

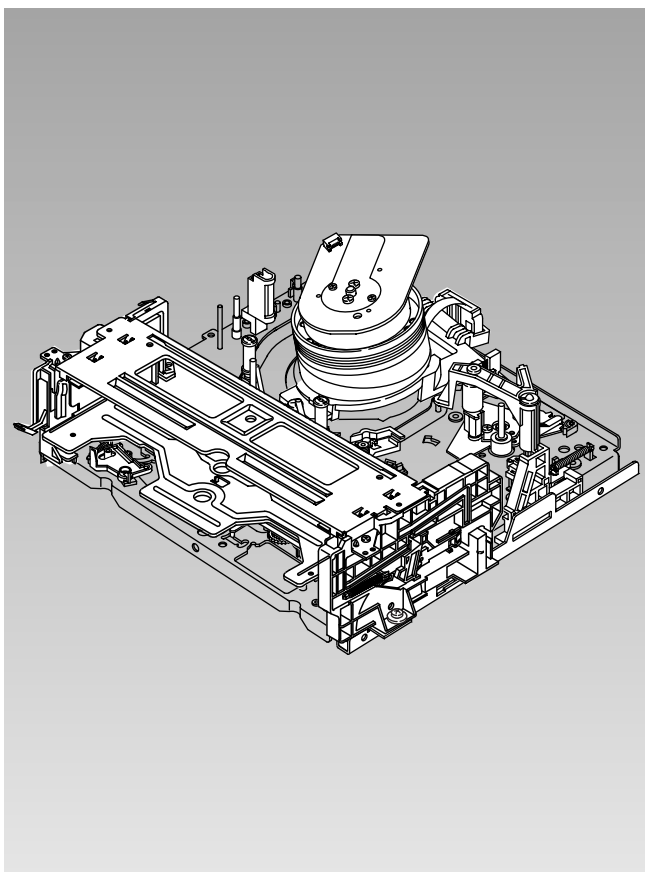
DX7-A/DX7-AC DX8-A/DX8-AC



MECHANICAL *Manual*

◆ File with the SERVICE MANUAL.

VHS DECK



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1. Disassembly and Reassembly
2. Alignment and Adjustment

1. Disassembly and Reassembly

1-1 Deck Parts Locations

1-1-1 Deck (Top View)

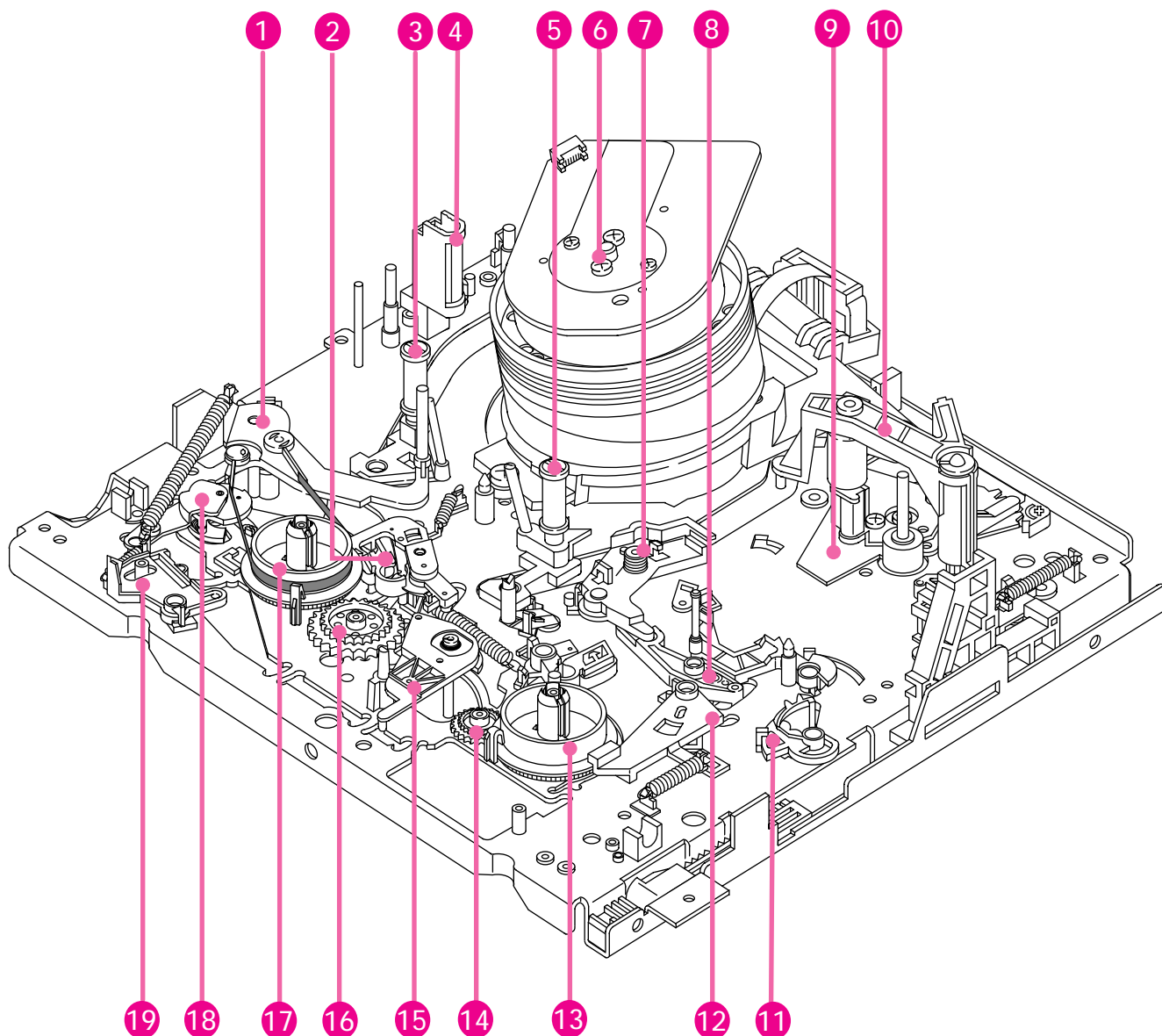


Fig. 1-1 Deck Top Parts Location (DX7-A/DX8-A DECK ONLY)

- | | | |
|---------------------------|-----------------------------|--|
| 1. ARM TENSION FULL ASS'Y | 9. FULL ACE HEAD AAS'Y | 17. REEL DISK "L" ASS'Y |
| 2. BRAKE MAIN "L" ASS'Y | 10. UNIT PINCH ROLLER ASS'Y | 18. LEVER JOG ASS'Y
(DX8-A/AC ONLY) |
| 3. GUIDE ROLLER ASS'Y "T" | 11. LEVER REVIEW | 19. LEVER REC SWITCH |
| 4. FULL ERASE HEAD | 12. BRAKE SUB "R" ASS'Y | |
| 5. GUIDE ROLLER ASS'Y "S" | 13. REEL DISK "R" ASS'Y | |
| 6. CYLINDER ASS'Y | 14. GEAR RELAY "T" ASS'Y | |
| 7. LEVER PINCH COMP ASS'Y | 15. IDLER ASS'Y | |
| 8. LEVER PINCH CAM | 16. GEAR RELAY "S" ASS'Y | |

1-1-2 Deck (Top View)

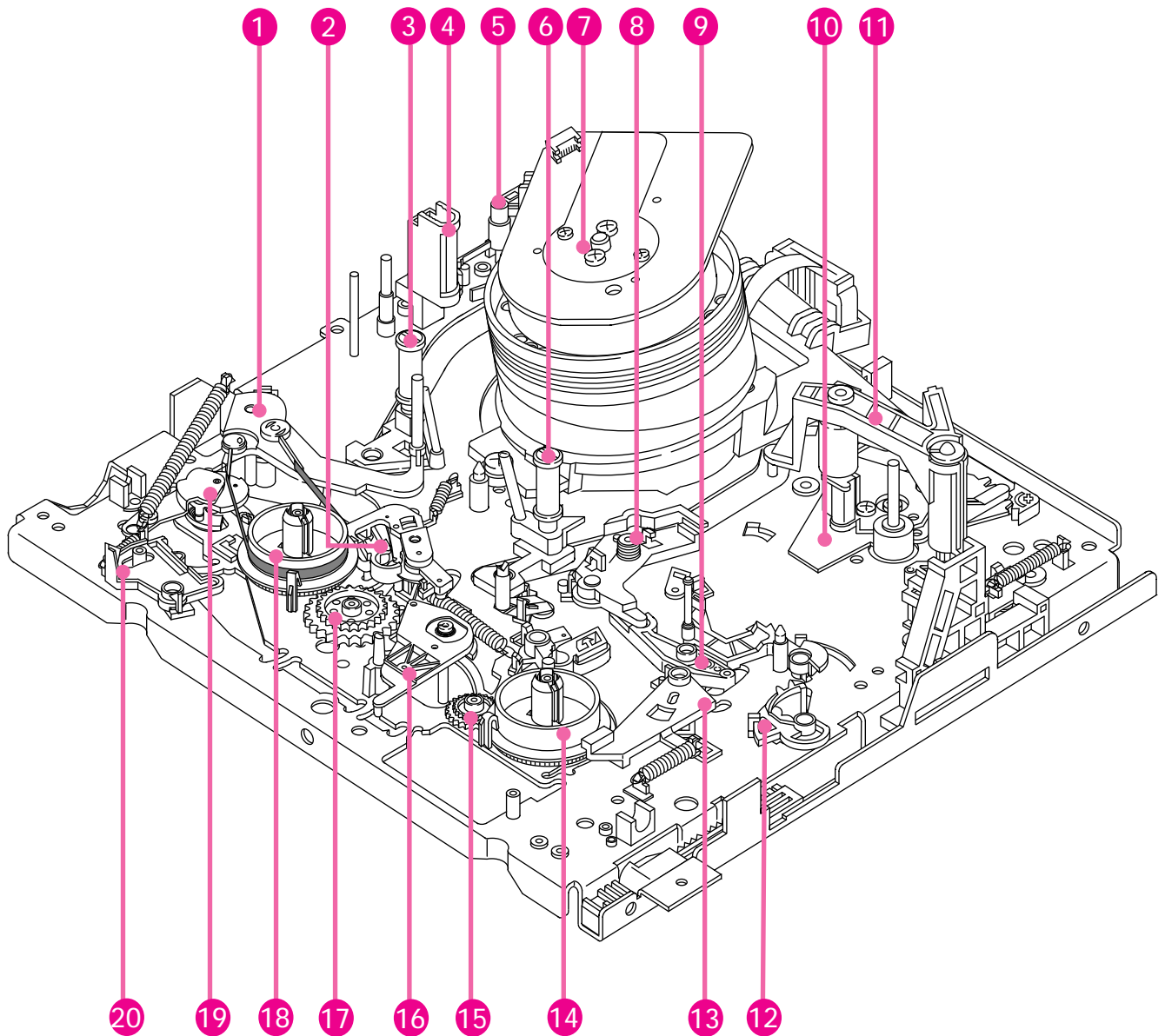


Fig. 1-2 Deck Top Parts Location (DX7-AC/DX8-AC DECK ONLY)

- | | | |
|---|-----------------------------|--------------------------|
| 1. ARM TENSION FULL ASS'Y | 8. LEVER PINCH COMP ASS'Y | 16. IDLER ASS'Y |
| 2. BRAKE MAIN "L" ASS'Y | 9. LEVER PINCH CAM | 17. GEAR RELAY "S" ASS'Y |
| 3. GUIDE ROLLER ASS'Y "T" | 10. FULL ACE HEAD AAS'Y | 18. REEL DISK "L" ASS'Y |
| 4. FULL ERASE HEAD | 11. UNIT PINCH ROLLER ASS'Y | 19. LEVER JOG ASS'Y |
| 5. HEAD CLEANER ASS'Y
(DX7-AC/DX8-AC ONLY) | 12. LEVER REVIEW | (DX8-A/AC ONLY) |
| 6. GUIDE ROLLER ASS'Y "S" | 13. BRAKE SUB "R" ASS'Y | 20. LEVER REC SWITCH |
| 7. CYLINDER ASS'Y | 14. REEL DISK "R" ASS'Y | |
| | 15. GEAR RELAY "T" ASS'Y | |

1-1-3 Deck (Bottom View)

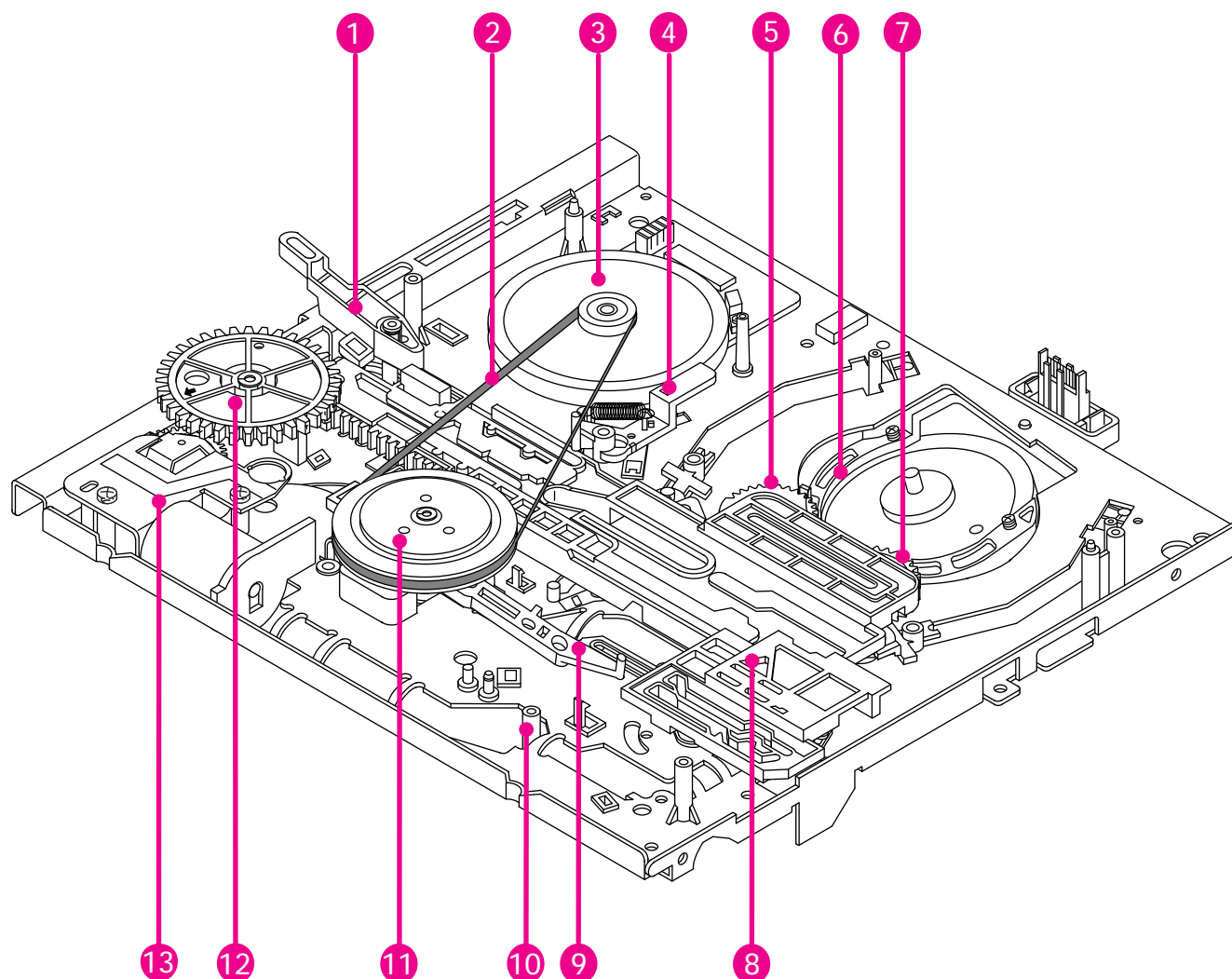


Fig. 1-3 Deck Bottom Parts Location

- | | |
|---------------------------|------------------------|
| 1. LEVER SLIDE PINCH | 8. SLIDE MAIN |
| 2. BELT CAPSTAN | 9. LEVER REC SWITCH |
| 3. MOTOR D.D CAPSTAN | 10. LEVER IDLER CHANGE |
| 4. BRAKE CAPSTAN ASS'Y | 11. CLUTCH ASS'Y |
| 5. GEAR LOADING "R" ASS'Y | 12. UNIT LOADING |
| 6. MOTOR CYLINDER | 13. GEAR MASTER |
| 7. GEAR LOADING "L" ASS'Y | |

1-1-4 Housing

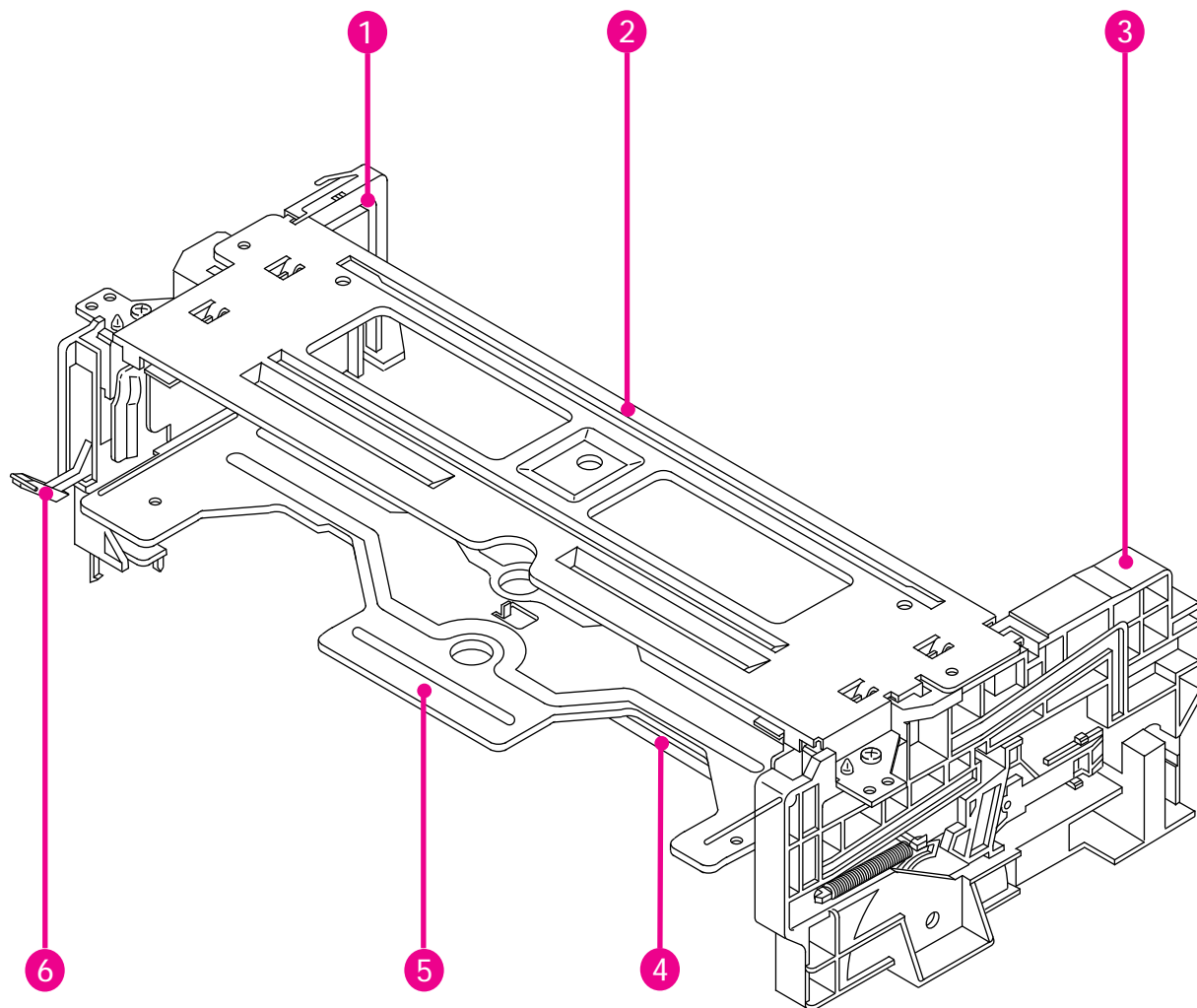


Fig. 1-4 Housing Parts Location

- 1. CHASSIS SIDE "L" ASS'Y
- 2. UPPER CHASSIS
- 3. CHASSIS SIDE "R" ASS'Y
- 4. SHAFT ARM ASS'Y
- 5. HOLDER CASSETTE ASS'Y
- 6. LEVER DOOR

1-2 Housing Assembly

1-2-1 Removal from Main Base

1. Remove 3 Screws ①.
2. Lift the Housing Ass'y in the direction of arrow "B", while pushing the tab ② in the direction of arrow "A".
(Refer to detail drawing)

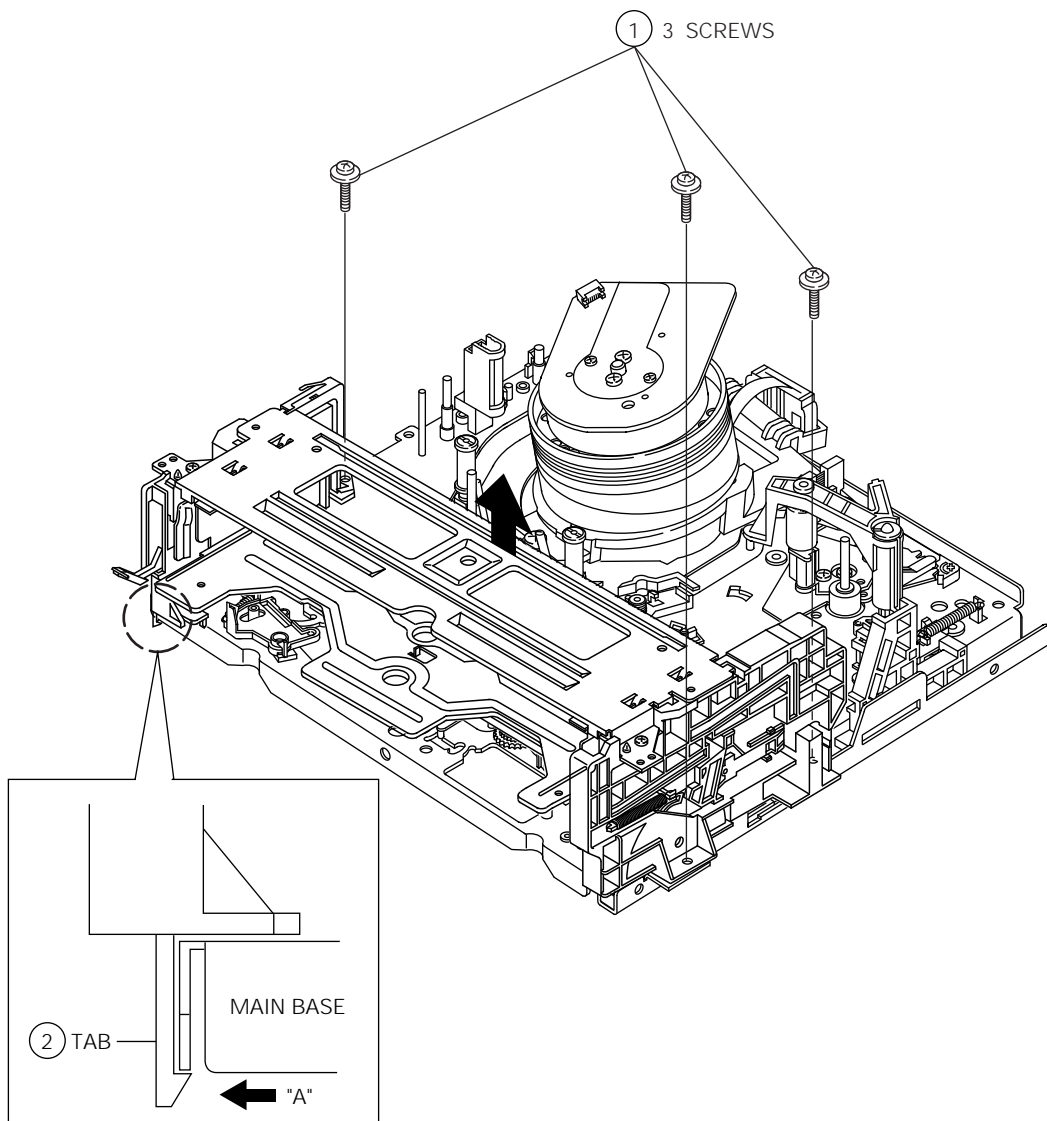


Fig. 1-5 Housing Ass'y Removal from Main Base

1-2-2 Disassembly

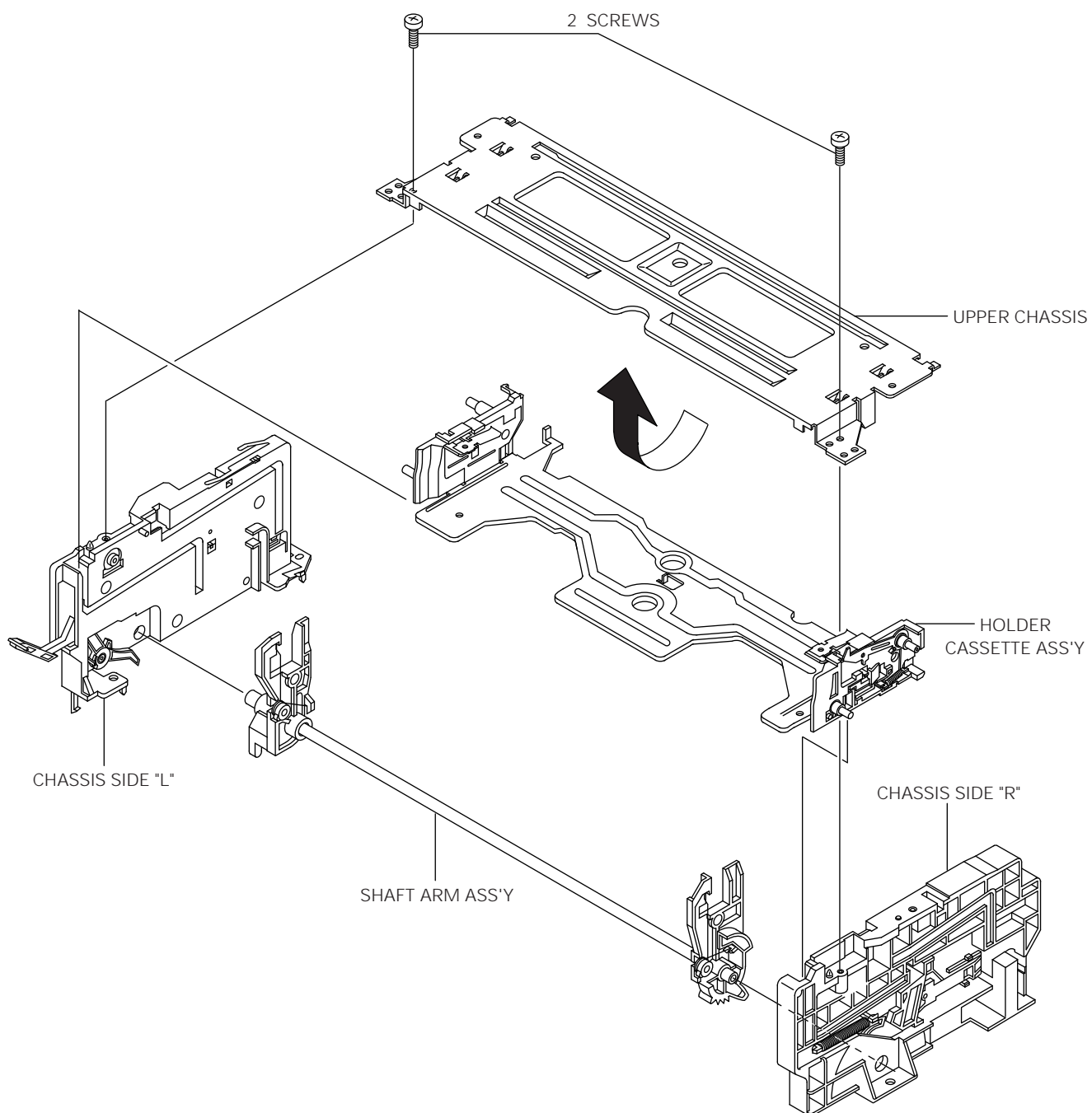


Fig. 1-6 Housing Ass'y Removal

1-2-3 Upper Chassis Removal

1. Remove 2 Screws ①.
2. Lift the Upper Chassis ② in the direction of arrow "A".

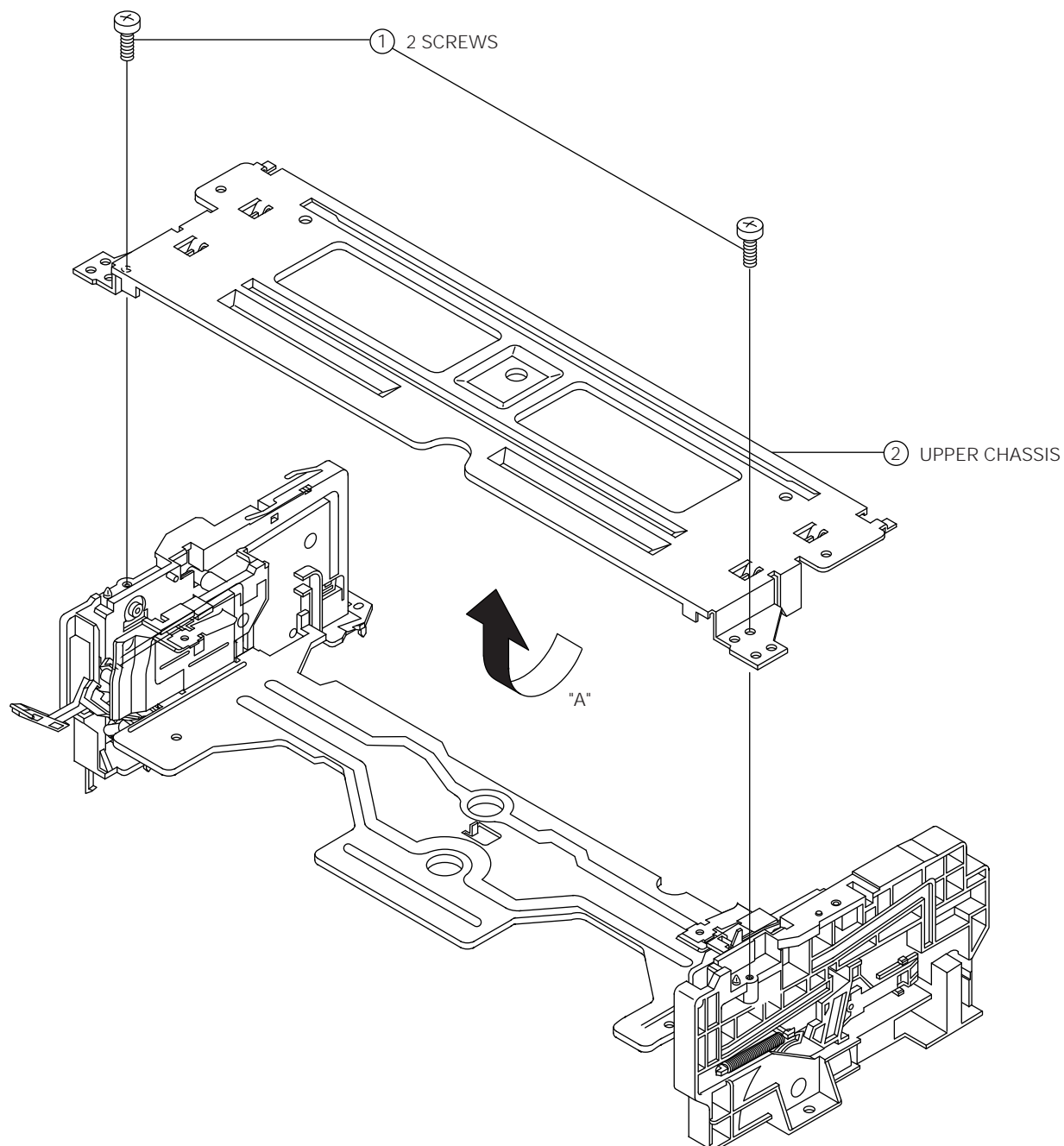


Fig. 1-7 Upper Chassis Removal

1-2-4 Holder Cassette Ass'y and Chassis Side L/R Removal

1. Lift the Cassette Holder ① in the direction of arrow "A" (Refer to Fig. A).
2. Remove the Side Chassis "L" ② and "R" ③ from Arm Shaft Ass'y ④ in the direction of arrow "B", "C" (Refer to Fig. B).

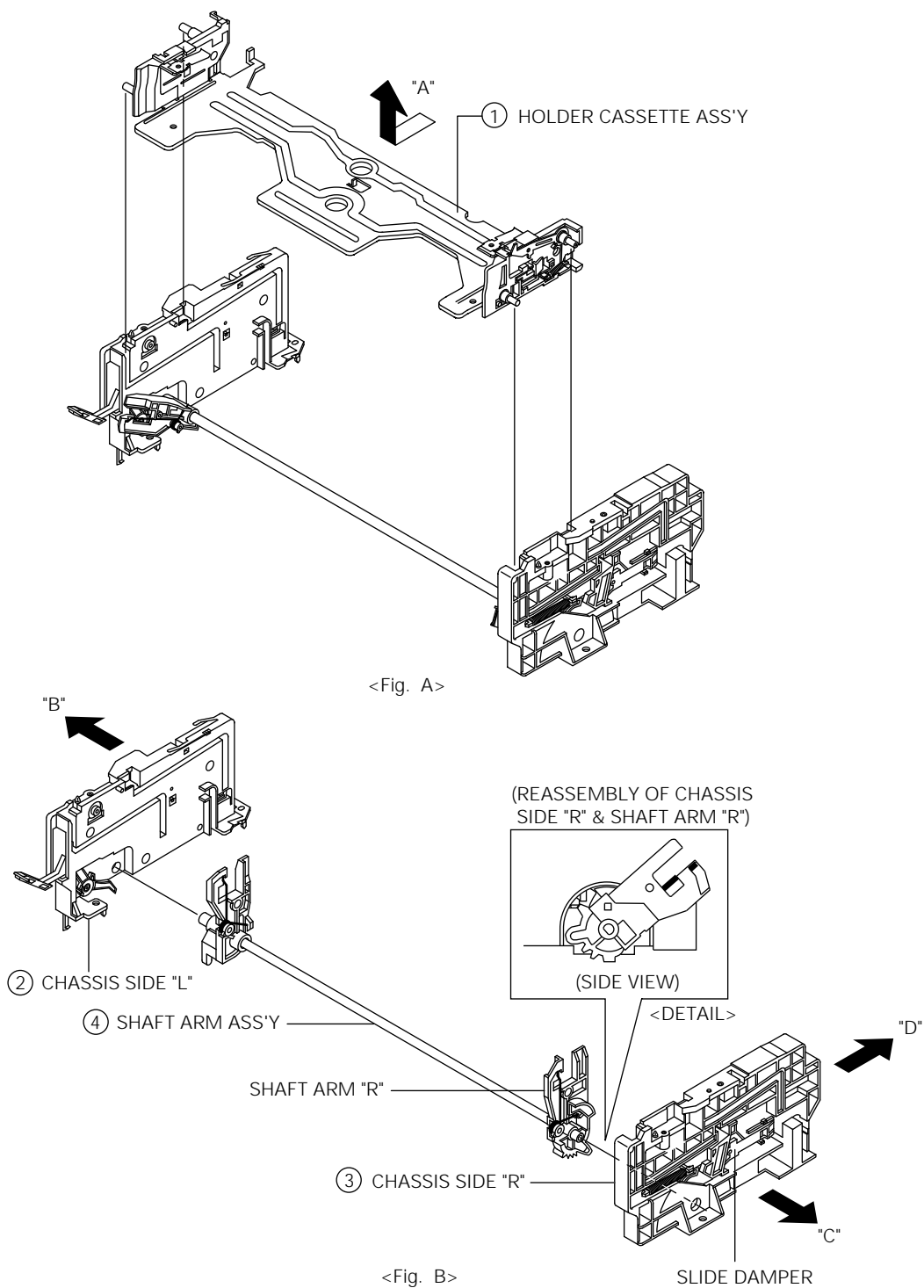


Fig. 1-8 Holder Cassette Ass'y and Chassis Side L/R

1-2-5 Chassis Side "R" Parts Locations

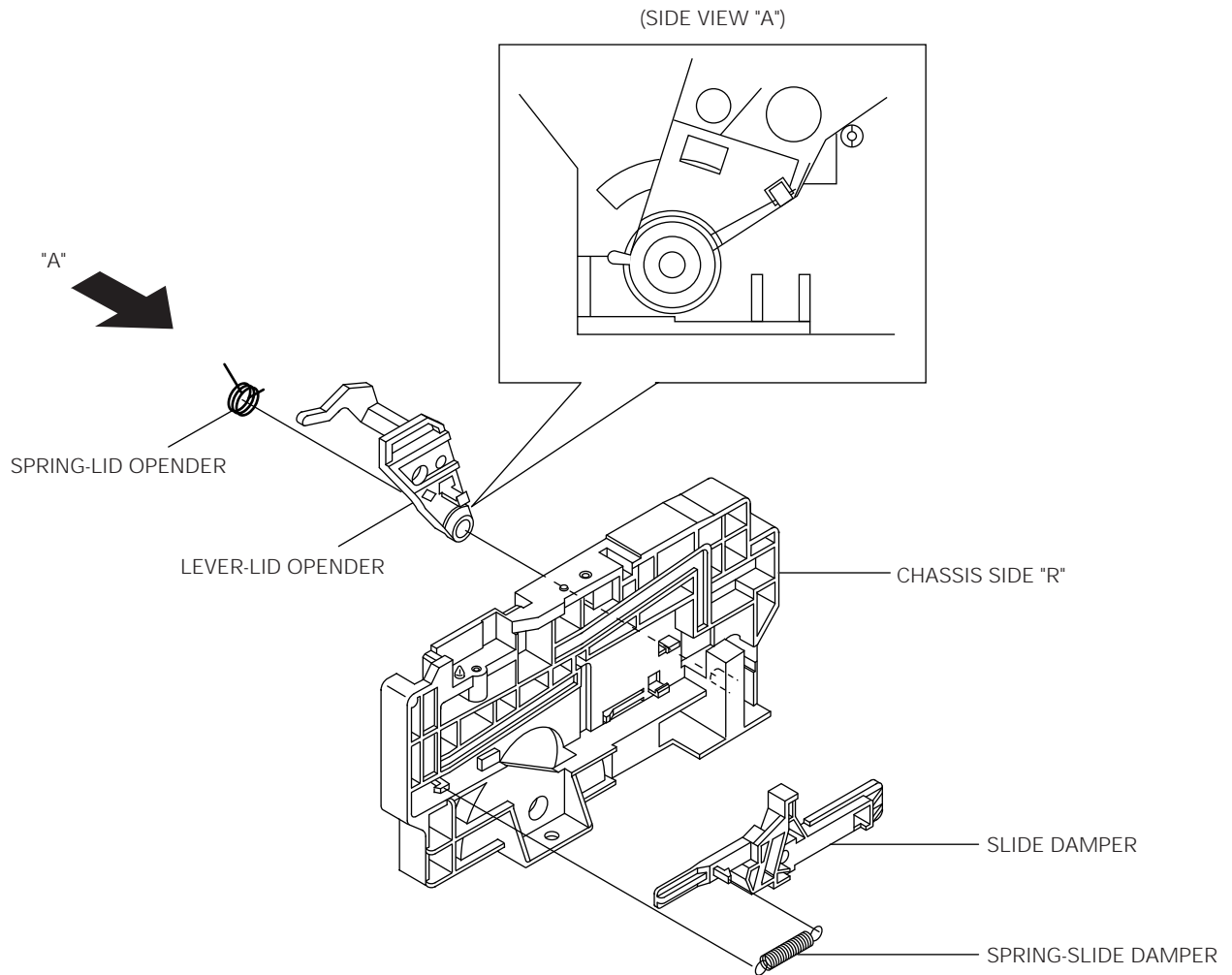


Fig. 1-9 Chassis Side "R" Parts Locations

Note : If you operate the deck when the Cassette Ass'y Holder is removed, the Arm Shaft "R" and the Damper Slide are not returned to their original positions. If this happens by accident, push the Damper Slide of Side Chassis "R" in the direction of arrow "D", and return the Damper Slide in the reverse direction of arrow "D" when the Arm Shaft Ass'y is in eject mode.

1-2-6 Slide Damper Removal

1. Remove the Slide Damper Spring ①.
2. Push the Stopper ③ of the Side Chassis "R" ④. Move the Damper Slide ② in the direction of arrow.
3. Align the Damper Slide ② with the chassis side tab (as shown detail drawing).

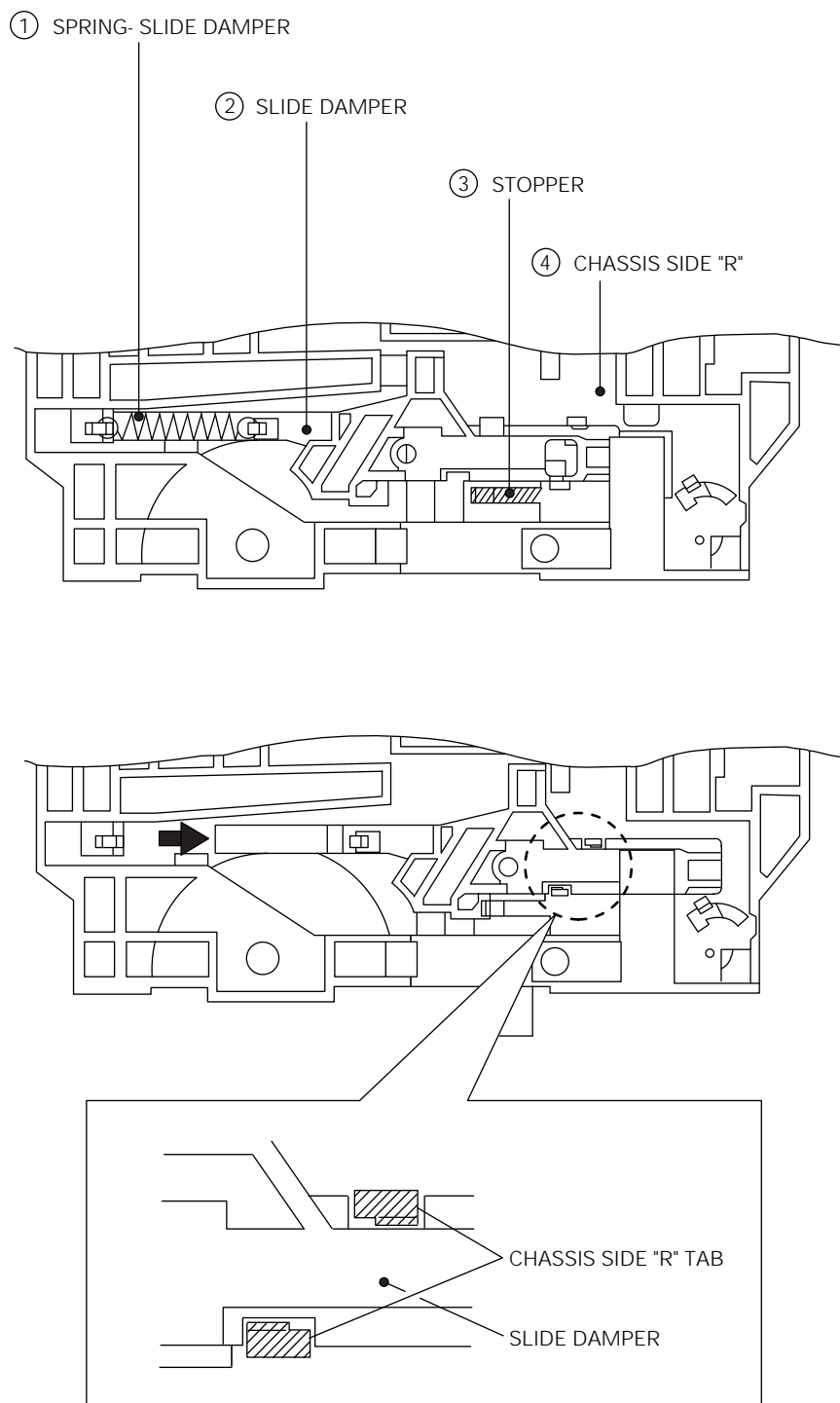


Fig. 1-10 Slide Damper Removal

1-3 Cylinder Ass'y

1-3-1 Exploded View of Cylinder Ass'y

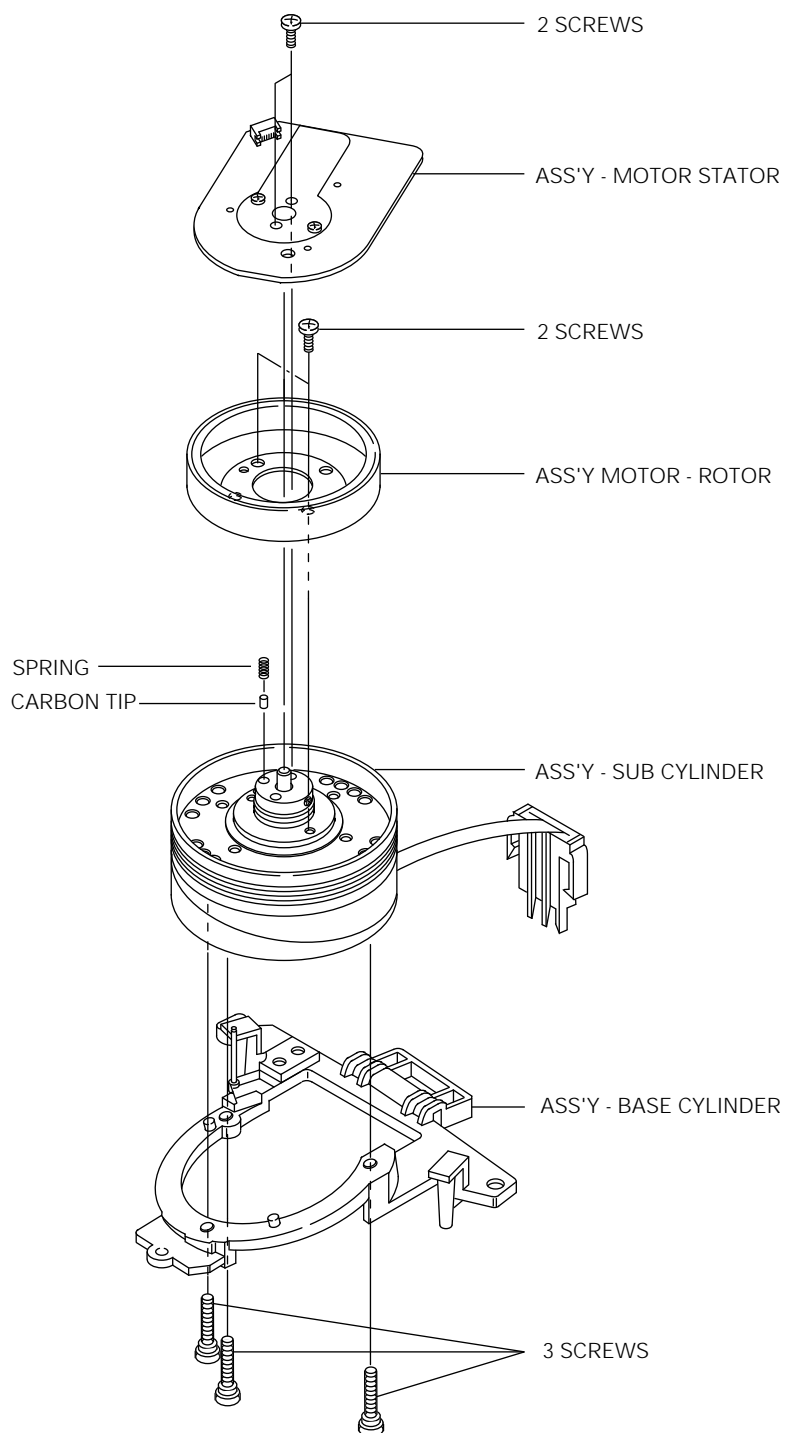


Fig. 1-11 Exploded View of Cylinder Ass'y

1-3-2 Stopper Tape Removal (Only for Deck : DX7-A/DX8-A)

1. Release 1 tab ① in the direction of arrow "A". (Refer to detail drawing)
2. Lift the Tape Stopper ② in the direction of arrow "B".

Note: Stopper tape has deleted from JAN.1998

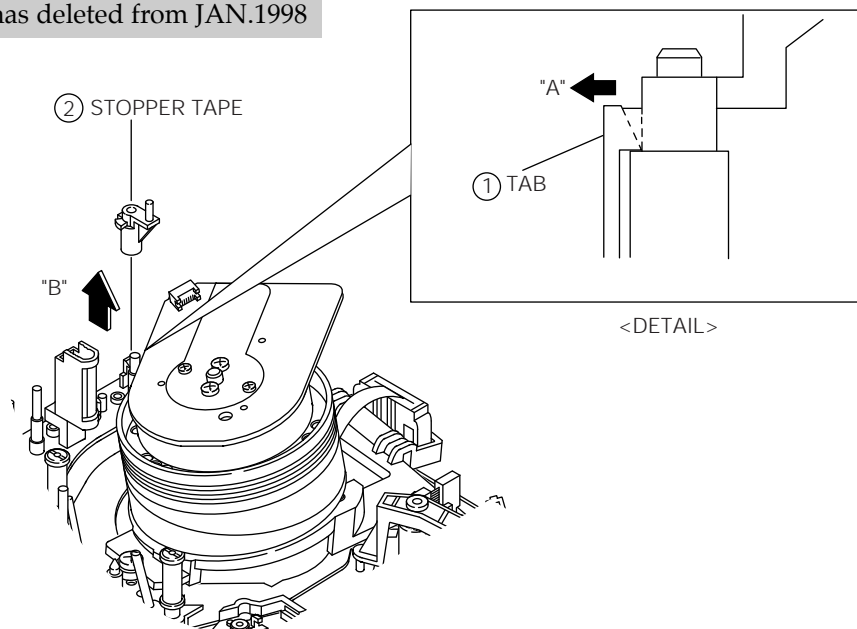


Fig. 1-12 Stopper Tape Removal

1-3-3 Head Cleaner Ass'y Removal (Only for Deck : DX7-AC/DX8-AC)

1. Release 1 tab ① in the direction of arrow "A". (Refer to detail drawing)
2. Lift the Head Cleaner ② in the direction of arrow "B".

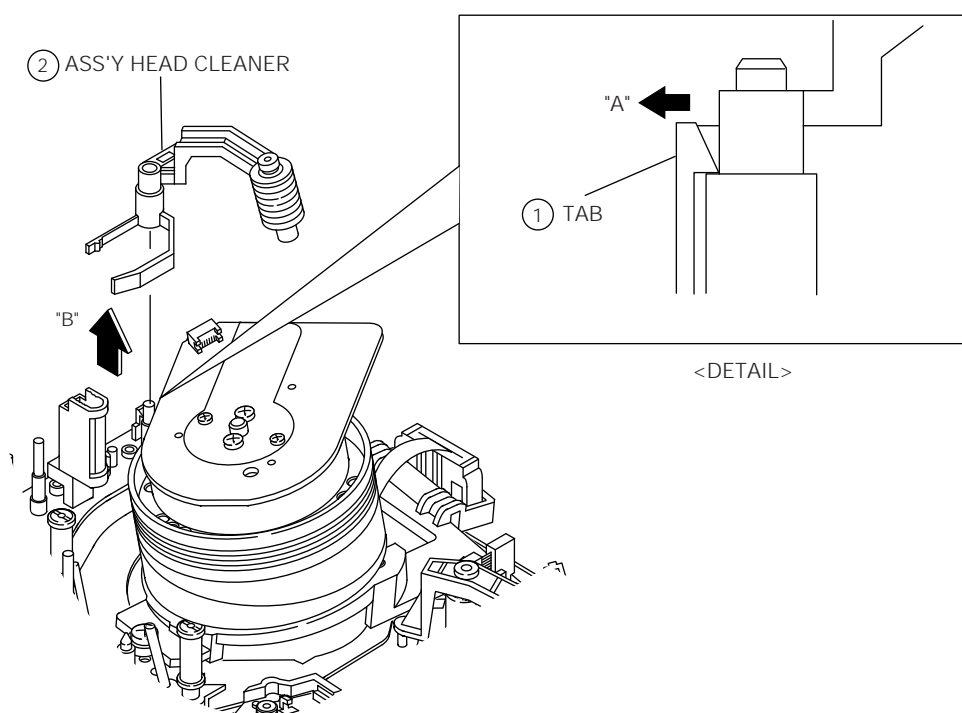


Fig. 1-13 Head Cleaner Ass'y Removal

1-3-4 Cylinder Ass'y Removal from Main Base

1. Remove 3 Screws ① holding the Main Base and the Cylinder Ass'y.
2. Lift the Cylinder Ass'y ② in the direction of arrow.

Note : Do not touch the video heads during removal or installation.

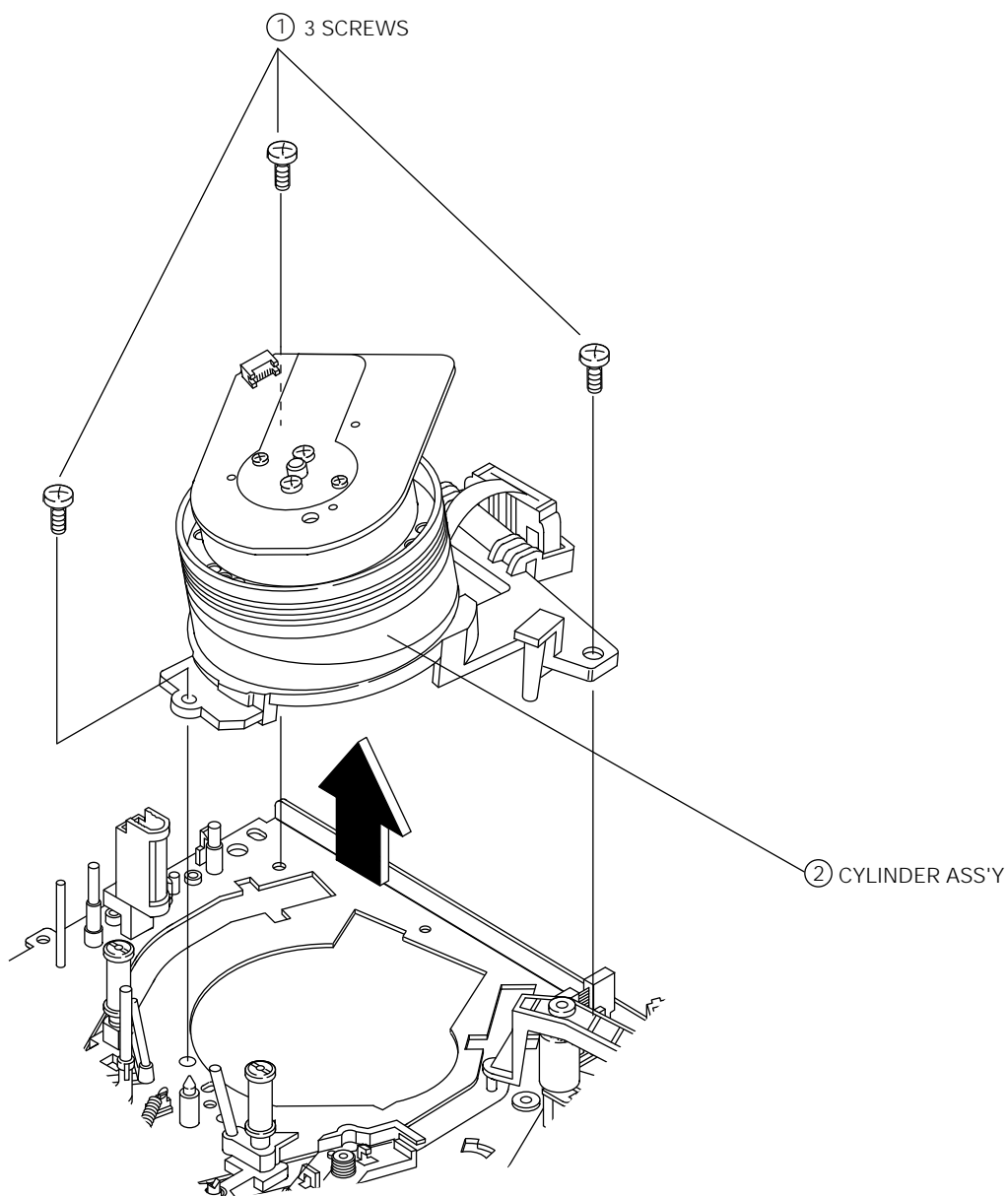


Fig. 1-14 Cylinder Ass'y Removal from Main Base

1-3-5 Holder FPC Removal

1. Release the Holder FPC tab holding the Cylinder Base ② in the direction of arrow. (Refer to detail drawing)
2. Disconnect the Holder FPC ① from the Cylinder Base ②.

Note : When disconnecting the FPC Holder ① from the Cylinder Base ② :

Take care not to disconnect the FPC cable from the FPC Holder (The FPC cable is very short).

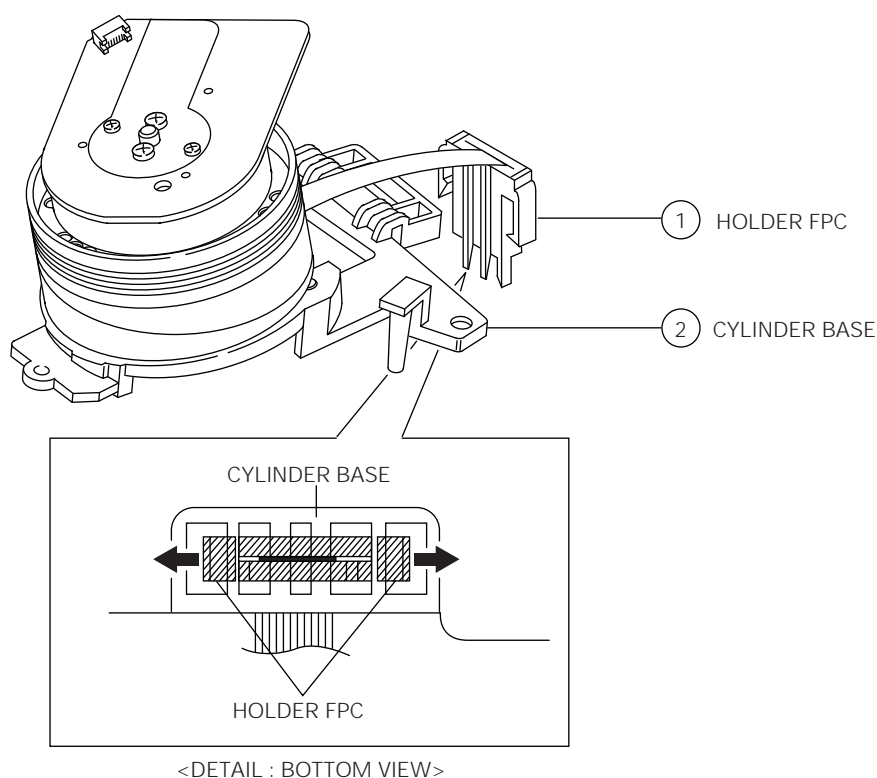


Fig. 1-15 Head Brush and Holder FPC Removal

1-3-6 Cylinder Ass'y Removal from Cylinder Base

1. Remove 3 Screws ① from the Cylinder Base ②.
2. Lift the Cylinder Ass'y ③ from the Cylinder Base ② in the direction of arrow.

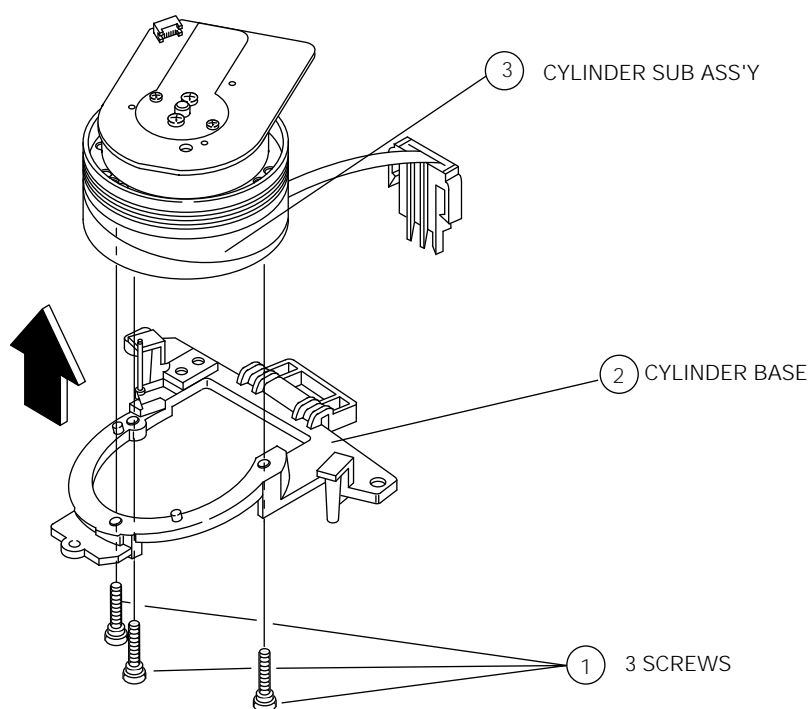


Fig. 1-16 Cylinder Ass'y Removal from Cylinder Base

1-3-7 Motor Stator Removal

1. Remove 2 Screws ①.
2. Remove the Motor Stator ② from the Cylinder Sub Ass'y ⑤.

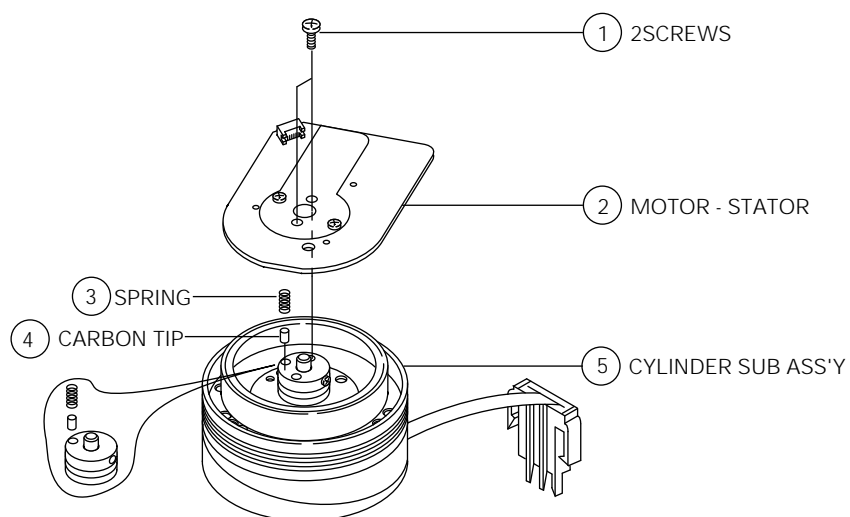


Fig. 1-17 Motor Stator Removal

Note : When disassembling the Motor-Stator, take extreme care not to loose the carbon-tip and spring.

1-3-8 Motor Rotor Removal

1. Remove 2 Screws ①.
2. Lift The Motor Rotor②.

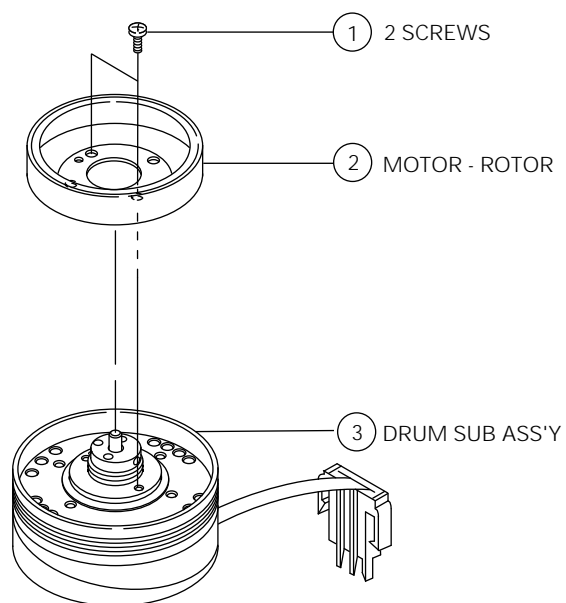


Fig. 1-18 Motor Rotor Removal

1-3-9 Motor Rotor and Cylinder Sub Ass'y

1. Make sure that phase matching holes of the Motor Rotor and the Cylinder Sub Ass'y are aligned correctly as shown in Fig. 1-19 (Refer to phase matching hole).
2. Secure with 2 Screws.

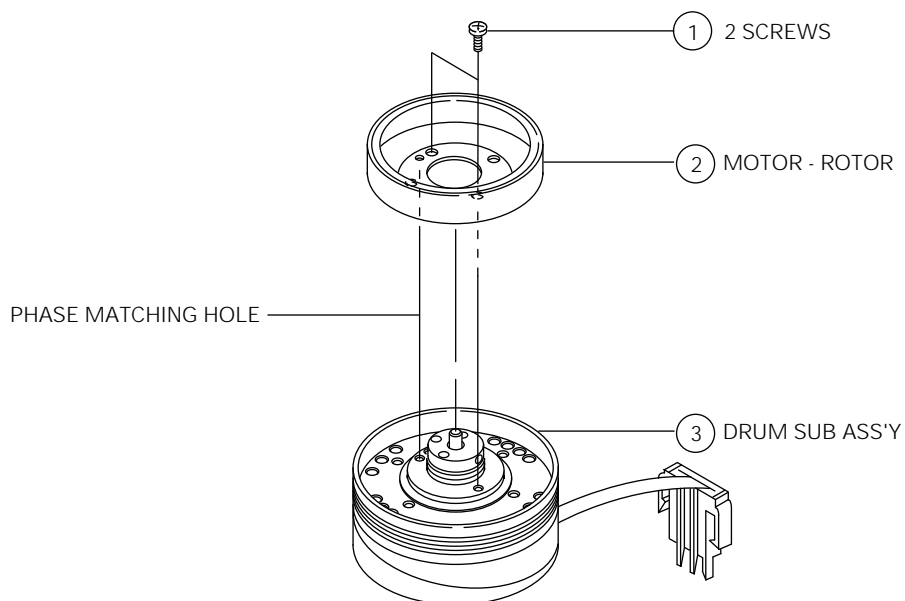


Fig. 1-19 Assembly of Motor Rotor and Cylinder Sub Ass'y

1-3-10 Motor Stator and Cylinder Sub Ass'y

1. Reinstall the Motor Stator ① toward the FPC cable of Cylinder Sub Ass'y ②.
2. Secure 2 Screws. (Refer to Fig. 1-17)

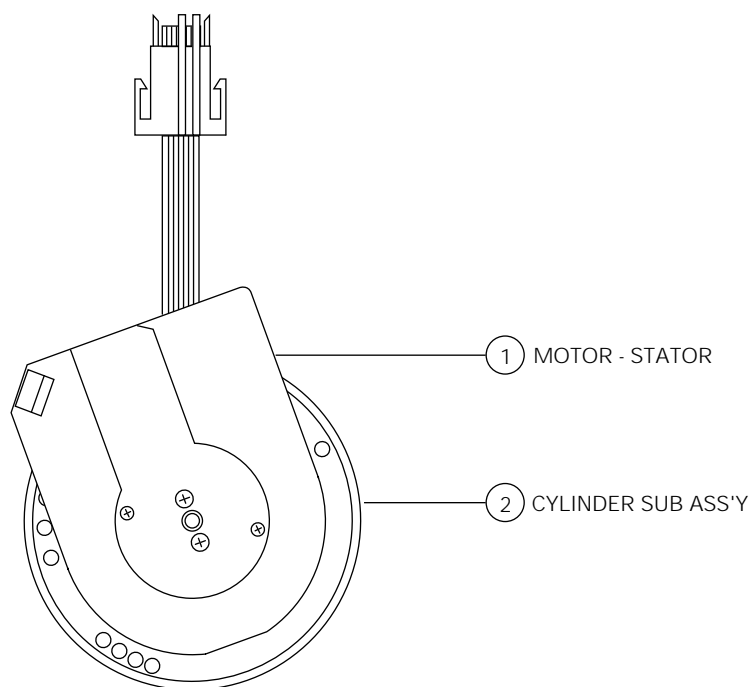


Fig. 1-20 Assembly of Motor Stator and Cylinder Sub Ass'y

1-4 Main Deck Removal and Reassembly

1-4-1 Slide Rack Housing Removal

1. Lift the Slide Rack Housing.

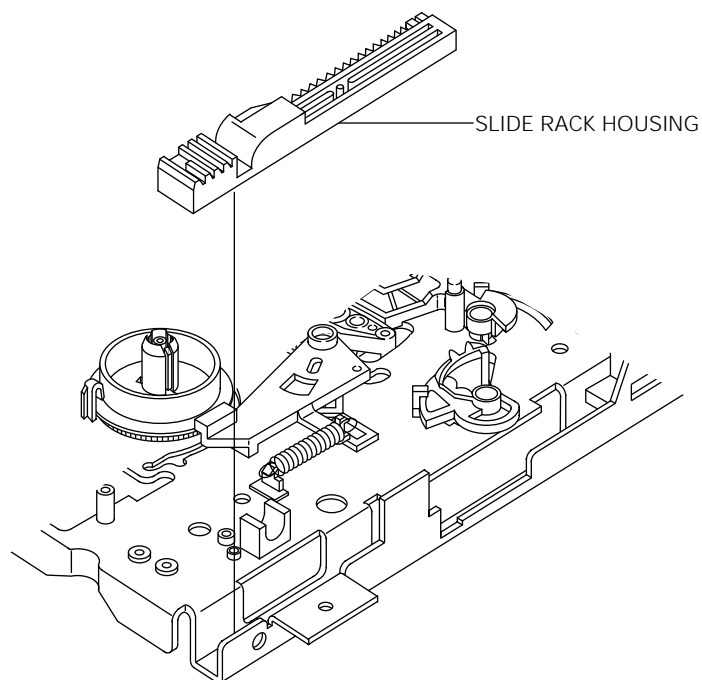


Fig. 1-21 Slide Rack Housing Removal

1-4-2 Assembly of Slide Rack Housing and Gear Master

1. Confirm that the hole of Master Gear ① and the hole "A" of Main Base are aligned correctly. (Eject mode)
2. Align the Slot #1 of Master Gear ① with the Tooth #1 of Rack Housing Slide ②. (Refer to timing point)

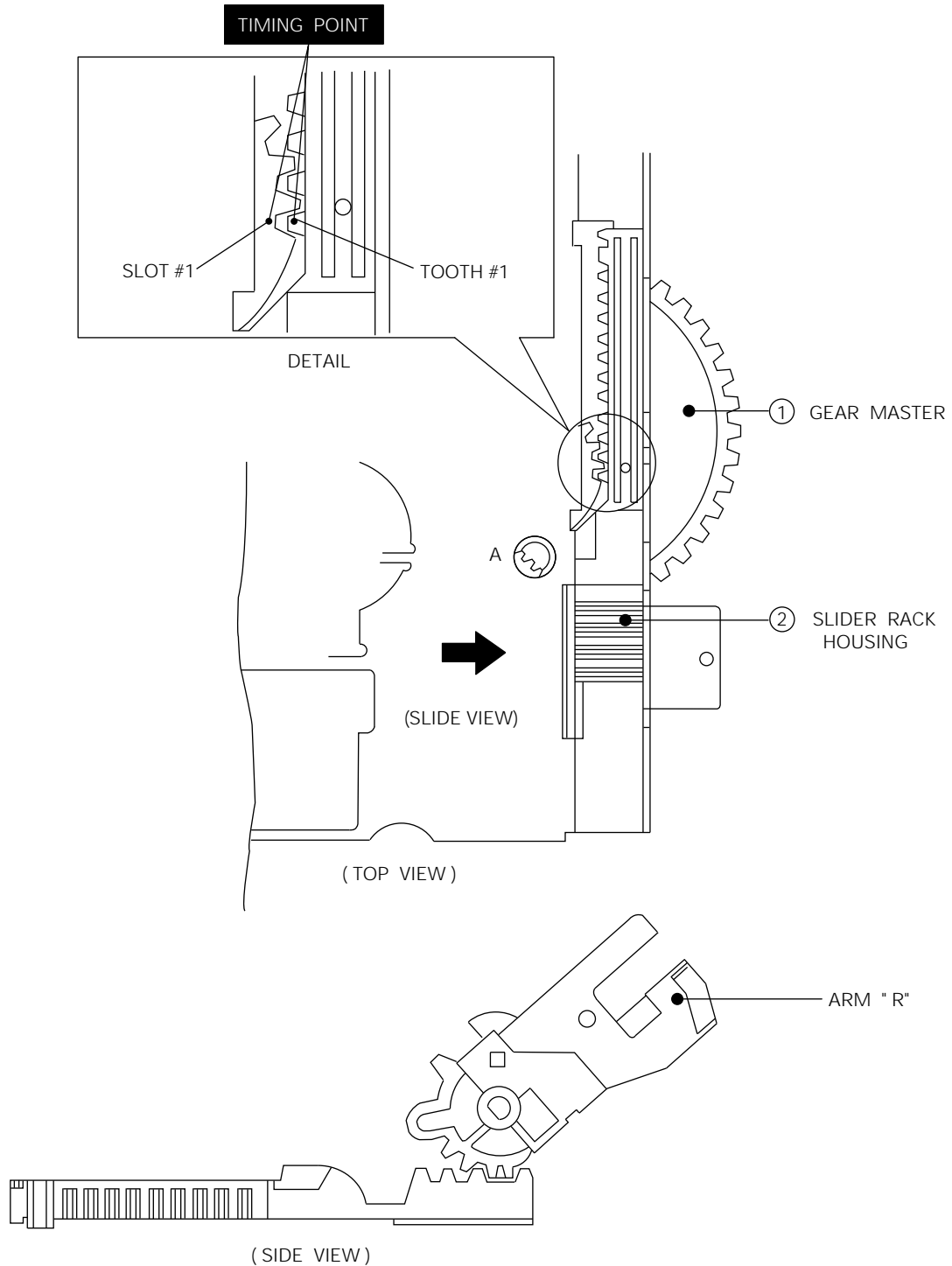


Fig. 1-22 Assembly of Slide Rack Housing and Gear Master

1-4-3 Brake Sub "L" Removal

1. Remove the Sub "L" Brake Spring ①.
2. Release the tab ② in the direction of arrow. (Refer to detail drawing)
3. Lift the Sub "L" Brake ③.

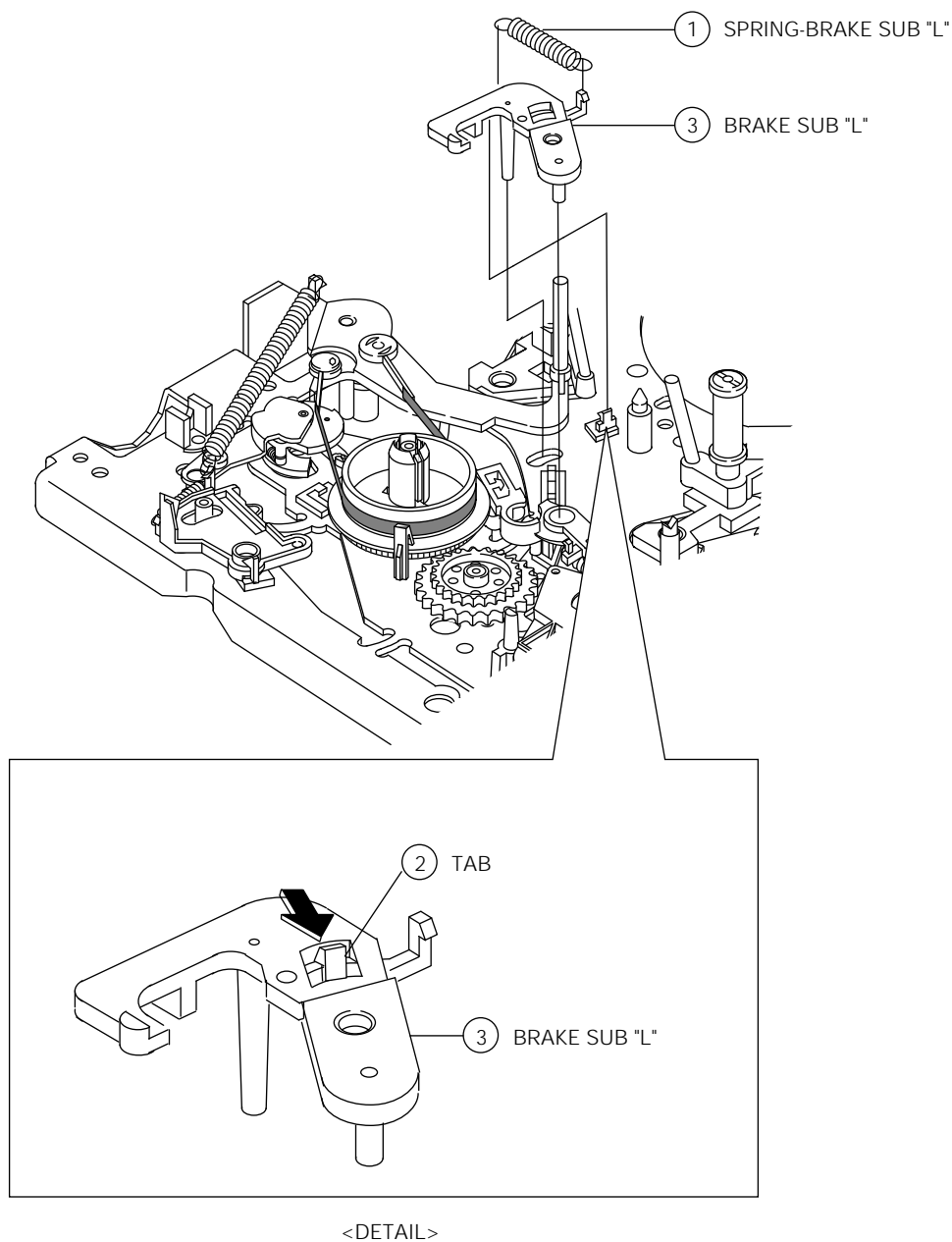


Fig. 1-23 Brake Sub "L" Removal

1-4-4 Arm Tension Full Ass'y Removal

1. Remove the Tension Spring ①.
2. Release the tab ② in the direction of arrow. (Refer to detail drawing)
3. Lift the Full Tension Arm Ass'y ③.

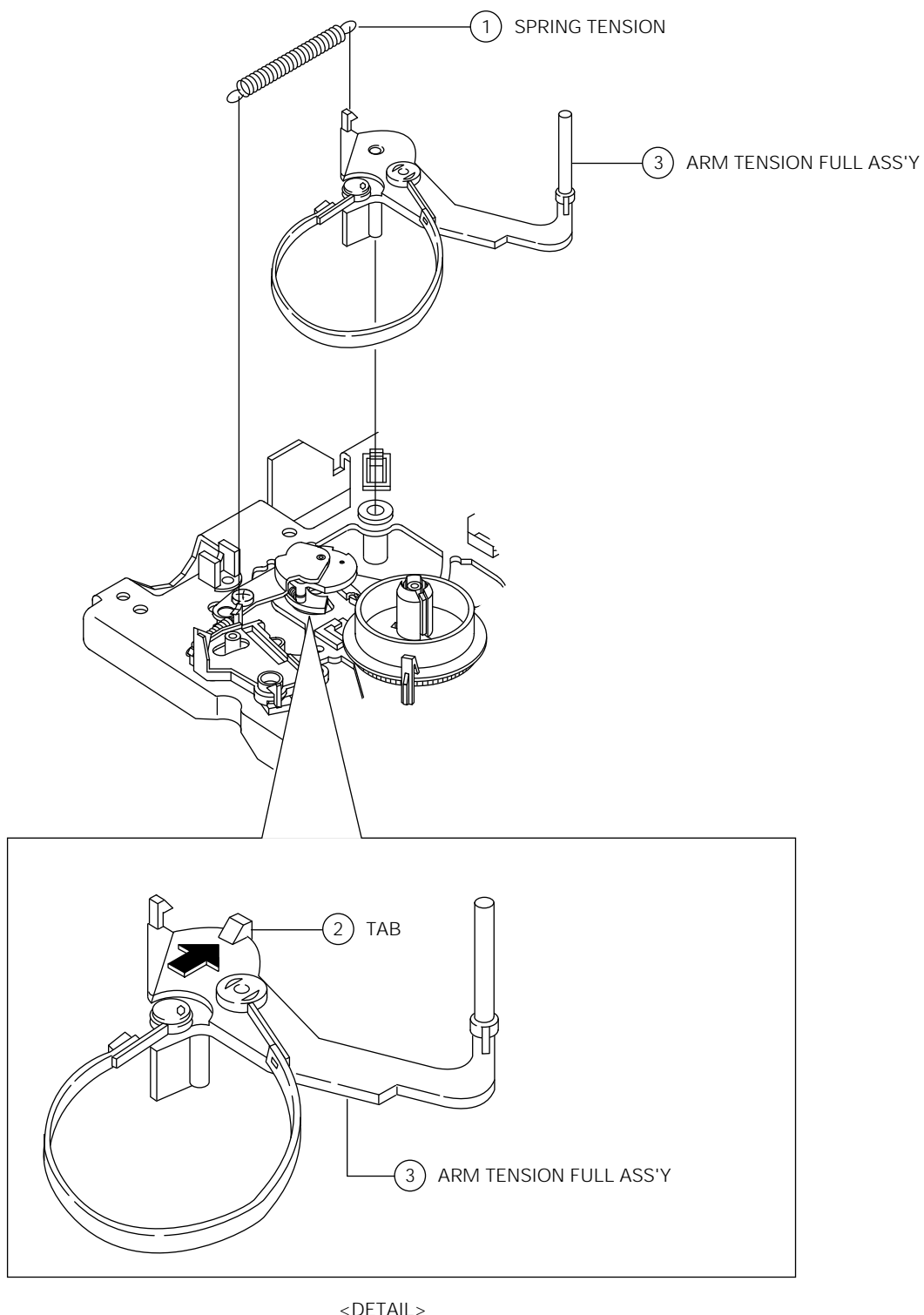


Fig. 1-24 Arm Tension Full Ass'y Removal

1-4-5 Lever JOG Ass'y Removal (Only for deck : DX8-A/DX8-AC)

1. Remove the 1 Screw ①.
2. Lift the JOG Lever Ass'y ②.

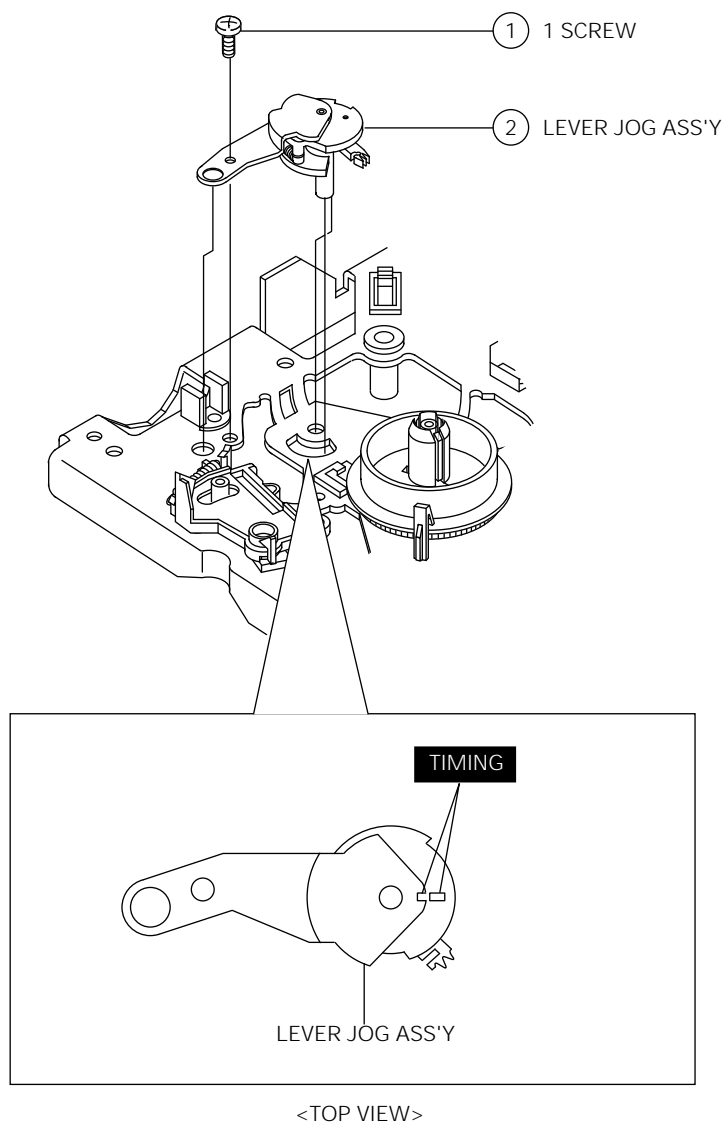


Fig. 1-25 Lever JOG Ass'y Removal

1-4-6 Reel Disk "L" and Gear Relay "S" Ass'y Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2. Lift the Reel Disk "L" ②.
3. Remove the Plain Washer ③.
4. Remove the Slit Washer ④.
5. Lift the Relay "S" Gear Ass'y ⑤.

Note : When reinstalling, be sure to install the Reel Disk "L" ② after installing the Plain Washer ③.

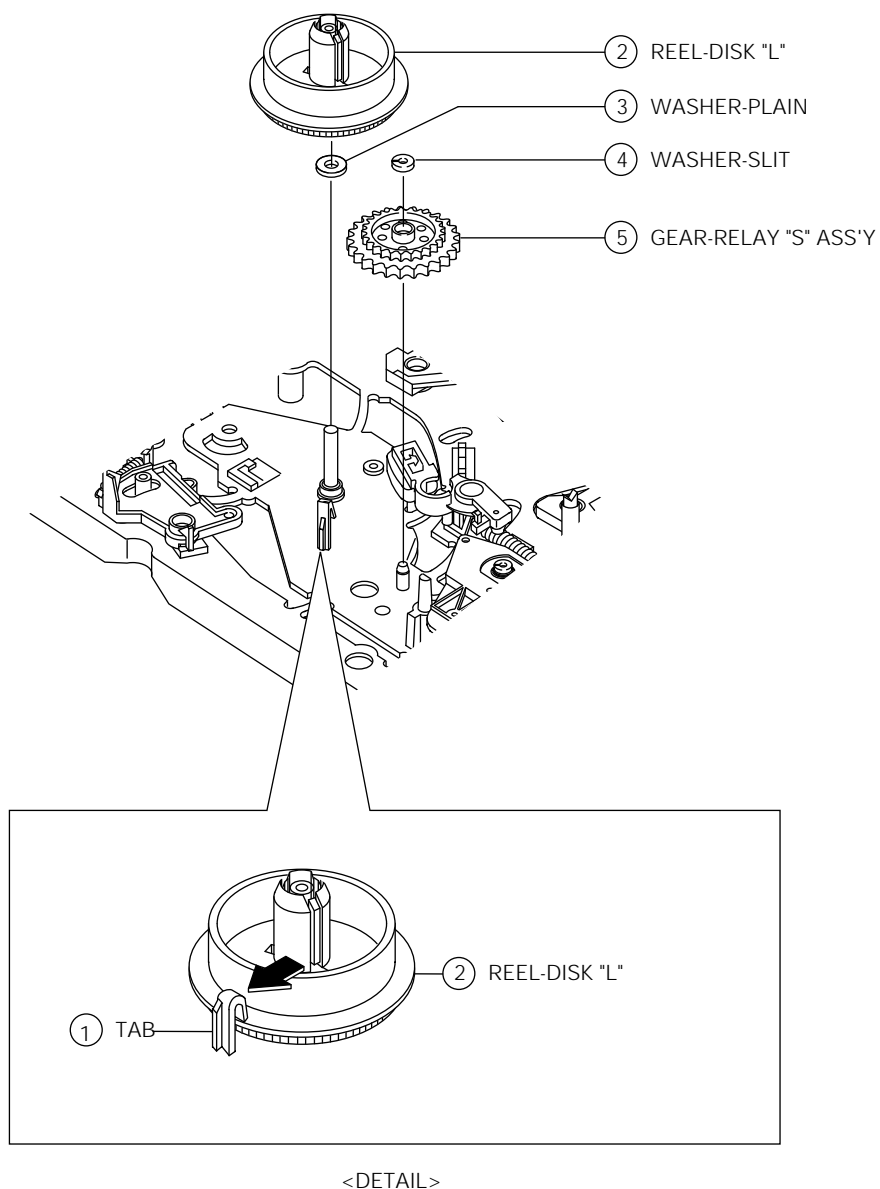
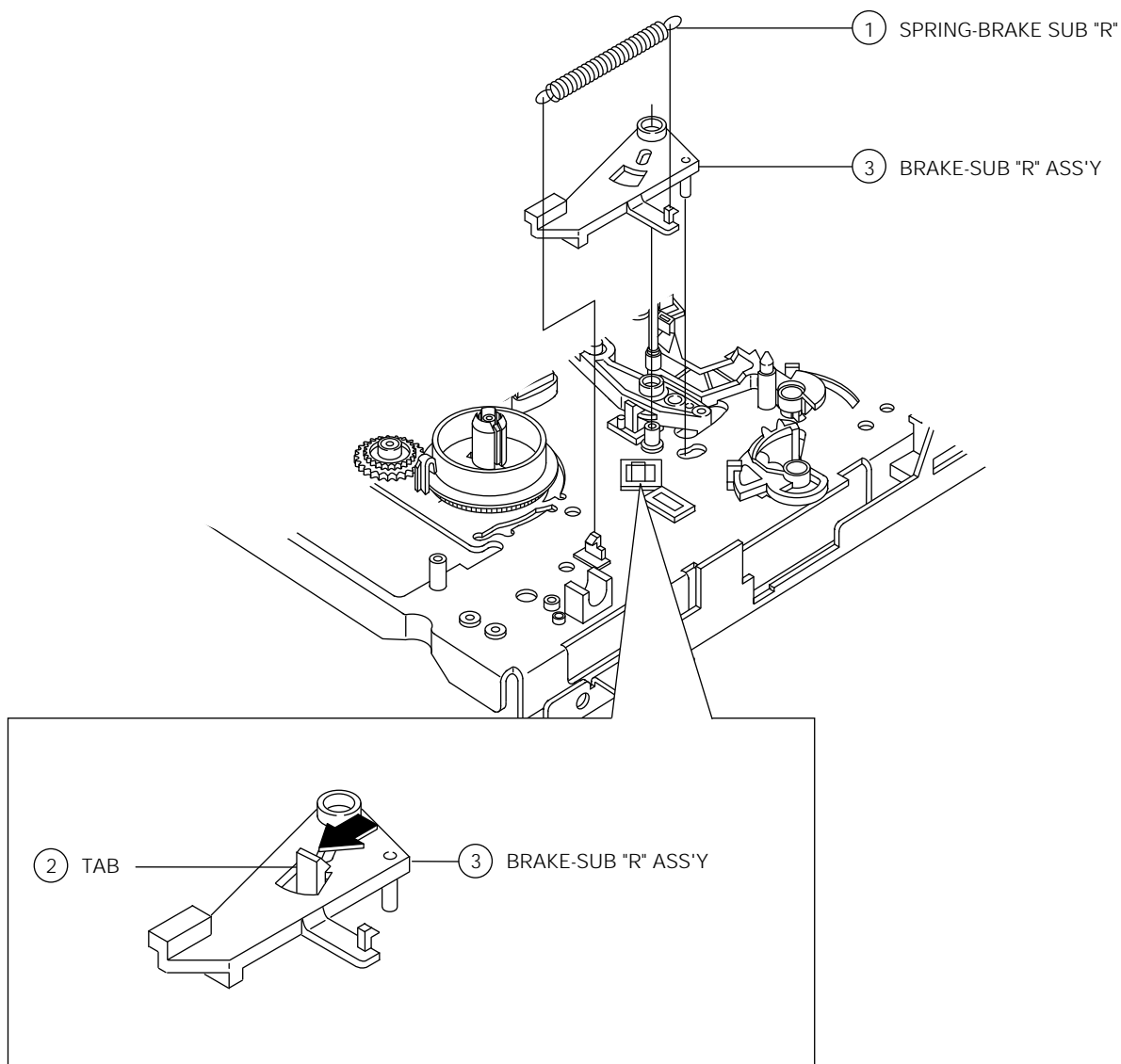


Fig. 1-26 Reel Disk "L" and Gear Relay "S" Ass'y Removal

1-4-7 Brake Sub "R" Ass'y Removal

1. Remove the Sub "R" Brake Spring ①.
2. Release the tab ② in the direction of arrow. (Refer to detail drawing)
3. Lift the Brake Sub "R" Ass'y ③.



<DETAIL>

Fig. 1-27 Brake Sub "R" Ass'y Removal

1-4-8 Reel Disk "R" Ass'y and Gear Relay "T" Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2. Lift the Reel Disk "R" Ass'y ②.
3. Remove the Plain Washer ③.
4. Remove the Slit Washer ④.
5. Lift the Relay "T" Gear Ass'y ⑤.

Note : When reinstalling, be sure to install the Reel Disk "R" Ass'y ② after installing the Plain Washer ③.

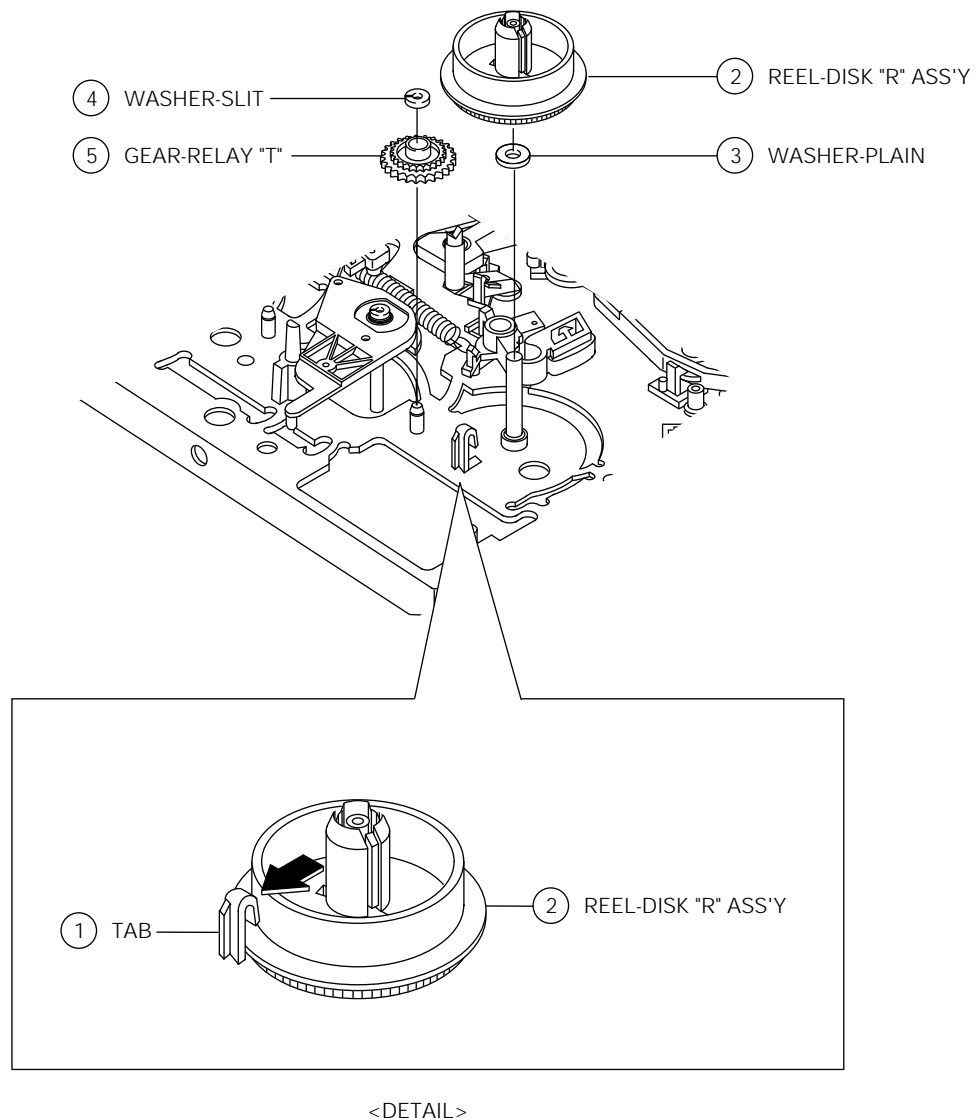


Fig. 1-28 Reel Disk "R" Ass'y and Gear Relay "T" Removal

1-4-9 Brake Main "L", "R" Ass'y Removal

1. Release the Main Brake Spring ①.
2. Release the tab ② in the direction of arrow "A". (Refer to detail drawing A)
3. Lift the Brake Main "L" ③.
4. Release the tab ④ in the direction of arrow "B". (Refer to detail drawing B)
5. Lift the Main "R" Brake ⑤.

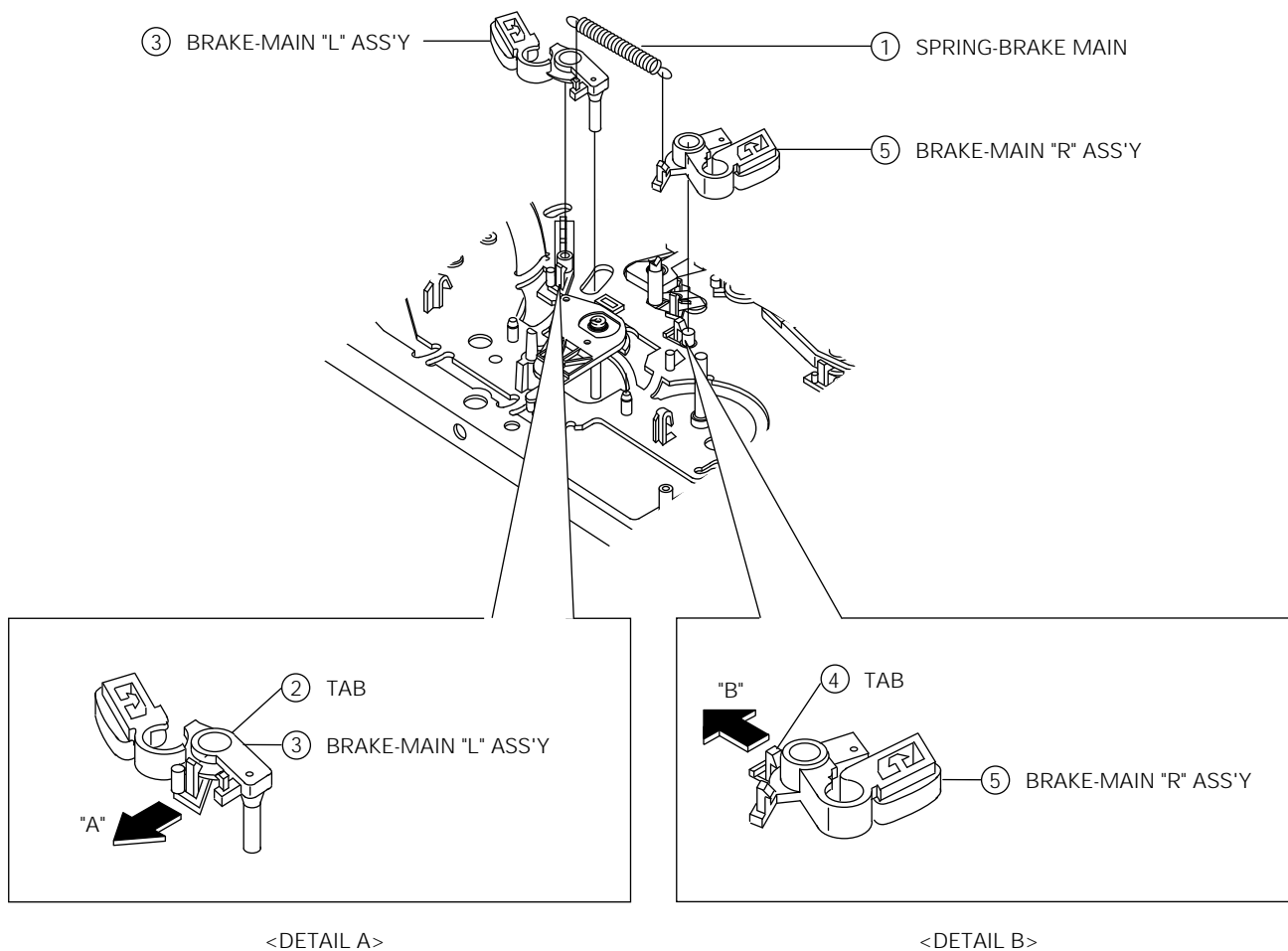


Fig. 1-29 Brake Main "L", "R" Ass'y Removal

1-4-10 Idler Ass'y Removal

1. Remove the Slit Washer ①.
2. Lift the Idler Ass'y ②.

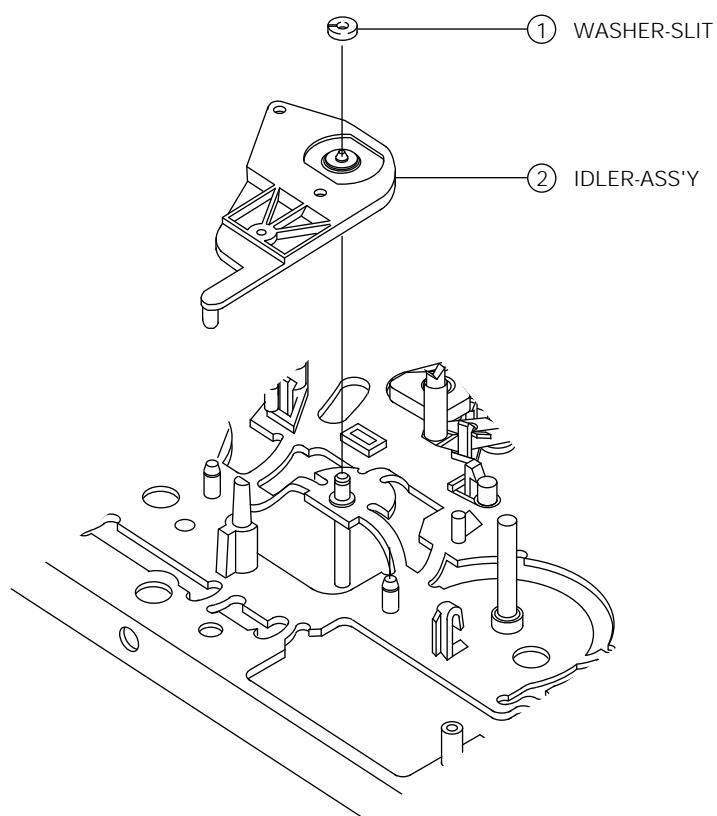


Fig. 1-30 Idler Ass'y Removal

1-4-11 Unit Pinch Roller Ass'y Removal

1. Remove the Slit Washer ①.
2. Lift the Pinch Roller Unit ②.
3. Lift the Arm Pinch Spring ③.

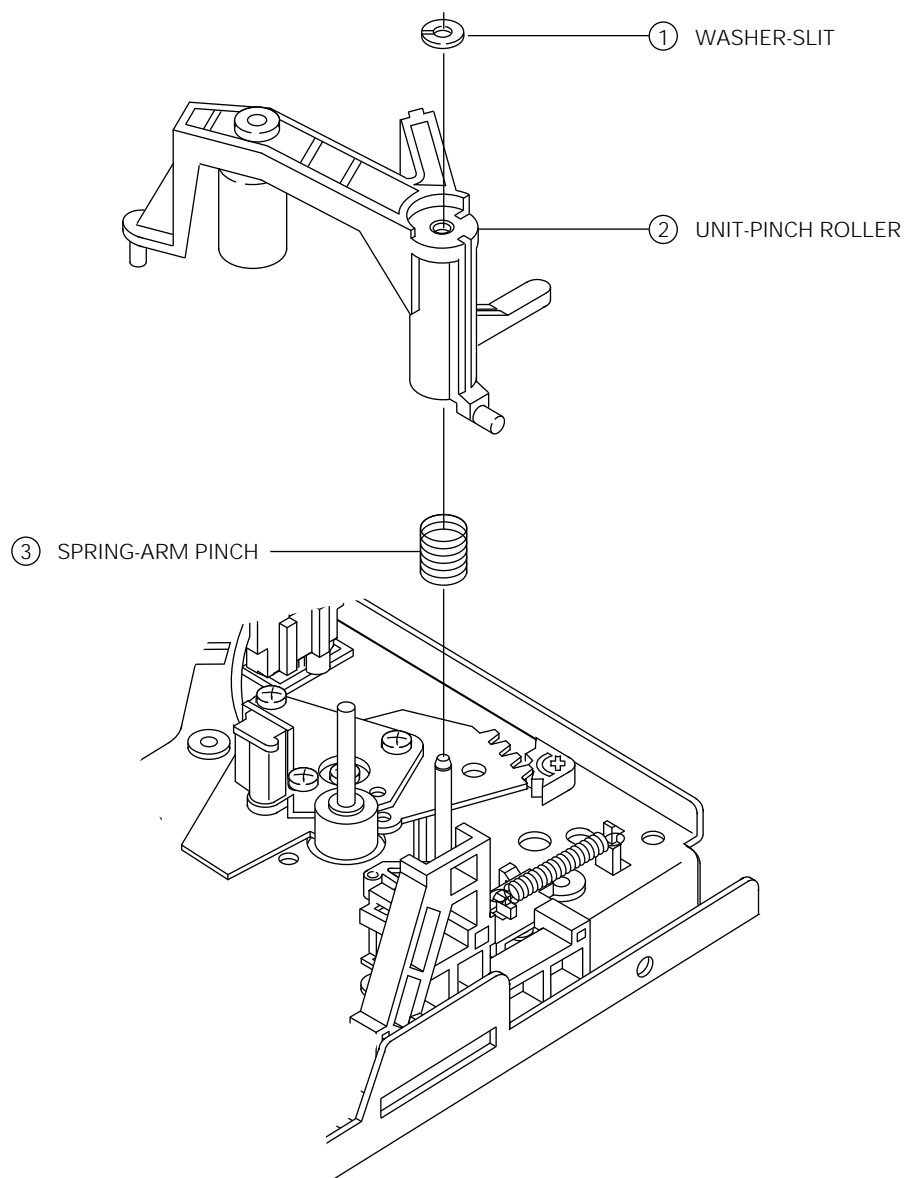


Fig. 1-31 Unit Pinch Roller Ass'y Removal

1-4-12 Assembly of Unit Pinch Roller

1. Install the Pinch Roller Unit as shown in Fig. 1-32. (Refer to A, B)

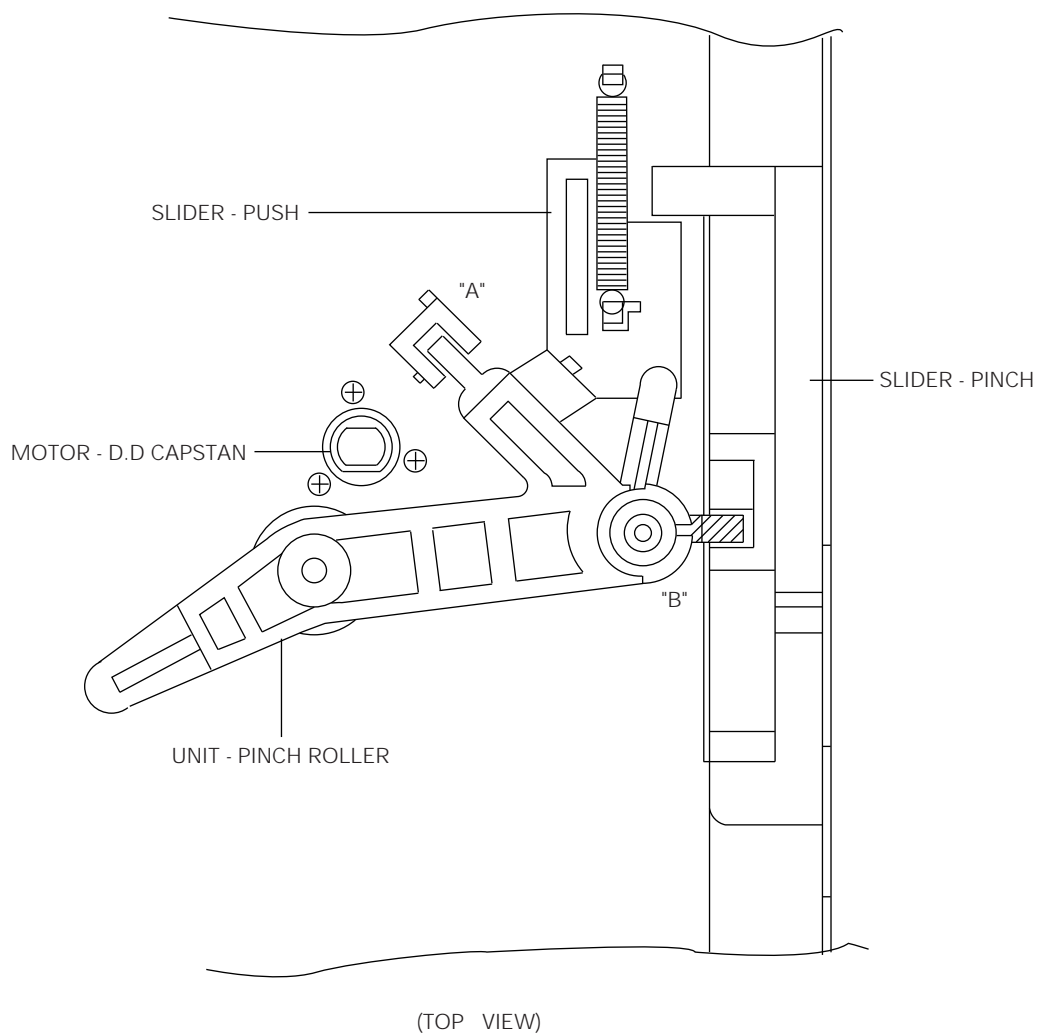


Fig. 1-32 Assembly of Unit Pinch Roller

1-4-13 Exploded View of Lever Pinch Comp Ass'y, Lever Pinch Cam, Arm Review Ass'y and Lever Review Ass'y

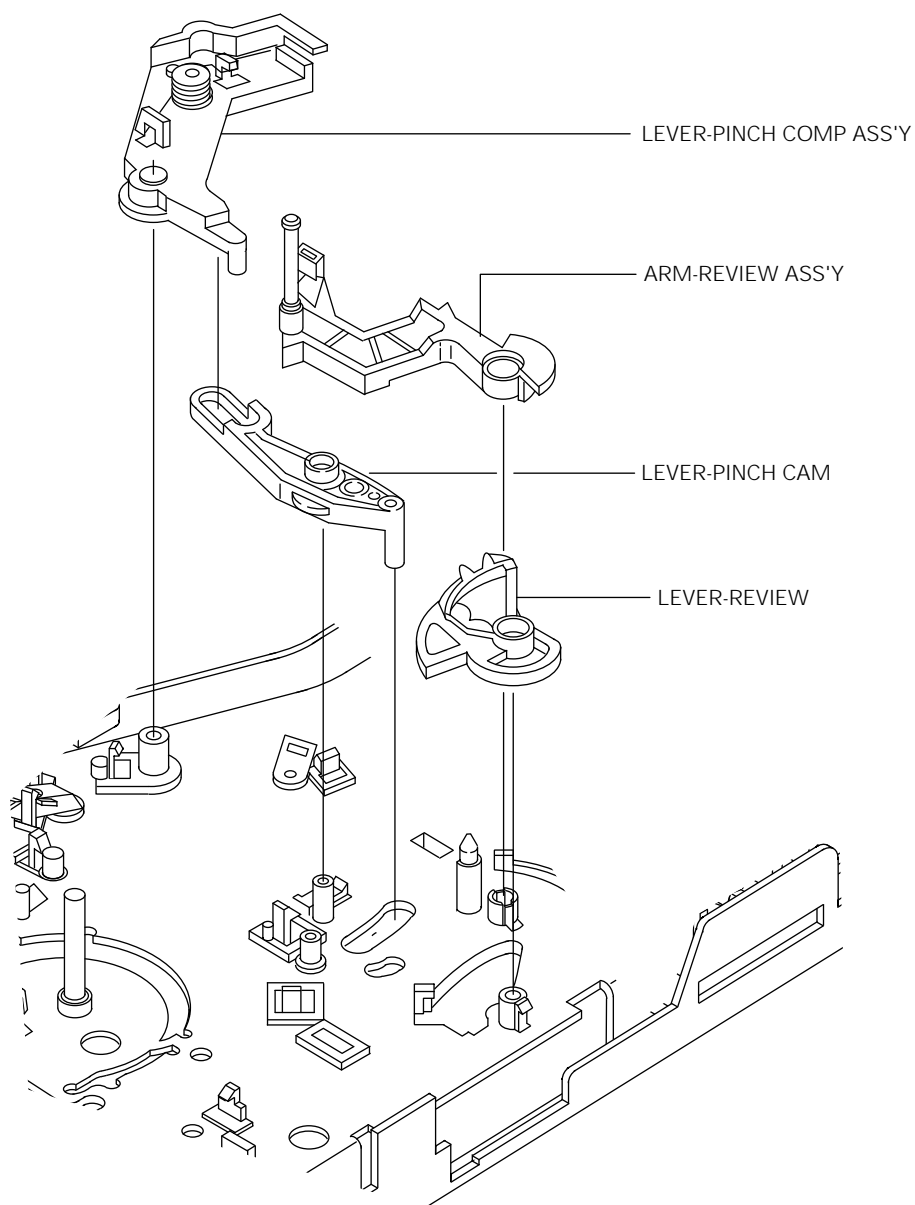


Fig. 1-33 Exploded View of Lever Pinch Comp Ass'y, Lever Pinch Cam, Arm Review Ass'y and Lever Review Ass'y

1-4-14 Lever Pinch Comp Ass'y Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2. Lift the Pinch Comp Lever Ass'y ②.

Note : Don't touch the Pinch Comp Lever Ass'y ① to Audio Head Base during removal.

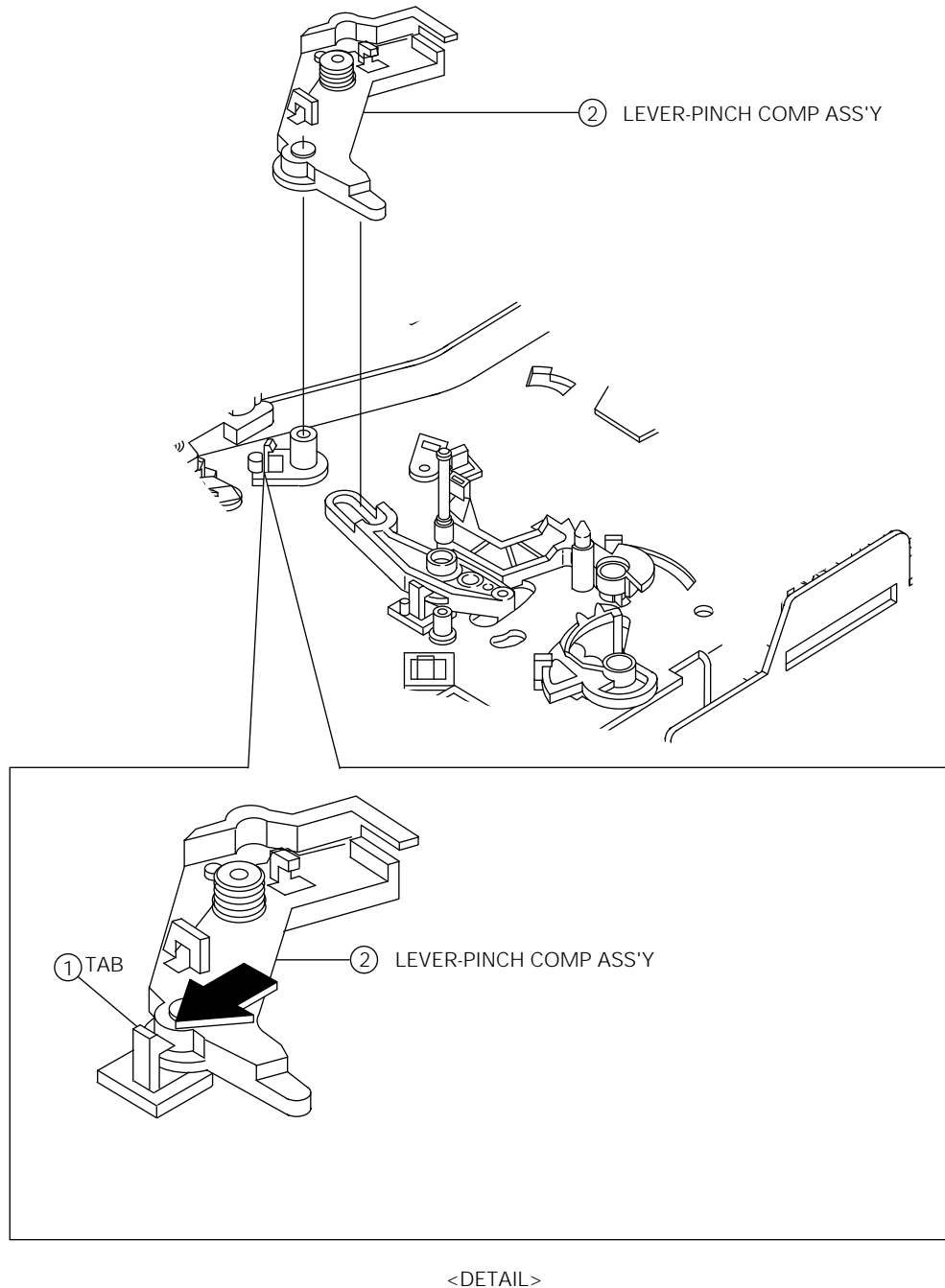


Fig. 1-34 Lever Pinch Comp Ass'y Removal

1-4-15 Lever Pinch Cam Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2. Lift the Pinch Cam Lever ②.

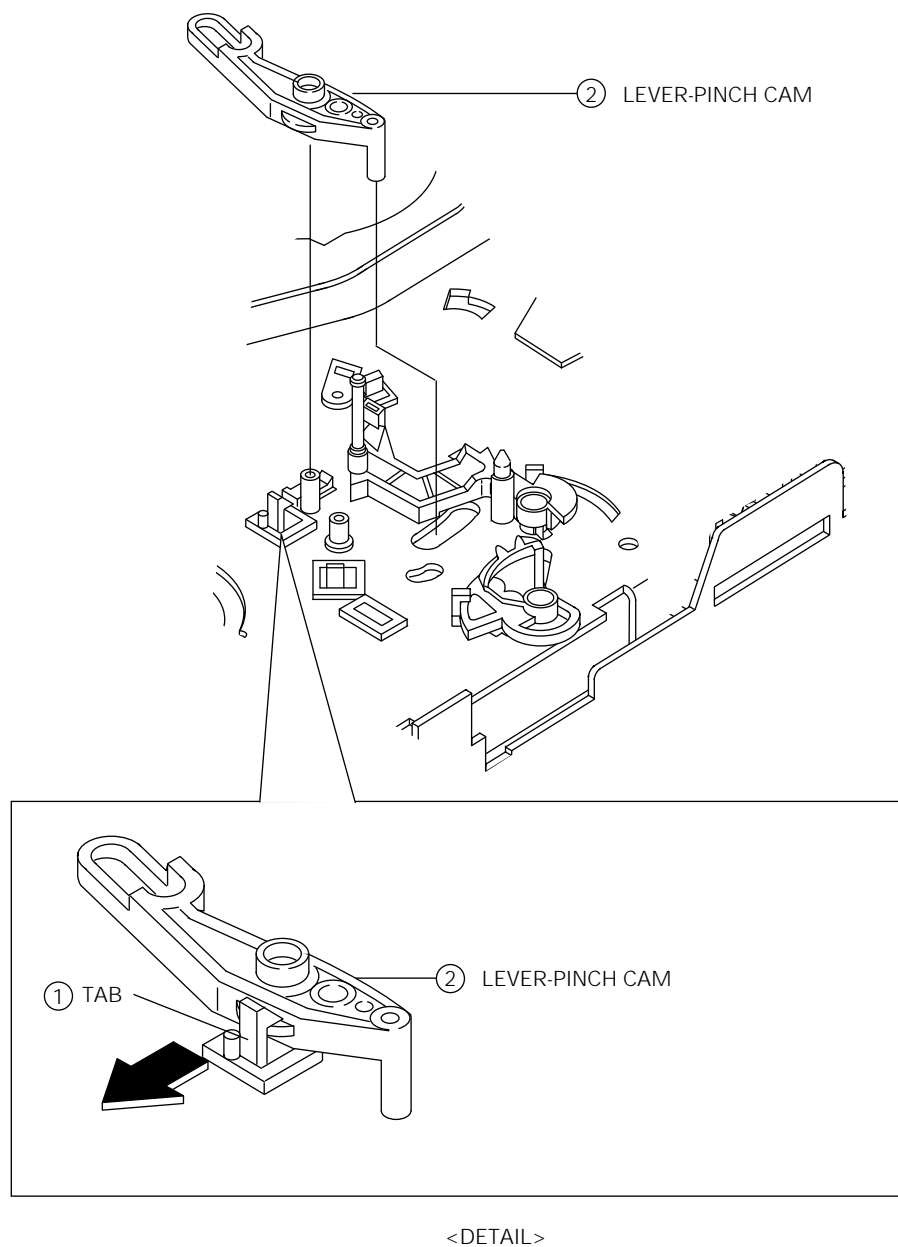


Fig. 1-35 Lever Pinch Cam Removal

1-4-16 Arm Review Ass'y Removal

1. Push the Stopper tab ① in the direction of arrow.
2. Pull the Review Arm Ass'y ② in the direction of arrow "A" and then confirm "B".
(Refer to detail drawing "A")
3. Release the tab ③ in the direction of arrow and then lift the Review Arm Ass'y ②.

Note : Take extreme care not to damage when removing the Review Arm Ass'y ②.
(B part of detail drawing A)

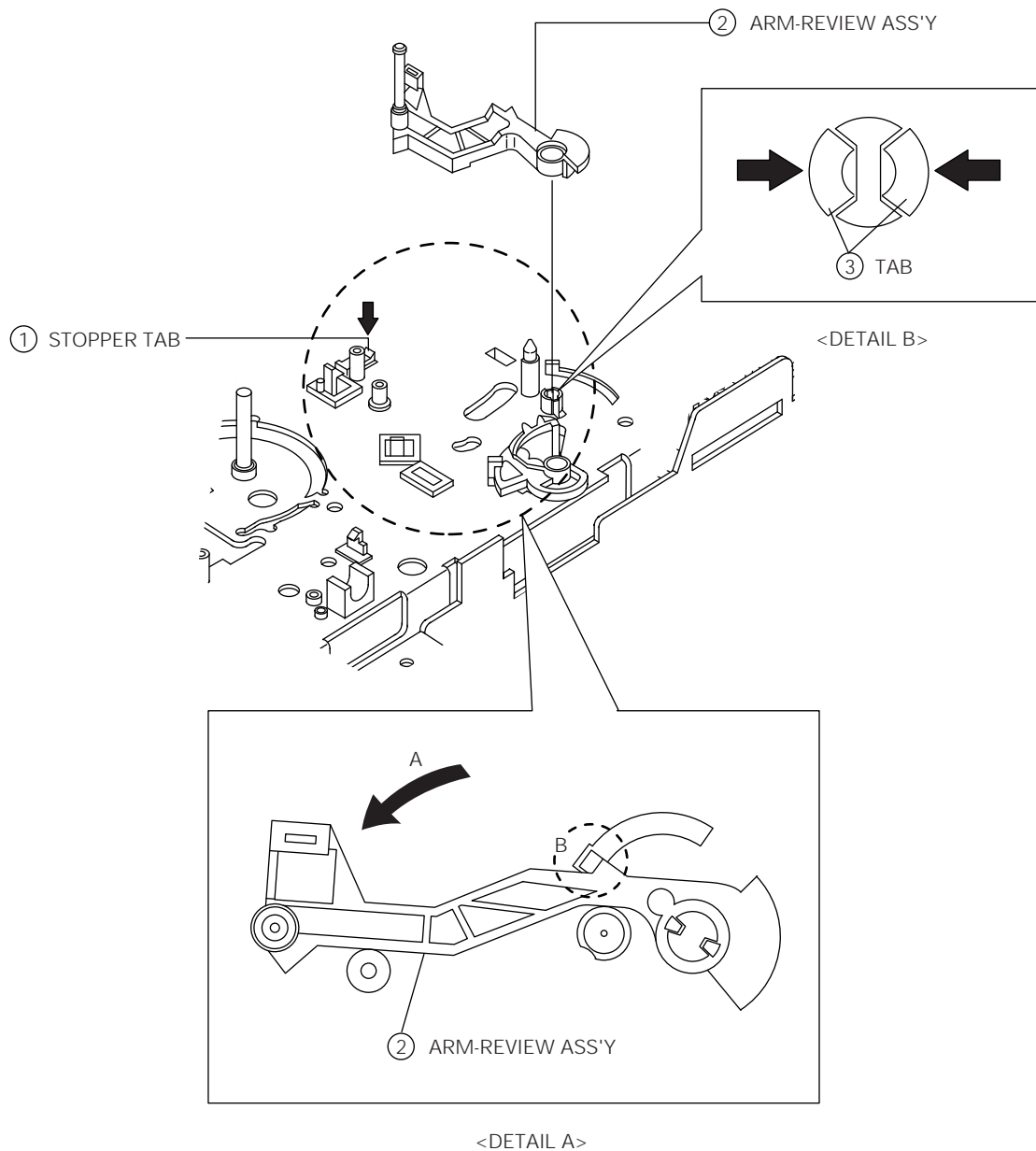


Fig. 1-36 Arm Review Ass'y Removal

1-4-17 Lever Review Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2. Lift the Review Lever ②.

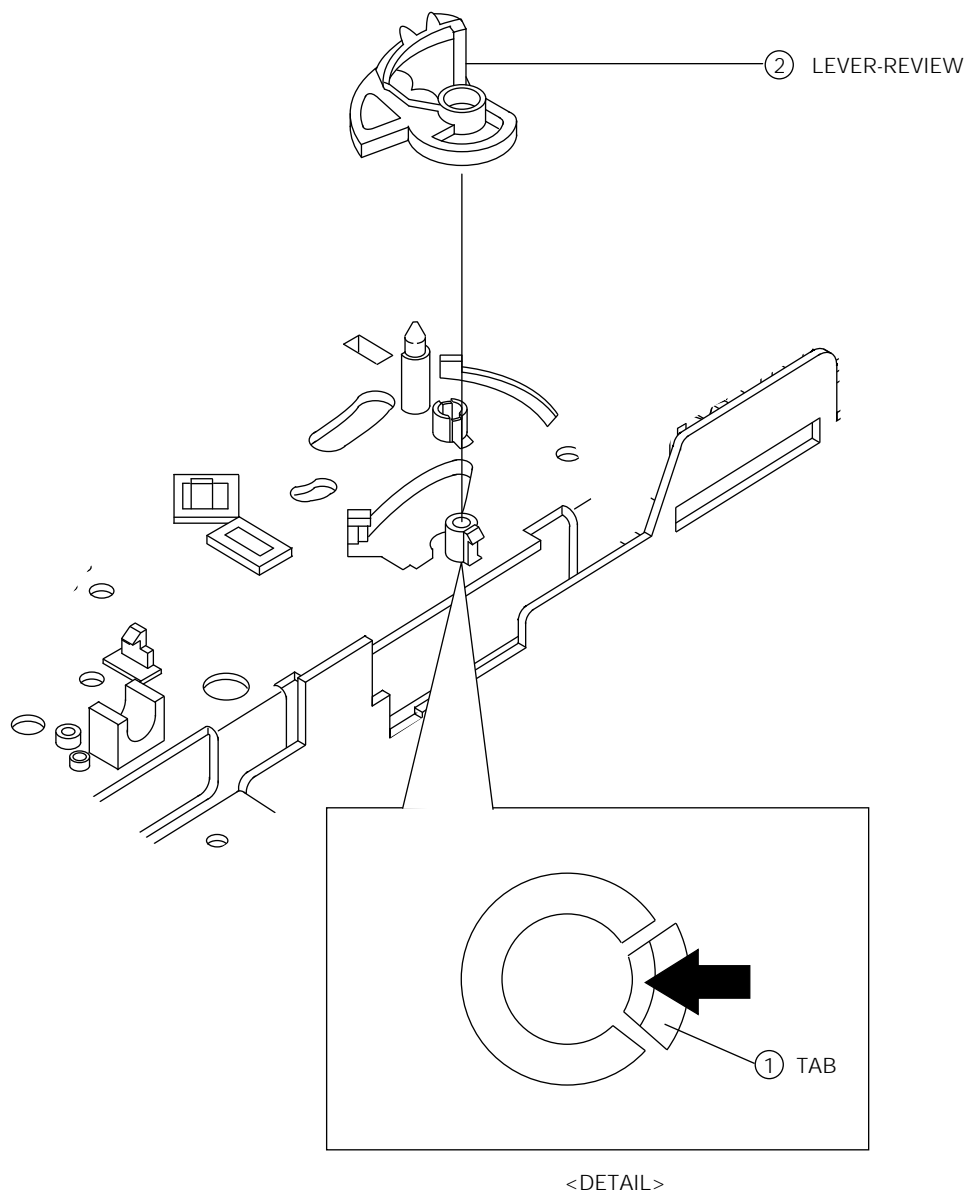


Fig. 1-37 Lever Review Removal

1-4-18 Belt Capstan Removal

1. Remove the Capstan Belt ①.

Note : Take extreme care not to touch the grease when removing or reinstalling.

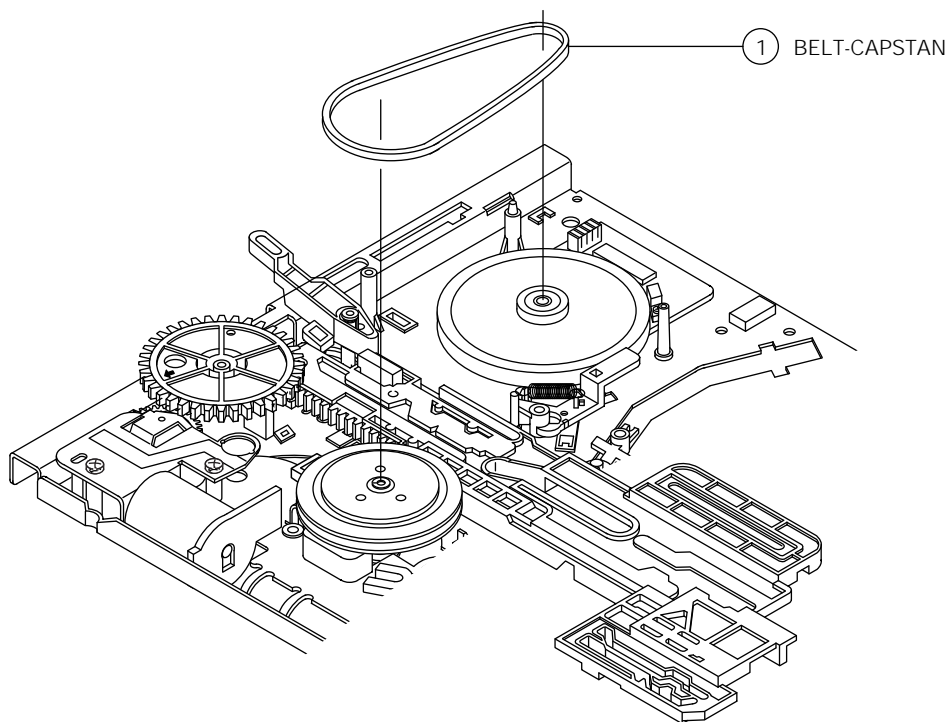


Fig. 1-38 Belt Capstan Removal

1-4-19 Brake Capstan Ass'y Removal

1. Remove the Brake Capstan Spring ①.
2. Release the tab ② in the direction of arrow. (Refer to detail drawing)
3. Lift the Capstan Brake Ass'y ③.

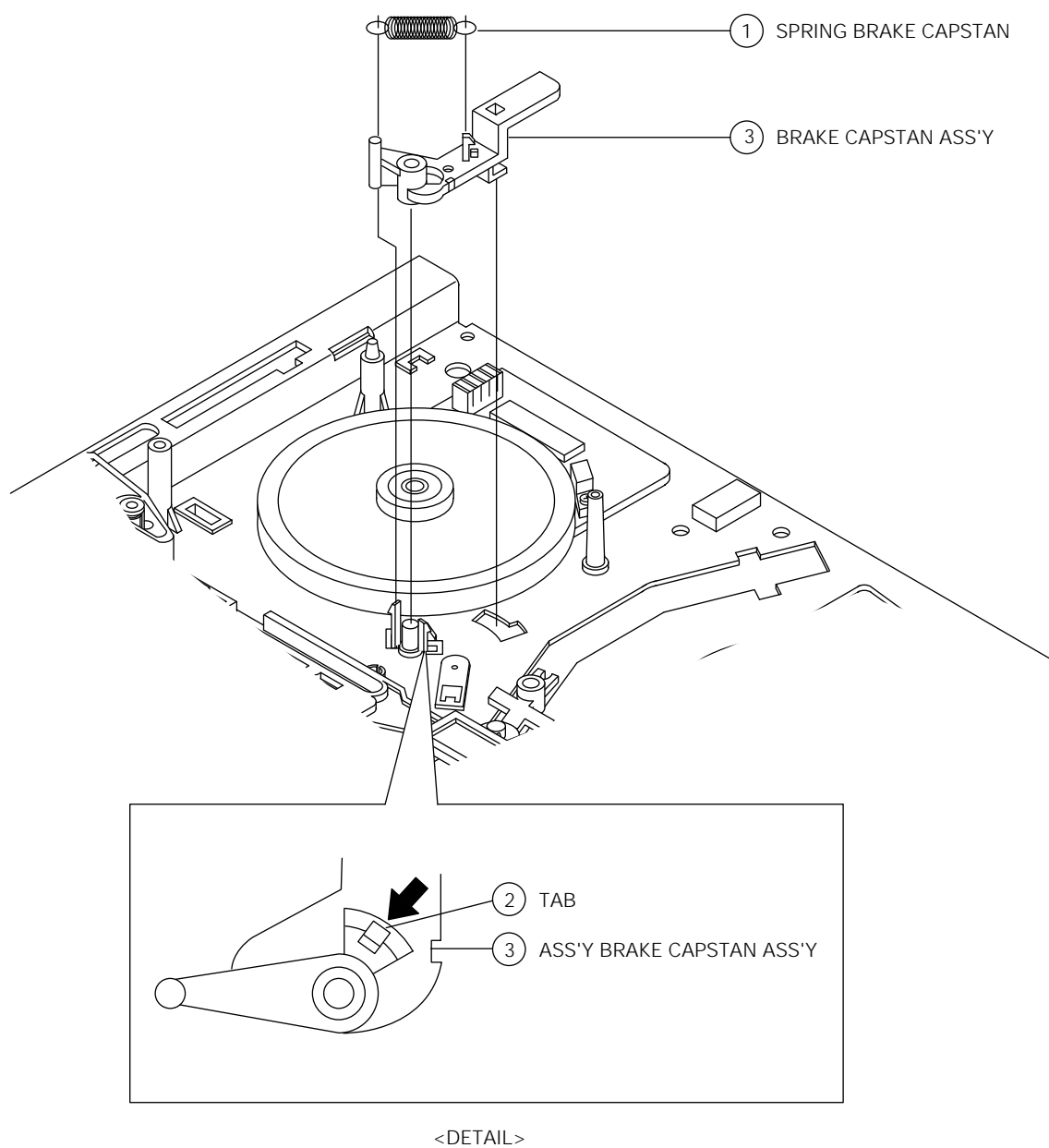


Fig. 1-39 Brake Capstan Ass'y Removal

1-4-20 Motor D.D Capstan Removal

1. Remove 3 Screws ①. (Top view)
2. Lift the Capstan D.D Motor ② in the direction of arrow. (Bottom view)

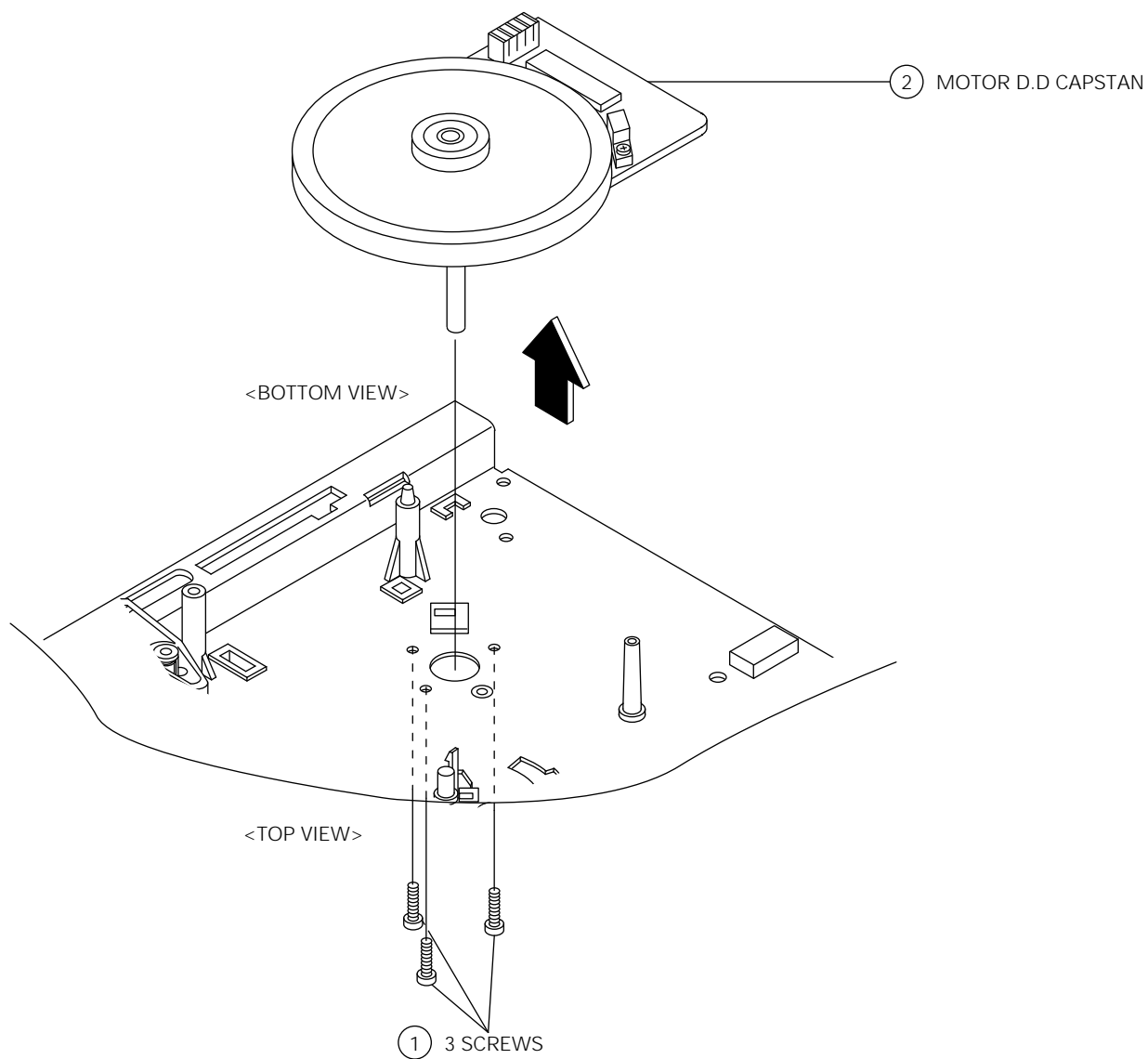


Fig. 1-40 Motor D.D Capstan Removal

1-4-21 Clutch Ass'y Removal

1. Remove the Slit Washer ①.
2. Lift the Clutch Ass'y ②.
3. Remove the Plain Washer ③.

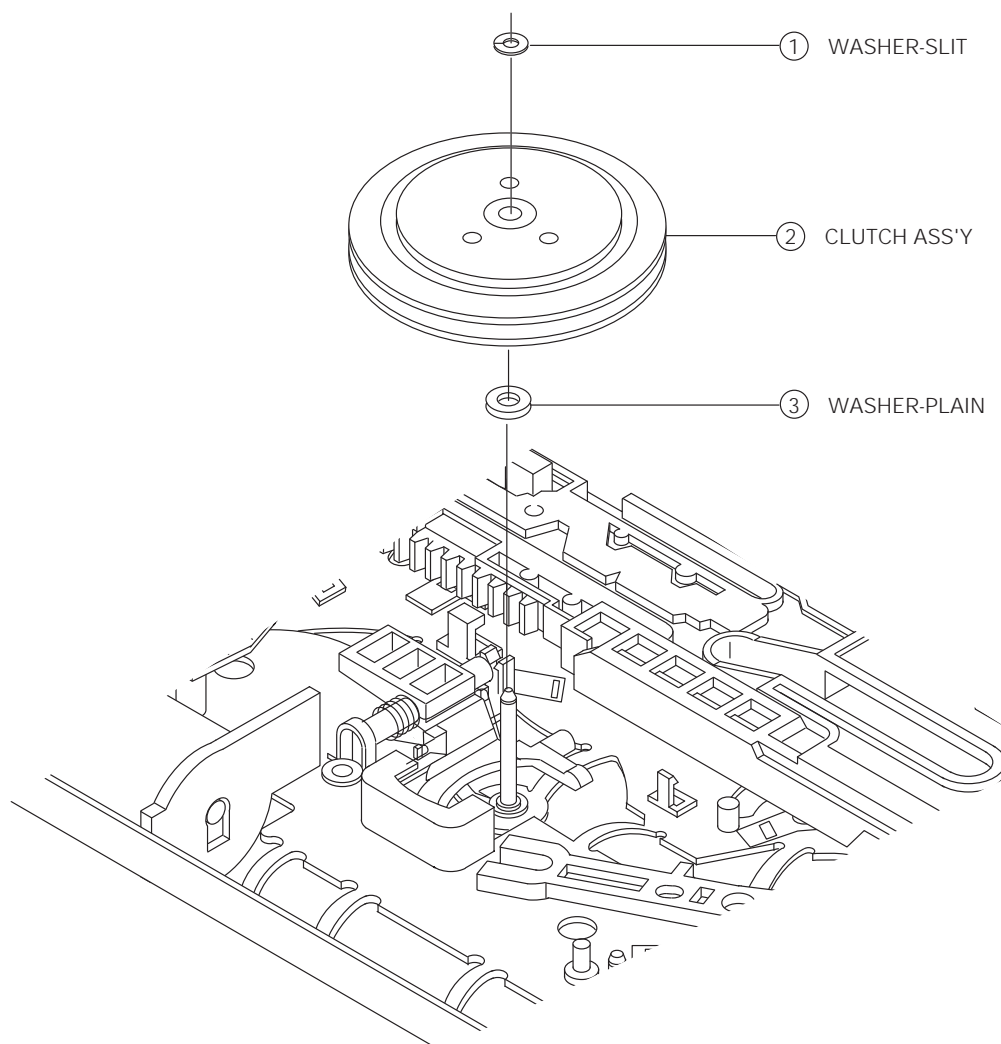


Fig. 1-41 Clutch Ass'y Removal

1-4-22 Gear Master Removal

1. Remove the Slit Washer ①.
2. Lift the Master Gear ②.

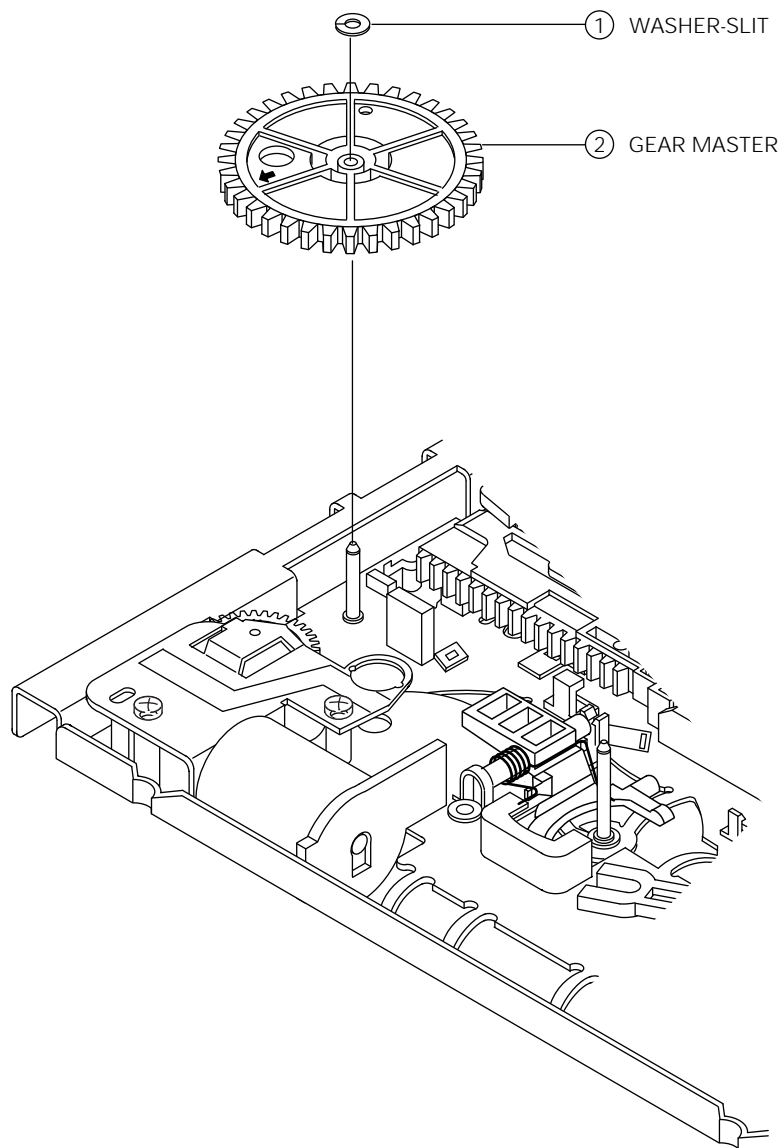


Fig. 1-42 Gear Master Removal

1-4-23 Assembly of Gear Master

1. When reinstalling, be sure to align the arrow of the Master Gear ① with home Gear of the Worm-Wheel Gear ②. (Refer to timing point)

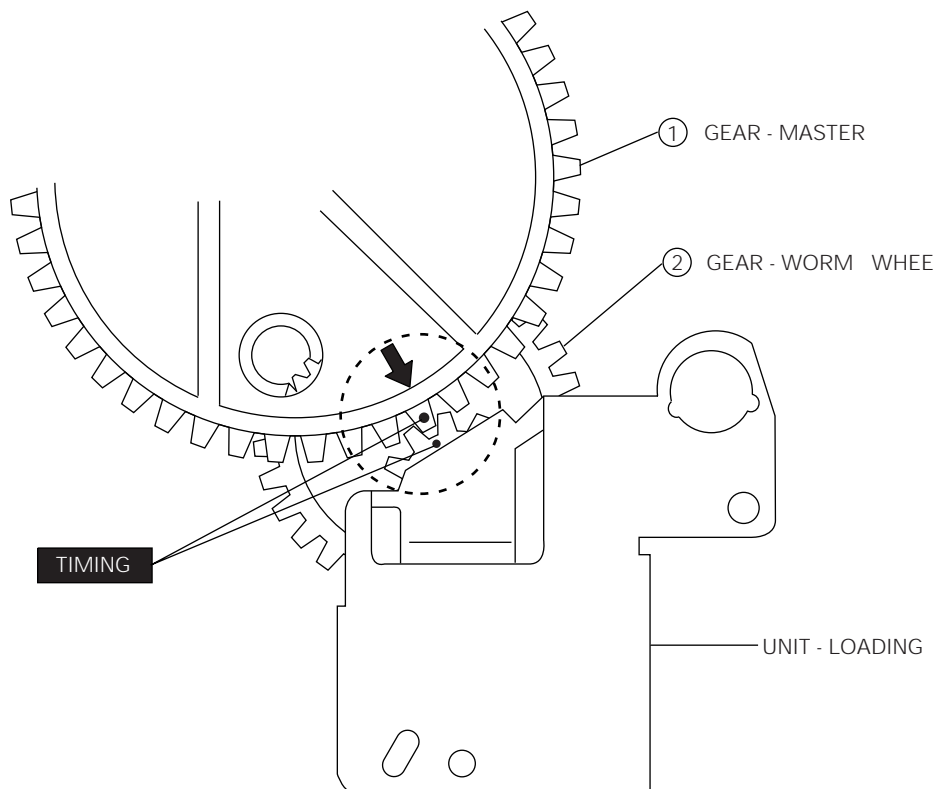


Fig. 1-43 Assembly of Gear Master

1-4-24 Unit Loading Removal

1. Remove 2 Screws ①.
2. Lift the Loading Unit ② in the direction of arrow.

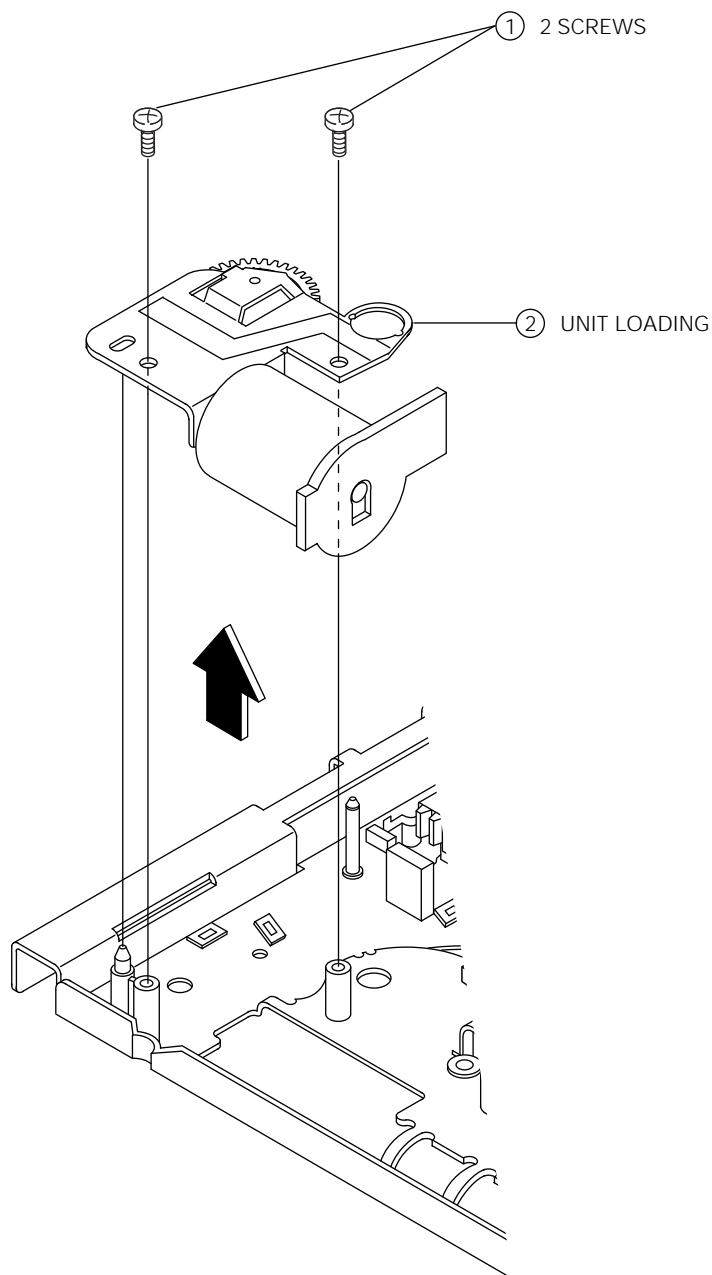


Fig. 1-44 Unit Loading Removal

1-4-25 Lever Slide Pinch Removal

1. Remove the Slit Washer ①.
2. Lift the Slide Lever Pinch ②.

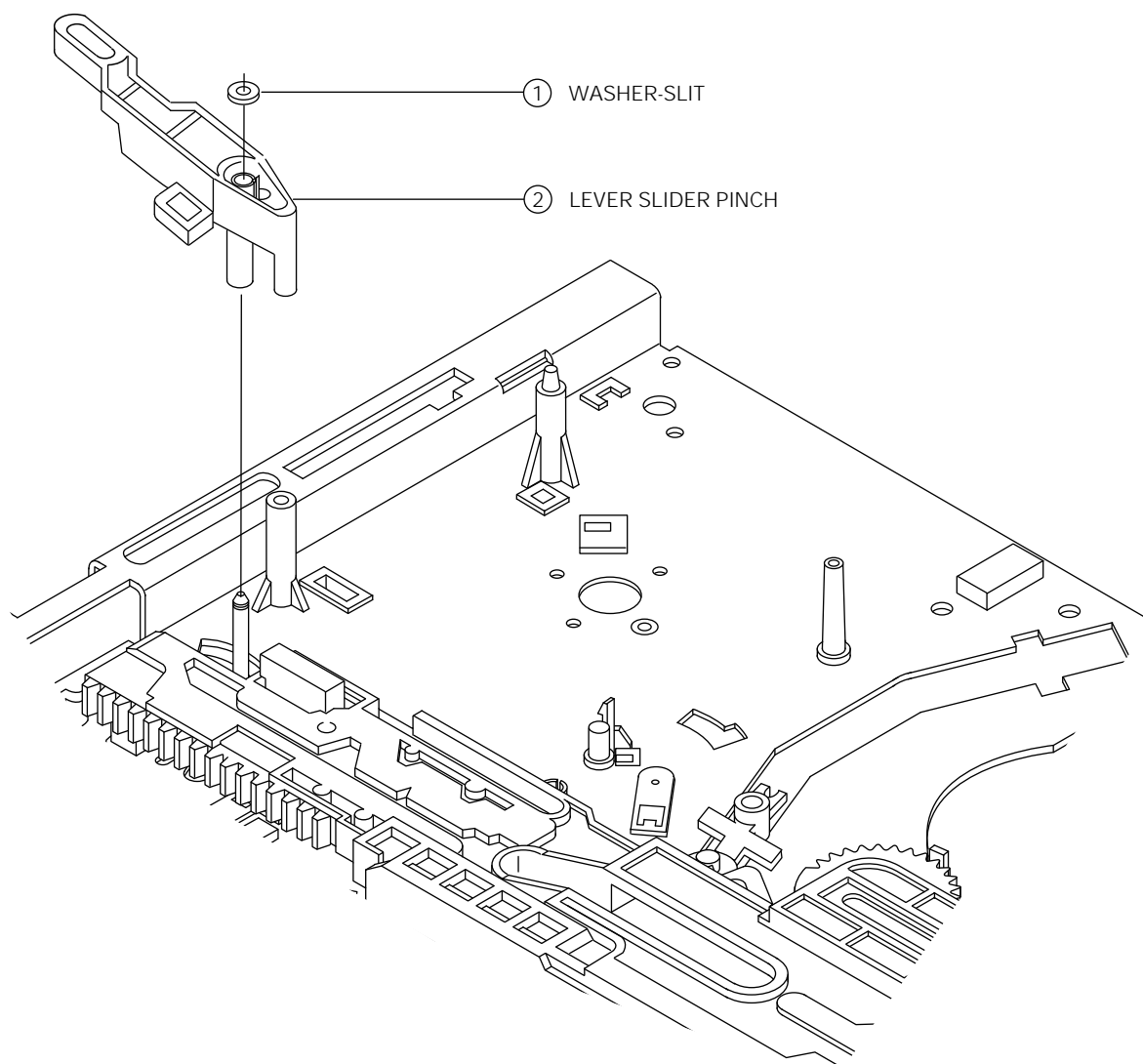


Fig. 1-45 Lever Slide Pinch Removal

1-4-26 Assembly of Lever Slide Pinch

1. Pull the Pinch Slide ① to the end in the direction of arrow.
2. Insert the Pinch Slide ① into the hole of Slide Lever Pinch ②. (Refer to detail "A")

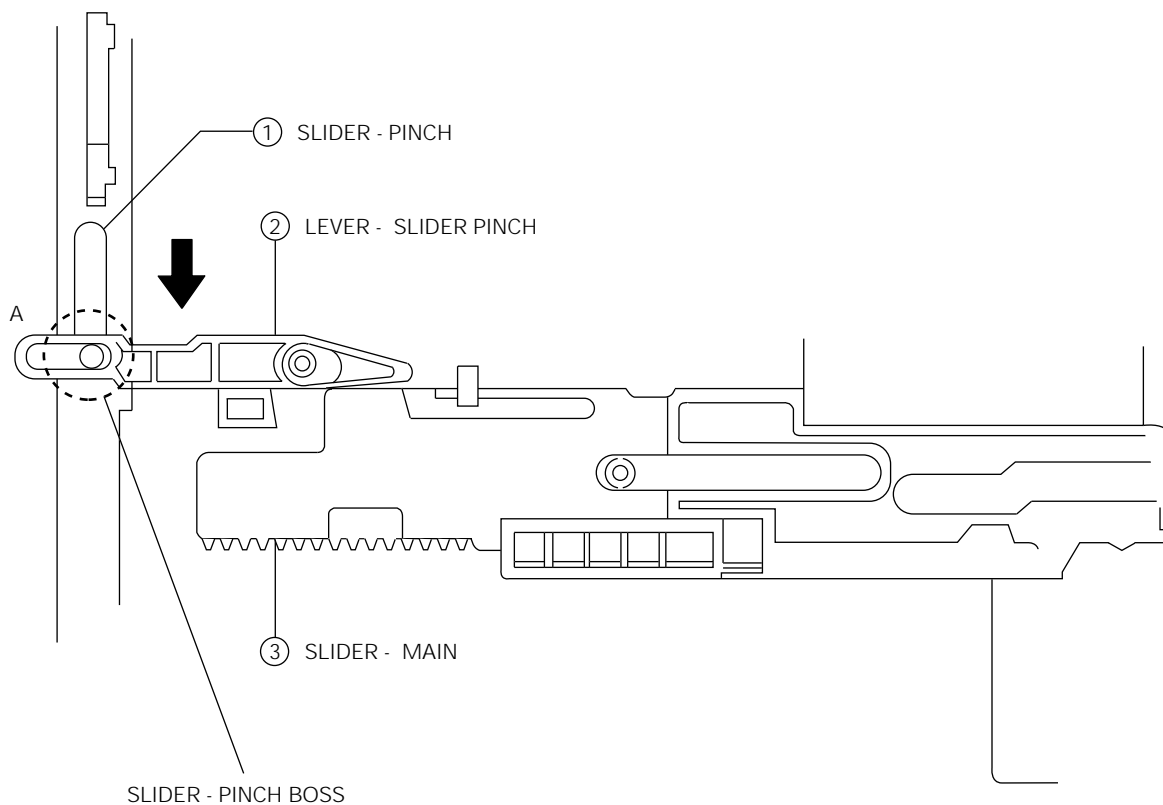


Fig. 1-46 Assembly of Lever Slide Pinch

1-4-27 Slide Main Removal

1. Remove the Slit Washer ①.
2. Release 3 tabs ②, ③, ④ in the direction of arrow.
3. Lift the Main Slide ⑤.

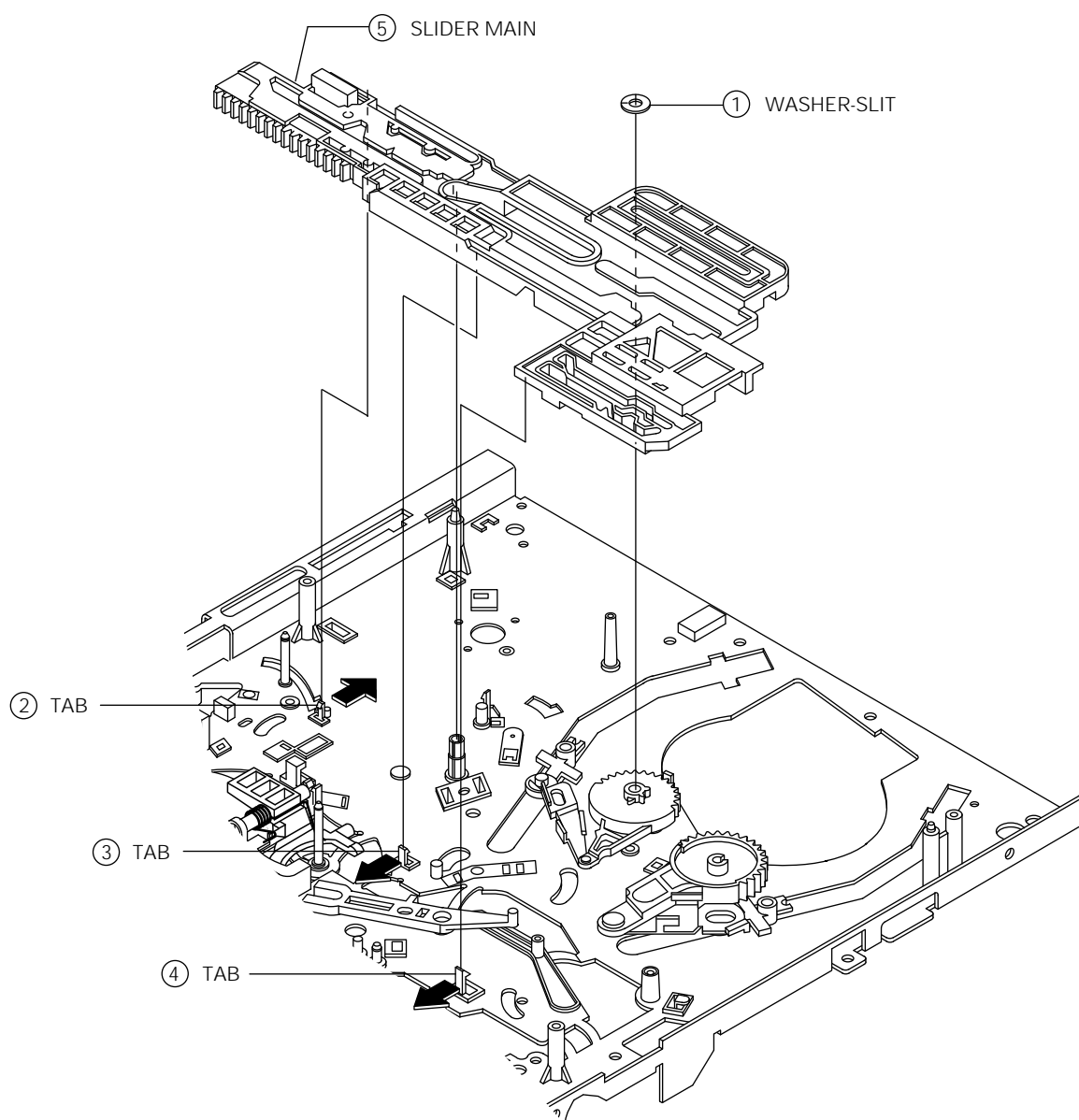


Fig. 1-47 Slide Main Removal

1-4-28 Assembly of Slide Main

1. Install the shaft of Loading "R" Gear Ass'y into the left of the Main Slide Hole and secure with the Slit Washer ②. (Refer to detail "A")
2. Insert the Tension Control Lever ③ and the Idler Change Lever ④ into the Main Slide Hole. (Refer to detail "B")
3. After confirming the above items 1, 2 install the Main Slide and secure with tabs (a, b, c).

Note : Be sure to assemble the Main Slide when the Loading L/R Gear Ass'y is in unloading position.

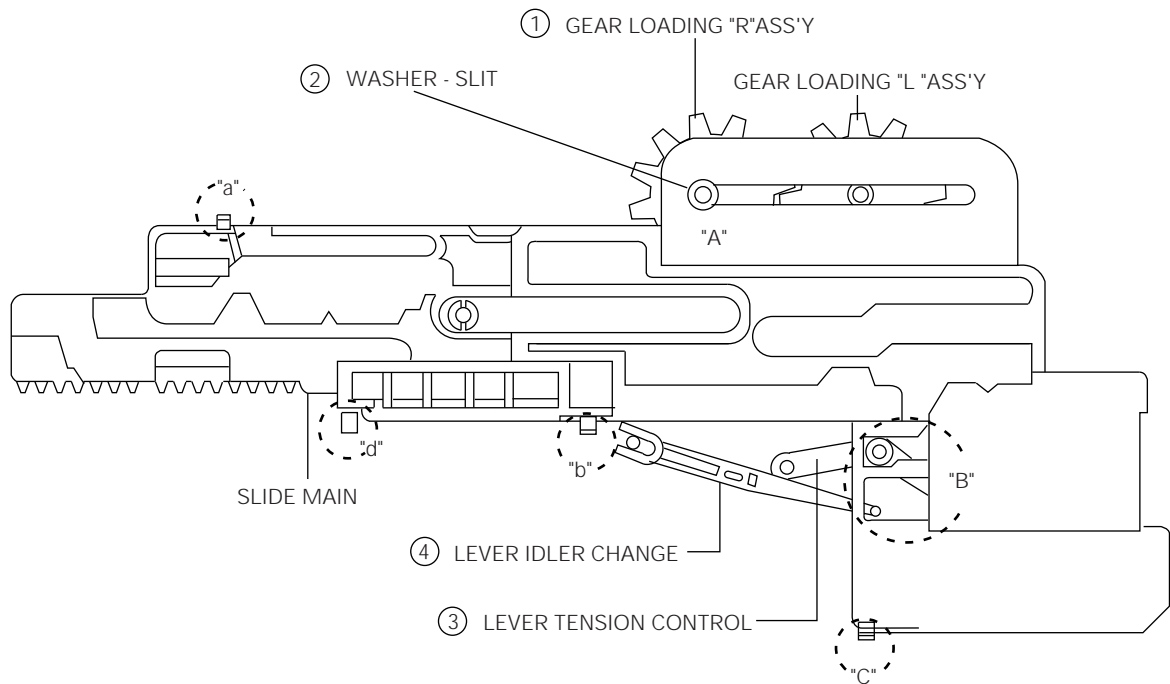


Fig. 1-48 Assembly of Slide Main

1-4-29 Lever Shift Ass'y Removal

1. Hang the Lever Shift Spring ① to the claw of the Shift Lever ③. (Refer to detail drawings A, B)
2. Release the tab ② in the direction of arrow.
3. Lift the Shift Lever ③.

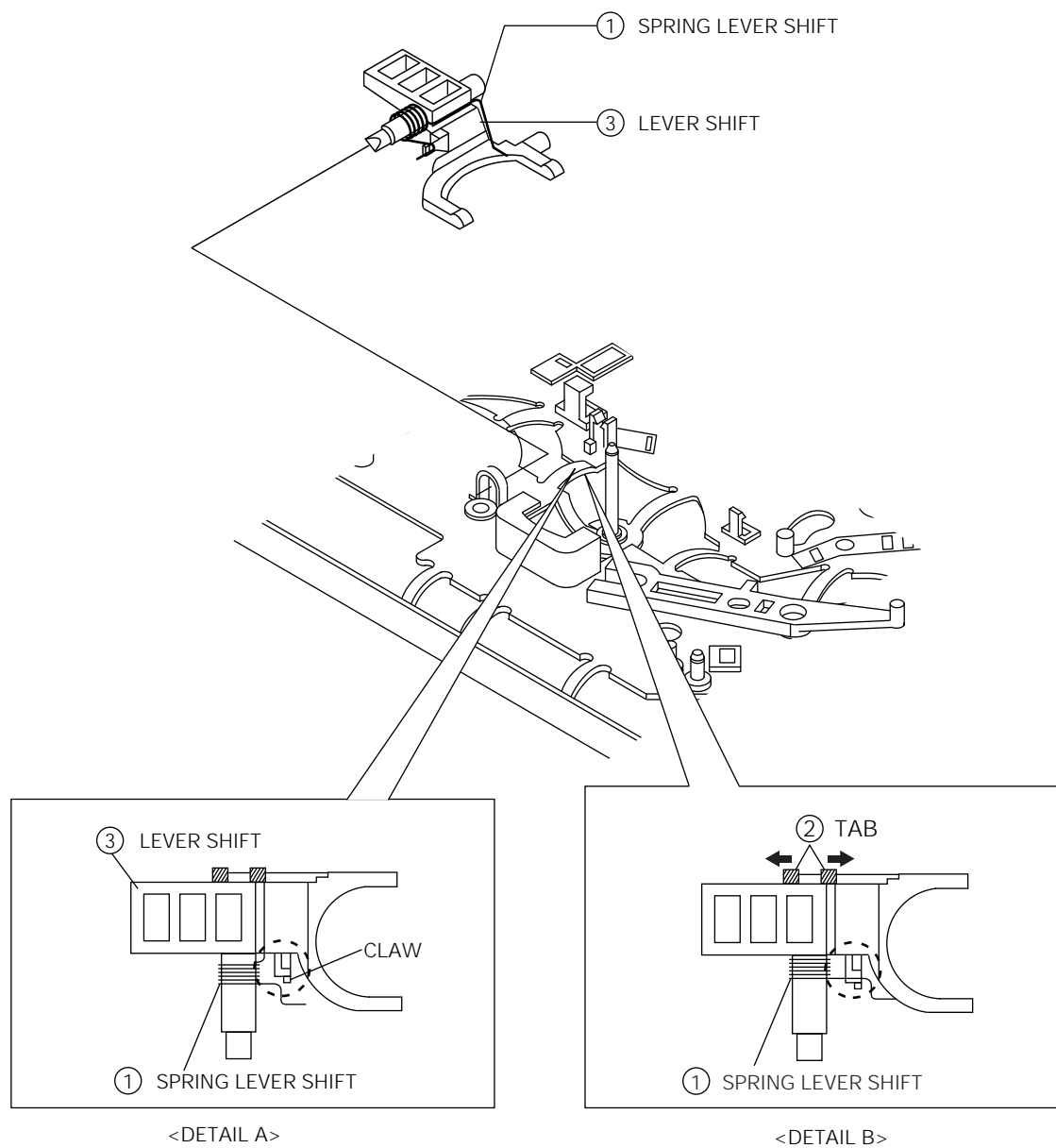


Fig. 1-49 Lever Shift Ass'y Removal

1-4-30 Lever Idler Change Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2. Lift the lever Change Idler ②.

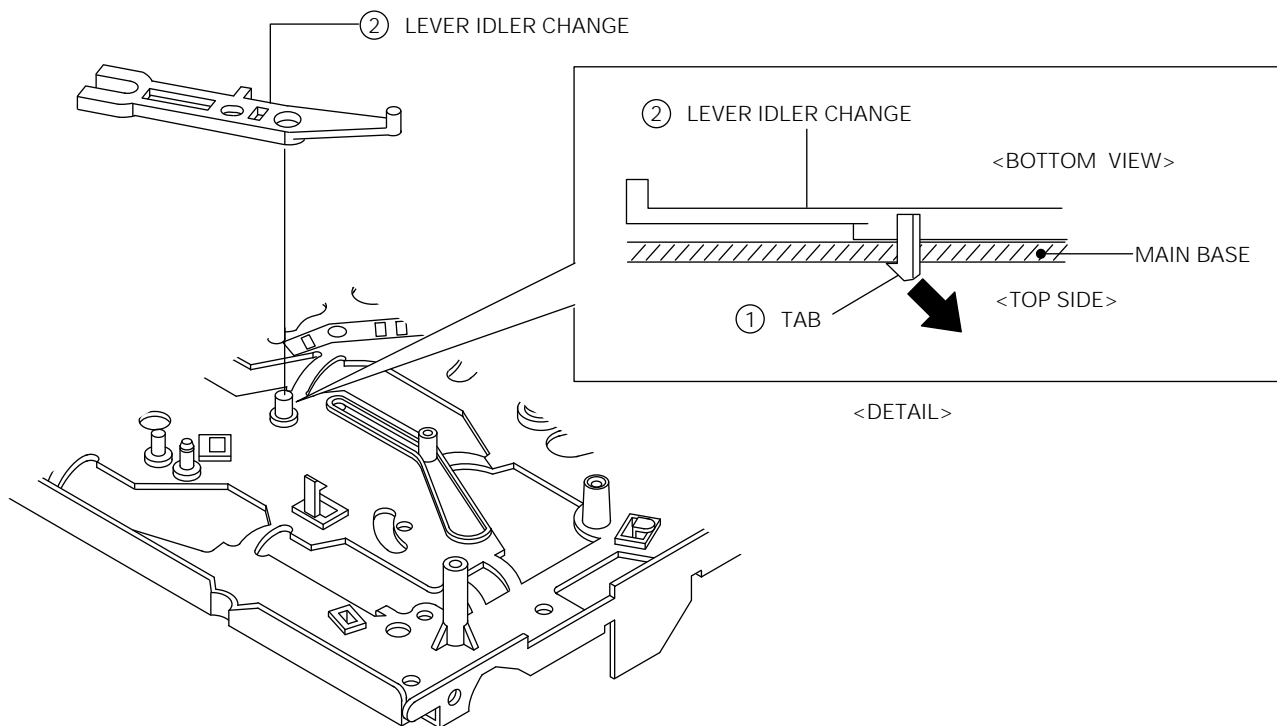


Fig. 1-50 Lever Idler Change Removal

1-4-31 Gear Loading "L", "R" Ass'y Removal

1. Remove the Loading "R" Gear Ass'y ② from the Roller "T" Guide ③ by pushing the Loading "R" Spring ① in the direction of arrow. (Refer to detail drawing A)
2. Remove the Loading "L" Gear Ass'y ⑤ from the Roller "S" Guide ⑥ by pushing the Loading "L" Spring ④ in the direction of arrow. (Refer to detail drawing B)
3. Lift the Loading "R" Gear Ass'y ②.
4. Lift the Loading "L" Gear Ass'y ⑤ by pushing the tab ⑦ of the Loading "L" Gear Ass'y ⑤. (Refer to detail drawing C)

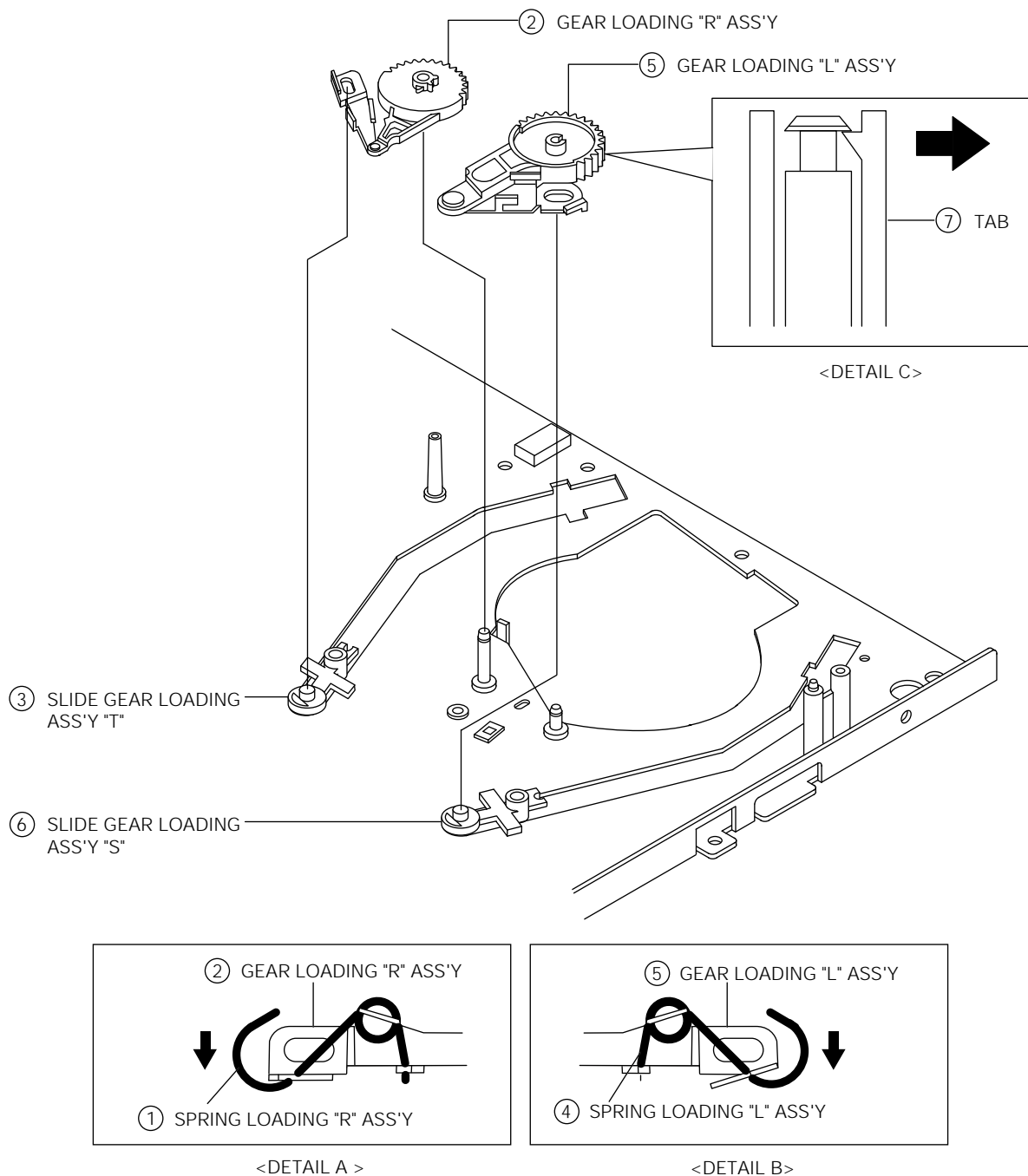


Fig. 1-51 Gear Loading "L", "R" Ass'y Removal

1-4-32 Assembly of Gear Loading "L", "R" Ass'y

1. When reinstalling, be sure to align 2 arrow as shown in Fig. 1-52. (Refer to timing point)

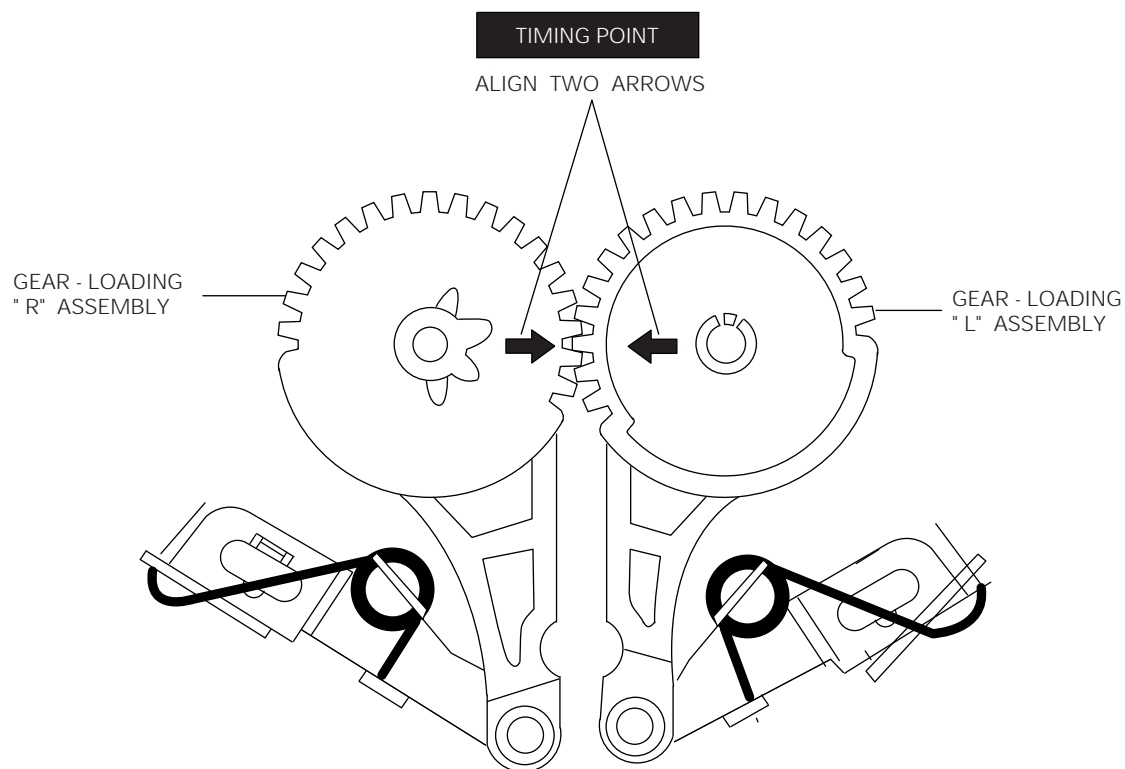


Fig. 1-52 Assembly of Gear Loading "L", "R" Ass'y

1-4-33 Slide Pinch Removal

1. Push the tab ① in the direction of arrow "A". (Refer to detail drawing)
2. Lift the Slide Pinch ② in the direction of arrow "B".

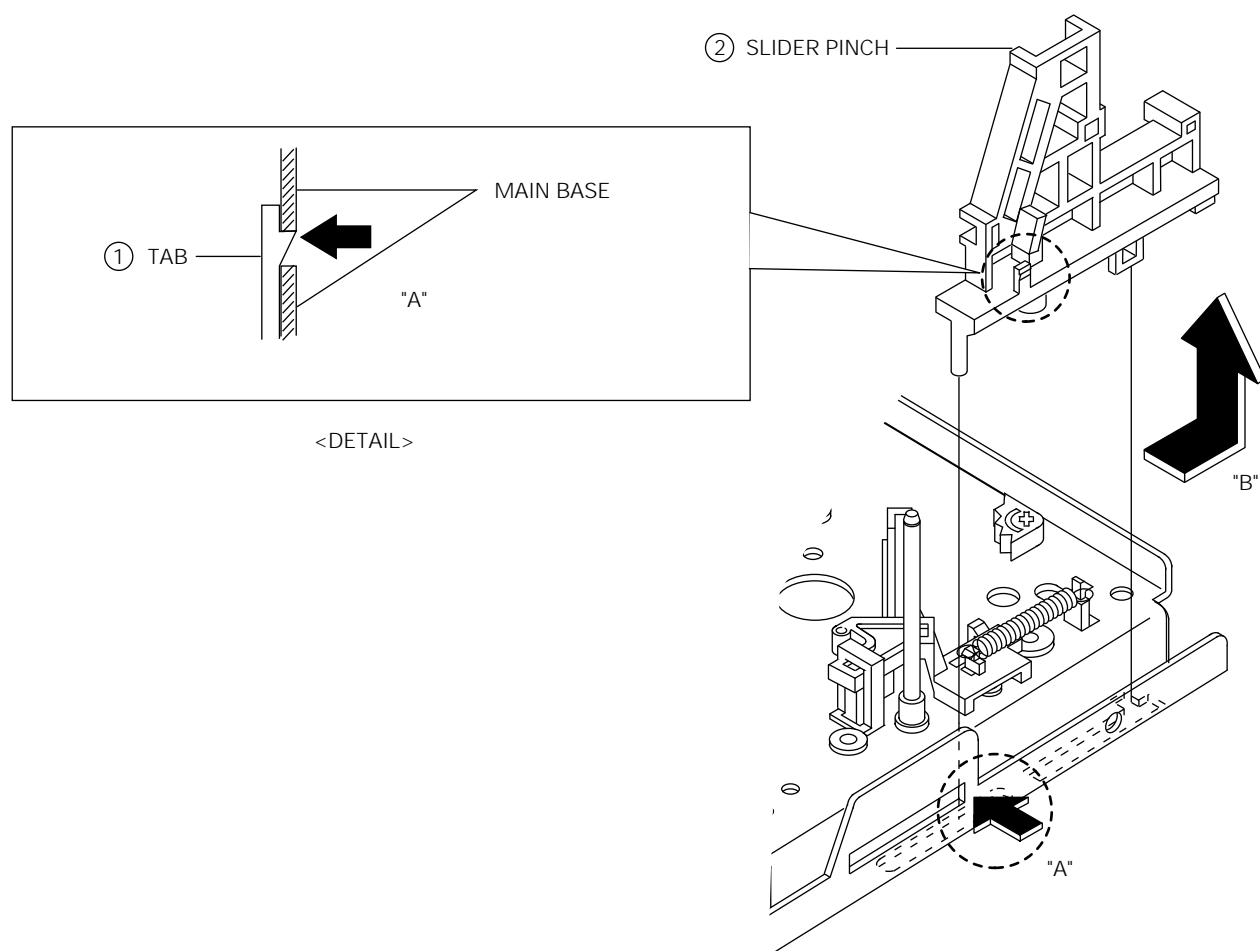


Fig. 1-53 Slide Pinch Removal

1-4-34 Slide Push Removal

1. Remove the Slide Push Spring ①.
2. Push the Slider ② in the direction of arrow "A".
3. Lift the Push Slider ② by pushing the tab ③ in the direction of arrow "B". (Refer to detail drawing)

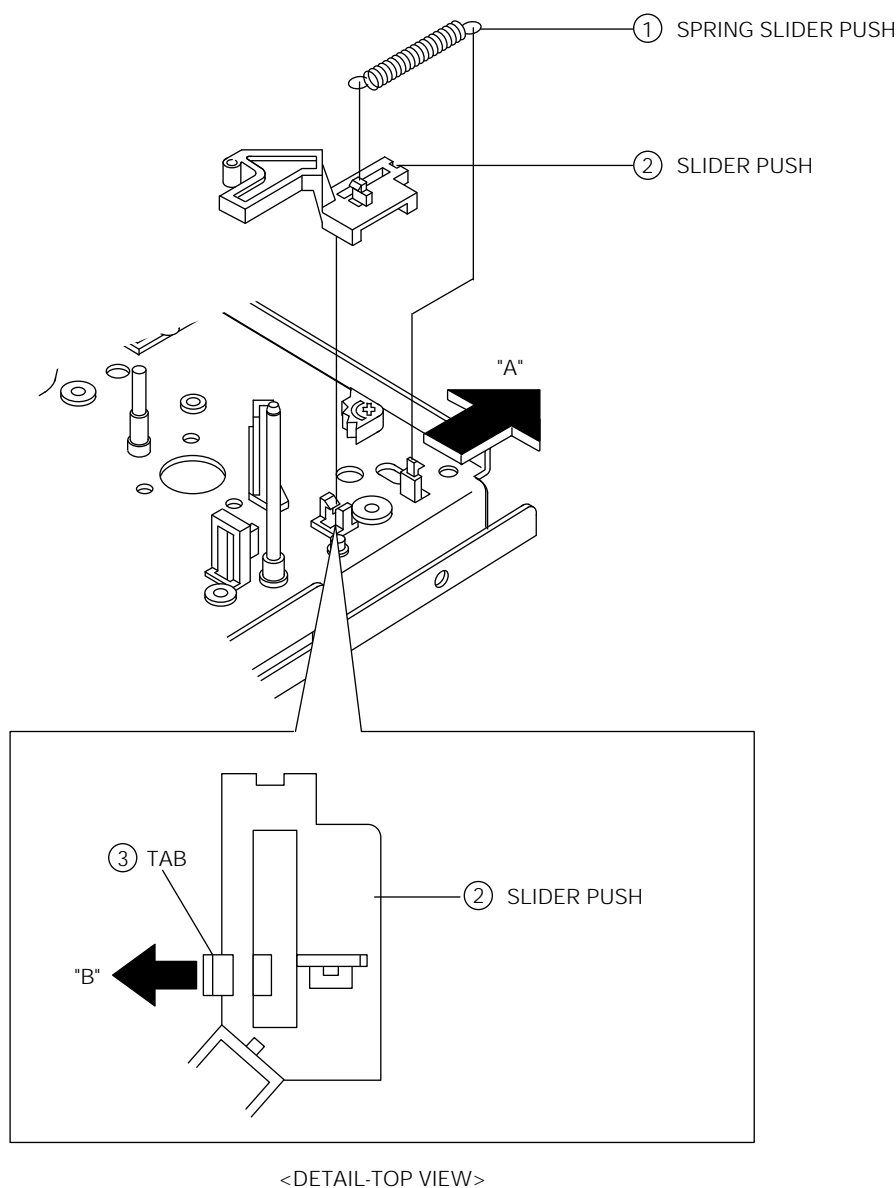


Fig. 1-54 Slide Push Removal

1-4-35 Prism LED Removal

1. Release the tab ① in the direction of arrow. (Refer to detail drawing)
2. Lift the LED Prism ②.

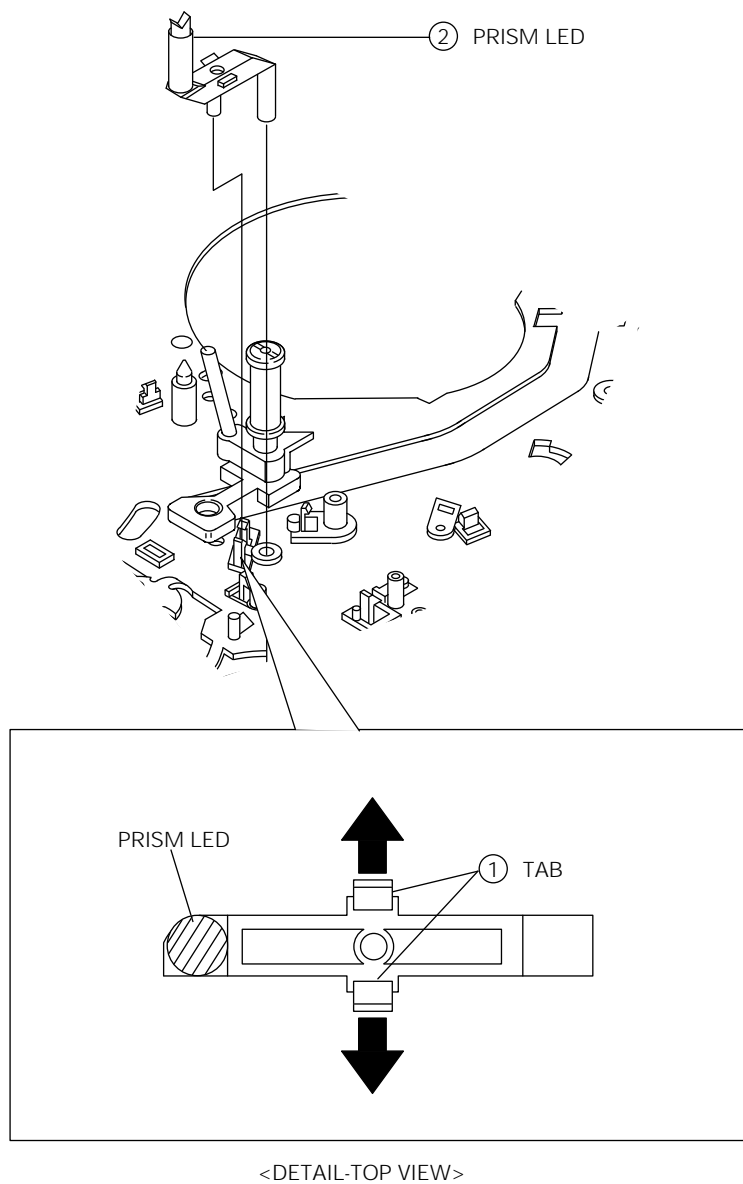


Fig. 1-55 Prism LED Removal

1-4-36 Lever Record Switch Removal

1. Remove the Record Switch Spring ①.
2. Release the tab ② in the direction of arrow. (Refer to detail drawing)
3. Lift the Record Switch Lever ③.

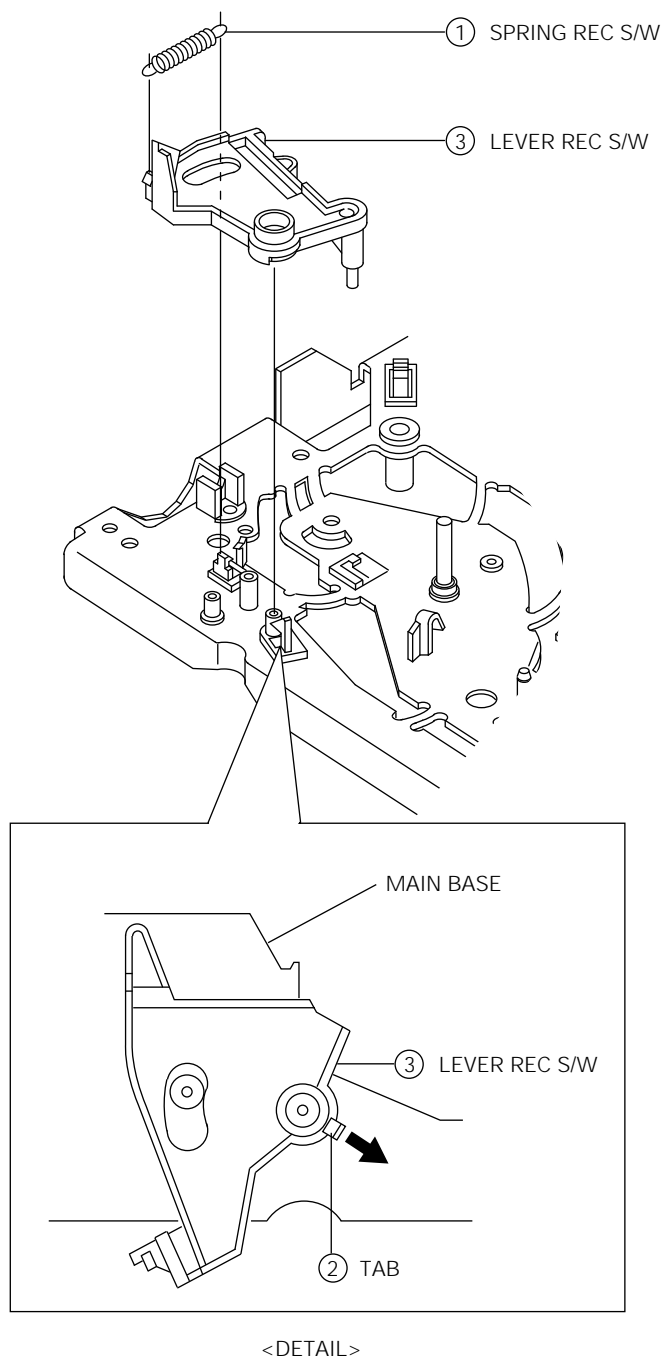


Fig. 1-56 Lever Record Switch Removal

1-4-37 Full Erase Head Removal

1. Remove 1 Screw ①.
2. Lift the F/E Magnet Head ②.

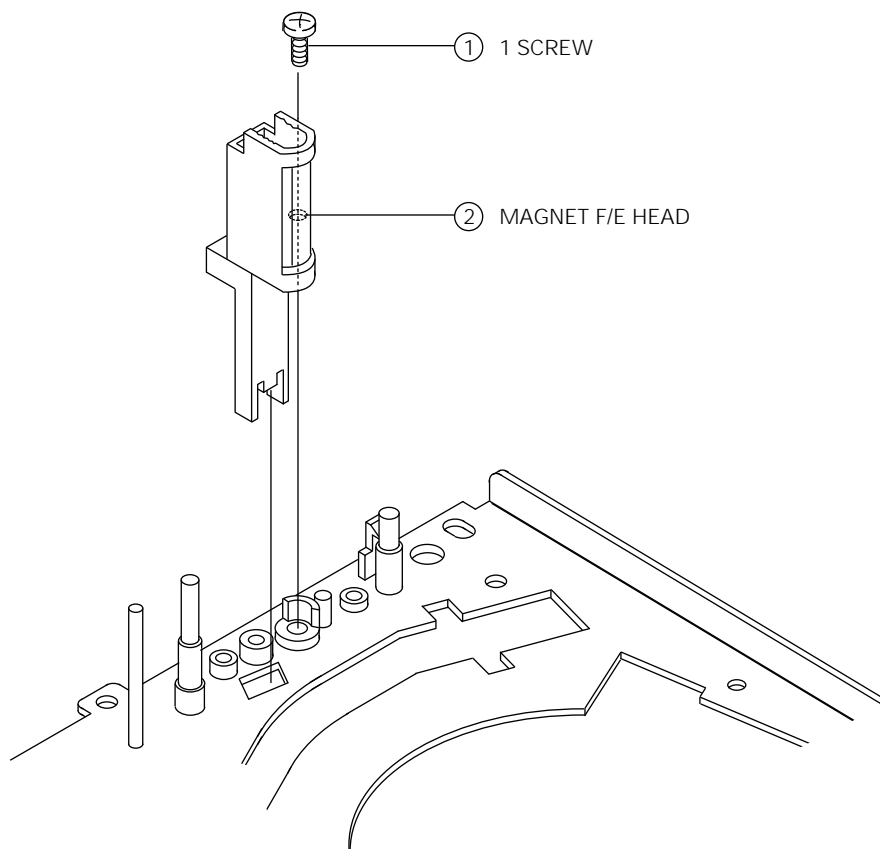


Fig. 1-57 Full Erase Head Removal

1-4-38 ACE Head Removal and Reassembly

1. Release the tab ① holding ACE Holder toward arrow. (Refer to detail drawing A)
2. Remove 1 Screw ②.
3. Lift the ACE Head Ass'y Magnet ③.

Assembly : When reinstalling, be sure to align the 3 teeth of X-Position adjustment gear with the 2 slot of ACE Head Base.

Note : When adjusting the X-Position adjustment gear using (+) driver, do not adjust by force.

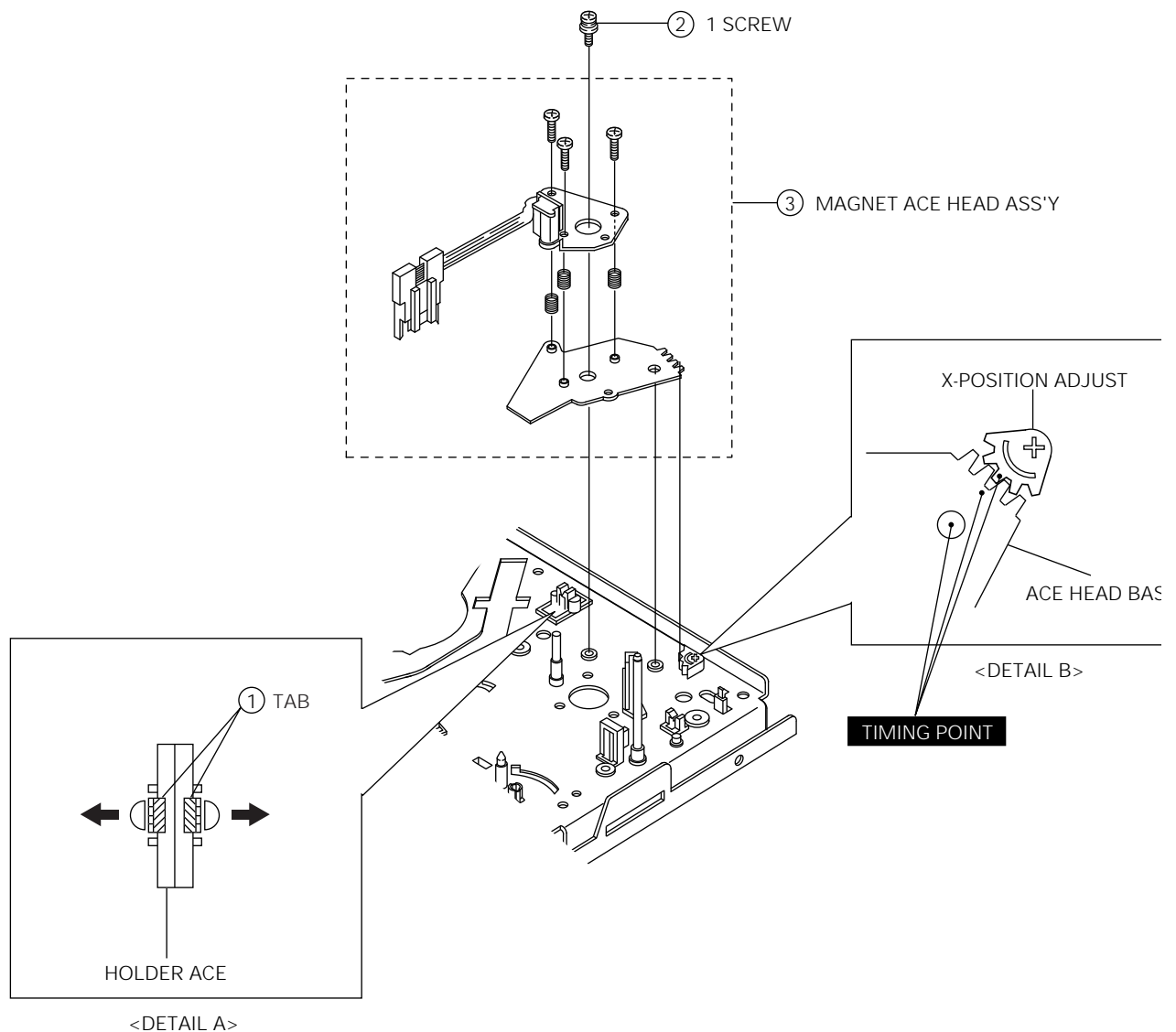


Fig. 1-58 ACE Head Ass'y Removal and Reassembly

1-4-39 Slide Guide Roller "S", "T" Ass'y Removal

1. Remove the Cylinder Ass'y from the Main Base. (Refer to Fig. 1-12, 1-13, 1-14)
2. Remove the Slide "S", "T" from the Loading "L", "R" Gear Ass'y. (Refer to Fig. 1-52)
3. Move the Roller "S", "T" Guide Ass'y to slot and then lift it to remove. (Refer to arrow)

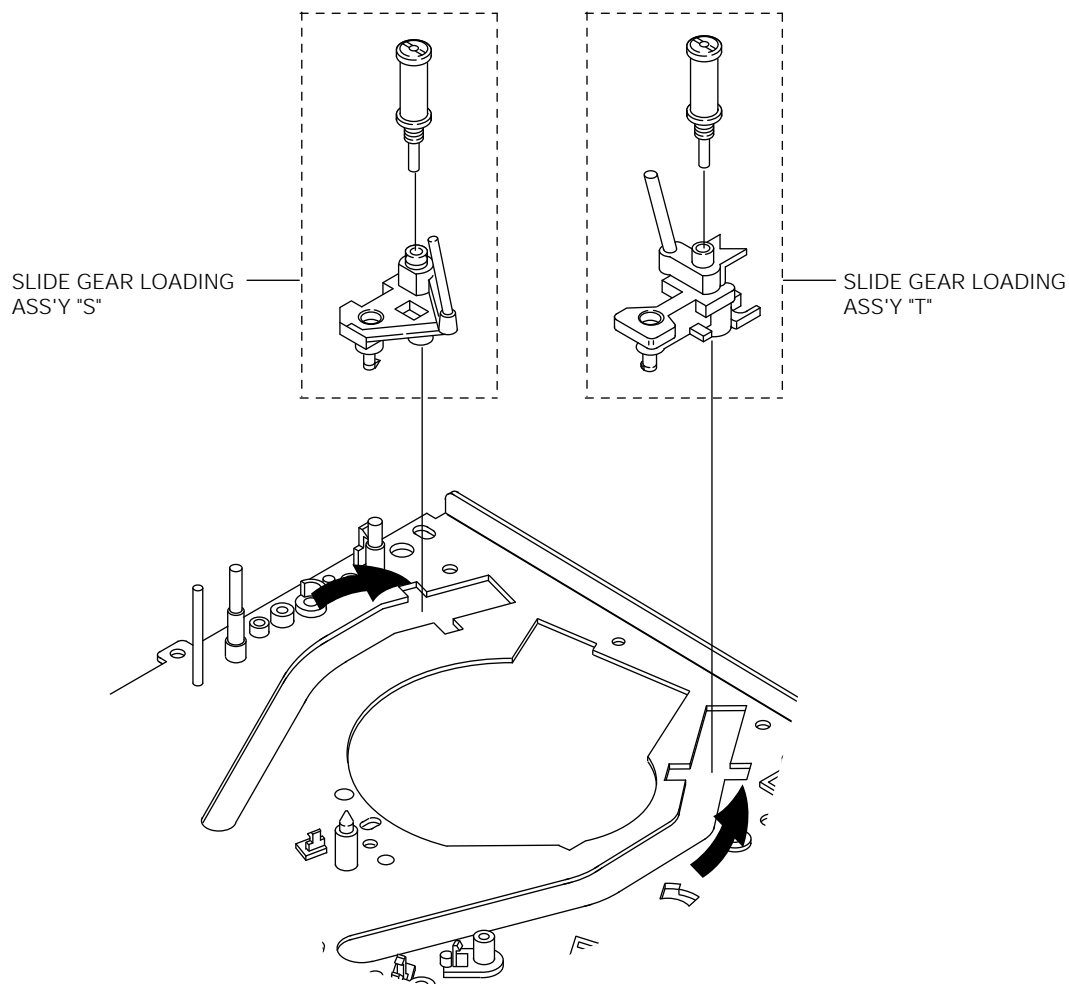


Fig. 1-59 Slide Guide Roller "S", "T" Ass'y Removal

1-4-40 Assembly of Slide Guide Roller "S", "T" Ass'y (When all parts except the Cylinder Ass'y are removed.)

1. Push 4 Lever Locks ① of the Housing Ass'y Simultaneously. (Refer to Fig. 1-60)
2. Push the Cassette Ass'y Holder ③ toward arrow "B" while turning the Master Gear ② toward arrow "A".
(Refer to Fig. 1-60)
3. Load the Loading L, R Gear Ass'y ④, ⑤ to the middle position of Guide Rail by turning the Master Gear ② toward arrow "A". (Refer to Fig. 1-60, 1-61)
4. Install the Guide Roller S, T Slide ⑥, ⑦ into the Rail slot and then move it to the position of Loading Gear L, R Ass'y ④, ⑤. (Refer to Fig. 61)
5. Turn the Master Gear ② toward arrow "A". (Eject mode)

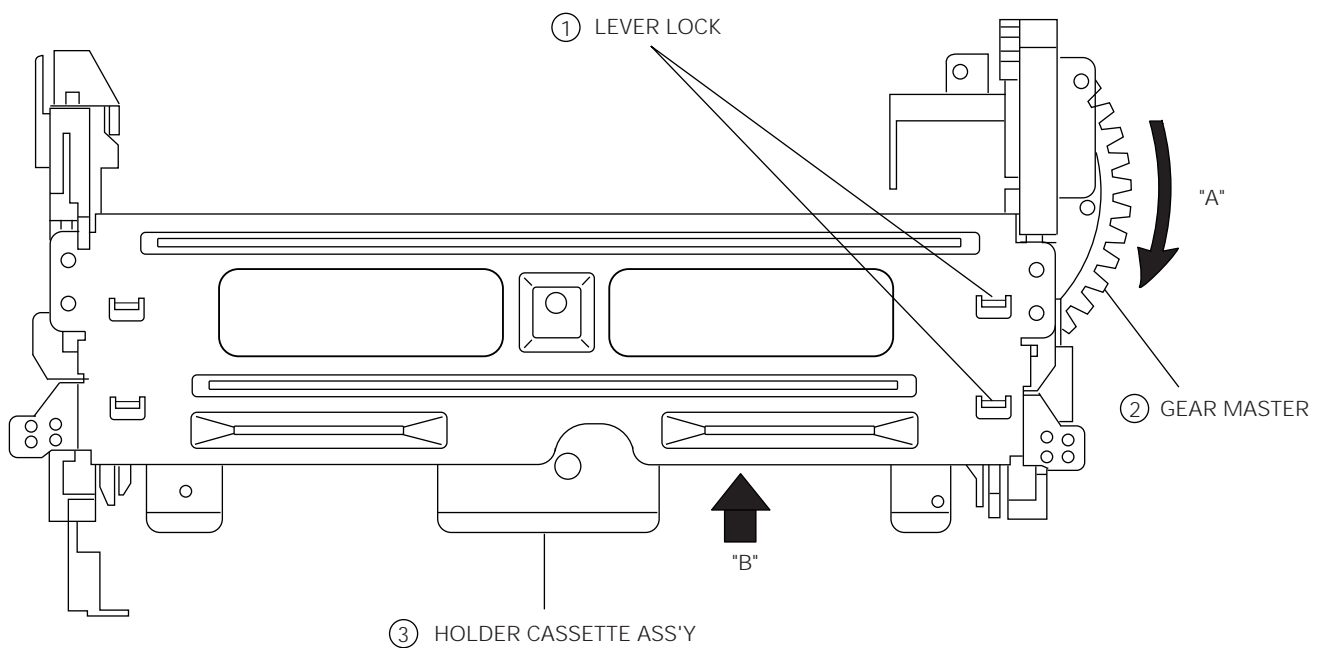


Fig.1-60 How to operate the Housing Ass'y

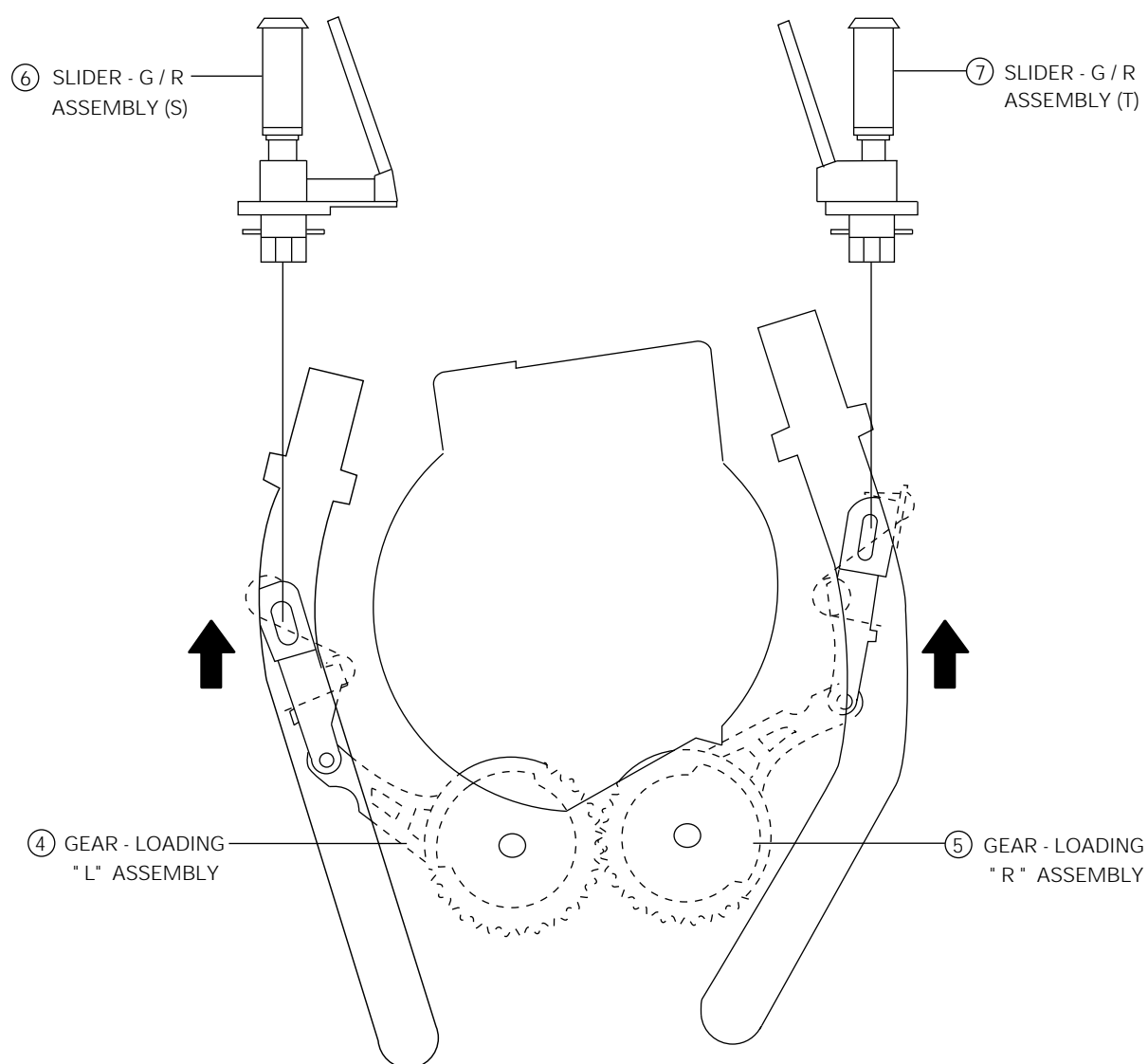


Fig. 1-61 Assembly of Slide Guide Roller "S", "T" Ass'y

1-5 Cleaning and Lubrication

1-5-1 Cleaning Tape Mechanism

Periodic cleaning of the tape mechanism is necessary. To clean the following parts, use patch and solvent :

1. Capstan Shaft
2. All tape guide posts
3. Clutch Pulley
4. Pinch roller
5. Belt Capstan
6. Capstan Motor Pulley

1-5-2 Cleaning of Rotating and Stationary Heads

To clean video heads, full erase head, and the audio/control (A/C) head we recommend using a head cleaning kit and solvent.

Note : When cleaning video heads, move the cleaning stick in the direction of head rotation (wiping in a vertical direction may damage the heads.)

Press a chamois cloth which has been dipped in cleaning fluid lightly against the rotating Cylinder Ass'y. Clean slowly by rotating the Upper Cylinder Ass'y by hand.

Note : Never turn the Motor on when cleaning.

1-5-3 Lubrication of Tape Mechanism

The tape transport mechanism is properly lubricated at the factory. In normal use cycles, and with average environmental conditions, additional lubrication should not be required during the first year of operation.

Depending on the frequency of use and environmental conditions, periodic lubrication may be required. When lubricating, first remove the old lubricant, then sparingly apply new lubricant. Excessive lubricant is transferred to other assemblies, malfunction will result.

Use grease on the following parts every 1,000 hours. (See exploded view for location) :

1. Between base pole assembly (L, R) and main base
2. Gear Loading L, R
3. Slide Main
4. Lever Shift
5. Gear Master
6. Lever Slide Pinch
7. Pinch Roller
8. Slide Pinch
9. Base Cylinder

Oil may be required for the following parts after 1,000 hours. (See exploded view for location) :

Main Base

1. Arm Tension molding
2. Shaft Reel Disk L, R
3. Shaft Gear Relay S, T
4. Shaft Idler
5. Shaft Clutch

Other parts which are not listed above do not require lubrication, except when parts are replaced. Use appropriate oil or grease as indicated on the exploded view.

THE ASSEMBLY PROCEDURES OF DECK PARTS

NO	DESCRIPTION	SUBPARTS	LOCATE	REMARK
1	BASE MAIN ASS'Y	GREASE	TOP VIEW	
2	MOTOR D.D CAPSTAN	3 SCREWS	TOP VIEW	
3	LEVER JOG ASS'Y	1 SCREW	TOP VIEW	DX8-A/DX8-AC
4	GEAR RELAY "S" ASS'Y	1 WASHER SLIT	TOP VIEW	
5	GEAR RELAY "T" ASS'Y	1 WASHER SLIT	TOP VIEW	
6	IDLER ASS'Y	1 WASHER SLIT	TOP VIEW	
7	REEL DISK "L" ASS'Y	1 WASHER PLAIN	TOP VIEW	
8	REEL DISK "R" ASS'Y	1 WASHER PLAIN	TOP VIEW	
9	ARM TENSION FULL ASS'Y		TOP VIEW	
10	SLIDE G/R ASS'Y (S)		TOP VIEW	
11	SLIDE G/R ASS'Y (T)		TOP VIEW	
12	SLIDE PUSH		TOP VIEW	
13	SLIDER PINCH	GREASE	TOP VIEW	
14	GEAR LOADING "L" ASS'Y		BOTTOM VIEW	
15	GEAR LOADING "R" ASS'Y		BOTTOM VIEW	
16	LEVER IDLER CHANGE		BOTTOM VIEW	
17	LEVER SHIFT ASS'Y	SPRING GUIDE	BOTTOM VIEW	
18	SLIDER MAIN	1 WASHER SLIT	BOTTOM VIEW	
19	LEVER SLIDER PINCH	1 WASHER SLIT	BOTTOM VIEW	
20	CLUTCH ASS'Y	1 WASHER SLIT, PLAIN	BOTTOM VIEW	
21	BRAKE CAPSTAN ASS'Y		BOTTOM VIEW	
22	SPRING BRAKE CAPSTAN		BOTTOM VIEW	
23	UNIT LOADING	2 SCREWS	BOTTOM VIEW	
24	GEAR MASTER	1 WASHER SLIT	BOTTOM VIEW	
25	BELT CAPSTAN		BOTTOM VIEW	
26	LEVER REVIEW		TOP VIEW	
27	ARM REVIEW ASS'Y		TOP VIEW	
28	LEVER PINCH CAM		TOP VIEW	
29	LEVER PINCH COMP ASS'Y		TOP VIEW	
30	SPRING ARM PINCH		TOP VIEW	
31	UNIT PINCH ROLLER	1 WASHER SLIT	TOP VIEW	
32	BRAKE MAIN "L" ASS'Y		TOP VIEW	
33	BRAKE MAIN "R" ASS'Y		TOP VIEW	
34	SPRING BRAKE MAIN		TOP VIEW	
35	BRAKE SUB "L" ASS'Y		TOP VIEW	
36	BRAKE SUB "R" ASS'Y		TOP VIEW	
37	SPRING BRAKE SUB "L"		TOP VIEW	
38	SPRING BRAKE SUB "R"		TOP VIEW	

NO	DESCRIPTION	SUBPARTS	LOCATE	REMARK
39	PRISM LED		TOP VIEW	
40	SLIDER RACK HOUSING		TOP VIEW	
41	LEVER REC S/W		TOP VIEW	
42	SPRING REC S/W		TOP VIEW	
43	SPRING TENSION		TOP VIEW	
44	SPRING SLIDE PUSH		TOP VIEW	
45	MAGNET ACE HEAD ASS'Y	1 SCREW	TOP VIEW	
46	HOUSING ASS'Y	3 SCREWS	TOP VIEW	
47	CYLINDER ASS'Y	3 SCREWS	TOP VIEW	
48	MAGNET F/E HEAD	1 SCREW	TOP VIEW	
49	STOPPER TAPE		TOP VIEW	DX7-A/DX8-A
	HEAD CLEANER ASS'Y		TOP VIEW	DX7-AC/DX8-AC

Note: Stopper tape has deleted from JAN.1998

MEMO

2. Alignment and Adjustment

2-1 Tape Transport System and Adjustment Locations

The tape transport system has been adjusted precisely in the factory. Alignment is not necessary except for the following :

1. Noise observed on the screen.
2. Tape damage.
3. Parts replacement in the tape transport system.

Lower flange height of tape guide is used as the reference for the transport adjustment.

To maintain the height of the tape guide and prevent damage, do not apply excessive force onto the main base.

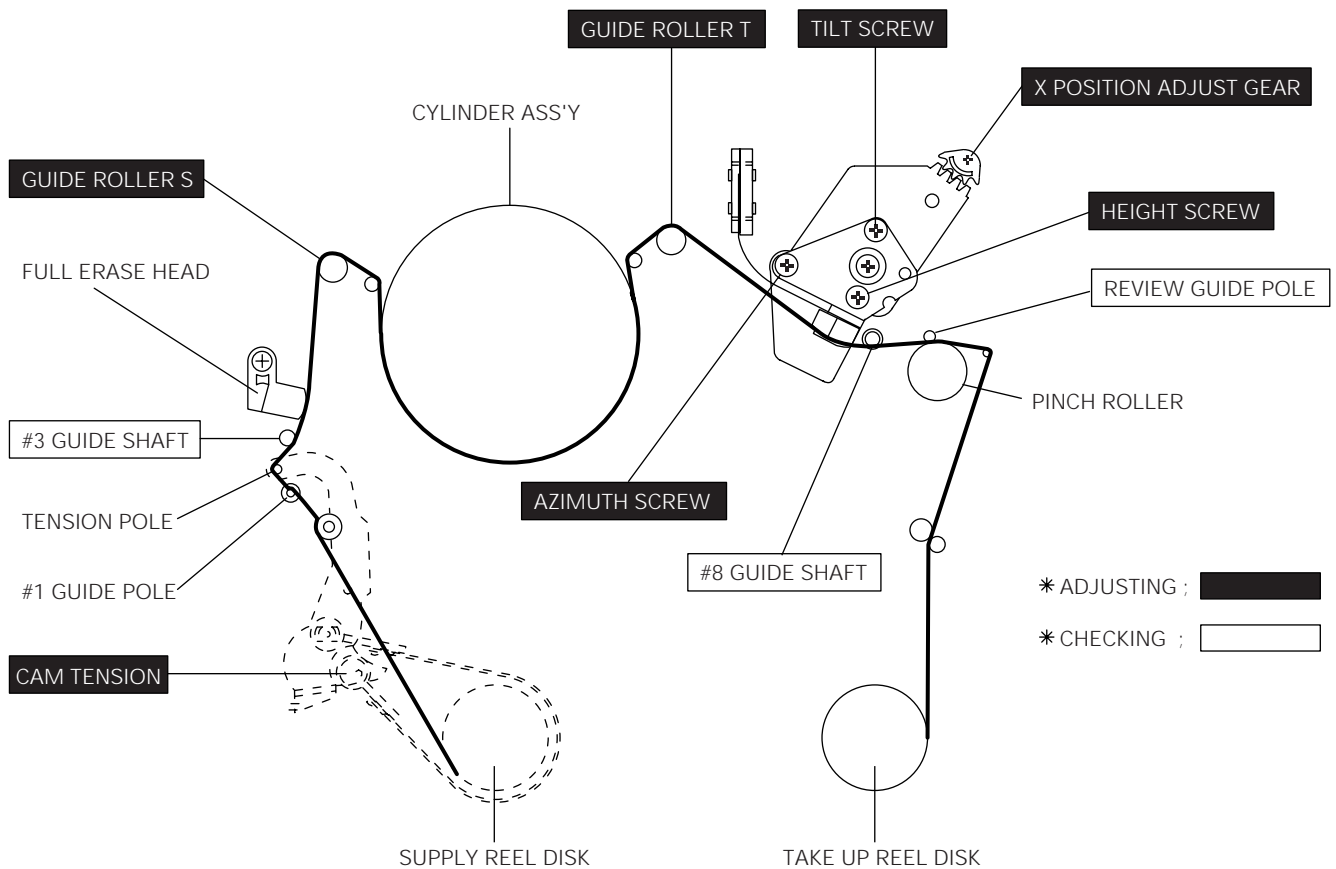


Fig. 2-1 Location of Tape Transport Adjustment

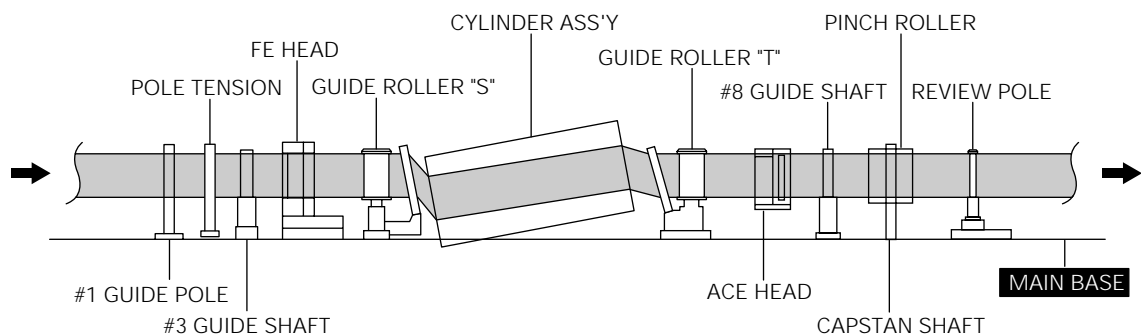


Fig. 2-2 Tape Travel Diagram

2-2 Tape Transport System Adjustment

When parts are replaced, perform the required adjustments by referring to procedures for the tape transport system. If there are any changes to the tape path, first run a T-120 (E-180) tape and make sure excessive tape wrinkle does not occur at the tape guides.

1. If tape wrinkle is observed at the S, T-guide rollers, turn the S, T-guide rollers until wrinkle disappears.
2. If the tape wrinkle is still observed at the tape guide, perform the tilt adjustment of the A/C head.
(See page 5-1 of the Service Manual for Test Point Locations.)

2-2-1 A/C Head Assembly Adjustment

2-2-1 (a) A/C HEAD HEIGHT ADJUSTMENT

- 1) Run the alignment tape (Color bar) in the playback mode.
- 2) Observe surface of the audio head using a dental mirror.
- 3) Turn screw (A), (B), (C) clockwise or counterclockwise until the gap of lower tape edge and the lower edge of the control head is about 0.25mm. (Refer to Fig. 2-3 and 2-4)

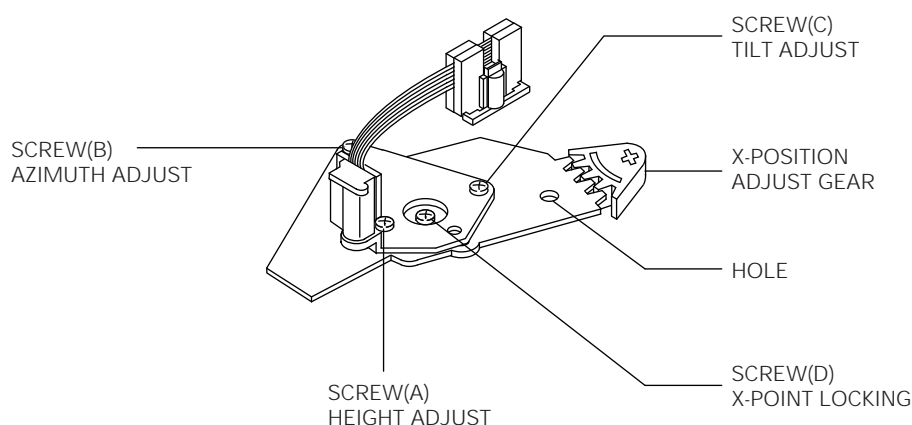


Fig. 2-3 Location of A/C Head Adjustment Screw

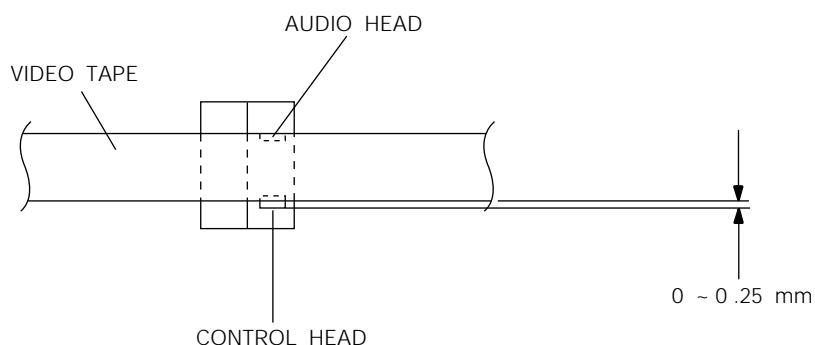


Fig. 2-4 A/C Head Height Adjustment

2-2-1 (b) A/C HEAD TILT ADJUSTMENT

1. Playback a T160 (E-240) tape and observe the position of the tape at the lower flange of tape guide.
2. Confirm that there is no curl or wrinkle at the lower flange of tape guide as shown in Fig.2- 5 (B)
3. If a curl or wrinkle of the tape occurs, slightly turn the screw (C) tilt adjust on the A/C Head ass'y.
4. Reconfirm the A/C head height.

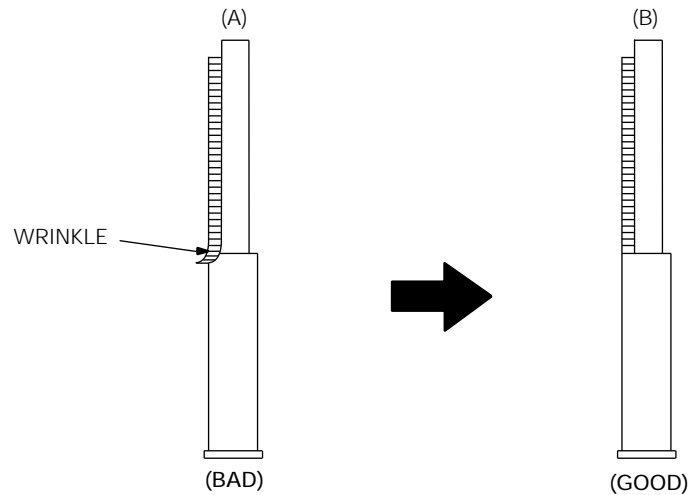


Fig. 2-5 Tape Guide Check

2-2-1 (c) AUDIO AZIMUTH ADJUSTMENT

1. Load alignment tape (Mono scope) and playback the NTSC : 7KHz (PAL : 6KHz) signal.
2. Connect channel-1 scope probe to audio output test point.
3. Adjust screw (B) to achieve maximum audio level. (See Fig. 2-3)

2-2-1 (d) A/C HEAD POSITION (X-POINT) ADJUSTMENT

1. See page 5-2 of the Service Manual for A/C Head position (X-Point) adjustment.

2-2-2 Linearity adjustment (S, T-guide rollers adjustment)

1. Playback the Mono Scope alignment tape (SP mode).
2. Observe the video envelope signal on an oscilloscope (triggered by the video switching pulse).
3. Make sure the video envelope waveform (at its minimum) meets the specification shown in Fig. 2-6.
If it does not, adjust as follows :

Note : a=Maximum output of the video RF envelope.
b=Minimum output of the video RF envelope at the entrance side.
c=Minimum output of the video RF envelope at the center point.
d=Maximum output of the video RF envelope at the exit side.

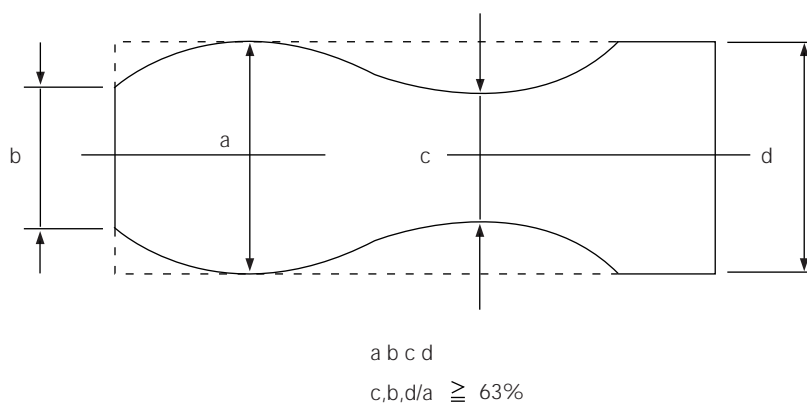


Fig. 2-6 Envelope Waveform Adjustment

4. If the section A in Fig. 2-7 does not meet the specification, adjust the S-guide roller up or down.
5. If the section B in Fig. 2-7 does not meet the specification, adjust T-guide roller up or down.

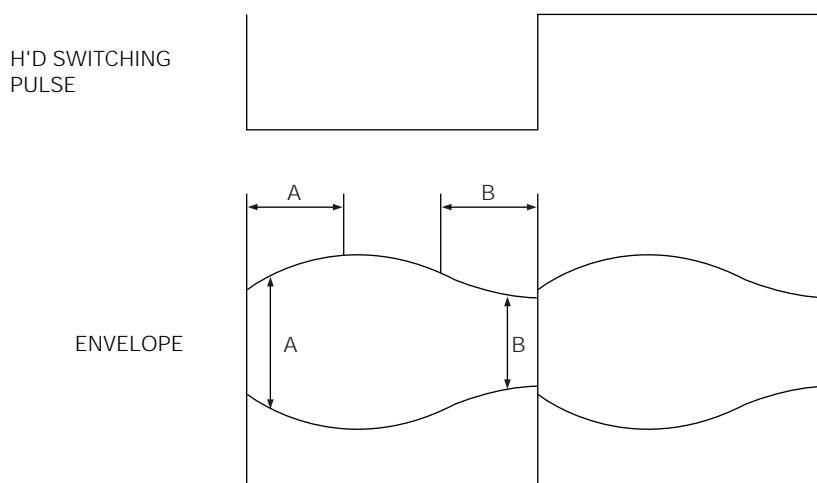



Fig. 2-7 Adjustment Points

6. Play back the Mono Scope alignment tape (SP mode).
7. Connect an oscilloscope CH-1 to the Envelope and CH-2 to the H'D SW Pulse for triggering.
8. Turn the guide roller heads with a flat head () driver to obtain a flat video RF envelope as shown in Fig. 2-8.
9. After the adjustment is completed, tighten the set screws.

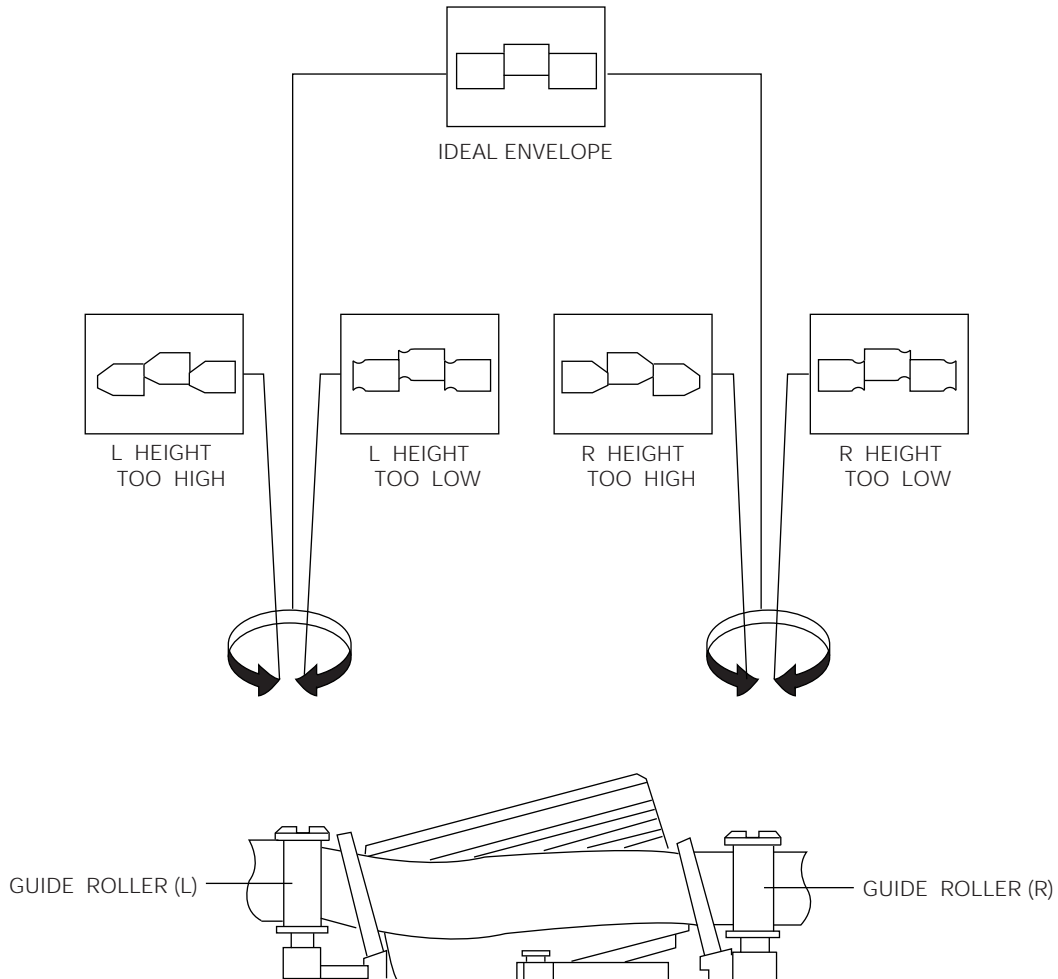


Fig. 2-8 S, T-Guide Roller Height Adjustment

2-2-3 Check Transitional Operation from RPS to Play

Check transition from RPS mode to play mode : Using a pre-recorded SP tape, make sure the entry side of envelope comes to an appropriate steady state within 3 seconds (as shown in Fig. 2-9). If the envelope waveform does not reach specified peak-to-peak amplitude within 3 seconds, adjust as follows :

1. Make sure there is no gap between the supply roller lower flange and the tape.
If there is a gap, adjust the supply guide roller again.
2. Change operation mode from the RPS to the play mode (again) and make sure the entry side of envelope rises within 3 second.

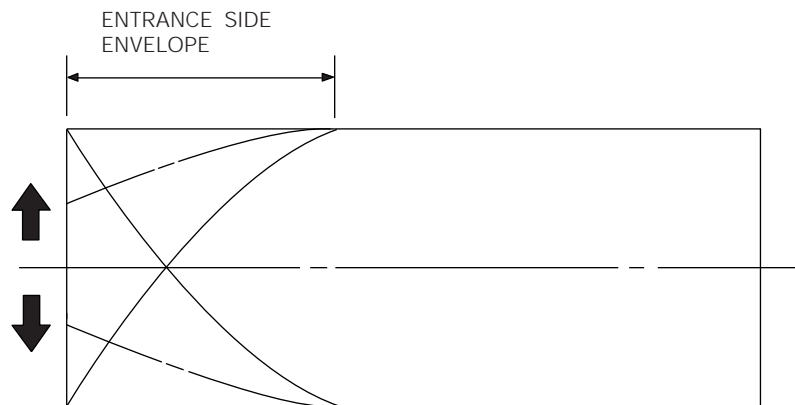


Fig. 2-9 Video Envelope Rising when Operation mode Changes from RPS to Play Mode

2-2-4 Envelope Check

1. Make recordings on T-120 (E-120) and T-160 (E-180) tape. Make sure the playback output envelope meets the specification as shown in Fig. 2-10.
2. Play back a self recorded tape (recording made on the unit using with T-120, E-120). The video envelope should meet the specification as shown in Fig. 2-10. In SP mode, (A) should equal (B).
If the head gap is wide, upper cylinder should be checked.

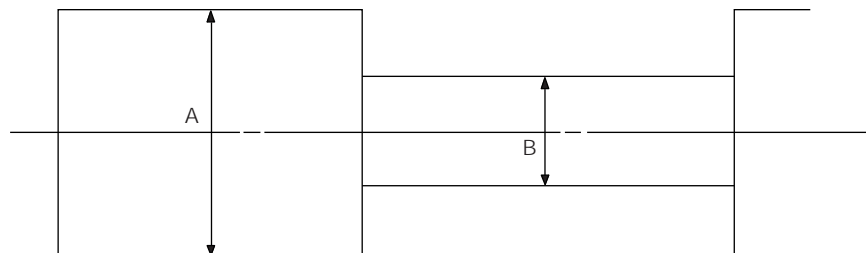


Fig. 2-10 Envelope Output and Output Level

2-2-5 Tape Wrinkle Check

1. Run the T-160 (E-240) tape in the playback, FPS, RPS and Pause modes and observe tape wrinkle at each guide.
2. If excessive tape wrinkle is observed, perform the following adjustments in Playback mode :

- ◆ Tape wrinkle at the S, T-guide roller section : Linearity adjustment.
- ◆ Tape wrinkle at tape guide flange : A/C head assembly coarse adjustment.

2-3 Reel Torque

2-3-1 Reel Torque

1. The rotation of the capstan motor drives the clutch ass'y through the capstan motor belt.
2. Brake operation and shift operation in FF/REW are done by a leverslide.
3. Transportation of accurate driving force is done by gears (clutch ass'y).

Note : If the spec does not meet the followings specifications, replace the clutch ass'y and then recheck.

MODE	TORQUE g/cm	GAUGE
PB/REC	100 ± 30	Cassette Torquemeter
RPS	170 ± 30	Cassette Torquemeter
FF/REW	Minimum 600	Torque Gauge

2-3-2 Location of Tension Pole and Back Tension Adjustments

1. Remove the housing ass'y and set the deck to "PLAY" mode.
2. Adjust the tension cam to $0 \sim -0.5\text{mm}$ from the center of supply roller.
3. The back tension meter should read $41 \sim 51\text{g.cm}$. (PAL : $40 \sim 47\text{g.cm}$)

Counterclockwise : Torque UP
Clockwise : Torque DOWN

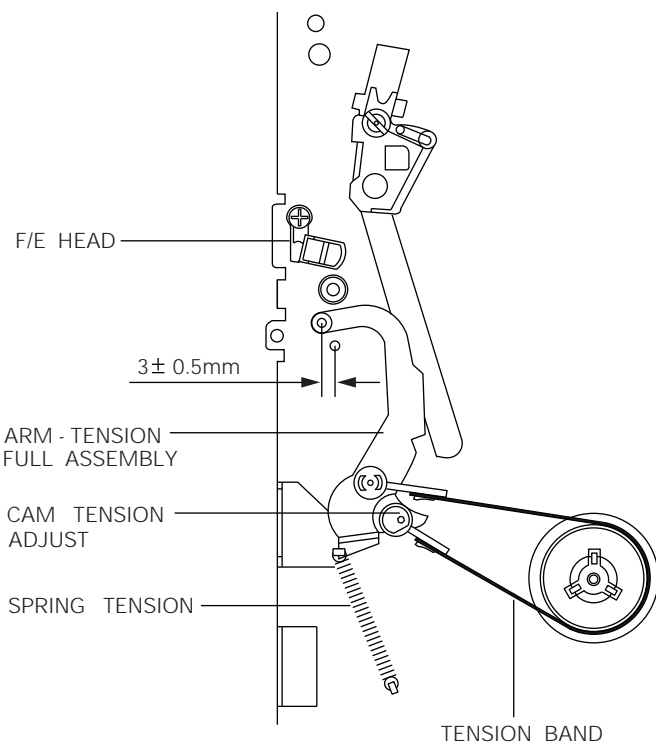


Fig. 2-11 Tension Pole and Back Tension Adjustment

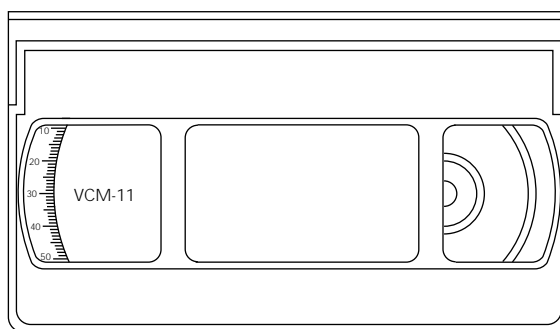


Fig. 2-12 Back Tension Tape Torque Cassette