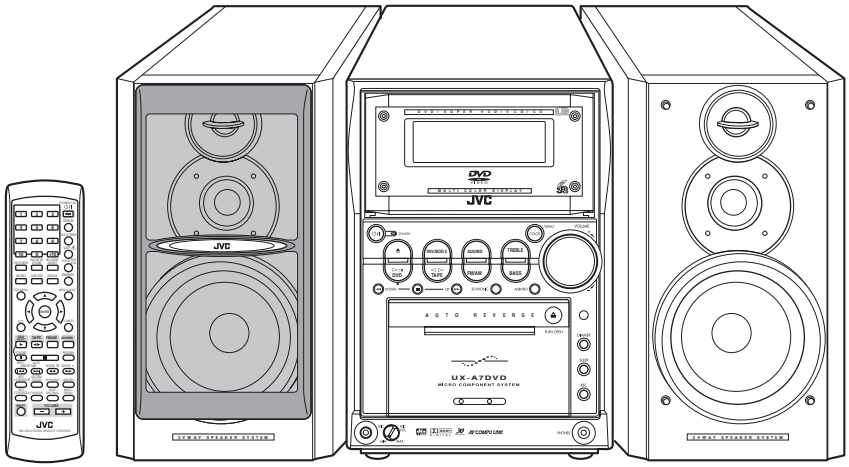
JVC

SERVICE MANUAL

MICRO COMPONENT SYSTEM

UX-A7DVD



Area suffix

US ---------- Singapore
UN ---------- Asean

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No.22013
2003/03

SECTION 1
Important Safety Precautions

1.1 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.

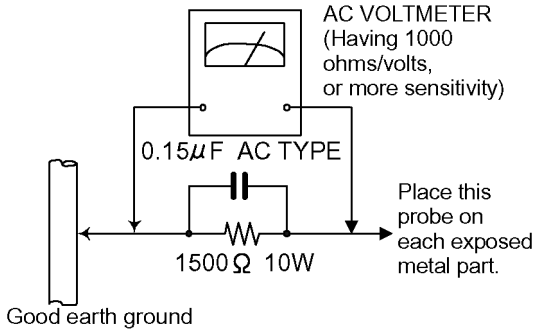
(2) Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturers warranty and will further relieve the manufacture of responsibility for personal injury or property damage 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 (⚠) 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 reassembling.

(5) Leakage shock hazard testing)
After reassembling 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 ohm 10W resistor paralleled by a 0.15 µF 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.).



1.2 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.

1.3 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.

1.4 Critical parts for safety

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 (▬), diode (▮) and ICP (●) or identified by the " ⚠ " mark nearby are critical for safety.
When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the JC version)

1.5 Preventing static electricity

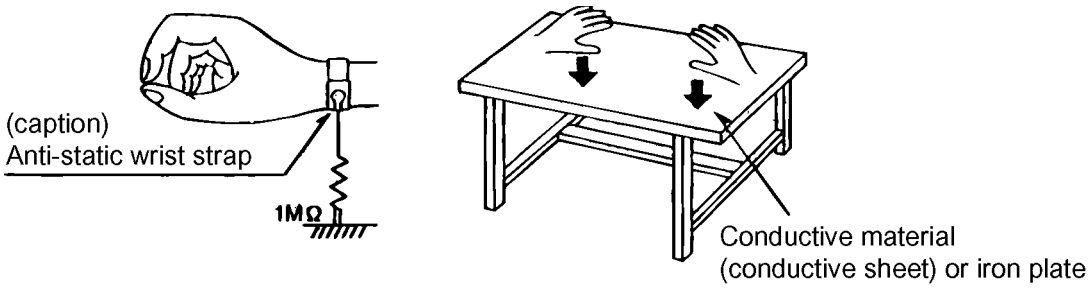
Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

1.5.1 Grounding to prevent damage by static electricity

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

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



(3) Handling the optical pickup
- 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.)
- 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.

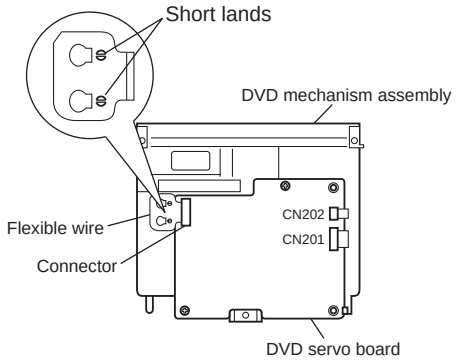
1.6 Handling the traverse unit (optical pickup)

(1) Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
(2) Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.
(3) Handle the flexible cable carefully as it may break when subjected to strong force.
(4) It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

1.7 Attention when traverse unit is decomposed

***Please refer to "Disassembly method" in the text for the DVD pickup unit.**

- Apply solder to the short land sections before the flexible wire is disconnected from the connector CN101 on the DVD servo board. (If the flexible wire is disconnected without applying solder, the DVD pickup may be destroyed by static electricity.)
- In the assembly, be sure to remove solder from the short land sections after connecting the flexible wire.



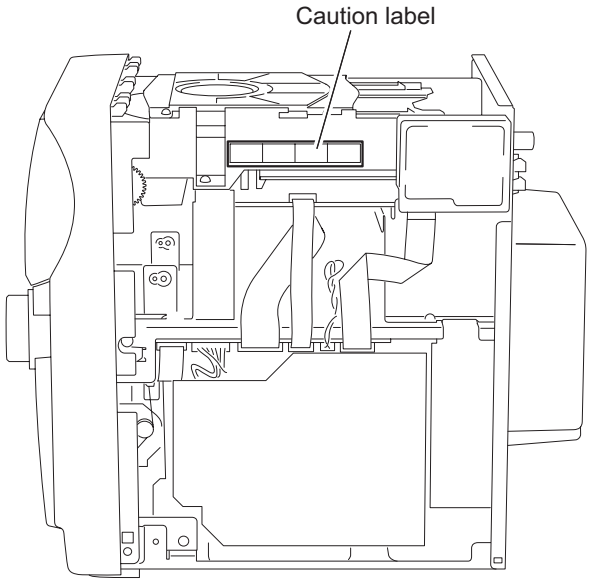
1.8 Important for laser products

(1) **CLASS 1 LASER PRODUCT**
(2) **DANGER :** Invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.
(3) **CAUTION :** There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.
(4) **CAUTION :** The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are de feated.
It is dangerous to defeat the safety switches.
(5) **CAUTION :** If safety switches malfunction, the laser is able to function.
(6) **CAUTION :** Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

⚠CAUTION
Please use enough caution not to see the beam directly or touch it in case of anadjustment or operation check.

VARNING Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen.	**ADVARSEL** Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsasttelse for stråling.
VARO Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.	**ADVARSEL** Usynlig laserstråling ved åpning, når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS



SECTION 2
Disassembly method

2.1 Main body

2.1.1 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.

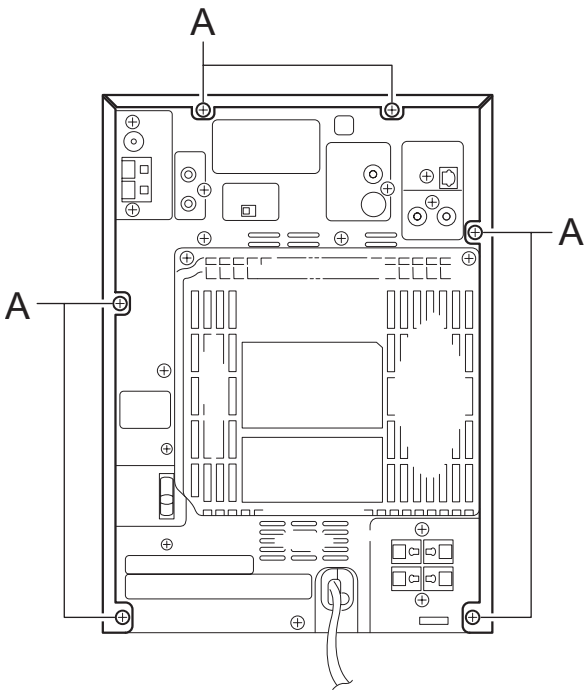


Fig.1

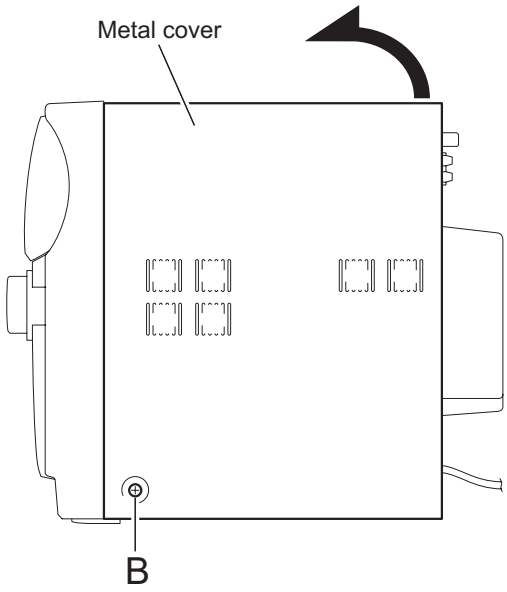


Fig.2

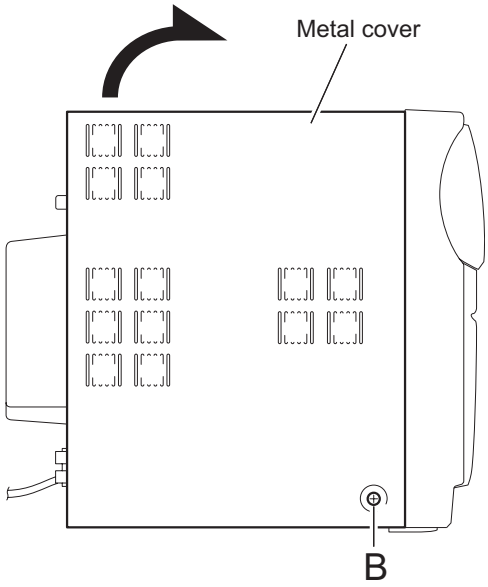


Fig.3

2.1.2 Removing the DVD mechanism assembly (See Fig.4, 5)

- 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.

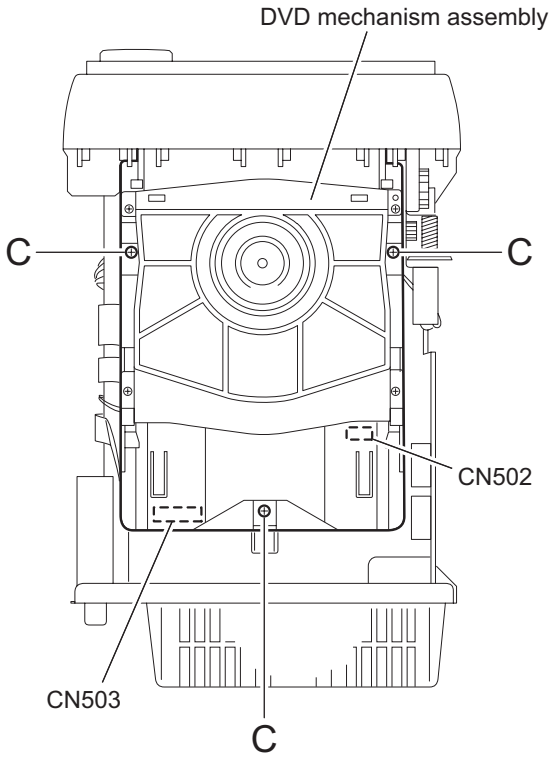


Fig.4

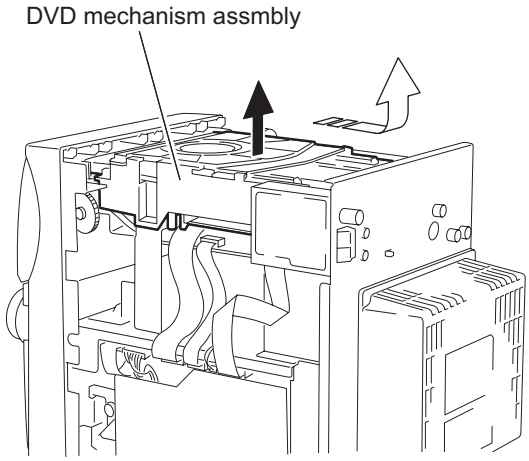


Fig.5

2.1.3 Removing the front panel assembly (See Fig.6~9)

- 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,and the wires from connector CN300 and CN710 on the main board in the center of the left side of the body.
  (3) Disconnect the card wire from connector CN704, and the wire from CN703 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.

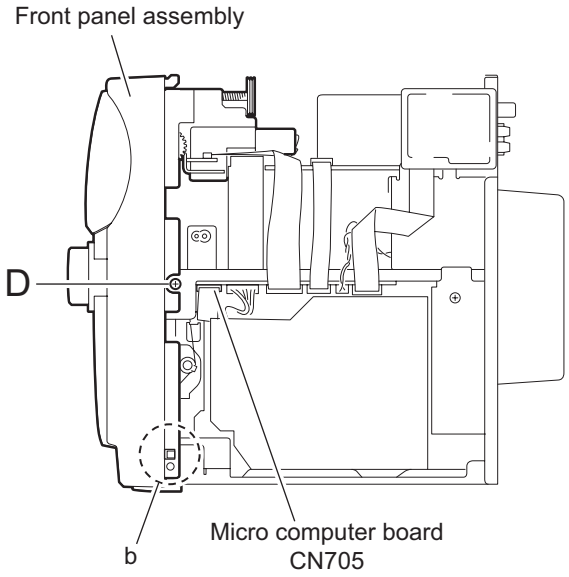


Fig.6

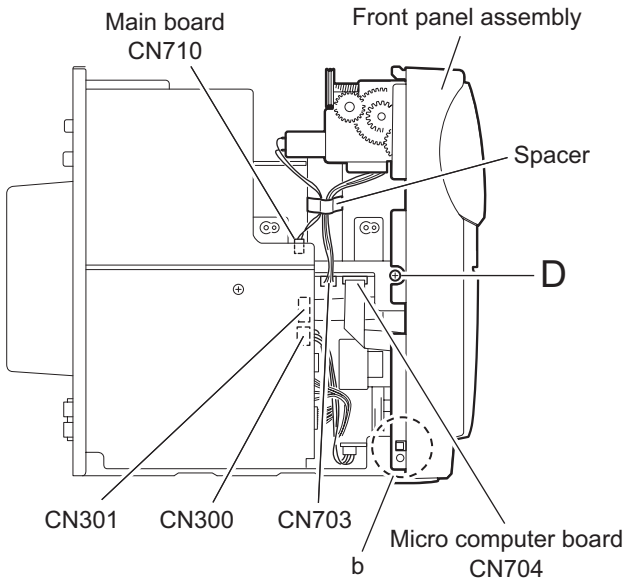


Fig.7

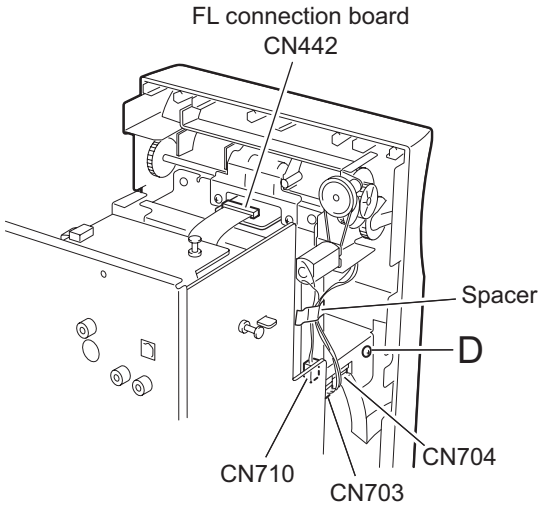


Fig.8

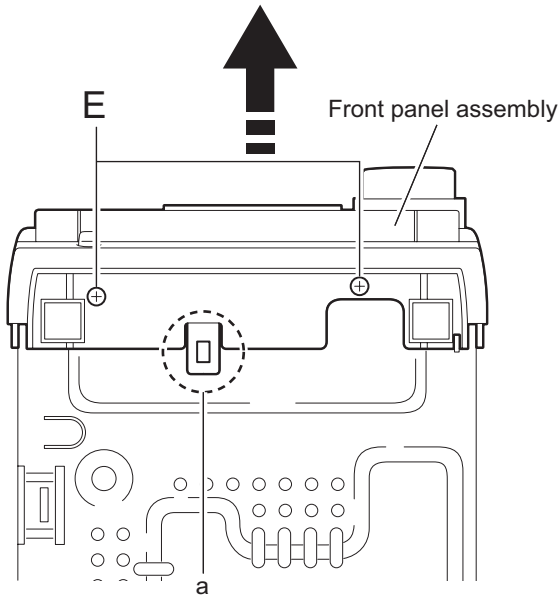


Fig.9

2.1.4 Removing the rear cover / rear panel (See Fig.10~14)

- 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.

REFERENCE:

There is no need to remove the metal cover.

(2) Disconnect the card wire from connector CN1 on the tuner pack on the right side of the body.

(3) Remove the twelve screws **G** and the two screws **H** 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.

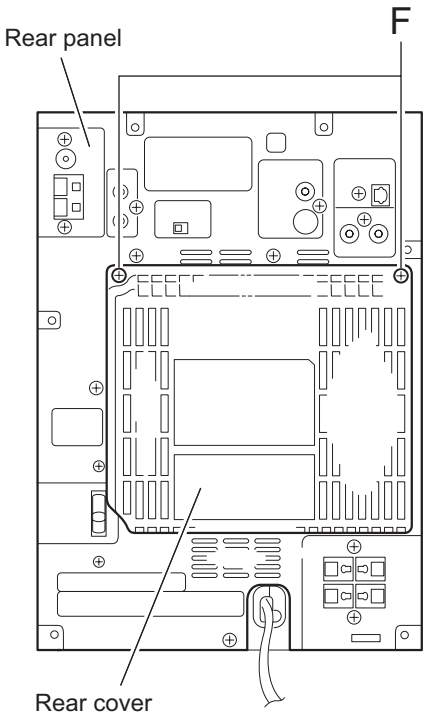


Fig.10

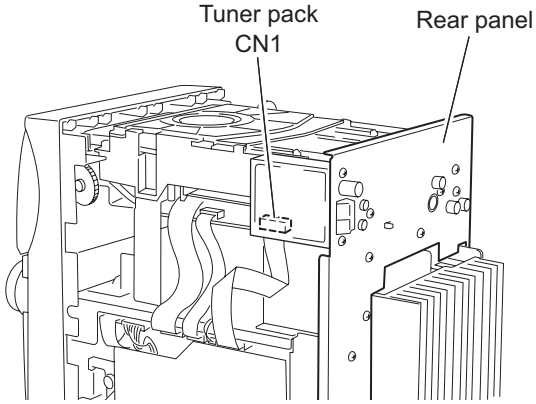


Fig.11

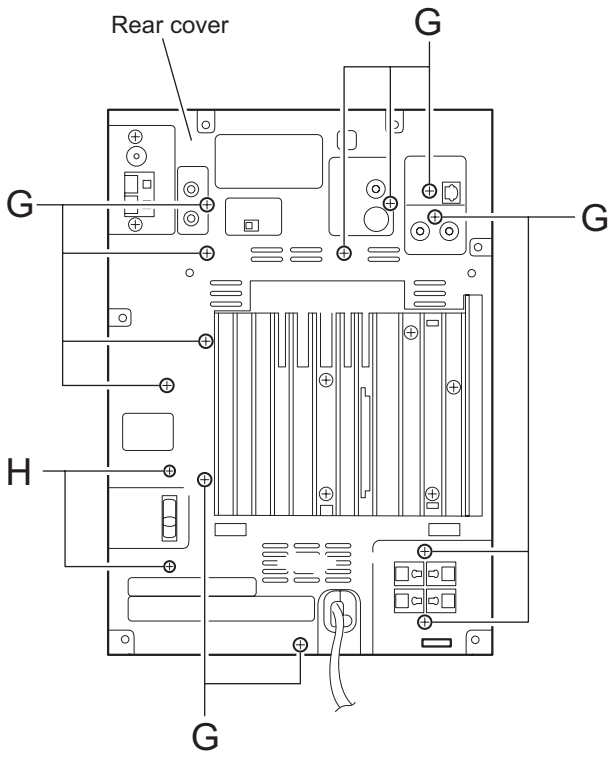


Fig.12

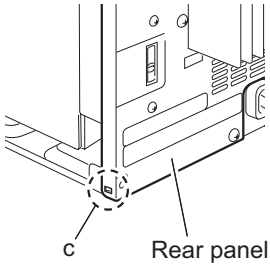


Fig.13

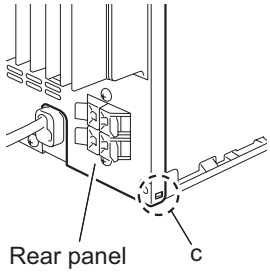


Fig.14

2.1.5 Removing the tuner pack (See Fig.15)

- 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 **I** on the back of the body.

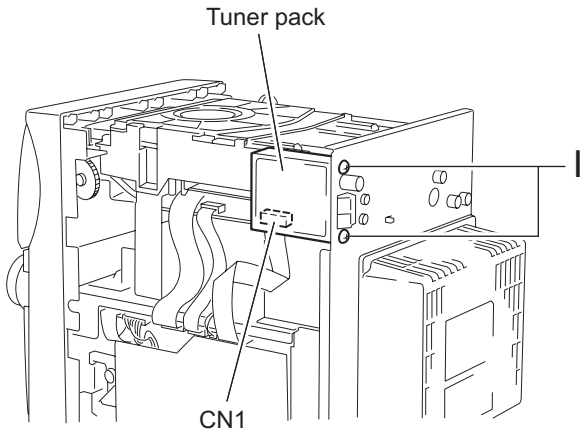


Fig.15

2.1.6 Removing the fan (See Fig.16,17)

- 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 micro-computer board on the right side of the body.
  (2) Remove the three screws **J** attaching the fan bracket on top of the body and release the joint **d**.
  (3) Remove the two screws **K** attaching the fan.

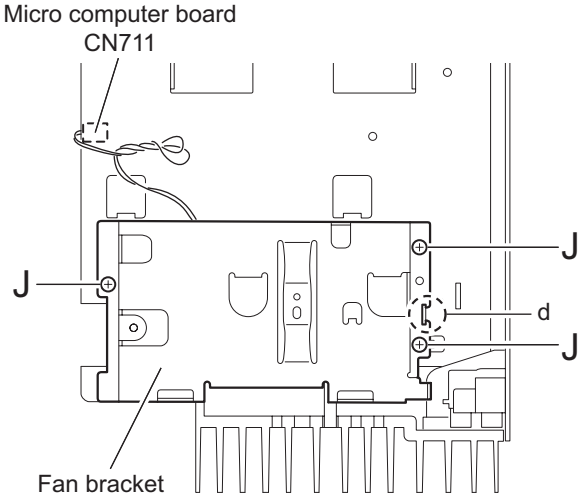


Fig.16

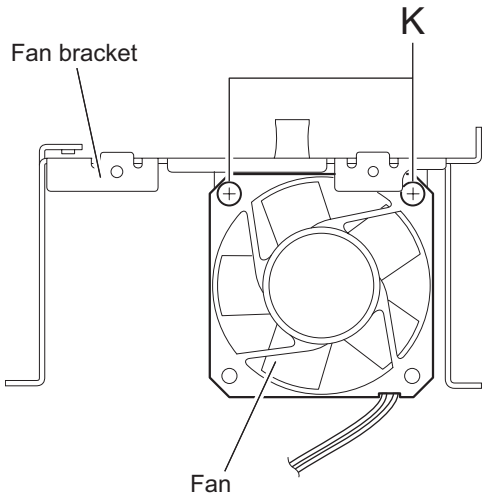


Fig.17

2.1.7 Removing the headphone board (See Fig.18, 19)

- 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 **L** attaching the headphone board on the right side of the body.

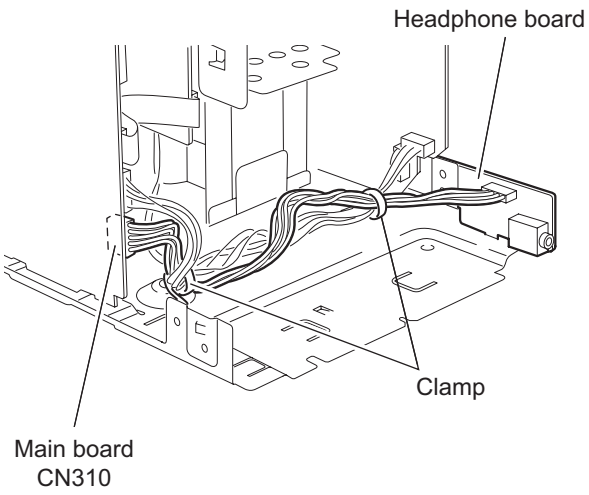


Fig.18

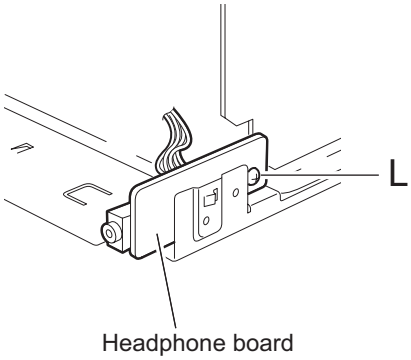


Fig.19

2.1.8 Removing the main board (See Fig.20, 21)

- 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 **M** and the three screws **N**, and then 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 **O** and **P** 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 wire from connector CN311.

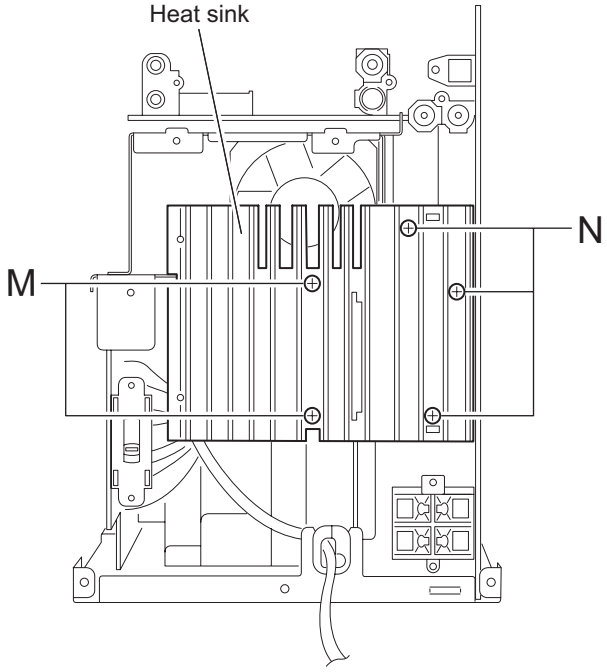


Fig.20

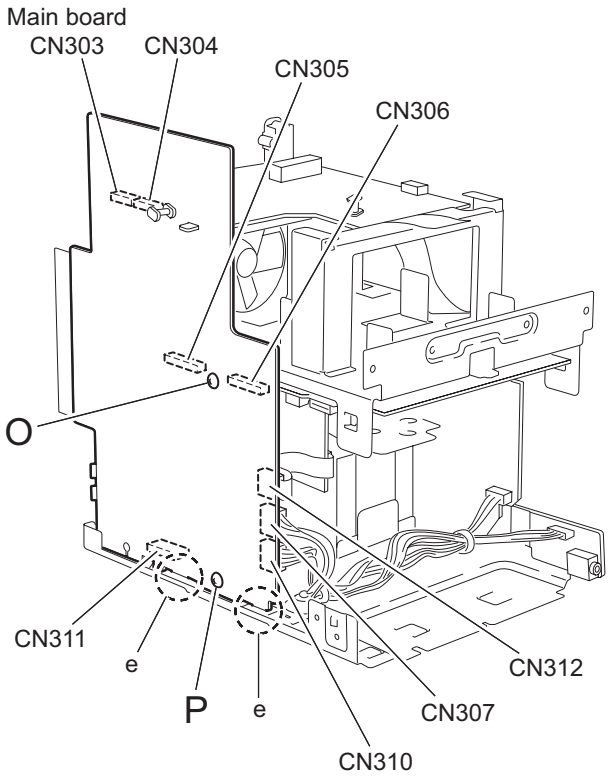


Fig.21

2.1.9 Removing the DVD relay board (See Fig.22)

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

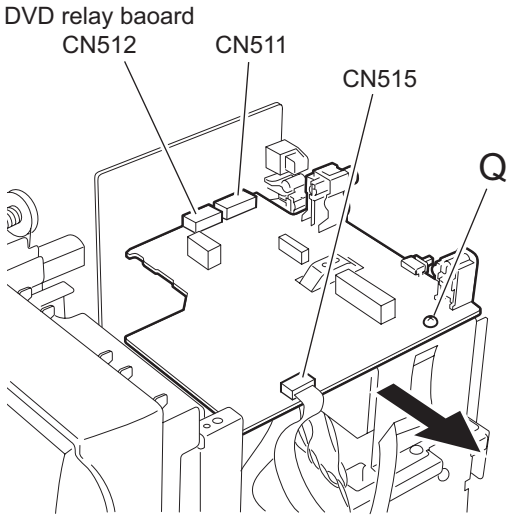


Fig.22

2.1.10 Removing the base chassis / microcomputer board (See Fig.23~25)

- 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.
  (1) Disconnect the wires from connector CN701 and CN711 on the microcomputer board in the center of the right side of the body.
  (2) Remove the screw **R** attaching the voltage selector board.
  (3) Remove the two screws **S** attaching the base chassis on top of the body.
  (4) Remove the two screws **T** attaching the microcomputer board and release the two joints **f** .

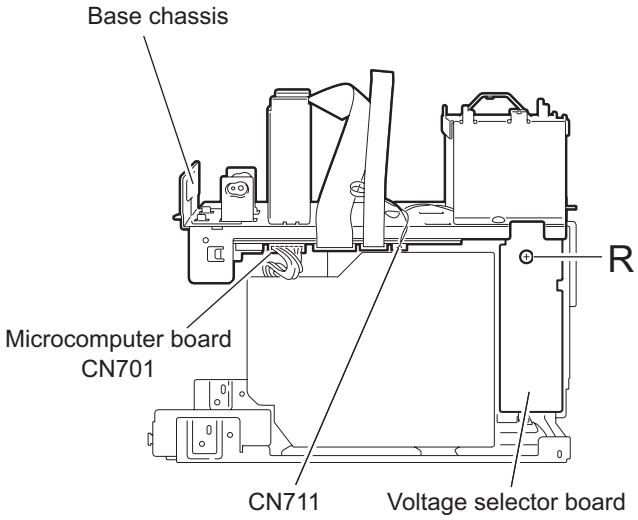


Fig.23

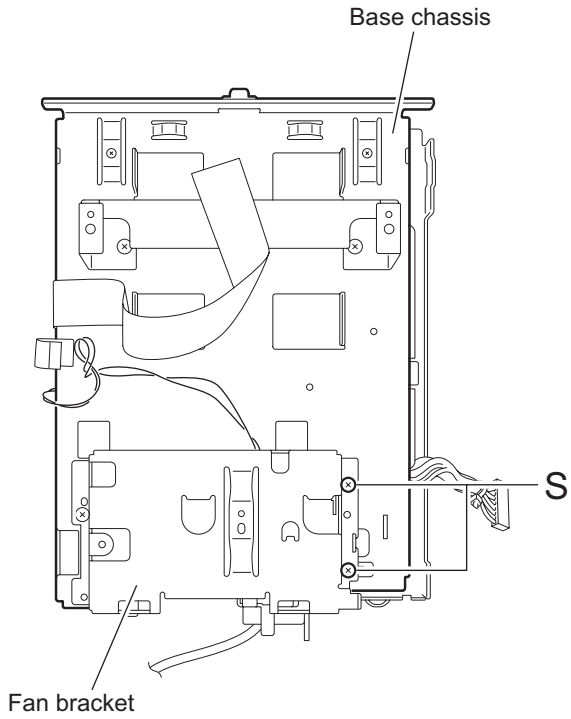


Fig.24

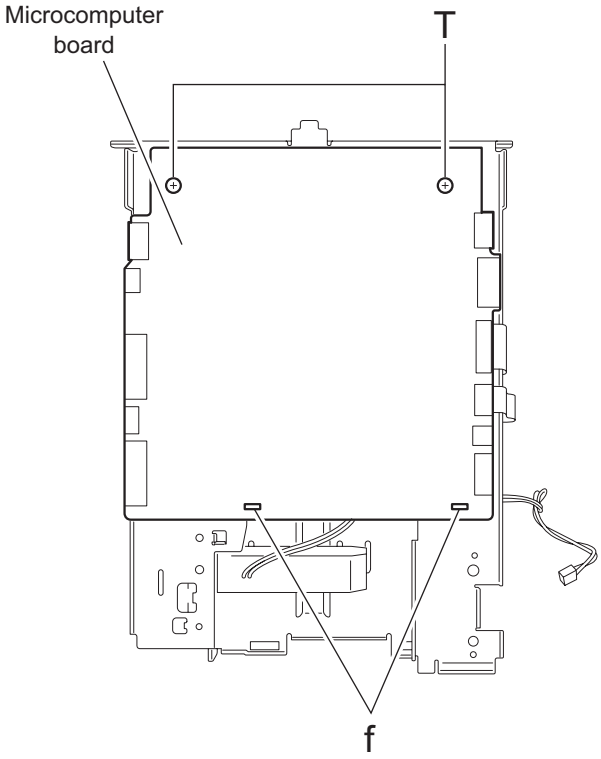


Fig.25

2.1.11 Removing the power transformer assembly (See Fig.26, 27)

• rior 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 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** and release the wires from the two clamps on the bottom chassis.

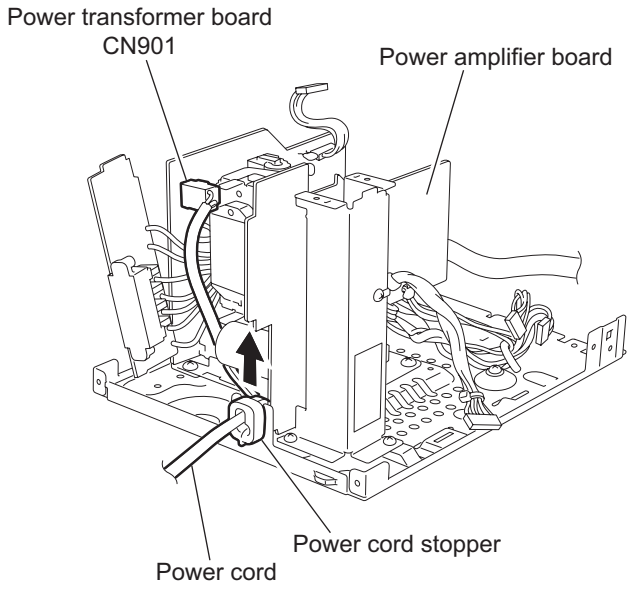


Fig.26

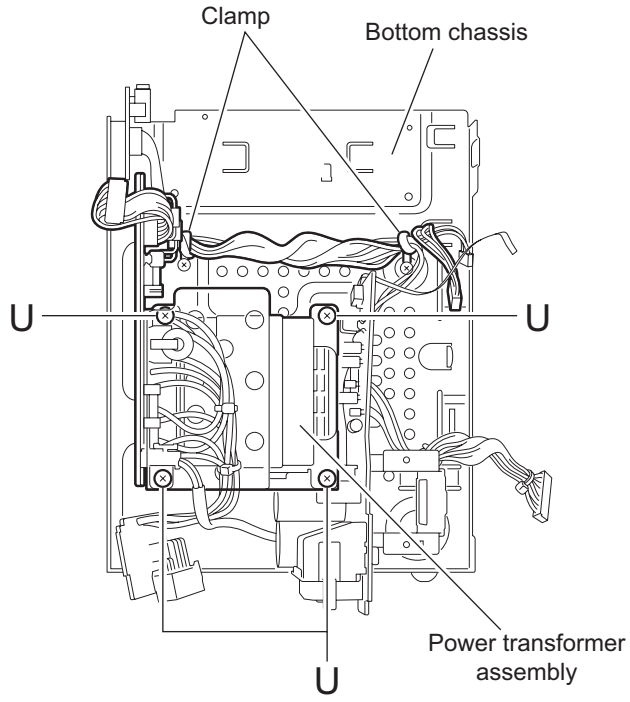


Fig.27

2.1.12 Removiing the power amplifier board (See Fig.28, 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 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.

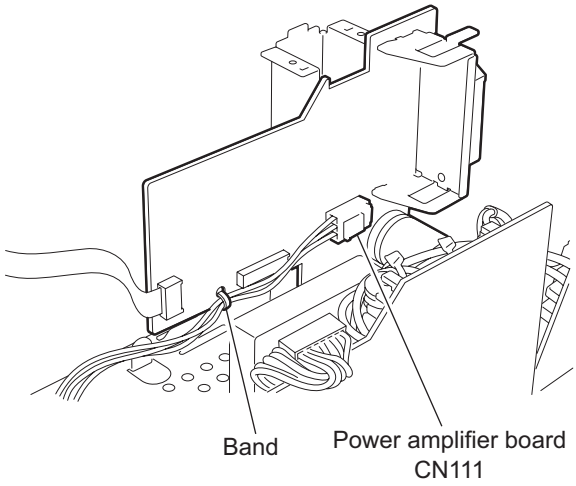


Fig.28

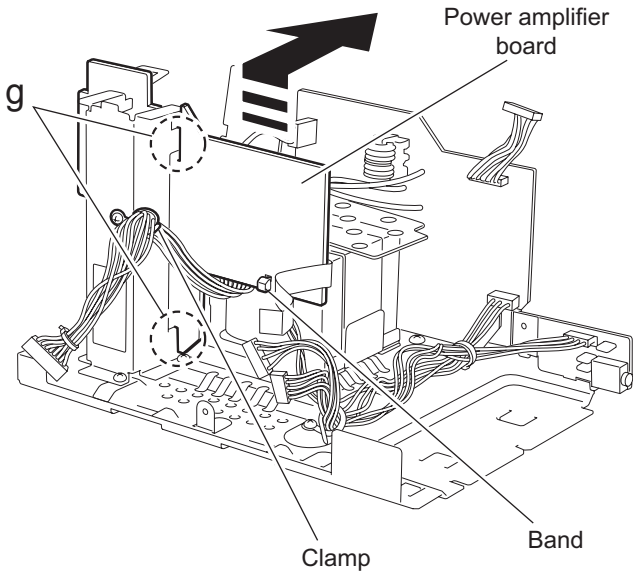


Fig.29

2.2 Front panel assembly

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

2.2.1 Removing the cassette mechanism assembly (See Fig.30, 31)

(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.

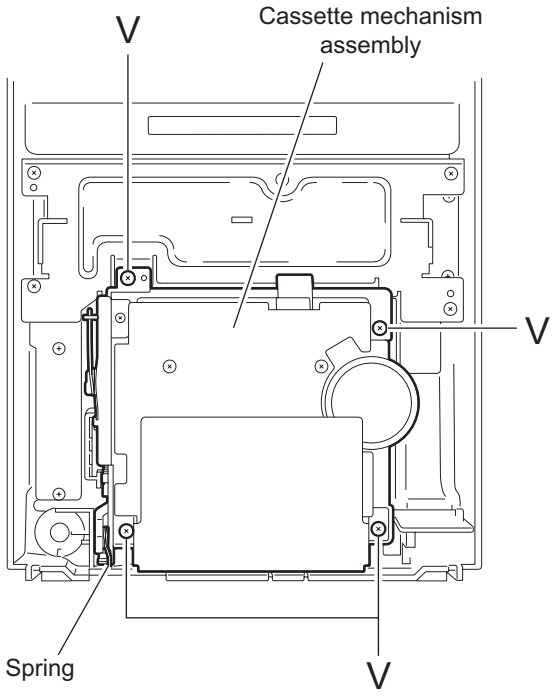


Fig.30

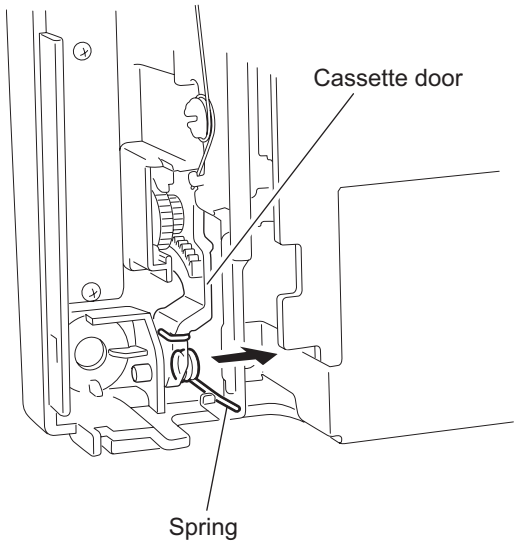


Fig.31

2.2.2 Removing the key board (See Fig.32~34)

- 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.

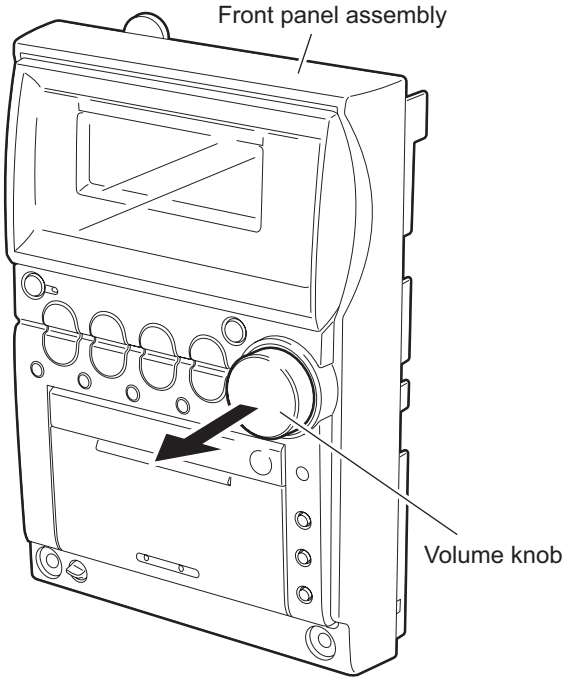


Fig.32

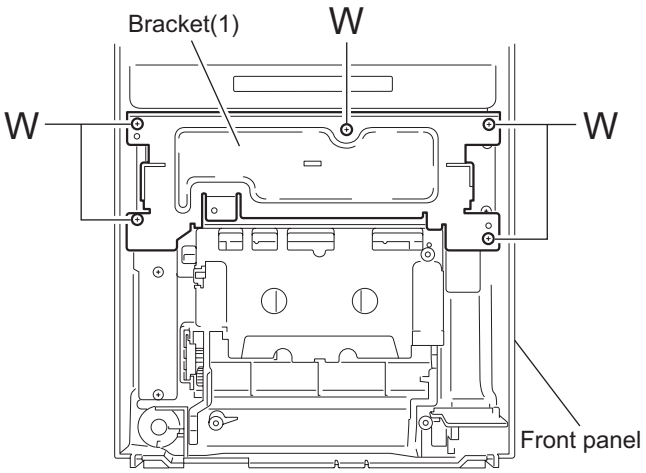


Fig.33

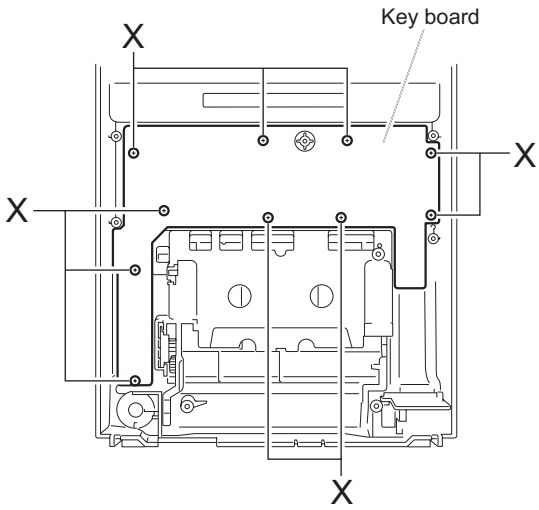


Fig.34

2.2.3 Removing the MIC board (See Fig.35, 36)

- Prior to performing following procedure, remove the cassette mechanism assembly
  (1) Remove the screw **Y** attaching the MIC board.
  (2) Pull out the mic volume knob on the front side of the front panel.

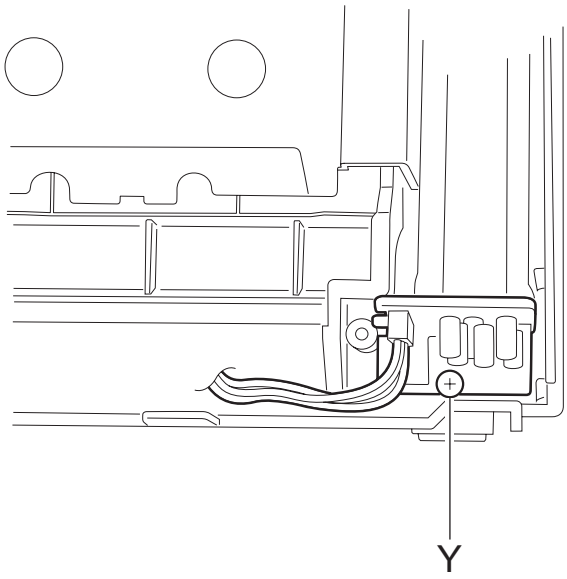


Fig.35

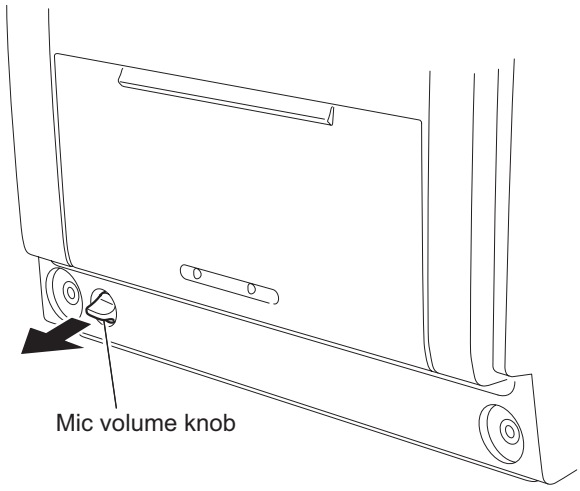


Fig.36

2.2.4 Removing the FL connection board (See Fig.37~39)

(1) Remove the two screws **Z** and the screw **AA** 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.

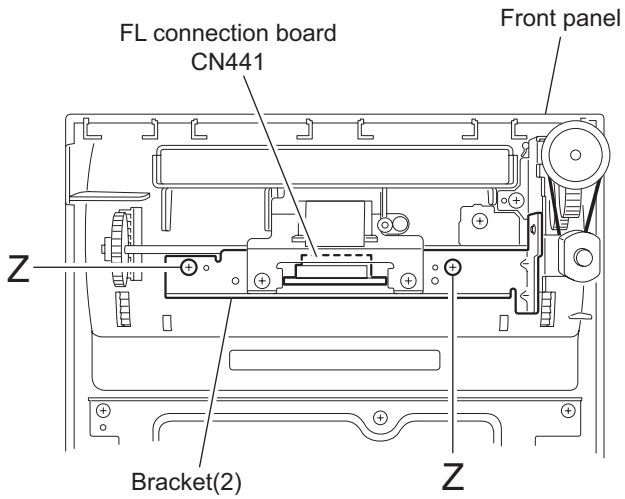


Fig.37

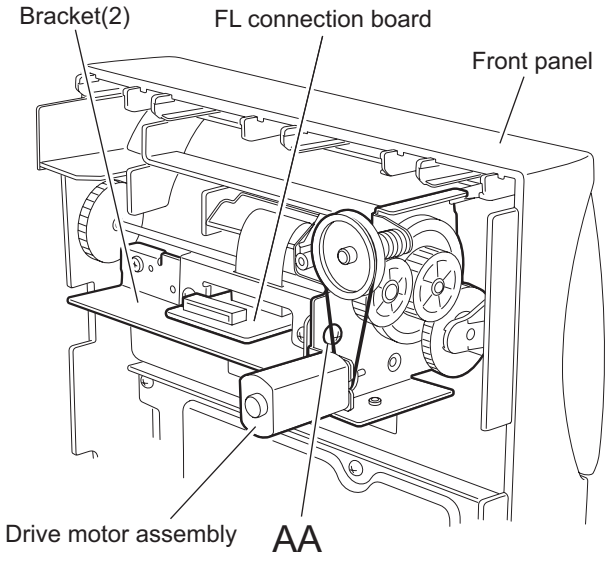


Fig.38

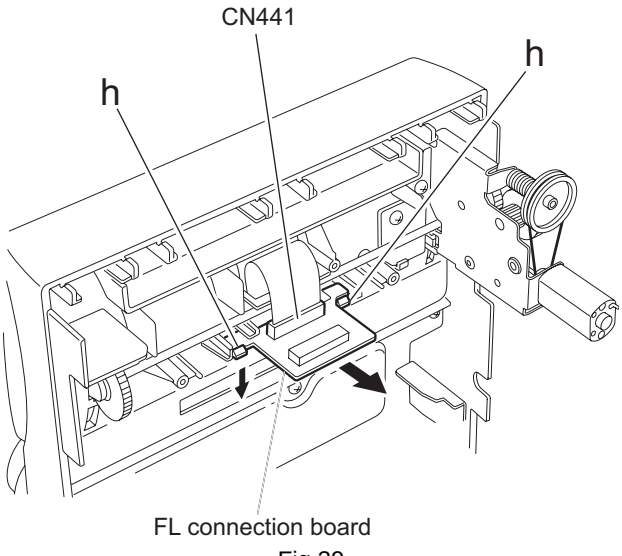


Fig.39

2.2.5 Removing the drive motor assembly (See Fig.37,38,40)

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

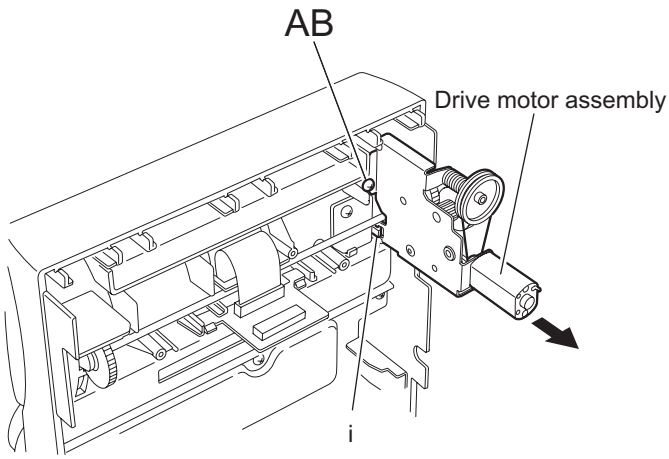


Fig.40

2.2.6 Removing the belt / drive motor (See Fig.41)

- Prior to performing the following procedure, remove the drive motor assembly.
(1) Remove the belt from the pulley.
(2) Remove the two screws **AC** attaching the drive motor.

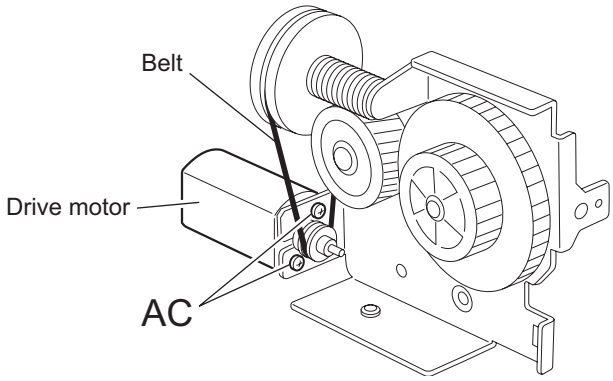


Fig.41

2.2.7 Removing the switch board. (See Fig.42)

- 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.
(3) Remove the screw **AD** attaching the switch board and release the joint tab **k**.

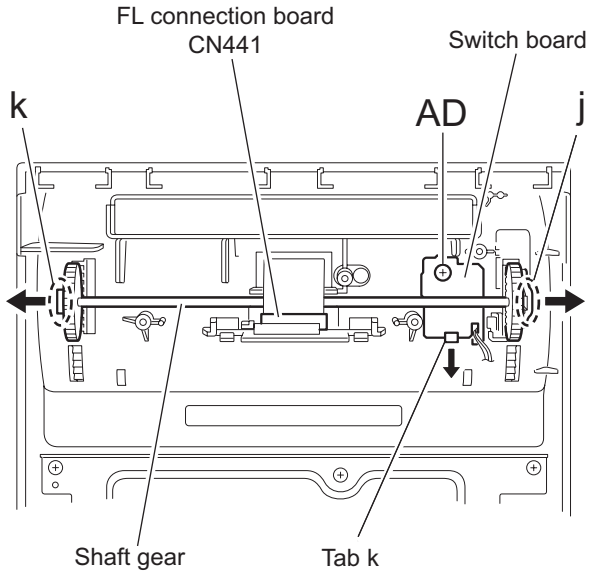


Fig.42

2.2.8 Removing the FL display section (See Fig.43~48)

(1) Remove the four screws **AE** 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 **AF** attaching the FL display cover. Disconnect the card wire from connector CN451 and CN452 on the FL relay board.
(4) Remove the two screws **AG** attaching the FL display on the FL display cover.
(5) The FL board and the lens come off from the FL display section.

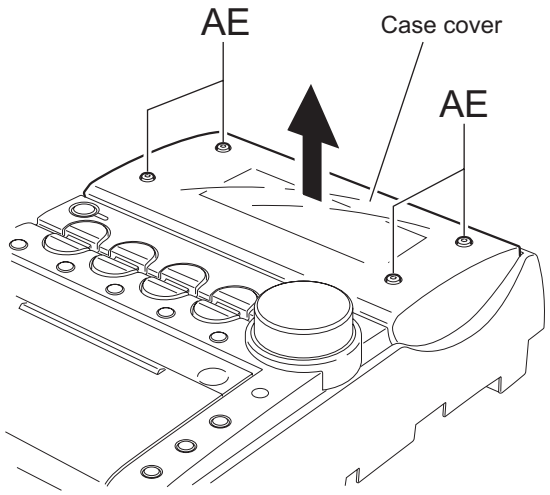


Fig.43

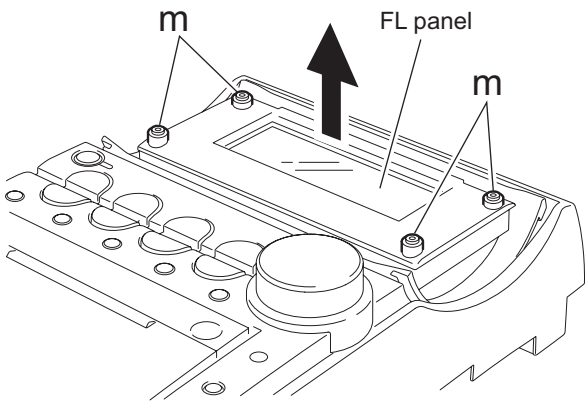


Fig.44

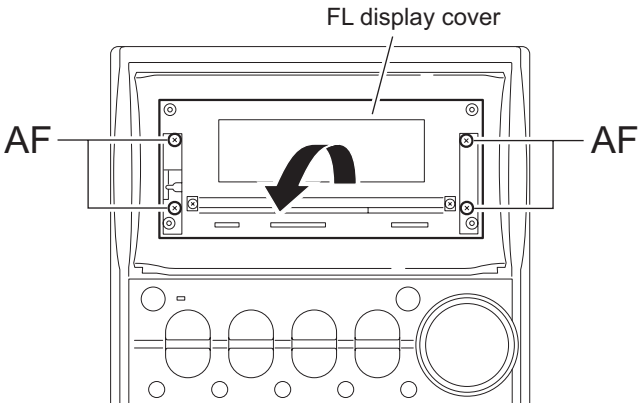


Fig.45

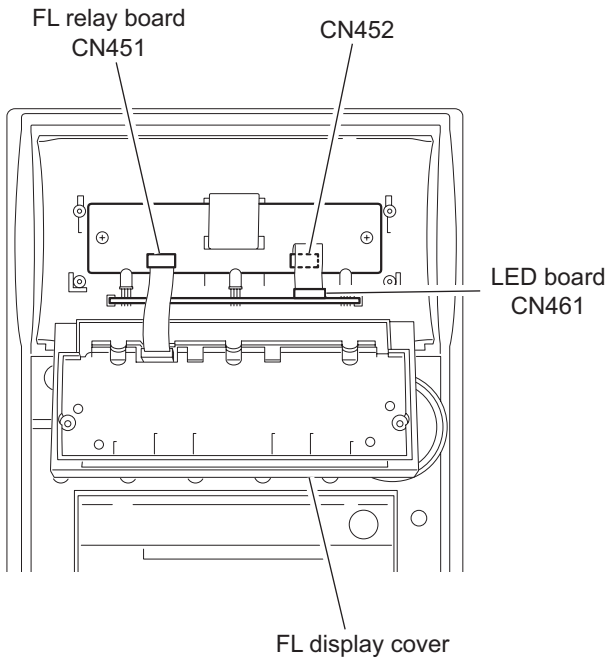


Fig.46

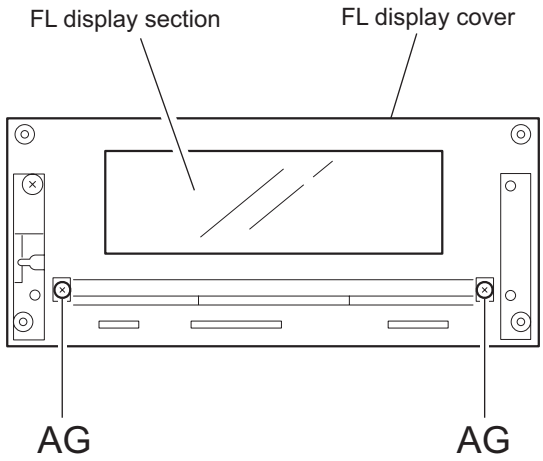


Fig.47

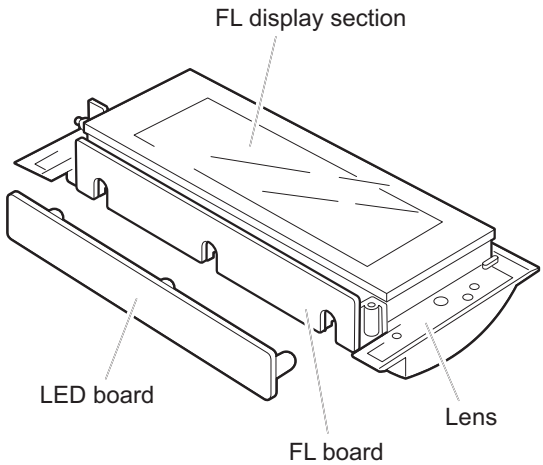


Fig.48

2.2.9 Removing the FL relay board (See Fig.49)

- 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 **AH** attaching the FL relay board.

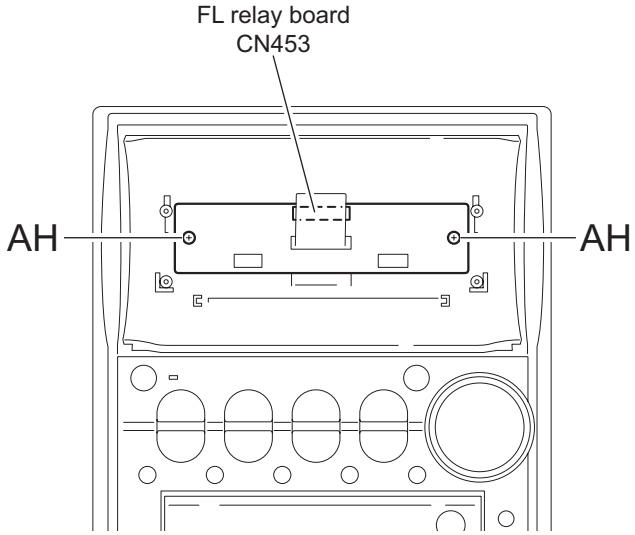


Fig.49

2.3 DVD loading mechanism section

2.3.1 Removing the clamper assembly (See Fig.1)

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

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

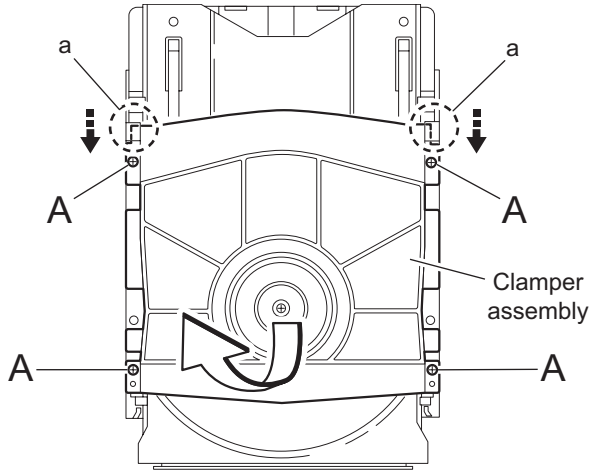


Fig.1

2.3.2 Removing the tray (See Fig.2, 3)

• Prior to performing the following procedure, remove the clamper 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).

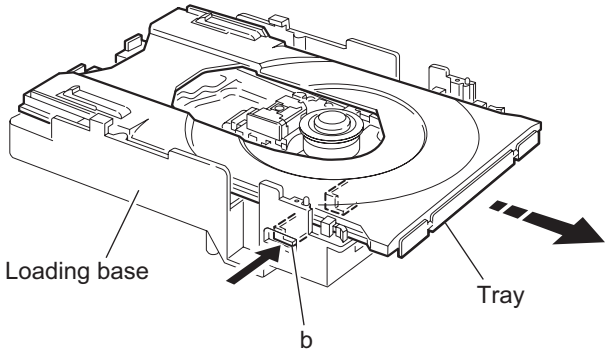


Fig.2

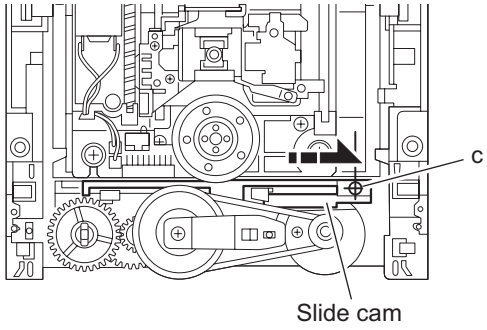


Fig.3

2.3.3 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. Release the two joints **d**.
(4) 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.

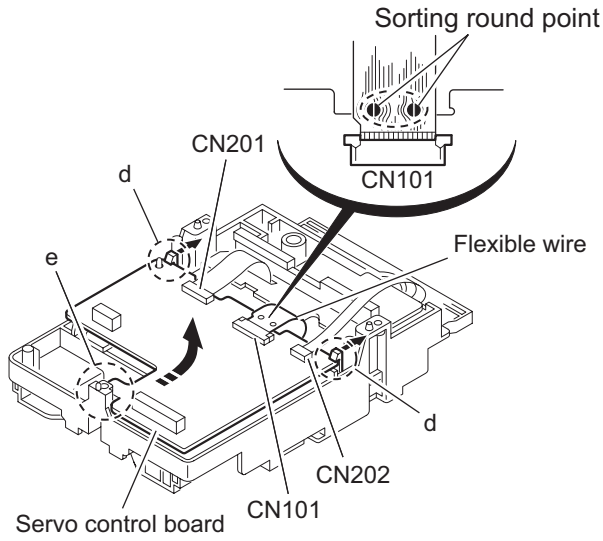


Fig.4

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

• Prior to performing the following procedure, remove the clamper 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.

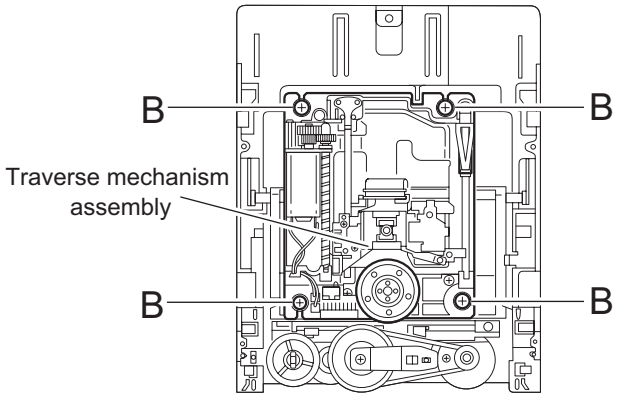


Fig.5

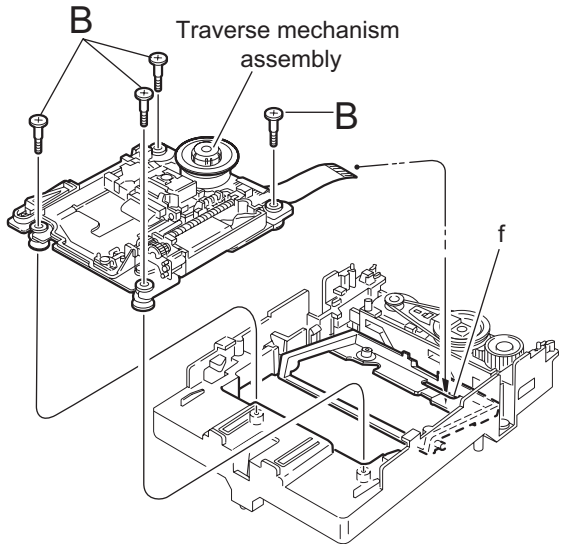


Fig.6

2.3.5 Removing the elevator (See Fig.7,8)

- Prior to performing the following procedure, remove the clamper 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.

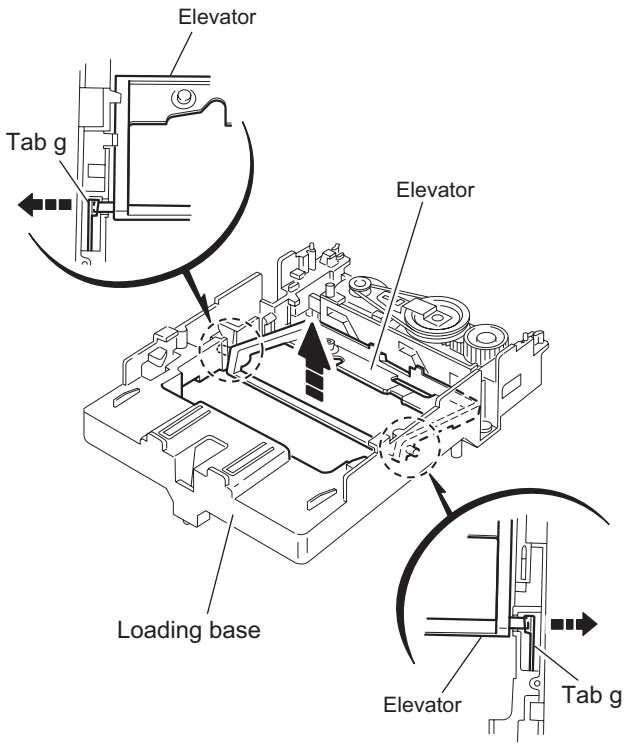


Fig.7

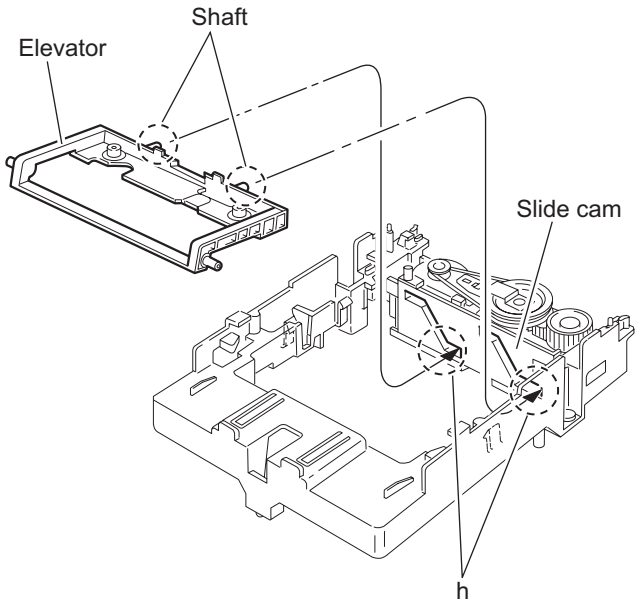


Fig.8

2.3.6 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.

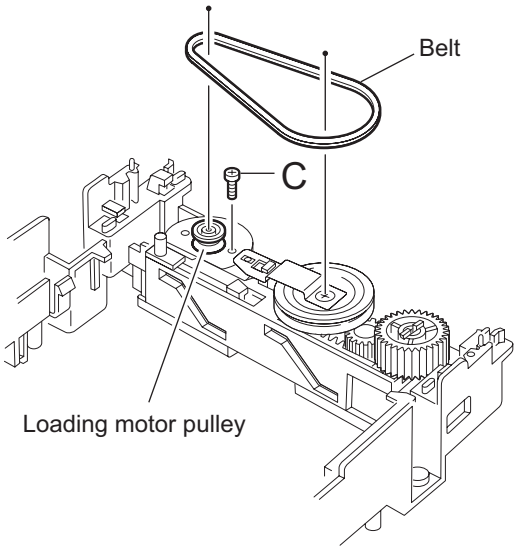


Fig.9

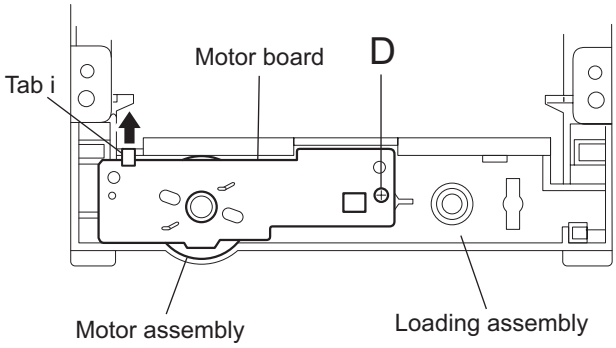


Fig.10

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

- Prior to performing the following the procedures, remove the clamper 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.

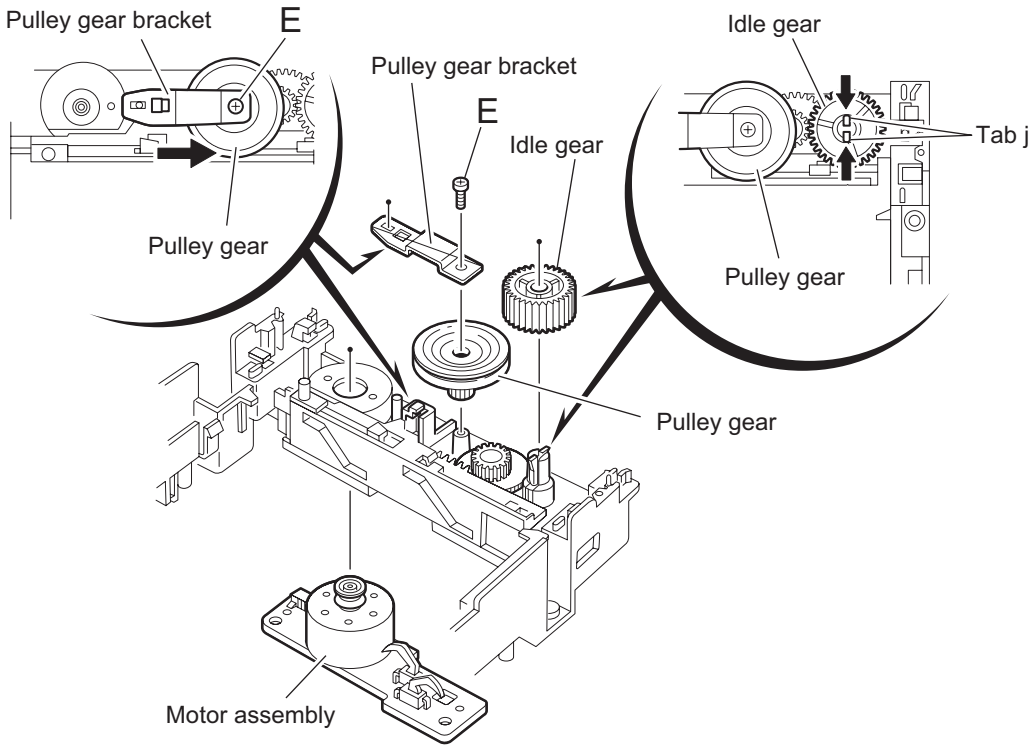


Fig.11

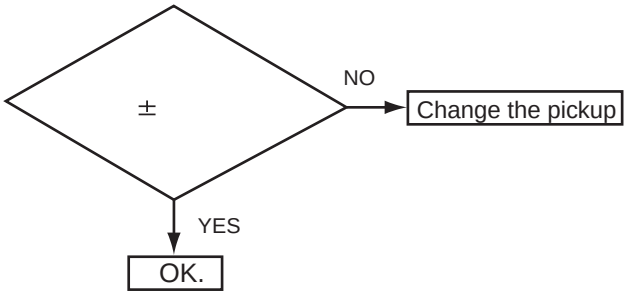


Fig.12

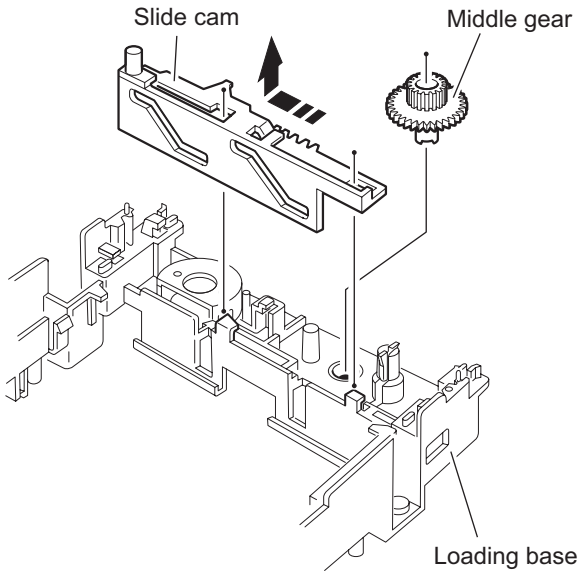


Fig.13

2.4 DVD traverse mechanism assembly

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

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

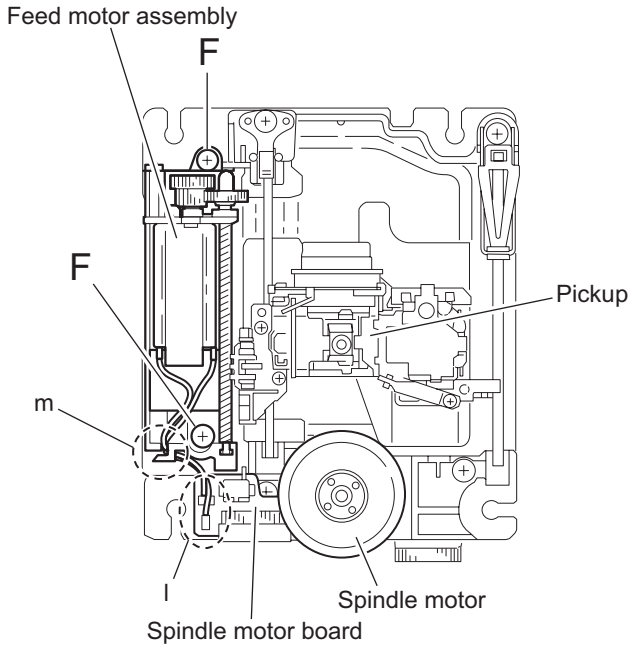


Fig.14

2.4.2 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.

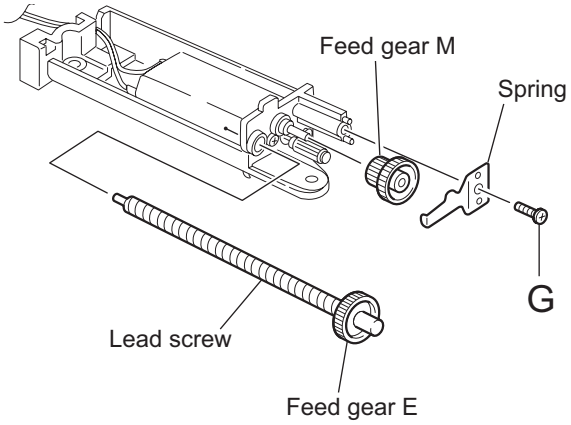


Fig.15

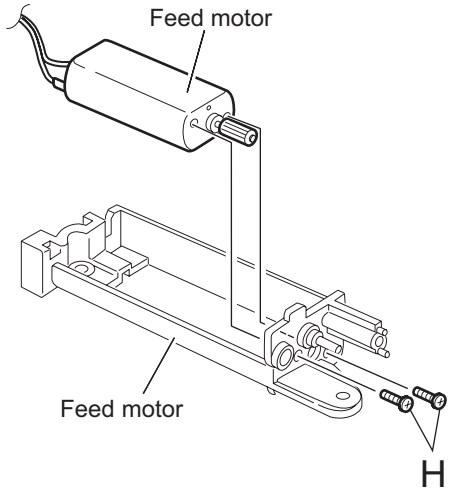


Fig.16

2.4.3 Removing the pickup (See Fig.17~19)

- Prior to performing the following procedure, remove the feed motor assembly.
  (1) 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
  (2) 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.
  (3) Release the joint **p** in the direction of the arrow.
  (4) 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 fig.19)

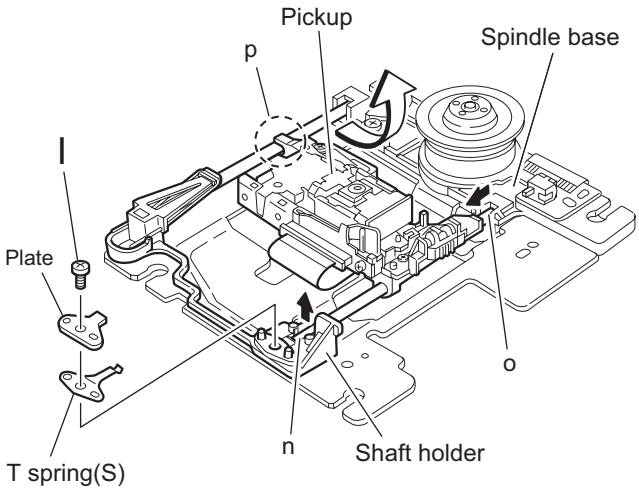


Fig.17

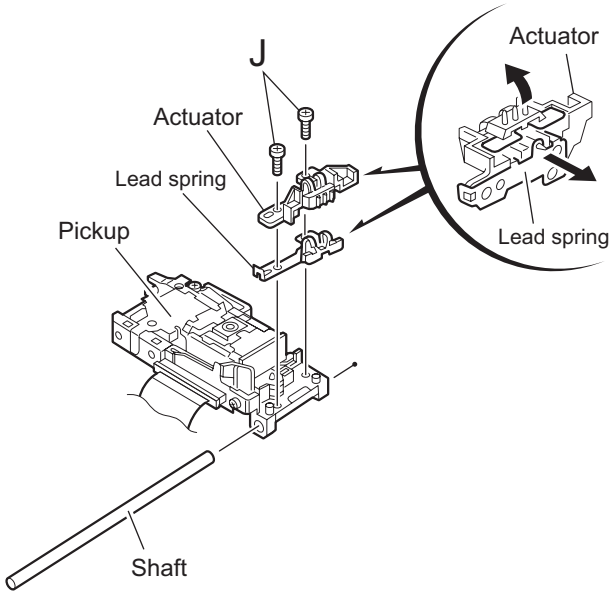


Fig.18

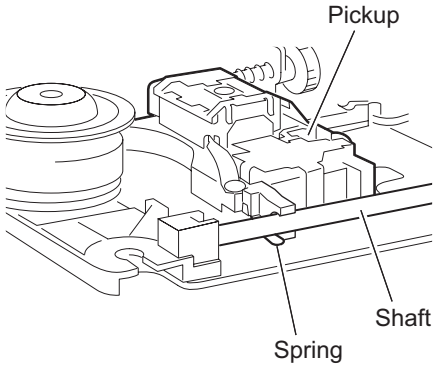


Fig.19

2.4.4 Removing the shaft holder/ shaft (See Fig.20)

- 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.

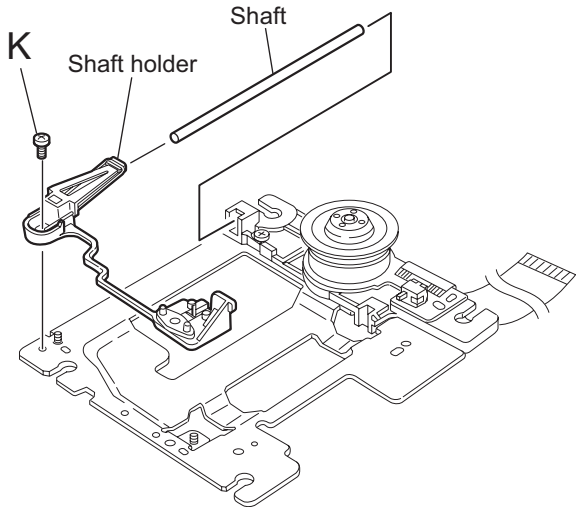


Fig.20

2.4.5 Removing the spindle motor assembly (See Fig.21~23)

- 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 **L** 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.

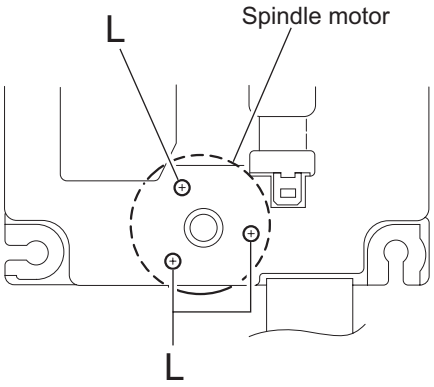


Fig.21

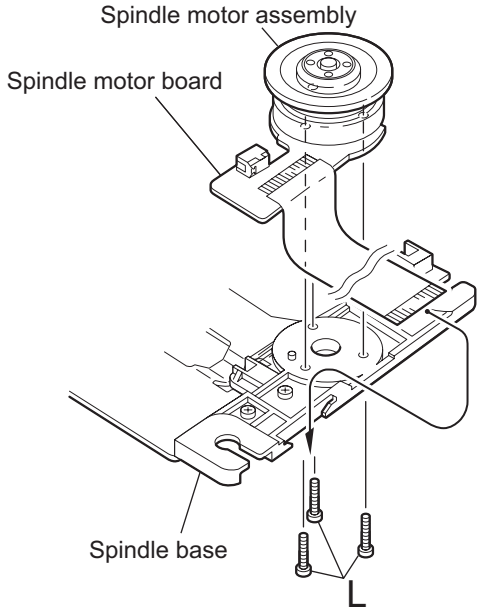


Fig.22

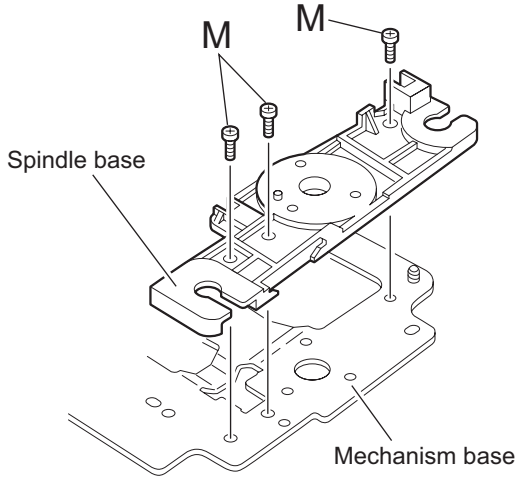


Fig.23

2.5 Cassette mechanism assembly section

2.5.1 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.

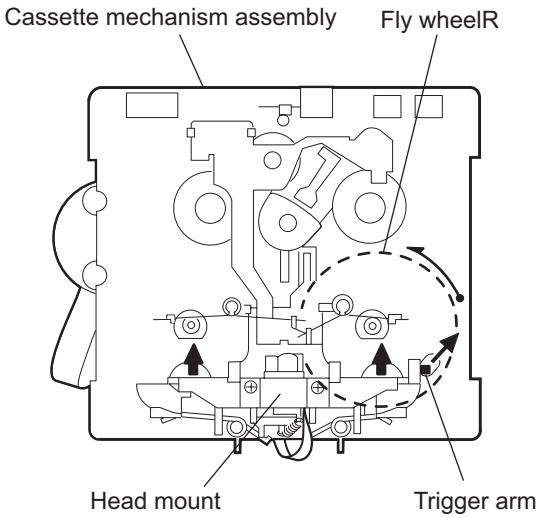


Fig.1

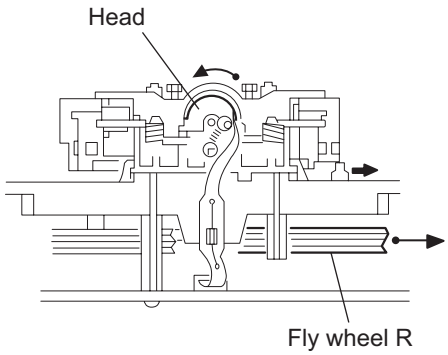


Fig.2

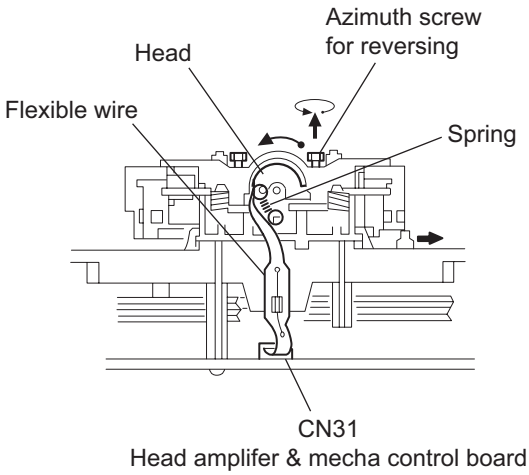


Fig.3

2.5.2 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.

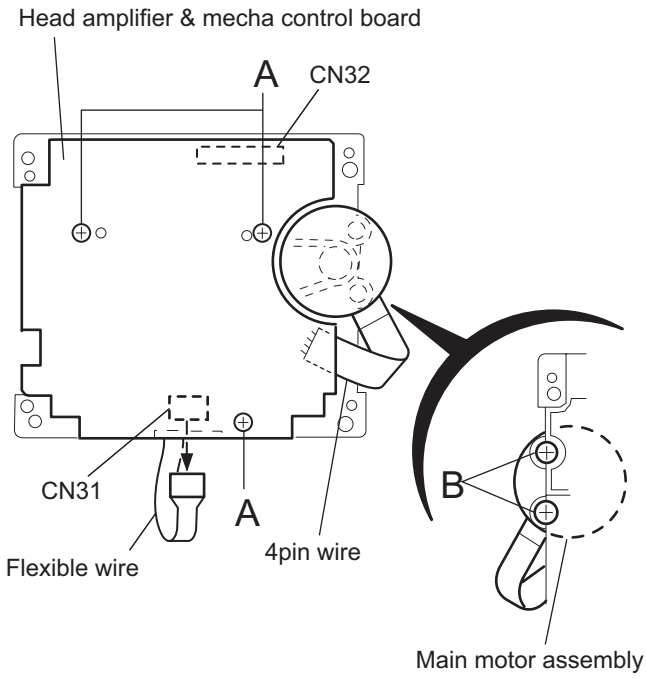


Fig.4

2.5.3 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.

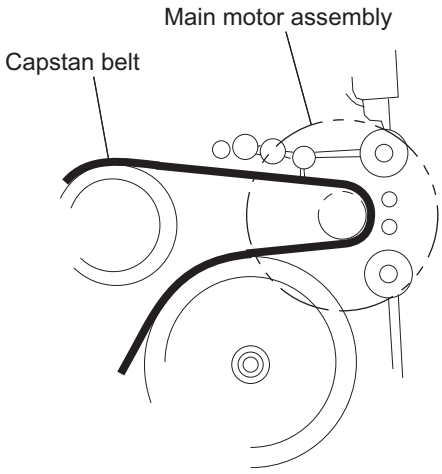


Fig.5

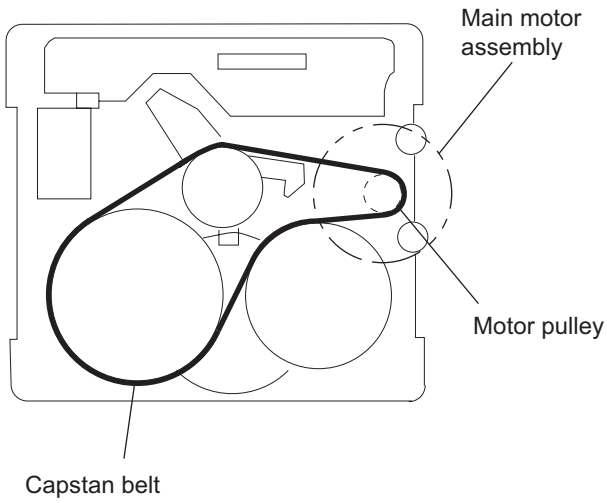


Fig.6

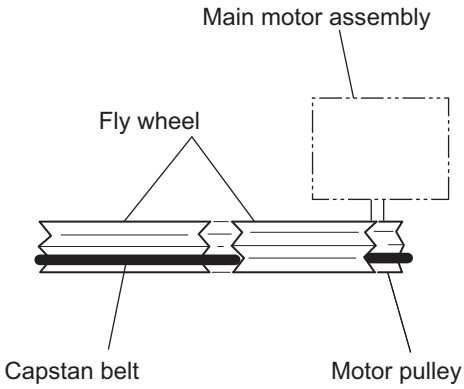


Fig.7

2.5.4 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.

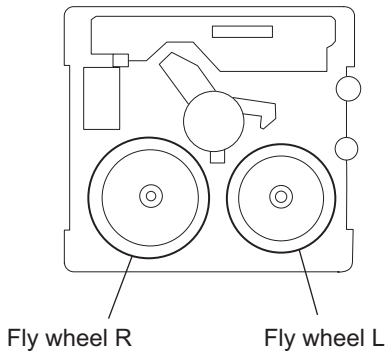


Fig.8

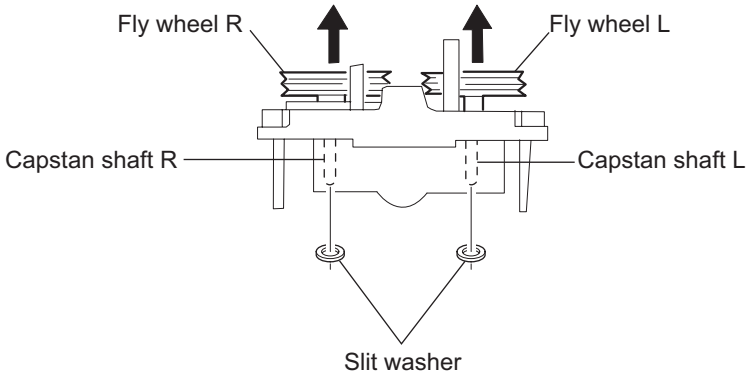


Fig.9

2.5.5 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.

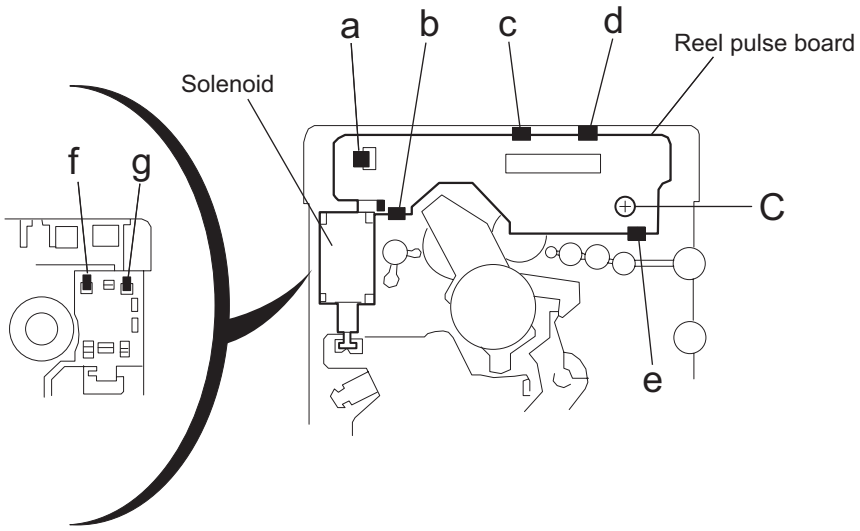


Fig.10

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

(1) Reattaching the head mount assembly.

a) Change front of the direction cover of the head mount assembly to the left (Turn the head forward).

b) 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.

c) Tighten the azimuth screw for reversing.

d) Reattach the spring from the back of the Play/ Record & Clear head.

e) Connect the flexible wire to connector CN31 on the head amplifier & mechanism control board.

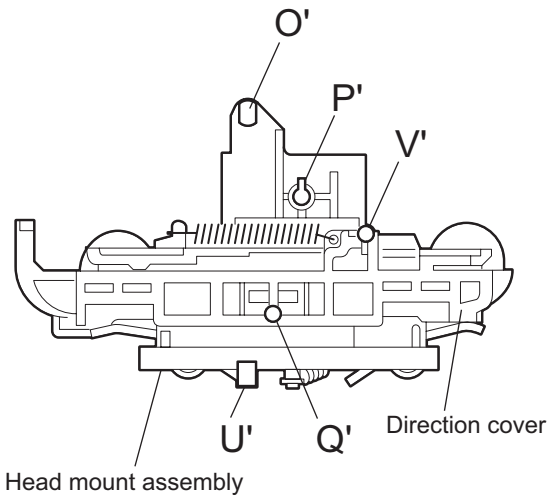


Fig.11

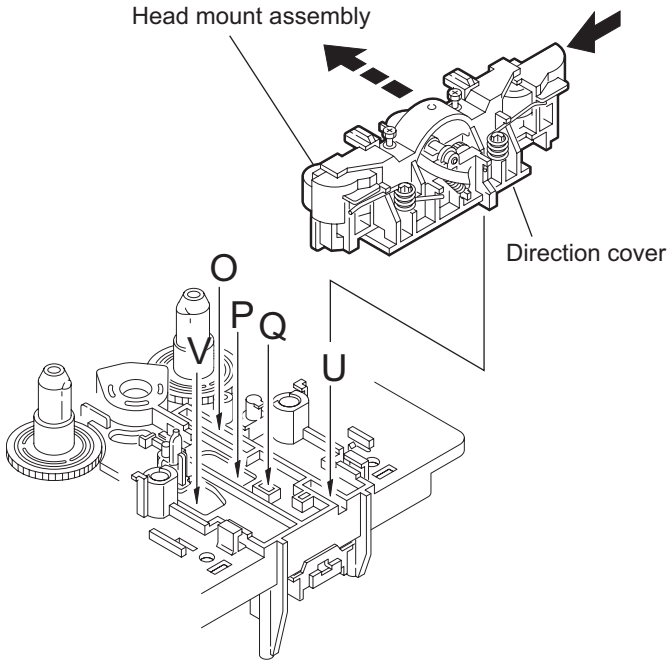


Fig.12

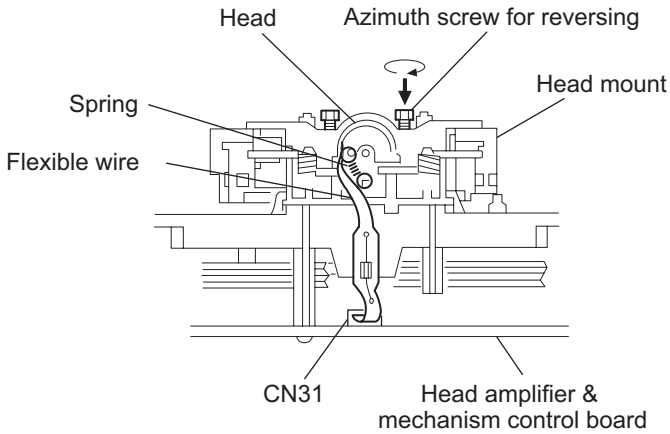


Fig.13

SECTION 3
Adjustment method

3.1 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 ⏻/I ".

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

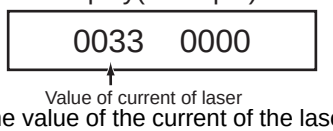
T	E	S	T				D		R	2
	X	X	X	X			Y	Y	Y	Y

Value of current of laser

Jitter measurement value

- Value of current of laser

FL display(Example)



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)

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

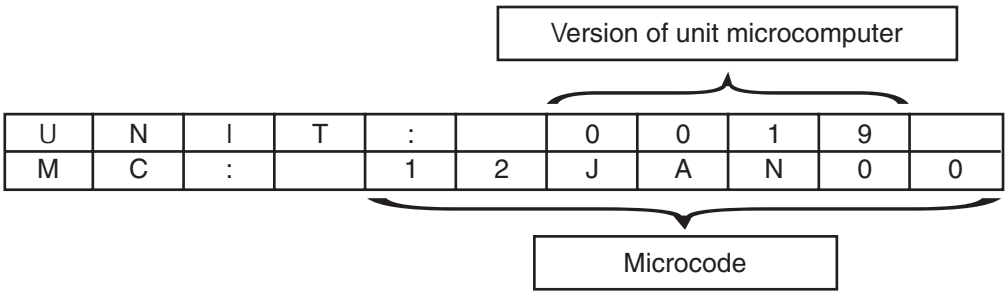
After searches for the DA disk to first TR and each last TR when "⏮" and the "⏭" key are pushed in the test mode, tracking OFF is processed.

(4) Display of number of ROM

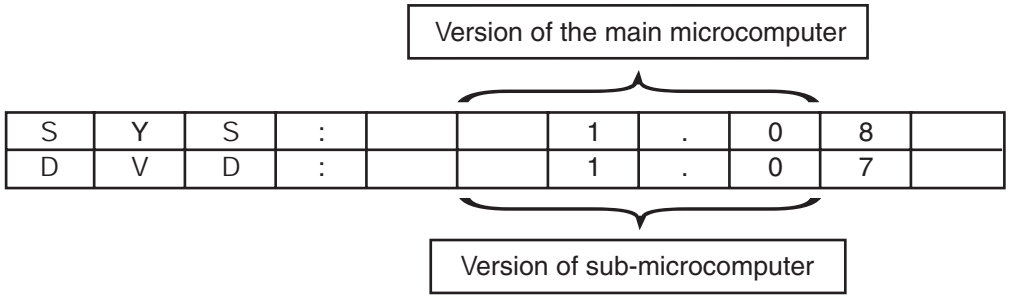
When MENU and the TOP MENU key are pushed in the test mode, the number of ROM of the main microcomputer, a sub-microcomputer, the unit microcomputer, and microcode is displayed on the FL display instead of the test display.

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).



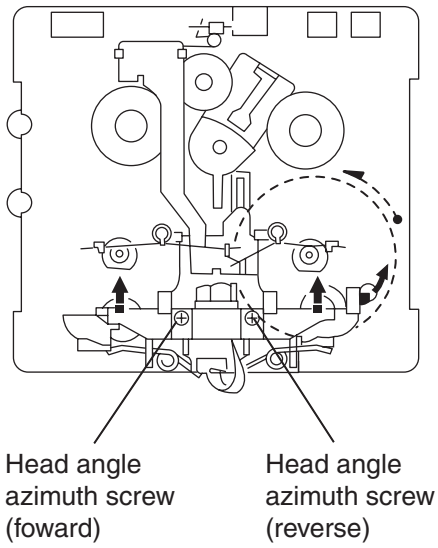
FL display (When you press TOP MENU:five seconds).

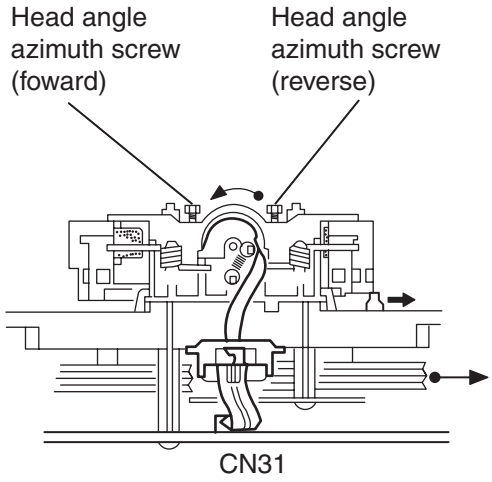


(5) Servo relation examination command

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.)

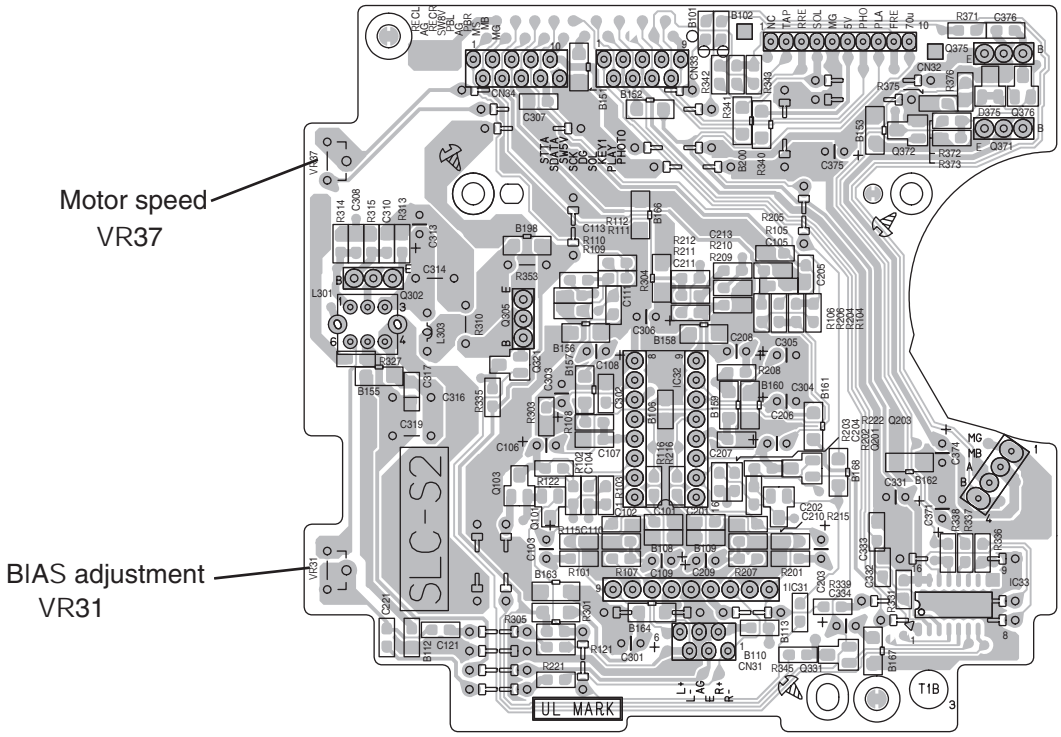
3.2 Cassette mechanism section





Recording and play head/Erase head

Mechanism control P.C. board



3.2.1 Mechanism section

Item	Confirmation of angle of head	Tape speed confirmation
Mesurement condition	Test tape: VT703L (8kHz) Measurement output terminal: Speaker terminal	Test tape: VT712 (3kHz) Measurement output terminal: Speaker terminal or headphone terminal
Mesurement 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

3.2.2 Reference and standard value of confirmation matter

Item	Forward/reverse tape speed difference	Wow & flutter
Mesurement condition	Test tape: VT712 (3kHz) Measurement output terminal: Speaker terminal or headphone terminal	
Mesurement 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	

3.2.3 Electric adjustment

Item	Recording BIAS adjustment	Recording reproduction frequency characteristic
Mesurement 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 (Srandard: -20dB) Test tape: AC-514 TYPE Ⅱ Measurement input terminal: OSC IN
Mesurement 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. 4.0μA (TYPE Ⅰ)and4.20μA (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 }2dB, and the recording is repeated again.
Standard value	AC-225: 4.20μA AC-514: 4.0μA	Output difference 1kHz/10kHz:-1dB± 2dB
Adjustment position	VR31	

3.2.4 Electric characteristic confirmation

Item	Current of recording bias	Deletion current (standard value)
Mesurement 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-225TYPE Ⅰ Measurement terminal: Erase head's both ends
Mesurement 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 100Hz± 6kHz.	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	100kHz ± 6kHz	TYPE Ⅱ : 120mA TYPE Ⅰ : 75mA
Adjustment position		

3.3 Maintenance of DVD pickup

(1) Cleaning of pickup lens

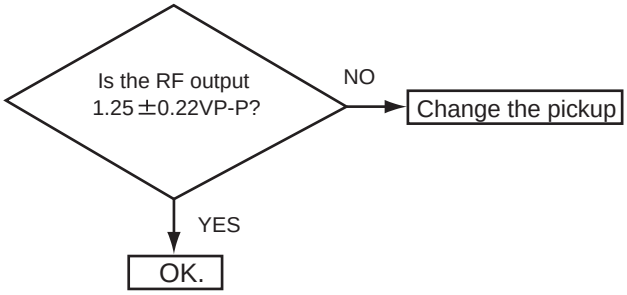
a) Prior to changing the pickup, clean the pickup lens.

(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.

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

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

Confirm the service life according to the following flow chart:

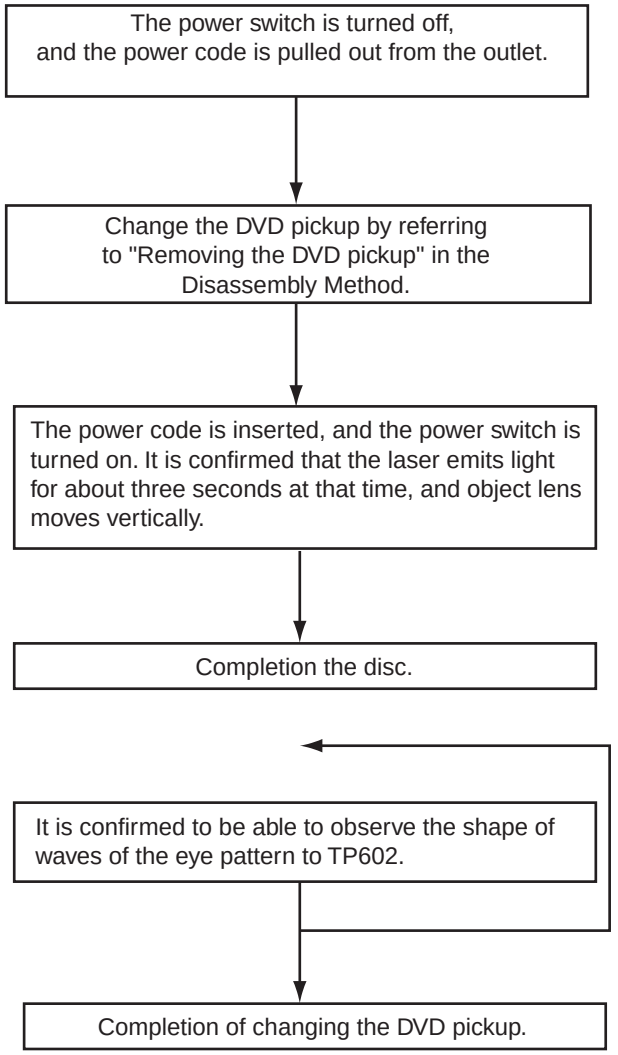


(3) Semi-solid state resistors on the APC P.C. board

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.

3.4 Procedures of changing the DVD pickup

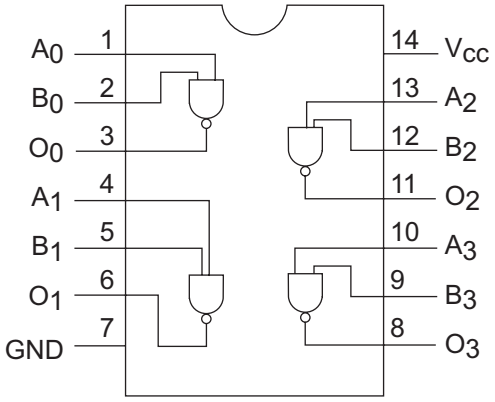


Therefore, besure to perform not only adjustment and operation of this system so carefully as not to directly look at thelaser beam or touch on the body.

SECTION 4
Description of major ICs

4.1 74VHC00MTC-X (IC455,IC503) : NAND Gate

• Pin layout



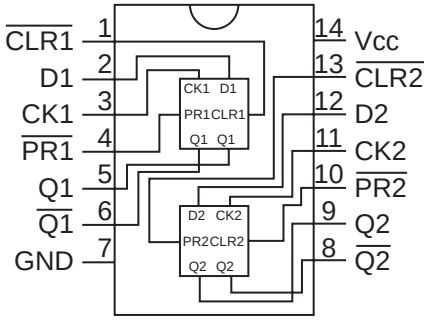
• Truth table

A	B	Y
L	L	H
L	H	H
H	L	H
H	H	L

L : High impedance

4.2 74VHC74MTC-X (IC454) : Flip-Flop with Preset and Clenar

• Terminal layout



• Trouth table

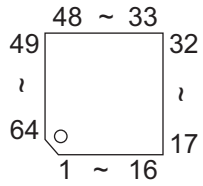
Input				Output		Function
$\overline{CLR}$	$\overline{PR}$	D	CK	Q	$\overline{Q}$	
L	H	X	X	L	H	Clear
H	L	X	X	H	L	Preset
L	L	X	X	H(Note 1)	H(Note 1)	
H	H	L	↑	L	H	
H	H	H	↑	H	L	
H	H	X	↓	Qn	Qn	No change

• Pin function

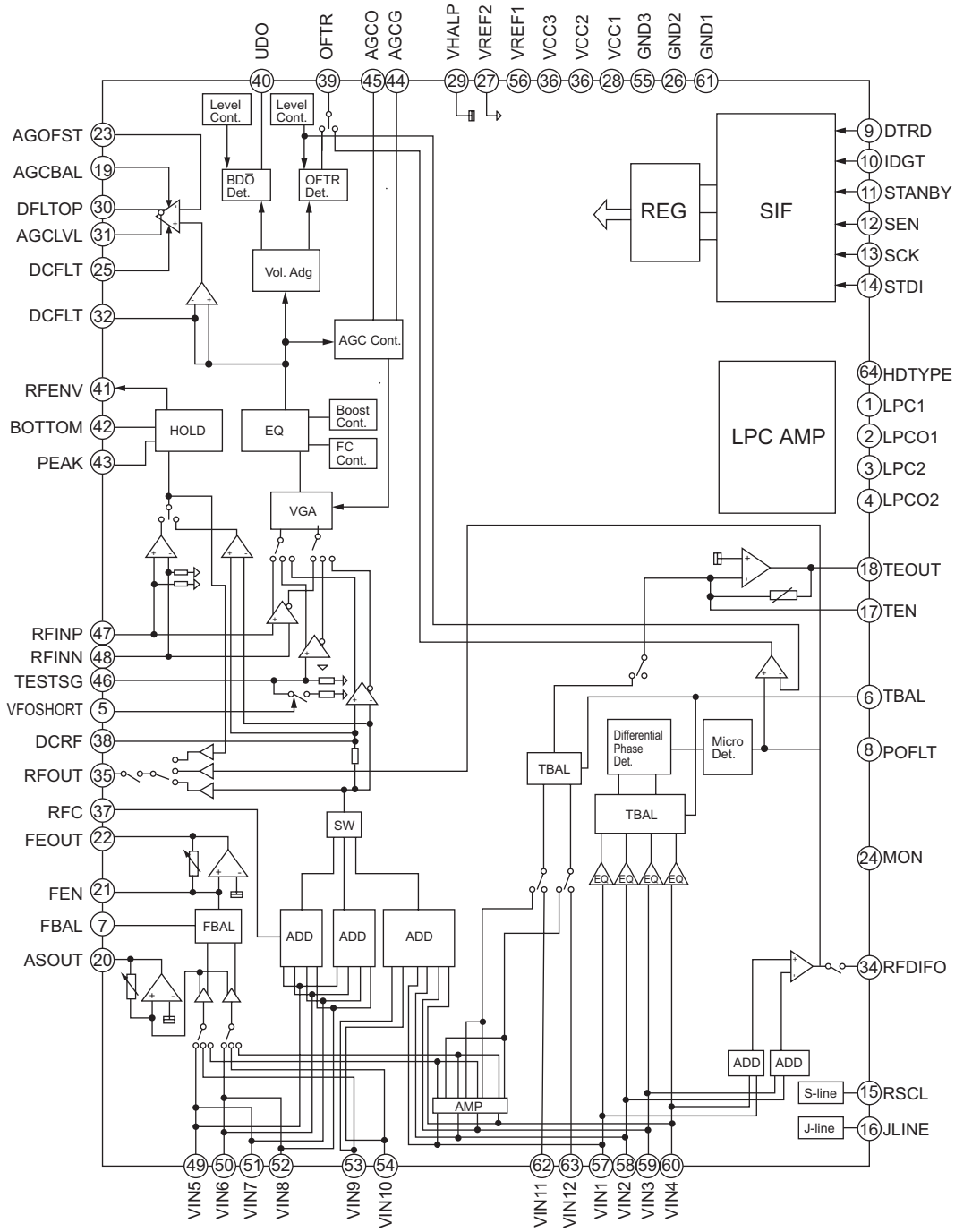
Pin No.	Symbol	I/O	Description
1	CLR1	I	Direct clear input 1
2	D1	I	Data input 1
3	CK1	I	Clock pulse input 1
4	PR1	I	Direct preset input 1
5	Q1	O	Output
6	Q1	O	Output
7	GND	-	Connect to ground
8	Q2	O	Output
9	Q2	O	Output
10	PR2	I	Direct preset input 2
11	CK2	I	Click pulse input 2
12	D2	I	Data input 2
13	CLR2	I	Clock clear input 2
14	VCC	-	Power supply

4.3 AN8703FH-V (IC101) : Frontend processor

- Pin layout



- Block diagram

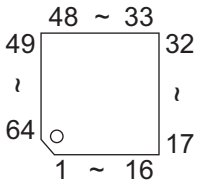


• Pin function

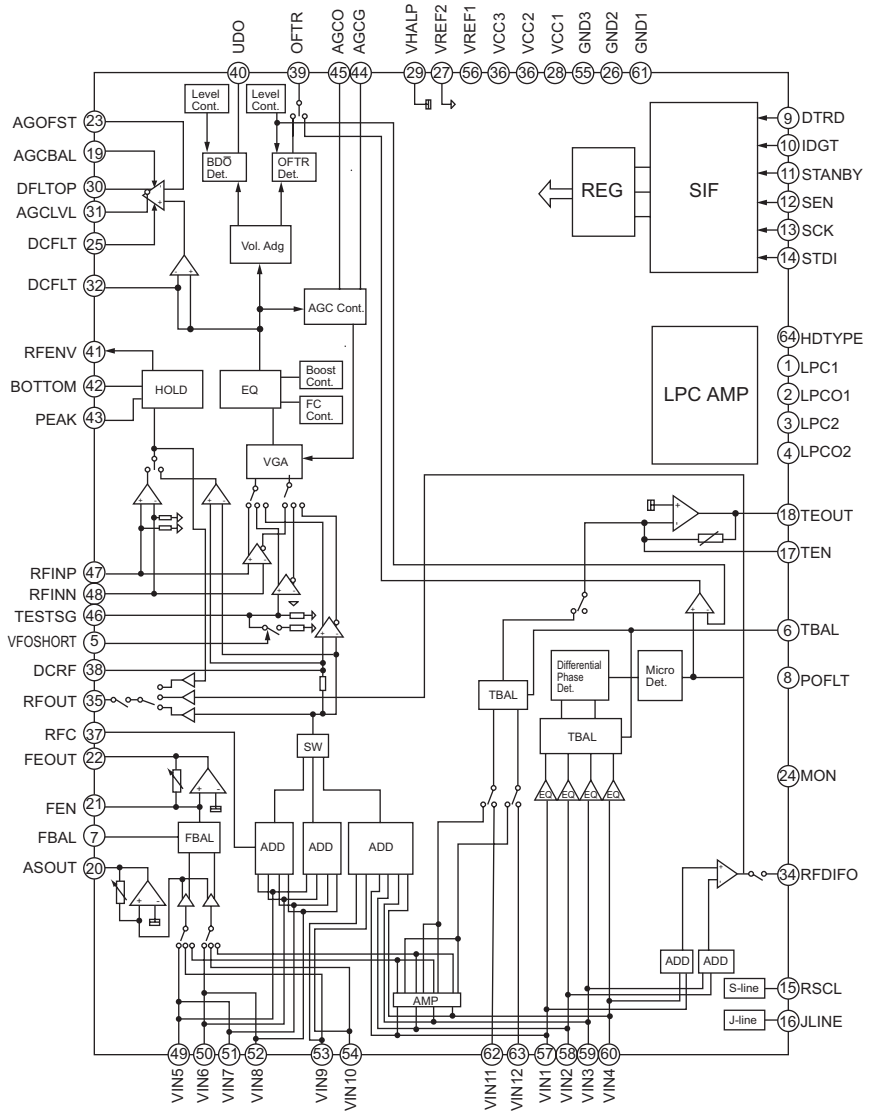
Pin No.	Symbol	Function
1	LPC1	Laser pin input (DVD head)
2	LPCO1	Laser drive output (DVD head)
3	LPC2	Laser in input (CD head)
4	LPCO2	Laser drive output (CD head)
5	VFOS-HORT	VFOSHORT control
6	TBAL	Tracking balance control
7	FBAL	Focus balance control
8	POFLT	Track detection threshold level
9	DTRD	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 setting
16	JLINE	J-line vurrent 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	Offeset 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	Groud 3
34	RFDIFO	Raidal differntial 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 again control
45	AGCO	AGC amplifier level control
46	TESTSG	TEST signal input
47	REFINP	RF signal positive input
48	RFINN	RE signal inverterd 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	Internal four-partition (DVD) RF input 2
54	VIN10	Internal four-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	Groud 1
62	VIN11	3-deam sub (CD) input 2
63	VIN12	3-deam sub (CD) input 1
64	HDTYPE	HD type selection

4.4 AK93C65AF-X (IC451) : EEPROM

- Pin layout



- Block diagram



- Pin function

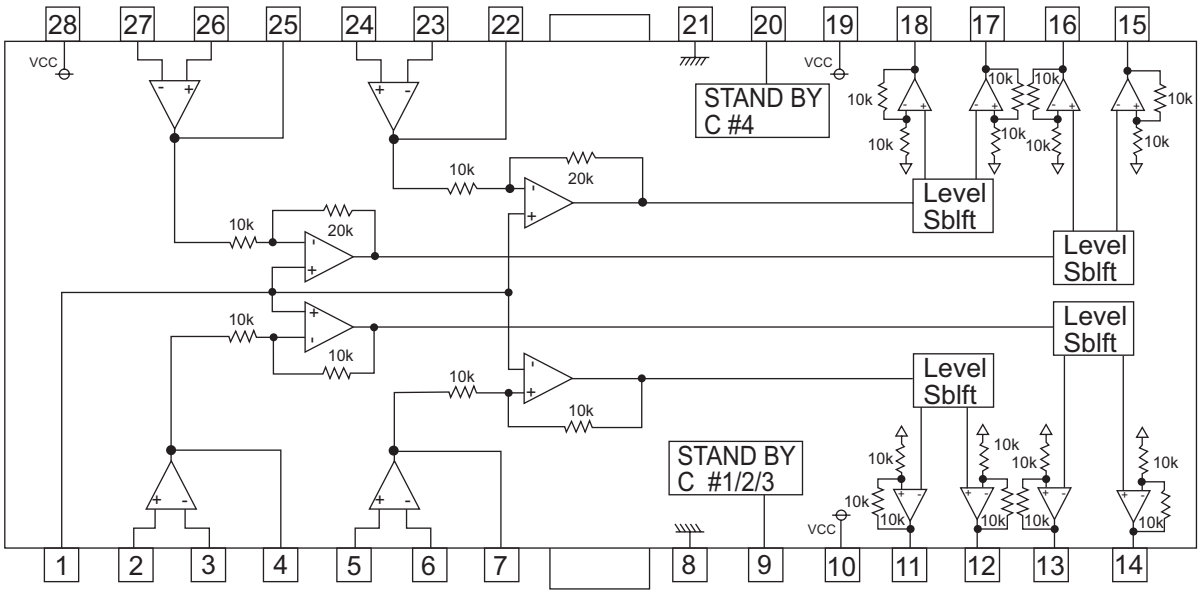
Pin no.	Symbol	Function
1	PE	Program enable (With built-in pull-up resistor)
2	VCC	Power supply
3	CS	Chip selection
4	SK	Cereal clock input
5	DI	Cereal data input
6	DO	Cereal data output
7	GND	Ground
8	NC	No connection

NOTE :

The pull-up resistor of the PE pin is about 2.5Mohm (VCC=5V)

4.5 BA5983FM-X (IC201) : BTL driver

- Pin layout & Block diagram

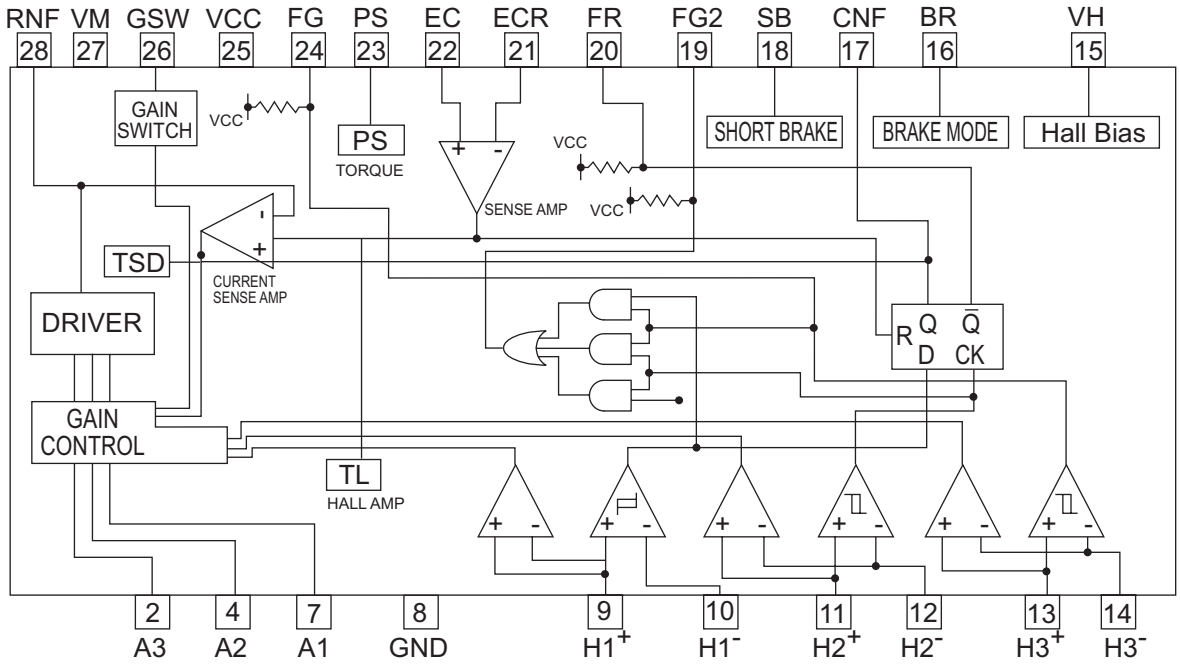


- Pin function

Pin No	Symbol	Function
1	BIAS IN	NC
2	OPIN1(+)	Output3 for motor
3	OPIN1(-)	NC
4	OPOUT1	Output2 for motor
5	OPIN2(+)	NC
6	OPIN2(-)	NC
7	OPOUT2	Output1 for motor
8	GND	GND
9	STBY1	Positive input for hall input Amp1.
10	PowVCC1	Negative input for hall input Amp1.
11	VO2(-)	Positive input for hall input Amp2.
12	VO2(+)	Negative input for hall input Amp2.
13	VO1(-)	Positive input for hall input Amp3.
14	VO1(+)	Negative input for hall input Amp3.
15	VO4(-)	Hall bias terminal
16	VO4(+)	Brake Mode terminal
17	VO3(-)	Capacitor connection pin for phase compensation
18	VO3(+)	Short brake terminal
19	PowVCC2	3Phase synthesized FG signal output termnal
20	STBY2	Rotation detect signal output terminal
21	GND	Torque control standard voltage input terminal
22	OPOUT3	Torque control voltage input terminal
23	OPIN3(-)	START/STOP switch
24	OPIN3(+)	FG signal output terminal
25	OPOUT4	Power supply for driver division
26	OPIN4(-)	Gain switch
27	OPIN4(+)	Power supply for driver division
28	PreVCC	Resistance connection pin for output current sense

4.6 BA6664FM-X (IC251) : Motor driver

- Pin layout & Block diagram

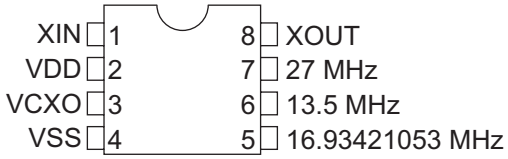


- Pin function

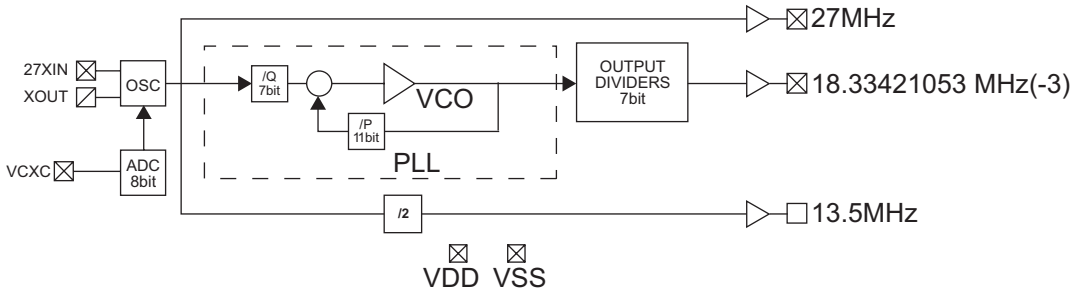
Pin No.	Symbol	Function
1	NC	NC
2	A3	Output3 for motor
3	NC	NC
4	A3	Output2 for motor
5	NC	NC
6	NC	NC
7	A1	Output1 for motor
8	GND	GND
9	H1+	Positive input for hall input Amp1.
10	H1-	Negative input for hall input Amp1.
11	H2+	Positive input for hall input Amp2.
12	H2-	Negative input for hall input Amp2.
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
19	FG2	3Phase synthesized FG signal output termnal
20	FR	Rotation detect signal output terminal
21	ECR	Torque control standard voltage input terminal
22	EC	Torque control voltage input terminal
23	PS	START/STOP switch
24	FG	FG signal output terminal
25	VCC	Power supply for driver division
26	GSW	Gain switch
27	VM	Power supply for driver division
28	RNF	Resistance connection pin for output current sense
FIN	FIN	GND

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

• Pin layout

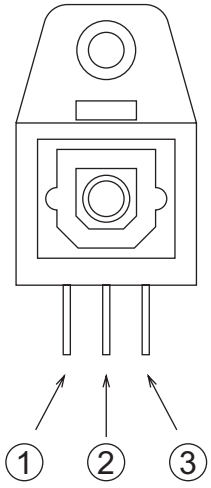


• Block diagram



4.8 GP1FA550TZ (IC392) : Fiber-optic transmitter unit

• Pin layout

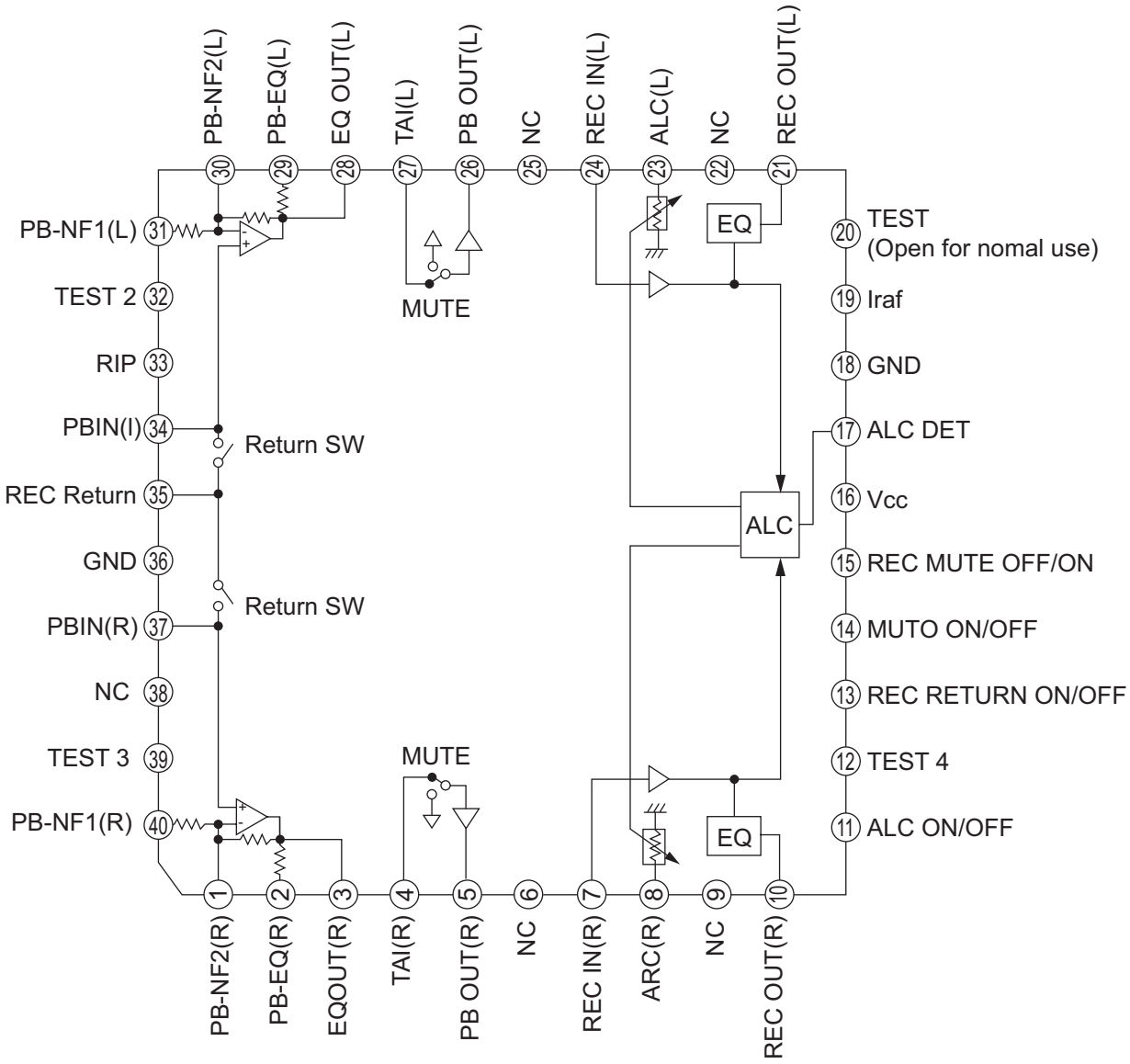


• Pin function

① Vin
② Vcc
③ GND

4.9 HA12238F (IC32) : R/P Equalizer

- Pin layout

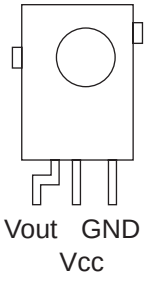


• Pin function

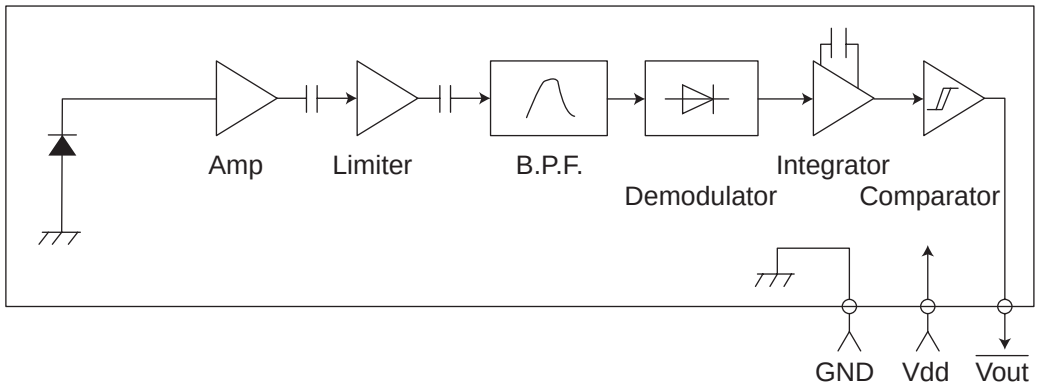
Pin No.	Symbol	Function
1	PB-NF2(R)	PB EQ feed back
2	PB-EQ(R)	NAB output
3	EQOUT(R)	EQ output
4	TAI(R)	Tape input
5	PBOUT(R)	PB output
6	NC	NC pin
7	REC IN(R)	REC-EQ input
8	ALC(R)	ALC(R) signal out put
9	NC	NC pin
10	REC OUT(R)	REC output
11	ALC ON/OFF	Mode control input
12	TEST4	TEST pin
13	REC Return ON/OFF	Mode control input
14	MUTE ON/OFF	Mode control input
15	REC Return ON/OFF	Mode control input
16	Vcc	Vcc Pin
17	ALC DET	ALC detection signal out put
18	GND	GND pin
19	I REF	Equalizer reference current input
20	Test mode	Test modepin
21	REC OUT(L)	REC output
22	NC	NC pin
23	ALC(L)	ALC(L) signal out put
24	REC IN(L)	REC-EQ input
25	NC	NC pin
26	PBOUT(L)	PB output
27	TAI(L)	Tape input
28	EQOUT(L)	EQ output
29	PB-EQ(L)	NAB output
30	PB-NF2(L)	PB EQ feed back
31	PB-NF1(L)	PB EQ feed back
32	TEST2	TEST pin
33	RIP	Ripple fillter
34	PBIN(L)	PB input
35	REC-RETURN	REC Return
36	GND	GND pin
37	PBIN(R)	PB input
38	NC	NC pin
39	TEST3	TEST pin
40	PB-NF1(R)	PB EQ feed back

4.10 GP1UM261XK (IC861) : Receiver

- Pin layout

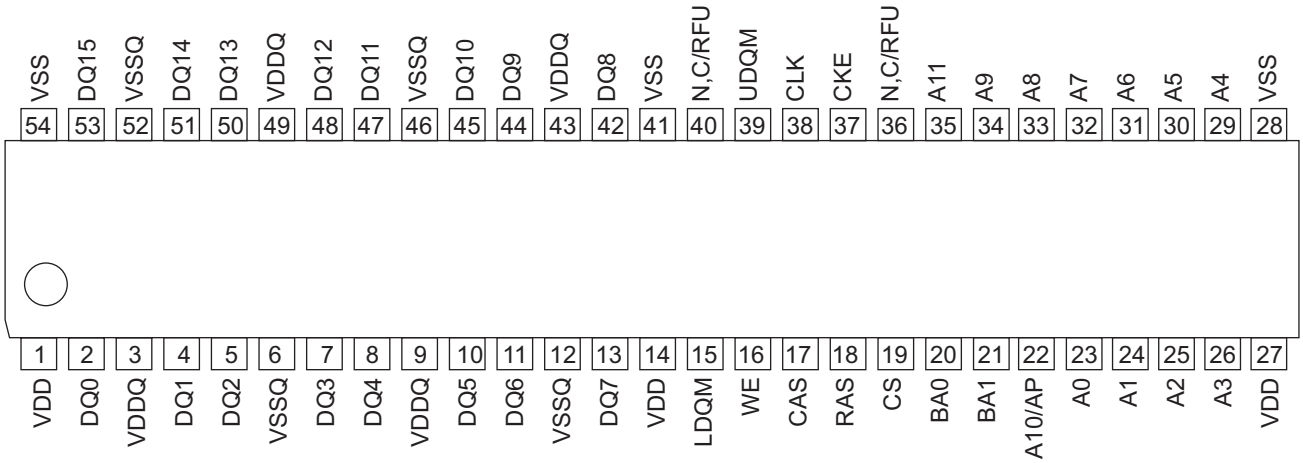


- Block diagram

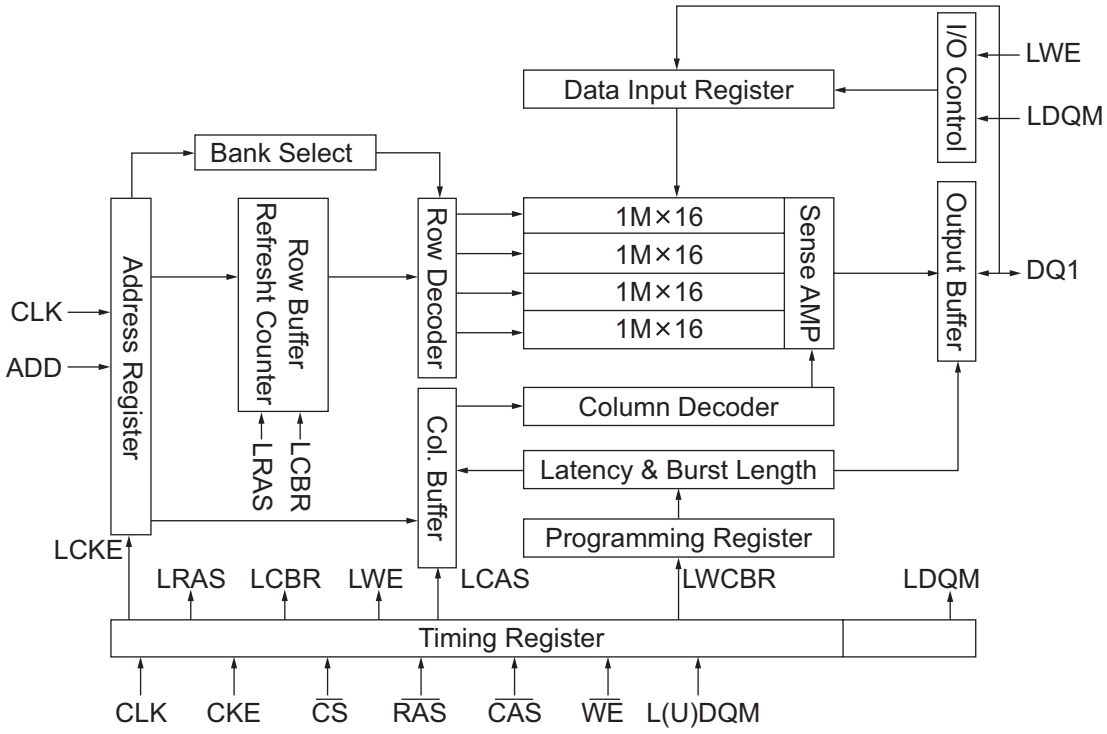


4.11 K4S641632F-TC75 (IC504) :CMOS SDRAM

• Pin layout



• Block diagram

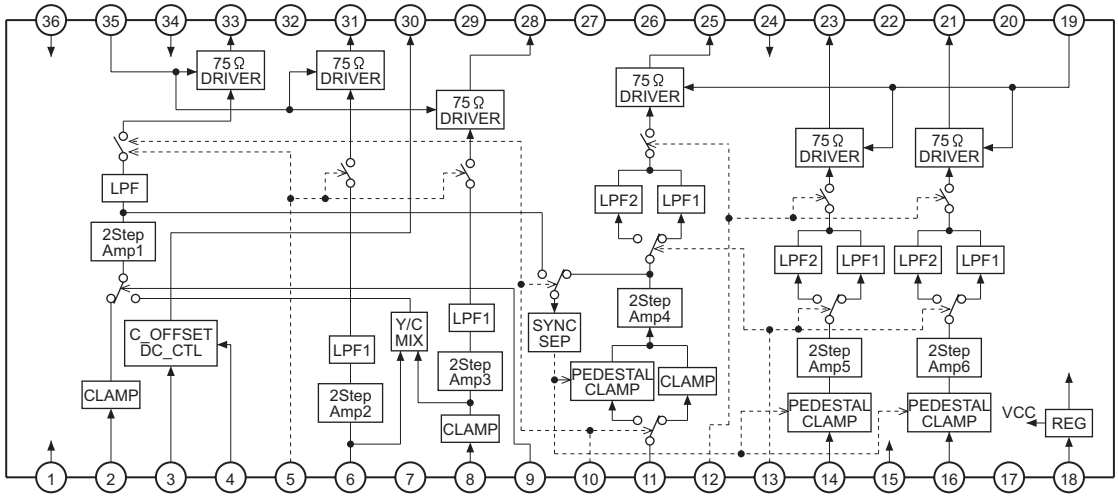


• Pin function

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 pins.
3	VDDQ	Isolated power supply and ground for the output buffers to provlde improved nolse immunity.
4	DQ1	Data inputs/outputs are multiplexed on the same pins.
5	DQ2	Data inputs/outputs are multiplexed on the same pins.
6	VSSQ	Isolated power supply and ground for the output buffers to provlde improved nolse immunity.
7	DQ3	Data inputs/outputs are multiplexed on the same pins.
8	DQ4	Data inputs/outputs are multiplexed on the same pins.

4.12 LA73054-X (IC601) : Video driver

- Pin layout & Block diagram

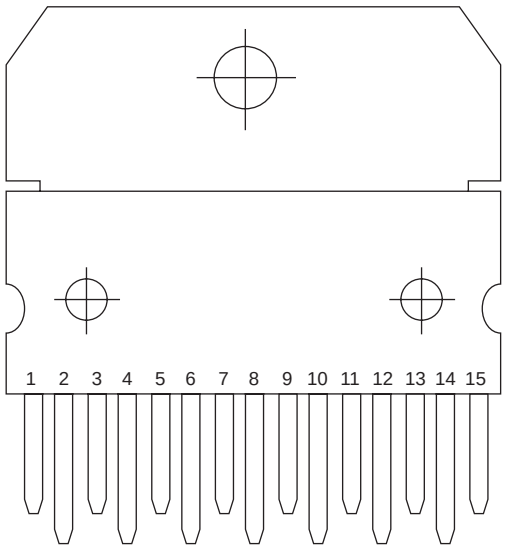


- Pin function

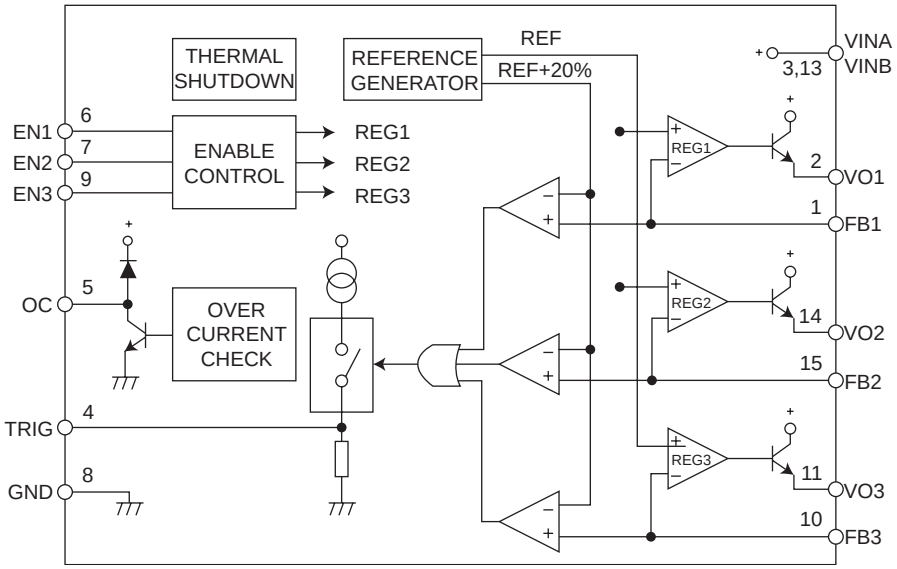
Pin No.	Symbol	I/O	Function
1	VCC1	-	VCC except for 75ohm driver
2	COMPOSITE.IN	I	Input composite
3	SQUEEZE.SW	I	Selecting squeeze mode
4	LETTER-BOX.SW	I	Selecting letter-box mode
5	MUTE-SW-1	I	Composite/S signal mute selection
6	C-IN	I	Input Chroma signal
7	GND11	-	Composite/S GND except for 75ohm driver
8	Y-IN-1	I	Input Y signal
9	YC-MIX.SW	I	Selecting of doing Y/C-MIX or not
10	SIGNAL-IN.SW	I	Selection of a kind of signal
11	Y-IN-2	I	Input component Y or baseband signal
12	MUTE-SW-2	I	Component signal mute selection
13	LPF.SW	I	Selection of a kind of component LPF
14	CB.IN	I	Input component or baseband signal
15	AMP.SW-2	I	Selecting amplifier gain for component signal
16	CR.IN	I	Input component or baseband signal
17	GND12	-	Component GND except for 75ohm driver
18	REG	O	Capacitor terminal for regulator
19	DRIVE.SW-2	I	2drive/1drive select for component signal
20	GND26	-	CR-GND for 75ohm driver
21	CR.OUT	O	75ohm driver output of pin16 input
22	GND25	-	CB-OUT for 75ohm driver
23	CB.OUT	O	75ohm driver output of pin14 input
24	VCC22	-	Component Vcc for 75ohm driver
25	Y-OUT-2	O	75ohm driver output of pin11 input
26	GND24	-	Component Y out for 75ohm driver
27	GND23	-	Y out for 75ohm driver
28	Y-OUT-1	O	75ohm driver output of pin8 input
29	GND22	-	Chroma out for 75ohm driver
30	C-DC.OUT	O	DC voltage output for S1,S2
31	C-OUT	O	75ohm driver output of pin6 input
32	GND21	-	Composite out for 75ohm driver
33	COMPOSITE-OUT	O	75ohm driver output of pin2 input
34	VCC21	-	Composite/S Vcc for 75ohm driver
35	DRIVE.SW-1	I	2drive/1drive select for composite/S signal
36	AMP.SW-1	I	Selecting amplifier gain for composite/S signal

4.13 L4909 (IC212) : Regulator

• Pin layout



• Block diagram

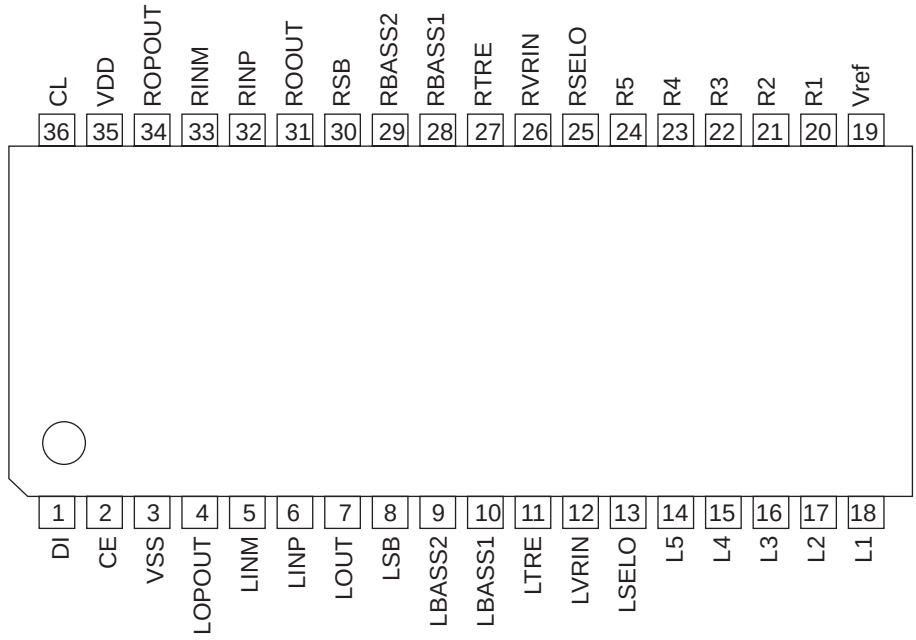


• Pin functions

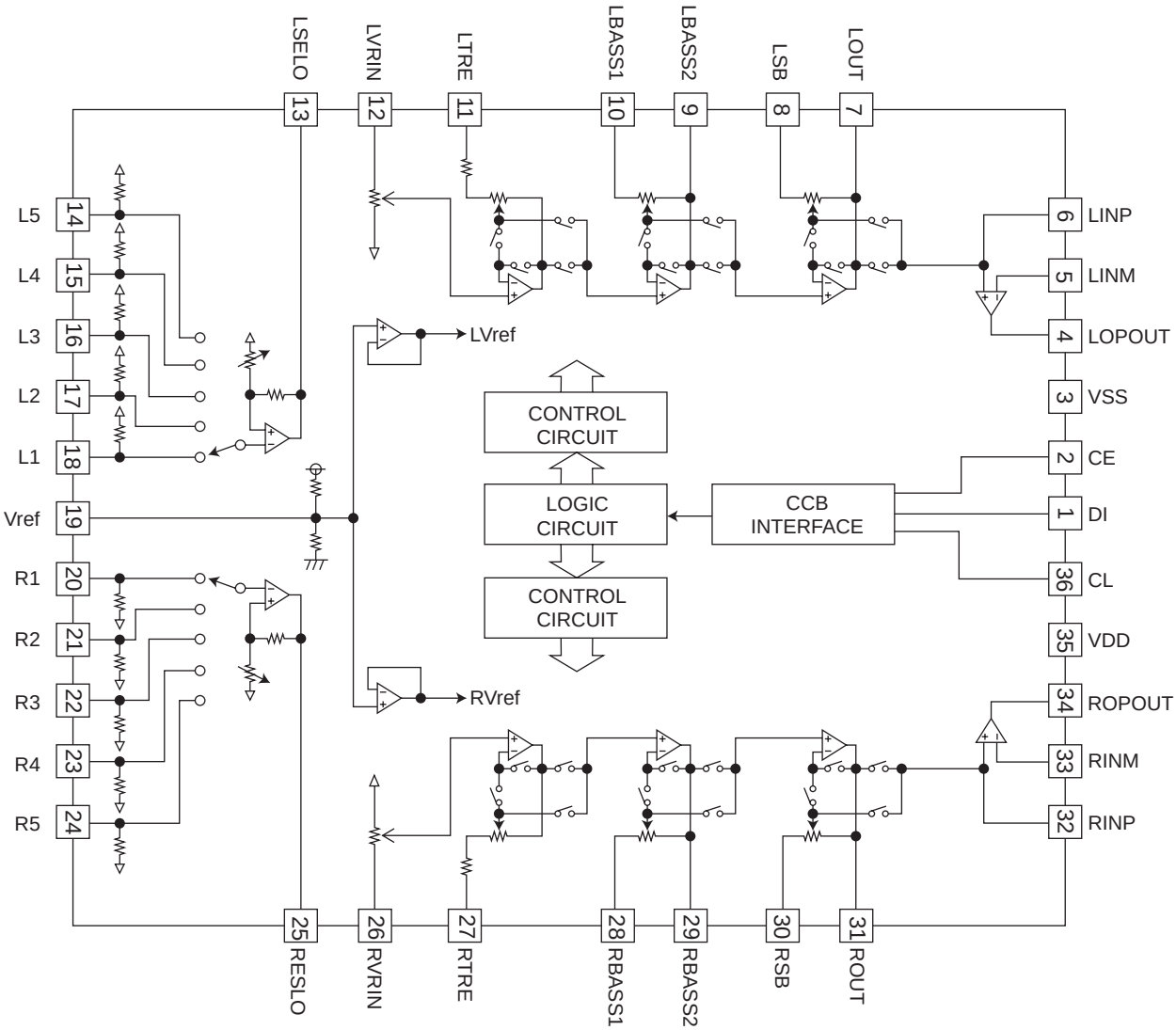
Pin No.	Symbol	Function
1	FB1	REG1 feedback voltage input
2	VO1	REG1 output voltage
3	VINA	Input DC supply voltage
4	TRIG	Trigger for external SCR (crowbar protection)
5	OC	Over current warning output
6	EN1	REG1 enable input
7	EN2	REG2 enable input
8	GND	Analog ground
9	EN3	REG3 enable input
10	FB3	REG3 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

4.14 LC75345M-X (IC311) : E.volume

- Pin layout



- Block diagram

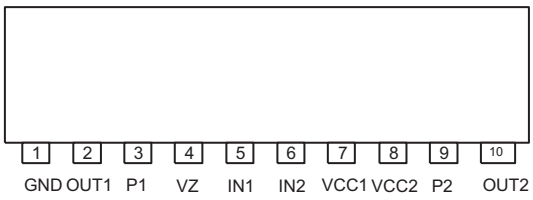


• Pin function

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-purpuse operation amplifier.
6	LINP	Non-inverted input pin of general-purpuse 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.

4.15 LB1641 (IC741) : DC Motor driver

- Pin layout

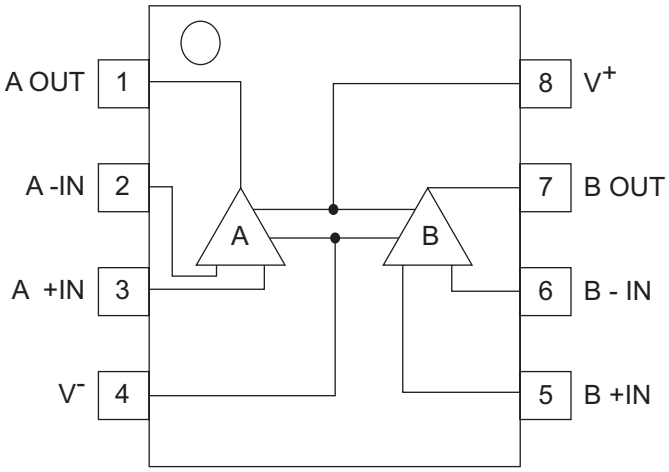


- Pin function

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

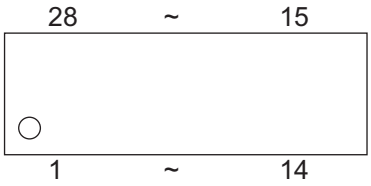
4.16NJM4580M-X (IC211) : Ope. amp

- Block diagram



4.17 MN35505-X (IC202) : DAC

• Terminal layout

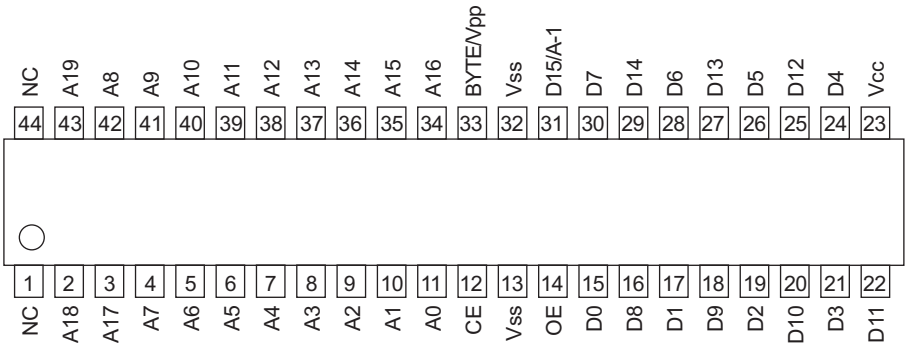


• Pin function

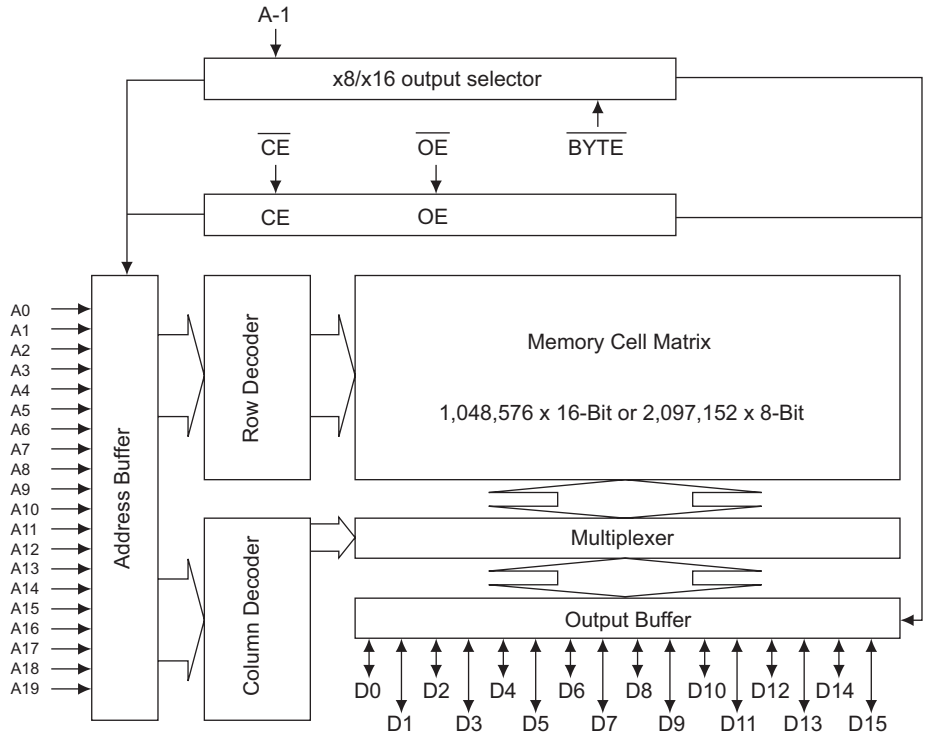
Pin No.	Symbol	I/O	Function
1	M5	I	Control signal for DAC
2	DIN	I	Digital data input
3	LRCK	I	L and R clock for DAC
4	BCK	I	Bit clock for DAC
5	M3	I	Control signal for DAC
6	DVDD2	-	Power supply
7	CKO	-	Non connect
8	DVSS2	-	Connect to ground
9	M2	I	Control signal for DAC
10	M1	I	Control signal for DAC
11	OUT1C	O	Analog output 1
12	AVDD1	-	Power supply
13	OUT1D	O	Analog output 1
14	AVSS1	-	Connect to GND
15	AVSS2	-	Connect to GND
16	OUT2D	O	Analog output 2
17	AVDD2	-	Power supply
18	OUT2C	O	Analog output 2
19	M9	I	Control signal for DAC
20	DVSS2	-	Connect to GND
21	XOUT	-	Non connect
22	XIN	-	Non connect
23	VCOF	I	VCO Frequency
24	DVDD1	-	Power supply D+5V
25	M7	-	Connect to GND
26	M8	-	Connect to GND
27	M4	I	Control signal for DAC
28	M6	I	Clock for control signal

4.18 MR27V1602EGSTPX (IC402) : P2ROM

- Pin layout



- Block diagram



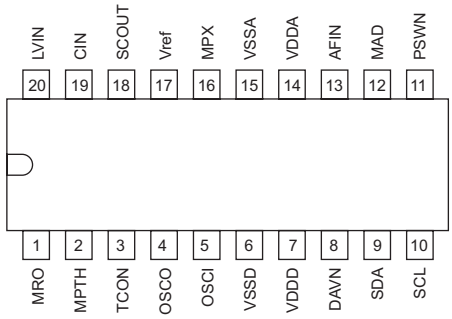
- Pin function

Pin No	Symbol	Function
1	NC	No connect
2,3	A18,A17	Address input
4~11	A7~A0	Address input
12	CE	Chip enable
13	Vss	GND
14	OE	Output enable
15	D0	Data output
16	D8	Data output
17	D1	Data output
18	D9	Data output
19	D2	Data output
20	D10	Data output
21	D3	Data output
22	D11	Data output

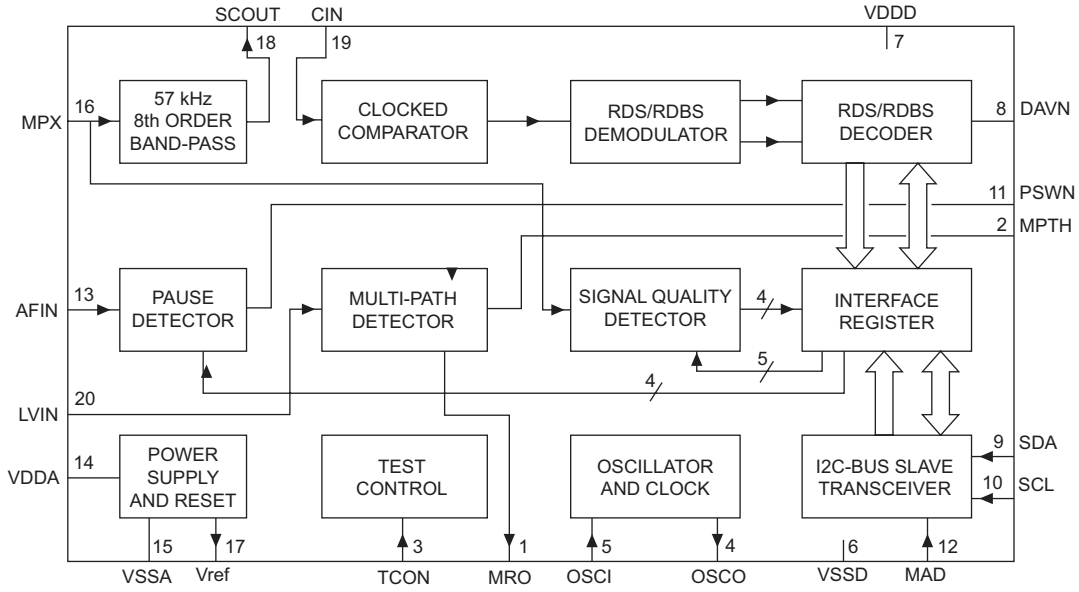
Pin No	Symbol	Function
23	Vcc	Power supply
24	D4	Data output
25	D12	Data output
26	D5	Data output
27	D13	Data output
28	D6	Data output
29	D14	Data output
30	D7	Data output
31	D15/A-1	Data output/Address input
32	Vss	GND
33	BYTE/Vpp	Mode switch
34~42	A16~A8	Address input
43	A19	Address input
44	NC	No connect

4.19 SAA6588T/V2-X (IC751) : RDS/RBDS pre-processor

- Pin layout



- Block diagram

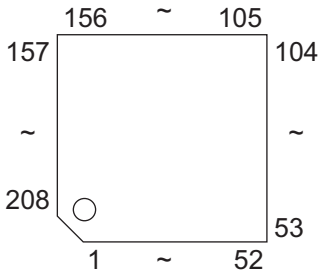


- Pin function

Pin No	Symbol	Function
1	MRO	Multi-path rectifier output
2	MPTH	Multi-path detector output
3	TCON	Test control input pin
4	OSCO	Oscillator output
5	OSCI	Oscillator input
6	VSSD	Digital GND
7	VDDD	Digital supply voltage (5V)
8	DAVN	Data available output
9	SDA	I2C-bus serial data I/O
10	SCL	I2C-bus serial clock input
11	PSWN	Pause switch output
12	MAD	Slave address input
13	AFIN	Audio signal input
14	VDDA	Analog supply voltage
15	VSSA	Analog GND
16	MPX	Multiplex input signal
17	Vref	Reference voltage output
18	SCOUT	Band-pass filter output
19	CIN	Comparator input
20	LVIN	Level input

4.20 ZIVA-4.1-PB0 (IC501) : AV decoder

- Pin layout



- Pin function

Pin No.	Symbol	I/O	Description
1	$\overline{RD}$	I	Read strobe input
2	R/$\overline{W}$	I	Read/write strobe input
3	VDD_3.3	-	Power supply terminal 3.3V
4	$\overline{WAIT}$	O	Transfer not complete / data acknowledge. Active LOW to indicate host initiated transfer is complete.
5	$\overline{RESET}$	I	Active LOW : reset signal input
6	VSS	-	Connect to ground
7	VDD_3.3	-	Power supply terminal 3.3V
8	$\overline{INT}$	O	Host interrupt signal output
9	NC	-	Non connect
10	NC	-	Non connect
11	NC	-	Non connect
12	NC	-	Non connect
13	VDD_2.5	-	Power supply terminal 2.5V
14	VSS	-	Connect to ground
15	NC	-	Non connect
16	NC	-	Non connect
17	NC	-	Non connect
18	NC	-	Non connect
19	VSS	-	Connect to ground
20	VDD_3.3	-	Power supply 3.3V
21	VDATA0	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
22	VDATA1	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
23	VDATA2	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
24	VDATA3	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
25	VDATA4	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
26	VDATA5	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
27	VDATA6	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
28	VDATA7	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
29	$\overline{VSYNC}$	I/O	Vertical sync. Bi-directional, the decoder output the top border of a new field on the first HSYNC after the falling edge of VSYNC.
30	$\overline{HSYNC}$	I/O	Horizontal sync. The decoder begins outputting pixel data for a new horizontal line after the falling (active) edge of HSYNC.
31	VSS	-	Connect to ground
32	VDD_3.3	-	Power supply terminal 3.3V

Pin No.	Symbol	I/O	Description
33	NC	-	Non connect
34	NC	-	Non connect
35	NC	-	Non connect
36	VDD_2.5	-	Power supply terminal 2.5V
37	VSS	-	Connect to ground
38	NC	-	Non connect
39	NC	-	Non connect
40	NC	-	Non connect
41	NC	-	Non connect
42	NC	-	Non connect
43	PIO0	I/O	Programmable I/O terminal
44	VSS	-	Connect to ground
45	VDD_3.3	-	Power supply terminal 3.3V
46	PIO1	I/O	Programmable I/O terminal
47	PIO2	I/O	Programmable I/O terminal
48	PIO3	I/O	Programmable I/O terminal
49	PIO4	I/O	Programmable I/O terminal
50	PIO5	I/O	Programmable I/O terminal
51	PIO6	I/O	Programmable I/O terminal
52	PIO7	I/O	Programmable I/O terminal
53	MDATA0	I/O	SDRAM data
54	MDATA1	I/O	SDRAM data
55	VDD_3.3	-	Power supply terminal 3.3V
56	VSS	-	Connect to ground
57	MDATA2	I/O	SDRAM data
58	MDATA3	I/O	SDRAM data
59	MDATA4	I/O	SDRAM data
60	MDATA5	I/O	SDRAM data
61	MDATA6	I/O	SDRAM data
62	MDATA7	I/O	SDRAM data
63	MDATA15	I/O	SDRAM data
64	VDD_3.3	-	Power supply terminal 3.3V
65	VSS	-	Connect to ground
66	MDATA14	I/O	SDRAM data
67	VDD_2.5	-	Power supply terminal 2.5
68	VSS	-	Connect to ground
69	MDATA13	I/O	SDRAM data
70	MDATA12	I/O	SDRAM data
71	MDATA11	I/O	SDRAM data
72	MDATA10	I/O	SDRAM data
73	MDATA9	I/O	SDRAM data
74	VDD_3.3	-	Power supply terminal 3.3V
75	VSS	-	Connect to ground
76	MDATA8	I/O	SDRAM data
77	LDQM	O	SDRAM Lower or upper mask
78	SD-CLK	O	SDRAM Clock

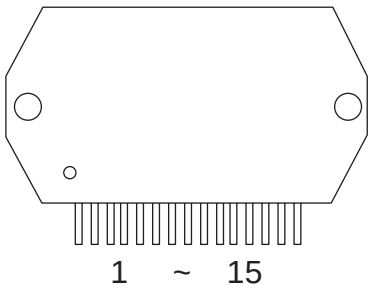
Pin No.	Symbol	I/O	Description
79	CLKSEL	I	Selects SYSCLK or VCLK as clock source. Normal operation is to tie HIGH.
80	MADDR9	O	SDRAM address
81	MADDR8	O	SDRAM address
82	VDD_3.3	-	Power supply terminal 3.3V
83	VSS	-	Connect to ground
84	MADDR7	O	SDRAM address
85	MADDR6	O	SDRAM address
86	MADDR5	O	SDRAM address
87	VDD_2.5	-	Power supply terminal 2.5V
88	VSS	-	Connect to ground
89	MADDR4	O	SDRAM address
90	$\overline{\text{MWE}}$	O	SDRAM write enable
91	$\overline{\text{SD-CAS}}$	O	Active LOW SDRAM column address
92	VDD_3.3	-	Power supply terminal 3.3V
93	VSS	-	Connect to ground
94	$\overline{\text{SD-RAS}}$	O	Active LOW SDRAM row address
95	$\overline{\text{SD-CS0}}$	O	Active LOW SDRAM chip select 0
96	$\overline{\text{SD-CS}}$/MADDR11	O	Active LOW SDRAM chip select 1 or use as MADDR11 for larger SDRAM
97	$\overline{\text{SD-BS}}$	O	SDRAM bank select
98	MADDR10	O	SDRAM address
99	MADDR0	O	SDRAM address
100	VDD_3.3	-	Power supply terminal 3.3V
101	VSS	-	Connect to ground
102	MADDR1	O	SDRAM address
103	MADDR2	O	SDRAM address
104	MADDR3	O	SDRAM address
105	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
106	NC	-	Non connect
107	NC	-	Non connect
108	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
109	NC	-	Non connect
110	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
111	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
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 supply 3.3V
116	VSS	-	Connect to ground
117	DAI-DATA	I	PCM data input
118	DA-DATA3	O	PCM data output. Eight channels. Serial audio samples relative to DA_BCK and DA_LRCK
119	DA-DATA2	O	PCM data output. Eight channels. Serial audio samples relative to DA_BCK and DA_LRCK
120	DA-DATA1	O	PCM data output. Eight channels. Serial audio samples relative to DA_BCK and DA_LRCK
121	DA-DATA0	O	PCM data output. Eight channels. Serial audio samples relative to DA_BCK and DA_LRCK
122	DA-LRCK	O	PCM left clock. Identifies the channel for each sample
123	VDD_3.3	-	Power supply terminal 3.3V
124	VSS	-	Connect to ground

Pin No.	Symbol	I/O	Description
125	DA-XCK	I/O	Audio external frequency clock input or output
126	DA-BCK	O	PCM bit clock output
127	DA-IEC	O	PCM data out in IEC-958 format or compressed data out in IEC-1937 format
128	VDD_2.5	-	Power supply terminal 2.5V
129	VSS	-	Connect to ground
130	NC	-	Non connect
131	VSS_DAC	-	Connect to ground for analog video DAC
132	VSS_VIDEO	-	Connect to ground for analog video
133	CVBS	O	DAC video output format : CVBS. Macrovision encoded
134	VDD_DAC	-	Power supply terminal for analog video DAC
135	VDD_VIDEO	-	Power supply terminal for analog video
136	NC	-	Non connect
137	VSS_DAC	-	Connect to ground for analog video DAC
138	VSS_VIDEO	-	Connect to ground for analog video
139	CVBS/G/Y	O	DAC video output format. Macrovision encoded
140	VDD_DAC	-	Power supply terminal for analog video DAC
141	VDD_VIDEO	-	Power supply terminal for analog video
142	NC	-	Non connect
143	VSS_DAC	-	Connect to ground for analog video DAC
144	VSS_VIDEO	-	Connect to ground for analog video
145	Y/B/U	O	DAC video output format. Macrovision encoded
146	VDD_DAC	-	Power supply terminal for analog video DAC
147	VDD_VIDEO	-	Power supply terminal for analog video
148	NC	-	Non connect
149	VSS_DAC	-	Connect to ground for analog video DAC
150	VSS_VIDEO	-	Connect to ground for analog video
151	C/R/V	O	DAC video output format. Macrovision encoded
152	VDD_DAC	-	Power supply terminal for analog video DAC
153	VDD_VIDEO	-	Power supply terminal for analog video
154	VSS_RREF	-	Connect to ground for analog video
155	RREF	O	Reference resistor. Connecting to pin 154
156	VDD_RREF	-	Power supply terminal for analog video 3.3V
157	A_VSS	-	Power supply terminal for analog PLL 3.3V
158	SYSCLK	I	Optical system clock. Tie to A_VDD through a 1K ohm resistor
159	VCLK	I	System clock input
160	A_VDD	-	Power supply terminal for analog PLL 3.3V
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. 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 DVD-DATA2
164	DVD-DATA3/CD-C2PO	I	Asserted HIGH indicates a corrupted byte. This pin is shared with DVD compressed data DVD-DATA3
165	DVD-DATA4/CDGSDATA	I	DVD parallel compressed data from DVD DSP. or CD-G data indicating serial sub code data input
166	VSS	-	Connect to ground
167	VDD_3.3	-	Power supply terminal 3.3V

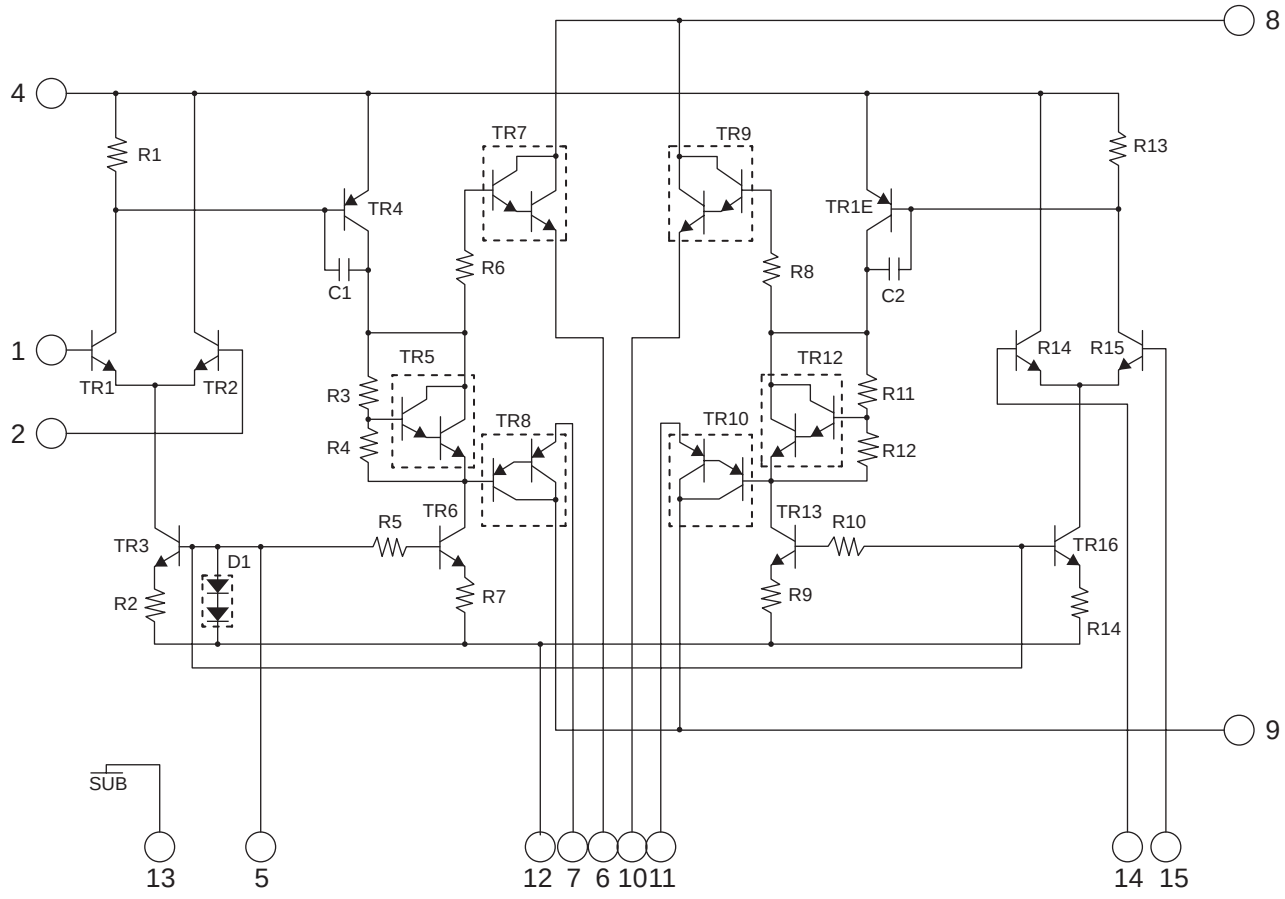
Pin No.	Symbol	I/O	Description
168	DVD-DATA5/CDG-VFSY	I	DVD parallel compressed data from DVD DSP. or CD-G frame sync indicating frame-start or composite synchronization input.
169	DVD-DATA6/CDG-SOS1	I	DVD parallel compressed data from DVD DSP. or CD-G block sync indicating block-start synchronization input
170	DVD-DATA7/CDG-SCLK	I	DVD parallel compressed data from DVD DSP. or CD-G clock indicating sub code data clock input or output
171	VDACK	I	In synchronous mode, bit stream data acknowledge. Asserted when DVD data is valid. Polarity is programmable
172	VREQUEST	O	Bit stream request
173	VSTROBE	I	Bit stream strobe
174	ERROR	I	Error in input data
175	VDD_3.3	-	Power supply terminal 3.3V
176	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
177	VDD_3.3	-	Power supply terminal 3.3V
178	VSS	-	Connect to ground
179	NC	-	Non connect
180	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
181	NC	-	Non connect
182	HADDR0	I	Host address bus. 3-bit address bus selects one of eight host interface registers
183	HADDR1	I	Host address bus. 3-bit address bus selects one of eight host interface registers
184	HADDR2	I	Host address bus. 3-bit address bus selects one of eight host interface registers
185	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
186	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
187	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
188	VSS	-	Connect to ground
189	VDD_2.5	-	Power supply terminal 2.5V
190	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
191	VSS	-	Connect to ground
192	VDD_3.3	-	Power supply terminal 3.3V
193	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
194	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
195	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
196	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
197	HDATA7	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
198	VSS	-	Connect to ground
199	HDATA6	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
200	HDATA5	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
201	HDATA4	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
202	HDATA3	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
203	HDATA2	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
204	VDD_3.3	-	Power supply terminal 3.3V
205	VSS	-	Connect to ground
206	HDATA1	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
207	HDATA0	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
208	$\overline{CS}$	I	Host chip select input

4.21STK402-050 (IC111) : 2ch AF power amp.

- Pin layout



- Block diagram



JVC
VICTOR COMPANY OF JAPAN, LIMITED
AV & MULTIMEDIA COMPANY 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

(No.22013)

Printed in Japan
200303WPC

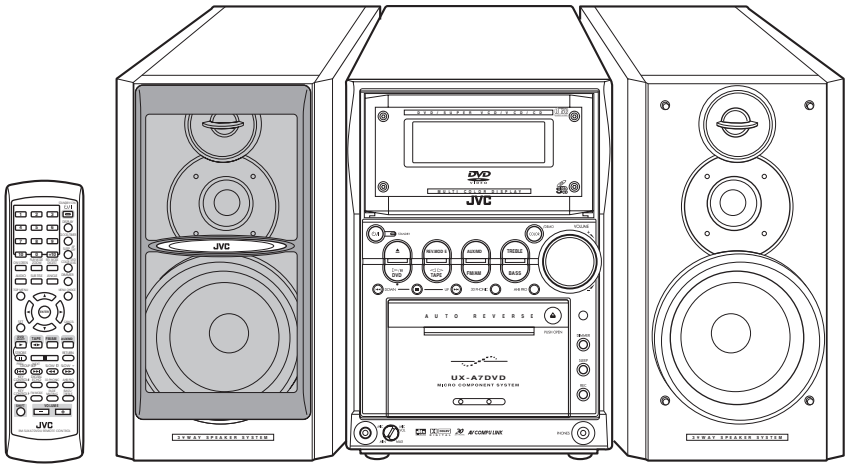
JVC

SCHEMATIC DIAGRAMS

MICRO COMPONENET SYSTEM

UX-A7DVD

CD-ROM No.SML200303



Area suffix

US ---------- Singapore
UN ---------- Asean

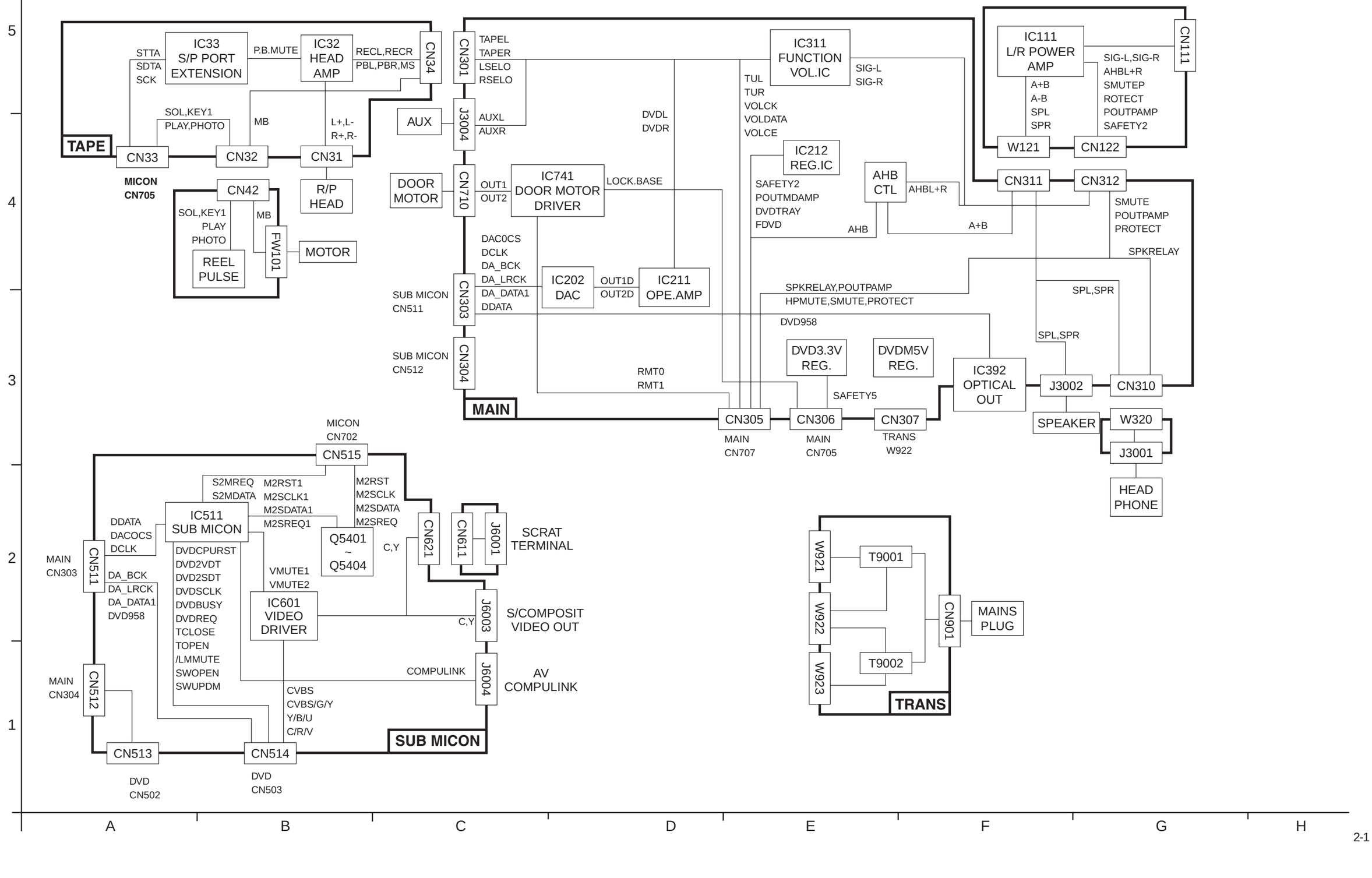
Contents

No.22013SCH
Mar. 2003

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 (▬), diode (▬) and ICP (●) or identified by the "⚠" mark nearby are critical for safety.

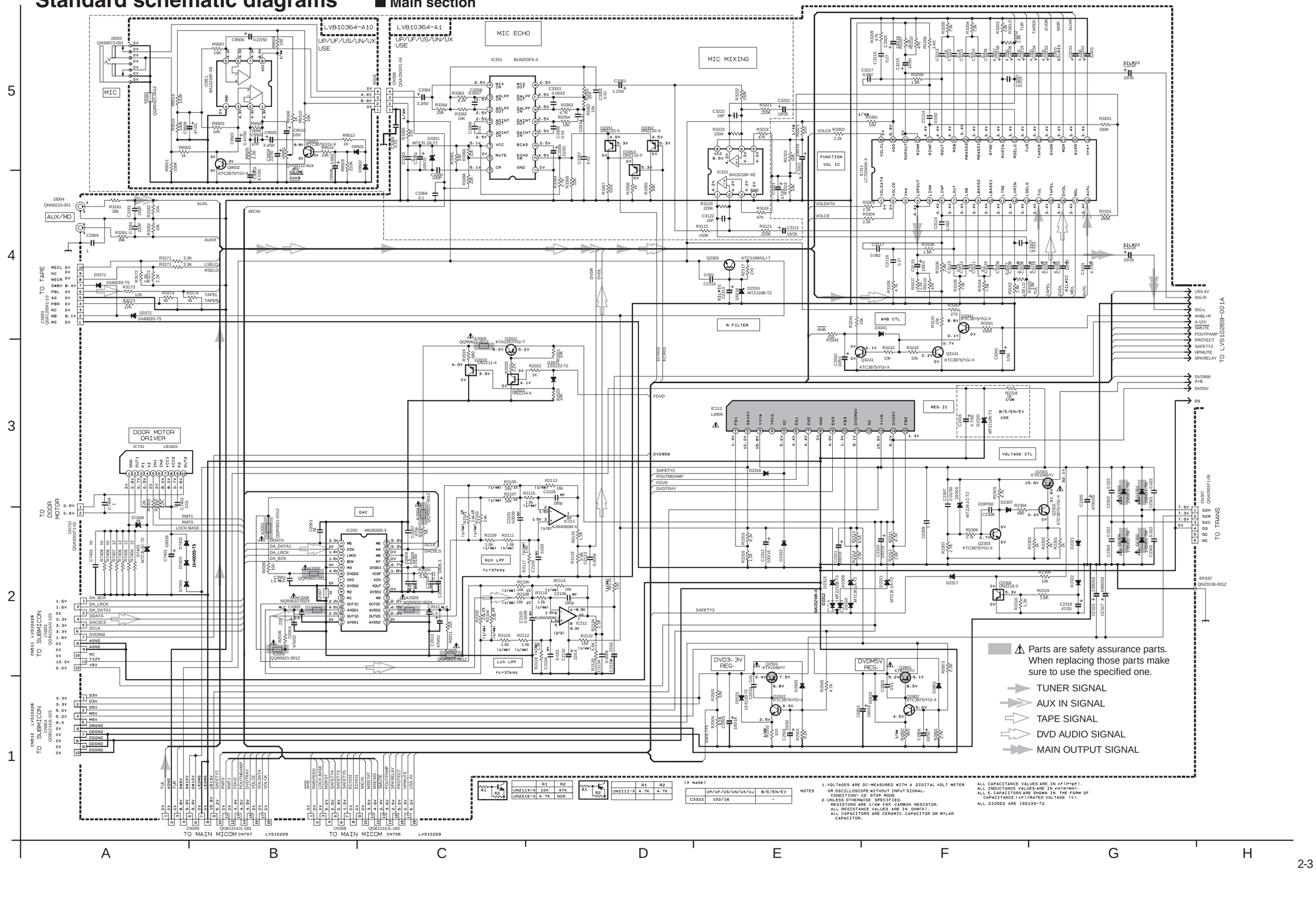
(This regulation does not correspond to J and C version.)

Block diagrams



DVD
F2CD,T2CD,TA,TB,TC
TD,F1CD,T1CD,LD+DVD
RF+,RF-,F1DVD,GAIN
H/L,F2VD,PIN_DVD
IC101
FRONT END
PROCESSOR
IC301
SODC
CK169
IC571
VCLK
CN502
SUB MICON
CN513
STD0~STD7,STEN,STVALID,STCLK
CPUD0~CPUD7
/WR,/RD
CN101
HAGUP,HFMON
T+,T-,F+,F-
DVD
TRA
MECHA
TRSDRV
FODRV
TRDRV
TDOFS
HDTYPE
SLEEP
FEOEN
CPSCK
SDOUT
FG
SPDRV
WAITODC
CPUA0
~CPUA20
CPUA0~CPUA20
IC501
AV
DECODER
C/R/V,Y/B/U
CVBS/G/Y,CVBS
DA_BCK,DA_LRCK
DADATA1
DADATA2,DA/DATA3
CN201
FM+
FM-
IC201
DRIVER
/DRVMUTE
IC401
UNIT
MICON
LSIRST,WAITODC
CSDET,DECIRQ
CK135
IC455
NAND
GATE
WAIT,CS2
IC402
ROM
CSROM
IC504
RAM
MD0~MD15
LDQM,BS1
MA0~MA11
/MWE,SC_CAS
SDRAS,SD_CSO
SP_DCLK
DECTX
IC503
NAND
GATE
TX
TRVSW
EPDO
EPDI
EPSK
EPCS
CLR1
Q1
DVD
LOADER
MECHA
CN202
LM+
LM-
SW1~SW3
H1+,H1-
H2+,H2-
H3+,H3-
VH
IC454
F-F RESET
/CLEANER
WAITDET
ACSCTX,TXSEL
CN503
SUB MICON
CN514
CPURAT,U2SDT,S2UDT,SCLKO,REQ,BUSY
IC251
SP MOTOR
DRIVER
SBRK
/SPMUTE
IC451
EEPROM
SWOPEN
SWUPDM
TOPEN,TCLOSE
/LMMUTE
/LMLUTE,TCLOSE,TOPEN
SWOPEN,WUPDN
MICON
Q7701
~
Q7709
LRED
LBLUE
LGREEN
CRED
CBLUE
CGREEN
RRED
RBLUE
RGREEN
BLRED
BLBLUE
BLGREEN
BCRED
BCBLUE
BCGREEN
BRRED
BRBLUE
BRGREEN
CN701
TRANS
W923
VH,F1,F2
CN708
CN442
CN441
CN453
VH,F1,F2,FLBK
FLDATA,FLSTB,FLCLK
CN451
CN452
CN471
FL
CN461
D4621
D4611
D4601
TUNER
PACK
CN709
TUCE,TUDATA\OUT
TUDATA_IN,TUCLK
TUL,TUR
FLBK
FLDATA
FLSTB
FLCLK
MAIN
CN305
CN707
SAFETY2,RMT0,RMT1
FDVD,POUTMDAMP
DVDTRAY,VOL_CE
VOLDATA,VOLCK
IC701
MICON
FANON
CN711
FAN
MAIN
CN306
CN706
AHB,RMSPEED,MDRST
SAFETY3~5,ECHO1,ECHO2
MICIN,MDSTAT,MDCMD,PROTECT
SMUTE,POUTPAMP,SPKRELAY
HPMUTE
STTA
SDATA
SCK
SAFETY1
KEY1
PLAY
M2SDATA
M2SREQ
M2SRST
M2SCLK
M2MDATA1
M2MREQ
PIN,REM
JOGL
JOGR
LEDCTL
FKEY1
FKEY2
CN704
CN851
IC861
REMOCON
LED
CONTROL
REM
LEDCTL
PIN
S8601
FKEY1
FKEY2
JOGL
JOGR
S8501~S8509
S8511S8517
KEY
MATRIX
JS861
JOG
S4801
S4802
W4801
CN703
PANELSW1
PANELSW3
PANELSW4
CN702
SUB MICON
CN515
CN705
TAPE
CN33
A
B
C
D
E
F
G
H
1
2
3
4
5

Standard schematic diagrams ■ Main section



	R1	R2
UN2114-X	10K	47K
UN2216-X	4.7K	NON

	R1	R2
UN2111-X	4.7K	4.7K

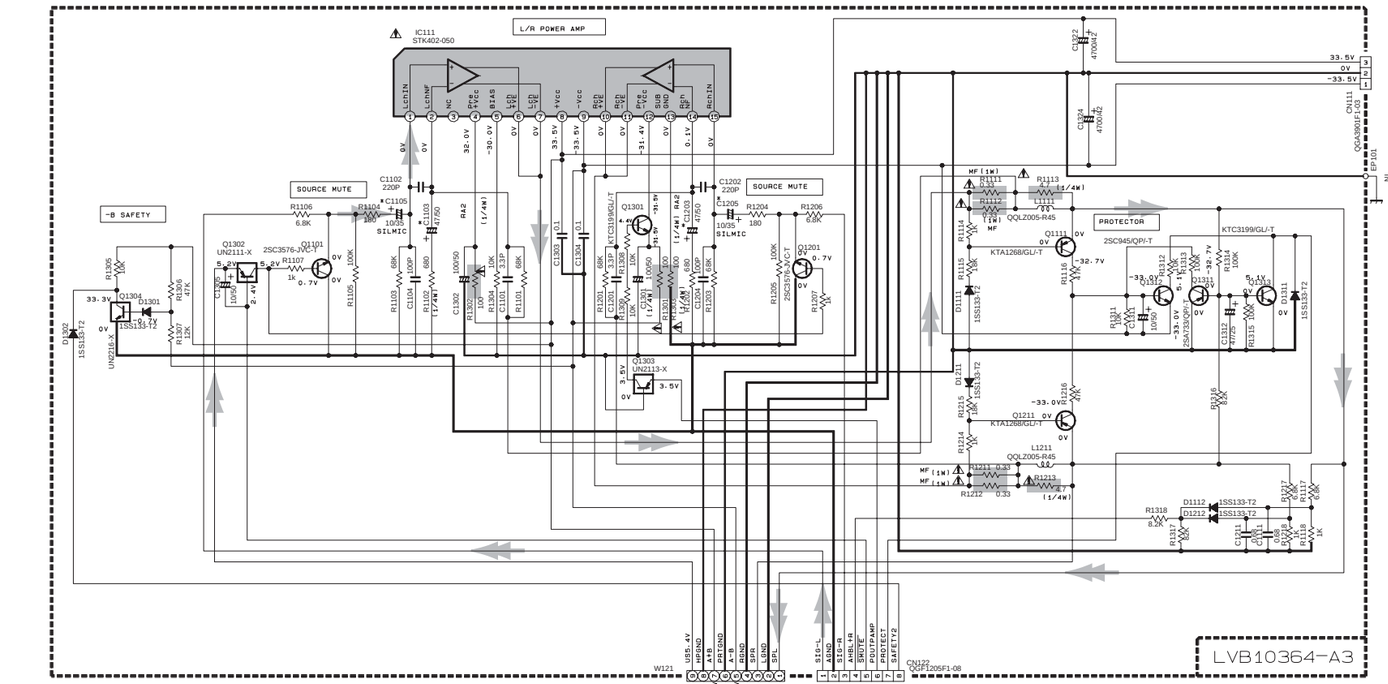
(* MARK)

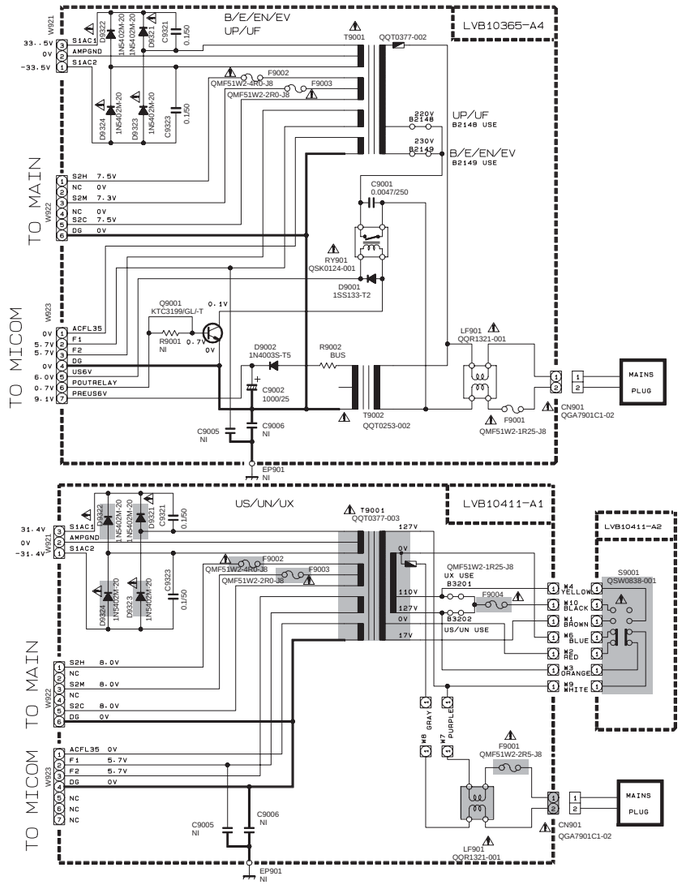
	UP/UF/US/UN/UX/UJ	B/E/EN/EV
C3322	100/16	-

NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION- CD STOP MODE
2. UNLESS OTHERWISE SPECIFIED. RESISTORS ARE 1/4W ±5% CARBON RESISTOR. ALL RESISTANCE VALUES ARE IN OHM(Ω). ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.

ALL CAPACITANCE VALUES ARE IN ±F(P=pF). ALL INDUCTANCE VALUES ARE IN ±H(m=mH). ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(±F)/RATED VOLTAGE (V). ALL DIODES ARE 1SS133-T2

■ Amp section





	B/E/EN/EV UP/UF	US/UN/UX/UJ
C1103·C1203	47/50	47/35 N.P.
C1105·C1205	10/35 SILMIC	10/50 N.P.

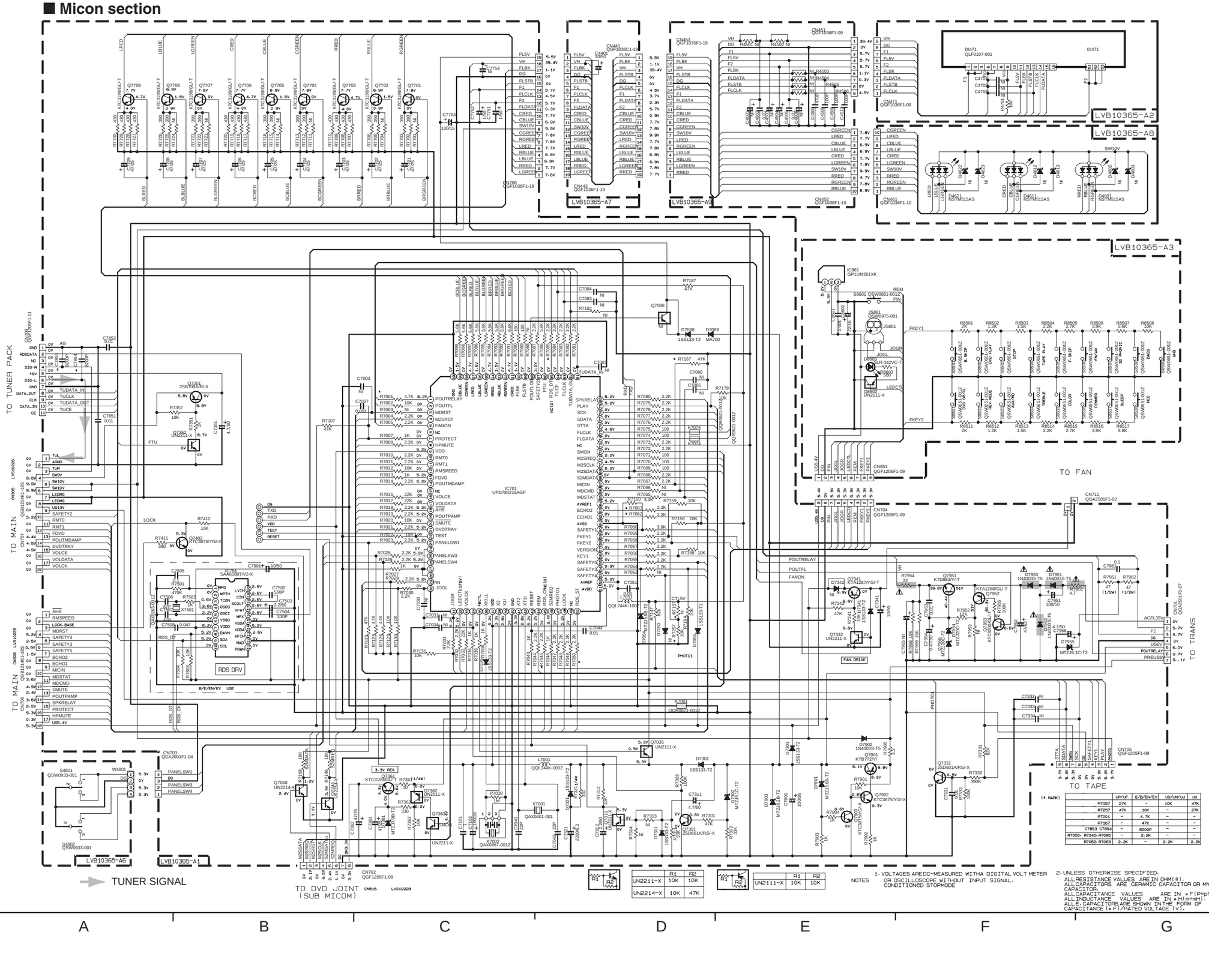
(* MARK)

	R1	R2
KRC104M-T	47K	47K
UN2216-X	4.7K	NON

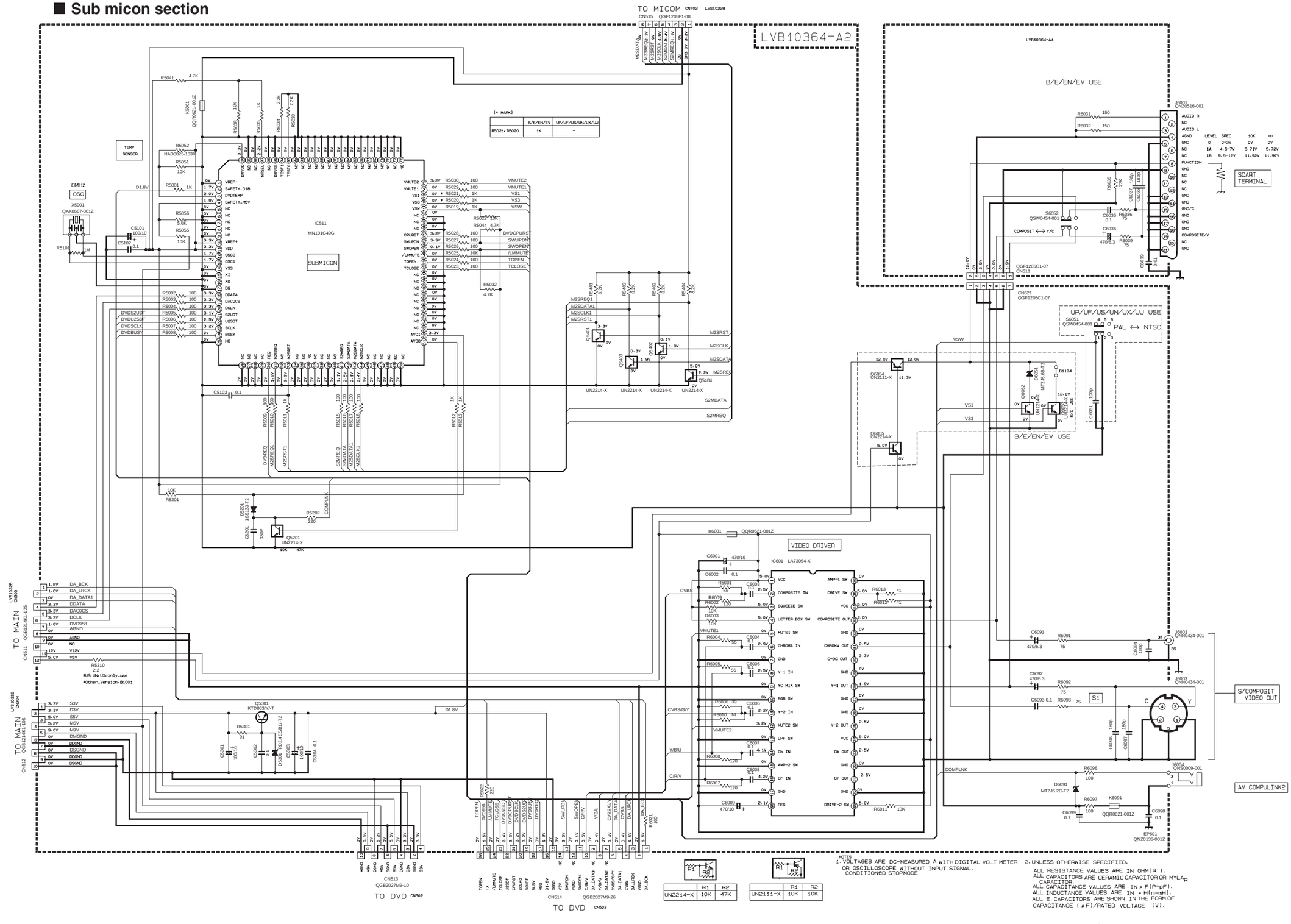
	R1	R2
UN2111-X	10K	10K
UN2113-X	47K	47K

NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
   OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION- CD STOP MODE
2. UNLESS OTHERWISE SPECIFIED.
   RESISTORS ARE 1/4W ±5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR
   CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN ±F(P=pF).
   ALL INDUCTANCE VALUES ARE IN ±H(m=mH).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF
   CAPACITANCE(±F)/RATED VOLTAGE (V).

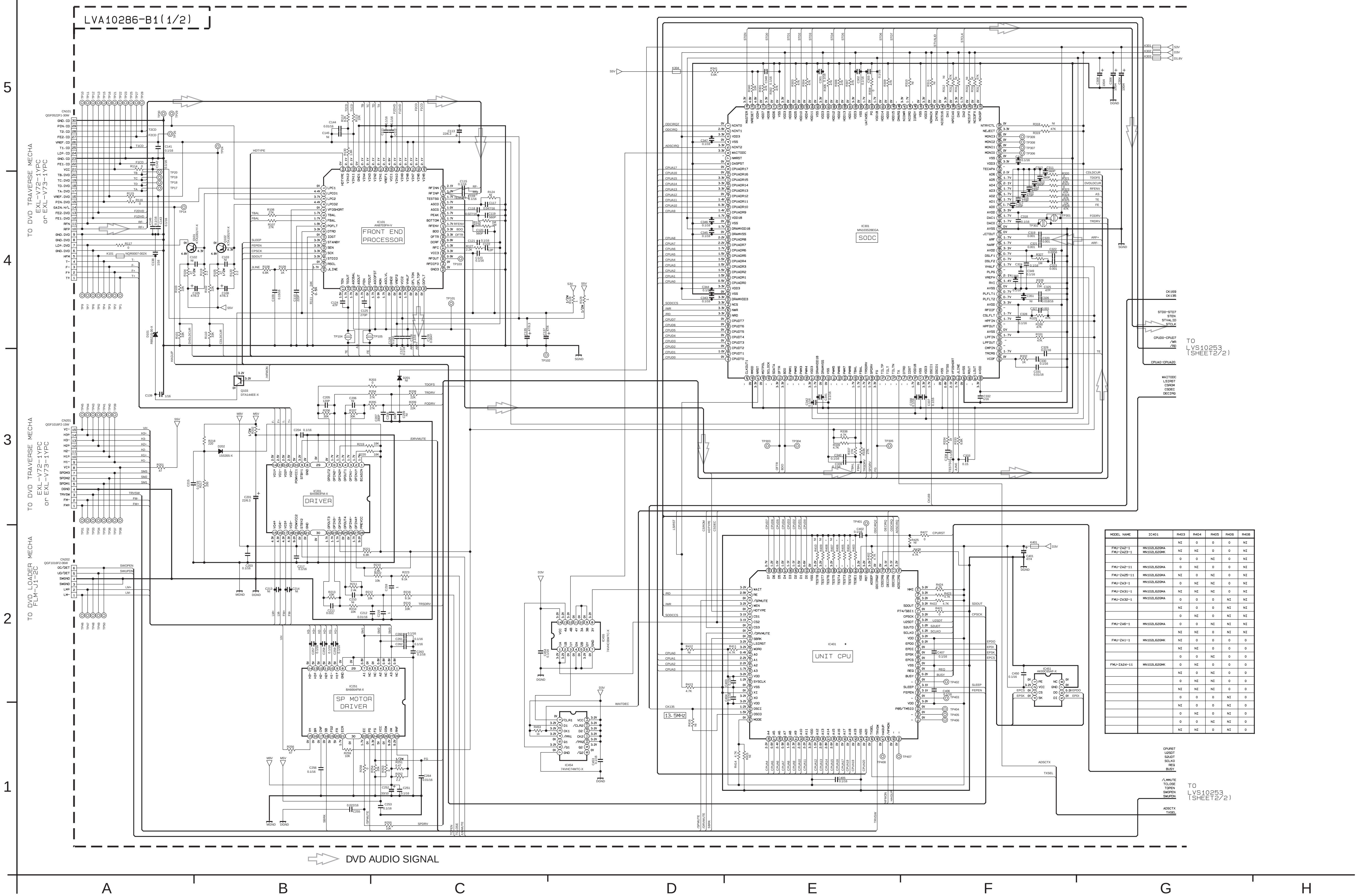
■ Micon section



■ Sub micon section



■ DVD servo control section



MODEL NAME	IC401	R403	R404	R405	R406	R408
		NI	0	0	0	NI
FMU-ZA2-1 FMU-ZA23-1	MN102L62GMA MN102L62GMK	NI	NI	0	0	NI
		0	0	NI	0	NI
FMU-ZA2-11	MN102L62GMA	0	NI	0	0	NI
FMU-ZA25-11	MN102L62GMA	NI	0	NI	0	NI
FMU-ZA3-1	MN102L62GMA	0	NI	NI	0	NI
FMU-ZA31-1	MN102L62GMA	NI	NI	NI	0	NI
FMU-ZA32-1	MN102L62GMA	0	0	0	NI	NI
		NI	0	0	NI	NI
		0	NI	0	NI	NI
FMU-ZA6-1	MN102L62GMA	0	0	NI	NI	NI
		NI	NI	0	NI	NI
FMU-ZA1-1	MN102L62GMK	NI	0	0	0	0
		NI	NI	0	0	0
		0	0	NI	0	0
FMU-ZA24-11	MN102L62GMK	0	NI	0	0	0
		NI	0	NI	0	0
		0	NI	NI	0	0
		NI	NI	NI	0	0
		0	0	0	NI	0
		NI	0	0	NI	0
		0	NI	0	NI	0
		0	0	NI	NI	0
		NI	NI	0	NI	0

■ DVD servo section 2

LVA10286-B1(2/2)

TO LVS10253 (SHEET1/2)

TO LVS10253 (SHEET1/2)

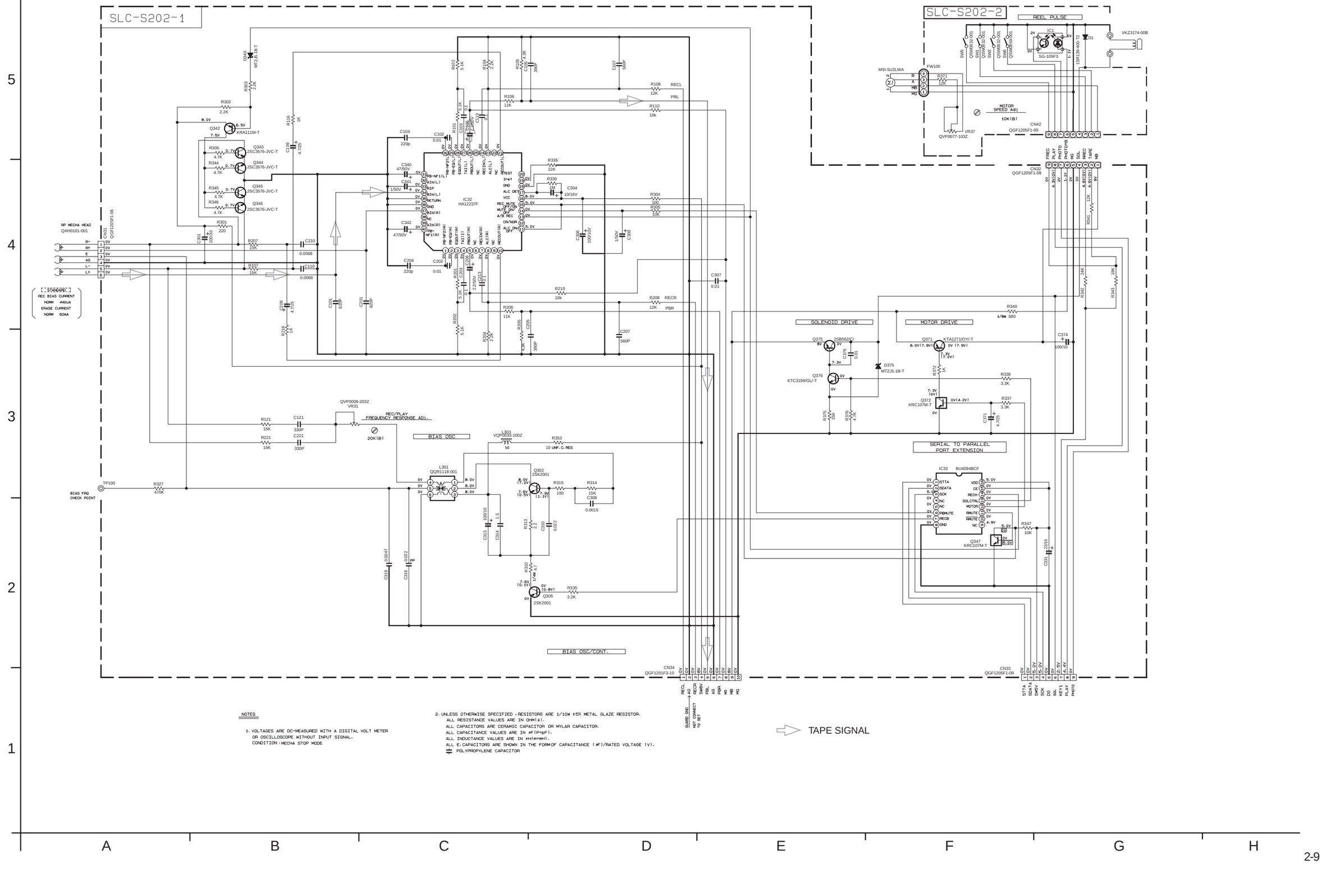
MODEL NAME	IC402
FMJ-ZA1-1	MR27V1602ESPTPX
FMJ-ZA2-1	MR27V1602EGSTPX
FMJ-ZA2-11	MR27V1602EGJTPX
FMJ-ZA23-1	MR27V1602ESPTPX
FMJ-ZA24-11	MR27V1602ESPTPX
FMJ-ZA25-11	MR27V1602EGTTPX
FMJ-ZA3-1	MR27V1602EGTTPX
FMJ-ZA31-1	MR27V1602EGTTPX
FMJ-ZA32-1	MR27V1602EGTTPX
FMJ-ZA6-1	MR27V1602EGTTPX

NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
   CONDITION: MODE : PWER ON DVD STOP
2. UNLESS OTHERWISE SPECIFIED.
   ALL RESISTOR ARE 1/16W ± 5% METAL GLAZE RESISTOR.
   ALL CAPACITORS ARE 50V CERAMIC CAPACITOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITANCE VALUES ARE IN ★F(P=pF).
   ALL INDUCTANCE VALUES ARE IN ★ H
   ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(★F)/RATED VOLTAGE (V).
3. DIGI Tr

DTA144EE-X 47K

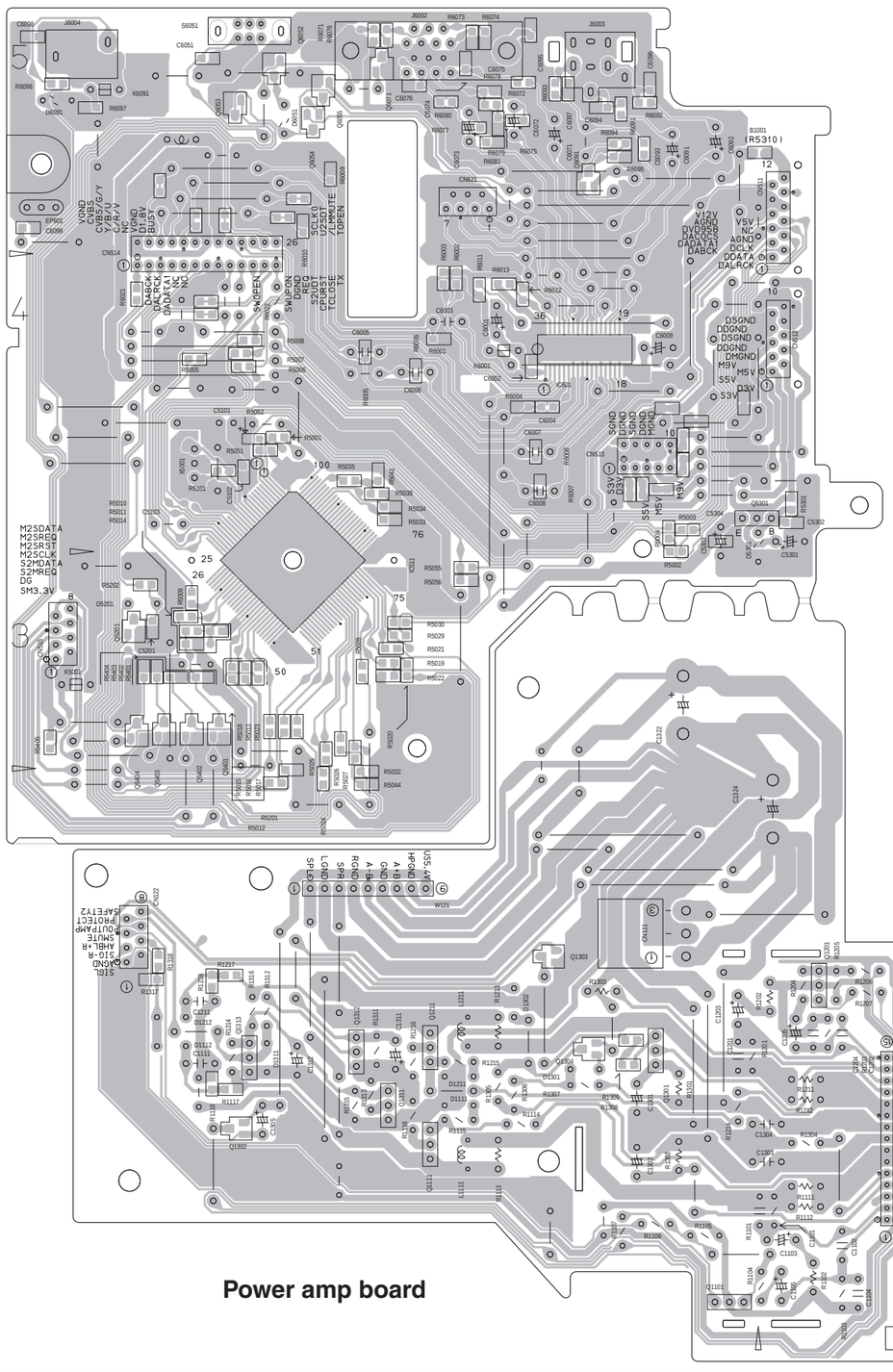
DVD AUDIO SIGNAL

■ Cassette mechanism section

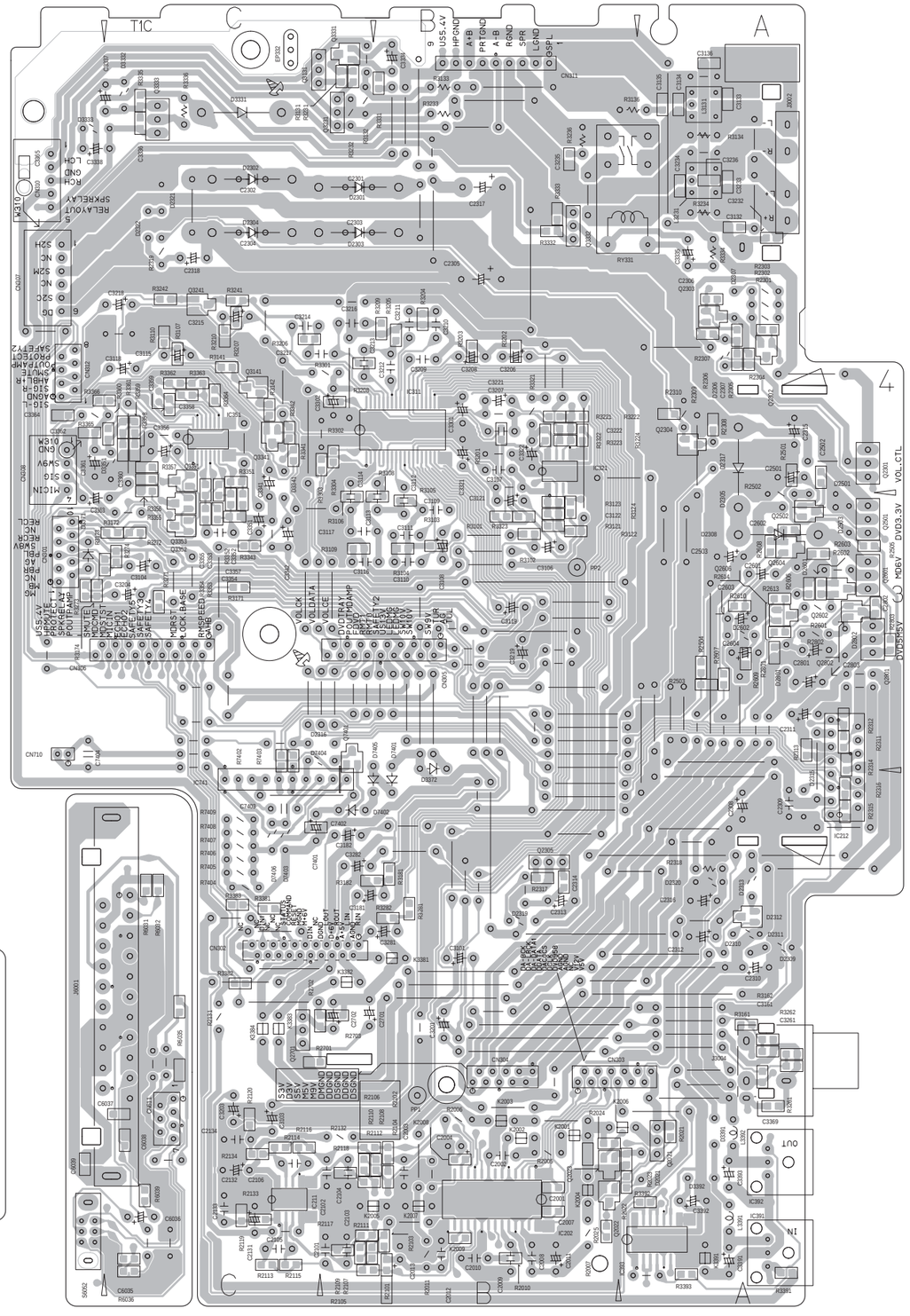


Printed circuit boards

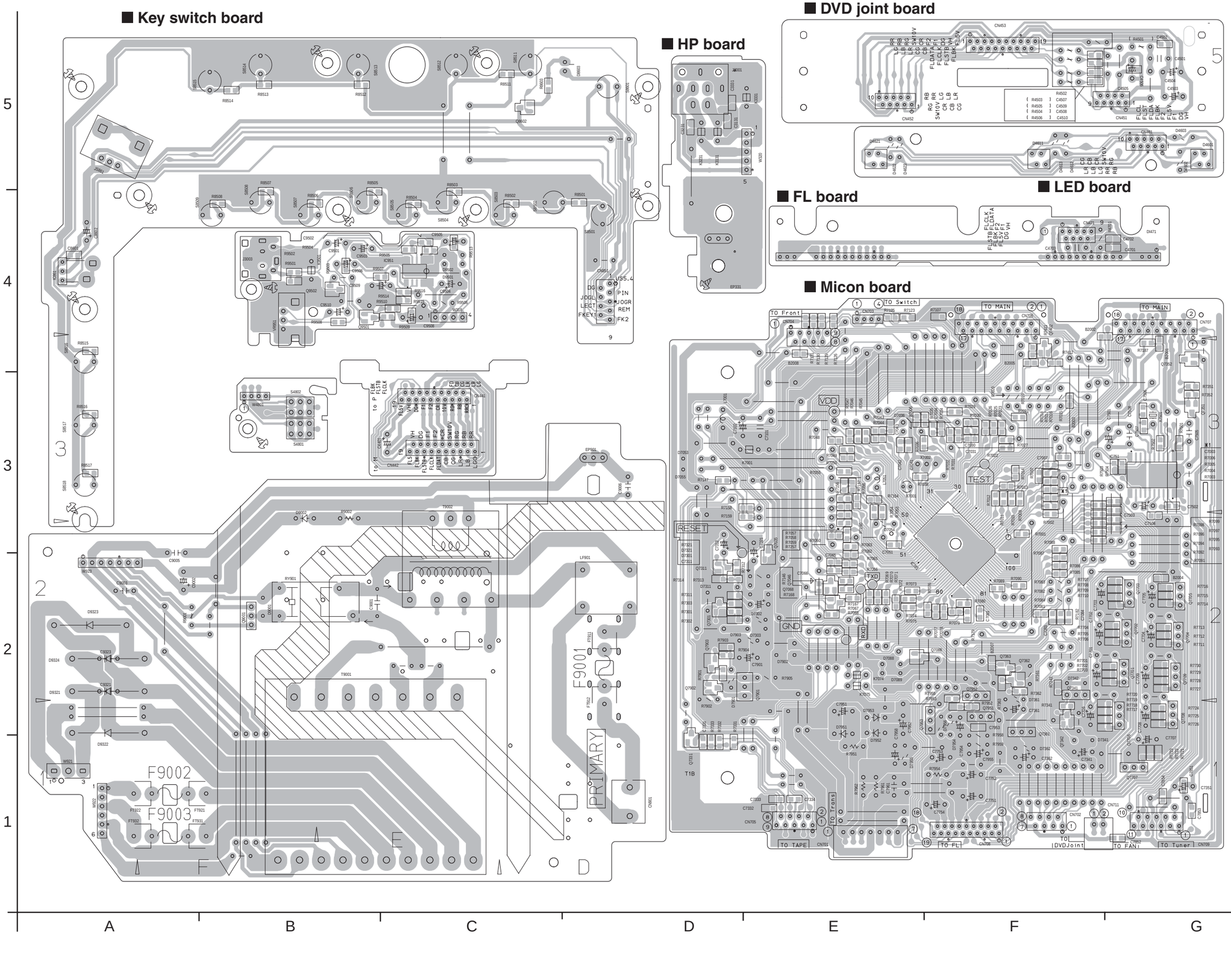
Sub micon board



Main board



Power amp board



■ Key switch board

■ HP board

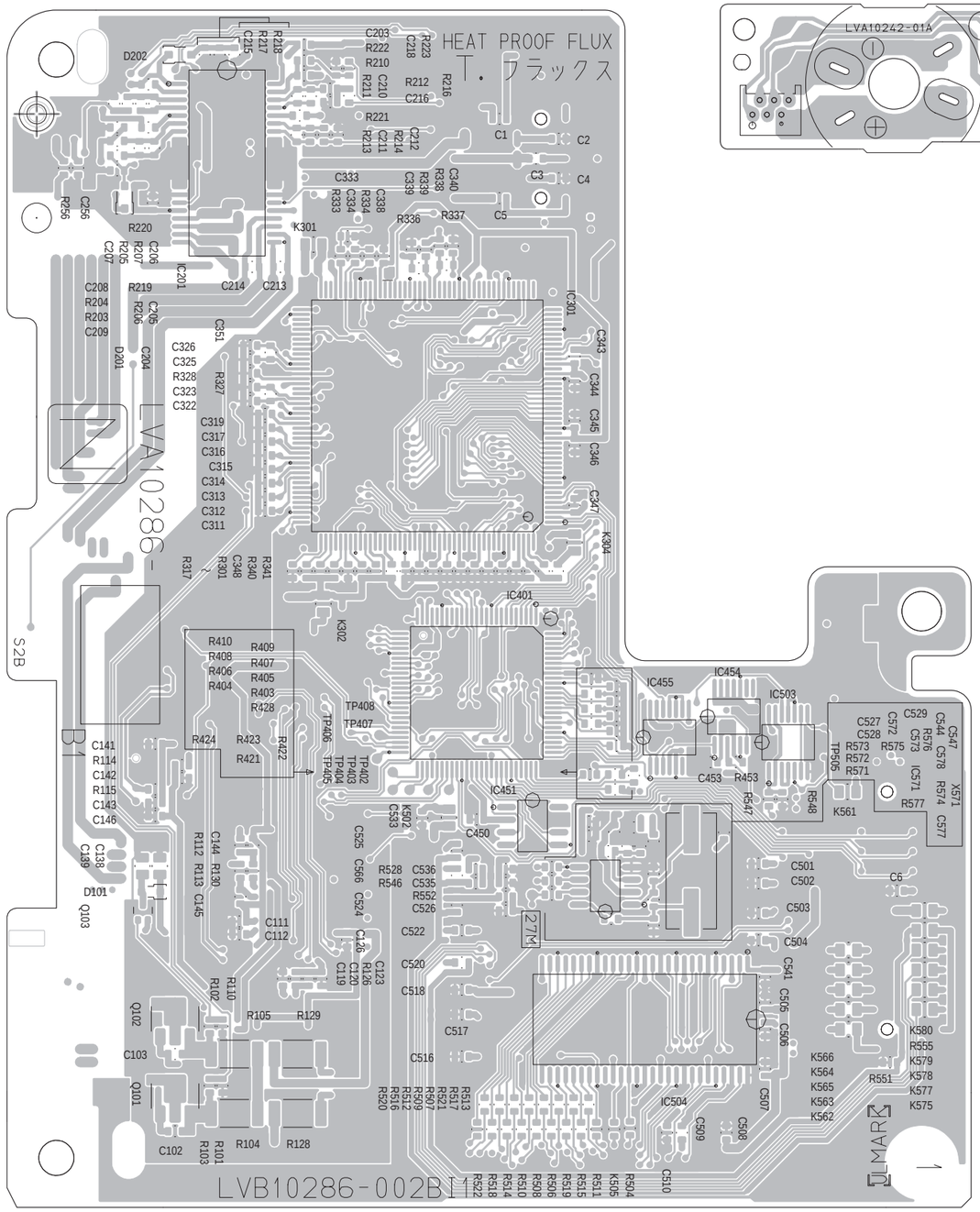
■ DVD joint board

■ LED board

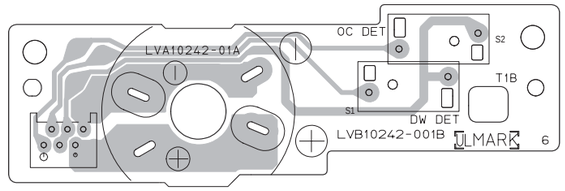
■ FL board

■ Micon board

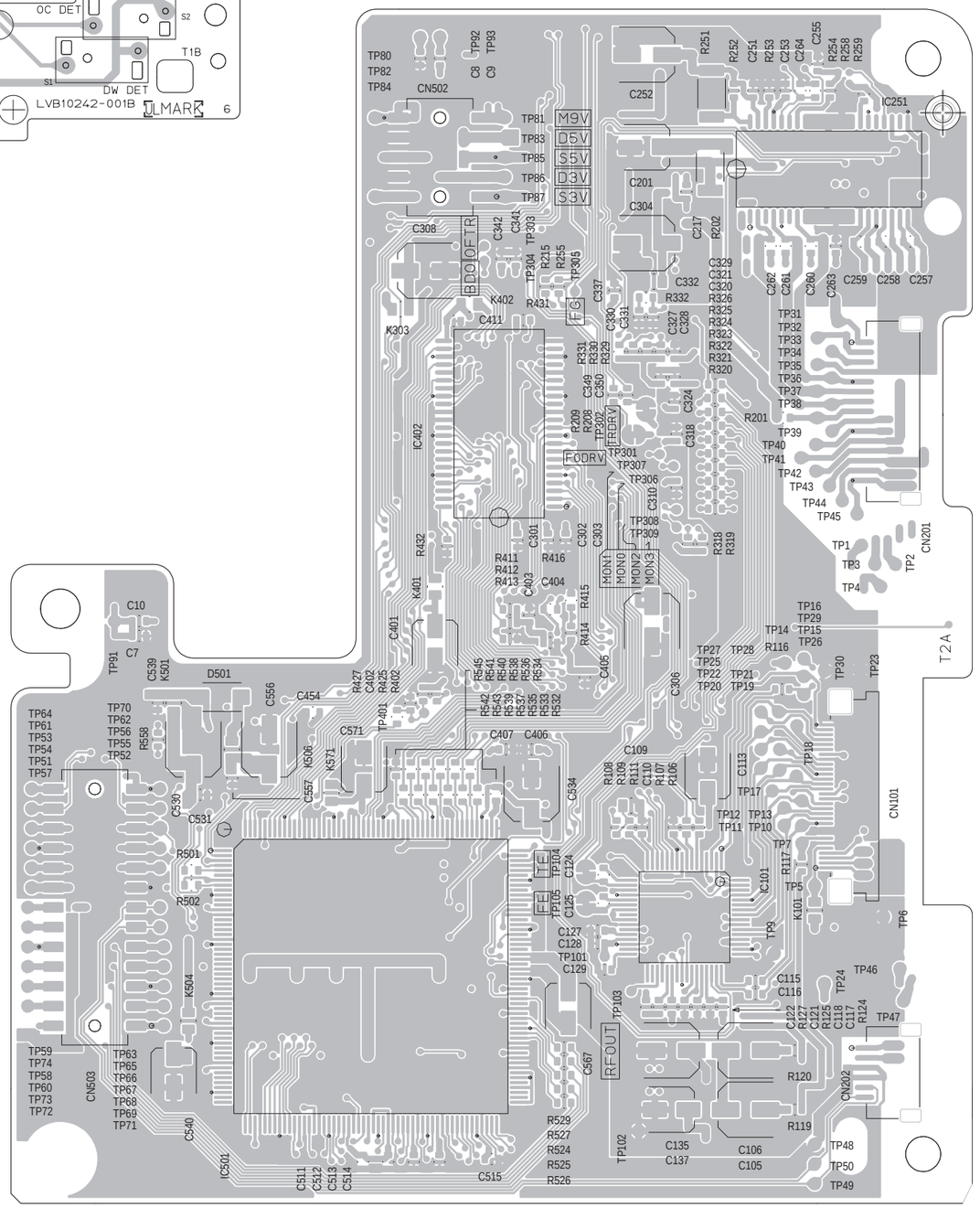
■ DVD servo board (forward side)



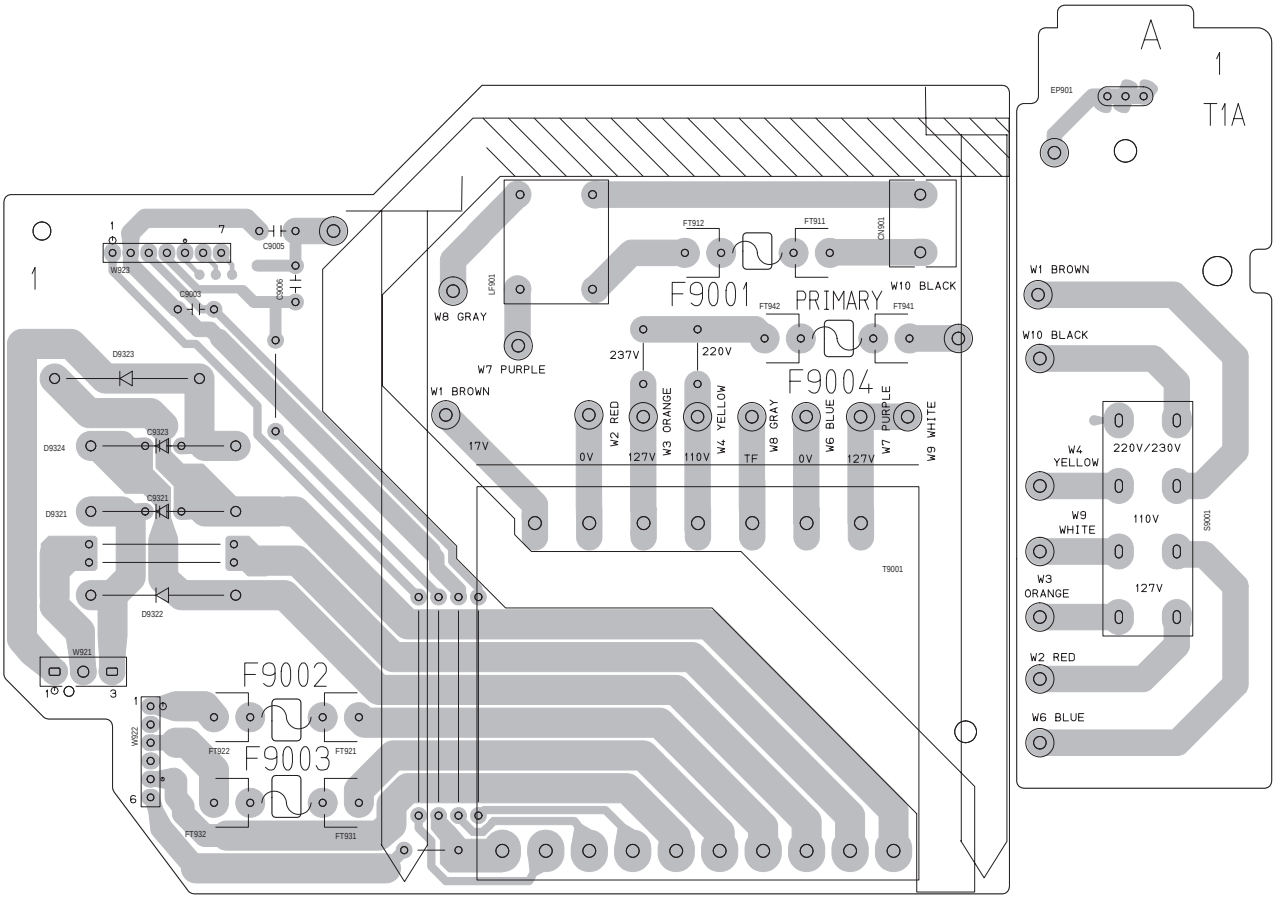
■ Loading motor board



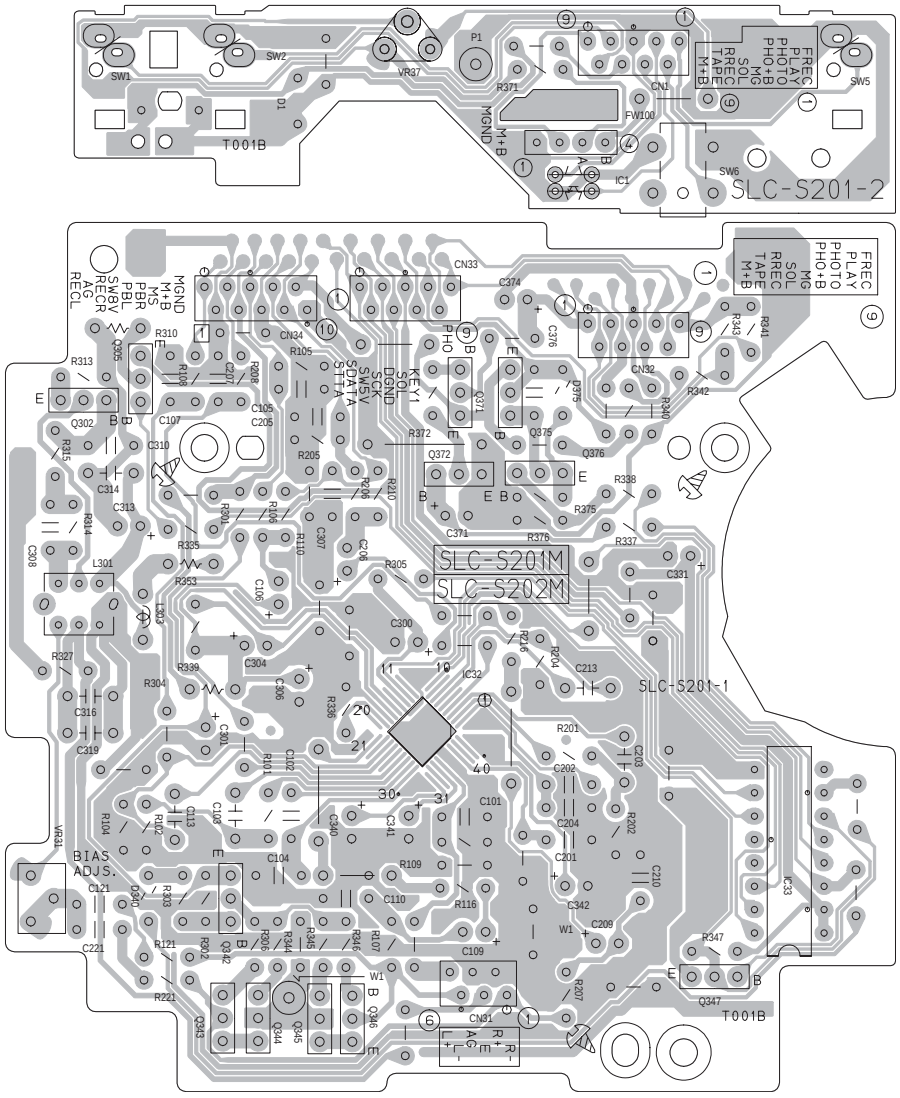
■ DVD servo board (reversse side)



■ Trans board


A
1
T1A
EP901
W1 BROWN
W10 BLACK
W4 YELLOW
220V/230V
W9 WHITE
110V
W3 ORANGE
127V
W2 RED
W6 BLUE
S9001
F9001
PRIMARY
W10 BLACK
W8 GRAY
W7 PURPLE
W1 BROWN
237V
220V
F9004
17V
0V
W2 RED
127V
W3 ORANGE
110V
W4 YELLOW
TF
W8 GRAY
0V
W6 BLUE
127V
W7 PURPLE
W9 WHITE
T9001
F9002
F9003
W921
W922
W923
C9005
C9006
C9003
C9323
C9321
D9323
D9324
D9321
D9322
FT912
FT911
CN001
LF901
FT942
FT941
FT922
FT921
FT932
FT931

■ Cassette board



< MEMO >

UX-A7DVD

JVC

VICTOR COMPANY OF JAPAN, LIMITED
AV & MULTIMEDIA COMPANY 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

(No.22013SCH)

Printed in Japan
200303

PARTS LIST

[UX-A7DVD]

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

Area suffix

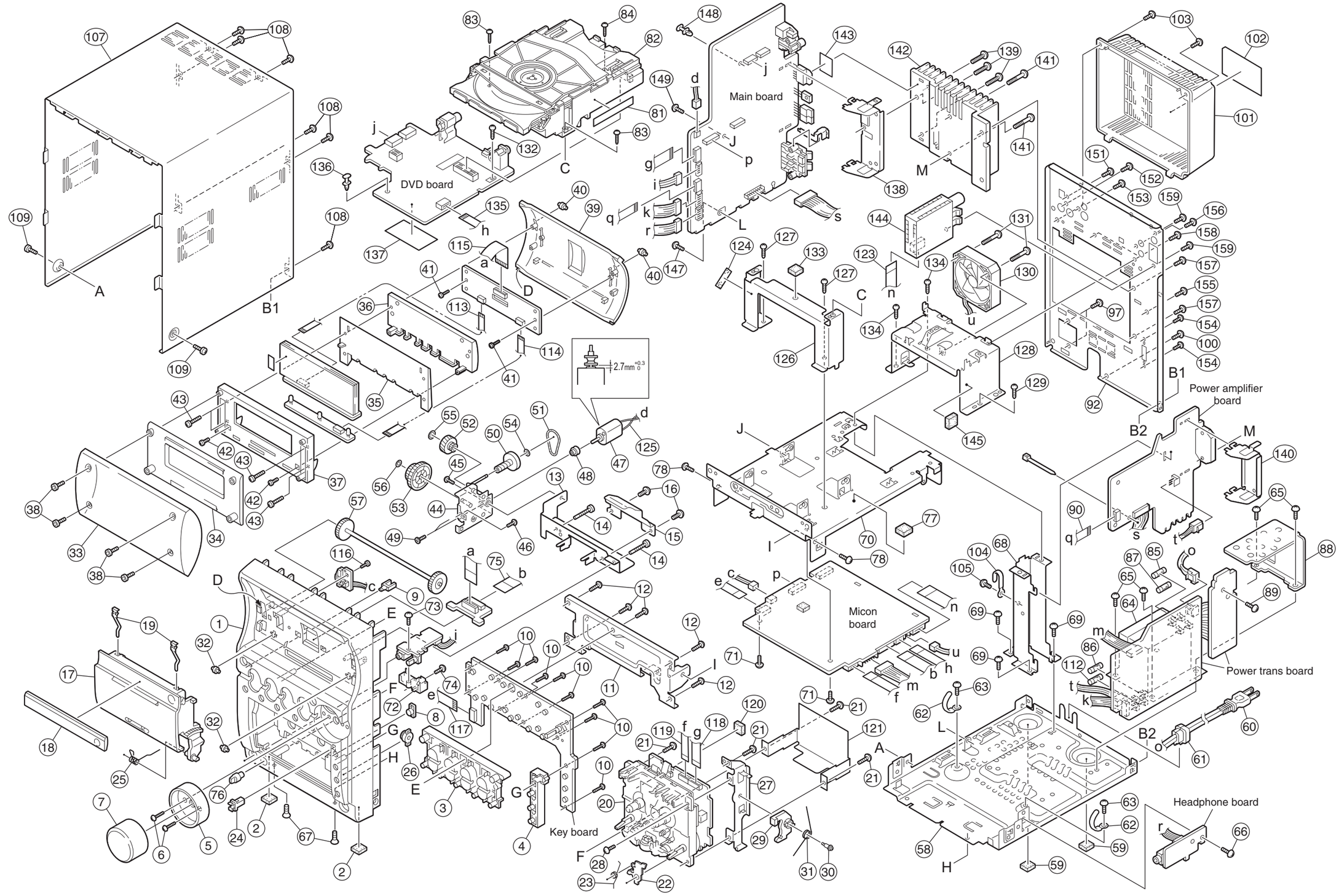
US ---------- Singapore
UN ---------- Asean

- Contents -

< MEMO >

Exploded view of general assembly and parts list

Block No. M 1 M M



UX-A7DVD

■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10667-008A	FRONT PANEL	1	ABS/SPRAY/PAD3	
	2	LV40301-001A	FELT SPACER	2	FOOT	
	3	LV21252-004A	MAIN BUTTON	1	ABS/PAINT/H.STM	
	4	LV33551-001A	REC BUTTON	1	PS/SPRAY	
	5	LV42979-001A	VOL RING	1	ABS/PLATING	
	6	QYSBSF2608Z	T.SCREW	2	VOL RING+F.PANEL	
	7	LV33553-001A	VOL KNOB	1	ABS/PLATING	
	8	E408131-001SM	REMOTE LENS	1	ABS	
	9	LV41550-001A	INDICATOR	1	PS CLEAR	
	10	QYSBSF2608Z	T.SCREW	10	SW PWB	
	11	LV21253-001A	MD STAY BKT	1	EGC T1.0	
	12	QYSBSF2608Z	T.SCREW	5	MD STAY BKT+F.PANEL	
	13	LV33733-001A	FRONT STAY BKT	1	EGC T1.0	
	14	LV43128-001A	SPECIAL SCREW	2	F.S.BKT+F.PANEL	
	15	LV34034-001A	FFC BARRIER	1	FRONT STAY BKT	
	16	QYSBST2604Z	T.SCREW	2	FFC BARRIER+F.S.BKT	
	17	LV10668-007A	CASS DOOR	1	ABS/SPRAY/SILK1	
	18	LV33555-003A	CASS LENS	1	PMMA/H.STMP/SIL	
	19	VKY4180-401	CASSETTE SPRING	2		
	20	----------	CASSETTE MECHANISM	1		
	21	QYSBSF3012Z	SCREW	4	CASS.MECHA+F.PANEL	
	22	VKL7850-002	EJECT SAFTY(R)	1		
	23	VKW5258-003	TORSION SPRING	1		
	24	GV40220-001A	LACH	1		
	25	LV43142-001A	DOOR SPRING	1	CASS.DOOR	
	26	GV40034-001A	DAMPER ASSY	1		
	27	GV30268-001A	MECHA BRACKET	1		
	28	QYSBSG3008Z	T.SCREW	1	M.BKT+CASS.MECHA	
	29	GV40278-001A	SAFTY ARM	1		
	30	VKZ4341-205	SPECIAL SCREW	1	S.ARM+M.BKT	
	31	GV40279-001A	ARM SPRING	1		
	32	GV40269-001A	ROLLER	2	FRONT PANEL	
	33	LV21254-008A	FRONT LENS	1	PMMA/SILK X1	
	34	LV33734-003A	FL LENS	1	GPPS/SILK/HOT S	
	35	LV33557-002A	LED LENS	1	PMMA/EMBOSS	
	36	LV33558-001A	LENS HOLDER	1	ABS/WHITE	
	37	LV33559-001A	FL COVER	1	PS/SPRAY	
	38	LV40744-001A	SOCKET BOLT	4	F.LENS+F.CASE	
	39	LV21255-004A	FRONT CASE	1	PS	
	40	GV40269-001A	ROLLER	2	F.CASE	
	41	QYSDSF2006Z	SCREW	2	F.CASE+PWB	
	42	QYSDSF2006Z	SCREW	2	FL COVER+LENS HOLDER	
	43	QYSDSF2612Z	SCREW	4	F.CASE+FL COVER	
	44	LV33560-001A	MOTOR BKT ASSY	1		
	45	QYSBST2604Z	T.SCREW	1	M.BKT+F.STY BKT	
	46	QYSBSF2608Z	T.SCREW	1	M.BKT+F.PANEL	
	47	QAR0219-001	LOADING MOTOR	1		
	48	LV41341-001A	MOTOR PULLEY	1	POM	

■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	49	QYSPSPT2020Z	MINI SCREW	2	MOTOR+M.BKT ASSY	
	50	LV42525-001A	PULLY WORM	1	POM	
	51	LV42972-001A	BELT	1		
	52	LV42491-001A	GEAR4	1	POM	
	53	LV33561-001A	GEAR A	1	POM	
	54	WDL163225-0	SLIT WASHER	1	WORM	
	55	LV42701-001A	WASHER	1	GEAR4	
	56	WDM214540	WASHER	1	GEAR A	
	57	LV33602-001A	ROD GEAR	1		
	58	LV10669-002A	BOTTOM CHASSIS	1	EGC T1.0	
	59	LV40301-002A	FELT SPACER	2	FOOT(BOTTOM C)	
⚠	60	QMPK200-200-JD	POWER CORD	1		
⚠	61	QZW0033-001	STRAIN RELIEF	1		
	62	VKZ4001-111S	WIRE CLAMP	2	HP/TRANS WIRE	
	63	QYSBST3006Z	T.SCREW	2	WIRE CLAMP+B.CHASS	
⚠	64	QQT0377-003	POWER TRANS	1	MAIN TRANS T9001	
	65	QYSBST4006Z	T.SCREW	4	TRANS+B.CHASS	
	66	QYSBST3006Z	T.SCREW	1	HP PWB+B.CHASS	
	67	QYSSST3006Z	SCREW	2	F.PANEL+B.CHASS	
	68	LV33737-001A	C CHASSISS BKT	1	EGC T1.0	
	69	QYSBSG3006E	T.SCREW	3	C.C.BKT+B.CHASS	
	70	LV10697-001A	CENTER CHASSISS	1	EGC T1.0	
	71	QYSBST3006Z	T.SCREW	2	MICON PWB+C.CHASS	
	72	LV33747-001A	JACK HOLDER	1	MIC PWB	
	73	QYSBSF2608Z	T.SCREW	1	J.HOLDER+MIC PWB	
	74	QYSBSF2608Z	T.SCREW	1	MIC PWB SA+F.PANEL	
	75	QUQH10-1922BJ	FFC WIRE	1	MOVE JON - MICON	
	76	VXL4431-004	VOL KNOB	1	MIC VOL	
	77	VYSH101-009	SPACER	1		
	78	QYSBST3006Z	T.SCREW	2	MD STY BKT+C.CHASS	
	81	LV41843-002A	LASER CAUTION	1	DVD MECHA SIDE	
	82	----------	DVD MECHANISM	1	SUB MICON PWB	
	83	QYSBSG3010Z	T.SCREW	2	CD BKT(F)+DVD MECHA	
	84	QYSBSG3010Z	T.SCREW	1	CD BKT(R)+DVD MECHA	
⚠	85	QMF51W2-2R5-J8	FUSE	1	2.5A/250V F9001	
⚠	86	QMF51W2-4R0-J8	FUSE	1	4A/250V F9002	
⚠	87	QMF51W2-1R25-J8	FUSE	1	1.25A/250V F9004	
	88	LV34125-001A	WIRE BARRIER	1		
	89	QYSBST3006Z	T.SCREW	1	VOL SELE PWB	
	90	QUQH12-0810BJ	FFC WIRE	1	MAIN - AMP	
	92	LV21322-004A	REAR PANEL	1	EGC T0.8	
	97	QYSBSGY3008E	SPECIAL SCREW	2	SPK+R.PANEL	
	100	QYSBSGY3008E	SPECIAL SCREW	1	BTM CHASS+R.PANEL	
	101	GV10068-003A	REAR COVER	1		UN
		GV10068-002A	REAR COVER	1		US
	102	LV33744-004A	RATING LABEL	1		
	103	QYSBSGY3008E	SPECIAL SCREW	2	R.COVER+R.PANEL	
	104	VKZ4001-111S	WIRE CLAMP	1	AMP-MAIN WIRE	

■ Parts list (General assembly)

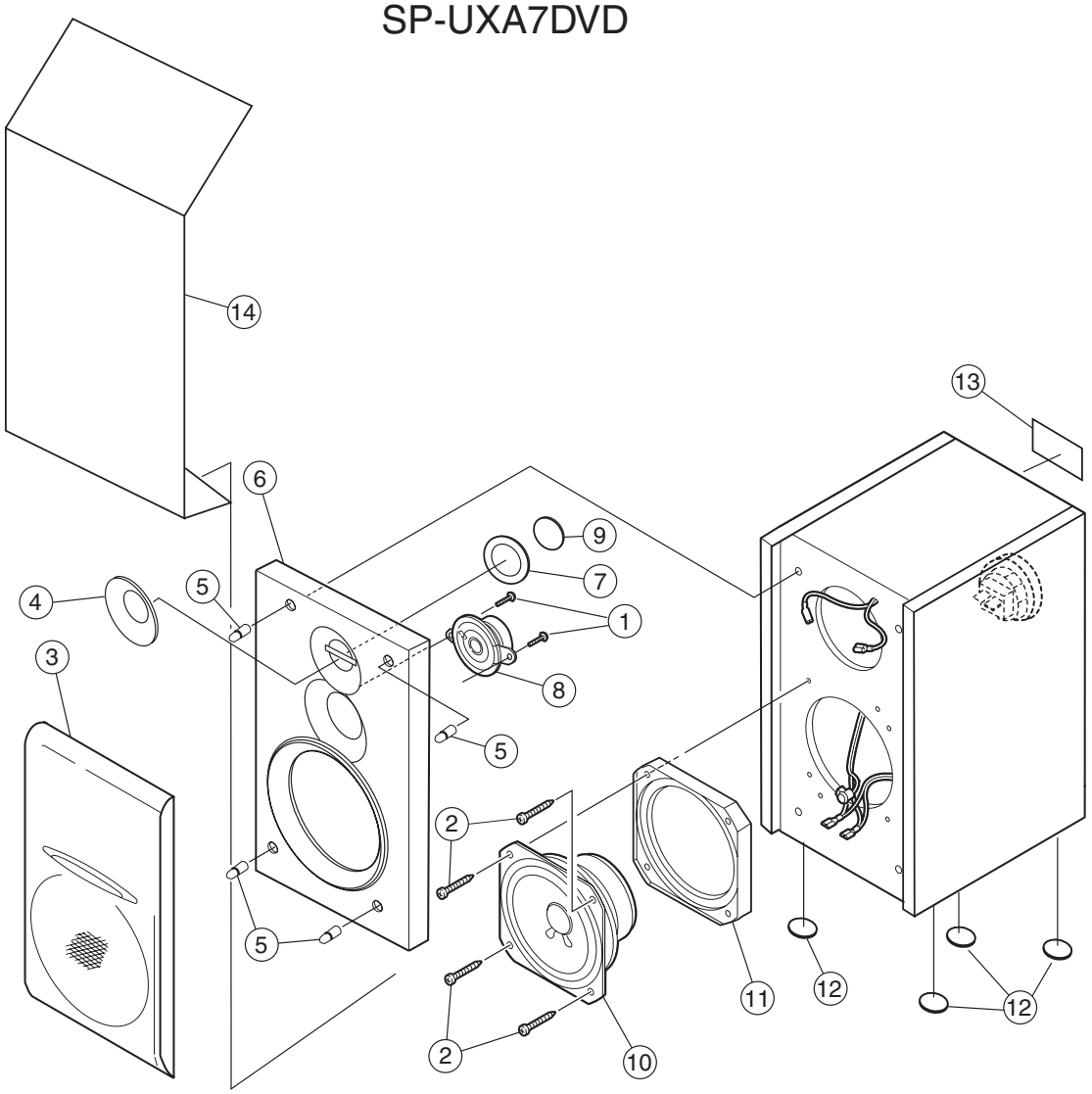
Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	105	QYSBSG3006E	T.SCREW	1	W.CLAMP+C.C.BKT	
	107	LV21258-005A/S/	METAL COVER	1	EGC T0.6	
	108	QYSBSGY3008E	SPECIAL SCREW	6	M.COVER+R.PANEL	
	109	QYSDSG3006N	T.SCREW	2	M.COVER SIDE	
⚠	112	QMF51W2-2R0-J8	FUSE	1	2A/250V F9003	
	113	QUQ410-0908CF	FFC WIRE	1	FL - FL JOIN	
	114	QUQH10-1006AJ	FFC WIRE	1	LED - FL JOIN	
	115	QUQ610-1910BJ	FFC WIRE	1	FL JON-MOVE JON	
	116	QYSBSF2608Z	T.SCREW	1	F.PANEL+O/C SW	
	117	QUQH12-0912AJ	FFC WIRE	1	KEY - MICON	
	118	QUQH12-1016AJ	FFC WIRE	1	SLC - MAIN	
	119	QUQH12-0913AJ	FFC WIRE	1	SLC - MICON	
	120	LV30225-0J1A	SPACER	1	SHIELD + CASS.MECHA	
	121	LV34035-001A	SHIELD	1	CASS.MECHA	
	123	QUQH12-1114BJ	FFC WIRE	1	TUNER - MICON	
	124	LV30225-011A	SPACER	1	O/C & MOTOR WIRE	
	125	WJM0195-004A	E-SI C WIRE C-F	1	MOTOR - MICON	
	126	LV33735-001A	CD BKT(FRONT)	1	EGC T1.0	
	127	QYSBST3006Z	T.SCREW	2	CD BKT(F)+C.CHASS	
	128	LV33736-001A	CD BKT(REAR)	1	EGC T1.0	
	129	QYSBSG3006E	T.SCREW	1	CD BKT(R)+C.CHASS	
	130	QAR0124-001	FAN MOTOR	1	COPAL	
	131	QYSBSG3020Z	TAP SCREW	2	FAN+CD BKT(R)	
	132	QYSBSG3010Z	T.SCREW	1	DVD PWB+CD BKT(R)	
	133	VYSH101-009	SPACER	1	FL-MICON FF	
	134	QYSBSG3006E	T.SCREW	2	C.C.BKT+C.CHASS	
	135	QUQH12-0812AJ	FFC WIRE	1	MD - CD	
	136	QZW0036-003	PC SUPPORT	1	SUB MICON PWB	
	137	LV30225-0G6A	SPACER	1	SUB MICON PA	
	138	LV33742-001A	IC BRACKET(REG)	1	EGC T1.0	
	139	QYSBSG3014E	T.SCREW	3	IC BKT(REG)+IC	
	140	LV33743-001A	IC BRACKET(PWR)	1	EGC T1.0	
	141	QYSBSG3020Z	TAP SCREW	2	IC BKT(PWR)+IC	
	142	LV33740-001A	HEAT SINK(A)	1	AL	
	143	LV43100-001A	MICA SHEET	1	HEAT SINK	
	144	QAU0279-002	TUNER	1	TU 1	
	145	VYSH101-009	SPACER	1	TUNER FFC	
	147	QYSBSG3014E	T.SCREW	1	MAIN PWB+B.CHASS	
	148	QZW0036-001	PC SUPPORT	1	MAIN PWB PAT	
	149	QYSBSG3006E	T.SCREW	1	MAIN PWB+C.CHASS	
	151	QYSBSGY3008E	SPECIAL SCREW	1	OPT OUT+R.PANEL	
	152	QYSBSGY3008E	SPECIAL SCREW	1	VIDEO OUT+R.PANEL	
	153	QYSBSGY3008E	SPECIAL SCREW	1	COMPU LINK+R.PANEL	
	154	QYSBSF2608E	SCREW	2	VOL SEL+R.PANEL	
	155	QYSBSGY3008E	SPECIAL SCREW	1	C.CHASS+R.PANEL	
	156	QYSBSGY3008E	SPECIAL SCREW	1	AUX+R.PANEL	
	157	QYSBSGY3008E	SPECIAL SCREW	2	HEAT SINK+R.PANEL	
	158	QYSBSGY3008E	SPECIAL SCREW	2	CD BKT(R)+R.PANEL	
	159	QYSBSGY3008E	SPECIAL SCREW	2	TUNER+R.PANEL	

Speaker assembly and parts list

Block No. M 2 M M

SP-UXA7DVD



■ Parts list (Speaker assembly)

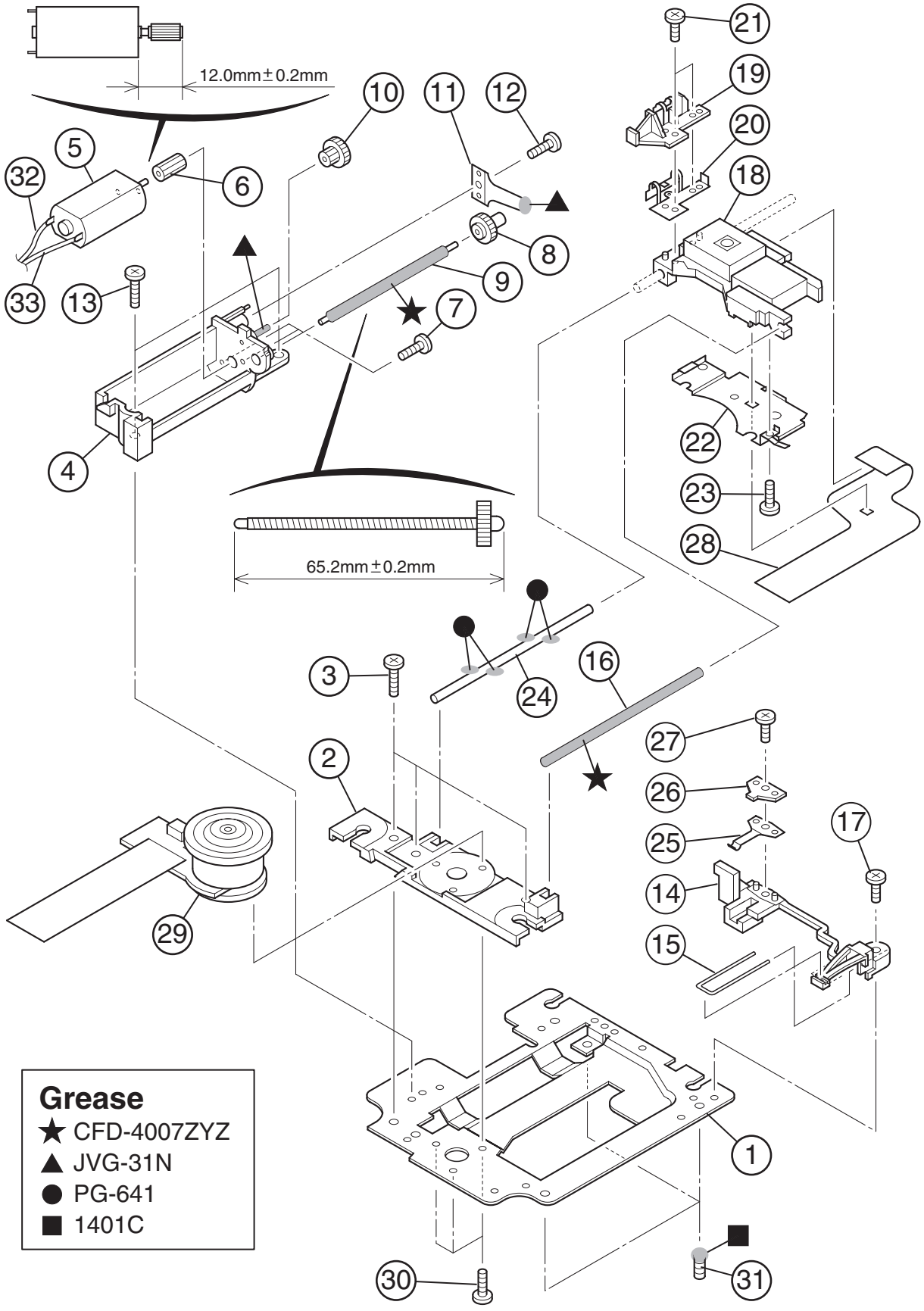
Block No. M2MM

⚠	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	A7DHT0201	RATING LABEL	2		
	14	Z11KS0001	PROTECT SHEET	2		

DVD mechanism assembly and parts list

Block No. M J M M

EXL-V73-1YPC



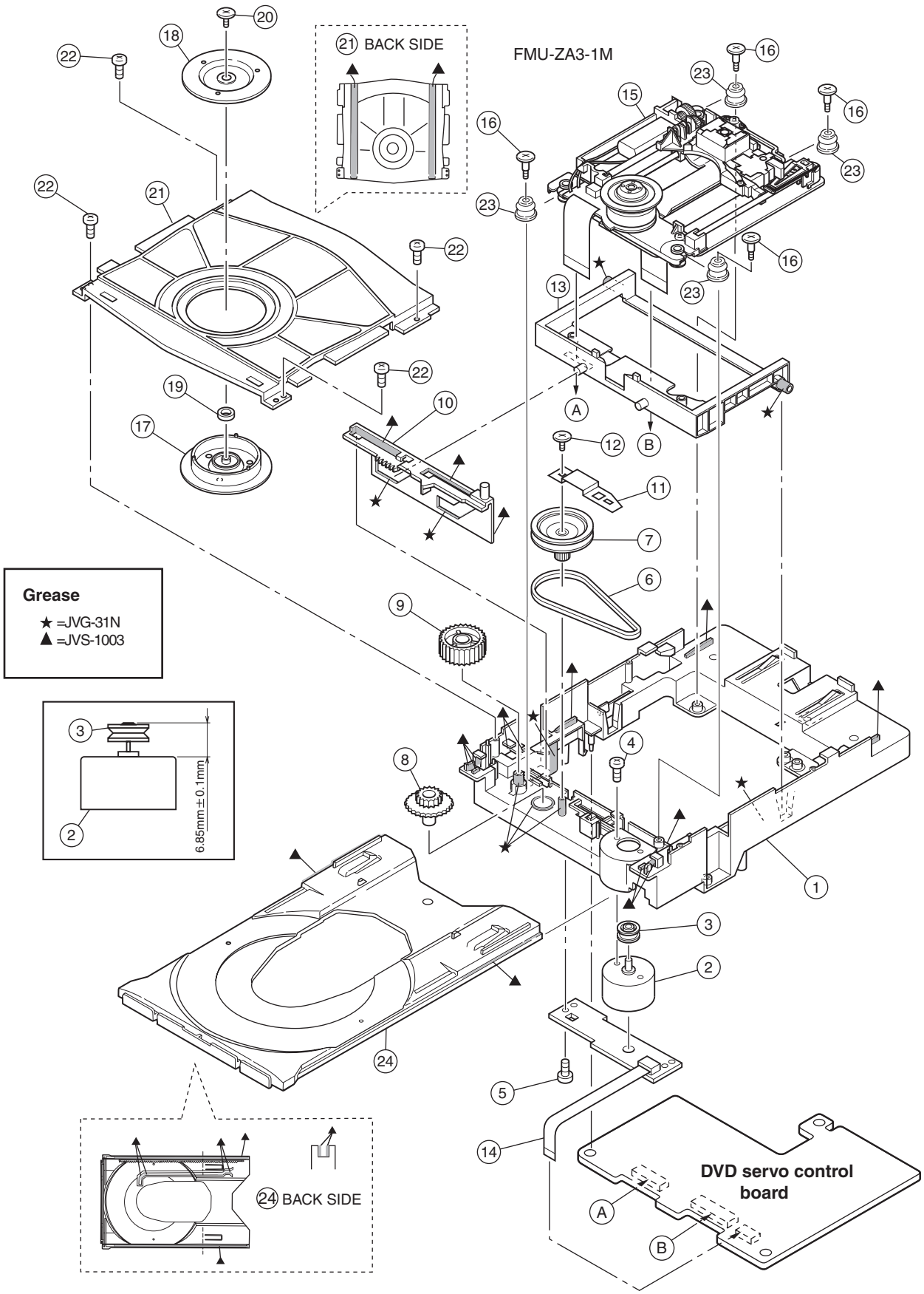
■ Parts list (DVD mechanism)

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)

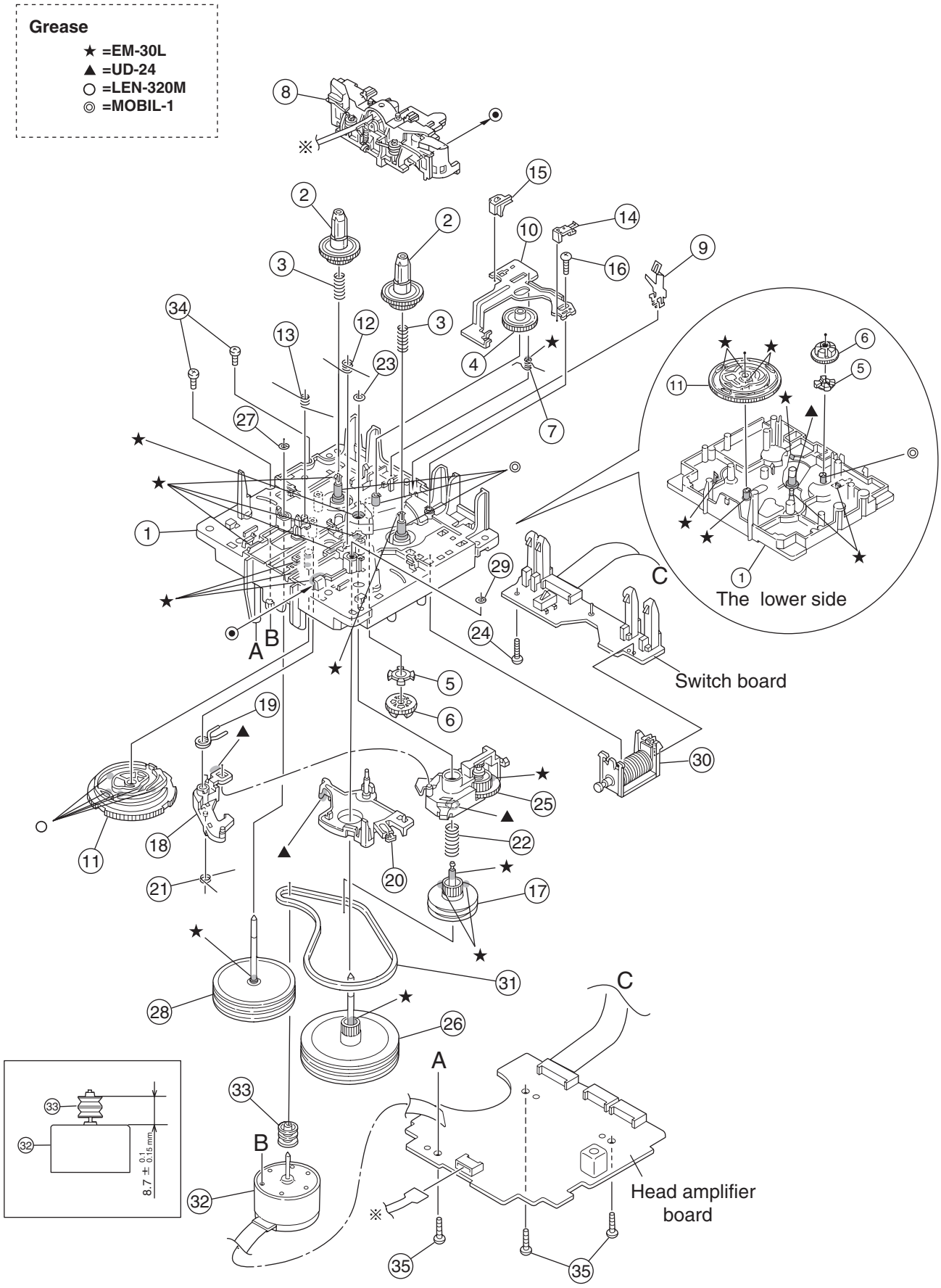
Block No. MNMM

⚠	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 MECHA	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



■ 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 ASSY	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		
	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	
	CN308	QGA2501F1-04	CONNECTOR	MIC	
	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	CONNECTOR	DVD	
	CN515	QGF1205F1-08	CONNECTOR	U-COM	
	CN710	QGA2001F1-02	CONNECTOR	MOVING MOTOR	
	C1101	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V	
	C1102	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C1103	QENB1VM-476	E CAPACITOR	47MF 20% 35V	
	C1104	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C1105	QENC1HM-106Z	NP E CAPACITOR	10MF 20% 50V	
	C1111	QFVF1HJ-684Z	MF CAPACITOR	.68MF 5% 50V	
	C1201	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V	
	C1202	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C1203	QENB1VM-476	E CAPACITOR	47MF 20% 35V	
	C1204	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C1205	QENC1HM-106Z	NP E CAPACITOR	10MF 20% 50V	
	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 CAPACITOR	4700MF	
	C1324	QEZ0589-478	E CAPACITOR	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	QEKC0JM-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	

⚠	Item	Parts number	Parts name	Remarks	Area
	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		
	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	
	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	
	C3121	QTE1V06-106Z	E CAPACITOR		
	C3122	NCS31HJ-150X	C CAPACITOR		
	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		
	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		

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	C3219	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C3221	QTE1V06-106Z	E CAPACITOR		
	C3222	NCS31HJ-150X	C CAPACITOR		
	C3232	NCB31HK-103X	C CAPACITOR		
	C3233	NCB31HK-332X	C CAPACITOR		
	C3234	NCS31HJ-221X	C CAPACITOR		
	C3235	NCF31CZ-104X	C CAPACITOR		
	C3236	NCB31EK-104X	C CAPACITOR		
	C3261	NCS31HJ-221X	C CAPACITOR		
	C3301	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C3302	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C3321	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C3322	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C3334	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C3335	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C3336	NCB31HK-103X	C CAPACITOR		
	C3337	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C3338	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C3341	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C3342	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C3351	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C3352	NCB31HK-103X	C CAPACITOR		
	C3353	NCB31HK-332X	C CAPACITOR		
	C3354	QFVF1HJ-474Z	MF CAPACITOR	.47MF 5% 50V	
	C3355	NCB31HK-103X	C CAPACITOR		
	C3356	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C3357	NCB31HK-103X	C CAPACITOR		
	C3358	NCB31HK-472X	C CAPACITOR		
	C3359	NCB31HK-103X	C CAPACITOR		
	C3360	NCS31HJ-101X	C CAPACITOR		
	C3361	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C3362	NCF31CZ-104X	C CAPACITOR		
	C3363	QETN1HM-335Z	E CAPACITOR	3.3MF 20% 50V	
	C3364	NCB31EK-104X	C CAPACITOR		
	C3365	NCB31HK-103X	C CAPACITOR		
	C3369	NCF21CZ-105X	C CAPACITOR		
	C3393	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C5101	QERF1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C5102	NCF31CZ-104X	C CAPACITOR		
	C5103	NCF31CZ-104X	C CAPACITOR		
	C5201	NCS31HJ-331X	C CAPACITOR		
	C5301	QER61AM-107Z	E CAPACITOR	100MF 20% 10V	
	C5302	NCF31CZ-104X	C CAPACITOR		
	C5303	QER61AM-107Z	E CAPACITOR	100MF 20% 10V	
	C5304	NCF31CZ-104X	C CAPACITOR		
	C6001	QETN1AM-477Z	E CAPACITOR	470MF 20% 10V	
	C6002	NCF31CZ-104X	C CAPACITOR		
	C6003	QFV61HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C6004	NCB31CK-104X	C CAPACITOR		
	C6005	QFV61HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C6006	QFV61HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C6007	QFV61HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C6008	QFV61HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C6009	QETN1AM-477Z	E CAPACITOR	470MF 20% 10V	
	C6051	NCS31HJ-101X	C CAPACITOR		
	C6091	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C6092	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C6093	NCB31CK-104X	C CAPACITOR		
	C6094	NCS31HJ-181X	C CAPACITOR		
	C6096	NCS31HJ-181X	C CAPACITOR		
	C6097	NCS31HJ-181X	C CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	C6098	NCB31EK-104X	C CAPACITOR		
	C6099	NCB31EK-104X	C CAPACITOR		
	C7401	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C7403	QCBB1HK-103Y	C CAPACITOR	.010MF 10% 50V	
	C7404	QCFB1HZ-105Y	C CAPACITOR	1.0MF +80:-20%	
	D1111	1SS133-T2	SI DIODE		
	D1112	1SS133-T2	SI DIODE		
	D1211	1SS133-T2	SI DIODE		
	D1212	1SS133-T2	SI DIODE		
	D1301	1SS133-T2	SI DIODE		
	D1302	1SS133-T2	SI DIODE		
	D1311	1SS133-T2	SI DIODE		
	D2021	1SS133-T2	SI DIODE		
⚠	D2301	1N5401-TM	DIODE		
⚠	D2302	1N5401-TM	DIODE		
⚠	D2303	1N5401-TM	DIODE		
⚠	D2304	1N5401-TM	DIODE		
	D2306	MTZJ9.1C-T2	ZENER DIODE		
	D2307	1SS133-T2	SI DIODE		
	D2309	MTZJ9.1A-T2	ZENER DIODE		
	D2310	1SS133-T2	SI DIODE		
	D2311	MTZJ5.1A-T2	ZENER DIODE		
	D2312	MA152WK-X	SI DIODE		
	D2313	MTZJ10B-T2	ZENER DIODE		
	D2315	1SS133-T2	SI DIODE		
	D2316	1SS133-T2	SI DIODE		
	D2317	1SS133-T2	SI DIODE		
	D2319	MTZJ10B-T2	ZENER DIODE		
	D2321	1SS133-T2	SI DIODE		
	D2322	1SS133-T2	SI DIODE		
	D2501	1SS133-T2	SI DIODE		
	D2503	1SS133-T2	SI DIODE		
	D2801	1SS133-T2	SI DIODE		
	D2802	1SS133-T2	SI DIODE		
⚠	D3331	1N5401-TM	DIODE		
	D3332	MTZJ10B-T2	ZENER DIODE		
	D3333	MTZJ12B-T2	ZENER DIODE		
	D3341	1SS133-T2	SI DIODE		
	D3351	MTZJ5.1B-T2	ZENER DIODE		
	D3371	1N4003S-T5	SI DIODE		
	D3372	1N4003S-T5	SI DIODE		
	D5201	1SS133-T2	SI DIODE		
	D5301	RD2.4ES/B1/-T2	ZENER DIODE		
	D6091	MTZJ6.2C-T2	ZENER DIODE		
	D7401	1N4003S-T5	SI DIODE		
	D7402	1N4003S-T5	SI DIODE		
	D7403	MTZJ5.6C-T2	ZENER DIODE		
	D7405	1N4003S-T5	SI DIODE		
	EP332	QNZ0136-001Z	EARTH PLATE		
	EP601	QNZ0136-001Z	EARTH PLATE		
⚠	IC111	STK402-050	IC(HYBRID)	POWER AMP	
	IC202	MN35505-X	IC	DAC	
	IC211	NJM4580M-X	IC		
⚠	IC212	L4909	REGULATOR IC		
	IC311	LC75345M-X	IC		
	IC321	BA15218F-XE	IC		
	IC351	BU9253FS-X	IC		
	IC392	GP1FA550TZ	OPT TRANSMITTER		
	IC511	MN101C49GKZ	IC	MASK	
	IC601	LA73054-X	IC		
	IC741	LB1641	IC		

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	J3002	QNB0117-001	SPK TERMINAL		
	J3004	QNN0215-001	PIN JACK		
	J6003	QNN0434-001	PIN JACK		
	J6004	QNS0009-001	3.5 JACK		
⚠	K2001	QQR0621-001Z	FERRITE BEADS		
⚠	K2002	QQR0621-001Z	FERRITE BEADS		
⚠	K2003	QQR0621-001Z	FERRITE BEADS		
⚠	K2004	QQR0621-001Z	FERRITE BEADS		
⚠	K2005	QQR0621-001Z	FERRITE BEADS	=B1168	
⚠	K2006	QQR0621-001Z	FERRITE BEADS		
⚠	K2008	NQR0022-002X	FERRITE BEADS		
⚠	K2009	NQR0022-002X	FERRITE BEADS		
⚠	K3391	QQR0621-001Z	FERRITE BEADS		
⚠	K5001	QQR0621-001Z	FERRITE BEADS		
⚠	K6001	QQR0621-001Z	FERRITE BEADS		
⚠	K6091	QQR0621-001Z	FERRITE BEADS		
	L1111	QQLZ005-R45	INDUCTOR		
	L1211	QQLZ005-R45	INDUCTOR		
	L3131	QQR0797-001	INDUCTOR		
	L3231	QQR0797-001	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		
⚠	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		
	Q3351	UN2115-X	D TRANSISTOR		
	Q3352	UN2115-X	D TRANSISTOR		
	Q3353	UN2115-X	D 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		

⚠	Item	Parts number	Parts name	Remarks	Area
	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	
	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		

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	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		
	R2306	NRSA63J-272X	MG RESISTOR		
	R2307	NRSA63J-272X	MG RESISTOR		
	R2308	NRSA63J-103X	MG RESISTOR		
	R2310	NRSA63J-122X	MG RESISTOR		
	R2311	NRSA63J-472X	MG RESISTOR		
	R2312	NRSA63J-162X	MG RESISTOR		
	R2313	NRSA63J-912X	MG RESISTOR		
	R2314	NRSA63J-152X	MG RESISTOR		
	R2315	NRSA63J-822X	MG RESISTOR		
	R2316	NRSA63J-122X	MG RESISTOR		
	R2317	NRSA63J-271X	MG RESISTOR		
	R2319	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R2501	NRSA63J-912X	MG RESISTOR		
	R2502	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R2503	NRSA63J-103X	MG RESISTOR		
	R2504	NRSA63J-822X	MG RESISTOR		
	R2505	NRSA63J-472X	MG RESISTOR		
	R2801	NRSA63J-272X	MG RESISTOR		
	R2802	QRE141J-681Y	C RESISTOR	1/4W	
	R2803	NRSA63J-222X	MG RESISTOR		
	R3101	NRSA63J-184X	MG RESISTOR		
	R3102	NRSA63J-182X	MG RESISTOR		
	R3103	NRSA63J-182X	MG RESISTOR		
	R3104	NRSA63J-752X	MG RESISTOR		
	R3105	NRSA63J-752X	MG RESISTOR		
	R3106	NRSA63J-242X	MG RESISTOR		
	R3107	NRSA63J-222X	MG RESISTOR		
	R3108	NRSA63J-182X	MG RESISTOR		
	R3109	NRSA63J-472X	MG RESISTOR		
	R3110	NRSA63J-473X	MG RESISTOR		
	R3121	NRSA63J-224X	MG RESISTOR		
	R3122	NRSA63J-154X	MG RESISTOR		
	R3123	NRSA63J-224X	MG RESISTOR		
	R3124	NRSA63J-473X	MG RESISTOR		
	R3131	NRSA63J-103X	MG RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R3132	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
⚠	R3133	QRL01DJ-391X	OMF RESISTOR	1W	
⚠	R3136	QRZ9006-4R7X	F RESISTOR	1/4W	
	R3141	NRSA63J-153X	MG RESISTOR		
	R3142	NRSA63J-103X	MG RESISTOR		
	R3161	NRSA63J-393X	MG RESISTOR		
	R3162	NRSA63J-103X	MG RESISTOR		
	R3171	NRSA63J-332X	MG RESISTOR		
	R3172	NRSA63J-222X	MG RESISTOR		
	R3173	NRSA63J-123X	MG RESISTOR		
	R3201	NRSA63J-184X	MG RESISTOR		
	R3202	NRSA63J-182X	MG RESISTOR		
	R3203	NRSA63J-182X	MG RESISTOR		
	R3204	NRSA63J-752X	MG RESISTOR		
	R3205	NRSA63J-752X	MG RESISTOR		
	R3206	NRSA63J-242X	MG RESISTOR		
	R3207	NRSA63J-222X	MG RESISTOR		
	R3208	NRSA63J-182X	MG RESISTOR		
	R3209	NRSA63J-472X	MG RESISTOR		
	R3210	NRSA63J-473X	MG RESISTOR		
	R3221	NRSA63J-224X	MG RESISTOR		
	R3222	NRSA63J-154X	MG RESISTOR		
	R3223	NRSA63J-224X	MG RESISTOR		
	R3224	NRSA63J-473X	MG RESISTOR		
	R3231	NRSA63J-103X	MG RESISTOR		
	R3232	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
⚠	R3233	QRL01DJ-391X	OMF RESISTOR	1W	
⚠	R3236	QRZ9006-4R7X	F RESISTOR	1/4W	
	R3241	NRSA63J-153X	MG RESISTOR		
	R3242	NRSA63J-103X	MG RESISTOR		
	R3261	NRSA63J-393X	MG RESISTOR		
	R3262	NRSA63J-103X	MG RESISTOR		
	R3271	NRSA63J-332X	MG RESISTOR		
	R3272	NRSA63J-222X	MG RESISTOR		
	R3273	NRSA63J-123X	MG RESISTOR		
	R3301	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R3302	NRSA63J-222X	MG RESISTOR		
	R3303	NRSA63J-222X	MG RESISTOR		
	R3304	NRSA63J-222X	MG RESISTOR		
	R3321	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R3322	NRSA63J-103X	MG RESISTOR		
	R3323	NRSA63J-103X	MG RESISTOR		
	R3331	NRSA63J-223X	MG RESISTOR		
	R3332	NRSA63J-152X	MG RESISTOR		
	R3333	NRSA63J-104X	MG RESISTOR		
⚠	R3334	QRZ9005-331X	F RESISTOR	1/4W	
	R3335	NRSA63J-123X	MG RESISTOR		
⚠	R3336	QRZ9006-4R7X	F RESISTOR	1/4W	
	R3341	NRSA63J-104X	MG RESISTOR		
	R3342	NRSA63J-271X	MG RESISTOR		
	R3343	NRSA63J-513X	MG RESISTOR		
	R3351	NRSA63J-203X	MG RESISTOR		
	R3352	NRSA63J-153X	MG RESISTOR		
	R3353	NRSA63J-472X	MG RESISTOR		
	R3354	NRSA63J-103X	MG RESISTOR		
	R3355	NRSA63J-203X	MG RESISTOR		
	R3356	NRSA63J-102X	MG RESISTOR		
	R3357	NRSA63J-562X	MG RESISTOR		
	R3358	NRSA63J-203X	MG RESISTOR		
	R3359	NRSA63J-272X	MG RESISTOR		
	R3360	NRSA63J-223X	MG RESISTOR		

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	R3361	NRSA63J-333X	MG RESISTOR		
	R3362	NRSA63J-103X	MG RESISTOR		
	R3363	NRSA63J-822X	MG RESISTOR		
	R3364	NRSA63J-203X	MG RESISTOR		
	R3365	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R3366	NRSA63J-223X	MG RESISTOR		
	R3393	NRSA63J-101X	MG RESISTOR		
	R5001	NRSA63J-102X	MG RESISTOR		
	R5002	NRSA63J-101X	MG RESISTOR		
	R5003	NRSA63J-101X	MG RESISTOR		
	R5004	NRSA63J-101X	MG RESISTOR		
	R5005	NRSA63J-101X	MG RESISTOR		
	R5006	NRSA63J-101X	MG RESISTOR		
	R5007	NRSA63J-101X	MG RESISTOR		
	R5008	NRSA63J-101X	MG RESISTOR		
	R5009	NRSA63J-101X	MG RESISTOR		
	R5010	NRSA63J-101X	MG RESISTOR		
	R5011	NRSA63J-102X	MG RESISTOR		
	R5012	NRSA63J-102X	MG RESISTOR		
	R5013	NRSA63J-102X	MG RESISTOR		
	R5015	NRSA63J-101X	MG RESISTOR		
	R5016	NRSA63J-101X	MG RESISTOR		
	R5017	NRSA63J-101X	MG RESISTOR		
	R5018	NRSA63J-101X	MG RESISTOR		
	R5019	NRSA63J-102X	MG RESISTOR		
	R5022	NRSA63J-103X	MG RESISTOR		
	R5023	NRSA63J-101X	MG RESISTOR		
	R5024	NRSA63J-101X	MG RESISTOR		
	R5025	NRSA63J-103X	MG RESISTOR		
	R5026	NRSA63J-101X	MG RESISTOR		
	R5027	NRSA63J-101X	MG RESISTOR		
	R5028	NRSA63J-101X	MG RESISTOR		
	R5029	NRSA63J-101X	MG RESISTOR		
	R5030	NRSA63J-101X	MG RESISTOR		
	R5032	NRSA63J-472X	MG RESISTOR		
	R5033	NRSA63J-222X	MG RESISTOR		
	R5034	NRSA63J-222X	MG RESISTOR		
	R5035	NRSA63J-102X	MG RESISTOR		
	R5038	NRSA63J-103X	MG RESISTOR		
	R5041	NRSA63J-472X	MG RESISTOR		
	R5044	NRSA63J-472X	MG RESISTOR		
	R5051	NRSA63J-103X	MG RESISTOR		
	R5052	NAD0025-103X	N THERMISTOR		
	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		
	R5310	NRSA63J-2R2X	MG RESISTOR	(B1001)	
	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	
	W 310	QUB130-05A2A2	WIRE		
	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	CONNECTOR	CHUKEI1	
	CN709	QGF1205F1-11	CONNECTOR	TUNER	
	CN711	QGA2501F1-02	CONNECTOR	FAN	
	CN851	QGF1205F1-09	CONNECTOR	SILVER	
	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	QETN1HM-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		

⚠	Item	Parts number	Parts name	Remarks	Area
	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		
	C8602	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C9501	QEKC1HM-474Z	E CAPACITOR	.47MF 20% 50V	
	C9502	NCS31HJ-470X	C CAPACITOR		
	C9503	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C9504	QEKC1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C9505	QEKC1HM-335Z	E CAPACITOR	3.3MF 20% 50V	
	C9506	QEKC1HM-224Z	E CAPACITOR	.22MF 20% 50V	
	C9508	QETN1HM-336Z	E CAPACITOR	33MF 20% 50V	
	C9509	QEKC1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C9510	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	DI471	QLF0107-001	FL TUBE		
	D4601	NSTM515AS	LED	MDA5V	
	D4611	NSTM515AS	LED	MDA5V	
	D4621	NSTM515AS	LED	MDA5V	
	D7036	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	ZENER DIODE		
	D7955	MTZJ5.1C-T2	ZENER DIODE		
	D7956	MTZJ20C-T2	ZENER DIODE		
	D8603	SLR-342VC-T	LED		
	D9501	1SS133-T2	SI DIODE		
	D9502	1SS133-T2	SI DIODE		
	EP331	QNZ0136-001Z	EARTH PLATE		
	IC701	UPD784215AGF519	IC(MCU)	MASK	
	IC861	GP1UM261XK	IR DETECT UNIT		
	IC951	BA15218F-XE	IC		
	JS861	QSW0975-001	ROTARY ENCODER		
	J3001	QNS0177-001	JACK		
	J3003	QNS0072-001	HEADPHONE 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		
⚠	K9501	QQR0621-001Z	FERRITE BEADS		
	L7001	QQL244K-100Z	INDUCTOR		
	L7051	QQL244K-100Z	INDUCTOR		
	Q7035	UN2111-X	TRANSISTOR		
	Q7046	UN2214-X	TRANSISTOR		
	Q7068	UN2214-X	TRANSISTOR		

■ **Electrical parts list (Micon board)** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	Q7301	2SD601A/RS/-X	TRANSISTOR		
	Q7311	UN2211-X	TRANSISTOR		
	Q7331	2SD601A/RS/-X	TRANSISTOR		
	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	KTB772/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		
	Q9501	KTC3875/YG/-X	TRANSISTOR		
	Q9502	KTC3875/YG/-X	TRANSISTOR		
	R4701	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R7002	NRSA63J-103X	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		

⚠	Item	Parts number	Parts name	Remarks	Area
	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		
	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		
	R7062	NRSA63J-222X	MG RESISTOR		
	R7063	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		
	R7168	NRSA63J-183X	MG RESISTOR		

■ **Electrical parts list (Micon board)** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	R7179	NRSA63J-103X	MG RESISTOR		
	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	
	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		

⚠	Item	Parts number	Parts name	Remarks	Area
	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		
	R9501	NRSA63J-104X	MG RESISTOR		
	R9502	NRSA63J-102X	MG RESISTOR		
	R9503	NRSA63J-103X	MG RESISTOR		
	R9504	NRSA63J-564X	MG RESISTOR		
	R9505	NRSA63J-222X	MG RESISTOR		
	R9506	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R9507	NRSA63J-103X	MG RESISTOR		
	R9508	NRSA63J-102X	MG RESISTOR		
	R9509	NRSA63J-224X	MG RESISTOR		
	R9510	NRSA63J-103X	MG RESISTOR		
	R9513	NRSA63J-102X	MG RESISTOR		
	R9514	NRSA63J-103X	MG RESISTOR		
	R9515	NRSA63J-154X	MG RESISTOR		
	R9516	NRSA63J-154X	MG RESISTOR		
	S4801	QSW0933-001	DETECT SWITCH	PANEL	
	S4802	QSW0933-001	DETECT SWITCH	PANEL	
	S8501	QSW0651-001Z	TACT SWITCH	B.SKIP	
	S8502	QSW0651-001Z	TACT SWITCH	DVD PLAY	
	S8503	QSW0651-001Z	TACT SWITCH	STOP	
	S8504	QSW0651-001Z	TACT SWITCH	TAPE PLAY	
	S8505	QSW0651-001Z	TACT SWITCH	F.SKIP	
	S8506	QSW0651-001Z	TACT SWITCH	FM/AM	
	S8507	QSW0651-001Z	TACT SWITCH	3D PHONIC	
	S8508	QSW0651-001Z	TACT SWITCH	BASS	
	S8509	QSW0651-001Z	TACT SWITCH	AHB	
	S8511	QSW0651-001Z	TACT SWITCH	DVD OP/CL	
	S8512	QSW0651-001Z	TACT SWITCH	REV.MODE	
	S8513	QSW0651-001Z	TACT SWITCH	AUX	
	S8514	QSW0651-001Z	TACT SWITCH	TREBLE	
	S8515	QSW0651-001Z	TACT SWITCH	COLOR	
	S8516	QSW0651-001Z	TACT SWITCH	DIMMER	
	S8517	QSW0651-001Z	TACT SWITCH	SLEEP	
	S8518	QSW0651-001Z	TACT SWITCH	REC	
	S8601	QSW0651-001Z	TACT SWITCH	POWER	
	VR951	QVQ0112-B24	V RESISTOR	MIC VR	
	W 318	QJK008-041204	SIN CR C-B WIRE	MIC - MAIN	
	W 320	QJK008-052400	SIN CR C-B WIRE	HP - MAIN	
	W 777	QUB350-05Z3Z3	SIN TWIST WIRE	W777-W778	
	W4801	QJB002-041504	SIN ID C-B WIRE	PANL SW - MICON	
	X7001	QAX0401-001	CRYSTAL	32KHZ	
	X7002	QAX0667-001Z	RESONATOR	8MHZ	

■ **Electrical parts list (Trans board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	CN901	QGA7901C1-02	CONNECTOR	POWER CORD	
	C9321	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C9323	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
⚠	D9321	1N5402M-20	DIODE		
⚠	D9322	1N5402M-20	DIODE		
⚠	D9323	1N5402M-20	DIODE		
⚠	D9324	1N5402M-20	DIODE		
⚠	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		
⚠	FT941	QNG0003-001Z	FUSE CLIP		
⚠	FT942	QNG0003-001Z	FUSE CLIP		
⚠	LF901	QQR1321-001	LINE FILTER		
⚠	S9001	QSW0838-001	VOLTAGE SWITCH		
	W 1	QUB101-16PPPP	SIN TWIST WIRE		
	W 2	QUB102-15PPPP	SIN TWIST WIRE		
	W 3	QUB103-14PPPP	SIN TWIST WIRE		
	W 4	QUB104-13PPPP	SIN TWIST WIRE		
	W 6	QUB106-14PPPP	SIN TWIST WIRE		
	W 7	QUB107-12PPPP	SIN TWIST WIRE		
	W 8	QUB108-12PPPP	SIN TWIST WIRE		
	W 9	QUB109-11PPPP	SIN TWIST WIRE		
	W 10	QUB100-10PPPP	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	

■ **Electrical parts list (DVD Servo control board)** **Block No. 04**

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

■ **Electrical parts list (DVD Servo control board)** **Block No. 04**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 504	NCB31CK-104X	C CAPACITOR		
	C 505	NCB31CK-104X	C CAPACITOR		
	C 506	NCB31CK-104X	C CAPACITOR		
	C 507	NCB31CK-104X	C CAPACITOR		
	C 508	NCB31CK-104X	C CAPACITOR		
	C 509	NCB31CK-104X	C CAPACITOR		
	C 510	NCB31CK-104X	C CAPACITOR		
	C 511	NCB31CK-104X	C CAPACITOR		
	C 512	NCB31CK-104X	C CAPACITOR		
	C 513	NCB31CK-104X	C CAPACITOR		
	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		

⚠	Item	Parts number	Parts name	Remarks	Area
	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		
	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	DIGI 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		

■ **Electrical parts list (DVD Servo control board)** **Block No. 04**

⚠	Item	Parts number	Parts name	Remarks	Area
	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		
	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 406	NRSA63J-0R0X	MG RESISTOR		
	R 408	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		

⚠	Item	Parts number	Parts name	Remarks	Area
	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		
	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. 05**

⚠	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 (Head amplifier board)** **Block No. 06**

⚠	Item	Parts number	Parts name	Remarks	Area
	CN 1	QGF1205F1-09	CONNECTOR		
	D 1	1SR139-400-T2	SI DIODE		
	IC 1	SG-105F3-BB,C	PHOTO SENSER		
	P 1	QNZ0104-001	POST PIN		
	SW 1	QSW0832-001	LEAF SWITCH		
	SW 2	QSW0832-001	LEAF SWITCH		
	SW 5	QSW0832-001	LEAF SWITCH		
	SW 6	QSW0859-001	SW		

■ **Electrical parts list (Cassette switch 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 31	QGF1205F1-06	CONNECTOR		
	CN 32	QGF1205F1-09	CONNECTOR		
	CN 33	QGF1205F1-09	CONNECTOR		
	CN 34	QGF1201F3-10	CONNECTOR		
	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 32	HA12238F	IC		
	IC 33	CD4094BC	IC		
	L 301	QQR1118-002	BIAS COIL		
	L 303	QQL244K-100Z	INDUCTOR		
	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		

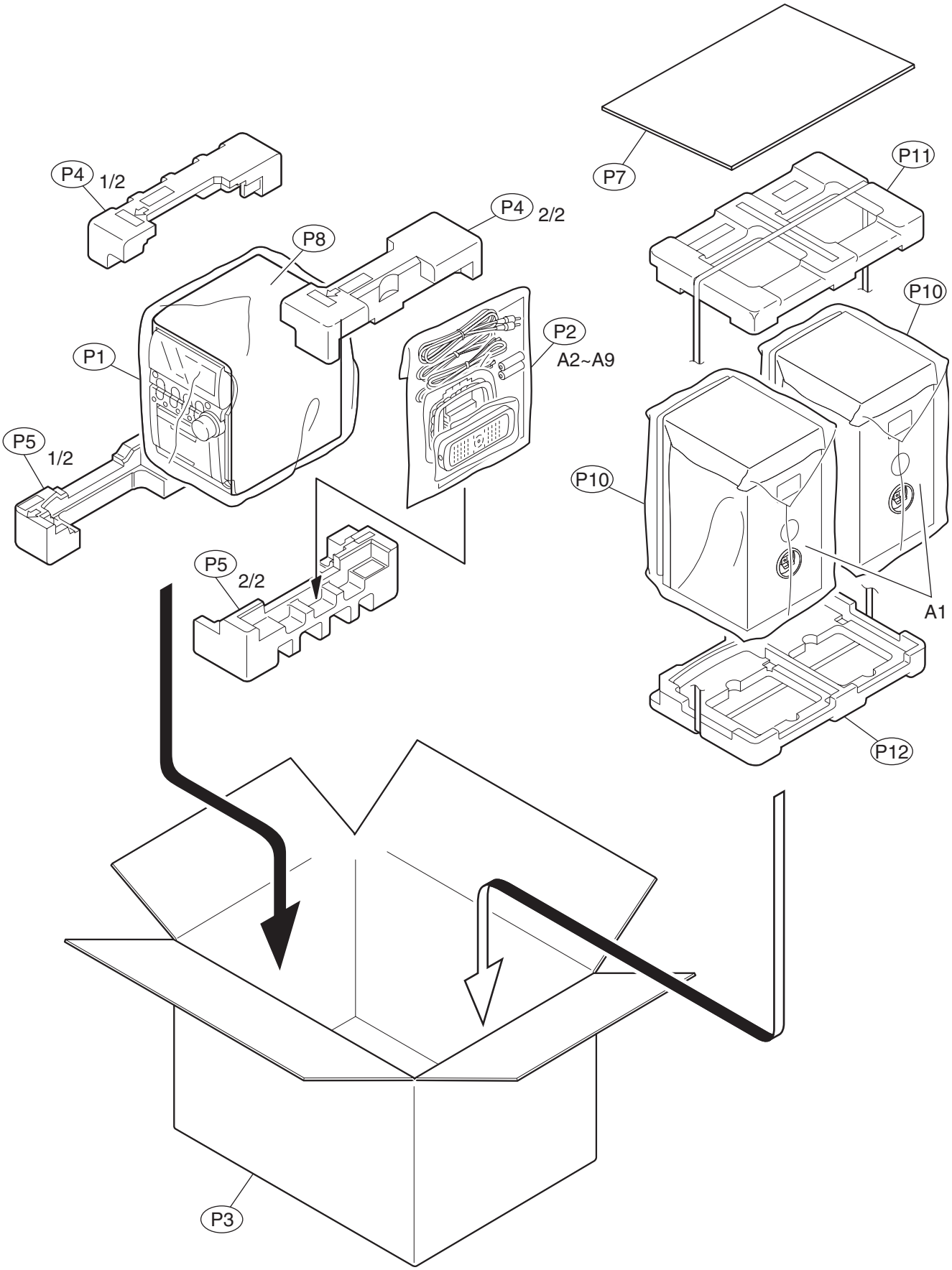
⚠	Item	Parts number	Parts name	Remarks	Area
	Q 372	KRC107M-T	D TRANSISTOR		
	Q 375	2SB562/C/-T	TRANSISTOR		
	Q 376	KTC3199/GL/-T	TRANSISTOR		
	R 101	QRE141J-512Y	C RESISTOR	5.1K 5% 1/4W	
	R 102	QRE141J-512Y	C RESISTOR	5.1K 5% 1/4W	
	R 104	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 105	QRE141J-432Y	C RESISTOR	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	
	VR 31	QVP0008-203Z	SEMI V RESISTOR		
	VR 37	QVP0077-103Z	SEMI V RESISTOR		

< MEMO >

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	LV33746-002A	CARTON	1		
	P 4	LV21323-001A	CUSHION(TOP)	1	TOP L/R	
	P 5	LV21324-001A	CUSHION(BTM)	1	BTM L/R	
	P 7	LV33569-003A	CARTON SHEET	1		
	P 8	QPR03508005H	POLY SHEET	1		
	P 10	Z11KO0001	POLY BAG	2	SPEAKER	
	P 11	LV21368-001A	POLYFOAM(TOP)	1	SPEAKER	
	P 12	LV21368-002A	POLYFOAM(BTM)	1	SPEAKER	

■ Parts list (Accessories)

Block No. M5MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	UXA7DVDK-SPBOX	SPK.WITH BOX	2	SPEAKER	
	A 2	QAL0457-001	ANT.WIRE	1		
	A 3	QAL0014-001	AM LOOP ANT	1		
	A 4	LVT0954-007A	INST BOOK	1	ENG,CHI(PEKIN)	
	A 5	RM-SUXA7DVDU	REMOCON	1		
	A 6	----------	BATTERY	2		
	A 7	QAM0339-001	SPEAKER CORD	2		
	A 8	QAM0216-001	SIGNAL CORD	1	COMPOSIT	
⚠	A 9	QAM0060-002	SIEMENS PLUG	1		