disc button (DISC)

②④ Play mode select button (PLAY MODE)

Use this for selecting repeat mode, CD play mode, tune mode, FM mode, AM beat proof function.

②⑤ CD Program/clear, tuner preset button (PGM)

②⑥ Muting button (MUTING)

②⑦ Preset EQ select button (PRESET EQ)

②⑧ Play timer/recording timer button (⏵PLAY/REC)

②⑨ Clock/timer button (CLOCK/TIMER)

③⑩ Numeric buttons (≥10, 1-9, 0)

③① Stop/program clear button (■ CLEAR)

③② Dimmer button (DIMMER)

③③ Display button (DISPLAY)

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. To prevent the breakdown of the laser diode, an antistatic shorting pin is inserted into the flexible board (FFC board).
3. Take care not to apply excessive stress to the flexible board (FFC board). When removing or connecting the short pin, finish the job in as short time as possible.
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

• Grounding for electrostatic breakdown prevention

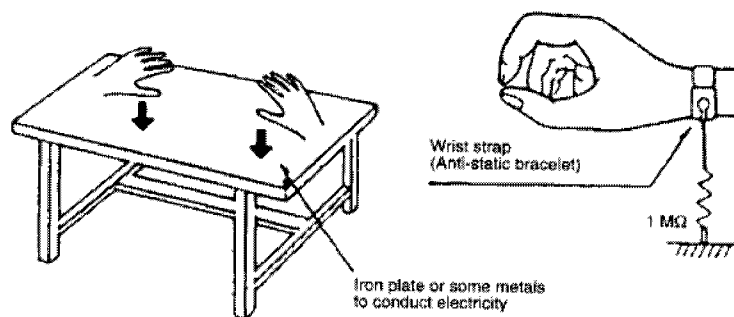
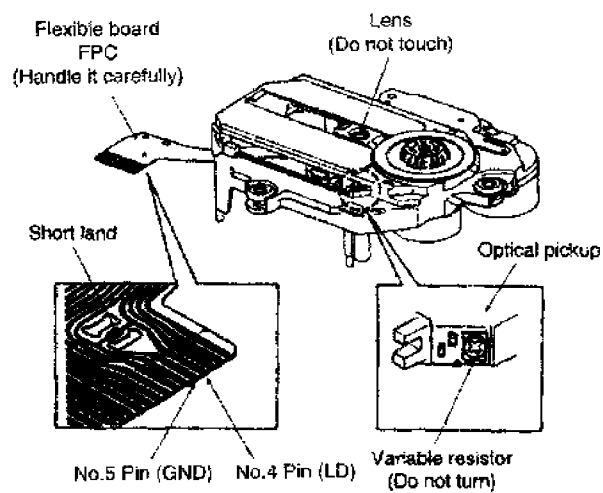
1. Human body grounding
Use the anti-static wrist strap to discharge the static electricity from your body.
2. Work table grounding.
Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is place, and ground the sheet.

Caution:

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

Caution when replacing the Traverse Deck

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



8 Disassembly and Main Component Replacement Procedures.

“ATTENTION SERVICER”

Some chassis components maybe have sharp edges. Be careful when diassembling and servicing.

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

Content

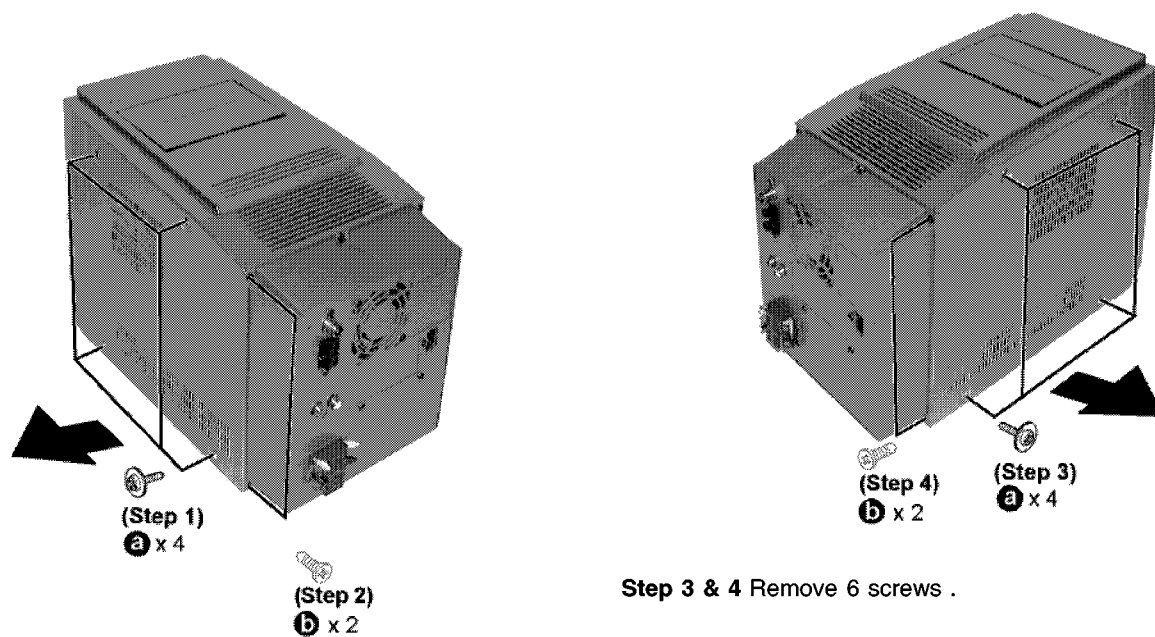
- **Disassembly Procedure for each major P.C.B.**
- **Disassembly of CD Loading Unit**
- **Disassembly of CD Loading Section**
- **Disassembly of Traverse Mechanism**
- **Main Component Replacement Procedures**
 1. Procedure of replacing Cassette Holder
 2. Procedure of replacing Pinch Roller and Head Block (Cassette Mechanism Unit)
 3. Procedure of replacing Motor, Capstan Belt A, Capstan Belt B and Winding Belt (Cassette Mechanism Unit)
 4. Procedure of replacing Parts on Mechanism P.C.B
 5. Replacement of CD Traverse Deck
 6. Replacement of Optical Pickup Unit (CD Mechanism)
 7. Replacement of a Traverse Gear A and a Traverse Gear B
 8. Replacement of Disk Tray
 9. Replacement of the Traverse Mechanism
 10. Replacement of CD Loading Unit
- **Assembly of CD Loading Unit**
- **Handling of Cassette Tape jam**

Warning:

This product uses a laser diode. Refer to “Precaution of Laser Diode”.

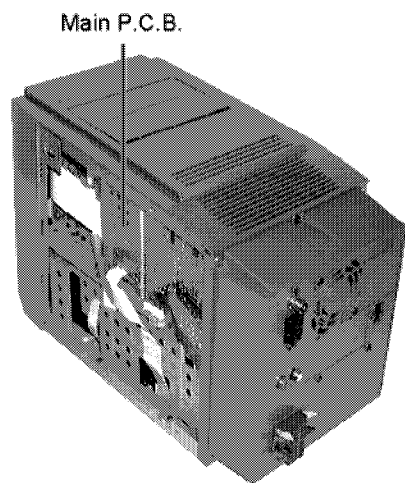
8.1. Checking for Major P.C.B.

8.1.1. Checking for Main & Transformer P.C.B.



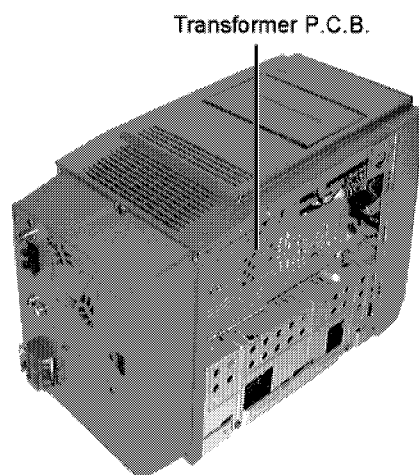
Step 1 & 2 Remove 6 screws.

- Checking Main P.C.B.



Step 3 & 4 Remove 6 screws .

- Checking for Transformer P.C.B.

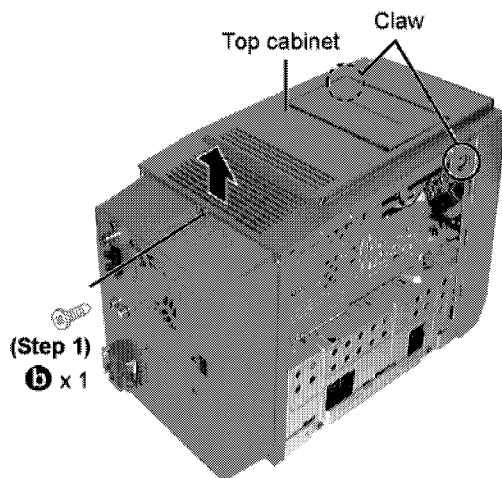


8.1.2. Checking for Deck P.C.B., Tape Eject P.C.B. & Deck Mechanism P.C.B.

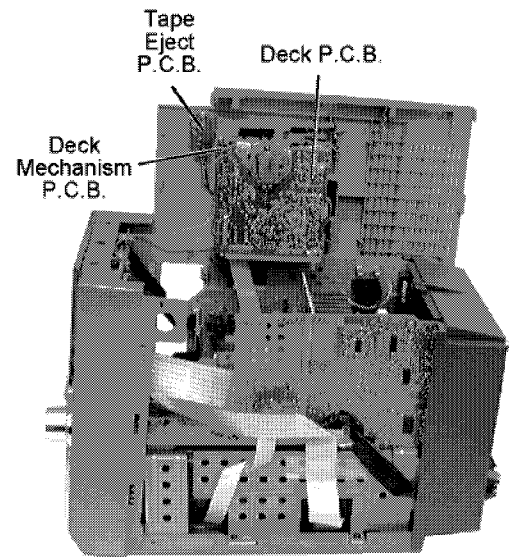
- Follow the (Step 1) - (Step 4) of Item 8.1.1.

Step 1 Remove one screw at the rear panel.

Step 2 Release claws at both ends, and lift up the top unit (Deck Mechanism Unit).



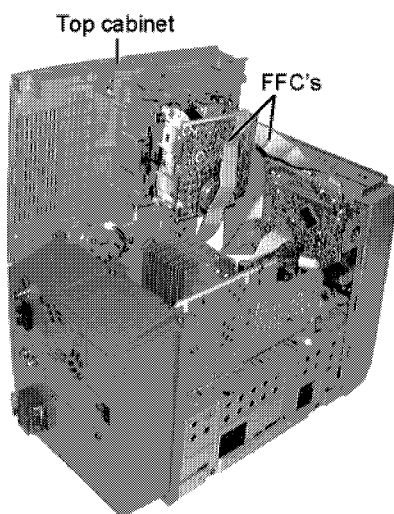
- Checking for Deck P.C.B., Tape Eject P.C.B. & Deck Mechanism P.C.B.



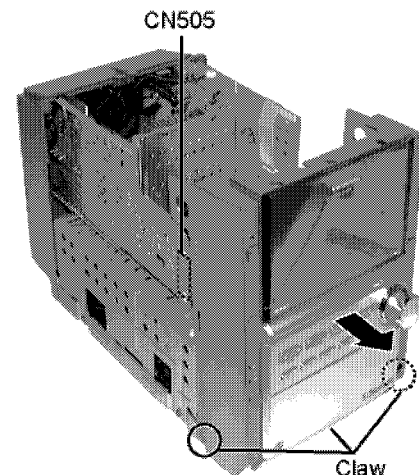
8.1.3. Checking for Panel P.C.B.

- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.

Step 1 Release connector CN1303 & CN1304. Turn the Top cabinet.



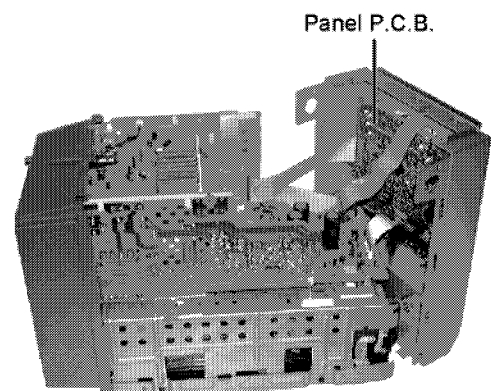
Step 2 Release 3 claws. Disconnect CN505 & CN500.



Step 3 Push front panel forward as arrow shown.

Step 4 Reconnect connectors (CN1303, CN1304, CN500 and CN505) for checking operation for main unit.

- Checking for Panel P.C.B.

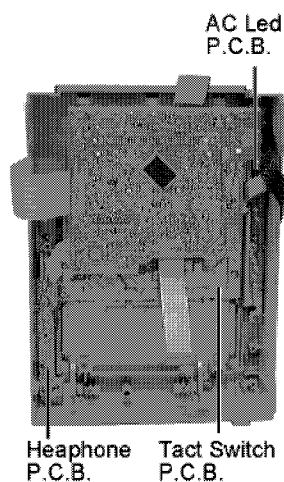
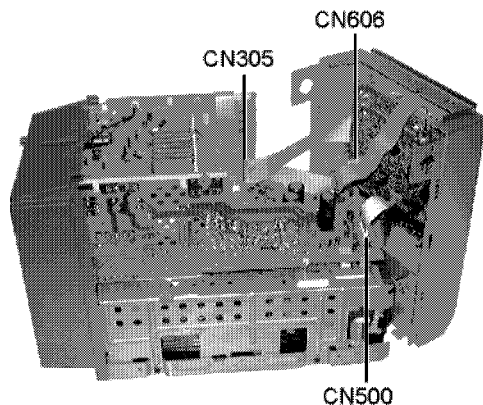


8.1.4. Checking for Headphone P.C.B., AC Led P.C.B. Tact Switch P.C.B.

- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 4) of Item 8.1.3.

- Checking for Headphone, AC Led & Tact Switch P.C.B.

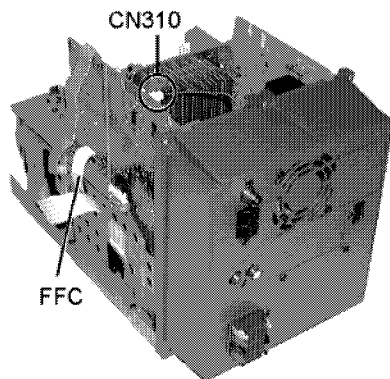
Step 1 Disconnect CN305, CN606 and CN500.



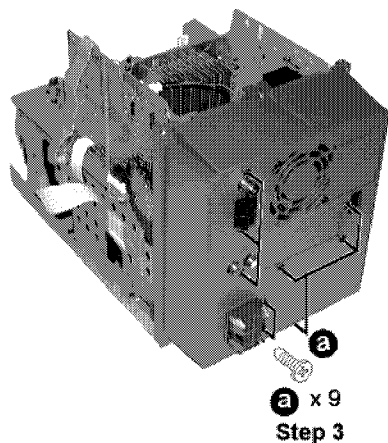
8.1.5. Checking for CD Servo P.C.B. & CD Loading P.C.B.

- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 4) of Item 8.1.3.
- Follow the (Step 1) of Item 8.1.4.

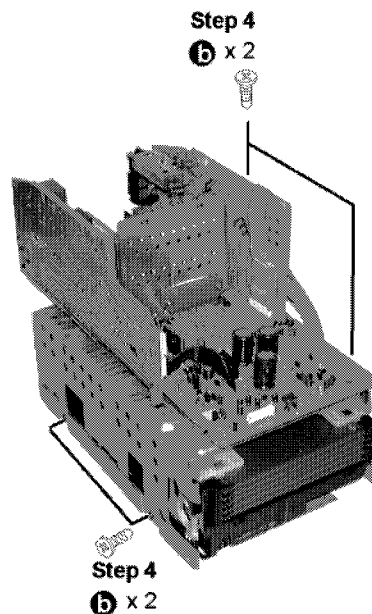
Step 1 Remove FFC and connector CN310.



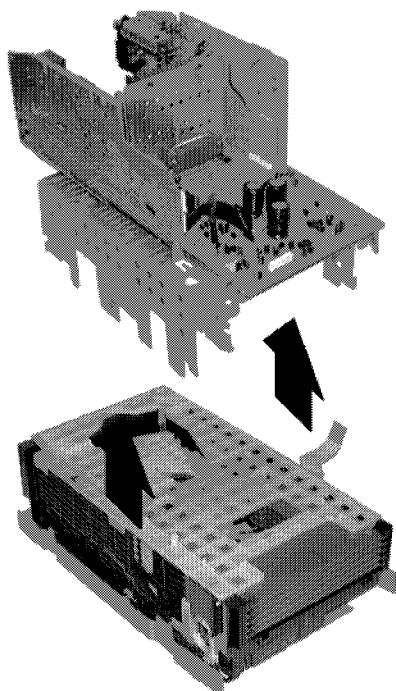
Step 2 Remove FFC and connector CN310. (Fan unit)



Step 3 Remove all screws for back cabinet.



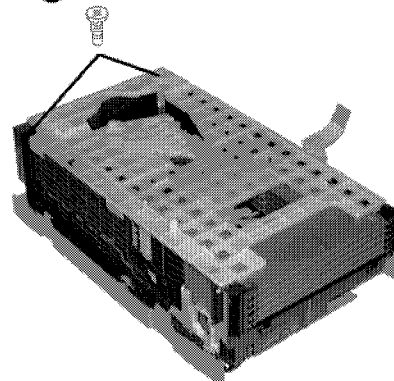
Step 4 Remove all screws.



Step 5 Pull up the middle unit as the arrow shown.

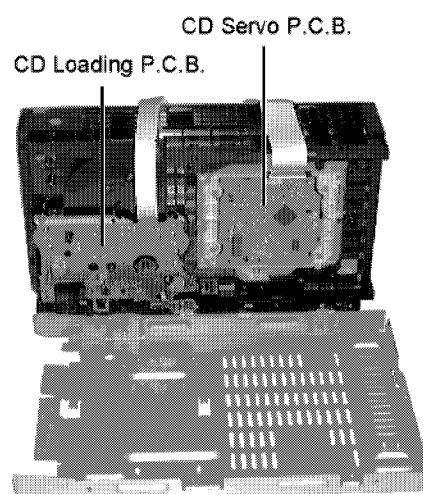
Step 6

b x 2



Step 6 Remove 2 screws.

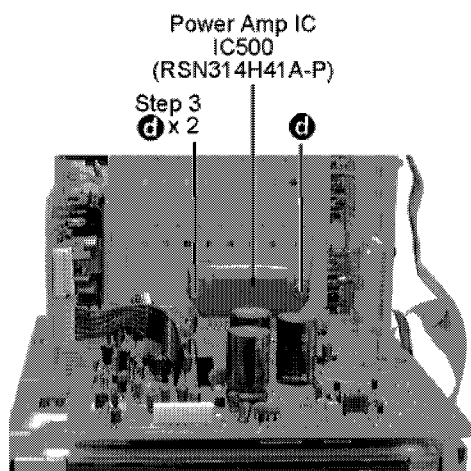
- Checking for CD Servo P.C.B. and CD Loading P.C.B.



8.1.6. Replacement of the Power Amplifier IC

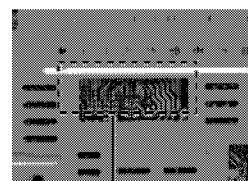
- **Replacement of the Power Amplifier IC**

- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 4) of Item 8.1.3.
- Follow the (Step 1) of Item 8.1.4.
- Follow the (Step 1) - (Step 6) of Item 8.1.5.



Step 1 Remove 2 connector CP501 and CP504 and pull out the Main P.C.B.

Step 2 Remove 2 screws fixed to the Power Amp I.C.

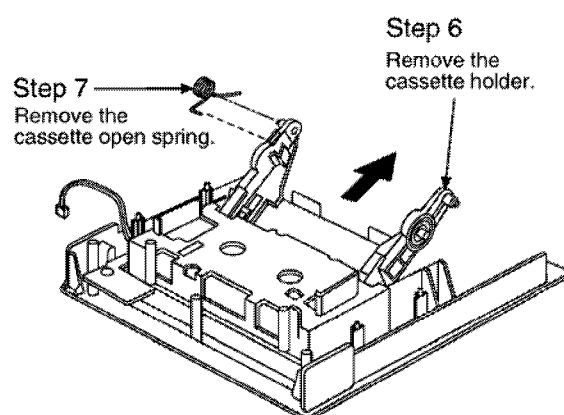
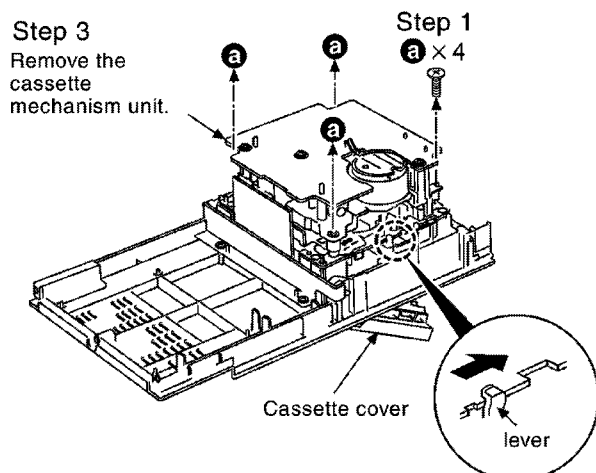


Solder terminal

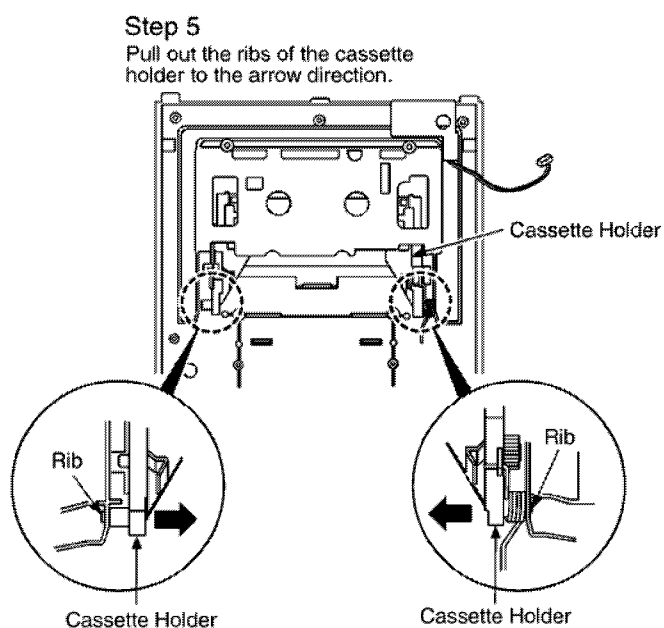
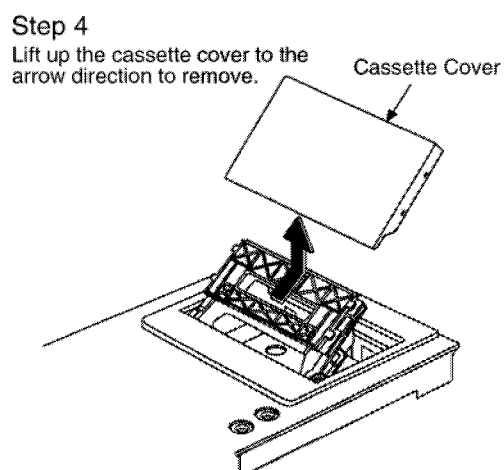
Step 4 Unsolder the terminals of Power Amp IC, transistor and replace the component.

8.2. Procedure for Replacing Cassette Holder

- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.

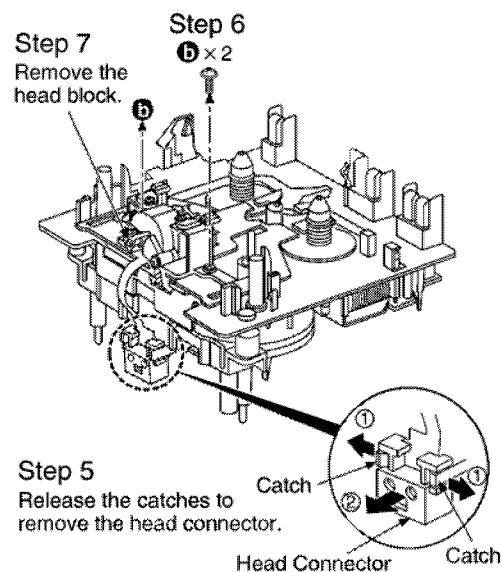
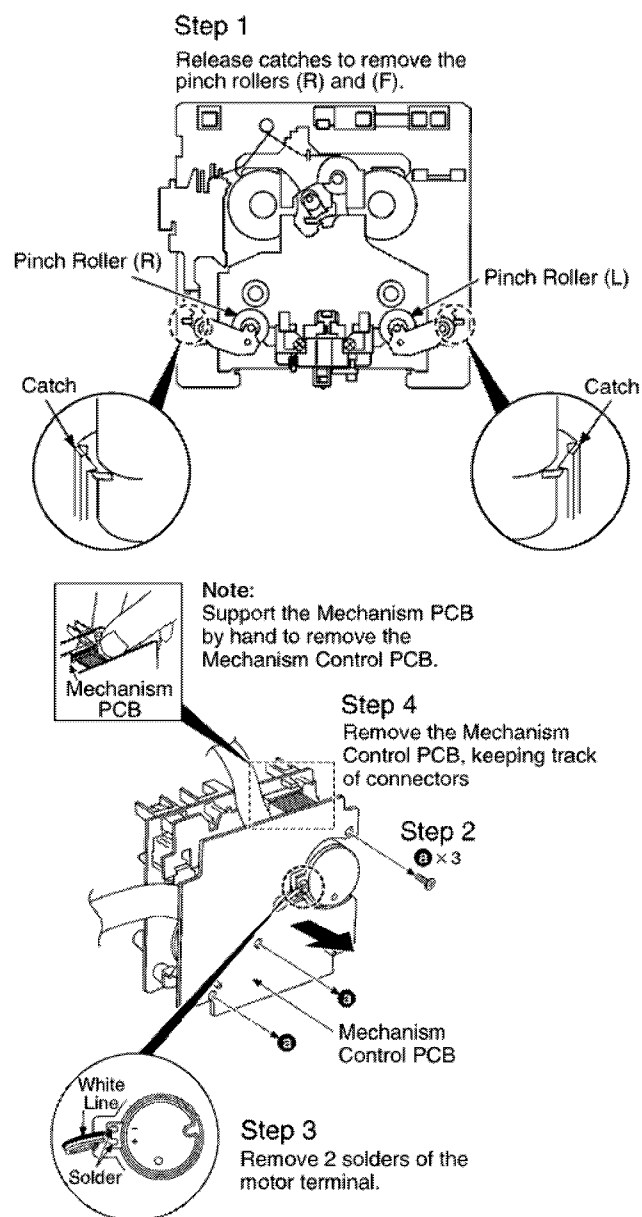


Step 2 Press the lever to open the cassette cover.



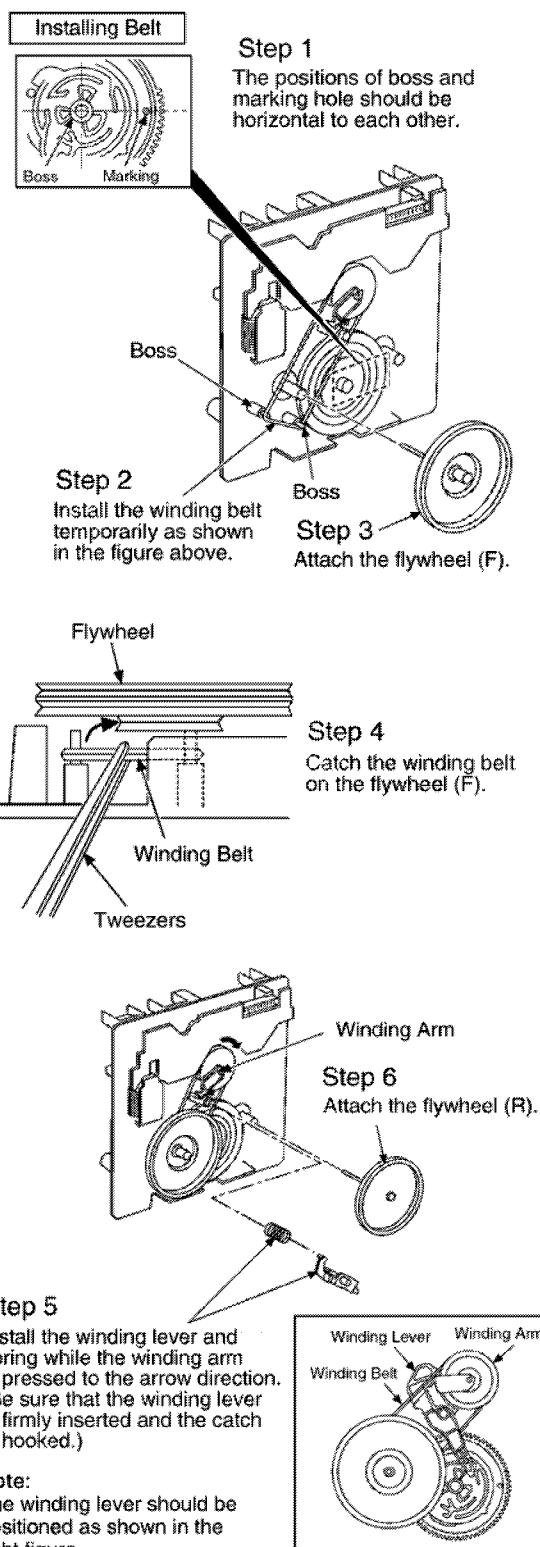
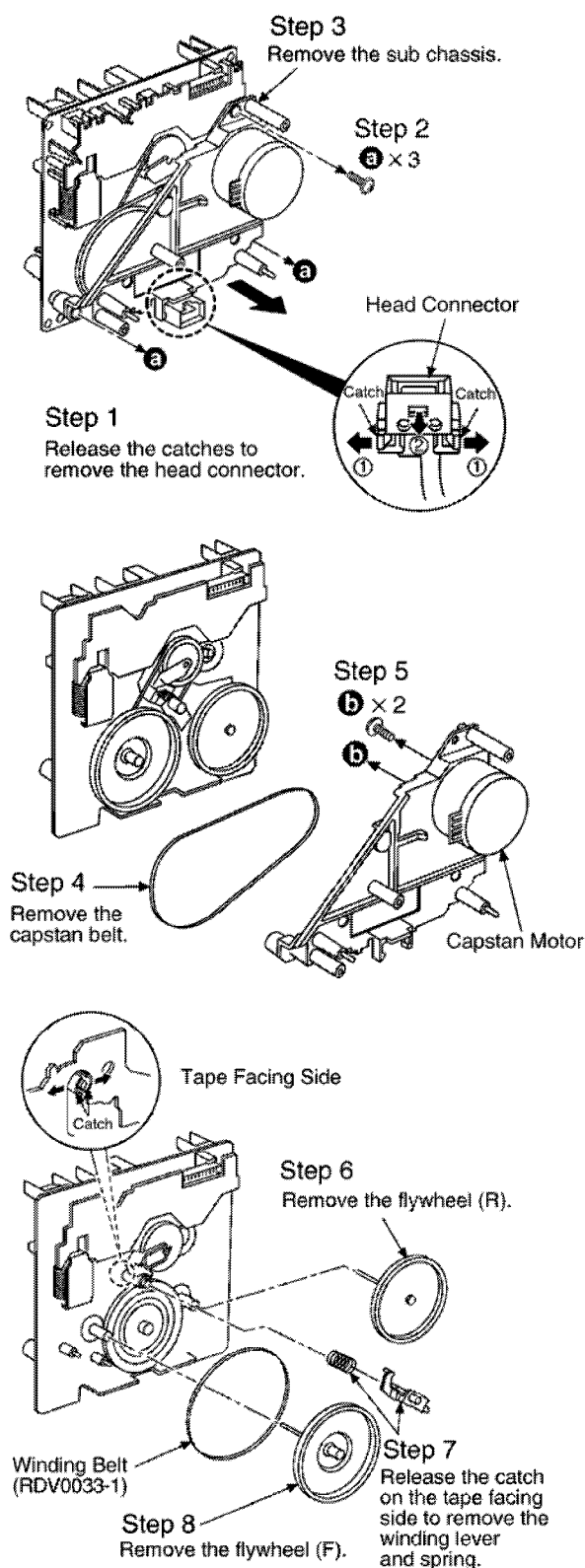
8.3. Procedure for Replacing Pinch Roller and Head Block (Cassette Mechanism Unit)

- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 4) of Item 8.2.



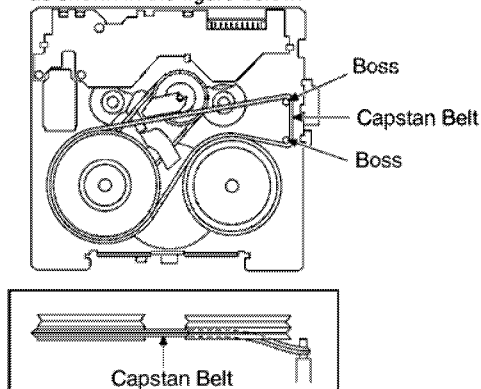
8.4. Procedure for Replacing Motor, Capstan Belt A, Capstan Belt B, and Winding Belt (Cassette Mechanism Unit)

- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 4) of Item 8.2.



Step 7

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



Side View

Note:

Keep the belt away from grease.

Step 9

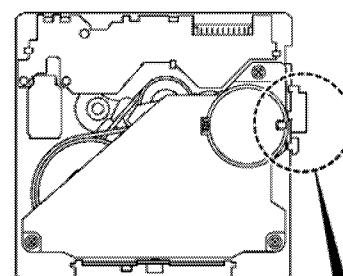
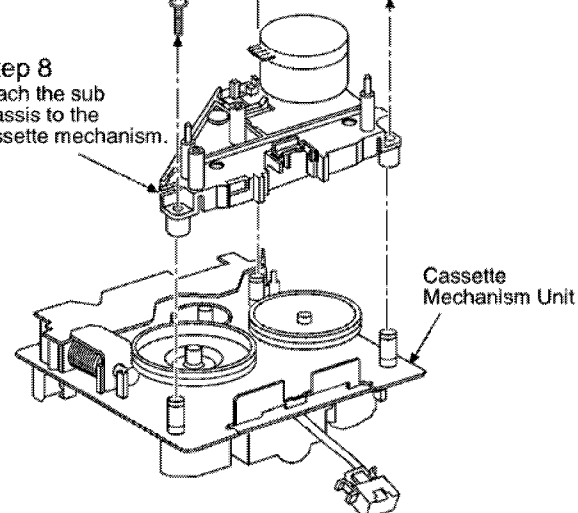
a × 3

a

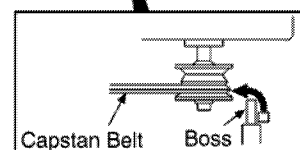
a

Step 8

Attach the sub chassis to the cassette mechanism.

**Step 10**

Catch the capstan belt to the pulley of the capstan motor.



8.5. Procedure for Replacing Parts on Mechanism PCB

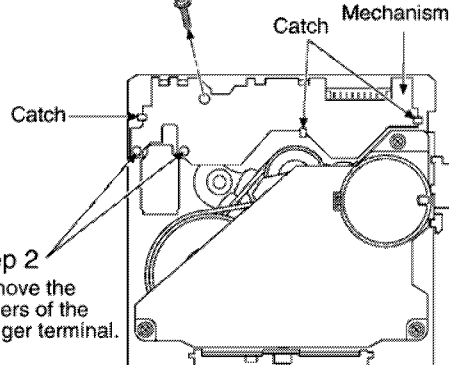
- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 4) of Item 8.2.

Step 1

a

Step 3

Remove 3 catches to remove the Mechanism PCB.

**Step 2**

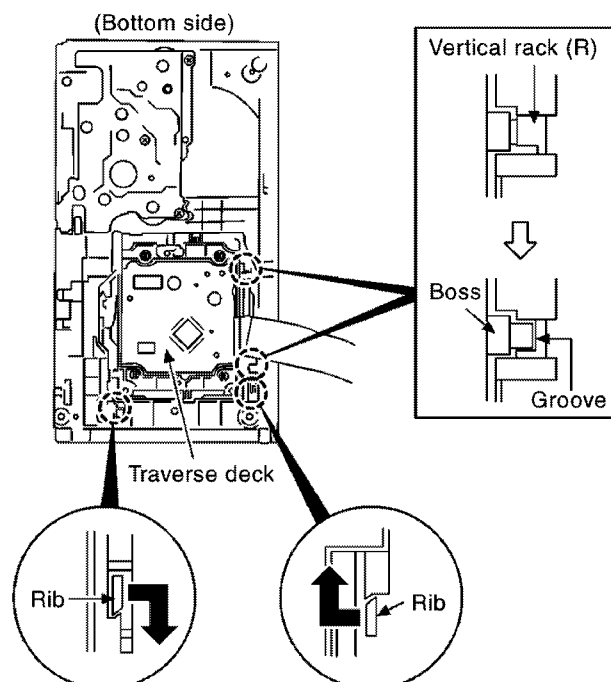
Remove the solders of the plunger terminal.

8.6. Replacement of CD traverse deck

- Follow the (Step 1) - (Step 4) of Item 8.1.1.

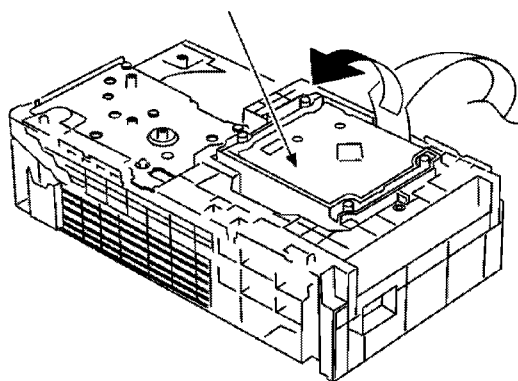
Step 1

Move ribs at both sides to the arrow direction
(The vertical rack (R) slides and the groove opens)



Step 2

Remove CD traverse deck rotating to the arrow direction.

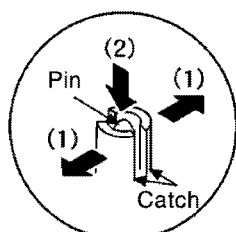


8.7. Replacement of optical pickup unit (CD mechanism)

- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 2) of Item 8.6.

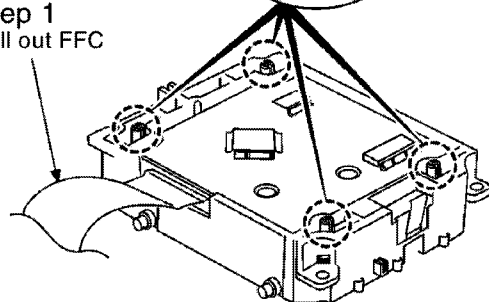
Step 2

Widening the catch, push the pin in



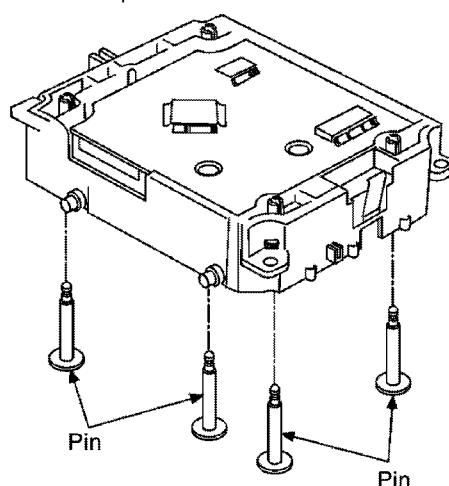
Step 1

Pull out FFC



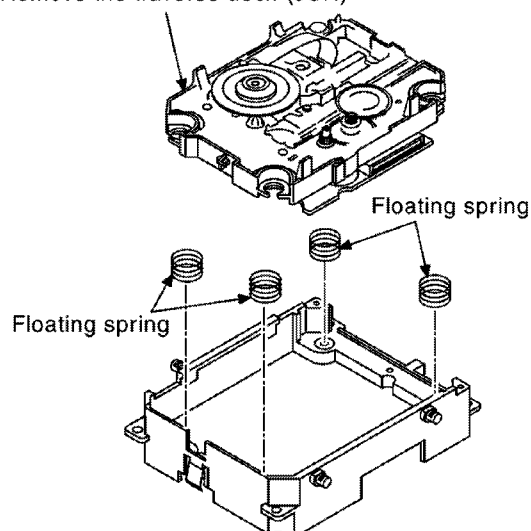
Step 3

Remove 4 pins

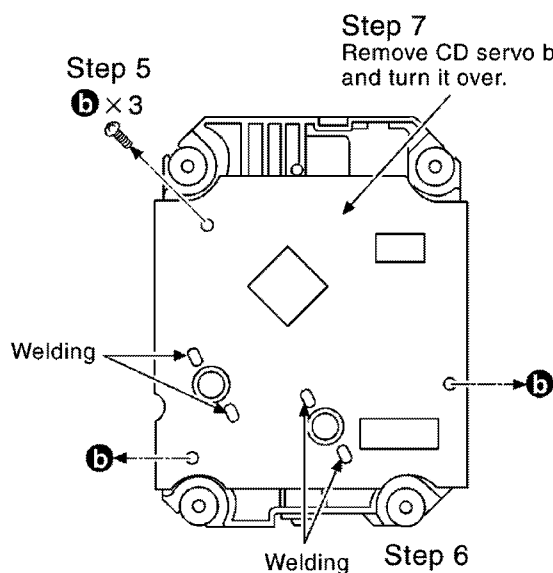


Step 4

Remove the traverse deck (JUN)

**Note:**

As floating springs (4 pieces) come off at the same time, be careful not to lose them.

Step 5**b** × 3**Step 7**

Remove CD servo board and turn it over.

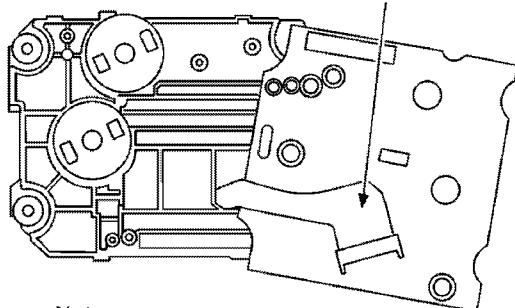
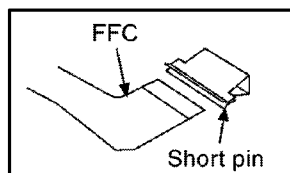
Welding

Step 6

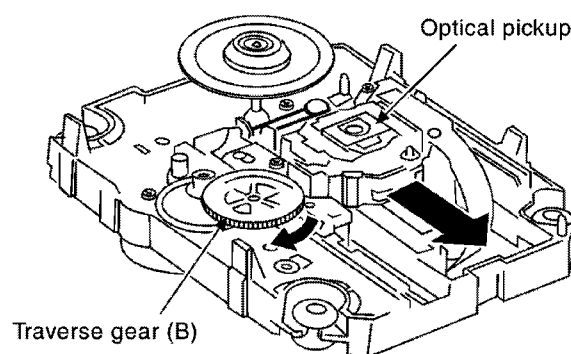
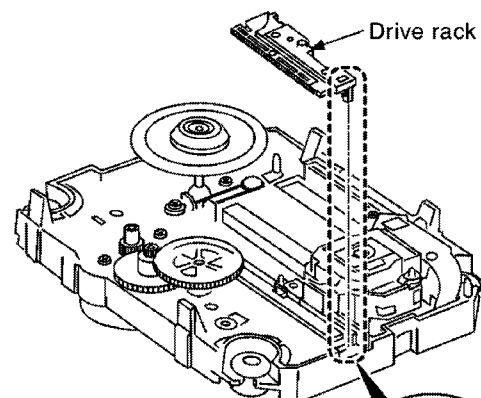
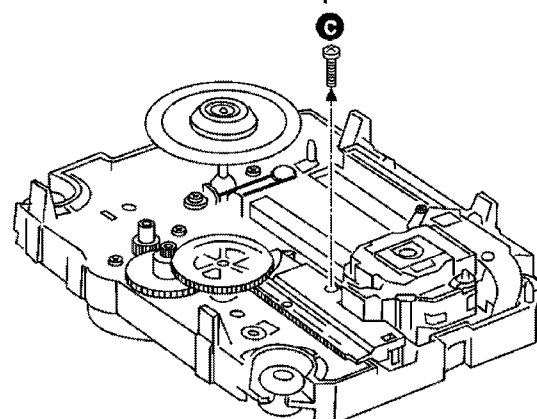
Remove 4 welded parts of the motor terminal.

Step 8

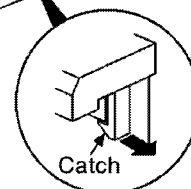
Pull FFC out from the connector.

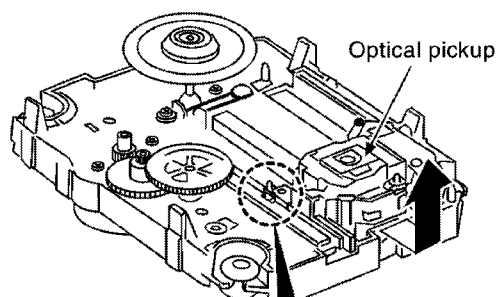
**Note:**Insert a short pin into FFC of the optical pickup.
[See "Notice on handling of the optical pickup"]**Step 9**

Rotate the traverse deck (B) to the arrow direction and shift the optical pickup to the furthest backward.

**Step 10****Step 11**

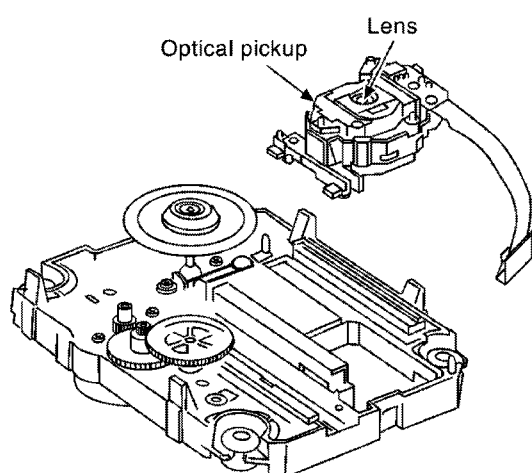
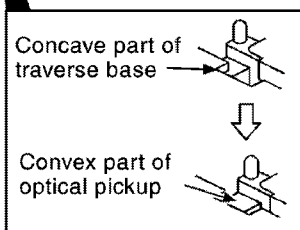
Remove the catch of the drive rack, and take out the drive rack.





Step 12

Place the convex part of an optical pickup to the concave part of a traverse base, then take out the optical pickup.



Note:

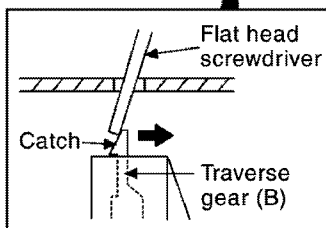
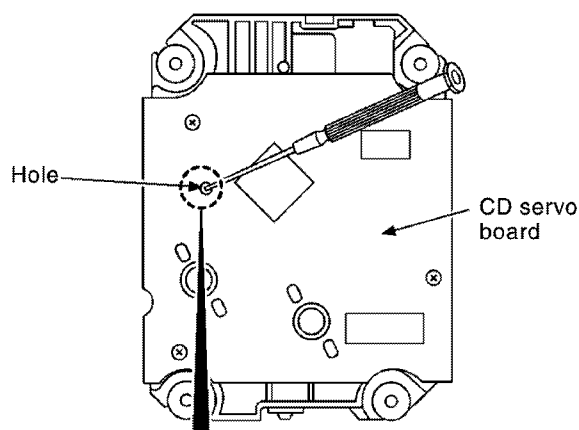
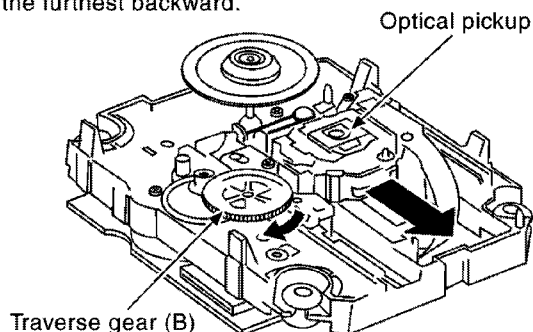
Do not touch the lens of the optical pickup

8.8. Replacement of a traverse gear A and a traverse gear B

- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.6.
- Follow the (Step 1) - (Step 12) of Item 8.7.

Step 1

Rotate the traverse gear (B) to the arrow direction, and shift the optical pickup to the furthest backward.



Step 2

Insert a fine edged flat head screwdriver into the hole of CD servo board and push the catch of the traverse gear (B), then pull the traverse gear (B) out.

Note:

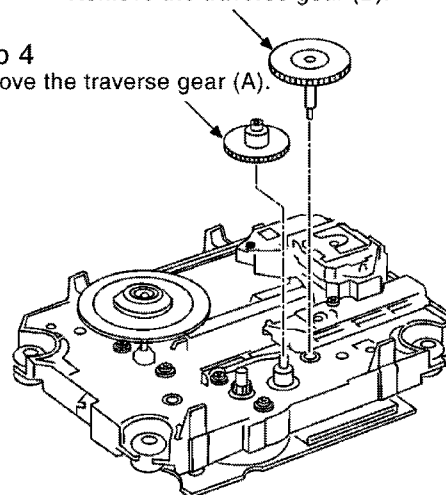
Be careful not to break the hook of the traverse gear (B)

Step 3

Remove the traverse gear (B).

Step 4

Remove the traverse gear (A).



Note:

Do not use the removed traverse gear (B) anymore. Surely replace with a new one.

8.9. Procedure for removing CD loading mechanism

1. Turn off by pressing power SW in the body.
2. Pull out AC plug after the indication of [GOOD-BYE], then disassemble the body.
3. Disassemble the body, and take out CD loading mechanism.
4. Perform disassembly according to the following procedure for disassembly.

8.10. CR16 mechanism disassembly procedure

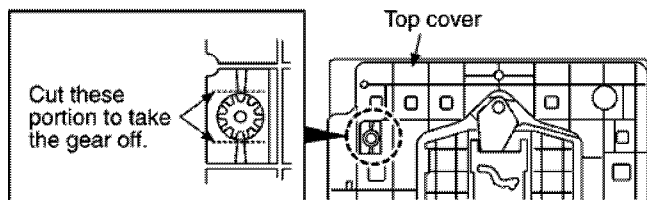
8.10.1. Gear for servicing (as jig) information

- This unit has a gear which used for checking items (open/close of disc tray, up/down operation of traverse unit by manually) when servicing. (For gear information, that is described on the items for disassembly procedures.)

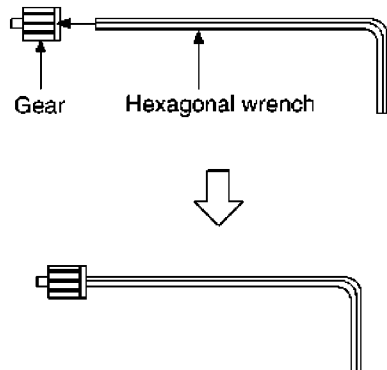
- For preparation of gear (for servicing), perform the procedures as follows.

- In case of re-servicing the same set, the "gear for servicing" may be took off because it had been used. So, the "gear for servicing" must be stored.

1. Remove the gear attached to top cover of CD loading mechanism.



2. Insert the hexagonal wrench (2.5mm) into the gear.

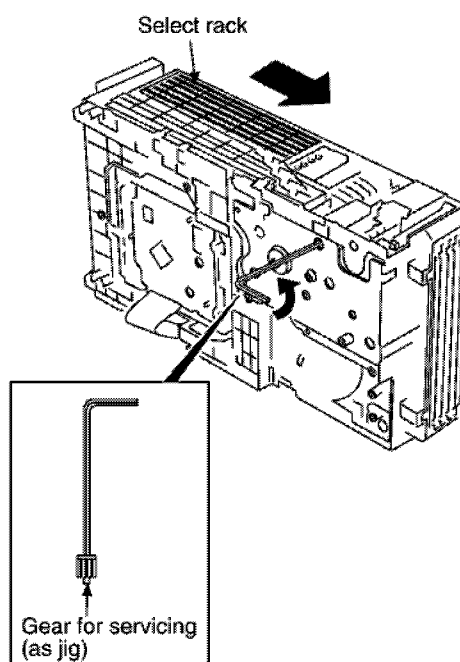


(Preparation of gear as jig is completed.)

8.10.2. Replacement for the disc tray

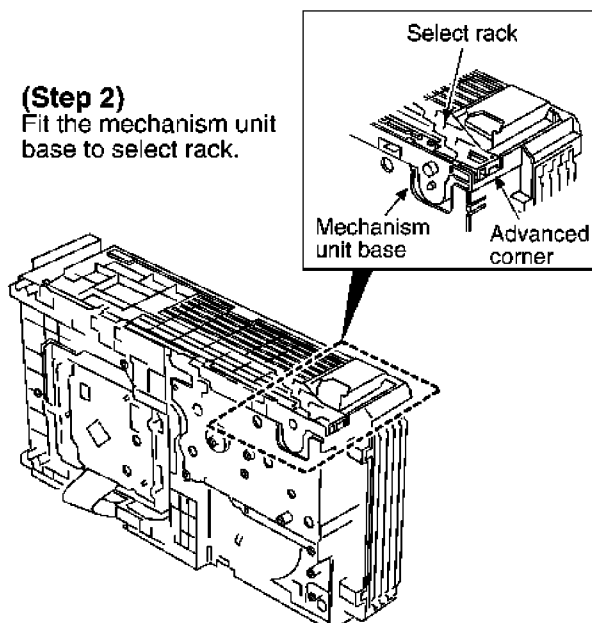
(Step 1)

Rotate the gear for servicing and move the select rack to advanced corner.



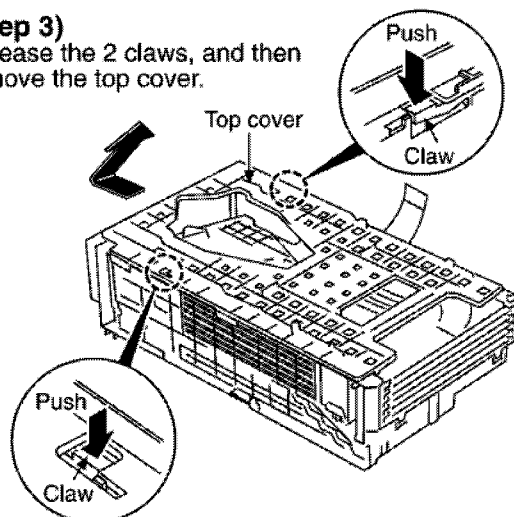
(Step 2)

Fit the mechanism unit base to select rack.

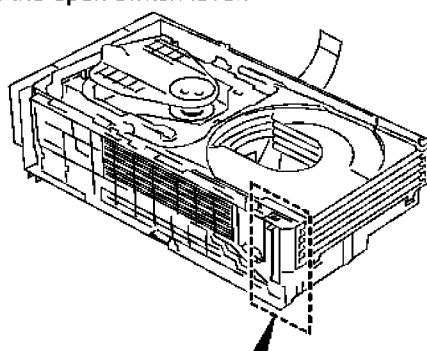


(Step 3)

Release the 2 claws, and then remove the top cover.

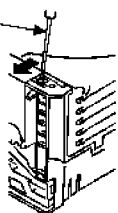
**(Step 4)**

Remove the open switch lever.

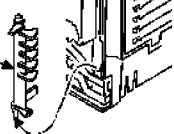


Minus screwdriver

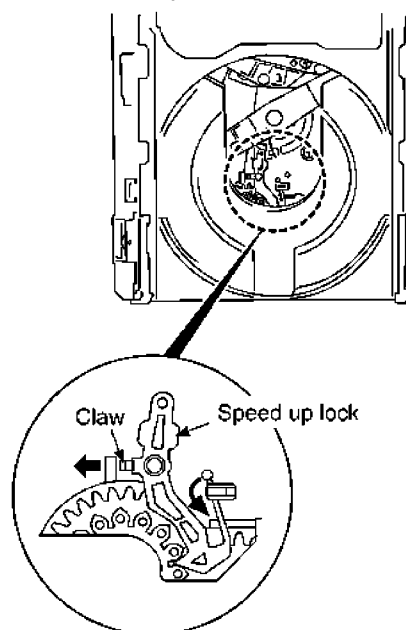
Push the open switch lever with minus screwdriver.



Open switch lever

**(Step 5)**

Release the claw, and then remove the speed up lock.



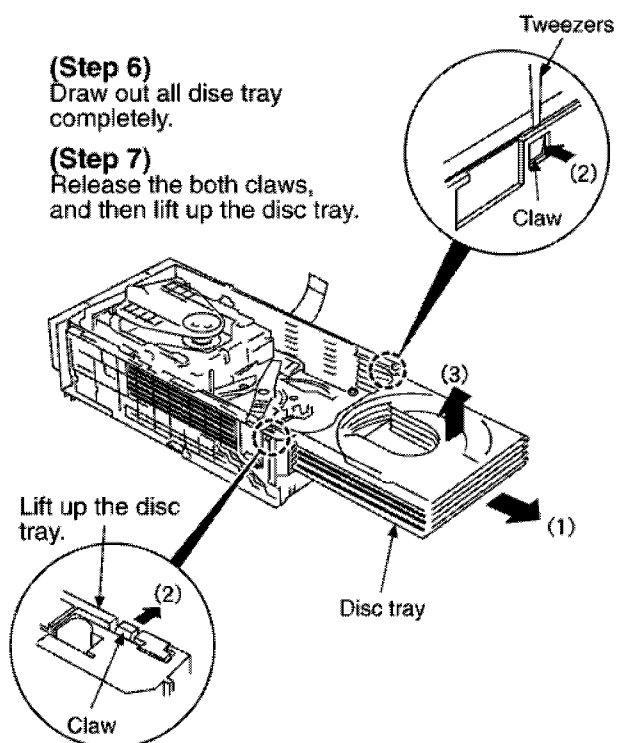
Insert the tweezers between the mechanism base and disc tray, and then lift up the disc tray.

(Step 6)

Draw out all disc tray completely.

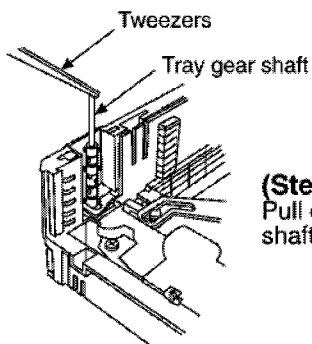
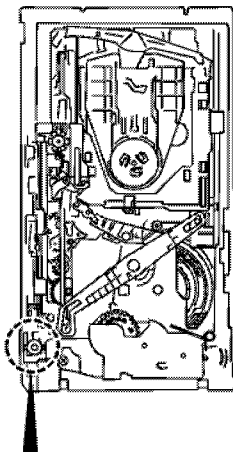
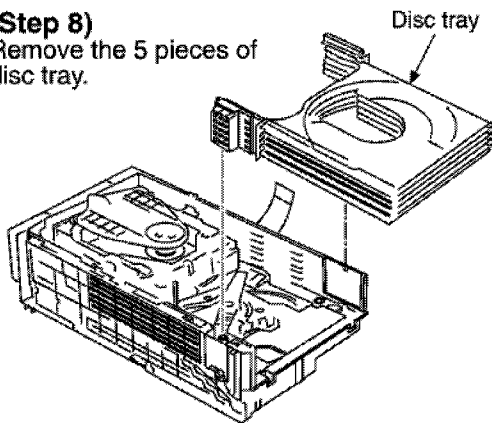
(Step 7)

Release the both claws, and then lift up the disc tray.



(Step 8)

Remove the 5 pieces of disc tray.

**(Step 9)**

Pull out the tray gear shaft with tweezers.

**(Step 10)**

Remove the tray drive gear ass'y.

8.10.3. Replacement for the traverse deck

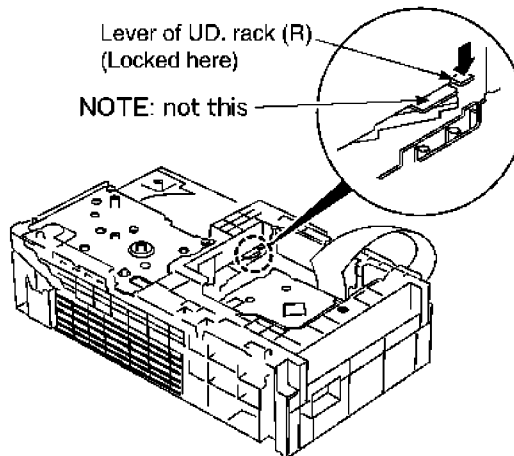
- Follow the **(Step 1)** - **(Step 10)** of item 8.10.2.

(Step 1)

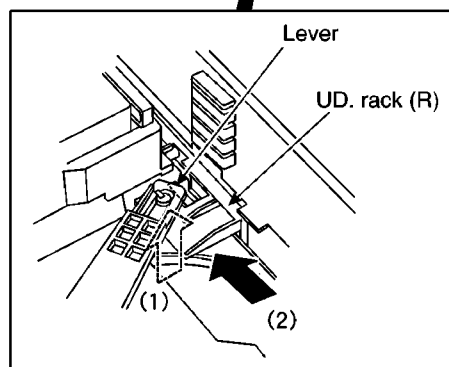
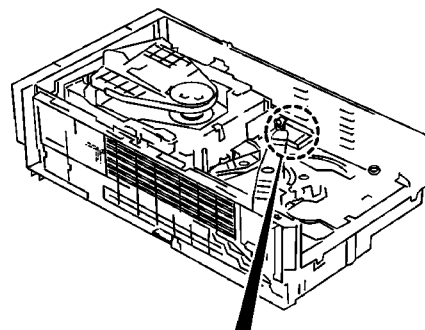
Confirm the position for lever of UD. rack (R) to remove traverse unit.

(Step 2)

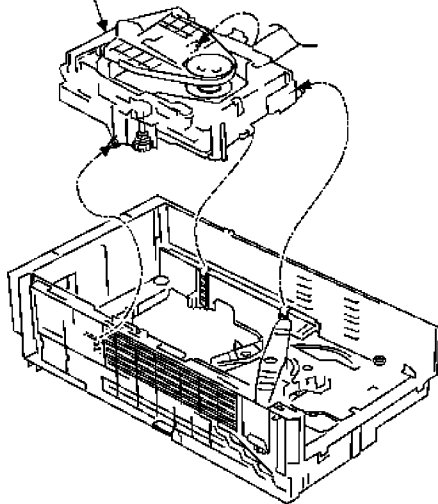
Turn the unit over. (Upside: P.C.B.)

**(Step 3)**

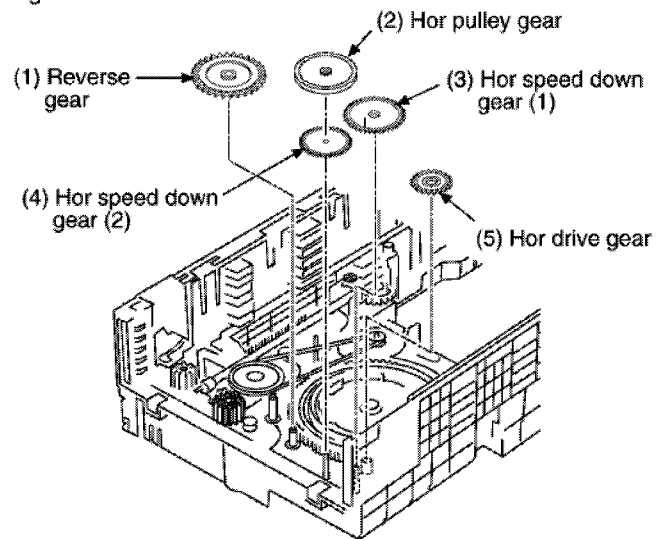
Turn the unit over again, slide UD. rack (R) while pushing up the lever from the bottom.



(Step 4)
Remove the traverse unit.

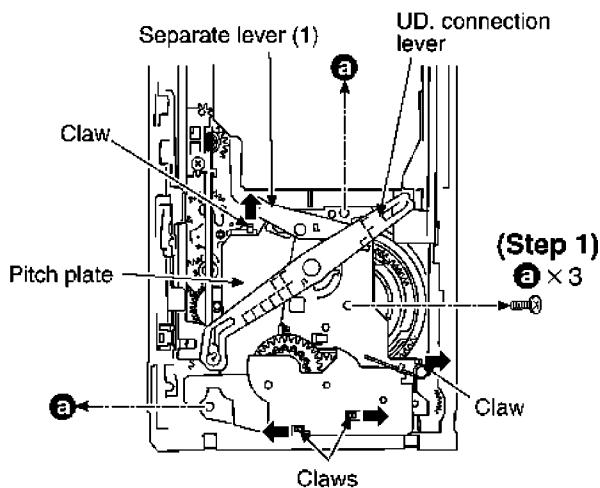


(Step 4)
Remove the reverse gear, hor pulley gear, hor speed down gear (1), hor speed down gear (2) and hor drive gear.



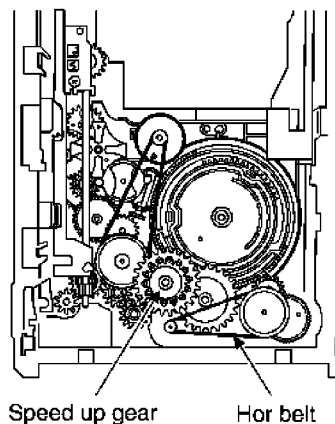
8.10.4. Disassembly for CD loading unit

- Follow the **(Step 1)** - **(Step 10)** of item 8.10.2.
- Follow the **(Step 1)** - **(Step 4)** of item 8.10.3.



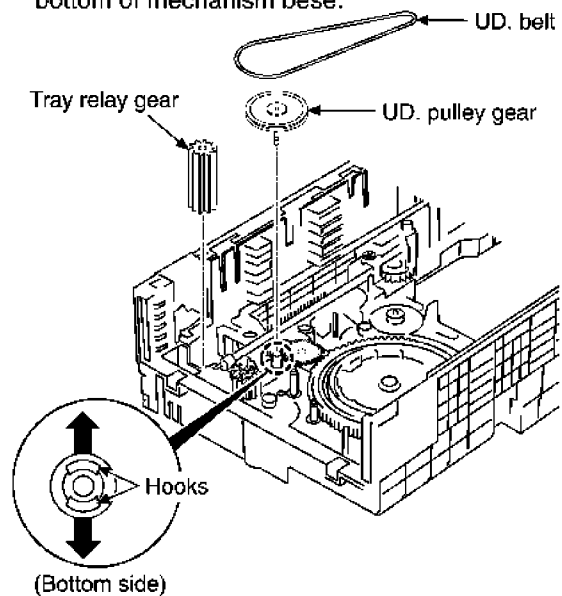
(Step 2)
Release the 4 claws, and then remove the pitch plate together with separate lever (1) and UD. connection lever.

(Step 3)
Remove the speed up gear and hor belt.



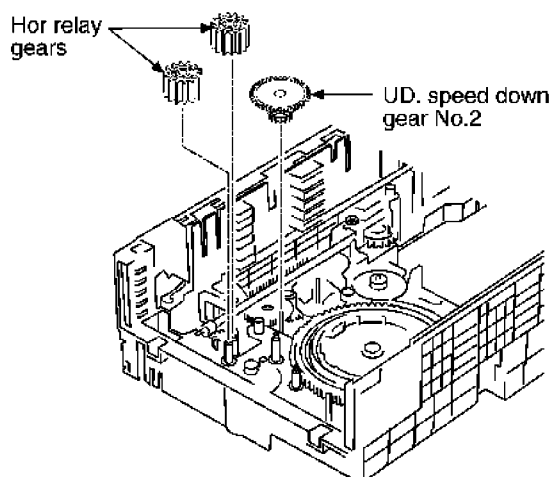
(Step 5)
Remove the UD. belt and tray relay gear.

(Step 6)
Pull out the UD. pulley gear, loosen 2 hooks of the bottom of mechanism base.

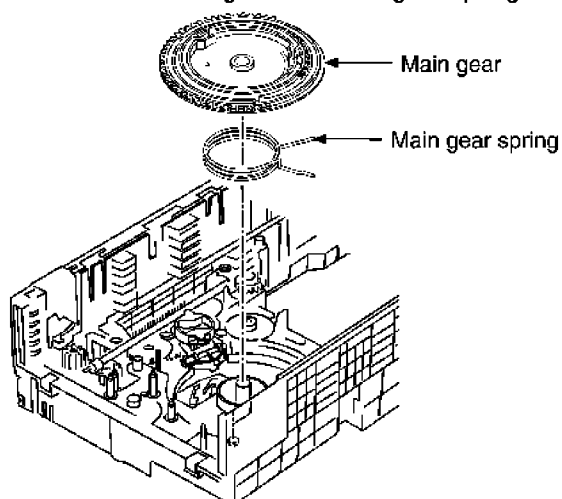


(Step 7)

Remove the 2 hor relay gears and UD. speed down gear No.2.

**(Step 8)**

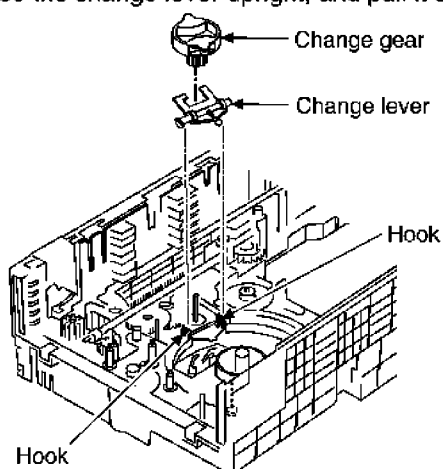
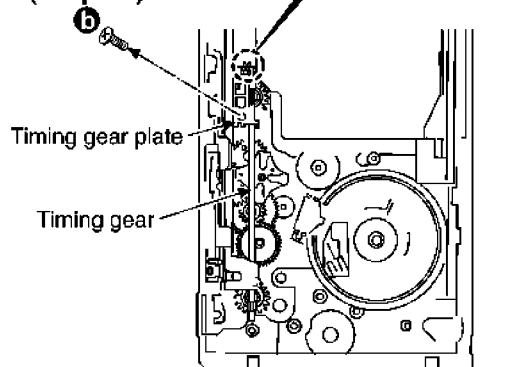
Remove the main gear and main gear spring.

**(Step 9)**

Remove the change gear.

(Step 10)

Raise the change lever upright, and pull it out of hook.

**(Step 11)****(Step 12)**

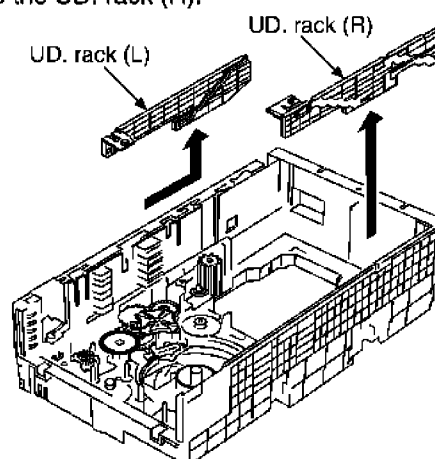
Release the 2 claws, and then remove the timing gear and timing gear plate.

(Step 13)

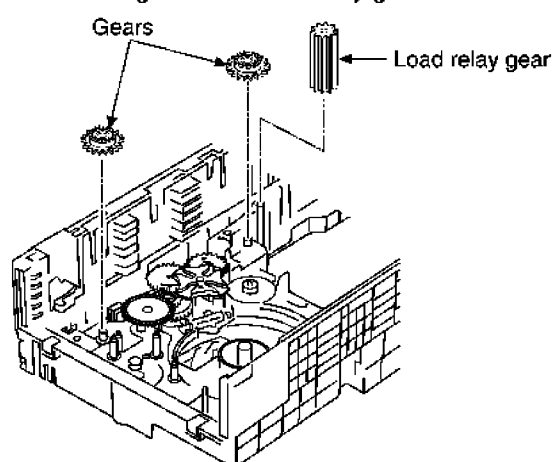
Move the UD. rack (L) to backward, and then remove it.

(Step 14)

Remove the UD. rack (R).

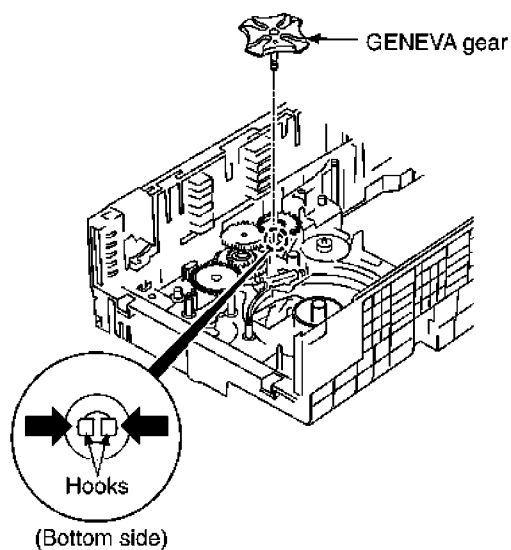
**(Step 15)**

Remove the 2 gears and load relay gear.

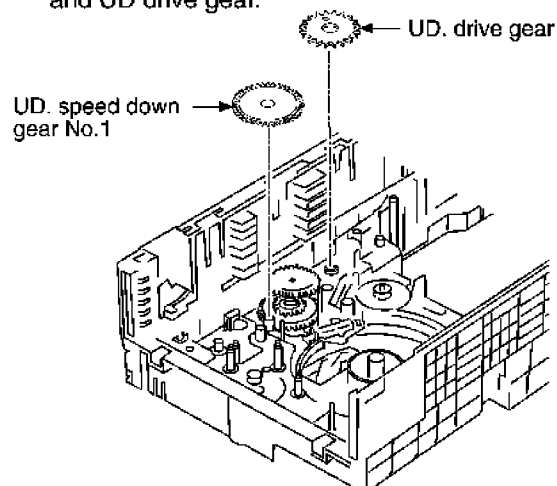


(Step 16)

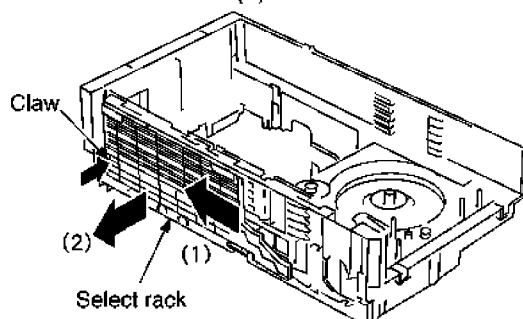
Pull out the GENEVA gear, loosen 2 hooks of the bottom of mechanism base.

**(Step 17)**

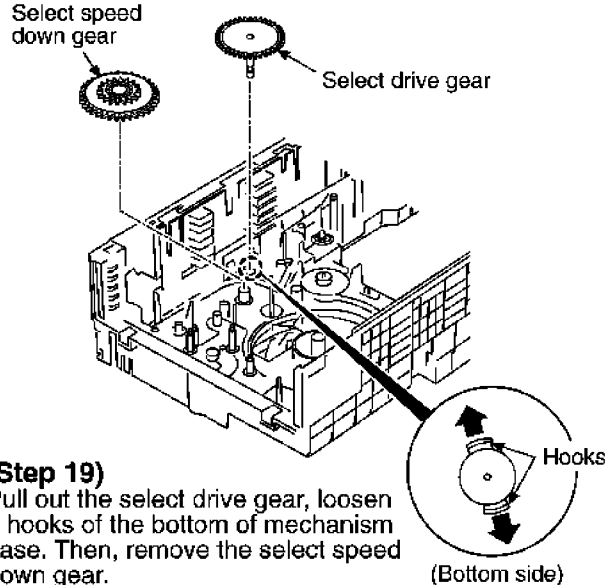
Remove the UD. speed down gear No.1 and UD drive gear.

**(Step 18)**

Slide the select rack to the edge direction of the arrow (1). Push the claw and pull out to arrow (2) while sliding the select rack to the arrow (1).



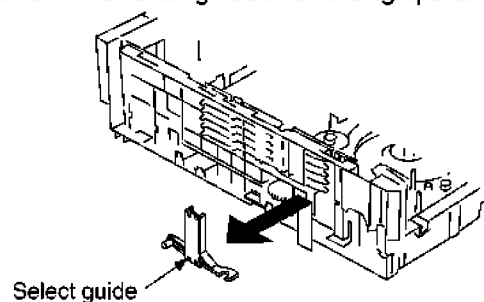
Select speed down gear

**(Step 19)**

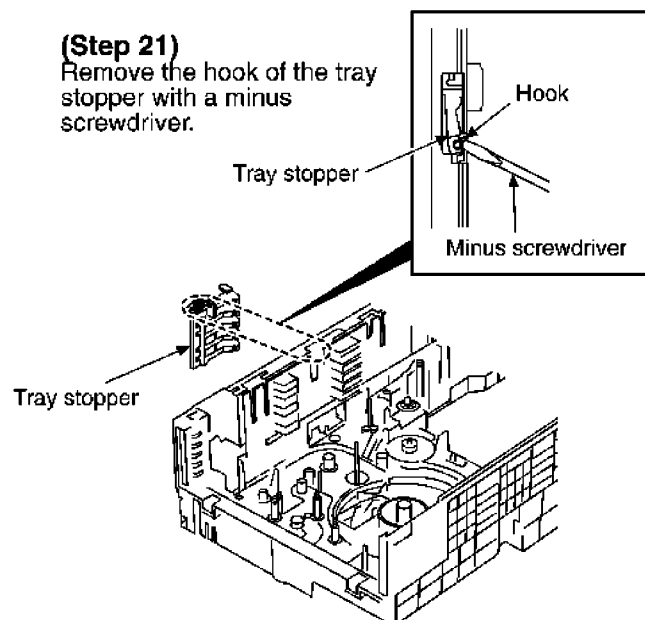
Pull out the select drive gear, loosen 2 hooks of the bottom of mechanism base. Then, remove the select speed down gear.

(Step 20)

Remove the select guide after sliding upside.

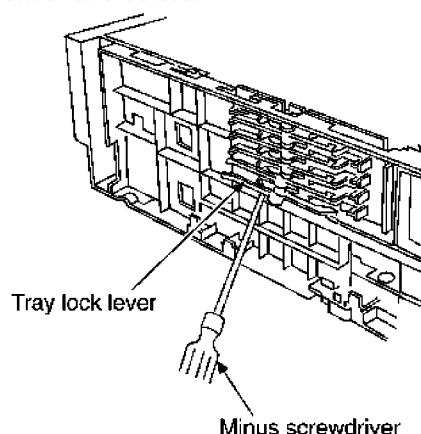
**(Step 21)**

Remove the hook of the tray stopper with a minus screwdriver.



(Step 22)

Remove the bottom of the tray lock lever with a minus screwdriver and others.



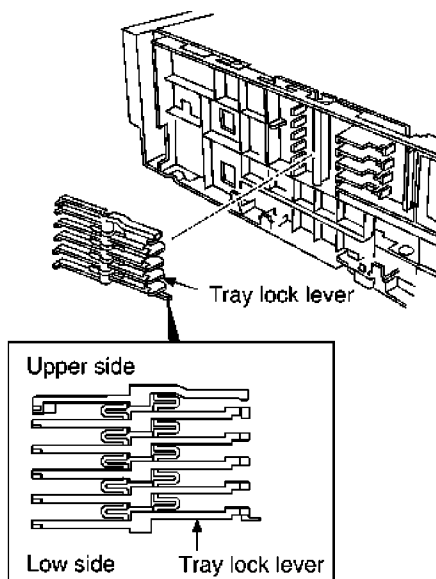
8.11. CR16 MECHANISM ASSEMBLY PROCEDURE

The following specified greases and/or oil must be applied when some specific parts are changed.

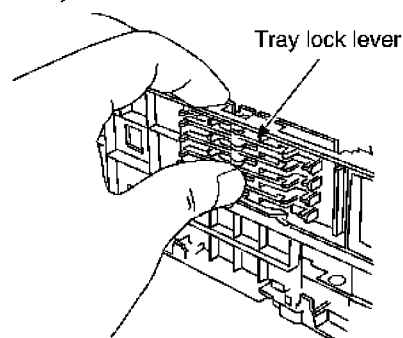
1. Floil grease (VFK1298) : The floil grease must be applied to tray, tray (L) and tray (R).
2. Hanarl oil (VFK1700) : The hanarl oil must be applied to any parts with grease other than the said parts.

(Step 1)

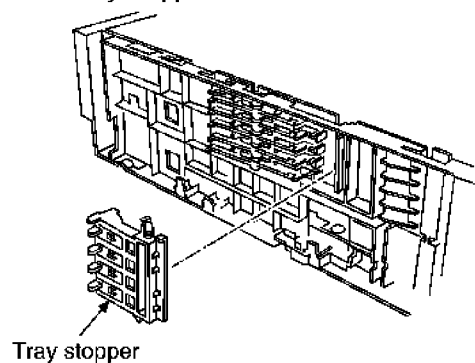
Install the tray lock lever to mechanism base.

**(Step 2)**

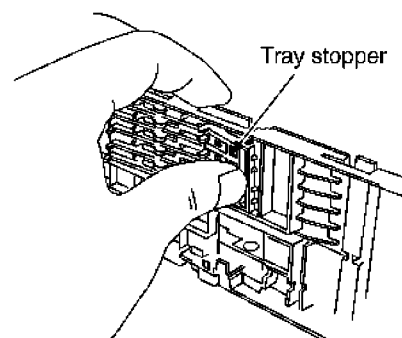
Push the tray lock lever with a hand and install it.

**(Step 3)**

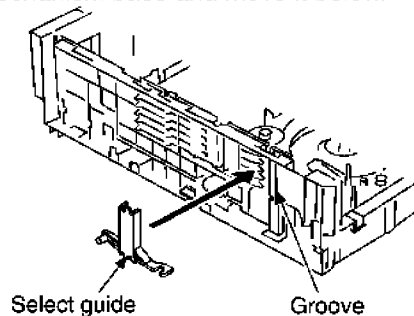
Install the tray stopper to mechanism base.

**(Step 4)**

Push the tray stopper with a hand and install it.

**(Step 5)**

Insert the select guide with a groove of the mechanism base and move it below.



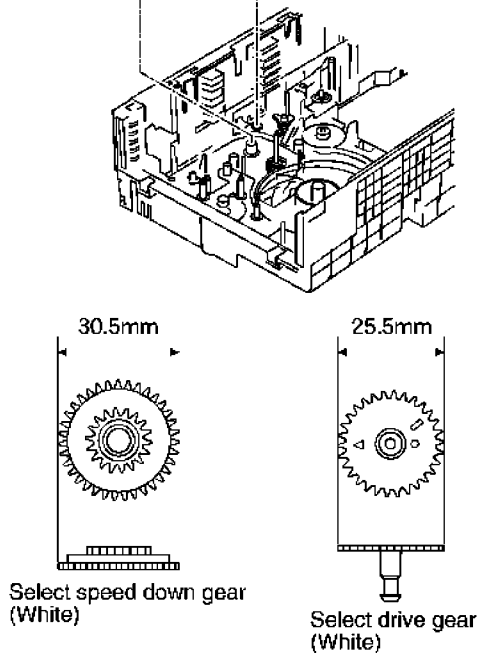
(Step 6)

Install the select speed down gear to mechanism base.

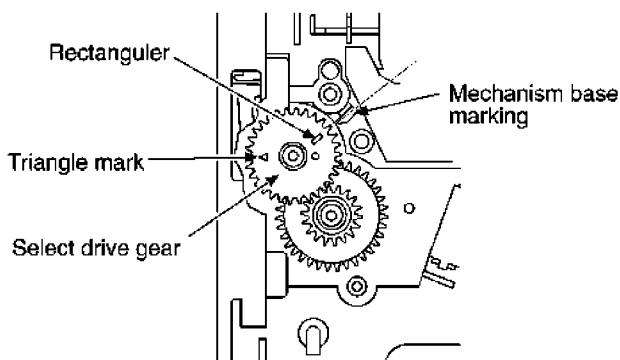
(Step 7)

Install the select drive gear to mechanism base.

Select speed down gear Select drive gear

**(Step 8)**

Fit a mechanism base marking to the rectangular mark of gear so that the triangle mark can indicate the sideward direction.

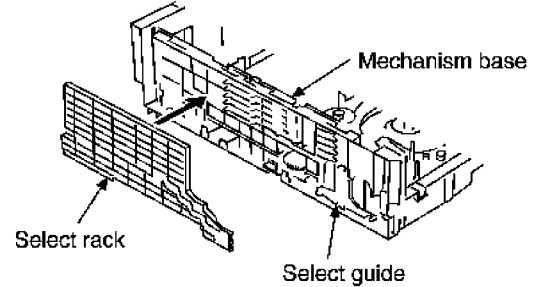
**(Step 9)**

Install the select rack to mechanism base.

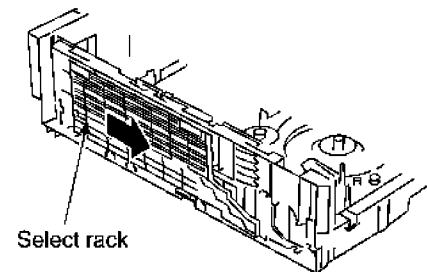
(Checking items before the installation.

1. Check select guide is completely in lowest position.
2. Check its phase of select drive gear is correct position. (Rectangle/Triangular mark) (Refer to Step 8)

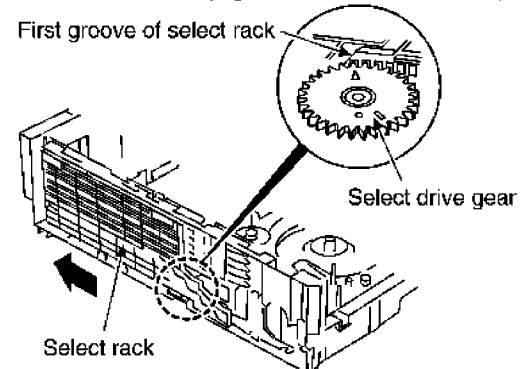
1. Put a select rack down with it fitted to its circumference of mechanism base.



2. Slide the select rack with it's pushing to a little right direction and install it.

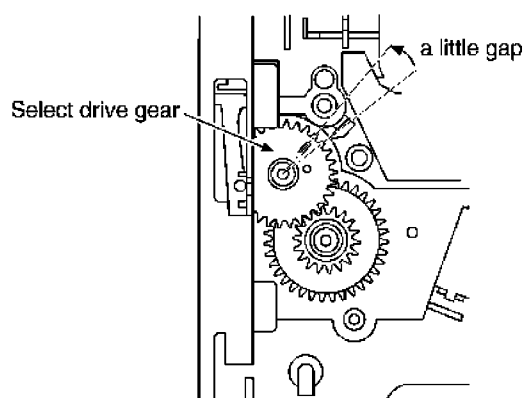


(Figure to see from the inside)



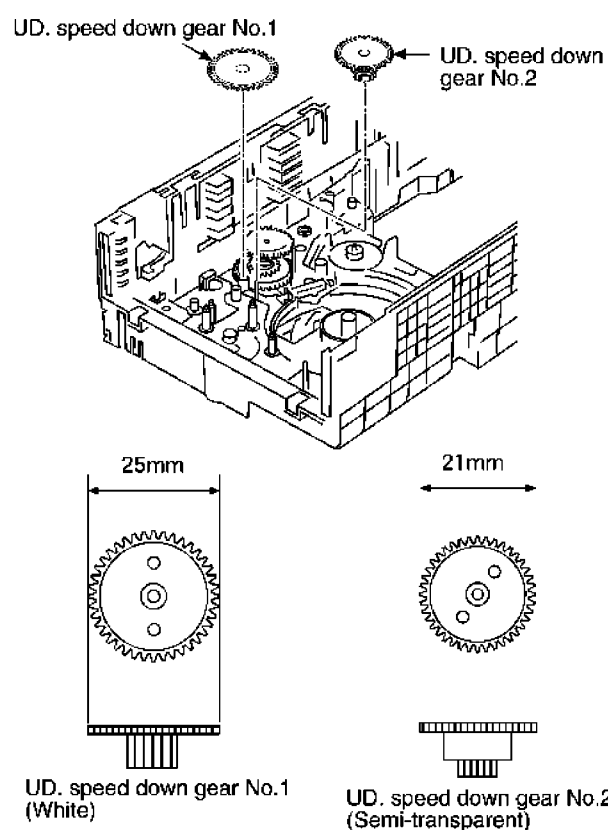
3. Check whether its end of triangular mark is in first groove of select rack, after fixing.
4. After insertion of select rack, continue the following work until the indication that it gese forward. And, all the while it must be checked that select rack is in the extreme end.

5. After insertion the select rack, the marking of select gear has a little gap when it is in the extreme end.



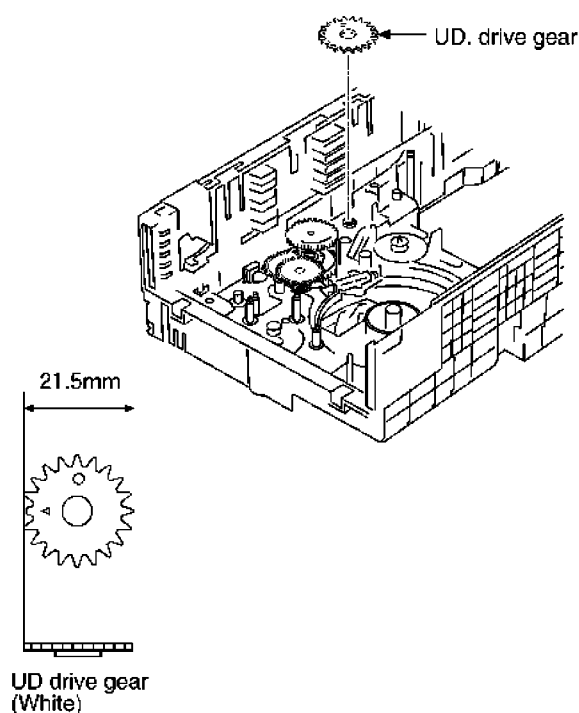
(Step 10)

Install the UD. speed down gear No.1 and UD. speed down gear No.2.



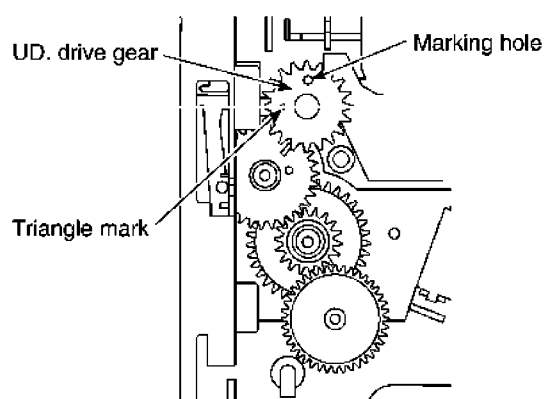
(Step 11)

Install the UD. drive gear to mechanism base.



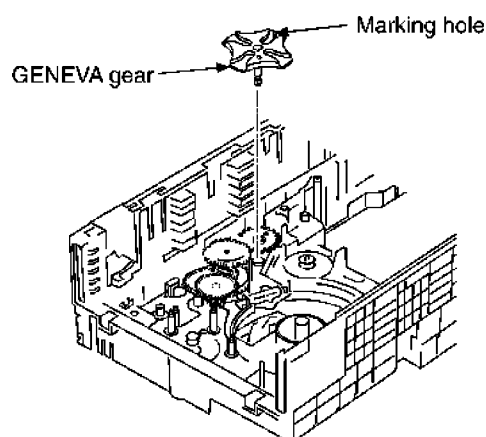
(Step 12)

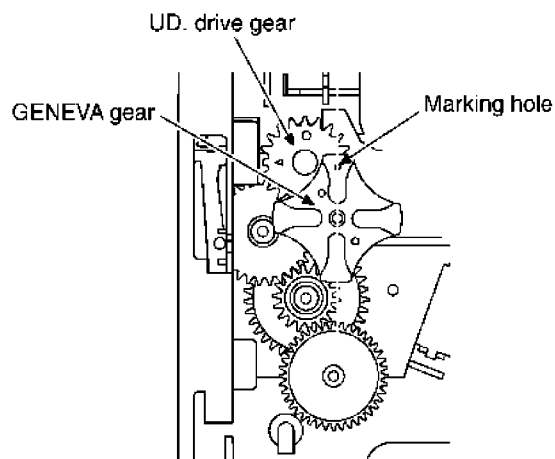
Insert the UD. drive gear with its marking hole upward. At that time, its triangle mark should be sideways.



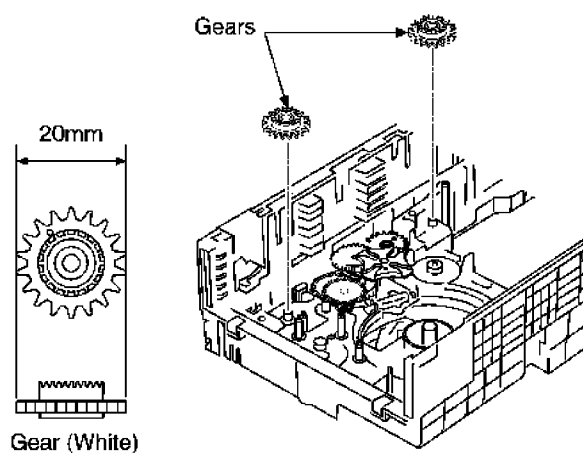
(Step 13)

Insert the GENEVA gear with its marking hole upward, and fix it by 2 hooks on bottom of mechanism base. At that time, UD. drive gear mustn't be moved.

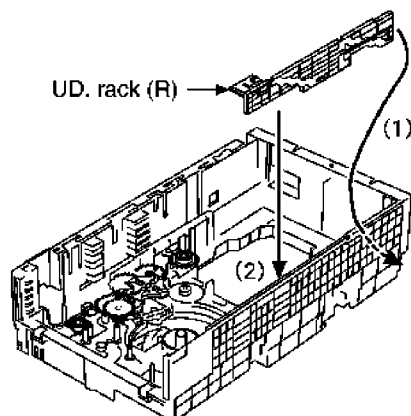


**(Step 14)**

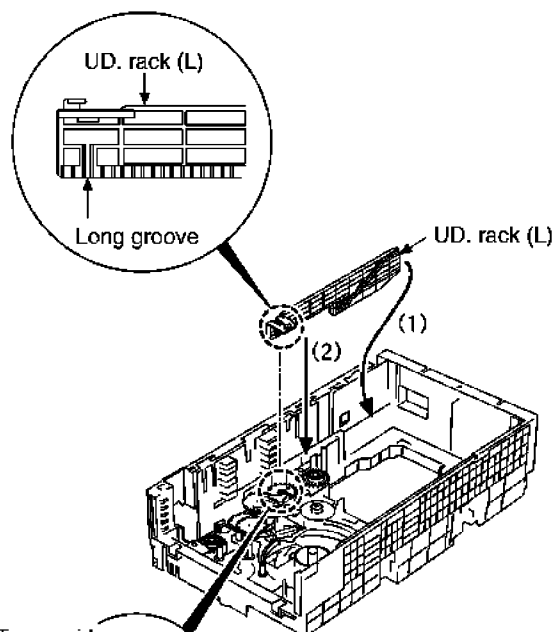
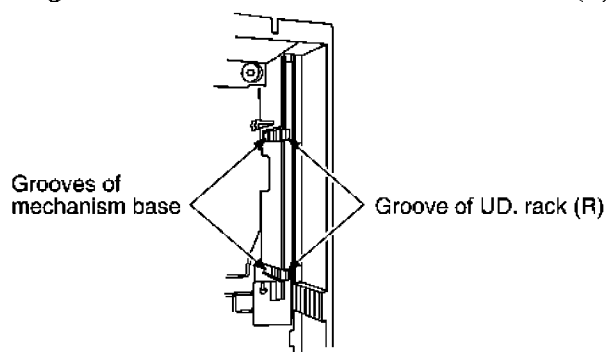
Install the 2 gears to mechanism base.

**(Step 15)**

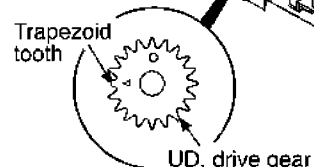
Insert the UD. rack (R) to (2) from arrow (1).

**NOTE:**

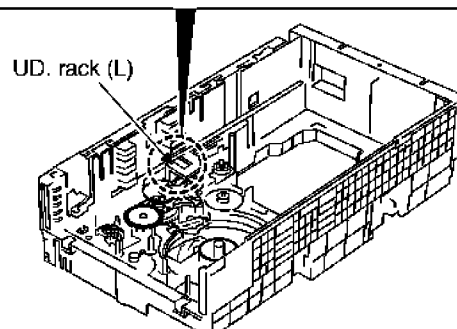
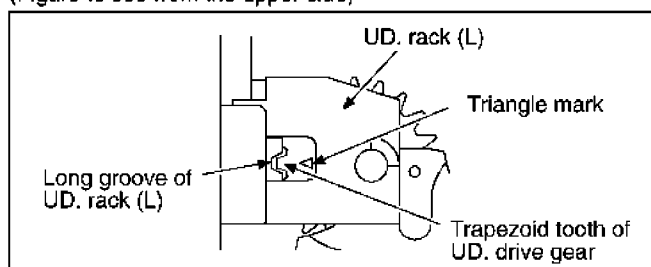
Put a groove of the mechanism base to the UD. rack (R).

**(Step 16)**

Align the trapezoid tooth of UD. drive gear with long groove of UD. rack (L), and then fix UD rack (L) in mechanism base.

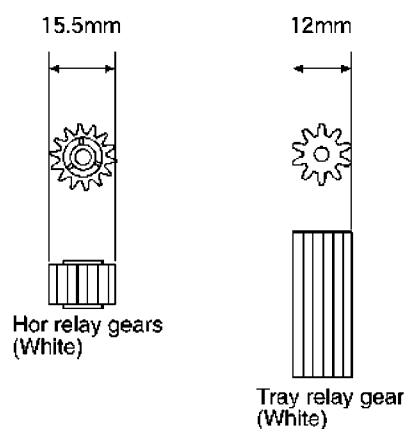
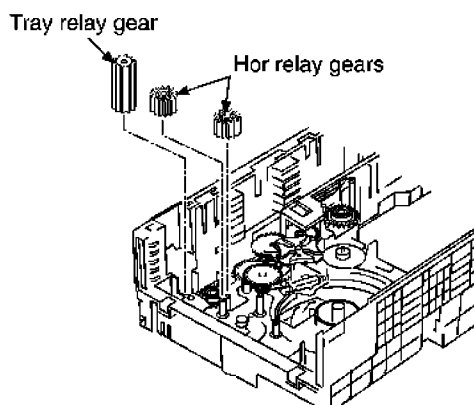


(Figure to see from the upper side)

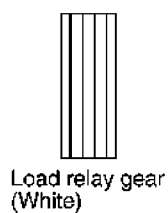
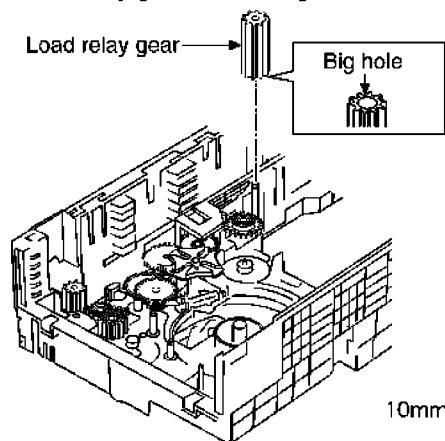


(Step 17)

Install the tray relay gear and 2 hor relay gears.

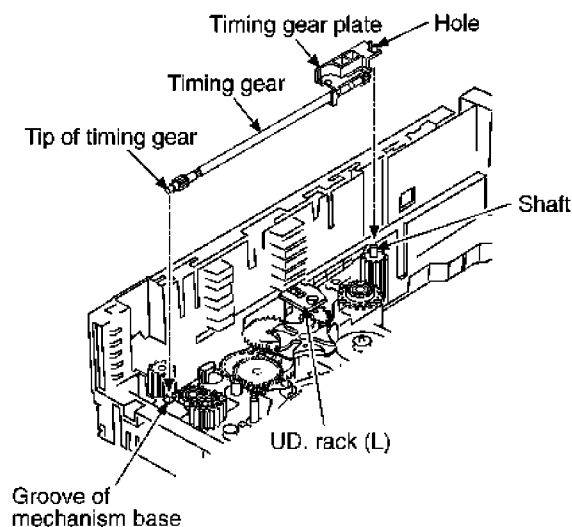
**(Step 18)**

Install the load relay gear to mechanism base.
(Fit load relay gear with its big hole downward.)

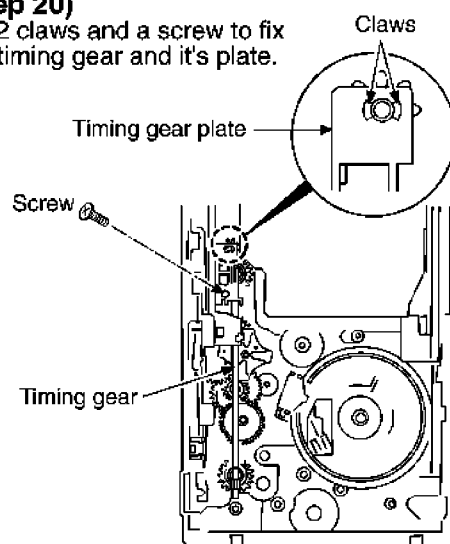
**(Step 19)**

Put on the top of the timing gear, then, install the timing gear and its plate.

At that time avoid the UD. rack (L).

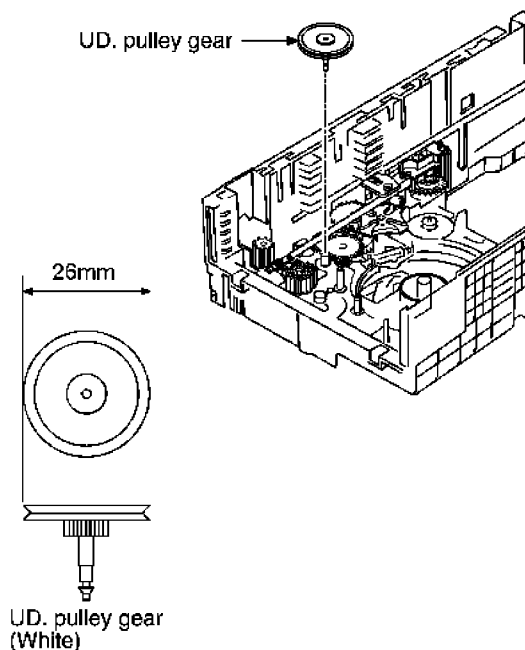
**(Step 20)**

Fix 2 claws and a screw to fix the timing gear and its plate.

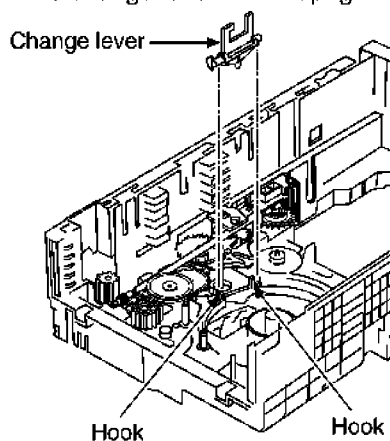


(Step 21)

Install the UD. pulley gear to mechanism base.

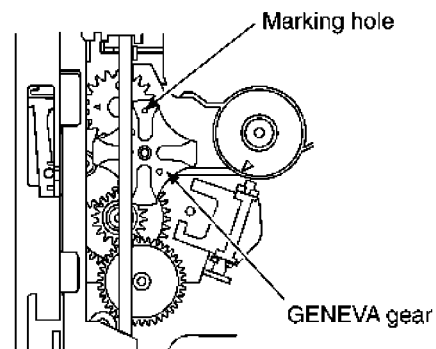
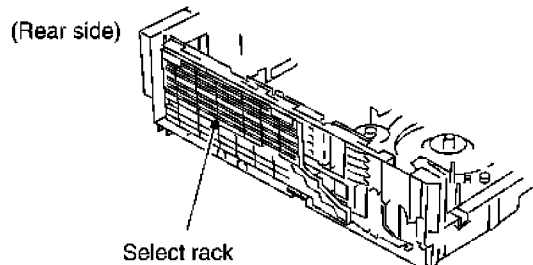
**(Step 22)**

Insert the change lever with it upright.

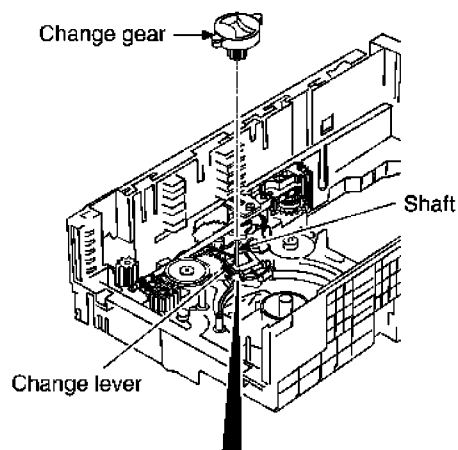
**(Step 23)**

Be sure the notice of below before fixing the change gear.

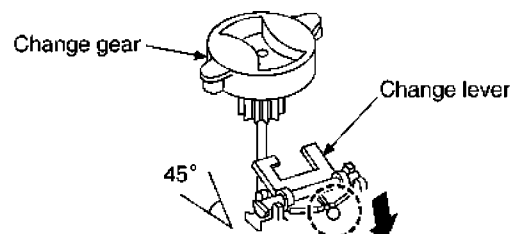
1. Select track should be in the rear of mechanism base.
2. Its hole of GENEVA gear should turn up.

**(Step 24)**

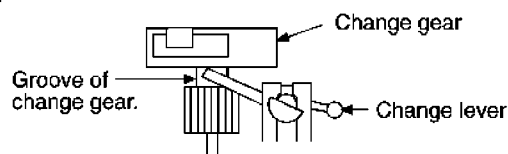
Install the change gear as insert the change lever into the groove of change gear.



1. Pushing the ○ part and pull up the change lever 45°.



2. Insert the change lever into the groove of change gear.



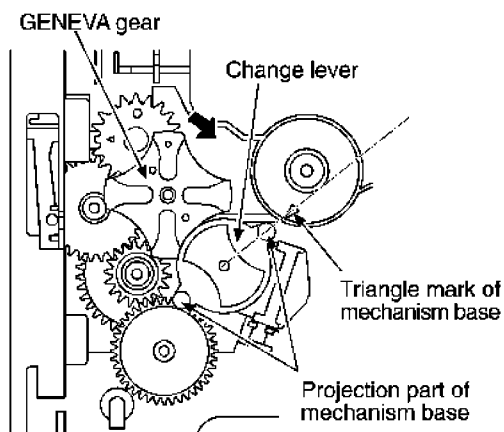
(Step 25)

Put change gear down with projection part of change gear fitted to triangle mark of mechanism base, when fixing change gear.

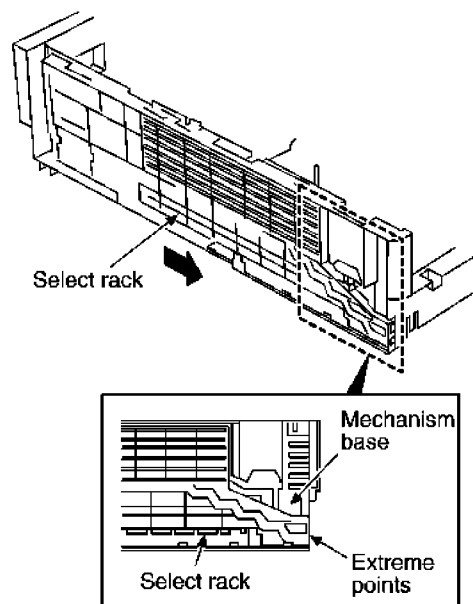
At that time, check change gear is inserted into the groove of change lever.

(Step 26)

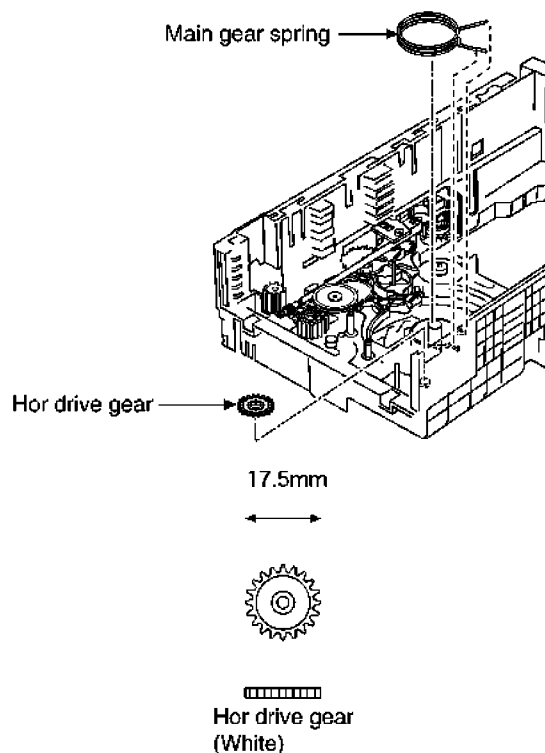
Lastly, turn GENEVA gear clockwise slightly and drop change gear to mechanism base.

**(Step 27)**

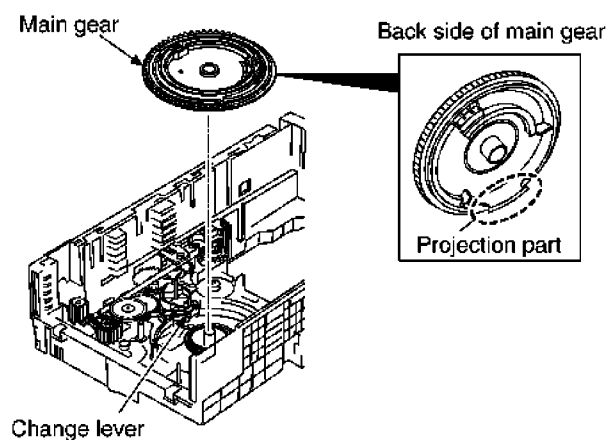
Move the select rack smoothly forward manually until 2 extreme points of both select track and mechanism base.

**(Step 28)**

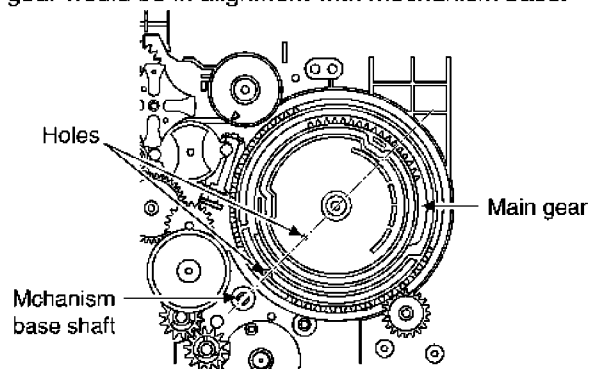
Install the main gear spring and hor drive gear.

**(Step 29)**

Don't bring change lever into touch to projection part of main gear, when fixing main gear in mechanism base.

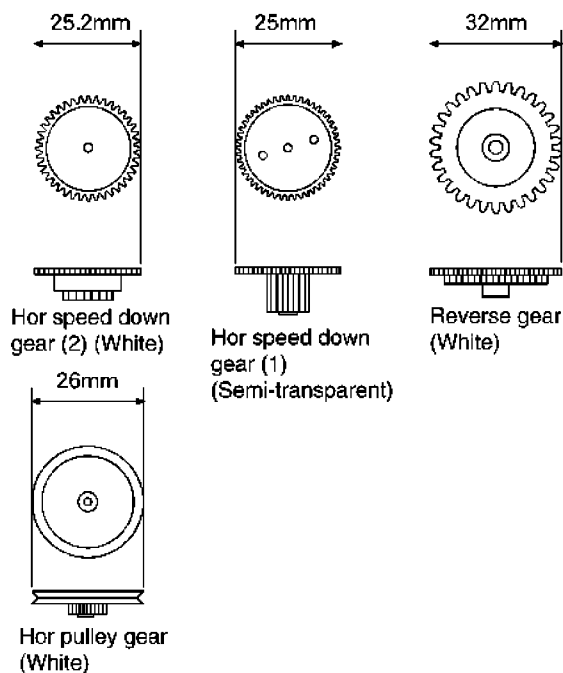
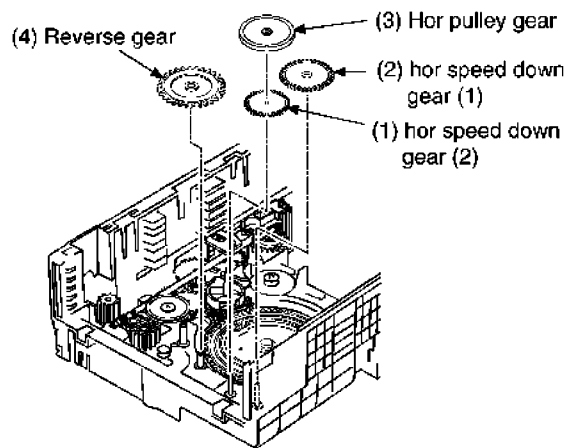
**(Step 30)**

After that, turn main gear so that 2 holes inside main gear would be in alignment with mechanism base.



(Step 31)

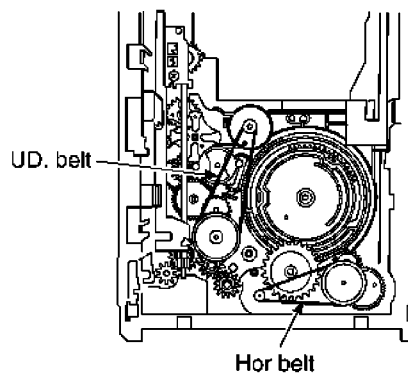
Install the hor speed down gear (2), hor speed down gear (1), hor pulley gear and reverse gear.

**(Step 32)**

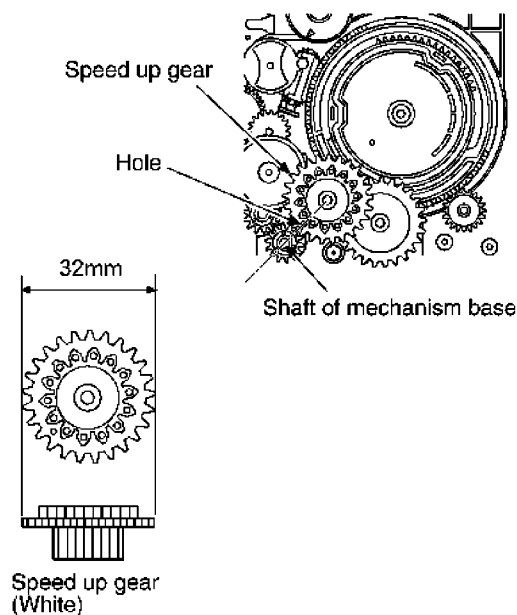
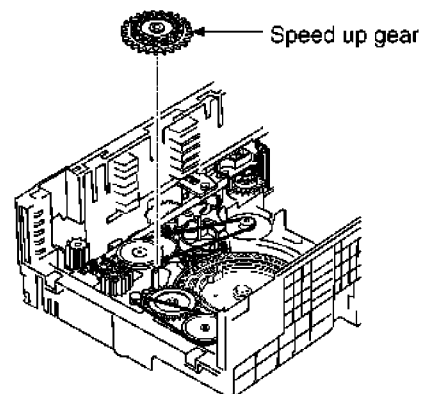
Install the UD. belt and hor belt.

NOTE:

1. Take care not apply the grease to the belt.
2. Install the belt without twist.

**(Step 33)**

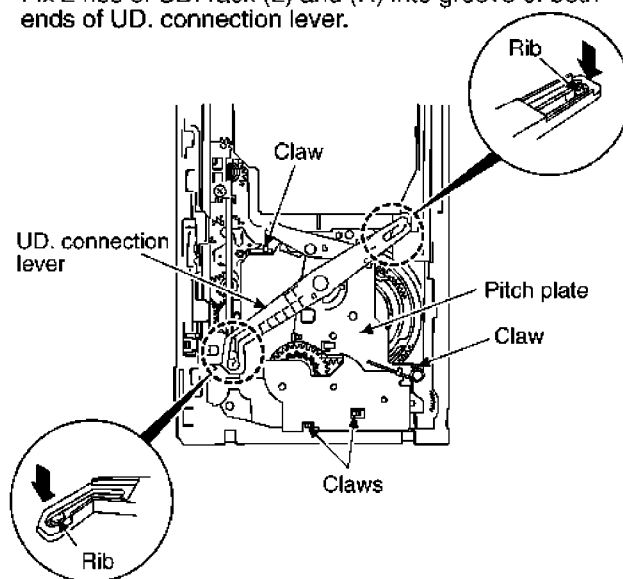
Install speed up gear to its shaft of mechanism base with 2 fitting.

**(Step 34)**

Install the pitch plate. (The 4 claws should be latched.)

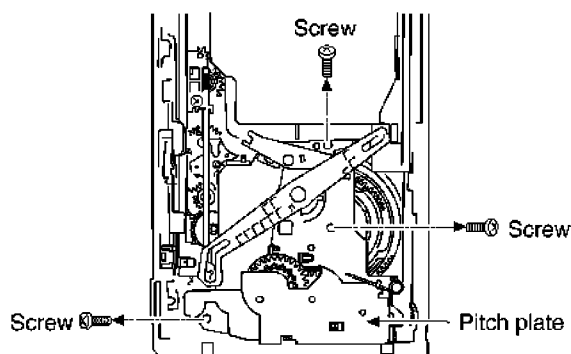
(Step 35)

Fix 2 ribs of UD. rack (L) and (R) into groove of both ends of UD. connection lever.



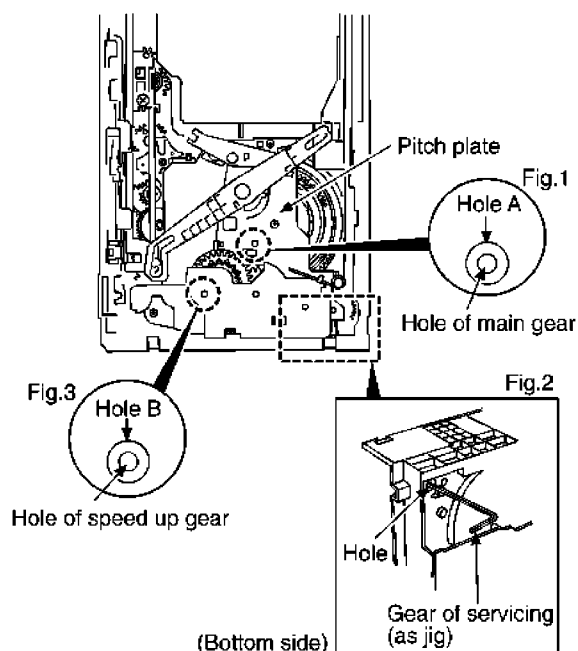
(Step 36)

Fixed it by three screws further.

**(Step 37)**

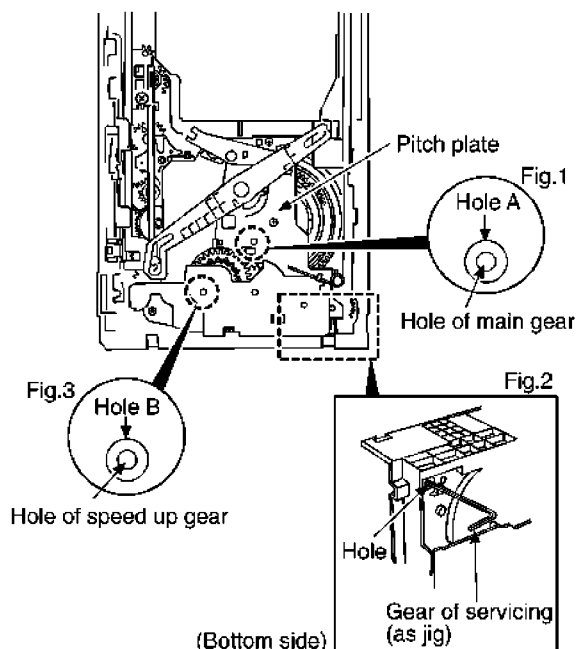
Be sure the notice of below before fixing the traverse mechanism.

1. Check that 2 holes of both pitch plate and main gear is fitted. (Refer to Fig.1)
If it's not fitted, put the gear for servicing in the hole of the bottom side and adjust it. (Refer to Fig.2)
2. Check that 2 holes of both pitch plate and speed up gear is fitted. (Refer Fig.3)
If it's not fitted turn the speed up gear to adjust it.

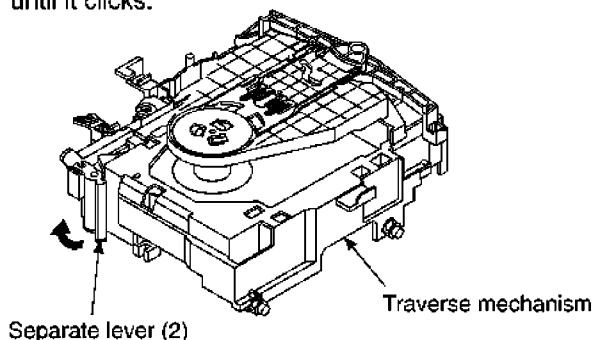
**(Step 37)**

Be sure the notice of below before fixing the traverse mechanism.

1. Check that 2 holes of both pitch plate and main gear is fitted. (Refer to Fig.1)
If it's not fitted, put the gear for servicing in the hole of the bottom side and adjust it. (Refer to Fig.2)
2. Check that 2 holes of both pitch plate and speed up gear is fitted. (Refer Fig.3)
If it's not fitted turn the speed up gear to adjust it.

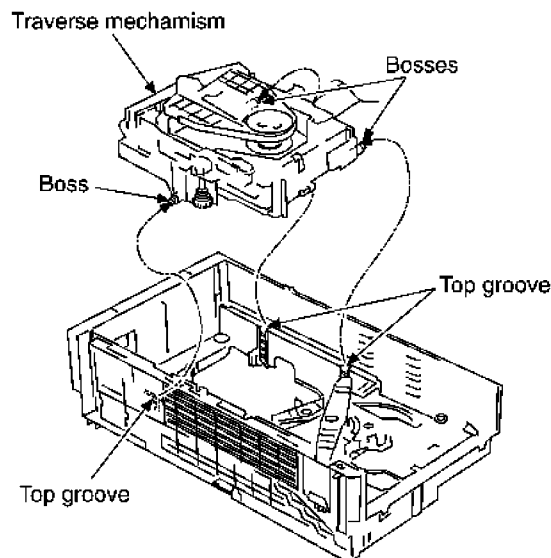
**(Step 38)**

Turn the separate lever (2) slowly toward left side until it clicks.

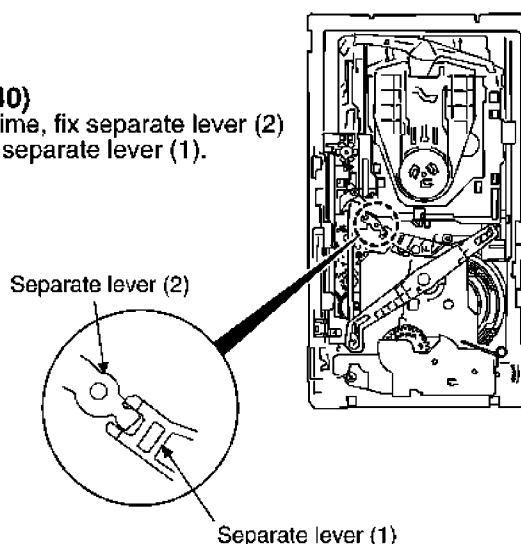


(Step 39)

Fix the left boss into the top groove of the UD. rack (L) and fix 2 bosses into the groove of the UD. rack (R).

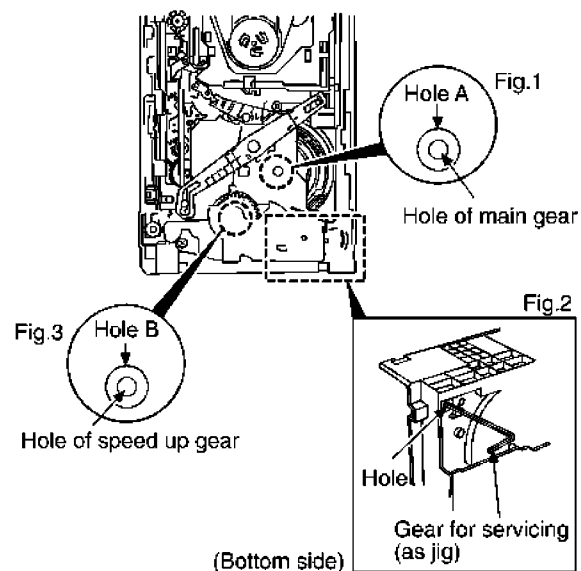
**(Step 40)**

At that time, fix separate lever (2) into the separate lever (1).

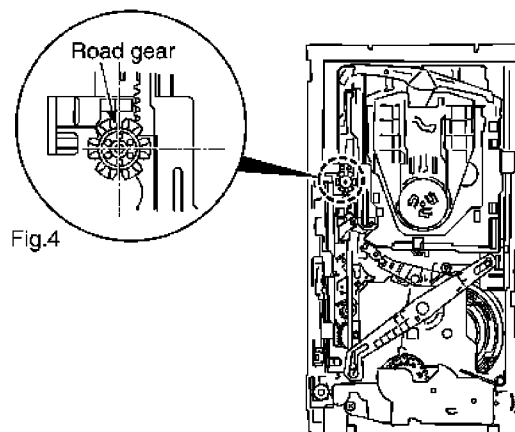
**(Step 41)**

After the traverse mechanism fixed, confirm the phase in order below.

1. Check that 2 holes of both pitch plate and main gear is fitted. (Refer to Fig.1)
If it's not fitted, put the gear for servicing in the hole of the bottom side and adjust it. (Refer to Fig.2)
2. Check that 2 holes of both pitch plate and speed up gear is fitted. (Refer Fig.3)
If it's not fitted turn the speed up gear to adjust it.

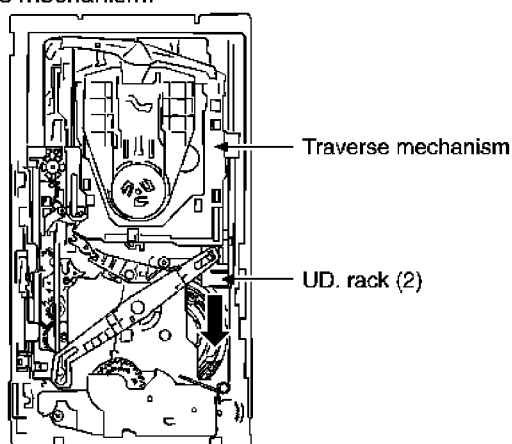


3. In the cog of road gear, the groove with it's cutting halfway set side ward. (Refer to Fig.4)
Remove the traverse mechanism again when it is not set side ward and install it after adjustment of inserting position.
NOTE: By this time, do not adjust to rotate the road gear.



(Step 42)

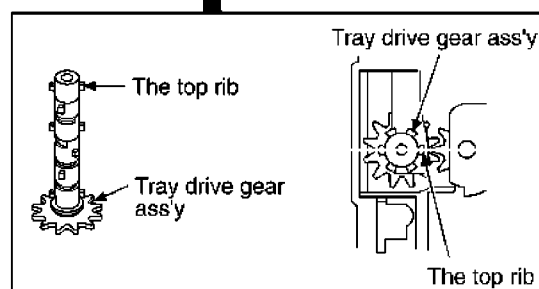
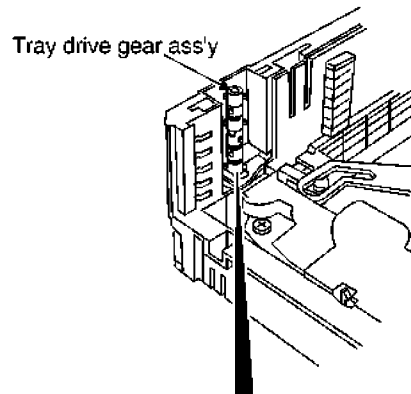
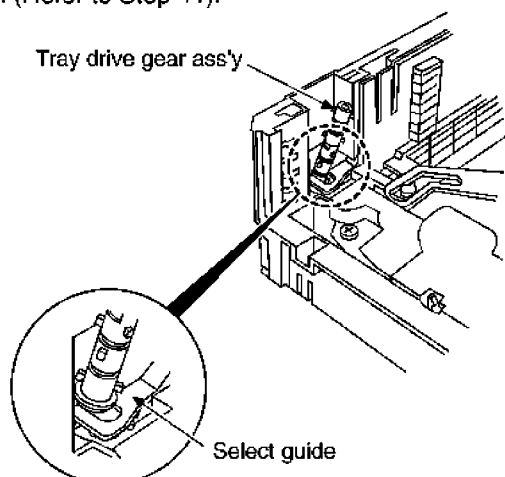
After insertion of traverse mechanism, pull the UD. rack (R) on this side that each phase is "OK" and then lock the traverse mechanism.

**(Step 43)**

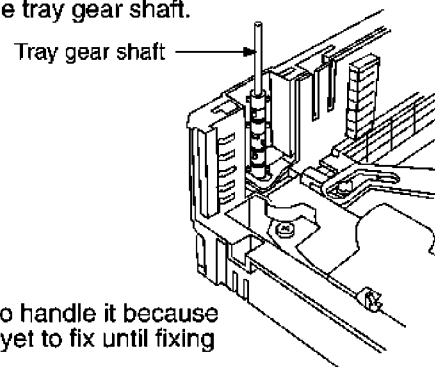
Install the tray drive gear to select guide.
(Install the top rib of the tray drive gear with side ward.)

NOTE:

Confirm the each phase surely before install the tray drive gear. (Refer to Step 41).

**(Step 44)**

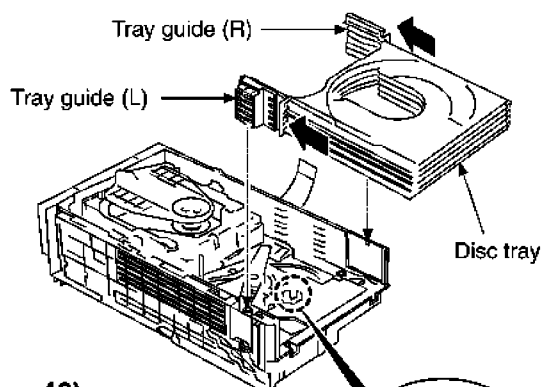
Insert the tray gear shaft.

**NOTE:**

Be careful to handle it because the shaft is yet to fix until fixing top cover.

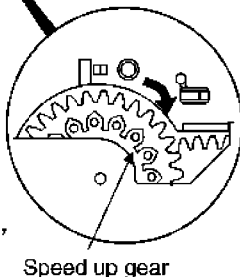
(Step 45)

Move the tray guide (R) and (L) to direction of arrow that fixed (stopped) it and install 5 pieces of disc tray.

**(Step 46)**

Confirm that when the disc tray insert the upper side, the speed up gear is rotate clockwise a little.

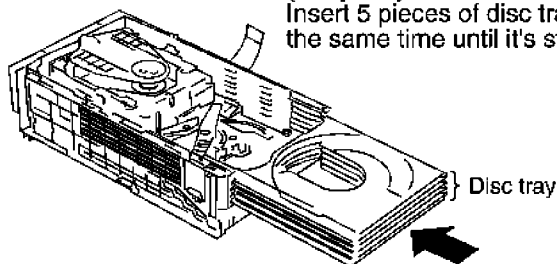
- When the rotation of speed up gear is not clockwise or rotate, repeat from Step 45.
- Until the speed up gear rotate, repeat from Step 45 and 46.

**NOTE:**

While keeping all position, install 5 pieces of disc tray.

(Step 47)

Insert 5 pieces of disc tray at the same time until it's stop.

**(Step 48)**

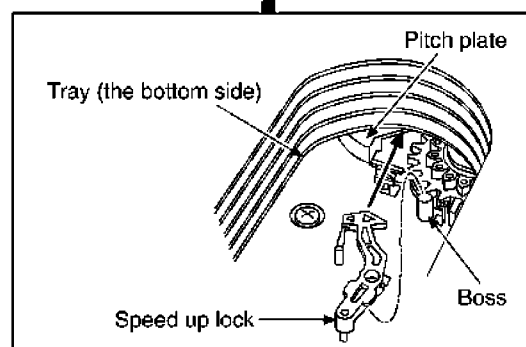
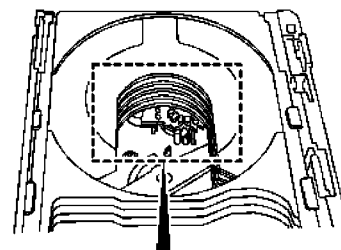
Turn the traverse side 180°.

(Step 49)

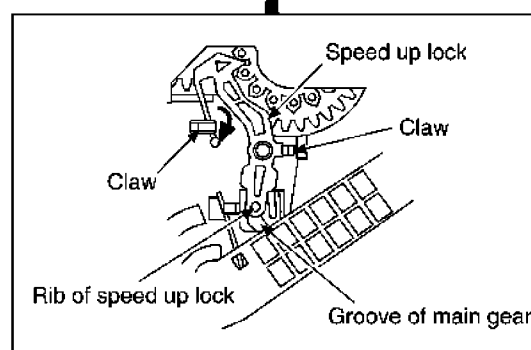
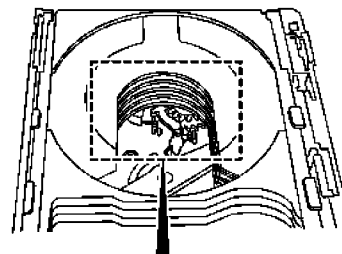
While install the tip of speed up lock between tray (No.1) of the most lower side and pitch plate for the time being. (Do not to insert the cog of speed up gear), insert it to boss.

NOTE:

At that time, do not move the tray.
(See the tray the most front side)

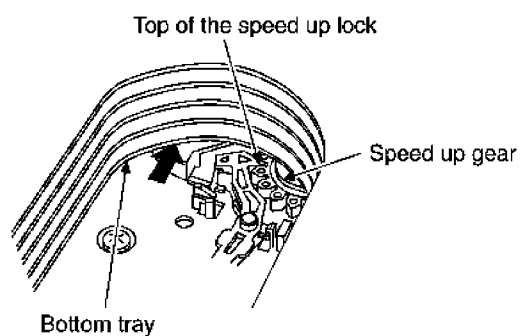
**(Step 50)**

Insert the rib of speed up lock into a groove of main gear, and lock it with 2 claws.



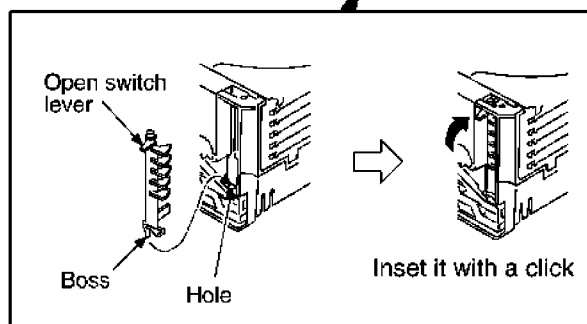
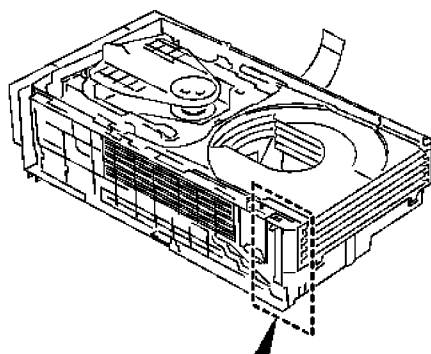
(Step 51)

Move the bottom tray to the arrow while pushing the top of the speed up gear. And insert it to a cog of the speed up gear.

**(Step 52)**

Install the open switch lever.

(Put the boss into the hole of the mechanism base.)

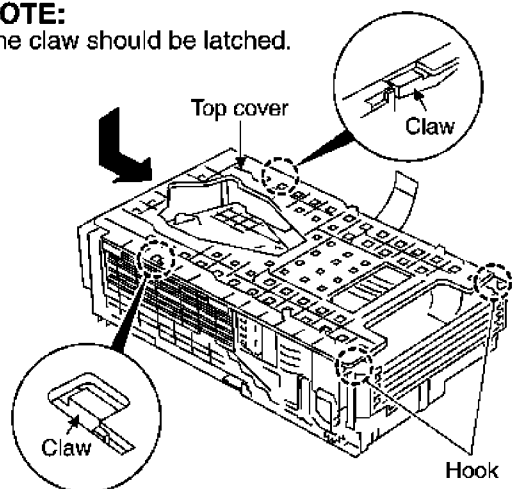
**(Step 53)**

Install the top cover.

Fix it into hooks and slide direction to the arrow.

NOTE:

The claw should be latched.



8.12. Disassembly of traverse mechanism

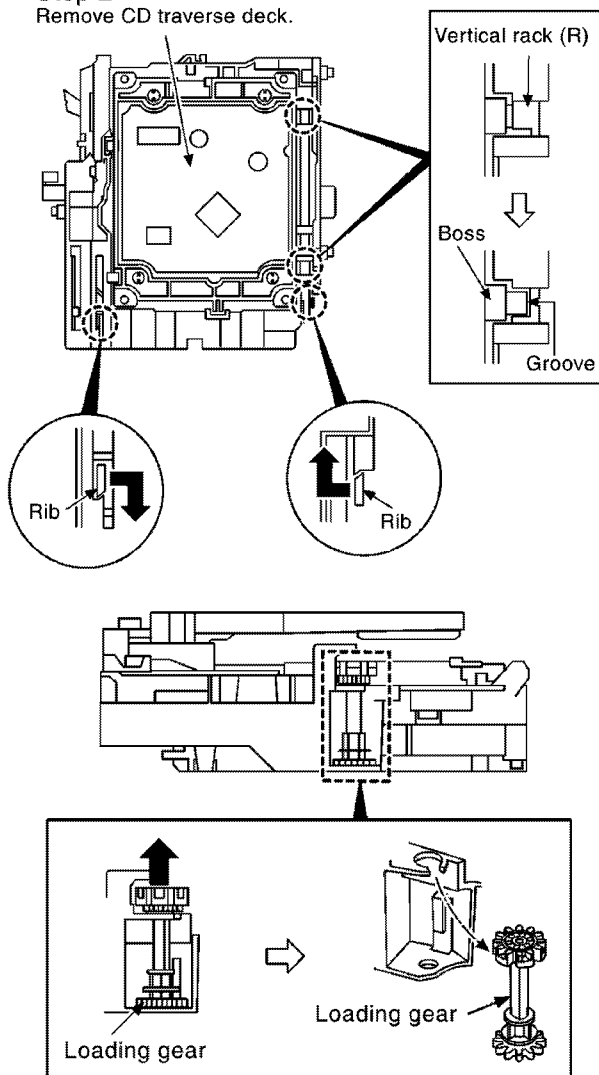
- Follow the (Step 1) - (Step 14) of Item 8.1.
- Follow (Step 1) - (Step 7) described in Item 8.10.
- Follow (Step 1) - (Step 7) described in Item 8.11.
- Follow Step 1 described in Item 8.11.

Step 1

Shift ribs of both side to the arrow direction.
(A vertical rack (R) slides and groove opens)

Step 2

Remove CD traverse deck.



Step 3

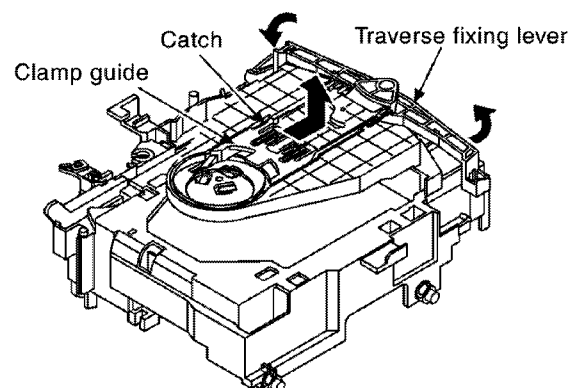
Lift a loading gear slightly and pull out.

Step 4

Fixing lever to the arrow direction, rotate a traverse.

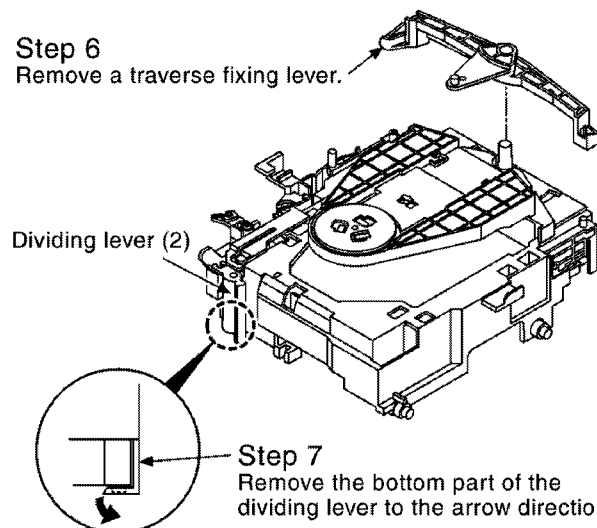
Step 5

Remove catch and take out a clamp guide.



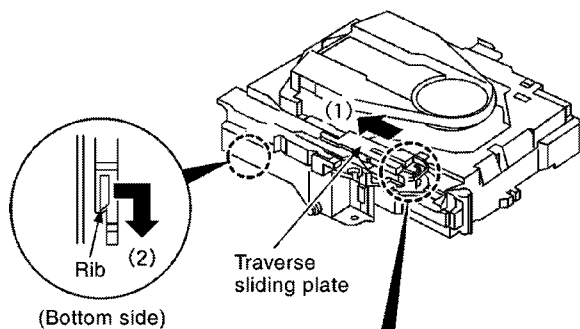
Step 6

Remove a traverse fixing lever.

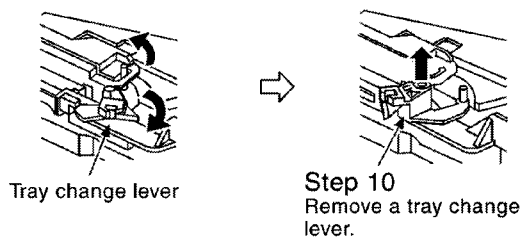


Step 8

Slide a traverse sliding plate to the arrow direction (1), and shift a rib to the arrow direction (2).

**Step 9**

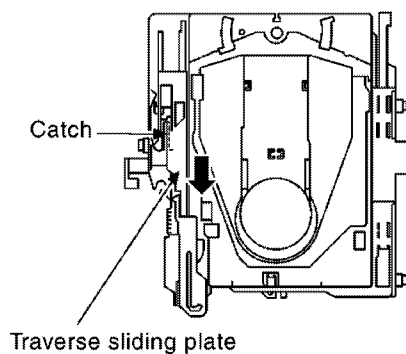
Shifting a traverse sliding plate slightly and rotate a tray change lever.

**Step 10**

Remove a tray change lever.

Step 11

Holding the catch down, slide a traverse sliding plate to the arrow direction and remove it.

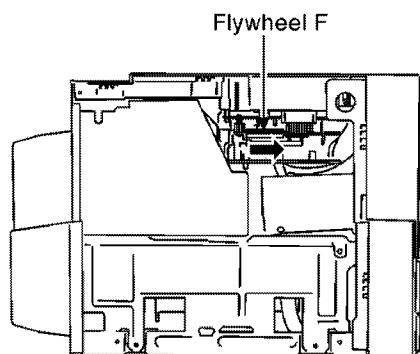


8.13. Handling of cassette tape jam

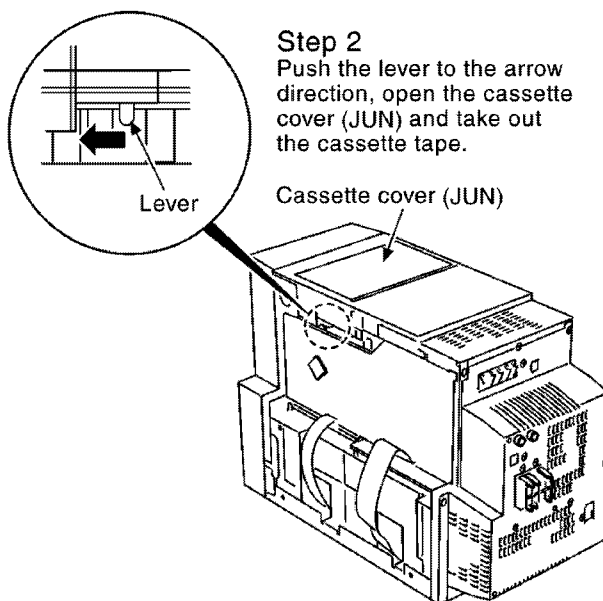
- Follow the (Step 1) - (Step 4) of Item 8.1.

Step 1

If the cassette tape is not ejected due to twining around capstan or pinch roller during playing or recording, rotate a flywheel F to the arrow direction to remove twined tape.

**Step 2**

Push the lever to the arrow direction, open the cassette cover (JUN) and take out the cassette tape.



9 Self-Diagnostic Display Function

This unit is equipped with a self-diagnostic display function, which will be useful during servicing and maintenance.

- Refer to the next page for display symbols, symptoms, etc.

9.1. Preparations

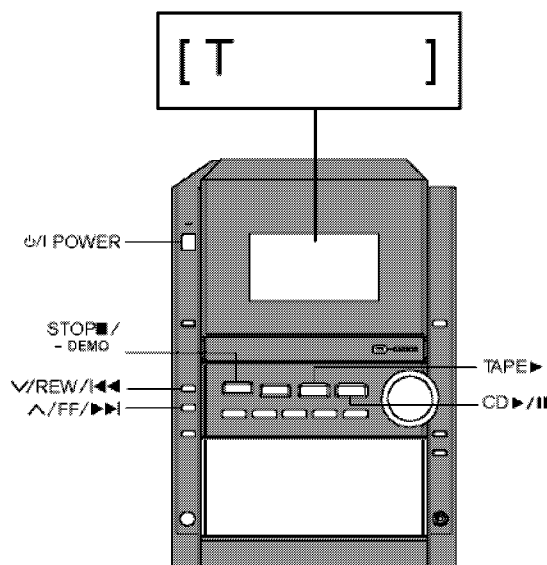
1. A Cr02-positioned blank cassette tape with an erase prevention niche on either Side A or B.
2. A normal-positioned music tape with erase prevention niches on both Sides A and B. Both tapes are halfway forwarded in advance.
3. The remote controller that comes with this unit.

9.2. Setting of the Self-Diagnostic Mode

No.	Operation Procedure	Operation and Processing of Microcomputer
1	Switch the SELECTOR to TAPE. There should be NO cassettes loaded.	
2	Press the [■ /-DEMO] key for 2 sec and press [^ /FF/▶▶] for another 2 sec, it shall enter into the self-diagnostic mode.	[T] shall be displayed in the FL.

9.3. Restoring Normal Display

- From the F76 display, the normal display does not appear till an error is recovered.
- For displays other than F76, press "POWER" button to turn off the power, and then turn on the power.



9.4. Clearing Self-Diagnostic Memory

<CD Section> (F15, F17, F22, F26, F27, F28, F29)

1. Enter a self-diagnostic mode.
2. Press " ■ /-DEMO" button. A symbol of self-diagnostic is indicated on the display if an error is found. If several errors are found, a respective indication is displayed when " ■ /-DEMO" button is pressing repeatedly. (e.g. H01 → CD F15 → F01)
If no error is found, only "TEST" indication is displayed and remains unchanged even if " ■ /-DEMO" button is pressed.

9.5. Displaying Self-Diagnostic Results

<Cassette Deck Section> (H01, H02, H03, F01, F02)

1. Enter the self-diagnostic mode, following the instructions described in [5.2. Entering Self-Diagnostic Mode].
2. Insert a normal-positioned music tape with erase prevention niches on both Sides A and B. Press [TAPE ▶] button to activate the TPS operation so that the tape automatically stops at an interval between music selections.
3. Press [■ /CLEAR] and [TAPE ▶] buttons together on the remote controller. (Recording does not start.)
4. Then, insert a Cr02-positioned blank cassette tape with an erase prevention niche of Side A or B set to the left side.

5. Press [$\wedge$ /FF/ $\blacktriangleright\blacktriangleright$] button. The tape will be forwarded and automatically stop after two seconds.
6. Remove the cassette tape, and set the other side.
7. Press [$\vee$ /REW/ $\blacktriangleleft\blacktriangleleft$] button. The tape will be rewound and automatically stops after two seconds.
8. Press [$\blacksquare$ /-DEMO] button on the unit.

If an error is found, a self-diagnostic key appears on the display.

If several errors are found, the display shows these keys when [$\blacksquare$ /-DEMO] button is pressed repeatedly. (Ex.: H01 - H02 - F01 - H01)

If no error is found, only the message, "CD TEST" appears on the display.

(*1) TPS operation (music search) detects the blank sections between music selections. Therefore, do not use tapes with the following conditions:

- A blank section that lasts only 4 seconds or less.
- No blank sections (recording through microphones, etc.).
- Music selections that have extremely low pitches or prolonged silent sections (such as classical music).
- and/or Music recorded with fade in/out effect.

Displayed Key	Symptoms	Causes and Troubleshooting
H01	Cassette mechanism operates erratically. Ex.: REV operation starts even when "FWD" button is pressed.	Malfunction of cassette mechanism mode switch (S971), plunger, and capstan motor. (Check and replace the parts.)
H02	Recording fails or starts when an erase prevention tab on cassette tape is broken off.	Malfunction or short-circuit of erase prevention detect switch (S974, S975). (Check and replace the parts.)
H03	No playback when "TAPE ►" button is pressed. The motor operates when no cassette tape is inserted and "TAPE ►" button is pressed.	Malfunction or short-circuit of cassette mechanism tape detect switch (S972). (Check and replace the parts.)
F01	Tape playbacks and stops soon after "TAPE ►" button is pressed.	Reel pulse problem. Malfunction of photo interrupter (IC971). (Check and replace the parts.)
F02	TPS does not operate.	Malfunction of playback EQ/recording amplifier IC (IC1302). (Check and replace the parts.)
F15	CD REST SW abnormal.	CD traverse position initial setting operation failsafe counter (1000 ms) waiting for REST SW to turn on. Error No. shall be cleared by force or during coldstart.
F17	DOWN SW abnormal.	During vertical operation going to the bottom position, if failsafe timer is finished and switch no change or switch target condition was not achieved, this error shall be memorized. The next time mechanism operates, it shall do mechanism initialization. Error No. shall be cleared by force or coldstart.
F22	Loading Mode / Mecha abnormal.	During mecha initialization, Loading mode mechanism abnormal, normal operation cannot be achieved. The next time mechanism operates, it shall do mechanism initialization. Error No. shall be cleared by force or coldstart.
F26	CD servo LSI command signal abnormal.	CD function DTMS command, after system setting, if SENSE = 'L' cannot be detected. Memory shall contain F26 code. After Power on, CD function shall continue, error shall occur "NO DISC". Error No. shall be cleared by force or coldstart.
F27	Slide operation abnormal.	During vertical operation, if failsafe timer is finished and switch no change or switch target condition was not achieved, this error shall be memorized. Next time mechanism operates, it shall do coldstart. Error No. shall be cleared by force or coldstart.
F28	DISC load abnormal.	While going to play position, if failsafe counter is finished and switch no change or switch target condition was not achieved, this error shall be memorized. Next time mechanism operates, it shall do coldstart. Error No. shall be cleared by force or coldstart.
F29	DISC unload abnormal.	While going to play position, if failsafe counter is finished and switch no change or switch target condition was not achieved, this error shall be memorized. Next time mechanism operates, it shall do coldstart. Error No. shall be cleared by force or coldstart.

9.6. Cold Start Setting

9.6.1. Doctor Mode Setup

1. Set to TAPE mode.
2. To enter Doctor mode, input 4 then 7 from the remote control while pressing "STOP" key of the main set.
3. The CLEAR key on the remote controller shall end the test and exit Doctor mode.
4. When plug out from Doctor mode, it will reset when plug in back

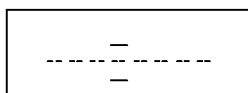
9.6.2. Cold Start Setting

1. Doctor mode ON.

2. Remote control SLEEP key ON.

- Data shall be set in order to make a cold start (backup data are initialized) when reset starts next time.

To clarify that the code was accepted at this time, the pattern below is displayed in the LCD upper row for 2 seconds.



Note: In the case that you unplug from AC outlet after this mode was set, then plug to AC again, a cold start shall begin.

10 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.

ACHTUNG :

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

Wellenlänge : 780nm

Maximale Strahlungsleistung der Lasereinheit :100 μ W/VDE

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

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

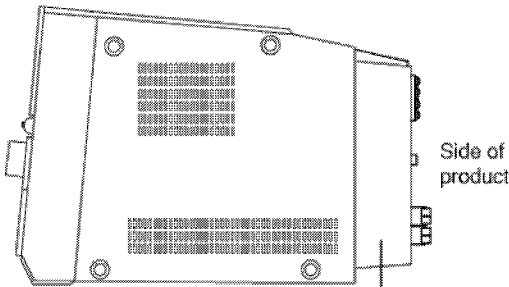
ADVARSEL: I dette a apparat anvendes laser.

CAUTION!

THIS PRODUCT UTILIZES A LASER.

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

■ Use of Caution Labels



LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT

CAUTION	→ INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. F01A.01 OFR./Class 1
CAUTION	→ INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM. B000P5-1 / Class 1
WARNING	OSVIBLIG LASERSTRÅLNING NÄR BENNA DEL ÄR ÖPPNAD. BETRÄKTA IJ STRÅLEN.
ADVARSEL	→ USYNLIG LASERSTRÅLING VED ÅBNING UNDSÅ UDSÆTTELSE FOR STRÅLING.
ADVARSEL	→ USYNLIG LASERSTRÅLING NÄR ÖPPNAD. ÅPNES SÖNDRA ERSÖKNEDEN FÖR STRÅLING.
VARO!	AVATTAJENNA OLET HÄRVÄÄTÖNTÄÄ. ÄLTYNÄ LASERSTRÄLYLLE. ÄLÄ KATSO SÄTEESSEEN.
VORSICHT	→ UNSICHTBARE LASERSTRABLING WENN ABDECKUNG GEÖFFNET. NICHT IN DEN STRAHLEN ALBBETRETEN.
ATTENTION	→ RAYONNEMENT LASER INVISIBLE EN CAS D'OUVERTURE. EXPOSER À UN DANGEREUSE AU FA SCELLE.
注意	→ 目や顔や衣類に直接、あるいは反射光を照射。
注意	→ ここを開くと不可視レーザー光が出ます。 ビームを見たり、触れたりしないです。

Inside of product
Tuotteen sisällä
Produktets innsida

11 Procedure for Checking Operation of Individual Parts of Cassette Mechanism Unit

11.1. Operation Check with Cassette Tape

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

Repeat the operation (→ FWD PLAY)

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

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

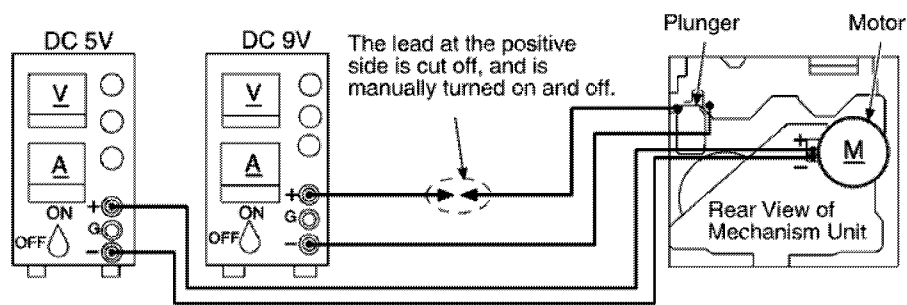


Fig. 5

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

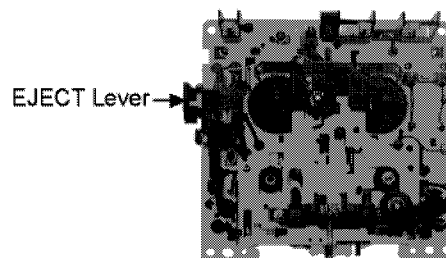


Fig. 6

11.2. Operation Check without Cassette Tape

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

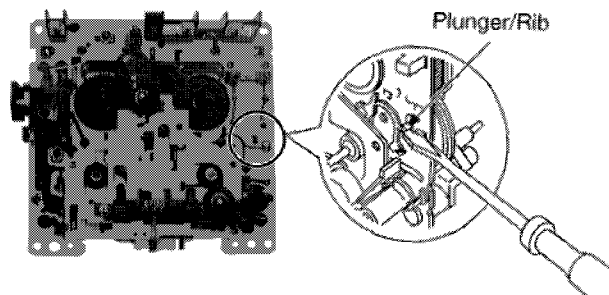


Fig. 7

12 Measurement And Adjustments

12.1. Tuner Section

12.1.1. AM-IF Alignment

• AM-IF ALIGNMENT

SIGNAL GENERATOR OR SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER OSCILLOSCOPE)	ADJUSTMENT(Shown in Fig.3)	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	450 kHz	Point of non-interference (on/about 600 kHz)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.	Z102 (AM IFT)	Adjust for maximum output.

• AM-RF ALIGNMENT

SIGNAL GENERATOR OR SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER OSCILLOSCOPE)	ADJUSTMENT(Shown in Fig.1)	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	522 kHz	Tuning capacitor fully closed.	Headphone Jack (32Ω) Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.	Z101 (AM OSC Coil)	Adjust for maximum output.
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	603 kHz	Tuning capacitor fully open.	Headphone Jack (32Ω) Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.	Z101 (AM ANT Coil)	Adjust for maximum output.

12.2. Cassette Deck Section

12.2.1. Requirements

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

12.2.2. Setting of Unit

- VOLUME: MAX

12.2.3. Preparations

1. Apply [8.1. Checking for Main & Transformer P.C.B. , Deck P.C.B. , Tape Eject P.C.B. & Deck Mechanism P.C.B.] under [8. Disassembly and Main Component Replacement Procedures].

2. Remove 4 screws from the mechanism unit to disassemble. (Refer to [8.2 Procedure for Replacing Cassette Holder] under [8. Disassembly and Main Component Replacement Procedures].)
3. Connect the headphone jack output jig (Cf. Fig. 8) to headphone jack.

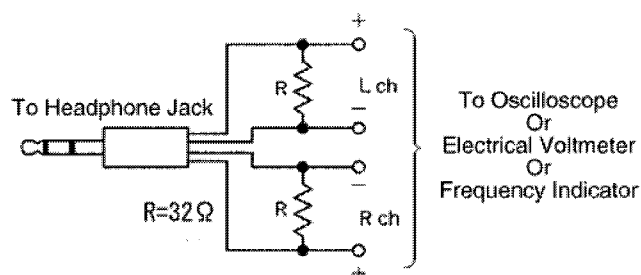


Fig. 8

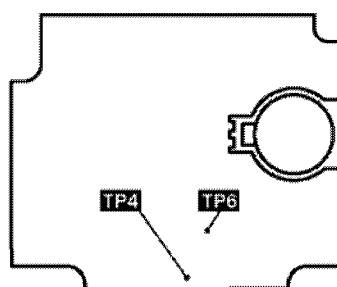


Fig. 9

12.2.4. Tape Speed Adjustment

- Normal speed adjustment (only during forward playback)
(Product reference value: $3,000 \pm 90\text{Hz}$)

1. Connect a frequency indicator. (Cf. Fig. 12)
2. Playback the middle portion of the test tape (QZZCWAT).
3. Adjust the motor screw so that the following output level is produced. (Cf. Fig. 10)
Adjustment Range: $3,000 \pm 90\text{Hz}$ (a constant speed)

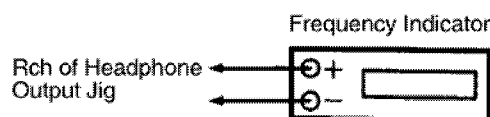


Fig. 10



Fig. 11

12.2.5. Bias Voltage Check

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

Standard Range: $14 \pm 4\text{mV}$

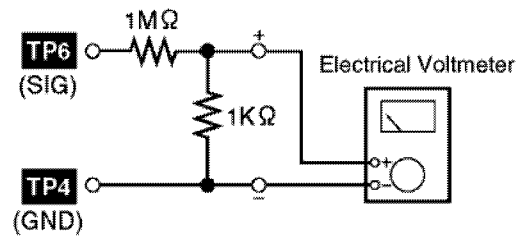


Fig. 12

12.2.6. Bias Frequency Check

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

Standard Value: $98 \pm 8\text{ kHz}$

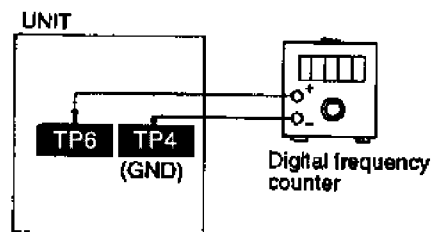
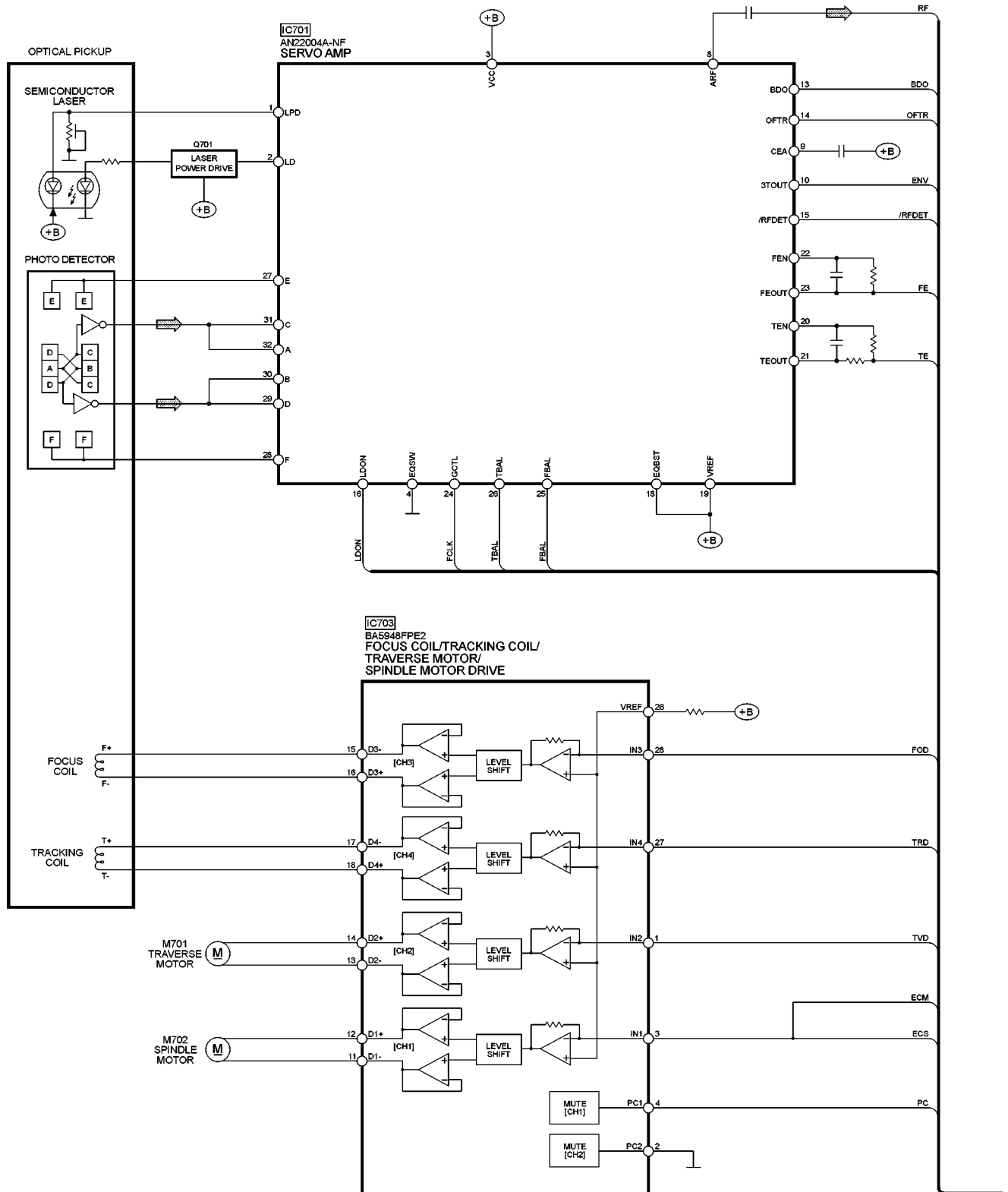
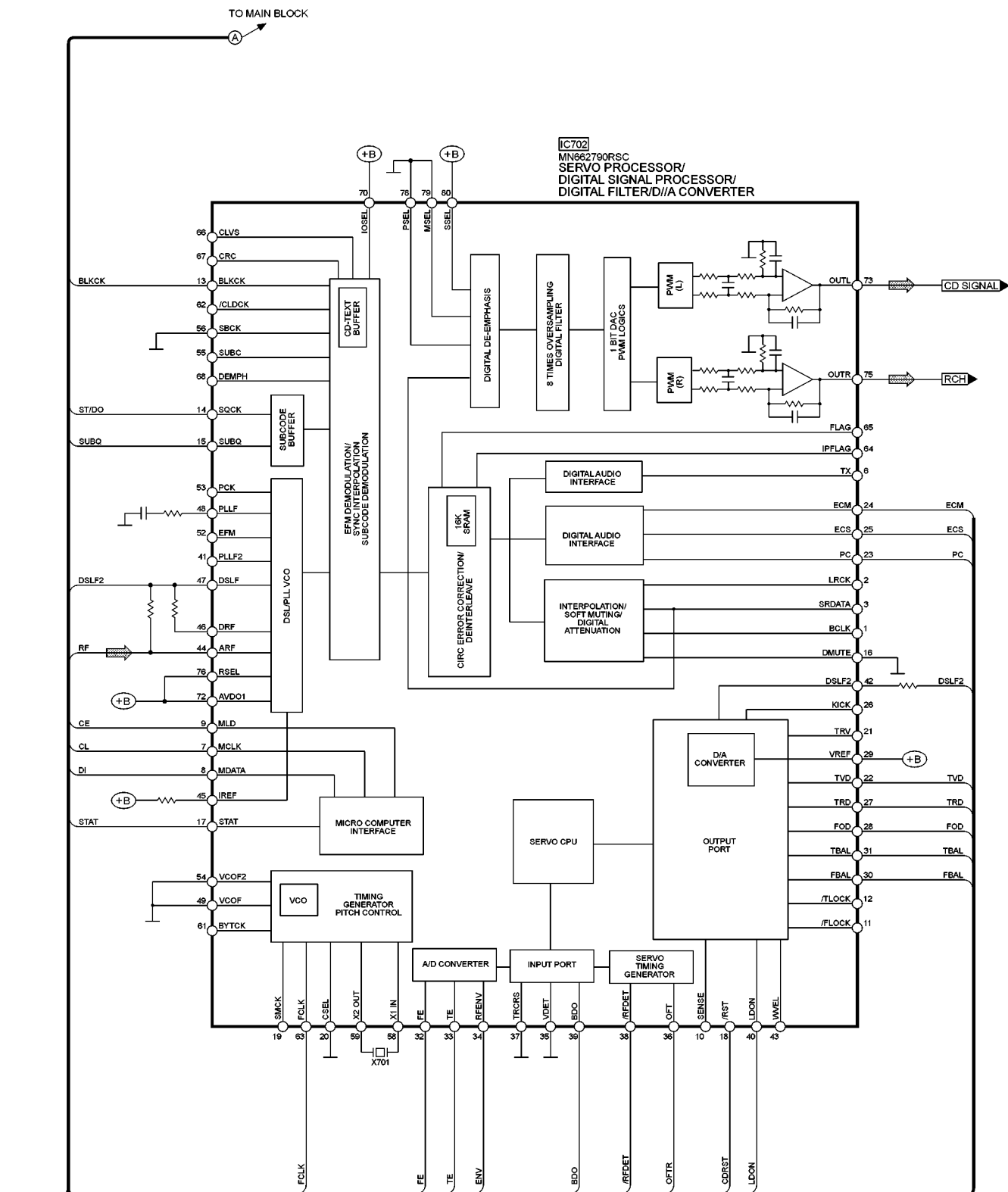
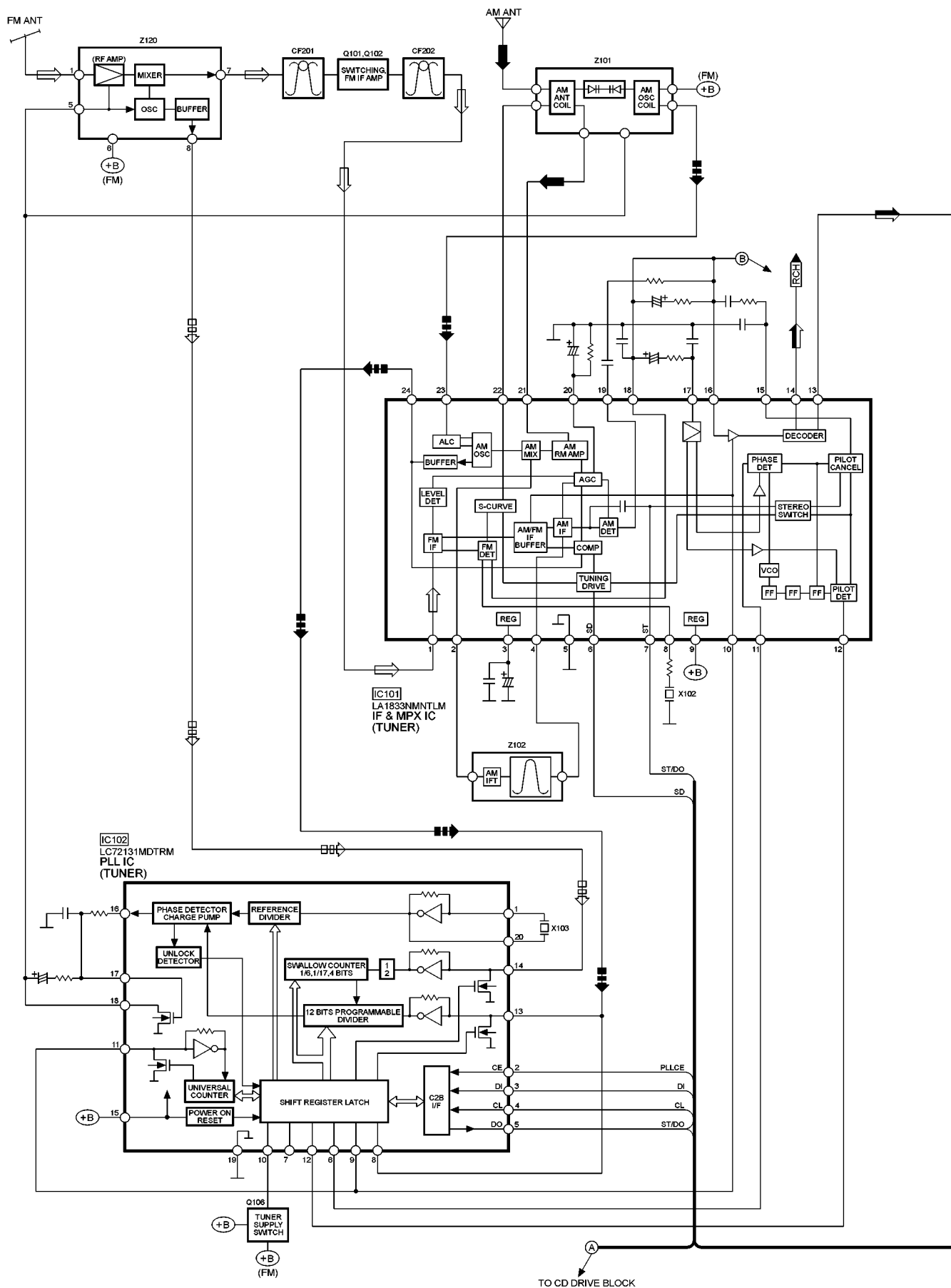


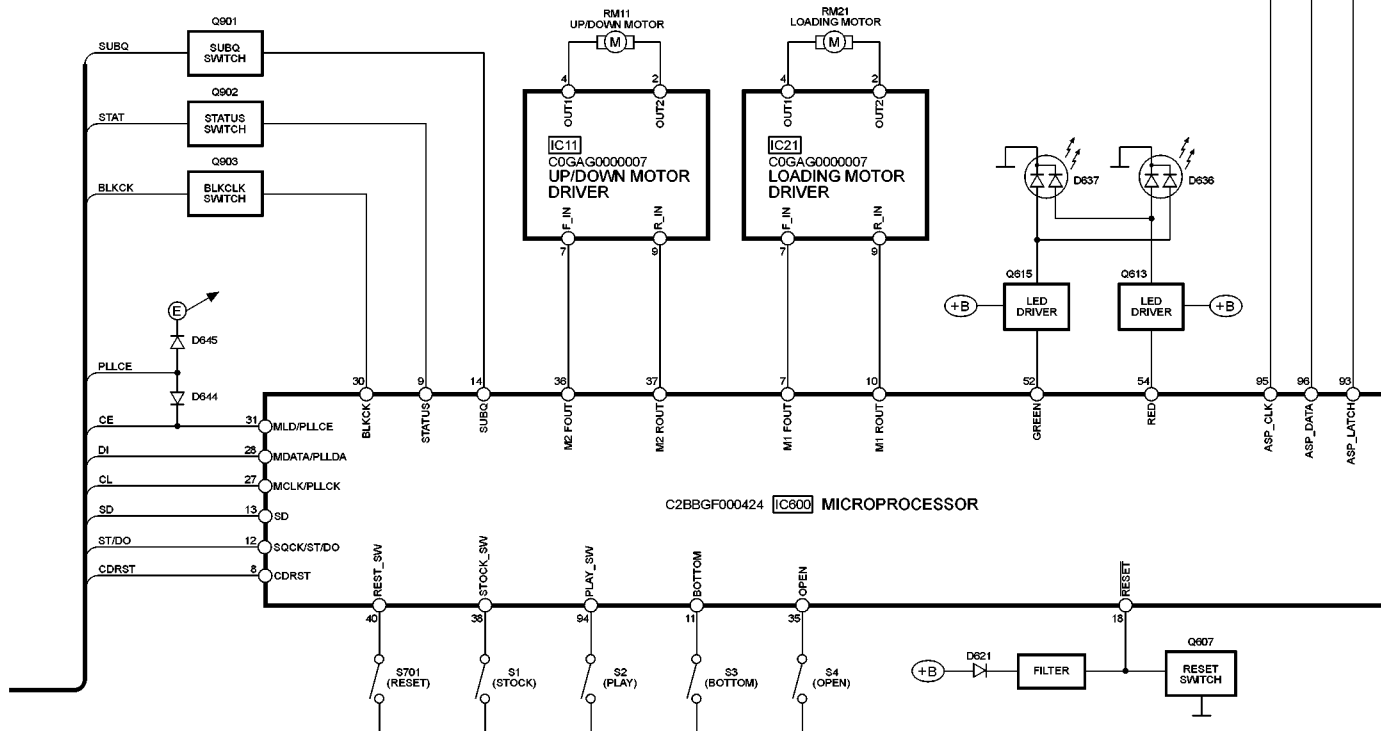
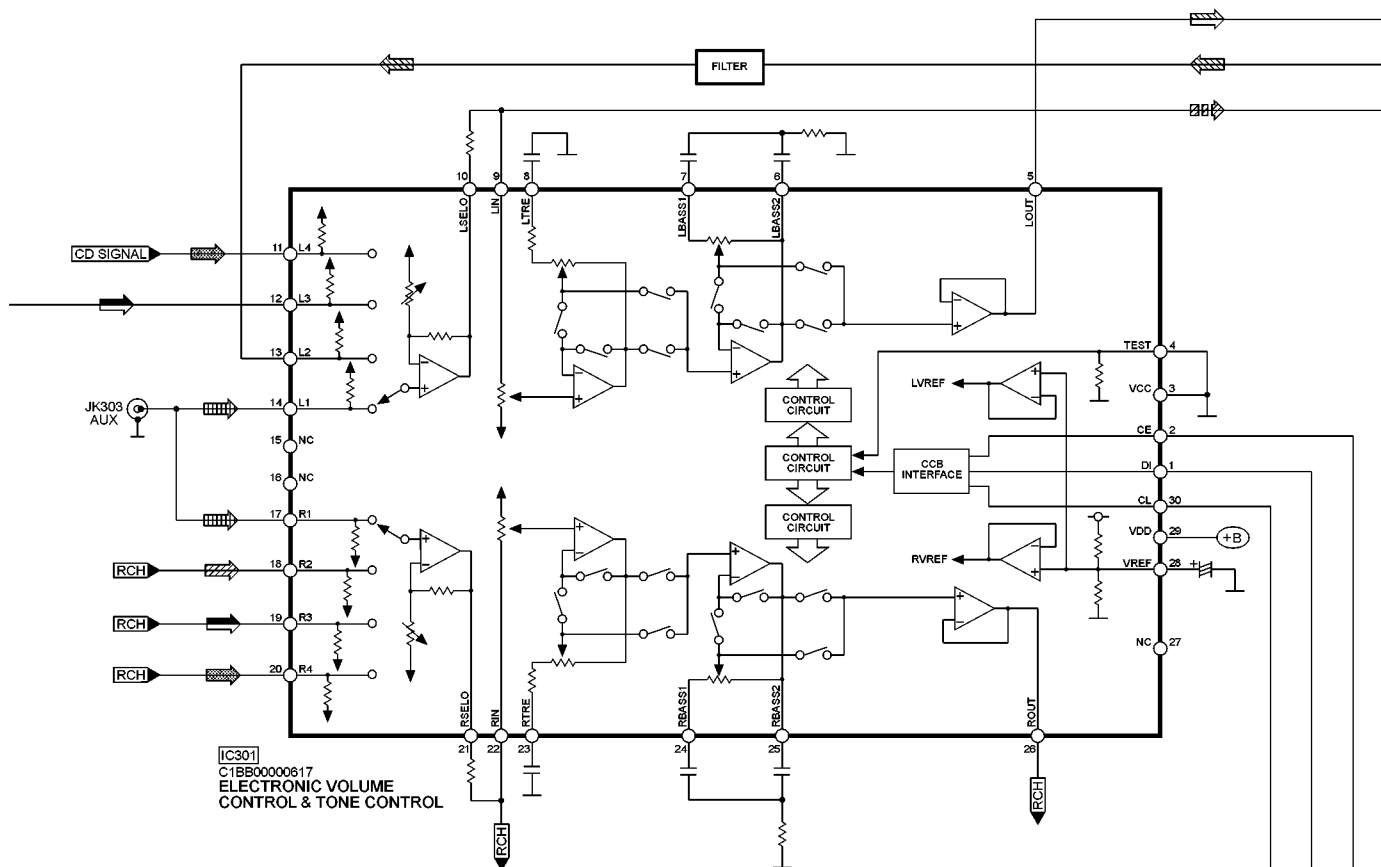
Fig. 13

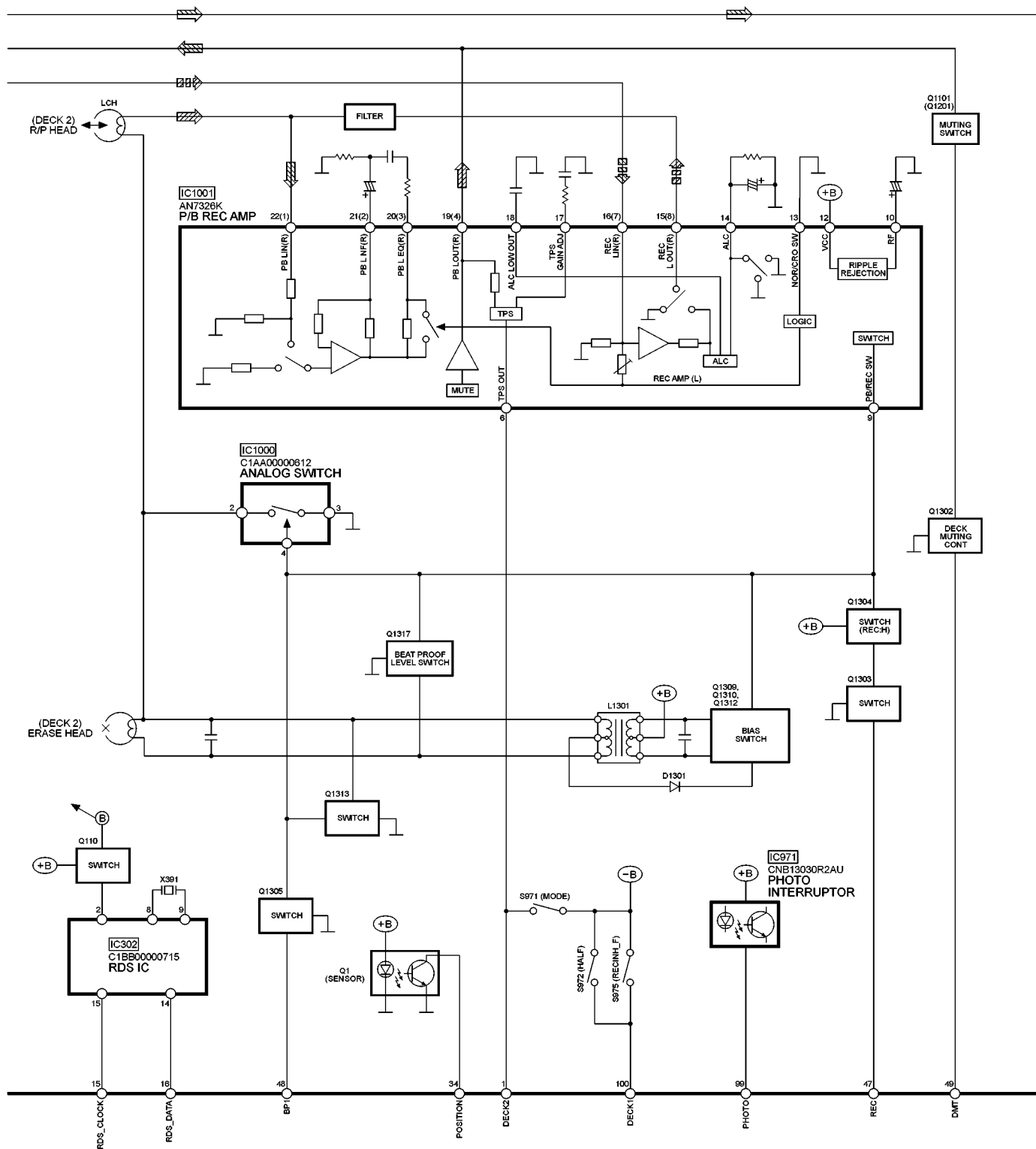
13 Block Diagram



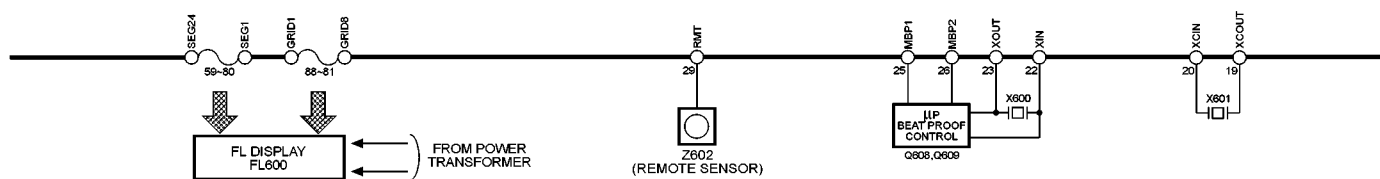


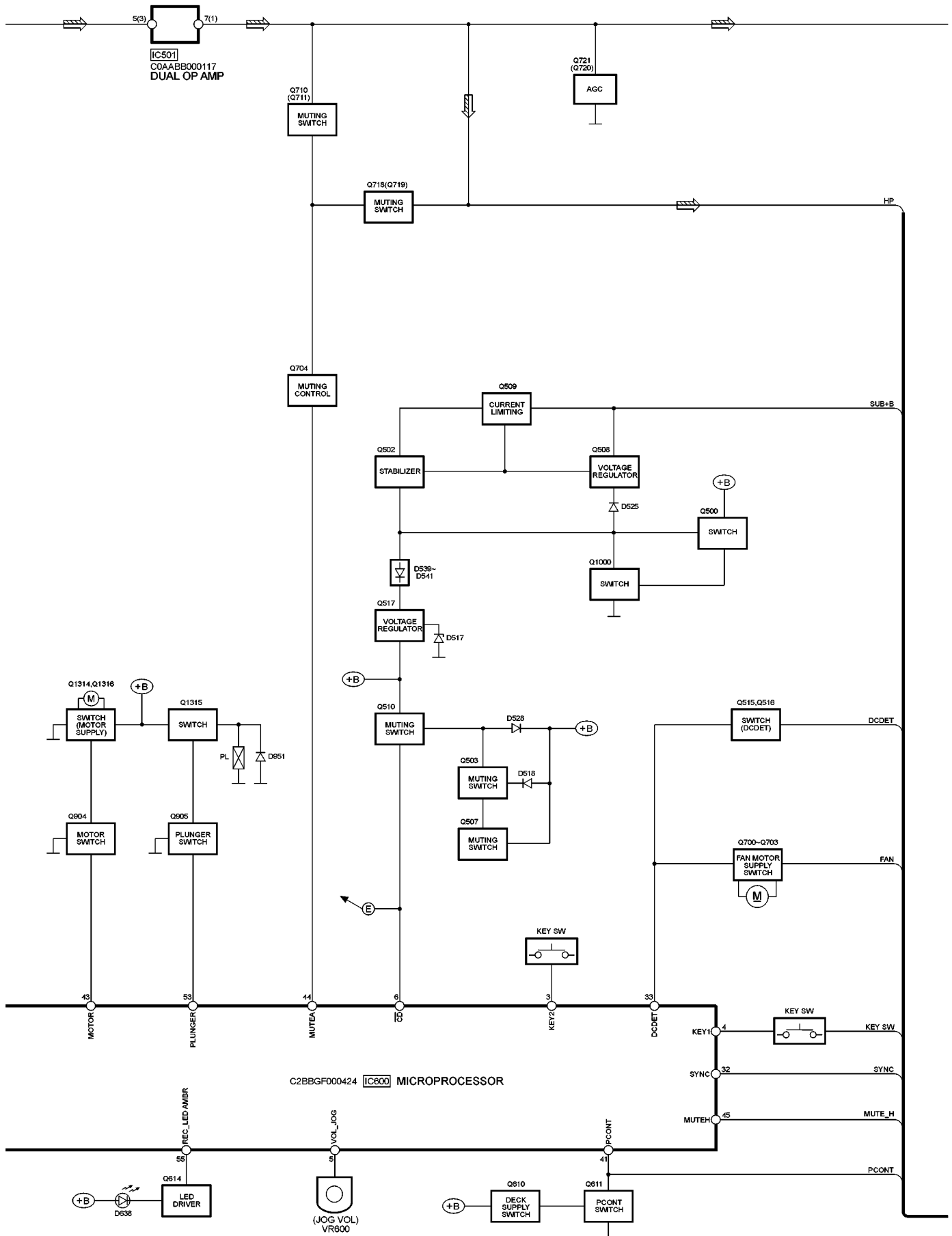


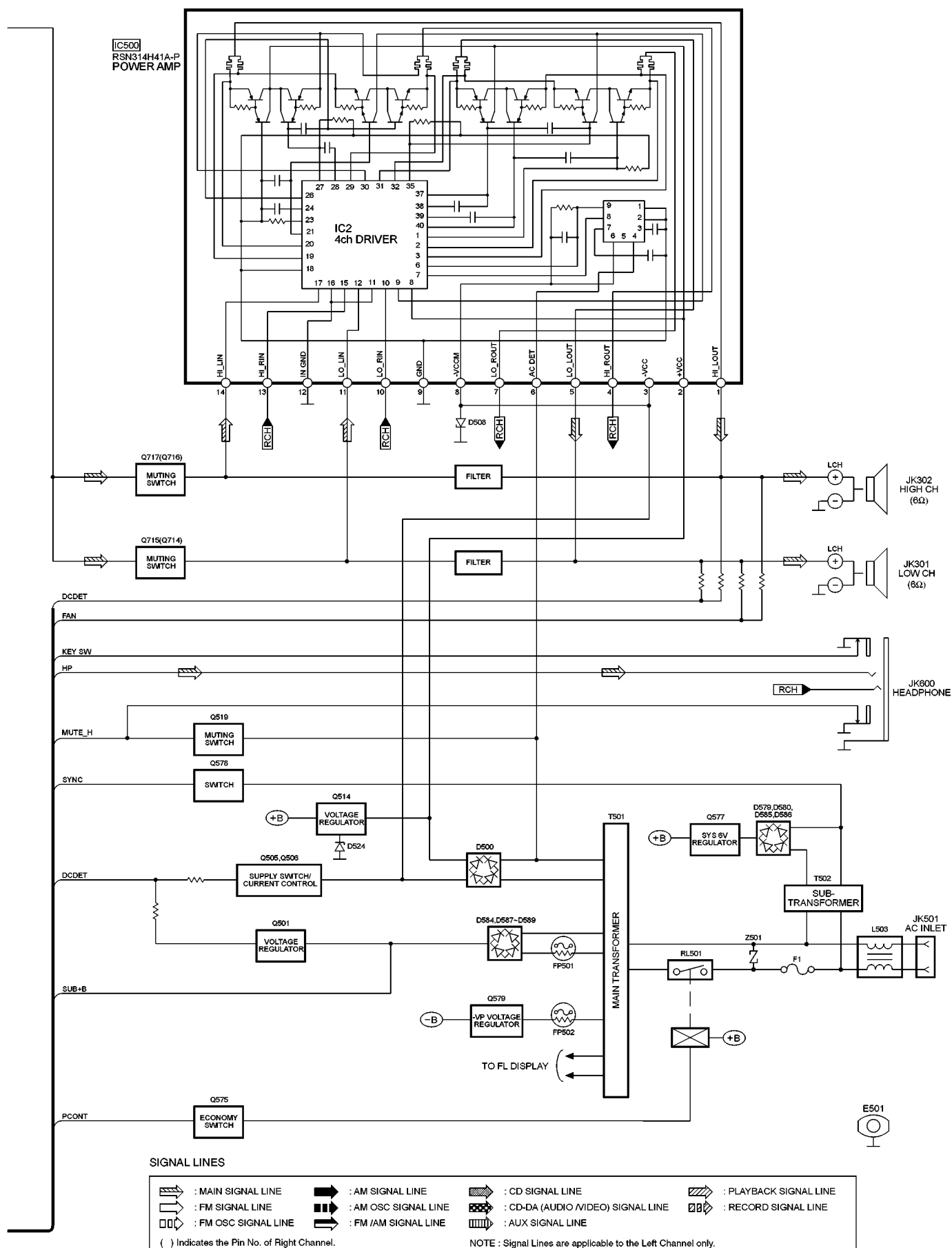




C2BBGF000424 [IC800] MICROPROCESSOR







14 Schematic Diagram

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

Notes:

S1	Stock Switch
S2	Play Switch
S3	Bottom Switch
S4	Open Switch
S600	Rec Switch
S602	Tape Eject Switch
S603	Rew Switch
S604	Demo/Stop Switch
S605	FF Switch
S606	CD Play/Pause Switch
S607	Tape Switch
S608	Tuner/Band Switch
S609	AUX Switch
S610	CD Open/Close Switch
S611	Change Switch
S612	CD Check Switch
S613	CD 5 Switch
S614	CD 4 Switch
S615	CD 3 Switch
S616	CD 2 Switch
S617	CD 1 Switch
S618	Power Switch
S619	S.S.EQ Switch
S701	Reset Switch
S780	Open Switch
S971	Mode Switch
S972	Half Switch
S973	CR02 Switch
S974	Recinh_f Switch

- 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	< >	...FM
(())	...CD	()	...AM

• Importance safety notice:

Components identified by $\triangle$ 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.

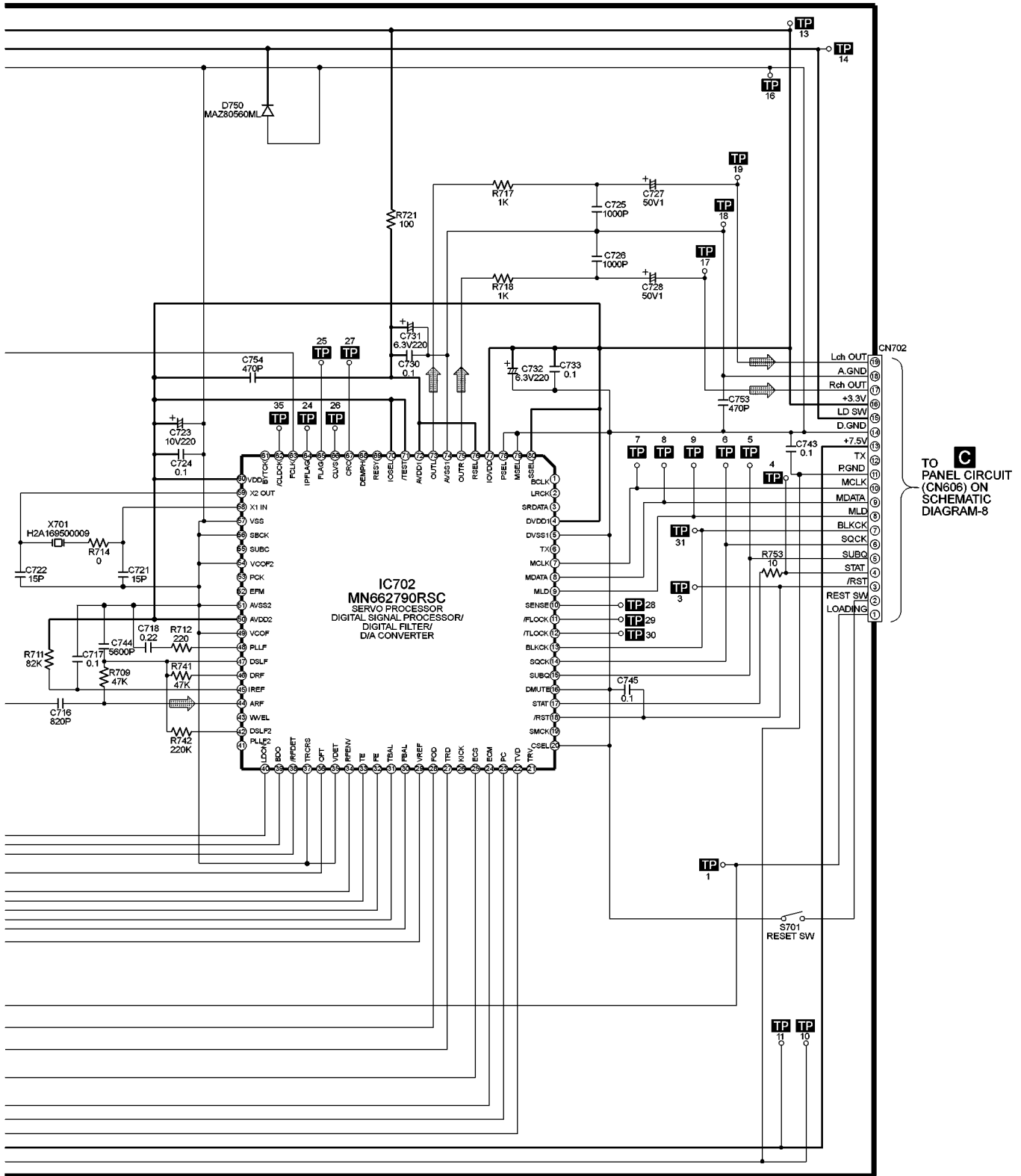
Caution!

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.

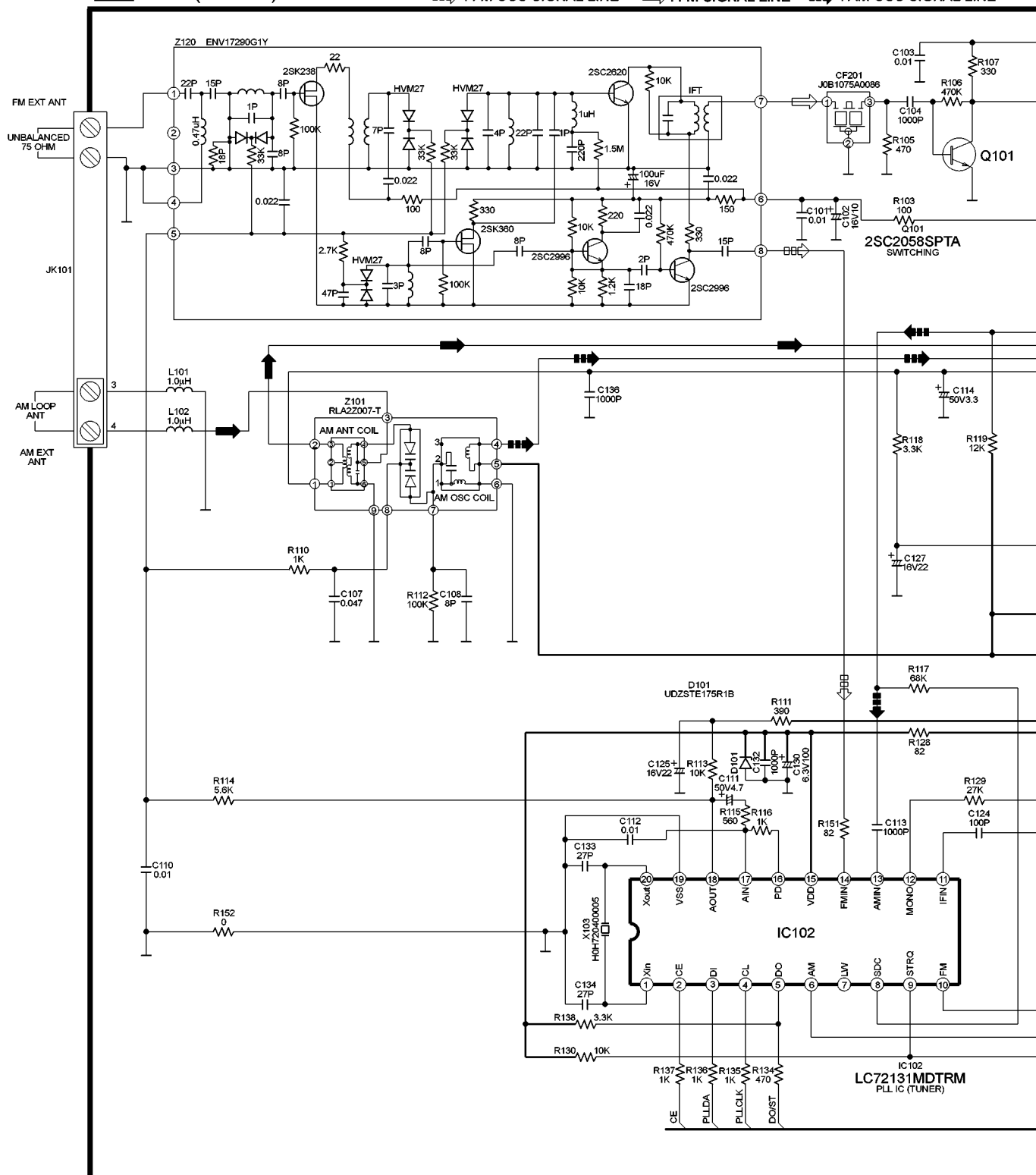
SCHEMATIC DIAGRAM - 2

A CD SERVO CIRCUIT— : +B SIGNAL LINE  : CD SIGNAL LINE

SCHEMATIC DIAGRAM - 3

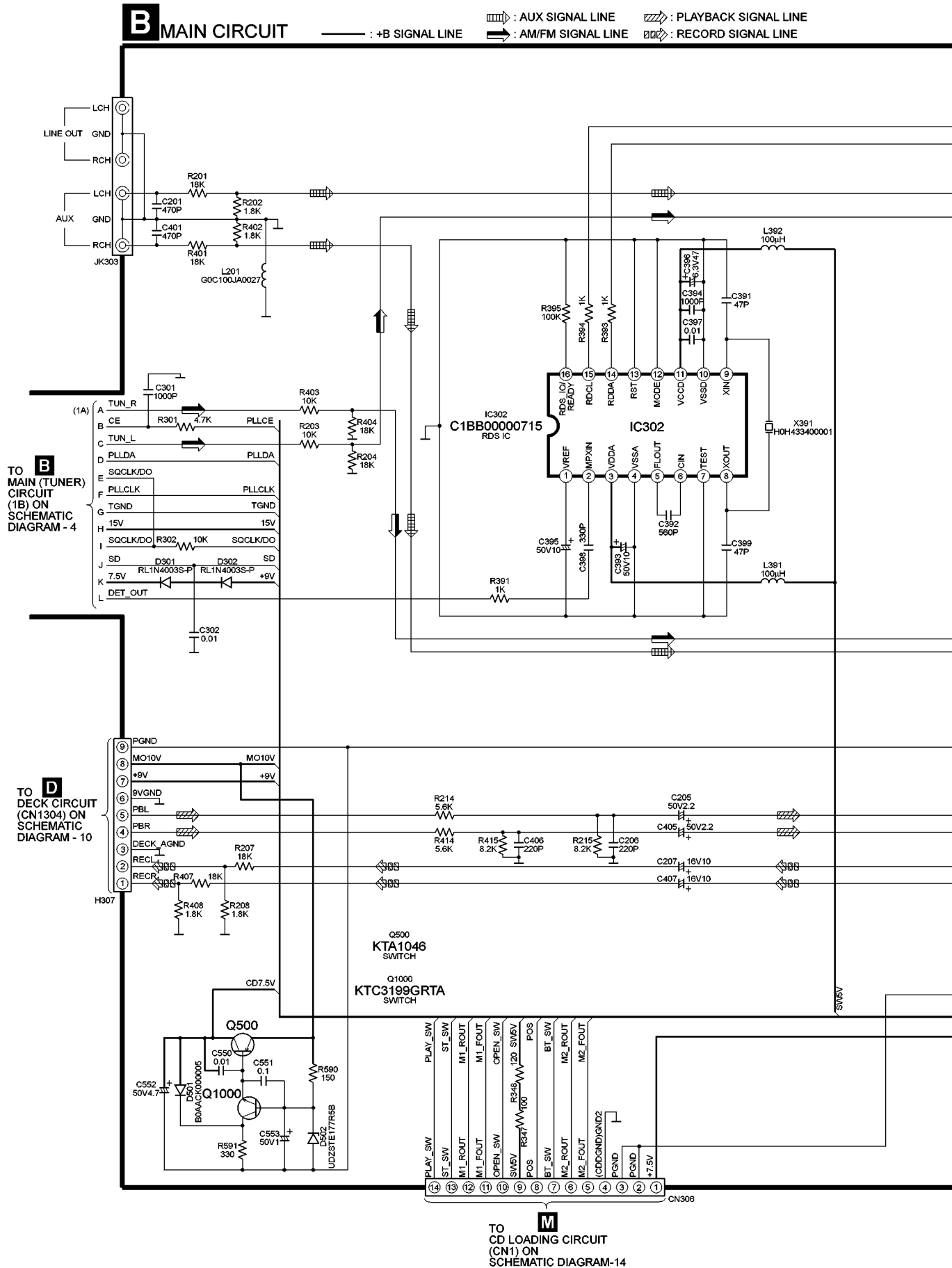
B MAIN (TUNER) CIRCUIT

— : +B SIGNAL LINE ➡ : AM SIGNAL LINE
 ◻◻◻ : FM OSC SIGNAL LINE ◻ : FM SIGNAL LINE ■■■ : AM OSC SIGNAL LINE



SCHEMATIC DIAGRAM - 5

B MAIN CIRCUIT



SCHEMATIC DIAGRAM - 6

B MAIN CIRCUIT

— : +B SIGNAL LINE

▤ : AUX SIGNAL LINE

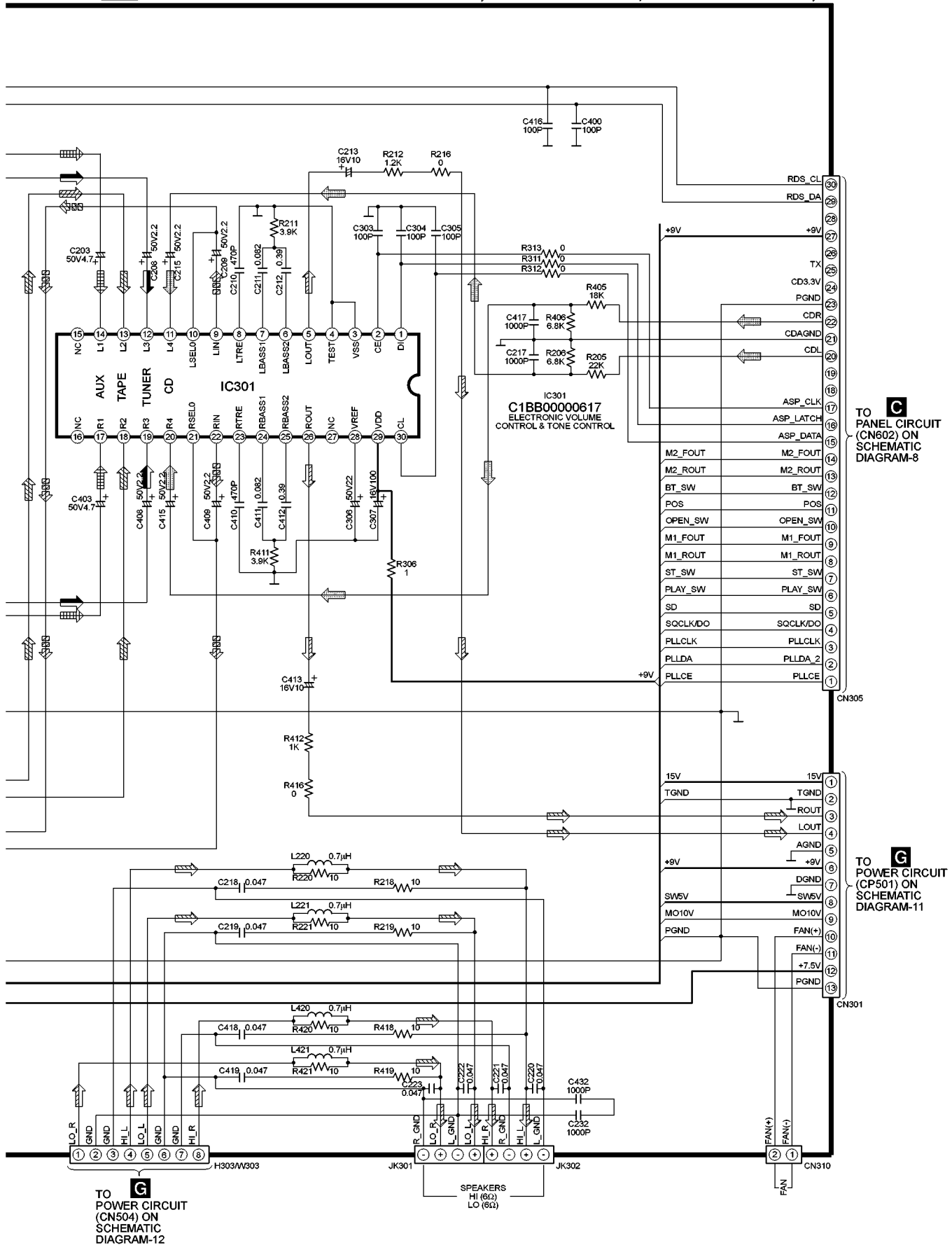
▥ : AM/FM SIGNAL LINE

▧ : PLAYBACK SIGNAL LINE

▨ : RECORD SIGNAL LINE

▩ : MAIN SIGNAL LINE

▪ : CD SIGNAL LINE

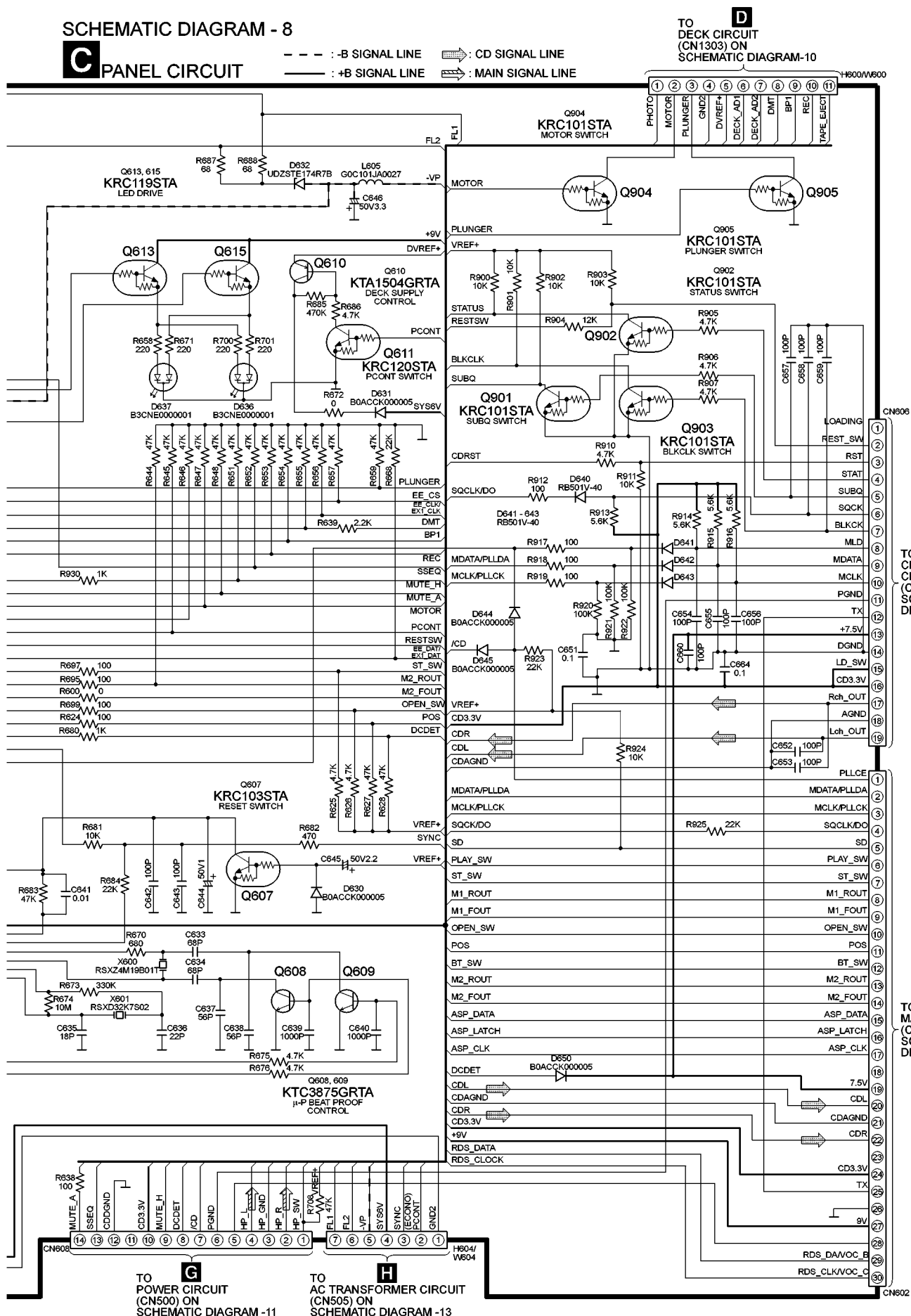




SCHEMATIC DIAGRAM - 8

C PANEL CIRCUIT

--- : -B SIGNAL LINE → : CD SIGNAL LINE
 --- : +B SIGNAL LINE → : MAIN SIGNAL LINE

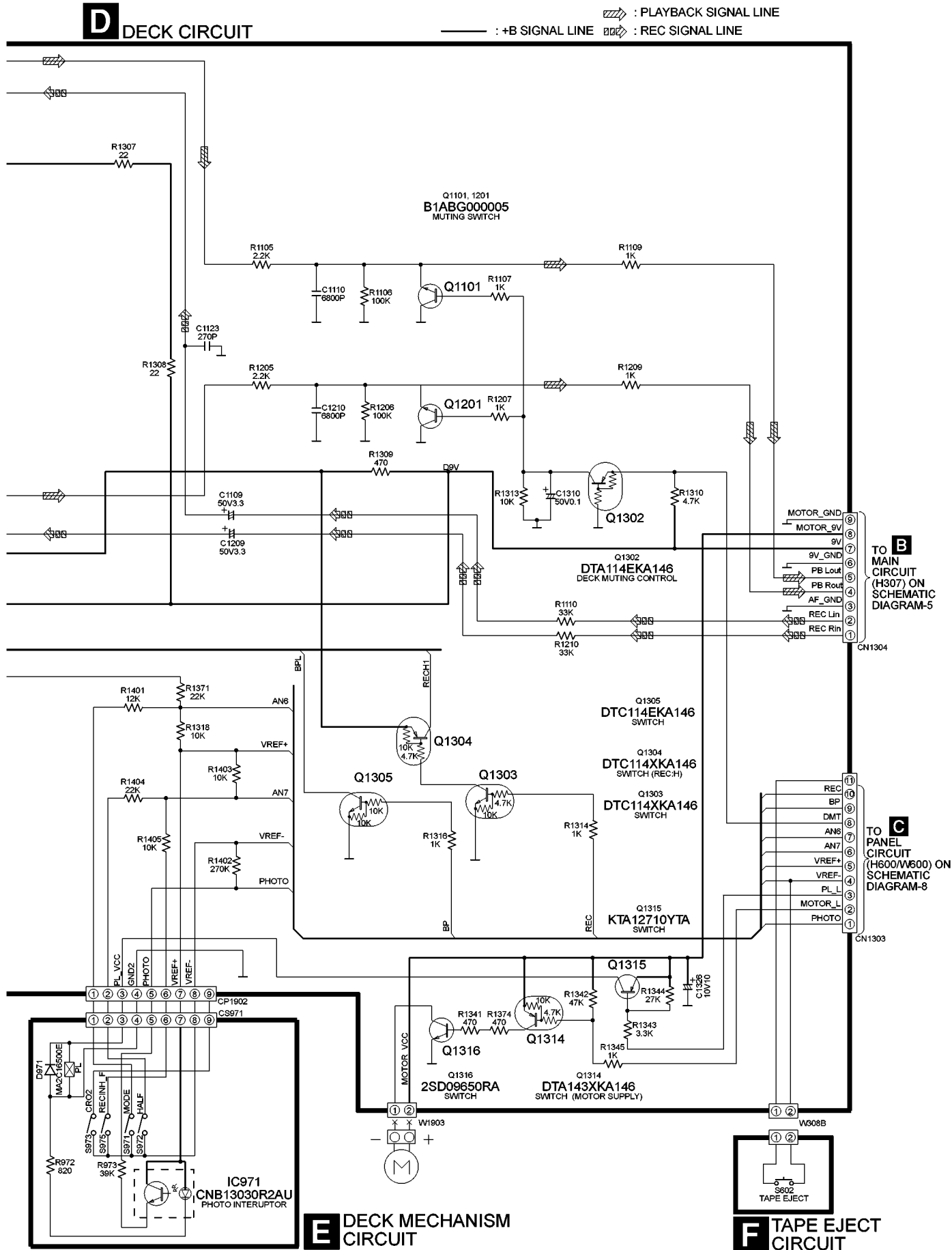


 : PLAYBACK SIGNAL LINE

———— : +B SIGNAL LINE  : REC SIGNAL LINE



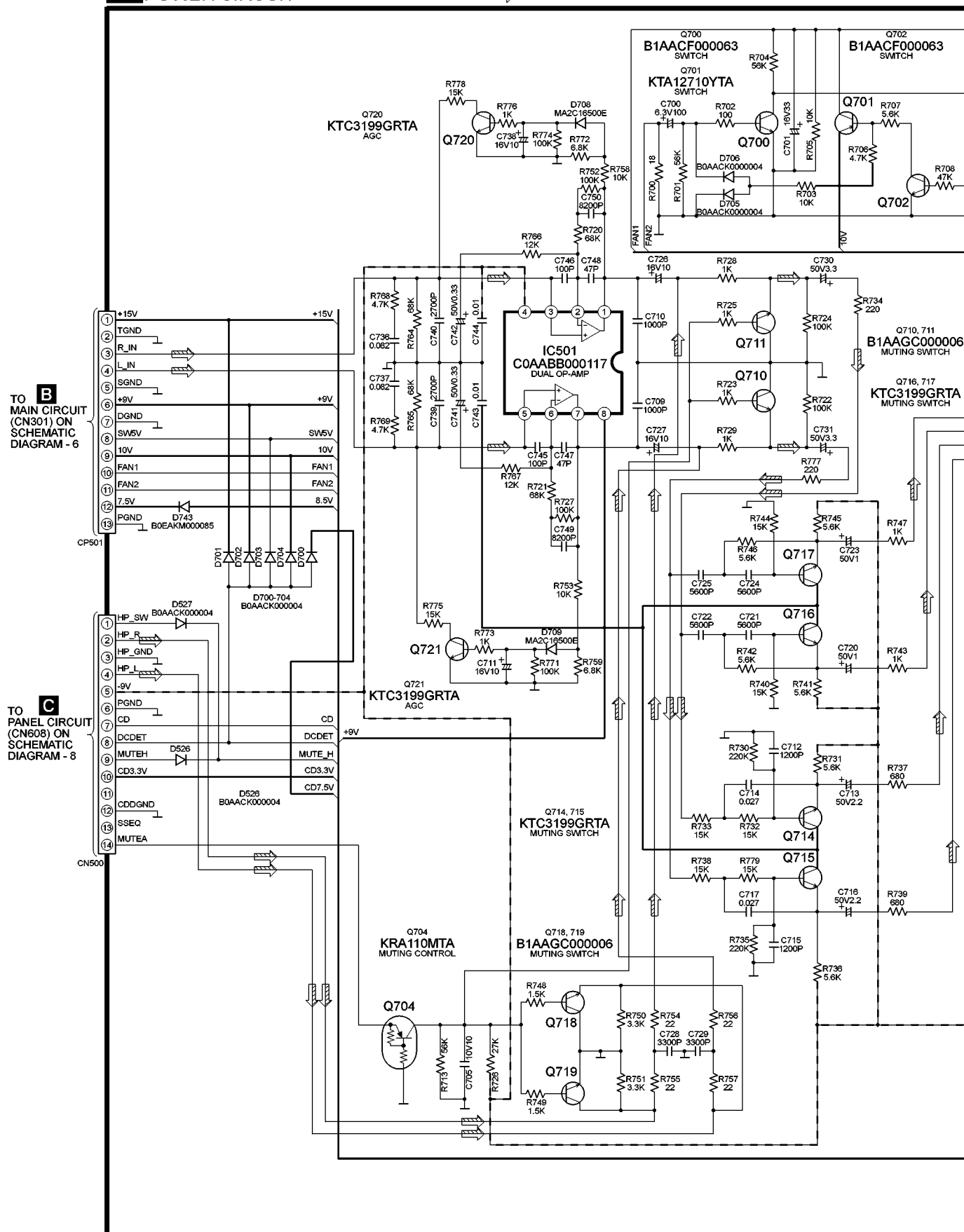
SCHEMATIC DIAGRAM-10

D DECK CIRCUIT

SCHEMATIC DIAGRAM - 11

G POWER CIRCUIT

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



SCHEMATIC DIAGRAM - 12

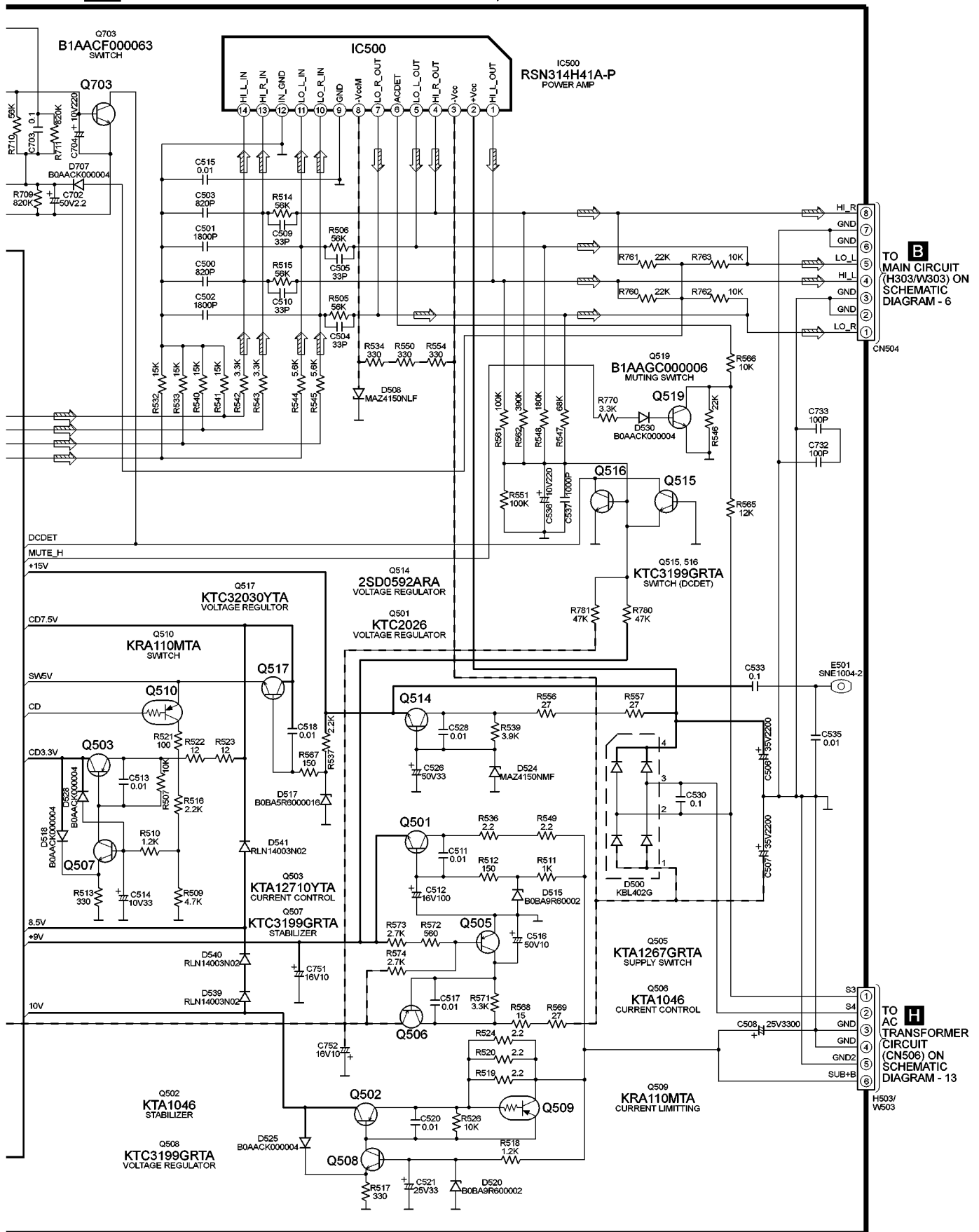


POWER CIRCUIT

--- : -B SIGNAL LINE

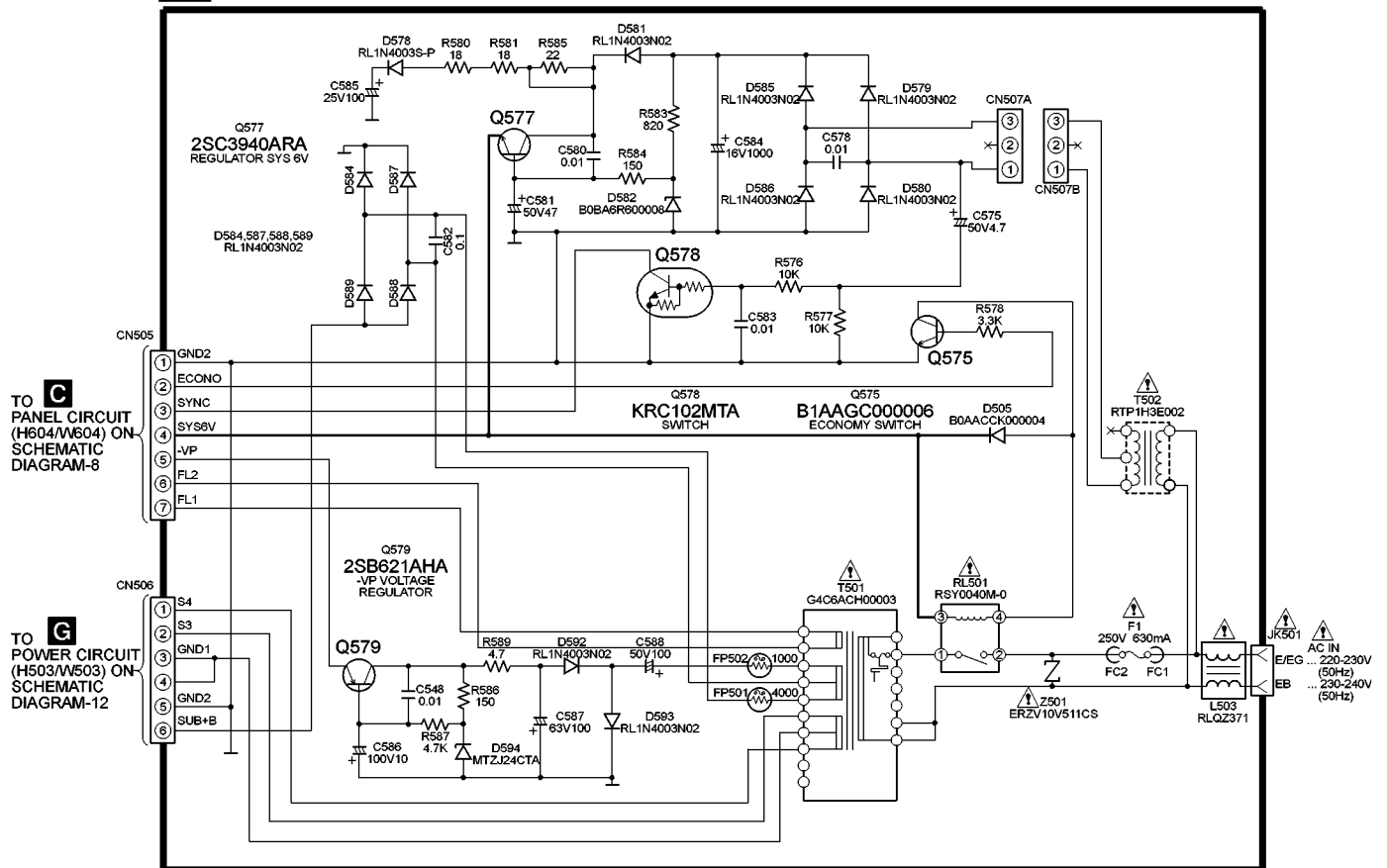
— : +B SIGNAL LINE

⇒ : MAIN SIGNAL LINE



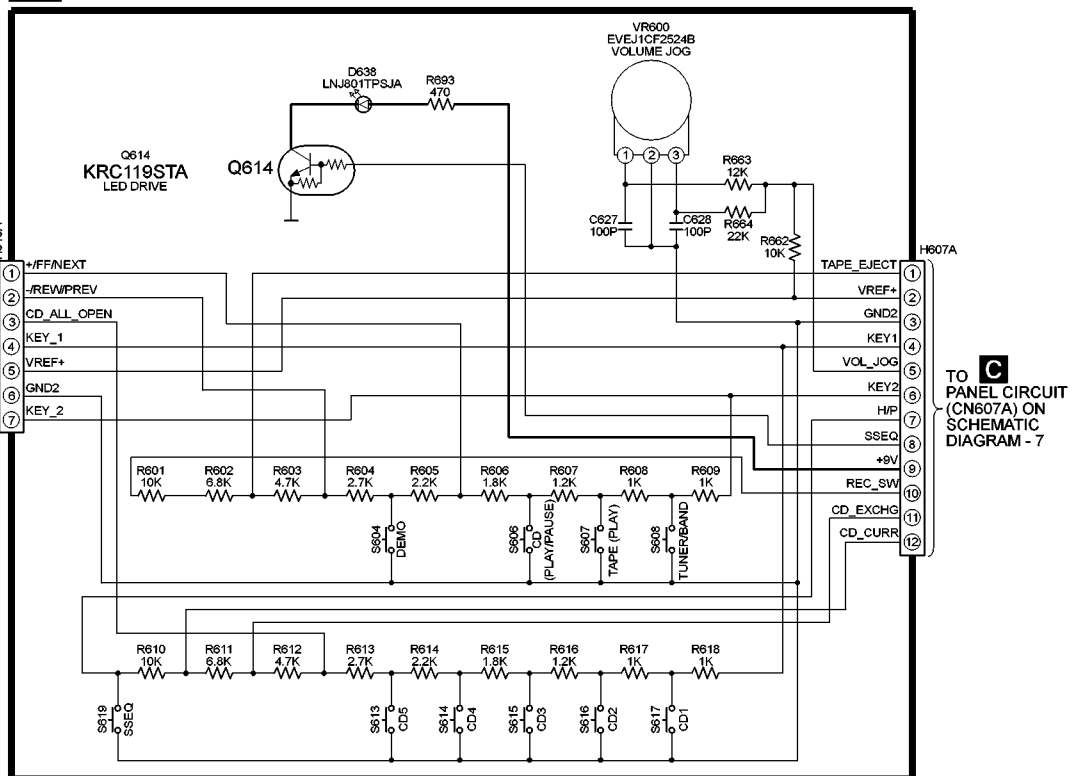
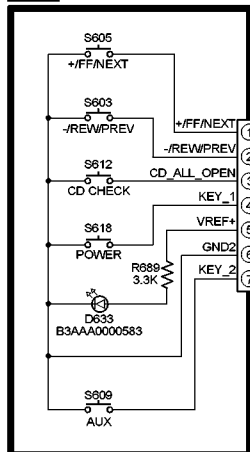
SCHEMATIC DIAGRAM-13

H AC TRANSFORMER CIRCUIT — : +B SIGNAL LINE

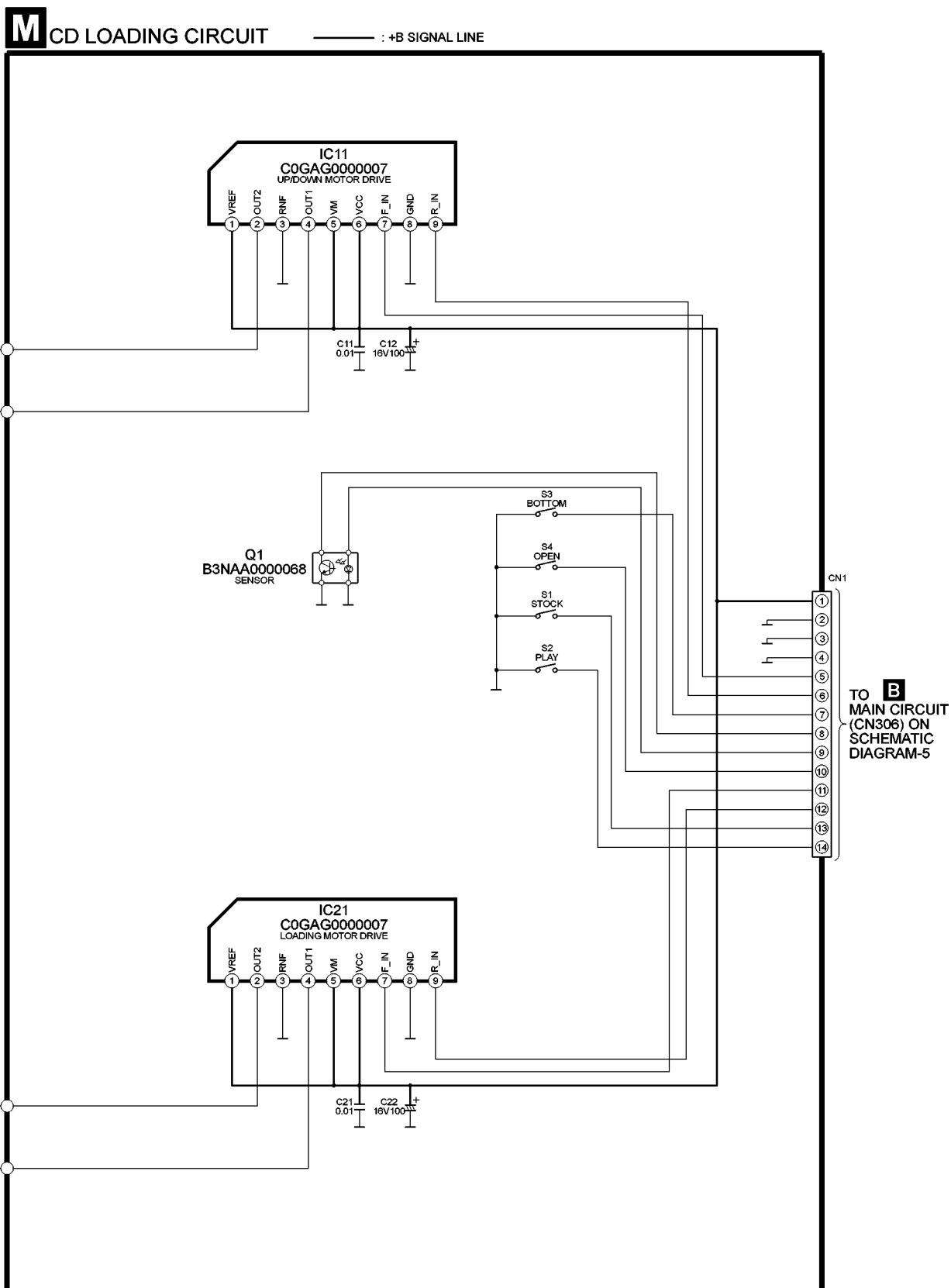


I TACT SWITCH CIRCUIT

J AC LED CIRCUIT

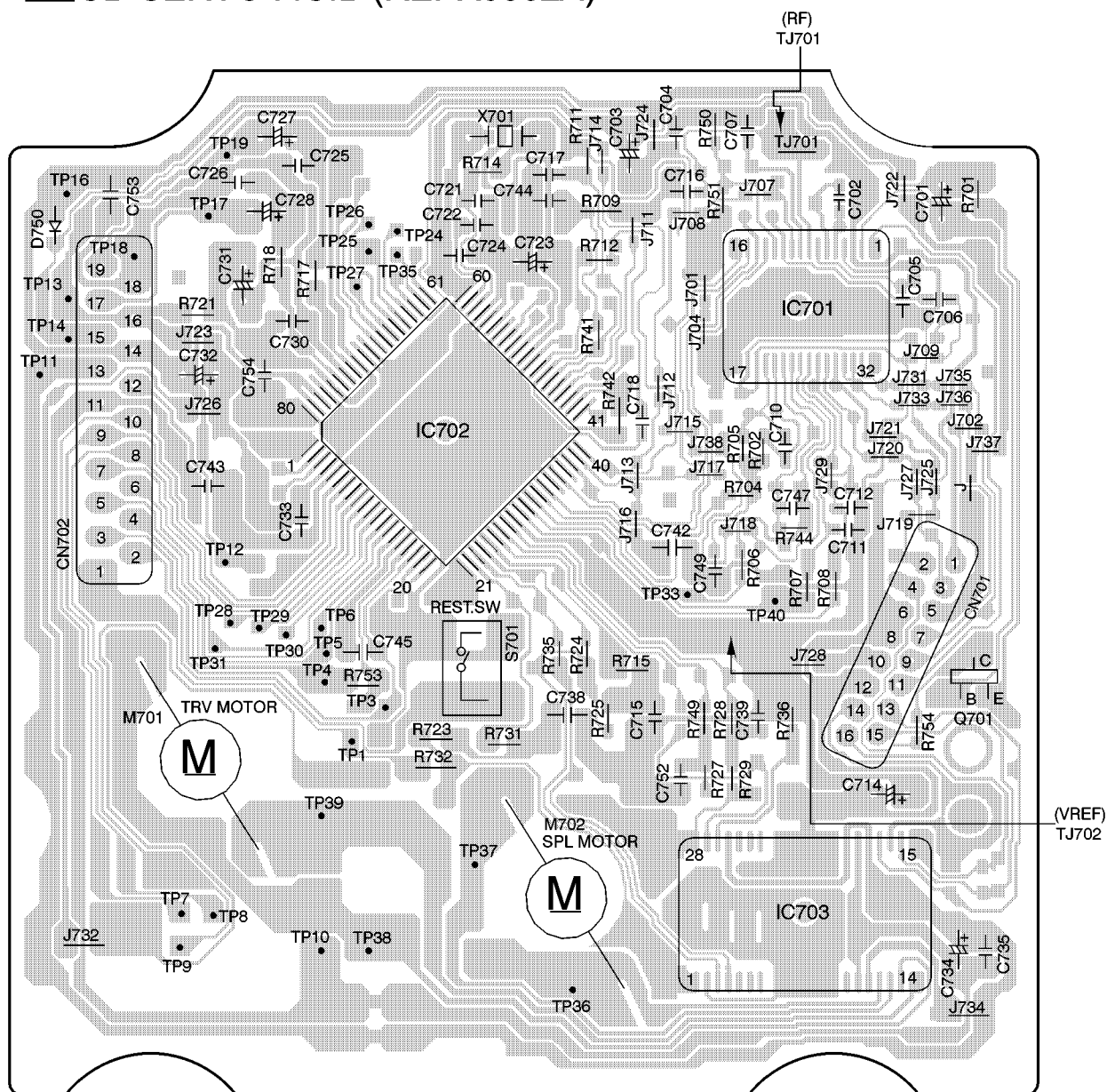


SCHEMATIC DIAGRAM-14

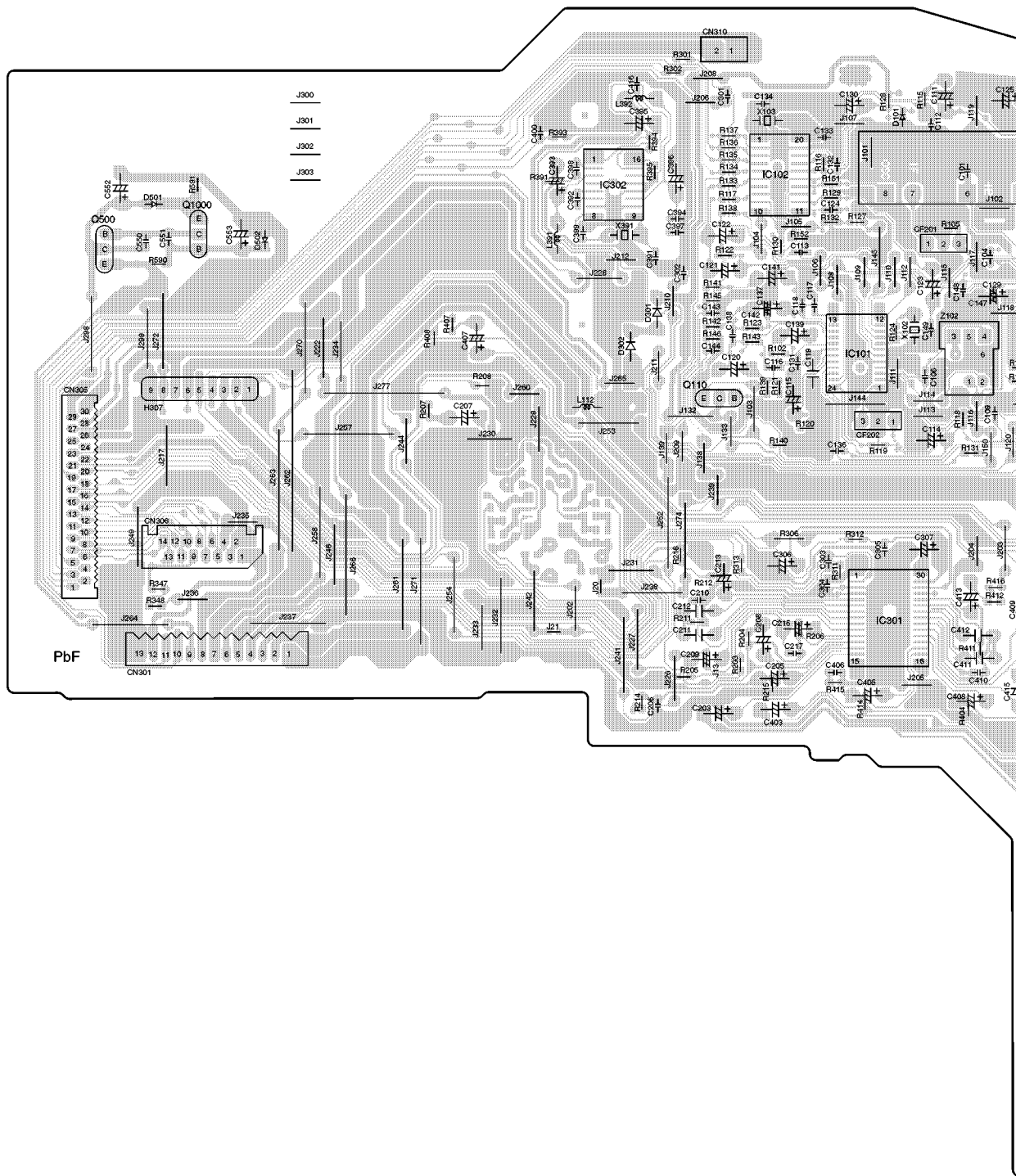


15 Printed Circuit Board

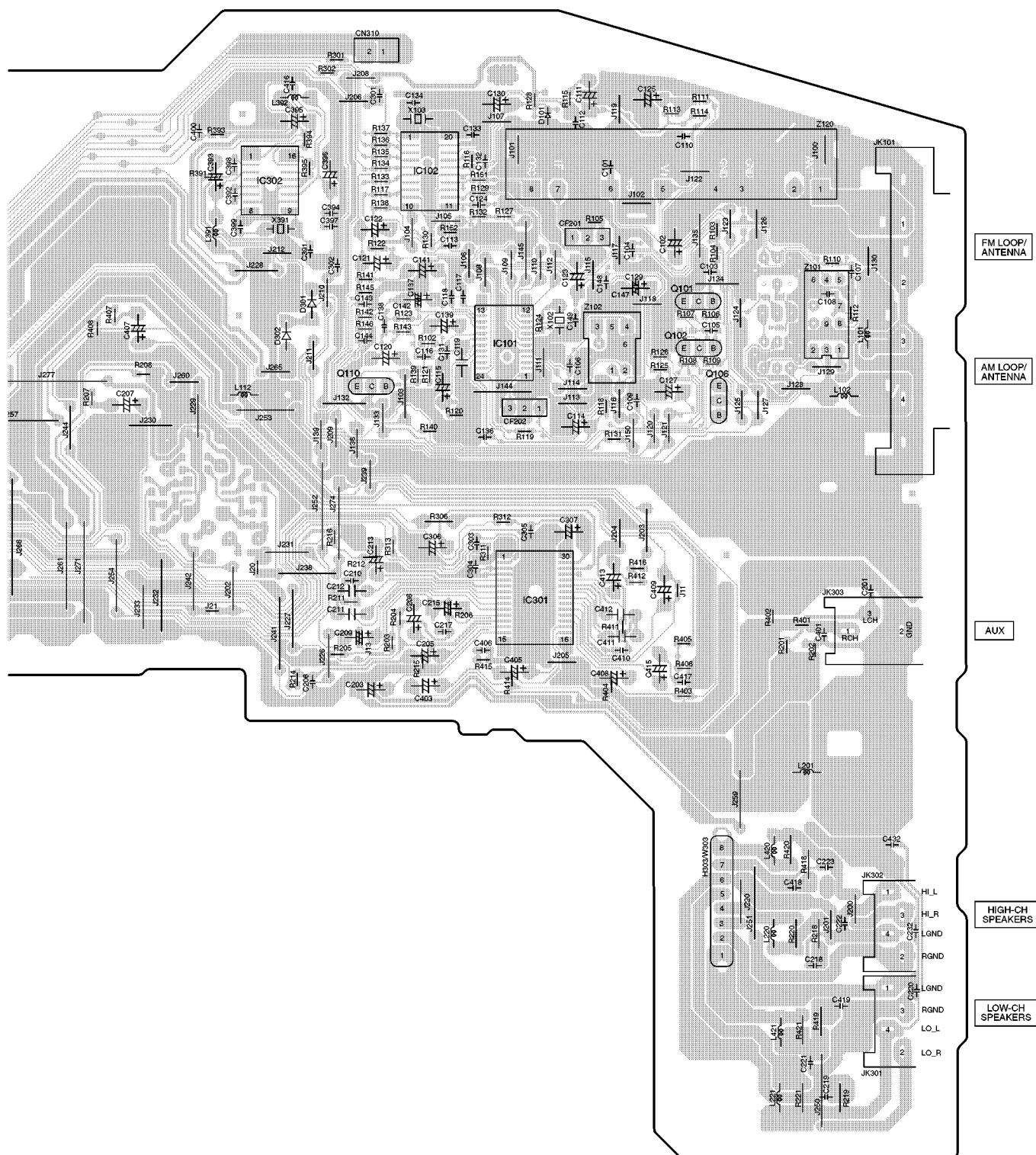
A CD SERVO P.C.B (REPX0362A)



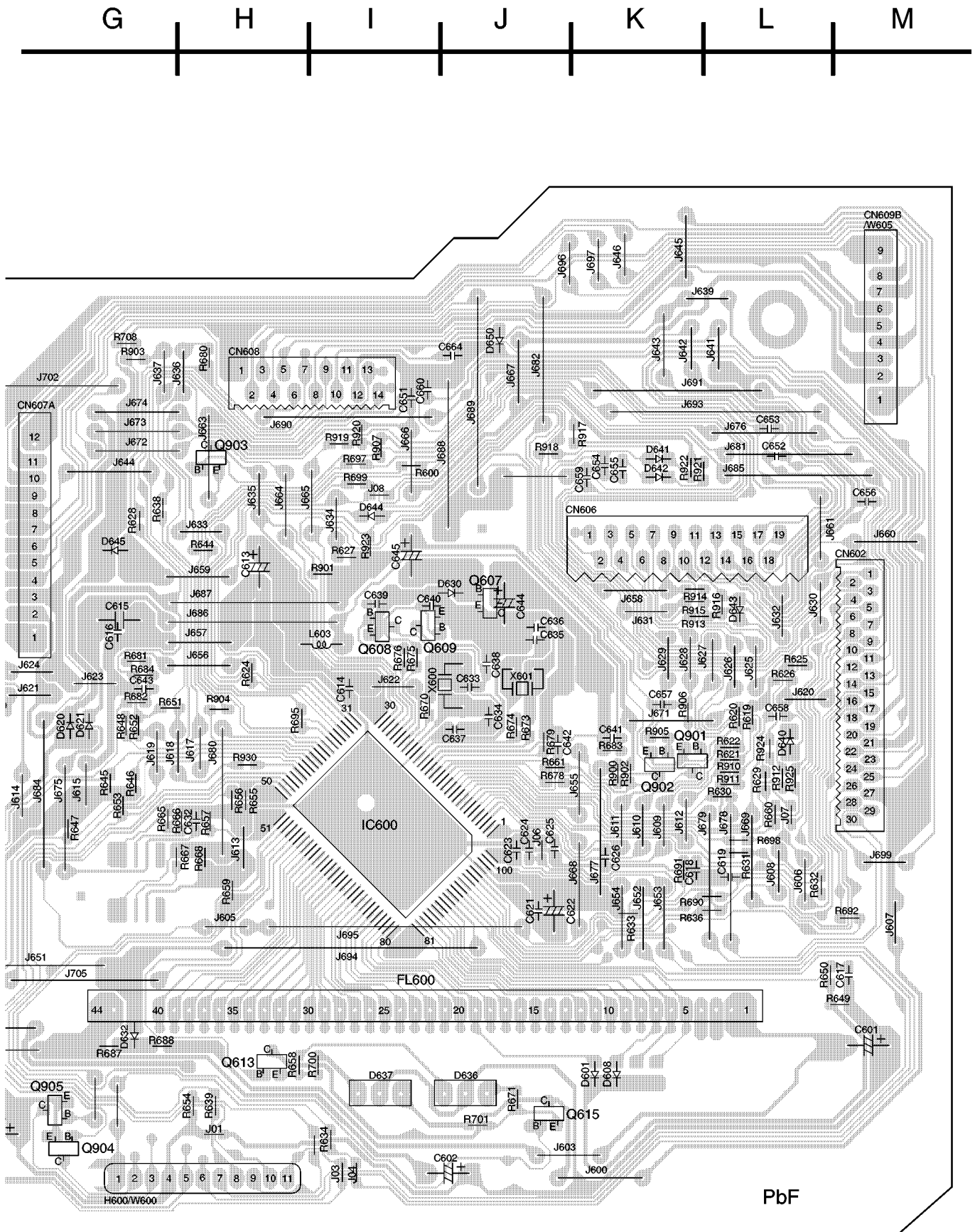
B MAIN P.C.B (REPX0349B)



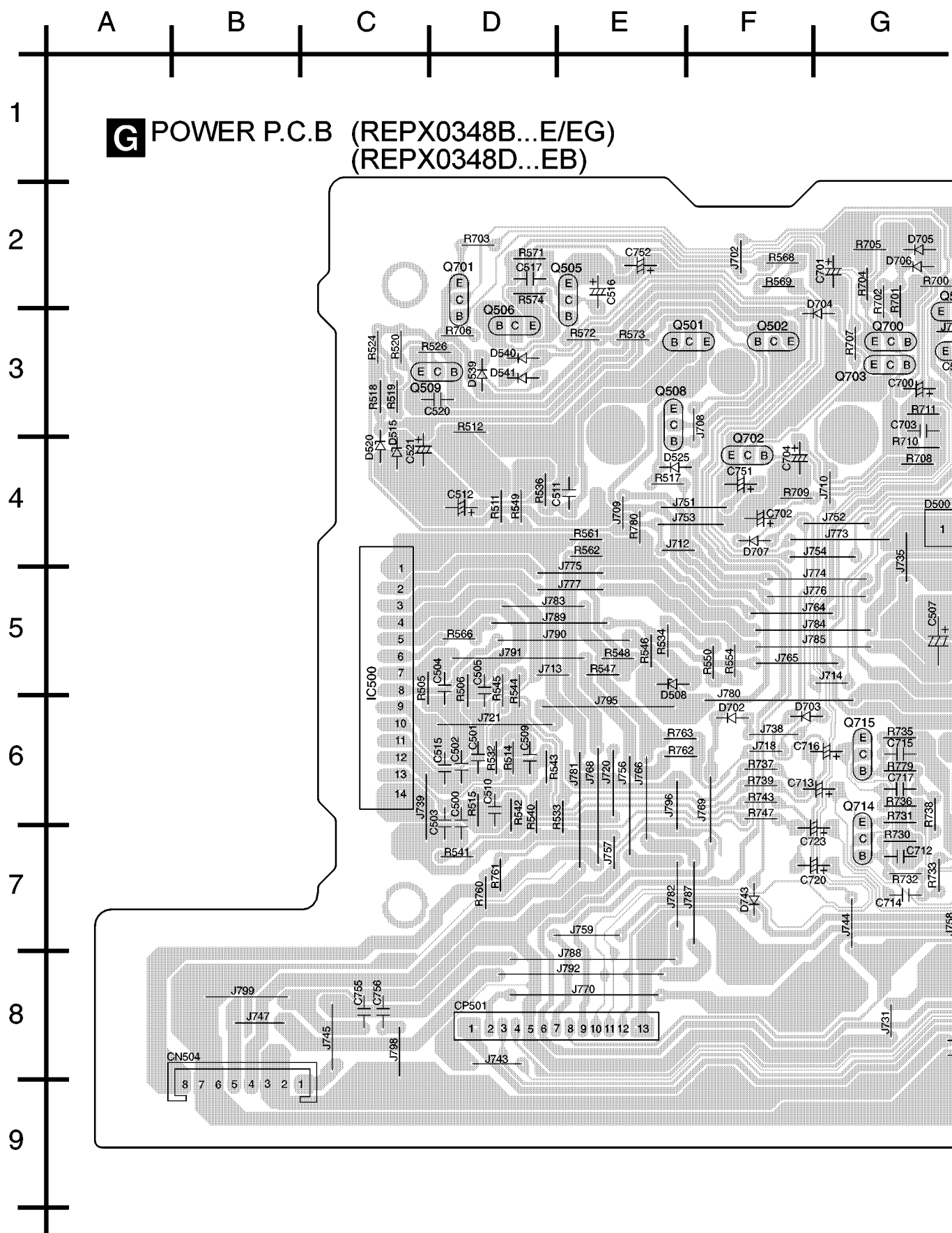
G | H | I | J | K | L | M



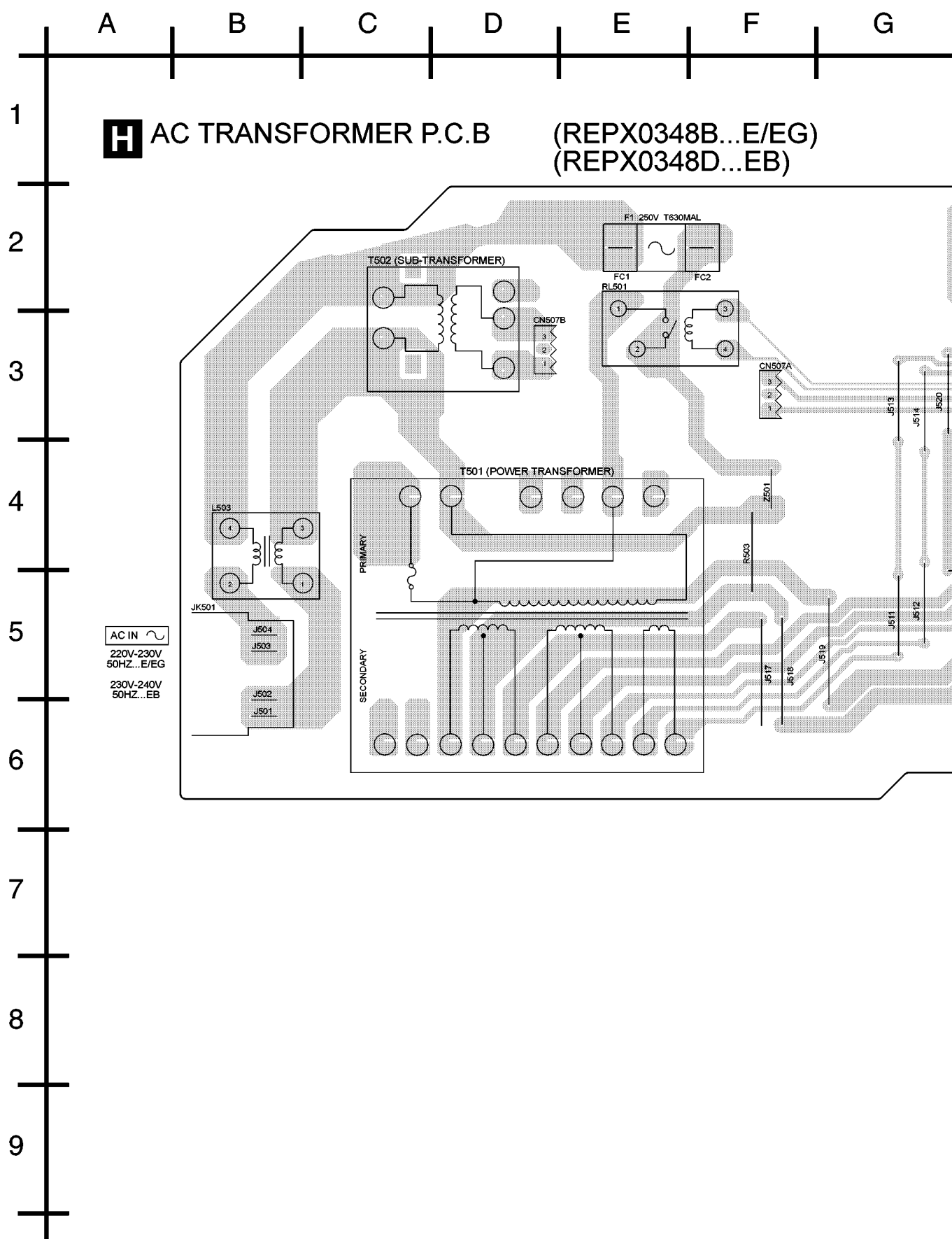




G POWER P.C.B (REPX0348B...E/EG)
(REPX0348D...EB)





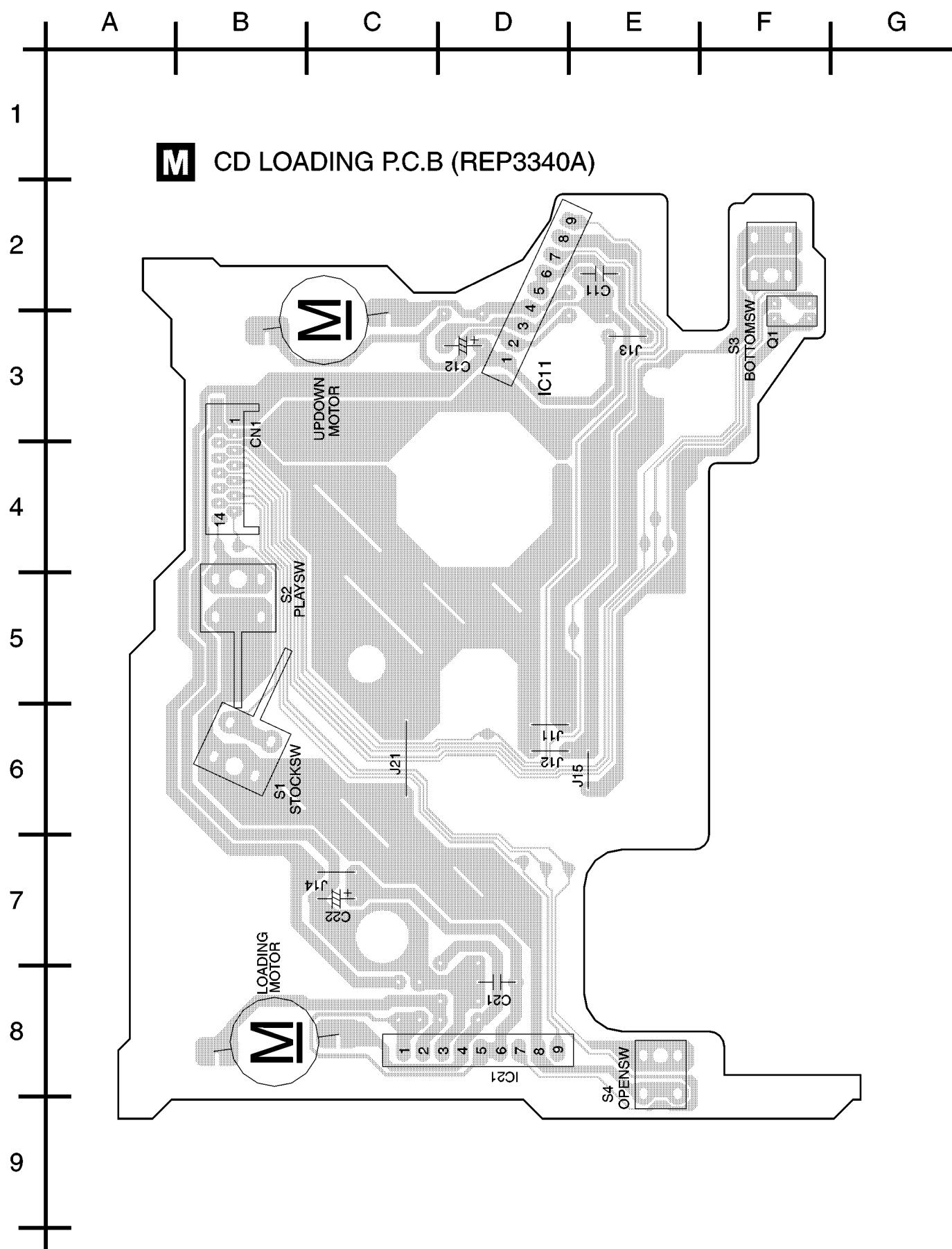




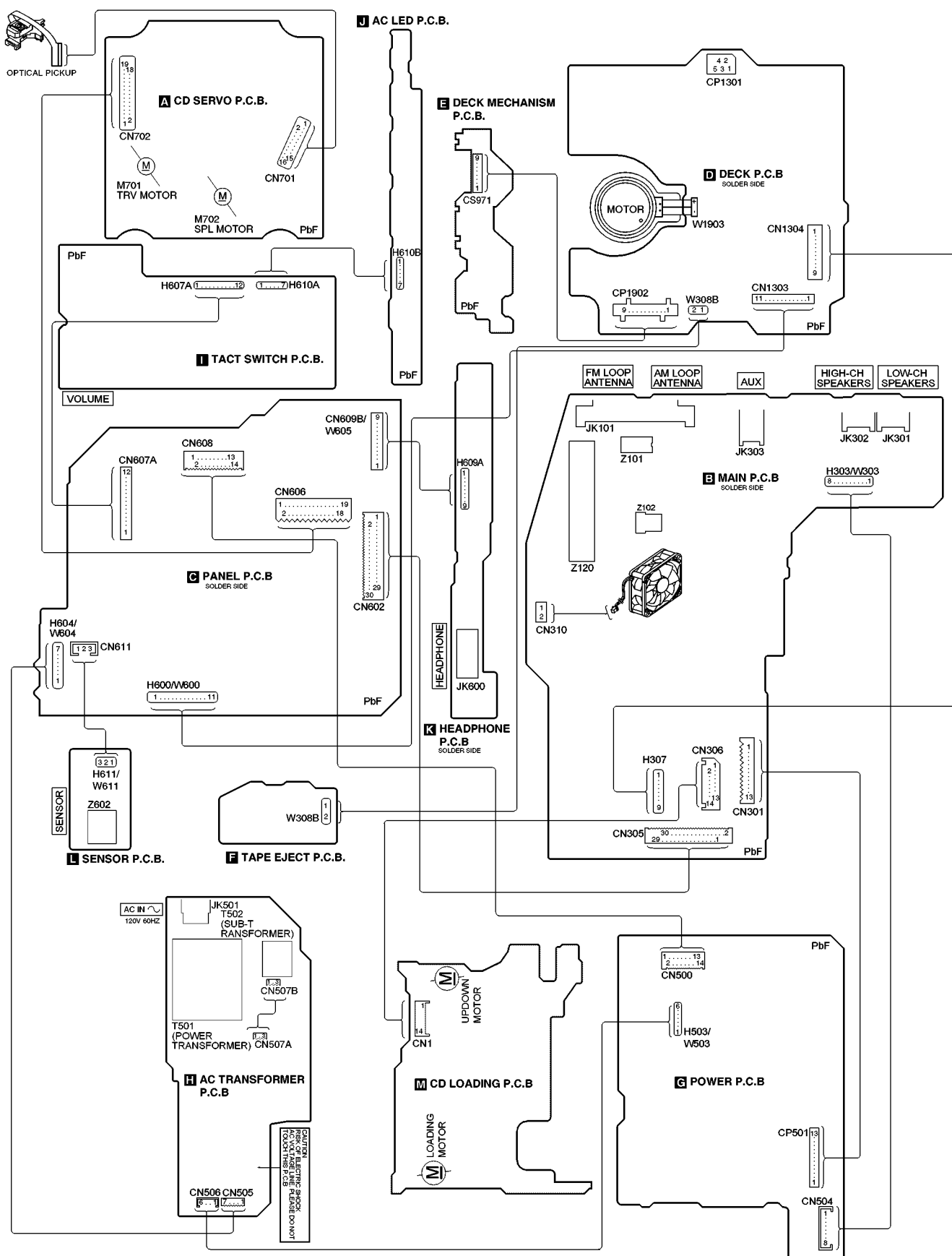
VOLUME



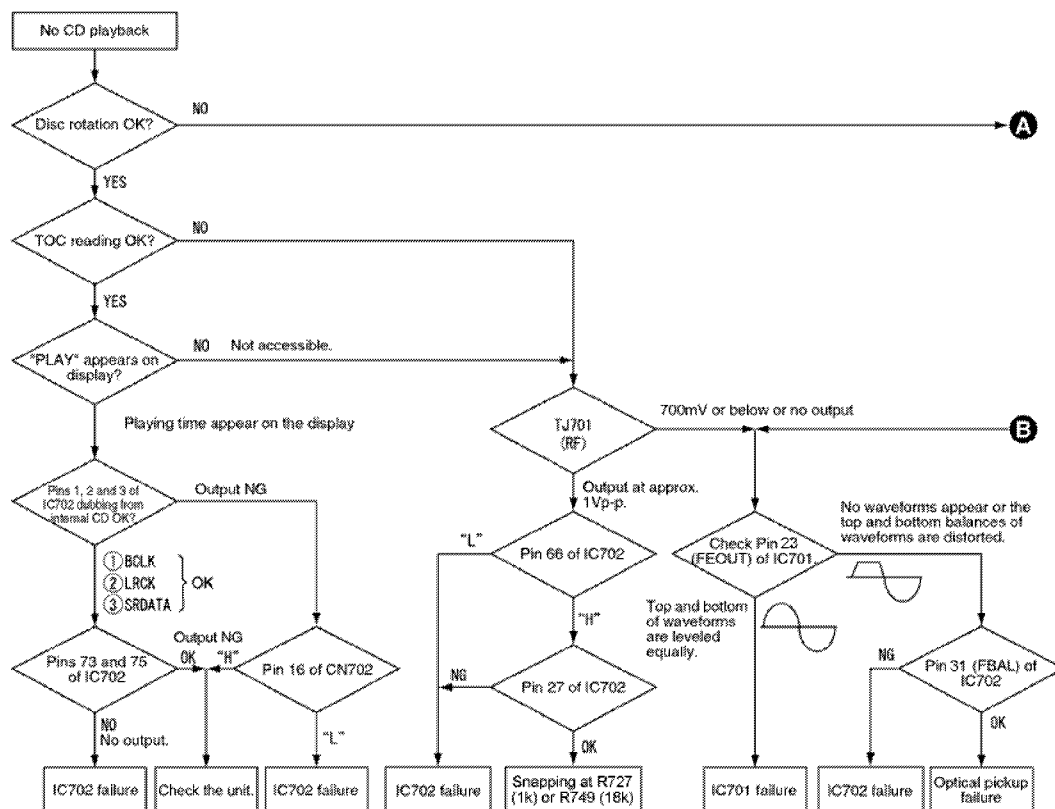


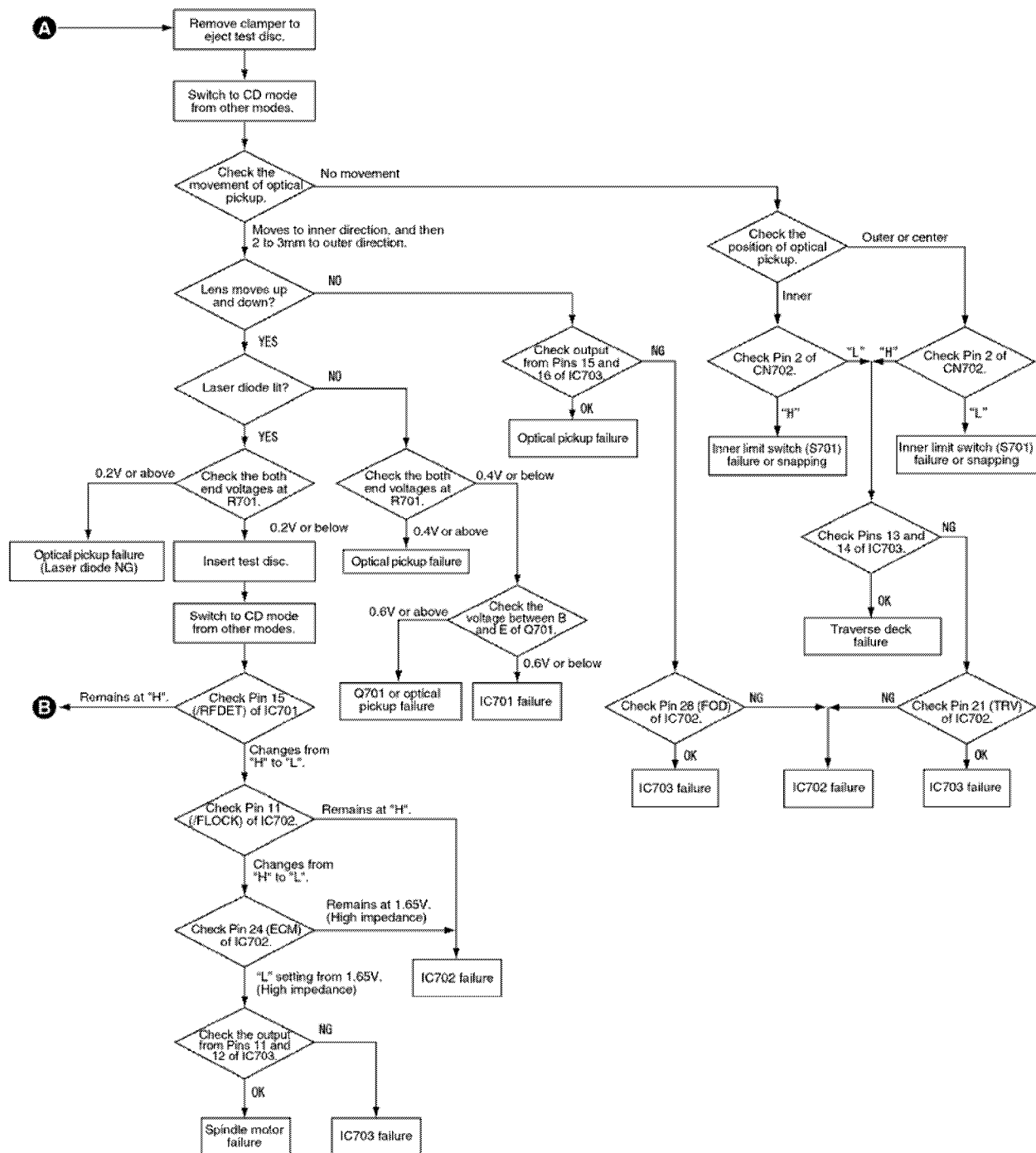


16 Wiring Connection Diagram

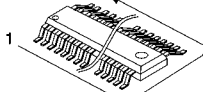
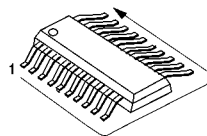
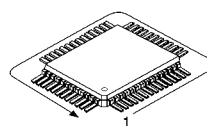
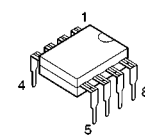
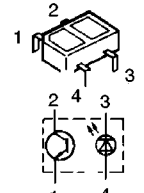
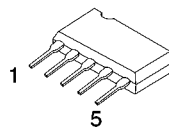
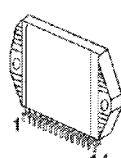
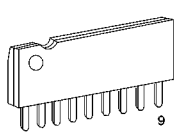
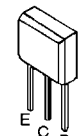
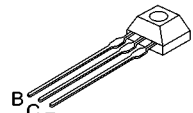
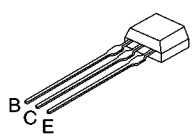
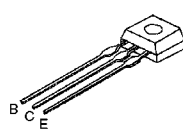
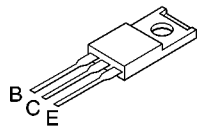
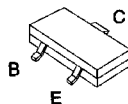
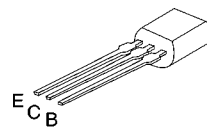
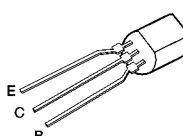
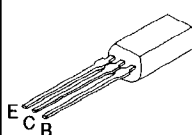
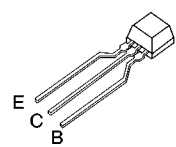
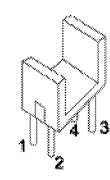
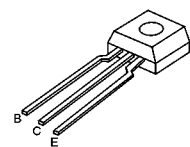
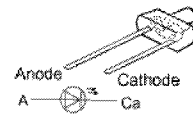
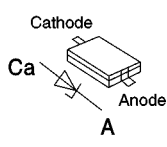
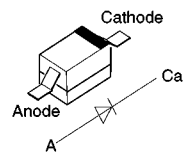
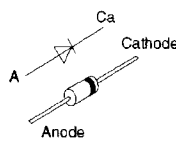
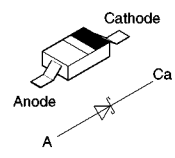
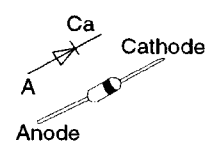
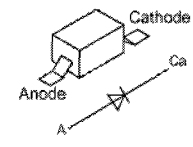
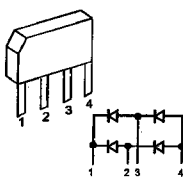
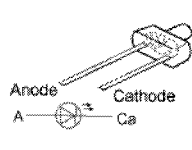
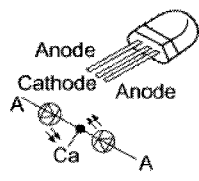
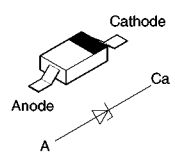
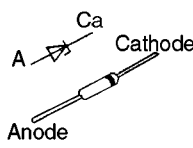
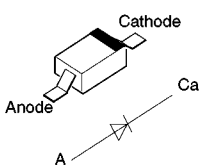


17 Troubleshooting Flowchart (CD Section Circuit)





18 Type Illustrations of ICs, Transistors & Diodes

BA5948FPE2 (28P) AN7326K (26P) 	AN22004A-NF (32P) C1BB00000617 (30P) C1BB00000715 (16P) LA1833NMNTLM (24P) LC72131MDTRM (20P) 	MN662790RSC(80P) C2BBGF000424(100P) 	C0AABB000117 	CNB13030R2AU 	
C1AA00000612 	RSN314H41A-P 	C0GAG0000007 	2SC2058SPTA 2SC2784FTA 	KRA102MTA KRC102MTA KRA110MTA 	B1AAGC000006 
KTC3199GRTA 	KTA1046 KTC2026 	B1ABGC000005 KTC3875GRTA KRC101STA KRC102STA KRC103STA KRC119STA 2SA1037AKSTX 2SC2412KT96R 	DTA114EKA146 DTA143XKA146 DTC143XKA146 DTC114EKA146 	2SD0592ARA 2SD09650RA KTA12710YTA KTA1504GRTA KTC32030YTA KTA1267GRTA 	
2SB0621AHA 	2SC3940ARA 	2SC3311ARTA 	B3NAA0000068 	B1AACF000063 	B3AAA0000583 
UDZSTE175R1B UDZSTE177R5B 	UDZSTE174R7B 	RL1N4003N02 	B0ACCK000005 	B0AACK000004 MA2C16500E 	RB501V-40 
KBL402G 	LNJ801TPSJA 	B3CNE0000001 	MAZ80560ML 	B0BA5R600016 B0BA9R600002 B0BA6R600008 MAZ4150NLF MAZ4150NMF MTZJ24CTA 	
1SS380TE-17 					

19 Terminal Function of IC's

19.1. IC701 (AN22004A-NF) Servo Amplifier

Pin No.	Mark	I/O	Function
1	LPD	I	APC Amp input terminal
2	LD	O	APC Amp. output terminal
3	VCC	I	Power source terminal
4	EQSW	-	Equalizer switch terminal
5	RFOUT	O	RF summing Amp output terminal
6	RFIN	I	AGC input terminal
7	AGC	-	AGC loop filter connecting capacitor terminal
8	AGC	O	AGC output terminal
9	HPF-AMP	-	HPF Amp connecting capacitor terminal
10	3TOUT	O	3TOUT output terminal
11	HPFDET	-	Detection system's HPF connecting capacitor terminal
12	OFTCNT	-	PFTR detection level adjustment terminal
13	BDO	O	BDO output terminal
14	OFTR	O	OFTR output terminal
15	/RFDET	O	NRFDET output terminal

Pin No.	Mark	I/O	Function
16	LDON	-	LDON terminal
17	GND	-	Earth terminal
18	EQBST	-	Equalizer boost adjustment terminal
19	VREF	O	VREF output terminal
20	TEN	I	Amp inverting input terminal
21	TEOUT	O	TE amp output terminal
22	FEN	I	Amp inverting input terminal
23	FEOUT	O	FE amp output terminal
24	GCTL	-	GCTL terminal
25	FBAL	I	FBAL control terminal
26	TBAL	I	TBAL control terminal
27	E	O	Tracking signal input terminal 1
28	F	O	Tracking signal input terminal 2
29	D	O	Tracking signal input terminal 4
30	B	O	Tracking signal input terminal 2
31	C	O	Tracking signal input terminal 3
32	A	O	Tracking signal input terminal 1

19.2. IC702 (MN662790RSC) Servo processor/ Digital signal processor/ Digital filter/ D/A converter

No.	Mark	I/O	Function
1	BCLK	O	N.C.
2	LRCK	O	N.C.
3	SRDATA	O	N.C.
4	DVDD1	I	Power supply input (for digital circuit)
5	DVSS1	I	GND (for digital circuit)
6	TX	O	Digital audio interface signal output (Latches data at first transition)
7	MCLK	I	Microprocessor command/clock signal input
8	MDATA	I	Microprocessor command data signal input
9	MLD	I	Microprocessor command load signal input
10	SENSE	O	Sense signal output (OFT, FESL, MADGEND, NAJEND, POSAD, SFG) (Not used, open)
11	/FLOCK/	O	Focus servo feeding signal output ("L": Feed)
12	/TLOCK	O	Tracking servo feeding signal output ("L": Feed)
13	BLKCK	O	Sub-code block clock signal output (BLKCKf = 75Hz during normal playback)
14	SQCK	I	External clock signal input for sub-code Q resistor
15	SUBQ	O	Sub-code Q code output
16	DMUTE	I	Muting input ("H": mute)
17	STAT	O	Status signal output (CRC, CUE, CLVS, TTSTVP, FCLV, SQCK)
18	/RST	I	Reset signal input
19	SMCK	O	1/2-divided clock signal of crystal oscillating at MSEL = "H" (fSCMK = 8.4672 MHz) 1/4-divided clock signal of crystal oscillating at MSEL = "L" (fSMCK = 4.2336 MHz)
20	CSEL	I	Frequency Selection Terminal H = 33.8688 MHz; L = 16.9344 MHz
21	TRV	O	N.C.
22	TVD	O	Traverse drive output
23	PC	O	Spindle motor ON output ("L": ON)
24	ECM	O	Spindle motor drive signal output (forced mode output)
25	ECS	O	Spindle motor drive signal output (servo error signal output)
26	KICK	O	N.C.
27	TRD	O	Tracking drive output
28	FOD	O	Focus drive output
29	VREF	I	D/A (drive) output (TVD, ECS, TRD, FOD, FBAL, TBAL) Reference voltage input
30	FBAL	O	Focus balance adjustment output
31	TBAL	O	Tracking balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input

No.	Mark	I/O	Function
35	VDET	I	Vibration detection signal input ("H": detection)
36	OFT	I	Off-track signal input ("H": off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal input ("L": detection)
39	BDO	I	Dropout signal input ("H": Dropout)
40	LDON	O	Laser on signal output ("H": ON)
41	PLL2	I/O	N.C.
42	DSL2	O	Tracking Offset alignment output/DSL Balance Output (DA Output)
43	WVEL	O	N.C.
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias terminal (Not used, open)
47	DSL	I/O	DSL loop filter terminal
48	PLL	I/O	PLL loop filter terminal
49	VCOF	I/O	VCO loop filter terminal
50	AVDD2	I	Power supply input (for analog circuit)
51	AVSS2	I	GND (for analog circuit)
52	EFM	-	EFM signal output
53	PCK	-	PLL extraction clock output (fPCK = 4.321 MHz during normal playback)
54	VCOF2	I/O	VCO Loop filter for 33.8688 MHz conversion terminal for 16.9344 MHz crystal mode, must use other circuit
55	SUBC	O	Sub-code serial data output
56	SBCK	I	Clock input for sub-code serial data
57	VSS	I	GND
58	X1 IN	I	Crystal oscillating circuit input (f = 16.9344 MHz)
59	X2 OUT	O	Crystal oscillating circuit input (f = 16.9344 MHz)
60	VDD	I	Power supply input (for oscillating circuit)
61	BYTCK	-	Byte clock output
62	/CLDCK	-	Sub-code frame clock signal output (fCLDCK = 7.35 kHz during normal playback)
63	FCLK	-	Crystal frame clock signal output (fCLK = 7.35 kHz, double = 14.7 kHz)
64	IPFLAG	-	Interpolation flag output ("H": Interpolation)
65	FLAG	-	Flag output
66	CLVS	-	Spindle servo phase synchronizing signal output ("H": CLV, "L": rough servo)
67	CRC	-	Sub-code CRC checked output ("H": OK, "L": NG)
68	DEMPH	-	De-emphasis ON signal output ("H": ON)
69	RESY	-	Frame re-synchronizing signal output
70	IOSEL	I	Mode Switching Terminal
71	/TEST	I	Test input
72	AVDD1	I	Power supply input (for analog circuit)

No.	Mark	I/O	Function
73	OUTL	O	Left channel audio signal output
74	AVSS1	I	GND
75	OUTR	O	Right channel audio signal output
76	RSEL	I	RF signal polarity assignment input (at "H" level, RSEL="H", at "L" level, RESL = "L")

No.	Mark	I/O	Function
77	IOVOD	I	5V supply input
78	PSEL	I	Test terminal (connected to Gnd)
79	MSEL	I	SMCK oscillating frequency designation input ("L": 4.2336 MHz, "H": 8.4672 MHz)
80	SSEL	I	SUBQ output mode select ("H": Q-code buffer mode)

19.3. IC703 (BA5948FPE2) Focus coil/ Tracking coil/ Traverse motor/ Spindle motor driver

No.	Mark	I/O	Function
1	IN2	I	Motor Drive (2) input
2	PC2	I	Turntable motor drive signal (:L": ON)
3	IN1	I	Motor driver (1) input
4	PC1	I	Spindle motor On/Off
5	NC	-	N.C.
6	NC	-	N.C.
7	NC	I	N.C.
8	NC	-	N.C.
9	PGND1	-	Ground connection (1) for driver
10	PVCC1	I	Power supply (1) for driver
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	Motor driver (3) forward-action output
17	D4-	O	Motor driver (4) reverse-action output
18	D4+	O	Motor driver (4) forward-action output
19	PVCC2	I	Power supply (2) for driver
20	PGND2	-	Ground connection (2) for driver
21	NC	-	N.C.
22	NC	-	N.C.
23	NC	-	N.C.
24	NC	-	N.C.
25	VCC	I	Power supply terminal
26	VREF	I	Reference voltage input
27	IN4	I	Motor driver (4) input
28	IN3	I	Motor driver (3) input

Pin No.	Mark	I/O	Function
11	BOTTOM	I	BOTTOM SWITCH
12	ST/DO/SQCK	I/O	Tuner IF Data/Stereo Input/CD Sub Code Clock Output
13	SD	I	Tuner Signal Detect Input
14	SUBQ	I	CD Sub Code Data Input
15	RDS_CLOCK	I	RDS Clock Input (See region setting for details)
16	RDS_DATA	I	RDS Data Input (See region setting for details)
17	CNVSS	-	Flash Mode Terminal (Connect To 10K ohm)
18	/RESET	-	Reset Input
19	XCout	-	32.768 kHz Sub Clock
20	XCin	-	32.768 kHz Sub clock
21	VSS	-	Ground (0V)
22	Xin	-	4.19 MHz Main Clock
23	Xout	-	4.19MHz Main Clock
24	VCC	-	Power Supply (+5)
25	MBP1	O	Microcomputer Beat Proof Output 1
26	MBP2	O	Microcomputer Beat Proof Output 2
27	MCLK/PLLCK	O	CD command Clock Output/Tuner PLL Clock Output
28	MDATA/ PLLDA	O	CD command Data Output/ Tuner PLL Data Output
29	RMT	I	Remote Control Input
30	BLKCK	I	CD Block Clock Input
31	MLD/PLLCE	O	CD Command Load Output/ Tuner PLL Chip Enable
32	SYNC	I	AC Failure Detect Input
33	DCDET	I	DC Detect Input
34	POSITION	I	POSITION SWITCH
35	OPEN	I	OPEN SWITCH
36	M2_FOUT	O	CHANGER MOTOR 2 FORWARD CONTROL
37	M2_ROUT	O	CHANGER MOTOR 2 REVERSE CONTROL
38	STOCK_SW	I	STOCK SWITCH
39	EE_DATA	O	EEPROM DATA
40	REST_SW	I	CD Limit SW Input for the Most Inner Point (Active Low)
41	PCONT	O	Main Transformer Control Output
42	CD_LED	O	LED Drive
43	MOTOR	O	Deck Motor Control Output L=Motor ON, H=Motor OFF
44	MUTEA	O	Audio Mute
45	MUTEH	O	HIC Mute
46	N.C.	O	No Connection
47	REC	O	Record Circuit Control Output L=Record OFF, H=Record ON
48	BP1	O	AM Beatproof 1 Output L=BP1, H=BP2
49	DMT	O	Deck Mute Output L=Mute OFF, H=Mute ON
50	EE_CLK	O	EEPROM CLOCK

19.4. IC600 (C02BBGF000424) Micro Microprocessor

Pin No.	Mark	I/O	Function
1	DECK2	I	DECK2 input
2	N.C.	O	No Connection
3	KEY2	I	Key 2 input
4	KEY1	I	Key 1 input
5	VOL_JOG	I	Volume Jog AD Detection
6	CD\	O	CD unit power control
7	M1_FOUT	O	CHANGER MOTOR 1 FORWARD CONTROL
8	CDRST	O	CD Reset Output
9	STATUS	I	CD Signal Processor Status Input
10	M1_ROUT	O	CHANGER MOTOR 1 REVERSE CONTROL

Pin No.	Mark	I/O	Function
51	EE_CS	O	EEPROM Chip Select
52	GREEN	O	LED Drive
53	PLUNGER	O	Plunger Control Output L=Plunger ON, H=Plunger OFF
54	RED	O	LED Drive
55	SSEQ	O	SSEQ LED Control
56	N.C.	O	No Connection
57-80	SEG24-SEG1	O	SEGMENT DRIVE OUTPUT (ANODE DRIVE OUTPUT)
81-82	GRID8(REG8)- GRID7(REG7)	O	Digit Drive Output(Grid Drive Output) For region setting/ Function Selection use
83	GRID6	O	Grid Drive Output For region setting/ Function Selection use
84-88	GRID5(REG5)- GRID1(REG1)	O	Digit Drive Output(Grid Drive Output) For region setting/ Function Selection use
89	VEE	-	Power Supply (-30V)
90	REG_IN	I	Region and Function Setting Input
91	VOC_C	O	Karaoke Control C
92	VOC_B	O	Karaoke Control B
93	ASP_ LATCH	O	ASP CONTROL LATCH OUTPUT
94	PLAY_SW	I	PLAY SWITCH
95	ASP_CLK	O	ASP_CLK
96	ASP_DATA	O	ASP_DAT
97	AVss	-	Analog Ground (0V)
98	VREF	-	Reference for A-D
99	PHOTO	I	PHOTO (SG mechanism only)
100	DECK1	I	DECK_AD1

20 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-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of these components, be sure to use only manufacturers's specified parts shown in the parts list.

- The parenthesized indications in the Remarks column specify the areas or color. (Refer to the cover page for area or color.) 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".

ACHTUNG:

– Die Lasereinheit nicht zerlegen.

– Die Lasereinheit darf nur gegen eine vom Hersteller spezifizierte Einheit ausgetauscht werden.

- Capacitor values are in microfarad (μ F) unless specified otherwise, P=Pico-farads(pF); Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1,000(ohms).
- The marking (RTL) indicates that the Retention Time is limited for this item. 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 availability is dependant 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 that are 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

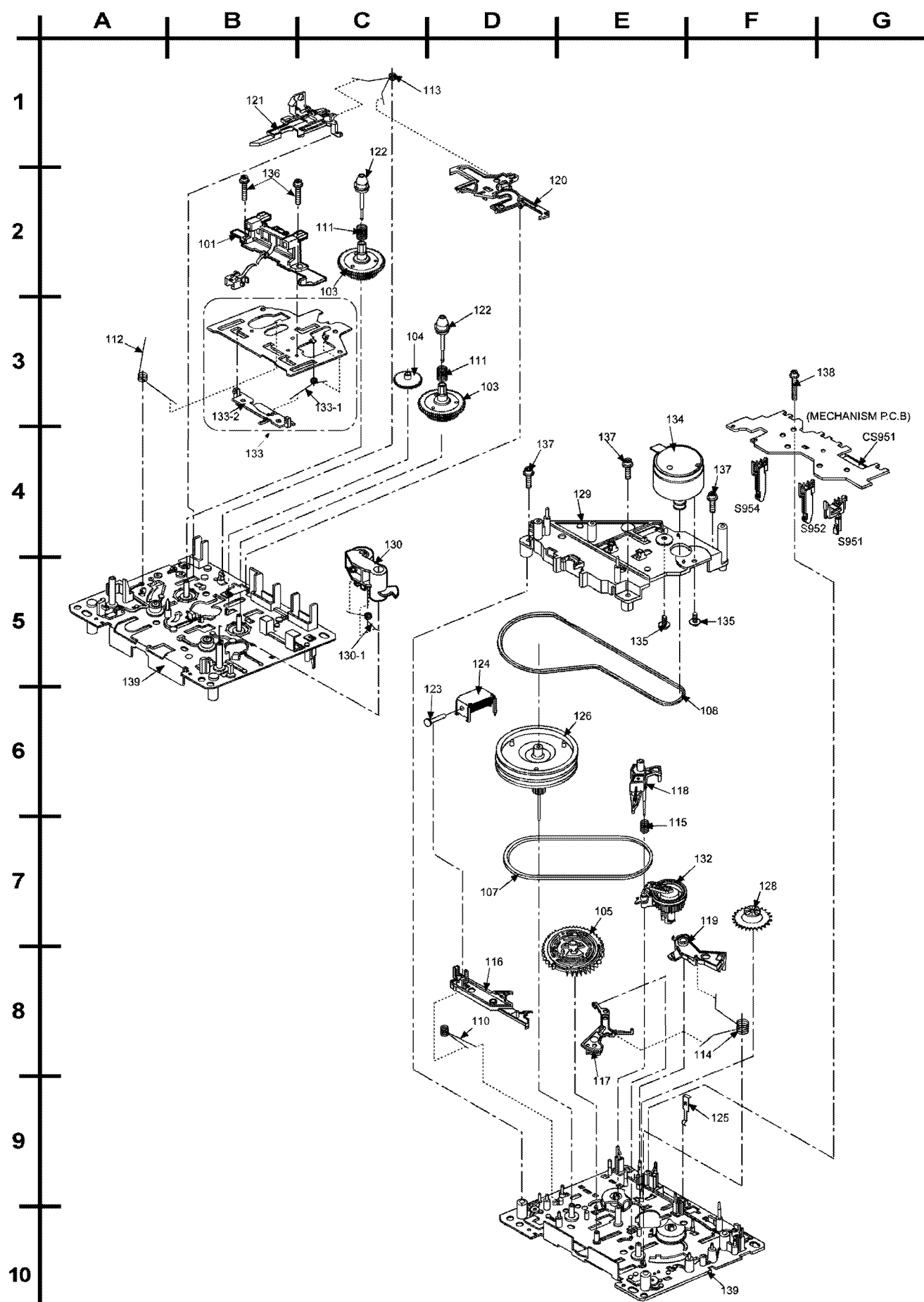
Cf : Canadian French
En : English
Ko : Korean
Sw : Swedish

Cz : Czech
Fr : French
Po : Polish
Co : Traditional Chinese

Da : Danish
Ge : German
Su : Russian
Cn : Simplified Chinese

20.1. Deck Mechanism (RAA4402-S)

20.1.1. Deck Mechanism Parts Location

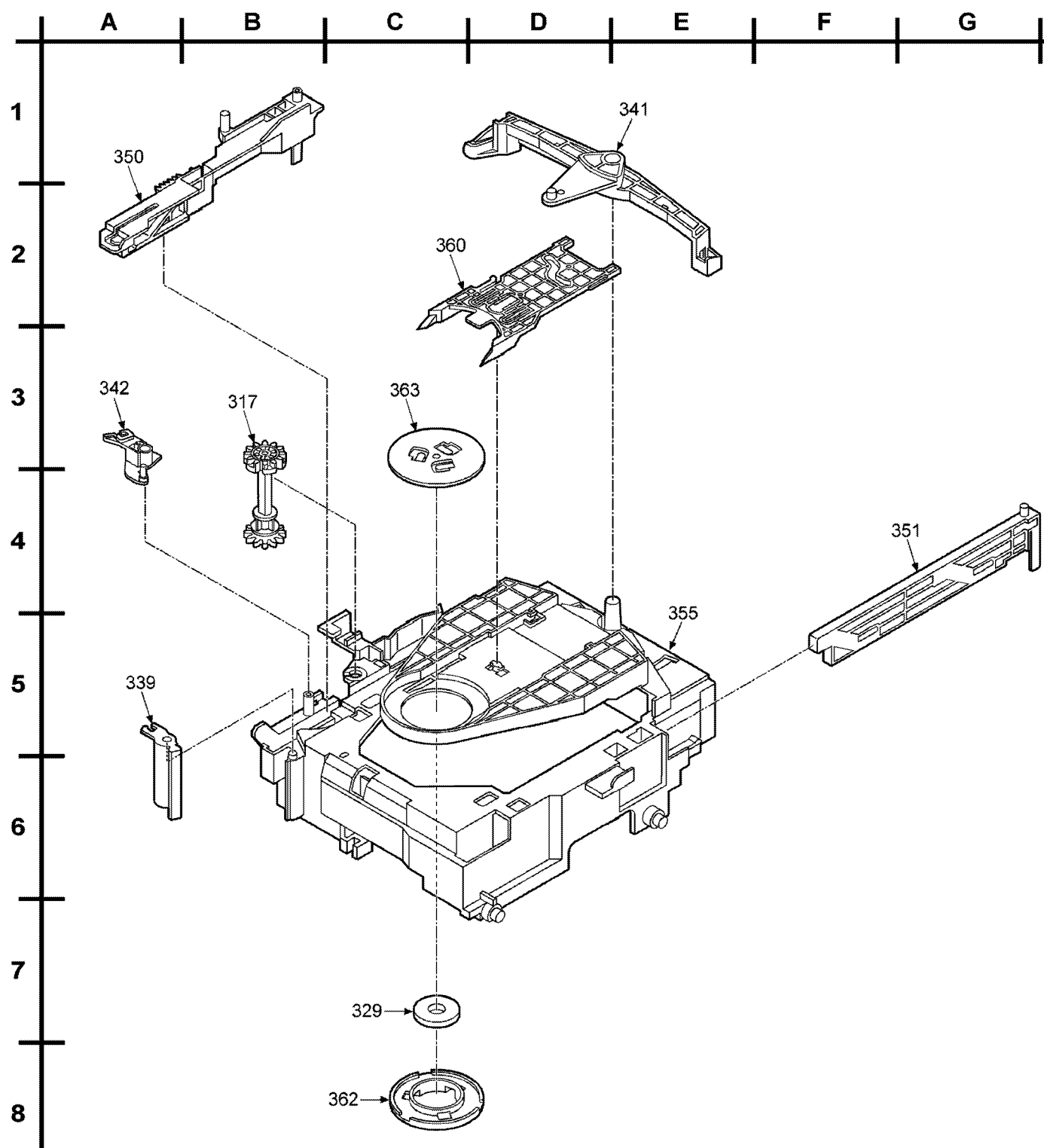


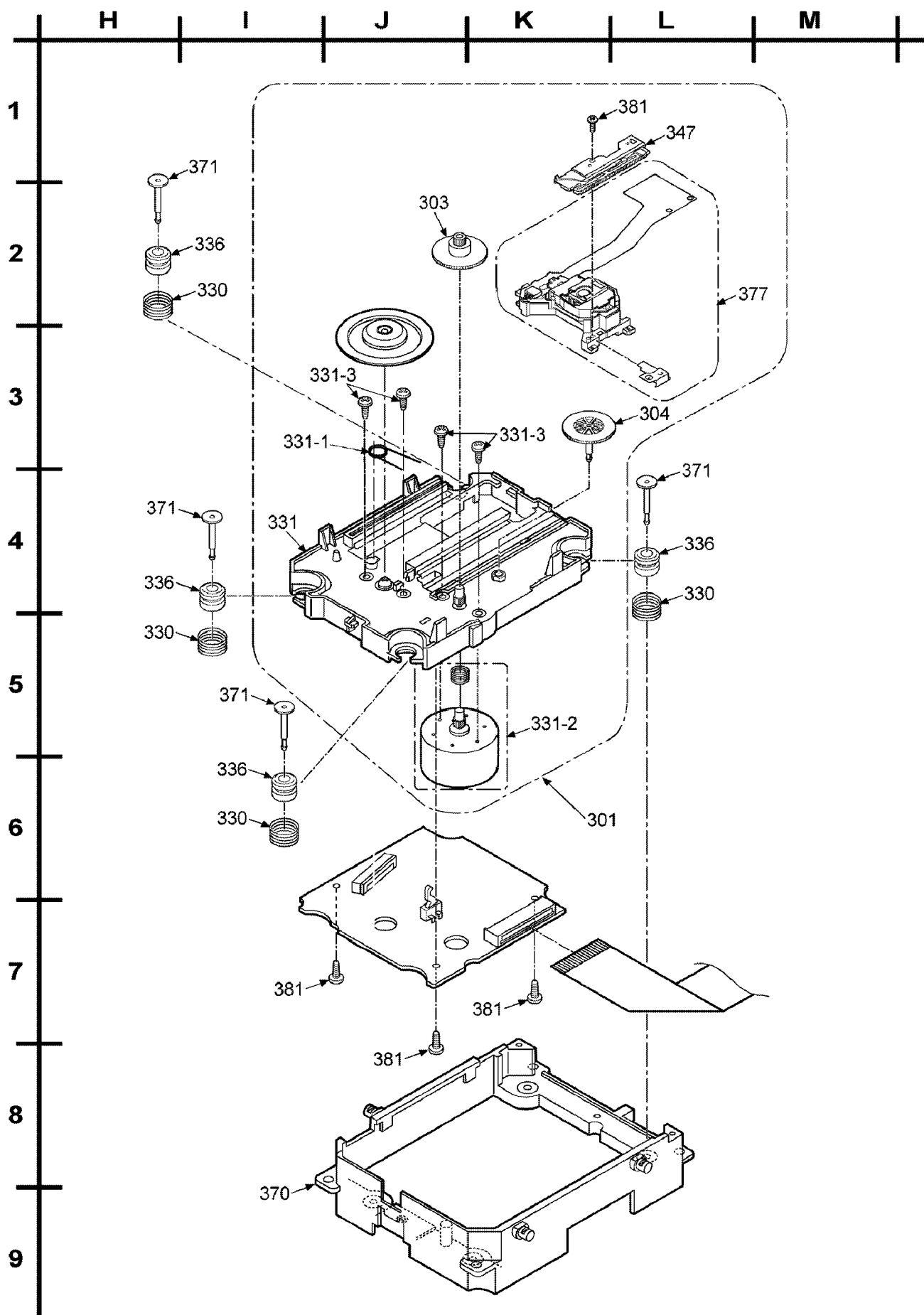
20.1.2. Deck Mechanism Parts List

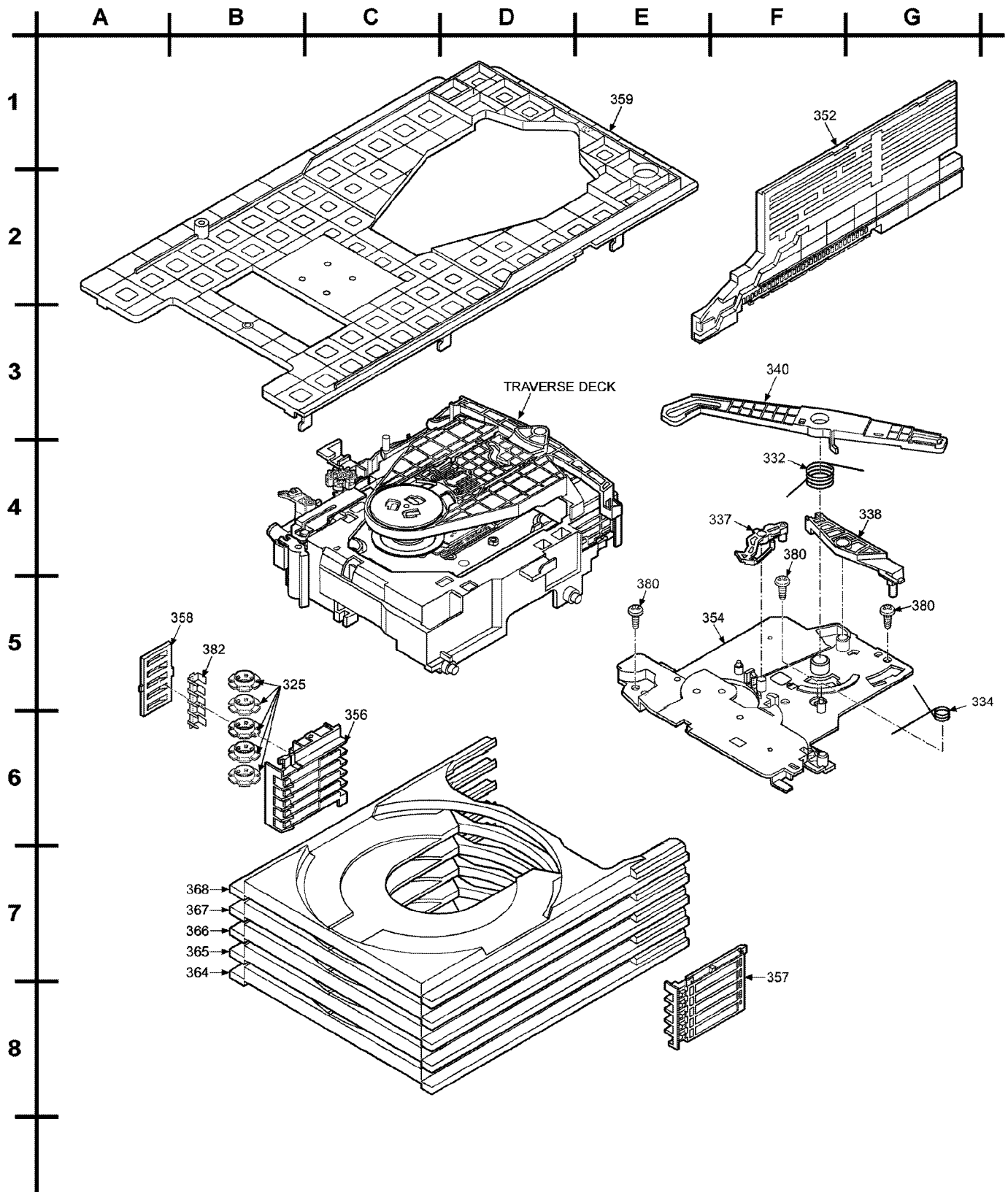
Ref. No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RED0067	R/P HEAD BLOCK UNIT	[M]
103	RDG0300	REEL BASE GEAR	[M]
104	RDG0301	WINDING RELAY GEAR	[M]
105	RDK0026	MAIN GEAR	[M]
107	RDV0033-4	WINDING BELT	[M]
108	RDV0064	CAPSTAN BELT	[M]
110	RMB0312	TRIGGER LEVER SPRING	[M]
111	RMB0400	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	EJECT ROD	[M]
122	RMQ0519	REEL HUB	[M]
123	RMS0398-1	MOVING CORE	[M]
124	RXQ0470	PLUNGER	[M]
125	RMC0061	PACK SPRING	[M]
126	RXF0061	FLYWHEEL F 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	REM0098	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	RFKJSTR280PP	CHASSIS ASS'Y	[M]

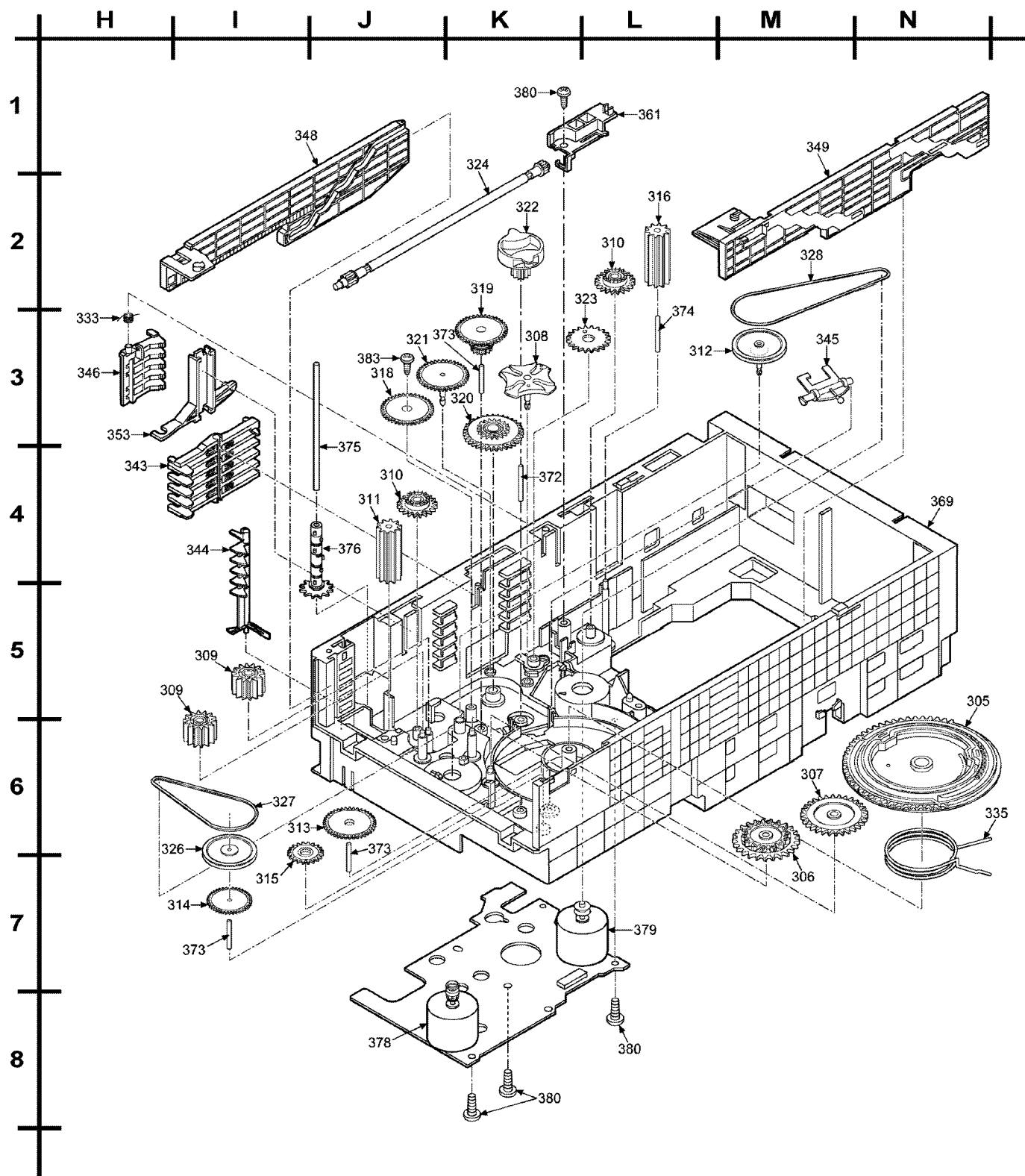
20.2. CD Loading Mechanism

20.2.1. CD Loading Mechanism Parts Location









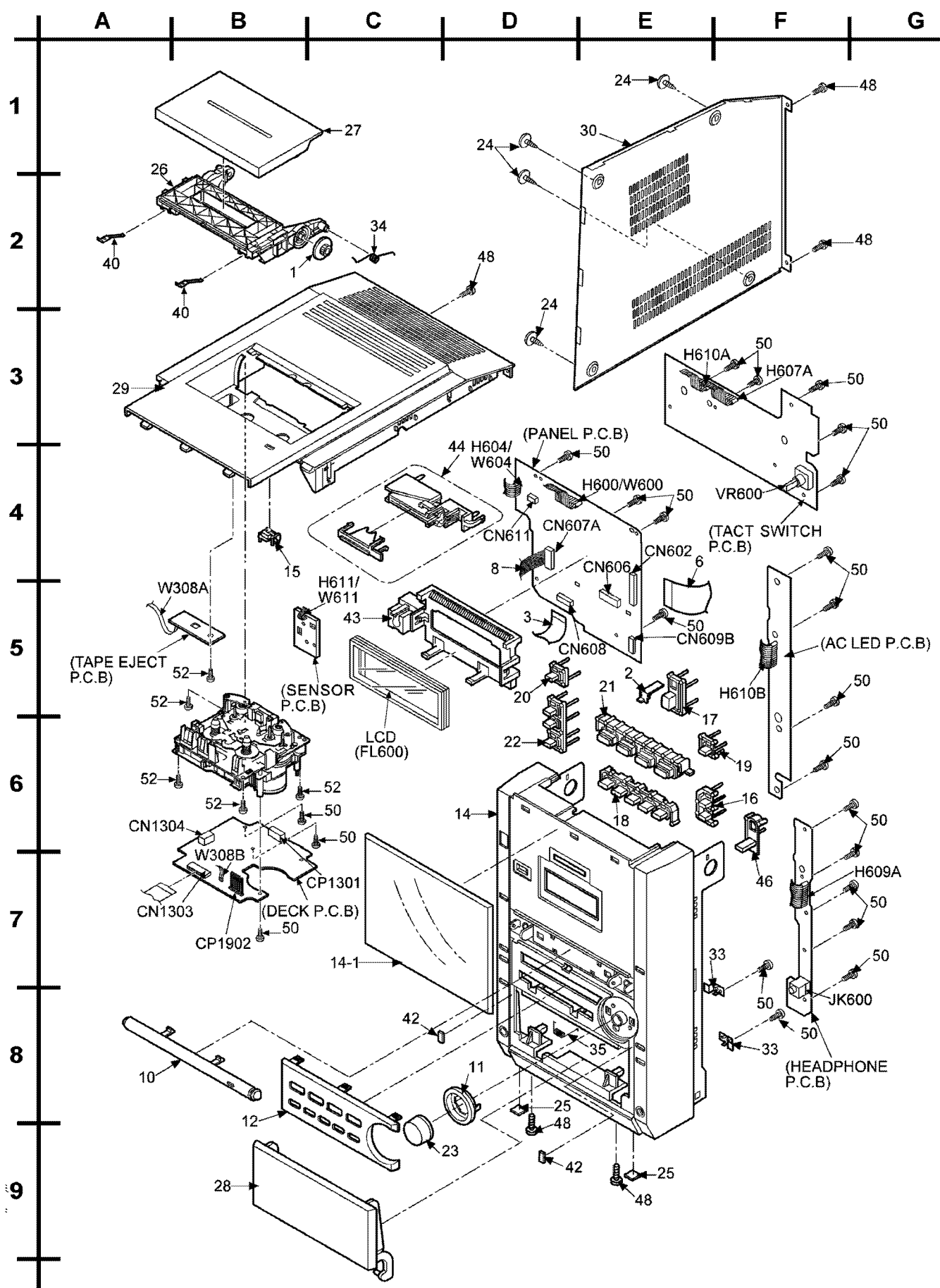
20.2.2. CD Loading Mechanism Parts List

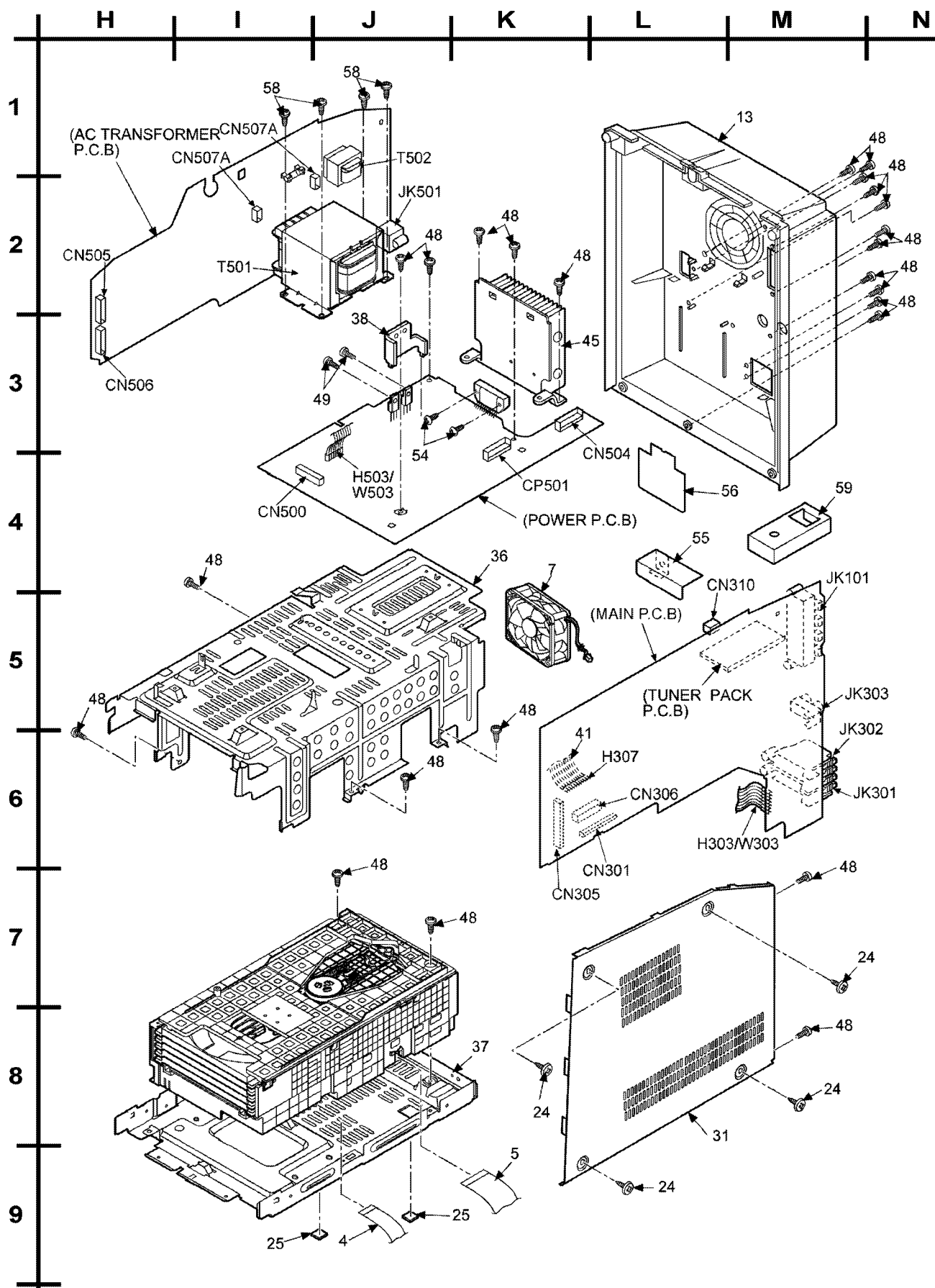
Ref. No.	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK	
301	RAE0157A-V	TRV UNIT WITHOUT SERVO	[M]
303	RDG0455	TRV GEAR (A)	[M]
304	RDG0456	TRV GEAR (B)	[M]
305	RDG0519	MAIN GEAR	[M]
306	RDG0520	SPEED UP GEAR	[M]
307	RDG0521	REVERSE GEAR	[M]
308	RDG0522	GENEVA GEAR	[M]
309	RDG0523	HOR RELAY GEAR	[M]
310	RDG0525	CROWN GEAR	[M]
311	RDG0526	TRAY RELAY GEAR	[M]
312	RDG0527	UD PULLEY GEAR	[M]
313	RDG0528	HOR SPEED DOWN GEAR	[M]
314	RDG0529	HOR SPEED DOWN GEAR	[M]
315	RDG0530	HOR DRIVE GEAR	[M]
316	RDG0531	LOAD RELAY GEAR	[M]
317	RDG0532	LOAD GEAR	[M]
318	RDG0534	UD SPEED DOWN GEAR	[M]
319	RDG0535	UD SPEED DOWN GEAR	[M]
320	RDG0536	SELECT SPEED DOWN GE	[M]
321	RDG0537	SELECT DRIVE GEAR	[M]
322	RDG0538	CHANGE GEAR	[M]
323	RDG0539	UD DRIVE GEAR	[M]
324	RDG0540	TIMING GEAR	[M]
325	RDG0542	TRAY GEAR	[M]
326	RDG0543	HOR PULLEY GEAR	[M]
327	RDV0068	HOR BELT	[M]
328	RDV0069	UD BELT	[M]
329	RHM0001	MAGNET	[M]
330	RME0109	FLOATING SPRING	[M]
331	RPFNCT101	TRAVERSE UNIT ASS'Y	[M]
331-1	RME0369	PRESS SPRING	[M]
331-2	RXQ0632	TRV MOTOR UNIT	[M]
331-3	XQN17+C28F	SCREW	[M]
332	RME0344	UD ASSIST SPRING	[M]
333	RME0361	TRAY STOPPER SPRING	[M]
334	RME0363	LIMIT SPRING	[M]
335	RME0368	MAIN GEAR SPRING	[M]
336	RMG0563-T	FLOATING RUBBER	[M]
337	RML0616	SPEED UP LOCK	[M]
338	RML0617	SEPARATE LEVER 1	[M]
339	RML0618	SEPARATE LEVER 2	[M]
340	RML0619-1	UD. CONNECTION LEVER	[M]
341	RML0620	TRV.CONNECT LEVER	[M]
342	RML0621	TRAY CHG. LEVER	[M]
343	RML0622	TRAY LOCK LEVER	[M]
344	RML0623	OPEN SW. LEVER	[M]
345	RML0624	CHANGE LEVER	[M]
346	RML0637	TRAY STOPPER	[M]
347	RMM0218	TRAVERSE DRIVE RACK	[M]
348	RMM0239	UD.RACK [L]	[M]
349	RMM0240	UD.RACK [R]	[M]
350	RMM0241	TRV.SLIDE PLATE [L]	[M]
351	RMM0242	TRV.SLIDE PLATE [R]	[M]
352	RMM0243	SELECT RACK	[M]
353	RMM0244	SELECT GUIDE	[M]
354	RMQ1051	PITCH PLATE	[M]
355	RMQ1052	UD BASE	[M]
356	RMQ1056	TRAY GUIDE [L]	[M]
357	RMQ1057	TRAY GUIDE [R]	[M]
358	RMQ1058	GEAR HOLDER	[M]
359	RMQ1059	TOP COVER	[M]
360	RMQ1060	CLAMP GUIDE	[M]
361	RMQ1061	TG.PLATE	[M]
362	RMR0334	FIXTURE	[M]
363	RMR0624-W5	CLAMPER	[M]
364	RMRL407A-H1	TRAY NO. 1	[M]
365	RMRL407B-H1	TRAY NO. 2	[M]
366	RMRL407C-H1	TRAY NO. 3	[M]
367	RMRL407D-H1	TRAY NO. 4	[M]
368	RMRL407E-H1	TRAY NO. 5	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
369	RMRL408-K	MECHA BASE	[M]
370	RMRL427-X	MIDDLE CHASSIS	[M]
371	RMS0757-1	FIXED PIN	[M]
372	RMS0758	CHANGE GEAR SHAFT	[M]
373	RMS0759	UD SPEED DOWN GEAR	[M]
374	RMS0760	LOAD RELAY GEAR SHAFT	[M]
375	RMS0762	TRAY GEAR SHAFT	[M]
376	RXG0053	TRAY DRIVE GEAR ASSY	[M]
377	RXQ0999	OPU UNIT	[M]
378	RXQ0803	LOADING MOTOR ASS'Y	[M]
379	RXQ0804	UD MOTOR ASS'Y	[M]
380	XTB3+10J	SCREW	[M]
381	XTN2+6G	SCREW	[M]
382	RMCO472	TRAY SPRING	[M]
383	XTBS26+8J	SCREW	[M]

20.3. Cabinet & CD Loading Mechanism

20.3.1. Cabinet & CD Loading Mechanism Parts Location





20.3.2. Cabinet & CD Loading Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RDG0357	DAMPER GEAR	[M]
2	RDLX0003-Q	POWER LENS	[M]
3	REEX0165	14P FFC	[M]
4	REEX0166	14P FFC WIRE	[M]
5	REEX0167	19P CD FFC	[M]
6	REEX0282	30P FFC	[M]
7	REM0094	COOLING FAN	[M]
8	REXX0294	12P (BTN PCB-PANEL)	[M]
10	RGKX0173-S	JOG ORNAMENT	[M]
11	RGKX0175-S	VOLUME ORNAMENT	[M]
12	RGKX0189-S	CENTER ORNAMENT	[M]
13	RKSX0050B-H	REAR CABINET	[M] E
13	RKSX0050C-H	REAR CABINET	[M] EB
13	RKSX0050P-H	REAR CABINET	[M] EG
14	RFGAPM18EBS	FRONT CABINET ASS'Y	[M]
14-1	RGPX0097A-S	FL WINDOW	[M]
15	RGUX0497-S	DECK EJECT BUTTON	[M]
16	RGUX0498-S	CD EJECT BUTTON	[M]
17	RGUX0499-S	POWER BUTTON	[M]
18	RGUX0500-S	ALL DISC BUTTON	[M]
19	RGUX0501-S	RECORD BUTTON	[M]
20	RGUX0502-S	AUX BUTTON	[M]
21	RGUX0504-S	FUNCTION BUTTON	[M]
22	RGUX0505-S	CD MANAGER BUTTON	[M]
23	RGWX0075-S	VOLUME KNOB	[M]
24	RHD30007-1S	SCREW	[M]
25	RHGV0008	LEG CUSHION	[M]
26	RKF0479-1H	CASS HOLDER	[M]
27	RKFX0106-S	CASS LID	[M]
28	RKFX0107-S	CD LID	[M]
29	RKMX0083-S	TOP CABINET	[M]
30	RKMX0084-S	SIDE PANEL (LEFT)	[M]
31	RKMX0085-S	SIDE PANEL (RIGHT)	[M]
33	RMA1543	CD LID SUPPORT	[M]
34	RMBX0029	CASS OPEN SPRING	[M]
35	RMEX0020	CD LID OPEN SPRING	[M]
36	RMKX0070	INNER CHASSIS	[M]
37	RMKX0071	BOTTOM CHASSIS	[M]
38	RMY0260	HEAT SINK (SMALL)	[M]
40	RUS757ZAA	CASS HALF SPRING	[M]
41	RWJ1109180XX	9P MAIN TO DECK	[M]
43	RMNX0094-1	FL HOLDER	[M]
44	RXQX0014	REC. LIGHTING HOLDER	[M]
45	RXXX0043	HEAT SINK UNIT	[M]
46	RYQX0083-S	S. SEQ UNIT	[M]
48	XTB3+10JFZ	SCREW	[M]
49	XTB3+8JFZ	SCREW	[M]
50	XTBS26+10J	SCREW	[M]
52	XTV3+10G	SCREW	[M]
54	XTW3+15T	SCREW	[M]
55	RSC0669	SP EARTH	[M]
56	RSCX0079-1	REAR SHIELD PLATE	[M]
58	XTWS3+6T	SCREW	[M]
59	ENV17290GLY	FM TUNER PACK	[M]

20.4. Components Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARD	
	REPX0362A	CD SERVO P.C.B.	[M] (RTL)
	REPX0349B	MAIN P.C.B.	[M] (RTL)
	REPX0349B	PANEL P.C.B.	[M] (RTL)
	REPX0350A	DECK P.C.B.	[M] (RTL)
	REPX0321H	DECK MECHANISM P.C.B.	[M] (RTL)
	REPX0348B	POWER P.C.B.	[M] (RTL) E/E G
	REPX0348D	POWER P.C.B.	[M] (RTL) EB
	REPX0348B	AC TRANSFORMER P.C.B.	[M] (RTL) E/E G
	REPX0348D	AC TRANSFORMER P.C.B.	[M] (RTL) EB
	REPX0349B	TACT SWITCH P.C.B.	[M] (RTL)
	REPX0349B	AC LED P.C.B.	[M] (RTL)
	REPX0349B	HEADPHONE P.C.B.	[M] (RTL)
	REPX0349B	SENSOR P.C.B.	[M] (RTL)
	REPX0350A	TAPE EJECT P.C.B.	[M] (RTL)
	REP3340A	CD LOADING P.C.B.	[M] (RTL)
		INTEGRATED CIRCUITS	
IC11	C0GAG0000007	IC DRIVER	[M]
IC21	C0GAG0000007	IC DRIVER	[M]
IC101	LA1833NMNTLM	IC IF & MPX	[M]
IC102	LC72131MDTRM	IC PLL	[M]
IC301	C1BB00000617	IC	[M]
IC302	C1BB00000715	IC RDS	[M]
IC500	RSN314H41A-P	IC POWER AMP HIC	[M]
IC501	C0AABB000117	IC OP-AMP (HP AMP)	[M]
IC600	C2BBGF000424	IC MICROPROCESSOR	[M]
IC701	AN22004A-NF	IC HEAD AMP	[M]
IC702	MN662790RSC	IC LSI	[M]
IC703	BA5948FPE2	IC 4 CH DRIVE	[M]
IC971	CNB13030R2AU	IC PHOTO INTERRUPTOR	[M]
IC1000	C1AA00000612	IC ANALOG SW	[M]
IC1001	AN7326K	IC DECK R/P	[M]
		TRANSISTORS	
Q1	B3NAA0000068	TRANSISTOR	[M]
Q101	2SC2058SPTA	TRANSISTOR	[M]
Q102	2SC2058SPTA	TRANSISTOR	[M]
Q106	KRA102MTA	TRANSISTOR	[M]
Q110	2SC3311ARTA	TRANSISTOR	[M]
Q500	KTA1046	TRANSISTOR	[M]
Q501	KTC2026	TRANSISTOR	[M]
Q502	KTA1046	TRANSISTOR	[M]
Q503	KTA12710YTA	TRANSISTOR	[M]
Q505	KTA1267GRTA	TRANSISTOR	[M]
Q506	KTA1046	TRANSISTOR	[M]
Q507	KTC3199GRTA	TRANSISTOR	[M]
Q508	KTC3199GRTA	TRANSISTOR	[M]
Q509	KRA110MTA	TRANSISTOR	[M]
Q510	KRA110MTA	TRANSISTOR	[M]
Q514	2SD0592ARA	TRANSISTOR	[M]
Q515	KTC3199GRTA	TRANSISTOR	[M]
Q516	KTC3199GRTA	TRANSISTOR	[M]
Q517	KTC32030YTA	TRANSISTOR	[M]
Q519	B1AAGC000006	TRANSISTOR	[M]
Q575	B1AAGC000006	TRANSISTOR	[M]
Q577	2SC3940ARA	TRANSISTOR	[M]
Q578	KRC102MTA	TRANSISTOR	[M]
Q579	2SB0621AHA	TRANSISTOR	[M]
Q607	KRC103STA	TRANSISTOR	[M]
Q608	KTC3875GRTA	TRANSISTOR	[M]
Q609	KTC3875GRTA	TRANSISTOR	[M]
Q610	KTA1504GRTA	TRANSISTOR	[M]
Q611	KRC102STA	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q613	KRC119STA	TRANSISTOR	[M]
Q614	KRC119STA	TRANSISTOR	[M]
Q615	KRC119STA	TRANSISTOR	[M]
Q700	B1AACF000063	TRANSISTOR	[M]
Q701	2SA1037AKSTX	TRANSISTOR	[M]
Q701	KTA12710YTA	TRANSISTOR	[M]
Q702	B1AACF000063	TRANSISTOR	[M]
Q703	B1AACF000063	TRANSISTOR	[M]
Q704	KRA110MTA	TRANSISTOR	[M]
Q710	B1AAGC000006	TRANSISTOR	[M]
Q711	B1AAGC000006	TRANSISTOR	[M]
Q714	KTC3199GRTA	TRANSISTOR	[M]
Q715	KTC3199GRTA	TRANSISTOR	[M]
Q716	KTC3199GRTA	TRANSISTOR	[M]
Q717	KTC3199GRTA	TRANSISTOR	[M]
Q718	B1AAGC000006	TRANSISTOR	[M]
Q719	B1AAGC000006	TRANSISTOR	[M]
Q720	KTC3199GRTA	TRANSISTOR	[M]
Q721	KTC3199GRTA	TRANSISTOR	[M]
Q901	KRC101STA	TRANSISTOR	[M]
Q902	KRC101STA	TRANSISTOR	[M]
Q903	KRC101STA	TRANSISTOR	[M]
Q904	KRC101STA	TRANSISTOR	[M]
Q905	KRC101STA	TRANSISTOR	[M]
Q1000	KTC3199GRTA	TRANSISTOR	[M]
Q1101	B1ABGC000005	TRANSISTOR	[M]
Q1201	B1ABGC000005	TRANSISTOR	[M]
Q1302	DTA114EKA146	TRANSISTOR	[M]
Q1303	DTC143XKA146	TRANSISTOR	[M]
Q1304	DTA143XKA146	TRANSISTOR	[M]
Q1305	DTC114EKA146	TRANSISTOR	[M]
Q1309	B1AAGC000006	TRANSISTOR	[M]
Q1310	B1AAGC000006	TRANSISTOR	[M]
Q1312	2SC2412KT96R	TRANSISTOR	[M]
Q1313	2SC2784FTA	TRANSISTOR	[M]
Q1314	DTA143XKA146	TRANSISTOR	[M]
Q1315	KTA12710YTA	TRANSISTOR	[M]
Q1316	2SD09650RA	TRANSISTOR	[M]
Q1317	B1ABGC000005	TRANSISTOR	[M]
		DIODES	
D101	UDZSTE175R1B	DIODE	[M]
D301	RL1N4003N02	DIODE	[M]
D302	RL1N4003N02	DIODE	[M]
D500	KBL402G	DIODE	[M]
D501	B0ACCK000005	DIODE	[M]
D502	UDZSTE177R5B	DIODE	[M]
D505	B0AACK000004	DIODE	[M]
D508	MAZ4150NLF	DIODE	[M]
D515	B0BA9R600002	DIODE	[M]
D517	B0BA5R600016	DIODE	[M]
D518	B0AACK000004	DIODE	[M]
D520	B0BA9R600002	DIODE	[M]
D524	MAZ4150NMF	DIODE	[M]
D525	B0AACK000004	DIODE	[M]
D526	B0AACK000004	DIODE	[M]
D527	B0AACK000004	DIODE	[M]
D528	B0AACK000004	DIODE	[M]
D530	B0AACK000004	DIODE	[M]
D539	RL1N4003N02	DIODE	[M]
D540	RL1N4003N02	DIODE	[M]
D541	RL1N4003N02	DIODE	[M]
D578	RL1N4003N02	DIODE	[M]
D579	RL1N4003N02	DIODE	[M]
D580	RL1N4003N02	DIODE	[M]
D581	RL1N4003N02	DIODE	[M]
D582	B0BA6R600008	DIODE	[M]
D584	RL1N4003N02	DIODE	[M]
D585	RL1N4003N02	DIODE	[M]
D586	RL1N4003N02	DIODE	[M]
D587	RL1N4003N02	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D588	RL1N4003N02	DIODE	[M]
D589	RL1N4003N02	DIODE	[M]
D592	RL1N4003N02	DIODE	[M]
D593	RL1N4003N02	DIODE	[M]
D594	MTZJ24CTA	DIODE	[M]
D601	B0ACCK000005	DIODE	[M]
D608	B0ACCK000005	DIODE	[M]
D620	1SS380TE-17	DIODE	[M]
D621	1SS380TE-17	DIODE	[M]
D630	B0ACCK000005	DIODE	[M]
D631	B0ACCK000005	DIODE	[M]
D632	UDZSTE174R7B	DIODE	[M]
D633	B3AAA0000583	DIODE	[M]
D636	B3CNE0000001	DIODE	[M]
D637	B3CNE0000001	DIODE	[M]
D638	LNJ801TPSJA	DIODE	[M]
D640	RB501V-40	DIODE	[M]
D641	RB501V-40	DIODE	[M]
D642	RB501V-40	DIODE	[M]
D643	RB501V-40	DIODE	[M]
D644	B0ACCK000005	DIODE	[M]
D645	B0ACCK000005	DIODE	[M]
D650	B0ACCK000005	DIODE	[M]
D700	B0AACK000004	DIODE	[M]
D701	B0AACK000004	DIODE	[M]
D702	B0AACK000004	DIODE	[M]
D703	B0AACK000004	DIODE	[M]
D704	B0AACK000004	DIODE	[M]
D705	B0AACK000004	DIODE	[M]
D706	B0AACK000004	DIODE	[M]
D707	B0AACK000004	DIODE	[M]
D708	MA2C16500E	DIODE	[M]
D709	MA2C16500E	DIODE	[M]
D743	B0EAKM000085	DIODE	[M]
D750	MAZ80560ML	DIODE	[M]
D971	MA2C16500E	DIODE	[M]
D1301	B0ACCK000005	DIODE	[M]
		VARIABLE RESISTORS	
VR600	EVEJ1CF2524B	VOLUME ENCODER	[M]
		SWITCHES	
S1	K0L1BA000065	SW	[M]
S2	K0L1BA000065	SW	[M]
S3	K0L1BA000070	SW	[M]
S4	RSH1A045-1A	SW TRIGGER	[M]
S600	EVQ21405RJ	SW REC	[M]
S602	EVQ21405RJ	SW TAPE EJECT	[M]
S603	EVQ21405RJ	SW REW	[M]
S604	EVQ21405RJ	SW DEMO/STOP	[M]
S605	EVQ21405RJ	SW FF	[M]
S606	EVQ21405RJ	SW CD PLAY/PAUSE	[M]
S607	EVQ21405RJ	SW TAPE	[M]
S608	EVQ21405RJ	SW TUNER/BAND	[M]
S609	EVQ21405RJ	SW AUX	[M]
S610	EVQ21405RJ	SW CD OPEN/CLOSE	[M]
S611	EVQ21405RJ	SW CD CHANGE	[M]
S612	EVQ21405RJ	SW CD CHECK	[M]
S613	EVQ21405RJ	SW CD 5	[M]
S614	EVQ21405RJ	SW CD 4	[M]
S615	EVQ21405RJ	SW CD 3	[M]
S616	EVQ21405RJ	SW CD 2	[M]
S617	EVQ21405RJ	SW CD 1	[M]
S618	EVQ21405RJ	SW POWER	[M]
S619	EVQ21405RJ	SW SSEQ	[M]
S701	RSH1A048-A	SW RESET	[M]
S780	RSH1A049-U	SW OPEN	[M]
S971	RSH1A018-3U	S WMODE	[M]
S972	RSH1A019-2U	SW LEAF	[M]
S973	RSH1A019-2U	SW LEAF	[M]
S975	RSH1A019-2U	SW LEAF	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		CONNECTORS	
CN1	K1MN14B00066	14P FFC CONN. (SIDE)	[M]
CN301	RJU100W13	13P B2B CONNECTOR	[M]
CN305	RJS2A4230-F	30P FFC CONNECTOR	[M]
CN306	K1MN14C00004	14P FFC CONNECTOR	[M]
CN310	K1KA02A00008	FAN CONNECTOR	[M]
CN500	K1MN14A00049	14P FFC CONNECTOR	[M]
CN504	RJT119W08V	8P CONNECTOR	[M]
CN505	K1KB07A00016	7P CONNECTOR	[M]
CN506	RJT119W06V	6P CONNECTOR	[M]
CN507A	REXX0320	2P STANDBY WIRE	[M]
CN602	RJS2A4230-F	30P FFC CONNECTOR	[M]
CN606	K1MN19C00001	19P FFC CONN	[M]
CN607A	K1KA12B00095	12P CONNECTOR	[M]
CN608	K1MN14B00058	14P FFC CONNECTOR	[M]
CN609B	K1KA09B00064	CONNECTOR	[M]
CN611	K1KA03A00086	3P CONNECTOR	[M]
CN701	RJS2A8616	16P FFC CONNECTOR	[M]
CN702	RJS1A9319	19P FFC CONNECTOR	[M]
CN1303	RJS1A5711	11P CONNECTOR	[M]
CN1304	RJS1A5709	9P CONNECTOR	[M]
CP501	RJT100W13	13P BTB CONNECTOR	[M]
CP1301	RJS1A6805-J	CONNECTOR	[M]
CP1902	K1KA09B00058	CONNECTOR	[M]
CS971	RJU071H09M1	CONNECTOR	[M]
		COILS & TRANSFORMERS	
L101	RLQBR39KT-1Y	COIL	[M]
L102	RLQBR39KT-1Y	COIL	[M]
L112	G0A200D00002	RF CHOKE COIL	[M]
L201	G0C100JA0027	COIL	[M]
L220	RLQZR73MT-T	CHOKE COIL	[M]
L221	RLQZR73MT-T	CHOKE COIL	[M]
L391	RLQB101JTD-D	INDUCTOR	[M]
L392	RLQB101JTD-D	INDUCTOR	[M]
L420	RLQZR73MT-T	CHOKE COIL	[M]
L421	RLQZR73MT-T	CHOKE COIL	[M]
L503	RLQZ371	CHOKE COIL	[M] △
L600	G0A200D00002	RF CHOKE COIL	[M]
L601	G0C100JA0027	COIL	[M]
L602	G0A200D00002	RF CHOKE COIL	[M]
L603	G0C3R3JA0027	COIL	[M]
L605	G0C101JA0027	COIL	[M]
L1301	7L1A62N	BIAS OCS COIL	[M]
L1302	RLQB470JTD-D	RF CHOKE COIL	[M]
T501	G4C6ACH00003	POWER TRANSFORMER	[M] △
T502	RTP1H3E002	BACK-UP TRANSFORMER	[M] △
		COMPONENT COMBINATION	
Z101	RLA2Z007-T	COIL	[M]
Z102	RLI2Z021M-T	AM IF BLOCK	[M]
Z501	ERZV10V511CS	ZENER	[M] △
Z602	B3RAB0000012	REMOTE SENSOR	[M]
		CERAMIC FILTERS	
CF201	J0B1075A0086	CERAMIC CAPACITOR	[M]
CF202	J0B1075A0077	CERAMIC FILTER	[M]
		RELAY	
RL501	RSY0040M-0	POWER RELAY	[M] △
		OSCILLATORS	
X102	RLFDF222DD	CRYSTAL OSCILLATOR	[M]
X103	H0H720400005	CRYSTAL OSCILLATOR	[M]
X391	H0H433400001	CRYSTAL OSCILLATOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
X600	RSXZ4M19B01T	CERAMIC OSCILLATOR	[M]
X601	RSXD32K7S02	CRYSTAL OSCILLATOR	[M]
X701	H2A169500009	CERAMIC OSCILLATOR	[M]
		DISPLAY TUBE	
FL600	A2BD00000052	FL DISPLAY	[M]
		FUSES	
F1	K5Y630B00001	FUSE	[M] △
		FUSE HOLDERS	
FC1	EYF52BC	FUSE HOLDER	[M]
FC2	EYF52BC	FUSE HOLDER	[M]
		FUSE PROTECTOR	
FP501	K5G402AA0003	FUSE PROTECTOR	[M] △
FP502	K5G102AA0003	FUSE PROTECTOR	[M] △
		HOLDERS	
H303	K1YF08000003	8P WIRE HOLDER	[M]
H307	RMR0318	9P WIRE HOLDER	[M]
H503	K1YF06000002	6P WIRE HOLDER	[M]
H600	RMR0320	11P WIRE HOLDER	[M]
H604	RMR0316	7P WIRE HOLDER	[M]
H607A	RMR0321	12P WIRE HOLDER	[M]
H609A	RMR0318	9P WIRE HOLDER	[M]
H610A	RMR0316	7P WIRE HOLDER	[M]
H610B	RMR0316	7P WIRE HOLDER	[M]
H611	RMR0312	3P CABLE HOLDER	[M]
		JACKS	
JK101	RJH8304N	JK ANTENNA	[M]
JK301	K4BC04B00036	JK RED/BLACK SPEAKER	[M]
JK302	K4BC04B00037	JK BLUE/GRAY SPEAKER	[M]
JK303	RJH2213N-1	JK AUX IN	[M]
JK501	K2AA2B000004	JK AC INLET	[M] △
JK600	RJJ37TK07-X	JK HEADPHONE	[M]
		EARTH TERMINAL	
E501	SNE1004-2	EARTH TERMINAL	[M]
		WIRES	
W303	REXX0292	8P (POWER-MAIN)	[M]
W308B	RWJ0102095SS	2P DECK-CASS EJECT	[M]
W503	REXX0290	6P WIRE	[M]
W600	RWJ1111138XX	11P PANEL-DECK WIRE	[M]
W604	RWJ0207130XX	7P (PANEL-TRANS)	[M]
W605	REXX0352	9P (PANEL-HP P)	[M]
W610	RWJ1107100XX	WIRE	[M]
W611	REXX0368	WIRE	[M]
W1903	RWJ0102050KR	MOTOR WIRE	[M]
		RESISTORS	
R102	ERJ3GEYJ472V	4.7K 1/16W	[M]
R103	ERJ3GEYJ101V	100 1/16W	[M]
R104	ERJ3GEYJ103V	10K 1/16W	[M]
R105	ERJ3GEYJ471V	470 1/16W	[M]
R106	ERJ3GEYJ474V	470K 1/16W	[M]
R107	ERJ3GEYJ331V	330 1/16W	[M]
R108	ERJ3GEYJ474V	470K 1/16W	[M]
R109	ERJ3GEYJ331V	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]

Ref. No.	Part No.	Part Name & Description	Remarks
R114	ERJ3GEYJ562V	5.6K 1/16W	[M]
R115	ERJ3GEYJ561V	560 1/16W	[M]
R116	ERJ3GEYJ102V	1K 1/16W	[M]
R117	ERJ3GEYJ683V	68K 1/16W	[M]
R118	ERJ3GEYJ332V	3.3K 1/16W	[M]
R119	ERJ3GEYJ123V	12K 1/16W	[M]
R120	ERJ3GEYJ473V	47K 1/16W	[M]
R121	ERJ3GEYJ223V	22K 1/16W	[M]
R122	ERJ3GEYJ272V	2.7K 1/16W	[M]
R123	ERJ3GEYJ683V	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	ERJ3GEYJ820V	82 1/16W	[M]
R129	ERJ3GEYJ273V	27K 1/16W	[M]
R130	ERJ3GEYJ103V	10K 1/16W	[M]
R131	ERJ3GEYJ680V	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]
R136	ERJ3GEYJ102V	1K 1/16W	[M]
R137	ERJ3GEYJ102V	1K 1/16W	[M]
R138	ERJ3GEYJ332V	3.3K 1/16W	[M]
R139	ERJ3GEYJ223V	22K 1/16W	[M]
R140	ERJ3GEYJ223V	22K 1/16W	[M]
R141	ERJ3GEYJ682V	6.8K 1/16W	[M]
R142	ERJ3GEYJ682V	6.8K 1/16W	[M]
R143	ERJ3GEYJ223V	22K 1/16W	[M]
R145	ERJ3GEYJ104V	100K 1/16W	[M]
R146	ERJ3GEYJ104V	100K 1/16W	[M]
R151	ERJ3GEYJ820V	82 1/16W	[M]
R152	ERJ3GEY0R00V	0 1/16W	[M]
R201	ERJ3GEYJ183V	18K 1/16W	[M]
R202	ERJ3GEYJ182V	1.8K 1/16W	[M]
R203	ERJ3GEYJ103V	10K 1/16W	[M]
R204	ERJ3GEYJ183V	18K 1/16W	[M]
R205	ERJ3GEYJ223V	22K 1/16W	[M]
R206	ERJ3GEYJ682V	6.8K 1/16W	[M]
R207	ERJ3GEYJ183V	18K 1/16W	[M]
R208	ERJ3GEYJ182V	1.8K 1/16W	[M]
R211	ERJ3GEYJ392V	3.9K 1/16W	[M]
R212	ERJ3GEYJ122V	1.2K 1/16W	[M]
R214	ERJ3GEYJ562V	5.6K 1/16W	[M]
R215	ERJ3GEYJ822V	8.2K 1/16W	[M]
R216	ERJ3GEY0R00V	0 1/16W	[M]
R218	ERDS1FVJ100T	10 1/2W	[M]
R219	ERDS1FVJ100T	10 1/2W	[M]
R220	ERDS1FVJ100T	10 1/2W	[M]
R221	ERDS1FVJ100T	10 1/2W	[M]
R301	ERJ3GEYJ472V	4.7K 1/16W	[M]
R302	ERJ3GEYJ103V	10K 1/16W	[M]
R306	ERDS1FVJ1R0T	1 1/2W	[M]
R311	ERJ3GEY0R00V	0 1/16W	[M]
R312	ERJ3GEY0R00V	0 1/16W	[M]
R313	ERJ3GEY0R00V	0 1/16W	[M]
R347	ERJ3GEYJ101V	100 1/16W	[M]
R348	ERJ3GEYJ121V	120 1/16W	[M]
R391	ERJ3GEYJ102V	1K 1/16W	[M]
R393	ERJ3GEYJ102V	1K 1/16W	[M]
R394	ERJ3GEYJ102V	1K 1/16W	[M]
R395	ERJ3GEYJ104V	100K 1/16W	[M]
R401	ERJ3GEYJ183V	18K 1/16W	[M]
R402	ERJ3GEYJ182V	1.8K 1/16W	[M]
R403	ERJ3GEYJ103V	10K 1/16W	[M]
R404	ERJ3GEYJ183V	18K 1/16W	[M]
R405	ERJ3GEYJ223V	22K 1/16W	[M]
R406	ERJ3GEYJ682V	6.8K 1/16W	[M]
R407	ERJ3GEYJ183V	18K 1/16W	[M]
R408	ERJ3GEYJ182V	1.8K 1/16W	[M]
R411	ERJ3GEYJ392V	3.9K 1/16W	[M]
R412	ERJ3GEYJ122V	1.2K 1/16W	[M]
R414	ERJ3GEYJ562V	5.6K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R415	ERJ3GEYJ822V	8.2K 1/16W	[M]
R416	ERJ3GEY0R00V	0 1/16W	[M]
R418	ERDS1FVJ100T	10 1/2W	[M]
R419	ERDS1FVJ100T	10 1/2W	[M]
R420	ERDS1FVJ100T	10 1/2W	[M]
R421	ERDS1FVJ100T	10 1/2W	[M]
R505	ERDS2TJ563T	56K 1/4W	[M]
R506	ERDS2TJ563T	56K 1/4W	[M]
R507	ERDS2TJ103T	10K 1/4W	[M]
R509	ERDS2TJ472T	4.7K 1/4W	[M]
R510	ERDS2TJ122T	1.2K 1/4W	[M]
R511	ERDS1FVJ102T	1K 1/2W	[M]
R512	ERDS1FVJ151T	150 1/2W	[M]
R513	ERDS2TJ331T	330 1/4W	[M]
R514	ERDS2TJ563T	56K 1/4W	[M]
R515	ERDS2TJ563T	56K 1/4W	[M]
R516	ERDS2TJ222T	2.2K 1/4W	[M]
R517	ERDS2TJ331T	330 1/4W	[M]
R518	ERDS2TJ122T	1.2K 1/4W	[M]
R519	ERDS2TJ2R2T	2.2 1/4W	[M]
R520	ERDS2TJ2R2T	2.2 1/4W	[M]
R521	ERDS2TJ101T	100 1/4W	[M]
R522	ERDS1FVJ120T	12 1/2W	[M]
R523	ERD2FCVG120T	12 1/4W	[M]
R524	ERDS2TJ2R2T	2.2 1/4W	[M]
R526	ERDS2TJ103T	10K 1/4W	[M]
R532	ERDS2TJ153T	15K 1/4W	[M]
R533	ERDS2TJ153T	15K 1/4W	[M]
R534	ERDS1FVJ331T	330 1/2W	[M]
R536	ERDS1FVJ2R2T	2.2 1/2W	[M]
R537	ERDS2TJ222T	2.2K 1/4W	[M]
R539	ERDS1FVJ392T	3.9K 1/2W	[M]
R540	ERDS2TJ153T	15K 1/4W	[M]
R541	ERDS2TJ153T	15K 1/4W	[M]
R542	ERDS2TJ332T	3.3K 1/4W	[M]
R543	ERDS2TJ332T	3.3K 1/4W	[M]
R544	ERDS2TJ562T	5.6K 1/4W	[M]
R545	ERDS2TJ562T	5.6K 1/4W	[M]
R546	ERDS2TJ223T	22K 1/4W	[M]
R547	ERDS2TJ683T	68K 1/4W	[M]
R548	ERDS2TJ184T	180K 1/4W	[M]
R549	ERDS1FVJ2R2T	2.2 1/2W	[M]
R550	ERDS1FVJ331T	330 1/2W	[M]
R551	ERDS2TJ104T	100K 1/4W	[M]
R554	ERDS1FVJ331T	330 1/2W	[M]
R556	ERD2FCVG270T	27 1/4W	[M]
R557	ERDS1FVJ270T	27 1/2W	[M]
R561	ERDS2TJ104T	100K 1/4W	[M]
R562	ERDS2TJ394T	390K 1/4W	[M]
R565	ERDS2TJ123T	12K 1/4W	[M]
R566	ERDS2TJ103T	10K 1/4W	[M]
R567	ERDS2TJ151T	150 1/4W	[M]
R568	ERDS1FVJ150T	15 1/2W	[M]
R569	ERDS1FVJ270T	27 1/2W	[M]
R571	ERDS1FVJ332T	3.3K 1/2W	[M]
R572	ERDS2TJ561T	560 1/4W	[M]
R573	ERDS2TJ272T	2.7K 1/4W	[M]
R574	ERDS2TJ272T	2.7K 1/4W	[M]
R576	ERDS2TJ103T	10K 1/4W	[M]
R577	ERDS2TJ103T	10K 1/4W	[M]
R578	ERDS2TJ332T	3.3K 1/4W	[M]
R580	ERDS1FVJ180T	18 1/2W	[M]
R581	ERDS1FVJ180T	18 1/2W	[M]
R583	ERDS2TJ821T	820 1/4W	[M]
R584	ERDS2TJ151T	150 1/4W	[M]
R585	ERDS1FVJ220T	22 1/2W	[M]
R586	ERDS2TJ151T	150 1/4W	[M]
R587	ERDS2TJ472T	4.7K 1/4W	[M]
R589	ERD2FCVJ4R7T	4.7 1/4W	[M]
R590	ERJ3GEYJ151V	150 1/16W	[M]
R591	ERJ3GEYJ331V	330 1/16W	[M]
R600	ERJ3GEY0R00V	0 1/16W	[M]
R601	ERJ3GEYJ103V	10K 1/16W	[M]
R602	ERJ3GEYJ682V	6.8K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R603	ERJ3GEYJ472V	4.7K 1/16W	[M]
R604	ERJ3GEYJ272V	2.7K 1/16W	[M]
R605	ERJ3GEYJ222V	2.2K 1/16W	[M]
R606	ERJ3GEYJ182V	1.8K 1/16W	[M]
R607	ERJ3GEYJ122V	1.2K 1/16W	[M]
R608	ERJ3GEYJ102V	1K 1/16W	[M]
R609	ERJ3GEYJ102V	1K 1/16W	[M]
R610	ERJ3GEYJ103V	10K 1/16W	[M]
R611	ERJ3GEYJ682V	6.8K 1/16W	[M]
R612	ERJ3GEYJ472V	4.7K 1/16W	[M]
R613	ERJ3GEYJ272V	2.7K 1/16W	[M]
R614	ERJ3GEYJ222V	2.2K 1/16W	[M]
R615	ERJ3GEYJ182V	1.8K 1/16W	[M]
R616	ERJ3GEYJ122V	1.2K 1/16W	[M]
R617	ERJ3GEYJ102V	1K 1/16W	[M]
R618	ERJ3GEYJ102V	1K 1/16W	[M]
R619	ERJ3GEYJ103V	10K 1/16W	[M]
R620	ERJ3GEYJ103V	10K 1/16W	[M]
R621	ERJ3GEYJ101V	100 1/16W	[M]
R622	ERJ3GEYJ101V	100 1/16W	[M]
R623	ERJ3GEYJ223V	22K 1/16W	[M]
R624	ERJ3GEYJ101V	100 1/16W	[M]
R625	ERJ3GEYJ472V	4.7K 1/16W	[M]
R626	ERJ3GEYJ472V	4.7K 1/16W	[M]
R627	ERJ3GEYJ473V	47K 1/16W	[M]
R628	ERJ3GEYJ473V	47K 1/16W	[M]
R629	ERJ3GEYJ472V	4.7K 1/16W	[M]
R630	ERJ3GEYJ101V	100 1/16W	[M]
R631	ERJ3GEYJ101V	100 1/16W	[M]
R632	ERJ3GEYJ101V	100 1/16W	[M]
R633	ERJ3GEYJ472V	4.7K 1/16W	[M]
R634	ERJ3GEY0R00V	0 1/16W	[M]
R636	ERJ3GEYJ471V	470 1/16W	[M]
R638	ERJ3GEYJ101V	100 1/16W	[M]
R639	ERJ3GEYJ222V	2.2K 1/16W	[M]
R644	ERJ3GEYJ473V	47K 1/16W	[M]
R645	ERJ3GEYJ473V	47K 1/16W	[M]
R646	ERJ3GEYJ473V	47K 1/16W	[M]
R647	ERJ3GEYJ473V	47K 1/16W	[M]
R648	ERJ3GEYJ473V	47K 1/16W	[M]
R649	ERJ3GEYJ223V	22K 1/16W	[M]
R650	ERJ3GEYJ102V	1K 1/16W	[M]
R651	ERJ3GEYJ473V	47K 1/16W	[M]
R652	ERJ3GEYJ473V	47K 1/16W	[M]
R653	ERJ3GEYJ473V	47K 1/16W	[M]
R654	ERJ3GEYJ473V	47K 1/16W	[M]
R655	ERJ3GEYJ473V	47K 1/16W	[M]
R656	ERJ3GEYJ473V	47K 1/16W	[M]
R657	ERJ3GEYJ473V	47K 1/16W	[M]
R658	ERJ3GEYJ221V	220 1/16W	[M]
R659	ERJ3GEYJ473V	47K 1/16W	[M]
R660	ERJ3GEYJ101V	100 1/16W	[M]
R661	ERJ3GEYJ101V	100 1/16W	[M]
R662	ERJ3GEYJ103V	10K 1/16W	[M]
R663	ERJ3GEYJ123V	12K 1/16W	[M]
R664	ERJ3GEYJ223V	22K 1/16W	[M]
R665	ERJ3GEYJ223V	22K 1/16W	[M]
R666	ERJ3GEYJ223V	22K 1/16W	[M]
R667	ERJ3GEYJ472V	4.7K 1/16W	[M]
R668	ERJ3GEYJ223V	22K 1/16W	[M]
R669	ERJ3GEYJ470V	47 1/16W	[M]
R670	ERJ3GEYJ681V	680 1/16W	[M]
R671	ERJ3GEYJ221V	220 1/16W	[M]
R672	ERJ3GEY0R00V	0 1/16W	[M]
R673	ERJ3GEYJ334V	330K 1/16W	[M]
R674	ERJ3GEYJ106V	10M 1/16W	[M]
R675	ERJ3GEYJ472V	4.7K 1/16W	[M]
R676	ERJ3GEYJ472V	4.7K 1/16W	[M]
R678	ERJ3GEYJ101V	100 1/16W	[M]
R679	ERJ3GEYJ103V	10K 1/16W	[M]
R680	ERJ3GEYJ102V	1K 1/16W	[M]
R681	ERJ3GEYJ103V	10K 1/16W	[M]
R682	ERJ3GEYJ471V	470 1/16W	[M]
R683	ERJ3GEYJ473V	47K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R684	ERJ3GEYJ223V	22K 1/16W	[M]
R685	ERJ3GEYJ474V	470K 1/16W	[M]
R686	ERJ3GEYJ472V	4.7K 1/16W	[M]
R687	ERJ3GEYJ680V	68 1/16W	[M]
R688	ERJ3GEYJ680V	68 1/16W	[M]
R689	ERJ3GEYJ332V	3.3K 1/16W	[M]
R690	ERJ3GEYJ471V	470 1/16W	[M]
R691	ERJ3GEYJ471V	470 1/16W	[M]
R692	ERJ3GEYJ471V	470 1/16W	[M]
R693	ERJ3GEYJ471V	470 1/16W	[M]
R695	ERJ3GEYJ101V	100 1/16W	[M]
R697	ERJ3GEYJ101V	100 1/16W	[M]
R698	ERJ3GEYJ101V	100 1/16W	[M]
R699	ERJ3GEYJ101V	100 1/16W	[M]
R700	ERDS1FVJ180T	18 1/2W	[M]
R700	ERJ3GEYJ221V	220 1/16W	[M]
R701	ERDS2TJ563T	56K 1/4W	[M]
R701	ERJ3GEYJ221V	220 1/16W	[M]
R701	ERJ3GEYJ4R7V	4.7 1/16W	[M]
R702	ERDS2TJ101T	100 1/4W	[M]
R702	ERJ3GEYJ103V	10K 1/16W	[M]
R703	ERDS2TJ103T	10K 1/4W	[M]
R704	ERDS2TJ563T	56K 1/4W	[M]
R704	ERJ3GEYJ102V	1K 1/16W	[M]
R705	ERDS2TJ103T	10K 1/4W	[M]
R705	ERJ3GEYJ393V	39K 1/16W	[M]
R706	ERDS2TJ472T	4.7K 1/4W	[M]
R706	ERJ3GEYJ102V	1K 1/16W	[M]
R707	ERDS2TJ562T	5.6K 1/4W	[M]
R707	ERJ3GEYJ154V	150K 1/16W	[M]
R708	ERDS2TJ103T	10K 1/4W	[M]
R708	ERJ3GEYJ154V	150K 1/16W	[M]
R708	ERJ3GEYJ473V	47K 1/16W	[M]
R709	ERDS2TJ824T	820K 1/4W	[M]
R709	ERJ3GEYJ473V	47K 1/16W	[M]
R710	ERDS2TJ563T	56K 1/4W	[M]
R711	ERDS2TJ824T	820K 1/4W	[M]
R711	ERJ3GEYJ823V	82K 1/16W	[M]
R712	ERJ3GEYJ221V	220 1/16W	[M]
R713	ERDS2TJ563T	56K 1/4W	[M]
R714	ERJ3GEY0R00V	0 1/16W	[M]
R715	ERJ3GEYJ102V	1K 1/16W	[M]
R717	ERJ3GEYJ102V	1K 1/16W	[M]
R718	ERJ3GEYJ102V	1K 1/16W	[M]
R720	ERDS2TJ683T	68K 1/4W	[M]
R721	ERDS2TJ683T	68K 1/4W	[M]
R721	ERJ3GEYJ101V	100 1/16W	[M]
R722	ERDS2TJ104T	100K 1/4W	[M]
R723	ERDS2TJ102T	1K 1/4W	[M]
R723	ERJ3GEYJ103V	10K 1/16W	[M]
R724	ERDS2TJ104T	100K 1/4W	[M]
R724	ERJ3GEYJ153V	15K 1/16W	[M]
R725	ERDS2TJ102T	1K 1/4W	[M]
R725	ERJ3GEYJ681V	680 1/16W	[M]
R726	ERDS2TJ273T	27K 1/4W	[M]
R727	ERDS2TJ104T	100K 1/4W	[M]
R727	ERJ3GEYJ272V	2.7K 1/16W	[M]
R728	ERDS2TJ102T	1K 1/4W	[M]
R728	ERJ3GEYJ222V	2.2K 1/16W	[M]
R729	ERDS2TJ102T	1K 1/4W	[M]
R729	ERJ3GEYJ272V	2.7K 1/16W	[M]
R730	ERDS2TJ224T	220K 1/4W	[M]
R731	ERDS2TJ562T	5.6K 1/4W	[M]
R731	ERJ3GEYJ103V	10K 1/16W	[M]
R732	ERDS2TJ153T	15K 1/4W	[M]
R732	ERJ3GEYJ102V	1K 1/16W	[M]
R733	ERDS2TJ153T	15K 1/4W	[M]
R734	ERDS2TJ221T	220 1/4W	[M]
R735	ERDS2TJ224T	220K 1/4W	[M]
R735	ERJ3GEYJ101V	100 1/16W	[M]
R736	ERDS2TJ562T	5.6K 1/4W	[M]
R736	ERJ3GEYJ101V	100 1/16W	[M]
R737	ERDS2TJ681T	680 1/4W	[M]
R738	ERDS2TJ153T	15K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R739	ERDS2TJ681T	680 1/4W	[M]
R740	ERDS2TJ153T	15K 1/4W	[M]
R741	ERDS2TJ562T	5.6K 1/4W	[M]
R741	ERJ3GEYJ473V	47K 1/16W	[M]
R742	ERDS2TJ562T	5.6K 1/4W	[M]
R742	ERJ3GEYJ224V	220K 1/16W	[M]
R743	ERDS2TJ102T	1K 1/4W	[M]
R744	ERDS2TJ153T	15K 1/4W	[M]
R744	ERJ3GEYJ393V	39K 1/16W	[M]
R745	ERDS2TJ562T	5.6K 1/4W	[M]
R746	ERDS2TJ562T	5.6K 1/4W	[M]
R747	ERDS2TJ102T	1K 1/4W	[M]
R748	ERDS2TJ152T	1.5K 1/4W	[M]
R749	ERDS2TJ152T	1.5K 1/4W	[M]
R749	ERJ3GEYJ272V	2.7K 1/16W	[M]
R750	ERDS2TJ332T	3.3K 1/4W	[M]
R750	ERJ3GEYJ103V	10K 1/16W	[M]
R751	ERDS2TJ332T	3.3K 1/4W	[M]
R751	ERJ3GEYJ472V	4.7K 1/16W	[M]
R752	ERDS2TJ104T	100K 1/4W	[M]
R753	ERDS2TJ103T	10K 1/4W	[M]
R753	ERJ3GEYJ100V	10 1/16W	[M]
R754	ERDS2TJ220T	22 1/4W	[M]
R754	ERJ3GEYJ5R6V	5.6 1/16W	[M]
R755	ERDS2TJ220T	22 1/4W	[M]
R756	ERDS2TJ220T	22 1/4W	[M]
R757	ERDS2TJ220T	22 1/4W	[M]
R758	ERDS2TJ103T	10K 1/4W	[M]
R759	ERDS2TJ682T	6.8K 1/4W	[M]
R760	ERDS2TJ223T	22K 1/4W	[M]
R761	ERDS2TJ223T	22K 1/4W	[M]
R762	ERDS2TJ103T	10K 1/4W	[M]
R763	ERDS2TJ103T	10K 1/4W	[M]
R764	ERDS2TJ683T	68K 1/4W	[M]
R765	ERDS2TJ683T	68K 1/4W	[M]
R766	ERDS2TJ123T	12K 1/4W	[M]
R767	ERDS2TJ123T	12K 1/4W	[M]
R768	ERDS2TJ472T	4.7K 1/4W	[M]
R769	ERDS2TJ472T	4.7K 1/4W	[M]
R770	ERDS2TJ332T	3.3K 1/4W	[M]
R771	ERDS2TJ104T	100K 1/4W	[M]
R772	ERDS2TJ682T	6.8K 1/4W	[M]
R773	ERDS2TJ102T	1K 1/4W	[M]
R774	ERDS2TJ104T	100K 1/4W	[M]
R775	ERDS2TJ153T	15K 1/4W	[M]
R776	ERDS2TJ102T	1K 1/4W	[M]
R777	ERDS2TJ221T	220 1/4W	[M]
R778	ERDS2TJ153T	15K 1/4W	[M]
R779	ERDS2TJ153T	15K 1/4W	[M]
R780	ERDS2TJ473T	47K 1/4W	[M]
R781	ERDS2TJ473T	47K 1/4W	[M]
R900	ERJ3GEYJ103V	10K 1/16W	[M]
R901	ERJ3GEYJ103V	10K 1/16W	[M]
R902	ERJ3GEYJ103V	10K 1/16W	[M]
R903	ERJ3GEYJ103V	10K 1/16W	[M]
R904	ERJ3GEYJ123V	12K 1/16W	[M]
R905	ERJ3GEYJ472V	4.7K 1/16W	[M]
R906	ERJ3GEYJ472V	4.7K 1/16W	[M]
R907	ERJ3GEYJ472V	4.7K 1/16W	[M]
R910	ERJ3GEYJ472V	4.7K 1/16W	[M]
R911	ERJ3GEYJ103V	10K 1/16W	[M]
R912	ERJ3GEYJ101V	100 1/16W	[M]
R913	ERJ3GEYJ562V	5.6K 1/16W	[M]
R914	ERJ3GEYJ562V	5.6K 1/16W	[M]
R915	ERJ3GEYJ562V	5.6K 1/16W	[M]
R916	ERJ3GEYJ562V	5.6K 1/16W	[M]
R917	ERJ3GEYJ101V	100 1/16W	[M]
R918	ERJ3GEYJ101V	100 1/16W	[M]
R919	ERJ3GEYJ101V	100 1/16W	[M]
R920	ERJ3GEYJ104V	100K 1/16W	[M]
R921	ERJ3GEYJ104V	100K 1/16W	[M]
R922	ERJ3GEYJ104V	100K 1/16W	[M]
R923	ERJ3GEYJ223V	22K 1/16W	[M]
R924	ERJ3GEYJ103V	10K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R925	ERJ3GEYJ223V	22K 1/16W	[M]
R930	ERJ3GEYJ102V	1K 1/16W	[M]
R972	ERDS2TJ821T	820 1/4W	[M]
R973	ERDS2TJ393T	39K 1/4W	[M]
R1101	ERJ3GEYJ270V	27 1/16W	[M]
R1102	ERJ3GEYJ152V	1.5K 1/16W	[M]
R1103	ERJ3GEYJ183V	18K 1/16W	[M]
R1104	ERJ3GEYJ103V	10K 1/16W	[M]
R1105	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1106	ERJ3GEYJ104V	100K 1/16W	[M]
R1107	ERJ3GEYJ102V	1K 1/16W	[M]
R1109	ERJ3GEYJ102V	1K 1/16W	[M]
R1110	ERJ3GEYJ333V	33K 1/16W	[M]
R1201	ERJ3GEYJ270V	27 1/16W	[M]
R1202	ERJ3GEYJ152V	1.5K 1/16W	[M]
R1203	ERJ3GEYJ183V	18K 1/16W	[M]
R1204	ERJ3GEYJ103V	10K 1/16W	[M]
R1205	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1206	ERJ3GEYJ104V	100K 1/16W	[M]
R1207	ERJ3GEYJ102V	1K 1/16W	[M]
R1209	ERJ3GEYJ102V	1K 1/16W	[M]
R1210	ERJ3GEYJ333V	33K 1/16W	[M]
R1302	ERJ3GEYJ331V	330 1/16W	[M]
R1303	ERJ3GEYJ475V	4.7M 1/16W	[M]
R1304	ERJ3GEYJ223V	22K 1/16W	[M]
R1305	ERJ3GEYJ103V	10K 1/16W	[M]
R1307	ERD25FVJ220T	22 1/4W	[M]
R1308	ERD25FVJ220T	22 1/4W	[M]
R1309	ERDS1FVJ471T	470 1/2W	[M]
R1313	ERJ3GEYJ103V	10K 1/16W	[M]
R1314	ERJ3GEYJ102V	1K 1/16W	[M]
R1316	ERJ3GEYJ102V	1K 1/16W	[M]
R1318	ERJ3GEYJ103V	10K 1/16W	[M]
R1327	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1328	ERJ3GEYJ153V	15K 1/16W	[M]
R1329	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1330	ERD2FCVJ4R7T	4.7 1/4W	[M]
R1331	ERJ3GEYJ752V	7.5K 1/16W	[M]
R1332	ERJ3GEYJ103V	10K 1/16W	[M]
R1333	ERD2FCVJ4R7T	4.7 1/4W	[M]
R1334	ERJ3GEYJ223V	22K 1/16W	[M]
R1335	ERJ3GEYJ152V	1.5K 1/16W	[M]
R1336	ERJ3GEYJ152V	1.5K 1/16W	[M]
R1337	ERJ3GEYJ103V	10K 1/16W	[M]
R1338	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1341	ERJ3GEYJ471V	470 1/16W	[M]
R1342	ERJ3GEYJ473V	47K 1/16W	[M]
R1343	ERJ3GEYJ332V	3.3K 1/16W	[M]
R1344	ERJ3GEYJ273V	27K 1/16W	[M]
R1345	ERJ3GEYJ102V	1K 1/16W	[M]
R1371	ERJ3GEYJ223V	22K 1/16W	[M]
R1374	ERJ3GEYJ471V	470 1/16W	[M]
R1401	ERJ3GEYJ123V	12K 1/16W	[M]
R1402	ERJ3GEYJ274V	270K 1/16W	[M]
R1403	ERJ3GEYJ103V	10K 1/16W	[M]
R1404	ERJ3GEYJ223V	22K 1/16W	[M]
R1405	ERJ3GEYJ103V	10K 1/16W	[M]
		CAPACITORS	
C11	F1D1E103A001	0.01 25V	[M]
C12	ECA1CAK101XB	100 16V	[M]
C21	F1D1E103A001	0.01 25V	[M]
C22	ECA1CAK101XB	100 16V	[M]
C101	ECJ1VB1E103K	0.01 25V	[M]
C102	ECA1CAK101XB	100 16V	[M]
C103	ECJ1VB1E103K	0.01 25V	[M]
C104	ECJ1VB1H102K	1000P 50V	[M]
C105	ECJ1VB1H102K	1000P 50V	[M]
C106	ECJ1VB1H103K	0.01 50V	[M]
C107	ECUV1C473KBV	0.047 16V	[M]
C108	ECUV1H080DCV	8P 50V	[M]
C109	ECJ1VB1H102K	1000P 50V	[M]
C110	ECJ1VB1E103K	0.01 25V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C111	ECA1HAK4R7XB	4.7 50V	[M]
C112	ECJ1VB1E103K	0.01 25V	[M]
C113	ECJ1VB1H102K	1000P 50V	[M]
C114	ECA1HAK3R3XB	3.3 50V	[M]
C115	ECA1HAK4R7XB	4.7 50V	[M]
C116	ECUV1C333KBV	0.033 16V	[M]
C117	ECJ1VB1E103K	0.01 25V	[M]
C118	ECJ1VB1E103K	0.01 25V	[M]
C119	F0A2A561A010	560P 100V	[M]
C120	ECA1CAK100XB	10 16V	[M]
C121	ECA1HAKR47XB	0.47 50V	[M]
C122	ECA1HAK010XB	1 50V	[M]
C123	ECA1HAK010XB	1 50V	[M]
C124	ECUV1H101JCV	100P 50V	[M]
C125	ECA1CAK220XB	22 16V	[M]
C127	ECA1CAK220XB	22 16V	[M]
C129	ECA0JAK101XB	100 6.3V	[M]
C130	ECA0JAK101XB	100 6.3V	[M]
C131	ECJ2VCLH101K	100 50V	[M]
C132	ECJ1VB1H102K	1000P 50V	[M]
C133	ECUV1H270JCV	27P 50V	[M]
C134	ECUV1H270JCV	27P 50V	[M]
C136	ECJ1VB1H102K	1000P 50V	[M]
C137	ECUV1H332KBV	3300P 50V	[M]
C138	ECJ1VB1E103K	0.01 25V	[M]
C139	ECA1HAK4R7XB	4.7 50V	[M]
C141	ECA1HAK010XB	1 50V	[M]
C142	ECA1HAK010XB	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	F1H1C104A065	0.1 16V	[M]
C201	ECJ1VC1H471J	470 50V	[M]
C203	ECA1HAK4R7XB	4.7 50V	[M]
C205	ECA1HAK2R2XB	2.2 50V	[M]
C206	ECUV1H221KBV	220P 50V	[M]
C207	ECA1CAK100XB	10 16V	[M]
C208	ECA1HAK2R2XB	2.2 50V	[M]
C209	ECA1HAK2R2XB	2.2 50V	[M]
C210	ECUV1H471KBV	470P 50V	[M]
C211	ECQV1H823JZ3	0.082 50V	[M]
C212	ECQV1H394JZ3	0.39 50V	[M]
C213	ECA1CAK100XB	10 16V	[M]
C215	ECA1HAK2R2XB	2.2 50V	[M]
C217	ECJ1VB1H102K	1000P 50V	[M]
C218	ECUV1E473KBV	0.047 25V	[M]
C219	ECUV1E473KBV	0.047 25V	[M]
C220	ECUV1E473KBV	0.047 25V	[M]
C221	ECUV1E473KBV	0.047 25V	[M]
C222	ECUV1E473KBV	0.047 25V	[M]
C223	ECUV1E473KBV	0.047 25V	[M]
C232	ECJ1VB1H102K	1000P 50V	[M]
C301	ECJ1VB1H102K	1000P 50V	[M]
C302	ECJ1VB1E103K	0.01 25V	[M]
C303	ECUV1H101JCV	100P 50V	[M]
C304	ECUV1H101JCV	100P 50V	[M]
C305	ECUV1H101JCV	100P 50V	[M]
C306	ECA1HAK220XB	22 50V	[M]
C307	ECA1CAK101XB	100 16V	[M]
C391	ECJ1VC1H470J	47P 50V	[M]
C392	ECUV1H561KBV	560P 50V	[M]
C393	ECA1HAK100XB	10 50V	[M]
C394	ECJ1VC1H102J	1000P 50V	[M]
C395	ECA1HAK100XB	10 50V	[M]
C396	ECA0JAK470XB	47 6.3V	[M]
C397	ECJ1VB1H103K	0.01 50V	[M]
C398	ECJ1VB1H331K	330P 50V	[M]
C399	ECJ1VC1H470J	47P 50V	[M]
C400	ECUV1H101JCV	100P 50V	[M]
C401	ECJ1VC1H471J	470 50V	[M]
C403	ECA1HAK4R7XB	4.7 50V	[M]
C405	ECA1HAK2R2XB	2.2 50V	[M]
C406	ECUV1H221KBV	220P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C407	ECA1CAK100XB	10 16V	[M]
C408	ECA1HAK2R2XB	2.2 50V	[M]
C409	ECA1HAK2R2XB	2.2 50V	[M]
C410	ECUV1H471KBV	470P 50V	[M]
C411	ECQV1H823JZ3	0.082 50V	[M]
C412	ECQV1H394JZ3	0.39 50V	[M]
C413	ECA1CAK100XB	10 16V	[M]
C415	ECA1HAK2R2XB	2.2 50V	[M]
C416	ECUV1H101JCV	100P 50V	[M]
C417	ECJ1VB1H102K	1000P 50V	[M]
C418	ECUV1E473KBV	0.047 25V	[M]
C419	ECUV1E473KBV	0.047 25V	[M]
C432	ECJ1VB1H102K	1000P 50V	[M]
C500	F1D1H821A012	820P 50V	[M]
C501	F1D1C182A010	1800P 16V	[M]
C502	F1D1C182A010	1800P 16V	[M]
C503	F1D1H821A012	820P 50V	[M]
C504	F1D1H390A006	39P 50V	[M]
C505	F1D1H390A006	39P 50V	[M]
C506	ECA1VAM222XB	2200 35V	[M]
C507	ECA1VAM222XB	2200 35V	[M]
C508	ECA1EAM332XB	3300 25V	[M]
C509	F1D1H330A006	33P 50V	[M]
C510	F1D1H330A006	33P 50V	[M]
C511	ECKR1H103ZF5	0.01 50V	[M]
C512	ECA1CAK101XB	100 16V	[M]
C513	ECKR1H103ZF5	0.01 50V	[M]
C514	ECA1AAK330XB	33 10V	[M]
C515	ECBT1H103KB5	0.01 50V	[M]
C516	ECA1HAK100XB	10 50V	[M]
C517	ECKR2H103ZF5	0.01 500V	[M]
C518	ECKR1H103ZF5	0.01 50V	[M]
C520	ECKR1H103ZF5	0.01 50V	[M]
C521	ECA1EAK330XB	33 25V	[M]
C526	ECA1HM330B	33 50V	[M]
C528	ECKR1H103ZF5	0.01 50V	[M]
C530	ECQE2104KF3	0.1 250V	[M]
C533	ECQV1H104JZ3	0.1 50V	[M]
C535	ECKR2H103ZF5	0.01 500V	[M]
C536	ECA1AAK221XB	220 10V	[M]
C537	F1D1H102A012	1000P 50V	[M]
C548	ECKR1H103ZF5	0.01 50V	[M]
C550	ECJ1VB1H103K	0.01 50V	[M]
C551	ECUV1H104KBV	0.1 50V	[M]
C552	ECA1HAK4R7XB	4.7 50V	[M]
C553	ECA1HAK010XB	1 50V	[M]
C575	ECA1HAK4R7XB	4.7 50V	[M]
C578	ECKR1H103ZF5	0.01 50V	[M]
C580	ECKR1H103ZF5	0.01 50V	[M]
C581	ECA1HAM470XB	47 50V	[M]
C582	ECQE2104KF3	0.1 250V	[M]
C583	ECKR1H103ZF5	0.01 50V	[M]
C584	ECA1CM102B	1000 16V	[M] EB
C584	RCA1CM102BT	1000 16V	[M] E, EG
C585	ECA1EAM101XB	100 25V	[M]
C586	ECA2AM100B	10 100V	[M]
C587	ECA1JM101B	100 63V	[M]
C588	ECA1HM101B	100 50V	[M]
C601	ECEA1VKA220B	22 35V	[M]
C602	ECEA1VKA220B	22 35V	[M]
C613	ECA0JAK101XB	100 6.3V	[M]
C614	F1H1C104A065	0.1 16V	[M]
C615	ECA0JM102B	1000 6.3V	[M]
C616	ECJ1VB1H102K	1000P 50V	[M]
C617	ECJ1VB1H331K	330P 50V	[M]
C618	ECUV1H221KBV	220P 50V	[M]
C619	ECUV1H221KBV	220P 50V	[M]
C621	ECJ1VB1H103K	0.01 50V	[M]
C622	ECA1CAK220XB	22 16V	[M]
C623	ECUV1H561KBV	560P 50V	[M]
C624	ECUV1H561KBV	560P 50V	[M]
C625	ECUV1H561KBV	560P 50V	[M]
C626	ECUV1H561KBV	560P 50V	[M]
C627	ECUV1H101JCV	100P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C628	ECUV1H101JCV	100P 50V	[M]
C632	ECUV1C223KBV	0.022 16V	[M]
C633	ECJ1VC1H680J	68P 50V	[M]
C634	ECJ1VC1H680J	68P 50V	[M]
C635	ECJ1VC1H180J	18P 50V	[M]
C636	ECJ1VC1H220J	22P 50V	[M]
C637	ECUV1H560JCV	56P 50V	[M]
C638	ECUV1H560JCV	56P 50V	[M]
C639	ECJ1VB1H102K	1000P 50V	[M]
C640	ECJ1VB1H102K	1000P 50V	[M]
C641	ECJ1VB1H103K	0.01 50V	[M]
C642	ECUV1H101JCV	100P 50V	[M]
C643	ECUV1H101JCV	100P 50V	[M]
C644	ECA1HAK010XB	1 50V	[M]
C645	ECA1HAK2R2XB	2.2 50V	[M]
C646	ECA1HAK3R3XB	3.3 50V	[M]
C647	ECJ1VB1H102K	1000P 50V	[M]
C648	ECJ1VB1H103K	0.01 50V	[M]
C649	ECA0JAK470XB	47 6.3V	[M]
C651	F1H1C104A065	0.1 16V	[M]
C652	ECUV1H101JCV	100P 50V	[M]
C653	ECUV1H101JCV	100P 50V	[M]
C654	ECUV1H101JCV	100P 50V	[M]
C655	ECUV1H101JCV	100P 50V	[M]
C656	ECUV1H101JCV	100P 50V	[M]
C657	ECUV1H101JCV	100P 50V	[M]
C658	ECUV1H101JCV	100P 50V	[M]
C659	ECUV1H101JCV	100P 50V	[M]
C660	ECUV1H101JCV	100P 50V	[M]
C661	ECUV1H473KBV	0.047 50V	[M]
C662	ECJ1VB1E223K	0.022 25V	[M]
C663	ECJ1VB1E223K	0.022 25V	[M]
C664	ECUV1H104KBV	0.1 50V	[M]
C700	ECA0JAK101XB	100 6.3V	[M]
C701	ECEA0JKA330I	33 6.3V	[M]
C701	ECEA1CKA330B	33 16V	[M]
C702	ECA1HAK2R2XB	2.2 50V	[M]
C702	F1H1C104A065	0.1 16V	[M]
C703	ECEA0JKA101I	100 6.3V	[M]
C703	F1D1H1040002	0.1 50V	[M]
C704	ECA1AAK221XB	220 10V	[M]
C704	F1H1C104A065	0.1 16V	[M]
C705	ECEA1AKN100B	10 10V	[M]
C705	F1H1C104A065	0.1 16V	[M]
C706	ECUV1C473KBV	0.047 16V	[M]
C707	ECUV1C393KBV	0.039 16V	[M]
C709	F1D1H102A012	1000P 50V	[M]
C710	ECUV1H391KBV	390P 50V	[M]
C710	F1D1H102A012	1000P 50V	[M]
C711	ECA1CAK100XB	10 16V	[M]
C711	ECJ1VB1H272K	2700P 50V	[M]
C712	ECBT1C122KR5	1200P 16V	[M]
C712	ECJ1VB1H272K	2700P 50V	[M]
C713	ECA1HAK2R2XB	2.2 50V	[M]
C713	F1H1C104A065	0.1 16V	[M]
C714	ECEA0JKA101I	100 6.3V	[M]
C714	ECFR1C273KR	0.027 16V	[M]
C715	ECBT1C122KR5	1200P 16V	[M]
C715	ECJ1VB1H272K	2700P 50V	[M]
C716	ECA1HAK2R2XB	2.2 50V	[M]
C716	ECUV1H821KBV	820P 50V	[M]
C717	ECFR1C273KR	0.027 16V	[M]
C717	ECUV1E104ZV	0.1 25V	[M]
C718	ECUV1A224KBV	0.22 10V	[M]
C720	ECA1HAK010XB	1 50V	[M]
C721	ECJ1VC1H150J	15P 50V	[M]
C721	F1D1C562A010	5600P 16V	[M]
C722	ECJ1VC1H150J	15P 50V	[M]
C722	F1D1C562A010	5600P 16V	[M]
C723	ECA1HAK010XB	1 50V	[M]
C723	ECEA1AKA221I	220 10V	[M]
C724	F1D1C562A010	5600P 16V	[M]
C724	F1H1C104A065	0.1 16V	[M]
C725	ECJ1VB1H102K	1000P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C725	F1D1C562A010	5600P 16V	[M]
C726	ECA1CAK100XB	10 16V	[M]
C726	ECJ1VB1H102K	1000P 50V	[M]
C727	ECA1CAK100XB	10 16V	[M]
C727	ECA1HAK010XI	1 50V	[M]
C728	ECA1HAK010XI	1 50V	[M]
C728	ECBT1C332KR5	3300P 16V	[M]
C729	ECBT1C332KR5	3300P 16V	[M]
C730	ECA1HAK3R3XB	3.3 50V	[M]
C730	ECUV1E104ZPV	0.1 25V	[M]
C731	ECA0JAK221XI	220 6.3V	[M]
C731	ECA1HAK3R3XB	3.3 50V	[M]
C732	ECEA0JKA221I	220 6.3V	[M]
C732	F1D1H101A012	100P 50V	[M]
C733	F1D1H101A012	100P 50V	[M]
C733	F1H1C104A065	0.1 16V	[M]
C734	ECEA1AKA221I	220 10V	[M]
C735	ECUV1E104ZPV	0.1 25V	[M]
C736	ECQV1H124JZ3	0.12 50V	[M]
C737	ECQV1H124JZ3	0.12 50V	[M]
C738	ECA1CAK100XB	10 16V	[M]
C738	ECUV1C563KBV	0.056 16V	[M]
C739	ECUV1H222KBV	2200P 50V	[M]
C739	F1D1C272A010	2700P 16V	[M]
C740	F1D1C272A010	2700P 16V	[M]
C741	ECA1HAKR33XB	0.33 50V	[M]
C742	ECA1HAKR33XB	0.33 50V	[M]
C742	ECUV1C473KBV	0.047 16V	[M]
C743	ECBT1H103KB5	0.01 50V	[M]
C743	ECUV1E104ZPV	0.1 25V	[M]
C744	ECBT1H103KB5	0.01 50V	[M]
C744	ECUV1H562KBV	5600P 50V	[M]
C745	ECUV1E104ZPV	0.1 25V	[M]
C745	F1D1H101A012	100P 50V	[M]
C746	F1D1H101A012	100P 50V	[M]
C747	ECBT1H470JC5	47P 50V	[M]
C747	ECUV1H471KBV	470P 50V	[M]
C748	ECBT1H470JC5	47P 50V	[M]
C749	ECBT1H822KB5	8200P 50V	[M]
C749	ECJ1VB1H222K	2200P 50V	[M]
C750	ECBT1H822KB5	8200P 50V	[M]
C751	ECA1CAK100XB	10 16V	[M]
C752	ECA1CAK100XB	10 16V	[M]
C752	ECUV1H152KBV	1500P 50V	[M]
C753	ECUV1H471KBV	470P 50V	[M]
C754	ECUV1H471KBV	470P 50V	[M]
C755	ECBT1H681KB5	680P 50V	[M]
C756	ECBT1H681KB5	680P 50V	[M]
C1101	ECA1HAK010XB	1 50V	[M]
C1102	ECUV1H471KBV	470P 50V	[M]
C1103	ECA1CAK101XB	100 16V	[M]
C1104	ECUV1C273KBV	0.027 16V	[M]
C1105	ECUV1H471KBV	470P 50V	[M]
C1106	ECA1HAK2R2XB	2.2 50V	[M]
C1107	F1H1H152A219	1500P 50V	[M]
C1108	ECA1CAK100XB	10 16V	[M]
C1109	ECA1HAK3R3XB	3.3 50V	[M]
C1110	ECUV1H682KBV	6800P 50V	[M]
C1121	ECJ1VB1H102K	1000P 50V	[M]
C1122	ECUV1E103KBV	0.01 25V	[M]
C1123	ECUV1H271KBV	270P 50V	[M]
C1201	ECA1HAK010XB	1 50V	[M]
C1202	ECUV1H471KBV	470P 50V	[M]
C1203	ECA1CAK101XB	100 16V	[M]
C1204	ECUV1C273KBV	0.027 16V	[M]
C1205	ECUV1H471KBV	470P 50V	[M]
C1206	ECA1HAK2R2XB	2.2 50V	[M]
C1207	F1H1H152A219	1500P 50V	[M]
C1208	ECA1CAK100XB	10 16V	[M]
C1209	ECA1HAK3R3XB	3.3 50V	[M]
C1210	ECUV1H682KBV	6800P 50V	[M]
C1221	ECJ1VB1H102K	1000P 50V	[M]
C1222	ECUV1E103KBV	0.01 25V	[M]
C1223	ECUV1H271KBV	270P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C1301	ECA1HAK0R1XB	0.1 50V	[M]
C1302	ECUV1C333KBV	0.033 16V	[M]
C1303	ECUV1C333KBV	0.033 16V	[M]
C1304	ECEA1HKA4R7B	4.7 50V	[M]
C1305	ECA1CAK330XB	33 16V	[M]
C1307	ECA1AAK221XQ	220 10V	[M]
C1308	ECA1CAK220XB	22 16V	[M]
C1310	ECA1HAK0R1XB	0.1 50V	[M]
C1311	ECA1CAK470XB	47 16V	[M]
C1312	ECUV1H332KBV	3300P 50V	[M]
C1314	ECUV1H222KBV	2200P 50V	[M]
C1315	ECUV1H222KBV	2200P 50V	[M]
C1316	ECJ1VB1H102K	1000P 50V	[M]
C1317	ECJ1VB1H102K	1000P 50V	[M]
C1318	ECQV1H473JZ3	0.047 50V	[M]
C1319	ECA1CAK101XB	100 16V	[M]
C1320	ECA1HAK010XB	1 50V	[M]
C1321	EQCP1472JZT	4700P 100V	[M]
C1322	F0A2A102A010	1000P 100V	[M]
C1323	ECEA1HKN010B	1 50V	[M]
C1324	ECA1CAK470XB	47 16V	[M]
C1325	ECUV1E103KBV	0.01 25V	[M]
C1326	ECA1CAK100XB	10 16V	[M]
C1371	ECUV1E103KBV	0.01 25V	[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]
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]
RJ714	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]
RJ719	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]
RJ731	ERJ3GEY0R00V	0 1/16W	[M]
RJ732	ERJ3GEY0R00V	0 1/16W	[M]
RJ733	ERJ3GEY0R00V	0 1/16W	[M]
RJ734	ERJ3GEY0R00V	0 1/16W	[M]
RJ735	ERJ3GEY0R00V	0 1/16W	[M]
RJ736	ERJ3GEY0R00V	0 1/16W	[M]
RJ738	ERJ3GEY0R00V	0 1/16W	[M]

20.5. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX1004	PACKING CASE	[M] EB EG
P1	RPGX1150	PACKING CASE	[M] E
P2	RPNX0162	POLYFOAM	[M]
P3	RPHV0001	MIRAMAT	[M]
		ACCESSORIES	
A1	EUR7711020	REMOTE CONTROL	[M]
A1-1	UR64EC2337J	R/C BATTERY COVER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
A2	RJA0019-2K	AC CORD (SF)	[M] EG E △
A2	VJA0733	AC CORD (SF)	[M] EB △
A3	RQT6686-B	O/I BOOK (En)	[M] EB E
A3	RQT6687-E	O/I BOOK (Sp/Ru/Cz/Po)	[M] E
A3	RQT6688-D	O/I BOOK (Ge/It/Fr)	[M] EG
A3	RQT6689-H	O/I BOOK (Du/Da/Sw)	[M] EG
A4	RSA0007-L	FM ANTENNA	[M]
A5	RSA0033A	AM LOOP ANTENNA	[M]
A6	K1YZ02000013	ANTENNA ADAPTER	[M] EB

20.6. Packaging

ACCESSORIES CASE

A1 : REMOTE CONTROL

A2 : AC CORD

A3 : O/I BOOK

A4 : FM ANTENNA WIRE

A5 : AM LOOP ANTENNA

