

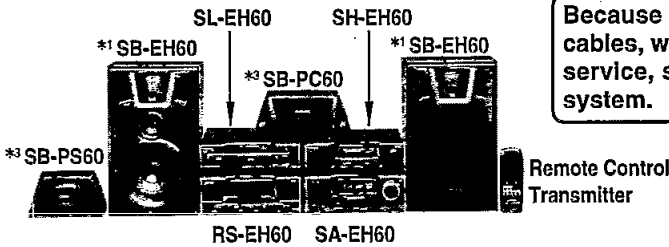
# Service Manual

## Stereo Cassette Deck

## Cassette Deck

# RS-EH60

### System: SC-EH60



Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

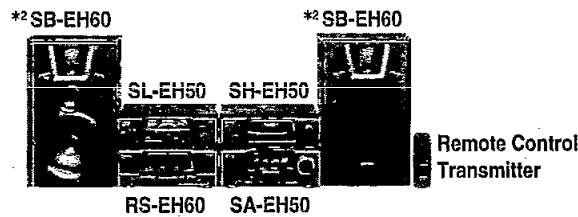
**Colour**  
(K) ..... Black

**Area**  
(E) / (EP) ... Europe, Russia, Asia, Latin America, Middle East, Africa and Oceania.

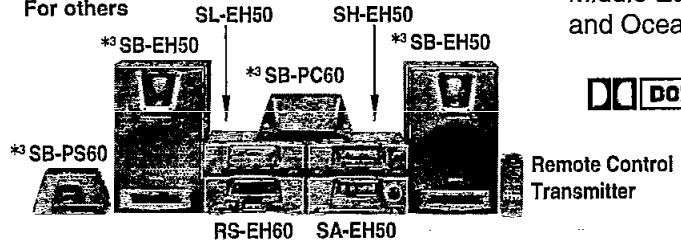


### System: SC-EH50

For Europe and Russia



For others



## AR-2 MECHANISM SERIES

### Specifications

<b>Deck system :</b>	Stereo cassette deck
<b>Track system :</b>	4 track, 2 channels
<b>Recording system :</b>	AC bias
<b>Bias frequency :</b>	100 kHz
<b>Erasing system :</b>	AC erase
<b>Heads :</b>	
<b>DECK 1 (Playback head) ;</b>	Permalloy head
<b>DECK 2 (Recording/Playback head) ;</b>	Permalloy head
<b>(Erasing head) ;</b>	Double gap ferrite head
<b>Motors :</b>	
<b>DECK 1, 2 Capstan drive ;</b>	DC servo motor
<b>Tape speed :</b>	4.8 cm/sec.
<b>Wow and flutter :</b>	0.16 % (WRMS)
<b>Fast forward and rewind times :</b>	Approx. 110 seconds with C-60 cassette tape

### Frequency response (Dolby NR off) :

<b>TYPE I (NORMAL) ;</b>	20 Hz-16 kHz (DIN)
<b>TYPE II (HIGH) ;</b>	20 Hz-16 kHz (DIN)
<b>TYPE IV (METAL) ;</b>	20 Hz-16 kHz (DIN)
<b>S/N (Signal level = max recording level, TYPE II type tape) :</b>	
<b>NR off ;</b>	56 dB (A weighted)
<b>Dolby B NR on ;</b>	66 dB (A weighted)
<b>Input sensitivity and impedance :</b>	
<b>REC (IN) ;</b>	400 mV/23 kohm
<b>Output voltage and impedance :</b>	
<b>PLAY (OUT) ;</b>	280 mV/360 ohm
<b>Dimensions :</b>	287 (W)/118.5 (H)/277 (D) mm
<b>Weight :</b>	2.0 kg

**Notes :** Specifications are subject to change without notice. Weight and dimensions are approximate.

### System/SC-EH60:

#### For Europe and Russia

Sound processor : SH-EH60,	Tuner/Amplifier : SA-EH60,	Compact disc changer : SL-EH60,	Cassette deck : RS-EH60,
Front speakers : *1 SB-EH60,	Center speaker : *2 SB-PC60,	Surround speakers : *2 SB-PS60	

#### For others

Sound processor : SH-EH60,	Tuner/Amplifier : SA-EH60,	Compact disc changer : SL-EH60,	Cassette deck : RS-EH60,
Front speakers : *2 SB-EH60,	Center speaker : *2 SB-PC60,	Surround speakers : *2 SB-PS60	

### System/SC-EH50:

#### For Europe and Russia

Sound processor : SH-EH50,	Tuner/Amplifier : SA-EH50,	Compact disc player : SL-EH50,	Cassette deck : RS-EH60,
Front speakers : *1 SB-EH60			

#### For others

Sound processor : SH-EH50,	Tuner/Amplifier : SA-EH50,	Compact disc player : SL-EH50,	Cassette deck : RS-EH60,
Front speakers : *2 SB-EH50,	Center speaker : *2 SB-PC60,	Surround speakers : *2 SB-PS60	

**Notes:** \*1 ...For Europe and Russia : Made in PAES For others : Made in MESA  
\*2 ...Made in PAES, \*3 ...Made in MESA

### WARNING

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

# Technics®

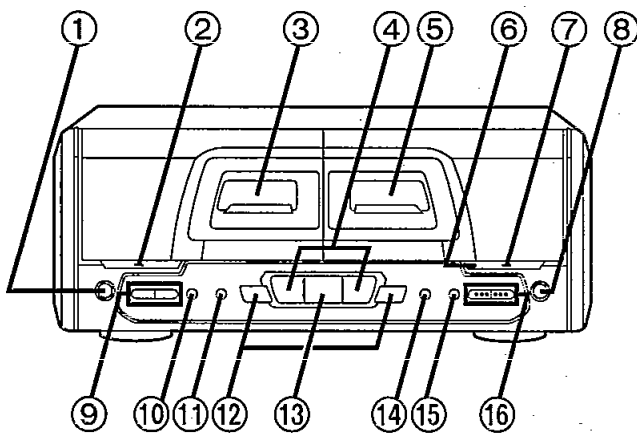
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**NOTE:**  
Refer to the service manual for Model No. SA-EH60 (ORDER No. AD9703048C8) or SA-EH50 (ORDER No. AD9703053C8) for information on "Accessories", "Connections", "Installation" and "Packaging".

## ■ Location of Controls



- ① Deck 1 cassette holder open button ( ▲ OPEN)
- ② Deck 1 indicator (DECK 1)
- ③ Deck 1 cassette holder
- ④ Playback buttons and indicators (◀, ▶)
- ⑤ Deck 2 cassette holder
- ⑥ Record pause indicator (REC PAUSE)
- ⑦ Deck 2 indicator (DECK 2)
- ⑧ Deck 2 cassette holder open button ( ▲ OPEN)
- ⑨ Counter reset, display buttons (COUNTER, RESET, DISPLAY)
- ⑩ Deck 1/deck 2 select button (DECK 1/2)
- ⑪ Reverse mode select button (REV MODE)
- ⑫ Fast forward/rewind buttons (◀◀, ▶▶)
- ⑬ Stop button ( ■ )
- ⑭ Dolby noise reduction button (DOLBY NR)
- ⑮ Record pause button ( ● REC PAUSE)
- ⑯ Tape edit buttons (TAPE EDIT, NOR, HIGH)

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.

## ■ Operation Checks and Main Component Replacement Procedures

### NOTE

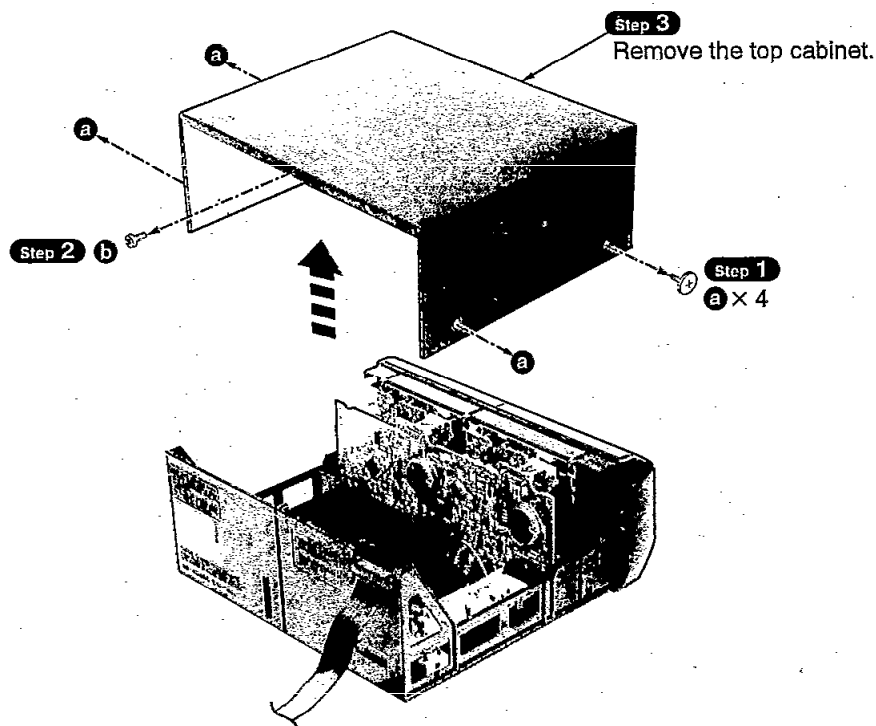
1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
3. Select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

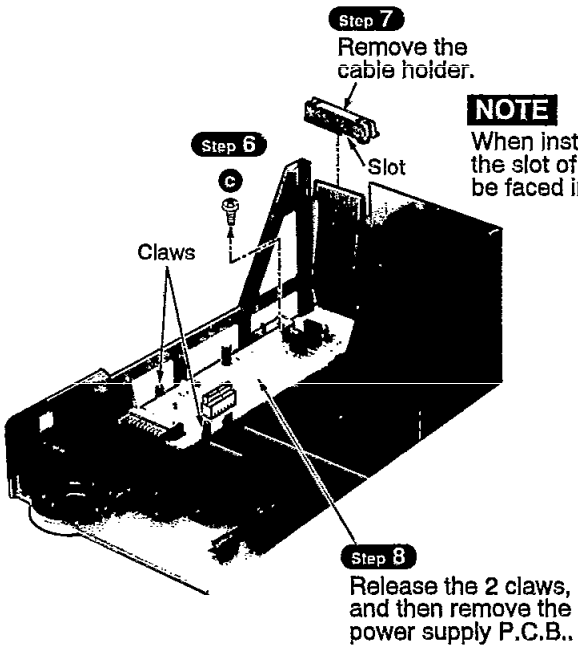
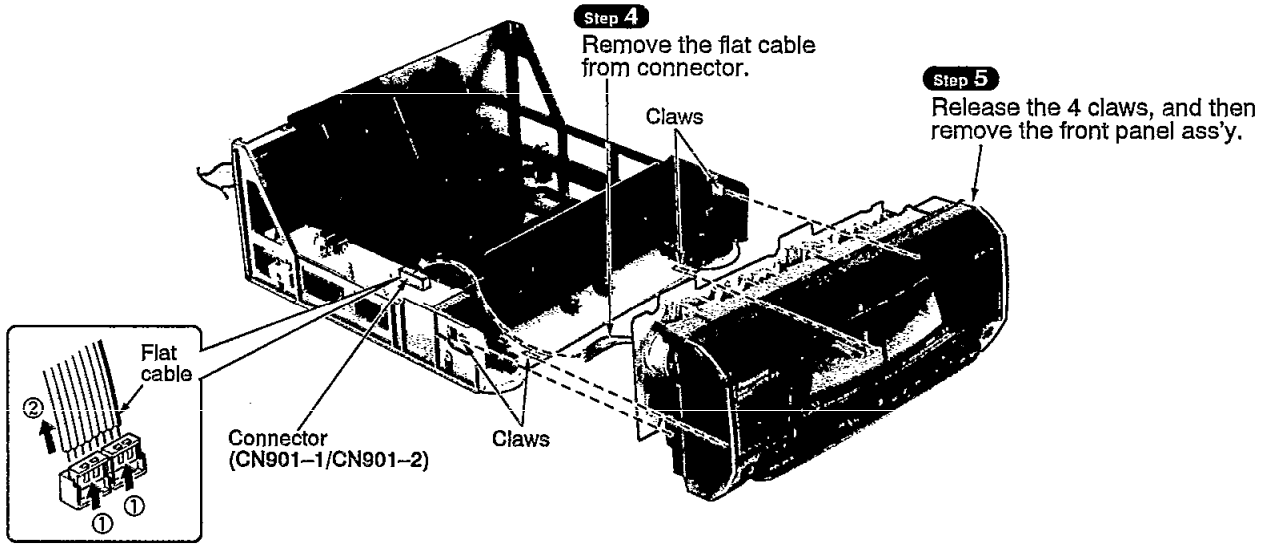
### ● Contents

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2. Checking for the operation P.C.B..	5,6.
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3. Replacement for the motor ass'y, capstan belt and winding belt.	8-11.
4. Replacement for the plunger ass'y and the parts mounted on mechanism P.C.B..	11,12.
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## ■ Checking Procedure for each P.C.B.

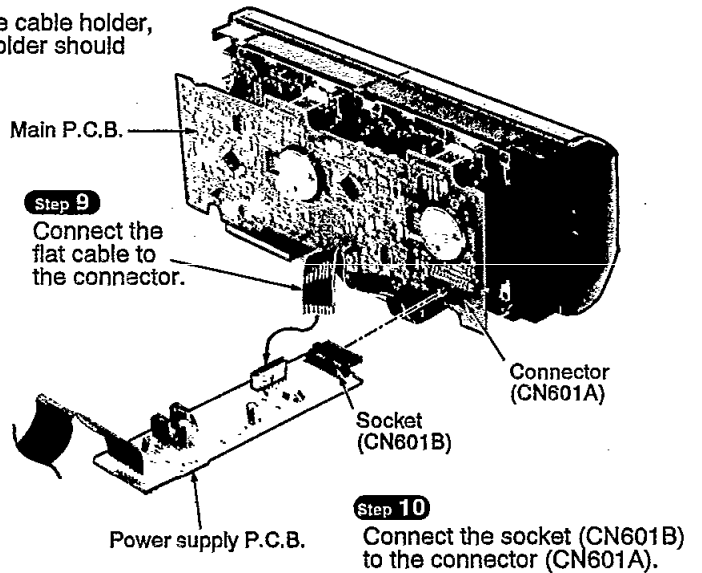
### 1. Checking for the main P.C.B. and power supply P.C.B.



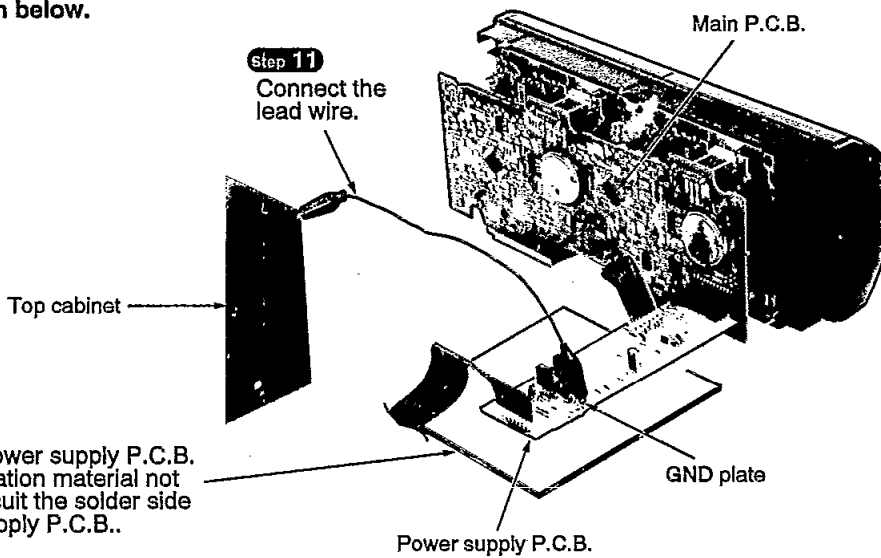


**NOTE**

When installing the cable holder, the slot of cable holder should be faced inward.



• Check the main P.C.B. and power supply P.C.B. as shown below.

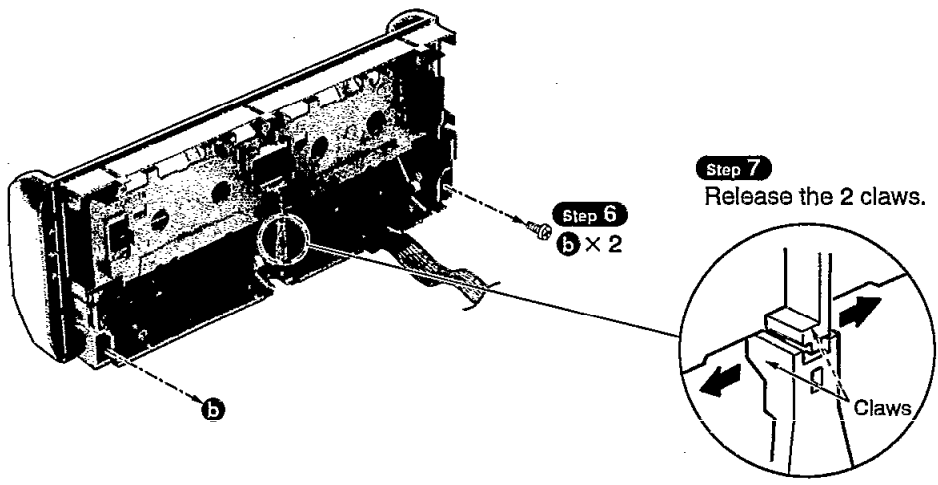
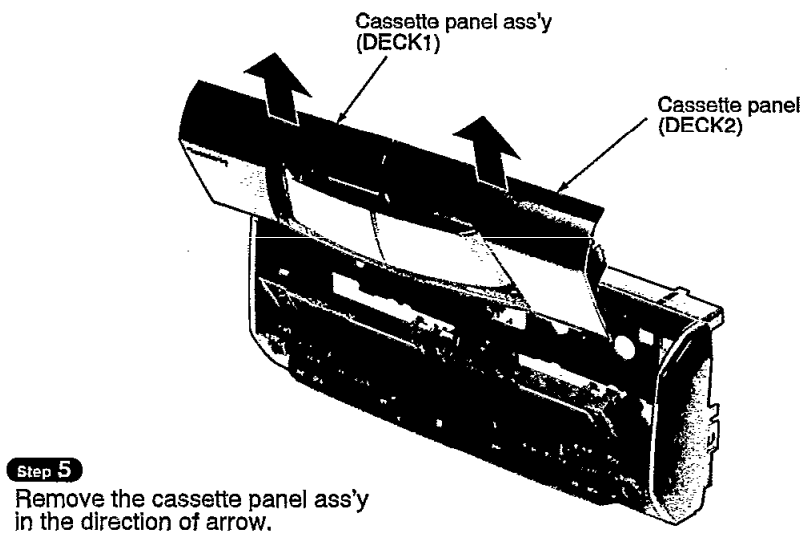
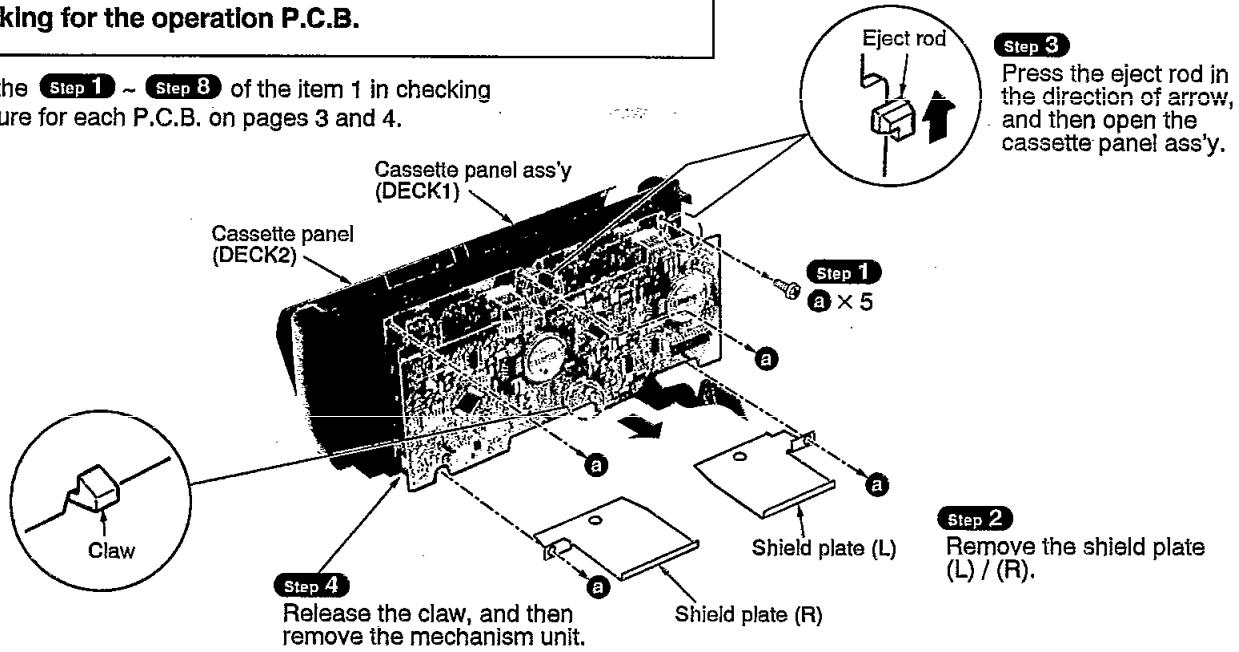


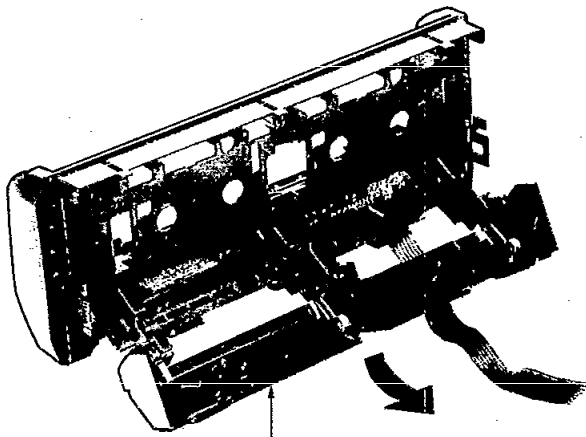
**NOTE**

Place the power supply P.C.B. on the insulation material not to short-circuit the solder side of power supply P.C.B..

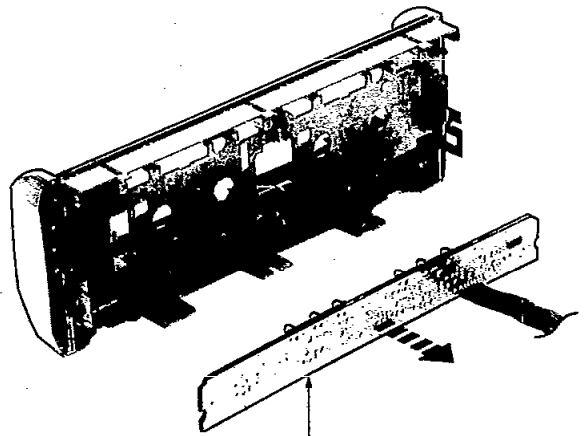
**2. Checking for the operation P.C.B.**

• Follow the **Step 1** ~ **Step 8** of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.

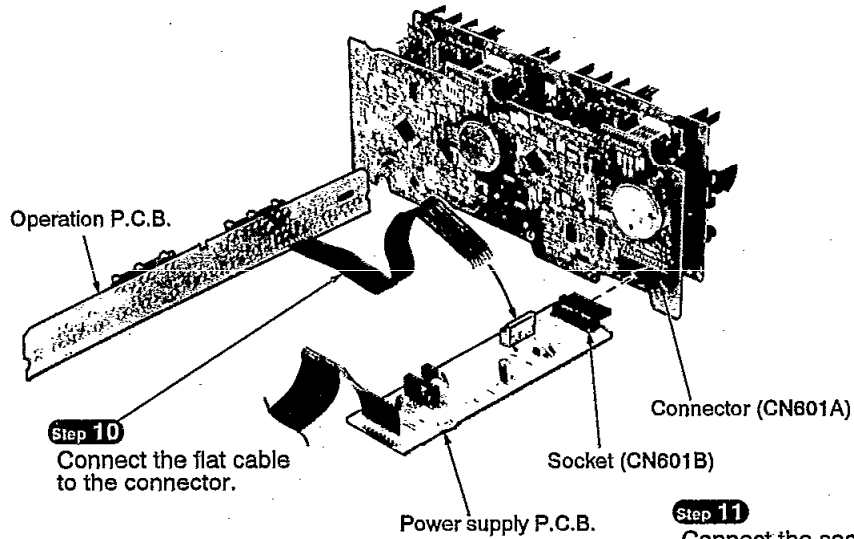




**Step 8.**  
Remove the deck mecha frame  
in the direction of arrow.



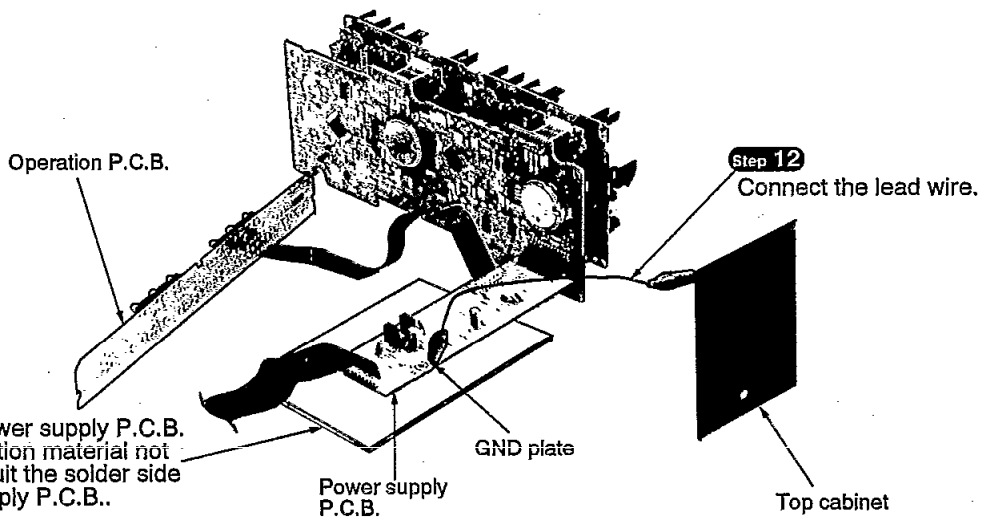
**Step 9**  
Remove the operation P.C.B..



**Step 10**  
Connect the flat cable  
to the connector.

**Step 11**  
Connect the socket (CN601B)  
to the connector (CN601A).

• Check the operation P.C.B. as shown below.



**Step 12**  
Connect the lead wire.

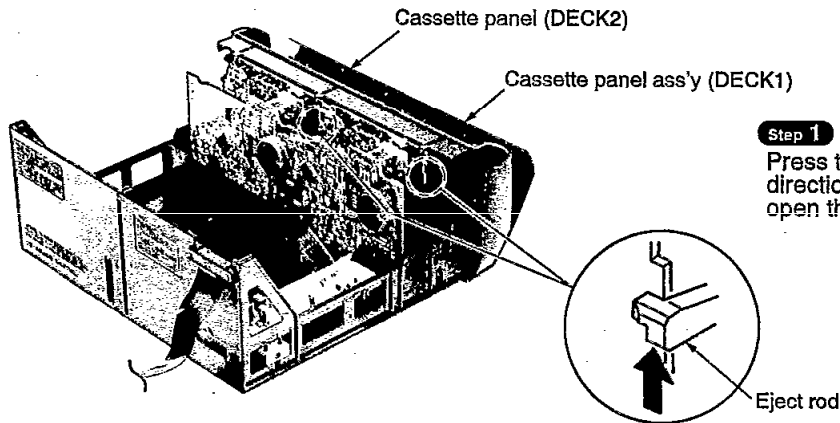
**NOTE**

Place the power supply P.C.B.  
on the insulation material not  
to short-circuit the solder side  
of power supply P.C.B..

## ■ Main Component Replacement procedures

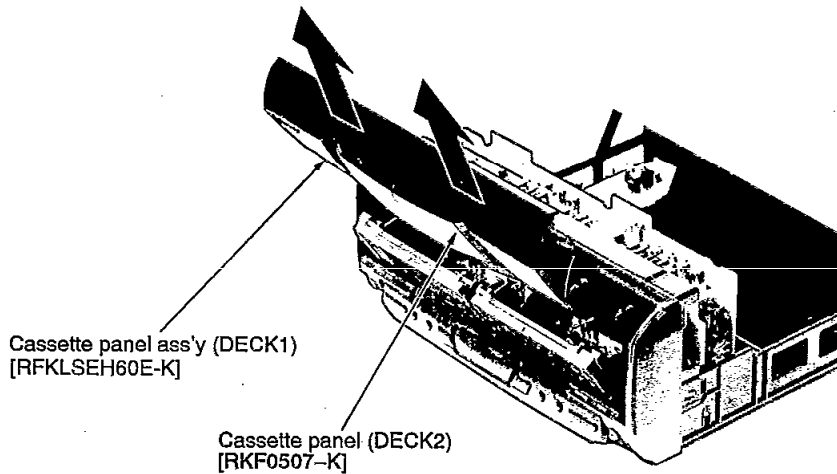
### 1. Replacement for the cassette panel ass'y

- Follow the **Step 1** ~ **Step 3** of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.



**Step 1**

Press the eject rod in the direction of arrow, and then open the cassette panel ass'y.

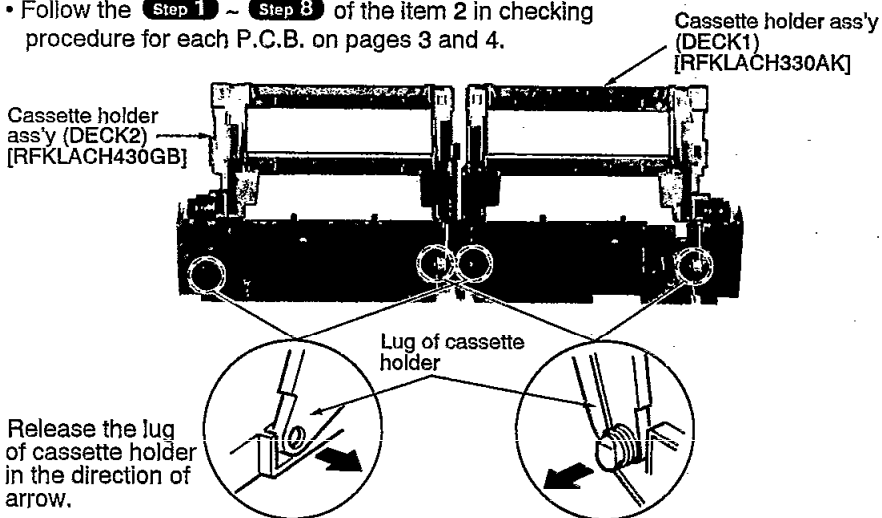


**Step 2**

Remove the cassette panel ass'y in the direction of arrow.

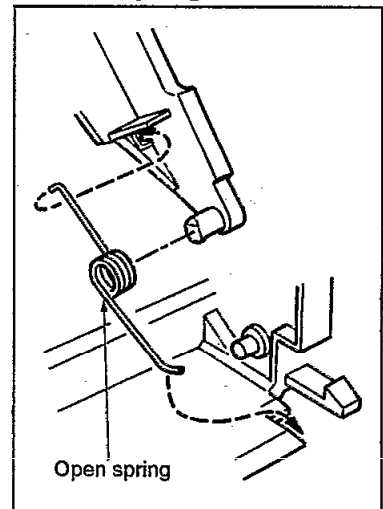
### 2. Replacement for the cassette holder

- Follow the **Step 1** ~ **Step 5** of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.
- Follow the **Step 1** ~ **Step 8** of the item 2 in checking procedure for each P.C.B. on pages 3 and 4.



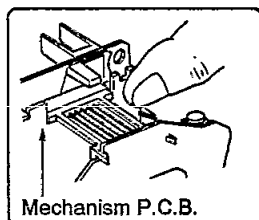
- Release the lug of cassette holder in the direction of arrow.

### ■ Open spring installation



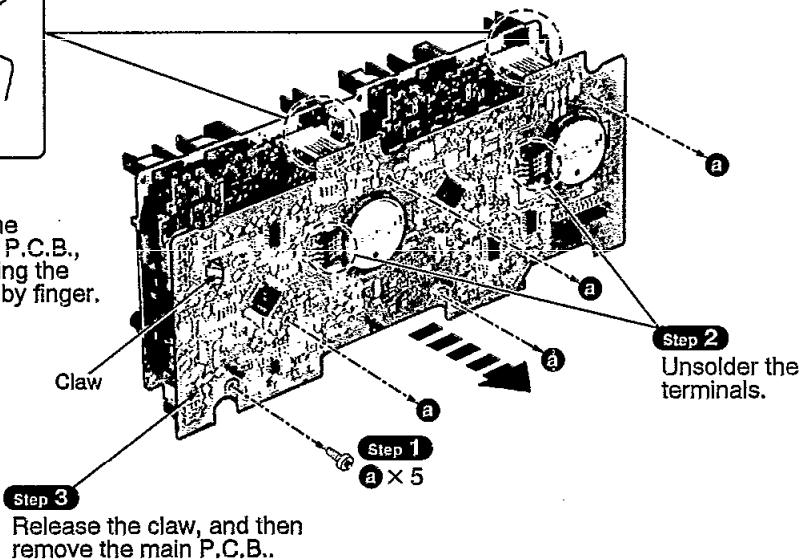
### 3. Replacement for the motor ass'y, capstan belt and winding belt.

- Follow the **Step 1** ~ **Step 5** of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.
- Follow the **Step 1** ~ **Step 4** of the item 2 in checking procedure for each P.C.B. on page 5.



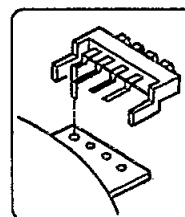
**NOTE**

When removing the mechanism control P.C.B., remove it with holding the mechanism P.C.B. by finger.



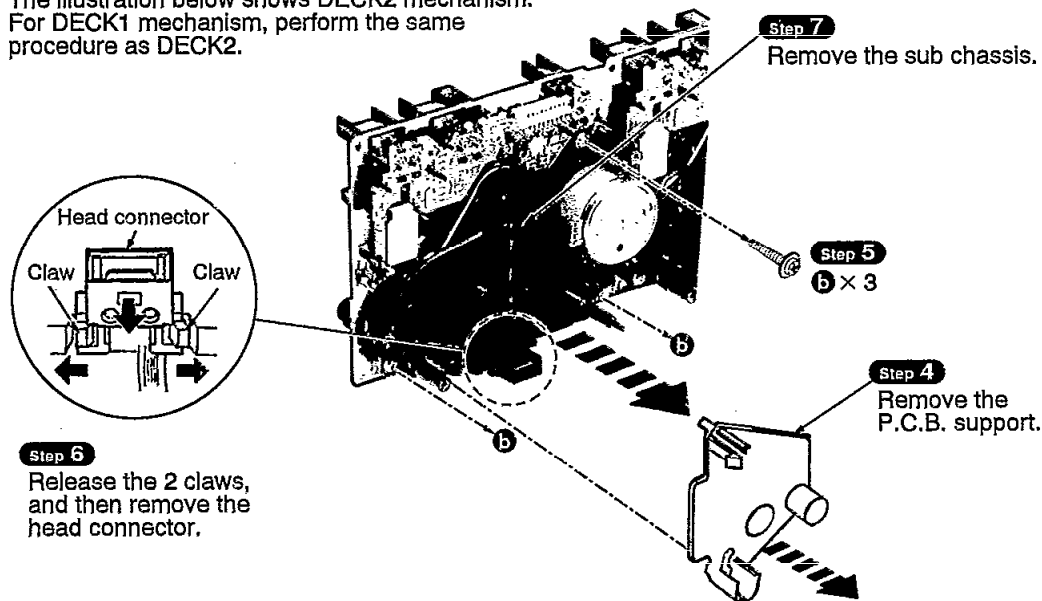
**NOTE**

Handle the connector with care so that the shape of terminals different from others.

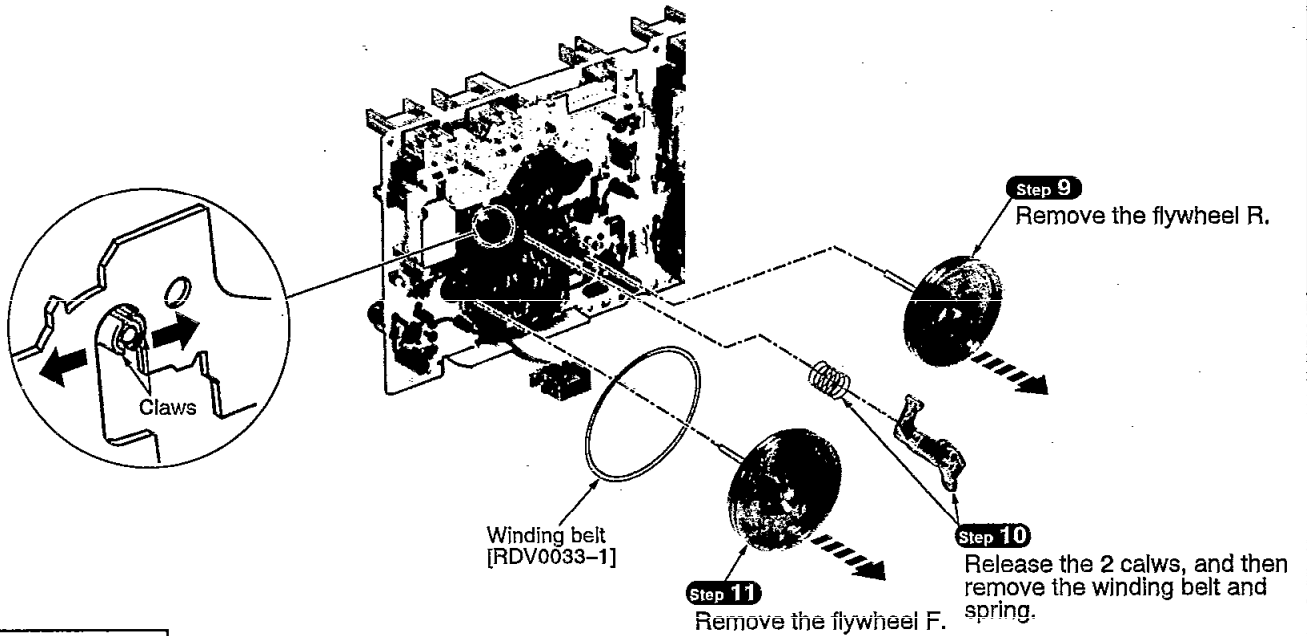
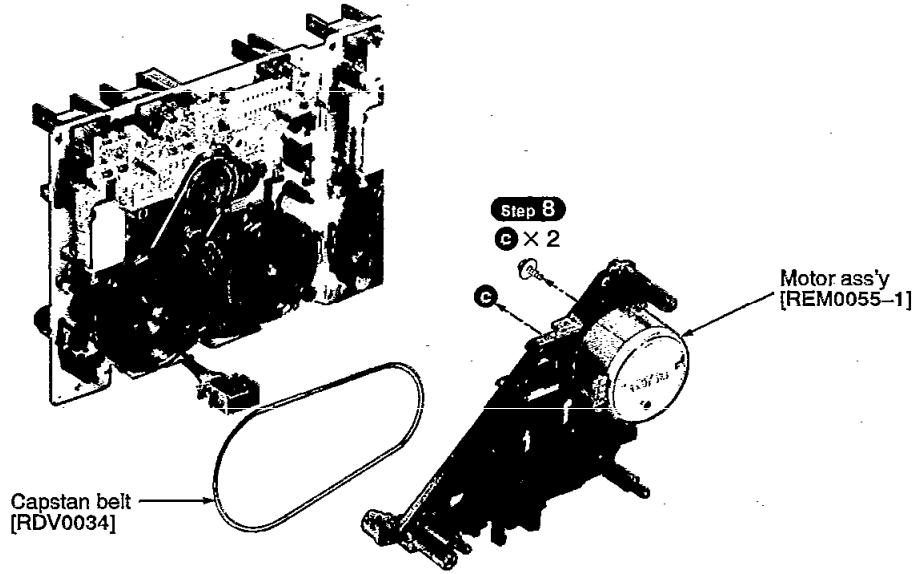


**NOTE**

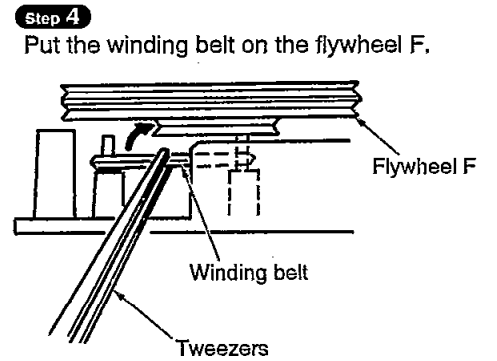
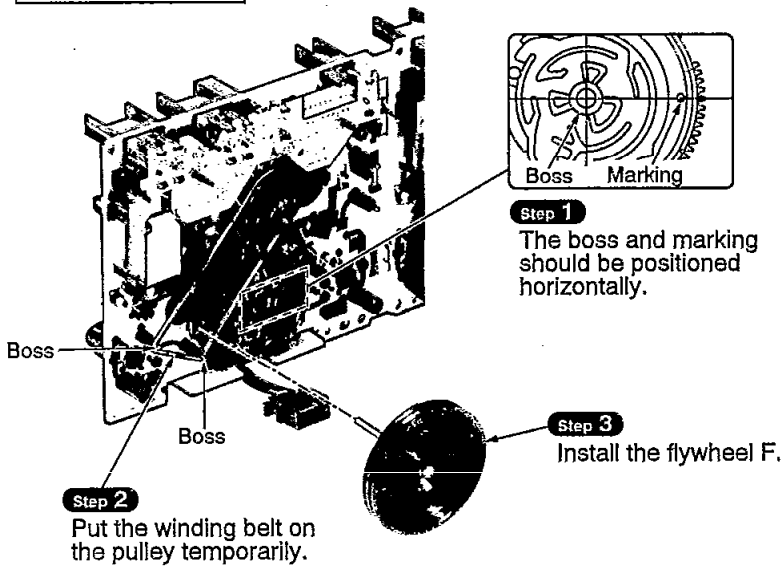
The illustration below shows DECK2 mechanism. For DECK1 mechanism, perform the same procedure as DECK2.







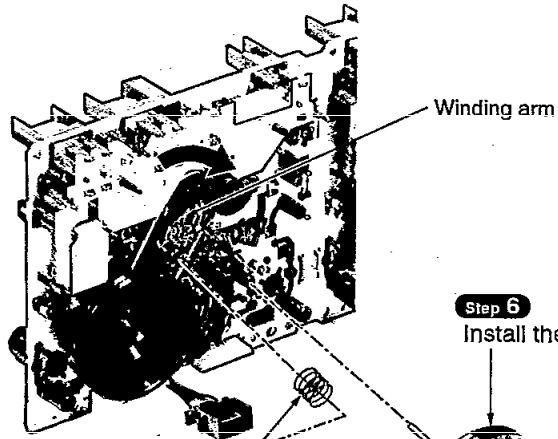
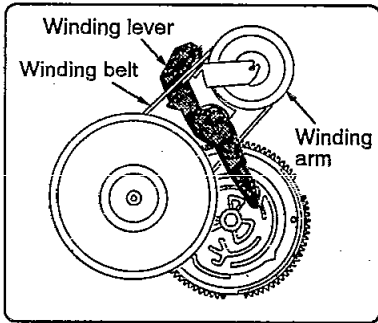
**Installing the belt**



**NOTE**  
Take care not stick the grease on the belt.

**NOTE**

The winding lever should be positioned as shown below.

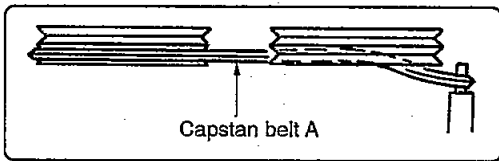


**Step 5**

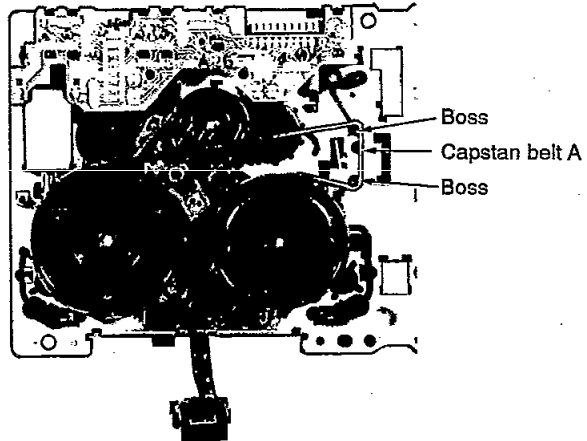
Install the winding lever and spring while pressing the winding arm in the direction of arrow. (The winding lever must be inserted completely and latched with claws.)

**Step 7**

Put the capstan belt A temporarily as shown below.



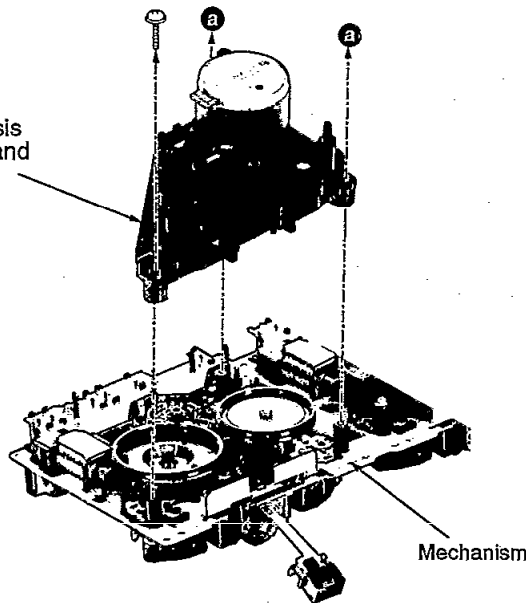
(Side view)

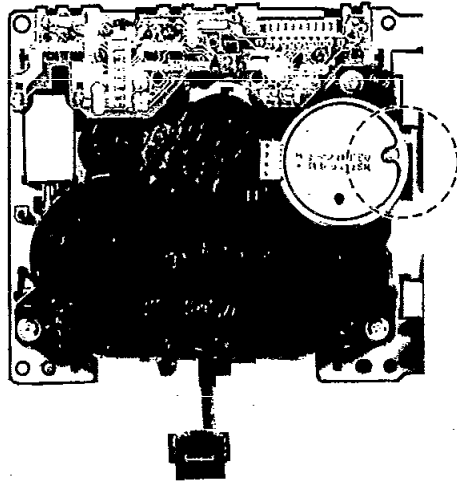


**Step 9** a x 3

**Step 8**

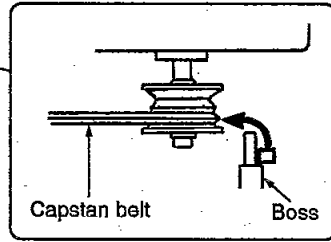
Install the sub chassis to the mechanism, and then tighten screws.





**Step 10**

Put the capstan belt on the motor ass'y pulley.

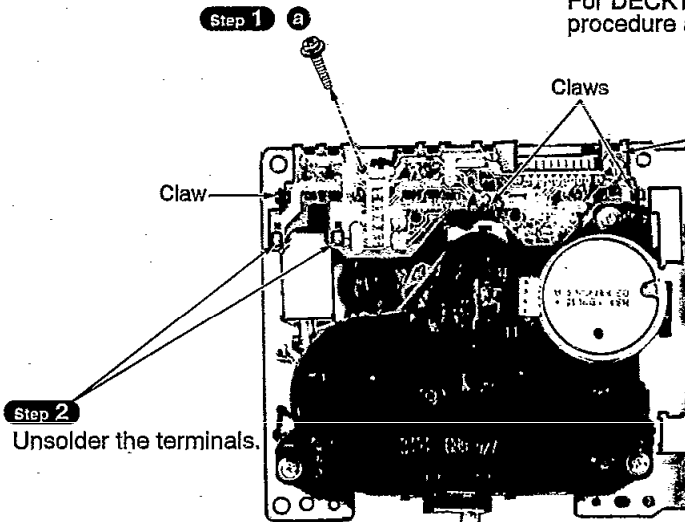


**4. Replacement for the plunger ass'y and the parts mounted on mechanism P.C.B.**

- Follow the **Step 1** ~ **Step 5** of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.
- Follow the **Step 1** ~ **Step 4** of the Item 2 in checking procedure for each P.C.B. on page 5.
- Follow the **Step 1** ~ **Step 3** of the item 3 in main component replacement procedures on page 8.

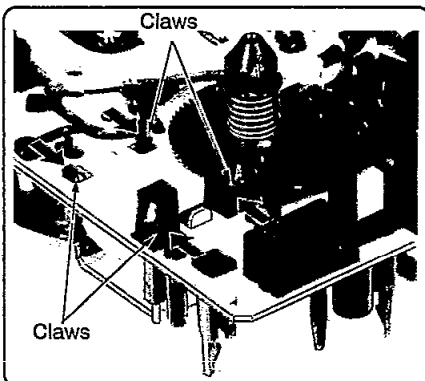
**NOTE**

The illustration below shows DECK2 mechanism. For DECK1 mechanism, perform the same procedure as DECK2.

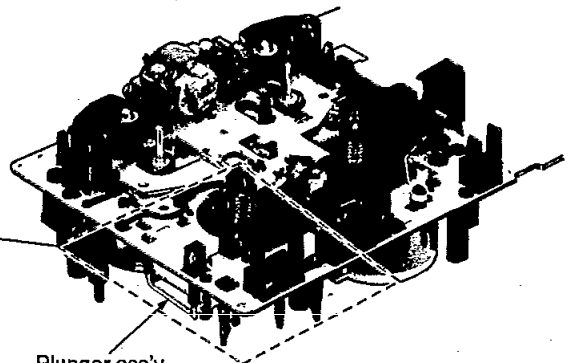


**Step 3**

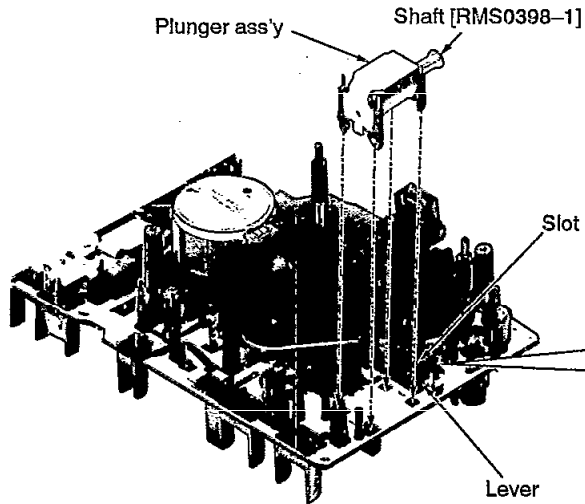
Release the 3 claws, and then remove the mechanism P.C.B..



**Step 4** Release the 4 claws.

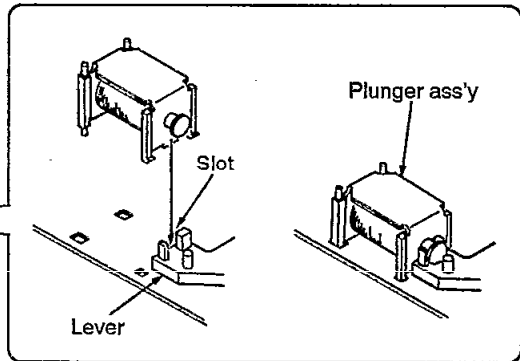


Plunger ass'y  
[RSJ0003]



**NOTE**

**Notice for Installing the plunger ass'y**  
 • The shaft of plunger ass'y should be aligned with the slot of lever.

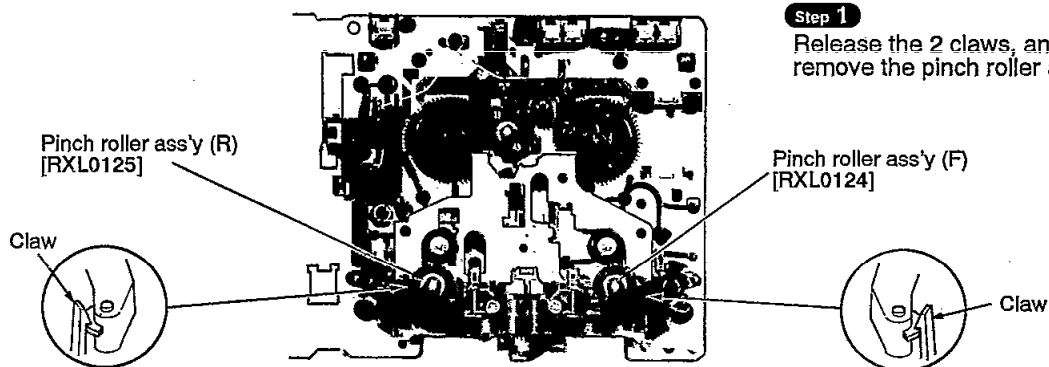


**5. Replacement for the head block and pinch roller ass'y**

- Follow the **Step 1** ~ **Step 5** of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.
- Follow the **Step 1** ~ **Step 4** of the item 2 in checking procedure for each P.C.B. on page 5.
- Follow the **Step 1** ~ **Step 3** of the item 3 in main component replacement procedures on page 8.

**NOTE**

The illustration below shows DECK2 mechanism. For DECK1 mechanism, perform the same procedure as DECK2.

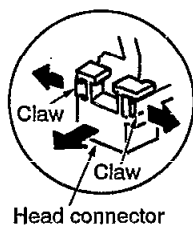


**Step 1**

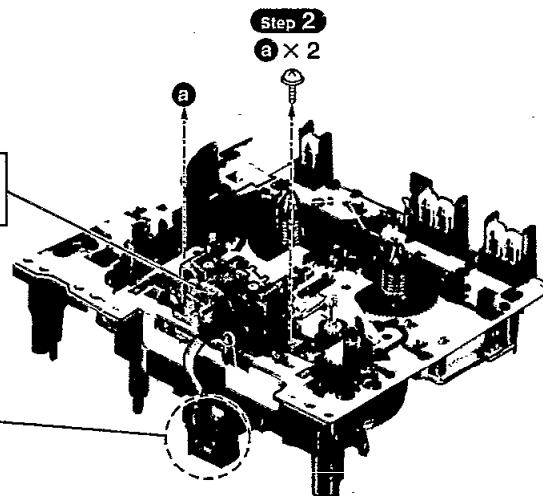
Release the 2 claws, and then remove the pinch roller ass'y (R),(F).

**Step 3**

Release the 2 claws, and then remove the head connector.



Head block  
 DECK1 : RED0038  
 DECK2 : RED0037



## ■ Service Mode Function of Cassette Mechanism

This unit is equipped with a service mode function of cassette mechanism using the LED indicators [R. PLAY (◀), F. PLAY (▶)] and cassette holder illuminations [DECK 1, DECK 2].

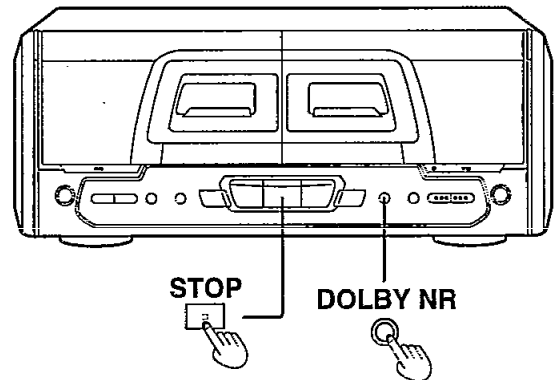
Use this function during maintenance to check faults of the items below.

### ● Cassette tapes to be prepared

- Metal tape: Recorded music tape with only one erase-prevention tab intact (use middle portion of tape).  
 Normal tape: } Recorded music tape with both erase-prevention tabs intact  
 CrO2 tape: } (use middle portion of tape).

### ● Selecting Service Mode

1. Turn on the power to the unit. (If RS-EH60 unit is removed from system, turn it on according to the procedure on page 15.)
2. Check that no tape is inserted in the cassette deck.  
Press the DOLBY NR button for about 2 seconds, and keep pressing it, also press the STOP button for about 2 seconds. (Service mode cannot be selected with a tape inserted in the cassette deck.)
3. The LED indicator for REC PAUSE flashes, the service mode has been activated.



### ● Deck 1 Mechanism Check

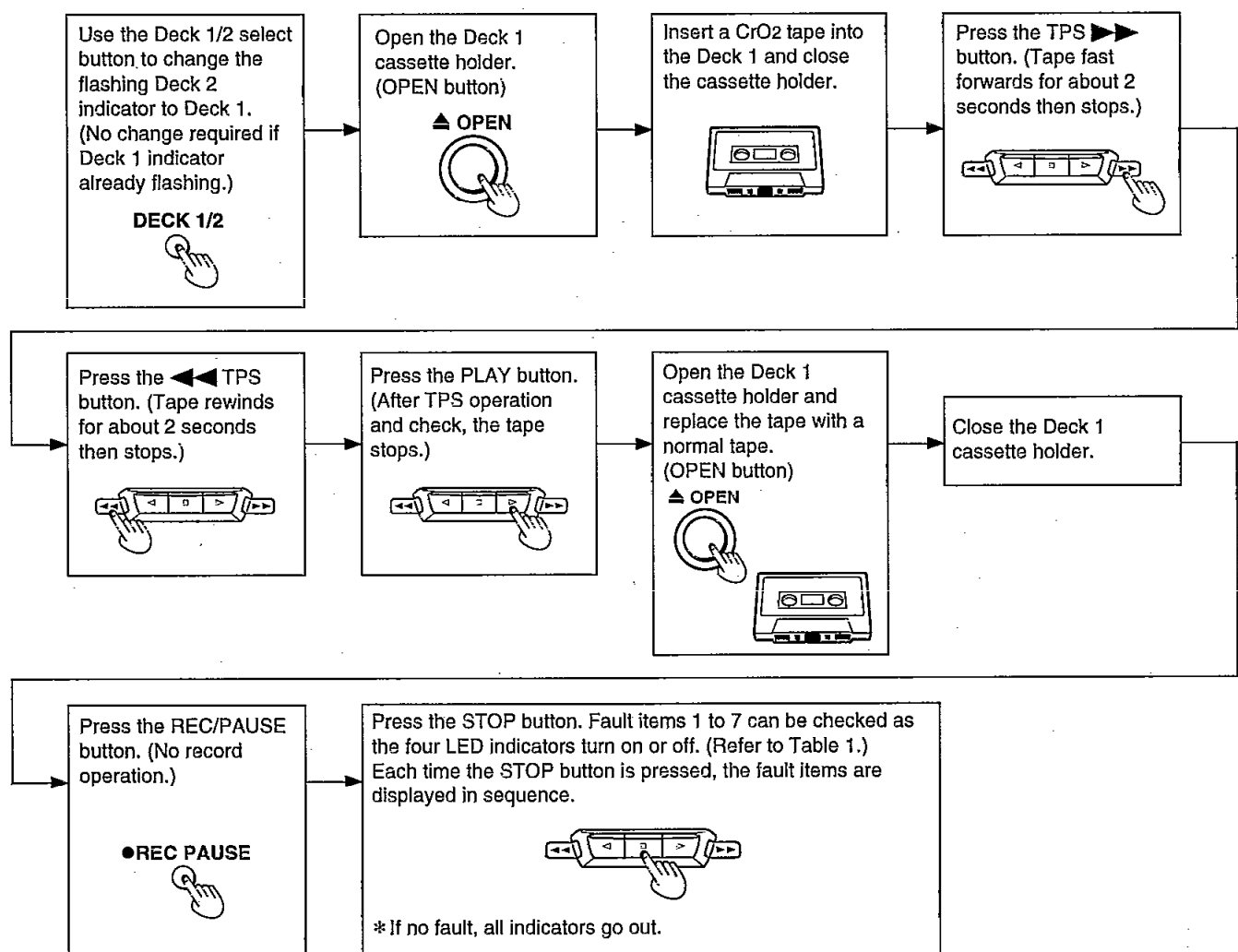


Table 1: Service Mode Diagnostic Items

No.	LED indicator and illumination status (on/off)				Fault location
	◀	DECK 1	DECK 2	▶	
1.	—	—	●	—	MODE detect switch
2.	—	●	—	—	REC prevention switch
3.	—	●	●	—	Half detect switch
4.	—	●	—	●	CrO <sub>2</sub> tape detect switch
5.	—	●	●	●	Metal tape detect switch
6.	●	—	—	—	Reel pulse detect system (Hall IC, etc.)
7.	●	—	●	—	TPS operation

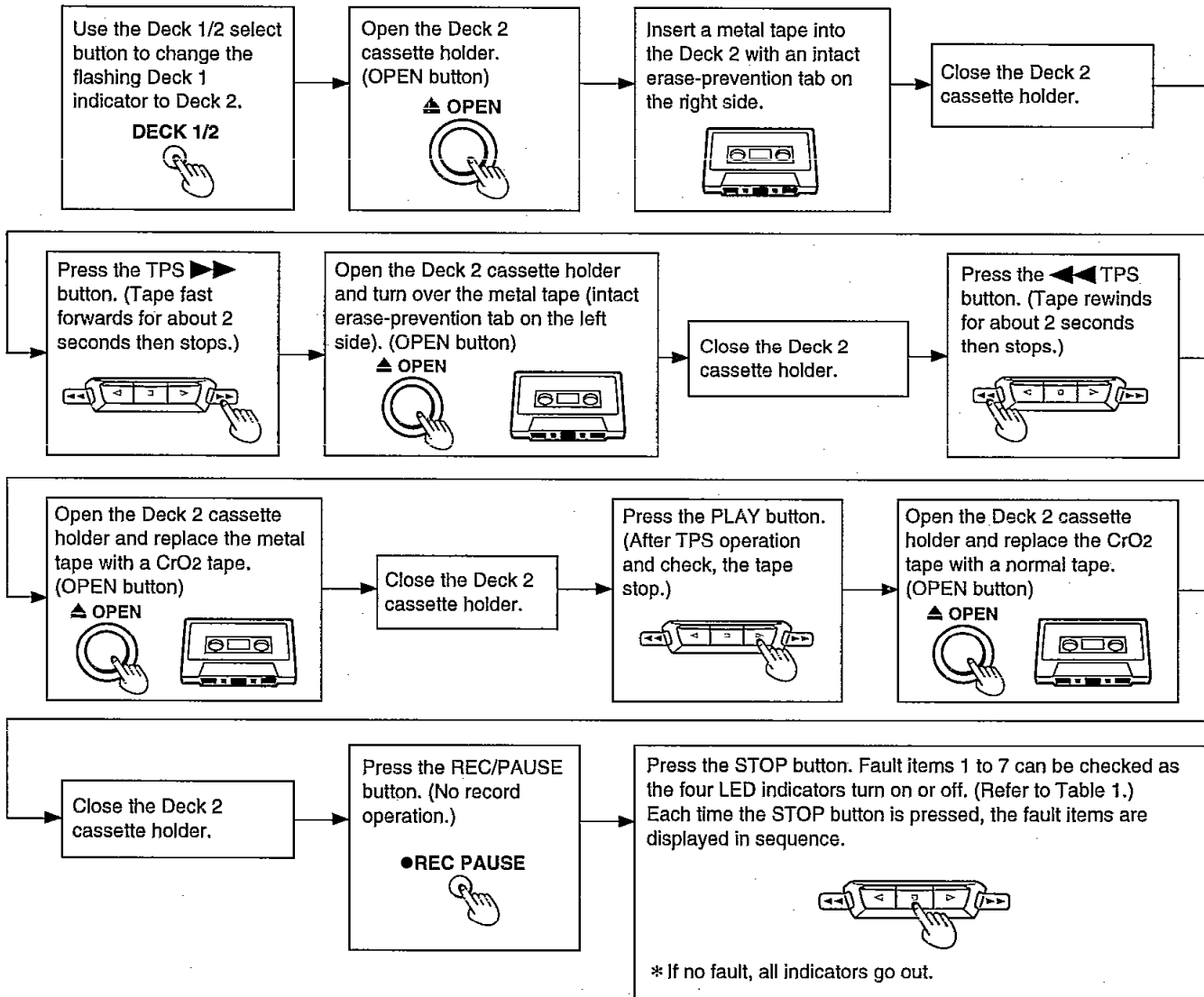
Notes:

“●”: ON

“—”: OFF

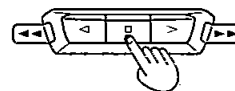
\* If no fault, all indicators go out.

● Deck 2 Mechanism Check



● Exiting Self-Check Mode

1. Press the STOP button for more than 6 seconds. (Diagnostic contents stored in memory for both Deck 1 and 2 are erased.)
2. Remove the cassette tape from the cassette holder.
3. Turn off the unit.



## ■ Measurements and Adjustments

This unit RS-EH60 is designed to operate on power supplied from the Tuner/Amplifier (SA-EH60 or SA-EH50) through CD changer (SL-EH60) or CD player (SL-EH50). When connecting the unit to other system components, do not connect to the Tuner/Amplifier (SA-EH60 or SA-EH50) directly.

Be sure to connect this unit through the CD changer (SL-EH60) or CD player (SL-EH50).

When operating the unit RS-EH60 alone for testing and servicing, without having power supplied from the Tuner/Amplifier (SA-EH60 or SA-EH50) and the CD changer (SL-EH60) or CD player (SL-EH50), use the following method.

### ● To Supply Power Source

1. At first short between J101 and J115 (Fig.1- **A**), next to short J12, J14 and J114 with each other (Fig.1- **B**).
2. Apply +10 V DC power to points between **A**(+10V) and **B**(GND).

**Note:** When operated alone, this unit automatically enter the TEST mode, causing either the DECK 1 or DECK 2 indicators to blink.

In TEST mode, please make sure whether the Dolby B indication is on or off by the illumination of DECK 1 cassette holder is lighted on or off.

(DECK 1 illumination lighted on: Dolby ON, illumination Lighted off: Dolby OFF)

### ● To Input the Sync Signal

Connect an AF Oscillator (100Hz, 5Vrms) between CN601-10 pin and **B** (GND) as shown below.

### ● To Check Signals

Connect an Oscilloscope or a built-in amplifier speaker between line output for L-ch (**TP607**) and **A.GND**, and line out for R-ch (**TP608**) and **A.GND** and check if the signals are outputting from this unit.

#### (Power P.C.B.)

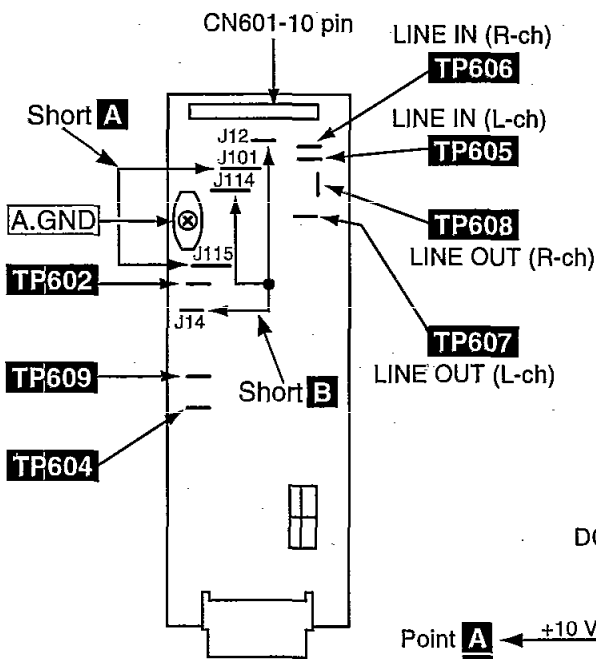
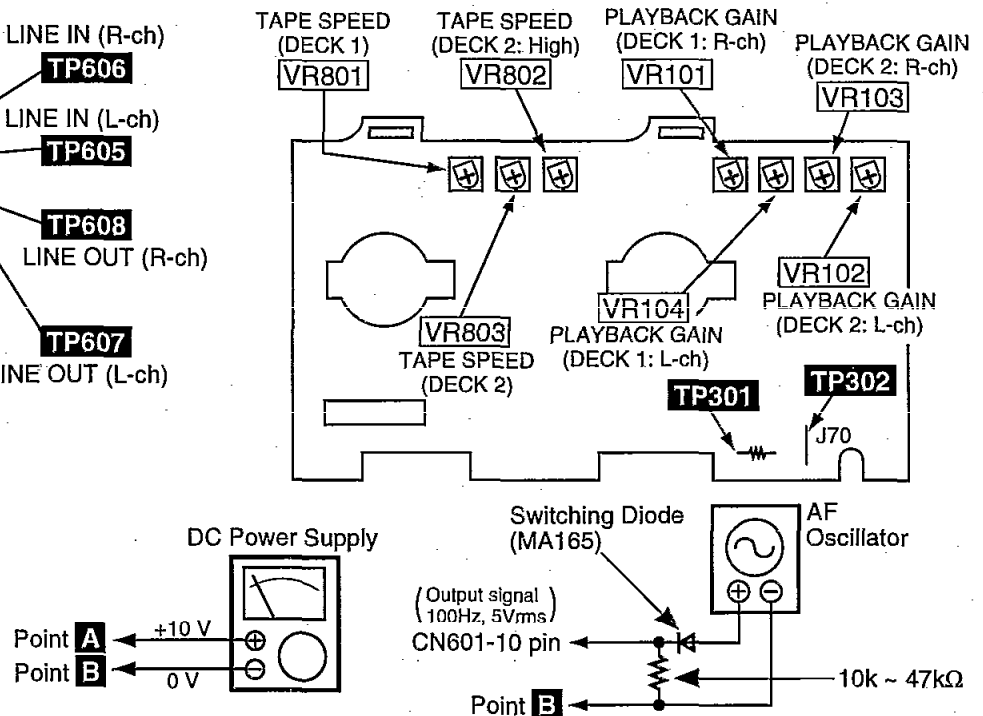


Fig. 1

#### (Main P.C.B.)



#### Measurement Condition

- Dolby NR switch: OFF
- Make sure heads are clean.
- Make sure capstan and pressure roller are clean.
- Judgeable room temperature:  $20 \pm 5^\circ\text{C}$  ( $68 \pm 9^\circ\text{F}$ )

#### Measuring instrument

- DC Power Supply
- AF Oscillator

#### Measurement Condition

- Head azimuth adjustment (8 kHz, -20 dB): QZZCFM
- Tape speed adjustment (3 kHz, -10 dB): QZZCWAT
- Playback gain adjustment (315 Hz, 0 dB): QZZCFM
- Recording/playback frequency response adjustment:  
QZZCFM (315 Hz/0 dB, 315Hz/-20dB, 12.5 kHz-63 Hz/-20 dB)  
QZZCRA (Normal blank tape)  
QZZCRX (CrO<sub>2</sub> blank tape)  
QZZCRZ (Metal blank tape)

**HEAD AZIMUTH ADJUSTMENT (DECK 1/2)**

1. Connect the measuring instrument as shown in Fig. 3.
2. Replace azimuth screws for both forward and reverse direction after removing the screw-locking bond left on the head base.  
Fine adjustment of azimuth can not be performed with remaining the bond on the head base.  
(Supply part No. of azimuth adjusting screw: RHD17015)
3. Playback the azimuth adjustment portion (8 kHz, -20 dB) of test tape (QZZCFM). Adjust the azimuth adjusting screw until the outputs of the L/R-ch are maximized. (Refer to Fig. 4.)  
Make sure that the difference in the peak level between the left and right channels does not exceed 0.5 dB.
4. Perform the same adjustment in reverse playback mode.

**Check of the level difference forward and reverse directions**

5. Playback the playback gain adjustment portion (315 Hz, 0 dB) of test tape (QZZCFM). Check if level difference between forward and reverse direction is within 1.5 dB.
6. After the adjustment, apply screwlock to the azimuth adjusting screw.

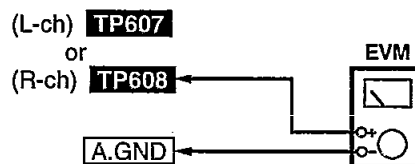


Fig. 3

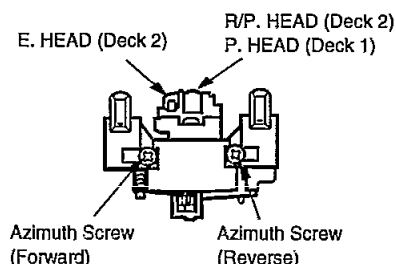


Fig. 4

**TAPE SPEED ADJUSTMENT (DECK 1/2)**

**Note:** When connecting the unit to other system components for testing, short the section between the test points TP609 and TP604 and turn on the entire system. (The unit is set to the TEST mode, and either the DECK1 or DECK2 indicators will blink.)

**Normal speed (Standard value: 3000 ± 45 Hz)**

1. Playback the middle portion of the test tape (QZZCWAT).
2. Adjust Deck 1 = VR801 and Deck 2 = VR803 for the output value shown below. (Refer to Fig. 2)

Adjustment target: 3000 ± 15 Hz (NORMAL speed)  
Standard value: 3000 ± 45 Hz (NORMAL speed)

**High speed [Set the unit to forward (FWD) mode.]**

3. Playback the middle portion on the test tape (QZZCWAT).
4. Press the one touch tape edit (High) button.  
This will set the high speed mode.
5. At that time, check if the output from DECK 1 is within the standard value.

Standard value: 5000 ± 600 Hz (HIGH speed)

6. Adjust VR802 so that the output frequency of DECK 2 is within ± 30 Hz for the value of the output frequency of DECK 1. (Refer to Fig. 2.)

**Note:** When connecting the unit to other system components, disconnect the short between the test points TP609 and TP604.



Fig. 5

**PLAYBACK GAIN ADJUSTMENT (DECK1/2)**

1. Find the start of the 315 Hz/0 dB section of the test tape (QZZCFM), insert the tape into Deck1 and 2, and play it back (FWD)
3. Adjust Deck 2 : VR102 (L-ch) [VR103 (R-ch)] and Deck 1 : VR104 (L-ch) [VR101 (R-ch)] so that the output is within the standard value. (Refer to Fig. 2.)

Standard value : 280 mV ± 15 mV

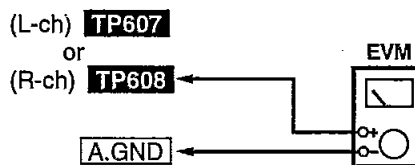


Fig. 6

**ERASE CURRENT CONFIRMATION (DECK2)**

1. Insert the blank tape into Deck2, and press the REC PAUSE button.
3. Check if the output at this time between the erase current confirmation point TP301 and TP302 (the output on both edged of R313) is within the standard value. (Refer to Fig. 7.)

Standard value	EVM reading
Normal tape : 85 ± 25 mA	(85 ± 25 mV)
CrO2 tape : 150 ± 25 mA	(150 ± 25 mV)
Metal tape : 185 ± 25 mA	(185 ± 25 mV)

**Note:** The test tape is not required when confirming the erase current.

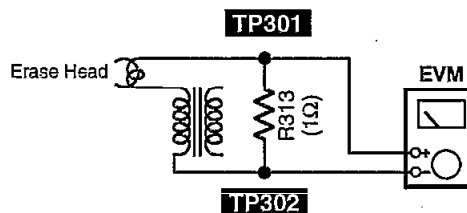


Fig. 7



**Playback frequency response check (DECK 1/2)**

Playback the 315 Hz/-20 dB and 12.5 kHz to 63 Hz/-20 dB sections of the test tape (QZZCFM) and then, using the 315 Hz/-20 dB playback output as a reference (0 dB), confirm that the playback frequency response is within the range shown in Fig. 9.

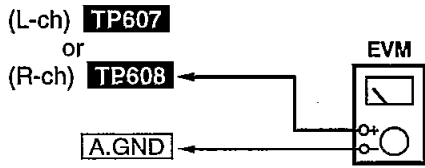


Fig. 8

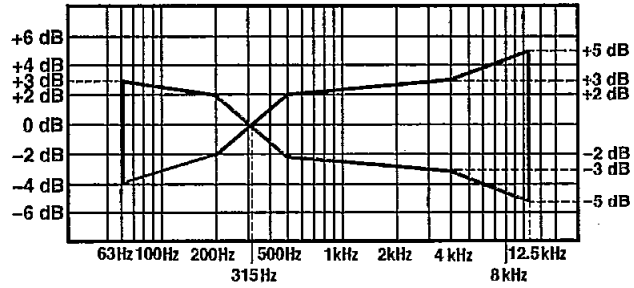


Fig. 9

**Recording/playback frequency response and gain check (DECK 2)**

**Normal tape check**

1. Insert a Normal-type blank tape (QZZCRA) into Deck 2.
2. Record signals at 50 Hz, 100 Hz, 200 Hz, 500 Hz, 1 kHz, 2 kHz, 10 kHz and 12.5 kHz (28 mV).
3. Set the playback frequency of the recorded signals at 1 kHz as the reference response (0 dB).
4. Playback the recorded signals to confirm that the output is within the range of the overall frequency response shown in Fig. 11.

**CrO2/Metal tape check**

5. Repeat steps 2 to 4 for each tape and confirm that the output for each is within the range of the overall frequency response shown in Fig. 12.

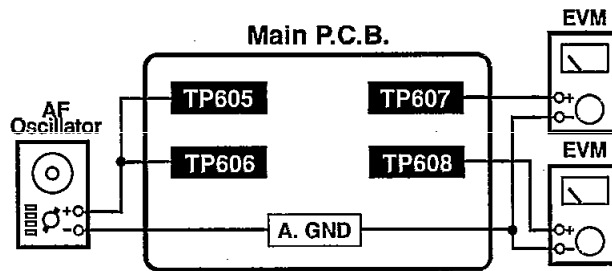


Fig. 10

**Normal Overall frequency response chart (NR OFF)**

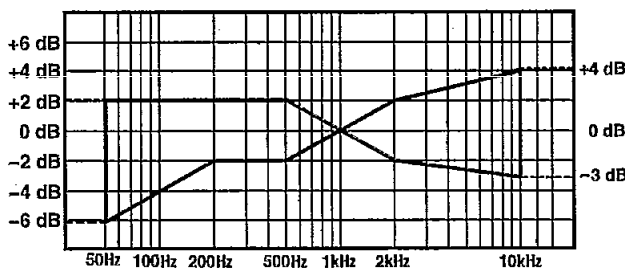


Fig. 11

**CrO2 Metal Overall frequency response chart (NR OFF)**

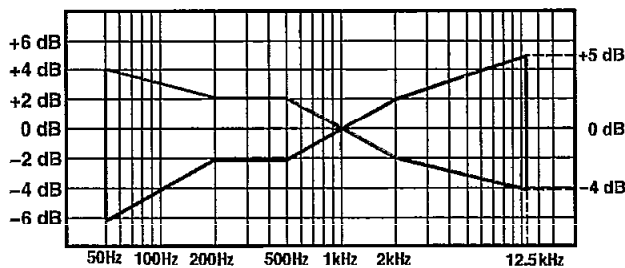


Fig. 12

## ■ Schematic Diagram

	Page
<b>A</b> MAIN CIRCUIT .....	19~22
<b>B</b> MECHANISM CIRCUIT (DECK 1) .....	21
<b>C</b> MECHANISM CIRCUIT (DECK 2) .....	21
<b>D</b> POWER SUPPLY CIRCUIT .....	22
<b>E</b> OPERATION CIRCUIT .....	23

• This schematic diagram may be modified at any time with the development of new technology.

### Notes:

- S900 : Stop switch ( ■ )
- S901 : DECK 2 cassette holder open switch ( ▲ OPEN )
- S902 : One-touch tape edit switch (TAPE EDIT/HIGH)
- S903 : One-touch tape edit switch (TAPE EDIT/NOR)
- S904 : Record pause switch ( ● REC PAUSE )
- S905 : Dolby noise reduction switch (DOLBY NR)
- S906 : Fast forward/tape program sensor switch ( ►►► )
- S907 : Forward side playback switch ( ► )
- S909 : Reverse side playback switch ( ◀ )
- S910 : Rewind/tape program sensor switch ( ◀◀◀ )
- S911 : Reverse mode select switch (REV MODE)
- S912 : DECK 1/DECK 2 select switch (DECK 1/2)
- S913 : Counter display switch (COUNTER/DISPLAY)
- S914 : Counter reset switch (COUNTER/RESET)
- S915 : DECK 1 cassette holder open switch ( ▲ OPEN )
- S951 : DECK 1 mode detect switch
- S952 : DECK 1 half detect switch
- S953 : DECK 1 CrO<sub>2</sub> tape detect switch
- S971 : DECK 2 mode detect switch
- S972 : DECK 2 half detect switch
- S973 : DECK 2 CrO<sub>2</sub> tape detect switch
- S974 : DECK 2 reverse side record prevention tab detect switch
- S975 : DECK 2 forward side record prevention tab detect switch
- S976 : DECK 2 METAL tape detect switch
- VR101 : DECK 1 Playback gain adjustment (R-ch)
- VR102 : DECK 2 Playback gain adjustment (L-ch)
- VR103 : DECK 2 Playback gain adjustment (R-ch)
- VR104 : DECK 1 Playback gain adjustment (L-ch)
- VR801 : DECK 1 tape speed adjustment (normal)
- VR802 : DECK 2 tape speed adjustment (high)
- VR803 : DECK 2 tape speed adjustment (normal)

• Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

no mark : Playback ( ) : Recording

### • 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 components, be sure to use only manufacturer's specified parts shown in the parts list.

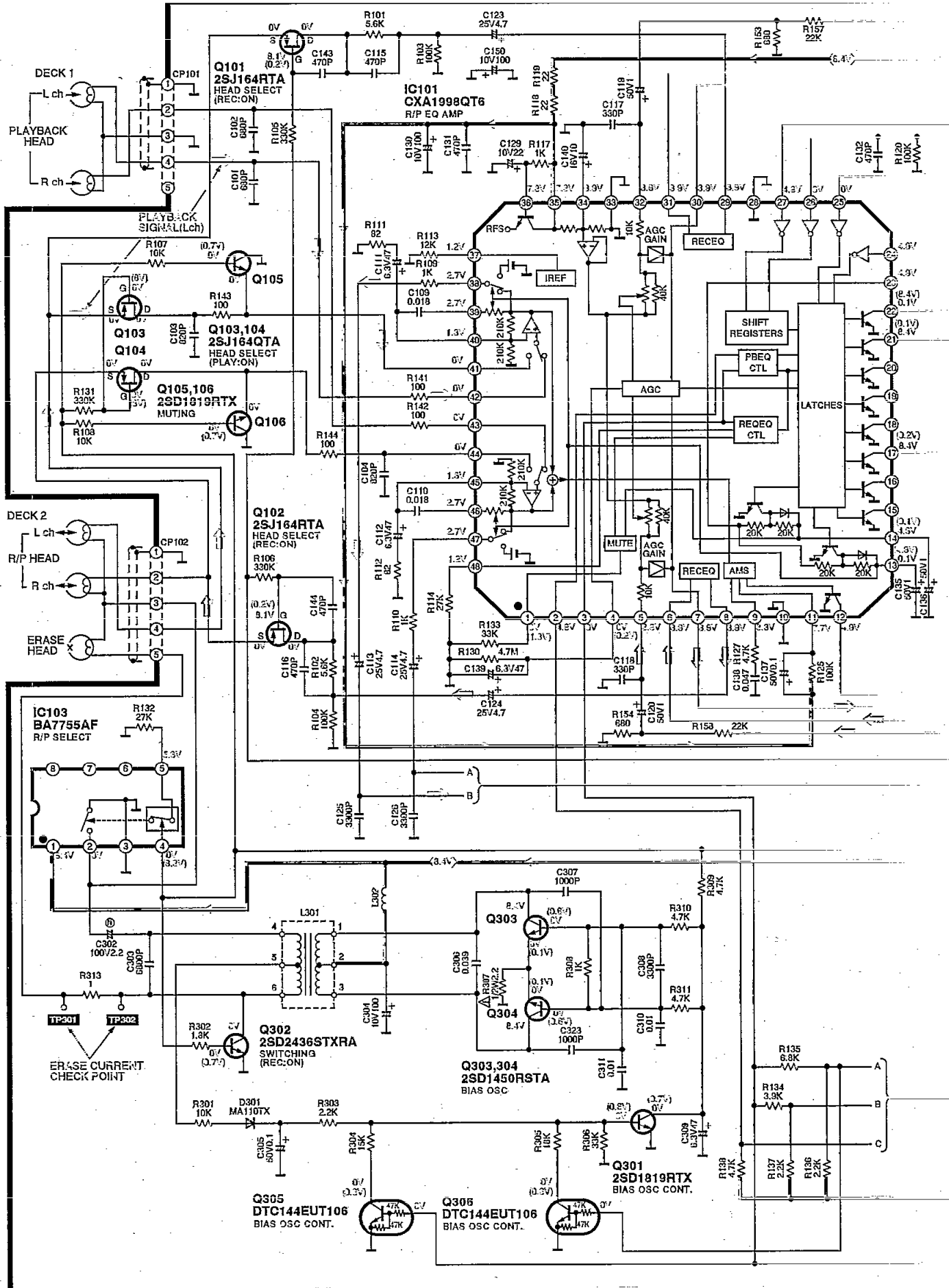
### • Caution!

IC and LSI are sensitive to static electricity.  
Secondary trouble can be prevented by taking care during repair.  
Cover the parts boxes made of plastics with aluminum foil.  
Ground the soldering iron.  
Put a conductive mat on the work table.  
Do not touch the legs of IC or LSI with the fingers directly.

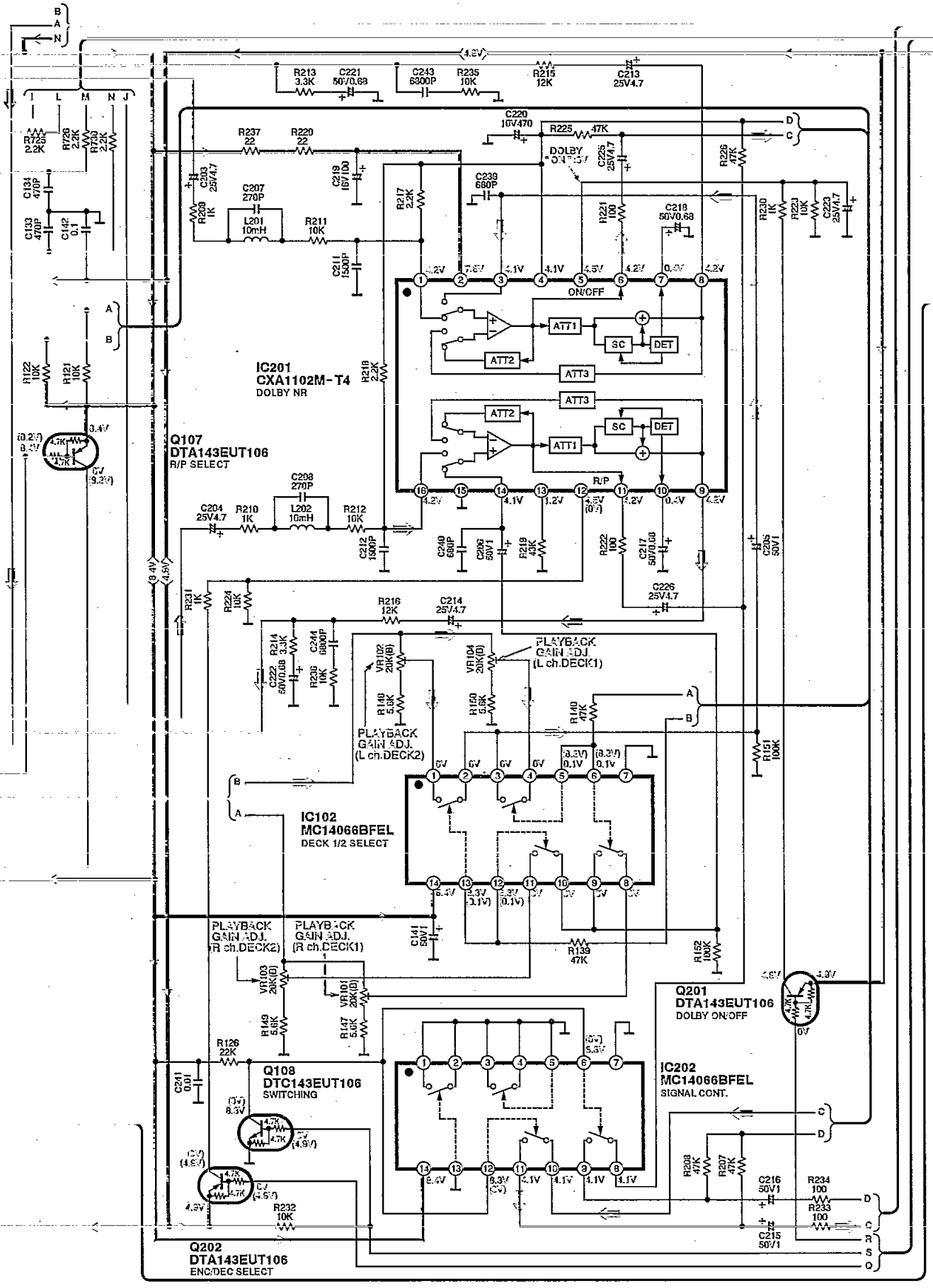
### • Voltage and signal line

 : Positive voltage line    
  : Playback signal Line    
  : Recording signal Line

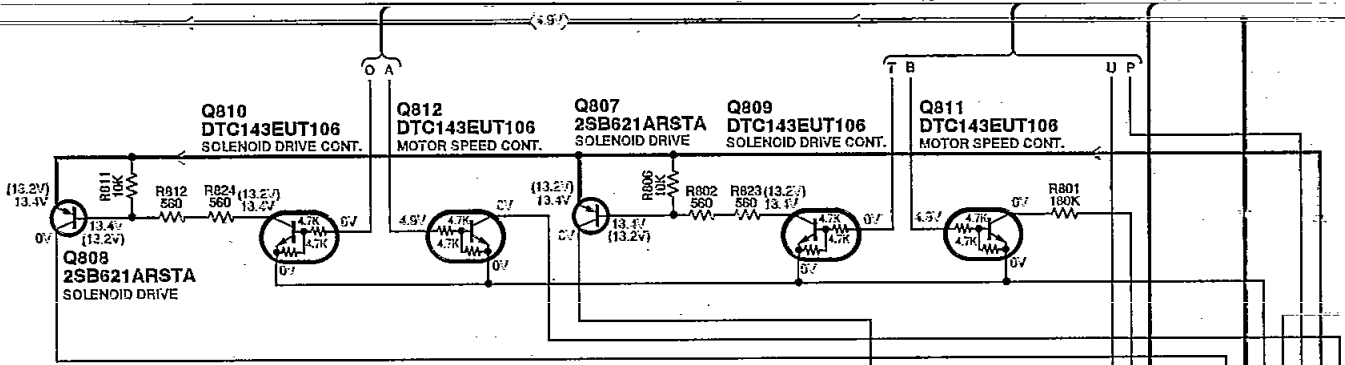
**A** MAIN CIRCUIT (P.C.Board: on page 24)



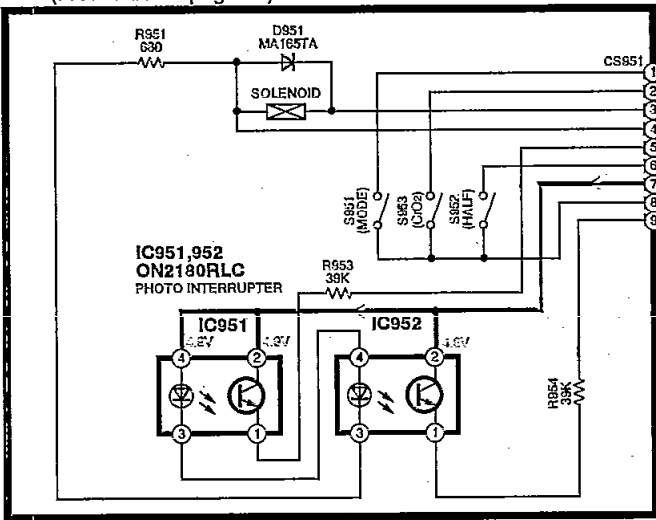
⎯⎯⎯⎯⎯⎯ : Positive voltage line    ⎯⎯⎯⎯⎯⎯ : Playback signal Line    ⎯⎯⎯⎯⎯⎯ : Recording signal Line



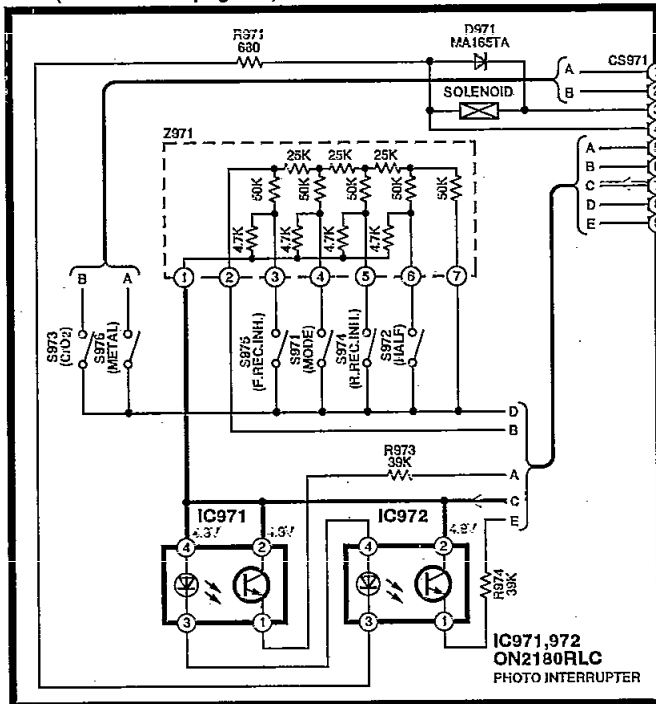
**A** MAIN CIRCUIT (P.C.Board: on page 24)



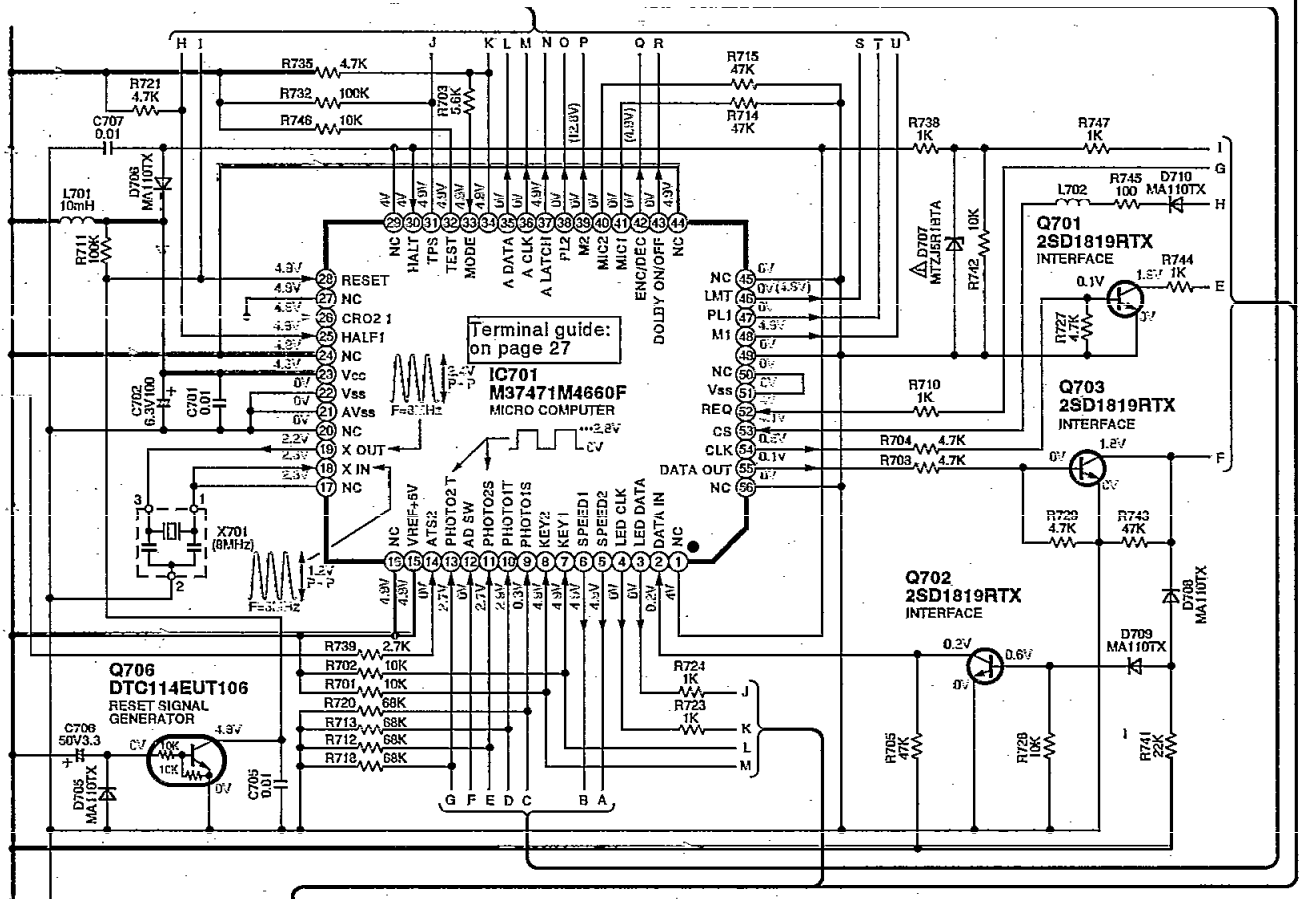
**B** MECHANISM CIRCUIT (DECK1) (P.C.Board: on page 24)



**C** MECHANISM CIRCUIT (DECK2) (P.C.Board: on page 24)

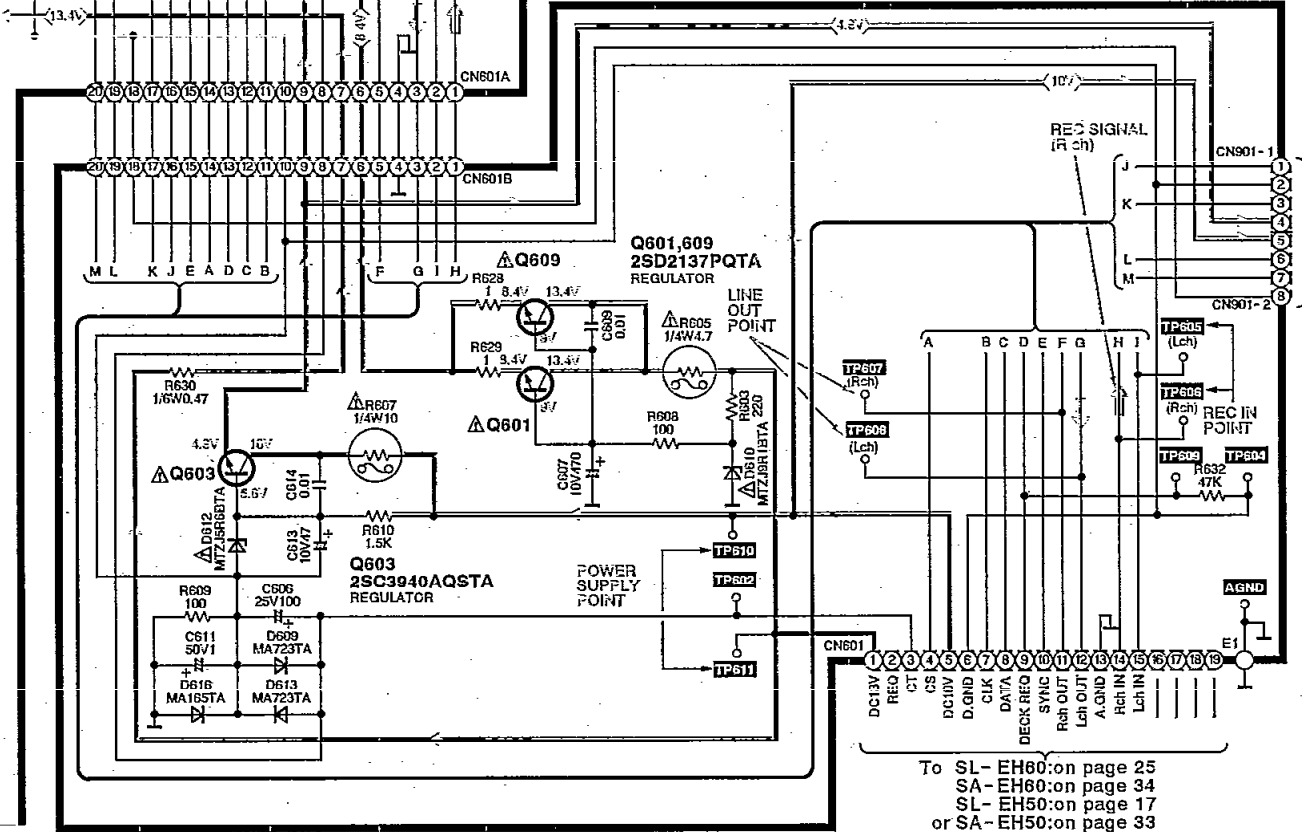


→ : Positive voltage line    → : Playback signal Line    → : Recording signal Line



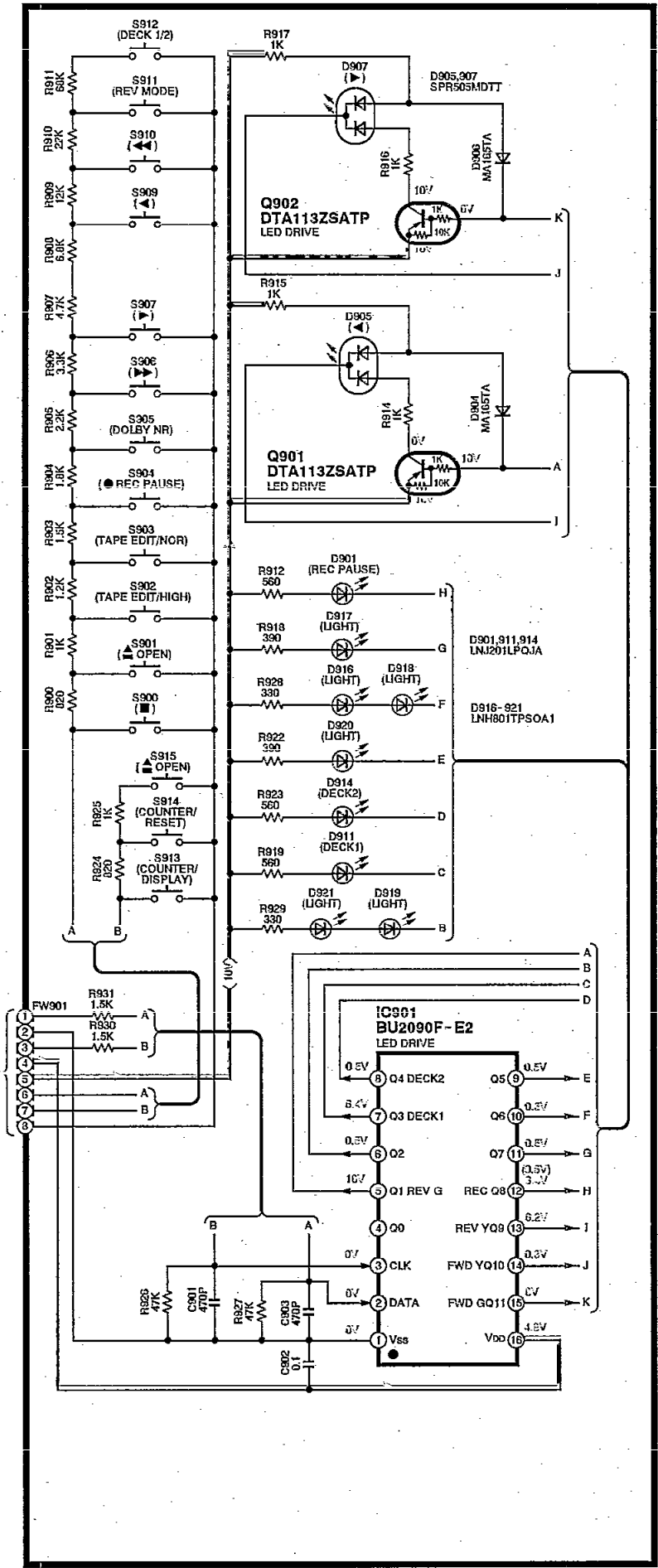
Terminal guide:  
on page 27

**D POWER SUPPLY CIRCUIT (P.C.Board: on page 25)**



To SL-EH60: on page 25  
 SL-EH60: on page 34  
 SL-EH50: on page 17  
 or SA-EH50: on page 33

**E** OPERATION CIRCUIT (P.C.Board: on page 25)

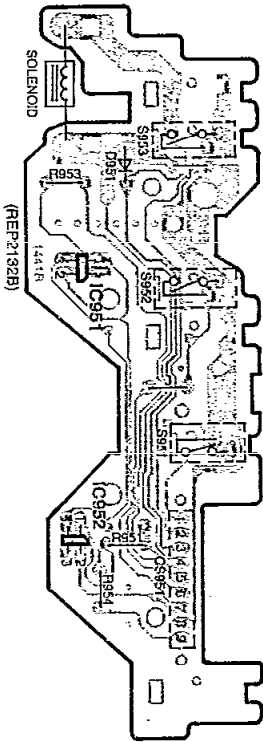


# Printed Circuit Board Diagram

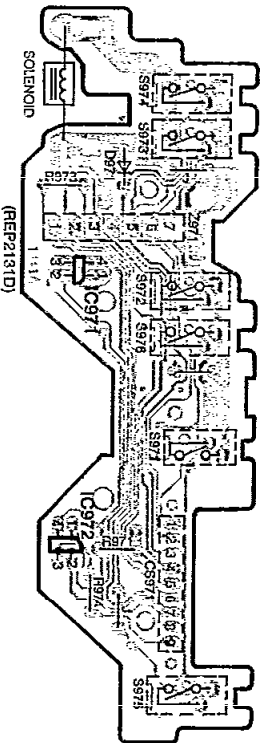
• This circuit board diagram may be modified at any time with the development of new technology.

**A** MAIN P.C.B.

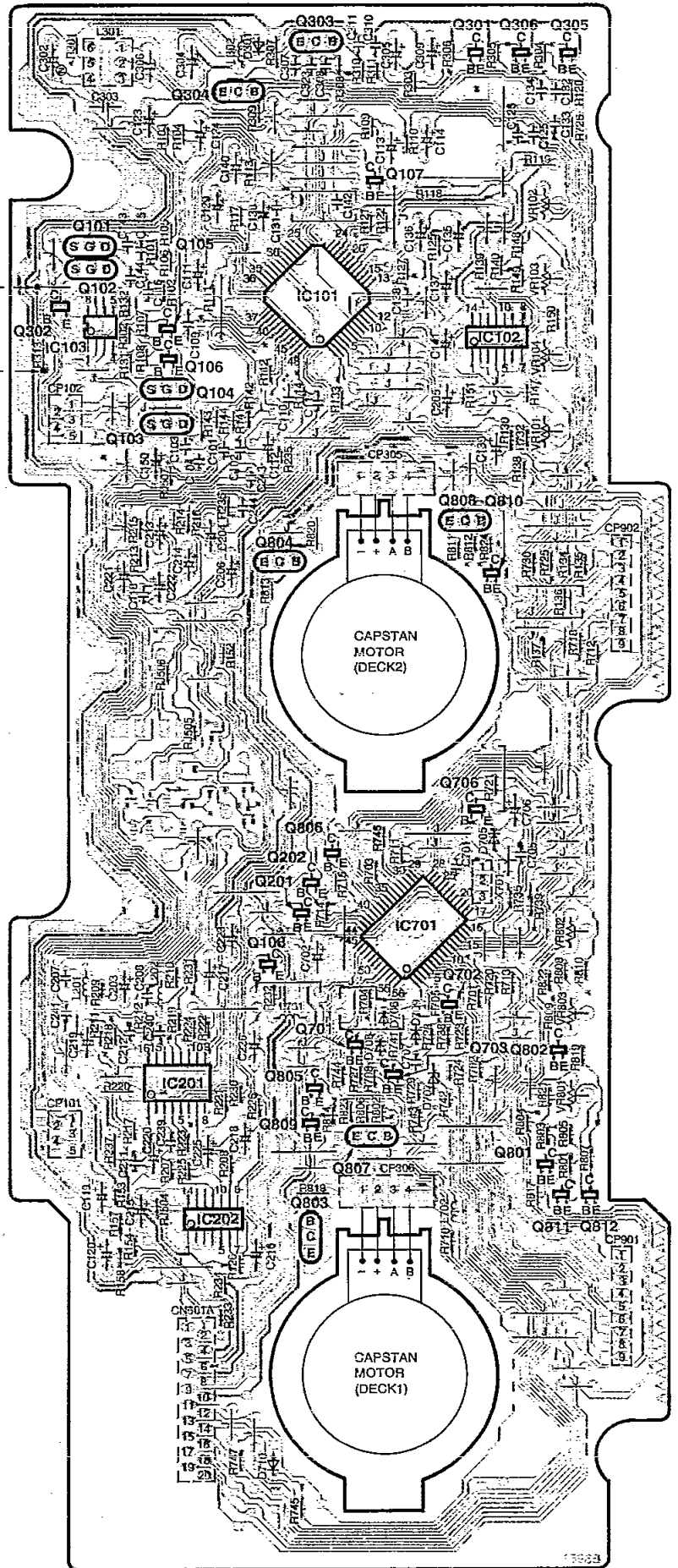
**B** MECHANISM P.C.B. (DECK1)



**C** MECHANISM P.C.B. (DECK2)



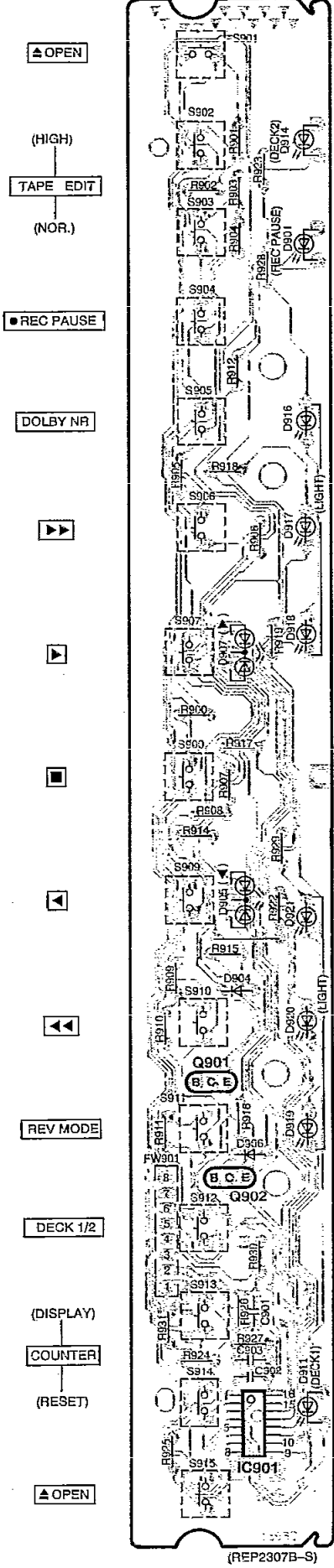
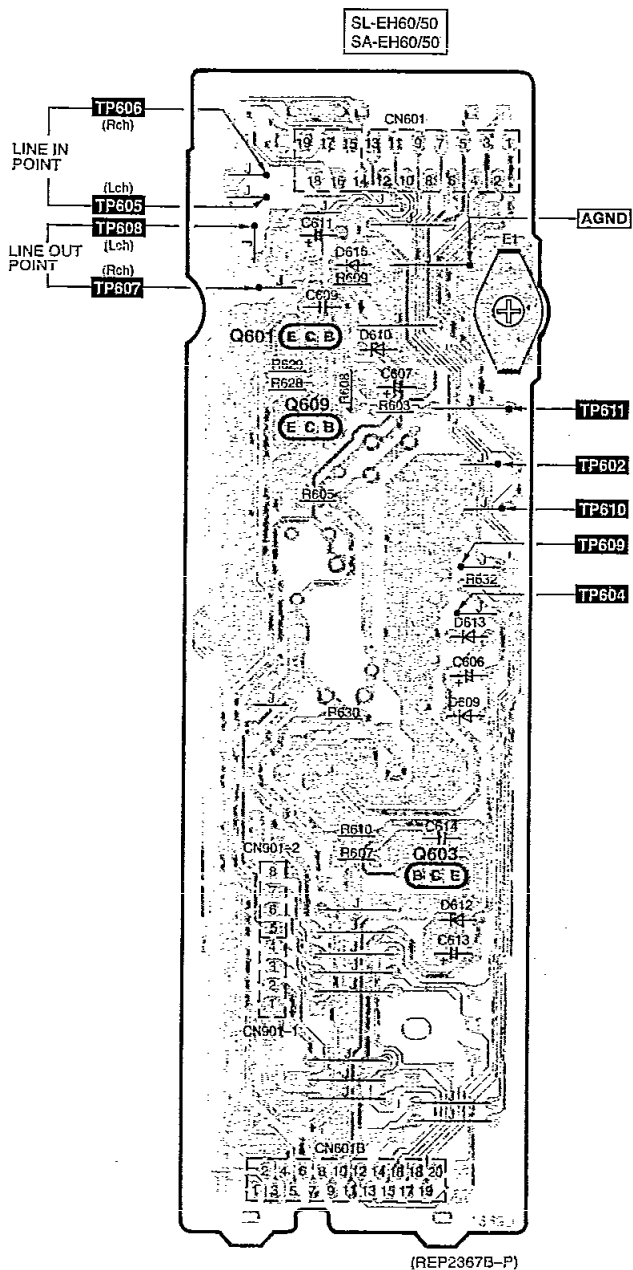
TP302  
ERASE CURRENT  
CHECK POINT  
TP301



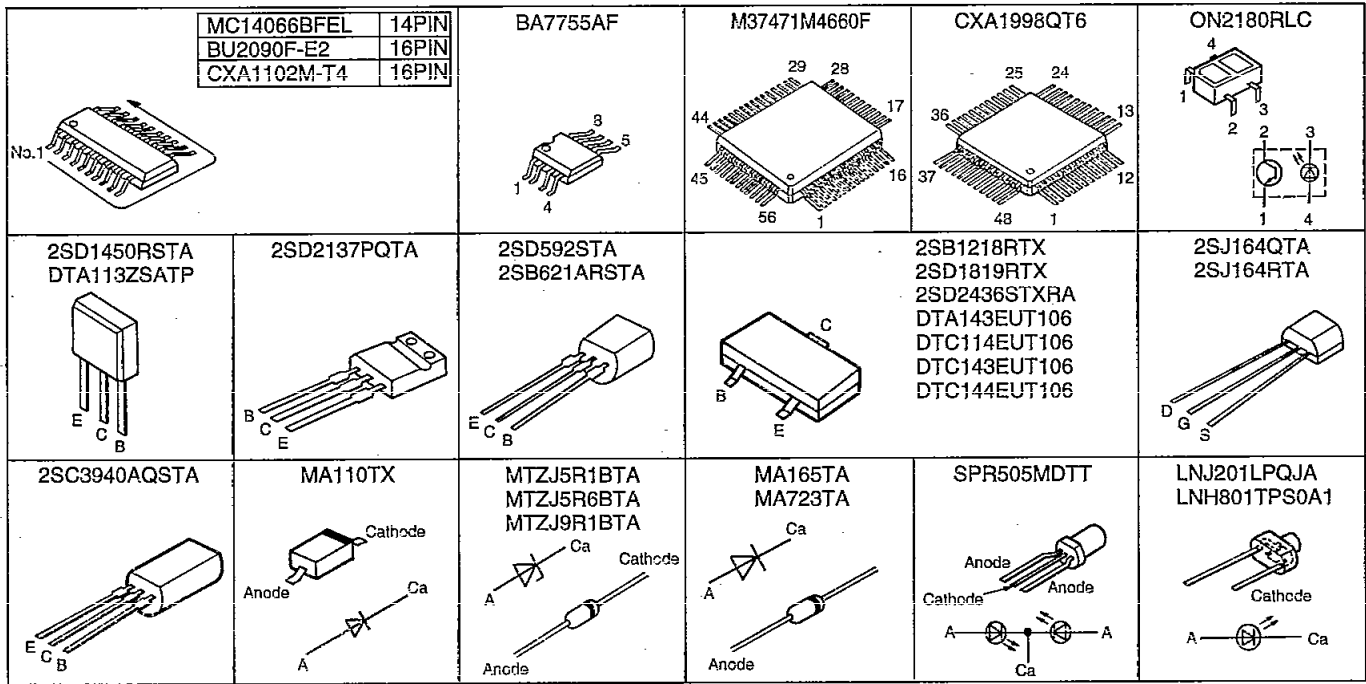


**D** POWER SUPPLY P.C.B.

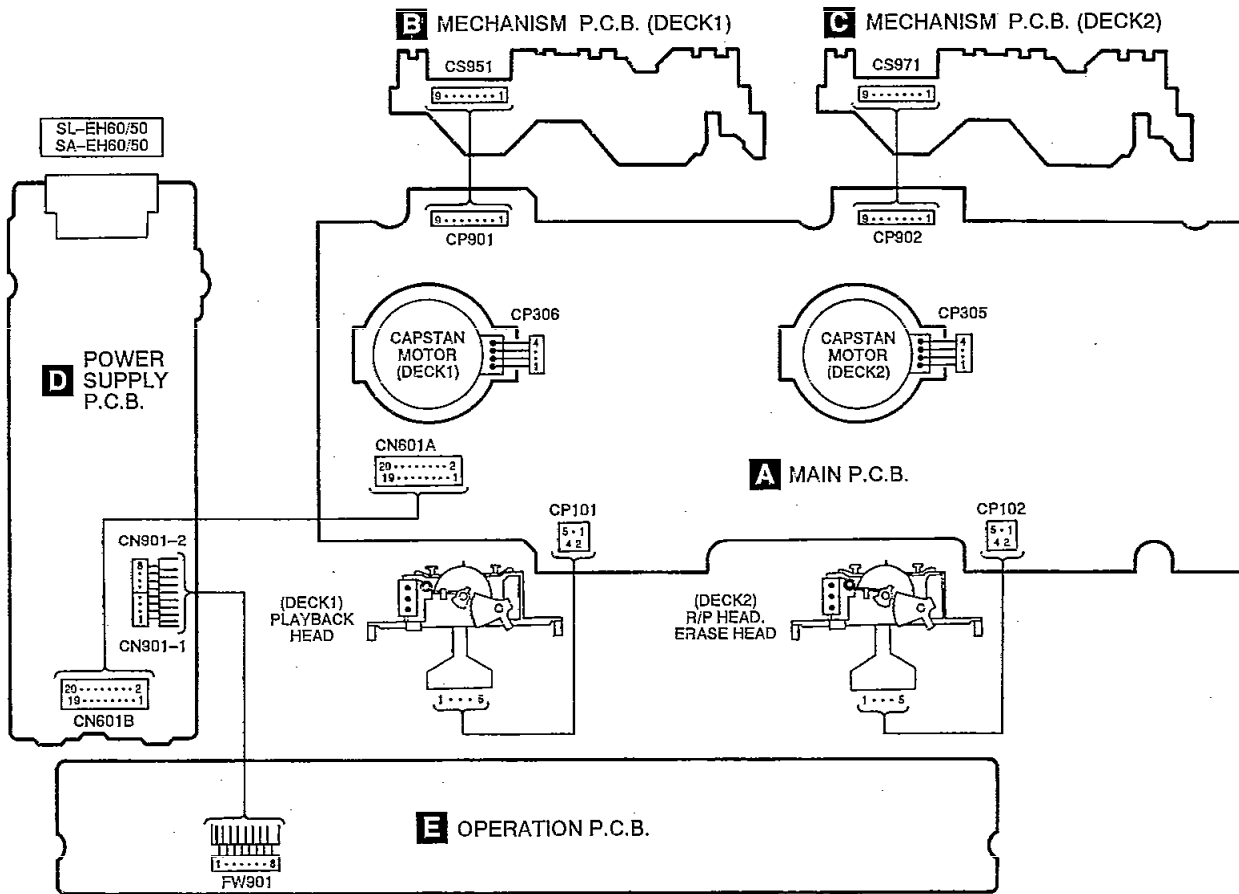
**E** OPERATION P.C.B.



## ■ Type Illustration of IC's, Transistors and Diodes



## ■ Wiring Connection Diagram



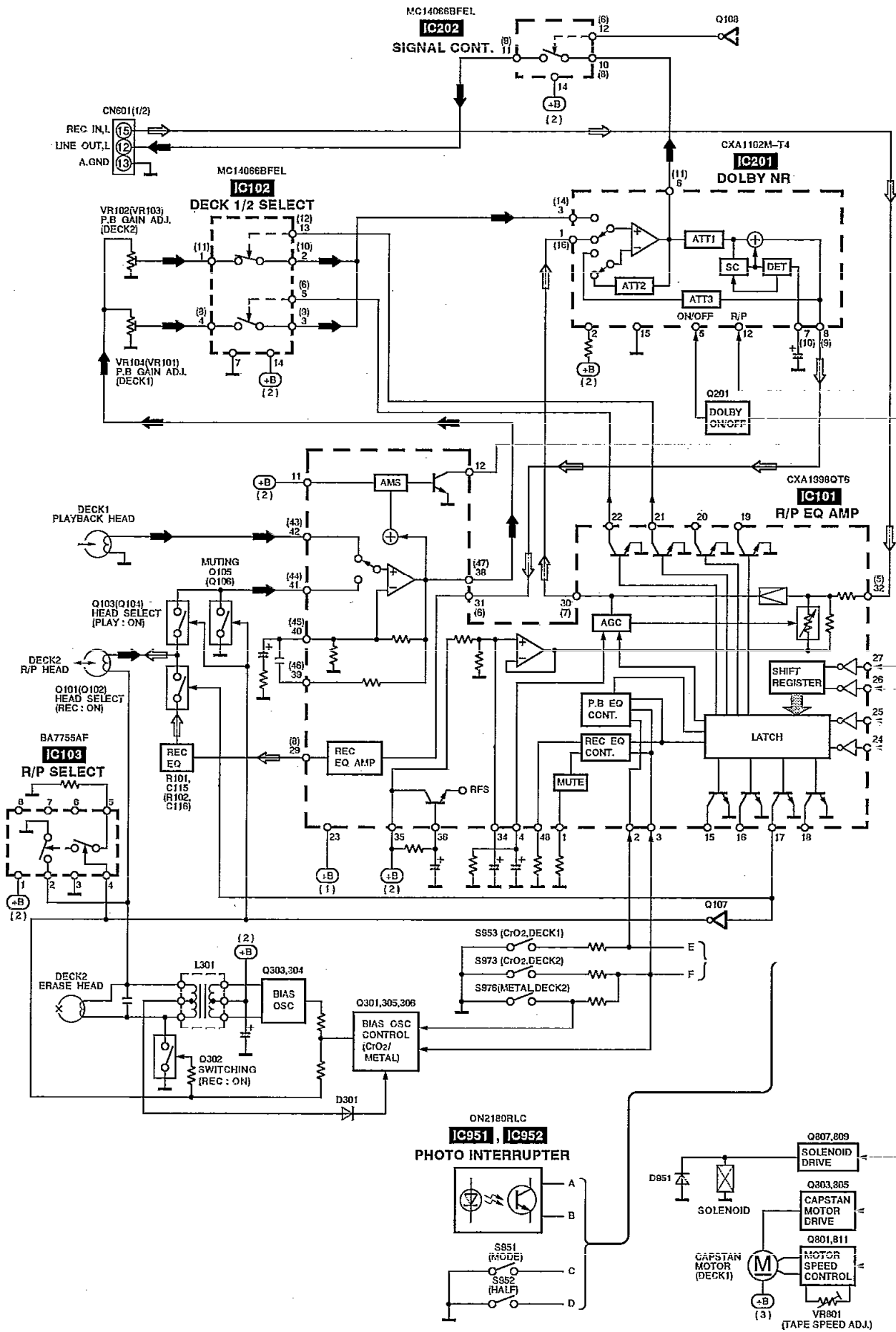
## Terminal Function of IC's

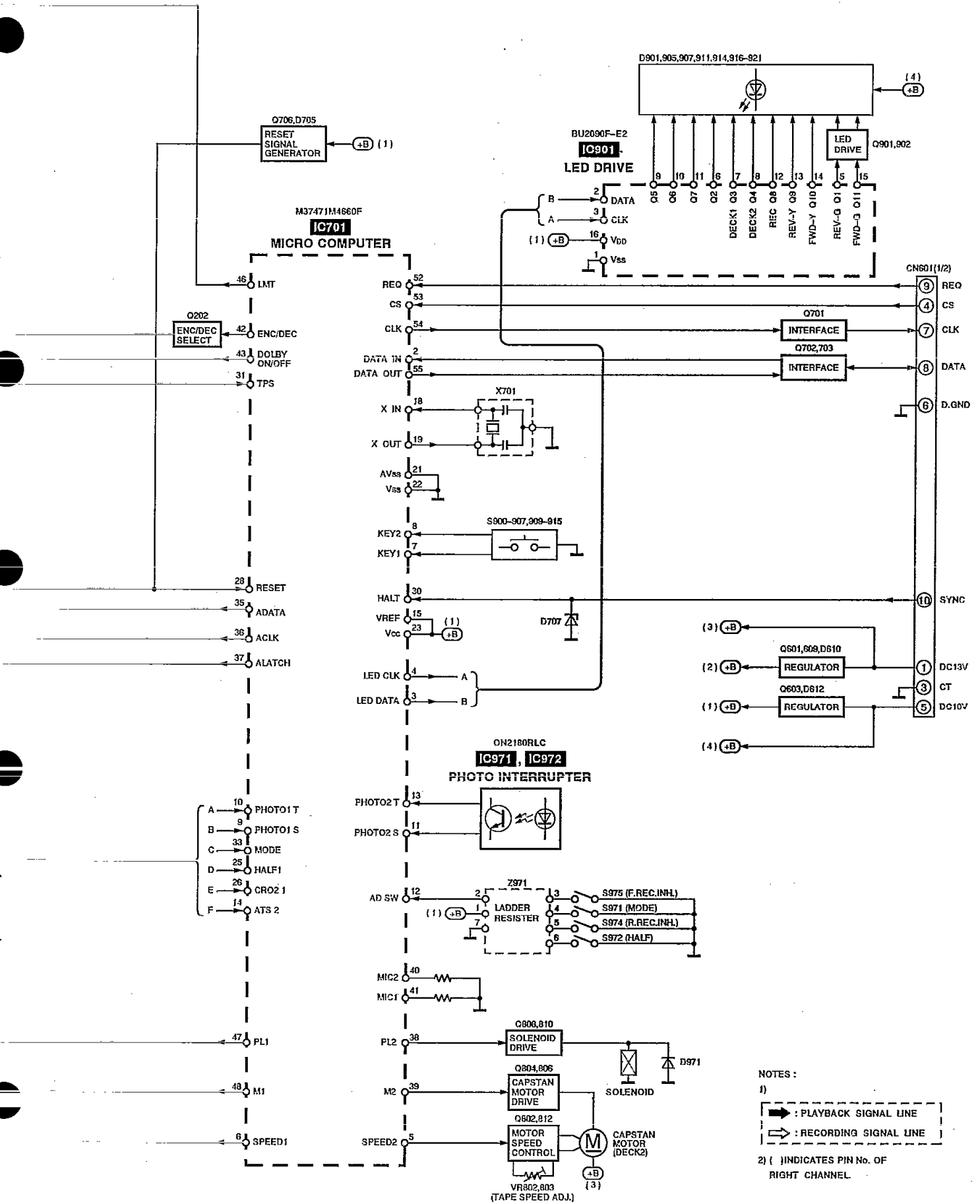
### IC701 (M37471M4660F)

Pin No.	Terminal Name	I/O	Function
1	N.C.	—	Not used
2	DATA IN	I	Serial data input
3	LED-DATA	O	Serial data signal output for LED drive IC
4	LED-CLK	O	Serial clock signal output for LED drive IC
5	SPEED2	O	DECK 2 motor speed control signal output
6	SPEED1	O	DECK 1 motor speed control signal output
7, 8	KEY1, 2	I	Operation switch signal input
9	PHOTO1S	I	DECK 1 supply side reel pulse input
10	PHOTO1T	I	DECK 1 take-up side reel pulse input
11	PHOTO2S	I	DECK 2 supply side reel pulse input
12	AD-SW	I	DECK 2 mechanism switch signal input (Half, Mode, F. REC INH., R. REC INH.)
13	PHOTO2T	I	DECK 2 take-up side reel pulse input
14	ATS2	I	DECK 2 mechanism switch signal input (NORMAL/CR02/METAL)
15	VREF	—	Reference voltage input terminal for A/D converter (+5 V)
16, 17	N.C.	—	Not used
18	XIN	I	Clock signal input
19	XOUT	O	Clock signal output
20	N.C.	—	Not used
21	AVSS	—	Connect to GND
22	VSS	—	GND terminal
23	VCC	—	Power supply (+5 V)
24	N.C.	—	Not used
25	HALF1	I	DECK 1 mechanism switch signal input (Half)
26	CR021	I	DECK 1 mechanism switch signal input (NORMAL/CR02)
27	N.C.	—	Not used
28	RESET	I	Reset signal input

Pin No.	Terminal Name	I/O	Function
29	N.C.	I	Not used
30	HALT	I	AC power source detect signal input
31	TPS	I	TPS signal input
32	TEST	I	Test mode select signal input
33	MODE	I	DECK 1 mechanism switch signal input (Mode)
34	—	—	Not used
35	ADATA	O	Serial data signal output for audio IC
36	ACLK	O	Serial clock signal output for audio IC
37	ALATCH	O	Serial latch signal output for audio IC
38	PL2	O	DECK 2 solenoid drive signal output
39	M2	O	DECK 2 motor drive signal output
40, 41	MIC2, 1	O	Not used
42	ENC/DEC	O	DOLBY NR record/play mode select signal output
43	DOLBY ON/OFF	O	DOLBY NR ON/OFF control signal output
44, 45	N.C.	—	Not used
46	LMT	O	Muting control signal output
47	PL1	O	DECK 1 solenoid drive signal output
48	M1	O	DECK 1 motor drive signal output
49	—	—	Not used
50	N.C.	—	Not used
51	VSS	—	GND terminal
52	REQ	I	Serial communication request signal input
53	CS	I	Serial communication complete signal input
54	CLK	O	Serial communication clock signal output
55	DATA OUT	O	Serial communication data signal output
56	N.C.	—	Not used

# Block Diagram





NOTES:  
 1) : PLAYBACK SIGNAL LINE  
 : RECORDING SIGNAL LINE

2) ( ) INDICATES PIN NO. OF RIGHT CHANNEL

## ■ Replacement Parts List (Electrical)

**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 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.

\*[M] indicates in Remarks columns parts that are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)		D707Δ	MTZJ5R1BTA	DIODE	[M]
				D708-710	MA110TX	DIODE	[M]
IC101	CXA1998QT6	IC	[M]	D901	LNJ201LPQJA	L. E. D.	[M]
IC102	MC14066BFEL	IC	[M]	D904	MA165	DIODE	[M]
IC103	BA7755AF	IC	[M]	D905	SPR505MDTT	L. E. D.	[M]
IC201	CXA1102M-T4	IC	[M]	D906	MA165	DIODE	[M]
IC202	MC14066BFEL	IC	[M]	D907	SPR505MDTT	L. E. D.	[M]
IC701	M37471M660F	IC	[M]	D911	LNJ201LPQJA	L. E. D.	[M]
IC901	BUJ2090F-E2	IC	[M]	D914	LNJ201LPQJA	L. E. D.	[M]
IC951, 952	ON2180RLC	IC	[M]	D916-921	LNH801TPSOA1	L. E. D.	[M]
IC971, 972	ON2180RLC	IC	[M]	D951	MA165	DIODE	[M]
		TRANSISTOR(S)		D971	MA165	DIODE	[M]
						VARIABLE RESISTOR(S)	
Q101, 102	2SJ164RTA	TRANSISTOR	[M]	VR101-104	EVNDCAA03B24	V. R	[M]
Q103, 104	2SJ164QTA	TRANSISTOR	[M]	VR801-803	EVNDCAA03B53	V. R	[M]
Q105, 106	2SD1819RTX	TRANSISTOR	[M]			COIL(S)	
Q107	DTA143EUT107	TRANSISTOR	[M]	L201, 202	ELELN103KA	COIL	[M]
Q108	DTC143EUT107	TRANSISTOR	[M]	L301	RL08B006-K	COIL	[M]
Q201, 202	DTA143EUT107	TRANSISTOR	[M]	L302	RLQZB101KT-D	COIL	[M]
Q301	2SD1819RTX	TRANSISTOR	[M]	L701	RLQA100JT-Y	COIL	[M]
Q302	2SD2436STXRA	TRANSISTOR	[M]	L702	RLBN102V-Y	COIL	[M]
Q303, 304	2SD1450RSTA	TRANSISTOR	[M]			OSCILLATOR(S)	
Q305, 306	DTC144EUT106	TRANSISTOR	[M]	X701	EFOEC8004T4	OSCILLATOR	[M]
Q601Δ	2SD2137PQTA	TRANSISTOR	[M]			SWITCH(ES)	
Q603Δ	2SC3940AQSTA	TRANSISTOR	[M]	S900-907	EVQ21405R	SW	[M]
Q609Δ	2SD2137PQTA	TRANSISTOR	[M]	S909-915	EVQ21405R	SW	[M]
Q701-703	2SD1819RTX	TRANSISTOR	[M]	S951	RSH1A018-1U	SW	[M]
Q706	DTC114EUT107	TRANSISTOR	[M]	S952, 953	RSH1A019-2U	SW	[M]
Q801, 802	2SB1218RTX	TRANSISTOR	[M]	S971	RSH1A018-1U	SW	[M]
Q803, 804	2SD592NCR	TRANSISTOR	[M]	S972-976	RSH1A019-2U	SW	[M]
Q805, 806	DTA143EUT107	TRANSISTOR	[M]			CONNECTOR(S)	
Q807, 808	2SB621A-R	TRANSISTOR	[M]	CN601	RJS2A5519	CONNECTOR(19P)	[M]
Q809-812	DTC143EUT107	TRANSISTOR	[M]	CN901-1, 2	RJS1A6604	CONNECTOR(4P)	[M]
Q901, 902	DTA113ZSA1P	TRANSISTOR	[M]	CN601A	RJTD77K20	CONNECTOR(20P)	[M]
		DIODE(S)		CN601B	RJU077K20	CONNECTOR(20P)	[M]
D301	MA110TX	DIODE	[M]	CP101, 102	RJS1A6805	CONNECTOR(5P)	[M]
D609	MA723TA	DIODE	[M]				
D610Δ	MTZJ9R1BTA	DIODE	[M]				
D612Δ	MTZJ5R6BTA	DIODE	[M]				
D613	MA723TA	DIODE	[M]				
D616	MA165	DIODE	[M]				
D705, 706	MA110TX	DIODE	[M]				

Ref. No.	Part No.	Part Name & Description	Remarks				
CP901, 902	RJTO71HD9A	CONNECTOR (9P)	DI				
CS951	RJU071HD9M	CONNECTOR (9P)	DI				
CS971	RJU071HD9M	CONNECTOR (9P)	DI				
		EARTH TERMINAL (S)					
E1	SNE1004-2	EARTH TERMINAL	DI				
		COMPONENT COMBINATION (S)					
Z971	EXBF7L355SYV	COMPONENT COMBINATION	DI				

# Resistors and Capacitors

Notes : \* Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)  
 \* Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R233, 234	ERJ6GEYJ101V	1/10W 100 [M]	R747	ERJ6GEYJ102V	1/10W 1K [M]
			R235, 236	ERJ6GEYJ103V	1/10W 10K [M]	R801	ERJ6GEYJ184V	1/10W 180K [M]
			R237	ERDS2TJ220T	1/4W 22 [M]	R802	ERJ6GEYJ561V	1/10W 560 [M]
R101, 102	ERJ6GEYJ562V	1/10W 5.6K [M]	R301	ERJ6GEYJ103V	1/10W 10K [M]	R803, 804	ERJ6GEYJ103V	1/10W 10K [M]
R103, 104	ERJ6GEYJ104V	1/10W 100K [M]	R302	ERJ6GEYJ182V	1/10W 1.8K [M]	R805	ERJ6GEYJ392V	1/10W 3.9K [M]
R105, 106	ERJ6GEYJ334V	1/10W 330K [M]	R303	ERJ6GEYJ222V	1/10W 2.2K [M]	R806	ERJ6GEYJ103V	1/10W 10K [M]
R107, 108	ERJ6GEYJ103V	1/10W 10K [M]	R304	ERJ6GEYJ153V	1/10W 15K [M]	R807	ERJ6GEYJ184V	1/10W 180K [M]
R109, 110	ERJ6GEYJ102V	1/10W 1K [M]	R305	ERJ6GEYJ183V	1/10W 18K [M]	R808	ERJ6GEYJ392V	1/10W 3.9K [M]
R111	ERJ6GEYJ820V	1/10W 82 [M]	R306	ERJ6GEYJ333V	1/10W 33K [M]	R809	ERJ6GEYJ822V	1/10W 8.2K [M]
R112	ERJ8GEYJ820V	1/8W 82 [M]	R307△	ERDS1FVJ2R2T	1/2W 2.2 [M]	R810, 811	ERJ6GEYJ103V	1/10W 10K [M]
R113	ERJ6GEYJ123V	1/10W 12K [M]	R308	ERJ6GEYJ102V	1/10W 1K [M]	R812	ERJ6GEYJ561V	1/10W 560 [M]
R114	ERJ6GEYJ273V	1/10W 27K [M]	R309-311	ERJ6GEYJ472V	1/10W 4.7K [M]	R813, 814	ERJ6GEYJ471V	1/10W 470 [M]
R117	ERJ6GEYJ102V	1/10W 1K [M]	R313	ERDS2TJ1R0	1/4W 1.0 [M]	R817	ERJ6GEYJ105	1/10W 1M [M]
R118, 119	ERDS2TJ220T	1/4W 22 [M]	R603	ERDS2TJ221	1/4W 220 [M]	R818	ERDS2TJ2R2T	1/4W 2.2 [M]
R120	ERJ6GEYJ104V	1/10W 100K [M]	R605△	ERD2FCVJ4R7T	1/4W 4.7 [M]	R819	ERJ6GEYJ105	1/10W 1M [M]
R121, 122	ERJ6GEYJ103V	1/10W 10K [M]	R607△	ERD2FCG100	1/4W 10 [M]	R820	ERDS2TJ2R2T	1/4W 2.2 [M]
R125	ERJ6GEYJ104V	1/10W 100K [M]	R608, 609	ERDS2TJ101	1/4W 100 [M]	R821	ERJ6GEYJ102V	1/10W 1K [M]
R126	ERJ6GEYJ223V	1/10W 22K [M]	R610	ERDS2TJ152	1/4W 1.5K [M]	R822	ERJ6GEYJ101V	1/10W 100 [M]
R127	ERJ6GEYJ472V	1/10W 4.7K [M]	R628, 629	ERDS2TJ1R0	1/4W 1.0 [M]	R823, 824	ERJ6GEYJ561V	1/10W 560 [M]
R130	ERJ6GEYJ475V	1/10W 4.7M [M]	R630	ERQ16NWR33E	1/6W 0.33 [M]	R900	ERDS2TJ821	1/4W 820 [M]
R131	ERJ6GEYJ334V	1/10W 330K [M]	R632	ERDS2TJ473	1/4W 47K [M]	R901	ERDS2TJ102	1/4W 1K [M]
R132	ERJ6GEYJ273V	1/10W 27K [M]	R701, 702	ERJ6GEYJ103V	1/10W 10K [M]	R902	ERDS2TJ122	1/4W 1.2K [M]
R133	ERJ6GEYJ333V	1/10W 33K [M]	R703	ERJ6GEYJ562V	1/10W 5.6K [M]	R903	ERDS2TJ152	1/4W 1.5K [M]
R134	ERJ6GEYJ392V	1/10W 3.9K [M]	R704	ERJ6GEYJ472V	1/10W 4.7K [M]	R904	ERDS2TJ182	1/4W 1.8K [M]
R135	ERJ6GEYJ682V	1/10W 6.8K [M]	R705	ERJ6GEYJ473V	1/10W 47K [M]	R905	ERDS2TJ222	1/4W 2.2K [M]
R136, 137	ERJ6GEYJ222V	1/10W 2.2K [M]	R708	ERJ6GEYJ472V	1/10W 4.7K [M]	R906	ERDS2TJ332	1/4W 3.3K [M]
R138	ERJ6GEYJ472V	1/10W 4.7K [M]	R710	ERJ6GEYJ102V	1/10W 1K [M]	R907	ERDS2TJ472	1/4W 4.7K [M]
R139, 140	ERJ6GEYJ473V	1/10W 47K [M]	R711	ERJ6GEYJ104V	1/10W 100K [M]	R908	ERDS2TJ682T	1/4W 6.8K [M]
R141	ERJ8GEYJ101V	1/8W 100 [M]	R712, 713	ERJ6GEYJ683V	1/10W 68K [M]	R909	ERDS2TJ123	1/4W 12K [M]
R142	ERJ6GEYJ101V	1/10W 100 [M]	R714, 715	ERJ6GEYJ473V	1/10W 47K [M]	R910	ERDS2TJ223	1/4W 22K [M]
R143	ERDS2TJ101	1/4W 100 [M]	R719	ERJ8GEYJ683V	1/8W 68K [M]	R911	ERDS2TJ683	1/4W 68K [M]
R144	ERJ6GEYJ101V	1/10W 100 [M]	R720	ERJ6GEYJ683V	1/10W 68K [M]	R912	ERDS2TJ561	1/4W 560 [M]
R147-150	ERJ6GEYJ562V	1/10W 5.6K [M]	R721	ERJ6GEYJ472V	1/10W 4.7K [M]	R914-917	ERDS2TJ102	1/4W 1K [M]
R151, 152	ERJ6GEYJ104V	1/10W 100K [M]	R723, 724	ERJ6GEYJ102V	1/10W 1K [M]	R918	ERDS2TJ391	1/4W 390 [M]
R153, 154	ERJ6GEYJ681V	1/10W 680 [M]	R725, 726	ERJ6GEYJ222V	1/10W 2.2K [M]	R919	ERDS2TJ561	1/4W 560 [M]
R157, 158	ERJ6GEYJ223V	1/10W 22K [M]	R727	ERJ6GEYJ472V	1/10W 4.7K [M]	R922	ERDS2TJ391	1/4W 390 [M]
R207, 208	ERJ6GEYJ473V	1/10W 47K [M]	R728	ERJ6GEYJ103V	1/10W 10K [M]	R923	ERDS2TJ561	1/4W 560 [M]
R209, 210	ERJ6GEYJ102V	1/10W 1K [M]	R729	ERJ6GEYJ472V	1/10W 4.7K [M]	R924	ERDS2TJ821	1/4W 820 [M]
R211, 212	ERJ6GEYJ103V	1/10W 10K [M]	R730	ERJ6GEYJ222V	1/10W 2.2K [M]	R925	ERDS2TJ102	1/4W 1K [M]
R213, 214	ERJ6GEYJ332V	1/10W 3.3K [M]	R732	ERJ6GEYJ104V	1/10W 100K [M]	R926, 927	ERDS2TJ473	1/4W 47K [M]
R215, 216	ERJ6GEYJ123V	1/10W 12K [M]	R735	ERJ6GEYJ472V	1/10W 4.7K [M]	R928, 929	ERDS2TJ331	1/4W 330 [M]
R217, 218	ERJ6GEYJ222V	1/10W 2.2K [M]	R738	ERJ6GEYJ102V	1/10W 1K [M]	R930, 931	ERDS2TJ152	1/4W 1.5K [M]
R219	ERJ6GEYJ433V	1/10W 43K [M]	R739	ERJ6GEYJ272V	1/10W 2.7K [M]	R951	ERDS2TJ681	1/4W 680 [M]
R220	ERDS2TJ220T	1/4W 22 [M]	R741	ERJ6GEYJ223V	1/10W 22K [M]	R953, 954	ERDS2TJ393	1/4W 39K [M]
R221, 222	ERJ6GEYJ101V	1/10W 100 [M]	R742	ERJ6GEYJ103V	1/10W 10K [M]	R971	ERDS2TJ681	1/4W 680 [M]
R223, 224	ERJ6GEYJ103V	1/10W 10K [M]	R743	ERJ6GEYJ473V	1/10W 47K [M]	R973, 974	ERDS2TJ393	1/4W 39K [M]
R225, 226	ERJ6GEYJ473V	1/10W 47K [M]	R744	ERJ6GEYJ102V	1/10W 1K [M]			
R230, 231	ERJ6GEYJ102V	1/10W 1K [M]	R745	ERJ6GEYJ101V	1/10W 100 [M]			CHIP JUMPERS
R232	ERJ6GEYJ103V	1/10W 10K [M]	R746	ERJ6GEYJ103V	1/10W 10K [M]			

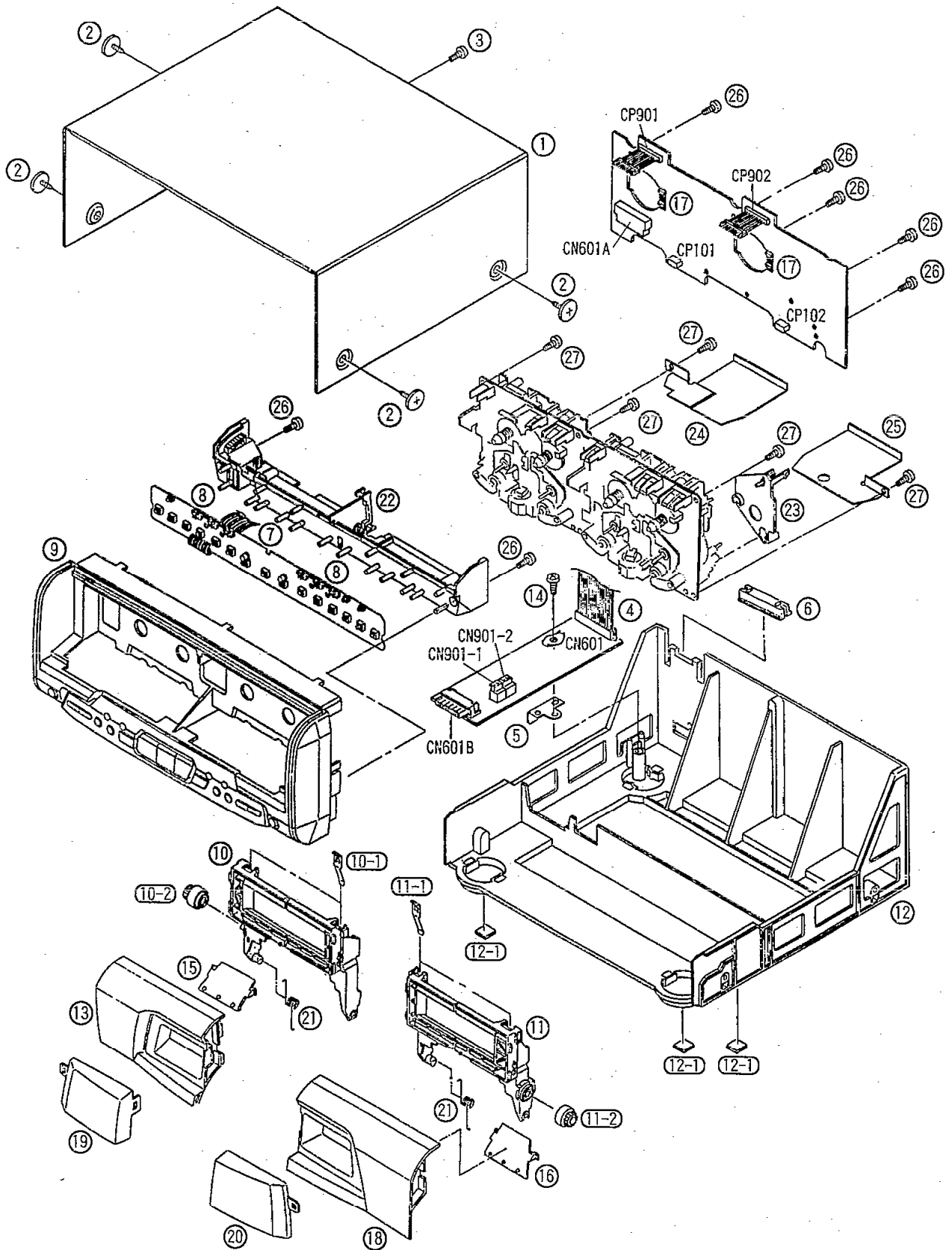


Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
RJ504-506	ERJ6GEY0R00	CHIP JUMPER	C606	ECA1EM101B	25V 100U [M]
RJ507	ERJ8GEY0R00V	CHIP JUMPER	C607	ECA1AM471B	10V 470U [M]
			C609	ECBT1E103ZF	25V 0.01U [M]
		CAPACITORS	C611	ECEA1HKA010B	50V 1U [M]
			C613	RCE1AKA470BG	10V 47U [M]
C101, 102	ECUV1H681KBN	50V 680P [M]	C614	ECBT1E103ZF	25V 0.01U [M]
C103, 104	ECUV1H821KBN	50V 820P [M]	C701	ECUV1H103KBN	50V 0.01U [M]
C109, 110	ECQB1H183JF3	50V 0.018U [M]	C702	ECEA0JKA101B	6.3V 100U [M]
C111, 112	ECEA0JKA470B	6.3V 47U [M]	C705	ECUV1E103ZFN	25V 0.01U [M]
C113, 114	ECEA1EKA4R7B	25V 4.7U [M]	C706	RCE1HKA3R3BG	50V 3.3U [M]
C115, 116	ECUV1H471KBN	50V 470P [M]	C707	ECUV1E103ZFN	25V 0.01U [M]
C117, 118	ECUV1H331KBN	50V 330P [M]	C901	ECBT1H471KB5	50V 470P [M]
C119, 120	ECEA1HKA010B	50V 1U [M]	C902	ECBT1H104ZF5	50V 0.1U [M]
C123, 124	ECEA1EKA4R7B	25V 4.7U [M]	C903	ECBT1H471KB5	50V 470P [M]
C125, 126	ECUV1H332KBN	50V 3300P [M]			
C129	ECEA1AKA220B	10V 22U [M]			
C130	RCE1AKA101BG	10V 100U [M]			
C131-134	ECUV1H471KBN	50V 470P [M]			
C135, 136	ECEA1HKA010B	50V 1U [M]			
C137	ECEA1HKA0R1B	50V 0.1U [M]			
C138	ECUV1E473KBN	25V 0.047U [M]			
C139	ECEA0JKA470B	6.3V 47U [M]			
C140	RCE1CKA100BG	16V 10U [M]			
C141	ECEA1HKA010B	50V 1U [M]			
C142	ECUV1E104ZFN	25V 0.1U [M]			
C143, 144	ECUV1H471KBN	50V 470P [M]			
C150	RCE1AKA101BG	10V 100U [M]			
C203, 204	ECEA1EKA4R7B	25V 4.7U [M]			
C205, 206	ECEA1HKA010B	50V 1U [M]			
C207, 208	ECUV1H271KBN	50V 270P [M]			
C211, 212	ECUV1H152KBN	50V 1500P [M]			
C213, 214	ECEA1EKA4R7B	25V 4.7U [M]			
C215, 216	ECEA1HKA010B	50V 1U [M]			
C217, 218	ECEA1HKA68B	50V 0.68U [M]			
C219	ECEA1CKA101B	16V 100U [M]			
C220	RCE1ARC471BG	10V 470U [M]			
C221, 222	ECEA1HKA68B	50V 0.68U [M]			
C223	ECEA1EKA4R7B	25V 4.7U [M]			
C225, 226	ECEA1EKA4R7B	25V 4.7U [M]			
C239, 240	ECUV1H681KBN	50V 680P [M]			
C241	ECUV1H103KBN	50V 0.01U [M]			
C243, 244	ECUV1H682KBN	50V 6800P [M]			
C302	ECEA2AN2R2SB	100V 2.2U [M]			
C303	ECQP2E682JZT	250V 6800P [M]			
C304	RCE1AKA101BG	10V 100U [M]			
C305	ECEA1HKA0R1B	50V 0.1U [M]			
C306	ECQB1H393JF3	50V 0.039U [M]			
C307	ECUV1H102KBN	50V 1000P [M]			
C308	ECUV1H332KBN	50V 3300P [M]			
C309	ECEA0JKA470B	6.3V 47U [M]			
C310, 311	ECUV1H103KBN	50V 0.01U [M]			
C323	ECUV1H102KBN	50V 1000P [M]			

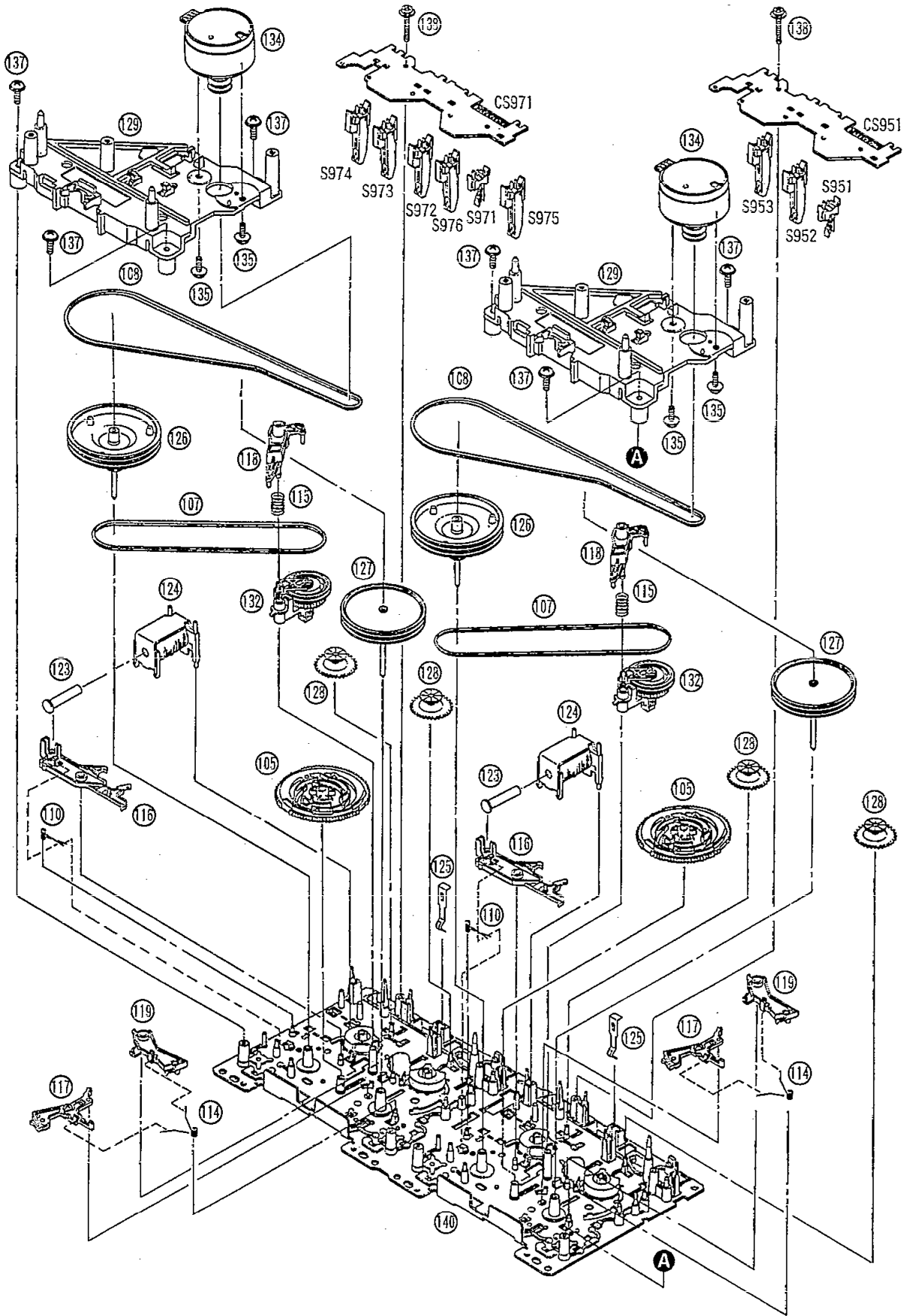
## ■ Replacement Parts List (Cabinet, Mechanism and Jig/Tool)

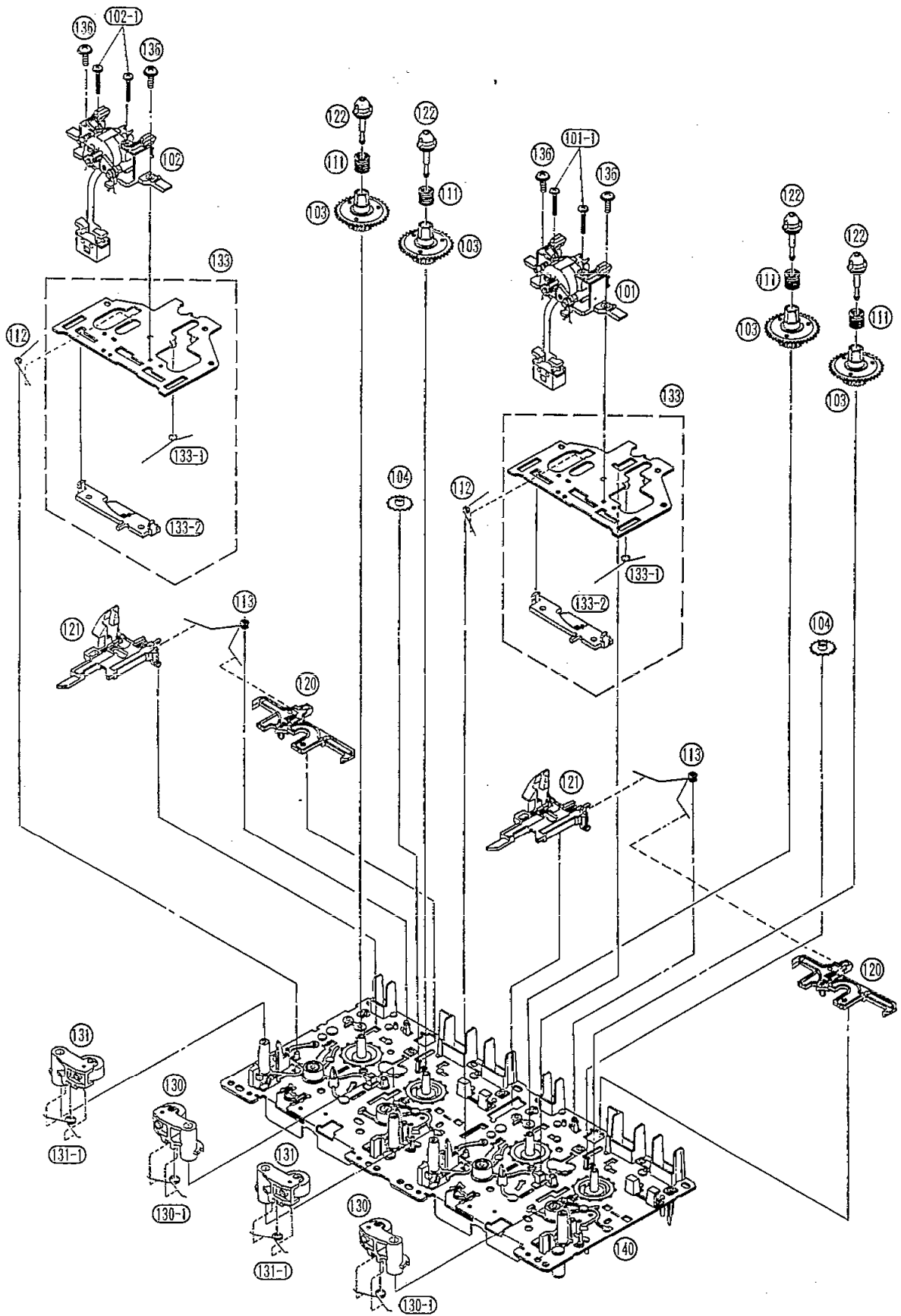
Ref.No.	Part No.	Part Name & Description	Remarks	Ref.No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS		113	RMB0404	SPRING	DM
				114	RMB0406	SPRING	DM
				115	RMB0408	SPRING	DM
1	RKMD290-K	CABINET	DM	116	RML0370	LEVER	DM
2	RHD30007-K1	SCREW	DM	117	RML0371	LEVER	DM
3	XTBS3+10JFZ1	SCREW	DM	118	RML0372	LEVER	DM
4	REX0851	WIRE ASS'Y (#601)	DM	119	RML0374	LEVER	DM
5	RMA0969	EARTH PLATE	DM	120	RMD1131	ROD	DM
6	RMND432	HOLDER	DM	121	RMD1133	ROD	DM
7	REZ0886	FLAT CABLE (#901)	DM	122	RMQ0519	REELCAP	DM
8	RMRI008-Q	LED HOLDER	DM	123	RMS0398-1	SHAFT	DM
9	RFKGEH60XGK	FRONT PANEL ASS'Y	DM	124	RSJ0003	PLUNGER ASS'Y	DM
10	RFKLACH330AK	CASSETTE HOLDER ASS'Y-DECK1	DM	125	RUS609ZC	SPRING	DM
10-1	RJS757ZA	SPRING	DM	126	RXF0049	FLYWHEEL ASS'Y	DM
10-2	RDGO129-1	GEAR	DM	127	RXF0050	FLYWHEEL ASS'Y	DM
11	RFKLACH30GB	CASSETTE HOLDER ASS'Y-DECK2	DM	128	RXG0040	GEAR	DM
11-1	RJS757ZA	SPRING	DM	129	RMK0283	SUB CHASSIS	DM
11-2	RDGO129-1	GEAR	DM	130	RXL0124	PINCH ROLLER ASS'Y(F)	DM
12	RFKHSEH60E-K	CHASSIS ASS'Y	DM	130-1	RMB0401	SPRING	DM
12-1	SHG1654	RUBBER	DM	131	RXL0125	PINCH ROLLER ASS'Y(R)	DM
13	RFKLSEH60E-K	CASSETTE PANEL ASS'Y	DM	131-1	RMB0402	SPRING	DM
14	XTBS3+8JFZ1	SCREW	DM	132	RXL0126	ARM GEAR	DM
15	RGL0349-Q	LENS 1	DM	133	RXQ0412	CHASSIS ASS'Y	DM
16	RGL0350-Q	LENS 2	DM	133-1	RMB0405	SPRING	DM
17	RJRO113	CONNECTOR (CP305, 306/4P)	DM	133-2	RMD1132	ROD	DM
18	RKF0507-K	CASSETTE PANEL (DECK 2)	DM	134	REM055-1	MOTOR ASS'Y	DM
19	RKWD489-Q	WINDOW 1	DM (E)	135	RHD26022	SCREW	DM
19	RKWD489A-Q	WINDOW 1	DM (EP)	136	XTW2+5L	SCREW	DM
20	RKWD490-Q	WINDOW 2	DM (E)	137	XTW26+10S	SCREW	DM
20	RKWD490A-Q	WINDOW 2	DM (EP)	138	XYC2+JF17	SCREW	DM
21	RMB0474	SPRING	DM	140	RFKJSCH770EK	MAIN CHASSIS ASS'Y	DM
22	RMQ0577A-2	FRAME	DM			JIG/TOOL(S)	
23	RMRO909-X	P. C. B. SUPPORTER	DM	SA1	QZZCFM	TEST TAPE	DM
24	RSCO453	SHIELD PLATE 1	DM	SA2	QZZCWAT	TEST TAPE	DM
25	RSCO454	SHIELD PLATE 2	DM	SA3	QZZCRA	TEST TAPE	DM
26	XTBS26+8J	SCREW	DM	SA4	QZZCRX	TEST TAPE	DM
27	XTB3+10JFZ	SCREW	DM	SA5	QZZCRZ	TEST TAPE	DM
		MECHANISM PARTS					
101	RED0037	HEAD BLOCK(R/P)	DM				
101-1	RHD17015	SCREW	DM				
102	RED0038	HEAD BLOCK(P. B)	DM				
102-1	RHD17015	SCREW	DM				
103	RDGO300	REEL TABLE ASS'Y	DM				
104	RDGO301	GEAR	DM				
105	RDK0026	GEAR	DM				
107	RDV0033-1	BELT 1	DM				
108	RDV0034	BELT 2	DM				
110	RLW147ZA	SPRING	DM				
111	RMB0400	SPRING	DM				
112	RMB0403	SPRING	DM				

# ■ Cabinet Parts Location



■ Mechanism Parts Location





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