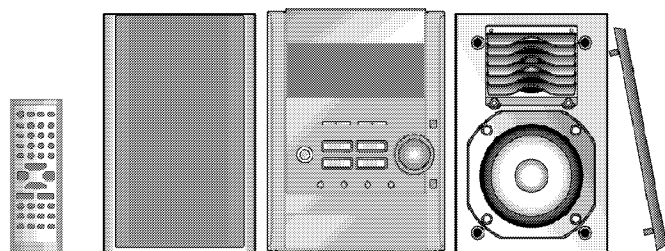


Service Manual

CD Stereo System

Remote
Control
Transmitter

SB-PM9

SA-PM9

SB-PM9

SA-PM9E SA-PM9EB SA-PM9EG

Colour

(S)... Silver Type

Specification

■ Amplifier Section

RMS Power output	
THD 10%, both channels driven	15 W per channel (6 Ω)
PMPO power output (For South East Asia only)	150 W
Output impedance	
Headphone	16-32 Ω

■ FM Tuner Section

Frequency range	87.50-108.00 MHz (50 kHz step)
Sensitivity	1.5 μ V (IHF)
S/N 26 dB	1.5 μ V
Antenna terminals	75 Ω unbalanced

■ AM Tuner Section

Frequency range	522-1629 kHz (9 kHz steps) 520-1630 kHz (10 kHz steps)
Sensitivity	
S/N 20 dB (at 999 kHz)	560 μ V/m

■ Cassette Deck Section

Track system	4 track, 2 channel
Heads	
Record/playback	Solid permalloy head
Erase	Double gap ferrite head
Motor	DC servo motor
Recording system	AC bias 100 kHz
Erasing system	AC erase 100 kHz

Tape speed	4.8 cm/s
Overall frequency response (+3, -6 dB) at DECK OUT	
NORMAL (TYPE I)	35 Hz - 14 kHz
S/N	47 dB (A weighted)
Wow and flutter	0.06% (WRMS)
Fast forward and rewind times	Approx. 120 seconds with C-60 cassette tape

■ CD Section

Disc played	
CD/MP3	8cm / 12cm, CD-R / RW
Sampling frequency	44.1 kHz
Decoding	16 bit linear
Pickup	
Beam source / wavelength	Semiconductor laser / 780nm
Number of channels	Stereo
Frequency response	20Hz - 20 kHz (+1, -2dB)
Wow and flutter	Below measurable limit
Digital filter	8 fs
D/A converter	MASH (1 bit DAC)
MP3	
Bit rate	32kbps - 320kbps
Sampling frequency	32kHz, 44.1kHz, 48kHz

■ General

Power supply	
For Continental Europe	AC 230 V, 50 Hz

Panasonic

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For United kingdom, Australia and N.Z.	AC 230-240 V, 50 Hz
For South East Asia	AC 220 - 240V, 50/60 Hz
Power consumption	48 W
Dimensions (W x H x D)	165 x 227 x 320 mm
Mass	3.67 kg
Power consumption in standby mode	0.8 W

Notes :

1. Specifications are subject to change without notices. Mass and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

■ System : SC-PM9E-S	Music center: SA-PM9E-S
	Speaker: SB-PM9E-M
■ System : SC-PM9EB-S	Music center: SA-PM9EB-S
	Speaker: SB-PM9E-M
■ System : SC-PM9EG-S	Music center: SA-PM9EG-S
	Speaker: SB-PM9EG-M

WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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1 Caution for AC Mains Lead



(For “EB” area code model only.)

For your safety, please read the following text carefully.

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

A 5-ampere fuse is fitted in this plug.

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

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

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

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

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

CAUTION!

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

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

If in any doubt please consult a qualified electrician.

IMPORTANT

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

Blue: Neutral
Brown: Live

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

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

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

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

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

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

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

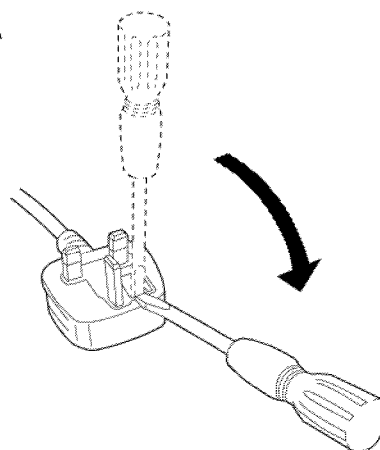
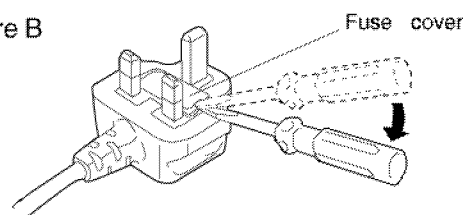


Figure B



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

Figure A

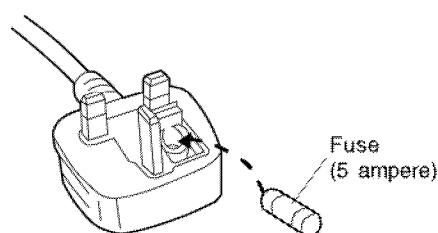
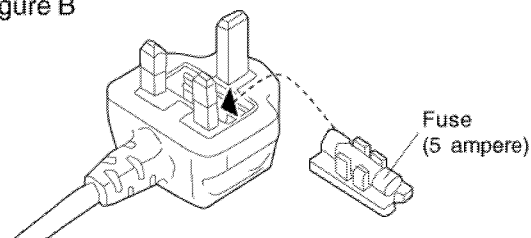


Figure B



2 Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C501, C603, C609, & C612 through a 10 Ω , 5W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices. After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

- For E, EG Current consumption at AC 230V, 50 Hz in NO SIGNAL mode should be ~150 mA.
- For EB Current consumption at AC 230V - 240V, 50 Hz in NO SIGNAL mode should be ~150 mA.

3 Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note:

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

4 Handling the Lead-free Solder

4.1. About lead free solder (PbF)

Distinction of PbF P.C.B.:

P.C.B.s (manufactured) using lead free solder will have a PbF stamp on the P.C.B.

Caution:

- Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a high temperature soldering iron. In case of soldering iron with temperature control, please set it to 700 ± 20°F (370 ± 10°C).
- Pb free solder will tend to splash when heated too high (about 1100°F/600°C).
- When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

5 Precaution of Laser Diode

Caution :

This product utilizes a laser diode with the unit turned "ON", invisible laser radiation is emitted from the pick up lens.

Wavelength : 780 nm

Maximum output radiation power from pick up : 100 μ W/VDE

Laser radiation from pick up unit is safety level, but be sure the followings:

1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pick up lens for a long time.

ACHTUNG :

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

Wellenlänge : 780nm

Maximale Strahlungsleistung der Lasereinheit : 100 μ W/VDE

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

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

ADVARSEL :

I dette a apparat anvendes laser.

CAUTION!

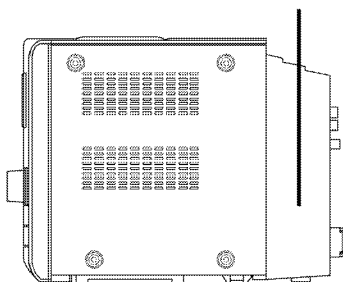
THIS PRODUCT UTILIZES A LASER.

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

■ Use of Caution Labels



LUOKAN 1 LASERLAITE KLASS 1 LASER APPARAT



Side of product

DANGER	INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.
ADVARSEL	USYNLIG LASERSTRÅLING VED ÅBNING. NÅR SIKKERHEDSÅFBRYDERE ER LØSE AF FUNKTION. UNDGÅ UDSETTELSE FOR STRÅLING.
VARO!	AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTÖNTÄ LASERSÄTELYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING	OSYNYLIG LASERSTRÅLING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRÄKTA EJ STRÅLEN.
ADVARSEL	USYNYLIG LASERSTRÅLING NÄR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRITES. UNNGÅ EKSPONERING FOR STRÅLEN.
VORSICHT	UNSIICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN. RQLS0218

Inside of product
Tuotteen sisällä
Produktets innside

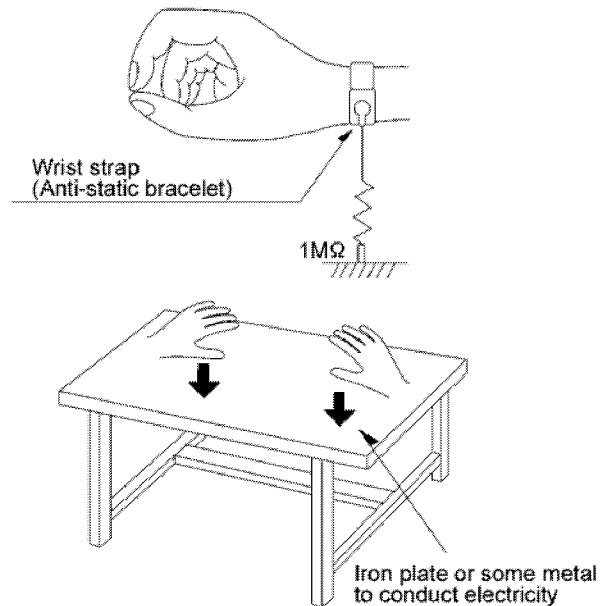
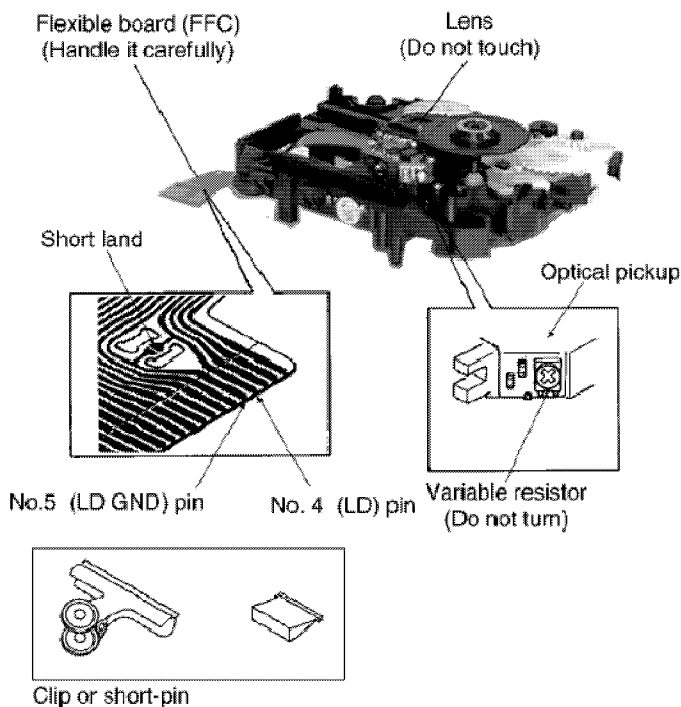
6 Handling Precautions For Traverse Deck

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body.

So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

● Handling of CD traverse deck (optical pickup)

1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
2. The short land between the No.4 (LD) and No.5 (GND) pins on the flexible board (FFC) is shorted with a solder build-up to prevent damage to the laser diode.
3. Take care not to apply excessive stress to the flexible board (FPC board).
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.



Caution when Replacing the Optical Pickup :

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

● Grounding for electrostatic breakdown prevention

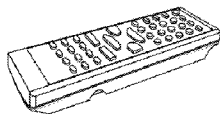
1. Human body grounding
Use the anti-static wrist strap to discharge the static electricity from your body.
2. Work table grounding
Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

Caution :

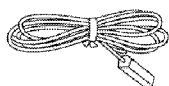
The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).

7 Accessories

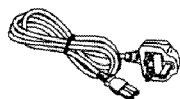
Note : Refer to Packing Materials & Accessories for part number.



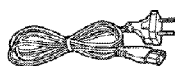
Remote Control
Transmitter



FM indoor antenna



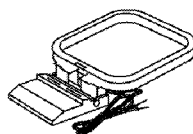
AC mains lead (For
EB only)



AC mains lead
(For E & EG
only)

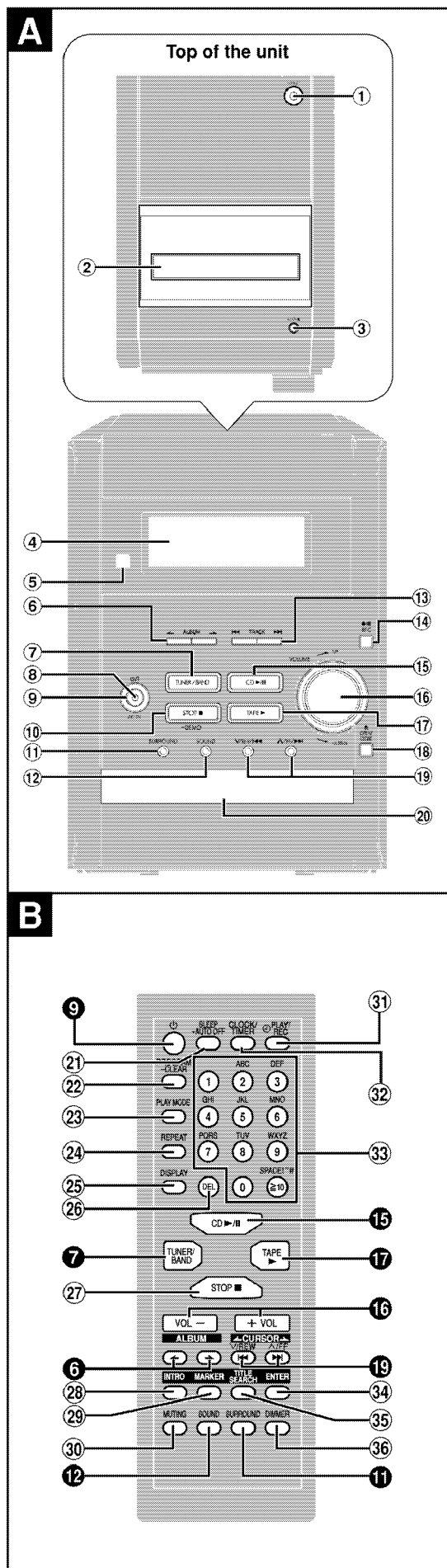


Antenna plug
adapter (For
EB only)



AM Loop antenna

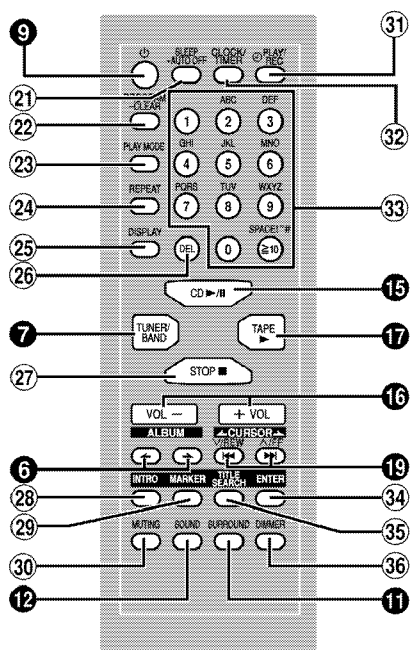
8 Operation Procedures



A Main unit

- ① Headphone jack (PHONES)
- ② Cassette lid
- ③ Cassette deck open button (OPEN Δ)
- ④ Display
- ⑤ Remote control signal sensor
- ⑥ Album Δ or ∇
- ⑦ Tuner/band select button (TUNER/BAND)
- ⑧ AC supply indicator (AC IN)
This indicator lights when the unit is connected to the AC mains supply.
- ⑨ Standby/on switch (\odot /I)
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ⑩ Stop, demonstration button (STOP \blacksquare , -DEMO)
- ⑪ Surround button (SURROUND)
- ⑫ Sound button (SOUND)
- ⑬ Track \ll or \gg
- ⑭ Recording start/pause button (\bullet /II REC)
- ⑮ CD play/pause button (CD \blacktriangleright /II)
- ⑯ Volume control (VOLUME DOWN, UP)
- ⑰ Cassette play button (TAPE \blacktriangleright)
- ⑱ CD tray open/close button (Δ OPEN/CLOSE)
- ⑲ CD skip/search, tape fast-forward/rewind, tune/preset channel select, time adjust buttons (\vee /REW/ \ll , \wedge /FF/ \gg)
- ⑳ CD tray

B



B Remote Control

Buttons such as ⑨ function in exactly same way as the buttons on the main unit.

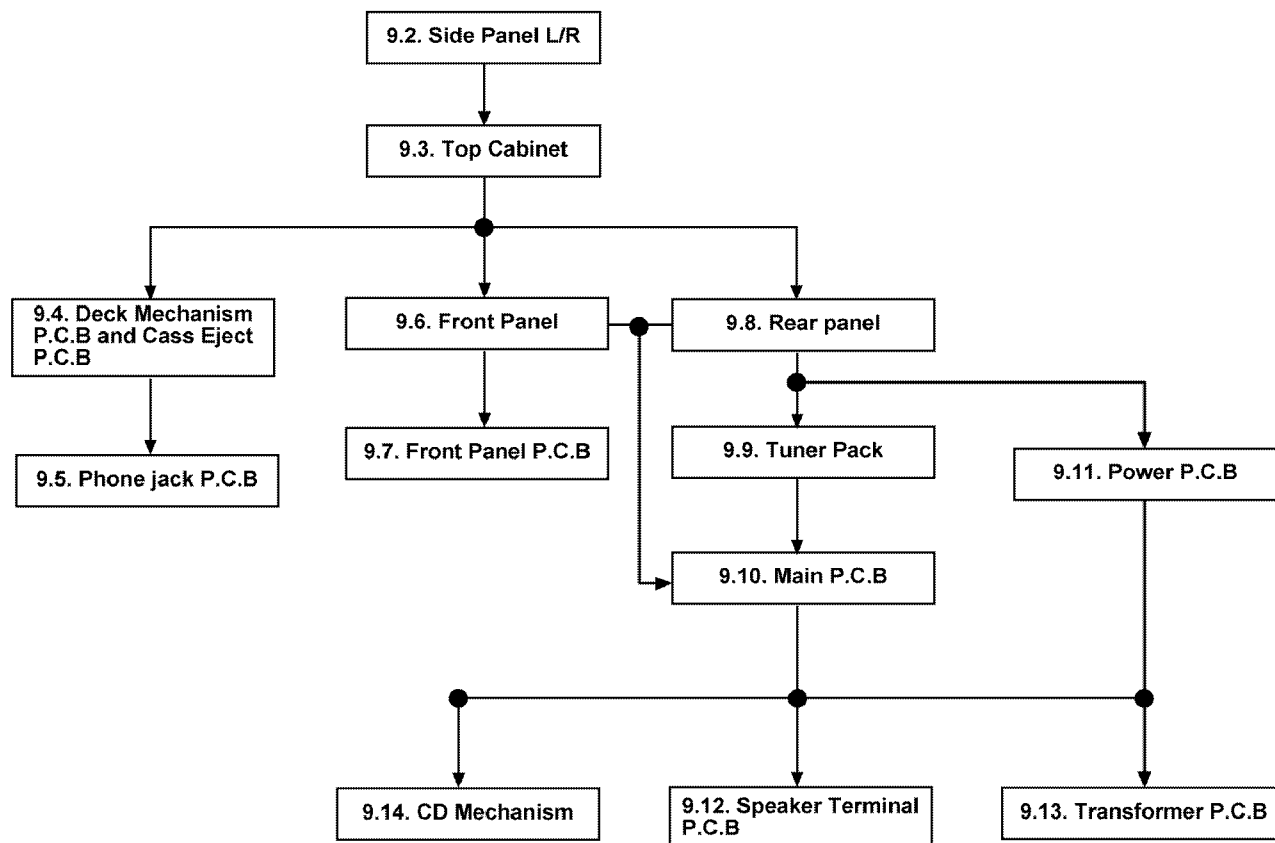
- ⑳ Sleep timer, auto off button (SLEEP, -AUTO OFF)
- ㉑ CD program/clear, tuner preset button (PROGRAM, -CLEAR)
- ㉒ Play mode select button (PLAY MODE)
Use this for selecting CD play mode, tune mode, FM mode.
- ㉓ Repeat button (REPEAT)
- ㉔ Display button (DISPLAY)
- ㉕ Delete button (DEL)
- ㉖ Stop button (STOP \blacksquare)
- ㉗ Intro button (INTRO)
- ㉘ Marker memory/recall button (MARKER)
- ㉙ Muting button (MUTING)
- ㉚ Play timer/recording timer button (\odot PLAY/REC)
- ㉛ Clock/timer button (CLOCK/TIMER)
- ㉜ Numeric, character buttons (≥ 10 , 1-9, 0, A-Z, SPACE!"#)
- ㉝ Enter button (ENTER)
- ㉞ Title search select button (TITLE SEARCH)
- ㉟ Dimmer button (DIMMER)

9 Assembling and Disassembling

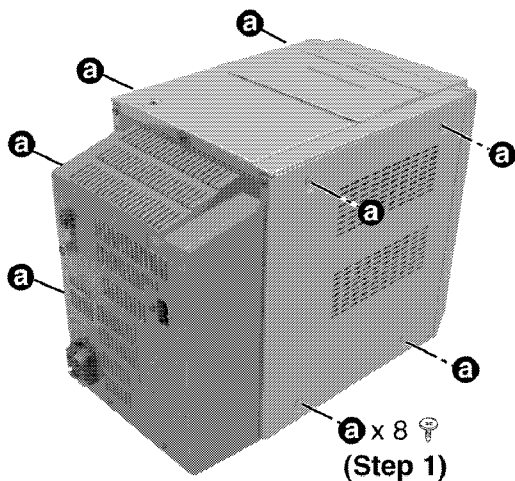
9.1. Disassembly flow chart

The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.

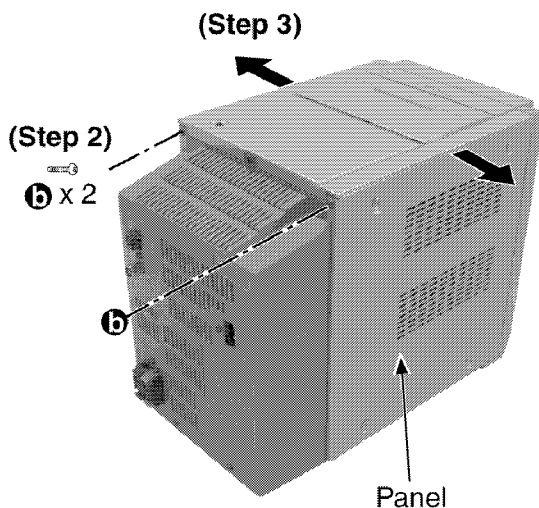
To assemble the unit, reverse the steps shown in the chart below.



9.2. Disassembly of Side Panel L & R



Step 1 : Remove all the screws.

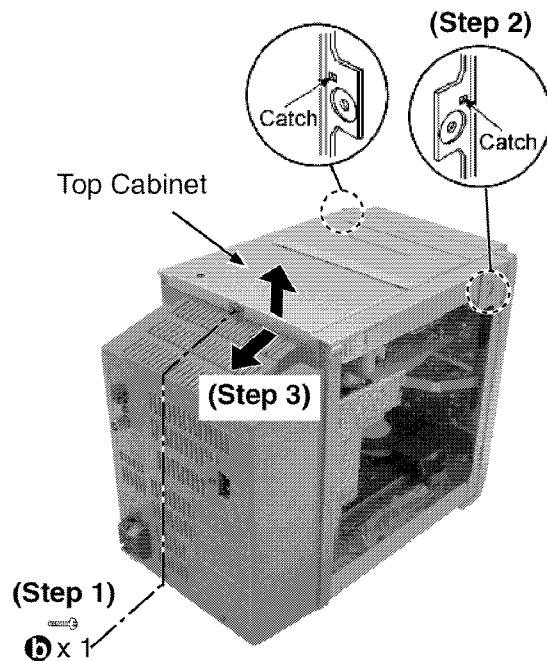


Step 2 : Remove all the screws.

Step 3 : Remove the panel L & R as arrow shown.

9.3. Disassembly of Top Cabinet

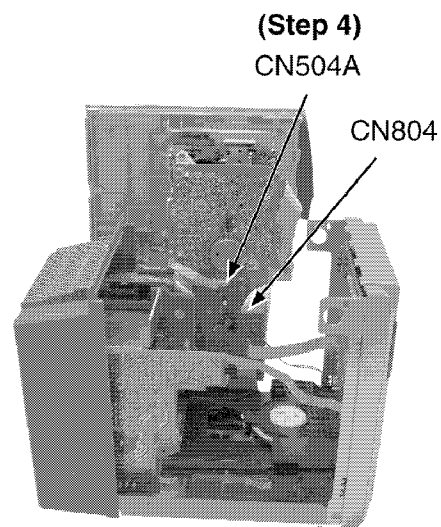
- Follow the (Step 1) - (Step 3) of Item 9.2.



Step 1 : Remove the screws.

Step 2 : Release catches at both ends.

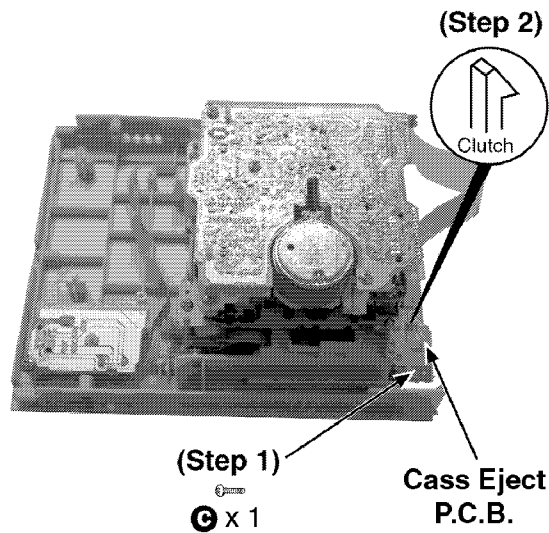
Step 3 : Lift up the Top Cabinet, push backward as arrow shown and flip Top Cabinet sideways.



Step 4 : Disconnect the Connector CN504A and FFC CN804.

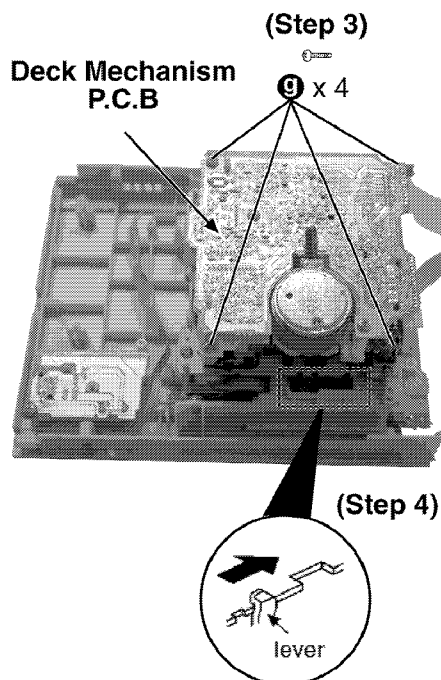
9.4. Disassembly of Deck Mechanism P.C.B and Tape Eject P.C.B

- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.



Step 1 : Remove the screw.

Step 2 : Release the clutch.

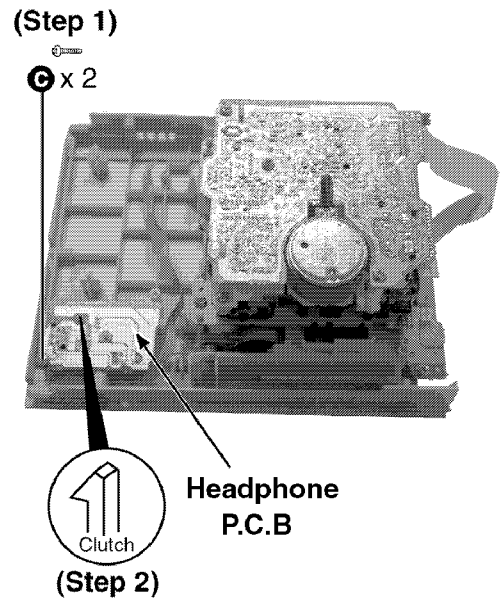


Step 3 : Remove all the screws.

Step 4 : Press the lever as arrow shown and remove the Deck Mechanism.

9.5. Disassembly of Headphone P.C.B

- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.

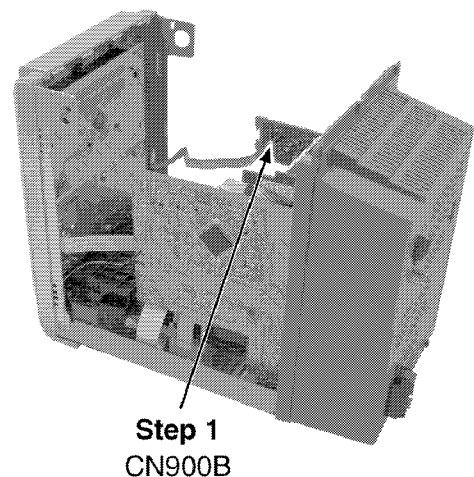


Step 1 : Remove the screw.

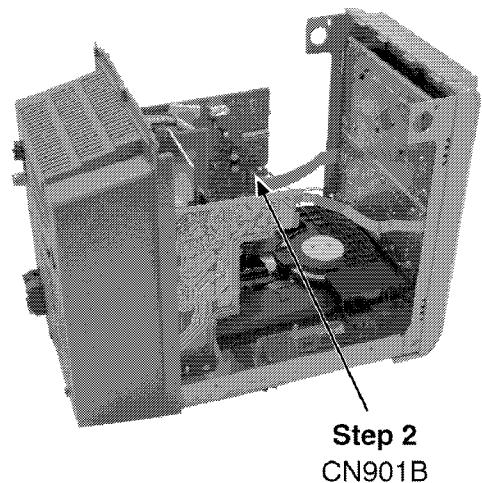
Step 2 : Release the clutch.

9.6. Disassembly of Front Panel unit

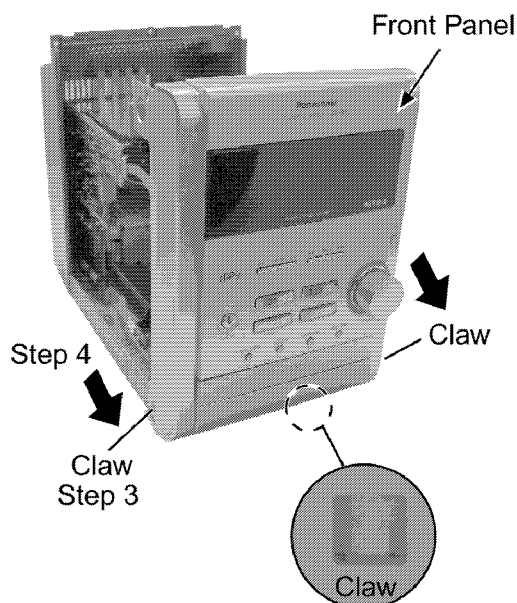
- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.



Step 1 : Remove the CN900B Connector.



Step 2 : Remove the FFC CN901B.

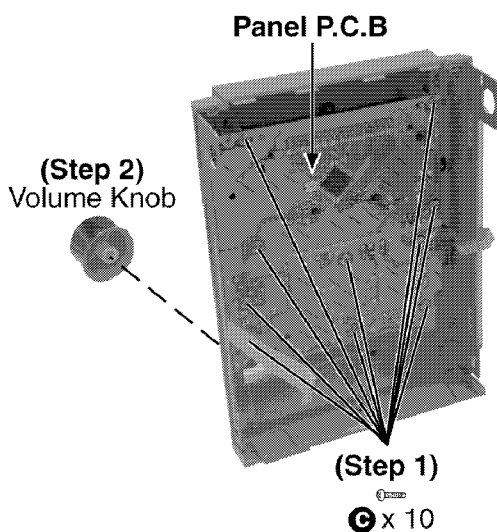


Step 3 : Release all the Claws.

Step 4 : Remove the Front Panel unit as arrow shown.

9.7. Disassembly of Panel P.C.B

- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 4) of Item 9.6.

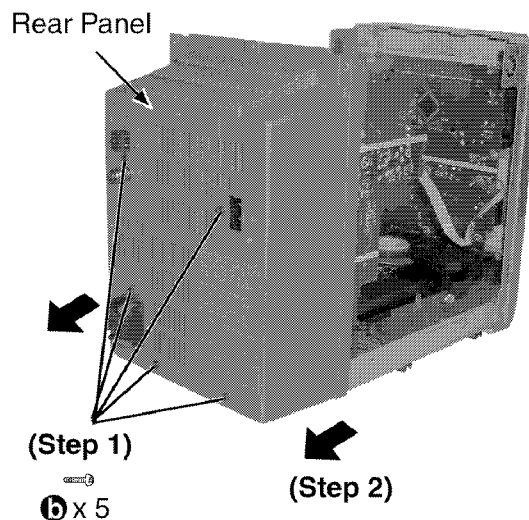


Step 1 : Remove all the screws.

Step 2 : Remove the Volume Knob.

9.8. Disassembly of Rear Panel

- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.

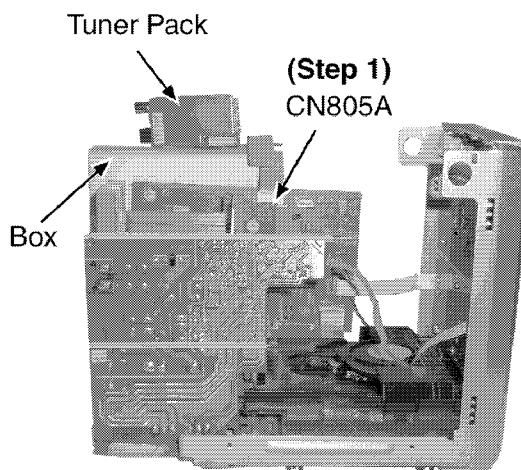


Step 1 : Remove all the screws.

Step 2 : Remove the Rear Panel as arrows shown.

9.9. Disassembly of Tuner Pack

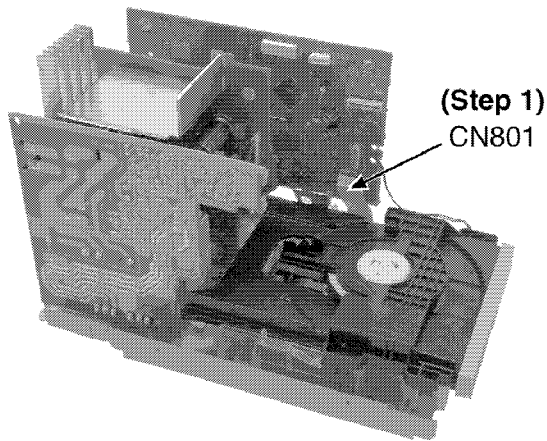
- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 2) of Item 9.8.



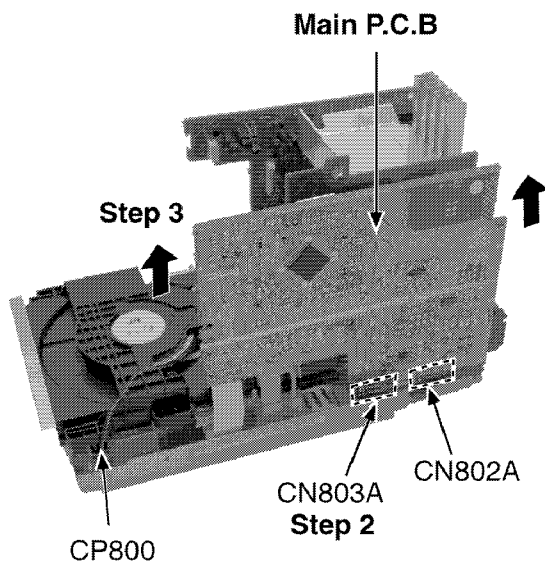
Step 1 : Release the Connector CN805A.

9.10. Disassembly of Main P.C.B

- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 4) of Item 9.6.
- Follow the (Step 1) - (Step 2) of Item 9.8.
- Follow the (Step 1) of Item 9.9.



Step 1 : Release the FFC CN801.

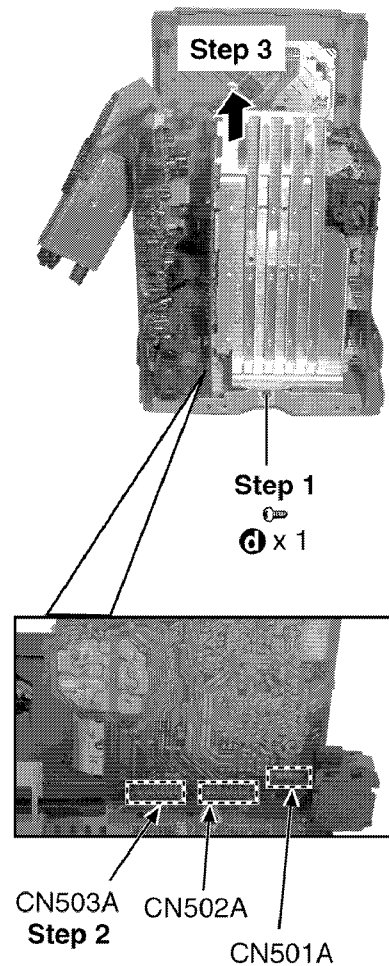


Step 2 : Release all the Connector CP800, CN803A, CN802A.

Step 3 : Remove the Main P.C.B as arrow shown.

9.11. Disassembly of Power P.C.B

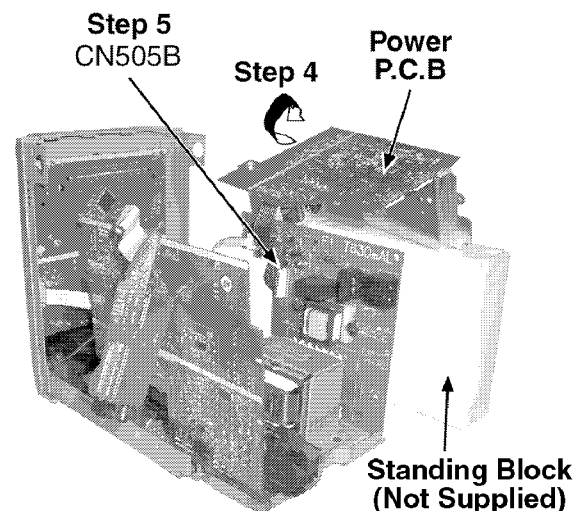
- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 2) of Item 9.8.



Step 1 : Remove the screw.

Step 2 : Release all the Connector CN503A, CN502A, CN501A.

Step 3 : Remove the Power P.C.B as arrow shown.



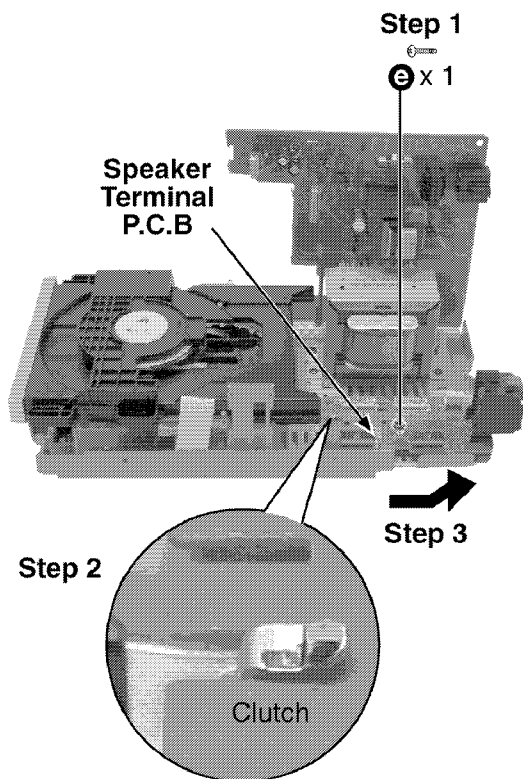
Step 4 : Turn over the Power P.C.B.

Step 5 : Release the Connector CN505B.

9.12. Disassembly of Speaker Terminal P.C.B

- Follow the (Step 1) - (Step 3) of Item 9.2.

- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 4) of Item 9.6.
- Follow the (Step 1) - (Step 2) of Item 9.8.
- Follow the (Step 1) of Item 9.9.
- Follow the (Step 1) - (Step 3) of Item 9.10.
- Follow the (Step 1) - (Step 5) of Item 9.11.



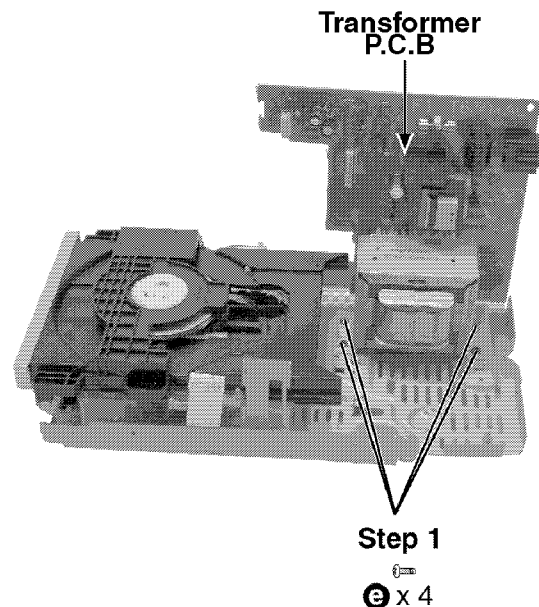
Step 1 : Remove the screw.

Step 2 : Release the clutch.

Step 3 : Remove the Speaker Terminal P.C.B as arrow shown.

9.13. Disassembly of Transformer P.C.B

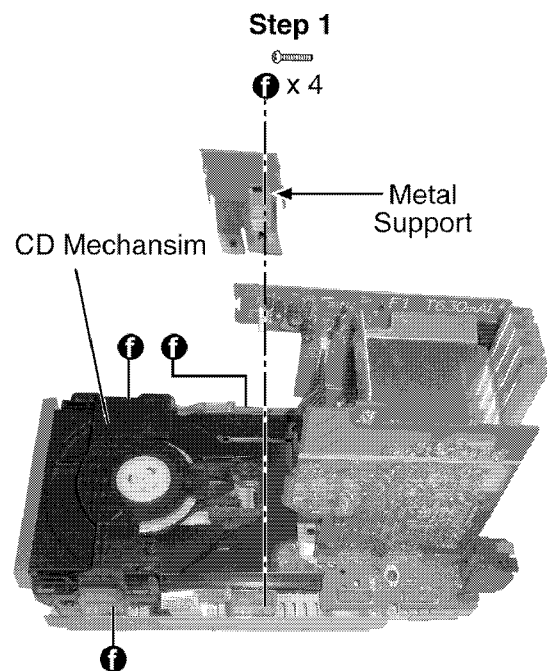
- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 4) of Item 9.6.
- Follow the (Step 1) - (Step 2) of Item 9.8.
- Follow the (Step 1) of Item 9.9.
- Follow the (Step 1) - (Step 3) of Item 9.10.
- Follow the (Step 1) - (Step 5) of Item 9.11.



Step 1 : Remove all the screws.

9.14. Disassembly of CD Mechanism

- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 4) of Item 9.6.
- Follow the (Step 1) - (Step 2) of Item 9.8.
- Follow the (Step 1) - (Step 3) of Item 9.10.



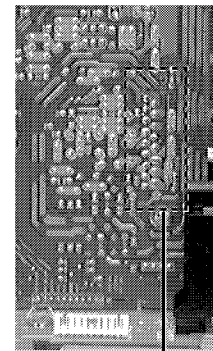
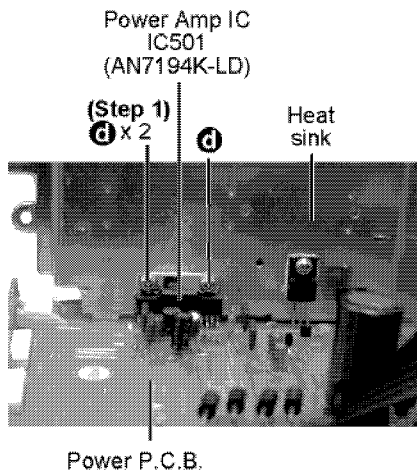
Step 1 : Remove all the screws.

9.15. Checking Procedure for Each Major P.C.B.

9.15.1. Replacement of the Power Amplifier IC

- Replacement of the Power Amplifier IC
- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 4) of Item 9.6.
- Follow the (Step 1) - (Step 2) of Item 9.8.
- Follow the (Step 1) - (Step 5) of Item 9.11.

Step 1 Remove 2 screws fixed to the Power Amp I.C.



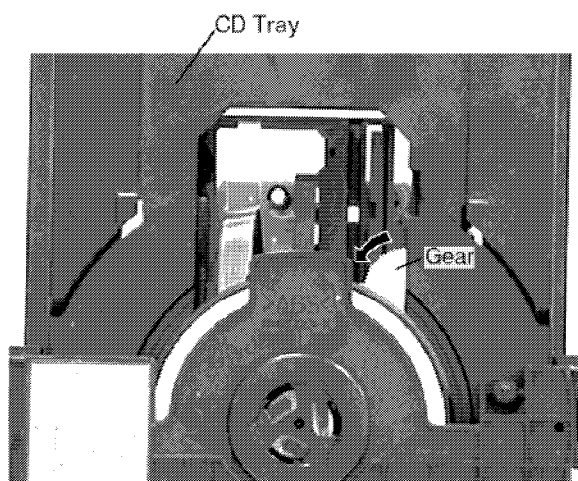
Solder terminal

Step 2 Unsolder the terminals of Power Amp IC, transistor and replace the component.

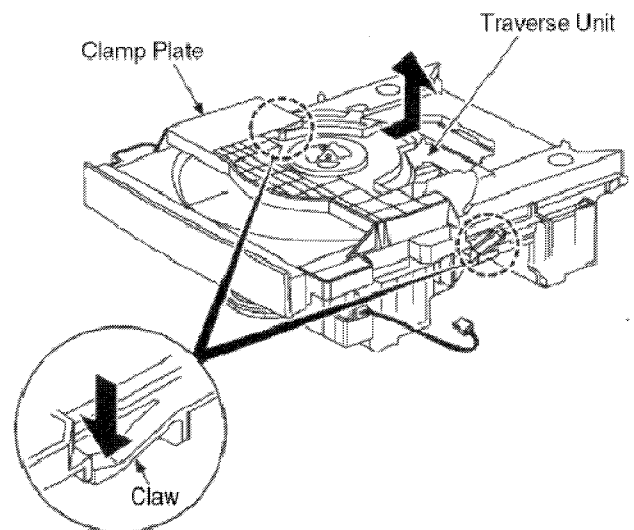
9.16. Disassembly and Assembly of the Disc Tray and CD Traverse Unit

9.16.1. Disassembly of the Disc Tray.

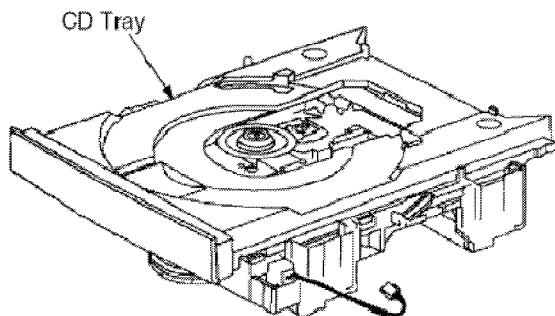
- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 4) of Item 9.6.
- Follow the (Step 1) - (Step 2) of Item 9.8.
- Follow the (Step 1) - (Step 3) of Item 9.10.
- Follow the (Step 1) of Item 9.14.



Step 1 Turn the gear counter clock wise until the CD Tray starts to move out.

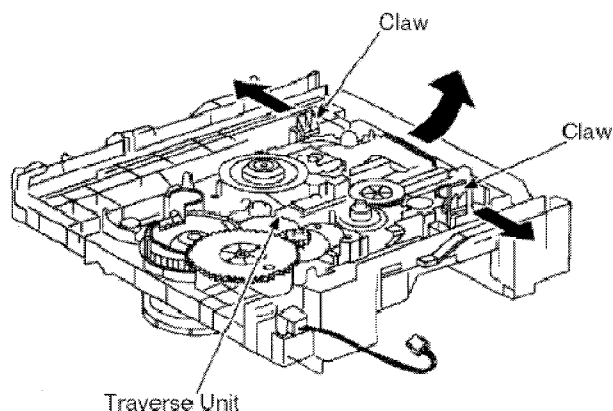


Step 2 Release the 2 claws and remove the clamp plate in the direction of the arrow shown.

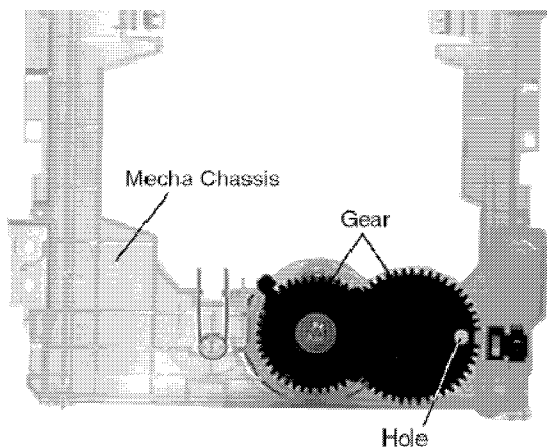


Step 3 Lift up the CD Tray to remove it.

9.16.2. Disassembly of the CD Traverse Unit.

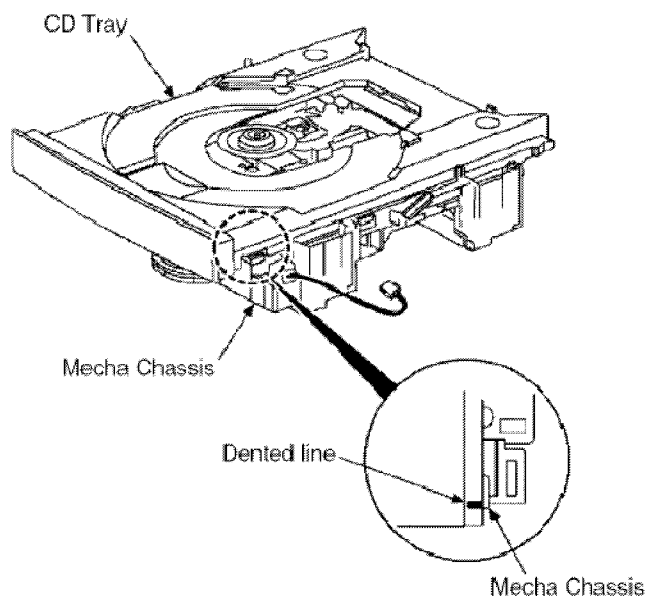


Step 1 Release the 2 claws and remove the CD Traverse Unit in the direction of the arrow.



NOTE:

1. Follow the reverse procedure to replace the CD Traverse Unit and CD Tray.
2. Make sure that the 2 gear is in position shown above and the hole on the right gear is align with the hole below it when replacing the CD Traverse Unit and CD Tray.

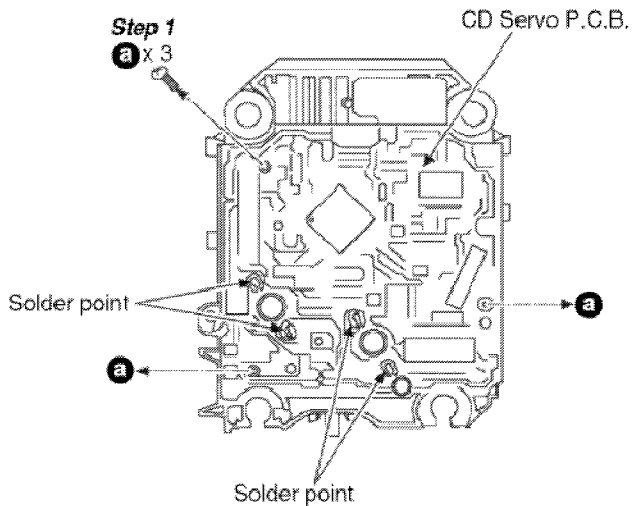


NOTE: When replacing the CD Tray, make sure the Dented line is at the position as shown.

9.17. Main Component Replacement Procedure

9.17.1. Replacement of the CD Servo P.C.B. and Optical Pick-up Unit.

- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 4) of Item 9.6.
- Follow the (Step 1) - (Step 2) of Item 9.8.
- Follow the (Step 1) of Item 9.9.
- Follow the (Step 1) - (Step 3) of Item 9.10.
- Follow the (Step 1) - (Step 5) of Item 9.11.
- Follow the (Step 1) - (Step 3) of Item 9.12.
- Follow the (Step 1) of Item 9.13.
- Follow the (Step 1) of Item 9.14.
- Follow the (Step 1) - (Step3) of Item 9.16.1

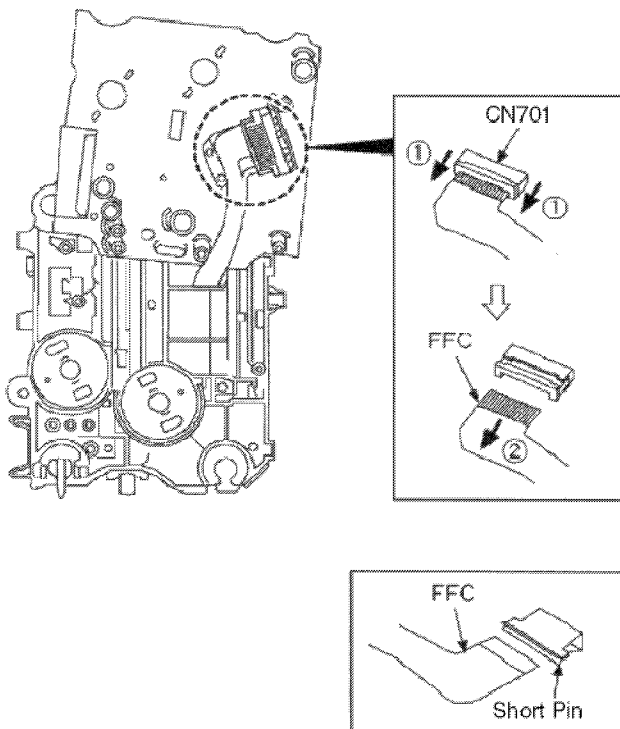


Step 2 Desolder the 4 legs of 2 motors and flip over the CD Servo P.C.B.

Step 3 Remove the flexible cable at CN701.

• Removal of the flexible cable

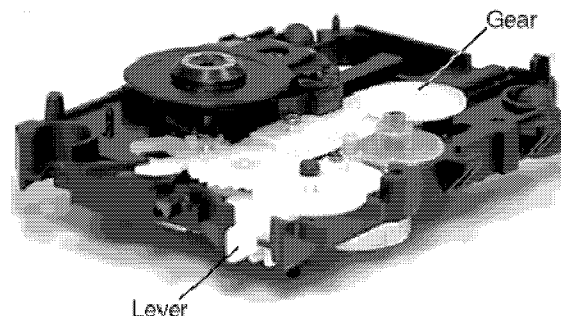
Push the top of the connector in the direction of the arrow 1 and then pull out the flexible cable in the direction of the arrow 2.



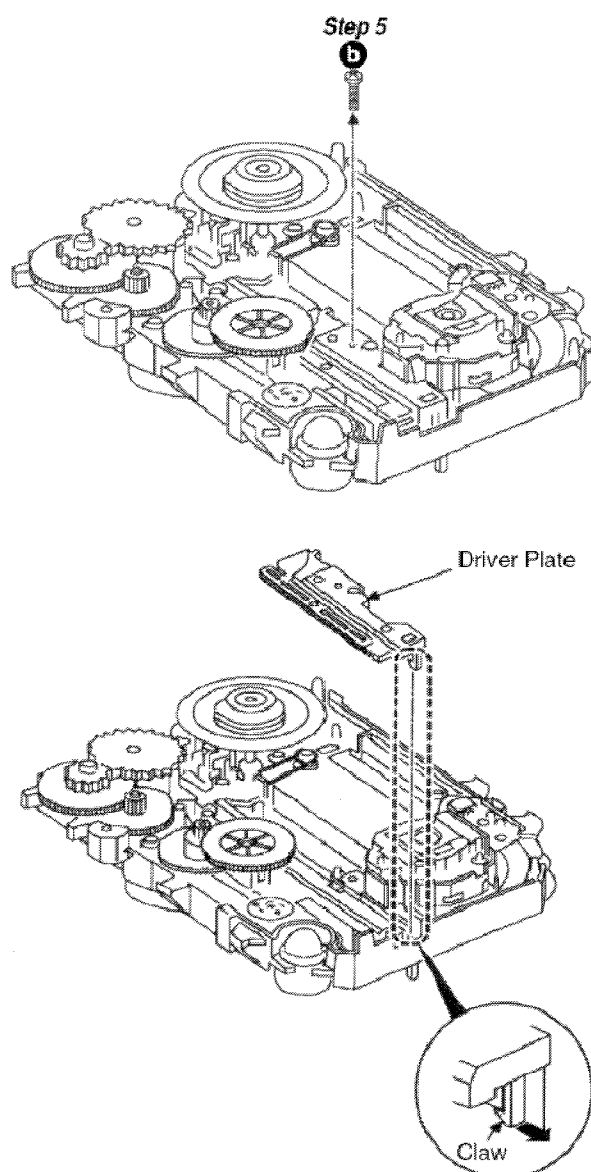
NOTE: Insert a short pin into the flexible cable.

- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 4) of Item 9.6.
- Follow the (Step 1) - (Step 2) of Item 9.8.
- Follow the (Step 1) of Item 9.9.
- Follow the (Step 1) - (Step 3) of Item 9.10.
- Follow the (Step 1) - (Step 5) of Item 9.11.

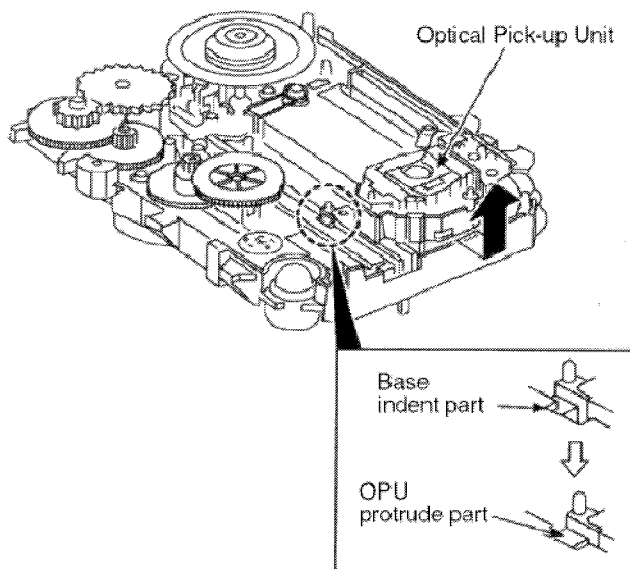
- Follow the (Step 1) - (Step 3) of Item 9.12.
- Follow the (Step 1) of Item 9.13.
- Follow the (Step 1) of Item 9.14.
- Follow the (Step 1) - (Step 3) of Item 9.16.1.
- Follow the (Step 1) of Item 9.16.2.



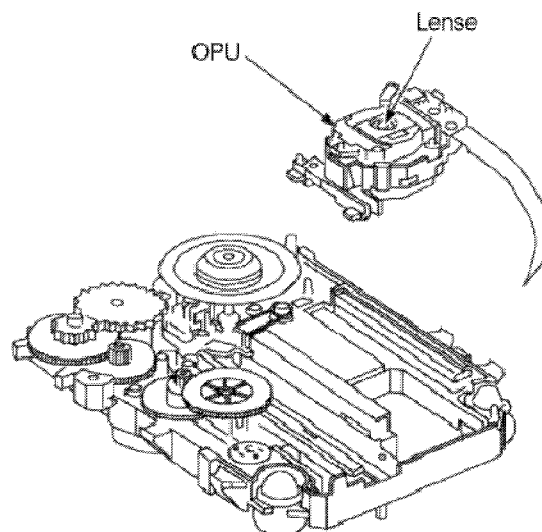
Step 4 Push the lever in and turn the gear clock wise fully.



Step 6 Release the claw and remove the Driver Plate.



opening.



Step 7 Slide out the Optical Pick-up Unit from the indent

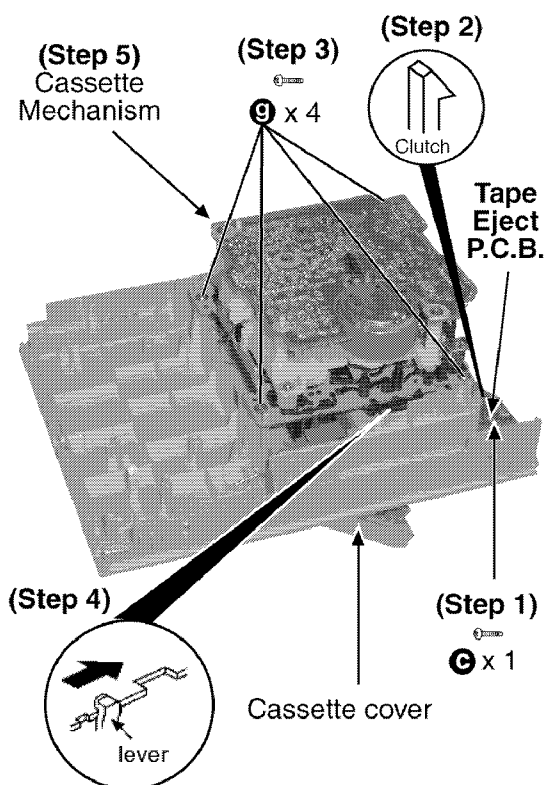
NOTE: Do not touch the Lense on the OPU.

9.18. Procedure for Replacing Cassette Holder

- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 4) of Item 9.4.
- Follow the (Step 1) - (Step 2) of Item 9.5.

Step 6

Release the clutches and lift up the cassette cover in the direction of the arrow shown.



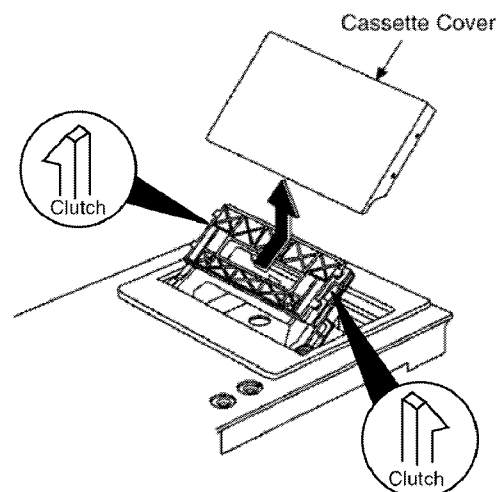
Step 1 Remove the screw.

Step 2 Release the clutch.

Step 3 Remove all the screw.

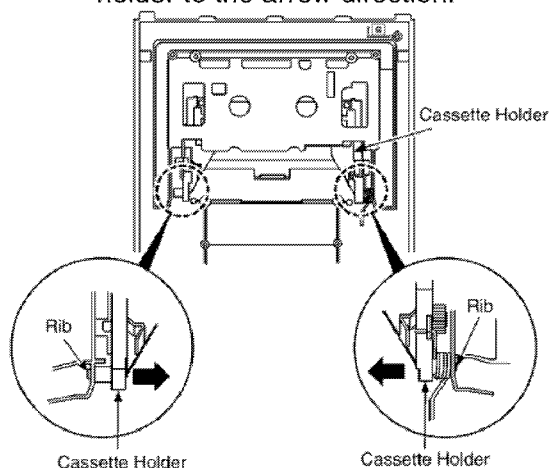
Step 4 Press the lever to open the cassette cover.

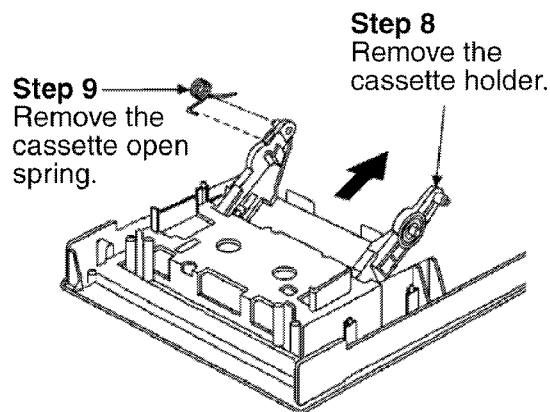
Step 5 Remove the cassette mechanism unit.



Step 7

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



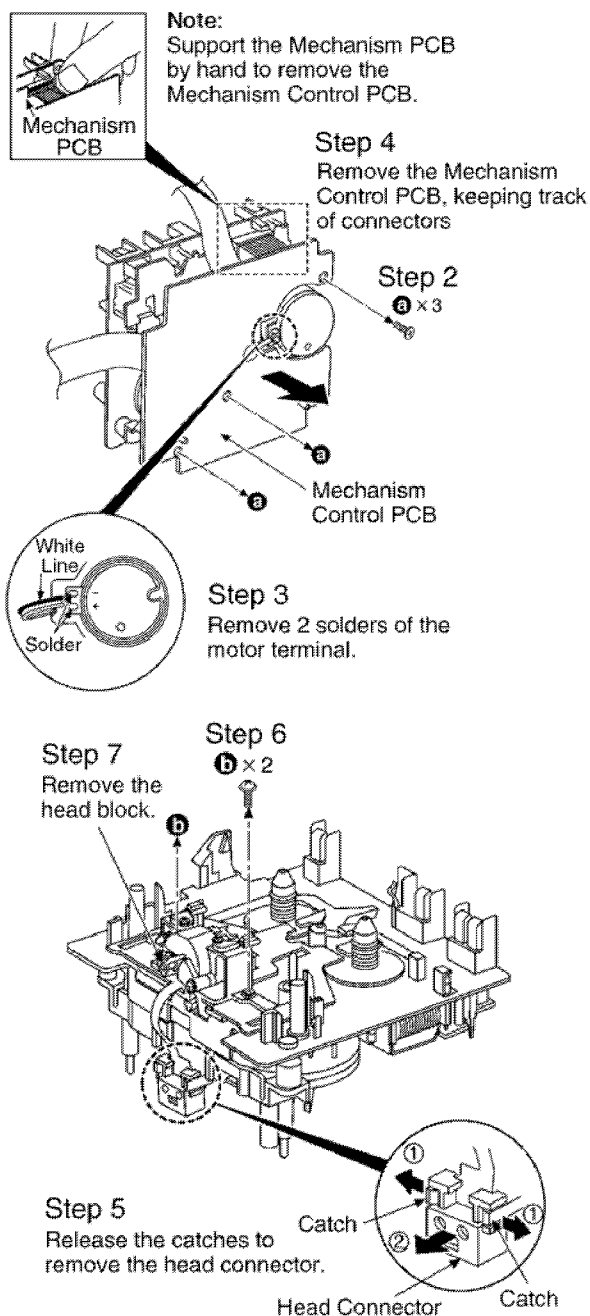
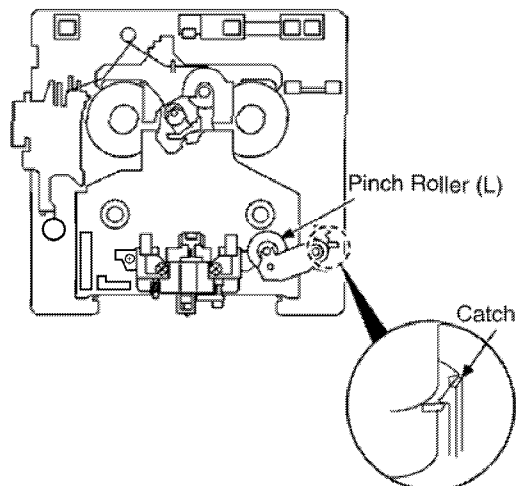


9.19. Procedure for Replacing Pinch Roller and Head Block (Cassette Mechanism Unit)

- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 4) of Item 9.4.
- Follow the (Step 1) - (Step 2) of Item 9.5.
- Follow the (Step 1) - (Step 5) of Item 9.18.

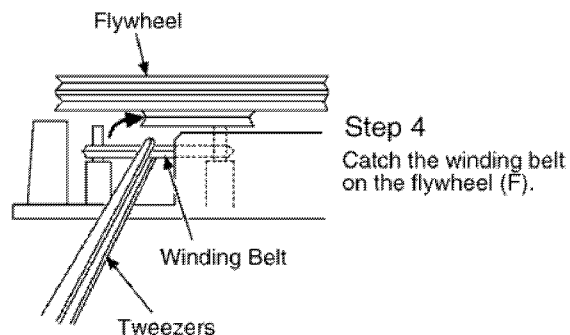
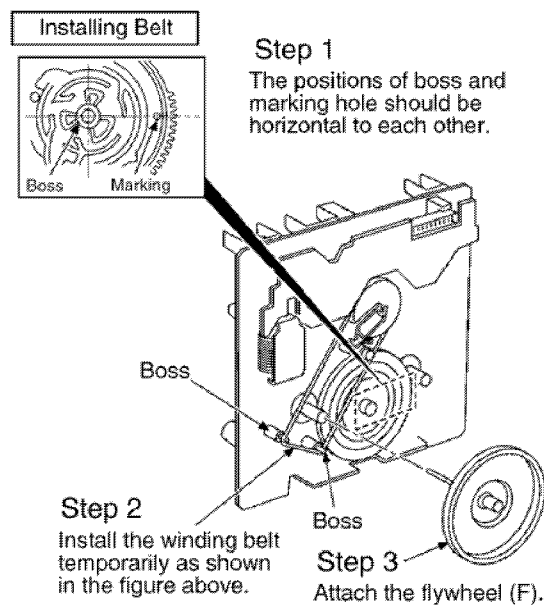
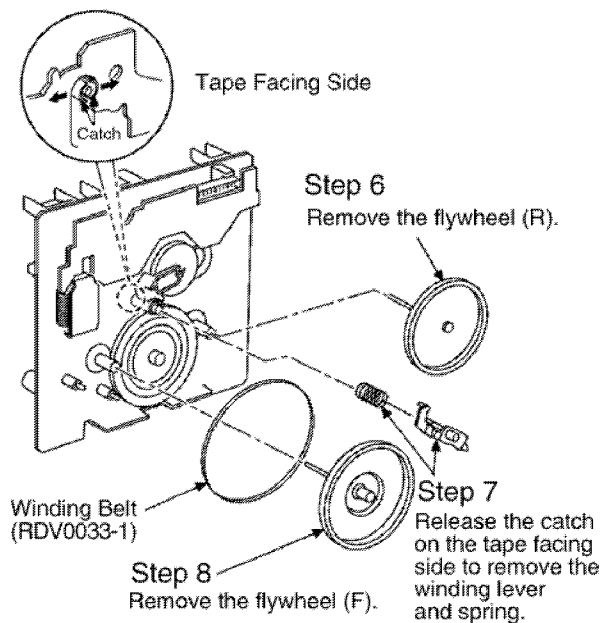
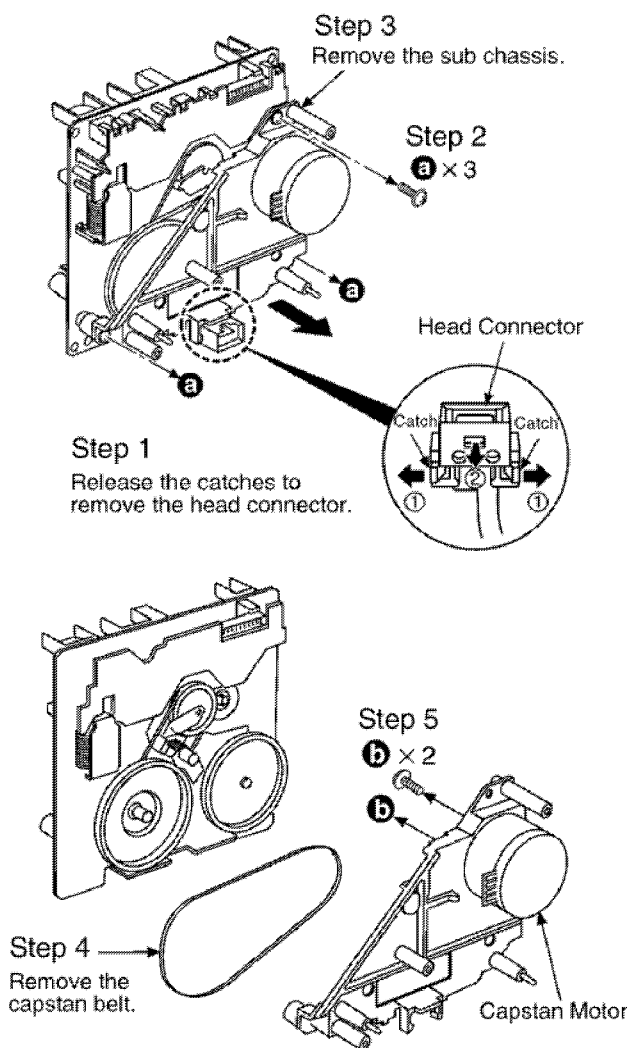
Step 1

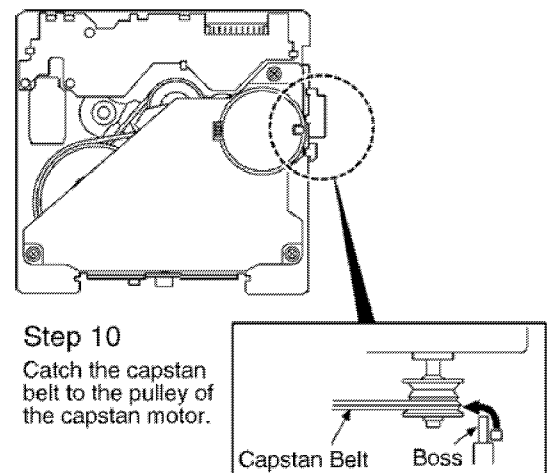
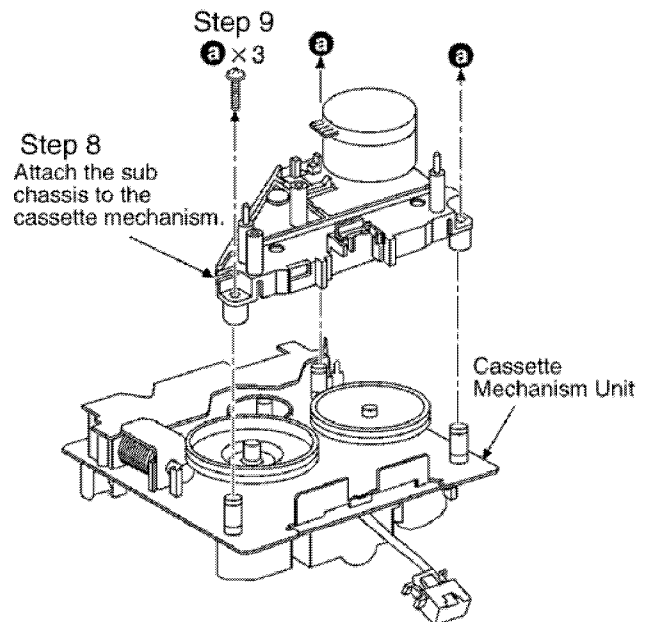
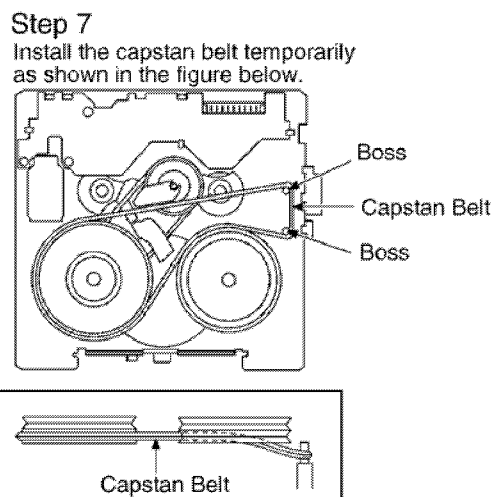
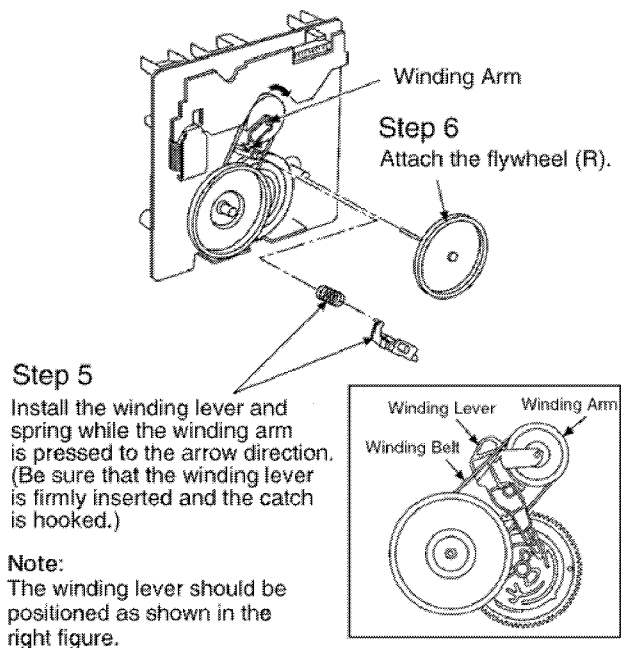
Release catches to remove the pinch rollers (L).



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

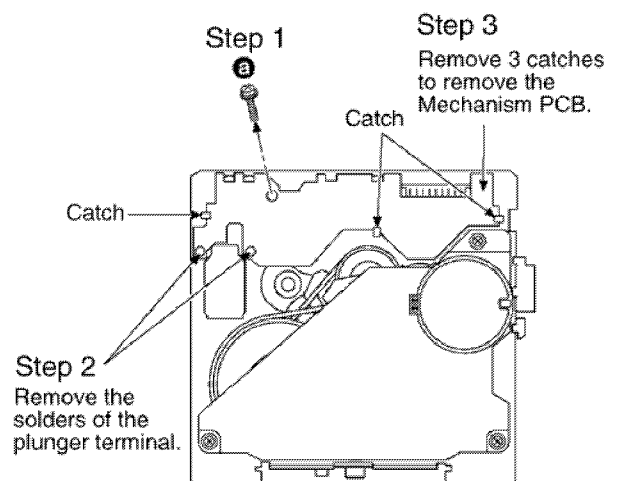
- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 4) of Item 9.4.
- Follow the (Step 1) - (Step 2) of Item 9.5.
- Follow the (Step 1) - (Step 5) of Item 9.18.
- Follow the (Step 1) - (Step 4) of Item 9.19.





9.21. Procedure for Replacing Parts on Mechanism PCB

- Follow the (Step 1) - (Step 3) of Item 9.2.
- Follow the (Step 1) - (Step 4) of Item 9.3.
- Follow the (Step 1) - (Step 4) of Item 9.4.
- Follow the (Step 1) - (Step 2) of Item 9.5.
- Follow the (Step 1) - (Step 5) of Item 9.18.
- Follow the (Step 1) - (Step 5) of Item 9.19.

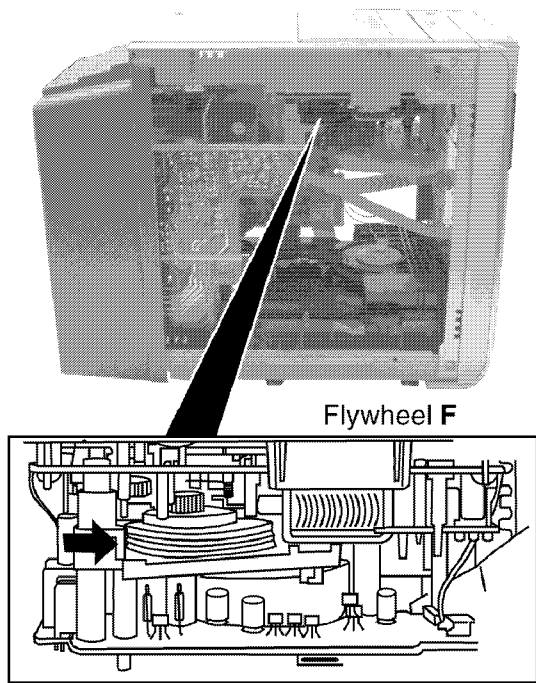


9.22. Handling of cassette tape jam

- Follow the (Step 1) - (Step 3) of Item 9.2.

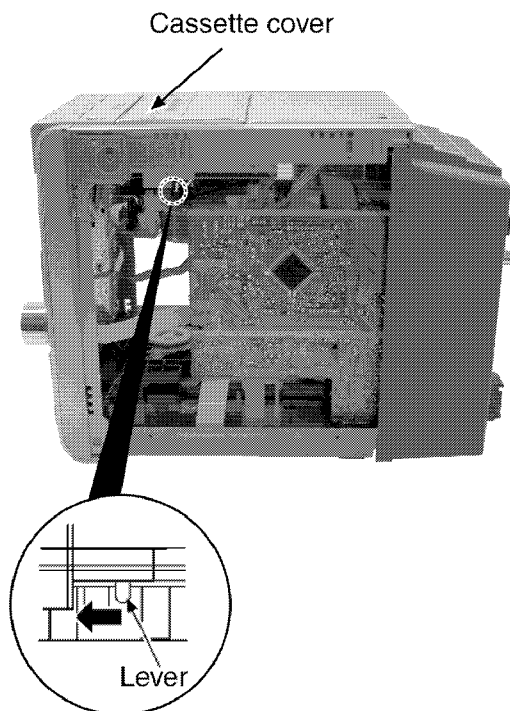
Step 1

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



Step 2

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



10 Service Positions

10.1. Checking procedure

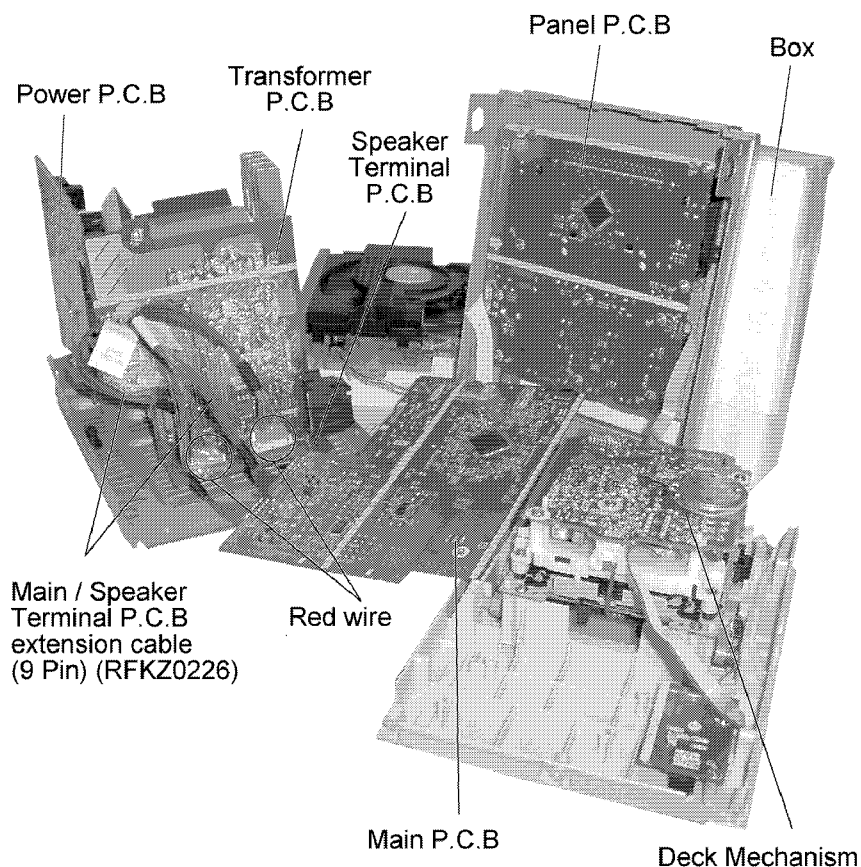
Note:

For the disassembling procedure, see the section 9.

10.2. Checking the Main P.C.B. and Speaker Terminal P.C.B.

1. Removal of Side Panel L & R
2. Removal of Top Cabinet
3. Removal of Deck Mechanism P.C.B and Tape Eject P.C.B.
4. Removal of Headphone P.C.B.
5. Removal of Front Panel
6. Removal of Rear panel
7. Removal of Tuner Pack
8. Removal of Main P.C.B.
9. Removal of Power P.C.B.
10. Removal of Speaker Terminal P.C.B.
11. Removal of Transformer P.C.B.

Service tools	
Extension FFC (Main P.C.B. and Terminal P.C.B.)	RFKZ0226 (9Pin)

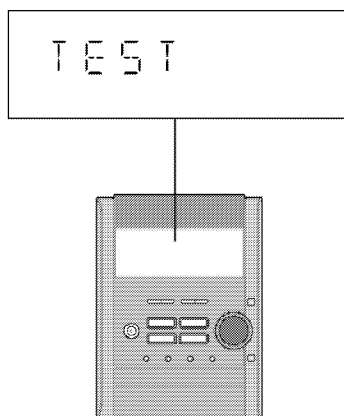


11 Self-Diagnostic Display Function

This unit is equipped with a self-diagnostic function which, in the event of a malfunction, automatically display a code indication the nature of the malfunction. Use this self-diagnostic function when servicing the unit.

11.1. Entering into Self-diagnostic Mode

1. Turn the power on.
2. Switch to CD ►/■ mode with no CD or cassette loaded.
3. Press and hold the STOP button for at least 2 seconds, and while still pressing the STOP button, press the Forward Skip/Search button for at least 2 seconds. The unit enters Self-Diagnostic Mode and display "TEST". Then an error code (e.g. H01) is displayed, if any. In the case of no error, "TEST" is displayed on FL.
4. If more than 1 error exists, the display will sequentially show the respective error codes each time the STOP button is pressed.



11.2. Cassette Mechanism Test (For error code H01, H02, H03, F01, F02)

1. Load a cassette tape with the erasure prevention tab, remove from right side only and close the cassette holder.
2. Press "Tape" then "Forward Skip/Search" (Tape will be stop after 7 - 10 seconds).
3. Load a cassette tape with the erasure prevention tab, remove from left side only and close the cassette holder.
4. Press "Tape" then "Reverse Skip/Search" (Tape will be stop after 7 - 10 seconds).
5. Load a pre-recorded tape with both side record tabs intact and close the cassette holder.
6. Press "Tape Play" (After TPS function, tape will stop automatically).
7. Press "Tape Record".
8. Press "Stop" to indicate Error code.ve).
 - If several problem exist, error code will change each time when "Stop" is pressed.
(e.g. H01 → H03 → F01..... etc.)

11.3. Clearing all error code

1. Press and hold STOP button for 5 seconds.
2. FL indicator shows "CLEAR" for 1 second and change to "TEST".

11.4. Cancelling the Self-Diagnostic mode

1. Press the "Power" button to turn off the system. Press the "Power" button again to turn on the system.

11.5. Description of error code

11.5.1. Power Amplifier Failure (F61)

When power amplifier output failure for power supply failure.

11.5.2. Error detection for CD Block

Error Code	Abnormal Items	Possible Cause
F15	CD REST SW abnormal	CD traverse position initial setting operation failsafe counter (1000 ms) waiting for REST SW to turn on. Error No. shall be clear by force or during coldstart.
H15	The CD tray closes	CD disc tray detect switch NG. (Check and replace)
F26	CD servo LSI command signal abnormal	CD function DTMS command, after system setting, if SENSE = 'L' cannot be detected. Memory shall contain F26 code. After Power on, CD function shall continue, error shall occur "NODISC". Error No. shall be clear by force or coldstart.
F28	DISC LOAD abnormal	While going to play position, if failsafe counter is finished and switch o change or switch target condition was not achieve, this error shall be memorized. Next time mechanism operates, it shall do coldstart. ErrorNo. shall be clear by force or coldstart.
F29	DISC unload abnormal	While going to play position, if failsafe counter is finished and switch no change or switch target condition was not achieve, this error shall be memorized. Next time mechanism operates, it shall do coldstart. ErrorNo. shall be clear by force or coldstart.
F27	Slide operation abnormal	During vertical operation, if failsafe timer is finished and switch no change or switch target condition was not achieve, this error shall be memorized. Next time mechanism operates, it shall do coldstart. ErrorNo. shall be clear by force or coldstart.
F17	Down SW abnormal	During vertical operation going to the bottom position, if failsafe timer is finished and switch no change or switch target condition was not achieve, this error shall be memorized. The Next time mechanism operates, it shall do mechanism initialization. Error No. shall be clear by force or coldstart.
F22	Loading Mode / Mecha abnormal	During mecha initialization, Loading mode mechanism abnormal, normal operation cannot be achieve. The next time mechanism operates, it shall do mechanism initialization. Error No. shall be clear by force or coldstart.
Abnormal item	Error Display	Method of detection
F75	CD power abnormal	Under normal operation (self-diagnostic mode inclusive), check if CDRST is H for SELECTOR at CD. If it is not H after 1 sec, it shall be memorised as an error.


11.5.3. Error detection code for Cassette Mechanism Block

Error Code	Abnormal Items	Possible Cause
H01	MODE SW abnormal	Normal operation during mecha transition, MODE SW abnormal is memorised. The content of abnormality can be confirmed in the abnormal detection mode explained in the later section.
H02	REC INH SW abnormal	
H03	HALF SW abnormal	
F01	Reel pulse abnormal	
F02	TPS abnormal	

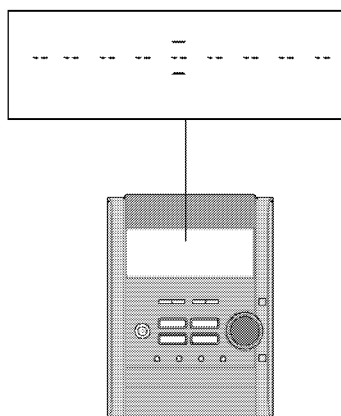
11.5.4. Doctor Mode set up

- At any more (CD, TAPE, TUNER).
- To enter Doctor Mode, press Doctor Mode key [C2DF] of special remote control or input 4 then 7 from the remote control while pressing STOP ■ key of the main set.

11.5.5. Cold start setting

- Doctor mode ON.
- Remote control  key ON.

- Data shall be set in order to make a cold start (backup data are initialized) when reset starts next time. To clarify that the code was accepted at this time, The pattern below is displayed in the LCD for 2 seconds.



(Note) In the case that you unplug from AC outlet after this mode was set, then plug to AC again, a cold start shall begin.
And “- - - - -” is displayed in the FL for 2 seconds.

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

12.1. Operation Check with Cassette Tape

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

Repeat the operation (→ FWD PLAY)

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

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

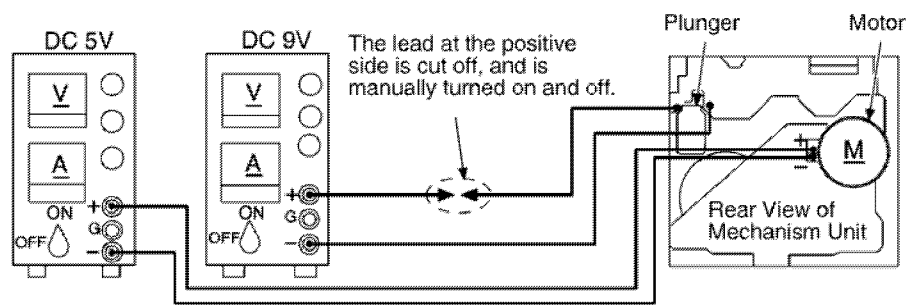


Fig. 5

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

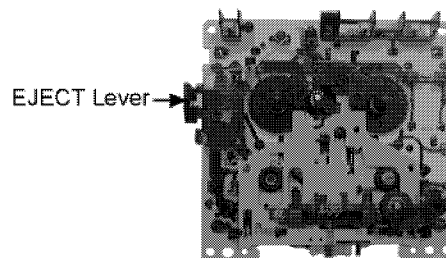


Fig. 6

12.2. Operation Check without Cassette Tape

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

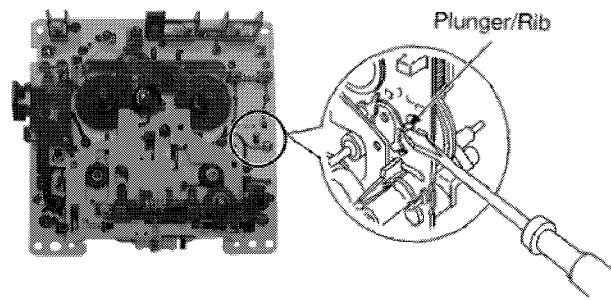


Fig. 7

13 Measurement And Adjustments

13.1. Cassette Deck Section

13.1.1. Requirements

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

13.1.2. Setting of Unit

- VOLUME: MAX

13.1.3. Preparations

1. Apply under [9. Assembling and Disassembling].
2. Remove 4 screws from the mechanism unit to disassemble. under [9. Assembling and Disassembling].
3. Connect the headphone jack output jig (Cf. Fig. 8) to headphone jack.

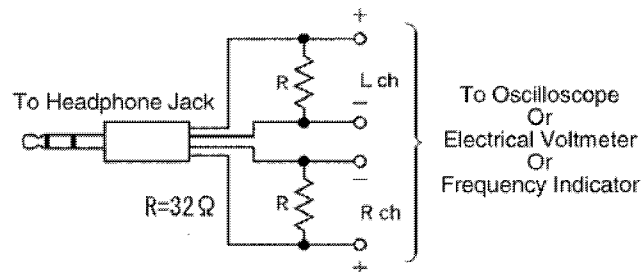


Fig. 8

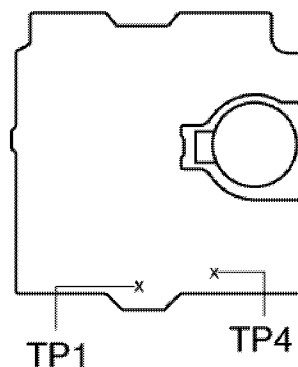


Fig. 9

13.1.4. Tape Speed Adjustment

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

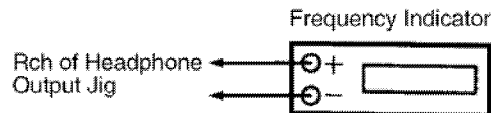


Fig. 10



Fig. 11

13.1.5. Bias Voltage Check

1. Connect an electrical voltmeter. (Cf. Fig. 9) (Cf. Fig. 12)
2. Set the function to "TAPE" position.
3. Insert a normal blank cassette tape (QZZCRA).
4. While pressing and holding down [REC (●/■)] button, press [TAPE (▶)] button to pause the recording mode. (Repeat pressing the buttons till the recording pause mode is activated.)
5. Check that the output level is within the standard range.
Standard Range: $16 \pm 3\text{mV}$

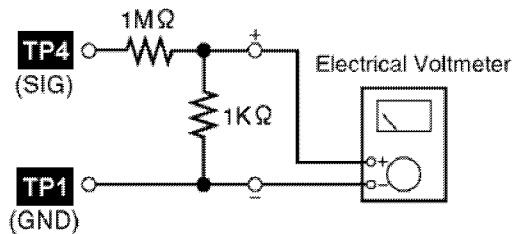


Fig. 12

13.1.6. Bias Frequency Check

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

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

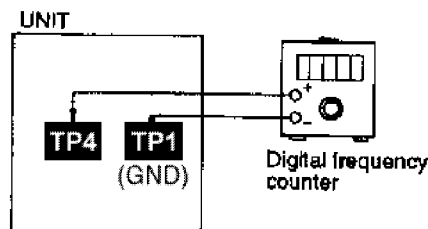
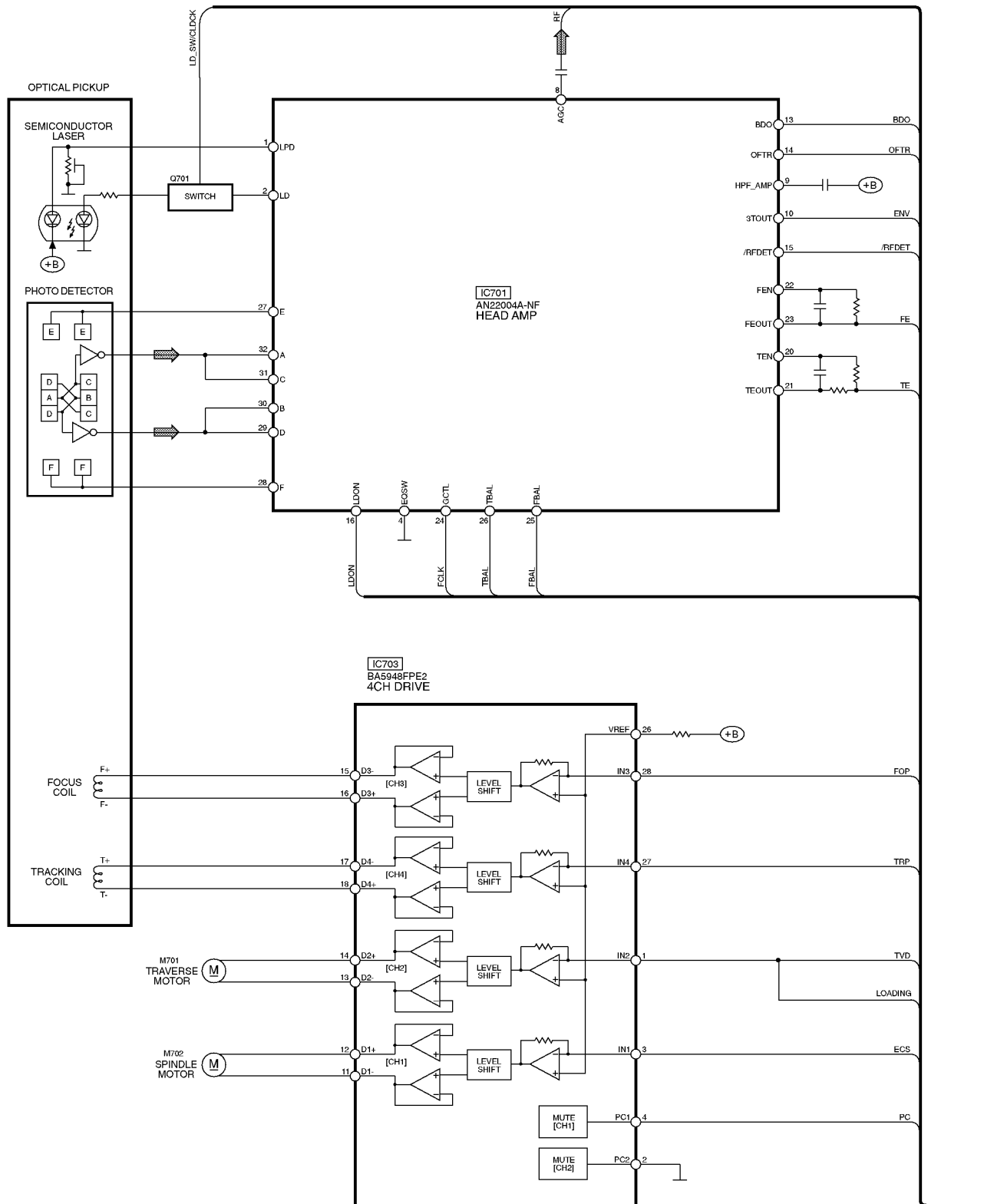
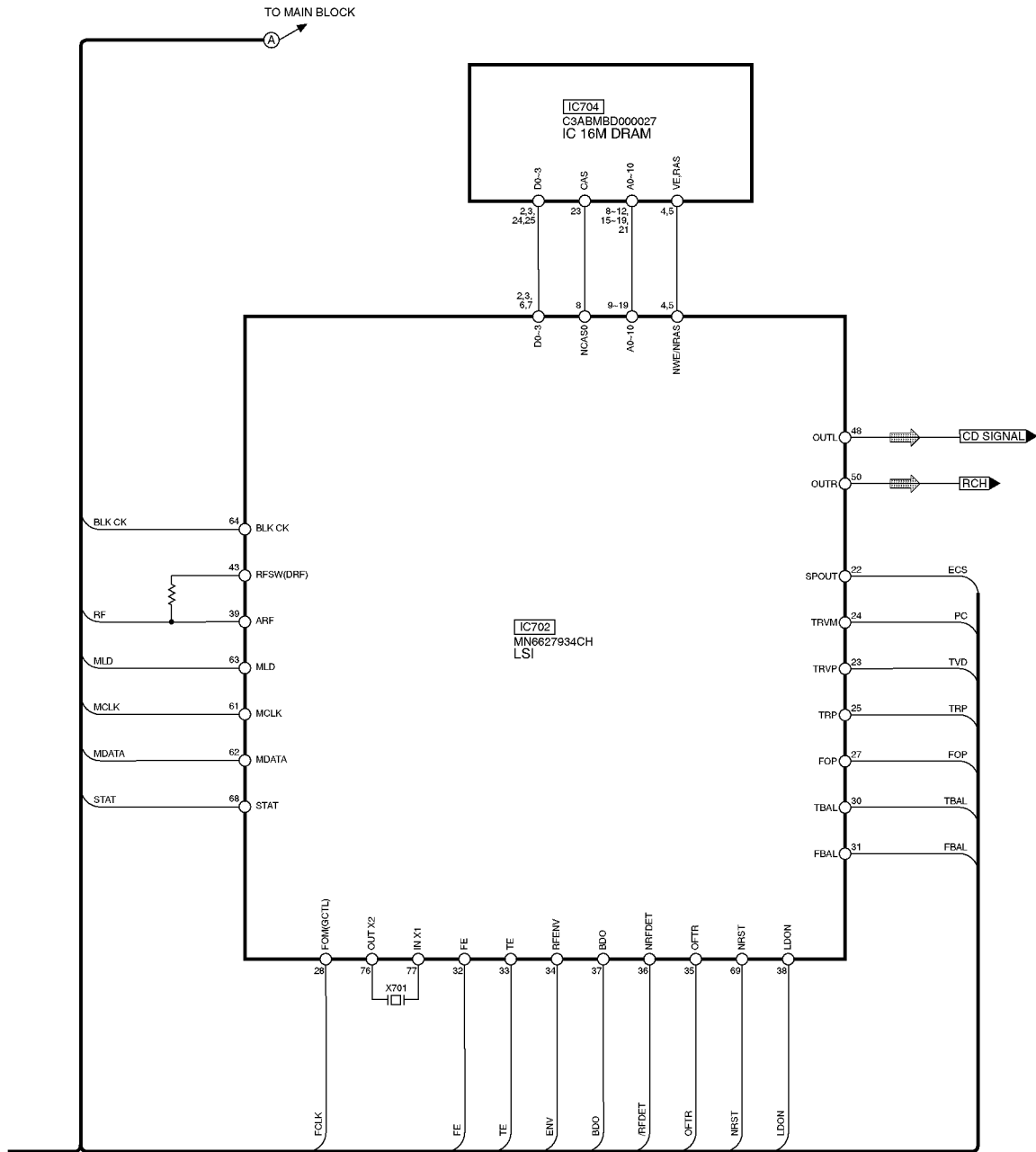


Fig. 13

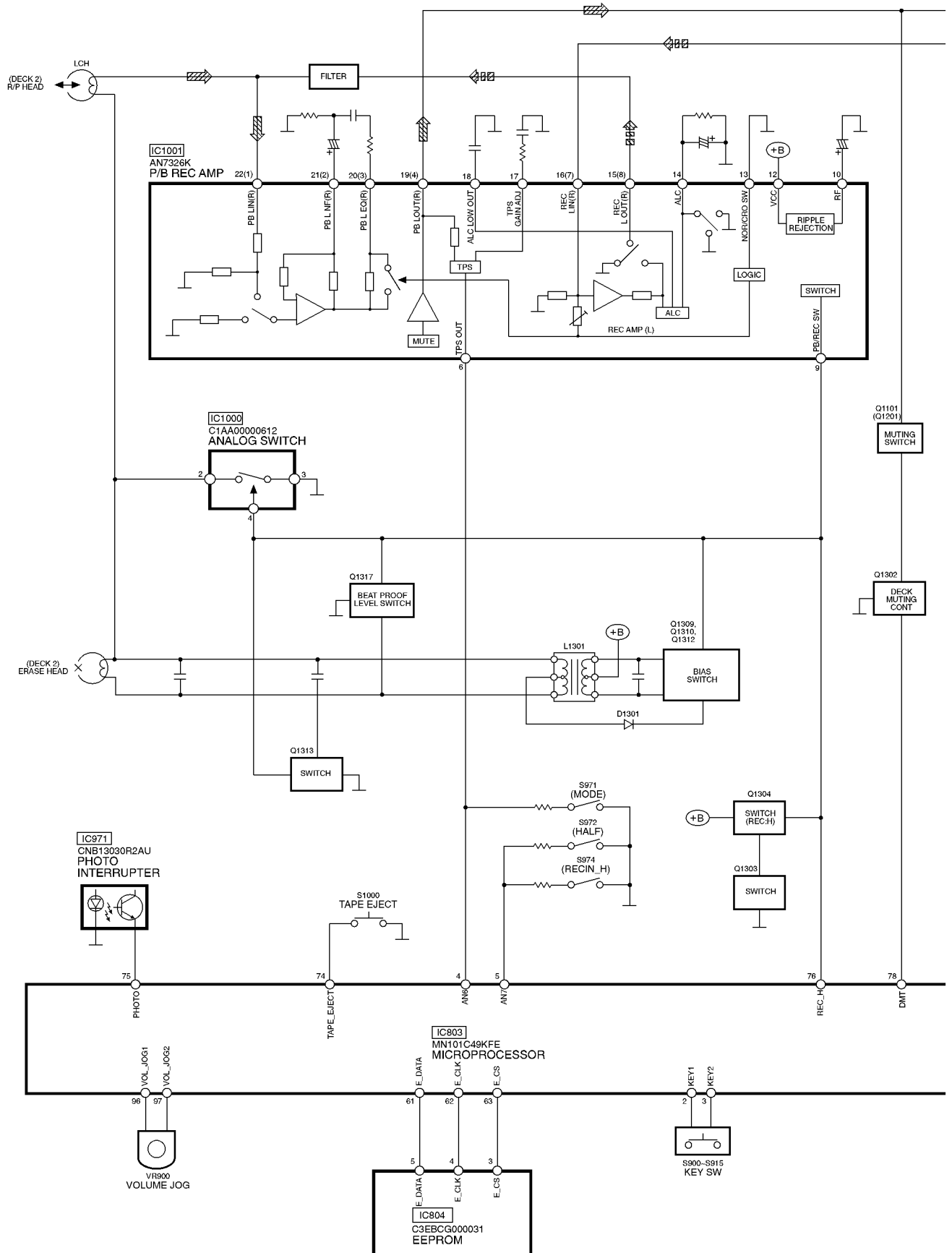
14 Block Diagram

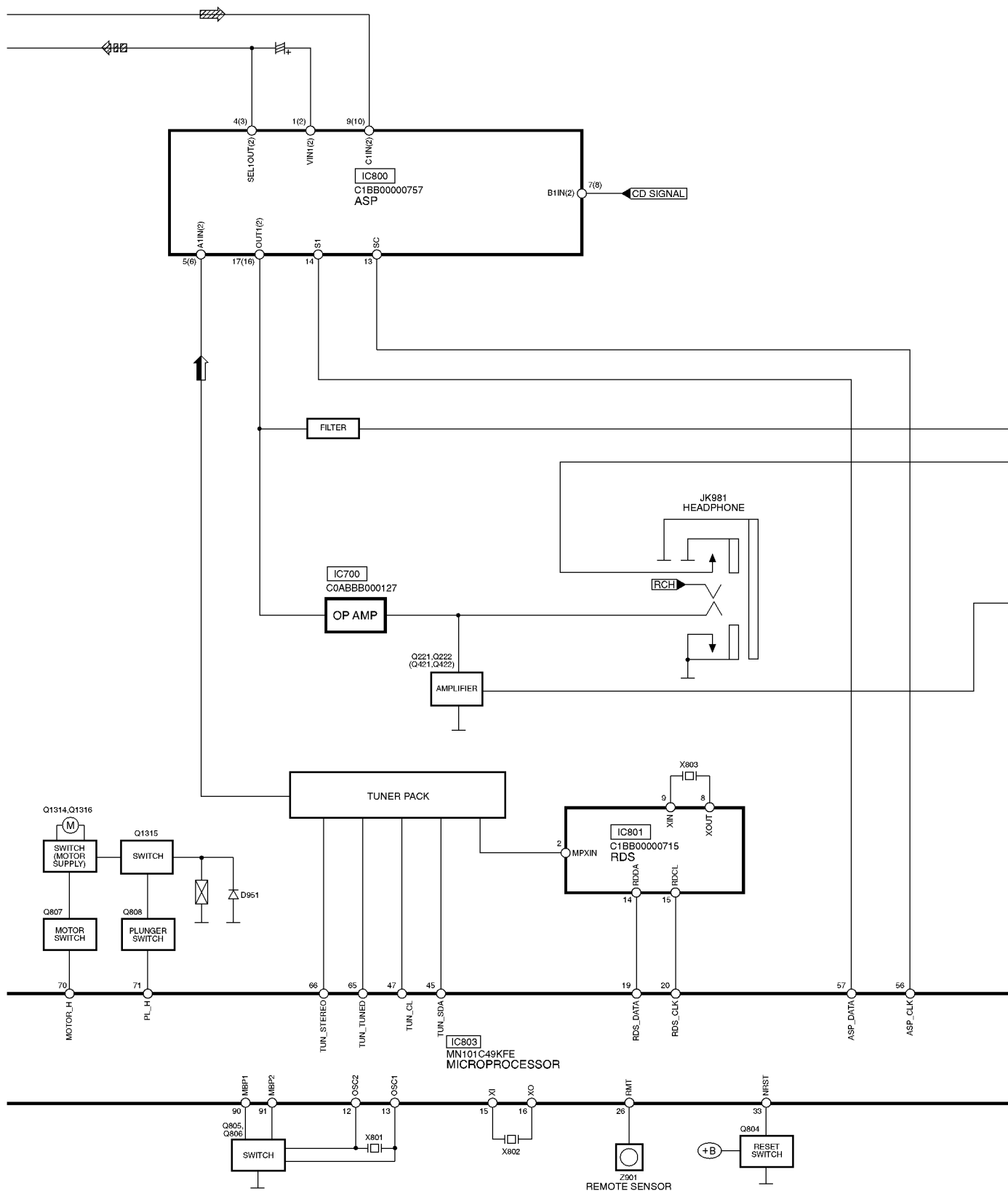
14.1. CD Servo Block

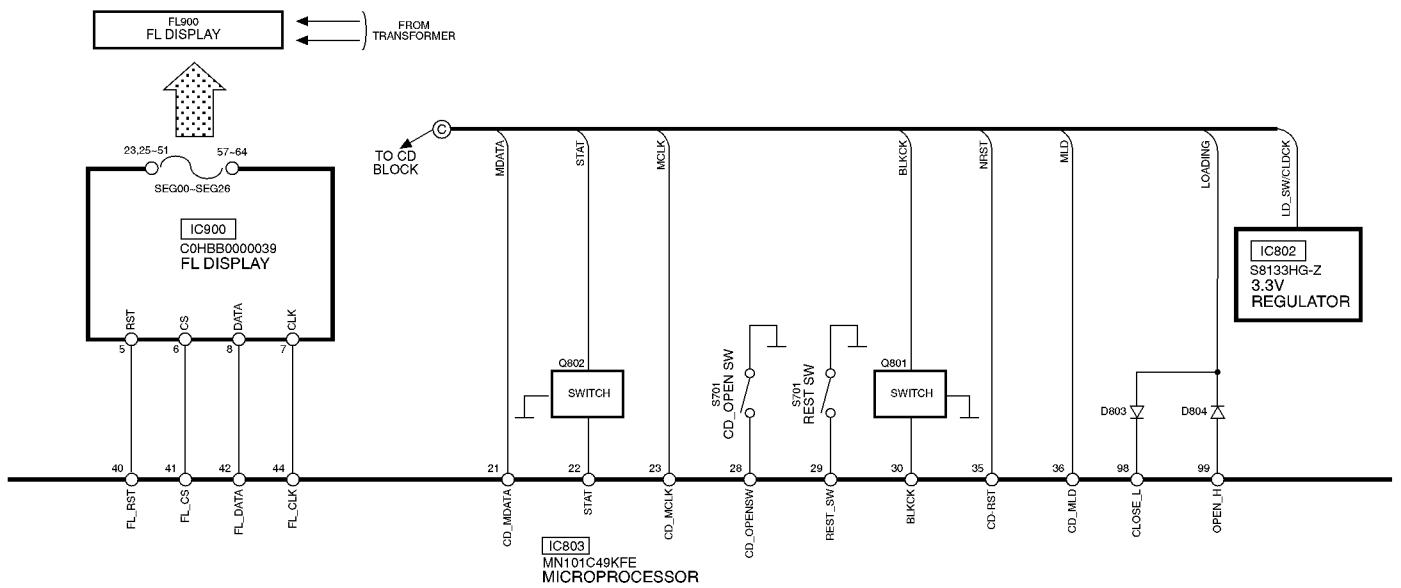




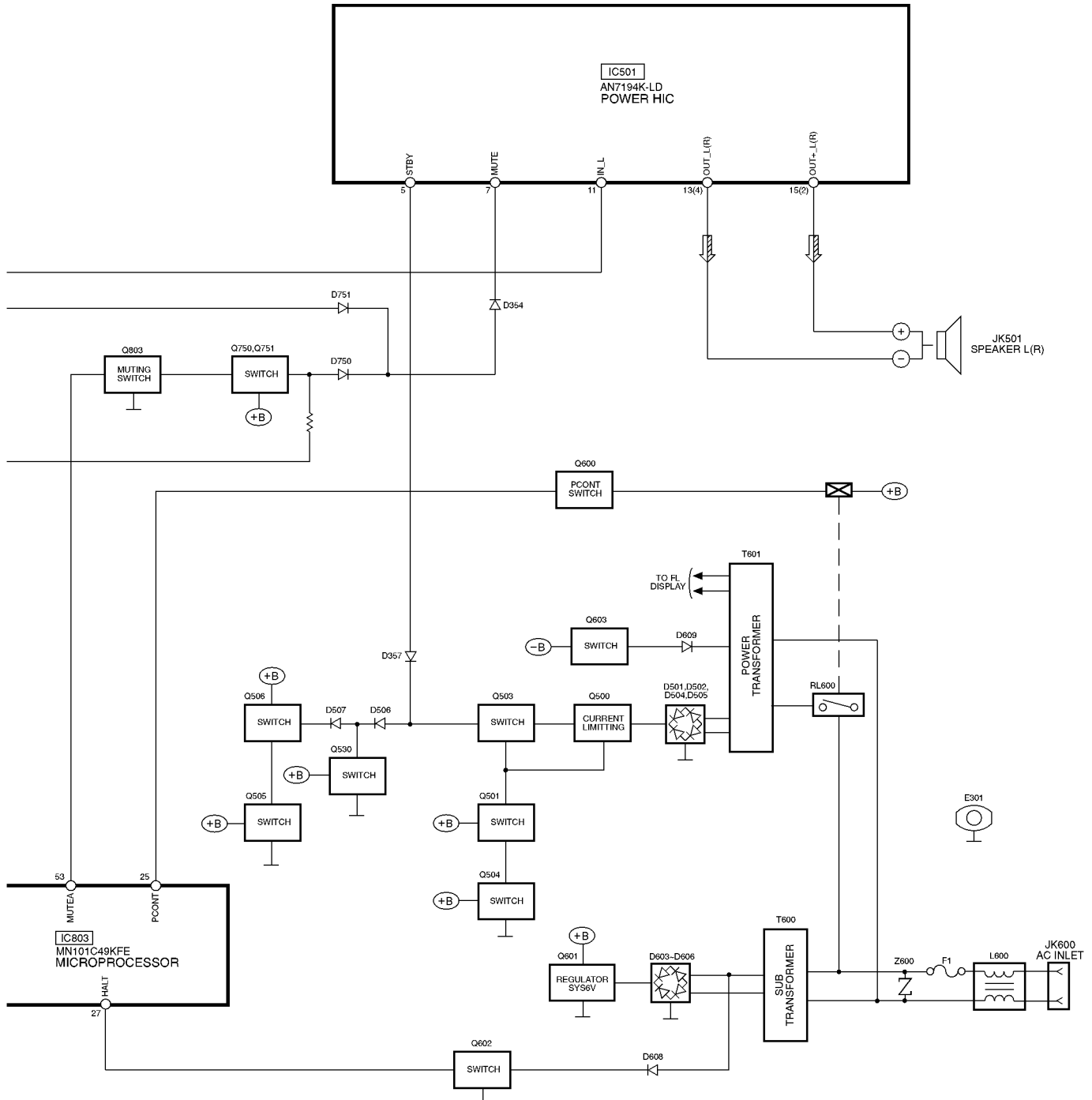
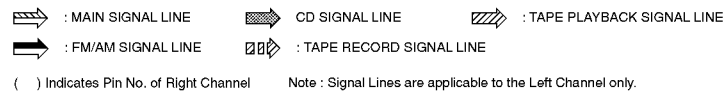
14.2. Main Block







SIGNAL LINES



15 Notes of Schematic Diagram

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


Note :

S701	Reset switch
S900	CD Play switch
S901	Tape Play switch
S902	Tuner switch
S903	FF switch
S904	Stop switch
S905	REW switch
S906	Album_FF switch
S907	Album_REW switch
S908	Power switch
S909	CD Open/Close switch
S911	Surround switch
S912	Preset_EQ switch
S913	Rec switch
S914	Track_Up switch
S915	Track_Down switch
S971	Mode switch
S972	Half switch
S973	CR02 switch
S975	Recinh_F switch
S1000	Tape Eject switch
VR900	Volume VR

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

No mark	: Playback
<< >>	: Rec
(())	: CD
< >	: FM
()	: AM

• Importance safety notice :

Components identified by  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution !

IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.

16 Schematic Diagram

16.1. CD Servo Circuit

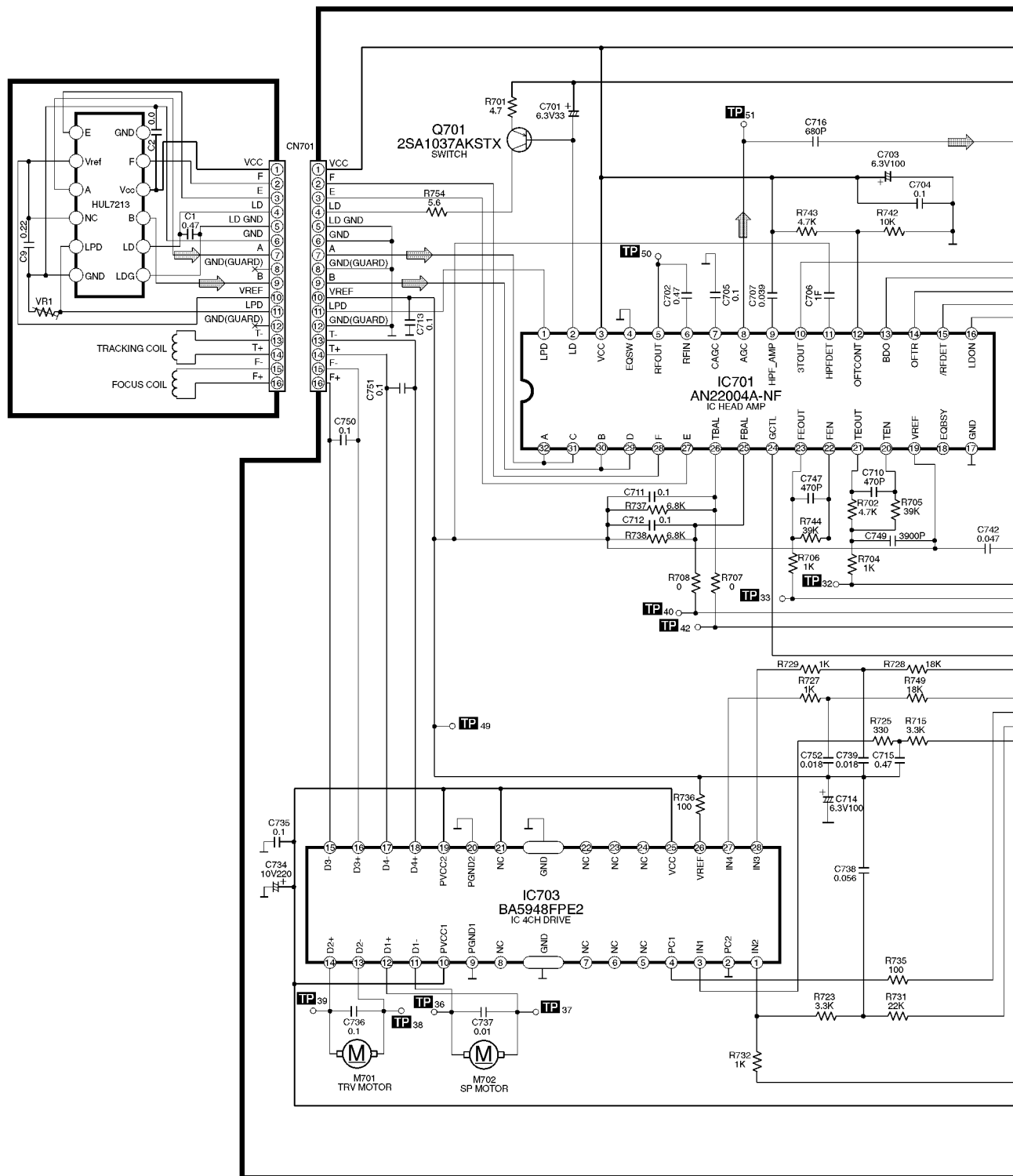
SCHEMATIC DIAGRAM-1



CD SERVO CIRCUIT

— : +B SIGNAL LINE

: CD SIGNAL LINE

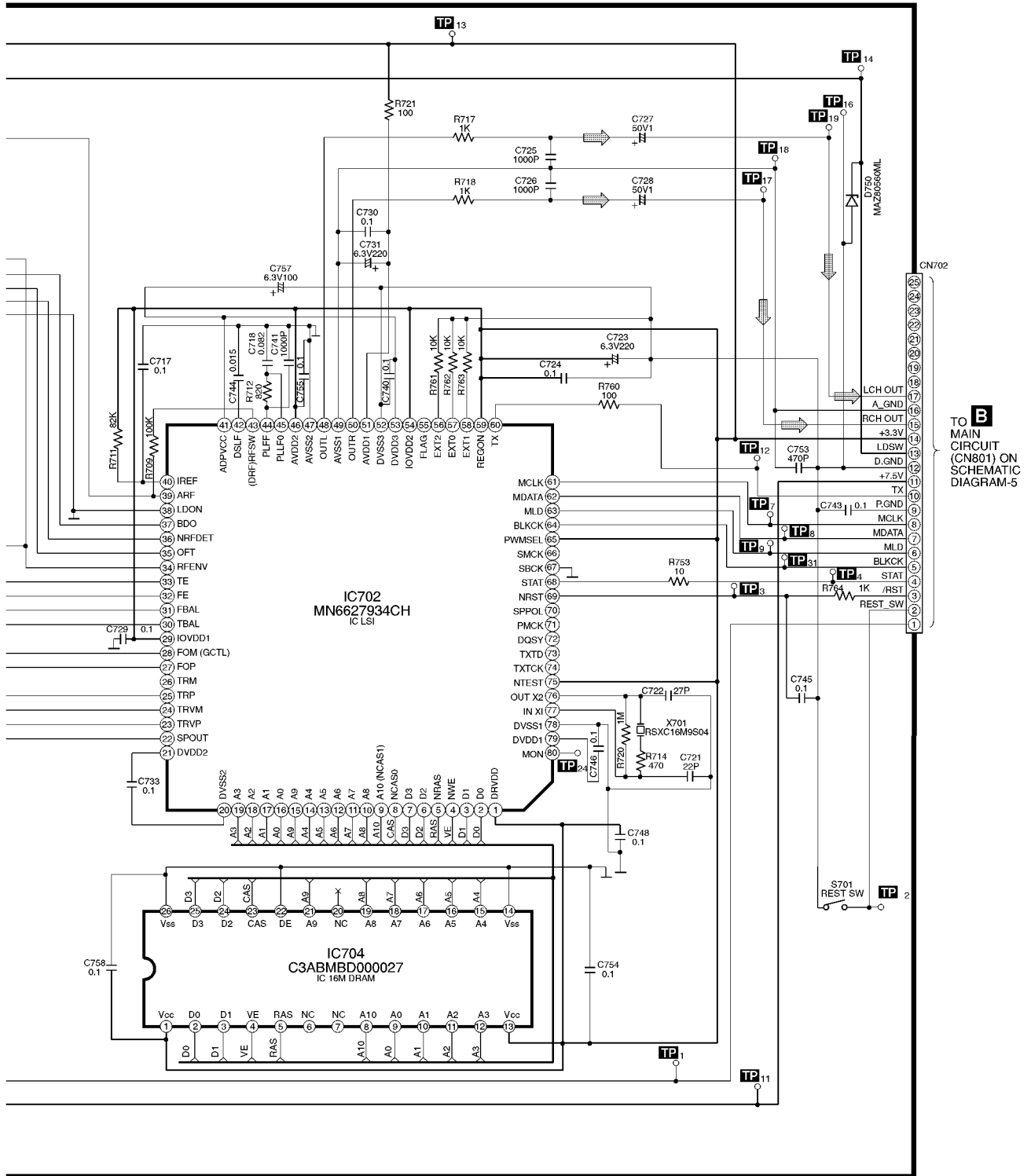


SCHEMATIC DIAGRAM-2

A CD SERVO CIRCUIT

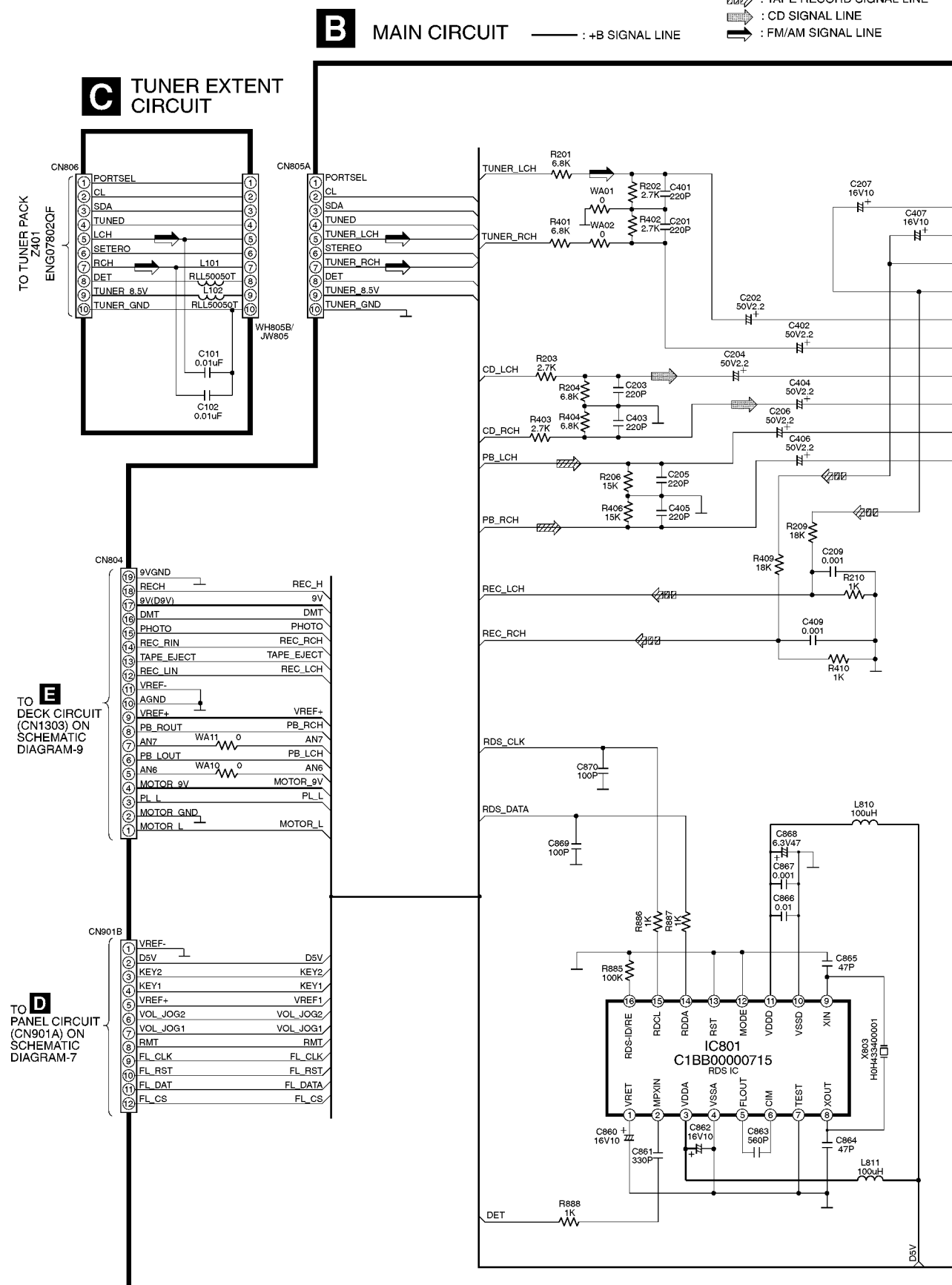
— : +B SIGNAL LINE

⇒ : CD SIGNAL LINE



16.2. Main Circuit and Tuner Extent Circuit






SCHEMATIC DIAGRAM-3

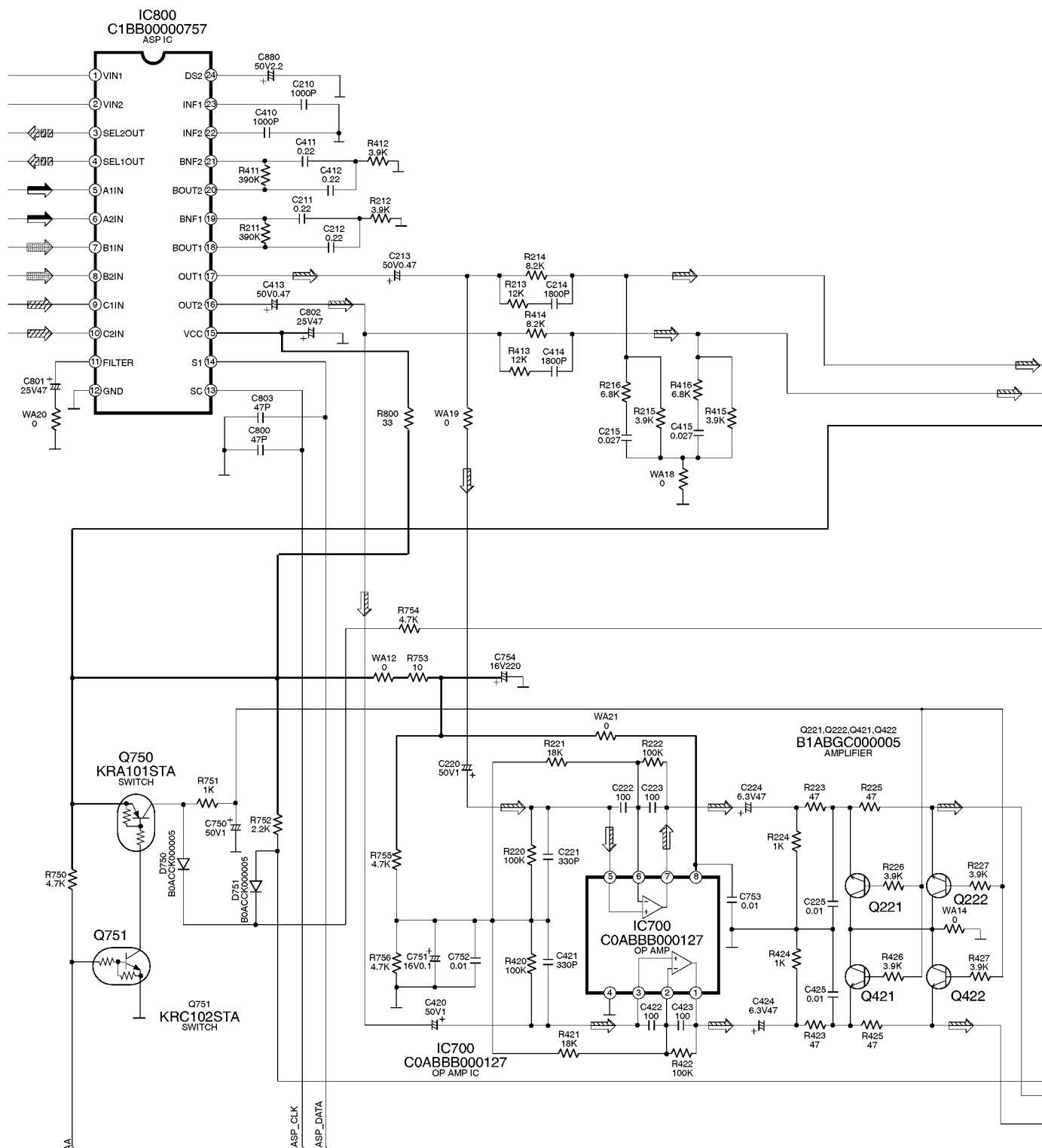


SCHEMATIC DIAGRAM-4

B MAIN CIRCUIT

—— : +B SIGNAL LINE


-  : MAIN SIGNAL LINE
 : TAPE PLAYBACK SIGNAL LINE
 : TAPE RECORD SIGNAL LINE
 : CD SIGNAL LINE
 : FM/AM SIGNAL LINE

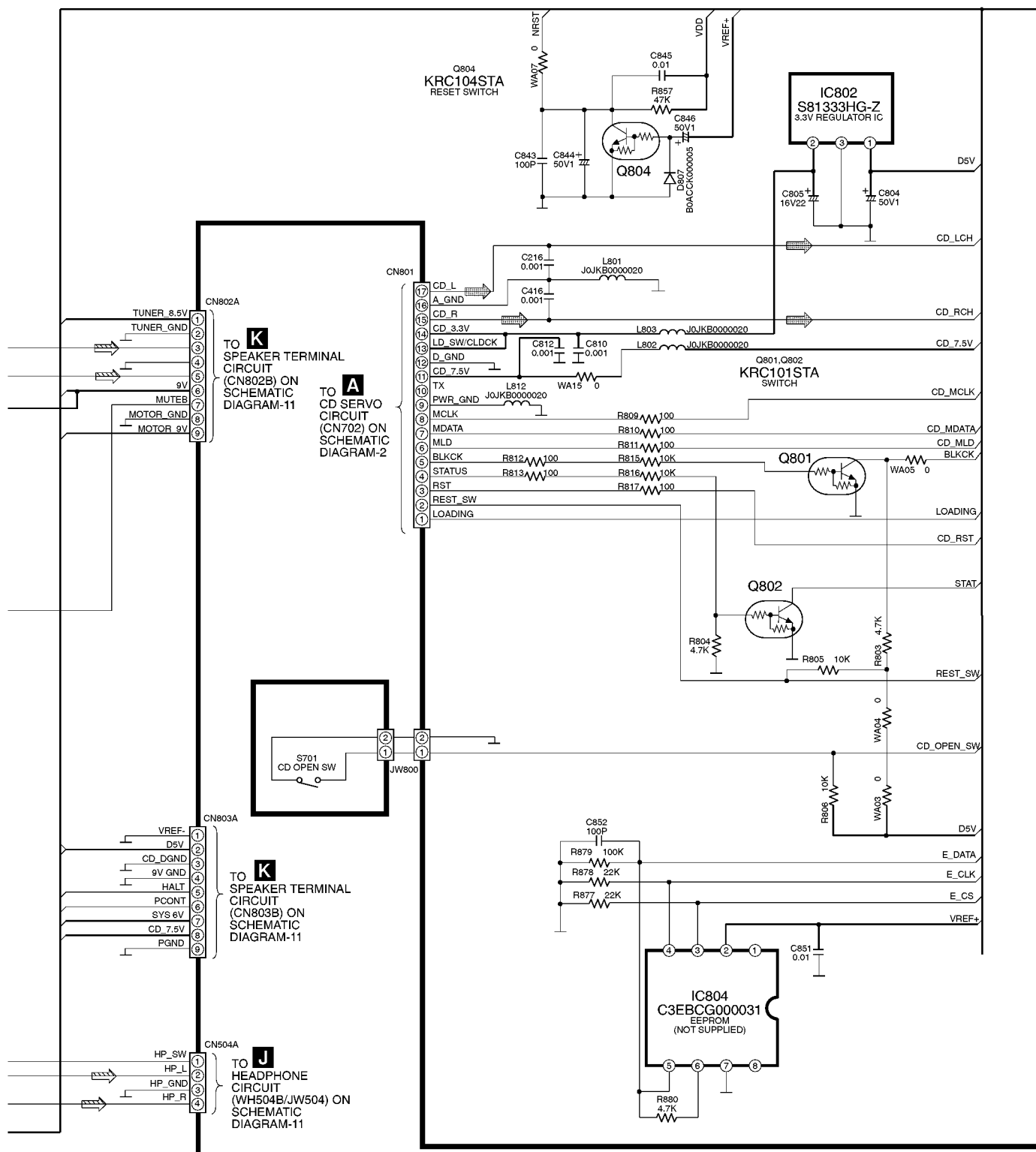


SCHEMATIC DIAGRAM-5

B MAIN CIRCUIT

———— : +B SIGNAL LINE

 : MAIN SIGNAL LINE
 : CD SIGNAL LINE

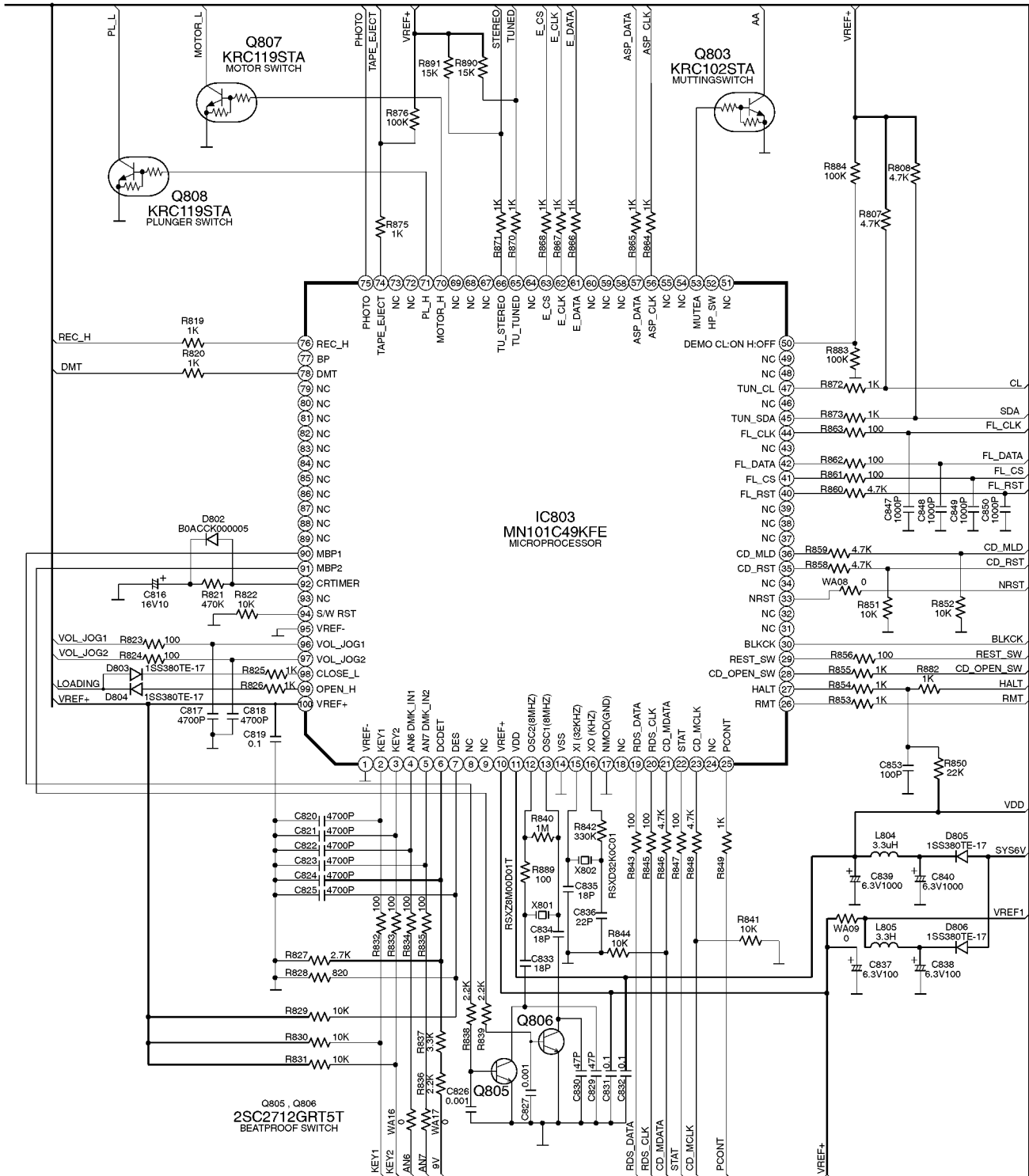


SCHEMATIC DIAGRAM-6

B

MAIN CIRCUIT

— : +B SIGNAL LINE

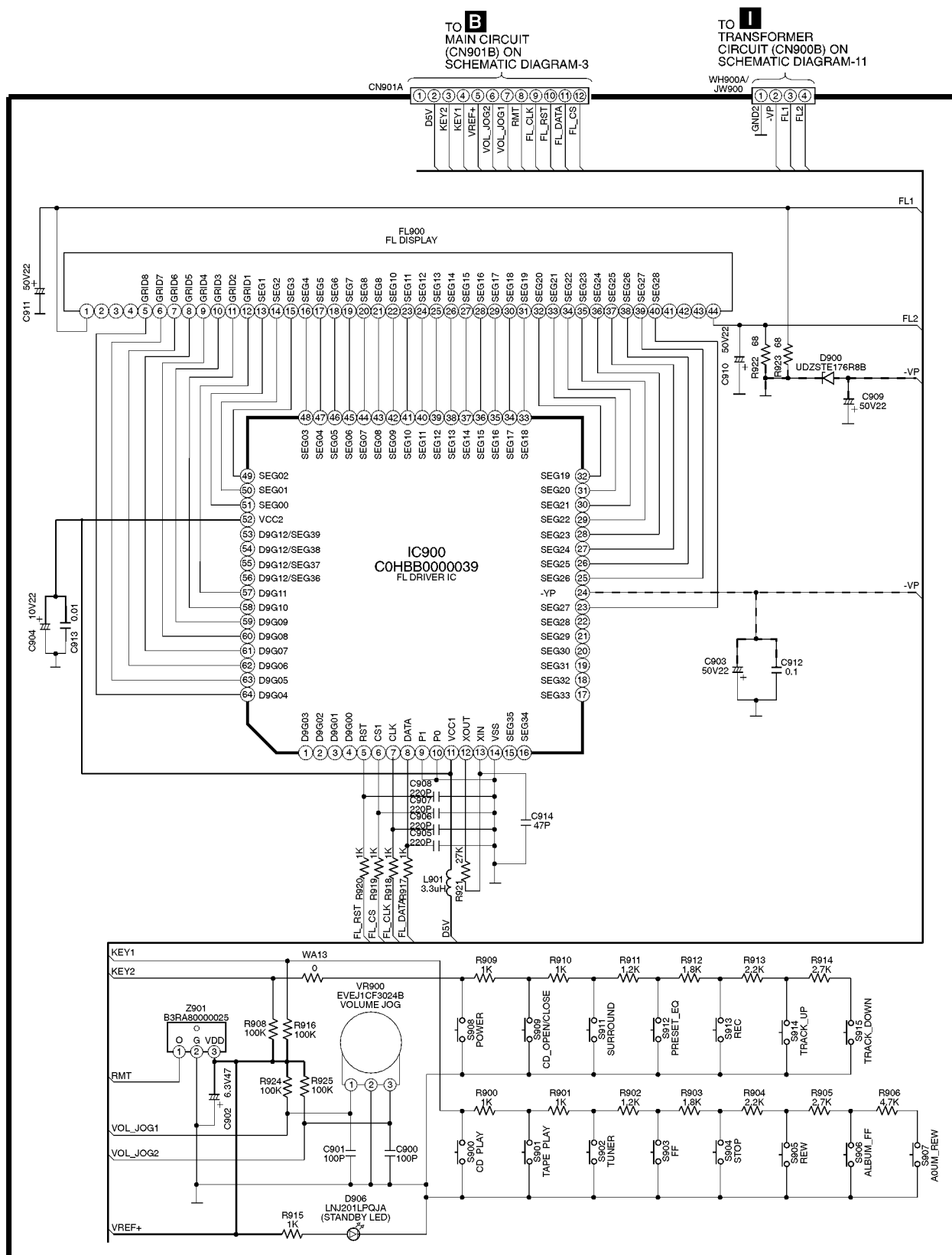


16.3. Panel Circuit

SCHEMATIC DIAGRAM-7

D PANEL CIRCUIT

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



16.4. Deck Circuit, Deck Mechanism Circuit and Tape Eject Circuit

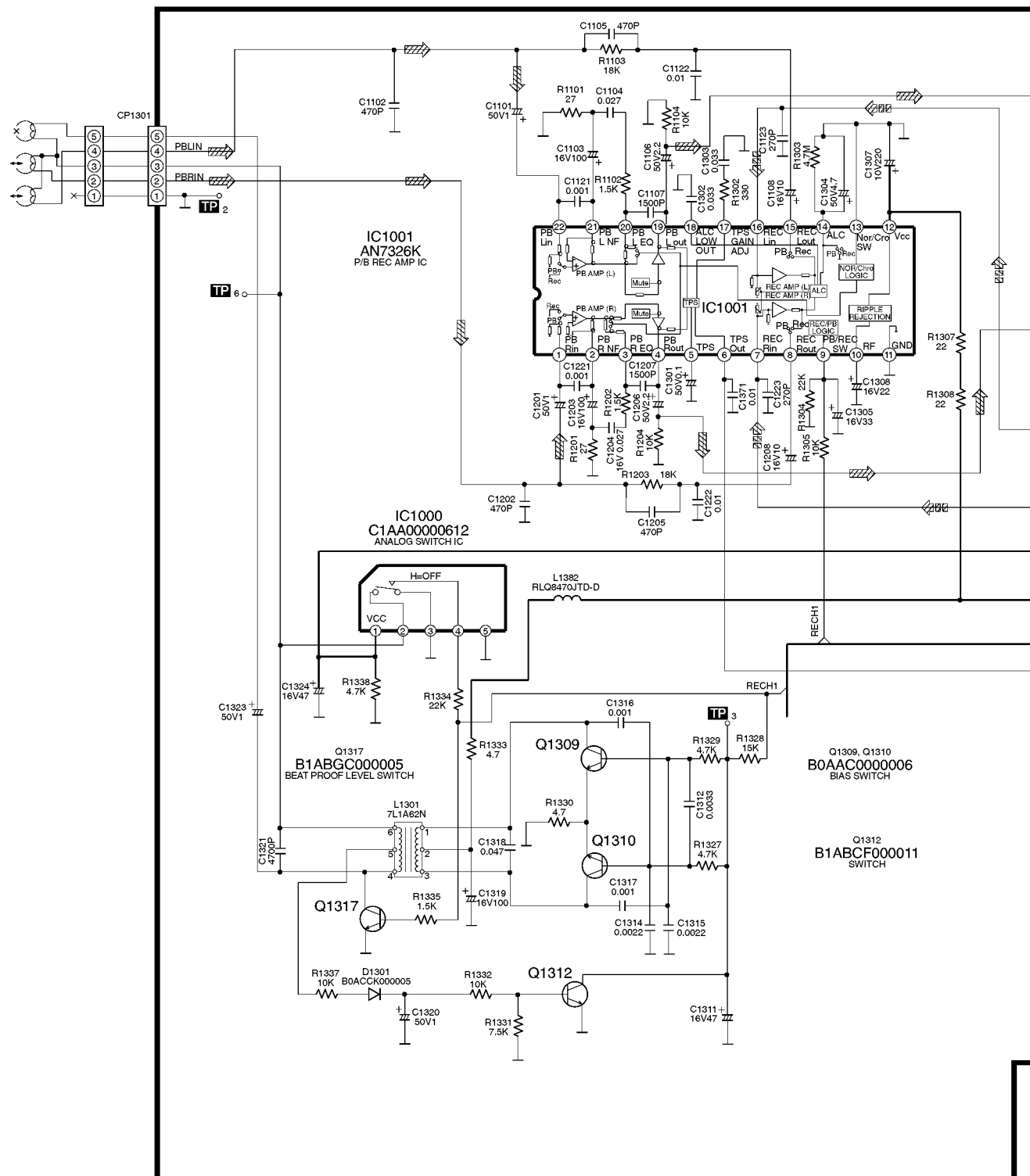
SCHEMATIC DIAGRAM-8

E DECK CIRCUIT

———— : +B SIGNAL LINE

 : TAPE PLAYBACK SIGNAL LINE

 : TAPE RECORD SIGNAL LINE



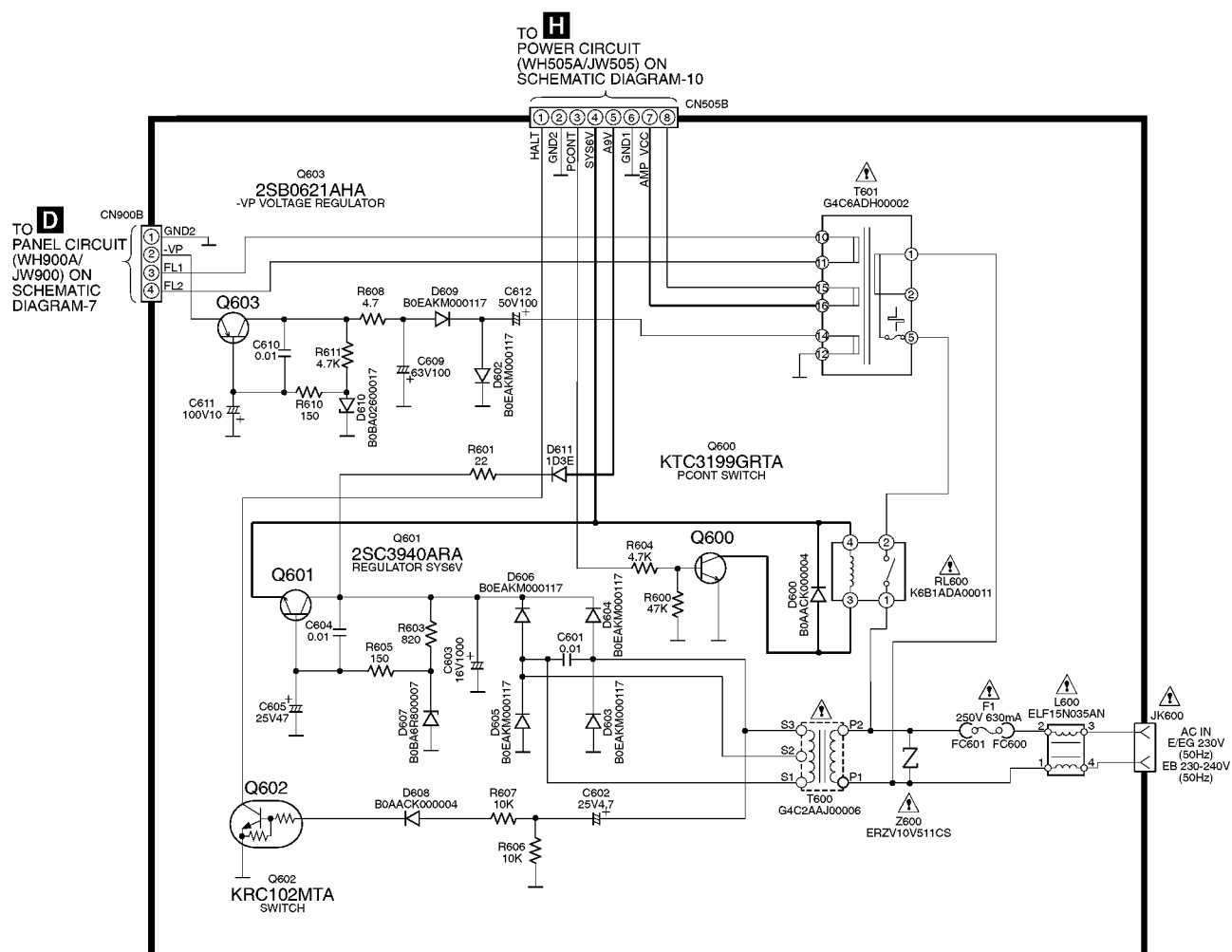
16.6. Transformer Circuit, Headphone Circuit and Speaker Terminal Circuit

SCHEMATIC DIAGRAM-11

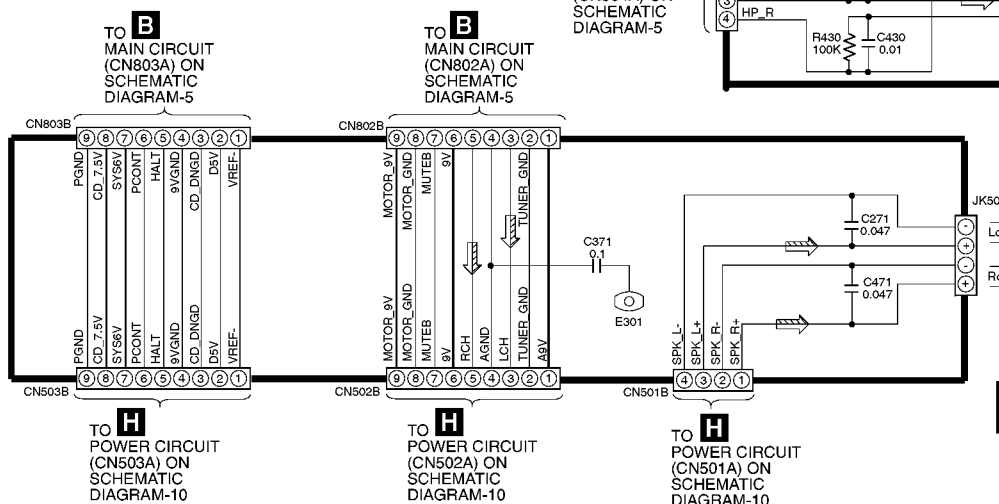
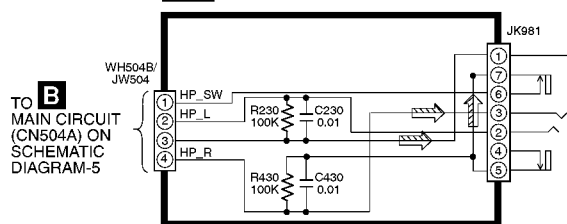
I TRANSFORMER CIRCUIT

— : +B SIGNAL LINE

⇒ : MAIN SIGNAL LINE



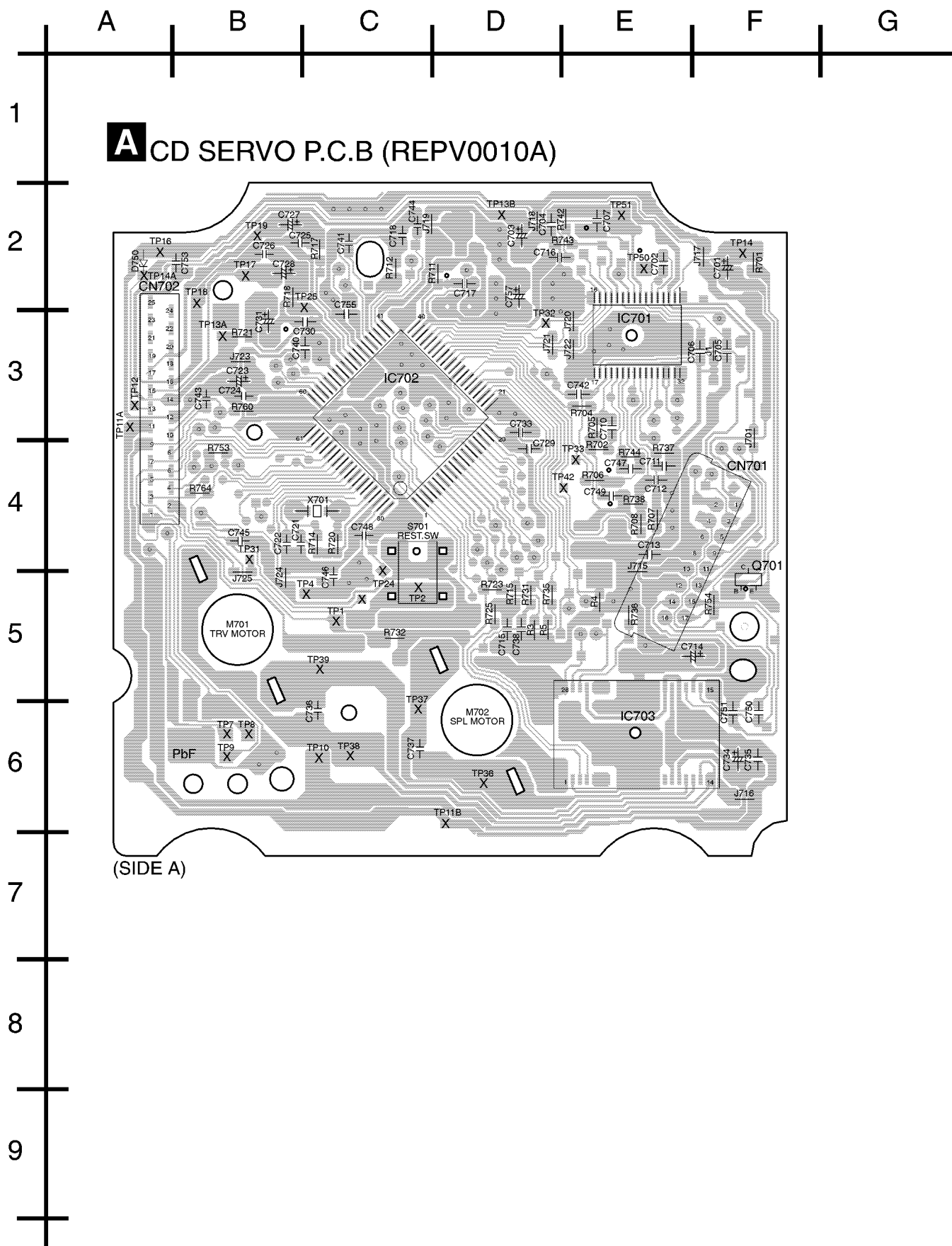
J HEADPHONE CIRCUIT

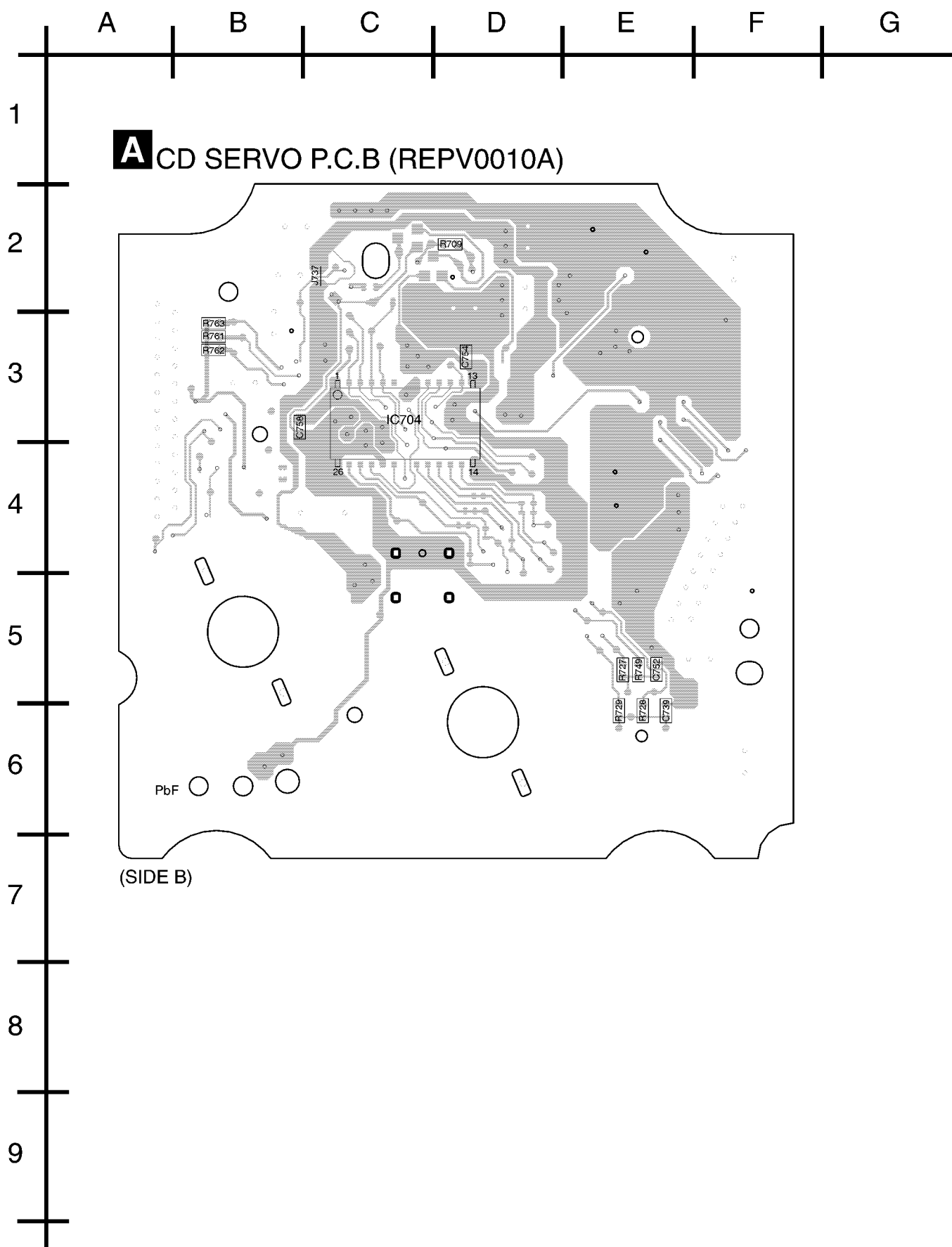


K SPEAKER TERMINAL CIRCUIT

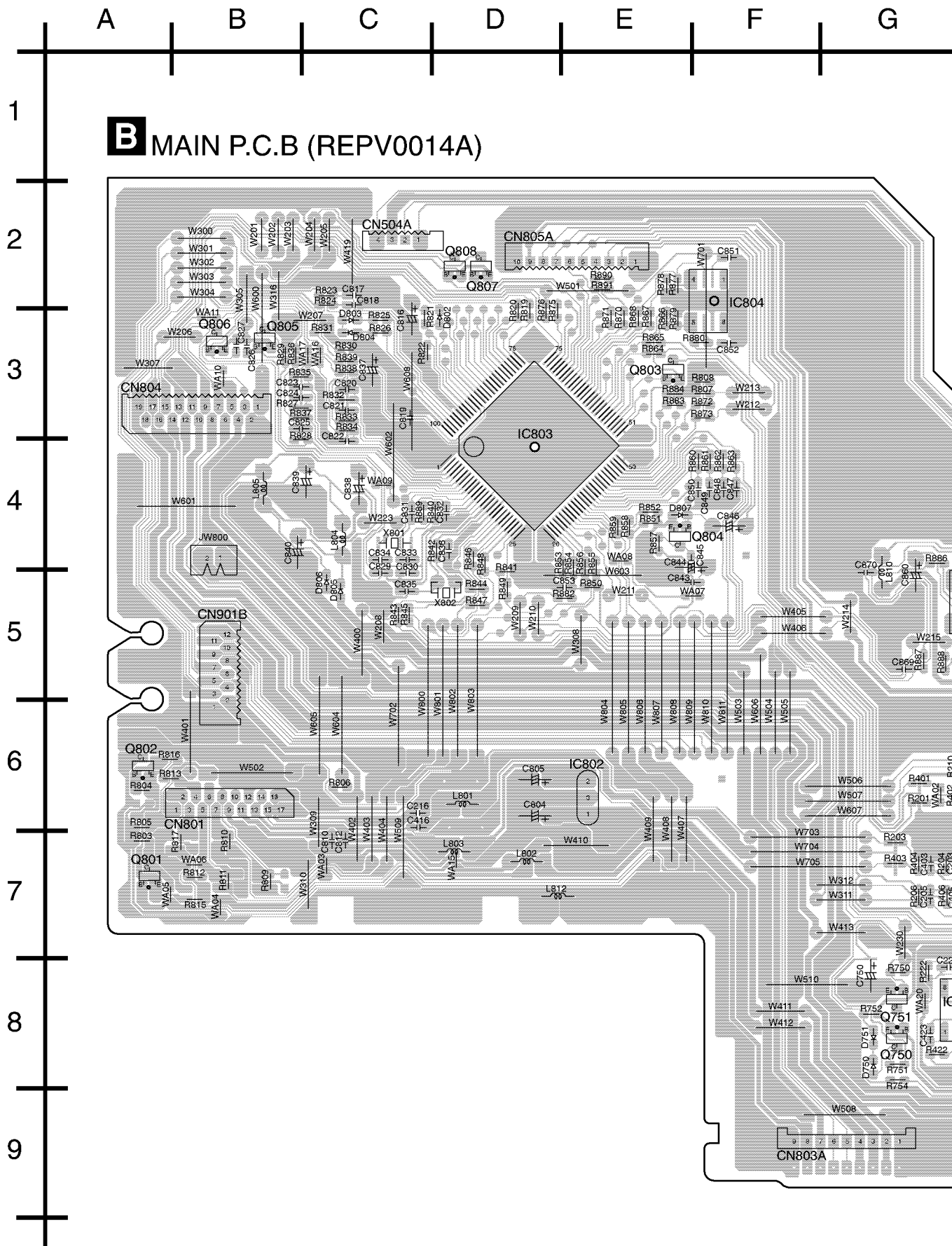
17 Printed Circuit Board

17.1. CD Servo P.C.B. (SIDE A and SIDE B)

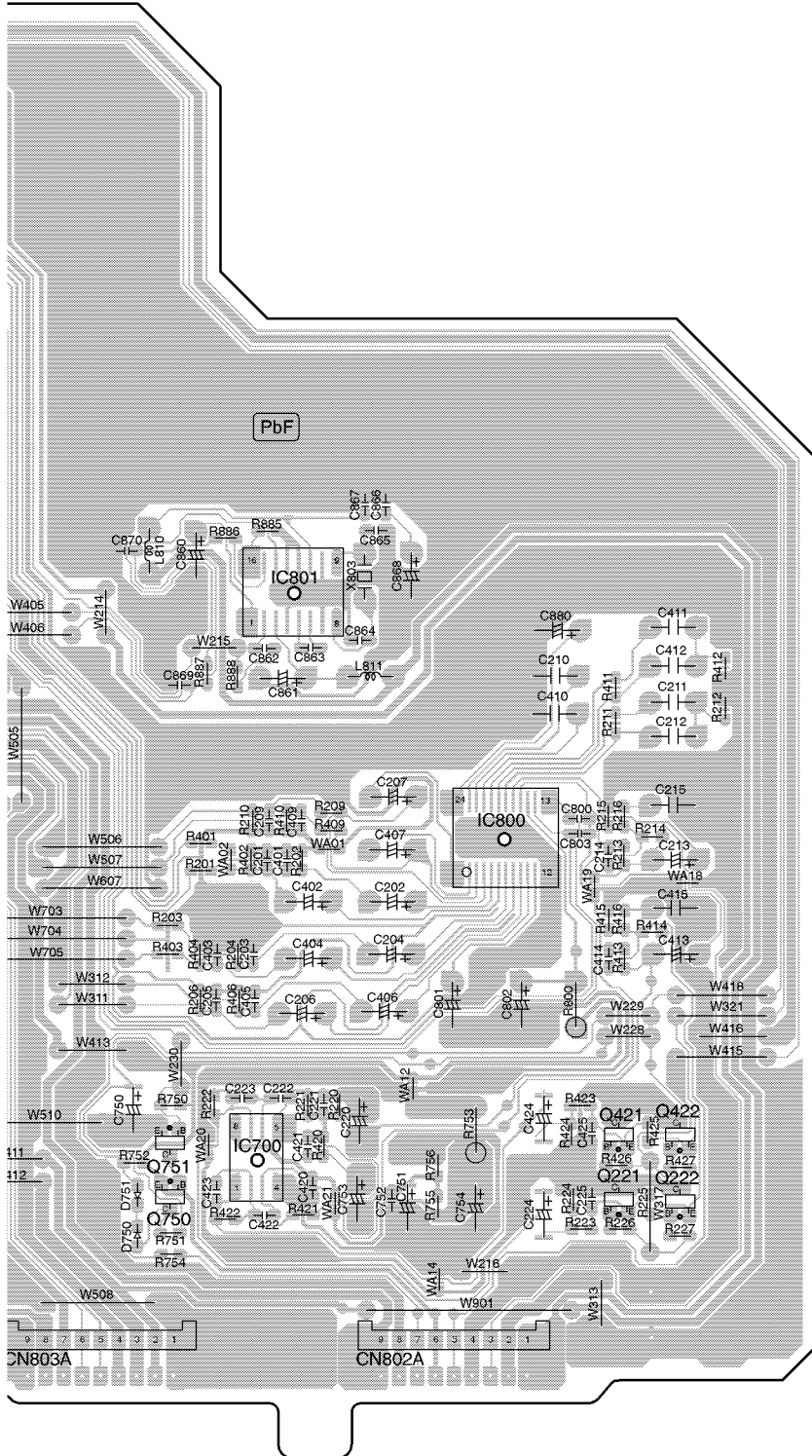




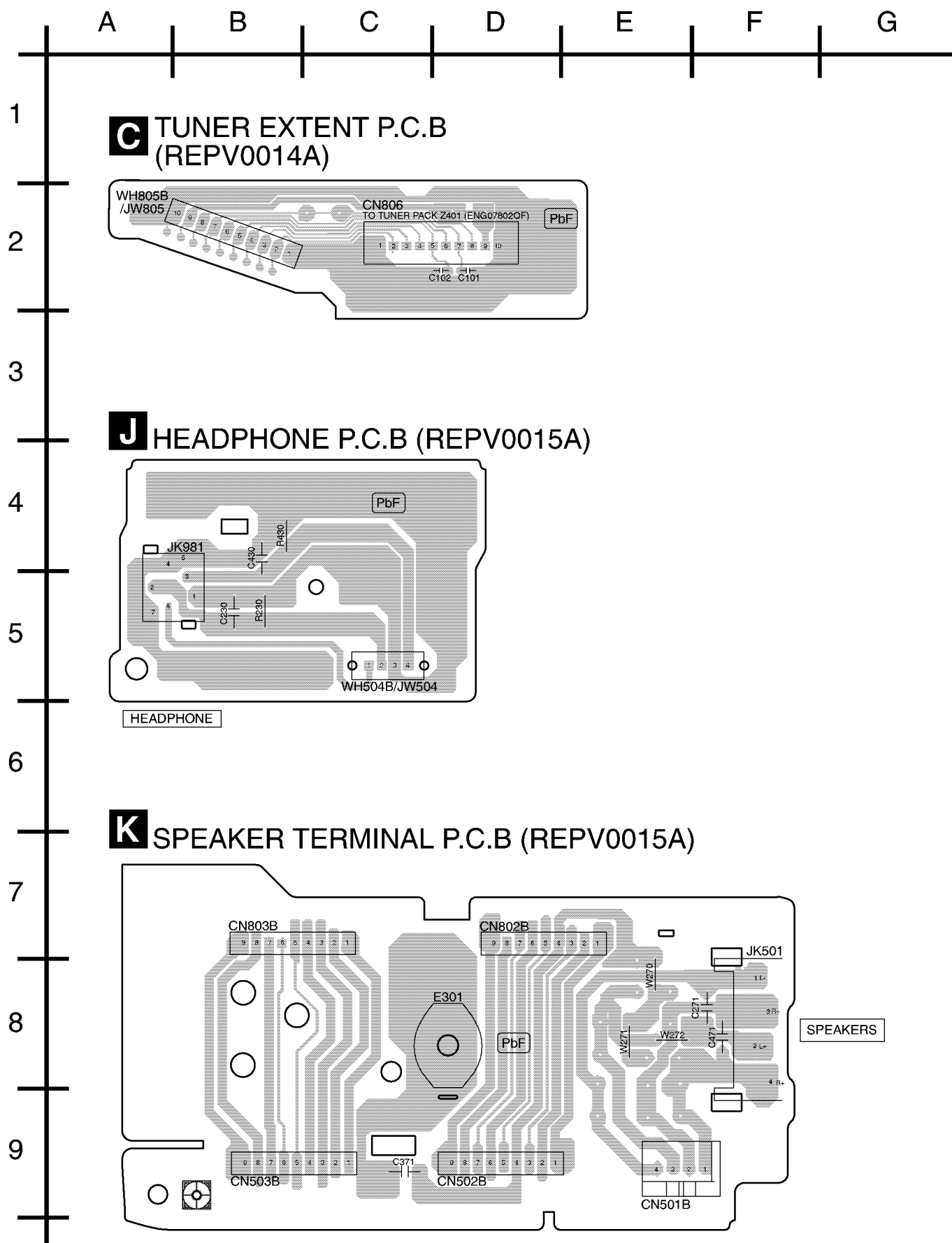
17.2. Main P.C.B.



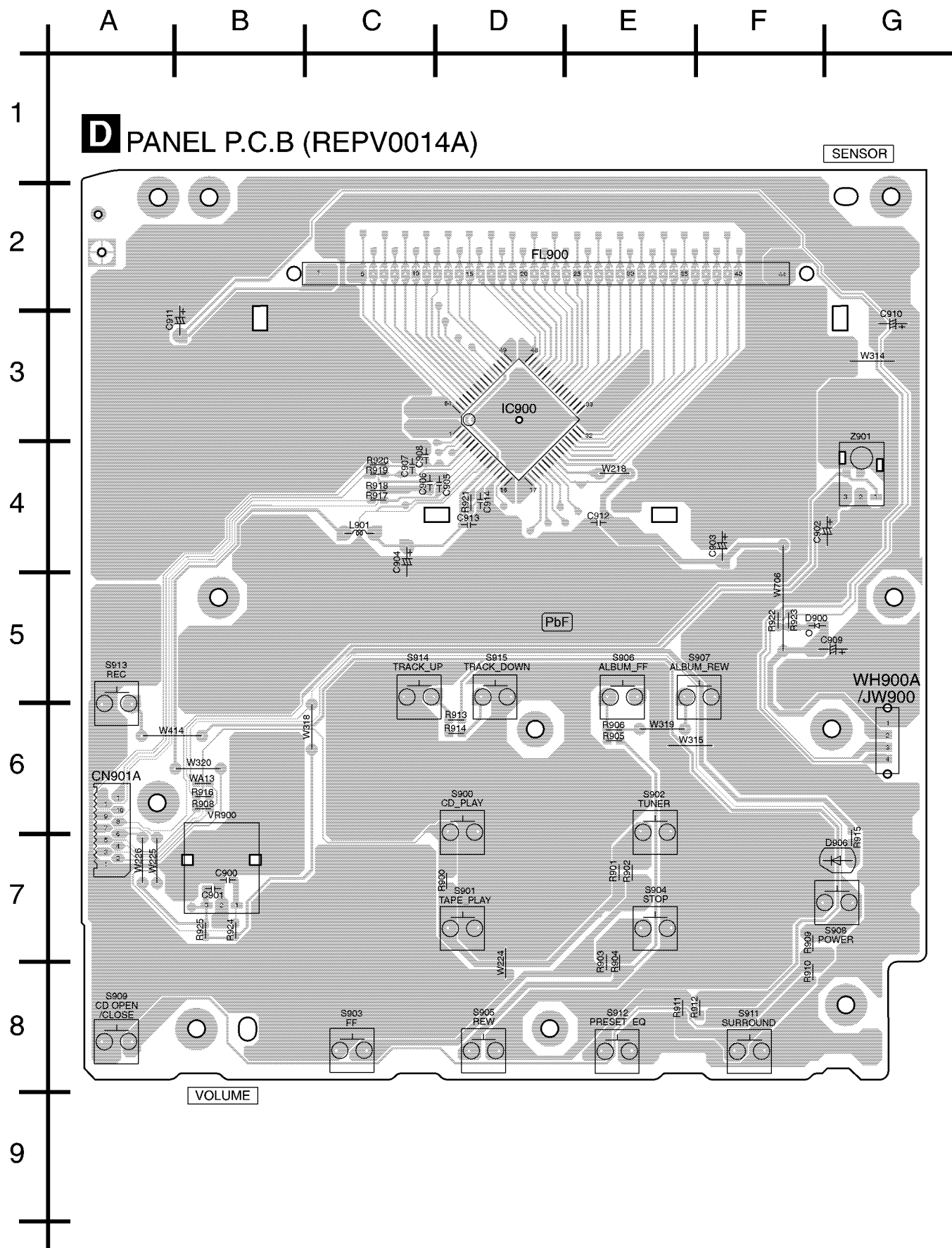
G H I J K L M



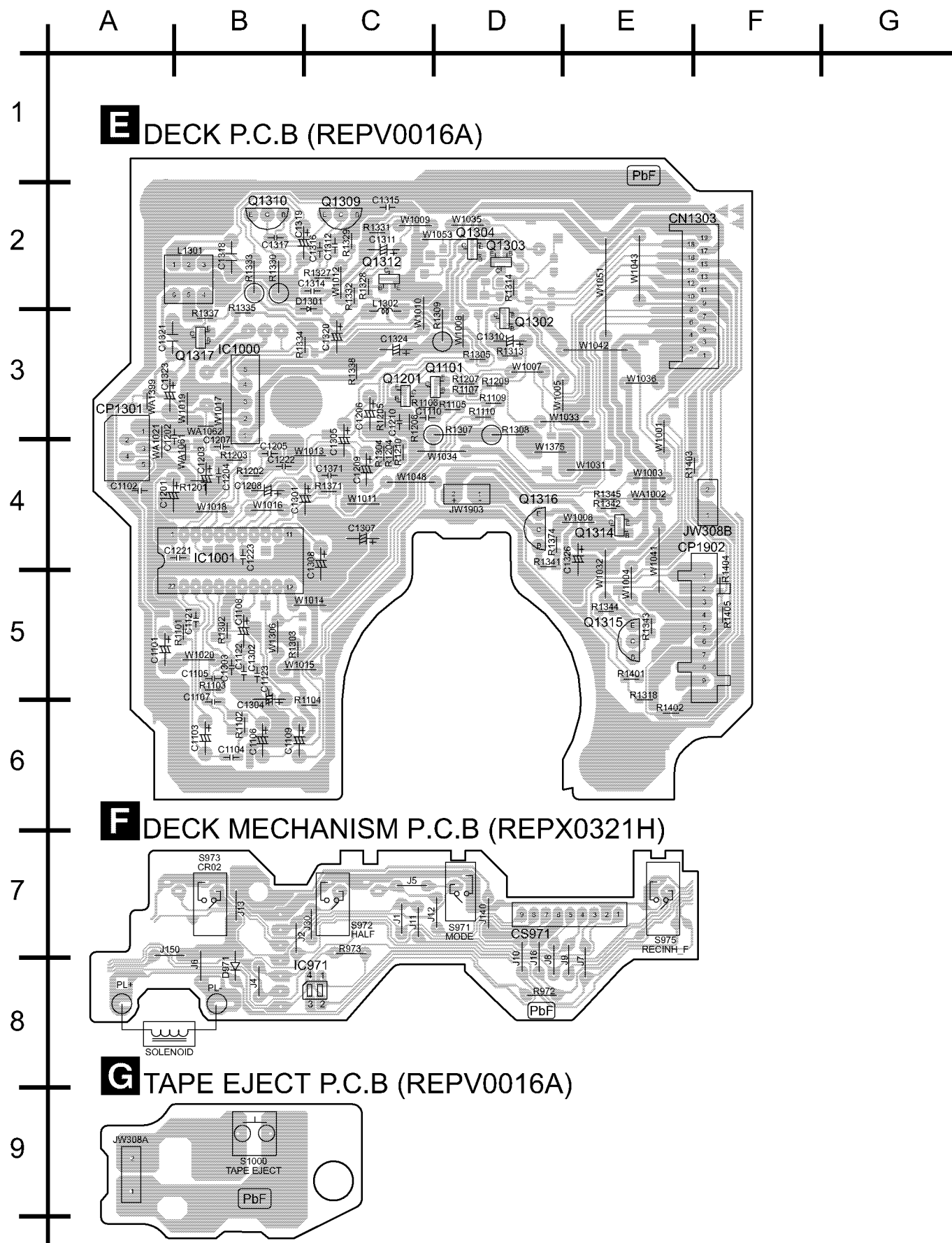
17.3. Tuner Extent, Headphone, Speaker Terminal P.C.B.



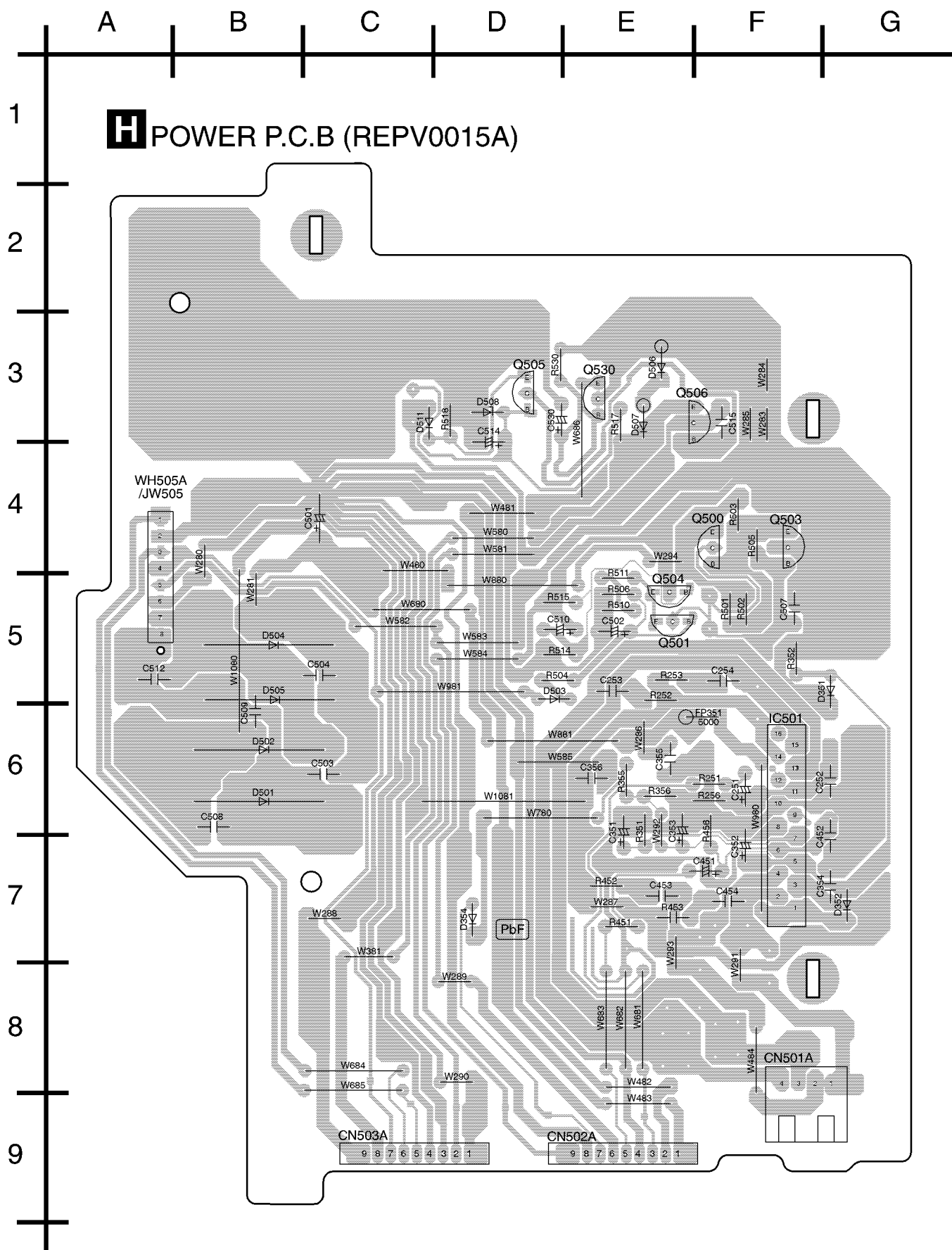
17.4. Panel P.C.B.



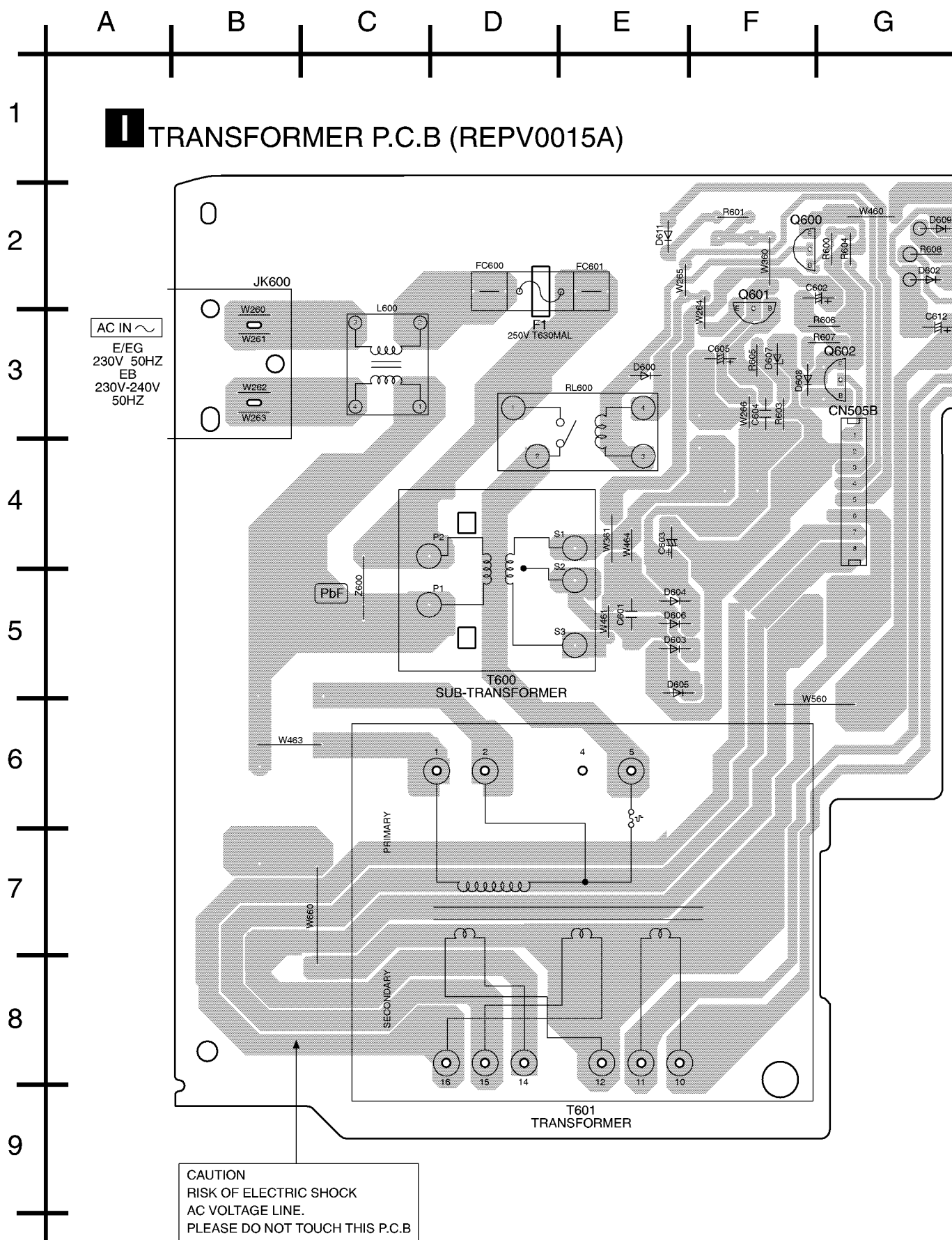
17.5. Deck, Deck Mechanism, Tape Eject P.C.B.



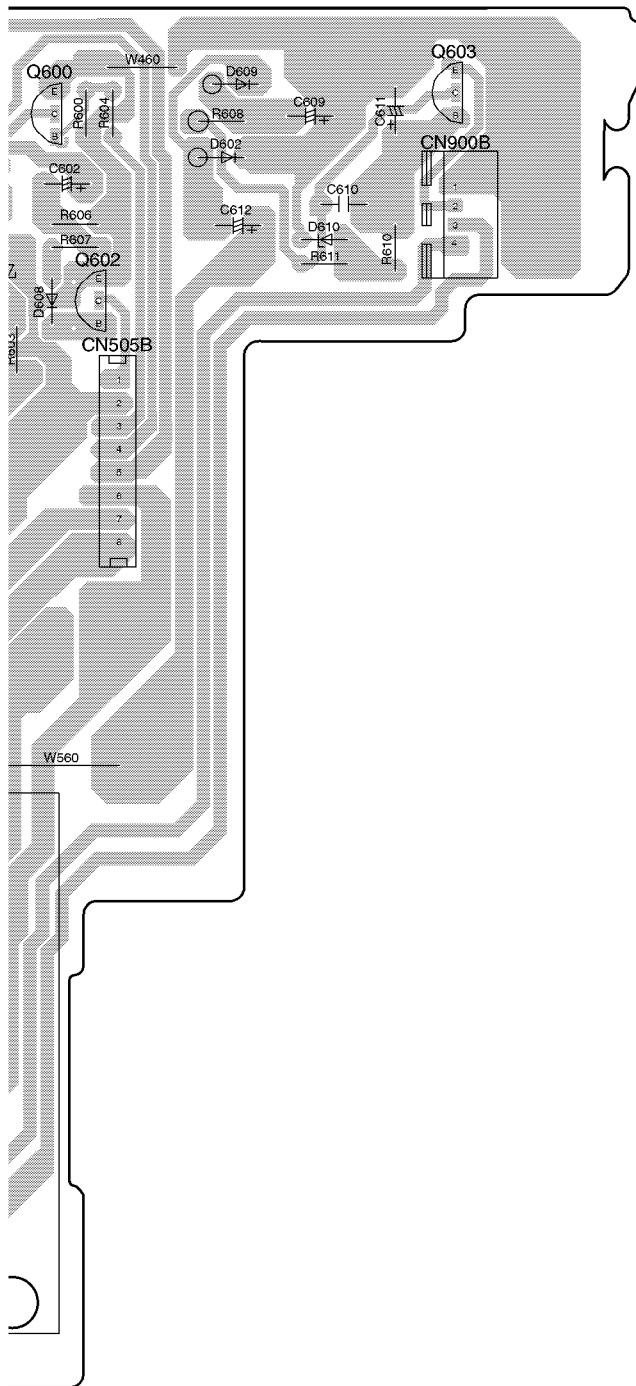
17.6. Power P.C.B.



17.7. Transformer P.C.B.

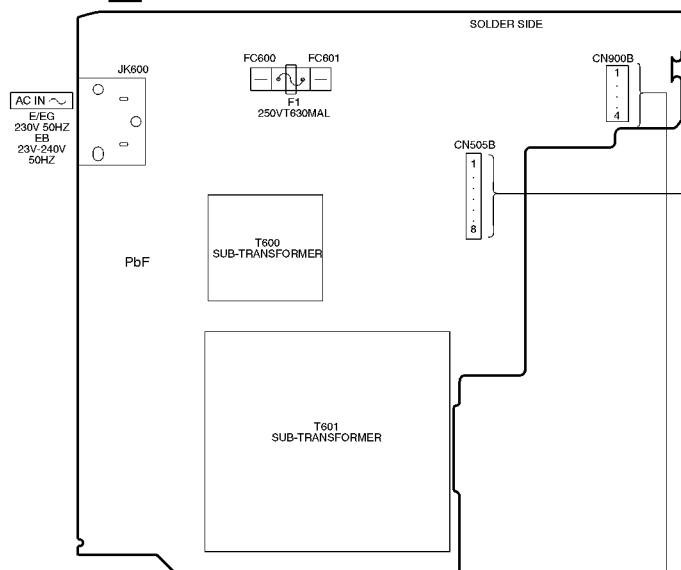


G H I J K L M

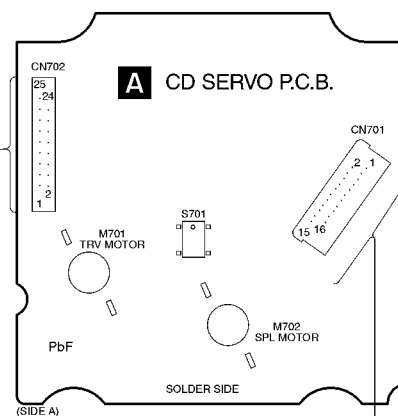


18 Wiring Connection Diagram

I TRANSFORMER P.C.B.

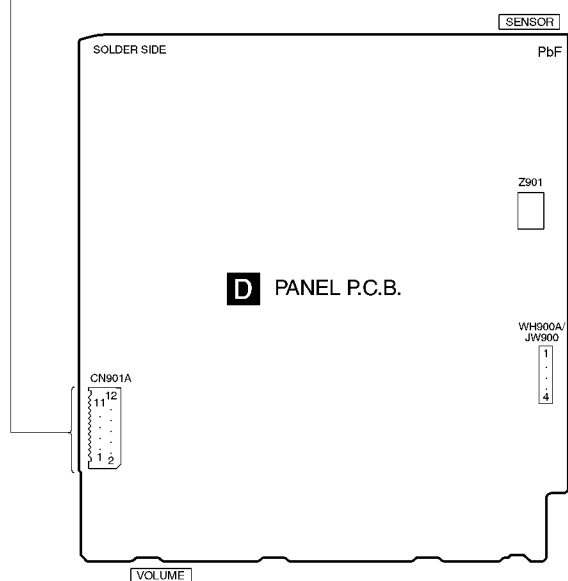


A CD SERVO P.C.B.

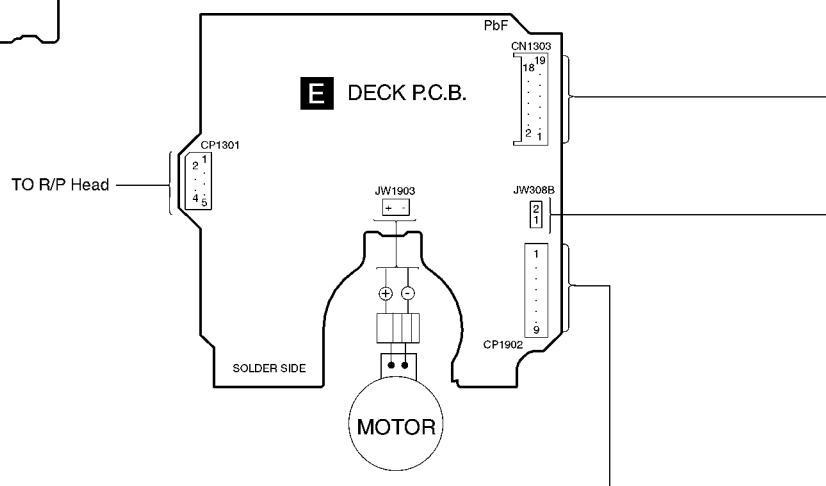


OPTICAL PICKUP

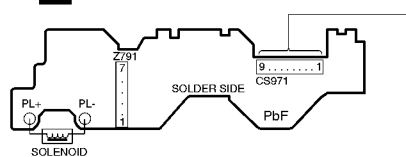
D PANEL P.C.B.

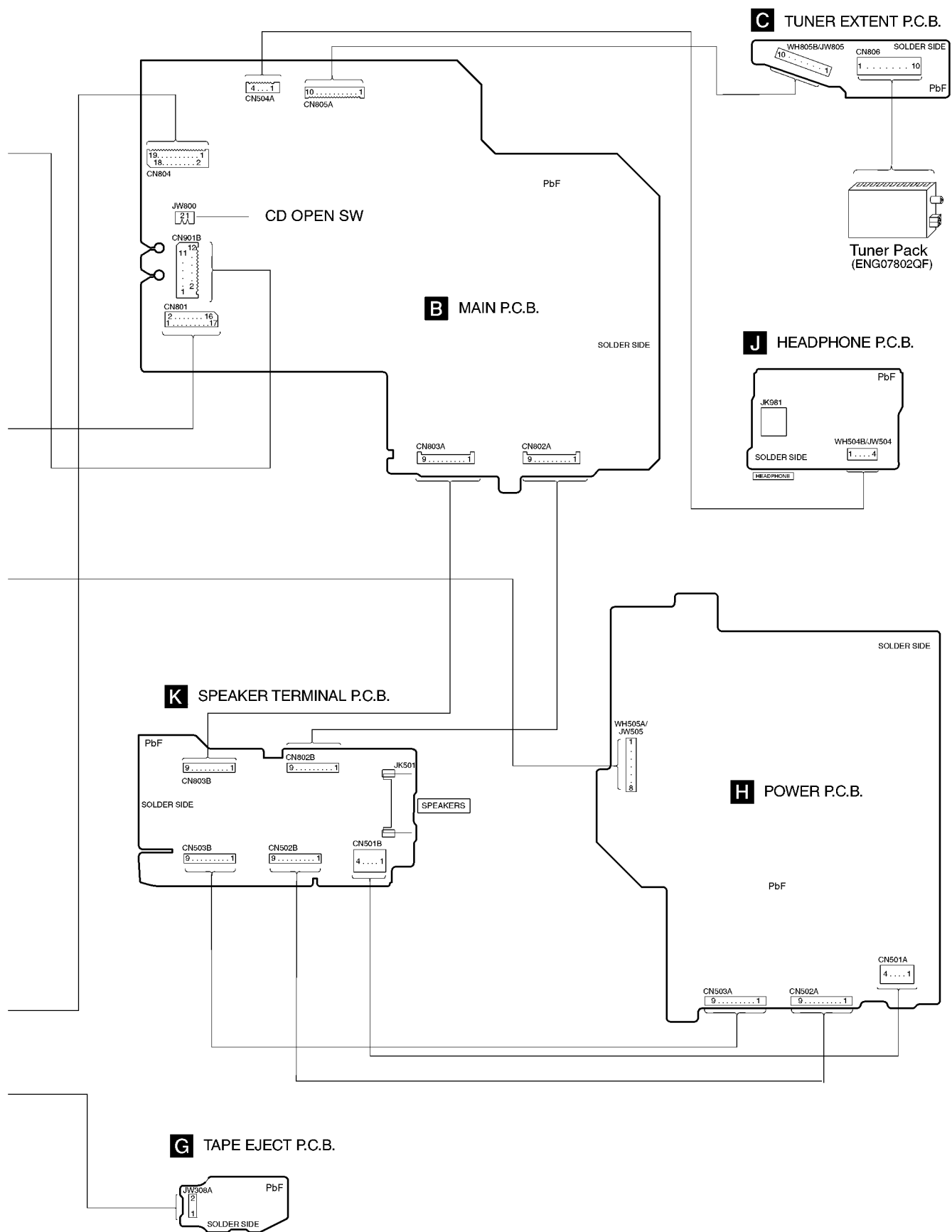


E DECK P.C.B.

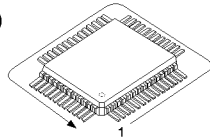
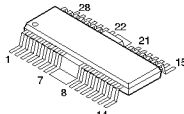
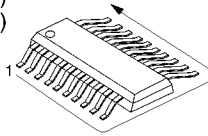
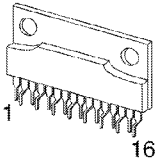
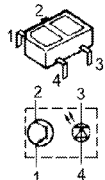
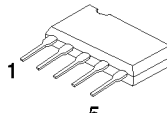
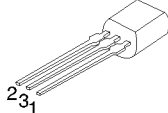
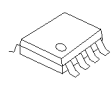
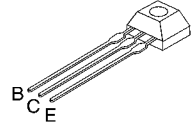
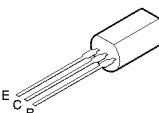
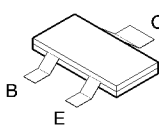
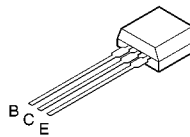
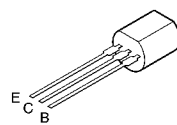
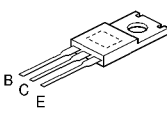
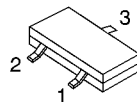
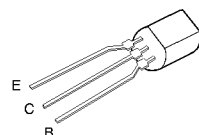
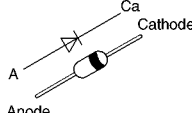
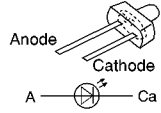
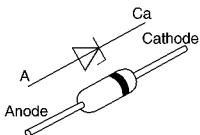
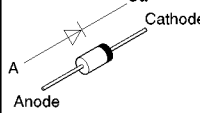
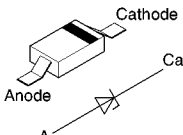
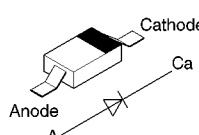
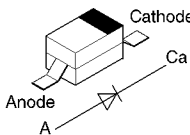
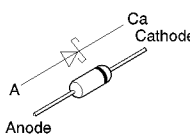


F DECK MECHANISM P.C.B.





19 Illustration of IC's, Transistors and Diodes

MN6627934CH (80P) C0HBB0000039 (64P) MN101C49KFE (100P)		AN7326K BA5948FPE2		C3ABMB000027 (26P) AN22004A-NF (32P) C1BB00000757 (24P) C1BB00000715 (16P)		AN7194K-LD					
CNB13030R2AU		C1AA00000612		S81333HG-Z		C0ABBB000127		KRC102MTA KRA110MTA KTC3199GRTA		2SC3940ARA	
B1ABGC000005 2SA1037AKSTX 2SC2712GRT5T KRC104STA KRA101STA KRC102STA KRC101STA B1GDCFJJ0002	B1GBCFGH0001 B1GDCFGH0002 B1ABCF000011		B1AAGC000006		KTA12710YTA 2SD09650RA		KTA1046				
KRC119STA		2SB0621AHA		B0AACK000004 MA2C16500E		LNJ201LPQJA		B0BA5R000004 B0BA6R800007 B0BA02600017		B0EAMM000038 B0EAKM000117 ID3E	
B0ACCK000005		1SS380TE-17 MAZ80560ML		UDZSTE176R8B		B0JACE000003					

20 Terminal Function of IC's

20.1. IC701 (AN22004A-NF) IC HEAD AMP

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

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

20.2. IC702 (MN6627934CH) IC LSI

Pin No.	Mark	I/O	Function
1	DRVDD	I	DRAM interface power supply
2	D0	I/O	DRAM data input-output 0
3	D1	I/O	DRAM data input-output 1
4	NWE	O	DRAM ROM enable signal
5	NRAS	O	DRAM RAS control signal
6	D2	I/O	DRAM data input-output 2
7	D3	I/O	DRAM data input-output 3
8	NCASO	O	DRAM CAS control 0
9	NCASI	O	DRAM CAS control 1
10	A8	O	DRAM Address 8
11	A7	O	DRAM Address 7
12	A6	O	DRAM Address 6
13	A5	O	DRAM Address 5
14	A4	O	DRAM Address 4
15	A9	O	DRAM Address 9
16	A0	O	DRAM Address 0
17	A1	O	DRAM Address 1
18	A2	O	DRAM Address 2
19	A3	O	DRAM Address 3
20	DVSS2	I	Digital GND
21	DVDD2	I	Digital power supply
22	SPOUT	O	Spindle motor drive output signal (absolute value output)
23	TRVP	O	Traverse drive output (+output)
24	TRVM	O	Traverse drive output (-output)
25	TRP	O	Tracking drive output (+output)
26	TRM	O	Tracking drive output (-output)
27	FOP	O	Focus drive output (+output)
28	FOM	O	Focus drive output (-output)
29	IOVDD1	I	IO power supply
30	TBAL	O	Tracking balance adjustment output
31	FBAL	O	Focus balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input (analog input)
35	OFT	I	Off track signal input (H: off track)

Pin No.	Mark	I/O	Function
36	NRFDET	I	RF detectable signal input (L: detection)
37	BDO	I	Drop out signal input (H: drop out)
38	LDON	O	Laser ON signal input (H: ON)
39	ARF	I	RF signal input
40	IREF	I	Resistance terminal for current electricity setting
41	ADPVCC	I	Analog power supply voltage monitor input
42	DSL	O	DSL loop filter terminal
43	RFSW	I	DSL loop filter terminal
44	PLL	O	PLL loop filter terminal (phase comparison)
45	PLLFO	O	PLL loop filter terminal (speed comparison)
46	AVDD2	I	"Analog power supply (DSL, PLL, AD)
47	AVSS2	I	"Analog ground (DSL, PLL, AD)
48	OUTL	O	L ch audio output
49	AVSS1	I	Analog ground (audio output)
50	OUTR	O	R ch audio output
51	AVDD1	I	Analog power supply (audio output)
52	DVSS3	I	Digital GND
53	DVDD3	I	Digital power supply
54	IOVDD2	I	IO power supply
55	FLAG	O	Flag output
56	EXT2	I/O	Extension input-output port 2
57	EXT0	I/O	Extension input-output port 0
58	EXT1	I/O	Extension input-output port 1
59	REGON	I	"In-housed regulator control (H: ON, L: OFF)
60	TX	O	Digital audio interface output
61	MCLK	I	Micon command clock input
62	MDATA	I	Micon command data input
63	MLD	I	Micon command load input (L: Load)
64	BLKCK	O	Sub code block clock (f-75Hz: normal play)
65	PWMSEL	I	"PWM output mode switch input (L: direct, H: 3)

Pin No.	Mark	I/O	Function
66	SMCK	O	4.2336MHz/8.4672MHz clock output
67	SBCK	I/O	Sub code serial output clock input
68	STAT	O	Status output
69	NRST	I	Reset input (L: reset)
70	SPPOL	O	Spindle motor drive output signal (polarity output)
71	PMCK	O	88.2kHz clock output
72	DQSY	O	CD TEXT data back output

Pin No.	Mark	I/O	Function
73	TXTD	O	CD TEXT data output
74	TXTCCK	I/O	CD TEXT register outer clock input
75	NTEST	I	Test input (H: normal)
76	X2	O	Oscillator output
77	X1	I	Oscillator input
78	DVSS1	I	Digital GND
79	DVDD1	I	Digital power supply
80	MON	O	Monitor terminal

20.3. IC703 (BA5948FPE2) IC 4CH DRIVE

Pin No.	Mark	I/O	Function
1	IN2	I	Motor Driver 92 Input
2	PC2	I	Turntable Motor Drive Signal ("L":ON)
3	IN1	I	Motor Driver (1) Input
4	PC1	-	Traverse Motor Drive Signal ("L":ON)
5	N.C.	-	No Connection
6	N.C.	-	No Connection
7	N.C.	-	No Connection
8	N.C.	-	No Connection
9	PGND1	-	Ground Connection (1) for Driver
10	PVCC1	I	Power Supply (1) for Driver
11	D1-	O	Motor Driver (1) reverse - action output
12	D1+	O	Motor Driver (1) forward - action output
13	D2-	O	Motor Driver (2) reverse - action output

Pin No.	Mark	I/O	Function
14	D2+	O	Motor Driver (1) forward - action output
15	D3-	O	Motor Driver (3) reverse - action output
16	D3+	O	Motor Driver (3) forward - action output
17	D4-	O	Motor Driver (4) reverse - action output
18	D4+	O	Motor Driver (4) forward - action output
19	PVCC2	I	Power Supply (2) for Driver
20	PGND2	-	Ground Connection (2) for Driver
21	N.C.	NC	No Connection
22	N.C.	NC	No Connection
23	N.C.	NC	No Connection
24	N.C.	NC	No Connection
25	VCC	I	Power Supply Terminal
26	VREF	I	Reference Voltage Input
27	IN4	I	Motor Driver (4) Input
28	IN3	I	Motor Driver (3) Input

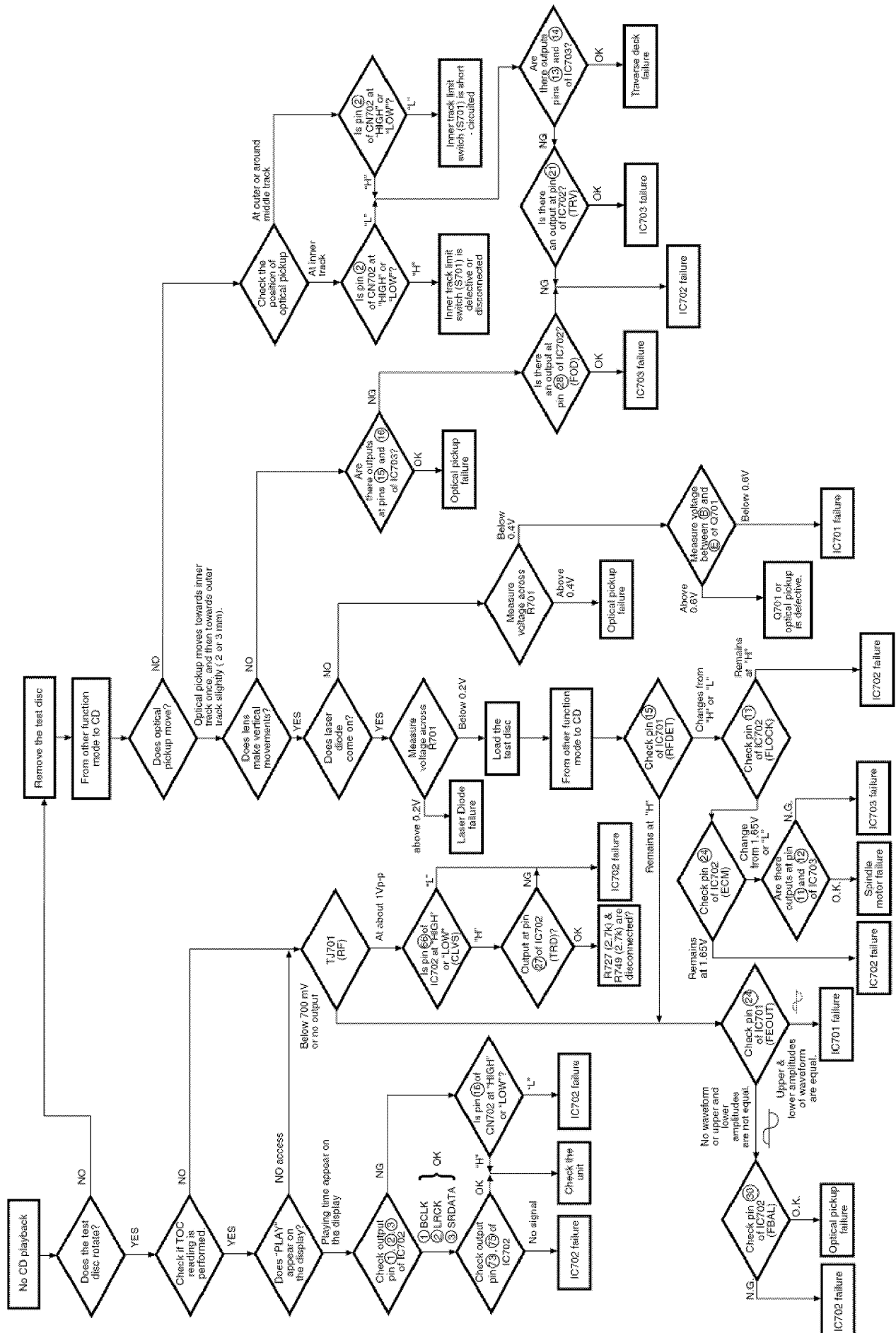
20.4. IC803 (MN101C49KFE) MICRO PROCESSOR

Pin No.	Mark	I/O	Function
1	VREF	-	A/D Converter Reference GND
2	KEY 1	I	Key 1 Input
3	KEY 2	I	Key 2 Input
4	MK_IN1	I	Mech Condition Input1 (Mode and TPS)
5	MK_IN2	I	Mech Condition Input2 (Mode and TPS)
6	DCDET	I	Power Detect
7	DES	I	Destination Setting
8	N.C.	-	N.C.
9	N.C.	-	N.C.
10	VREF +	-	A/D Converter Reference Volt
11	VDD	-	Power Input Pin
12	OSC 2	O	Main Oscillator Output
13	OSC 1	I	Main Oscillator Input
14	VSS	-	GND
15	XI	I	Suboscillator Input
16	XO	O	Suboscillator Output
17	GND	I	Memory Mode Selection
18	N.C.	I/O	GND
19	RDS_DATA	I/O	RDS IC CTRL
20	RDS_CLK	I/O	RDS CLK In
21	CD_MDATA	I/O	CD LSI Command Data
22	CD_STAT	I	CD Status Input
23	CD_MCLK	I/O	CD LSI Command Clock
24	N.C.	I/O	GND
25	PCONT	I/O	Power Control Output (PWR SPLY, Active High)
26	RM IN	I	Remocon Input
27	HALT	I	AC Failure Detect Signal

Pin No.	Mark	I/O	Function
28	CD_OPS	I	CD Open (H: Open, L: Close)
29	RESTSW	I	CD Transverse Limit SW
30	BLKCK	I	CD Subcode Block Clock Input
31	N.C.	I/O	GND
32	N.C.	I/O	GND
33	MICOM/RST	I	Micom Reset (L: Reset)
34	N.C.	I/O	GND
35	CD RESET	I/O	CD Reset Output
36	CD_MLD	I/O	CD LSI Command Load
37	N.C.	I/O	GND
38	N.C.	I/O	GND
39	N.C.	I/O	GND
40	FL_RST	I/O	FL Reset Output
41	FL_CS	I/O	FL CS Output
42	FL_DATA	I/O	FL Data Output
43	N.C.	I/O	GND
44	FL_CLK	I/O	FL Clock Output
45	TU_SDA	I/O	IIC Data Line For Tuner
46	N.C.	I/O	GND
47	TU_CL	I/O	IIC Clock Signal For Tuner
48	N.C.	I/O	GND
49	N.C.	I/O	GND
50	DEMO/SETTING	I/O	Demo Mode Setting (H: OFF, L: ON)
51	N.C.	I/O	GND
52	HP_SW	I/O	Headphone Detect SW Input
53	MUTE A	I/O	Audio Mute O/P (L: Mute On)
54	N.C.	I/O	GND
55	N.C.	I/O	GND
56	ASP_CLK	I/O	ASP CLK O/P
57	ASP_DAT	I/O	ASP Data O/P

Pin No.	Mark	I/O	Function
58	N.C.	I/O	GND
59	N.C.	I/O	GND
60	N.C.	I/O	GND
61	EDATA	I/O	Eeprom Data In/Out
62	ECLK	I/O	Eeprom Clock Output
63	ECS	I/O	Eeprom CS Output
64	N.C.	I/O	GND
65	TU_TUNED	I/O	Tuner Tuned Signal
66	TU_ST	I/O	Tuner Stereo Signal
67	N.C.	I/O	GND
68	N.C.	I/O	GND
69	N.C.	I/O	GND
70	MOTOR_H	I/O	Deck Motor Control Out (H: ON)
71	PL_H	I/O	Deck Plunger Control Out (H: On)
72	N.C.	I/O	GND
73	N.C.	I/O	GND
74	TAPE_EJ	I/O	Tape Eject SW I/P (L: SW On)
75	PHOTO_1	I/O	Deck Photo SW Input
76	RECH	I/O	Deck Rec Control Output (Active High)
77	BP	I/O	AM Rec Beatproof Freq Change
78	DMT	I/O	Deck Mute Output (L: Mute On)
79	N.C.	I/O	GND
80	N.C.	I/O	GND
81	N.C.	I/O	GND
82	N.C.	I/O	GND
83	N.C.	I/O	GND
84	N.C.	I/O	GND
85	N.C.	I/O	GND
86	N.C.	I/O	GND
87	N.C.	I/O	GND
88	N.C.	I/O	GND
89	N.C.	I/O	GND
90	MBP1	I/O	Micro-P Beat Proof Control OP 1
91	MBP2	I/O	Micro-P Beat Proof Control OP 2
92	CRTIMER	I/O	CR Timer
93	N.C.	I/O	GND
94	S/W RST	I/O	Test Mode On/Off (H: On)
95	VREF -	-	D/A Converter Reference GND
96	JOG 1	I	Jog Input 1
97	JOG 2	I	Jog Input 2
98	CLOSE_L	I/O	Cd Tray Close Control (Active L)
99	OPEN_H	I/O	CD Tray Open Control (Active H)
100	VREF +	-	D/A Converter Reference Voltage

21 Troubleshooting Guide



22 Parts Location and Replacement Parts List

Notes:

- Important safety notice:

Components identified by \triangle mark have special characteristics important for safety.

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

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

- The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour)

Parts without these indications can be used for all areas.

- Warning: This product uses a laser diode. Refer to Precaution of Laser Diode.

ACTUNG:

– Die Lasereinheit nicht zerlegen.

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

- Capacitor values are in microfarads (μ F) unless specified otherwise, P= Pico-farads (pF), F= Farads.

- Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).

- The marking (RTL) indicates that the Retention Time is limited for this items. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of a availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

- [M] Indicates in the Remarks columns indicates parts supplied by **PAVCSG**.

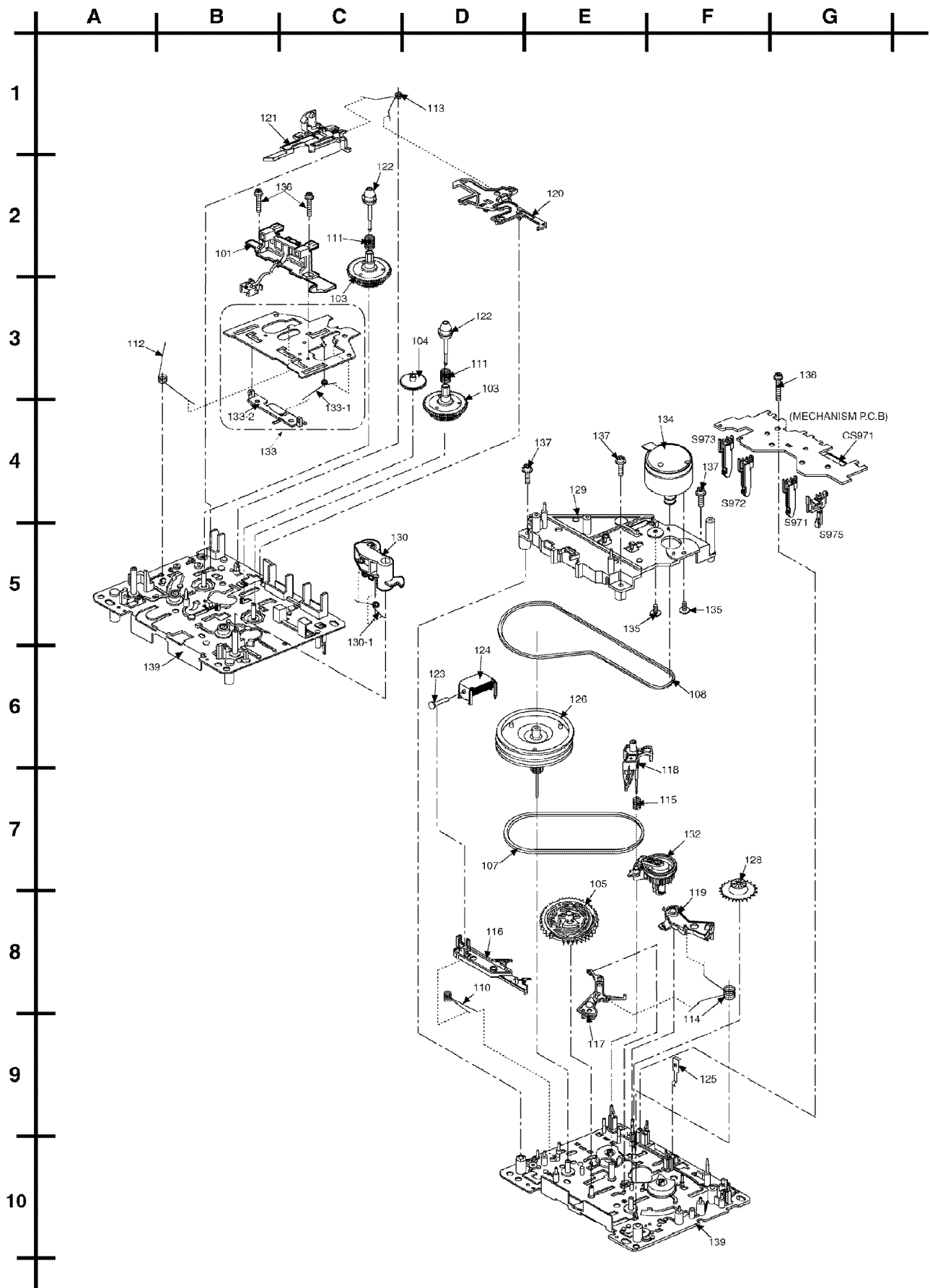
- The "(SF)" mark denotes the standard part.

- Reference for O/I book languages are as follows:

Ar:	Arabic	Du:	Dutch	It:	Italian	Sp:	Spanish
Cf:	Canadian French	En:	English	Ko:	Korean	Sw:	Swedish
Cz:	Czech	Fr:	French	Po:	Polish	Co:	Traditional Chinese
Da:	Danish	Ge:	German	Ru:	Russian	Cn:	Simplified Chinese
Pe:	Persian						

22.1. Deck Mechanism

22.1.1. Deck Mechanism Parts Location (RAA4402-S)

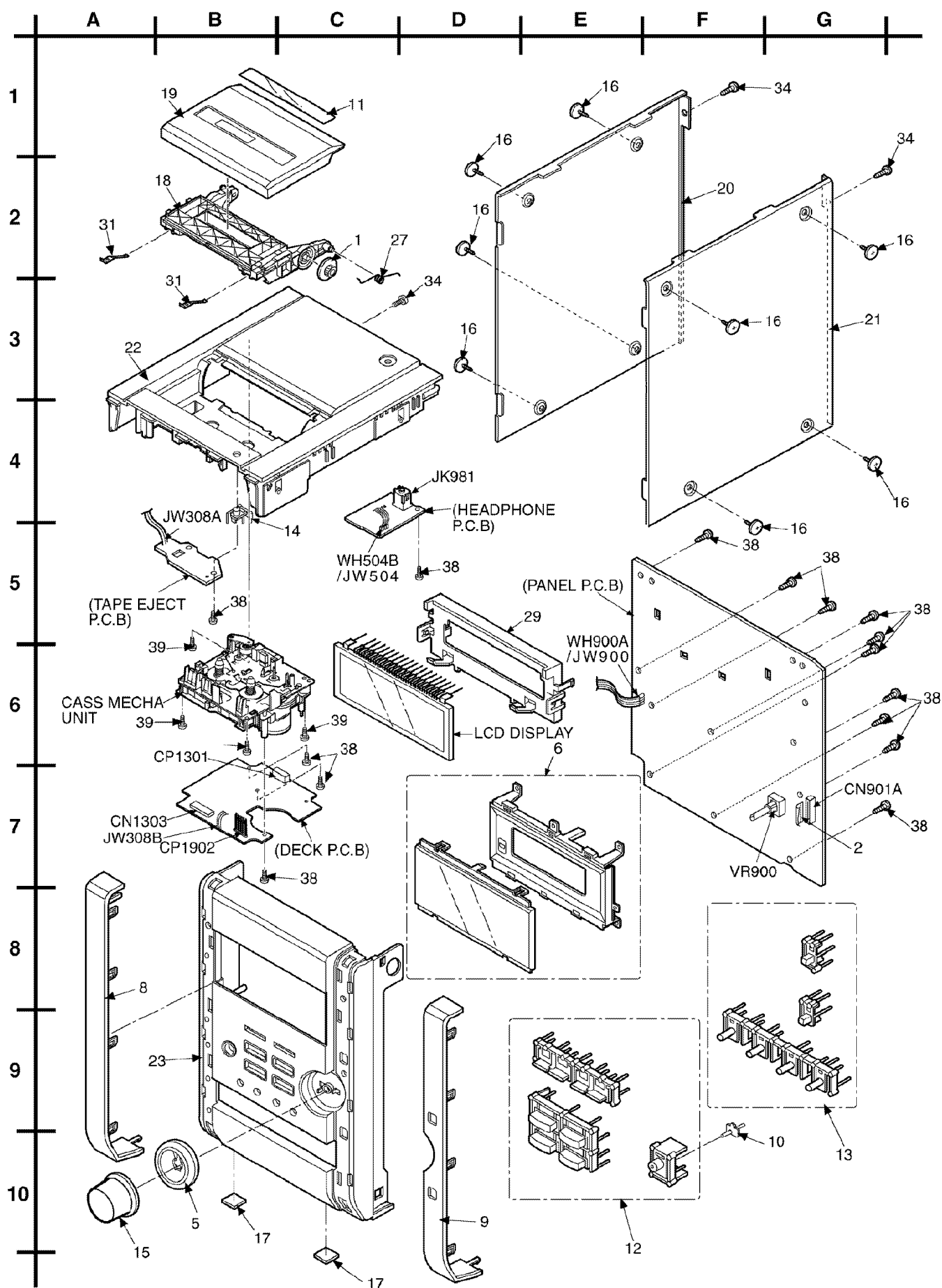


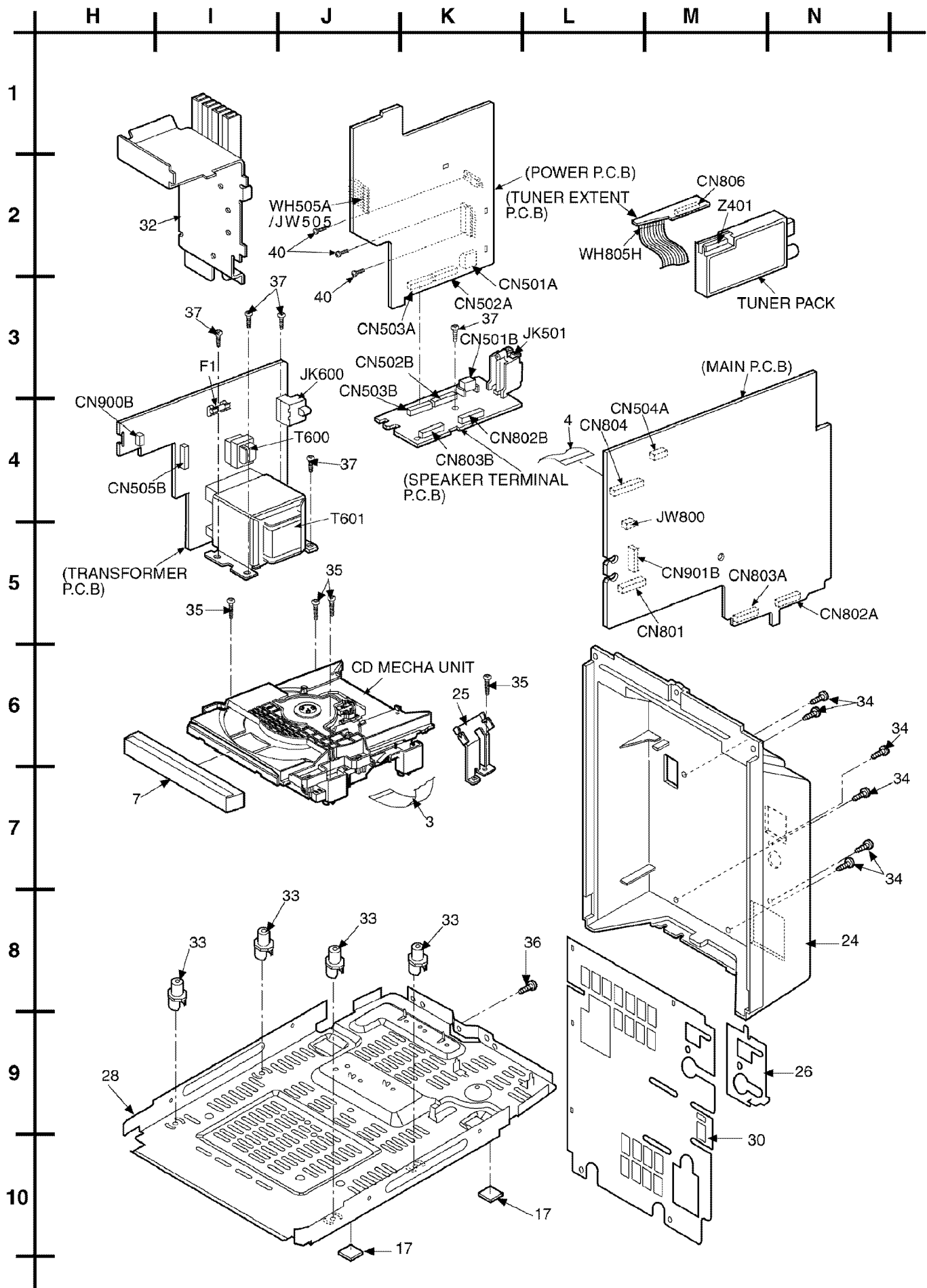
22.1.2. Deck Mechanism Parts List

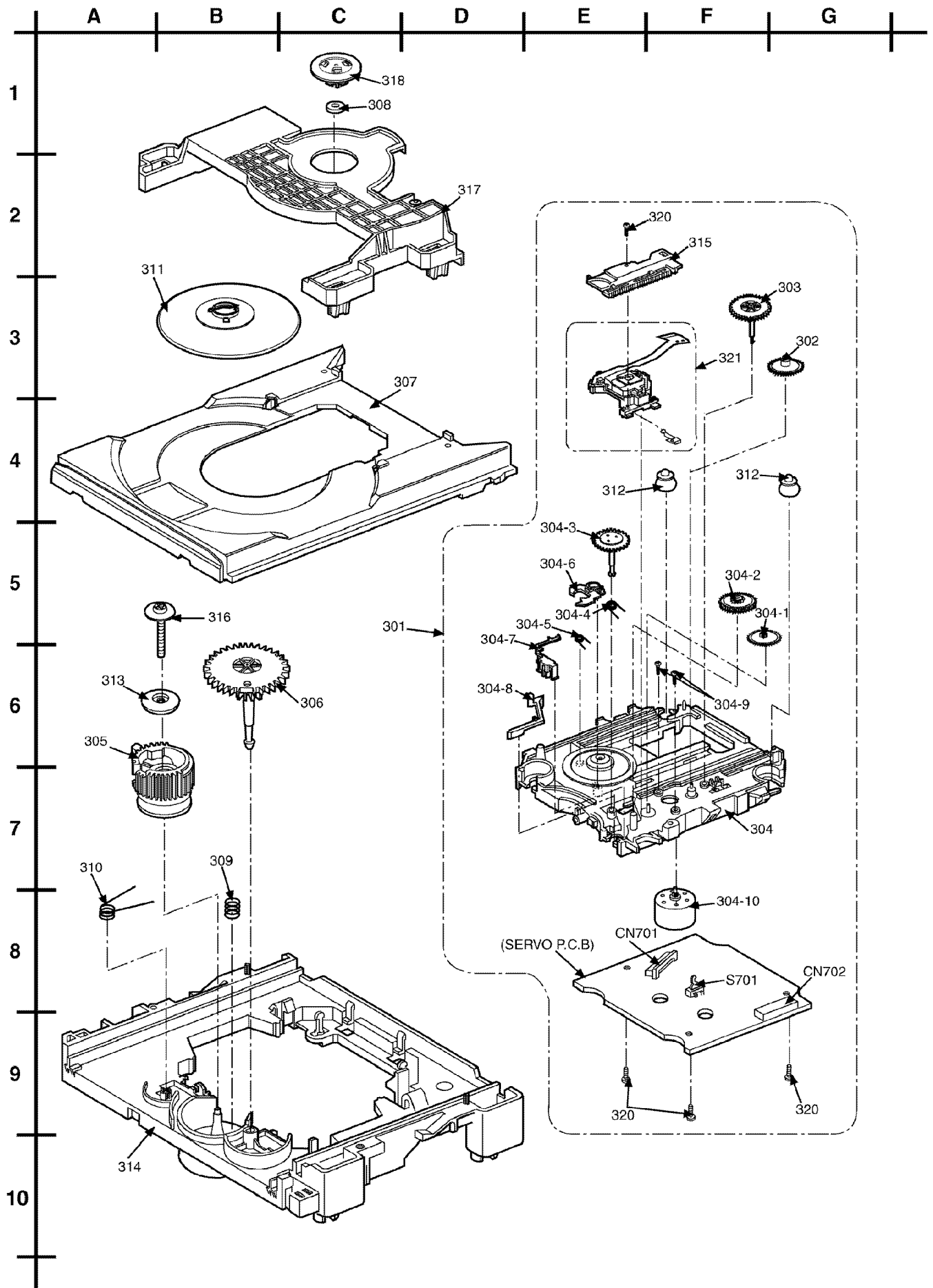
Ref. No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RED0067	R/P HEAD BLOCK UNIT	[M]
103	RDG0300	REEL BASE GEAR	[M]
104	RDG0301	WINDING RELAY GEAR	[M]
105	RDK0026	MAIN GEAR	[M]
107	RDV0033-4	WINDING BELT	[M]
108	RDV0064	CAPSTAN BELT	[M]
110	RMB0312	TRIGGER LEVER SPRING	[M]
111	RMB0400	REEL SPRING	[M]
112	RMB0403	HEAD PANEL SPRING	[M]
113	RMB0404	BRAKE ROD SPRING	[M]
114	RMB0406	FR LEVER SPRING	[M]
115	RMB0408	THRUST SPRING	[M]
116	RML0370	TRIGGER LEVER	[M]
117	RML0371	FR LEVER	[M]
118	RML0372	WINDING LEVER	[M]
119	RML0374	EJECT LEVER	[M]
120	RMM0131	BRAKE ROD	[M]
121	RMM0133	EJECT ROD	[M]
122	RMQ0519	REEL HUB	[M]
123	RMS0398-1	MOVING CORE	[M]
124	RXQ0470	PLUNGER	[M]
125	RMC0061	PACK SPRING	[M]
126	RXF0061	FLYWHEEL F ASSY	[M]
128	RXG0040	FF RELAY GEAR ASSY	[M]
129	RMK0283A-J	SUB-CHASSIS	[M]
130	RXL0124	PINCH ROLLER F ASSY	[M]
130-1	RMB0401	PINCH ARM SPRING F	[M]
132	RXL0126	WINDING ARM ASSY	[M]
133	RXQ0412	HEAD PANEL ASSY	[M]
133-1	RMB0405	FR ROD SPRING	[M]
133-2	RMM0132	FR ROD	[M]
134	REM0098	CAP MOTOR ASSY	[M]
135	RHD26022	MOTOR SCREW	[M]
136	XTW2+5L	HEAD BLOCK UNIT SCRE	[M]
137	XTW26+10S	SUB-CHASSIS SCREW	[M]
138	XYC2+JF17	PCB EARTH SCREW	[M]
139	RFKJSTR280PP	CHASSIS ASS'Y	[M]

22.2. Cabinet & CD Loading Mechanism

22.2.1. Cabinet & CD Loading Mechanism Parts Location







22.2.2. Cabinet & CD Loading Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RDG0357	DAMPER GEAR	[M]
2	REEV0033	12P FFC (PANEL/MAIN)	[M]
3	REEV0034	17P FFC (MAIN/CR120)	[M]
4	REEV0035	19P (DECK/MAIN)	[M]
5	RGK1645-W	VOLUME RING	[M]
6	RFKNAPM9EB-S	FL WINDOW ASS'Y	[M]
7	RGKV0041-S	CD LID	[M]
8	RGKV0044-S	SIDE ORNAMENT L	[M]
9	RGKV0045-S	SIDE ORNAMENT R	[M]
10	RGLV0010-Q	AC LIGHTING TIP	[M]
11	RGPV0008-S	CASS ORNAMENT (WIND)	[M]
12	RGUV0053-S	FAMILY BUTTON A	[M]
13	RGUV0057-S	FAMILY BUTTON B	[M]
14	RGUV0058-S	CASS EJECT BUTTON	[M]
15	RGWV0004-S	VOLUME KNOB	[M]
16	RHD30007-1SJ	SCREW	[M]
17	RHGV0008	LEG CUSHION	[M]
18	RKF0479-1H1	CASS HOLDER	[M]
19	RKFV0001-S	CASS LID	[M]
20	RKM0445-1S	SIDE PANEL (L)	[M]
21	RKM0446-1S	SIDE PANEL (R)	[M]
22	RKMV0003A-S	TOP CABINET	[M]
23	RKMV0012-S	FRONT CABINET	[M]
24	RKSV0002J-H	REAR CABINET	[M] EG E
24	RKSV0002L-H	REAR CABINET	[M] EB
25	RMAV0001	MAIN PCB SUPPORT	[M]
26	RMAV0004	METAL PCB SUPPORT	[M]
27	RMB0617	CASS OPEN SPRING	[M]
28	RMK0498-2	BTM CHASSIS	[M]
29	RMNV0017	FL HOLDER	[M]
30	RSCV0022	REAR SHIELD	[M]
31	RUS757ZAA	CASS HALF SPRING	[M]
32	RXXV0003	HEAT SINK UNIT	[M]
33	SHE187-4J	POWER PCB SUPPORT	[M]
34	XTB3+10JFZ	SCREW	[M]
35	XTB3+20JFZ	SCREW	[M]
36	XTB3+8JFR1	SCREW	[M]
37	XTB3+8JFZ	SCREW	[M]
38	XTB3+10J	SCREW	[M]
39	XTV3+10G	SCREW	[M]
40	XTV3+8F	SCREW	[M]
		TRAVERSE DECK	
301	RAE0157Z-V	CT120MP TRAVERSE	[M]
302	RDG0455	TRAVERSE GEAR (A)	[M]
303	RDG0456	TRAVERSE GEAR (B)	[M]
304	RFKNCT100	TRAVERSE BASE ASS'Y	[M]
304-1	RDG0457	LOAD GEAR (A)	[M]
304-10	RXQ0632	TRAVERSE MOTOR UNIT	[M]
304-2	RDG0458	LOAD GEAR (B)	[M]
304-3	RDG0459	LOAD GEAR (C)	[M]
304-4	RME0369	PRESS SPRING	[M]
304-5	RME0291	LOCK SPRING	[M]
304-6	RML0551	TRG LEVER	[M]
304-7	RML0552	LOCK LEVER	[M]
304-8	RMM0219	STOPPER	[M]
304-9	XQN17+C28F	SCREW	[M]
305	RDG0460	CAM GEAR	[M]
306	RDG0461	DRIVE GEAR	[M]
307	RGQ0254-K	TRAY	[M]
308	RHM0001	MAGNET	[M]
309	RMB0603	FLOATING SPRING	[M]
310	RME0288	CENTERING SPRING	[M]
311	RFKNXED50-S	CLAMPER HOLDER ASS'Y	[M]
312	RMG0510-K	FLOATING RUBBER (A)	[M]
313	RMG0511-K	FLOATING RUBBER (B)	[M]
314	RMK0422	MECHA CHASSIS	[M]
315	RMM0218	TRAVERSE DRIVE RACK	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
316	RHD30083	CAM. GEAR SCREW	[M]
317	RMRI223-K1	CLAMP PLATE	[M]
318	RMRI242-X1	FIXTURE	[M]
320	XTN2+6G	SCREW	[M]
321	RXQ0999	OPU UNIT	[M]

22.3. Electrical Part List

Ref. No.	Part No.	Part Name & Description	Remarks
		P.C.B	
	REP0010A	CD Servo (Side A & Side B) P.C.B. /	
	REP0014A	Main P.C.B. / Tuner Extent P.C.B. / Panel P.C.B.	
	REP0015A	Headphone P.C.B. / Speaker Terminal P.C.B. / Power P.C.B. / Transformer P.C.B.	
	REP0016A	Deck P.C.B. / Tape Eject P.C.B.	
	REP0321H	Deck Mechanism P.C.B.	
		INTEGRATED CIRCUITS	
IC501	AN7194K-LD	IC BTC POWER	[M]
IC700	COABBB000127	IC OP AMP	[M]
IC701	AN22004A-NF	IC HEAD AMP	[M]
IC702	MN6627934CH	IC LSI	[M]
IC703	BA5948FPE2	IC 4 CH DRIVE	[M]
IC704	C3ABMB000027	IC 16M DRAM	[M]
IC800	C1BB00000757	IC ASP	[M]
IC801	C1BB00000715	IC RDS	[M]
IC802	S81333HG-Z	IC REGULATOR	[M]
IC803	MN101C49KFE	IC MICRO-PROCESSOR	[M]
IC900	COHBB0000039	IC FL DRIVER	[M]
IC971	CNB13030R2AU	IC PHOTO INTERRUPTER	[M]
IC1000	C1AA00000612	IC ANALOG SW	[M]
IC1001	AN7326K	IC DECK R/P	[M]
		TRANSISTORS	
Q221	BLABGC000005	TRANSISTOR	[M]
Q222	BLABGC000005	TRANSISTOR	[M]
Q421	BLABGC000005	TRANSISTOR	[M]
Q422	BLABGC000005	TRANSISTOR	[M]
Q500	KRA110MTA	TRANSISTOR	[M]
Q501	KTC3199GRTA	TRANSISTOR	[M]
Q503	KTA1046	TRANSISTOR	[M]
Q504	KTC3199GRTA	TRANSISTOR	[M]
Q505	KTC3199GRTA	TRANSISTOR	[M]
Q506	KTA1046	TRANSISTOR	[M]
Q530	KTC3199GRTA	TRANSISTOR	[M]
Q600	KTC3199GRTA	TRANSISTOR	[M]
Q601	2SC3940ARA	TRANSISTOR	[M]
Q602	KRC102MTA	TRANSISTOR	[M]
Q603	2SB0621AHA	TRANSISTOR	[M]
Q701	2SA1037AKSTX	TRANSISTOR	[M]
Q750	KRA101STA	TRANSISTOR	[M]
Q751	KRC102STA	TRANSISTOR	[M]
Q801	KRC101STA	TRANSISTOR	[M]
Q802	KRC101STA	TRANSISTOR	[M]
Q803	KRC102STA	TRANSISTOR	[M]
Q804	KRC104STA	TRANSISTOR	[M]
Q805	2SC2712GRT5T	TRANSISTOR	[M]
Q806	2SC2712GRT5T	TRANSISTOR	[M]
Q807	KRC119STA	TRANSISTOR	[M]
Q808	KRC119STA	TRANSISTOR	[M]
Q1101	BLABGC000005	TRANSISTOR	[M]
Q1201	BLABGC000005	TRANSISTOR	[M]
Q1302	BlGDCFJJ0002	TRANSISTOR	[M]
Q1303	BlGBCFGH0001	TRANSISTOR	[M]
Q1304	BlGDCFGH0002	TRANSISTOR	[M]
Q1309	BLAAGC000006	TRANSISTOR	[M]
Q1310	BLAAGC000006	TRANSISTOR	[M]
Q1312	BLABCF000011	TRANSISTOR	[M]
Q1314	BlGDCFGH0002	TRANSISTOR	[M]
Q1315	KTA12710YTA	TRANSISTOR	[M]
Q1316	2SD09650RA	TRANSISTOR	[M]
Q1317	BLABGC000005	TRANSISTOR	[M]
		DIODES	

Ref. No.	Part No.	Part Name & Description	Remarks
D351	B0AACK000004	DIODE	[M]
D352	B0JACE000003	DIODE	[M]
D354	B0AACK000004	DIODE	[M]
D501	B0EAMM000038	DIODE	[M]
D502	B0EAMM000038	DIODE	[M]
D503	B0AACK000004	DIODE	[M]
D504	B0EAMM000038	DIODE	[M]
D505	B0EAMM000038	DIODE	[M]
D506	B0EAKM000117	DIODE	[M]
D507	B0EAKM000117	DIODE	[M]
D508	B0BA5R000004	DIODE	[M]
D511	B0AACK000004	DIODE	[M]
D600	B0AACK000004	DIODE	[M]
D602	B0EAKM000117	DIODE	[M]
D603	B0EAKM000117	DIODE	[M]
D604	B0EAKM000117	DIODE	[M]
D605	B0EAKM000117	DIODE	[M]
D606	B0EAKM000117	DIODE	[M]
D607	B0BA6R800007	DIODE	[M]
D608	B0AACK000004	DIODE	[M]
D609	B0EAKM000117	DIODE	[M]
D610	B0BA02600017	DIODE	[M]
D611	1D3E	DIODE	[M]
D750	B0ACCK000005	DIODE	[M]
D750	MAZ80560ML	DIODE	[M]
D751	B0ACCK000005	DIODE	[M]
D802	B0ACCK000005	DIODE	[M]
D803	1SS380TE-17	DIODE	[M]
D804	1SS380TE-17	DIODE	[M]
D805	1SS380TE-17	DIODE	[M]
D806	1SS380TE-17	DIODE	[M]
D807	B0ACCK000005	DIODE	[M]
D900	UDZSTE176R8B	DIODE	[M]
D906	LNJ201LPQJA	DIODE	[M]
D971	MA2C16500E	DIODE	[M]
D1301	B0ACCK000005	DIODE	[M]
		VARIABLE RESISTORS	
VR900	EVEJ1CF3024B	VOL. ENCODER	[M]
		SWITCHES	
S701	RSH1A048-A	RESET SWITCH	[M]
S900	EVQ21405RJ	CD PLAY SWITCH	[M]
S901	EVQ21405RJ	TAPE PLAY SWITCH	[M]
S902	EVQ21405RJ	TUNER SWITCH	[M]
S903	EVQ21405RJ	FF SWITCH	[M]
S904	EVQ21405RJ	STOP SWITCH	[M]
S905	EVQ21405RJ	REW SWITCH	[M]
S906	EVQ21405RJ	ALBUM_FF SWITCH	[M]
S907	EVQ21405RJ	ALBUM_REW SWITCH	[M]
S908	EVQ21405RJ	POWER SWITCH	[M]
S909	EVQ21405RJ	CD OPEN/CLOSE SWITCH	[M]
S911	EVQ21405RJ	SURROUND SWITCH	[M]
S912	EVQ21405RJ	PRESET_EQ SWITCH	[M]
S913	EVQ21405RJ	REC SWITCH	[M]
S914	EVQ21405RJ	TRACK UP SWITCH	[M]
S915	EVQ21405RJ	TRACK DOWN SWITCH	[M]
S971	RSH1A018-3U	MODE SWITCH	[M]
S972	RSH1A019-2U	HALF SWITCH	[M]
S973	RSH1A019-2U	CR02 SWITCH	[M]
S975	RSH1A019-2U	RECINH_F SWITCH	[M]
S1000	EVQ21405RJ	TAPE EJECT SWITCH	[M]
		CONNECTORS	
CN501A	K1KA04B00058	4P CONNECTOR	[M]
CN501B	K1KB04A00035	4P CONNECTOR	[M]
CN502A	RJU100W09	9P CONNECTOR	[M]
CN502B	RJT100W09	9P CONNECTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
CN503A	RJU100W09	9P CONNECTOR	[M]
CN503B	RJT100W09	9P CONNECTOR	[M]
CN504A	K1MP04A00003	4P CONNECTOR	[M]
CN505B	RJT119W08V	8P CONNECTOR	[M]
CN701	RJS2A8616	16P FPC CONNECTOR	[M]
CN702	RJS2A7717	17P FPC CONNECTOR	[M]
CN801	K1MN17A00040	17P FFC CONNECTOR	[M]
CN802A	K1KB09B00025	9P CONNECTOR	[M]
CN802B	K1KA09A00098	CONNECTOR	[M]
CN803A	K1KB09B00025	9P CONNECTOR	[M]
CN803B	K1KA09A00098	CONNECTOR	[M]
CN804	K1MN19A00036	19P FFC CONNECTOR	[M]
CN805A	K1MP10B00007	CONNECTOR	[M]
CN806	K1KA10A00263	10P CONNECTOR	[M]
CN900B	K1MP04A00003	4P CONNECTOR	[M]
CN901A	K1MN12A00049	12P FFC CONNECTOR	[M]
CN901B	K1MN12A00049	12P FFC CONNECTOR	[M]
CN1303	K1MN19B00072	19P FFC CONNECTOR	[M]
CP1301	RJS1A6805-J	CONNECTOR	[M]
CP1902	K1KA09B00058	9P CONNECTOR	[M]
CS971	RJU071H09M1	CONNECTOR	[M]
		COILS & TRANSFORMERS	
L600	ELF15N035AN	LINE FILTER	[M]
L801	J0JKB0000020	EMI BEAD CORE	[M]
L802	J0JKB0000020	EMI BEAD CORE	[M]
L803	J0JKB0000020	EMI BEAD CORE	[M]
L804	G0C3R3JA0027	COIL	[M]
L805	G0C3R3JA0027	COIL	[M]
L810	G0C101JA0027	COIL	[M]
L811	G0C101JA0027	COIL	[M]
L812	J0JKB0000020	EMI BEAD CORE	[M]
L901	G0C3R3JA0027	COIL	[M]
L1301	7L1A62N	BIAS OCS COIL	[M]
L1302	RLQB470JTD-D	RF CHOKE COIL	[M]
T600	G4C2AAJ00006	BACKUP TRANSFORMER	[M] △
T601	G4C6ADH00002	TRANSFORMER	[M] △
		COMPONENT COMBINATION	
Z401	ENG07802QF	TUNER PACK UNIT	[M]
Z600	ERZV10V511CS	ZENER	[M] △
Z901	B3RAB0000025	REMOTE SENSOR	[M]
		RELAY	
RL600	K6B1ADA00011	RELAY	[M] △
		OSCILLATORS	
X701	RSXC16M9S04	CRYSTAL OSCILLATOR	[M]
X801	RSXZ8M00D01T	CERAMIC RESONATOR	[M]
X802	RSXD32K0C01	CRYSTAL OSCILLATOR	[M]
X803	H0H433400001	CRYSTAL OSCILLATOR	[M]
		DISPLAY TUBE	
FL900	A2BB00000129	FL DISPLAY	[M]
		FUSES	
F1	K5Y630B00001	FUSE	[M] △
		FUSE HOLDERS	
FC600	EYF52BC	FUSE HOLDER	[M]
FC601	EYF52BC	FUSE HOLDER	[M]
		FUSE PROTECTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
FP351	K5G502AA0003	FUSE PROTECTOR	[M] △
		JACKS	
JK501	K4BC04B00046	JK SP TERMINAL	[M]
JK600	K2AA2B000004	JK AC INLET	[M] △
JK981	K2HC103A0023	JK H/P	[M]
		EARTH TERMINAL	
E301	SNE1004-2	EARTH TERMINAL	[M]
		CHIP RESISTOR	
WA1	ERJ6GEY0R00V	0 1/10W	[M]
WA2	ERJ6GEY0R00V	0 1/10W	[M]
WA3	ERJ6GEY0R00V	0 1/10W	[M]
WA4	ERJ6GEY0R00V	0 1/10W	[M]
WA5	ERJ6GEY0R00V	0 1/10W	[M]
WA6	ERJ6GEY0R00V	0 1/10W	[M]
WA7	ERJ6GEY0R00V	0 1/10W	[M]
WA8	ERJ6GEY0R00V	0 1/10W	[M]
WA9	ERJ6GEY0R00V	0 1/10W	[M]
WA10	ERJ6GEY0R00V	0 1/10W	[M]
WA11	ERJ6GEY0R00V	0 1/10W	[M]
WA12	ERJ6GEY0R00V	0 1/10W	[M]
WA13	ERJ6GEY0R00V	0 1/10W	[M]
WA14	ERJ6GEY0R00V	0 1/10W	[M]
WA15	ERJ6GEY0R00V	0 1/10W	[M]
WA16	ERJ6GEY0R00V	0 1/10W	[M]
WA17	ERJ6GEY0R00V	0 1/10W	[M]
WA18	ERJ6GEY0R00V	0 1/10W	[M]
WA19	ERJ6GEY0R00V	0 1/10W	[M]
WA20	ERJ6GEY0R00V	0 1/10W	[M]
WA21	ERJ6GEY0R00V	0 1/10W	[M]
WA1061	ERJ3GEY0R00V	0 1/16W	[M]
		CHIP HOLDER	
WH504B	RMR0313	CABLE HOLDER	[M]
WH505A	K1YF08000003	8P WIRE HOLDER	[M]
WH805B	RMR0319	10P CABLE HOLDER	[M]
WH900A	RMR0313	CABLE HOLDER	[M]
		RESISTORS	
R201	ERJ3GEYJ682V	6.8K 1/16W	[M]
R202	ERJ3GEYJ272V	2.7K 1/16W	[M]
R203	ERJ3GEYJ272V	2.7K 1/16W	[M]
R204	ERJ3GEYJ682V	6.8K 1/16W	[M]
R206	ERJ3GEYJ153V	15K 1/16W	[M]
R209	ERJ3GEYJ183V	18K 1/16W	[M]
R210	ERJ3GEYJ102V	1K 1/16W	[M]
R211	ERJ6GEYJ394V	390K 1/10W	[M]
R212	ERJ6GEYJ392V	3.9K 1/10W	[M]
R213	ERJ3GEYJ123V	12K 1/16W	[M]
R214	ERJ3GEYJ822V	8.2K 1/16W	[M]
R215	ERJ3GEYJ392V	3.9K 1/16W	[M]
R216	ERJ3GEYJ682V	6.8K 1/16W	[M]
R220	ERJ3GEYJ104V	100K 1/16W	[M]
R221	ERJ3GEYJ183V	18K 1/16W	[M]
R222	ERJ3GEYJ104V	100K 1/16W	[M]
R223	ERJ6GEYJ470V	47 1/10W	[M]
R224	ERJ3GEYJ102V	1K 1/16W	[M]
R225	ERJ6GEYJ470V	47 1/10W	[M]
R226	ERJ3GEYJ392V	3.9K 1/16W	[M]
R227	ERJ3GEYJ392V	3.9K 1/16W	[M]
R230	ERDS2TJ104T	100K 1/4W	[M]
R251	ERDS2TJ821T	820 1/4W	[M]
R252	ERDS2TJ2R2T	2.2 1/4W	[M]
R253	ERDS2TJ2R2T	2.2 1/4W	[M]
R256	D0AB563JA048	56K 1/4W	[M]
R351	ERDS2TJ104T	100K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R352	ERDS2TJ823T	82K 1/4W	[M]
R355	ERDS2TJ222T	2.2K 1/4W	[M]
R356	ERDS2TJ333T	33K 1/4W	[M]
R401	ERJ3GEYJ682V	6.8K 1/16W	[M]
R402	ERJ3GEYJ272V	2.7K 1/16W	[M]
R403	ERJ3GEYJ272V	2.7K 1/16W	[M]
R404	ERJ3GEYJ682V	6.8K 1/16W	[M]
R406	ERJ3GEYJ153V	15K 1/16W	[M]
R409	ERJ3GEYJ183V	18K 1/16W	[M]
R410	ERJ3GEYJ102V	1K 1/16W	[M]
R411	ERJ6GEYJ394V	390K 1/10W	[M]
R412	ERJ6GEYJ392V	3.9K 1/10W	[M]
R413	ERJ3GEYJ123V	12K 1/16W	[M]
R414	ERJ3GEYJ822V	8.2K 1/16W	[M]
R415	ERJ3GEYJ392V	3.9K 1/16W	[M]
R416	ERJ3GEYJ682V	6.8K 1/16W	[M]
R420	ERJ3GEYJ104V	100K 1/16W	[M]
R421	ERJ3GEYJ183V	18K 1/16W	[M]
R422	ERJ3GEYJ104V	100K 1/16W	[M]
R423	ERJ6GEYJ470V	47 1/10W	[M]
R424	ERJ3GEYJ102V	1K 1/16W	[M]
R425	ERJ6GEYJ470V	47 1/10W	[M]
R426	ERJ3GEYJ392V	3.9K 1/16W	[M]
R427	ERJ3GEYJ392V	3.9K 1/16W	[M]
R430	ERDS2TJ104T	100K 1/4W	[M]
R451	ERDS2TJ821T	820 1/4W	[M]
R452	ERDS2TJ2R2T	2.2 1/4W	[M]
R453	ERDS2TJ2R2T	2.2 1/4W	[M]
R456	DOAE563JA048	56K 1/4W	[M]
R501	ERDS2TJ1R2T	1.2 1/4W	[M]
R502	ERDS2TJ1R2T	1.2 1/4W	[M]
R503	ERDS2TJ1R2T	1.2 1/4W	[M]
R504	ERDS2TJ181T	180 1/4W	[M]
R505	ERDS2TJ104T	100K 1/4W	[M]
R506	ERDS2TJ182T	1.8K 1/4W	[M]
R510	ERDS2TJ221T	220 1/4W	[M]
R511	ERDS2TJ221T	220 1/4W	[M]
R514	ERDS2TG152T	1.5K 1/4W	[M]
R515	ERDS2TG152T	1.5K 1/4W	[M]
R517	ERDS2TJ102T	1K 1/4W	[M]
R518	ERDS2TJ561T	560 1/4W	[M]
R530	ERDS2TJ181T	180 1/4W	[M]
R600	DOAE473JA048	47K 1/4W	[M]
R601	ERDS2TJ220T	22 1/4W	[M]
R603	ERDS2TJ821T	820 1/4W	[M]
R604	DOAE472JA048	4.7K 1/4W	[M]
R605	ERDS2TJ151T	150 1/4W	[M]
R606	ERDS2TJ103T	10K 1/4W	[M]
R607	ERDS2TJ103T	10K 1/4W	[M]
R608	ERD2FCVG4R7T	4.7 1/4W	[M]
R610	ERDS2TJ151T	150 1/4W	[M]
R611	DOAE472JA048	4.7K 1/4W	[M]
R701	ERJ3GEYJ4R7V	4.7 1/16W	[M]
R702	ERJ3GEYJ472V	4.7K 1/16W	[M]
R704	ERJ3GEYJ102V	1K 1/16W	[M]
R705	ERJ3GEYJ393V	39K 1/16W	[M]
R706	ERJ3GEYJ102V	1K 1/16W	[M]
R707	ERJ3GEY0R00V	0 1/16W	[M]
R708	ERJ3GEY0R00V	0 1/16W	[M]
R709	ERJ3GEYJ104V	100K 1/16W	[M]
R711	ERJ3GEYJ823V	82K 1/16W	[M]
R712	ERJ3GEYJ821V	820 1/16W	[M]
R714	ERJ3GEYJ471V	470 1/16W	[M]
R715	ERJ3GEYJ332V	3.3K 1/16W	[M]
R717	ERJ3GEYJ102V	1K 1/16W	[M]
R718	ERJ3GEYJ102V	1K 1/16W	[M]
R720	ERJ3GEYJ105V	1M 1/16W	[M]
R721	ERJ3GEYJ101V	100 1/16W	[M]
R723	ERJ3GEYJ332V	3.3K 1/16W	[M]
R725	ERJ3GEYJ331V	330 1/16W	[M]
R727	ERJ3GEYJ102V	1K 1/16W	[M]
R728	ERJ3GEYJ183V	18K 1/16W	[M]
R729	ERJ3GEYJ102V	1K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R731	ERJ3GEYJ223V	22K 1/16W	[M]
R732	ERJ3GEYJ102V	1K 1/16W	[M]
R735	ERJ3GEYJ101V	100 1/16W	[M]
R736	ERJ3GEYJ101V	100 1/16W	[M]
R737	ERJ3GEYJ682V	6.8K 1/16W	[M]
R738	ERJ3GEYJ682V	6.8K 1/16W	[M]
R742	ERJ3GEYJ103V	10K 1/16W	[M]
R743	ERJ3GEYJ472V	4.7K 1/16W	[M]
R744	ERJ3GEYJ393V	39K 1/16W	[M]
R749	ERJ3GEYJ183V	18K 1/16W	[M]
R750	ERJ3GEYJ472V	4.7K 1/16W	[M]
R751	ERJ3GEYJ102V	1K 1/16W	[M]
R752	ERJ3GEYJ222V	2.2K 1/16W	[M]
R753	ERD2FCVG100T	10 1/4W	[M]
R753	ERJ3GEYJ100V	10 1/16W	[M]
R754	ERJ3GEYJ472V	4.7K 1/16W	[M]
R754	ERJ3GEYJ5R6V	5.6 1/16W	[M]
R755	ERJ3GEYJ472V	4.7K 1/16W	[M]
R756	ERJ3GEYJ472V	4.7K 1/16W	[M]
R760	ERJ3GEYJ101V	100 1/16W	[M]
R761	ERJ3GEYJ103V	10K 1/16W	[M]
R762	ERJ3GEYJ103V	10K 1/16W	[M]
R763	ERJ3GEYJ103V	10K 1/16W	[M]
R764	ERJ3GEYJ102V	1K 1/16W	[M]
R800	ERD2FCVG330T	33 1/4W	[M]
R803	ERJ3GEYJ472V	4.7K 1/16W	[M]
R804	ERJ3GEYJ472V	4.7K 1/16W	[M]
R805	ERJ3GEYJ103V	10K 1/16W	[M]
R806	ERJ3GEYJ103V	10K 1/16W	[M]
R807	ERJ3GEYJ472V	4.7K 1/16W	[M]
R808	ERJ3GEYJ472V	4.7K 1/16W	[M]
R809	ERJ3GEYJ101V	100 1/16W	[M]
R810	ERJ3GEYJ101V	100 1/16W	[M]
R811	ERJ3GEYJ101V	100 1/16W	[M]
R812	ERJ3GEYJ101V	100 1/16W	[M]
R813	ERJ3GEYJ101V	100 1/16W	[M]
R815	ERJ3GEYJ103V	10K 1/16W	[M]
R816	ERJ3GEYJ103V	10K 1/16W	[M]
R817	ERJ3GEYJ101V	100 1/16W	[M]
R819	ERJ3GEYJ102V	1K 1/16W	[M]
R820	ERJ3GEYJ102V	1K 1/16W	[M]
R821	ERJ3GEYJ474V	470K 1/16W	[M]
R822	ERJ3GEYJ103V	10K 1/16W	[M]
R823	ERJ3GEYJ101V	100 1/16W	[M]
R824	ERJ3GEYJ101V	100 1/16W	[M]
R825	ERJ3GEYJ102V	1K 1/16W	[M]
R826	ERJ3GEYJ102V	1K 1/16W	[M]
R827	ERJ3GEYJ272V	2.7K 1/16W	[M]
R828	ERJ3GEYJ821V	820 1/16W	[M]
R829	ERJ3GEYJ103V	10K 1/16W	[M]
R830	ERJ3GEYJ103V	10K 1/16W	[M]
R831	ERJ3GEYJ103V	10K 1/16W	[M]
R832	ERJ3GEYJ101V	100 1/16W	[M]
R833	ERJ3GEYJ101V	100 1/16W	[M]
R834	ERJ3GEYJ101V	100 1/16W	[M]
R835	ERJ3GEYJ101V	100 1/16W	[M]
R836	ERJ3GEYJ222V	2.2K 1/16W	[M]
R837	ERJ3GEYJ332V	3.3K 1/16W	[M]
R838	ERJ3GEYJ222V	2.2K 1/16W	[M]
R839	ERJ3GEYJ222V	2.2K 1/16W	[M]
R840	ERJ3GEYJ105V	1M 1/16W	[M]
R841	ERJ3GEYJ103V	10K 1/16W	[M]
R842	ERJ3GEYJ334V	330K 1/16W	[M]
R843	ERJ3GEYJ101V	100 1/16W	[M]
R844	ERJ3GEYJ103V	10K 1/16W	[M]
R845	ERJ3GEYJ101V	100 1/16W	[M]
R846	ERJ3GEYJ472V	4.7K 1/16W	[M]
R847	ERJ3GEYJ101V	100 1/16W	[M]
R848	ERJ3GEYJ472V	4.7K 1/16W	[M]
R849	ERJ3GEYJ102V	1K 1/16W	[M]
R850	ERJ3GEYJ223V	22K 1/16W	[M]
R851	ERJ3GEYJ103V	10K 1/16W	[M]
R852	ERJ3GEYJ103V	10K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R853	ERJ3GEYJ102V	1K 1/16W	[M]
R854	ERJ3GEYJ102V	1K 1/16W	[M]
R855	ERJ3GEYJ102V	1K 1/16W	[M]
R856	ERJ3GEYJ101V	100 1/16W	[M]
R857	ERJ3GEYJ473V	47K 1/16W	[M]
R858	ERJ3GEYJ472V	4.7K 1/16W	[M]
R859	ERJ3GEYJ472V	4.7K 1/16W	[M]
R860	ERJ3GEYJ472V	4.7K 1/16W	[M]
R861	ERJ3GEYJ101V	100 1/16W	[M]
R862	ERJ3GEYJ101V	100 1/16W	[M]
R863	ERJ3GEYJ101V	100 1/16W	[M]
R864	ERJ3GEYJ102V	1K 1/16W	[M]
R865	ERJ3GEYJ102V	1K 1/16W	[M]
R866	ERJ3GEYJ102V	1K 1/16W	[M]
R867	ERJ3GEYJ102V	1K 1/16W	[M]
R868	ERJ3GEYJ102V	1K 1/16W	[M]
R870	ERJ3GEYJ102V	1K 1/16W	[M]
R871	ERJ3GEYJ102V	1K 1/16W	[M]
R872	ERJ3GEYJ102V	1K 1/16W	[M]
R873	ERJ3GEYJ102V	1K 1/16W	[M]
R875	ERJ3GEYJ102V	1K 1/16W	[M]
R876	ERJ3GEYJ104V	100K 1/16W	[M]
R877	ERJ3GEYJ223V	22K 1/16W	[M]
R878	ERJ3GEYJ223V	22K 1/16W	[M]
R879	ERJ3GEYJ104V	100K 1/16W	[M]
R880	ERJ3GEYJ472V	4.7K 1/16W	[M]
R882	ERJ3GEYJ102V	1K 1/16W	[M]
R883	ERJ3GEYJ104V	100K 1/16W	[M]
R885	ERJ3GEYJ104V	100K 1/16W	[M]
R886	ERJ3GEYJ102V	1K 1/16W	[M]
R887	ERJ3GEYJ102V	1K 1/16W	[M]
R888	ERJ3GEYJ102V	1K 1/16W	[M]
R889	ERJ3GEYJ101V	100 1/16W	[M]
R890	ERJ3GEYJ153V	15K 1/16W	[M]
R891	ERJ3GEYJ153V	15K 1/16W	[M]
R900	ERJ3GEYJ102V	1K 1/16W	[M]
R901	ERJ3GEYJ102V	1K 1/16W	[M]
R902	ERJ3GEYJ122V	1.2K 1/16W	[M]
R903	ERJ3GEYJ182V	1.8K 1/16W	[M]
R904	ERJ3GEYJ222V	2.2K 1/16W	[M]
R905	ERJ3GEYJ272V	2.7K 1/16W	[M]
R906	ERJ3GEYJ472V	4.7K 1/16W	[M]
R908	ERJ3GEYJ104V	100K 1/16W	[M]
R909	ERJ3GEYJ102V	1K 1/16W	[M]
R910	ERJ3GEYJ102V	1K 1/16W	[M]
R911	ERJ3GEYJ122V	1.2K 1/16W	[M]
R912	ERJ3GEYJ182V	1.8K 1/16W	[M]
R913	ERJ3GEYJ222V	2.2K 1/16W	[M]
R914	ERJ3GEYJ272V	2.7K 1/16W	[M]
R915	ERJ3GEYJ102V	1K 1/16W	[M]
R916	ERJ3GEYJ104V	100K 1/16W	[M]
R917	ERJ3GEYJ102V	1K 1/16W	[M]
R918	ERJ3GEYJ102V	1K 1/16W	[M]
R919	ERJ3GEYJ102V	1K 1/16W	[M]
R920	ERJ3GEYJ102V	1K 1/16W	[M]
R921	ERJ3GEYJ273V	27K 1/16W	[M]
R922	ERJ3GEYJ680V	68 1/16W	[M]
R923	ERJ3GEYJ680V	68 1/16W	[M]
R924	ERJ3GEYJ104V	100K 1/16W	[M]
R925	ERJ3GEYJ104V	100K 1/16W	[M]
R972	ERDS2TJ821T	820 1/4W	[M]
R973	ERDS2TJ393T	39K 1/4W	[M]
R1101	ERJ3GEYJ270V	27 1/16W	[M]
R1102	ERJ3GEYJ152V	1.5K 1/16W	[M]
R1103	ERJ3GEYJ183V	18K 1/16W	[M]
R1104	ERJ3GEYJ103V	10K 1/16W	[M]
R1105	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1106	ERJ3GEYJ104V	100K 1/16W	[M]
R1107	ERJ3GEYJ102V	1K 1/16W	[M]
R1109	ERJ3GEYJ102V	1K 1/16W	[M]
R1110	ERJ3GEYJ333V	33K 1/16W	[M]
R1201	ERJ3GEYJ270V	27 1/16W	[M]
R1202	ERJ3GEYJ152V	1.5K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R1203	ERJ3GEYJ183V	18K 1/16W	[M]
R1204	ERJ3GEYJ103V	10K 1/16W	[M]
R1205	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1206	ERJ3GEYJ104V	100K 1/16W	[M]
R1207	ERJ3GEYJ102V	1K 1/16W	[M]
R1209	ERJ3GEYJ102V	1K 1/16W	[M]
R1210	ERJ3GEYJ333V	33K 1/16W	[M]
R1302	ERJ3GEYJ331V	330 1/16W	[M]
R1303	ERJ3GEYJ475V	4.7M 1/16W	[M]
R1304	ERJ3GEYJ223V	22K 1/16W	[M]
R1305	ERJ3GEYJ103V	10K 1/16W	[M]
R1307	ERD25FVJ220T	22 1/4W	[M]
R1308	ERD25FVJ220T	22 1/4W	[M]
R1309	ERDS1FVJ471T	470 1/2W	[M]
R1313	ERJ3GEYJ103V	10K 1/16W	[M]
R1314	ERJ3GEYJ102V	1K 1/16W	[M]
R1318	ERJ3GEYJ103V	10K 1/16W	[M]
R1327	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1328	ERJ3GEYJ153V	15K 1/16W	[M]
R1329	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1330	ERD2FCVJ4R7T	4.7 1/4W	[M]
R1331	ERJ3GEYJ752V	7.5K 1/16W	[M]
R1332	ERJ3GEYJ103V	10K 1/16W	[M]
R1333	ERD2FCVJ4R7T	4.7 1/4W	[M]
R1334	ERJ3GEYJ223V	22K 1/16W	[M]
R1335	ERJ3GEYJ152V	1.5K 1/16W	[M]
R1337	ERJ3GEYJ103V	10K 1/16W	[M]
R1338	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1341	ERJ3GEYJ471V	470 1/16W	[M]
R1342	ERJ3GEYJ473V	47K 1/16W	[M]
R1343	ERJ3GEYJ332V	3.3K 1/16W	[M]
R1344	ERJ3GEYJ273V	27K 1/16W	[M]
R1345	ERJ3GEYJ102V	1K 1/16W	[M]
R1371	ERJ3GEYJ223V	22K 1/16W	[M]
R1374	ERJ3GEYJ471V	470 1/16W	[M]
R1401	ERJ3GEYJ123V	12K 1/16W	[M]
R1402	ERJ3GEYJ274V	270K 1/16W	[M]
R1403	ERJ3GEYJ103V	10K 1/16W	[M]
R1404	ERJ3GEYJ223V	22K 1/16W	[M]
R1405	ERJ3GEYJ103V	10K 1/16W	[M]
		WIRE	
JW308B	RWJ0102095SS	2P DECK-CASS EJECT	[M]
JW504	RWJ1104165QX	4P HP/MAIN	[M]
JW505	REXV0021	WIRE (8P PWR-TRANS)	[M]
JW800	REXX0230-1	2P (MAIN-CR120)	[M]
JW805	RWJ1110110QX	10P (TUNER/MAIN)	[M]
JW900	RWJ1104205QX	WIRE (4P PANEL-TAPE)	[M]
JW1903	RWJ0102050KR	2P (MOTOR WIRE)	[M]
		CAPACITORS	
C101	ECJ1VB1E103K	0.01 25V	[M]
C102	ECJ1VB1E103K	0.01 25V	[M]
C201	ECJ1VB1H221K	220P 50V	[M]
C202	ECA1HAK2R2XB	2.2 50V	[M]
C203	ECJ1VB1H221K	220P 50V	[M]
C204	ECA1HAK2R2XB	2.2 50V	[M]
C205	ECJ1VB1H221K	220P 50V	[M]
C206	ECA1HAK2R2XB	2.2 50V	[M]
C207	ECA1CAK100XB	10 16V	[M]
C209	ECJ1VB1H102K	1000P 50V	[M]
C210	ECQB1H102JM3	1000P 50V	[M]
C211	ECQV1H224JZ3	0.22 50V	[M]
C212	ECQV1H224JZ3	0.22 50V	[M]
C213	ECA1HAKR47XB	0.47 50V	[M]
C214	ECJ1VB1H182K	1800P 50V	[M]
C215	ECQB1H273JF3	0.027 50V	[M]
C216	ECJ1VB1H102K	1000P 50V	[M]
C220	ECA1HAK010XB	1 50V	[M]
C221	ECJ1VB1H331K	330P 50V	[M]
C222	ECJ1VC1H101J	100P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C223	ECJ1VC1H101J	100P 50V	[M]
C224	ECA0JAK470XB	47 6.3V	[M]
C225	ECJ1VB1E103K	0.01 25V	[M]
C230	FlE1H1030001	0.01 50V	[M]
C251	ECA1HAK100XB	10 50V	[M]
C252	F1D1H152A046	1500P 50V	[M]
C253	ECQV1H224JZ3	0.22 50V	[M]
C254	ECQV1H224JZ3	0.22 50V	[M]
C271	F1D1H473A012	0.047 50V	[M]
C351	ECA1EPX470B	47 25V	[M]
C352	ECA1CAK101XB	100 16V	[M]
C353	ECA1CAK220XB	22 16V	[M]
C354	F1D1H102A012	1000P 50V	[M]
C355	F1D1H102A012	1000P 50V	[M]
C356	F1D1H332A046	3300P 50V	[M]
C371	F1D1H1040002	0.1 50V	[M]
C401	ECJ1VB1H221K	220P 50V	[M]
C402	ECA1HAK2R2XB	2.2 50V	[M]
C403	ECJ1VB1H221K	220P 50V	[M]
C404	ECA1HAK2R2XB	2.2 50V	[M]
C405	ECJ1VB1H221K	220P 50V	[M]
C406	ECA1HAK2R2XB	2.2 50V	[M]
C407	ECA1CAK100XB	10 16V	[M]
C409	ECJ1VB1H102K	1000P 50V	[M]
C410	ECQB1H102JM3	1000P 50V	[M]
C411	ECQV1H224JZ3	0.22 50V	[M]
C412	ECQV1H224JZ3	0.22 50V	[M]
C413	ECA1HAKR47XB	0.47 50V	[M]
C414	ECJ1VB1H182K	1800P 50V	[M]
C415	ECQB1H273JF3	0.027 50V	[M]
C416	ECJ1VB1H102K	1000P 50V	[M]
C420	ECA1HAK010XB	1 50V	[M]
C421	ECJ1VB1H331K	330P 50V	[M]
C422	ECJ1VC1H101J	100P 50V	[M]
C423	ECJ1VC1H101J	100P 50V	[M]
C424	ECA0JAK470XB	47 6.3V	[M]
C425	ECJ1VB1E103K	0.01 25V	[M]
C430	FlE1H1030001	0.01 50V	[M]
C451	ECA1HAK100XB	10 50V	[M]
C452	F1D1H152A046	1500P 50V	[M]
C453	ECQV1H224JZ3	0.22 50V	[M]
C454	ECQV1H224JZ3	0.22 50V	[M]
C471	F1D1H473A012	0.047 50V	[M]
C501	ECA1EAM682YE	6800 25V	[M]
C502	ECA1EAK100XB	10 25V	[M]
C503	FlE1H1030001	0.01 50V	[M]
C504	FlE1H1030001	0.01 50V	[M]
C507	FlE1H1030001	0.01 50V	[M]
C508	FlE1H1030001	0.01 50V	[M]
C509	FlE1H1030001	0.01 50V	[M]
C510	ECA1EAK100XB	10 25V	[M]
C512	ECQE2104KF3	0.1 250V	[M]
C514	ECA1EAK100XB	10 25V	[M]
C515	FlE1H1030001	0.01 50V	[M]
C530	ECA1CAK101XB	100 16V	[M]
C601	FlB1H103A007	0.01 50V	[M]
C602	ECA1EKA4R7B	4.7 25V	[M]
C603	ECA1CAM102XB	1000 16V	[M]
C604	FlE1H1030001	0.01 50V	[M]
C605	ECA1EM470B	47 25V	[M]
C609	ECA1JM101B	100 63V	[M]
C610	ECKR1H103KB5	0.01 50V	[M]
C611	ECA2AM100B	10 100V	[M]
C612	ECA1HM101B	100 50V	[M]
C701	ECA0JKA330I	33 6.3V	[M]
C702	FlH1A474A025	0.47 10V	[M]
C703	ECA0JKA101I	100 6.3V	[M]
C704	FlH1C104A065	0.1 16V	[M]
C705	FlH1C104A065	0.1 16V	[M]
C706	ECUVNA105ZFV	1 10V	[M]
C707	ECJ1VB1C393K	0.039 16V	[M]
C710	ECJ1VC1H471J	470P 50V	[M]
C711	FlH1C104A065	0.1 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C712	FlH1C104A065	0.1 16V	[M]
C713	FlH1C104A065	0.1 16V	[M]
C714	ECA0JKA101I	100 6.3V	[M]
C715	FlH1A474A025	0.47 10V	[M]
C716	ECUV1H681KBV	680P 50V	[M]
C717	FlH1C104A065	0.1 16V	[M]
C718	ECJ1VB1C823K	0.082 16V	[M]
C721	FlH1H220A230	22P 50V	[M]
C722	ECUV1H270JCV	27P 50V	[M]
C723	ECA0JKA221I	220 6.3V	[M]
C724	FlH1C104A065	0.1 16V	[M]
C725	ECJ1VB1H102K	1000P 50V	[M]
C726	ECJ1VB1H102K	1000P 50V	[M]
C727	ECA1HAK010XI	1 50V	[M]
C728	ECA1HAK010XI	1 50V	[M]
C729	FlH1C104A065	0.1 16V	[M]
C730	FlH1C104A065	0.1 16V	[M]
C731	ECA0JAK221XI	220 6.3V	[M]
C733	FlH1C104A065	0.1 16V	[M]
C734	ECA1AKA221I	220 10V	[M]
C735	FlH1E104A030	0.1 25V	[M]
C736	FlH1E104A030	0.1 25V	[M]
C737	ECJ1VB1E103K	0.01 25V	[M]
C738	ECJ1VB1C563K	0.056 16V	[M]
C739	ECUV1E183KBV	0.018 25V	[M]
C740	FlH1C104A065	0.1 16V	[M]
C741	ECJ1VB1H102K	1000P 50V	[M]
C742	ECUV1C473KBV	0.047 16V	[M]
C743	FlH1E104A030	0.1 25V	[M]
C744	ECUV1E153KBV	0.015 25V	[M]
C745	FlH1E104A030	0.1 25V	[M]
C746	FlH1C104A065	0.1 16V	[M]
C747	ECUV1H471KBV	470P 50V	[M]
C748	FlH1C104A065	0.1 16V	[M]
C749	ECJ1VB1H392K	3900P 50V	[M]
C750	ECA1HAK010XB	1 50V	[M]
C750	FlH1C104A065	0.1 16V	[M]
C751	ECA0JAK470XB	47 6.3V	[M]
C751	FlH1C104A065	0.1 16V	[M]
C752	ECJ1VB1E103K	0.01 25V	[M]
C752	ECUV1E183KBV	0.018 25V	[M]
C753	ECJ1VB1E103K	0.01 25V	[M]
C753	ECUV1H471KBV	470P 50V	[M]
C754	ECA1CAM221XB	220 16V	[M]
C754	FlH1C104A065	0.1 16V	[M]
C755	FlH1C104A065	0.1 16V	[M]
C757	ECA0JKA101I	100 6.3V	[M]
C758	FlH1C104A065	0.1 16V	[M]
C800	ECJ1VC1H470J	47P 50V	[M]
C801	ECA1EPX470B	47 25V	[M]
C802	ECA1EPX470B	47 25V	[M]
C803	ECJ1VC1H470J	47P 50V	[M]
C804	ECA1HAK010XB	1 50V	[M]
C805	ECA1CAK220XB	22 16V	[M]
C810	ECJ1VB1H102K	1000P 50V	[M]
C812	ECJ1VB1H102K	1000P 50V	[M]
C816	ECA1CAK100XB	10 16V	[M]
C817	ECJ1VB1H472K	4700P 50V	[M]
C818	ECJ1VB1H472K	4700P 50V	[M]
C819	FlH1C104A042	0.1 16V	[M]
C820	ECJ1VB1H472K	4700P 50V	[M]
C821	ECJ1VB1H472K	4700P 50V	[M]
C822	ECJ1VB1H472K	4700P 50V	[M]
C823	ECJ1VB1H472K	4700P 50V	[M]
C824	ECJ1VB1H472K	4700P 50V	[M]
C825	ECJ1VB1H472K	4700P 50V	[M]
C826	ECJ1VB1H102K	1000P 50V	[M]
C827	ECJ1VB1H102K	1000P 50V	[M]
C829	ECJ1VC1H470J	47P 50V	[M]
C830	ECJ1VC1H470J	47P 50V	[M]
C831	FlH1C104A042	0.1 16V	[M]
C832	FlH1C104A042	0.1 16V	[M]
C833	ECJ1VC1H180J	18P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C834	ECJ1VC1H180J	18P 50V	[M]
C835	ECJ1VC1H180J	18P 50V	[M]
C836	ECJ1VC1H220J	22P 50V	[M]
C837	ECA0JAK101XB	100 6.3V	[M]
C838	ECA0JAK101XB	100 6.3V	[M]
C839	ECA0JAM102XB	1000 6.3V	[M]
C840	ECA0JAM102XB	1000 6.3V	[M]
C843	ECJ1VC1H101J	100P 50V	[M]
C844	ECA1HAK010XB	1 50V	[M]
C845	ECJ1VB1E103K	0.01 25V	[M]
C846	ECA1HAK010XB	1 50V	[M]
C847	ECJ1VB1H102K	1000P 50V	[M]
C848	ECJ1VB1H102K	1000P 50V	[M]
C849	ECJ1VB1H102K	1000P 50V	[M]
C850	ECJ1VB1H102K	1000P 50V	[M]
C851	ECJ1VB1E103K	0.01 25V	[M]
C852	ECJ1VC1H101J	100P 50V	[M]
C853	ECJ1VC1H101J	100P 50V	[M]
C860	ECA1CAK100XB	10 16V	[M]
C861	ECJ1VB1H331K	330P 50V	[M]
C862	ECA1CAK100XB	10 16V	[M]
C863	ECJ1VB1H561K	560P 50V	[M]
C864	ECJ1VC1H470J	47P 50V	[M]
C865	ECJ1VC1H470J	47P 50V	[M]
C866	ECJ1VB1E103K	0.01 25V	[M]
C867	ECJ1VB1H102K	1000P 50V	[M]
C868	ECA0JAK470XB	47 6.3V	[M]
C869	ECJ1VC1H101J	100P 50V	[M]
C870	ECJ1VC1H101J	100P 50V	[M]
C880	ECA1HAK2R2XB	2.2 50V	[M]
C900	ECJ1VC1H101J	100P 50V	[M]
C901	ECJ1VC1H101J	100P 50V	[M]
C902	ECEA0JKA470B	47 6.3V	[M]
C903	ECA1HAK220XB	22 50V	[M]
C904	ECA1AAK220XB	22 10V	[M]
C905	ECJ1VB1H221K	220P 50V	[M]
C906	ECJ1VB1H221K	220P 50V	[M]
C907	ECJ1VB1H221K	220P 50V	[M]
C908	ECJ1VB1H221K	220P 50V	[M]
C909	ECA1HAK220XB	22 50V	[M]
C910	ECA1HAK220XB	22 50V	[M]
C911	ECA1HAK220XB	22 50V	[M]
C912	F1H1H104A783	0.1 50V	[M]
C913	ECJ1VB1H103K	0.01 50V	[M]
C914	ECJ1VC1H470J	47P 50V	[M]
C1101	ECA1HAK010XB	1 50V	[M]
C1102	ECJ1VB1H471K	470P 50V	[M]
C1103	ECA1CAK101XB	100 16V	[M]
C1104	ECJ1VB1C273K	0.027 16V	[M]
C1105	ECJ1VB1H471K	470P 50V	[M]
C1106	ECA1HAK2R2XB	2.2 50V	[M]
C1107	F1H1H152A219	1500P 50V	[M]
C1108	ECEA1CKA100B	10 16V	[M]
C1109	ECA1HAK3R3XB	3.3 50V	[M]
C1110	F1H1H682A219	6800P 50V	[M]
C1121	ECJ1VB1H102K	1000P 50V	[M]
C1122	ECJ1VB1H103K	0.01 50V	[M]
C1123	ECJ1VB1H271K	270P 50V	[M]
C1201	ECA1HAK010XB	1 50V	[M]
C1202	ECJ1VB1H471K	470P 50V	[M]
C1203	ECA1CAK101XB	100 16V	[M]
C1204	ECJ1VB1C273K	0.027 16V	[M]
C1205	ECJ1VB1H471K	470P 50V	[M]
C1206	ECA1HAK2R2XB	2.2 50V	[M]
C1207	F1H1H152A219	1500P 50V	[M]
C1208	ECEA1CKA100B	10 16V	[M]
C1209	ECA1HAK3R3XB	3.3 50V	[M]
C1210	F1H1H682A219	6800P 50V	[M]
C1221	ECJ1VB1H102K	1000P 50V	[M]
C1222	ECJ1VB1H103K	0.01 50V	[M]
C1223	ECJ1VB1H271K	270P 50V	[M]
C1301	ECA1HAK0R1XB	0.1 50V	[M]
C1302	ECJ1VB1C333K	0.033 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C1303	ECJ1VB1C333K	0.033 16V	[M]
C1304	ECA1HAK4R7XB	4.7 50V	[M]
C1305	ECA1CAK330XB	33 16V	[M]
C1307	ECA1AAK221XQ	220 10V	[M]
C1308	ECA1CAK220XB	22 16V	[M]
C1310	ECA1HAK0R1XB	0.1 50V	[M]
C1311	ECA1CAK470XB	47 16V	[M]
C1312	ECJ1VB1H332K	3300P 50V	[M]
C1314	ECJ1VB1H222K	2200P 50V	[M]
C1315	ECJ1VB1H222K	2200P 50V	[M]
C1316	ECJ1VB1H102K	1000P 50V	[M]
C1317	ECJ1VB1H102K	1000P 50V	[M]
C1318	ECQV1H473JZ3	0.047 50V	[M]
C1319	ECA1CAK101XB	100 16V	[M]
C1320	ECA1HAK010XB	1 50V	[M]
C1321	F0A2A472A019	4700P 100V	[M]
C1323	ECA1HAK010XB	1 50V	[M]
C1324	ECA1CAK470XB	47 16V	[M]
C1326	ECEA1CKA100B	10 16V	[M]
C1371	ECJ1VB1H103K	0.01 50V	[M]
		CHIP JUMPER	
RJ701	ERJ3GEY0R00V	0 1/16W	[M]
RJ702	ERJ3GEY0R00V	0 1/16W	[M]
RJ703	ERJ3GEY0R00V	0 1/16W	[M]
RJ704	ERJ3GEY0R00V	0 1/16W	[M]
RJ705	ERJ3GEY0R00V	0 1/16W	[M]
RJ706	ERJ3GEY0R00V	0 1/16W	[M]
RJ709	ERJ3GEY0R00V	0 1/16W	[M]
RJ710	ERJ3GEY0R00V	0 1/16W	[M]
RJ712	ERJ3GEY0R00V	0 1/16W	[M]
RJ713	ERJ3GEY0R00V	0 1/16W	[M]
RJ721	ERJ3GEY0R00V	0 1/16W	[M]
RJ722	ERJ3GEY0R00V	0 1/16W	[M]
RJ723	ERJ3GEY0R00V	0 1/16W	[M]
RJ724	ERJ3GEY0R00V	0 1/16W	[M]
RJ726	ERJ3GEY0R00V	0 1/16W	[M]
RJ727	ERJ3GEY0R00V	0 1/16W	[M]
RJ728	ERJ3GEY0R00V	0 1/16W	[M]
RJ731	ERJ3GEY0R00V	0 1/16W	[M]
RJ732	ERJ3GEY0R00V	0 1/16W	[M]
RJ734	ERJ3GEY0R00V	0 1/16W	[M]

22.4. Packaging Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGV0053	PACKING CASE	[M]
P2	RPN1447	POLYFOAM	[M]
P3	RPHV0001	MIRAMAT SHEET	[M]
		ACCESSORIES	
A1	EUR7711140	REMOTE CONTROL	[M]
A1-1	UR64EC2337J	R/C BATTERY COVER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
A2	K2CQ2CA00002	AC CORD	[M] EG E △
A2	VJA0733	AC CORD	[M] EB △
A3	RQT7358-D	O/I BOOK (Ge/It/Fr)	[M] EG
A3	RQT7359-H	O/I BOOK (Du/Da/Sw)	[M] EG
A3	RQT7360-B	O/I BOOK (En)	[M] EB E
A3	RQT7361-R	O/I BOOK (Sp/Ru/Cz/Po)	[M] E
A4	RSA0007-L	FM ANTENNA WIRE	[M]
A5	KLYZ02000013	ANTENNA ADAPTER	[M] EB
A6	N1DAAA00001	AM LOOP ANTENNA	[M]

22.5. Packaging

