Service Manual

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Order No. MD0206158C2

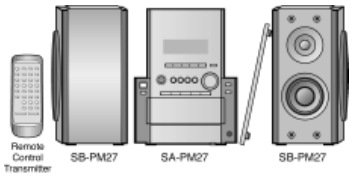
Service Manual

CD Stereo System

- SA-PM27E
  SA-PM27EB
  SA-PM27EG

Colour

(K) ... Black Type



Specification

Amplifier Section	
RMS Power output	
10% Total harmonic distortion	
100 Hz, both channels driven (Low channel)	30 W per channel (6Ω)
1 kHz, both channels driven (High channel)	30 W per channel (6Ω)
Total Bi-Amp power	60 W per channel
Input sensitivity	
AUX	250 mV
Input impedance	
AUX	11.8 kΩ
FM Tuner Section	
Frequency range	87.50-108.00 MHz (50 kHz steps)
Sensitivity	1.8•V (IHF)
S/N 26 dB	1.5•V
Antenna terminal(s)	75Ω (unbalanced)
AM Tuner Section	
Frequency range	522-1629 kHz (9 kHz steps)
Sensitivity	
S/N 20 dB (at 999 kHz)	560•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 dB, -6 dB at Deck Out)	
Normal (type I)	35 Hz - 14 kHz
S/N	50 dB (A weighted)
Wow and flutter	0.18% (WRMS)
Fast forward and rewind 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 - 20 kHz (+1, -2 dB)
Wow and flutter	Below measurable limit
Digital filter	8 fs
D/A converter	MASH (1 bit DAC)

General

Power supply	AC 230 V, 50 Hz
Power consumption	110 W
Dimensions (W x H x D)	179 x 241 x 375 mm
Mass	5.6 kg
Power consumption in standby mode	Approx. 0.7 W
System: SC-PM27(E)	Music Center: SA-PM27(E)
	Speaker: SB-PM27(P)
System: SC-PM27(EB)	Music Center: SA-PM27(EB)
	Speaker: SB-PM27(P)
System: SC-PM27(EG)	Music Center: SA-PM27(EG)
	Speaker: SB-PM27(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.

⚠ 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.

1 Before Repair and Adjustment

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Disconnect AC power, discharge Power Supply Capacitors C506, C507, C508, C576, C577, C587, C588, 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 statedevices.

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.

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2 Protection Circuitry

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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 ofthe 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.

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3 Accessories

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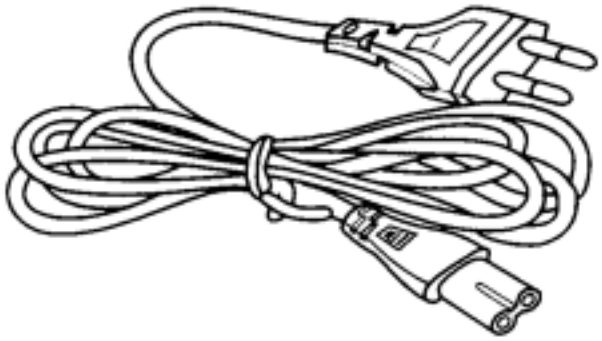
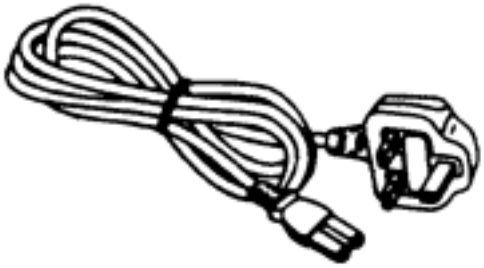
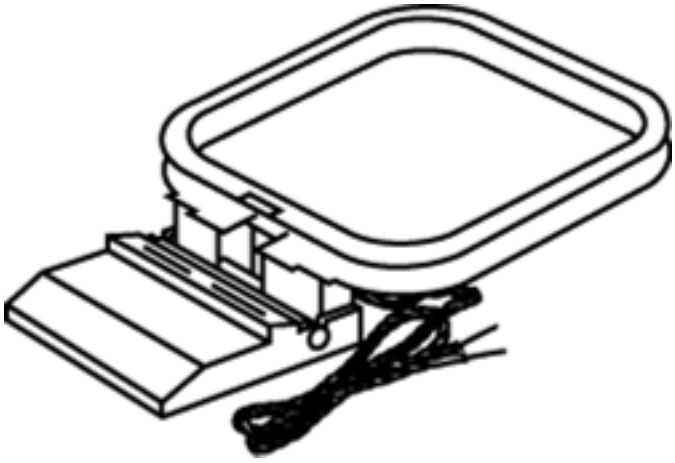
AC Mains lead (E/EG).....1 pc



AC Mains lead (EB).....1 pc



AM Loop Antenna.....1 pc



FM Indoor Antenna.....1 pc

Antenna Plug Adaptor.....1 pc (EB only)

Remote Control Transmitter.....1 pc

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4 Caution for AC Mains Lead

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(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

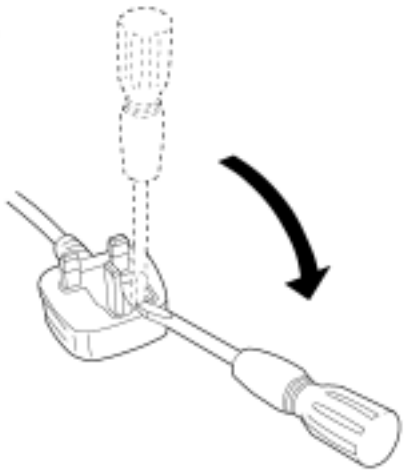
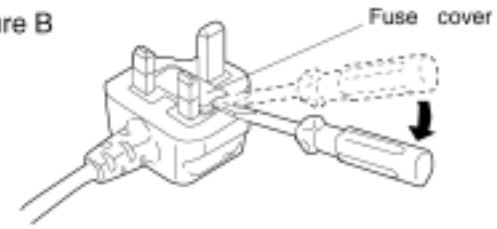


Figure B



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

Figure A

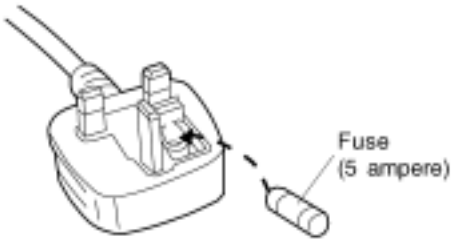
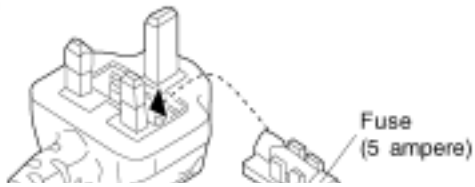


Figure B



5 Self-Diagnostic Display Function

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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.

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5.1 Preparations

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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.

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5.2 Setting of the Self-Diagnostic Mode

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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.

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5.3 Restoring Normal Display

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- 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.

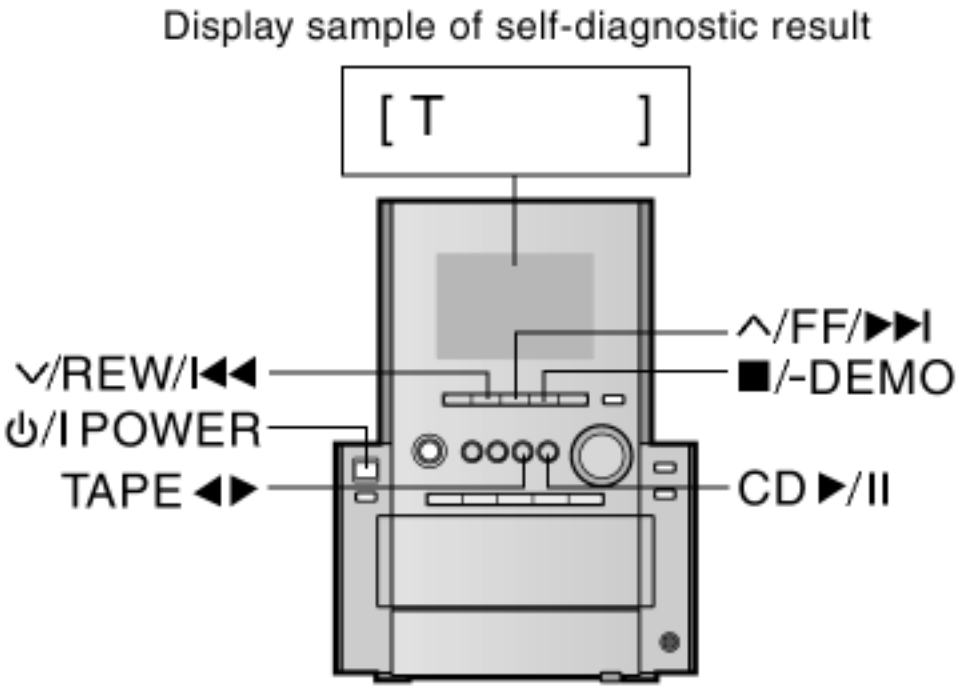

Fig. 3

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5.4 Clearing Self-Diagnostic Memory

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<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 unchange even if "

   ■/-DEMO" button is pressed.

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5.5 Displaying Self-Diagnostic Results

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<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 stopsat 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 [

   ^ /FF/

   ⏭] button. The tape will be forwarded and automatically stop after two seconds.

6. Remove the cassette tape, and set the other side.

7. Press [

   v /REW/

   ⏮] button. The tape will be rewound and automatically stops after two seconds.

8. Press [

   ■/-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 [

■/-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 mchanism 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 duing 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 achieve, 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 mehca 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 achieve, 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 achieve, 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 abnorml.	While going to play position, if failsafe counter is finished and switch no change or switch target condition was not achieve, this error shall be memorized. Next time mechanism operates, it shall do coldstart. Error No. shall be cleared by force or coldstart.

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6 Handling Precautions For Traverse Deck

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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.

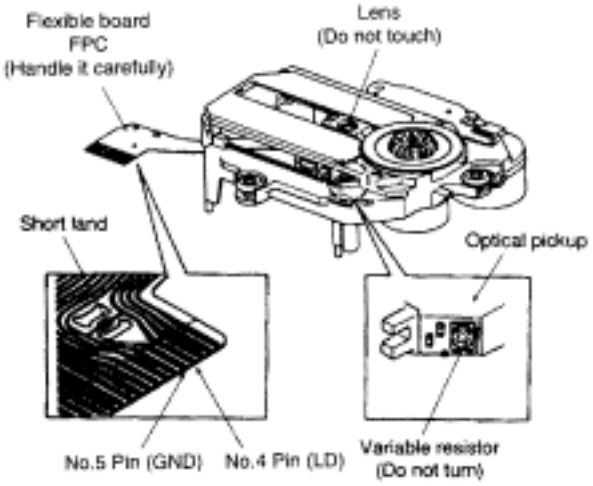
       Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is place, and ground the sheet.

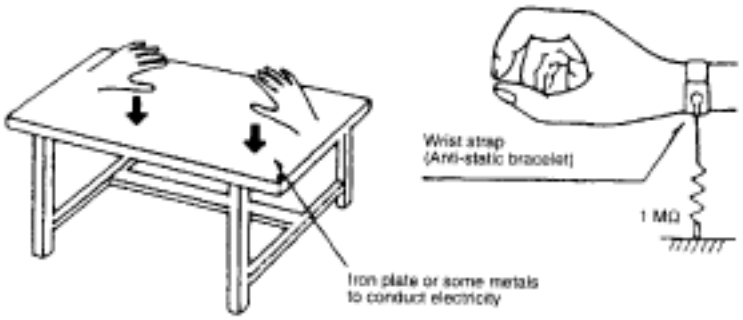
Caution:

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).

Cross-Ref] 20442: Body: Caution: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.





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7 Precaution of Laser Diode

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CAUTION:

This product utilizes a laser diode with the unit truned “ON”, invisible laser radiation is emitted from the pick up lens.
Wavelength : 780 nm
Maximum output radiation power from pick up : 100•W/VDE
Laserradiation 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 enigeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit abgestrahlt.
Wellenlänge : 780nm
Maximale Strahlungsleistung der Lasereinheit : 100•W/VDE
DieStrahlung 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 Lasereinhit nicht verstellen.

3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.

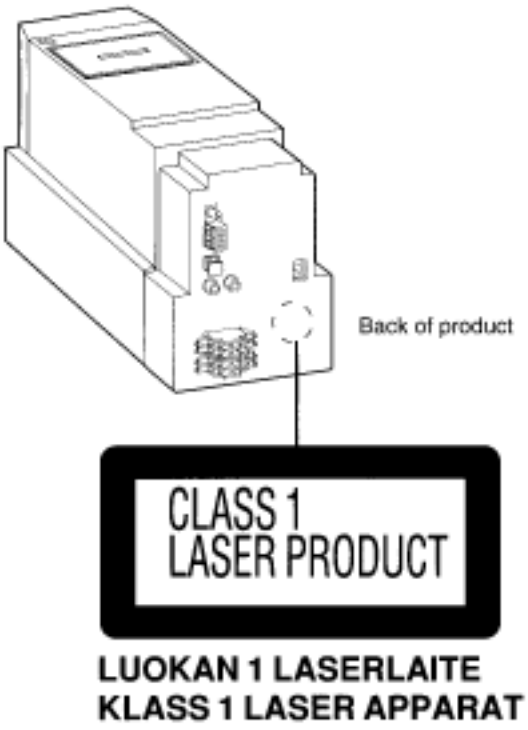
4. Nicht über längere Zeit in die Fokussierlinse blicken.

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



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8 Front Panel Controls

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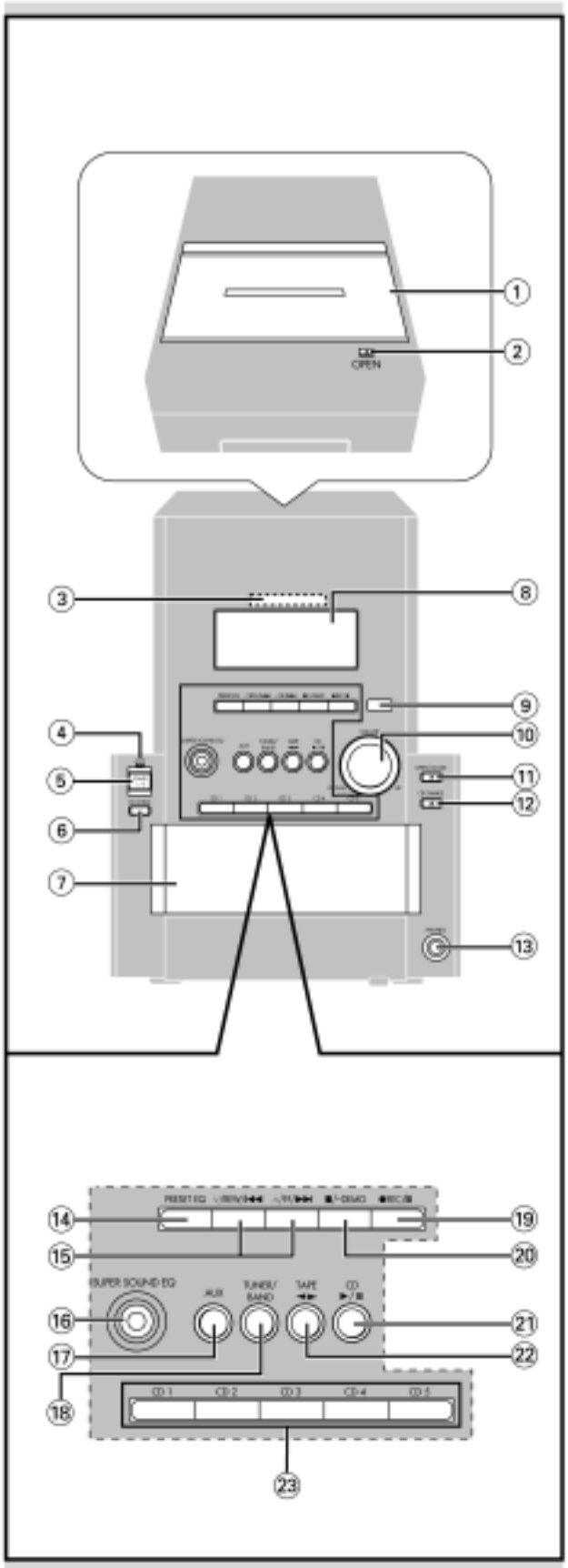
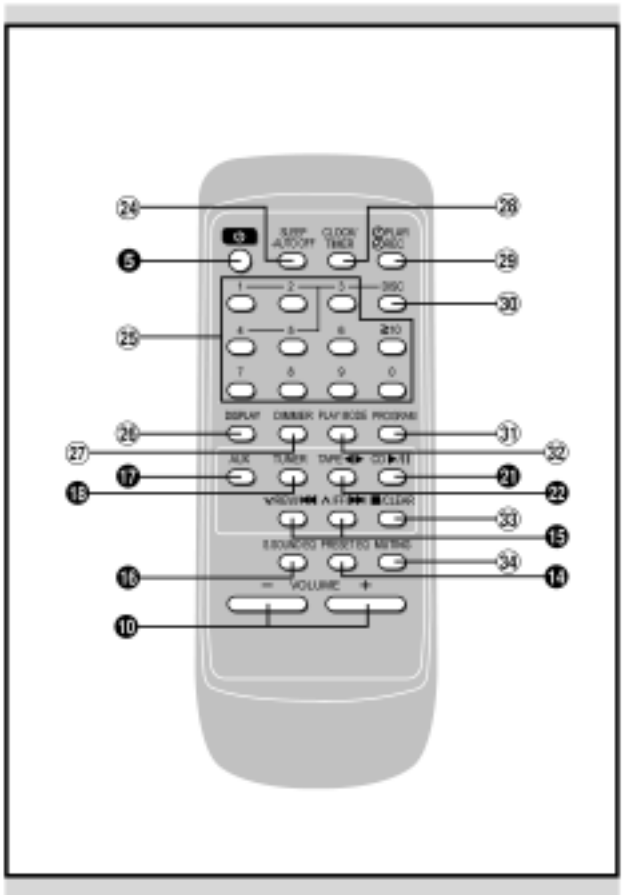


Main unit

①**Cassette lid**
②**Cassette open button (≜ OPEN)**
③**Tape indicator**
This indicator changes in the following manner:
ⓐ Orange (when no cassette is inserted.)
ⓑ Green (when cassette is inserted.)
ⓒ Red (when in recording mode.)
④**AC supply indicator (AC IN)**
This indicator lights when the unit is connected to the AC mains supply.
⑤**Standby/on switch (⏻/I)**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
⑥**CD check button (CD CHECK)**
⑦**CD trays**
⑧**Display**
⑨**Remote control signal sensor**
⑩**Volume control (VOLUME DOWN, UP)**
⑪**CD tray open/close button (≜ OPEN/CLOSE)**
⑫**CD change button (≜ CD CHANGE)**
⑬**Headphone jack (PHONES)**
⑭**Preset EQ select button (PRESET EQ)**
⑮**CD skip/search, tape fast-forward/rewind/TPS, tune/ preset channel select, time adjust buttons (∨/REW/I◄◄, ∧/FF/►►I)**
⑯**Super sound EQ button (SUPER SOUND EQ)**
⑰**Aux button (AUX)**
⑱**Tuner/band select button (TUNER/BAND)**
⑲**Recording start/pause button (● REC/II)**
⑳**Stop/program clear and demonstration button (■/–DEMO)**
㉑**CD play/pause button (►/II CD)**
㉒**Tape play button (◄► TAPE)**
㉓**Disc direct play buttons (CD 1~CD 5)**



Remote Control

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

㉔ Sleep timer/auto off button (SLEEP, –AUTO OFF)

㉕ Numeric buttons (≧10, 1–9, 0)

㉖ Display button (DISPLAY)

㉗ Dimmer button (DIMMER)

㉘ Clock/timer button (CLOCK/TIMER)

㉙ Play timer/recording timer button (⏲PLAY/⏲REC)

㉚ Disc button (DISC)

㉛ CD Program/clear, tuner preset button (PROGRAM)

㉜ Play mode select button (PLAY MODE)

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

㉝ Stop/program clear button (■/CLEAR)

㉞ Muting button (MUTING)

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9 Disassembly and Main Component Replacement Procedures.

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"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.

Content

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”.

ACHTUNG:

Die Lasereinheit nicht zerlegen.

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

9.1 Disassembly Procedure for each major P.C.B.

9.2 Procedure for Replacing Cassette Holder

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

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

9.5 Procedure for Replacing Parts on Mechanism PCB

9.6 Replacement of CD traverse deck

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9.1 Disassembly Procedure for each major P.C.B.

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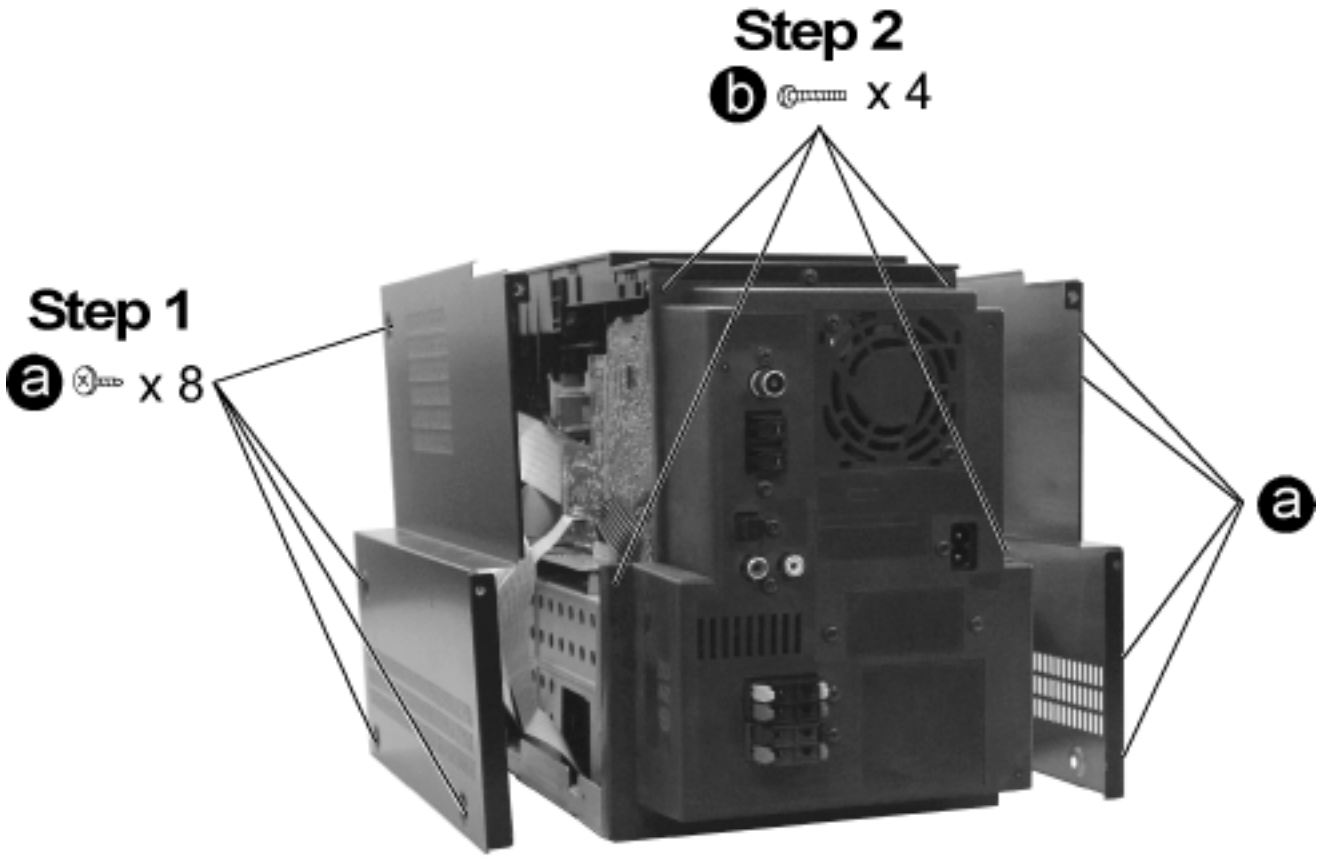
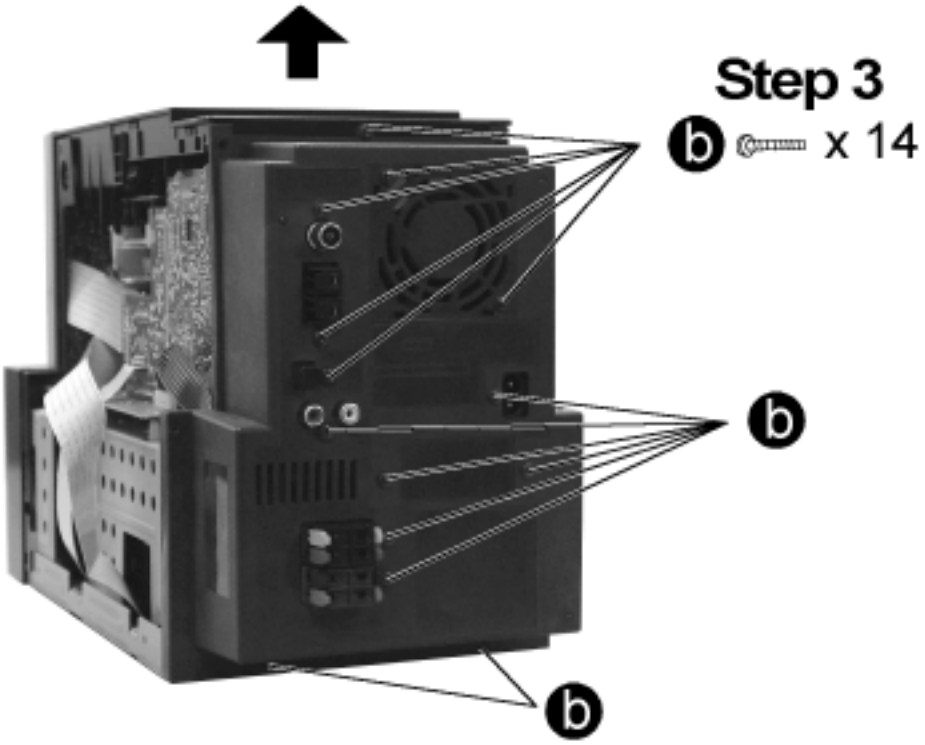
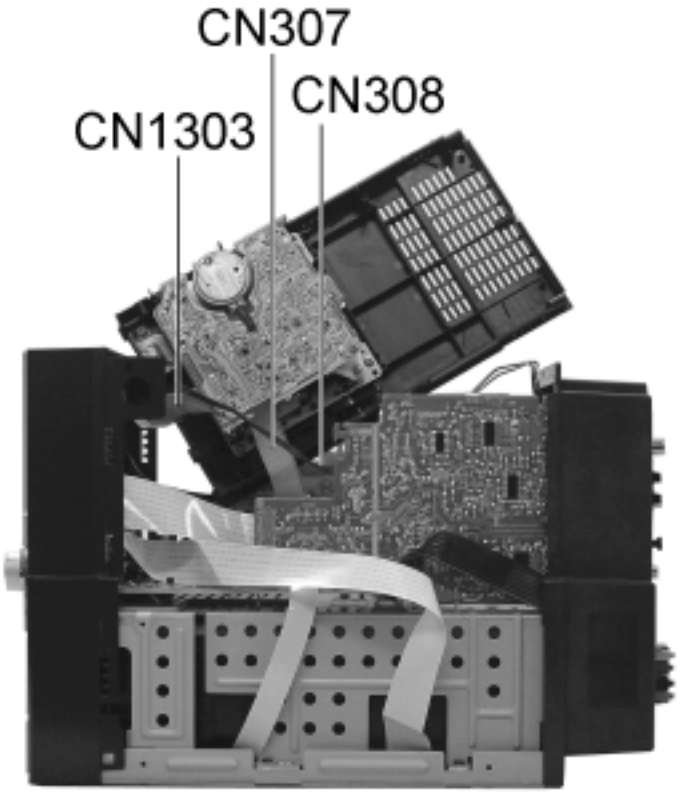


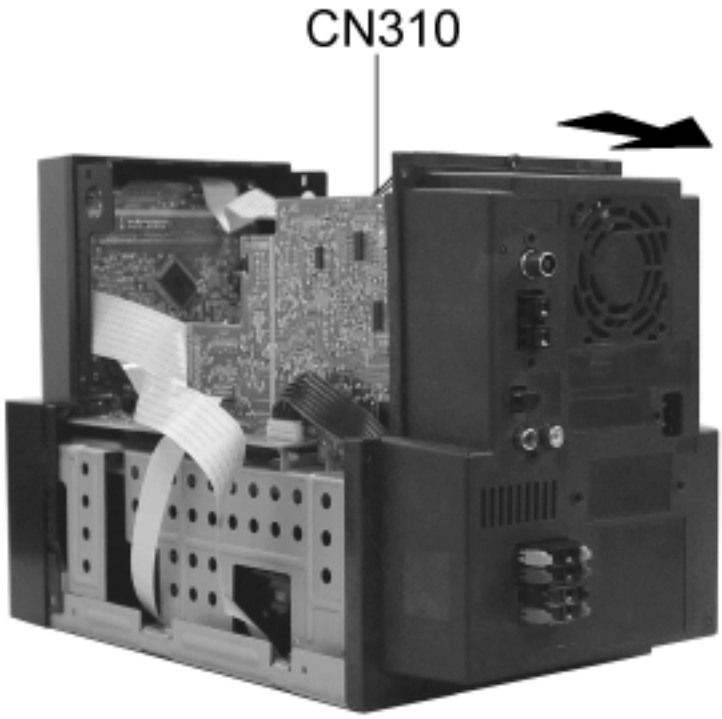
Step 1 & 2 Remove all the screws.



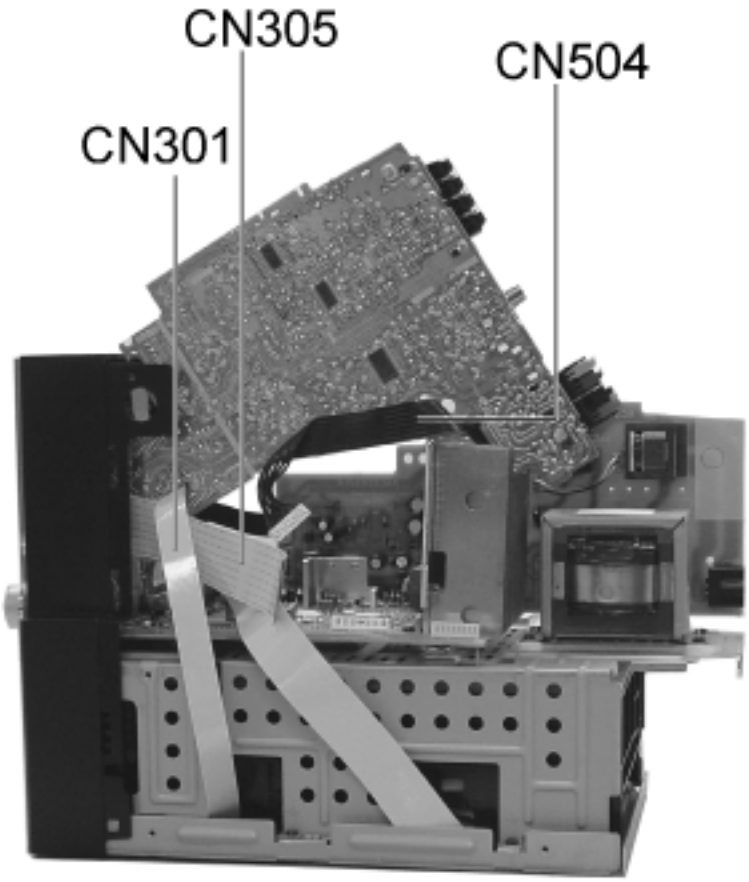
Step 3 Remove all the screws and pull up the cassette lid as the arrow shown.



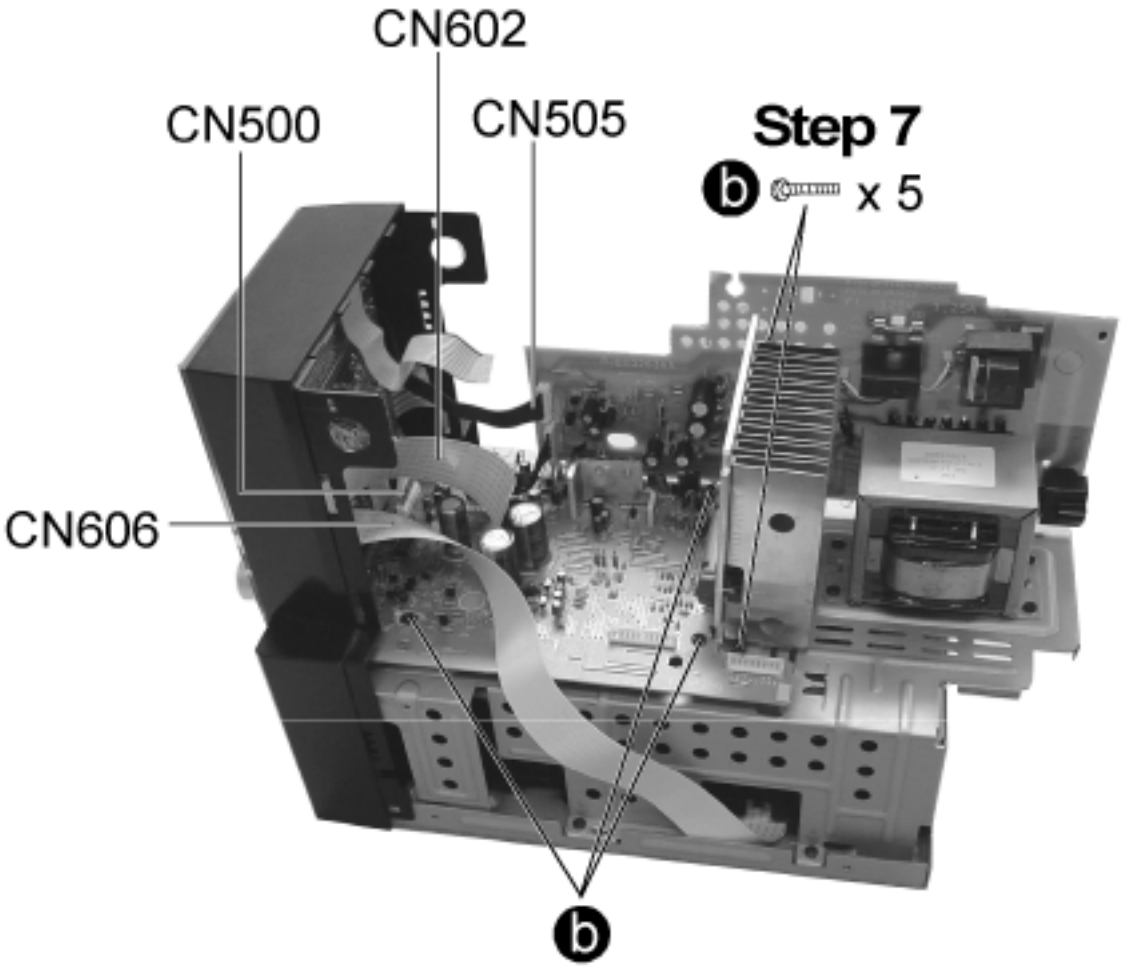
Step 4 Release the connectors CN307, CN308 and CN1303. Remove the cassette lid.



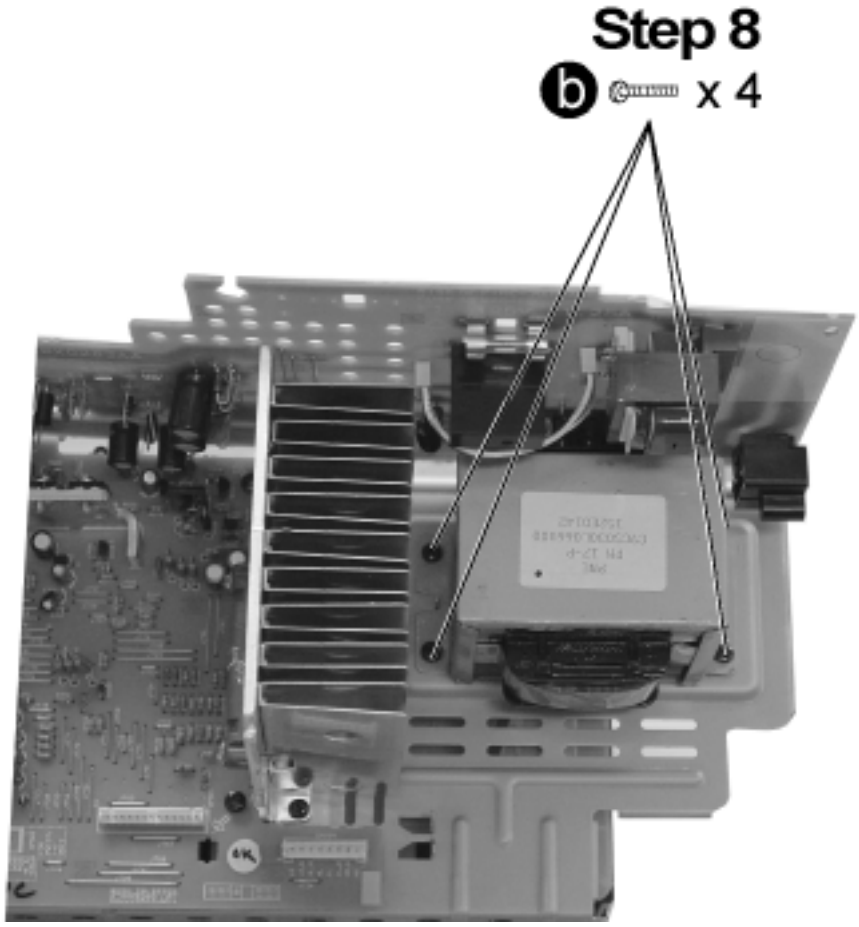
Step 5 Release the connector CN310 and pull out the back cover as the arrow shown.



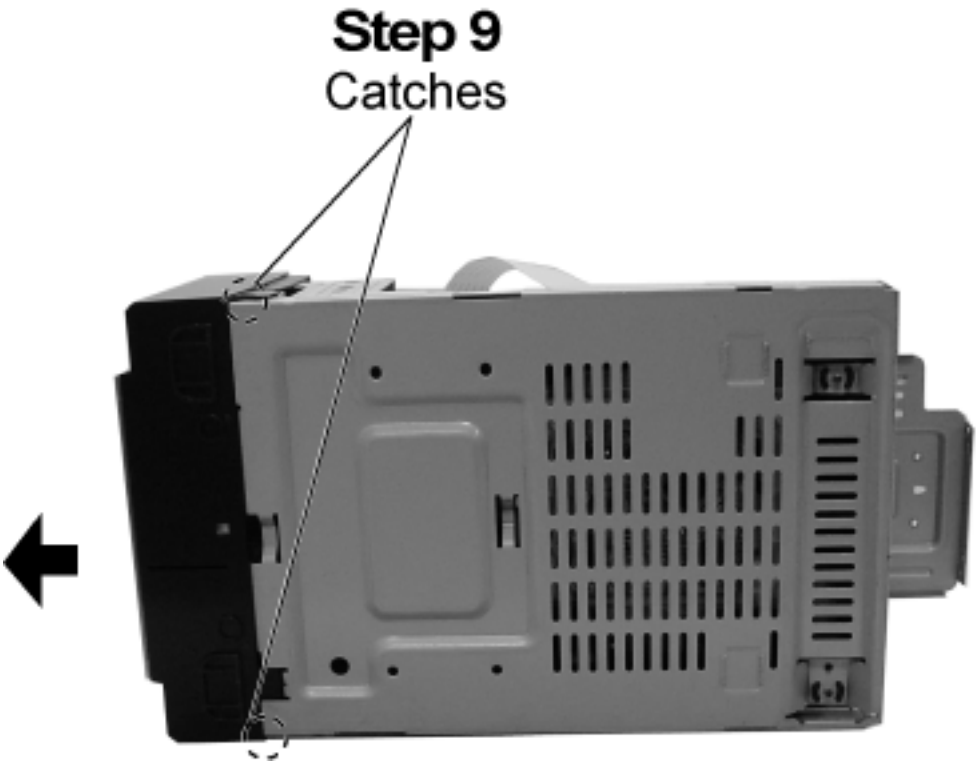
Step 6 Release the connectors CN504, CN305 and CN301.



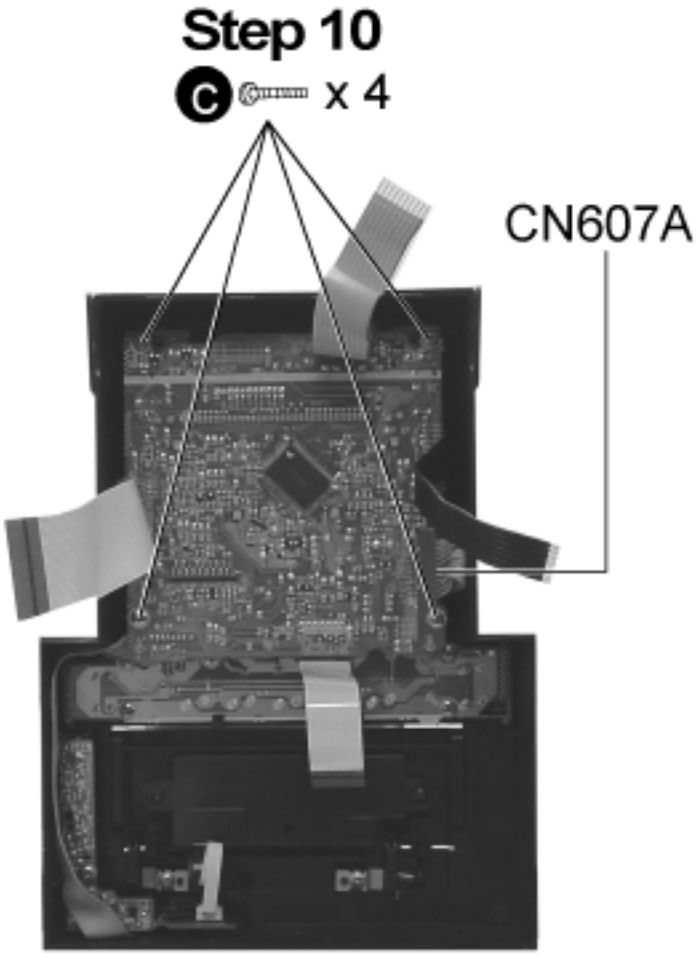
Step 7 Release the connectors CN606, CN602, CN505, CN500 and remove all the screws.



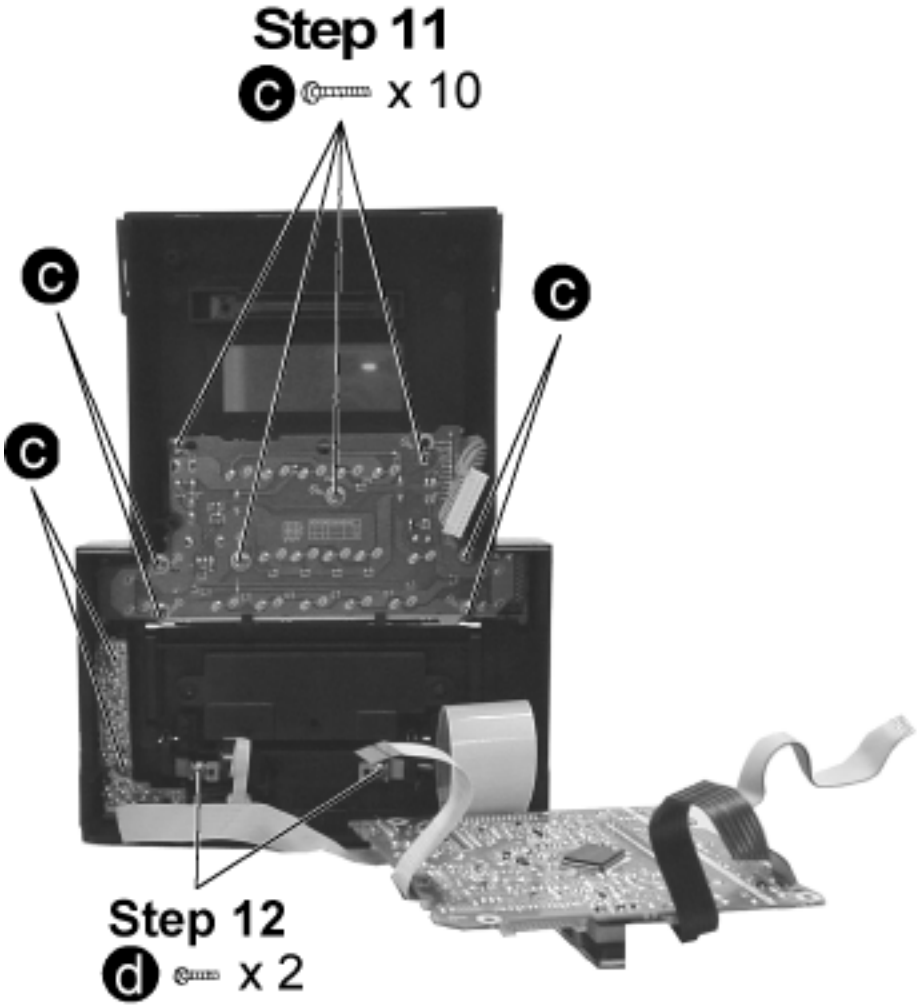
Step 8 Remove all the screws.



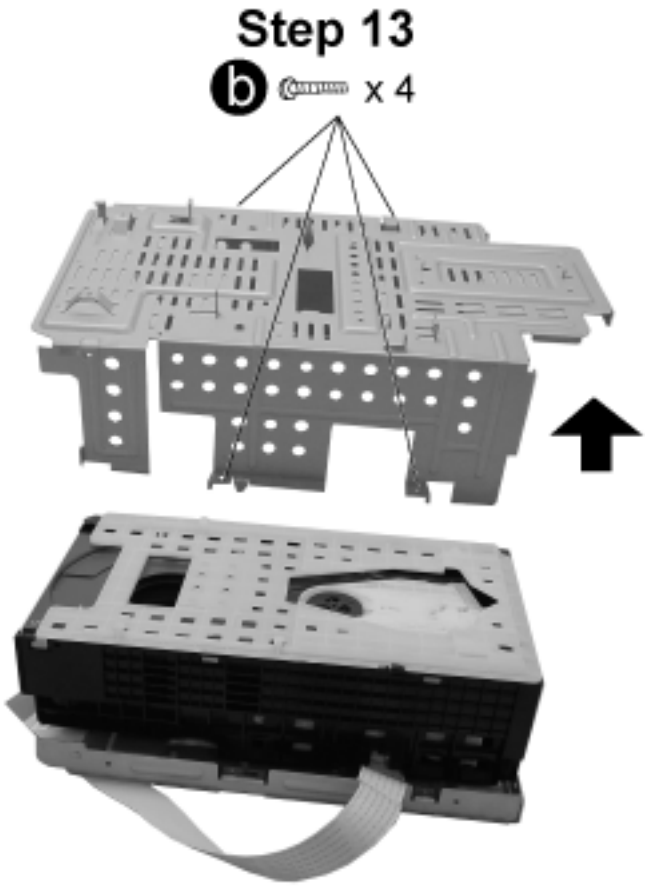
Step 9 Release the catches and pull out the front panel as the arrow shown.



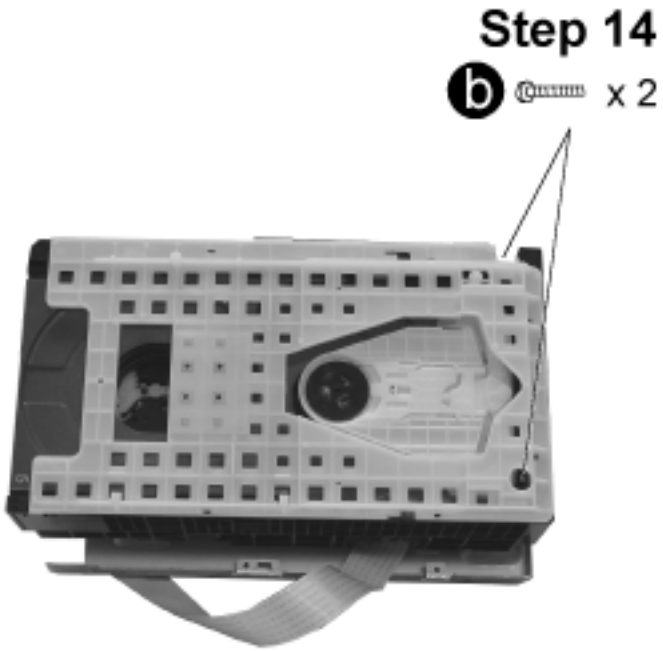
Step 10 Remove all the screws and release the connector CN607A.



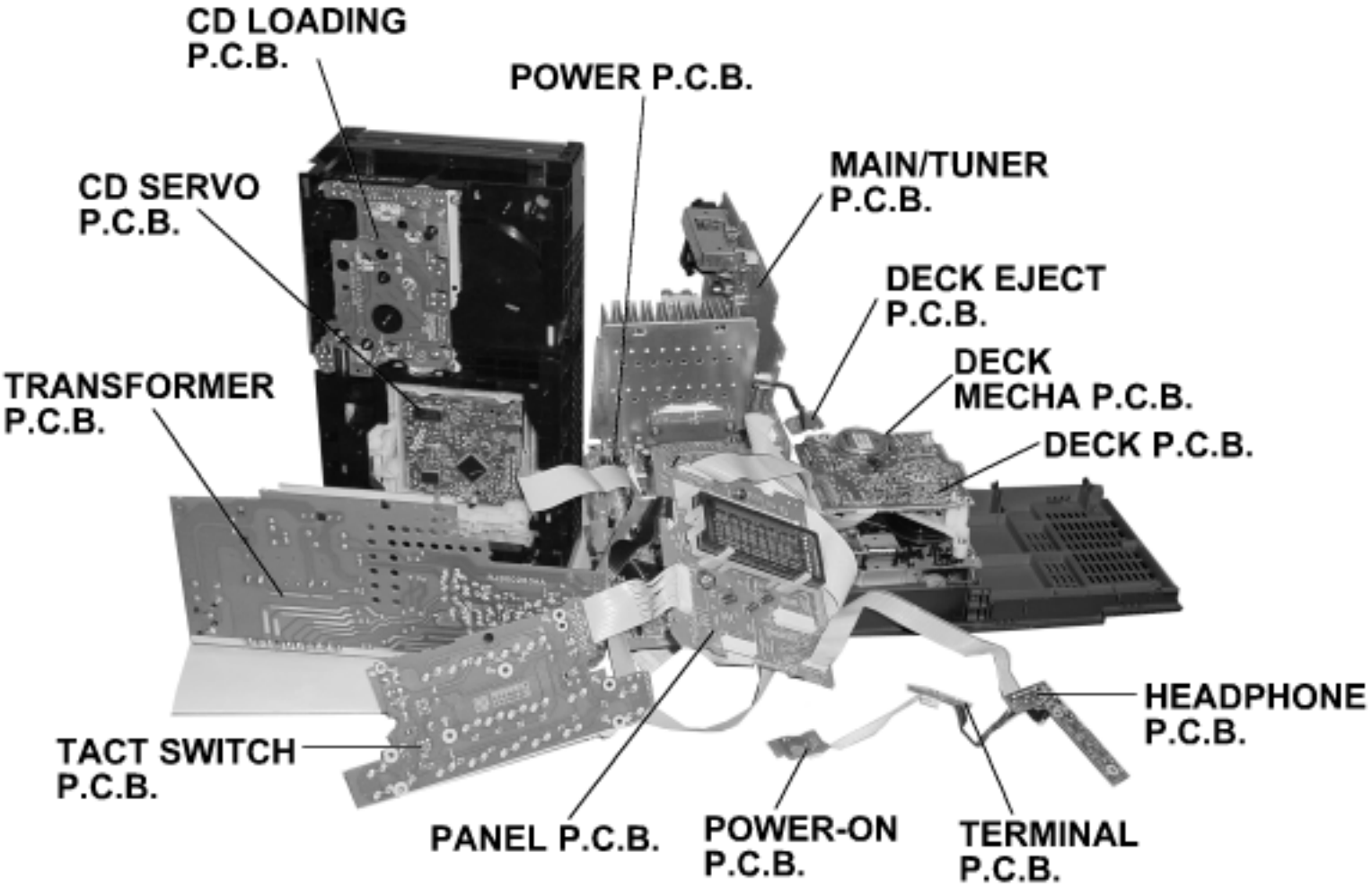
Steps 11 & 12 Remove all the screws.



Step 13 Remove all the screws and pull up the cover as the arrow shown.



Step 14 Remove all the screws.



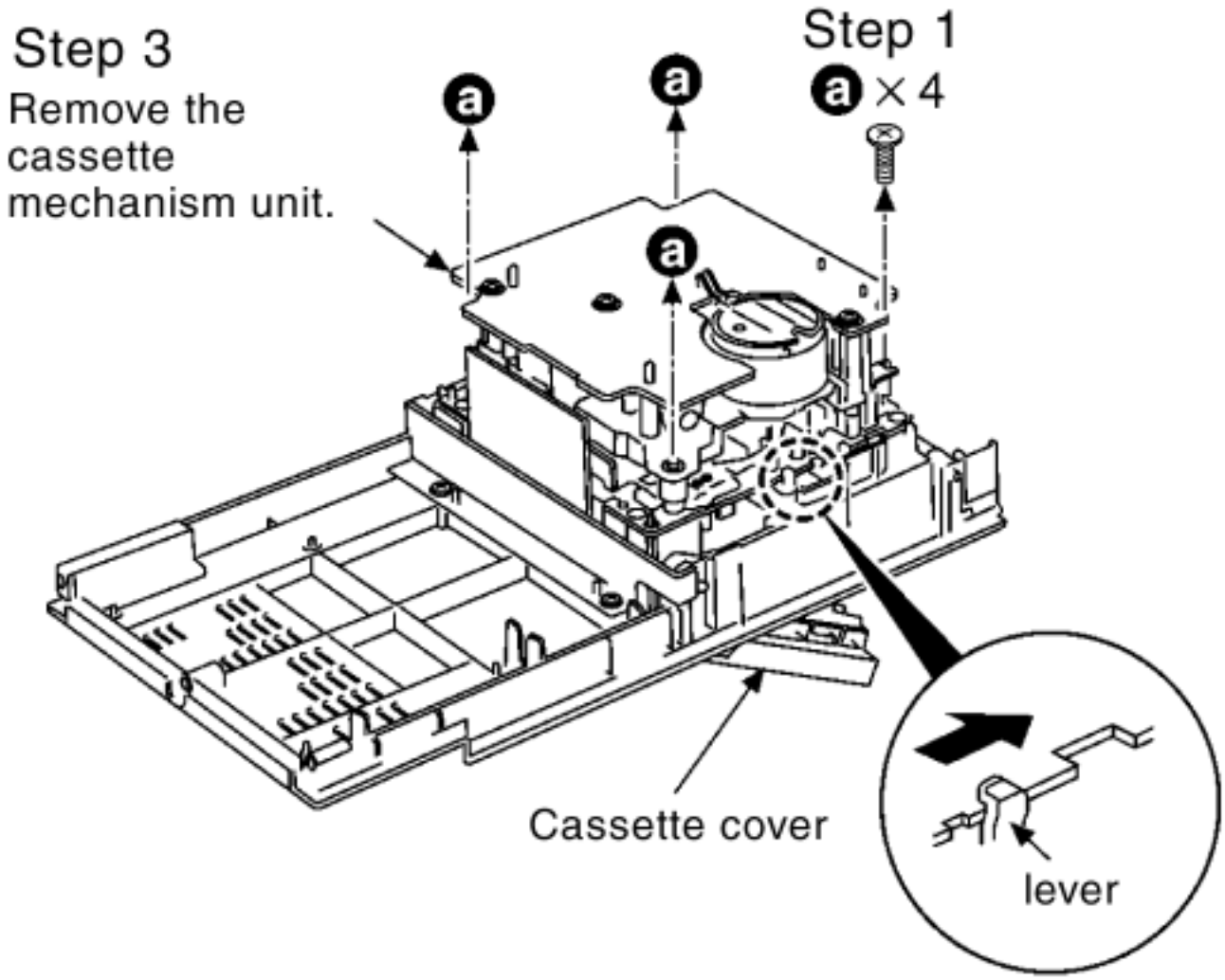
Step 15 Reconnect all the connectors back to do the testing.

TOP PREVIOUS NEXT

9.2 Procedure for Replacing Cassette Holder

TOP PREVIOUS NEXT

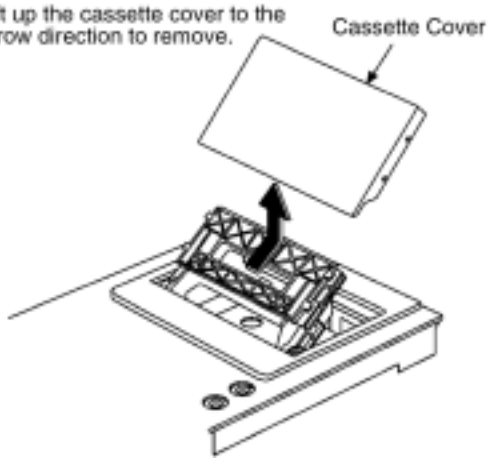
- Follow Steps 1 to 4 described in Item 9.1.



Step 2 Press the lever to open the cassette cover.

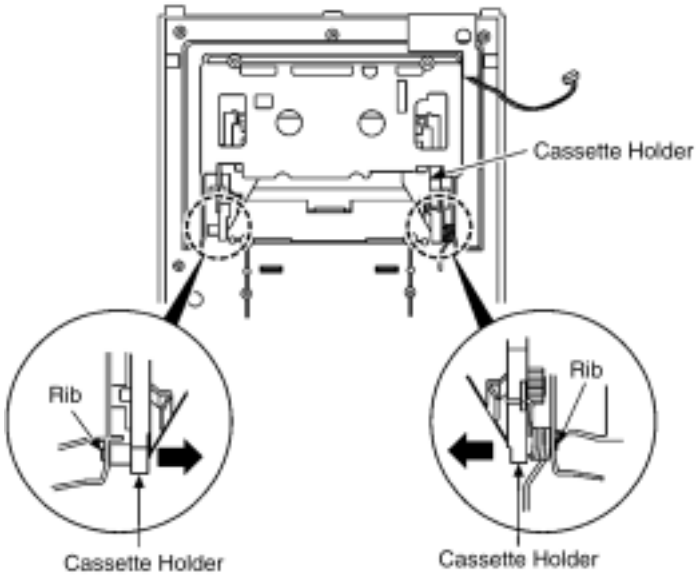
Step 4

Lift up the cassette cover to the arrow direction to remove.



Step 5

Pull out the ribs of the cassette holder to the arrow direction.

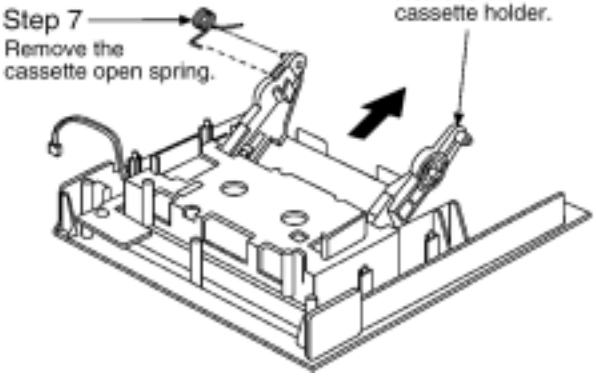


Step 6

Remove the cassette holder.

Step 7

Remove the cassette open spring.

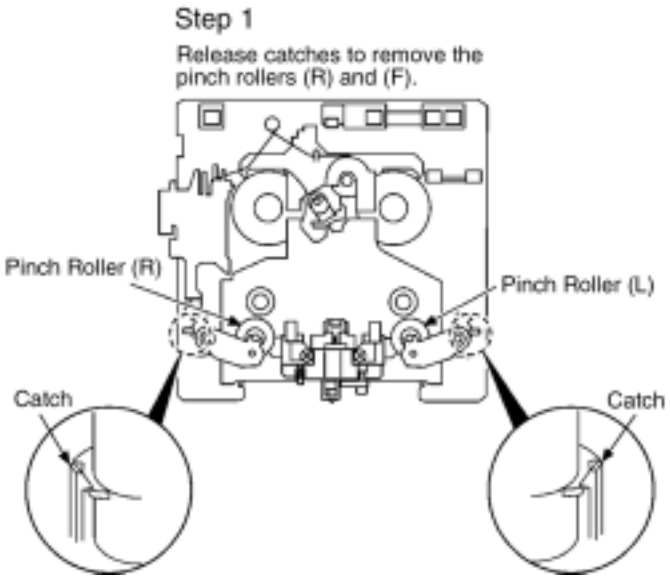


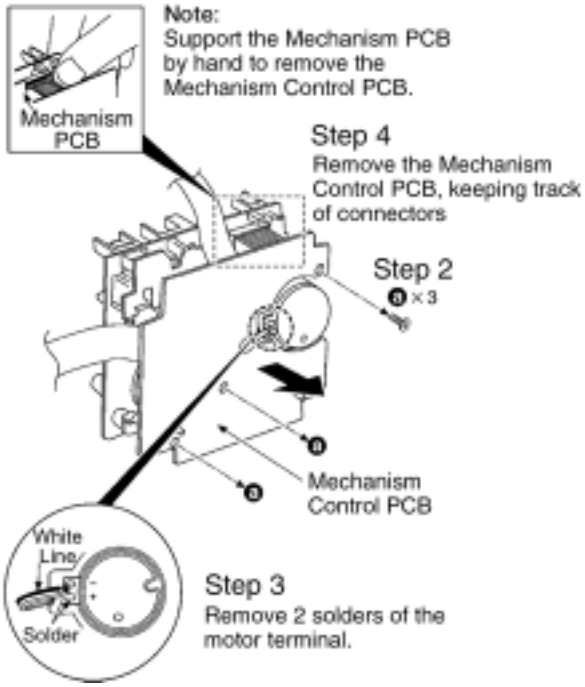
TOP PREVIOUS NEXT

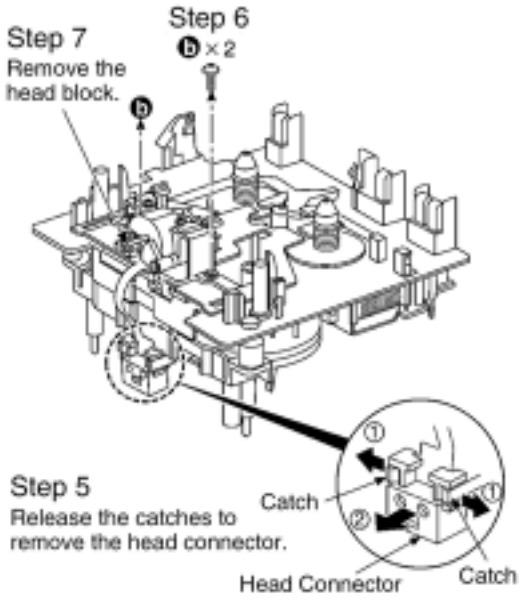
9.3 Procedure for Replacing Pinch Roller and Head Block (Cassette Mechanism Unit)

TOP PREVIOUS NEXT

- Follow Steps 1 to 4 described in Item 9.1.
- Follow Steps 1 to 3 described in Item 9.2.





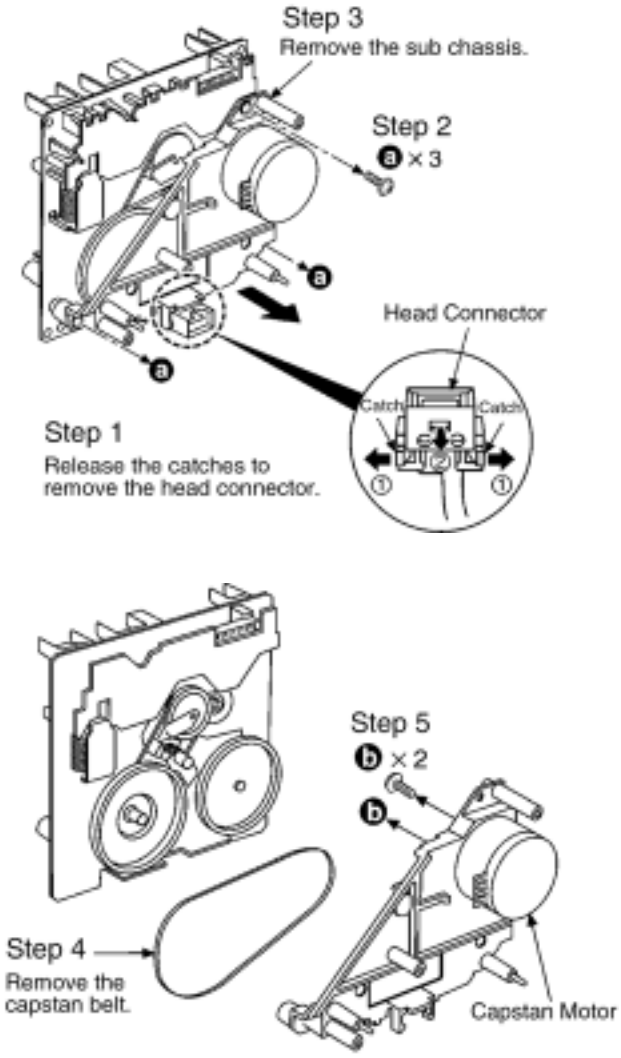


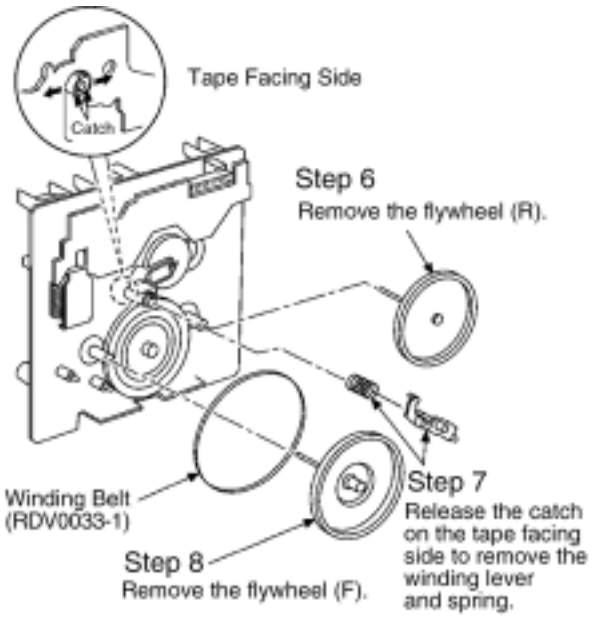
TOP PREVIOUS NEXT

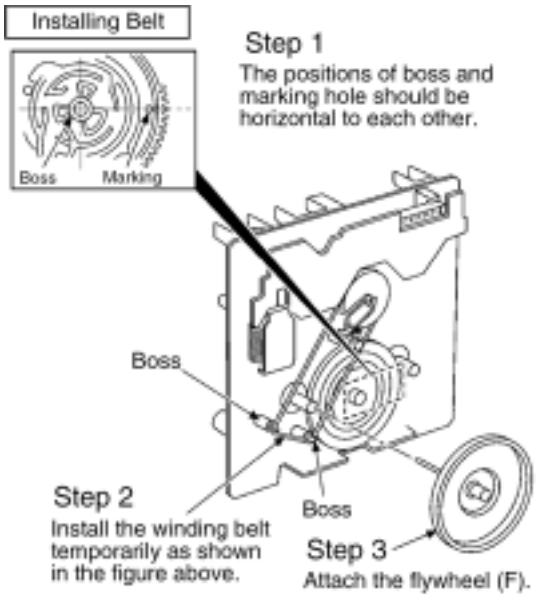
9.4 Procedure for Replacing Motor, Capstan Belt A, Capstan Belt B, and Winding Belt (Cassette Mechanism Unit)

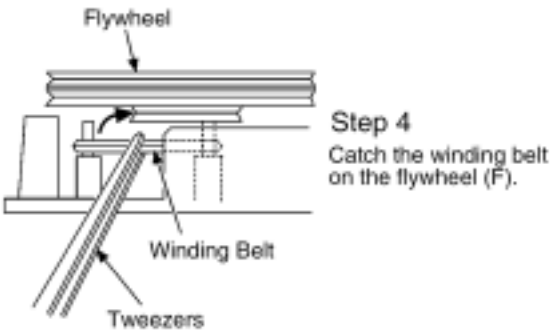
TOP PREVIOUS NEXT

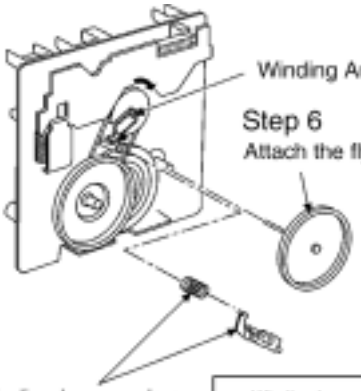
- Follow Steps 1 to 4 described in Item 9.1.
- Follow Steps 1 to 3 described in Item 9.2.
- Follow Steps 2 to 4 described in Item 9.3.




Tape Facing Side
Catch
Step 6
Remove the flywheel (R).
Winding Belt
(RDV0033-1)
Step 7
Release the catch on the tape facing side to remove the winding lever and spring.
Step 8
Remove the flywheel (F).

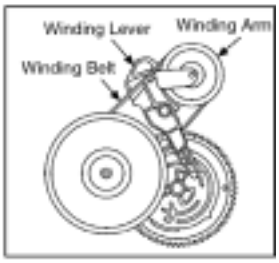

Installing Belt
Boss
Marking
Step 1
The positions of boss and marking hole should be horizontal to each other.
Boss
Boss
Step 2
Install the winding belt temporarily as shown in the figure above.
Step 3
Attach the flywheel (F).


Flywheel
Step 4
Catch the winding belt on the flywheel (F).
Winding Belt
Tweezers



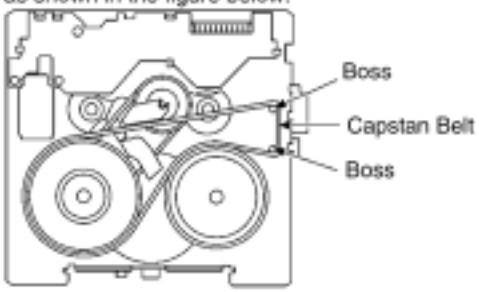
Step 6
Attach the flywheel (R).

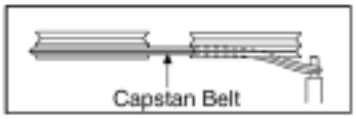
Step 5
Install the winding lever and spring while the winding arm is pressed to the arrow direction. (Be sure that the winding lever is firmly inserted and the catch is hooked.)



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

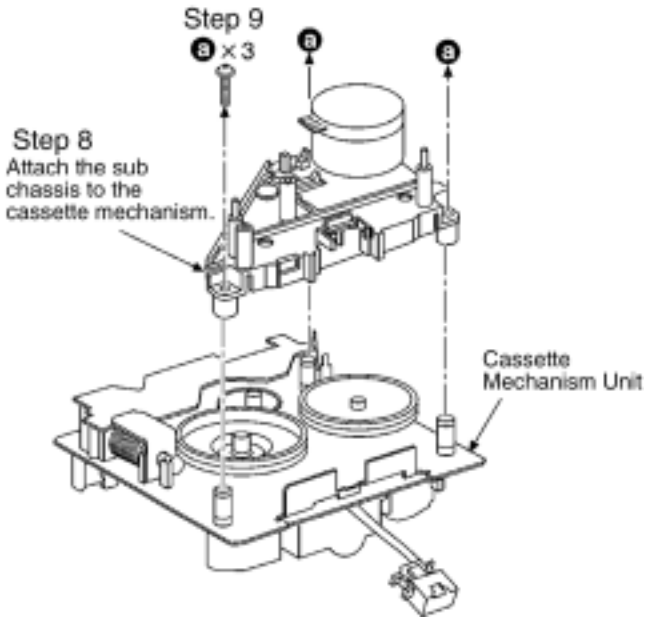
Step 7
Install the capstan belt temporarily as shown in the figure below.

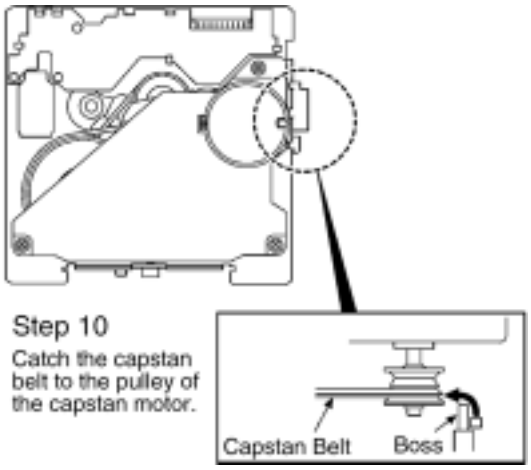




Side View

Note:
Keep the belt away from grease.



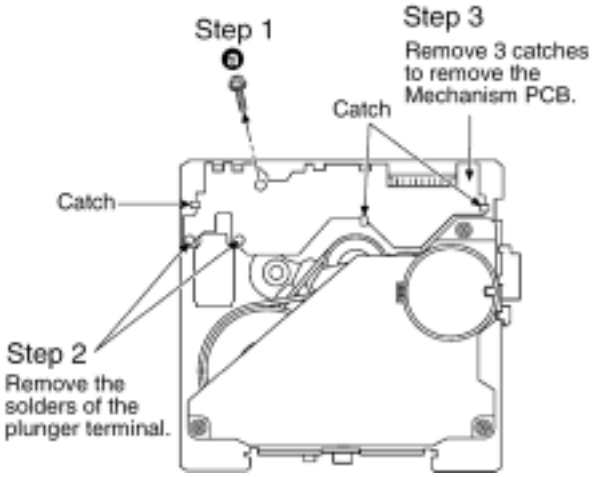


TOP PREVIOUS NEXT

9.5 Procedure for Replacing Parts on Mechanism PCB

TOP PREVIOUS NEXT

- Follow Steps 1 to 4 described in Item 9.1.
- Follow Steps 1 to 3 described in Item9.2.
- Follow Steps 2 to 4 described in Item 9.3.

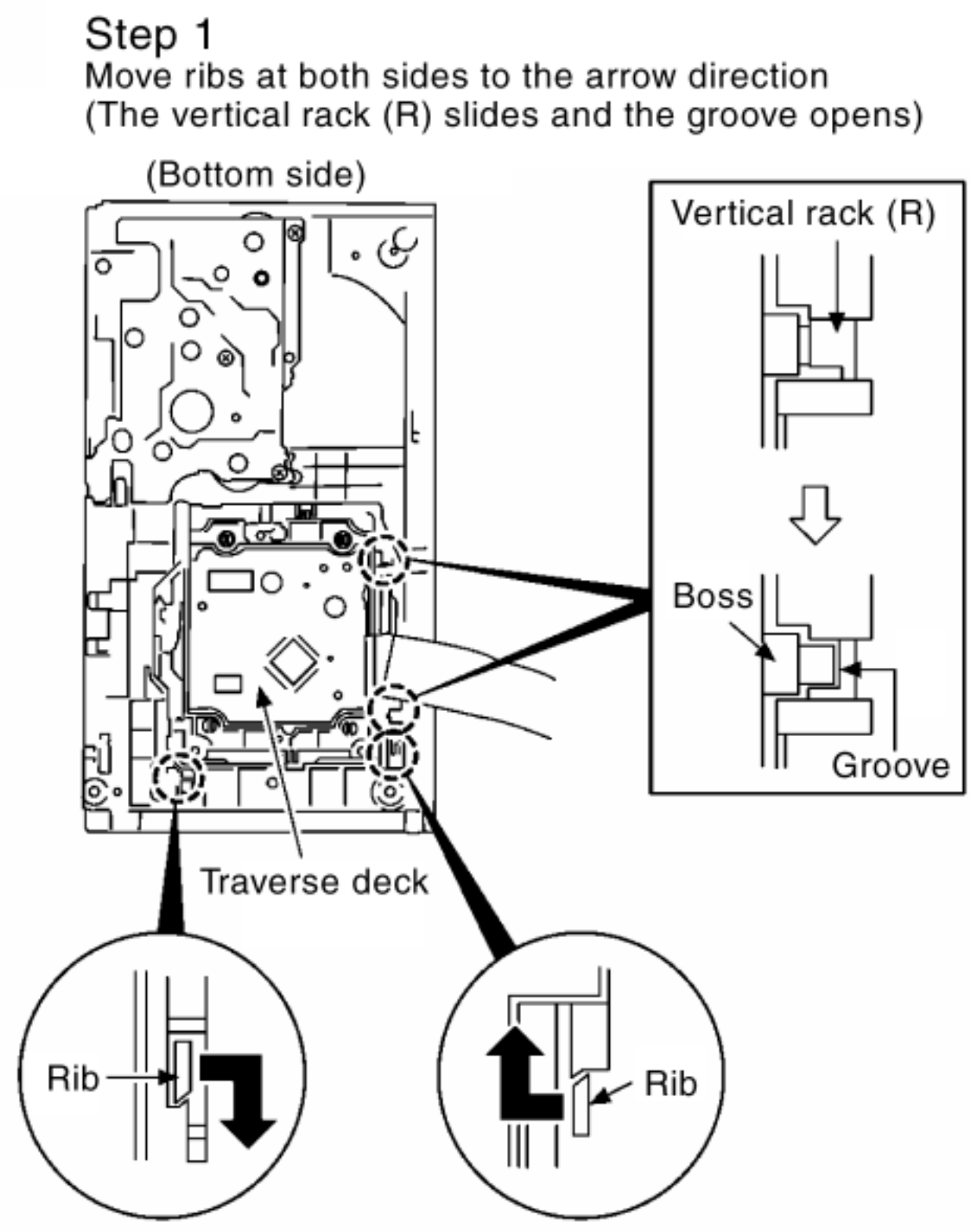


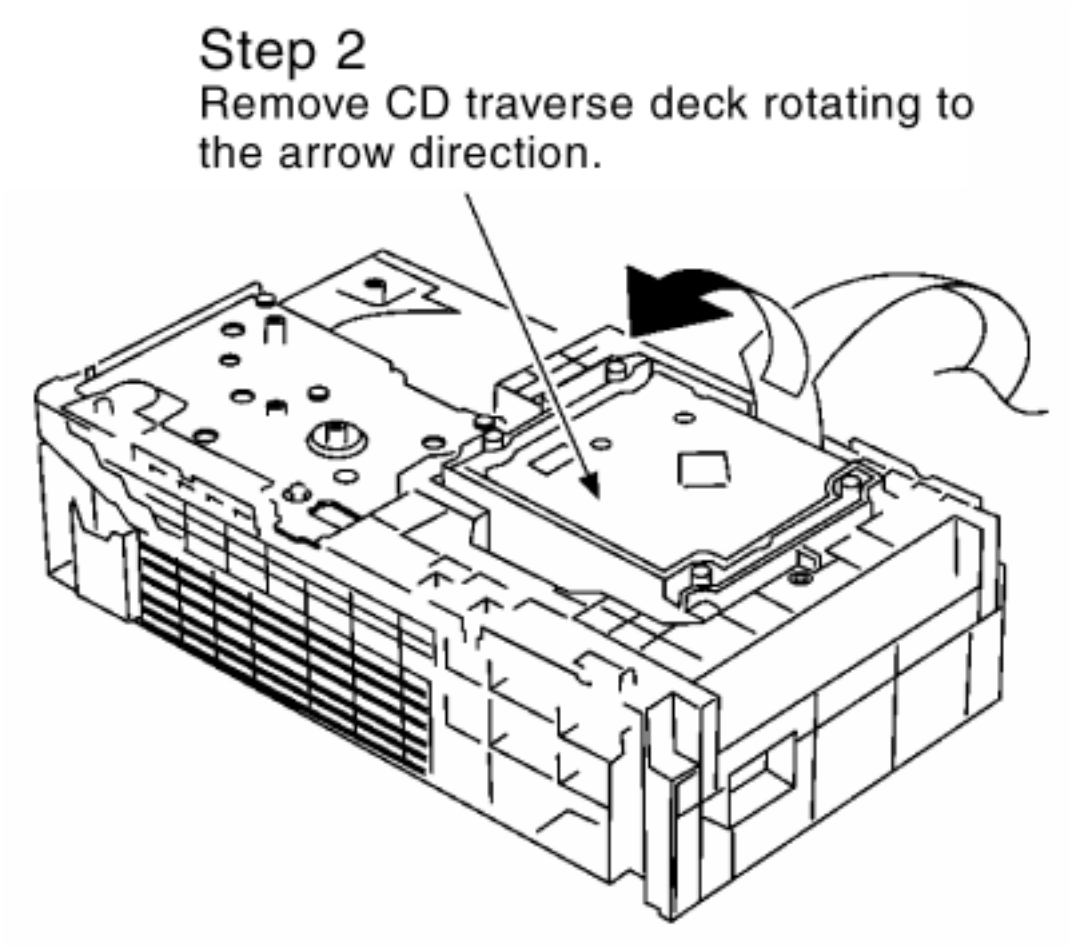
TOP PREVIOUS NEXT

9.6 Replacement of CD traverse deck

TOP PREVIOUS NEXT

- Follow Steps 1 to 14 described in Item 9.1.



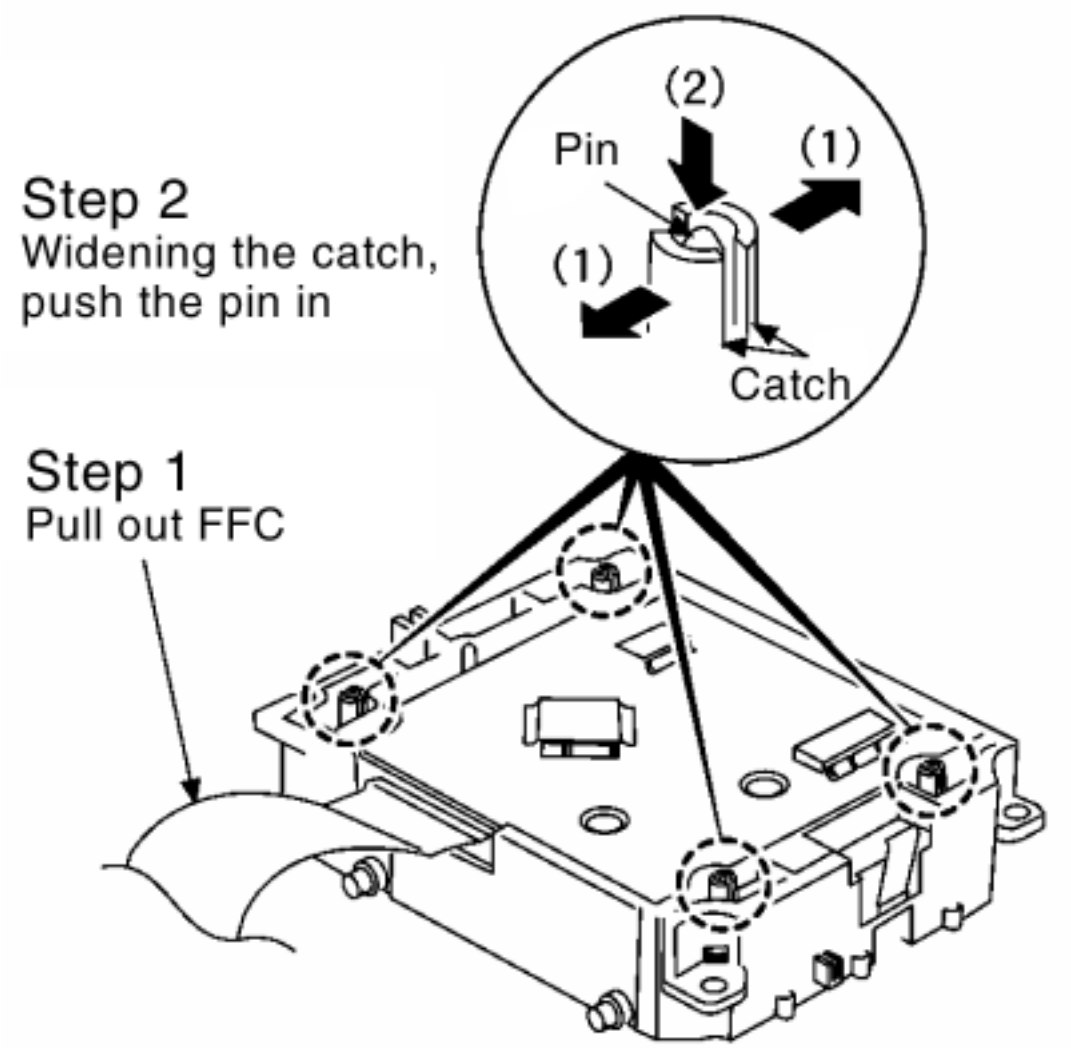


TOP PREVIOUS NEXT

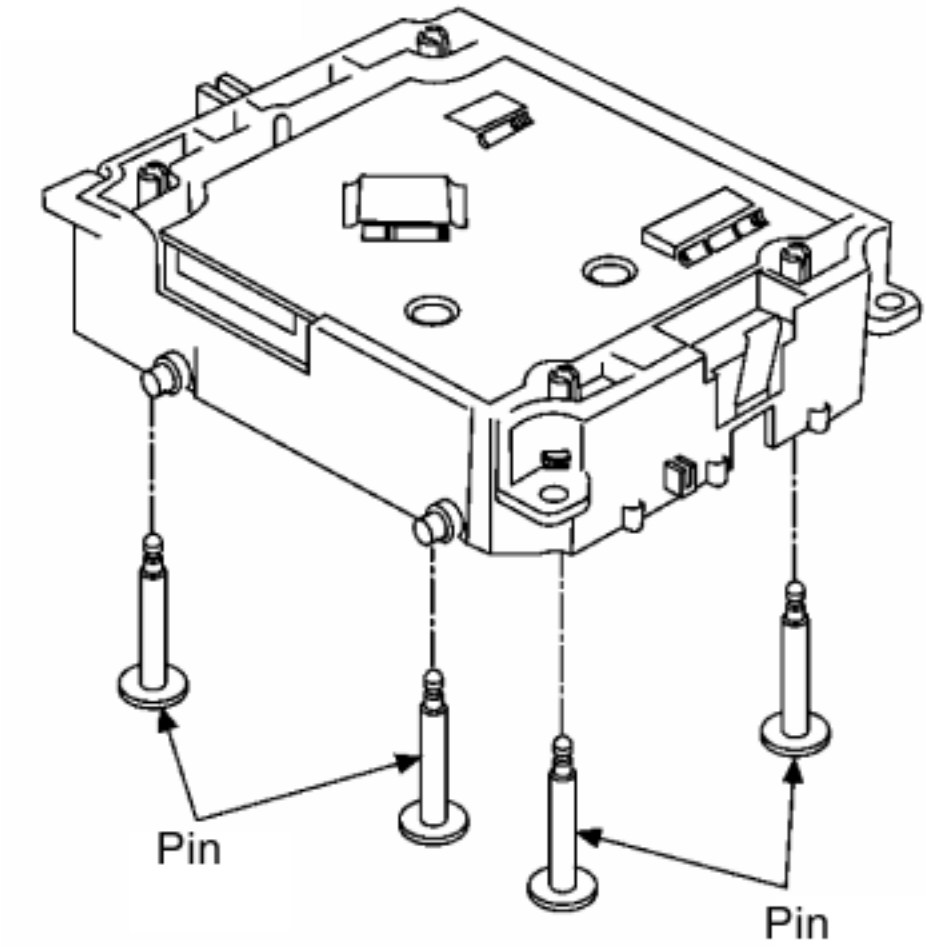
9.7 Replacement of optical pickup unit (CD mechanism)

TOP PREVIOUS NEXT

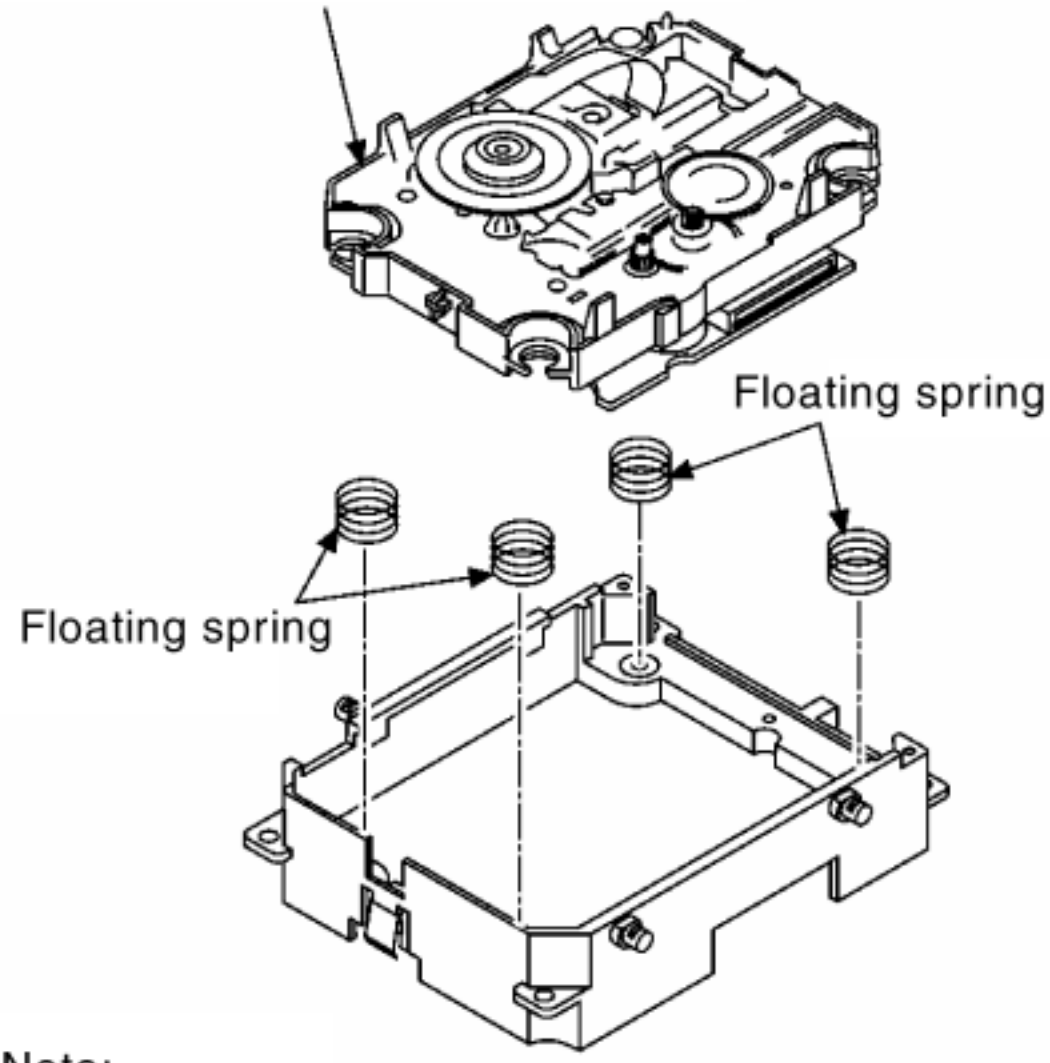
- Follow Steps 1 to 14 described in Item 9.1.
- Follow Steps 1 to 2 described in Item 9.6.



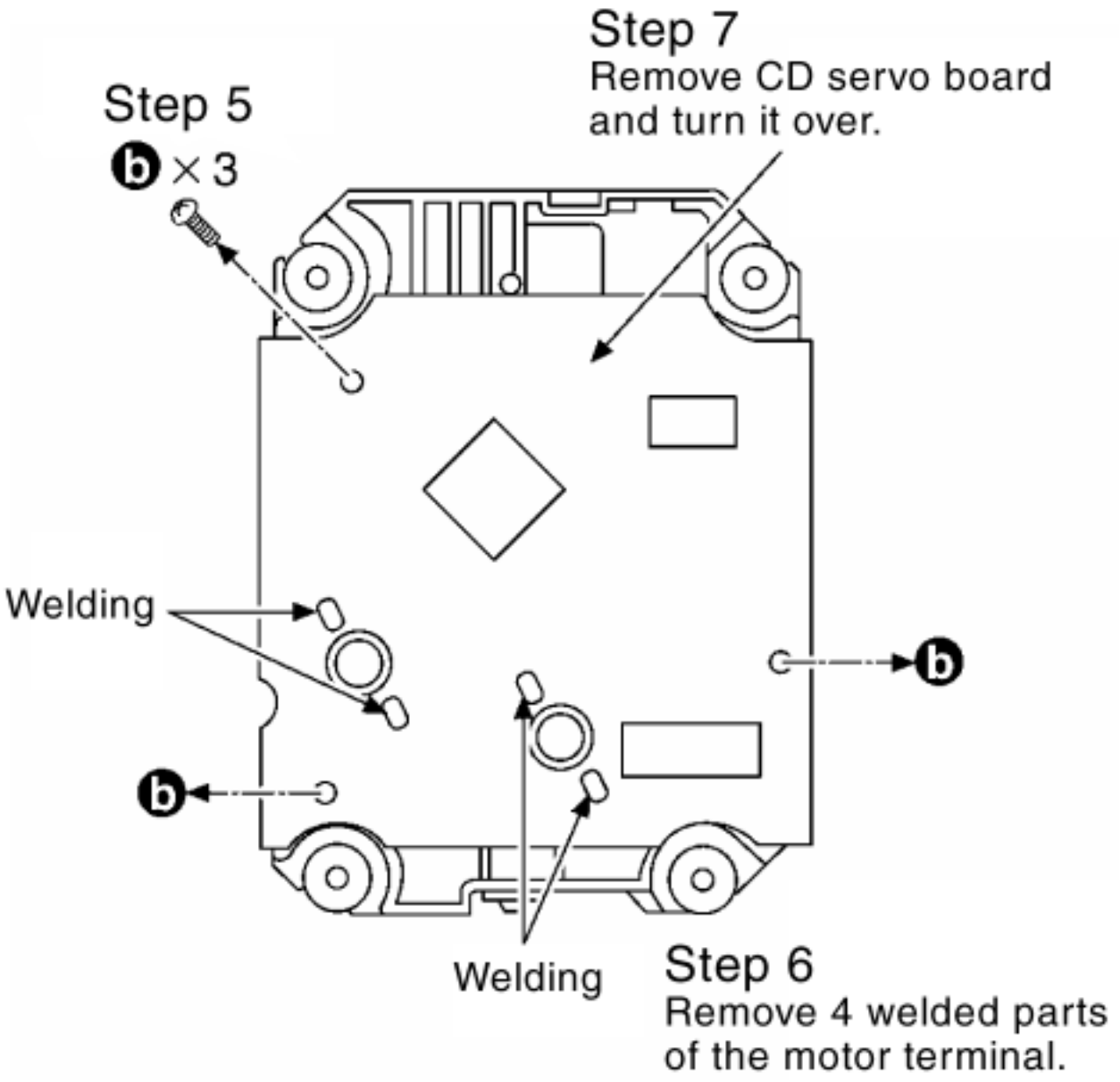
Step 3
Remove 4 pins



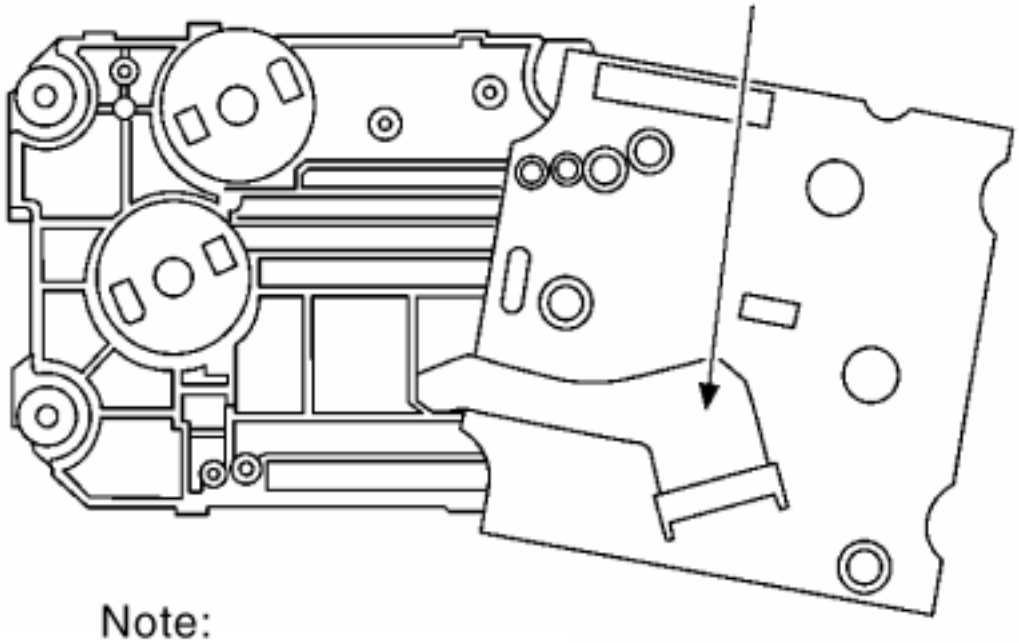
Step 4
Remove the traverse deck (JUN)



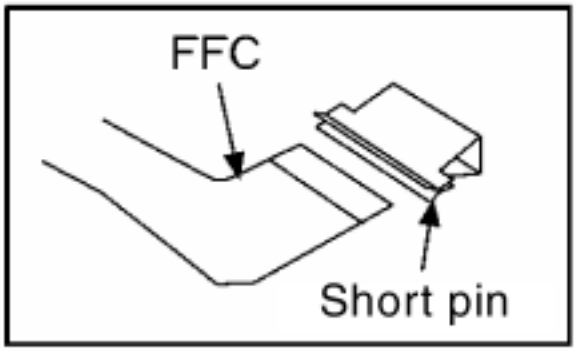
Note:
As floating springs (4 pieces) come off at the same time, be careful not to lose them.


Step 7
Remove CD servo board and turn it over.
Step 5
b × 3
Welding
b
b
Welding
Step 6
Remove 4 welded parts of the motor terminal.

Step 8
Pull FFC out from the connector.

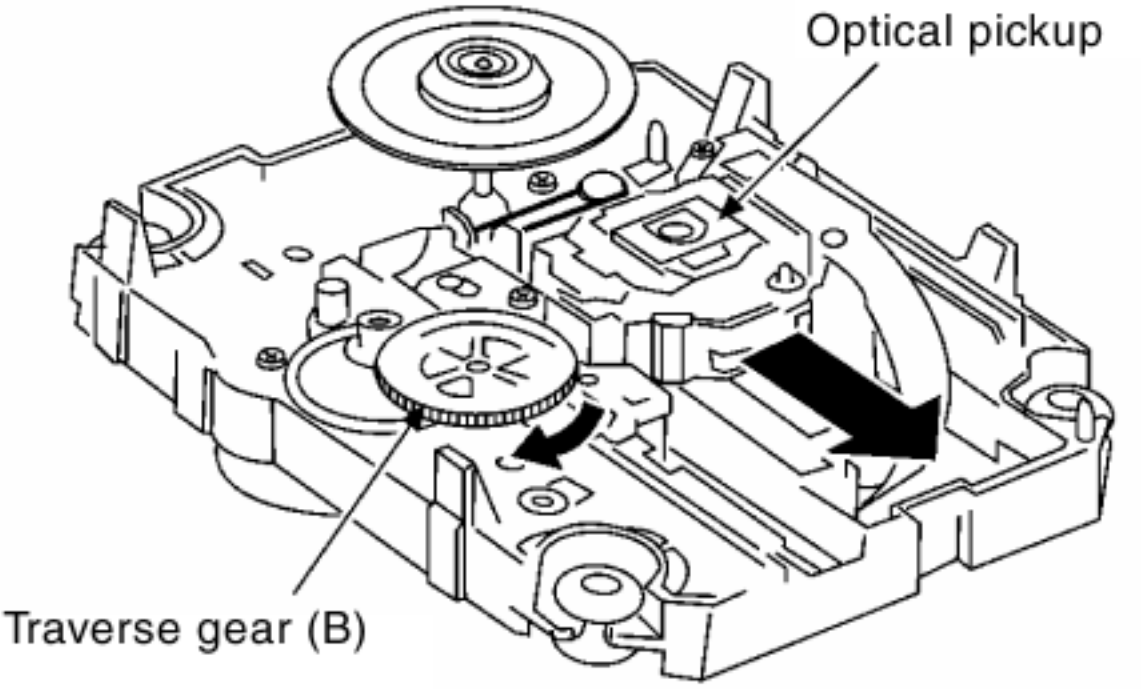


Note:
Insert a short pin into FFC of the optical pickup. [See "Notice on handling of the optical pickup"]

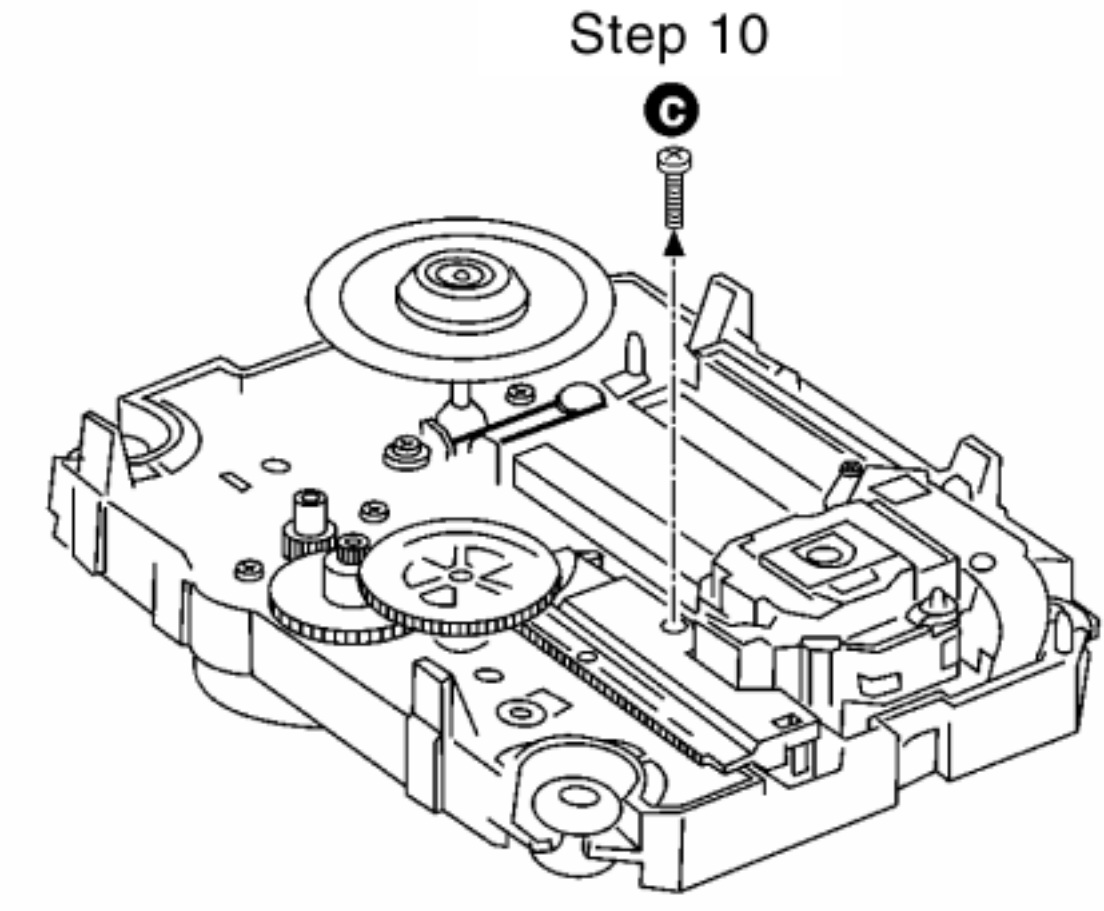


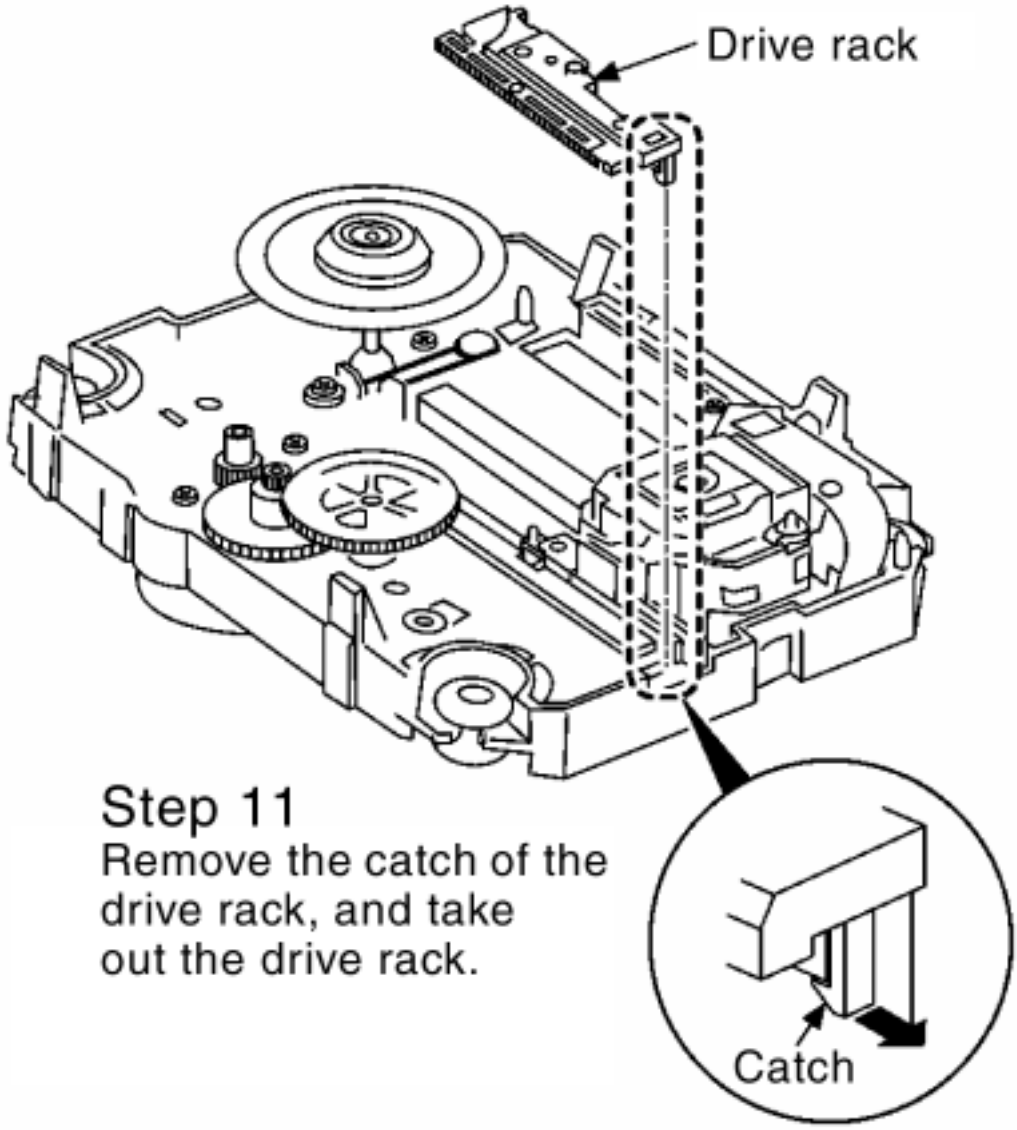
Step 9

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

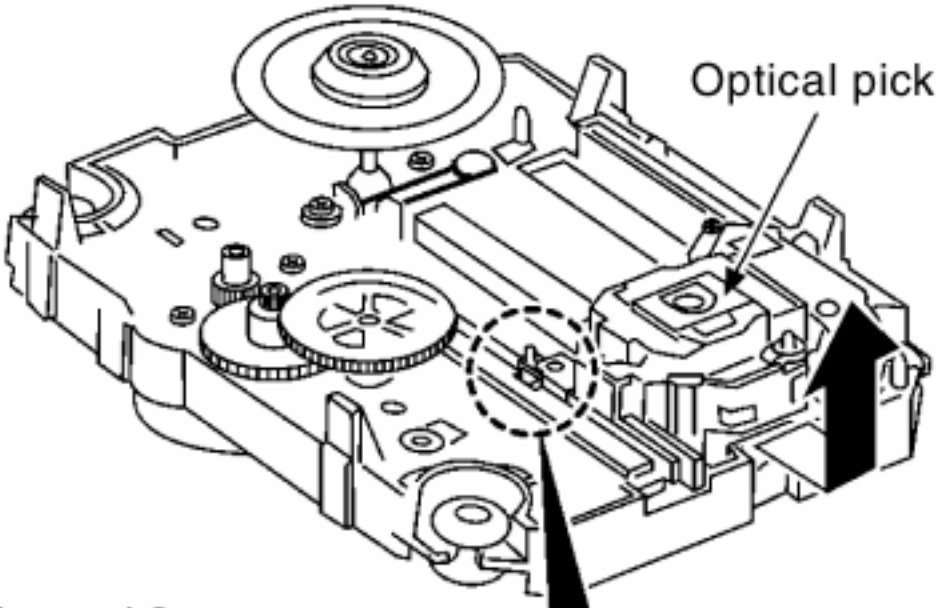


Step 10



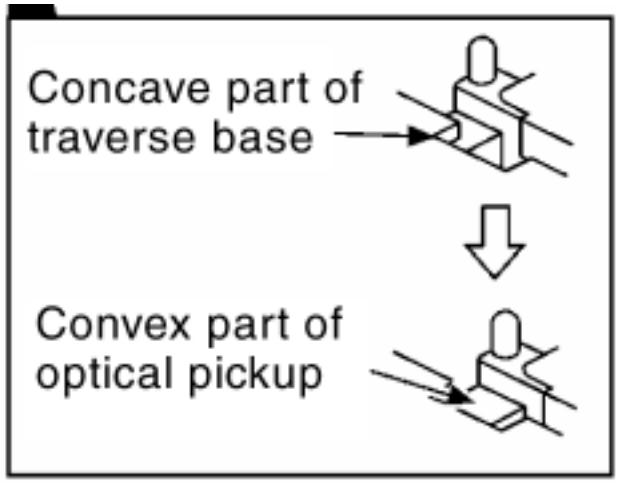


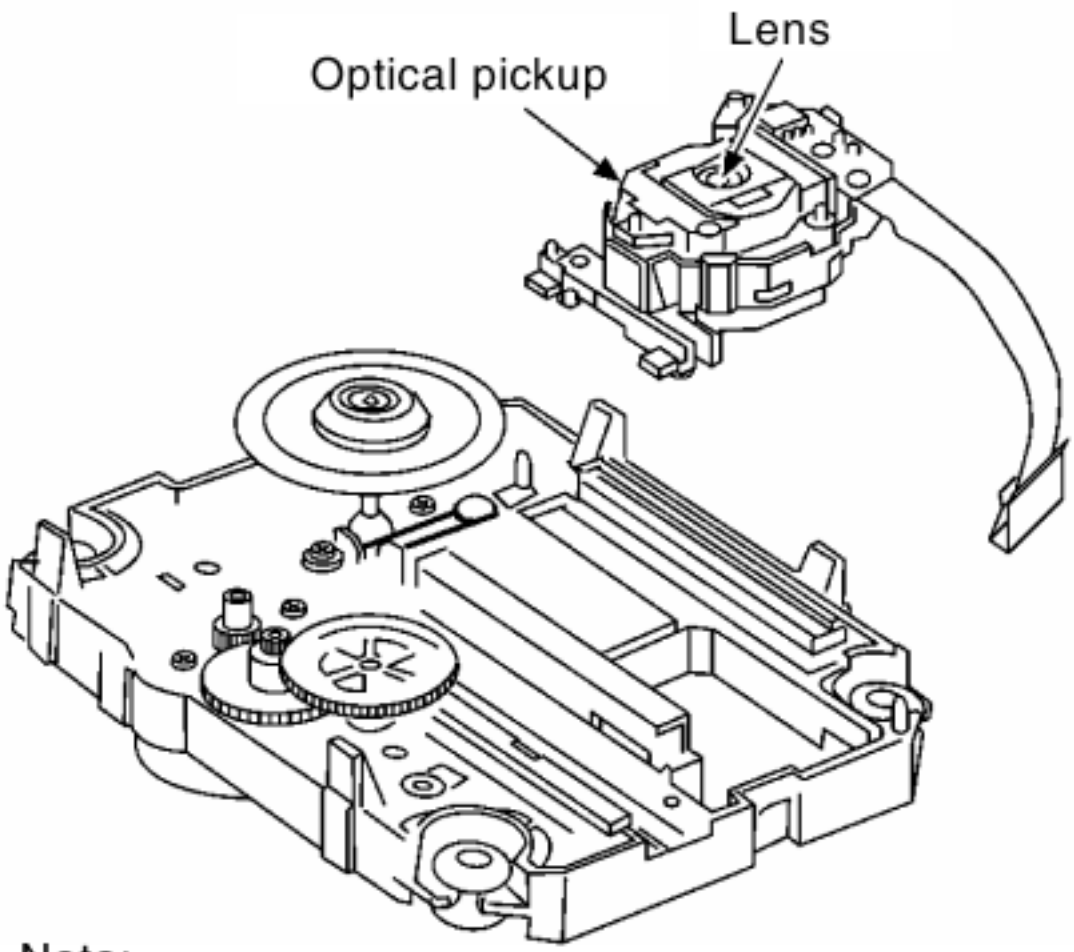
Step 11
Remove the catch of the drive rack, and take out the drive rack.



Step 12
Place the convex part of

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





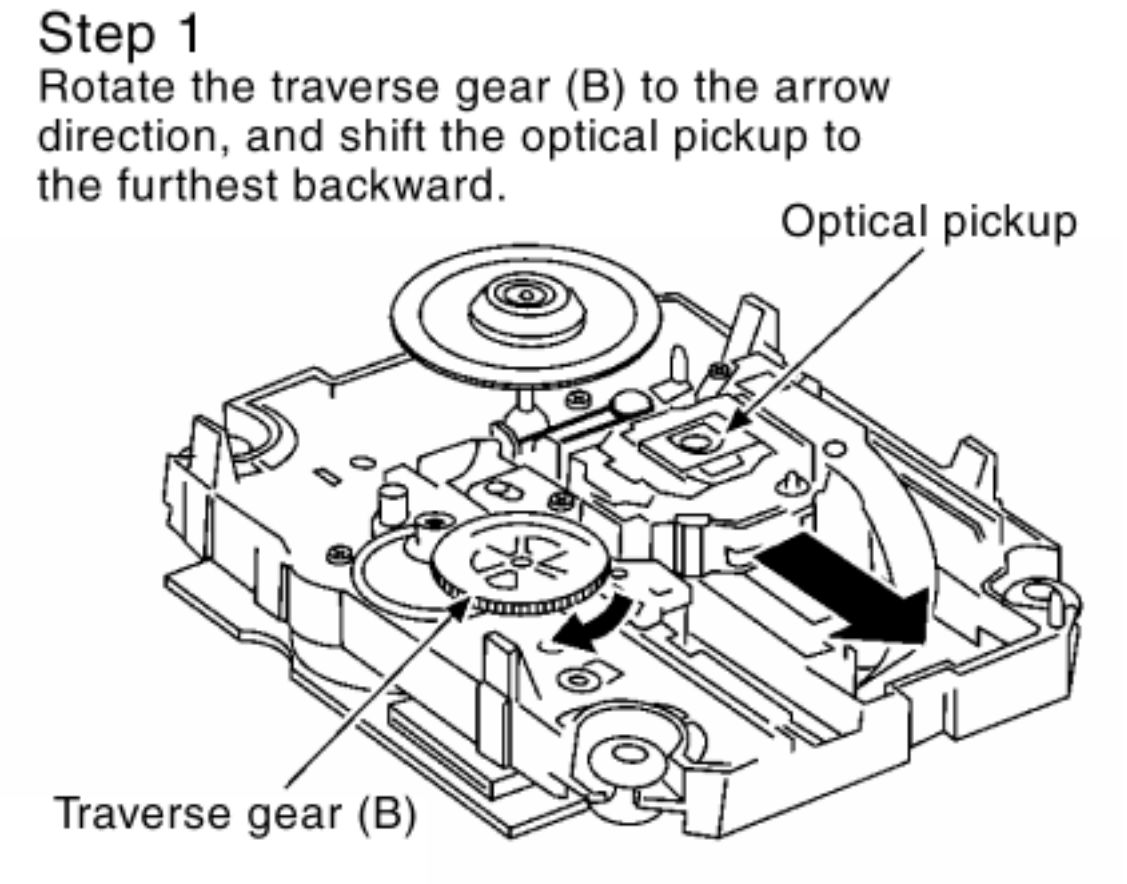
Note:
Do not touch the lens of the optical pickup

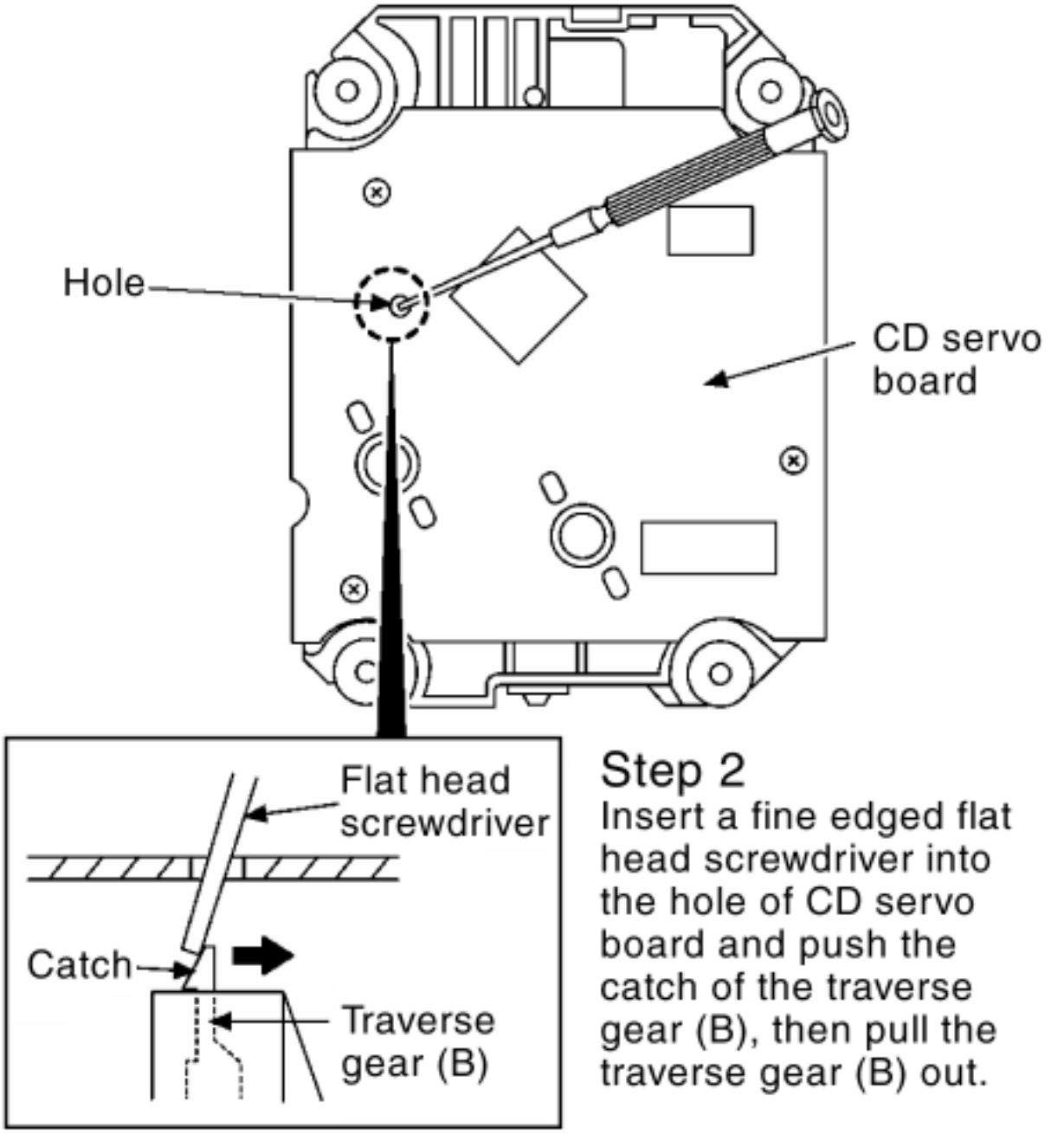
TOP PREVIOUS NEXT

9.8 Replacement of a traverse gear A and a traverse gear B

TOP PREVIOUS NEXT

- Follow Steps 1 to 14 described in Item 9.1.
- Follow Steps 1 to 2 described in Item 9.6.
- Follow Steps 1 to 12 described in Item 9.7.





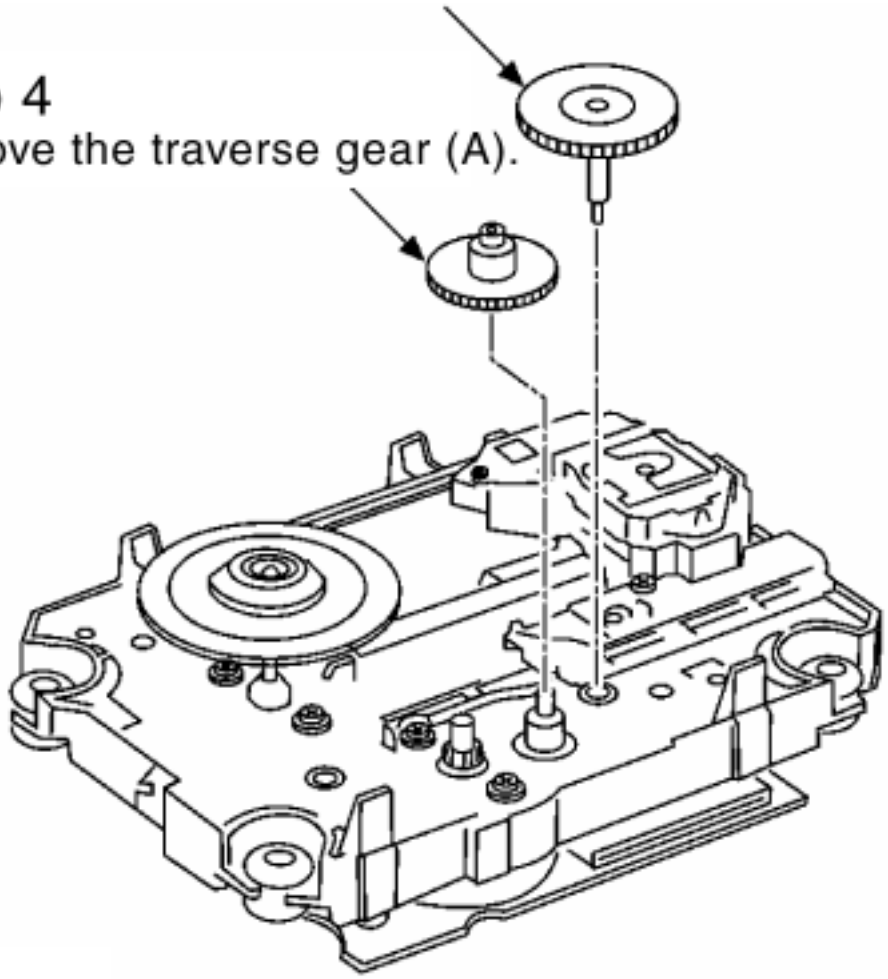
Step 2

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.

TOP PREVIOUS NEXT

9.9 Disassembly of CD loading unit

TOP PREVIOUS NEXT

TOP PREVIOUS NEXT

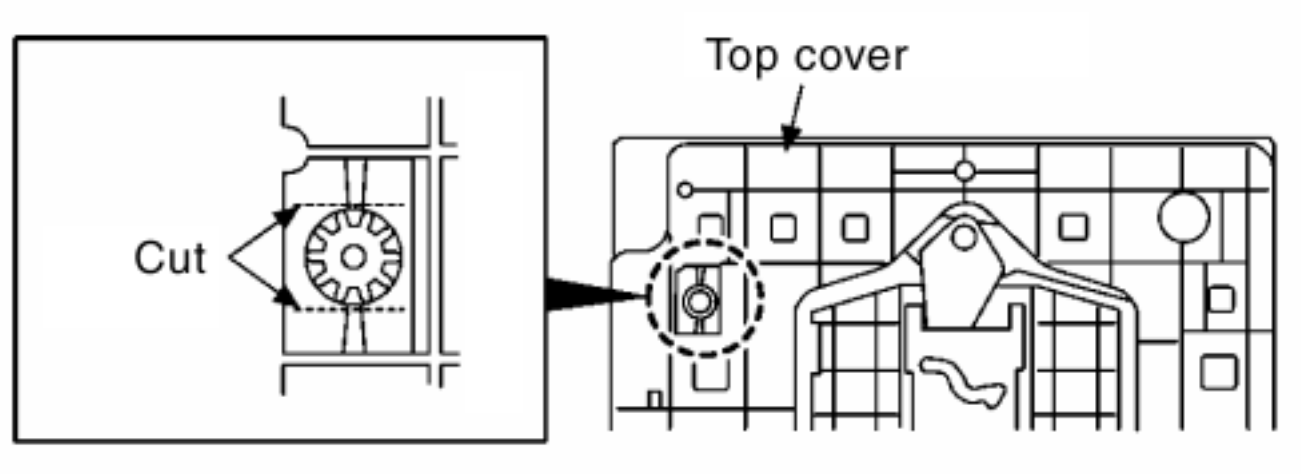
9.9.1 Regarding a jig "gear"

TOP PREVIOUS NEXT

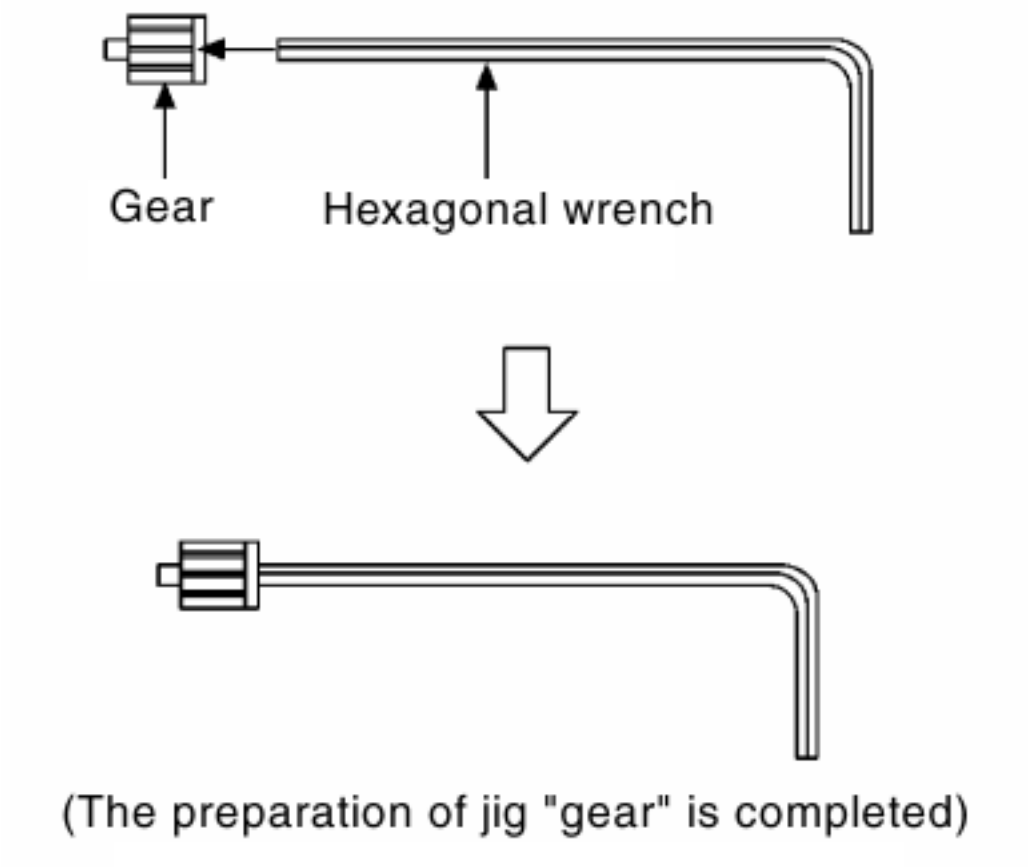
- The gear is equipped to the unit to check the opening and closing of the disk tray and the hoisting of traverse unit manually at the maintenance service. (The usage of the gear is described in this disassembly procedure).

- As to the preparation of the gear jig, follow the following procedure.
  And, in case of the repair using the same set at second time onward, it is requested to keep used "gear" as it may possibly not be attached at the top cover part becauseit is already used.

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



2. Insert a hexagonal wrench of 2.5mm (opposite side diameter) into the gear.

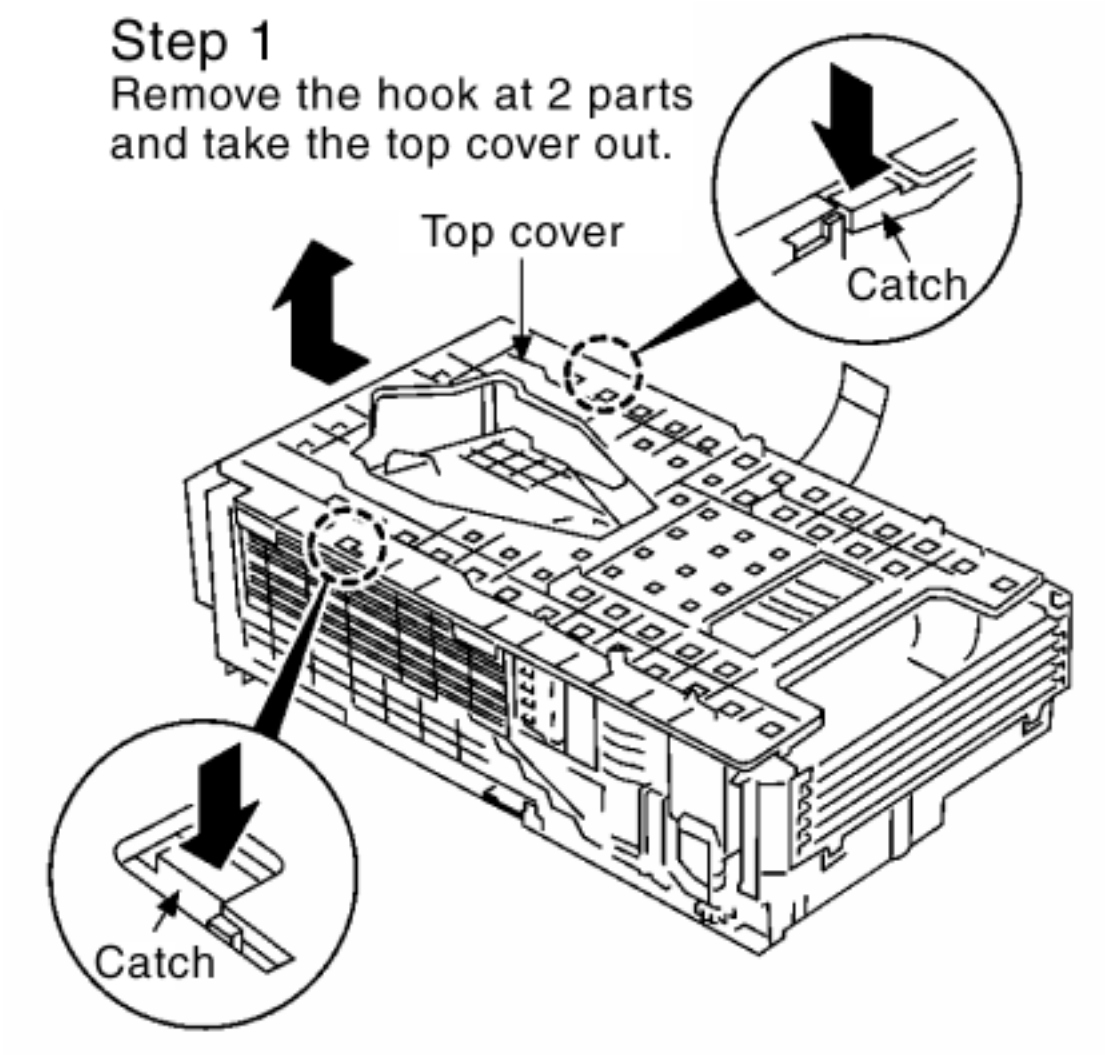


TOP PREVIOUS NEXT

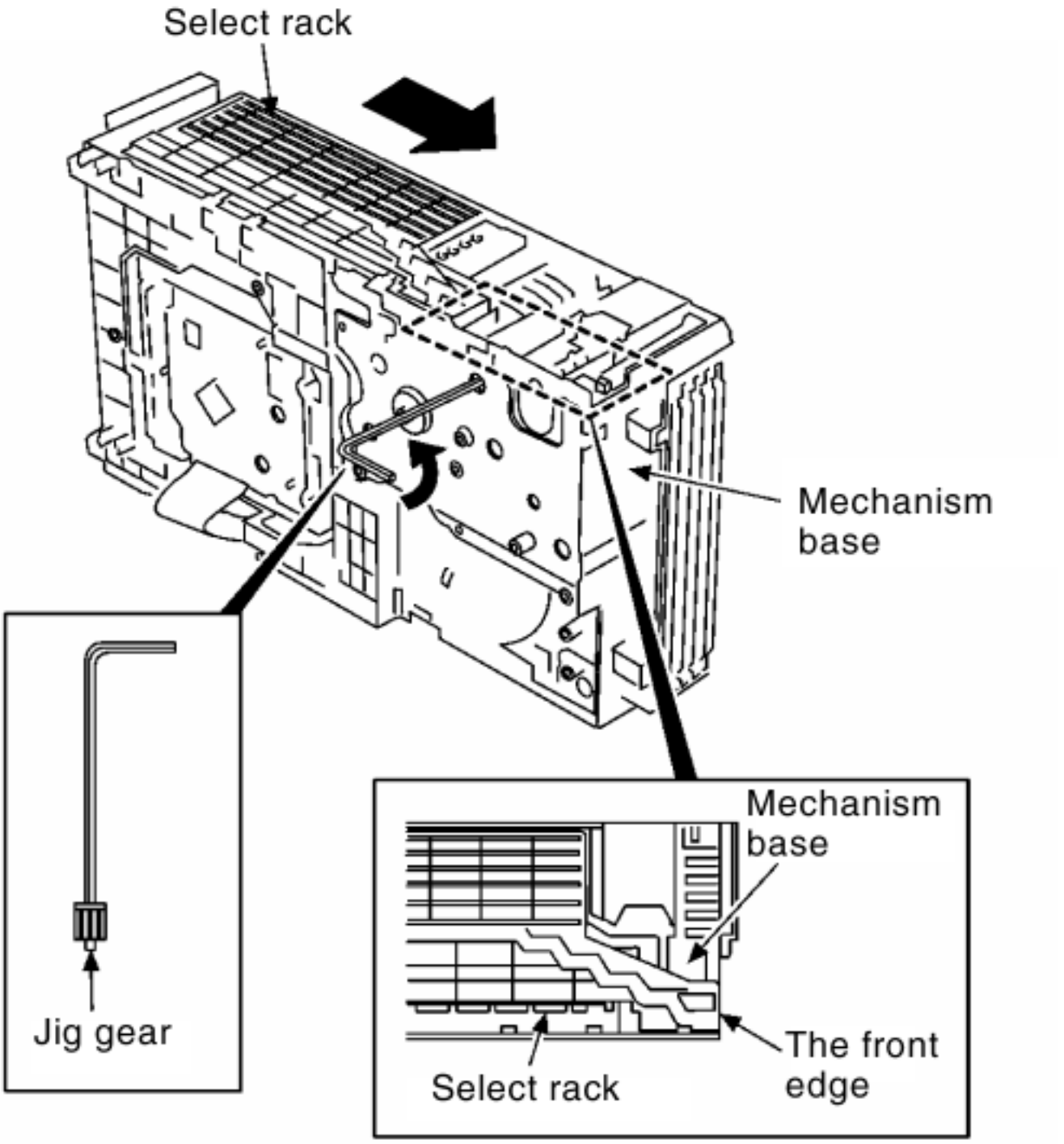
9.10 Replacement of disk tray

TOP PREVIOUS NEXT

- Follow Steps 1 to 14 described in Item 9.1.

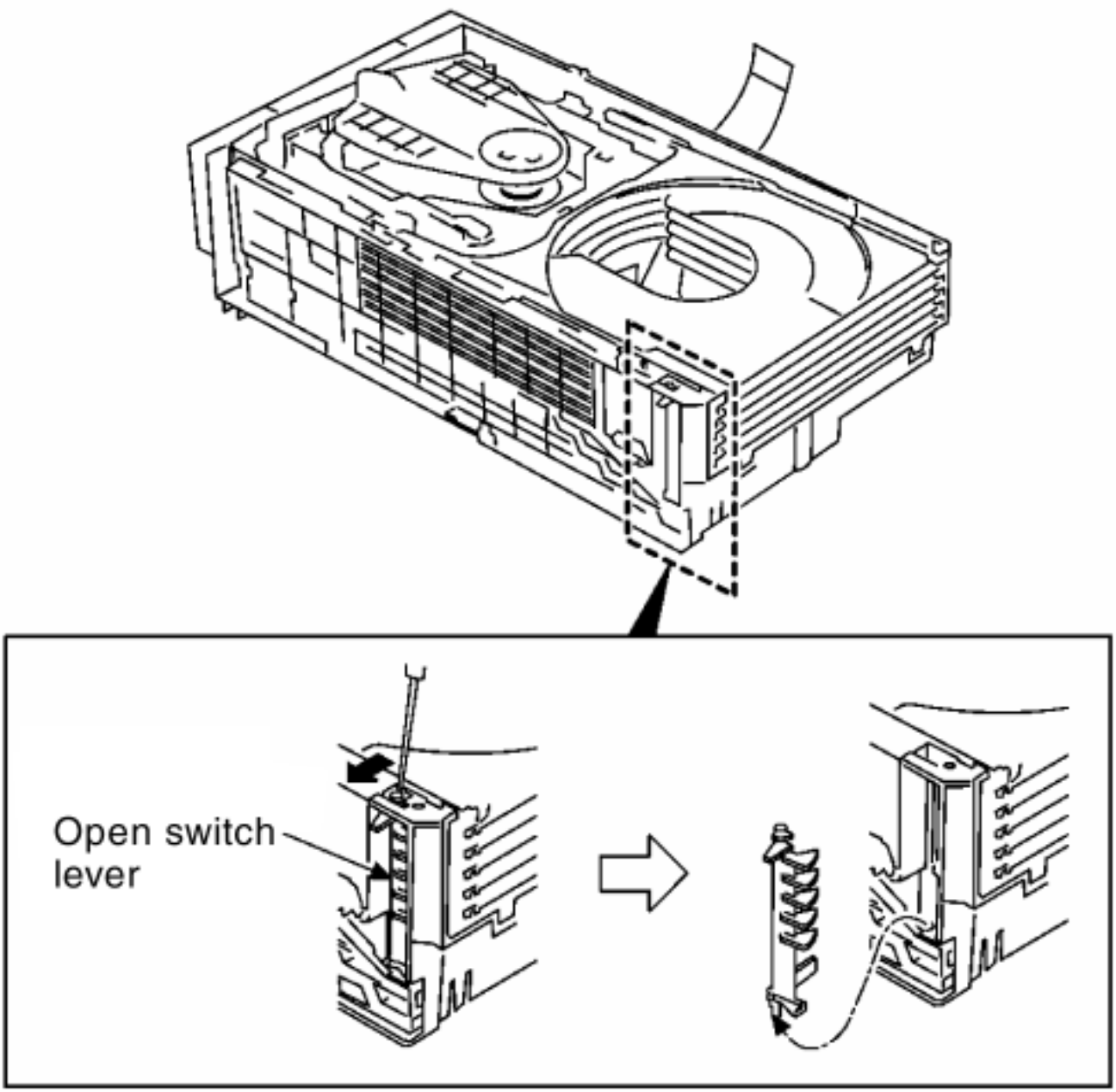


Step 2
Rotate the jig gear anticlockwise and shift the select rack to the forefront (position it the same face with a mechanism base and select rack)



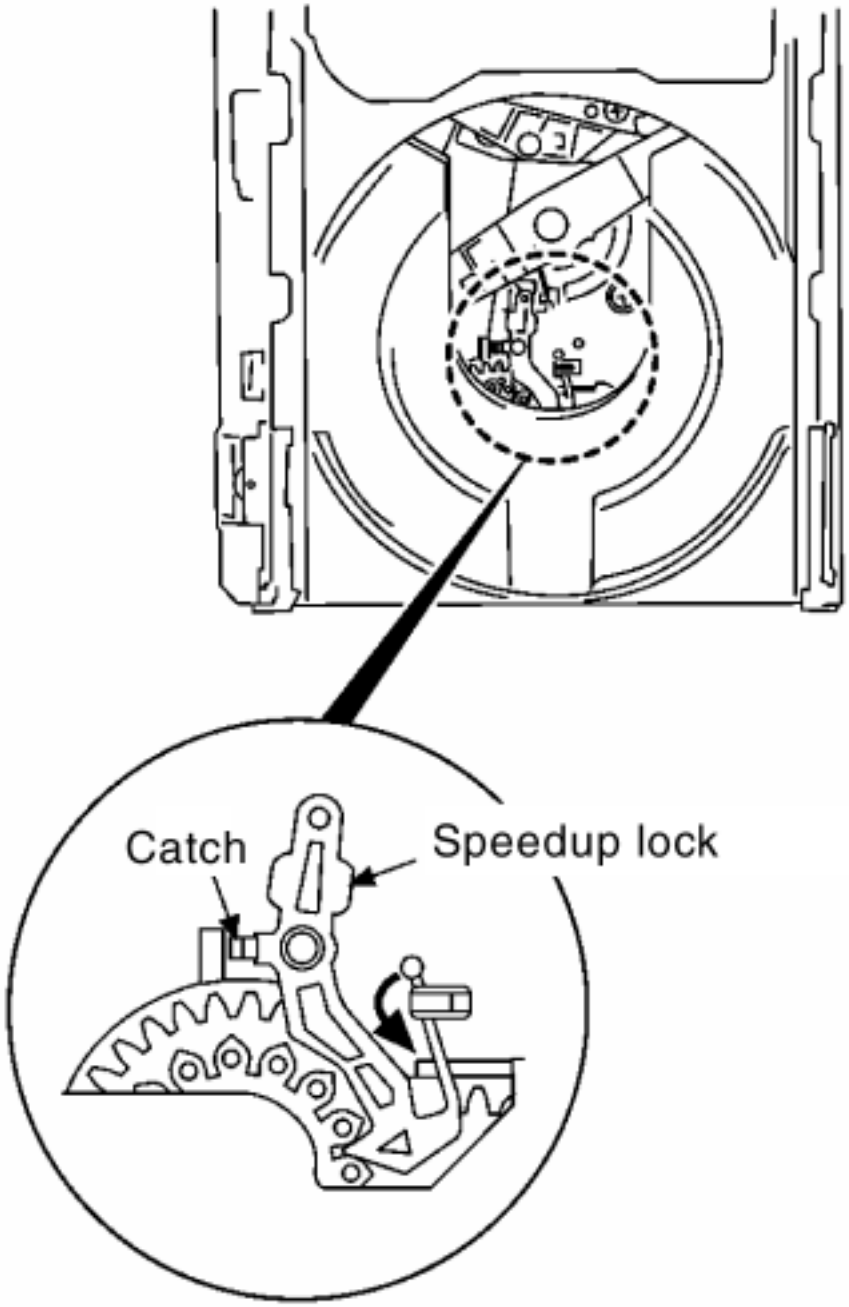
Note:
Position the front edge of the mechanical base to the front edge of the select rack.

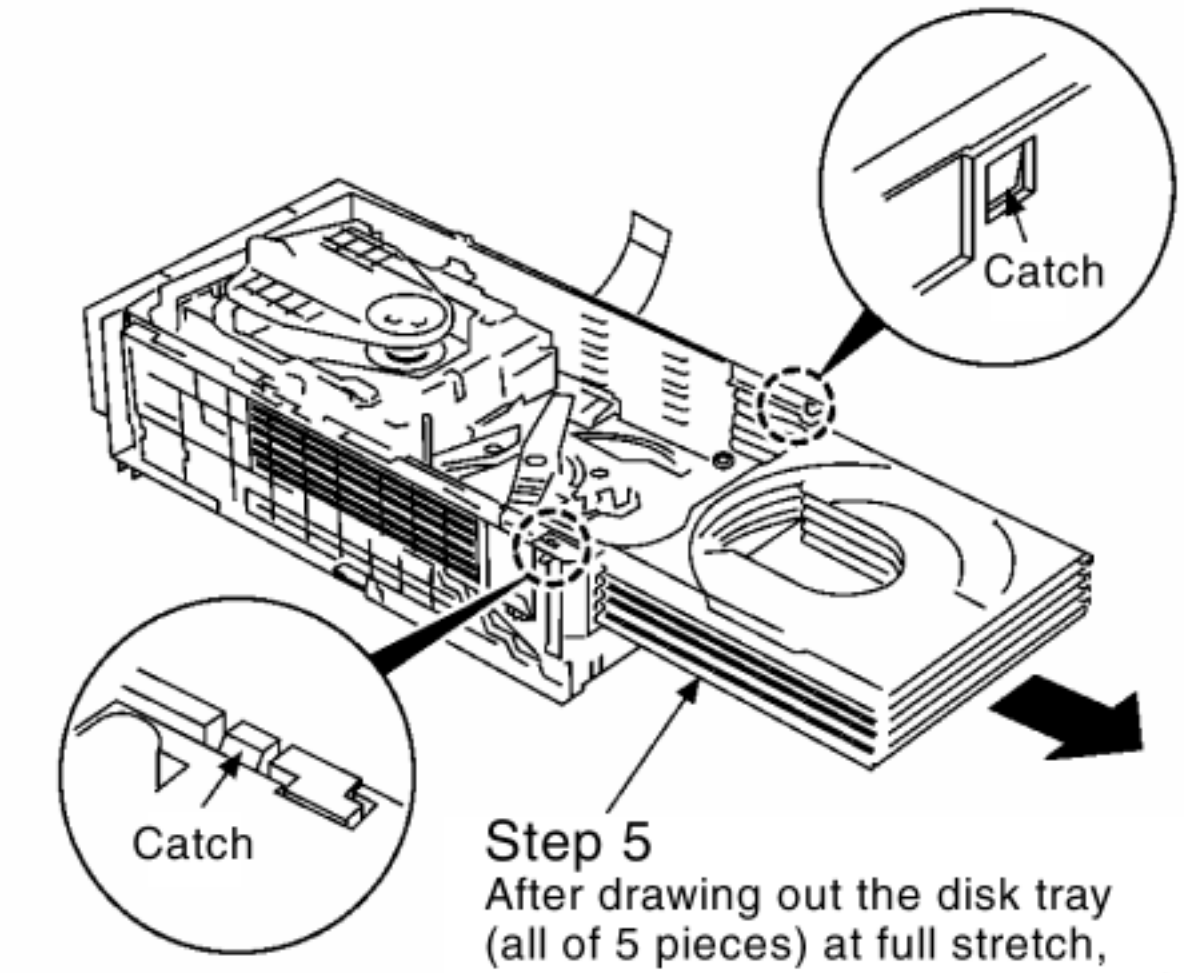
Step 3
Remove the open switch lever.



Step 4

Remove one of hooks, and remove the speedup lock.

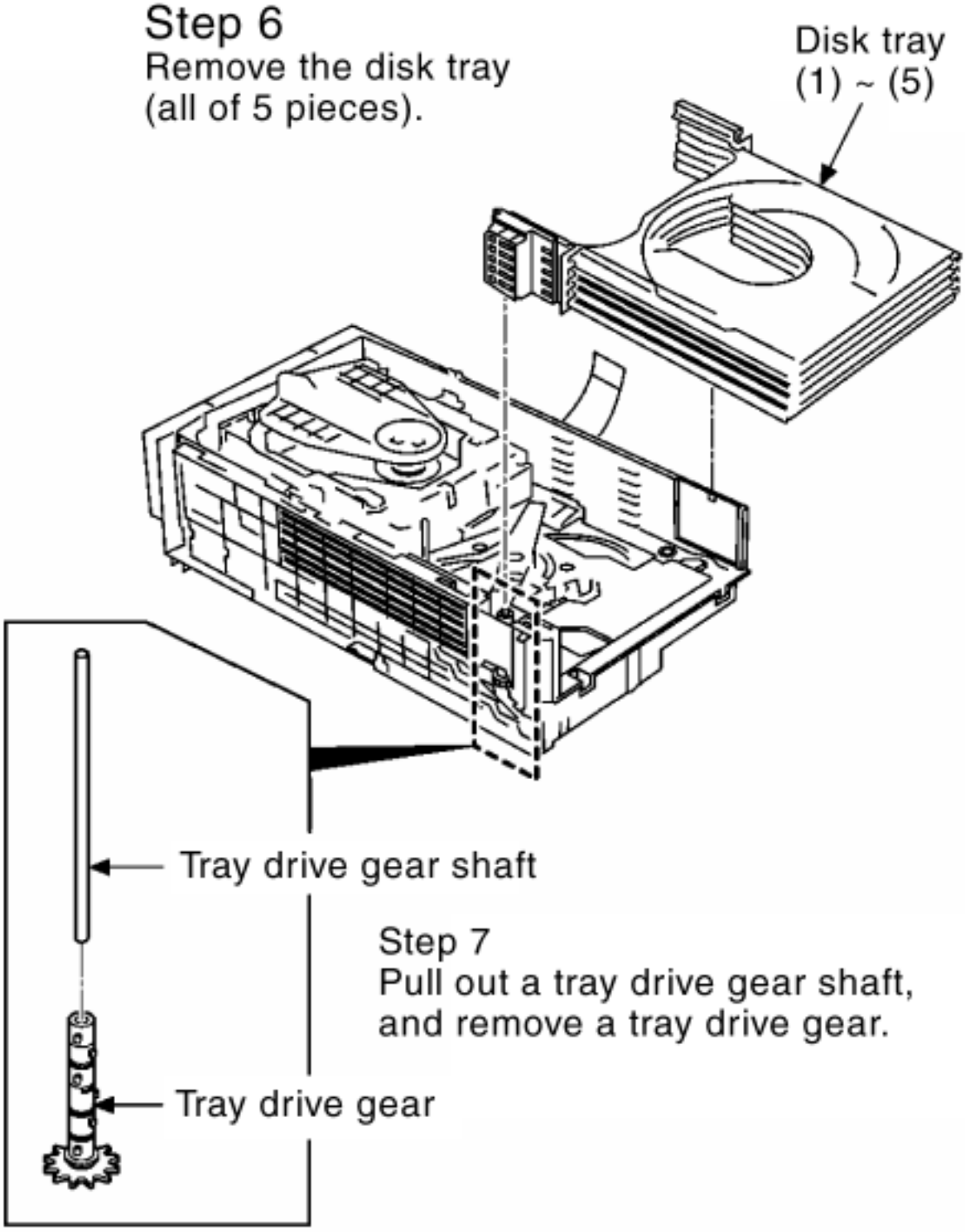




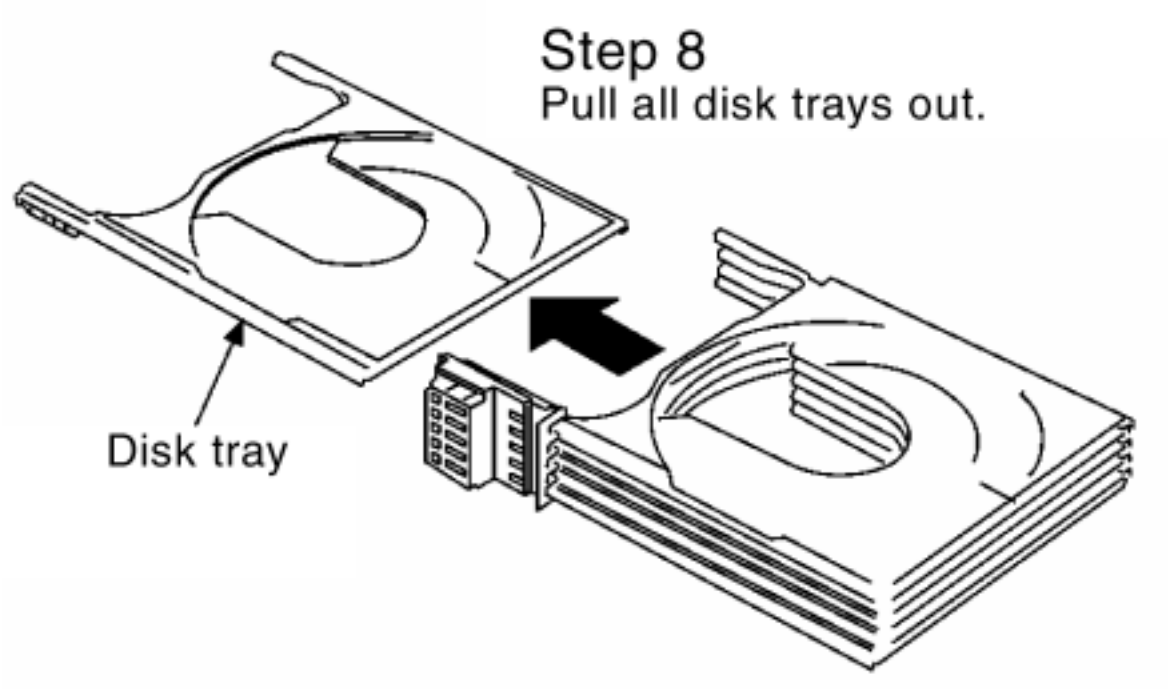
Step 5

After drawing out the disk tray (all of 5 pieces) at full stretch, release catches at 2 parts and lift the disk tray.

Step 6
Remove the disk tray
(all of 5 pieces).



Step 7
Pull out a tray drive gear shaft,
and remove a tray drive gear.



TOP PREVIOUS NEXT

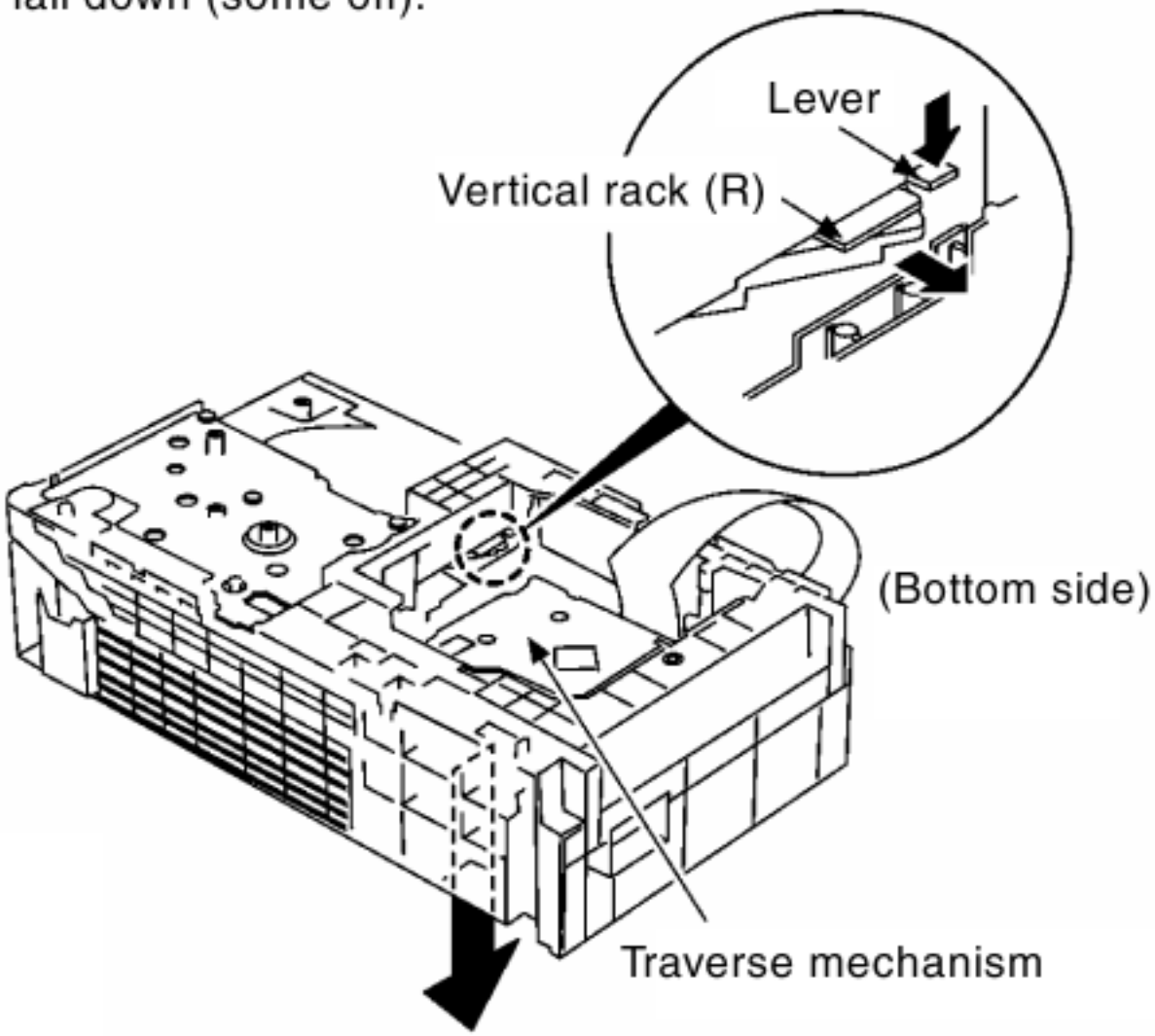
9.11 Replacement of the traverse mechanism

TOP PREVIOUS NEXT

- Follow Steps 1 to 7 described in Item 9.10.

Step 1
Push the lever and slide the vertical rack (R) to the arrow direction.

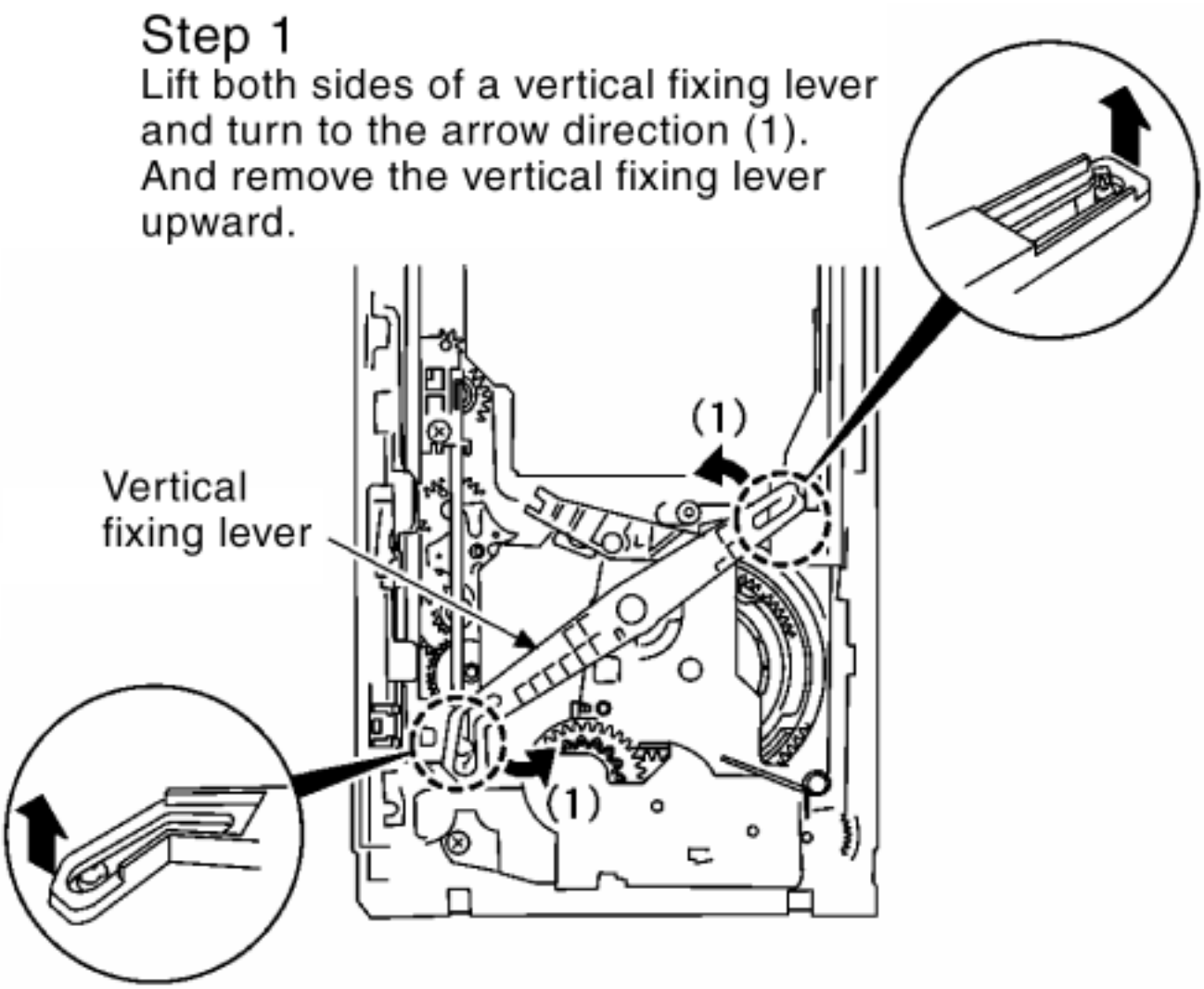
Note:
Put soft cloth on the table as the traverse mechanism will fall down (some off).

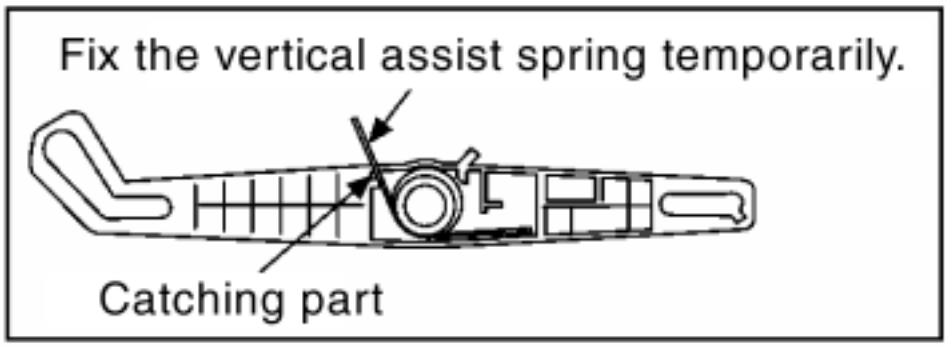


9.12 Disassembly of CD loading section

TOP PREVIOUS NEXT

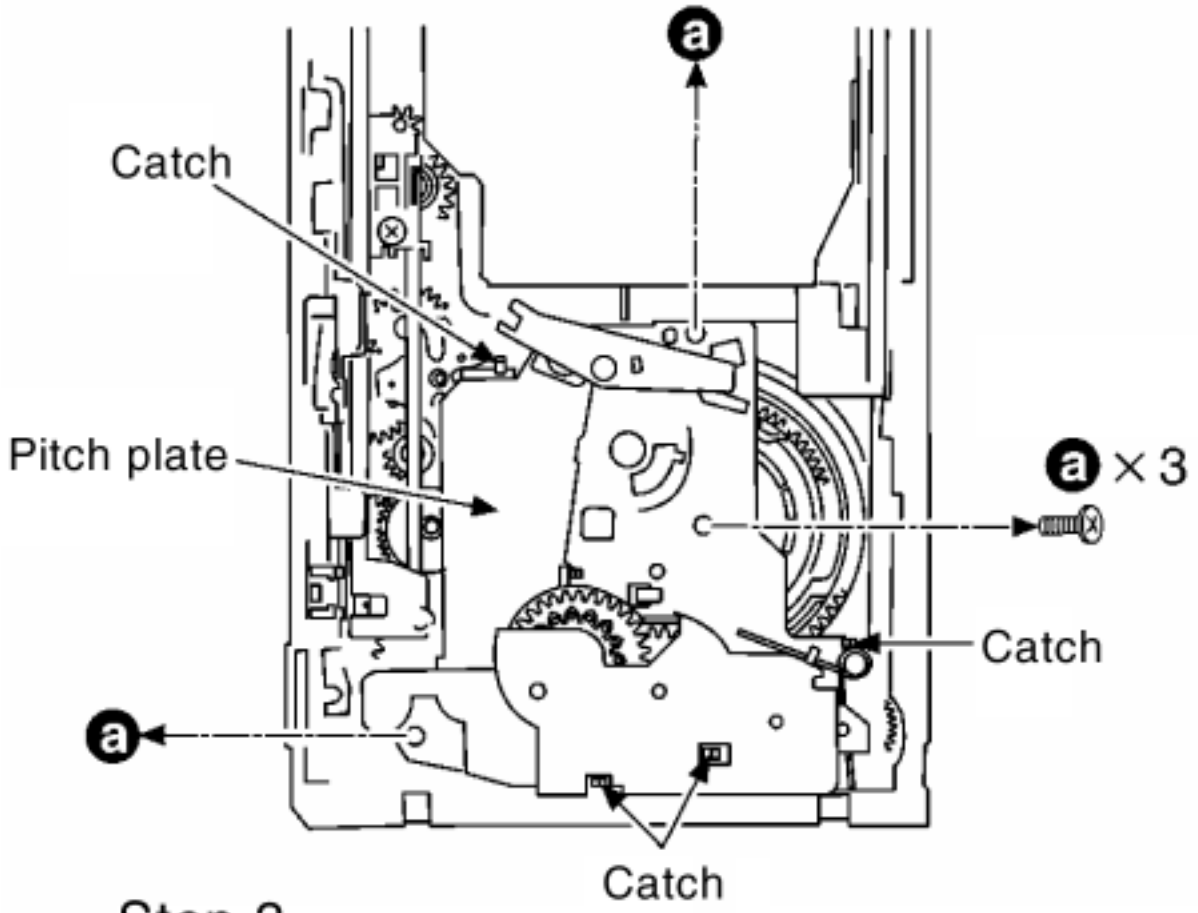
- Follow Steps 1 to 7 described in Item 9.10.
- Follow Step 1 described in Item 9.11.





Note:
The vertical assist spring may possibly come off from the

The vertical assist spring may possibly come off from the vertical lever when the vertical fixing lever is removed. In that case, fix the vertical assist spring temporarily as shown above.

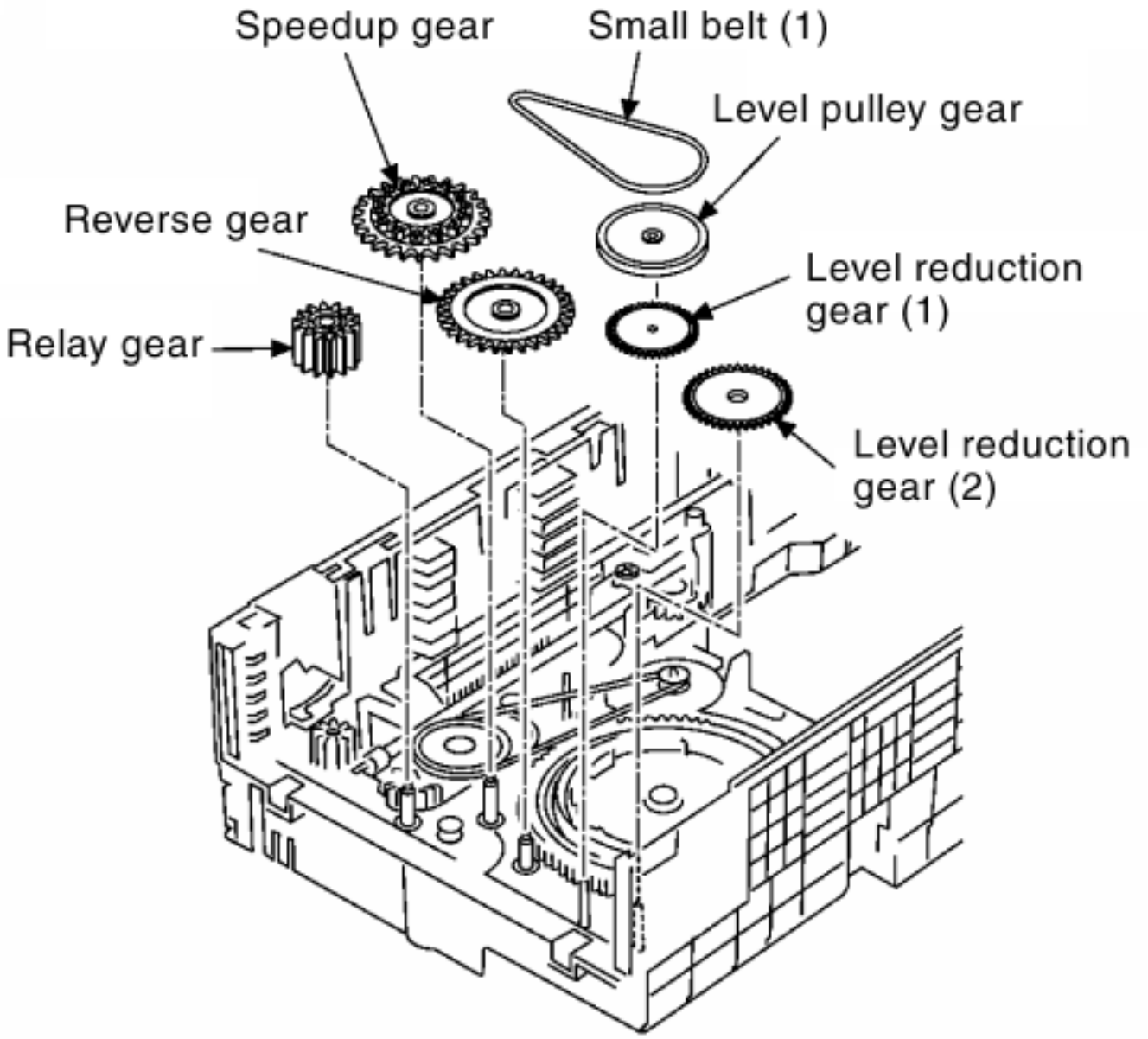


Step 3

Release 4 catches and take the pitch plate out.

Step 4

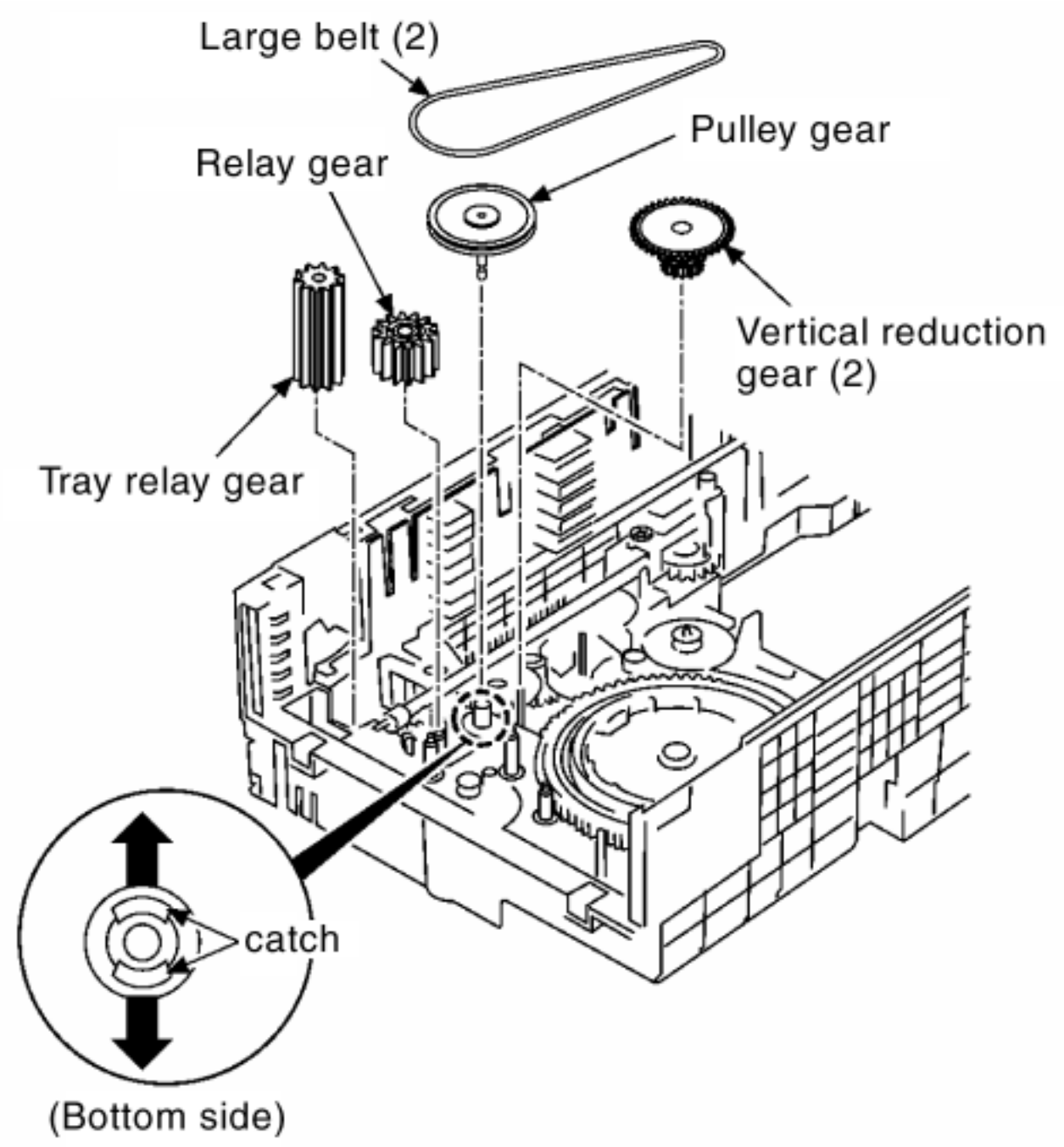
Remove a small belt (1), a speedup gear, a reverse gear, a relay gear, a level pulley gear, a level reduction gear (2), and a level reduction gear (1).



Step 5
Remove a large belt (2) and a tray relay gear.

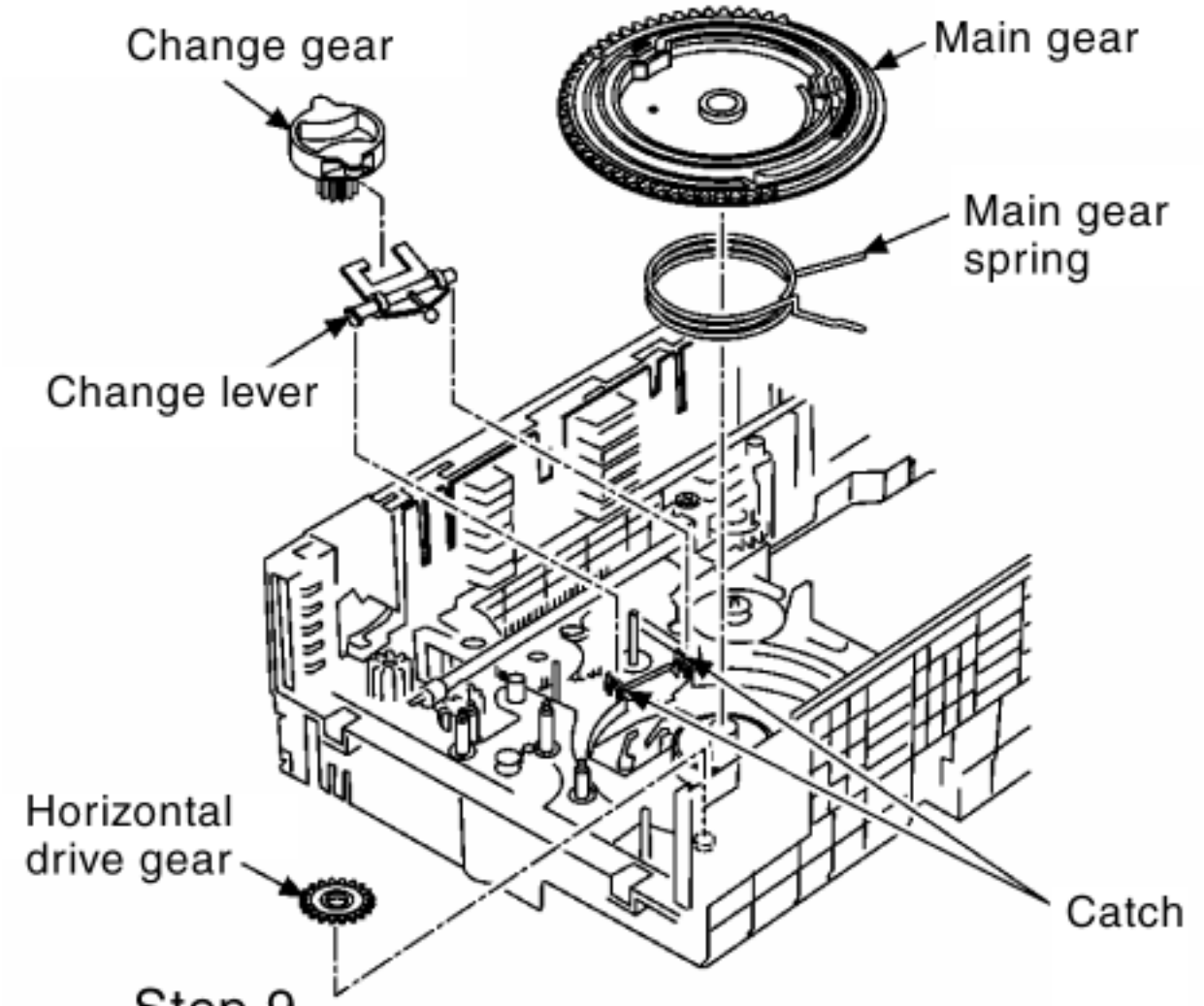
Step 6
Remove 2 catches from the bottom side and pull a pulley gear out.

Step 7
Remove a relay gear and a vertical reduction gear (2).



Step 8

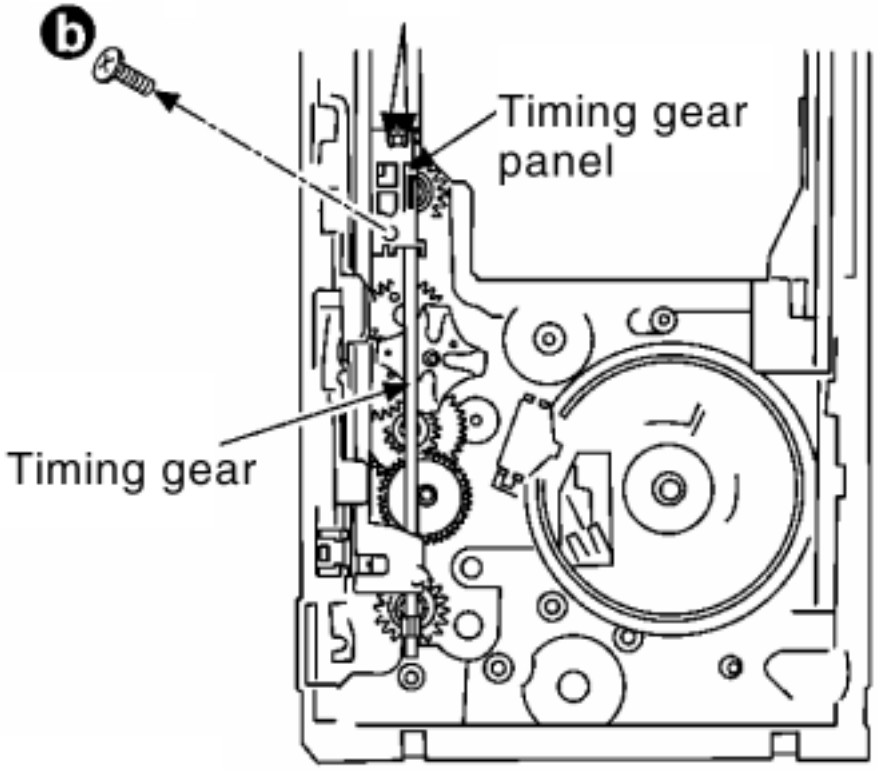
Remove a main gear, a main gear spring, a horizontal drive gear and a change gear.



Step 9

Pull out the catch from a change lever.

Step 10

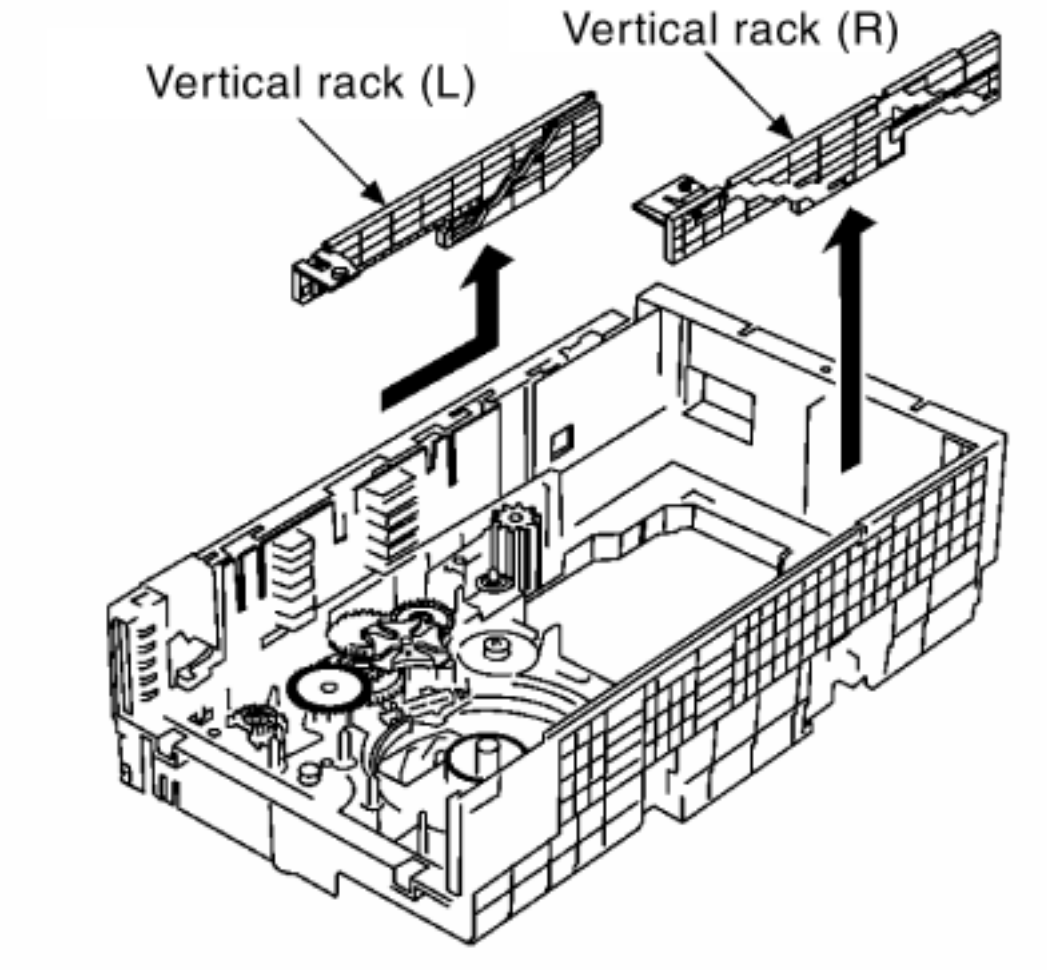


Step 11

Remove 2 catches and take out a timing gear plate and a timing gear.

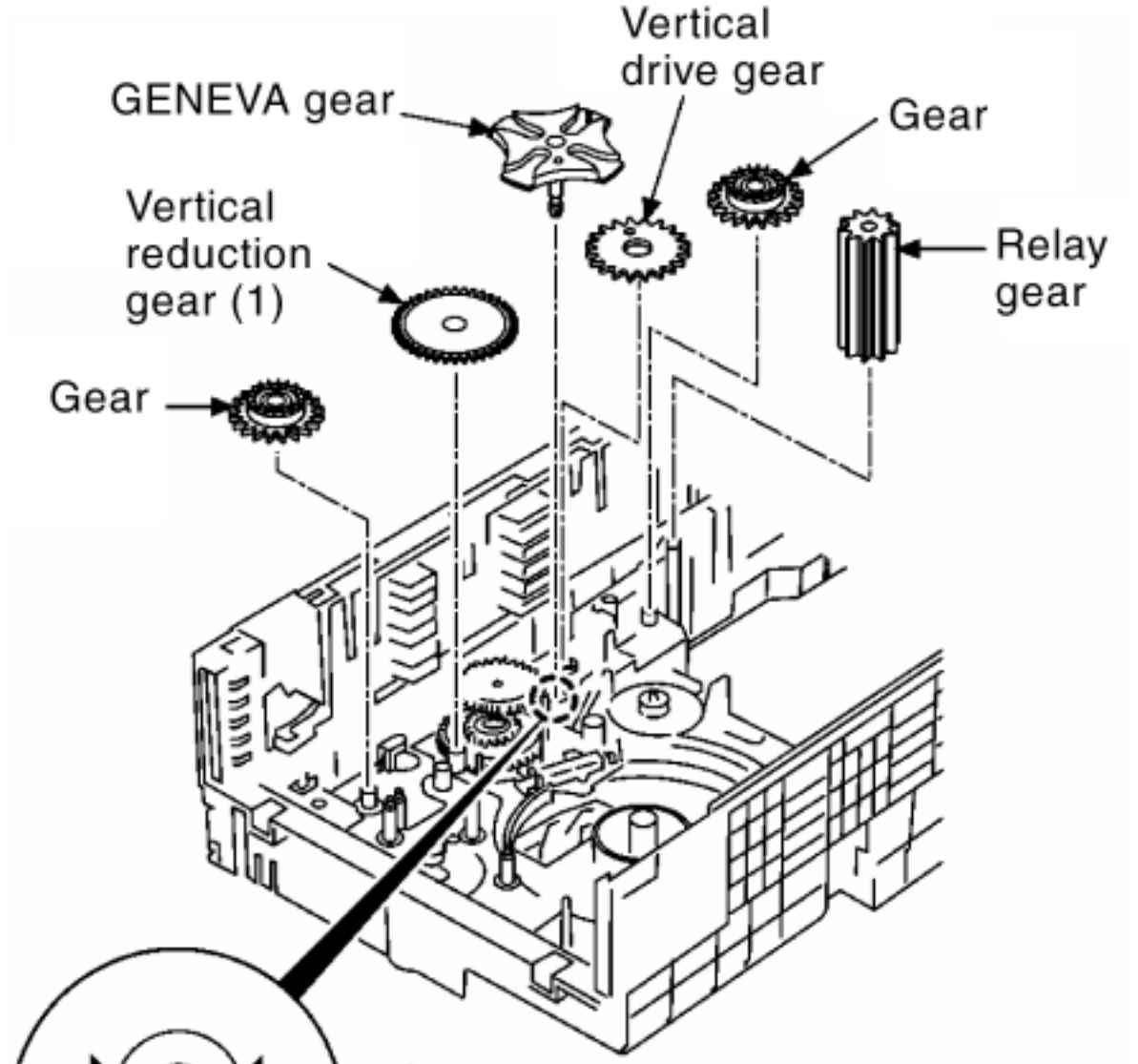
Step 12

Remove a vertical rack (L) and (R).



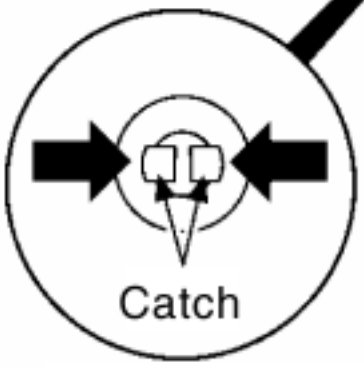
Step 13

Remove a relay gear, a gear (2) and a vertical reduction gear.



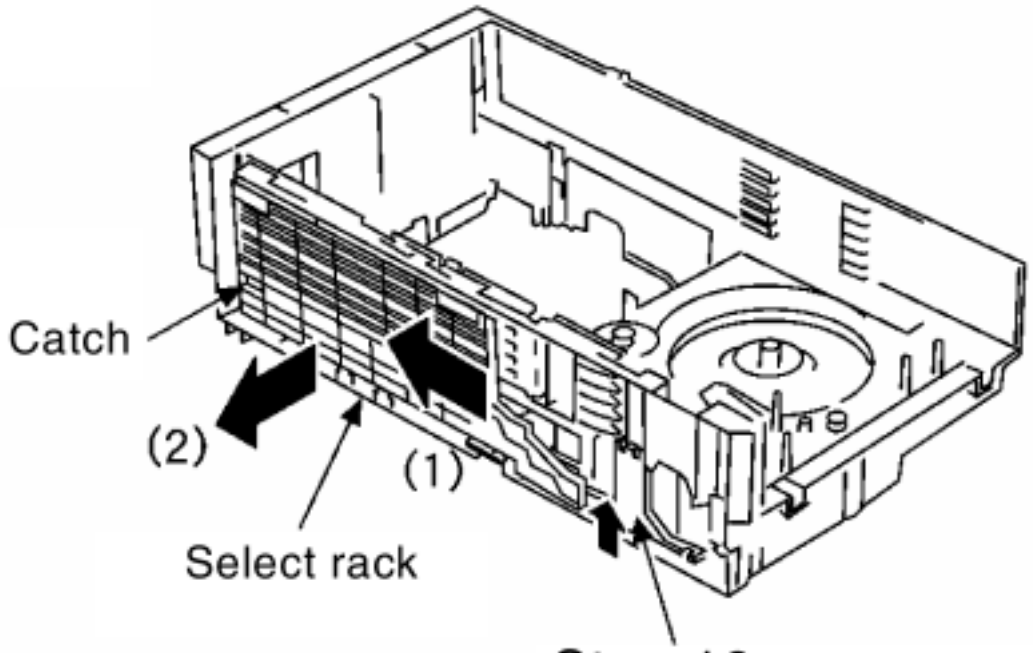
Step 14

Remove 2 catches from the bottom side and remove GENEVA gear and a vertical drive gear.



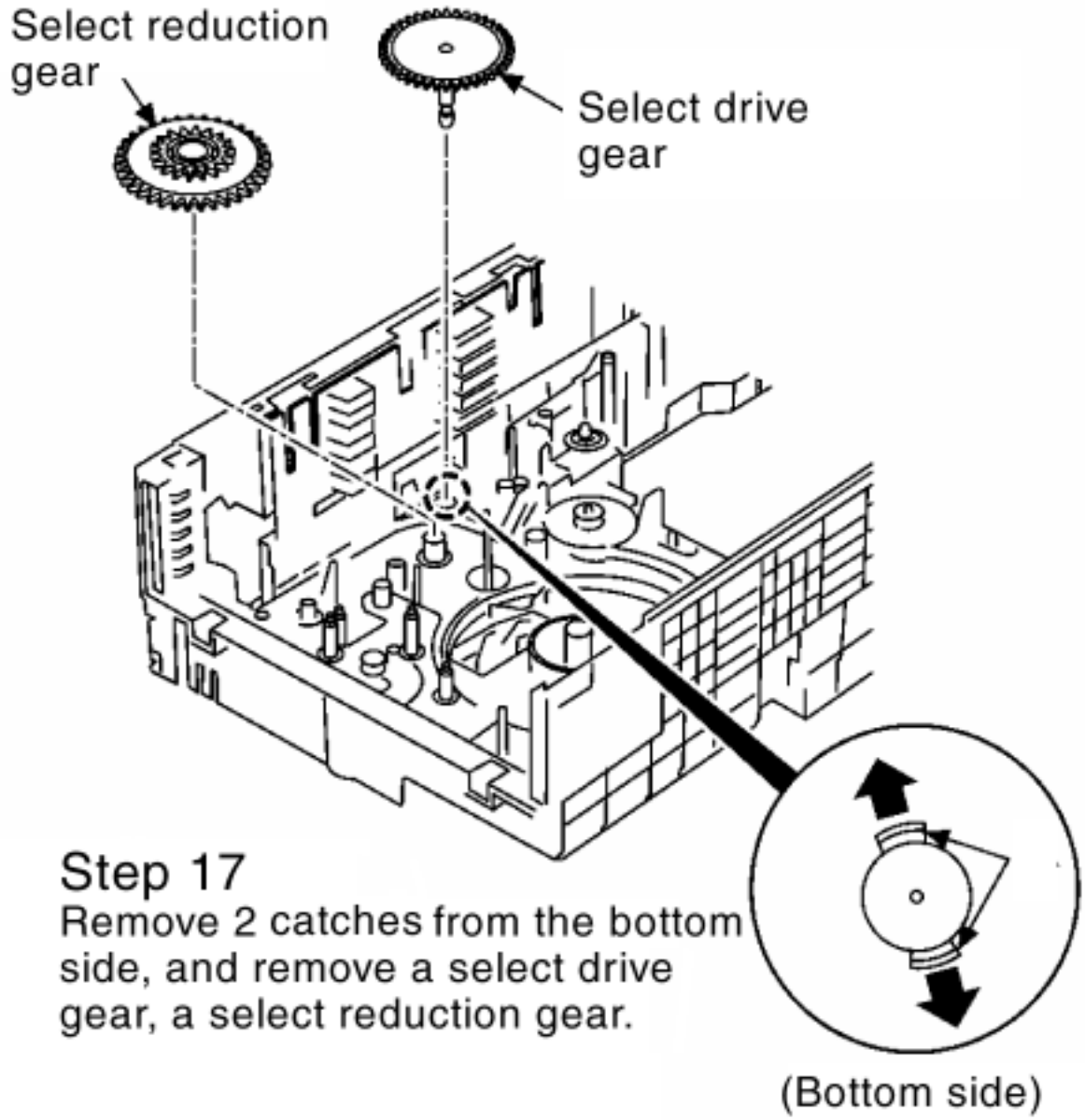
Step 15

Slide a select rack to the arrow direction (1) at full stretch. And remove it to the arrow direction (2) pressing the catch.



Step 16

Remove the select gear.



Step 17

Remove 2 catches from the bottom side, and remove a select drive gear, a select reduction gear.

TOP PREVIOUS NEXT

9.13 Assembly of CD loading unit

TOP PREVIOUS NEXT

- For assembly of CD loading unit, follow the reverse way of the disassembly procedure. And see following procedure as there are some points to be noticed in the assembly.

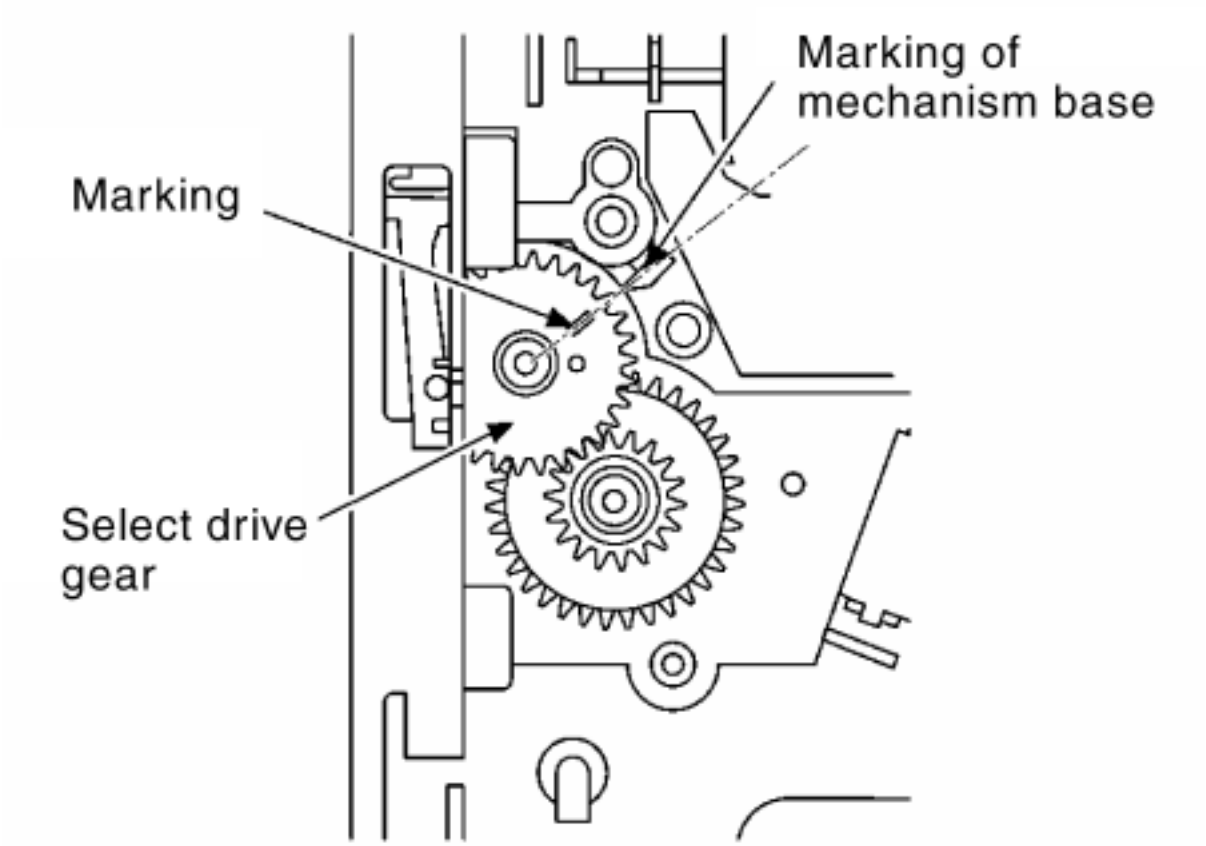
TOP PREVIOUS NEXT

9.13.1 Notes on fixing of CD loading section

TOP PREVIOUS NEXT

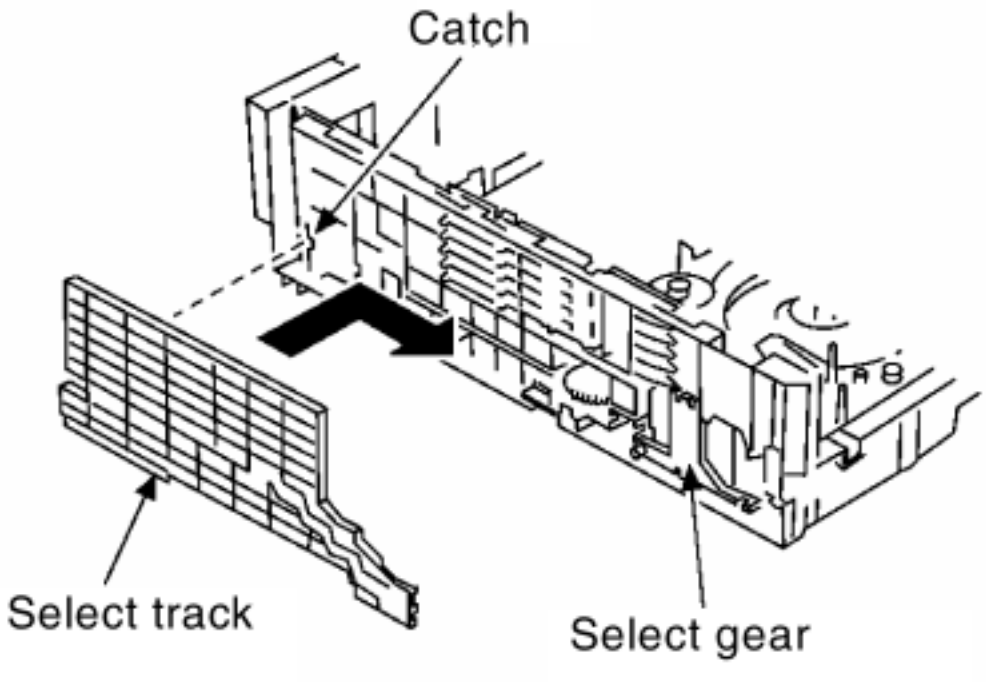
9.13.1.1 Notes on fixing of the select track

1. Set a marking of a select drive gear at a marking of a mechanism base.

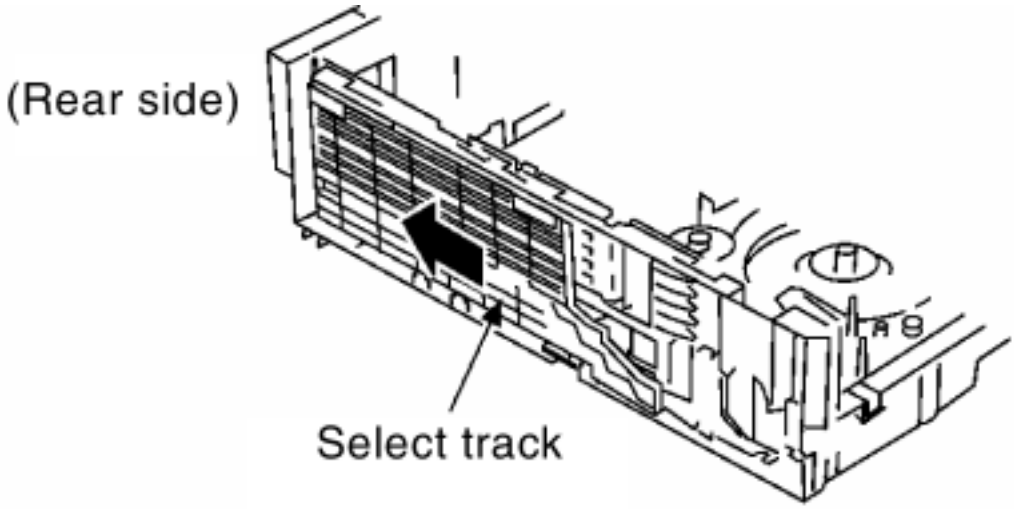


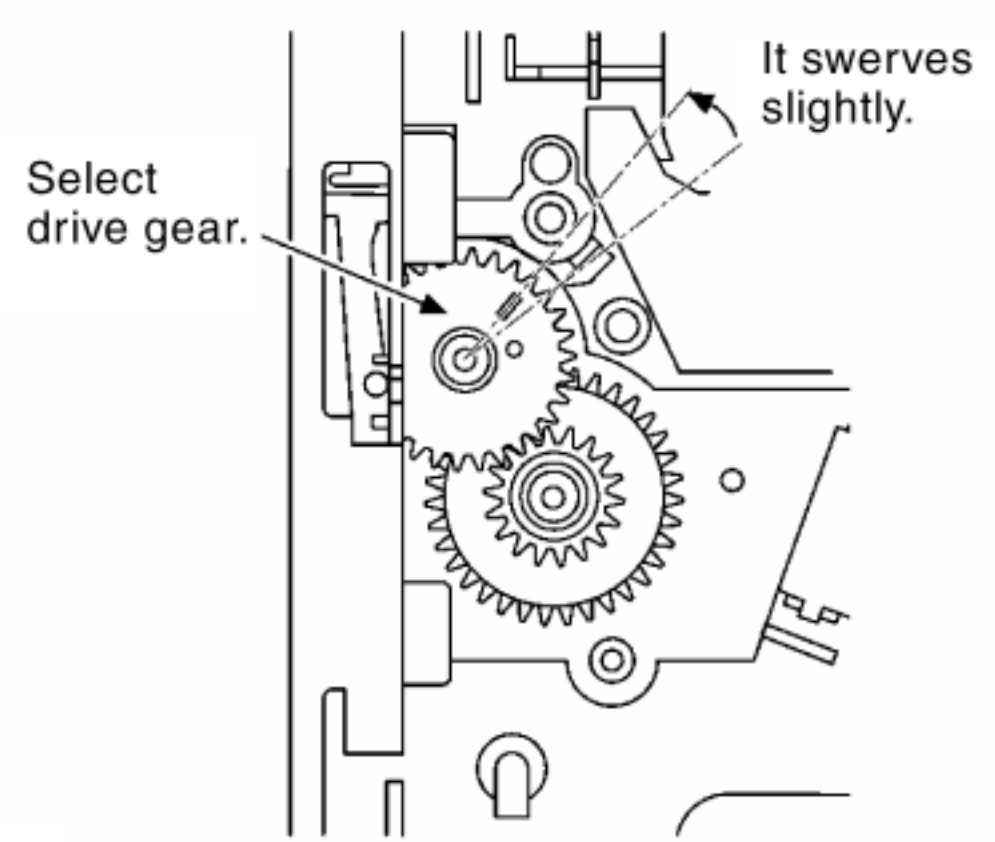
2. Fix a select gear

3. Slide a select track as shown by the arrow and fit it to a select gear.



4. Draw up a select track at the edge of the rear side.

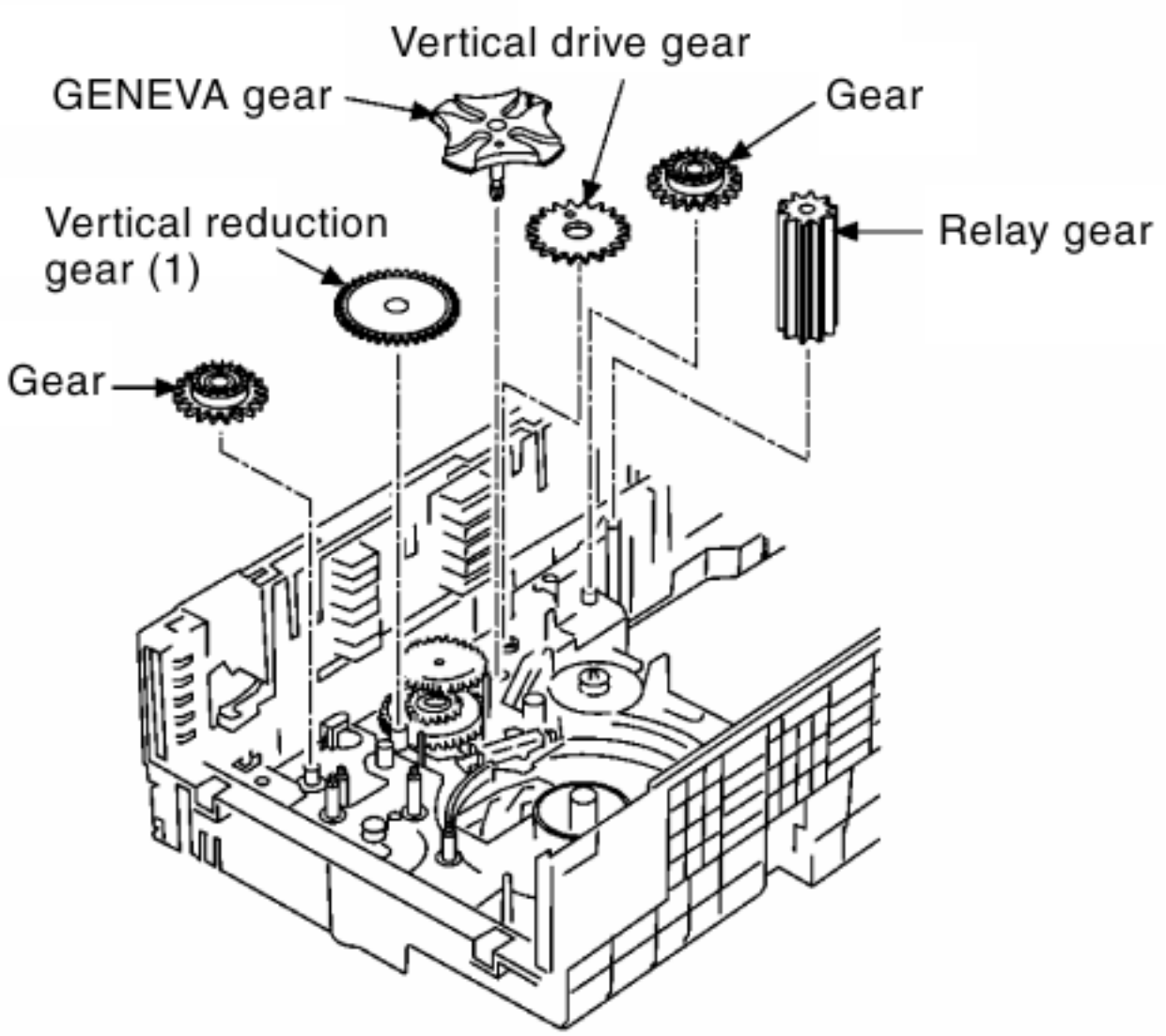




Note:
When a select track is fit and drawn up to the end of the rear side, a marking position of a select drive gear swerves slightly.

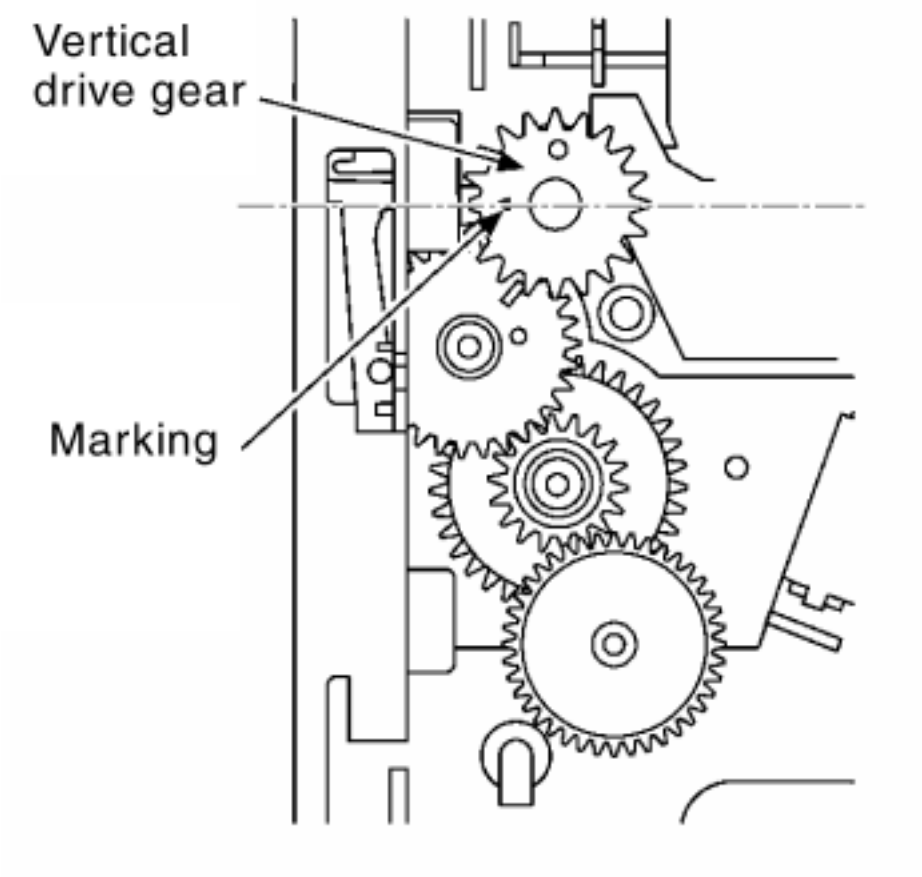
9.13.1.2 Notes on fixture of a vertical drive gear and GENEVA gear

1. Fix a vertical drive gear, GENEVA gear, a vertical reduction gear, gears (2 pieces) and a relay gear.

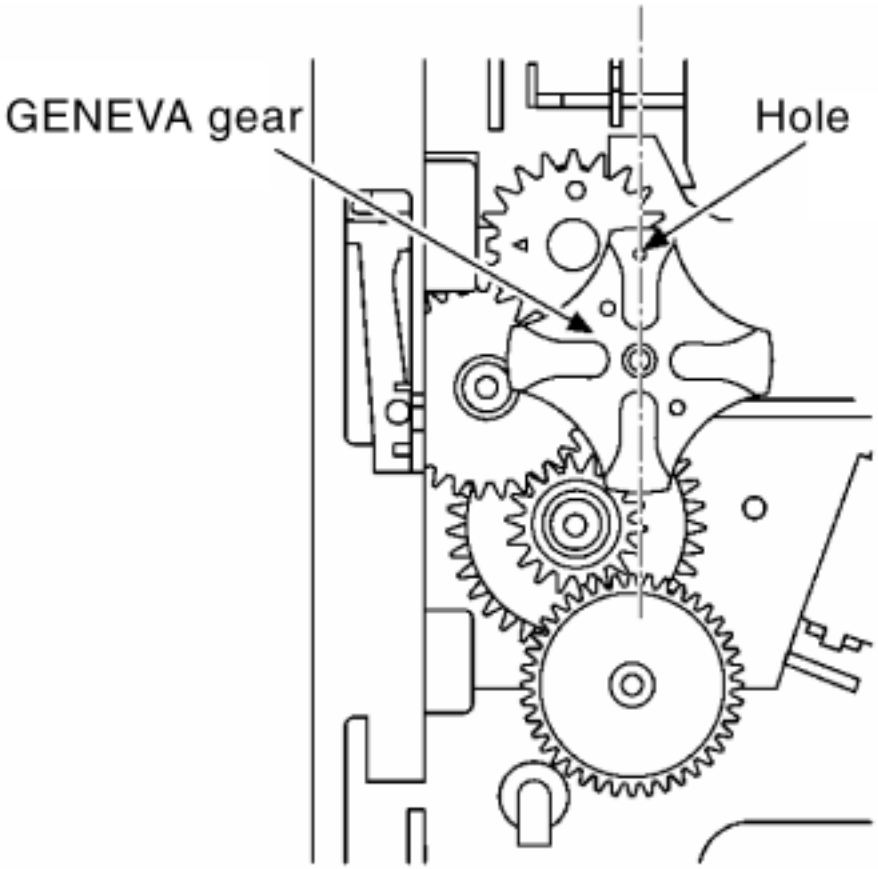


Note:
Please make sure that the catch is latched when GENEVA gear is fixed.

2. The marking should be at the position as shown below figure to fix a vertical drive gear.

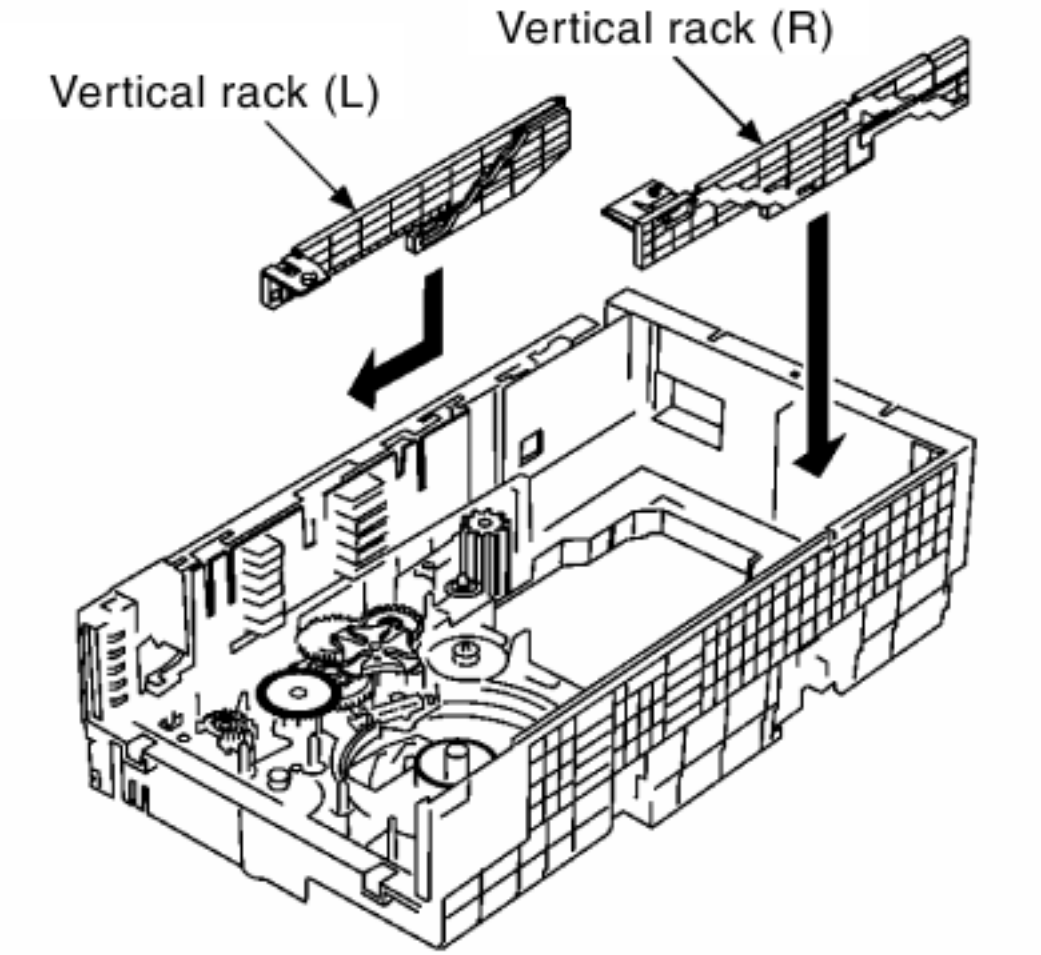


3. Set a hole as shown below to fix GENEVA gear.

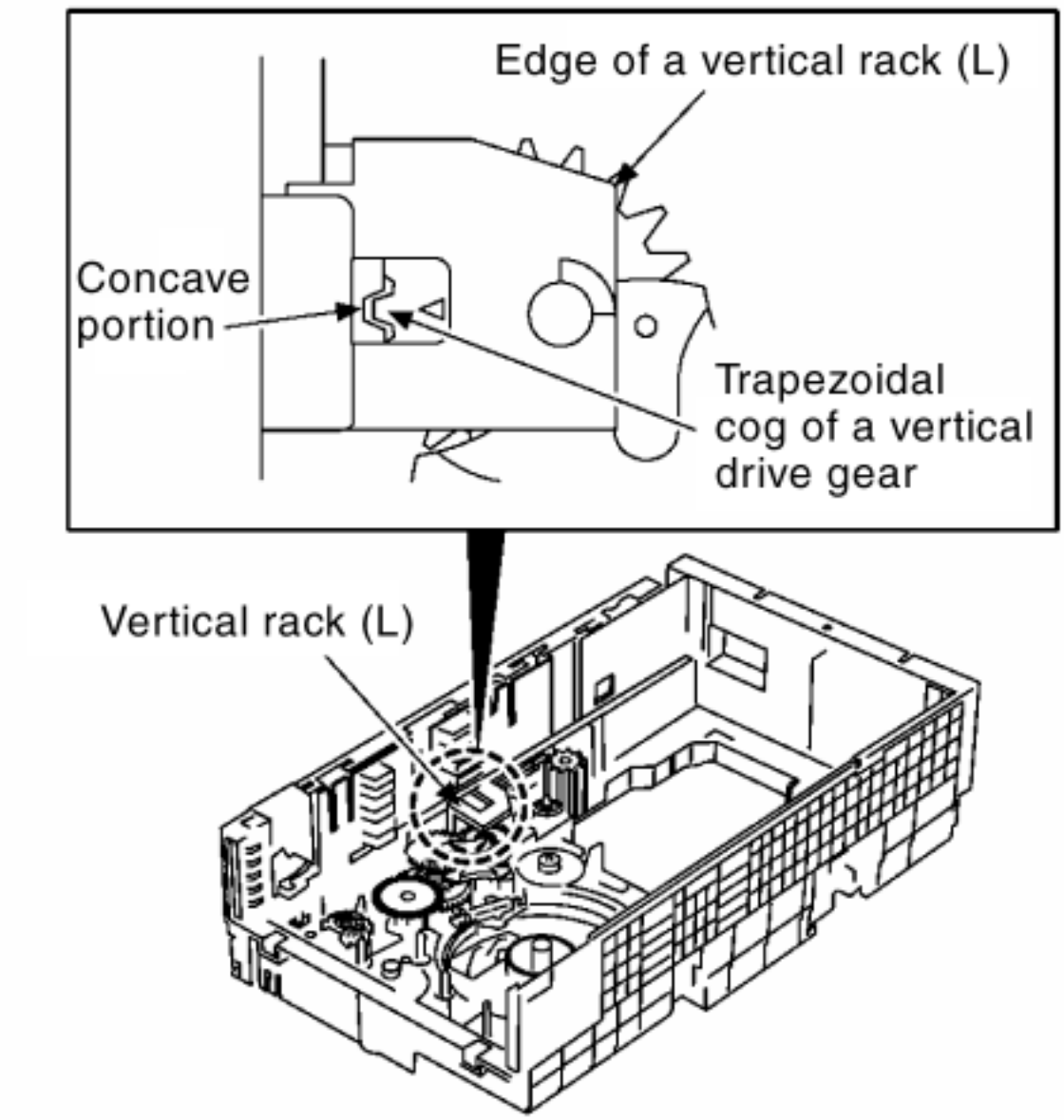


9.13.1.3 Notes on fixing a vertical rack (L)

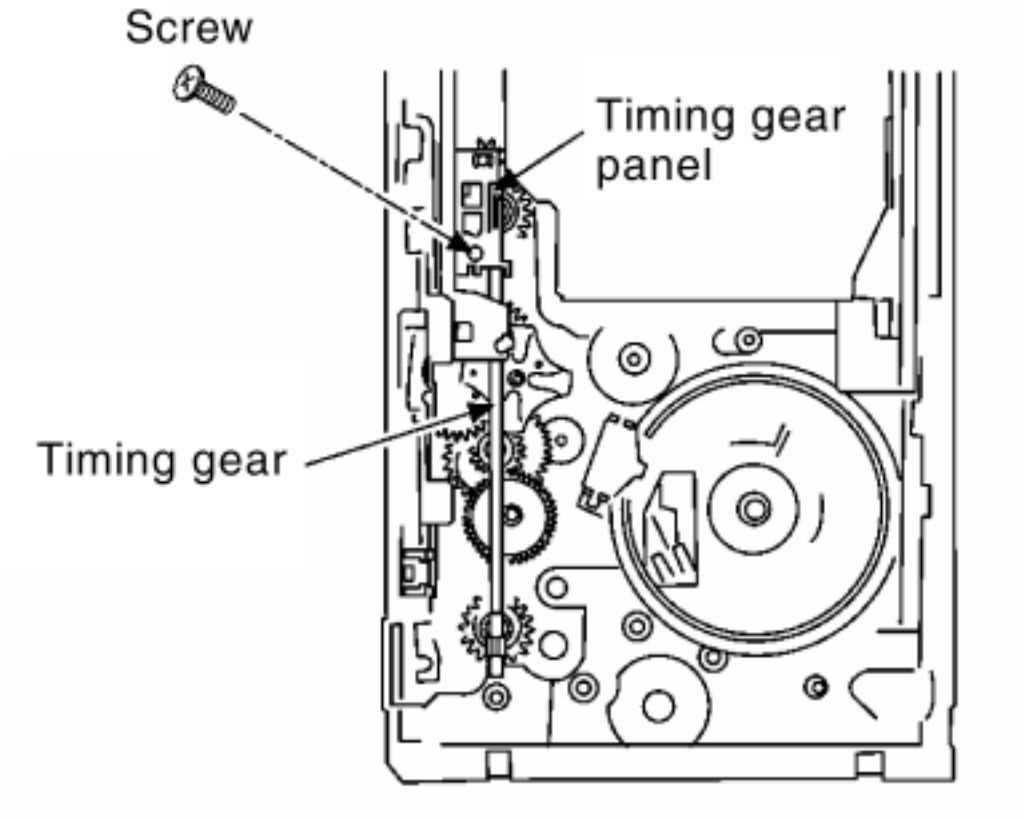
1. Fix vertical rack (L) and (R).



2. Position the concave portion of a vertical rack (L) to trapezoidal cog of a vertical rack (L) and fix.

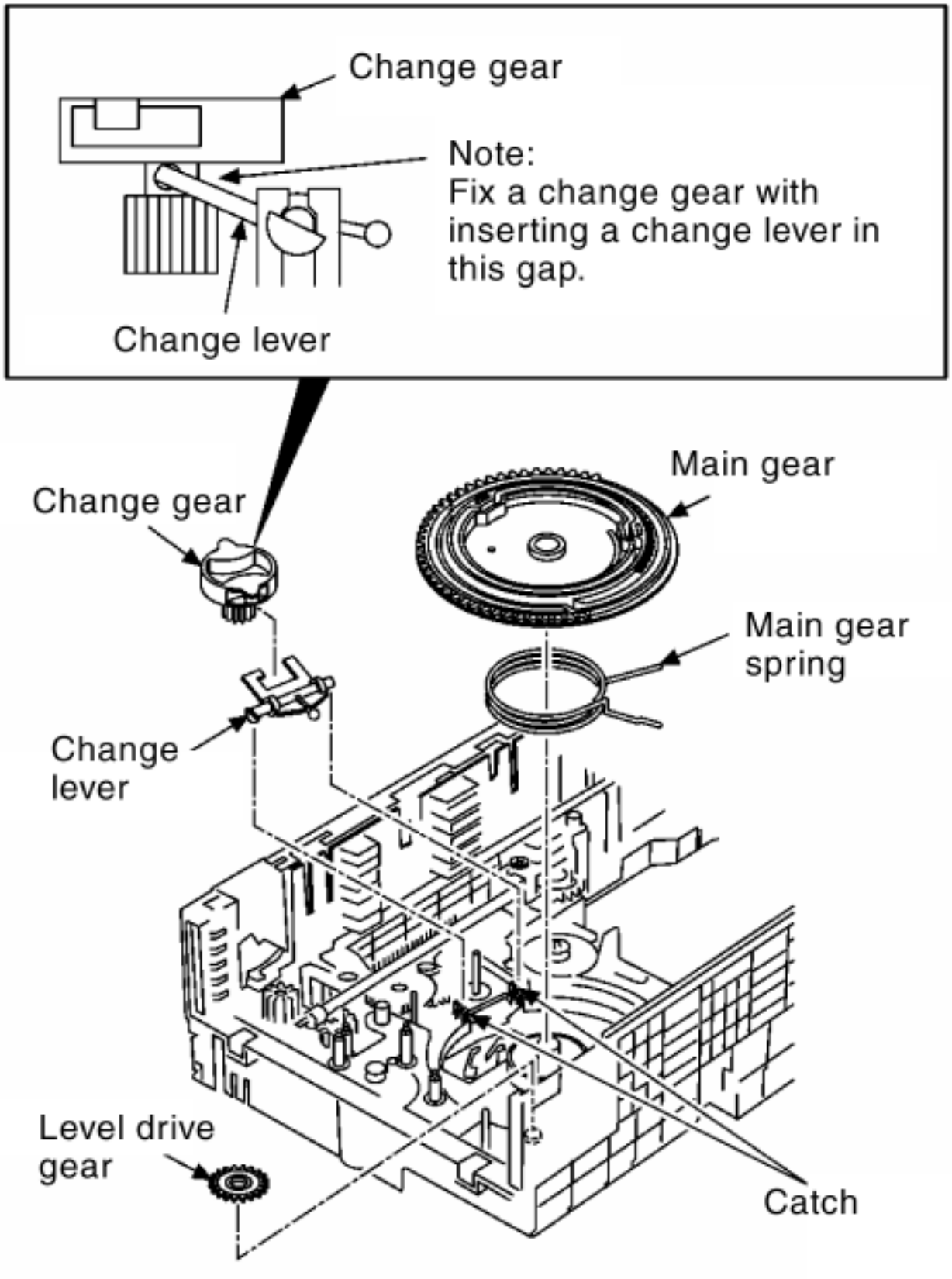


3. Fix a timing gear plate and a timing gear, then fasten them with screws.

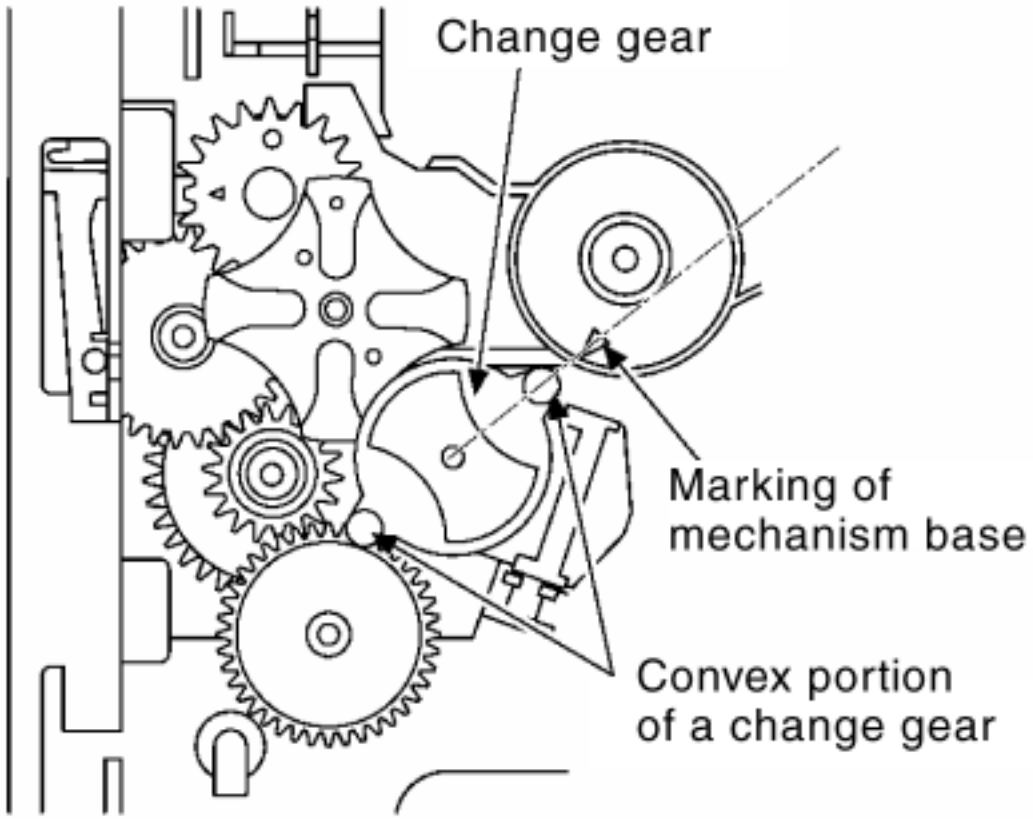


9.13.1.4 Notes on fixing of a change gear and a main gear

1. Fix a change lever and a change gear following 2. Then fix a level drive gear and a main gear spring, and fix a main gear following 3 and 4.

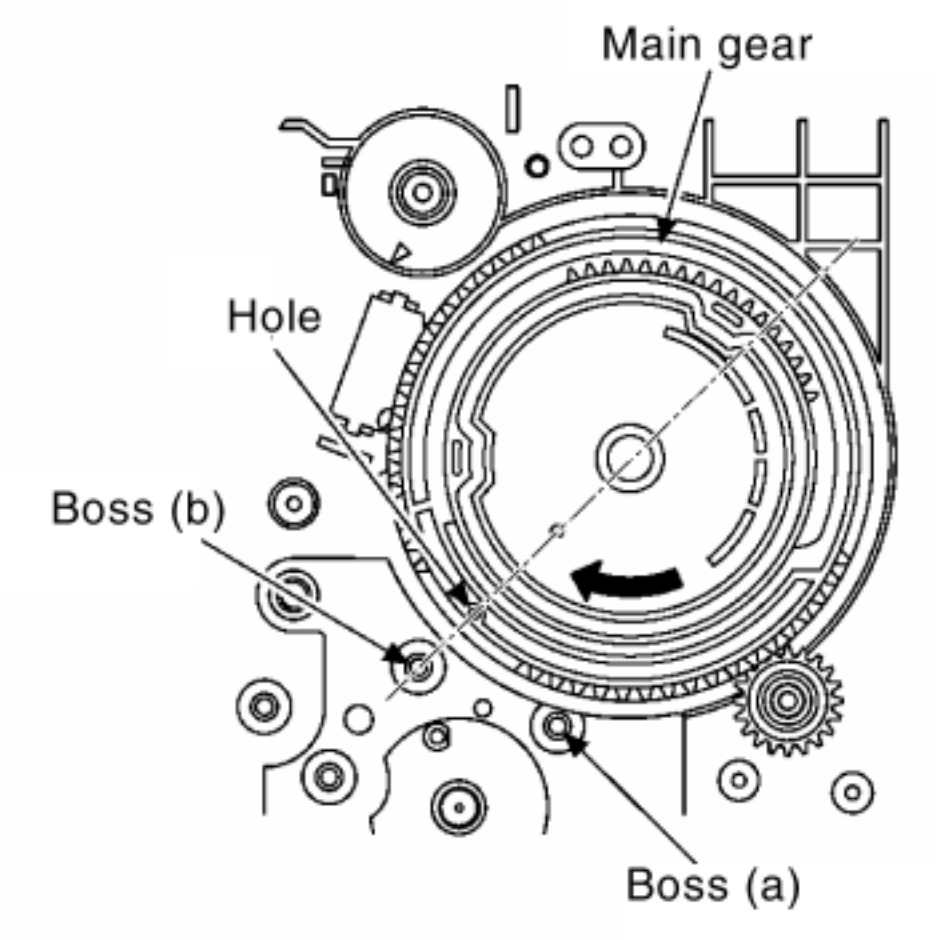


2. Position a convex portion of a change gear to a marking of a mechanism base and fix.



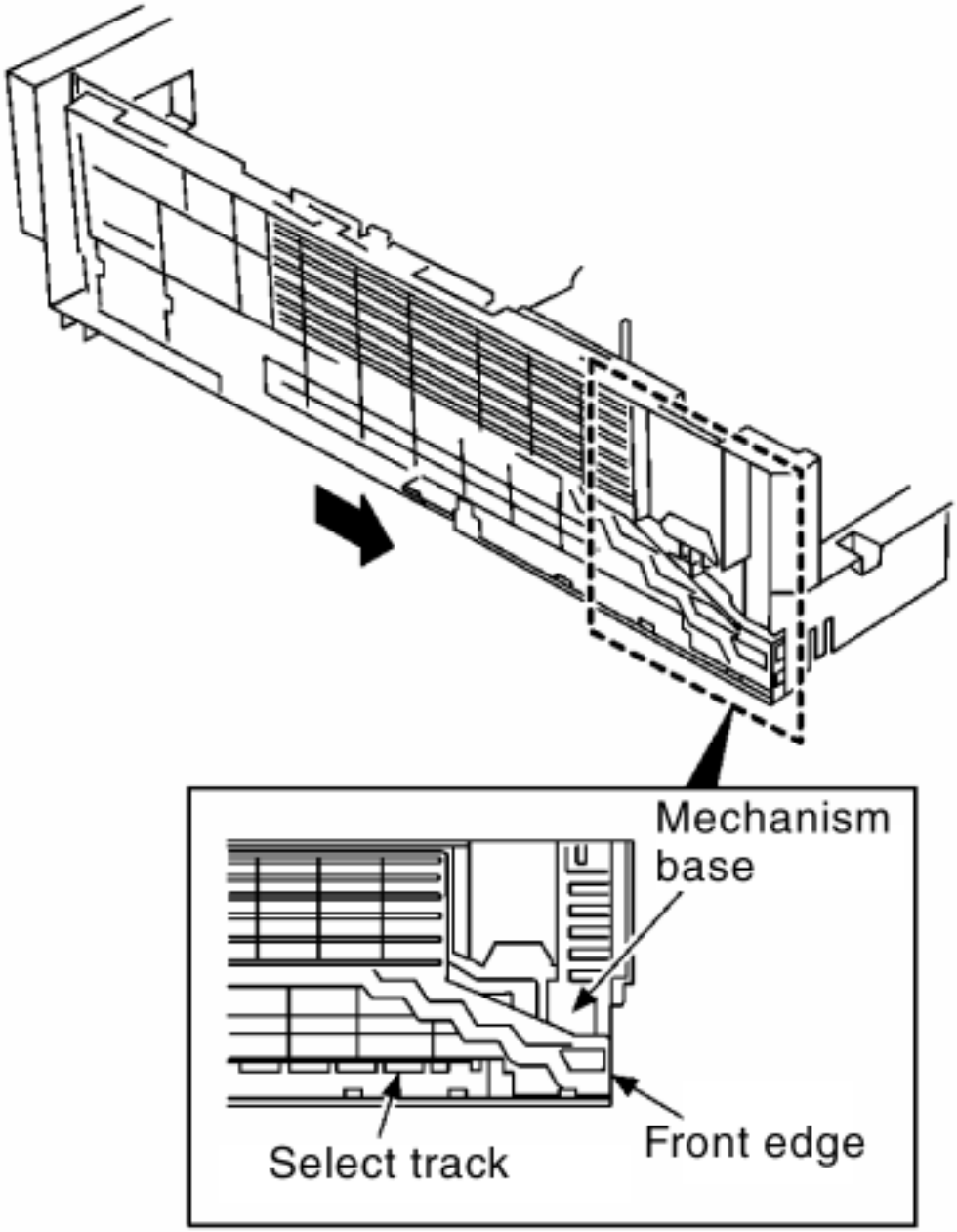
3. Position a hole of a main gear against a boss (a) of a mechanism base and fix.

4. Rotate a main gear to the arrow direction to position a hole of a main gear to a boss (b).



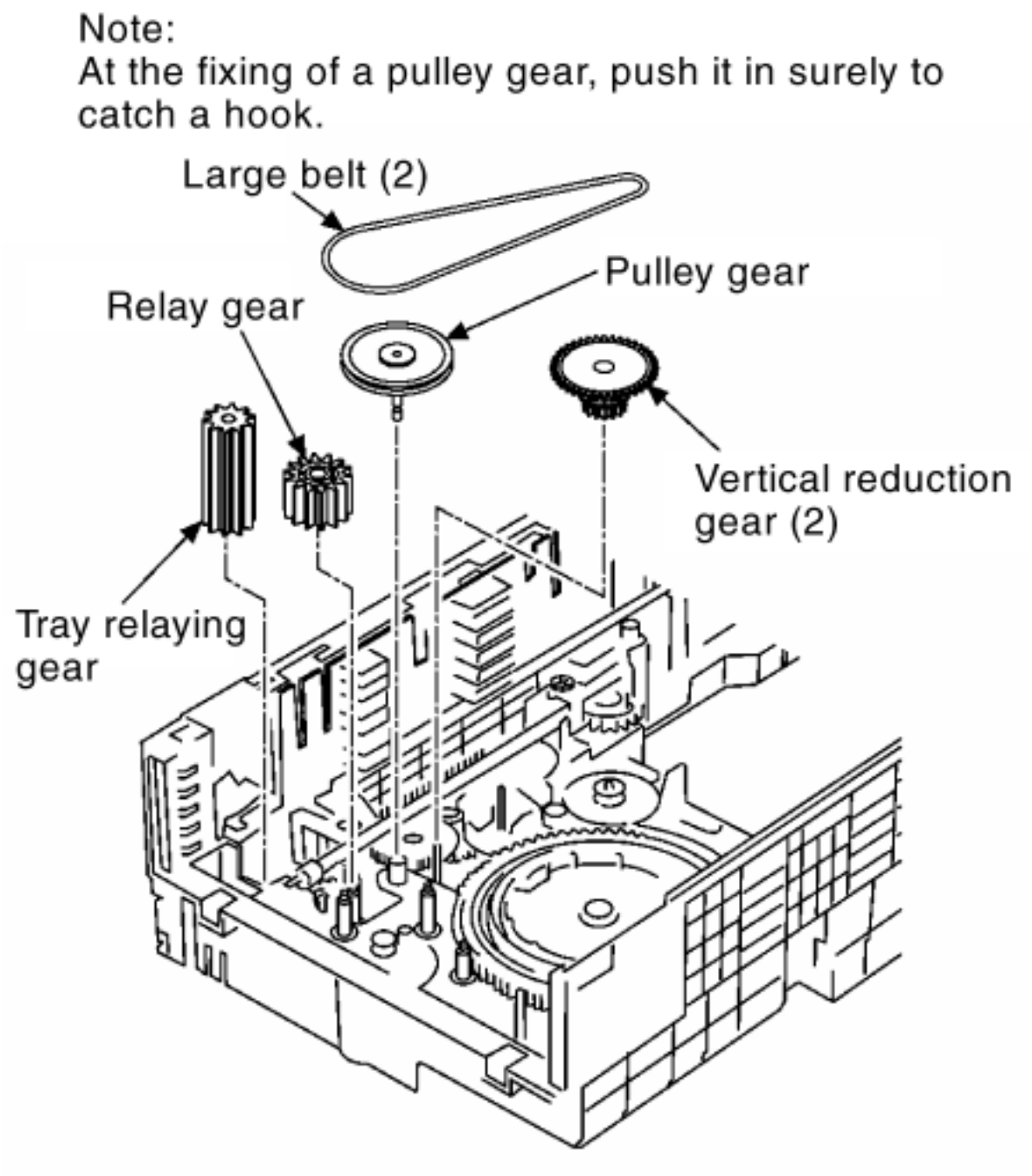
5. Draw up a select rack to the far front part.

Note:
Position the front edge of a select rack to the front edge of a mechanism base.

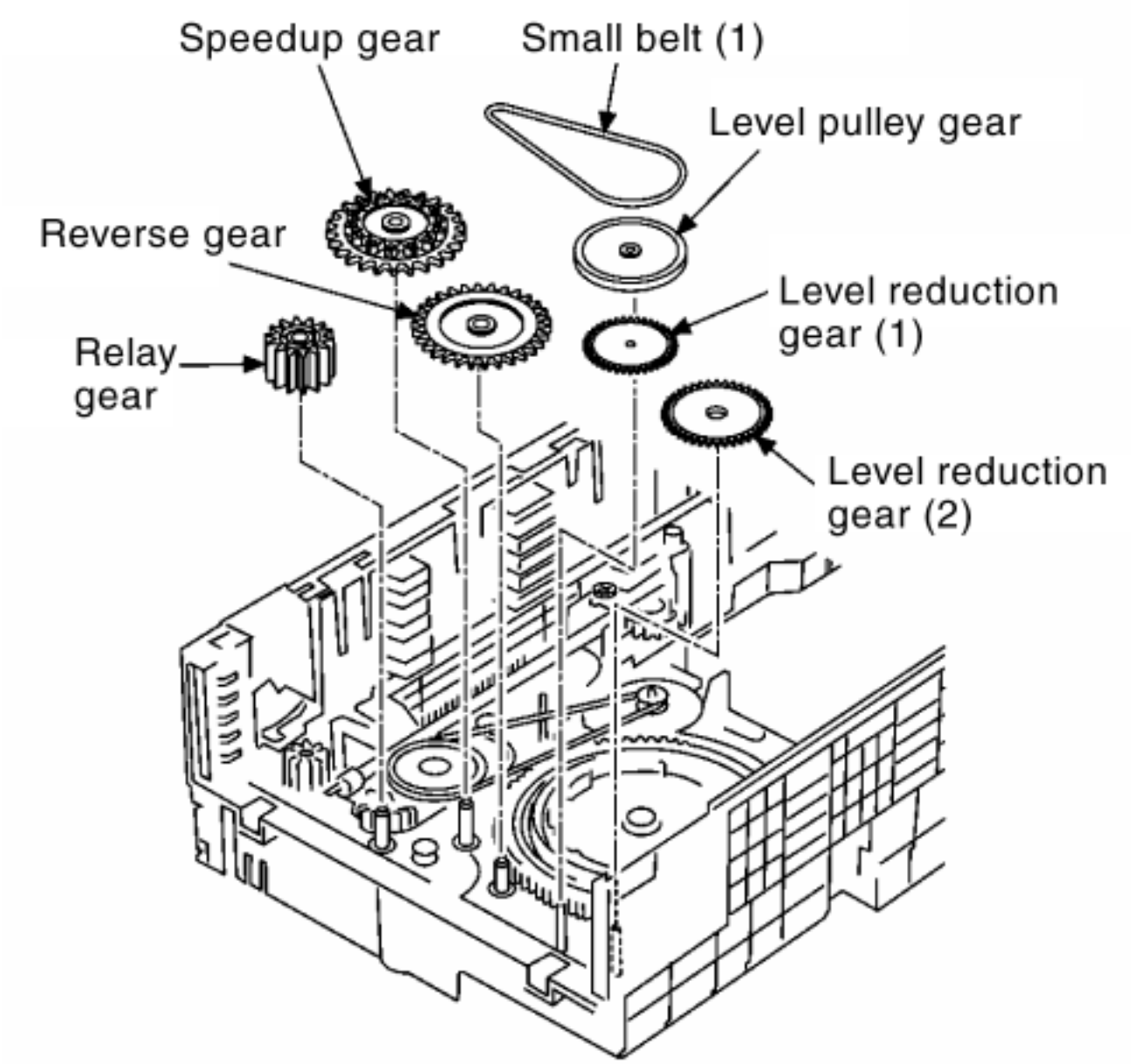


9.13.1.5 Notes on fixing a pitch plate

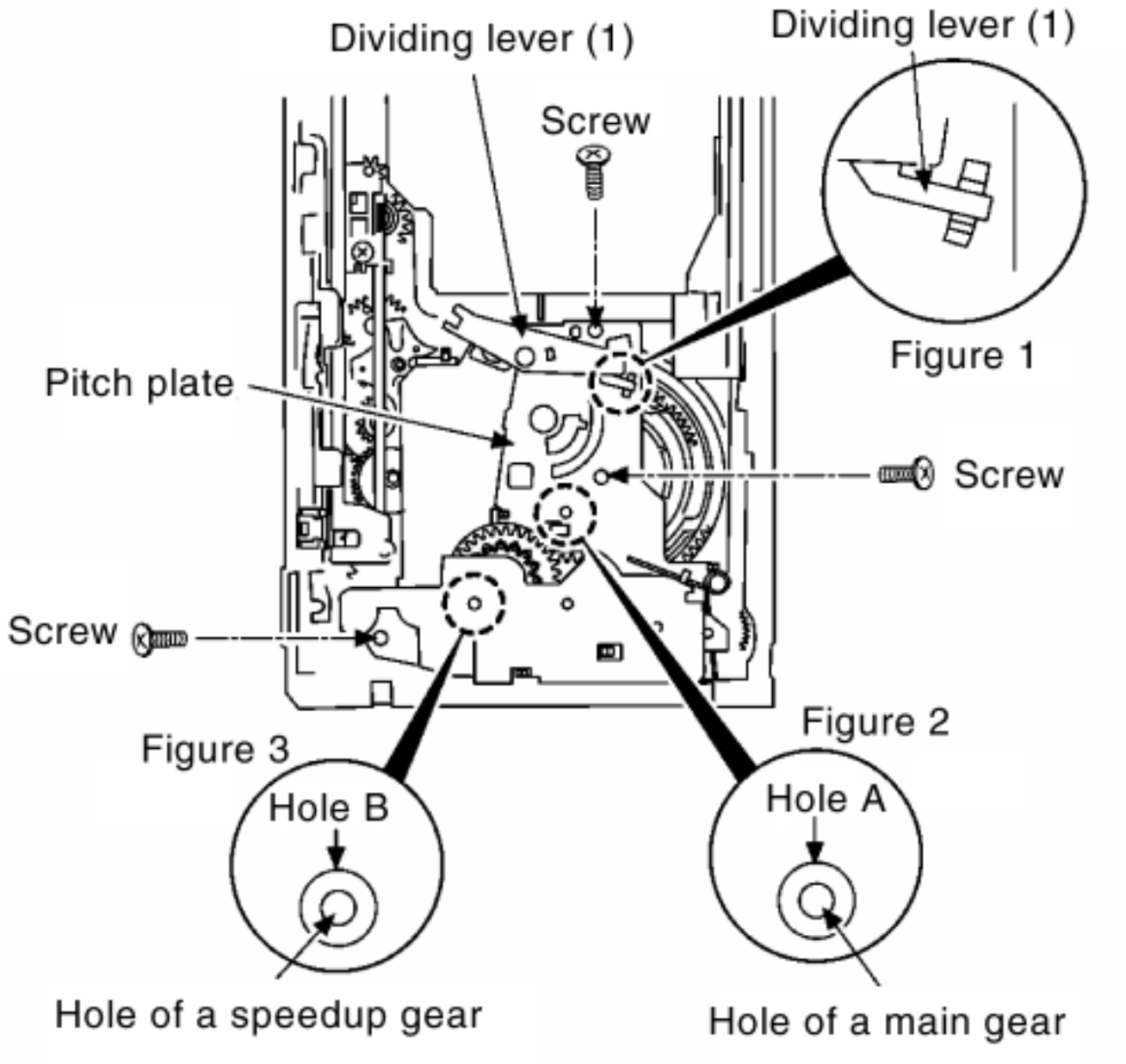
1. Fix a reduction gear (2), a relay gear, a pulley gear, a tray relaying gear and a large belt (2).



2. Fix a level reduction gear (1), a horizontal reduction gear (2), a relay gear, a reverse gear, a speedup gear and a small belt (1).

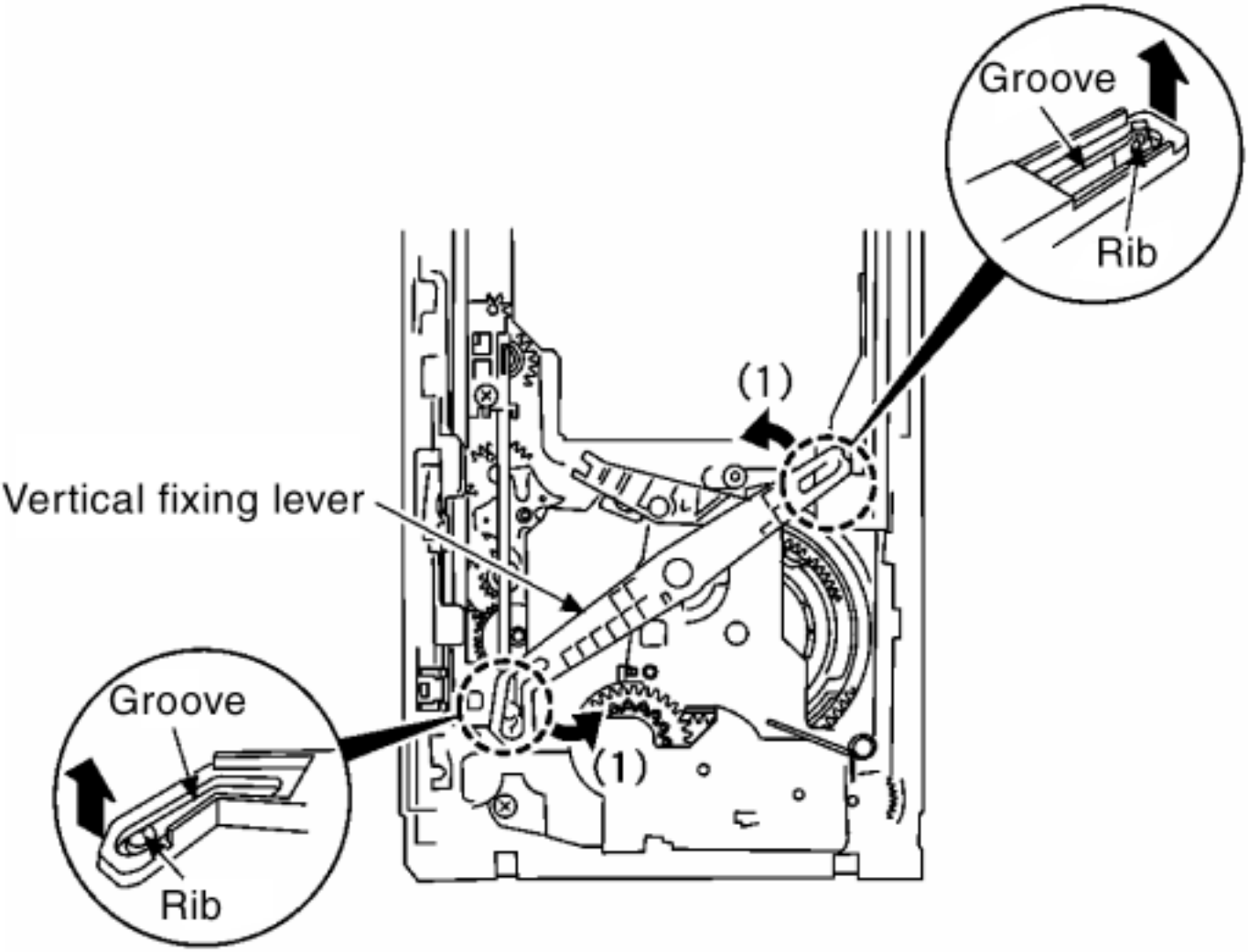


3. Position the edge of a dividing lever (1) to the position shown in figure 1.
4. The hole A of a pitch plate should be positioned at the hole of a main gear. (Figure 2)
5. The hole B of a pitch plate should be positioned at the hole of a speedup gear. (Figure 3)
6. Fasten with screws.

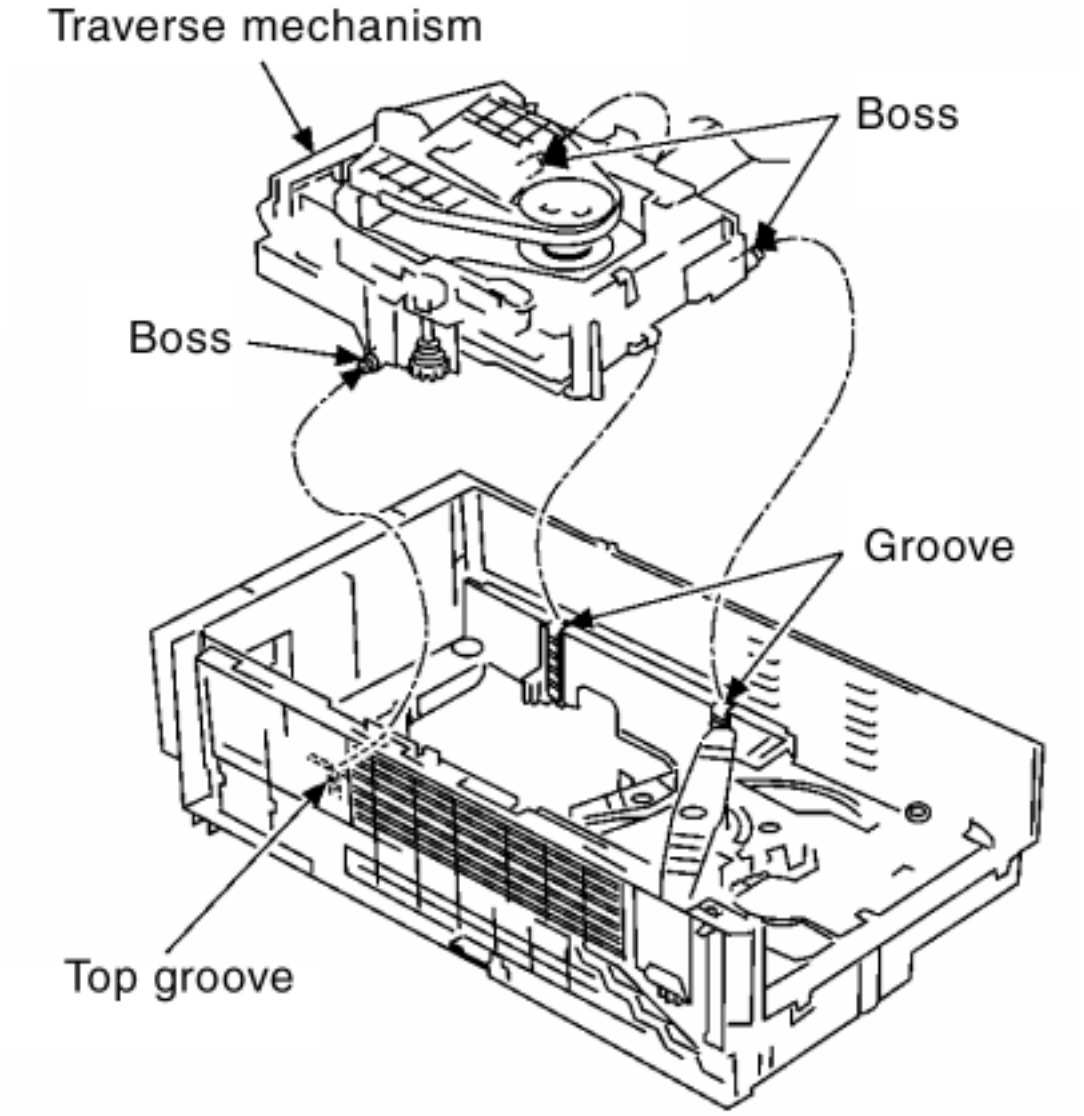


9.13.1.6 Notes on fixing a traverse mechanism

1. Fix a vertical lever. (Fit a rib into both side grooves)



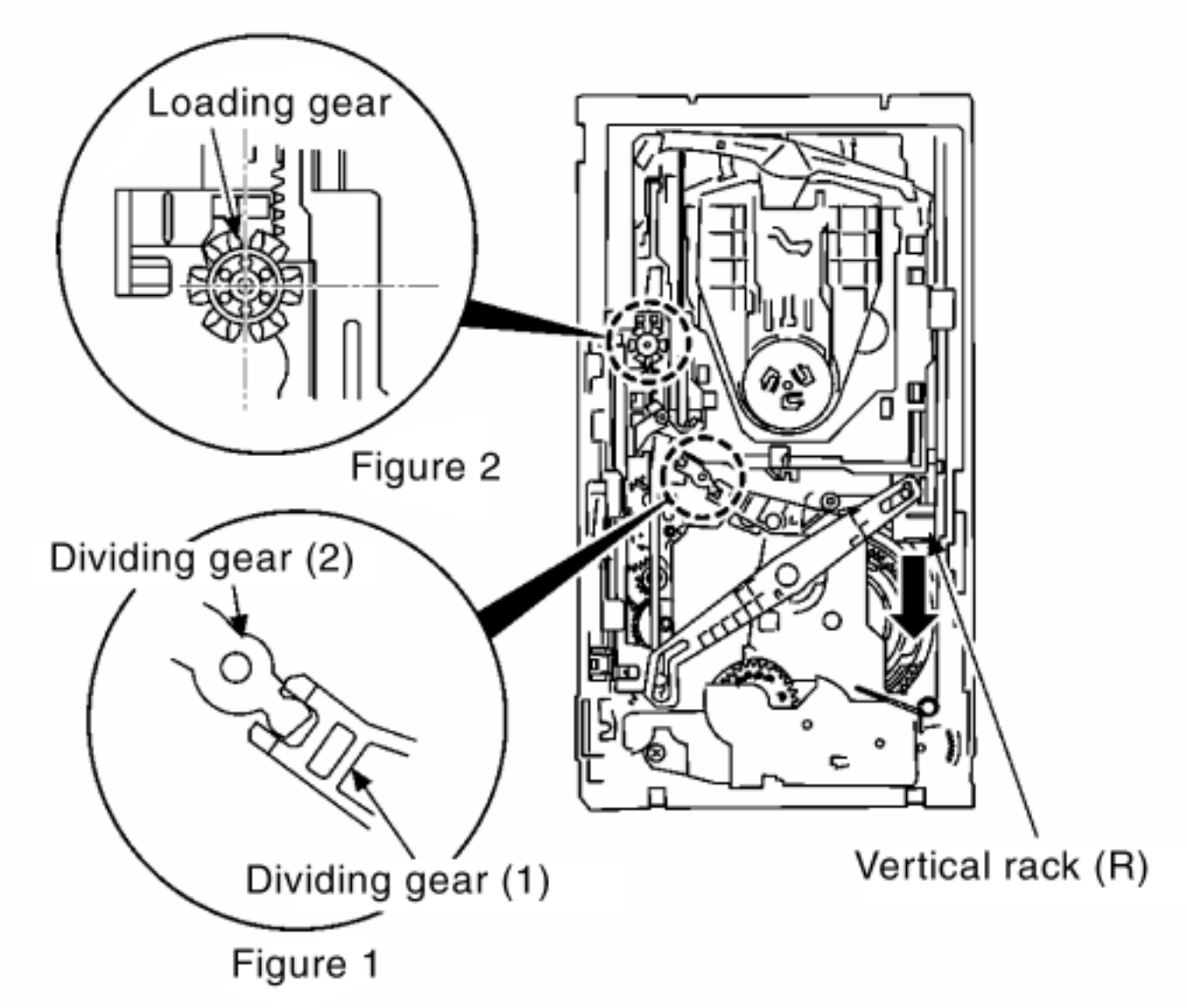
2. Fit a traverse mechanism into the groove.



3. The projecting portion of a dividing lever (2) should be inserted into a concave portion of a dividing lever (1).

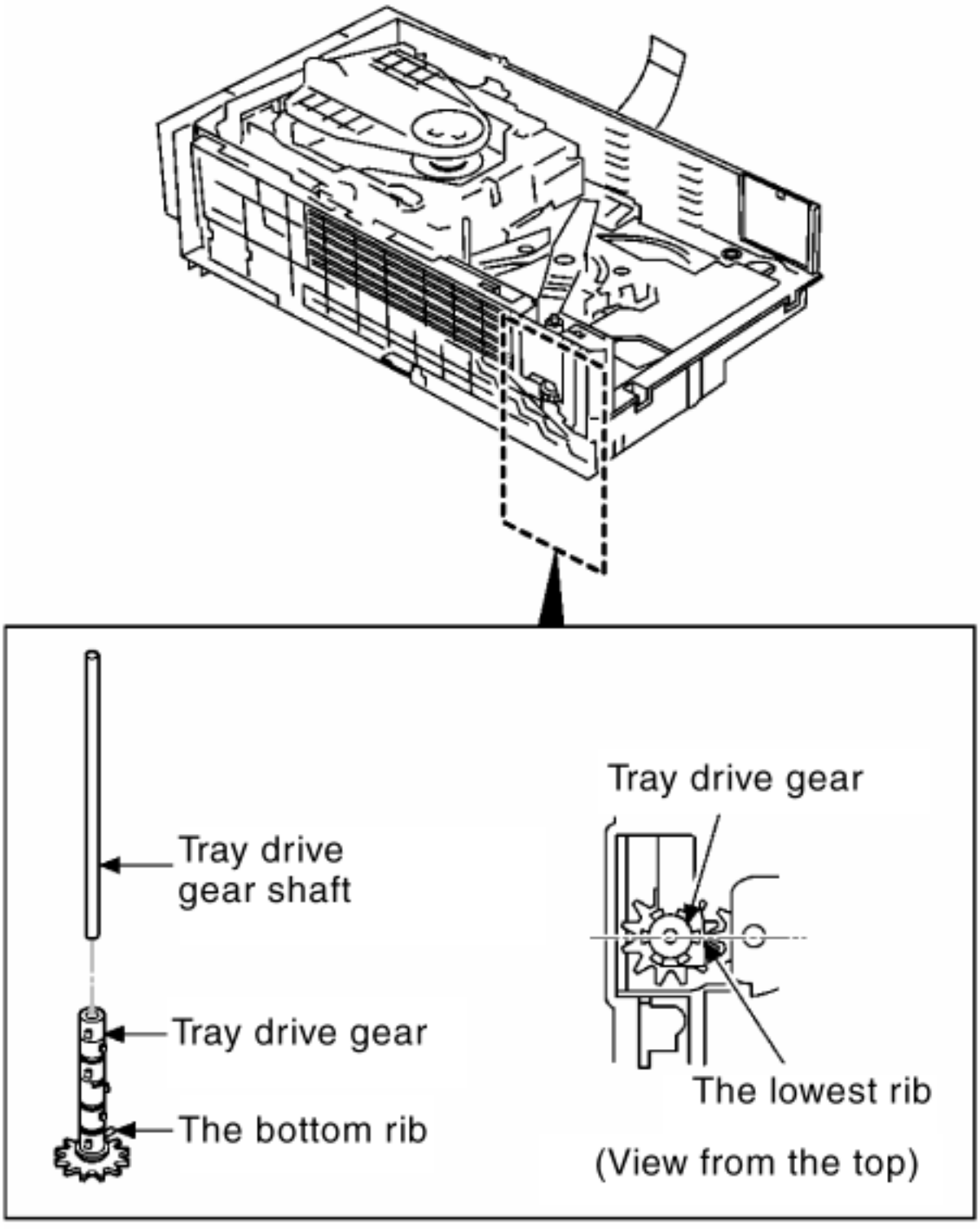
4. Set a loading gear at the position shown by figure 2.

5. Draw a vertical rack (R) to the arrow direction.

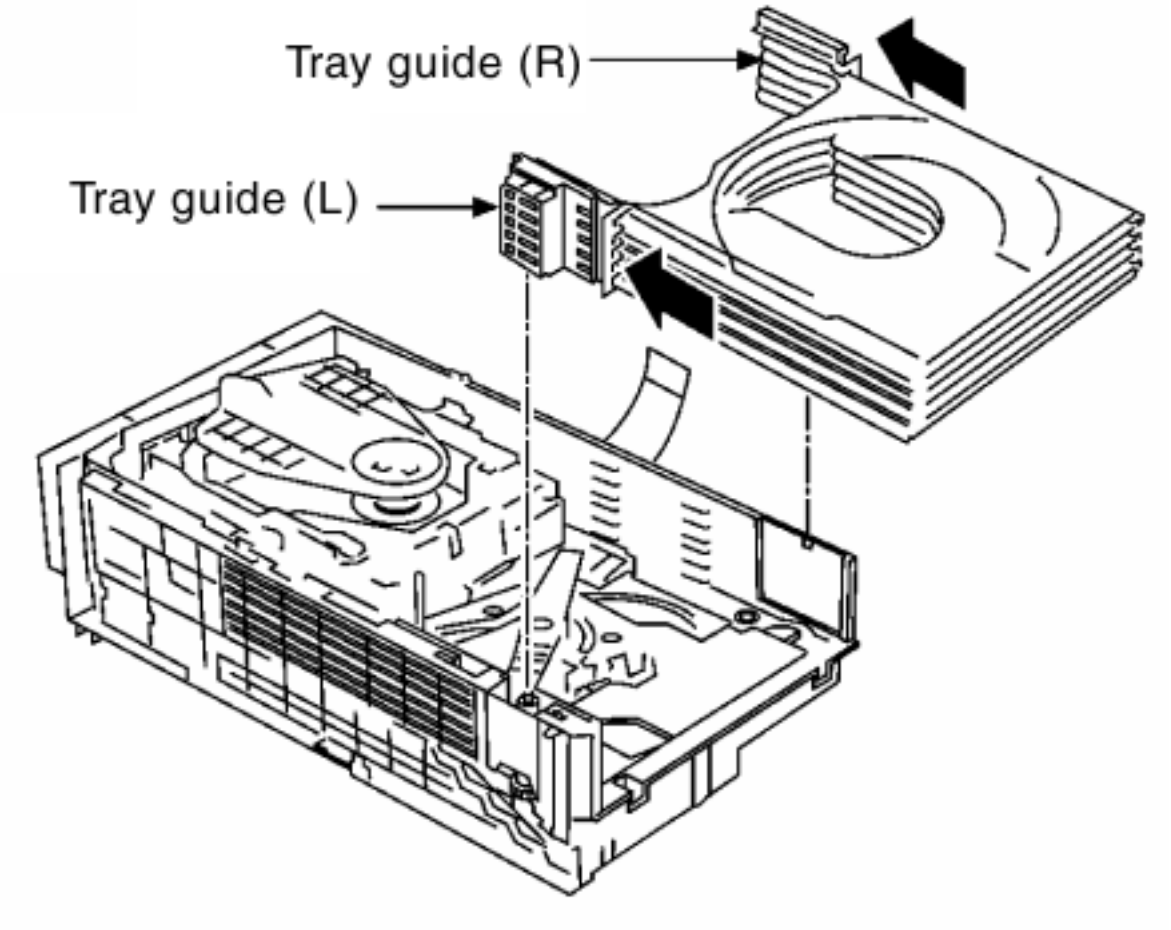


9.13.1.7 Notes on fixing a disk tray

1. Fix a tray drive gear and a tray drive gear shaft.
   (Position the lowest rib of a tray drive gear to be level)



2. Move a tray guide (R) and a tray guide (L) to the arrow direction at a stretch, and fix disk trays (all of 5 pieces).



3. Check the phase.

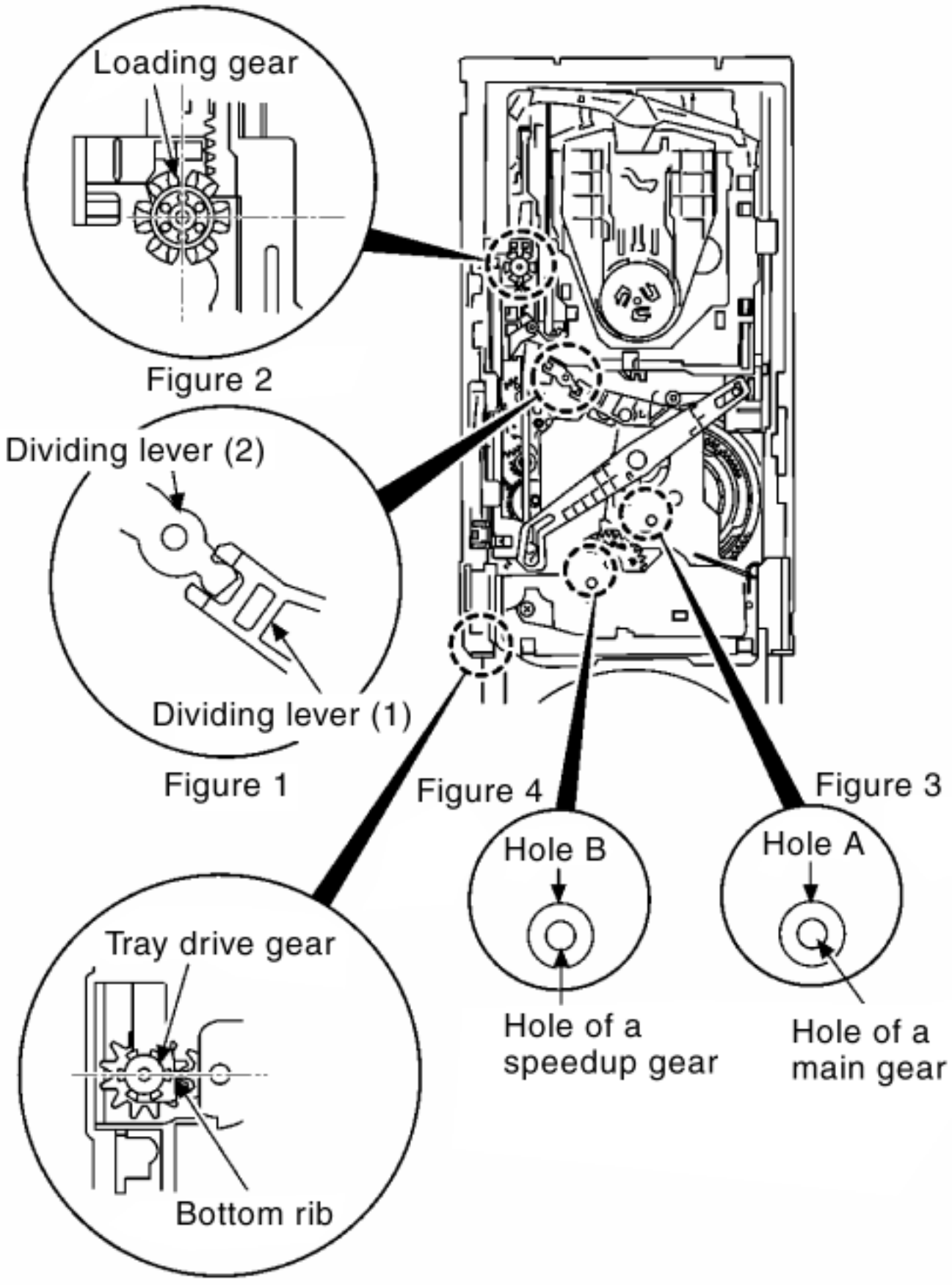
   A. The projecting portion of a dividing lever (2) should be inserted into a concave portion of a dividing lever (a).

   B. Seta loading gear at the position shown by figure 2.

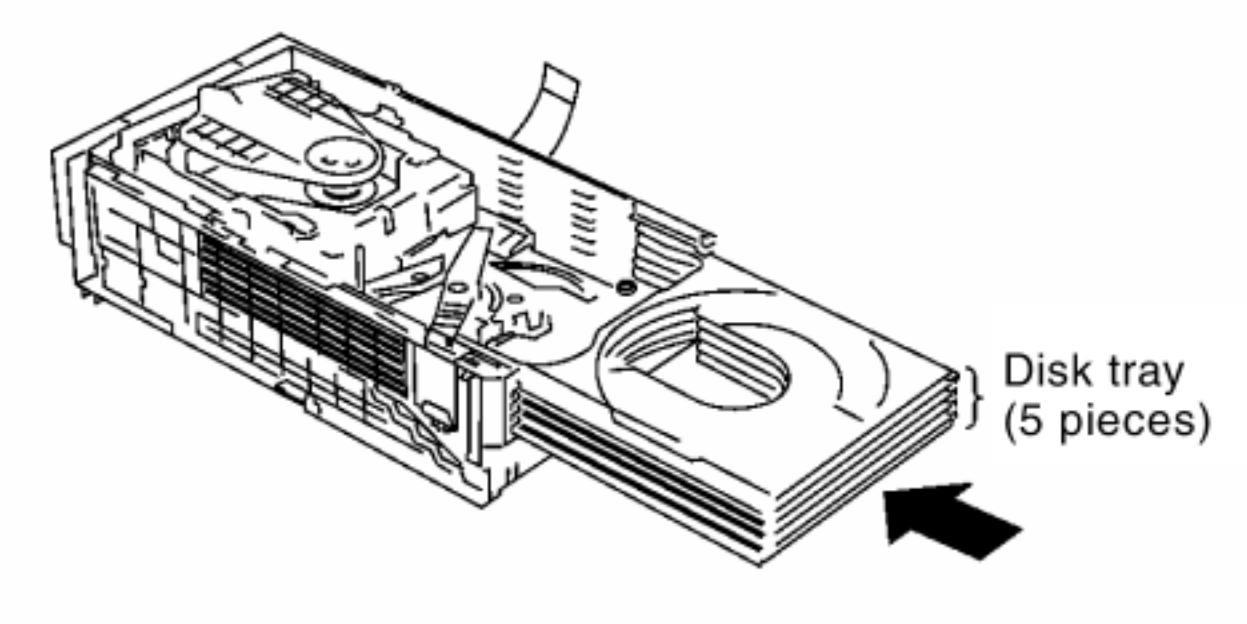
   C. The hole A of pitch plate should be positioned at a hole of a main gear. (Figure 3)

   D. The hole B of pitch plate should be positioned at a hole of a speedup gear. (Figure 4)

   E. Set the bottom rib of a tray drive gear to be level. (Figure 5)

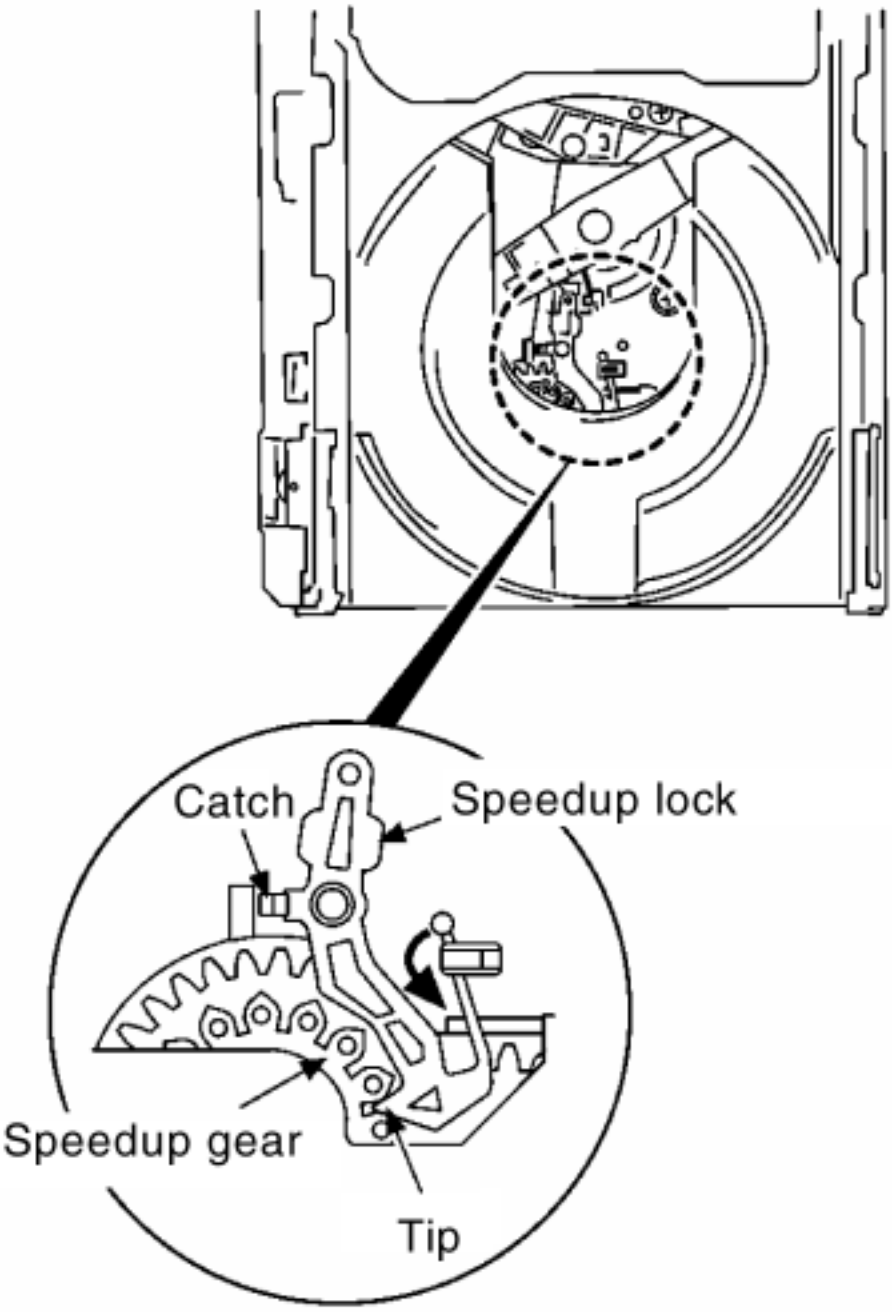


- Push in 5 disk trays simultaneously.



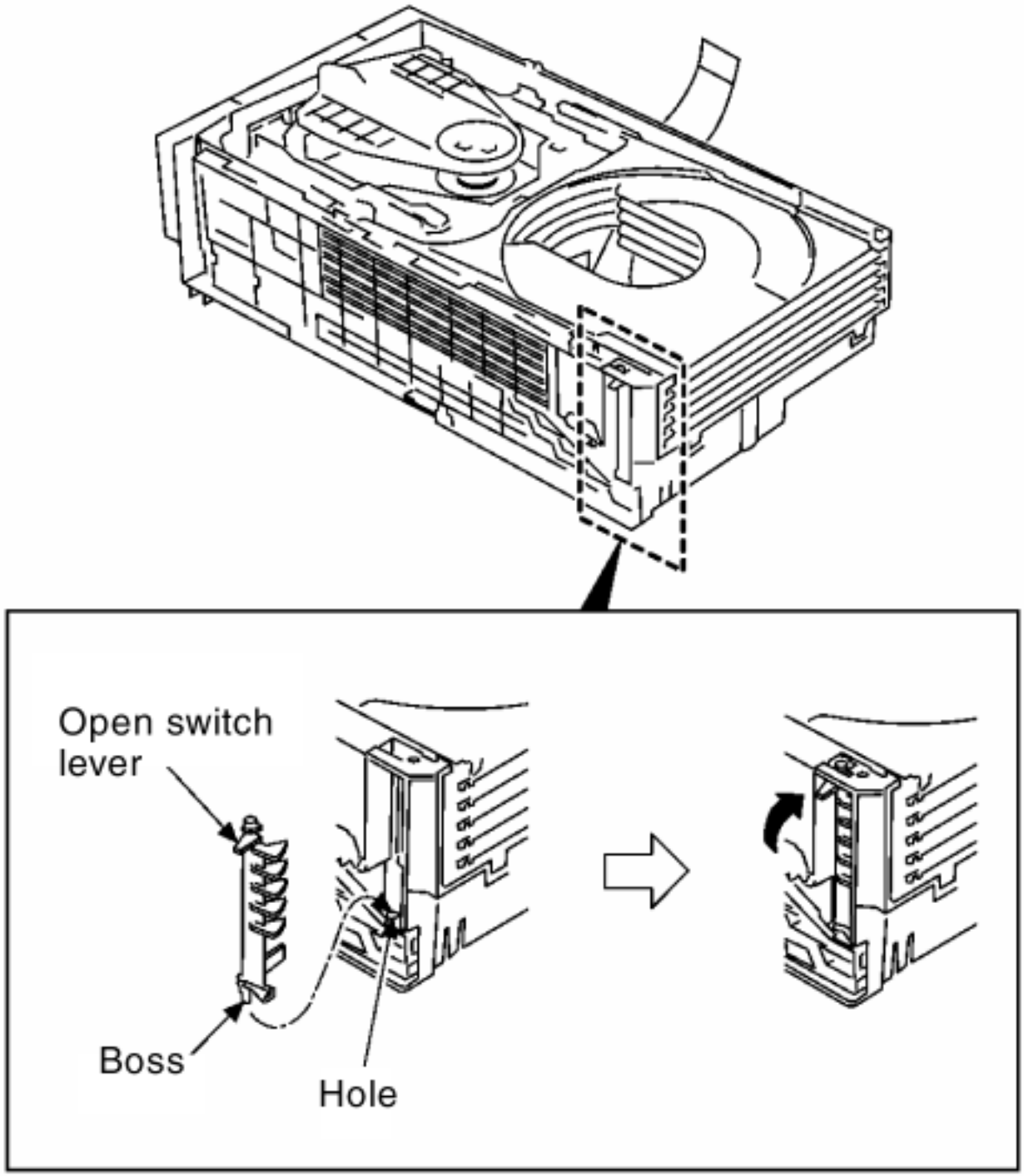
- Fix a speedup lock.

Note:
Fit speedup gear cogs and the tip of a speedup lock, and put in.



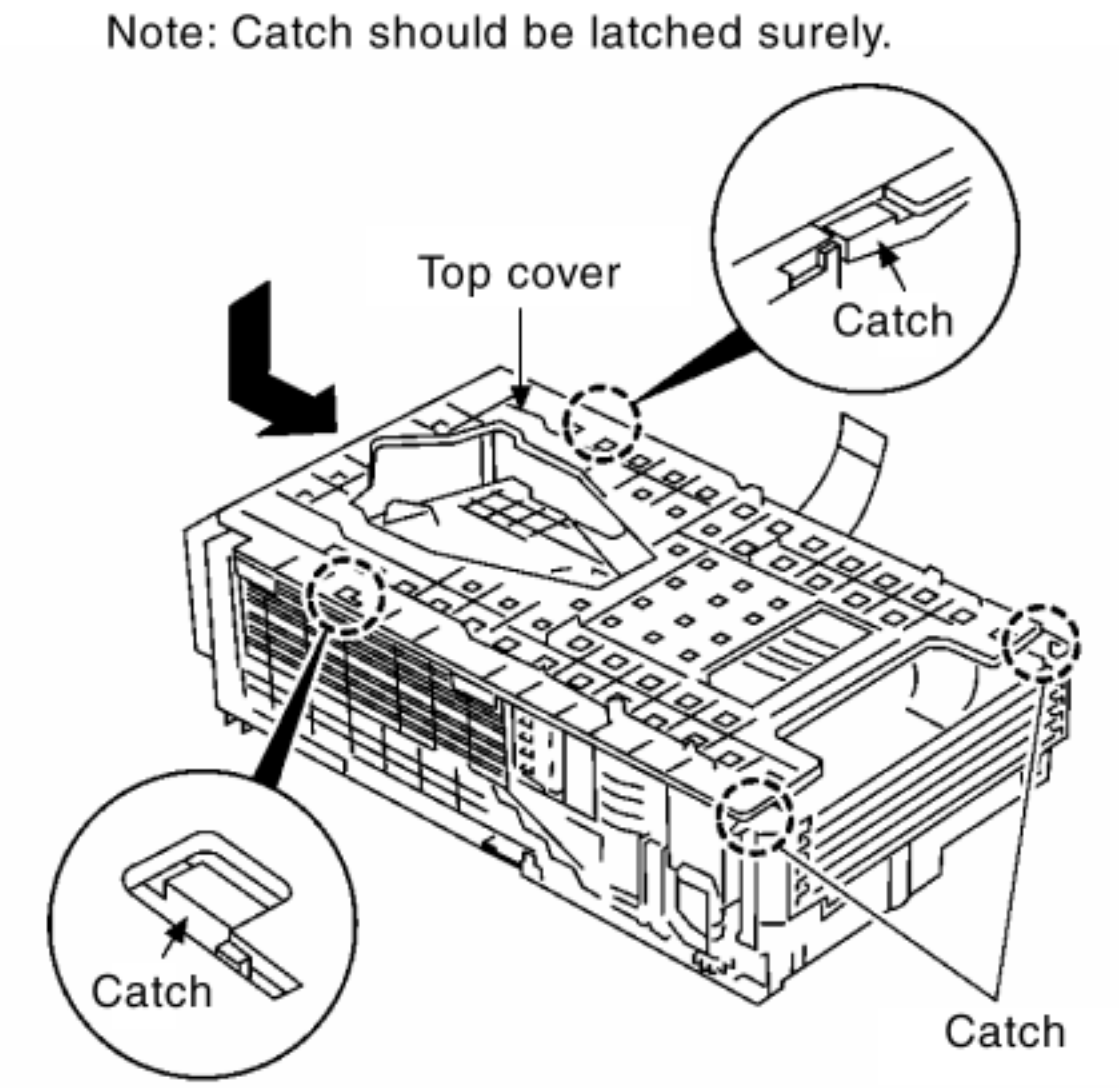
- Fix an open switch lever.

(Insert a boss of an open switch lever into the hole of mechanism base)



- Fix a top cover.

(Fix to the arrow direction after putting into the catch)



When all CD loading section are fixed, check manually an hoisting of a traverse unit, opening and closure of a disk tray and so on, using the jig gear.

TOP PREVIOUS NEXT

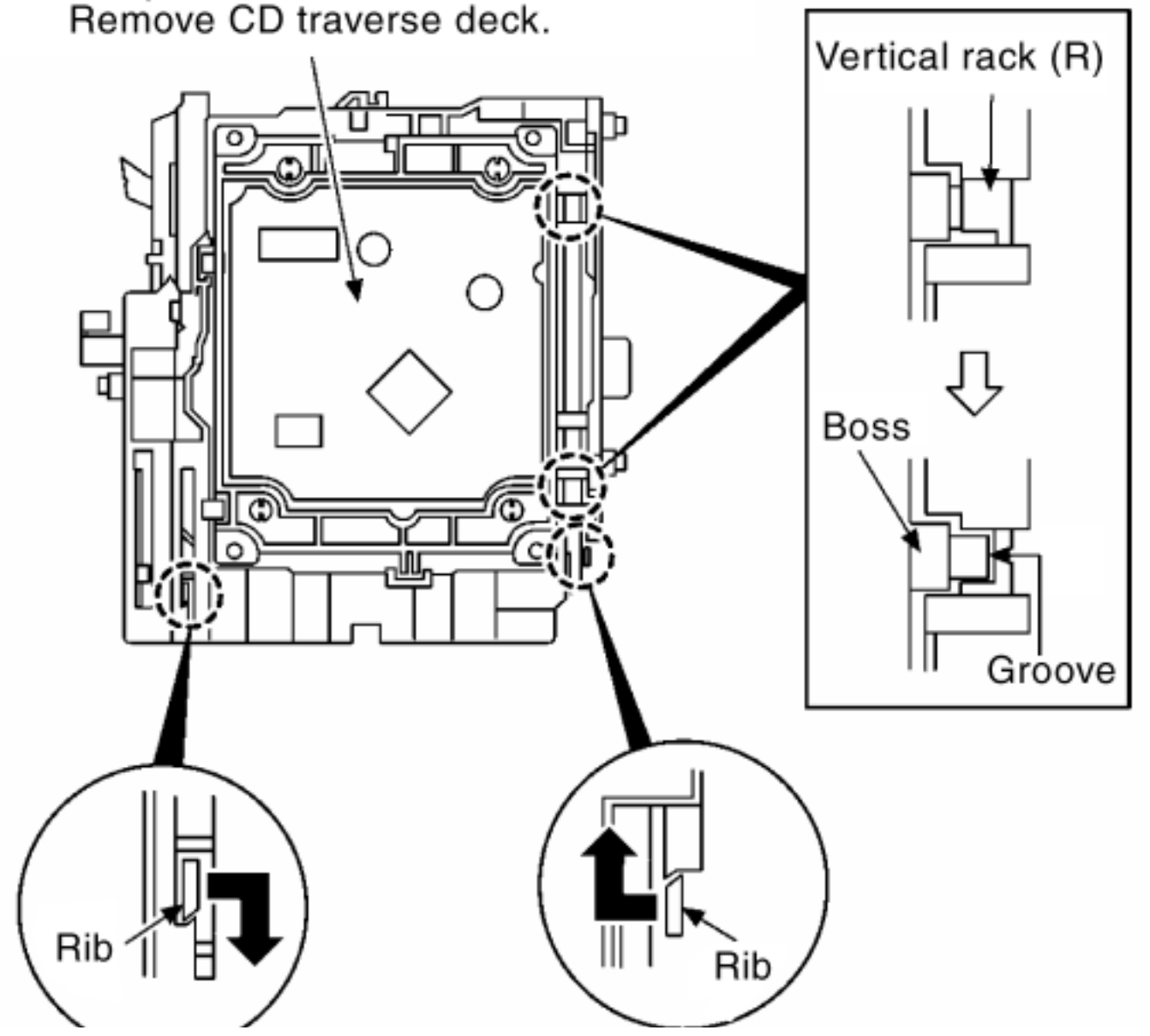
9.14 Disassembly of traverse mechanism

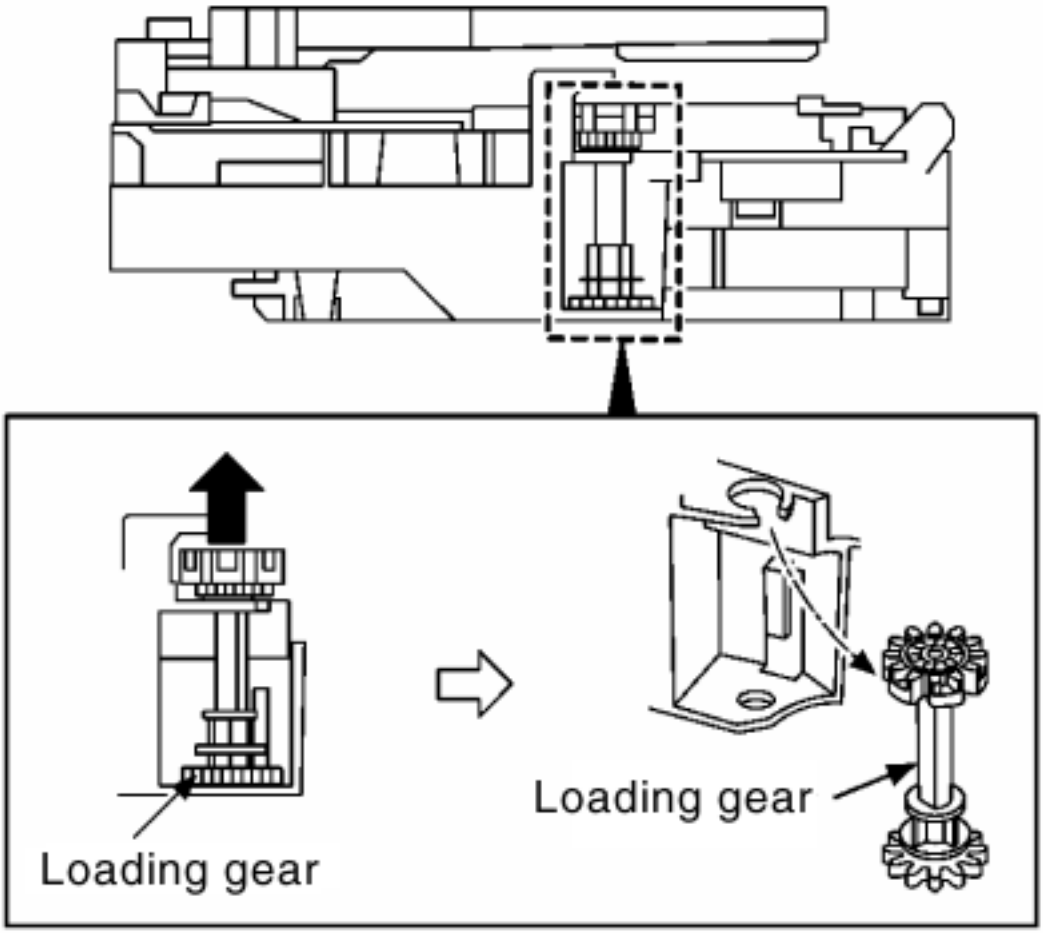
TOP PREVIOUS NEXT

- Follow Steps 1 to 14 described in Item 9.1.
- Follow Steps 1 to 7 described in Item 9.10.
- Follow Step 1 descrbed in Item 9.11.

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.





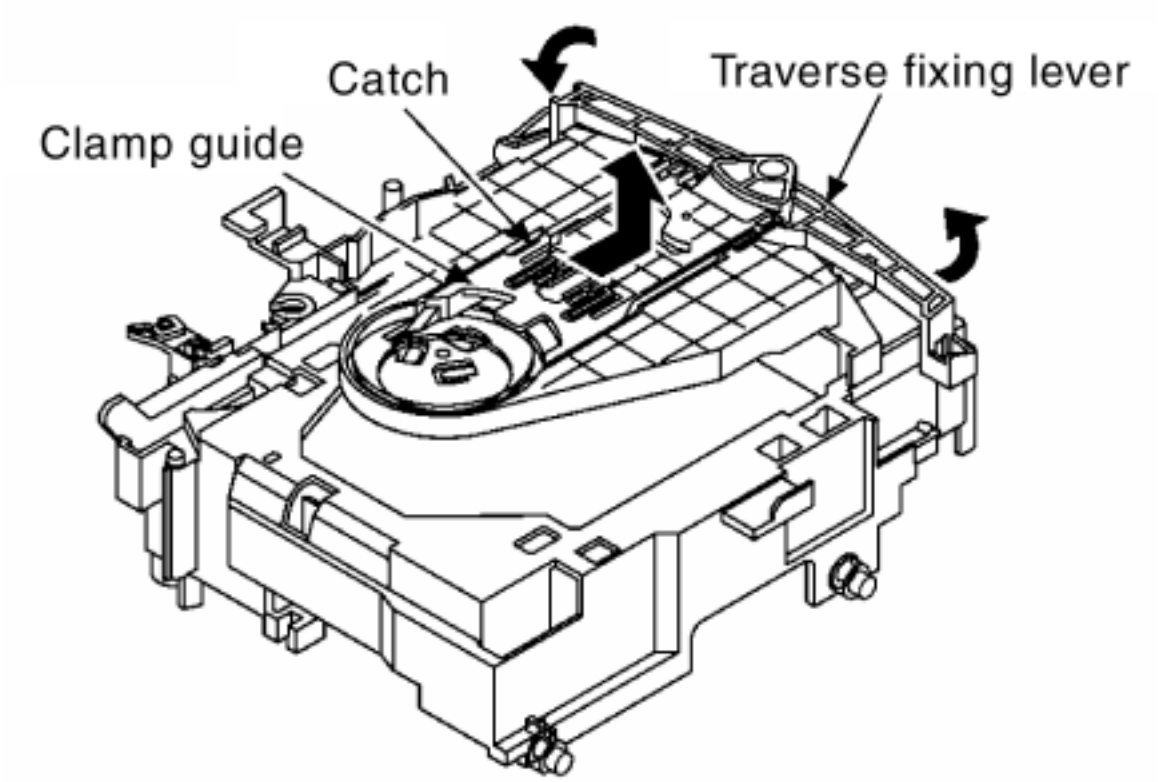
Step 3
Lift a loading gear slightly and pull out.

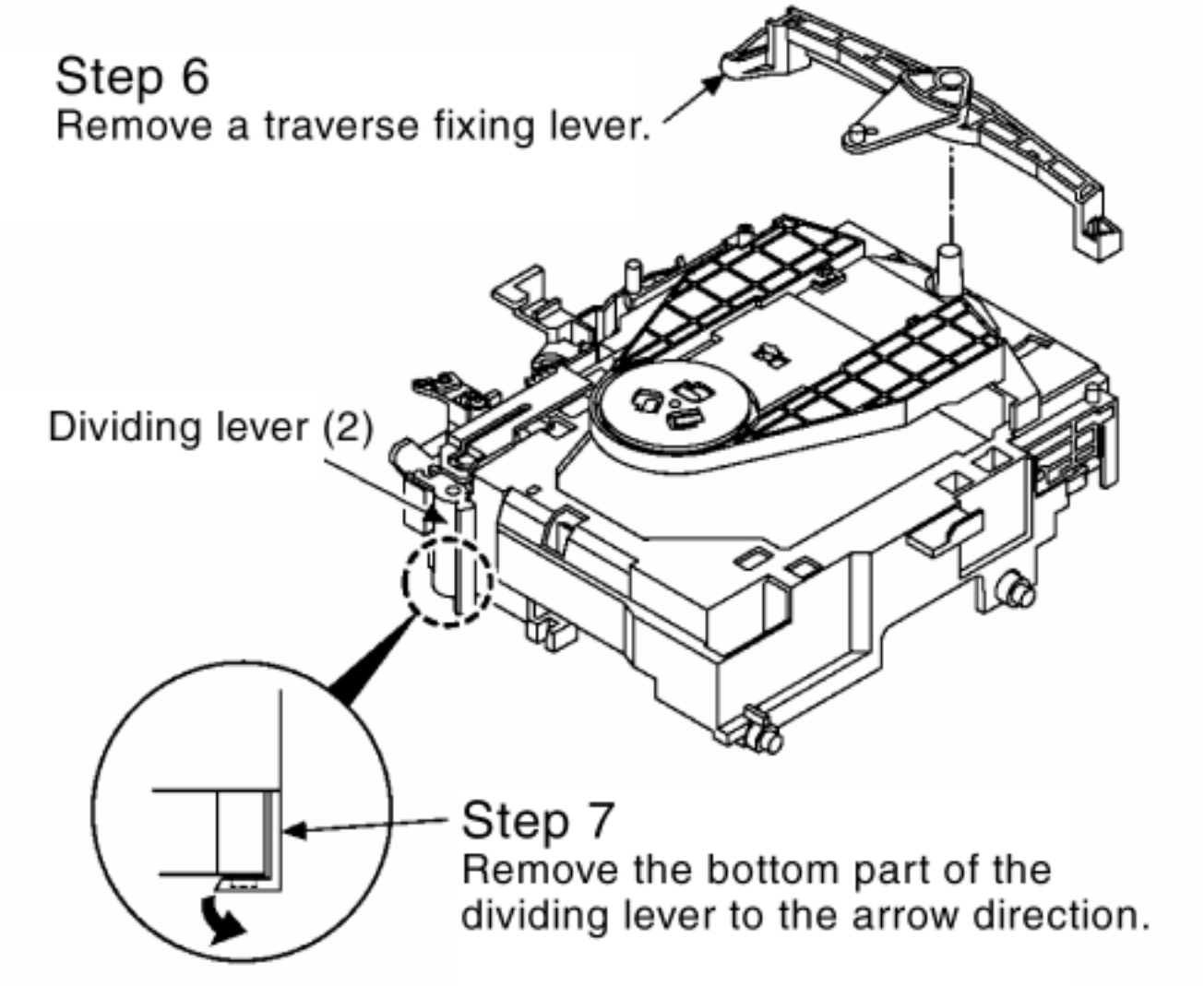
Step 4

Fixing lever to the arrow direction, rotate a traverse.

Step 5

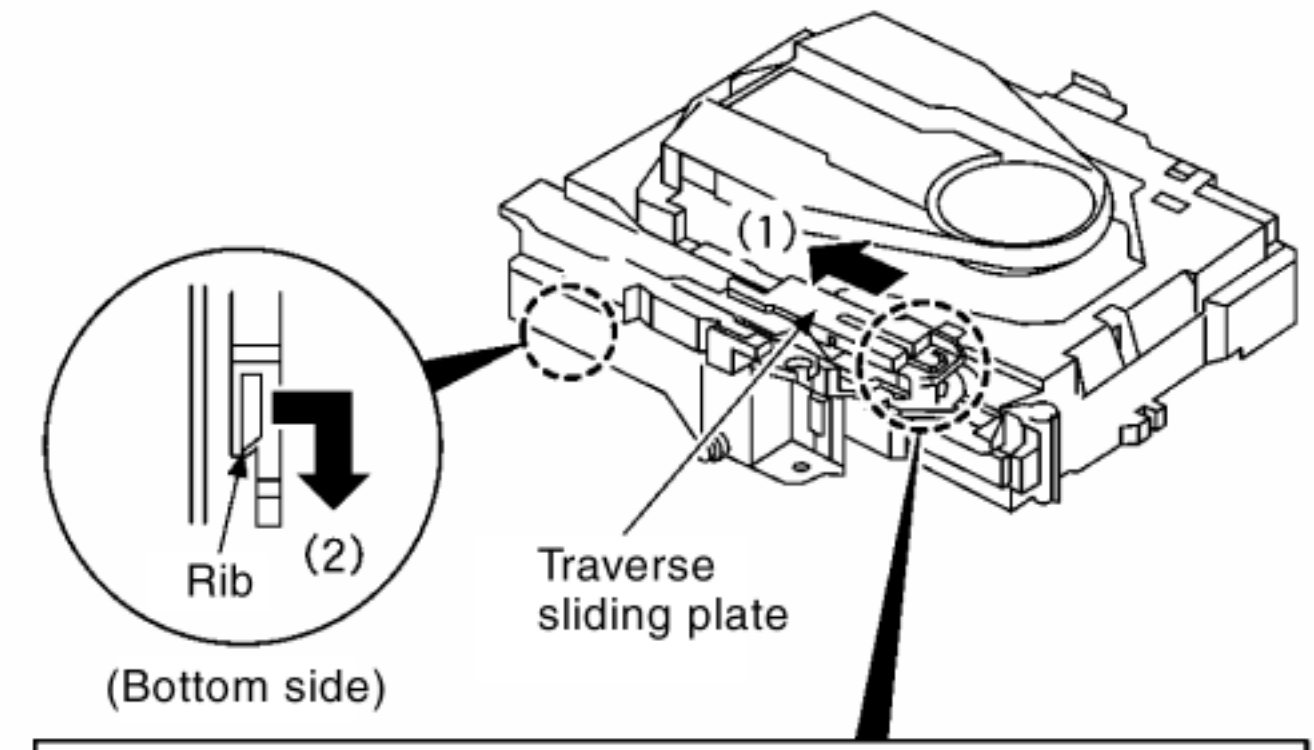
Remove catch and take out a clamp guide.




Step 6
Remove a traverse fixing lever.
Dividing lever (2)
Step 7
Remove the bottom part of the
dividing lever to the arrow direction.

Step 8

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



Step 9

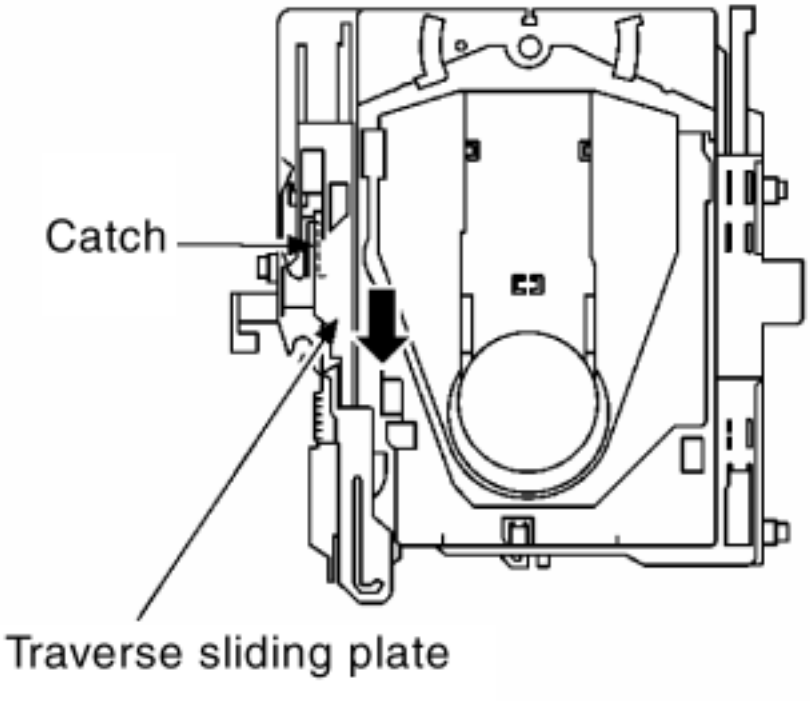
Shifting a traverse sliding plate slightly and rotate a tray change lever.

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.



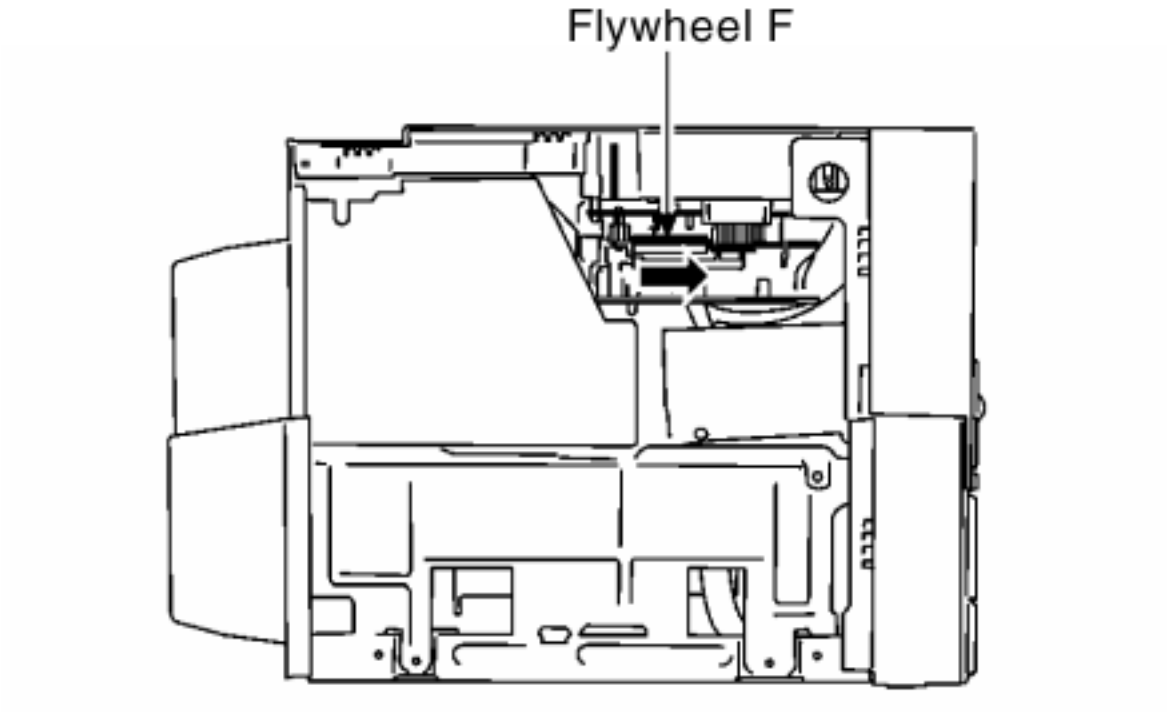
TOP PREVIOUS NEXT

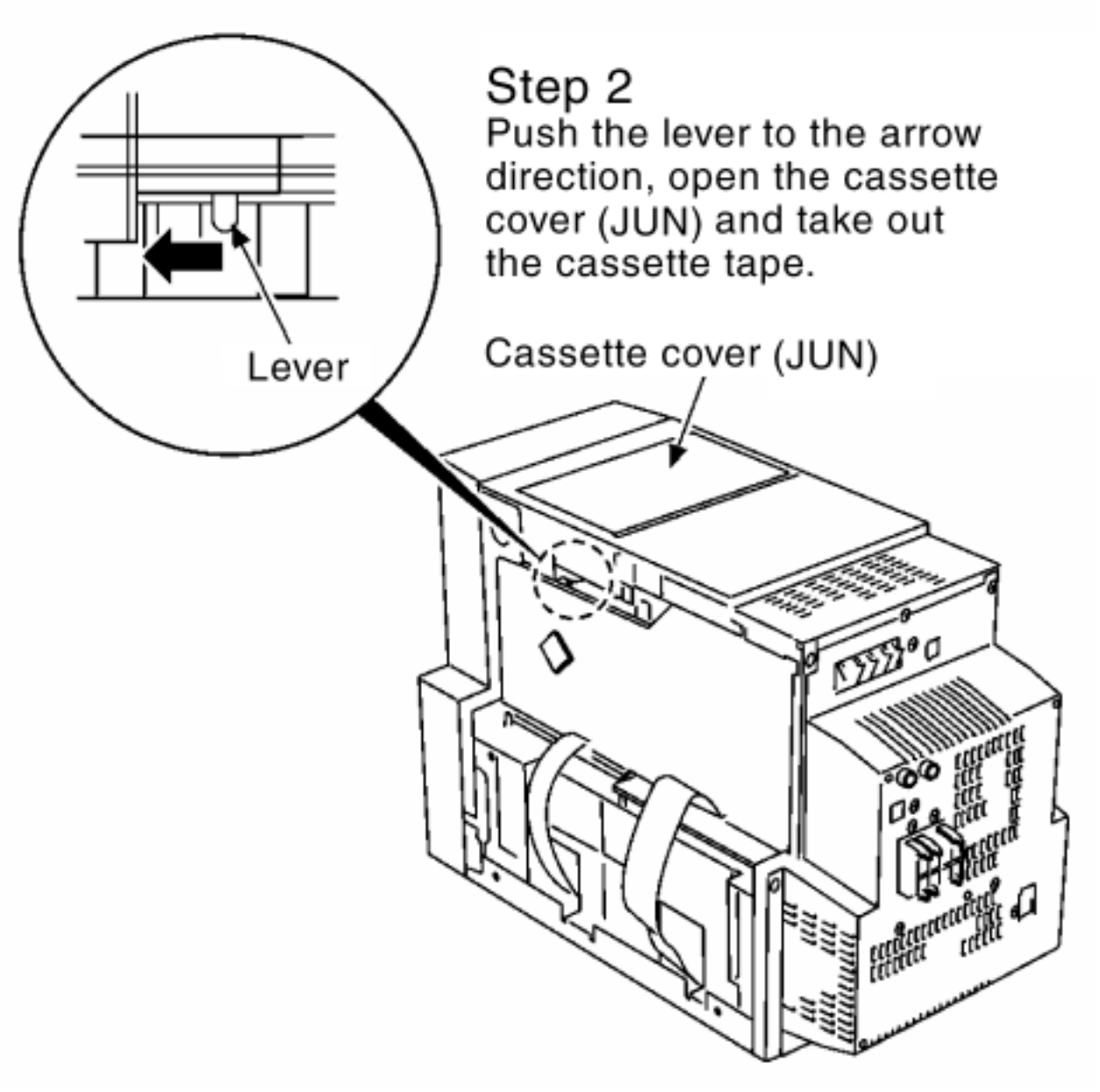
9.15 Handling of cassette tape jam

TOP PREVIOUS NEXT

- Follow Steps 1 to 3 described in Item 9.1.

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.





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

TOP PREVIOUS NEXT

10.1 Operation Check with Cassette Tape

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

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

10.2 Operation Check without Cassette Tape

TOP PREVIOUS NEXT

10.1 Operation Check with Cassette Tape

TOP PREVIOUS NEXT

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.

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

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

TOP PREVIOUS NEXT

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

TOP PREVIOUS NEXT

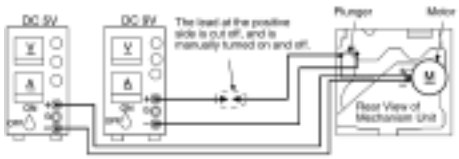

Fig. 5

TOP PREVIOUS NEXT

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

TOP PREVIOUS NEXT

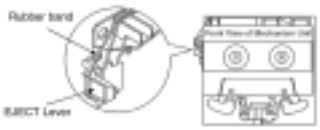

Fig. 6

TOP PREVIOUS NEXT

10.2 Operation Check without Cassette Tape

TOP PREVIOUS NEXT

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)
   (Note) Follow Step 4 in Item 1.1. for procedure on operatingeach function.

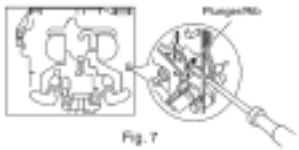

Fig. 7

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11 Measurement And Adjustments

TOP PREVIOUS NEXT

TOP PREVIOUS NEXT

11.1 Tuner/CD Sections

TOP PREVIOUS NEXT

No adjustment required.

TOP PREVIOUS NEXT

11.2 Cassette Deck Section

TOP PREVIOUS NEXT

11.2.1 Requirements

11.2.2 Setting of Unit

11.2.3 Preparations

11.2.4 Head Azimuth Adjustment

11.2.5 Tape Speed Adjustment

11.2.6 Bias Voltage Check

TOP PREVIOUS NEXT

11.2.1 Requirements

TOP PREVIOUS NEXT

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

TOP PREVIOUS NEXT

11.2.2 Setting of Unit

TOP PREVIOUS NEXT

- VOLUME: MAX

TOP PREVIOUS NEXT

11.2.3 Preparations

TOP PREVIOUS NEXT

1. Apply [9. Procedure for Checking Mechanism Control P.C.B., LCD P.C.B., Headphone/P-MD P.C.B., and USB P.C.B.] under [9. Disassembly and Main Component Replacement Procedures before Operation Checks].

2. Remove 4 screws from the mechanism unit to disassemble. (Refer to [9.3. Procedure for Replacing Pinch Roller (JUN) and Head Block (Cassette Mechanism Unit)] under [9. Disassembly and Main Component Replacement Procedures before Operation Checks].

3. Connect the headphone jack output jig (cf. Fig. 8) to headphone jack.

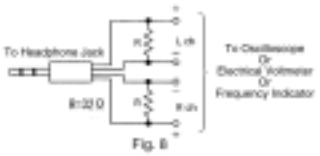

Fig. 8

Fig. 9

TOP PREVIOUS NEXT

11.2.4 Head Azimuth Adjustment

TOP PREVIOUS NEXT

1. Connect an oscilloscope. (Cf. Fig. 10)

2. Playback the azimuth adjustment portion (8kHz, -20dB) of the test tape (QZZCFM). Adjust the azimuth adjusting screw so that the output from Lch and Rch are set to maximum. (Cf. Fig. 11)

3. Adjust the azimuth by playing the test tape in reverse direction. Check the level difference when the tape is played in forward and reverse directions.

4. Playback the playback gain adjustment portion (315Hz, 0dB) of the test tape (QZZCFM). Check that the level difference when the tape is played in forward and reverse directions does not exceed 1.5dB.

5. After the adjustment, fasten screwlock to the azimuth adjusting screw.

   (Note)

   Before adjusting the head azimuth, be sure to remove the screwlock adhesive attached around the head for fine adjustments.

Fig. 10

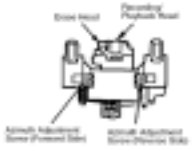

Fig. 11

TOP PREVIOUS NEXT

11.2.5 Tape Speed Adjustment

TOP PREVIOUS NEXT

- Normal speed adjustment (only during forward playback)

  (Product reference value: 3,000±90Hz)

1. Connect a frequency indicator. (Cf. Fig. 12)
2. Playback the middle portion of the test tape (QZZCWT).
3. Adjust the motor volume so that the following output level is produced. (Cf. Fig. 16)

   Adjustment Range: 3,000 ± 90Hz (a constant speed)

Fig. 12

Fig. 13

TOP PREVIOUS NEXT

11.2.6 Bias Voltage Check

TOP PREVIOUS NEXT

1. Connect an electrical voltmeter. (Cf. Fig. 9) (Cf. Fig. 14)
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 ± 4mV

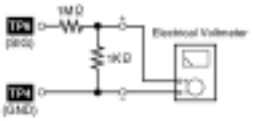

Fig. 14

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12 Block Diagram

TOP PREVIOUS NEXT

TOP PREVIOUS NEXT

13 Schematic Diagram

TOP PREVIOUS NEXT

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

Notes:

S1	Switch
S2	Switch
S3	Switch
S4	Trigger Switch
S600	Rec Switch
S601	Preset EQ Switch
S602	Tape Eject Switch
S603	Rew Switch
S604	Stop/Demo Switch
S605	FF Switch
S606	CD Play/Pause Switch
S607	Tape Play Switch
S608	Tuner/Band Switch
S609	AUX Switch
S610	CD Current Switch
S611	Exchange Switch
S612	CD Open Switch
S613	Disc 5 Switch
S614	Disc 4 Switch
S615	Disc 3 Switch
S616	Disc 2 Switch
S617	Disc 1 Switch
S618	Power Switch
S619	CD/MD Switch
S701	Reset Switch
S780	Open Switch
S971	Mode Switch
S972	Leaf Switch
S973	Leaf Switch
S974	Leaf Switch
S975	Leaf 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 waveformsdepending upon the internal impedance of the tester or the measuring unit.

No mark ...Playback < > ...FM
(( )) ...CD ( ) ...AM

- Importance safety notice:

  Components identifed by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. Whenreplacing 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.




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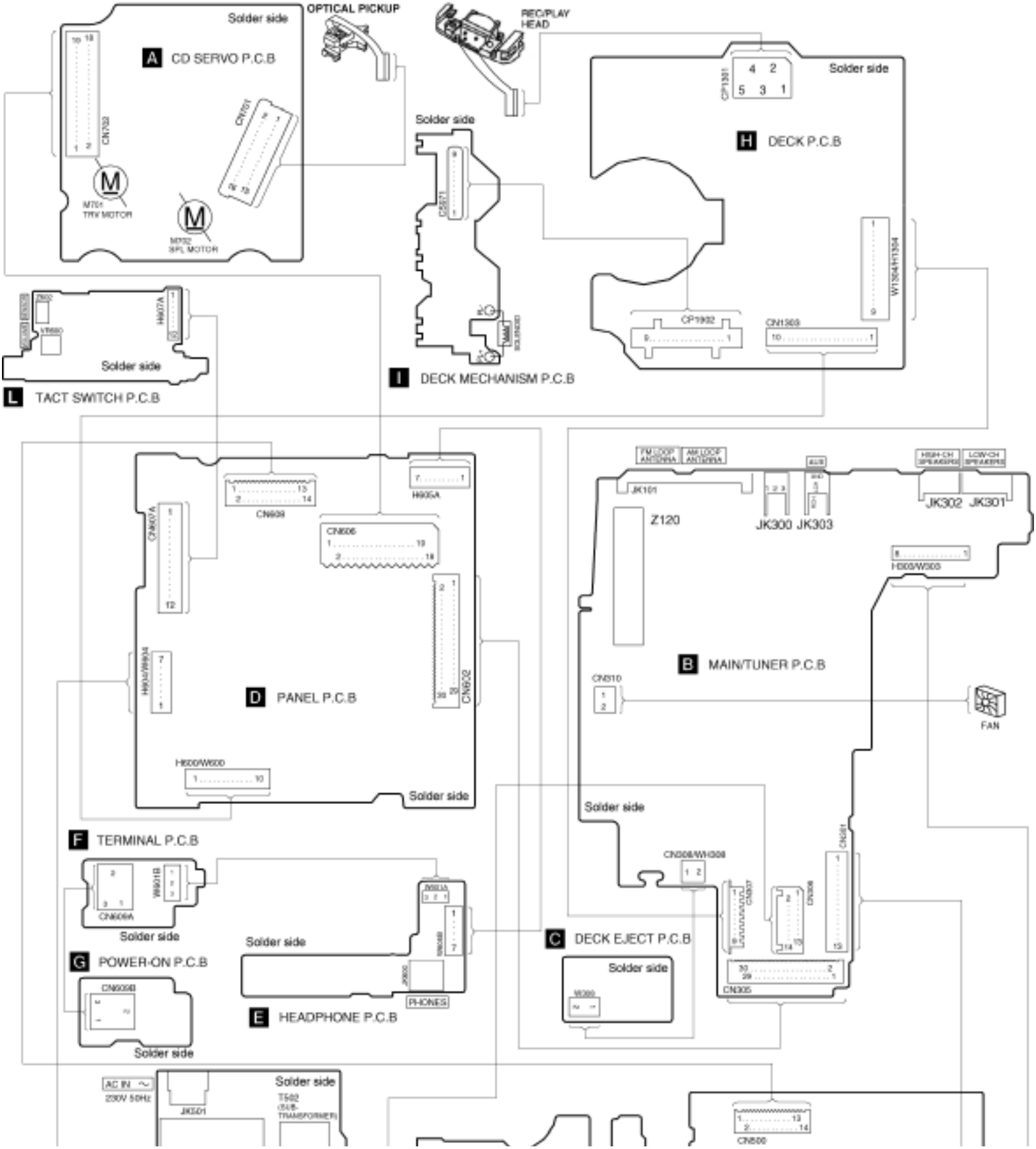
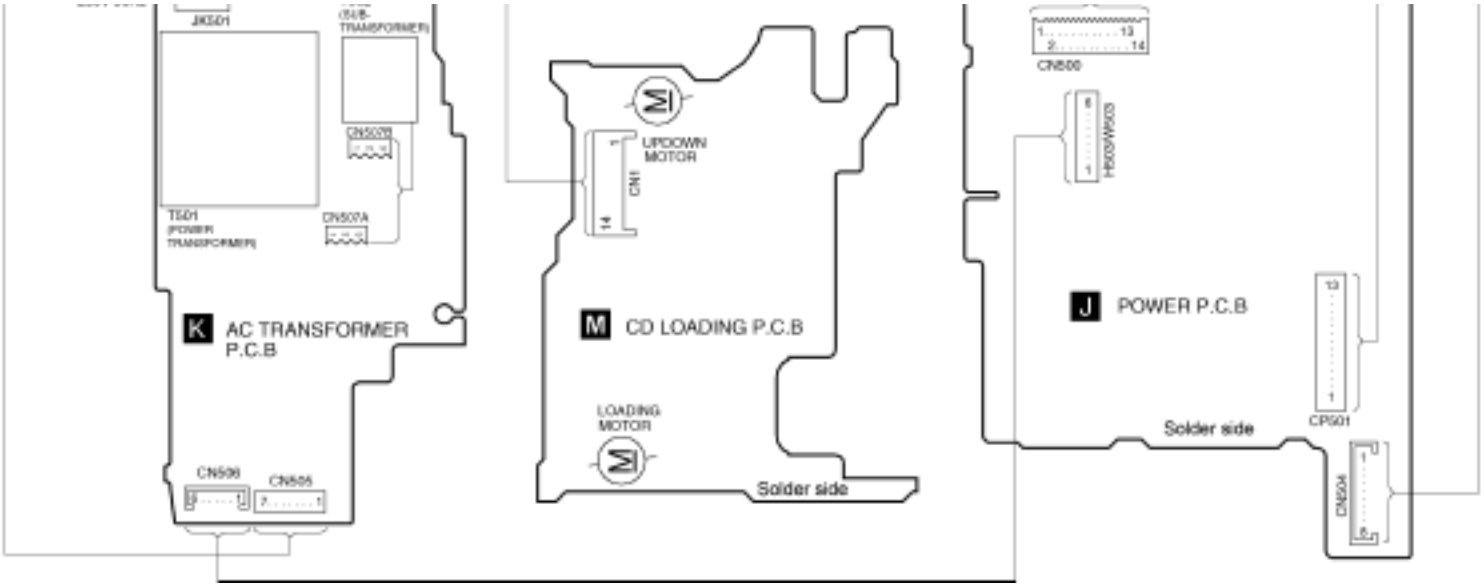
14 Printed Circuit Board

TOP PREVIOUS NEXT

15 Wiring Connection Diagram

TOP PREVIOUS NEXT

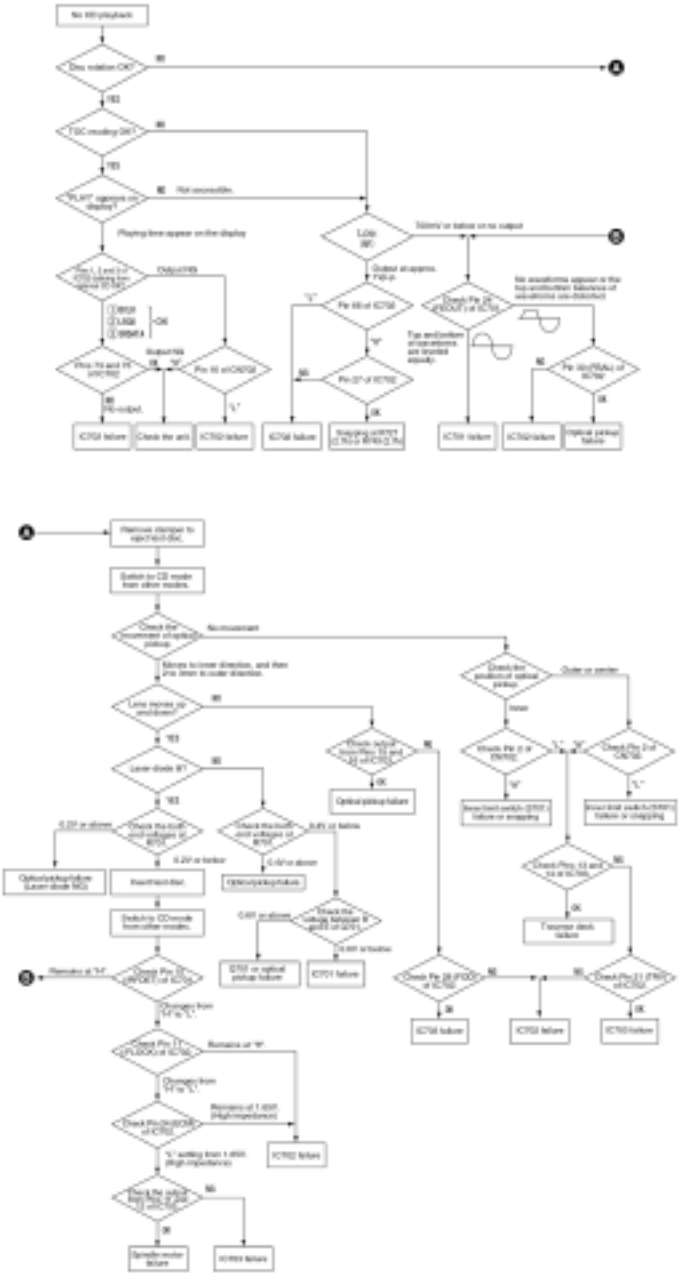




TOP PREVIOUS NEXT

16 Troubleshooting Flowchart (CD Section Circuit)

TOP PREVIOUS NEXT



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17 Type Illustrations of ICs, Transistors& Diodes

TOP PREVIOUS NEXT

TOP PREVIOUS NEXT

18 Terminal Function of IC’s

TOP PREVIOUS NEXT

TOP PREVIOUS NEXT

18.1 IC701 (AN8885SBE1) Servo Amplifier

TOP PREVIOUS NEXT

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

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

TOP PREVIOUS NEXT

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, MAGEND, 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-diveded clock signal of crystal osscillating at MSEL = “H” (fSMCK = 8.4672 MHz) 1/4-divided clock signal of crystal oscillating at MSEL = “L” (fSMCK = 4.2336MHz)
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
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	PLLF2	I/O	N.C.
42	DSLF2	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	DSLF	I/O	DSL loop filter terminal
48	PLLF	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 conversation 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 = 16.9344MHz)
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-emphassis 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)
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")
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)

TOP PREVIOUS NEXT

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

TOP PREVIOUS NEXT

No.	Mark	I/O	Function
1	/RST	-	RESET output terminal
2	NC	-	N.C.
3	IN2	I	Motor Drive (2) input
4	PC2	I	Turntable motor drive signal (“L :ON)
5	NC	-	N.C.
6	IN1	I	Motor driver (1) input
7	NC	I	N.C.
8	PVCC1	I	Power supply (1) for driver
9	PGND1	-	Ground connection (1) for driver
10	NC	-	N.C.
11	D1-	O	Motor driver (1) reverse-action output
12	D1+	O	Motor driver (1) forward-action output
13	D2-	O	Motor driver (2) reverse-action output
14	D2+	O	Motor driver (2) forward-action output
15	D3-	O	Motor driver (3) reverse-action output
16	D3+	O	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	NC	-	N.C.
20	PGND2	-	Ground connection (2) for driver
21	PVCC2	I	Power supply (2) for driver
22	NC	-	N.C.
23	VCC	I	Power supply terminal
24	VREF	I	Reference voltage input
25	IN4	I	Motor driver (4) input
26	IN3	I	Motor driver (3) input
27	RSTIN	I	Reset terminal

19 Parts Location and Replacement Parts List

TOP PREVIOUS NEXT

Notes:

- Important safety notice:

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

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

  When replacing any of 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 Hertsteller spezifizierte Einheit ausgetauscht werden.

- Capacitor values are in microfarad (•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 availabilityis dependant on the type of assembly, and in accordance with the lows govening 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	Cf : Canadian French	Cz : Czech	Da : Danish
Du : Dutch	En : English	Fr : French	Ge : German
It : Italian	Ko : Korean	Po : Polish	Ru : Russian
Sp : Spanish	Sw : Swedish	Co : Traditional Chinese	Cn : Simplified Chinese

19.1 Deck Mechanism

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19.1.1 Deck Mechanism Parts Location

19.1.2 Deck Mechanism Parts List

TOP PREVIOUS NEXT

19.1.1 Deck Mechanism Parts Location

TOP PREVIOUS NEXT

TOP PREVIOUS NEXT

19.1.2 Deck Mechanism Parts List

TOP PREVIOUS NEXT

Ref. No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RED0071	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	RDV0034-1	CAPSTAN BELT A	[M]
110	RMB0312	TRIGGER LEVER SPRING	[M]
111	RMB0400	REEL SPRING	[M]
112	RMB0403	HEAB PANEL SPRING	[M]
113	RMB0404	BRAKE ROD SPRING	[M]
114	RMB0406	FR LEVER SPRING	[M]
115	RMB0408	THRUST SPRING	[M]
116	RML0370	TRIGGER LEVER	[M]
117	RML0371	FR LEVER	[M]
118	RML0372	WINDING LEVER	[M]
119	RML0374	EJECT LEVER	[M]
120	RMM0131	BRAKE ROD	[M]
121	RMM0133-1	EJECT ROD	[M]
122	RMQ0519	REEL HUB	[M]
123	RMS0398-1	MOVING CORE	[M]
124	RSJ0003	PLUNGER	[M]
125	RMC0061	PACK SPRING	[M]
126	RXF0061	FLYWHEEL F ASSY	[M]
127	RXF0062	FLYWHEEL R ASSY	[M]
128	RXG0040	FF RELAY GEAR ASSY	[M]
129	RMK0283A-J	SUB-CHASSIS	[M]

130	RXL0124	PINCH ROLLER F ASSY	[M]
130-1	RMB0401	PINCH ARM SPRING F	[M]
131	RXL0125	PINCH ROLLER R ASSY	[M]
131-1	RMB0402	PINCH ARM SPRING R	[M]
132	RXL0126	WINDING ARM ASSY	[M]
133	RXQ0412	HEAD PANEL ASSY	[M]
133-1	RMB0405	FR ROD SPRING	[M]
133-2	RMM0132	FR ROD	[M]
134	REM0098	CAP MOTOR ASSY	[M]
135	RHD26022	MOTOR SCREW	[M]
136	XTW2+5L	HEAD BLOCK UNIT SCRE	[M]
137	XTW26+10S	SUB-CHASSIS SCREW	[M]
138	XYC2+JF17	PCB EARTH SCREW	[M]
139	RFKJSTR280PP	MAIN CHASSIS ASS'Y	[M]

TOP PREVIOUS NEXT

19.2 CD Loading Mechanism

TOP PREVIOUS NEXT

19.2.1 CD Loading Mechanism Parts Location

19.2.2 CD Loading Mechanism Parts List

TOP PREVIOUS NEXT

19.2.1 CD Loading Mechanism Parts Location

TOP PREVIOUS NEXT

TOP PREVIOUS NEXT

19.2.2 CD Loading Mechanism Parts List

TOP PREVIOUS NEXT

Ref. No.	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK	
301	RAE0155A-V	TRV UNIT WITHOUT SERVO PCB	[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 [1]	[M]
319	RDG0535	UD SPEED DOWN GEAR [2]	[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	RFKNCT101	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	CHG. LEVER	[M]
346	RML0637	TRAY STOPPER	[M]
347	RMM0218	TRV 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	RMR1407E-H1	TRAY NO. 5	[M]
365	RMR1407D-H1	TRAY NO. 4	[M]
366	RMR1407C-H1	TRAY NO. 3	[M]
367	RMR1407B-H1	TRAY NO. 2	[M]
368	RMR1407A-H1	TRAY NO. 1	[M]
369	RMR1408-K	MECHA BASE	[M]
370	RMR1427-X	MIDDLE CHASSIS	[M]
371	RMS0757-1	FIXED PIN	[M]
372	RMS0758	CHANGE GEAR SHAFT	[M]
373	RMS0759	UD SPEED DOWN GEAR SHAFT	[M]
374	RMS0760	LOAD RELAY GEAR SHAFT	[M]
375	RMS0762	TRAY GEAR SHAFT	[M]
376	RXG0053	TRAY DRIVE GEAR ASSY	[M]
377	RXQ0704	OPU UNIT	[M]
378	RXQ0803	LOADING MOTOR ASSY	[M]
379	RXQ0804	UD MOTOR ASSY	[M]
380	XTB3+10J	SCREW	[M]
381	XTN2+6G	SCREW	[M]
382	RMC0472	TRAY SPRING	[M]

TOP PREVIOUS NEXT

19.3 Cabinet& CD Loading Mechanism

TOP PREVIOUS NEXT

19.3.1 Cabinet& CD Loading Mechanism Parts Location

19.3.2 Cabinet& CD Loading Mechanism Parts List

TOP PREVIOUS NEXT

19.3.1 Cabinet& CD Loading Mechanism Parts Location

TOP PREVIOUS NEXT

TOP PREVIOUS NEXT

19.3.2 Cabinet& CD Loading Mechanism Parts List

TOP PREVIOUS NEXT

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	REE1172	3P BLUE LED	[M]
2	REEX0165	14P FFC	[M]
3	REEX0166	14P FFC WIRE	[M]
4	REEX0167	19P CD FFC	[M]
5	REEX0168	30P FFC	[M]
6	REM0094	COLLING FAN	[M]
8	RGK1512-S	VOLUME RING	[M]
9	RGK1513-S	REC BUTTON RING	[M]
10	RGKX0128A-S	FRONT ORNAMENT	[M]
11	RGK1515-S1	CD LID ORNAMENT (A)	[M]
12	RGK1516-S	UNDER ORNAMENT A	[M]
13	RGL0589-Q	DIFFUSER PLATE	[M]
14	RGL0590-Q	PWR LIGHTING TIP	[M]
15	RGLX0049-Q	FRONT LIGHTING PIECE	[M]
16	RGP0926-K	CD LID COVER	[M]
17	RGPX0065A-K	FRONT PANEL	[M]
20	RGPX0074B-K	REAR PANEL	[M]EG E
20	RGPX0074C-K	REAR PANEL	[M]EB
21	RGPX0078A-K	TOP PANEL	[M]
22	RGU2094-S	FUNCTION BUTTON	[M]
23	RGU2096-S	FAMILY BUTTON A	[M]
24	RGUX0440-S	SUB BUTTON	[M]
25	RGU2142-K	FAMILY BUTTON D	[M]
26	RGW0388-S	VOLUME KNOB	[M]

27	RHD30007-K1	SCREW	[M]
28	RHGV0008	LEG CUSHION	[M]
29	RKF0479-K3	CASS HOLDER	[M]
30	RKF0640-K	CD LID	[M]
31	RKF0641-K	CASS LID	[M]
32	RKM0464A-K	SIDE PANEL L	[M]
33	RKM0465A-K	SIDE PANEL R	[M]
34	RKW0694A-Q1	SENSOR PANEL	[M]
35	RMB0617	CASS OPEN SPRING	[M]
36	RMB0706	CD LID SPRING	[M]
37	RMA1543	CD LID SUPPORT	[M]
38	RMK0524	BOTTOM CHASSIS	[M]
39	RMKX0061	INNER CHASSIS	[M]
40	RMNX0072	FL HOLDER	[M]
41	RMR1444-Q	LENS SHEET	[M]
42	RMG0597-K	CD LID RUBBER	[M]
43	RMY0260	HEAT SINK (SMALL)	[M]
44	RSC0648	EARTH SHEET	[M]
45	RSCX0071	TUNER PACK SHIELD	[M]
46	RUS757ZAA	CASS HALF SPRING	[M]
47	RXXX0034A	HEAT SINK UNIT	[M]
48	XTB26+8JFZ	SCREW	[M]
49	XTB3+10JFZ	SCREW	[M]
50	XTB3+8JFZ	SCREW	[M]
51	XTBS26+10J	SCREW	[M]
52	XTV3+10G	SCREW	[M]
53	XTW3+15T	SCREW	[M]
54	RGCX0005-W	LIGHT PIECE REFLECTO	[M]
55	RDG0357	DAMPER GEAR	[M]
56	RGL0591-Q	REC LIGHTING TIP	[M]
57	XTWS3+8T	SCREW	[M]

19.4 Components Parts List

TOP PREVIOUS NEXT

Ref. No.	Part No.	Part Name & Description	Remarks
		P.C.B.	
	REP2807E	CD SERVO P.C.B.	[M]
	REP3340A	CD LOADING P.C.B.	[M]
	REPX0289B	DECK P.C.B.	[M]
	REPX0108	DECK MECHANISM P.C.B.	[M]
	REPX0278J	TACT SWITCH P.C.B. / HEADPHONE P.C.B. / MAIN/TUNER P.C.B. / TERMINAL P.C.B. / POWER-ON P.C.B. / DECK EJECT P.C.B. / PANEL P.C.B.	
	REPX0279K	POWER P.C.B. / AC TRANSFORMER P.C.B.	[M]EB
	REPX0279L	POWER P.C.B. / AC TRANSFORMER P.C.B.	[M]E EG
		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	C1BB00000527	IC RDS	[M]
IC500	RSN314H41A-P	IC POWER AMP HIC	[M]
IC501	C0AABB000117	IC OP-AMP (HP AMP)	[M]
IC600	C2BBGF000385	IC MICROPROCESSOR	[M]
IC701	AN8885SBE1	IC HEAD AMP	[M]
IC702	MN662790RSC	IC LSI	[M]
IC703	BA5948FPE2	IC 4 CH DRIVE	[M]
IC971	CNB13030R2AU	IC PHOTO INTERUPTOR	[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]
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	2SB621ARSTA	TRANSISTOR	[M]
Q607	KRC103STA	TRANSISTOR	[M]
Q608	KTC3875GRTA	TRANSISTOR	[M]
Q609	KTC3875GRTA	TRANSISTOR	[M]
Q610	KTA1504GRTA	TRANSISTOR	[M]
Q611	KRC102STA	TRANSISTOR	[M]
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]
Q1101	B1ABGC000005	TRANSISTOR	[M]
Q1201	B1ABGC000005	TRANSISTOR	[M]
Q1302	DTA114EKA146	TRANSISTOR	[M]
Q1303	DTC143XKA146	TRANSISTOR	[M]
Q1304	DTA143XKA146	TRANSISTOR	[M]
Q1305	DTC114EKA146	TRANSISTOR	[M]
Q1306	2SC2412KT96R	TRANSISTOR	[M]
Q1307	2SC2412KT96R	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	RL1N4003S-P	DIODE	[M]
D302	RL1N4003S-P	DIODE	[M]
D500	KBL402G	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	RL1N4003S-P	DIODE	[M]
D540	RL1N4003S-P	DIODE	[M]
D541	RL1N4003S-P	DIODE	[M]
D578	RL1N4003S-P	DIODE	[M]
D579	RL1N4003S-P	DIODE	[M]
D580	RL1N4003S-P	DIODE	[M]
D581	RL1N4003S-P	DIODE	[M]
D582	B0BA6R600008	DIODE	[M]
D584	RL1N4003S-P	DIODE	[M]
D585	RL1N4003S-P	DIODE	[M]
D586	RL1N4003S-P	DIODE	[M]
D587	RL1N4003S-P	DIODE	[M]
D588	RL1N4003S-P	DIODE	[M]
D589	RL1N4003S-P	DIODE	[M]
D592	RL1N4003S-P	DIODE	[M]
D593	RL1N4003S-P	DIODE	[M]
D594	MTZJ24CTA	DIODE	[M]
D601	B0ACCK000005	DIODE	[M]
D605	B0ACCK000005	DIODE	[M]
D608	B0ACCK000005	DIODE	[M]

D611	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	LNJ201LPQJA	DIODE	[M]
D634	LNW4A8YY4	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]
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	1D3E	DIODE	[M]
D750	MAZ80560ML	DIODE	[M]
D971	MA2C16500E	DIODE	[M]
D1301	B0ACCK000005	DIODE	[M]
		VARIABLE RESISTORS	
VR600	EVEME2F2524B	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]
S601	EVQ21405RJ	SW PRESET EQ	[M]
S602	EVQ21405RJ	SW TPE EJECT	[M]
S603	EVQ21405RJ	SW REW	[M]
S604	EVQ21405RJ	SW STOP/DEMO	[M]
S605	EVQ21405RJ	SW FF	[M]
S606	EVQ21405RJ	SW CD PLAY/PAUSE	[M]
S607	EVQ21405RJ	SW TAPE PLAY	[M]
S608	EVQ21405RJ	SW TUNER/BAND	[M]
S609	EVQ21405RJ	SW AUX	[M]
S610	EVQ21405RJ	SW CD CURRENT	[M]
S611	EVQ21405RJ	SW CD EXCHANGE	[M]
S612	EVQ21405RJ	SW CD OPEN	[M]
S613	EVQ21405RJ	SW CD 5	[M]
S614	EVQ21405RJ	SE 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 CD/MD	[M]
S701	RSH1A048-A	SW RESET	[M]
S780	RSH1A049-U	SW OPEN	[M]
S971	RSH1A018-3U	SW MODE	[M]
S972	RSH1A019-2U	SW LEAF	[M]
S973	RSH1A019-2U	SW LEAF	[M]
S974	RSH1A019-2U	SW LEAF	[M]
S975	RSH1A019-2U	SW LEAF	[M]
		CONNECTORS	

CN1	K1MN14B00066	14P FFC CONN. (SIDE)	[M]
CN301	RJU100W13	13P CONNECTOR	[M]
CN305	RJS2A8030	P1 FFC CONNECTOR ST	[M]
CN306	K1MN14C00004	14P FFC CONNECTOR	[M]
CN307	K1MP09A00002	TO MAIN MOLEX	[M]
CN308	K1KA02B00115	LASER CONNECTOR	[M]
CN310	K1KA02A00008	FAN CONNECTOR	[M]
CN500	K1MN14A00049	FF CONNECTOR	[M]
CN504	RJT119W08V	CONNECTOR	[M]
CN505	K1KB07A00016	7P CONNECTOR	[M]
CN506	RJT119W06V	CONNECTOR 2.5 MM	[M]
CN507A	REXX0320	2P STANDBY WIRE	[M]
CN602	RJS2A4230-F	30P FFC CONNECTOR	[M]
CN606	K1MN19C00001	CONNECTOR	[M]
CN607A	K1KA12B00095	CONNECTOR	[M]
CN608	RJS1A9314	14P CONNECTOR	[M]
CN609A	K1MN03B00015	3P FFC CONNECTOR	[M]
CN609B	K1MN03B00015	3P FFC CONNECTOR	[M]
CN701	RJS2A8616	16P FPC CONNECTOR	[M]
CN702	RJS1A9319	19P FFC CONNECTOR	[M]
CN1303	RJS1A5710	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	G0C1R0JA0027	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	G0C101JA0027	COIL	[M]
L601	G0C100JA0027	COIL	[M]
L602	G0C101JA0027	COIL	[M]
L603	G0C3R3JA0027	COIL	[M]
L605	G0C101JA0027	COIL	[M]
L1301	7L1A62N	BIAS OCS COIL	[M]
L1302	RLQB470JTD-D	RF CHOKE COIL	[M]
T501	G4C6AEK00007	TRANSFORMER	[M]⚠
T502	RTP1H3E002	BACK-UP TRANSFORMER	[M]⚠
		COMPONENT COMBINATION	
Z101	RLA2Z007-T	COIL	[M]
Z102	RLI2Z021M-T	AM IF BLOCK	[M]
Z120	ENV17290G1Y	FM TUNER PACK	[M]
Z501	ERZV10V511CS	ZENER	[M]⚠
Z602	B3RAB0000016	INFRARED RAYS	[M]
Z971	RGSD12A1445T	RADA RESISTOR	[M]
SP600	RMB0712	EARTH SPRING	[M]
		CERAMIC FILTERS	
CF201	J0B1075A0086	CERAMIC CAPACITOR	[M]
CF202	J0B1075A0077	CERAMIC FILTER	[M]
		RELAY	
RL501	RSY0040M-0	POWER RELAY	[M]⚠
		OSCILLATORS	
X102	RLFDFT22DD	CRYSTAL OSCILLATOR	[M]
X103	H0H720400005	CRYSTAL OSCILLATOR	[M]

X391	H0H433400001	CRYSTAL OSCILLATOR	[M]
X600	RSXZ4M19B01T	CERAMIC OSCILLATOR	[M]
X601	RSXD32K7S02	CRYSTAL OSCILLATOR	[M]
X701	RSXC16M9S04	CRYSTAL OSCILLATOR	[M]
		DISPLAY TUBE	
FL600	A2BD00000052	FL DISPLAY	[M]
		FUSES	
F1	K5D801BK0007	800MA 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	HOLDER	[M]
H503	K1YF06000002	6P WIRE HOLDER	[M]
H600	RMR0319	10P CABLE HOLDER	[M]
H604	RMR0316	7P WIRE HOLDER	[M]
H605A	RMR0316	7P WIRE HOLDER	[M]
H605B	RMR0316	7P WIRE HOLDER	[M]
H607A	RMR0321	WIRE HOLDER FOR W902	[M]
H634	RMN0655	LED HOLDER	[M]
H1304	RMR0318	9P WIRE HOLDER	[M]
		JACKS	

JK101	RJH8304N	JK ANTENNA	[M]
JK300	GP1F32T	JK OPT TERMINAL	[M]
JK301	K4BC04B00036	JK RED/BLACK SPEAKER	[M]
JK302	K4BC04B00037	JK BLUE/GRAY SPEAKER	[M]
JK303	RJH2213N-1	JK 2PIN RCA PIN	[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 PCB TO MAIN	[M]
W503	REXX0290	6P TRANS PCB TO P	[M]
W600	RWJ1110138XX	10P (PANEL TO DECK)	[M]
W601	RWJ0203065SS	3P (CD LID SUB)	[M]
W604	RWJ0207130XX	7P (PANEL TO TRANS)	[M]
W605	RWJ1107200XX	7P (PHONE MIC PCB)	[M]
W607A	REXX0294	12P	[M]
W1304	RWJ1109150XX	9P DECK TO MAIN PCB	[M]
W1903	RWJ0102050KR	MOTOR WIRE	[M]
WH308	REXX0289	2P DECK EJECT PCB	[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]
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	ERJ3GEYJ103V	10K 1/16W	[M]
R202	ERJ3GEYJ182V	1.8K 1/16W	[M]
R203	ERJ3GEYJ822V	8.2K 1/16W	[M]
R204	ERJ3GEYJ223V	22K 1/16W	[M]
R205	ERJ3GEYJ103V	10K 1/16W	[M]
R206	ERJ3GEYJ682V	6.8K 1/16W	[M]
R207	ERJ3GEYJ333V	33K 1/16W	[M]
R208	ERJ3GEYJ182V	1.8K 1/16W	[M]
R211	ERJ3GEYJ822V	8.2K 1/16W	[M]
R212	ERJ3GEYJ102V	1K 1/16W	[M]
R213	ERJ3GEYJ471V	470 1/16W	[M]
R214	ERJ3GEYJ222V	2.2K 1/16W	[M]
R215	ERJ3GEYJ473V	47K 1/16W	[M]
R216	ERJ3GEYJ272V	2.7K 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	ERJ3GEYJ103V	10K 1/16W	[M]
R402	ERJ3GEYJ182V	1.8K 1/16W	[M]
R403	ERJ3GEYJ822V	8.2K 1/16W	[M]

R404	ERJ3GEYJ223V	22K 1/16W	[M]
R405	ERJ3GEYJ103V	10K 1/16W	[M]
R406	ERJ3GEYJ682V	6.8K 1/16W	[M]
R407	ERJ3GEYJ333V	33K 1/16W	[M]
R408	ERJ3GEYJ182V	1.8K 1/16W	[M]
R411	ERJ3GEYJ822V	8.2K 1/16W	[M]
R412	ERJ3GEYJ102V	1K 1/16W	[M]
R413	ERJ3GEYJ471V	470 1/16W	[M]
R414	ERJ3GEYJ222V	2.2K 1/16W	[M]
R415	ERJ3GEYJ473V	47K 1/16W	[M]
R416	ERJ3GEYJ272V	2.7K 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	ERDS2TJ562T	5.6K 1/4W	[M]
R543	ERDS2TJ562T	5.6K 1/4W	[M]
R544	ERDS2TJ472T	4.7K 1/4W	[M]
R545	ERDS2TJ472T	4.7K 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]
R600	ERJ3GEY0R00V	0 1/16W	[M]
R601	ERJ3GEYJ103V	10K 1/16W	[M]
R602	ERJ3GEYJ682V	6.8K 1/16W	[M]
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]
R635	ERJ3GEYJ561V	560 1/16W	[M]
R636	ERJ3GEYJ471V	470 1/16W	[M]
R637	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	ERJ3GEYJ561V	560 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	ERJ3GEYJ561V	560 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]
R677	ERJ3GEY0R00V	0 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]
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	ERJ3GEYJ392V	3.9K 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]
R694	ERJ3GEYJ561V	560 1/16W	[M]
R695	ERJ3GEYJ101V	100 1/16W	[M]
R696	ERJ3GEY0R00V	0 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]⚠
R701	ERDS2TJ563T	56K 1/4W	[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	ERJ3GEYJ154V	150K 1/16W	[M]
R706	ERDS2TJ472T	4.7K 1/4W	[M]
R706	ERJ3GEYJ102V	1K 1/16W	[M]
R707	ERDS2TJ562T	5.6K 1/4W	[M]
R707	ERJ3GEYJ393V	39K 1/16W	[M]
R708	ERDS2TJ103T	10K 1/4W	[M]
R708	ERJ3GEYJ223V	22K 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	ERJ3GEYJ101V	100 1/16W	[M]
R715	ERJ3GEYJ102V	1K 1/16W	[M]
R716	ERDS2TJ102T	1K 1/4W	[M]EG E
R717	ERJ3GEYJ102V	1K 1/16W	[M]
R718	ERJ3GEYJ102V	1K 1/16W	[M]
R720	ERDS2TJ563T	56K 1/4W	[M]
R721	ERDS2TJ563T	56K 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	ERDS2TJ823T	82K 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	ERDS2TJ103T	10K 1/4W	[M]
R731	ERJ3GEYJ103V	10K 1/16W	[M]
R732	ERDS2TJ183T	18K 1/4W	[M]
R732	ERJ3GEYJ102V	1K 1/16W	[M]
R733	ERDS2TJ183T	18K 1/4W	[M]
R734	ERDS2TJ221T	220 1/4W	[M]
R735	ERDS2TJ224T	220K 1/4W	[M]
R735	ERJ3GEYJ101V	100 1/16W	[M]
R736	ERDS2TJ103T	10K 1/4W	[M]
R736	ERJ3GEYJ101V	100 1/16W	[M]
R737	ERDS2TJ681T	680 1/4W	[M]
R738	ERDS2TJ183T	18K 1/4W	[M]
R739	ERDS2TJ681T	680 1/4W	[M]
R740	ERDS2TJ124T	120K 1/4W	[M]
R741	ERDS2TJ103T	10K 1/4W	[M]
R741	ERJ3GEYJ473V	47K 1/16W	[M]
R742	ERDS2TJ273T	27K 1/4W	[M]
R742	ERJ3GEYJ224V	220K 1/16W	[M]
R743	ERDS2TJ152T	1.5K 1/4W	[M]
R744	ERDS2TJ124T	120K 1/4W	[M]
R744	ERJ3GEYJ124V	120K 1/16W	[M]
R745	ERDS2TJ103T	10K 1/4W	[M]
R746	ERDS2TJ273T	27K 1/4W	[M]
R747	ERDS2TJ152T	1.5K 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]
R751	ERDS2TJ332T	3.3K 1/4W	[M]
R752	ERDS2TJ823T	82K 1/4W	[M]
R753	ERDS2TJ222T	2.2K 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	ERDS2TJ222T	2.2K 1/4W	[M]
R759	ERDS2TJ472T	4.7K 1/4W	[M]
R760	ERDS2TJ223T	22K 1/4W	[M]
R760	ERJ3GEYJ221V	220 1/16W	[M]
R761	ERDS2TJ223T	22K 1/4W	[M]
R761	ERJ3GEYJ472V	4.7K 1/16W	[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	ERDS2TJ153T	15K 1/4W	[M]
R767	ERDS2TJ153T	15K 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	ERDS2TJ472T	4.7K 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	ERDS2TJ183T	18K 1/4W	[M]

R780	ERDS2TJ473T	47K 1/4W	[M]
R781	ERDS2TJ473T	47K 1/4W	[M]
R782	ERDS2TJ563T	56K 1/4W	[M]
R783	ERDS2TJ563T	56K 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]
R925	ERJ3GEYJ223V	22K 1/16W	[M]
R926	ERJ3GEY0R00V	0 1/16W	[M]
R927	ERJ3GEY0R00V	0 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	ERJ3GEYJ471V	470 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]
R1319	ERJ3GEYJ123V	12K 1/16W	[M]
R1320	ERJ3GEYJ104V	100K 1/16W	[M]
R1321	ERJ3GEYJ470V	47 1/16W	[M]
R1322	ERJ3GEYJ823V	82K 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]
		CAPACITORS	
C11	F1D1E103A001	0.01 25V	[M]
C12	ECA1CAK101XB	100 16V	[M]
C21	F1D1E103A001	0.01 25V	[M]
C22	ECA1CAK101XB	100 16V	[M]
C101	ECUV1E103KBV	0.01 25V	[M]
C102	ECA1CAK101XB	100 16V	[M]
C103	ECUV1E103KBV	0.01 25V	[M]
C104	ECJ1VB1H102K	1000P 50V	[M]
C105	ECJ1VB1H102K	1000P 50V	[M]
C106	ECUV1H103KBV	0.01 50V	[M]
C107	ECUV1C473KBV	0.047 16V	[M]
C108	ECUV1H080DCV	8P 50V	[M]
C109	ECJ1VB1H102K	1000P 50V	[M]
C110	ECUV1E103KBV	0.01 25V	[M]
C111	ECA1HAK4R7XB	4.7 50V	[M]
C112	ECUV1E103KBV	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	ECUV1E103KBV	0.01 25V	[M]

C118	ECUV1E103KBV	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]
C126	ECUVNA105ZFV	10 10V	[M]
C127	ECA1CAK220XB	22 16V	[M]
C129	ECA0JAK101XB	100 6.3V	[M]
C130	ECA0JAK101XB	100 6.3V	[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	ECUV1E103KBV	0.01 25V	[M]
C139	ECA1HAK4R7XB	4.7 50V	[M]
C141	ECA1HAK010XB	1 50V	[M]
C142	ECA1HAK010XB	1 50V	[M]
C143	ECUV1H562KBV	5600P 50V	[M]
C144	ECUV1H562KBV	5600P 50V	[M]
C147	ECJ1VB1H102K	1000P 50V	[M]
C148	ECUV1E103KBV	0.01 25V	[M]
C149	ECUV1C104KBV	0.1 16V	[M]
C201	ECUV1H471JCV	470P 50V	[M]
C203	ECA1HAK4R7XB	4.7 50V	[M]
C204	ECJ1VB1H102K	1000P 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	ECQV1H104JZ3	0.1 50V	[M]

C212	ECQV1H104JZ3	0.1 50V	[M]
C213	ECA1CAK100XB	10 16V	[M]
C214	ECUV1H103KBV	0.01 50V	[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]
C225	F1D1H102A012	1000P 50V	[M]
C301	ECJ1VB1H102K	1000P 50V	[M]
C302	ECUV1E103KBV	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]
C313	ECA0JAK101XB	100 6.3V	[M]
C314	ECUV1E104KBV	0.1 25V	[M]
C391	ECJ1VC1H470J	47P 50V	[M]
C392	ECUV1H561KBV	560P 50V	[M]
C393	ECA1HAK100XB	10 50V	[M]
C394	ECJ1VB1H102K	1000P 50V	[M]
C395	ECA1HAK100XB	10 50V	[M]
C396	ECA0JAK470XB	47 6.3V	[M]
C397	ECUV1H103KBV	0.01 50V	[M]
C398	ECUV1H331KBV	330P 50V	[M]
C399	ECJ1VC1H470J	47P 50V	[M]
C400	ECUV1H101JCV	100P 50V	[M]
C401	ECUV1H471JCV	470P 50V	[M]
C403	ECA1HAK4R7XB	4.7 50V	[M]
C404	ECJ1VB1H102K	1000P 50V	[M]
C405	ECA1HAK2R2XB	2.2 50V	[M]
C406	ECUV1H221KBV	220P 50V	[M]

C407	ECA1CAK100XB	10 16V	[M]
C408	ECA1HAK2R2XB	2.2 50V	[M]
C409	ECA1HAK2R2XB	2.2 50V	[M]
C410	ECUV1H471KBV	470P 50V	[M]
C411	ECQV1H104JZ3	0.1 50V	[M]
C412	ECQV1H104JZ3	0.1 50V	[M]
C413	ECA1CAK100XB	10 16V	[M]
C414	ECUV1H103KBV	0.01 50V	[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]
C425	F1D1H102A012	1000P 50V	[M]
C500	F1D1H821A012	820P 50V	[M]
C501	F1D1H821A012	820P 50V	[M]
C502	F1D1H821A012	820P 50V	[M]
C503	F1D1H821A012	820P 50V	[M]
C504	F1D1H330A006	33P 50V	[M]
C505	F1D1H330A006	33P 50V	[M]
C506	ECA1VAM222XE	2200 35V	[M]
C507	ECA1VAM222XE	2200 35V	[M]
C508	ECA1EAM332XE	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]
C536	ECA0JAK221XB	220 6.3V	[M]
C537	F1D1H102A012	1000P 50V	[M]
C548	ECKR1H103ZF5	0.01 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	ECA1CAM102XB	1000 16V	[M]
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	ECUV1C104KBV	0.1 16V	[M]
C615	ECA0JAM102XB	1000 6.3V	[M]
C616	ECJ1VB1H102K	1000P 50V	[M]
C617	ECUV1H331KBV	330P 50V	[M]
C618	ECUV1H221KBV	220P 50V	[M]
C619	ECUV1H221KBV	220P 50V	[M]
C620	ECUV1H221KBV	220P 50V	[M]
C621	ECUV1H103KBV	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]
C628	ECUV1H101JCV	100P 50V	[M]
C632	ECUV1C223KBV	0.022 16V	[M]

C633	ECJ1VC1H680J	68P 50V	[M]
C634	ECJ1VC1H680J	68P 50V	[M]
C635	ECJ1VC1H150J	15P 50V	[M]
C636	ECUV1H180JCV	18P 50V	[M]
C637	ECUV1H560JCV	56P 50V	[M]
C638	ECUV1H560JCV	56P 50V	[M]
C639	ECJ1VB1H102K	1000P 50V	[M]
C640	ECJ1VB1H102K	1000P 50V	[M]
C641	ECUV1H103KBV	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	ECUV1H103KBV	0.01 50V	[M]
C649	ECA0JAK470XB	47 6.3V	[M]
C651	ECUV1C104KBV	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	ECUV1E473KBV	0.047 25V	[M]
C662	ECJ1VB1E223K	0.022 25V	[M]
C663	ECJ1VB1E223K	0.022 25V	[M]
C664	ECUV1E104KBV	0.1 25V	[M]
C700	ECA0JAK101XB	100 6.3V	[M]
C701	ECA1CAK330XB	33 16V	[M]
C701	ECEA0JKA330I	33 6.3V	[M]
C702	ECA1HAK2R2XB	2.2 50V	[M]
C702	ECUV1C104KBV	0.1 16V	[M]

C703	ECEA0JKA101I	100 6.3V	[M]
C703	F1D1H1040002	0.1 50V	[M]
C704	ECA0JAK221XB	220 6.3V	[M]
C704	ECUV1C104KBV	0.1 16V	[M]
C705	ECEA1AKN100B	10 10V	[M]
C706	ECJ1VB1H272K	2700P 50V	[M]
C707	ECJ1VB1E273K	0.027 25V	[M]
C709	F1D1H102A012	1000P 50V	[M]
C710	ECUV1H121JCV	120P 50V	[M]
C710	F1D1H102A012	1000P 50V	[M]
C711	ECA1CAK100XB	10 16V	[M]
C711	ECUV1C104KBV	0.1 16V	[M]
C712	ECUV1C104KBV	0.1 16V	[M]
C712	F1D1H473A012	0.047 50V	[M]
C713	ECA1HAKR68XB	0.68 50V	[M]
C713	ECUV1C104KBV	0.1 16V	[M]
C714	ECEA0JKA101I	100 6.3V	[M]
C714	ECQV1H274JZ3	0.27 50V	[M]
C715	ECJ1VB1H272K	2700P 50V	[M]
C715	F1D1H473A012	0.047 50V	[M]
C716	ECA1HAKR68XB	0.68 50V	[M]
C716	ECJ1VB1H821K	820P 50V	[M]
C717	ECQV1H274JZ3	0.27 50V	[M]
C717	ECUV1E104ZFV	0.1 25V	[M]
C718	ECUV1A224KBV	0.22 10V	[M]
C720	ECA1HAKR22XB	0.22 50V	[M]
C721	ECUV1H100JCV	10P 50V	[M]
C721	F1D1H333A012	0.033 50V	[M]
C722	ECUV1H100JCV	10P 50V	[M]
C722	F1D1H333A012	0.033 50V	[M]
C723	ECA1HAKR22XB	0.22 50V	[M]
C723	ECEA1AKA221I	220 10V	[M]
C724	ECUV1C104KBV	0.1 16V	[M]
C724	F1D1H333A012	0.033 50V	[M]
C725	ECJ1VB1H102K	1000P 50V	[M]
C725	F1D1H333A012	0.033 50V	[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	ECUV1E104ZFV	0.1 25V	[M]
C731	ECA0JAK221XI	220 6.3V	[M]
C731	ECA1HAK3R3XB	3.3 50V	[M]
C732	ECEA0JKA221I	220 6.3V	[M]
C733	ECUV1C104KBV	0.1 16V	[M]
C734	ECEA1AKA221I	220 10V	[M]
C735	ECUV1E104ZFV	0.1 25V	[M]
C736	ECUV1E104ZFV	0.1 25V	[M]
C736	F1C1C393A011	0.039 16V	[M]
C737	ECUV1E104ZFV	0.1 25V	[M]
C737	F1C1C393A011	0.039 16V	[M]
C738	ECA1CAK100XB	10 16V	[M]
C738	ECUV1C563KBV	0.056 16V	[M]
C739	ECUV1H222KBV	2200P 50V	[M]
C739	F1D1H101A012	100P 50V	[M]
C740	F1D1H101A012	100P 50V	[M]
C741	ECA1HAK100XB	10 50V	[M]
C742	ECA1HAK100XB	10 50V	[M]
C742	ECJ1VB1E273K	0.027 25V	[M]
C743	ECBT1H103KB5	0.01 50V	[M]
C743	ECUV1E104ZFV	0.1 25V	[M]
C744	ECBT1H103KB5	0.01 50V	[M]
C744	ECUV1H562KBV	5600P 50V	[M]
C745	ECUV1E104ZFV	0.1 25V	[M]
C745	F1D1H101A012	100P 50V	[M]
C746	F1D1H101A012	100P 50V	[M]
C747	ECUV1H181JCV	180P 50V	[M]
C747	F1D1H101A012	100P 50V	[M]

C748	F1D1H101A012	100P 50V	[M]
C749	ECFR1C273KR	0.027 16V	[M]
C749	ECUV1H222KBV	2200P 50V	[M]
C750	ECFR1C273KR	0.027 16V	[M]
C750	ECUV1C104KBV	0.1 16V	[M]
C751	ECA1CAK100XB	10 16V	[M]
C751	ECUV1C104KBV	0.1 16V	[M]
C752	ECA1CAK100XB	10 16V	[M]
C752	ECUV1H152KBV	1500P 50V	[M]
C753	ECBT1H182KB5	1800P 50V	[M]
C753	ECUV1H471KBV	470P 50V	[M]
C754	ECBT1H182KB5	1800P 50V	[M]
C754	ECUV1H471KBV	470P 50V	[M]
C755	F1D1H102A012	1000P 50V	[M]
C755	F1D1H471A012	470P 50V	[M]
C756	F1D1H102A012	1000P 50V	[M]
C756	F1D1H471A012	470P 50V	[M]
C769	ECUV1A224KBV	0.22 10V	[M]
C1101	ECA1HAK010XB	1 50V	[M]
C1102	ECJ2VB1H471K	470P 50V	[M]
C1103	ECA1CAK101XB	100 16V	[M]
C1105	ECUV1H471KBV	470P 50V	[M]
C1106	ECA1HAK2R2XB	2.2 50V	[M]
C1107	ECUV1H152KBV	1500P 50V	[M]
C1108	ECA1CAK100XB	10 16V	[M]
C1109	ECA1HAK3R3XB	3.3 50V	[M]
C1121	ECJ1VB1H102K	1000P 50V	[M]
C1122	ECUV1H103KBV	0.01 50V	[M]
C1123	ECUV1H271KBV	270P 50V	[M]
C1201	ECA1HAK010XB	1 50V	[M]
C1202	ECJ2VB1H471K	470P 50V	[M]
C1203	ECA1CAK101XB	100 16V	[M]
C1205	ECUV1H471KBV	470P 50V	[M]
C1206	ECA1HAK2R2XB	2.2 50V	[M]
C1207	ECUV1H152KBV	1500P 50V	[M]
C1208	ECA1CAK100XB	10 16V	[M]

C1209	ECA1HAK3R3XB	3.3 50V	[M]
C1221	ECJ1VB1H102K	1000P 50V	[M]
C1222	ECUV1H103KBV	0.01 50V	[M]
C1223	ECUV1H271KBV	270P 50V	[M]
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	ECQP1472JZT	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	ECUV1H103KBV	0.01 50V	[M]
		CHIP JUMPER	
RJ701	ERJ3GEY0R00V	0 1/16W	[M]
RJ702	ERJ3GEY0R00V	0 1/16W	[M]
RJ703	ERJ3GEY0R00V	0 1/16W	[M]
RJ709	ERJ3GEY0R00V	0 1/16W	[M]
RJ710	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]
RJ722	ERJ3GEY0R00V	0 1/16W	[M]
RJ723	ERJ3GEY0R00V	0 1/16W	[M]
RJ724	ERJ3GEY0R00V	0 1/16W	[M]
RJ726	ERJ3GEY0R00V	0 1/16W	[M]
RJ727	ERJ3GEY0R00V	0 1/16W	[M]
RJ728	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]
		TEST JUMPER	
TJ701	EYF8CU	TEST JUMPER	[M]

TOP PREVIOUS NEXT

19.5 Packing Materials& Accessories Parts List

TOP PREVIOUS NEXT

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX0948	PACKING CASE	[M]
P2	RPNX0145	POLYFOAM	[M]
P3	RPHV0001	MIRAMAT SHEET	[M]
		ACCESSORIES	
A1	EUR648265	REMOTE CONTROL	[M]
A1-1	UR64EC2337A	R/C BATTERY COVER	[M]
A2	RJA0019-2K	AC CORD (SF)	[M]EG E⚠
A2	VJA0733	AC CORD (SF)	[M]EB⚠
A3	RQT6398-B	O/I BOOK (En)	[M]EB E
A3	RQT6399-E	O/I BOOK (Sp/Ru/Cz/Po)	[M]E
A3	RQT6400-D	O/I BOOK (Ge/It/Fr)	[M]EG
A3	RQT6401-H	O/I BOOK (Du/Da/Sw)	[M]EG
A4	RSA0007-L	FM ANTENNA WIRE	[M]
A5	RSA0033A	AM LOOP ANTENNA	[M]
A6	K1YZ02000013	ANT ADAPTER	[M]EB

TOP PREVIOUS NEXT

19.6 Packaging

TOP PREVIOUS

ACCESSORIES CASE

A1 : REMOTE CONTROL

A2 : AC CORD

A3 : O/I BOOK

A4 : FM ANTENNA WIRE

A5 : AM LOOP ANTENNA

A6 : ANTENNA ADAPTOR

TOP PREVIOUS