

Service Manual

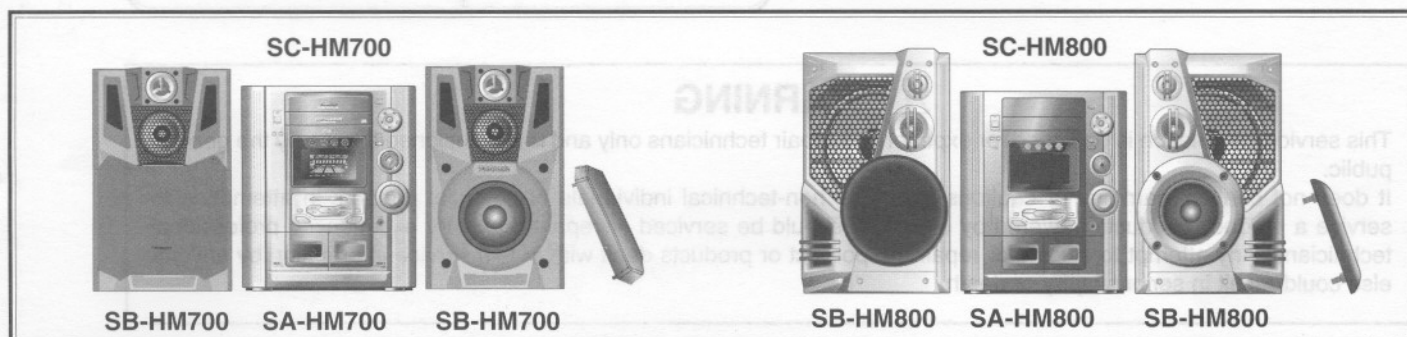
Stereo System

MODEL	UNIT	
SC-HM700	SA-HM700	Stereo
	SB-HM700	Front Speaker
SC-HM800	SA-HM800	Stereo
	SB-HM800	Front Speaker



SC-HM700

SC-HM800



ESPECIFICATIONS

POWER OUTPUT (AMPLIFIER)			
SC-HM700	Front	110 W	RMS per channel (6 Ω), 1kHz, 10% DAT
	Low	114 W	RMS per channel (6 Ω), 80Hz, 10% DAT
SC-HM800	High	54 W	RMS per channel (6 Ω), 1kHz, 10% DAT
	Surround	32 W	RMS per channel (8 Ω), 1kHz, 10% DAT

Notes:

1. All the information are subject to change without notice.
2. Weigth and dimensions are approximate.

AMPLIFIER	SA-HM700
Power output:	2500 W PMPO
Power consumption:	130 W
Supply:	127 V ca $\pm$ 10% 60 Hz
Input sensitivity:	250 mV
Frequency range AM:	520 - 1710 kHz (10 kHz steps)
Frequency range FM:	87,5 - 108,0 MHz (0,1 MHz steps) 87,9 - 107,9 MHz (0,2 MHz steps)
Dimensions (b x h x l):	360 x 425 x 340 mm
Weight:	9,7 kg approx.

AMPLIFIER	SA-HM800
Power output:	4500 W PMPO
Power consumption:	190 W
Supply:	127 V ca $\pm$ 10% 60 Hz
Input sensitivity:	250 mV
Frequency range AM:	520 - 1710 kHz (10 kHz steps)
Frequency range FM:	87,5 - 108,0 MHz (0,1 MHz steps) 87,9 - 107,9 MHz (0,2 MHz steps)
Dimensions (b x h x l):	360 x 425 x 340 mm
Weight:	9,7 kg approx.

Panasonic

SPEAKERS	SB-HM700
Input impedance:	6 Ω
Super Tweeter:	3 cm
Tweeter:	6 cm
Woofer:	17 cm
Dimensions (b x h x l):	290 x 484 x 261 mm
Weighth:	5,12 kg aprox.

SPEAKERS	SB-HM800
Input impedance:	6 Ω
Super Tweeter:	3 cm
Tweeter:	6 cm
Woofer:	17 cm
Super Woofer:	25 cm
Dimensions (b x h x l):	355 x 560 x 340 mm
Weighth:	8,9 kg aprox.

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 Safety Precaution

1. Before Servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacture's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

1.1 Insulation Resistance Test

1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumper AC plug and each exposed metal cabinet part, such as screwheads, antenna, control shafts, handle brackets, etc.
Equipment with antenna terminals should read between $3M\Omega$ and $5.2M\Omega$ to all exposed parts* (Fig.1).
Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig.2).
*Note: Some exposed parts may be isolated from the chassis by design. These will read infinity.
4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

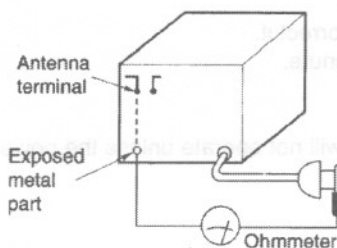


Fig. 1

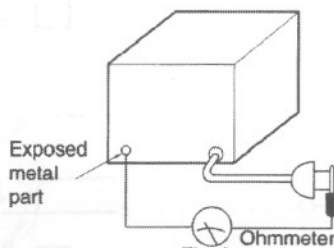
Resistance = $3M\Omega - 5.2M\Omega$ 

Fig. 2

Resistance = Approx ∞

2 Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors POWER PCB C531, C532, C533, C534 and TRANSFORMER PCB C402 through a 10 Ω , 5W resistor to ground.

DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this way destroy solid state devices. After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

Current consumption at AC 127V, 60Hz in NO SIGNAL mode should be ~800mA.

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 Accessories

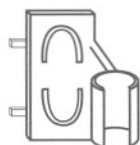
- ☐ Ac cord 1 pc
(SJA168-1A)



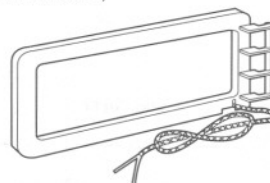
- ☐ FM antenna 1 pc
(RSA0006-J)



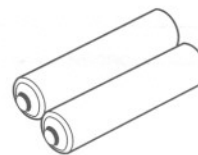
- ☐ AM Antenna support 1 pc
(RMN0244)



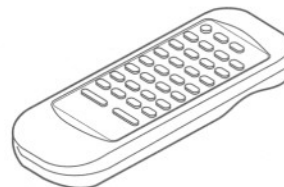
- ☐ AM antenna 1 pc
(RSAM0002)



- ☐ Battery (remote control) 2 pcs
(UM-3PA)



- ☐ Remote control 1 pc
(N2QAGB000004)



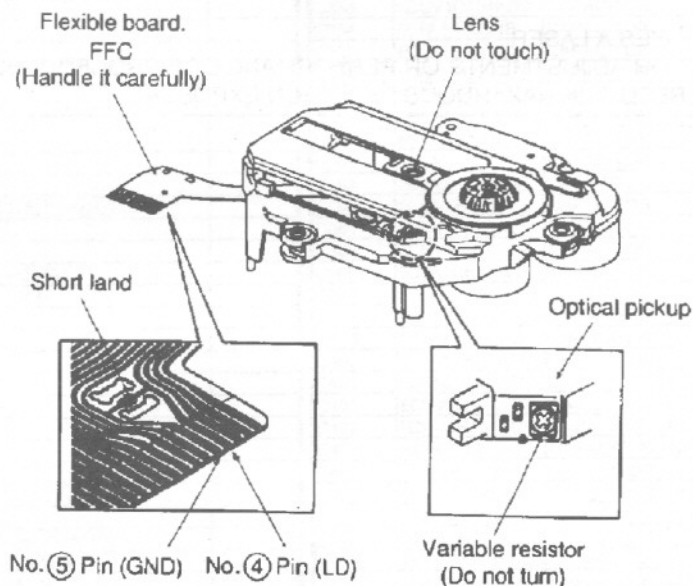
5 Handling Precautions For Traverse Deck

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 pick up).

Handling of traverse deck (optical pick up)

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. To connect to the PC board be sure to open by removing the solder build-up and finish the work quickly.
3. Take care not to apply excessive stress to the flexible board (FFC).
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.



Grounding for electrostatic breakdown prevention

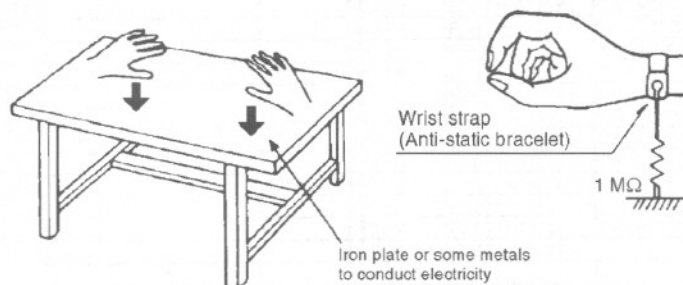
1. **Human body grounding**
Use the anti-static wrist strap to discharge the static electricity from your body.
2. **Work table grounding**
Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

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).

Caution when Replacing the Traverse Deck:

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



6 Precaution of Laser Diode

CAUTION:

This unit utilizes a class 1 laser.

Invisible laser radiation is emitted from the optical pick up lens.

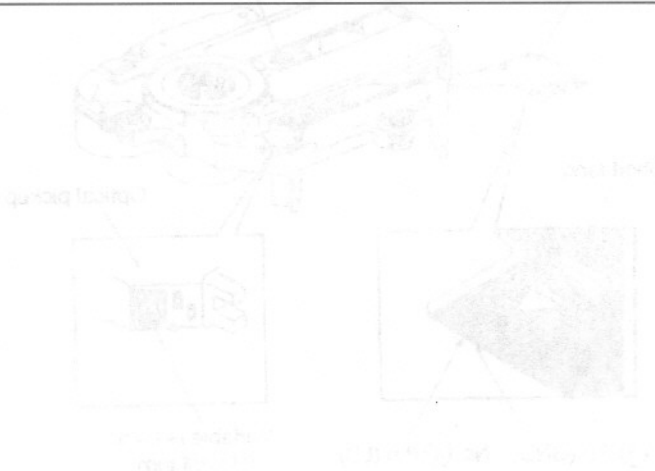
When the unit is turned on:

1. Do not look directly into the pick up lens.
2. Do not use optical instruments to look at the pick up lens.
3. Do not adjust the preset variable resistor on the pick up lens.
4. Do not disassemble the optical pick up unit.
5. If the optical pick up is replaced use the manufactures's specified replacement pick up only.
6. Use of control or adjustments or performance of procedures other than those specified here in may result in hazardous radiation exposure.

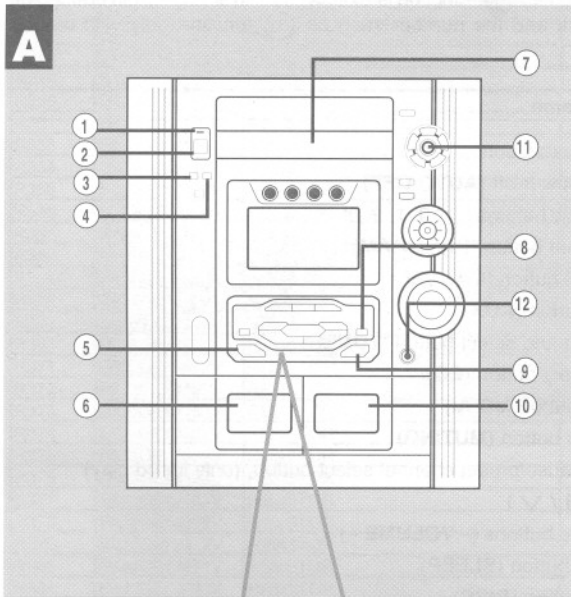
CAUTION!

THIS PRODUCT UTILIZES A LASER.

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



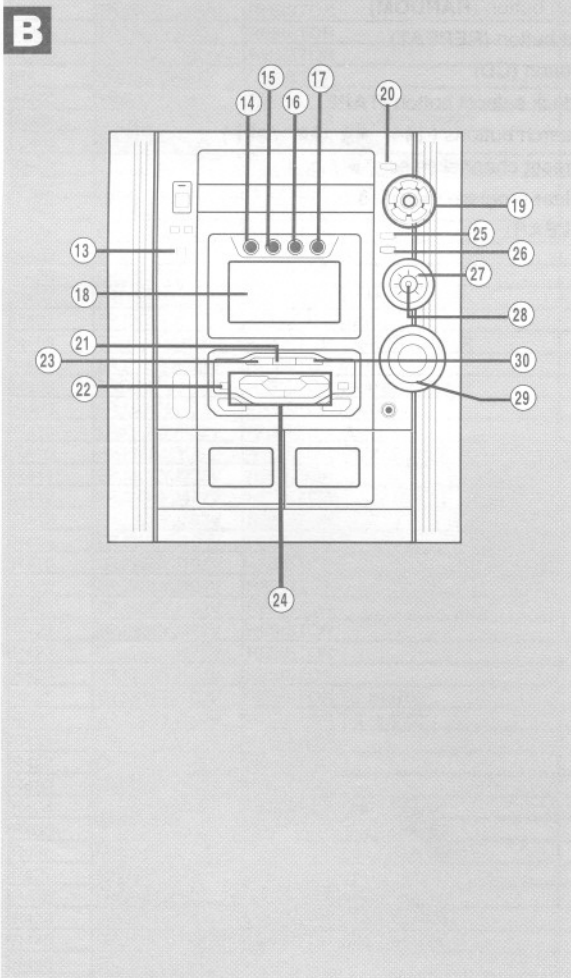
7 Operation Procedures



A Main unit

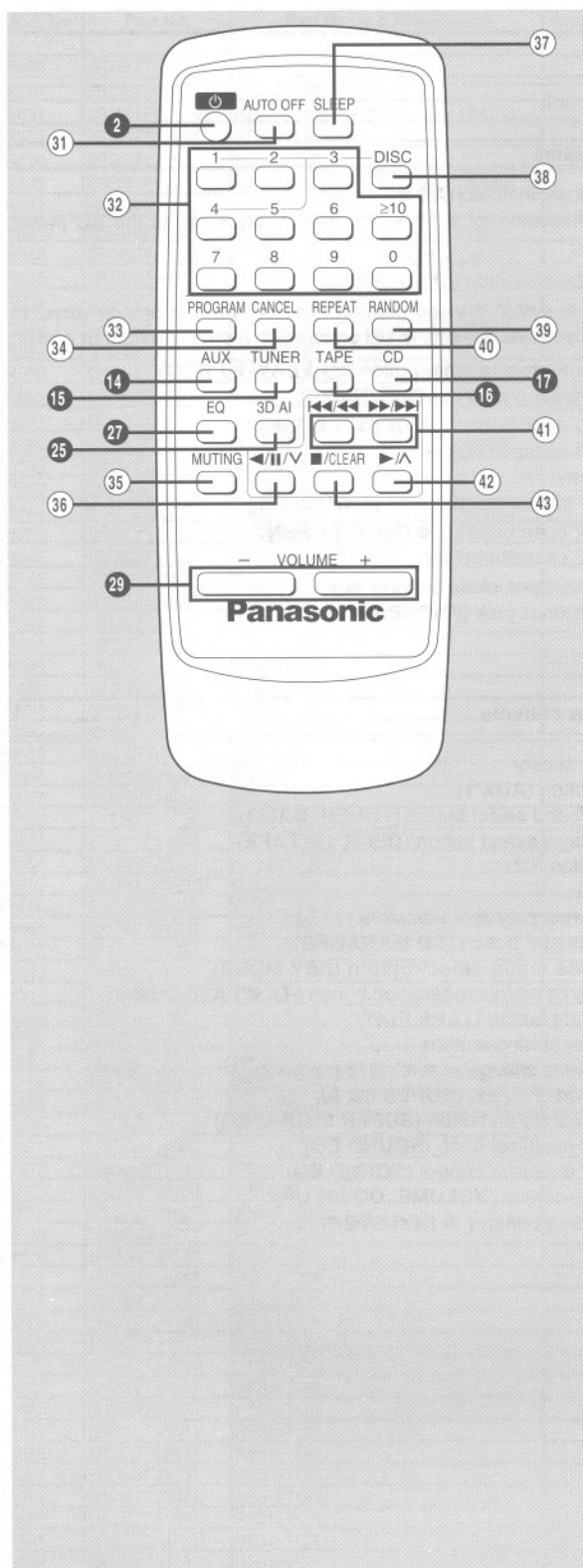
No. Name

- ① AC supply indicator(**AC IN**)
(This indicator lights when the unit is connected to the AC power supply)
- ② Standby/on switch (**⏻/I POWER**)
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.
- ③ Play timer/record timer button (**⏮ PLAY/ ⏭ REC**)
- ④ Clock/timer button (**CLOCK/TIMER**)
- ⑤ Deck 1 open button (**⬆ DECK 1 OPEN**)
- ⑥ Deck 1 cassette holder
- ⑦ Disc tray
- ⑧ Super woofer on/off button (**S.WOOFER**)
- ⑨ Deck 2 open button (**⬆ DECK 2 OPEN**)
- ⑩ Deck 2 cassette holder
- ⑪ Disc tray open/close button (**⬆**)
- ⑫ Headphones jack (**PHONES**)



B Center console

- ⑬ Signal sensor
- ⑭ Aux button (**AUX 1**)
- ⑮ Tuner/band select button (**TUNER BAND**)
- ⑯ Tape/deck select button (**DECK 1/2 TAPE**)
- ⑰ Cd button (**CD**)
- ⑱ Display
- ⑲ Disc direct play and indicators (**1 - 5**)
- ⑳ Cd manager button (**CD MANAGER**)
- ㉑ Reverse mode select button (**REV MODE**)
- ㉒ Display select/demonstration button (**-DISPLAY/-DEMO**)
- ㉓ Tape edit button (**TAPE EDIT**)
- ㉔ Basic operating buttons
(Functions change according to the source)
- ㉕ Super 3d ai button (**SUPER 3D AI**)
- ㉖ Super sound eq button (**SUPER SOUND EQ**)
- ㉗ Sound equalizer knob (**SOUND EQ**)
- ㉘ Sound equalizer control (**SOUND EQ**)
- ㉙ Volume control (**VOLUME DOWN UP**)
- ㉚ Recording button (**● REC/STOP**)



Remote control

Numbers such as ②, function is exactly the same way as the buttons on the main unit and the number such as ③①, function only with remote control.

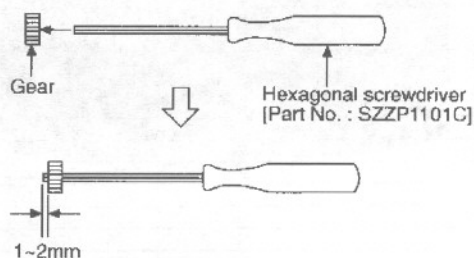
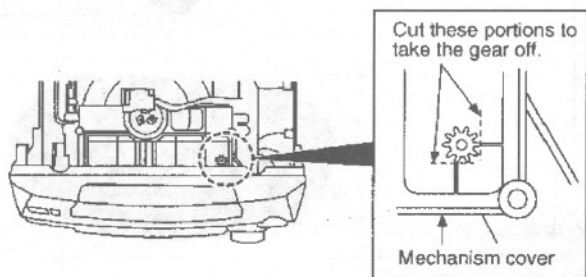
No.	Name
-----	------

- | | |
|----|--|
| ② | Standby/on button (①) |
| ③① | Auto power-off (AUTO OFF) |
| ③② | Numeric buttons (≥ 10, 1-9, 0) |
| ③③ | Program button (PROGRAM) |
| ③④ | Cancel button (CANCEL) |
| ③⑤ | Aux button (AUX) |
| ③⑥ | Tuner/band select button (TUNER) |
| ③⑦ | Eq select button (EQ) |
| ③⑧ | 3d ai button (3D AI) |
| ③⑨ | Muting button (MUTING) |
| ④① | Play/pause/preset channel select button (only for cd play)
(◀ / / ▼) |
| ④② | Volume buttons (- VOLUME +) |
| ④③ | Sleep button (SLEEP) |
| ④④ | Disc button (DISC) |
| ④⑤ | Random button (RANDOM) |
| ④⑥ | Repeat button (REPEAT) |
| ④⑦ | Disc button (CD) |
| ④⑧ | Tape/deck select button (TAPE) |
| ④⑨ | Skip/search buttons (◀◀ / ◀◀ , ▶▶ / ▶▶) |
| ⑤① | Play/preset channel select (▶ / ▲) |
| ⑤② | Stop/clear program melodies
(■ / CLEAR) |

8 Operation Checks and Main Component Replacement Procedures

Gear for servicing (jig) information

1. This unit has a gear which is used for checking items (open/close of disc tray, up/down operation of traverse unit by manually) when servicing.
 2. For preparation of gear (for servicing), Perform the procedures as follows.
 3. In case of re-servicing the same set, the "gear for servicing" may have been taken off because it has been used. The "gear for servicing" must be stored.
1. Remove the gear provided with mechanism cover as shown below.
 2. Insert the hexagonal screwdriver (2 mm) into the gear and then project the tip of screwdriver for 1~2mm in length.



"ATTENTION SERVICER"

Some chassis components may have sharp edges.
Be careful when disassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.

Contents

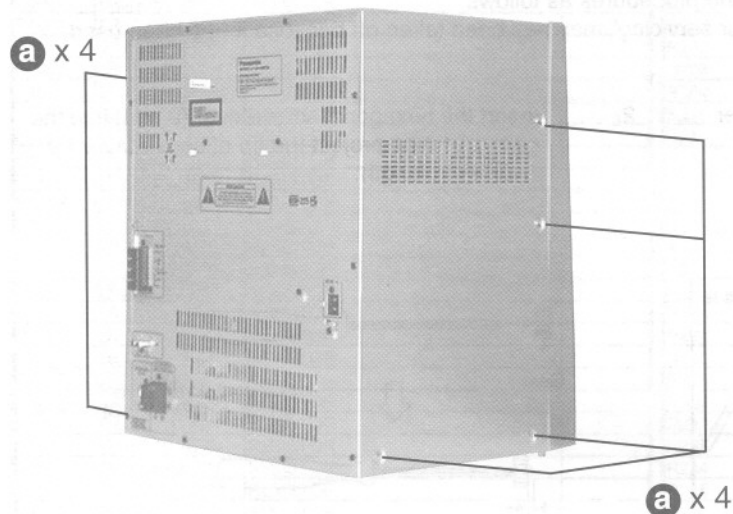
- **Disassembly and assembly main unit**
 1. Checking of the Main, Panel, Deck and Power P.C.B.
- **Main component Replacement Procedures**
 1. Replacement of the Traverse Deck.
 2. Replacement of the Power Amplifier IC.
- **Disassembly and assembly of the Traverse Unit**
- **Disassembly and assembly of the Disc Tray**

Warning:

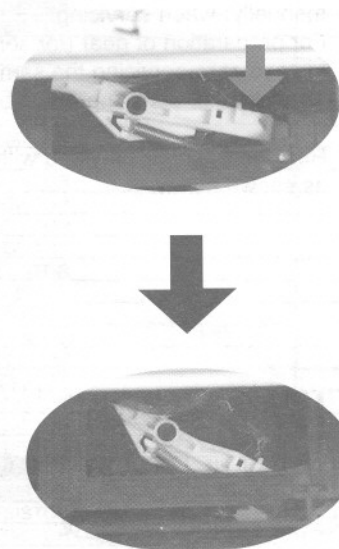
This product uses a laser diode. Refer to caution statement Precaution of Laser Diode.

8.1 Disassembly and assembly main unit

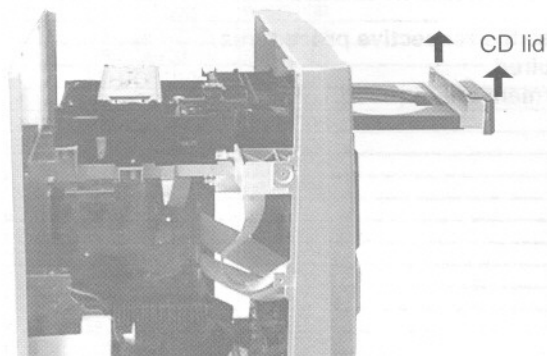
Step 1 Remove 4 screws each side and remove the Top Cabinet.



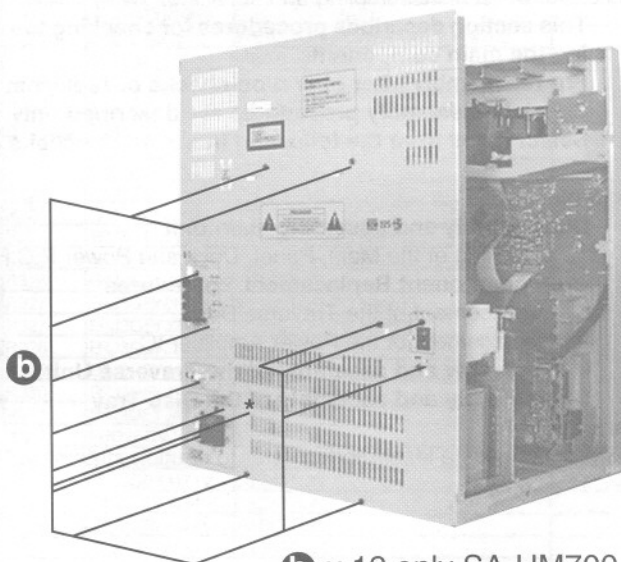
Step 2 To open the CD tray, release the lever as shown.



Step 3 Pull out the CD tray as shown and remove the CD lid. Push back the CD tray after the CD lid has been removed.



Step 4 Remove the screws.

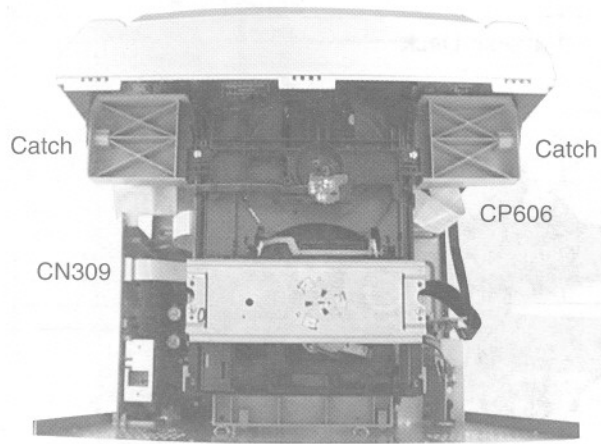


b x 12 only SA-HM700

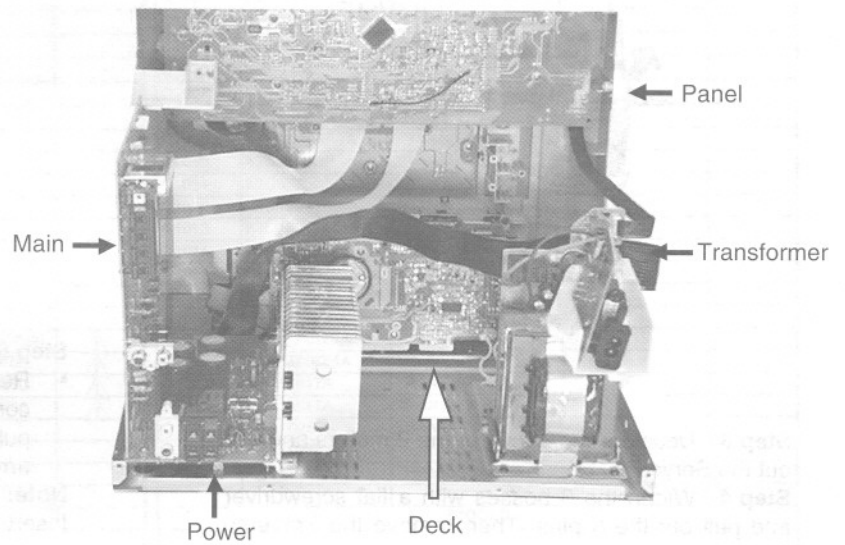
***b** x 13 only SA-HM800

Step 5 Remove the wire CN309 (main P.C.B.) and CP606 (panel P.C.B.).

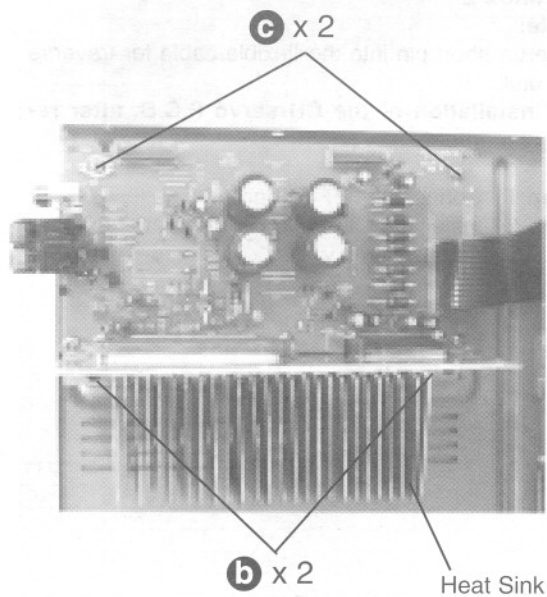
Step 6 Release the 2 catches and remove the CD changer base together with the CD changer.



- Checking for Main, Panel, Deck and Power P.C.B.



Step 7 Remove 4 screw.

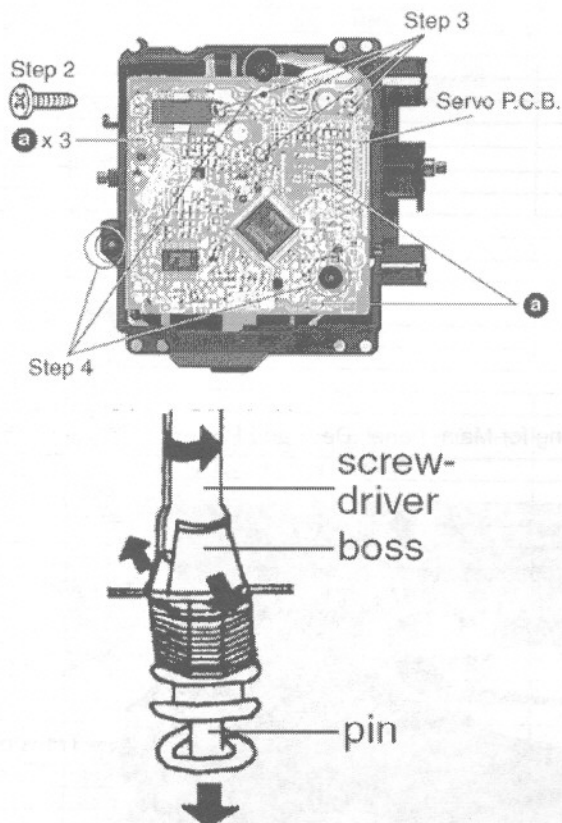


- a** : RHD30002-H
b : XTBS3+8JFZ1
c : XTB3+20J

8.2 Main Component Replacement Procedures

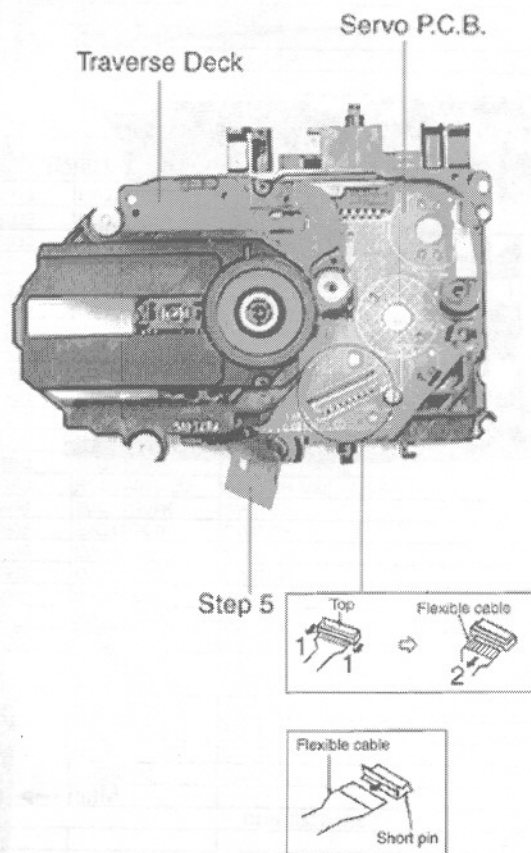
1. Replacement of the Traverse Deck

Step 1 Follow the procedures in "Disassembly of the Traverse Unit" (Step 1 - Step 4)



Step 3 Desolder the 4 legs of the 2 motors and pull out the Servo P.C.B.

Step 4 Widen the 3 bosses with a flat screwdriver and pull out the 3 pins. Then remove the Traverse Deck.B.



Step 5 Remove the flexible cable 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.

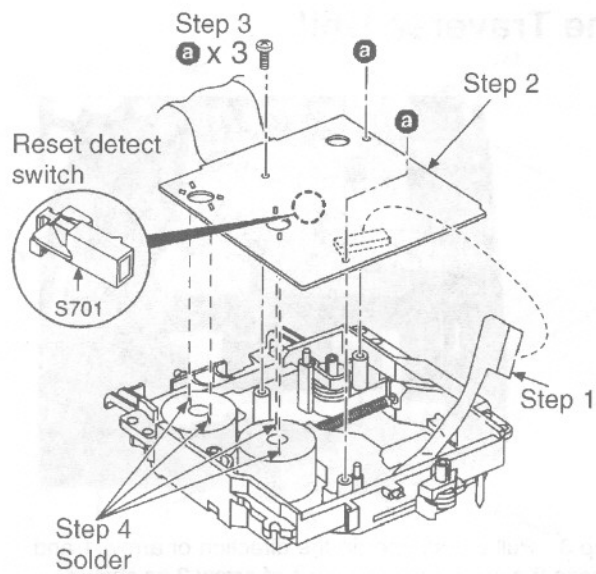
Note:

Insert a short pin into the flexible cable for traverse unit.

- Installation of the CD servo P.C.B. after replacement.**

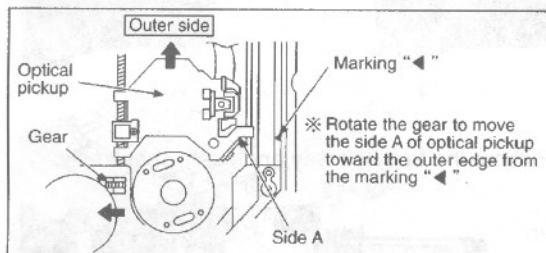
Step 1 Connect the FFC board.

Step 2 Install the CD servo P.C.B. in the traverse deck assembly.

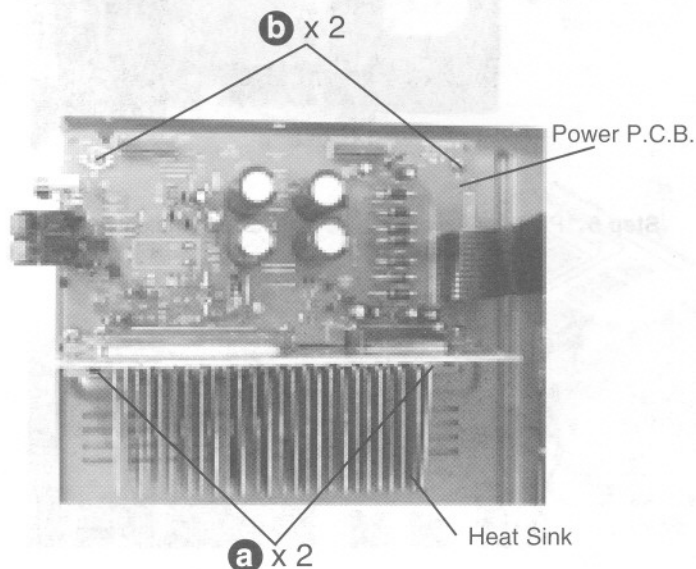
**Note:**

Before installing the CD servo P.C.B., move the optical pickup towards the outer edge from the marking (black triangle).

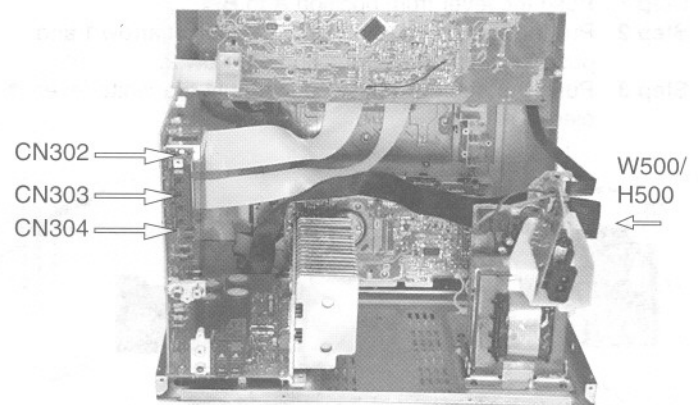
(Otherwise, the reset detect switch (S701) mounted on the CD servo P.C.B. may be damage.)

**2. Replacement of the Power Amplifier IC**

Step 1 Follow the procedures in "Checking Procedure for each major P.C.B." (Step 1 - Step 7).

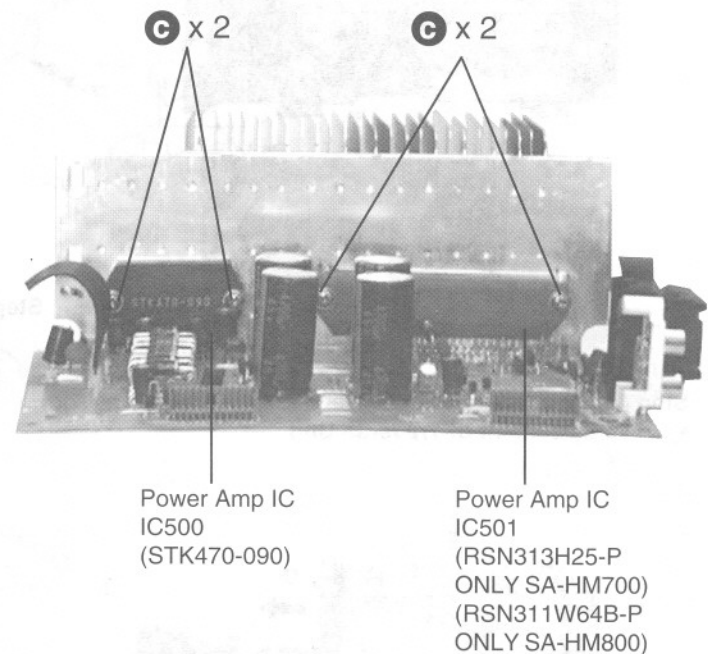


Step 2 Remove the wires at CN302, CN303, CN304 and W500/H500 and pull out the Main P.C.B.



Step 3 Remove 4 screws fixed to the Power Amplifier IC.

Step 4 Unsolder the terminal of Power Amp IC and replace the respective component.



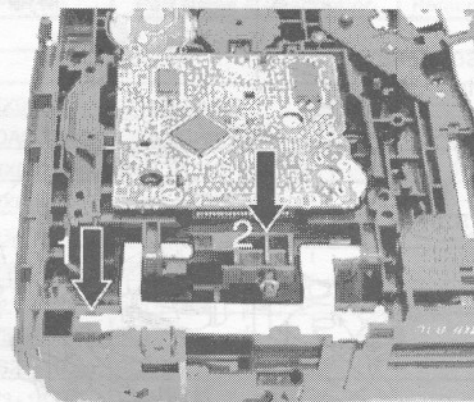
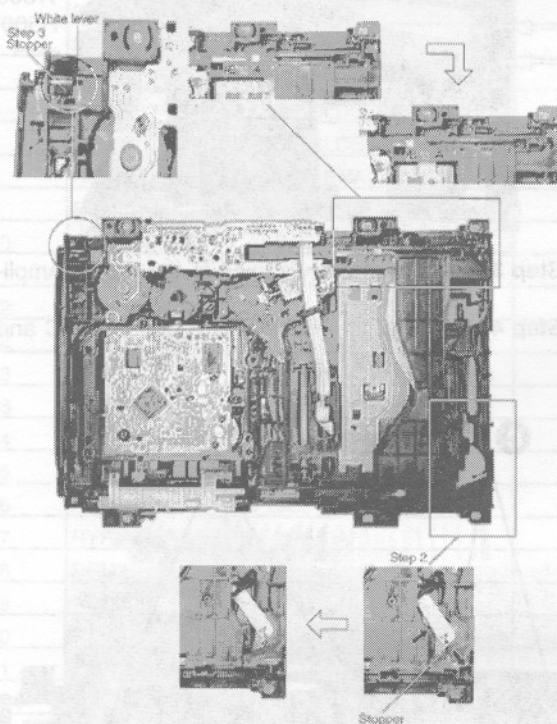
a : XTBS3+8JFZ1

b : XTB3+20J

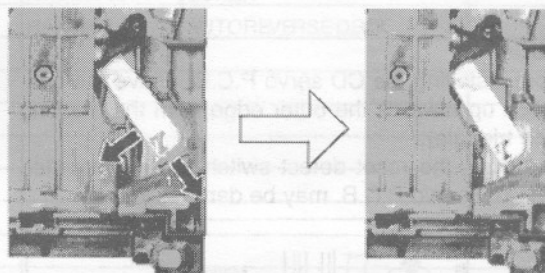
c : XTW3+15T

8.3 Disassembly and assembly of the Traverse Unit

- Step 1** Push the lever from position A to B.
Step 2 Pull the stopper (black) in the direction of arrow 1 and push the lever in the direction of arrow 2.
Step 3 Push the stopper (black) down until the white lever eject out.

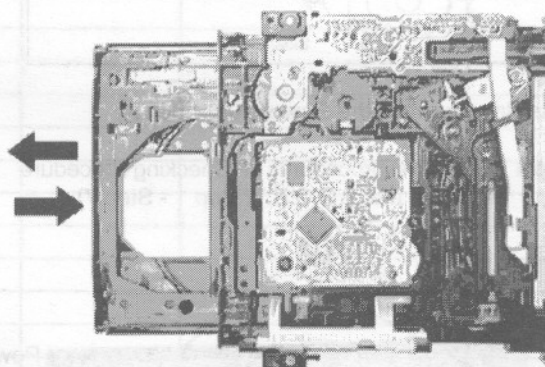
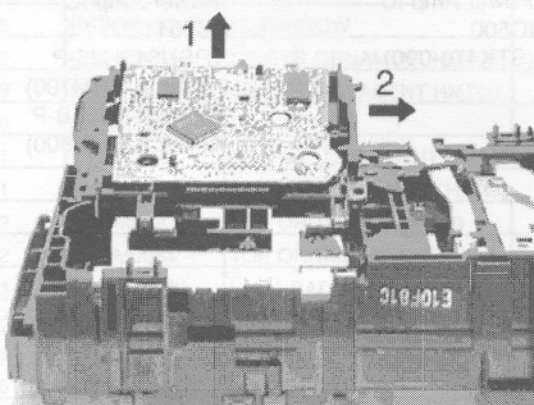


- Step 3** Pull the stopper in the direction of arrow 1 and release the lever in the direction of arrow 2 as shown.

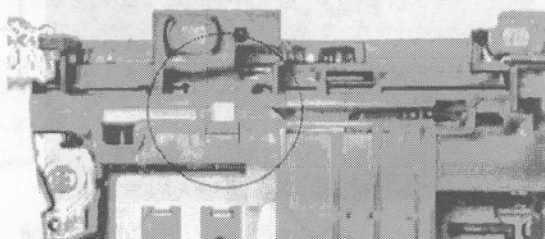


- Step 4** Pull out the tray half way and push it back fully.

- Step 4** Lift up the traverse unit and slide out the unit as shown.
 • **Replacement of Traverse Unit**

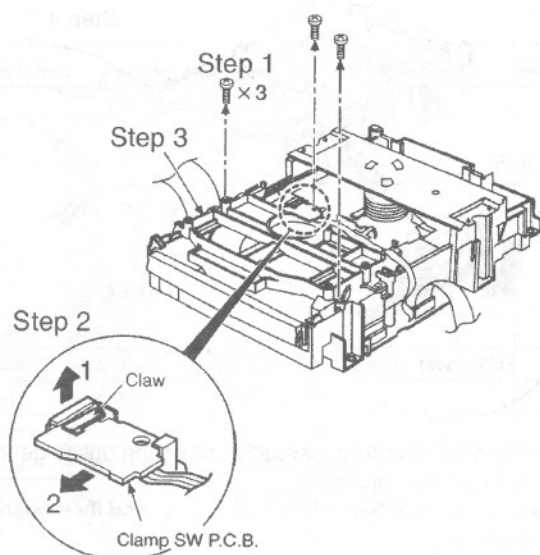


- Step 5** Push the lever to the initial position indicated "I---I".



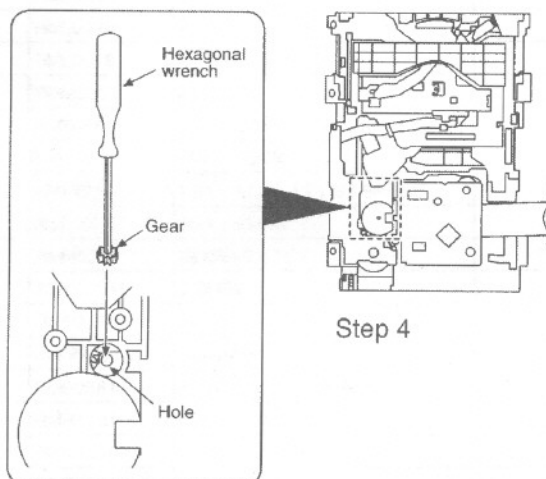
- Step 1** Place the traverse unit as shown.
Step 2 Press in the lever shaft in the direction of arrow 1 as shown and push the traverse unit into the position in the direction of arrow 2.

8.4 Disassembly and assembly of the Disc Tray

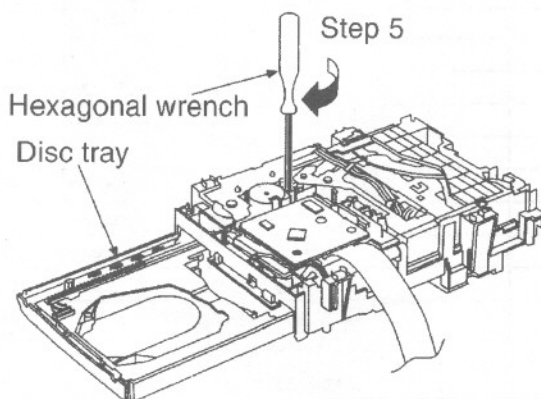


Step 3 Remove the mechanism over.

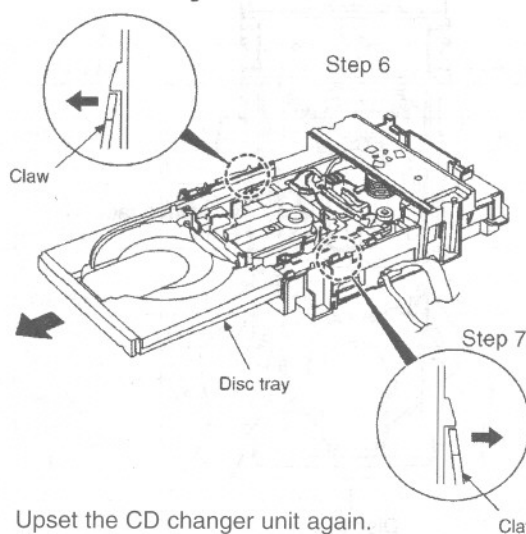
Step 2 With lifting the claw in the direction of arrow 1, draw the clamp SW P.C.B. in the direction of arrow 2.



Step 4 Insert the gear with hexagonal wrench into the hole.

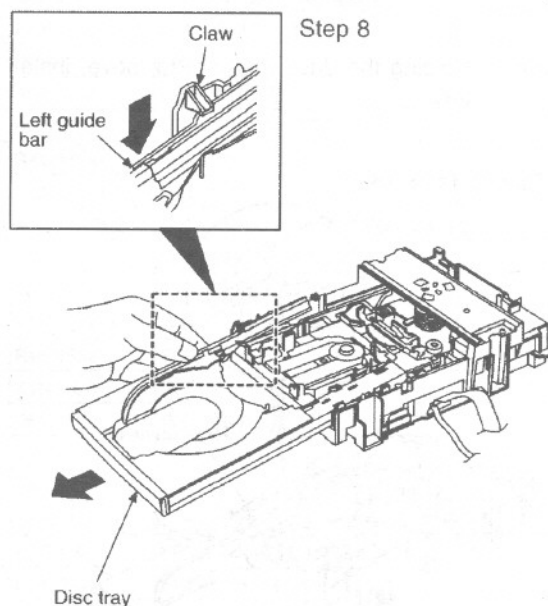


Step 5 Rotate the hexagonal wrench in the direction of arrow (clockwise), and then open the disc tray fully.

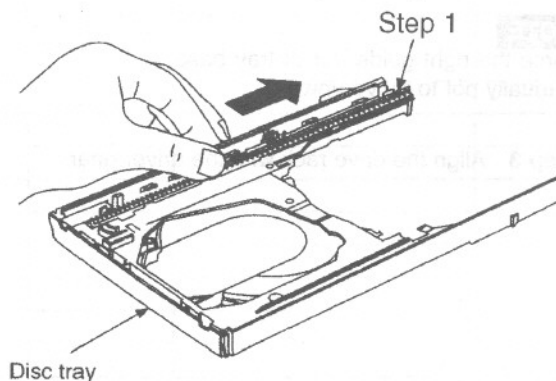


Step 6 Upset the CD changer unit again.

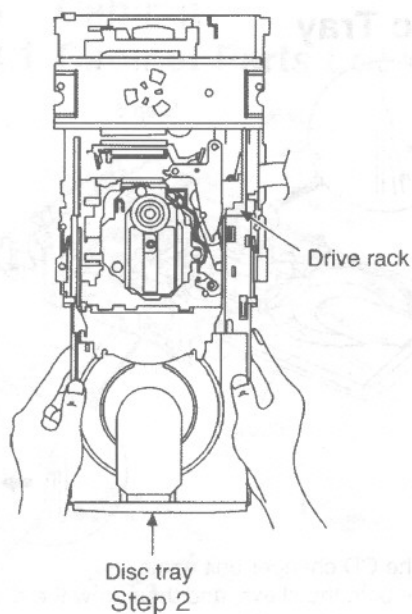
Step 7 Release both the claws, and then draw the disc tray.



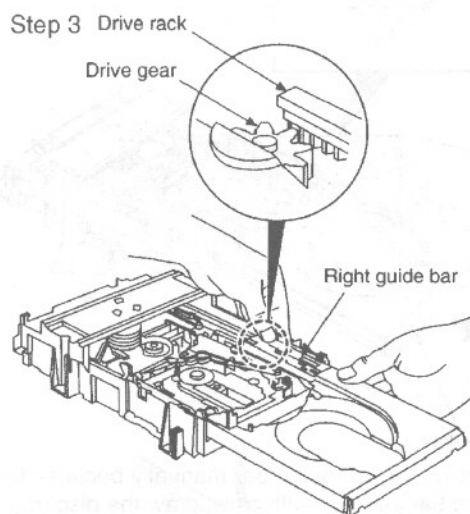
Step 8 With forcing the left guide bar manually because the left guide bar interferes with claw, draw the disc tray.
• **Installation of the disc tray after replacement**



Step 1 Slide the drive rack fully in the direction of arrow.



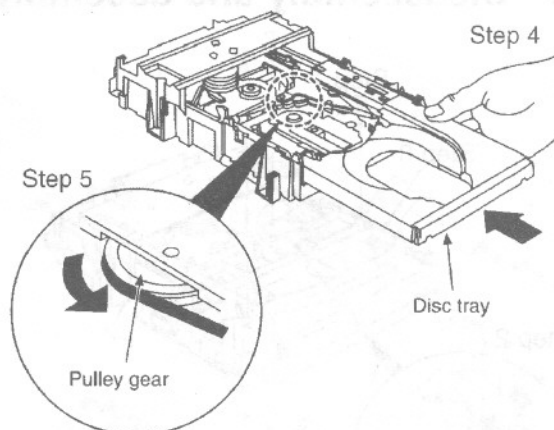
Step 2 Holding the drive rack not to move, install the disc tray.



NOTE

Force the right guide bar of tray base manually not to move upwards.

Step 3 Align the drive rack with the driver gear.



Step 4 Holding the disc tray manually, rotate the pulley gear in the direction of arrow.

Step 5 Rotate the gear 5 or 6 times manually, and then push the disc tray.

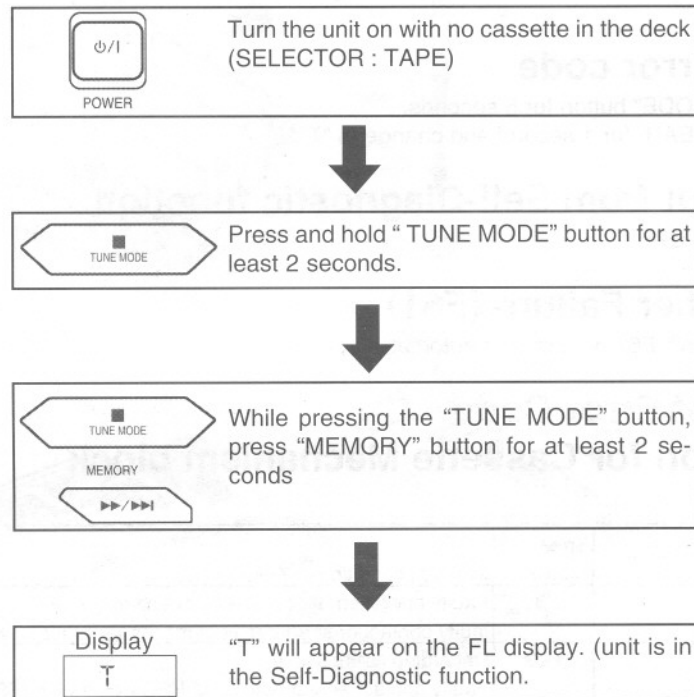
9 Self-Diagnostic Function

9.1 Self-diagnostic display

This unit is equipped with a self-diagnostic display function which, if a problem occurs, will display an error code corresponding to the problem.

Use this function when performing maintenance on the unit.

9.2 How to enter the self-Diagnostic Function



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

1. Press "TAPE DECK 1/2" to select DECK 2.
2. Load a cassette tape with the erasure prevention tab, remove from left side only and close the cassette holder.
3. Press "FAST FORWARD MEMORY" (Tape will be stop after 2 seconds).
4. Load a cassette tape with the erasure prevention tab, remove from right side only and close the cassette holder.
5. Press "REVERSE FM MODE/BP" (Tape will be stop after 2 seconds).
6. Load a pre-recorded tape with both side record tabs intact and close the cassette holder.
7. Press "PLAY/TUNE/TIME ADJ UP" (After TPS function, tape will stop automatically).
8. Press "REC/STOP" (Tape will not move).
9. Press "STOP/TUNE MODE" to indicate Error code.
 - If several problem exist, error code will change each time when "TUNE MODE" is pressed. (e.g. H01 - H03 - F01....etc.).
10. Press "TAPE DECK 1/2" to select Deck 1.
11. Repeat step 2 to 9 to test Deck 1. (Tape Deck 1 will not check H02 because of no recording function).

9.4 CD Mechanism Test (F15, F26, F16, F17, F27, F28, F29, H15)

1. Press "CD".
2. Press "OPEN/CLOSE (1)" and place a CD.
3. Press "OPEN/CLOSE (1)" to close the tray.
4. Press "OPEN/CLOSE (5)" and wait until the tray is open.
5. Press "OPEN/CLOSE (1)" and remove the CD.
6. Press "OPEN/CLOSE (1)" to close the tray.
7. Press "TUNE MODE" to indicate Error Code.
 - If several problem exist, error code will change each time when "TUNE MODE" is pressed. (e.g. F15 - F26 - F16... etc).

9.5 To clear all Error code

1. Press "STOP /TUNE MODE" button for 5 seconds.
2. FL indicator shows "CLEAR" for 1 second and change to "T".

9.6 How to get out from Self-Diagnostic function

1. Press "POWER" button OFF.

9.7 Power Amplifier Failure (F61)

1. When power amplifier fail, F61 will indicate automatically.

10 Description of Error Code

10.1 Error detection for Cassette Mechanism block

No.	Error	Error Display	Problem condition
1	MODE SW detection error	H01	Faulty operation of cassette mechanism faulty contact or short-circuit of mechanism mode switch (S951, S971).
2	REC INH SW detection error	H02	Recording not possible. Faulty contact or short-circuit of REC INH switch (S974, S975).
3	HALF SW detection error	H03	Playback cannot perform. Faulty contact or short-circuit of HALF switch (S952, S972).
4	Reel Pulse detection error	F01	The tape advances slightly and then stops. Faulty reel pulse, faulty hole detect IC (IC951, IC971).
5	TPS abnormal	F02	Cassette deck will not perform TPS function. Faulty playback EQ/recording amplifier IC (IC101).

10.2 Error detection for CD/Changer block

No.	Error	Error Display	Problem condition
1	REST SW detection error	F15	CD does not function This error occurs when the Optical Pick up REST SW (S701) is not detected within the specified time (about 8 seconds)
2	CD tray opens automatically	F16	CLAMP switch (S4) NG (Check & Replace)
3	Does not startup when (PLAY) Button is pressed	F17	BOTTOM switch (S5) NG (Check & Replace)
4	Transmission error between CD servo LSI and micon	F26	CD does not function This error occurs when the POWER is ON for the CD block and an error is detected after the transmission has started.
5	Startup fails even when you insert CD or the selected disc tray does not open	F27	Tray 1 detect switch or Tray 2 detect switch NG (Check & Replace)
6	Cannot insert CD	F28	Tray 1 detect switch NG (Check & Replace)
7	Cannot eject CD	F29	Check if disc is stuck. Tray 2 detect switch NG (Confirm & Replace)
8	The CD tray closes	H15	CD disc tray detect switch NG (S3) (Check & Replace)

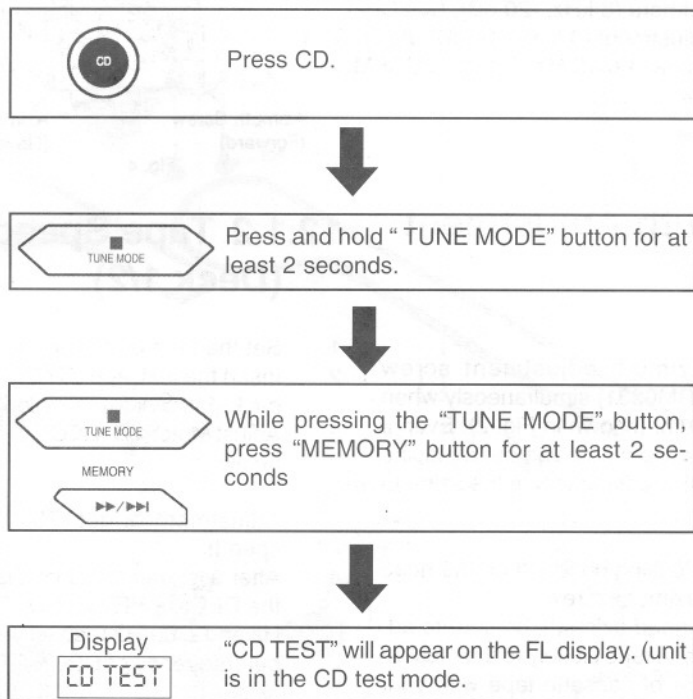
10.3 Power Supply related error detection

No.	Error	Error Display	Problem condition
1	POWER AMP output abnormal	F61	When POWER is switched on, power become off automatically. During normal operation, if DC DET become L, PCNT shall become L and the error display on the left shall be displayed. (IC501)

11 CD Test Mode Function

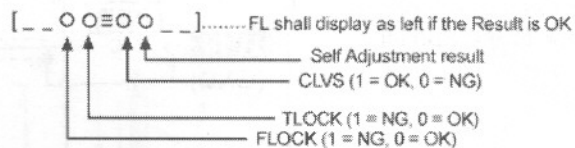
This CD test mode is provided to check CD unit without connecting to changer loading mechanism. This mode shall operate CD PLAY with CD unit being connected only and CD Automatic Alignment result is shown on FL display.

11.1 How to set CD test mode



11.2 CD Automatically Adjustment result indication

Under CD test mode, pressing the numeric key "0" on the remote controller will display the auto adjustment result. FLOCK, TLOCK and CLVS status shall be shown as below:



During the above display, executing CD PLAY will display auto adjustment result for CD PLAY mode.

12 Measurements and Adjustments

12.1 Cassette Deck Section

- Measurement Condition
 - Reverse-mode selector switch:
 - Tape edit: NORMAL
 - Record timer: OFF
 - Make sure head, capstan and press roller are clean.
 - Judgeable room temperature $20 \pm 5^{\circ}\text{C}$ ($68 \pm 9^{\circ}\text{F}$)
- Measuring instrument
 - EVM (Electronic Voltmeter)
 - Digital quency counter
- Test tape
 - Head azimuth adjustment (8 kHz, -20 dB); QZZCFM
 - Tape speed gain adjustment (3 kHz, -10 dB); AZZCWAT
 - Playback gain adjustment (315 Hz, 0 dB); AZZCFM
 - CrO2 tape, QZZCRX

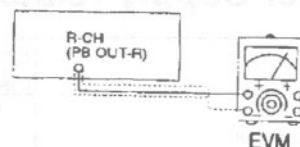


Fig. 1

- (RHE5152ZB)
- (RMB0331)

Fig. 2

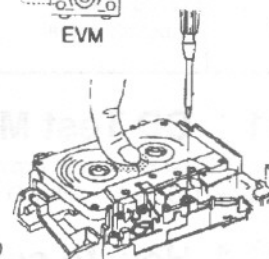


Fig. 3

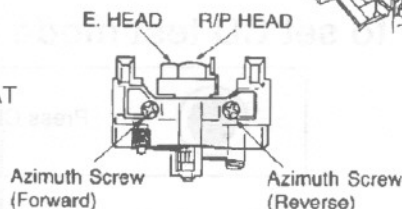


Fig. 4

12.1.1 Head Azimuth Adjustment (Deck 1/2)

CAUTION:

- Please replace both azimuth adjustment screw (rhe5152zb) and springs (RM0331) simultaneously when readjusting the head azimuth. (shown in Fig. 2). Even if you wish to readjust the head azimuth without replacing the screws and springs, a fine adjustment to the azimuth screw and spring.
 - Please remove the screw-locking bond left on the head base when replacing the azimuth screw.
 - If you wish to readjust the head azimuth, be sure to adjust with adhering the cassette tape closely to the mechanism by pushing the center of cassette tape with your finger. (shown in Fig. 3)
1. Play back the azimuth adjustment portion (8 kHz, -20dB) of the test tape (QZZCFM) in the forward play mode. Vary the azimuth adjustment screw until the output of the R-CH (PB OUT-R) are maximized.
 2. Perform the same adjustment in the reverse play mode.
 3. After the adjustment, apply screwlock to the azimuth adjusting screw.

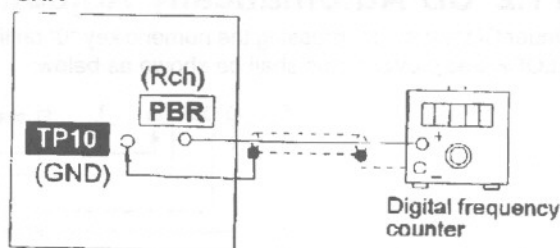
12.1.2 Tape Speed Adjustment (Deck 1/2)

1. Set the tape edit button to "NORMAL" position.
2. Insert the test tape (QZZCWAT) to DECK 2 and playback (FWD side) the middle portion of it.
3. Adjust Motor VR (DECK 2) for the output value shown below.

Adjustment target: 2940 ~ 3060 Hz (NORMAL speed)

4. After alignment, assure that the output frequency of the DECK 2 REV and DECK 1 FWD are within ± 45 Hz and ± 60 Hz respectively of the value of the output frequency of DECK 2 FWD.

UNIT

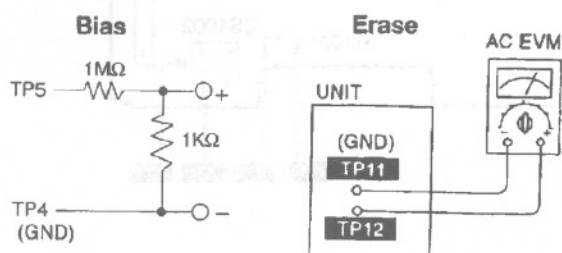


12.1.3 Bias and Erase Voltage Check

1. Set the "AUX" position.
2. Insert the Normal blank tape (AZZCRA) into DECK 2 and the unit to "REC" mode (use "REC/STOP" key).
3. Measure and make sure that the output is within the standard value.
4. Insert the CrO₂ tape (QZZCRX).
5. Repeat step 2 and 3.

Bias voltage for Deck 2
Standard value)
Erase voltage for Deck 2

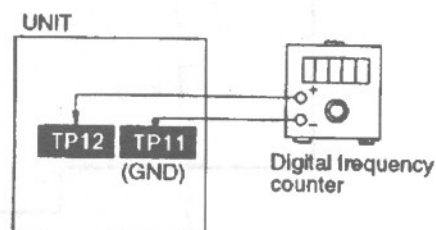
$14 \pm 4\text{mV}$ (Normal)
 $17 \pm 5\text{mV}$ (CrO₂)
more than 80mV (Normal)
more than 90mV (CrO₂)



12.1.4 Bias Frequency Adjustment (Deck 1/2)

1. Set the unit to "AUX" position.
2. Insert the Normal blank tape (QZZCRA) into DECK 2 and set the unit to "REC" mode (use "REC/STOP" key).
3. Adjust L1002 so that the output frequency is within the standard value.

Standard Value: $97 \pm 8\text{ kHz}$



12.2 Tuner Section

12.2.1 AM-IF Alignment

AM-IF ALIGNMENT

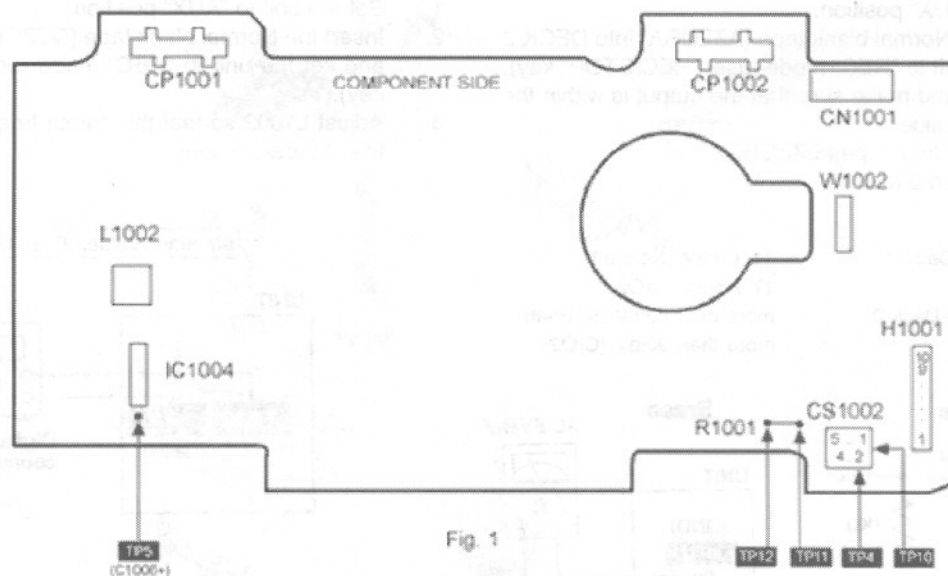
SIGNAL GENERATOR OR SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER OSCILLOSCOPE)	ADJUSTMENT (Show in Fig. 3)	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate signal into loop of receiver	450 kHz 30% Mod. at 400 Hz.	Point of non-interference (on/about 600 kHz)	Headphone Jack (32 Ω) Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.	Z102 (AM IFT)	Adjust for maximum output.

AM-RF ALIGNMENT

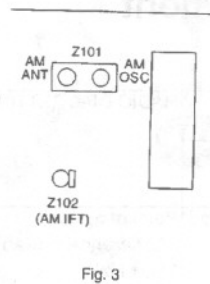
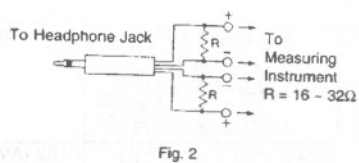
SIGNAL GENERATOR OR SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER OSCILLOSCOPE)	ADJUSTMENT (Show in Fig. 1)	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate signal into loop of receiver	520 kHz	Tuning capacitor fully closed	Headphone Jack (32 Ω) Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.	Z101 (AM OSC Coil)	Adjust for maximum output.
Fashion a loop of several turns of wire and radiate signal into loop of receiver	600 kHz	Tuning capacitor fully open	Headphone Jack (32 Ω) Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.	Z101 (AM ANT Coil)	Adjust for maximum output.

12.3 Alignment Points

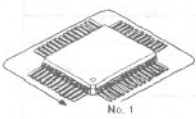
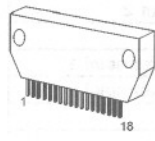
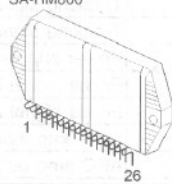
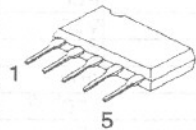
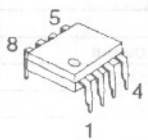
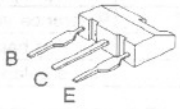
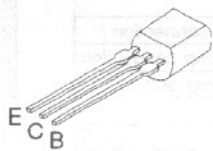
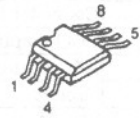
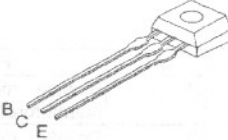
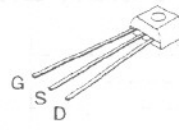
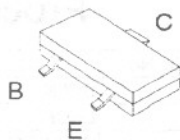
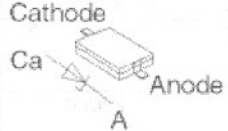
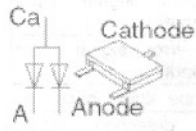
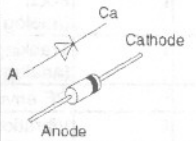
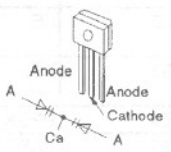
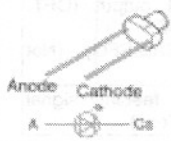
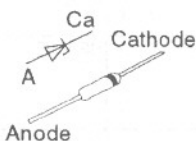
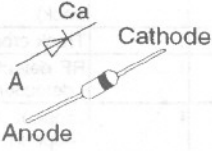
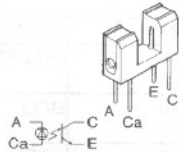
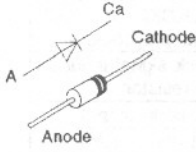
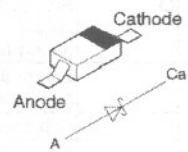
Cassette Deck Section



Tuner section



13 Illustration of IC's Transistors and Diodes

M38B79MFA158 (100P) BH3874AKS2 (64P) 	BU2090AF-E2 (16P) LA1833NMNTLM (24P) LC72131MDTRM (20P) AN7348STA-E1 (24P) BA4558FE2 (8P) TC4052BFNELM (16P) 	STK470-090 (14P) RSN313H25P (22P) SA-HM700 	RSN311W64B-P (26P) SA-HM800 	BA7755A 
M5218AP 	2SD1859QRTV2 2SB1238QRTV2 	KTA12710YTA KTD1146YTA 2SB621ARSTA KTC3205YTA KRC101MTA KTA1504GRSTA 	KIA4558FEL 	2SC2058SPTA 
2SA933SSTA 2SC2787FL1TA 2SD2144STA KTC3199GRSTA 2SC2786MTA 	KRA102MTA KRC103MTA KRC102MTA 	2SK544F-AC 	2SC2412KT96R KTC3875GRSTA KRC111STA KTD1304TA KRC102STA KRA102STA 	
				MA8300MTX 1SS355TE17 UDZSTE175R1B UDZSTE177R5B UDZTE173R6B 
DAP202KT146 	1T3T RL1N4003S-P 1N5402BM21 	SVC211SPA-AL 	SLI325URCT31 SLR325MCT31W 	MA4020LTA MTZJ20BTA MTZJ24DTA MTZJ7R5ATA 
RVD1SS133TA 1SS291TA MA165TA MA700ATA MA723TA 	CNB13030R2AV 	BOJAPG000019 	MA728TX 	

14 Terminal Function of IC'S

14.1 IC701 (AN8885SBE1) Servo Amplifier

Pin No.	Mark	I/O	Function
1	PDE	I	Tracking signal input 1
2	PDF	I	Tracking signal input 2
3	VCC	I	Power supply
4	PDA	I	Focus signal input terminal 1
5	PDB	I	Focus signal input terminal 2
6	LPD	I	APC amp input
7	LD	O	APC amp output
8	RF	O	RF summing output
9	RFIN	I	Detector's input
10	CSBRT	I	Capacitor for OFTR connection
11	CEA	I	Capacitor for HPF amp connection
12	BDO	O	BDO output ("H" : drop out)
13	LDON	I	APC control
14	GND	—	Ground

Pin No.	Mark	I/O	Function
15	/RFDET	O	NRFDET output ("L" : detection)
16	PDOWN	O	Power-down input
17	OFTR	O	OFTR output
18	NC	O	N.C.
19	ENV	O	3T-ENV output
20	NC	I	N.C.
21	NC	I	N.C.
22	TEN	I	TE amp input
23	TEOUT	O	TE amp output
24	FEOUT	O	FE amp output
25	FEN	I	FE amp input
26	VREF	O	Reference voltage output
27	TBAL	I	Tracking balance control
28	FBAL	I	Focus balance control

14.2 IC702 (MN662790RSC) Servo Processor, Digital Signal Processor, Digital Filter, D/A Converter

Pin No.	Mark	I/O	Function
1	BCLK	O	N.C.
2	LRCK	O	N.C.
3	SRDATA	O	N.C.
4	DVDD1	I	Power supply input (for digital circuit)
5	DVSS1	I	GND (for digital circuit)
6	TX	O	Digital audio interface signal output (Latches data at first transition)
7	MCLK	I	Microprocessor command clock signal input
8	MDATA	I	Microprocessor command data signal input
9	MLD	I	Microprocessor command load signal input
10	SENSE	O	Sense signal output (OFT, FESL, MAGEND, NAJEND, POSAD, SFG) (Not used, open)
11	/FLOCK	O	Focus servo feeding signal output ("L" : Feed)
12	/TLOCK	O	Tracking servo feeding signal output ("L" : Feed)
13	BLKCK	O	Sub-code block clock signal output (BLKCKf = 75Hz during normal playback)
14	SQCK	I	External clock signal input for sub-code Q resistor
15	SUBQ	O	Sub-code Q code output
16	DMUTE	I	Muting input ("H" : mute)
17	STAT	O	Status signal output (CRC, CUE, CLVS, TTSTVP, FCLV, SQCK)
18	/RST	I	Reset signal input
19	SMCK	O	1/2-divided clock signal of crystal oscillating at MSEL = "H" (fSMCK = 8.4672 MHz) 1/4-divided clock signal of crystal oscillating at MSEL = "L" (fSMCK = 4.2336 MHz)
20	CSEL	I	Frequency Selection Terminal H = 33.8688 MHz ; L = 16.9344 MHz
21	TRV	O	N.C.
22	TVD	O	Traverse drive output
23	PC	O	Spindle motor ON output ("L" : ON)

Pin No.	Mark	I/O	Function
24	ECM	O	Spindle motor drive signal output (forced mode output)
25	ECS	O	Spindle motor drive signal output (servo error signal output)
26	KICK	O	N.C.
27	TRD	O	Tracking drive output
28	FOD	O	Focus drive output
29	VREF	I	D/A (drive) output (TVD, ECS, TRD, FOD, FBAL, TBAL) Reference voltage input
30	FBAL	O	Focus balance adjustment output
31	TBAL	O	Tracking balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input
35	VDET	I	Vibration detection signal input ("H" : detection)
36	OFT	I	Off-track signal input ("H" : off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal input ("L" : detection)
39	BDO	I	Dropout signal input ("H" : Dropout)
40	LDON	O	Laser on signal output ("H" : ON)
41	PLL2	I/O	N.C.
42	DSL2	O	Tracking Offset alignment output/DSL Balance Output (DA Output)
43	WVEL	O	N.C.
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias terminal (Not used, open)
47	DSL2	I/O	DSL loop filter terminal
48	PLL2	I/O	PLL loop filter terminal
49	VCOF	I/O	VCO loop filter terminal
50	AVDD2	I	Power supply input (for analog circuit)
51	AVSS2	I	GND (for analog circuit)

Pin No.	Mark	I/O	Function
52	EFM	-	EFM signal output
53	PCK	-	PLL extraction clock output (fPCK = 4.321 MHz during normal playback)
54	VCOF2	I/O	VCO Loop filter for 33.8688 MHz conversation terminal for 16.9344 MHz crystal mode, must use other circuit
55	SUBC	O	Sub-code serial data output
56	SBCK	I	Clock input for sub-code serial data
57	VSS	I	GND
58	X1 IN	I	Crystal oscillating circuit input (f = 16.9344MHz)
59	X2 OUT	O	Crystal oscillating circuit input (f = 16.9344 MHz)
60	VDD	I	Power supply input (for oscillating circuit)
61	BYTCK	-	Byte clock output
62	/CLDCK	-	Sub-code frame clock signal output (fCLDCK = 7.35 kHz during normal playback)
63	FCLK	-	Crystal frame clock signal output (fCLK = 7.35 kHz, double = 14.7 kHz)
64	IPFLAG	-	Interpolation flag output ("H" : Interpolation)
65	FLAG	-	Flag output

Pin No.	Mark	I/O	Function
66	CLVS	-	Spindle servo phase synchronizing signal output ("H" : CLV, "L" : rough servo)
67	CRC	-	Sub-code CRC checked output ("H" :OK, "L" :NG)
68	DEMPH	-	De-emphasis ON signal output ("H" :ON)
69	RESY	-	Frame re-synchronizing signal output
70	IOSEL	I	Mode Switching Terminal
71	/TEST	I	Test input
72	AVDD1	I	Power supply input (for analog circuit)
73	OUTL	O	Left channel audio signal output
74	AVSS1	I	GND
75	OUTR	O	Right channel audio signal output
76	RSEL	I	RF signal polarity assignment input (at "H" level, RSEL="H", at "L" level, RSEL="L")
77	IOVOD	I	5V supply input
78	PSEL	I	Test terminal (connected to Gnd)
79	MSEL	I	SMCK oscillating frequency designation input ("L":4.2336 MHz, "H":8.4672 MHz)
80	SSEL	I	SUBQ output mode select ("H":Q-code buffer mode)

14.3 IC703 (AN8739SBE2) Focus Coil, Tracking Coil, Traverse Motor, Spindle Motor Drive

Pin No.	Mark	I/O	Function
1	/RST	-	RESET output terminal
2	NC	-	N.C.
3	IN2	I	Motor Drive (2) input
4	PC2	I	Turntable motor drive signal ("L" :ON)
5	NC	-	N.C.
6	IN1	I	Motor driver (1) input
7	NC	I	N.C.
8	PVCC1	I	Power supply (1) for driver
9	PGND1	-	Ground connection (1) for driver
10	NC	-	N.C.
11	D1-	O	Motor driver (1) reverse-action output
12	D1+	O	Motor driver (1) forward-action output
13	D2-	O	Motor driver (2) reverse-action output
14	D2+	O	Motor driver (2) forward-action output

Pin No.	Mark	I/O	Function
15	D3-	O	Motor driver (3) reverse-action output
16	D3+	O	Motor driver (3) forward-action output
17	D4-	O	Motor driver (4) reverse-action output
18	D4+	O	Motor driver (4) forward-action output
19	NC	-	N.C.
20	PGND2	-	Ground connection (2) for driver
21	PVCC2	I	Power supply (2) for driver
22	NC	-	N.C.
23	VCC	I	Power supply terminal
24	VREF	I	Reference voltage input
25	IN4	I	Motor driver (4) input
26	IN3	I	Motor driver (3) input
27	RSTIN	I	Reset terminal
28	NC	-	N.C.

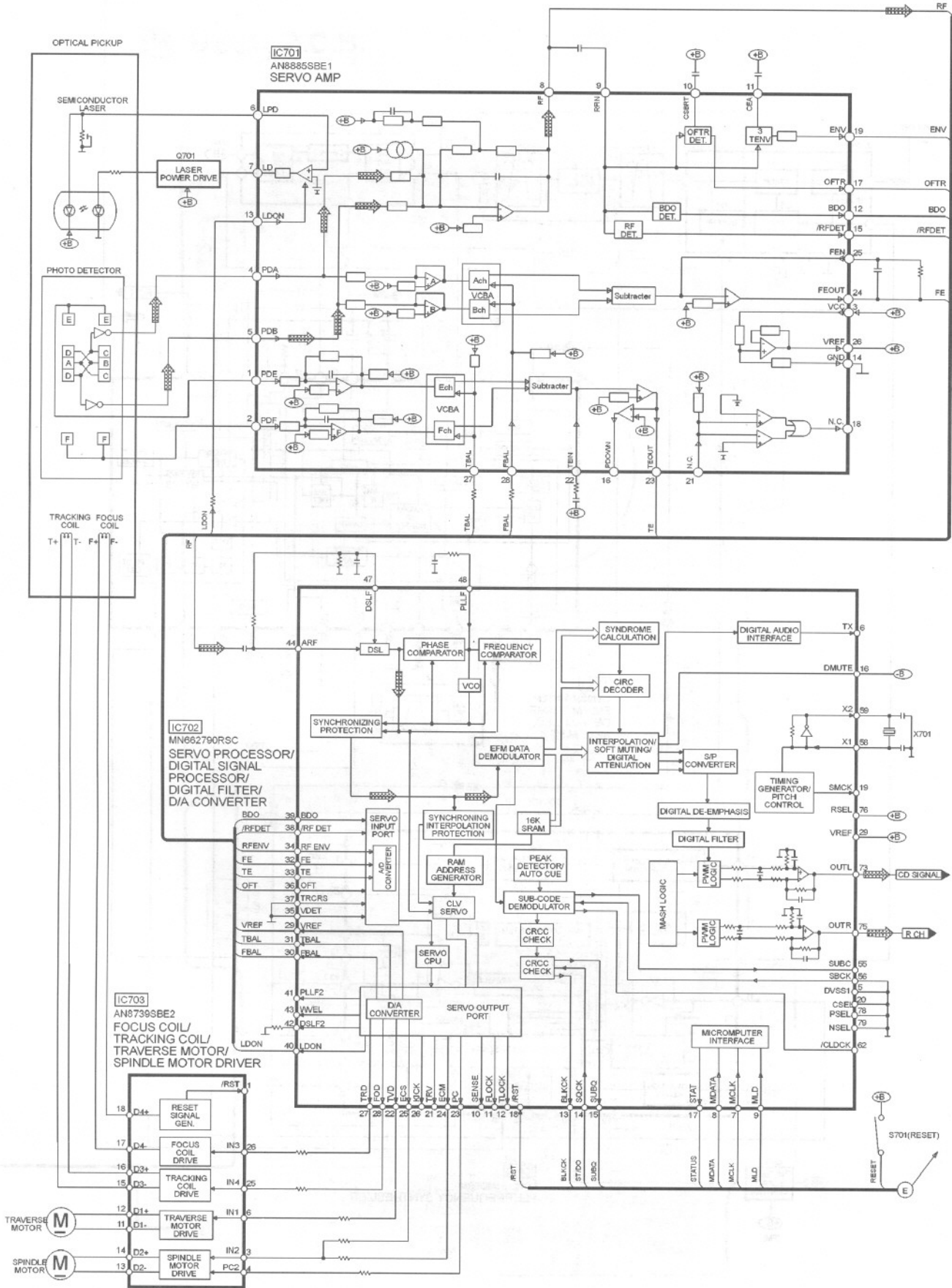
14.4 IC600 (M38B79MFA158) Microprocessor

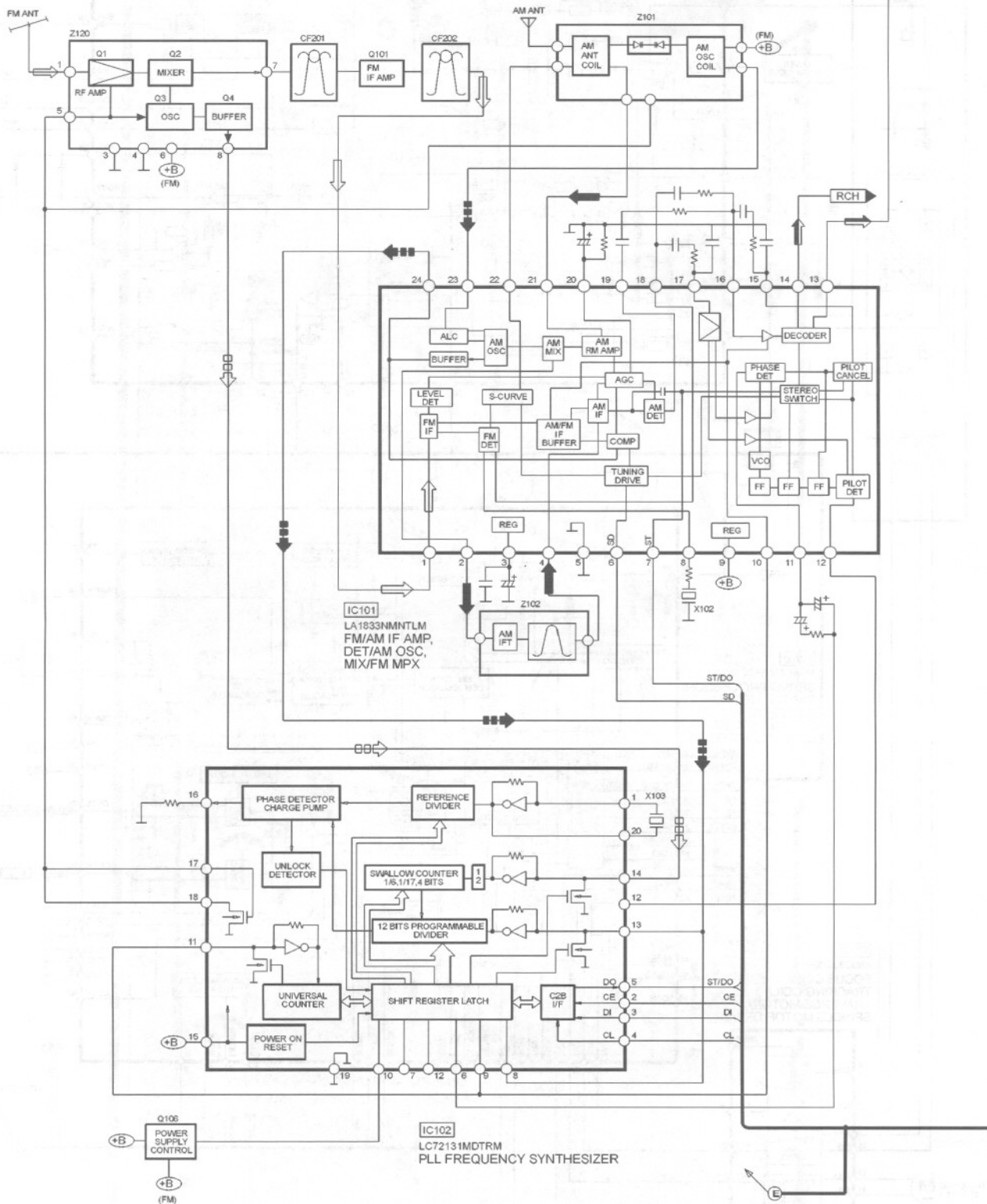
Pin No.	Mark	I/O	Function
1	DECK2	I	Tape mecha condition input (Half2/Reci_F/Mode/Reci_R)
2	KEY3	I	Key 3 input
3	KEY2	I	Key 2 input
4	KEY1	I	Key 1 input
5	V_JOG_AD	I	Volume jog A-D detection input
6	J_JOG_AD	I	EQ Joy jog A-D detection input
7	CHG_AD1	I	(Open Clamp) Chngr sw A-D detection input 1

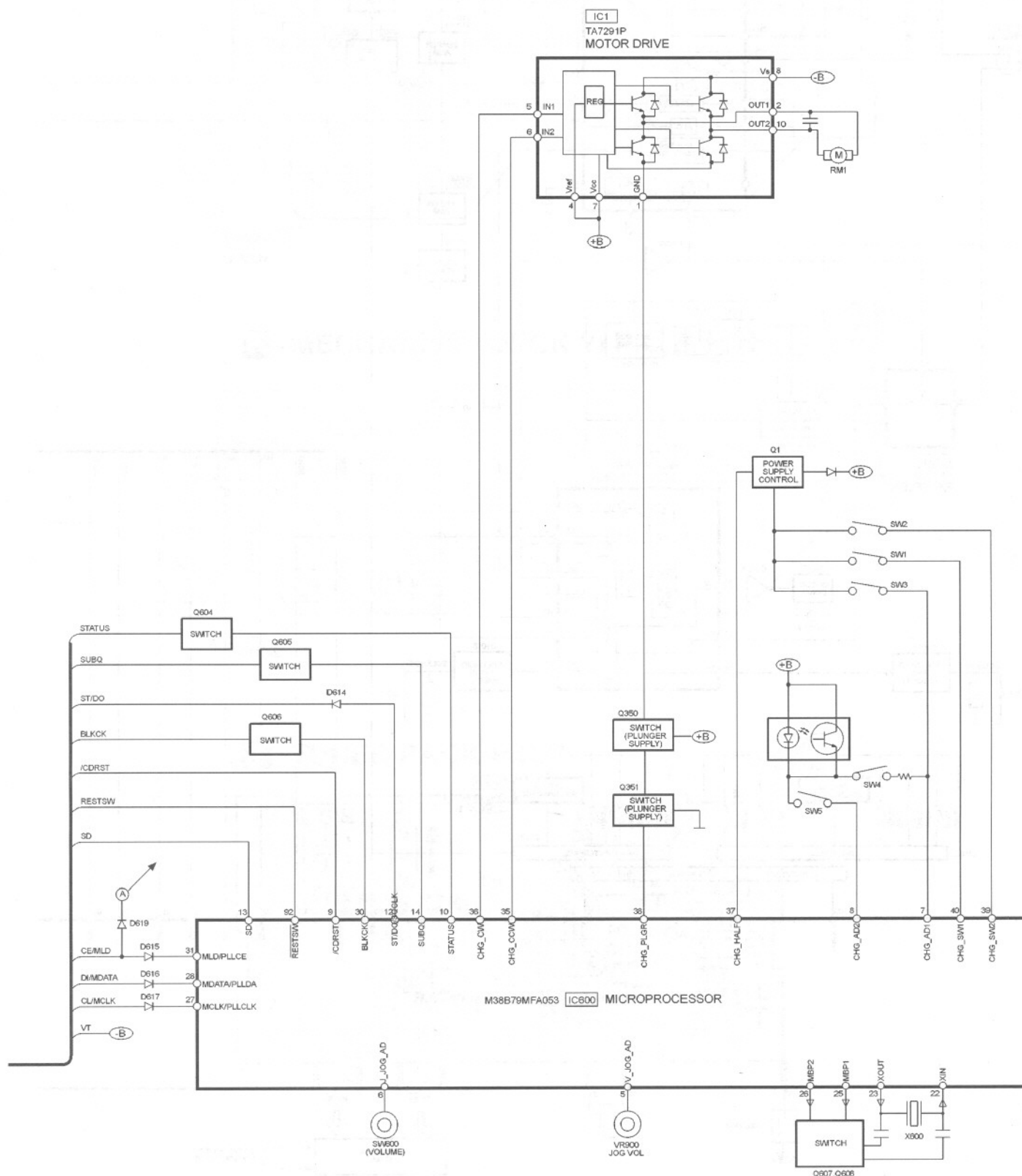
Pin No.	Mark	I/O	Function
8	CHG_AD2	I	(Position/ bottom) Chngr sw A-D detection input 2
9	/CDRST	O	CD reset output
10	STATUS	I	CD signal processor status input (INV)
11	SPE	I	Speana input
12	ST/DO/SQCK	I/O	Tuner if data/stereo input and CD subcode clock output
13	SD	I/O	Tuner signal detect input
14	SUBQ	I	CD subcode data input (INV)
15	RDS_CL	I	RDS clock input
16	RDS_DA	I	RDS data input

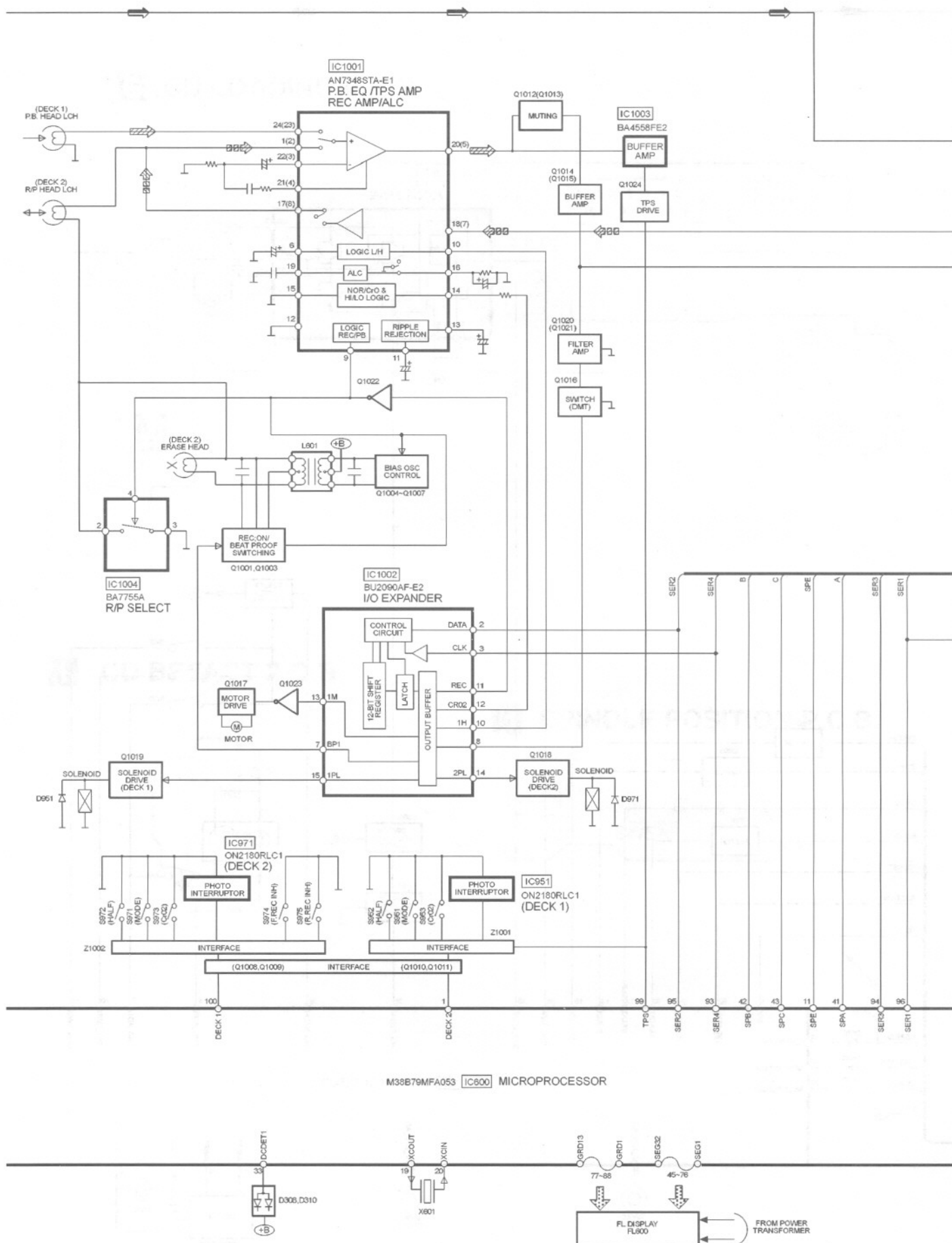
Pin No.	Mark	I/O	Function
17	CNVSS	-	Flash mode terminal (connect to ground)
18	/RESET	-	RESET input
19	XCOUT	-	32.768 kHz sub clock
20	XCIN	-	32.768 kHz sub clock
21	VSS	-	Ground (0V)
22	XIN	-	4.19 MHz main clock
23	XOUT	-	4.19 MHz main clock
24	VCC	-	Power supply (+5V)
25	MBP1	O	MPU beat proof output 1
26	MBP2	O	MPU beat proof output 2
27	MCLK/ PLLCK	O	CD command clock output/ tuner PLL clock output
28	MDATA/ PLLDATA	O	CD command data output/ tuner PLL data output
29	RMT	I	Remote control input
30	BLKCK	I	CD block clock input (INV)
31	MLD/ PLLCE	O	CD command load output/ tuner PLL chip enable
32	SYNC	I	AC failure detect input
33	DCDET 1	I	DC detect input 1
34	DCDET 2	I	DC detect input 2
35	CHG_CCW	O	Changer motor CCW output
36	CHG_CW	O	Changer motor CW output
37	CHG_HALF	O	Changer half drive output
38	CHG_PLGR	O	Changer plunger output
39	CHG_SW2	I/O	CD changer SW2 input
40	CHG_SW1	I/O	CD changer SW1 input
41	SP_A	O	Speana control output A
42	SP_B	O	Speana control output B
43	SP_C	O	Speana control output C
44	SWFK_LED	-	Super woofer LED
45-63	SEG1- SEG19	O	Segment drive output (Anode drive output)
64-72	SEG20-28 SEG 9-1	O	Segment drive output (Anode drive output) For regional setting/ function selection use
73-75	SEG29-31	O	Segment drive output (Anode drive output)
76	SEG32	O	Segment drive output
77-88	GRD12-1	O	Digit drive output (Grid drive output)
89	VEE	-	Power supply (-30V)
90	REG_IN/ EE_CS	I/O	Region and function setting input and eeprom chip select output
91	ECONO	O	Main transormer control output for economy mode
92	RESTSW	I	CD limit SW input for the most inner point (Active Low)
93	SER4	O	EEPROM_CLK EXP2_CLK/MK_CLK
94	SER3	O	ASP latch
95	SER2	O	ASP_CLK/EXP1_CLK/ MK_DAT
96	SER1	I/O	EEPROM_DAT / ASP_DAT / EXP1_DAT / EXP2 DAT
97	AVSS	-	Analog ground (0V)
98	VREF	-	Reference for A-D
99	TPS	I	Tape mecha TPS Input/ chrome 1 / chrome 2
100	DECK1	I	Tape mecha condition input (Half1/Mode/Photo1/ Photo 2)

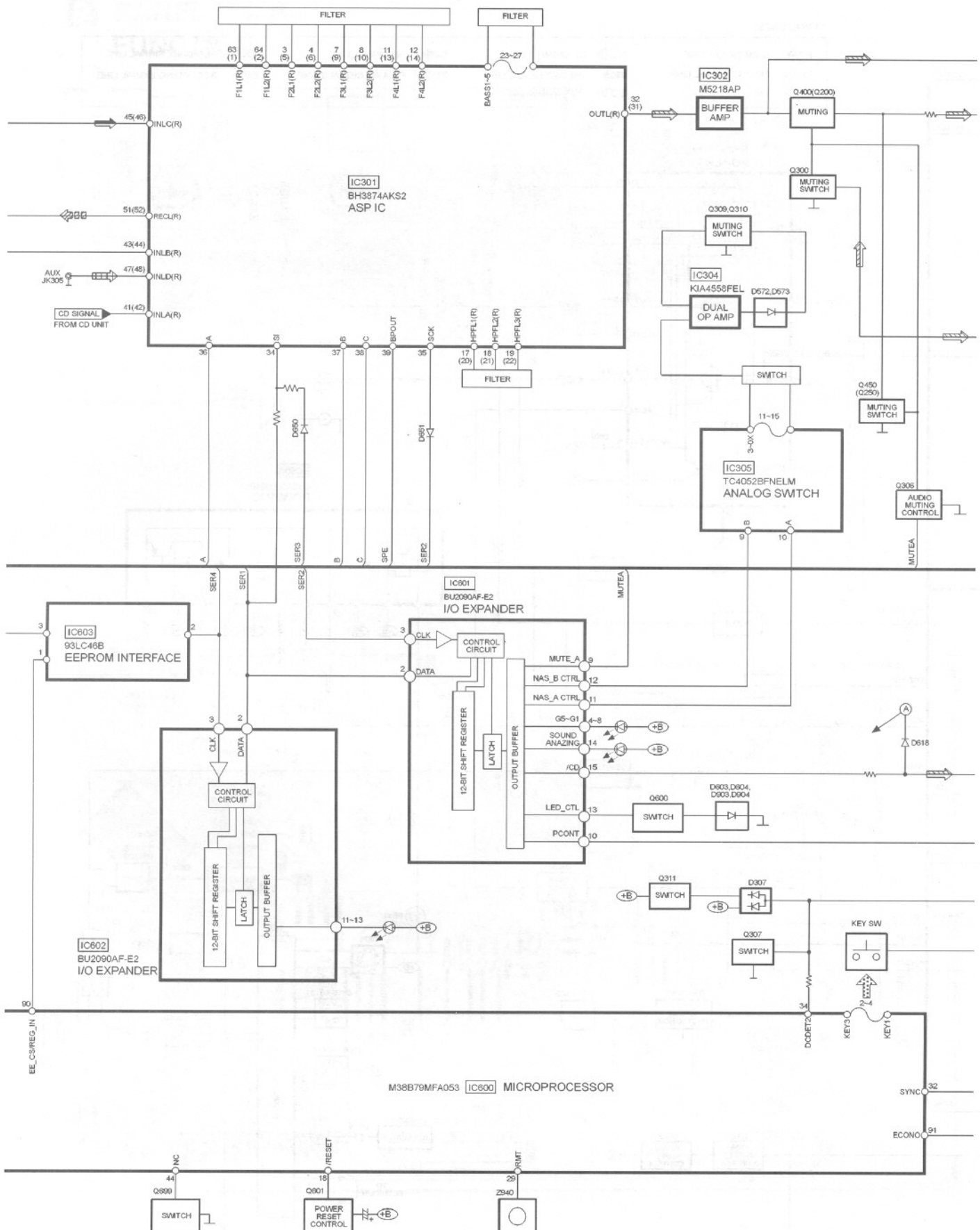
15 Block Diagram



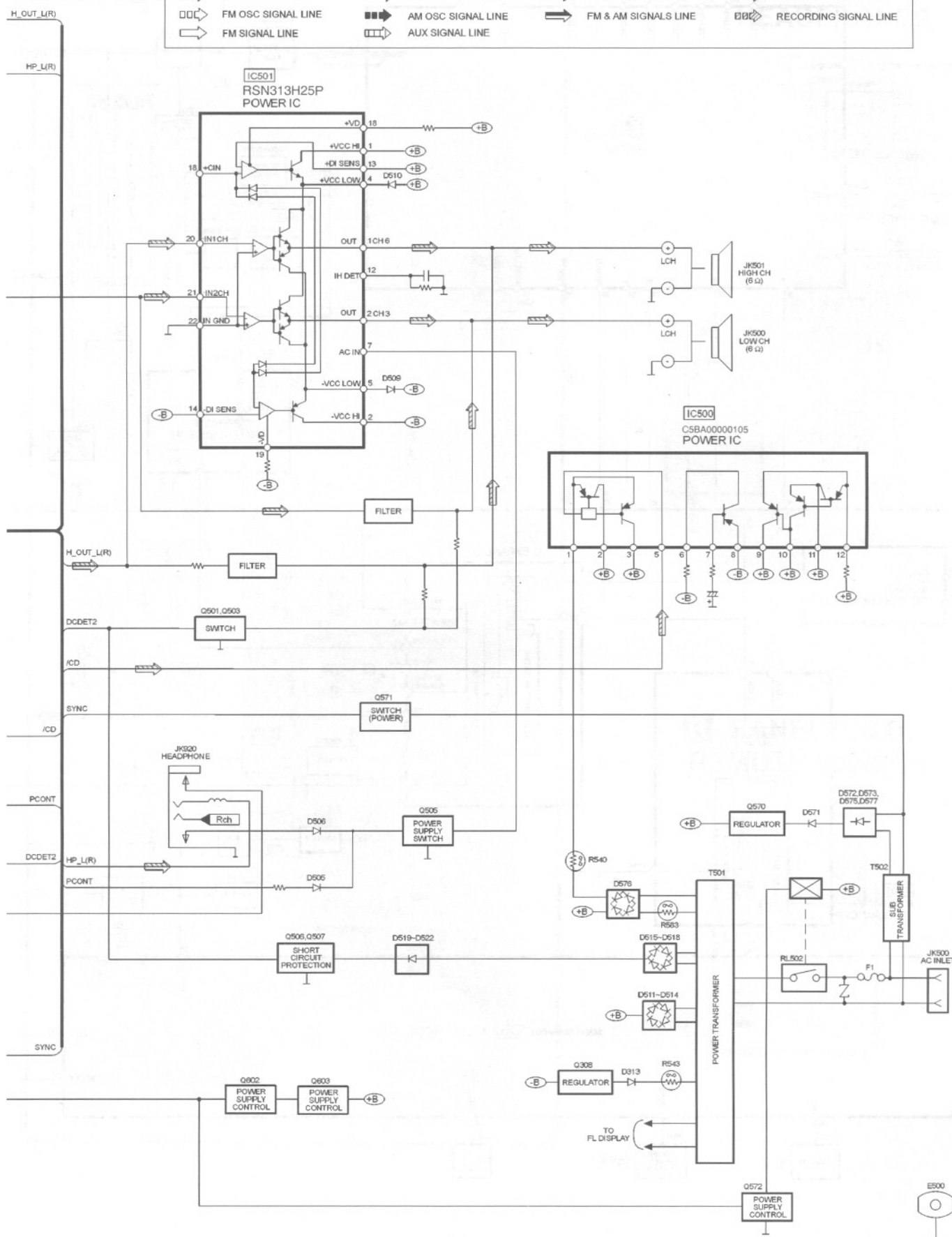




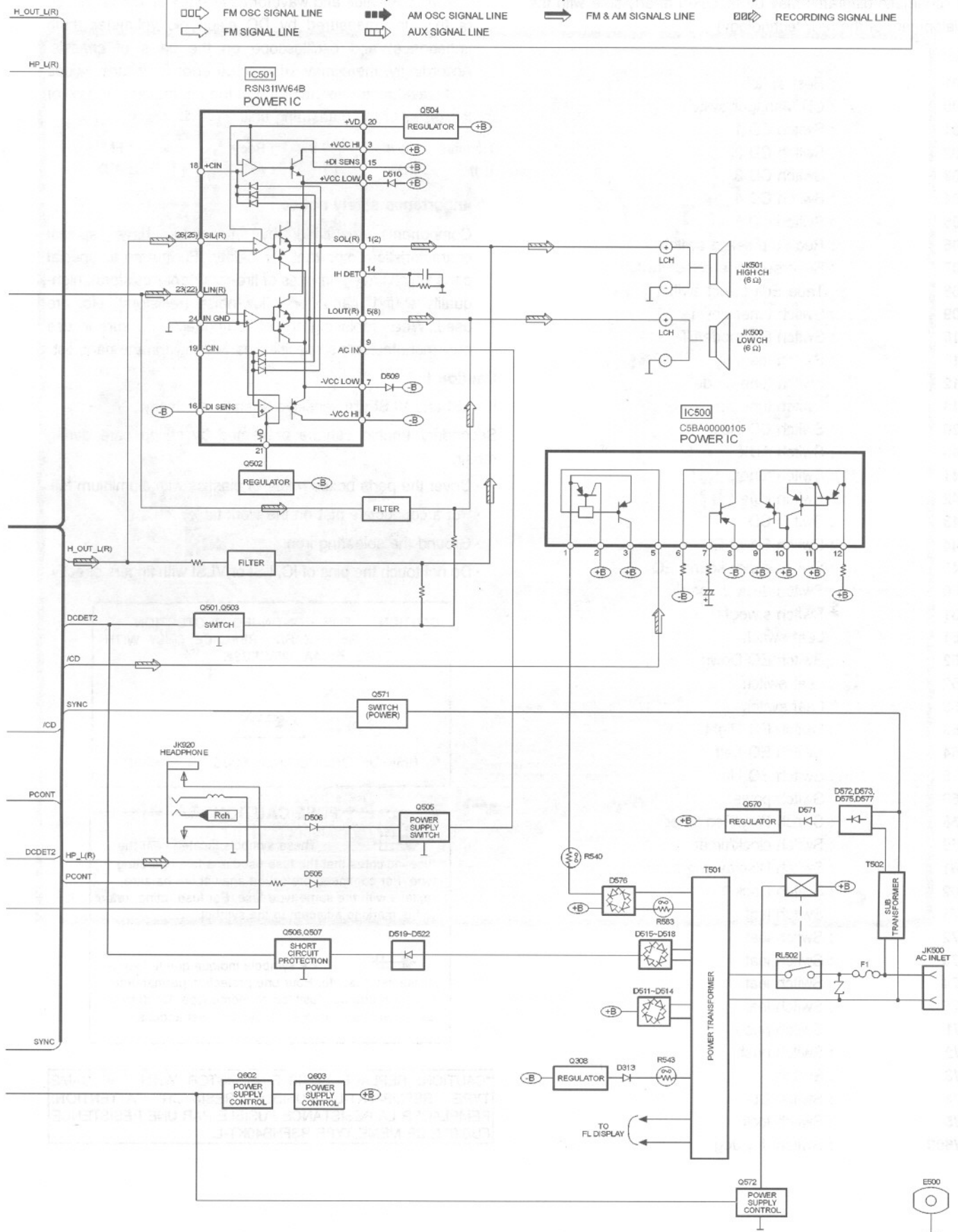




SIGNAL LINES



SIGNAL LINES



16 Schematic Diagram

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

Note:

S701	: Rest switch
S900	: CD Manager switch
S901	: Switch CD 1
S902	: Switch CD 2
S903	: Switch CD 3
S904	: Switch CD 4
S905	: Switch CD 5
S906	: Rec/Stop select switch
S907	: Reverse Mode select switch
S908	: Tape Edit select switch
S909	: Switch tuner down
S910	: Switch FM mode/BP
S911	: Switch memory
S912	: Switch tune mode
S913	: Switch tune up
S920	: Switch CD eject
S940	: Switch AUX
S941	: Switch tuner
S942	: Switch tape
S943	: Switch CD
S944	: Switch 3D AI EQ
S945	: Switch super sound EQ
S950	: Switch deck 2 open
S951	: Switch s.woofer
S951	: Leaf switch
S952	: Switch EQ Down
S952	: Leaf switch
S953	: Leaf switch
S953	: Switch EQ Right
S954	: Switch EQ Left
S955	: Switch EQ Up
S956	: Switch power
S958	: Switch Play/Rec timer
S959	: Switch clock/timer
S961	: Switch Display character
S962	: Switch Deck 1
S971	: Switch leaf
S972	: Switch leaf
S973	: Switch leaf
S974	: Switch leaf
S975	: Switch leaf
SW1	: Switch push
SW2	: Switch push
SW3	: Switch
SW4	: Switch CD
SW5	: Switch lock
SW600	: Switch Joy Jog

• 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 < > : FM
(()) : CD () : AM [] : AUX

• Importance safety notice :

Components identified by Δ 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.

CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F1,4A, 125V FUSE.



RISK OF FIRE-REPLACE FUSE AS MARKED.

FUSE CAUTION



These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire hazard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.



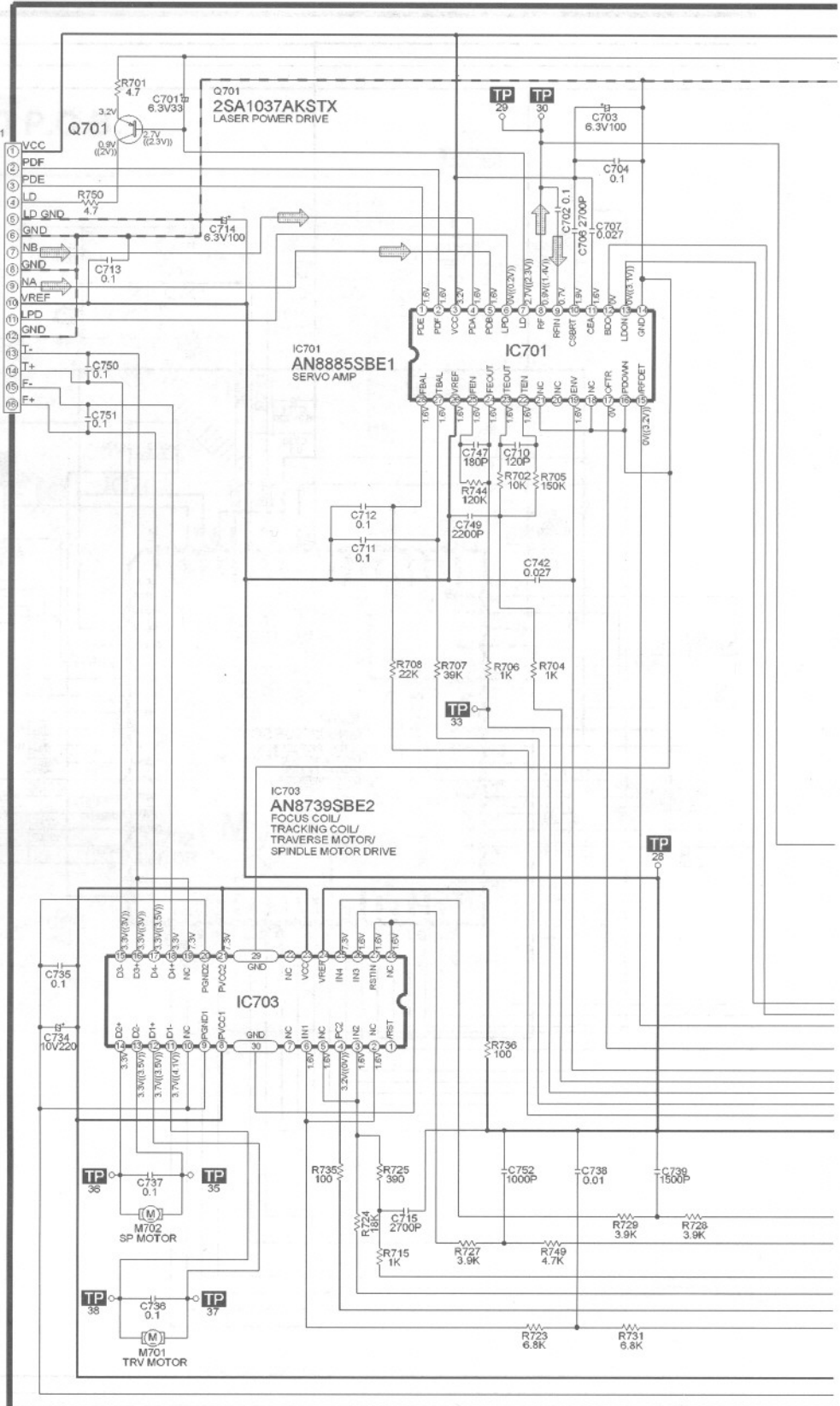
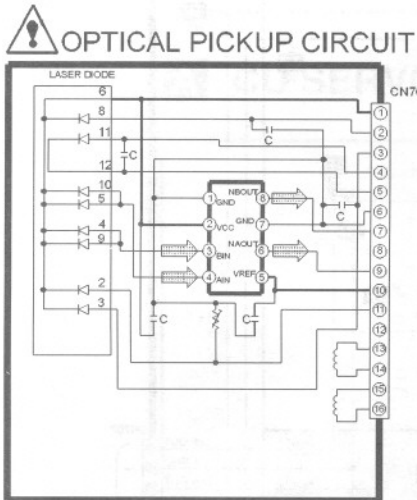
Ce symbole indique que le fusible utilisé est à rapide. Pour une protection permanente, n'utiliser que des fusibles de même type. Ce dernier est indiqué là où le présent symbole est apposé.

"CAUTION: REPLACE FUSIBLE RESISTOR WITH THE SAME TYPE RSFMB40KT-L FUSIBLE RESISTOR" "ATTENTION: REMPLACER LA RESISTANCE FUSIBLE PAR UNE RESISTANCE FUSIBLE DE MEME TYPE RSFHB40KT-L."

SCHEMATIC DIAGRAM -1

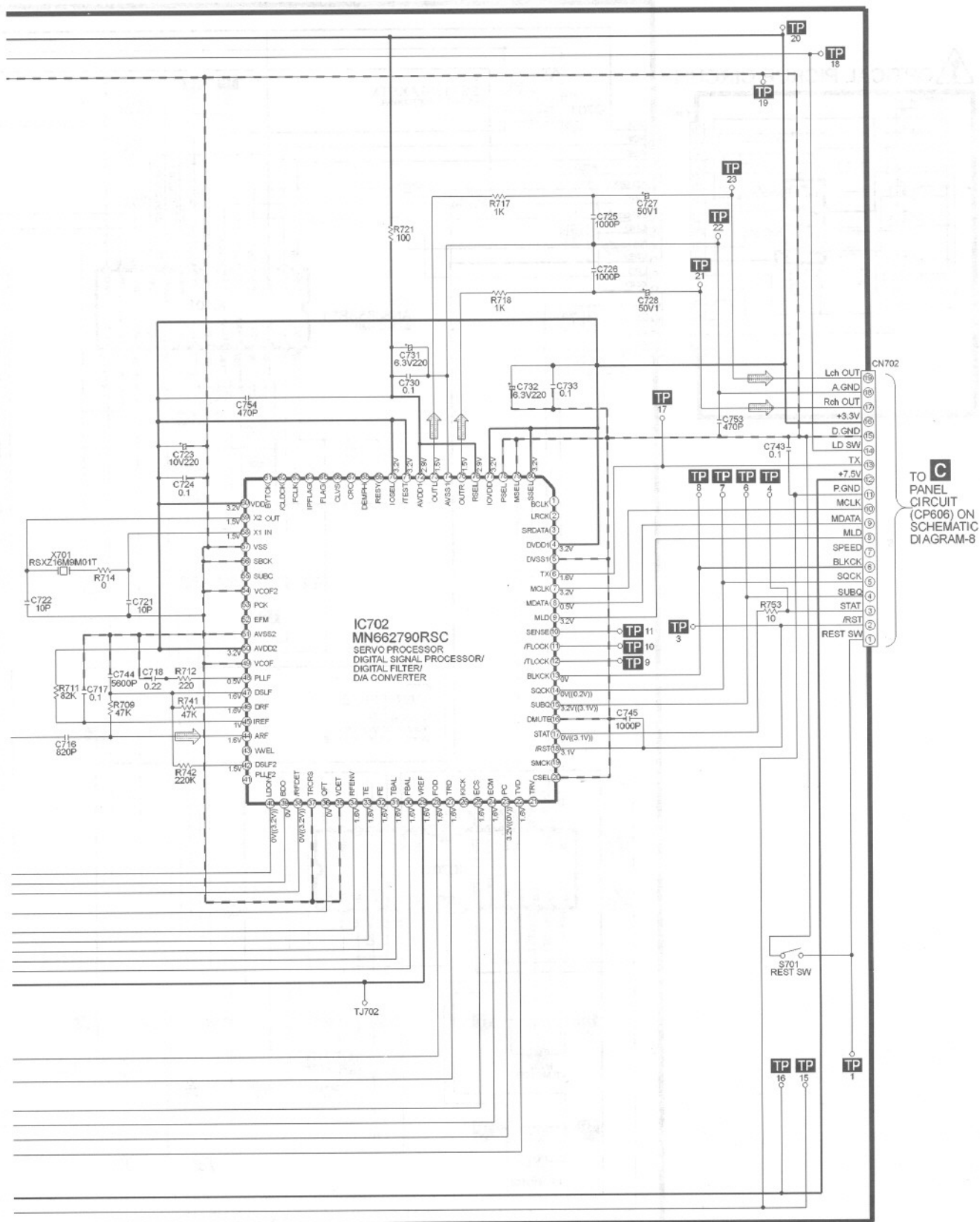
— : +B SIGNAL LINE - - : +B SIGNAL LINE ➡ : CD SIGNAL LINE

A

 CD SERVO CIRCUIT


SCHEMATIC DIAGRAM - 2

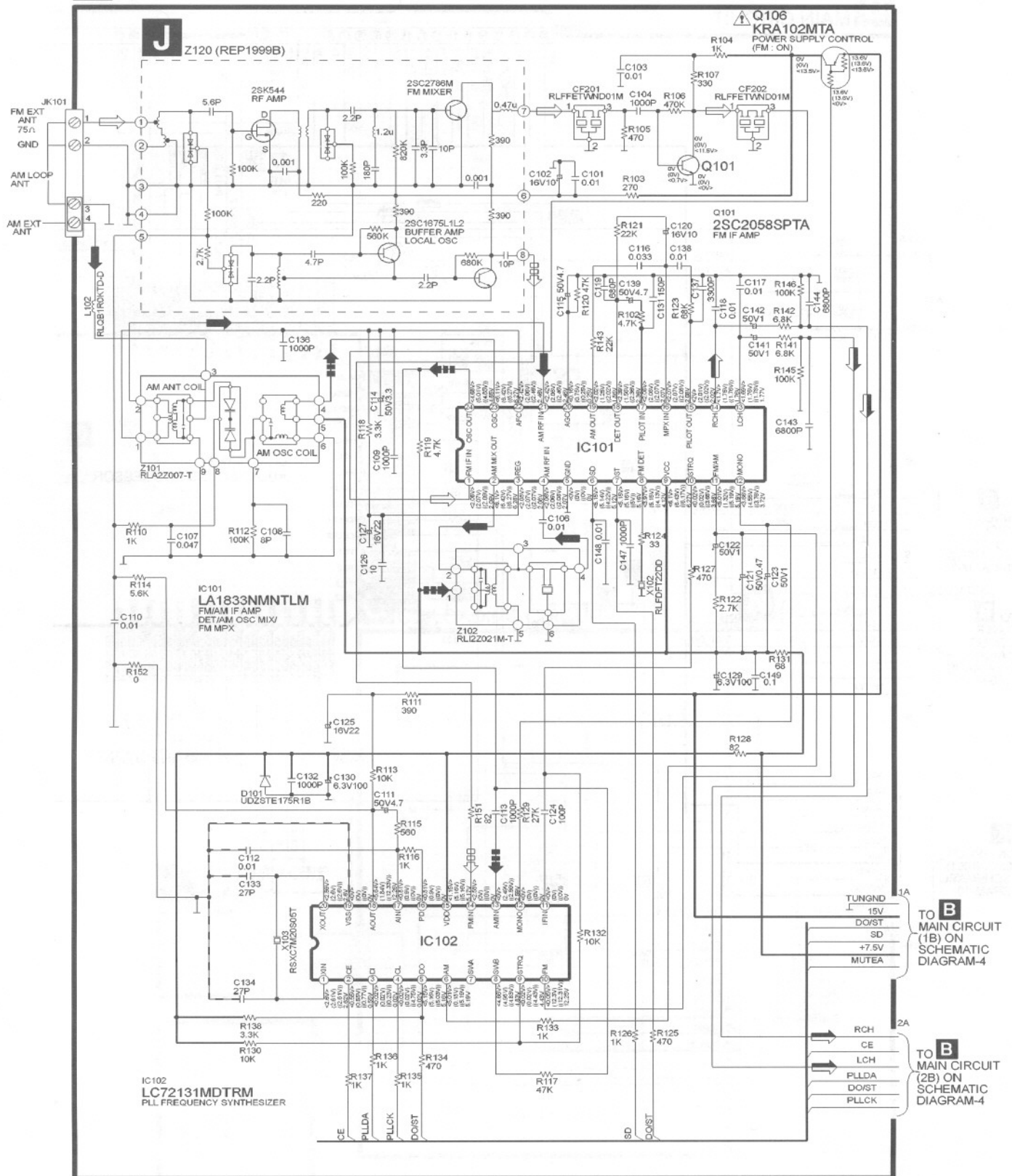
— : +B SIGNAL LINE - - : +B SIGNAL LINE ➡ : CD SIGNAL LINE

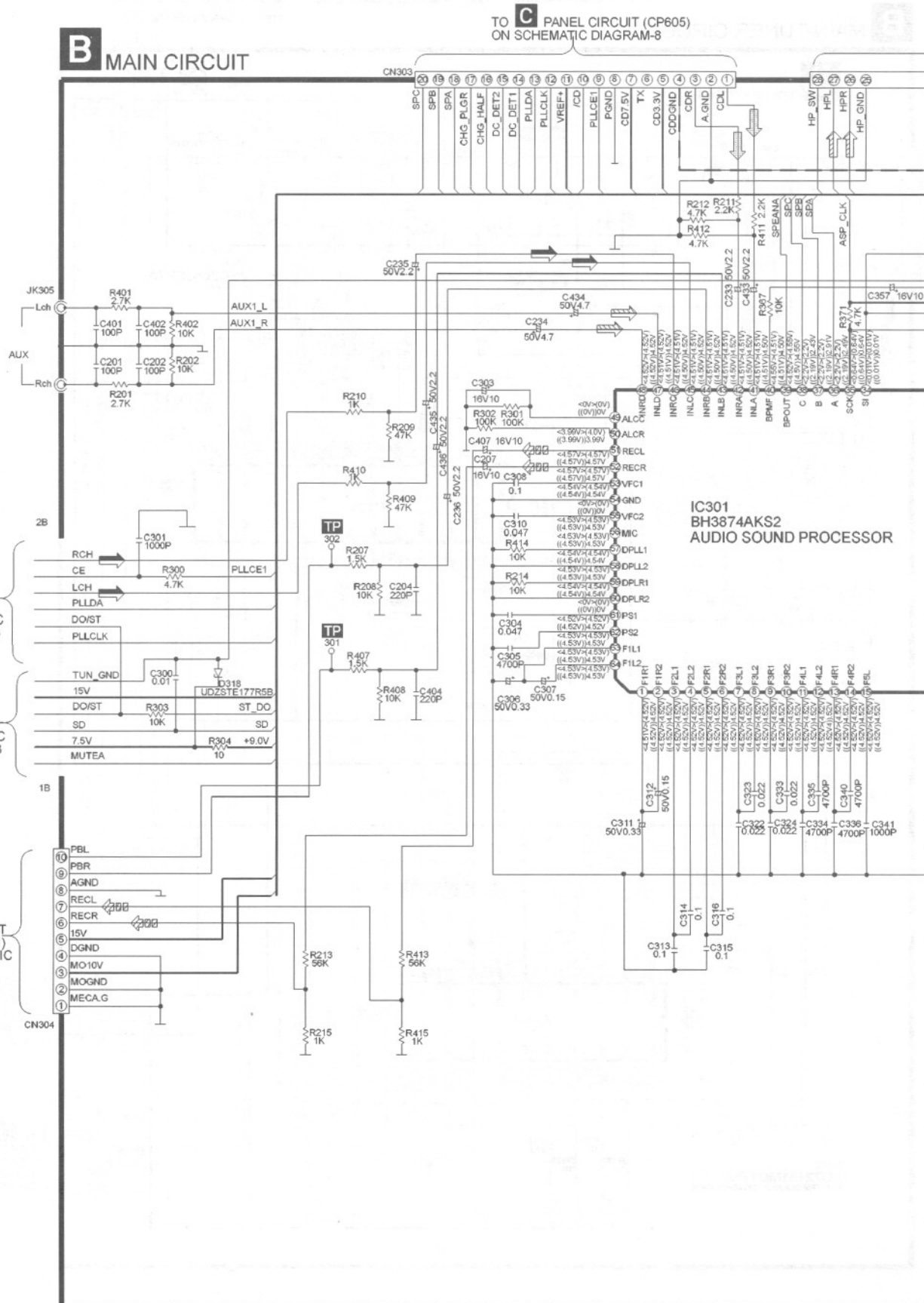


SCHEMATIC DIAGRAM - 3

B MAIN/TUNER CIRCUIT

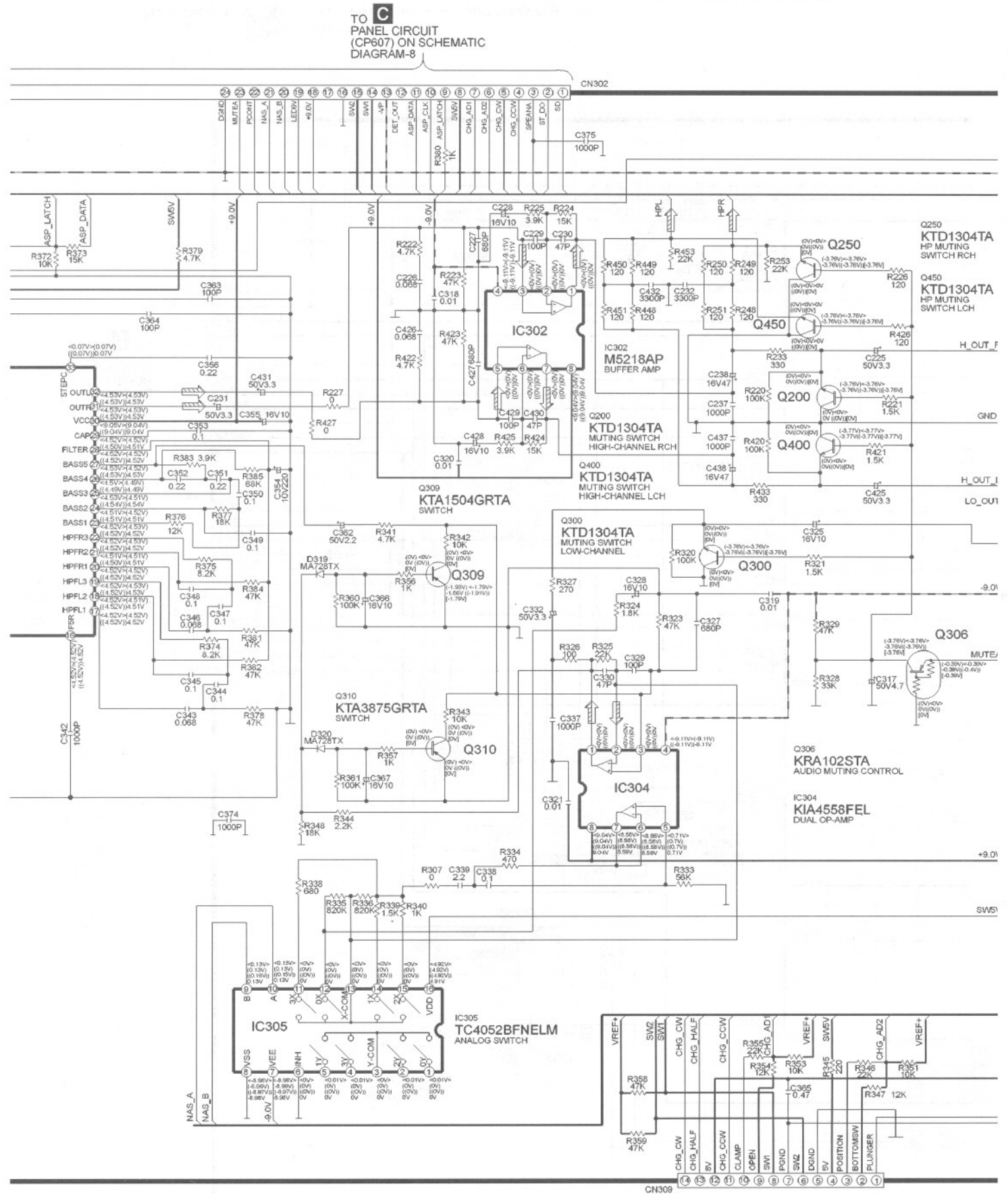
- : +B SIGNAL LINE
 - - : +B SIGNAL LINE
 ⇨ : FM SIGNAL LINE
 ⇨ : FM OSC SIGNAL LINE
 ⇨ : AM SIGNAL LINE
 ⇨ : AM OSC SIGNAL LINE
 ⇨ : FM/AM SIGNAL LINE





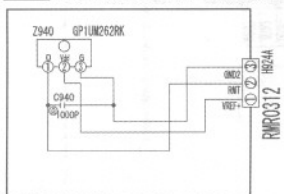
SCHEMATIC DIAGRAM - 5

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

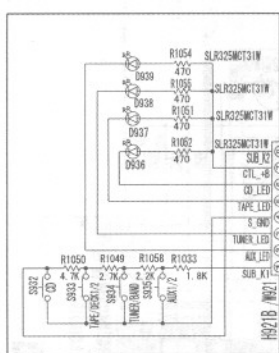


TO **G** Y
CD LOADING CIRCUIT
(CN1) ON SCHEMATIC
DIAGRAM-12

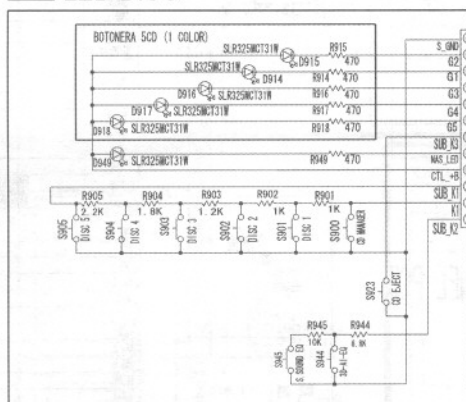
C PANEL CIRCUIT



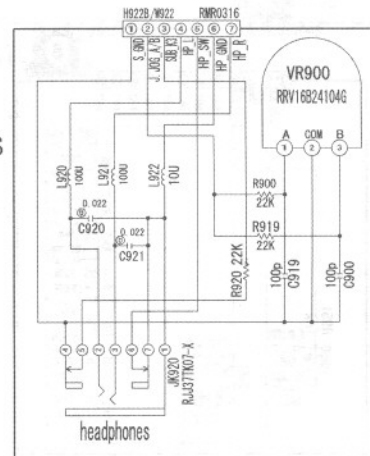
P FUNCTION



Q LED DISC



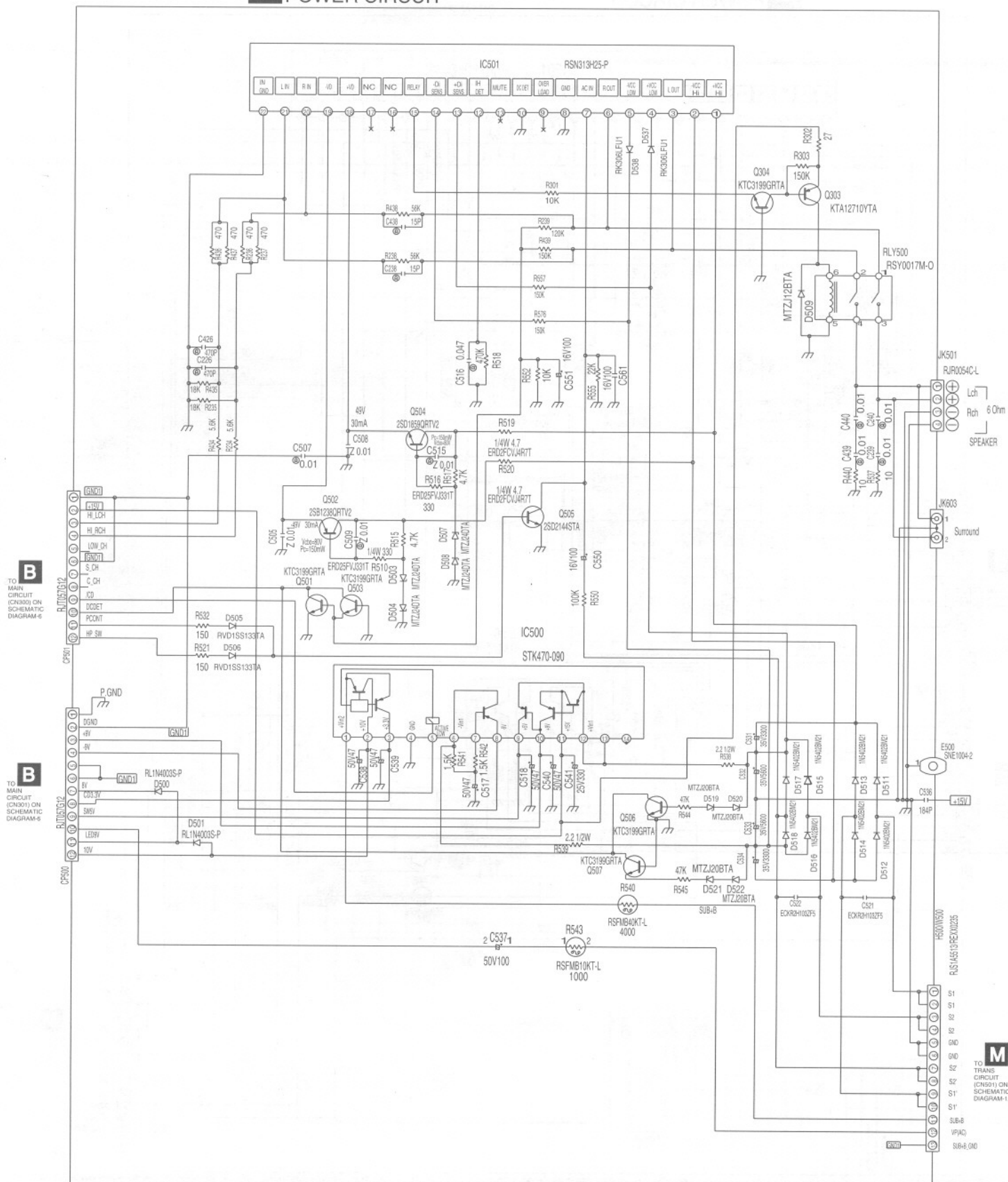
O VOLUME & HEADPHONES





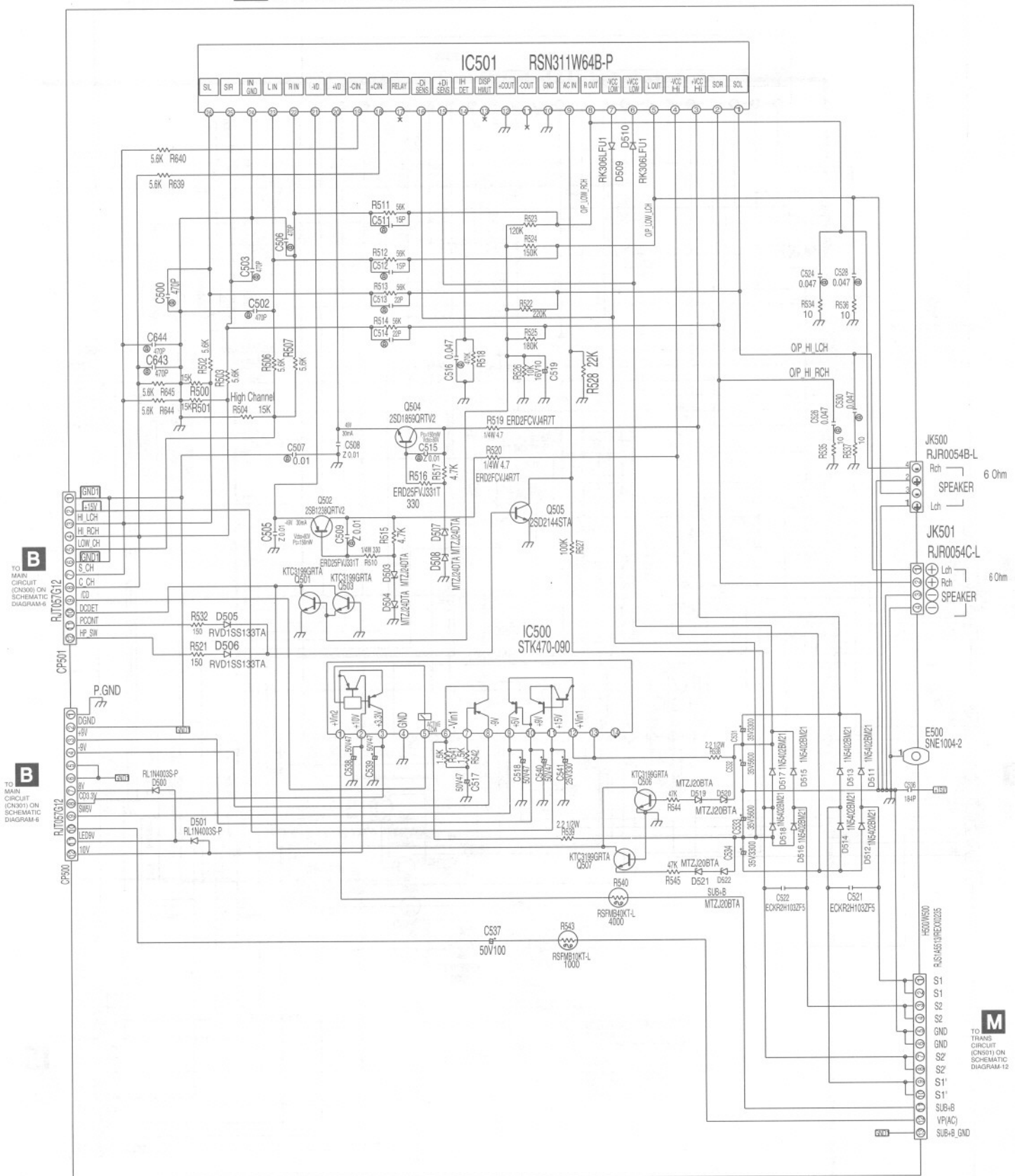
SCHEMATIC DIAGRAM - 11

L POWER CIRCUIT

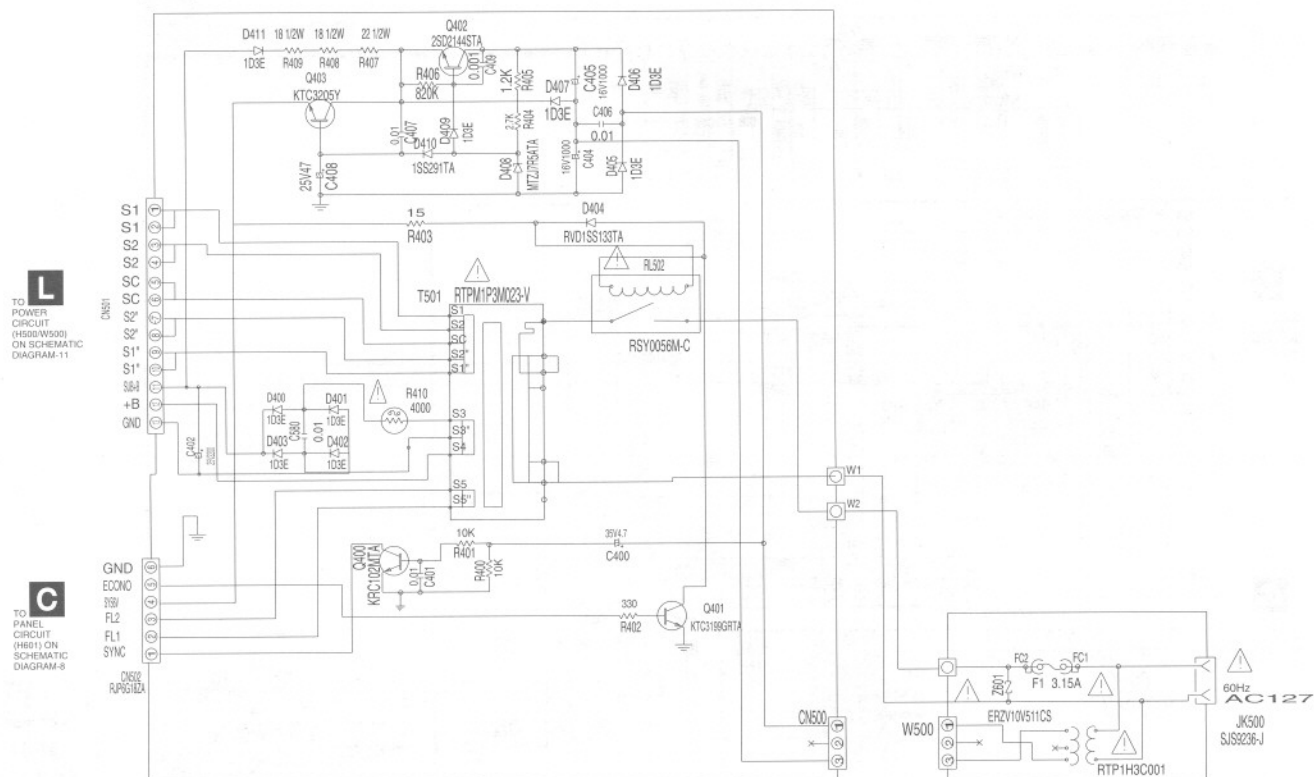
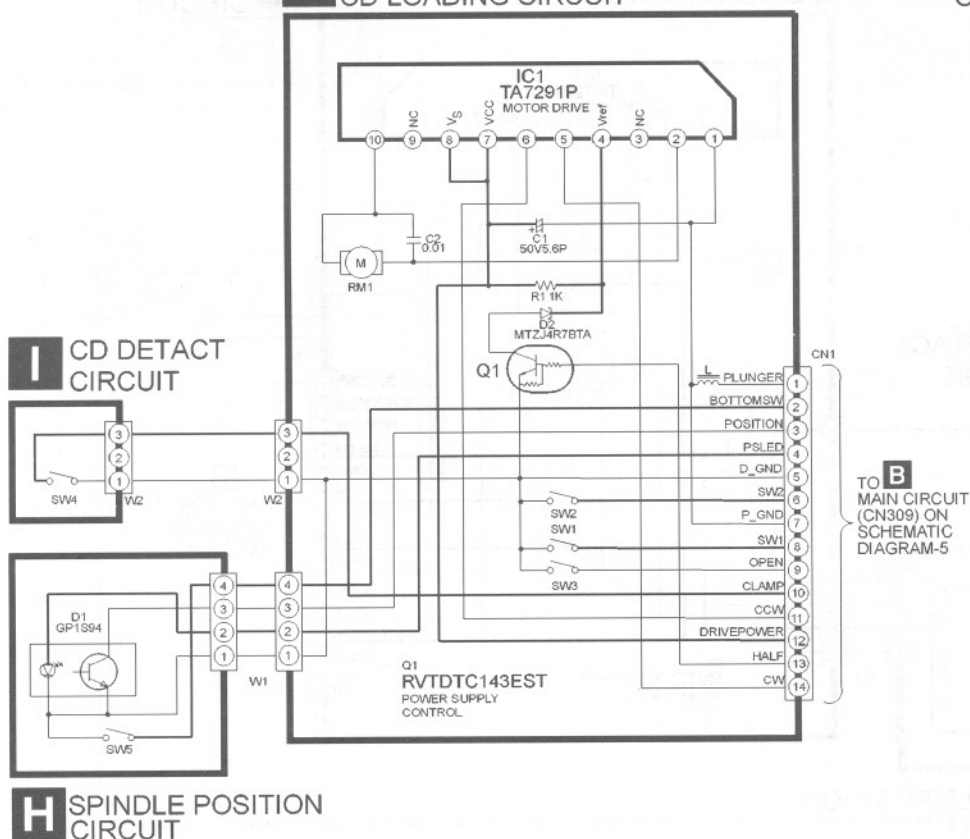


SCHEMATIC DIAGRAM - 11

L POWER CIRCUIT



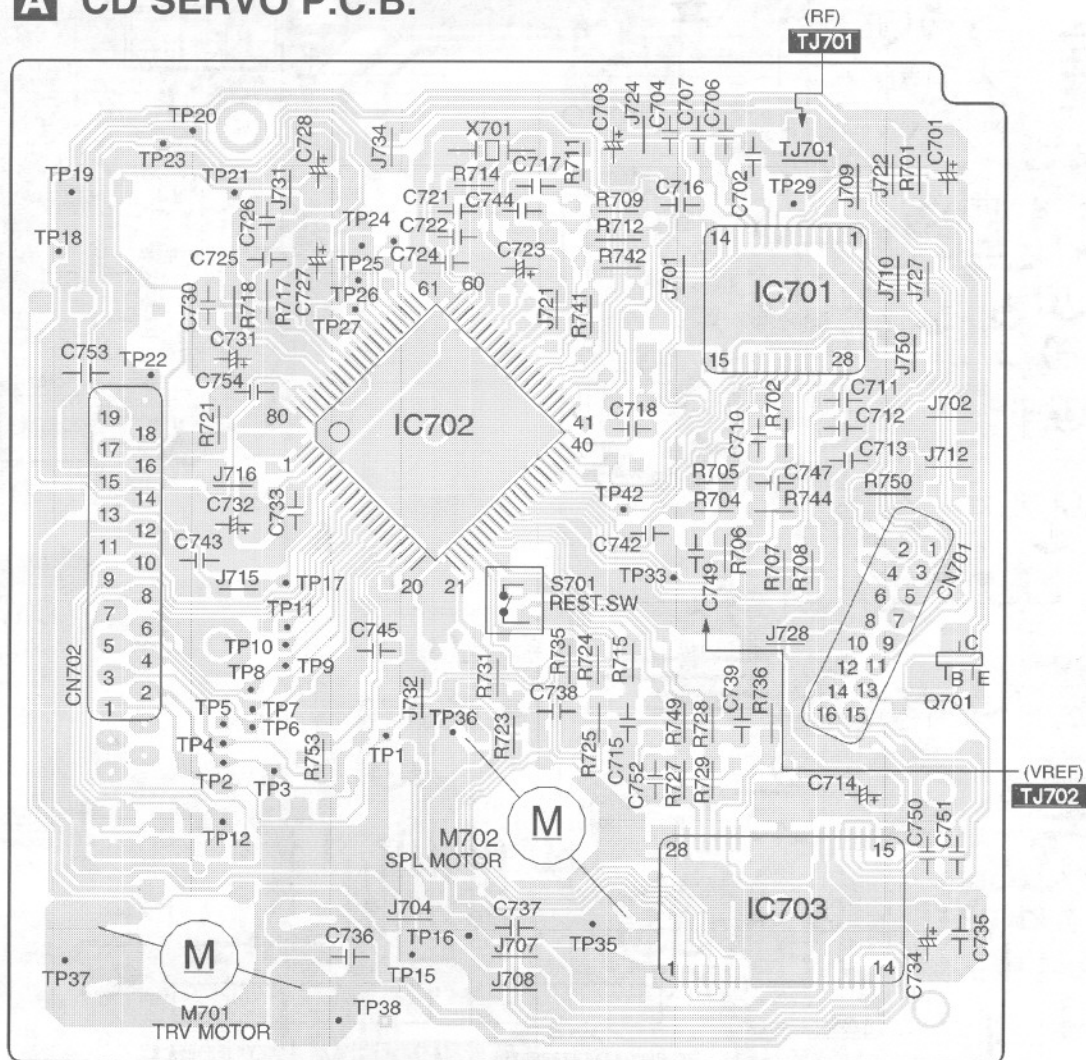
SCHEMATIC DIAGRAM - 12

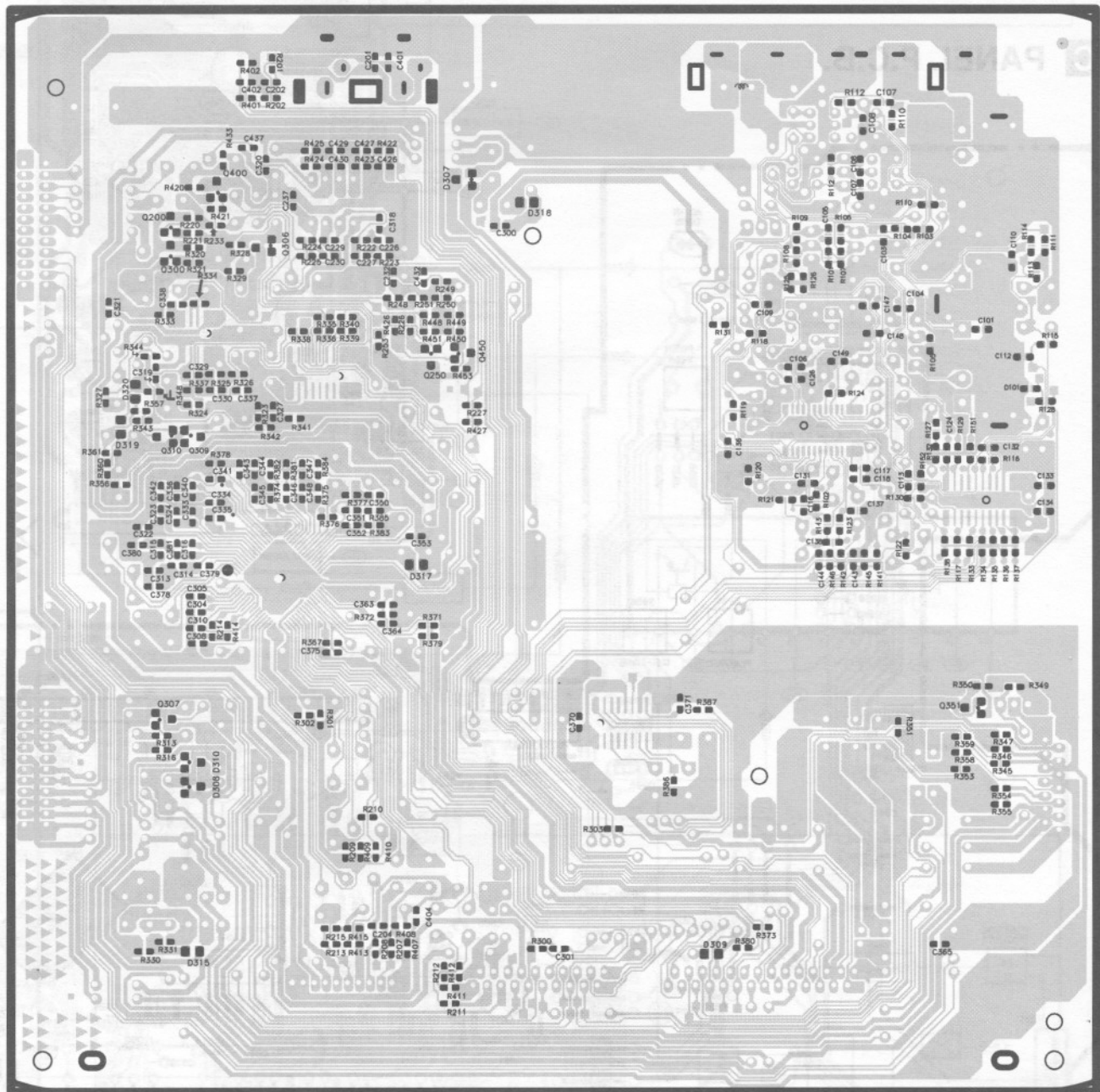
M AC TRANSFORMER CIRCUIT**G** CD LOADING CIRCUIT

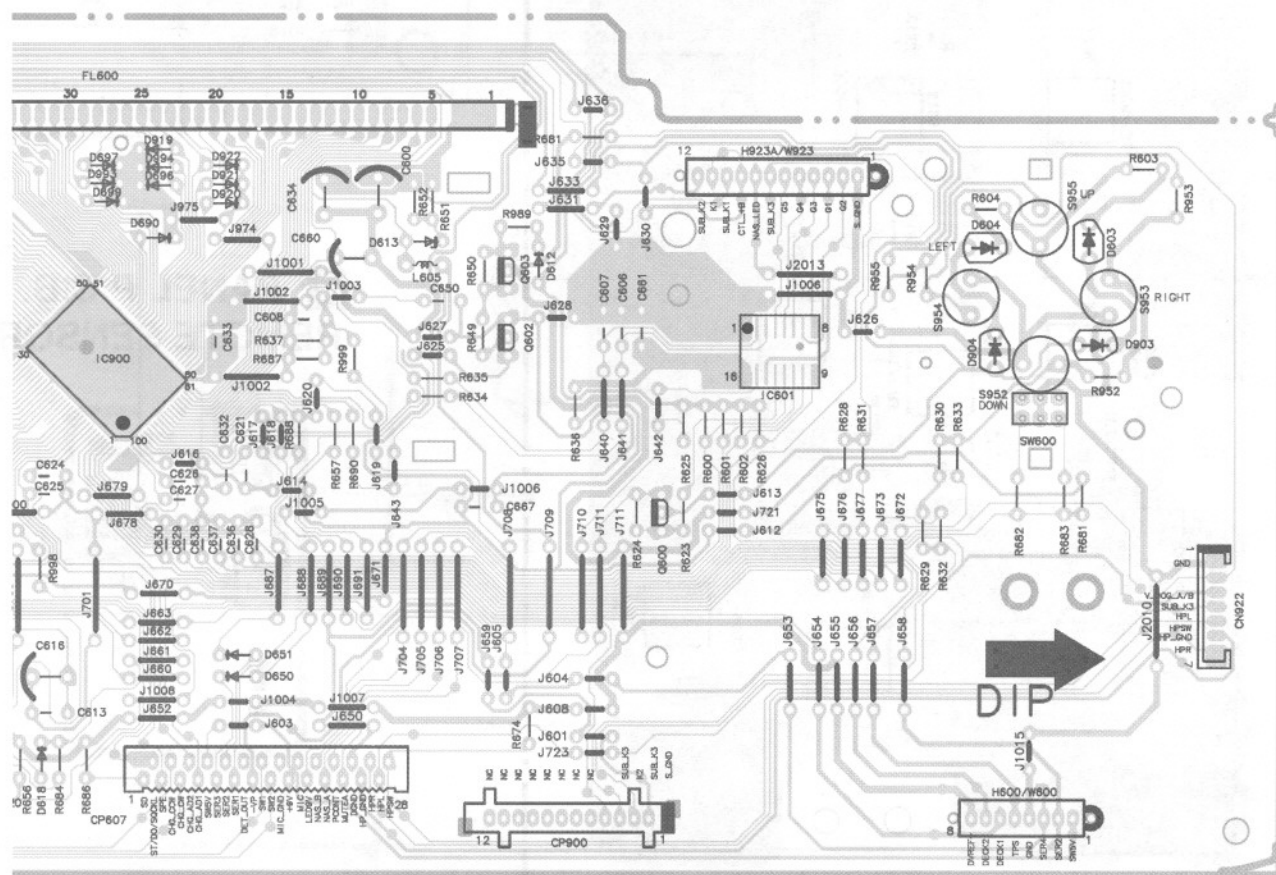
17 Printed Circuit Board

NOTE: Circuit board diagrams may be modified at any time with the development of new technology.

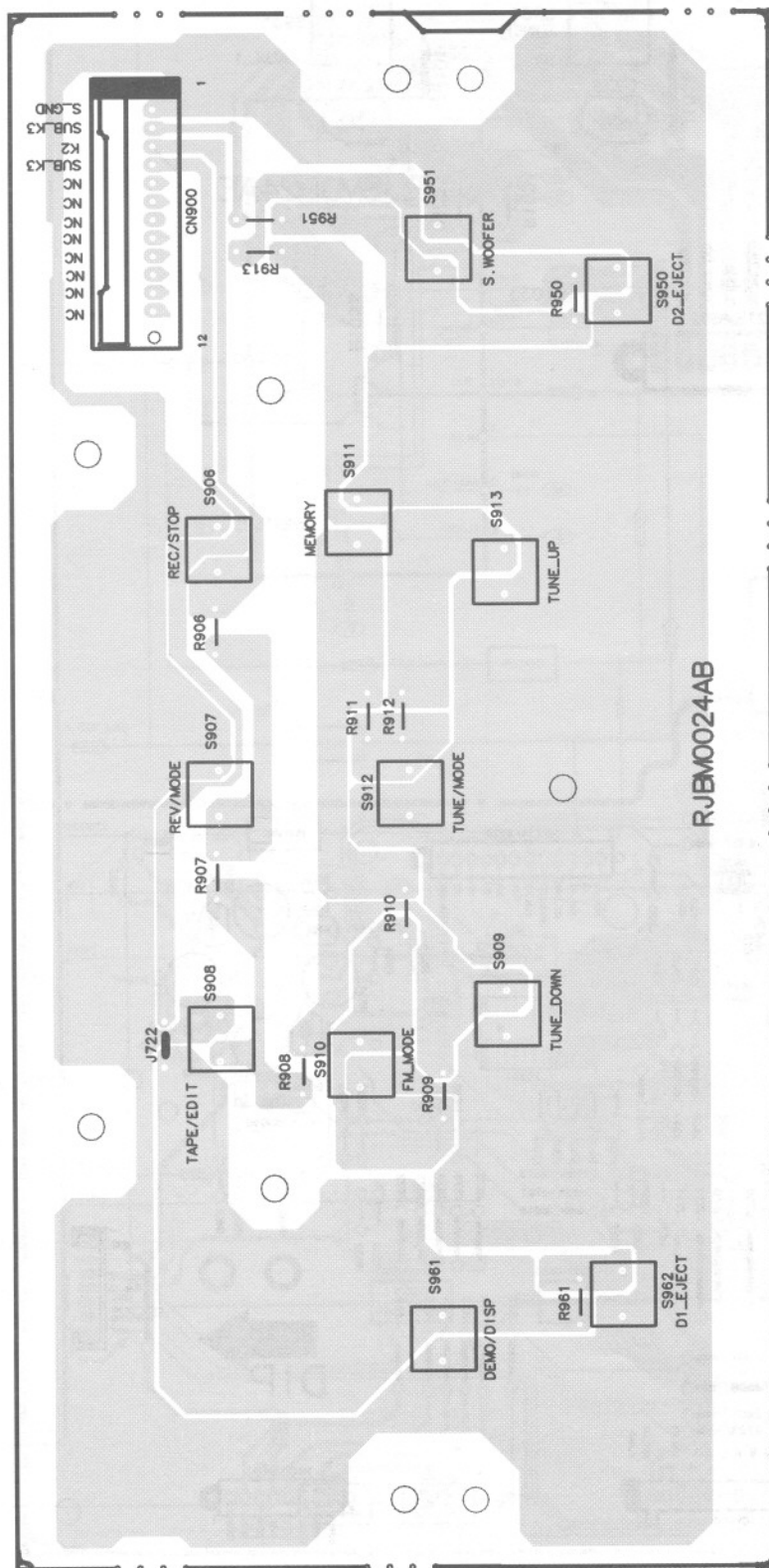
A CD SERVO P.C.B.



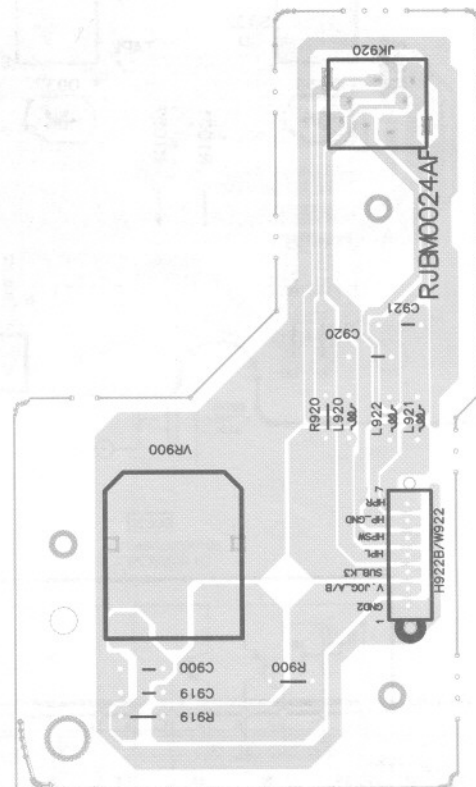
B MAIN / TUNER P.C.B. S.M.T



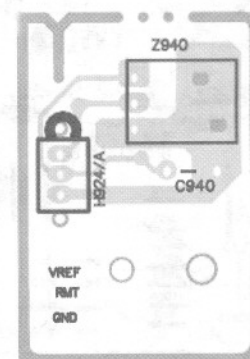
D PANEL P.C.B. TACT SWITCH

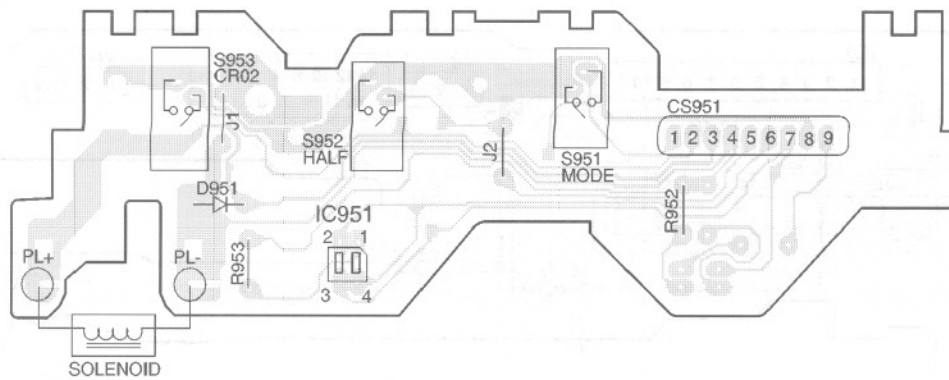
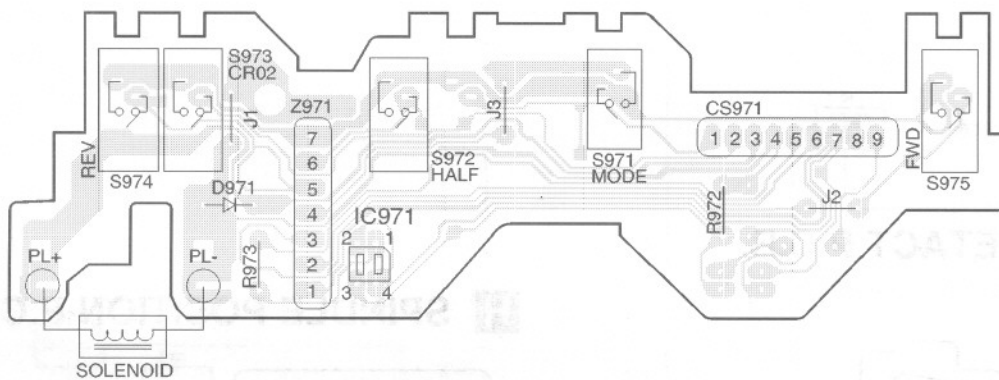
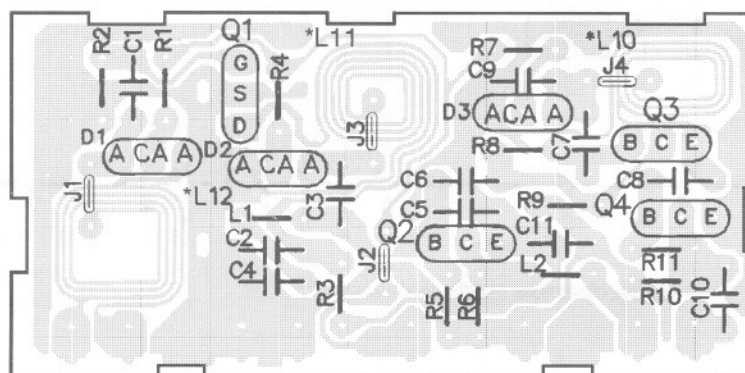


O PANEL P.C.B. VOLUME & HEADPHONES

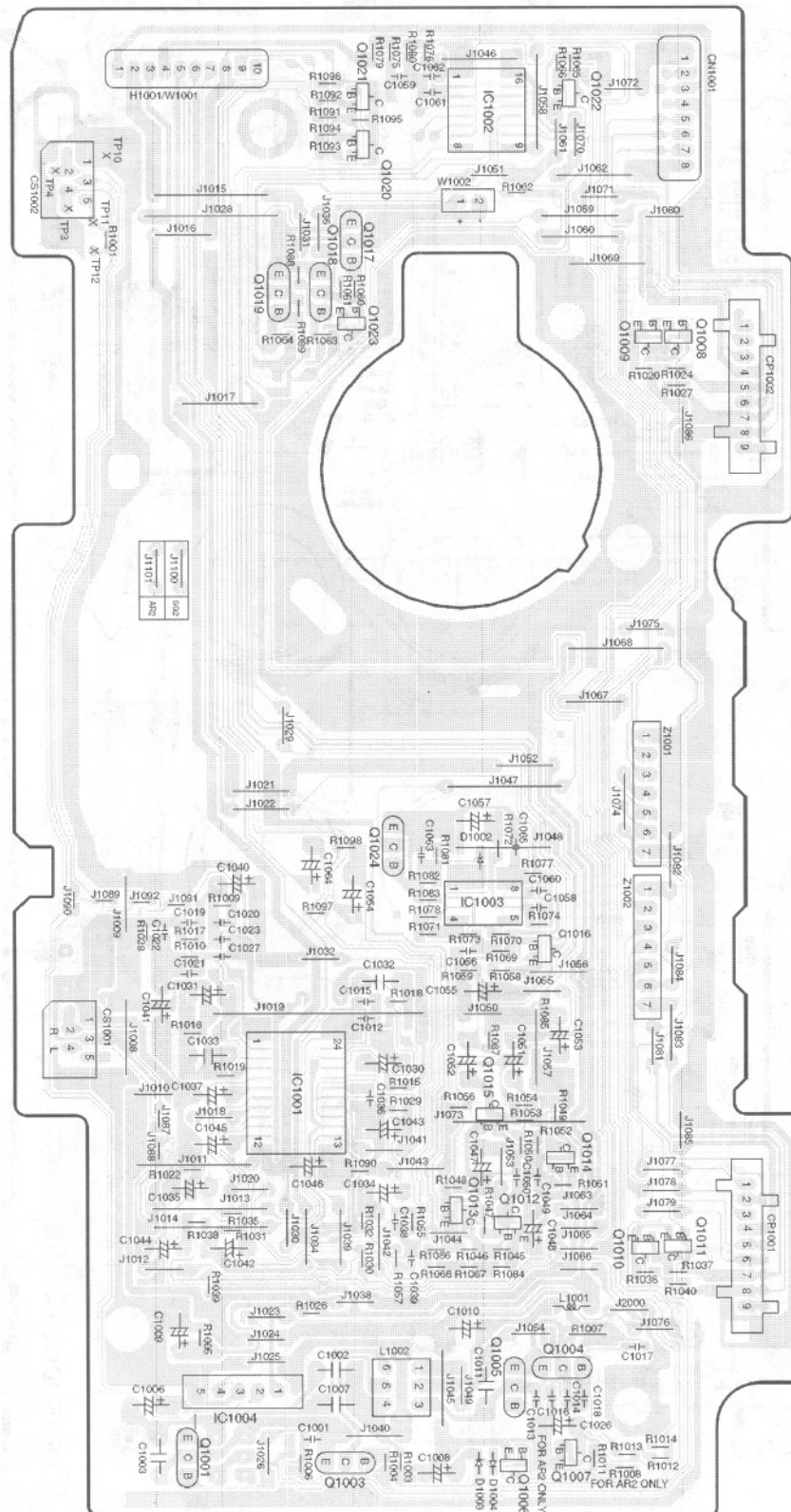


R PANEL P.C.B. REMOTE SENSOR



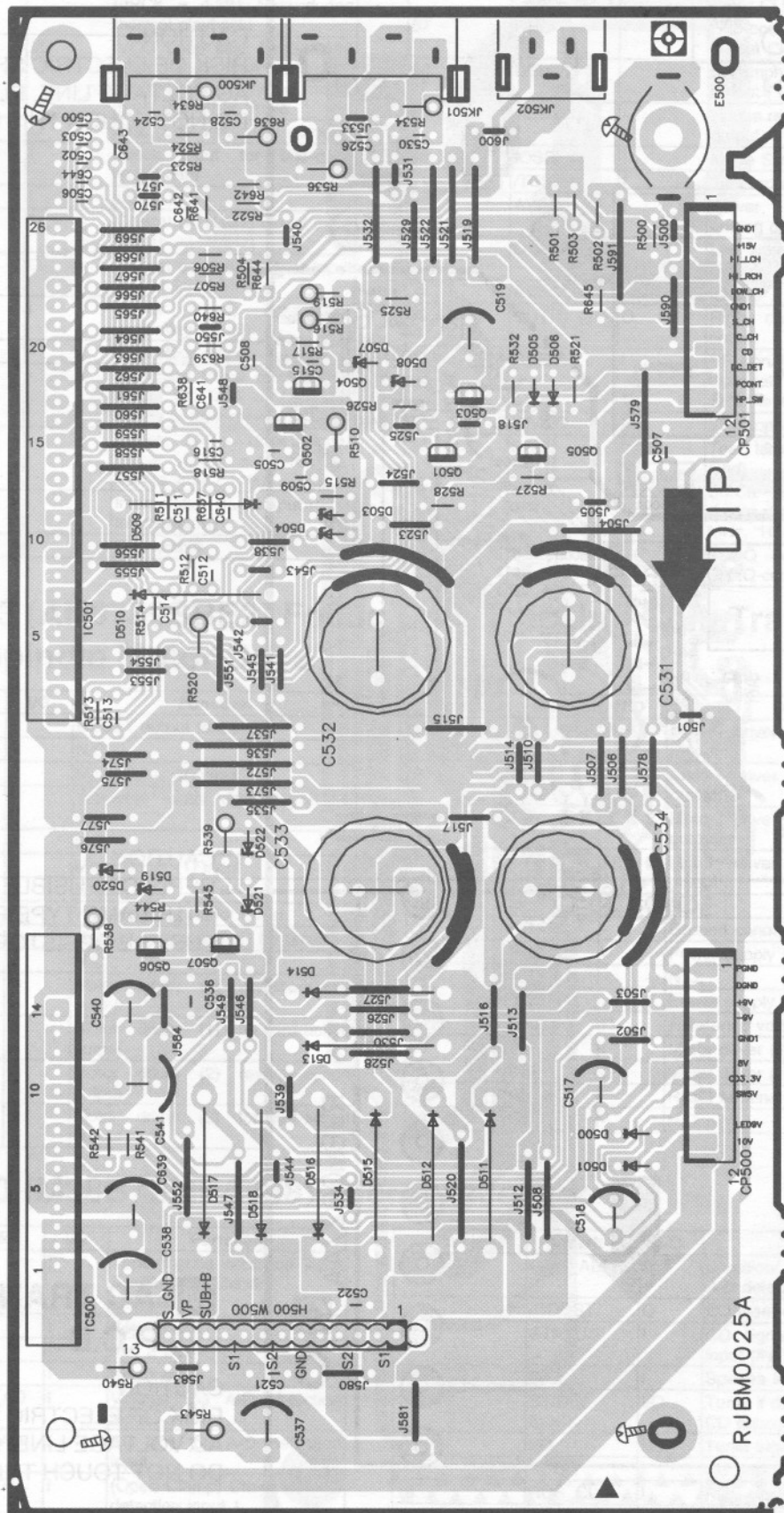
E MECHANISM (DECK 1) P.C.B.**F MECHANISM (DECK 2) P.C.B.****J TUNER PACK P.C.B.**

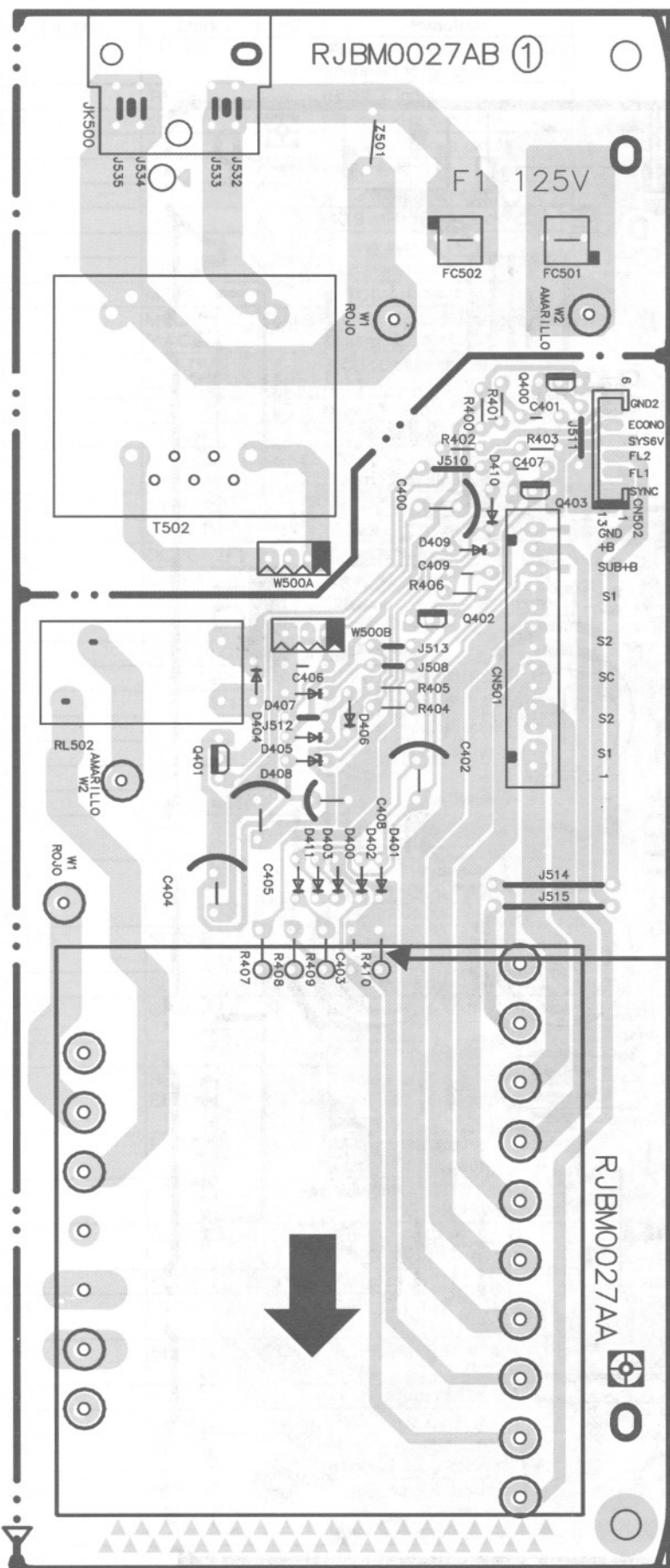
K DECK P.C.B.





POWER P.C.B.





**N SUB/TRANSFORMER
P.C.B.**

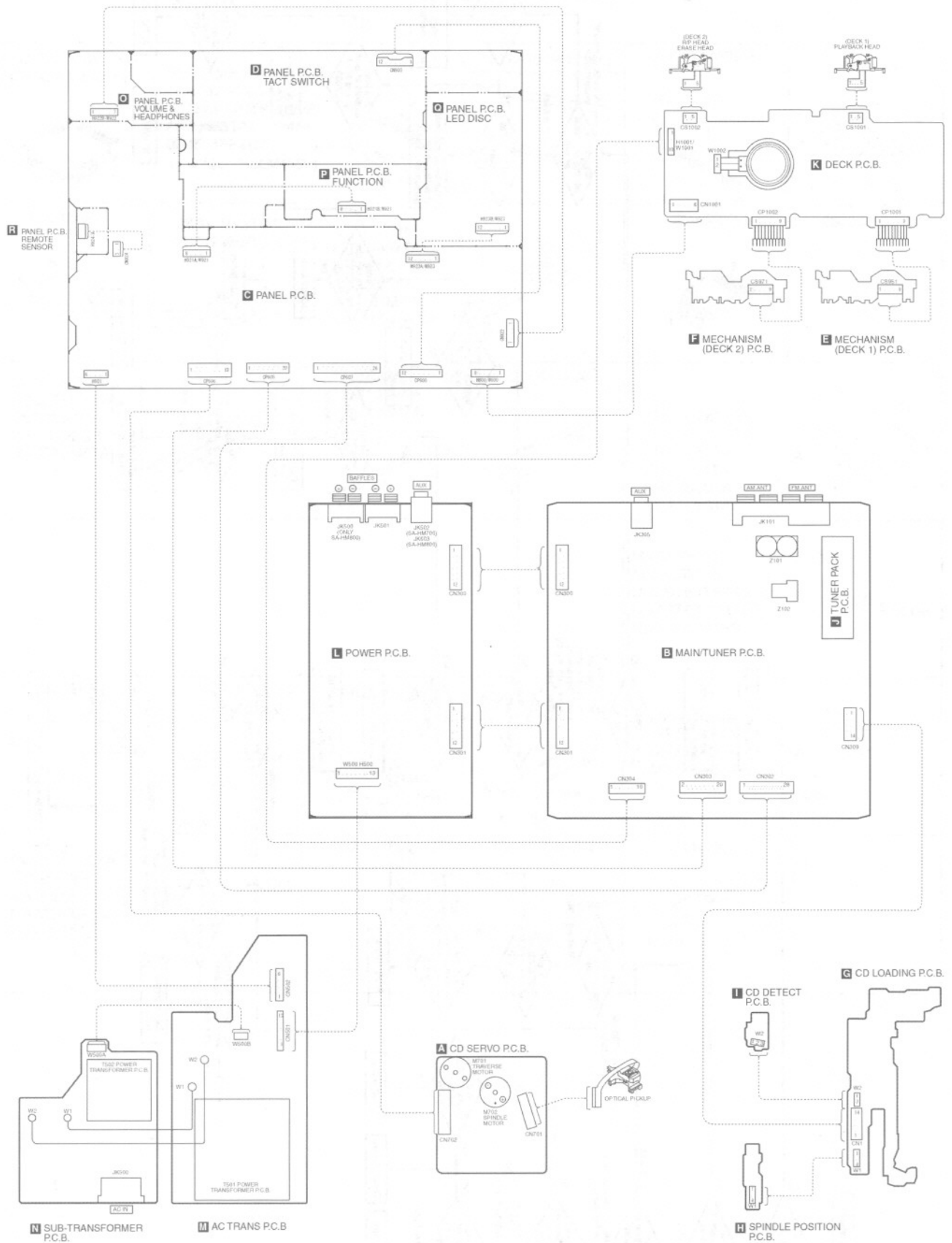
CAUTION
RISK OF ELECTRIC SHOCK
AC VOLTAGE LINE. PLEASE
DO NOT TOUCH THIS P.C.B.

CAUTION
REPLACE FUSIBLE RESISTOR
WITH SAME TYPE RSFMB40KT-L
FUSIBLE RESISTOR

**M AC TRANSFORMER
P.C.B.**

CAUTION
RISK OF ELECTRIC SHOCK
AC VOLTAGE LINE. PLEASE
DO NOT TOUCH THIS P.C.B.

18 Wiring Connection Diagram



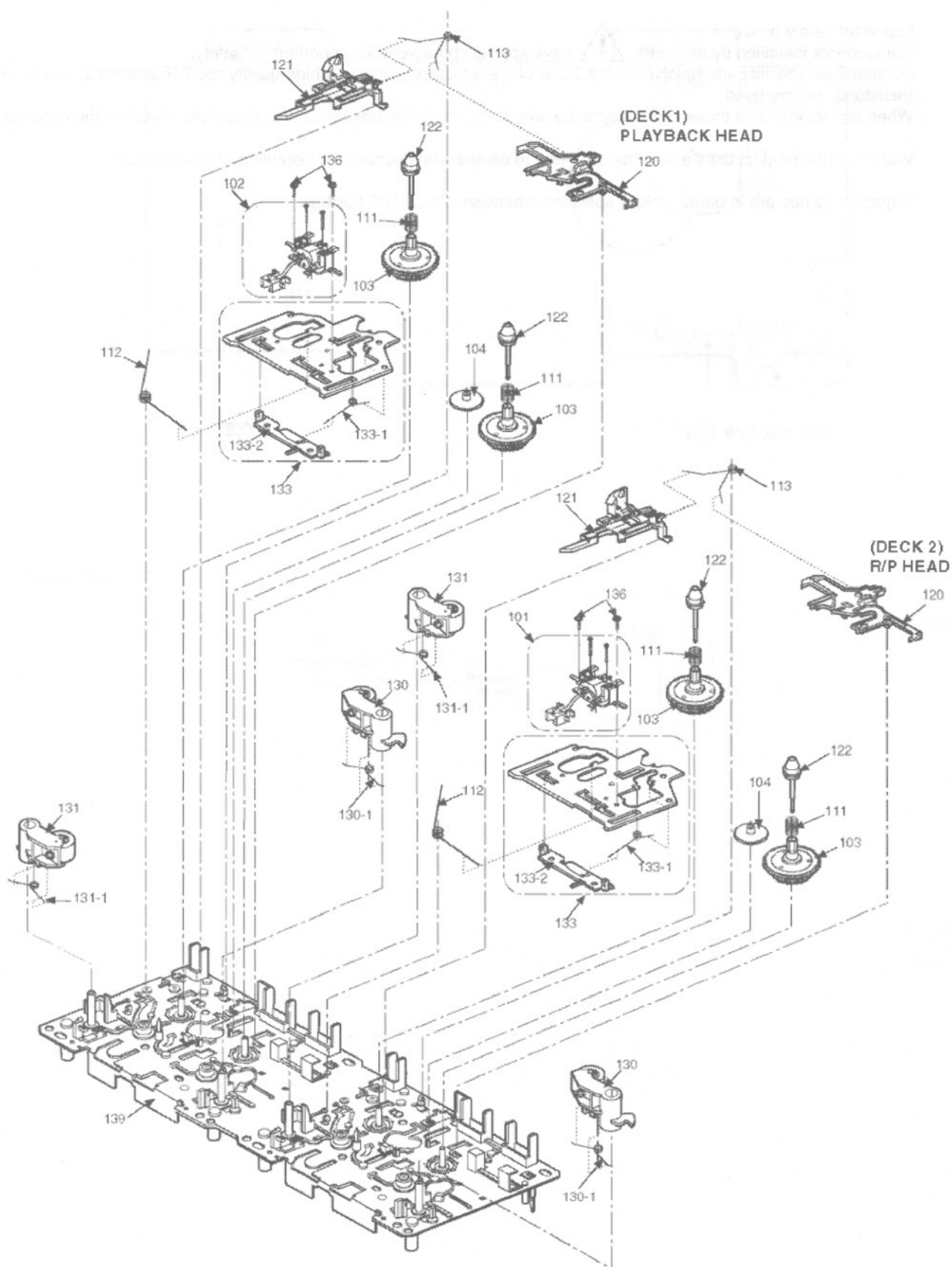
20 Part Location and Replacement Part List

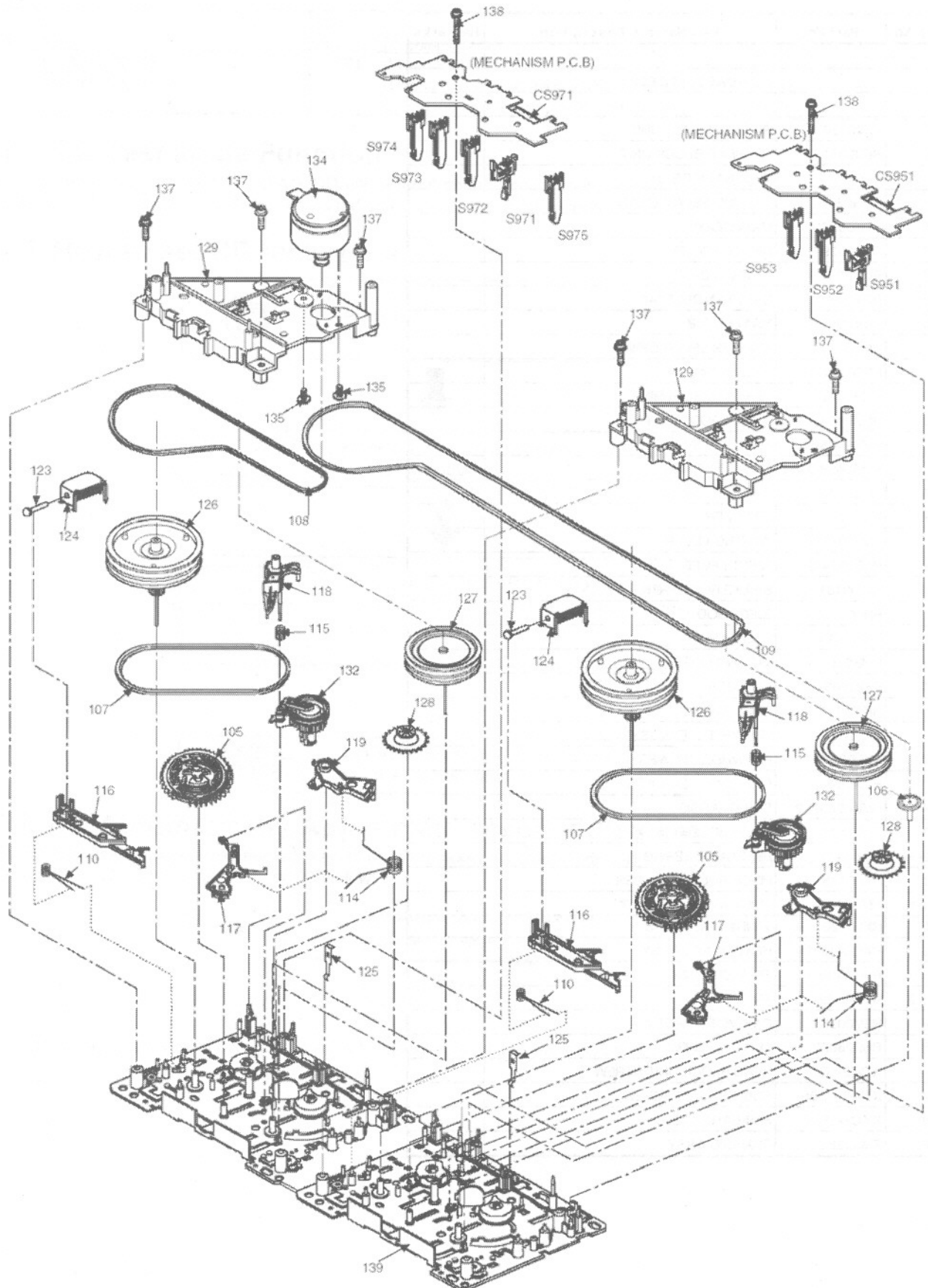
NOTES:

- Important safety notice:
Components identified by this mark  have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.
When replacing any of these components, be sure to use only manufacturers specified parts shown in the parts list.
- Warning: This product uses a laser diode. Refer to caution statements on "Precaution of Laser Diode".
- Capacitor values are in ohms, unless specified otherwise, 1K= 1,000 (OHM).

20.1 Deck Mechanism (RAA3408)

20.1.1 Deck Mechanism Parts Location



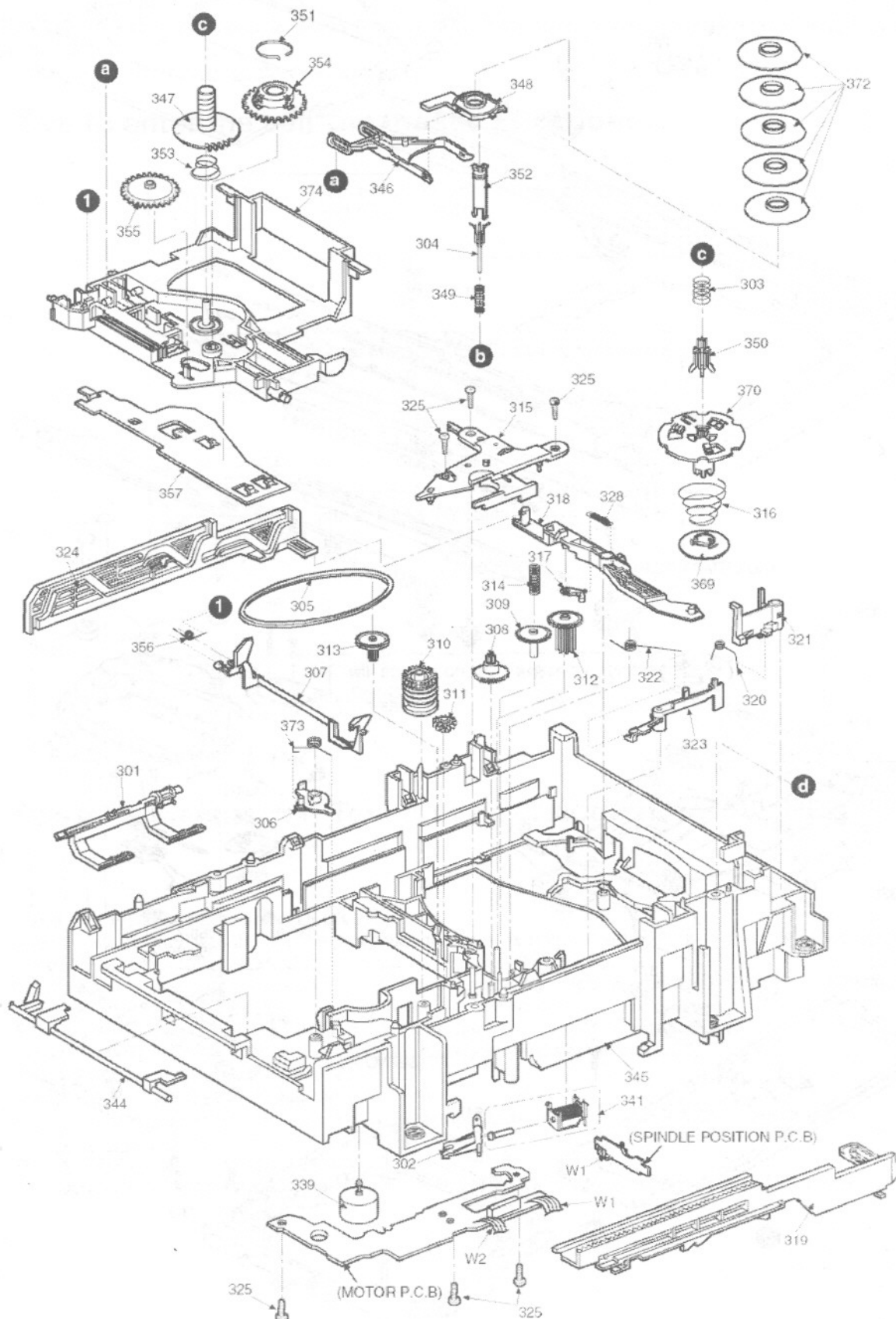


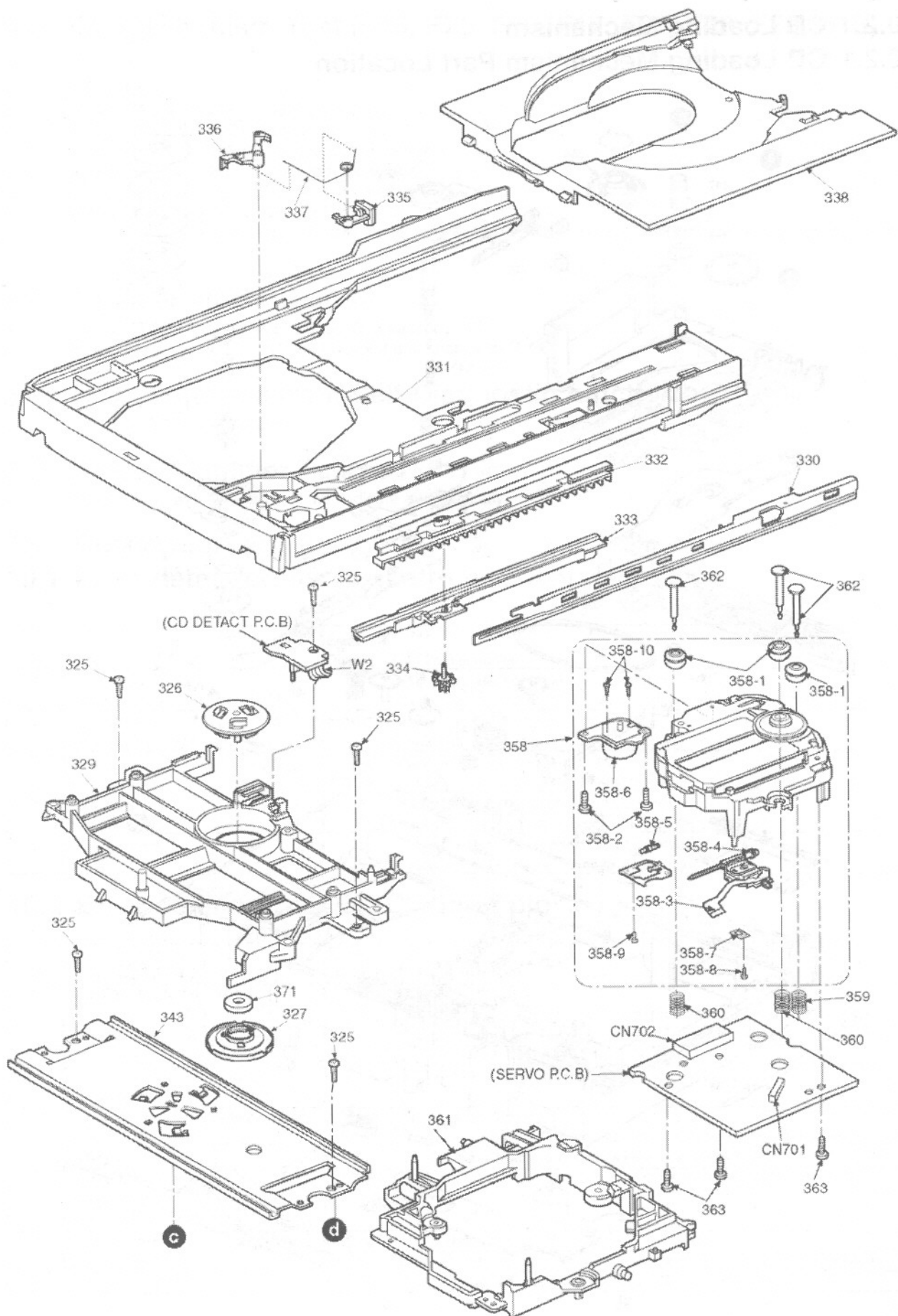
20.1.2 Deck Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
CASSETTE DECK			
101	RED0050	R/P HEAD BLICK UNIT	
102	RED0051	R/B HEAD BLOCK UNIT	
103	RDG0300	REEL BASE GEAR	
104	RDG0301	WINDING RELAY GEAR	
105	RDK0026-4	MAIN GEAR	
106	RDR0029-3	RELAY PULLEY	
107	RDV0033-4	WINDING BELT	
108	RDV0034-2	CAPSTAN BELT "A"	
109	RDV0057-1	MAIN BELT B	
110	RMB0312	TRIGGER LEVER SPRING	
111	RMB0400-J	REEL SPRING	
112	RMB0403	HEAB PANEL SPRING	
113	RMB0404	BRAKE ROD SPRING	
114	RMB0406-5	FR LEVER SP	
115	RMB0408-J	THRUST SPRING	
116	RML0370-3	TRIGGER LEVER	
117	RML0371	FR LEVER	
118	RML0372-2	WINDING LEVER	
119	RML0374-2	EJECT LEVER	
120	RMM0131	BRAKE ROD SPRING	
121	RMM0133-1	EJECT ROD	
122	RMQ0519	REEL HUB	
123	RMS0398-1	MOVING CORE	
124	RSJ0003	PLUNGER	
125	RMC0061	PACK SPRING	
126	RXF0049	FLYWHEEL "F" ASSY	
127	RXF0050	FLYWHEEL "R" ASSY	
128	RXG0040	FF RELAY GEAR ASSY	
129	RMK0283A-2	SUB CHASSIS	
130	RXL0124	PINCH ROLLER "F" ASS	
130-1	RMB0401	PINCH ARM SPRING "F"	
131	RXL0125	PINCH ROLLER "R" ASS	
131-1	RMB0402	PINCH ARM SPRING "R"	
132	RXL0126	WINDING ARM ASSY	
133	RXQ0412-1	HEAD PANEL ASSY	
133-1	RMB0405-1	FR ROD SPRING	
133-2	RMM0132-1	FR ROD	
134	REM0088	CAP MOTOR ASSY	
135	RHD26022	MOTOR SCREW	
136	XTW2+5L	HEAD BLOCK UNIT SCREW	
137	XTW26+10S	SUB-CHASSIS SCREW	
138	XYC2+JF17	PCB EARTH SCREW	
139	RMK0282	CHASSIS ASSY	

20.2 CD Loading Mechanism

20.2.1 CD Loading Mechanism Part Location



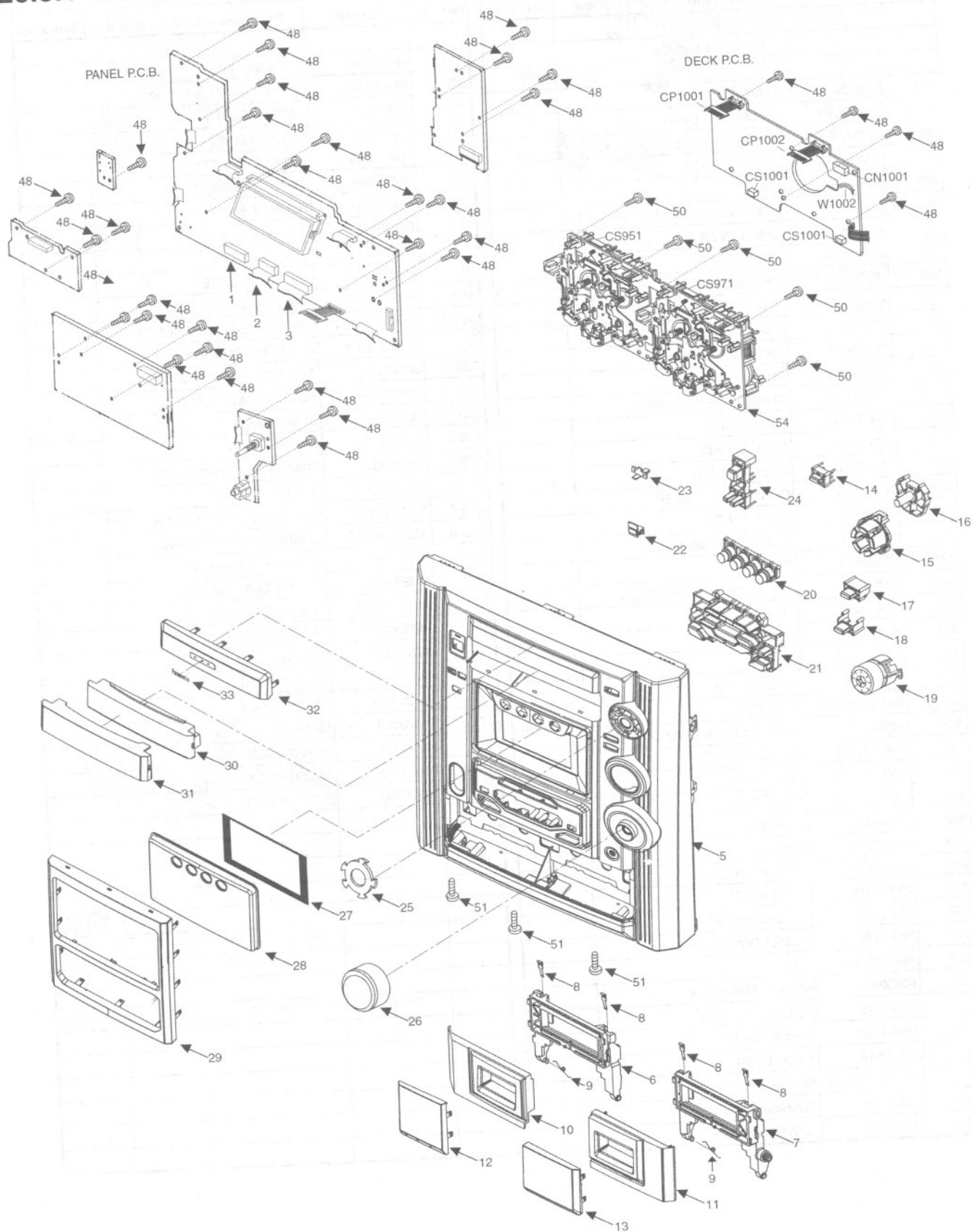


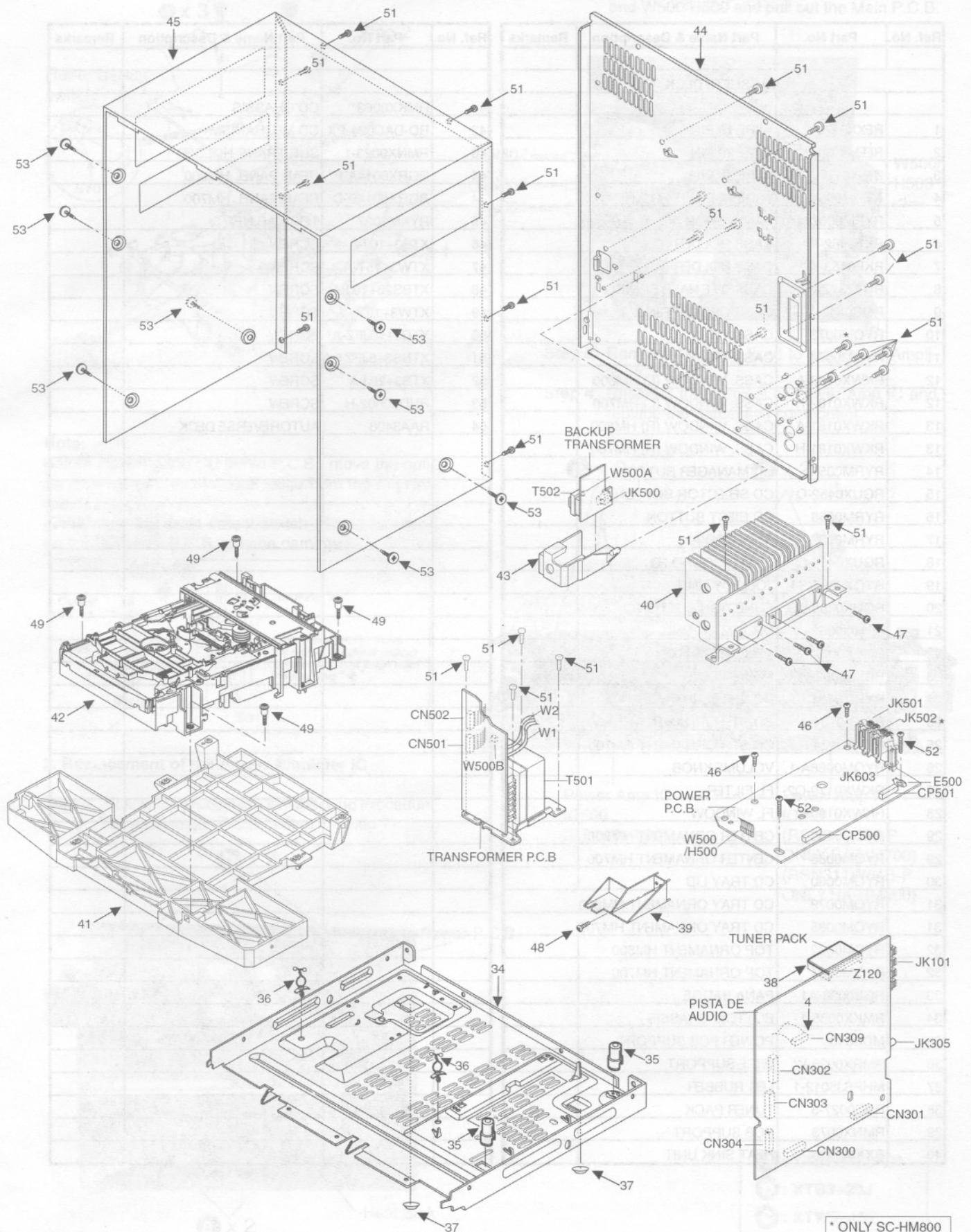
20.2.2 CD Loading Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK					
301	RML0517	TIMING LEVER		348	RMQ0746	UP/DOWN BASE	
302	RML0516	PLUNGER LEVER		349	RMB0550	LOWER SPINDLE SPRING	
303	RMB0551	UPPER SPINDLE SPRING		350	RMQ0747	UPPER HOOK	
304	RMQ0744	LOWER HOOK		351	RME0263	CLICK SPRING	
305	RDV0056	BELT		352	RMQ0743	SPINDLE SHAFT	
306	RML0525	FRONT LOCK LEVER		353	RMB0552	CUSHION SPRING	
307	RML0526	DISC LEVER		354	RDG0430	RELAY GEAR "A"	
308	RDG0424	DRIVE GEAR		355	RDG0431	RELAY GEAR "B"	
309	RDG0425	CHANGE GEAR		356	RME0262	DISK LEVER SP.	
310	RDG0427	TRAVERSE CAM GEAR		357	RMA1105	SUPPORT PLATE	
311	RDG0428	TRAVERSE RELAY GEAR		358	RAE0152Z-3	TRAVERSE	
312	RDG0426	UP/DOWN GEAR		358-10	XQS17+A35FZ	TRAVERSE MOTOR SCREW	
313	RDG0429	PULLEY GEAR		358-1	SHGD113-1	FLOATING CUSHION	
314	RMB0549-1	CHANGE GEAR SPRING		358-2	SNSD38	TRV MOTOR ASSY SCREW	
315	RMQ0748	PITCH PLATE		358-3	RAF0150A-4S	50A OPTICAL PICKUP	
316	RMB0553	PUSH SPRING		358-4	RDG0247	DRIVE GEAR	
317	RML0530	ASSIST LEVER		358-5	RDG0248	RELAY GEAR	
318	RML0518	CONNECTION LEVER		358-6	RXQ0339	TRAVERSE MOTOR ASSY	
319	RMM0201	SLIDE PLATE 1		358-7	RXQ0304-1	NUT PLATE ASSY	
320	RME0258	REAR LOCK SPRING		358-8	XQN17+CG5	NUT PLATE ASSY SCREW	
321	RML0521	REAR LOCK		358-9	XQS2+A3FZ	SPINDLE MOTOR SCREW	
322	RME0257	TRAY LOCK LEVER SPRING		359	RME0142	FLOATING SPRING A	
323	RML0520	TRAY LOCK		360	RME0109	FLOATING SPRING B	
324	RMM0202	SLIDE PLATE 2		361	RMR1124-K1	TRAVERSE CHASSIS	
325	XTB3+10J	SCREW		362	RMS0632	TRAVERSE PIN	
326	RMR0334	FIXED PLATE		363	XTN2+6G	SCREW	
327	RMR0624-W2	CLAMPER		369	RMX0141	PUSH SPACER	
328	RMB0561	ASSIST LEVER SPRING		370	RMQ0749	UPPER SPINDLE	
329	RMR1121-K	MECHA COVER		371	RHM0001	MAGNET	
330	RMA1110-2	TRAY ANGLE		372	RMX0140	DISC SPACER	
331	RMR1122-H1	TRAY BASE		373	RME0261	FRONT LOCK SPRING	
332	RMM0204	CARRIER		374	RMQ0742	SPINDLE BASE	
333	RMM0203	DRIVE RACK					
334	RDG0432	SPEED UP GEAR					
335	RML0524	SLIDE LOCK					
336	RML0523	CARRIER LOCK					
337	RME0260-1	SLIDE LOCK SPRING					
338	RMR1123-H	TRAY					
339	RXQ0595	MOTOR SUB ASSY					
341	RSJ0003	SOLENOID ASSY					
343	RMA1106	UPPER PLATE					
344	RML0519	8 CD LEVER					
345	RFKNAK27GC	MECHA BASE ASSY					
346	RML0522	TURNING STOPPER					
347	RMQ0745	LOWER SPINDLE					

20.3 Cabinet

20.3.1 Cabinet Parts Location





* ONLY SC-HM800

20.3.2 Cabinet Parts List

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
CASSETTE DECK							
1	REXX0175	WIRE 19 PIN		41	RMKX0063	CD CHASSIS	
2	REEM0081	WIRE 20 PIN		42	RD-DAC024-PX	CD MECHANISM	
3	REEX0177	WIRE 28 PIN		43	RMNX0023-1	SUB TRANS HOLDER	
4	REEX0055-1	WIRE 14 PIN		44	RGRX0014A-F	REAR PANEL HM800	
5	RYPM0087	PANEL FRONTAL		44	RGRX0014B-D	REAR PANEL HM700	
6	RKF0462-K4	CASS HOLDER (L)		45	RYKM0027	TOP CABINET	
7	RKF0463-K4	CASS HOLDER (R)		46	XTB3+10J-A	SCREW	
8	RUS757ZAA	CASSETTE HALF SPRING		47	XTW3+15T-A	SCREW	
9	RMB0446	CASS OPEN SPRING		48	XTBS26+10J-A	SCREW	
10	RYQM0073	CASS. LID (L)		49	XTW3+12T	SCREW	
11	RYQM0074	CASS. LID (R)		50	XTB3+10JFZ-A	SCREW	
12	RKWX0182-A	CASS. WINDOW (L) HM800		51	XTBS3+8JFZ1-A	SCREW	
12	RKWX0182-H	CASS. WINDOW (L) HM700		52	XTB3+20J-A	SCREW	
13	RKWX0181-A	CASS. WINDOW (R) HM800		53	RHD30002-H	SCREW	
13	RKWX0181-H	CASS. WINDOW (R) HM700		54	RAA3408	AUTOREVERSE DECK	
14	RYRM0055	CD MANAGER BUTTON					
15	RGUX0452-Q1	CD SELECTOR BUTTON					
16	RYRM0058	CD EJECT BUTTON					
17	RYRM0057	SUPER 3D AI					
18	RGUX0455-Q	SUPER SOUND EQ					
19	RYQX0037-S3	JOG JOY UNIT					
20	RGUX0458A-Q	FUNCTION BUTTON					
21	RYRM0052	DECK/MAIN UNIT					
22	RGPX0072-Q	REMOTE SENSOR					
23	RDLX0002-Q	POWER LENS					
24	RYRM0054	POWER BUTTON					
25	RGKX0124-A	CD STR ORNAMENT HM800					
25	RGKX0124-H	CD STR ORNAMENT HM700					
26	RYQM0068A-1	VOLUME KNOB					
27	RKWX0179-Q2	FL FILTER					
28	RKWX0180-Q	FL WINDOW					
29	RYQM0083	CENTER ORNAMENT HM800					
29	RYQM0086	CENTER ORNAMENT HM700					
30	RYQM0080	CD TRAY LID					
31	RYQM0079	CD TRAY ORNAMENT HM800					
31	RYQM0085	CD TRAY ORNAMENT HM700					
32	RYQM0082	TOP ORNAMENT HM800					
32	RYQM0084	TOP ORNAMENT HM700					
33	RGB0036-A1	PANA BADGE					
34	RMKX0035-1	BOTTOM CHASSIS					
35	MDS013	POWER PCB SUPPORT					
36	RMRX0026-W	WIRE SUPPORT					
37	MHPSJ5012-1	LEG RUBBER					
38	RSC0027-3	TUNER PACK					
39	RMNX0073	PCB SUPPORT					
40	RXXM0019	HEAT SINK UNIT					

20.3.3 Electrical Parts List

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
P.C.B. WITH COMPONENTS SC-HM700							
	RAIM0026A	TUNER PACK		Q350	2SB621ARSTA	TRANSISTOR	
	RAIM027000B	TRANSFORMER		Q351	KRC102STA	TRANSISTOR	
	RAIM027001B	POWER		Q400	KRC102MTA	TRANSISTOR TRANSFORMER	
	RAIM027002B	MAIN		Q400	KTD1304TA	TRANSISTOR MAIN	
	RAIM027003B	PANEL		Q401	KTC3199GRTA	TRANSISTOR	
	RAIM027004B	DECK		Q402	2SD2144STA	TRANSISTOR	
P.C.B. WITH COMPONENTS SC-HM800				Q403	KTC3205Y	TRANSISTOR	
	RAIM0026A	TUNER PACK		Q450	KTD1304TA	TRANSISTOR	
	RAIM028000B	TRANSFORMER		Q501	KTC3199GRTA	TRANSISTOR	⚠
	RAIM028001A	POWER		Q502	2SB1238QRTV2	TRANSISTOR	
	RAIM028002B	MAIN		Q503	KTC3199GRTA	TRANSISTOR	⚠
	RAIM028003B	PANEL		Q504	2SD1859QRTV2	TRANSISTOR	
	RAIM028004B	DECK		Q505	2SD2144STA	TRANSISTOR	
P.C.B. WITHOUT COMPONENTS SC-HM700				Q506	KTC3199GRTA	TRANSISTOR	
	RJBM0028A	POWER		Q507	KTC3199GRTA	TRANSISTOR	
	RJBM0027A	TRANSFORMER		Q600	KTA12710Y TA	TRANSISTOR	⚠
	RJBM0026A	MAIN		Q601	KRC103MTA	TRANSISTOR	
	RJBM0024A	PANEL		Q602	KRC102MTA	TRANSISTOR	⚠
	RJBX0188B	DECK		Q603	2SA933SSTA	TRANSISTOR	⚠
P.C.B. WITHOUT COMPONENTS SC-HM800				Q604	KRC101MTA	TRANSISTOR	
	RJBM0025A	POWER		Q605	KRC101MTA	TRANSISTOR	
	RJBM0027A	TRANSFORMADOR		Q606	KRC101MTA	TRANSISTOR	
	RJBM0026A	MAIN		Q607	KTC3199GRTA	TRANSISTOR	
	RJBM0024A	PANEL		Q608	KTC3199GRTA	TRANSISTOR	
	RJBX0188B	DECK PCB		Q699	KTC3199GRTA	TRANSISTOR	
INTEGRATED CIRCUITS				Q990	KRC102MTA	TRANSISTOR	
IC101	LA1833NMNTLM	INTEGRATED CIRCUIT		Q1001	KTC3199GRTA	TRANSISTOR	
IC102	LC72131MDTRM	INTEGRATED CIRCUIT		Q1003	2SD2144STA	TRANSISTOR	
IC301	BH3874AKS2	INTEGRATED CIRCUIT		Q1004	2SD2144STA	TRANSISTOR	
IC302	M5218AP	INTEGRATED CIRCUIT		Q1005	2SD2144STA	TRANSISTOR	
IC304	KIA4558FEL	INTEGRATED CIRCUIT		Q1006	KRC114STA	TRANSISTOR	
IC305	TC4052BFNLM	INTEGRATED CIRCUIT		Q1007	KTC3875GRTA	TRANSISTOR	
IC500	RSN311W64B-P	INTEG. CIRCUIT POWER ONLY HM800	⚠	Q1008	KTC3875GRTA	TRANSISTOR	
IC500	C5BA00000105	INTEGRATED CIRCUIT ONLY HM700	⚠	Q1009	KTC3875GRTA	TRANSISTOR	
IC501	C5BA00000105	INTEGRATED CIRCUIT ONLY HM800	⚠	Q1010	KTC3875GRTA	TRANSISTOR	
IC501	RSN313H25-P	INTEGRATED CIRCUIT ONLY HM700	⚠	Q1011	KTC3875GRTA	TRANSISTOR	
IC601	BU2090AF-E2	INTEGRATED CIRCUIT		Q1012	KTD1304TA	TRANSISTOR	
IC602	BU2090AF-E2	INTEGRATED CIRCUIT		Q1013	KTD1304TA	TRANSISTOR	
IC900	M38B79MFA158	INTEGRATED CIRCUIT		Q1014	2SC2412KT96R	TRANSISTOR	
IC951	CNB13030R2AU	INTEGRATED CIRCUIT		Q1015	2SC2412KT96R	TRANSISTOR	
IC971	CNB13030R2AU	INTEGRATED CIRCUIT		Q1016	KRA102STA	TRANSISTOR	
IC1001	AN7348S-E1	INTEGRATED CIRCUIT		Q1017	KTD1146Y TA	TRANSISTOR	
IC1002	BU2090AF-E2	INTEGRATED CIRCUIT		Q1018	KTA12710Y TA	TRANSISTOR	
IC1003	BA4558FE2	INTEGRATED CIRCUIT		Q1019	KTA12710Y TA	TRANSISTOR	
IC1004	BA7755A	INTEGRATED CIRCUIT		Q1020	KTD1304TA	TRANSISTOR	
TRANSISTORS				Q1021	KTD1304TA	TRANSISTOR	
Q1	2SK544F-AC	TRANSISTOR		Q1022	KRA102STA	TRANSISTOR	
Q2	2SC2786MTA	TRANSISTOR		Q1023	KRA102STA	TRANSISTOR	
Q3	2SC2787FL1TA	TRANSISTOR		Q1024	2SD2144STA	TRANSISTOR	
Q4	2SC2787FL1TA	TRANSISTOR		DIODES			
Q101	2SC2058SPTA	TRANSISTOR		D1	SVC211SPA-AL	DIODE	
Q106	KRA102MTA	TRANSISTOR	⚠	D2	SVC211SPA-AL	DIODE	
Q200	KTD1304TA	TRANSISTOR		D3	SVC211SPA-AL	DIODE	
Q250	KTD1304TA	TRANSISTOR		D101	UDZSTE175R1B	DIODE	
Q300	KTD1304TA	TRANSISTOR		D307	DAP202KT146	DIODE	
Q303	KTA12710Y TA	TRANSISTOR ONLY HM800		D308	DAP202KT146	DIODE	
Q304	KTC3199GRTA	TRANSISTOR ONLY HM800		D309	1SS355TE17	DIODE	
Q306	KRA102STA	TRANSISTOR		D310	DAP202KT146	DIODE	
Q307	KRC111STA	TRANSISTOR		D312	RL1N4003S-P	DIODE	
Q308	2SB621ARSTA	TRANSISTOR	⚠	D313	RL1N4003S-P	DIODE	
Q309	KTA1504GRTA	TRANSISTOR		D314	RL1N4003S-P	DIODE	
Q310	KTC3875GRTA	TRANSISTOR		D315	MA8300MTX	DIODE	
				D316	RL1N4003S-P	DIODE	
				D318	UDZSTE177R5B	DIODE	
				D319	MA728TX	DIODE	
				D320	MA728TX	DIODE	
				D400	1T3T	DIODE	
				D401	1T3T	DIODE	
				D402	1T3T	DIODE	
				D403	1T3T	DIODE	
				D404	RVD1SS133TA	DIODE	
				D405	1T3T	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks
D406	1T3T	DIODE	
D407	1T3T	DIODE	
D408	MTZJ7R5ATA	DIODE	
D409	1T3T	DIODE	
D410	1SS291TA	DIODE	
D411	1T3T	DIODE	
D500	RL1N4003S-P	DIODE	
D501	RL1N4003S-P	DIODE	
D503	MTZJ24DTA	DIODE	
D504	MTZJ24DTA	DIODE	
D505	RVD1SS133TA	DIODE ONLY HM800	
D506	RVD1SS133TA	DIODE	
D507	MTZJ24DTA	DIODE	
D508	MTZJ24DTA	DIODE	
D509	MTZJ12BTA	DIODE TO HM700	
D509	BOJAPG000019	DIODE TO HM800	
D510	BOJAPG000019	DIODE ONLY HM800	
D511	1N5402BM21	DIODE	
D512	1N5402BM21	DIODE	
D513	1N5402BM21	DIODE	
D514	1N5402BM21	DIODE	
D515	1N5402BM21	DIODE	
D516	1N5402BM21	DIODE	
D517	1N5402BM21	DIODE	
D518	1N5402BM21	DIODE	
D519	MTZJ20BTA	DIODE	
D520	MTZJ20BTA	DIODE	
D521	MTZJ20BTA	DIODE	
D522	MTZJ20BTA	DIODE	
D537	BOJAPG000019	DIODE ONLY HM700	
D538	BOJAPG000019	DIODE ONLY HM700	
D603	SLR325MCT31W	DIODE	
D604	SLR325MCT31W	DIODE	
D605	SLI325URCT31	DIODE	
D610	MA723TA	DIODE	
D611	RVD1SS133TA	DIODE	
D612	MA723TA	DIODE	
D613	MA4020HTA	DIODE	
D614	MA700ATA	DIODE	
D615	MA700ATA	DIODE	
D616	MA700ATA	DIODE	
D617	MA700ATA	DIODE	
D618	RVD1SS133TA	DIODE	
D619	RVD1SS133TA	DIODE	
D620	1SS291TA	DIODE	
D621	1SS291TA	DIODE	
D650	RVD1SS133TA	DIODE	
D651	RVD1SS133TA	DIODE	
D690	RVD1SS133TA	DIODE	
D696	RVD1SS133TA	DIODE	
D699	RVD1SS133TA	DIODE	
D903	SLR325MCT31W	DIODE	
D904	SLR325MCT31W	DIODE	
D914	SLR325MCT31W	DIODE	
D915	SLR325MCT31W	DIODE	
D916	SLR325MCT31W	DIODE	
D917	SLR325MCT31W	DIODE	
D918	SLR325MCT31W	DIODE	
D936	SLR325MCT31W	DIODE	
D937	SLR325MCT31W	DIODE	
D938	SLR325MCT31W	DIODE	
D949	SLR325DCT31	DIODE	
D951	MA165TA	DIODE	
D971	MA165TA	DIODE	
D990	RVD1SS133TA	DIODE	
D991	RVD1SS133TA	DIODE	
D992	RVD1SS133TA	DIODE	
D1002	1SS355TE17	DIODE	
D1003	1SS355TE17	DIODE	
D1004	UDZTE173R6B	DIODE	
VARIABLE RESISTORS			
VR900	RRV16B24104G	VARIABLE RESISTORS	

Ref. No.	Part No.	Part Name & Description	Remarks
SWITCHES			
S900	EVQ21405R	SWITCH	
S901	EVQ11G07K	SWITCH	
S902	EVQ11G07K	SWITCH	
S903	EVQ11G07K	SWITCH	
S904	EVQ11G07K	SWITCH	
S905	EVQ11G07K	SWITCH	
S906	EVQ21405R	SWITCH	
S907	EVQ21405R	SWITCH	
S908	EVQ21405R	SWITCH	
S909	EVQ21405R	SWITCH	
S910	EVQ21405R	SWITCH	
S911	EVQ21405R	SWITCH	
S912	EVQ21405R	SWITCH	
S913	EVQ21405R	SWITCH	
S932	EVQ21405R	SWITCH	
S933	EVQ21405R	SWITCH	
S934	EVQ21405R	SWITCH	
S935	EVQ21405R	SWITCH	
S944	EVQ21405R	SWITCH	
S945	EVQ21405R	SWITCH	
S950	EVQ21405R	SWITCH	
S951	EVQ21405R	SWITCH PANEL	
S951	RSH1A018-3U	SWITCH MECHANISM	
S952	EVQ11G07K	SWITCH PANEL	
S952	RSH1A019-2U	SWITCH MECHANISM	
S953	EVQ11G07K	SWITCH PANEL	
S953	RSH1A019-2U	SWITCH MECHANISM	
S954	EVQ11G07K	SWITCH	
S955	EVQ11G07K	SWITCH	
S956	EVQ21405R	SWITCH	
S958	EVQ21405R	SWITCH	
S959	EVQ21405R	SWITCH	
S961	EVQ21405R	SWITCH	
S962	EVQ21405R	SWITCH	
S971	RSH1A018-3U	SWITCH	
S972	RSH1A019-2U	SWITCH	
S973	RSH1A019-2U	SWITCH	
S974	RSH1A019-2U	SWITCH	
S975	RSH1A019-2U	SWITCH	
SW600	ESE24SV2	SWITCH	
CONNECTORS			
CN300	RJU057G12	CONNECTOR	
CN301	RJU057G12	CONNECTOR	
CN302	RJS1A9428-1	CONNECTOR	
CN303	RJS1A9420-1	CONNECTOR	
CN304	RJS1A5210	CONNECTOR	
CN309	RJS1A9414-1	CONNECTOR	
CN501	RJT119W13H	CONNECTOR	
CN502	RJP6G18ZA	CONNECTOR	
CN900	RJT066H12F	CONNECTOR	
CN1001	RJS8T7ZA	CONNECTOR	
CP500	RJT057G12	CONNECTOR	
CP501	RJT057G12	CONNECTOR	
CP605	RJS1A9420-1	CONNECTOR	
CP606	RJS1A6219-1	CONNECTOR	
CP607	RJS1A9428-1	CONNECTOR	
CP900	RJU066H12M	CONNECTOR	
CP1001	RJT071K09A	CONNECTOR	
CP1002	RJT071K09A	CONNECTOR	
CS951	RJU071H09M1	CONNECTOR	
CS971	RJU071H09M1	CONNECTOR	
CS1001	RJS1A6805-J	CONNECTOR	
CS1002	RJS1A6805-J	CONNECTOR	
COILS			
L1	RLQZP1R2KT-Y	COIL	
L2	RLQZPR47KT-Y	COIL	
L102	RLQB1R0KTD-D	COIL	
L603	RLQB3R3JTD-D	COIL	
L605	RLQB101JTD-D	COIL	

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
L603	RLQB3R3JTD-D	COIL		EARTH TERMINAL			
L605	RLQB101JTD-D	COIL					
L920	RLQZP101KT-Y	COIL		E500	SNE1004-2	EARTH TERMINAL	
L921	RLQB101JTD-D	COIL		FC501	EYF52BC	FUSE HOLDER	
L922	RLQZP100KT-Y	COIL		FC502	EYF52BC	FUSE HOLDER	
L1001	RLQB470JTD-D	COIL		WIRES			
L1002	7L1A62N	COIL					
TRANSFORMERS				W1	REEX0060	WIRE	
T501	RTPM1P3M026-V	MAIN TRANSFORMER TO HM700	⚠	W2	REED854	WIRE	
T501	RTPM1P3M023-V	MAIN TRANSFORMER TO HM800	⚠	W500	REXX0202-1	WIRE TRANSFORMER	
T502	RTP1H3C001	BACK UP TRANSFORMER	⚠	W500	REXX0235	WIRE POWER	
COMPONENT COMBINATION				W600	REXX0300	WIRE	
Z101	RLA2Z007-T	COIL		W601	REXX0298	WIRE	
Z102	RLI2Z021M-T	AM IF BLOCK		W921	RWJ1108200QQ	WIRE	
Z501	ERZV10V511CS	ZNR	⚠	W922	RWJ1107150XK	WIRE	
Z940	GP1UM272RK	REMOTE SENSOR		W923	RWJ1112100RR	WIRE	
Z971	RGSD12A1445T	RADA RESISTOR		W924	RWJ1103130XQ	WIRE	
Z1001	RGSD12A1445T	RADA RESISTOR		W1001	RWJ8010160RX	WIRE	
Z1002	RGSD12A1445T	RADA RESISTOR		W1002	RWJ0102050CK	WIRE	
CERAMIC FILTERS				RESISTORS			
CF201	RLFFETWND01M	CRISTAL		R1	ERDS2TJ104T	RESISTOR	
CF202	RLFFETWND01M	CRISTAL		R10	ERDS2TJ391T	RESISTOR	
RELAY				R1001	ERJ3GEYJ1R0V	RESISTOR	
RLY500	RSY0017M-0	RELAY ONLY HM700		R1003	ERJ3GEYJ103V	RESISTOR	
RL502	RSY0056M-C	RELAY	⚠	R1004	ERJ3GEYJ152V	RESISTOR	
OSCILLATORS				R1005	ERJ3GEYJ472V	RESISTOR	
X102	RLFDFT22DD	OSCILLATOR		R1006	ERJ3GEYJ102V	RESISTOR	
X103	RSXC7M20S05T	OSCILLATOR		R1007	ERD25FVJ4R7T	RESISTOR	
X600	RSXZ4M19D01T	OSCILLATOR		R1008	ERJ3GEYJ223V	RESISTOR	
X601	RSXD32K7S02	OSCILLATOR		R1009	ERJ3GEYJ183V	RESISTOR	
DISPLAY TUBE				R1010	ERJ3GEYJ183V	RESISTOR	
FL600	RSL0310-S	DISPLAY		R1011	ERJ3GEYJ103V	RESISTOR	
FUSES				R1012	ERJ3GEYJ472V	RESISTOR	
F1	XBA1C40NBAL	FUSE	⚠	R1013	ERJ3GEYJ472V	RESISTOR	
HOLDERS				R1014	ERJ3GEYJ472V	RESISTOR	
H500	RJS1A5513	HOLDER		R1015	ERJ3GEYJ470V	RESISTOR	
H600	RMR0317	HOLDER		R1016	ERJ3GEYJ470V	RESISTOR	
H601	RMR0315	HOLDER		R1017	ERJ3GEYJ822V	RESISTOR	
H921A	RMR0317	HOLDER		R1018	ERJ3GEYJ392V	RESISTOR	
H921B	RMR0317	HOLDER		R1019	ERJ3GEYJ392V	RESISTOR	
H922A	RJP7G18ZA	HOLDER		R102	ERJ3GEYJ472V	RESISTOR	
H922B	RMR0316	HOLDER		R1020	ERJ3GEYJ470V	RESISTOR	
H923A	RMR0321	HOLDER		R1022	ERJ3GEYJ103V	RESISTOR	
H923B	RMR0321	HOLDER		R1024	ERJ3GEYJ563V	RESISTOR	
H924A	RMR0312	HOLDER		R1026	ERJ3GEYJ102V	RESISTOR	
H924B	RJP3G18ZA	HOLDER		R1027	ERJ3GEYJ104V	RESISTOR	
H1001	RMR0319	HOLDER		R1028	ERJ3GEYJ822V	RESISTOR	
JACKS				R1029	ERJ3GEYJ475V	RESISTOR	
JK101	RJH5404-1J	JACK		R103	ERJ3GEYJ271V	RESISTOR	
JK305	RJH2213N-1	JACK ONLY HM700		R1030	ERJ3GEYJ101V	RESISTOR	
JK500	SJS9236-J	JACK TRANSFORMER	⚠	R1031	ERJ3GEYJ273V	RESISTOR	
JK500	RJR0054B-J	JACK POWER ONLY HM800	⚠	R1032	ERJ3GEYJ103V	RESISTOR	
JK501	RJR0054B-J	JACK		R1033	ERDS2TJ272T	RESISTOR	
JK502	SJF3068-12N	JACK ONLY HM800		R1035	ERJ3GEYJ103V	RESISTOR	
JK603	SJF3068-12N	JACK ONLY HM700		R1036	ERJ3GEYJ470V	RESISTOR	
JK920	RJJ37TK07-X	JACK		R1037	ERJ3GEYJ104V	RESISTOR	
				R1038	ERJ3GEYJ472V	RESISTOR	
				R1039	ERJ3GEYJ153V	RESISTOR	
				R104	ERJ3GEYJ102V	RESISTOR	
				R1040	ERJ3GEYJ563V	RESISTOR	
				R1045	ERJ3GEYJ104V	RESISTOR	
				R1046	ERJ3GEYJ104V	RESISTOR	
				R1047	ERJ3GEYJ102V	RESISTOR	
				R1048	ERJ3GEYJ102V	RESISTOR	
				R1049	ERDS2TJ682T	RESISTOR PANEL	
				R1049	ERJ3GEYJ105V	RESISTOR DECK	
				R105	ERJ3GEYJ471V	RESISTOR	
				R1050	ERDS2TJ103T	RESISTOR PANEL	
				R1050	ERJ3GEYJ105V	RESISTOR DECK	
				R1051	ERDS2TJ471T	RESISTOR PANEL	
				R1051	ERJ3GEYJ221V	RESISTOR DECK	
				R1052	ERDS2TJ471T	RESISTOR PANEL	
				R1052	ERJ3GEYJ221V	RESISTOR DECK	
				R1053	ERJ3GEYJ681V	RESISTOR	
				R1054	ERDS2TJ471T	RESISTOR PANEL	

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
R1054	ERJ3GEYJ681V	RESISTOR DECK		R138	ERJ3GEYJ332V	RESISTOR	
R1055	ERDS2TJ471T	RESISTOR PANEL		R141	ERJ3GEYJ682V	RESISTOR	
R1055	ERJ3GEYJ222V	RESISTOR DECK		R142	ERJ3GEYJ682V	RESISTOR	
R1056	ERJ3GEYJ221V	RESISTOR		R143	ERJ3GEYJ223V	RESISTOR	
R1057	ERJ3GEYJ222V	RESISTOR		R145	ERJ3GEYJ104V	RESISTOR	
R1058	ERDS2TJ472T	RESISTOR PANEL		R146	ERJ3GEYJ104V	RESISTOR	
R1058	ERJ3GEYJ272V	RESISTOR DECK		R151	ERJ3GEYJ820V	RESISTOR	
R1059	ERJ3GEYJ103V	RESISTOR		R152	ERJ3GEY0R00V	RESISTOR	
R106	ERJ3GEYJ474V	RESISTOR		R2	ERDS2TJ104T	RESISTOR	
R1060	ERJ3GEYJ391V	RESISTOR		R201	ERJ3GEYJ103V	RESISTOR	
R1061	ERJ3GEYJ2R7V	RESISTOR		R202	ERJ3GEYJ392V	RESISTOR	
R1062	ERJ3GEYJ2R7V	RESISTOR		R207	ERJ3GEYJ152V	RESISTOR	
R1063	ERJ3GEYJ102V	RESISTOR		R208	ERJ3GEYJ103V	RESISTOR	
R1064	ERJ3GEYJ102V	RESISTOR		R209	ERJ3GEYJ473V	RESISTOR	
R1065	ERJ3GEYJ102V	RESISTOR		R210	ERJ3GEYJ102V	RESISTOR	
R1066	ERJ3GEYJ102V	RESISTOR		R211	ERJ3GEYJ222V	RESISTOR	
R1067	ERJ3GEYJ153V	RESISTOR		R212	ERJ3GEYJ472V	RESISTOR	
R1068	ERJ3GEYJ153V	RESISTOR		R213	ERJ3GEYJ563V	RESISTOR	
R1069	ERJ3GEYJ682V	RESISTOR		R214	ERJ3GEYJ103V	RESISTOR	
R107	ERJ3GEYJ331V	RESISTOR		R215	ERJ3GEYJ102V	RESISTOR	
R1070	ERJ3GEYJ103V	RESISTOR		R220	ERJ3GEYJ104V	RESISTOR	
R1071	ERJ3GEYJ103V	RESISTOR		R221	ERJ3GEYJ152V	RESISTOR	
R1072	ERJ3GEYJ331V	RESISTOR		R222	ERJ3GEYJ472V	RESISTOR	
R1073	ERJ3GEYJ682V	RESISTOR		R223	ERJ3GEYJ473V	RESISTOR	
R1074	ERJ3GEYJ823V	RESISTOR		R224	ERJ3GEYJ153V	RESISTOR	
R1075	ERJ3GEYJ222V	RESISTOR		R225	ERJ3GEYJ102V	RESISTOR TO HM700	
R1076	ERJ3GEYJ222V	RESISTOR		R225	ERJ3GEYJ152V	RESISTOR TO HM800	
R1077	ERJ3GEYJ393V	RESISTOR		R226	ERJ3GEYJ121V	RESISTOR	
R1078	ERJ3GEYJ682V	RESISTOR		R227	ERJ3GEY0R00V	RESISTOR	
R1079	ERJ3GEYJ472V	RESISTOR		R233	ERJ3GEYJ332V	RESISTOR	
R1080	ERJ3GEYJ472V	RESISTOR		R234	ERDS2TJ562T	RESISTOR ONLY HM700	
R1081	ERJ3GEYJ102V	RESISTOR		R235	ERDS2TJ183T	RESISTOR ONLY HM700	
R1082	ERJ3GEYJ393V	RESISTOR		R236	ERDS2TJ471T	RESISTOR ONLY HM700	
R1083	ERJ3GEYJ822V	RESISTOR		R237	ERDS2TJ471T	RESISTOR ONLY HM700	
R1084	ERJ3GEYJ222V	RESISTOR		R238	ERDS2TJ563T	RESISTOR ONLY HM700	
R1085	ERJ3GEYJ473V	RESISTOR		R239	ERDS2TJ124T	RESISTOR ONLY HM700	
R1086	ERJ3GEYJ222V	RESISTOR		R240	ERDS1FVJ100T	RESISTOR ONLY HM700	
R1087	ERJ3GEYJ473V	RESISTOR		R248	ERJ3GEYJ121V	RESISTOR	
R1088	ERJ3GEYJ223V	RESISTOR		R249	ERJ3GEYJ121V	RESISTOR	
R1089	ERJ3GEYJ223V	RESISTOR		R250	ERJ3GEYJ121V	RESISTOR	
R1090	ERJ3GEYJ221V	RESISTOR		R251	ERJ3GEYJ121V	RESISTOR	
R1091	ERJ3GEYJ222V	RESISTOR		R253	ERJ3GEYJ223V	RESISTOR	
R1092	ERJ3GEYJ222V	RESISTOR		R3	ERDS2TJ221T	RESISTOR	
R1093	ERJ3GEYJ102V	RESISTOR		R300	ERJ3GEYJ472V	RESISTOR	
R1094	ERJ3GEYJ102V	RESISTOR		R301	ERDS2TJ103T	RESISTOR MAIN ONLY HM700	
R1095	ERJ3GEYJ104V	RESISTOR		R301	ERJ3GEYJ104V	RESISTOR POWER	
R1096	ERJ3GEYJ104V	RESISTOR		R302	ERDS2TJ562T	RESISTOR POWER ONLY HM700	
R1097	ERJ3GEYJ103V	RESISTOR		R302	ERJ3GEYJ104V	RESISTOR MAIN	
R1098	ERJ3GEYJ103V	RESISTOR		R303	ERDS2TJ154T	RESISTOR POWER ONLY HM700	
R11	ERDS2TJ684T	RESISTOR		R303	ERJ3GEYJ103V	RESISTOR MAIN	
R110	ERJ3GEYJ102V	RESISTOR		R304	ERDS1FVJ270T	RESISTOR	
R111	ERJ3GEYJ391V	RESISTOR		R313	ERJ3GEYJ393V	RESISTOR	
R112	ERJ3GEYJ104V	RESISTOR		R316	ERJ3GEYJ153V	RESISTOR	
R113	ERJ3GEYJ103V	RESISTOR		R320	ERJ3GEYJ104V	RESISTOR	
R114	ERJ3GEYJ562V	RESISTOR		R321	ERJ3GEYJ152V	RESISTOR	
R115	ERJ3GEYJ561V	RESISTOR		R323	ERJ3GEYJ473V	RESISTOR	
R116	ERJ3GEYJ102V	RESISTOR		R324	ERJ3GEYJ182V	RESISTOR	
R117	ERJ3GEYJ473V	RESISTOR		R325	ERJ3GEYJ103V	RESISTOR TO HM700	
R118	ERJ3GEYJ332V	RESISTOR		R325	ERJ3GEYJ223V	RESISTOR TO HM800	
R119	ERJ3GEYJ332V	RESISTOR		R326	ERJ3GEYJ101V	RESISTOR	
R120	ERJ3GEYJ473V	RESISTOR		R327	ERJ3GEY0R00V	RESISTOR TO HM700	
R121	ERJ3GEYJ223V	RESISTOR		R327	ERJ3GEYJ222V	RESISTOR TO HM800	
R122	ERJ3GEYJ272V	RESISTOR		R328	ERJ3GEYJ333V	RESISTOR	
R123	ERJ3GEYJ683V	RESISTOR		R329	ERJ3GEYJ473V	RESISTOR	
R124	ERJ3GEYJ330V	RESISTOR		R330	ERJ3GEYJ151V	RESISTOR	
R125	ERJ3GEYJ471V	RESISTOR		R331	ERJ3GEYJ472V	RESISTOR	
R126	ERJ3GEYJ102V	RESISTOR		R332	ERD2FCVJ4R7T	RESISTOR	
R127	ERJ3GEYJ471V	RESISTOR		R333	ERJ3GEYJ563V	RESISTOR	
R128	ERJ3GEYJ820V	RESISTOR		R334	ERJ3GEYJ471V	RESISTOR	
R129	ERJ3GEYJ273V	RESISTOR		R335	ERJ3GEYJ824V	RESISTOR	
R130	ERJ3GEYJ103V	RESISTOR		R336	ERJ3GEYJ824V	RESISTOR	
R131	ERJ3GEYJ680V	RESISTOR		R338	ERJ3GEYJ681V	RESISTOR	
R132	ERJ3GEYJ103V	RESISTOR		R339	ERJ3GEYJ152V	RESISTOR	
R133	ERJ3GEYJ102V	RESISTOR		R340	ERJ3GEYJ102V	RESISTOR	
R134	ERJ3GEYJ471V	RESISTOR		R341	ERJ3GEYJ472V	RESISTOR	
R135	ERJ3GEYJ102V	RESISTOR		R342	ERJ3GEYJ103V	RESISTOR	
R136	ERJ3GEYJ102V	RESISTOR		R343	ERJ3GEYJ103V	RESISTOR	
R137	ERJ3GEYJ102V	RESISTOR		R344	ERJ3GEYJ222V	RESISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
R345	ERJ3GEYJ221V	RESISTOR		R500	ERDS2TJ153T	RESISTOR ONLY HM800	
R346	ERJ3GEYJ223V	RESISTOR		R501	ERDS2TJ153T	RESISTOR ONLY HM800	
R347	ERJ3GEYJ123V	RESISTOR		R502	ERDS2TJ562T	RESISTOR ONLY HM800	
R348	ERJ3GEYJ183V	RESISTOR		R503	ERDS2TJ562T	RESISTOR ONLY HM800	
R349	ERJ3GEYJ103V	RESISTOR		R504	ERDS2TJ153T	RESISTOR ONLY HM800	
R350	ERJ3GEYJ102V	RESISTOR		R506	ERDS2TJ562T	RESISTOR ONLY HM800	
R351	ERJ3GEYJ103V	RESISTOR		R507	ERDS2TJ562T	RESISTOR ONLY HM800	
R353	ERJ3GEYJ103V	RESISTOR		R510	ERD25FVJ331T	RESISTOR ONLY HM700	
R354	ERJ3GEYJ123V	RESISTOR		R510	ERDS1FVJ331T	RESISTOR ONLY HM800	
R355	ERJ3GEYJ223V	RESISTOR		R511	ERDS2TJ563T	RESISTOR ONLY HM800	
R356	ERJ3GEYJ102V	RESISTOR		R512	ERDS2TJ563T	RESISTOR ONLY HM800	
R357	ERJ3GEYJ102V	RESISTOR		R513	ERDS2TJ563T	RESISTOR ONLY HM800	
R358	ERJ3GEYJ473V	RESISTOR		R514	ERDS2TJ563T	RESISTOR ONLY HM800	
R359	ERJ3GEYJ473V	RESISTOR		R515	ERDS2TJ472T	RESISTOR	
R360	ERJ3GEYJ104V	RESISTOR		R516	ERD25FVJ331T	RESISTOR TO HM700	
R361	ERJ3GEYJ104V	RESISTOR		R516	ERDS1FVJ331T	RESISTOR TO HM800	
R367	ERJ3GEYJ103V	RESISTOR		R517	ERDS2TJ472T	RESISTOR	
R371	ERJ3GEYJ472V	RESISTOR		R518	ERDS2TJ474T	RESISTOR ONLY HM800	
R372	ERJ3GEYJ103V	RESISTOR		R519	ERD2FCVJ4R7T	RESISTOR TO HM700	
R373	ERJ3GEYJ153V	RESISTOR		R519	ERD25FVJ4R7T	RESISTOR TO HM800	
R374	ERJ3GEYJ822V	RESISTOR		R520	ERD2FCVJ4R7T	RESISTOR TO HM700	
R375	ERJ3GEYJ822V	RESISTOR		R520	ERD25FVJ4R7T	RESISTOR TO HM800	
R376	ERJ3GEYJ123V	RESISTOR		R521	ERDS2TJ151T	RESISTOR	
R377	ERJ3GEYJ183V	RESISTOR		R522	ERDS2TJ224T	RESISTOR ONLY HM800	
R378	ERJ3GEYJ473V	RESISTOR		R523	ERDS2TJ124T	RESISTOR ONLY HM800	
R379	ERJ3GEYJ472V	RESISTOR		R524	ERDS2TJ154T	RESISTOR ONLY HM800	
R380	ERJ3GEYJ471V	RESISTOR		R525	ERDS2TJ184T	RESISTOR ONLY HM800	
R381	ERJ3GEYJ473V	RESISTOR		R526	ERDS2TJ103T	RESISTOR ONLY HM800	
R382	ERJ3GEYJ473V	RESISTOR		R527	ERDS2TJ104T	RESISTOR ONLY HM800	
R383	ERJ3GEYJ392V	RESISTOR		R528	ERDS2TJ223T	RESISTOR ONLY HM800	
R384	ERJ3GEYJ473V	RESISTOR		R532	ERDS2TJ151T	RESISTOR ONLY HM800	
R385	ERJ3GEYJ683V	RESISTOR		R534	ERDS1FVJ100T	RESISTOR ONLY HM800	
R4	ERDS2TJ104T	RESISTOR		R536	ERDS1FVJ100T	RESISTOR ONLY HM800	
R400	ERDS2TJ103T	RESISTOR		R538	ERDS1FVJ2R2T	RESISTOR	
R401	ERDS2TJ103T	RESISTOR TRANSFORMER		R539	ERDS1FVJ2R2T	RESISTOR	
R401	ERJ3GEYJ103V	RESISTOR MAIN		R540	RSFMB40KT-L	RESISTOR	⚠
R402	ERDS2TJ331T	RESISTOR TRANSFORMER		R541	ERDS2TJ152T	RESISTOR	
R402	ERJ3GEYJ392V	RESISTOR MAIN		R542	ERDS2TJ152T	RESISTOR	
R403	ERDS2TJ150T	RESISTOR		R543	RSFMB10KT-L	RESISTOR	⚠
R404	ERDS2TJ272T	RESISTOR		R544	ERDS2TJ473T	RESISTOR	
R405	ERDS2TJ122T	RESISTOR		R545	ERDS2TJ473T	RESISTOR	
R406	ERDS2TJ824T	RESISTOR		R550	ERDS2TJ104T	RESISTOR ONLY HM700	
R407	ERDS1FVJ220T	RESISTOR TRANSFORMER		R552	ERDS2TJ103T	RESISTOR ONLY HM700	
R407	ERJ3GEYJ152V	RESISTOR MAIN		R553	ERDS2TJ684T	RESISTOR ONLY HM700	
R408	ERDS1FVJ180T	RESISTOR TRANSFORMER		R555	ERDS2TJ272T	RESISTOR ONLY HM700	
R408	ERJ3GEYJ103V	RESISTOR MAIN		R576	ERDS2TJ154T	RESISTOR ONLY HM700	
R409	ERDS1FVJ180T	RESISTOR TRANSFORMER		R577	ERDS2TJ154T	RESISTOR ONLY HM700	
R409	ERJ3GEYJ473V	RESISTOR MAIN		R6	ERDS2TJ391T	RESISTOR	
R410	ERJ3GEYJ102V	RESISTOR MAIN		R600	ERDS2TJ472T	RESISTOR	
R410	RSFMB40KT-L	RESISTOR TRANSFORMER		R601	ERDS2TJ472T	RESISTOR	
R411	ERJ3GEYJ222V	RESISTOR		R602	ERDS2TJ472T	RESISTOR	
R412	ERJ3GEYJ472V	RESISTOR		R603	ERDS2TJ820T	RESISTOR	
R413	ERJ3GEYJ563V	RESISTOR		R604	ERDS2TJ820T	RESISTOR	
R414	ERJ3GEYJ103V	RESISTOR		R605	ERDS2TJ392T	RESISTOR	
R415	ERJ3GEYJ102V	RESISTOR		R608	ERDS2TJ102T	RESISTOR	
R420	ERJ3GEYJ104V	RESISTOR		R609	ERDS2TJ222T	RESISTOR	
R421	ERJ3GEYJ152V	RESISTOR		R610	ERDS2TJ222T	RESISTOR	
R422	ERJ3GEYJ472V	RESISTOR		R611	ERDS2TJ104T	RESISTOR	
R423	ERJ3GEYJ473V	RESISTOR		R612	ERDS2TJ104T	RESISTOR	
R424	ERJ3GEYJ153V	RESISTOR		R613	ERDS2TJ104T	RESISTOR	
R425	ERJ3GEYJ102V	RESISTOR TO HM700		R614	ERDS2TJ104T	RESISTOR	
R425	ERJ3GEYJ152V	RESISTOR TO HM800		R615	ERDS2TJ104T	RESISTOR	
R426	ERJ3GEYJ121V	RESISTOR		R616	ERDS2TJ104T	RESISTOR	
R427	ERJ3GEYOR00V	RESISTOR		R617	ERDS2TJ104T	RESISTOR	
R433	ERJ3GEYJ332V	RESISTOR		R618	ERDS2TJ104T	RESISTOR	
R434	ERDS2TJ562T	RESISTOR ONLY HM700		R619	ERDS2TJ104T	RESISTOR	
R435	ERDS2TJ183T	RESISTOR ONLY HM700		R620	ERDS2TJ104T	RESISTOR	
R436	ERDS2TJ471T	RESISTOR ONLY HM700		R621	ERDS2TJ104T	RESISTOR	
R437	ERDS2TJ471T	RESISTOR ONLY HM700		R622	ERDS2TJ104T	RESISTOR	
R438	ERDS2TJ563T	RESISTOR ONLY HM700		R623	ERDS2TJ152T	RESISTOR	
R439	ERDS2TJ124T	RESISTOR ONLY HM700		R624	ERDS2TJ223T	RESISTOR	
R440	ERDS1FVJ100T	RESISTOR ONLY HM700		R625	ERDS2TJ102T	RESISTOR	
R448	ERJ3GEYJ121V	RESISTOR		R626	ERDS2TJ102T	RESISTOR	
R449	ERJ3GEYJ121V	RESISTOR		R628	ERDS2TJ103T	RESISTOR	
R450	ERJ3GEYJ121V	RESISTOR		R629	ERDS2TJ103T	RESISTOR	
R451	ERJ3GEYJ121V	RESISTOR		R630	ERDS2TJ103T	RESISTOR	
R453	ERJ3GEYJ223V	RESISTOR		R631	ERDS2TJ101T	RESISTOR	
R5	ERDS2TJ564T	RESISTOR		R632	ERDS2TJ101T	RESISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
R633	ERDS2TJ101T	RESISTOR	
R634	ERDS2TJ102T	RESISTOR	PANEL
R634	ERDS1FVJ100T	RESISTOR	POWER ONLY HM800
R635	ERDS2TJ102T	RESISTOR	
R636	ERDS2TJ101T	RESISTOR	PANEL
R636	ERDS1FVJ100T	RESISTOR	POWER ONLY HM800
R637	ERDS2TJ223T	RESISTOR	PANEL
R637	ERDS2TJ563T	RESISTOR	POWER ONLY HM800
R638	ERDS2TJ563T	RESISTOR	POWER ONLY HM800
R638	ERDS2TJ681T	RESISTOR	PANEL
R639	ERDS2TJ101T	RESISTOR	PANEL
R639	ERDS2TJ562T	RESISTOR	POWER ONLY HM800
R640	ERDS2TJ101T	RESISTOR	PANEL
R640	ERDS2TJ562T	RESISTOR	POWER ONLY HM800
R641	ERDS2TJ124T	RESISTOR	POWER ONLY HM800
R641	ERDS2TJ473T	RESISTOR	PANEL
R642	ERDS2TJ124T	RESISTOR	POWER ONLY HM800
R642	ERDS2TJ223T	RESISTOR	
R643	ERDS2TJ103T	RESISTOR	
R644	ERDS2TJ153T	RESISTOR	POWER ONLY HM800
R644	ERDS2TJ471T	RESISTOR	
R645	ERDS2TJ153T	RESISTOR	POWER ONLY HM800
R645	ERDS2TJ102T	RESISTOR	
R646	ERDS2TJ223T	RESISTOR	
R647	ERDS2TJ101T	RESISTOR	
R648	ERDS2TJ101T	RESISTOR	
R649	ERDS2TJ472T	RESISTOR	
R650	ERDS2TJ474T	RESISTOR	
R651	ERDS2TJ680T	RESISTOR	
R652	ERDS2TJ680T	RESISTOR	
R653	ERDS2TJ472T	RESISTOR	
R654	ERDS2TJ472T	RESISTOR	
R655	ERDS2TJ472T	RESISTOR	
R656	ERDS2TJ103T	RESISTOR	
R657	ERDS2TJ102T	RESISTOR	
R658	ERDS2TJ222T	RESISTOR	
R659	ERDS2TJ222T	RESISTOR	
R660	ERDS2TJ222T	RESISTOR	
R661	ERDS2TJ472T	RESISTOR	
R662	ERDS2TJ103T	RESISTOR	
R663	ERDS2TJ562T	RESISTOR	
R664	ERDS2TJ101T	RESISTOR	
R665	ERDS2TJ101T	RESISTOR	
R666	ERDS2TJ101T	RESISTOR	
R667	ERDS2TJ562T	RESISTOR	
R668	ERDS2TJ562T	RESISTOR	
R669	ERDS2TJ562T	RESISTOR	
R670	ERDS2TJ104T	RESISTOR	
R671	ERDS2TJ104T	RESISTOR	
R672	ERDS2TJ104T	RESISTOR	
R673	ERDS2TJ223T	RESISTOR	
R674	ERDS2TJ102T	RESISTOR	
R675	ERDS2TJ472T	RESISTOR	
R676	ERDS2TJ472T	RESISTOR	
R677	ERDS2TJ681T	RESISTOR	
R678	ERDS2TJ334T	RESISTOR	
R679	ERDS2TJ106T	RESISTOR	
R680	ERDS2TJ103T	RESISTOR	
R681	ERDS2TJ103T	RESISTOR	
R682	ERDS2TJ123T	RESISTOR	
R683	ERDS2TJ223T	RESISTOR	
R684	ERDS2TJ104T	RESISTOR	
R686	ERDS2TJ562T	RESISTOR	
R687	ERDS2TJ103T	RESISTOR	
R688	ERDS2TJ223T	RESISTOR	
R690	ERDS2TJ101T	RESISTOR	
R691	ERDS2TJ473T	RESISTOR	
R692	ERDS2TJ473T	RESISTOR	
R693	ERDS2TJ473T	RESISTOR	
R694	ERDS2TJ473T	RESISTOR	
R695	ERDS2TJ473T	RESISTOR	
R696	ERDS2TJ102T	RESISTOR	
R697	ERDS2TJ223T	RESISTOR	
R7	ERDS2TJ272T	RESISTOR	
R8	ERDS2TJ684T	RESISTOR	
R9	ERDS2TJ391T	RESISTOR	
R900	ERDS2TJ223T	RESISTOR	
R901	ERDS2TJ102T	RESISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
R902	ERDS2TJ102T	RESISTOR	
R903	ERDS2TJ122T	RESISTOR	
R904	ERDS2TJ182T	RESISTOR	
R905	ERDS2TJ222T	RESISTOR	
R906	ERDS2TJ102T	RESISTOR	
R907	ERDS2TJ102T	RESISTOR	
R908	ERDS2TJ122T	RESISTOR	
R909	ERDS2TJ182T	RESISTOR	
R910	ERDS2TJ222T	RESISTOR	
R911	ERDS2TJ272T	RESISTOR	
R912	ERDS2TJ472T	RESISTOR	
R913	ERDS2TJ682T	RESISTOR	
R914	ERDS2TJ471T	RESISTOR	
R915	ERDS2TJ471T	RESISTOR	
R916	ERDS2TJ471T	RESISTOR	
R917	ERDS2TJ471T	RESISTOR	
R918	ERDS2TJ471T	RESISTOR	
R919	ERDS2TJ123T	RESISTOR	
R920	ERDS2TJ683T	RESISTOR	
R944	ERDS2TJ223T	RESISTOR	
R945	ERDS2TJ683T	RESISTOR	
R949	ERDS2TJ471T	RESISTOR	
R950	ERDS2TJ103T	RESISTOR	
R951	ERDS2TJ223T	RESISTOR	
R952	ERDS2TJ102T	RESISTOR PANEL	
R952	ERDS2TJ821T	RESISTOR MECHANISM	
R953	ERDS2TJ102T	RESISTOR PANEL	
R953	ERDS2TJ393T	RESISTOR MECHANISM	
R954	ERDS2TJ122T	RESISTOR	
R955	ERDS2TJ182T	RESISTOR	
R956	ERDS2TJ222T	RESISTOR	
R957	ERDS2TJ272T	RESISTOR	
R958	ERDS2TJ472T	RESISTOR	
R959	ERDS2TJ682T	RESISTOR	
R960	ERDS2TJ103T	RESISTOR	
R961	ERDS2TJ223T	RESISTOR	
R972	ERDS2TJ821T	RESISTOR	
R973	ERDS2TJ393T	RESISTOR	
R989	ERDS2TJ150T	RESISTOR	
R991	ERDS2TJ153T	RESISTOR	
R992	ERDS2TJ102T	RESISTOR	
R996	ERDS2TJ103T	RESISTOR	
R997	ERDS2TJ471T	RESISTOR	
R998	ERDS2TJ122T	RESISTOR	
R999	ERDS2TJ102T	RESISTOR	
		CAPACITORS	
C1	ECBT1H5R6KC5	CAPACITOR	
C2	RCBS1H102KBY	CAPACITOR	
C3	ECBT1H2R2KC5	CAPACITOR	
C4	ECBT1H181KB5	CAPACITOR	
C5	ECBT1H5R6KC5	CAPACITOR ONLY HM800	
C6	ECBT1H3R3KC5	CAPACITOR	
C7	ECBT1H4R7KC5	CAPACITOR	
C8	ECBT1H3R3KC5	CAPACITOR	
C9	ECBT1H2R2KC5	CAPACITOR	
C10	ECBT1H180JC5	CAPACITOR	
C11	RCBS1H102KBY	CAPACITOR	
C101	ECUV1E103KBV	CAPACITOR	
C102	ECEA1CKA100B	CAPACITOR	
C103	ECUV1E103KBV	CAPACITOR	
C104	F1H1H102A761	CAPACITOR	
C106	ECUV1E103KBV	CAPACITOR	
C107	ECUV1E473ZV	CAPACITOR	
C108	ECUV1H080DCV	CAPACITOR	
C109	F1H1H102A761	CAPACITOR	
C110	ECUV1E103KBV	CAPACITOR	
C111	ECEA1HKA4R7B	CAPACITOR	
C112	ECUV1E103KBV	CAPACITOR	
C113	F1H1H102A761	CAPACITOR	
C114	ECEA1HKA3R3B	CAPACITOR	
C115	ECEA1HKA4R7B	CAPACITOR	
C116	ECUV1C333KBV	CAPACITOR	
C117	ECUV1E103KBV	CAPACITOR	
C118	ECUV1E103KBV	CAPACITOR	
C119	ECQP2A681JZT	CAPACITOR	
C120	ECEA1CKA100B	CAPACITOR	

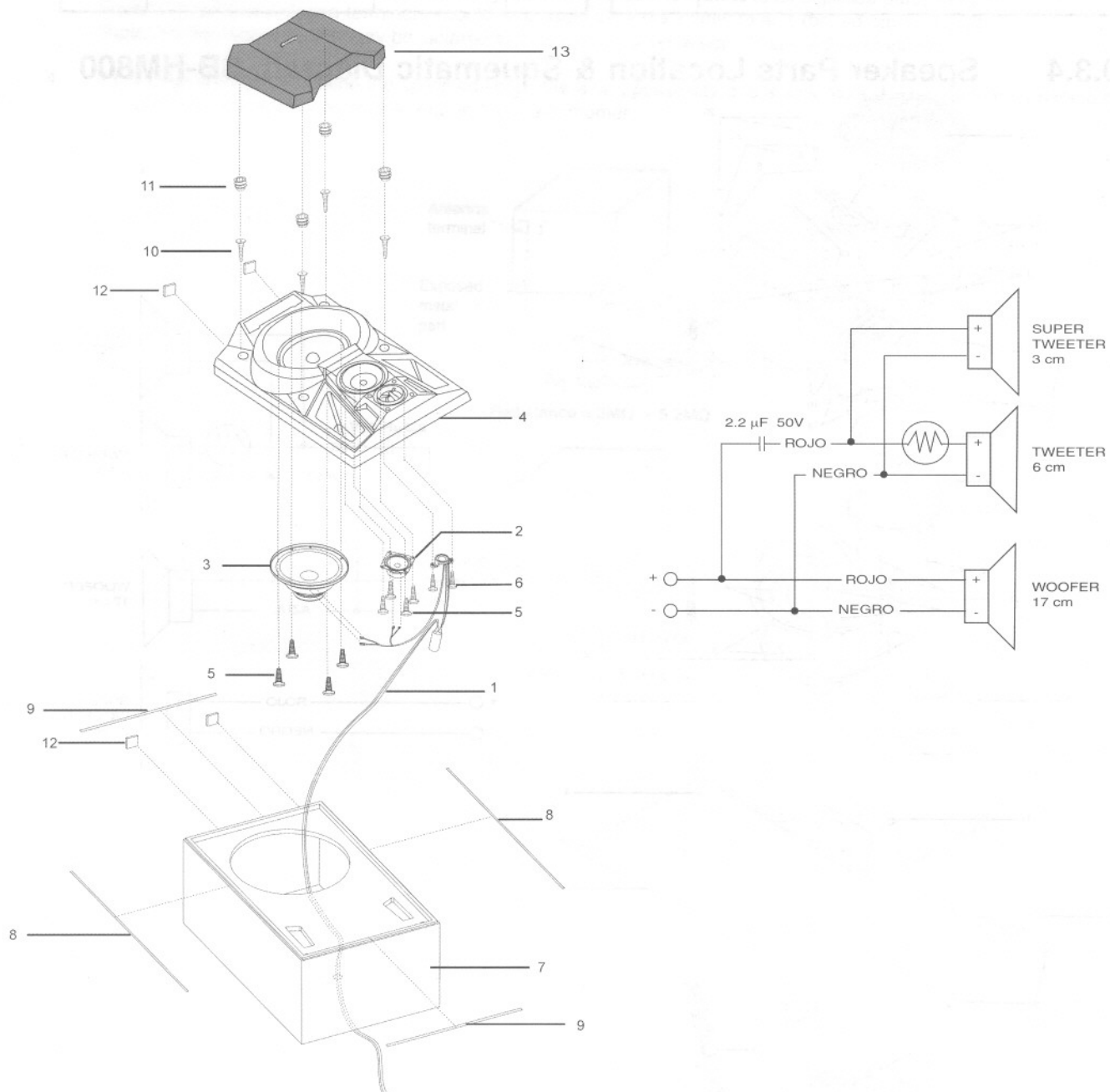
Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
C121	ECEA1HKAR47B	CAPACITOR		C336	ECUV1H472KBV	CAPACITOR	
C122	ECEA1HKA010B	CAPACITOR		C337	F1H1H102A761	CAPACITOR	
C123	ECEA1HKA010B	CAPACITOR		C338	ECUV1C104KBV	CAPACITOR	
C124	ECUV1H101KCV	CAPACITOR		C339	ECEA1HKA2R2B	CAPACITOR	
C125	ECEA1CKA220B	CAPACITOR		C340	ECUV1H472KBV	CAPACITOR	
C126	ECUV1C105ZFN	CAPACITOR		C341	F1H1H102A761	CAPACITOR	
C127	ECEA1CKA220B	CAPACITOR		C342	F1H1H102A761	CAPACITOR	
C129	ECEA0JKA101B	CAPACITOR		C343	ECUV1C683KBV	CAPACITOR	
C130	ECEA0JKA101B	CAPACITOR		C344	ECUV1C104KBV	CAPACITOR	
C131	ECUV1H151JCV	CAPACITOR		C345	ECUV1C104KBV	CAPACITOR	
C132	F1H1H102A761	CAPACITOR		C346	ECUV1C683KBV	CAPACITOR	
C133	ECUV1H270JCV	CAPACITOR		C347	ECUV1C104KBV	CAPACITOR	
C134	ECUV1H270JCV	CAPACITOR		C348	ECUV1C104KBV	CAPACITOR	
C136	F1H1H102A761	CAPACITOR		C349	ECQV1H104JL3	CAPACITOR	
C137	ECUV1H332KBV	CAPACITOR		C350	ECUV1C104KBV	CAPACITOR	
C138	ECUV1E103KBV	CAPACITOR		C351	ECUV1A224KBV	CAPACITOR	
C139	ECEA1HKA4R7B	CAPACITOR		C352	ECUV1A224KBV	CAPACITOR	
C141	ECEA1HKA010B	CAPACITOR		C353	ECUV1C104KBV	CAPACITOR	
C142	ECEA1HKA010B	CAPACITOR		C354	ECEA1AM221B	CAPACITOR	
C143	ECUV1H682KBV	CAPACITOR		C355	ECEA1CKA100B	CAPACITOR	
C144	ECUV1H682KBV	CAPACITOR		C356	ECQV1H224JL3	CAPACITOR	
C147	F1H1H102A761	CAPACITOR		C357	ECEA1CKA100B	CAPACITOR	
C148	ECUV1E103KBV	CAPACITOR		C358	ECEA2AM100B	CAPACITOR	
C149	ECUV1C104ZFN	CAPACITOR		C359	ECKR1H103ZF5	CAPACITOR	
C201	ECUV1H101KCV	CAPACITOR		C360	ECEA1JM101B	CAPACITOR	
C202	ECUV1H101KCV	CAPACITOR		C362	ECEA1HKA2R2B	CAPACITOR	
C204	ECUV1H221KBV	CAPACITOR ONLY HM700		C363	ECUV1H101KCV	CAPACITOR	
C207	ECEA1CKA100B	CAPACITOR		C364	ECUV1H101KCV	CAPACITOR	
C225	ECEA1HKA3R3B	CAPACITOR		C365	ECUV1C474ZFN	CAPACITOR	
C226	ECBT1H471KB5	CAPACITOR POWER		C366	ECEA1CKA100B	CAPACITOR	
C226	ECUV1C683KBV	CAPACITOR MAIN		C367	ECEA1CKA100B	CAPACITOR	
C227	ECUV1H681KBV	CAPACITOR		C374	ECKR1H103ZF5	CAPACITOR	
C228	ECEA1CKA100B	CAPACITOR		C375	F1H1H102A761	CAPACITOR	
C229	ECUV1H101KCV	CAPACITOR		C400	ECEA1VKA4R7B	CAPACITOR	
C230	ECUV1H470JCV	CAPACITOR		C401	ECKR2H103ZF5	CAPACITOR TRANSFORMER	
C231	ECEA1HKA3R3B	CAPACITOR		C401	ECUV1H101KCV	CAPACITOR MAIN	
C232	ECUV1H332KBV	CAPACITOR		C402	ECUV1H101KCV	CAPACITOR MAIN	
C233	ECEA1HKA2R2B	CAPACITOR		C402	RCEA1E22B-S	CAPACITOR TRANSFORMER	
C234	ECEA1HKAR47B	CAPACITOR		C403	ECKR1H103ZF5	CAPACITOR	
C235	ECEA1HKA2R2B	CAPACITOR ONLY HM700		C404	ECUV1H221KBV	CAPACITOR MAIN	
C236	ECEA1HKA2R2B	CAPACITOR		C404	RCA1CM102BT	CAPACITOR TRANSFORMER	
C237	F1H1H102A761	CAPACITOR ONLY HM700		C405	RCA1CM102BT	CAPACITOR	
C238	ECBT1H150JC5	CAPACITOR POWER		C406	ECKR1H103ZF5	CAPACITOR	
C238	ECEA1CKA470B	CAPACITOR MAIN		C407	ECEA1CKA100B	CAPACITOR MAIN	
C240	ECBT1H104KB5	CAPACITOR		C407	ECKR1H103ZF5	CAPACITOR TRANSFORMER	
C300	ECUV1E103KBV	CAPACITOR		C408	ECEA1AKA470B	CAPACITOR ONLY HM700	
C301	F1H1H102A761	CAPACITOR		C409	ECKR1H102ZF5	CAPACITOR	
C303	ECEA1CKA100B	CAPACITOR		C425	ECEA1HKA3R3B	CAPACITOR	
C304	ECUV1C473KBV	CAPACITOR		C426	ECBT1H471KB5	CAPACITOR POWER	
C305	ECUV1H472KBV	CAPACITOR		C426	ECUV1C683KBV	CAPACITOR MAIN	
C306	ECEA1HKAR33B	CAPACITOR		C427	ECUV1H681KBV	CAPACITOR	
C307	ECEA1HKAR15B	CAPACITOR		C428	ECEA1CKA100B	CAPACITOR	
C308	ECUV1C104KBV	CAPACITOR		C429	ECUV1H101KCV	CAPACITOR	
C310	ECUV1C473KBV	CAPACITOR		C430	ECUV1H470JCV	CAPACITOR	
C311	ECEA1HKAR33B	CAPACITOR		C431	ECEA1HKA3R3B	CAPACITOR	
C312	ECEA1HKAR15B	CAPACITOR		C432	ECUV1H332KBV	CAPACITOR	
C313	ECUV1C104KBV	CAPACITOR		C433	ECEA1HKA2R2B	CAPACITOR	
C314	ECUV1C104KBV	CAPACITOR		C434	ECEA1HKAR47B	CAPACITOR	
C315	ECUV1C104KBV	CAPACITOR		C435	ECEA1HKA2R2B	CAPACITOR ONLY HM700	
C316	ECUV1C104KBV	CAPACITOR		C436	ECEA1HKA2R2B	CAPACITOR	
C317	ECEA1HKN4R7B	CAPACITOR		C437	F1H1H102A761	CAPACITOR ONLY HM700	
C318	ECUV1E103KBV	CAPACITOR		C438	ECBT1H150JC5	CAPACITOR POWER ONLY HM700	
C319	ECUV1E103KBV	CAPACITOR		C438	ECEA1CKA470B	CAPACITOR MAIN ONLY HM700	
C320	ECUV1E103KBV	CAPACITOR		C439	ECBT1H104KB5	CAPACITOR POWER ONLY HM700	
C321	ECUV1E103KBV	CAPACITOR		C440	ECBT1H104KB5	CAPACITOR ONLY HM800	
C322	ECUV1C223KBV	CAPACITOR		C500	ECBT1H471KB5	CAPACITOR ONLY HM800	
C323	ECUV1C223KBV	CAPACITOR		C502	ECBT1H471KB5	CAPACITOR ONLY HM800	
C324	ECUV1C223KBV	CAPACITOR		C503	ECBT1H471KB5	CAPACITOR	
C325	ECEA1CKA100B	CAPACITOR		C505	ECKR1H103ZF5	CAPACITOR ONLY HM800	
C327	ECUV1H681KBV	CAPACITOR		C506	ECBT1H471KB5	CAPACITOR	
C328	ECEA1CKA100B	CAPACITOR		C507	ECBT1H103ZF5	CAPACITOR ONLY HM800	
C329	ECUV1H101KCV	CAPACITOR		C508	ECKR1H103ZF5	CAPACITOR ONLY HM800	
C330	ECUV1H470JCV	CAPACITOR		C509	ECBT1H103ZF5	CAPACITOR	
C331	ECEA1HKA4R7B	CAPACITOR		C511	ECBT1H150JC5	CAPACITOR ONLY HM800	
C332	ECEA1HKA3R3B	CAPACITOR		C512	ECBT1H150JC5	CAPACITOR	
C333	ECUV1C223KBV	CAPACITOR		C513	ECBT1H220JC5	CAPACITOR ONLY HM800	
C334	ECUV1H472KBV	CAPACITOR		C514	ECBT1H220JC5	CAPACITOR	
C335	ECUV1H472KBV	CAPACITOR		C515	ECBT1H103ZF5	CAPACITOR	

20.3.4 Speaker Parts List SB-HM700

Ref. No.	Part No.	Part Name & Description	Remarks
1	REVM0087	WIRE	
2	EAS6PH322B6	SPEAKER	
3	EAS17PL05A6	SPEAKER	
4	RYPM0078-A	FRONT PANEL	
5	XTB4+8JFZ	SCREW	
6	XTB3+10G	SCREW	
7	RKPM0067-5	WOOD CABINET	

Ref. No.	Part No.	Part Name & Description	Remarks
8	RMQM0057-1	CUSHION	
9	RMQM0056-1	CUSHION	
10	XTB4+20AFZ	SCREW	
11	RMGM0005	CATCH RUBBER	
12	RKA0072-K	RUBBER LEG	
13	RYBM0021-1	NET FRAME	

20.3.4 Speaker Parts Location & Squematic Diagram SB-HM700



20.3.4 Speaker Parts List SB-HM800

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
1	REV M0060-1	WIRE		14	RY PM0085/86	FRONT PANEL	
2	REV M0056-1	WIRE		15	REV M0090	WIRE	
3	RMRM0014	WIRE CATCHER		16	XTB3+10G	SCREW	
4	RKPM0072/73	WOOD CABINET		17	EAS17PL06AM	SPEAKER	
5	RMQM0059	CUSHION		18	RMTM0001	MATERIAL ACUSTICO	
6	RMQM0028-1B	CUSHION		19	RMRM0011-2	BACK CAVITY	
7	RJH9210	TERMINAL		20	XTB4+14G	SCREW	
8	XTB4+20AFZ	SCREW		21	RMGM0005	CATCH RUBBER	
9	EAS25PL304BM	SPEAKER		22	RMGM0006	CATCH RUBBER	
10	RGEM0011	SPEAKER RING		23	RGK0985B-S	CAP ORNAMENT	
11	RMQM0076	PORT SEAL		24	RKA0072-KJ	LEG RUBBER	
12	EAS6PH322B6	SPEAKER		25	RY BM0025	NET FRAME	
13	XTB4+8JFZ	SCREW					

20.3.4 Speaker Parts Location & Squematic Diagram SB-HM800

