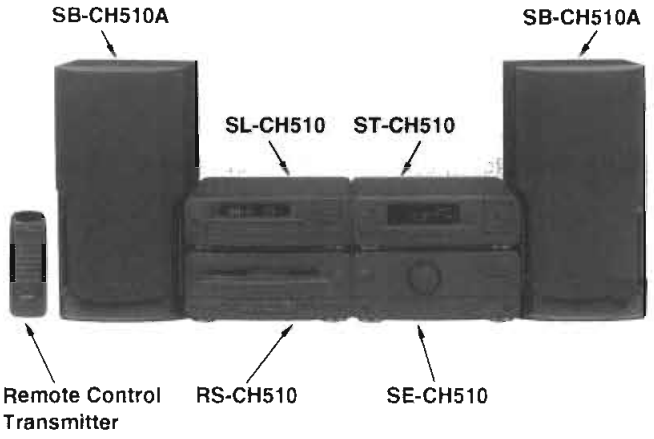
ORDER NO. AD9407189C8

Service Manual

Cassette Deck

RS-CH510

*1 DOLBY B NR



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

Colour

(K) ..... Black Type

Area

Suffix for Model No.	Area	Colour
(E)	Europe, Asia, Latin America, Middle Near East and Africa and Oceania	(K)

System: SC-CH510

*1 : 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.

AR-1 MECHANISM SERIES

Specifications

Deck system	Stereo cassette deck
Track system	4 track, 2 channel
Recording system	AC bias
Bias frequency	80 kHz
Erasing system	AC erase
Heads	
Deck 1 (Playback head)	Permalloy head
Deck 2 (Recording/Playback head)	Permalloy head
(Erasing head)	Double gap ferrite head
Motors	
Deck 1, 2	
Capstan drive	DC servo motor
Reel table drive	DC motor
Tape speed	4.8 cm/sec
Wow and flutter	0.1% (WRMS)
Fast forward and rewind times	Approx. 50 seconds with C-60 cassette tape

Frequency response (Dolby NR off, CCRT on)	
NORMAL	20 Hz – 17 kHz 30 Hz – 15 kHz (DIN)
CrO_2	20 Hz – 18 kHz 30 Hz – 17 kHz (DIN)
METAL	20 Hz – 20 kHz 30 Hz – 19 kHz (DIN)
S/N (Signal level = max recording level, CrO_2)	
NR off	56 dB (A weighted)
Dolby NR on	66 dB (CCIR)
Input sensitivity and impedance	
LINE IN	126 mV/17.6 kΩ
Output voltage and impedance	
LINE OUT	400 mV/220 Ω

■ General

Dimensions (W × H × D)	270 × 118.5 × 263 mm
Weight	2.85 kg

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

System	Tuner/sound processor	Compact disc player	Amplifier	Cassette Deck	Speakers
SC-CH510	ST-CH510	SL-CH510	SE-CH510	**RS-CH510**	*2 SB-CH510A

Technics®

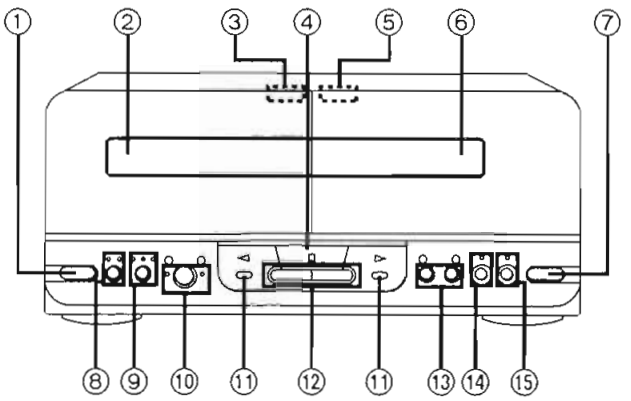
*2: For Europe ..... Made in PAES
For other areas ..... Made in NABEL

■ Contents

NOTE:
Refer to the service manual for Model No. SE-CH510 (ORDER No. AD9407197C8) for information on "Accessories", "Stacking the Components", "Connections" and "Packaging".

■ Location of Controls

① Deck 1 holder open button
② Deck 1 cassette holder
③ Deck 1 holder close button
④ Stop button
⑤ Deck 2 holder close button
⑥ Deck 2 cassette holder
⑦ Deck 2 holder open button
⑧ Dolby noise reduction button and indicators
⑨ Reverse mode button and indicators
⑩ Deck 1/deck 2 select button and indicators
⑪ Playback buttons and indicators
⑫ Fast forward/rewind/tape program sensor buttons
⑬ One-touch tape edit buttons
⑭ Record pause button and indicator
⑮ CCRT button and indicator



■ Operation Check and Main Component Replacement Procedures

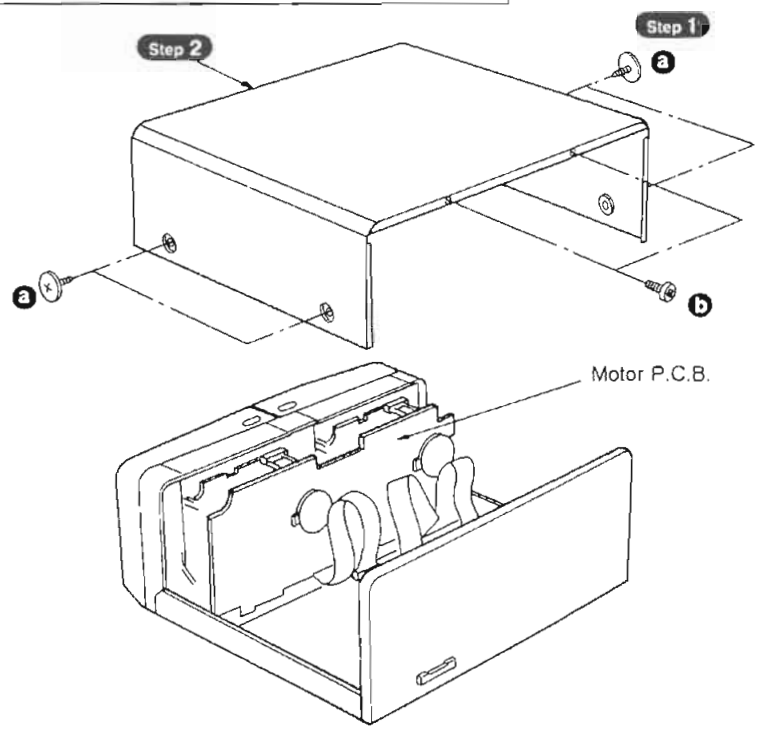
NOTE

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. Illustrated screws are equivalent to actual size.
5. Refer the parts No. on the page of "Main Component Replacement Procedures", if necessary.

● Contents

■ Checking Procedure for each P.C.B.

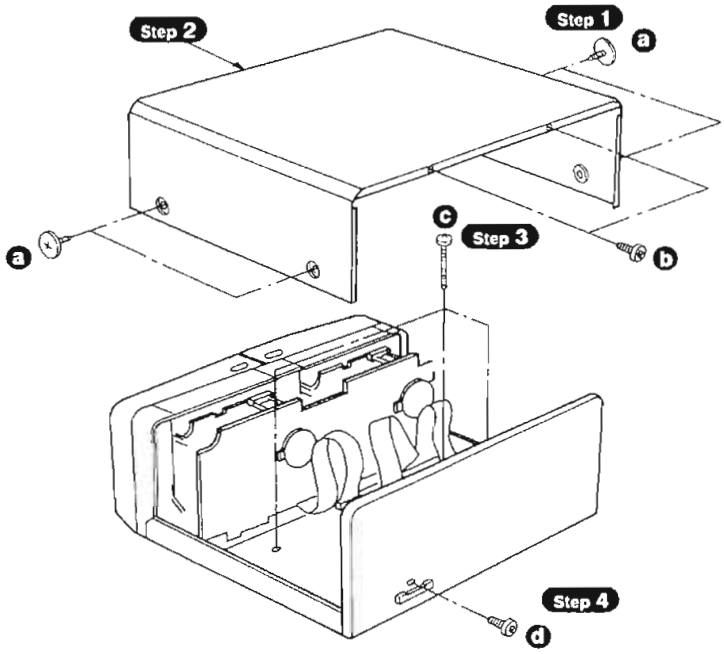
1. Checking for the motor P.C.B.

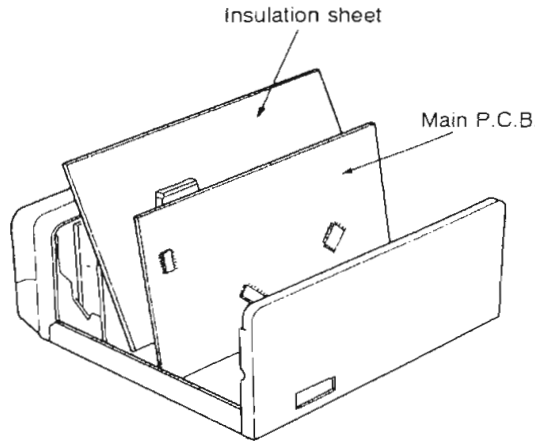


[RHD30007] (Black)

[XTBS3+8JFZ1] (Black)

2. Checking for the main P.C.B.



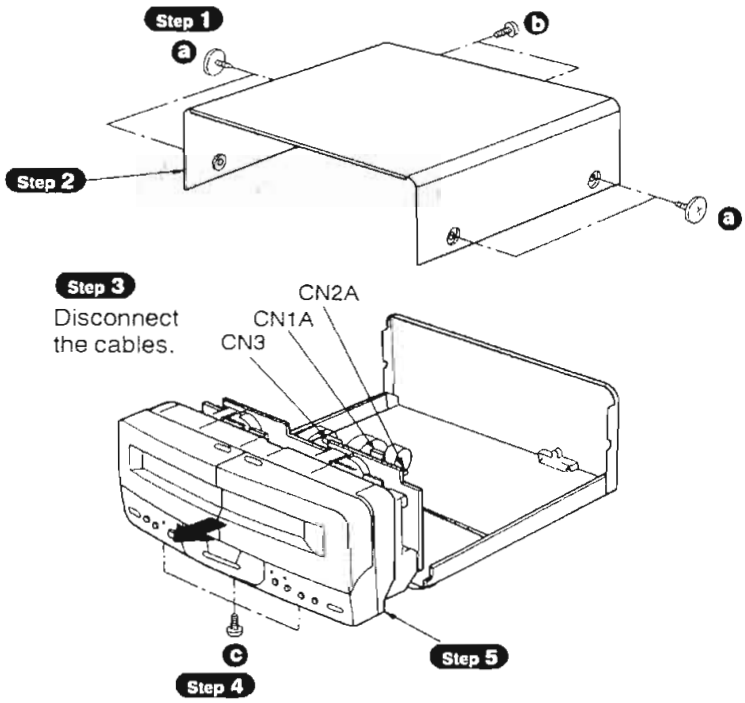


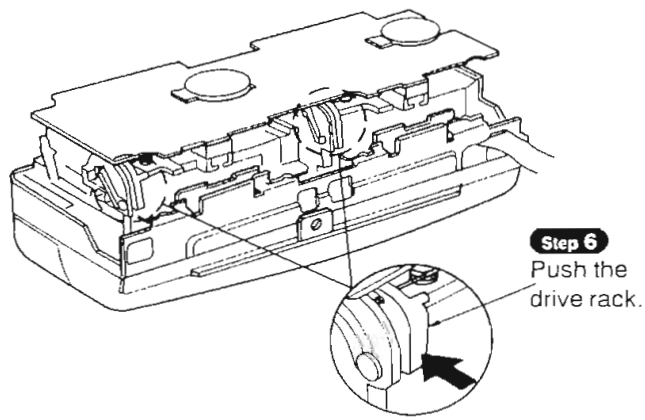
[RHD30007] (Black)

[XTB3+16JFZ] (Black)

[XTBS3+8JFZ1] (Black)

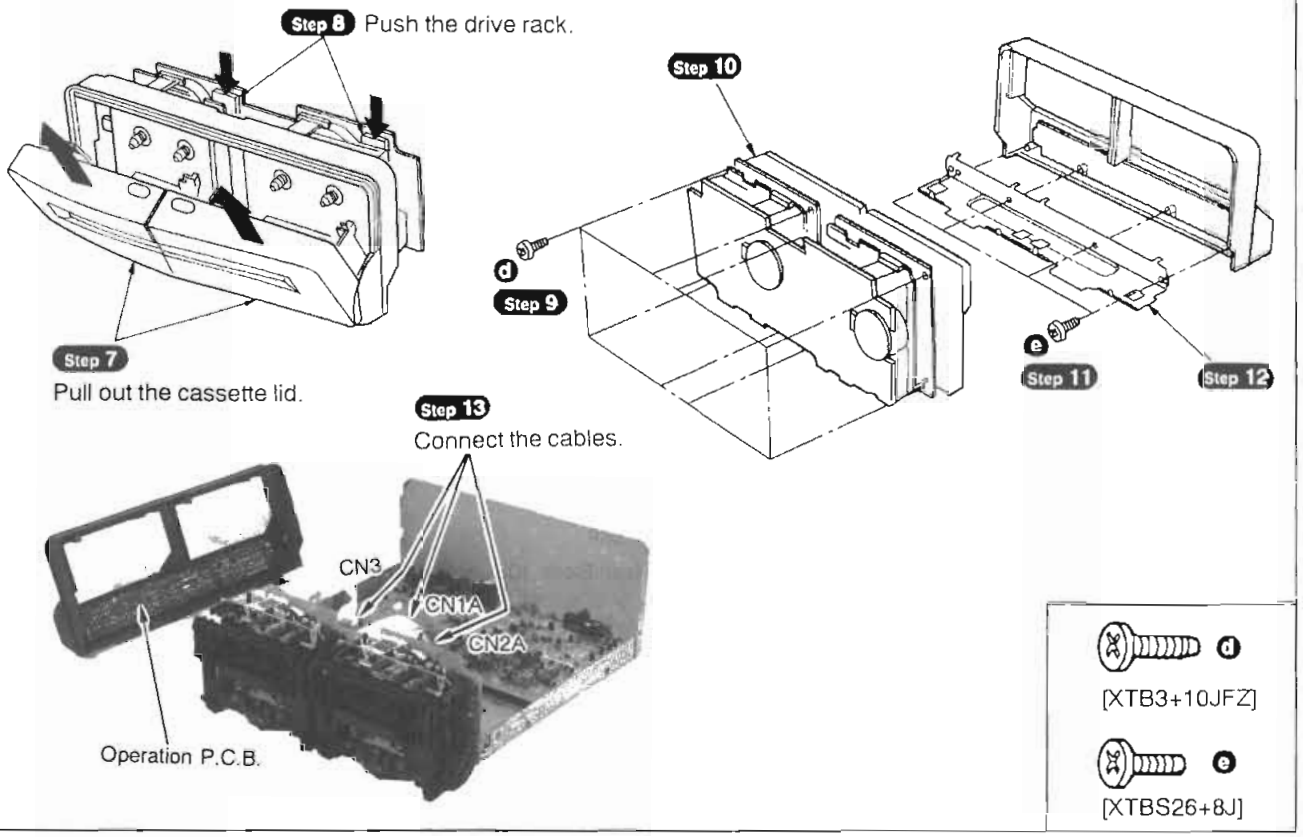
3. Checking for the operation P.C.B.





[RHD30007] (Black)

[XTBS3+8JFZ1] (Black)



d [XTB3+10JFZ]

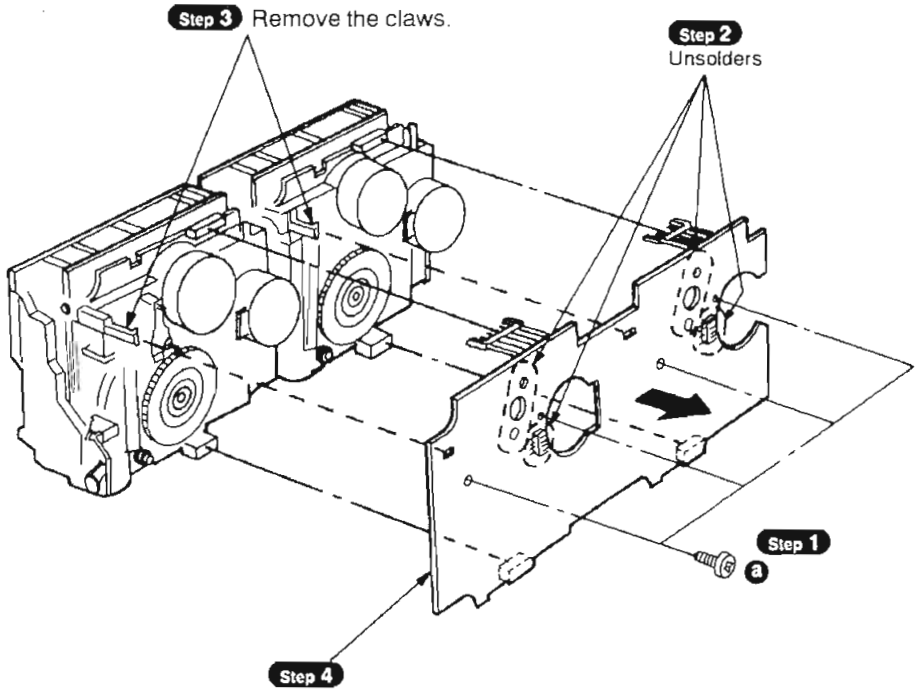
e [XTBS26+8J]

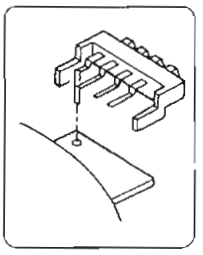
■ Main Component Replacement Procedures

1. Replacement for the head block and pinch roller unit

a [XTW2+6S]

- Follow the Step 1 ~ Step 10 of the item 3 in checking procedure for each P.C.B. on page 4, 5.

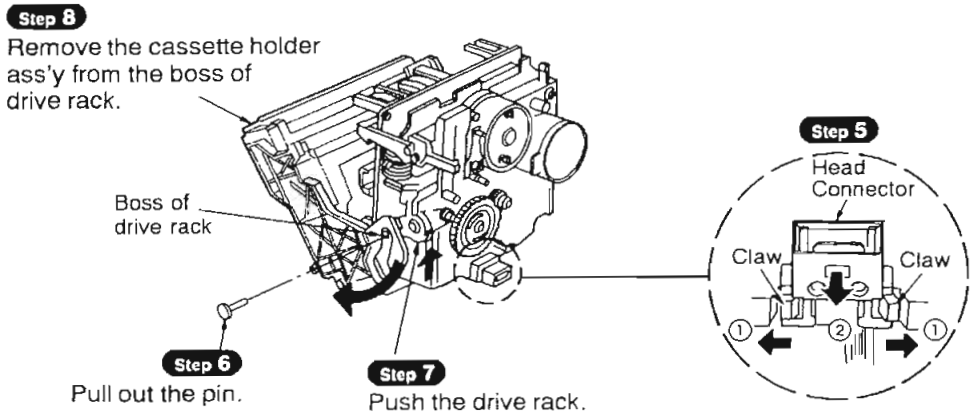


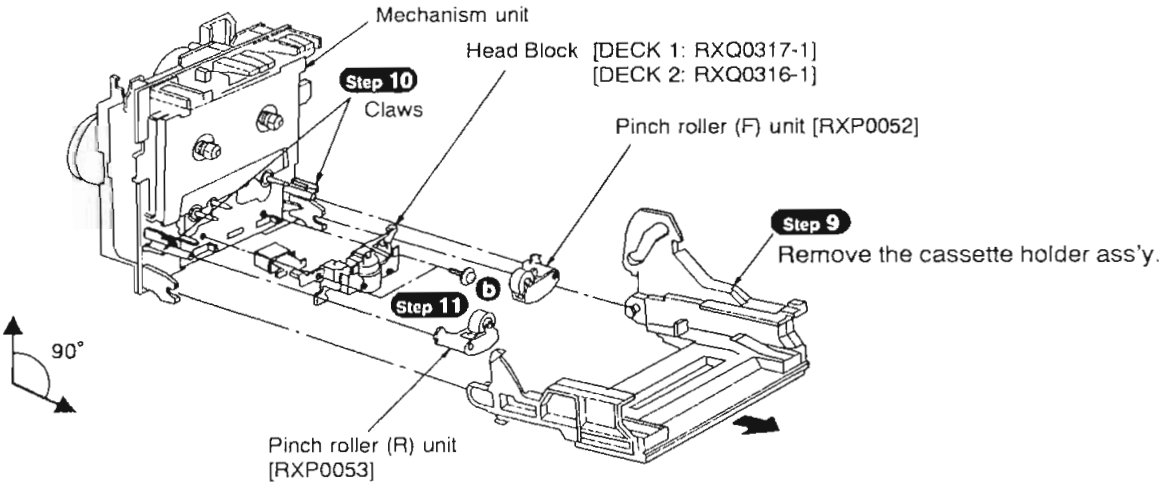


NOTE

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

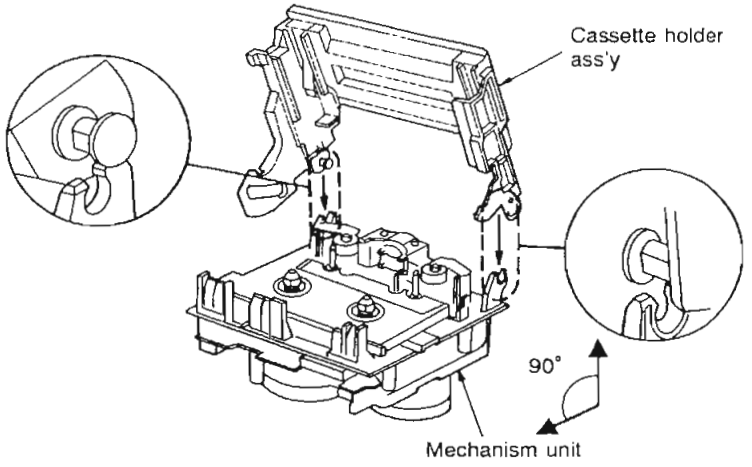
[XTW2+5L]



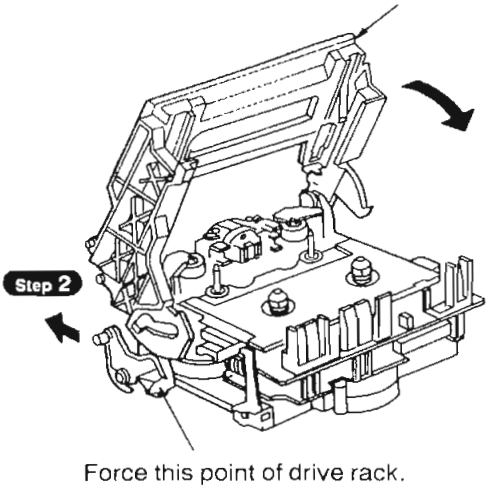


Installation of the cassette holder ass'y after replacement

Step 1 Locate the cassette holder ass'y and mechanism unit at a 90 degree angle, and then install the cassette holder ass'y.

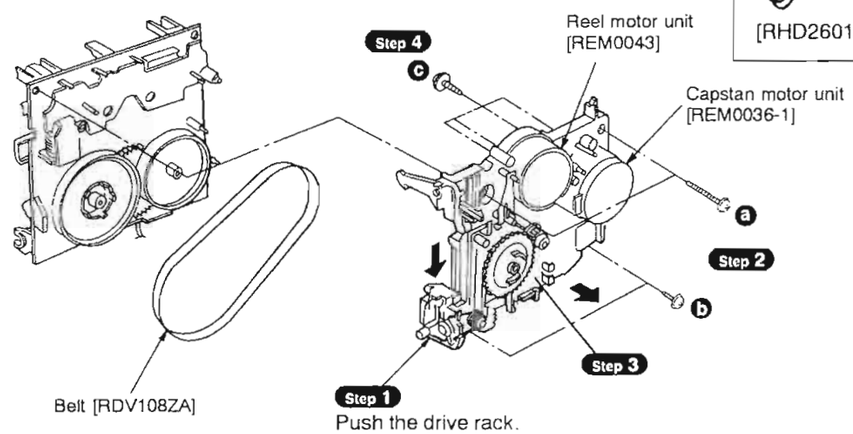


Step 3 Close the cassette holder ass'y.



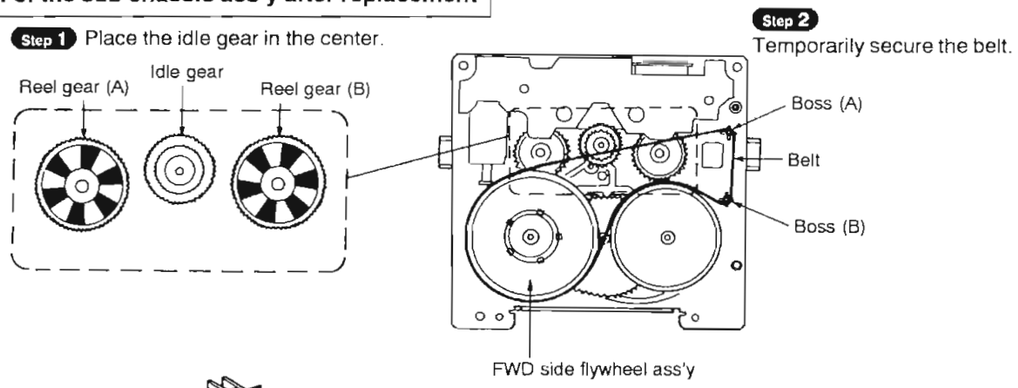
2. Replacement for the belt, reel motor unit and capstan motor unit

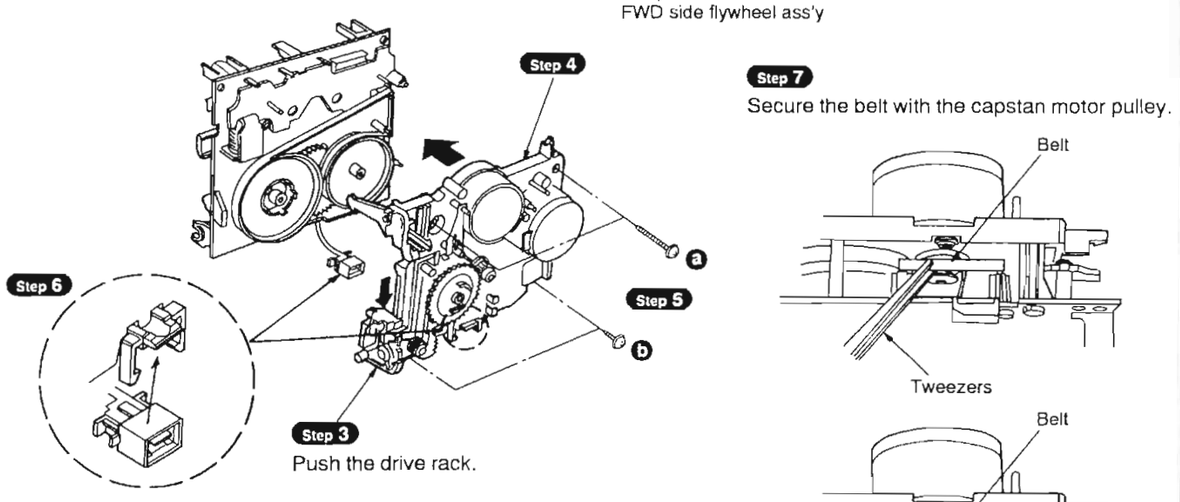
- Follow the **Step 1** ~ **Step 8** of item 1 in main component replacement procedures on page 5, 6.



a [XTW26+12S] b [XTW26+6L] c [RHD26013]

Installation of the sub chassis ass'y after replacement

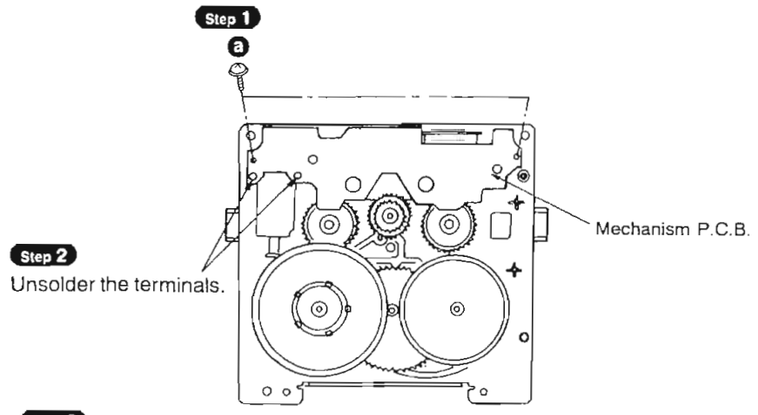


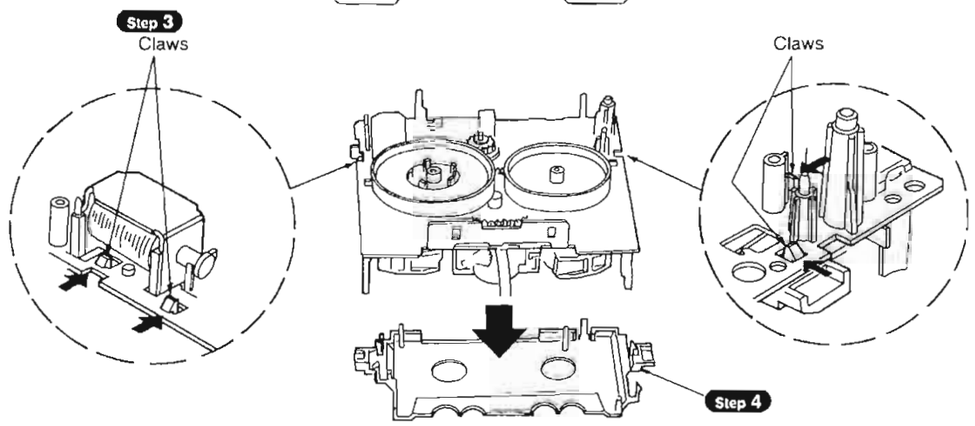


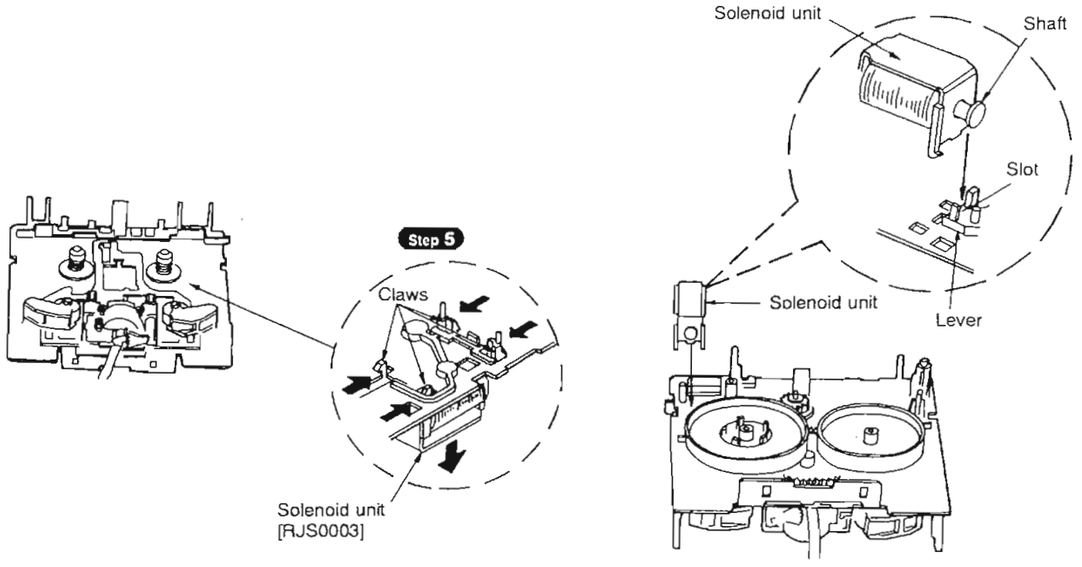
a [XTW26+12S] b [XTW26+6L]

3. Replacement of the parts mounted on mechanism P.C.B. and solenoid unit

- Follow the **Step 1** ~ **Step 3** of item 2 in main component replacement procedures on page 7.







a [XTW2+6S]

NOTE

Notice for installing the solenoid unit

- The shaft of solenoid unit should be aligned with the slot of lever.

■ Measurements an Adjustments

This unit RS-CH510 is designed to operate on power supplied from the Amplifier (SE-CH510) through Tuner/Sound Processor (ST-CH510).
When connecting the unit to other system components, do not connect to the Amplifier (SE-CH510) directly. Be sure to connect this unit through the Tuner/Sound Processor (ST-CH510).
When operating the unit RS-CH510 alone for testing and servicing, without having power supplied from the Amplifier (SE-CH510) and the Tuner/Sound Processor (ST-CH510), use the following method.

● To Supply Power Source

1. Short test points between **TP604** and **TP605**, and **TP606** and **TP607** at the resistor **R609** as shown in Fig. 1.
2. Apply 11 V AC power to test points between **TP601** and **TP602** (GND), and **TP603** and **TP602** (GND).
   (10 V AC power can be also applied when using adjustment tool for power supply.)

● To Check Signals

Connect an oscilloscope or a built-in amplifier speaker between line output for L-ch (**TP3**) and jumper (**TP5**), and line out for R-ch (**TP4**) and jumper (**TP5**) and check if the signals are outputting from this unit.

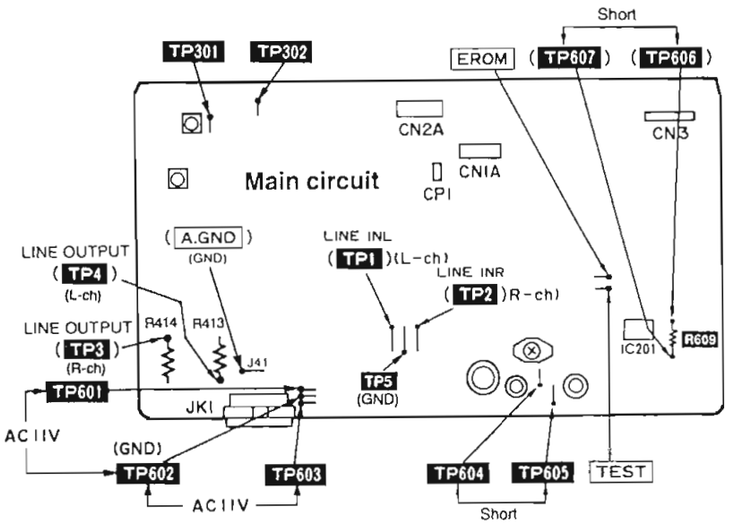


Fig. 1

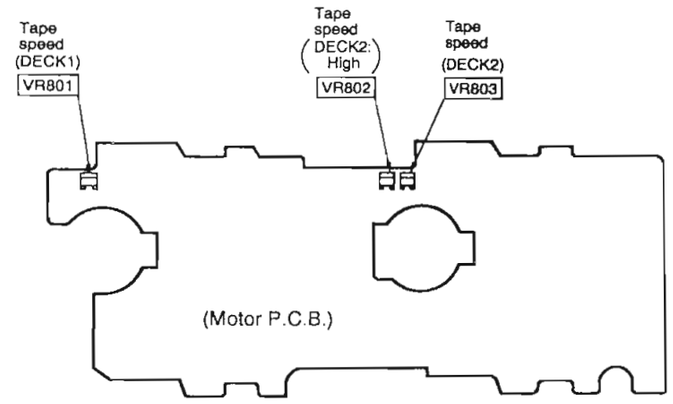


Fig. 2

Measurement Condition

- Reverse-more selector switch; ⇄
- Dolby NR switch; OFF
- Make sure heads are clean.
- Make sure capstan and pressure roller are clean.
- Judgeable room temperature 20±5°C (68±9°F)

Test tape

- Head azimuth adjustment (8 kH, -20 dB); QZZCFM
- Tape speed adjustment (3 kHz, -10 dB); QZZCWAT
- Playback gain adjustment (315 Hz, 0 dB); QZZCFM
- Recording frequency response adjustment; QZZCRA (Normal blank Tape)

Measuring instrument

- EVM (Electronic Voltmeter)
- AF oscillator
- Digital frequency counter

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.)
4. Perform the same adjustment in reverse playback mode.

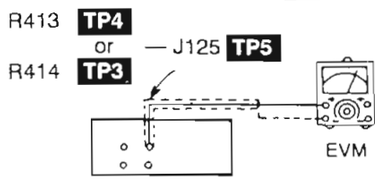


Fig. 3

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 dB.
6. After the adjustment, apply screwlock to the azimuth adjusting screw.

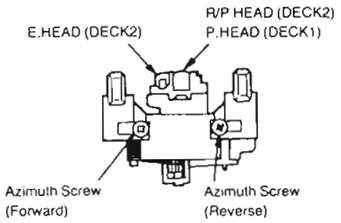


Fig. 4

TAPE SPEED ADJUSTMENT (DECK 1/2)

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. Short-circuit the TEST jumper ("DECK 1" or "DECK 2" indicator blinks).
4. Playback the middle portion on the test tape (QZZCWAT).
5. Press the one touch tape edit (High) button.
   This will set the high speed mode.
6. At that time, check if the output from DECK 1 is within the standard value.

Standard value: 6000±600 Hz (HIGH speed)

7. 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.)

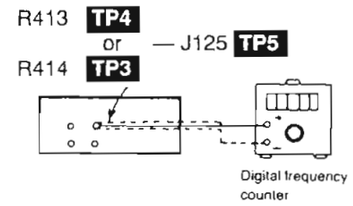


Fig. 5

ERASE CURRENT CONFIRMATION (DECK2)

1. Short-circuit the TEST jumper.
2. Press the REC PAUSE button.
3. Check if the output at this time between the erase current confirmation point **TP301** and **TP302** (chassis) (the output on both edged of R301) is within the standard value. (Refer to Fig. 6.)

Standard value: 160±25 mA

4. Disconnect the TEST jumper from the frame ground.

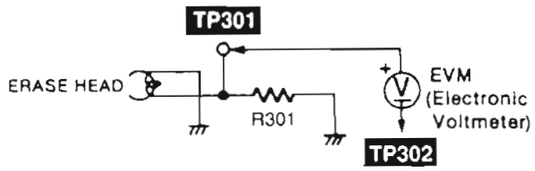


Fig. 6

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

The RS-CH510 can automatically adjust playback gain and rec./play frequency response & gain.

Automatic adjustment of playback gain and rec./play frequency response & gain

A microprocessor (IC701) used within the RS-CH510 automatically adjusts its playback gain and rec./play frequency response & gain (factory adjustment) and stores adjustment data to an EEPROM chip (IC702). (potentiometers have conventionally been used for these adjustments.)

Playback gain adjustment
Rec./play frequency response & gain adjustment
— Microprocessor (IC701) (Auto adjustment) — EEPROM (IC702) (Data memory)
— Conventionally adjusted with potentiometers.

If the EEPROM chip (IC702) or any of the head AF signal line components is replaced for servicing, the unit requires readjustment. (Refer to page 11, 12.)

●Preparation for making automatic adjustments

1. Find the beginning of the 315 Hz, 0 dB test signal recorded on the test tape (QZZCFM).
2. Switch off the power to the unit and then make the following connections.
   a) Connect an AF oscillator between **TP1** (LINE IN, left channel) and **TP5**, and between **TP2** (LINE IN, right channel) and **TP5**. (Refer to Fig. 1 and Fig. 7.)
   b) Connect an EVM (AC range) between **TP3** (LINE OUT, left channel) and **TP5**, and between **TP4** (LINE OUT, right channel) and **TP5**. (Refer to Fig. 1 and Fig. 7.)
   c) Connect EROM and TEST to the A. GND. (Refer to Fig. 1 and Fig. 8.)
   - When EROM is connected to the A. GND and the power is switched on, the memory of the EEPROM (IC702) will be erased.
   - When TEST is connected to the A. GND and the power is switched on, the unit will be in the adjustment mode.
3. Switch on the power to the unit. (Refer to page 9 for information on how to connect the power supply.)
   - The Deck 1/2 indicators and the CCRT indicator will begin flashing. (Refer to Fig. 9.)
4. Use the AF oscillator to apply a 315 Hz, -20 dB (100 mV) signal to the unit.
5. Without a tape inserted in either Deck 1 or Deck 2, hold the REC PAUSE button down and confirm that the signal is being output from **TP3** and **TP4**.
   - The signal is output from **TP3** and **TP4** only while the REC PAUSE button is held down. When the button is released, the output will stop.
6. Adjust the output of the AF oscillator so that the output from **TP3** and **TP4** becomes 400 mV, and then hold the REC PAUSE button down again for at least 5 seconds.
   - The reference signal will be stored in the memory of the EEPROM (IC702).
7. Release the REC PAUSE button.
8. Disconnect EROM from the A. GND.
   - Leave TEST connected to the A. GND.
   (The Deck 1/2 indicators are flashing at this time.)

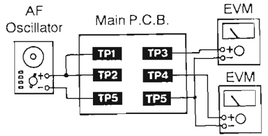


Fig. 7

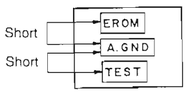


Fig. 8

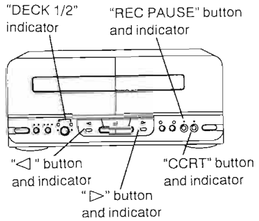
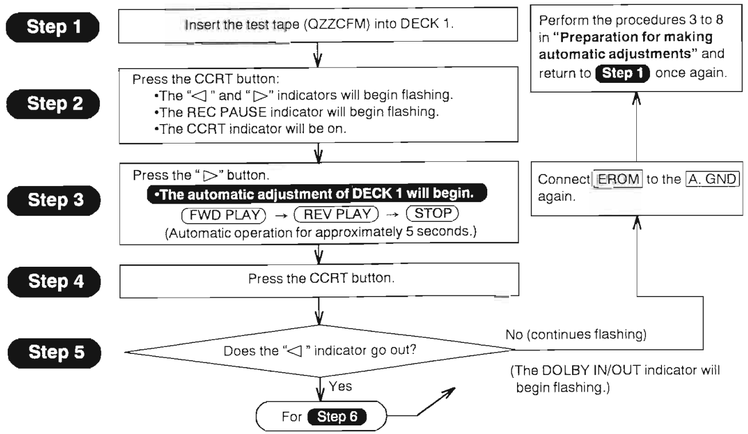
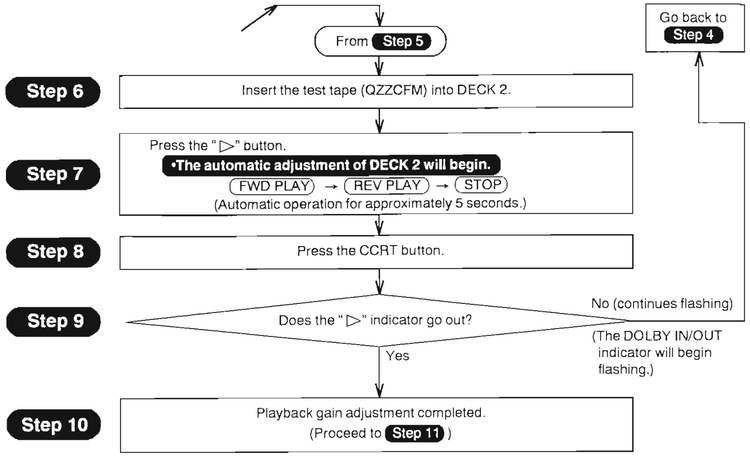


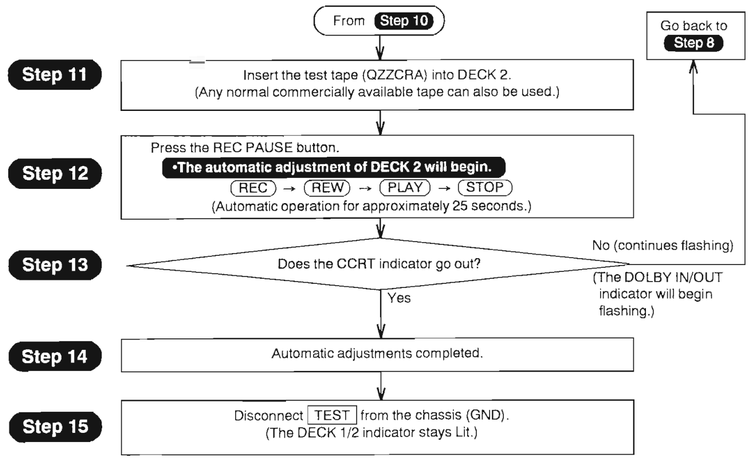
Fig. 9

●PLAYBACK GAIN ADJUSTMENT





●OVERALL GAIN ADJUSTMENT AND OVERALL FREQUENCY ADJUSTMENT



●Perform the following recording/playback frequency response and gain adjustment checks

1. Playback gain check

1-1. 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).

1-2. Confirm that the output between **TP3** / **TP4** and **TP5** agrees with the following rated value:
400 mV ± 0.5 dB

2. Playback frequency response check (Decks 1 and 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. 10.

Output points: between **TP3** / **TP4** and **TP5**.

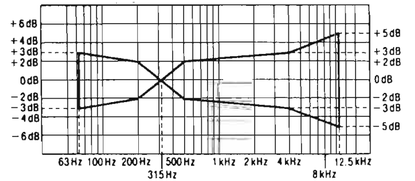


Fig. 10

3. Recording/playback frequency response and gain check

3-1. Insert a Normal-type blank tape (QZZCRA) into Deck 2.

3-2. Input a 1 kHz signal between **TP1** / **TP2** and **TP5**, and use the attenuator to set the output between **TP3** / **TP4** and **TP5** to 400 mV.

3-3. Record the 1 kHz signal.

3-4. Playback the recorded signal and confirm that the output between **TP3** / **TP4** and **TP5** agrees with the following rated value:
400 mV ± 1 dB

3-5. Without adjusting the output setting from step 3-2, use the attenuator to further attenuate the input signal by 20 dB and record signals of 50 Hz, 100 Hz, 300 Hz, 500 Hz, 3 kHz, 10 kHz and 12.5 kHz.

3-6. Playback the recorded signals and, using the 1kHz playback output as a reference (0 dB), confirm that the output between **TP3** / **TP4** and **TP5** confirms to the overall frequency response shown in Fig. 11.

3-7. Insert first a blank Chrome-type tape (QZZCRX) and then a blank Metal-type tape (QZZCRZ) into Deck 2.

3-8. Repeat steps 3-5 and 3-6 for each tape and confirm that the output for each conforms to the overall frequency response shown in Fig. 12.

Normal Overall frequency response chart (NR OUT)

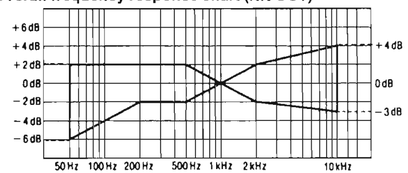


Fig. 11

CrO_2 Metal Overall frequency response chart (NR OUT)

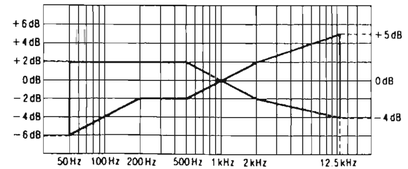
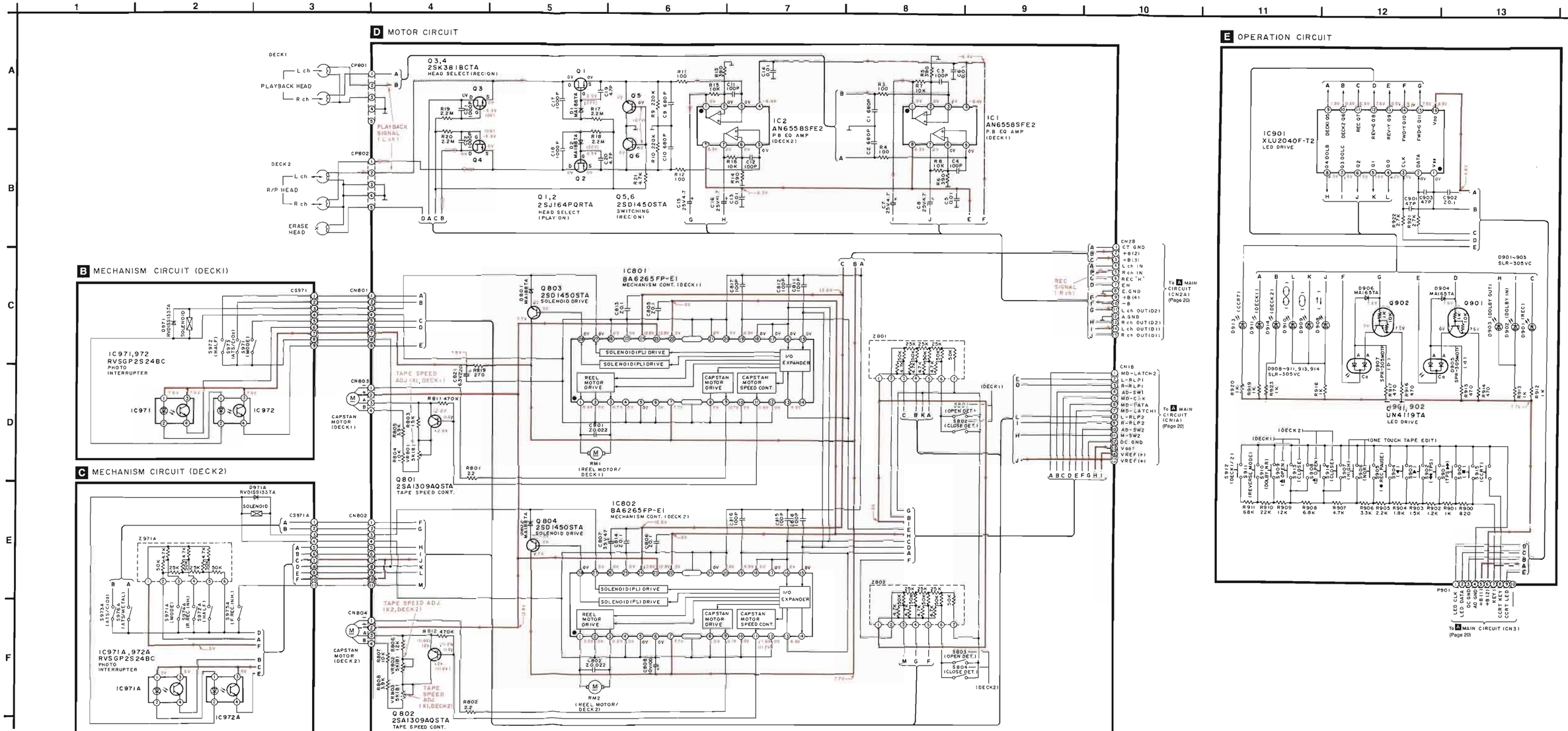


Fig. 12

RS-CH510 RS-CH510

■ Schematic Diagram

● Mechanism (DECK 1), (DECK 2)/Mortor Control/Operation circuit (Parts list on Page 33～36)



● Main circuit (Parts list on Page 33~36)

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

Notes:

- **S801** : DECK 1 cassette holder open detect switch
- **S802** : DECK 1 cassette holder close detect switch
- **S803** : DECK 2 cassette holder open detect switch
- **S804** : DECK 2 cassette holder close detect switch
- **S900** : Stop switch (■)
- **S901** : Fast forward/tape program sensor switch (TPS ►►)
- **S902** : Rewind/tape program sensor switch (◄◄ TPS)
- **S903** : Forward side playback switch (►)
- **S904** : Reverse side playback switch (◄)
- **S905** : Record pause switch (● REC PAUSE)
- **S906** : One-touch tape edit switch (NORMAL)
- **S907** : One-touch tape edit switch (HIGH)
- **S908** : DECK 2 cassette holder open switch (⏏ OPEN)
- **S909** : DECK 1 cassette holder open switch (⏏ OPEN)
- **S910** : Dolby noise reduction switch (DOLBY NR)
- **S911** : Reverse mode select switch (REVERSE MODE)
- **S912** : DECK 1/DECK 2 select switch (DECK 1/2)
- **S913** : DECK 1 cassette holder close switch (CLOSE)
- **S914** : DECK 2 cassette holder close switch (CLOSE)
- **S915** : CCRT switch (CCRT)
- **S971** : DECK 1 mode detect switch
- **S972** : DECK 1 half detect switch
- **S973** : DECK 1 CrO_2 tape detect switch
- **S971A** : DECK 2 mode detect switch
- **S972A** : DECK 2 half detect switch
- **S973A** : DECK 2 CrO_2 tape detect switch
- **S974A** : DECK 2 reverse side record prevention tab detect switch
- **S975A** : DECK 2 forward side record prevention tab detect switch
- **S976A** : DECK 2 METAL tape detect switch
- 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.
- Voltage values and waveforms are measured as indicated in the schematic diagram when test points between TP604 and TP605, and between TP606 and TP607 are shorted.

  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.

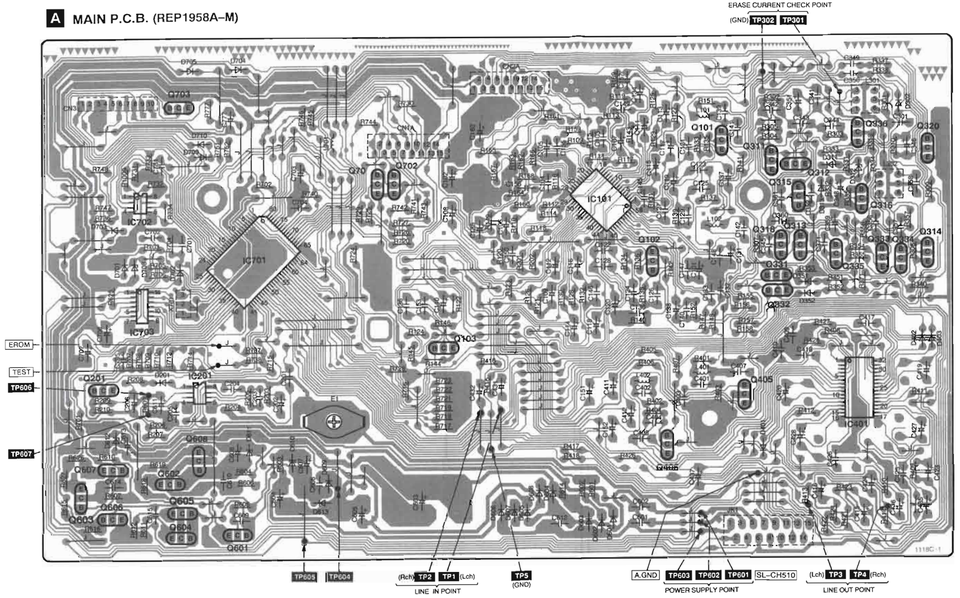
- **Voltage and signal line**
  : Positive voltage line
  : Playback signal Line
  : Negative voltage line
  : Recording signal Line

RS-CH510 RS-CH510

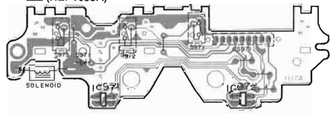
■ Printed Circuit Board Diagram

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

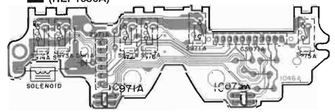
A MAIN P.C.B. (REP1958A–M)



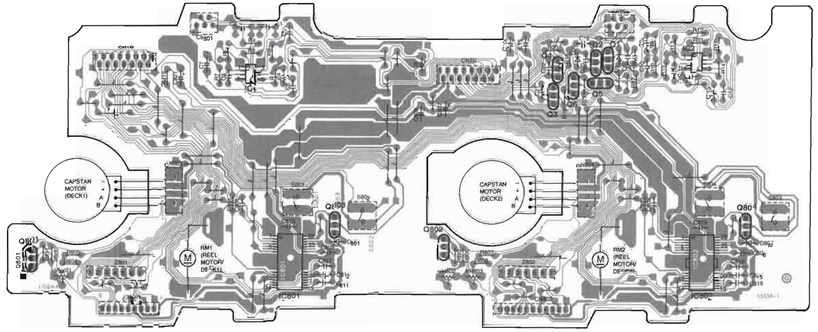
B MECHANISM P.C.B. (DECK1) (REP1655A)



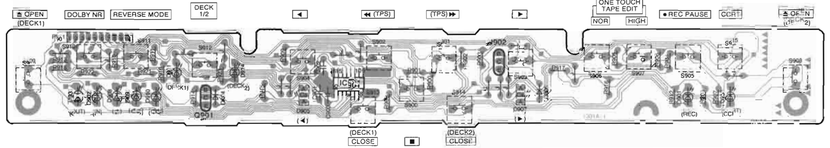
C MECHANISM P.C.B. (DECK2) (REP1656A)



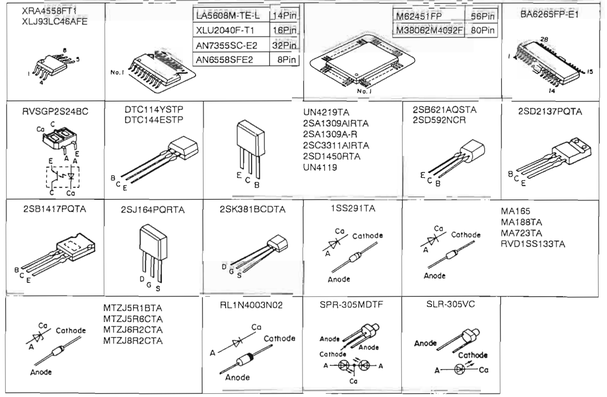
D MOTOR P.C.B. (REP1955A–T)



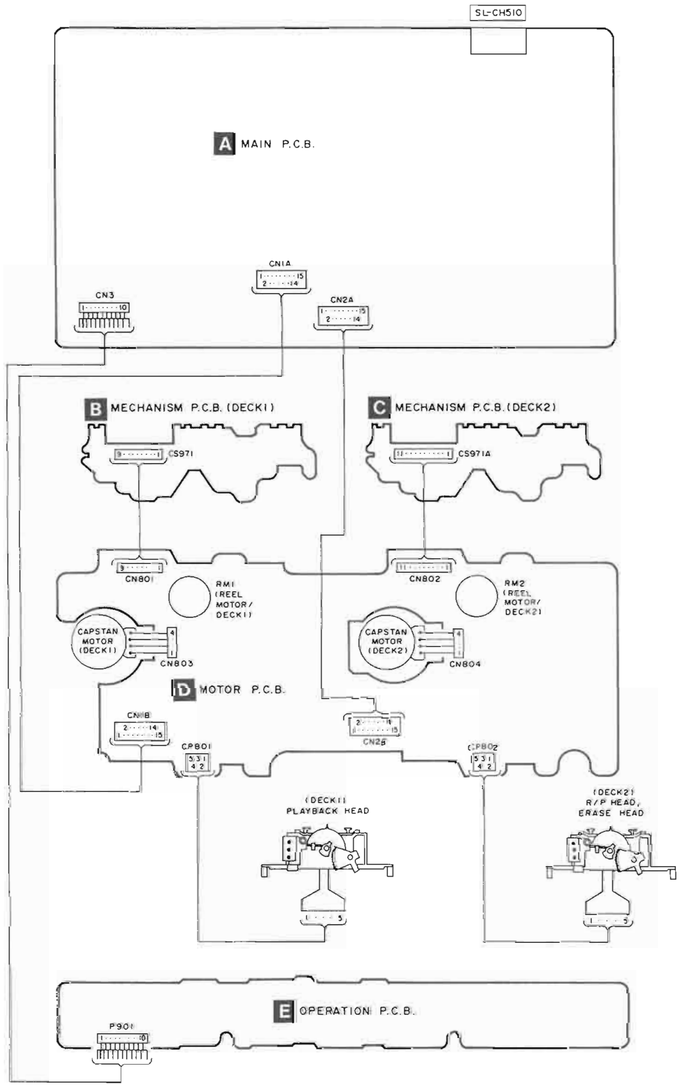
E OPERATION P.C.B. (REP1921A–S)



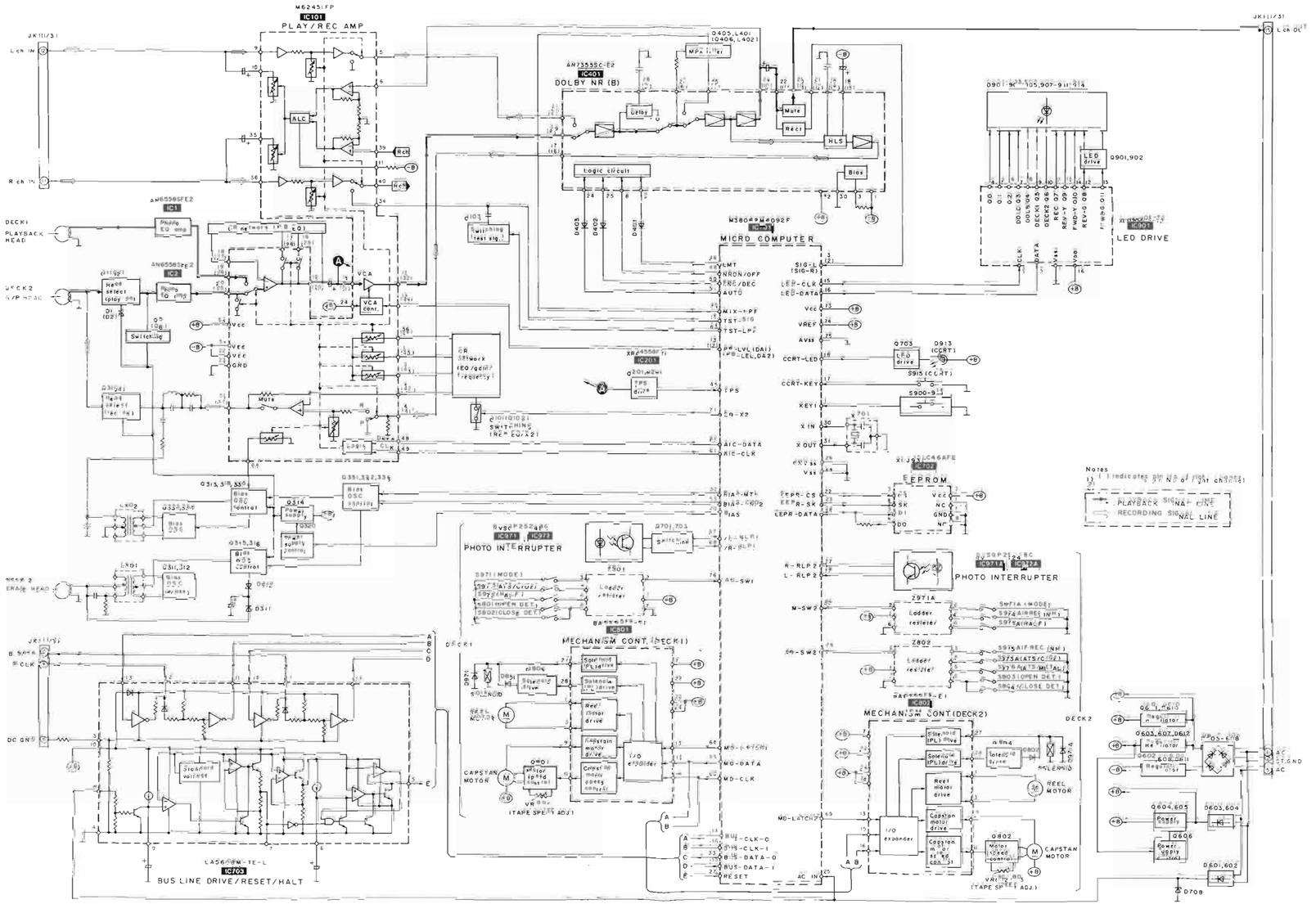
• Terminal Guide of IC's, Transistors and Diodes



■ Wiring Connection Diagram



■ Block Diagram



■ Self-Check Function

This unit incorporates a cassette mechanism self-check function using the DOLBY NR/REVERSE MODE LED indicators. Use this function during maintenance to check for faults in the items below.

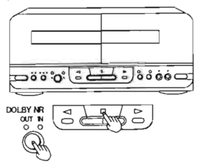
● Cassette tapes to be prepared

Metal tape: Recorded music tape with erase-prevention tab intact on one side removed from the other side (use middle portion of tape).

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

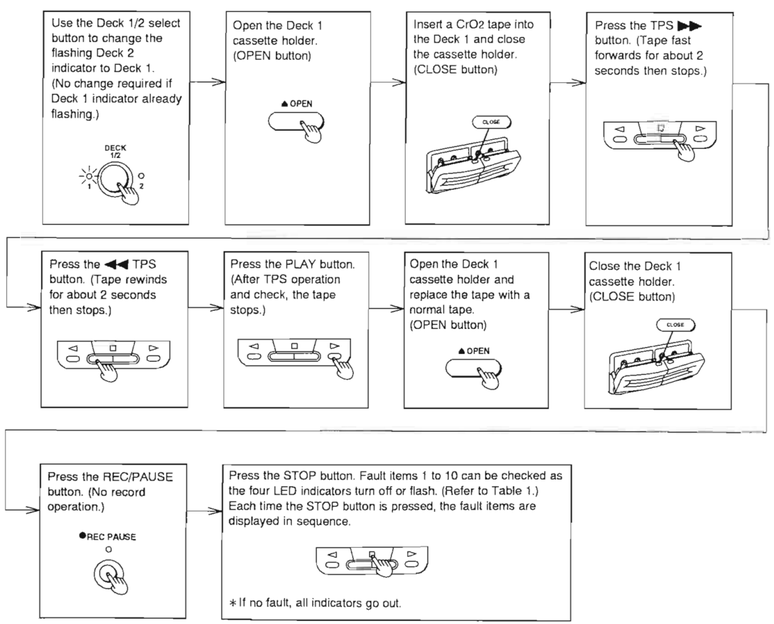
● Selecting Self-Check Mode

1. Turn on the power to the unit . (If RS-CH510 unit is removed from system, turn on power according to procedure on page 9.)
2. Check that no tape is inserted in the cassette deck.
   Press and hold the DOLBY NR button for about 2 seconds, then press the STOP button for about 2 seconds. (Self-Check mode cannot be selected with a tape loaded in the cassette deck.)



3. DOLBY NR and REVERSE MODE LED indicators turn off, and the LED indicator for either Deck 1 or Deck 2 flashes, indicating the self-check mode has been activated.

● Deck 1 Mechanism Check

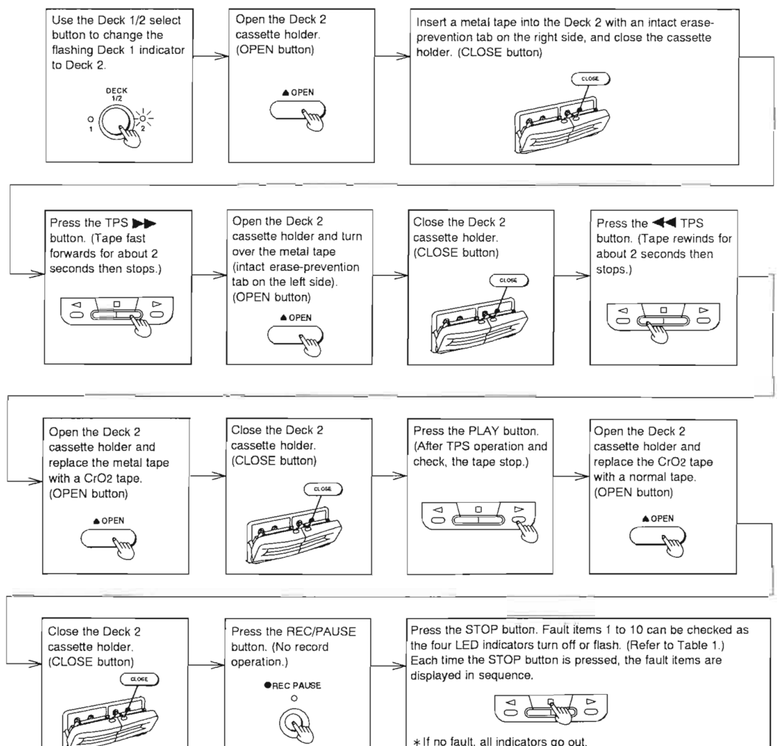


No.	LED indicator status (off/flashing)				Fault location
	DOLBY NR	REVERSE MODE			
	IN	⇄	⇄	⇄	
1.	—	—	—	●	MODE detect switch
2.	—	—	●	—	REC prevention switch
3.	—	—	●	●	Half detect switch
4.	—	●	---	—	Deck OPEN switch
5.	—	●	—	●	Deck CLOSE switch
6.	—	●	●	—	CrO_2 tape detect switch
7.	—	●	●	●	Metal tape detect switch
8.	●	—	—	—	Reel pulse detect system (Hall IC, etc.)
9.	●	—	—	●	TPS operation
10.	●	—	●	—	Reel motor

Notes:
"●": Flashing
"—": off
∗If no fault, all indicators go out.

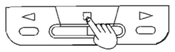
Table 1: Self-Check Mode Diagnostic Items

● Deck 2 Mechanism Check



● Exiting Self-Check Mode

1. Press the STOP button for more than 5 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.

■ Function of IC Terminals

●IC702 (XLJ93LC46AFE)

Pin No.	Terminal Name	I/O	Function
1	NC	—	Connected to GND
2	V_{CC}	I	Power input
3	CS	I	Chip select signal input
4	SK	I	Serial clock input
5	DI	I	Serial data input
6	DO	O	Serial data output
7	GND	—	GND
8	NC	—	Connected to GND

●IC801 and IC802 (BA6265FP-E1)

Pin No.	Terminal Name	I/O	Function
1	RM−	O	Reel motor control (−)
2	GND	—	Reel motor GND
3	RM+	O	Reel motor control (+)
4 to 6	NC	—	Connected to GND
7	7.5 V	I	Power input (7.5 V)
8	GND	—	Capstan motor GND
9	CPM	O	Capstan motor control
10	NC	—	Connected to GND
11	CPM-SW	O	Capstan motor speed control
12	NC	—	Connected to GND
13	LACH	I	I/O expandor lach signal output
14	S.O.	O	I/O expandor serial output
15	DATA	I	I/O expandor data input
16	CLK	I	I/O expandor clock input
17, 18	NC	—	Connected to CLK
19	NC	—	Connected to LACH
20, 21	GND	—	GND
22	5 V	I	Power input (5 V)
23, 24	15 V	I	Power input (15 V)
25	NC	—	Connected to GND
26	GND	—	GND
27	PL15 V	O	Plunger drive signal output (15 V)
28	PL7.5 V	O	Plunger drive signal output (7.5 V)

● IC701 (M38062M4092F)

Pin No.	Terminal Name	I/O	Function
1	KEY1	I	Operation key input
2	SIG-R	I	Level detection input for audio signal (R-ch)
3	SIG-L	I	Level detection input for audio signal (L-ch)
4 ~ 11	—	—	Unused, connected to GND
12	PB-LVL (DA2)	O	Control signal output for playback level (R-ch)
13	PB-LVL (DA1)	O	Control signal output for playback level (L-ch)
14	TST-SIG	O	Audio test signal output (400 Hz/10 kHz)
15	LED-CLK	O	Serial clock signal output for LED drive control to IC901
16	LED-DATA	O	Serial data signal output for LED drive control to IC901
17	CCRT-KEY	I	Key input for CCRT
18	CCRT-LED	O	ON/OFF control signal output for CCRT display to LED
19 ~ 21	—	—	Unused, connected to GND
22	EEPR-CS	O	Chip select signal output for EEPROM
23	EEPR-SK	O	Serial clock signal output for EEPROM
24	EEPR-DATA	I/O	Serial data signal input/output for EEPROM
25	ACIN	I	Signal input for power OFF mode detection
26	CNVSS	—	Connected to Vss
27	/RESET	I	Reset signal input from IC703
28 29	—	—	Unused, connected to GND
30	XIN	I	Connected to a oscillator X701 (8 MHz)
31	XOUT	O	
32	VSS	—	Connected to GND
33	BUS DATA-0	O	Bus data signal output
34	BUS CLK-0	O	Bus clock signal output
35	BUS DATA-1	I	Bus data signal input
36	BUS CLK-1	I	Bus clock signal input
37 ~ 40	—	—	Unused, connected to GND
41	TST-EPROM	I	Signal input for EEPROM initialization
42	TST-MODE	I	Switching signal input for Test ON/OFF mode
43	CS-KEY	I	Connected to GND
44	CS-NR	I	Model selection input (This unit ; "L")
45	TPS	I	Detection signal input for tape music search presence signal in TPS operation

Pin No.	Terminal Name	I/O	Function
46	LMT	O	Muting signal output for line out
47	DOLBY B/C	O	Dolby B/C switching signal output
48	NR ON/OFF	O	Dolby ON/OFF switching signal output
49	MIX-LPF	O	Filter ON/OFF switching signal output in audio signal level detection
50	ENC/DEC	O	Encoder/decoder switching signal
51	AUTO	O	Gain control signal output for audio signal level detection circuit
52	BIAS-MTL	O	Control signal output for recording bias in use of a metal tape
53	BIAS-CRO2	O	Control signal output for recording bias in use of a Chrome tape
54 ~ 59	—	—	Unused, connected to GND
60	TEST "L"	O	Connected to GND
61	AIC-CLK	O	Clock control signal output to IC for audio recording/playback
62	AIC-DATA	O	Data control signal output to IC for audio recording/playback
63	TST-LPF	O	Filter ON/OFF switching signal output for CCRT recording test signal (400 Hz: "H")
64	MD LATCH1	O	Latch signal output to IC801 for mechanism drive on deck 1
65	MD-DATA	O	Serial data signal output to mechanism drive ICs (IC801, IC802)
66	MD-CLK	O	Serial clock signal output to mechanism ICs (IC801, 802)
67	/L-RLP1	I	Pulse signal input for rotation detection to left side reel of deck 1
68	/R-RLP1	I	Pulse signal input for rotation detection to right side reel of deck 1
69	MD-LATCH2	O	Latch signal output to IC802 for mechanism drive on deck 2
70	BIAS	O	ON/OFF switching signal output for recording bias
71	EQ-X2	O	Switching signal output for recording equalizer
72	—	—	Unused, connected to GND
73	Vcc	—	Connected to power source (+5V)
74	VREF	—	Connected to reference voltage for A/D input
75	AVSS	—	Connected to GND
76	VREF	—	Standard voltage for A/D convertor (Connected to VCC)
77	R-RLP2	I	Pulse signal input for rotation detection to right side reel of deck 2
78	L-RLP2	I	Pulse signal input for rotation detection to left side reel of deck 2
79	AD-SW2	I	Signal input for mechanism switches for deck 2
80	M-SW2	I	Signal input for mechanism switches for deck 2

■ 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 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.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC1, 2	AN6558SFE2	IC, P.B EQ AMP.	
IC101	M62451FP	IC, REC/PLAYBACK AMP.	
IC201	XRA4558FT1	IC, TPS DRIVE	
IC401	AN7355SC-E2	IC, DOLBY NR	
IC701	M38062M4092F	IC, MICRO COMPUTER	
IC702	XLJ93LC46AFE	IC, EEPROM	
IC703	LA5608M-TE-L	IC, BUS LINE/HALT/RESET	
IC801, 802	BA6265FP-E1	IC, MECHANISM CONTROL	
IC901	XLU2040F-T1	IC, LED DRIVE	
IC971	RVSGP2S24BC	PHOTO INTERRUPTER(DECK1)	
IC971A	RVSGP2S24BC	PHOTO INTERRUPTER(DECK2)	
IC972	RVSGP2S24BC	PHOTO INTERRUPTER(DECK1)	
IC972A	RVSGP2S24BC	PHOTO INTERRUPTER(DECK2)	
		TRANSISTOR(S)	
Q1, 2	2SJ164PQRTA	TRANSISTOR	
Q3, 4	2SK381BCDTA	TRANSISTOR	
Q5, 6	2SD1450RTA	TRANSISTOR	
Q101, 102	2SC3311AIRTA	TRANSISTOR	
Q103	DTC144ESTP	TRANSISTOR	
Q201	2SC3311AIRTA	TRANSISTOR	
Q311, 312	2SC3311AIRTA	TRANSISTOR	
Q313	2SB621AQSTA	TRANSISTOR	
Q314	2SA1309AIRTA	TRANSISTOR	
Q315	2SD2137PQTA	TRANSISTOR	
Q316	2SC3311AIRTA	TRANSISTOR	
Q318	2SA1309AIRTA	TRANSISTOR	
Q320	DTC144ESTP	TRANSISTOR	
Q331, 332	UN4219TA	TRANSISTOR	
Q333, 334	2SC3311AIRTA	TRANSISTOR	
Q335	2SD592NCR	TRANSISTOR	
Q336	DTC144ESTP	TRANSISTOR	
Q405, 406	2SC3311AIRTA	TRANSISTOR	
Q601	2SD2137PQTA	TRANSISTOR	⚠
Q602	2SB1417PQTA	TRANSISTOR	⚠
Q603	2SD2137PQTA	TRANSISTOR	⚠
Q604, 605	2SD2137PQTA	TRANSISTOR	
Q606	2SC3311AIRTA	TRANSISTOR	
Q607	2SD2137PQTA	TRANSISTOR	⚠
Q608	2SB1417PQTA	TRANSISTOR	⚠
Q701, 702	DTC114YSTP	TRANSISTOR	
Q703	UN4219TA	TRANSISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
Q801, 802	2SA1309A-R	TRANSISTOR	
Q803, 804	2SD1450RTA	TRANSISTOR	
Q901, 902	UN4119	TRANSISTOR	
		DIODE(S)	
D1, 2	MA188TA	DIODE	
D201	MA165	DIODE	
D302	MA165	DIODE	
D311	MA188TA	DIODE	
D312	MTZJ5R6CTA	DIODE	
D313	MA165	DIODE	
D351, 352	MA165	DIODE	
D401-403	MA165	DIODE	
D601, 602	MA165	DIODE	⚠
D603-608	RL1N4003N02	DIODE	⚠
D609	MA723TA	DIODE	
D610, 611	MTZJ8R2CTA	DIODE	⚠
D612	MTZJ6R2CTA	DIODE	⚠
D613	MA723TA	DIODE	
D701	1SS291TA	DIODE	
D702	MA165	DIODE	
D703	1SS291TA	DIODE	
D704, 705	MA165	DIODE	
D708	MTZJ5R1BTA	DIODE	⚠
D709, 710	MA165	DIODE	
D801, 802	MA188TA	DIODE	
D901-903	SLR-305VC	LED	
D904	MA165	DIODE	
D905	SPR-305MDTF	LED	
D906	MA165	DIODE	
D907	SPR-305MDTF	LED	
D908-911	SLR-305VC	LED	
D913, 914	SLR-305VC	LED	
D971	RVD1SS133TA	DIODE(DECK1)	
D971A	RVD1SS133TA	DIODE(DECK2)	
		VARIABLE RESISTOR(S)	
VR801	EVNDCAA03B53	TAPE SPEED ADJ(DECK1) NORMAL	
VR802	EVNDCAA03B53	TAPE SPEED ADJ(DECK2) HIGH	
VR803	EVNDCAA03B53	TAPE SPEED ADJ(DECK2) NORMAL	
		COMPONENT COMBINATION(S)	
Z801, 802	EXBF7L355SYV	COMPONENT COMBINATION	

Ref. No.	Part No.	Part Name & Description	Remarks
Z971A	EXBF6L306SYV	COMPONENT COMBINATION	
		COIL(S)	
L101, 102	SLQX303-1KT	COIL	
L301, 302	SL09B4-K	COIL	
L401, 402	RLQB103JT-Y	COIL	
L701	RLQA100JT-Y	COIL	
		OSCILLATOR(S)	
X701	EF0EC8004T4	OSCILLATOR(8MHz)	
		SWITCH(ES)	
S801	RSH1A024-U	SW, HOLDER OPEN DET. (DECK1)	
S802	RSH1A024-U	SW, HOLDER CLOSE DET. (DECK1)	
S803	RSH1A024-U	SW, HOLDER OPEN DET. (DECK2)	
S804	RSH1A024-U	SW, HOLDER CLOSE DET. (DECK2)	
S900	EVQ21405R	SW, STOP	
S901	EVQ21405R	SW, FF(TPS)	
S902	EVQ21405R	SW, REW(TPS)	
S903	EVQ21405R	SW, FWD PLAY	
S904	EVQ21405R	SW, REV PLAY	
S905	EVQ21405R	SW, REC PAUSE	
S906	EVQ21405R	SW, TAPE EDIT(NORMAL)	
S907	EVQ21405R	SW, TAPE EDIT(HIGH)	
S908	EVQ21405R	SW, HOLDER OPEN(DECK2)	
S909	EVQ21405R	SW, HOLDER OPEN(DECK1)	
S910	EVQ21405R	SW, DOLBY NR	
S911	EVQ21405R	SW, REVERSE MODE	
S912	EVQ21405R	SW, DECK1/2 SELECT	
S913	EVQ21405R	SW, HOLDER CLOSE(DECK1)	
S914	EVQ21405R	SW, HOLDER CLOSE(DECK2)	
S915	EVQ21405R	SW, CCRT	
S971	RSH1A018-U	SW, MODE(DECK1)	
S971A	RSH1A018-U	SW, MODE(DECK2)	
S972	RSH1A019-U	SW, HALF(DECK1)	
S972A	RSH1A019-U	SW, HALF(DECK2)	
S973	RSH1A019-U	SW, ATS/CrO2(DECK1)	
S973A	RSH1A019-U	SW, ATS/CrO2(DECK2)	
S974A	RSH1A019-U	SW, R. REC. INH(DECK2)	
S975A	RSH1A019-U	SW, F. REC. INH(DECK2)	
S976A	RSH1A019-U	SW, ATS/METAL(DECK2)	
		CONNECTOR(S)	
CN1A	RJS1A6815	SOCKET(15P)	
CN2A	RJS1A6815	SOCKET(15P)	
CN1B	RJS1A6715-Q	SOCKET(15P)	
CN2B	RJS1A6715-Q	SOCKET(15P)	
CN3	RJS10T4ZA	SOCKET(10P)	

Ref. No.	Part No.	Part Name & Description	Remarks
CN801	RJT071H09A	CONNECTOR(9P)	
CN802	RJT071H11A	CONNECTOR(11P)	
CN803, 804	RJR0113	CONNECTOR(MOTOR)	
CS971	RJU071H09M	SOCKET(9P)	
CS971A	RJU071H11M	SOCKET(11P)	
CP801, 802	RJS2A0205-2S	SOCKET(5P)	
		GND PLATE	
E1	SNE1004-2	GND PLATE	
		JACK	
JK1	RJT065K15	SYSTEM CONNECTOR	

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
		RESISTORS
R3, 4	ERDS2TJ101	1/4W 100
R5, 6	ERDS2TJ391	1/4W 390
R7, 8	ERDS2TJ103	1/4W 10K
R9	ERDS2TJ224T	1/4W 220K
R10	ERDS2TJ224T	1/4W 220K
R11, 12	ERDS2TJ101	1/4W 100
R13, 14	ERDS2TJ391	1/4W 390
R15, 16	ERDS2TJ103	1/4W 10K
R17-20	ERDS2TJ225	1/4W 2.2M
R21	ERDS2TJ472	1/4W 4.7K
R109, 110	ERDS2TJ151	1/4W 150
R111, 112	ERDS2TJ472	1/4W 4.7K
R113, 114	ERDS2TJ272T	1/4W 2.7K
R115, 116	ERDS2TJ224T	1/4W 220K
R117, 118	ERDS2TJ682T	1/4W 6.8K
R119, 120	ERDS2TJ152	1/4W 1.5K
R121-124	ERDS2TJ104	1/4W 100K
R125, 126	ERDS2TJ822	1/4W 8.2K
R127, 128	ERDS2TJ153	1/4W 15K
R129, 130	ERDS2TJ473	1/4W 47K
R131, 132	ERDS2TJ223	1/4W 22K
R133, 134	ERDS2TJ151	1/4W 150
R135-138	ERDS2TJ271	1/4W 270
R139, 140	ERDS2TJ123	1/4W 12K
R141, 142	ERDS2TJ222	1/4W 2.2K
R143	ERDS2TJ475T	1/4W 4.7M
R144	ERDS2TJ331	1/4W 330
R145	ERDS2TJ104	1/4W 100K
R146	ERDS2TJ472	1/4W 4.7K
R147, 148	ERDS2TJ222	1/4W 2.2K
R149	ERDS2TJ471	1/4W 470
R151, 152	ERDS2TJ103	1/4W 10K
R155, 156	ERDS2TJ150T	1/4W 15
R157, 158	ERDS2TJ180T	1/4W 18
R159, 160	ERDS2TJ100	1/4W 10
R161, 162	ERDS2TJ182	1/4W 1.8K
R163, 164	ERDS2TJ151	1/4W 150
R165, 166	ERDS2TJ182	1/4W 1.8K
R167, 168	ERDS2TJ151	1/4W 150
R169	ERDS2TJ473	1/4W 47K
R201, 202	ERDS2TJ223	1/4W 22K
R203	ERDS2TJ331	1/4W 330
R204	ERDS2TJ472	1/4W 4.7K
R205	ERDS2TJ823T	1/4W 82K
R206	ERDS2TJ682T	1/4W 6.8K
R207	ERDS2TJ393	1/4W 39K

Ref. No.	Part No.	Values & Remarks
R208	ERDS2TJ102	1/4W 1K
R209, 210	ERDS2TJ153	1/4W 15K
R301	ERDS2TJ1R0	1/4W 1.0
R302, 303	ERDS2TJ103	1/4W 10K
R304, 305	ERDS2TJ100	1/4W 10
R307	ERDS2TJ153	1/4W 15K
R308	ERDS2TJ473	1/4W 47K
R309	ERDS2TJ272T	1/4W 2.7K
R310	ERDS2TJ472	1/4W 4.7K
R331	ERDS2TJ561	1/4W 560
R332	ERDS2TJ680T	1/4W 68
R333	ERDS2TJ103	1/4W 10K
R334	ERDS2TJ563	1/4W 56K
R335	ERDS2TJ562	1/4W 5.6K
R337, 338	ERDS2TJ393	1/4W 39K
R340	ERD2FCVG150T	1/4W 15 ⚠
R351	ERDS2TJ471	1/4W 470
R352	ERDS2TJ821	1/4W 820
R353	ERDS2TJ333	1/4W 33K
R354, 355	ERDS2TJ270T	1/4W 27
R356, 357	ERDS2TJ562	1/4W 5.6K
R358	ERDS2TJ272T	1/4W 2.7K
R371	ERDS2TJ102	1/4W 1K
R401, 402	ERDS2TJ272T	1/4W 2.7K
R403, 404	ERDS2TJ562	1/4W 5.6K
R405, 406	ERDS2TJ682T	1/4W 6.8K
R407	ERDS2TJ222	1/4W 2.2K
R408	ERDS2TJ223	1/4W 22K
R409, 410	ERDS2TJ104	1/4W 100K
R411, 412	ERDS2TJ221	1/4W 220
R413, 414	ERDS2TJ104	1/4W 100K
R415, 416	ERDS2TJ123	1/4W 12K
R417, 418	ERDS2TJ394	1/4W 390K
R421-424	ERDS2TJ680T	1/4W 68
R426	ERDS2TJ103	1/4W 10K
R427, 428	ERDS2TJ153	1/4W 15K
R601, 602	ERDS2TJ472	1/4W 4.7K
R603	ERDS2TJ331	1/4W 330
R604	ERDS2TJ561	1/4W 560
R605	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R606	ERD2FCVJ5R6T	1/4W 5.6 ⚠
R607	ERD2FCVG100T	1/4W 10 ⚠
R609	ERDS2TJ100	1/4W 10
R610	ERDS2TJ152	1/4W 1.5K
R611, 612	ERDS2TJR47T	1/4W 0.47
R614	ERDS2TJ222	1/4W 2.2K
R615	ERDS2TJ332	1/4W 3.3K
R616	ERDS2TJ103	1/4W 10K
R618, 619	ERDS2TJR47T	1/4W 0.47

Ref. No.	Part No.	Values & Remarks
R625	ERDS2TJ100	1/4W 10
R626, 627	ERDS2TJR47T	1/4W 0.47
R701	ERDS2TJ470	1/4W 47
R702	ERDS2TJ103	1/4W 10K
R703	ERDS2TJ104	1/4W 100K
R704-710	ERDS2TJ103	1/4W 10K
R712	ERDS2TJ103	1/4W 10K
R714-730	ERDS2TJ103	1/4W 10K
R731-733	ERDS2TJ104	1/4W 100K
R734	ERDS2TJ472	1/4W 4.7K
R736-738	ERDS2TJ103	1/4W 10K
R740	ERDS2TJ103	1/4W 10K
R741-744	ERDS2TJ272T	1/4W 2.7K
R745, 746	ERDS2TJ104	1/4W 100K
R747, 748	ERDS2TJ103	1/4W 10K
R751, 752	ERDS2TJ272T	1/4W 2.7K
R777	ERDS2TJ103	1/4W 10K
R801, 802	ERDS2TJ2R2T	1/4W 2.2
R803	ERDS2TJ153	1/4W 15K
R804	ERDS2TJ103	1/4W 10K
R805	ERDS2TJ392T	1/4W 3.9K
R806	ERDS2TJ123	1/4W 12K
R807	ERDS2TJ103	1/4W 10K
R808	ERDS2TJ392T	1/4W 3.9K
R811, 812	ERDS2TJ474	1/4W 470K
R819	ERDS2TJ271	1/4W 270
R900	ERDS2TJ821	1/4W 820
R901	ERDS2TJ102	1/4W 1K
R902	ERDS2TJ122	1/4W 1.2K
R903	ERDS2TJ152	1/4W 1.5K
R904	ERDS2TJ182	1/4W 1.8K
R905	ERDS2TJ222	1/4W 2.2K
R906	ERDS2TJ332	1/4W 3.3K
R907	ERDS2TJ472	1/4W 4.7K
R908	ERDS2TJ682T	1/4W 6.8K
R909	ERDS2TJ123	1/4W 12K
R910	ERDS2TJ223	1/4W 22K
R911	ERDS2TJ683	1/4W 68K
R912, 913	ERDS2TJ102	1/4W 1K
R914-917	ERDS2TJ471	1/4W 470
R918-920	ERDS2TJ102	1/4W 1K
R921, 922	ERDS2TJ272T	1/4W 2.7K
R923	ERDS2TJ102	1/4W 1K
R1009	ERDS2TJ332	1/4W 3.3K
		CAPACITORS
C1, 2	ECBA1H681KB5	50V 680P
C3, 4	ECBT1H101KB5	50V 100P

Ref. No.	Part No.	Values & Remarks
C5, 6	ECBT1E103ZF	25V 0.01U
C7, 8	ECEA1EKA4R7B	25V 4.7U
C9	ECBA1H681KB5	50V 680P
C10	ECBA1H681KB5	50V 680P
C11, 12	ECBT1H101KB5	50V 100P
C13, 14	ECBT1E103ZF	25V 0.01U
C15, 16	ECEA1EKA4R7B	25V 4.7U
C17, 18	ECBT1H102KB5	50V 1000P
C19, 20	ECBT1H4R7KC5	50V 4.7P
C21, 22	ECBT1H102KB5	50V 1000P
C101	RCE1AM471BV	10V 470U
C102	ECEA1CKA100B	16V 10U
C103, 104	ECQB1H153JF3	50V 0.015U
C105, 106	ECEA0JKA101B	6.3V 100U
C107, 108	ECEA1CKA100B	16V 10U
C109, 110	ECEA1HKAR47B	50V 0.47U
C111, 112	ECEA1AKA220B	10V 22U
C113, 114	ECEA1HKA2R2B	50V 2.2U
C115, 116	ECEA1EKA4R7B	25V 4.7U
C117, 118	ECEA0JKA470B	6.3V 47U
C119, 120	ECEA1HKAR22B	50V 0.22U
C121-124	ECQB1H392JF3	50V 3900P
C125, 126	ECQB1H183JF3	50V 0.018U
C127, 128	ECQB1H103JF3	50V 0.01U
C129, 130	ECBT1H181KB5	50V 180P
C131	RCE1AM471BV	10V 470U
C132, 133	ECBT1H470J5	50V 47P
C134	ECEA1CKA100B	16V 10U
C135	ECEA0JKA101B	6.3V 100U
C136	ECQB1H393JF3	50V 0.039U
C137, 138	ECEA1EKA4R7B	25V 4.7U
C139, 140	ECBT1H561KB5	50V 560P
C141, 142	ECKR2H121KB5	500V 120P
C145, 146	ECQB1H821JF3	50V 820P
C147, 148	ECBT1E103ZF	25V 0.01U
C149, 150	ECBT1H102KB5	50V 1000P
C151, 152	ECEA1EKA4R7B	25V 4.7U
C153	ECQB1H332JF3	50V 3300P
C155, 156	ECBT1C682KB5	16V 6800P
C157	ECBT1H102KB5	50V 1000P
C160	ECEA1AKA221B	10V 220U
C201	ECQB1H472JF3	50V 4700P
C202	ECEA1HKA3R3B	50V 3.3U
C203	ECBT1H470J5	50V 47P
C204, 205	ECBT1E103ZF	25V 0.01U
C206	ECEA1HKA2R2B	50V 2.2U
C301	ECQP1103JZ3	100V 0.01U
C341	ECFR1E183KR	25V 0.018U
C342-344	ECKD1H682KB	50V 6800P
C345	ECBT1E103ZF	25V 0.01U
C346	ECEA1EKA220B	25V 22U
C348	ECEA1HKA010B	50V 1U
C349, 350	ECBT1H221KB5	50V 220P
C351	ECEA1EKA4R7B	25V 4.7U
C352	ECBT1E103ZF	25V 0.01U
C356, 357	ECKR1H392KB5	50V 3900P
C358	ECQP1681JZ3	16V 680P
C359	ECEA1EKA4R7B	25V 4.7U
C360, 361	ECKR1H392KB5	50V 3900P
C371	ECBT1E103ZF	25V 0.01U
C401, 402	ECBT1H391KB5	50V 390P
C403, 404	ECBT1C332KB5	16V 3300P
C407, 408	ECQV1H124JM3	50V 0.12U
C409, 410	ECBT1H102KB5	50V 1000P
C411, 412	ECEA1HKAR47B	50V 0.47U
C415, 416	RCE1AM471BV	10V 470U
C417, 418	ECQB1H222JF3	50V 2200P
C419, 420	ECEA1CKA100B	16V 10U
C423, 424	ECEA1HKA010B	50V 1U
C425, 426	ECQB1H152JF3	50V 1500P
C427, 428	ECEA1HKAR47B	50V 0.47U
C431, 432	ECEA1EKA4R7B	25V 4.7U
C435, 436	ECEA1EKA4R7B	25V 4.7U
C437	ECEA1HKA100B	50V 10U
C601, 602	ECFR1HL042F	50V 0.1U
C603	ECEA1EM222B	25V 2200U ⚠
C604, 605	ECA1EM102B	25V 1000U ⚠
C606	ECBT1E103ZF	25V 0.01U
C607	ECEA1AKA101B	10V 100U
C608	ECEA1AKA221B	10V 220U
C609, 610	ECBT1E103ZF	25V 0.01U
C611	ECEA1HKA010B	50V 1U
C612	ECKR2H682PE	500V 6800P
C613	ECEA1AU470	10V 47U
C614, 615	ECBT1E103ZF	25V 0.01U
C701, 702	ECBT1E103ZF	25V 0.01U
C703	ECEA0JU102	6.3V 1000U
C704, 705	ECBT1E103ZF	25V 0.01U
C706	ECEA1HKAR33B	50V 0.33U
C707	ECEA1HKAR22B	50V 0.22U
C731	ECBT1E103ZF	25V 0.01U
C777	ECEA1HKA3R3B	50V 3.3U
C801, 802	ECBT1E223ZF	25V 0.022U
C805, 806	ECBT1H104ZF5	50V 0.1U
C807	ECEA1VKA470B	35V 47U
C808	ECEA1AKA101B	10V 100U
C811, 812	ECBT1H101KB5	50V 100P
C813, 814	ECBT1H104ZF5	50V 0.1U
C815-818	ECBT1H101KB5	50V 100P
C821	ECEA0JKA221B	6.3V 220U
C901	ECBT1H470J5	50V 47P
C902	ECBT1H104ZF5	50V 0.1U
C903	ECBT1H470J5	50V 47P

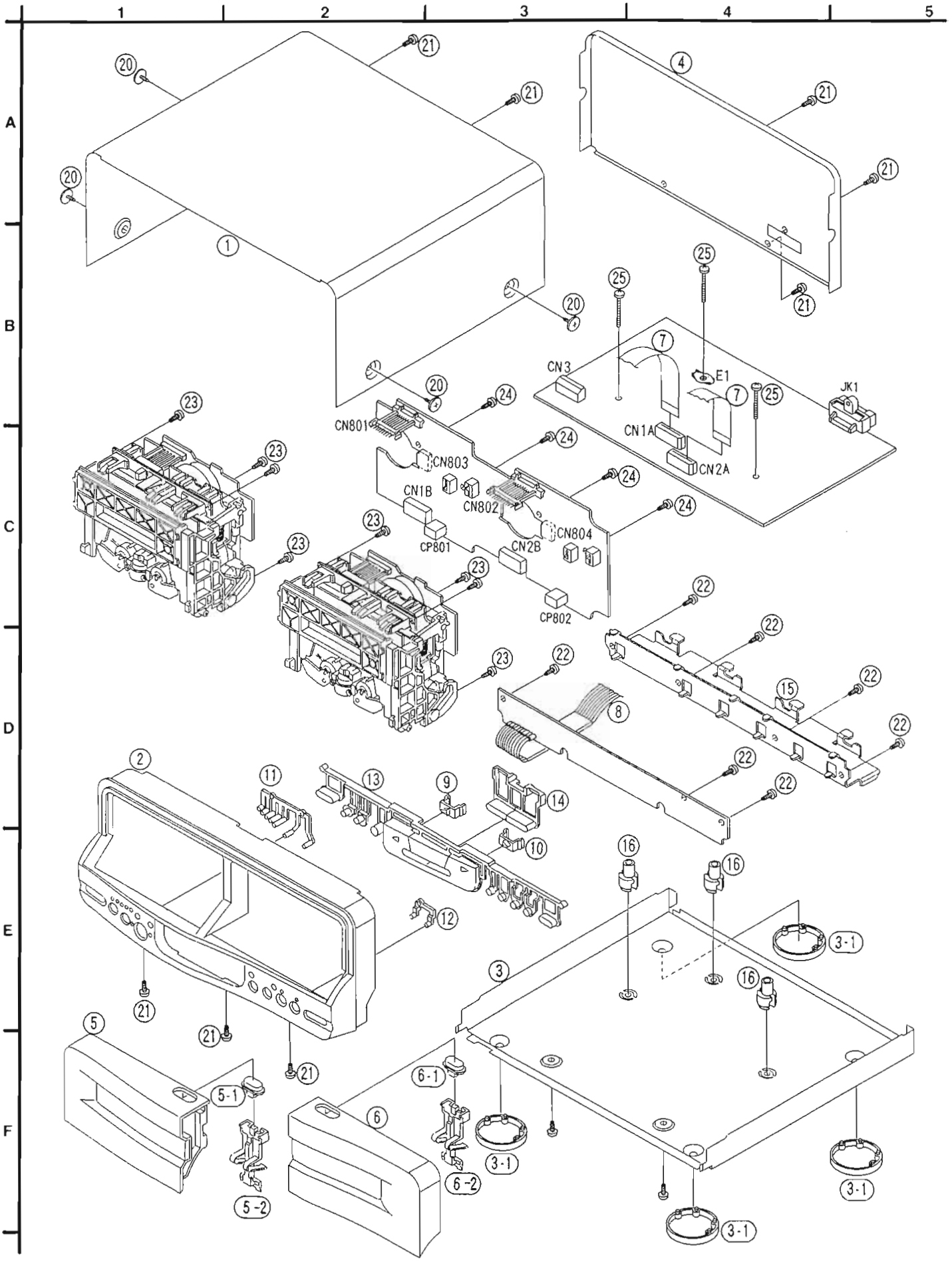
Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RKM0265-K	CABINET	
2	RGP0409-K	FRONT PANEL	
3	RFKJSCH404EK	BOTTOM BOARD ASS'Y	
3-1	RKA0011-3	FOOT	
4	RGR0198A-A	REAR PANEL	
5	RYF0287A-K	CASSETTE LID ASS'Y(DECK1)	
5-1	RGU0958B-K	BUTTON(CLOSE)	
5-2	RMM0122	LOD	
6	RYF0288-K	CASSETTE LID ASS'Y(DECK2)	
6-1	RGU0958B-K	BUTTON(CLOSE)	
6-2	RMM0122	LOD	
7	RE20702	FPC(15P)	
8	RE20723	CABLE ASS'Y(10P)	
9	RGL0243-Q	LEADING LIGHT PANEL(R.PLAY)	
10	RGL0244-Q	LEADING LIGHT PANEL(F.PLAY)	
11	RGL0245-Q	LEADING LIGHT PANEL(A)	
12	RGL0246-Q	LEADING LIGHT PANEL(B)	
13	RGU1094-K	MAIN BUTTON	
14	RGU1095-K	TPS BUTTON	
15	RMA0792	ANGLE	
16	SHE185-2	P.C.B.SPACER	
20	RHD30007	SCREW	
21	XTBS3+8JFZ1	SCREW	
22	XTBS26+8J	SCREW	
23	XTB3+10JFZ	SCREW	
24	XTW2+6S	SCREW	
25	XTB3+16JFZ	SCREW	
		MECHANISM PARTS	
		DECK1(PLAYBACK)	
101	RXF0045	FLY WHEEL(F) ASS'Y	
101-1	RMQ0420	WASHER	
102	RXF0046	FLY WHEEL(R) ASS'Y	
102-1	RMQ0421	WASHER	
103	RML0272	SWITCH LEVER	
104	RXQ0265	HEAD BASE ASS'Y	
104-1	RMB0266	SPRING	
104-2	RCM0036	ROD	
105	RGK0582-K	ORNAMENT PLATE	
106	RXQ0317-1	HEAD ASS'Y(P.B)	
106-1	RHD17015	AZIMUTH ADJUSTMENT SCREW	
106-2	RMB0352	SPRING	
106-3	RMQ0360A	CONNECTOR HOLDER	
107	RDV1082A	BELT	
108	RDK0019A	MAIN GEAR	
109	RMB0261	SPRING	
110	RMB0262	SPRING	
111	RMB0263	SPRING	

Ref. No.	Part No.	Part Name & Description	Remarks
112	RMB0264	SPRING	
113	RUW147ZA	SPRING	
114	RML0267A	LEVER	
115	RML0268A	LEVER	
116	RMM0091A	BRAKE ROD	
117	RMS0398-1	PLUNGER	
118	RSJ0003	SOLENOID	
119	RUS609ZC	SPRING	
120	RXG0036	REEL TABLE GEAR	
121	RXL0106	IDLER LEVER	
122	RXP0052	PINCH ROLLER(F)ASS'Y	
122-1	RMB0259	SPRING	
123	RXP0053	PINCH ROLLER(R)ASS'Y	
123-1	RMB0260	SPRING	
124	RDG0206A-1	GEAR	
125	RDG0209A	GEAR	
126	REM0036-1	CAPSTAN MOTOR	
127	REM0043	REEL MOTOR	
128	RHD26013	SCREW	
129	RMC0169	SPRING	
130	RMQ0314A	SPACER	
131	RXG0037	GEAR ASS'Y	
134	RMB0269	SPRING	
135	RML0270A-1	LEVER	
136	RMQ0312A	DRIVE GEAR	
137	RMB0268	SPRING	
138	RML0271A	LEVER	
139	XTW2+6S	SCREW	
140	RXR0018	REEL TABLE	
141	XTW2+5L	SCREW	
142	XTW26+12S	SCREW	
143	XTW26+6L	SCREW	
145	RFKJSCH404AK	SUB CHASSIS ASS'Y	
146	RFKJSCH404BK	CHASSIS ASS'Y	
149	RXF0263-K1	CASSETTE HOLDER ASS'Y	
149-1	RUS757ZA	SPRING	
150	RMQ0430	NYLON RIVET	
151	RSQ0395	PLATE	
152	XTW26+4FFZ	SCREW	
153	RMB0388	SPRING	
154	XWG2	WASHER	
155	XTN2+6J	SCREW	

Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS	
		DECK2 (REC. /PLAYBACK)	
201	RXF0045	FLY WHEEL (F) ASS'Y	
201-1	RMQ0420	WASHER	
202	RXF0046	FLY WHEEL (R) ASS'Y	
202-1	RMQ0421	WASHER	
203	RML0272	SWITCH LEVER	
204	RXQ0265	HEAD BASE ASS'Y	
204-1	RMB0266-1	SPRING	
204-2	RXM0036	ROD	
205	RGK0582-K	ORNAMENT PLATE	
206	RXQ0316-1	HEAD ASS'Y (R/P)	
206-1	RHD17015	AZIMUTH ADJUSTMENT SCREW	
206-2	RMB0352	SPRING	
206-3	RMQ0360A	CONNECTOR HOLDER	
207	RDV108ZA	BELT	
208	RDK0019A	MAIN GEAR	
209	RMB0261	SPRING	
210	RMB0262	SPRING	
211	RMB0263	SPRING	
212	RMB0264	SPRING	
213	RUW147ZA	SPRING	
214	RML0267A	LEVER	
215	RML0268A	LEVER	
216	RMM0091A	BRAKE ROD	
217	RMS0398-1	PLUNGER	
218	RSJ0003	SOLENOID	
219	RUS609ZC	SPRING	
220	RXG0036	REEL TABLE GEAR	
221	RXL0106	IDLER LEVER	
222	RXP0052	PINCH ROLLER (F) ASS'Y	
222-1	RMB0259	SPRING	
223	RXP0053	PINCH ROLLER (R) ASS'Y	
223-1	RMB0260	SPRING	
224	RDG0206A-J	GEAR	
225	RDG0209A	GEAR	
226	REM0036-1	CAPSTAN MOTOR	
227	REM0043	REEL MOTOR	
228	RHD26013	SCREW	
229	RMC0169	SPRING	
230	RMQ0314A	SPACER	
231	RXG0037	GEAR ASS'Y	
234	RMB0269	SPRING	
235	RML0270A-1	LEVER	
236	RMQ0312A	DRIVE GEAR	
237	RMB0268	SPRING	
238	RML0271A	LEVER	
239	XTW2+6S	SCREW	
240	RXR0018	REEL TABLE	
241	XTW2+5L	SCREW	

Ref. No.	Part No.	Part Name & Description	Remarks
242	XTW26+12S	SCREW	
243	XTW26+6L	SCREW	
245	RFKJSCH404AK	SUB CHASSIS ASS'Y	
246	RFKJSCH404BK	CHASSIS ASS'Y	
249	RYF0263-K1	CASSETTE HOLDER ASS'Y	
249-1	RUS757ZA	SPRING	
250	RMQ0430	NYLON RIVET	
251	RSC0395	PLATE	
252	XTV26+4FFZ	SCREW	
253	RMB0388	SPRING	
254	XWG2	WASHER	
255	XTN2+6J	SCREW	

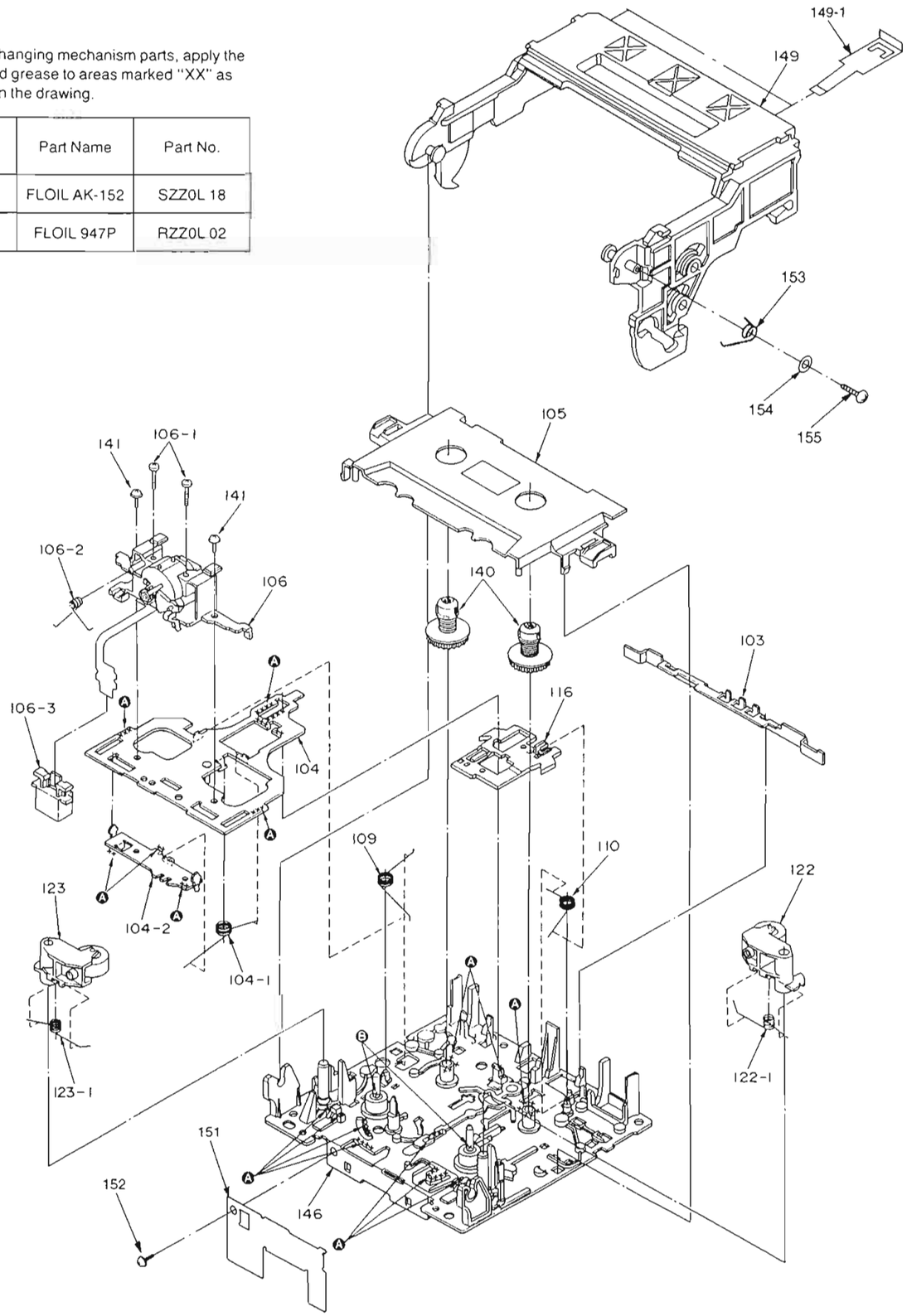
■ Cabinet Parts Location

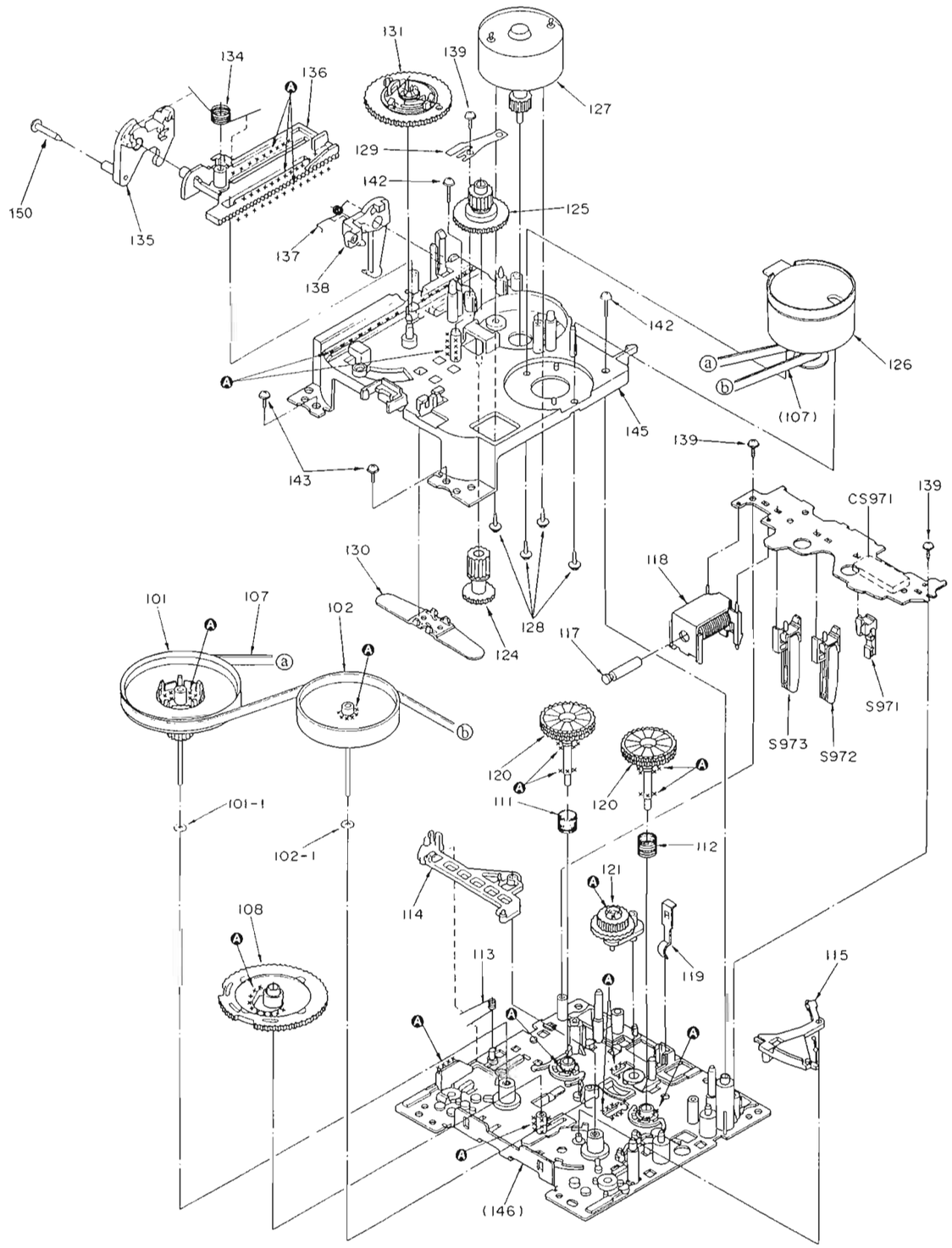


■ Mechanism Parts Location • DECK 1 (PLAYBACK)

Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
Ⓐ	FLOIL AK-152	SZZ0L 18
Ⓑ	FLOIL 947P	RZZ0L 02

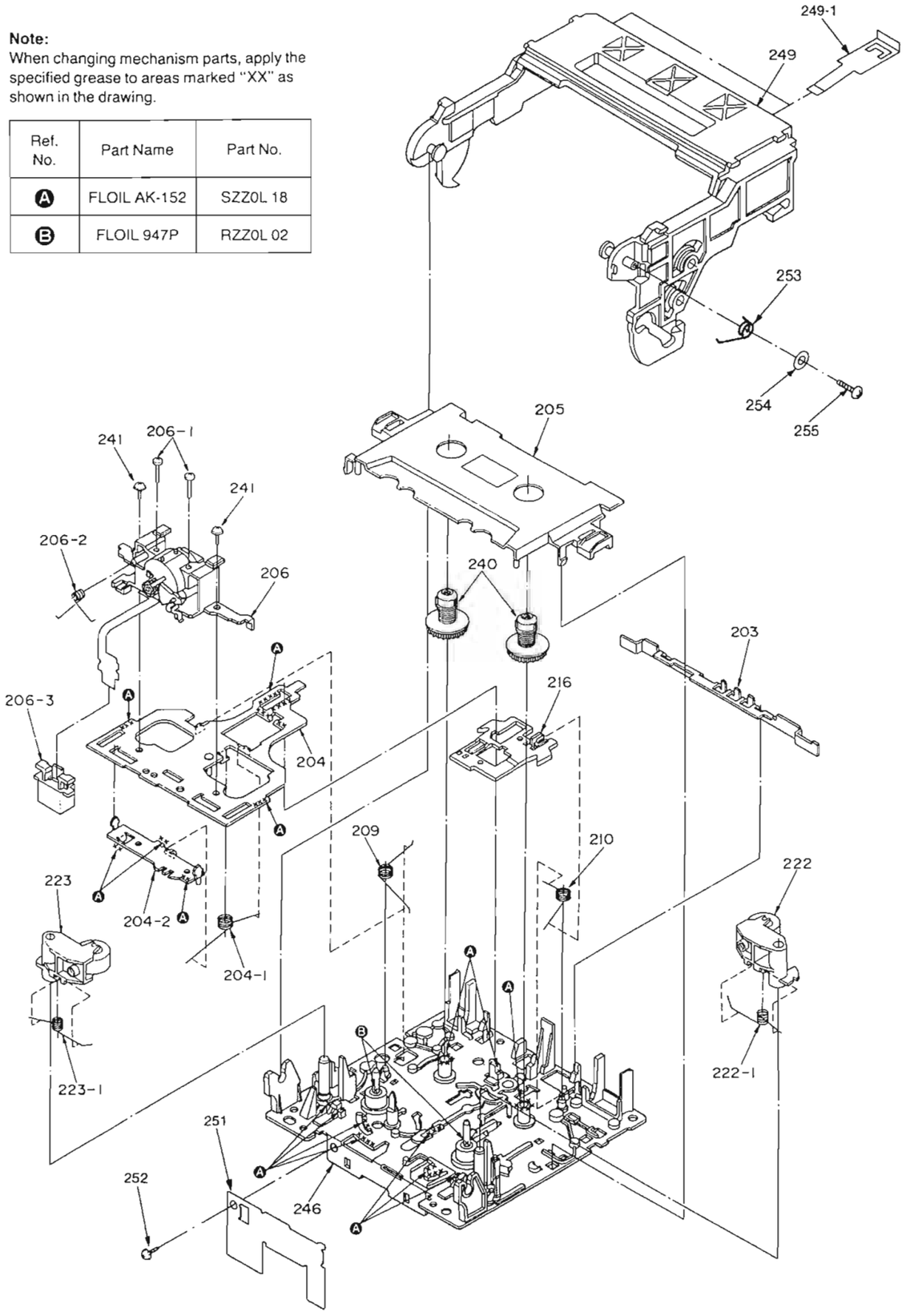


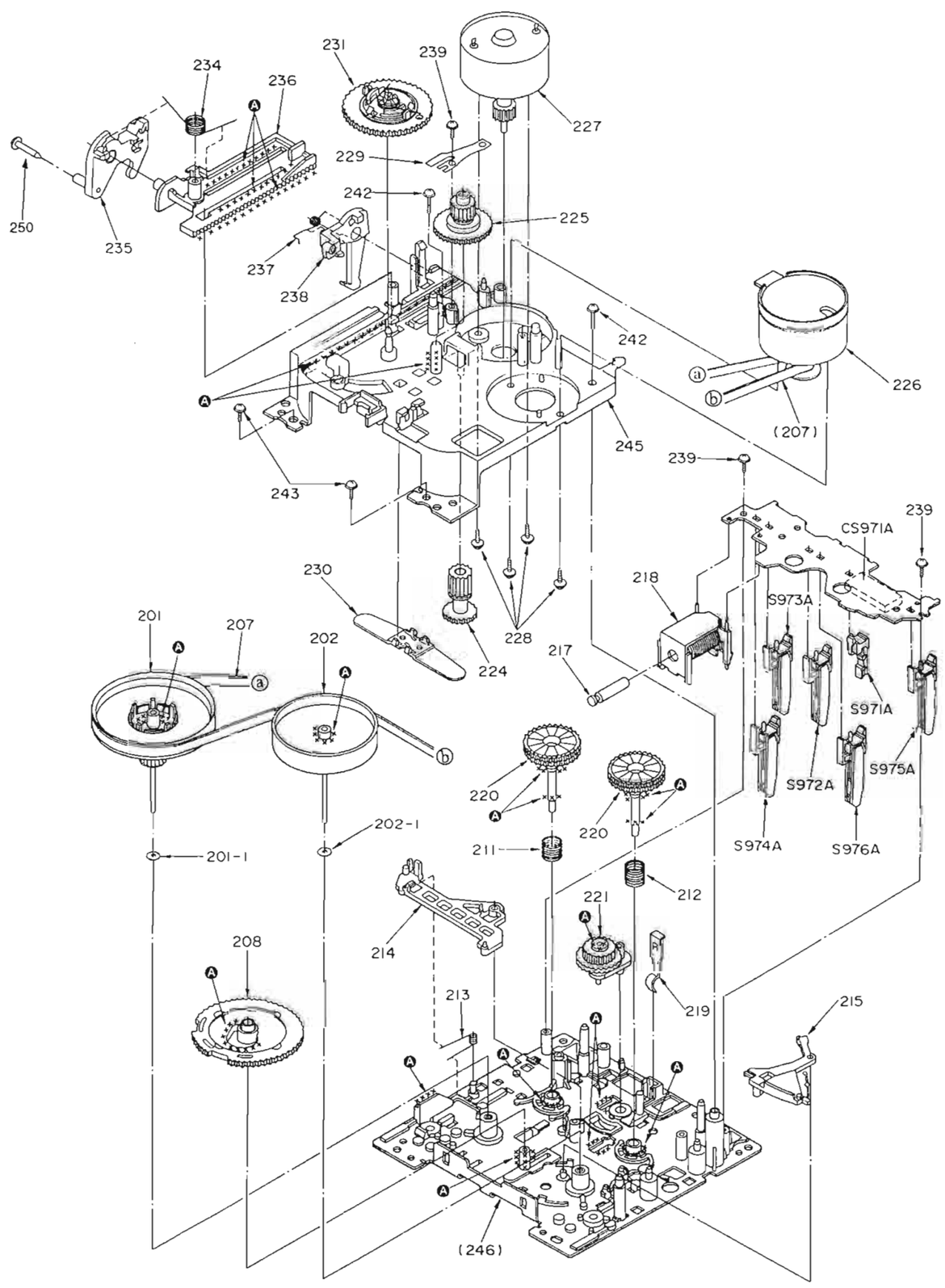


■ Mechanism Parts Location • DECK 2 (RECORD/PLAYBACK)

Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
Ⓐ	FLOIL AK-152	SZZ0L 18
Ⓑ	FLOIL 947P	RZZ0L 02





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