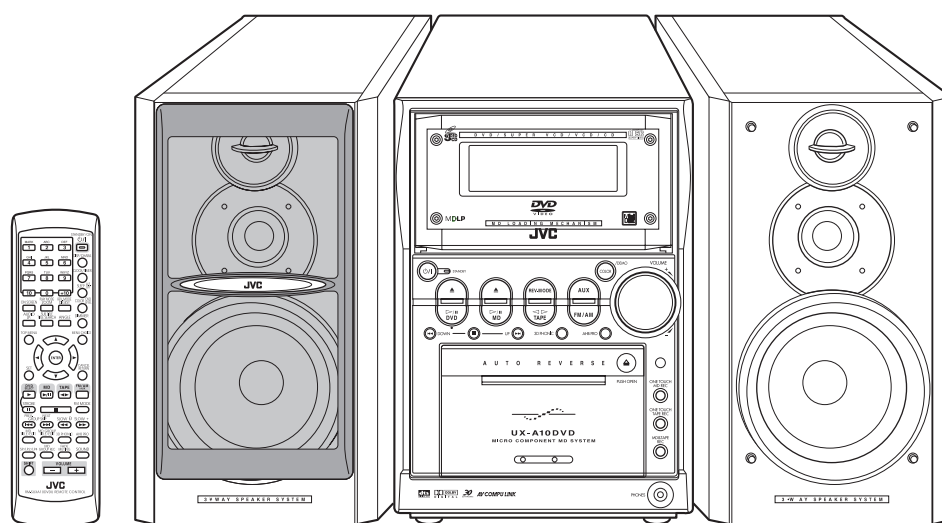


JVC

SERVICE MANUAL

MICRO COMPONENT MD SYSTEM

UX-A10DVD



MDLP



AV COMPU LINK

Area suffix

UB ----- Hong Kong

Contents

Safety precaution	1-2	Procedures of changing the	
Preventing static electricity	1-3	MD pickup	1-47
Disassembly method	1-4	Maintenance of DVD pickup	1-48
Adjustment method	1-39	Procedures of changing the	
Maintenance of MD pickup	1-47	DVD pickup	1-48
		Description of major ICs	1-49~88

Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by ($\triangle$) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

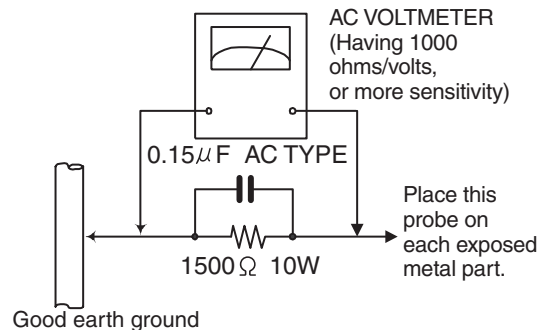
Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).

- Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.



CAUTION

Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor ($\blacksquare$), diode ($\blacksquare$) and ICP ($\bullet$) or identified by the " $\triangle$ " mark nearby are critical for safety.

(This regulation does not correspond to J and C version.)

Preventing static electricity

1. Grounding to prevent damage by static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

2. About the earth processing for the destruction prevention by static electricity

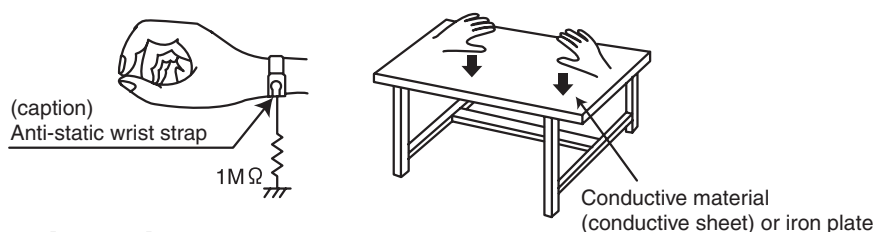
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as CD players. Be careful to use proper grounding in the area where repairs are being performed.

2-1 Ground the workbench

Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

2-2 Ground yourself

Use an anti-static wrist strap to release any static electricity built up in your body.



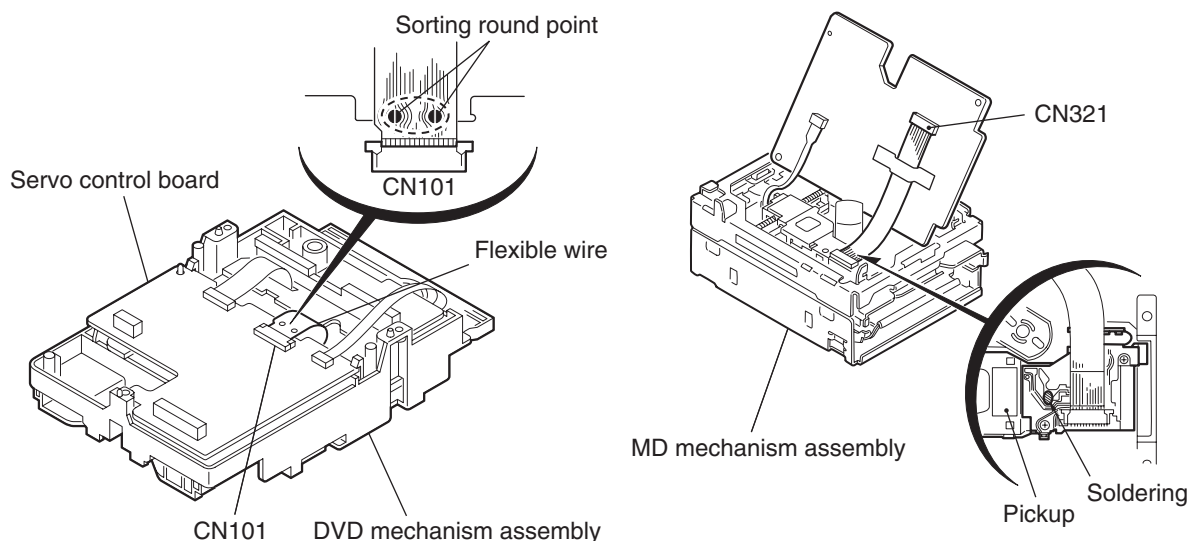
3. Handling the optical pickup

1. In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
2. Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

Attention when traverse unit is decomposed

***Please refer to "Disassembly method" in the text for pick-up and how to detach the substrate.**

1. Solder is put up before the card wire is removed from connector on the CD substrate as shown in Figure. (When the wire is removed without putting up solder, the pick-up assembly might destroy.)
2. Please remove solder after connecting the card wire with when you install picking up in the substrate.



Disassembly method

<Main body>

■ Removing the metal cover (See Fig.1~3)

1. Remove the six screws **A** on the back of the body.
2. Remove the screw **B** on each side of the body.
3. Detach the rear side of the metal cover upward while pulling the lower sides outward.

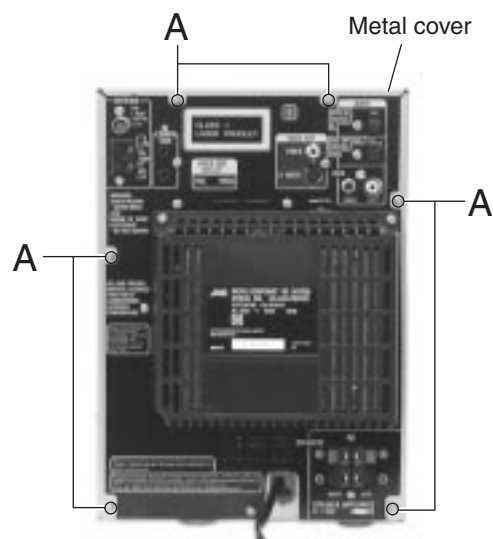


Fig.1

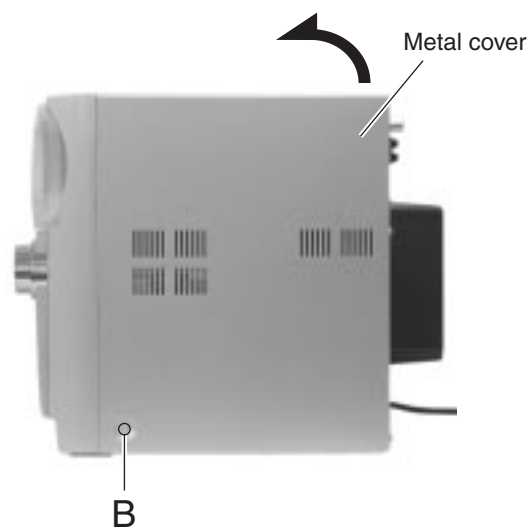


Fig.2

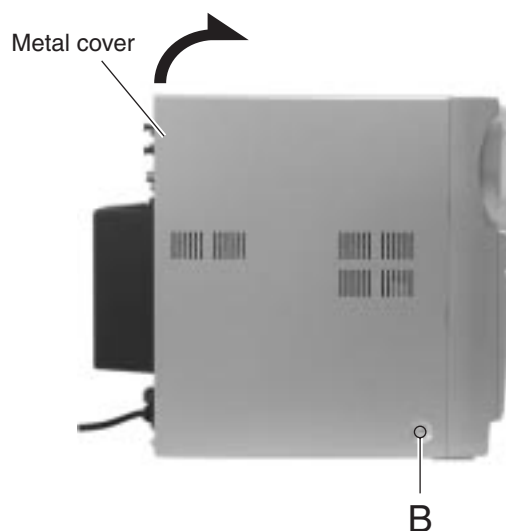


Fig.3

■ Removing the DVD mechanism assembly (See Fig.4~6)

- Prior to performing the following procedure, remove the metal cover.

1. Remove the three screws **C** attaching the DVD mechanism assembly on top of the body.
2. Disconnect connector CN502 and CN503 on the DVD servo board upward at the bottom of the DVD mechanism assembly.
Bring up the DVD mechanism assembly and remove backward.

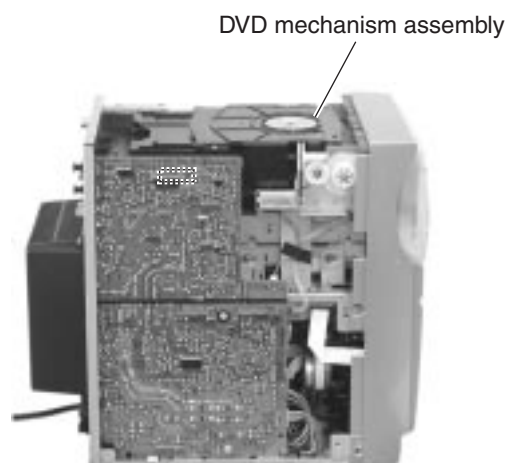


Fig.4

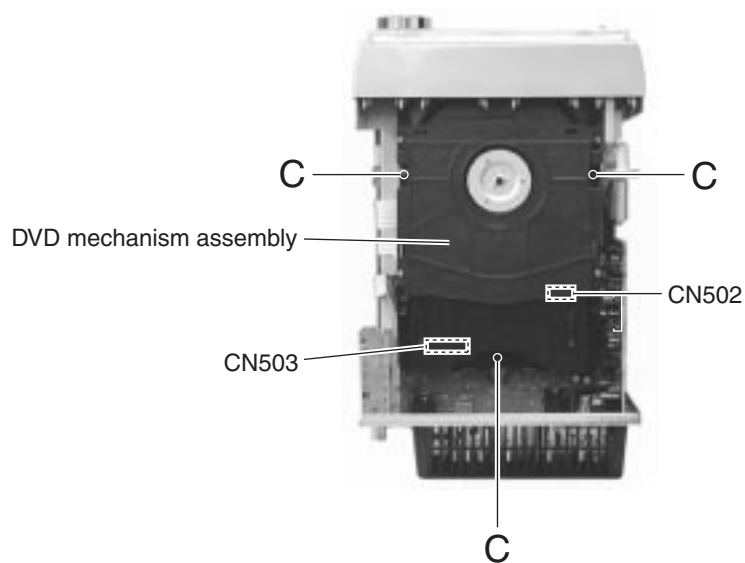


Fig.5

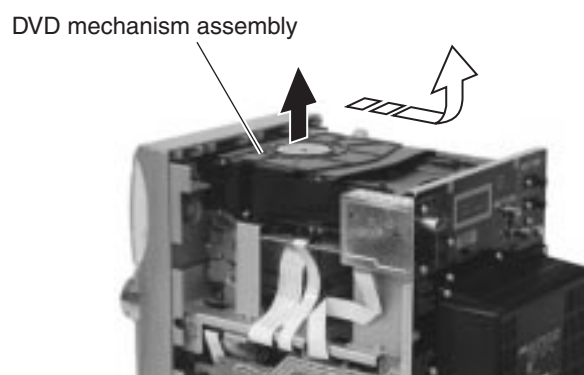


Fig.6

■ Removing the front panel assembly
(See Fig.7~10)

- Prior to performing the following procedure, remove the metal cover and the DVD mechanism assembly.
1. Disconnect the card wire from connector CN705 on the microcomputer board in the center of the right side of the body.
 2. Disconnect the card wire from connector CN301 on the main board in the center of the left side of the body.
 3. Disconnect the card wire from connector CN704, and the wires from CN703 and CN710 on the microcomputer board.

ATTENTION: When disconnecting the wires from CN703 and CN710, remove the spacer attaching the wires.

4. Disconnect the card wire from connector CN442 on the FL connection board on top of the body.
5. Remove the screw **D** on each side of the body.
6. Remove the two screws **E** on the bottom of the body.
7. Release the joint **a** on the bottom and the two joints **b** on the right and left sides of the body using a screwdriver. Remove the front panel assembly toward the front.

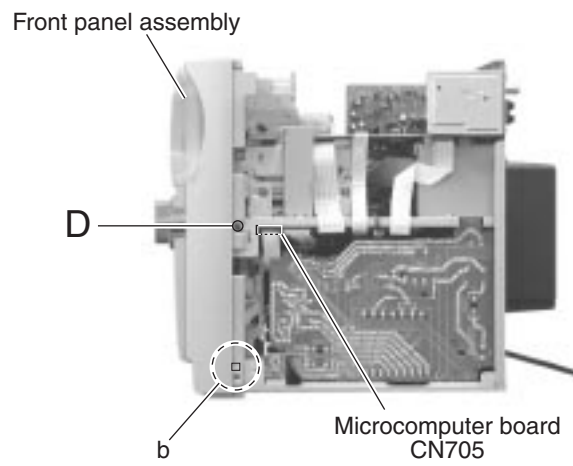


Fig.7

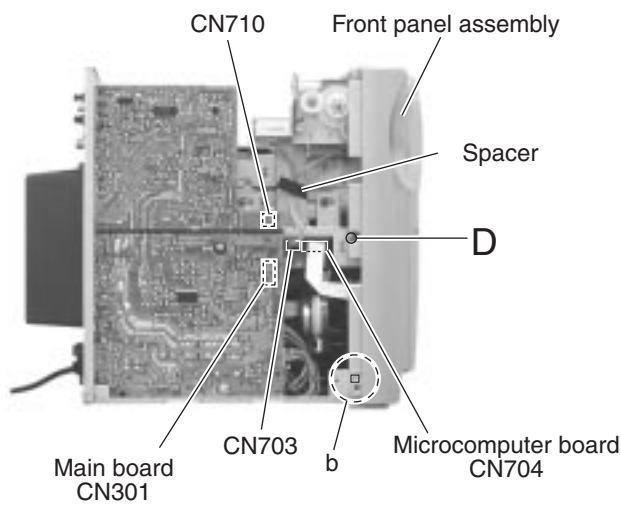


Fig.8

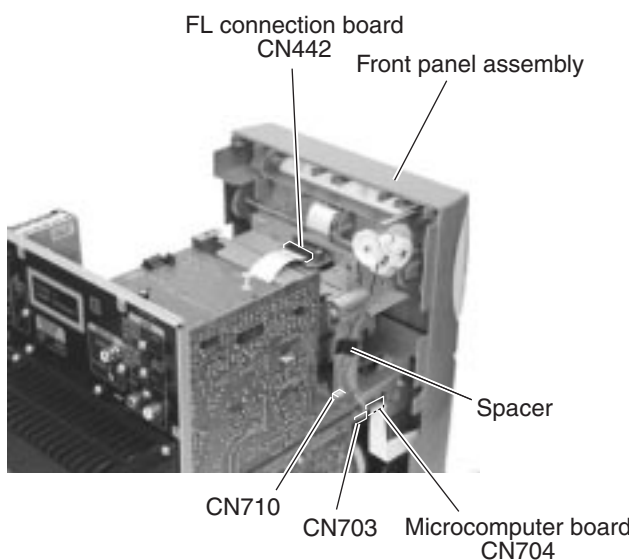


Fig.9

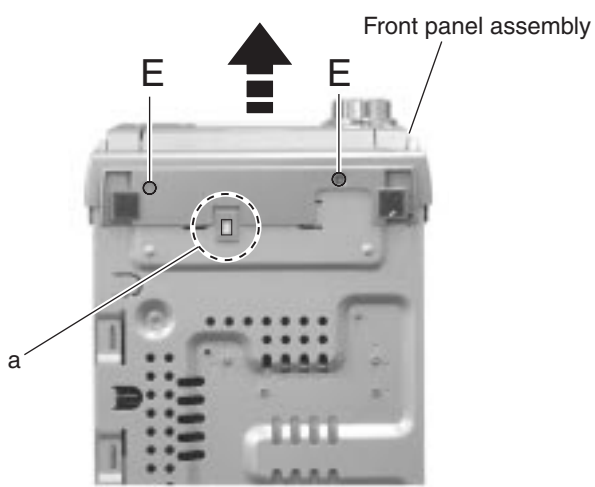


Fig.10

■ Removing the rear cover/ rear panel (See Fig.11~15)

- Prior to performing the following procedure, remove the metal cover and the DVD mechanism assembly.

1. Remove the two screws **F** on the back of the body.
2. Disconnect the wire from connector CN1 on the tuner pack on the right side of the body.
3. Remove the thirteen screws **G** on the back of the body.
4. Release the two joints **c** on the lower right and left sides of the rear panel.

REFERENCE: The rear panel with the tuner pack comes off.

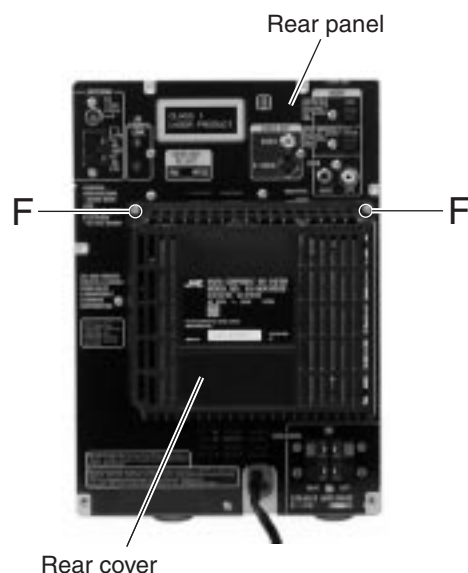


Fig.11

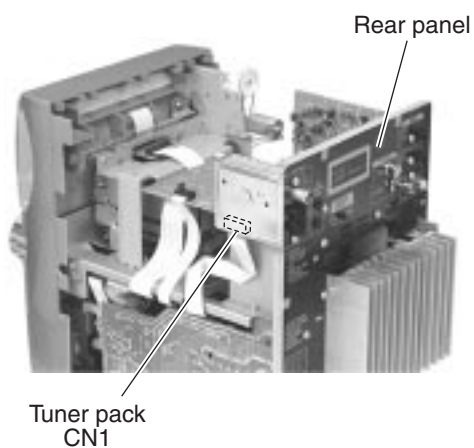


Fig.12

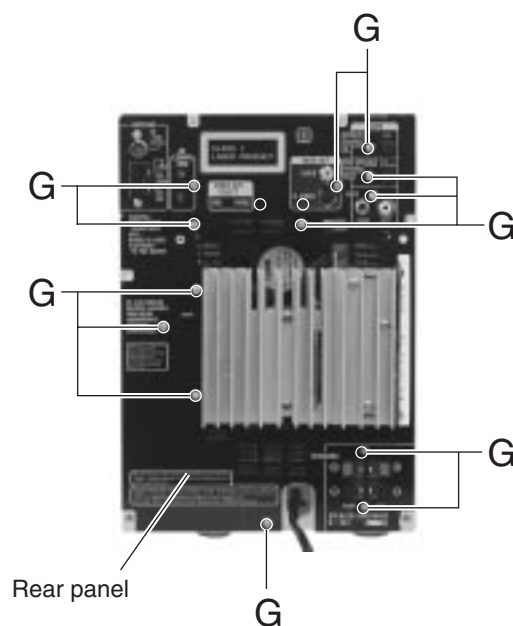


Fig.13

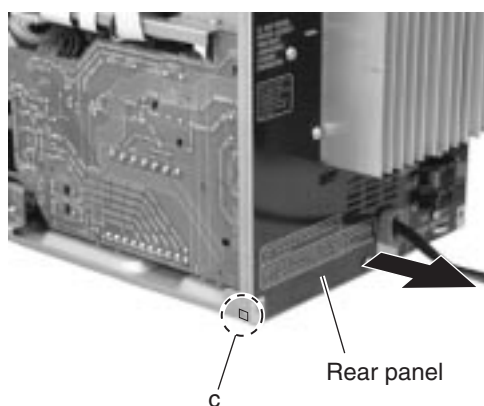


Fig.14

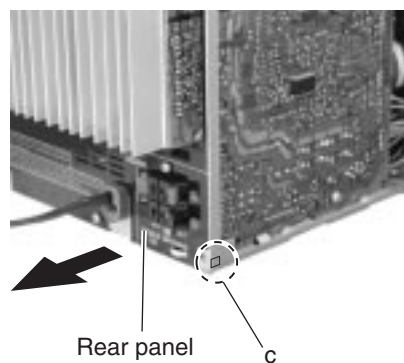


Fig.15

■ Removing the tuner pack (See Fig.16)

- Prior to performing the following procedure, remove the metal cover.
1. Disconnect the card wire from connector CN1 on the tuner pack on the right side of the body.
 2. Remove the two screws **H** on the back of the body.

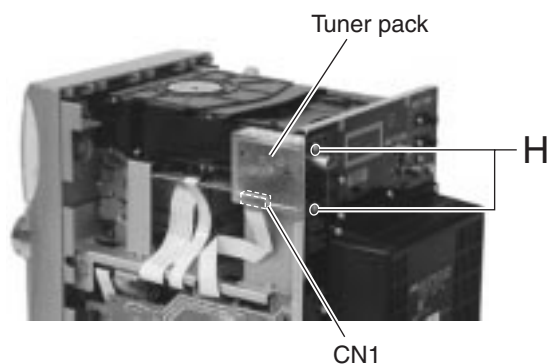


Fig.16

■ Removing the fan (See Fig.17,18)

- Prior to performing the following procedure, remove the metal cover, the DVD mechanism assembly, the rear cover/rear panel and the DVD relay board.
1. Disconnect the wire from connector CN711 on the microcomputer board on the right side of the body.
 2. Remove the three screws **I** attaching the fan bracket on top of the body and release the joint **d**.
 3. Remove the two screws **J** attaching the fan.

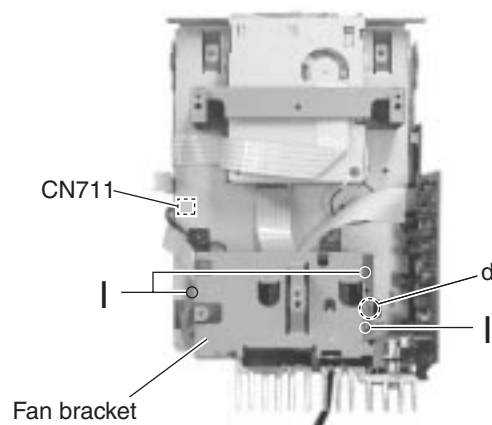


Fig.17

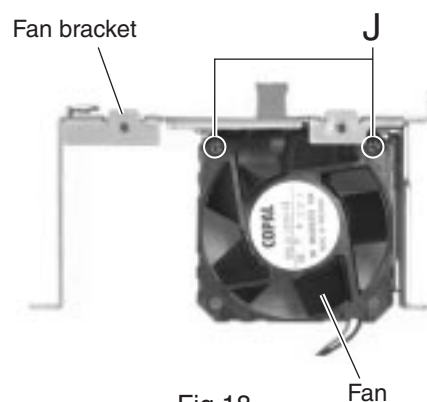


Fig.18

■ Removing the MD mechanism assembly (See Fig.19~21)

- Prior to performing the following procedure, remove the metal cover, the DVD mechanism assembly and the front panel assembly.

1. Remove the two screws **K** attaching the DVD mechanism attaching bracket.
2. Remove the two screws **L** on each side of the MD mechanism assembly and remove the MD mechanism assembly toward the front.
3. Disconnect the card wire from connector CN521 on the MD mechanism assembly board.

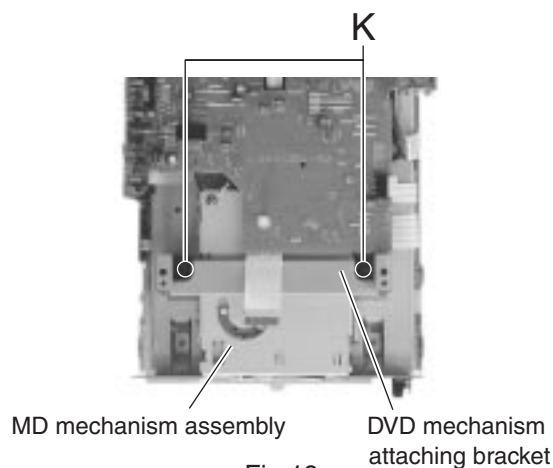


Fig.19

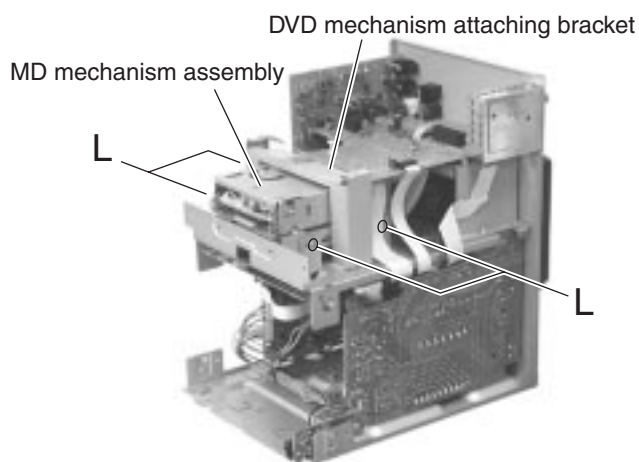


Fig.20

■ Removing the headphone board (See Fig.22,23)

- Prior to performing the following procedure, remove the metal cover, the DVD mechanism assembly and the front panel assembly.

1. Disconnect the wire from connector CN310 on the main board on the left side of the body.
2. Release the wires from the two clamps on the bottom chassis.
3. Remove the screw **M** attaching the headphone board on the right side of the body.

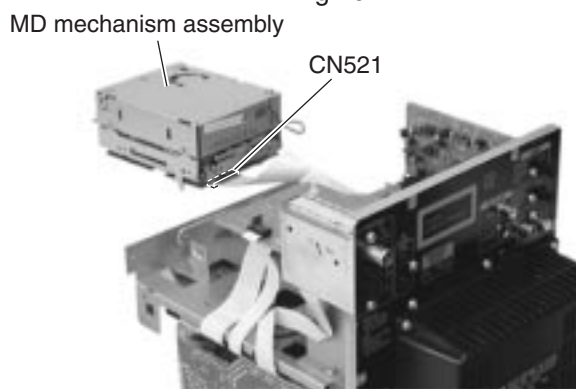


Fig.21

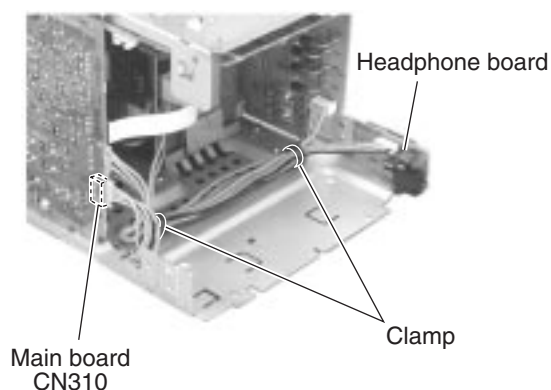


Fig.22

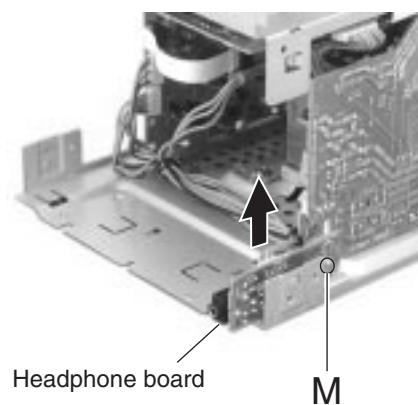


Fig.23

■ **Removing the main board**
(See Fig.24,25)

- Prior to performing the following procedure, remove the metal cover, the DVD mechanism assembly, the front panel assembly and the rear cover/ rear panel.
1. Remove the two screws **N** and the three screws **O**. Remove the heat sink.
 2. Disconnect the wires from connector CN307 and CN310, the card wire from CN312 on the main board on the left side of the body.
 3. Remove the screw **P** and **Q** attaching the main board.
 4. Disconnect connector CN303, CN304, CN305 and CN306 on the main board. Release the two joints **e** at the bottom.
 5. Draw out the main board and disconnect the card wire and the wire from connector CN302 and CN311.

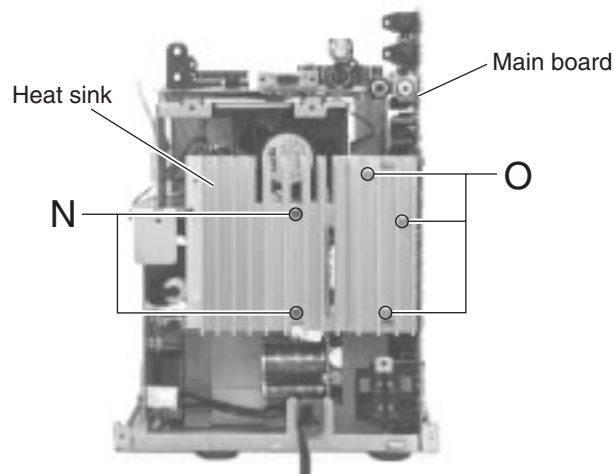


Fig.24

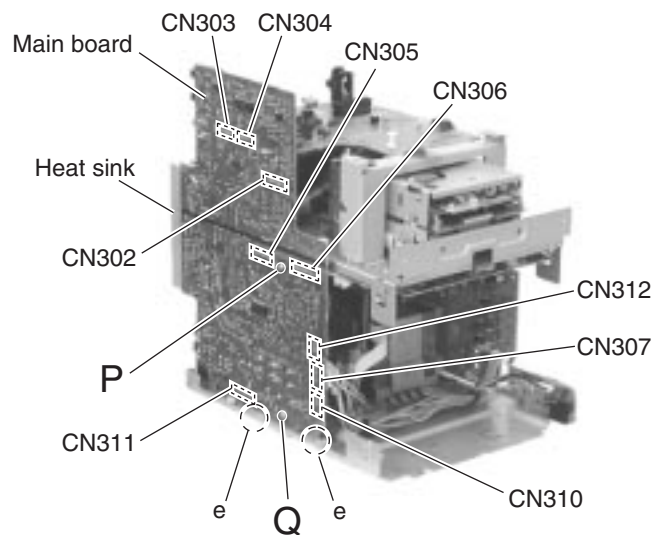


Fig.25

■ **Removing the DVD relay board**
(See Fig.26)

- Prior to performing the following procedure, remove the metal cover, the DVD mechanism assembly and the rear panel/ rear cover.
1. Disconnect the card wire from connector CN515 on the DVD relay board.
 2. Remove the screw **R** attaching the DVD relay board on top of the body.
 3. Disconnect connector CN511 and CN512 on the DVD relay board.

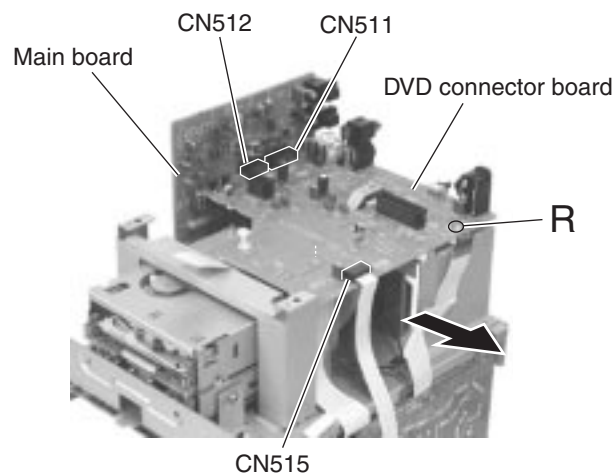


Fig.26

■Removing the MD base chassis/ microcomputer board (See Fig.27~29)

- Prior to performing the following procedure, remove the metal cover, the DVD mechanism assembly, the front panel assembly, the rear cover/ rear panel, the main board and the DVD relay board.

REFERENCE:It is not necessary to remove the DVD mechanism assembly.

1. Disconnect the wire from connector CN701 on the microcomputer board in the center of the right side of the body.
2. Remove the two screws **S** attaching the MD base chassis on top of the body.
3. Disconnect connector CN706 and CN707 on the microcomputer board from the main board.

REFERENCE:The MD base chassis with the MD mechanism assembly comes off.

4. Remove the two screws **T** attaching the microcomputer board and release the two joints **f**.

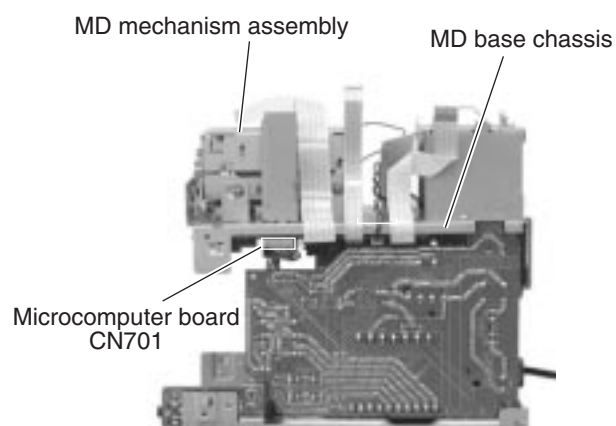


Fig.27

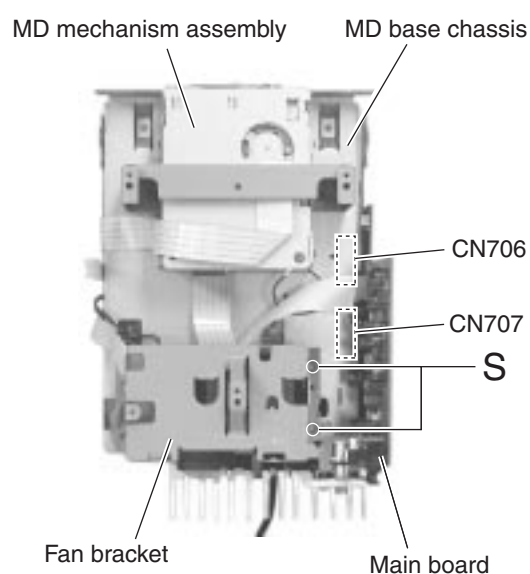


Fig.28

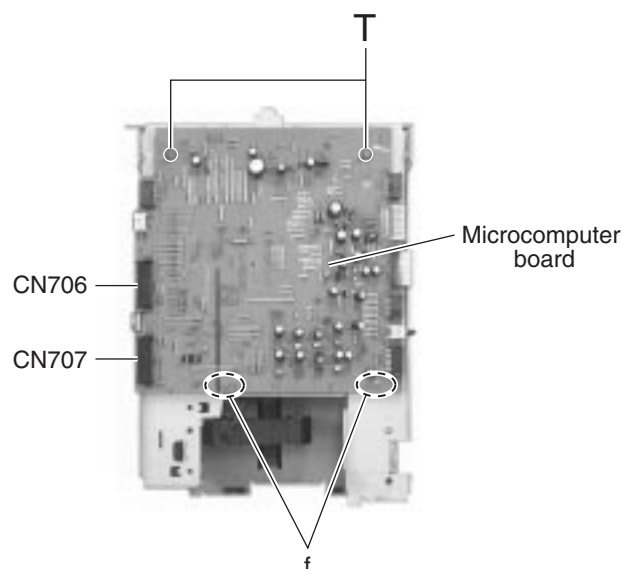


Fig.29

■ **Removing the power transformer assembly** (See Fig.30,31)

- Prior to performing the following procedure, remove the metal cover, the DVD mechanism assembly, the front panel assembly, the rear cover/ rear panel, the main board and the MD base chassis.

1. Move the power cord stopper upward on the back of the body and remove. Disconnect the power cord from connector CN901 on the power transformer board.

REFERENCE: The power cord can be removed alone.

2. Remove the four screws **U** on top of the body and release the wires from the two clamps on the bottom chassis.

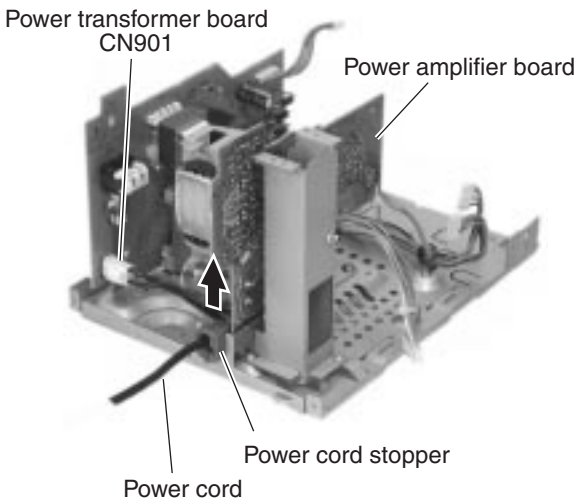


Fig.30

■ **Removing the power amplifier board** (See Fig.32,33)

- Prior to performing the following procedure, remove the metal cover, the DVD mechanism assembly, the front panel assembly, the rear cover/ rear panel, the main board and the MD base chassis.

1. Disconnect the wire from connector CN111 on the power amplifier board.
2. Remove the band attaching the wire to the power amplifier board.
3. Release the wires from the clamp.
4. Move the power amplifier board upward to release the two joints **g** and remove to the right.

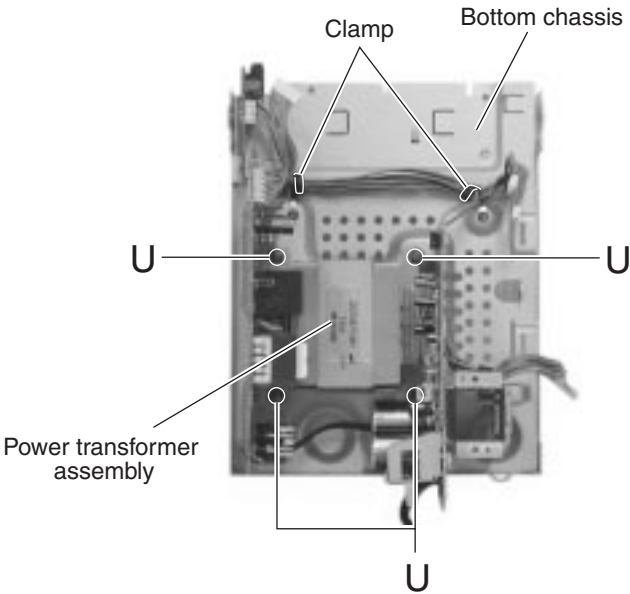


Fig.31

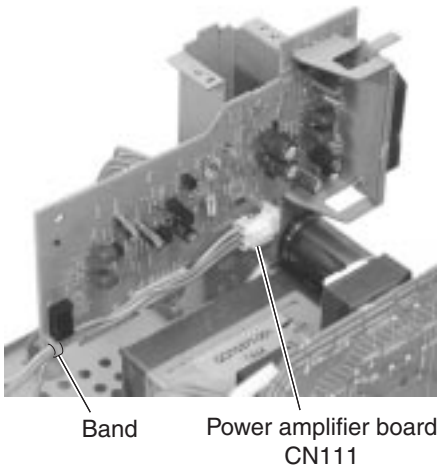


Fig.32

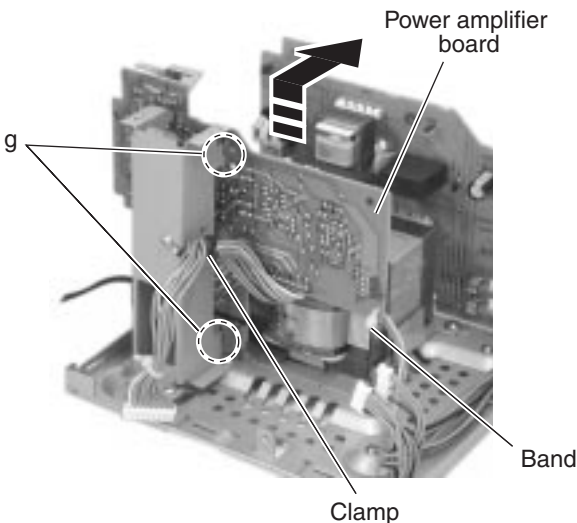


Fig.33

<Front panel assembly>

- Prior to performing the following procedure, remove the metal cover, the DVD mechanism assembly and the front panel assembly.

■ Removing the cassette mechanism assembly (See Fig.34,35)

1. Remove the spring attached to the cassette door on the back of the front panel.
2. Remove the four screws **V** attaching the cassette mechanism assembly.

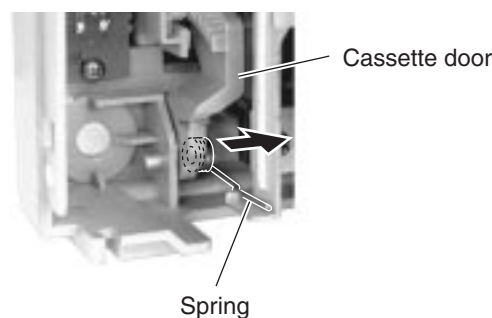


Fig.35

■ Removing the key board (See Fig.36~38)

- Prior to performing the following procedure, remove the cassette mechanism assembly.

1. Pull out the volume knob on the front side of the front panel.
2. Remove the five screws **W** attaching the bracket (1) on the back of the front panel.
3. Remove the ten screws **X** attaching the key board.

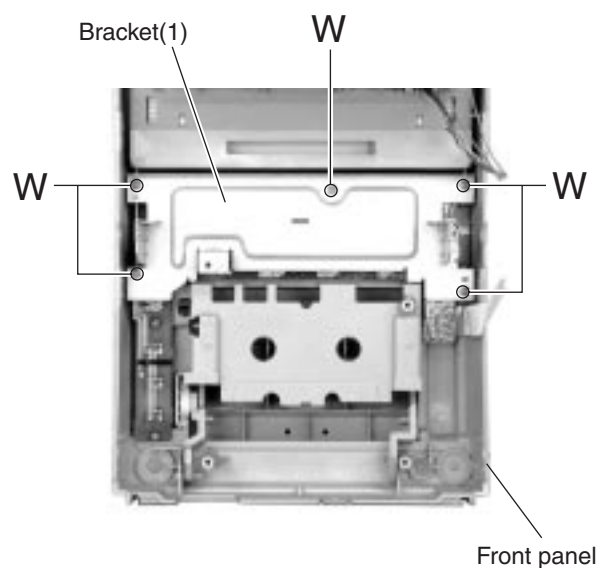


Fig.37

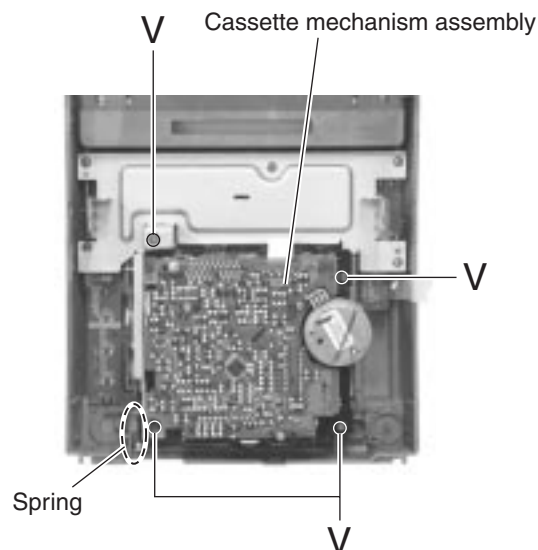


Fig.34

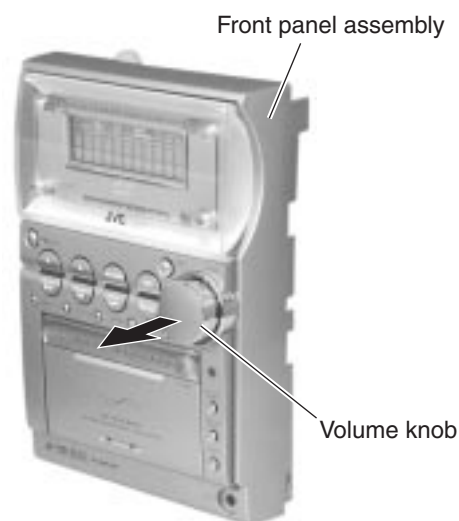


Fig.36

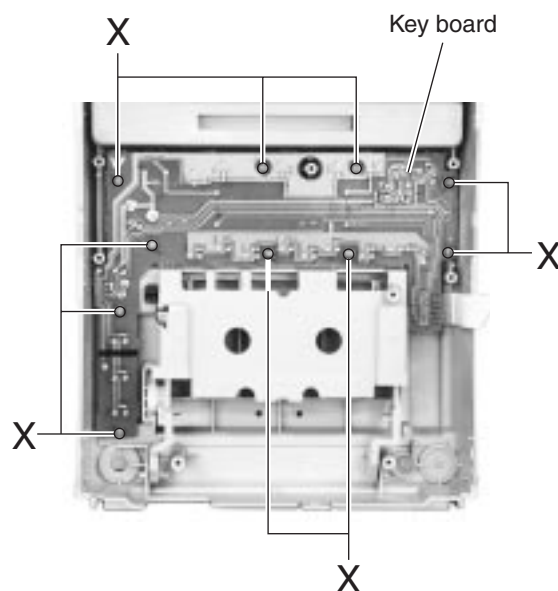


Fig.38

■ Removing the FL connection board (See Fig.39~41)

1. Remove the two screws **Y** and the screw **Z** attaching the bracket (2) on the back of the front panel.
2. Disconnect the card wire from connector CN441 on the FL connection board.
3. Push the two joint tabs **h** downward to release and pull out the FL connection board.

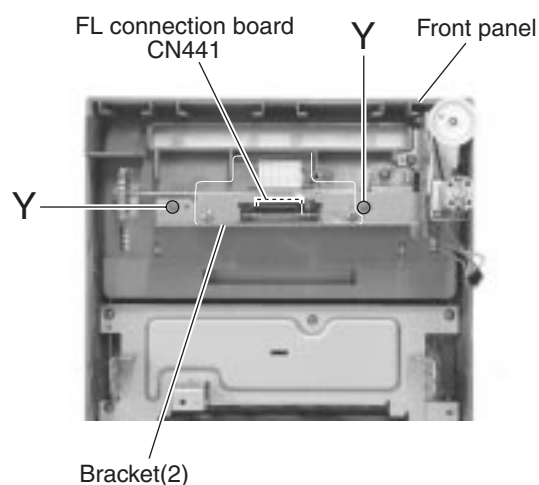


Fig.39

■ Removing the Drive motor assembly (See Fig.39, 40,42)

1. Remove the two screws **Y** and the screw **Z** attaching the bracket (2) on the back of the front panel.
2. Remove the screw **A'** attaching the drive motor assembly. Release the joint tab **i** and pull out the drive motor assembly.

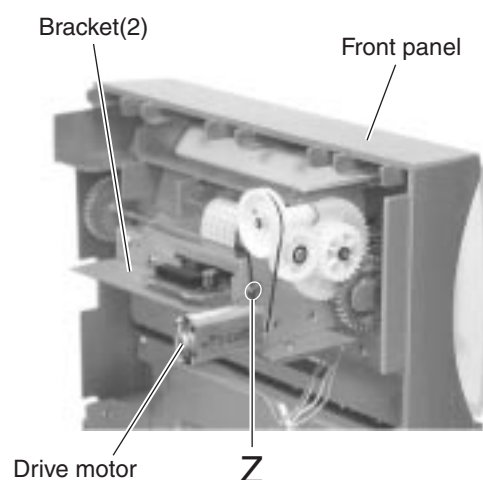


Fig.40

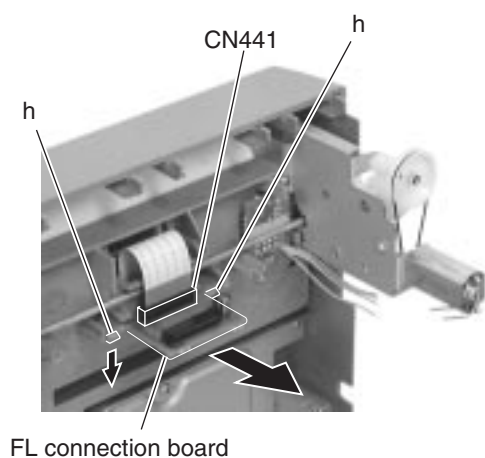


Fig.41

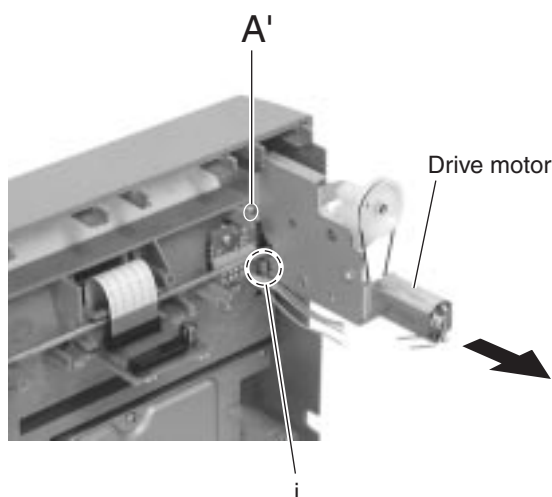


Fig.42

■ Removing the belt/ drive motor (See Fig.43)

- Prior to performing the following procedure, remove the drive motor assembly.

1. Remove the belt from the pulley
2. Remove the two screws **B'** attaching the drive motor.

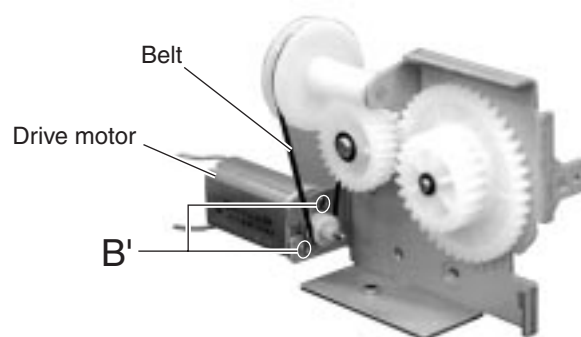


Fig.43

■ Removing the switch board (See Fig.44,45)

- Prior to performing the following procedure, remove the bracket (2) / drive motor assembly.

1. Disconnect the card wire from connector CN441 on the FL connection board (Do not fold down the card wire).
2. Release the joint **j** and **k** in order on the right and left sides of the shaft gear.

Remove the screw **C'** attaching the switch board and release the joint tab **I**.

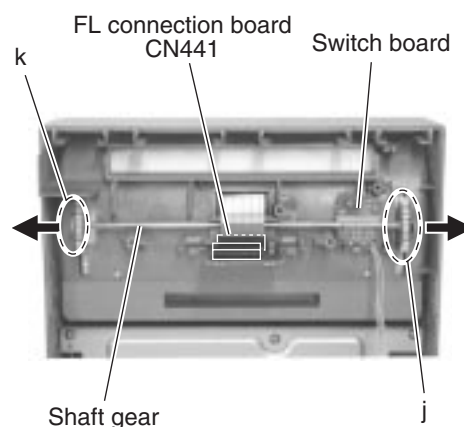


Fig.44

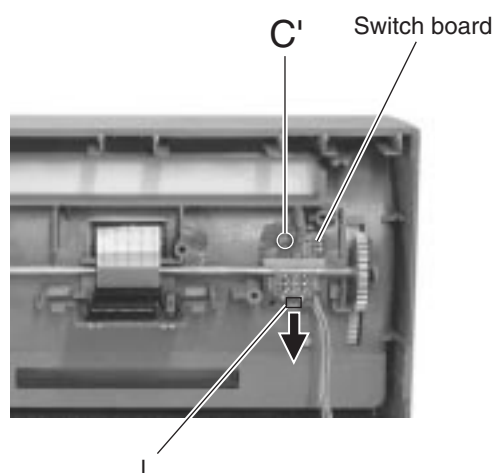


Fig.45

■ Removing the FL display section (See Fig.46~51)

1. Remove the four screws **D'** attaching the case cover on the front panel.
2. Pull out the FL panel from the four joint bosses **m** on the FL display cover.
3. Remove the four screws **E'** attaching the FL display cover. Disconnect the card wire from connector CN451 on the FL relay board and from CN452 on the LED board.

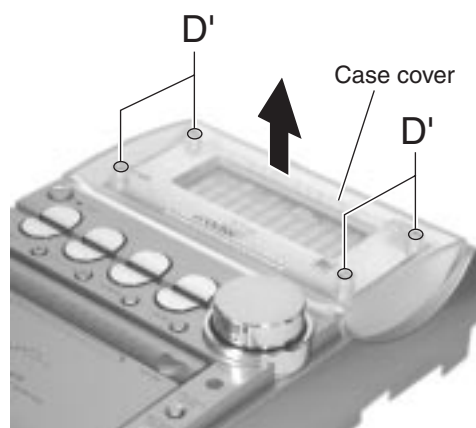


Fig.46

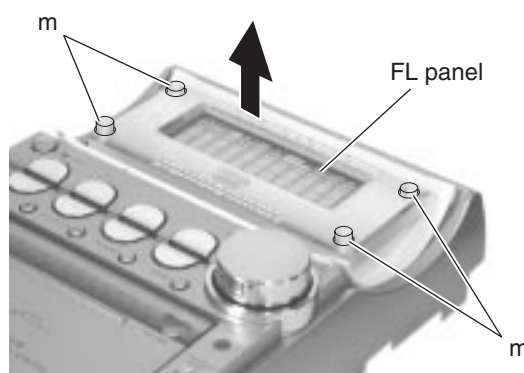


Fig.47

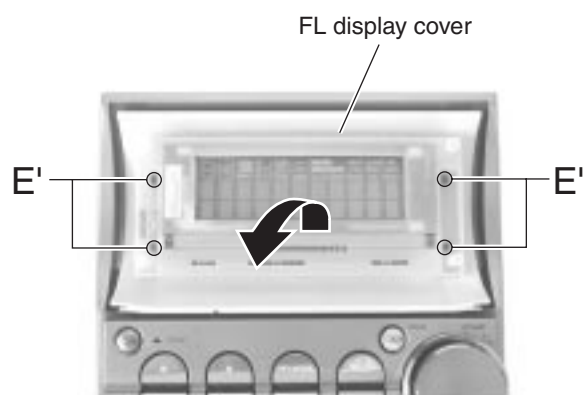


Fig.48

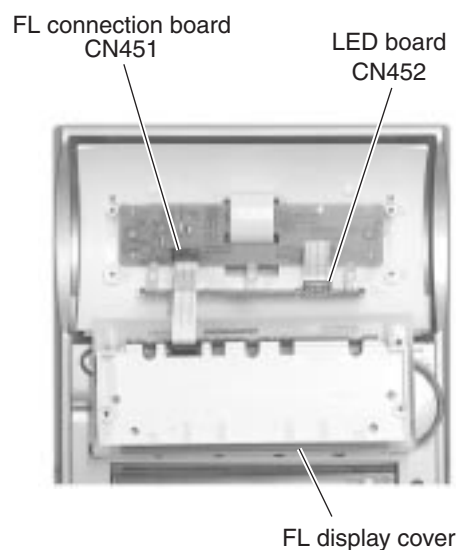


Fig.49

4. Remove the two screws **F'** attaching the FL display on the FL display cover.
5. The FL board and the lens come off from the FL display section.

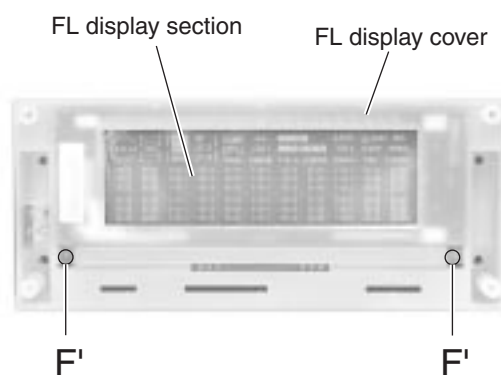


Fig.50

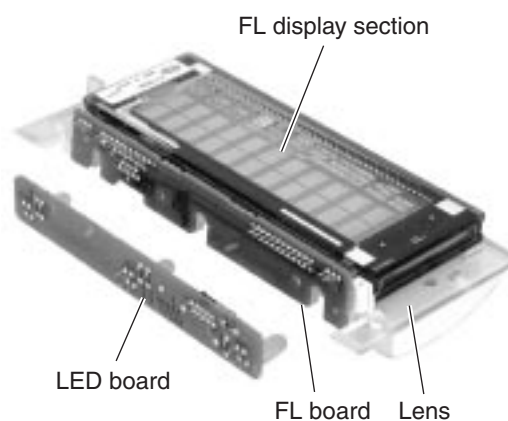


Fig.51

■ Removing the FL relay board(See Fig.52)

- Prior to performing the following procedure, remove the FL display cover.
1. Disconnect the card wire from connector CN453 on the FL relay board.
 2. Remove the two screws **G'** attaching the FL relay board.

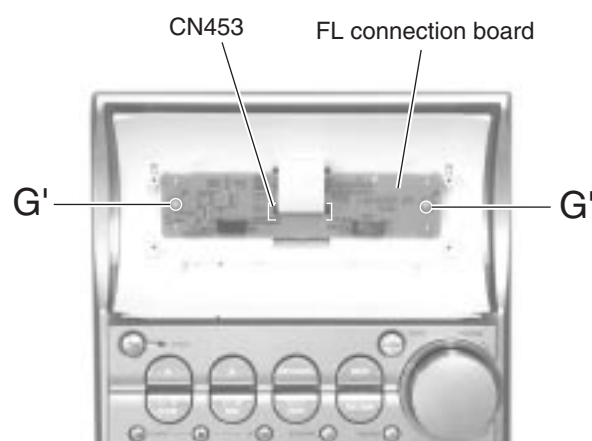


Fig.52

<DVD loading mechanism section>

■ Removing the clamber assembly

(See Fig.1)

1. Remove the four screws **A** attaching the clamber assembly.
2. Move the clamber assembly in the direction of the arrow to release the joint **a** on each side, and remove.

ATTENTION: When reassembling, reattach the clamber assembly at the two joints **a**.

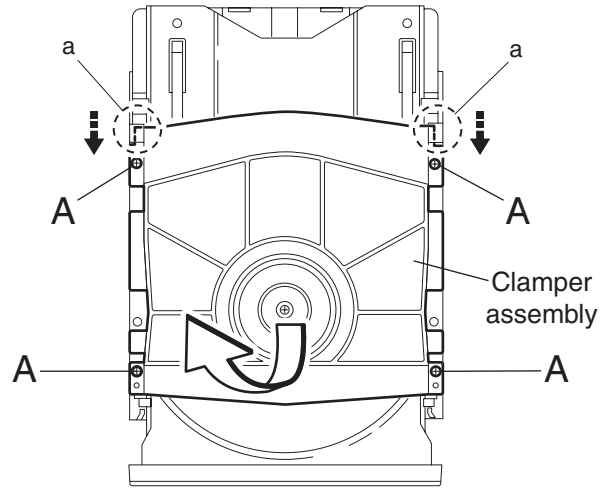


Fig.1

■ Removing the tray

(See Fig.2,3)

- Prior to performing the following procedure, remove the clamber assembly.
1. Push the part **b** of the slide cam through the slot on the left side of the loading base.
 2. Draw out the tray toward the front.

ATTENTION: When reattaching the tray, move the part **c** of the slide cam to the right (See Fig.3).

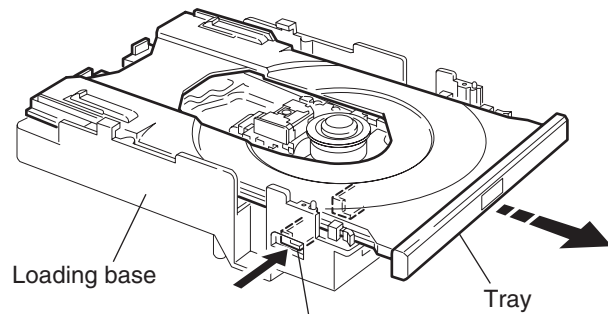


Fig.2

■ Removing the servo control board

(See Fig.4)

CAUTION: Solder the sorting round point before disconnecting the flexible wire extending from the pickup. If you do not follow this instruction, the pickup may be damaged.

1. Solder the sorting round point on the flexible wire connected to connector CN101 on the servo control board.
2. Disconnect the flexible wire from connector CN101 on the servo control board.
3. Disconnect the card wires from connector CN201 and CN202 on the servo control board.
4. Release the two joints **d**.
5. Move the servo control board in the direction of the arrow to release the joint **e**, and remove upward.

CAUTION: Unsolder the sorting round point after reassembling.

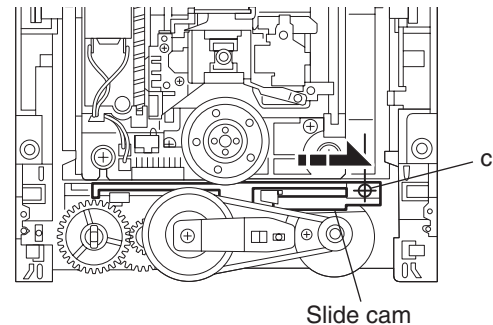


Fig.3

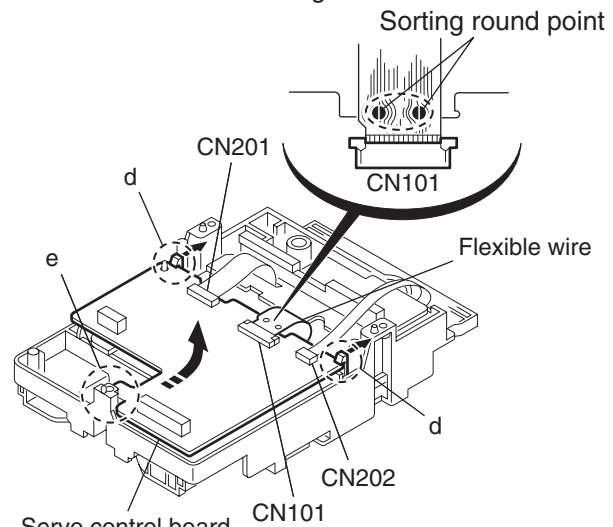


Fig.4

■ Removing the traverse mechanism assembly (See Fig.5,6)

- Prior to performing the following procedure, remove the clamber assembly, the tray and the servo control board.

1. Remove the four screws **B** attaching the traverse mechanism assembly.

CAUTION: When reassembling, get the flexible wire extending from the spindle motor board through the slot **f** of the elevator.

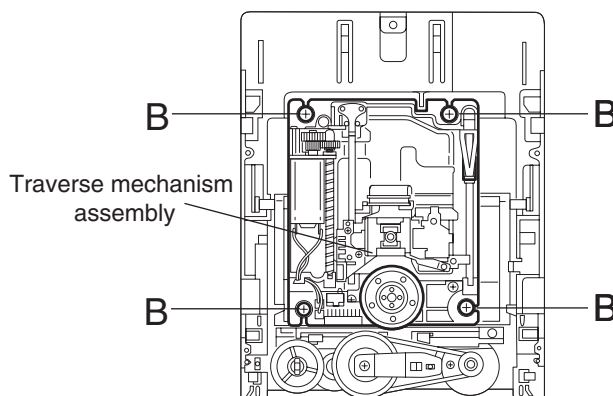


Fig.5

■ Removing the elevator (See Fig.7 and 8)

- Prior to performing the following procedure, remove the clamber assembly, the tray, the servo control board and the traverse mechanism assembly.

1. Pull the two tabs **g** outward and release the two shafts of the elevator.

ATTENTION: When reassembling, fit the two shafts on the front side of the elevator into the grooves **h** of the slide cam.

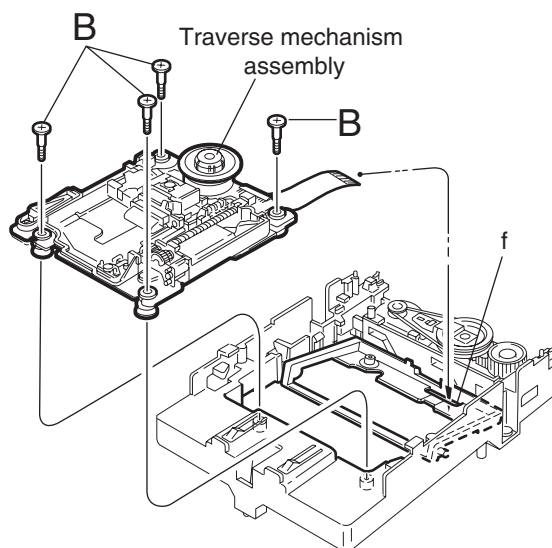


Fig.6

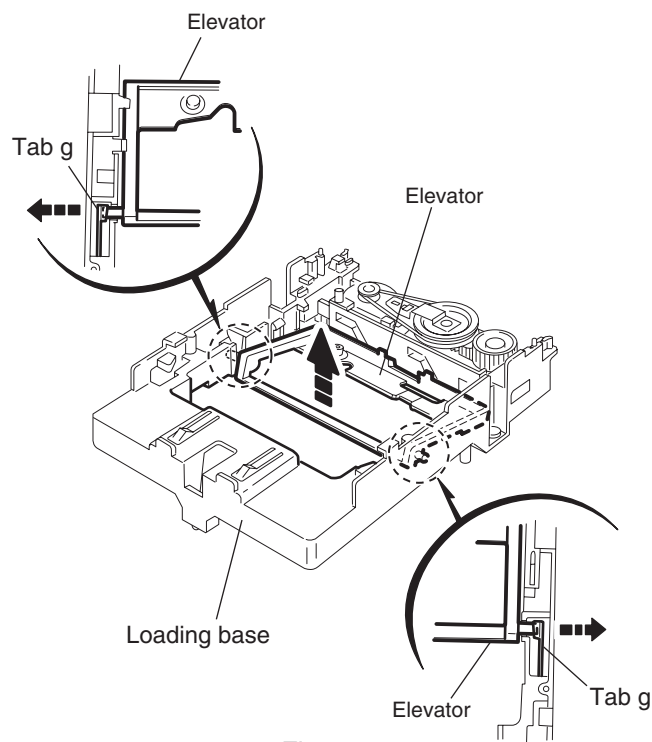


Fig.7

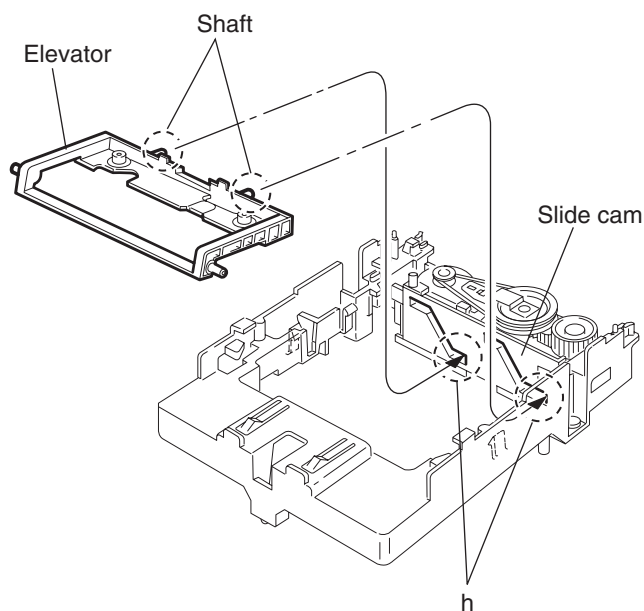


Fig.8

■ Removing the motor assembly

(See Fig.9,10)

- Prior to performing the following procedure, remove the clamper assembly, the tray, the servo control board, the traverse mechanism assembly and the elevator.

1. Remove the belt from the pulley.
2. Remove the screw **C** attaching the loading motor.
3. Remove the screw **D** attaching the motor board on the back of the loading assembly.
4. Release the tab **i** fixing the motor board and remove the motor assembly.

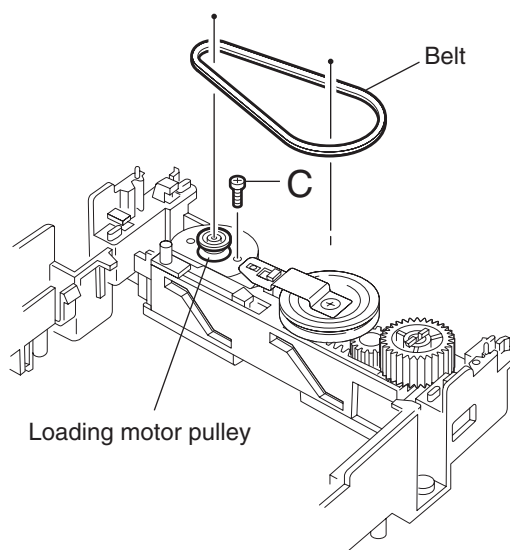


Fig.9

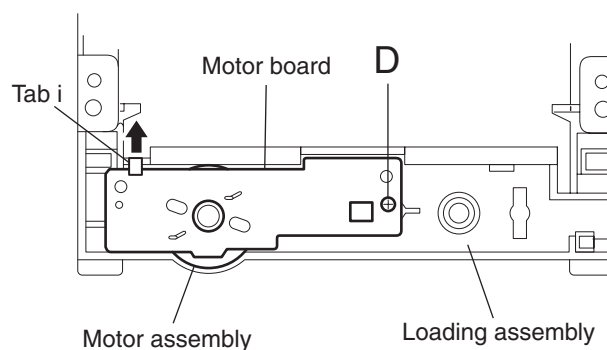


Fig.10

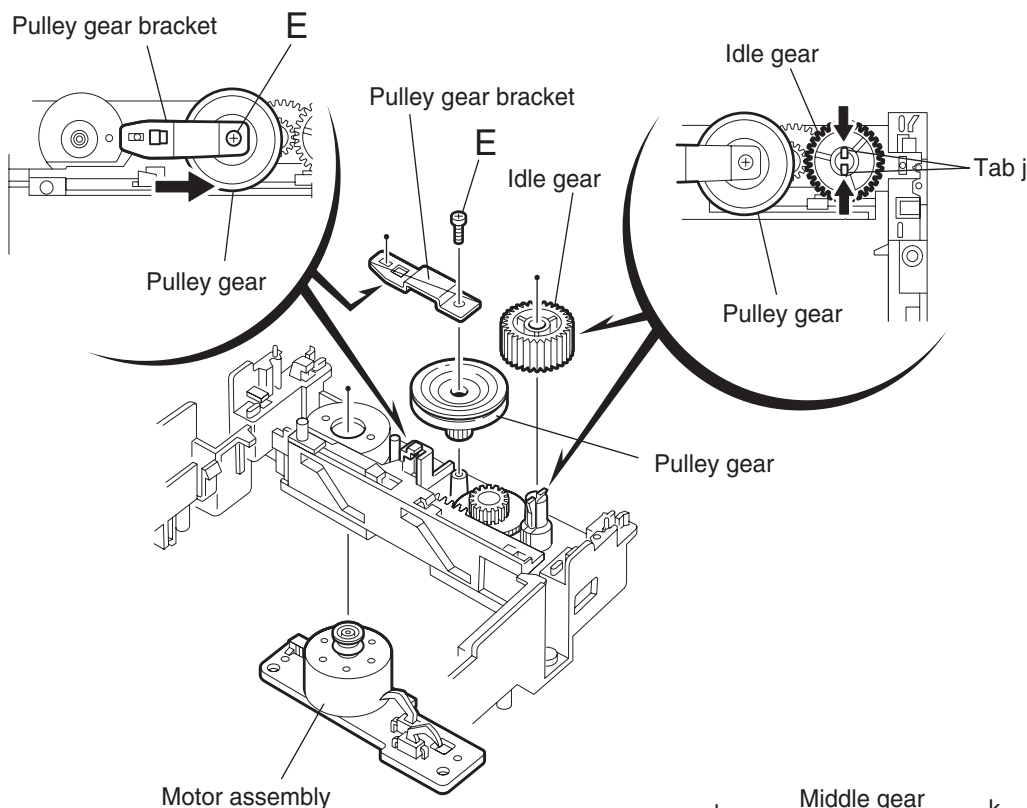


Fig.11

■ Removing the idle gear/ pulley gear/ middle gear/ slide cam (See Fig.11~13)

- Prior to performing the following the procedures, remove the clamber assembly, the tray, the servo control board, the traverse mechanism assembly, the elevator and the motor assembly.

1. Push the two tabs j attaching the idle gear inward and pull out the idle gear.
2. Remove the screw E attaching the pulley gear bracket. Move the pulley gear bracket in the direction of the arrow and remove upward.
3. Pull out the pulley gear.
4. Move the slide cam in the direction of the arrow to release the two joints k and remove upward.
5. Remove the middle gear.

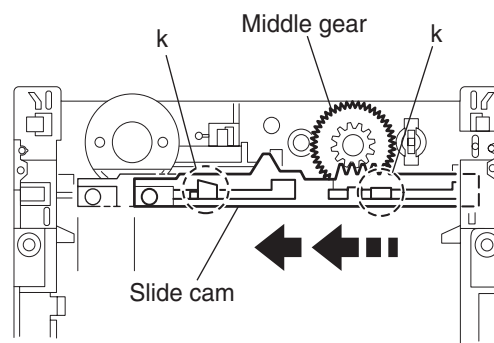


Fig.12

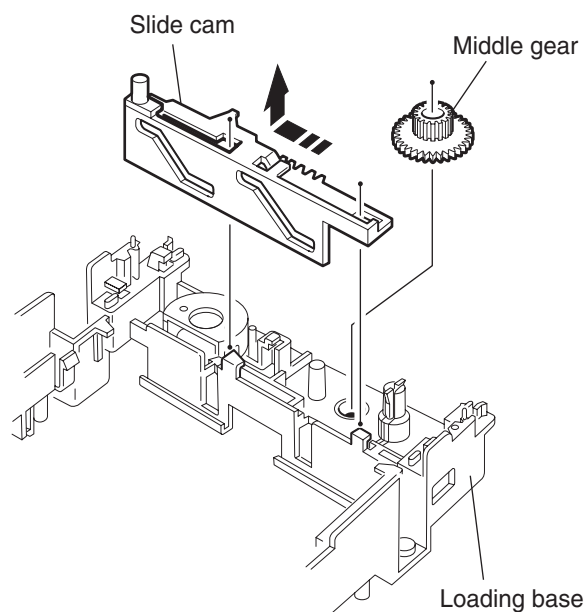


Fig.13

<DVD traverse mechanism assembly>

■ Removing the feed motor assembly (See Fig.14)

1. Unsolder the two soldering **I** on the spindle motor board.
2. Remove the two screws **F** attaching the feed motor assembly.

■ Removing the feed motor (See Fig.14~16)

- Prior to performing the following procedure, remove the feed motor assembly.

1. Remove the screw **G** and the spring.

CAUTION: When reassembling, attach the spring correctly to press the feed gear M and E.

2. Remove the feed gear M.
3. Pull out the feed gear E and the lead screw.
4. Remove the two screws **H** and the feed motor.

CAUTION: When reassembling, set the two wires extending from the feed motor to the notch **m** of the feed holder as shown in Fig.14.

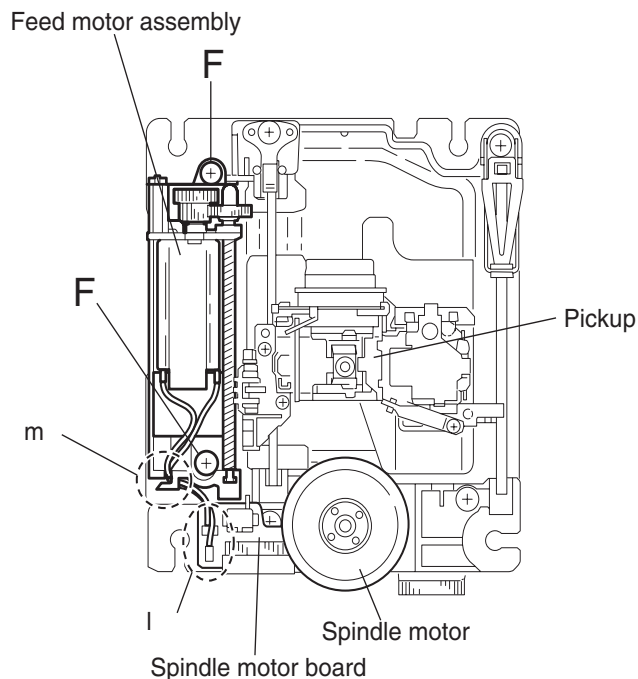


Fig.14

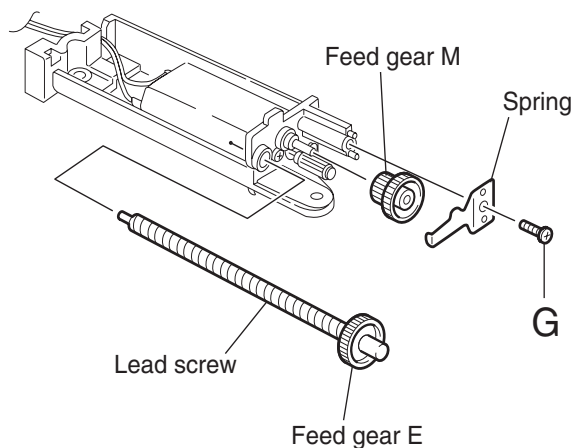


Fig.15

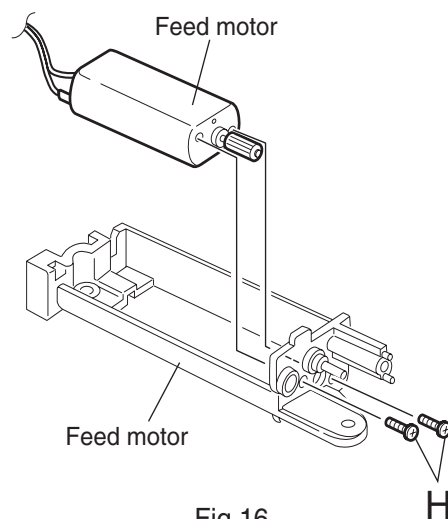


Fig.16

■ Removing the pickup (See Fig.17,18)

1. Prior to performing the following procedure, remove the feed motor assembly.
2. Remove the screw **I**, the T spring(S) and the shaft holder with the plate.

ATTENTION: When reassembling, reattach the T spring (s) correctly to press the shaft

3. Detach the part **n** of the shaft upward and move the part **o** in the direction of the arrow, then remove the shaft from the spindle base.

4. Release the joint **p** in the direction of the arrow.

Pull out the shaft from the pickup.

5. Remove the two screws **J** attaching the actuator.

6. Release the joint of the actuator and the lead spring, and pull out the lead spring.

ATTENTION: When reattaching the pickup, attach the spring under the shaft(See the figure below).

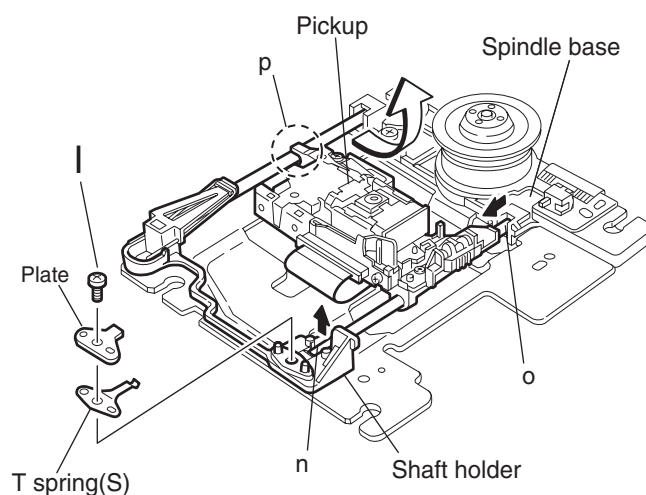
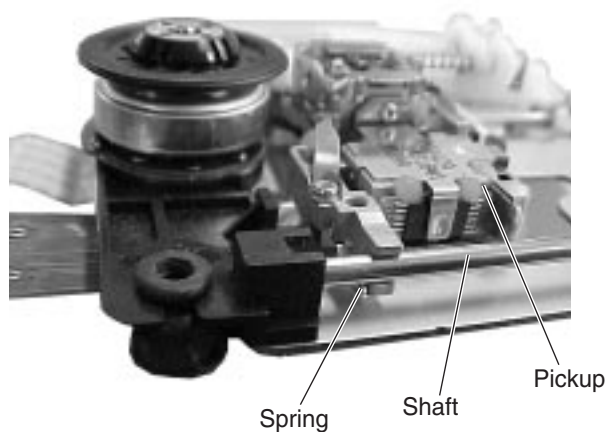


Fig.17

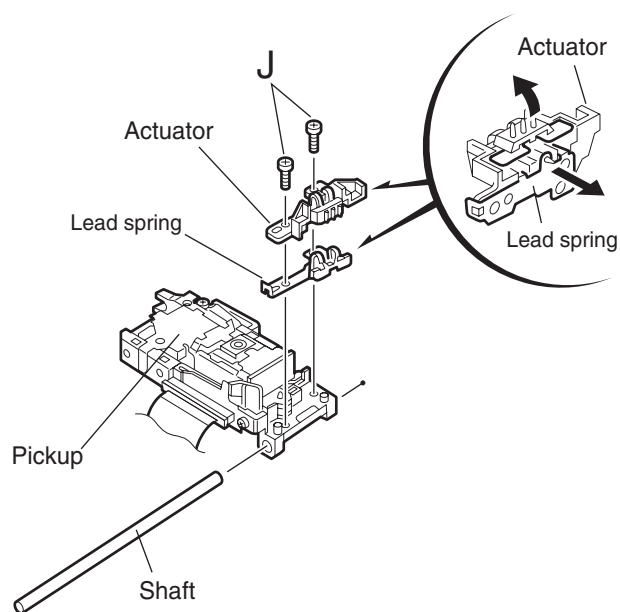


Fig.18

■ Removing the shaft holder/ shaft (See Fig.19)

- Prior to performing the following procedure, remove the feed motor assembly and the pickup.

1. Remove the screw **K** attaching the shaft holder.
2. Remove the shaft.

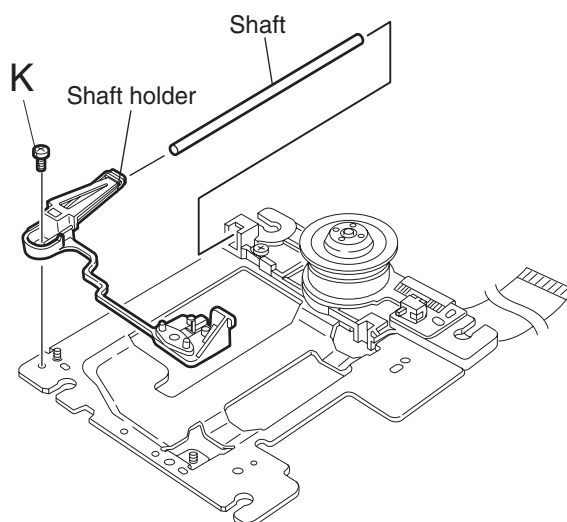


Fig.19

■ Removing the spindle motor assembly (See Fig.20~22)

- Prior to performing the following procedure, remove the feed motor assembly, the pickup, the shaft and the shaft holder.

1. Turn over the mechanism base and remove the three screws **I** attaching the spindle motor assembly.

ATTENTION: When reassembling, set the card wire extending from the spindle motor board to the notch of the spindle base.

2. Remove the three screws **M** and the spindle base.

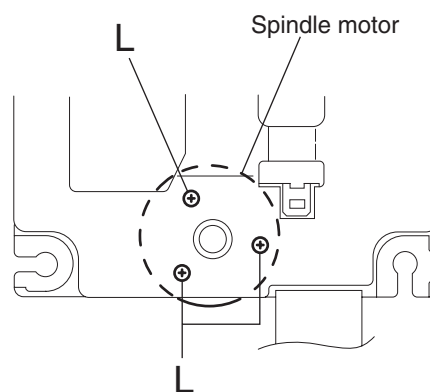


Fig.20

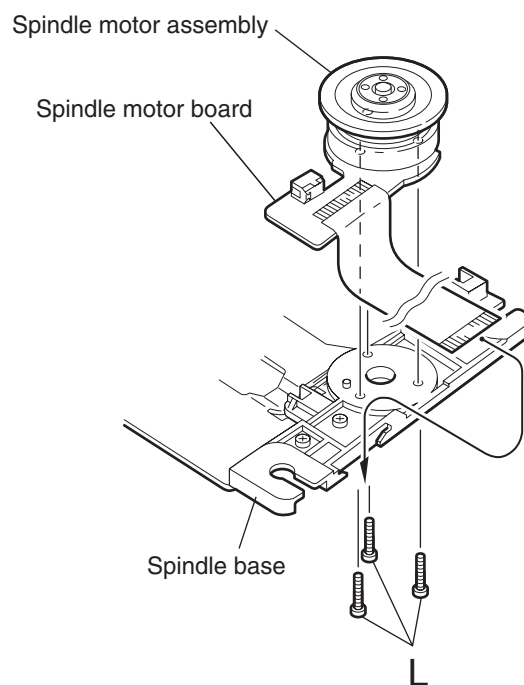


Fig.21

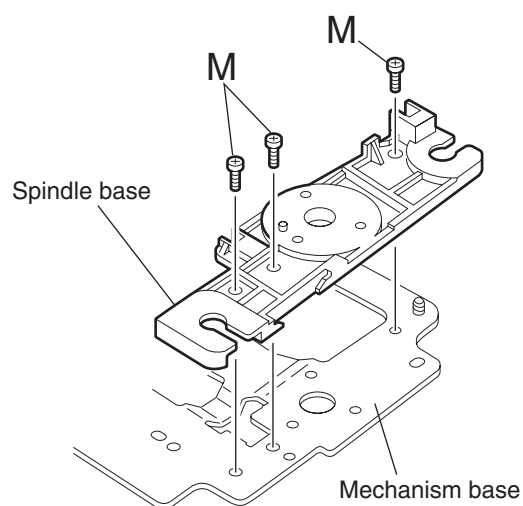


Fig.22

<MD mechanism assembly>

■ Removing the main board (See Fig.1, 2)

CAUTION: When replacing the flexible wire connected to the main board, solder the shorting round point. Otherwise, the pickup may be damaged. (see Fig.18)

1. Turn over the main body and disconnect the card wire from connector CN408 and the flexible wire from CN407 on the main board respectively.
2. Remove the two screws **A** attaching the main board. Move the main board in the direction of the arrow to release the two joints **a**.
3. Solder the sorting round point to protect the pickup. Disconnect the flexible wire from connector CN321 on the back of the main board.

CAUTION: When reassembling, connect the flexible wire from the pickup to the main board and unsolder the shorting round point.

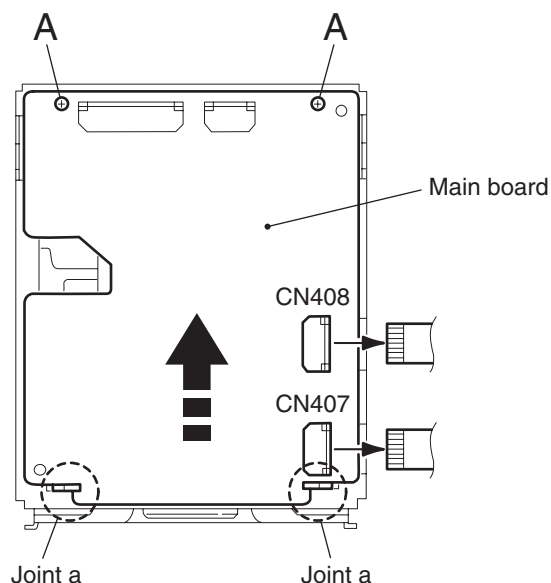


Fig.1

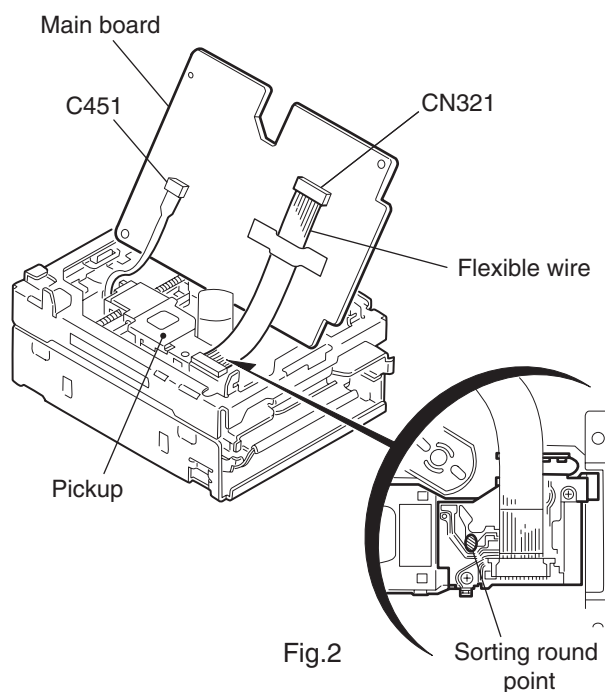


Fig.2

■ Removing the mechanism cover (See Fig.3)

1. Remove the four screws **B** on each side of the body.
2. Remove the one screw **C** on the upper side of the body.
3. Move the mechanism cover toward the front to release the front hook from the loading assembly (joint **b**), then remove upward.

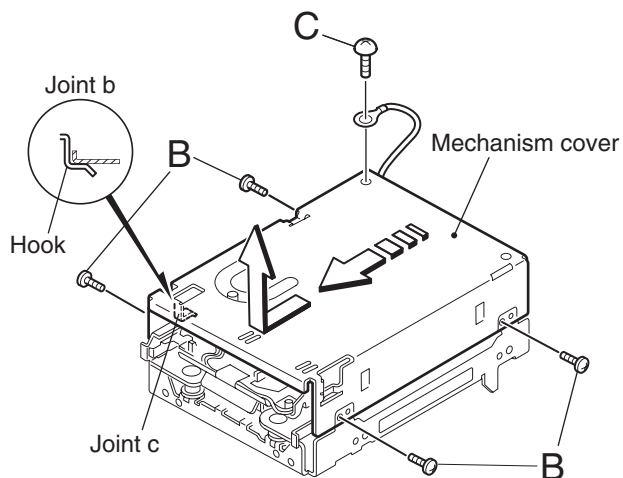
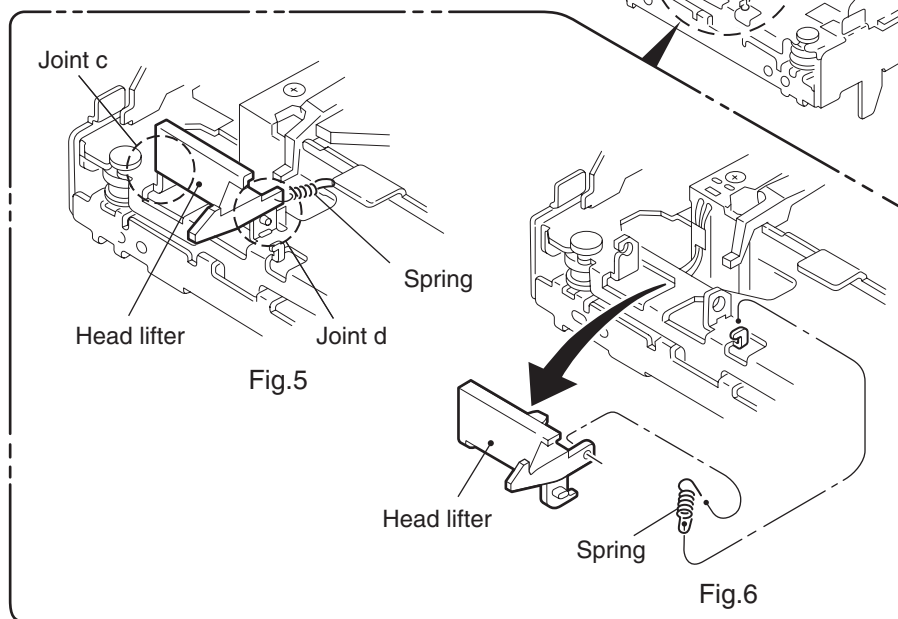
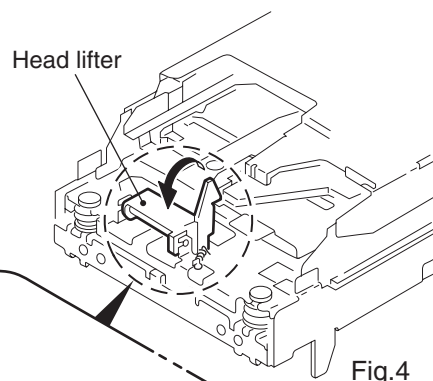


Fig.3

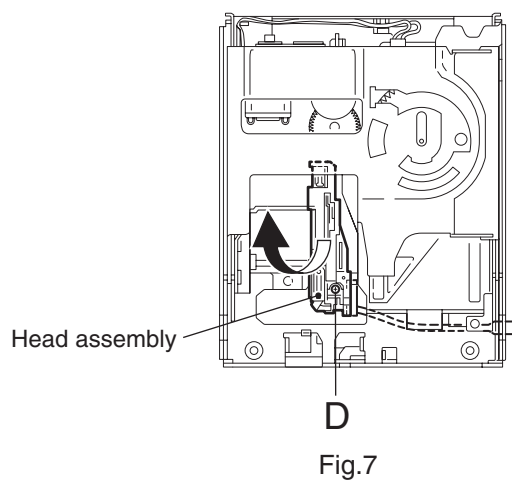
■Removing the head lifter (See Fig.4~6)

1. Removing the spring from the hook on the main body.
Remove the spring from the head lifter if necessary.
2. Turn the head lifter in the direction of the arrow to release the joint **c** and **d**.



■Removing the head assembly (See Fig.7)

- Prior to performing the following procedure, remove the main board.
1. Remove the screw **D** on the upper side of the body.
Remove the head assembly while pulling the flexible harness from the body.



■ Removing the loading assembly (See Fig.8, 9)

REFERENCE: The traverse mechanism assembly and the single frame can be removed after removing the loading assembly from the body.

- Prior to performing the following procedure, remove the main board, the mechanism cover and the head lifter/head assembly.
1. Remove the three screws **E** on the upper side of the body.
 2. Move the loading assembly toward the front to release the joint **e** and remove upward.
 3. Remove the traverse mechanism assembly from the single frame.

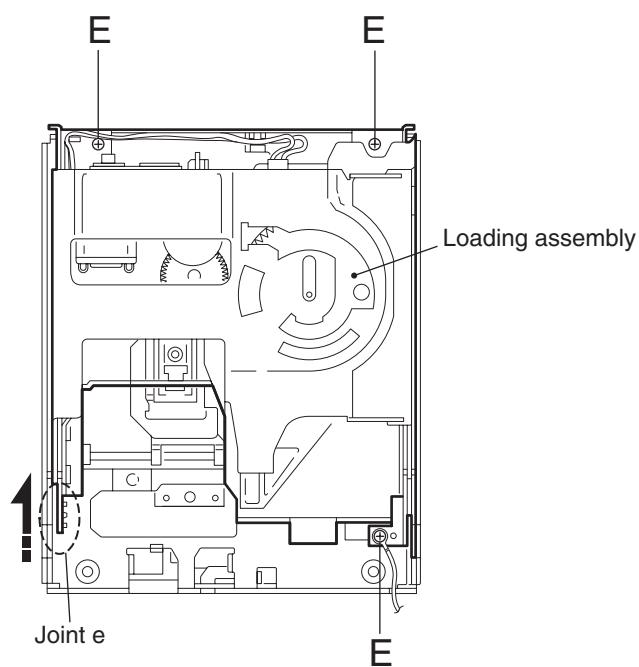


Fig.8

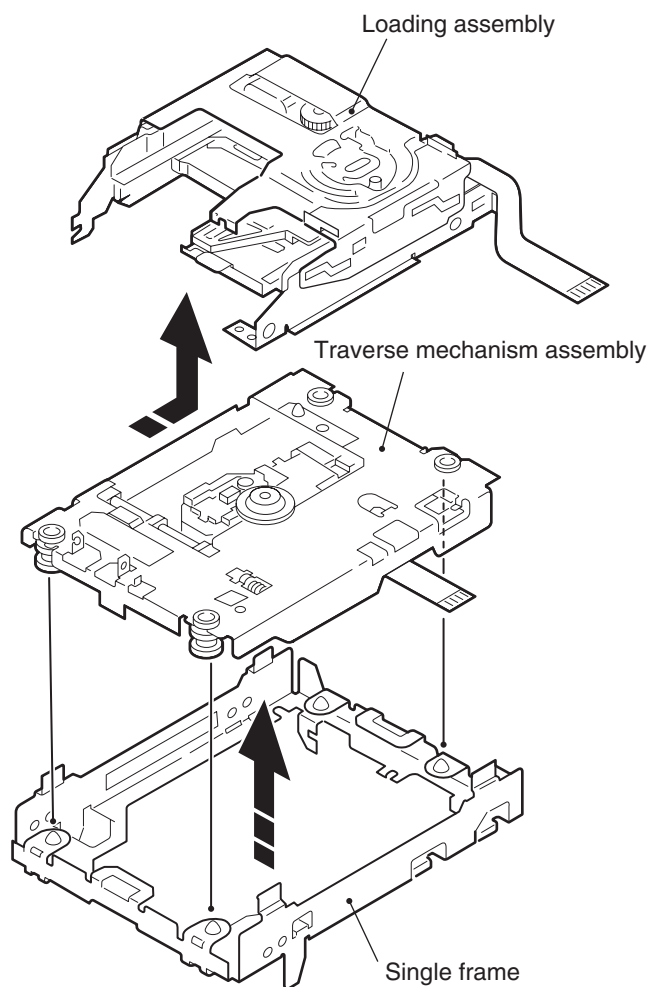
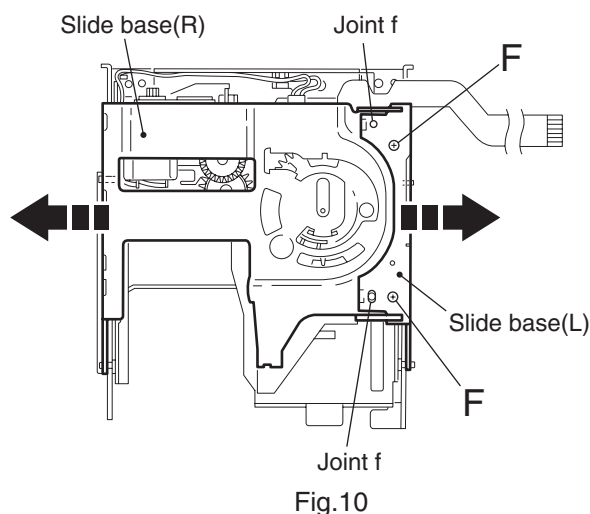


Fig.9

<Loading assembly section>

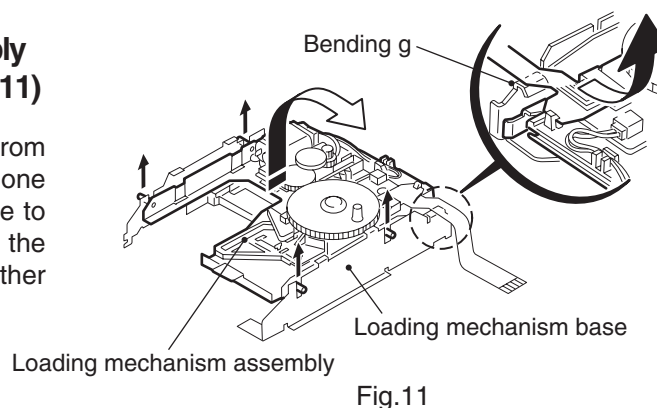
■Removing the slide base (L) and (R) (See Fig.10)

1. Remove the two screws **F** on the upper side of the loading base assembly.
2. Remove the slide base (L) outward while releasing the two joints **f** on the bottom.
3. Remove the slide base (R) outward.



■Removing the loading mechanism assembly (See Fig.11)

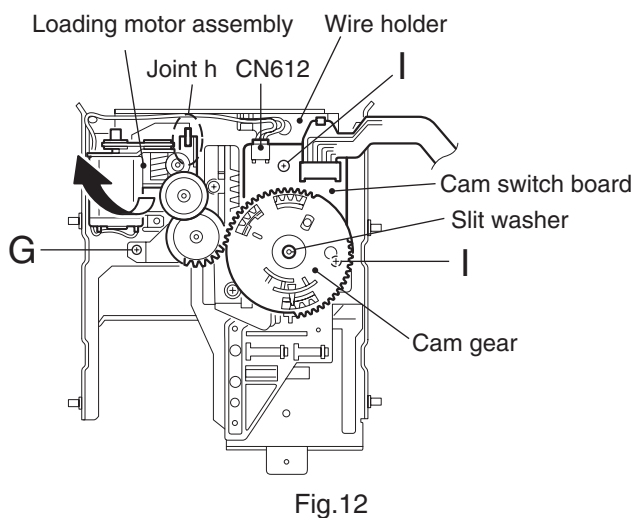
1. To release the loading mechanism assembly from the bending **g** without trouble, first bring up the one side of the loading mechanism assembly opposite to the bending **g** and release the side bosses from the loading mechanism base. And next, remove another side.



— Loading mechanism assembly section —

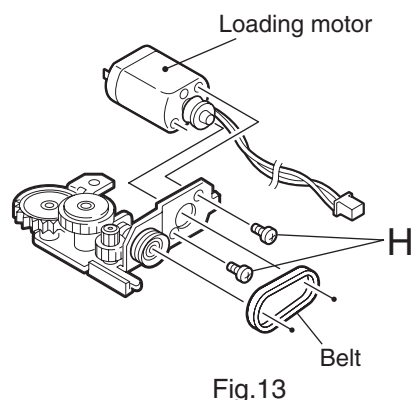
■Removing the loading motor (See Fig.12, 13)

1. Release the harness from the wire holder on the cam switch board and disconnect from connector **t**.
2. Remove the screw **G** and release the joint **h**.
3. Remove the belt from the loading motor assembly.
4. Remove the two screws **H**.



■Remove the cam gear and the cam switch board (See Fig.12)

1. Remove the slit washer and pull out the cam gear.
2. Release the harness from the wire holder on the cam switch board and disconnect from connector **CN612**.
3. Remove the two screws **I**, the clamp and the cam switch board.



■ Remove the cartridge holder assembly (See Fig.14, 15)

1. Remove the two screws **J** on the upper side of the loading assembly.

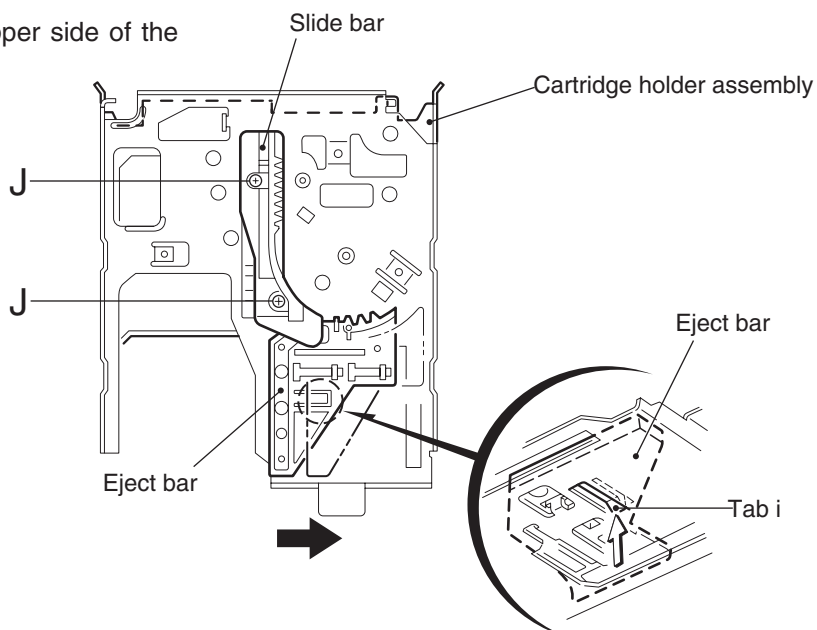


Fig.14

■ Removing the slide bar/Eject bar (See Fig.14, 15)

- Prior to performing the following procedure, remove the cartridge holder assembly.

1. Remove the slide bar upward.
2. Move the slide bar outward until it stops (See Fig.14). Push the tab **i** from below and remove the eject bar from the chassis section.

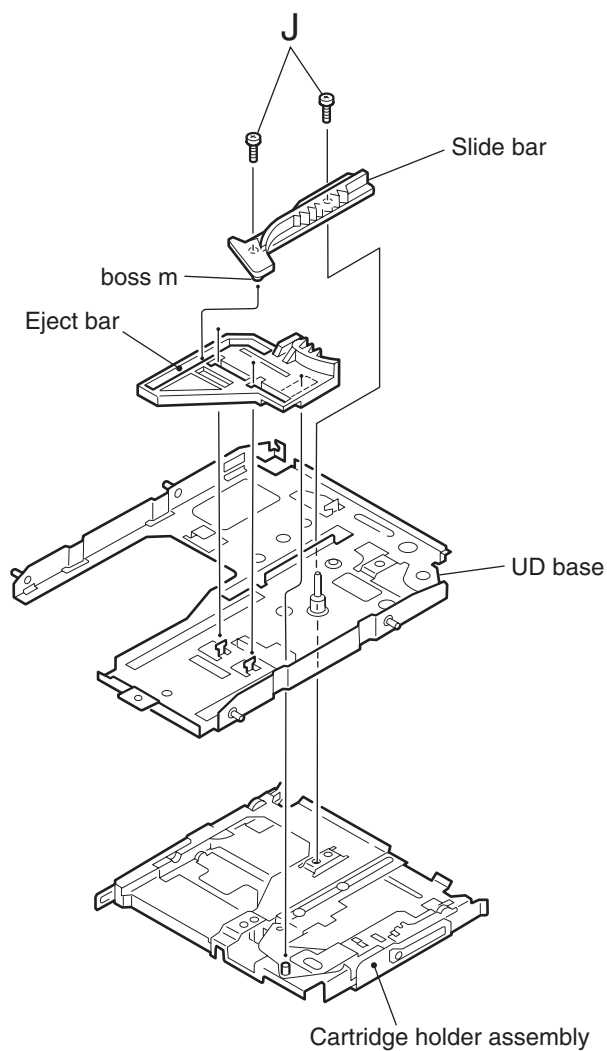


Fig.15

< Traverse mechanism assembly section >

■ Removing the insulator (See Fig.16)

1. Removing the insulators from the four notches of the traverse mechanism chassis.

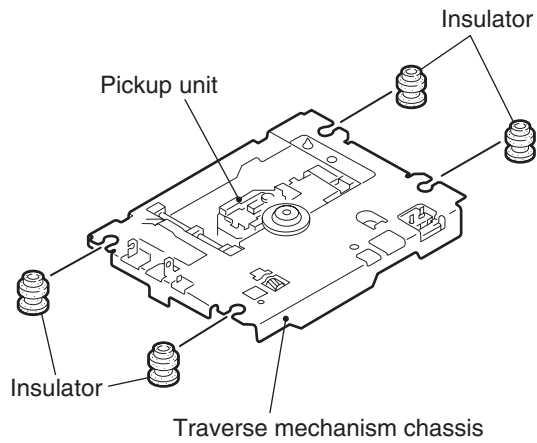


Fig.16

■ Removing the pickup unit (See Fig.17)

1. Remove the screw **K** attaching the shaft holder (F) on the back of the traverse mechanism assembly.
2. Move the shaft inward and release from the shaft holder (R).
3. Bring up the one side of the pickup unit on the shaft to release the joint **j** on the opposite side. Then, remove the pickup unit with the shaft.

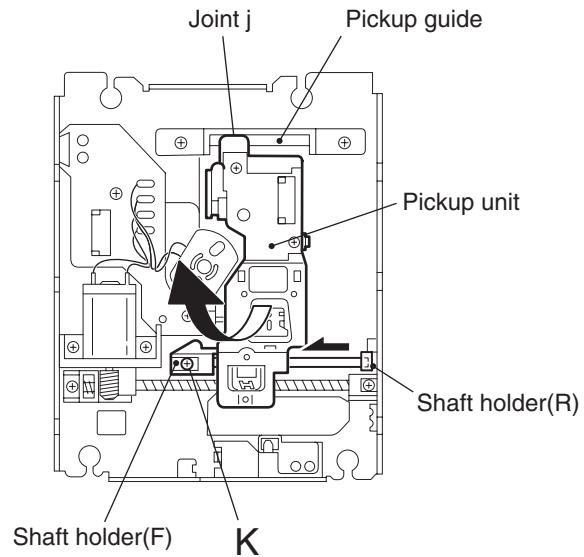


Fig.17

■ Removing the pickup (See Fig.18)

1. Pull out the shaft from the pickup.
2. Remove the two screws **L** attaching the rack spring to the pickup.

CAUTION: Before disconnecting the flexible wire connected to the pickup, solder the shorting round point to protect the pickup from static electricity.

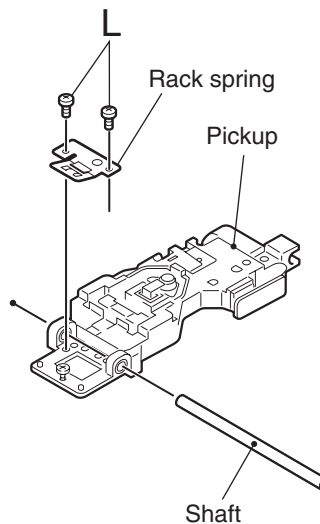


Fig.18

■ Removing the feed motor assembly (See Fig.19,20)

REFERENCE: The feed motor assembly can be performed even if the pickup unit is attached.

1. For the white and black harnesses extending from the feed motor assembly, unsolder two soldering **k** on the traverse mechanism board.
2. Remove the two screws **M** attaching the feed motor assembly.
3. Remove the two screws **O** attaching the feed motor bracket.

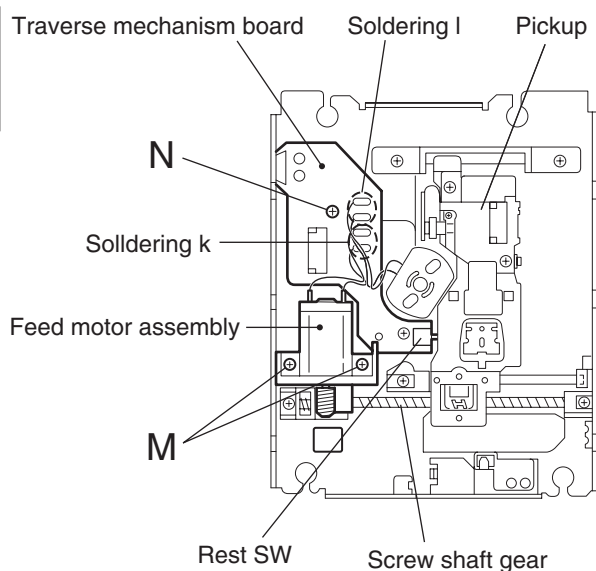


Fig.19

■ Removing the traverse mechanism board (See Fig.19)

- Prior to performing the following procedure, remove the feed motor assembly.
1. For the red and black harnesses extending from the spindle motor, unsolder two soldering **I** on the traverse mechanism board.
 2. Remove the screw **N**.

CAUTION: When reattaching the traverse mechanism board, make sure the position of the pickup. If the pickup is on the most inside position, move it outward by turning the screw shaft gear not to contact with the rest SW.

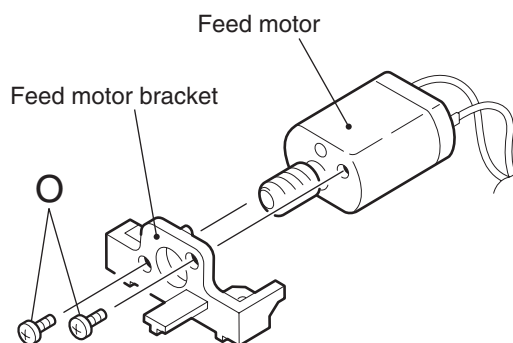


Fig.20

<Reattaching the loading assembly section>

1. Reattach the eject bar to the UD base (see Fig.15, 21).
2. Reattach the slide bar to the loading mechanism chassis while fitting the boss **m** to the groove of the eject bar (see Fig.15).
3. Move the slide bar and eject bar in the direction of the arrow and reattach the cartridge holder assembly using the two screw **J** (Fig.21, 22).

CAUTION: Make sure that pin **n** of the eject bar is correctly fitted in the groove **o** when moving the eject bar and the loading slider as shown in Fig.22.

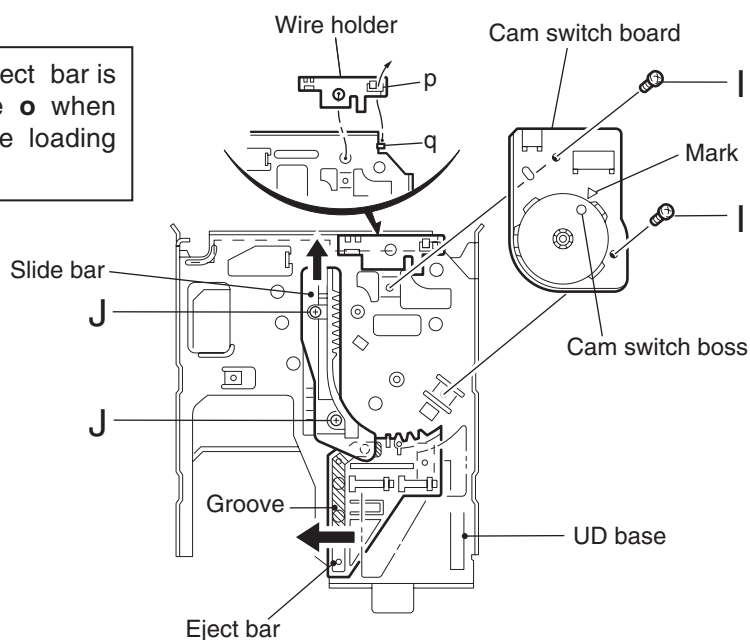


Fig.21

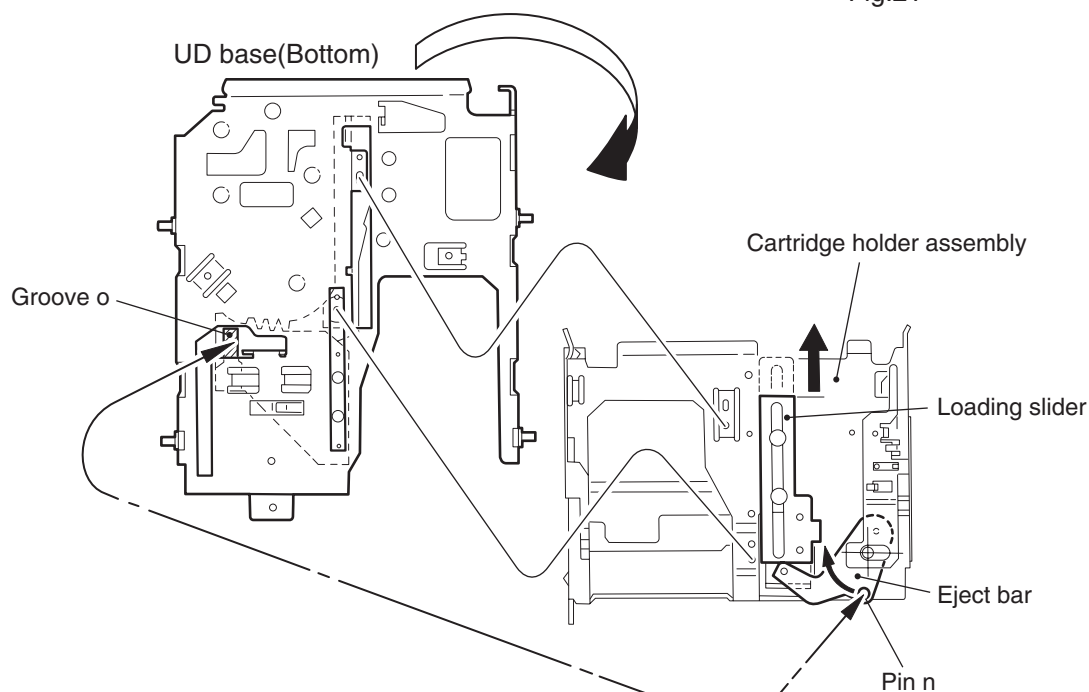


Fig.22

4. Reattach the wire holder to the UD base while fitting the bending **q** to the hole of the wire holder (The boss on the back of the wire holder is fit to the hole of the UD base)(see Fig.21).
5. Reattach the cam switch board using the two screws **l**.
6. Turn the cam switch until the boss comes to the position marked with a triangle (see Fig.23).
Reattach the cam gear while fitting the cam gear slot to the cam switch boss, and fix them using the slit washer.

CAUTION: When reattaching the cam gear with fitting the slot to the cam switch boss, make sure that part r of the gear is aligned with the position marked with a triangle of the cam gear.

7. Reattach the loading motor assembly using the screw **G** (see Fig.23).

Connect the wire extending from the loading motor to connector CN612 on the switch board, set on the bending **s** of the UD base and fix using the wire holder.

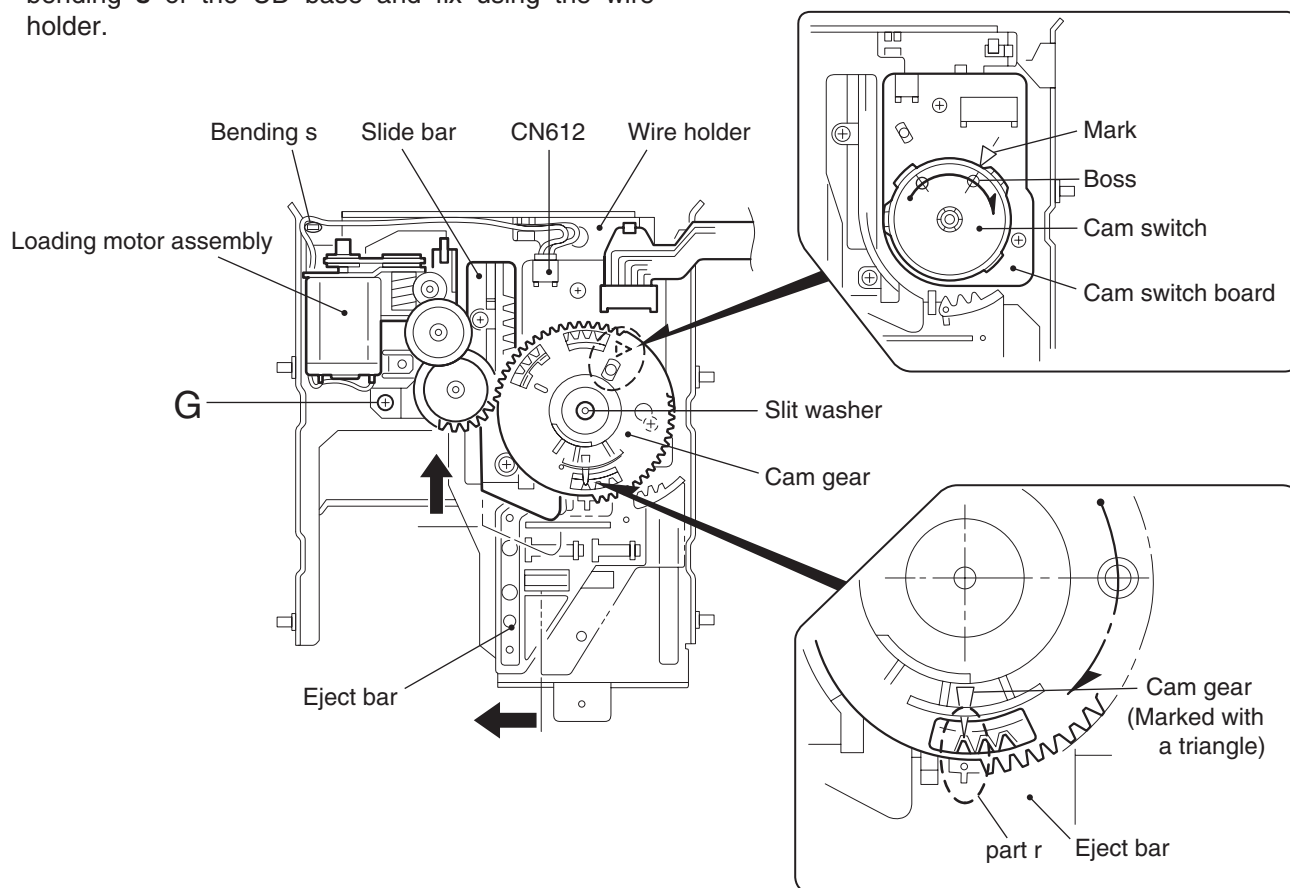


Fig.23

8. Reattach the UD base to the loading mechanism base while fitting the four bosses to the notches of the loading mechanism base respectively (see Fig.24).

First, sit part **t** of the cartridge holder assembly under the bending **g** of the loading mechanism base, then reattach the UD base.

9. Reattach the slide base (R) while fitting the two slots of the slide base (R) to the bosses of the UD base (see Fig.25, 26).

CAUTION: Set the bending **u** of the slide base (R) to the part **v** inside of the cam gear rib.

10. Reattach the slide base (L) on the slide base (R) while fitting the two bosses of the UD base to the notches on the side of the slide base (L). Make sure that the slots of the slide base (L) are fitted to the two part **f** and fix the slide base (L) using the two screws **F** (see Fig.25, 27).

REFERENCE: To reattach the slide base (L) and (R) easily, fit the bosses to the notches with bringing up the UD base slightly.

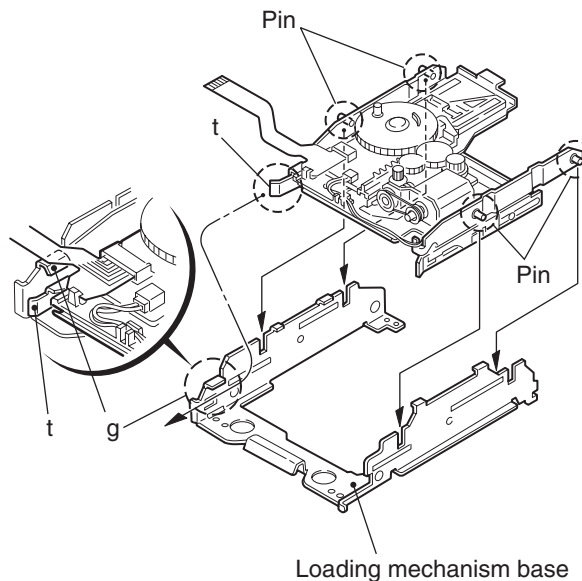


Fig.24

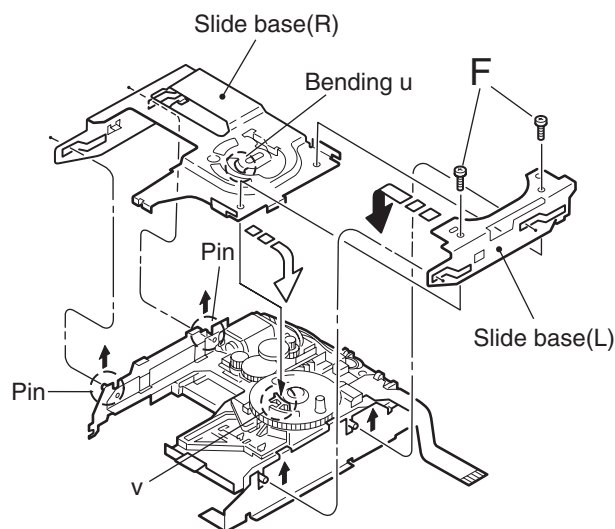


Fig.25

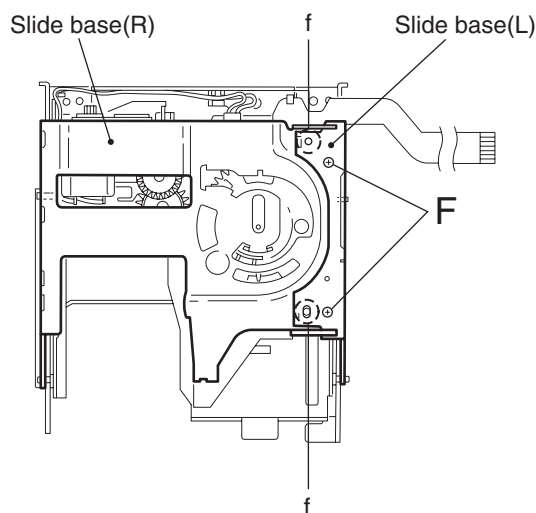


Fig.27

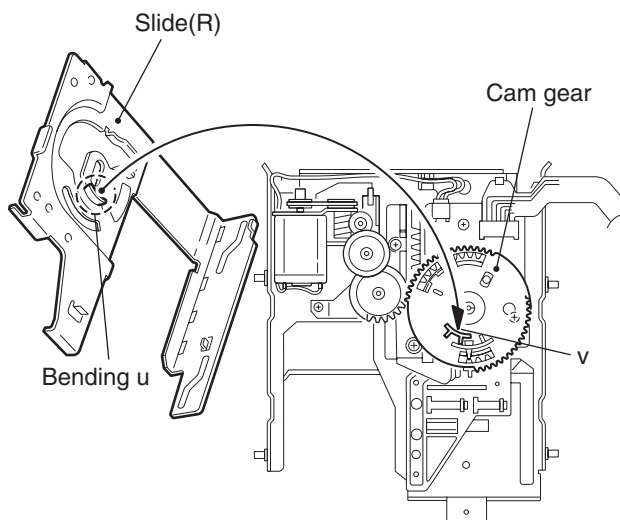


Fig.26

<Cassette mechanism assembly section>

■ Removing the Play/Record & Clear head (See Fig.1~3)

1. While moving the trigger arm on the right side of the head mount in the direction of the arrow, turn the flywheel R counterclockwise until the head mount comes ahead and clicks.
2. The head turns counterclockwise as you turn the flywheel R counterclockwise (See Fig.2 and 3).
3. Disconnect the flexible wire from connector CN31 on the head amplifier & mecha control board.
4. Remove the spring from the back of the head.
5. Loosen the azimuth screw for reversing attaching the head.
6. Remove the head on the front side of the head mount.

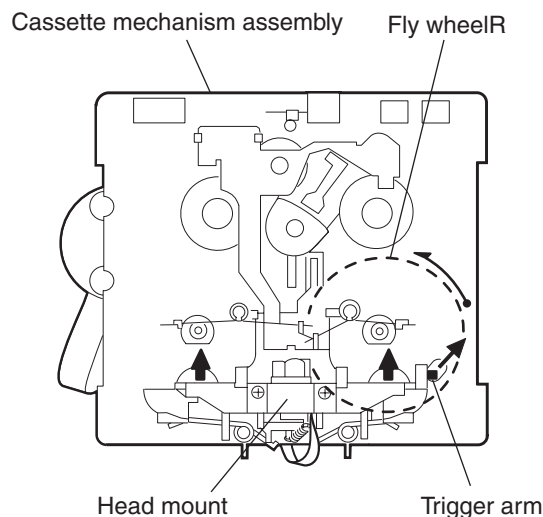


Fig.1

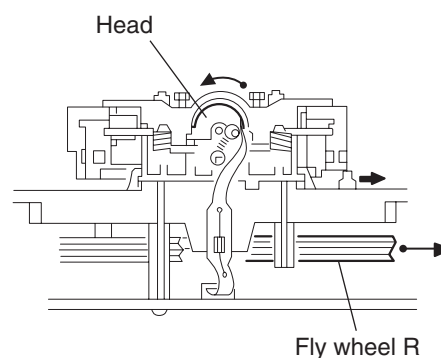


Fig.2

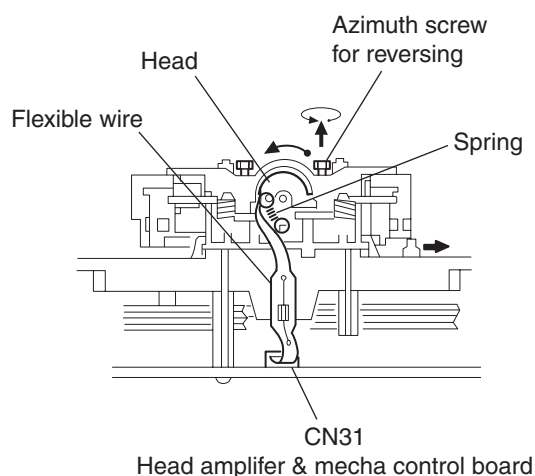


Fig.3

■ Removing the head amplifier & mechanism control board (See Fig.4)

1. Turn over the cassette mechanism assembly and remove the three screws **A** attaching the head amplifier & mechanism control board.
2. Disconnect the flexible wire from connector CN31 on the head amplifier & mechanism control board.
3. Disconnect connector CN32 of the head amplifier & mechanism control board from connector CN1 on the reel pulse board.

REFERENCE: If necessary, unsolder the 4 pin wire soldered to the main motor.

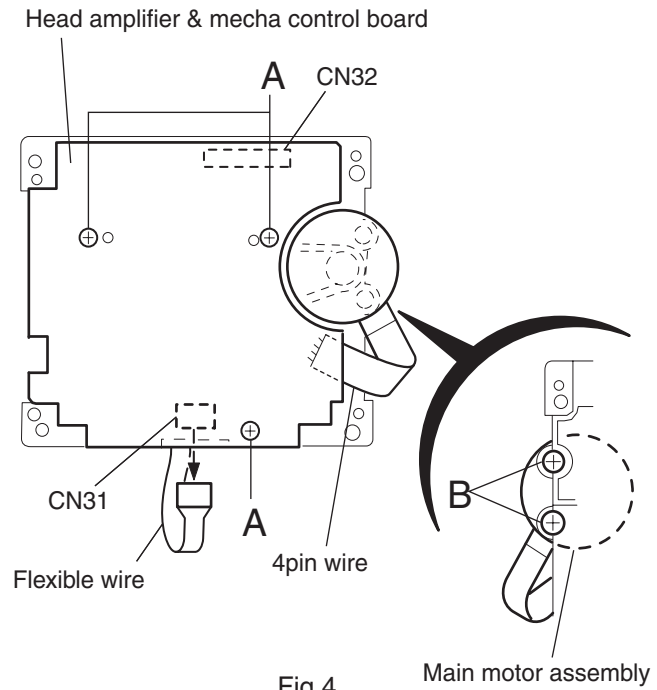


Fig.4

■ Removing the main motor (See Fig.4~7)

1. Remove the two screws **B**.
2. Half raise the motor and remove the capstan belt from the motor pulley.

ATTENTION: Be careful to keep the capstan belt from grease. When reassembling, refer to Fig.6 and 7 for attaching the capstan belt.

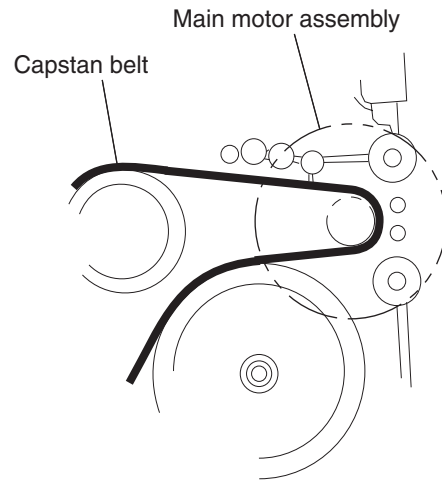


Fig.5

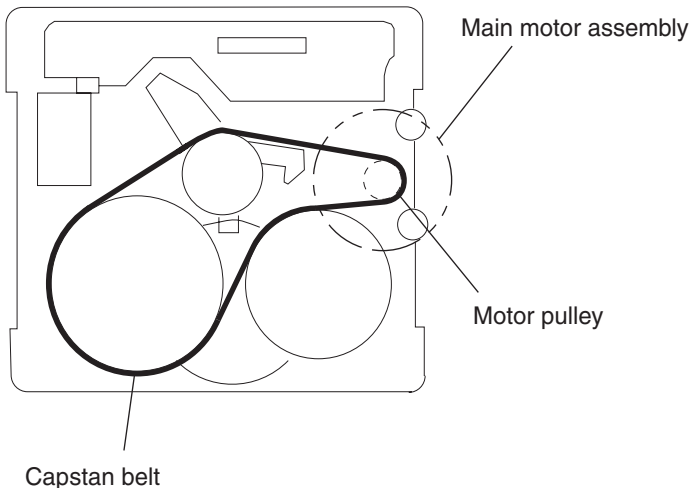


Fig.6

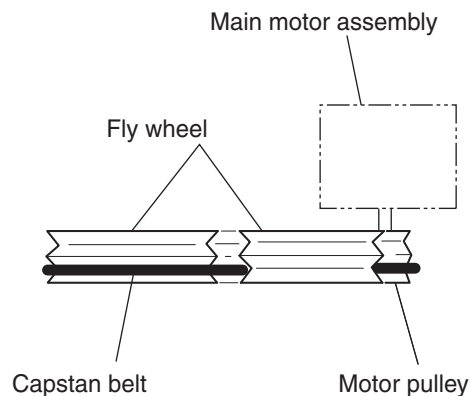


Fig.7

■ Removing the flywheel (See Fig.8,9)

- Prior to performing the following procedure, remove the head amplifier & mechanism control board and the main motor assembly.

1. From the front side of the cassette mechanism, remove the slit washers attaching the capstan shaft L and R. Pull out the flywheels backward.

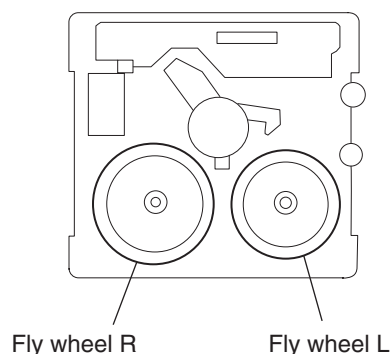


Fig.8

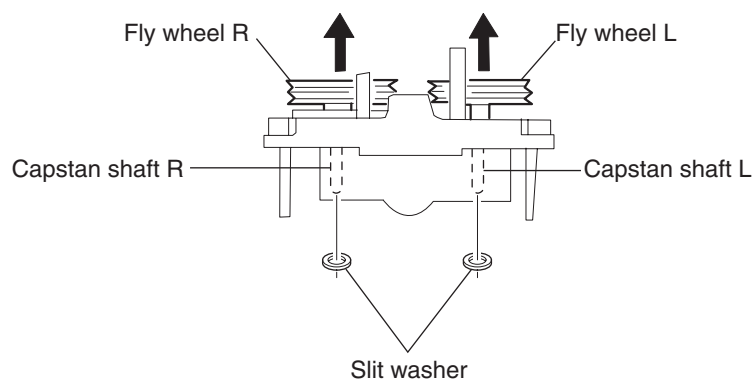


Fig.9

■ Removing the reel pulse board and solenoid (See Fig.10)

- Prior to performing the following procedure, remove the head amplifier & mechanism control board.

1. Remove the screw **C**.
2. Release the tab **a**, **b**, **c**, **d** and **e** retaining the reel pulse board.
3. Release the tab **f** and **g** attaching the solenoid on the reel pulse board.
4. The reel pulse board and the solenoid come off.

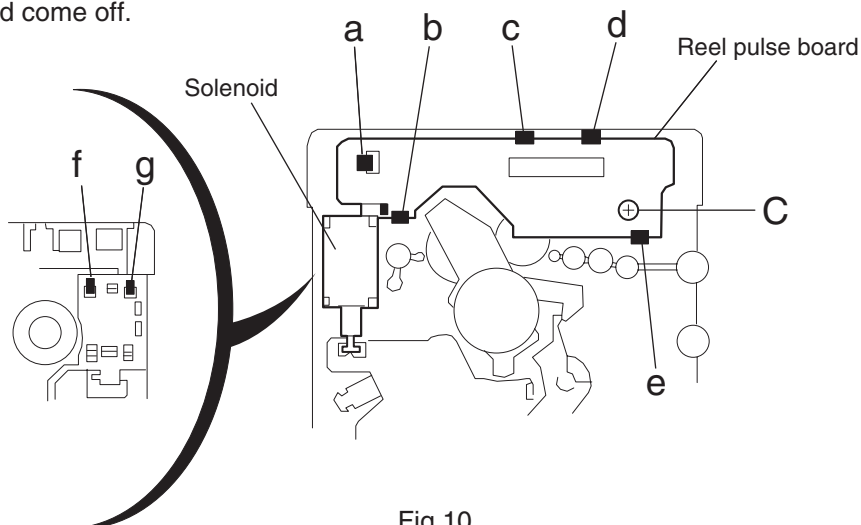


Fig.10

■ Reattaching the Play/ Record & Clear head
(See Fig.11~13)

1. Reattaching the head mount assembly.
 - 1) Change front of the direction cover of the head mount assembly to the left(Turn the head forward).
 - 2) Fit the bosses **O'**,**P'**,**Q'**,**U'** and **V'** on the head mount assembly to the holes **P** and **V**, the slots **O**,**U** and **Q** of the mecha sub assembly(See Fig.11 to 13).

CAUTION: To remove the head mount assembly, turn the direction cover to the left to disengage the gear. If the gear can not be disengaged easily, push up the boss **Q'** slightly and raise the rear side of the head mounts slightly to return the direction lever to the reversing side.

2. Tighten the azimuth screw for reversing.
3. Reattach the spring from the back of the Play/ Record & Clear head.
4. Connect the flexible wire to connector CN31 on the head amplifier & mechanism control board.

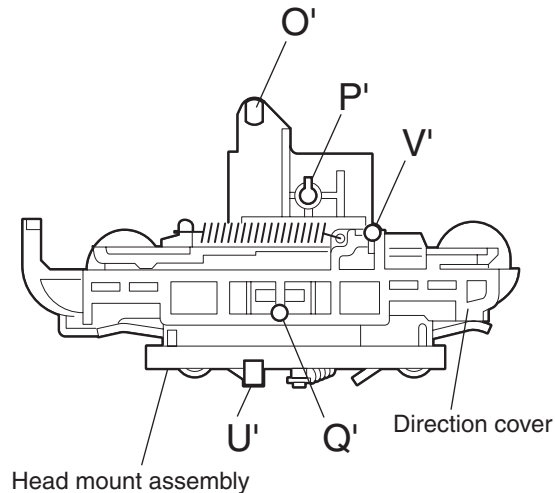


Fig.11

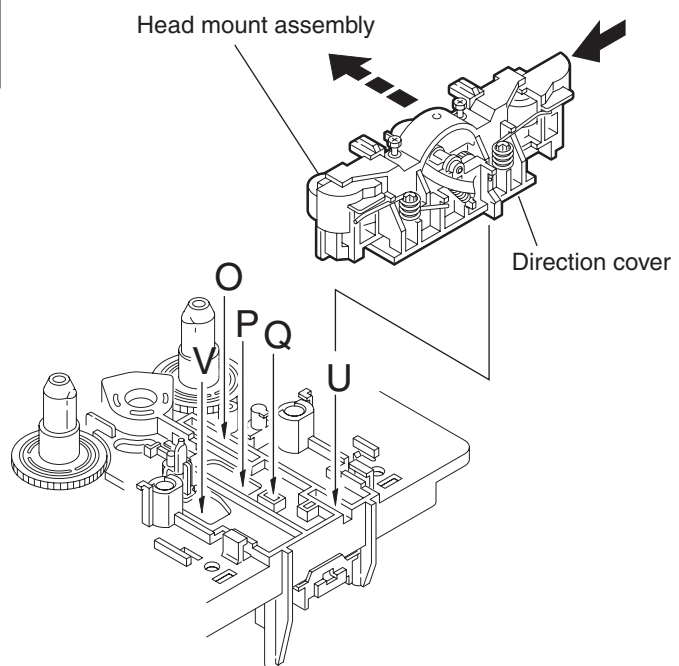


Fig.12

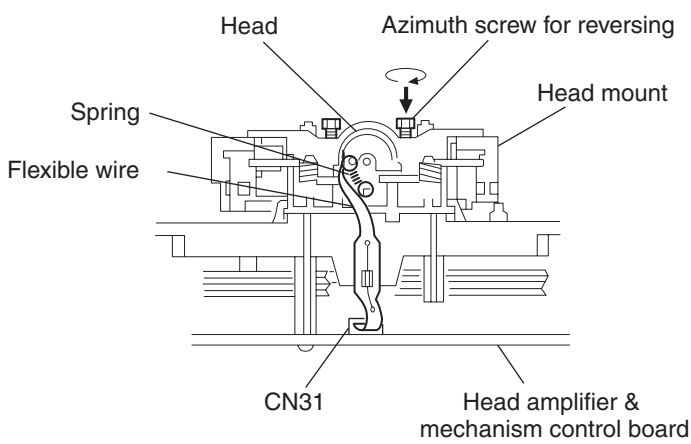
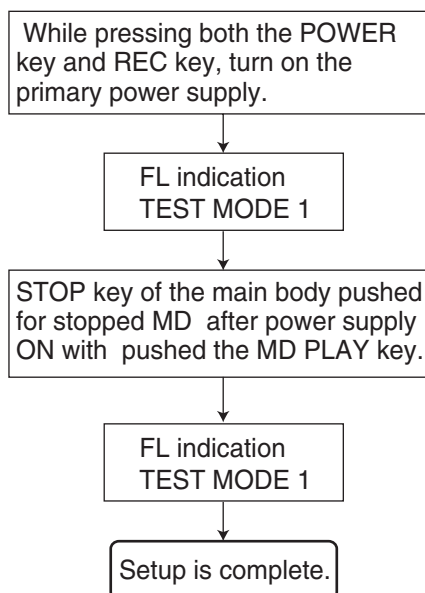


Fig.13

Adjustment method

< MD adjustment (self adjustment) >

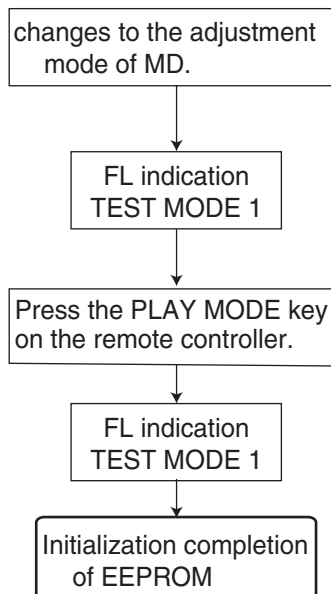
(1) Setting of adjustment mode of MD



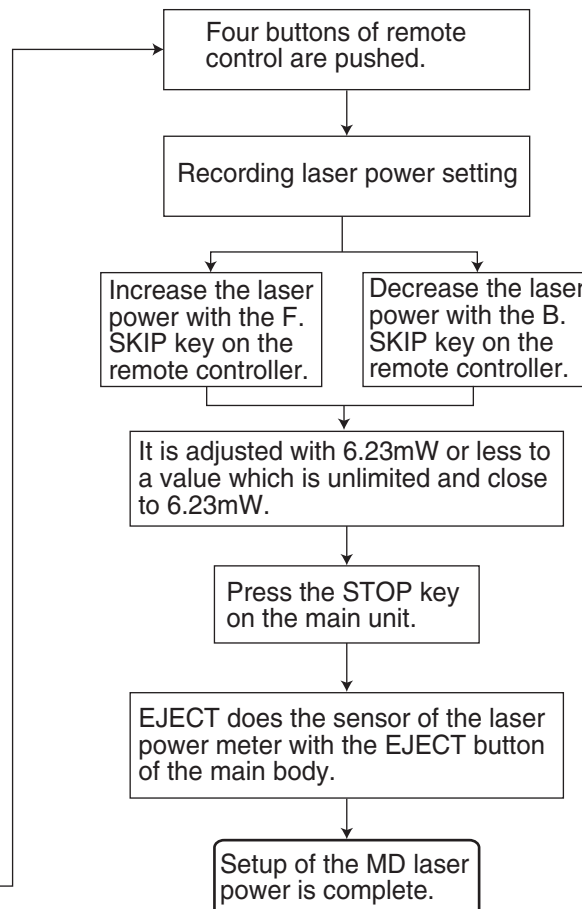
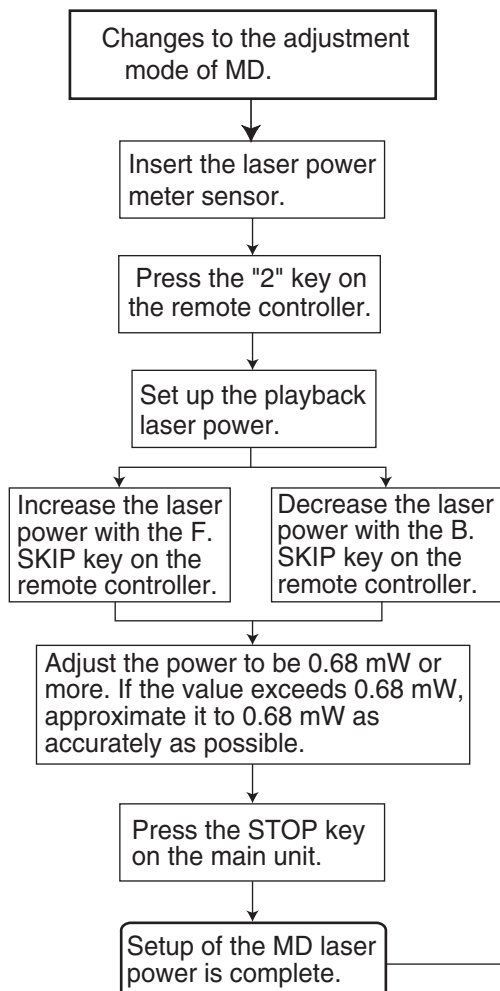
(2) Initialization of EEPROM

(The EEPROM can be initialized on the precondition that the setup of the TEST MODE 1 is complete. After setup of the TEST MODE 1, proceed to the following operations with the remote controller*.)

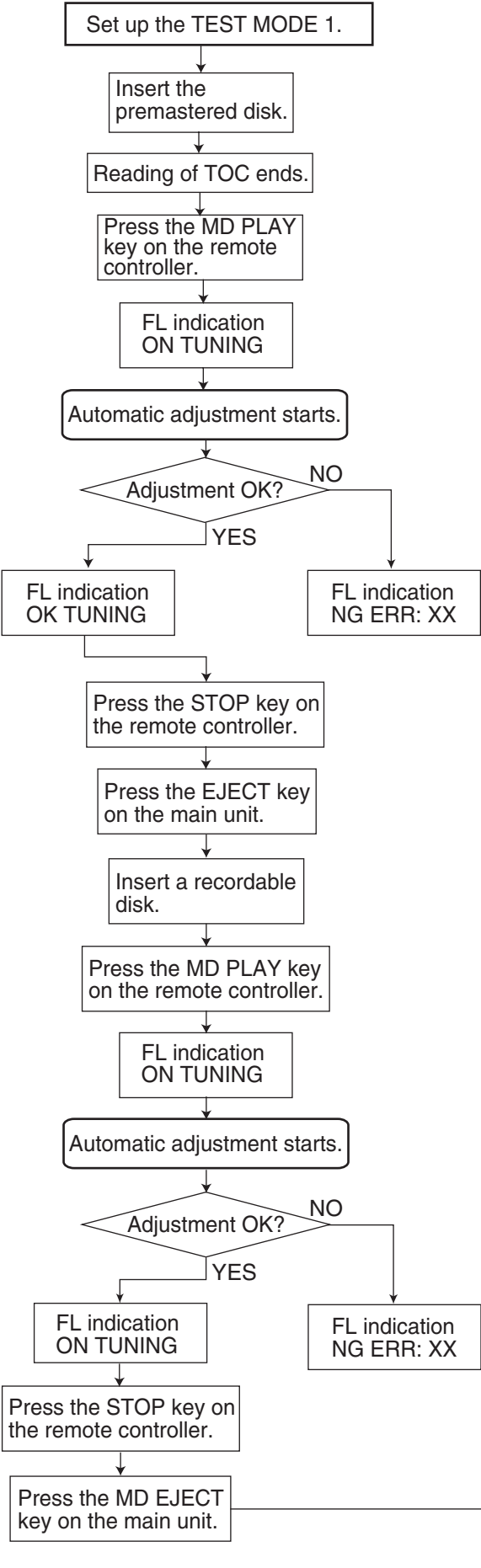
* For EJECT operation, use the EJECT key on the main unit.



(3) Adjustment of the playback laser power



(4) Adjustment of the disk



NG Judgment Code Table

Code	NG item in adjustment
00	Automatic adjustment is incomplete.
01	Rest switch detection
02	Focus-on
03	EF balance, tracking offset adjustment (Pit area)
04	ABCD level (I-V resistance) adjustment (Pit area)
05	Focus servo AGC (Pit area)
06	Tracking servo AGC (Pit area)
07	Focus bias adjustment (Pit area)
08	EF balance, tracking offset adjustment (GRV area)
09	ABCD level (I-V resistance) adjustment (GRV area)
0A	Focus servo AGC (GRV area)
0B	Tracking servo AGC (GRV area)
0C	Focus bias adjustment (GRV area)
0D	Room temperature measurement
0E	Write in EEPROM
FF	Automatic adjustment is complete.

<Method of setting DVD test mode>

1. Main body "Stop button ■" and "DVD eject button ▲" are pushed at the same time, and the power supply is turned on.
2. The display of the FL display becomes "TEST D", and becomes a test mode.

T	E	S	T				D		R	2

3. Comes off the test mode when the power supply is turned off by "STANDBY button ⏻".

4. Use key in test mode

[STOP]+[DVD EJECT]+AC opening: Test mode

[STANDBY]: Test mode release

[ON SCREEN] : Self adjustment command for test

[DVD EJECT] : EJECT command for test

[STOP] : STOP command for test

[DVD PAUSE] : Self adjustment command for test

[DVD PLAY] : Jitter measurement command for test

[ENTER] : EEPROM initialization command

[▶▶] : Outer tracking OFF command

[◀◀] : Tracking OFF of surroundings on inside command

[1]~[9] : Servo relation examination command

[MENU] : Display of number of ROM

[TOP MENU] : Display of number of ROM

5. Content of processing

- (1) A reproduction and posed inside display the jitter measurement value and the value of the current of the laser on the FL display in the TEST mode.

FIX4	BYTE7	Value of current of laser (subordinate position)
	BYTE8	Value of current of laser (high rank)
	BYTE9	Jitter measurement value (subordinate position)
	BYTE10	Jitter measurement value (high rank)

FL display

T	E	S	T				D		R	2
	X	X	X	X			Y	Y	Y	Y
Value of current of laser							Jitter measurement value			

• Value of current of laser

FL display(Example)

0033 0000

Value of current of laser

Remote control "4" button Value of current of laser for CD
Remote control "5" button Value of current of laser for DVD

As for the value of the current of the laser, the figure displayed on the FL display reaches the current value as it is by the unit of mA.
It is 33mA if displayed as "0033".
<For DVD>
If the value of the current of the laser is 64mA or less, it is possible to judge simply with about normal.
The deterioration of the laser diode of picking up is thought when there are 65mA or more value of the current of the laser.
<For CD>
If the value of the current of the laser is 49mA or less, it is possible to judge simply with about normal.
The deterioration of the laser diode of picking up is thought when there are 50mA or more value of the current of the laser.

• Jitter measurement value

FL display(Example)

0033 20A2

jitter value

The jitter value is displayed by the hex

- <Please adjust when corresponding to the following.>
- When you exchange picking up.
 - When you replace the spindle motor.
 - When the reading accuracy of the signal is low.
- (The screen sometimes stops in outer which with the block noise to the screen on the disk)

(2) EEPROM initialization
When the ENTER key is pushed in the test mode; Done the intialize for EEPROM of system CPU and unit CPU.

FL display

T	E	S	T				D		R	2
		E	E	P	R	O	M			

(3) Inside and outside surroundings tracking OFF
After searches for the DA disk to first TR and each last TR when "◀◀" and the "▶▶" key are pushed in the test mode, tracking OFF is processed.

(4) Display of number of ROM

When MENU and the TOP MENU key are pushed in the test mode, the number of ROM of the main microcomputer, a sub-microcomputer, the unit microcomputer, and microcode is displayed on the FL display instead of the test display.

Transmission command: C2(ROM VERSION REQUEST)

Data from unit CPU is as follows.

FIX4 BYTE11: Ver subordinate position byte of unit CPU

BYTE12: Ver high-ranking byte of unit CPU (HEX)

BYTE13: Date of microcode(ASCII)

FL display (When you press MENU:five seconds).

Version of unit microcomputer										
U	N	I	T	:		0	0	1	9	
M	C	:		1	2	J	A	N	0	0
Microcode										

FL display (When you press TOP MENU:five seconds).

Version of the main microcomputer										
S	Y	S	:			1	.	0	8	
D	V	D	:			1	.	0	7	
Version of sub-microcomputer										

(5) Servo relation examination command

The following processing is done to ten keys in the test mode respectively.

[1] : Start & reproduction of DISC (reproduction from starting position)

[2] : TNO+1 search of CD

[3] : TNO-1 search of CD

[4] : The CD_LD lighting (Turn off with the stop button).

[5] : The DVD_LD lighting (Turn off with the stop button).

[6] : DVDx1.4 jitter measurement mode

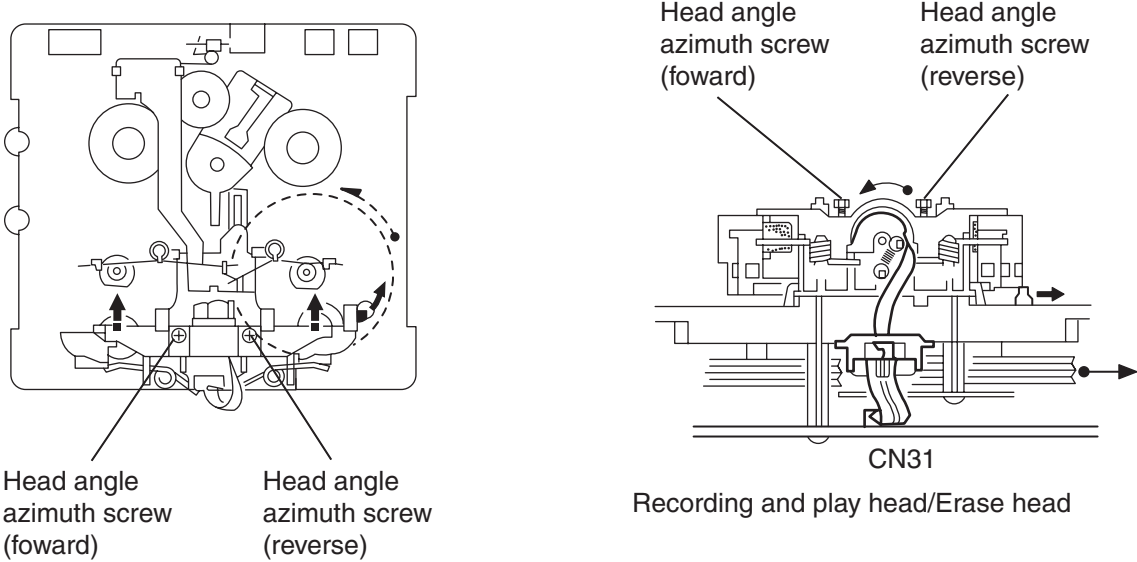
[7] : Unused

[8] : The display (The address is done and -1 is done).

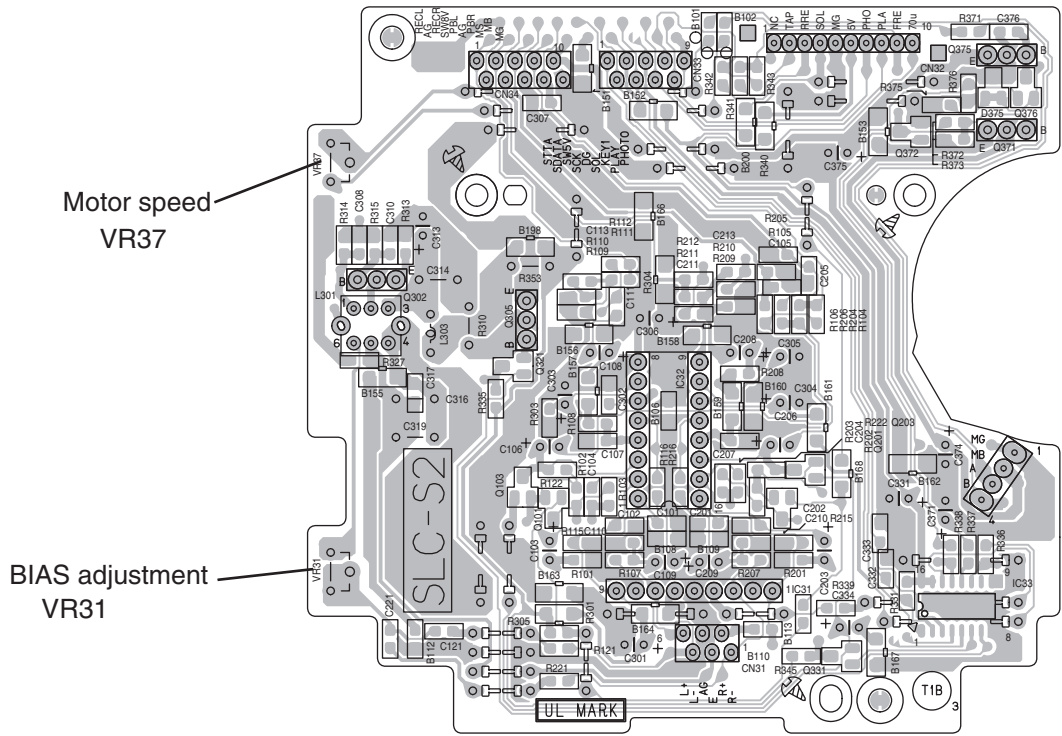
[9] : The display (The address is done and +1 is done).

([8] and [9] are the stop button and Back to Top.)

<Cassette mechanism section>



Mechanism control P.C. board



■ Mechanism section

Item	Confirmation of angle of head	Tape speed confirmation
Measurement condition	Test tape: VT703L (8kHz) Measurement output terminal: Speaker terminal	Test tape: VT712 (3kHz) Measurement output terminal: Speaker terminal or headphone terminal
Measurement procedure	1. Test tape VT703L (8kHz) is played. 2. It is adjusted that becomes an output that both are the maximum on a forward side and a reverse side with the screw for the azimuth adjustment. 3. This adjustment is adjusted respectively with the adjustment screw for the forward side and the adjustment screw for a reverse side.	Test tape VT712(3kHz) of the forward is reproduced by finishing rolling, and adjusted for the display of the frequency counter to become 2,940-3,090Hz by VR37.
Standard value	The maximum output	2,940 ~ 3,090Hz
Adjustment position	Only when the head is exchanged, adjusts.	VR37

■ Reference and standard value of confirmation matter

Item	Forward/reverse tape speed difference	Wow & flutter
Measurement condition	Test tape: VT712 (3kHz) Measurement output terminal: Speaker terminal or headphone terminal	
Measurement procedure	Both reverse must forward/reproduce, and the speed difference must be 6.0Hz or less as for finish wrapping of test tape VT712 (3kHz).	Both reverse must forward/reproduce, and each wow & flutter must be 0.25% (WRMS) or less as for begin to wrap of test tape VT712 (3kHz).
Standard value	6.0Hz or less	0.25% or less (WRMS)
Adjustment position	VR31	

■ Electric adjustment

Item	Recording BIAS adjustment	Recording reproduction frequency characteristic
Measurement condition	Forward or reverse Test tape: AC-514 TYPE II and AC-225 TYPE I Measurement output terminal: Recording and headphone terminal	Standard frequency: 1kHz/10kHz (Standard: -20dB) Test tape: AC-514 TYPE II Measurement input terminal: OSC IN
Measurement procedure	1. Test tape (AC-514 TYPE II, AC-225 TYPE I) is installed, and makes to recording/pose. 2. Connects in the head for the recording and to connect 100 with the series and to measure the current of the bias, connects with VTVM. 3. The pose is released after sets and the recording begins. It is adjusted that the current of the bias reaches the following value by VR31 for L side at this time and VR32 for R side. 4. $4.0 \mu A$ (TYPE I) and $4.20 \mu A$ (TYPE II)	1. Test tape (AC-514 TYPE II) is installed, and makes to recording/pose. 2. Records the recording's releasing the pose, beginning, and repeating 1kHz and 10kHz of a standard frequency from the frequency transmitter. 3. VR31 for L side and VR32 for R side are adjusted so that the recorded part may be reproduced and there is a difference between 1kHz and 10kHz in 1dB $\pm$ 2dB, and the recording is repeated again.
Standard value	AC-225: $4.20 \mu A$ AC-514: $4.0 \mu A$	Output difference 1kHz/10kHz: -1dB $\pm$ 2dB
Adjustment position	VR31	

■ Electric characteristic confirmation

Item	Current of recording bias	Deletion current (standard value)
Measurement condition	Forward or reverse Test tape: AC-514 TYPE II Measurement terminal: BIAS TP on P.C. board	Forward or reverse State of recording Test tape: AC-514 TYPE II and AC-225 TYPE I Measurement terminal: Erase head's both ends
Measurement procedure	1. It is confirmed that BIAS1 and 2 are switched, and the frequency changes. 2. Test tape (AC-514 TYPE) is installed, and recording/makes to the pose. 3. It is confirmed that it is BIAS TP on the substrate and the frequency is $100\text{Hz} \pm 6\text{kHz}$.	1. Test tape (AC-514 TYPE II) is installed, and makes to recording/pose. 2. The pose is released and after sets in the state of the recording, 1W is confirmed, and connects with the series, and the deletion current is confirmed from erase head's both ends to the erase head.
Standard value	$100\text{kHz} \pm 6\text{kHz}$	TYPE II : 120mA TYPE I : 75mA
Adjustment position		

Maintenance of MD pickup

1. Cleaning of pickup lens

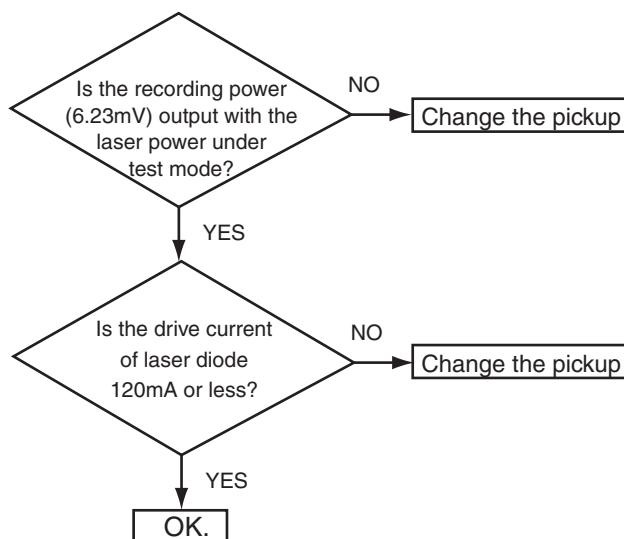
- (1) Prior to changing the pickup, clean the pickup lens.
- (2) For cleaning the lens, use the following cotton swab after mearsing it in alcohol.

Product No. JCB-B4; Manufacturer;Nippon Cotton Swab

2. Confirmation of the service life of laser diode when the service life of the laser diode has been exhausted, the following symptoms will appear.

- (1) Recording will become impossible.
- (2) The RF output (EFM output and eye pattern amplitude) will become lower.
- (3) The drive current required for light emitting of laser diode will be increased.

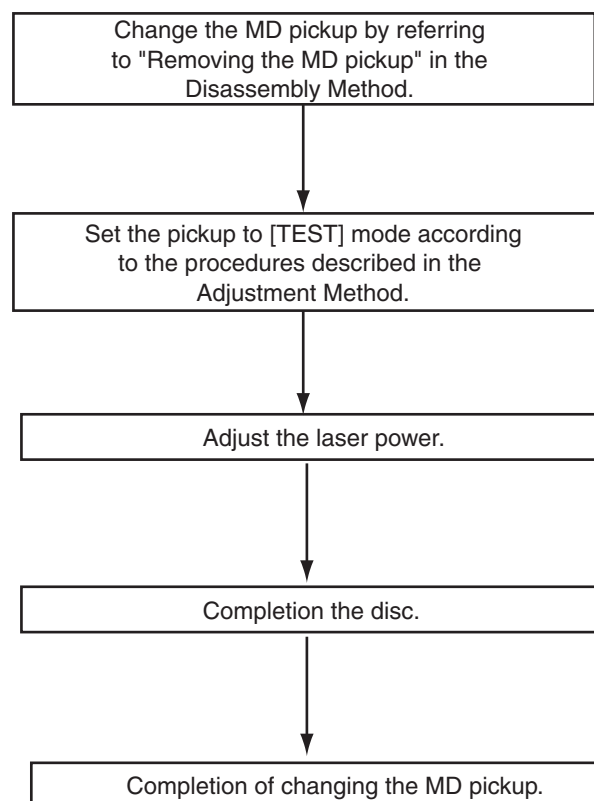
Confirm the service life according to the following flow chart:



3. Method of measuring the drive current of laser diode

When the voltage measured at both side of R337 of the MD servo P.C. board have become 120mV or over, the service life of the laser diode is judged to have been exhausted.

Procedures of changing the MD pickup



Since this system is designed to perform magnetic recording, the laser power ten times or over of the conventional MD player will be output. Therefore, be sure to perform not only adjustment and operation of this system so carefully as not to directly look at the laser beam or touch on the body.

4. Semi-solid state resistors on the APC P.C. board

The semi-solid state resistor on the APC P.C.board attached to the pickup is used for adjusting the laser power. Since these resistor should be adjusted in pair according to the characteristics of the optical block, be sure not to touch on the resistors.

Since the service life of the laser diode will be exhausted when the laser power is low, it is necessary to change the pickup. Meanwhile, do not pickup. Otherwise, the pickup will be damaged due to over current.

Maintenance of DVD pickup

1. Cleaning of pickup lens

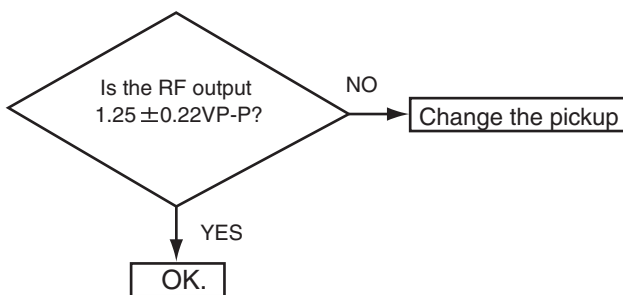
(1) Prior to changing the pickup, clean the pickup lens.

2. Confirmation of the service life of laser diode when the service life of the laser diode has been exhausted, the following symptoms will appear.

(1) The RF output (EFM output and eye pattern amplitude) will become lower.

(2) The drive current required for light emitting of laser diode will be increased.

Confirm the service life according to the following flow chart:

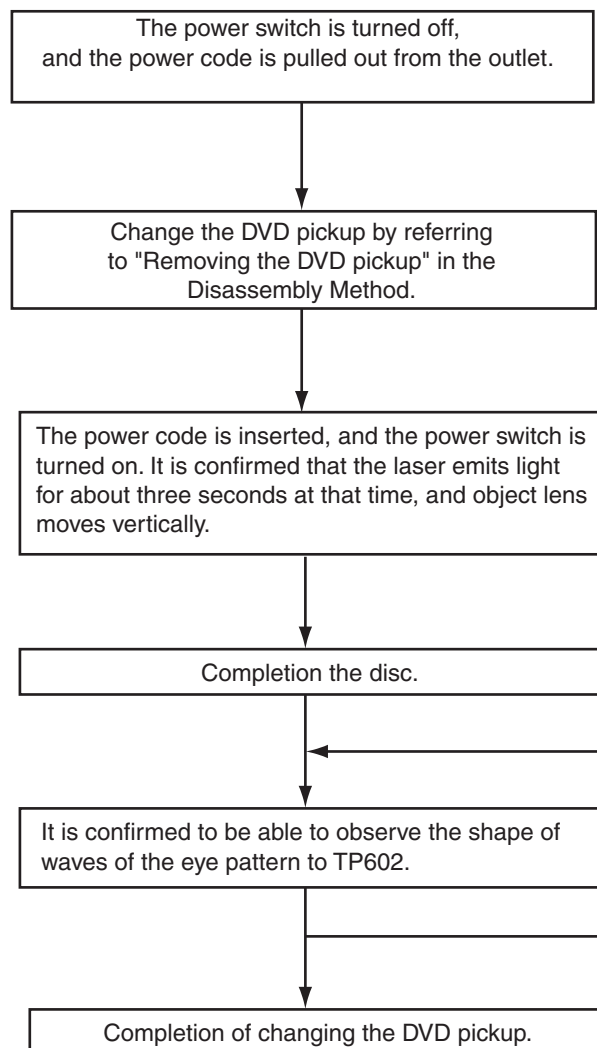


3. Semi-solid state resistors on the APC P.C. board

The semi-solid state resistor on the APC P.C. board attached to the pickup is used for adjusting the laser power. Since these resistor should be adjusted in pair according to the characteristics of the optical block, be sure not to touch on the resistors.

Since the service life of the laser diode will be exhausted when the laser power is low, it is necessary to change the pickup. Meanwhile, do not pickup. Otherwise, the pickup will be damaged due to over current.

Procedures of changing the DVD pickup

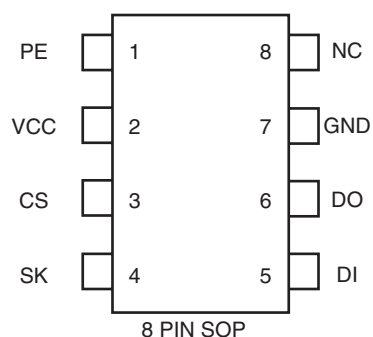


Therefore, be sure to perform not only adjustment and operation of this system so carefully as not to directly look at the laser beam or touch on the body.

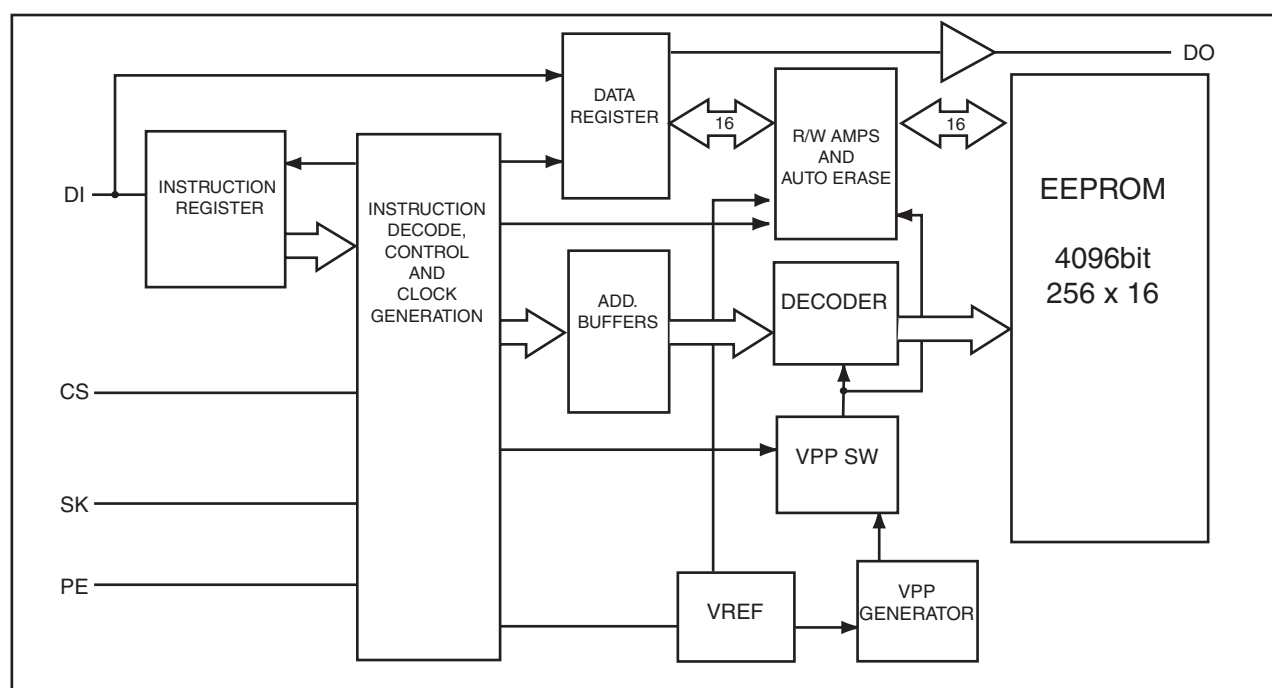
Description of major ICs

■ AK93C65AF-X (IC451) : EEPROM

1.Pin layout



2.Block diagram



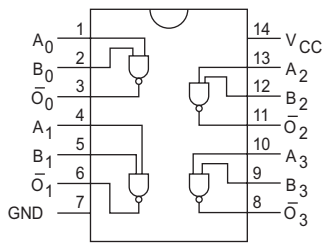
3.Pin function

Pin no.	Symbol	Function
1	PE	Program enable (With built-in pull-up resistor)
2	VCC	Power supply
3	CS	Chip selection
4	SK	Cereal clock input
5	DI	Cereal data input
6	DO	Cereal data output
7	GND	Ground
8	NC	No connection

NOTE : The pull-up resistor of the PE pin is about 2.5M Ω (VCC=5V)

■ 74VHC00MTC-X (IC455,503) : NAND gate

1.Pin layout / Block diagram



Truth Table

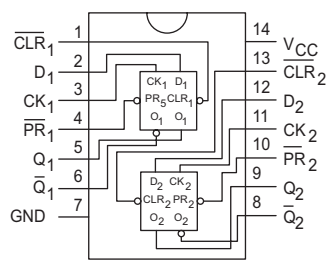
A	B	$\overline{O}$
L	L	H
L	H	H
H	L	H
H	H	L

2.Pin function

Pin Names	function
A_n, B_n	Inputs
$\overline{O}_n$	Outputs

■ 74VHC74MTC-X (IC454) : Dual D-type Flip-Flop with preset and clear

1.Pin layout / Block diagram



Truth Table

Inputs				Outputs		Function
$\overline{CLR}$	$\overline{PR}$	D	CK	Q	$\overline{Q}$	
L	H	X	X	L	H	Clear Preset
H	L	X	X	H	L	
L	L	X	X	H(Note 1)	H(Note 1)	No Change
H	H	L	~	L	H	
H	H	H	~	H	L	
H	H	X	~	Q_n	$\overline{Q}_n$	

Note 1: This configuration is nonstable; that is, it will not persist when pre-set and clear inputs return to their inactive (HIGH) state.

2.Pin function

Pin Names	function
D_1, D_2	Data Inputs
CK_1, CK_2	Clock Pulse Inputs
$\overline{CLR}_1, \overline{CLR}_2$	Direct Clear Inputs
$\overline{PR}_1, \overline{PR}_2$	Direct Preset Inputs
$Q_1, \overline{Q}_1, Q_2, \overline{Q}_2$	Output

■ BR93LC66F-X (IC590):EEPROM

1.Terminal layout

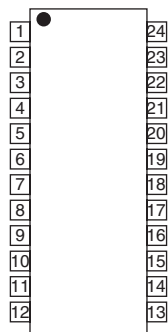
NC	1	8	NC
VCC	2	7	GND
CS	3	6	DO
SK	4	5	DI

2.Pin Functions

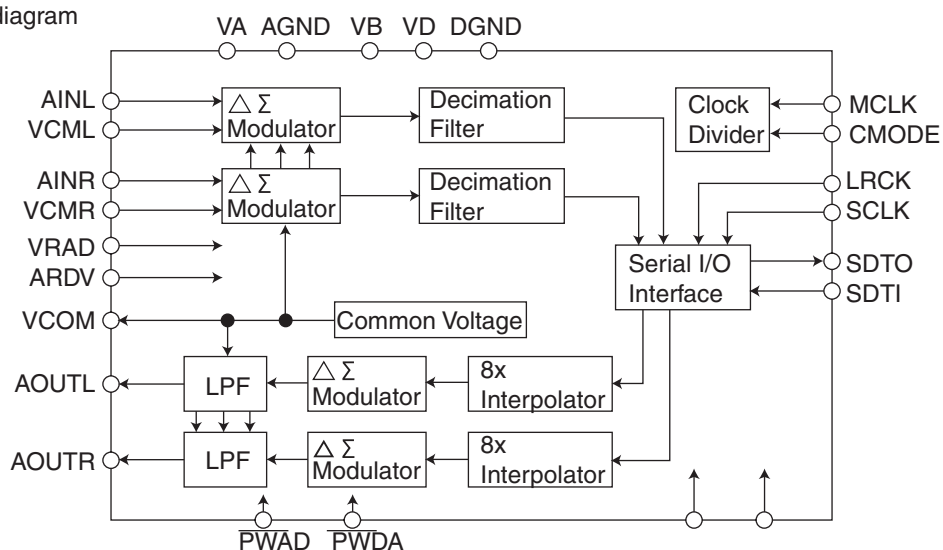
Symbol	I/O	Function
VCC	-	Power supply
GND	-	Connect to GND
CS	I	Chip select input
SK	I	Serial clock input
DI	I	Start bit,OP-code,address,serial data input
DO	O	Serial data output, Internal state display output of READY/BUSY

■ AK4519VF-X (IC480) : A / D.D / A converter

1.Pin layout



2.Block diagram

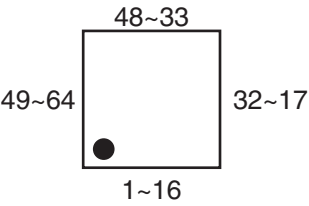


3.Pin Function

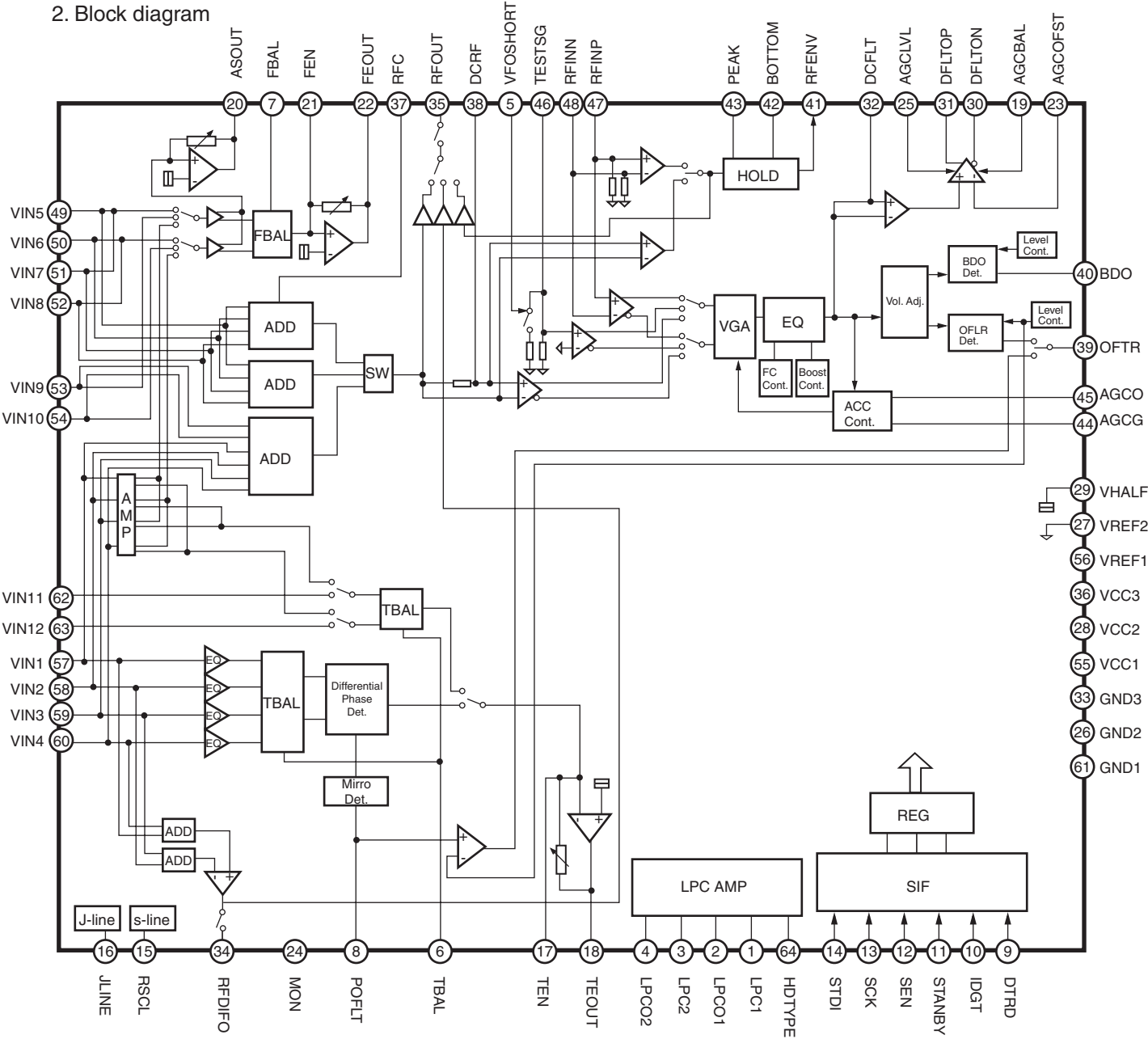
Pin NO.	Symbol	I/O	Function
1	VRDA	I	Voltage Reference Input Pin for DAC, VA
2	VRAD	I	Voltage Reference Input Pin for ADC, VA
3	AINR	I	Rch Analog Input Pin
4	VCMR	O	Rch Common Voltage Output Pin, 0.45xVA
5	VCML	O	Lch Common Voltage Output Pin, 0.45xVA
6	AINL	I	Lch Analog Input Pin
7	PWAD	I	ADC Power-Down Mode Pin "L":Power Down
8	PWDA	I	DAC Power-Down Mode Pin "L":Power Down
9	MCLK	I	Master Clock Input Pin
10	LRCK	I	Input/Output Channel Clock Pin
11	SCLK	I	Audio Serial Data Clock Pin
12	SDTO	O	Audio Serial Data Output Pin
13	DGND	-	Digital Ground Pin
14	VD	-	Digital Power Supply Pin
15	SDTI	I	Audio Serial Data Input Pin
16	CMODE	I	Master Clock Select Pin
17	DEM1	I	De-emphasis Frequency Select Pin
18	DEM0	I	De-emphasis Frequency Select Pin
19	AOUTL	O	Lch Analog Output Pin
20	AOUTR	O	Rch Analog Output Pin
21	VCOM	O	Common Voltage Output Pin, 0.45xVA
22	AGND	-	Analog Ground Pin
23	VB	-	Substrate Pin
24	VA	-	Analog Power Supply Pin

■ AN8703FH-V (IC101) : Front-end processor for DVD

1.Pin layout



2. Block diagram



3.Pin function

(1/2)

Pin No.	Symbol	Function
1	LPC1	Laser pin input (DVD head)
2	LPCO1	Laser drive output (DVD head)
3	LPC2	Laser pin input (CD head)
4	LPCO2	Laser drive output (CD head)
5	VFOSHORT	VFOSHORT control
6	TBAL	Tracking balance control
7	FBAL	Focus balance control

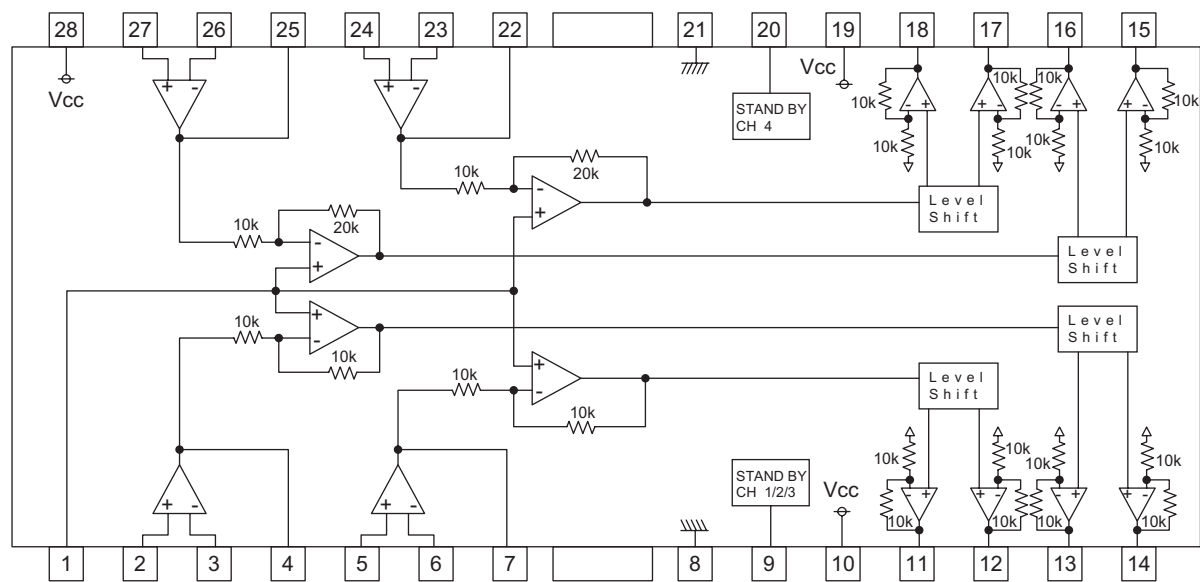
3.Pin function

(2/2)

Pin No.	Symbol	Function
8	POFLT	Tracking detection threshold level
9	DTRD	Data slice data read signal input (for RAM)
10	IDGT	Data slice address gate signal input (for RAM)
11	STANBY	Standby mode control
12	SEN	SEN (serial data input)
13	SCK	SCK (serial data input)
14	STDI	STDI (serial data I/o)
15	RSCL	Reference current supply
16	JLINE	J-line current setting
17	TEN	Tracking error amplifier inverted input
18	TEOUT	Tracking error signal output
19	AGCBAL	Offset adjustment for DRC - 1
20	ASOUT	Full addition signal output
21	FEN	Focus error amplifier inverted input
22	FEOUT	Focus error signal output
23	AGCOFST	Offset adjustment for DRC - 2
24	MON	Monitor
25	AGCLVL	Output amplitude adjustment for DRC
26	GND2	Ground 2
27	VREF2	VREF2 voltage output
28	VCC2	Power supply 2 (5V)
29	VHALF	VHALF voltage output
30	DFLTON	Filter amplifier inverted output
31	DFLTOP	Filter amplifier positive output
32	DCFLT	Filter output capacitance connection
33	GND3	Ground3
34	RFDIFO	Radial differential output
35	RFOUT	RF full-addition amplifier output
36	VCC3	Power supply 3 (3.3V)
37	RFC	Filter for RF-group delay correction amplifier
38	DCRF	DC-cut filter for RF full-addition amplifier
39	OFTR	OFTR output
40	BDO	BDO output
41	RFENV	RF envelope output
42	BOTTOM	Bottom envelope detection filter
43	PEAK	Peak envelope detection filter
44	AGCG	AGC amplifier gain control
45	AGCO	AGC amplifier level control
46	TESTSG	TEST signal input
47	RFINP	RF signal positive input
48	RFINN	RF signal inverted input
49	VIN5	Internal four-partition (CD) RF input 1
50	VIN6	Internal four-partition (CD) RF input 2
51	VIN7	Internal four-partition (CD) RF input 3
52	VIN8	Internal four-partition (CD) RF input 4
53	VIN9	External two-partition (DVD) RF input 2
54	VIN10	External two-partition (DVD) RF input 1
55	VCC1	Power supply 1 (5V)
56	VREF1	VREF1 voltage output
57	VIN1	Internal four-partition (DVD) RF input 1
58	VIN2	Internal four-partition (DVD) RF input 2
59	VIN3	Internal four-partition (DVD) RF input 3
60	VIN4	Internal four-partition (DVD) RF input 4
61	GND1	Ground 1
62	VIN11	3-beam sub (CD) input 2
63	VIN12	3-beam sub (CD) input 1
64	HDTYPE	HD type selection

■ BA5983FM-X (IC201) : Driver

1.Pin layout / Block diagram

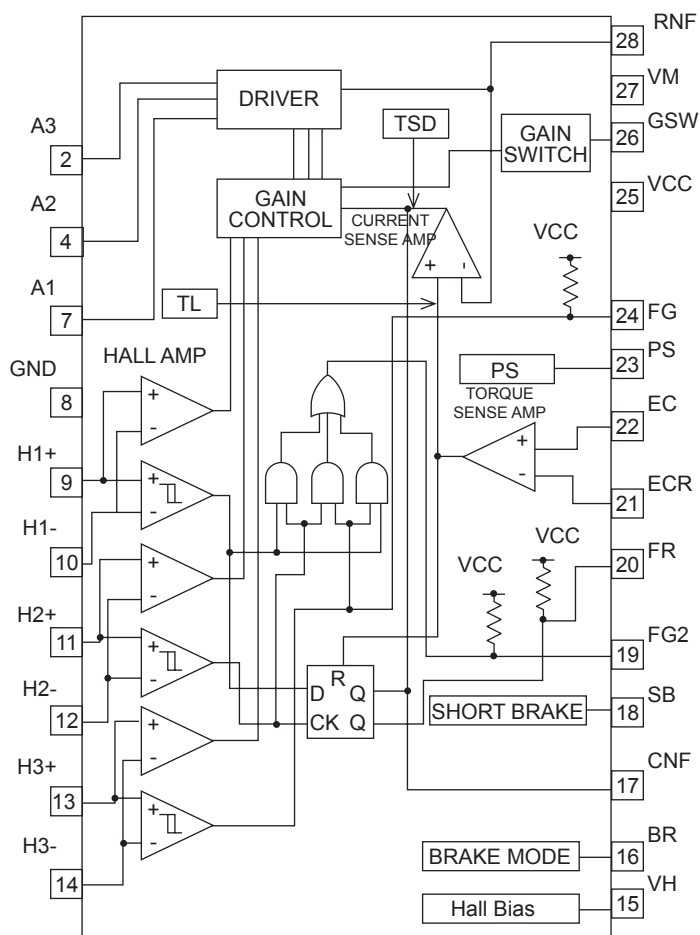


2.Pin function

No.	Symbol	Function	No.	Symbol	Function
1	BIAS IN	Input for Bias-amplifier	15	VO4(+)	Non inverted output of CH4
2	OPIN1(+)	Non inverting input for CH1 OP-AMP	16	VO4(-)	Inverted output of CH4
3	OPIN1(-)	Inverting input for CH1 OP-AMP	17	VO3(+)	Non inverted output of CH3
4	OPOUT1	Output for CH1 OP-AMP	18	VO3(-)	Inverted output of CH3
5	OPIN2(+)	Non inverting input for CH2 OP-AMP	19	PowVcc2	Vcc for CH3/4 power block
6	OPIN2(-)	Inverting input for CH2 OP-AMP	20	STBY2	Input for CH4 stand by control
7	OPOUT2	Output for CH2 OP-AMP	21	GND	Substrate ground
8	GND	Substrate ground	22	OPOUT3	Output for CH3 OP-AMP
9	STBY1	Input for CH1/2/3 stand by control	23	OPIN3(-)	Inverting input for CH3 OP-AMP
10	PowVcc1	Vcc for CH1/2 power block	24	OPIN3(+)	Non inverting input for CH3 OP-AMP
11	VO2(-)	Inverted output of CH2	25	OPOUT4	Output for CH4 OP-AMP
12	VO2(+)	Non inverted output of CH2	26	OPIN4(-)	Inverting input for CH4 OP-AMP
13	VO1(-)	Inverted output of CH1	27	OPIN4(+)	Non inverting input for CH4 OP-AMP
14	VO1(+)	Non inverted output of CH1	28	PreVcc	Vcc for pre block

■ BA6664FM-X (IC251) : Motor driver

1. Block diagram

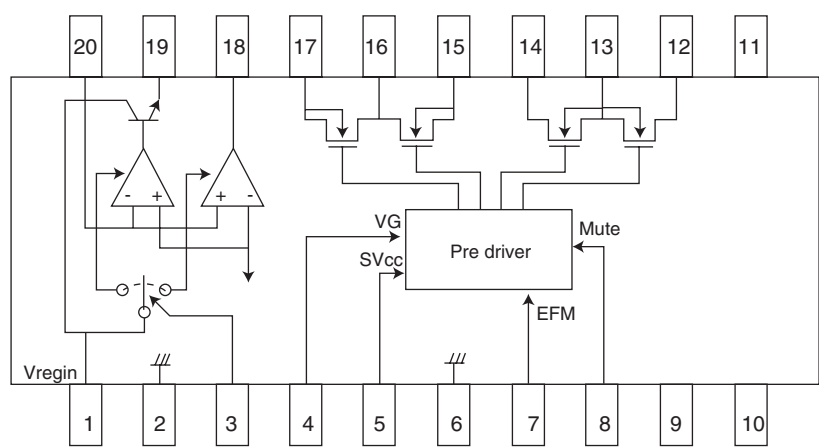


2. Pin function

Pin No.	Symbol	Function	Pin No.	Symbol	Function
1	NC	NC	19	FG2	3Phase synthesized FG signal output terminal
2	A3	Output3 for motor	20	FR	Rotation detect signal output terminal
3	NC	NC	21	ECR	Torque control standard voltage input terminal
4	A2	Output2 for motor	22	EC	Torque control voltage input terminal
5	NC	NC	23	PS	START/STOP switch
6	NC	NC	24	FG	FG signal output terminal
7	A1	Output1 for motor	25	Vcc	Power supply for signal division
8	GND	GND	26	GSW	Gain switch
9	H1+	Positive input for hall input Amp1	27	VM	Power supply for driver division
10	H1-	Negative input for hall input Amp1	28	RNF	Resistance connection pin for output current sense
11	H2+	Positive input for hall input Amp2	FIN	FIN	GND
12	H2-	Negative input for hall input Amp2			
13	H3+	Positive input for hall input Amp3			
14	H3-	Negative input for hall input Amp3			
15	VH	Hall bias terminal			
16	BR	Brake Mode terminal			
17	CNF	Capacitor connection pin for phase compensation			
18	SB	Short brake terminal			

BD7910FV-X (IC450) : M.HEAD driver

1.Block diagram

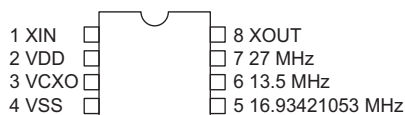


2.Pin function

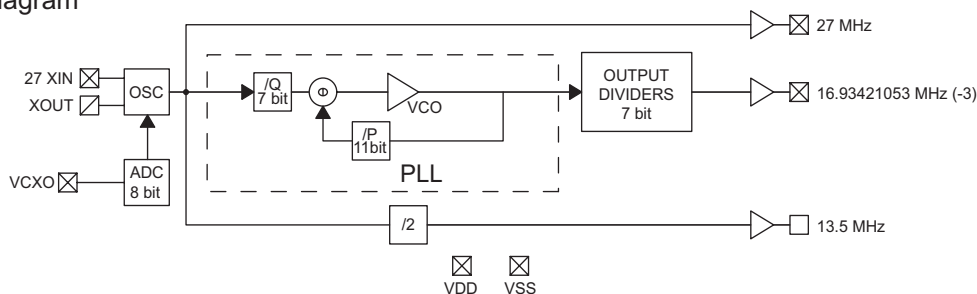
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	Vreg IN	I	Regulator input and regulator power supply	11	NC	-	Non connect
2	Reg GN	-	Regulator GND	12	VOD2	O	Sync.output (Lower power MOS,drain)
3	NC	-	Non connect	13	VSS	-	"H"bridge GND (Lower power MOS,source)
4	VG	I	Voltage input for power MOS drive	14	VOD1	O	Sync.output (Lower power MOS,drain)
5	SVCC	O	EFM high level output voltage	15	VOS1	O	Source output (Upper power MOS,source)
6	PDGND	-	Pre-driver GND	16	VDD	-	"H" bridge power supply terminal (Upper power MOS,source)
7	EFM	I	EFM signal input	17	VOS2	O	Source output (Upper power MOS,source)
8	MUTE	I	Mute control (Low active)	18	Reg DRV	O	External PNP drive output for regulator
9	NC	O	Non connct	19	Reg OUT	O	Reglator output (Emitter follower output)
10	NC	O	Non connect	20	Reg NF	-	Regulator feedbaack terminal

■ CS5960AT-X (IC571) : MPEG/Audio clock generator with VCXO

1.Pin layout



2.Block diagram

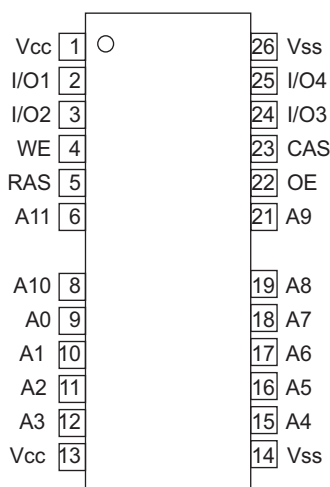


3.Pin function

No.	Symbol	Function
1	XIN	Reference Crystal Input
2	VDD	Voltage Supply
3	VCXO	Input Analog Control for VCXO
4	VSS	Ground
5	16.93421053 MHz	16.93421053-MHz clock output
6	13.5 MHz	13.5-MHz clock output
7	27 MHz	27-MHz clock output
8	XOUT	Reference Crystal output

■ GM71VS17400CLT5 (IC390) : DRAM

1.Pin layout

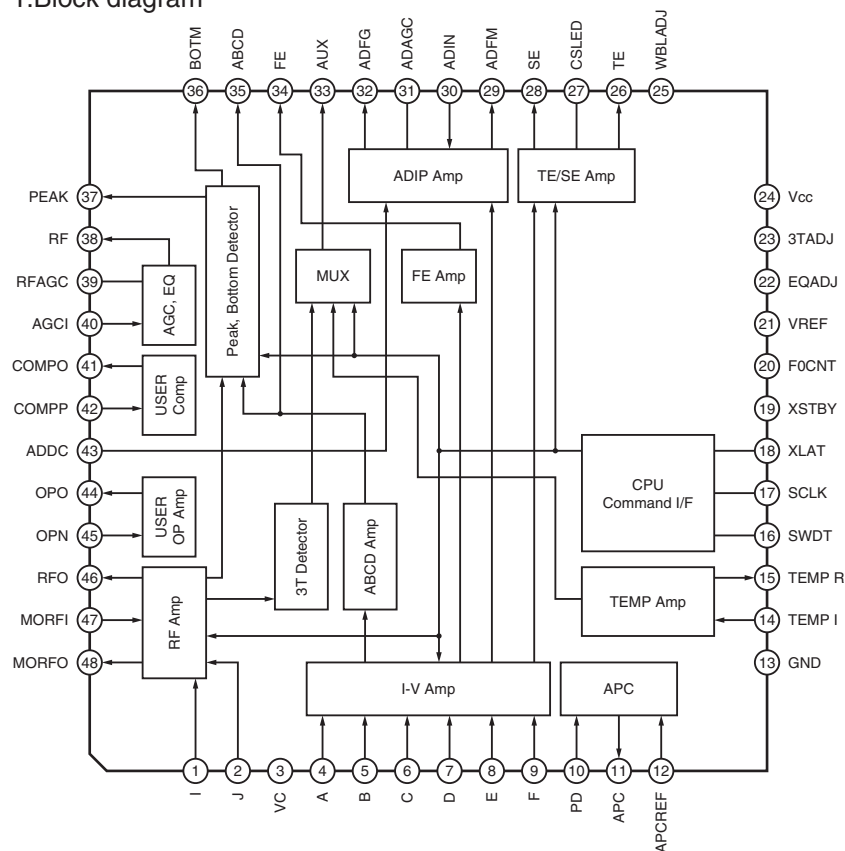


3.Pin function

Pin No.	Symbol	Function
1	Vcc	Power(+3.3V)
2	I/O1	Data-Input/Output
3	I/O2	Data-Input/Output
4	WE	Read/Write Enable
5	RAS	Row Address Strobe
6	A11	Address Input
7	-	No Connection
8	A10	Address Input
9~12	A0~A3	Address Input
13	Vcc	Power(+3.3V)
14	Vss	Ground
15~19	A4~A8	Address Input
20	-	No Connection
21	A9	Address Input
22	OE	Output Enable
23	CAS	Column Address Strobe
24	I/O3	Data-Input/Output
25	I/O4	Data-Input/Output
26	Vss	Ground

CXA2523AR (IC310) : MD servo

1.Block diagram



2.Pin function 1/2

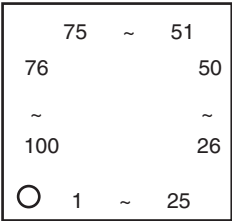
Pin No.	Symbol	I/O	Function
1	I	I	I-V converted RF signal I input.
2	J	I	I-V converted RF signal J input.
3	VC	O	Vcc/2 voltage output.
4	A	I	A current input for main beam servo signal.
5	B	I	B current input for main beam servo signal.
6	C	I	C current input for main beam servo signal.
7	D	I	D current input for main beam servo signal.
8	E	I	E current input for side beam servo signal.
9	F	I	F current input for side beam servo signal.
10	PD	I	Reflection light quantity monitor signal input.
11	APC	O	Laser APC output.
12	APCREF	I	Reference voltage input for the laser power intensity setting.
13	GND	-	Connect to GND.
14	TEMPI	I	Connects the temperature sensor.
15	TEMP R	I	Connects the temperature sensor. outputs the reference voltage.
16	SWDT	I	Data input for microcomputer serial interface.
17	SCLK	I	Shift clock input for microcomputer serial interface.
18	XLAT	I	Latch signal input for microcomputer serial interface.Latched when low.
19	XSTBY	I	Standby setting pin. Normal operation when high Standby when low.
20	F0CNT	I	Internal current source setting pin.

2.Pin function 2/2

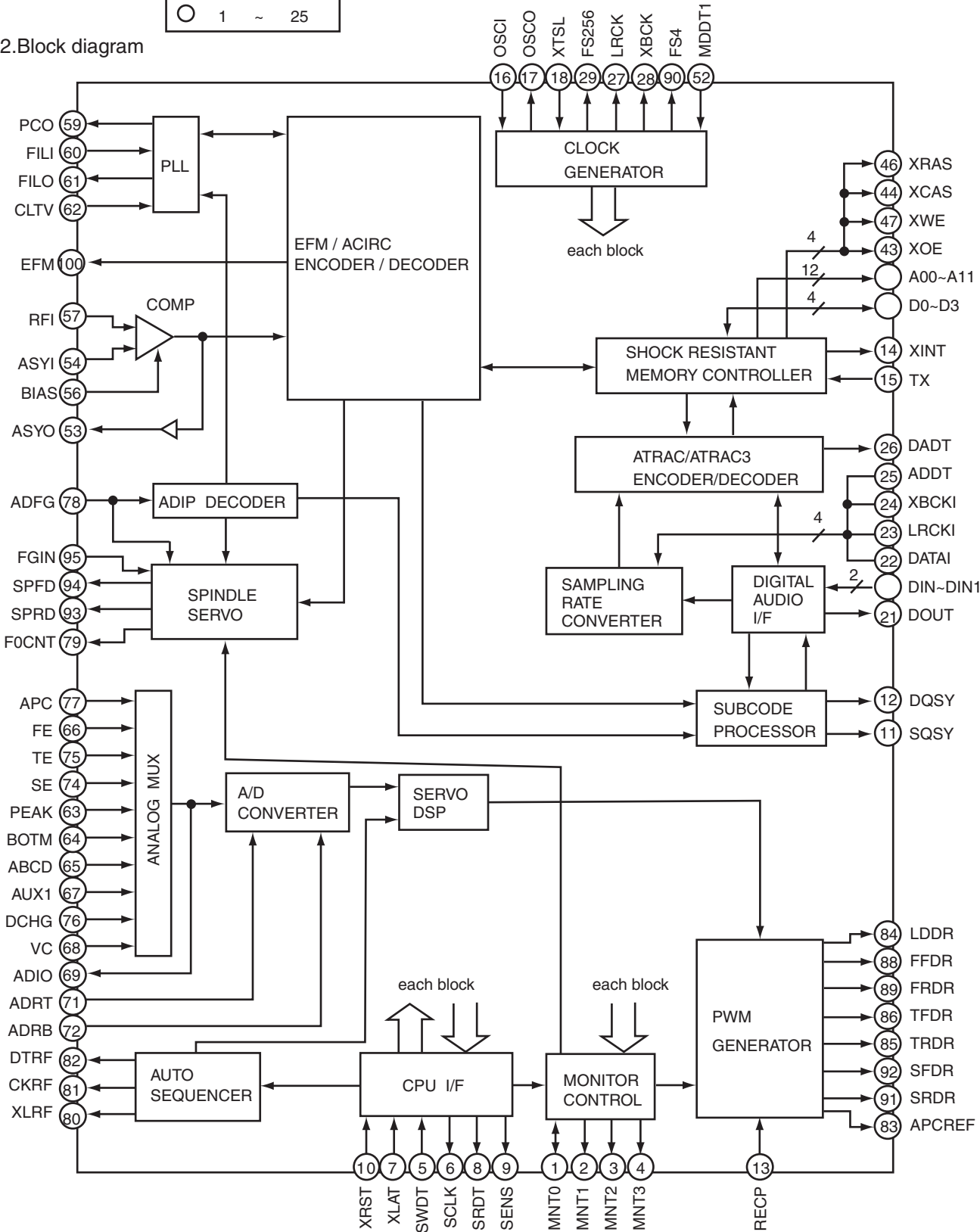
Pin No.	Symbol	I/O	Function
21	VREF	O	Reference voltage output.
22	EQADJ	I/O	Equalizer center frequency setting pin.
23	3TADJ	I/O	BPF3T center frequency setting pin.
24	Vcc	-	Power supply.
25	WBLADJ	I/O	BPF22 center frequency setting pin.
26	TE	O	Tracking error signal output.
27	CSLED	-	Connects the sled error signal LPF capacitor.
28	SE	O	Sled error signal output.
29	ADFM	O	ADIP FM signal output.
30	ADIN	I	ADIP signal comparator input.
31	ADAGC	-	Connects the ADIPAGC capacitor.
32	ADFG	O	ADIP2 binary value signal output.
33	AUX	O	13 output / temperature signal output. Switched with serial commands.
34	FE	O	Focus error signal output.
35	ABCD	O	Reflection light quantity signal output for the main beam servo detector.
36	BOTM	O	RF/ABCD bottom hold signal output.
37	PEAK	O	Peak hold signal output for the RF/ABCD signals.
38	RF	O	RF equalizer output.
39	RFAGC	-	Connects the RFAGC capacitor.
40	AGCI	I	RFAGC input.
41	COMPO	O	User comparator output.
42	COMPP	I	User comparator non-inverted input.
43	ADDC	I/O	Connects the capacitor for ADIP amplifier feedback circuit.
44	OPO	O	User operational amplifier output.
45	OPN	I	User operational amplifier inverted input.
46	RFO	O	RF amplifier output. Eye pattern checkpoint.
47	MORFI	I	Input of the groove RF signal with AC coupling.
48	MORFO	O	Groove RF signal output.

■ CXD2662R (IC350) : MD DSP

1.Pin layout



2.Block diagram



3.Pin function 1/3

Pin No.	Symbol	I/O	Function
1	MNT0	I/O	Monitor output.
2	MNT1	O	Monitor output.
3	MNT2	O	Monitor output.
4	MNT3	O	Monitor output.
5	SWDT	I	Data input for microcomputer serial interface.
6	SCLK	I	Shift clock input for microcomputer serial interface.
7	XLAT	I	Latch input for microcomputer serial interface.Latched at the falling edge.
8	SRDT	O	Data output for microcomputer serial interface.
9	SENS	O	Outputs the internal status corresponding to the microcomputer serial interface address.
10	XRST	I	Reset input. Low : reset
11	SQSY	O	Disc subcode Q sync / ADIP sync output.
12	DQSY	O	Subcode Q sync output in U-bit CD or MD format when the Digital In source is CD or MD.
13	RECP	I	Laser power switching input. High : recording power ; low ; playback power
14	XINT	O	Interruption request output. Low when the interruption status occurs.
15	TX	I	Enable signal input for recoding data output. High : enabled
16	OSCI	I	Crystal oscillation circuit input.
17	OSCO	O	Crystal oscillation circuit output. (inverted output of the OSCI pin)
18	XTSL	I	OSCI input frequency switching. XTSL1(command) = low and XTSL = high : 512Fs (22.5792MHz) XTSL1(command) = low and XTSL = low : 1024Fs (45.1584MHz) XTSL1(command) = high : 2048Fs (90.3168MHz)
19	DIN0	I	Digital audio interface signal input 1.
20	DIN1	I	Digital audio interface signal input 2.
21	DOUT	O	Digital audio interface signal output.
22	DATAI	I	Test pin. Connect to GND.
23	LRCKI	I	Test pin. Connect to GND.
24	XBCKI	I	Test pin. Connect to GND.
25	ADDT	I	Data input from A / D converter.
26	DADT	O	REC monitor output / decoded audio data output.
27	LRCK	O	LA clock (44.1kHz) output to the external audio block.
28	XBCK	O	Bit clock (2.8224kHz) output to the external audio block.
29	FS256	O	256Fs output.
30	DVDD	-	Digital power supply.
31	A03	O	External DRAM address output.
32	A02	O	External DRAM address output.
33	A01	O	External DRAM address output.
34	A00	O	External DRAM address output.
35	A10	O	External DRAM address output.
36	A04	O	External DRAM address output.
37	A05	O	External DRAM address output.
38	A06	O	External DRAM address output.
39	A07	O	External DRAM address output.
40	A08	O	External DRAM address output.
41	A11	O	External DRAM address output.
42	DVSS	-	Digital ground.
43	XOE	O	External DRAM output enable.

3.Pin function 2/3

Pin No.	Symbol	I/O	Function
44	XCAS	O	External DRAM CAS output.
45	A09	O	External DRAM address output.
46	XRAS	O	External DRAM RAS output.
47	XWE	O	External DRAM write enable.
48	D1	I/O	External DRAM data bus.
49	D0	I/O	External DRAM data bus.
50	D2	I/O	External DRAM data bus.
51	D3	I/O	External DRAM data bus.
52	MDDTI	I	MD-DATA mode 1 switching input. (Low : normal mode ; high : MD-DATA mode 1)
53	ASYO	O	Playback EFM full-swing output. (Low : vss ; high : Vdd)
54	ASYI	I	Playback EFM comparator slice voltage input.
55	AVDD	-	Analog power supply.
56	BIAS	I	Playback EFM comparator bias current input.
57	RFI	I	Playback EFM RE signal input.
58	AVSS	-	Analog ground.
59	PCO	O	Phase comparison output for master PLL of playback digital PLL and recording EFM PLL.
60	FILI	I	Filter input for master PLL of playback digital PLL and recording EFM PLL.
61	FILO	O	Filter output for master PLL of playback digital PLL and recording EFM PLL.
62	CLTV	I	Internal VCO control voltage input for master PLL of playback digital EFM PLL and recording EFM PLL.
63	PEAK	I	Peak hold signal input for quantity of light.
64	BOTM	I	Bottom hold signal input for quantity of light.
65	ABCD	I	Signal input for quantity of light.
66	FE	I	Focus error signal input.
67	AUXI	I	Auxiliary input 1.
68	VC	I	Center voltage input.
69	ADIO	I	Monitor output for A / D converter input signal.
70	AVDD	-	Analog power supply.
71	ADRT	I	Voltage input for the upper limit of the A / D converter operating range.
72	ADRB	I	Voltage input for the lower limit of the A / D converter operating range.
73	AVSS	-	Analog ground.
74	SE	I	Sled error signal input.
75	TE	I	Tracking error signal input.
76	DCHG	I	Connect to the low-impedance power supply.
77	APC	I	Error signal input for laser digital APC.
78	ADFG	I	ADIP binary FM signal ($22.05 \pm 1\text{kHz}$) input.
79	F0CNT	O	CXA2523 current source setting output.
80	XLRF	O	CXA2523 control latch output. Latched at the falling edge.
81	CKRF	O	CXA2523 control shift clock output.
82	DTRF	O	CXA2523 control data output.
83	APCREF	O	Reference PWM output for laser APC.
84	LDDR	O	PWM output for laser digital APC.
85	TRDR	O	Tracking servo drive PWM output. (-)
86	TFDR	O	Tracking servo drive PWM output. (+)
87	DVDD	-	Digital power supply.
88	FFDR	O	Focus servo drive PWM output. (+)
89	FRDR	O	Focus servo drive PWM output. (-)
90	FS4	O	4Fs output. (176.4kHz)

3.Pin function 3/3

Pin No.	Symbol	I/O	Function
91	SRDR	O	Sled servo drive PWM output. (-)
92	SFDR	O	Sled servo drive PWM output. (+)
93	SPRD	O	Spindle servo drive output. (PWM (-) or polarity)
94	SPFD	O	Spindle servo drive output. (PWM (+) or PWM absolute value)
95	FGIN	I	Spindle CAV servo FG input.
96	TEST1	I	Test pin. Connect to GND.
97	TEST2	I	Test pin. Connect to GND.
98	TEST3	I	Test pin. Connect to GND.
99	DVSS	-	Digital ground.
100	EFMO	O	Low when playback ; EFM (encoded data) output when recording.

■ CD4094BC (IC33) : Buffer

1.Pin layout

STROBE	1	16	VDD
DATA	2	15	OUTPUT/ENABLE
CLOCK	3	14	Q5
Q1	4	13	Q6
Q2	5	12	Q7
Q3	6	11	Q8
Q4	7	10	Q's
Vss	8	9	Qs

2.Truth Table

Clock	Output Enable	Strobe	Data	Parallel Outputs		Serial Outputs	
				Q1	Q _N	Q _s (Note 1)	Q' _Σ
	0	X	X	Hi-Z	Hi-Z	Q7	No Change
	0	X	X	Hi-Z	Hi-Z	No Change	Q7
	1	0	X	No Change	No Change	Q7	No Change
	1	1	0	0	Q _N -1	Q7	No Change
	1	1	1	1	Q _N -1	Q7	No Change
	1	1	1	No Change	No Change	No Change	Q7

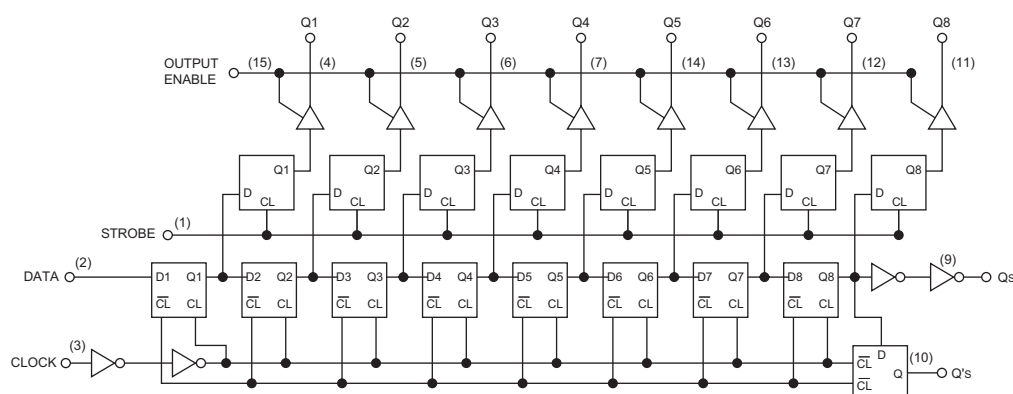
X=Don't Care

=HIGH-to-LOW

=LOW-to-HIGH

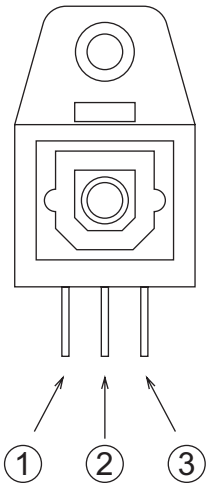
Note 1: At the positive clock edge,information in the 7th shift register stage is transferred to Q8 and Qs

3.Block Diagram

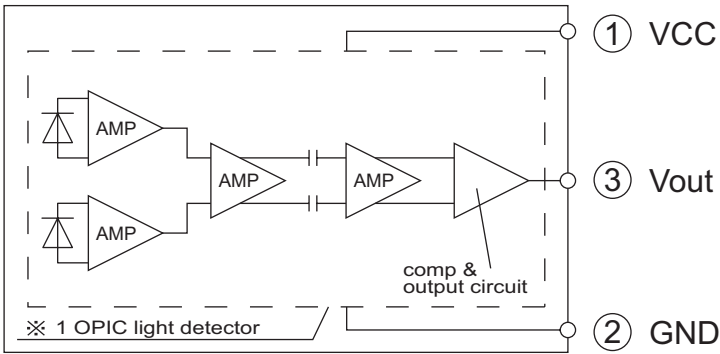


■ GP1FA550RZ (IC391) : Fiber-optic receiver unit

1.Pin layout

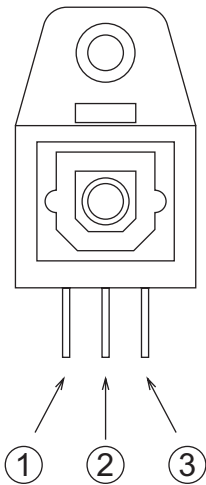


2.Pin function / Block diagram



■ GP1FA550TZ (IC392) : Fiber-optic transmitter unit

1.Pin layout

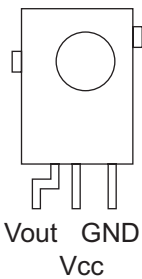


2.Pin function

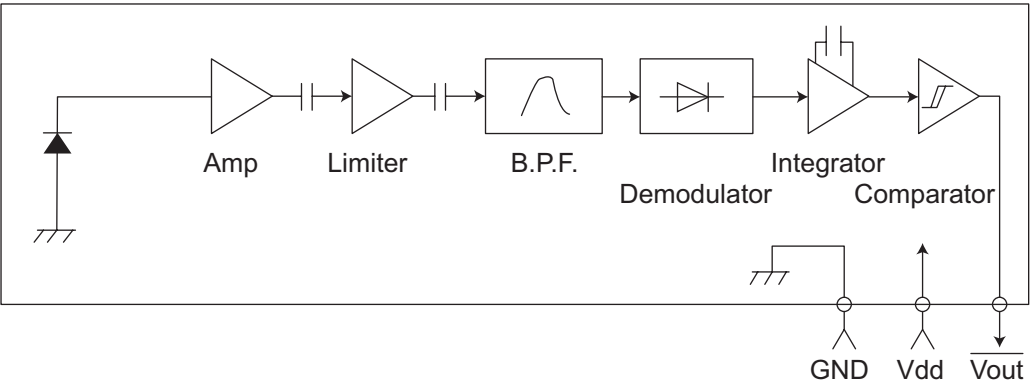
- ① Vin
- ② Vcc
- ③ GND

■ GP1UM261XK (IC861) : IR detect unit

1. Pin layout

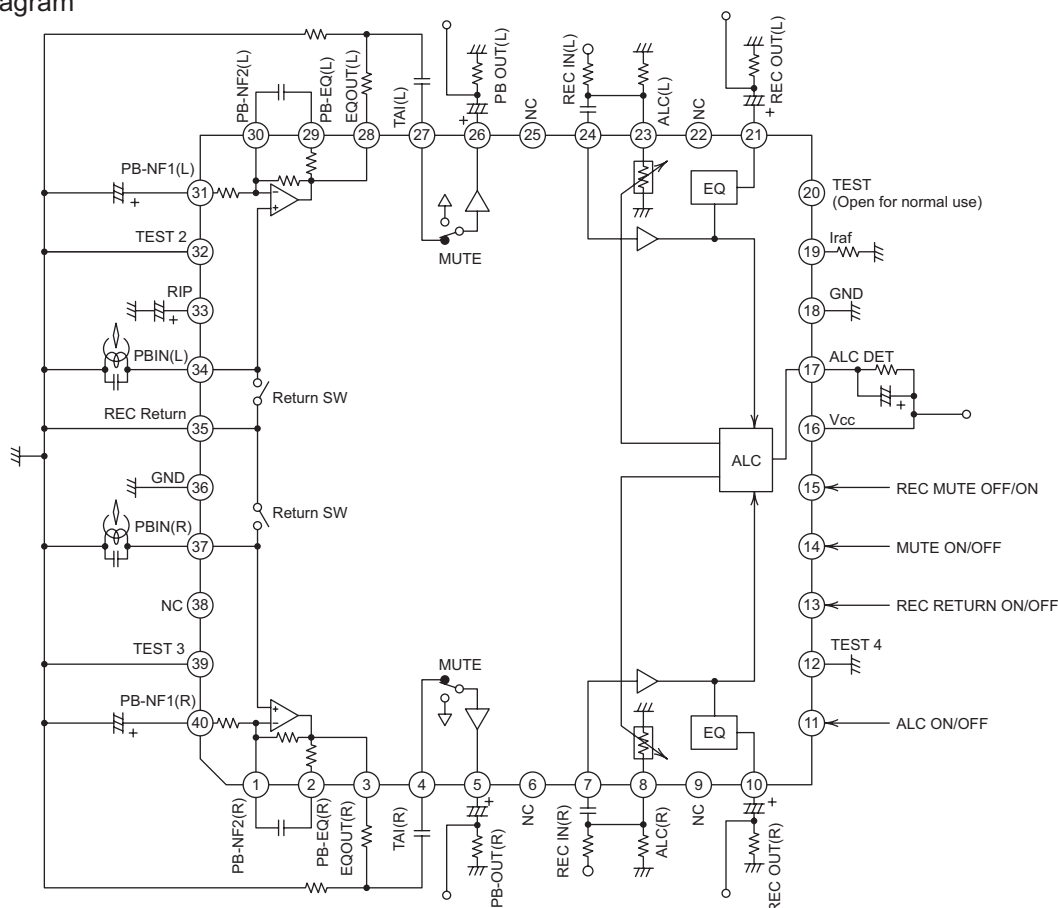


2. Block diagram



■ HA12238F (IC32) : Recording / Reproduction Equalizer

1. Block diagram



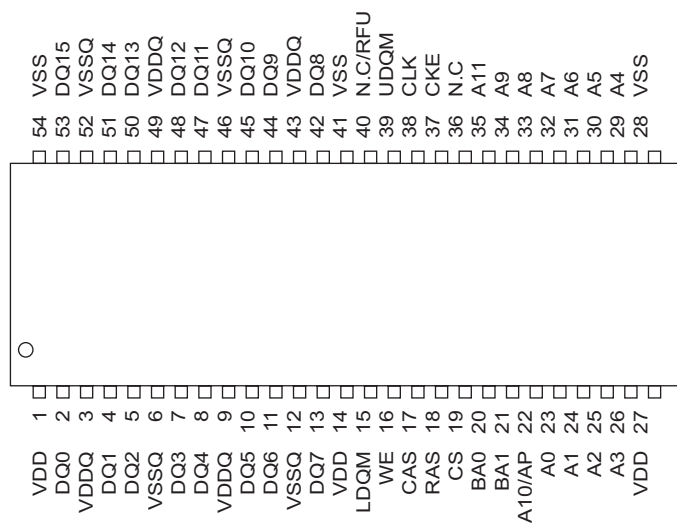
2. Pin function

Pin No.	Symbol	I/O	function
1	PB-NF2(R)	-	Reproduction equalizer feedback terminal
2	PB-EQ(R)	O	NAB output terminal
3	EQ OUT(R)	O	EQ output terminal
4	TAI(R)	I	Tape input terminal
5	PB OUT(R)	O	Reproduction output terminal
6	NC	-	Unused
7	REC IN(R)	I	Input terminal
8	ALC(R)	I	ALC(R) Input terminal
9	NC	-	Unused
10	REC OUT(R)	O	REC output terminal
11	ALC ON/OFF	I	Mode control input terminal
12	TEST4	-	Test terminal
13	REC Return ON/OFF	I	Mode control input terminal
14	MUTE ON/OFF	I	Mode control input terminal
15	REC MUTE OFF/ON	I	Mode control input terminal
16	Vcc	-	Vcc terminal
17	ALC DET	-	ALC detection terminal
18	GND	-	Grand terminal
19	IREF	I	Equalizer standard current input terminal
20	Test mode	-	Test mode terminal

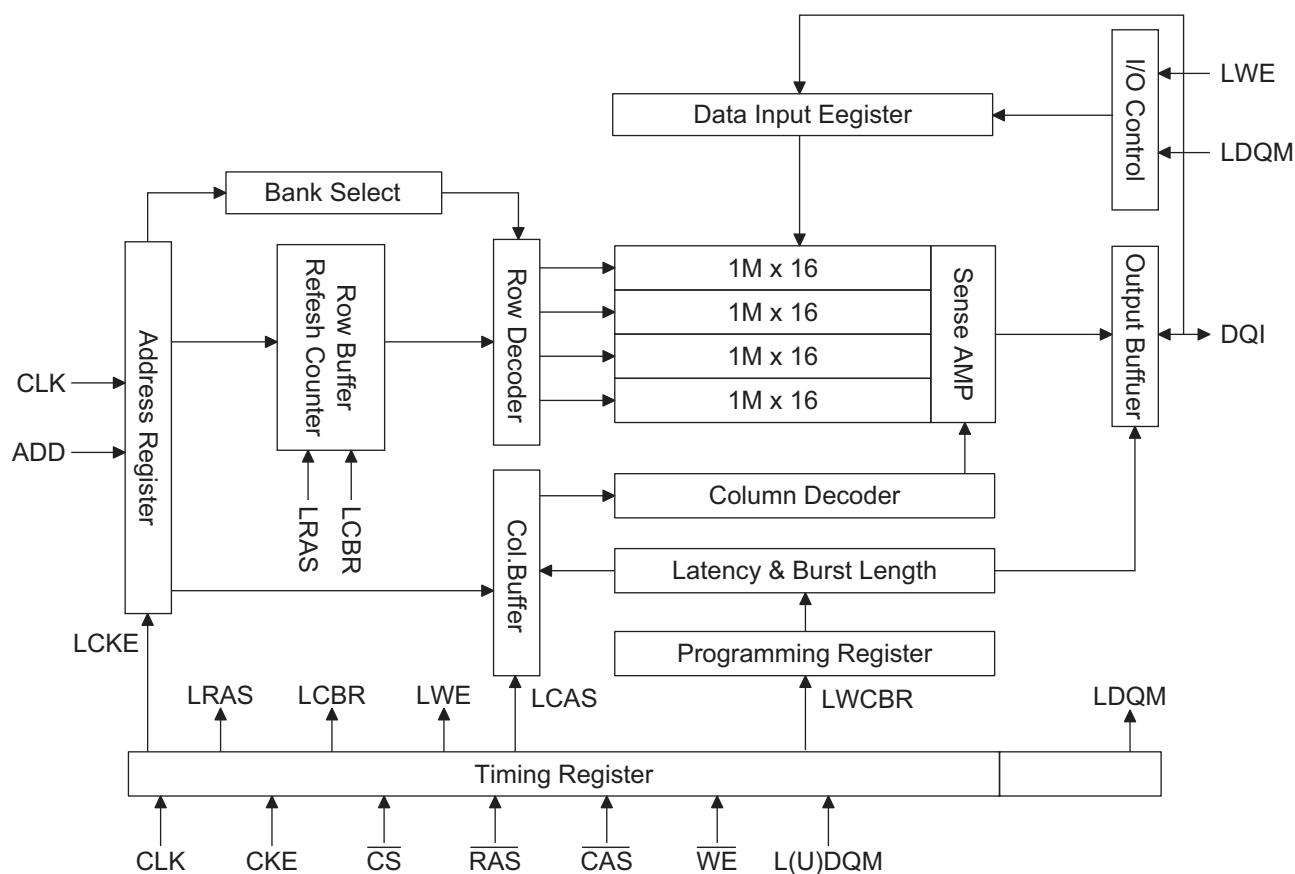
Pin No.	Symbol	I/O	function
21	REC OUT(L)	O	REC output terminal
22	NC	-	Unused
23	ALC(L)	I	ALC(L)input terminal
24	REC IN(L)	I	REC-EQ input terminal
25	NC	-	Unused
26	PB OUT(L)	O	Reproduction output terminal
27	TAI(L)	I	Tape input terminal
28	EQ OUT(L)	O	EQ output terminal
29	PB-EQ(L)	O	NAB output terminal
30	PB-NF2(L)	-	Reproduction equalizer feedback terminal
31	PB-NF1(L)	-	Reproduction equalizer feedback terminal
32	TEST2	-	Test terminal
33	RIP	-	Ripple filter terminal
34	PBIN(L)	I	Reproduction input terminal
35	REC-RETURN	-	REC return terminal
36	GND	-	Grand terminal
37	PBIN(R)	I	Reproduction input terminal
38	NC	-	Unused
39	TEST3	-	Test terminal
40	PB-NF1(R)	-	Reproduction equalizer feedback terminal

■ K4S641632F-TC75 (IC504) : SDRAM

1.Pin layout



2. Block diagram



*Samsung Electronics reserves the right to change products or specification without notice.

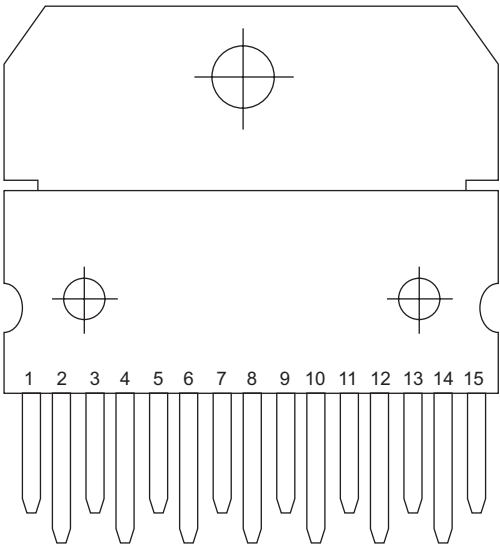
3.Pin function

K4S641632F-TC75

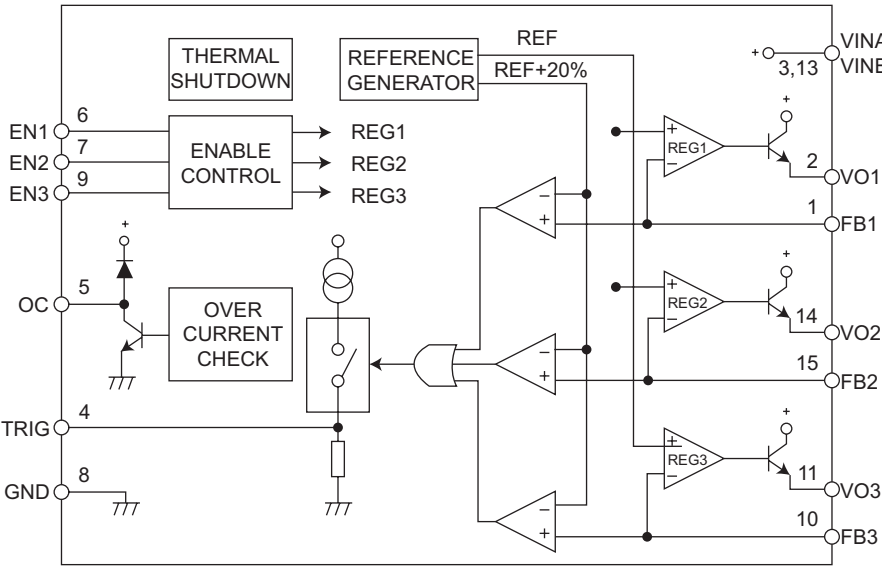
Pin No.	Symbol	Function
1	VDD	Power and ground for the input buffers and the core logic.
2	DQ0	Data inputs/outputs are multiplexed on the same plns.
3	VDDQ	Isolated power supply and ground for the output buffers to provide improved noise Immunity.
4,5	DQ1,DQ2	Data inputs/outputs are multiplexed on the same plns.
6	VSSQ	Isolated power supply and ground for the output buffers to provide improved noise Immunity.
7,8	DQ3,DQ4	Data inputs/outputs are multiplexed on the same plns.
9	VDDQ	Isolated power supply and ground for the output buffers to provide improved noise Immunity.
10,11	DQ5,DQ6	Data inputs/outputs are multiplexed on the same plns.
12	VSSQ	Isolated power supply and ground for the output buffers to provide improved noise Immunity.
13	DQ7	Data inputs/outputs are multiplexed on the same plns.
14	VDD	Power and ground for the input buffers and the core logic.
15	LDQM	Makes data output Hi-Z, tsHZ after the clock and masks the output. Blocks data input when L(U)DQM active.
16	WE	Enables write operation and row precharge. Latches data in starting from CAS,WE active.
17	CAS	Latches column addresses on the positive going edge of the CLK with CAS low. Enables column access.
18	RAS	Latches row addresses on the positive going edge of the CLK with RAS low. Enables row access & precharge.
19	CS	Disables or enables device operation by masking or enabling all inputs except CLK,CKE and L(U)DQM
20,21	BA0,BA1	Selects bank to be activated during row address latch time. Selects bank for read/write during column address latch time.
22~26	A10/AP, A0~A3	Row/column addresses are multiplexed on the same plns. Row address : RA0~RA11, Column address : CA0~CA7
27,28	VDD,VSS	Power and ground for the input buffers and the core logic.
29~35	A4~A9, A11	Row/column addresses are multiplexed on the same plns. Row address : RA0~RA11, Column address : CA0~CA7
36	N.C	This pin is recommended to be left No Connection on the device.
37	CKE	Masks system clock to freeze operation from the next clock cycle. CKE should be enabled at least one cycle prior to new command. Disable input buffers for power down in standby.
38	CLK	Active on the positive going edge to sample all inputs.
39	UDQM	Makes data output Hi-Z, tsHZ after the clock and masks the output. Blocks data input when L(U)DQM active.
40	N.C/RFU	This pin is recommended to be left No Connection on the device.
41	VSS	Power and ground for the input buffers and the core logic.
42	DQ8	Data inputs/outputs are multiplexed on the same plns.
43	VDDQ	Isolated power supply and ground for the output buffers to provide improved noise Immunity.
44,45	DQ9,DQ10	Data inputs/outputs are multiplexed on the same plns.
46	VSSQ	Isolated power supply and ground for the output buffers to provide improved noise Immunity.
47,48	DQ11,DQ12	Data inputs/outputs are multiplexed on the same plns.
49	VDDQ	Isolated power supply and ground for the output buffers to provide improved noise Immunity.
50,51	DQ13,DQ14	Data inputs/outputs are multiplexed on the same plns.
52	VSSQ	Isolated power supply and ground for the output buffers to provide improved noise Immunity.
53	DQ15	Data inputs/outputs are multiplexed on the same plns.
54	VSS	Power and ground for the input buffers and the core logic.

■ L4909 (IC212) : Regulator

1. Pin layout



2. Block diagram

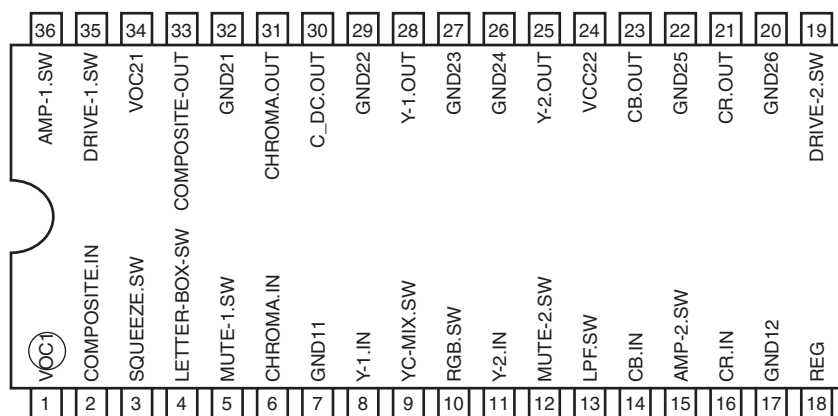


3. Pin functions

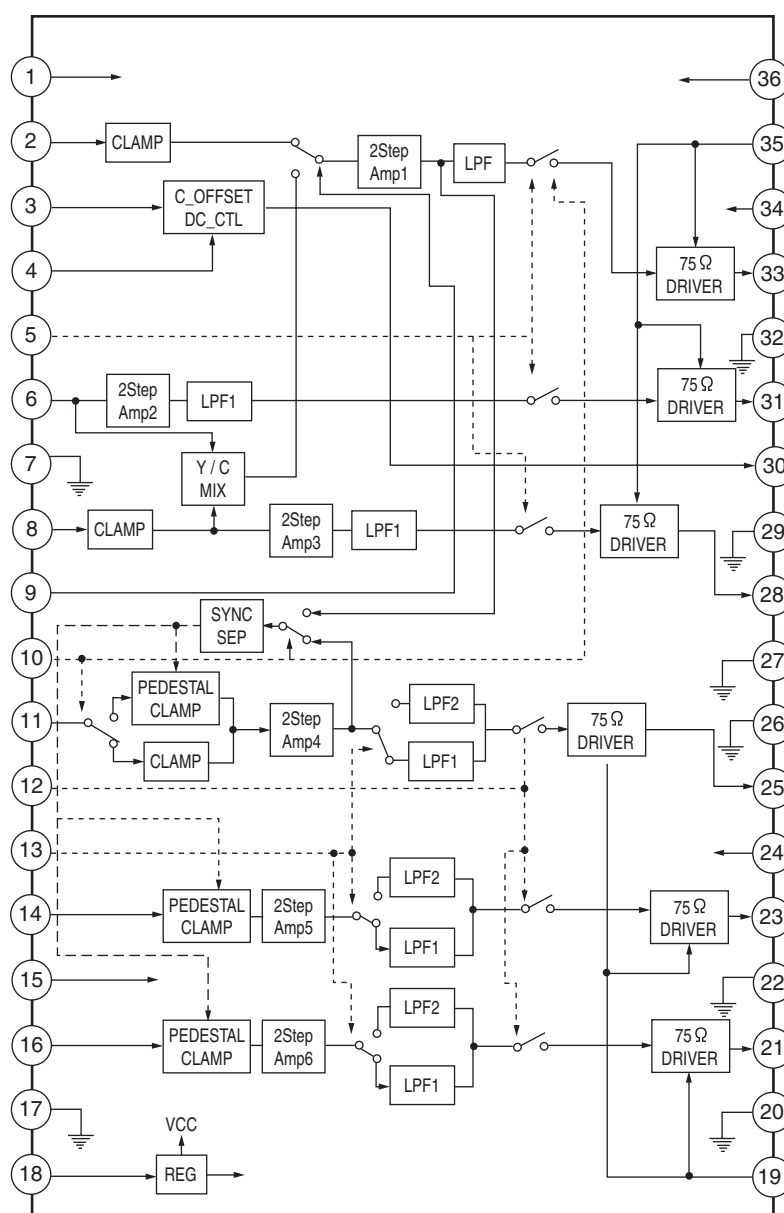
Pin No.	Symbol	Function
1	FB1	REG1 feedback voltage input
2	VO1	REG1 output voltage
3	VINA	Input DC supply voltage
4	TRIG	Trigger for external SCR (crowbar protection)
5	OC	Over current warning output
6	EN1	REG1 enable input
7	EN2	REG2 enable input
8	GND	Analog ground
9	EN3	REG3 enable input
10	FB3	REG3 feedback voltage input
11	VO3	REG3 output voltage
12	N.C.	Not connected
13	VINB	Input DC supply voltage
14	VO2	REG2 output voltage
15	FB2	REG2 feedback voltage input

■ LA73054-X (IC601) : Video Driver

1. Pin layout

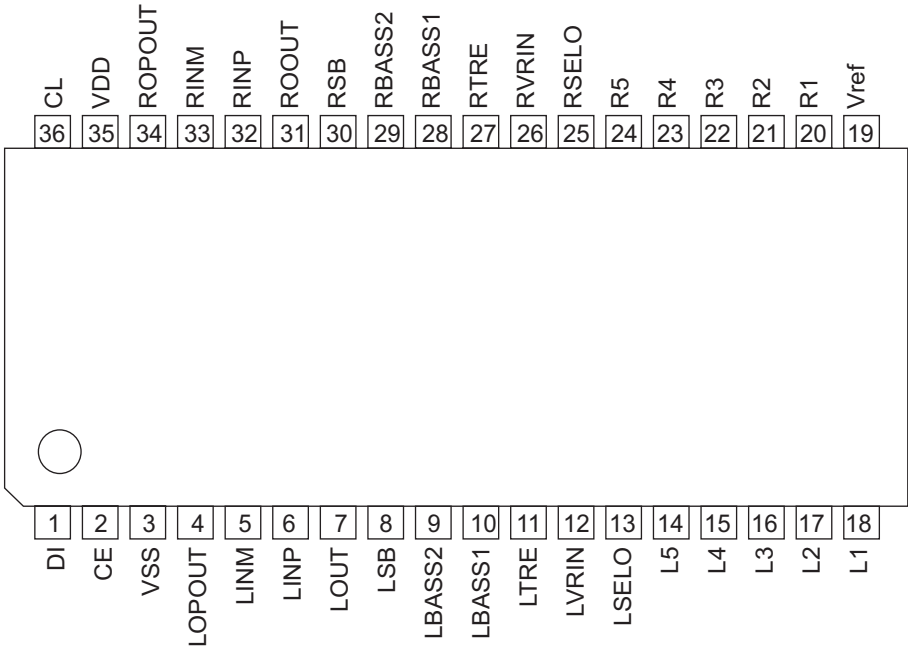


2. Block diagram

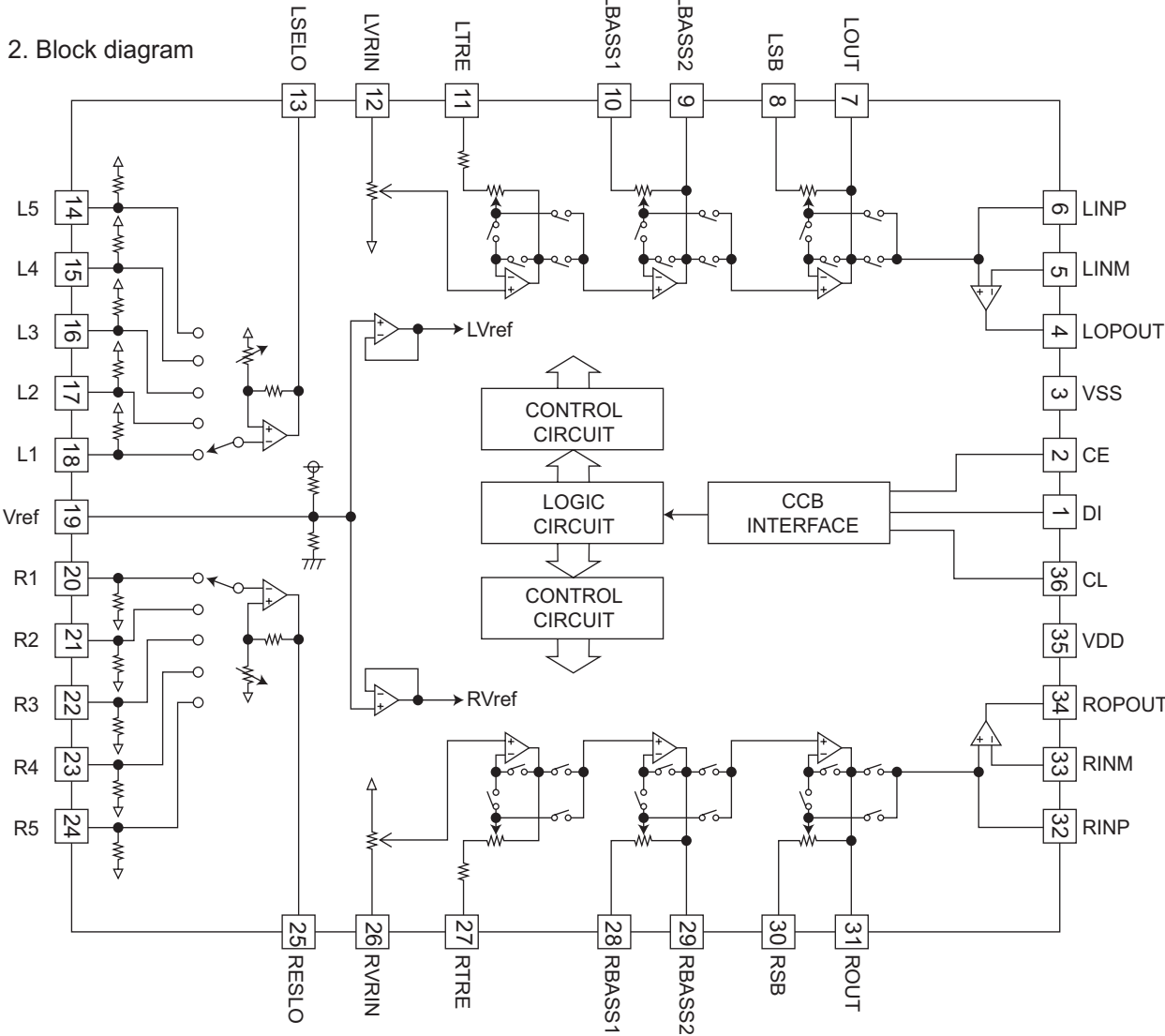


■ LC75345M-X (IC311) : Function Vol

1. Pin layout



2. Block diagram

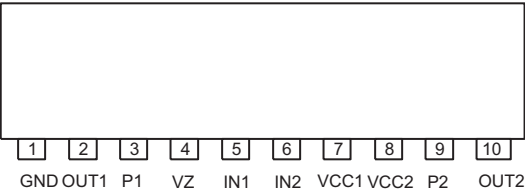


3. Pin function

Pin No.	Symbol	Function
1	DI	Serial data and clock input pin for control.
2	CE	Chip enable pin.
3	VSS	Ground pin.
4	LOPOUT	Output pin of general-purpose operation amplifier.
5	LINM	Non-inverted input pin of general-purpose operation amplifier.
6	LINP	Non-inverted input pin of general-purpose operation amplifier.
7	LOUT	ATT + equalizer output pin.
8	LSB	Capacitor and resistor connection pin comprising filters for bass and super-bass band.
9	LBASS2	Capacitor and resistor connection pin comprising filters for bass and super-bass band.
10	LBASS1	Capacitor and resistor connection pin comprising filters for bass and super-bass band.
11	LTRE	Capacitor and resistor connection pin comprising treble band filter.
12	LVRIN	Volume input pin.
13	LSELO	Input selector output pin.
14	L5	Input signal pin.
15	L4	Input signal pin.
16	L3	Input signal pin.
17	L2	Input signal pin.
18	L1	Input signal pin.
19	Vref	0.5 x VDD voltage generation block for analog ground.
20	R1	Input signal pin.
21	R2	Input signal pin.
22	R3	Input signal pin.
23	R4	Input signal pin.
24	R5	Input signal pin.
25	RSELO	Input selector output pin.
26	RVRIN	Volume input pin.
27	RTRE	Capacitor connection pin comprising treble band filter.
28	RBASS1	Capacitor and resistor connection pin comprising filter for bass and super-bass band.
29	RBASS2	Capacitor and resistor connection pin comprising filter for bass and super-bass band.
30	RSB	Capacitor and resistor connection pin comprising filter for bass and super-bass band.
31	ROUT	ATT + equalizer output pin.
32	RINP	Non inverted input pin of general-purpose operation amplifier.
33	RINM	Non inverted input pin of general purpose operation amplifier.
34	ROPOUT	Output pin of general-purpose operation amplifier.
35	VDD	Supply pin.
36	CL	Serial data and clock input pin for control.

■ LB1641 (IC741) : DC Motor driver

1. Pin layout

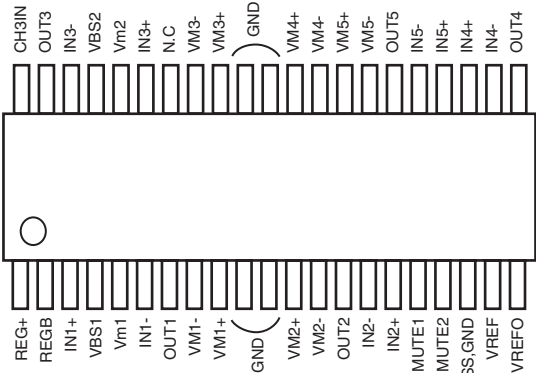


2. Pin function

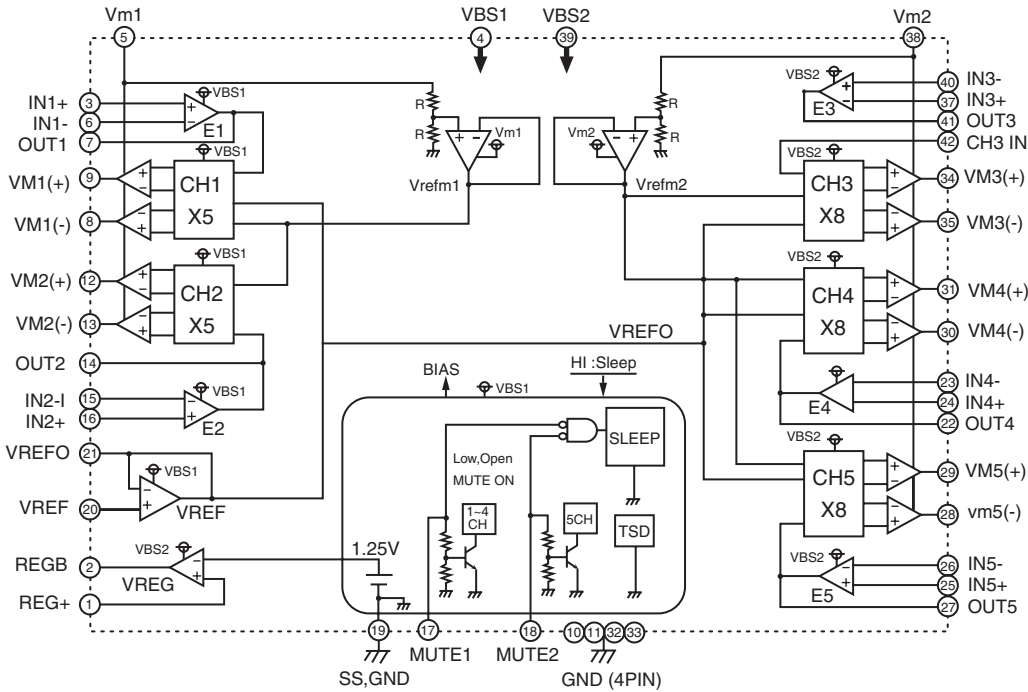
Input		Output		Mode
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	CLOCKWISE
0	1	0	1	COUNTER-CLOCKWISE
1	1	0	0	Brake

■ M63008FP-X (IC410) : BTL driver

1.Pin layout

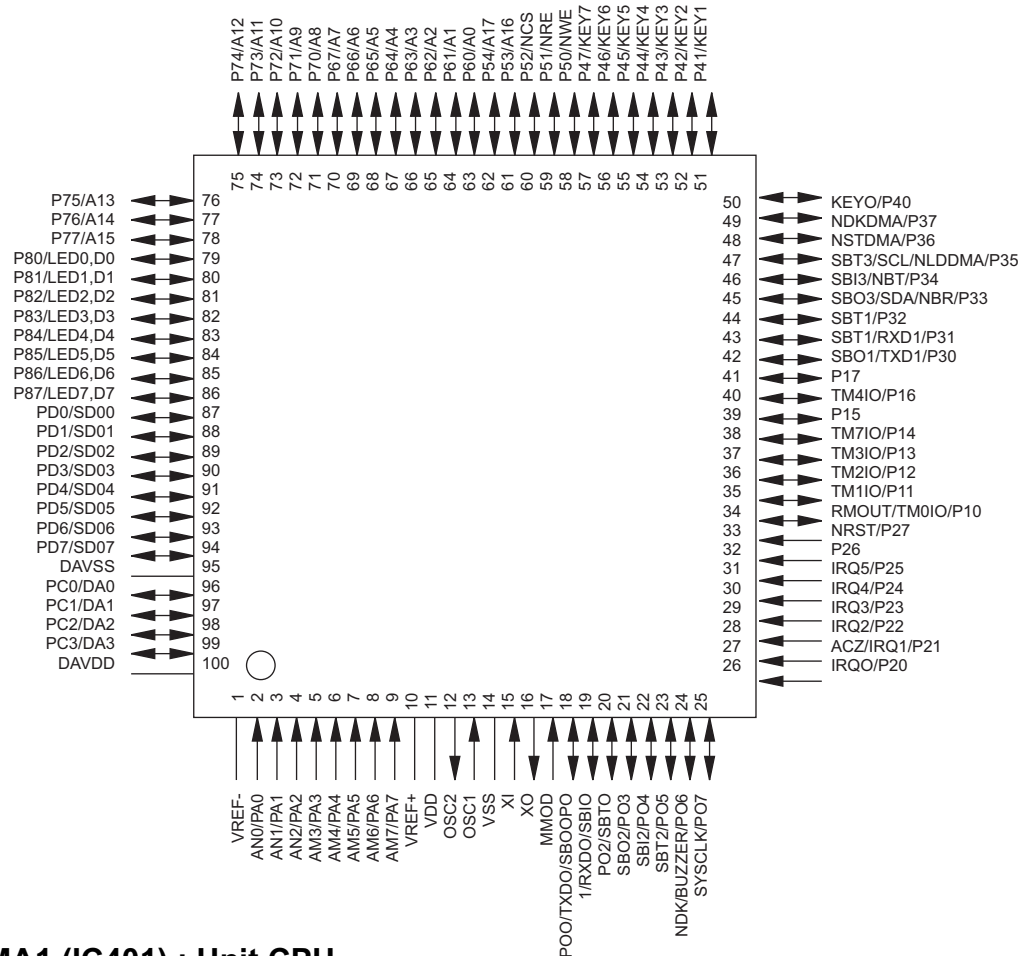


2.Block diagram



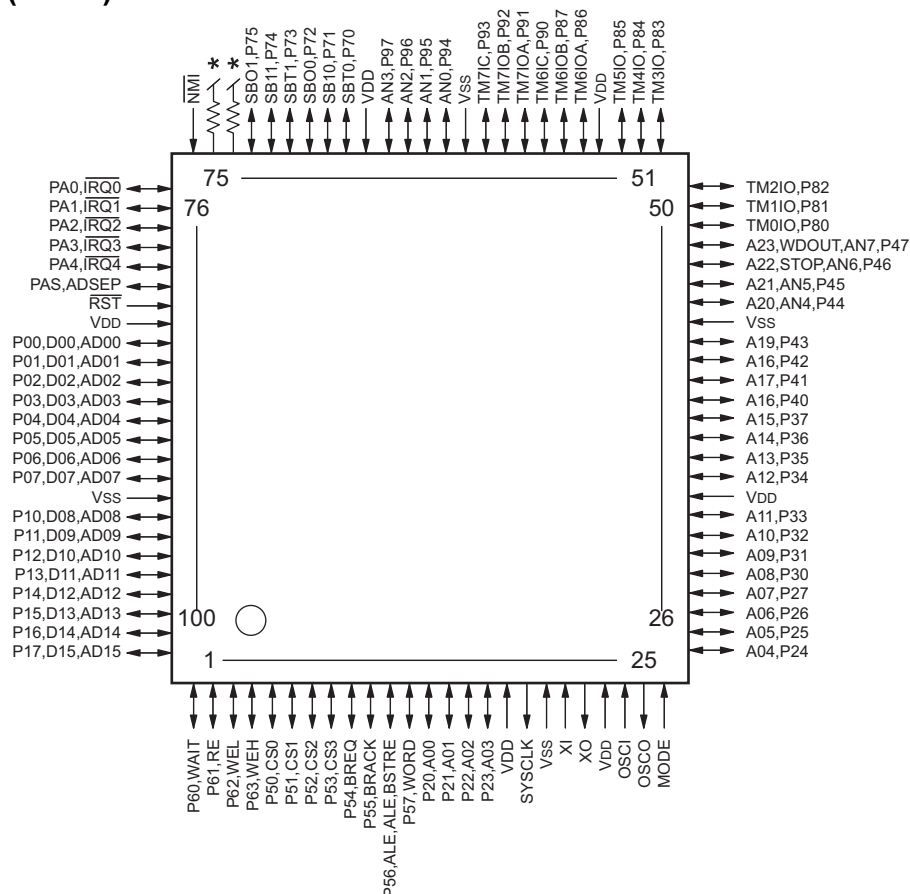
■ MN101C49GKY (IC511) : System Micom

1.Pin layout



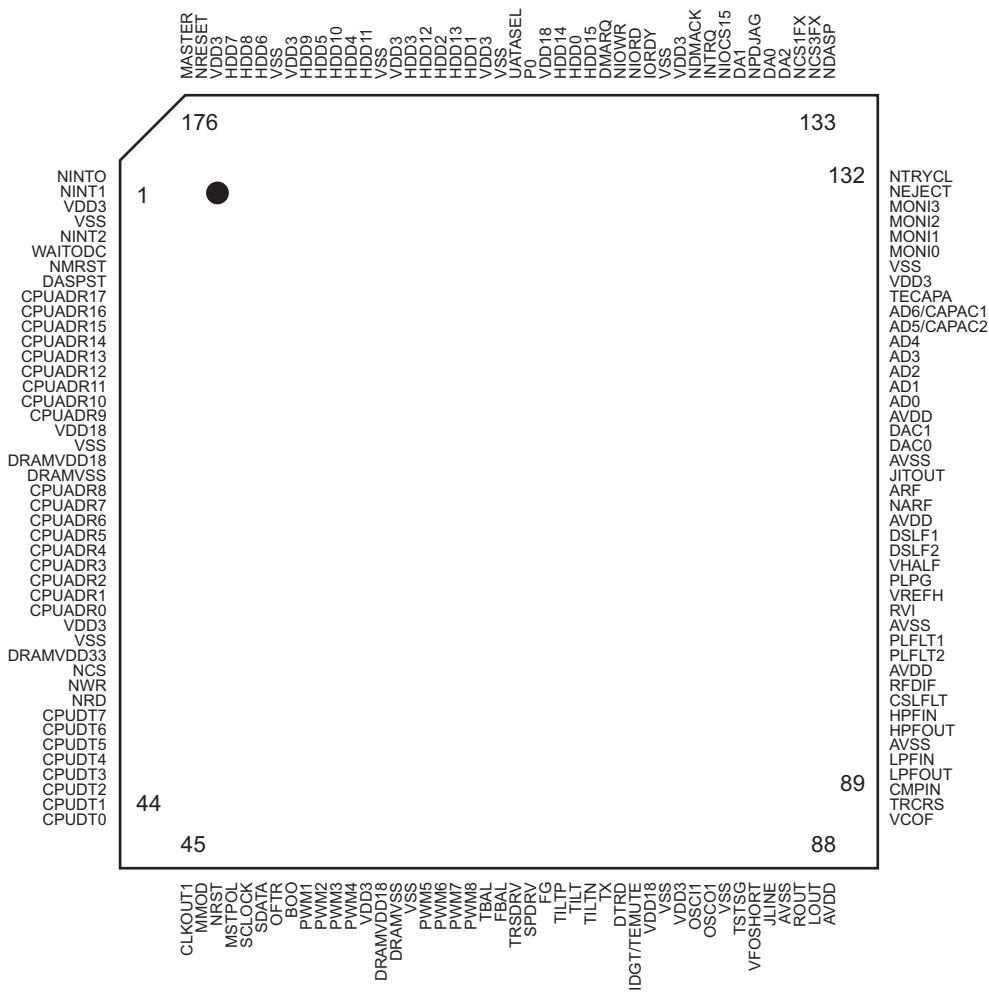
■ MN102L62GMA1 (IC401) : Unit CPU

1.Pin layout



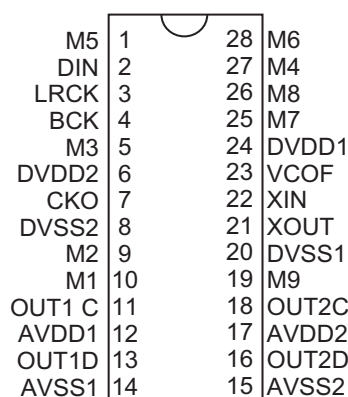
■ MN103S28EGA (IC301) : SODC

1.Pin layout

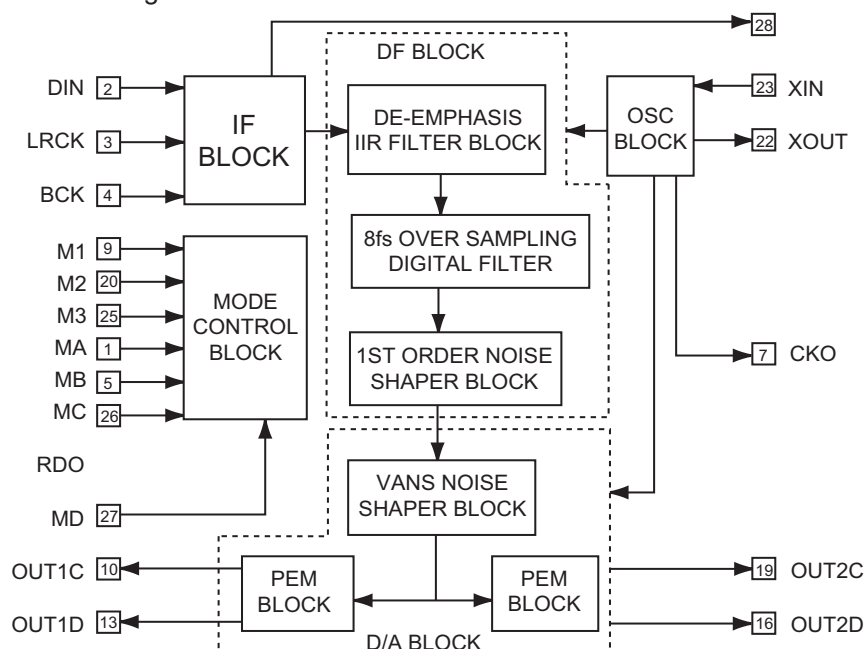


■ MN35505-X (IC202) : D/A Converter

1.Pin layout



1.Block diagram

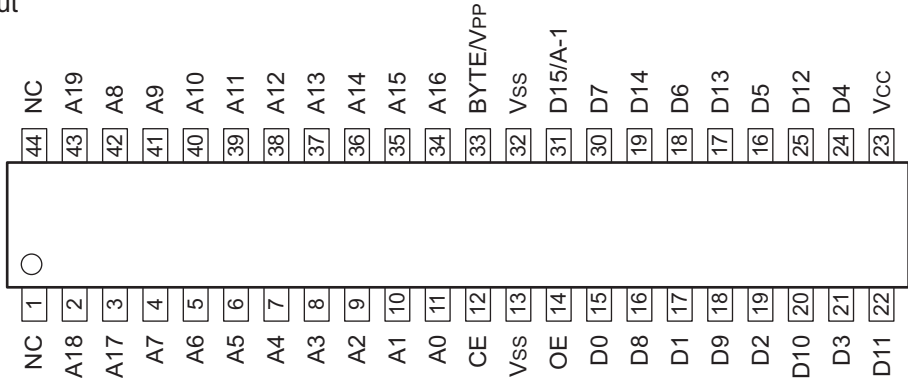


3.Pin function

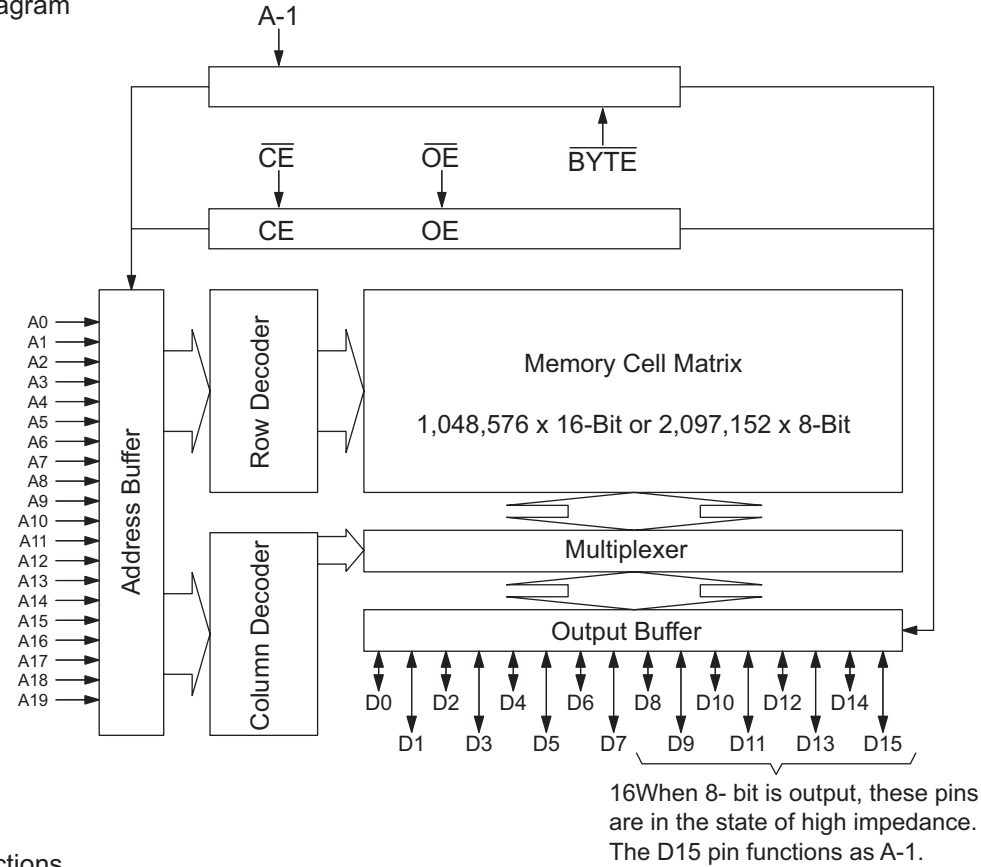
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	M5	I	Connects with VDD	15	AVSS2	-	Analog playground 2
2	DIN	I	Data input	16	OUT2D	O	2D PEM output
3	LRCK	I	L/RClock input	17	AVDD2	-	Analog power supply 2
4	BCK	I	Bit clock input	18	OUT2C	O	2C PEM output
5	M3	I	Connects with playground	19	M9	I	NC
6	DVDD2	-	Digital power supply 2	20	DVSS1	-	Digital grand pin 1
7	CKO	I	NC	21	XOUT	O	Crystal oscillator output
8	DVSS2	-	Digital ground 2	22	XIN	I	Crystal oscillator input
9	M2	I	Connects with playground	23	VCOF	I	VCO Filter
10	M1	I	Connects with playground	24	DVDD1	-	Digital power supply 1
11	OUT1C	O	1C PEM output	25	M7	I	System clock rate selection
12	AVDD1	-	Analog power supply 1	26	M8	I	System clock rate selection
13	OUT1D	O	1d PEM output	27	M4	I	Reset signal
14	AVSS1	-	Analog playground 1	28	M6	I	Connects with VDD

MR27V1602EUMTPX (IC402) : 16M ROM

1.Pin layout

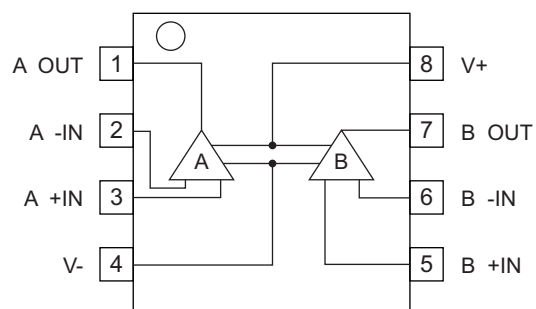
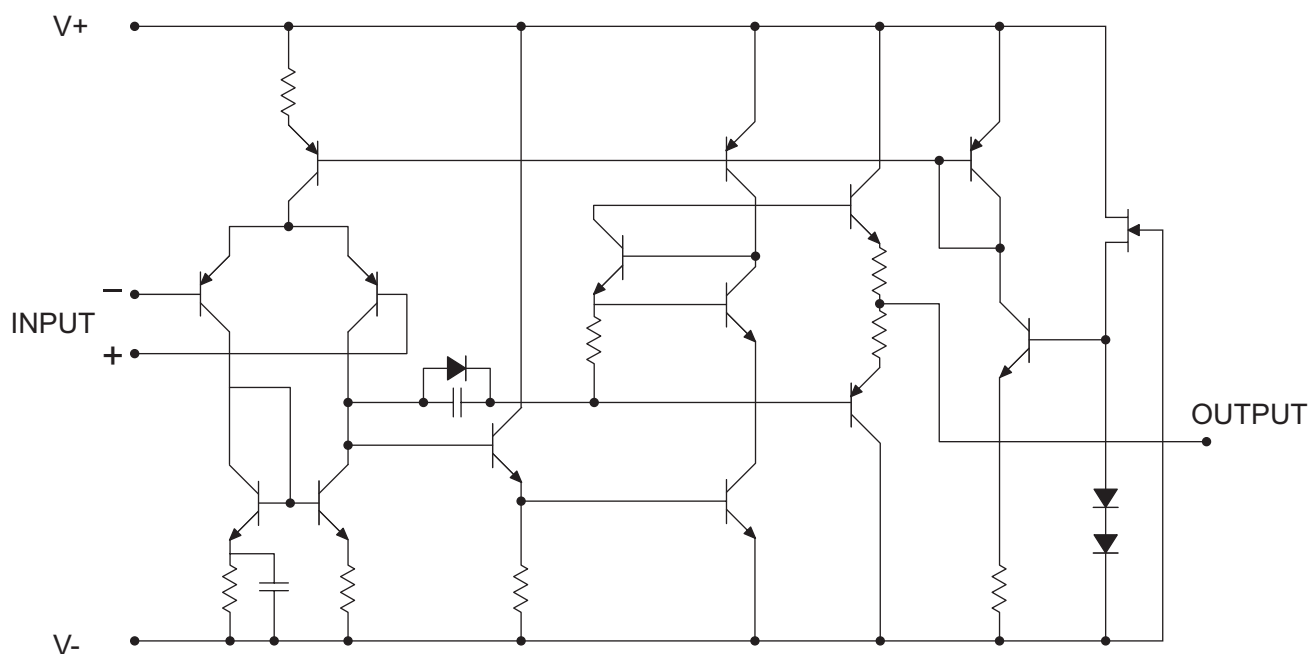


2.Block diagram



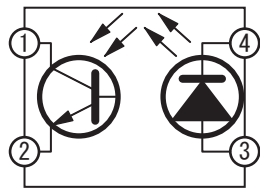
3.Pin Functions

Pin No,	Symbol	Function
1	NC	No connection
2~11	A18,A17,A7~A0	Address input
12	CE	Chip enable
13	VSS	GND
14	OE	Output enable
15~22	D0,D8,D1,D9,D2, D10,D3,D11	Data output
23	VCC	Power supply
24~30	D4,D12,D5,D13, D6,D14,D7	Data output
31	D15/A-1	Data output / Address input
32	VSS	GND
33	BYTE/VPP	Mode Switch
34~43	A16~A8,A19	Address input
44	NC	No connection

■ NJM4580M-X (IC211) : Dual operational amplifier**1.Pin layout****2.Block diagram**

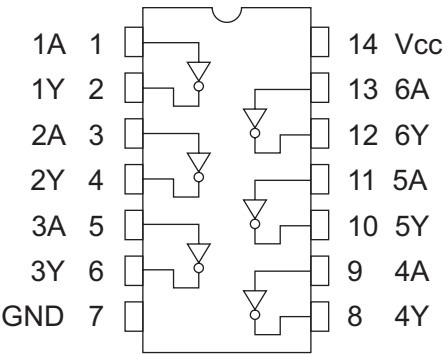
SG-105F3-BB.C(IC1) : Reel pulse

1.Pin layout / Block diagram



TC74HCU04AF-W (IC393) : Inverter

1.Pin layout

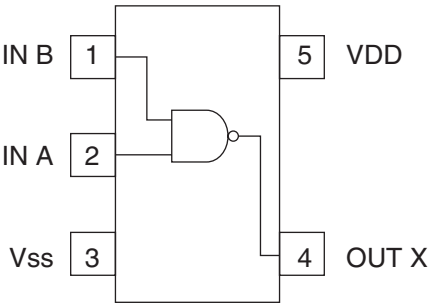


2.Truth table

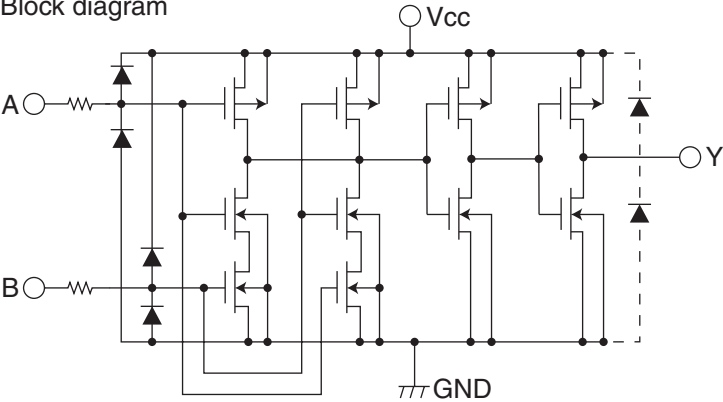
A	Y
L	H
H	L

TC7S08F-W (IC340) : APC PWM Buffer

1. Pin layout

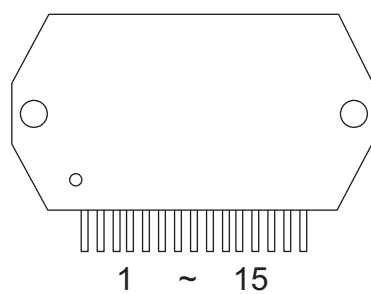


2. Block diagram

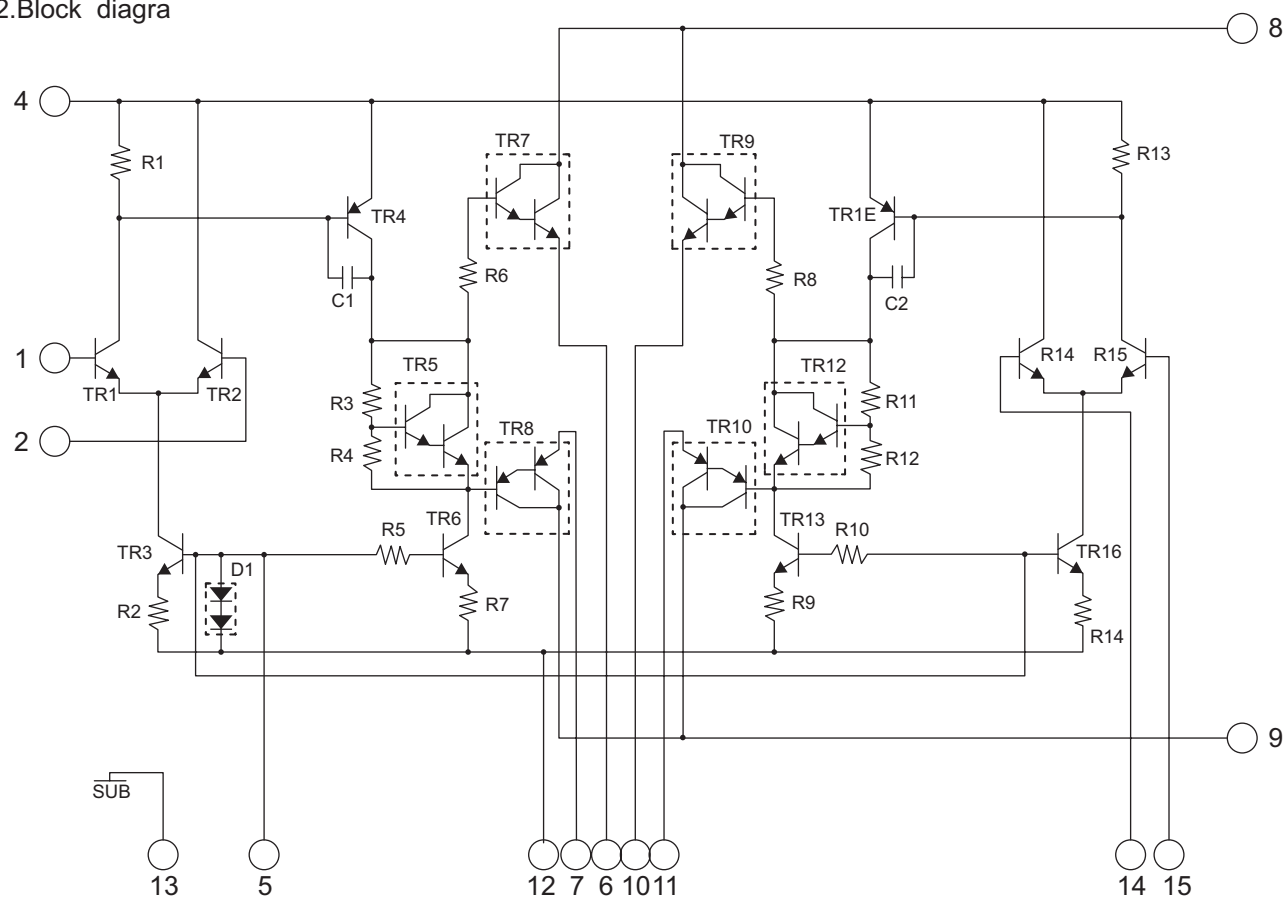


■ STK402-050 (IC111) : Power amp.

1.Pin layout

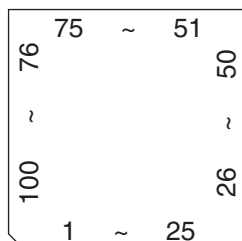


2.Block diagram



■ UPD784217AGC174 (IC500) : CPU

1. Pin layout



2. Pin function (1/2)

Pin No.	Symbol	I/O	Function
1 ~ 5	NC	-	Non connect
6	CD-MUTE	O	CD MUTE
7	CD-REST	O	CD REST
8	ANT REM	O	Antenna remote output
9	VDD	-	5V connection
10	X2	-	Connect to X'tal for main clock
11	X1	-	Connect to X'tal for main clock
12	VSS	-	Connect to GND
13	XT2	-	Connect to X'tal for sub clock
14	XT1	-	Connect to X'tal for sub clock
15	RESET	I	Reset detection terminal
16	P.REQ	O	Mechanism power supply ON/OFF demand output ("L" on demand)
17	BUS-INT	I	J-BUS signal interrupt input
18	PS2	I	Power save 2
19	NC	-	Non connect
20	RDS-SCK	I	Clock input for RDS
21	RDS-DA	I	RDS data input
22	REMOCON	I	Remocon signal input
23	AVDD	I	5V connect
24	AVREF0	I	5V connect
25	SD/ST	I	Station detector, Stereo signal input
26	MRC DATA	I	MRC data input
27	KEY0	I	Key input 0
28	KEY1	-	Key input 1
29	TEMP	I	Temperature data input for contrast correction
30	LEVEL	-	Level meter input
31	SQ	I	S.quality level input
32	SM	-	S.meter level input
33	AVSS	-	Connect to GND
34	INLOCK	I	Lock detection output
35	NC	O	Non connect
36	AVREF	I/O	5V connect
37	BUS-SI	I	J-BUS data input
38	BUS-SO	O	J-BUS data output
39	BUS-SCK	O	J-BUS clock input/output
40	LCD-CE1	O	Chip enable 1 out put for LCD driver
41	LCD-DA	O	Data output for LCD driver
42	LCD-CL	O	Clock output to LCD driver
43	LCD-CE2	O	Chip enable 2 out put for LCD driver
44	BUZZER	O	Buzzer output
45	EPDAI	I	Communication data input 12C

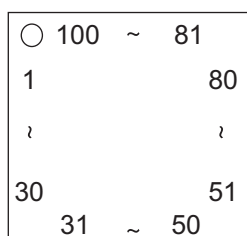
2. Pin function (2/2)

UPD784217AGC174

Pin No.	Symbol	I/O	Function
46	EP-DAO	O	Communication data input of 12C
47	EPCLK	O	Communication data input of 12C
48	BUS-I/O	O	J-BUS I/O switching output
49	PM0	O	Panel close side motor control signal output
50	PM1	O	Panel open side motor control signal output
51	EQ-CLK	O	Equalizer clock
52	EQ-DA	O	Equalizer data
53	EQ-LA	O	Equalizer latch
54	STAGE	I	H:L: Initialization port
55	VCR CONT	O	VCR control signal output
56~61	PNL-SW1~6	I	Panel position detection switch 1 to 6 signal input
62	NC	-	Non connect
63	NC	-	Non connect
64	NC	-	Non connect
65	FM/AM	O	FM / AM select output
66	PLL-CE	O	PLL IC control CE output
67	PLL-DO	O	PLL IC control data output
68	PLL-CLK	O	PLL IC control clock output
69	PLL-DI	I	PLL IC control data input
70	NC	-	Non connect
71	TELMUTE	I	Telephone mute signal detection input
72	VSS	-	Connect to GND
73	DIM-IN	I	Dimmer detection input
74	PS1	I	Power save 1
75	POWER	O	Power ON / OFF select output
76	CD-ON	O	CD power supply control signal output
77	MUTE	O	Mute output
78	W-LPF1	O	Sub woofer cut off frequency control output 1
79	W-LPF2	O	Sub woofer cut off frequency control output 2
80	W-MUTE	O	Sub woofer mute output
81	VDD	O	5V connect
82	VOL-DA	O	E. volume IC control data output
83	VOL-CLK	O	E. volume IC control clock data output
84	CF SEL	O	FM band area filter select signal output
85	PMKICK	O	Panel motor kick signal output
86	NC	-	Non connect
87	NC	-	Non connect
88	VOL-1	I	Rotary volume pulse
89	VOL-2	I	Rotary volume pulse signal input
90	J/U	I	Pull down
91	NC	-	Non connect
92	NC	-	Non connect
93	NC	-	Non connect
94	TEST	I/O	Connect to GND
95	NC	-	Non connect
96	NC	-	Non connect
97	NC	-	Non connect
98	NC	-	Non connect
99	DISCSEL	O	H: 8 cm disc non correspondence L: 8 cm disc correspondence
100	NC	-	Non connect

■ UPD784217AGF525 (IC701) : System CPU

1.Pin layout



2.Pin Functions 1/2

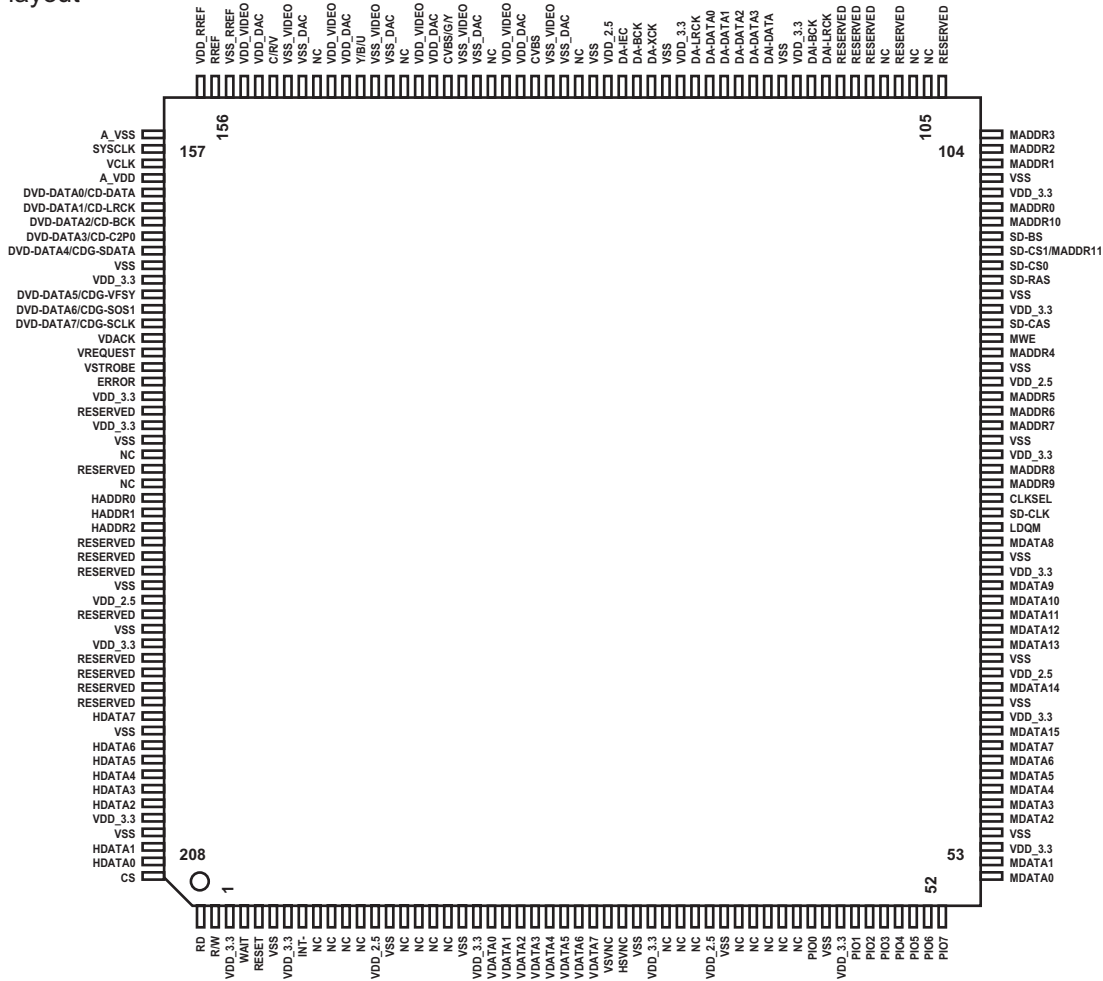
Pin No.	Symbol	I/O	Function
1	POUTRELAY	O	Main transformer relay CTL
2	POUTFL	O	Power supply control of FL driver
3	MDRESET	O	MD Reset
4	NC	O	Unused
5	FANON	O	Fan control
6	NC	-	Unused
7	PROTECT	I	Speaker output abnormality detection
8	HPMUTE	O	Headphone mute
9	VDD	-	Digital power supply
10	PMT0	O	Panel motor control
11	PMT1	O	Panel motor control
12	RMSPEED	O	Panel motor speed control(always "L" output)
13	FDVD	O	DVD unit power supply control
14	POUTMDAMP	O	REG IC MD6V
15	NC	-	Unused
16	VOLCE	O	CE of volume IC
17	VOLDATA	O	Data of volume IC
18	AHB	O	Actively hyper bus
19	POUTPAMP	O	Enable contororl of power amplifier
20	SMUTE	O	System mute
21	DVDTRAY	O	Power supply control for DVD tray
22	TEST(VPP)	-	Test (power supply)
23	PANEL_SW1	I	Panel switch
24	NC	-	Unused
25	PANEL_SW3	I	Panel switch
26	PANEL_SW4	I	Panel switch
27,28	NC	-	Unused
29	PIN	I	Power key
30	JOGL	I	Jog input
31	JOGR	I	Jog input
32	LEDCTL(STBY)	O	Standby LED
33	VOLCK	O	Clock of volume IC
34	BUP	I	Power failure detection
35	+BCTL	O	Power supply control
36	XKIL	O	Sub-clock stop control
37	VDD	-	Digital power supply
38	X2	-	Main clock connection
39	X1	I	Main clock connection
40	VSS	-	Digital playground
41	XT2	-	Sub-clock connection
42	XT1	I	Sub-clock connection
43	RESET	I	Reset terminal and L active of this microcomputer
44	REM	I	Remote control input
45	RDS_CK	I	RDS clock input
	NC	-	Unused
46	S2MREQ	I	BUSY from sub-microcomputer
47	PHOTO	I	Reel pulse detection

2.Pin Functions 2/2

Pin No.	Symbol	I/O	Function
48	LOCK	I	Abnormal detection of panel
49	NC	-	Unused
50	RDS_ST	O	RDS *stororb*
	NC	-	Unused
51	AVDD	-	A/D and D/A digital power supply
52	AVREF0	I	A/D and D/A converter
53	SAFETY4	I	Abnormal detection of MD6V power supply
	NC	-	Unused
54	SAFETY3	I	Abnormal detection of SW10V, DVDM9V, and DVD5V
55	SAFETY5	I	Abnormal detection of DVD3 and 3V power supply
56	KEY1	I	Tape relation detection
57	VERSION	I	Version (destination) detection
58	FKEY2	I	Key detection
59	FKEY1	I	Key detection
60	SAFETY1	I	Abnormality of voltage of solenoid in cassette mechanism SLC detection
61	AVSS	-	A/D and D/A digital playground
62	ECHO1	O	Echo adjustment
63	ECHO2	O	Echo adjustment
64	AVREF1	I	A/D and D/A converter
65	MDSTAT	I	Status from MD unit
	NC	-	Unused
66	MDCMD	O	Command to MD unit
	NC	-	Unused
67	MICIN	I	MIC detection
68	S2MDATA	I	Data from sub-microcomputer to the main microcomputer
69	M2SDATA	O	Data from the main microcomputer to sub-microcomputer
70	M2SCLK	O	Cereal lock of sub-microcomputer and the main microcomputer
71	M2SREQ	O	Data request to sub-microcomputer
72	SMON	O	Sub-microcomputer power supply control
73	NC	-	Unused
74	FLDATA	O	FL driver CTL
75	FLCLK	O	FL driver CTL
76	STTA	O	TAPE module control
77	SDATA	O	TAPE module control
78	SCK	O	TAPE module control
79	PLAY	I	TAPE module
80	SPKRELAY	O	Speaker relay
81	TUDATA_IN	I	Data from tuner
82	TUDATA_OUT	O	Data to tuner
83	TUCLK	O	Clock to tuner
84	TUCE	O	CE to tuner
85	RDS_DT	I/O	RDS data
	NC	-	Unused
86	FTU	O	Tuner power supply
87	NC	-	Unused
88	POUTLOG	O	Power supply control of logic of FL
89	FLSTB	O	FL driver CTL
90	FLBK	O	FL driver CTL
91	CRED	O	Panel LED
92	RGREEN	O	Panel LED
93	RBLUE	O	Panel LED
94	RRED	O	Panel LED
95	LGREEN	O	Panel LED
96	LBLUE	O	Panel LED
97	LRED	O	Panel LED
98	CGREEN	O	Panel LED
99	CBLUE	O	Panel LED
100	VSS	-	Digital playground

■ ZIVA-4.1-PBO (IC501) : AV decoder

1.Pin layout



2.Pin function 1/4

Pin No.	Symbol	I/O	Function
1	RD	I	Read strobe in I mode.Must be held HIGH in M mode.
2	R/W	I	Read/write strobe in M mode. Write strobe in I mode.Host asserts R/WLOW to select Write and LOW to select Read for M mode only.
3	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
4	WAIT	O,OD,PU	Transfer not complete / data acknowledge.Active LOW to indicate host initiated transfer is not complete.WAIT is asserted after the falling edge of CS and reasserted when decoder is ready to complete transfer cycle.Open drain signal,must be pulled-up via 1kΩ to 3.3 volts.Driven high for 10 ns before tristate.
5	RESET	I	Active Low Reset.Assert for at least 5-milliseconds in the presence of clock to reset the entire chip
6	VSS	Ground	Ground for core logic and I/O signals
7	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
8	INT	O,OD,PU	Host interrupt.Open drain signal,must be pulled-up via 4.7kΩ to 3.3 volts.
9~12	NC	O	No connect
13	VDD_2.5	Power	2.5-V supply voltage for core logic
14	VSS	Ground	Ground for core logic and I/O signals
15~18	NC	O	No connect
19	VSS	Ground	Ground for core logic and I/O signals
20	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
21~28	VDATA0~7	O	Video data bus.Byteserial CbYCrY data synchronous with VCLK.At power-up,the decoder does not drive VDATA.During boot-up,the decoder uses configuration parameters to drive or 3-state VDATA.
29	VSYNC	I/O	Vertical sync.Bi-directional,the decoder outputs the top border of a new field on the first HSYNC after the falling edge of VSYNC,VSYNC can accept vertical synchronization or top/bottom field notification from an external source. (VSYNC HIGH=bottom field.VSYNC LOW=Top field)

2.Pin function 2/4

Pin No.	Symbol	I/O	Function
30	HSYNC	I/O	Horizontal sync.The decoder begins outputting pixel data for a new horizontal line after the falling(active)edge of HSYNC.
31	VSS	Ground	Ground for core logic and I/O signals
32	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
33~35	NC	O	No connect
36	VDD_2.5	Power	2.5-V supply voltage for core logic
37	VSS	Ground	Ground for core logic and I/O signals
38~42	NC	O	No connect
43	PIO0	I/O	Programmable I/O pins.
44	VSS	Ground	Ground for core logic and I/O signals
45	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
46~52	PIO1~7	I/O	Programmable I/O pins.
53,54	MDATA0,1	I/O	SDRAM Data
55	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
56	VSS	Ground	Ground for core logic and I/O signals
57~62,63	MDATA2~7,15	I/O	SDRAM Data
64	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
65	VSS	Ground	Ground for core logic and I/O signals
66	MDATA14	I/O	SDRAM Data
67	VDD_2.5	Power	2.5-V supply voltage for core logic
68	VSS	Ground	Ground for core logic and I/O signals
69~73	MDATA13~9	I/O	SDRAM Data
74	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
75	VSS	Ground	Ground for core logic and I/O signals
76	MDATA8	I/O	SDRAM Data
77	LDQM	O	SDRAM Lower or Upper Mask
78	SD-CLK	O	SDRAM Clock
79	CLKSEL	I	Selects SYSCLK or VCLK as clock source.Normal operation is to tie HIGH.
80,81	MADDR9,8	O	SDRAM Address
82	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
83	VSS	Ground	Ground for core logic and I/O signals
84~86	MADDR7~5	O	SDRAM Address
87	VDD_2.5	Power	2.5-V supply voltage for core logic
88	VSS	Ground	Ground for core logic and I/O signals
89	MADDR4	O	SDRAM Address
90	MWE	O	SDRAM Write Enable
91	SD-CAS	O	Active LOW SDRAM Column Address
92	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
93	VSS	Ground	Ground for core logic and I/O signals
94	SD-RAS	O	Active LOW SDRAM Row Address
95	SD-CS0	O	Active LOW SDRAM Chip Select 0
96	SD-CS1 /MADDR11	O	Active LOW SDRAM Chip Select 1 or use as MADDR11 for larger SDRAM (64 Mbits).
97	SD-BS	O	SDRAM Bank Select
98,99	MADDR10,0	O	SDRAM Address
100	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
101	VSS	Ground	Ground for core logic and I/O signals
102~104	MADDR1~3	O	SDRAM Address
105	RESERVED	I	Tie to VSS or VDD_3.3 as specified in Table 1.
106,107	NC	O	No connect
108	RESERVED	I	Tie to VSS or VDD_3.3 as specified in Table 1.
109	NC	O	No connect
110~112	RESERVED	I	Tie to VSS or VDD_3.3 as specified in Table 1.
113	DAI-LRCK	I	PCM left/right clock.
114	DAI-BCK	I	PCM input bit clock.
115	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
116	VSS	Ground	Ground for core logic and I/O signals
117	DAI-DATA	I	PCM data input.
118,121	DA-DATA3~0	O	PCM Data Out.Eight channels.Serial audio samples relative to DA_8CK and DA_LRCK.
122	DA-LRCK	O	PCM Left Clock.Identifies the channel for each sample.The polarity is program mable

2.Pin function 3/4

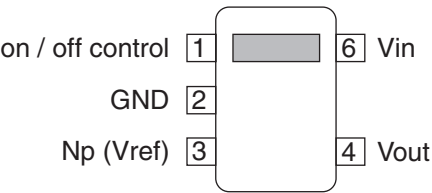
Pin No.	Symbol	I/O	Function
123	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
124	VSS	Ground	Ground for core logic and I/O signals
125	DA-XCK	I/O	Audio External Frequency Clock input or output.DA_8CK and DA_LRCK are derived from this clock.DA_XCK can be 384 or 256 times the sampling frequency
126	DA-BCK	O	PCM Bit Clock.Divided by 8 from DA_XCK.DA_BCK can be either 48 or 32 times the sampling frequency
127	DA-IEC	O	PCM data out in IEC-958 format or compressed data out in IEC-1937 format.
128	VDD_2.5	Power	2.5-V supply voltage for core logic
129	VSS	Ground	Ground for core logic and I/O signals
130	NC	O	No connect.
131	VSS_DAC	Ground	Analog Video DAC Ground
132	VSS_VIDEO	Ground	Analog Video Ground
133	CVBS	Analog O	DAC video output format:CVBS.Macrovision encoded.
134	VDD_DAC	Power	Analog Video DAC Power
135	VDD_VIDEO	Power	3.3-V Analog Video Power
136	NC	O	No connect.
137	VSS_DAC	Ground	Analog Video DAC Ground
138	VSS_VIDEO	Ground	Analog Video Ground
140	VDD_DAC	Power	Analog Video DAC Power
141	VDD_VIDEO	Power	3.3-V Analog Video Power
142	NC	O	No connect.
143	VSS_DAC	Ground	Analog Video DAC Ground
144	VSS_VIDEO	Ground	Analog Video Ground
145	Y/B/U	Analog O	DAC video output format.Macrovision encoded.
146	VDD_DAC	Power	Analog Video DAC Power
147	VDD_VIDEO	Power	3.3-V Analog Video Power
148	NC	O	No connect.
149	VSS_DAC	Ground	Analog Video DAC Ground
150	VSS_VIDEO	Ground	Analog Video Ground
151	C/R/V	Analog O	DAC video output format.Macrovision encoded.
152	VDD_DAC	Power	Analog Video DAC Power
153	VDD_VIDEO	Power	3.3-V Analog Video Power
154	VSS_RREF	Ground	Video Analog Ground
155	RREF	Analog O	Reference Resistor.Connecting to pin 154 through a 1.18k+/-1% resistor is recommended.See on.
156	VDD_RREF	Power	3.3V Analog Video Power
157	A_VSS	Ground	Analog PLL Ground
158	SYSCLK	I	Optional System Clock.Tie to A_VDD through a 1k Ohmresistor
159	VCLK	I	System clock that drives internal PLLs and internal DENC.ZIVA-4.1requires anexternal 27-MHz TTL oscillator.
159	VCLK	I	Video clock.Clocks out data on input.VDATA(7:0).Clock is typically 27 MHz.
160	A_VDD	Power	3.3-V Analog PLL Power
161	DVD-DATA0 /CD-DATA	I	Serial CD data.This pin is shared with DVD compressed data DVD-DATA0.
162	DVD-DATA1 /CD-LRCK	I	Programmable polarity 16-bit word synchronization to the decoder (right channel HIGH).This pin is shared with DVD compressed data DVD-DATA1.
163	DVD-DATA2 /CD-BCK	I	CD bit clock.Decoder accept multiple BCK rates.This pin is shared with DVD compressed data DVD-DATA2.
164	DVD-DATA3 /CD-C2P0	I	Asserted HIGH indicates a corrupted byte.Decoder keeps the previous valid picture on-screen until the next valid picture is decoded.This pin is shared with DVD compressed data DVD-DATA3.
165	DVD-DATA4 /CDG-SDATA	I	DVD parallel compressed data from DVD DSP.Or CD+G(Subcode) data indicating serial subcode data input.
166	VSS	Ground	Ground for core logic and I/O signals
167	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
168	DVD-DATA5 /CDG-VFSY	I	DVD parallel compressed data from DVD DSP.Or CD+G(Subcode) Frame Sync indicating frame-start or composite synchronization input.
169	DVD-DATA6 /CDG-SOS1	I	DVD parallel compressed data from DVD DSP.Or CD+G(Subcode) Block Sync indicating block-start synchronization input.
170	DVD-DATA7 /CDG-SCLK	I	DVD parallel compressed data from DVD DSP.Or CD+G(Subcode) Clock indicating subcode data clock input or output.

2.Pin function 4/4

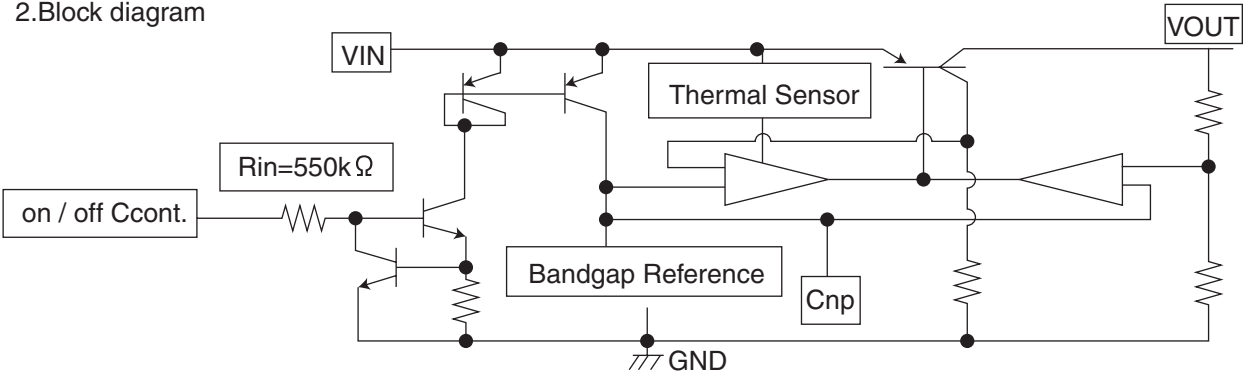
Pin No.	Symbol	I/O	Function
171	VDACK	I	In synchronous mode,bitstream data acknowledge.Asserted when DVD data is valid.Polarity is programmable.
172	VREQUEST	O	Bitstream request.Decoder asserts VREQUEST to indicate that the bitstream input buffer has available space.Polarity is programmable.
173	VSTROBE	I	Bitstream strobe.Programmable dual mode pulse.Asynchronous and synchronous.In Asynchronous mode,an external source pulses VSTROBE to indicate data is ready for transfer.In synchronous mode,VSTROBE clocks data.
174	ERROR	I	Error in input data.If ERROR signal is not available from the DSP it must be grounded.
175	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
176	RESERVED	I	Tie to VSS or VDD_3.3 as specified in Table 1.
177	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
178	VSS	Ground	Ground for core logic and I/O signals
179	NC	O	No connect.
180	RESERVED	I	Tie to VSS or VDD_3.3 as specified in Table 1.
181	NC	O	No connect.
182~184	HADDR0~2	I	Host address bus.3-bit address bus selects one of eight host interface registers.
185~187	RESERVED	I	Tie to VSS or VDD_3.3 as specified in Table 1.
188	VSS	Ground	Ground for core logic and I/O signals
189	VDD_2.5	Power	2.5-V supply voltage for core logic
190	RESERVED	I	Tie to VSS or VDD_3.3 as specified in Table 1.
191	VSS	Ground	Ground for core logic and I/O signals
192	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
193~196	RESERVED	I	Tie to VSS or VDD_3.3 as specified in Table 1.
197	HDATA7	I/O	HDATA(7~0) is the 8-bit bi-directional host data bus through which the host writes data to the decoder Code FIFO.MSB of the 32-bit word is written first. The host also reads and writes the decoder internal registers and local SDRAM/ROM via HDATA(7~0).
198	VSS	Ground	Ground for core logic and I/O signals
199~203	HDATA6~2	I/O	HDATA(7~0) is the 8-bit bi-directional host data bus through which the host writes data to the decoder Code FIFO.MSB of the 32-bit word is written first. The host also reads and writes the decoder internal registers and local SDRAM/ROM via HDATA(7~0).
204	VDD_3.3	Power	3.3-V supply voltage for I/O signals.
205	VSS	Ground	Ground for core logic and I/O signals
206~207	HDATA1,0	I/O	HDATA(7~0) is the 8-bit bi-directional host data bus through which the host writes data to the decoder Code FIFO.MSB of the 32-bit word is written first. The host also reads and writes the decoder internal registers and local SDRAM/ROM via HDATA(7~0).
208	CS	I	Host chip select Host asserts CS to select the decoder for a read or write operation.The falling edge of this signal triggers the read or write operation.

TK11140SC-W (IC485) : Regulator

1.Pin layout

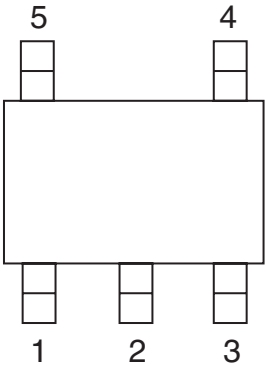


2.Block diagram

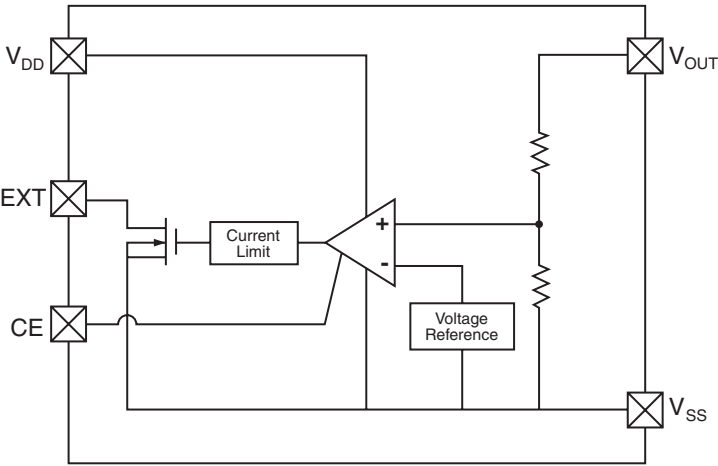


XC62ER3602M-X (IC400) : Regulator

1.Pin layout



2.Block diagram



3.Pin function

Pin No.	Symbol	Function
1	V _{SS}	GND
2	V _{IN}	Power supply input
3	V _{OUT}	Regulator output
4	EXT	Base current control terminal
5	CE	Chip enable

< M E M O >

UX-A10DVD

JVC

VICTOR COMPANY OF JAPAN, LIMITED

AUDIO & COMMUNICATION BUSINESS DIVISION

PERSONAL & MOBILE NETWORK BUSINESS UNIT. 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

(No.22011)



Printed in Japan
200301

PARTS LIST

[UX-A10DVD]

* All printed circuit boards and its assemblies are not available as service parts.

Area suffix
UB ----- Hong Kong

- Contents -

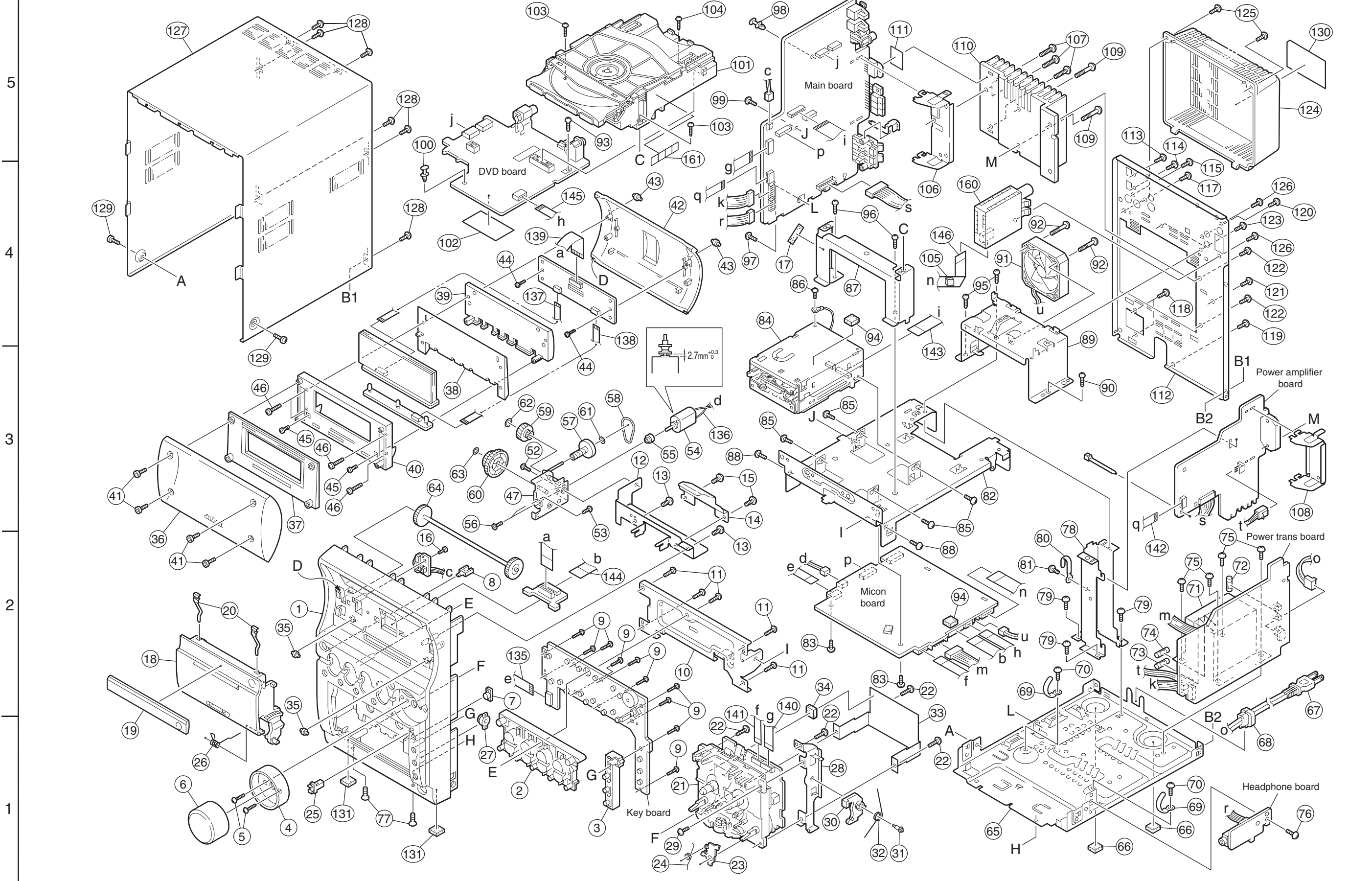
Exploded view of general assembly and parts list (Block No.M1)	3- 3
Speaker assembly and parts list (Block No.M2)	3- 6
MD mechanism assembly and parts list (Block No. ME)	3- 7
DVD mechanism assembly and parts list (Block No.MJ)	3-10
DVD Loading mechanism assembly and parts list (Block No.MN)	3-12
Cassette mechanism assembly and parts list (Block No.MP)	3-14
Electrical parts list (Block No.01~07)	3-16
Packing materials and accessories parts list (Block No.M3,M5)	3-32

< M E M O >

Exploded view of general assembly and parts list

Block No.

M	1	M	M
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■ Parts list (General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10667-006A	FRONT PANEL	1	ABS/SPRAY/PAD3	
	2	LV21252-003A	MAIN BUTTON	1	ABS/PAINT/H.STM	
	3	LV33551-001A	REC BUTTON	1	PS/SPRAY	
	4	LV42979-001A	VOL RING	1	ABS/PLATING	
	5	QYSBSF2608Z	T.SCREW	2	VOL RING+F.PANEL	
	6	LV33553-001A	VOL KNOB	1	ABS/PLATING	
	7	E408131-001SM	REMOTE LENS	1	ABS	
	8	LV41550-001A	INDICATOR	1	PS CLEAR	
	9	QYSBSF2608Z	T.SCREW	10	KEY PWB	
	10	LV21253-001A	MD STAY BKT	1	EGC T1.0	
	11	QYSBSF2608Z	T.SCREW	5	MD S.BKT+F.PANEL	
	12	LV33733-001A	FRONT STAY BKT	1	EGC T1.0	
	13	QYSBSF2608Z	T.SCREW	2	F.S.BKT+F.PANEL	
	14	LV34034-001A	FFC BARRIER	1	FRONT STAY BKT	
	15	QYSBST2604Z	T.SCREW	2		
	16	QYSBSF2608Z	T.SCREW	1	F.PANEL+O/C SW	
	17	LV30225-011A	SPACER	1	O/C & MOTOR WIRE	
	18	LV10668-005A	CASS DOOR	1	ABS/SPRAY/SILK1	
	19	LV33555-003A	CASS LENS	1	PMMA/H.STMP/SIL	
	20	VKY4180-401	CASSETTE SPRING	2		
	21	-----	CASSETTE MECHANISM	1		
	22	QYSBSF3012Z	SCREW	4	CASS MECHA+F.PANEL	
	23	VKL7850-002	EJECT SAFTY(R)	1		
	24	VKW5258-003	TORSION SPRING	1		
	25	GV40220-001A	LACH	1		
	26	LV43142-001A	DOOR SPRING	1		
	27	GV40034-001A	DAMPER ASSY	1		
	28	GV30268-001A	MECHA BRACKET	1		
	29	QYSBSG3008Z	T.SCREW	1	MECHA BKT+CASS MECHA	
	30	GV40278-001A	SAFTY ARM	1		
	31	VKZ4341-205	SPECIAL SCREW	1	S.ARM+M.BKT	
	32	GV40279-001A	ARM SPRING	1		
	33	LV34035-001A	SHIELD	1	CASS MECHA	
	34	LV30225-0J1A	SPACER	1	SHIELD+CASS MECHA	
	35	GV40269-001A	ROLLER	2	FRONT PANEL	
	36	LV21254-006A	FRONT LENS	1	PMMA/SILK X1	
	37	LV33734-002A	FL LENS	1	GPPS/SILK/HOT S	
	38	LV33557-002A	LED LENS	1	PMMA/EMBOSS	
	39	LV33558-001A	LENS HOLDER	1	ABS/WHITE	
	40	LV33559-001A	FL COVER	1	PS/SPRAY	
	41	LV40744-001A	SOCKET BOLT	4	F.LENS+F.CASE	
	42	LV21255-001A	FRONT CASE	1	PS	
	43	GV40269-001A	ROLLER	2	FRONT CASE	
	44	QYSDSF2006Z	SCREW	2	FRONT CASE+PWB	
	45	QYSDSF2006Z	SCREW	2	FL COVER+LENS HOLDER	
	46	QYSDSF2612Z	SCREW	4	F.CASE+FL COVER	
	47	LV33560-001A	MOTOR BKT ASSY	1		
	52	QYSBST2604Z	T.SCREW	1	M.BKT+F.STY BKT	

■ Parts list (General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	53	QYSBSF2608Z	T.SCREW	1	M.BKT+F.PANEL	
	54	QAR0219-001	LOADING MOTOR	1		
	55	LV41341-001A	MOTOR PULLEY	1	POM	
	56	QYSPSPT2020Z	MINI SCREW	2	MOTOR+M.BKT ASSY	
	57	LV42525-001A	PULLY WORM	1	POM	
	58	LV42972-001A	BELT	1		
	59	LV42491-001A	GEAR4	1	POM	
	60	LV33561-001A	GEAR A	1	POM	
	61	WDL163225-0	SLIT WASHER	1	WORM	
	62	LV42701-001A	WASHER	1	GEAR4	
	63	WDM214540	WASHER	1	GEAR A	
	64	LV33602-001A	ROD GEAR	1		
	65	LV10669-002A	BOTTOM CHASSIS	1	EGC T1.0	
	66	LV40301-002A	FELT SPACER	2	FOOT(BOTTOM C)	
△	67	QMPN160-200-JD	POWER CORD	1		
△	68	QZW0033-001	STRAIN RELIEF	1		
	69	VKZ4001-111S	WIRE CLAMP	2	HP/TRANS WIRE	
	70	QYSBST3006Z	T.SCREW	2	WIRE C.+B.CHASS	
△	71	QQT0377-002	POWER TRANS	1	MAIN TRANS T9001	
△	72	QMF51W2-1R25-J8	FUSE	1	1.25A/250V F9001	
△	73	QMF51W2-4R0-J8	FUSE	1	4A/250V F9002	
△	74	QMF51W2-2R0-J8	FUSE	1	2A/250V F9003	
	75	QYSBST4006Z	T.SCREW	4	TRANS+B.CHASSIS	
	76	QYSBST3006Z	T.SCREW	1	HP PWB+B.CHASSIS	
	77	QYSSST3006Z	SCREW	2	F.PANEL+B.CHASSIS	
	78	LV33737-001A	C CHASSISS BKT	1	EGC T1.0	
	79	QYSBSG3006E	T.SCREW	3	C.C.BKT+B.CHASSIS	
	80	VKZ4001-111S	WIRE CLAMP	1	AMP-MAIN WIRE	
	81	QYSBSG3006E	T.SCREW	1	W CLAMP+C.C.BKT	
	82	LV10697-001A	CENTER CHASSIS	1	EGC T1.0	
	83	QYSBST3006Z	T.SCREW	2	MICON+C.CHASSIS	
	84	-----	MD MECHANISM	1		
	85	QYSBST3006Z	T.SCREW	4	MD MECHA+C.CHASSIS	
	86	QYSBST3006Z	T.SCREW	1	S5 EARTH WIRE	
	87	LV33735-001A	CD BKT(FRONT)	1	EGC T1.0	
	88	QYSBST3006Z	T.SCREW	2	MD S.BKT+C.CHASSIS	
	89	LV33736-001A	CD BKT(REAR)	1	EGC T1.0	
	90	QYSBSG3006E	T.SCREW	1	CD BKT(R)+C.CHASSIS	
	91	QAR0124-001	FAN MOTOR	1		
	92	QYSBSG3020Z	TAP SCREW	2	FAN+CD BKT(R)	
	93	QYSBSG3010Z	T.SCREW	1	PWB+CD BKT(R)	
	94	VYSH101-009	SPACER	2	FL-MICON FF	
	95	QYSBSG3006E	T.SCREW	2	C.C.BKT+C.CHASSIS	
	96	QYSBST3006Z	T.SCREW	2	CD BKT(F)+C.CHASSIS	
	97	QYSBSG3014E	T.SCREW	1	MAIN PWB+B.CHASSIS	
	98	QZW0036-001	PC SUPPORT	1	MAIN PWB PAT	
	99	QYSBSG3006E	T.SCREW	1	MAIN PWB+C.CHASSIS	
	100	QZW0036-003	PC SUPPORT	1	SUB MICON PWB	

■ Parts list (General assembly)

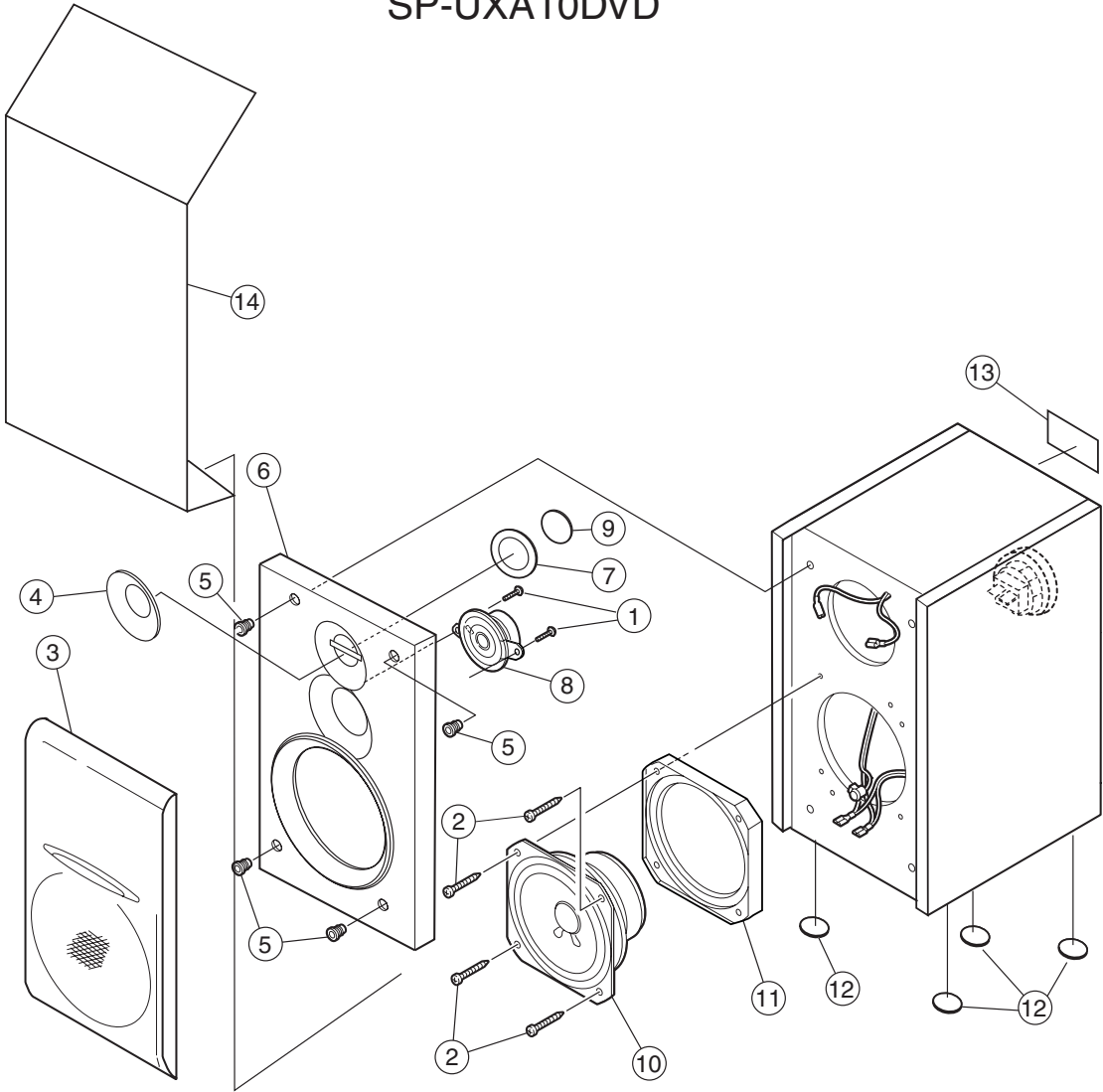
Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	101	-----	DVD MECHANISM	1		
	102	LV30225-0G6A	SPACER	1	SUB MICON PA	
	103	QYSBSG3010Z	T.SCREW	2	CD BKT(F)+J1	
	104	QYSBSG3010Z	T.SCREW	1	CD BKT(R)+J1	
	105	VYSH101-009	SPACER	1	TUNER FFC	
	106	LV33742-001A	IC BRACKET	1	EGC T1.0	
	107	QYSBSG3014E	T.SCREW	3	IC BKT(REG)+IC	
	108	LV33743-001A	IC BRACKET(PWR)	1	EGC T1.0	
	109	QYSBSG3020Z	TAP SCREW	2	IC BKT(PWR)+IC	
	110	LV33740-002A	HEAT SINK	1		
	111	LV43100-001A	MICA SHEET	1	HEAT SINK	
	112	LV21322-002A	REAR PANEL	1	EGC T0.8	
	113	QYSBSGY3008E	SPECIAL SCREW	1	OPT OUT+R.PANEL	
	114	QYSBSGY3008E	SPECIAL SCREW	1	OPT IN+R.PANEL	
	115	QYSBSGY3008E	SPECIAL SCREW	1	V.OUT+R.PANEL	
	117	QYSBSGY3008E	SPECIAL SCREW	1	COM LINK+R.PANEL	
	118	QYSBSGY3008E	SPECIAL SCREW	2	SPK+R.PANEL	
	119	QYSBSGY3008E	SPECIAL SCREW	1	BTM CHASS+R.PANEL	
	120	QYSBSGY3008E	SPECIAL SCREW	1	AUX+R.PANEL	
	121	QYSBSGY3008E	SPECIAL SCREW	1	C.CHASS+R.PANEL	
	122	QYSBSGY3008E	SPECIAL SCREW	2	HEAT SINK+R.PANEL	
	123	QYSBSGY3008E	SPECIAL SCREW	2	CD BKT(R)+R.PANEL	
	124	GV10068-003A	REAR COVER	1	PS/EMBOSS	
	125	QYSBSGY3008E	SPECIAL SCREW	2	R.COVER+R.PANEL	
	126	QYSBSGY3008E	SPECIAL SCREW	2	TUNER+R.PANEL	
	127	LV21258-005A/S/	METAL COVER	1	EGC T0.6	
	128	QYSBSGY3008E	SPECIAL SCREW	6	M.COVER+R.PANEL	
	129	QYSDSG3006N	T.SCREW	2	M.COVER SIDE	
	130	LV33744-002A	RATING LABEL	1		
	131	LV40301-001A	FELT SPACER	2	FOOT	
	135	QUQH12-0912AJ	FFC WIRE	1	KEY - MICON	
	136	WJM0195-004A	E-SI C WIRE C-F	1		
	137	QUQ110-0908AF	FFC WIRE	1	FL - FL JOIN	
	138	QUQH10-1006AJ	FFC WIRE	1	LED - FL JOIN	
	139	QUQ610-1910BJ	FFC WIRE	1	FL JON - MOVE JON	
	140	QUQH12-1016AJ	FFC WIRE	1	SLC - MAIN	
	141	QUQH12-0913AJ	FFC WIRE	1	SLC - MICON	
	142	QUQH12-0810BJ	FFC WIRE	1	MAIN - AMP	
	143	QUQH10-2120BJ	FFC WIRE	1	MD - MAIN	
	144	QUQH10-1922BJ	FFC WIRE	1	MOVE JON - MICON	
	145	QUQH12-0812AJ	FFC WIRE	1	MD - CD	
	146	QUQH12-1114BJ	FFC WIRE	1	TUNER - MICON	
	160	QAU0279-002	TUNER	1	UB(J) VER. TU1	
	161	LV41843-002A	LASER CAUTION	1	DVD MECHA SIDE	

Speaker assembly and parts list

Block No. M 2 M M

SP-UXA10DVD



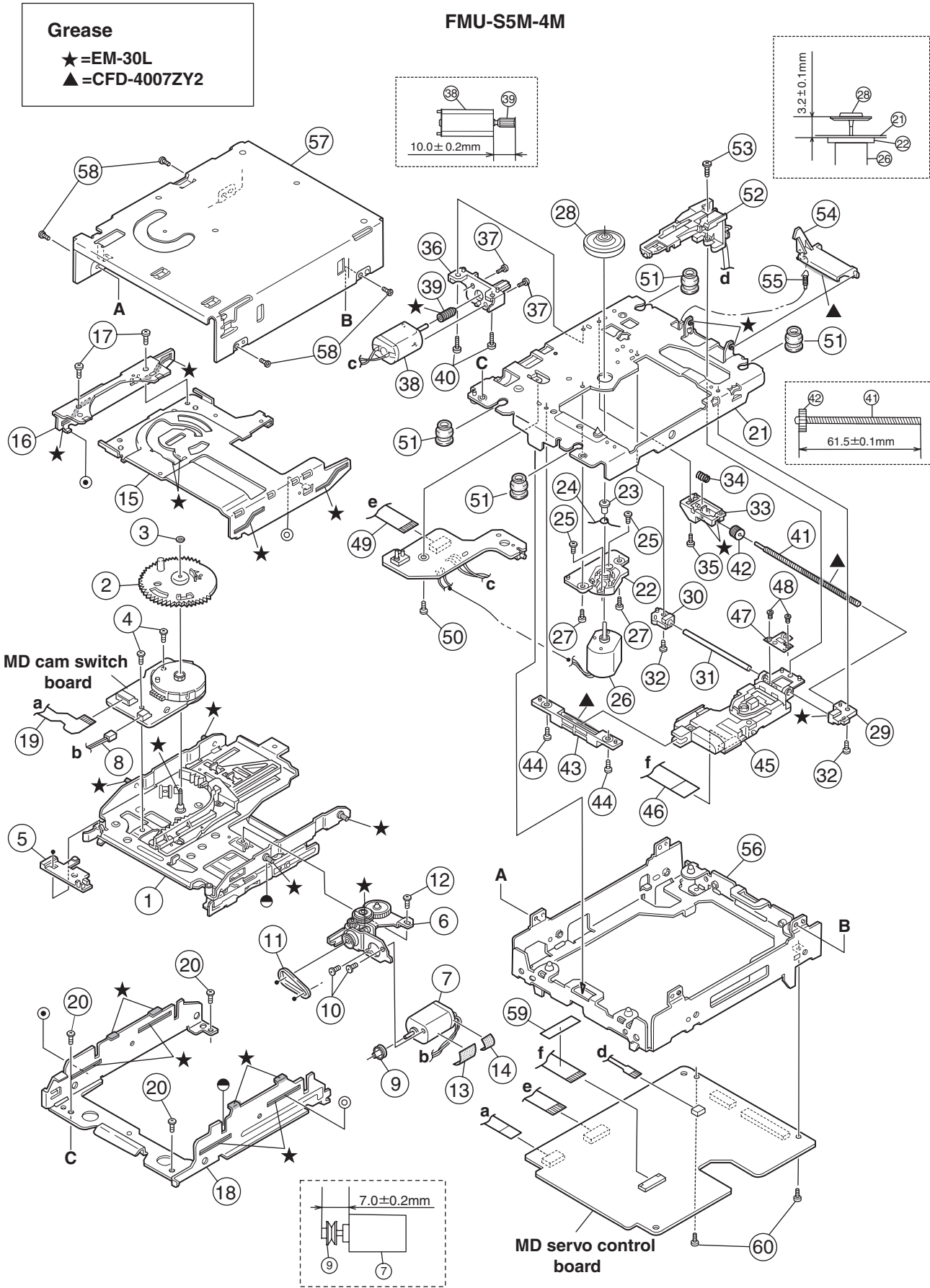
Parts list (Speaker)

Block No. M2MM

Item	Parts number	Parts name	Q'ty	Description	Area
1	Z11ML0201	SCREW	4		
2	Z11ML0101	SCREW	8		
3	Z11BK0201	GRILLE FRAME	2		
4	Z11LQ0001	ALUMINIUM RING	2		
5	SD5-CX0001	LATCH	8		
6	Z11MB0101	FRONT PANEL	2		
7	Z11FC0001	PIEZO CAP	2		
8	Z11TW0001	TWEETER	2		
9	Z11FM0001	PIEZO ELEMENT	2		
10	A10WF0001	WOOFER	2		
11	Z11TZ0001	WOOFER HOLDER	2		
12	A10JD0001	FOOT MAT	8		
13	A10HT0101	RATING LABEL	2		
14	Z11KS0001	PROTECT SHEET	2		

MD mechanism assembly and parts list

Block No. M E M M



■ Parts list (MD mechanism)

Block No. MEMM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV20548-019A	LOADING ASSY	1		
	2	LV31472-004A	CAM GEAR	1		
	3	QYWDL1230252	SLIT WASHER	1	RED(OR BLUE)	
	4	LV41477-002A	MINI TAP SCREW	2	CAM SW PWB	
	5	LV32168-002A	WIRE HOLDER	1		
	6	LV31710-002A	L.MOTOR ASSY	1		
	7	QAR0144-001	MOTOR	1	MT601	
	8	WJM0117-003A	E-SI C WIRE C-F	1		
	9	LV41341-001A	MOTOR PULLEY	1		
	10	QYSPSPT2020M	MINI SCREW	2	LOAD.MOTOR	
	11	LV41342-001A	BELT	1		
	12	LV41477-002A	MINI TAP SCREW	1	L.MOTOR BKT.	
	13	LV30225-068A	SPACER	1		
	14	LV30225-085A	SPACER	1		
	15	LV20543-002A	SLIDE BASE R	1		
	16	LV31483-001A	SLIDE BASE L	1		
	17	LV41477-002A	MINI TAP SCREW	2	SLIDE BASE	
	18	LV10286-003A	LOAD.MECHA BASE	1		
	19	LVB40003-001A	FPC CABLE	1		
	20	LV41477-002A	MINI TAP SCREW	3	L.MECHA BASE	
	21	LV31709-004A	TM.CHASSIS ASSY	1		
	22	LV20545-001A	SP.MOTOR BASE	1		
	23	LE40515-001A	COLLAR	1		
	24	LV42825-001A	S.R.SPRING	1		
	25	QYSPSPU1720N	SCREW	2	SP.MOTOR	
	26	FF-110PH-08280	SP.MOTOR	1	MT603	
	27	LV41477-002A	MINI TAP SCREW	2	SP.MOTOR BASE	
	28	LE30470-202A	T.TABLE ASSY	1		
	29	LV41343-001A	SHAFT HOLDER R	1		
	30	LV41344-002A	SHAFT HOLDER F	1		
	31	VKH5803-001	GUIDE SHAFT	1		
	32	LV41477-002A	MINI TAP SCREW	2	SHAFT HOLDER	
	33	LV31484-001A	T.SPRING HOLDER	1		
	34	LV41350-001A	COM.SPRING	1		
	35	LV41477-002A	MINI TAP SCREW	1	T.SP.HOLDER	
	36	LV31485-001A	FEED MOTOR BKT.	1		
	37	QYSPSPT2025N	MINI SCREW	2	FEED MOTOR	
	38	QAR0144-001	MOTOR	1	MT602	
	39	LV41345-001A	FEED WORM	1		
	40	LV41477-002A	MINI TAP SCREW	2	FEED MOTOR BKT.	
	41	LV42702-001A	SCREW SHAFT	1		
	42	LV41347-001A	S.SHAFT GEAR	1		
	43	LV31486-001A	PICK UP GUIDE	1		
	44	LV41477-002A	MINI TAP SCREW	2	P-UP GUIDE	
	45	KMS-260E	MD PICK UNIT	1		
	46	LVB30007-002A	FPC CABLE	1		
	47	LV41348-001A	RACK SPRING	1		
	48	QYSPSPT1414M	MINI SCREW	2	RACK SPRING	

■ Parts list (MD mechanism)

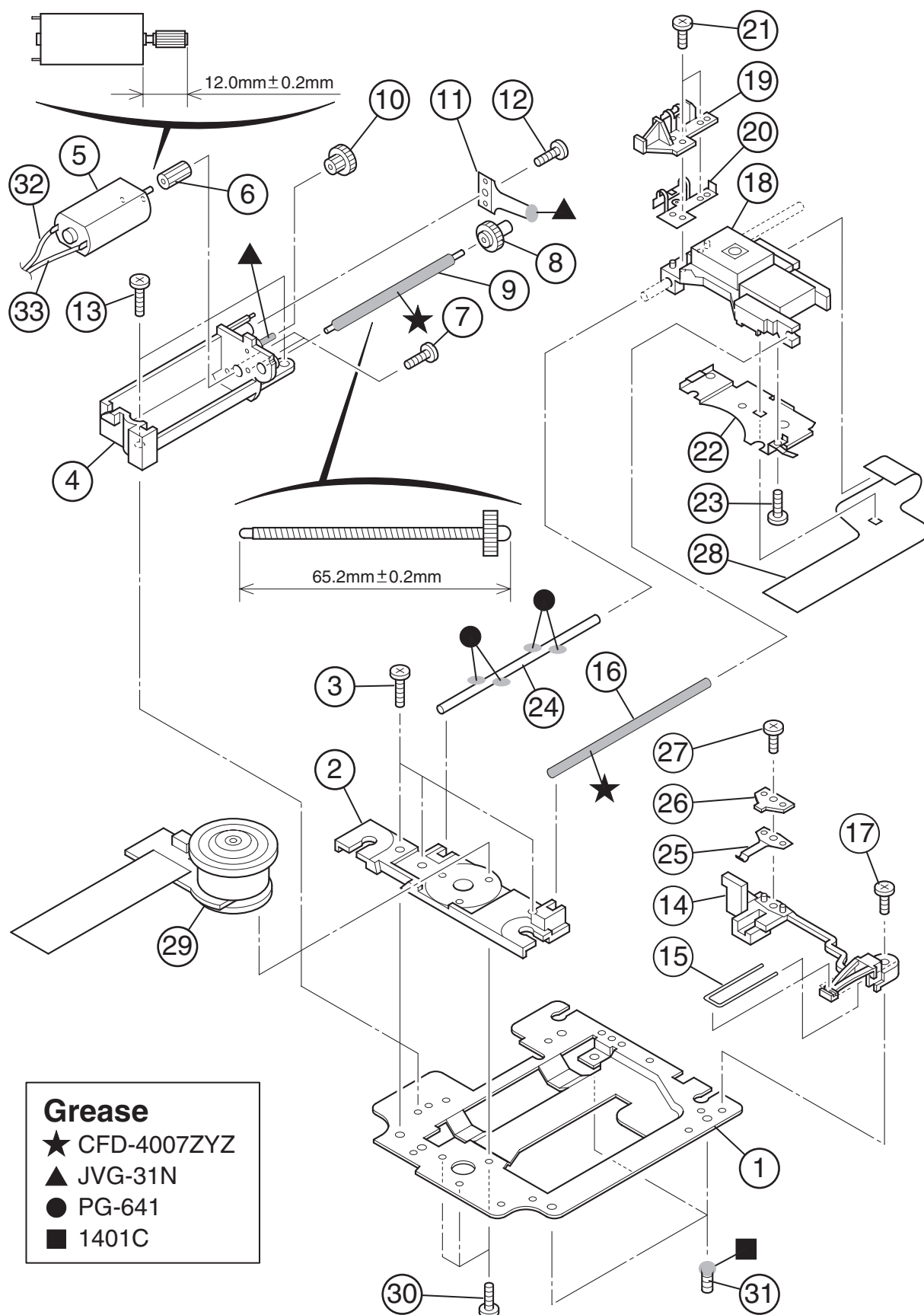
Block No. MEMM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	49	WJT0042-001A	E-CARD WIRE	1		
	50	LV41477-002A	MINI TAP SCREW	1	T.MECHA PWB	
	51	LV40761-003A	INSULATOR	4		
	52	QAH0039-002	MD HEAD	1	H601	
	53	QYSPSPT1740N	MINI SCREW	1	MD HEAD	
	54	LV31487-003A	HEAD LIFTER	1		
	55	LV41349-001A	H.LIFTER SPRING	1		
	56	LV10284-002A	SINGLE FRAME	1		
	57	LV10285-003A	MECHA COVER	1		
	58	LV41477-002A	MINI TAP SCREW	4	MECHA COVER	
	59	LV30225-096A	SPACER	1		
	60	VKZ4539-024	MINI SCREW	2	SERVO PWB	

DVD mechanism assembly and parts list

Block No. M J M M

EXL-V73-1YPC



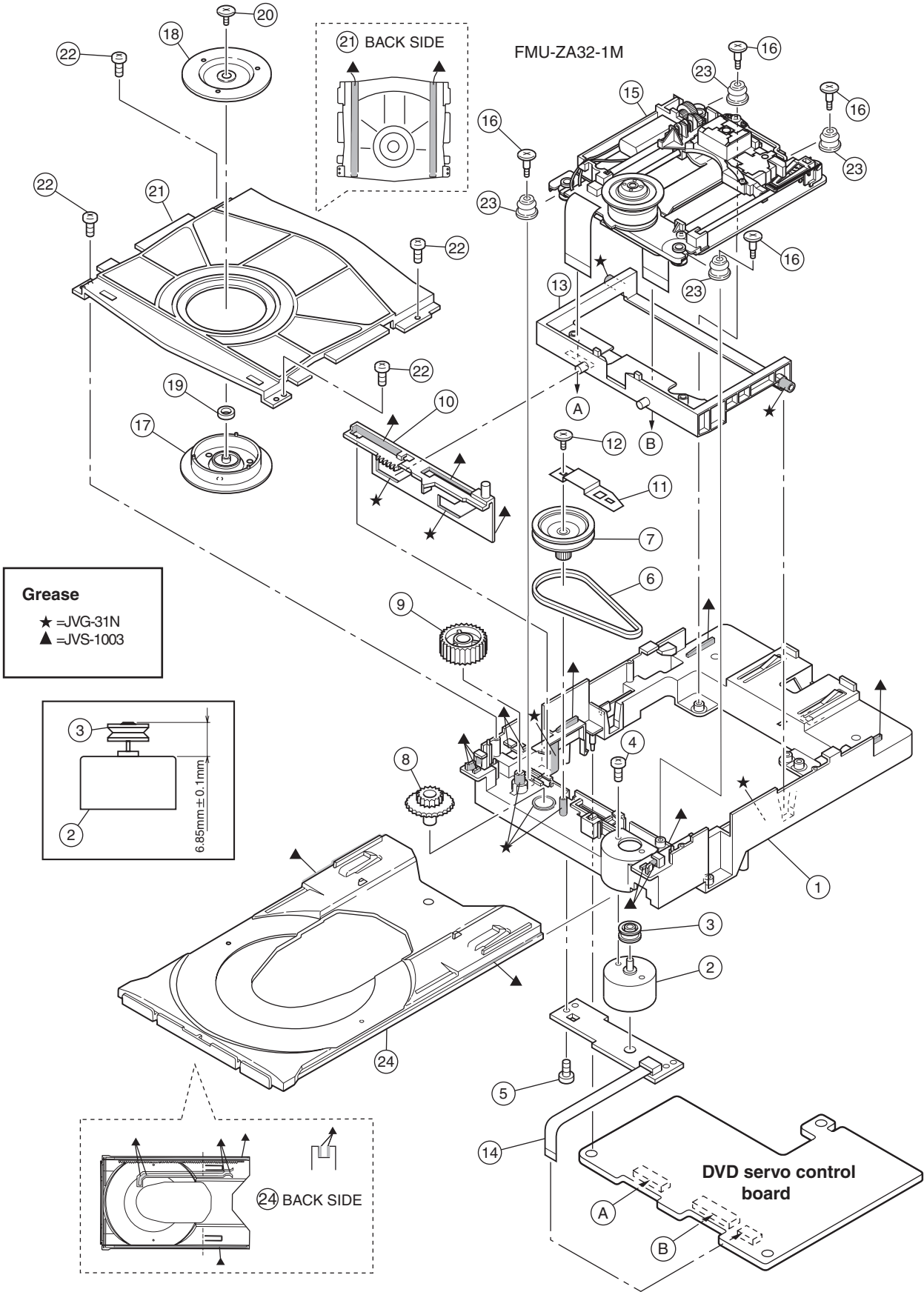
■ Parts list (DVD mechanism)

Block No. MJMM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LE20520-002A	MECHA.BASE	1		
	2	LE20516-001A	SPINDLE BASE	1		
	3	QYSDST2605M	SCREW	3		
	4	LE30909-001A	FEED HOLDER ASSY	1		
	5	QAR0165-001	FEED MOTOR	1		
	6	LV41510-001A	FEED GEAR T	1		
	7	QYSPSPU2040M	SCREW	2		
	8	LV41512-001A	FEED GEAR E	1		
	9	LV41517-003A	LEAD SCREW	1		
	10	LV41511-002A	FEED GEAR M	1		
	11	LE40742-001A	THRUST SPRING	1		
	12	QYSDSF2005Z	SCREW	1		
	13	QYSDST2605M	SCREW	2		
	14	LE20517-001A	SHAFT HOLDER	1		
	15	LE40744-001A	BAR SPRING(1)	1		
	16	LV41121-002A	SHAFT	1		
	17	QYSDST2605M	SCREW	1		
	18	QAL0452-001	PICK UP	1		
	19	LE20519-001A	SW.ACTUATOR	1		
	20	LE30886-001A	LEAD SPRING	1		
	21	QYSPSFU1740Z	SCREW	2		
	22	LE30888-003A	P.U.SPRING	1		
	23	QYSPSGU1430Z	SCREW	1		
	24	LV41121-002A	SHAFT	1		
	25	LE40743-001A	T.SPRING(S)	1		
	26	LE40774-001A	PLATE	1		
	27	QYSDST2606Z	SCREW	1		
	28	QAL0284-001	FPC	1		
	29	QAR0241-001	SPINDLE MOTOR	1		
	30	QYSPSPU1760Z	SCREW	3		
	31	QYYASPF2608N	HEX SCREW	3		
	32	QUB549-05A1A1	SIN TWIST WIRE	1		
	33	QUB544-05A1A1	SIN TWIST WIRE	1		

DVD Loading mechanism assembly and parts list

Block No. M N M M



■ Parts list (DVD Loading mechanism)

Block No. MNMM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10454-007A	LOADING BASE	1		
	2	QAR0164-001	MOTOR	1		
	3	LV42087-001A	MOTOR PULLEY	1		
	4	QYSPSPU1730Z	SCREW	1		
	5	VKZ4777-003	MINI SCREW	1		
	6	LV42209-001A	BELT	1		
	7	LV42084-002A	PULLEY GEAR	1		
	8	LV42085-002A	MIDDLE GEAR	1		
	9	LV42086-001A	IDLE GEAR	1		
	10	LV32514-002A	SLIDE CAM	1		
	11	LV42348-001A	GEAR BRACKET	1		
	12	VKZ4777-003	MINI SCREW	1		
	13	LV20912-002A	ELEVATOR	1		
	14	QUQ110-0610AJ	FFC WIRE	1		
	15	-----	DVD TRAVERSE MECHANISM	1		
	16	LV43254-001A	SPECIAL SCREW	4		
	17	LV32417-001A	CLAMPER	1		
	18	LV42089-002A	YOKE MOUNT	1		
	19	LV41118-003A	MAGNET	1		
	20	LV41741-001A	SPECIAL SCREW	1		
	21	LV20913-002A	CLAMPER BASE	1		
	22	QYSBSF2008Z	TAPPING SCREW	4		
	23	LV41659-001A	INSULATOR	4		
	24	LV10455-002A-CK	TRAY	1		

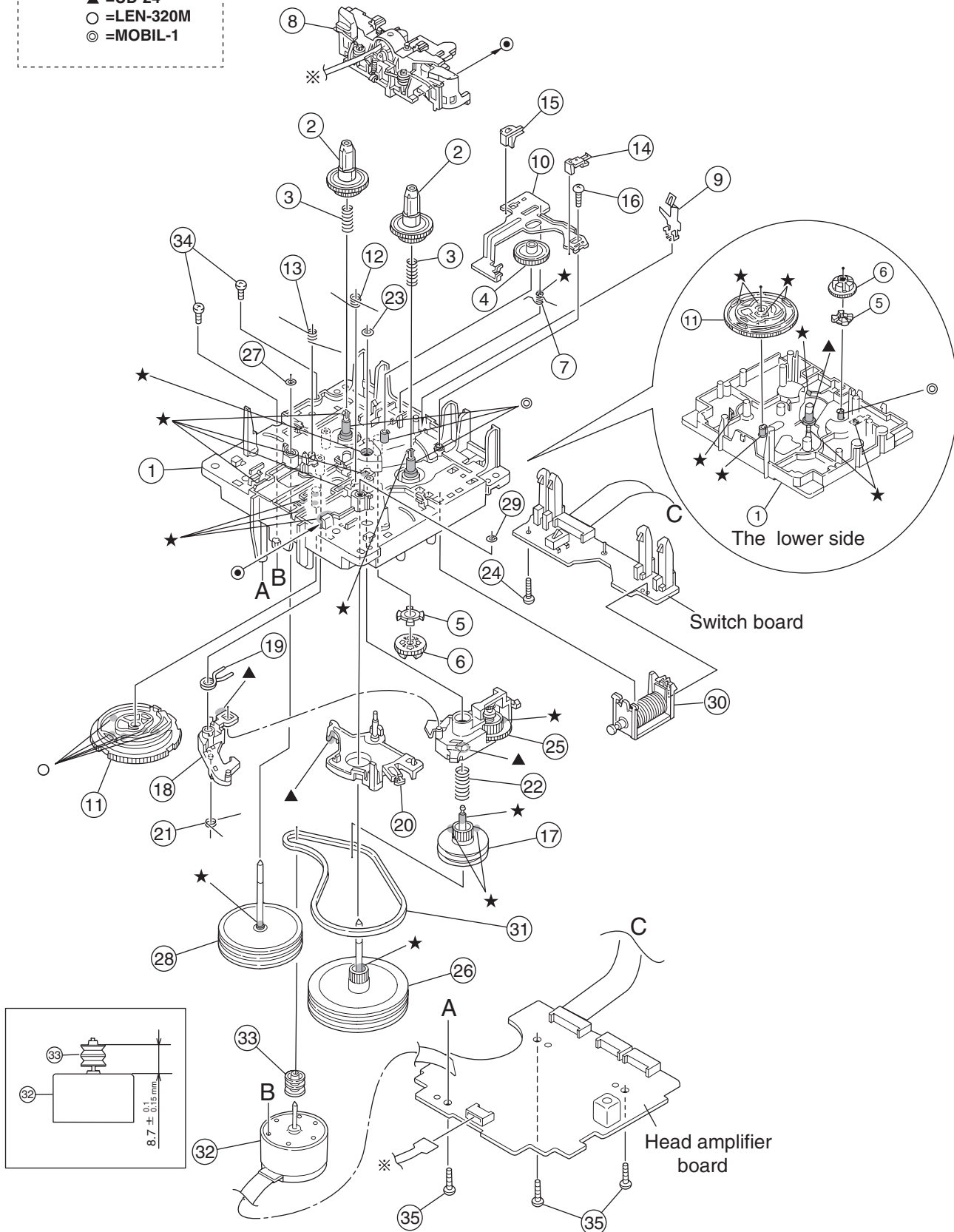
Cassette mechanism assembly and parts list

Block No. M P M M

SLC-S202M

Grease

- ★ =EM-30L
- ▲ =UD-24
- =LEN-320M
- ◎ =MOBIL-1



■ Parts list (Cassette mechanism)

Block No. MPMM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	VKS1165-00L	CHASSIS B. ASSY	1		
	2	VKS2274-002	REEL GEAR	2		
	3	VKW5286-002	B.T. SPRING	2		
	4	VKS5559-001	PLAY IDLE GEAR	1		
	5	VKS5595-002	BLIND	1		
	6	VKS5560-003	FR IDLE GEAR	1		
	7	LV42013-001A	EARTH SPRING	1		
	8	SLC-RP3SVM	HEAD MOUNT ASSY	1		
	9	VKY3149-002	CASSETTE SP.	1		
	10	LV31786-001A	PLAY SW LEVER	1		
	11	VKS1166-004	CONTROL CAM	1		
	12	VKW5279-002	HEAD BASE SP(R)	1		
	13	VKW5280-001	HEAD BASE SP(L)	1		
	14	LV41584-001A	BRAKE(R)	1		
	15	LV41585-003A	BRAKE(L)	1		
	16	QYSBSF2005Z	T.SCREW	1		
	17	VKS5603-00G	MAIN PULLEY ASY	1		
	18	VKS3785-001MM	FR ARM	1		
	19	VKW5284-002	SWING SPRING	1		
	20	VKS2278-003	TRIGGER ARM	1		
	21	VKW5301-001	FR SPRING	1		
	22	VKW5266-001	ELEVATOR SPRING	1		
	23	WDL214025	WASHER	1		
	24	QYSBSF2005Z	T.SCREW	1		
	25	VKS3786-00G	CLUTCH ASS'Y	1		
	26	VKF3205-00B	F.WHEEL ASSY(R)	1		
	27	WDL183425	SLIT WASHER	1		
	28	VKF3207-00C	F.WHEEL ASSY(L)	1		
	29	WDL173525-6	SLIT WASHER	1		
	30	VKZ3174-00B	DC SOLENOID	1		
	31	LV42836-001A	CAPSTAN BELT	1		
	32	MSI-5U2LWA	D.C.MOTOR ASS'Y	1		
	33	VKR4761-003	MOTOR PULLEY	1		
	34	QYSPSP2604Z	SCREW	2		
	35	QYSBSF2608Z	T.SCREW	3	FOR P.W.B.	

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
CN111		QGA3901F1-03	3P CONNECTOR		
CN122		QGF1205F1-08	CONNECTOR		
CN301		QGF1201F3-10	CONNECTOR		
CN302		QGF1016C1-21	CONNECTOR		
CN303		QGB1214J1-12S	CONNECTOR	DVD JOINT	
CN304		QGB1214J1-10S	CONNECTOR	DVD JOINT	
CN305		QGB1214J1-18S	CONNECTOR	MICOM	
CN306		QGB1214J1-18S	CONNECTOR	MICOM	
CN307		QGA2501F1-06	CONNECTOR	TRANS	
CN310		QGA2501F1-05	CONNECTOR		
CN311		QGA2501C1-09	9P CONNECTOR		
CN312		QGF1205F1-08	CONNECTOR		
CN511		QGB1214K1-12S	CONNECTOR	MAIN	
CN512		QGB1214K1-10S	CONNECTOR	MAIN	
CN513		QGB2027M9-10	CONNECTOR	DVD	
CN514		QGB2027M9-26	B TO B CONNECTOR	DVD	
CN515		QGF1205F1-08	CONNECTOR	U-COM	
CN710		QGA2001F1-02	CONNECTOR	MOVING MOTOR	
C1101		QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V	
C1102		QCSB1HK-221Y	C CAPACITOR	220PF 10% 50V	
C1103		QTE1H28-476Z	E CAPACITOR		
C1104		QCSB1HK-101Y	C CAPACITOR	100PF 10% 50V	
C1105		QTE1V06-106Z	E CAPACITOR		
C1111		QFVF1HJ-684Z	MF CAPACITOR	.68MF 5% 50V	
C1201		QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V	
C1202		QCSB1HK-221Y	C CAPACITOR	220PF 10% 50V	
C1203		QTE1H28-476Z	E CAPACITOR		
C1204		QCSB1HK-101Y	C CAPACITOR	100PF 10% 50V	
C1205		QTE1V06-106Z	E CAPACITOR		
C1211		QFVF1HJ-684Z	MF CAPACITOR	.68MF 5% 50V	
C1301		QENB1HM-107	E CAPACITOR	100MF 20% 50V	
C1302		QENB1HM-107	E CAPACITOR	100MF 20% 50V	
C1303		QFLC1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
C1304		QFLC1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
C1305		QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
C1311		QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
C1312		QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
C1322		QEZ0589-478	E CAPACITER	4700MF	
C1324		QEZ0589-478	E CAPACITER	4700MF	
C2002		QCZ0202-155Z	ML C CAPACITOR	1.5MF	
C2003		QCZ0202-155Z	ML C CAPACITOR	1.5MF	
C2004		QETL1AM-477	E CAPACITOR	470MF 20% 10V	
C2007		NCS31HJ-471X	C CAPACITOR		
C2008		QCZ0202-155Z	ML C CAPACITOR	1.5MF	
C2009		QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
C2010		QFVF1HJ-224Z	MF CAPACITOR	.22MF 5% 50V	
C2011		QEK0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
C2012		QCZ0202-155Z	ML C CAPACITOR	1.5MF	
C2013		QETL1AM-477	E CAPACITOR	470MF 20% 10V	
C2101		QFLC1HJ-392Z	M CAPACITOR	3900PF 5% 50V	
C2102		QFLC1HJ-392Z	M CAPACITOR	3900PF 5% 50V	
C2103		QFLC1HJ-333Z	M CAPACITOR	.033MF 5% 50V	
C2104		QFLC1HJ-333Z	M CAPACITOR	.033MF 5% 50V	
C2105		QFLC1HJ-181Z	M CAPACITOR	180PF 5% 50V	
C2106		QFLC1HJ-181Z	M CAPACITOR	180PF 5% 50V	
C2131		QER61CM-226Z	E CAPACITOR	22MF 20% 16V	
C2132		QER61CM-226Z	E CAPACITOR	22MF 20% 16V	
C2133		QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
C2134		QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
C2301		QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
C2302		QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
C2303		QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
C2304		QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
C2305		QETM1EM-478	E CAPACITOR	4700MF 20% 25V	
C2306		NCS31HJ-221X	C CAPACITOR		
C2307		NCB31HK-103X	C CAPACITOR		

△	Item	Parts number	Parts name	Remarks	Area
C2309		QFVF1HJ-105Z	MF CAPACITOR	1.0MF 5% 50V	
C2310		QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
C2311		QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
C2312		QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
C2313		QTE1C06-107Z	E CAPACITOR		
C2314		NCB31HK-102X	C CAPACITOR		
C2315		QETN1CM-108Z	E CAPACITOR	1000MF 20% 16V	
C2317		QETM1CM-688	E CAPACITOR	6800MF 20% 16V	
C2318		QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
C2501		QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
C2502		NCB31HK-103X	C CAPACITOR		
C2503		QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
C2601		QENC1HM-105Z	NP E CAPACITOR	1.0MF 20% 50V	
C2602		NCB31HK-561X	C CAPACITOR		
C2603		QETN1HM-104Z	E CAPACITOR	.10MF 20% 50V	
C2604		QETN1AM-227Z	E CAPACITOR	220MF 20% 10V	
C2701		QETN1CM-227Z	E CAPACITOR	220MF 20% 16V	
C2702		QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
C2801		QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
C2802		NCB31HK-103X	C CAPACITOR		
C2803		QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
C3101		QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C3103		QTE1H15-106Z	E CAPACITOR		
C3104		QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C3106		QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C3107		QFLC1HJ-153Z	M CAPACITOR	.015MF 5% 50V	
C3108		QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C3109		QFG32AJ-272Z	PP CAPACITOR	2700PF 5% 100V	
C3110		QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
C3111		QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
C3112		QFVF1HJ-184Z	MF CAPACITOR	.18MF 5% 50V	
C3113		QFVF1HJ-184Z	MF CAPACITOR	.18MF 5% 50V	
C3114		QFVF1HJ-823Z	MF CAPACITOR	.082MF 5% 50V	
C3115		QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
C3116		QFVF1HJ-274Z	MF CAPACITOR	(B1033)	
C3117		QFVF1HJ-823Z	MF CAPACITOR	.082MF 5% 50V	
C3118		QTE1V06-106Z	E CAPACITOR		
C3119		QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C3132		NCB31HK-103X	C CAPACITOR		
C3133		NCB31HK-332X	C CAPACITOR		
C3134		NCS31HJ-221X	C CAPACITOR		
C3135		NCF31CZ-104X	C CAPACITOR		
C3136		NCB31EK-104X	C CAPACITOR		
C3161		NCS31HJ-221X	C CAPACITOR		
C3181		QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
C3182		QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C3201		QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C3203		QTE1H15-106Z	E CAPACITOR		
C3204		QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C3206		QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C3207		QFLC1HJ-153Z	M CAPACITOR	.015MF 5% 50V	
C3208		QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C3209		QFG32AJ-272Z	PP CAPACITOR	2700PF 5% 100V	
C3210		QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
C3211		QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
C3212		QFVF1HJ-184Z	MF CAPACITOR	.18MF 5% 50V	
C3213		QFVF1HJ-184Z	MF CAPACITOR	.18MF 5% 50V	
C3214		QFVF1HJ-823Z	MF CAPACITOR	.082MF 5% 50V	
C3215		QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
C3216		QFVF1HJ-274Z	MF CAPACITOR	(B1033)	
C3217		QFVF1HJ-823Z	MF CAPACITOR	.082MF 5% 50V	
C3218		QTE1V06-106Z	E CAPACITOR		
C3219		QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
C3232		NCB31HK-103X	C CAPACITOR		
C3233		NCB31HK-332X	C CAPACITOR		
C3234		NCS31HJ-221X	C CAPACITOR		

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C3235	NCF31CZ-104X	C CAPACITOR				D2311	MTZJ5.1A-T2	ZENER DIODE		
	C3236	NCB31EK-104X	C CAPACITOR				D2312	MA152WK-X	SI DIODE		
	C3261	NCS31HJ-221X	C CAPACITOR				D2313	MTZJ10B-T2	ZENER DIODE		
	C3281	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V			D2315	1SS133-T2	SI DIODE		
	C3282	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D2316	1SS133-T2	SI DIODE		
	C3301	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V			D2317	1SS133-T2	SI DIODE		
	C3302	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V			D2319	MTZJ10B-T2	ZENER DIODE		
	C3321	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V			D2321	1SS133-T2	SI DIODE		
	C3334	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V			D2322	1SS133-T2	SI DIODE		
	C3335	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V			D2501	1SS133-T2	SI DIODE		
	C3336	NCB31HK-103X	C CAPACITOR				D2503	1SS133-T2	SI DIODE		
	C3337	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V			D2601	1SS133-T2	SI DIODE		
	C3338	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V			D2602	MTZJ5.6B-T2	ZENER DIODE		
	C3341	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V			D2801	1SS133-T2	SI DIODE		
	C3342	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V			D2802	1SS133-T2	SI DIODE		
	C3369	NCF21CZ-105X	C CAPACITOR			△	D3331	1N5401-TM	DIODE		
	C3391	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V			D3332	MTZJ10B-T2	ZENER DIODE		
	C3392	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V			D3333	MTZJ12B-T2	ZENER DIODE		
	C3393	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V			D3341	1SS133-T2	SI DIODE		
	C5101	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V			D3371	1N4003S-T5	SI DIODE		
	C5102	NCF31CZ-104X	C CAPACITOR				D3372	1N4003S-T5	SI DIODE		
	C5103	NCF31CZ-104X	C CAPACITOR				D3391	1SS133-T2	SI DIODE		
	C5201	NCS31HJ-331X	C CAPACITOR				D3392	1SS133-T2	SI DIODE		
	C5301	QER61AM-107Z	E CAPACITOR	100MF 20% 10V			D5201	1SS133-T2	SI DIODE		
	C5302	NCF31CZ-104X	C CAPACITOR				D5301	RD2.4ES/B1/-T2	ZENER DIODE		
	C5303	QER61AM-107Z	E CAPACITOR	100MF 20% 10V			D6091	MTZJ6.2C-T2	ZENER DIODE		
	C5304	NCF31CZ-104X	C CAPACITOR				D7401	1N4003S-T5	SI DIODE		
	C6001	QETN1AM-477Z	E CAPACITOR	470MF 20% 10V			D7402	1N4003S-T5	SI DIODE		
	C6002	NCF31CZ-104X	C CAPACITOR				D7403	MTZJ5.6C-T2	ZENER DIODE		
	C6003	QFV61HJ-104Z	MF CAPACITOR	.10MF 5% 50V			D7405	1N4003S-T5	SI DIODE		
	C6004	NCB31CK-104X	C CAPACITOR				EP332	QNZ0136-001Z	EARTH PLATE		
	C6005	QFV61HJ-104Z	MF CAPACITOR	.10MF 5% 50V			EP601	QNZ0136-001Z	EARTH PLATE		
	C6006	QFV61HJ-104Z	MF CAPACITOR	.10MF 5% 50V		△	IC111	STK402-050	IC(HYBRID)	POWER AMP	
	C6007	QFV61HJ-104Z	MF CAPACITOR	.10MF 5% 50V			IC202	MN3550S-X	IC	DAC	
	C6008	QFV61HJ-104Z	MF CAPACITOR	.10MF 5% 50V			IC211	NJM4580M-X	IC		
	C6009	QETN1AM-477Z	E CAPACITOR	470MF 20% 10V		△	IC212	L4909	REGULATOR IC		
	C6051	NCS31HJ-101X	C CAPACITOR				IC311	LC75345M-X	IC		
	C6091	QETNOJM-477Z	E CAPACITOR	470MF 20% 6.3V			IC391	GP1FA550RZ	OPT RECEIVER		
	C6092	QETNOJM-477Z	E CAPACITOR	470MF 20% 6.3V			IC392	GP1FA550TZ	OPT TRANSMITTER		
	C6093	NCB31CK-104X	C CAPACITOR				IC393	TC74HCU04AF-W	IC		
	C6094	NCS31HJ-181X	C CAPACITOR				IC511	MN101C49GKY	IC(MCU)	MASK	
	C6096	NCS31HJ-181X	C CAPACITOR				IC601	LA73054-X	IC		
	C6097	NCS31HJ-181X	C CAPACITOR				IC741	LB1641	IC		
	C6098	NCB31EK-104X	C CAPACITOR				J3002	QNB0117-001	SPK TERMINAL		
	C6099	NCB31EK-104X	C CAPACITOR				J3004	QNN0215-001	PIN JACK		
	C7401	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V			J6003	QNN0434-001	PIN JACK		
	C7403	QCB1HK-103Y	C CAPACITOR	.010MF 10% 50V			J6004	QNS0009-001	3.5 JACK		
	C7404	QCFB1HZ-105Y	C CAPACITOR	1.0MF +80%-20%			K2001	QQR0621-001Z	FERRITE BEADS		
	D1111	1SS133-T2	SI DIODE				K2002	QQR0621-001Z	FERRITE BEADS		
	D1112	1SS133-T2	SI DIODE				K2003	QQR0621-001Z	FERRITE BEADS		
	D1211	1SS133-T2	SI DIODE				K2004	QQR0621-001Z	FERRITE BEADS		
	D1212	1SS133-T2	SI DIODE				K2005	QQR0621-001Z	FERRITE BEADS	=B1168	
	D1301	1SS133-T2	SI DIODE				K2006	QQR0621-001Z	FERRITE BEADS		
	D1302	1SS133-T2	SI DIODE				K2008	NQR0269-001X	FERRITE BEADS		
	D1311	1SS133-T2	SI DIODE				K2009	NQR0269-001X	FERRITE BEADS		
	D2021	1SS133-T2	SI DIODE				K3381	QQR0621-001Z	FERRITE BEADS		
△	D2301	1N5401-TM	DIODE				K3382	QQR0621-001Z	FERRITE BEADS		
△	D2302	1N5401-TM	DIODE				K3383	QQR0621-001Z	FERRITE BEADS		
△	D2303	1N5401-TM	DIODE				K3384	QQR0621-001Z	FERRITE BEADS		
△	D2304	1N5401-TM	DIODE				K3391	QQR0621-001Z	FERRITE BEADS		
△	D2305	1N5401-TM	DIODE				K5001	QQR0621-001Z	FERRITE BEADS		
	D2306	MTZJ9.1C-T2	ZENER DIODE				K6001	QQR0621-001Z	FERRITE BEADS		
	D2307	1SS133-T2	SI DIODE				K6091	QQR0621-001Z	FERRITE BEADS		
△	D2308	1N5401-TM	DIODE				L1111	QQLZ005-R45	INDUCTOR		
	D2309	MTZJ9.1A-T2	ZENER DIODE				L1211	QQLZ005-R45	INDUCTOR		
	D2310	1SS133-T2	SI DIODE				L3131	QQR0797-001	INDUCTOR		

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	L3231	QQR0797-001	INDUCTOR		
	L3391	QQL244K-4R7Z	INDUCTOR		
	L3392	QQL244K-4R7Z	INDUCTOR		
	Q1101	2SC3576-JVC-T	TRANSISTOR		
	Q1111	KTA1268/GL/-T	TRANSISTOR		
	Q1201	2SC3576-JVC-T	TRANSISTOR		
	Q1211	KTA1268/GL/-T	TRANSISTOR		
	Q1301	KTC3199/GL/-T	TRANSISTOR		
	Q1302	UN2111-X	TRANSISTOR		
	Q1303	UN2113-X	TRANSISTOR		
	Q1304	UN2216-X	TRANSISTOR		
	Q1311	2SA733/QP/-T	TRANSISTOR		
	Q1312	2SC945/QP/-T	TRANSISTOR		
	Q1313	KTC3199/GL/-T	TRANSISTOR		
	Q2021	KTA1267/YG/-T	TRANSISTOR		
	Q2022	UN2214-X	TRANSISTOR		
	Q2023	UN2111-X	TRANSISTOR		
△	Q2301	KTA1046/Y/	TRANSISTOR		
	Q2302	KTC3875/YG/-X	TRANSISTOR		
	Q2303	KTC3875/YG/-X	TRANSISTOR		
	Q2304	UN2216-X	TRANSISTOR		
	Q2305	KTC3199/GL/-T	TRANSISTOR		
△	Q2501	KTA1046/Y/	TRANSISTOR		
	Q2502	KTC3875/YG/-X	TRANSISTOR		
△	Q2601	KTA1046/Y/	TRANSISTOR		
	Q2602	KTC3875/YG/-X	TRANSISTOR		
	Q2604	KTC3875/YG/-X	TRANSISTOR		
	Q2606	KTC3875/YG/-X	TRANSISTOR		
	Q2701	KTC3203/OY/-T	TRANSISTOR		
△	Q2801	KTB772/Y/	TRANSISTOR		
	Q2802	KTC3875/YG/-X	TRANSISTOR		
	Q3131	2SC3576-JVC-T	TRANSISTOR		
	Q3141	KTC3875/YG/-X	TRANSISTOR		
	Q3231	2SC3576-JVC-T	TRANSISTOR		
	Q3241	KTC3875/YG/-X	TRANSISTOR		
	Q3331	UN2111-X	TRANSISTOR		
	Q3332	KTC3199/GL/-T	TRANSISTOR		
△	Q3333	KTA1046/Y/	TRANSISTOR		
	Q3341	KTC3875/YG/-X	TRANSISTOR		
	Q5201	UN2214-X	TRANSISTOR		
	Q5301	KTD863/Y/-T	TRANSISTOR		
	Q5401	UN2214-X	TRANSISTOR		
	Q5402	UN2214-X	TRANSISTOR		
	Q5403	UN2214-X	TRANSISTOR		
	Q5404	UN2214-X	TRANSISTOR		
	RY331	QSK0109-001	RELAY	SPK	
	R1101	QRE141J-683Y	C RESISTOR	68K 5% 1/4W	
	R1102	QRJ146J-681X	UNF C RESISTOR	1/4W	
	R1103	QRE141J-683Y	C RESISTOR	68K 5% 1/4W	
	R1104	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R1105	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1106	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R1107	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
△	R1111	QRT01DJ-R33X	MF RESISTOR	1W	
△	R1112	QRT01DJ-R33X	MF RESISTOR	1W	
△	R1113	QRJ146J-4R7X	UNF C RESISTOR	1/4W	
	R1114	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1115	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R1116	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R1117	NRSA63J-682X	MG RESISTOR		
	R1118	NRSA63J-102X	MG RESISTOR		
	R1201	QRE141J-683Y	C RESISTOR	68K 5% 1/4W	
	R1202	QRJ146J-681X	UNF C RESISTOR	1/4W	
	R1203	QRE141J-683Y	C RESISTOR	68K 5% 1/4W	
	R1204	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R1205	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	

△	Item	Parts number	Parts name	Remarks	Area
	R1206	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R1207	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
△	R1211	QRT01DJ-R33X	MF RESISTOR	1W	
△	R1212	QRT01DJ-R33X	MF RESISTOR	1W	
△	R1213	QRJ146J-4R7X	UNF C RESISTOR	1/4W	
	R1214	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1215	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R1216	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R1217	NRSA63J-682X	MG RESISTOR		
	R1218	NRSA63J-102X	MG RESISTOR		
△	R1301	QRZ9005-101X	F RESISTOR	1/4W	
△	R1302	QRZ9005-101X	F RESISTOR	1/4W	
	R1303	QRZ9005-101X	F RESISTOR	1/4W	
	R1304	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1305	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1306	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R1307	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1308	NRSA63J-103X	MG RESISTOR		
	R1309	NRSA63J-103X	MG RESISTOR		
	R1311	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1312	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1313	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1314	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1315	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1316	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R1317	NRSA63J-823X	MG RESISTOR		
	R1318	NRSA63J-822X	MG RESISTOR		
	R2005	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R2006	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R2007	QRE141J-560Y	C RESISTOR	56 5% 1/4W	
	R2010	NRSA63D-332X	MF RESISTOR		
	R2011	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R2021	NRSA63J-103X	MG RESISTOR		
	R2022	NRSA63J-102X	MG RESISTOR		
	R2023	NRSA63J-103X	MG RESISTOR		
	R2024	NRSA63J-681X	MG RESISTOR		
	R2025	NRSA63J-222X	MG RESISTOR		
	R2101	NRSA63D-243X	MG RESISTOR		
	R2102	NRSA63D-243X	MG RESISTOR		
	R2103	NRSA63D-243X	MG RESISTOR		
	R2104	NRSA63D-243X	MG RESISTOR		
	R2105	NRSA63D-163X	MG RESISTOR		
	R2106	NRSA63D-163X	MG RESISTOR		
	R2107	NRSA63D-163X	MG RESISTOR		
	R2108	NRSA63D-163X	MG RESISTOR		
	R2109	NRSA63J-162X	MG RESISTOR		
	R2110	NRSA63J-162X	MG RESISTOR		
	R2111	NRSA63J-162X	MG RESISTOR		
	R2112	NRSA63J-162X	MG RESISTOR		
	R2113	NRSA63J-163X	MG RESISTOR		
	R2114	NRSA63J-163X	MG RESISTOR		
	R2115	NRSA63J-162X	MG RESISTOR		
	R2116	NRSA63J-162X	MG RESISTOR		
	R2117	NRSA63J-162X	MG RESISTOR		
	R2118	NRSA63J-162X	MG RESISTOR		
	R2119	NRSA63J-562X	MG RESISTOR		
	R2120	NRSA63J-562X	MG RESISTOR		
	R2131	QRE141J-151Y	C RESISTOR	150 5% 1/4W	
	R2132	QRE141J-151Y	C RESISTOR	150 5% 1/4W	
	R2133	NRSA63J-122X	MG RESISTOR		
	R2134	NRSA63J-122X	MG RESISTOR		
	R2301	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R2302	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R2303	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R2304	NRSA63J-681X	MG RESISTOR		
	R2305	NRSA63J-472X	MG RESISTOR		

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	R2306	NRSA63J-272X	MG RESISTOR				R3231	NRSA63J-103X	MG RESISTOR		
	R2307	NRSA63J-272X	MG RESISTOR				R3232	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R2308	NRSA63J-103X	MG RESISTOR			△	R3233	QRL01DJ-391X	OMF RESISTOR	1W	
	R2310	NRSA63J-122X	MG RESISTOR			△	R3236	QRZ9006-4R7X	F RESISTOR	1/4W	
	R2311	NRSA63J-472X	MG RESISTOR				R3241	NRSA63J-153X	MG RESISTOR		
	R2312	NRSA63J-162X	MG RESISTOR				R3242	NRSA63J-103X	MG RESISTOR		
	R2313	NRSA63J-912X	MG RESISTOR				R3261	NRSA63J-393X	MG RESISTOR		
	R2314	NRSA63J-152X	MG RESISTOR				R3262	NRSA63J-103X	MG RESISTOR		
	R2315	NRSA63J-822X	MG RESISTOR				R3271	NRSA63J-332X	MG RESISTOR		
	R2316	NRSA63J-122X	MG RESISTOR				R3272	NRSA63J-222X	MG RESISTOR		
	R2317	NRSA63J-271X	MG RESISTOR				R3273	NRSA63J-123X	MG RESISTOR		
	R2319	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W			R3281	NRSA63J-272X	MG RESISTOR		
	R2501	NRSA63J-912X	MG RESISTOR				R3282	NRSA63J-332X	MG RESISTOR		
	R2502	QRE141J-101Y	C RESISTOR	100 5% 1/4W			R3301	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R2503	NRSA63J-103X	MG RESISTOR				R3302	NRSA63J-222X	MG RESISTOR		
	R2504	NRSA63J-822X	MG RESISTOR				R3303	NRSA63J-222X	MG RESISTOR		
	R2505	NRSA63J-472X	MG RESISTOR				R3304	NRSA63J-222X	MG RESISTOR		
	R2601	QRE141J-221Y	C RESISTOR	220 5% 1/4W			R3321	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R2602	NRSA63J-564X	MG RESISTOR				R3322	NRSA63J-103X	MG RESISTOR		
	R2603	NRSA63J-331X	MG RESISTOR				R3323	NRSA63J-103X	MG RESISTOR		
	R2606	NRSA63J-472X	MG RESISTOR				R3331	NRSA63J-223X	MG RESISTOR		
	R2607	NRSA63J-223X	MG RESISTOR				R3332	NRSA63J-152X	MG RESISTOR		
	R2608	NRSA63J-222X	MG RESISTOR				R3333	NRSA63J-104X	MG RESISTOR		
	R2609	NRSA63J-101X	MG RESISTOR			△	R3334	QRZ9005-331X	F RESISTOR	1/4W	
	R2610	NRSA63J-102X	MG RESISTOR				R3335	NRSA63J-123X	MG RESISTOR		
	R2613	NRSA63J-223X	MG RESISTOR			△	R3336	QRZ9006-4R7X	F RESISTOR	1/4W	
	R2614	NRSA63J-223X	MG RESISTOR				R3341	NRSA63J-104X	MG RESISTOR		
	R2701	NRSA63J-331X	MG RESISTOR				R3342	NRSA63J-271X	MG RESISTOR		
	R2702	NRSA63J-183X	MG RESISTOR				R3343	NRSA63J-513X	MG RESISTOR		
	R2703	NRSA63J-163X	MG RESISTOR				R3381	NRSA63J-101X	MG RESISTOR		
	R2801	NRSA63J-272X	MG RESISTOR				R3382	NRSA63J-101X	MG RESISTOR		
	R2802	QRE141J-681Y	C RESISTOR	1/4W			R3383	NRSA63J-101X	MG RESISTOR		
	R2803	NRSA63J-222X	MG RESISTOR				R3391	NRSA63J-101X	MG RESISTOR		
	R3101	NRSA63J-184X	MG RESISTOR				R3392	NRSA63J-101X	MG RESISTOR		
	R3102	NRSA63J-182X	MG RESISTOR				R3393	NRSA63J-101X	MG RESISTOR		
	R3103	NRSA63J-182X	MG RESISTOR				R5001	NRSA63J-102X	MG RESISTOR		
	R3104	NRSA63J-752X	MG RESISTOR				R5002	NRSA63J-101X	MG RESISTOR		
	R3105	NRSA63J-752X	MG RESISTOR				R5003	NRSA63J-101X	MG RESISTOR		
	R3106	NRSA63J-242X	MG RESISTOR				R5004	NRSA63J-101X	MG RESISTOR		
	R3107	NRSA63J-222X	MG RESISTOR				R5005	NRSA63J-101X	MG RESISTOR		
	R3108	NRSA63J-182X	MG RESISTOR				R5006	NRSA63J-101X	MG RESISTOR		
	R3109	NRSA63J-472X	MG RESISTOR				R5007	NRSA63J-101X	MG RESISTOR		
	R3110	NRSA63J-473X	MG RESISTOR				R5008	NRSA63J-101X	MG RESISTOR		
	R3131	NRSA63J-103X	MG RESISTOR				R5009	NRSA63J-101X	MG RESISTOR		
	R3132	QRE141J-221Y	C RESISTOR	220 5% 1/4W			R5010	NRSA63J-101X	MG RESISTOR		
△	R3133	QRL01DJ-391X	OMF RESISTOR	1W			R5011	NRSA63J-102X	MG RESISTOR		
△	R3136	QRZ9006-4R7X	F RESISTOR	1/4W			R5012	NRSA63J-102X	MG RESISTOR		
	R3141	NRSA63J-153X	MG RESISTOR				R5013	NRSA63J-102X	MG RESISTOR		
	R3142	NRSA63J-103X	MG RESISTOR				R5015	NRSA63J-101X	MG RESISTOR		
	R3161	NRSA63J-393X	MG RESISTOR				R5016	NRSA63J-101X	MG RESISTOR		
	R3162	NRSA63J-103X	MG RESISTOR				R5017	NRSA63J-101X	MG RESISTOR		
	R3171	NRSA63J-332X	MG RESISTOR				R5018	NRSA63J-101X	MG RESISTOR		
	R3172	NRSA63J-222X	MG RESISTOR				R5019	NRSA63J-102X	MG RESISTOR		
	R3173	NRSA63J-123X	MG RESISTOR				R5022	NRSA63J-103X	MG RESISTOR		
	R3181	NRSA63J-272X	MG RESISTOR				R5023	NRSA63J-101X	MG RESISTOR		
	R3182	NRSA63J-332X	MG RESISTOR				R5024	NRSA63J-101X	MG RESISTOR		
	R3201	NRSA63J-184X	MG RESISTOR				R5025	NRSA63J-103X	MG RESISTOR		
	R3202	NRSA63J-182X	MG RESISTOR				R5026	NRSA63J-101X	MG RESISTOR		
	R3203	NRSA63J-182X	MG RESISTOR				R5027	NRSA63J-101X	MG RESISTOR		
	R3204	NRSA63J-752X	MG RESISTOR				R5028	NRSA63J-101X	MG RESISTOR		
	R3205	NRSA63J-752X	MG RESISTOR				R5029	NRSA63J-101X	MG RESISTOR		
	R3206	NRSA63J-242X	MG RESISTOR				R5030	NRSA63J-101X	MG RESISTOR		
	R3207	NRSA63J-222X	MG RESISTOR				R5032	NRSA63J-472X	MG RESISTOR		
	R3208	NRSA63J-182X	MG RESISTOR				R5033	NRSA63J-222X	MG RESISTOR		
	R3209	NRSA63J-472X	MG RESISTOR				R5034	NRSA63J-222X	MG RESISTOR		
	R3210	NRSA63J-473X	MG RESISTOR				R5035	NRSA63J-102X	MG RESISTOR		

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	R5038	NRSA63J-103X	MG RESISTOR		
	R5041	NRSA63J-472X	MG RESISTOR		
	R5044	NRSA63J-472X	MG RESISTOR		
	R5051	NRSA63J-103X	MG RESISTOR	DVD TEMP	
	R5052	NAD0025-103X	N THERMISTOR	DVD TEMP	
	R5055	NRSA63J-103X	MG RESISTOR		
	R5056	NRSA63J-562X	MG RESISTOR		
	R5101	NRSA63J-105X	MG RESISTOR		
	R5201	NRSA63J-103X	MG RESISTOR		
	R5202	NRSA63J-221X	MG RESISTOR		
	R5301	NRSA63J-910X	MG RESISTOR		
	R5401	NRSA63J-822X	MG RESISTOR		
	R5402	NRSA63J-822X	MG RESISTOR		
	R5403	NRSA63J-822X	MG RESISTOR		
	R5404	NRSA63J-822X	MG RESISTOR		
	R6001	NRSA63J-560X	MG RESISTOR		
	R6002	NRSA63J-103X	MG RESISTOR		
	R6003	NRSA63J-103X	MG RESISTOR		
	R6004	NRSA63J-560X	MG RESISTOR		
	R6005	NRSA63J-560X	MG RESISTOR		
	R6006	NRSA63J-390X	MG RESISTOR		
	R6007	NRSA63J-121X	MG RESISTOR		
	R6008	NRSA63J-121X	MG RESISTOR		
	R6009	NRSA63J-121X	MG RESISTOR		
	R6011	NRSA63J-103X	MG RESISTOR		
	R6012	NRSA63J-103X	MG RESISTOR		
	R6021	NRSA63J-101X	MG RESISTOR		
	R6022	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R6091	NRSA63J-750X	MG RESISTOR		
	R6092	NRSA63J-750X	MG RESISTOR		
	R6093	NRSA63J-750X	MG RESISTOR		
	R6096	NRSA63J-101X	MG RESISTOR		
	R6097	NRSA63J-101X	MG RESISTOR		
	R7402	NRSA63J-222X	MG RESISTOR		
	R7403	NRSA63J-222X	MG RESISTOR		
	R7404	QRE141J-120Y	C RESISTOR	12 5% 1/4W	
	R7405	QRE141J-120Y	C RESISTOR	12 5% 1/4W	
	R7406	QRE141J-120Y	C RESISTOR	12 5% 1/4W	
	R7407	QRE141J-120Y	C RESISTOR	12 5% 1/4W	
	S6051	QSW0454-001	SWITCH	VIDEO SELECTOR	
	W 121	QJK027-091704	SIN CR C-B WIRE	AMP - MAIN	
	X5001	QAX0667-001Z	RESONATOR	8MHZ	

■ Electrical parts list (Micon board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	CN441	QGF1036C1-19	FFC/FPC CONNECTOR		
	CN442	QGF1036F1-19	FFC/FPC CONNECTOR		
	CN451	QGF1036F1-09	FFC/FPC CONNECTOR	FL	
	CN452	QGF1036F1-10	CONNECTOR	LED	
	CN453	QGF1036F1-19	FFC/FPC CONNECTOR	MICKY	
	CN461	QGF1036F1-10	CONNECTOR		
	CN471	QGF1036F1-09	FFC/FPC CONNECTOR		
	CN701	QGA2501F1-07	CONNECTOR	TRANS	
	CN702	QGF1205F1-08	CONNECTOR	DVD JOINT	
	CN703	QGA2001F1-04	CONNECTOR	PANEL SW	
	CN704	QGF1205F1-09	CONNECTOR	KEY	
	CN705	QGF1205F1-09	CONNECTOR	SLC	
	CN706	QGB1214K1-18S	CONNECTOR	MAIN	
	CN707	QGB1214K1-18S	CONNECTOR	MAIN	
	CN708	QGF1036F1-19	FFC/FPC CONNECTOR	CHUKE1	
	CN709	QGF1205F1-11	CONNECTOR	TUNER	
	CN711	QGA2501F1-02	CONNECTOR	FAN	
	CN851	QGF1205F1-09	CONNECTOR	SILVER	
△	CN901	QGA7901C1-02	CONNECTOR	POWER CORD	
	C3131	NDC31HJ-101X	C CAPACITOR		
	C3231	NDC31HJ-101X	C CAPACITOR		
	C3331	NDC31HJ-101X	C CAPACITOR		
	C4401	QER61HM-106Z	E CAPACITOR	10MF 20% 50V	
	C4502	NCB31HK-103X	C CAPACITOR		
	C4505	NCB31HK-103X	C CAPACITOR		
	C4507	NCS31HJ-471X	C CAPACITOR		
	C4508	NCS31HJ-101X	C CAPACITOR		
	C4509	NCS31HJ-101X	C CAPACITOR		
	C4510	NCS31HJ-101X	C CAPACITOR		
	C7007	NCB31HK-102X	C CAPACITOR		
	C7041	NCS31HJ-220X	C CAPACITOR		
	C7042	NCS31HJ-220X	C CAPACITOR		
	C7043	NCB31HK-103X	C CAPACITOR		
	C7051	NCB31HK-103X	C CAPACITOR		
	C7101	QCFB1HZ-105Y	C CAPACITOR	1.0MF +80:-20%	
	C7102	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C7311	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C7312	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C7321	QETN0JM-228Z	E CAPACITOR	2200MF 20% 6.3V	
	C7331	NCB31HK-103X	C CAPACITOR		
	C7341	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C7351	QER61HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C7361	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C7362	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C7701	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C7702	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C7703	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C7704	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C7705	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C7706	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C7707	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C7708	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C7709	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C7751	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C7752	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C7753	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C7851	NCB31HK-103X	C CAPACITOR		
	C7852	NCB31HK-103X	C CAPACITOR		
	C7901	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C7951	QETN1HM-107Z	E CAPACITOR	100MF 20% 50V	
	C7952	QETN1JM-476Z	E CAPACITOR	47MF 20% 63V	
	C7953	NCB31HK-103X	C CAPACITOR		
	C7954	QETN1HM-474Z	E CAPACITOR	.47MF 20% 50V	
	C7958	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C7961	QFLC1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C8601	NCB31HK-102X	C CAPACITOR		

△	Item	Parts number	Parts name	Remarks	Area
	C8602	QKCC1CM-226Z	E CAPACITOR	22MF 20% 16V	
△	C9001	QCZ9104-47Z	C CAPACITOR	4700PF	
	C9002	QETM1EM-108	E CAPACITOR	1000MF 20% 25V	
	C9005	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C9006	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C9321	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C9323	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	DI471	QLF0106-001	FL TUBE		
	D4601	NSTM515AS	LED	MDA5V	
	D4611	NSTM515AS	LED	MDA5V	
	D4621	NSTM515AS	LED	MDA5V	
	D7036	1SS133-T2	SI DIODE		
	D7053	1SS133-T2	SI DIODE		
	D7054	MTZJ5.6B-T2	ZENER DIODE		
	D7055	1SS133-T2	SI DIODE		
	D7088	1SS133-T2	SI DIODE		
	D7089	MA700A-T2	SB DIODE		
	D7301	1SS133-T2	SI DIODE		
	D7302	MTZJ5.1C-T2	ZENER DIODE		
	D7303	1SS133-T2	SI DIODE		
	D7311	1SS133-T2	SI DIODE		
	D7321	1SS133-T2	SI DIODE		
	D7341	1SS133-T2	SI DIODE		
	D7361	MTZJ3.9B-T2	ZENER DIODE		
	D7901	MTZJ5.6B-T2	ZENER DIODE		
	D7902	1N4003S-T5	SI DIODE		
	D7903	MTZJ8.2B-T2	ZENER DIODE		
△	D7951	1N4003S-T5	SI DIODE		
△	D7952	1N4003S-T5	SI DIODE		
△	D7953	1N4003S-T5	SI DIODE		
△	D7954	MTZJ20C-T2	Z DIODE		
	D7955	MTZJ5.1C-T2	ZENER DIODE		
	D7956	MTZJ20C-T2	Z DIODE		
	D8603	SLR-342VC-T	LED		
	D9001	1SS133-T2	SI DIODE		
	D9002	1N4003S-T5	SI DIODE		
△	D9321	1N5402M-20	DIODE		
△	D9322	1N5402M-20	DIODE		
△	D9323	1N5402M-20	DIODE		
△	D9324	1N5402M-20	DIODE		
	EP331	QNZ0136-001Z	EARTH PLATE		
	FT911	QNG0003-001Z	FUSE CLIP		
	FT912	QNG0003-001Z	FUSE CLIP		
	FT921	QNG0003-001Z	FUSE CLIP		
	FT922	QNG0003-001Z	FUSE CLIP		
	FT931	QNG0003-001Z	FUSE CLIP		
	FT932	QNG0003-001Z	FUSE CLIP		
	IC701	UPD784217AGF525	IC(MCU)	MASK	
	IC861	GP1UM261XK	IR DETECT UNIT		
	JS861	QSW0975-001	ROTARY ENCODER		
	J3001	QNS0177-001	JACK		
	K3131	QQR0621-001Z	FERRITE BEADS		
	K3231	QQR0621-001Z	FERRITE BEADS		
	K3331	QQR0621-001Z	FERRITE BEADS		
	K7001	QQR0621-001Z	FERRITE BEADS		
	K7074	QQR0621-001Z	FERRITE BEADS		
	K7075	QQR0621-001Z	FERRITE BEADS		
△	LF901	QQR1321-001	LINE FILTER		
	L7001	QQL244K-100Z	INDUCTOR		
	L7051	QQL244K-100Z	INDUCTOR		
	Q7035	UN2111-X	TRANSISTOR		
	Q7046	UN2214-X	TRANSISTOR		
	Q7068	UN2214-X	TRANSISTOR		
	Q7301	2SD601A/RS-X	TRANSISTOR		
	Q7311	UN2211-X	TRANSISTOR		
	Q7331	2SD601A/RS-X	TRANSISTOR		

■ Electrical parts list (Micon board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	Q7341	KTA1267/YG/-T	TRANSISTOR		
	Q7342	UN2211-X	TRANSISTOR		
	Q7351	2SB709A/R/-X	TRANSISTOR		
	Q7352	UN2211-X	TRANSISTOR		
	Q7361	KTC3199/GL/-T	TRANSISTOR		
	Q7362	UN2111-X	TRANSISTOR		
	Q7363	UN2211-X	TRANSISTOR		
	Q7402	KTC3875/YG/-X	TRANSISTOR		
	Q7701	KTC3199/GL/-T	TRANSISTOR		
	Q7702	KTC3199/GL/-T	TRANSISTOR		
	Q7703	KTC3199/GL/-T	TRANSISTOR		
	Q7704	KTC3199/GL/-T	TRANSISTOR		
	Q7705	KTC3199/GL/-T	TRANSISTOR		
	Q7706	KTC3199/GL/-T	TRANSISTOR		
	Q7707	KTC3199/GL/-T	TRANSISTOR		
	Q7708	KTC3199/GL/-T	TRANSISTOR		
	Q7709	KTC3199/GL/-T	TRANSISTOR		
	Q7901	KT B772/Y/-	TRANSISTOR		
	Q7902	KTC3875/YG/-X	TRANSISTOR		
	Q7903	KTC3875/YG/-X	TRANSISTOR		
	Q7951	KTD863/Y/-T	TRANSISTOR		
	Q7952	KTA1268/GL/-T	TRANSISTOR		
	Q7953	KTC3200/GL/-T	TRANSISTOR		
	Q8602	UN2111-X	TRANSISTOR		
	Q9001	KTC3199/GL/-T	TRANSISTOR		
△	RY901	QSK0124-001	RELAY	TRANS	
	R4701	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R7001	NRSA63J-472X	MG RESISTOR		
	R7002	NRSA63J-103X	MG RESISTOR		
	R7003	NRSA63J-222X	MG RESISTOR		
	R7004	NRSA63J-222X	MG RESISTOR		
	R7005	NRSA63J-222X	MG RESISTOR		
	R7007	NRSA63J-102X	MG RESISTOR		
	R7008	NRSA63J-222X	MG RESISTOR		
	R7010	NRSA63J-222X	MG RESISTOR		
	R7011	NRSA63J-222X	MG RESISTOR		
	R7012	NRSA63J-103X	MG RESISTOR		
	R7013	NRSA63J-102X	MG RESISTOR		
	R7014	NRSA63J-222X	MG RESISTOR		
	R7016	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R7017	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R7018	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7019	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7020	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R7021	NRSA63J-222X	MG RESISTOR		
	R7022	NRSA63J-103X	MG RESISTOR		
	R7023	NRSA63J-222X	MG RESISTOR		
	R7025	NRSA63J-222X	MG RESISTOR		
	R7026	NRSA63J-222X	MG RESISTOR		
	R7027	NRSA63J-102X	MG RESISTOR		
	R7029	NRSA63J-222X	MG RESISTOR		
	R7030	NRSA63J-222X	MG RESISTOR		
	R7031	NRSA63J-222X	MG RESISTOR		
	R7032	NRSA63J-222X	MG RESISTOR		
	R7033	NRSA63J-223X	MG RESISTOR		
	R7034	NRSA63J-102X	MG RESISTOR		
	R7035	NRSA63J-102X	MG RESISTOR		
	R7036	NRSA63J-102X	MG RESISTOR		
	R7038	NRSA63J-105X	MG RESISTOR		
	R7043	NRSA63J-102X	MG RESISTOR		
	R7044	NRSA63J-222X	MG RESISTOR		
	R7046	NRSA63J-102X	MG RESISTOR		
	R7047	NRSA63J-222X	MG RESISTOR		
	R7048	NRSA63J-222X	MG RESISTOR		
	R7049	NRSA63J-222X	MG RESISTOR		
	R7053	NRSA63J-222X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R7054	NRSA63J-222X	MG RESISTOR		
	R7055	NRSA63J-222X	MG RESISTOR		
	R7056	NRSA63J-222X	MG RESISTOR		
	R7057	NRSA63J-222X	MG RESISTOR		
	R7058	NRSA63J-222X	MG RESISTOR		
	R7059	NRSA63J-222X	MG RESISTOR		
	R7060	NRSA63J-392X	MG RESISTOR		
	R7065	NRSA63J-222X	MG RESISTOR		
	R7066	NRSA63J-222X	MG RESISTOR		
	R7067	NRSA63J-222X	MG RESISTOR		
	R7068	NRSA63J-222X	MG RESISTOR		
	R7069	NRSA63J-101X	MG RESISTOR		
	R7070	NRSA63J-101X	MG RESISTOR		
	R7071	NRSA63J-101X	MG RESISTOR		
	R7072	NRSA63J-222X	MG RESISTOR		
	R7073	NRSA63J-222X	MG RESISTOR		
	R7074	NRSA63J-101X	MG RESISTOR		
	R7075	NRSA63J-101X	MG RESISTOR		
	R7076	NRSA63J-222X	MG RESISTOR		
	R7077	NRSA63J-222X	MG RESISTOR		
	R7078	NRSA63J-222X	MG RESISTOR		
	R7079	NRSA63J-222X	MG RESISTOR		
	R7080	NRSA63J-222X	MG RESISTOR		
	R7081	NRSA63J-222X	MG RESISTOR		
	R7082	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7083	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7084	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R7086	NRSA63J-562X	MG RESISTOR		
	R7087	NRSA63J-222X	MG RESISTOR		
	R7089	NRSA63J-101X	MG RESISTOR		
	R7090	NRSA63J-101X	MG RESISTOR		
	R7091	NRSA63J-562X	MG RESISTOR		
	R7092	NRSA63J-562X	MG RESISTOR		
	R7093	NRSA63J-562X	MG RESISTOR		
	R7094	NRSA63J-562X	MG RESISTOR		
	R7095	NRSA63J-562X	MG RESISTOR		
	R7096	NRSA63J-562X	MG RESISTOR		
	R7097	NRSA63J-562X	MG RESISTOR		
	R7098	NRSA63J-562X	MG RESISTOR		
	R7099	NRSA63J-562X	MG RESISTOR		
	R7107	NRSA63J-473X	MG RESISTOR		
	R7123	NRSA63J-473X	MG RESISTOR		
	R7125	NRSA63J-473X	MG RESISTOR		
	R7126	NRSA63J-473X	MG RESISTOR		
	R7129	NRSA63J-103X	MG RESISTOR		
	R7130	NRSA63J-103X	MG RESISTOR		
	R7131	NRSA63J-103X	MG RESISTOR		
	R7146	NRSA63J-183X	MG RESISTOR		
	R7147	NRSA63J-823X	MG RESISTOR	PHOTO GR->YG	
	R7154	NRSA63J-103X	MG RESISTOR		
	R7156	NRSA63J-103X	MG RESISTOR		
	R7157	NRSA63J-103X	MG RESISTOR		
	R7158	NRSA63J-103X	MG RESISTOR		
	R7159	NRSA63J-103X	MG RESISTOR		
	R7160	NRSA63J-332X	MG RESISTOR		
	R7167	NRSA63J-473X	MG RESISTOR		
	R7168	NRSA63J-183X	MG RESISTOR		
	R7179	NRSA63J-103X	MG RESISTOR		
	R7182	NRSA63J-473X	MG RESISTOR	(C7082)	
	R7187	NRSA63J-473X	MG RESISTOR		
	R7301	NRSA63J-473X	MG RESISTOR		
	R7302	NRSA63J-333X	MG RESISTOR		
	R7303	NRSA63J-104X	MG RESISTOR		
	R7311	NRSA63J-103X	MG RESISTOR		
	R7312	NRSA63J-103X	MG RESISTOR		
	R7321	QRE141J-331Y	C RESISTOR	330 5% 1/4W	

■ Electrical parts list (Micon board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	R7331	NRSA63J-823X	MG RESISTOR		
	R7332	NRSA63J-394X	MG RESISTOR		
	R7333	NRSA63J-104X	MG RESISTOR		
	R7341	NRSA63J-103X	MG RESISTOR		
	R7342	NRSA63J-473X	MG RESISTOR		
	R7351	NRSA63J-102X	MG RESISTOR		
	R7352	NRSA63J-103X	MG RESISTOR		
△	R7361	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R7362	NRSA63J-331X	MG RESISTOR		
	R7363	NRSA63J-103X	MG RESISTOR		
	R7411	NRSA63J-391X	MG RESISTOR		
	R7412	NRSA63J-103X	MG RESISTOR		
	R7702	NRSA63J-391X	MG RESISTOR		
	R7703	NRSA63J-391X	MG RESISTOR		
	R7705	NRSA63J-391X	MG RESISTOR		
	R7706	NRSA63J-391X	MG RESISTOR		
	R7707	NRSA63J-431X	MG RESISTOR		
	R7708	NRSA63J-431X	MG RESISTOR		
	R7709	NRSA63J-431X	MG RESISTOR		
	R7710	NRSA63J-431X	MG RESISTOR		
	R7712	NRSA63J-391X	MG RESISTOR		
	R7713	NRSA63J-391X	MG RESISTOR		
	R7715	NRSA63J-391X	MG RESISTOR		
	R7716	NRSA63J-391X	MG RESISTOR		
	R7717	NRSA63J-431X	MG RESISTOR		
	R7718	NRSA63J-431X	MG RESISTOR		
	R7719	NRSA63J-431X	MG RESISTOR		
	R7720	NRSA63J-431X	MG RESISTOR		
	R7722	NRSA63J-391X	MG RESISTOR		
	R7723	NRSA63J-391X	MG RESISTOR		
	R7725	NRSA63J-391X	MG RESISTOR		
	R7726	NRSA63J-391X	MG RESISTOR		
	R7727	NRSA63J-431X	MG RESISTOR		
	R7728	NRSA63J-431X	MG RESISTOR		
	R7729	NRSA63J-431X	MG RESISTOR		
	R7730	NRSA63J-431X	MG RESISTOR		
	R7901	NRSA63J-103X	MG RESISTOR		
	R7902	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R7903	NRSA63J-102X	MG RESISTOR		
	R7904	NRSA63J-102X	MG RESISTOR		
△	R7905	QRE141J-2R2Y	C RESISTOR	2.2 5% 1/4W	
△	R7951	QRZ9006-4R7X	F RESISTOR	1/4W	
	R7952	NRSA63J-123X	MG RESISTOR		
△	R7954	QRZ9005-220X	F RESISTOR	1/4W	
	R7955	NRSA63J-104X	MG RESISTOR		
	R7958	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R7959	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R7961	QRK126J-470X	C RESISTOR	1W	
	R7962	QRK126J-470X	C RESISTOR	1W	
	R8501	NRSA63J-202X	MG RESISTOR		
	R8502	NRSA63J-122X	MG RESISTOR		
	R8503	NRSA63J-152X	MG RESISTOR		
	R8504	NRSA63J-222X	MG RESISTOR		
	R8505	NRSA63J-272X	MG RESISTOR		
	R8506	NRSA63J-392X	MG RESISTOR		
	R8507	NRSA63J-562X	MG RESISTOR		
	R8508	NRSA63J-103X	MG RESISTOR		
	R8511	NRSA63J-202X	MG RESISTOR		
	R8512	NRSA63J-122X	MG RESISTOR		
	R8513	NRSA63J-152X	MG RESISTOR		
	R8514	NRSA63J-222X	MG RESISTOR		
	R8515	NRSA63J-272X	MG RESISTOR		
	R8516	NRSA63J-392X	MG RESISTOR		
	R8517	NRSA63J-562X	MG RESISTOR		
	R8603	NRSA63J-561X	MG RESISTOR		
	S4801	QSW0933-001	DETECT SWITCH	PANEL	

△	Item	Parts number	Parts name	Remarks	Area
	S4802	QSW0933-001	DETECT SWITCH	PANEL	
	S8501	QSW0651-001Z	TACT SWITCH	B.SKIP	
	S8502	QSW0651-001Z	TACT SWITCH	CD PLAY	
	S8503	QSW0651-001Z	TACT SWITCH	STOP	
	S8504	QSW0651-001Z	TACT SWITCH	MD PLAY	
	S8505	QSW0651-001Z	TACT SWITCH	F.SKIP	
	S8506	QSW0651-001Z	TACT SWITCH	TAPE PLAY	
	S8507	QSW0651-001Z	TACT SWITCH	SOUND	
	S8508	QSW0651-001Z	TACT SWITCH	FM/AM	
	S8509	QSW0651-001Z	TACT SWITCH	AHB	
	S8511	QSW0651-001Z	TACT SWITCH	CD OP/CL	
	S8512	QSW0651-001Z	TACT SWITCH	MD EJECT	
	S8513	QSW0651-001Z	TACT SWITCH	REV.MODE	
	S8514	QSW0651-001Z	TACT SWITCH	AUX	
	S8515	QSW0651-001Z	TACT SWITCH	COLOR	
	S8516	QSW0651-001Z	TACT SWITCH	MD REC	
	S8517	QSW0651-001Z	TACT SWITCH	TAPE REC	
	S8518	QSW0651-001Z	TACT SWITCH	MD&TAPE REC	
	S8601	QSW0651-001Z	TACT SWITCH	POWER	
△	T9002	QQT0253-003	POWER TRANS	SUB	
	W 320	QJK008-052400	SIN CR C-B WIRE	HP - MAIN	
	W 777	QUB350-05Z3Z3	SIN TWIST WIRE		
	W 921	QJK015-033003	SIN CR C-B WIRE	TRANS - AMP	
	W 922	WJK0023-002A	E-SI C WIRE C-B	TRANS - MAIN	
	W 923	QJK008-070702	SIN CR C-B WIRE	TRANS - MICON	
	W4801	QJB002-041504	SIN ID C-B WIRE	PANL SW - MICON	
	X7001	QAX0401-001	CRYSTAL	32KHZ	
	X7002	QAX0667-001Z	RESONATOR	8MHZ	

■ Electrical parts list (MD servo control board) Block No. 03

△	Item	Parts number	Parts name	Remarks	Area
	C 300	NCF31CZ-104X	C CAPACITOR		
	C 302	NCF31CZ-104X	C CAPACITOR		
	C 307	NCB31HK-222X	C CAPACITOR		
	C 310	NCB31HK-102X	C CAPACITOR		
	C 311	NCF21CZ-105X	C CAPACITOR		
	C 312	NEA70GM-476X	E CAPACITOR		
	C 314	NCB31CK-223X	C CAPACITOR		
	C 315	NCB31HK-102X	C CAPACITOR		
	C 316	NCF21CZ-105X	C CAPACITOR		
	C 318	NCB31HK-682X	C CAPACITOR		
	C 319	NCB31CK-333X	C CAPACITOR		
	C 320	NCB21AK-105X	C CAPACITOR		
	C 321	NCB31HK-472X	C CAPACITOR		
	C 322	NCB21AK-105X	C CAPACITOR		
	C 323	NCB31HK-682X	C CAPACITOR		
	C 324	NCB21CK-224X	C CAPACITOR		
	C 325	NCB31CK-103X	C CAPACITOR		
	C 326	NCB31CK-223X	C CAPACITOR		
	C 327	NCB31CK-104X	C CAPACITOR		
	C 328	NCB31CK-104X	C CAPACITOR		
	C 330	NCF31CZ-104X	C CAPACITOR		
	C 333	NCB21CK-154X	C CAPACITOR		
	C 334	NCF31CZ-104X	C CAPACITOR		
	C 340	NCB31CK-223X	C CAPACITOR		
	C 341	NCB31CK-223X	C CAPACITOR		
	C 342	NCF31CZ-104X	C CAPACITOR		
	C 350	NEA70GM-476X	E CAPACITOR		
	C 351	NCF21CZ-105X	C CAPACITOR		
	C 352	NEA70GM-476X	E CAPACITOR		
	C 353	NCF21CZ-105X	C CAPACITOR		
	C 354	NCF21CZ-105X	C CAPACITOR		
	C 355	NCF31CZ-104X	C CAPACITOR		
	C 358	NCF31CZ-104X	C CAPACITOR		
	C 359	NCF31CZ-104X	C CAPACITOR		
	C 361	NCF31CZ-104X	C CAPACITOR		
	C 375	NCB31CK-103X	C CAPACITOR		
	C 376	NCB21CK-474X	C CAPACITOR		
	C 377	NCB31HK-471X	C CAPACITOR		
	C 378	NCS31HJ-330X	C CAPACITOR		
	C 379	NCB21CK-474X	C CAPACITOR		
	C 380	NCB31CK-153X	C CAPACITOR		
	C 400	NEAD1CM-226X	E CAPACITOR		
	C 401	NEAD0JM-107X	E CAPACITOR		
	C 402	NCB31HK-331X	C CAPACITOR		
	C 403	NEAD0GM-476X	E CAPACITOR		
	C 407	NCS31HJ-101X	C CAPACITOR		
	C 409	NCB31CK-104X	C CAPACITOR		
	C 411	NCF21CZ-105X	C CAPACITOR		
	C 412	NCF31CZ-104X	C CAPACITOR		
	C 421	NCB31HK-561X	C CAPACITOR		
	C 423	NCB31HK-561X	C CAPACITOR		
	C 425	NCB31HK-561X	C CAPACITOR		
	C 427	NCB31HK-561X	C CAPACITOR		
	C 429	NCB31HK-392X	C CAPACITOR		
	C 431	NCB31HK-392X	C CAPACITOR		
	C 433	NCB31HK-562X	C CAPACITOR		
	C 435	NCB31HK-562X	C CAPACITOR		
	C 437	NCB31CK-103X	C CAPACITOR		
	C 439	NCB31CK-103X	C CAPACITOR		
	C 450	NEA71CM-107X	E CAPACITOR		
	C 451	NEA70GM-107X	E CAPACITOR		
	C 452	NCF31CZ-104X	C CAPACITOR		
	C 453	NCF31CZ-104X	C CAPACITOR		
	C 455	NDC32AJ-101X	C CAPACITOR		
	C 481	NCF21CZ-105X	C CAPACITOR		
	C 483	NCF31CZ-104X	C CAPACITOR		

△	Item	Parts number	Parts name	Remarks	Area
	C 484	NEAD1CM-106X	E CAPACITOR		
	C 485	NCF31CZ-104X	C CAPACITOR		
	C 486	NCF31CZ-104X	C CAPACITOR		
	C 487	NCF31CZ-104X	C CAPACITOR		
	C 488	NEAD1CM-106X	E CAPACITOR		
	C 489	NEAD1VM-475X	E CAPACITOR		
	C 490	NCB31CK-103X	C CAPACITOR		
	C 491	NCB31HK-102X	C CAPACITOR		
	C 492	NCB31HK-102X	C CAPACITOR		
	C 496	NCF21CZ-105X	C CAPACITOR		
	C 497	NCF31CZ-104X	C CAPACITOR		
	C 501	NCS31HJ-180X	C CAPACITOR		
	C 502	NCS31HJ-180X	C CAPACITOR		
	C 511	NCF31CZ-104X	C CAPACITOR		
	C 512	NCF31CZ-104X	C CAPACITOR		
	C 515	NCF31CZ-104X	C CAPACITOR		
	C 590	NCS31HJ-101X	C CAPACITOR		
	C 591	NCF31CZ-104X	C CAPACITOR		
	CN321	QGF0501F2-21X	CONNECTOR	PICK-UP A'S	
	CN407	QGF1006F2-08W	SOCKET	CAM SW	
	CN408	QGF1006F2-09W	CONNECTOR	TRAMECHA PW	
	CN451	QGF1016F2-04W	CONNECTOR	HEAD	
	CN521	QGF1006F2-21W	SOCKET	SYSTEM	
	CN522	QGF1006F2-08W	SOCKET	CD	
	CN601	QGF1006F2-09W	CONNECTOR		
	D 310	1SS355-X	DIODE	TEMP DET	
	D 451	RB160L-60-X	SB DIODE		
	D 452	RB160L-60-X	SB DIODE		
	IC310	CXA2523AR	IC	RF	
	IC340	TC7S08F-W	IC	APC PWM BUFFER	
	IC350	CXD2662R	IC	MD DSP	
	IC390	GM71VS17400CLT5	IC	4M*4 DRAM	
	IC400	XC62ER3602M-X	IC	3.6V REG	
	IC410	M63008FP-X	IC	BTL DRIVER	
	IC450	BD7910FV-X	IC M.HEAD DRIVE	DRIVER	
	IC480	AK4519VF-X	IC A/D.D/A CONV		
	IC485	TK11140SC-W	IC 4.0V REG		
	IC500	UPD784217AGC174	IC(MCU)		
	IC590	BR93LC66F-X	IC	256*16BIT EEPROM	
	K 346	NQR0360-002X	FERRITE BEADS		
	K 353	NQR0389-003X	FERRITE BEADS		
	K 491	NRSA63J-0R0X	MG RESISTOR		
	K 492	NRSA63J-0R0X	MG RESISTOR		
	K 495	NRSA63J-0R0X	MG RESISTOR		
	K 496	NRSA63J-0R0X	MG RESISTOR		
	K 505	NQR0389-003X	FERRITE BEADS		
	K 521	NQR0354-001X	FERRITE BEADS		
	K 522	NQR0354-001X	FERRITE BEADS		
	K 523	NQR0389-003X	FERRITE BEADS		
	K 524	NQR0389-003X	FERRITE BEADS		
	K 527	NRSA63J-0R0X	MG RESISTOR		
	K 528	NRSA63J-0R0X	MG RESISTOR		
	K 529	NRSA63J-0R0X	MG RESISTOR		
	K 530	NRSA63J-0R0X	MG RESISTOR		
	K 531	NRSA63J-0R0X	MG RESISTOR		
	K 532	NRSA63J-0R0X	MG RESISTOR		
	L 351	NQL38DK-100X	INDUCTOR		
	L 352	NQL38DK-100X	INDUCTOR		
	L 525	NQL274M-1R5X	INDUCTOR		
	L 526	NQL274M-1R5X	INDUCTOR		
	Q 330	2SA1362/G/-X	TRANSISTOR		
	Q 331	KRA102S-X	TRANSISTOR		
	Q 332	KRA116S-X	TRANSISTOR		
	Q 333	KRA116S-X	TRANSISTOR		
	Q 400	2SA1363/EF/-X	TRANSISTOR	4.6V REG	
	Q 401	2SA1363/EF/-X	TRANSISTOR	3.6V REG	

■ Electrical parts list (MD servo control board) Block No. 03

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	Q 410	KRC102S-X	TRANSISTOR				R 394	NRSA63J-102X	MG RESISTOR		
	Q 411	KRC102S-X	TRANSISTOR				R 395	NRSA63J-102X	MG RESISTOR		
	R 300	NRSA63J-0R0X	MG RESISTOR				R 396	NRSA63J-331X	MG RESISTOR		
	R 301	NRS181J-0R0X	MG RESISTOR				R 397	NRSA63J-331X	MG RESISTOR		
	R 302	NRSA63J-0R0X	MG RESISTOR				R 398	NRSA63J-331X	MG RESISTOR		
	R 305	NRSA63J-222X	MG RESISTOR				R 399	NRSA63J-102X	MG RESISTOR		
	R 306	NRSA63J-474X	MG RESISTOR				R 401	NRSA63D-153X	MG RESISTOR		
	R 309	NRSA63J-474X	MG RESISTOR				R 402	NRSA63D-562X	MG RESISTOR		
	R 310	NRSA63J-331X	MG RESISTOR				R 403	NRSA63J-471X	MG RESISTOR		
	R 311	NRSA63J-682X	MG RESISTOR				R 404	NRSA63J-333X	MG RESISTOR		
	R 313	NRSA63J-104X	MG RESISTOR				R 420	NRSA63D-223X	MG RESISTOR		
	R 314	NRSA63J-133X	MG RESISTOR				R 421	NRSA63D-103X	MG RESISTOR		
	R 315	NRSA63J-243X	MG RESISTOR				R 422	NRSA63D-223X	MG RESISTOR		
	R 316	NRSA63J-104X	MG RESISTOR				R 423	NRSA63D-103X	MG RESISTOR		
	R 317	NRSA63J-103X	MG RESISTOR				R 424	NRSA63D-223X	MG RESISTOR		
	R 320	NRSA63J-563X	MG RESISTOR				R 425	NRSA63D-103X	MG RESISTOR		
	R 321	NRSA63J-331X	MG RESISTOR				R 426	NRSA63D-223X	MG RESISTOR		
	R 322	NRSA63J-331X	MG RESISTOR				R 427	NRSA63D-103X	MG RESISTOR		
	R 323	NRSA63J-331X	MG RESISTOR				R 428	NRSA63D-243X	MG RESISTOR		
	R 324	NRSA63J-102X	MG RESISTOR				R 429	NRSA63D-392X	MG RESISTOR		
	R 325	NRSA63J-472X	MG RESISTOR				R 430	NRSA63D-243X	MG RESISTOR		
	R 326	NRSA63J-331X	MG RESISTOR				R 431	NRSA63D-392X	MG RESISTOR		
	R 327	NRSA63J-331X	MG RESISTOR				R 432	NRSA63D-123X	MG RESISTOR		
	R 328	NRSA63J-101X	MG RESISTOR				R 433	NRSA63D-822X	MG RESISTOR		
	R 330	NRSA63J-8R2X	MG RESISTOR				R 434	NRSA63D-123X	MG RESISTOR		
	R 331	NRSA63J-270X	MG RESISTOR				R 435	NRSA63D-822X	MG RESISTOR		
	R 332	NRSA63J-473X	MG RESISTOR				R 436	NRSA63J-223X	MG RESISTOR		
	R 333	NRSA63J-473X	MG RESISTOR				R 437	NRSA63J-302X	MG RESISTOR		
	R 334	NRSA63J-473X	MG RESISTOR				R 438	NRSA63J-223X	MG RESISTOR		
	R 335	NRSA63J-473X	MG RESISTOR				R 439	NRSA63J-302X	MG RESISTOR		
	R 336	NRSA63J-104X	MG RESISTOR				R 440	NRSA63D-103X	MG RESISTOR		
	R 337	NRSA63J-1R0X	MG RESISTOR				R 441	NRSA63D-103X	MG RESISTOR		
	R 338	NRSA63J-4R7X	MG RESISTOR				R 451	NRSA63J-473X	MG RESISTOR		
	R 339	NRSA63J-473X	MG RESISTOR				R 452	NRSA63J-563X	MG RESISTOR		
	R 340	NRSA63J-222X	MG RESISTOR				R 453	NRSA63J-1R0X	MG RESISTOR		
	R 341	NRSA63J-222X	MG RESISTOR				R 454	NRSA63J-1R0X	MG RESISTOR		
	R 342	NRSA63J-222X	MG RESISTOR				R 456	NAD0006-103X	THERMISTOR		
	R 343	NRSA63J-102X	MG RESISTOR				R 481	NRSA63J-100X	MG RESISTOR		
	R 354	NRSA63D-103X	MG RESISTOR				R 483	NRSA63J-0R0X	MG RESISTOR		
	R 355	NRSA63D-103X	MG RESISTOR				R 491	NRSA63J-471X	MG RESISTOR		
	R 356	NRSA63J-102X	MG RESISTOR				R 492	NRSA63J-471X	MG RESISTOR		
	R 361	NRSA63J-102X	MG RESISTOR				R 495	NRSA63J-471X	MG RESISTOR		
	R 362	NRSA63J-102X	MG RESISTOR				R 496	NRSA63J-471X	MG RESISTOR		
	R 363	NRSA63J-102X	MG RESISTOR				R 497	NRSA63J-1R0X	MG RESISTOR		
	R 364	NRSA63J-102X	MG RESISTOR				R 502	NRSA63J-152X	MG RESISTOR		
	R 365	NRSA63J-102X	MG RESISTOR				R 503	NRSA63J-222X	MG RESISTOR		
	R 366	NRSA63J-102X	MG RESISTOR				R 504	NRSA63J-333X	MG RESISTOR		
	R 367	NRSA63J-102X	MG RESISTOR				R 506	NRSA63J-103X	MG RESISTOR		
	R 368	NRSA63J-102X	MG RESISTOR				R 510	NRSA63J-102X	MG RESISTOR		
	R 369	NRSA63J-102X	MG RESISTOR				R 511	NRSA63J-102X	MG RESISTOR		
	R 371	NRSA63J-103X	MG RESISTOR				R 512	NRSA63J-102X	MG RESISTOR		
	R 372	NRSA63J-103X	MG RESISTOR				R 513	NRSA63J-102X	MG RESISTOR		
	R 375	NRSA63J-103X	MG RESISTOR				R 514	NRSA63J-102X	MG RESISTOR		
	R 376	NRSA63J-104X	MG RESISTOR				R 515	NRSA63J-102X	MG RESISTOR		
	R 377	NRSA63J-684X	MG RESISTOR				R 516	NRSA63J-102X	MG RESISTOR		
	R 378	NRSA63J-332X	MG RESISTOR				R 518	NRSA63J-102X	MG RESISTOR		
	R 379	NRSA63J-102X	MG RESISTOR				R 519	NRSA63J-102X	MG RESISTOR		
	R 380	NRSA63J-105X	MG RESISTOR				R 520	NRSA63J-102X	MG RESISTOR		
	R 381	NRSA63J-102X	MG RESISTOR				R 521	NRSA63J-102X	MG RESISTOR		
	R 382	NRSA63J-151X	MG RESISTOR				R 522	NRSA63J-222X	MG RESISTOR		
	R 387	NRSA63J-102X	MG RESISTOR				R 523	NRSA63J-102X	MG RESISTOR		
	R 389	NRSA63J-331X	MG RESISTOR				R 524	NRSA63J-102X	MG RESISTOR		
	R 390	NRSA63J-102X	MG RESISTOR				R 525	NRSA63J-102X	MG RESISTOR		
	R 391	NRSA63J-561X	MG RESISTOR				R 528	NRSA63J-102X	MG RESISTOR		
	R 392	NRSA63J-102X	MG RESISTOR				R 529	NRSA63J-102X	MG RESISTOR		
	R 393	NRSA63J-102X	MG RESISTOR				R 530	NRSA63J-102X	MG RESISTOR		

■ Electrical parts list (MD servo control board) Block No. 03

△	Item	Parts number	Parts name	Remarks	Area
	R 534	NRSA63J-103X	MG RESISTOR		
	R 536	NRSA63J-103X	MG RESISTOR		
	R 537	NRSA63J-103X	MG RESISTOR		
	R 538	NRSA63J-473X	MG RESISTOR		
	R 540	NRSA63J-473X	MG RESISTOR		
	R 541	NRSA63J-473X	MG RESISTOR		
	R 545	NRSA63J-0R0X	MG RESISTOR		
	R 546	NRSA63J-0R0X	MG RESISTOR		
	R 547	NRSA63J-0R0X	MG RESISTOR		
	R 548	NRSA63J-0R0X	MG RESISTOR		
	R 551	NRSA63J-104X	MG RESISTOR		
	R 552	NRSA63J-104X	MG RESISTOR		
	R 554	NRSA63J-104X	MG RESISTOR		
	R 555	NRSA63J-102X	MG RESISTOR		
	R 556	NRSA63J-102X	MG RESISTOR		
	R 557	NRSA63J-102X	MG RESISTOR		
	R 558	NRSA63J-102X	MG RESISTOR		
	R 559	NRSA63J-0R0X	MG RESISTOR		
	R 560	NRSA63J-0R0X	MG RESISTOR		
	R 561	NRSA63J-0R0X	MG RESISTOR		
	R 562	NRSA63J-0R0X	MG RESISTOR		
	R 563	NRSA63J-102X	MG RESISTOR		
	R 564	NRSA63J-102X	MG RESISTOR		
	R 565	NRSA63J-102X	MG RESISTOR		
	R 567	NRSA63J-102X	MG RESISTOR		
	R 568	NRSA63J-102X	MG RESISTOR		
	R 569	NRSA63J-102X	MG RESISTOR		
	R 570	NRSA63J-223X	MG RESISTOR		
	R 592	NRSA63J-104X	MG RESISTOR		
	R 593	NRSA63J-103X	MG RESISTOR		
	S 601	NSW0165-001X	DETECT SWITCH		
	S 602	NSW0007-001X	PUSH SWITCH		
	X 350	NAX0547-001X	CRYSTAL	90.3168MHZ	
	X 500	NAX0426-001X	CRYSTAL	12.288MHZ	

■ Electrical parts list (MD cam switch board) Block No. 04

△	Item	Parts number	Parts name	Remarks	Area
	CN611	QGF1016F3-08	CONNECTOR		
	CN612	QGA1501F1-02	CONNECTOR		
	S 611	QSW0848-001	CAM SWITCH		

■ Electrical parts list (DVD servo control board) Block No. 05

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 1	NCB31CK-104X	C CAPACITOR				C 304	NEA70GM-107X	E CAPACITOR		
	C 2	NCB31CK-104X	C CAPACITOR				C 306	NEA70GM-107X	E CAPACITOR		
	C 3	NCB31CK-104X	C CAPACITOR				C 308	NEA70GM-107X	E CAPACITOR		
	C 4	NCB31CK-104X	C CAPACITOR				C 310	NCB31CK-104X	C CAPACITOR		
	C 5	NCB31CK-104X	C CAPACITOR				C 311	NCB31HK-561X	C CAPACITOR		
	C 6	NCB31CK-104X	C CAPACITOR				C 312	NCB31HK-561X	C CAPACITOR		
	C 10	NCS31HJ-470X	C CAPACITOR				C 313	NCB31HK-561X	C CAPACITOR		
	C 105	NEA70JM-476X	E CAPACITOR				C 314	NCB31HK-331X	C CAPACITOR		
	C 106	NEA70JM-476X	E CAPACITOR				C 315	NCB31HK-471X	C CAPACITOR		
	C 109	NCB21CK-154X	C CAPACITOR				C 316	NCB31HK-271X	C CAPACITOR		
	C 110	NCS31HJ-221X	C CAPACITOR				C 317	NCS31HJ-121X	C CAPACITOR		
	C 111	NCB31CK-104X	C CAPACITOR				C 318	NCB31CK-104X	C CAPACITOR		
	C 112	NCB31CK-104X	C CAPACITOR				C 319	NCB31HK-102X	C CAPACITOR		
	C 113	NEA70JM-226X	E CAPACITOR				C 320	NCB31HK-102X	C CAPACITOR		
	C 115	NCB31CK-104X	C CAPACITOR				C 321	NCB31HK-102X	C CAPACITOR		
	C 116	NCB31CK-104X	C CAPACITOR				C 322	NCB31HK-562X	C CAPACITOR		
	C 117	NCB31CK-473X	C CAPACITOR				C 323	NCB31HK-102X	C CAPACITOR		
	C 118	NCB31CK-273X	C CAPACITOR				C 324	NCB31CK-104X	C CAPACITOR		
	C 119	NCB31HK-561X	C CAPACITOR				C 325	NCS31HJ-470X	C CAPACITOR		
	C 120	NCB31HK-561X	C CAPACITOR				C 326	NCB31CK-183X	C CAPACITOR		
	C 121	NCB31CK-104X	C CAPACITOR				C 327	NCB31HK-102X	C CAPACITOR		
	C 122	NCS31HJ-120X	C CAPACITOR				C 328	NCB31CK-104X	C CAPACITOR		
	C 123	NCB31CK-104X	C CAPACITOR				C 329	NCB31CK-103X	C CAPACITOR		
	C 124	NCS31HJ-470X	C CAPACITOR				C 330	NCB31CK-104X	C CAPACITOR		
	C 125	NCB31HK-271X	C CAPACITOR				C 331	NCB31CK-103X	C CAPACITOR		
	C 126	NCB31CK-104X	C CAPACITOR				C 332	NCB21CK-105X	C CAPACITOR		
	C 127	NCB31CK-104X	C CAPACITOR				C 333	NCB31AK-154X	C CAPACITOR		
	C 128	NCB31CK-104X	C CAPACITOR				C 334	NCB31CK-104X	C CAPACITOR		
	C 129	NCB31HK-472X	C CAPACITOR				C 337	NCB31CK-104X	C CAPACITOR		
	C 135	NEA70JM-476X	E CAPACITOR				C 338	NCB31CK-104X	C CAPACITOR		
	C 137	NEA70GM-476X	E CAPACITOR				C 339	NCB31CK-104X	C CAPACITOR		
	C 138	NCB21CK-105X	C CAPACITOR				C 340	NCB31CK-104X	C CAPACITOR		
	C 139	NCB21CK-105X	C CAPACITOR				C 341	NCB31CK-104X	C CAPACITOR		
	C 141	NCB31CK-104X	C CAPACITOR				C 342	NCB31CK-104X	C CAPACITOR		
	C 142	NCB31CK-104X	C CAPACITOR				C 343	NCB31CK-104X	C CAPACITOR		
	C 143	NCB31CK-104X	C CAPACITOR				C 344	NCB31CK-104X	C CAPACITOR		
	C 144	NCB31CK-103X	C CAPACITOR				C 345	NCB31CK-104X	C CAPACITOR		
	C 146	NCB31CK-104X	C CAPACITOR				C 346	NCB31CK-104X	C CAPACITOR		
	C 201	NEA70JM-226X	E CAPACITOR				C 347	NCB31CK-104X	C CAPACITOR		
	C 203	NCB31CK-104X	C CAPACITOR				C 348	NCB31CK-104X	C CAPACITOR		
	C 204	NCB31CK-104X	C CAPACITOR				C 349	NCB31CK-104X	C CAPACITOR		
	C 205	NCS31HJ-121X	C CAPACITOR				C 350	NCB31CK-104X	C CAPACITOR		
	C 207	NCB31HK-391X	C CAPACITOR				C 401	NEA70GM-476X	E CAPACITOR		
	C 208	NCB31HK-391X	C CAPACITOR				C 402	NCB31CK-104X	C CAPACITOR		
	C 211	NCB31HK-223X	C CAPACITOR				C 403	NCB31CK-104X	C CAPACITOR		
	C 212	NCB31CK-103X	C CAPACITOR				C 404	NCB31CK-104X	C CAPACITOR		
	C 215	NCB31CK-104X	C CAPACITOR				C 405	NCB31CK-104X	C CAPACITOR		
	C 216	NCB30JK-105X	C CAPACITOR				C 406	NCB31CK-104X	C CAPACITOR		
	C 217	NCB31CK-104X	C CAPACITOR				C 407	NCB31CK-104X	C CAPACITOR		
	C 218	NCB30JK-105X	C CAPACITOR				C 411	NCB31CK-104X	C CAPACITOR		
	C 251	NCB31CK-104X	C CAPACITOR				C 450	NCB31CK-104X	C CAPACITOR		
	C 252	NEA71AM-336X	E CAPACITOR				C 453	NCB31CK-104X	C CAPACITOR		
	C 253	NCB31CK-104X	C CAPACITOR				C 454	NCB31CK-104X	C CAPACITOR		
	C 255	NCB31CK-223X	C CAPACITOR				C 501	NCB31CK-104X	C CAPACITOR		
	C 256	NCB31CK-104X	C CAPACITOR				C 502	NCB31CK-104X	C CAPACITOR		
	C 257	NCB31CK-104X	C CAPACITOR				C 503	NCB31CK-104X	C CAPACITOR		
	C 258	NCB31CK-104X	C CAPACITOR				C 504	NCB31CK-104X	C CAPACITOR		
	C 259	NCB31CK-104X	C CAPACITOR				C 505	NCB31CK-104X	C CAPACITOR		
	C 260	NCB31CK-104X	C CAPACITOR				C 506	NCB31CK-104X	C CAPACITOR		
	C 261	NCB31CK-104X	C CAPACITOR				C 507	NCB31CK-104X	C CAPACITOR		
	C 262	NCB31CK-104X	C CAPACITOR				C 508	NCB31CK-104X	C CAPACITOR		
	C 263	NCB31CK-104X	C CAPACITOR				C 509	NCB31CK-104X	C CAPACITOR		
	C 264	NCB31CK-103X	C CAPACITOR				C 510	NCB31CK-104X	C CAPACITOR		
	C 301	NCB31CK-104X	C CAPACITOR				C 511	NCB31CK-104X	C CAPACITOR		
	C 302	NCB31CK-104X	C CAPACITOR				C 512	NCB31CK-104X	C CAPACITOR		
	C 303	NCB31CK-104X	C CAPACITOR				C 513	NCB31CK-104X	C CAPACITOR		

■ Electrical parts list (DVD servo control board) Block No. 05

△	Item	Parts number	Parts name	Remarks	Area
	C 514	NCB31CK-104X	C CAPACITOR		
	C 515	NCB31CK-104X	C CAPACITOR		
	C 516	NCB31CK-104X	C CAPACITOR		
	C 517	NCB31CK-104X	C CAPACITOR		
	C 518	NCB31CK-104X	C CAPACITOR		
	C 520	NCB31CK-104X	C CAPACITOR		
	C 522	NCB31CK-104X	C CAPACITOR		
	C 524	NCB31CK-104X	C CAPACITOR		
	C 525	NCB31CK-104X	C CAPACITOR		
	C 526	NCB31CK-104X	C CAPACITOR		
	C 527	NCB31CK-104X	C CAPACITOR		
	C 528	NCB31CK-104X	C CAPACITOR		
	C 529	NCB31CK-104X	C CAPACITOR		
	C 530	NEA70GM-107X	E CAPACITOR		
	C 531	NCB31CK-104X	C CAPACITOR		
	C 533	NCB31CK-104X	C CAPACITOR		
	C 534	NEA70GM-107X	E CAPACITOR		
	C 535	NCB31CK-104X	C CAPACITOR		
	C 536	NCB31CK-103X	C CAPACITOR		
	C 539	NCB31CK-104X	C CAPACITOR		
	C 540	NEA70GM-476X	E CAPACITOR		
	C 541	NCB31CK-104X	C CAPACITOR		
	C 544	NCB31CK-104X	C CAPACITOR		
	C 547	NCB31CK-104X	C CAPACITOR		
	C 556	NEA70GM-107X	E CAPACITOR		
	C 566	NCB31CK-104X	C CAPACITOR		
	C 567	NEA70GM-476X	E CAPACITOR		
	C 571	NEA70JM-226X	E CAPACITOR		
	C 572	NCB31CK-104X	C CAPACITOR		
	C 573	NCB31CK-104X	C CAPACITOR		
	CN101	QGF0522F1-30W	FFC/FPC CONNECTOR	PU	
	CN201	QGF1016F2-15W	CONNECTOR	PU	
	CN202	QGF1016F2-06W	CONNECTOR	PU	
	CN502	QGB2027L1-10X	W TO B CONNECTOR	SYSTEM	
	CN503	QGB2027L1-26X	B TO B CONNECTOR	SYSTEM	
	D 101	RB521S-30-X	SB DIODE		
	D 202	1SS355-X	DIODE		
	D 501	1SR154-400-X	DIODE		
	IC101	AN8703FH-V	IC		
	IC201	BA5983FM-X	IC		
	IC251	BA6664FM-X	LSI		
	IC301	MN103S28EGA	IC		
	IC401	MN102L62GMA1	IC(MCU)	MASK	
	IC402	MR27V1602EUMTPX	IC	MASK	
	IC451	AK93C65AF-X	IC		
	IC454	74VHC74MTC-X	IC		
	IC455	74VHC00MTC-X	IC		
	IC501	ZIVA-4.1-PB0	IC		
	IC503	74VHC00MTC-X	IC		
	IC504	K4S641632F-TC75	IC		
	IC571	CS5960AT-X	IC		
	K 101	NQR0007-002X	FERRITE BEADS		
	K 301	NQR0007-002X	FERRITE BEADS		
	K 302	NQR0007-002X	FERRITE BEADS		
	K 303	NQR0007-002X	FERRITE BEADS		
	K 304	NQR0007-002X	FERRITE BEADS		
	K 401	NQR0007-002X	FERRITE BEADS		
	K 402	NQR0007-002X	FERRITE BEADS		
	K 501	NQR0007-002X	FERRITE BEADS		
	K 502	NQR0007-002X	FERRITE BEADS		
	K 504	NQR0201-001X	FERRITE BEADS		
	K 505	NQR0269-001X	FERRITE BEADS		
	K 506	NQR0007-002X	FERRITE BEADS		
	K 561	NQR0007-002X	FERRITE BEADS		
	K 562	NQR0007-002X	FERRITE BEADS		
	K 563	NQR0007-002X	FERRITE BEADS		

△	Item	Parts number	Parts name	Remarks	Area
	K 565	NQR0007-002X	FERRITE BEADS		
	K 571	NQR0007-002X	FERRITE BEADS		
	K 575	NQR0007-002X	FERRITE BEADS		
	K 577	NQR0007-002X	FERRITE BEADS		
	K 578	NQR0007-002X	FERRITE BEADS		
	K 579	NQR0007-002X	FERRITE BEADS		
	Q 101	KTA1001/Y/-X	TRANSISTOR		
	Q 102	KTA1001/Y/-X	TRANSISTOR		
	Q 103	DTA144EE-X	D TRANSISTOR		
	R 101	NRSA63J-333X	MG RESISTOR		
	R 102	NRSA63J-223X	MG RESISTOR		
	R 103	NRSA63J-223X	MG RESISTOR		
	R 104	NRS125J-270X	MG RESISTOR		
	R 105	NRS125J-270X	MG RESISTOR		
	R 106	NRSA63J-273X	MG RESISTOR		
	R 107	NRSA63J-273X	MG RESISTOR		
	R 108	NRSA63J-682X	MG RESISTOR		
	R 109	NRSA63J-102X	MG RESISTOR		
	R 110	NRSA63J-333X	MG RESISTOR		
	R 111	NRVA63D-243X	MG RESISTOR		
	R 112	NRSA63J-822X	MG RESISTOR		
	R 113	NRSA63J-103X	MG RESISTOR		
	R 114	NRSA63J-0R0X	MG RESISTOR		
	R 115	NRSA63J-0R0X	MG RESISTOR		
	R 116	NRSA63J-0R0X	MG RESISTOR		
	R 117	NRSA63J-0R0X	MG RESISTOR		
	R 119	NRSA63J-2R2X	MG RESISTOR		
	R 120	NRSA63J-2R2X	MG RESISTOR		
	R 125	NRSA63J-105X	MG RESISTOR		
	R 126	NRSA63J-105X	MG RESISTOR		
	R 127	NRSA63J-222X	MG RESISTOR		
	R 128	NRS125J-1R0X	MG RESISTOR		
	R 129	NRS125J-1R0X	MG RESISTOR		
	R 130	NRSA63J-182X	MG RESISTOR		
	R 201	NRSA63J-470X	MG RESISTOR		
	R 202	NRS125J-1R0X	MG RESISTOR		
	R 203	NRSA63J-0R0X	MG RESISTOR		
	R 204	NRSA63J-273X	MG RESISTOR		
	R 205	NRSA63J-273X	MG RESISTOR		
	R 206	NRSA63J-303X	MG RESISTOR		
	R 207	NRSA63J-303X	MG RESISTOR		
	R 208	NRSA63J-223X	MG RESISTOR		
	R 209	NRSA63J-223X	MG RESISTOR		
	R 210	NRSA63J-242X	MG RESISTOR		
	R 211	NRSA63J-242X	MG RESISTOR		
	R 212	NRSA63J-103X	MG RESISTOR		
	R 213	NRSA63J-103X	MG RESISTOR		
	R 214	NRSA63J-103X	MG RESISTOR		
	R 215	NRSA63J-103X	MG RESISTOR		
	R 216	NRSA63J-912X	MG RESISTOR		
	R 217	NRSA63J-201X	MG RESISTOR		
	R 218	NRSA63J-221X	MG RESISTOR		
	R 219	NRSA63J-183X	MG RESISTOR		
	R 220	NRSA63J-183X	MG RESISTOR		
	R 221	NRSA63J-682X	MG RESISTOR		
	R 222	NRSA63J-103X	MG RESISTOR		
	R 223	NRSA63J-912X	MG RESISTOR		
	R 251	NRS125J-R47X	MG RESISTOR		
	R 252	NRSA63J-2R2X	MG RESISTOR		
	R 253	NRSA63J-0R0X	MG RESISTOR		
	R 254	NRSA63J-203X	MG RESISTOR		
	R 255	NRSA63J-103X	MG RESISTOR		
	R 256	NRSA63J-470X	MG RESISTOR		
	R 258	NRSA63J-0R0X	MG RESISTOR		
	R 259	NRSA63J-103X	MG RESISTOR		
	R 301	NRSA63J-473X	MG RESISTOR		

■ Electrical parts list (DVD servo control board) Block No. 05

△	Item	Parts number	Parts name	Remarks	Area
	R 302	NRSA63J-473X	MG RESISTOR		
	R 303	NRSA63J-473X	MG RESISTOR		
	R 304	NRSA63J-473X	MG RESISTOR		
	R 305	NRSA63J-473X	MG RESISTOR		
	R 306	NRSA63J-473X	MG RESISTOR		
	R 307	NRSA63J-473X	MG RESISTOR		
	R 308	NRSA63J-0R0X	MG RESISTOR		
	R 309	NRSA63J-473X	MG RESISTOR		
	R 313	NRSA63J-473X	MG RESISTOR		
	R 317	NRSA63J-473X	MG RESISTOR		
	R 319	NRSA63J-473X	MG RESISTOR		
	R 320	NRSA63J-0R0X	MG RESISTOR		
	R 321	NRSA63J-473X	MG RESISTOR		
	R 322	NRSA63J-0R0X	MG RESISTOR		
	R 323	NRSA63J-473X	MG RESISTOR		
	R 324	NRSA63J-473X	MG RESISTOR		
	R 325	NRSA63J-123X	MG RESISTOR		
	R 326	NRSA63J-473X	MG RESISTOR		
	R 327	NRSA63J-105X	MG RESISTOR		
	R 328	NRSA63J-153X	MG RESISTOR		
	R 329	NRSA63J-473X	MG RESISTOR		
	R 330	NRSA63J-473X	MG RESISTOR		
	R 331	NRSA63J-473X	MG RESISTOR		
	R 332	NRSA63J-102X	MG RESISTOR		
	R 333	NRSA63J-682X	MG RESISTOR		
	R 334	NRSA63J-102X	MG RESISTOR		
	R 336	NRSA63J-273X	MG RESISTOR		
	R 337	NRSA63J-273X	MG RESISTOR		
	R 338	NRSA63J-472X	MG RESISTOR		
	R 339	NRSA63J-472X	MG RESISTOR		
	R 340	NRSA63J-103X	MG RESISTOR		
	R 341	NRSA63J-562X	MG RESISTOR		
	R 402	NRSA63J-472X	MG RESISTOR		
	R 403	NRSA63J-0R0X	MG RESISTOR		
	R 404	NRSA63J-0R0X	MG RESISTOR		
	R 405	NRSA63J-0R0X	MG RESISTOR		
	R 411	NRSA63J-472X	MG RESISTOR		
	R 413	NRSA63J-472X	MG RESISTOR		
	R 414	NRSA63J-472X	MG RESISTOR		
	R 421	NRSA63J-0R0X	MG RESISTOR		
	R 422	NRSA63J-472X	MG RESISTOR		
	R 423	NRSA63J-472X	MG RESISTOR		
	R 424	NRSA63J-472X	MG RESISTOR		
	R 427	NRSA63J-0R0X	MG RESISTOR		
	R 428	NRSA63J-472X	MG RESISTOR		
	R 431	NRSA63J-472X	MG RESISTOR		
	R 432	NRSA63J-472X	MG RESISTOR		
	R 453	NRSA63J-102X	MG RESISTOR		
	R 501	NRSA63J-102X	MG RESISTOR		
	R 502	NRSA63J-472X	MG RESISTOR		
	R 504	NRSA63J-330X	MG RESISTOR		
	R 506	NRSA63J-330X	MG RESISTOR		
	R 507	NRSA63J-330X	MG RESISTOR		
	R 508	NRSA63J-330X	MG RESISTOR		
	R 509	NRSA63J-330X	MG RESISTOR		
	R 510	NRSA63J-330X	MG RESISTOR		
	R 511	NRSA63J-330X	MG RESISTOR		
	R 512	NRSA63J-330X	MG RESISTOR		
	R 513	NRSA63J-330X	MG RESISTOR		
	R 514	NRSA63J-330X	MG RESISTOR		
	R 515	NRSA63J-330X	MG RESISTOR		
	R 516	NRSA63J-330X	MG RESISTOR		
	R 517	NRSA63J-330X	MG RESISTOR		
	R 518	NRSA63J-330X	MG RESISTOR		
	R 519	NRSA63J-330X	MG RESISTOR		
	R 520	NRSA63J-330X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R 521	NRSA63J-330X	MG RESISTOR		
	R 522	NRSA63J-330X	MG RESISTOR		
	R 524	NRSA63J-181X	MG RESISTOR		
	R 527	NRSA63J-181X	MG RESISTOR		
	R 528	NRSA63J-102X	MG RESISTOR		
	R 529	NRSA63J-181X	MG RESISTOR		
	R 532	NRSA63J-102X	MG RESISTOR		
	R 533	NRSA63J-330X	MG RESISTOR		
	R 534	NRSA63J-330X	MG RESISTOR		
	R 535	NRSA63J-330X	MG RESISTOR		
	R 536	NRSA63J-330X	MG RESISTOR		
	R 537	NRSA63J-330X	MG RESISTOR		
	R 538	NRSA63J-330X	MG RESISTOR		
	R 539	NRSA63J-330X	MG RESISTOR		
	R 540	NRSA63J-330X	MG RESISTOR		
	R 541	NRSA63J-0R0X	MG RESISTOR		
	R 542	NRSA63J-0R0X	MG RESISTOR		
	R 543	NRSA63J-0R0X	MG RESISTOR		
	R 545	NRSA63J-472X	MG RESISTOR		
	R 546	NRSA63J-181X	MG RESISTOR		
	R 547	NRSA63J-222X	MG RESISTOR		
	R 548	NRSA63J-332X	MG RESISTOR		
	R 551	NRSA63J-0R0X	MG RESISTOR		
	R 552	NRSA63J-0R0X	MG RESISTOR		
	R 555	NRSA02J-0R0X	MG RESISTOR		
	R 571	NRSA63J-330X	MG RESISTOR		
	R 572	NRSA63J-0R0X	MG RESISTOR		
	R 573	NRSA63J-0R0X	MG RESISTOR		
	R 575	NRSA63J-103X	MG RESISTOR		
	R 576	NRSA63J-103X	MG RESISTOR		
	R 577	NRSA63J-470X	MG RESISTOR		
	X 571	NAX0513-001X	CRYSTAL		

■ Electrical parts list (DVD Loading motor board) Block No. 06

△	Item	Parts number	Parts name	Remarks	Area
	CN 1	QGF1016F3-06	CONNECTOR		
	S 1	QSW0910-002	SWITCH		
	S 2	QSW0910-002	SWITCH		

■ Electrical parts list (Cassette mecha control board) Block No. 07

△	Item	Parts number	Parts name	Remarks	Area
	C 101	QDGB1HK-821Y	C CAPACITOR		
	C 102	QDYB1CM-103Y	C CAPACITOR		
	C 103	QFLA1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 104	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 105	QCBB1HK-391Y	C CAPACITOR	390PF 10% 50V	
	C 106	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 107	QCBB1HK-561Y	C CAPACITOR	560PF 10% 50V	
	C 109	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 110	QDYB1CM-682Y	C CAPACITOR		
	C 113	QFLA1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 121	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 201	QDGB1HK-821Y	C CAPACITOR		
	C 202	QDYB1CM-103Y	C CAPACITOR		
	C 203	QFLA1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 204	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 205	QCBB1HK-391Y	C CAPACITOR	390PF 10% 50V	
	C 206	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 207	QCBB1HK-561Y	C CAPACITOR	560PF 10% 50V	
	C 209	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 210	QDYB1CM-682Y	C CAPACITOR		
	C 213	QFLA1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 221	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 300	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 301	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 304	QEKJ1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 306	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 307	QDYB1CM-103Y	C CAPACITOR		
	C 308	QDXB1CM-152Y	C CAPACITOR		
	C 310	QCBB1HK-223Y	C CAPACITOR	.022MF 10% 50V	
	C 313	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 314	QCFB1HZ-105Y	C CAPACITOR	1.0MF +80:-20%	
	C 316	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C 319	QFLC1HJ-472Z	M CAPACITOR	4700PF 5% 50V	
	C 331	QEKJ1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 340	QEKJ1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 341	QEKJ1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 342	QEKJ1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 371	QEKJ1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 374	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 376	QDYB1CM-103Y	C CAPACITOR		
	CN 1	QGF1205F1-09	CONNECTOR		
	CN 31	QGF1205F1-06	CONNECTOR		
	CN 32	QGF1205F1-09	CONNECTOR		
	CN 33	QGF1205F1-09	CONNECTOR		
	CN 34	QGF1201F3-10	CONNECTOR		
	D 1	1SR139-400-T2	SI DIODE		
	D 340	MTZJ5.1B-T2	ZENER DIODE		
	D 375	MTZJ5.1B-T2	ZENER DIODE		
	FW100	QUM024-07A2Z3	FLAT WIRE		
	H 32	GV40397-001A	IC HOLDER		
	IC 1	SG-105F3-BB,C	PHOTO SENSOR		
	IC 32	HA12238F	IC		
	IC 33	CD4094BC	IC		
	L 301	QQR1118-002	BIAS COIL		
	L 303	QLL244K-100Z	INDUCTOR		
	P 1	QNZ0104-001	POST PIN		
	Q 302	2SC2001/K-T	TRANSISTOR		
	Q 305	2SC2001/K-T	TRANSISTOR		
	Q 342	KRA111M-T	D TRANSISTOR		
	Q 343	2SC3576-JVC-T	TRANSISTOR		
	Q 344	2SC3576-JVC-T	TRANSISTOR		
	Q 345	2SC3576-JVC-T	TRANSISTOR		
	Q 346	2SC3576-JVC-T	TRANSISTOR		
	Q 347	KRC107M-T	D TRANSISTOR		
	Q 371	KTA1271/OY/-T	TRANSISTOR		
	Q 372	KRC107M-T	D TRANSISTOR		

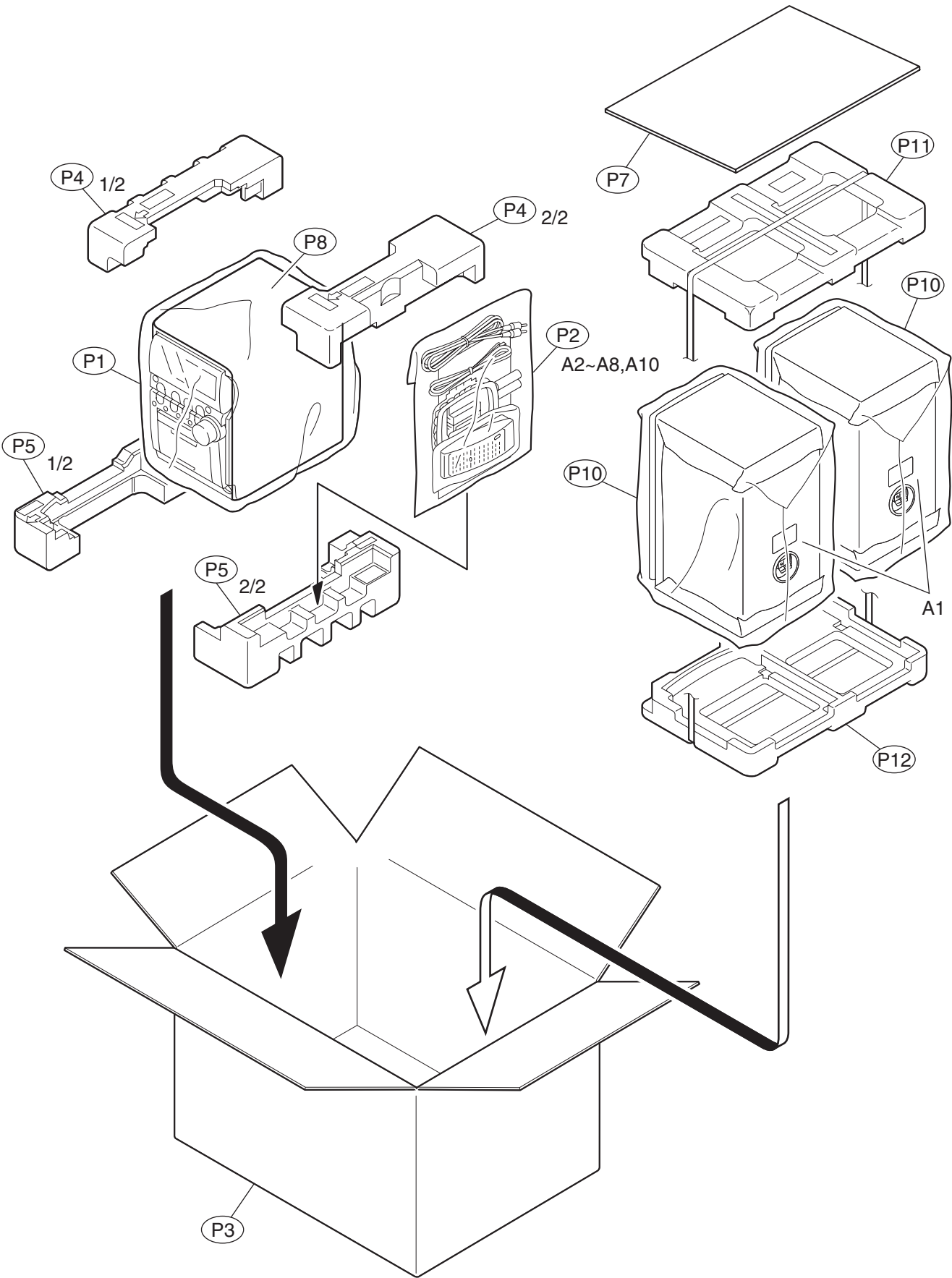
△	Item	Parts number	Parts name	Remarks	Area
	Q 375	2SB562/C/-T	TRANSISTOR		
	Q 376	KTC3199/GL/-T	TRANSISTOR		
	R 101	QRE141J-512Y	C RESISTOR	5.1K 5% 1/4W	
	R 102	QRE141J-512Y	C RESISTOR	5.1K 5% 1/4W	
	R 104	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 105	QRE141J-432Y	C RESISTOR	4.3K 5% 1/4W	
	R 106	QRE141J-113Y	C RESISTOR	11K 5% 1/4W	
	R 107	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R 108	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 110	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 116	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 121	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R 201	QRE141J-512Y	C RESISTOR	5.1K 5% 1/4W	
	R 202	QRE141J-512Y	C RESISTOR	5.1K 5% 1/4W	
	R 204	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 205	QRE141J-432Y	C RESISTOR	4.3K 5% 1/4W	
	R 206	QRE141J-113Y	C RESISTOR	11K 5% 1/4W	
	R 207	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R 208	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 210	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 216	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 221	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R 301	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 302	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 303	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 304	QRJ146J-101X	UNF C RESISTOR	100 5% 1/4W	
	R 305	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 306	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 310	QRJ146J-4R7X	UNF C RESISTOR	4.7 5% 1/4W	
	R 313	QRE141J-2R2Y	C RESISTOR	2.2 5% 1/4W	
	R 314	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R 315	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 327	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R 335	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 336	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 337	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 338	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
	R 339	QRE141J-105Y	C RESISTOR	1.0M 5% 1/4W	
	R 340	QRE141J-681Y	C RESISTOR	680 5% 1/4W	
	R 341	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 342	QRE141J-243Y	C RESISTOR	24K 5% 1/4W	
	R 343	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 344	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 345	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 346	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 347	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 353	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R 371	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 372	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 375	QRE141J-151Y	C RESISTOR	150 5% 1/4W	
	R 376	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	SW 1	QSW0832-001	LEAF SWITCH		
	SW 2	QSW0832-001	LEAF SWITCH		
	SW 5	QSW0832-001	LEAF SWITCH		
	SW 6	QSW0859-001	SW		
	VR 31	QVP0008-203Z	SEMI V RESISTOR		
	VR 37	QVP0077-103Z	SEMI V RESISTOR		

< M E M O >

Packing materials and accessories parts list

Block No. M 3 M M

Block No. M 5 M M



■ Parts list (Packing)

Block No. M3MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	QPC05006515P	POLY BAG	1	SET	
	P 2	QPC02505010P	POLY BAG	1	ACCESSORIES	
	P 3	LV33745-007A	CARTON	1		
	P 4	LV21323-001A	CUSHION(TOP)	1	TOP L/R	
	P 5	LV21324-001A	CUSHION(BOTTOM)	1	BOTTOM L/R	
	P 7	LV33569-003A	CARTON SHEET	1		
	P 8	QPR03508005V	POLY SHEET	1		
	P 10	Z11KO0001	POLY BAG	2	SPEAKER	
	P 11	LV21368-001A	POLYFOAM(TOP)	1	SPEAKER	
	P 12	LV21368-002A	POLYFOAM(BOTTOM)	1	SPEAKER	

■ Parts list (Accessories)

Block No. M5MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	UXA10DVK-SPBOX	SPK.WITH BOX	2	SPEAKER	
	A 2	QAL0457-001	ANT.WIRE	1		
	A 3	QAL0429-001	AM LOOP ANT	1		
	A 4	LVT0954-002A	INST BOOK	1	ENG,CHI(PEKIN)	
	A 5	RM-SUXA10DVDU	REMOCON	1		
	A 6	-----	BATTERY	2		
	A 7	QAM0339-001	SPEAKER CORD	2		
	A 8	QAM0423-001	VIDEO CABLE	1	COMPOSIT	
	A 10	LV30258-092A	UB SHEET	1		