

Service Manual

COMPACT
disc
DIGITAL AUDIO

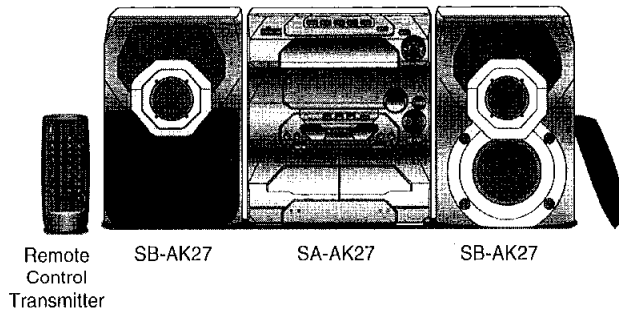
MASH*1
multi-stage noise shaping

*2 **DD** **DOLBY B NR**

CD Stereo System
SA-AK27

Colour

(S) ... Silver Type



Area

Suffix for Model No.	Area	Colour
(E)	Europe	(S)
(EB)	Great Britain	
(EG)	Germany and Italy	

*1

MASH is a trademark of NTT.

*2

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

System	Music Center	Speaker
SC-AK27 (E)	SA-AK27 (E)	SB-AK27 (E)
SC-AK27 (EB)	SA-AK27 (EB)	SB-AK27 (E)
SC-AK27 (EG)	SA-AK27 (EG)	SB-AK27 (E)

TAPE SECTION : AR2 MECHANISM SERIES CD SECTION : RAE0152Z-M TRAVERSE DECK SERIES

Specifications

Amplifier Section

RMS power output	
THD 10%, both channels driven	100W per channel (6 Ω)
1 kHz continuous power output	
THD 1% both channel driven (DIN)	74W per channel (6 Ω)
Input sensitivity and impedance	
AUX	250mV, 13.3K Ω

Cassette Deck Section

Track system	4 track, 2 channel
Heads	
Record/playback	Solid permalloy head
Erase	Double gap ferrite head
Motor	DC servo motor
Recording system	AC bias 100 kHz
Erasing system	AC erase 100 kHz
Tape speed	4.8 cm/s
Frequency response (+3, -6 dB at DECK OUT)	
NORMAL (TYPE I)	35 Hz – 14 kHz
HIGH (TYPE II)	35 Hz – 14 kHz
S/N	
Dolby NR off	50dB(A weighted)
Dolby NR on	60dB (CCIR)
Wow and flutter	0.18 % (WRMS)
Fast forward and rewind time	
	Approx. 120 seconds with C-60 cassette tape

FM Tuner Section

Frequency range	87.5 – 108.0 MHz (50 kHz steps)
Sensitivity	
S/N 26dB	1.5 μ V
Antenna terminal(s)	75 Ω (unbalanced)

AM Tuner Section

Frequency range	522 – 1629 kHz (9kHz steps)
Sensitivity	
S/N 20 dB	560 μ V/m

CD Section

Sampling frequency	44.1 kHz
Decoding	16 bit linear
Beam source/wave length	Semiconductor laser / 780 nm
Number of channels	Stereo
Frequency response	20Hz – 20kHz (+1dB, -2dB)
Wow and flutter	Below measurable limit
Digital filter	8 fs
D/A converter	MASH (1 bit DAC)

General

Power consumption	145W
Power supply	
For E, EG area	AC 230V, 50Hz
For EB area	AC 230 – 240V, 50Hz
Dimensions (W x H x D)	270 x 331 x 340 mm
Weight	7.6 kg

Notes :

- Specifications are subject to change without notice. Weight and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

Panasonic[®]

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⚠ WARNING

This service information is designed for experience 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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■ Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C504 ~ C508 through a 10Ω , 5W resistor to ground.
DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices.
After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

For E, EG

Current consumption at AC 230V, 50 Hz in NO SIGNAL mode should be ~350mA.

For EB

Current consumption at AC 240V, 50 Hz in NO SIGNAL mode should be ~350mA.

■ 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.

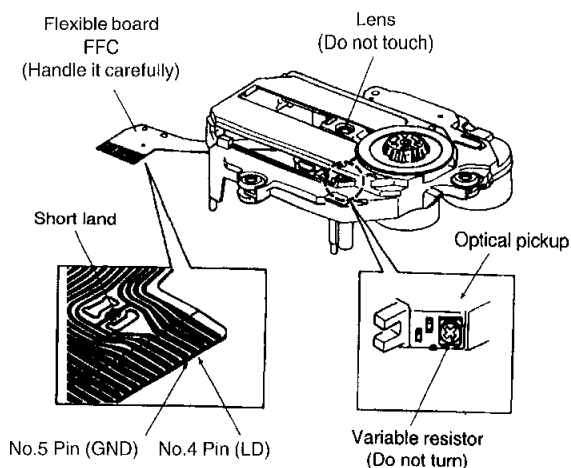
■ Handling Precautions For Traverse Deck

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

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

• Handling of traverse deck (optical pickup)

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



• Grounding for electrostatic breakdown prevention

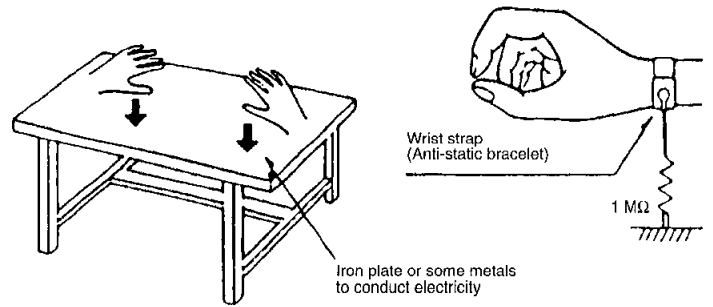
1. Human body grounding
Use the anti-static wrist strap to discharge the static electricity from your body.
2. Work table grounding
Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

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.



■ Precaution of Laser Diode

CAUTION : This product utilizes a laser diode with the unit turned "ON", invisible laser radiation is emitted from the pick up lens.
Wavelength : 780 nm
Maximum output radiation power from pick up : 100 μ W/VDE

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

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

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

Wellenlänge : 780nm

Maximale Strahlungsleistung der Lasereinheit : 100 μ W/VDE

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

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

ADVARSEL: I dette a apparat anvendes laser.

CAUTION!

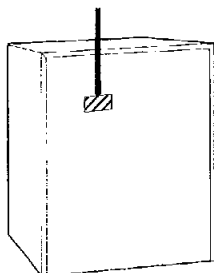
THIS PRODUCT UTILIZES A LASER.

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

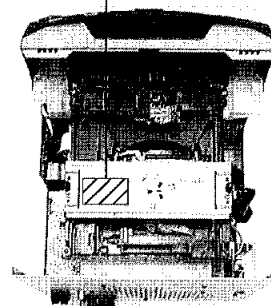
■ Use of Caution Labels



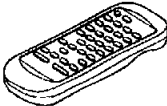
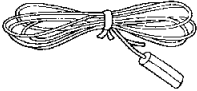
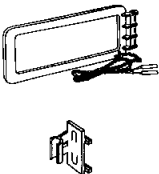
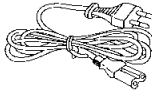
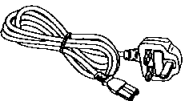
LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT



DANGER	INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.
ADVARSEL	USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSETTELSE FOR STRÅLING.
VARO!	AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALLTIINA NÄKYMÄTÖNÄ LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING	ÖSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRÄKTA EJ STRÅLEN.
ADVARSEL	USYNLIG LASERSTRÅLING NÄR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRØYES. UNNGÅ EKSPONERING FOR STRÅLEN.
VORSICHT	UNSIHTBARE LASERSTRALHUNG, WENN ABBECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.



Accessories

RAK-CH944WK 	RSA0007 	RSA0022-L 	SJP9009 	RJA0043-1C 	RJA0044-1C 
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Caution for AC Main Leads

(For “EB” area code model only.)

For your safety, please read the following text carefully.

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

A 5-ampere fuse is fitted in this plug.

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

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

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

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

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

CAUTION !

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OFF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

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

If in any doubt please consult a qualified electrician.

IMPORTANT

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

Blue: Neutral
Brown: Live

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

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

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

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

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

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

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

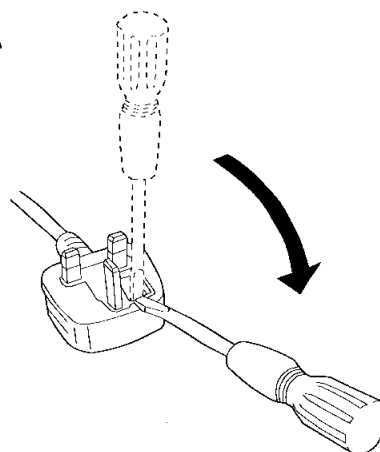
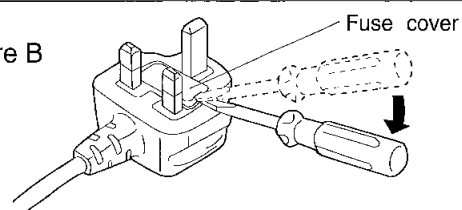


Figure B



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

Figure A

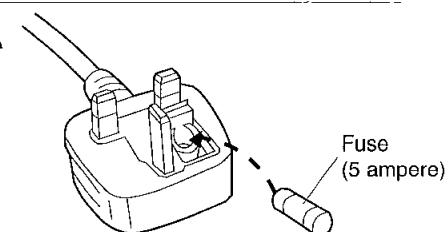
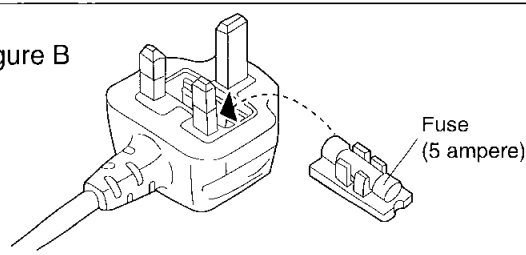
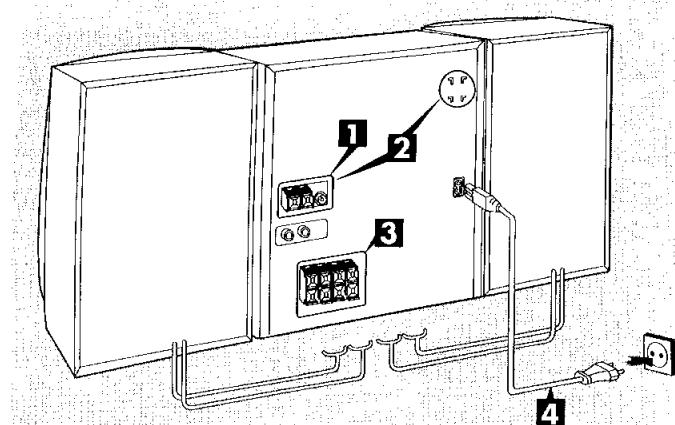


Figure B



Connections



Basic connections (for supplied accessories)

- Plug the AC power cord into a household AC outlet only after all other connections have been made.
- To prepare the AM loop antenna wire and speaker cords, twist the vinyl cover tip and pull off.

1 Connect the FM indoor antenna.

Tape the antenna to a wall or column, in a position where radio signals are received with the least amount of interference.

Note

For best reception sound quality:

An FM outdoor antenna is recommended. (See page 10.)

2 Connect the AM loop antenna.

After attaching the antenna, turn on the system and tune in a broadcast station. Then, turn the antenna to the angle of best reception and least interference.

3 Connect the front speaker cables.

Connect each end of the speaker cables to the terminal lever of the same colour.

Caution

- **Use only the supplied front speakers.**

The combination of the main unit and front speakers provide the best sound. Using other front speakers can damage the unit and sound quality will be negatively affected.

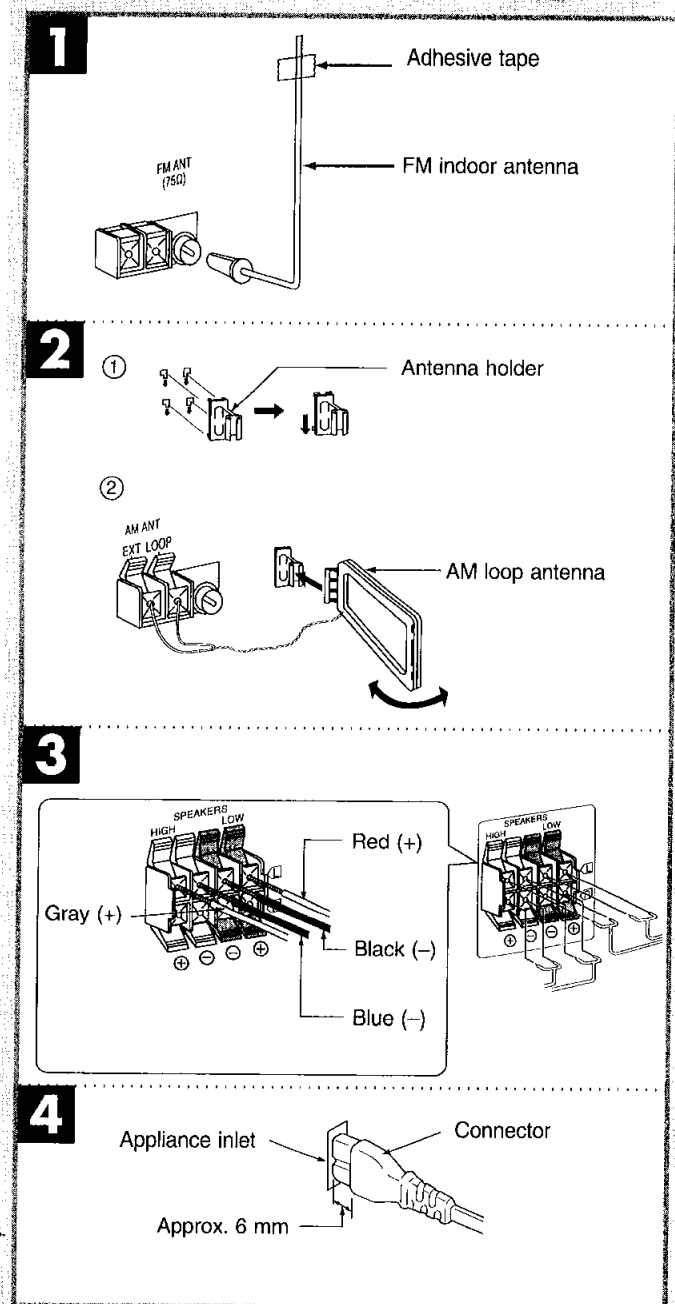
- To prevent damage to circuitry, never short-circuit positive (+) and negative (–) speaker wires.

4 Connect the AC power cord.

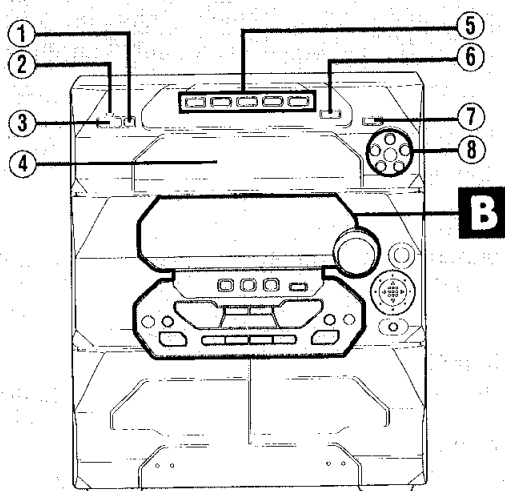
Insertion of connector

Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing.

However there is no problem using the unit.

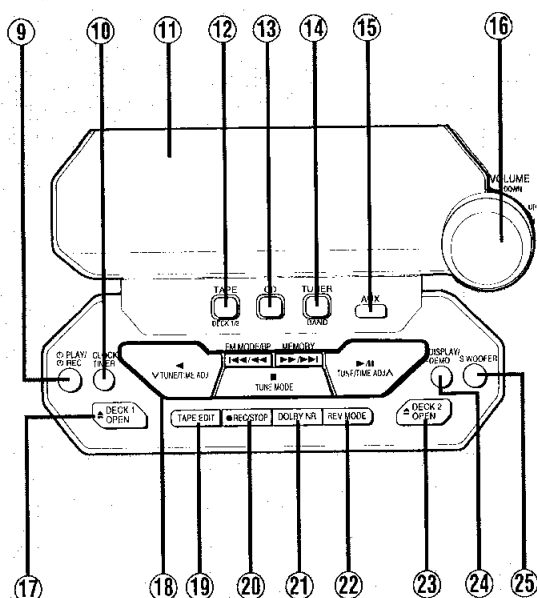


Location of Controls

A

Main unit A

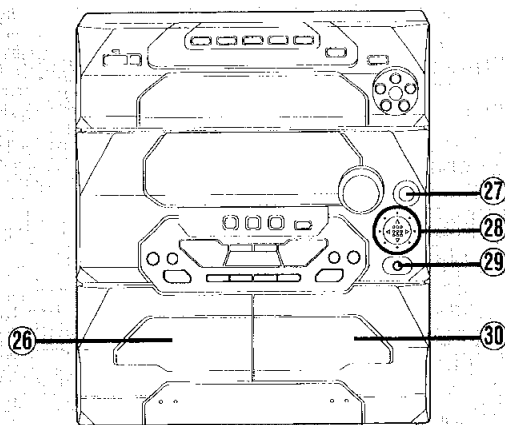
No.	Name
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- ① ECO button (ECO)
- ② AC supply indicator (AC IN)
This indicator lights when the unit is connected to the AC mains supply.
- ③ Standby/on switch (⏻/⏻)
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ④ Disc tray
- ⑤ Disc select buttons and indicators (DISC 1 – DISC 5)
- ⑥ CD manager button (CD MANAGER)
- ⑦ Random play button (RANDOM)
- ⑧ Direct disc tray open/close buttons (⏮ OPEN/CLOSE 1 – ⏭ OPEN/CLOSE 5)

B

Center console B

No.	Name
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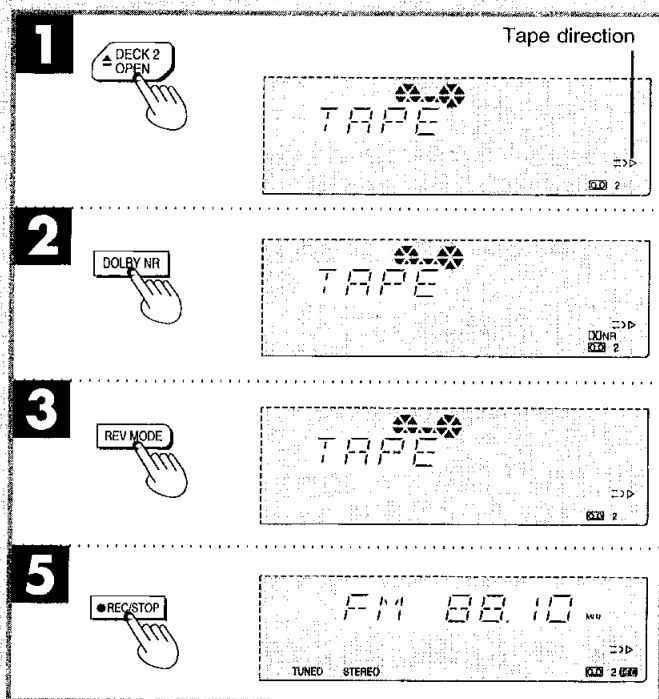
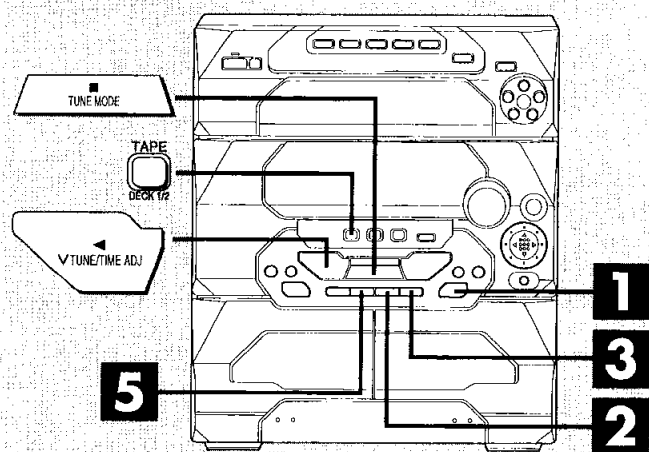
- ⑨ Play timer/record timer button and indicator (⏻PLAY/⏻REC)
- ⑩ Clock/timer button (CLOCK/TIMER)
- ⑪ Display
- ⑫ Tape/deck select button (TAPE, DECK 1/2)
- ⑬ CD button (CD)
- ⑭ Tuner/band select button (TUNER, BAND)
- ⑮ AUX button (AUX)
- ⑯ Volume control (VOLUME)
- ⑰ Deck 1 open button (⏮ DECK 1 OPEN)
- ⑱ Basic operating buttons
Functions change according to the source.
- ⑲ Tape edit button (TAPE EDIT)
- ⑳ Recording start/stop button (● REC/STOP)
- ㉑ DOLBY noise reduction button (DOLBY NR)
- ㉒ Reverse mode select button (REV MODE)
- ㉓ Deck 2 open button (⏭ DECK 2 OPEN)
- ㉔ Display select/demonstration button (-DISPLAY/-DEMO)
- ㉕ Super woofer on/off button (S.WOOFER)

C

Main unit C

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

- ㉖ Deck 1 cassette holder
- ㉗ 3D AI EQ button (3D AI EQ)
- ㉘ Sound equalizer control/indicators (SOUND EQ)
- ㉙ Headphone jack (PHONES)
- ㉚ Deck 2 cassette holder

■ Recording From Radio Broadcasts



1 Press [DECK 2 OPEN] and insert the tape.

Close the holder by hand.
Tape direction is automatically set to "▷".

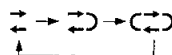
2 Press [DOLBY NR].

You have to turn Dolby NR ON/OFF according to the type of recording you want to make.

Every time you press the button: $\square \square \text{ NR} \rightarrow (\text{OFF})$

3 Press [REV MODE] to select the reverse mode.

Every time you press the button:



$\rightarrow$: One side is recorded, then recording stops automatically.

$\rightarrow, \rightarrow$: Both sides (front side $\rightarrow$ reverse side) are recorded, then recording stops automatically.

4 Select a radio station.

5 Press [REC/STOP] to start recording.

If you selected " $\rightarrow, \rightarrow$ " in step 3, the direction will automatically change to " $\rightarrow$ " when recording starts.

To stop recording

Press [REC/STOP] again.

Recording can also be stopped by pressing [■].

To start recording on the reverse side

Load a tape and change the tape direction as follows:

1. Press [TAPE DECK 1/2] and select tape deck 2.
2. Press [◀] and immediately thereafter [■]. The tape direction will be shown as "◀".

To record from a specific point on a tape

Before recording, advance the tape to the point from where you want to start recording.

To cut an unnecessary part while recording

1. Press [REC/STOP] during the unnecessary part. The cassette deck will go into the stop mode.
2. Press [REC/STOP] to resume recording again. Recording will continue in the same direction as before.

Note

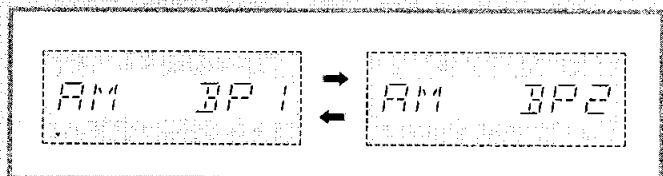
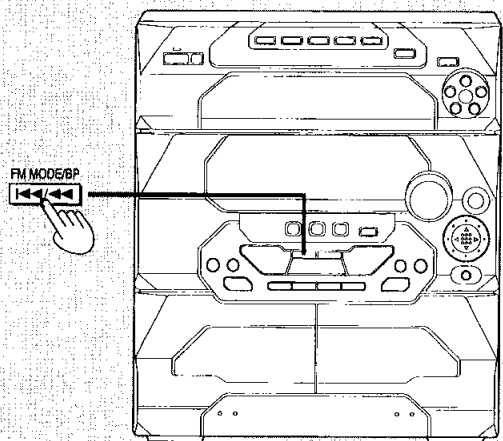
When recording an AM broadcast, sound is momentarily interrupted when you start and stop the recording.

To reduce noise while AM recording (Beat proof function) A

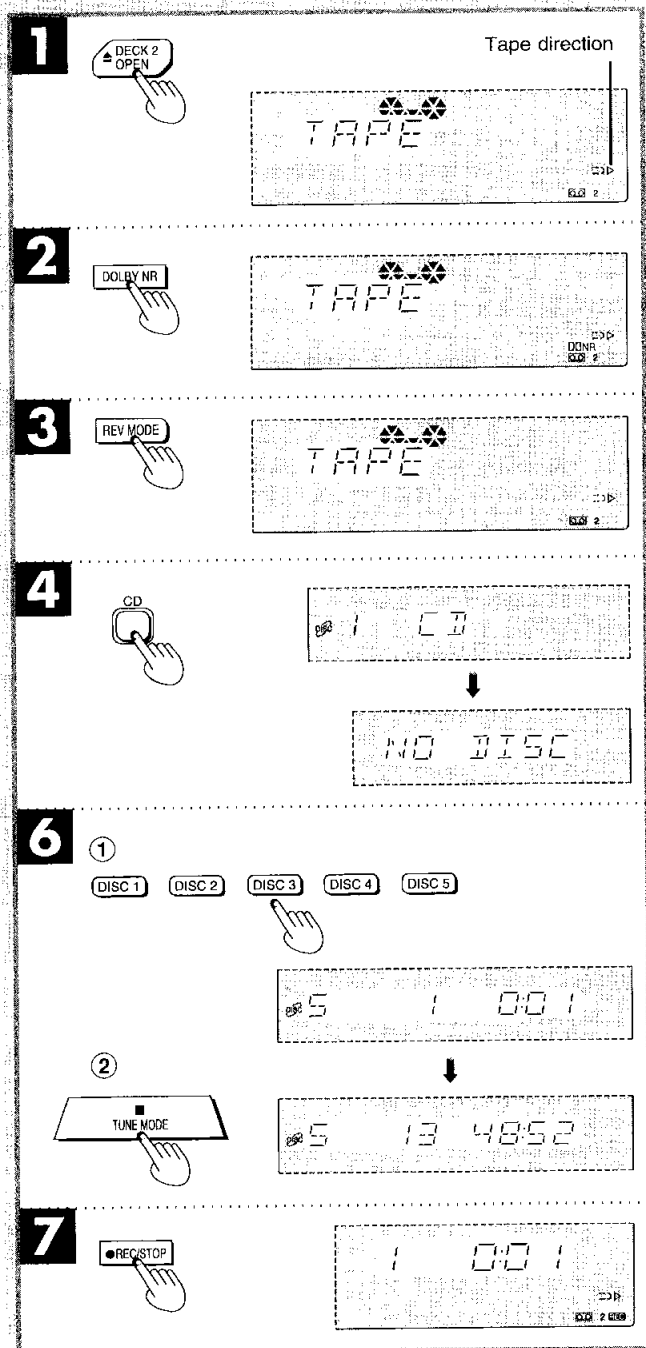
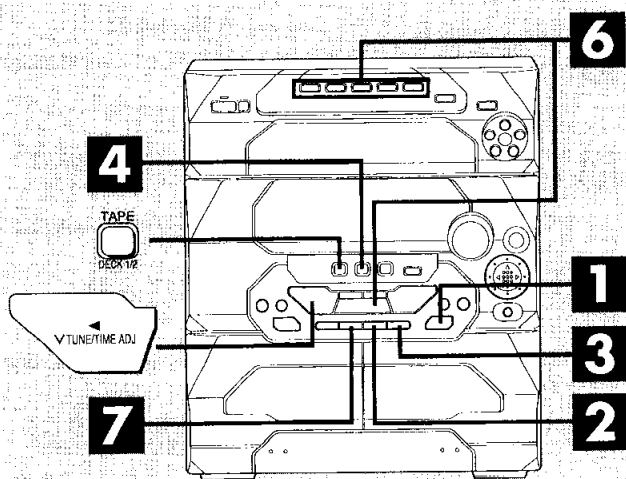
Press [FM MODE/BP] while recording.

Each time you press the button, "BP1" and "BP2" will be displayed alternately.

Select the position where there is less noise.



■ Recording From Compact Discs



1 Press [Δ DECK 2 OPEN], and insert the tape.

Close the holder by hand.
Tape direction is automatically set to ">".

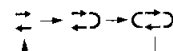
2 Press [DOLBY NR].

You have to turn Dolby NR ON/OFF according to the type of recording you want to make.

Every time you press the button: $\square \square$ NR $\rightarrow$ (OFF)

3 Press [REV MODE] to select the reverse mode.

Every time you press the button:



↔ : One side is recorded, then recording stops automatically.

↔, ↔ : Both sides (front side → reverse side) are recorded, then recording stops automatically.

4 Press [CD].

5 Insert CD in the tray.

6 Press [DISC 1] – [DISC 5] to select the disc you want.

Pressing [■] will stop playback.

7 Press [● REC/STOP] to start recording.

- If you selected "↔" in step 3, the direction will automatically change to "↔" when recording starts.
- The recording will proceed from the first track on the selected CD and will continue on through the last track of the final disc.
- The tape deck stops automatically when the CD is finished.

To stop recording

- To add a 4 second silent interval before stopping
Press [■]. The CD will stop automatically too.
- To stop recording without a silent interval
Press [● REC/STOP]. The CD will stop automatically too.

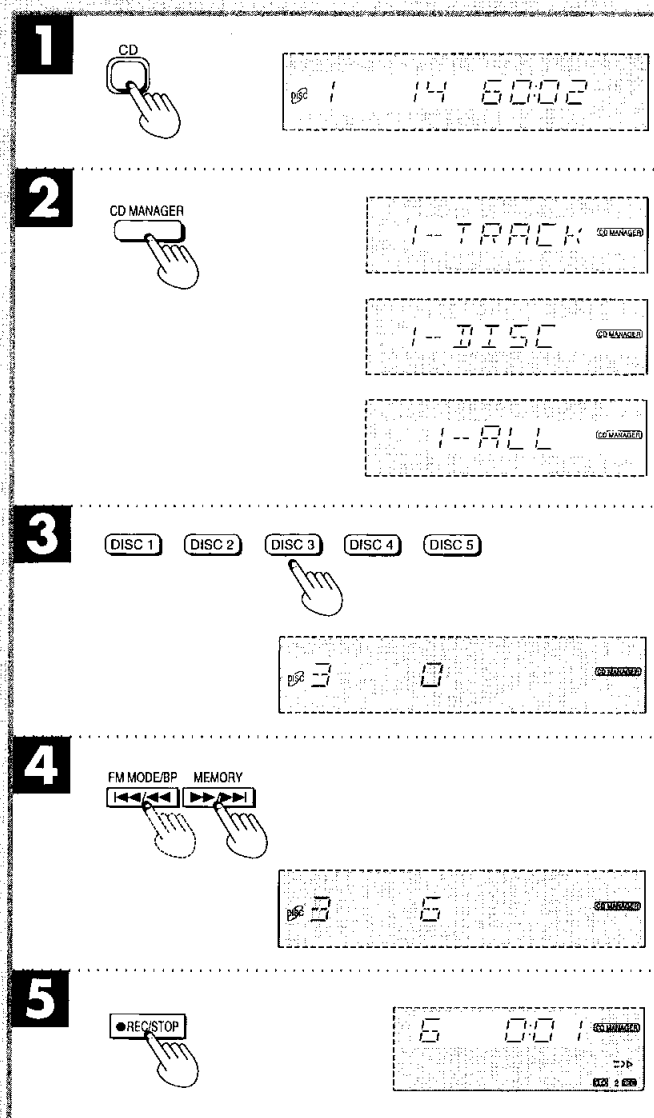
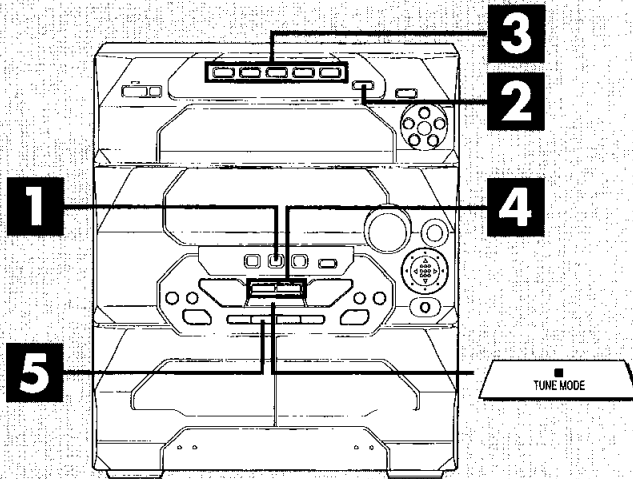
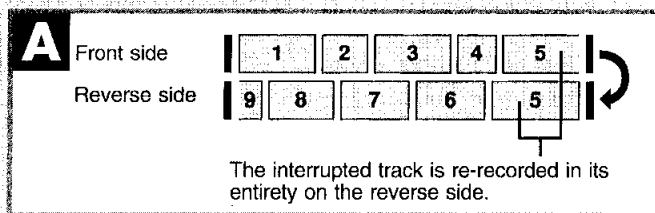
To start recording on the reverse side

Load a tape and change the tape direction as follows:

1. Press [TAPE DECK 1/2] and select tape deck 2.
2. Press [◀] and immediately thereafter [■]. The tape direction will be shown as "<".

To record from a specific point on a tape

Before recording, advance the tape to the point from where you want to start recording.



To record special CDs and tracks (CD Manager function)

This function makes it easier for you to select special CDs and tracks from amongst those loaded in the player.

- While recording, if a track is cut off in the middle at the end of the front side, it is re-recorded from the beginning, on the reverse side. **A**
- At the end of the reverse side recording stops and the current track will be interrupted.

Before recording

Prepare the tape you want to use.

- Press [CD].
- Press [CD MANAGER] to select the desired mode.
Every time you press the button:
1-TRACK → 1-DISC → 1-ALL
↑
NORMAL (OFF)
1-TRACK : Only one particular track is recorded.
1-DISC : The tracks on only one particular disc are recorded.
1-ALL : The same track numbers on each of the CDs are recorded in succession.
(NORMAL : The original display is restored in about 3 seconds.)

- Press [DISC 1] – [DISC 5] to select the disc you want.

Note

This step is not required if 1-ALL was selected in step 2.

- Press [◀◀/▶▶] or [▶▶/▶▶] to select the desired track.

Note

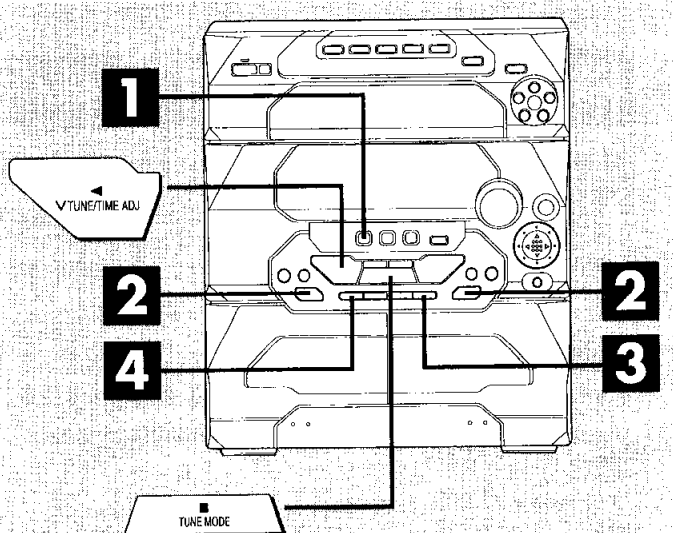
This step is not required if 1-DISC was selected in step 2.

- Press [● REC/STOP] to start recording.

To stop recording

- To add a 4 second silent interval before stopping
Press [■]. The CD will automatically stop too.
- To stop recording without a silent interval
Press [● REC/STOP]. The CD will stop automatically too.

■ Tape-to-Tape Recording



The recording level and the Dolby effect will be recorded as they are on the tape being played back.

- 1 Press [TAPE].**
- 2 Press [△ OPEN] on both decks and insert the tapes.**
 For playback : Into deck 1
 For recording : Into deck 2
 Close the holders by hand.
 Tape direction is automatically set to "▷".
- 3 Press [REV MODE] to select the reverse mode.**
 Every time you press the button:

 ⇄ : One side is recorded, then recording stops automatically.
 ⇄, ⇄ : Both sides (front side → reverse side) are recorded, then recording stops automatically.
- 4 Press [TAPE EDIT] to start recording.**
 - If you selected "⇄" in step **3**, the direction will automatically change to "⇄" when recording starts.

To stop recording:

Press [■].
 Both decks will stop.

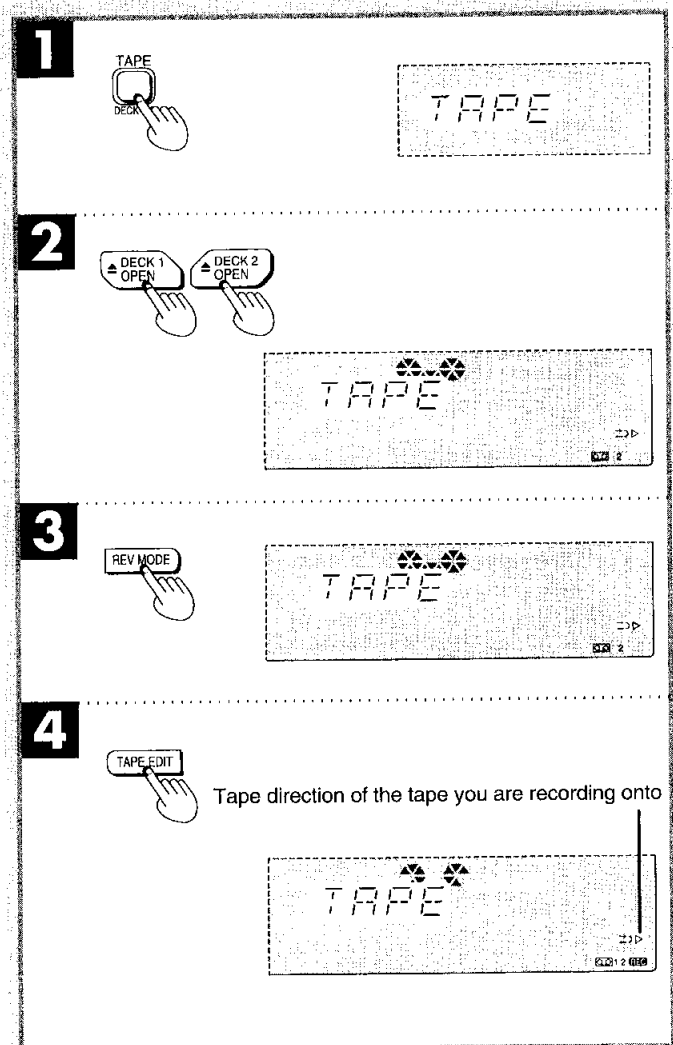
To start recording on the reverse side

Load a tape and change the tape direction as follows:

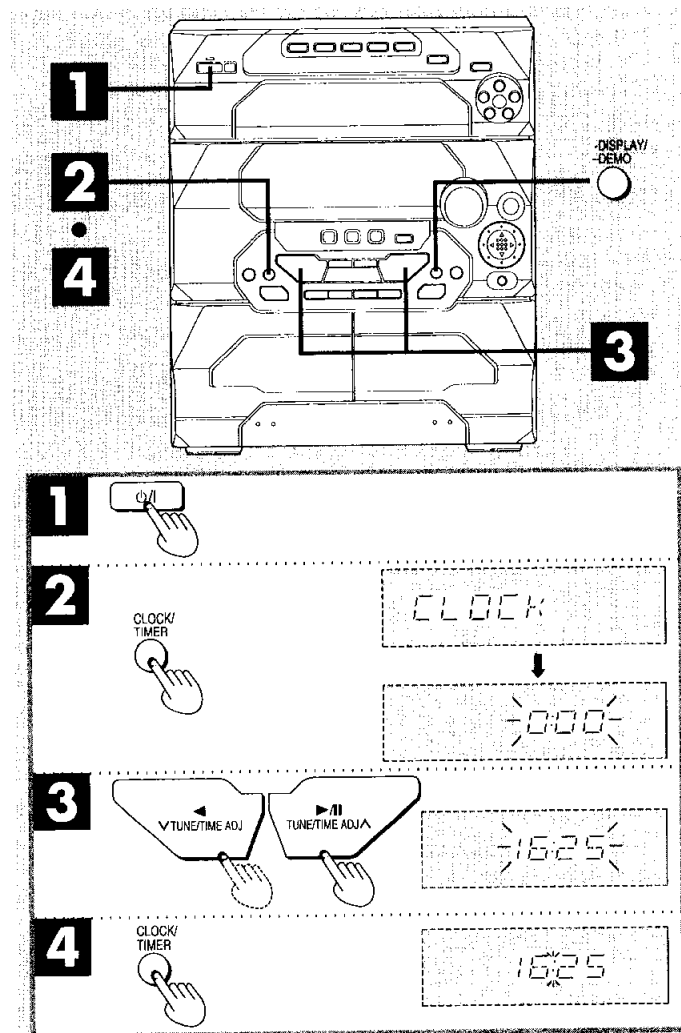
1. Press [TAPE DECK 1/2] and select tape deck 2.
2. Press [◀] and immediately thereafter [■]. The tape direction will be shown as "◀".

To record from a specific point on a tape

Before recording, advance the tape to the point from where you want to start recording.



■ Setting The Time



This is a 24-hour display clock.

This example in the figure shows how to set the time for 16:25 (4:25 p.m.).

- 1** Press [⏻/I] to switch on the system.
- 2** Press [CLOCK/TIMER] to select "CLOCK".
Every time you press the button:
CLOCK → ⏻PLAY → ⏻REC
↑ Previous display ↓
- 3** (within 7 seconds or so)
Press [V] or [^] to show the present time.
- 4** Press [CLOCK/TIMER] to finish setting the time.
The display will return to whatever was displayed before you set the time.

To display the time when system is ON
Press [CLOCK/TIMER] to select "CLOCK".

At ECO mode on, to display the time when system is OFF
Press [-DISPLAY/-DEMO].

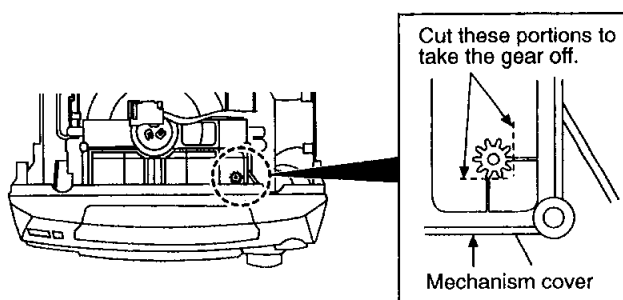
The time will be displayed for about 5 seconds and then the display will return to whatever was previously displayed.

■ Operation Checks and Main Component Replacement Procedures

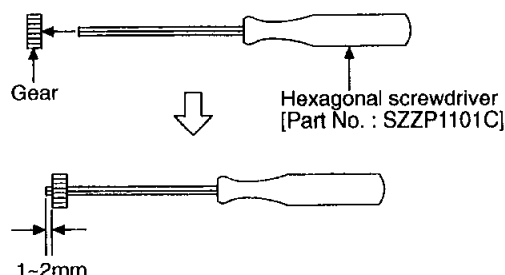
Gear for servicing (jig) information

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 (2mm) 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.
4. Refer the Parts No. on the page of "Main Component Replacement Procedures", if necessary.

• Contents

	page
• Checking Procedure for each major P.C.B.	
1. Checking of the Main, Tuner, Panel, Deck and Power P.C.B.	12 & 13
• Main Component Replacement Procedures	
1. Replacement of the Traverse Deck	14
2. Replacement of the Power Amplifier IC and Regulator Transistors	15
• Disassembly and assembly of the Traverse Unit	16 & 17
• Disassembly and assembly of the Disc Tray	17 & 18

Warning : This product uses a laser diode. Refer to caution statement on page 3.

ACHTUNG : • Die Lasereinheit nicht zerlegen.

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

■ Checking Procedure for each major P.C.B.

1. Checking of the Main, Tuner, Panel, Deck and Power P.C.B.

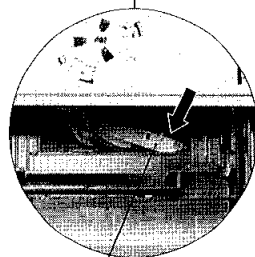
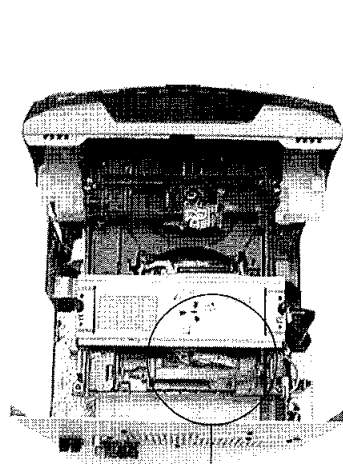
Step 1 Remove the Top Cabinet.

Step 2 Push the lever in the direction of arrow.

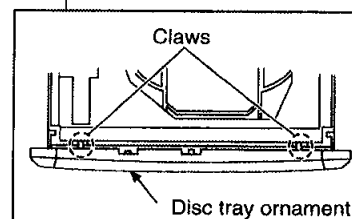
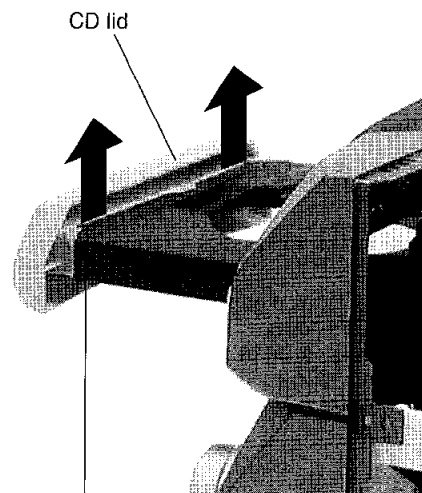
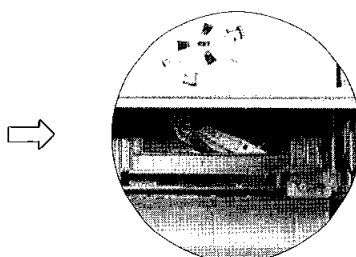
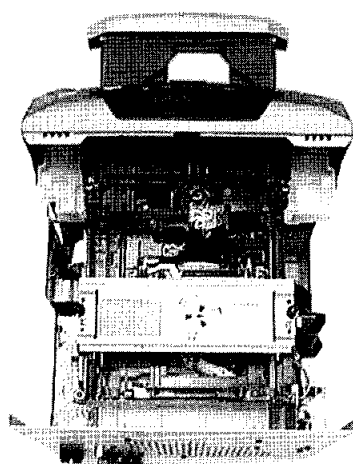
Step 3 Pull out the CD tray as shown and remove the CD lid. Push back the CD tray after the CD lid has been removed.



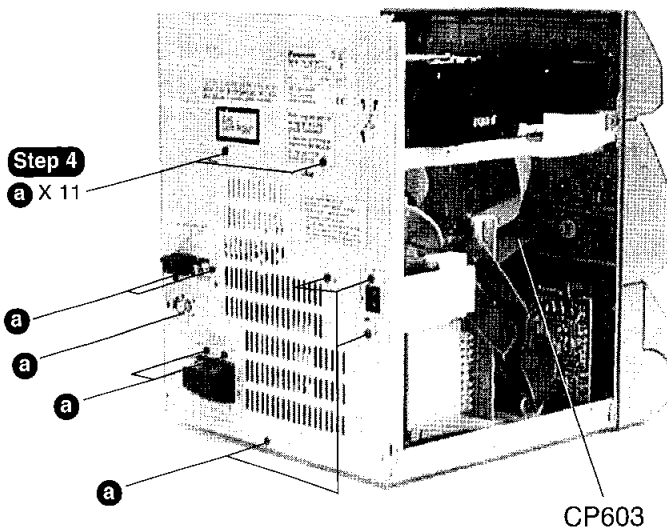
a
[XTBS3+8JFZ1]
(Black)



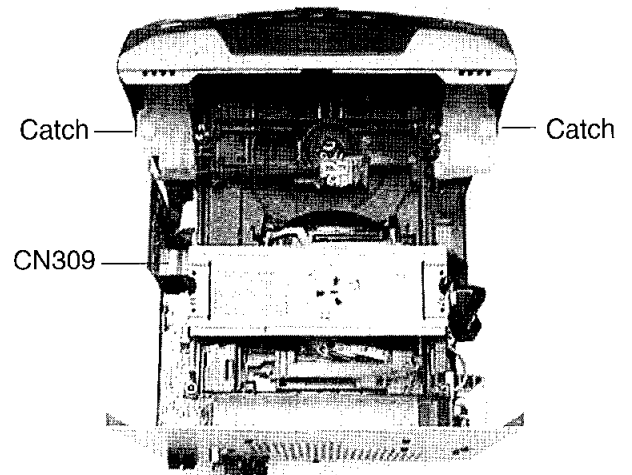
Lever



(Bottom view)

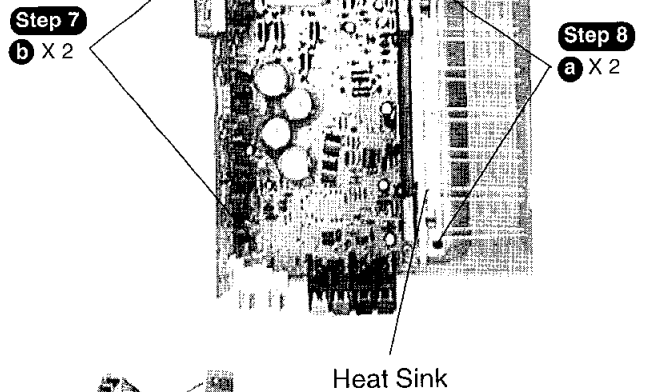
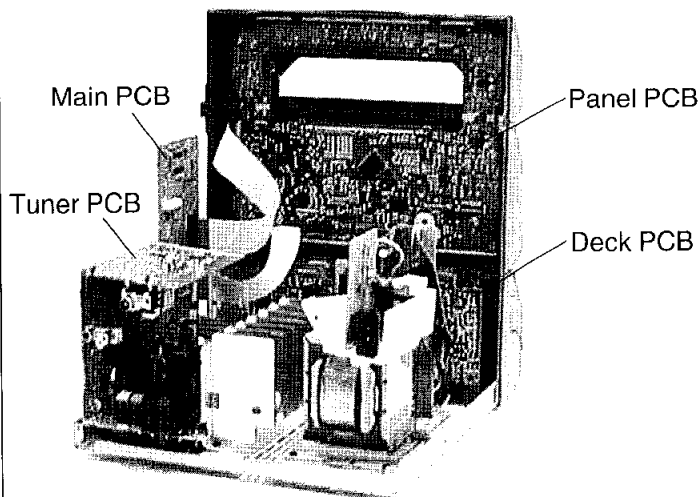


Step 6 Release 2 catches and remove the CD changer base together with the CD changer.

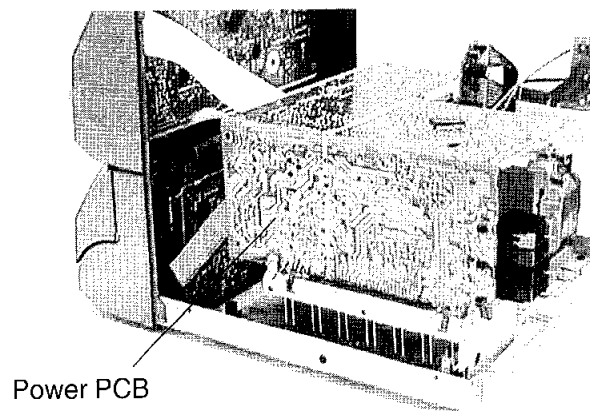


Step 5 Remove the wire at CP603 and CN309.

●Checking for Panel PCB, Main PCB and Deck PCB



●Checking for Power PCB



b
[XTB3+20J]
(Brass)

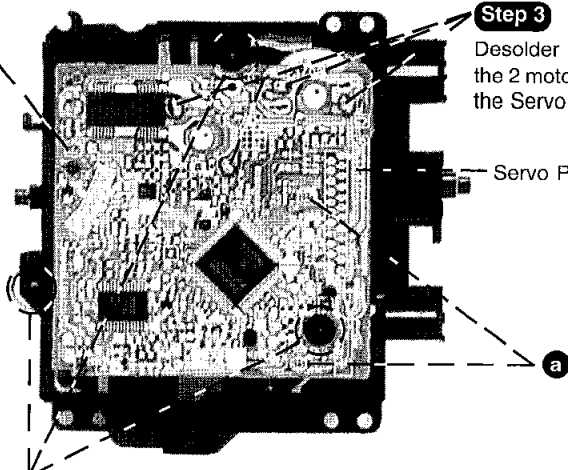
■ Main Component Replacement Procedures

1. Replacement of the Traverse Deck

Step 1 Follow the procedures in 'Disassembly of the Traverse Unit' (**Step 1** ~ **Step 4**).

Step 2

a X 3



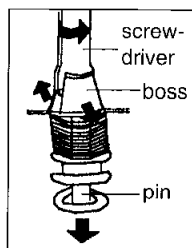
Step 3

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

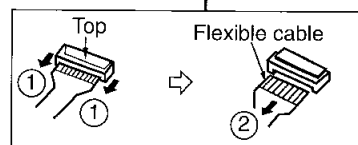
Servo P.C.B.

Step 4

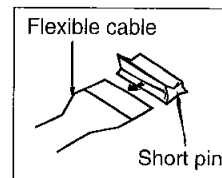
Widen the 3 bosses with a flat screwdriver and pull out the 3 pins. Then remove the Traverse Deck.



- 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 to the CD servo P.C.B. after replacement

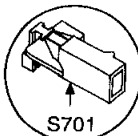
Step 3

a X 3

Step 2

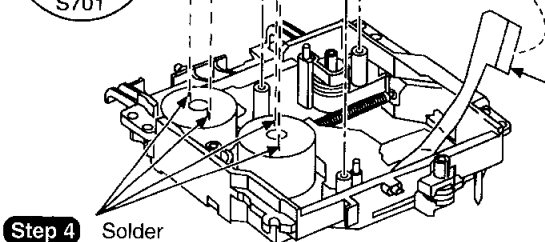
Install the CD servo P.C.B. in the traverse deck assembly

Reset detect switch



Step 1

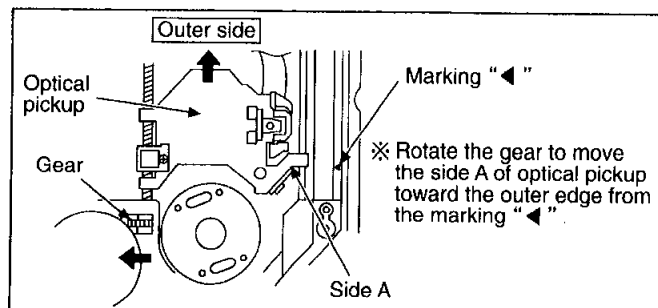
Connect the FFC board



Step 4

Solder

Note : Before installing the CD servo P.C.B., move the optical pickup toward the outer edge from the mark "◀".
[Otherwise, the reset detect switch (S701) mounted on the CD servo P.B.C. may be damaged.]

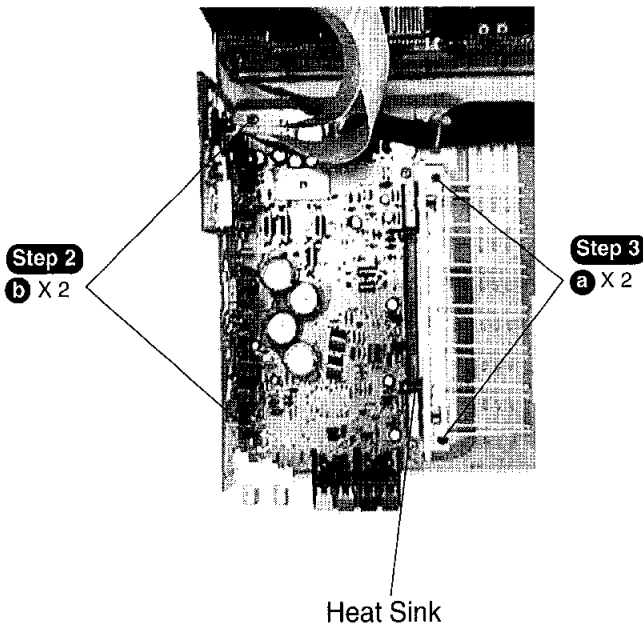


a

[XTN2+6G] (Brass)

2. Replacement of the Power Amplifier IC and Regulator Transistor.

Step 1 Follow the procedures in 'Checking Procedure for each major P.C.B.' (**Step 1** ~ **Step 6**).



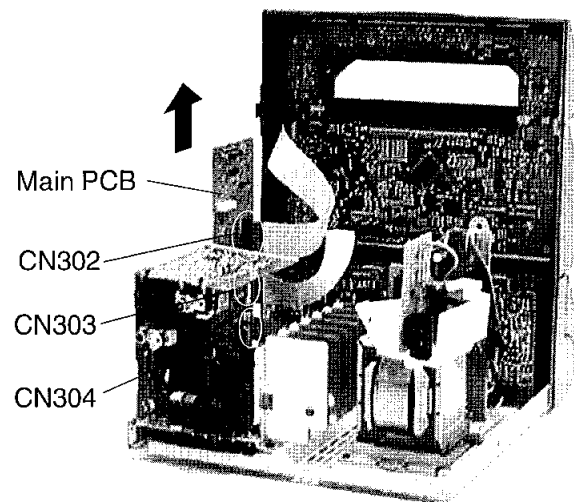
a [XTBS3+8JFZ1] (Black)

b [XTB3+20J] (Brass)

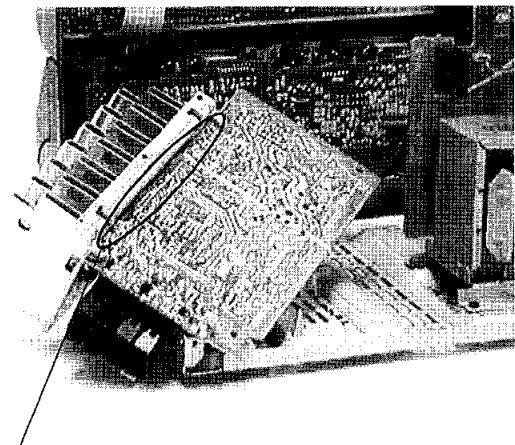
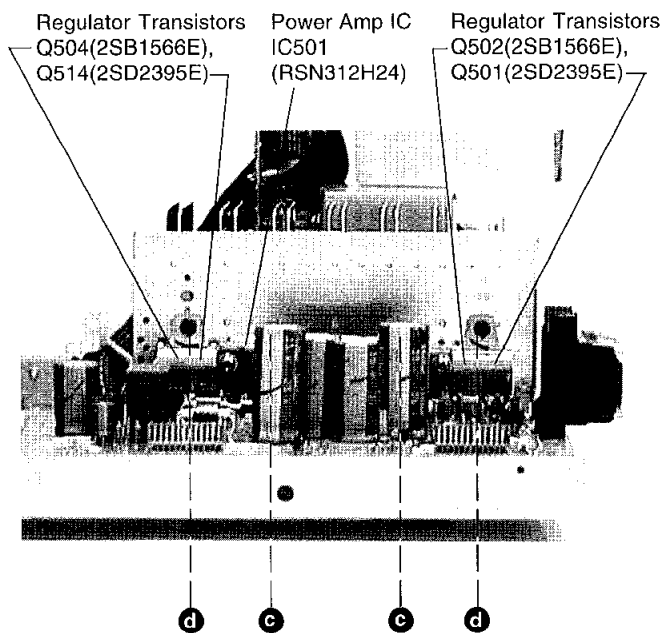
c [XTW3+15T] (Brass)

d [XTB3+10JFZ] (Black)

Step 4 Remove the wires at CN302, CN303 and CN304 and pull out the Main PCB.

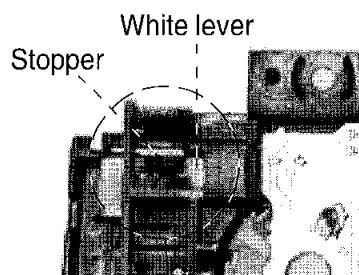


Step 5 Remove 4 screws fixed to the Power Amplifier IC and Transistor Holders.

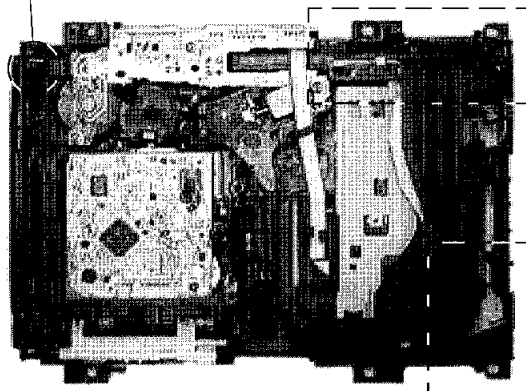


Step 6 Unsolder the terminals of Power Amp IC or Regulator Transistor and replace the respective component.

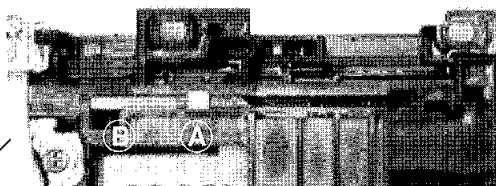
■ Disassembly and assembly of the Traverse Unit



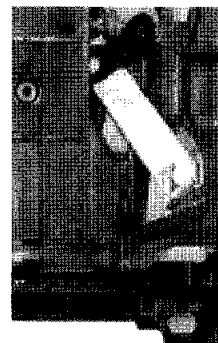
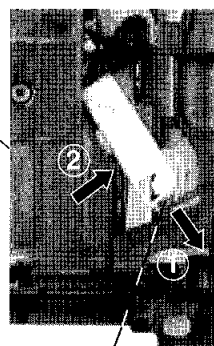
Step 3 Push the stopper (black) down until the white lever eject out.



Step 1 Push the lever from position (A) to (B).

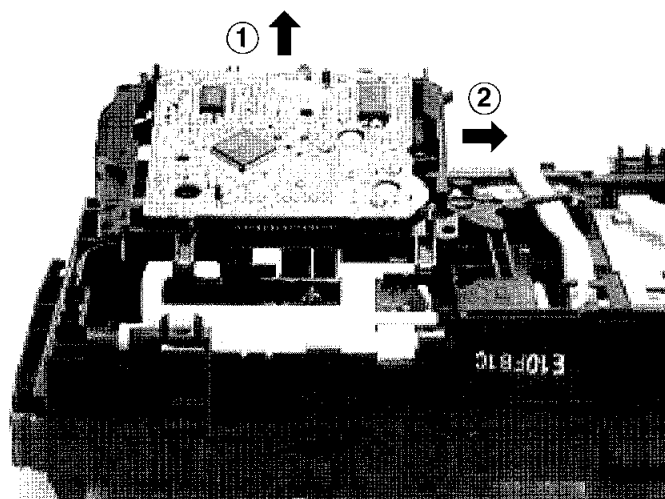


Step 2 Pull the stopper (black) in the direction of arrow ① and push the lever in the direction of arrow ②.



Stopper

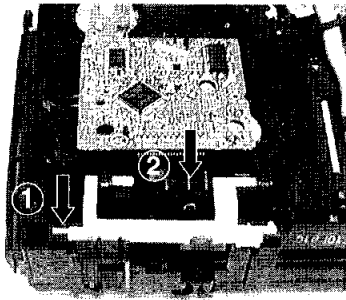
Step 4 Lift up the traverse unit and slide out the unit as shown.



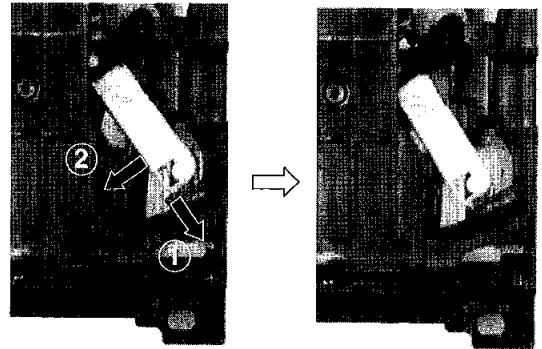
●Replacement of Traverse Unit

Step 1 Place the traverse unit as shown.

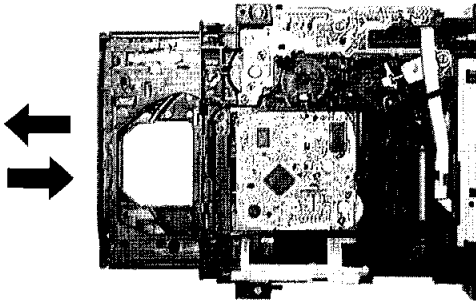
Step 2 Press in the lever shaft in the direction of arrow ① as shown and push the traverse unit into position in the direction of arrow ②.



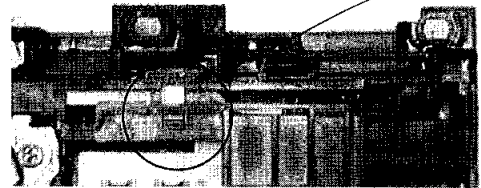
Step 3 Pull the stopper in the direction of arrow ① and release the lever in the direction of arrow ② as shown.



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

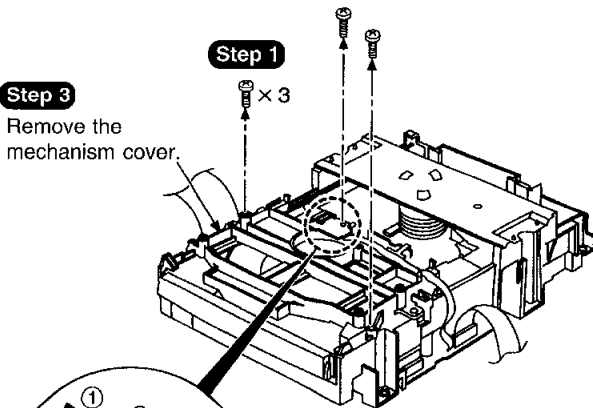


Step 5 Push the lever to the initial position indicated 'H'.

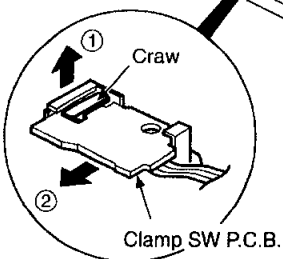


■ Disassembly and assembly of the Disc Tray

Step 3
Remove the
mechanism cover.

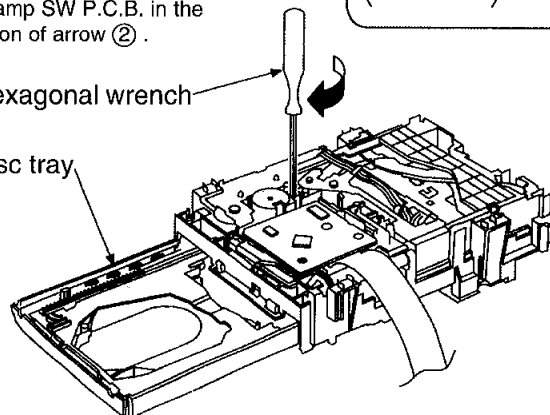


Step 2
With lifting the claw in the direction of arrow ①, draw the clamp SW P.C.B. in the direction of arrow ②.



Hexagonal wrench

Disc tray

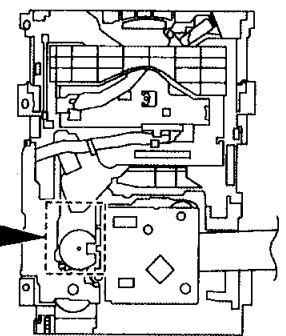


Hexagonal wrench

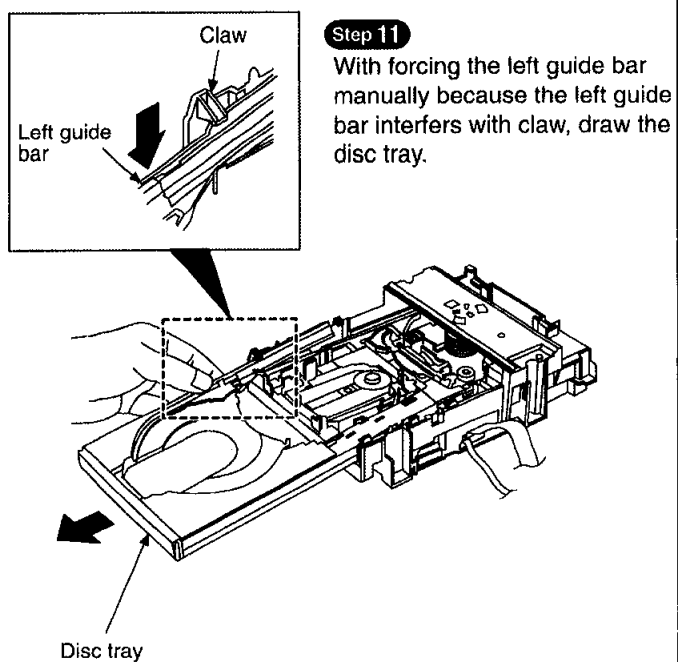
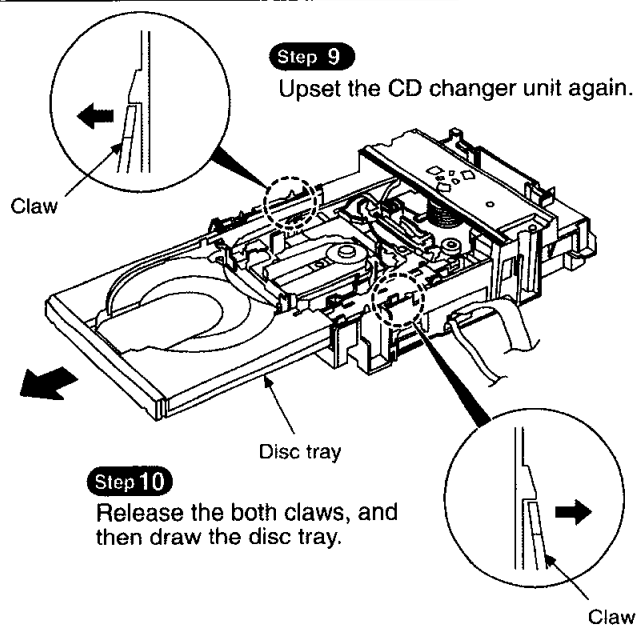
Gear

Hole

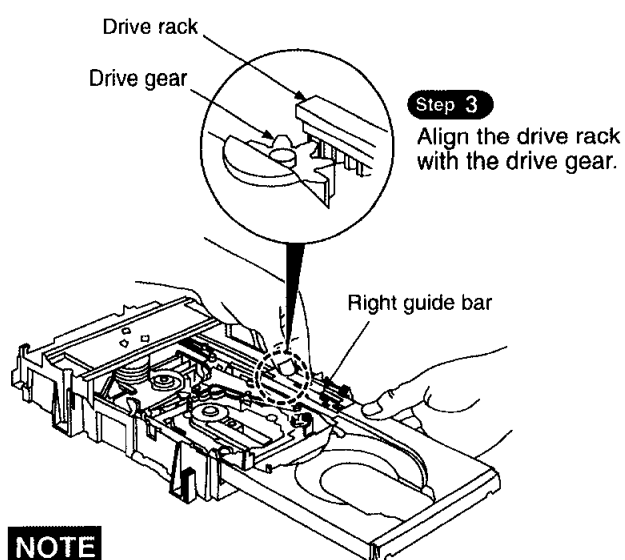
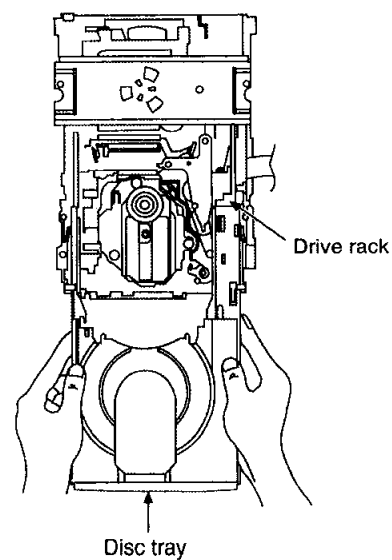
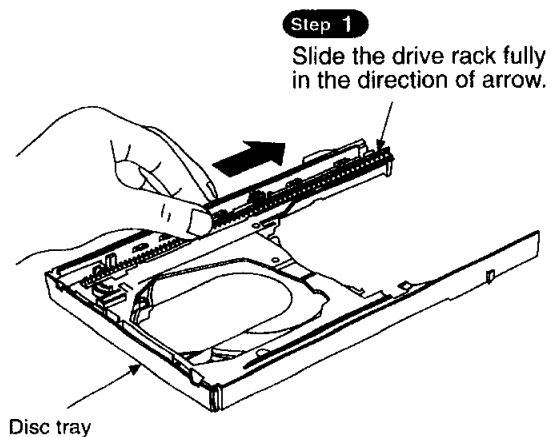
Step 4
Insert the gear with hexagonal wrench into the hole.



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

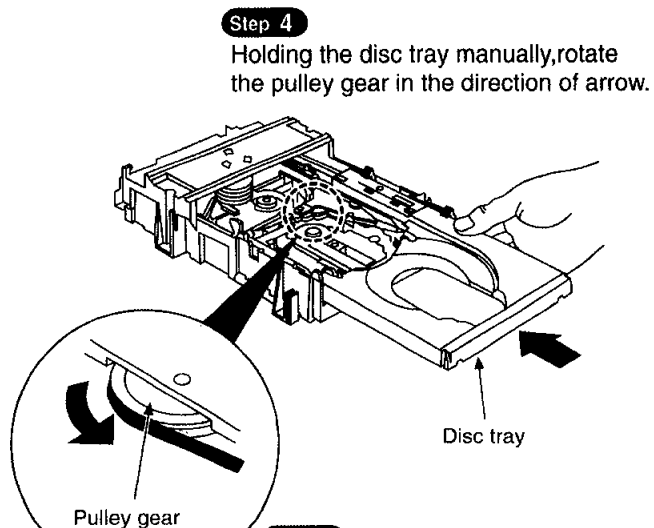


Installation of the disc tray after replacement



NOTE

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



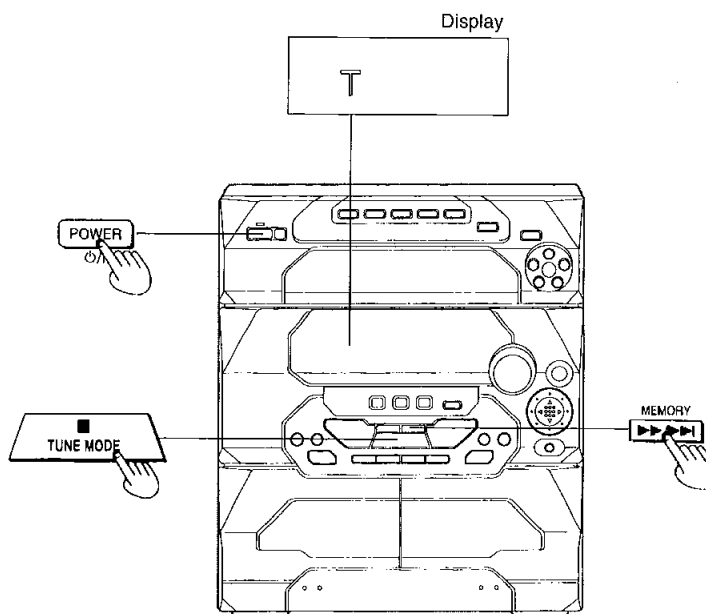
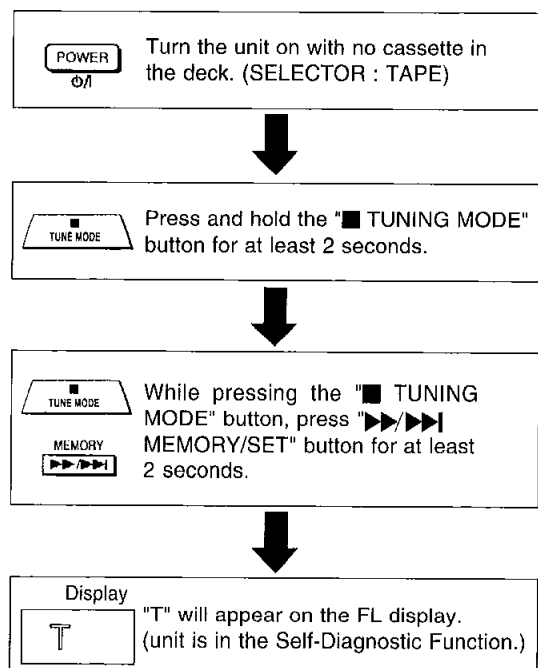
■ Self-Diagnostic Display Function

■ 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.

■ How to enter the Self-Diagnostic Function



■ 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 "▶▶/▶▶ 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 "◀◀/◀◀ 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 "▶ TUNE/TIME ADJ ^" (After TPS function, tape will stop automatically).
8. Press "•REC/STOP" (Tape will not move).
9. Press "■ TUNING MODE" to indicate Error code.
 - If several problem exist, error code will change each time when "■ TUNING 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)

■ CD Mechanism Test (F15, F16, F25 ~ F28, F75)

1. Press "CD".
2. Press "NEXT OPEN".
3. Press "■ TUNING MODE" to indicate Error Code.
 - If several problem exist, error code will change each time when "■ TUNING MODE" is pressed.
(e.g. F15 F16 F25 etc.)

■ To clear all Error code

1. Press "■ TUNING MODE" button for 5 seconds.
2. FL indicator shows "CLEAR" for 1 second and change to "T".

■ How to get out from Self-Diagnostic function

1. Press "POWER" button OFF.

■ Power Amplifier Failure (F61)

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

■ Description of Error Code

(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 can not 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).

(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	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.
3	CD power error	F75	CD does not function. Check if CDRST is H for SELECTOR at CD. If it is not H after 1 second, it shall be memorised as an error. (IC702)

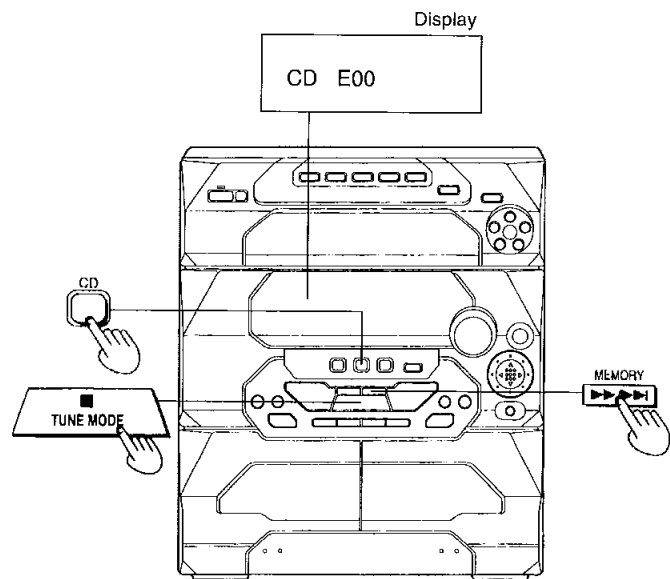
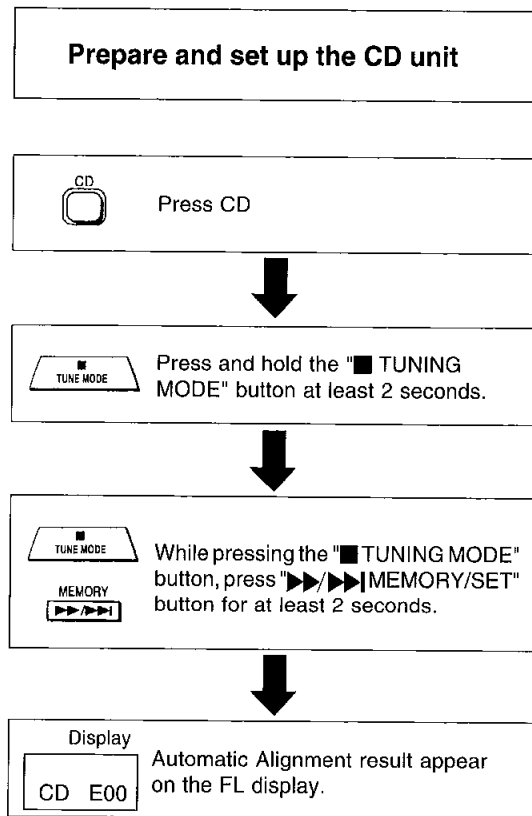
(3) Power Supply related error detection

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)

■ 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.

■ How to set CD test mode



■ CD Automatic Alignment result indication

This function provided indication of error code as the result of Automatic Alignment of CD (Tracking, Focus, Offset, etc.). Based on these error codes, the faulty area can be located .

■ Error code Explanation

- The unit is satisfactory if the error code is E00
- Before testing, make sure that the test disc is free of scratches, dirt and that the optical pick up lens is clean.

Error code	E00	E01	E02	E03	E04	E05	E06	E07	E08	E09	E0A	E0B	E0C	E0D	E0E	E0F
Focus offset	○	✖	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Tracking offset	○	✖	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Focus Gain (Rough)	○	✖	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Tracking Gain(Rough)	○	-	○	✖	○	✖	○	✖	○	✖	○	✖	○	✖	○	✖
Tracking balance	○	-	✖	✖	○	○	✖	✖	○	○	✖	✖	○	○	✖	✖
Focus balance	○	-	○	○	✖	✖	✖	✖	○	○	○	○	✖	✖	✖	✖
Tracking or Focus Gain (Fine)	○	-	○	○	○	○	○	○	✖	✖	✖	✖	✖	✖	✖	✖

○ Satisfy

✖ Fault

(✖ Fault either items)

■ Measurements and Adjustments

< CASSETTE DECK SECTION >

- Measurement Condition
 - Reverse-mode selector switch :
 - Tape edit : NORMAL
 - Record timer : OFF
 - Make sure head, capstan and pressure roller are clean.
 - Judgeable room temperature $20 \pm 5^{\circ}\text{C}$ ($68 \pm 9^{\circ}\text{F}$)
- Test tape
 - Head azimuth adjustment (8 kHz, -20 dB); QZZCFM
 - Tape speed adjustment (3 kHz, -10 dB); QZZCWAT
 - Playback gain adjustment (315 Hz, 0 dB); QZZCFM
 - Normal reference blank tape; QZZCRA
 - CrO_2 tape; QZZCRX
- Measuring instrument
 - EVM (Electronic Voltmeter)
 - Digital frequency counter

• Head Azimuth Adjustment (Deck 1/2)

Caution :

- Please replace both azimuth adjustment screws (RHE5152ZB) and springs (RMB0331) 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 cannot be done because of the screw-locking bond adhered 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. Playback the azimuth adjustment portion (8 kHz, -20 dB) of the test tape (QZZCFM) in the forward play mode. Vary the azimuth adjusting 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.

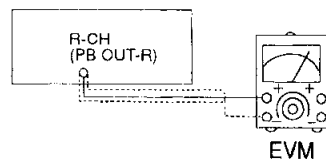


Fig. 1

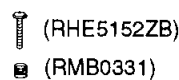


Fig. 2

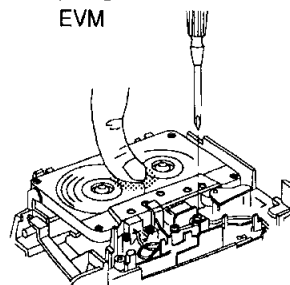


Fig. 3

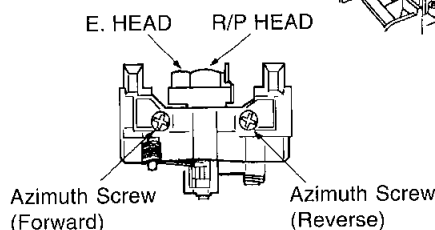


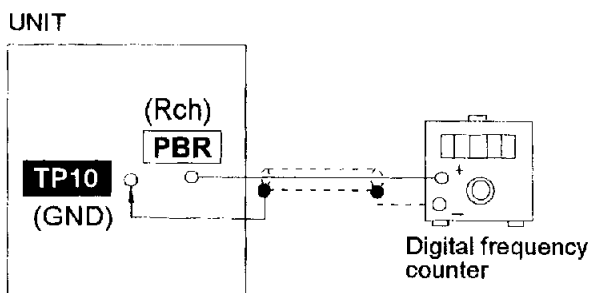
Fig. 4

• 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.

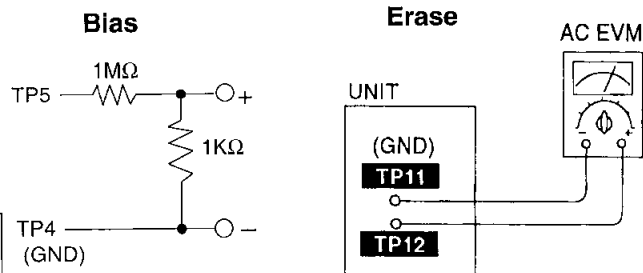


• Bias and Erase Voltage Check

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. Measure and make sure that the output is within the standard value.
4. Insert the CrO_2 tape (QZZCRX).
5. Repeat steps 2 and 3.

Bias voltage for Deck 2 (Standard value) : $19 \pm 4\text{mV}$ (Normal)
 $27 \pm 5\text{mV}$ (CrO_2)

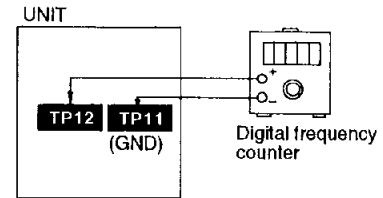
Erase voltage for Deck 2 (Standard value) : more than 100mV (Normal)
 more than 150mV (CrO_2)



• Bias Frequency Adjustment (Deck 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 L201 so that the output frequency is within the standard value.

Standard Value : 95 ± 8 kHz



< TUNER SECTION >

■ AM-IF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT (Shown in Fig. 3)	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate a signal into the loop ant. of receiver.	450kHz 30 % Mod. at 400Hz	Point of non-interference. (on/ about 600kHz)	Headphones Jack (32Ω) 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

"	522 kHz	Tuning capacitor fully closed	"	Z101 (AM OSC Coil)	Adjust for maximum output.
"	603 kHz	Tuning to signal	"	Z101 (AM ANT Coil)	Adjust for maximum output.

• Alignment Points

<Cassette Deck Section>

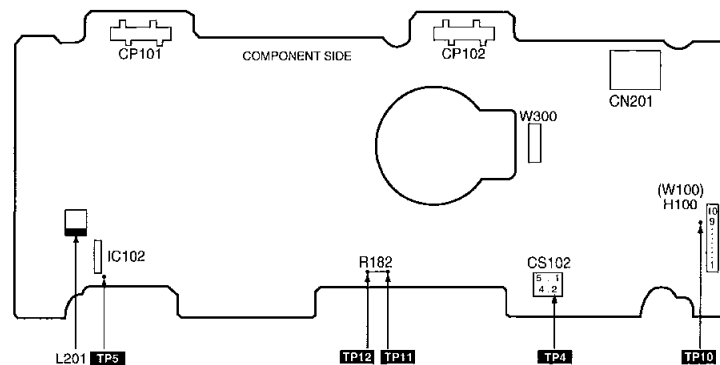


Fig. 1

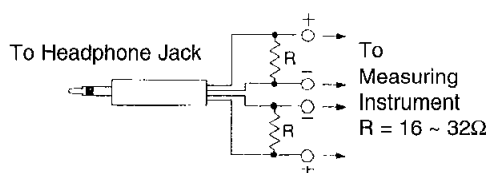


Fig. 2

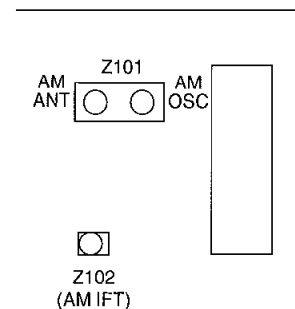
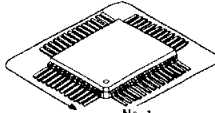
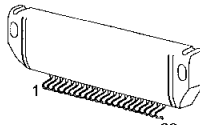
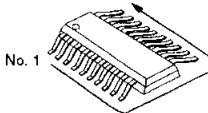
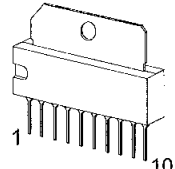
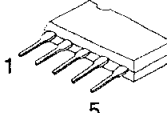
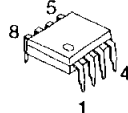
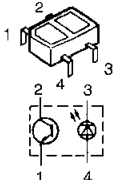
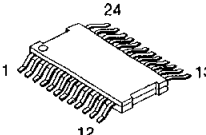
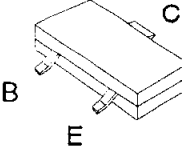
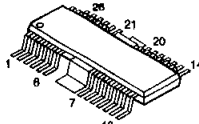
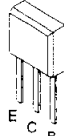
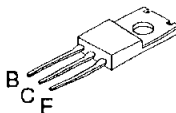
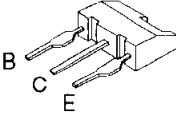
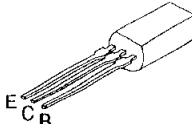
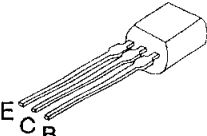
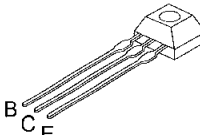
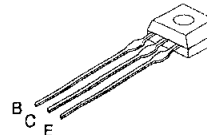
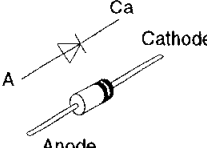
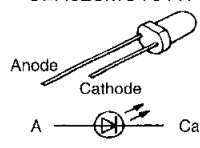
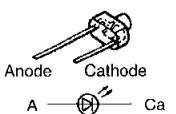
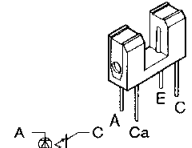
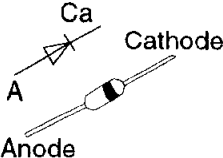
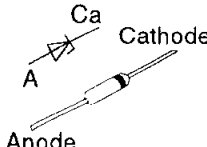
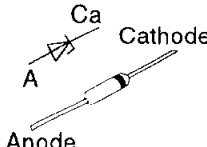
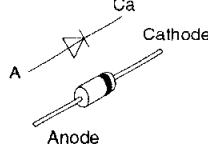


Fig. 3

■ Illustration of IC's, Transistors and Diodes

M38198MCA821(100P) MN662746RPK1(80P) M62433AFP(80P) 	RSN312H24 	BA3835F-E2(18P) BU2090AF-E2 (16P) M51167BFP-TB (36P) LA1833MN-TLM (24P)	LC72131MDTRM (20P) M62456FPE1 (24P) CXA1552M-T4 (16P) BU4066BCF-E2 (14P) 	TA7291P 	
BA7755A 	M5218AP 	0N2180RLC 	AN8837SBE1 	2SA1037AKSTX DTC114YKA146 	AN8780NSBE2 
2SJ164QRTA 2SC2784FTA 	2SD2395E 2SB1566E 	2SB1238QRTV2 2SD1859QRTV2 2SB1417PQTA 	2SC3940AQSTA 	KTA12710YTA KTC32030YTA 2SB621RTA 2SD1302STA 2SD965RTA KSB564ACYGTA 	
KRC109MTA KRA102MTA KRC111MTA KRA110MTA KRC103MTA KRC102MTA 		KTC3199GRTA RVTDTTC143EST RVTDTA114EST BN1L3NTA BA1A4ZTA BN1A4MTA 	2SA933SSTA RVTDTTC114EST 2SC1740SSTA 2SC2785FTA 2SC2787LTA 2SD2144STA 	BA1L4ZTA BA1L4MTA 2SD1020HTA 2SC1740SLNET 	
RK306LFU1 	SLR325DCT31 SLR325MCT31W 	LN201LPQJA 	GP1S94 	RVD1SS133TA 1SS291TA MA165TA 	
MTZJ10BTA MTZJ4R7BTA MTZJ5R1BTA MTZJ15CTA MTZJ33BTA MTZJ24DTA MTZJ12BTA 	MTZJ3R6BTA MTZJ5R6BTA MTZJ6R2BTA MTZJ8R2BTA MTZJ7R5ATA MA4020LTA 		1D3E 1N5402BM21 RL1N4003N02 		

■ Terminal Function of IC's

• IC701 (AN8837SBE1) Servo Amplifier

Pin No.	Mark	I/O	Function
1	PDE	I	Tracking signal input terminal 1 (E ch)
2	PDF	I	Tracking signal input terminal 2 (F ch)
3	VCC	I	Power supply connection
4	PDA	I	Focus signal input terminal 1 (A ch)
5	PDB	I	Focus signal input terminal 2 (B ch)
6	LPD	I	Laser PD connection
7	LD	O	Laser power auto control output
8	RF	O	RF signal output
9	RFIN	I	RF signal input
10	CSBRT	I	Capacitor for detection connection
11	CEA	I	Capacitor connection for HPF amplifier
12	BDO	O	BDO output ("H" : drop out)
13	LDON	I	LD APC input ("H" : ON, "L" : OFF)
14	GND	—	Ground connection

Pin No.	Mark	I/O	Function
15	/RFDET	O	NRFDET output ("L" : detection)
16	CROSS	O	CROSS output (Track cross signal output)
17	OFTR	O	Off-track output("L" : ON track, "H" : OFF track)
18	VDET	O	VDET output("H" : Vibration detected)
19	ENV	O	RF envelope detection
20	ENVOFF	I	Not used, connected to power supply
21	TEBPF	I	Oscillation detect signal input
22	TEN	I	Tracking error signal input
23	TEOUT	O	Tracking error signal output
24	FEOUT	O	Focus error signal output
25	FEN	I	Focus error signal input
26	VREF	O	Reference voltage output
27	TBAL	I	Tracking balance signal input
28	FBAL	I	Focus balance signal input

• IC703 (AN8780NSBE2) Focus coil / Tracking coil / Traverse motor / Spindle motor driver

Pin No.	Mark	I/O	Function
1	/RST	—	Not used, open
2	NC	—	Not used
3	IN2	I	Motor driver (2) input
4	PC2	I	Turntable motor drive signal ("L" : ON)
5	NC	—	Not used
6	IN1	I	Motor driver (1) input
7	PVCC1	I	Power supply (1) for driver
8	PGND1	—	Ground connection (1) for driver
9	NC	—	Not used, connected to GND
10	D1-	O	Motor driver (1) reverse-action output
11	D1+	O	Motor driver (1) forward-action output
12	D2-	O	Motor driver (2) reverse-action output
13	D2+	O	Motor driver (2) forward-action output

Pin No.	Mark	I/O	Function
14	D3-	O	Motor driver (3) reverse-action output
15	D3+	O	Motor driver (3) forward-action output
16	D4-	O	Motor driver (4) reverse-action output
17	D4+	O	Motor driver (4) forward-action output
18	NC	—	Not used, open
19	PGND2P	—	Ground connection (2) for driver
20	PVCC2	I	Power supply (2) for driver
21	VCC	I	Power supply terminal
22	VREF	I	Reference voltage input
23	IN4	I	Motor driver (4) input
24	IN3	I	Motor driver (3) input
25	RSTIN	I	Reset terminal (Not used, connected to GND)
26	NC	—	Not used, connected to GND

• IC702 (MN662746RPK1) Servo processor / Digital signal processor / Digital filter / D/A converter

Pin No.	Mark	I/O	Function
1	BCLK	O	Serial bit clock terminal (Not used, open)
2	LRCK	O	L/R discriminating signal (Not used, open)
3	SRDATA	O	Serial data (Not used, open)
4	DVDD1	I	Power supply (digital circuit) terminal
5	DVSS1	—	GND (digital circuit) terminal
6	TX	O	Digital audio interface signal
7	MCLK	I	Microprocessor command clock signal
8	MDATA	I	Microprocessor command data signal
9	MLD	I	Microprocessor command load signal
10	SENSE	O	Sense signal output (OFT,FESL,MAGEND,NAJEND,POSAD,SFG)
11	/FLOCK	O	Optical servo condition(focus)("L" : lead-in)
12	/TLOCK	O	Optical servo condition(tracking)("L" : lead-in)
13	BLKCK	O	Sub-code block clock (f=75Hz)
14	SQCK	I	External clock signal input for sub-code Q register.
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 input
19	SMCK	O	1/2-divided clock signal of crystal oscillating at MSEL = "H" (fSMCK=8.4672MHz) 1/4-divided clock signal of crystal oscillating at MSEL="L" (fSMCK=4.2336MHz)
20	PMCK	O	1/192-divided clock signal of crystal oscillating (fPMCK=88.2kHz) (Not used, open)
21	TRV	O	Traverse servo control output
22	TVD	O	Traverse drive signal output
23	PC	O	Spindle motor ON signal output ("L" : ON)
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	Kick pulse output
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 (Not used,open)
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)

Pin No.	Mark	I/O	Function
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	TES	O	Tracking error shunt signal output ("H" : shunt)
42	PLAY	O	Play signal out ("H" : PLAY)
43	WVEL	O	Double speed status signal output ("H" : DS)
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias (Not used, open)
47	DSLIF	I/O	DSL loop filter
48	PLLIF	I/O	PLL loop filter
49	DSLIF2	I/O	VCO loop filter (Not used, open)
50	AVDD2	I	Power supply input (for analog circuit)
51	AVSS2	—	GND (for analog circuit)
52	EFM	O	EFM signal output (Not used, open)
53	PCK	O	PLL extraction clock output (Not used, open) (fPCK=4.321 MHz during normal playback)
54	TOUT	O	Phase comparison signal of EFM and PCK signals (Not used, open)
55	SUBC	O	Sub-code serial data output (Not used, open)
56	SBCK	I	Sub-code frame clock signal output (fCLDCK=7.35kHz during normal playback)
57	VSS	—	GND
58	X1 IN	I	Crystal oscillating circuit input (f=16.9344MHz)
59	X2 OUT	O	Crystal oscillating circuit output (f=16.9344MHz)
60	VDD	I	Power supply input (for oscillating circuit)
61	BYTCK	O	Byte clock output (Not used, open)
62	/CLDCK	O	Clock input for sub-code serial data (Not used, open)
63	FCLK	O	Crystal frame clock signal output (fCLK=7.35kHz, double=14.7kHz)
64	PFLAG	O	Interpolation flag output ("H" : interpolation) (Not used, open)
65	FLAG	O	Flag output (Not used, open)
66	CLVS	O	Spindle servo phase synchronizing signal output (("H" : CLV, "L" : rough servo) (Not used, open)
67	CRC	O	Sub-code CRC checked output (("H" : OK, "L" : NG) (Not used, open)
68	RESY	O	Frame resynchronizing signal output (Not used, open)
69	FLAG	O	De-emphasis ON signal output (("H" : ON) (Not used, open)
70	ARST	I	Reset input through MASH circuit ("L" : Reset)
71	/TEST	I	Test input

Pin No.	Mark	I/O	Function
72	AVDD1	I	Power supply input (for analog circuit)
73	OUTL	O	Left channel audio signal output
74	AVSS1	—	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	CSEL	I	Crystal oscillating frequency designation input

Pin No.	Mark	I/O	Function
			"L" : 16.9344MHz "H" : 33.8688MHz
78	PSEL	I	Test input (normally "L") (Not used, open)
79	MSEL	I	Output mode switching of SUBQ terminal ("H" : Q code buffer mode)
80	SSEL	I	Output frequency switching for SMCK terminal "H" : SMCK=8.4672MHz "L" : MCK=4.2336MHz (Not used, open)

• IC600 (M38198MCA821) System Microprocessor

Pin No.	Mark	I/O	Function
1	CRT	I/O	CRT timer
2	TPS	I	TPS signal input
3	DECK1	I	Deck 1 mechanism condition input
4	DECK 2	I	Deck 2 mechanism condition input
5	KEY 4	I	Key 4 input
6	KEY 3	I	Key 3 input
7	KEY 2	I	Key 2 input
8	KEY 1	I	Key 1 input
9	SER 1	O	Serial clock output for IC903 and IC904
10	ECHO_LVL	O	Echo level control signal output (Not used, open)
11	SER 2	O	Serial data/clock output for IC301 and IC903
12	SER 3	O	Serial data output for IC301 and IC904
13	SER 4	O	Serial clock output (Not used, open)
14	SPE	I	Spectrum analyser input
15	CHG_PLGR	O	Changer plunger output
16	CHG_SW1	I	Changer SW detection input 1
17	CHG_SW2	I	Changer SW detection input 2
18	CDRST	O	Reset signal output for CD circuit
19	STATUS	I	Reset signal input for CD circuit
20	SQCK	O	CD subcode clock output
21	SD	I	Tuner signal detect input
22	SUBQ	I	CD subcode data input
23	CHG_CW	O	Changer motor CW output
24	CHG_CCW	O	Changer motor CCW output
25	CHG_HALF	O	Changer half drive output
26	MLD/ PLLCE	O	CD command load output and tuner chip enable output
27	MDATA/ PLLDATA	O	CD command data output / Tuner PLL data output
28	MCLK/ PLLCK	O	CD command clock output and tuner PLL clock output

Pin No.	Mark	I/O	Function
29	RESTSW	I	CD REST detect SW input
30	BLKCK	I	CD block clock input
31	RMT	I	Remote control signal input
32	DCDET	I	DC detect input
33	ECONO	O	Main transformer control output for economy mode
34	SYNC	I	AC power source detect signal input
35	/RESET	I	RESET input
36	XCIN	I	X'tal oscillator (f = 32.768 kHz sub clock)
37	XCOU	O	X'tal oscillator (f = 32.768 kHz sub clock)
38	XIN	I	X'tal oscillator (f = 8.0 MHz Main clock)
39	XOUT	O	X'tal oscillator (f = 8.0 MHz Main clock)
40	VSS	—	Ground (0V)
41	MBP1	O	MPU beat proof output 1
42	MBP2	O	MPU beat proof output 2
43	J_JOGA	I	AI Equalizer control signal input
44	J_JOGB	I	AI Equalizer control signal input
45	MKCLK	O	Deck control clock output
46	SP_A	O	Space control A
47	SP_B	O	Space control B
48	SP_C	O	Space control C
49-54	GRD8-GRD13	O	LCD grid signal output
55-61	GRD1-GRD7	O	LCD grid signal output
62-90	SEG32-SEG4	O	LCD segment signal output
91	VCC	I	Power supply (+5V)
92-94	REG3-REG1	O	LCD segment signal output
95	REG_IN	I	Region select signal input
96	V_JOGA	I	Main volume jog input A
97	V_JOGB	I	Main volume jog input B
98	VEE	—	Power supply (-30V)
99	AVSS	—	Analog ground (0V)
100	VREF	I	Reference voltage input

■ Schematic Diagram

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

Note :

< for Servo Circuit >

- S701 : Reset switch

< for Panel circuit and Operation Circuit >

- | | |
|---|---|
| • S600 : Dolby NR select switch | • S621 : EQ adjust down switch |
| • S602 : AUX select switch | • S622 : Display, demonstration select switch |
| • S603 : Reverse play, Tune/time adjust down switch | • S623 : CD manager switch |
| • S604 : DISC 5 eject switch | • S624 : Tape Edit switch |
| • S605 : Tuner select switch | • S625 : EQ adjust left switch |
| • S606 : FWD play/pause, tune/time adjust up switch | • S626 : Super woofer switch |
| • S607 : DISC 4 eject switch | • S627 : DISC 5 select switch |
| • S608 : CD select switch | • S628 : EQ adjust up switch |
| • S609 : Stop, tune mode select switch | • S629 : Record select switch |
| • S610 : DISC 3 eject switch | • S630 : DISC 4 select switch |
| • S611 : Tape/deck select switch | • S631 : EQ adjust right switch |
| • S612 : FWD, memory/set switch | • S632 : Reverse mode select switch |
| • S613 : DISC 2 eject switch | • S633 : DISC 3 select switch |
| • S614 : Clock, timer select switch | • S634 : Deck 2 open switch |
| • S615 : Economy mode switch | • S635 : DISC 2 select switch |
| • S616 : REW, FM mode/BP select switch | • S636 : DISC 1 select switch |
| • S617 : DISC 1 eject switch | • S638 : Power switch |
| • S618 : Play timer/REC timer select switch | • S639 : 3D AI EQ switch |
| • S619 : Random play switch | • VR600 : Volume control |
| • S620 : Deck 1 open switch | |

< for Mechanism (Deck 1) circuit and Mechanism (Deck 2) circuit >

- | | |
|---|---|
| • S951 : Deck 1 Mode detect switch. | • S972 : Deck 2 Tape detect switch. |
| • S952 : Deck 1 Tape detect switch. | • S973 : Deck 2 CrO ₂ detect switch. |
| • S953 : Deck 1 CrO ₂ detect switch. | • S974 : Deck 2 Record detect switch. |
| • S971 : Deck 2 Mode detect switch. | • S975 : Deck 2 Record detect switch. |

< for Loading Motor circuit, Detecting Switch (1) Circuit and Detecting Switch (2) Circuit >

- SW1, SW2 : Tray position switch
- SW3 : Tray open switch
- SW4 : CD offset detect switch
- SW5 : Spindle bottom position detect switch

•Signal line

- | | | |
|---|--|--|
|  : +B line |  : Playback signal line |  : AM signal line |
|  : -B line |  : Record signal line |  : AM OSC signal line |
|  : FM/AM signal line |  : CD signal line |  : FM OSC signal line |
|  : Main signal line |  : FM signal line |  : AUX signal line |

•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 [] : AUX (()) : CD < > FM () AM

•Importance safety notice:

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

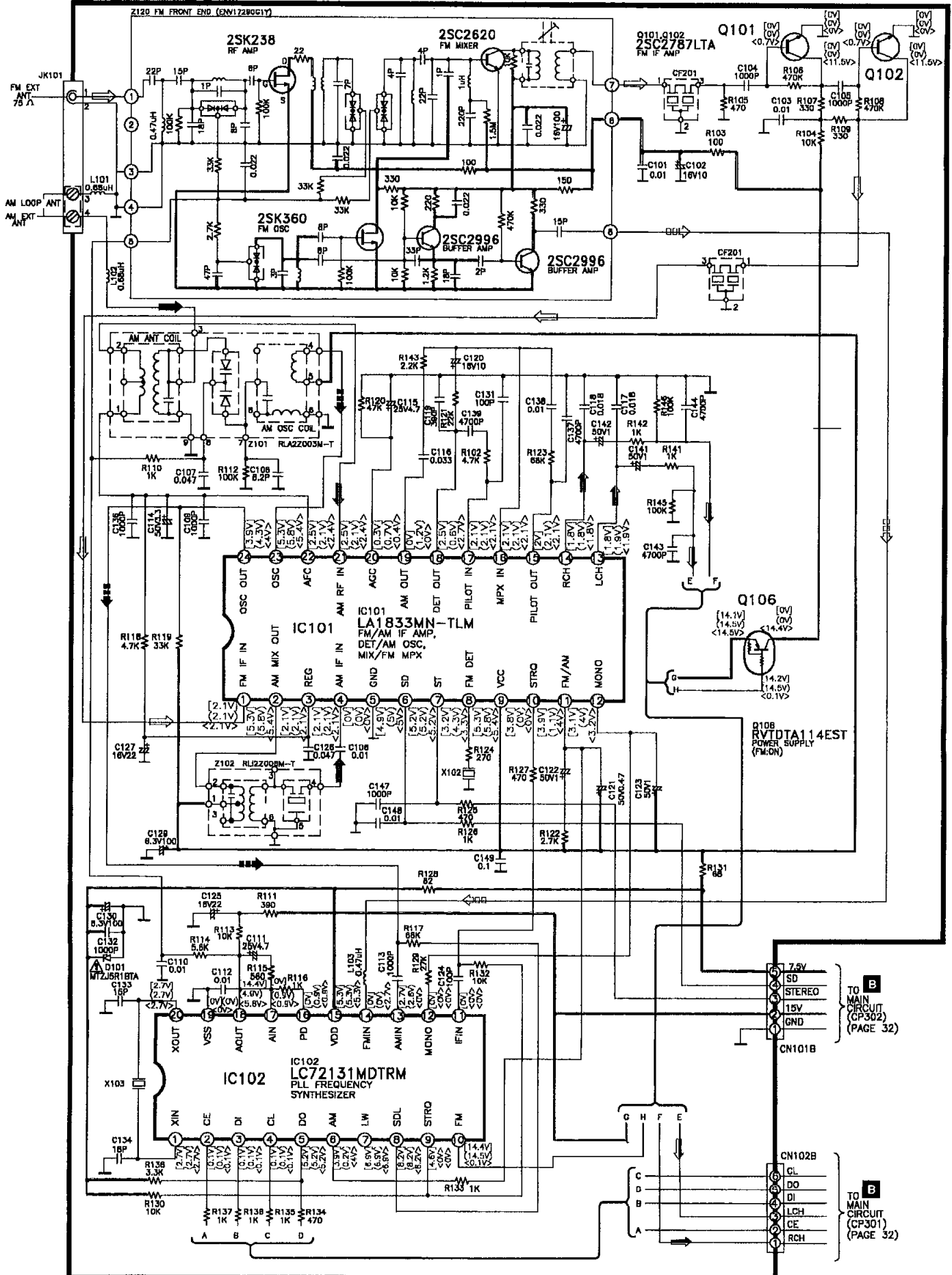
Caution !

IC, LSI and VLSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.

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

J TUNER CIRCUIT (P.C.Board on page 44)

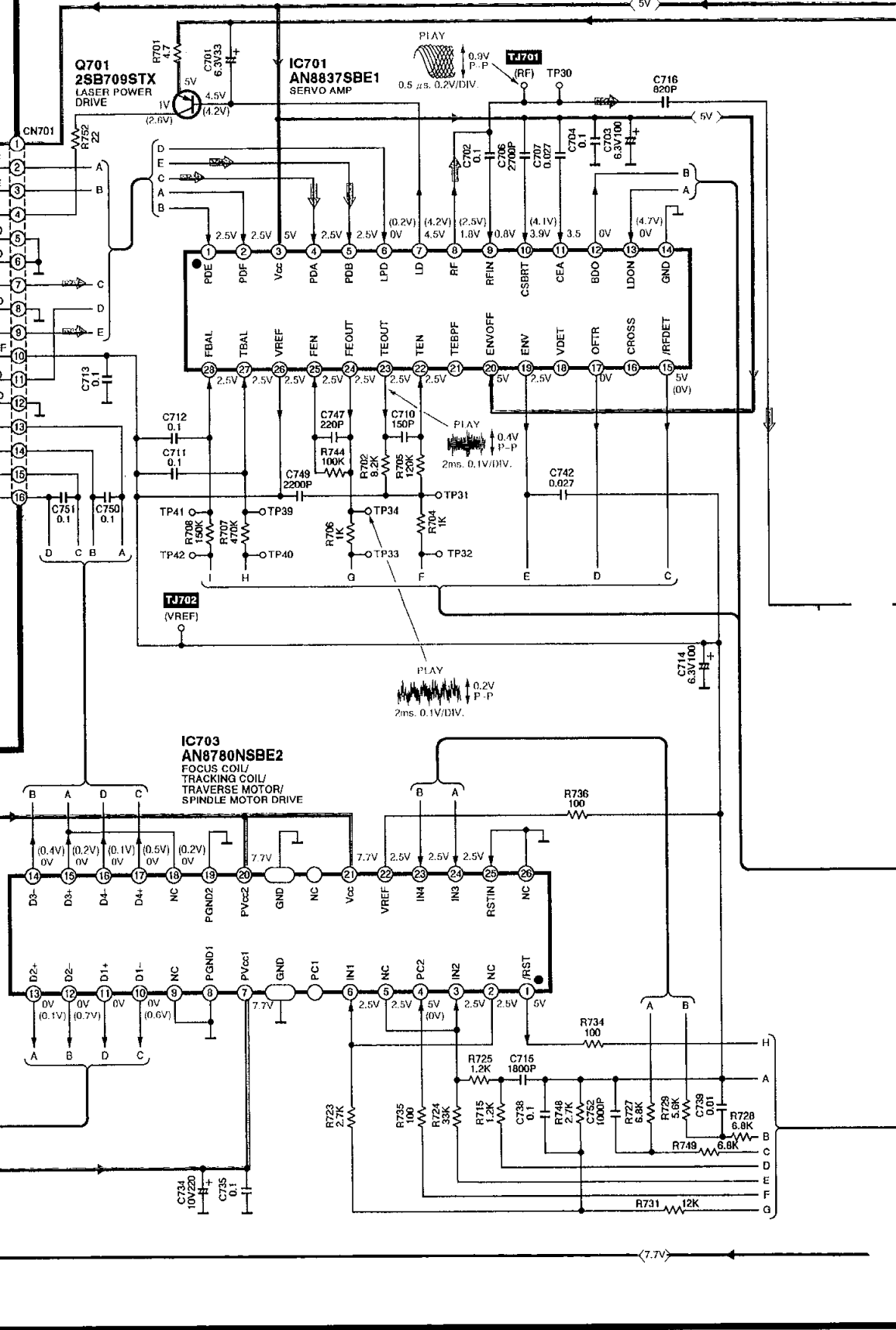
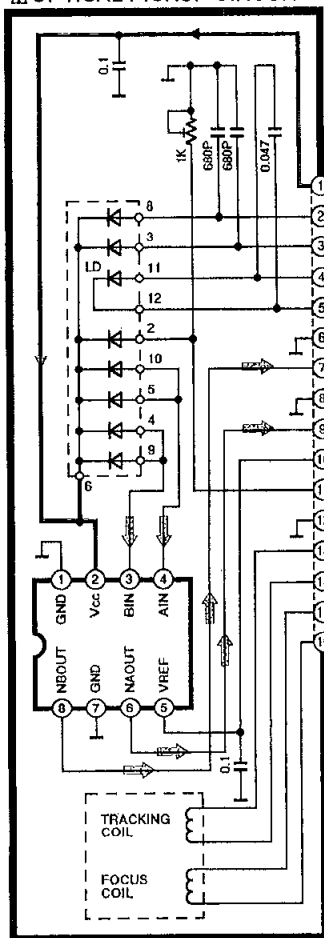
— : +B Line ⇨ : FM Signal Line ➡ : AM Signal Line
 ⇨ : FM/AM Signal Line ⇨ : FM OSC Signal Line ➡ : AM OSC Signal Line



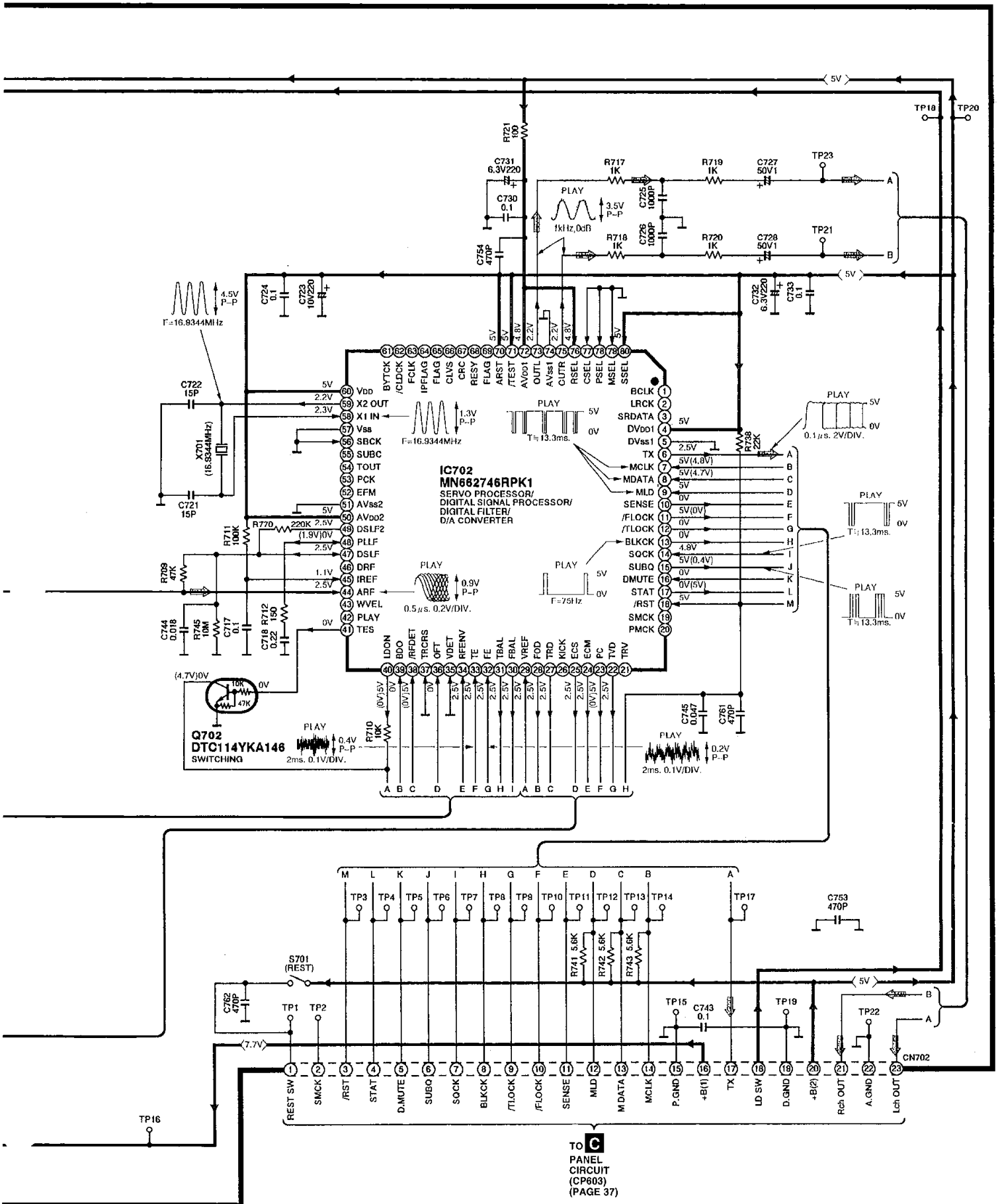
— : +B line  : CD signal line

A CD SERVO CIRCUIT (P.C.B. on page 43)

Δ OPTICAL PICKUP CIRCUIT

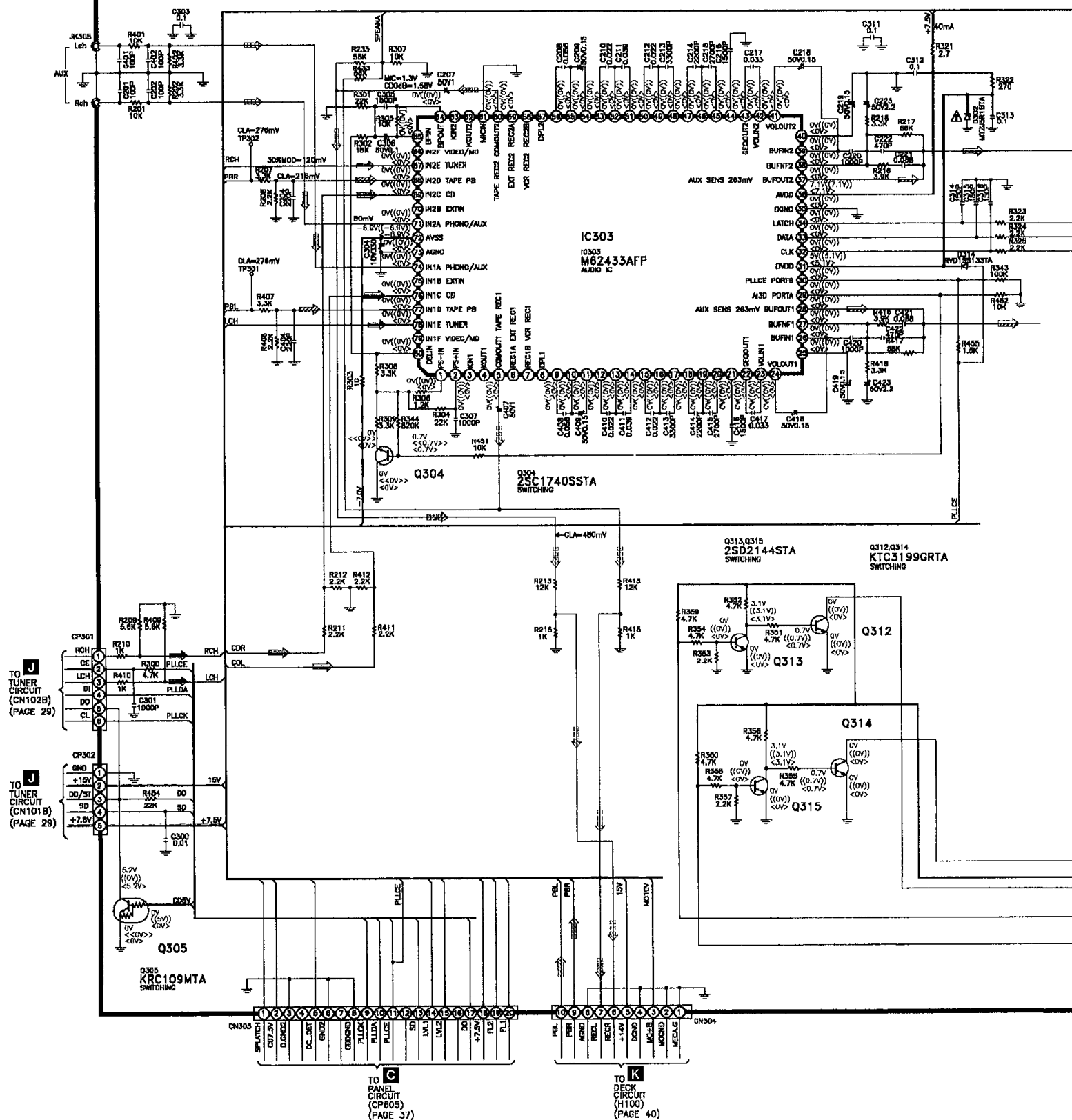


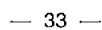
— : +B line  : CD signal line



B MAIN CIRCUIT (P.C.Board on page 44)

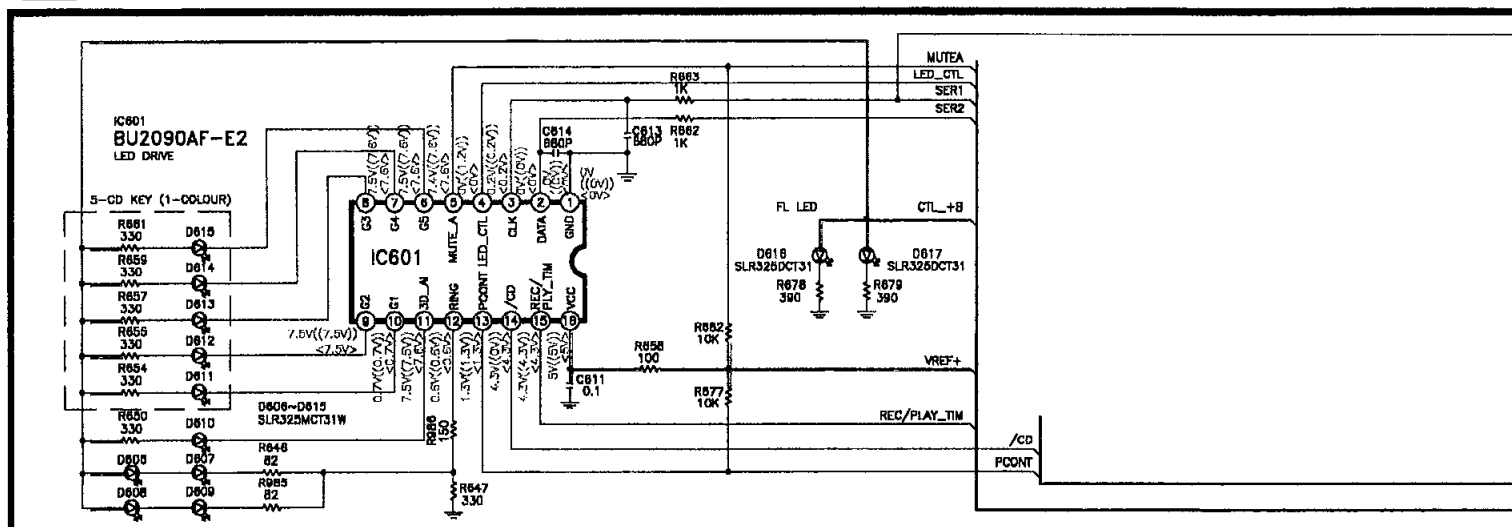
— : +B Line — : Main Signal Line — : Playback Signal Line — : FM/AM Signal Line
 — : +B Line — : AUX Signal Line — : CD Signal Line — : Record Signal Line



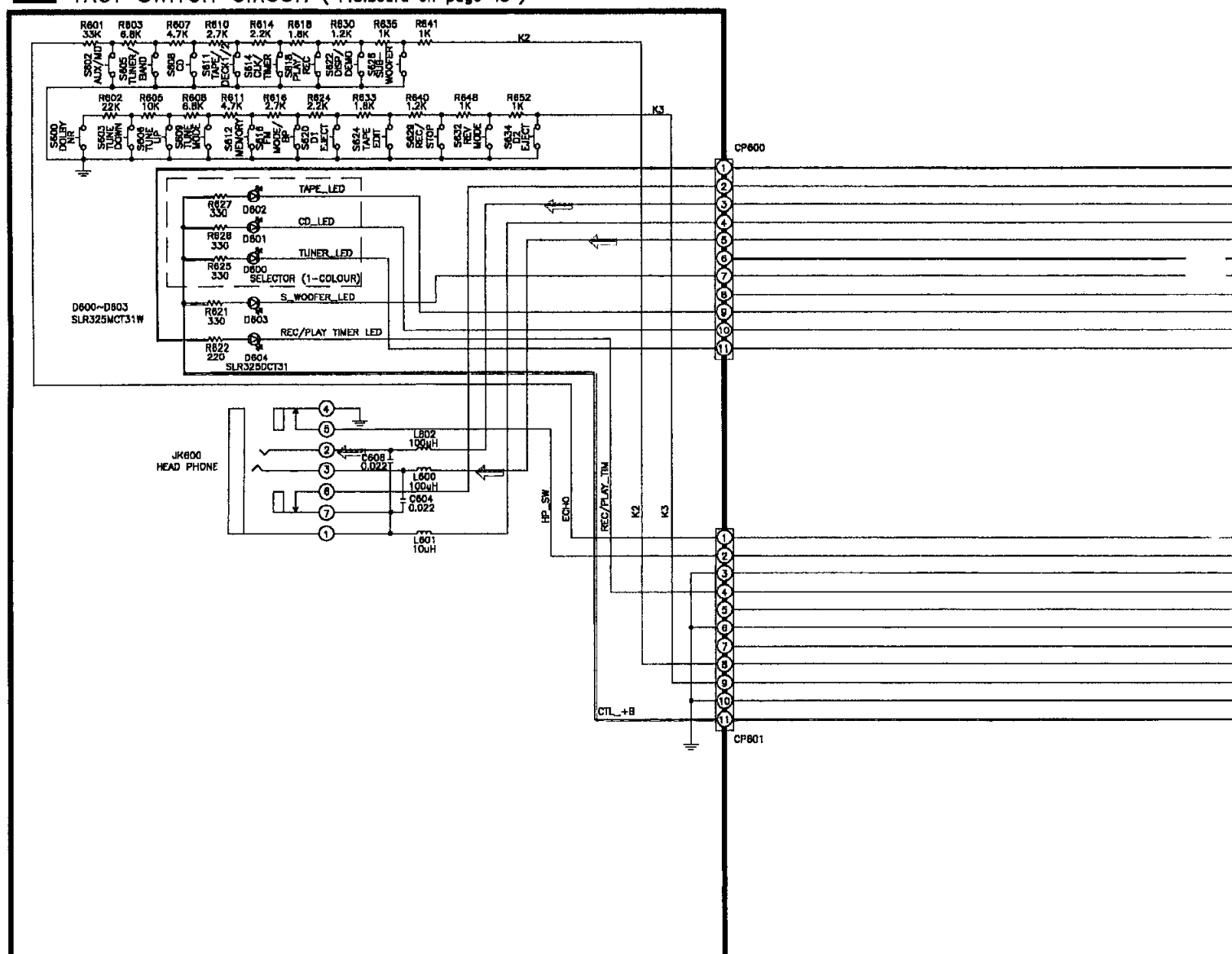


C

— : +B Line
 — : Main Signal Line
PANEL CIRCUIT (P.C.Board on page 46)

**D**

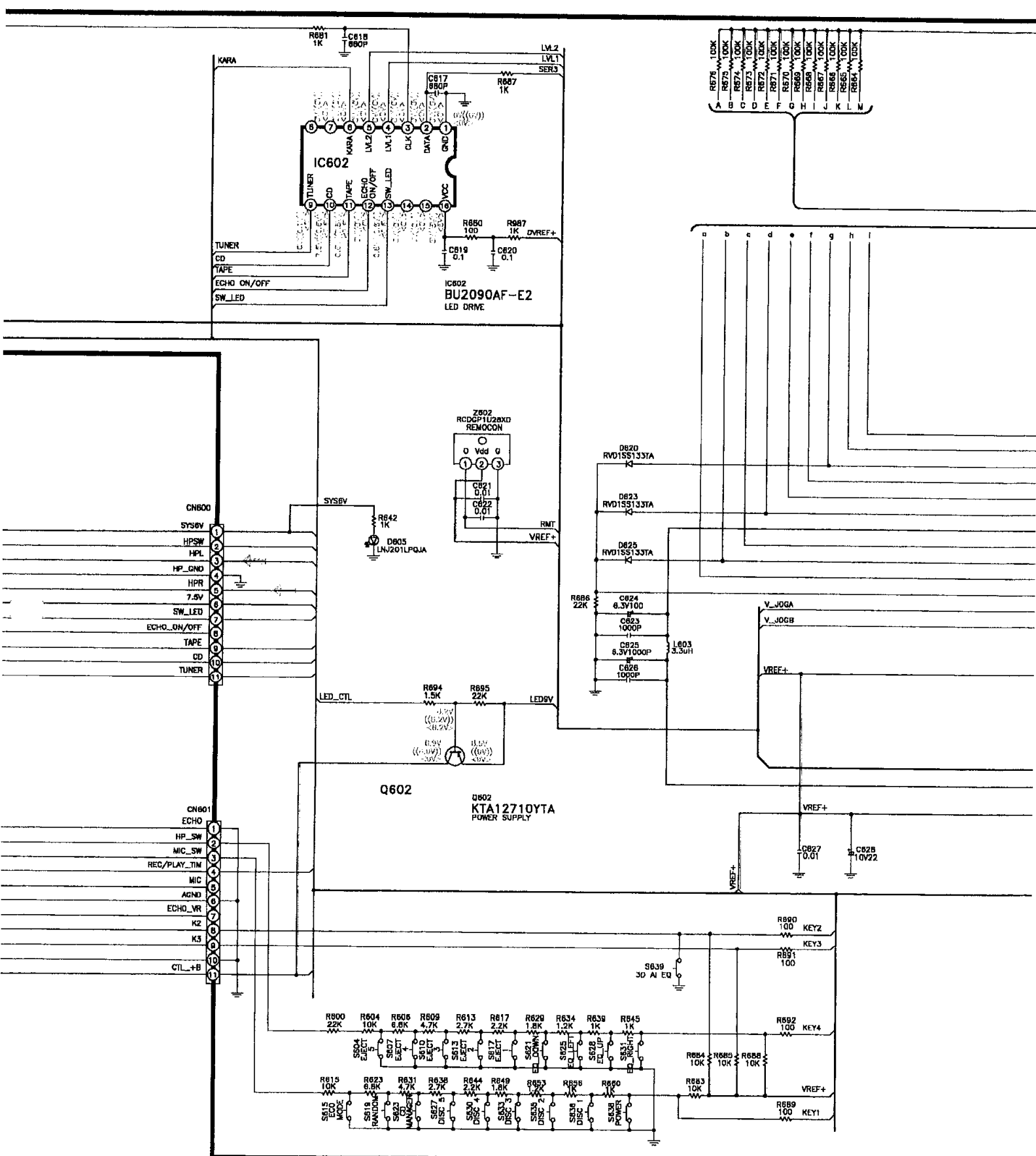
TACT SWITCH CIRCUIT (P.C.Board on page 48)



: +B Line

: +B Line

: Main Signal Line



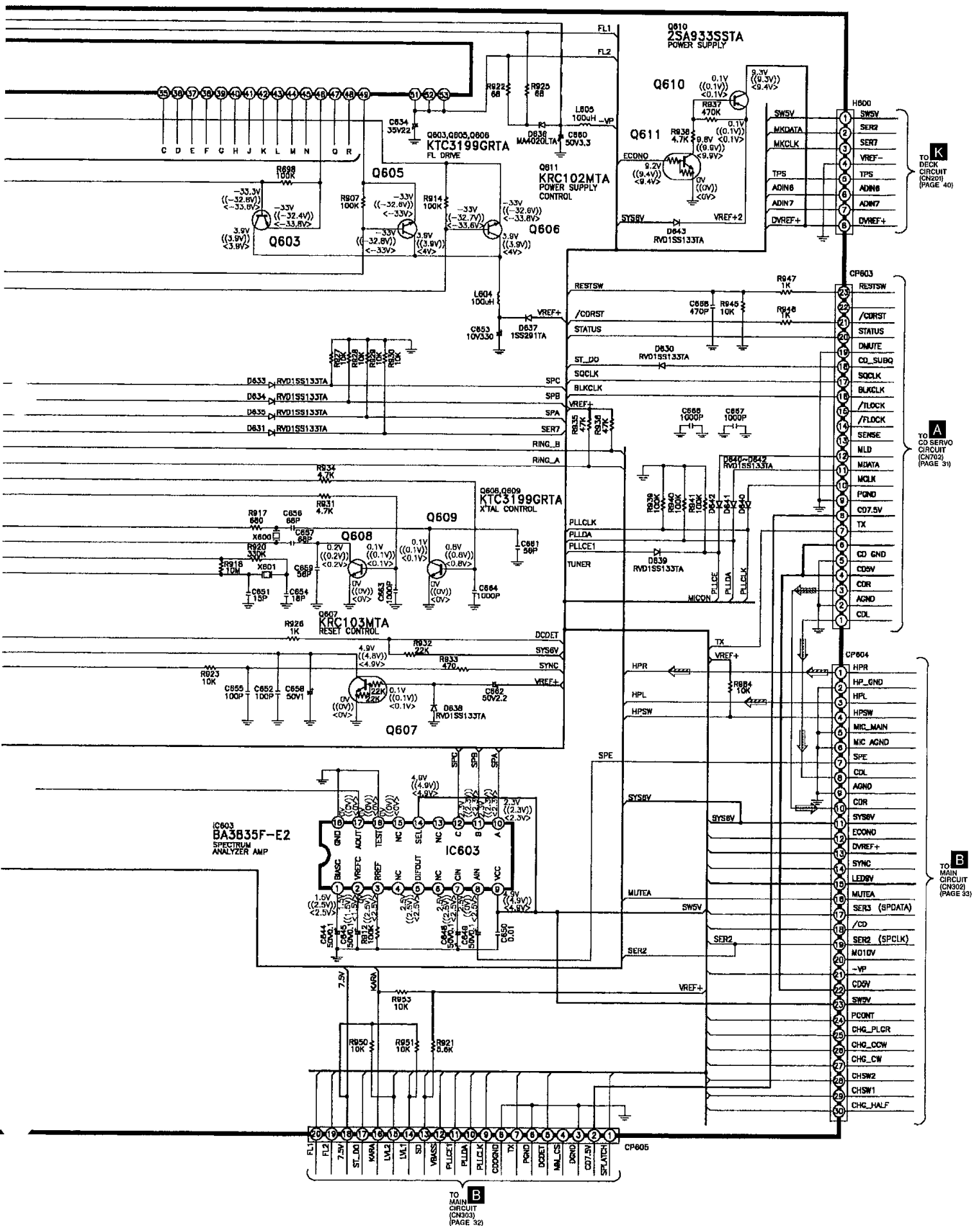


: +B Line

: -B Line

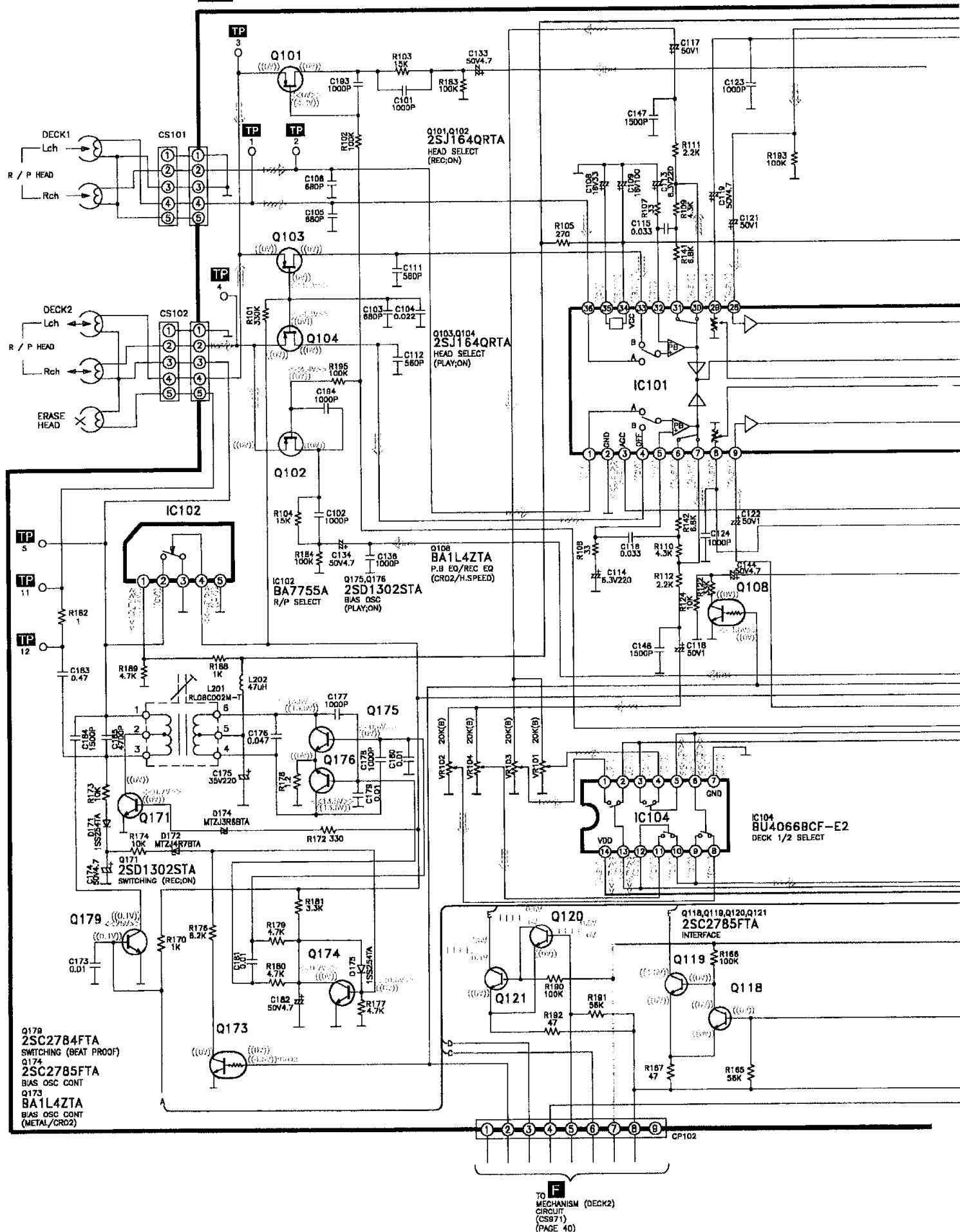
: Main Signal Line

: CD Signal Line



K

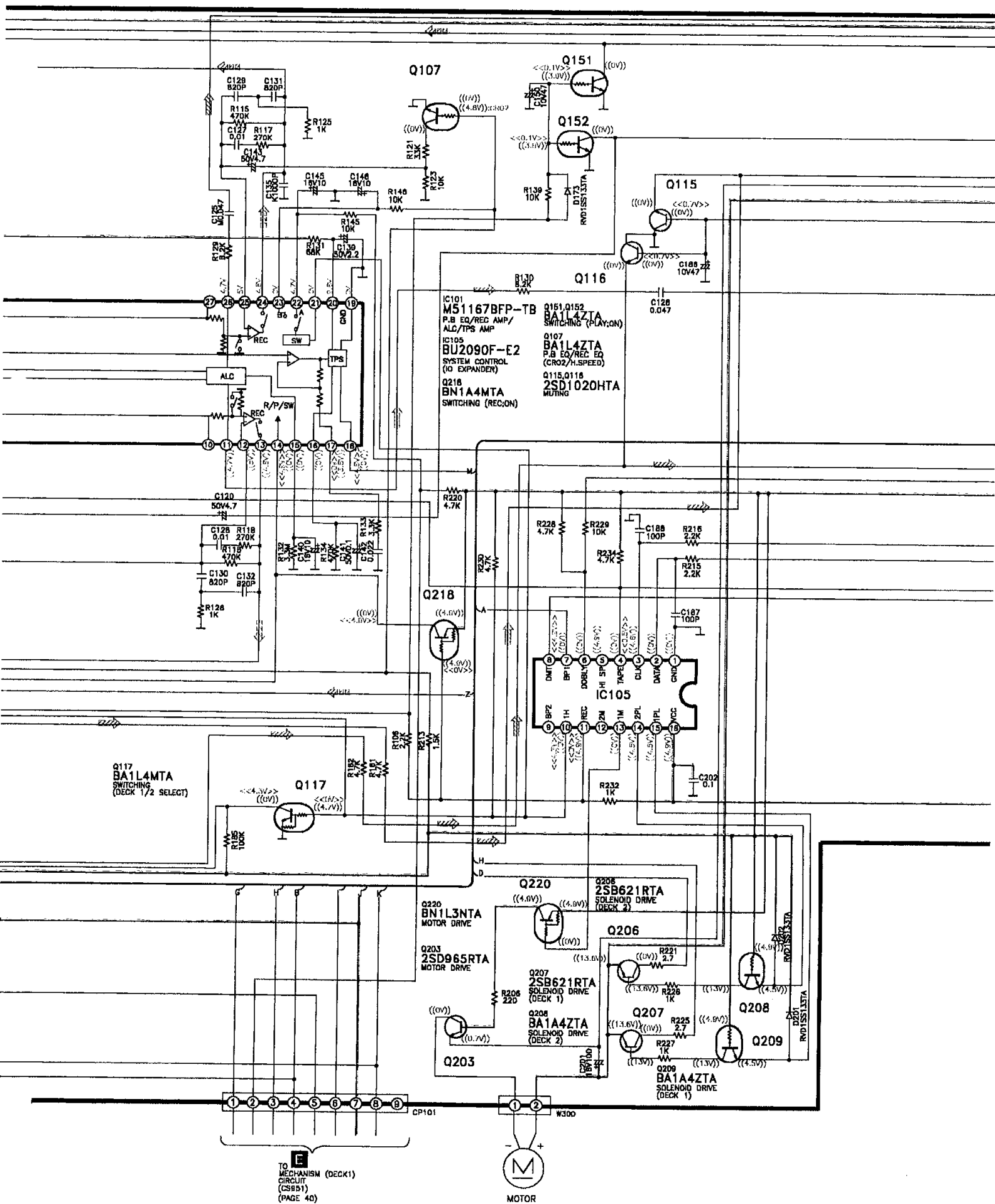
DECK CIRCUIT (P.C.Board on page 50)

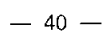


--- : +B Line

~~~~~ : Playback Signal Line

~~~~~ : Record Signal Line

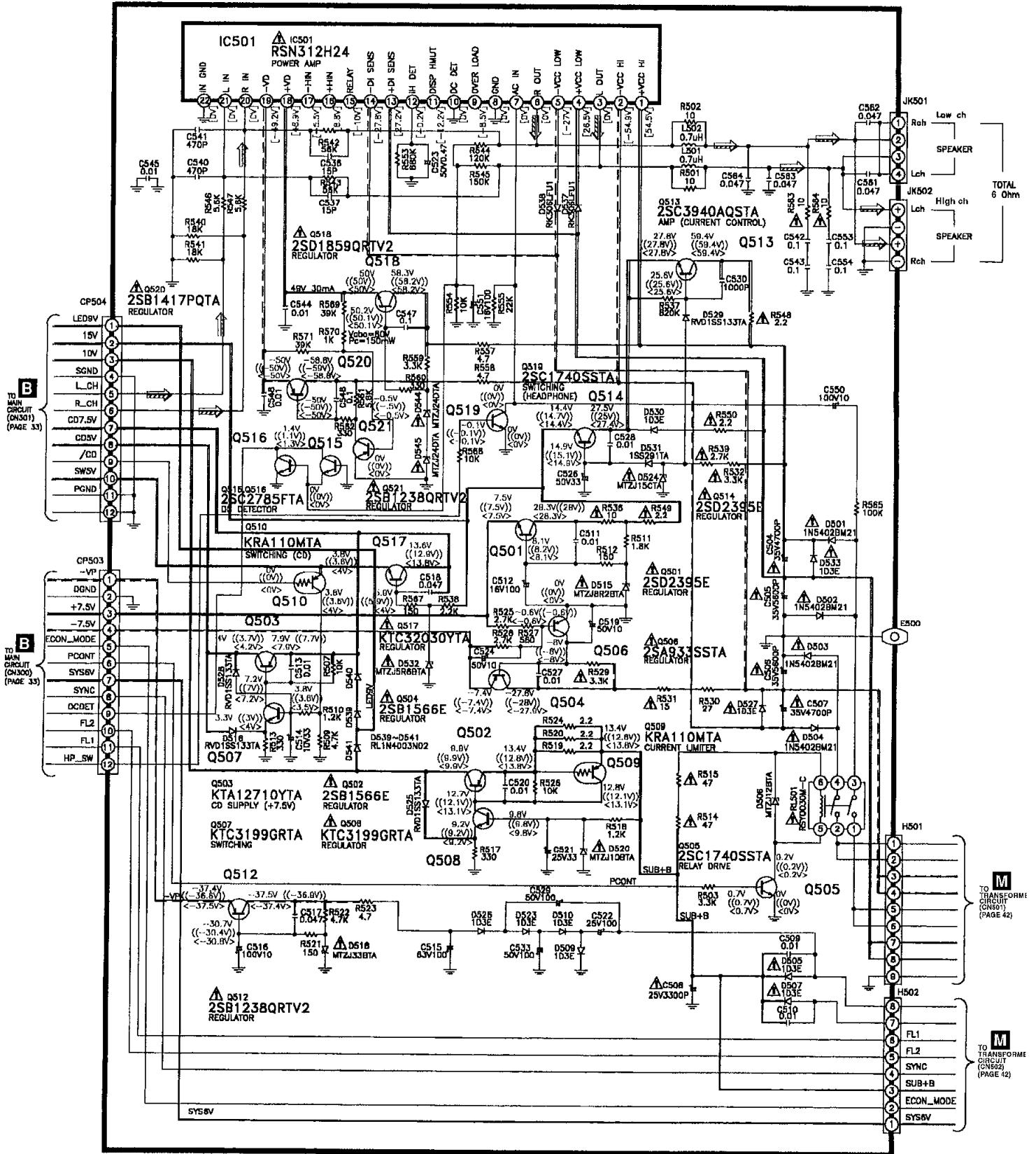




POWER CIRCUIT (P.C.Board on page 52)

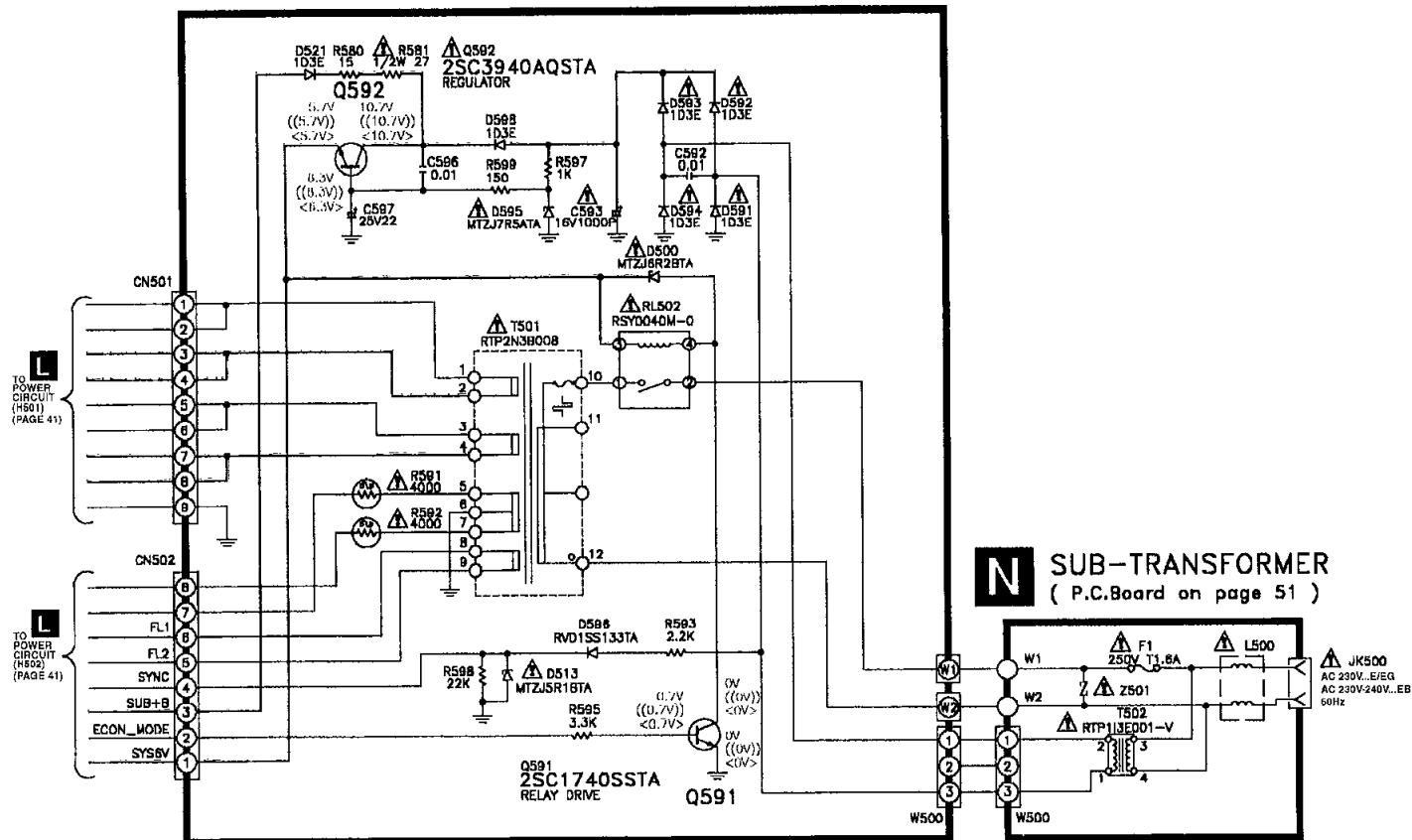
: +B Line

 : Main Signal Line



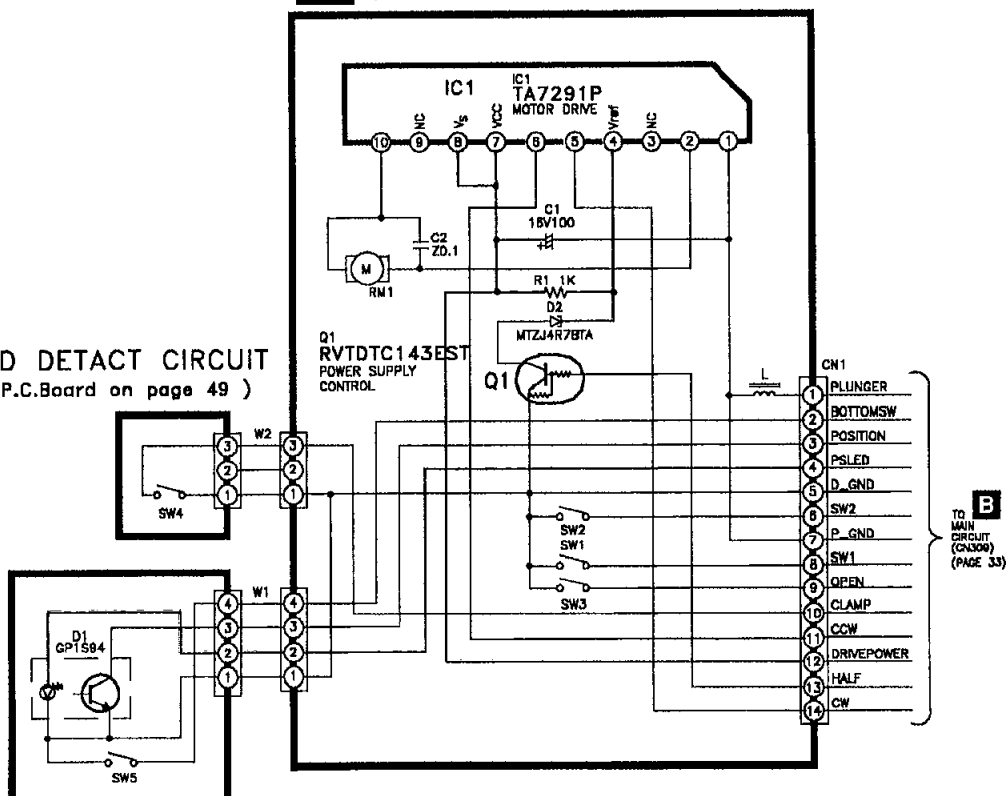
: +B Line

M TRANSFORMER CIRCUIT (P.C.Board on page 53)



G MOTOR CIRCUIT (P.C.Board on page 49)

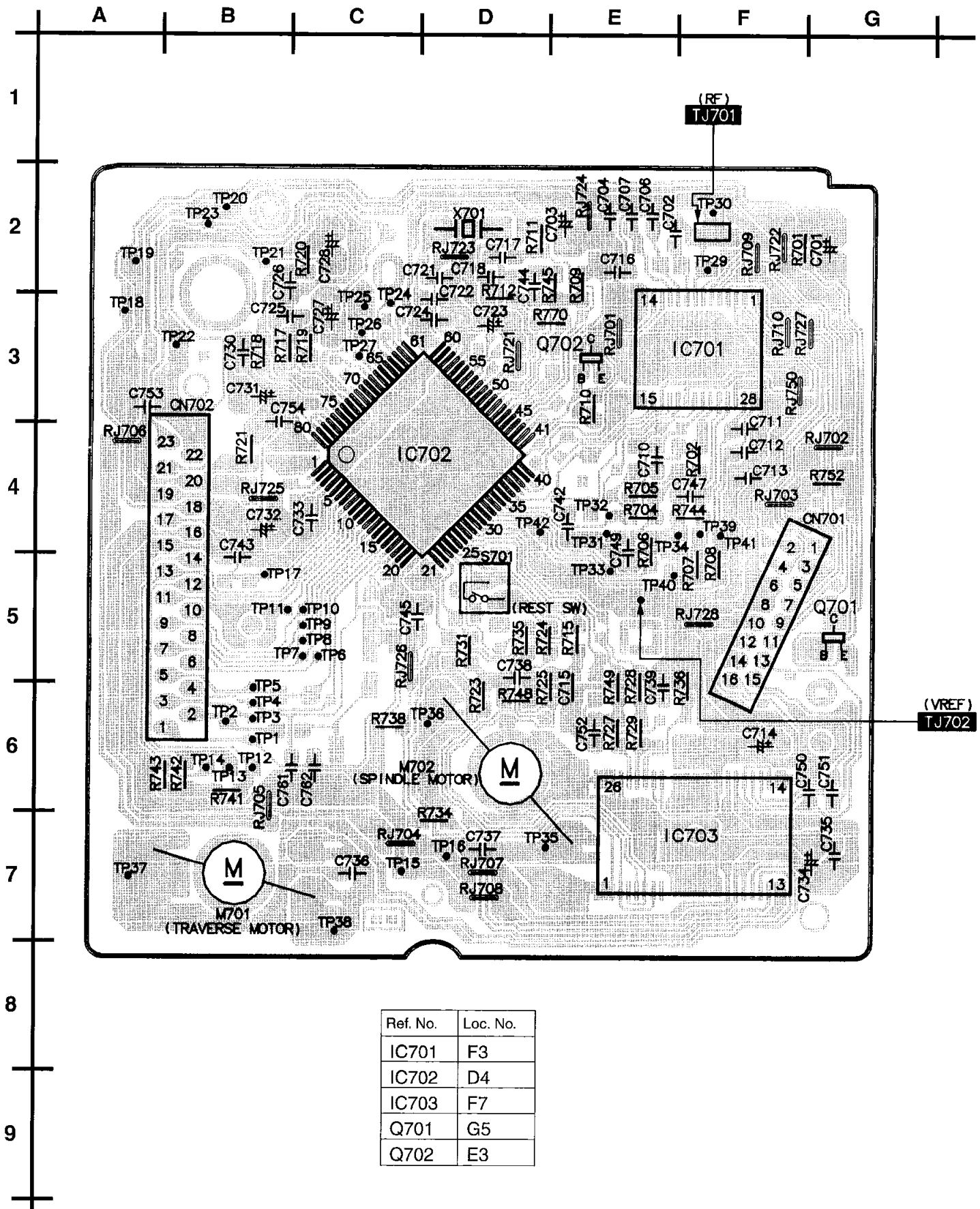
I CD DETACT CIRCUIT (P.C.Board on page 49)



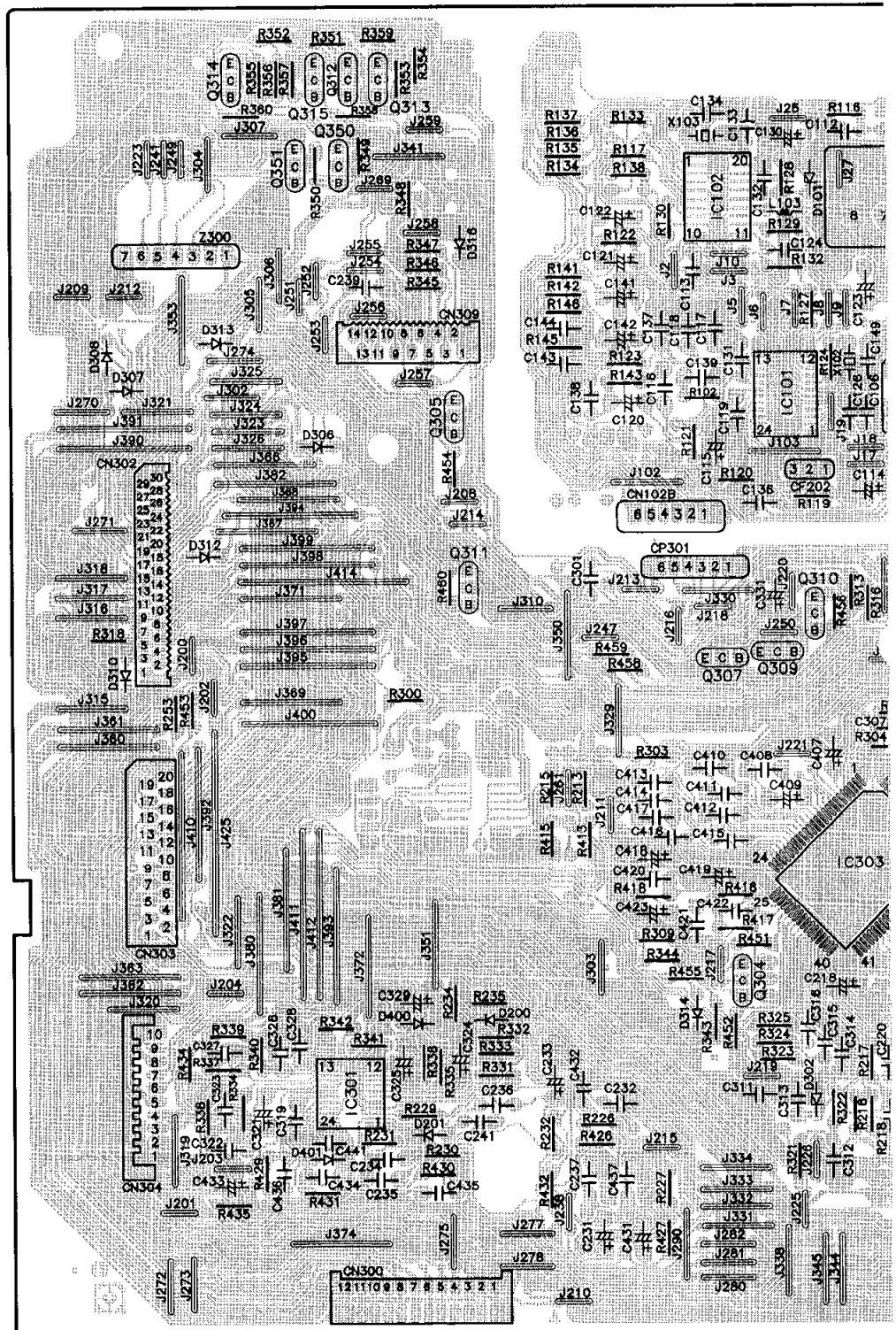
H SPINDLE POSITION CIRCUIT (P.C.Board on page 49)

Printed Circuit Board

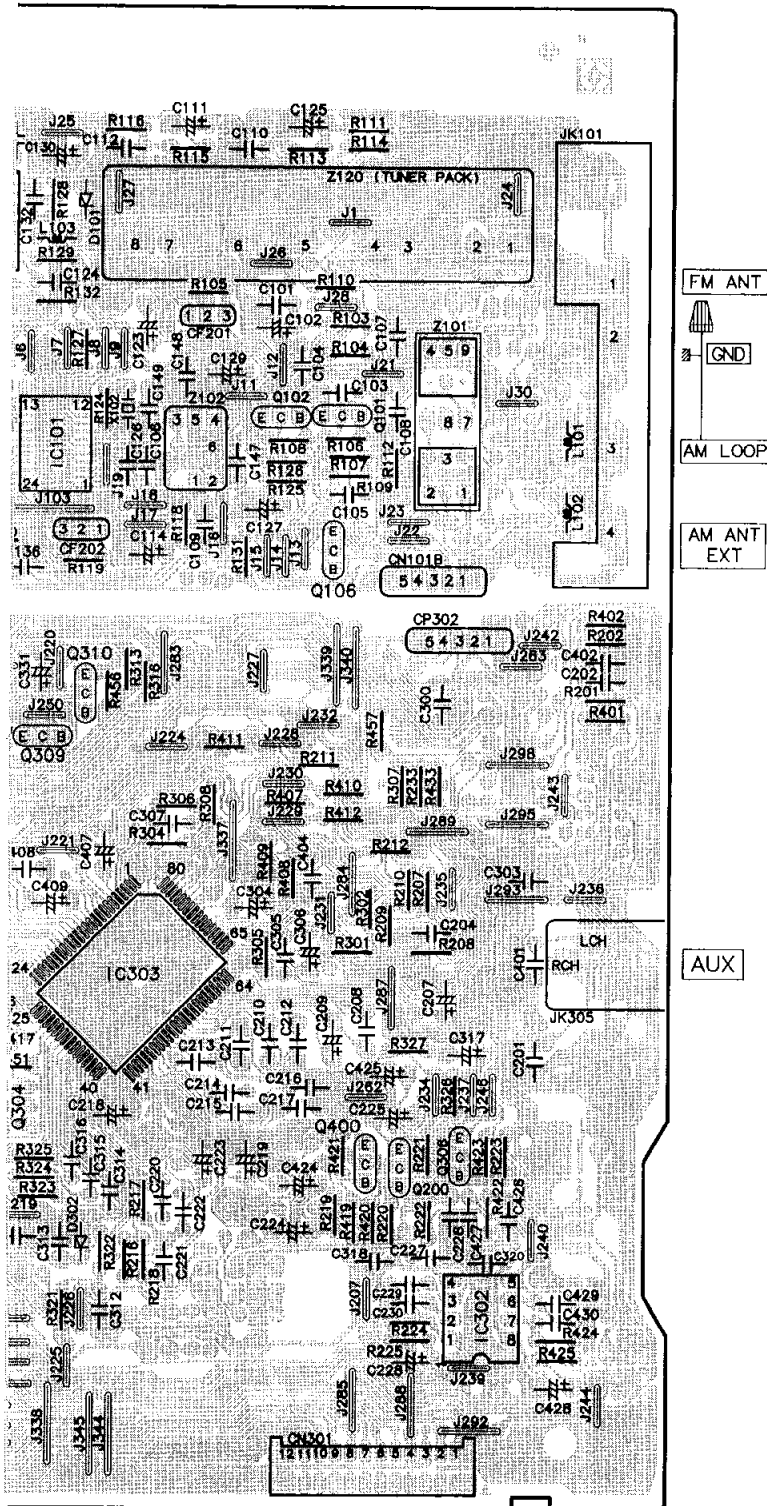
A SERVO P.C.B. (REPX0144)



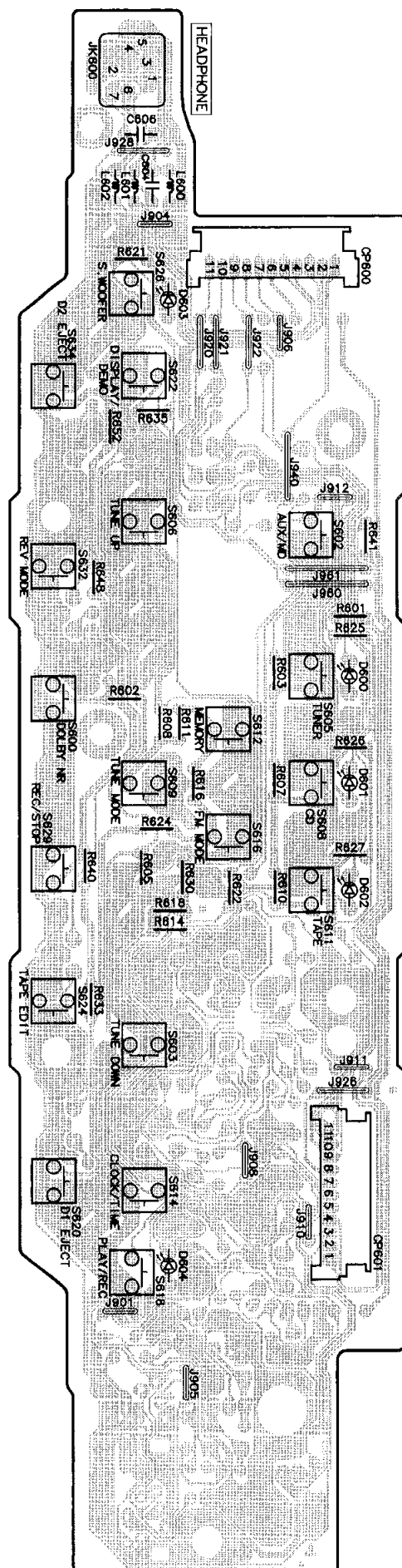
B MAIN P.C.B. (REPX0178A)...Supplied by MAVD

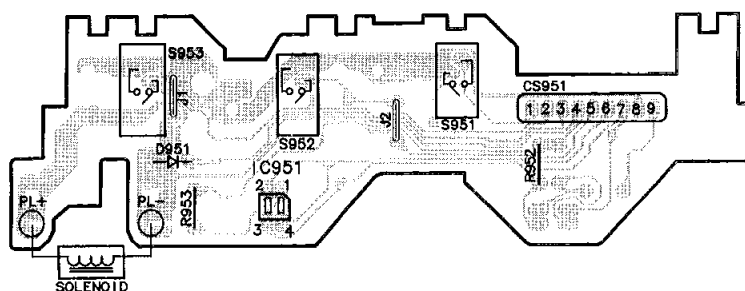
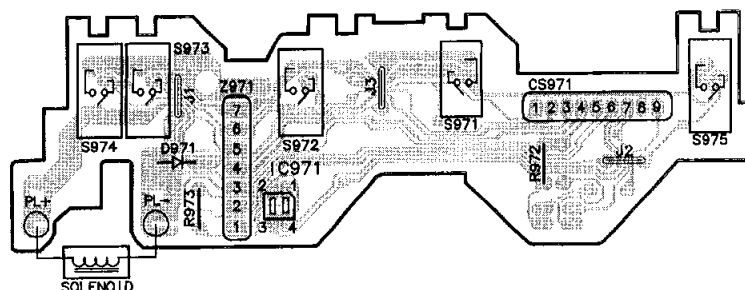
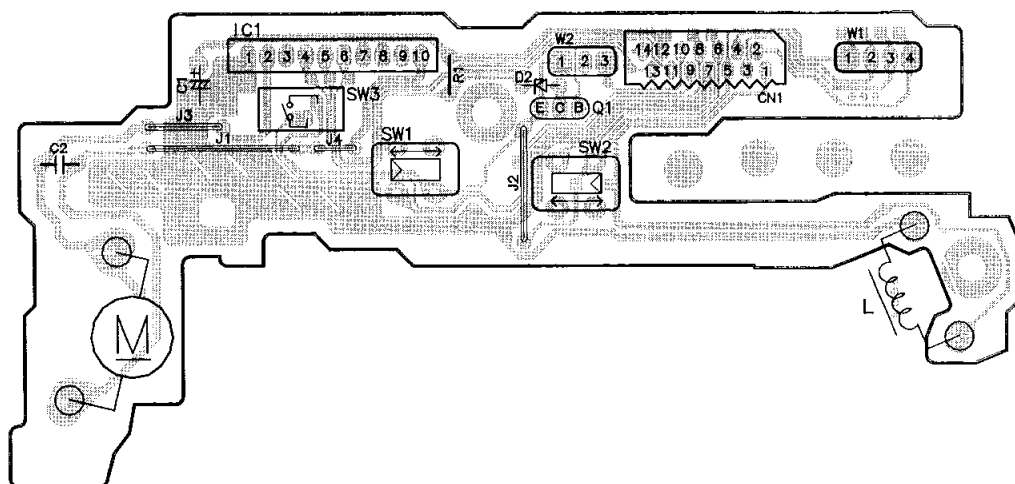
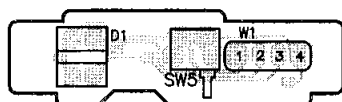


J TUNER P.C.B. (REPX0188A)...Supplied by MAVD

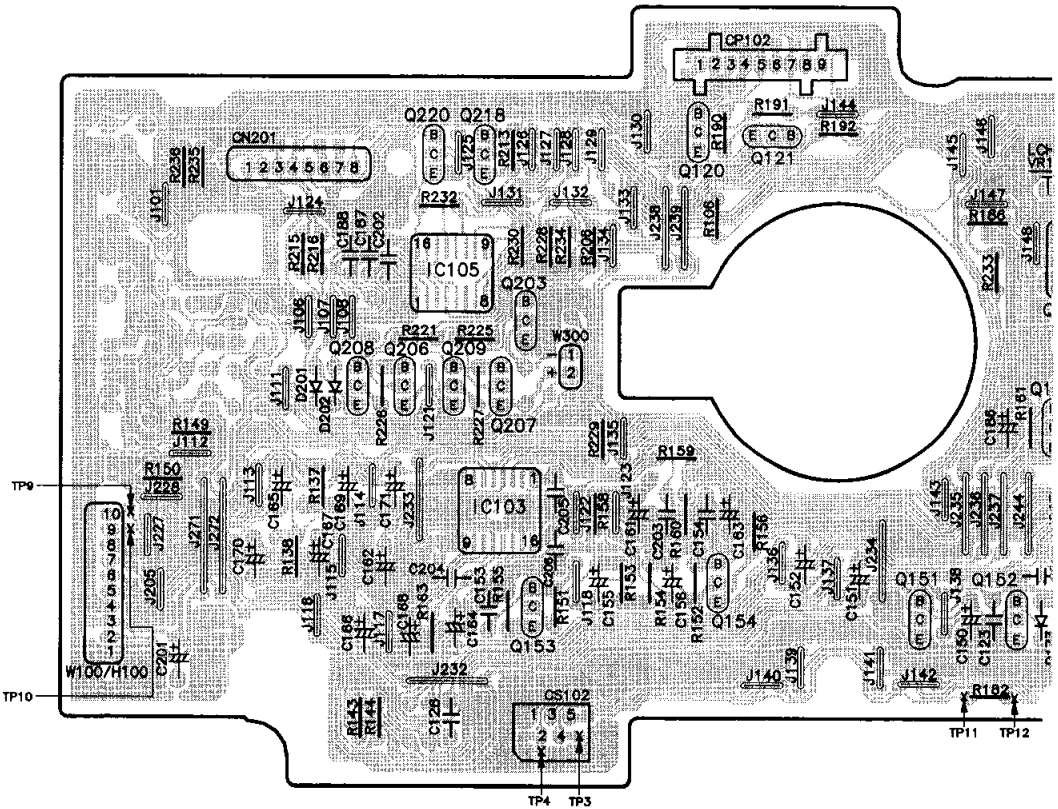


| Ref. No. | Loc. No. |
|----------|----------|
| D101 | F2 |
| D200 | D7 |
| D201 | D7 |
| D302 | F7 |
| D306 | C3 |
| D307 | B3 |
| D308 | B3 |
| D310 | B4 |
| D312 | C4 |
| D313 | C3 |
| D314 | F6 |
| D316 | D2 |
| D400 | D7 |
| D401 | C7 |
| IC101 | F3 |
| IC102 | F2 |
| IC301 | C7 |
| IC302 | H7 |
| IC303 | G6 |
| Q101 | H3 |
| Q106 | H3 |
| Q200 | H7 |
| Q304 | F6 |
| Q305 | D3 |
| Q306 | H7 |
| Q307 | F4 |
| Q309 | F4 |
| Q310 | F4 |
| Q311 | D4 |
| Q312 | D1 |
| Q313 | D1 |
| Q314 | C1 |
| Q315 | C1 |
| Q350 | C1 |
| Q351 | C1 |
| Q400 | H7 |

D TACT SWITCH P.C.B. (REPX0179C)...Supplied by MAVD


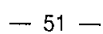
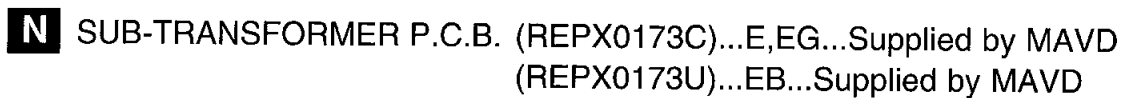
E MECHANISM (DECK 1) P.C.B. (REPX0108A)**F** MECHANISM (DECK 2) P.C.B. (REPX0108)**G** MOTOR P.C.B. (REP2578A-N)**H** SPINDLE POSITION P.C.B. (REP2578A-N)**I** CD DETACT P.C.B. (REP2578A-N)

K DECK P.C.B. (REP2200T)...Supplied by MAVD



| Ref. No. | Loc. No. |
|----------|----------|
| D171 | K3 |
| D172 | K2 |
| D173 | G4 |
| D174 | K3 |
| D175 | K2 |
| D201 | C3 |
| D202 | C3 |
| IC101 | J3 |
| IC102 | J4 |
| IC105 | D2 |
| Q101 | H4 |
| Q102 | H4 |
| Q103 | H4 |
| Q104 | H4 |
| Q107 | H3 |
| Q108 | I2 |
| Q115 | G3 |
| Q116 | G3 |
| Q118 | J1 |
| Q119 | J1 |

| Ref. No. | Loc. No. |
|----------|----------|
| Q120 | E1 |
| Q121 | E1 |
| Q151 | F4 |
| Q152 | G4 |
| Q153 | D4 |
| Q154 | E4 |
| Q171 | K3 |
| Q173 | K2 |
| Q174 | K2 |
| Q175 | K2 |
| Q176 | K2 |
| Q179 | K4 |
| Q203 | D2 |
| Q206 | C3 |
| Q207 | D3 |
| Q208 | C3 |
| Q209 | D3 |
| Q218 | D1 |
| Q220 | D1 |



A

B

C

D

E

F

G

L

POWER P.C.B. (REPX0170B)

1

2

3

4

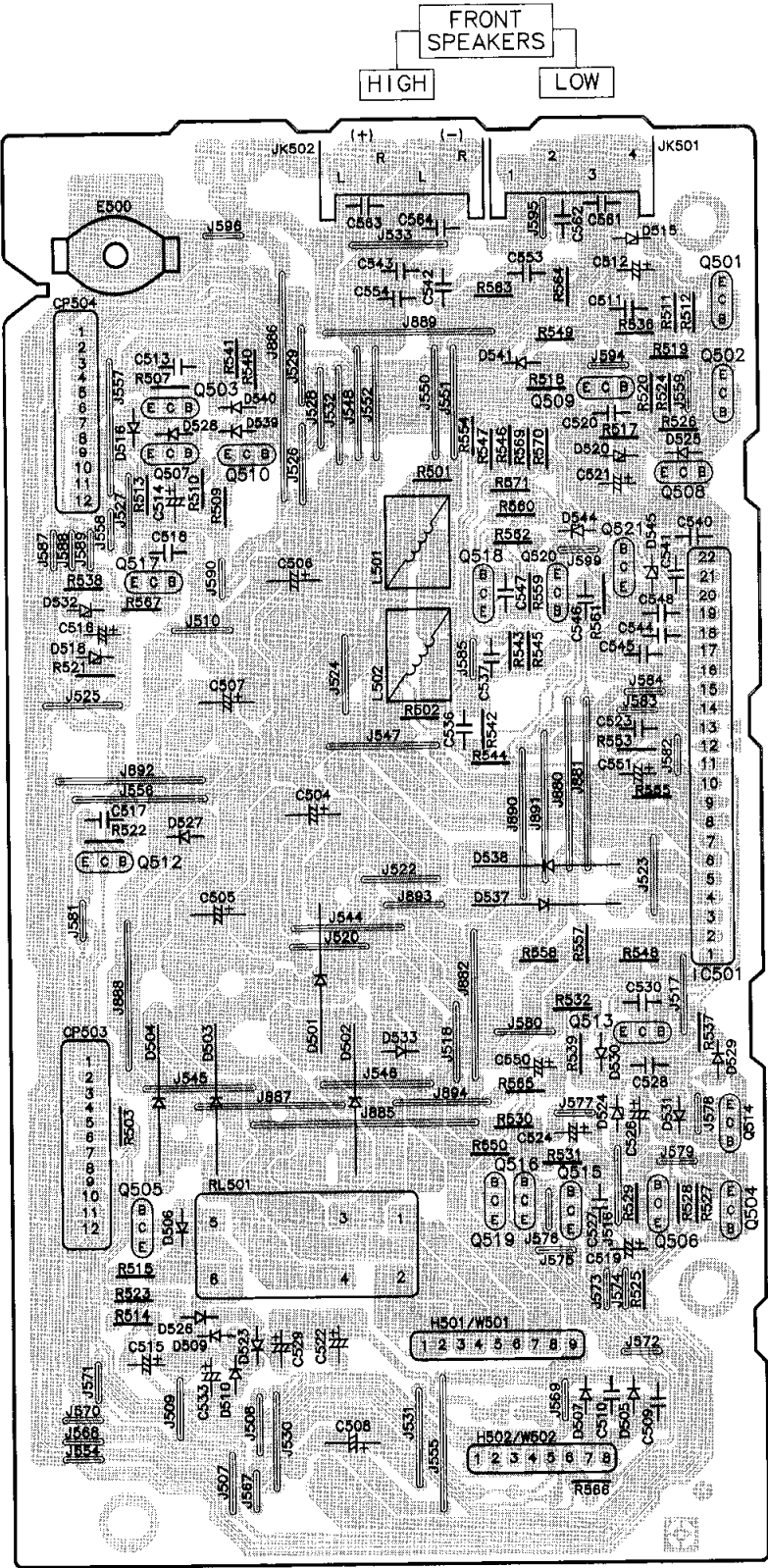
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6

7

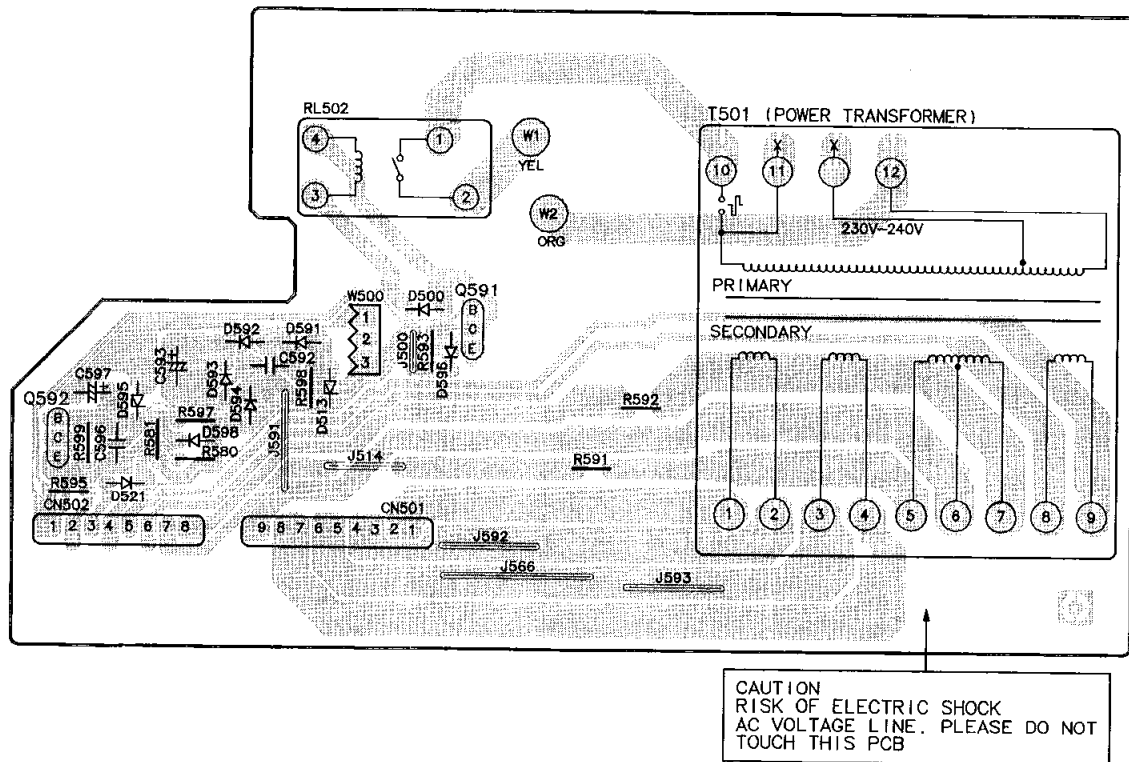
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9

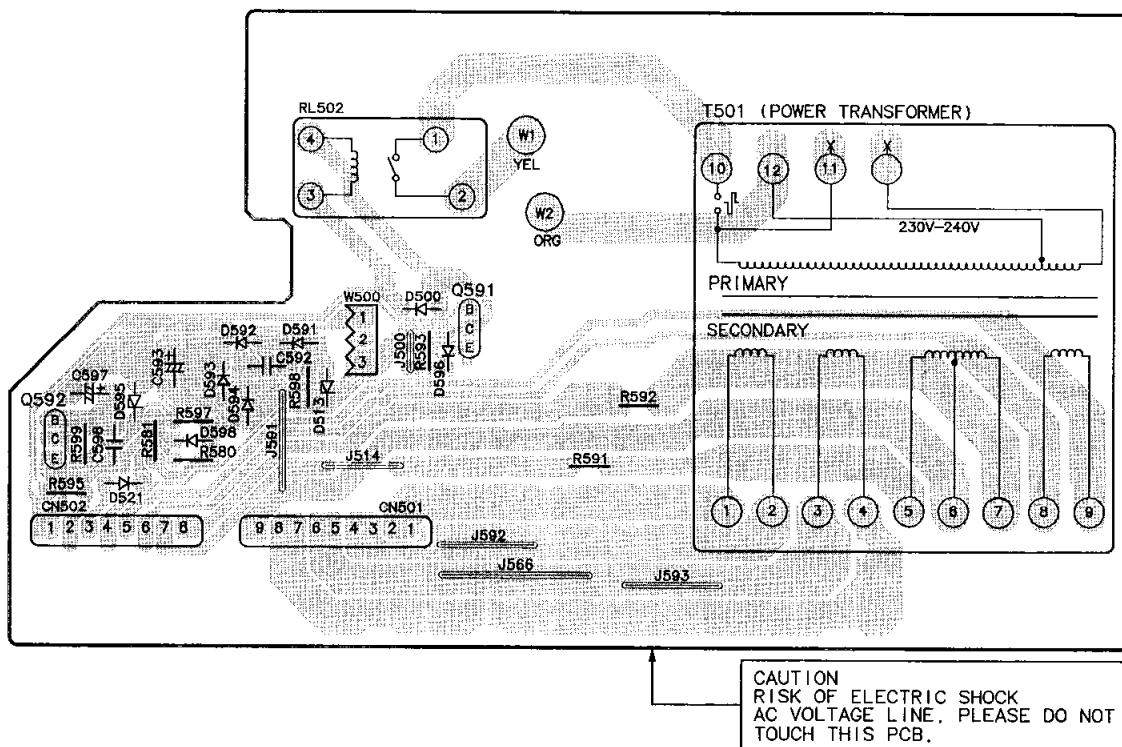


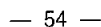
| Ref. No. | Loc. No. | Ref. No. | Loc. No. |
|----------|----------|----------|----------|
| D501 | C5 | D539 | C2 |
| D502 | C6 | D540 | C2 |
| D503 | C6 | D541 | D2 |
| D504 | B6 | D544 | E3 |
| D505 | E8 | D545 | E3 |
| D506 | B7 | IC501 | E4 |
| D507 | E8 | Q501 | E2 |
| D509 | C7 | Q502 | E2 |
| D510 | C7 | Q503 | B2 |
| D515 | E1 | Q504 | E7 |
| D516 | B2 | Q505 | B7 |
| D518 | B4 | Q506 | E7 |
| D520 | E2 | Q507 | B2 |
| D523 | C7 | Q508 | E3 |
| D524 | E6 | Q509 | E2 |
| D525 | E2 | Q510 | C2 |
| D526 | B7 | Q512 | B5 |
| D527 | B5 | Q513 | E6 |
| D528 | B2 | Q514 | E6 |
| D529 | E6 | Q515 | E7 |
| D530 | E6 | Q516 | D6 |
| D531 | E6 | Q517 | B3 |
| D532 | B3 | Q518 | D3 |
| D533 | D6 | Q519 | D6 |
| D537 | D5 | Q520 | D3 |
| D538 | D5 | Q521 | E3 |

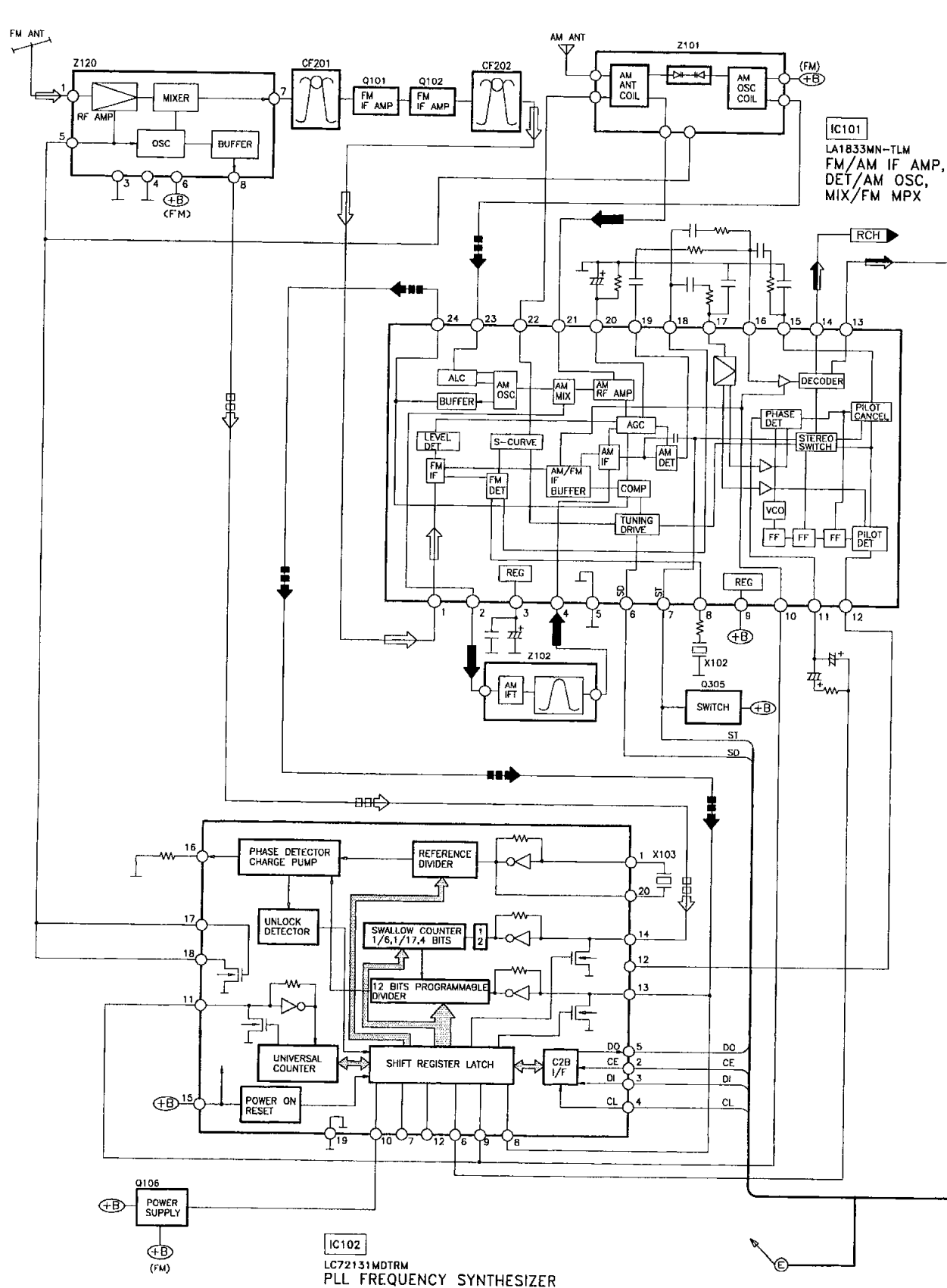
M TRANSFORMER P.C.B. (REPX0173C)...E,EG...Supplied by MAVD

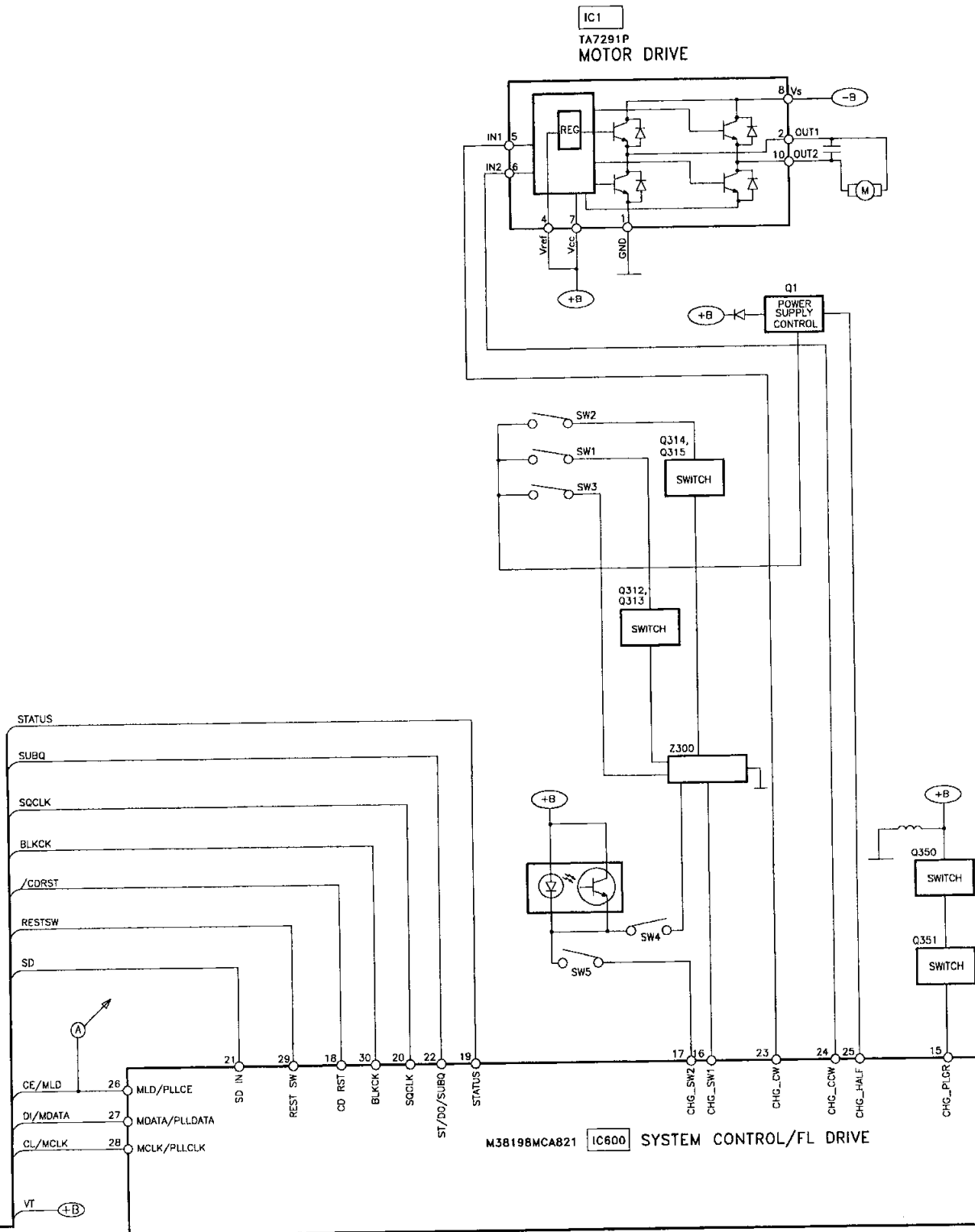


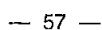
M TRANSFORMER P.C.B. (REPX0173U)...EB...Supplied by MAVD

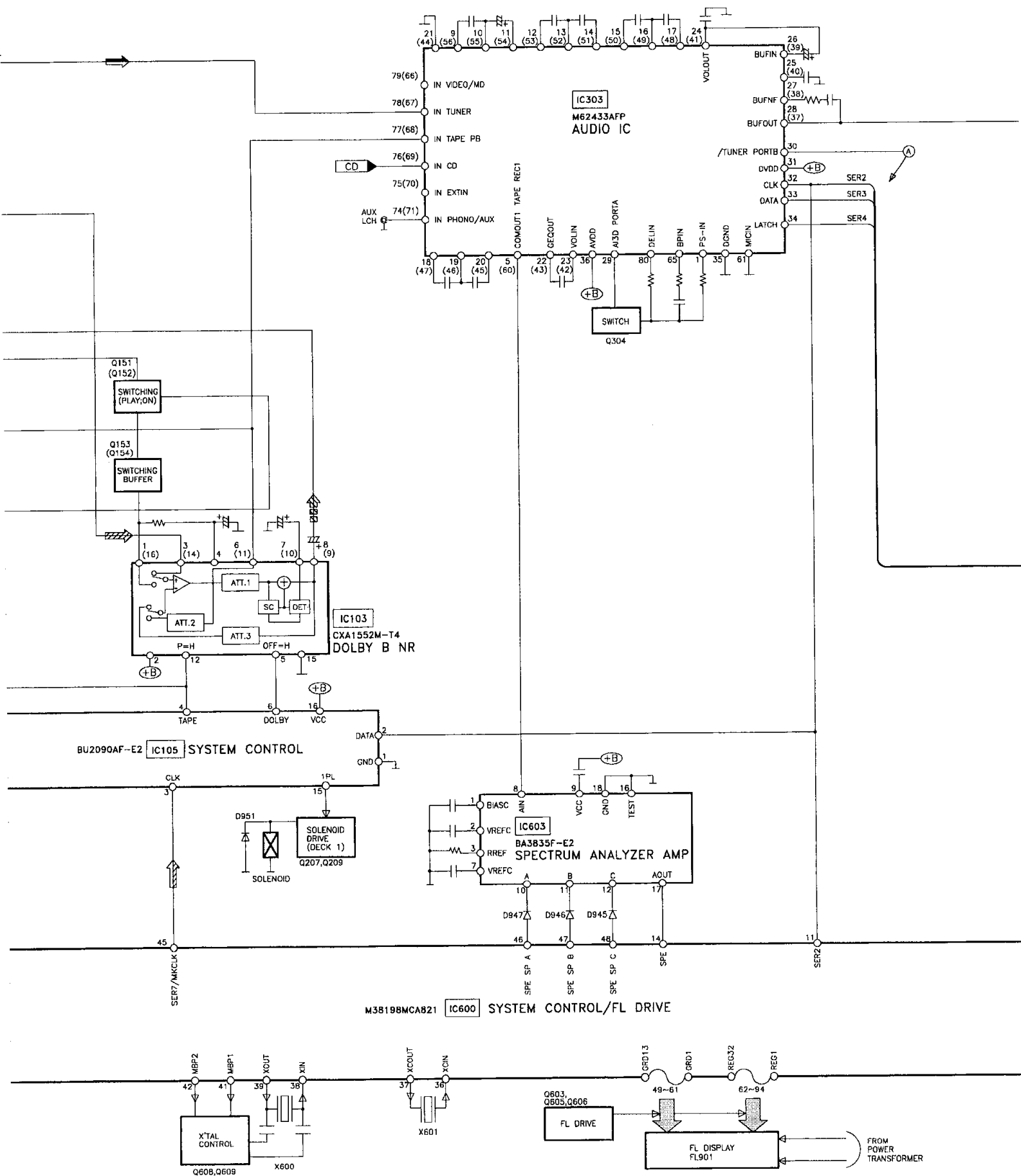


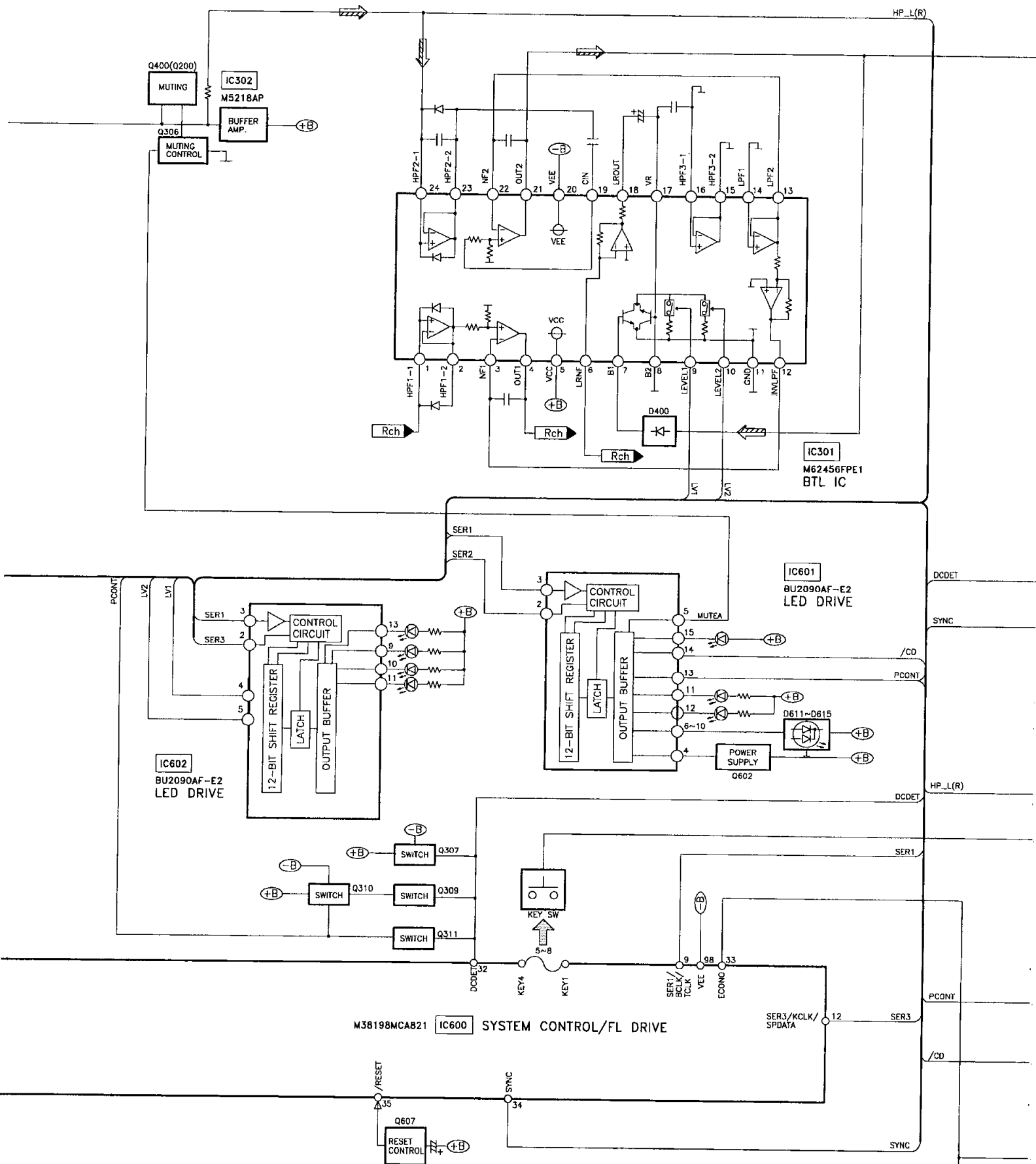




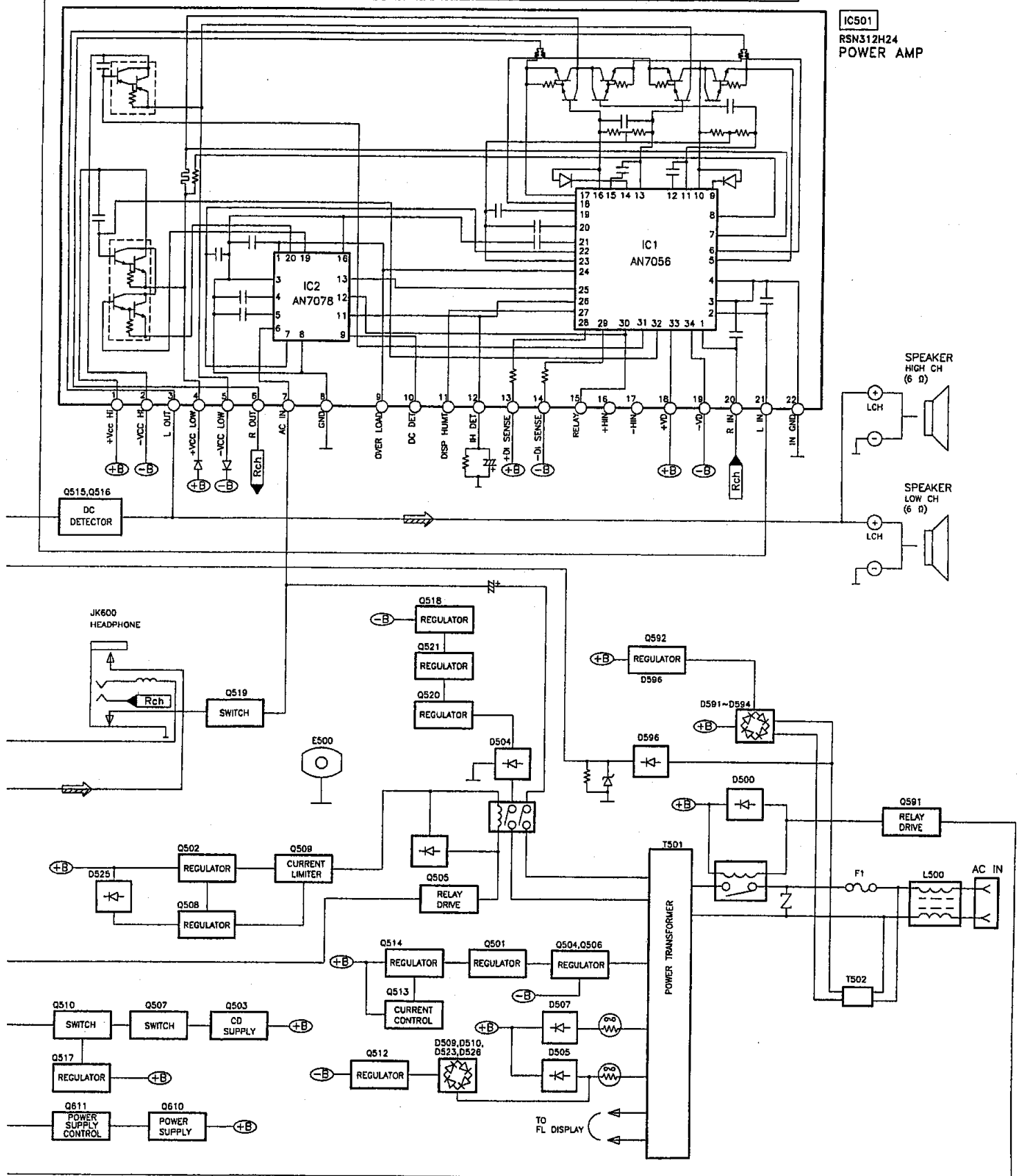
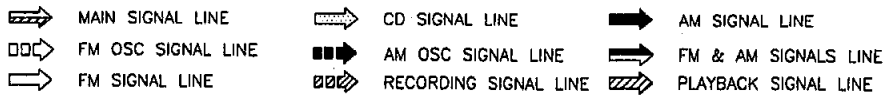




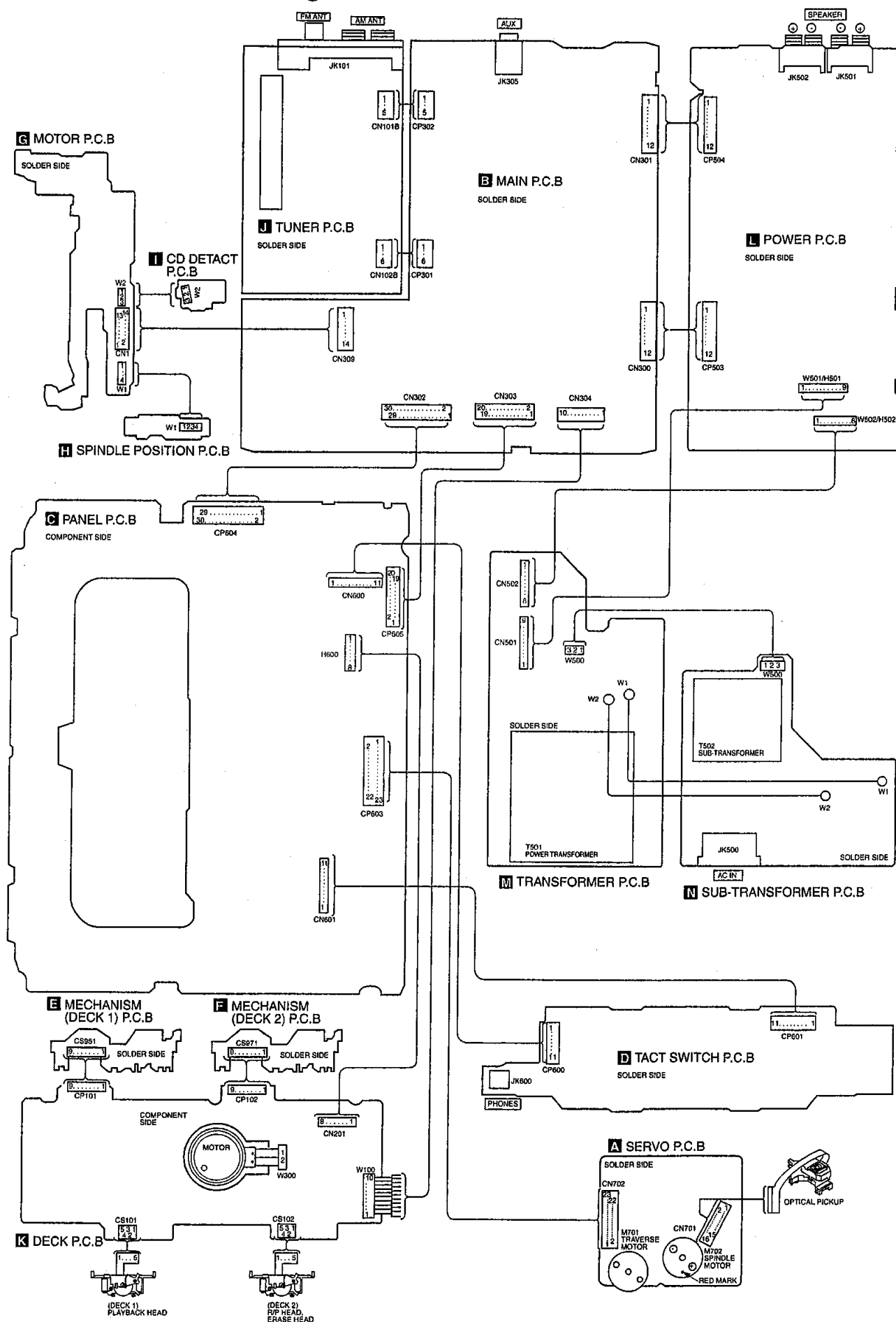




SIGNAL LINES



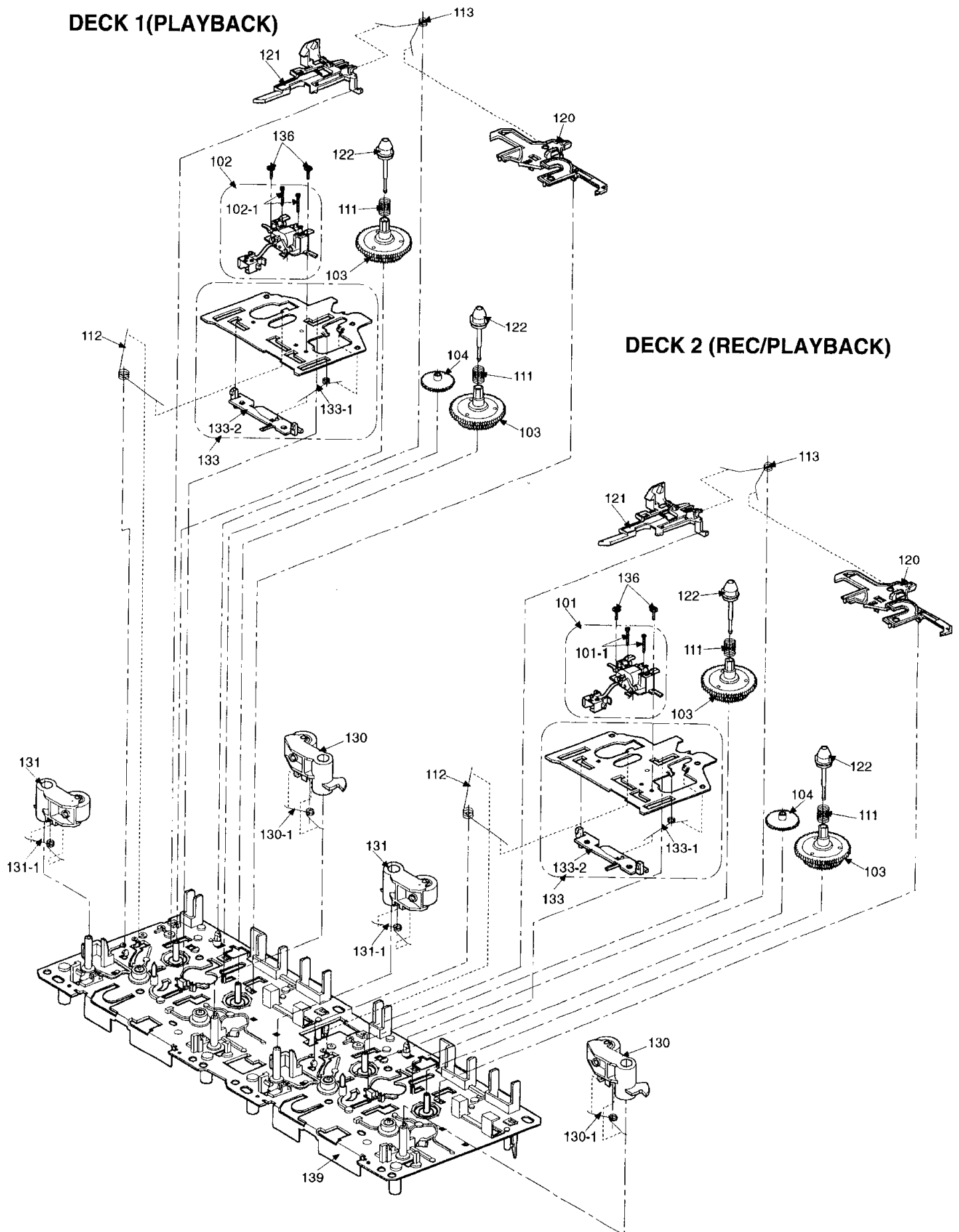
Wiring Connection Diagram

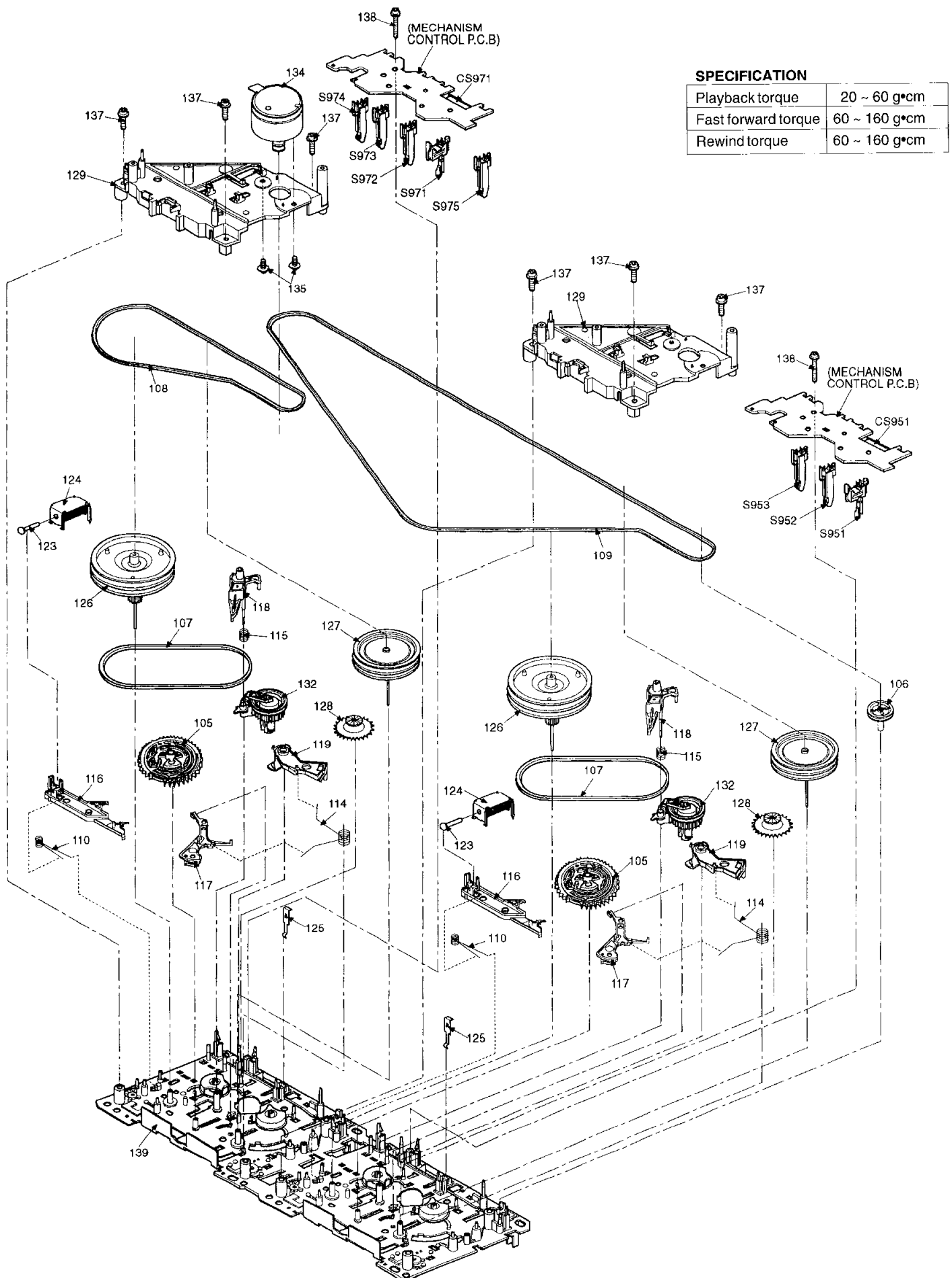




Mechanism Parts Location (RAA3406)

DECK 1 (PLAYBACK)





SPECIFICATION

| | |
|---------------------|---------------|
| Playback torque | 20 ~ 60 g•cm |
| Fast forward torque | 60 ~ 160 g•cm |
| Rewind torque | 60 ~ 160 g•cm |

■ Mechanism Parts List

Notes : [M] in Remarks column indicates parts supplied by MESA.

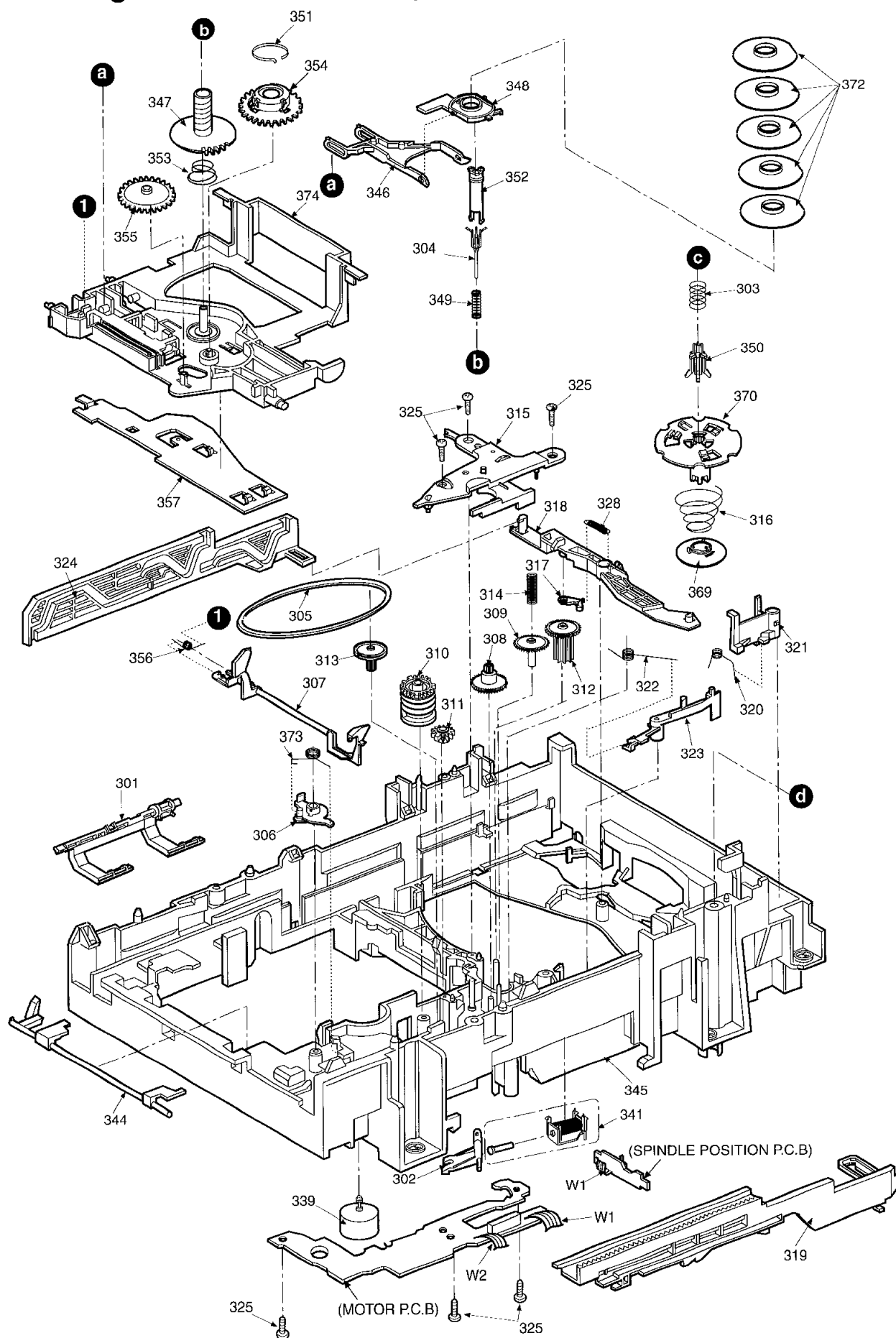
| Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks |
|---------|-----------|-------------------------|---------|---------|-----------|-------------------------|---------|---------|-------------|-------------------------|---------|
| | | CASSETTE DECK | | 113 | RMB0404 | SPRING | [M] | 129 | RMK0283 | PLATE | [M] |
| | | | | 114 | RMB0406 | SPRING | [M] | 130 | RXL0124 | PINCH ROLLER ASS'Y | [M] |
| 101 | RED0037 | R/P HEAD BLOCK ASS'Y | [M] | 115 | RMB0408 | SPRING | [M] | 130-1 | RMB0401 | SPRING | [M] |
| 101-1 | RHE5152ZB | SCREW | [M] | 116 | RML0370 | LEVER | [M] | 131 | RXL0125 | PINCH ROLLER ASS'Y | [M] |
| 102 | RED0038 | P/B HEAD BLOCK ASS'Y | [M] | 117 | RML0371 | LEVER | [M] | 131-1 | RMB0402 | SPRING | [M] |
| 102-1 | RHE5152ZB | SCREW | [M] | 118 | RML0372 | ARM | [M] | 132 | RXL0126 | GEAR | [M] |
| 103 | RDG0300 | REEL TABLE BASE | [M] | 119 | RML0374 | LEVER | [M] | 133 | RXQ0412 | ROD | [M] |
| 104 | RDG0301 | GEAR | [M] | 120 | RMM0131 | LEVER | [M] | 133-1 | RMB0405 | SPRING | [M] |
| 105 | RDK0026 | GEAR | [M] | 121 | RMM0133 | LEVER | [M] | 133-2 | RMM0132 | ROD | [M] |
| 106 | RDR0029 | RELAY PULLY | [M] | 122 | RMQ0519 | REEL TABLE HEAD | [M] | 134 | REM0070 | MOTOR ASS'Y | [M] |
| 107 | RDV0033-1 | BELT | [M] | 123 | RMS0398-1 | SHAFT | [M] | 135 | RHD26022 | SCREW | [M] |
| 108 | RDV0034 | BELT | [M] | 124 | RSJ0003 | PLUNGER | [M] | 136 | XTW2+5L | SCREW | [M] |
| 109 | RDV0057 | BELT | [M] | 125 | RUS609ZC | SPRING | [M] | 137 | XTW26+10S | SCREW | [M] |
| 110 | RMB0312 | SPRING | [M] | 126 | RXF0049 | FLYWHEEL ASS'Y | [M] | 138 | XYC2+JF17 | SCREW | [M] |
| 111 | RMB0400 | REEL TABLE SPRING | [M] | 127 | RXF0050 | FLYWHEEL ASS'Y | [M] | 139 | RFKJXED70-K | CHASSIS ASS'Y | [M] |
| 112 | RMB0403 | SPRING | [M] | 128 | RXG0040 | GEAR | [M] | | | | |

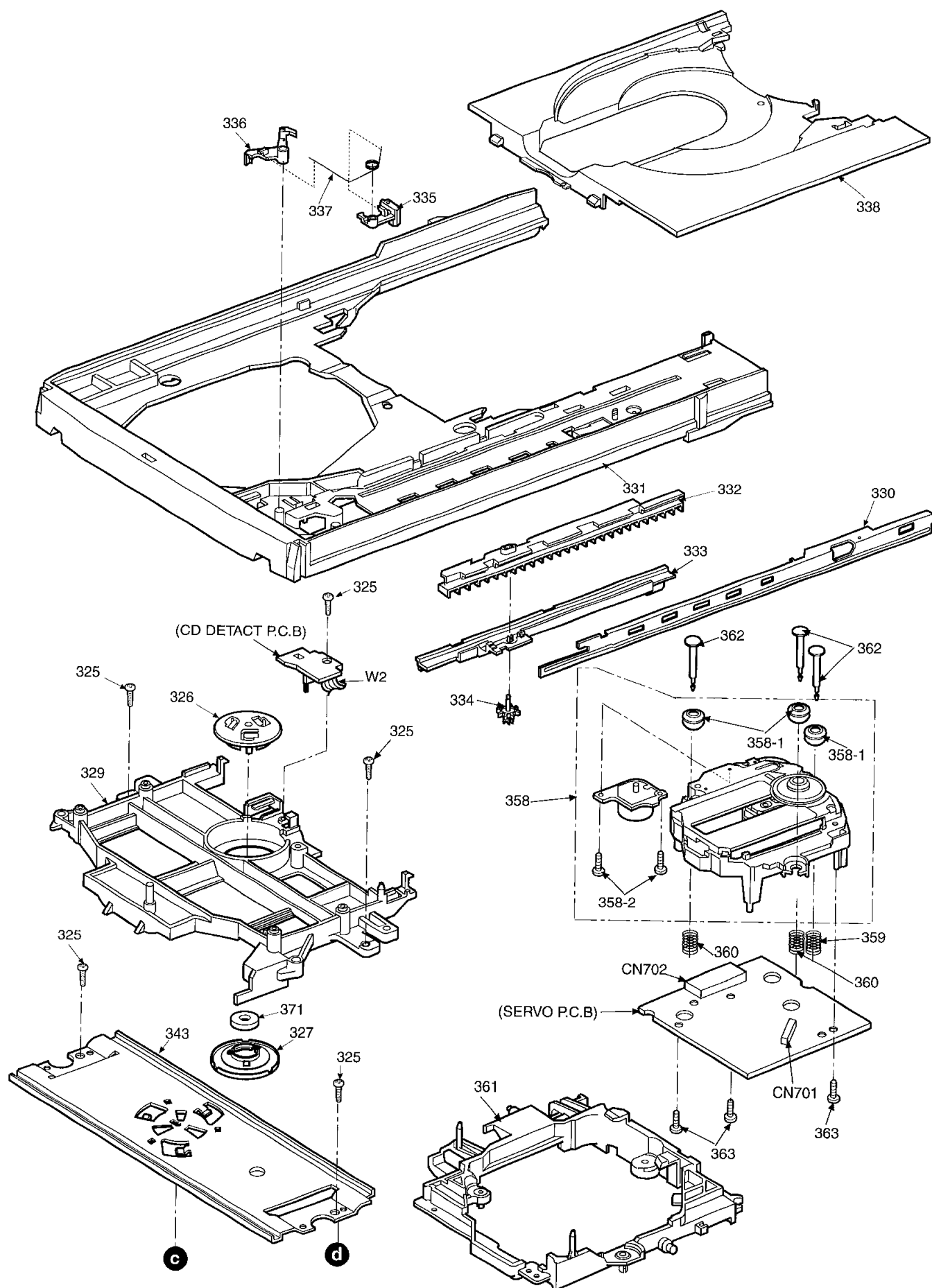
■ Loading Mechanism Parts List

Notes : [M] in Remarks column indicates parts supplied by MESA.

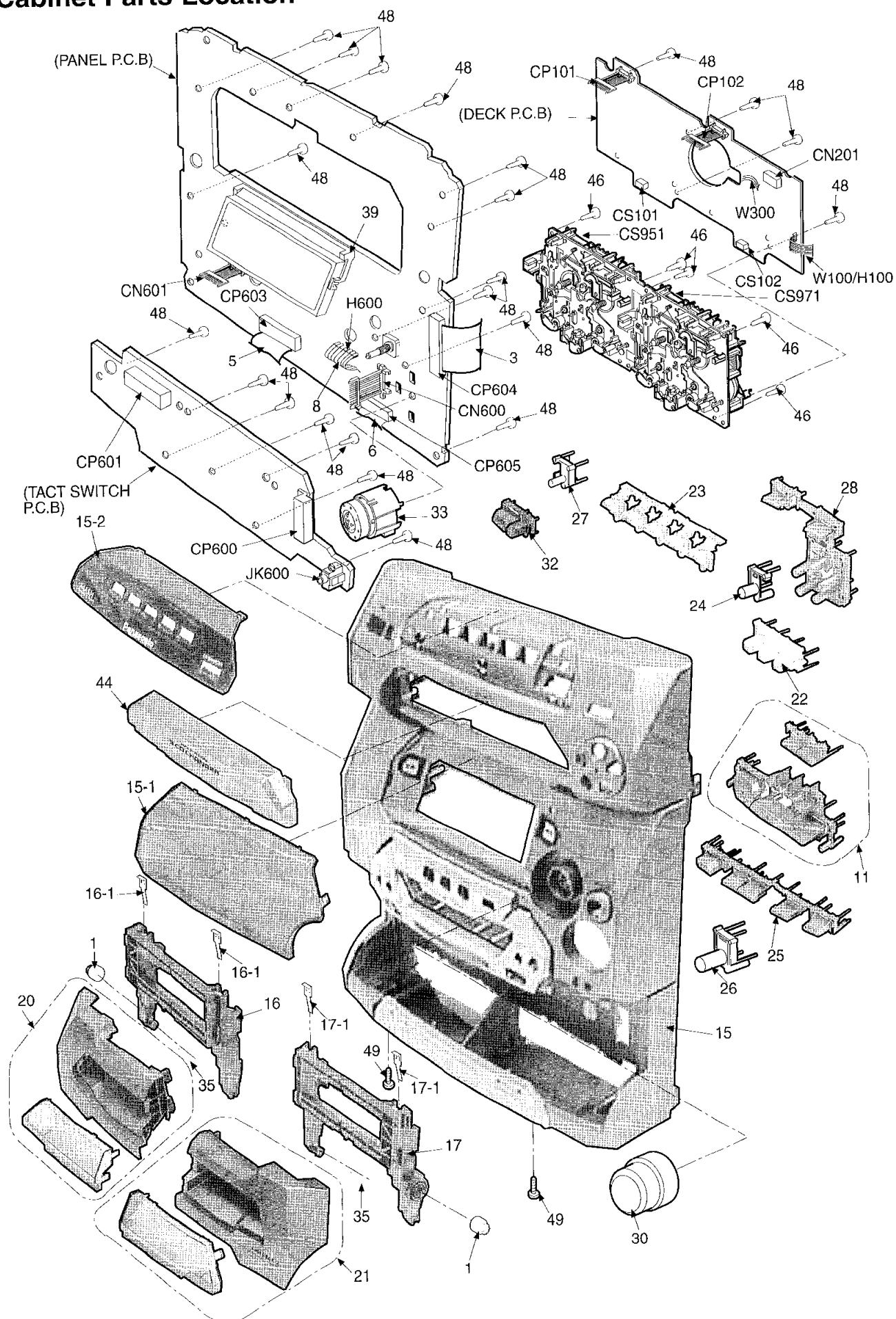
| Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks |
|---------|----------|-------------------------|---------|---------|--------------|-------------------------|---------|---------|------------|-------------------------|---------|
| | | TRAVERSE DECK | | 324 | RMM0202 | SLIDE PLATE 2 | [M] | 351 | RME0263 | CLICK SPRING | [M] |
| | | | | 325 | XTB3+10J | SCREW | [M] | 352 | RMQ0743 | SPINDLE SHAFT | [M] |
| 301 | RML0517 | TIMING LEVER | [M] | 326 | RMR0334 | FIXED PLATE | [M] | 353 | RMB0552 | CUSHION SPRING | [M] |
| 302 | RML0516 | PLUNGER LEVER | [M] | 327 | RMR0624-W2 | CLAMPER | [M] | 354 | RDG0430 | RELAY GEAR 'A' | [M] |
| 303 | RMB0551 | UPPER SPINDLE SPRING | [M] | 328 | RMB0561 | ASSIST LEVER SPRING | [M] | 355 | RDG0431 | RELAY GEAR 'B' | [M] |
| 304 | RMQ0744 | LOWER HOOK | [M] | 329 | RMR1121-K | MECHA COVER | [M] | 356 | RME0262 | DISK LEVER SP. | [M] |
| 305 | RDV0056 | BELT | [M] | 330 | RMA1110-2 | TRAY ANGLE | [M] | 357 | RMA1105 | SUPPORT PLATE | [M] |
| 306 | RML0525 | FRONT LOCK LEVER | [M] | 331 | RMR1122-H1 | TRAY BASE | [M] | 358 | RAE0152Z-M | TRV | [M] |
| 307 | RML0526 | DISC LEVER | [M] | 332 | RMM0204 | CARRIER | [M] | 358-1 | SHGD113-1 | FLOATING CUSHION | [M] |
| 308 | RDG0424 | DRIVE GEAR | [M] | 333 | RMM0203 | DRIVE RACK | [M] | 358-2 | SNSD38 | TRV MOTOR ASS'Y SCRE | [M] |
| 309 | RDG0425 | CHANGE GEAR | [M] | 334 | RDG0432 | SPEED UP GEAR | [M] | 359 | RME0142 | FLOATING SPRING A | [M] |
| 310 | RDG0427 | TRV CAM GEAR | [M] | 335 | RML0524 | SLIDE LOCK | [M] | 360 | RME0109 | FLOATING SPRING B | [M] |
| 311 | RDG0428 | TRV RELAY GEAR | [M] | 336 | RML0523 | CARRIER LOCK | [M] | 361 | RMR1124-K1 | TRV CHASSIS | [M] |
| 312 | RDG0426 | UP/DOWN GEAR | [M] | 337 | RME0260-1 | SLIDE LOCK SPRING | [M] | 362 | RMS0632 | TRV PIN | [M] |
| 313 | RDG0429 | PULLEY GEAR | [M] | 338 | RMR1123-H | TRAY | [M] | 363 | XTN2+6G | PCB SCREW | [M] |
| 314 | RMB0549 | CHANGE GEAR SPRING | [M] | 339 | RXQ0595 | MOTOR SUB A"Y | [M] | 369 | RMX0141 | PUSH SPACER | [M] |
| 315 | RMQ0748 | PITCH PLATE | [M] | 341 | RSJ0003 | SOLENOID ASS'Y | [M] | 370 | RMQ0749 | UPPER SPINDLE | [M] |
| 316 | RMB0553 | PUSH SPRING | [M] | 343 | RMA1106 | UPPER PLATE | [M] | 371 | RHM0001 | MAGNET | [M] |
| 317 | RML0530 | ASSIST LEVER | [M] | 344 | RML0519 | 8CD LEVER | [M] | 372 | RMX0140 | DISC SPACER | [M] |
| 318 | RML0518 | CONNECTION LEVER | [M] | 345 | RFKNAAK27GCS | MECHA BASE ASS'Y | [M] | 373 | RME0261 | FRONT LOCK SPRING | [M] |
| 319 | RMM0201 | SLIDE PLATE 1 | [M] | 346 | RML0522 | TURNING STOPPER | [M] | 374 | RMQ0742 | SPINDLE BASE | [M] |
| 320 | RME0258 | REAR LOCK SPRING | [M] | 347 | RMQ0745 | LOWER SPINDLE | [M] | | | | |
| 321 | RML0521 | REAR LOCK | [M] | 348 | RMQ0746 | UP/DOWN BASE | [M] | | | | |
| 322 | RME0257 | TRAY LOCK LEVER SPRI | [M] | 349 | RMB0550 | LOWER SPINDLE SPRING | [M] | | | | |
| 323 | RML0520 | TRAY LOCK | [M] | 350 | RMQ0747 | UPPER HOOK | [M] | | | | |

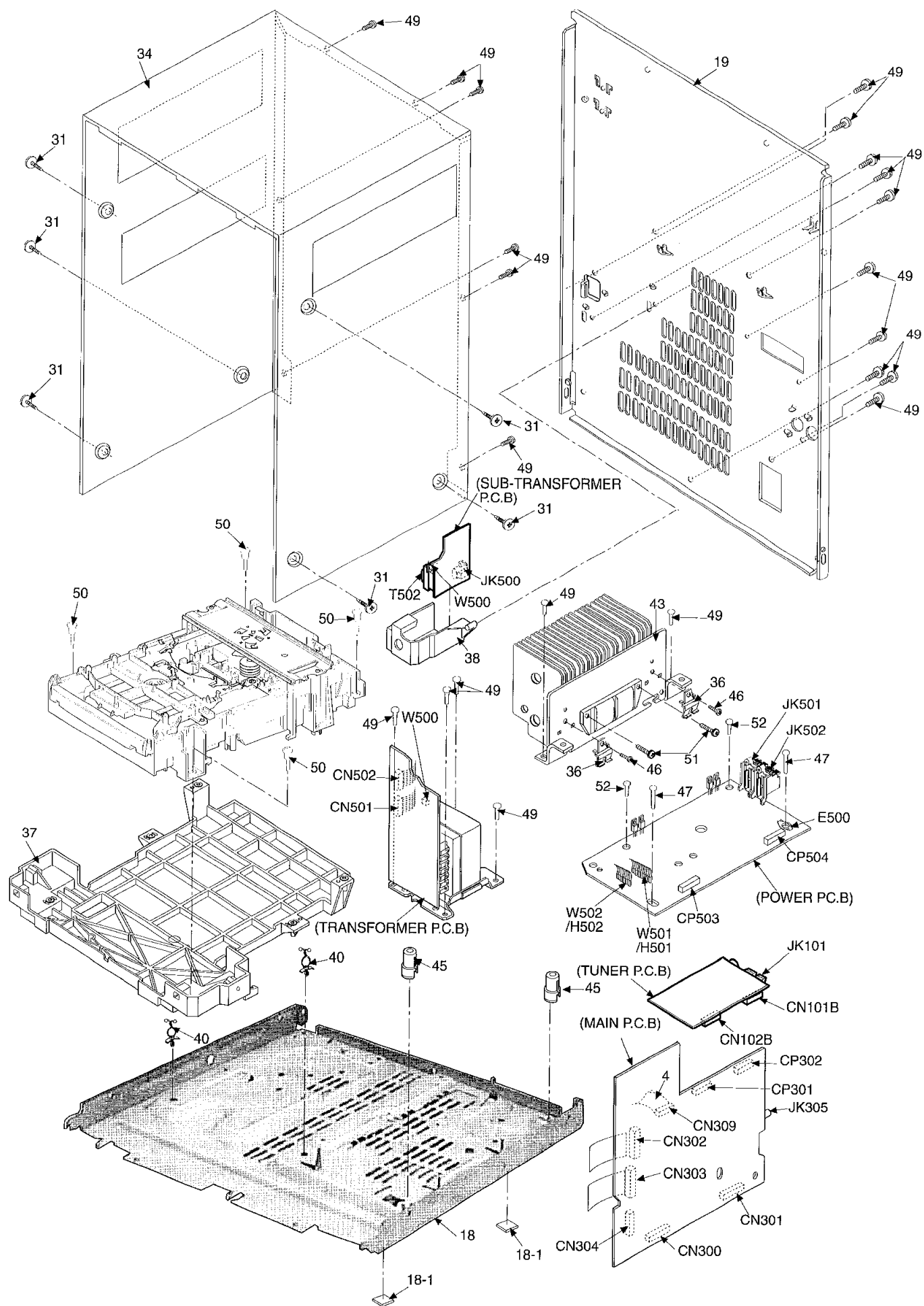
■ CD Loading Unit Parts Location (RD-DAC026-S)





■ Cabinet Parts Location





Replacement Parts List

- Notes: * Important safety notice:
Components identified by  mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.
When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.
- * The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour)
- Parts without these indications can be used for all areas.
- * [M] indicates in the Remarks columns indicates parts supplied by **MESA**.
[D] indicates in the Remarks columns indicates parts supplied by **MAVD**.
- * Warning : This product uses a laser diode. Refer to caution statements on page 3.
ACHTUNG : • Die Lasereinheit nicht zerlegen.
• Die Lasereinheit darf nur gegen eine vom Hersteller spezifizierte Einheit ausgetauscht werden.

| Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks |
|---------|--------------|----------------------------|---------|---------|--------------|----------------------------|---------|---------|--------------|-------------------------|---------|
| | | CABINET AND CHASSIS | | | | | | | | | |
| 1 | RDG0129-1 | DAMPER GEAR | [M] | 43 | RXX0193 | HEAT SINK | [M] | Q101 | 2SJ164QRTA | TRANSISTOR | [M] |
| 3 | REEX0054 | 26 PIN FFC WIRE | [M] | 44 | RGKX0040-S | CD LID | [M] | Q102 | 2SC2787LTA | TRANSISTOR | [M] |
| 4 | REEX0055 | 14P FFC WIRE | [M] | 45 | SHE187-4 | SPACER (TRANS) | [M] | Q102 | 2SJ164QRTA | TRANSISTOR | [M] |
| 5 | REEX0056 | 23P FFC WIRE | [M] | 46 | XTB3+10JFZ | SCREW | [M] | Q103 | 2SJ164QRTA | TRANSISTOR | [M] |
| 6 | REEX0065 | 20 PIN FFC WIRE | [M] | 47 | XTB3+20J | SCREW | [M] | Q104 | 2SJ164QRTA | TRANSISTOR | [M] |
| 8 | RWJ0208155RX | WIRE 8P | [M] | 48 | XTBS26+10J | SCREW | [M] | Q106 | RVTDTA114EST | TRANSISTOR | [M] |
| 11 | RYQX0017-S | CONTROL BUTT. UNIT | [M] | 49 | XTBS3+8JFZ1 | SCREW | [M] | Q107 | BA1L4ZTA | TRANSISTOR | [M] |
| 15 | RFKGAAK27EBS | FRONT PANEL ASS'Y | [D] | 50 | XTW3+12T | SCREW | [M] | Q108 | BA1L4ZTA | TRANSISTOR | [M] |
| 15-1 | RKWX0129-Q | FL WINDOW | [M] | 51 | XTW3+15T | SCREW | [M] | Q115 | 2SD1020HTA | TRANSISTOR | [M] |
| 15-2 | RGKX0035-K | CD ORNAMENT | [M] | 52 | XTB3+10J | SCREW | [M] | Q116 | 2SD1020HTA | TRANSISTOR | [M] |
| 16 | RFKLACH330AK | C. HOLDER ASS'Y(L) | [M] | | | INTEGRATED CIRCUITS | | Q117 | BA1L4MTA | TRANSISTOR | [M] |
| 16-1 | RUS757ZAA | CASS HALF SPRING | [M] | IC1 | TA7291P | IC, DRIVE IC | [M] | Q118 | 2SC2785FTA | TRANSISTOR | [M] |
| 17 | RFKLACH330BK | C. HOLDER ASS'Y(R) | [M] | IC101 | LA1833MN-TLM | IC, IF & MPX | [M] | Q119 | 2SC2785FTA | TRANSISTOR | [M] |
| 17-1 | RUS757ZAA | CASS HALF SPRING | [M] | IC101 | M51167BFP-TB | IC, R/P | [M] | Q120 | 2SC2785FTA | TRANSISTOR | [M] |
| 18 | RFKJAAK27GCS | BOTT. CHASSIS ASS'Y | [M] | IC102 | BA7755A | IC, SW | [M] | Q121 | 2SC2785FTA | TRANSISTOR | [M] |
| 18-1 | RKA0059-K | LEG RUBBER | [M] | IC102 | LC72131MDTRM | IC, PLL | [M] | Q151 | BA1L4ZTA | TRANSISTOR | [M] |
| 19 | RGRX0013H-A | REAR PANEL | [D]EG,E | IC103 | CXA1552M-T4 | IC, DOLBY | [M] | Q152 | BA1L4ZTA | TRANSISTOR | [M] |
| 19 | RGRX0013H-B | REAR PANEL | [D]EB | IC104 | BU4066BCF-E2 | IC, ANALOG SW | [M] | Q153 | 2SC1740SLNET | TRANSISTOR | [M] |
| 20 | RYFX0073-S | CASS LID UNIT (L) | [M] | IC105 | BU2090AF-E2 | IC, I/O EXPANDER | [M] | Q154 | 2SC1740SLNET | TRANSISTOR | [M] |
| 21 | RYFX0074B-S | CASS LID UNIT (R) | [D] | IC301 | M62456FPE1 | IC, BTL | [M] | Q171 | 2SD1302STA | TRANSISTOR | [M] |
| 22 | RGUX0306-Q | FUNCTION BUTTON | [M] | IC302 | M5218AP | IC, BUFFER AMP | [M] | Q173 | BA1L4ZTA | TRANSISTOR | [M] |
| 23 | RGUX0303-Q | DISC BUTTONS | [M] | IC303 | M62433AFP | IC, AUDIO IC | [M] | Q174 | 2SC2785FTA | TRANSISTOR | [M] |
| 24 | RGUX0307-Q | S. WOOFER BUTTON | [M] | IC501 | RSN312H24 | IC, HIC | [M]△ | Q175 | 2SD1302STA | TRANSISTOR | [M] |
| 25 | RGUX0312A-S | DECK BUTTON | [D] | IC600 | M38198MCA821 | IC, MICRO P | [M] | Q176 | 2SD1302STA | TRANSISTOR | [M] |
| 26 | RGUX0304-Q | AI EQ BUTTON | [M] | IC601 | BU2090AF-E2 | IC, I/O EXPANDER | [M] | Q179 | 2SC2784FTA | TRANSISTOR | [M] |
| 27 | RGUX0305-Q | TIMER BUTTON | [M] | IC602 | BU2090AF-E2 | IC, I/O EXPANDER | [M] | Q200 | 2SD2144STA | TRANSISTOR | [M] |
| 28 | RGUX0313-S | EJECT BUTTON | [M] | IC603 | BA3835F-E2 | IC, SPECTRUM | [M] | Q203 | 2SD965RTA | TRANSISTOR | [M] |
| 30 | RGWX0044-S | VOLUME KNOB | [M] | IC701 | AN8837SBE1 | IC, HEAD AMP | [M] | Q206 | 2SB621RTA | TRANSISTOR | [M] |
| 31 | RHD03001-K | SCREW (TRANS) | [M] | IC702 | MN662746RPK1 | IC, LSI | [M] | Q207 | 2SB621RTA | TRANSISTOR | [M] |
| 32 | RGLX0017-Q | STAND BY LIGHT | [M] | IC703 | AN8780NSBE2 | IC | [M] | Q208 | BA1A4ZTA | TRANSISTOR | [M] |
| 33 | RYQX0018-S | JOY/JOG UNIT | [M] | IC951 | QN2180RLC | IC, PHOTO INTERRUPT | [M] | Q209 | BA1A4ZTA | TRANSISTOR | [M] |
| 34 | RKMX0049-S | TOP CABINET (BENT) | [D] | IC971 | QN2180RLC | IC, PHOTO INTERRUPT | [M] | Q218 | BN1A4MTA | TRANSISTOR | [M] |
| 35 | RMB0446 | CASS OPEN SPRING | [M] | | | TRANSISTORS | | Q220 | BN1L3NTA | TRANSISTOR | [M] |
| 36 | RMCO158-S | TRANSISTOR HOLDER | [M] | | | | | Q304 | 2SC1740SSSTA | TRANSISTOR | [M] |
| 37 | RMKX0031A | CD CHASSIS | [M] | | | | | Q305 | KRC109MTA | TRANSISTOR | [M] |
| 38 | RMNX0023 | SUB TRANS HOLDER | [M] | Q1 | RVTDTA143EST | TRANSISTOR | [M] | Q306 | KRA102MTA | TRANSISTOR | [M] |
| 39 | RMNX0024 | FL HOLDER | [M] | Q1 | RVTDTA143EST | TRANSISTOR | [M] | Q307 | KRC111MTA | TRANSISTOR | [M] |
| 40 | RMRX0026-W | WIRE CLAMPER | [M] | Q101 | 2SC2787LTA | TRANSISTOR | [M] | Q309 | 2SC2785FTA | TRANSISTOR | [M] |
| | | | | | | | | Q310 | 2SC2785FTA | TRANSISTOR | [M] |
| | | | | | | | | Q311 | 2SC2785FTA | TRANSISTOR | [M] |

| Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks |
|---------|--------------|-------------------------|---------|---------|-------------|-------------------------|---------|---------|--------------|-------------------------|---------|
| Q312 | KTC3199GRTA | TRANSISTOR | [M] | D174 | MTZJ3R6BTA | DIODE | [M] | D545 | MTZJ24DTA | DIODE | [M]△ |
| Q313 | 2SD2144STA | TRANSISTOR | [M] | D175 | RVD1SS133TA | DIODE | [M] | D591 | 1D3E | DIODE | [M]△ |
| Q314 | KTC3199GRTA | TRANSISTOR | [M] | D200 | RVD1SS133TA | DIODE | [M] | D592 | 1D3E | DIODE | [M]△ |
| Q315 | 2SD2144STA | TRANSISTOR | [M] | D201 | RVD1SS133TA | DIODE | [M] | D593 | 1D3E | DIODE | [M]△ |
| Q350 | KSB564ACYGTA | TRANSISTOR | [M] | D202 | RVD1SS133TA | DIODE | [M] | D594 | 1D3E | DIODE | [M]△ |
| Q351 | RVTDC114EST | TRANSISTOR | [M] | D302 | MTZJ5R1BTA | DIODE | [M]△ | D595 | MTZJ7R5ATA | DIODE | [M]△ |
| Q400 | 2SD2144STA | TRANSISTOR | [M] | D306 | RVD1SS133TA | DIODE | [M] | D596 | RVD1SS133TA | DIODE | [M] |
| Q501 | 2SD2395E | TRANSISTOR | [M]△ | D307 | RVD1SS133TA | DIODE | [M] | D598 | 1D3E | DIODE | [M] |
| Q502 | 2SB1566E | TRANSISTOR | [M]△ | D308 | RVD1SS133TA | DIODE | [M] | D600 | SLR325MCT31W | DIODE | [M] |
| Q503 | KTA12710YTA | TRANSISTOR | [M] | D310 | RVD1SS133TA | DIODE | [M] | D601 | SLR325MCT31W | DIODE | [M] |
| Q504 | 2SB1566E | TRANSISTOR | [M]△ | D312 | 1D3E | DIODE | [M] | D602 | SLR325MCT31W | DIODE | [M] |
| Q505 | 2SC1740SSTA | TRANSISTOR | [M] | D313 | RVD1SS133TA | DIODE | [M] | D603 | SLR325MCT31W | DIODE | [M] |
| Q506 | 2SA933SSTA | TRANSISTOR | [M]△ | D314 | RVD1SS133TA | DIODE | [M] | D604 | SLR325DCT31 | DIODE | [M] |
| Q507 | KTC3199GRTA | TRANSISTOR | [M] | D316 | RVD1SS133TA | DIODE | [M] | D605 | LNJ201LPQJA | DIODE | [M] |
| Q508 | KTC3199GRTA | TRANSISTOR | [M]△ | D400 | RVD1SS133TA | DIODE | [M] | D606 | SLR325MCT31W | DIODE | [M] |
| Q509 | KRA110MTA | TRANSISTOR | [M] | D401 | RVD1SS133TA | DIODE | [M] | D607 | SLR325MCT31W | DIODE | [M] |
| Q510 | KRA110MTA | TRANSISTOR | [M] | D500 | MTZJ6R2BTA | DIODE | [M]△ | D608 | SLR325MCT31W | DIODE | [M] |
| Q512 | 2SB1238QRTV2 | TRANSISTOR | [M]△ | D501 | 1N5402BM21 | DIODE | [M]△ | D609 | SLR325MCT31W | DIODE | [M] |
| Q513 | 2SC3940AQSTA | TRANSISTOR | [M] | D502 | 1N5402BM21 | DIODE | [M]△ | D610 | SLR325MCT31W | DIODE | [M] |
| Q514 | 2SD2395E | TRANSISTOR | [M]△ | D503 | 1N5402BM21 | DIODE | [M]△ | D611 | SLR325MCT31W | DIODE | [M] |
| Q515 | 2SC2785FTA | TRANSISTOR | [M] | D504 | 1N5402BM21 | DIODE | [M]△ | D612 | SLR325MCT31W | DIODE | [M] |
| Q516 | 2SC2785FTA | TRANSISTOR | [M] | D505 | 1D3E | DIODE | [M]△ | D613 | SLR325MCT31W | DIODE | [M] |
| Q517 | KTC32030YTA | TRANSISTOR | [M]△ | D506 | MTZJ12BTA | DIODE | [M] | D614 | SLR325MCT31W | DIODE | [M] |
| Q518 | 2SD1859QRTV2 | TRANSISTOR | [M]△ | D507 | 1D3E | DIODE | [M]△ | D615 | SLR325MCT31W | DIODE | [M] |
| Q519 | 2SC1740SSTA | TRANSISTOR | [M] | D509 | 1D3E | DIODE | [M] | D616 | SLR325DCT31 | DIODE | [M] |
| Q520 | 2SB1417PQTA | TRANSISTOR | [M]△ | D510 | 1D3E | DIODE | [M] | D617 | SLR325DCT31 | DIODE | [M] |
| Q521 | 2SB1238QRTV2 | TRANSISTOR | [M]△ | D513 | MTZJ5R1BTA | DIODE | [M]△ | D620 | RVD1SS133TA | DIODE | [M] |
| Q591 | 2SC1740SSTA | TRANSISTOR | [M] | D515 | MTZJ8R2BTA | DIODE | [M]△ | D623 | RVD1SS133TA | DIODE | [M] |
| Q592 | 2SC3940AQSTA | TRANSISTOR | [M]△ | D516 | RVD1SS133TA | DIODE | [M] | D625 | RVD1SS133TA | DIODE | [M] |
| Q602 | KTA12710YTA | TRANSISTOR | [M] | D518 | MTZJ33BTA | DIODE | [M]△ | D627 | 1SS291TA | DIODE | [M] |
| Q603 | KTC3199GRTA | TRANSISTOR | [M] | D520 | MTZJ10BTA | DIODE | [M]△ | D628 | 1SS291TA | DIODE | [M] |
| Q605 | KTC3199GRTA | TRANSISTOR | [M] | D521 | 1D3E | DIODE | [M] | D629 | RVD1SS133TA | DIODE | [M] |
| Q606 | KTC3199GRTA | TRANSISTOR | [M] | D523 | 1D3E | DIODE | [M] | D630 | RVD1SS133TA | DIODE | [M] |
| Q607 | KRC103MTA | TRANSISTOR | [M] | D524 | MTZJ15CTA | DIODE | [M]△ | D631 | RVD1SS133TA | DIODE | [M] |
| Q608 | KTC3199GRTA | TRANSISTOR | [M] | D525 | RVD1SS133TA | DIODE | [M] | D632 | 1SS291TA | DIODE | [M] |
| Q609 | KTC3199GRTA | TRANSISTOR | [M] | D526 | 1D3E | DIODE | [M] | D633 | RVD1SS133TA | DIODE | [M] |
| Q610 | 2SA933SSTA | TRANSISTOR | [M] | D527 | 1D3E | DIODE | [M]△ | D634 | RVD1SS133TA | DIODE | [M] |
| Q611 | KRC102MTA | TRANSISTOR | [M] | D528 | RVD1SS133TA | DIODE | [M] | D635 | RVD1SS133TA | DIODE | [M] |
| Q701 | 2SA1037AKSTX | TRANSISTOR | [M] | D529 | RVD1SS133TA | DIODE | [M] | D636 | MA4020LTA | DIODE | [M] |
| Q702 | DTC114YKA146 | TRANSISTOR | [M] | D530 | 1D3E | DIODE | [M] | D637 | 1SS291TA | DIODE | [M] |
| | | | | D531 | 1SS291TA | DIODE | [M] | D638 | RVD1SS133TA | DIODE | [M] |
| | | DIODES | | D532 | MTZJ5R6BTA | DIODE | [M]△ | D639 | RVD1SS133TA | DIODE | [M] |
| | | | | D533 | 1D3E | DIODE | [M] | D640 | RVD1SS133TA | DIODE | [M] |
| D1 | GP1S94 | DIODE | [M] | D537 | RK306LFU1 | DIODE | [M] | D641 | RVD1SS133TA | DIODE | [M] |
| D2 | MTZJ4R7BTA | DIODE | [M] | D538 | RK306LFU1 | DIODE | [M] | D642 | RVD1SS133TA | DIODE | [M] |
| D101 | MTZJ5R1BTA | DIODE | [M]△ | D539 | RL1N4003N02 | DIODE | [M] | D643 | RVD1SS133TA | DIODE | [M] |
| D171 | RVD1SS133TA | DIODE | [M] | D540 | RL1N4003N02 | DIODE | [M] | D951 | MA165TA | DIODE | [M] |
| D172 | MTZJ4R7BTA | DIODE | [M] | D541 | RL1N4003N02 | DIODE | [M] | D971 | MA165TA | DIODE | [M] |
| D173 | RVD1SS133TA | DIODE | [M] | D544 | MTZJ24DTA | DIODE | [M]△ | | | | |

| Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks |
|---------|--------------|---------------------------|---------|---------|--------------|-------------------------|---------|---------|--------------|---------------------------------|---------|
| | | VARIABLE RESISTORS | | S951 | RSH1A018-3U | SW, MODE DECK 1 | [M] | | | COILS & TRANSFORMERS | |
| | | | | S952 | RSH1A019-2U | LEAF SWITCH | [M] | | | | |
| VR101 | RRN6B05B24TA | VR, SEMIFIXED | [M] | S953 | RSH1A019-2U | LEAF SWITCH | [M] | L101 | ELESNR68MA | CHOKE COIL | [M] |
| VR102 | RRN6B05B24TA | VR, SEMIFIXED | [M] | S971 | RSH1A018-3U | LEAF SWITCH | [M] | L102 | ELESNR68MA | CHOKE COIL | [M] |
| VR103 | RRN6B05B24TA | VR, SEMIFIXED | [M] | S972 | RSH1A019-2U | LEAF SWITCH | [M] | L103 | ELETR47MA9 | CHOKE COIL | [M] |
| VR104 | RRN6B05B24TA | VR, SEMIFIXED | [M] | S973 | RSH1A019-2U | LEAF SWITCH | [M] | L201 | RL08C002M-T | BIAS OSC COIL | [M] |
| VR600 | RRV16B24104G | VR, ROTARY ENCODE | [M] | S974 | RSH1A019-2U | LEAF SWITCH | [M] | L202 | RLQZB470KT-D | RF CHOKE COIL | [M] |
| | | | | S975 | RSH1A019-2U | LEAF SWITCH | [M] | L500 | RLQZ271M | LINE COIL | [M] Δ |
| | | SWITCHES | | SW1 | RSH1A032-U | SW, PUSH | [M] | L501 | RLQYR73MW-E | CHOKE COIL | [M] |
| | | | | SW2 | RSH1A032-U | SW, PUSH | [M] | L502 | RLQYR73MW-E | CHOKE COIL | [M] |
| S600 | EVQ21405R | SWITCH | [M] | SW3 | RSH1A005-1U | SWTICH | [M] | L600 | RLQZP101KT-Y | AXIAL COIL | [M] |
| S602 | EVQ21405R | SW, AUX/MD | [M] | SW4 | RSH1A91ZA-A | SW, CD | [M] | L601 | RLQZP100KT-Y | AXIAL COIL | [M] |
| S603 | EVQ21405R | SW, TUNE DOWN | [M] | SW5 | RSP1A017-A | SW, LOCK | [M] | L602 | RLQZP101KT-Y | AXIAL COIL | [M] |
| S604 | EVQ21405R | SW, EJECT 5 | [M] | SW600 | ESE24SV1 | SW, JOG | [M] | L603 | RLQZP3R3KT-Y | COIL | [M] |
| S605 | EVQ21405R | SW, TUNER/BAND | [M] | | | | | L604 | RLQZP101KT-Y | AXIAL COIL | [M] |
| S606 | EVQ21405R | SW, TUNE UP | [M] | | | CONNECTORS | | L605 | RLQZP101KT-Y | AXIAL COIL | [M] |
| S607 | EVQ21405R | SW, EJECT 4 | [M] | CN1 | RJS1A9414 | FF CONNECTOR | [M] | T501 | RTP2N3B008 | POWER TRANS | [D] Δ |
| S608 | EVQ21405R | SW, CD | [M] | CN101B | RJU100H05 | 5P B/B CONNECTOR | [D] | T502 | RTP113E001-V | BACK-UP TRANS | [M] Δ |
| S609 | EVQ21405R | SW, TUNE MODE | [M] | CN102B | RJU100H06 | 6P B/B CONNECTOR | [D] | | | COMPONENT COMBINATION | |
| S610 | EVQ21405R | SW, EJECT 3 | [M] | CN201 | RJS8T7ZA | 8P MOLEX | [M] | | | | |
| S611 | EVQ21405R | SW, TAPE DECK 1/2 | [M] | CN300 | RJU057G12 | 12P P2 MQ CONNECTOR | [M] | Z101 | EXBF7L355SYV | LADDER RESISTOR | [M] |
| S612 | EVQ21405R | SW, MEMORY | [M] | CN301 | RJU057G12 | 12P P2 MQ CONNECTOR | [M] | Z101 | RLA2Z003M-T | ANT COIL BLOCK | [M] |
| S613 | EVQ21405R | SW, EJECT 2 | [M] | CN302 | RJS2A3330 | 30P CONNECTOR | [M] | Z102 | RLI2Z006M-T | AM IFT | [M] |
| S614 | EVQ21405R | SW, CLK/TIMER | [M] | CN303 | RJS1A9420 | 20P FFC TO MAIN | [M] | Z120 | ENV17290G1Y | FM TUNER PACK | [M] |
| S615 | EVQ21405R | SW, ECO MODE | [M] | CN304 | RJS1A5210 | 10P WIRE HOLDER | [M] | Z300 | EXBF7L355SYV | LADDER RESISTOR | [M] |
| S616 | EVQ21405R | SW, FM MODE/BP | [M] | CN309 | RJS1A9414 | FF CONNECTOR | [M] | Z501 | ERZV10V511CS | ZNR | [M] Δ |
| S617 | EVQ21405R | SW, EJECT 1 | [M] | CN501 | RJT029W09V-1 | 9P CONNECTOR | [M] | Z602 | RCDGP1U28XD | REMOTE SENSOR | [M] |
| S618 | EVQ21405R | SW, PLAY/REC | [M] | CN502 | RJT119W08V | CONNECTOR | [M] | Z971 | EXBF7L355SYV | RADA RESISTOR | [M] |
| S619 | EVQ21405R | SW, RANDOM | [M] | CN600 | RJT071H11 | 11P B-B PIN | [M] | | | | |
| S620 | EVQ21405R | SW, DECK 1 EJECT | [M] | CN601 | RJT071H11 | 11P B-B PIN | [M] | | | CERAMIC FILTERS | |
| S621 | EVQ11G07K | SW, EQ DOWN | [M] | CN701 | RJS2A6016 | 16P FFC CONNECTOR | [M] | CF201 | RLFFETNGD01L | CERAMIC FILTER | [M] |
| S622 | EVQ21405R | SW, DISP/DEMO | [M] | CN702 | RJS1A6723-1Q | 23P FFC CONNECTOR | [M] | CF202 | RLFFETMGD01L | CERAMIC FILTER | [M] |
| S623 | EVQ21405R | SW, CD MANAGER | [M] | CP101 | RJT071H09A | 9P B-B PIN | [M] | | | | |
| S624 | EVQ21405R | SW, TAPE EDIT | [M] | CP102 | RJT071H09A | 9P B-B PIN | [M] | | | RELAY | |
| S625 | EVQ11G07K | SW, EQ LEFT | [M] | CP301 | RJT100W06 | 6P B/B CONNECTOR | [D] | RL501 | RSY0030M-C | RELAY | [M] Δ |
| S626 | EVQ21405R | SW, S. WOOFER | [M] | CP302 | RJT100W05 | 5P B/B CONNECTOR | [D] | RL502 | RSY0040M-0 | PRIMARY RELAY | [M] Δ |
| S627 | EVQ21405R | SW, DISC 5 | [M] | CP503 | RJT057G12 | 12P P2 MQ CONNECTOR | [M] | | | | |
| S628 | EVQ11G07K | SW, EQ UP | [M] | CP504 | RJT057G12 | 12P P2 MQ CONNECTOR | [M] | | | OSCILLATORS | |
| S629 | EVQ21405R | SW, REC/STOP | [M] | CP800 | RJU071H11M | CONNECTOR | [M] | X102 | RLDFT13DD | FM RESONATOR | [M] |
| S630 | EVQ21405R | SW, DISC 4 | [M] | CP601 | RJU071H11M | CONNECTOR | [M] | X103 | RSXC7M20S05T | CRYSTAL OSCILLATOR | [M] |
| S631 | EVQ11G07K | SW, EQ RIGHT | [M] | CP603 | RJS1A6223-1 | 23P CONNECTOR | [M] | X600 | RSXZ8M00D01T | CERAMIC RESONATOR | [M] |
| S632 | EVQ21405R | SW, REV MODE | [M] | CP604 | RJS2A4230-F | 30P FFC CONNECTOR | [D] | X601 | RSXD32K7S02 | 32.768HKZ X'TAL | [M] |
| S633 | EVQ21405R | SW, DISC 3 | [M] | CP605 | RJS1A9420 | 20P FFC TO MAIN | [M] | X701 | RSXZ16M9M01T | CERAMIC OSC | [M] |
| S634 | EVQ21405R | SW, DECK 2 EJECT | [M] | CS101 | RJS1A6805-J | 5P CONNECTOR | [M] | | | | |
| S635 | EVQ21405R | SW, DISC 2 | [M] | CS102 | RJS1A6805-J | 5P CONNECTOR | [M] | | | | |
| S636 | EVQ21405R | SW, DISC 1 | [M] | CS951 | RJU071H09M1 | CONNECTOR | [M] | | | | |
| S638 | EVQ21405R | SW, POWER | [M] | CS971 | RJU071H09M1 | CONNECTOR | [M] | | | | |
| S639 | EVQ21405R | SW, 3D AI EQ | [M] | | | | | | | | |
| S701 | RSH1A043-U | SW, REST | [M] | | | | | | | | |

| Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks |
|---------|--------------|-------------------------|---------|---------|----------|-------------------------|---------|---------|----------|-------------------------|---------|
| | | DISPLAY TUBE | | | | | | | | | |
| FL600 | RSL0276-F | FL | [M] | | | | | | | | |
| | | FUSES | | | | | | | | | |
| F1 | XBA2C16TB0 | FUSE | [M] Δ | | | | | | | | |
| | | FUSE HOLDERS | | | | | | | | | |
| FC1 | EYF52BC | FUSE HOLDER | [M] | | | | | | | | |
| FC2 | EYF52BC | FUSE HOLDER | [M] | | | | | | | | |
| | | HOLDERS | | | | | | | | | |
| H100 | RMR0319 | 10P CABLE HOLDER | [M] | | | | | | | | |
| H501 | RJS1A5509 | 9P CABLE HOLDER | [M] | | | | | | | | |
| H502 | RJS1A5508 | WIRE HOLDER | [M] | | | | | | | | |
| H600 | RMR0317 | 8P CABLE HOLDER | [M] | | | | | | | | |
| | | JACKS | | | | | | | | | |
| JK101 | RJH5210-1 | JK, ANTENNA | [M] | | | | | | | | |
| JK305 | RJH2206 | JK, RCA | [M] | | | | | | | | |
| JK500 | SJS9236-1 | JK, SOCKET | [M] Δ | | | | | | | | |
| JK501 | RJR0054B-J | JK, SPEAKER | [M] | | | | | | | | |
| JK502 | RJR0054C-J | JK, SPEAKER | [M] | | | | | | | | |
| JK600 | RJJ37TK07-H | JK, HP | [M] | | | | | | | | |
| | | EARTH TERMINAL | | | | | | | | | |
| E500 | SNE1004-2 | EARTH TERMINAL | [M] | | | | | | | | |
| | | WIRES | | | | | | | | | |
| W1 | REE0501 | TRANS. WIRE (YEL) | [M] | | | | | | | | |
| W1 | REZ1023-1 | 4P WIRE | [M] | | | | | | | | |
| W2 | REE0856 | TRANS. WIRE (BLACK) | [M] | | | | | | | | |
| W2 | REZ1024 | 3P WIRE | [M] | | | | | | | | |
| W100 | RWJ0210260RX | 10P DECK TO MAIN | [M] | | | | | | | | |
| W300 | RWJ0102065CK | WIRE | [M] | | | | | | | | |
| W500 | REXX0202 | 2P TRANSFORMER WIRE | [M] | | | | | | | | |
| W501 | REXX0198 | 9P WIRE | [M] | | | | | | | | |
| W502 | REXX0199 | 8P WIRE | [M] | | | | | | | | |
| W1200 | RWJ0102065CK | WIRE | [M] | | | | | | | | |

Resistors & Capacitors

Notes :

- * Capacitor values are in microfarads (mF) unless specified otherwise, P=Pico-farads (pF), F=Farads.
- * Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).
- * Bracketed indications in Values & Remarks columns specify the area (Refer to the first page for area).
Parts without these indications can be used for all areas.
- * [M] indicates in the Values & Remarks columns indicates parts supplied by **MESA**.
- * [D] indicates in the Values & Remarks columns indicates parts supplied by **MAVD**.

| Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks |
|----------|-------------|------------------|----------|-------------|------------------|----------|-------------|------------------|----------|-------------|------------------|
| | | RESISTORS | | | | | | | | | |
| | | | R123 | ERDS2TJ683T | 68K 1/4W [M] | R154 | ERDS2TJ102T | 1K 1/4W [M] | R212 | ERDS2TJ222T | 2.2K 1/4W [M] |
| | | | R124 | ERDS2TJ103T | 10K 1/4W [M] | R155 | ERDS2TJ681T | 680 1/4W [M] | R213 | ERDS2TJ123T | 12K 1/4W [M] |
| R1 | ERDS2TJ102T | 1K 1/4W [M] | R124 | ERDS2TJ271T | 270 1/4W [M] | R156 | ERDS2TJ681T | 680 1/4W [M] | R213 | ERDS2TJ152T | 1.5K 1/4W [M] |
| R101 | ERDS2TJ334T | 330K 1/4W [M] | R125 | ERDS2TJ102T | 1K 1/4W [M] | R158 | ERDS2TJ221T | 220 1/4W [M] | R215 | ERDS2TJ102T | 1K 1/4W [M] |
| R102 | ERDS2TJ104T | 100K 1/4W [M] | R125 | ERDS2TJ471T | 470 1/4W [M] | R159 | ERDS2TJ222T | 2.2K 1/4W [M] | R215 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R102 | ERDS2TJ472T | 4.7K 1/4W [M] | R126 | ERDS2TJ102T | 1K 1/4W [M] | R160 | ERDS2TJ222T | 2.2K 1/4W [M] | R216 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R103 | ERDS2TJ101T | 100 1/4W [M] | R127 | ERDS2TJ471T | 470 1/4W [M] | R161 | ERDS2TJ472T | 4.7K 1/4W [M] | R216 | ERDS2TJ392T | 3.9K 1/4W [M] |
| R103 | ERDS2TJ153T | 15K 1/4W [M] | R128 | ERDS2TJ820T | 82 1/4W [M] | R162 | ERDS2TJ472T | 4.7K 1/4W [M] | R217 | ERDS2TJ683T | 68K 1/4W [M] |
| R104 | ERDS2TJ103T | 10K 1/4W [M] | R129 | ERDS2TJ273T | 27K 1/4W [M] | R163 | ERDS2TJ183T | 18K 1/4W [M] | R218 | ERDS2TJ332T | 3.3K 1/4W [M] |
| R104 | ERDS2TJ153T | 15K 1/4W [M] | R129 | ERDS2TJ822T | 8.2K 1/4W [M] | R165 | ERDS2TJ563T | 56K 1/4W [M] | R219 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R105 | ERDS2TJ271T | 270 1/4W [M] | R130 | ERDS2TJ103T | 10K 1/4W [M] | R166 | ERDS2TJ104T | 100K 1/4W [M] | R220 | ERDS2TJ104T | 100K 1/4W [M] |
| R105 | ERDS2TJ471T | 470 1/4W [M] | R130 | ERDS2TJ822T | 8.2K 1/4W [M] | R167 | ERDS2TJ470T | 47 1/4W [M] | R220 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R106 | ERDS2TJ222T | 2.2K 1/4W [M] | R131 | ERDS2TJ680T | 68 1/4W [M] | R170 | ERDS2TJ102T | 1K 1/4W [M] | R221 | ERDS2TJ102T | 1K 1/4W [M] |
| R106 | ERDS2TJ474T | 470K 1/4W [M] | R131 | ERDS2TJ683T | 68K 1/4W [M] | R172 | ERDS2TJ331T | 330 1/4W [M] | R221 | ERDS2TJ2R7T | 2.7 1/4W [M] |
| R107 | ERDS2TJ330T | 33 1/4W [M] | R132 | ERDS2TJ103T | 10K 1/4W [M] | R173 | ERDS2TJ103T | 10K 1/4W [M] | R222 | ERDS2TJ123T | 12K 1/4W [M] |
| R107 | ERDS2TJ331T | 330 1/4W [M] | R132 | ERDS2TJ335T | 3.3M 1/4W [M] | R174 | ERDS2TJ103T | 10K 1/4W [M] | R223 | ERDS2TJ473T | 47K 1/4W [M] |
| R108 | ERDS2TJ330T | 33 1/4W [M] | R133 | ERDS2TJ102T | 1K 1/4W [M] | R176 | ERDS2TJ822T | 8.2K 1/4W [M] | R224 | ERDS2TJ153T | 15K 1/4W [M] |
| R108 | ERDS2TJ474T | 470K 1/4W [M] | R133 | ERDS2TJ332T | 3.3K 1/4W [M] | R177 | ERDS2TJ472T | 4.7K 1/4W [M] | R225 | ERDS2TJ2R7T | 2.7 1/4W [M] |
| R109 | ERDS2TJ331T | 330 1/4W [M] | R134 | ERDS2TJ471T | 470 1/4W [M] | R178 | ERDS2TJ1R2T | 1.2 1/4W [M] | R225 | ERDS2TJ392T | 3.9K 1/4W [M] |
| R109 | ERDS2TJ432T | 4.3K 1/4W [M] | R134 | ERDS2TJ474T | 470K 1/4W [M] | R179 | ERDS2TJ472T | 4.7K 1/4W [M] | R226 | ERDS2TJ101T | 100 1/4W [M] |
| R110 | ERDS2TJ102T | 1K 1/4W [M] | R135 | ERDS2TJ102T | 1K 1/4W [M] | R180 | ERDS2TJ472T | 4.7K 1/4W [M] | R226 | ERDS2TJ102T | 1K 1/4W [M] |
| R110 | ERDS2TJ432T | 4.3K 1/4W [M] | R136 | ERDS2TJ102T | 1K 1/4W [M] | R181 | ERDS2TJ332T | 3.3K 1/4W [M] | R227 | ERDS2TJ102T | 1K 1/4W [M] |
| R111 | ERDS2TJ222T | 2.2K 1/4W [M] | R137 | ERDS2TJ102T | 1K 1/4W [M] | R182 | ERDS2TJ1R0T | 1 1/4W [M] | R227 | ERDS2TJ390T | 39 1/4W [M] |
| R111 | ERDS2TJ391T | 390 1/4W [M] | R137 | ERDS2TJ103T | 10K 1/4W [M] | R183 | ERDS2TJ104T | 100K 1/4W [M] | R228 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R112 | ERDS2TJ104T | 100K 1/4W [M] | R138 | ERDS2TJ103T | 10K 1/4W [M] | R184 | ERDS2TJ104T | 100K 1/4W [M] | R229 | ERDS2TJ103T | 10K 1/4W [M] |
| R112 | ERDS2TJ222T | 2.2K 1/4W [M] | R138 | ERDS2TJ332T | 3.3K 1/4W [M] | R185 | ERDS2TJ104T | 100K 1/4W [M] | R229 | ERDS2TJ223T | 22K 1/4W [M] |
| R113 | ERDS2TJ103T | 10K 1/4W [M] | R139 | ERDS2TJ103T | 10K 1/4W [M] | R186 | ERDS2TJ102T | 1K 1/4W [M] | R230 | ERDS2TJ333T | 33K 1/4W [M] |
| R114 | ERDS2TJ562T | 5.6K 1/4W [M] | R141 | ERDS2TJ102T | 1K 1/4W [M] | R188 | ERDS2TJ102T | 1K 1/4W [M] | R230 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R115 | ERDS2TJ474T | 470K 1/4W [M] | R141 | ERDS2TJ682T | 6.8K 1/4W [M] | R189 | ERDS2TJ472T | 4.7K 1/4W [M] | R231 | ERDS2TJ153T | 15K 1/4W [M] |
| R115 | ERDS2TJ561T | 560 1/4W [M] | R142 | ERDS2TJ102T | 1K 1/4W [M] | R190 | ERDS2TJ104T | 100K 1/4W [M] | R232 | ERDS2TJ102T | 1K 1/4W [M] |
| R116 | ERDS2TJ102T | 1K 1/4W [M] | R142 | ERDS2TJ682T | 6.8K 1/4W [M] | R191 | ERDS2TJ563T | 56K 1/4W [M] | R232 | ERDS2TJ473T | 47K 1/4W [M] |
| R116 | ERDS2TJ474T | 470K 1/4W [M] | R143 | ERDS2TJ222T | 2.2K 1/4W [M] | R192 | ERDS2TJ470T | 47 1/4W [M] | R233 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R117 | ERDS2TJ274T | 270K 1/4W [M] | R143 | ERDS2TJ223T | 22K 1/4W [M] | R193 | ERDS2TJ104T | 100K 1/4W [M] | R233 | ERDS2TJ563T | 56K 1/4W [M] |
| R117 | ERDS2TJ683T | 68K 1/4W [M] | R144 | ERDS2TJ222T | 2.2K 1/4W [M] | R194 | ERDS2TJ104T | 100K 1/4W [M] | R234 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R118 | ERDS2TJ274T | 270K 1/4W [M] | R145 | ERDS2TJ103T | 10K 1/4W [M] | R195 | ERDS2TJ104T | 100K 1/4W [M] | R234 | ERDS2TJ821T | 820 1/4W [M] |
| R118 | ERDS2TJ472T | 4.7K 1/4W [M] | R145 | ERDS2TJ104T | 100K 1/4W [M] | R201 | ERDS2TJ103T | 10K 1/4W [M] | R235 | ERDS2TJ122T | 1.2K 1/4W [M] |
| R119 | ERDS2TJ333T | 33K 1/4W [M] | R146 | ERDS2TJ103T | 10K 1/4W [M] | R202 | ERDS2TJ332T | 3.3K 1/4W [M] | R235 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R120 | ERDS2TJ473T | 47K 1/4W [M] | R146 | ERDS2TJ104T | 100K 1/4W [M] | R206 | ERDS2TJ221T | 220 1/4W [M] | R236 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R121 | ERDS2TJ223T | 22K 1/4W [M] | R149 | ERDS2TJ272T | 2.7K 1/4W [M] | R207 | ERDS2TJ332T | 3.3K 1/4W [M] | R253 | ERDS2TJ390T | 39 1/4W [M] |
| R121 | ERDS2TJ333T | 33K 1/4W [M] | R150 | ERDS2TJ272T | 2.7K 1/4W [M] | R208 | ERDS2TJ222T | 2.2K 1/4W [M] | R300 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R122 | ERDS2TJ272T | 2.7K 1/4W [M] | R151 | ERDS2TJ105T | 1M 1/4W [M] | R209 | ERDS2TJ562T | 5.6K 1/4W [M] | R301 | ERDS2TJ223T | 22K 1/4W [M] |
| R122 | ERDS2TJ333T | 33K 1/4W [M] | R152 | ERDS2TJ105T | 1M 1/4W [M] | R210 | ERDS2TJ102T | 1K 1/4W [M] | R302 | ERDS2TJ183T | 18K 1/4W [M] |
| R123 | ERDS2TJ103T | 10K 1/4W [M] | R153 | ERDS2TJ102T | 1K 1/4W [M] | R211 | ERDS2TJ222T | 2.2K 1/4W [M] | R303 | ERDS2TJ100T | 10 1/4W [M] |

| Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks |
|----------|-------------|------------------|----------|--------------|----------------------|----------|--------------|-----------------------------|----------|-------------|-----------------------------|
| R304 | ERDS2TJ223T | 22K 1/4W [M] | R408 | ERDS2TJ222T | 2.2K 1/4W [M] | R519 | ERDS2TJ2R2T | 2.2 1/4W [M] | R592 | RSFMB40KT-L | FUSE PROTECTOR Δ [M] |
| R305 | ERDS2TJ103T | 10K 1/4W [M] | R409 | ERDS2TJ562T | 5.6K 1/4W [M] | R520 | ERDS2TJ2R2T | 2.2 1/4W [M] | R593 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R306 | ERDS2TJ122T | 1.2K 1/4W [M] | R410 | ERDS2TJ102T | 1K 1/4W [M] | R521 | ERDS2TJ151T | 150 1/4W [M] | R595 | ERDS2TJ332T | 3.3K 1/4W [M] |
| R307 | ERDS2TJ103T | 10K 1/4W [M] | R411 | ERDS2TJ222T | 2.2K 1/4W [M] | R522 | ERDS2TJ472T | 4.7K 1/4W [M] | R597 | ERDS2TJ102T | 1K 1/4W [M] |
| R308 | ERDS2TJ332T | 3.3K 1/4W [M] | R412 | ERDS2TJ222T | 2.2K 1/4W [M] | R523 | ERD2FCVJ4R7T | 4.7 1/4W [M] | R598 | ERDS2TJ223T | 22K 1/4W [M] |
| R309 | ERDS2TJ332T | 3.3K 1/4W [M] | R413 | ERDS2TJ123T | 12K 1/4W [M] | R524 | ERDS2TJ2R2T | 2.2 1/4W [M] | R599 | ERDS2TJ151T | 150 1/4W [M] |
| R313 | ERDS2TJ393T | 39K 1/4W [M] | R415 | ERDS2TJ102T | 1K 1/4W [M] | R525 | ERDS2TJ272T | 2.7K 1/4W [M] | R600 | ERDS2TJ223T | 22K 1/4W [M] |
| R316 | ERDS2TJ153T | 15K 1/4W [M] | R416 | ERDS2TJ392T | 3.9K 1/4W [M] | R526 | ERDS2TJ103T | 10K 1/4W [M] | R601 | ERDS2TJ333T | 33K 1/4W [M] |
| R318 | ERDS2TJ123T | 12K 1/4W [M] | R417 | ERDS2TJ683T | 68K 1/4W [M] | R527 | ERDS2TJ561T | 560 1/4W [M] | R602 | ERDS2TJ223T | 22K 1/4W [M] |
| R321 | ERDS2TJ2R7T | 2.7 1/4W [M] | R418 | ERDS2TJ332T | 3.3K 1/4W [M] | R528 | ERDS2TJ272T | 2.7K 1/4W [M] | R603 | ERDS2TJ682T | 6.8K 1/4W [M] |
| R322 | ERDS2TJ271T | 270 1/4W [M] | R419 | ERDS2TJ472T | 4.7K 1/4W [M] | R529 | ERDS1FVJ332T | 3.3K 1/2W Δ [M] | R604 | ERDS2TJ103T | 10K 1/4W [M] |
| R323 | ERDS2TJ222T | 2.2K 1/4W [M] | R420 | ERDS2TJ104T | 100K 1/4W [M] | R530 | ERD2FCVG270T | 27 1/4W [M] | R605 | ERDS2TJ103T | 10K 1/4W [M] |
| R324 | ERDS2TJ222T | 2.2K 1/4W [M] | R421 | ERDS2TJ102T | 1K 1/4W [M] | R531 | ERDS1FVJ150T | 15 1/2W Δ [M] | R606 | ERDS2TJ682T | 6.8K 1/4W [M] |
| R325 | ERDS2TJ222T | 2.2K 1/4W [M] | R422 | ERDS2TJ123T | 12K 1/4W [M] | R532 | ERDS1FVJ332T | 3.3K 1/2W Δ [M] | R607 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R326 | ERDS2TJ683T | 68K 1/4W [M] | R423 | ERDS2TJ473T | 47K 1/4W [M] | R536 | ERDS1FVJ100T | 10 1/2W Δ [M] | R608 | ERDS2TJ682T | 6.8K 1/4W [M] |
| R327 | ERDS2TJ154T | 150K 1/4W [M] | R424 | ERDS2TJ153T | 15K 1/4W [M] | R537 | ERDS2TJ824T | 820K 1/4W [M] | R609 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R331 | ERDS2TJ103T | 10K 1/4W [M] | R425 | ERDS2TJ392T | 3.9K 1/4W [M] | R538 | ERDS2TJ222T | 2.2K 1/4W [M] | R610 | ERDS2TJ272T | 2.7K 1/4W [M] |
| R332 | ERDS2TJ103T | 10K 1/4W [M] | R426 | ERDS2TJ101T | 100 1/4W [M] | R539 | ERDS1FVJ272T | 2.7K 1/2W Δ [M] | R611 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R333 | ERDS2TJ224T | 220K 1/4W [M] | R427 | ERDS2TJ390T | 39 1/4W [M] | R540 | ERDS2TJ183T | 18K 1/4W [M] | R613 | ERDS2TJ272T | 2.7K 1/4W [M] |
| R334 | ERDS2TJ274T | 270K 1/4W [M] | R429 | ERDS2TJ223T | 22K 1/4W [M] | R541 | ERDS2TJ183T | 18K 1/4W [M] | R614 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R335 | ERDS2TJ472T | 4.7K 1/4W [M] | R430 | ERDS2TJ393T | 39K 1/4W [M] | R542 | ERDS2TJ563T | 56K 1/4W [M] | R615 | ERDS2TJ103T | 10K 1/4W [M] |
| R336 | ERDS2TJ153T | 15K 1/4W [M] | R431 | ERDS2TJ153T | 15K 1/4W [M] | R543 | ERDS2TJ563T | 56K 1/4W [M] | R616 | ERDS2TJ272T | 2.7K 1/4W [M] |
| R337 | ERDS2TJ822T | 8.2K 1/4W [M] | R432 | ERDS2TJ473T | 47K 1/4W [M] | R544 | ERDS2TJ124T | 120K 1/4W [M] | R617 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R338 | ERDS2TJ472T | 4.7K 1/4W [M] | R433 | ERDS2TJ563T | 56K 1/4W [M] | R545 | ERDS2TJ154T | 150K 1/4W [M] | R618 | ERDS2TJ182T | 1.8K 1/4W [M] |
| R339 | ERDS2TJ823T | 82K 1/4W [M] | R434 | ERDS2TJ821T | 820 1/4W [M] | R546 | ERDS2TJ562T | 5.6K 1/4W [M] | R621 | ERDS2TJ331T | 330 1/4W [M] |
| R340 | ERDS2TJ823T | 82K 1/4W [M] | R435 | ERDS2TJ122T | 1.2K 1/4W [M] | R547 | ERDS2TJ562T | 5.6K 1/4W [M] | R622 | ERDS2TJ221T | 220 1/4W [M] |
| R341 | ERDS2TJ153T | 15K 1/4W [M] | R451 | ERDS2TJ103T | 10K 1/4W [M] | R548 | ERDS1FVJ2R2T | 2.2 1/2W Δ [M] | R623 | ERDS2TJ682T | 6.8K 1/4W [M] |
| R342 | ERDS2TJ103T | 10K 1/4W [M] | R452 | ERDS2TJ103T | 10K 1/4W [M] | R549 | ERDS1FVJ2R2T | 2.2 1/2W Δ [M] | R624 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R343 | ERDS2TJ104T | 100K 1/4W [M] | R453 | ERDS2TJ390T | 39 1/4W [M] | R550 | ERDS1FVJ2R2T | 2.2 1/2W Δ [M] | R625 | ERDS2TJ331T | 330 1/4W [M] |
| R344 | ERDS2TJ824T | 820K 1/4W [M] | R454 | ERDS2TJ223T | 22K 1/4W [M] | R553 | ERDS2TJ684T | 680K 1/4W [M] | R626 | ERDS2TJ331T | 330 1/4W [M] |
| R345 | ERDS2TJ221T | 220 1/4W [M] | R455 | ERDS2TJ152T | 1.5K 1/4W [M] | R554 | ERDS2TJ103T | 10K 1/4W [M] | R627 | ERDS2TJ331T | 330 1/4W [M] |
| R346 | ERDS2TJ223T | 22K 1/4W [M] | R456 | ERDS2TJ562T | 5.6K 1/4W [M] | R555 | ERDS2TJ223T | 22K 1/4W [M] | R629 | ERDS2TJ182T | 1.8K 1/4W [M] |
| R347 | ERDS2TJ123T | 12K 1/4W [M] | R457 | ERDS2TJ822T | 8.2K 1/4W [M] | R557 | ERD2FCVJ4R7T | 4.7 1/4W [M] | R630 | ERDS2TJ122T | 1.2K 1/4W [M] |
| R348 | ERDS2TJ103T | 10K 1/4W [M] | R458 | ERDS2TJ822T | 8.2K 1/4W [M] | R558 | ERD2FCVJ4R7T | 4.7 1/4W [M] | R631 | ERDS2TJ472T | 4.7K 1/4W [M] |
| R349 | ERDS2TJ103T | 10K 1/4W [M] | R459 | ERDS2TJ392T | 3.9K 1/4W [M] | R559 | ERDS2TJ332T | 3.3K 1/4W [M] | R633 | ERDS2TJ182T | 1.8K 1/4W [M] |
| R350 | ERDS2TJ102T | 1K 1/4W [M] | R460 | ERDS2TJ332T | 3.3K 1/4W [M] | R560 | ERD25FVJ331T | 330 1/4W [M] | R634 | ERDS2TJ122T | 1.2K 1/4W [M] |
| R351 | ERDS2TJ472T | 4.7K 1/4W [M] | R501 | ERDS2TJ100T | 10 1/4W [M] | R561 | ERDS2TJ562T | 5.6K 1/4W [M] | R635 | ERDS2TJ102T | 1K 1/4W [M] |
| R352 | ERDS2TJ472T | 4.7K 1/4W [M] | R502 | ERDS2TJ100T | 10 1/4W [M] | R562 | ERD25FVJ331T | 330 1/4W [M] | R638 | ERDS2TJ272T | 2.7K 1/4W [M] |
| R353 | ERDS2TJ222T | 2.2K 1/4W [M] | R503 | ERDS2TJ332T | 3.3K 1/4W [M] | R563 | ERDS1FVJ100T | 10 1/2W Δ [M] | R639 | ERDS2TJ102T | 1K 1/4W [M] |
| R354 | ERDS2TJ472T | 4.7K 1/4W [M] | R507 | ERDS2TJ103T | 10K 1/4W [M] | R564 | ERDS1FVJ100T | 10 1/2W Δ [M] | R640 | ERDS2TJ122T | 1.2K 1/4W [M] |
| R355 | ERDS2TJ472T | 4.7K 1/4W [M] | R509 | ERDS2TJ472T | 4.7K 1/4W [M] | R565 | ERDS2TJ104T | 100K 1/4W [M] | R641 | ERDS2TJ102T | 1K 1/4W [M] |
| R356 | ERDS2TJ472T | 4.7K 1/4W [M] | R510 | ERDS2TJ122T | 1.2K 1/4W [M] | R566 | ERDS2TJ103T | 10K 1/4W [M] | R642 | ERDS2TJ102T | 1K 1/4W [M] |
| R357 | ERDS2TJ222T | 2.2K 1/4W [M] | R511 | ERDS2TJ182T | 1.8K 1/4W [M] | R567 | ERDS2TJ151T | 150 1/4W [M] | R644 | ERDS2TJ222T | 2.2K 1/4W [M] |
| R358 | ERDS2TJ472T | 4.7K 1/4W [M] | R512 | ERDS2TJ151T | 150 1/4W [M] | R569 | ERDS2TJ393T | 39K 1/4W [M] | R645 | ERDS2TJ102T | 1K 1/4W [M] |
| R359 | ERDS2TJ472T | 4.7K 1/4W [M] | R513 | ERDS2TJ331T | 330 1/4W [M] | R570 | ERDS2TJ102T | 1K 1/4W [M] | R646 | ERDS2TJ820T | 82 1/4W [M] |
| R360 | ERDS2TJ472T | 4.7K 1/4W [M] | R514 | ERDS1FVJ470T | 47 1/2W Δ [M] | R571 | ERDS2TJ393T | 39K 1/4W [M] | R647 | ERDS2TJ331T | 330 1/4W [M] |
| R401 | ERDS2TJ103T | 10K 1/4W [M] | R515 | ERDS1FVJ470T | 47 1/2W Δ [M] | R580 | ERDS2TJ150T | 15 1/4W [M] | R648 | ERDS2TJ102T | 1K 1/4W [M] |
| R402 | ERDS2TJ332T | 3.3K 1/4W [M] | R517 | ERDS2TJ331T | 330 1/4W [M] | R581 | ERDS1FVJ270T | 27 1/2W Δ [M] | R649 | ERDS2TJ182T | 1.8K 1/4W [M] |
| R407 | ERDS2TJ332T | 3.3K 1/4W [M] | R518 | ERDS2TJ122T | 1.2K 1/4W [M] | R591 | RSFMB40KT-L | FUSE PROTECTOR Δ [M] | R650 | ERDS2TJ331T | 330 1/4W [M] |

| Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks |
|----------|--------------|------------------|----------|--------------|------------------|----------|--------------|------------------|----------|--------------|------------------|
| R652 | ERDS2TJ102T | 1K 1/4W [M] | R704 | ERJ6GEYJ102A | 1K 1/10W [M] | R916 | ERDS2TJ101T | 100 1/4W [M] | C101 | ECBT1C103NS5 | 0.01 16V [M] |
| R653 | ERDS2TJ122T | 1.2K 1/4W [M] | R705 | ERJ6GEYJ124A | 120K 1/10W [M] | R917 | ERDS2TJ681T | 680 1/4W [M] | C101 | ECBT1H102KB5 | 1000P 50V [M] |
| R654 | ERDS2TJ331T | 330 1/4W [M] | R706 | ERJ6GEYJ102A | 1K 1/10W [M] | R918 | ERDS2TJ108T | 10M 1/4W [M] | C102 | ECBT1H102KB5 | 1000P 50V [M] |
| R655 | ERDS2TJ331T | 330 1/4W [M] | R707 | ERJ6GEYJ474A | 470K 1/10W [M] | R919 | ERDS2TJ101T | 100 1/4W [M] | C102 | ECEA1CKA101B | 100 16V [M] |
| R656 | ERDS2TJ102T | 1K 1/4W [M] | R708 | ERJ6GEYJ154A | 150K 1/10W [M] | R920 | ERDS2TJ334T | 330K 1/4W [M] | C103 | ECBT1C103NS5 | 0.01 16V [M] |
| R657 | ERDS2TJ331T | 330 1/4W [M] | R709 | ERJ6GEYJ473A | 47K 1/10W [M] | R921 | ERDS2TJ562T | 5.6K 1/4W [M] | C103 | ECBT1H681KB5 | 680P 50V [M] |
| R658 | ERDS2TJ101T | 100 1/4W [M] | R710 | ERJ6GEYJ103A | 10K 1/10W [M] | R922 | ERDS2TJ680T | 68 1/4W [M] | C104 | ECBT1H102KB5 | 1000P 50V [M] |
| R659 | ERDS2TJ331T | 330 1/4W [M] | R711 | ERJ6GEYJ104A | 100K 1/10W [M] | R923 | ERDS2TJ103T | 10K 1/4W [M] | C104 | ECFR1C223KR | 0.022 16V [M] |
| R660 | ERDS2TJ102T | 1K 1/4W [M] | R712 | ERJ6GEYJ151A | 150 1/10W [M] | R924 | ERDS2TJ104T | 100K 1/4W [M] | C105 | ECBT1H102KB5 | 1000P 50V [M] |
| R661 | ERDS2TJ331T | 330 1/4W [M] | R715 | ERJ6GEYJ122A | 1.2K 1/10W [M] | R925 | ERDS2TJ680T | 68 1/4W [M] | C105 | ECBT1H681KB5 | 680P 50V [M] |
| R662 | ERDS2TJ102T | 1K 1/4W [M] | R717 | ERJ6GEYJ102A | 1K 1/10W [M] | R926 | ERDS2TJ102T | 1K 1/4W [M] | C106 | ECBT1C103NS5 | 0.01 16V [M] |
| R663 | ERDS2TJ102T | 1K 1/4W [M] | R718 | ERJ6GEYJ102A | 1K 1/10W [M] | R927 | ERDS2TJ103T | 10K 1/4W [M] | C106 | ECBT1H681KB5 | 680P 50V [M] |
| R664 | ERDS2TJ104T | 100K 1/4W [M] | R719 | ERJ6GEYJ102A | 1K 1/10W [M] | R928 | ERDS2TJ103T | 10K 1/4W [M] | C107 | ECBT1H473ZF5 | 0.047 50V [M] |
| R665 | ERDS2TJ104T | 100K 1/4W [M] | R720 | ERJ6GEYJ102A | 1K 1/10W [M] | R929 | ERDS2TJ103T | 10K 1/4W [M] | C108 | ECBT1H8R2KC5 | 8.2P 50V [M] |
| R666 | ERDS2TJ104T | 100K 1/4W [M] | R721 | ERJ6GEYJ101A | 100 1/10W [M] | R930 | ERDS2TJ103T | 10K 1/4W [M] | C108 | ECEA1CKA330B | 33 16V [M] |
| R667 | ERDS2TJ104T | 100K 1/4W [M] | R723 | ERJ6GEYJ272A | 2.7K 1/10W [M] | R931 | ERDS2TJ472T | 4.7K 1/4W [M] | C109 | ECBT1H102KB5 | 1000P 50V [M] |
| R668 | ERDS2TJ104T | 100K 1/4W [M] | R724 | ERJ6GEYJ333A | 33K 1/10W [M] | R932 | ERDS2TJ223T | 22K 1/4W [M] | C109 | ECEA1CKA101B | 100 16V [M] |
| R669 | ERDS2TJ104T | 100K 1/4W [M] | R725 | ERJ6GEYJ122A | 1.2K 1/10W [M] | R933 | ERDS2TJ471T | 470 1/4W [M] | C110 | ECBT1C103NS5 | 0.01 16V [M] |
| R670 | ERDS2TJ104T | 100K 1/4W [M] | R727 | ERJ6GEYJ682A | 6.8K 1/10W [M] | R934 | ERDS2TJ472T | 4.7K 1/4W [M] | C111 | ECBT1H561KB5 | 560P 50V [M] |
| R671 | ERDS2TJ104T | 100K 1/4W [M] | R728 | ERJ6GEYJ682A | 6.8K 1/10W [M] | R935 | ERDS2TJ473T | 47K 1/4W [M] | C111 | ECEA1EKA4R7B | 4.7 25V [M] |
| R672 | ERDS2TJ104T | 100K 1/4W [M] | R729 | ERJ6GEYJ562A | 5.6K 1/10W [M] | R936 | ERDS2TJ473T | 47K 1/4W [M] | C112 | ECBT1C103NS5 | 0.01 16V [M] |
| R673 | ERDS2TJ104T | 100K 1/4W [M] | R731 | ERJ6GEYJ123A | 12K 1/10W [M] | R937 | ERDS2TJ474T | 470K 1/4W [M] | C112 | ECBT1H561KB5 | 560P 50V [M] |
| R674 | ERDS2TJ104T | 100K 1/4W [M] | R734 | ERJ6GEYJ101A | 100 1/10W [M] | R938 | ERDS2TJ472T | 4.7K 1/4W [M] | C113 | ECBT1H102KB5 | 1000P 50V [M] |
| R675 | ERDS2TJ104T | 100K 1/4W [M] | R735 | ERJ6GEYJ101A | 100 1/10W [M] | R939 | ERDS2TJ104T | 100K 1/4W [M] | C113 | ECEA0JKA221B | 220 6.3V [M] |
| R676 | ERDS2TJ104T | 100K 1/4W [M] | R736 | ERJ6GEYJ101A | 100 1/10W [M] | R940 | ERDS2TJ104T | 100K 1/4W [M] | C114 | ECEA0JKA221B | 220 6.3V [M] |
| R677 | ERDS2TJ103T | 10K 1/4W [M] | R738 | ERJ6GEYJ223A | 22K 1/10W [M] | R941 | ERDS2TJ104T | 100K 1/4W [M] | C114 | ECEA1HKA3R3B | 3.3 50V [M] |
| R678 | ERDS2TJ391T | 390 1/4W [M] | R741 | ERJ6GEYJ562A | 5.6K 1/10W [M] | R942 | ERDS2TJ101T | 100 1/4W [M] | C115 | ECEA1EKA4R7B | 4.7 25V [M] |
| R679 | ERDS2TJ391T | 390 1/4W [M] | R742 | ERJ6GEYJ562A | 5.6K 1/10W [M] | R945 | ERDS2TJ103T | 10K 1/4W [M] | C115 | ECFR1C333JR | 0.033 16V [M] |
| R680 | ERDS2TJ101T | 100 1/4W [M] | R743 | ERJ6GEYJ562A | 5.6K 1/10W [M] | R947 | ERDS2TJ102T | 1K 1/4W [M] | C116 | ECFR1C333JR | 0.033 16V [M] |
| R681 | ERDS2TJ102T | 1K 1/4W [M] | R744 | ERJ6GEYJ104A | 100K 1/10W [M] | R948 | ERDS2TJ102T | 1K 1/4W [M] | C116 | ECFR1C333KR | 0.033 16V [M] |
| R682 | ERDS2TJ103T | 10K 1/4W [M] | R745 | ERJ6GEYJ106A | 10M 1/10W [M] | R950 | ERDS2TJ103T | 10K 1/4W [M] | C117 | ECEA1HKM010B | 1 50V [M] |
| R683 | ERDS2TJ103T | 10K 1/4W [M] | R748 | ERJ6GEYJ272A | 2.7K 1/10W [M] | R951 | ERDS2TJ103T | 10K 1/4W [M] | C117 | ECFR1C183KR | 0.018 16V [M] |
| R684 | ERDS2TJ103T | 10K 1/4W [M] | R749 | ERJ6GEYJ682A | 6.8K 1/10W [M] | R952 | ERDS2TJ101T | 100 1/4W [M] | C118 | ECEA1HKM010B | 1 50V [M] |
| R685 | ERDS2TJ103T | 10K 1/4W [M] | R752 | ERJ8GEYJ220A | 22 1/8W [M] | R952 | ERDS2TJ821T | 820 1/4W [M] | C118 | ECFR1C183KR | 0.018 16V [M] |
| R686 | ERDS2TJ223T | 22K 1/4W [M] | R770 | ERJ6GEYJ224A | 220K 1/10W [M] | R953 | ERDS2TJ103T | 10K 1/4W [M] | C119 | ECEA1HKA4R7B | 4.7 50V [M] |
| R687 | ERDS2TJ102T | 1K 1/4W [M] | R901 | ERDS2TJ101T | 100 1/4W [M] | R953 | ERDS2TJ393T | 39K 1/4W [M] | C119 | ECQP2A391JZT | 390P 100V [M] |
| R688 | ERDS2TJ103T | 10K 1/4W [M] | R902 | ERDS2TJ473T | 47K 1/4W [M] | R972 | ERDS2TJ821T | 820 1/4W [M] | C120 | ECEA1CKA100B | 10 16V [M] |
| R689 | ERDS2TJ101T | 100 1/4W [M] | R903 | ERDS2TJ101T | 100 1/4W [M] | R973 | ERDS2TJ393T | 39K 1/4W [M] | C120 | ECEA1HKA4R7B | 4.7 50V [M] |
| R690 | ERDS2TJ101T | 100 1/4W [M] | R904 | ERDS2TJ473T | 47K 1/4W [M] | R984 | ERDS2TJ103T | 10K 1/4W [M] | C121 | ECEA1HKA010B | 1 50V [M] |
| R691 | ERDS2TJ101T | 100 1/4W [M] | R905 | ERDS2TJ101T | 100 1/4W [M] | R985 | ERDS2TJ820T | 82 1/4W [M] | C121 | ECEA1HKAR47B | 0.47 50V [M] |
| R692 | ERDS2TJ101T | 100 1/4W [M] | R906 | ERDS2TJ101T | 100 1/4W [M] | R986 | ERDS2TJ151T | 150 1/4W [M] | C122 | ECEA1HKA010B | 1 50V [M] |
| R694 | ERDS2TJ152T | 1.5K 1/4W [M] | R907 | ERDS2TJ104T | 100K 1/4W [M] | R987 | ERDS2TJ102T | 1K 1/4W [M] | C123 | ECBT1H102KB5 | 1000P 50V [M] |
| R695 | ERDS2TJ223T | 22K 1/4W [M] | R908 | ERDS2TJ101T | 100 1/4W [M] | | | | C123 | ECEA1HKA010B | 1 50V [M] |
| R696 | ERDS2TJ103T | 10K 1/4W [M] | R909 | ERDS2TJ101T | 100 1/4W [M] | | | CAPACITORS | C124 | ECBT1H101KB5 | 100P 50V [M] |
| R697 | ERDS2TJ224T | 220K 1/4W [M] | R911 | ERDS2TJ473T | 47K 1/4W [M] | | | | C124 | ECBT1H102KB5 | 1000P 50V [M] |
| R698 | ERDS2TJ104T | 100K 1/4W [M] | R912 | ERDS2TJ104T | 100K 1/4W [M] | C1 | ECEA1CKA101B | 100 16V [M] | C125 | ECEA1CKA220B | 22 16V [M] |
| R699 | ERDS2TJ101T | 100 1/4W [M] | R913 | ERDS2TJ101T | 100 1/4W [M] | C1 | ECEA1CKA101B | 100 16V [M] | C125 | ECFR1C473MR | 0.047 16V [M] |
| R701 | ERJ6GEYJ4R7A | 4.7 1/10W [M] | R914 | ERDS2TJ104T | 100K 1/4W [M] | C2 | ECBT1E103ZF5 | 0.01 25V [M] | C126 | ECBT1H473ZF5 | 0.047 50V [M] |
| R702 | ERJ6GEYJ822A | 8.2K 1/10W [M] | R915 | ERDS2TJ101T | 100 1/4W [M] | C2 | ECBT1E103ZF5 | 0.01 25V [M] | C126 | ECFR1C473MR | 0.047 16V [M] |

| Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks |
|----------|--------------|------------------|----------|--------------|------------------|----------|--------------|------------------|----------|--------------|------------------------|
| C127 | ECBT1C103MS5 | 0.01 16V [M] | C166 | ECEA1CKA100B | 10 16V [M] | C223 | ECEA1HKA2R2B | 2.2 50V [M] | C409 | ECEA1HKAR15B | 0.15 50V [M] |
| C127 | ECEA1CKA220B | 22 16V [M] | C167 | ECEA1HKA0R1B | 0.1 50V [M] | C224 | ECEA1HKA3R3B | 3.3 50V [M] | C410 | ECFR1C223KR | 0.022 16V [M] |
| C128 | ECBT1C103MS5 | 0.01 16V [M] | C168 | ECEA1HKA0R1B | 0.1 50V [M] | C225 | ECEA1HKA3R3B | 3.3 50V [M] | C411 | ECFR1C393KR | 0.039 16V [M] |
| C129 | ECBT1H821KB5 | 820P 50V [M] | C169 | ECEA1HKA4R7B | 4.7 50V [M] | C226 | ECFR1C104MR | 0.1 16V [M] | C412 | ECFR1C223KR | 0.022 16V [M] |
| C129 | ECEA0JKA101B | 100 6.3V [M] | C170 | ECEA1HKA4R7B | 4.7 50V [M] | C227 | ECBT1H681KB5 | 680P 50V [M] | C413 | ECBT1C332KR5 | 3300P 16V [M] |
| C130 | ECBT1H821KB5 | 820P 50V [M] | C171 | ECEA1CKA100B | 10 16V [M] | C228 | ECEA1CKA100B | 10 16V [M] | C414 | ECBT1C222KR5 | 2200P 16V [M] |
| C130 | ECEA0JKA101B | 100 6.3V [M] | C173 | ECBT1C103MS5 | 0.01 16V [M] | C229 | ECBT1H101KB5 | 100P 50V [M] | C415 | ECBT1C272KR5 | 2700P 16V [M] |
| C131 | ECBT1H101KB5 | 100P 50V [M] | C174 | ECEA1HKA4R7B | 4.7 50V [M] | C230 | ECBT1H470J5 | 47P 50V [M] | C416 | ECBT1C152KR5 | 1500P 16V [M] |
| C131 | ECBT1H821KB5 | 820P 50V [M] | C175 | ECEA1VU221B | 220 35V [M] | C231 | ECEA1HKA3R3B | 3.3 50V [M] | C417 | ECFR1C333KR | 0.033 16V [M] |
| C132 | ECBT1H102KB5 | 1000P 50V [M] | C176 | ECQV1H473JZ3 | 0.047 50V [M] | C232 | ECBT1C332KR5 | 3300P 16V [M] | C418 | ECEA1HKAR15B | 0.15 50V [M] |
| C132 | ECBT1H821KB5 | 820P 50V [M] | C177 | ECBT1H102KB5 | 1000P 50V [M] | C233 | ECEA1HKA010B | 1 50V [M] | C419 | ECEA1HKAR15B | 0.15 50V [M] |
| C133 | ECBT1H150JC5 | 15P 50V [M] | C178 | ECBT1H102KB5 | 1000P 50V [M] | C234 | ECFR1C683KR | 0.068 16V [M] | C420 | ECBT1H102KB5 | 1000P 50V [M] |
| C133 | ECEA1HKA4R7B | 4.7 50V [M] | C179 | ECBT1C103MS5 | 0.01 16V [M] | C235 | ECFR1C683KR | 0.068 16V [M] | C421 | ECFR1C683KR | 0.068 16V [M] |
| C134 | ECBT1H180JC5 | 18P 50V [M] | C180 | ECBT1C103MS5 | 0.01 16V [M] | C236 | ECBT1H101KB5 | 100P 50V [M] | C422 | ECBT1H471KB5 | 470P 50V [M] |
| C134 | ECEA1HKA4R7B | 4.7 50V [M] | C181 | ECBT1C103MS5 | 0.01 16V [M] | C237 | ECBT1H102KB5 | 1000P 50V [M] | C423 | ECEA1HKA2R2B | 2.2 50V [M] |
| C135 | ECBT1H102KB5 | 1000P 50V [M] | C182 | ECEA1HKA4R7B | 4.7 50V [M] | C239 | ECBT1H102KB5 | 1000P 50V [M] | C424 | ECEA1HKA3R3B | 3.3 50V [M] |
| C136 | ECBT1H102KB5 | 1000P 50V [M] | C183 | ECQV1H474JZ3 | 0.47 50V [M] | C241 | ECBT1H101KB5 | 100P 50V [M] | C425 | ECEA1HKA3R3B | 3.3 50V [M] |
| C137 | ECFR1C472KR | 4700P 16V [M] | C184 | ECQP1152JZT | 1500P 100V [M] | C300 | ECBT1E103ZF5 | 0.01 25V [M] | C426 | ECFR1C104MR | 0.1 16V [M] |
| C138 | ECBT1C103KS5 | 0.01 16V [M] | C185 | ECQP2A472JZT | 4700P 100V [M] | C301 | ECBT1H102KB5 | 1000P 50V [M] | C427 | ECBT1H681KB5 | 680P 50V [M] |
| C139 | ECEA1HKA2R2B | 2.2 50V [M] | C186 | ECEA1AKA470B | 47 10V [M] | C303 | ECBT1H104ZF5 | 0.1 50V [M] | C428 | ECEA1CKA100B | 10 16V [M] |
| C139 | ECFR1C472KR | 4700P 16V [M] | C187 | ECBT1H101KB5 | 100P 50V [M] | C304 | ECEA1AM331B | 330 10V [M] | C429 | ECBT1H101KB5 | 100P 50V [M] |
| C140 | ECEA1CKA100B | 10 16V [M] | C188 | ECBT1H101KB5 | 100P 50V [M] | C305 | ECBT1C152KR5 | 1500P 16V [M] | C430 | ECBT1H470J5 | 47P 50V [M] |
| C141 | ECEA1HKA010B | 1 50V [M] | C193 | ECBT1H102KB5 | 1000P 50V [M] | C306 | ECEA1HKA0R1B | 0.1 50V [M] | C431 | ECEA1HKA3R3B | 3.3 50V [M] |
| C141 | ECEA1HKA0R1B | 0.1 50V [M] | C194 | ECBT1H102KB5 | 1000P 50V [M] | C307 | ECBT1H102KB5 | 1000P 50V [M] | C432 | ECBT1C332KR5 | 3300P 16V [M] |
| C142 | ECEA1HKA010B | 1 50V [M] | C201 | ECBT1H101KB5 | 100P 50V [M] | C311 | ECBT1H104ZF5 | 0.1 50V [M] | C433 | ECEA1HKA010B | 1 50V [M] |
| C142 | ECFR1C223KR | 0.022 16V [M] | C201 | ECEA1CKA101B | 100 16V [M] | C312 | ECBT1H104ZF5 | 0.1 50V [M] | C434 | ECFR1C473KR | 0.047 16V [M] |
| C143 | ECBT1C472KR5 | 4700P 16V [M] | C202 | ECBT1H101KB5 | 100P 50V [M] | C313 | ECBT1H104ZF5 | 0.1 50V [M] | C435 | ECFR1C473KR | 0.047 16V [M] |
| C143 | ECEA1HKA4R7B | 4.7 50V [M] | C202 | ECBT1H104ZF5 | 0.1 50V [M] | C314 | ECBT1H151KB5 | 150P 50V [M] | C436 | ECBT1H101KB5 | 100P 50V [M] |
| C144 | ECBT1C472KR5 | 4700P 16V [M] | C203 | ECBT1H331KB5 | 330P 50V [M] | C315 | ECBT1H151KB5 | 150P 50V [M] | C437 | ECBT1H102KB5 | 1000P 50V [M] |
| C144 | ECEA1HKA4R7B | 4.7 50V [M] | C204 | ECBT1H221KB5 | 220P 50V [M] | C316 | ECBT1H151KB5 | 150P 50V [M] | C441 | ECBT1H101KB5 | 100P 50V [M] |
| C145 | ECEA1CKA100B | 10 16V [M] | C204 | ECBT1H331KB5 | 330P 50V [M] | C317 | ECEA1HKA010B | 1 50V [M] | C504 | RCEA1V472B-S | 4700P 35V Δ [M] |
| C146 | ECEA1CKA100B | 10 16V [M] | C205 | ECBT1C222KR5 | 2200P 16V [M] | C318 | ECBT1E103ZF5 | 0.01 25V [M] | C505 | RCEA1V562B-S | 5600P 35V Δ [M] |
| C147 | ECBT1C152KR5 | 1500P 16V [M] | C206 | ECBT1C222KR5 | 2200P 16V [M] | C319 | ECFR1C823MR | 0.082 16V [M] | C506 | RCEA1V562B-S | 5600P 35V Δ [M] |
| C147 | ECBT1H102KB5 | 1000P 50V [M] | C207 | ECEA1HKA010B | 1 50V [M] | C320 | ECBT1E103ZF5 | 0.01 25V [M] | C507 | RCEA1V472B-S | 4700P 35V Δ [M] |
| C148 | ECBT1C103NS5 | 0.01 16V [M] | C208 | ECFR1C563KR | 0.056 16V [M] | C321 | ECEA1AKA330B | 33 10V [M] | C508 | RCEA1E332B-S | 3300P 25V Δ [M] |
| C148 | ECBT1C152KR5 | 1500P 16V [M] | C209 | ECEA1HKAR15B | 0.15 50V [M] | C322 | ECFR1C683KR | 0.068 16V [M] | C509 | ECKR2H103ZF5 | 0.01 500V [M] |
| C149 | ECBT1H104ZF5 | 0.1 50V [M] | C210 | ECFR1C223KR | 0.022 16V [M] | C323 | ECFR1C393KR | 0.039 16V [M] | C510 | ECKR2H103ZF5 | 0.01 500V [M] |
| C150 | ECEA1AKA470B | 47 10V [M] | C211 | ECFR1C393KR | 0.039 16V [M] | C324 | ECEA1AKA470B | 47 10V [M] | C511 | ECKR2H103ZF5 | 0.01 500V [M] |
| C151 | ECEA1HKA010B | 1 50V [M] | C212 | ECFR1C223KR | 0.022 16V [M] | C325 | ECEA1AKA470B | 47 10V [M] | C512 | ECEA1CKA101B | 100 16V [M] |
| C152 | ECEA1HKA010B | 1 50V [M] | C213 | ECBT1C332KR5 | 3300P 16V [M] | C326 | ECBT1C562KR5 | 5600P 16V [M] | C513 | ECKR2H103ZF5 | 0.01 500V [M] |
| C153 | ECBT1H102KB5 | 1000P 50V [M] | C214 | ECBT1C222KR5 | 2200P 16V [M] | C327 | ECQV1H154JZ3 | 0.15 50V [M] | C514 | ECEA1AKA330B | 33 10V [M] |
| C154 | ECBT1H102KB5 | 1000P 50V [M] | C215 | ECBT1C272KR5 | 2700P 16V [M] | C328 | ECQV1H124JZ3 | 0.12 50V [M] | C515 | ECEA1JM101B | 100 63V [M] |
| C155 | ECEA1CKA100B | 10 16V [M] | C216 | ECBT1C152KR5 | 1500P 16V [M] | C329 | ECEA0JKA220B | 22 6.3V [M] | C516 | ECEA2AM100B | 10 100V [M] |
| C156 | ECEA1CKA100B | 10 16V [M] | C217 | ECFR1C333KR | 0.033 16V [M] | C331 | ECEA1HKA4R7B | 4.7 50V [M] | C517 | ECBT1H473ZF5 | 0.047 50V [M] |
| C161 | ECEA1CKA101B | 100 16V [M] | C218 | ECEA1HKAR15B | 0.15 50V [M] | C401 | ECBT1H101KB5 | 100P 50V [M] | C518 | ECBT1H473ZF5 | 0.047 50V [M] |
| C162 | ECEA1CU471B | 470 16V [M] | C219 | ECEA1HKAR15B | 0.15 50V [M] | C402 | ECBT1H101KB5 | 100P 50V [M] | C519 | ECEA1HM100B | 10 50V [M] |
| C163 | ECEA1HKM010B | 1 50V [M] | C220 | ECBT1H102KB5 | 1000P 50V [M] | C404 | ECBT1H221KB5 | 220P 50V [M] | C520 | ECKR2H103ZF5 | 0.01 500V [M] |
| C164 | ECEA1HKM010B | 1 50V [M] | C221 | ECFR1C683KR | 0.068 16V [M] | C407 | ECEA1HKA010B | 1 50V [M] | C521 | ECEA1EKA330B | 33 25V [M] |
| C165 | ECEA1CKA100B | 10 16V [M] | C222 | ECBT1H471KB5 | 470P 50V [M] | C408 | ECFR1C563KR | 0.056 16V [M] | C522 | ECEA1EM101B | 100 25V [M] |

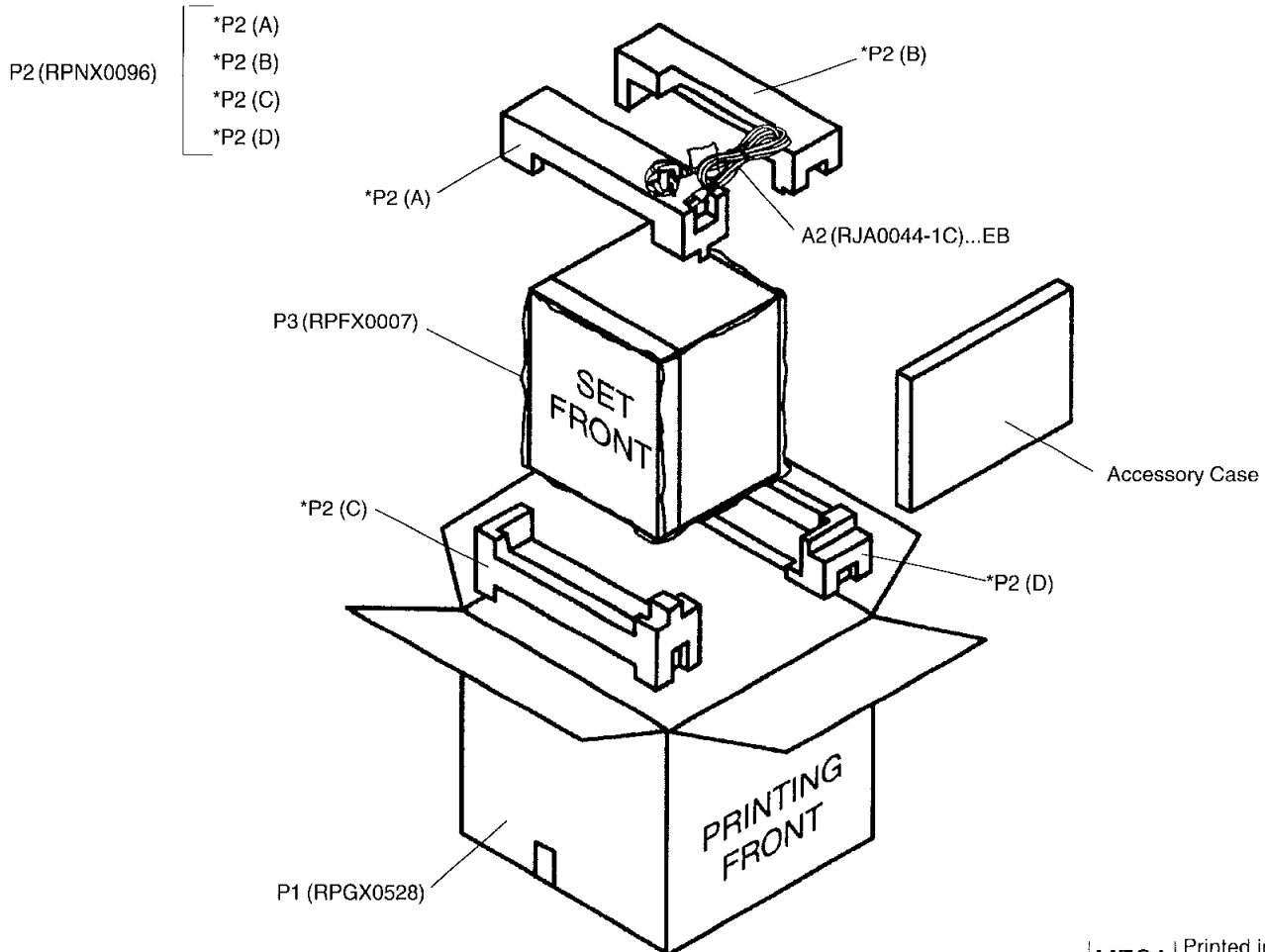
| Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks | Ref. No. | Part No. | Values & Remarks |
|----------|--------------|------------------|----------|--------------|------------------|----------|--------------|------------------|----------|--------------|------------------|
| C523 | ECEA1HKNR47B | 0.47 50V [M] | C627 | ECBT1E103ZF5 | 0.01 25V [M] | C712 | ECUZ1E104ZFN | 0.1 25V [M] | RJ709 | ERJ8GEY0R00A | 0 1/8W [M] |
| C524 | ECEA1HKA100B | 10 50V [M] | C628 | ECEA1AKA220B | 22 10V [M] | C713 | ECUZ1E104MBN | 0.1 25V [M] | RJ710 | ERJ8GEY0R00A | 0 1/8W [M] |
| C526 | ECEA1HM330B | 33 50V [M] | C629 | ECBT1H331KB5 | 330P 50V [M] | C714 | ECEA0JKA101I | 100 6.3V [M] | RJ721 | ERJ6GEY0R00A | 0 1/10W [M] |
| C527 | ECKR2H103ZF5 | 0.01 500V [M] | C630 | ECBT1H561KB5 | 560P 50V [M] | C715 | ECUZ1H182KBN | 1800P 50V [M] | RJ722 | ERJ6GEY0R00A | 0 1/10W [M] |
| C528 | ECKR2H103ZF5 | 0.01 500V [M] | C631 | ECBT1H561KB5 | 560P 50V [M] | C716 | ECUZ1H821KBN | 820P 50V [M] | RJ723 | ERJ6GEY0R00A | 0 1/10W [M] |
| C529 | ECEA1HM101B | 100 50V [M] | C632 | ECBT1H101KB5 | 100P 50V [M] | C717 | ECUZ1E104ZFN | 0.1 25V [M] | RJ724 | ERJ6GEY0R00A | 0 1/10W [M] |
| C530 | ECKR2H102ZF5 | 1000P 500V [M] | C633 | ECBT1H101KB5 | 100P 50V [M] | C718 | ECUZ1C224KBN | 0.22 16V [M] | RJ725 | ERJ6GEY0R00A | 0 1/10W [M] |
| C533 | ECEA1HM101B | 100 50V [M] | C634 | ECEA1VKA220B | 22 35V [M] | C721 | ECUZ1H150JCN | 15P 50V [M] | RJ728 | ERJ6GEY0R00A | 0 1/10W [M] |
| C536 | ECBT1H150JC5 | 15P 50V [M] | C635 | ECBT1H561KB5 | 560P 50V [M] | C722 | ECUZ1H150JCN | 15P 50V [M] | RJ727 | ERJ6GEY0R00A | 0 1/10W [M] |
| C537 | ECBT1H150JC5 | 15P 50V [M] | C636 | ECBT1H561KB5 | 580P 50V [M] | C723 | ECEA1AKA221I | 220 10V [M] | RJ728 | ERJ6GEY0R00A | 0 1/10W [M] |
| C540 | ECBT1H471KB5 | 470P 50V [M] | C637 | ECBT1H561KB5 | 560P 50V [M] | C724 | ECUZ1E104MBN | 0.1 25V [M] | RJ750 | ERJ6GEY0R00A | 0 1/10W [M] |
| C541 | ECBT1H471KB5 | 470P 50V [M] | C638 | ECBT1H561KB5 | 560P 50V [M] | C725 | ECUZ1H102KBN | 1000P 50V [M] | | | |
| C542 | ECQV1H104JZ3 | 0.1 50V [M] | C639 | ECBT1H101KB5 | 100P 50V [M] | C726 | ECUZ1H102KBN | 1000P 50V [M] | | | TEST JUMPER |
| C543 | ECQV1H104JZ3 | 0.1 50V [M] | C640 | ECBT1H561KB5 | 560P 50V [M] | C727 | ECA1HAK010XI | 1 50V [M] | | | |
| C544 | ECKR2H103ZF5 | 0.01 500V [M] | C641 | ECBT1H561KB5 | 560P 50V [M] | C728 | ECA1HAK010XI | 1 50V [M] | TJ701 | EYF8CU | TEST JUMPER [M] |
| C545 | ECBT1E103ZF5 | 0.01 25V [M] | C642 | ECEA1CKA100B | 10 16V [M] | C730 | ECUZ1E104ZFN | 0.1 25V [M] | | | |
| C546 | ECBT1H104ZF5 | 0.1 50V [M] | C643 | ECBT1E103ZF5 | 0.01 25V [M] | C731 | ECEA0JKA221I | 220 6.3V [M] | | | |
| C547 | ECBT1H104ZF5 | 0.1 50V [M] | C644 | ECEA1HKA0R1B | 0.1 50V [M] | C732 | ECEA0JKA221I | 220 6.3V [M] | | | |
| C548 | ECKR2H103ZF5 | 0.01 500V [M] | C645 | ECEA1HKA0R1B | 0.1 50V [M] | C733 | ECUZ1E104MBN | 0.1 25V [M] | | | |
| C550 | ECEA2AU100B | 10 100V [M] | C647 | ECBT1E103ZF5 | 0.01 25V [M] | C734 | ECEA1AKA221I | 220 10V [M] | | | |
| C551 | ECEA1CKA101B | 100 16V [M] | C648 | ECEA1HKA0R1B | 0.1 50V [M] | C735 | ECUZ1E104ZFN | 0.1 25V [M] | | | |
| C553 | ECQV1H104JZ3 | 0.1 50V [M] | C649 | ECEA1HKA0R1B | 0.1 50V [M] | C736 | ECUZ1E104ZFN | 0.1 25V [M] | | | |
| C554 | ECQV1H104JZ3 | 0.1 50V [M] | C650 | ECBT1E103ZF5 | 0.01 25V [M] | C737 | ECUZ1E104ZFN | 0.1 25V [M] | | | |
| C561 | ECBT1H473ZF5 | 0.047 50V [M] | C651 | ECBT1H150JC5 | 15P 50V [M] | C738 | ECUZ1E104MBN | 0.1 25V [M] | | | |
| C562 | ECBT1H473ZF5 | 0.047 50V [M] | C652 | ECBT1H101KB5 | 100P 50V [M] | C739 | ECUZ1H103KBN | 0.01 50V [M] | | | |
| C563 | ECBT1H473ZF5 | 0.047 50V [M] | C653 | ECEA1AM331B | 330 10V [M] | C742 | ECUZ1E273KBN | 0.027 25V [M] | | | |
| C564 | ECBT1H473ZF5 | 0.047 50V [M] | C654 | ECBT1H180JC5 | 18P 50V [M] | C743 | ECUZ1E104ZFN | 0.1 25V [M] | | | |
| C592 | ECKR2H103ZF5 | 0.01 500V [M] | C655 | ECBT1H101KB5 | 100P 50V [M] | C744 | ECUZ1E183KBN | 0.018 25V [M] | | | |
| C593 | RCEA1C102B-S | 1000P 16V Δ [M] | C656 | ECBT1H680J5 | 68P 50V [M] | C745 | ECUZ1C473KBN | 0.047 16V [M] | | | |
| C596 | ECKR2H103ZF5 | 0.01 500V [M] | C657 | ECBT1H680J5 | 68P 50V [M] | C747 | ECUV1H221KBN | 220P 50V [M] | | | |
| C597 | ECEA1EKA220B | 22 25V [M] | C658 | ECEA1HKA010B | 1 50V [M] | C749 | ECUZ1H222KBN | 2200P 50V [M] | | | |
| C604 | ECBT1E223ZF5 | 0.022 25V [M] | C659 | ECBT1H560J5 | 56P 50V [M] | C750 | ECUZ1E104MBN | 0.1 25V [M] | | | |
| C606 | ECBT1E223ZF5 | 0.022 25V [M] | C660 | ECEA1HKA3R3B | 3.3 50V [M] | C751 | ECUZ1E104MBN | 0.1 25V [M] | | | |
| C611 | ECBT1H104ZF5 | 0.1 50V [M] | C661 | ECBT1H560J5 | 56P 50V [M] | C752 | ECUZ1H102KBN | 1000P 50V [M] | | | |
| C612 | ECEA1VKA220B | 22 35V [M] | C662 | ECEA1HKA2R2B | 2.2 50V [M] | C753 | ECUZ1H471KBN | 470P 50V [M] | | | |
| C613 | ECBT1H681KB5 | 680P 50V [M] | C663 | ECBT1H102KB5 | 1000P 50V [M] | C754 | ECUZ1H471KBN | 470P 50V [M] | | | |
| C614 | ECBT1H681KB5 | 680P 50V [M] | C664 | ECBT1H102KB5 | 1000P 50V [M] | C761 | ECUZ1H471KBN | 470P 50V [M] | | | |
| C615 | ECBT1H101KB5 | 100P 50V [M] | C665 | ECBT1H561KB5 | 560P 50V [M] | C762 | ECUZ1H471KBN | 470P 50V [M] | | | |
| C616 | ECBT1H101KB5 | 100P 50V [M] | C666 | ECBT1H102KB5 | 1000P 50V [M] | | | | | | |
| C617 | ECBT1H681KB5 | 680P 50V [M] | C667 | ECBT1H102KB5 | 1000P 50V [M] | | | CHIP JUMPER | | | |
| C618 | ECBT1H681KB5 | 680P 50V [M] | C668 | ECBT1H471KB5 | 470P 50V [M] | | | | | | |
| C619 | ECBT1H104ZF5 | 0.1 50V [M] | C701 | ECEA0JKA330I | 33 6.3V [M] | RJ701 | ERJ6GEY0R00A | 0 1/10W [M] | | | |
| C620 | ECBT1H104ZF5 | 0.1 50V [M] | C702 | ECUZ1E104MBN | 0.1 25V [M] | RJ702 | ERJ8GEY0R00A | 0 1/8W [M] | | | |
| C621 | ECBT1E103ZF5 | 0.01 25V [M] | C703 | ECEA0JKA101I | 100 6.3V [M] | RJ703 | ERJ8GEY0R00A | 0 1/8W [M] | | | |
| C622 | ECBT1E103ZF5 | 0.01 25V [M] | C704 | ECUZ1E104MBN | 0.1 25V [M] | RJ704 | ERJ8GEY0R00A | 0 1/8W [M] | | | |
| C623 | ECBT1H102KB5 | 1000P 50V [M] | C706 | ECUZ1H272KBN | 2700P 50V [M] | RJ705 | ERJ8GEY0R00A | 0 1/8W [M] | | | |
| C624 | ECEA0JKA101B | 100 6.3V [M] | C707 | ECUZ1E273KBN | 0.027 25V [M] | RJ706 | ERJ8GEY0R00A | 0 1/8W [M] | | | |
| C625 | RCEA0J102B-S | 1000P 6.3V [M] | C710 | ECUV1H151KCN | 150P 50V [M] | RJ707 | ERJ8GEY0R00A | 0 1/8W [M] | | | |
| C626 | ECBT1H102KB5 | 1000P 50V [M] | C711 | ECUZ1E104ZFN | 0.1 25V [M] | RJ708 | ERJ8GEY0R00A | 0 1/8W [M] | | | |

Packing Materials & Accessories

- Notes: *
- Important 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 these components, be sure to use only manufacturer's specified parts shown in the parts list.
 - * The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area)
 - Parts without these indications can be used for all areas.
 - * The "(SF)" mark denotes the standard part.
 - * [M] indicates in the Remarks columns indicates parts supplied by **MESA**.
 - * [D] indicates in the Remarks columns indicates parts supplied by **MAVD**.
 - * Remote Control Unit : Supply period for three years from terminal of production.
 - * Reference for O/I book languages are as follows :
- | | | | | |
|-------------|----------------------|--------------|--------------|--------------|
| Ar : Arabic | Cf : Canadian French | Ch : Chinese | Cz : Czech | Da : Danish |
| Du : Dutch | En : English | Fr : French | Ge : German | It : Italian |
| Ko : Korean | Po : Polish | Ru : Russian | Sp : Spanish | Sw : Swedish |

| Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks | Ref No. | Part No. | Part Name & Description | Remarks |
|---------|----------|--------------------------|---------|---------|-------------|-------------------------|-------------------|---------|-----------|-------------------------|---------|
| | | PACKING MATERIALS | | | | ACCESSORIES | | | | | |
| P1 | RPGX0528 | PACKING CASE | [D] | A1 | RAK-CH944WK | REMOTE CONTROL | [M] | A3 | RQT4706-D | O/I BOOK (Ge/It/Fr) | [D]EG |
| P2 | RPNX0096 | POLYFOAM | [D] | A1-1 | 251200F1F | R/C BATTERY COVER | [M] | A3 | RQT4707-H | O/I BOOK (Du/Da) | [D]EG |
| P3 | RPFX0007 | MIRAMAT BAG | [M] | A2 | RJA0043-1C | AC CORD | [D] Δ EG,E | A3 | RQT4708-B | O/I BOOK (En) | [D]EB |
| | | | | A2 | RJA0044-1C | AC CORD | [D] Δ EB | A3 | RQT5112-R | O/I BOOK (Ru) | [D]E |
| | | | | A3 | RQT4704-E | O/I BOOK (En/Sp/Sw) | [D]E | A4 | RSA0007 | FM ANTENNA | [M] |
| | | | | A3 | RQT4705-R | O/I BOOK (Cz/Po) | [D]E | A5 | RSA0022-L | AM LOOP ANT | [M] |
| | | | | | | | | A6 | SJP9009 | ANT ADAPTER | [M]EB |

Packaging



TechInfo Sheet

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Audio Visual

email:av.technical@mail.panasonic.co.uk

Product Group: Hi-Fi Audio

Model: CR20 (CD Changer mechanism)

Date: 17/01/00

Revision No: 1.0

Document No: 01

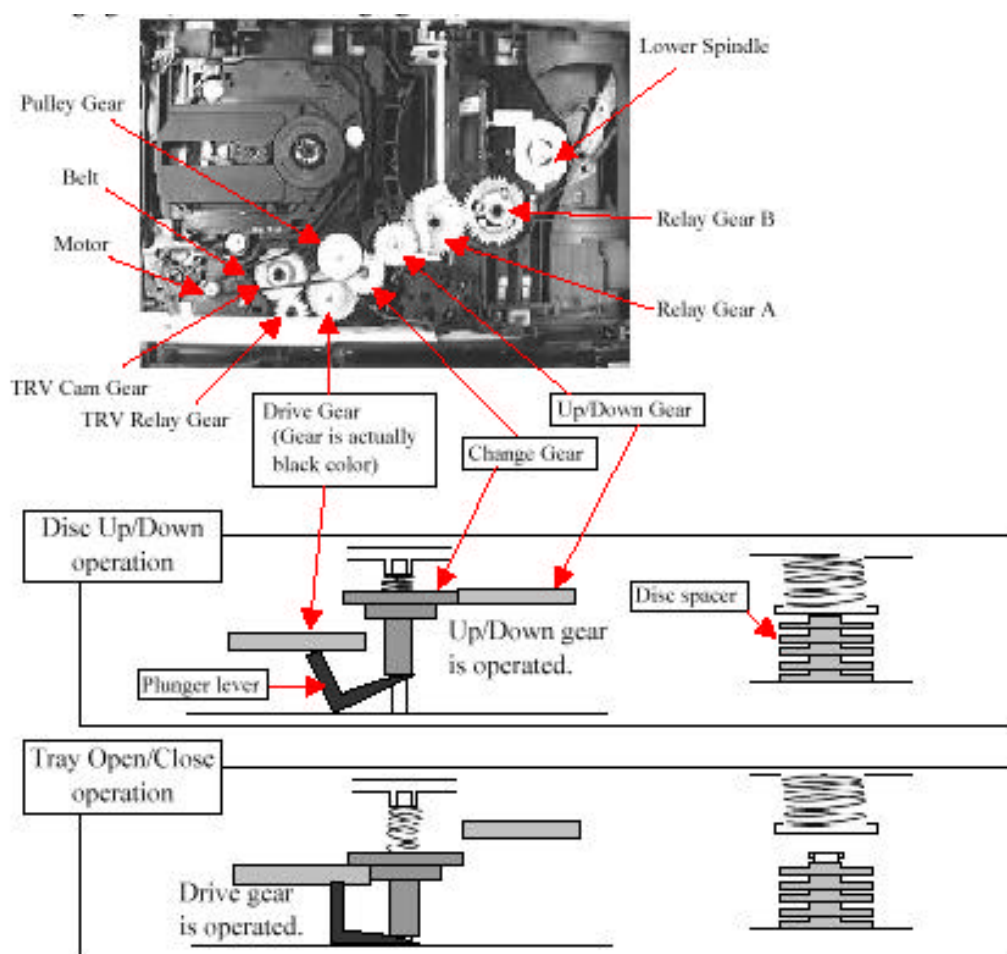
Subject: Disc spacer comes off

Symptom: The Disc spacer coming off affects other mechanical operations.

The following symptoms will appear.

- * CD Changer operation does not work.
- * CD does not play.
- * CD tray does not open.

Cause: This mechanism controls the switching of Disc Up/Down and Tray Open/Close operation using the Change gear. (Refer to following diagrams)
If the Change gear does not drop down due to tight engaging between the Change gear and Drive gear when switching to Tray open/close operation, the disc spacer will come off.

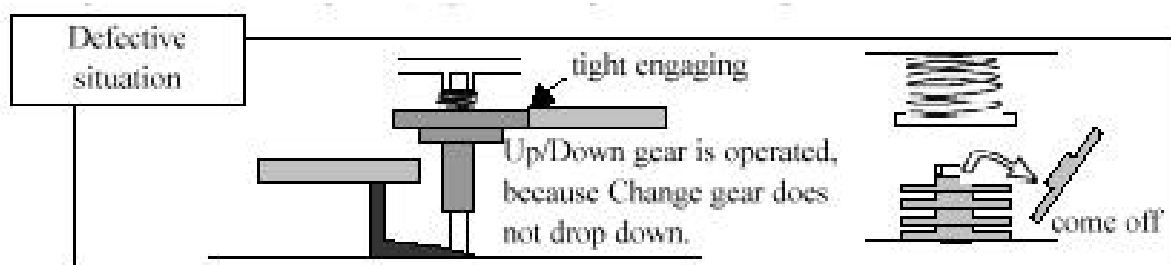


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Remedy: Replace the Change gear spring to a stronger one.

| Original | New |
|----------|-----------|
| RMB0549 | RMB0549-1 |

Action on production: From October 1999 onwards