

# JVC

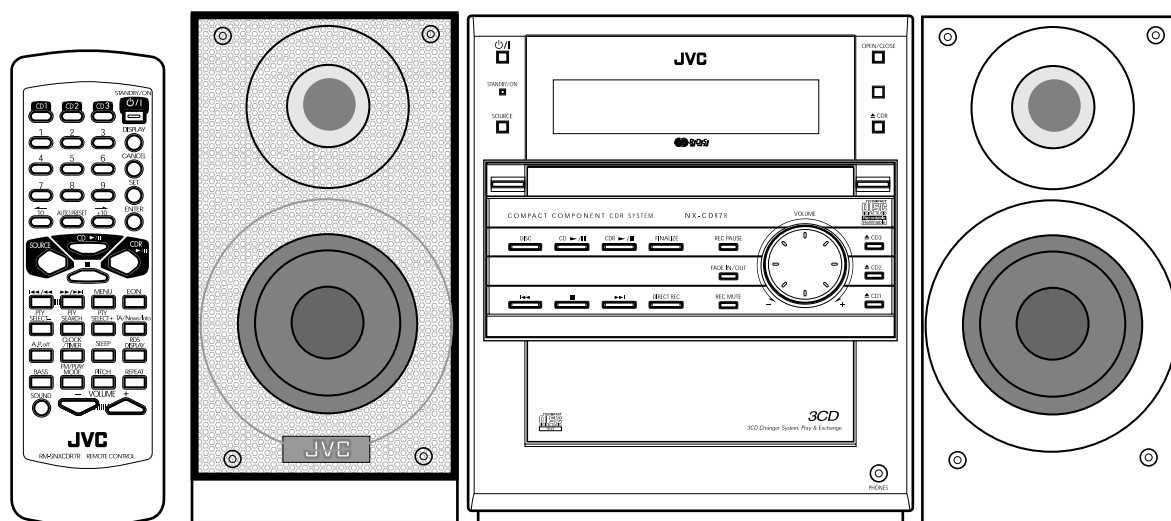
# SERVICE MANUAL

## COMPACT COMPONENT CDR SYSTEM

# NX-CDR7R

Area suffix

B ----- U.K.  
 E ----- Continental Europe  
 EN ----- Northern Europe



SP-NXCDR7

CA-NXCDR7R

SP-NXCDR7



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## Safety Precautions

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

### 5. Leakage current check (Electrical shock hazard testing)

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

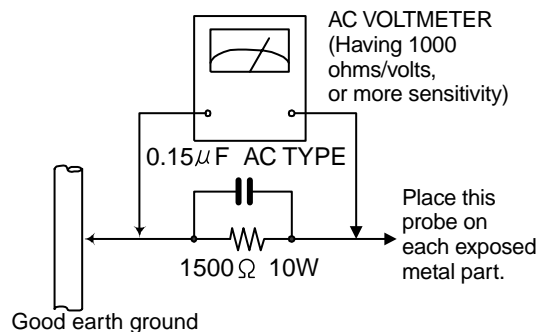
Do not use a line isolation transformer during this check.

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

- Alternate check method

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

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



## Warning

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

## CAUTION

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

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

When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the J and C version)

# 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.

## 1.1. Grounding to prevent damage by static electricity

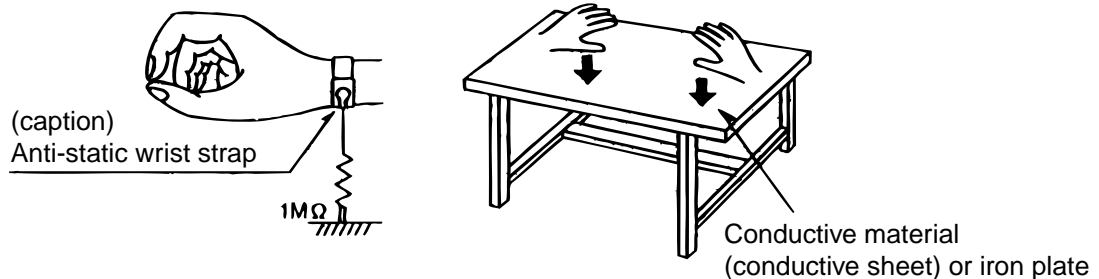
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as DVD players. Be careful to use proper grounding in the area where repairs are being performed.

### 1.1.1. Ground the workbench

1. 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.

### 1.1.2. Ground yourself

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



### 1.1.3. Handling the optical pickup

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

## 1.2. 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. For specific details, refer to the replacement procedure in the text. 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

# 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 laserradiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. 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 an adjustment or operation check.

**VARNING :** Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen.

**VARO :** Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

**ADVARSEL :** Usynlig laserstrålning ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

**ADVARSEL :** Usynlig laserstrålning ved åbning,når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

## REPRODUCTION AND POSITION OF LABELS

### WARNING LABEL





## Disassembly method

### <Main body>

#### ■ Removing the metal cover

(See Fig.1 and 2)

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

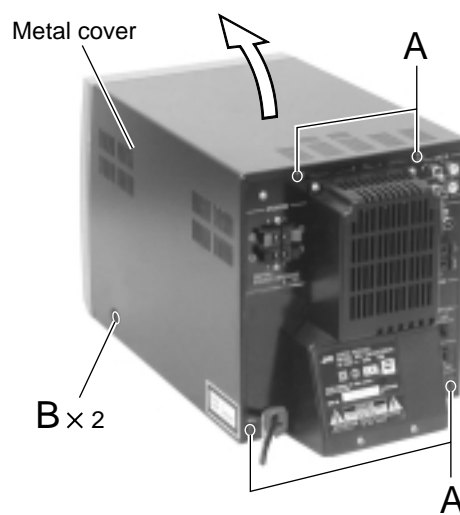


Fig.1

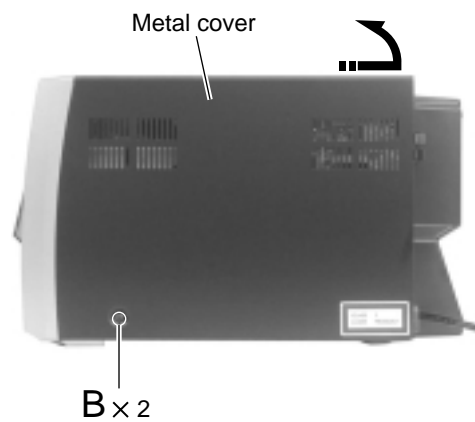


Fig.2

■ **Removing the front panel assembly**  
**(See Fig.3 to 6)**

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

1. Disconnect the card wire from connector CN705, CN708, CN704 and CN712 on the main board.
2. Disconnect the wire from connector CN905 on the power board.
3. Remove the two screws **C** on each side of the body.
4. Remove the two screws **D** on the bottom of the body.
5. Disengage the joint **a** on the bottom and the two joints **b** on the lower side of the body using a screwdriver. Then remove the front panel assembly toward the front.

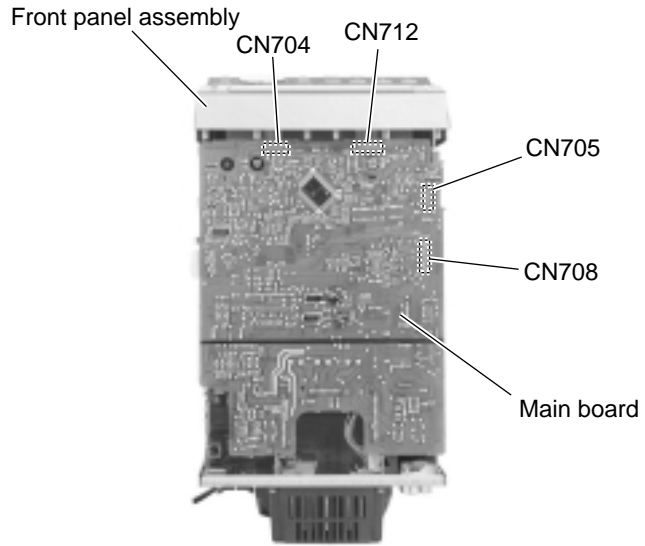


Fig.3

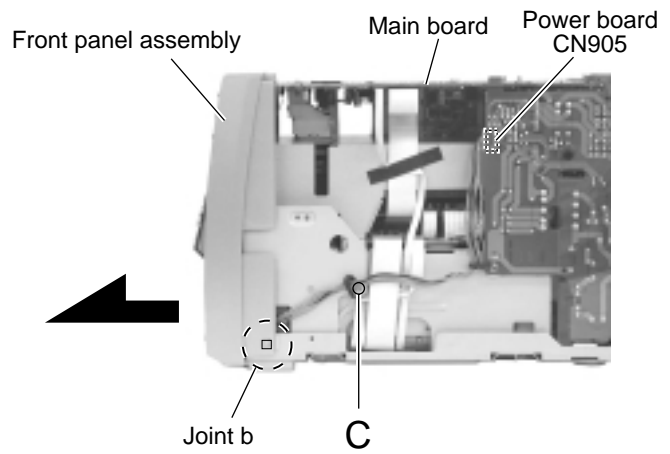


Fig.4

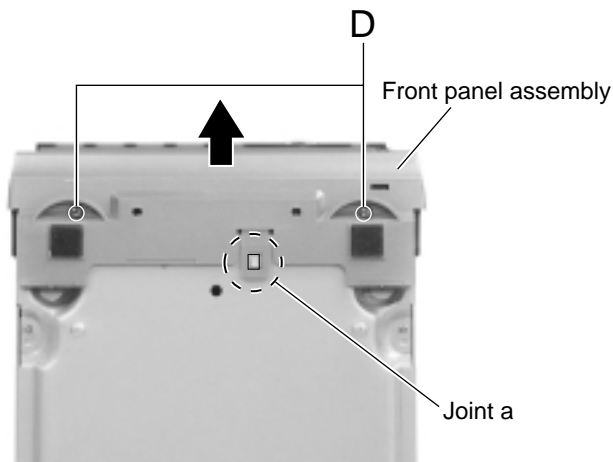


Fig.6

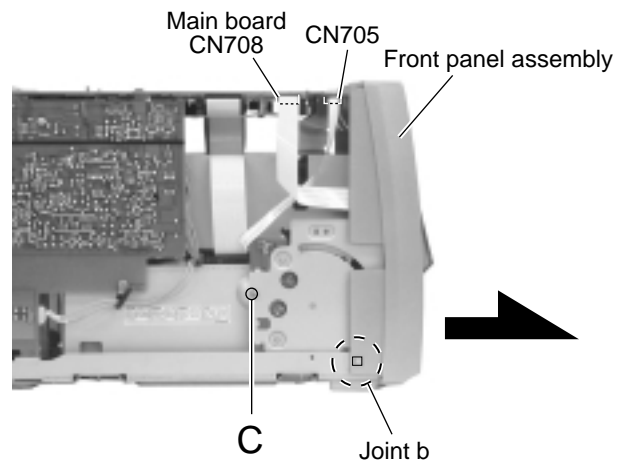


Fig.5

## ■ Removing the main board

(See Fig.7 and 8)

- Prior to performing the following procedure, remove the metal cover.
1. Disconnect the card wire from connector CN704, CN705, CN706, CN707, CN708, CN709 and CN712 on the main board on the upper side of body.
  2. Remove the two screws **E** on the upper side of the body.
  3. Disconnect connector CN701, CN702, CN703, CN710, CN711 on the main board from other boards respectively.

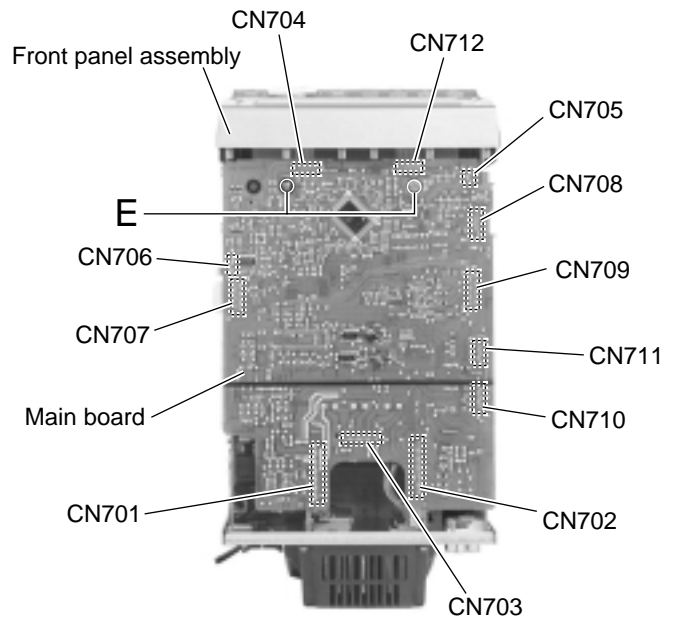


Fig.7

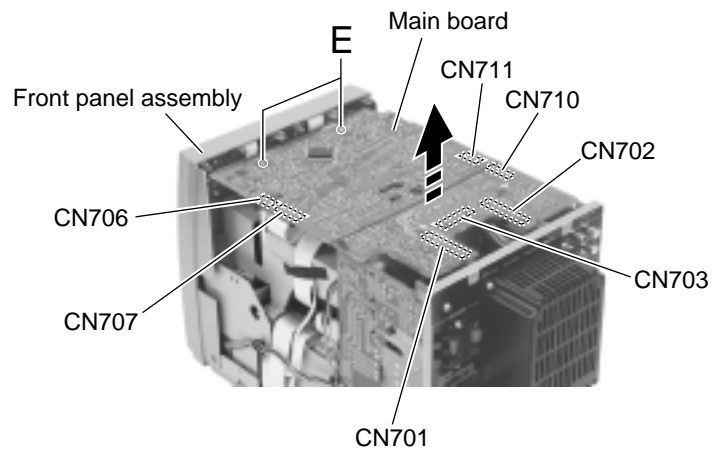
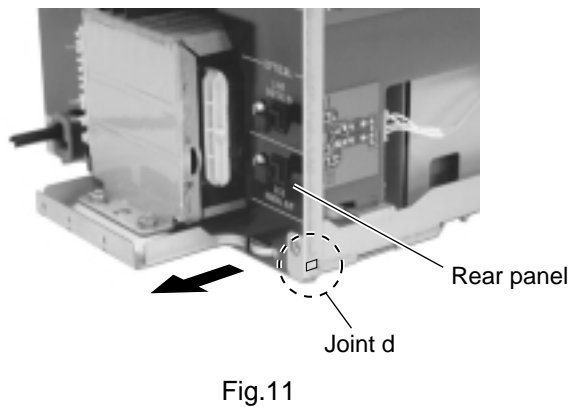
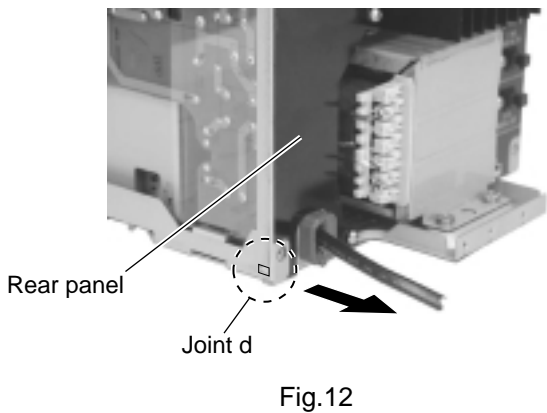
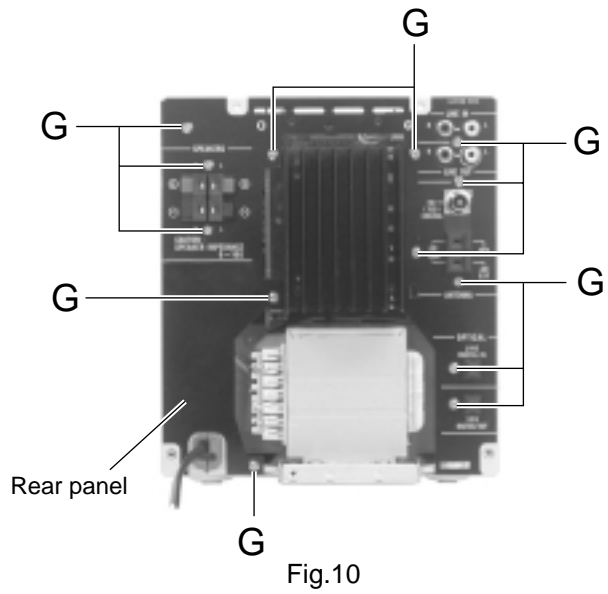
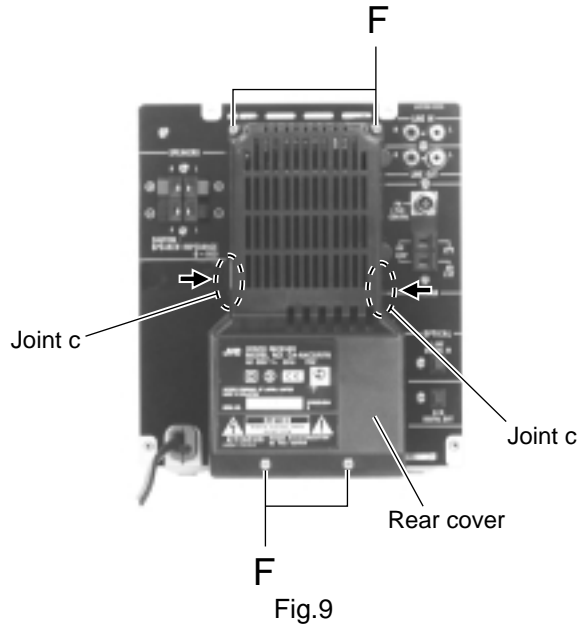


Fig.8

■ **Removing the rear cover / rear panel**  
**(See Fig.9 to 12)**

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

1. Remove the four screws **F** on the back of the body, and press the two joints **c** inward to release.
2. Remove the thirteen screws **G** attaching the rear panel.
3. Disengage the two joints **d** in the lower part of the rear panel using a screwdriver.



### ■ Removing the tuner board (See Fig.13)

• Prior to performing the following procedure, remove the metal cover, the main board and the rear panel.

1. Disconnect the wire from connector CN802 on the tuner board on the right side of the body.
2. Remove the screw **H** attaching the tuner board.
3. Move the tuner board upward and outward to disengage the tuner board from the base chassis at the joint **f**, and from the power board at the joint **e**.

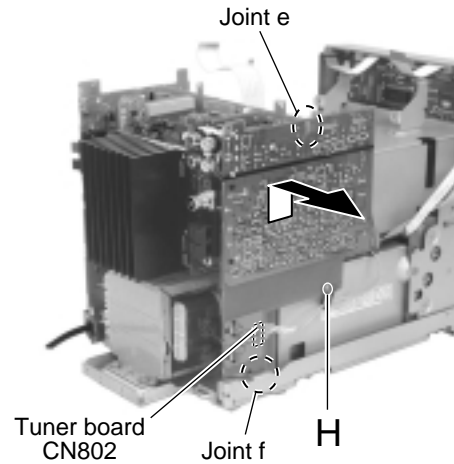


Fig.13

### ■ Removing the power board (See Fig.14 and 15)

• Prior to performing the following procedure, remove the metal cover, the main board and the rear panel.

1. Remove the band attaching the wire to the power board on the back of the body.
2. Disconnect the wire from connector CN901, CN904 and CN905 on the power board.
3. Remove the screw **I** on the left side of the body.
4. Disconnect connector CN902 and CN903 on the power board from the power board, and move the power board upward to disengage it from the base chassis at the joint **g**.

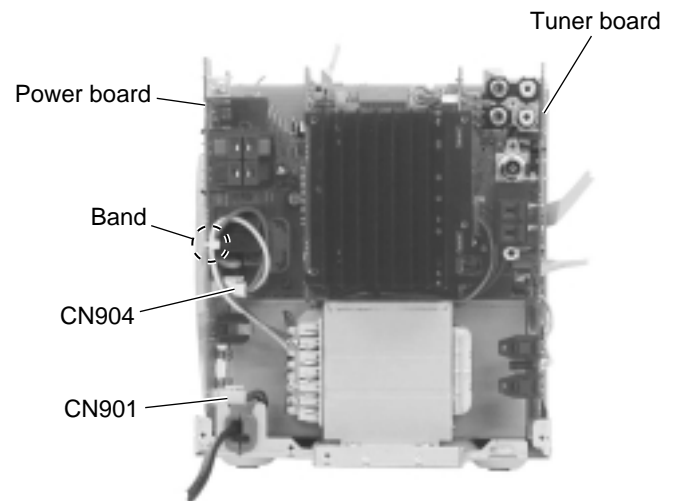


Fig.14

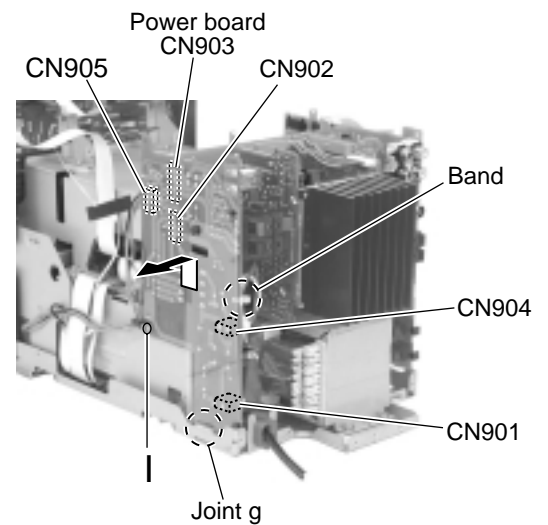
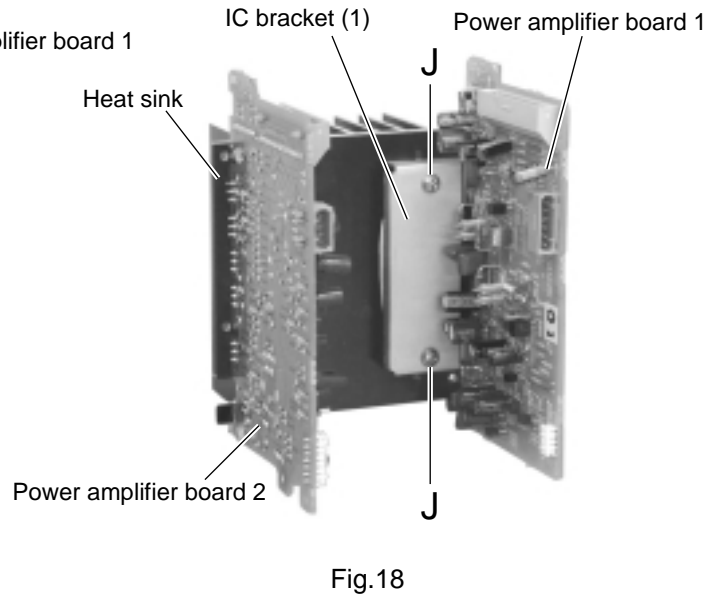
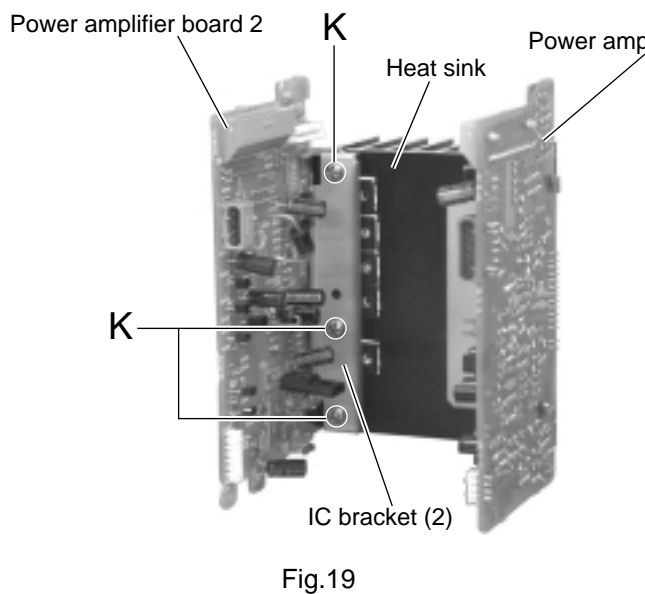
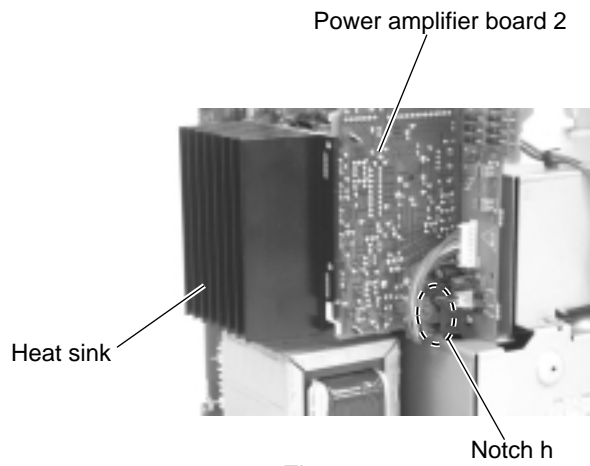
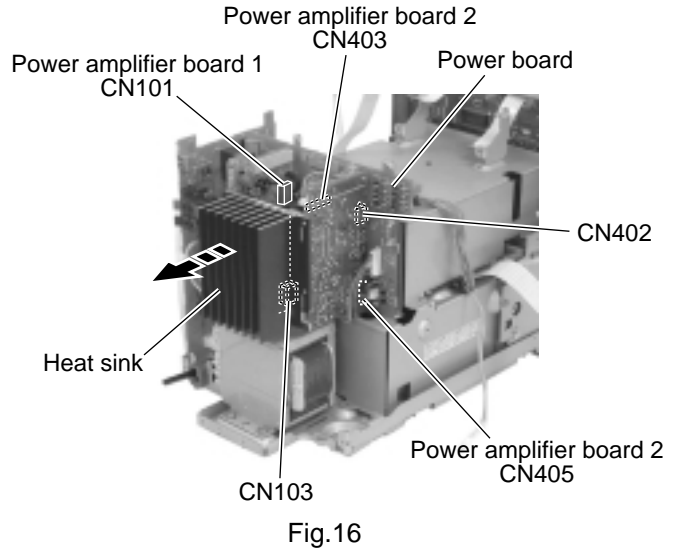


Fig.15

**■ Removing the power amplifier board 1 / power amplifier board 2 / heat sink  
(See Fig.16 to 19)**

• Prior to performing the following procedure, remove the metal cover, the main board, the rear panel and the tuner board.

1. Disconnect the wire from connector CN403 on the power amplifier board 2.
2. As the wire extending from the fan, take it off the notch **h** in the lower part of the power amplifier board 2.
3. Disconnect connector CN101 and CN103 on the power amplifier board 1, and CN402 and CN405 on the power amplifier board 2 from the power board respectively. The heat sink is still attached to the power amplifier board 1 and the power amplifier board 2.
4. Remove the two screws **J** attaching the IC bracket (1) on the back of the heat sink, and remove the power amplifier 1.
5. Remove the three screws **K** attaching the IC bracket (2) on the back of the heat sink, and remove the power amplifier 2.



## ■ Removing the fan (See Fig.20)

- Prior to performing the following procedure, remove the metal cover, the main board, the rear panel, the tuner board, the power amplifier board 1, the power amplifier board 2 and the heat sink.

REFERENCE: The fan is detachable without removing the CDR mechanism assembly.

1. Disconnect the wire from connector CN210 on the power board.
2. Remove the two screws **L** attaching the fan.
3. Push down the clamp which settles the wire extending from the power transformer, in the direction of the arrow, and remove the fan backward.

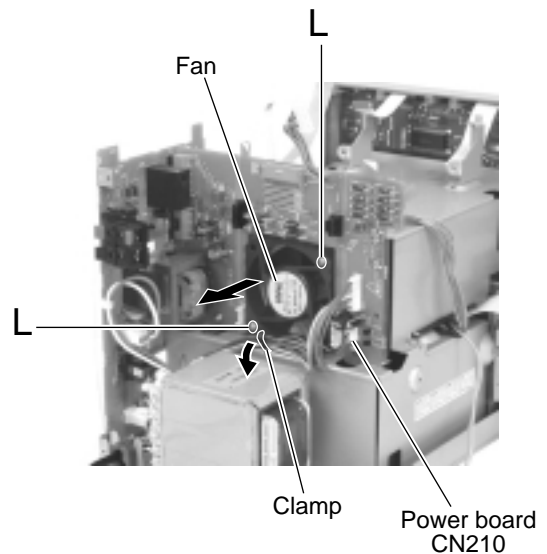


Fig.20

## ■ Removing the power board (See Fig.21)

- Prior to performing the following procedure, remove the metal cover, the main board, the rear panel, the tuner board, the power amplifier board 1, the power amplifier board 2 and the heat sink.

1. Disconnect the wire from connector CN203 and CN210 on the power board on the back of the body.
2. Remove the two screws **M** attaching the power board.
3. Disconnect connector CN204 and CN207 on the power board from the power board.

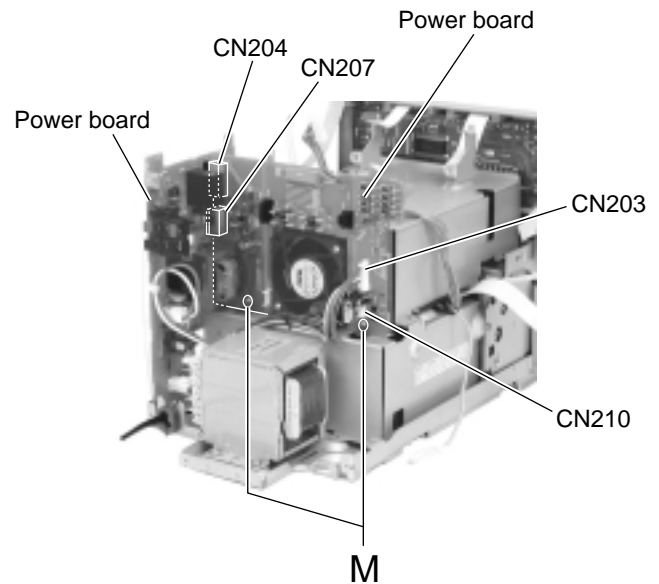


Fig.21

■ **Removing the CDR mechanism cover / CDR mechanism assembly**  
**(See Fig.22 to 27)**

- Prior to performing the following procedure, remove the metal cover, the front panel assembly, the rear panel, the main board and the tuner board.

REFERENCE:When removing the CDR mechanism assembly only, refer to the next section.

REFERENCE:When removing the fan only, refer to "Removing the fan".

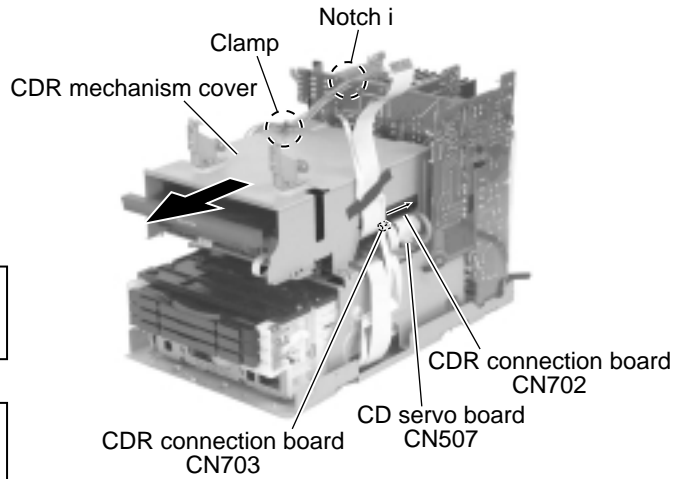


Fig.22

1. Remove the spacer settling the card wire on the right side of the body and release the wire from the clamp and the notch **i** of the power board on the upper side of the body. Disconnect the card wire from connector CN702 and CN703 on the CDR connection board.
2. Disconnect the wire from connector CN507 on the CD servo board.
3. Disconnect the wire from connector CN210 on the power board on the back of the body and release the wire from the notch **h** of the power amplifier board 2.
4. Remove the four screws **N** on the upper front side of the body and remove the CDR mechanism cover toward the front. The CDR mechanism assembly and the fan are also removed with the CDR mechanism cover.

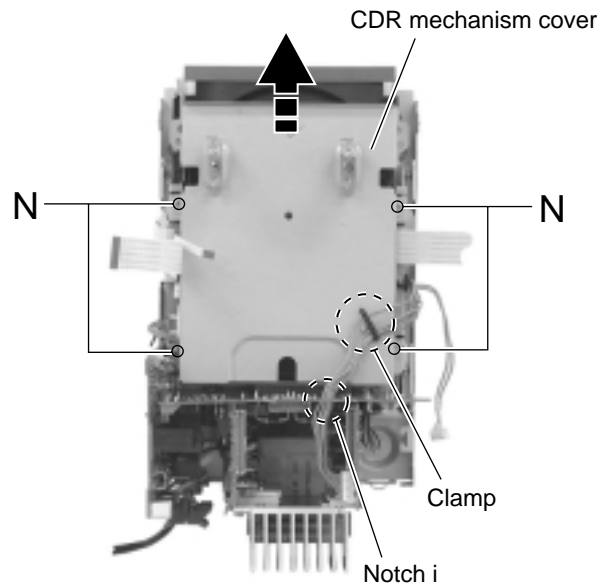


Fig.23

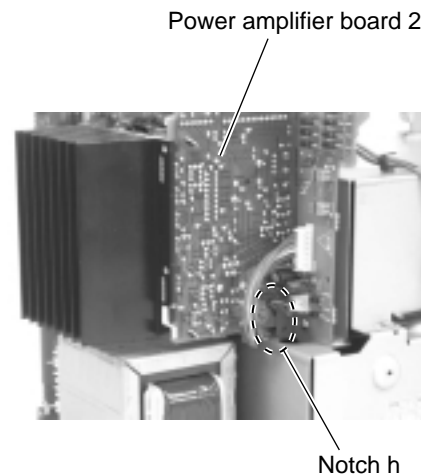


Fig.24



- Remove the three screws **○** attaching the CDR mechanism cover. Move the CDR mechanism assembly in the direction of the arrow, inside of the CDR mechanism cover, to disengage it from the three joint bosses marked **j**. Then remove the CDR mechanism assembly toward the front.

**CAUTION:** When reassembling, set the wire extending from the rear of the CDR mechanism board on the side of the CDR mechanism cover (marked **k**) as shown in Fig.26 before reattaching the CDR mechanism assembly.

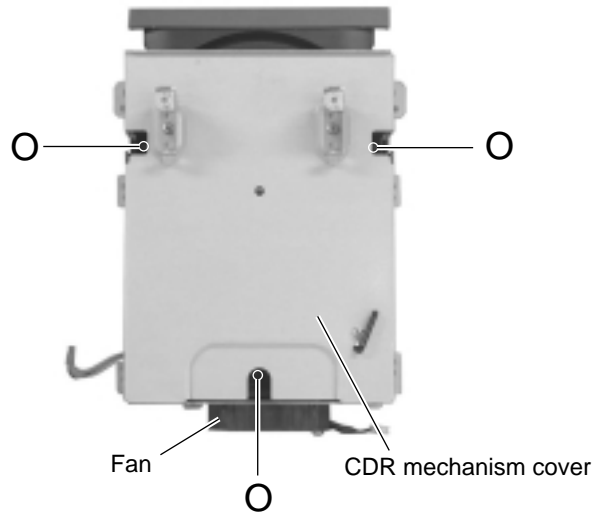


Fig.25

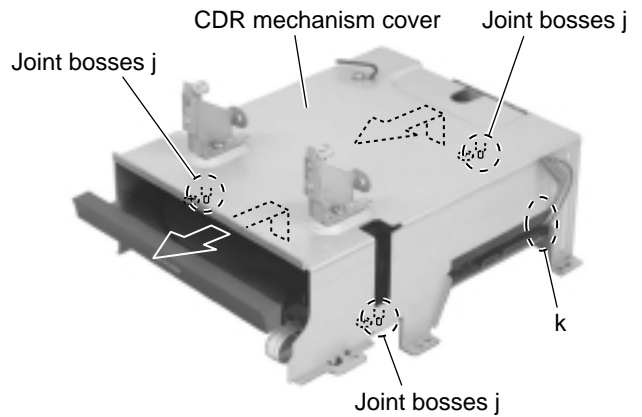


Fig.26

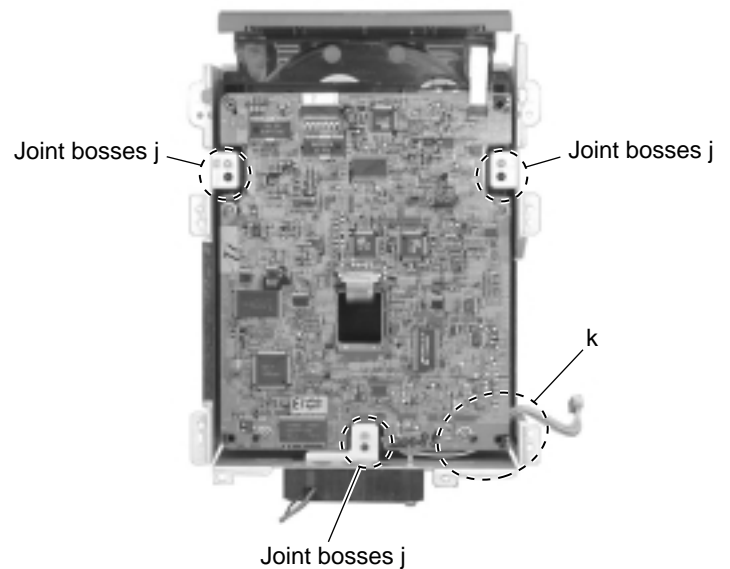


Fig.27

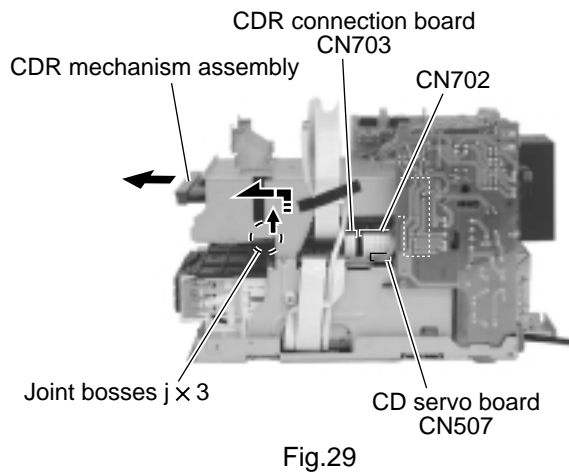
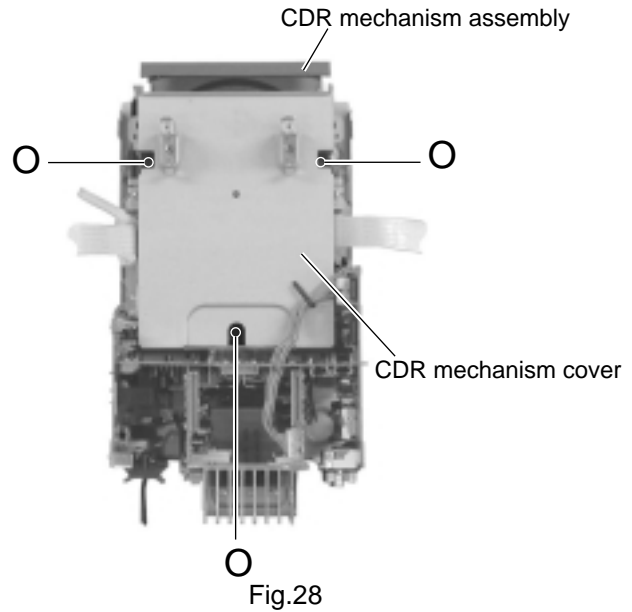
## ■ Removing the CDR mechanism assembly only (See Fig.28 and 29)

REFERENCE: The CDR mechanism assembly is detachable without removing the CDR mechanism cover.

• Prior to performing the following procedure, remove the metal cover, the front panel assembly and the main board.

1. Disconnect the card wire from connector CN702 and CN703 on the CDR connection board on the right side of the body.
2. Disconnect the wire from connector CN507 on the CD servo board.
3. Remove the three screws **O** on the upper side of the body.
4. Move the CDR mechanism assembly in the direction of the arrow, inside of the CDR mechanism cover, to disengage it from the three joint bosses marked **j**. Then pull out the CDR mechanism assembly toward the front (See Fig. 25 to 27).

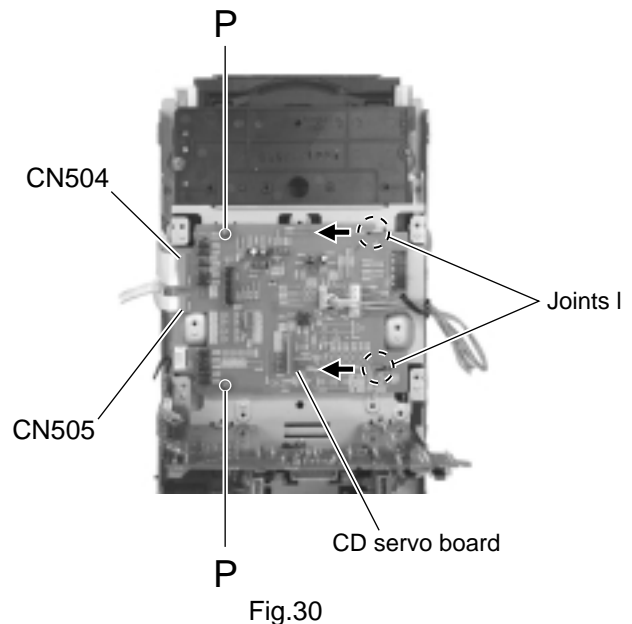
CAUTION: When reassembling, set the wire extending from the back of the CDR mechanism board on the side of the CDR mechanism cover (marked **k**) as shown in Fig.26 before reattaching the CDR mechanism assembly.



## ■ Removing the CD servo board (See Fig.30)

• Prior to performing the following procedure, remove the metal cover, the front panel assembly, the main board, the rear panel, the tuner board and the CDR mechanism cover.

1. Disconnect the card wire from connector CN504 and CN505 on the CD servo board on the upper side of the body.
2. Disconnect the wire from connector CN403 on the power board.
3. Remove the two screws **P** and move the CD servo board in the direction of the arrow to release the two joints **I**.



**■Removing the CD changer mechanism assembly (See Fig.31 to 33)**

REFERENCE: The CD changer mechanism assembly is detachable without removing the CDR mechanism cover and the CDR mechanism assembly.

• Prior to performing the following procedure, remove the metal cover, the front panel assembly and the main board.

1. Disconnect the card wire from connector CN606, CN608, CN651 on the CD changer mechanism board on the right side of the body.
2. Remove the four screws **Q** attaching the CD changer mechanism assembly on the upper side of the body.
3. Move the CD changer mechanism assembly in the direction of the arrow, inside of the CD changer mechanism cover, and pull out it toward the front while raising it slightly.

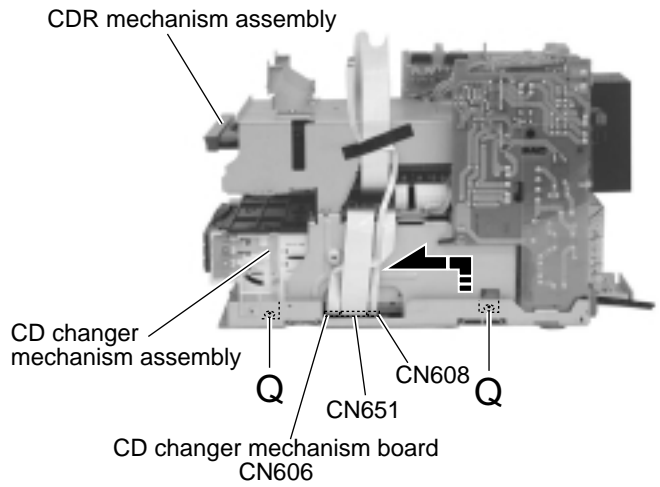


Fig.31

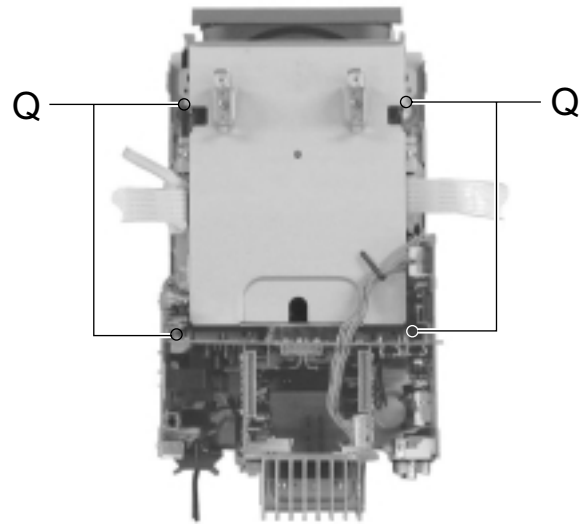


Fig.32

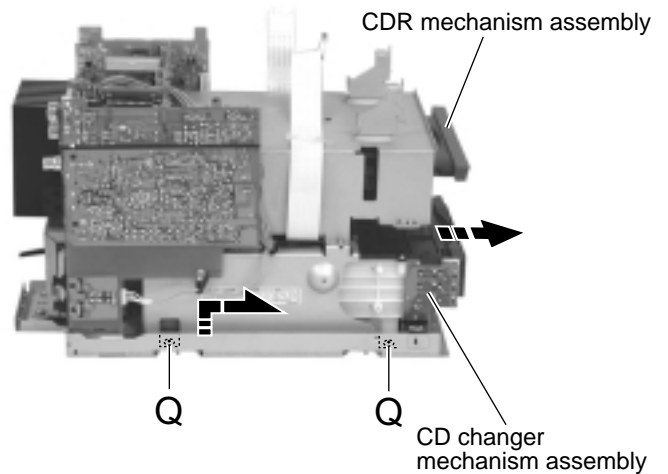


Fig.33

■ **Removing the power transformer assembly (See Fig.34 and 35)**

• Prior to performing the following procedure, remove the metal cover, the main board, the rear panel, the tuner board, the power amplifier board 1, the power board and the heat sink.

1. Remove the band setting the wire on the power board on the back of the body and disconnect the wire from connector CN904.
2. Disconnect the wire from connector CN203 on the power board.
3. Remove the four screws **R** on the upper side of the body, and remove the power transformer assembly from under the heat sink backward.

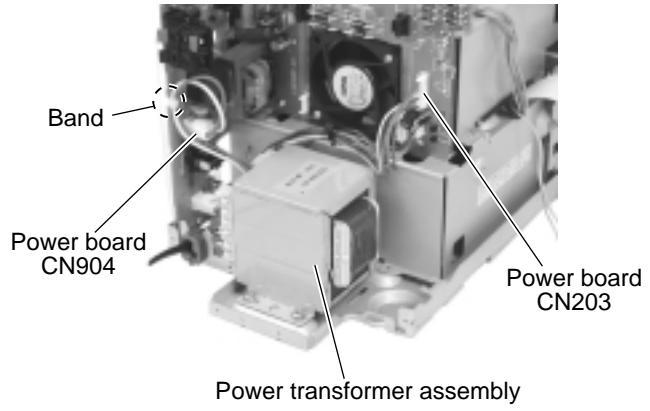


Fig.34

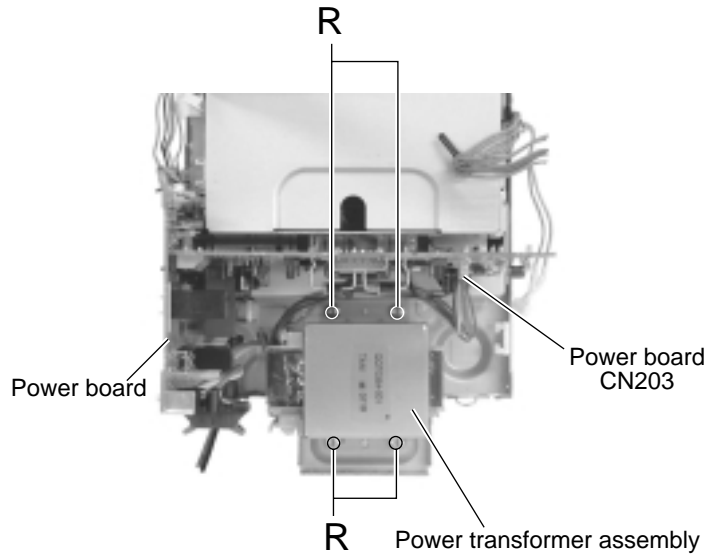


Fig.35

## <Front panel assembly section>

- Prior to performing the following procedures, remove the metal cover and the front panel assembly.

### ■ Removing the LCD board (See Fig.36)

1. Remove the four screws **S** on the back of the front panel assembly.

### ■ Removing the function switch board (See Fig.37)

1. Remove the seven screws **T**.
2. Disconnect the card wire from connector CN671 and CN672 on the function switch board.

**CAUTION:** When reconnecting each card wire, let it through the three notches **m** of the □ as shown in Fig.37.

### ■ Removing the phone jack board (See Fig.38)

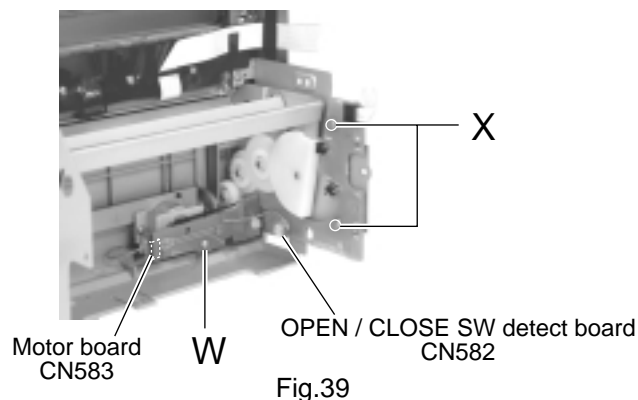
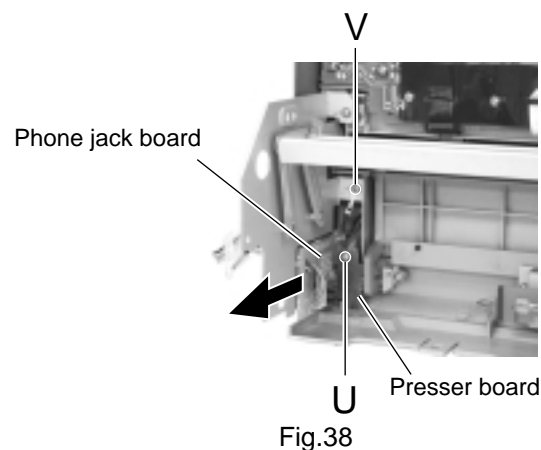
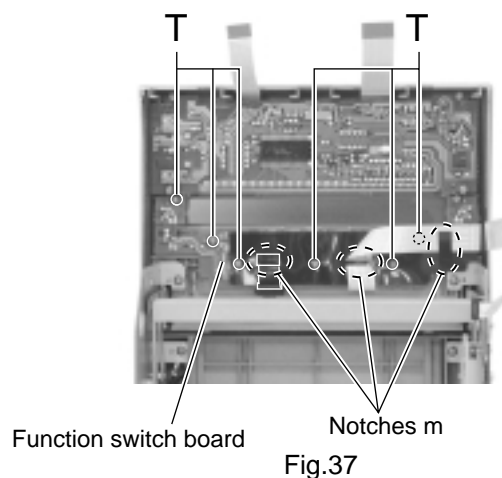
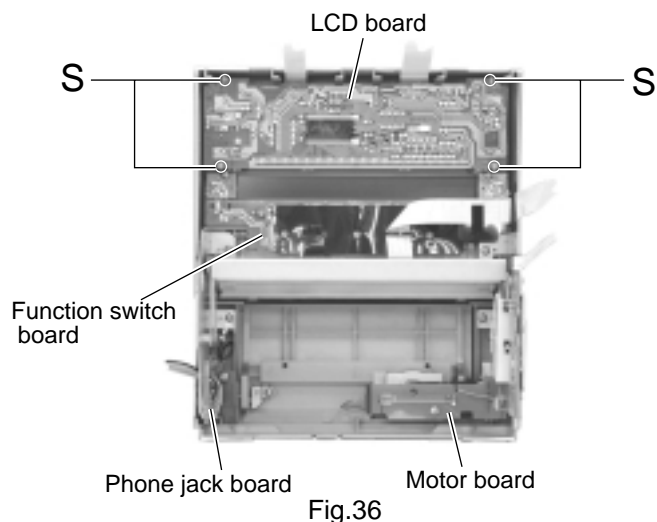
1. Remove the screw **U** attaching the presser board of the phone jack board.
2. Remove the screw **V** attaching the earth terminal extending from the phone jack board.

### ■ Removing the motor board (See Fig.39)

1. Disconnect the wire from connector CN582 on the OPEN / CLOSE SW detect board.
2. Disconnect the wire from connector CN583 on the motor board.
3. Remove the screw **W**.

### ■ Removing the OPEN / CLOSE SW detect board (See Fig.39)

1. Disconnect the wire from connector CN582 on the OPEN / CLOSE SW detect board.
2. Remove the two screws **X**.



## ■ Removing the door motor

(See Fig.40 and 41)

• Prior to performing the following procedure, remove the motor board.

1. Remove the belt from the door motor.
2. Remove the screw **Y** attaching the door motor bracket.
3. Remove the two screws **Z**.

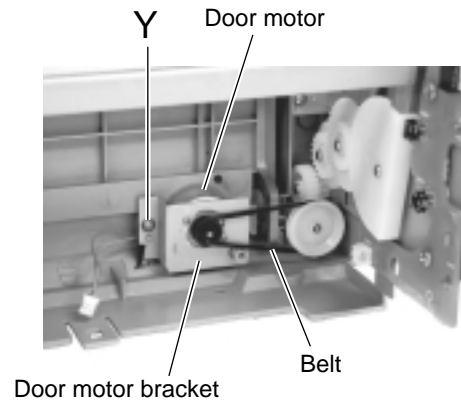


Fig.40

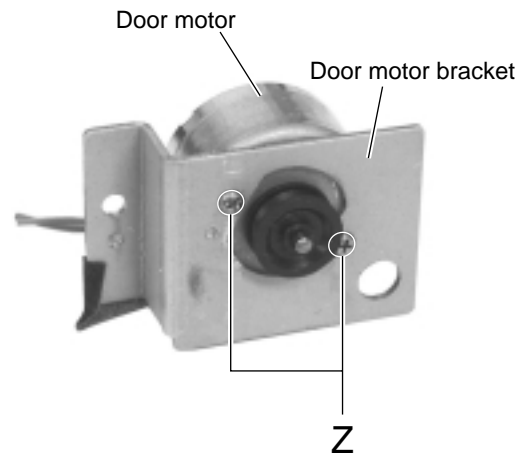


Fig.41

**■ Removing the control board**  
**(See Fig.42 to 46)**

• Prior to performing the following procedure, remove the function switch board, the motor board and the belt.

1. Remove the belt. Rotate the pulley (1) and move the control panel assembly toward the front until it stops.
2. Remove the control panel assembly toward the front while pulling out the two shafts of the joint I on the right and left sides of the control panel assembly.

**CAUTION:** Each shaft of the joint I is attached a collar. Be careful not to lose that.

3. Put the front panel assembly down toward the front, and release the four joint **m** and **n** inside of the control panel by pressing them inward.
4. Remove the four screws **Z'** attaching the control board.

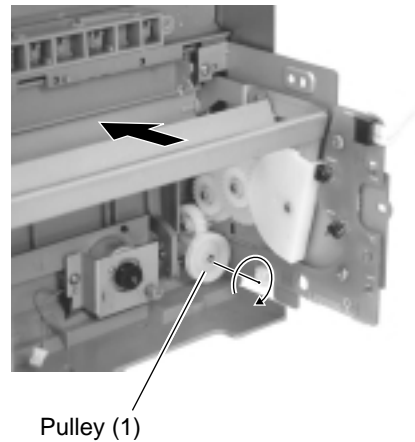


Fig.42

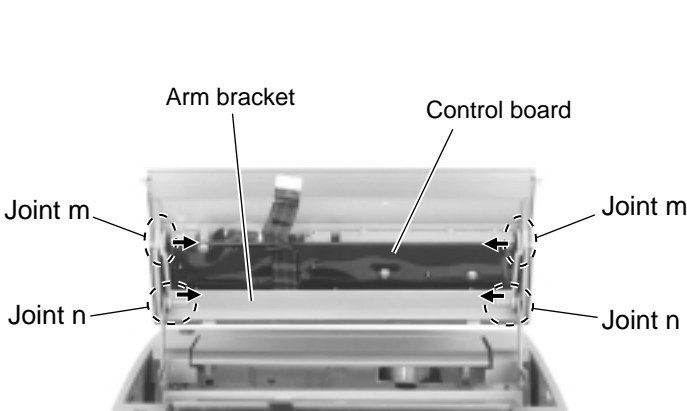


Fig.45

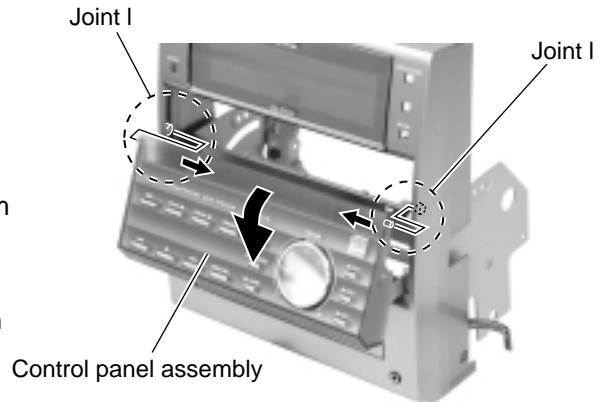


Fig.43

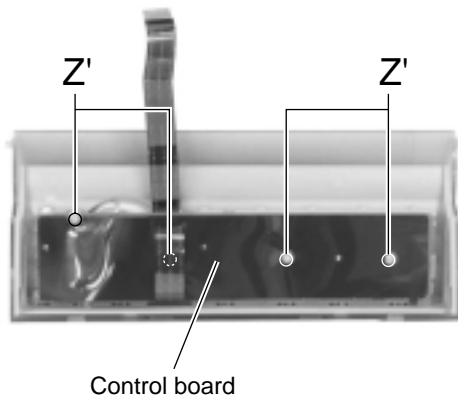


Fig.46

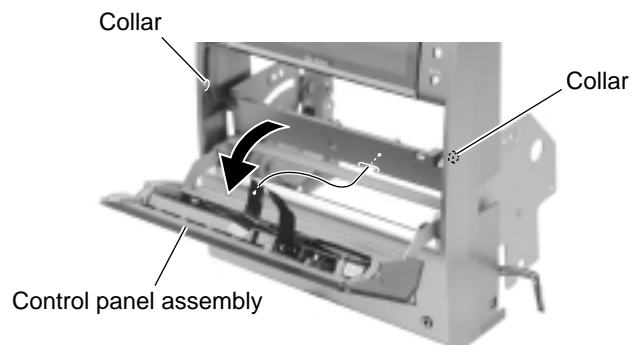


Fig.44

<Changer mechanism assembly>

■ Removing the servo control board  
(See Fig.1 to 4)

ATTENTION: Make sure the sub chassis unit is locating at the lowest position. If not,perform the following procedure from 1 to 3.

1. Insert a screwdriver into the sub chassis slot on the back of the body and push the slider (R) toward the front.
2. From the top of the body, slide the hook and the slider (R) forward until they stop.
3. From the right side of the body, slide the slide cam (L) backward until it stops. The sub chassis unit will move to the lowest position.
4. From the bottom of the body, unsolder each soldered part **a** and **b** of the motors on the servo control board.
5. Remove the five screws **A** attaching the servo control board.
6. Disconnect connector CN610 on the servo control board from the tray select switch board to suspend the servo control board tentatively. Solder the part **c** of the flexible wire connected to connector CN601 on the underside of the servo control board.
7. Disconnect the flexible wire from connector CN601 and remove the servo control board from the body.

ATTENTION: In case of disconnecting the flexible wire without soldering, the CD pick up may be damaged.

ATTENTION: When reassembling, make sure the cam switch boss of the servo control board is fitted to the slot **p** of the control cam on the bottom of the body (Refer to Fig.3-1).

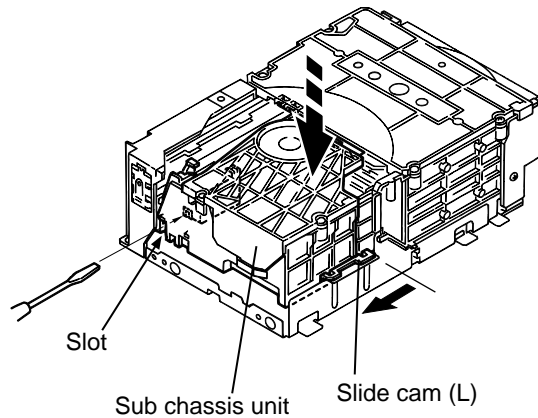


Fig.1

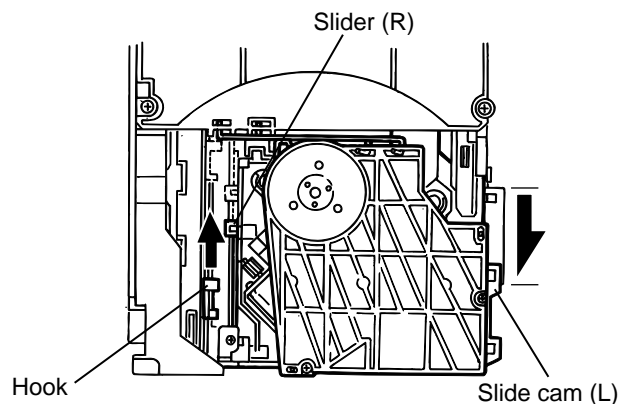


Fig.2

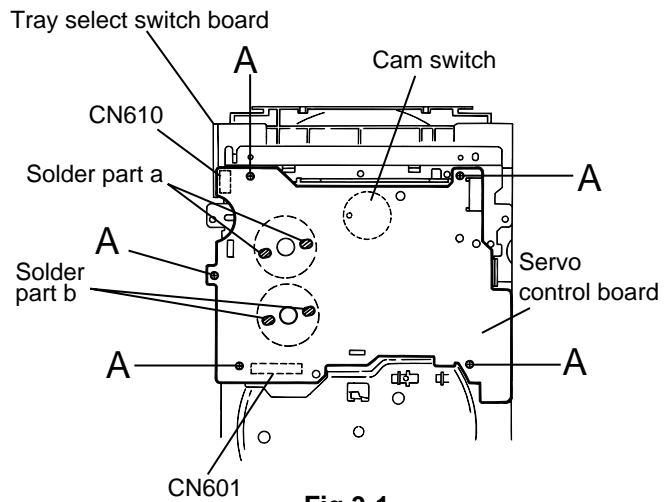


Fig.3-1

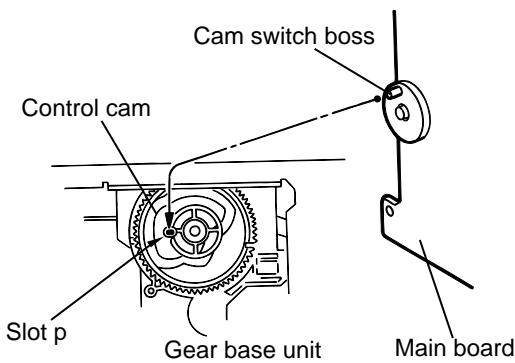


Fig.3-2

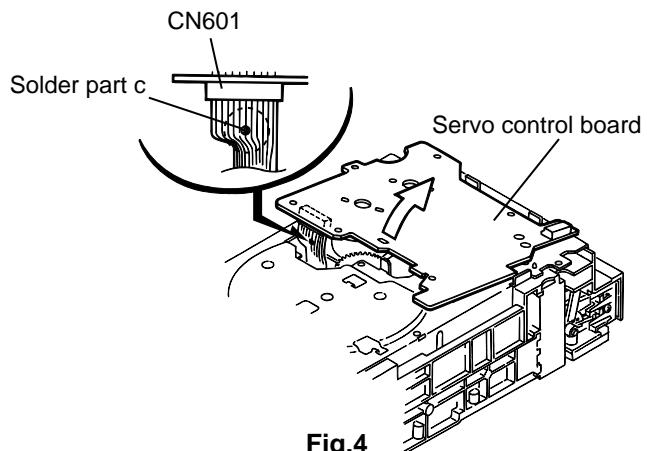


Fig.4

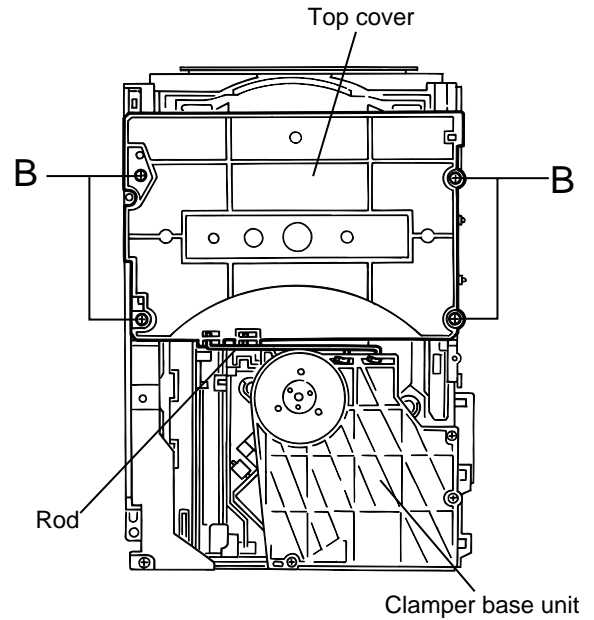


**■ Removing the tray unit (See Fig.5 to 8)**

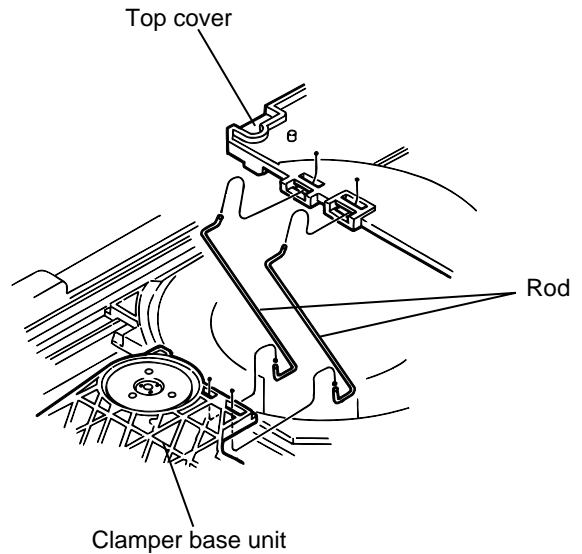
※ The tray unit can be removed despite the position of the sub chassis unit, but the lowest position is recommended to expedite the work.

1. Remove the four screws **B** attaching the top cover on the top of the body.
2. Remove the top cover with the two rods attached to the top cover and the clamber base unit.
3. Pull the lock lever of the return spring on the right side of the body to eject the tray unit.
4. From the top of the body, release the tray from the joint hook marked **d** (Push the tray toward the front).
5. Release the stoppers on both sides in the direction of the arrow and pull out the tray unit from the body.

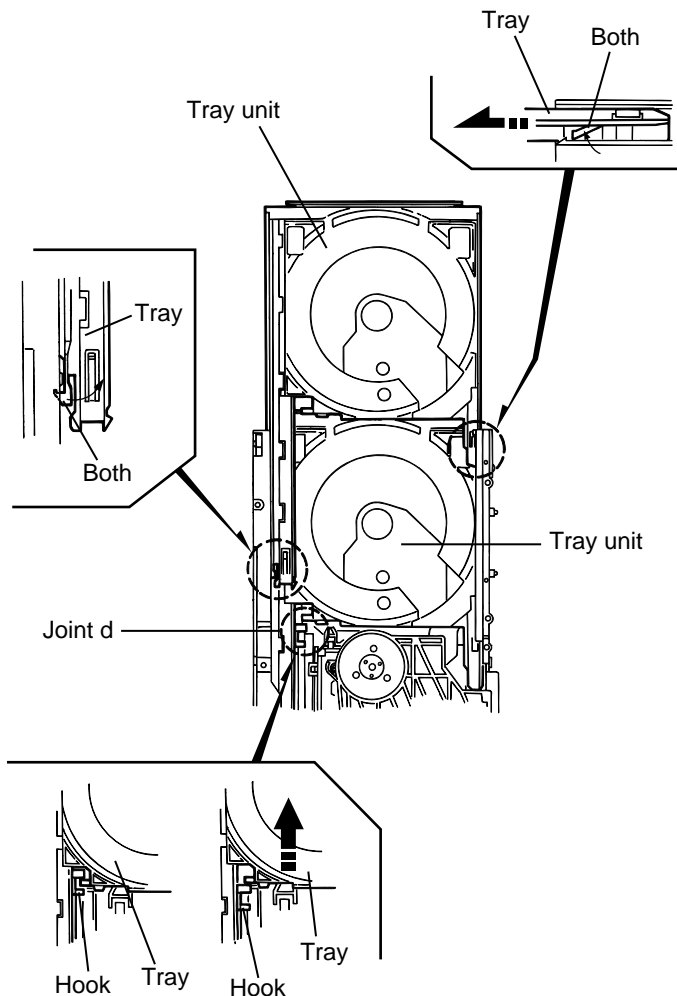
**ATTENTION:** Pull out the tray unit from the top tray 3 in sequence.



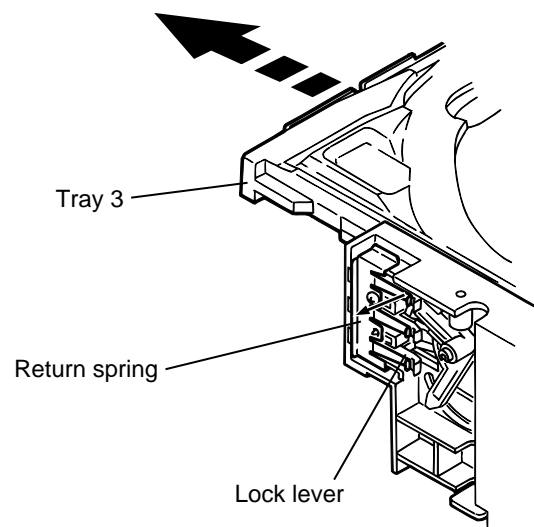
**Fig.5**



**Fig.6**



**Fig.8**



**Fig.7**

**■ Removing the side unit (L) and (R)**  
**(See Fig.9-1 to 9-5)**

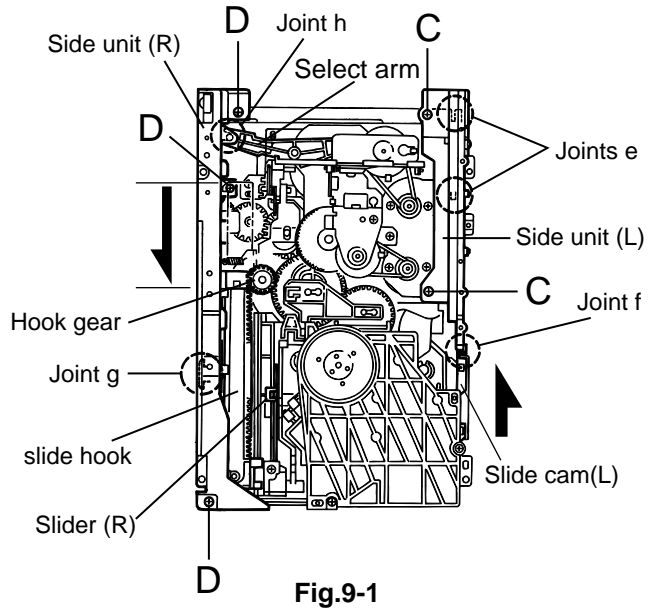
• Prior to performing the following procedures, remove the servo control board, the top cover and the tray unit.

1. Remove the two screws **C** attaching the side unit (L).
2. Slide and remove the side unit (L) toward the front while releasing the two joints **e** and the joint **f** with the chassis unit.
3. Slide the slide cam (L) toward the front until it stops to place the sub chassis unit at the top position.

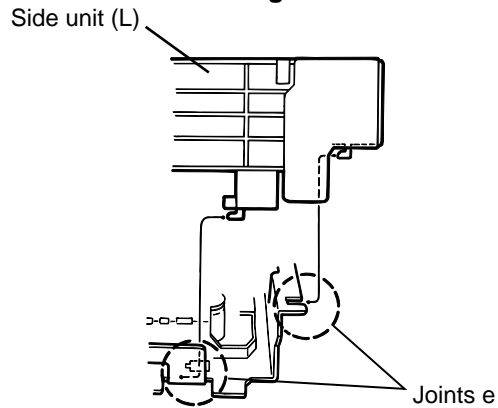
**ATTENTION:** The side unit (R) can be removed when the sub chassis unit is located at the top position.

4. Turn the hook gear counterclockwise to move the slide hook and the slider (R) backward until they stop.
5. Remove the three screws **D** attaching the side unit (R). Raise the side unit (R) upward and release the joint **g** with the chassis unit and the boss from the select arm marked **h**. Then remove the side unit (R) from the body.

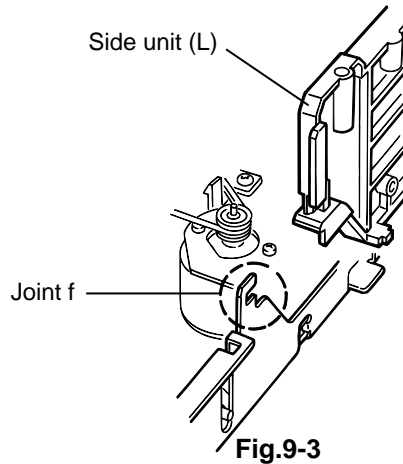
**ATTENTION:** When reassembling, make sure the boss is fitted to the select arm marked **h**.



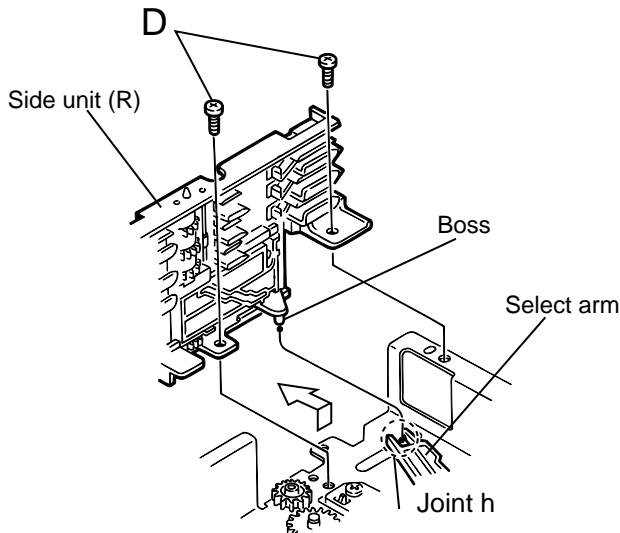
**Fig.9-1**



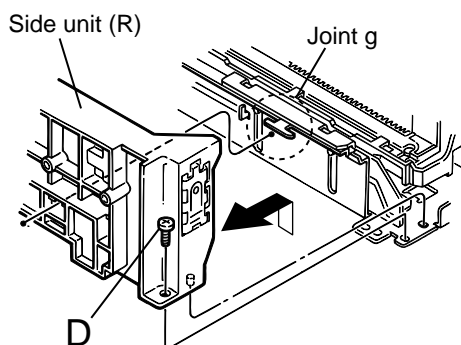
**Fig.9-2**



**Fig.9-3**



**Fig.9-4**



**Fig.9-5**

**■ Removing the sub chassis unit**  
**(See Fig.10 to 12)**

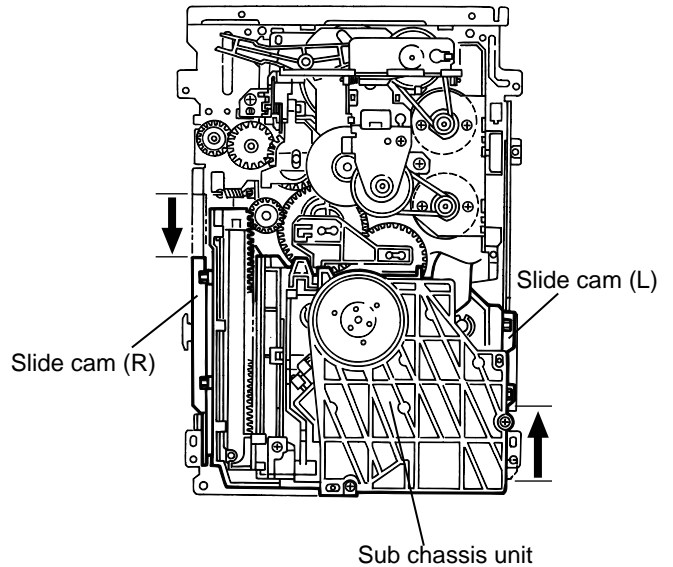
• Prior to performing the following procedures, remove the servo control board, the top cover, the tray unit, the side unit (L) and the side unit (R).

1. Turn the hook gear counterclockwise to move the slide hook and the slider (R) backward until they stop.
2. Slide the slide cam (L) and the slide cam (R) in the direction of the arrow until they stop.

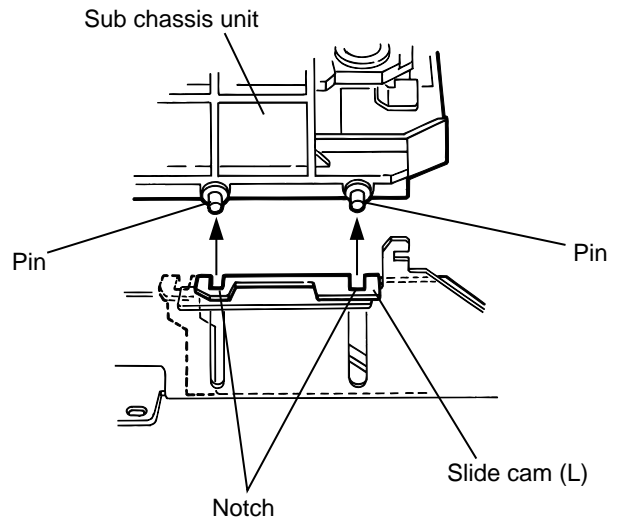
(The notches of each slide cam are fitted to the pins on both sides of the sub chassis unit.)

3. Detach the sub chassis unit upward.

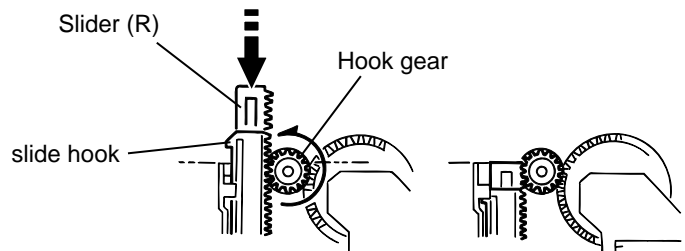
**ATTENTION:** When reassembling, turn the hook gear of the chassis unit counterclockwise until it stops and slide the slide hook and the slider (R) of the sub chassis unit backward until they stop.



**Fig.10**



**Fig.11**

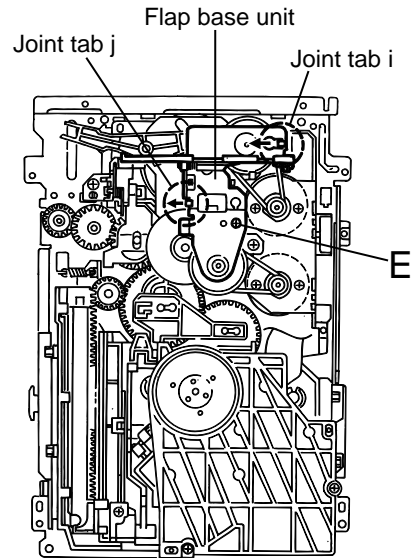


**Fig.12**

■ **Removing the flap base unit and the gear base unit (See Fig.13 and 14)**

- Prior to performing the following procedures, remove the servo control board, the top cover, the tray unit, the side unit (L) and the side unit (R).

1. Remove the screw **E** attaching the flap base unit. Release the joint tabs **i** and **j**, then remove the flap base unit from the body.
2. Remove the belts from the two pulleys on the gear base unit.
3. Remove the three screws **F** and remove the gear base unit from the body.

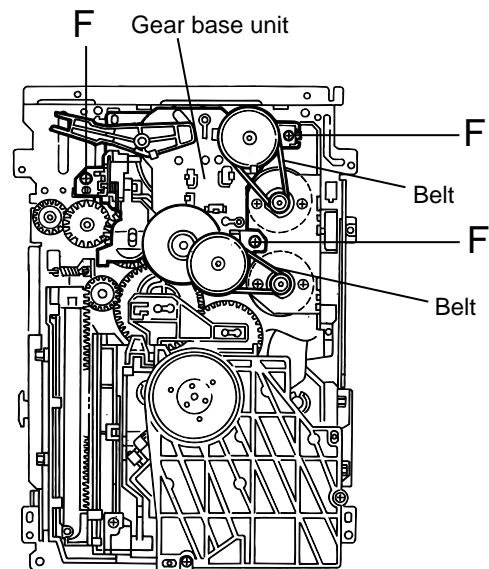


**Fig.13**

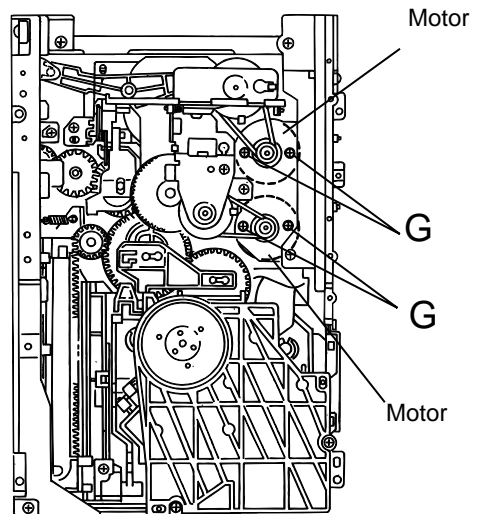
■ **Removing the motors (See Fig.15)**

- Prior to performing the following procedure, remove the main board.

1. Remove the belts from the two pulleys.
2. Remove the four screws **G** and detach each motor from the body.



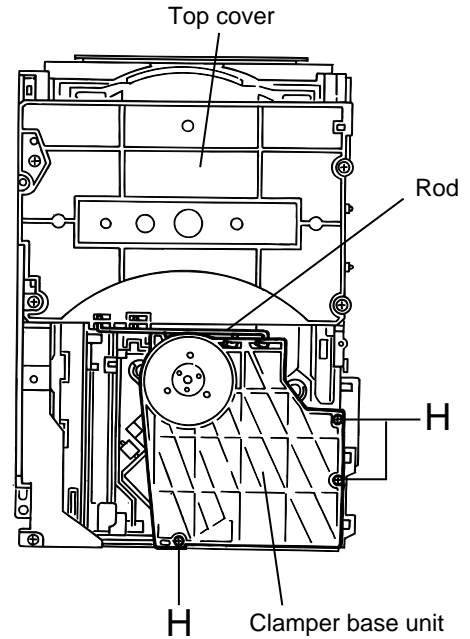
**Fig.14**



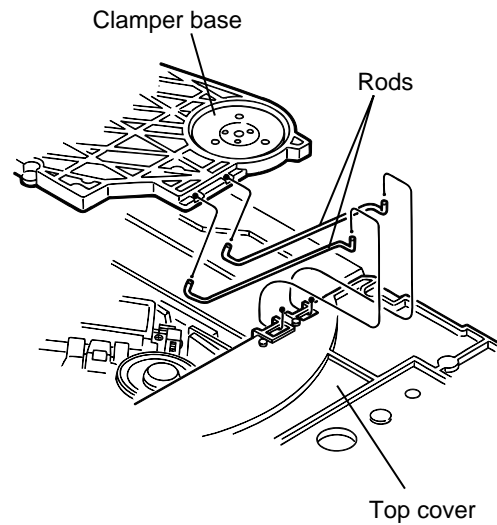
**Fig.15**

**■ Removing the pickup (See Fig.16 to 20)**

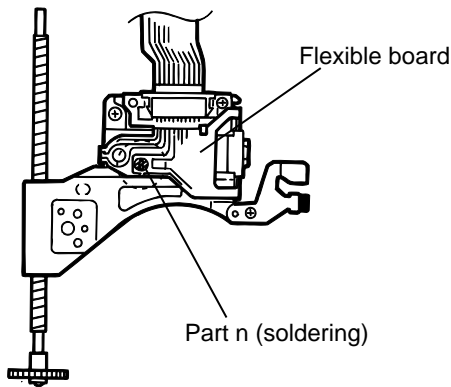
1. From the top of the body, remove the three screws **H** attaching the clamper base unit.
2. Remove the clamper base unit with the two rods attached to the clamper base unit and the top cover.
3. Turn the screw shaft gear marked **k** in the direction of the arrow to move the pickup unit.
4. Remove the screw **I** attaching the shaft holder.
5. Move the screw shaft in the direction of the arrow and release it from the joint **I**. Then release it from the joint **m** with the pickup holder. Detach the pickup with the screw shaft.
6. Solder the part **n** of the flexible board on the underside of the pickup. After soldering, disconnect the flexible wire connected to the pickup (In case of disconnecting the flexible wire without soldering, it may cause damage to the CD pickup).
7. Remove the two screws **J** attaching the rack arm to the pickup unit.
8. Pull out the screw shaft from the pickup.



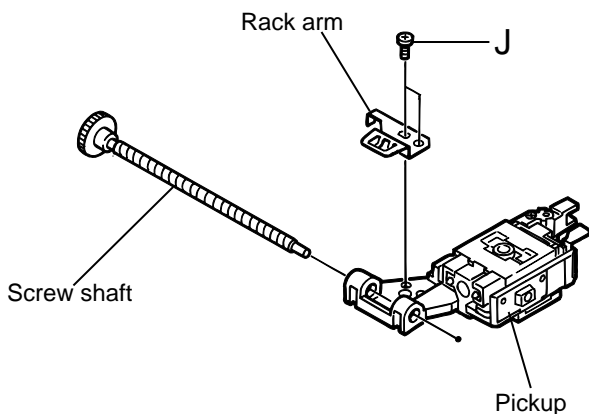
**Fig.16**



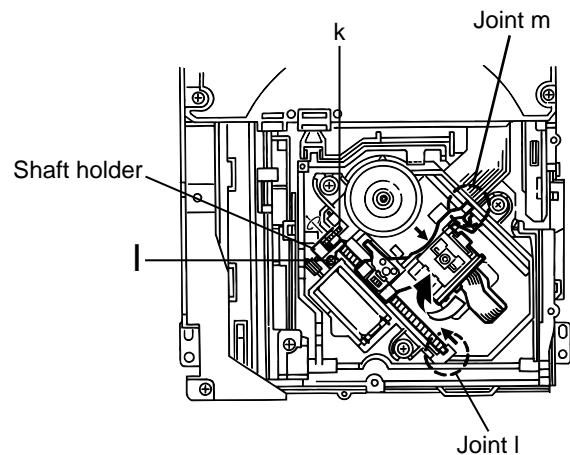
**Fig.17**



**Fig.19**



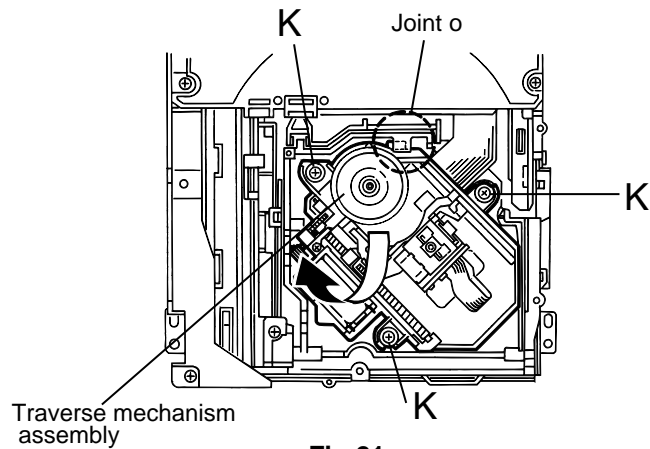
**Fig.20**



**Fig.18**

**■ Removing the traverse mechanism assembly (See Fig.21)**

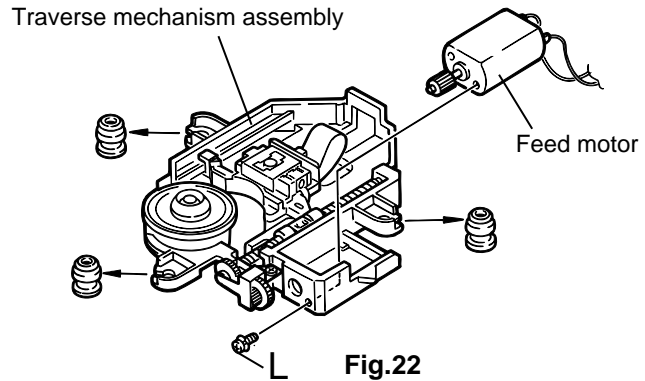
- Prior to performing the following procedure, remove the servo control board and the clamper base unit.
1. Remove the three screws **K** attaching the traverse mechanism assembly.
  2. Detach the rear part of the traverse mechanism assembly upward to release the joint **o** with the sub chassis unit. Then remove the assembly from the body.



**Fig.21**

**■ Removing the feed motor (See Fig.22)**

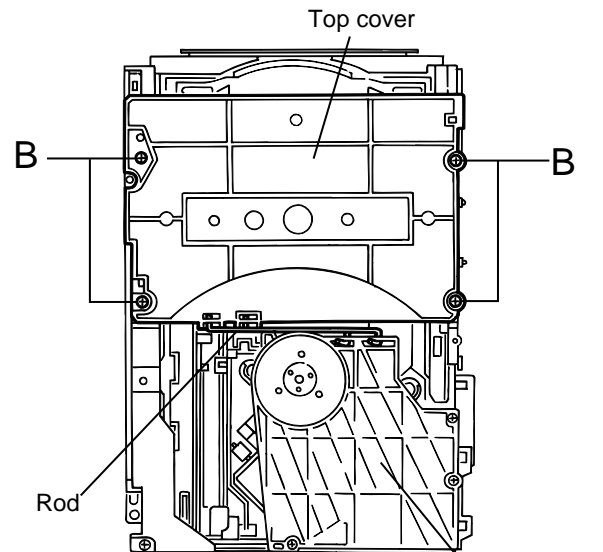
- Prior to performing the following procedure, remove the traverse mechanism assembly.
1. Remove the screw **L** attaching the feed motor.



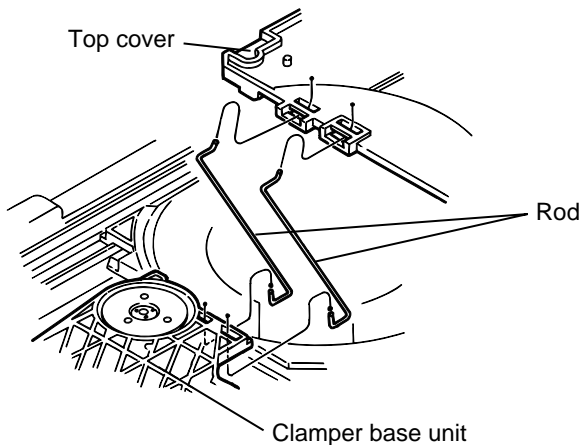
**Fig.22**

**■ Removing the tray select switch board (See Fig.5,6 and 23)**

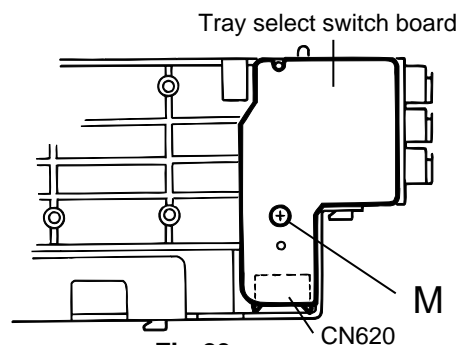
1. Remove the four screws **B** attaching the top cover on the top of the body.
2. Remove the top cover with the two rods attached to the top cover and the clamper base unit.
3. Remove the screw **M** on the right side of the body.



**Fig.5**



**Fig.6**



**Fig.23**

# Disassembly method

## <Speaker section>

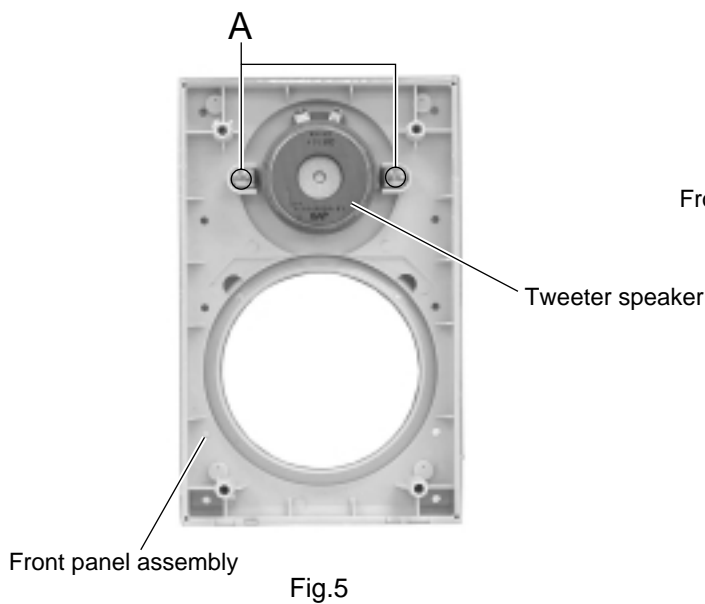
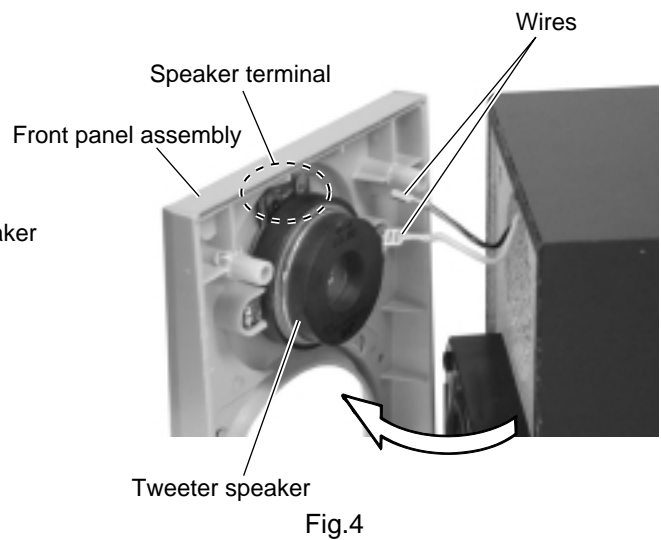
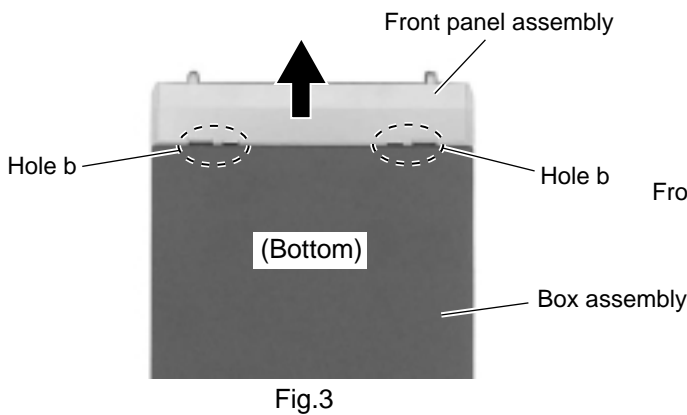
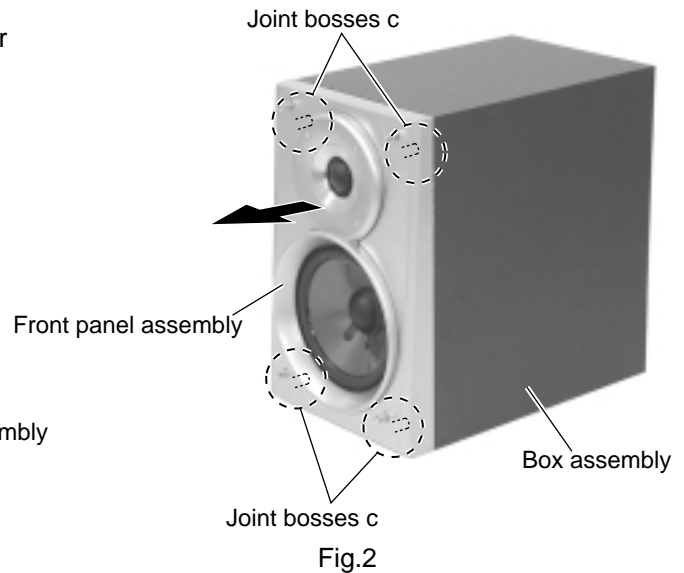
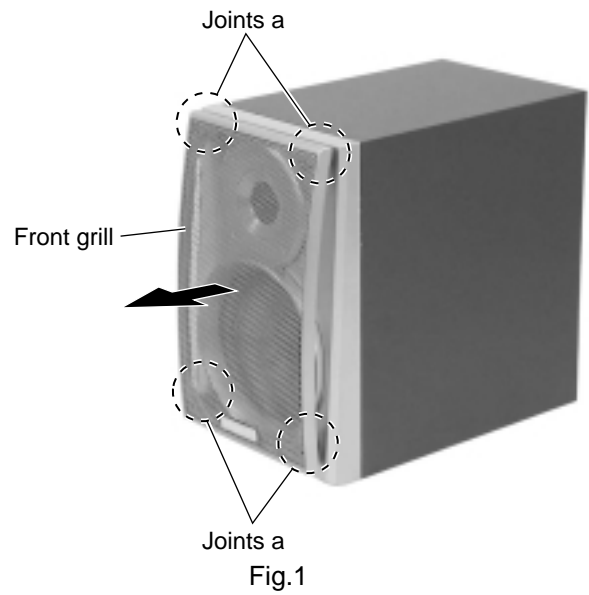
### ■ Removing the tweeter speaker

(See Fig.1 to 5)

1. Release the four bosses of the joint a and remove the front grill toward the front.
2. Turn over the body and insert a slotted screwdriver into the two holes b of the front panel assembly. Then release the four joint bosses c and remove the front panel assembly toward the front.

**CAUTION:** To prevent damage to the product, apply a cloth to the box assembly.

3. Disconnect the two wires from the tweeter speaker terminal on the back of the front panel assembly.
4. Remove the two screws A attaching the tweeter speaker.



■ **Removing the squawker speaker**  
(See Fig.6)

- Prior to performing the following procedure, remove the front grille and the front panel assembly.
1. Remove the four screws **B** on the front side of the box assembly.
  2. Disconnect the two wires from the squawker speaker terminal.

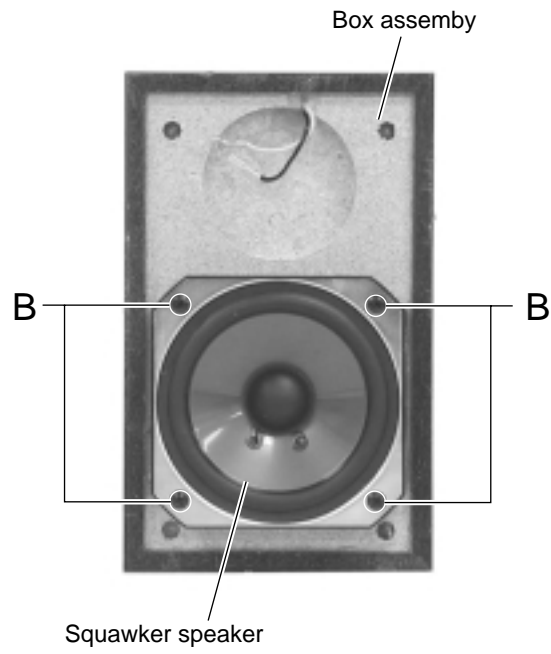


Fig.6



# Adjustment method

## Measurement instruments required for adjustment

1. Low frequency oscillator,  
This oscillator should have a capacity to output 0dBs to 600ohm at an oscillation frequency of 50Hz-20kHz.
2. Attenuator impedance : 600ohm
3. Electronic voltmeter
4. Frequency counter
5. Test disc  
: CTS-1000(12cm),GRG-1211(8cm)
6. Jitter meter

## Measurement conditions

Power supply voltage  
AC120V(60Hz)

Measurement  
output terminal : Speaker out  
: Dummy load 6ohm

## Radio input signal

AM modulation frequency : 400Hz  
Modulation factor : 30%  
FM modulation frequency : 400Hz  
Frequency displacement : 22.5kHz

## Frequency Range

AM 531kHz~1710kHz  
FM 87.5MHz~108MHz

## Standard measurement positions of volume and switch

Power : Standby (Light STANDBY Indicator)  
Sub woofer VOL. : Minimum  
Sound mode : OFF  
Main VOL. : 0 Minimum  
Traverse mecha set position : Disc 1  
Mic MIX VOL : MAX  
ECHO : OFF

## Precautions for measurement

1. Apply 30pF and 33kohm to the IF sweeper output side and 0.082 F and 100kohm in series to the sweeper input side.
2. The IF sweeper output level should be made as low as possible within the adjustable range.
3. Since the IF sweeper is a fixed device, there is no need to adjust this sweeper.
4. Since a ceramic oscillator is used, there is no need to perform any MPX adjustment.
5. Since a fixed coil is used, there is no need to adjust the FM tracking.
6. The input and output earth systems are separated. In case of simultaneously measuring the voltage in both of the input and output systems with an electronic voltmeter for two channels, therefore, the earth should be connected particularly.
7. In the case of BTL connection amplifier, the minus terminal of speaker is not for earthing. Therefore, be sure not to connect any other earth terminal to this terminal. This system is of an OTL system.

## Confirm method of operation

### ■ Check mode

All lighting FL display and reducing time operation of clock

<Setting method of all lighting FL display>

"STANDBY/ON" key is pushed while pushing "REC/REC MUTING" key by the stand-by state.

<Setting method of reducing time operation of clock>

FL display is put into the state of all lighting by the method of the above-mentioned, and "STANDBY/ON" key is pushed afterwards.

The clock display comes to advance during one minute a second in actual time when changing to this mode. Because other operation can do the normal operation, Uses for the confirmation of the operation of the timer function etc.

<Release method>

"STANDBY/ON" key is pushed while pushing "REC/REC MUTING" key.

### ■ All release of set content

All content of the item in the following set is returned to initial state. (State of factory shipment)

<Setting method>

"STANDBY/ON" key is pushed while pushing "REC SOURCE SELECTOR" key by the stand-by state.

#### [Set items]

Deletion of time setting

The setting of the timer is deleted.

The program of the program play is deleted.

The content of the registration of the listening editing and the program editing is deleted.

The repeat setting is turned off.

Release of disc lock

The unit of busy is adjusted to the changer mechanism side.

The play mode of changer mechanism is made a normal mode.

The pitch control setting is turned off.

The selection of the recording source is made DIGITAL of CD.

DUB-SPEED setting is made HIGH.

AUTO TRACK setting is turned ON.

TRACK SPACE setting is turned ON.

CONVERTER setting is turned ON.

D-IN SYNCHRO setting is START

FINALISE setting is ON

### ■ Service menu

The running operation and the version of the firmware can be confirmed by the undermentioned method.

<Setting method of service menu>

1. "STANDBY/ON" key is pushed while pushing "FINALIZE" key by the stand-by state.

2. When the blinking display of the disk distinction ends, "MENU" key is pushed.

The menu display changes if "MULTI JOG" knob of the main body is turned.

3. The execution of the each item is completed or either "CANCEL" key, "CD-RW STOP" key or "MENU" key is pushed when going out of the menu mode.

<Release method>

If "STANDBY/ON" key is pushed, and the power supply is turned off once, becomes a normal menu.

## ■ Running operation

When this mode is executed, the operation of the recording and the playback is repeated.  
Please use to confirm operation.

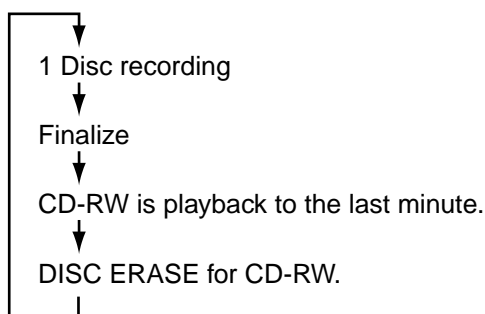
**It is necessary to put the recorded disk or CD-DA in tray 1 of changer mechanism beforehand to execute this item, and put CD-RW of the blank disk in recording mechanism.**

<Setting method of running operation>

1. "Service menu" is made to be displayed on the FL display referring to the above-mentioned.
2. "SYSTEM\_AGING" is made to turn "MULTI JOG" knob, and to be displayed on the FL display.
3. The undermentioned operation starts when "SET" key is pushed.

The undermentioned control becomes possible according to the content of the disk turned on to tray 1 of changer mechanism.

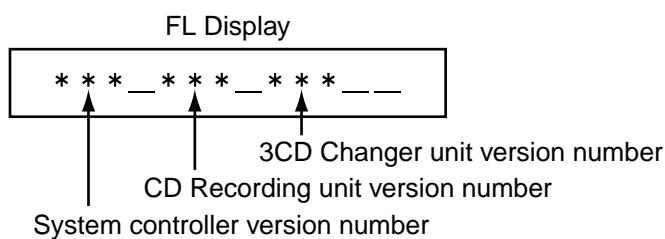
- \* The time required of operation of running once
- \* Movement frequency of pick-up



FL display becomes " \* \* \* \* ", and the frequency to which the running operation is done is displayed by the figure when "STOP" key is pushed to the running working or interrupted because of the error etc.

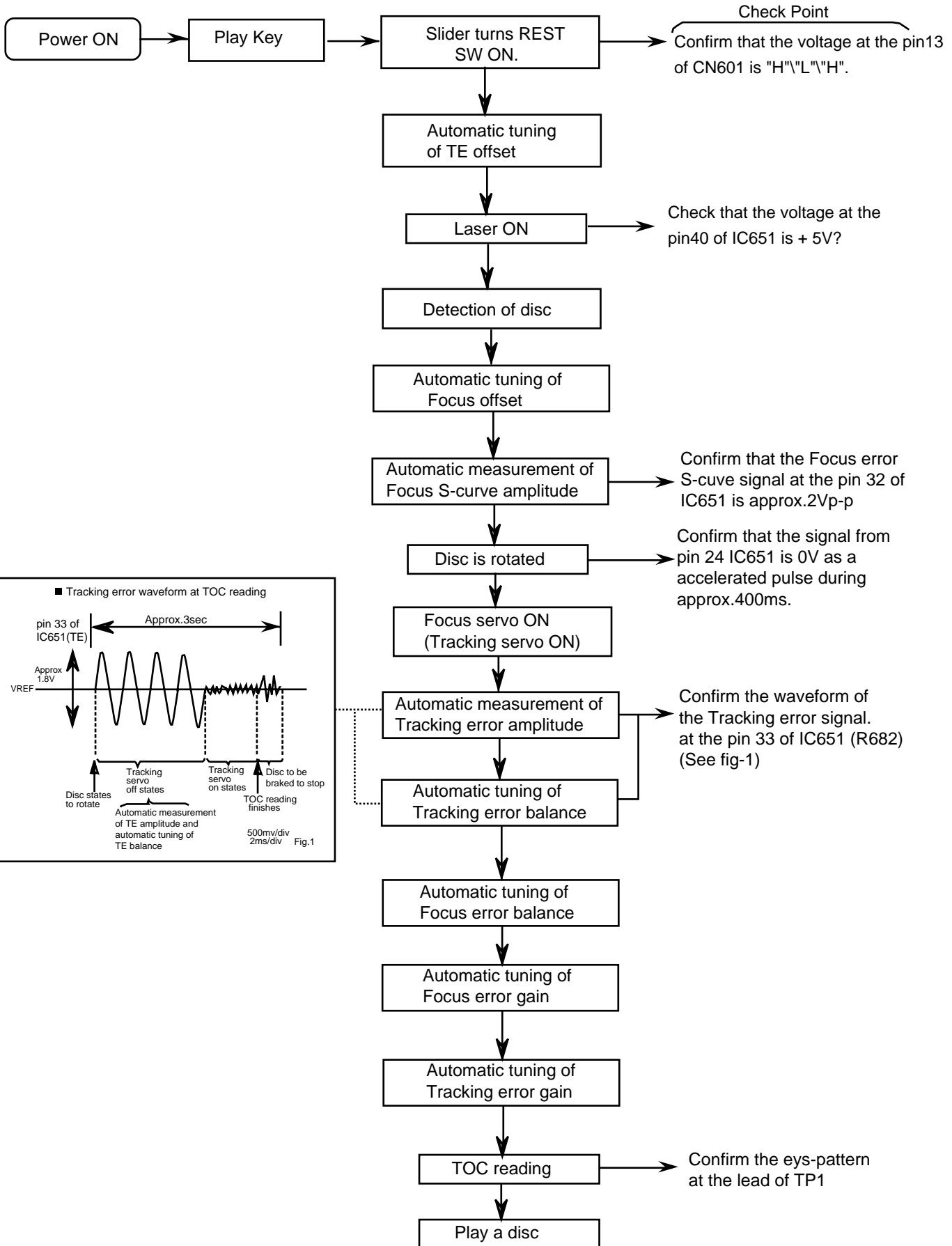
## ■ Display of version number

When this item is executed, version number "system controller", "CD recording unit", and "3CD changer unit" respectively is displayed in FL display for five seconds.  
When five seconds pass, this mode is automatically made clear.



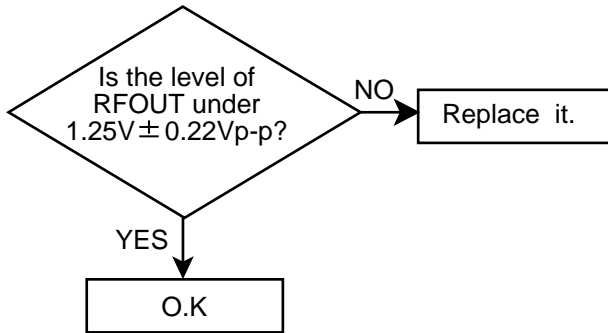
It is displayed instead of version number when failing in reading version number, "000".

# Flow of functional operation until TOC read

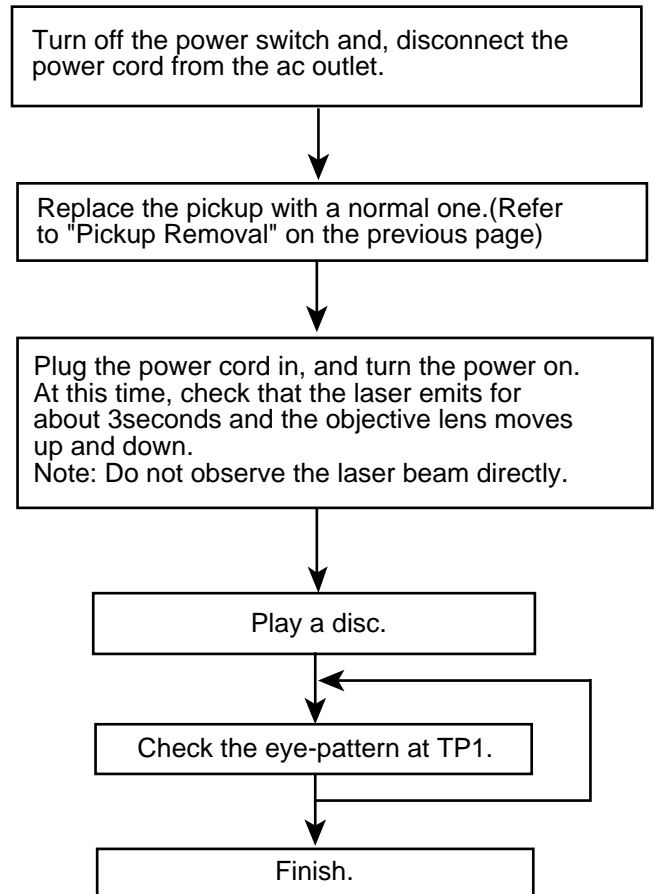


## Maintenance of laser pickup

- (1) Cleaning the pick up lens  
Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.
- (2) Life of the laser diode  
When the life of the laser diode has expired, the following symptoms will appear.
  1. The level of RF output (EFM output : amplitude of eye pattern) will below.



## Replacement of laser pickup



### (3) Semi-fixed resistor on the APC PC board

The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.

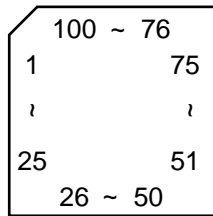
If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced.

If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

# Description of major ICs

## ■ UPD784216AGF (IC701) : System micon

### 1. Terminal layout



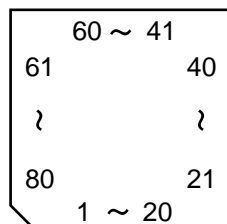
### 2. Pin function

Pin No.	Symbol	I/O	Function
1	PROTECT	I	Power amplifier output protect detection
2	SPK-RELAY	O	SPK-relay control signal
3	SURROUND	O	Surround output control signal
4	SMUTE	O	System mute control signal
5	POUT1	O	FL power supply control signal output
6	POUT2	O	Main power supply switching control
7	POUT3	O	FL regulator control output
8	STANDBY	O	Power amplifier control signal
9	VDD	-	Power supply
10	FL-RESET	O	FL reset signal output
11	FL-STB	O	FL strobe signal output
12	FL-CLK	O	FL clock output
13	FL-DATA	O	FL data output
14	LED-JOG	O	JOG dial LED control signal
15	LED-CDR/AMD	O	CDR/AMD LED control signal
16	LED-STBY	O	STBY LED control signal
17	LED-BMD	O	BMD LED control signal
18	NC	-	Connect to GND
19	NC	-	Connect to GND
20	NC	-	Connect to GND
21	NC	-	Connect to GND
22	TEST	-	TEST terminal
23	NC	-	Connect to GND
24	NC	-	Connect to GND
25	NC	-	Connect to GND
26	NC	-	Connect to GND
27	NC	-	Connect to GND
28	NC	-	Connect to GND
29	NC	-	Connect to GND
30	NC	-	Connect to GND
31	NC	-	Connect to GND
32	NC	-	Connect to GND
33	NC	-	Connect to GND
34	NC	-	Connect to GND
35	INH	O	Inhibit output signal
36	XKILL	O	Main clock of CPU stop signal
37	VDD	-	Power supply
38	X2	O	Connect to system main clock X'tal osc
39	X1	I	Connect to system main clock X'tal osc
40	VSS	-	Connect to GND
41	XT2	O	Connect to system sub clock X'tal osc
42	XT1	I	Connect to system sub clock X'tal osc
43	RESET	I	Reset signal input
44	REM	I	Remote control signal input
45	ZC4-DQSY	O	RF signal polarity specification terminal

Pin No.	Symbol	I/O	Function
46	CDR-RREQ	O	CDR request signal
47	RDCLK	I/O	Clock for data communication
48	NC	-	No connect
49	KEYP	I	Power on key input
50	+BCTL	-	No connect
51	AVDD	-	Power supply
52	AVREF0	I	Reference voltage
53	KEY0	I	Key control 0 input terminal
54	KEY1	I	Key control 1 input terminal
55	KEY2	I	Key control 2 input terminal
56	KEY3	I	Key control 3 input terminal
57	LOCK	I	Current detection of Motor control driver IC
58	VER	I	Version swching input
59	SAFE0	I	Over current detection input 0
60	SAFE1	I	Over current detection input 1
61	AVSS	-	Connect to GND
62	JOGB	O	Jog dial control signal output B
63	JOGA	O	Jog dial control signal output A
64	AVREF1	O	Power supply terminal
65	CDR-DATAI	I	Data communication for CDR input signal
66	CDR-DATAO	O	Data communication for CDR output signal
67	CDR-CLK	I/O	Clock for data communication
68	ZC4-MSTAT	I	Status input signal from CD unit micon
69	ZC4-KCMD	O	Command output signal to CD unit micon
70	NC	-	No connect
71	ZC4-RESET	O	CD chnger CPU reset
72	NC	-	No connect
73	ZC4-SUBC	I	CD SUB code data input
74	NC	-	No connect
75	ZC-SBCK	I/O	Bit clock for CD data communication
76	CDR-SREQ	O	Request signal for CDR unit
77	CDR-SRDY	O	Stand-by signal for CDR unit
78	CDR-RESET	O	Reset signal for CDR unit
79	VOL-DATA	O	Data output terminal
80	VOL-CLK	O	Clock signal output terminal
81	CDRMON	O	Signal input swiching for CDR
82	MIXOUT	O	Fanction swiching
83	VOLIN	I	VOL data input
84	FTU	O	Tuner control signal output
85	RDDA	I	Radio data input
86	TUDATA	I/O	Tuner data output
87	TUSTB	I/O	Tuner strobe signal
88	TUCLK	I/O	Clock for tuner data comimnucation
89	STEREO	I	Stereo indicator detection
90	LINEOUT-MUTE	O	Line out mute signal
91	DINCD	O	Dagital data control signal for CD
92	DINAUX	O	Dagital data control signal for fanction
93	PASWOP	I	Panel sw detection at open
94	PASWCL	I	Panel sw detection at close
95	PASWMIO	-	No connect
96	MT01	O	Panel motor drive control output 1
97	MT02	O	Panel motor drive control output 2
98	NC	-	No connect
99	NC	-	No connect
100	VSS	-	Connect to GND

## ■ MN662790RSC (IC651) : Digital servo & processor

### 1. Terminal layout



### 2. Pin function

MN662790RSC (1/2)

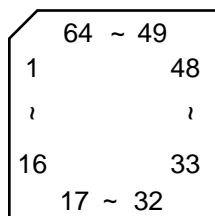
Pin No.	Symbol	I/O	Function
1	BCLK	O	Bit clock output for SRDATA
2	LRCK	O	Identifying signal output of L,R
3	SRDATA	O	Serial data output
4	DVDD1	-	Power supply for digital circuit
5	DVSS1	-	Connect to ground for digital circuit
6	TX	O	Digital audio interface output signal
7	MCLK	I	Micom command clock signal input
8	MDATA	I	Micom command data signal input
9	MLD	I	Micom command load signal input L:load
10	SENSE	-	Non connect
11	FLOCK	-	Non connect
12	TLOCK	-	Non connect
13	BLKCK	O	Sub code block clock signal (Command execution : CD-TEXT data readout enabling signal (DQSY) output)
14	SQCK	I	Export clock signal input for sub code Q register
15	SUBQ	O	Sub code Q data output
16	DMUTE	I	Muting input H:muting
17	STAT	O	Status signal output
18	LSI_RST	I	Reset signal input L:reset
19	SMCK	O	Clock signal output MSEL is H : 8.4672 MHz MSEL is L : 4.2336 MHz
20	CSEL	I	Oscillation frequency specification terminal H:33.8688 MHz L:16.9344 MHz
21	TEST2	-	TEST2 terminal usually : open
22	TVD	O	Traverse drive output
23	PC	-	Non connect
24	ECM	O	Spindle motor drive signal output (Compulsion mode output)
25	ECS	O	Spindle motor drive signal output (Servo error signal output)
26	VDETMON	-	Non connect
27	TRD	O	Tracking drive signal output
28	FOD	O	Focus drive signal output
29	VREF	-	Reference voltage for DA output section
30	FBAL	O	Focus balance adjust signal output
31	TBAL	O	Tracking balance adjust signal output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF Envelope signal input (analog input)
35	TEST3	I	TEST3 Terminal usually : Fixation L
36	OFT	I	Off track signal input H : off track
37	TRCRS	I	Track cross signal input (analog input)
38	RFDET	I	RF detection signal input L : detection
39	BDO	I	Dropout signal input H : dropout
40	LDON	-	Non connect



Pin No.	Symbol	I/O	Functions
41	PLL2	I/O	Terminal for loop filter characteristic switch for PLL
42	DSLBD	-	Non connect
43	WVEL	-	Non connect
44	ARF	I	RF Signal output
45	IREF	I	Standard electric current input terminal
46	DRF	I	Bias terminal for DSL
47	DSL2	I/O	Loop filter terminal for DSL
48	PLL2	I/O	Loop filter terminal for PLL
49	VCO2	I/O	Loop filter terminal for VCO
50	AVDD2	-	Power supply terminal for analog circuit
51	AVSS2	-	Connect to ground terminal for analog circuit
52	EFM	-	Non connect
53	DSL2	O	PLL extraction clock output
54	VCO2	I/O	Loop filter terminal for VCO
55	SUBC	O	Sub code serial output
56	SBCK	I	Clock signal input for sub code serial output
57	VSS	-	Connect to ground terminal for oscillation circuit
58	X1	I	Oscillation circuit input terminal f=16.9344 MHz, 33.8688 MHz
59	X2	O	Oscillation circuit output terminal f=16.9344 MHz, 33.8688 MHz
60	VDD	-	Power supply terminal for oscillation circuit
61	BYTCK	-	Non connect
62	LDON	O	Laser ON signal output H : ON
63	GCTRL	O	General I/O port
64	IPFLAG	-	Non connect
65	FLAG	O	Flag signal output
66	CLVS	-	Non connect
67	CRC	-	Non connect
68	DEMPH	O	De-emphasis detection signal output
69	RESY	-	Non connect
70	IOSEL	I	Mode switch terminal
71	TEST	I	TEST terminal usually : H
72	AVDD1	-	Power supply terminal for analog circuit (for audio output section)
73	OUTL	O	Lch audio output
74	AVSS1	-	Connect to ground terminal for analog circuit (for audio output section)
75	OUTR	O	Rch audio output
76	DQSY	I	RF signal polarity specification terminal
77	VCC5V	-	Power supply terminal (5V)
78	PSEL	O	IOSEL=H TEST terminal IOSEL=L SRDATA input
79	MSEL	O	IOSEL=H SMCK terminal output (frequency switch terminal) IOSEL=L LRCK input
80	SSEL	O	IOSEL=H SUBQ terminal output mode switch terminal IOSEL=L BCLK input

■ UPD780076GK502 (IC251) : Unit micon

1. Terminal layout

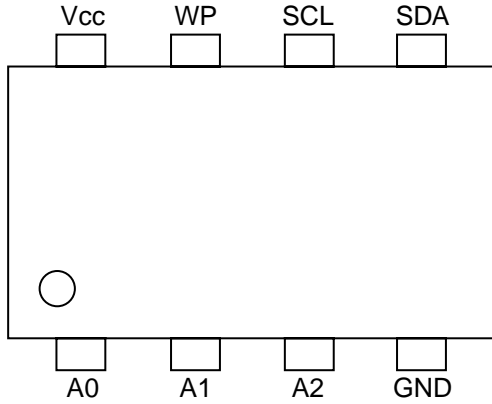


2. Pin function

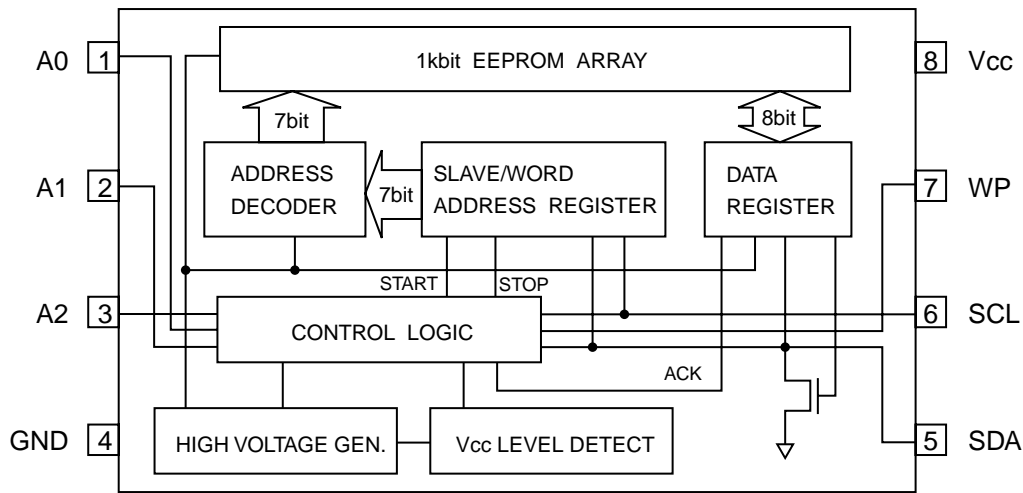
Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1	ES2SCK	O	EEPROM serial clock output	36	/RESET	O	Reset signal output
2	E2SDL	O	EEPROM serial data I/O	37	XT2	O	
3	MCS	O	Synchronizatio /asynchronous system	38	XT1	I	
4	MRDY	I	Ready signal input	39	IC	I	Not use(for flash micon)
5	ITRVP3	O	Tray play position3	40	X2	O	X'tal osc output
6	ITRVP2	O	Tray play position2	41	X1	I	X'tal osc input
7	ITRVP1	O	Tray play position1	42	VSS1	-	Connect to GND
8	ITRVSoC	I	Sub tray open/close	43	FLAG	O	FLAG for C1 error
9	VSS0	-	Connect to GND	42	VSS1	-	Connect to GND
10	VDD0	-	Power supply	43	FLAG	O	FLAG for C1 error
11	/REST	I	Rest switch	44	BLKCK		
12		-	No connect	45	/RFDET		
13		-	No connect	46	CAM_CW	O	Cam motor rotation clockwise
14	ICAMP1	O	Cam position 1	47	ACT_CCW	O	Actuator motor rotation counter clockwise
15	KCMND/TXD	I	Command signal input	48	ACT_CW	O	Actuator motor rotation clockwise
16	MSTAT/RXD	O	Status output	49		-	No connect
17	KCLK	I	Power supply	50	/EQX2	I	Surroundings position detection in traverse
18	SUBQ	I	Sub Q data input				
19	CDCOPY	O	Connect to GND	51	ICAMP3	O	Cam position 3
20	SQCK	O	Sub Q clock output	52	ICAMP4	O	Cam position 4
21	CDINDEX			53	/RESET	O	Reset signal output
22	CDTNO	I	Power supply	54	STAT	I	Status signal input
23	ICAMP2	O	Cam position 2	55	DMUTE	I	Digital mute signal input
24	VDD1	-	Power supply	56	P.ON	I	Power on signal input
25	AVSS	-	Connect to GND	57	MLD	I	Command load signal input
26	VDET_LEVEL			58	MDATA	I	Command data input
27	KEY2	I	Key2 signal from running jig	59	MCLK	I	Command clock input
28	TRY3CLOSE	I	Tray 3 close signal input	60	CLKSW		
29	TRY3OPEN	I	Tray 3 open signal input	61	/EQX4	-	Connect to GND
30	TRY2CLOSE	I	Tray 2 close signal input	62		-	No connect
31	TRY2OPEN	I	Tray 2 open signal input	63		-	No connect
32	TRY1OPEN	I	Tray 1 close signal input	64	DR_MUTE		
33	TRY1CLOSE	I	Tray 1 open signal input				
34	AVREF	I	Reference power supply voltage				
35	CAM_CW	O	Cam motor rotation clockwise				

■ BR24C01AFV-W-X (IC201) : EEPROM

1. Terminal layout



2. Block diagram



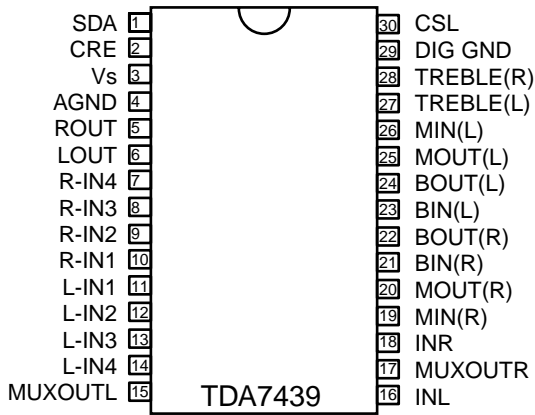
3. Pin function

Pin name	I/O	Function
Vcc	-	Power supply
GND	-	Ground (0v)
A0,A1,A2	IN	Slave address set
SCL	IN	Serial clock input
SDA	IN / OUT	Slave and word address, serial data input, serial data output *1
WP	IN	Write protect input

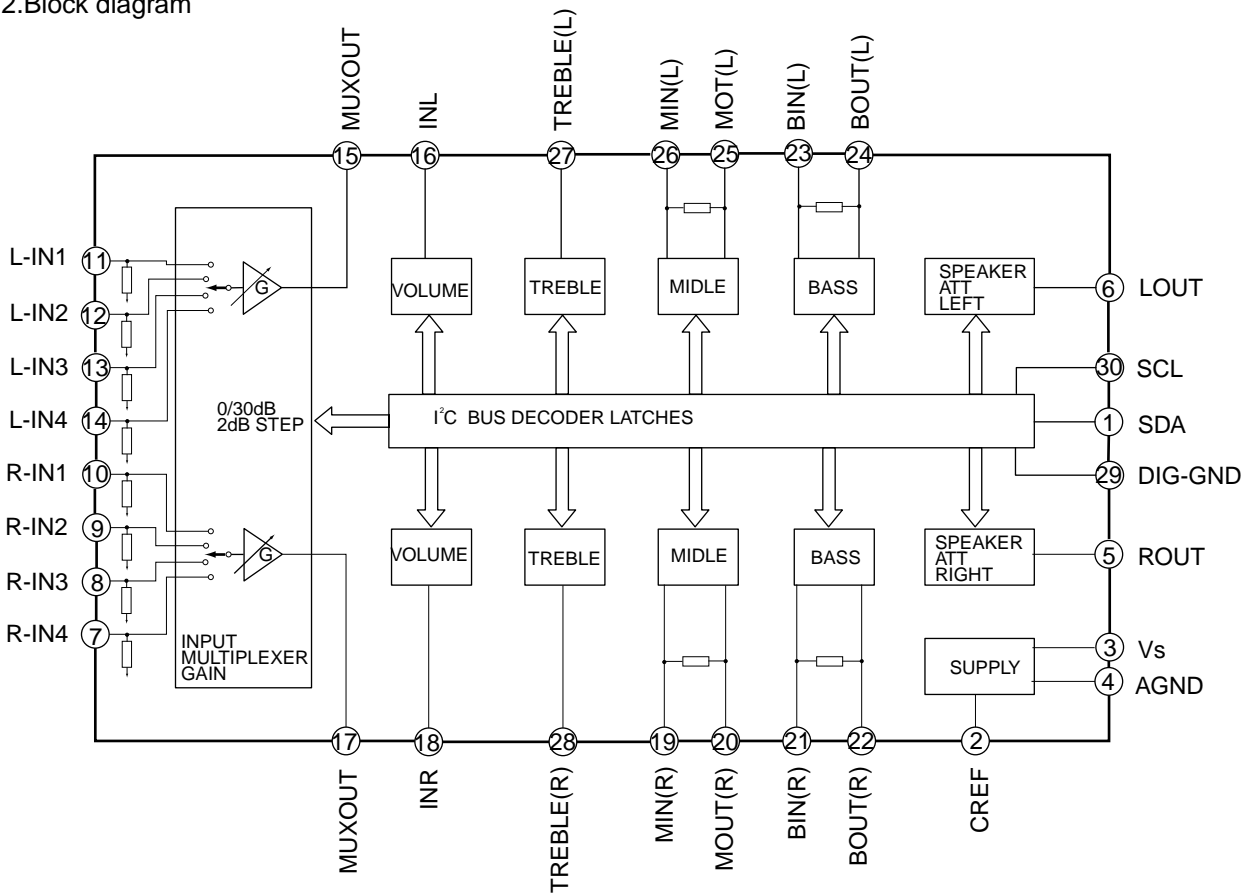
\*1 An open drain output requires a pull-up resistor.

■ TDA7439 (IC303) : Control volume

1. Terminal layout

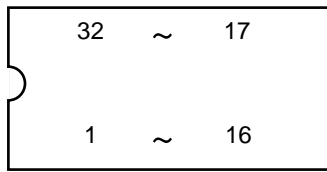


2. Block diagram

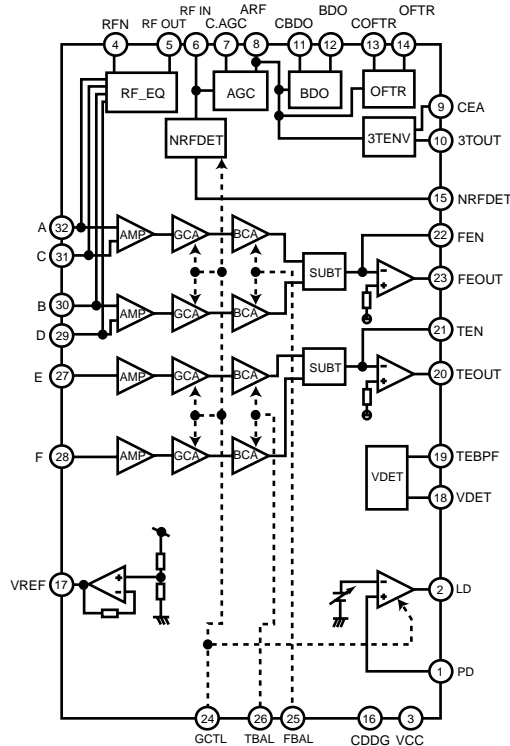


# AN22000A(IC601):RF & Servo amplifier

## 1. Terminal layout



## 2. Block diagram

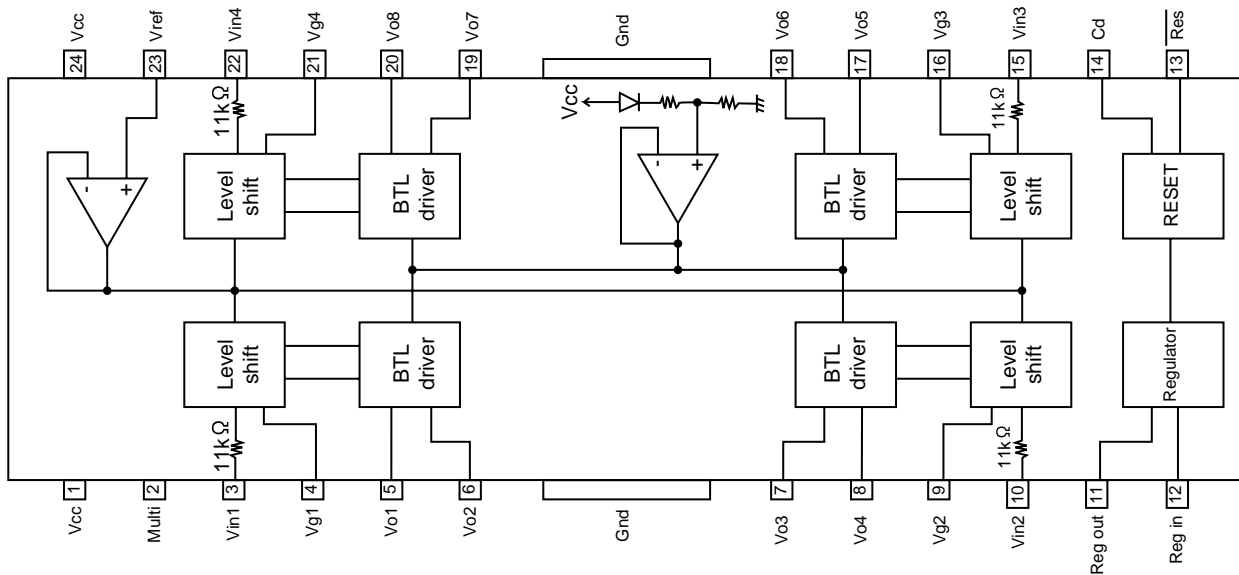


## 3. Pin function

Pin No.	Symbol	Function	Pin No.	Symbol	Function
1	PD	APC Amp. Input terminal	16	CDDG	Earth terminal
2	LD	APC Amp. Output terminal	17	VREF	VREF output terminal
3	VCC	Power supply terminal	18	VDET	VDET output terminal
4	RFN	RF addition Amp. Reversing input terminal	19	TEBPF	VDET input terminal
5	RF OUT	RF addition Amp. Output terminal	20	TEOUT	TE Amp. output terminal
6	RF IN	AGC input terminal	21	TEN	TE Amp. reversing input terminal
7	C.AGC	Terminal of connection of capacity of AGC loop filter.	22	FEN	FE Amp. reversing input terminal
8	ARF	AGC output terminal	23	FEOUT	FE Amp. output terminal
9	CEA	Capacity connection terminal for HPF-Amp.	24	GCTL	Terminal GCTL & APC
10	3TOUT	3TENV output terminal	25	FBAL	FBAL control terminal
11	CBDO	Capacity connection terminal for RF shade side envelope detection	26	TBAL	TBAL control terminal
12	BDO	BDO output terminal	27	E	Tracking signal input terminal 1
13	COFTR	Capacity connection terminal for RF discernment side envelope detection	28	F	Tracking signal input terminal 2
14	OFTR	OFTR output terminal	29	D	Focus signal input terminal 4
15	NRFDET	NRFDET output terminal	30	B	Focus signal input terminal 2
			31	C	Focus signal input terminal 3
			32	A	Focus signal input terminal 1

■ LA6541-X (IC801) : BTL driver

1. Terminal layout & block diagram

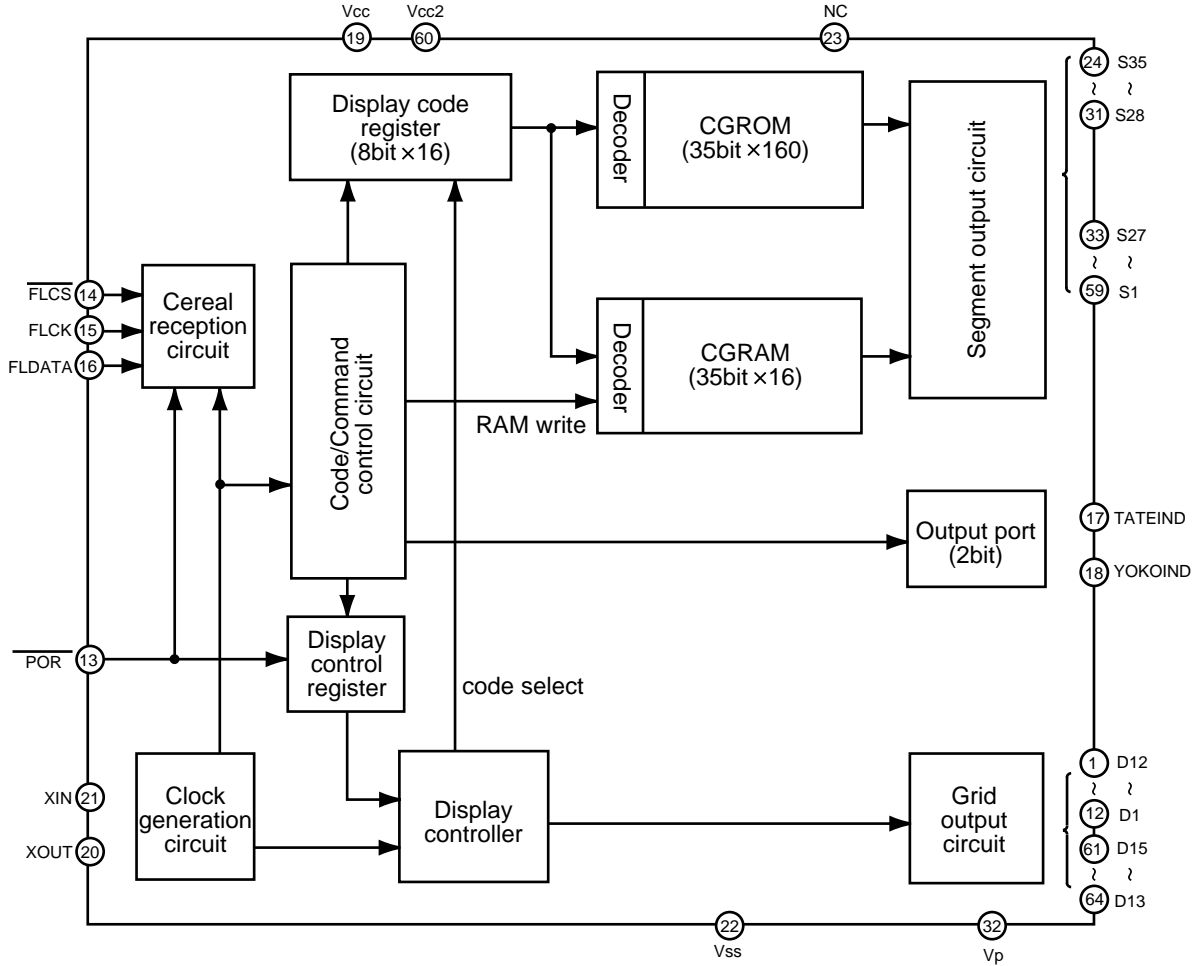


2.Pin function

Pin No.	Symbol	I/O	Description
1	VCC	-	Power supply (shorted to pin 24)
2	MUTE	O	All BTL amplifier outputs ON/OFF
3	VIN1	I	BTL AMP 1 input pin
4	VG1	I	BTL AMP 1 input pin (for gain adjustment)
5	VO1	I	BTL AMP 1 input pin (non inverting side)
6	VO2	I	BTL AMP 1 input pin (inverting side)
7	VO3	I	BTL AMP 2 input pin (inverting side)
8	VO4	I	BTL AMP 2 input pin (non inverting side)
9	VG2	I	BTL AMP 2 input pin (for gain adjustment)
10	VIN2	I	BTL AMP 2 input pin
11	REG OUT	O	External transistor collector (PNP) connection. 5V power supply output
12	REG IN	I	External transistor (PNP) base connection
13	RES	O	Reset output
14	CD	O	Reset output delay time setting (capacitor connected externally)
15	VIN3	I	BTL AMP 3 input pin
16	VG3	I	BTL AMP 3 input pin (for gain adjustment)
17	VO5	O	BTL AMP 3 output pin (non inverting side)
18	VO6	O	BTL AMP 3 output pin (inverting side)
19	VO7	O	BTL AMP 4 output pin (inverting side)
20	VO8	O	BTL AMP 4 output pin (non inverting side)
21	VG4	O	BTL AMP 4 output pin (for gain adjustment)
22	VIN4	O	BTL AMP 4 output pin
23	VREF	-	Level shift circuit's reference voltage application
24	VCC	-	Power supply (short to pin 1)

■ M66004FP(IC852):FL driver

1. Block Diagram



2. Pin function

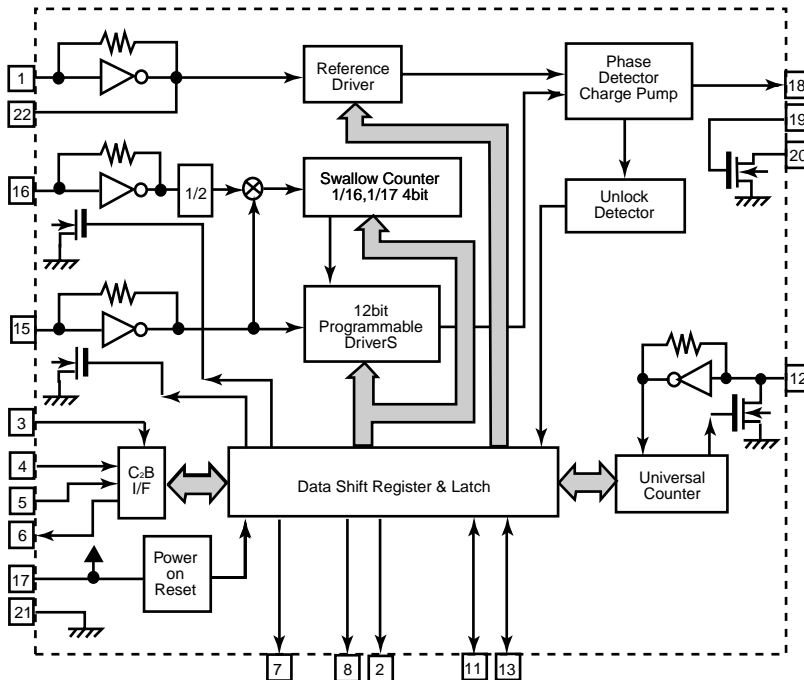
Pin.No.	Symbol	I/O	Function
1	D11		Non connect
2~12	D10~D0	O	FL grid control signal output.
13	POR	I	FL Driver chip select.
14	FLCS	I	Chip select signal input.
15	FLCK	I	Shift clock signal input.
16	FLDATA	I	Serial data input.
17	TATEIND	O	Indicator control signal output.
18	YOKOIND	O	Indicator control signal output.
19	VCC1	-	Power supply for internal logic.
20	XOUT	O	Clock signal output.
21	XIN	I	Clock signal input.
22	VSS	-	Connect to GND.
23	S35	-	Non connect.
24~31	S34~S27	O	FL Segment control signal output.
32	VP	-	Power supply.
33~59	S26~S0	O	FL Segment control signal output.
60	VCC2	-	Power supply for grid output and segment output.
61~64	D15~D12	O	FL grid control signal output.

## ■ LC72136N (IC2) : PLL frequency synthesizer

### 1. Terminal layout

XT	1	22	XT
FM/AM	2	21	GND
CE	3	20	LPFOUT
DI	4	19	LPFIN
CLOCK	5	18	PD
DO	6	17	VCC
FM/ST/VCO	7	16	FMIN
AM/FM	8	15	AMIN
	9	14	
	10	13	IFCONT
SDIN	11	12	IFIN

### 2. Block diagram



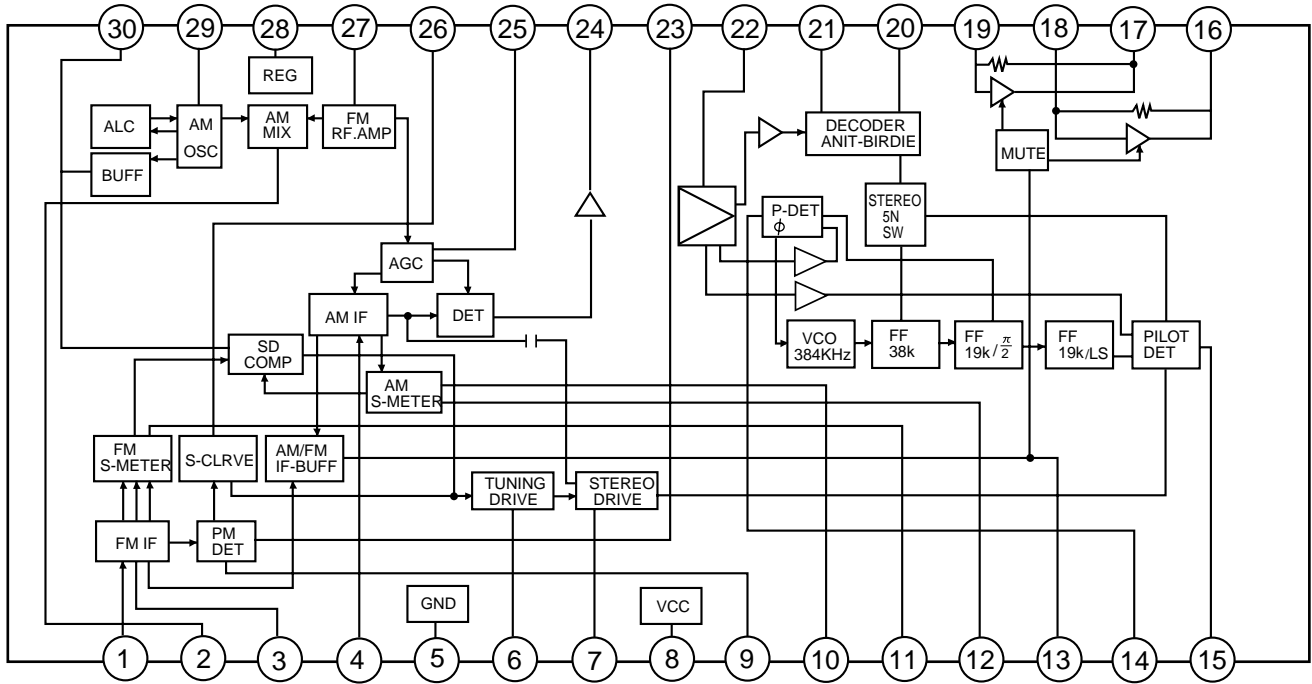
### 3. Pin function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	XT	I	X'tal oscillator connect (75kHz)	12	IFIN	I	IF counter signal input
2	FM/AM	O	LOW:FM mode	13	IFCONT	O	IF signal output
3	CE	I	When data output/input for 4pin(input) and 6pin(output): H	14		-	Not use
4	DI	I	Input for receive the serial data from controller	15	AMIN	I	AM Local OSC signal output
5	CLOCK	I	Sync signal input use	16	FMIN	I	FM Local OSC signal input
6	DO	O	Data output for Controller Output port	17	VCC	-	Power supply(VDD=4.5-5.5V) When power ON:Reset circuit move
7	FM/ST/VCO	O	"Low": MW mode	18	PD	O	PLL charge pump output(H: Local OSC frequency Height than Reference frequency. L: Low Agreement: Height impedance)
8	AM/FM	O	Open state after the power on reset	19	LPFIN	I	Input for active lowpassfilter of PLL
9	LW	I/O	Input/output port	20	LPFOUT	O	Output for active lowpassfilter of PLL
10	MW	I/O	Input/output port	21	GND	-	Connected to GND
11	SDIN	I/O	Data input/output	22	XT	I	X'tal oscillator(75KHz)



■ LA1838 (IC1): FM AM IF AMP&detector, FM MPX decoder

1. Block Diagram

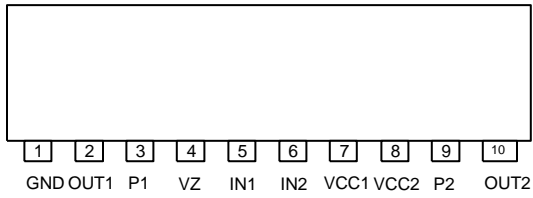


2. Pin Function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	FM IN	I	This is an input terminal of FM IF signal.	16	L OUT	O	Left channel signal output.
2	AM MIX	O	This is an out put terminal for AM mixer.	17	R OUT	O	Right channel signal output.
3	FM IF	I	Bypass of FM IF	18	L IN	I	Input terminal of the left channel post AMP.
4	AM IF	I	Input of AM IF Signal.	19	R IN	I	Input terminal of the right channel post AMP.
5	GND	-	This is the device ground terminal.	20	RO	O	Mpx Right channel signal output.
6	TUNED	O	When the set is tuning, this terminal becomes "L".	21	LO	O	Mpx Left channel signal output.
7	STEREO	O	Stereo indicator output. Stereo "L", Mono: "H"	22	IF IN	I	Mpx input terminal
8	VCC	-	This is the power supply terminal.	23	FM OUT	O	FM detection output.
9	FM DET	-	FM detect transformer.	24	AM DET	O	AM detection output.
10	AM SD	-	This is a terminal of AM ceramic filter.	25	AM AGC	I	This is an AGC voltage input terminal for AM
11	FM VSM	O	Adjust FM SD sensitivity.	26	AFC	-	This is an output terminal of voltage for FM-AFC.
12	AM VSM	O	Adjust AM SD sensitivity.	27	AM RF	I	AM RF signal input.
13	MUTE	I/O	When the signal of IF REQ of IC121( LC72131) appear, the signal of FM/AM IF output. //Muting control input.	28	REG	O	Register value between pin 26 and pin28 decides the frequency width of the input signal.
14	FM/AM	I	Change over the FM/AM input. "H" :FM, "L" : AM	29	AM OSC	-	This is a terminal of AM Local oscillation circuit.
15	MONO/ST	O	Stereo : "H", Mono: "L"	30	OSC BUFFER	O	AM Local oscillation Signal output.

■ **LB1641 (IC851, IC852) : DC motor driver**

1. Terminal layout

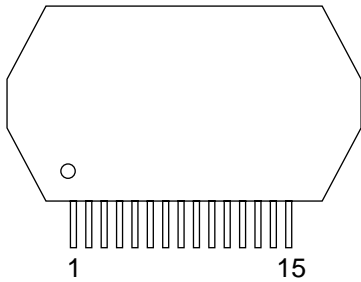


2. Pin function

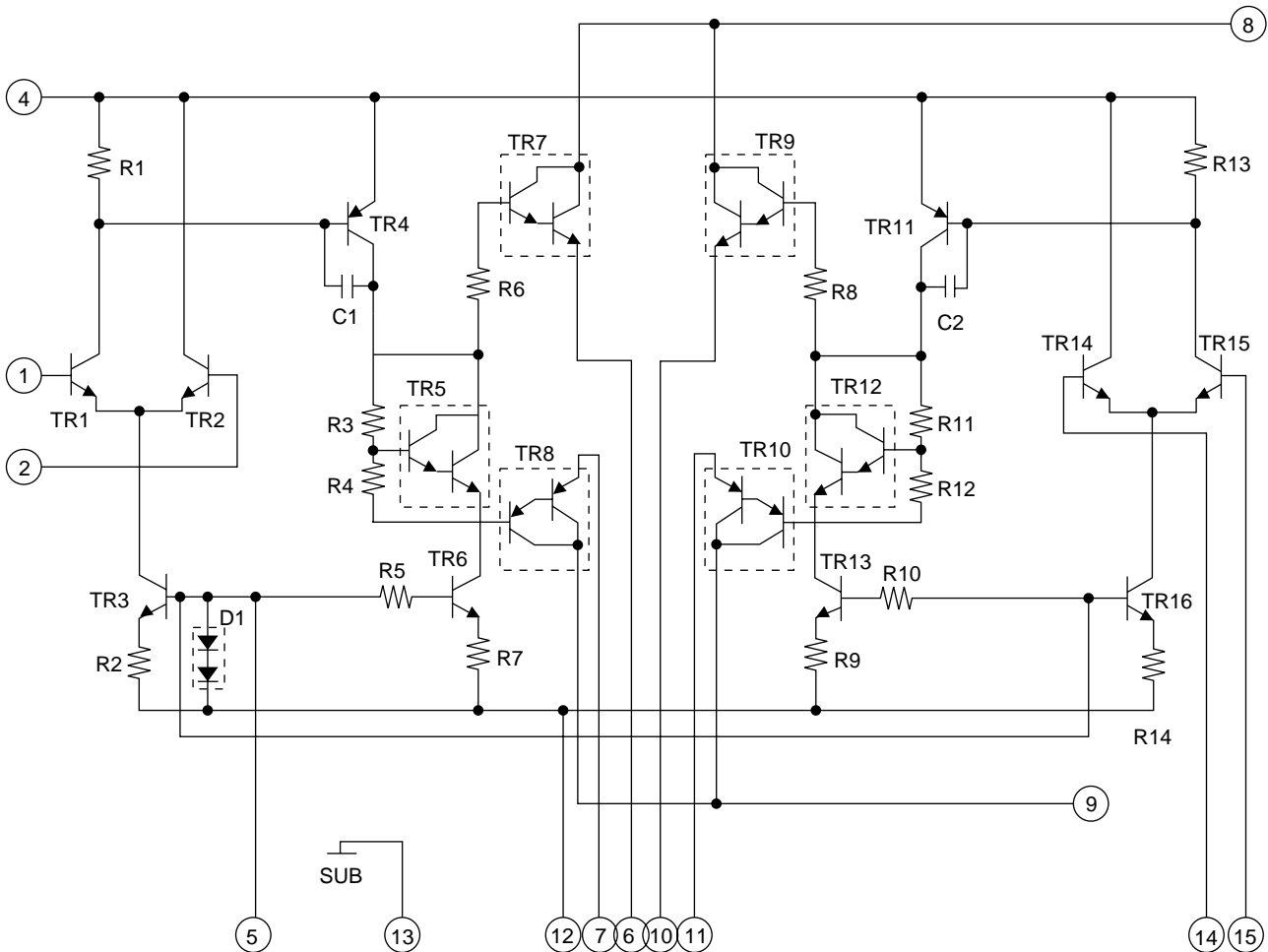
Input		Output		Mode
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	CLOCKWISE
0	1	0	1	COUNTER-CLOCKWISE
1	1	0	0	Brake

■ **STK402-030 (IC101) : Power amplifier**

1. Terminal layout

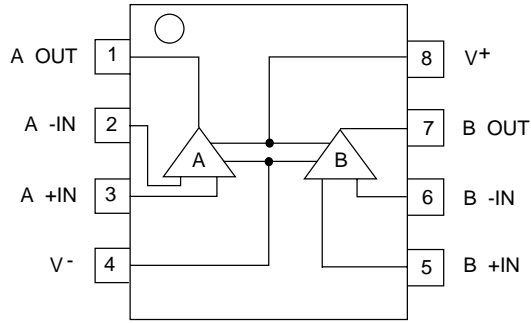


2. Block diagram



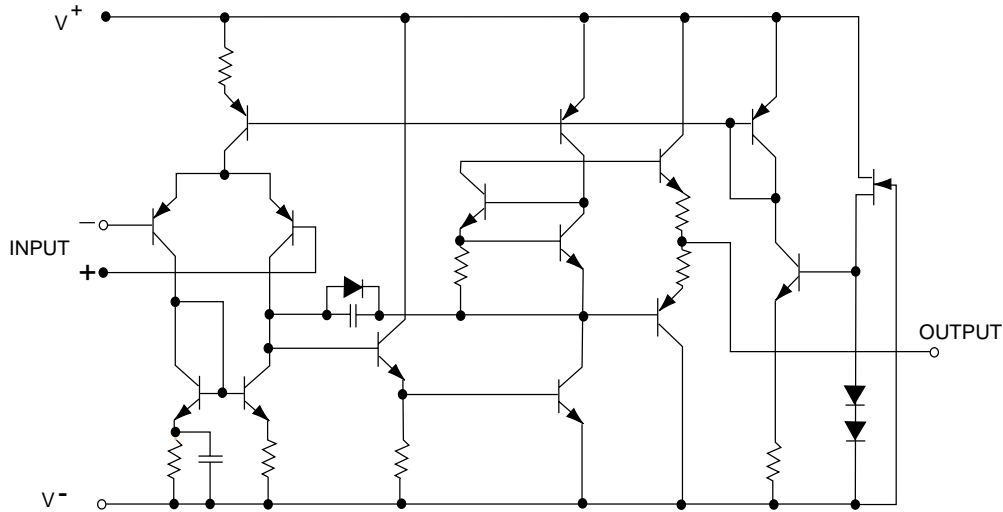
**■ NJM4580D (IC301) : Dual operation amplifier**

1.Terminal layout



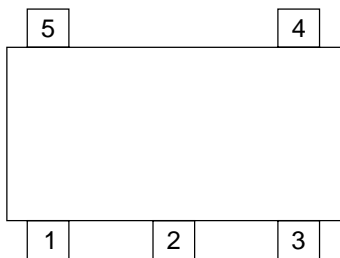
(TOP VIEW)

2.Block diagram



**■ XC62HR3502P-X (IC291) : Regulator**

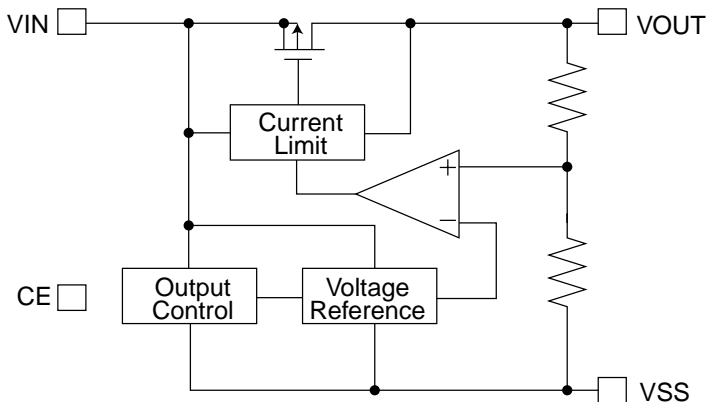
1.Terminal layout



2.Pin function

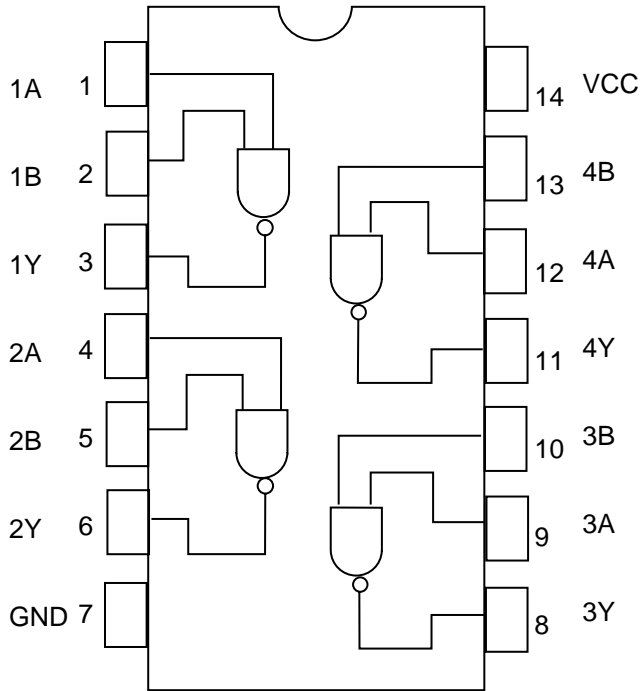
Pin No.	Symbol	Function
1	Vss	GND
2	VIN	Power supply
3	ON/OFF	On/Off control
4	NC	Not use
5	VOUT	Regulator output

3.Block diagram



■ **TC74HCOOAP (IC501) : Optical digital in selector**

1. Terminal layout & block diagram

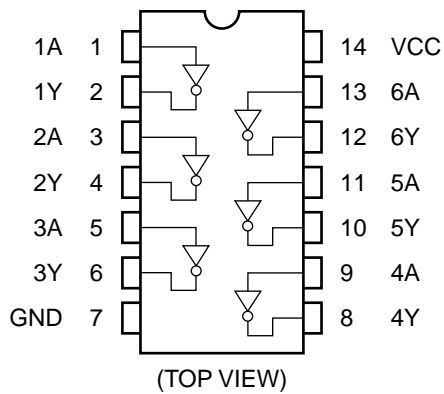


2. Truth table

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

■ **TC74HCT04AF (IC702) : Inverter**

1. Terminal Layout

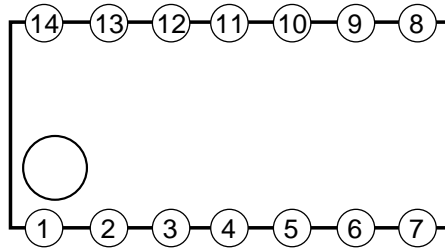


2. Truth table

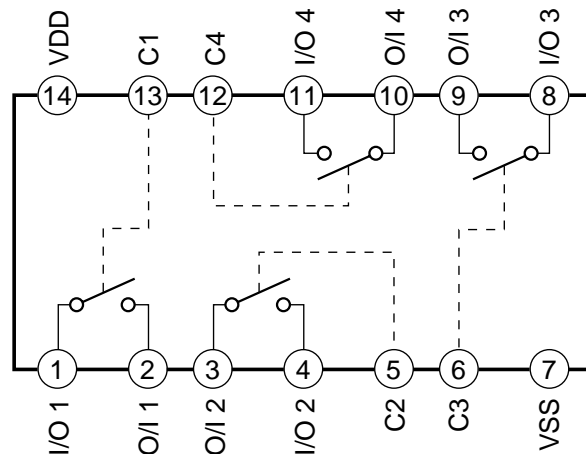
A	Y
L	H
H	L

■ **BU4066BCF-X (IC304, IC305) : Switch**

1. terminal layout

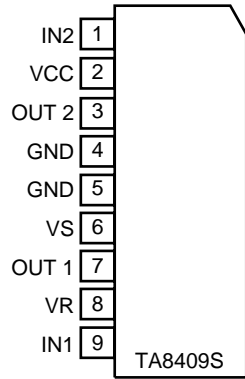


2. Block diagram



■ TA8409S (IC704) : Motor driver

1. Terminal layout

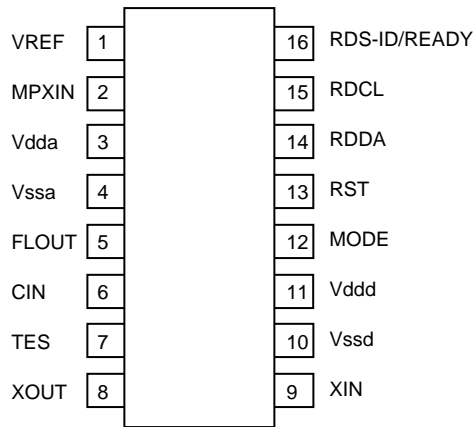


2. Pin function

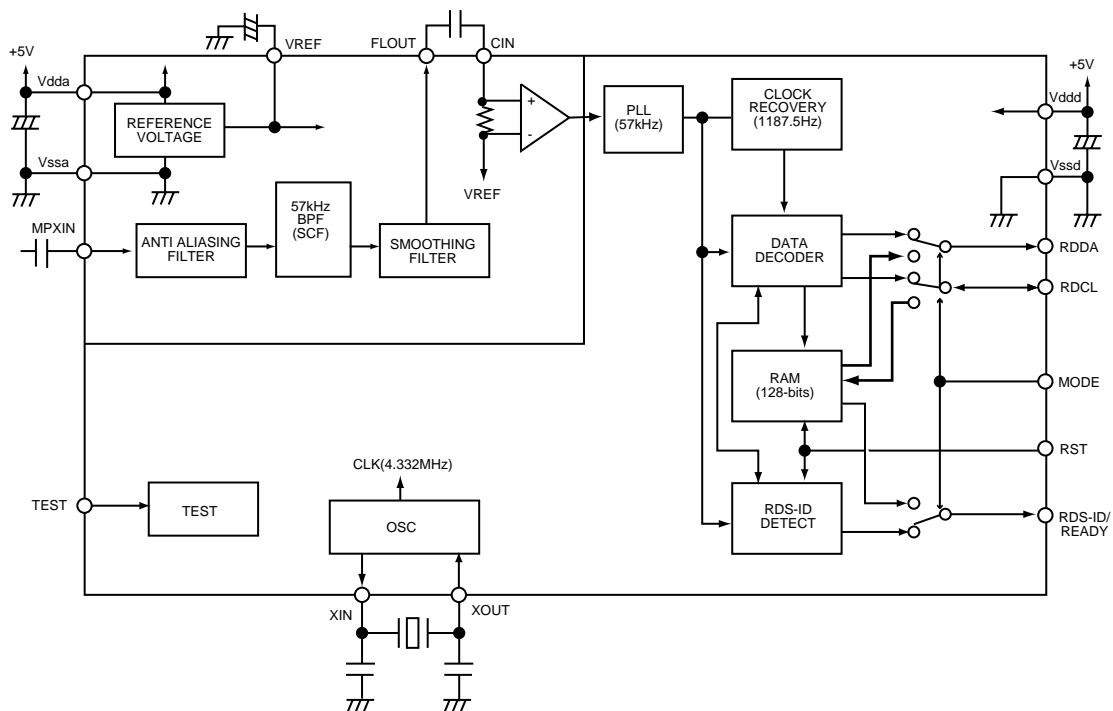
INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	MOTOR
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

■ LA72723(IC3): RDS demodulation

1. Terminal layout



2. Block Diagram



< M E M O >



**VICTOR COMPANY OF JAPAN, LIMITED**

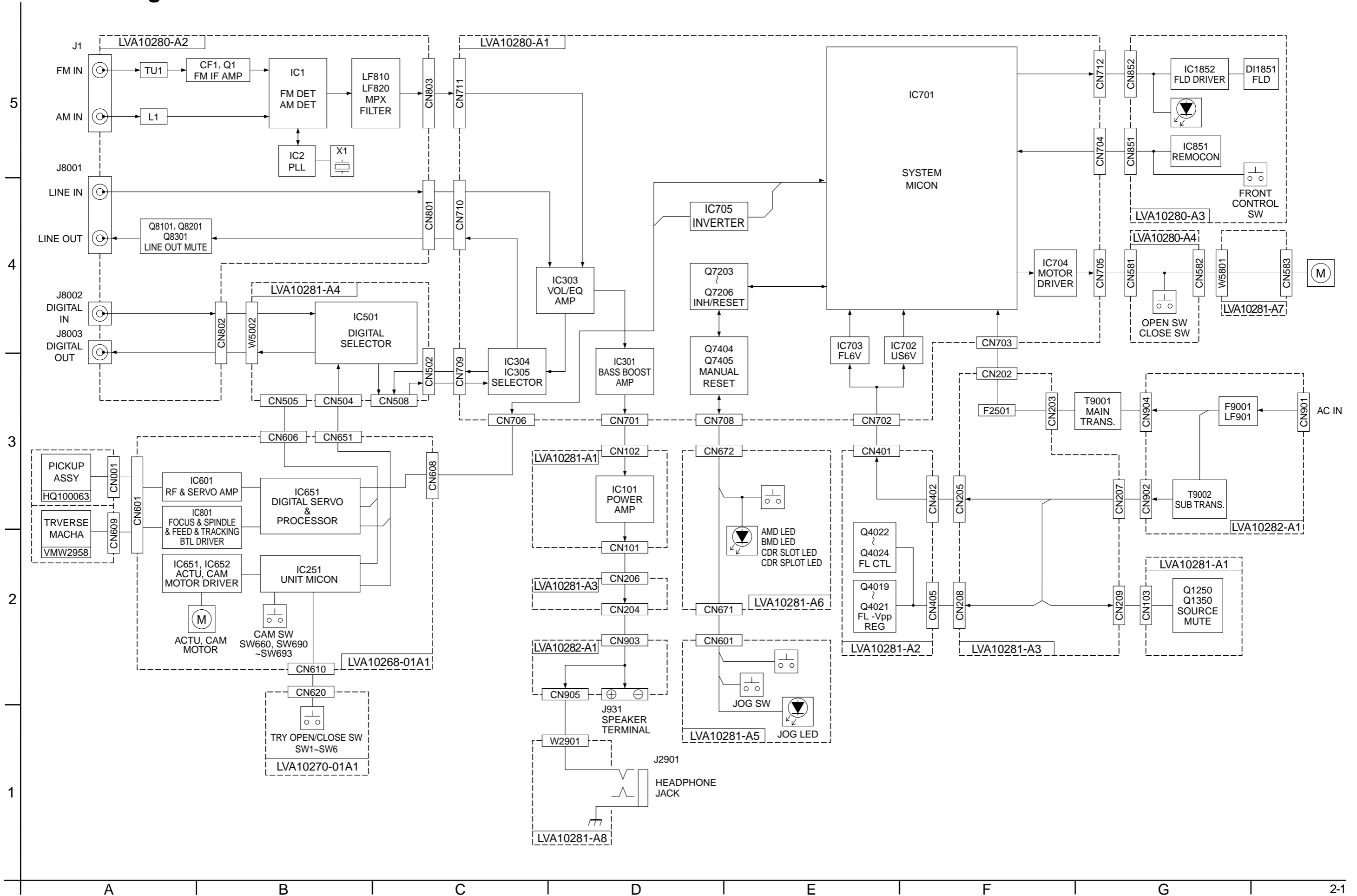
AUDIO & COMMUNICATION BUSINESS DIVISION

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

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 J and C version)



# Block diagram



# Standard schematic diagrams

## System control section

To E-2 on page 2-5 To F-2 on page 2-5

TO TUNER-I/O PWB  
TO CN801 OF LVA10280-A2  
TO CN803 OF LVA10280-A2  
LVA10280-A1 MAIN PWB

5

4

3

2

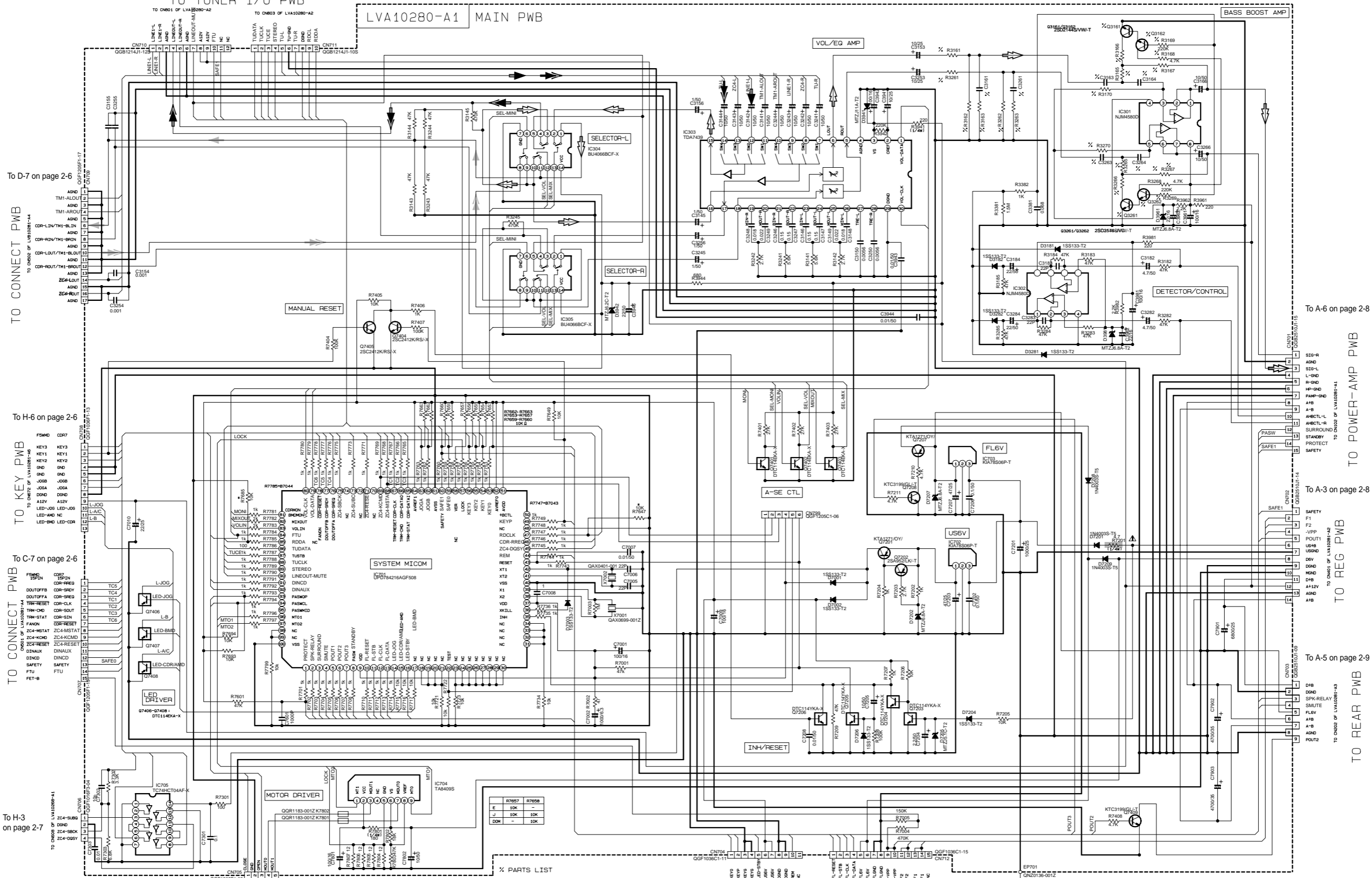
1

To D-7 on page 2-6

To H-6 on page 2-6

To C-7 on page 2-6

To H-3 on page 2-7



TO CONNECT PWB  
TO CN801 OF LVA10280-A2  
TO CN803 OF LVA10280-A2

TO KEY PWB  
TO CN801 OF LVA10280-A2

TO CONNECT PWB  
TO CN801 OF LVA10280-A2

TO H-3 on page 2-7

To A-6 on page 2-8

To A-3 on page 2-8

To A-5 on page 2-9

TO POWER-AMP PWB  
TO CN801 OF LVA10280-A2

TO REG PWB  
TO CN801 OF LVA10280-A2

TO REAR PWB  
TO CN801 OF LVA10280-A2

**% PARTS LIST**

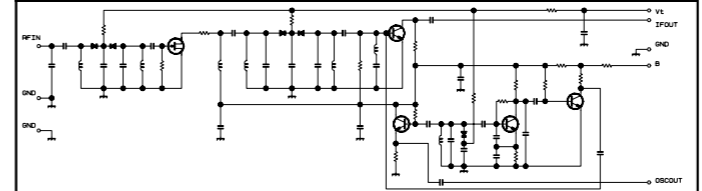
REF	QTY	DESCRIPTION	VALUE	REF	QTY	DESCRIPTION	VALUE
R7657	1	RES	4.7K	R7658	1	RES	2.7K
R7659	1	RES	2K	R7660	1	RES	270
R7661	1	RES	33K	R7662	1	RES	13K
R7663	1	RES	4.7K	R7664	1	RES	220K
R7665	1	RES	360K				
R7666	1	RES	10/25	R7667	1	RES	25021448
R7668	1	RES	0.39	R7669	1	RES	0.039
R7670	1	RES	0.039	R7671	1	RES	10/25
R7672	1	RES	25021448				

- NOTES**
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL. CONDITION — CD STOP MODE.
  - UNLESS OTHERWISE SPECIFIED, ALL RESISTANCE VALUES ARE IN OHMS (Ω). ALL CAPACITANCE VALUES ARE IN PICO-FARADS (pF). ALL CAPACITANCE VALUES ARE IN MICRO-FARADS (μF) IF NOT SPECIFIED.
  - ALL CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (C) / RATED VOLTAGE (V). ALL INDUCTANCE VALUES ARE IN MILLI-HENRYS (mH).
  - UNLESS OTHERWISE SPECIFIED, ALL INDUCTANCE VALUES ARE IN MILLI-HENRYS (mH).
  - UNLESS OTHERWISE SPECIFIED, ALL INDUCTANCE VALUES ARE IN MILLI-HENRYS (mH).
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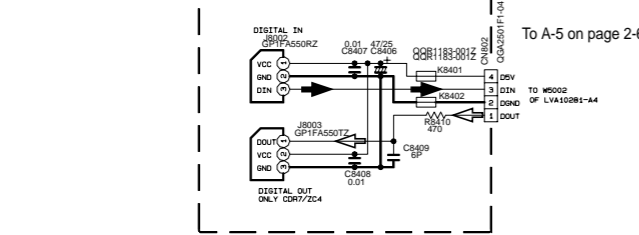
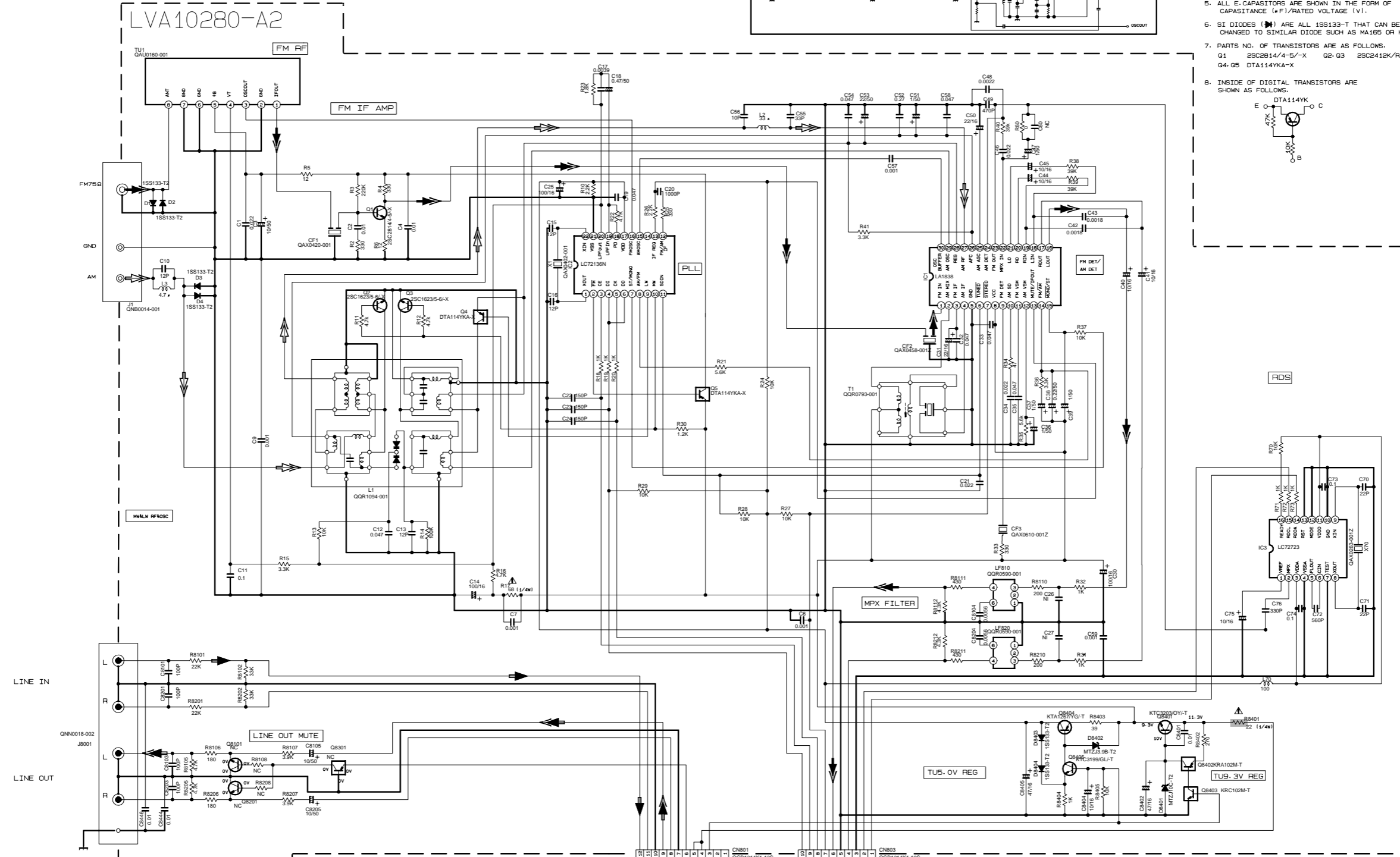
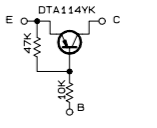
- Main signal
- TLine out signal
- Tuner signal
- CDR input signal
- Line signal
- CDR output signal
- Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

**Tuner section**

CONDITION	PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
IC1	FM NO SIGNAL	3.6	8.9	3.6	3.6	0	5.0	8.9	8.9	1.3	4.3	0	0.9	7.8	7.8	4.3	4.3	4.3	4.3	4.3	3.4	2.8	3.4	0	0	3.6	3.6	3.6	2.7		
	FM 60KB STEREO	3.6	8.9	3.6	3.6	0	5.0	8.9	8.9	1.3	4.3	0	0.9	7.8	7.8	4.3	4.3	4.3	4.3	3.4	2.8	3.4	0	0	3.6	3.6	3.6	3.6	2.7		
	AM NO SIGNAL	3.5	9.0	3.5	3.5	0	5.0	5.1	9.0	2.6	1.3	0	0	0.9	4.7	5.5	4.3	4.3	4.3	3.3	3.2	2.8	ubst	0.7	0.7	3.6	3.6	3.6	3.6	2.1	
IC2	FM NO SIGNAL	2.5	0	0	5.0	4.9	5.0	7.9	7.8	3.6	6.1	5.1	0	0	0	2.5	5.1	0.9	0.9	3.8	0	2.3									



- NOTES
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
  - ALL RESISTORS ARE 1/8W ±5% METAL GLAZE RESISTOR.
  - ALL RESISTANCE VALUES ARE IN OHM(Ω).
  - ALL CAPACITANCE VALUES ARE IN P(F/P/PF).
  - ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (×F)/RATED VOLTAGE (V).
  - SI DIODES (D) ARE ALL 1SS133-T THAT CAN BE CHANGED TO SIMILAR DIODE SUCH AS MA165 OR HSS104J.
  - PARTS NO. OF TRANSISTORS ARE AS FOLLOWS.  
Q1 2SC2814/4-5/-X Q2-Q3 2SC2412K/R/-X  
Q4-Q5 DTA114YK-A
  - INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.



To A-5 on page 2-6

Tr. NO.	Q1	Q2	Q3	Q4	Q5
PIN NO.	E	C	B	E	C
FM 87.5MHz NO SIGNAL	0	7.1	0.85	8.9	8.8
AM 52KHz NO SIGNAL	0	0	0	9.0	0

To B-7 on page 2-4

Tr. NO.	Q2	Q3	Q4
PIN NO.	E	C	B
AM 52KHz NO SIGNAL	0	0	0
AM 144KHz NO SIGNAL	0	0	0

- Digital in signal
- Digital out signal
- FM/Tuner signal
- AM signal
- Line in signal
- Line out signal

Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

5  
4  
3  
2  
1







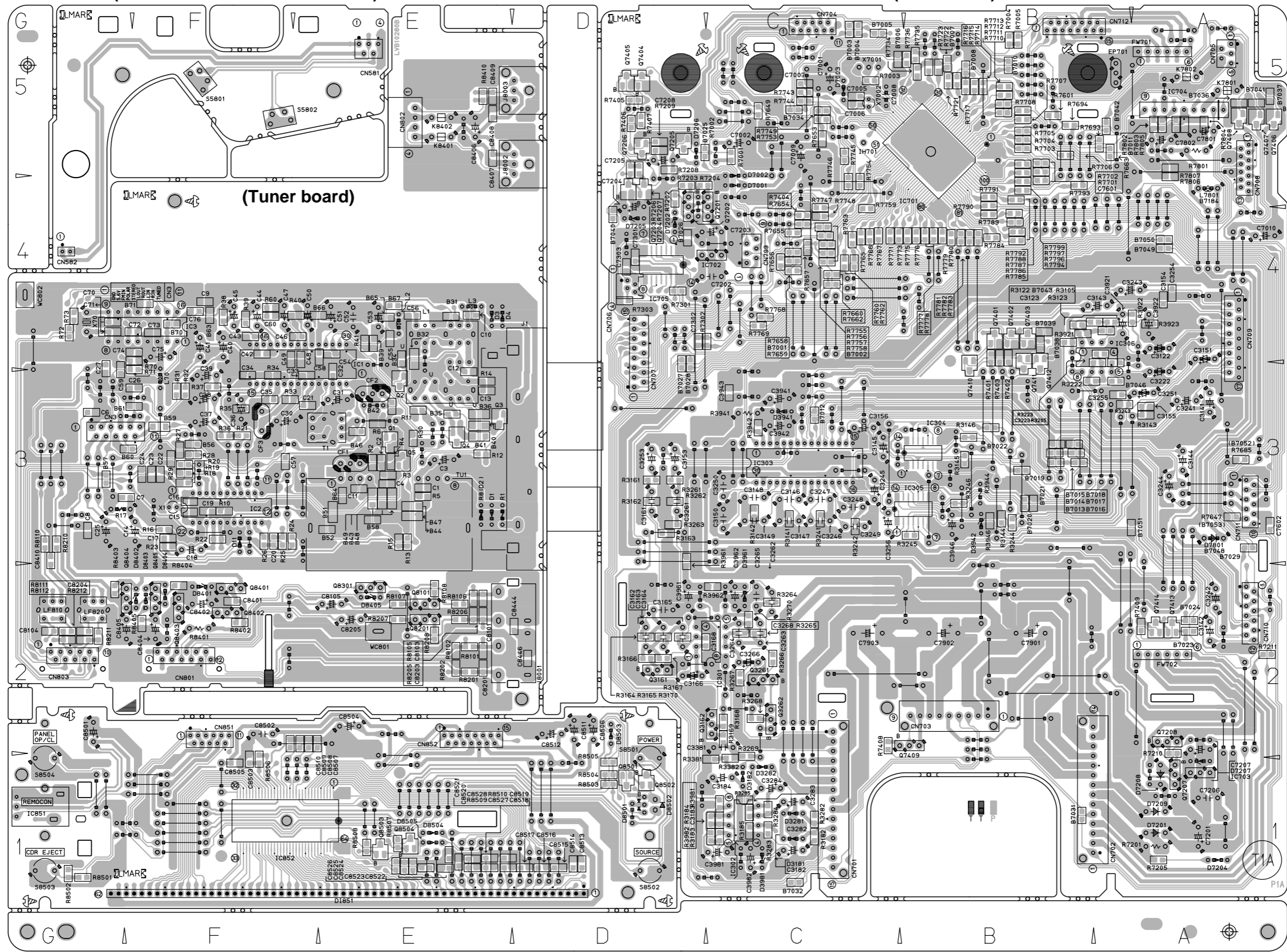


# Printed circuit boards

## ■ Main section

(OPEN/CLOSE SW detect board)

(Main board)



(LCD board)



■ Amp section

(Power board)

(Function swith board)

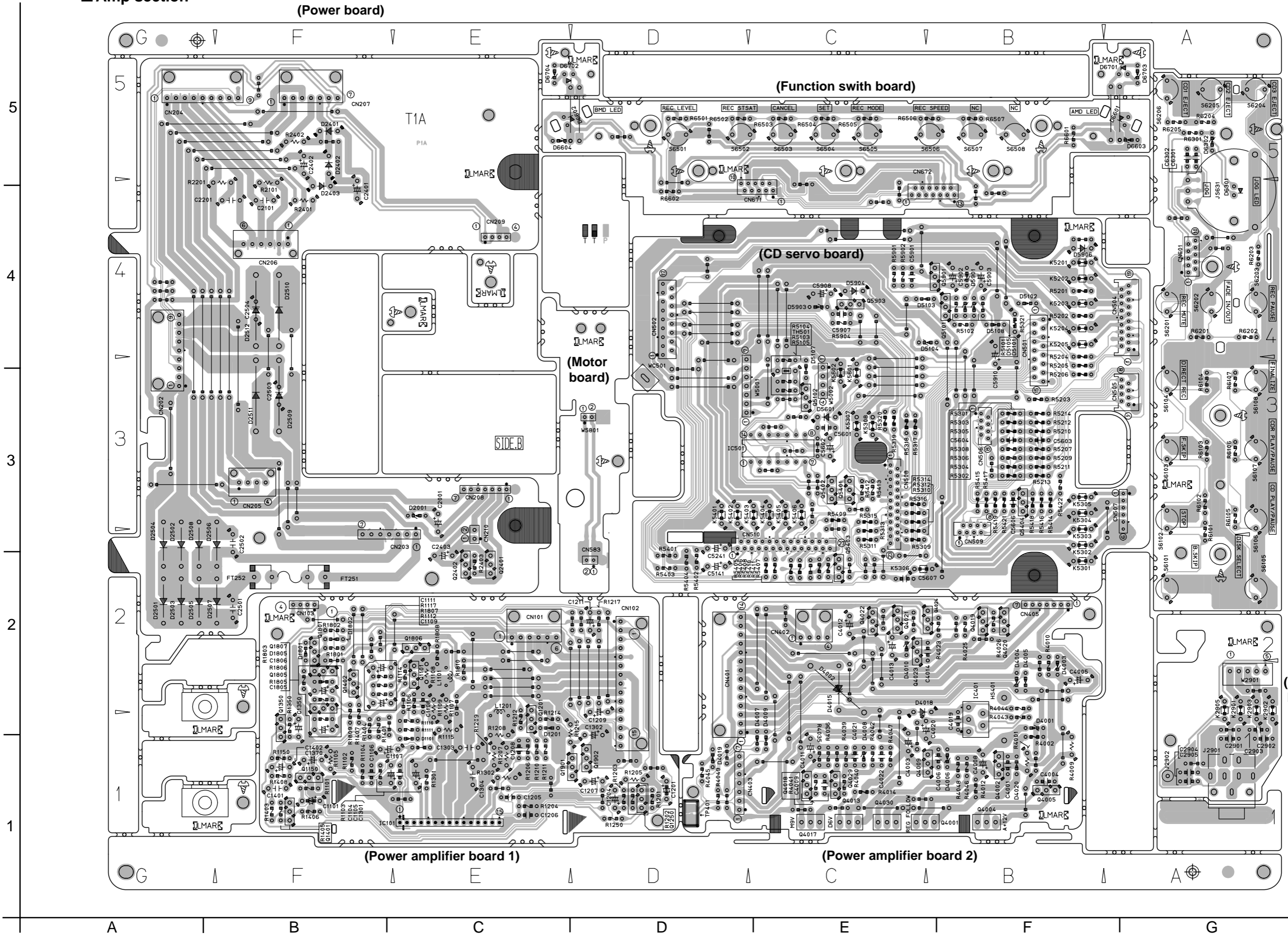
(CD servo board)

(Motor board)

(Power amplifier board 1)

(Power amplifier board 2)

(Phone jack board)



■ CDR connection board

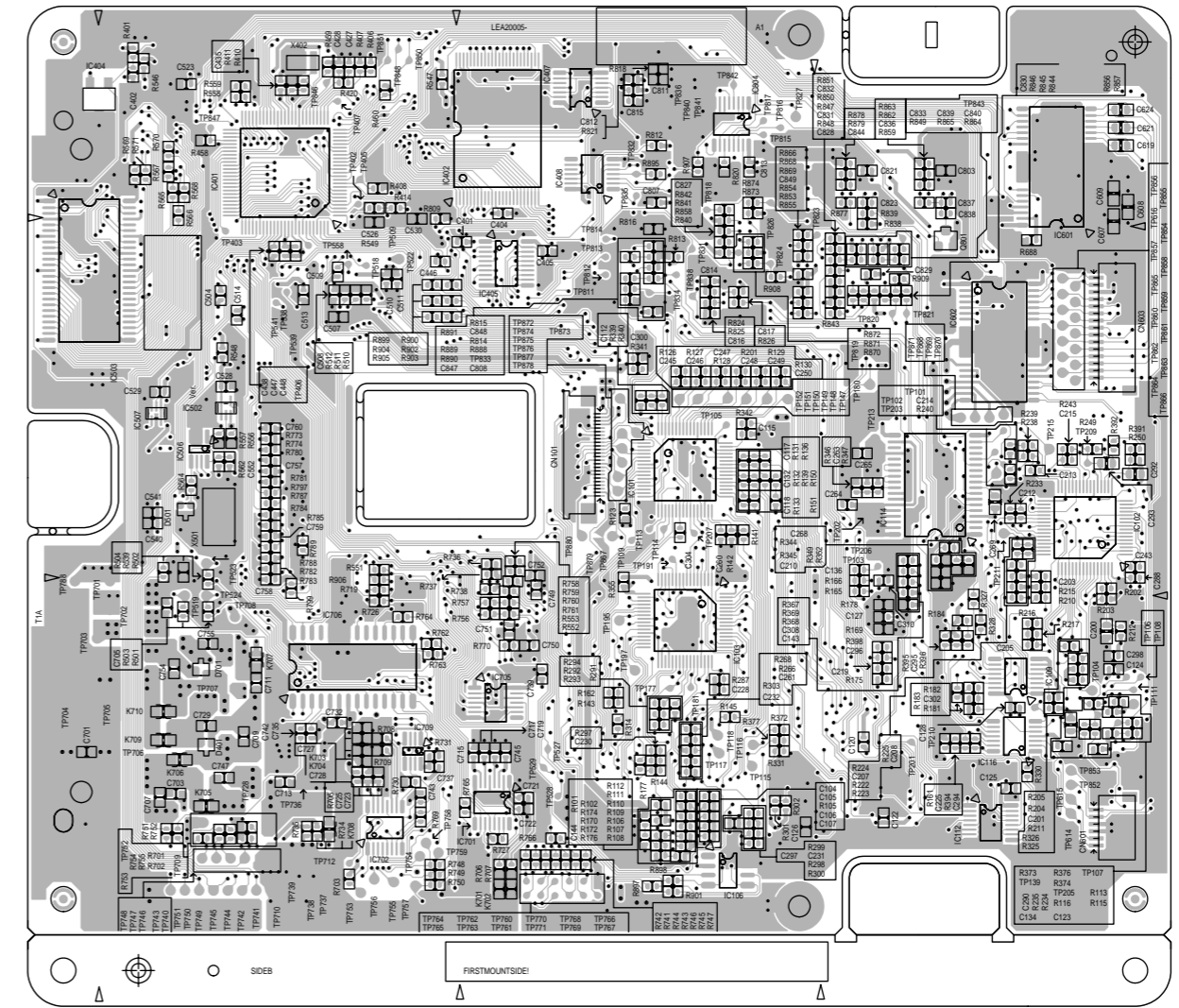
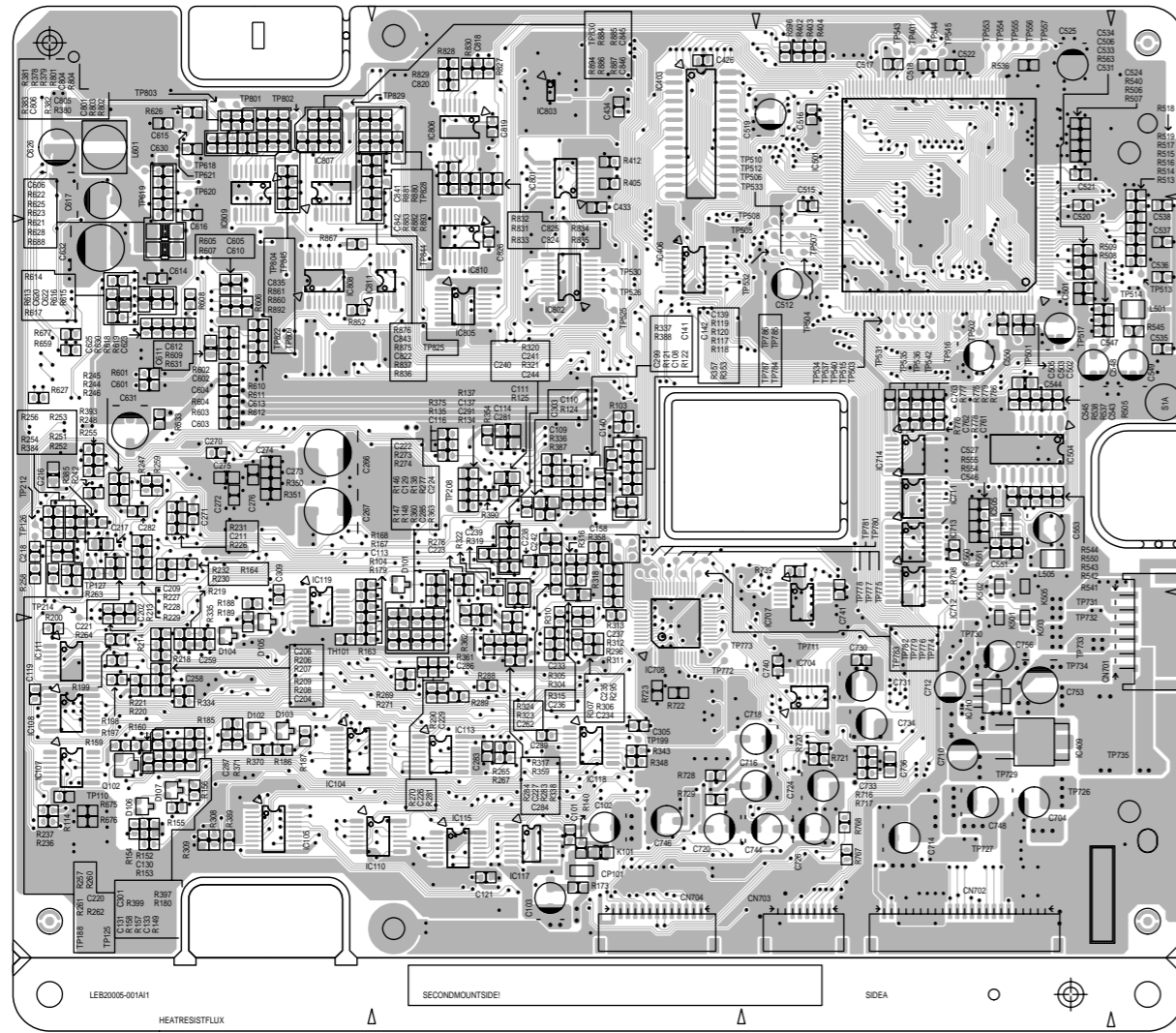
5

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1



A

B

C

2-10

D

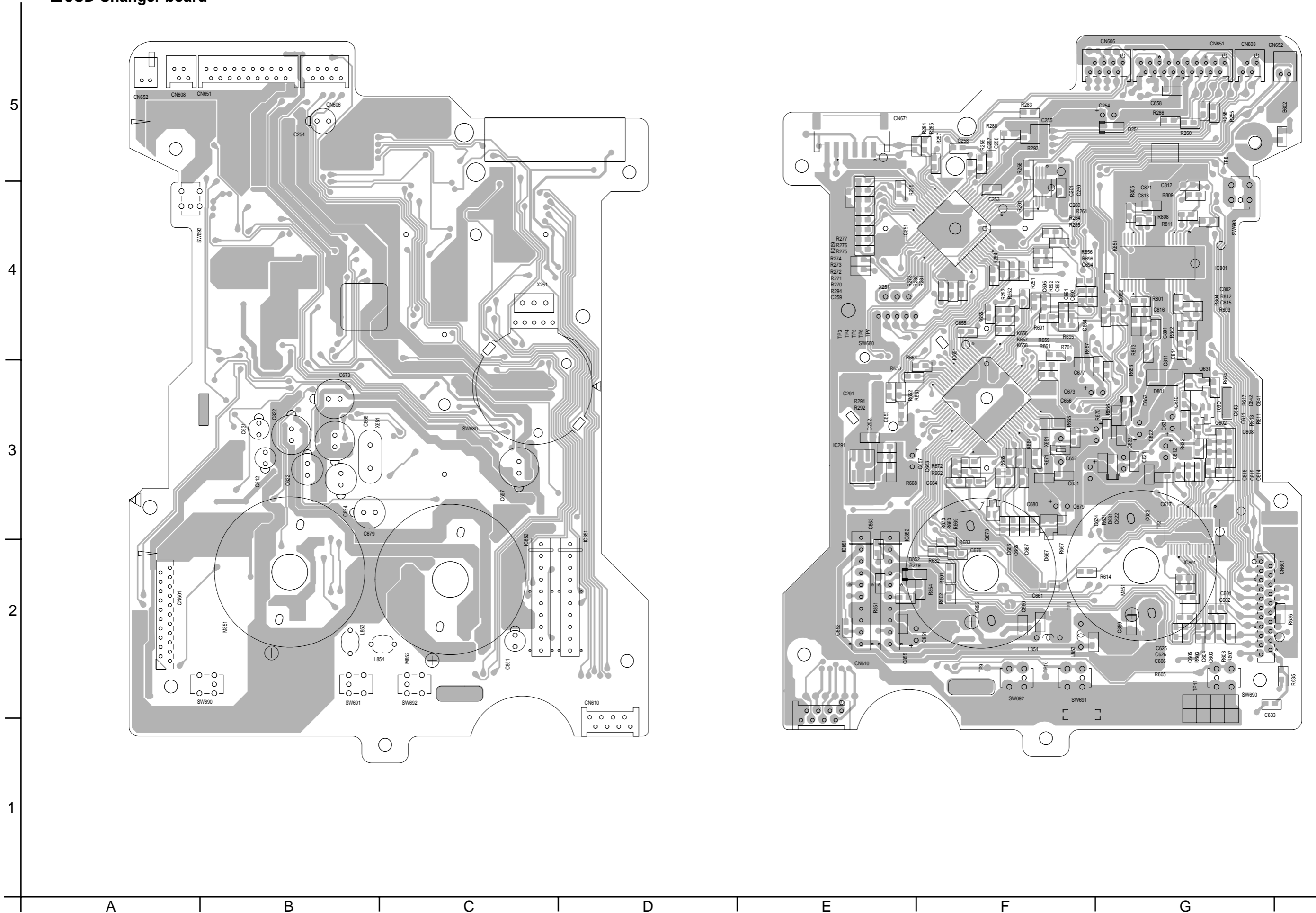
E

F

G

H

3CD Changer board





**-MEMO-**

# PARTS LIST

[ NX-CDR7R ]

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

## CA-NXCDR7R / SP-NXCDR7R

Area suffix

B ----- U.K.

E ----- Continental Europe

EN ----- Northern Europe

## - Contents -

Exploded view of general assembly and parts list (Block No.M1) .....	3- 3
CD changer mechanism assembly and parts list (Block No.MA) .....	3- 6
CD-R/RW loading mechanism assembly and parts list (Block No.MR) .....	3- 8
Electrical parts list (Block No.01~07) .....	3-10
Packing materials and accessories parts list (Block No.M3,M5) .....	3-22

**< MEMO >**





NX-CDR7R

■ Parts list (General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10573-002A	FRONT PANEL	1	MIPS/SPRAY/SILK	
	2	E75896-002	FELT SPACER	2	FOOT	
	3	E69897-002	CUSHION	2	FOR CD DOOR	
	4	LV21113-001A	CD DOOR	1		
	5	LV41694-001A	DOOR BKT(L)	1	FOR CD DOOR	
	6	LV41695-001A	DOOR BKT(R)	1	FOR CD DOOR	
	7	QYSBSF2608Z	T.SCREW	2	FOR DOOR BKT	
	8	LV42533-001A	DOOR SPRING	1	FOR CD DOOR	
	9	LV32966-004A	WINDOW LENS	1	PMMA/HOT ST/SIL	
	10	LV42471-001A	REMOCON LENS	1	AS/CLEAR	
	11	LV42472-001A	POWER INDICATOR	1	AS/CLEAR	
	12	LV32964-001A	POWER BUTTON	2	ABS/VACUUM METAL	
	13	LV42601-001A	FILTER	1	PC T0.5	
	14	LV31383-002A	FL HOLDER	1		
	15	QYSBSF2608Z	T.SCREW	4	FL PWB+F.PANEL	
	16	LV21102-001A	CD ESCUTCHEON	1	PS/SPRAY/SILK	
	17	QYSBSF2606M	SCREW	2	CD ESC+F.PANEL	
	18	LV21103-001A	REC.BUTTON	1	PS/SPRAY	
	19	LV42474-001A	INDICATOR(CD)	2	AS/CLEAR	
	20	QYSBSF2608Z	T.SCREW	7	CD ESC+REC PWB	
	21	LV30225-011A	SPACER	1	FOR FFC	
	22	LV42630-002A	BURRIER(A)	1		
	23	QAR0164-001	MOTOR	1		
	24	VKS5548-001	MOTOR PULLEY	1		
	25	LV42509-001A	MOTOR BKT	1		
	26	LV30225-011A	SPACER	1		
	27	QYSPSPU1720Z	SCREW	2	FOR MOTOR	
	28	VKB3000-184	BELT	1		
	29	QYSBSF2608Z	T.SCREW	1	MOTOR BKT+F.P	
	30	QYSBSF2608Z	T.SCREW	1	FOR MOTOR PWB	
	31	QYSBSF3008Z	SCREW	1	FOR H.P PWB	
	32	LV33024-001A	GEAR BKT ASS'Y	1		
	33	LV33025-001A	ARM BKT ASS'Y	1		
	34	LV33013-001A	ARM1	1	EGC T1.0	
	35	LV33014-001A	ARM2	1	EGC T1.0	
	36	LV42526-001A	ARM3 ASS'Y	1		
	37	LV42527-001A	ARM4 ASS'Y	1		
	38	LV33022-001A	GEAR1	1	POM	
	39	LV42489-001A	GEAR2	1	POM	
	40	LV42490-001A	GEAR3	1	POM	
	41	LV42491-001A	GEAR4	1	POM	
	42	LV42525-001A	PULLY WORM	1	POM	
	43	LV42701-001A	WASHER	10	GEARX4,ARMX6	
	44	WDL163225-0	SLIT WASHER	1	PULLY WORM	
	45	QYSDST3006Z	SCREW	2	FOR SW PWB	
	46	QYSBSF2608Z	T.SCREW	4	MOVING ASSY+F.P	
	47	LV21104-002A	MOVING LENS	1	ABS/SILK	
	48	LV21105-001A	MOVING PANEL	1	PS/SPRAY	

■ Parts list (General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	49	LV33026-001A	FUNCTION BUTTON	1	ABS/VACUUM METAL	
	50	LV32968-001A	EJECT BUTTON	2	ABS/VACUUM METAL	
	51	QYSBSF2608Z	T.SCREW	4	FOR MOVING PWB	
	53	LV32969-001A	VOLUME RING	1	ABS/VACUUM METAL	
	54	LV32970-001A	VOLUME KNOB	1	AS/CLEAR	
	55	LV33156-002A	MOVING PROTECT	1		
	56	LV32967-001A	MOVING COVER	1		
	57	LV42528-001A	COLLOR(A)	2	FOR MOVING LENS	
	58	LV42529-001A	COLLOR(B)	2	ARM3,4+MOVING	
	59	QYSSSF2608Z	SCREW	2	ARM3,4+MOVING	
	60	QYSBSG3008Z	T.SCREW	2	F.PANEL+BOTTOM	
	61	QYSDST3006Z	SCREW	2	M.MECHA+SUB.CHASSIS	
	62	VKZ4001-110S	WIRE HOLDER	1	FOR H.P.WIRE	
	63	LV10574-001A	BOTTOM CHASSIS	1	EGC T1.0	
	64	E75896-006	FELT SPACER	2	FOOT FOR CHASSIS	
	65	-----	3CD CHANGER MECHA	1	BDL1131-M001YP	
	66	QYSDST3006Z	SCREW	2	ZC4 + CD BKT	
	67	QYSDST3006Z	SCREW	2	ZC4 + CHASSIS	
	68	LV10575-001A	SUB CHASSIS	1	EGC T1.0	
	69	QYSDST3006E	SCREW	5	BOTTOM+SUB CHASSIS	
	70	QYSBSG3008Z	T.SCREW	2	CNCT PWB+SUB CHASSIS	
△	71	QQT0354-001	POWER TRANS	1		
	72	QYSDSTL4008Z	SPECIAL SCREW	4	TRANS+B.CHASSIS	
	73	VKZ4001-110S	WIRE HOLDER	1	FOR TRANS WIRE	
	74	QYSDST3004Z	SCREW	1	WIRE HOLDER	
△	75	QMPN160-200-JD	POWER CORD	1		B
△		QMPK200-200-JD	POWER CORD	1		E,EN
	76	QZW0033-001	STRAIN RELIEF	1		
	77	EMU-R7-11M	SINGLE CD MECHA	1		
	78	LV10581-001A	CDR CHASSIS	1		
	79	LV30225-059A	SPACER	2	FOR CDR CHASSIS	
	80	LV30225-059A	SPACER	1	FOR ZC4 WIRE	
	81	QYSBSG3008Z	T.SCREW	3	CD MECHA+CDR CHASSIS	
	82	QYSDST3006E	SCREW	4	SUB CHAS+CDR CHASSIS	
	83	VKZ4001-111S	WIRE CLAMP	1		
	84	QYSDST3004Z	SCREW	1		
	85	LV32973-001A	PWB BKT	2		
	86	QYSDST3006E	SCREW	2	PWB BKT+CDR CHASSIS	
	87	LV30225-0D1A	SPACER	1		
	88	VYSH101-009	SPACER	1		
	89	QAR0124-002	FAN MOTOR	1	WIRE 200MM	
	90	QYSBSG3020Z	TAP SCREW	2	FAN+CDR CHASSIS	
	91	LV32974-002A	HEAT SINK	1	BLACK ALUMITE	
	92	LV31393-002A	IC HOLDER	1	REGULATOR	
	93	QYSBSG3014E	T.SCREW	3	IC HOLDER+H.SINK	
	94	LV32129-001A	IC HOLDER	1	POWER AMP IC	
	95	QYSBSG3014E	T.SCREW	2	IC HOLDER+H.SINK	
	96	QYSBSG3008Z	T.SCREW	2	REAR PWB+SUB CHASSIS	

■ Parts list (General assembly)

Block No. M1MM

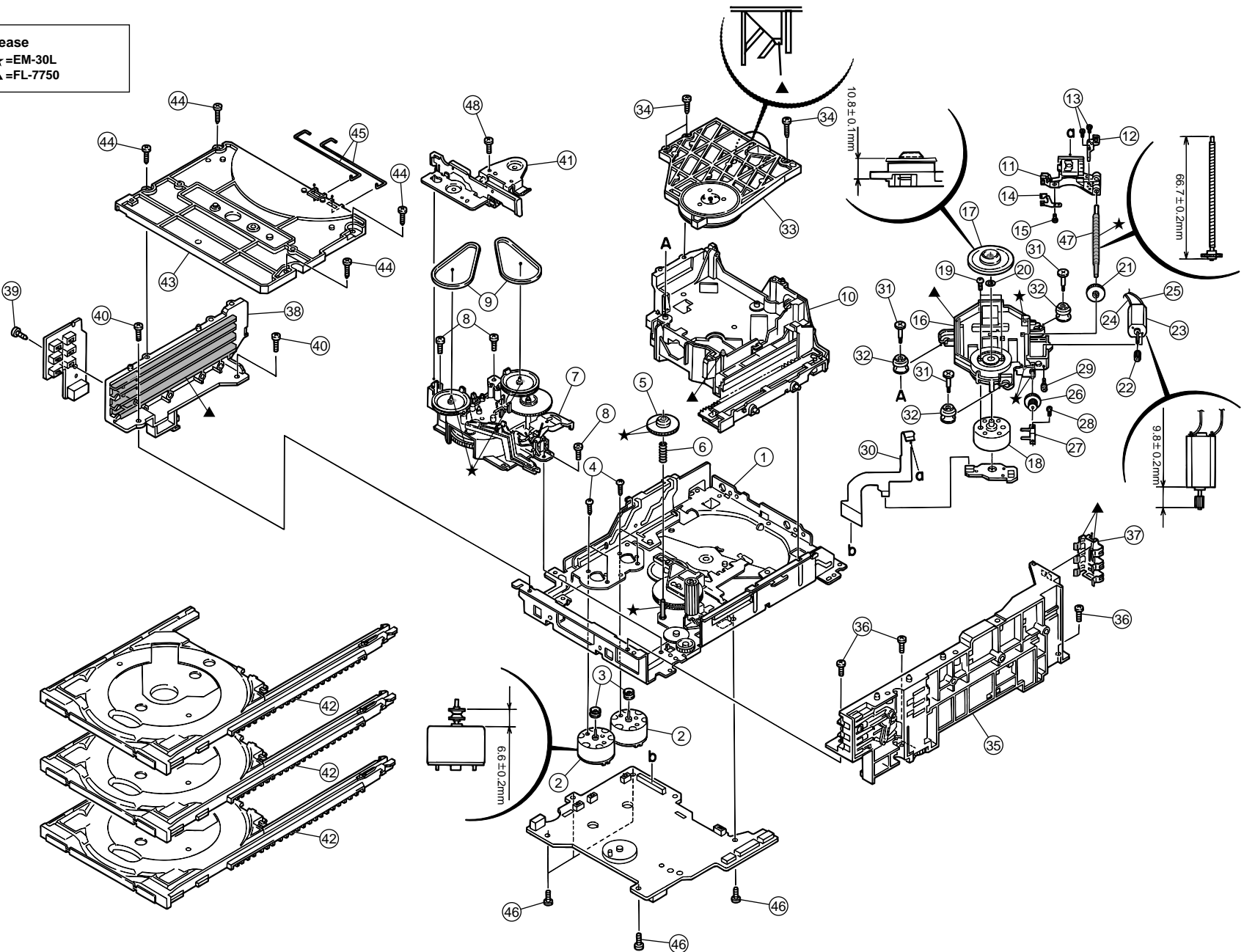
△	Item	Parts number	Parts name	Q'ty	Description	Area
	98	QYSDST3006Z	SCREW	1	M.TRA PWB+SUB CHASSIS	
	99	LV30225-011A	SPACER	1		
	100	LV32972-001A	PWB COVER	1	FOR MINI TR PWB	
	101	FMYH4004-001	PLASTIC RIVET	1		
	102	LV21108-002A	REAR PANEL	1		
	103	QYSBSGY3008E	SPECIAL SCREW	1	R.PANEL+BOTTOM	
	104	QYSBSGY3008E	SPECIAL SCREW	2	ANT.+R.PANEL	
	105	QYSBSGY3008E	SPECIAL SCREW	1	PIN JACK+R.PANE	
	106	QYSBSGY3008E	SPECIAL SCREW	2	DIGITAL OPT+R.P	
	107	QYSBSGY3008E	SPECIAL SCREW	2	SPEAKER JACK+R.P	
	108	QYSBSGY3008E	SPECIAL SCREW	1	M.TRANS PWB+R.P	
	109	QYSBSGY3008E	SPECIAL SCREW	4	HEAT SINK+R.PANEL	
	110	QYSDST3006E	SCREW	2	MICON PWB+PWB BK	
	111	VYSH101-009	SPACER	1		
	112	LV21109-002A	REAR COVER	1		
	113	QYSBSGY3008E	SPECIAL SCREW	2	REAR COVER+R.PANEL	
	114	QYSBSGY3008E	SPECIAL SCREW	2	REAR COVER+B.CHASSIS	
	115	LV21110-001A/S/	METAL COVER	1		
	116	QYSBSGY3008E	SPECIAL SCREW	4	FOR REAR	
	117	QYSDSG3006M	T.SCREW	2	FOR SIDE	
	118	LV32965-001A	TRAY FITTING	1	FOR CDR	
	119	LV33030-004A	NAME PLATE	1	REAR COVER	E
		LV33030-002A	NAME PLATE	1	REAR COVER	B,EN
	120	VND4118-004	CAUTION LABEL	1	REAR COVER	
	121	WJM0252-001A	E-SI C WIRE C-F	1		
	122	QUQ110-1108AF	FFC WIRE	1	FL-MICON(1)	
	123	QUQ110-1508AF	FFC WIRE	1	FL-MICON(2)	
	124	QUQ110-1324AF	FFC WIRE	1	REC-MICON	
	125	QUQ412-1722CJ	FFC WIRE	1	CONNECT-MICON	
	126	QUQ412-1520CF	FFC WIRE	1	CONNECT-MICON	
	127	QUQ110-0424AF	FFC WIRE	1	ZC4-MICON	
	128	QUQ110-1910BJ	FFC WIRE	1	ZC4-CONNECT(1)	
	129	WJU0007-001A	SH FFC WIRE	1		
	130	QUQ110-2313AF	FFC WIRE	1	CDR-CONNECT(1)	
	131	WJU0006-001A	FFC WIRE	1		
	132	QJJ009-061101	SIN ID C-C WIRE	1	CDR-CONNECT	
	133	QUQ412-0524DJ	FFC WIRE	1		
	134	QUQG10-1014BF	FFC WIRE	1		
△	135	QMF51W2-4R0-J8	FUSE	1		
△	136	QMF51W2-1R0-J8	FUSE	1		
	137	LV30225-011A	SPACER	1		
	138	LV30225-0E3A	SPACER	1		
	139	LV30225-0E4A	SPACER	2		
	140	LV40859-001A	SPACER	1		
	141	VYSH101-009	SPACER	1		

# CD changer mechanism assembly and parts list

FMU-ZC4-1M

Block No.  M  A  M  M

**Grease**  
 ★ = EM-30L  
 ▲ = FL-7750



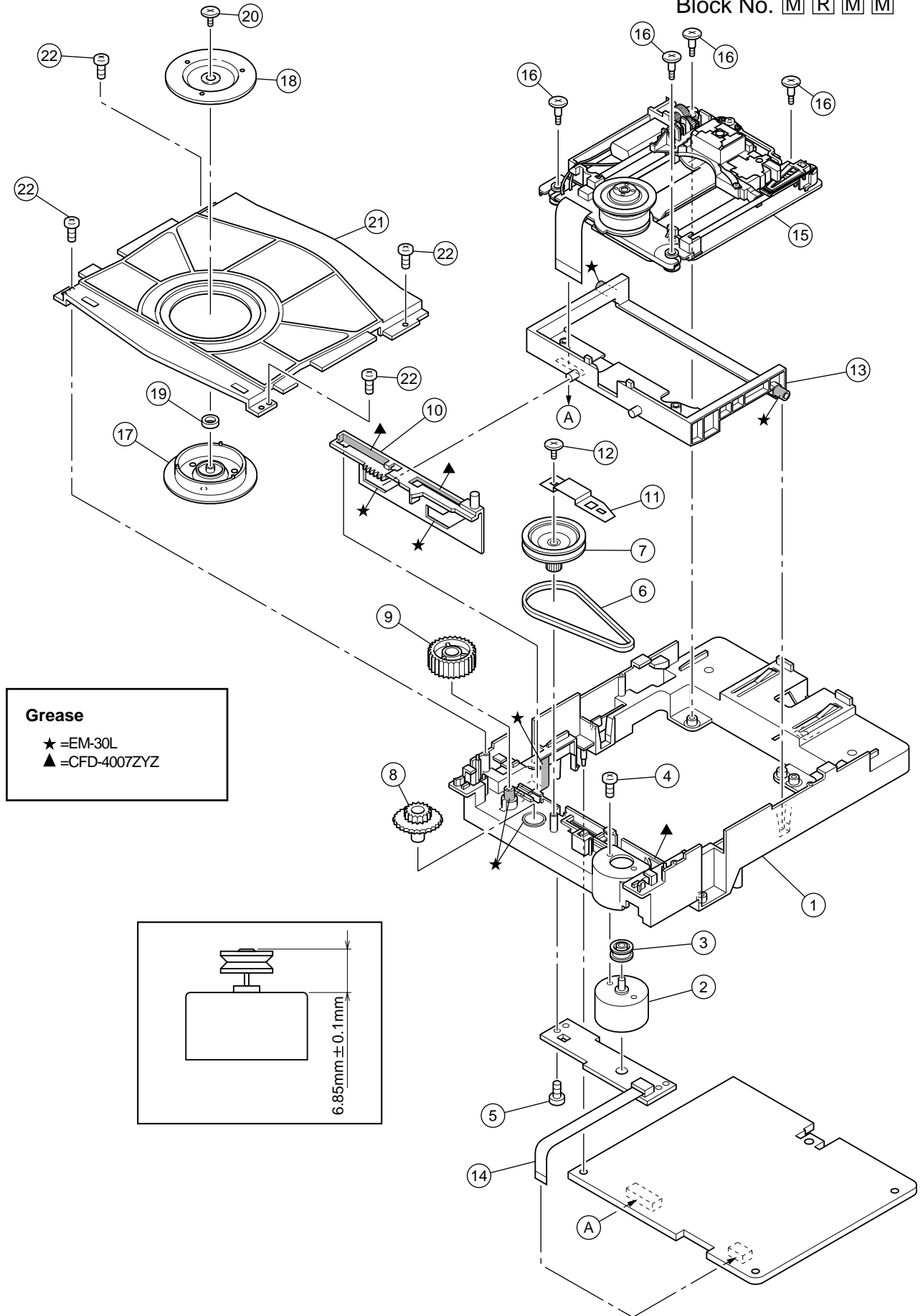
## ■ Parts list (CD Changer mechanism)

Block No. MAMM

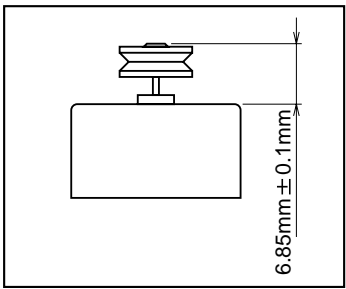
△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV20581-001A	CHASSIS UNIT	1		
	2	RF-500TB-12560	MOTOR	2		
	3	VKS5548-001	MOTOR PULLEY	2		
	4	QYSPSP2603Z	SCREW	4		
	5	LV31586-001A	SELECT GEAR	1		
	6	LV41427-001A	SELECT SPRING	1		
	7	LV20588-001A	GEAR BASE UNIT	1		
	8	QYSDST2606Z	SCREW	3		
	9	LV41431-001A	BELT	2		
	10	LV20586-003A	SUB CHAS. UNIT	1		
	11	OPTIMA-725B1	CD PICK UP	1		
	12	LV32013-003A	RACK ARM	1		
	13	QYSPSPT1720M	MINI SCREW	2		
	14	LV31744-001A	P.S.SPRING	1		
	15	QYSPSGT1425M	TAP SCREW	1		
	16	VKS1161-006	T.MECHA CHASSIS	1		
	17	LV31745-001A	TURN TABLE ASSY	1		
	18	QAR0123-001	SPINDLE MOTOR	1		
	19	VKZ4743-001	SPECIAL SCREW	2		
	20	WFM214025	WASHER	1		
	21	VKS5556-001	S.S. GEAR	1		
	22	VKS5557-001	F.M. GEAR	1		
	23	PPN-13KA10C	MOTOR	1		
	24	VWE292-07AZAZ	UL VINYL WIRE	1		
	25	VWE290-08AZAZ	WIRE	1		
	26	VKS5558-001	MIDDLE GEAR	1		
	27	VKM3904-001	SHAFT HOLDER	1		
	28	VKZ4248-204	MINI TAP SCREW	1		
	29	QYSPSPL2004Z	SCREW	1		
	30	LVB30006-002A	FPC	1		
	31	LV41424-001A	SPECIAL SCREW	3		
	32	LV41659-001A	INSULATOR	3		
	33	LV31799-001A	CLAMPER UNIT	1		
	34	QYSBSF2608Z	T.SCREW	3		
	35	LV20594-002A	SIDE(R) UNIT	1		
	36	QYSDST2606Z	SCREW	3		
	37	LV31575-001A	CLICK SPRING	1		
	38	LV10308-001A	SIDE BKT(L)	1		
	39	QYSBSF2608Z	T.SCREW	1		
	40	QYSDST2606Z	SCREW	2		
	41	LV32067-001A	FLAP BASE UNIT	1		
	42	LV20590-002A	TRAY UNIT	3		
	43	LV10309-001A	TOP COVER	1		
	44	QYSBSF2608Z	T.SCREW	4		
	45	LV41429-002A	ROD	2		
	46	QYSDST2606Z	SCREW	5		
	47	LV42703-001A	SCREW SHAFT	1		
	48	QYSBSF2608Z	T.SCREW	1		

# CD-R/RW loading mechanism assembly and parts list

Block No. M R M M



**Grease**  
 ★ =EM-30L  
 ▲ =CFD-4007ZYZ



## ■ Parts list (CD-R/RW loading mechanism)

Block No. MRMM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10454-007A	LOADING BASE	1		
	2	QAR0164-001	MOTOR	1	MABUCHI	
	3	LV42087-001A	MOTOR PULLEY	1		
	4	QYSPSPU1730Z	SCREW	1	FOR MOTOR	
	5	VKZ4777-003	MINI SCREW	1		
	6	LV42209-001A	BELT	1		
	7	LV42084-002A	PULLEYGEAR	1		
	8	LV42085-002A	MIDDLE GEAR	1		
	9	LV42086-001A	IDLE GEAR	1		
	10	LV32514-002A	SLIDE CAM	1		
	11	LV42348-001A	P GEAR BKT	1		
	12	VKZ4777-003	MINI SCREW	1	FOR PULLEY GEAR	
	13	LV20912-002A	ELEVATOR	1		
	14	QUQ110-0606AJ	FLAT WIRE	1		
	15	-----	CD-R/RW TRAVERS	1		
	16	LV41424-001A	SPECIAL SCREW	4		
	17	LV32417-001A	CLAMPER	1		
	18	LV42089-001A	YOKE	1		
	19	LV41118-003A	MAGNET	1		
	20	LV41741-001A	SPECIAL SCREW	1		
	21	LV20913-002A	CLAMPER BASE	1		
	22	QYSBSF2008Z	TAPPING SCREW	4		

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
C 1	NCB31CK-223X	C CAPACITOR			
C 2	NCB31CK-103X	C CAPACITOR			
C 3	QETN1HM-106Z	E CAPACITOR		10MF 20% 50V	
C 4	NCB31CK-103X	C CAPACITOR			
C 6	NCB31HK-102X	C CAPACITOR			
C 7	NCB31HK-102X	C CAPACITOR			
C 8	NCB31HK-102X	C CAPACITOR			
C 9	NCB31HK-102X	C CAPACITOR			
C 10	NCS31HJ-120X	C.CAPA. C.M			
C 11	NCB31CK-104X	C CAPACITOR			
C 12	NCB31CK-473X	C CAPACITOR			
C 13	NCS31HJ-120X	C.CAPA. C.M			
C 14	QEK1CM-107Z	E.CAPACITOR		100MF 20% 16V	
C 15	NCS31HJ-120X	C.CAPA. C.M			
C 16	NCS31HJ-120X	C.CAPA. C.M			
C 17	NCB31HK-392X	C CAPACITOR			
C 18	QE061HM-474Z	N.P.E.CAPA. I.M		.47MF 20% 50V	
C 19	NCB31CK-473X	C CAPACITOR			
C 20	NCB31HK-102X	C CAPACITOR			
C 21	NCB31CK-223X	C CAPACITOR			
C 22	NCS31HJ-151X	C CAPACITOR			
C 23	NCS31HJ-151X	C CAPACITOR			
C 24	NCS31HJ-151X	C CAPACITOR			
C 25	QEK1CM-107Z	E.CAPACITOR		100MF 20% 16V	
C 30	QEK1CM-107Z	E.CAPACITOR		100MF 20% 16V	
C 31	QEK1CM-226Z	E CAPACITOR		22MF 20% 16V	
C 32	NCB31CK-473X	C CAPACITOR			
C 33	NCB31CK-473X	C CAPACITOR			
C 34	NCB31CK-223X	C CAPACITOR			
C 35	NCB31CK-473X	C CAPACITOR			
C 36	QEK1HM-105Z	E.CAPACITOR		1.0MF 20% 50V	
C 37	QEK1HM-105Z	E.CAPACITOR		1.0MF 20% 50V	
C 38	QEK1HM-224Z	E CAPACITOR		.22MF 20% 50V	
C 39	QEK1HM-105Z	E.CAPACITOR		1.0MF 20% 50V	
C 40	QEK1CM-106Z	E CAPACITOR		10MF 20% 16V	
C 41	QEK1CM-106Z	E CAPACITOR		10MF 20% 16V	
C 42	NCB31HK-182X	C CAPACITOR			
C 43	NCB31HK-182X	C CAPACITOR			
C 44	QEK1CM-106Z	E CAPACITOR		10MF 20% 16V	
C 45	QEK1CM-106Z	E CAPACITOR		10MF 20% 16V	
C 46	NCB31CK-223X	C CAPACITOR			
C 47	QEK1HM-105Z	E.CAPACITOR		1.0MF 20% 50V	
C 48	NCB31HK-222X	C CAPACITOR			
C 49	NCS31HJ-471X	C CAPACITOR			
C 50	QEK1CM-226Z	E CAPACITOR		22MF 20% 16V	
C 51	QEK1HM-105Z	E.CAPACITOR		1.0MF 20% 50V	
C 52	QFVF1HJ-274Z	MF CAPACITOR		.27MF 5% 50V	
C 53	QETN1HM-226Z	E CAPACITOR		22MF 20% 50V	
C 54	NCB31CK-473X	C CAPACITOR			
C 55	NCS31HJ-330X	C CAPACITOR			
C 56	NCS31HJ-100X	C CAPACITOR			
C 57	NCB31HK-102X	C CAPACITOR			
C 58	NCB31CK-473X	C CAPACITOR			
C 59	NCB31HK-102X	C CAPACITOR			
C 70	NCS31HJ-220X	C CAPACITOR			
C 71	NCS31HJ-220X	C CAPACITOR			
C 72	NCB31HK-561X	C CAPACITOR			
C 73	NCB31CK-104X	C CAPACITOR			
C 74	NCB31CK-104X	C CAPACITOR			
C 75	QEK1CM-106Z	E CAPACITOR		10MF 20% 16V	
C 76	NCB31HK-331X	C CAPACITOR			
CF 1	QAX0420-001	C FILTER			
CF 2	QAX0458-001Z	C FILTER			

△	Item	Parts number	Parts name	Remarks	Area
CF 3	QAX0610-001Z	C DISCRIMINATOR			
CN581	QGF1205F1-05	CONNECTOR		TO MAIN	
CN582	QGA2001F1-02	2P CONNECTOR		TO MOVING MOTOR	
CN701	QGB2510J1-15	CONNECTOR		TO POWER-AMP	
CN702	QGB2510J1-14	CONNECTOR		TO REG	
CN703	QGB2510J1-09	CONNECTOR		TO REAR	
CN704	QGF1036C1-11	CONNECTOR		TO FL	
CN705	QGF1205F1-05	CONNECTOR		TO PANEL SW	
CN706	QGF1016F3-04	CONNECTOR		TO CDR	
CN707	QGF1205F1-15	CONNECTOR		TO CONNECT	
CN708	QGF1036F1-13	13P PLUG ASSY		TO KEY	
CN709	QGF1205F1-17	CONNECTOR		TO CONNECT	
CN710	QGB1214J1-12S	CONNECTOR		TO TUNER-I/O	
CN711	QGB1214J1-10S	CONNECTOR		TO TUNER-I/O	
CN712	QGF1036C1-15	FFC CONNECTOR		TO FL	
CN801	QGB1214K1-12S	CONNECTOR			
CN802	QGA2501F1-04	CONNECTOR			
CN803	QGB1214K1-10S	CONNECTOR			
CN851	QGF1036F1-11	CONNECTOR			
CN852	QGF1036F1-15	15FFC CONNECTOR			
C3122	QTE1H28-106Z	E CAPACITOR			
C3142	QEK1CM-106Z	E CAPACITOR		10MF 20% 16V	
C3143	QTE1H28-106Z	E CAPACITOR			
C3144	QETN1HM-106Z	E CAPACITOR		10MF 20% 50V	
C3145	QETN1HM-105Z	E CAPACITOR		1.0MF 20% 50V	
C3146	QFVF1HJ-124Z	MF CAPACITOR		.12MF 5% 50V	
C3147	QFVF1HJ-124Z	MF CAPACITOR		.12MF 5% 50V	
C3148	QFLC1HJ-183Z	TF CAPACITOR		.018MF 5% 50V	
C3149	QFLC1HJ-223Z	M CAPACITOR		.022MF 5% 50V	
C3150	QFLC1HJ-562Z	M CAPACITOR		5600PF 5% 50V	
C3151	QETN1HM-106Z	E CAPACITOR		10MF 20% 50V	
C3154	NCB31HK-102X	C CAPACITOR			
C3156	QTE1H28-105Z	E CAPACITOR			
C3161	QFP32AJ-222Z	PP CAPACITOR		2200PF 5% 100V	
C3163	QFLC1HJ-563Z	TF CAPACITOR		.056MF 5% 50V	
C3164	QFLC1HJ-563Z	TF CAPACITOR		.056MF 5% 50V	
C3166	QTE1V06-106Z	E CAPACITOR			
C3182	QETN1HM-475Z	E CAPACITOR		4.7MF 20% 50V	
C3183	NCS31HJ-220X	C CAPACITOR			
C3184	QEK1HM-226Z	E.CAPACITOR		22MF 20% 50V	
C3222	QTE1H28-106Z	E CAPACITOR			
C3242	QEK1CM-106Z	E CAPACITOR		10MF 20% 16V	
C3243	QTE1H28-106Z	E CAPACITOR			
C3244	QETN1HM-106Z	E CAPACITOR		10MF 20% 50V	
C3245	QETN1HM-105Z	E CAPACITOR		1.0MF 20% 50V	
C3246	QFVF1HJ-124Z	MF CAPACITOR		.12MF 5% 50V	
C3247	QFVF1HJ-124Z	MF CAPACITOR		.12MF 5% 50V	
C3248	QFLC1HJ-183Z	TF CAPACITOR		.018MF 5% 50V	
C3249	QFLC1HJ-223Z	M CAPACITOR		.022MF 5% 50V	
C3250	QFLC1HJ-562Z	M CAPACITOR		5600PF 5% 50V	
C3251	QETN1HM-106Z	E CAPACITOR		10MF 20% 50V	
C3254	NCB31HK-102X	C CAPACITOR			
C3256	QTE1H28-105Z	E CAPACITOR			
C3261	QFP32AJ-222Z	PP CAPACITOR		2200PF 5% 100V	
C3263	QFLC1HJ-563Z	TF CAPACITOR		.056MF 5% 50V	
C3264	QFLC1HJ-563Z	TF CAPACITOR		.056MF 5% 50V	
C3266	QTE1V06-106Z	E CAPACITOR			
C3282	QETN1HM-475Z	E CAPACITOR		4.7MF 20% 50V	
C3283	NCS31HJ-220X	C CAPACITOR			
C3284	QEK1HM-226Z	E.CAPACITOR		22MF 20% 50V	
C3381	QEK1HM-105Z	E.CAPACITOR		1.0MF 20% 50V	
C3941	QTE1E28-106Z	E CAPACITOR			
C3942	QTE1C28-107Z	E CAPACITOR			

■ Electrical parts list (Main board)

Block No. 01

▲	Item	Parts number	Parts name	Remarks	Area
	C3943	NCB31HK-103X	C CAPACITOR		
	C3946	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C3961	QTE1C28-107Z	E CAPACITOR		
	C3962	QTE1C28-226Z	E CAPACITOR		
	C3981	QTE1C28-107Z	E CAPACITOR		
	C3982	QTE1C28-226Z	E CAPACITOR		
	C7001	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C7002	QETN0JM-108Z	E CAPACITOR	1000MF 20% 6.3V	
	C7005	NCS31HJ-220X	C CAPACITOR	32KHZ	
	C7006	NCS31HJ-220X	C CAPACITOR	32KHZ	
	C7007	NCB31HK-103X	C CAPACITOR		
	C7008	QCFB1HZ-105Y	ML C CAPA I/M	1.0MF +80:-20%	
	C7009	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C7010	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C7201	QETM1EM-108	E CAPACITOR	1000MF 20% 25V	
	C7202	QFLC1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C7203	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C7204	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C7205	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C7206	QFLC1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C7207	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C7208	NCB31HK-103X	C CAPACITOR		
	C7301	NCB31CK-104X	C CAPACITOR		
	C7302	NCS31HJ-100X	C CAPACITOR		
	C7601	NCB31HK-102X	C CAPACITOR		
	C7602	NCB31CK-473X	C CAPACITOR		
	C7605	QETN0JM-227Z	E CAPACITOR	220MF 20% 6.3V	
	C7801	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C7802	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C7901	QETM1EM-688	E CAPACITOR	6800MF 20% 25V	
	C7902	QETM1VM-478	E.CAPACITOR	4700MF 20% 35V	
	C7903	QETM1VM-478	E.CAPACITOR	4700MF 20% 35V	
	C8101	NCS31HJ-101X	C.CAPA. C.M		
	C8103	NCS31HJ-101X	C.CAPA. C.M		
	C8104	NCB31HK-562X	C CAPACITOR		
	C8105	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C8201	NCS31HJ-101X	C.CAPA. C.M		
	C8203	NCS31HJ-101X	C.CAPA. C.M		
	C8204	NCB31HK-562X	C CAPACITOR		
	C8205	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C8401	NCB31HK-103X	C CAPACITOR		
	C8402	QEK1CM-476Z	E.CAPACITOR	47MF 20% 16V	
	C8404	QEK1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C8405	QEK1CM-476Z	E.CAPACITOR	47MF 20% 16V	
	C8406	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C8407	NCB31HK-103X	C CAPACITOR		
	C8408	NCB31HK-103X	C CAPACITOR		
	C8409	NCS31HJ-6R0X	C CAPACITOR		
	C8410	NCB31HK-103X	C CAPACITOR		
	C8444	NCB31HK-103X	C CAPACITOR		
	C8446	NCB31HK-103X	C CAPACITOR		
	C8501	QEK0JM-226Z	E CAPACITOR	22MF 20% 6.3V	
	C8502	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C8503	NCS31HJ-101X	C.CAPA. C.M		
	C8504	QEK1CM-107Z	E.CAPACITOR	100MF 20% 16V	
	C8505	NCB31HK-102X	C CAPACITOR		
	C8506	QEK1HM-105Z	E.CAPACITOR	1.0MF 20% 50V	
	C8507	NCB31HK-102X	C CAPACITOR		
	C8508	NCB31HK-102X	C CAPACITOR		
	C8509	NCB31HK-102X	C CAPACITOR		
	C8510	NCB31HK-102X	C CAPACITOR		
	C8511	QEK1HM-105Z	E.CAPACITOR	1.0MF 20% 50V	
	C8512	QEK1HM-105Z	E.CAPACITOR	1.0MF 20% 50V	

▲	Item	Parts number	Parts name	Remarks	Area
	C8513	NCB31HK-561X	C CAPACITOR		
	C8514	NCB31HK-561X	C CAPACITOR		
	C8515	NCB31HK-561X	C CAPACITOR		
	C8516	NCS31HJ-221X	C.CAPA. C.M		
	C8517	NCS31HJ-221X	C.CAPA. C.M		
	C8518	NCS31HJ-221X	C.CAPA. C.M		
	C8519	NCS31HJ-221X	C.CAPA. C.M		
	C8520	NCS31HJ-221X	C.CAPA. C.M		
	C8521	NCS31HJ-221X	C.CAPA. C.M		
	C8522	NCS31HJ-221X	C.CAPA. C.M		
	C8523	NCS31HJ-221X	C.CAPA. C.M		
	C8524	NCS31HJ-221X	C.CAPA. C.M		
	C8525	NCS31HJ-221X	C.CAPA. C.M		
	C8526	NCS31HJ-221X	C.CAPA. C.M		
	C8527	NCB31HK-561X	C CAPACITOR		
	C8528	NCB31HK-561X	C CAPACITOR		
	D 1	1SS133-T2	SI DIODE IM		
	D 2	1SS133-T2	SI DIODE IM		
	D 3	1SS133-T2	SI DIODE IM		
	D 4	1SS133-T2	SI DIODE IM		
	D1851	QLF0092-001	FL TUBE		
	D3181	1SS133-T2	SI DIODE IM	DETECTOR	
	D3182	1SS133-T2	SI DIODE IM	DETECTOR	
	D3281	1SS133-T2	SI DIODE IM	DETECTOR	
	D3282	1SS133-T2	SI DIODE IM	DETECTOR	
	D3941	MTZJ11A-T2	ZENER DIODE	VOL	
	D3942	MTZJ10C-T2	Z.DIODE I.M		
	D3961	MTZJ6.8A-T2	ZENER DIODE	AHB/BPF	
	D3981	MTZJ6.8A-T2	ZENER DIODE	DETECTOR	
	D7001	1SS133-T2	SI DIODE IM		
	D7002	1SS133-T2	SI DIODE IM		
	D7003	1SS133-T2	SI DIODE IM		
	D7201	1N4003S-T5	SI DIODE		
	D7202	MTZJ6.8A-T2	ZENER DIODE	US6V	
	D7204	1SS133-T2	SI DIODE IM	INH/RESET	
	D7205	MTZJ5.1C-T2	ZENER DIODE	INH/RESET	
	D7206	1SS133-T2	SI DIODE IM	INH/RESET	
	D7207	MTZJ6.8A-T2	ZENER DIODE	FL6V	
	D7208	1N4003S-T5	SI DIODE		
	D7209	1N4003S-T5	SI DIODE		
	D8401	MTZJ10C-T2	Z.DIODE I.M		
	D8402	MTZJ3.9B-T2	ZENER DIODE		
	D8403	1SS133-T2	SI DIODE IM		
	D8404	1SS133-T2	SI DIODE IM		
	D8405	MTZJ9.1A-T2	ZENER DIODE		
	D8501	SPR-39MVWF	LED		
	D8503	1SS133-T2	SI DIODE IM		
	D8504	1SS133-T2	SI DIODE IM		
	D8505	1SS133-T2	SI DIODE IM		
	EP701	QNZ0136-001Z	EARTH PLATE		
	FW702	QUM026-20Z3Z3	PARA RIBON WIRE	IN MICON	
	IC 1	LA1838	IC		
	IC 2	LC72136N	IC		
	IC 3	LC72723	IC(RDS)		
	IC301	NJM4580D	IC	AHB/BPF(CDR7)	
	IC302	NJM4580D	IC	DETECTOR(CDR7)	
	IC303	TDA7439	IC	VOL/EQ	
	IC304	BU4066BCF-X	IC	SELECTOR-L	
	IC305	BU4066BCF-X	IC	SELECTOR-R	
	IC701	UPD784216AGF517	IC	SYSTEM MICON	
▲	IC702	KIA78S06P-T	IC	US6V	
▲	IC703	KIA78S06P-T	IC	FL6V	
	IC704	TA8409S	IC	MOT DRIVER	



■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	IC705	TC74HCT04AF-X	IC	VOL BUFF	
	IC851	GP1U261X	IR DETECT UNIT		
	IC852	M66004FP-X	IC		
	J 1	QNB0014-001	ANT TERMINAL		
	J8001	QNN0018-002	PIN JACK	4PIN	
	J8002	GP1FA550RZ	OPT RECEIVER		
	J8003	GP1FA550TZ	OPT TRANSMITTER	(F5WMD NO USE)	
	K7801	QQR1183-001Z	F.BEADS I.M	MOT. DRIVER	
	K7802	QQR1183-001Z	F.BEADS I.M	MOT. DRIVER	
	K8401	QQR1183-001Z	F.BEADS I.M		
	K8402	QQR1183-001Z	F.BEADS I.M		
	L 1	QQR1094-001	COIL BLOCK		
	L 2	QQL231K-330Y	INDUCTOR		
	L 3	QQL231K-4R7Y	INDUCTOR		
	L 70	QQL231K-101Y	INDUCTOR		
	LF810	QQR0590-001	FILTER		
	LF820	QQR0590-001	FILTER		
	Q 1	2SC2814/4-5/-X	TRANSISTOR		
	Q 2	2SC1623/5-6/-X	TRANSISTOR		
	Q 3	2SC1623/5-6/-X	TRANSISTOR		
	Q 4	DTA114YKA-X	TRANSISTOR		
	Q 5	DTA114YKA-X	TRANSISTOR		
	Q3161	2SC3576-JVC-T	TRANSISTOR I/M	AHB(CDR7)	
	Q3162	2SC3576-JVC-T	TRANSISTOR I/M	AHB(CDR7)	
	Q3261	2SC3576-JVC-T	TRANSISTOR I/M	AHB(CDR7)	
	Q3262	2SC3576-JVC-T	TRANSISTOR I/M	AHB(CDR7)	
	Q7201	KTA1271/OY/-T	TRANSISTOR	US6V	
	Q7202	KTA1271/OY/-T	TRANSISTOR	US6V	
	Q7203	DTC114YKA-X	CHIP D.TRANSIST	INH/RESET	
	Q7204	DTC114YKA-X	CHIP D.TRANSIST	INH/RESET	
	Q7205	DTC114YKA-X	CHIP D.TRANSIST	INH/RESET	
	Q7206	DTC114YKA-X	CHIP D.TRANSIST	INH/RESET	
	Q7207	KTA1271/OY/-T	TRANSISTOR	FL6V	
	Q7208	KTC3199/GL/-T	TRANSISTOR	FL6V	
	Q7401	DTC144EKA-X	TRANSISTOR		
	Q7402	DTC144EKA-X	TRANSISTOR		
	Q7403	DTC144EKA-X	TRANSISTOR		
	Q7404	2SC2412K/RS/-X	CHIP TRANSISTOR	MANUAL RESET	
	Q7405	2SC2412K/RS/-X	CHIP TRANSISTOR	MANUAL RESET	
	Q7406	2SC2412K/RS/-X	CHIP TRANSISTOR	LED CTL	
	Q7408	2SC2412K/RS/-X	CHIP TRANSISTOR	LED CTL	
	Q7409	KTC3199/GL/-T	TRANSISTOR	POUT2	
	Q7410	DTA144EKA-X	TRANSISTOR		
	Q7411	DTA144EKA-X	TRANSISTOR		
	Q7412	DTA144EKA-X	TRANSISTOR		
	Q8101	2SC3576-JVC-T	TRANSISTOR I/M		
	Q8201	2SC3576-JVC-T	TRANSISTOR I/M		
	Q8301	KRA102M-T	D.TRANSISTOR		
	Q8401	KTC3203/OY/-T	TRANSISTOR		
	Q8402	KRA102M-T	D.TRANSISTOR		
	Q8403	KRC102M-T	D.TRANSISTOR		
	Q8404	KTA1267/YG/-T	TRANSISTOR		
	Q8405	KTC3199/GL/-T	TRANSISTOR		
	Q8501	DTC114TKA-X	TRANSISTOR		
	Q8503	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q8504	2SC2412K/RS/-X	CHIP TRANSISTOR		
	R 2	NRSA63J-331X	MG RESISTOR		
	R 3	NRSA63J-224X	MG RESISTOR		
	R 4	NRSA63J-331X	MG RESISTOR		
	R 5	NRSA63J-120X	MG RESISTOR		
	R 6	NRSA63J-120X	MG RESISTOR		
	R 10	NRSA63J-222X	MG RESISTOR		
	R 11	NRSA63J-472X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R 12	NRSA63J-472X	MG RESISTOR		
	R 13	NRSA63J-103X	MG RESISTOR		
	R 14	NRSA63J-104X	MG RESISTOR		
	R 15	NRSA63J-332X	MG RESISTOR		
	R 16	NRSA63J-472X	MG RESISTOR		
	R 17	QRZ9005-680X	F.RES I/M	68 1/4W	
	R 18	NRSA63J-102X	MG RESISTOR		
	R 19	NRSA63J-102X	MG RESISTOR		
	R 20	NRSA63J-102X	MG RESISTOR		
	R 21	NRSA63J-562X	MG RESISTOR		
	R 22	NRSA63J-472X	MG RESISTOR		
	R 23	NRSA63J-182X	MG RESISTOR		
	R 24	NRSA63J-103X	MG RESISTOR		
	R 25	NRSA63J-331X	MG RESISTOR		
	R 26	NRSA63J-222X	MG RESISTOR		
	R 27	NRSA63J-103X	MG RESISTOR		
	R 28	NRSA63J-103X	MG RESISTOR		
	R 29	NRSA63J-103X	MG RESISTOR		
	R 30	NRSA63J-122X	MG RESISTOR		
	R 31	NRSA63J-102X	MG RESISTOR		
	R 32	NRSA63J-102X	MG RESISTOR		
	R 33	NRSA63J-331X	MG RESISTOR		
	R 34	NRSA63J-470X	MG RESISTOR		
	R 35	NRSA63J-562X	MG RESISTOR		
	R 36	NRSA63J-332X	MG RESISTOR		
	R 37	NRSA63J-103X	MG RESISTOR		
	R 38	NRSA63J-393X	MG RESISTOR		
	R 39	NRSA63J-393X	MG RESISTOR		
	R 40	NRSA63J-393X	MG RESISTOR		
	R 41	NRSA63J-332X	MG RESISTOR		
	R 60	NRSA63J-0R0X	MG RESISTOR		
	R 70	NRSA63J-103X	MG RESISTOR		
	R 71	NRSA63J-102X	MG RESISTOR		
	R 72	NRSA63J-102X	MG RESISTOR		
	R 73	NRSA63J-102X	MG RESISTOR		
	R3124	NRSA63J-102X	MG RESISTOR		
	R3141	NRSA63J-562X	MG RESISTOR		
	R3142	NRSA63J-272X	MG RESISTOR		
	R3143	NRSA63J-473X	MG RESISTOR		
	R3144	NRSA63J-473X	MG RESISTOR		
	R3147	NRSA63J-473X	MG RESISTOR		
	R3148	NRSA63J-473X	MG RESISTOR		
	R3161	NRSA63J-332X	MG RESISTOR		
	R3162	NRSA63J-182X	MG RESISTOR		
	R3163	NRSA63J-103X	MG RESISTOR		
	R3164	NRSA63J-0R0X	MG RESISTOR		
	R3165	NRSA63J-561X	MG RESISTOR		
	R3166	NRSA63J-223X	MG RESISTOR		
	R3167	NRSA63J-622X	MG RESISTOR		
	R3168	NRSA63J-472X	MG RESISTOR		
	R3169	NRSA63J-224X	MG RESISTOR		
	R3170	NRSA63J-304X	MG RESISTOR		
	R3182	NRSA63J-473X	MG RESISTOR		
	R3183	NRSA63J-473X	MG RESISTOR		
	R3184	NRSA63J-473X	MG RESISTOR		
	R3185	NRSA63J-473X	MG RESISTOR		
	R3224	NRSA63J-102X	MG RESISTOR		
	R3241	NRSA63J-562X	MG RESISTOR		
	R3242	NRSA63J-272X	MG RESISTOR		
	R3243	NRSA63J-473X	MG RESISTOR		
	R3244	NRSA63J-473X	MG RESISTOR		
	R3247	NRSA63J-473X	MG RESISTOR		
	R3248	NRSA63J-473X	MG RESISTOR		

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	R3261	NRSA63J-332X	MG RESISTOR		
	R3262	NRSA63J-182X	MG RESISTOR		
	R3263	NRSA63J-103X	MG RESISTOR		
	R3264	NRSA63J-0R0X	MG RESISTOR		
	R3265	NRSA63J-561X	MG RESISTOR		
	R3266	NRSA63J-223X	MG RESISTOR		
	R3267	NRSA63J-622X	MG RESISTOR		
	R3268	NRSA63J-472X	MG RESISTOR		
	R3269	NRSA63J-224X	MG RESISTOR		
	R3270	NRSA63J-304X	MG RESISTOR		
	R3282	NRSA63J-473X	MG RESISTOR		
	R3283	NRSA63J-473X	MG RESISTOR		
	R3284	NRSA63J-473X	MG RESISTOR		
	R3285	NRSA63J-473X	MG RESISTOR		
	R3381	NRSA63J-104X	MG RESISTOR		
	R3382	NRSA63J-682X	MG RESISTOR		
	R3941	QRJ146J-221X	UNF C.RES 1/M	220 5% 1/4W	
	R3942	NRSA63J-224X	MG RESISTOR		
	R3944	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R3961	NRSA63J-221X	MG RESISTOR		
	R3962	NRSA63J-222X	MG RESISTOR		
	R3981	NRSA63J-221X	MG RESISTOR		
	R3982	NRSA63J-222X	MG RESISTOR		
	R7001	NRSA63J-473X	MG RESISTOR		
	R7002	QRE141J-470Y	C RESISTOR	47 5% 1/4W	
	R7003	NRSA63J-105X	MG RESISTOR		
△	R7201	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	R7202	NRSA63J-102X	MG RESISTOR		
	R7203	NRSA63J-272X	MG RESISTOR		
	R7204	NRSA63J-102X	MG RESISTOR		
	R7205	NRSA63J-103X	MG RESISTOR		
	R7206	NRSA63J-103X	MG RESISTOR		
	R7207	NRSA63J-102X	MG RESISTOR		
	R7208	NRSA63J-104X	MG RESISTOR		
	R7209	NRSA63J-473X	MG RESISTOR		
	R7210	NRSA63J-472X	MG RESISTOR		
	R7211	NRSA63J-472X	MG RESISTOR		
	R7301	NRSA63J-101X	MG RESISTOR		
	R7302	NRSA63J-332X	MG RESISTOR		
	R7303	NRSA63J-682X	MG RESISTOR		
	R7401	NRSA63J-473X	MG RESISTOR		
	R7402	NRSA63J-473X	MG RESISTOR		
	R7403	NRSA63J-473X	MG RESISTOR		
	R7404	NRSA63J-104X	MG RESISTOR		
	R7405	NRSA63J-103X	MG RESISTOR		
	R7406	NRSA63J-102X	MG RESISTOR		
	R7407	NRSA63J-104X	MG RESISTOR		
	R7408	NRSA63J-472X	MG RESISTOR		
	R7409	NRSA63J-473X	MG RESISTOR		
	R7601	NRSA63J-473X	MG RESISTOR		
	R7649	NRSA63J-103X	MG RESISTOR		
	R7653	NRSA63J-103X	MG RESISTOR		
	R7654	NRSA63J-103X	MG RESISTOR		
	R7655	NRSA63J-103X	MG RESISTOR		
	R7656	NRSA63J-103X	MG RESISTOR		
	R7657	NRSA63J-103X	MG RESISTOR		
	R7659	NRSA63J-103X	MG RESISTOR		
	R7660	NRSA63J-103X	MG RESISTOR		
	R7662	NRSA63J-103X	MG RESISTOR		
	R7663	NRSA63J-103X	MG RESISTOR		
	R7693	NRSA63J-103X	MG RESISTOR		
	R7694	NRSA63J-103X	MG RESISTOR		
	R7701	NRSA63J-102X	MG RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	R7702	NRSA63J-102X	MG RESISTOR		
	R7703	NRSA63J-102X	MG RESISTOR		
	R7704	NRSA63J-102X	MG RESISTOR		
	R7705	NRSA63J-471X	MG RESISTOR		
	R7706	NRSA63J-102X	MG RESISTOR		
	R7707	NRSA63J-102X	MG RESISTOR		
	R7708	NRSA63J-102X	MG RESISTOR		
	R7710	NRSA63J-102X	MG RESISTOR		
	R7711	NRSA63J-102X	MG RESISTOR		
	R7712	NRSA63J-102X	MG RESISTOR		
	R7713	NRSA63J-102X	MG RESISTOR		
	R7714	NRSA63J-102X	MG RESISTOR		
	R7715	NRSA63J-103X	MG RESISTOR		
	R7716	NRSA63J-103X	MG RESISTOR		
	R7721	NRSA63J-103X	MG RESISTOR		
	R7722	NRSA63J-103X	MG RESISTOR		
	R7723	NRSA63J-103X	MG RESISTOR		
	R7734	NRSA63J-103X	MG RESISTOR		
	R7735	NRSA63J-102X	MG RESISTOR		
	R7736	NRSA63J-102X	MG RESISTOR		
	R7743	NRSA63J-102X	MG RESISTOR		
	R7744	NRSA63J-102X	MG RESISTOR		
	R7745	NRSA63J-102X	MG RESISTOR		
	R7746	NRSA63J-102X	MG RESISTOR		
	R7747	NRSA63J-102X	MG RESISTOR		
	R7748	NRSA63J-102X	MG RESISTOR		
	R7749	NRSA63J-102X	MG RESISTOR		
	R7753	NRSA63J-102X	MG RESISTOR		
	R7754	NRSA63J-102X	MG RESISTOR		
	R7755	NRSA63J-102X	MG RESISTOR		
	R7756	NRSA63J-102X	MG RESISTOR		
	R7757	NRSA63J-102X	MG RESISTOR		
	R7758	NRSA63J-102X	MG RESISTOR		
	R7759	NRSA63J-102X	MG RESISTOR		
	R7760	NRSA63J-102X	MG RESISTOR		
	R7762	NRSA63J-102X	MG RESISTOR		
	R7763	NRSA63J-102X	MG RESISTOR		
	R7765	NRSA63J-102X	MG RESISTOR		
	R7766	NRSA63J-102X	MG RESISTOR		
	R7767	NRSA63J-102X	MG RESISTOR		
	R7768	NRSA63J-102X	MG RESISTOR		
	R7769	NRSA63J-102X	MG RESISTOR		
	R7771	NRSA63J-102X	MG RESISTOR		
	R7773	NRSA63J-102X	MG RESISTOR		
	R7775	NRSA63J-102X	MG RESISTOR		
	R7776	NRSA63J-102X	MG RESISTOR		
	R7777	NRSA63J-102X	MG RESISTOR		
	R7778	NRSA63J-102X	MG RESISTOR		
	R7779	NRSA63J-102X	MG RESISTOR		
	R7780	NRSA63J-102X	MG RESISTOR		
	R7781	NRSA63J-102X	MG RESISTOR		
	R7782	NRSA63J-102X	MG RESISTOR		
	R7783	NRSA63J-102X	MG RESISTOR		
	R7784	NRSA63J-102X	MG RESISTOR		
	R7785	NRSA63J-102X	MG RESISTOR		
	R7786	NRSA63J-101X	MG RESISTOR		
	R7787	NRSA63J-102X	MG RESISTOR		
	R7788	NRSA63J-102X	MG RESISTOR		
	R7789	NRSA63J-102X	MG RESISTOR		
	R7790	NRSA63J-103X	MG RESISTOR		
	R7793	NRSA63J-102X	MG RESISTOR		
	R7794	NRSA63J-102X	MG RESISTOR		
	R7796	NRSA63J-102X	MG RESISTOR		

■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	R7797	NRSA63J-102X	MG RESISTOR		
	R7799	NRSA63J-103X	MG RESISTOR		
△	R7801	QRJ146J-181X	UNF C.RES I/M	180 5% 1/4W	
	R7802	NRSA63J-183X	MG RESISTOR		
	R7803	NRSA63J-473X	MG RESISTOR		
	R7804	NRSA63J-120X	MG RESISTOR		
	R7805	NRSA63J-120X	MG RESISTOR		
	R7806	NRSA63J-120X	MG RESISTOR		
	R7807	NRSA63J-120X	MG RESISTOR		
	R8101	NRSA63J-223X	MG RESISTOR		
	R8102	NRSA63J-333X	MG RESISTOR		
	R8105	NRSA63J-472X	MG RESISTOR		
	R8106	NRSA63J-181X	MG RESISTOR		
	R8107	NRSA63J-392X	MG RESISTOR		
	R8108	NRSA63J-332X	MG RESISTOR		
	R8110	NRSA63J-201X	MG RESISTOR		
	R8111	NRSA63J-431X	MG RESISTOR		
	R8112	NRSA63J-432X	MG RESISTOR		
	R8201	NRSA63J-223X	MG RESISTOR		
	R8202	NRSA63J-333X	MG RESISTOR		
	R8205	NRSA63J-472X	MG RESISTOR		
	R8206	NRSA63J-181X	MG RESISTOR		
	R8207	NRSA63J-392X	MG RESISTOR		
	R8208	NRSA63J-332X	MG RESISTOR		
	R8210	NRSA63J-201X	MG RESISTOR		
	R8211	NRSA63J-431X	MG RESISTOR		
	R8212	NRSA63J-432X	MG RESISTOR		
△	R8401	QRZ9005-220X	F.RES I/M	22 1/4W	
	R8402	NRSA63J-271X	MG RESISTOR		
	R8403	NRSA63J-390X	MG RESISTOR		
	R8404	NRSA63J-102X	MG RESISTOR		
	R8405	NRSA63J-103X	MG RESISTOR		
	R8410	NRSA63J-471X	MG RESISTOR		
	R8501	NRSA63J-202X	MG RESISTOR		
	R8502	NRSA63J-122X	MG RESISTOR		
	R8504	NRSA63J-331X	MG RESISTOR		
	R8505	NRSA63J-331X	MG RESISTOR		
	R8506	NRSA63J-273X	MG RESISTOR		
	R8507	NRSA63J-103X	MG RESISTOR		
	R8508	NRSA63J-103X	MG RESISTOR		
	R8509	NRSA63J-682X	MG RESISTOR		
	R8510	NRSA63J-682X	MG RESISTOR		
	S5801	QSW0620-001	SWITCH		
	S5802	QSW0620-001	SWITCH		
	S8501	QSW0651-001Z	TACT SWITCH	POWER	
	S8502	QSW0651-001Z	TACT SWITCH	SOURCE	
	S8503	QSW0651-001Z	TACT SWITCH	CDR EJECT	
	S8504	QSW0651-001Z	TACT SWITCH	PANEL OP/CL	
	T 1	QQR0793-001	IFT		
	TU 1	QAU0160-001	FRONT END		
	WC802	QZW0038-001	WIRE CLAMP		
	X 1	QAX0402-001	CRYSTAL		
	X 70	QAX0263-001Z	CRYSTAL		
	X7001	QAX0699-001Z	RESONATOR	10MHZ	
	X7002	QAX0401-001	CRYSTAL	32KHZ	

■ Electrical parts list (AMP board)

Block No. 02

▲	Item	Parts number	Parts name	Remarks	Area	▲	Item	Parts number	Parts name	Remarks	Area
	CN101	QGB2510K2-06	CONNECTOR				C4001	QCBB1HK-103Y	C CAPACITOR	.010MF 10% 50V	
	CN102	QGB2510K2-15	CONNECTOR				C4003	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	CN103	QGB2024J1-04S	CONNECTOR				C4004	QCBB1HK-103Y	C CAPACITOR	.010MF 10% 50V	
	CN202	QGB2510K2-09	CONNECTOR	TO MICOM			C4005	QTE1V06-226Z	E CAPACITOR		
	CN203	QGA2501C1-07	7P CONNECTOR	TO MAIN TRANS			C4006	QCBB1HK-103Y	C CAPACITOR	.010MF 10% 50V	
	CN204	QGB2510K2-09	CONNECTOR	TO PWB			C4008	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	CN205	QGB2510J1-04	CONNECTOR	TO REG			C4009	QCBB1HK-103Y	C CAPACITOR	.010MF 10% 50V	
	CN206	QGB2510J1-06	CONNECTOR	TO AMP			C4011	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	CN207	QGB2510K2-07	CONNECTOR				C4012	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	CN208	QGB2024K1-07S	CONNECTOR	TO REG			C4013	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	CN209	QGB2024K1-04S	CONNECTOR	TO AMP			C4014	QCBB1HK-103Y	C CAPACITOR	.010MF 10% 50V	
	CN210	QGA2501C1-02	2P CONNECTOR				C4019	QCBB1HK-103Y	C CAPACITOR	.010MF 10% 50V	
	CN401	QGB2510K2-14	CONNECTOR				C4020	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	CN402	QGB2510K2-04	CONNECTOR				C4021	QCBB1HK-103Y	C CAPACITOR	.010MF 10% 50V	
	CN403	QGA2501C1-07	7P CONNECTOR	TO CONNECT WIRE			C4022	QCBB1HZ-104Y	C CAPACITOR	.10MF +80-20%	
	CN405	QGB2024J1-07S	CONNECTOR				C5603	QCBB1HK-103Y	C CAPACITOR	.010MF 10% 50V	
	CN501	QGF1205C1-15	CONNECTOR	TO MAIN DIGITAL			C5901	QDYB1CM-103Y	C.CAPACITOR		
	CN502	QGF1205F1-17	CONNECTOR	TO MAIN ANALOG			C5902	QTE1C06-476Z	E CAPACITOR		
	CN504	QGF1016F3-19	CONNECTOR	TO CD			C5903	QEKC1CM-476Z	E.CAPACITOR	47MF 20% 16V	
	CN505	QGF1016F3-08	CONNECTOR	TO CD			C5907	QDYB1CM-103Y	C.CAPACITOR		
	CN506	QGF1016C1-08	CONNECTOR	TO CDR			C5908	QTE1C06-476Z	E CAPACITOR		
	CN507	QGA2001F1-06	6P PLUG ASSY	TO CDR			D1101	1SS133-T2	SI DIODE IM		
	CN508	QGF1016C1-23	CONNECTOR	TO CDR			D1201	1SS133-T2	SI DIODE IM		
	CN583	QGA2001F1-02	2P CONNECTOR	FOR MOVING MOTO			D1801	1SS133-T2	SI DIODE IM		
	CN601	QGF1004F4-10	CONNECTOR	TO REC-KEY PWB			D1802	1SS133-T2	SI DIODE IM		
	CN671	QGF1004F4-10	CONNECTOR	TO JOG			D1805	1SS133-T2	SI DIODE IM		
	CN672	QGF1036F1-13	13P PLUG ASSY	TO UCON PWB			D2001	MTZJ5.1C-T2	ZENER DIODE	FL VPP	
	C1104	QTE1V06-106Z	E CAPACITOR				D2401	1N4003S-T5	SI DIODE	FL VPP	
	C1105	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V			D2402	1N4003S-T5	SI DIODE	FL VPP	
	C1106	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V			D2403	1N4003S-T5	SI DIODE		
	C1107	QTE1H28-476Z	E CAPACITOR			▲	D2501	2A02-M	DIODE		
	C1108	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V		▲	D2502	2A02-M	DIODE		
	C1109	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V		▲	D2503	2A02-M	DIODE		
	C1111	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V		▲	D2504	2A02-M	DIODE		
	C1204	QTE1V06-106Z	E CAPACITOR			▲	D2505	2A02-M	DIODE	F5WMD NO USE	
	C1205	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V		▲	D2506	2A02-M	DIODE	F5WMD NO USE	
	C1206	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V		▲	D2507	2A02-M	DIODE	F5WMD NO USE	
	C1207	QTE1H28-476Z	E CAPACITOR			▲	D2508	2A02-M	DIODE	F5WMD NO USE	
	C1208	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V		▲	D2509	1N5402M-20	DIODE		
	C1209	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V		▲	D2510	1N5402M-20	DIODE		
	C1211	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V		▲	D2511	1N5402M-20	DIODE		
	C1301	QTE1V28-107Z	E CAPACITOR			▲	D2512	1N5402M-20	DIODE		
	C1302	QTE1V28-107Z	E CAPACITOR				D4001	MTZJ11B-T2	ZENER DIODE		
	C1303	QTE1V06-226Z	E CAPACITOR				D4002	1N5402M-20	DIODE	1SR35-400	
	C1304	QTE1V06-226Z	E CAPACITOR				D4003	MTZJ13C-T2	ZENER DIODE		
	C1350	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V			D4004	MTZJ13C-T2	ZENER DIODE		
	C1370	QETN1HM-474Z	E CAPACITOR	.47MF 20% 50V			D4005	1SS133-T2	SI DIODE IM		
	C1401	QFLC1HJ-473Z	M CAPACITOR	.047MF 5% 50V			D4006	MTZJ7.5A-T2	Z.DIODE I.M		
	C1805	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V			D4007	1SS133-T2	SI DIODE IM		
	C1806	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V			D4008	MTZJ9.1A-T2	ZENER DIODE		
	C2001	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V			D4009	1SS133-T2	SI DIODE IM		
	C2101	QFLC1HJ-104Z	M CAPACITOR	.10MF 5% 50V			D4010	MTZJ36A-T2	Z.DIODE I.M		
	C2201	QFLC1HJ-104Z	M CAPACITOR	.10MF 5% 50V			D4018	1N4003S-T5	SI DIODE		
	C2401	QETN1HM-227Z	E CAPACITOR	220MF 20% 50V			D4019	1SS133-T2	SI DIODE IM		
	C2402	QETN1HM-107Z	E CAPACITOR	100MF 20% 50V			D4020	1SS133-T2	SI DIODE IM		
	C2403	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V			D5101	MTZJ6.2C-T2	Z DIODE I/M	SAFETY	
	C2501	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V			D5102	1SS133-T2	SI DIODE IM	SAFETY	
	C2502	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V			D5103	1SS133-T2	SI DIODE IM	SAFETY	
	C2503	QFV72AJ-104Z	MF CAPACITOR	.10MF 5% 100V			D5104	MTZJ8.2B-T2	DIODE	D6V SAFETY	
	C2504	QFV72AJ-104Z	MF CAPACITOR	.10MF 5% 100V			D5105	MTZJ11A-T2	ZENER DIODE	SAFETY	
	C2901	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V			D5107	1SS133-T2	SI DIODE IM		
	C2902	QDGB1HK-102Y	C CAPACITOR			▲	D5901	MTZJ5.6C-T2	ZENER DIODE	CD5V	
	C2903	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V		▲	D5903	MTZJ5.6C-T2	ZENER DIODE	A5V	

■ Electrical parts list (AMP board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	D5904	1N4003S-T5	SI DIODE		
	D5906	1N4003S-T5	SI DIODE		
	D6301	SELU1E10CXM	LED		
	D6302	MTZJ8.2B-T2	DIODE		
	D6701	SELU2E10C	LED		
	D6702	SELU2E10C	LED		
	D6703	MTZJ8.2B-T2	DIODE		
	D6704	MTZJ8.2B-T2	DIODE		
	FT251	QNG0003-001Z	FUSE CLIP	FOR F2501	
	FT252	QNG0003-001Z	FUSE CLIP	FOR F2501	
△	IC101	STK402-030	IC		
	IC401	SI-3033C	IC	D3.3V REG	
	JS631	QSW0793-001	ROTARY ENCODER		
	J2901	QNS0170-001	JACK		
	K2901	QQR1183-001Z	F.BEADS I.M		
	K2902	QQR1183-001Z	F.BEADS I.M		
	K2903	QQR1183-001Z	F.BEADS I.M		
	K5201	QQR1183-001Z	F.BEADS I.M	CD	
	K5205	QQR1183-001Z	F.BEADS I.M	CD	
	K5301	QQR1183-001Z	F.BEADS I.M	CDR	
	K5302	QQR1183-001Z	F.BEADS I.M	CDR	
	K5303	QQR1183-001Z	F.BEADS I.M	CDR	
	K5304	QQR1183-001Z	F.BEADS I.M	CDR	
	K5305	QQR1183-001Z	F.BEADS I.M	CDR	
	K5308	QQR1183-001Z	F.BEADS I.M	CDR	
	L1101	QQLZ005-R45	INDUCTOR		
	L1201	QQLZ005-R45	INDUCTOR		
	Q1101	KTA1268/GL-T	TRANSISTOR	PROTECT	
	Q1150	2SC3576-JVC-T	TRANSISTOR I/M	S-MUTE	
	Q1201	KTA1268/GL-T	TRANSISTOR	PROTECT	
	Q1250	2SC3576-JVC-T	TRANSISTOR I/M	S-MUTE	
	Q1350	KRA102M-T	D.TRANSISTOR	S-MUTE	
	Q1401	2SK301/PQ-T	TRANSISTOR(FET)	SURROUND	
	Q1402	KRA102M-T	D.TRANSISTOR		
	Q1801	KRC110M-T	TR I/M		
	Q1805	2SC945/QP-T	TRANSISTOR		
	Q1806	2SA733/QP-T	TRANSISTOR		
	Q1807	KTC3199/GL-T	TRANSISTOR		
△	Q1901	KRC104M-T	D.TR.I.M	AMP SW	
	Q1902	KRA104M-T	D.TR.I.M	AMP SW	
	Q2401	KTA1267/YG-T	TRANSISTOR		
	Q2402	KRC102M-T	D.TRANSISTOR		
	Q4001	2SD2395/EF/	TRANSISTOR		
	Q4002	KTC3199/GL-T	TRANSISTOR		
	Q4004	2SD2395/EF/	TRANSISTOR	A12V	
	Q4005	KTC3199/GL-T	TRANSISTOR		
	Q4009	KTC3199/GL-T	TRANSISTOR		
	Q4013	2SD2395/EF/	TRANSISTOR	MD6V	
	Q4017	2SB1565/EF/	TRANSISTOR	M9V	
	Q4018	KTC3199/GL-T	TRANSISTOR		
	Q4019	2SC3576-JVC-T	TRANSISTOR I/M		
	Q4020	2SC3576-JVC-T	TRANSISTOR I/M		
	Q4021	KRA102M-T	D.TRANSISTOR		
	Q4022	KRA102M-T	D.TRANSISTOR		
	Q4023	KTA1271/OY-T	TRANSISTOR		
	Q4024	KRC114M-T	TR I.M		
	Q4029	KTC3199/GL-T	TRANSISTOR		
	Q4030	2SD2395/EF/	TRANSISTOR	REG	
	Q5101	KTC3199/GL-T	TRANSISTOR	SAFETY	
	Q5102	KTA1267/YG-T	TRANSISTOR		
	Q5901	KTC3203/OY-T	TRANSISTOR	CD5V	
	Q5903	KTC3199/GL-T	TRANSISTOR	A5V	
	R1101	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	

△	Item	Parts number	Parts name	Remarks	Area
	R1102	QRE141J-273Y	C RESISTOR	27K 5% 1/4W	
	R1103	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R1104	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R1105	QRJ146J-751X	UNF C.RES I/M	750 5% 1/4W	
	R1106	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
△	R1107	QRT01DJ-R33X	UNF.MF.RES.I/M	5% 1/1W	
△	R1108	QRJ146J-4R7X	UNF C.RES I/M	4.7 5% 1/4W	
△	R1109	QRT01DJ-R33X	UNF.MF.RES.I/M	5% 1/1W	
	R1110	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1111	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R1112	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R1114	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
△	R1115	QRZ9005-101X	F.RES I/M	100 1/0W	
	R1117	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R1150	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1201	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R1202	QRE141J-273Y	C RESISTOR	27K 5% 1/4W	
	R1203	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R1204	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R1205	QRJ146J-751X	UNF C.RES I/M	750 5% 1/4W	
	R1206	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
△	R1207	QRT01DJ-R33X	UNF.MF.RES.I/M	5% 1/1W	
△	R1208	QRJ146J-4R7X	UNF C.RES I/M	4.7 5% 1/4W	
△	R1209	QRT01DJ-R33X	UNF.MF.RES.I/M	5% 1/1W	
	R1210	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1211	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R1212	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R1214	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
△	R1215	QRZ9005-101X	F.RES I/M	100 1/0W	
	R1217	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R1250	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1301	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1302	QRJ146J-101X	UNF C.RES I/M	100 5% 1/4W	
	R1350	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R1401	QRE141J-155Y	C RESISTOR	1.5M 5% 1/4W	
	R1403	QRE141J-475Y	C RESISTOR	4.7M 5% 1/4W	
	R1404	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R1405	QRE141J-105Y	C RESISTOR	1.0M 5% 1/4W	
	R1406	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R1407	QRE141J-224Y	C RESISTOR	220K 5% 1/4W	
	R1408	QRE141J-333Y	C RESISTOR	33K 5% 1/4W	
	R1801	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R1802	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R1803	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1805	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1806	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1807	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1808	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1809	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1810	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
△	R2101	QRZ9006-4R7X	F RESISTOR	4.7 1/0W	
△	R2201	QRZ9006-4R7X	F RESISTOR	4.7 1/0W	
△	R2401	QRZ9005-331X	F.RES I/M	330 1/4W	
△	R2402	QRZ9005-100X	F.RES I/M	10 1/4W	
	R2403	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R4001	QRJ146J-821X	UNF C.RES I/M	820 5% 1/4W	
	R4002	QRE141J-821Y	C RESISTOR	820 5% 1/4W	
△	R4009	QRZ9006-4R7X	F RESISTOR	4.7 1/0W	
	R4010	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R4012	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R4023	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R4025	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R4026	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	

■ Electrical parts list (AMP board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	R4035	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R4036	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R4039	QRE141J-681Y	C RESISTOR	680 5% 1/4W	
	R4040	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R4041	QRE141J-681Y	C RESISTOR	680 5% 1/4W	
	R4042	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R4043	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R4045	QRE141J-103Y	C RESISTOR	FOR FAN TEST	
	R4046	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R4047	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R4048	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R4049	QRE141J-103Y	C RESISTOR	FOR FAN TEST	
	R5101	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R5102	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R5103	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R5104	QRE141J-622Y	C RESISTOR	6.2K 5% 1/4W	
	R5105	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R5203	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R5204	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R5205	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R5206	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R5309	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R5310	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R5311	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R5312	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R5313	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R5314	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R5315	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R5316	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R5901	QRE141J-561Y	C RESISTOR	560 5% 1/4W	
	R5902	QRE141J-561Y	C RESISTOR	560 5% 1/4W	
	R5904	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R6101	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R6102	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R6103	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R6104	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R6105	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R6106	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
	R6107	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R6201	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R6202	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R6203	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R6204	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R6205	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R6301	QRE141J-821Y	C RESISTOR	820 5% 1/4W	
	R6501	QRE141J-202Y	C RESISTOR	2.0K 5% 1/4W	
	R6502	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R6503	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R6504	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R6505	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R6506	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
	R6507	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R6601	QRE141J-821Y	C RESISTOR	820 5% 1/4W	
	R6602	QRE141J-821Y	C RESISTOR	820 5% 1/4W	
	S6101	QSW0651-001Z	TACT SWITCH	B.SKIP	
	S6102	QSW0651-001Z	TACT SWITCH	STOP	
	S6103	QSW0651-001Z	TACT SWITCH	F.SKIP	
	S6104	QSW0651-001Z	TACT SWITCH	DIRECT REC	
	S6105	QSW0651-001Z	TACT SWITCH	DISK SELECT	
	S6106	QSW0651-001Z	TACT SWITCH	CD PLAY/PAUSE	
	S6107	QSW0651-001Z	TACT SWITCH	CDR PLAY/PAUSE	
	S6108	QSW0651-001Z	TACT SWITCH	FINALIZE	
	S6201	QSW0651-001Z	TACT SWITCH	REC MUTE	

△	Item	Parts number	Parts name	Remarks	Area
	S6202	QSW0651-001Z	TACT SWITCH	FADE IN/OUT	
	S6203	QSW0651-001Z	TACT SWITCH	REC PAUSE	
	S6204	QSW0651-001Z	TACT SWITCH	CD3 EJECT	
	S6205	QSW0651-001Z	TACT SWITCH	CD2 EJECT	
	S6206	QSW0651-001Z	TACT SWITCH	CD1 EJECT	
	S6501	QSW0651-001Z	TACT SWITCH	REC LEVEL	
	S6502	QSW0651-001Z	TACT SWITCH	REC START	
	S6503	QSW0651-001Z	TACT SWITCH	CANCEL	
	S6504	QSW0651-001Z	TACT SWITCH	SET	
	S6505	QSW0651-001Z	TACT SWITCH	REC MODE	
	S6506	QSW0651-001Z	TACT SWITCH	REC SPEED	
	S6508	QSW0651-001Z	TACT SWITCH	GROUP(F5)	
	TH501	QAD0015-103Z	THERMISTOR		
	W2901	QJK026-052800	SIN CR C-B WIRE	H.P.-MINI TRA.	
	W5001	QJK026-072802	SIN CR C-B WIRE	CONNECT-REGU.	
	W5002	QJP012-042204	SHI CR C-B WIRE	CONNECT-TUNER	
	W5801	QJB002-020802	SIN CR C-B WIRE	MOTOR CONN-CAM	

■ Electrical parts list (Power board)

Block No. 03

△	Item	Parts number	Parts name	Remarks	Area
	CN901	QGA7901C1-02	CONNECTOR	POWER CORD(PRI)	
	CN902	QGB2510J1-07	CONNECTOR	TO REAR PWB	
	CN903	QGB2510J1-09	CONNECTOR	TO REAR PWB	
	CN904	QGA7901C1-02	CONNECTOR		
	CN905	QGA2501F1-05	CONNECTOR	FOR HP	
	C9001	QFV61HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C9002	QFV61HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
△	C9005	QCZ9104-472	C.CAPACITOR	4700PF	
	C9101	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C9102	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C9103	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C9201	QFLC1HJ-223Z	M CAPACITOR	.022MF 5% 50V	
	C9202	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C9203	QFLC1HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C9301	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C9401	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
△	D9001	1SS133-T2	SI DIODE IM		
	FT911	QNG0003-001Z	FUSE CLIP	FOR F9001	
	FT912	QNG0003-001Z	FUSE CLIP	FOR F9001	
	J 931	QNB0038-001	SPK.TERMINAL	EVER=-002	
	J 932	E409182-001SM	GRAND TERMINAL		
△	LF901	QQR1145-001	LINE FILTER	FOR EVER	
	Q9101	2SC3576-JVC-T	TRANSISTOR I/M		
	Q9201	2SC3576-JVC-T	TRANSISTOR I/M		
	Q9301	KRA102M-T	D.TRANSISTOR		
	Q9401	KTC3199/GL-T	TRANSISTOR		
△	RY901	QSK0124-001	RELAY	PRI RELAY	
	RY941	QSK0109-001	RELAY	SPK RELAY	
△	R9101	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
△	R9102	QRL01DJ-331X	UNF.OMF.RES.I.M	330 5% 1/1W	
	R9103	QRJ146J-181X	UNF C.RES I/M	180 5% 1/4W	
	R9104	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
△	R9201	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
△	R9202	QRL01DJ-331X	UNF.OMF.RES.I.M	330 5% 1/1W	
	R9203	QRJ146J-181X	UNF C.RES I/M	180 5% 1/4W	
	R9204	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R9301	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R9401	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R9402	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
△	T9002	QQT0353-001	POWER TRANSF		

■ Electrical parts list (CD servo board)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area
	C 250	NCB31CK-104X	C CAPACITOR	E2P VDD-VSS	
	C 253	NCB31CK-104X	C CAPACITOR	VDD-VSS	
	C 254	QERF0JM-476Z	E CAPACITOR	VDD-VSS	
	C 291	NCB21CK-105X	C CAPACITOR	+5V-D.GND	
	C 292	NCB21CK-105X	C CAPACITOR		
	C 601	NCB31HK-102X	C CAPACITOR	PU E	
	C 602	NCB31HK-102X	C CAPACITOR	PU F	
	C 603	NCB31HK-223X	C CAPACITOR	TBAL	
	C 604	NCB31HK-223X	C CAPACITOR	FBAL	
	C 605	NCS31HJ-271X	C CAPACITOR	FE	
	C 606	NCS31HJ-820X	C CAPACITOR	TE	
	C 610	NCB31CK-563X	C CAPACITOR	RFENV	
	C 611	NCB31CK-104X	C CAPACITOR	RF	
	C 612	QERF1HM-104Z	E CAPACITOR	CAGC	
	C 614	NCB31CK-393X	C CAPACITOR	CEA	
	C 615	NCB31HK-272X	C CAPACITOR	CBDO	
	C 616	NCB31HK-681X	C CAPACITOR	COFTR	
	C 617	NCB31HK-331X	C CAPACITOR	OFT-D.GND	
	C 621	NCB31CK-104X	C CAPACITOR	VREF-D.GND	
	C 622	QERF1AM-107Z	E CAPACITOR	VREF-D.GND	
	C 623	NCF31AZ-105X	C CAPACITOR	VCC-D.GND	
	C 624	QERF1AM-107Z	E CAPACITOR	VCC-D.GND	
	C 625	NCB31CK-104X	C CAPACITOR	VREF-D.GND	
	C 631	QERF1CM-106Z	E CAPACITOR	APC +5V-BASE	
	C 632	NCF31AZ-105X	C CAPACITOR	APC +5V-D.GND	
	C 633	NCB31HK-223X	C CAPACITOR	PU K-VREF	
	C 641	NCS31HJ-150X	C CAPACITOR	EQ X1X2	
	C 642	NCS31HJ-220X	C CAPACITOR	EQ X1	
	C 643	NCS31HJ-6R0X	C CAPACITOR		
	C 651	NCS31HJ-1R0X	C.CAPA. C.M	X1	
	C 652	NCS31HJ-1R0X	C.CAPA. C.M	X2	
	C 653	NCB31AK-334X	C.CAPA. C.M	RST-VSS	
	C 655	NCB31CK-104X	C CAPACITOR	DVDD1-DVSS1	
	C 656	NCB11EK-104X	C.CAPA. C.M	VDD-VSS	
	C 657	QERF1AM-227Z	E CAPACITOR	DVDD1-DVSS1	
	C 658	NCB31CK-104X	C CAPACITOR	A.GND-D.GND	
	C 659	NCB31CK-473X	C CAPACITOR		
	C 661	NCS31HJ-471X	C CAPACITOR	ARF	
	C 663	NCB31HK-223X	C CAPACITOR	ARF	
	C 664	NCB31HK-223X	C CAPACITOR	IREF	
	C 665	NCB31AK-154X	C CAPACITOR	PLL	
	C 667	NCB31AK-474X	C CAPACITOR	VCOF	
	C 669	QERF1AM-227Z	E CAPACITOR	VDD-VSS	
	C 673	QERF1AM-227Z	E CAPACITOR	AVDD1-AVSS1	
	C 676	NCB31CK-104X	C CAPACITOR	OFT	
	C 677	NCB31CK-104X	C CAPACITOR	AVDD1-AVSS1	
	C 679	QERF1AM-107Z	E CAPACITOR	AVDD2-AVSS2	
	C 680	NCB31CK-104X	C CAPACITOR	AVDD2-AVSS2	
	C 691	NCS31HJ-102X	C CAPACITOR	OUTL	
	C 692	NCS31HJ-102X	C CAPACITOR	OUTR	
	C 693	NCB31HK-272X	C CAPACITOR	OUTL	
	C 694	NCB31HK-272X	C CAPACITOR	OUTR	
	C 695	NCB31CK-104X	C CAPACITOR	VCC4.3V-GND	
	C 801	NCB31HK-223X	C CAPACITOR	VG3	
	C 802	NCS31HJ-102X	C CAPACITOR	TRD	
	C 811	NCS31HJ-391X	C CAPACITOR	FOCUS	
	C 812	NCS31HJ-391X	C CAPACITOR	SPINDLE	
	C 813	NCS31HJ-391X	C CAPACITOR	FEED	
	C 814	NCS31HJ-391X	C CAPACITOR	TRACKING	
	C 815	NCB21AK-105X	C.CAPA. C.M	TRD	
	C 816	NCB20JK-155X	C.CAPA. C.M	FOD	
	C 821	NCF31AZ-105X	C CAPACITOR	VCC-M.GND	
	C 822	QERF1AM-227Z	E CAPACITOR	VCC-M.GND	

△	Item	Parts number	Parts name	Remarks	Area
	C 851	QERF1CM-106Z	E CAPACITOR	VCC-M.GND	
	C 852	NCB31HK-103X	C CAPACITOR		
	C 853	NCB31HK-103X	C CAPACITOR		
	C 855	NCB31CK-104X	C CAPACITOR	VCC-M.GND	
	C 859	NCF31AZ-105X	C CAPACITOR	CAM MOTOR	
	C 860	NCF31AZ-105X	C CAPACITOR	ACTU MOTOR	
	CN601	QGF1016C1-21	CONNECTOR	TRAVERSE	
	CN606	QGF1016F3-08	CONNECTOR	4T I/F	
	CN608	QGF1016F3-04	CONNECTOR	CD-TEXT	
	CN610	QGB1214J1-08S	CONNECTOR	TO SW CB(CN620)	
	CN651	QGF1016F3-19	CONNECTOR	MAIN	
	D 251	MA112-X	DIODE		
	D 631	1SS355-X	DIODE C.M		
	D 667	MA152WA-X	DIODE		
	D 801	1SR154-400-X	DIODE		
	D 852	UDZS5.6B-X	Z DIODE	VZ	
	IC201	BR24C01AFV-W-X	IC	E2PROM	
	IC251	UPD780076GK502	IC	MICOM	
	IC291	XC62HR3502P-X	IC		
	IC601	AN22000A-W	I.C C.M	RF AMP	
	IC651	MN662790RSC	IC	DSP & DAC	
	IC801	LA6541-X	IC	PU DRIVE	
	IC851	LB1641	IC	ACTU MOTOR DRIVE	
	IC852	LB1641	IC	CAM MOTOR DRIVE	
	K 655	NQR0007-002X	FERRITE BEADS	TX	
	K 656	NQR0251-004X	FERRITE BEADS	SRDATA	
	K 657	NQR0251-004X	FERRITE BEADS	LRCK	
	K 658	NQR0251-004X	FERRITE BEADS	BCLK	
	Q 601	DTC114EUA-X	TRANSISTOR	EQX2	
	Q 602	DTC114EUA-X	TRANSISTOR	EQX4	
	Q 631	2SA1037AK/RS/-X	TRANSISTOR	APC	
	Q 673	DTA114EUA-X	DIGITAL.TR	IREF CHANGER	
	R 201	NRSA63J-103X	MG RESISTOR	SDA PULL UP	
	R 251	NRSA63J-102X	MG RESISTOR	MCLK	
	R 252	NRSA63J-102X	MG RESISTOR	MDATA	
	R 253	NRSA63J-102X	MG RESISTOR	MLD	
	R 254	NRSA63J-102X	MG RESISTOR	/DMUTE	
	R 255	NRSA63J-102X	MG RESISTOR	MCS	
	R 256	NRSA63J-102X	MG RESISTOR	MRDY	
	R 257	NRSA63J-102X	MG RESISTOR	SQCK	
	R 258	NRSA63J-102X	MG RESISTOR	KCMND	
	R 259	NRSA63J-102X	MG RESISTOR	MSTAT	
	R 260	NRSA63J-102X	MG RESISTOR	KCLK	
	R 261	NRSA63J-0R0X	MG RESISTOR		
	R 270	NRSA63J-223X	MG RESISTOR	TRY1 CLOSE	
	R 271	NRSA63J-223X	MG RESISTOR	TRY10P PULL-UP	
	R 272	NRSA63J-223X	MG RESISTOR	TRY20P PULL-UP	
	R 273	NRSA63J-223X	MG RESISTOR	TRY2 CLOSE	
	R 274	NRSA63J-223X	MG RESISTOR	TRY30P PULL-UP	
	R 275	NRSA63J-223X	MG RESISTOR	TRY3 CLOSE	
	R 277	NRSA63J-103X	MG RESISTOR		
	R 278	NRSA63J-102X	MG RESISTOR	CAM CCW	
	R 279	NRSA63J-102X	MG RESISTOR	CAM CW	
	R 280	NRSA63J-102X	MG RESISTOR	ACTU CCW	
	R 281	NRSA63J-102X	MG RESISTOR	ACTU CW	
	R 283	NRSA63J-102X	MG RESISTOR	CDEMF	
	R 284	NRSA63J-102X	MG RESISTOR	CDCOPY	
	R 285	NRSA63J-102X	MG RESISTOR	CDTNO	
	R 286	NRSA63J-102X	MG RESISTOR		
	R 288	NRSA63J-103X	MG RESISTOR	CDTNO PULL UP	
	R 291	NRSA63J-1R0X	MG RESISTOR		
	R 292	NRSA63J-1R0X	MG RESISTOR		
	R 293	NRSA63J-103X	MG RESISTOR	/REST PULL UP	



■ Electrical parts list (CD servo board)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area
	R 294	NRSA63J-103X	MG RESISTOR	IC PULL DOWN	
	R 295	NRSA63J-103X	MG RESISTOR		
	R 601	NRSA63J-224X	MG RESISTOR	TBAL	
	R 602	NRSA63J-823X	MG RESISTOR	FBAL	
	R 603	NRSA63J-393X	MG RESISTOR	FE	
	R 605	NRSA63J-224X	MG RESISTOR	TE	
	R 607	NRSA63J-473X	MG RESISTOR	PDE	
	R 608	NRSA63J-473X	MG RESISTOR	PDF	
	R 611	NRSA63J-562X	MG RESISTOR	RF	
	R 613	NRSA63J-562X	MG RESISTOR	RF	
	R 614	NRSA63J-0R0X	MG RESISTOR	ARF	
	R 617	NRSA63J-332X	MG RESISTOR		
	R 631	NRSA02J-2R2X	MG RESISTOR	+5V DE-COUPLE	
	R 632	NRSA02J-3R9X	MG RESISTOR	APC EMITTER	
	R 634	NRSA02J-3R9X	MG RESISTOR	APC COLECTOR	
	R 635	NRSA63J-100X	MG RESISTOR	PU K	
	R 636	NRSA63J-151X	MG RESISTOR	PU LD	
	R 651	NRSA63J-102X	MG RESISTOR	LSI RESET	
	R 652	NRSA63J-102X	MG RESISTOR	STATAS	
	R 653	NRSA63J-102X	MG RESISTOR	SUBQ	
	R 654	NRSA63J-102X	MG RESISTOR	BLKCK	
	R 656	NRSA63J-102X	MG RESISTOR	DQSY	
	R 657	NRSA63J-101X	MG RESISTOR	SBCK	
	R 658	NRSA63J-102X	MG RESISTOR	SUBC	
	R 659	NRSA63J-473X	MG RESISTOR	LD ON	
	R 661	NRSA63J-203X	MG RESISTOR	LDON	
	R 662	NRSA63J-683X	MG RESISTOR	ARFF	
	R 663	NRSA63J-683X	MG RESISTOR	IREF	
	R 664	NRSA63J-331X	MG RESISTOR	PLL F	
	R 665	NRSA63J-101X	MG RESISTOR	X2	
	R 666	NRSA02J-101X	MG RESISTOR	AVDD1 DE-COUPLE	
	R 667	NRSA02J-4R7X	MG RESISTOR	AVDD2 DE-COUPLE	
	R 668	NRSA63J-155X	MG RESISTOR		
	R 669	NRSA63J-562X	MG RESISTOR	VCOF	
	R 670	NRSA02J-101X	MG RESISTOR	VDD DE-COUPLE	
	R 671	NRSA63J-684X	MG RESISTOR	DSL B-DSL F	
	R 673	NRSA63J-683X	MG RESISTOR	IREF CHANGE	
	R 682	NRSA63J-102X	MG RESISTOR	TE	
	R 683	NRSA63J-105X	MG RESISTOR	TRSRC	
	R 685	NRSA63J-683X	MG RESISTOR	DRF	
	R 691	NRSA63J-681X	MG RESISTOR	OUTL	
	R 692	NRSA63J-681X	MG RESISTOR	OUTR	
	R 695	NRSA63J-561X	MG RESISTOR	OUTL	
	R 696	NRSA63J-561X	MG RESISTOR	OUTR	
	R 701	NRSA63J-102X	MG RESISTOR	DEMPH	
	R 801	NRSA63J-272X	MG RESISTOR	VG3	
	R 802	NRSA63J-152X	MG RESISTOR	FOD	
	R 803	NRSA63J-472X	MG RESISTOR	TRD	
	R 804	NRSA63J-103X	MG RESISTOR	TRD	
	R 805	NRSA63J-562X	MG RESISTOR	TVD	
	R 808	NRSA63J-183X	MG RESISTOR	ECM	
	R 809	NRSA63J-152X	MG RESISTOR	ECS	
	R 811	NRSA63J-473X	MG RESISTOR	/DRMUTE	
	R 812	NRSA63J-152X	MG RESISTOR	TRD	
	R 813	NRSA63J-182X	MG RESISTOR	FOD	
	SW680	QSW0865-001	CAM SWITCH	CAM SW	
	SW690	QSW0886-002	DETECT SWITCH	P.POSI1	
	SW691	QSW0886-002	DETECT SWITCH	P.POSI2	
	SW692	QSW0886-002	DETECT SWITCH	P.POSI3	
	SW693	QSW0886-002	DETECT SWITCH	SUB.TRY OP/CL	
	X 251	QAX0684-001Z	C RESONATOR	FOR IC251 8.38M	
	X 651	QAX0599-001Z	CRYSTAL	FOR IC651	

■ Electrical parts list

Block No. 05

△	Item	Parts number	Parts name	Remarks	Area
	CN620	QGB1214K1-08S	CONNECTOR		
	SW 1	QSW0844-001	PUSH SWITCH		
	SW 2	QSW0844-001	PUSH SWITCH		
	SW 3	QSW0844-001	PUSH SWITCH		
	SW 4	QSW0844-001	PUSH SWITCH		
	SW 5	QSW0844-001	PUSH SWITCH		
	SW 6	QSW0844-001	PUSH SWITCH		

■ Electrical parts list

Block No. 06

△	Item	Parts number	Parts name	Remarks	Area
	CN699	EMV7169-006R	CONNECTOR		
	S 699	VSH1173-001	LEAF SWITCH		

■ Electrical parts list

Block No. 07

△	Item	Parts number	Parts name	Remarks	Area
	CN 1	QGF1016F3-06	FFC/FPC CONNE		
	S 1	QSW0910-002	SWITCH	DW DET SW	
	S 2	QSW0910-002	SWITCH	OC DET SW	

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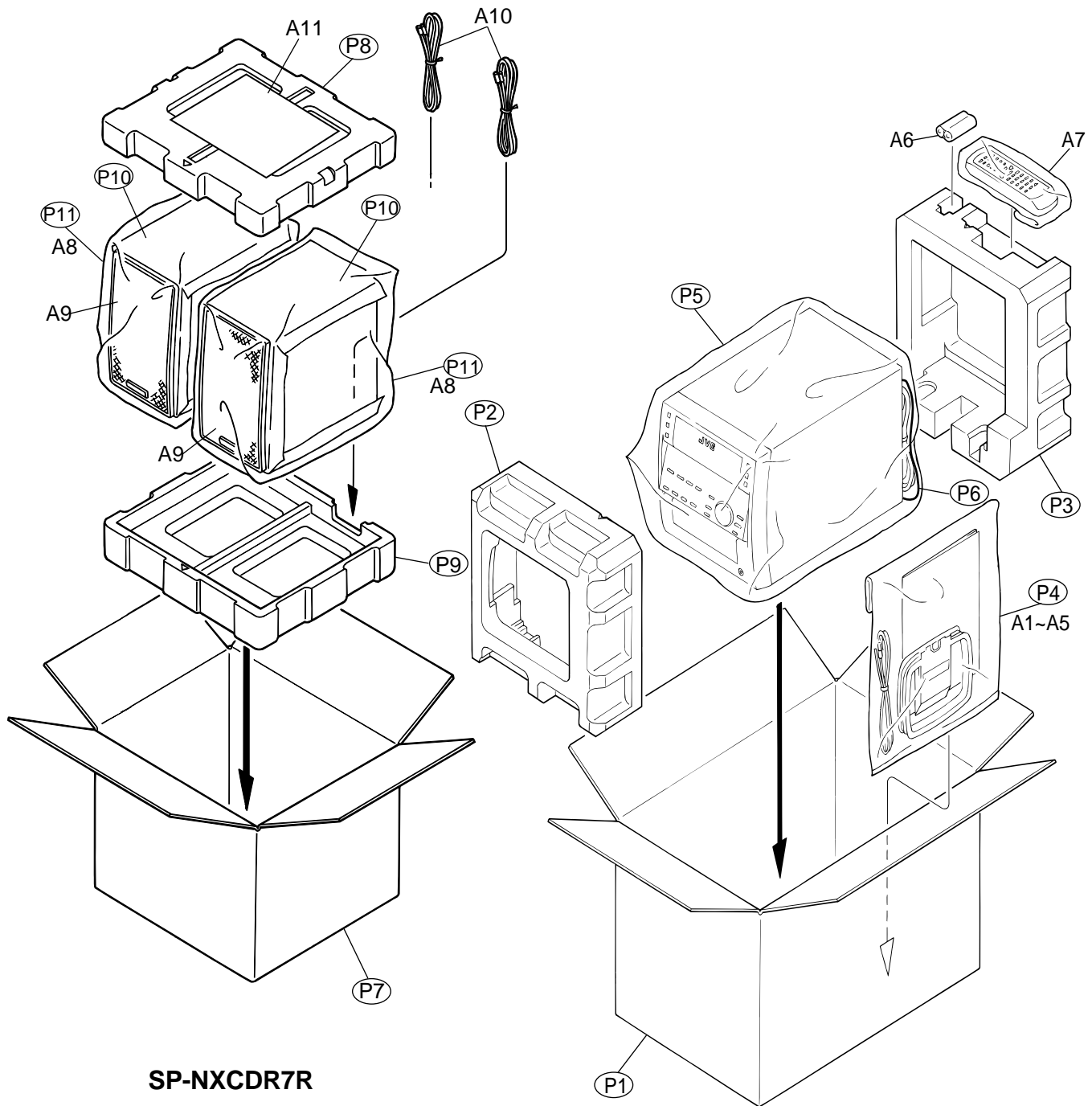
# Packing materials and accessories parts list

Block No. 

M	3	M	M
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Block No. 

M	5	M	M
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**SP-NXCDR7R**

**CA-NXCDR7R**

### ■ Parts list (Packing)

Block No. M3MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	LV33029-001A	PACKING CASE	1		
	P 2	LV10583-001A	PACKING PAD(F)	1		
	P 3	LV10584-001A	PACKING PAD(R)	1		
	P 4	QPC02503510P	POLY BAG	1	FOR ACCESSARY	
	P 5	QPC05006515P	POLY BAG	1	FOR SET	
	P 6	QPA01002503	POLY BAG	1		B
	P 7	8300043931	CARTON	1		
	P 8	8000046701	TOP CUSHION	1		
	P 9	8000046711	BOTTOM CUSHION	1		
	P 10	8500042701	MIRROR MAT	2		
	P 11	8500041601	POLY BAG	2		

### ■ Parts list (Accessories)

Block No. M5MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	LVT0749-003A	INST.BOOK(CA-NXCDR7R)	1	ENG	B
		LVT0749-004A	INST.BOOK(CA-NXCDR7R)	1	GER,FRE,DUT	E
		LVT0749-005A	INST.BOOK(CA-NXCDR7R)	1	GER,FRE,SPA,ITA,SWE,FIN,DAN	EN
	A 2	VNA3000-204	REGIST.CARD	1		B
	A 3	BT-54008-2	WARRANTY CARD	1		
	A 4	QAL0014-001	AM LOOP ANT	1		
	A 5	EWP503-001C	ANT.WIRE	1		
	A 6	R6SPTT-2STSM	BATTERY	2	FOR REMOCON	
	A 7	RM-SNXCDR7R	REMOCON	1	FOR E VER	
	A 8	NXCDR7R-SPBOX	SPEAKER BOX	2		
	A 9	9910006211	NET ASSY	2		
	A 10	6200036801	SPEAKER CORD	2		
	A 11	8700099901	INST BOOK(SP-NXCDR7R)	1	ENG,GER,FRE,DUT,SPA,ITA SWE,FIN,DAN,POL,HUN,CZE	