



HITACHI

VD Mechanism
for D-550/720/850/900
SDT-9600/9610/7785

SERVICE MANUAL

English

No. 1081

Servicing has previously been dealt with in "HITACHI SERVICE BULLETIN".
This service manual has been prepared to show symptoms of faults and their causes and remedies.
This manual should be used when any malfunction occurs.

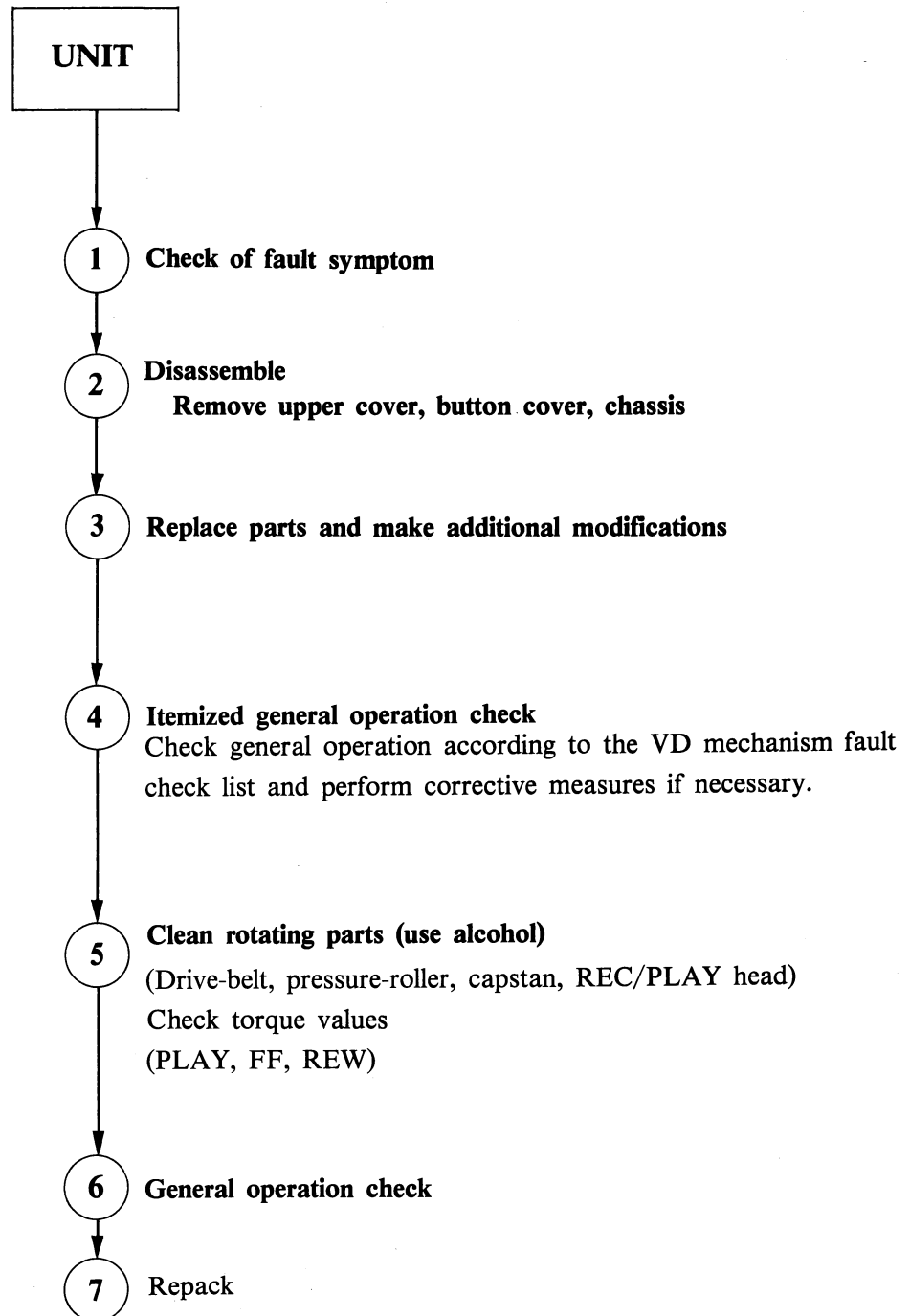
CONTENTS

1. VD Mechanism (D-550, etc.) Servicing Procedure	2
2. Details of General Up-Date Modifications	3
3. Itemized Fault Check List	4-6
4. Adjustment Reference Diagram	7-10
5. Related Service Bulletins	11-25
6. Parts List after Change (Extract)	26

TAPE DECK MECHANISM

July. 1978

VD MECHANISM (D-550, ETC) SERVICING PROCEDURE



DETAILS OF GENERAL UP-DATE MODIFICATIONS

1. Details of work

	Details of Work	D-550	D-720	D-850	SDT-9600	SDT-9610	SDT-7785	D-900	Serial No. Applicable (Upper 3 Digits)
1	Replace Gear plate ass'y	—	○	—	—	—	—	—	On and before 705XXXXX
2	Replace Auto stop control plate and spring	—	○	—	—	—	—	—	Only 704XXXXX
3	Replace Power assist set (3-parts)	○	○	—	○	○	○	—	On and before 711XXXXX
4	Add Ground plate	○	○	—	○	○	○	—	On and before 711XXXXX
5	Replace Brake rubber	○	○	—	○	○	○	—	Case of low brake torque on and before 804XXXXX
6	Loosen Head lead wire clamp	○	○	—	○	○	○	—	On and before 802XXXXX
7	Replace Auto stop control spring and Take up reel ass'y	—	—	—	—	—	—	○	When abnormal sound produced in STOP mode.

2. Clean

- a) Drive-belt
- b) Pressure roller
- c) Capstan
- d) REC/PLAY head

3. Check torque

- a) Take-up torque (PLAY)
- b) FF/REW torque

4. General operation check

Check operation according to the itemized fault check list.

ITEMIZED FAULT CHECK LIST

ITEM	SYMPTOM	CAUSE	REMEDY
A. Head Plate Operation Check PLAY ↔ STOP			
— Does the head plate operate when the power is turned ON, after the PLAY button is locked on with the power OFF. —			
1.	Head plate does not rise.	1) Oil on belt which slips on motor pulley so fly-wheel does not rotate. (Head plate stops halfwayd.) 2) Restrict movement of head lead wire caused by wiring clamp. (Delay in time needed for complete lift.) 3) Power assist mechanism does not operate (from the start).	1) Clean motor pulley, belt. 2) Loosen wiring clamp. Replace head plate SPR. 3) Replace power assist drive parts. Power assist 3 part set: Playback gear: P#6348665 Playback arm: P#6741497 Gear moving arm: P#6741516
2.	Head plate and all operation buttons are locked.	1) PAUSE plate spring faulty. 2) Power assist mechanism operation faulty. 3) Sliding of lock plate (1) faulty.	1) Adjust PAUSE plate spring. 2) Same as in A-1-3. 3) Correct deformation of lock plate (1), lubricate with oil, correct slide cover installation (Is the collar inserted?, Is there any deformation caused by over-tightening?).
3.	Head plate does not return.	1) Vertical movement of take-up gear is faulty. 2) Movement of head lead wire is faulty because of wiring clamp.	1) Replace gear plate. 2) Same as in A-1-2. Gear plate ass'y: P#6413004
4.	Head plate re-enters PLAY mode after return.	• Erroneous operation of head assist mechanism.	• Same as in A-1-3. Power assist 3 part set: Playback gear: P#6348665 Playback arm: P#6741497 Gear moving arm: P#6741516
5.	Resonant sound produced when head plate operates.	• Resonance of PLAY slider spring.	• Coat 'Froil' onto external circumference of SPR.
6.	Head plate does not lock and repeats vertical movement.	• Sliding movement of P lock plate faulty.	• Correct deformation of P lock plate and lubricate with oil. (See Fig. 1)
B. Play (REC) Operation Check			
— Check tape transport for abnormal sound with cassette inserted. —			
1.	Abnormal sound produced during PLAY. * Intermittent mechanical sound heard in quiet places during tape transportation.	1) Floating cam operation faulty (mechanical sound), F gear faulty, (squeaky sound). 2) Knocking sound produced between reel clutch and cassette hub.	1) Replace gear plate. 2) Replace gear plate. Gear plate ass'y: P#6413004
2.	Abnormal sound produced from sepafer during PLAY.	• Gear place is charging and discharging to chassis.	• Add ground plate. Ground plate: P#7450941
3.	Take-up of tape delayed, or	1) Take-up gear lift is faulty. 2) Take-up torque too small.	1) Replace gear plate. 2) Replace gear plate. Gear plate ass'y: P#6413004

ITEMIZED FAULT CHECK LIST

ITEM	SYMPTOM	CAUSE	REMEDY
B. Play (REC) Operation Check			
4.	Tape is scratched. Tape transport uneven.	1) Supply-side back-tension too small. 2) PAUSE lever and pressure roller arm touch each other, so tape drive force too small. 3) Pressure-roller arm ass'y faulty.	1) Correct back-tension plate (8 ~ 12g/cm) Fig. 2. 2) Replace PAUSE lever and P changeover arm. 3) Replace pressure-roller arm ass'y.
5.	Tape crushed.	1) Cassette holding faulty. 2) Pressure-roller arm ass'y faulty.	1) Correct cassette clamp spring. Fig. 5. 2) Same as in B-4-3.
6.	Squeaky sound produced in PAUSE ON/OFF.	• PAUSE changeover timing faulty.	• Replace PAUSE lever, P changeover arm.
7.	AUTO-STOP separate during REC.	• As arm stroke faulty.	• Replace gear palte. Gear plate ass'y P#6413004.
C. FF/REW OPERATION CHECK			
— Check operation and check for abnormal sound with C-60 tape inserted. (Pay attention to operation near the end of tape.) —			
1.	Abnormal sound during FF/REW. * Mechanical sound produced in FF/REW mode with cassette inserted (minor sounds such as the tape transport sound, etc.).	1) Gear pitches faulty (squeaks). 2) F gear faulty (Gear rotating sound). 3) AS control SSR slipped off.	1) Replace gear plate. 2) Replace gear plate. 3) Correct installation of AS control SPR. Gear plate ass'y: P#6413004 AS control plate: P#7295951 AS control spring: P#6308301
2.	FF/REW inoperative.	• Gear pitches faulty.	• Same as in C-1-1. Gear plate ass'y: P#6413004.
3.	Stops intermittently during REW operation.	• Floating cam faulty.	1) Replace gear plate. 2) Replace floating cam. Cost white grease onto floating cam. Gear plate ass'y: P#6413004
4.	Rotation speed changes during FF/REW operation.	1) Brake plate deformed and touches reel 2) Mounting of cassette faulty, causing slippage between clutch and hub.	1) Correct brake plate. (See Fig. 3) 2) Same as in B-5-1. (See Fig. 5.)
5.	Take-up reel rotates during REW operation.	• Take-up arm pin displaced from PAUSE lever notch.	• Insert it in normal position. (See Fig. 2.)
D. Auto-Stop Operation Check			
— Insert tape and check that it auto-stops at end of tape or when faulty, operates halfway. —			
1.	Does not auto-stop at PLAY/FF tape end.	• AS control spring slipped off.	• Same as in C-1-3. AS control plate: P#7295951 AS spring: P#6308301
2.	AUTO-STOP operates erroneously during PLAY/REW operation.	1) Sliding surfaces of floating arm and AS arm catching. 2) Brake plate caught.	1) Check gear plate. 2) Same as in C-4-1. Gear plate ass'y: P#6413004

ITEMIZED FAULT CHECK LIST

ITEM	SYMPTOM	CAUSE	REMEDY
E. Cassette Insertion/Ejection Operation Check			
— Check opening/closing of lid with cassette inserted. —			
1.	Cassette lid does not open smoothly.	1) Governor faulty. 2) S arm rubber peeled off.	1) Adjust governor SPR. Replace governor. 2) Reposition rubber. Cement both ends with Cemedyne 7000.
2.	Cassette lid does not open. Lid is locked and cassette cannot be removed.	1) Drive-belt slips due to oil. Head plate stops halfway. 2) PLAY locked and head plate stopped halfway.	1) Same as in A-1-1. 2) Same as in A-1-3. Pour assist 3 part set: Playback gear: P#6348665 Playback arm: P#6741497 Gear moving arm: P#6741516
3.	Cassette cannot be inserted completely and is lifted up.	1) Cassette clamp spring positioned incorrectly. (Right side displaced upward.) 2) Cassette guide shaft surface finish	1) Same as in B-5-1. (See Fig. 5.) 2) Coat a little silicone grease onto upper surface of guide shaft. See Fig. 5.)
F. Pause Operation Check			
— Supply power, insert cassette, and repeat PAUSE operation several times. —			
1.	Abnormal sound produced during PAUSE operation.	1) Take-up gear not released. 2) Floating cam operation faulty.	1) Replace PAUSE lever, P changeover arm. 2) Replace gear plate.
2.	When left in PAUSE mode, reel moves and tape slacks.	• Braking imperfect.	• Correct brake plate. Replace brake rubber. Brake rubber: P#6586072
3.	PAUSE button catches when relasing.	• PAUSE slider is caught by PAUSE plate spring.	• Coat grease onto PAUSE slider guide.
4.	Head plate does not lift after PAUSE is released.	1) Oil on belt, fly-wheel does not rotate. 2) Power assist mechanism operation faulty.	1) Same as in A-1-1. 2) Same as in A-1-3. Power assist 3 part set: Playback gear: P#6348665 Playback arm: P#6741497 Gear moving arm: P#6741516
5.	AUTO-STOP operates in PAUSE mode.	• AS control spring displaced.	• Same as in C-1-3. AS control plate: P#7295951 AS spring: P#630830
G. OTHERS			
1.	Transport uneven or inoperative.	1) Belt displaced due to oil. 2) Motor rubber cushion deformed or burrs touching belt.	1) Clean belt. 2) Reshape motor cushion.

ADJUSTMENT REFERENCE DIAGRAM

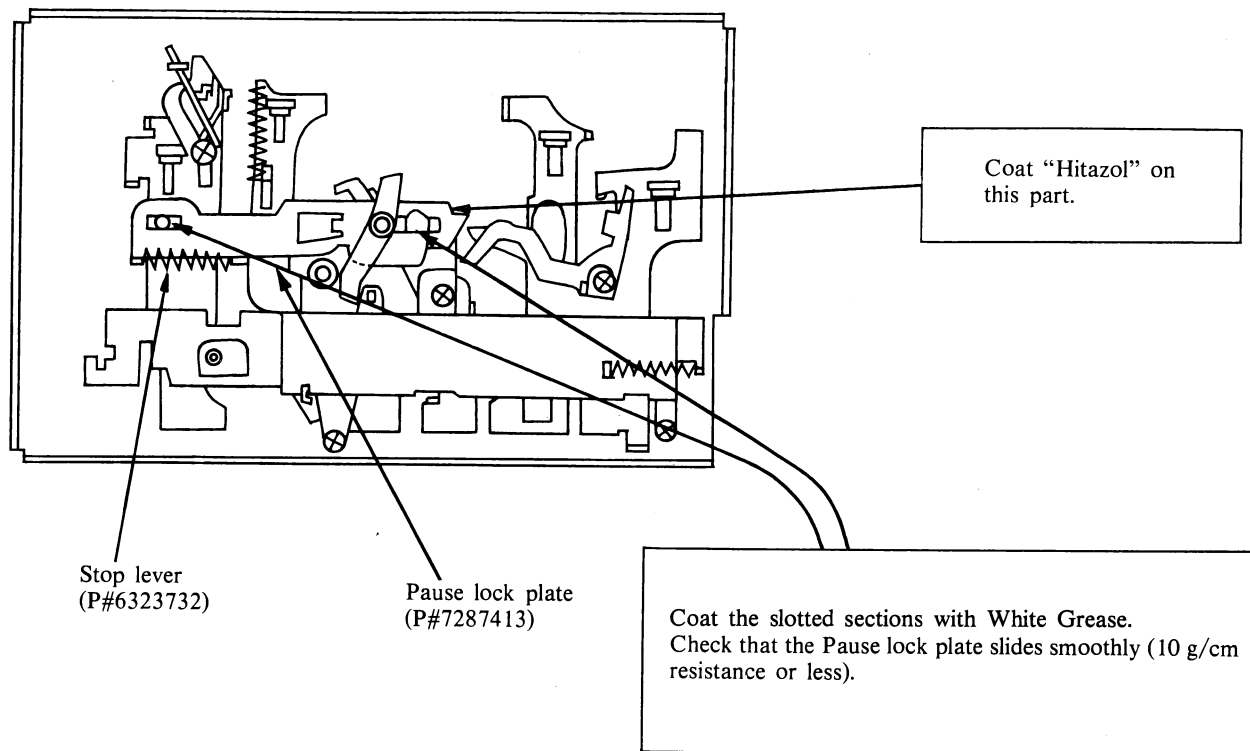
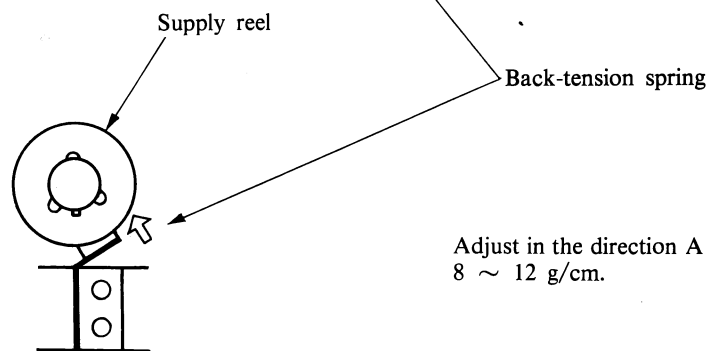
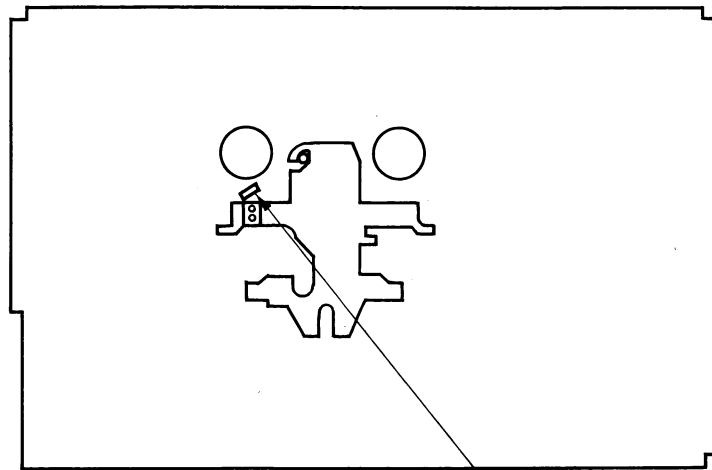


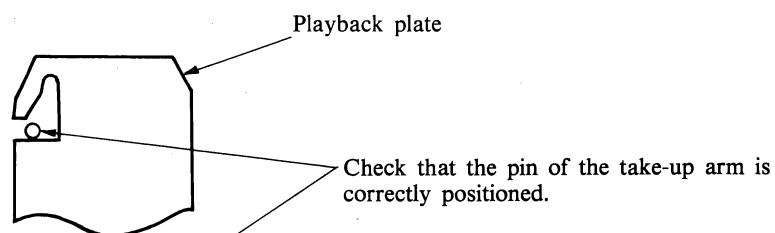
Fig. 1 Adjustment of Pause Lock Plate

(Related check item: A-6-1)

ADJUSTMENT REFERENCE DIAGRAM



■ Electric PAUSE Mechanism



■ Mechanical PAUSE Mechanism

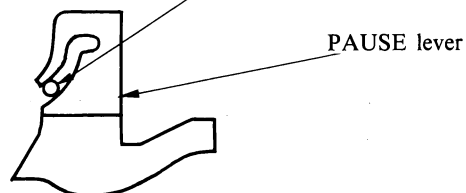
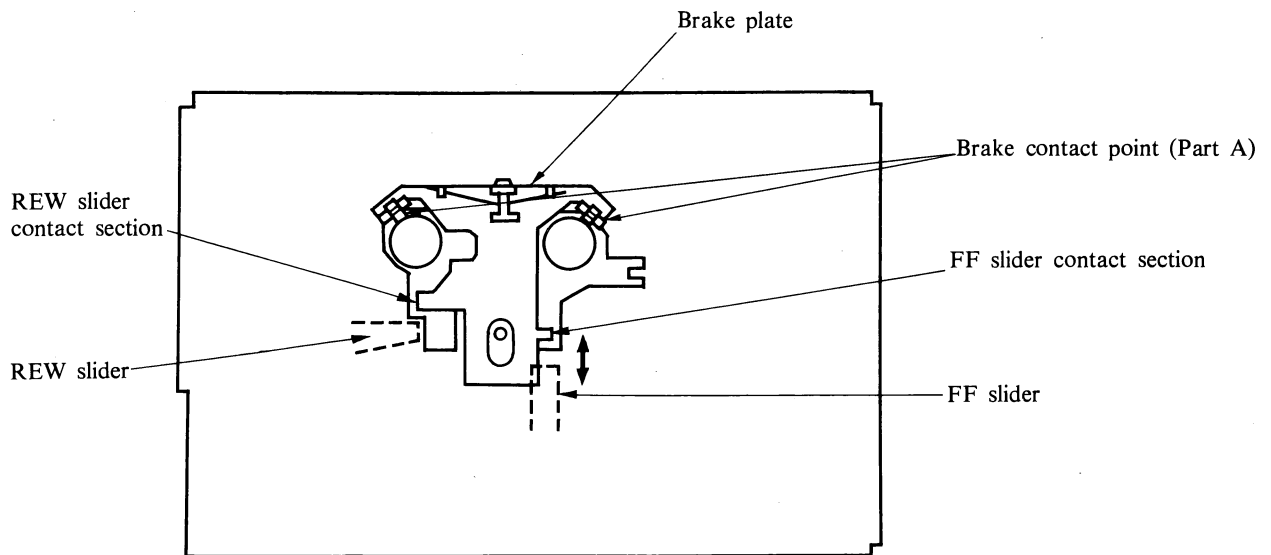


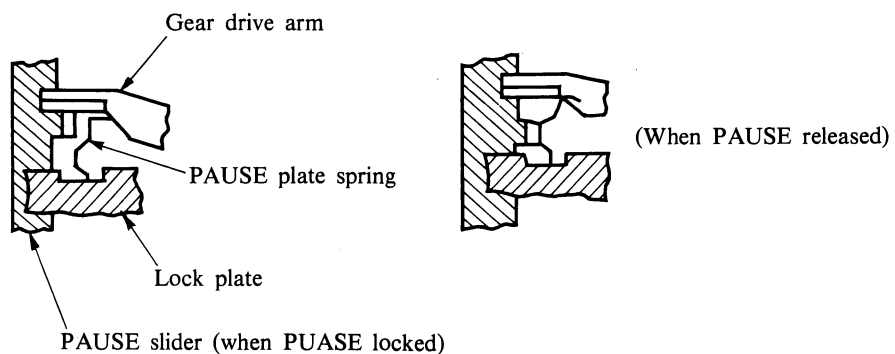
Fig. 2 Back-tension Adjustment
(Related check item: B-4-1, C-5-1)

ADJUSTMENT REFERENCE DIAGRAM



Check whether or not the parts of the brake, which are compressed and bent up by the FF slider, and REW slider are deformed. If deformed, remove them and correct. When the FF or REW button is depressed, there should be a gap of more than 0.5 mm at part A. Therefore check, that with a gap at part A and with the FF or REW button depressed, actuation of the STOP mode brings part A into positive contact.

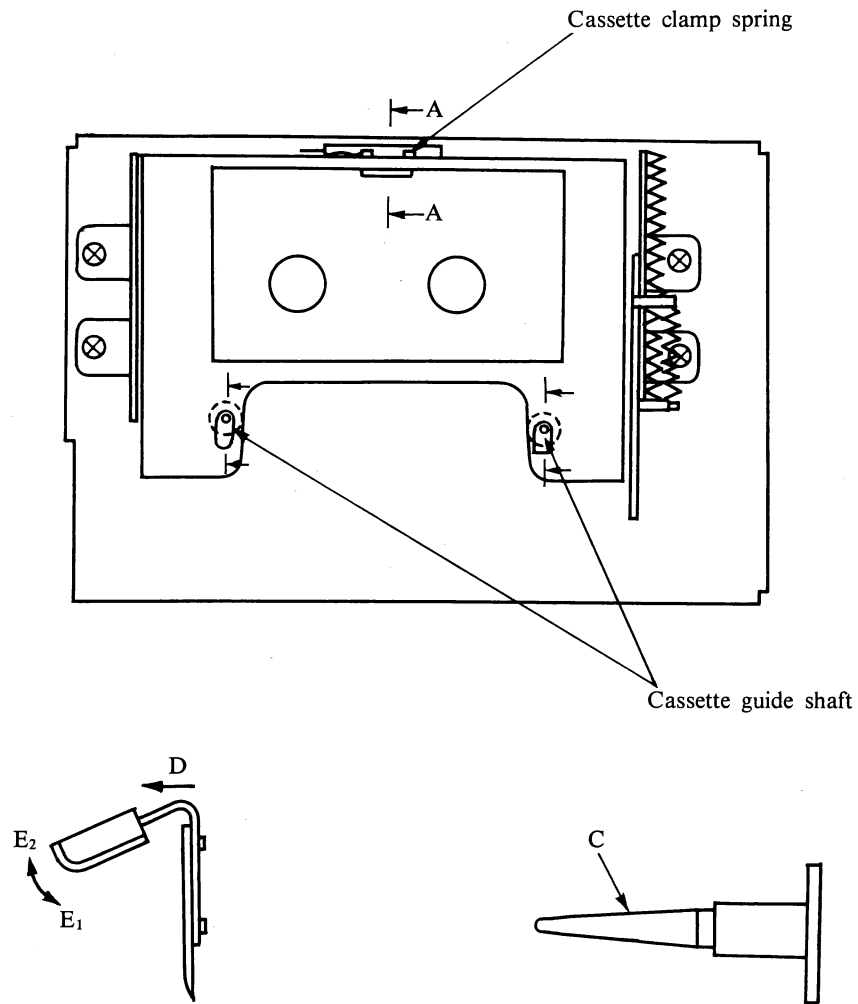
Fig. 3 Adjustment of Brake Plate
(Related check item: C-4-1)



The PAUSE plate spring must come away and the gear drive arm must be made inoperative temporarily.

Fig. 4 Pause Plate Spring Adjustment
(Related check item: A-2-1)

ADJUSTMENT REFERENCE DIAGRAM



Cassette clamp spring, section AA

When the top of the cassette cannot be inserted completely into the tray, bend the spring while lifting the cassette clamp spring in direction D.

When the cassette is caught by the cassette clamp spring and is retained during the EJECT operation with the cassette still inserted, this is because the spring is bent too much in direction E₁. Bend it slightly in direction E₂.

Cassette guide shaft, section BB

When the bottom of the cassette catches on the cassette guide shaft, grease part C, which the cassette touches, very lightly with gauze using silicone grease and wipe it off leaving only a trace of grease.

Fig. 5 Cassette Tray Adjustment

(Related check item: B-5-1, C-4-1, E-3-1, 2)

RELATED SERVICE BULLETINS

No.

HITACHI SERVICE BULLETIN

Issued on Apr. 28 '78

Issued by TOKAI

Serial No. T-96
(of factory)

MODELS D-550/750 SDT-9600

DESTINATIONS

SUBJECT Modification of the Rubber Seat for Motor Installation

1. Reasons

To prevent inclination of the motor and to provide spacer between the rubber seat and drive belt, the following modification has been introduced.

2. Details of changes

(A) New parts after changes

(B) Original parts before changes

No.	Parts No.	Description	FOR Y Japan	*	Parts No.	Description	FOR Y Japan
	6576083	Rubber seat		$\overline{A B}$	6576171	Rubber seat	
				$\overline{A B}$			
				$\overline{A B}$			
				$\overline{A B}$			

* Interchangeability

 $\overrightarrow{A B}$: A can be a substitute for B. $\overleftarrow{A B}$: B can be a substitute for A. $\overleftrightarrow{A B}$: Both $\overrightarrow{A B}$ and $\overleftarrow{A B}$ are possible. $\overline{A B}$: Not interchangeable.

3. Illustration

After changes

Before changes

4. How to dispose of original parts in stock. (1) Use (2) Scrap

5. Execution

Model	Serial No.	When	Model	Serial No.	When
D-550W/BS/FS	from 708XXXXX	from Aug./'77	SDT-9600H/C	from 708XXXXX	from Aug./'77
D-720U/AU/W/FS/C/RW	from 708XXXXX	from Aug./'77		from	from

6. Remarks

No.

HITACHI SERVICE BULLETIN

Issued on Apr. 28 '78

Issued by TOKAI

MODELS D-550/720/850 SDT-9600/7785

Serial No. T-97
(of factory)

DESTINATIONS

SUBJECT Changer of the Drive Parts of VD Mechanism

1. Reasons

Some head plates did not advance on pressing the playback button. This was caused by unevenness of the related parts. The shape of the related parts has been partially modified.

2. Details of changes

(A) New parts after changes

(B) Original parts before changes

No.	Parts No.	Description	FOR ¥ Japan	*	Parts No.	Description	FOR ¥ Japan
1	6741497	Play arm		$\overrightarrow{A B}$	5741494	Play arm D-720C/RW for D-550AU/RW/W/BS/FS	
2	6348665	Play gear		$\overrightarrow{A B}$	6348662	Play gear for D-550W/BS/FS	
3	6741516	Gear drive arm		$\overrightarrow{A B}$	6741514	Gear drive arm for all of above model	
				$\overrightarrow{A B}$		— CONTINUE — See below	

* Interchangeability

 $\overrightarrow{A B}$: A can be a substitute for B. $\overleftarrow{A B}$: B can be a substitute for A. $\overleftrightarrow{A B}$: Both $\overrightarrow{A B}$ and $\overleftarrow{A B}$ are possible. $\overline{A B}$: Not interchangeable.

(B) Original parts before changes

6741495	PLAY ARM	for D-550U/850/C/BS/FS/W/AU SDT-7785E/F/S
6741492	PLAY ARM	for D-720U/AU/W/AS SDT-9600H/C
6348663	PLAY GEAR	for D-550AU/RW/U SDT-7785E/F/S
6348661	PLAY GEAR	for D-720U/AU/C/RW/W/FS SDT-9600H/C

4. How to dispose of original parts in stock. (1) Use (2) Scrap

5. Execution

Model	Serial No.	When	Model	Serial No.	When
All of above	from 711XXXXX	from Nov. '77		from	from
	from	from		from	from

6. Remarks

No.

HITACHI SERVICE BULLETIN

Issued on Apr. 28 '78

Issued by TOKAI

Serial No. T-98
(of factory)

MODELS D-720/550 SDT-9600/7785

DESTINATIONS

SUBJECT Modification of the Head Plate Spring on the VD Mechanism

1. Reasons

Due to hardening of the head lead wires at low temperatures some heads do not advance to the normal position on pressing the playback button, therefore the head plate spring has been changed. In addition, at the same time as spring replacement, the wiring clamp shown in the figure below has been enlarged to allow freedom of movement of the leads.

2. Details of changes

(A) New parts after changes

(B) Original parts before changes

No.	Parts No.	Description	FOR Y Japan	*	Parts No.	Description	FOR Y Japan
	6302221	Spring		$\overrightarrow{A B}$	6324436	Spring for D-550AU/RW/ W/BS/FS/U D-720C/RW SDT-7785E/F/S	
				$\overrightarrow{A B}$	6300031	Spring for D-720U/AU/ W/FS SDT-9600H/C	
				$\overrightarrow{A B}$			
				$\overrightarrow{A B}$			

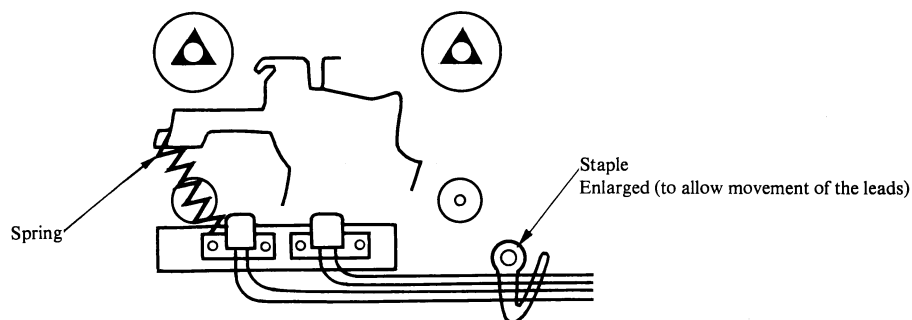
* Interchangeability

 $\overrightarrow{A B}$: A can be a substitute for B. $\overleftarrow{A B}$: B can be a substitute for A. $\overleftrightarrow{A B}$: Both $\overrightarrow{A B}$ and $\overleftarrow{A B}$ are possible. $\times A B$: Not interchangeable.

3. Illustration

After changes

Before changes



4. How to dispose of original parts in stock. (1) Use (2) Scrap

5. Execution

Model	Serial No.	When	Model	Serial No.	When
All of above	from 802XXXXX	from Feb./'78		from	from
	from	from		from	from

6. Remarks

No.

HITACHI SERVICE BULLETIN

Issued on Apr. 28 '78

Issued by TOKAI

Serial No. T-99
(of factory)

MODELS D-720/550/850 SDT-9600/7785

DESTINATIONS

SUBJECT VD Mechanism Brake Adjustment

1. Reasons

During prolonged used of the pause function, low brake torque causes tape slackness to occur; therefore the brake rubber has been modified.

2. Details of changes

(A) New parts after changes

(B) Original parts before changes

No.	Parts No.	Description	FOR ¥ Japan	*	Parts No.	Description	FOR ¥ Japan
	6586072	Brake rubber		AB	6586071	Brake rubber for D-550AU/ RW/W/BS/FS/U D-850U/C/BS/FS/W/AU SDT-7785E/F/S	
				AB	6586002	Brake rubber for D-720U/AU/W/ FS/C/RW SDT-9600H/C	
				AB			
				AB			

* Interchangeability

AB: A can be a substitute for B.

AB: B can be a substitute for A.

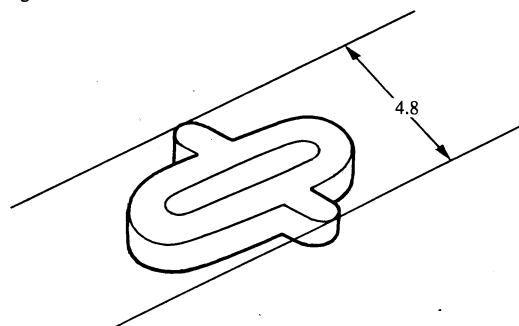
AB: Both AB and AB are possible.

AB: Not interchangeable.

3. Illustration

After changes

Before changes



4. How to dispose of original parts in stock. (1) Use (2) Scrap

5. Execution

Model	Serial No.	When	Model	Serial No.	When
All of above	from 804XXXXX	from Apr./'78		from	from
	from	from		from	from

6. Remarks

No.

HITACHI SERVICE BULLETIN

Issued on Apr. 28 '78Issued by TOKAISerial No. T-100
(of factory)MODELS D-720/550/850 SDT-9600/7785

DESTINATIONS _____

SUBJECT Discharge Noise Created by the VD Mechanism — Countermeasures

1. Reasons

Electrical discharge noise which is caused by the charge generated by friction produced during rotation of the take-up pulley and fly-wheel belt pulley, etc. is cured by installation of a ground plate, as detailed below.

2. Details of changes

(A) New parts after changes

(B) Original parts before changes

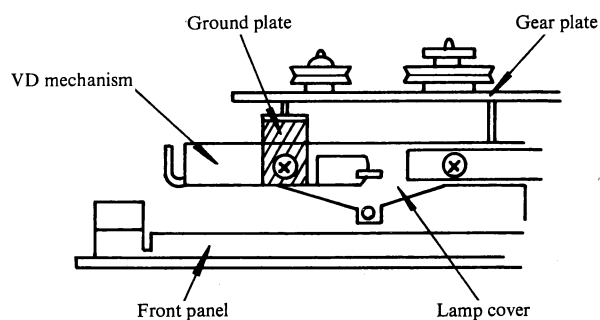
No.	Parts No.	Description	FOR ¥ Japan	*	Parts No.	Description	FOR ¥ Japan
	7450941	Ground plate		<u>AB</u>			
				<u>AB</u>			
				<u>AB</u>			
				<u>AB</u>			

* Interchangeability

AB: A can be a substitute for B.AB: B can be a substitute for A.AB: Both AB and AB are possible.AB: Not interchangeable.

3. Illustration

After changes



Before changes

To mount the ground plate: Remove the screw at the left side of the lamp cover, and insert the ground plate between the VD mechanism and the lamp cover. Tighten the new assembly.

4. How to dispose of original parts in stock. (1) Use (2) Scrap

5. Execution

Model	Serial No.	When	Model	Serial No.	When
All of above	from 712XXXXX	from Dec./'77		from	from
	from	from		from	from

6. Remarks

No.

HITACHI SERVICE BULLETIN

Issued on Apr. 28 '78

Issued by TOKAI

Serial No. T-101
(of factory)

MODELS D-550/720/850 SDT-9600/7785

DESTINATIONS

SUBJECT Modification of the AS Control Spring for the VD Mechanism

1. Reasons

To improve the efficiency of installation and to prevent the spring shipping out of its location.

2. Details of changes

(A) New parts after changes

(B) Original parts before changes

No.	Parts No.	Description	FOR Y Japan	*	Parts No.	Description	FOR Y Japan
1	7295951	AS control plate		$\overline{A} B$	6307924	AS control spring for D-550AU/ RW/W/BS/FS/U SDT-7785	
2	6308301	AS spring		$\overline{A} B$	6307921	AS control spring for D720U/ AU/W/FS/C/RW SDT-9600H/C	
				$\overline{A} B$			
				$\overline{A} B$			

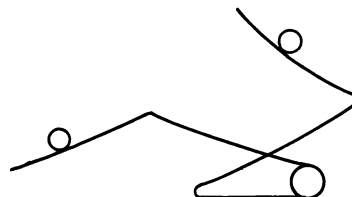
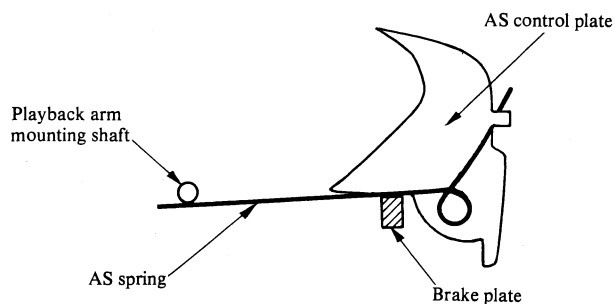
* Interchangeability

 $\overrightarrow{A} B$: A can be a substitute for B. $\overleftarrow{A} B$: B can be a substitute for A. $\overleftrightarrow{A} B$: Both $\overrightarrow{A} B$ and $\overleftarrow{A} B$ are possible. $\overline{A} B$: Not interchangeable.

3. Illustration

After changes

Before changes



4. How to dispose of original parts in stock. (1) Use (2) Scrap

5. Execution

Model	Serial No.	When	Model	Serial No.	When
All of above	from 711XXXXX	from Nov./'77		from	from
	from	from		from	from

6. Remarks

No. 	HITACHI SERVICE BULLETIN		Issued on <u>Apr. 28 '78</u>
MODELS <u>D-550/720/850 SDT-9600/7785</u>		Issued by <u>TOKAI</u>	
DESTINATIONS _____		Serial No. <u>T-102</u> (of factory)	
SUBJECT <u>Improvement of Rewind Operation</u>			

1. Reasons

This is very rare phenomenon but some units have developed unstable rotation during rewinding, caused by uneven operation of the related parts. The pitch specifications among the gears of the gear plate assembly has therefore been partially changed.

2. Details of changes

(A) New parts after changes					(B) Original parts before changes		
No.	Parts No.	Description	FOR Y Japan	*	Parts No.	Description	FOR Y Japan
	6413004	Gear plate ass'y		A B	7127931	Gear plate ass'y for D-550W/BS/FS D-720U/AU/W/FS/C/RW SDT-9600H/C	
				A B	7127934	Gear plate ass'y for D-550AU/RW SDT-7785E/F/S	
				A B	7127937	Gear plate ass'y for D-550U/850U/C/BS FS/W/AU	
				A B			

* Interchangeability

$\overrightarrow{A B}$: A can be a substitute for B. $\overleftarrow{A B}$: Both A B and A B are possible.	$\overleftarrow{A B}$: B can be a substitute for A. $\overline{A B}$: Not interchangeable.
---	---

3. Illustration

After changes	Before changes

4. How to dispose of original parts in stock. (1) Use (2) Scrap

5. Execution

Model	Serial No.	When	Model	Serial No.	When
All of above	from 802XXXXX	from Feb./'78		from	from
	from	from		from	from

6. Remarks

No.

HITACHI SERVICE BULLETIN

Issued on June 1st '78

Issued by TOKAI

Serial No. T-103
(of factory)

MODELS D-550/720

DESTINATIONS

SUBJECT Improvement of wow-flutter.

1. Reasons

2. Details of changes

(A) New parts after changes

(B) Original parts before changes

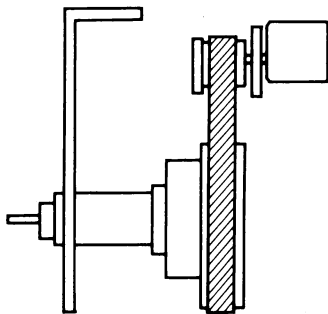
No.	Parts No.	Description	FOR ¥ Japan	*	Parts No.	Description	FOR ¥ Japan
1	5572752	Motor with motor pulley		$\overline{A B}$	5572552	Motor for D-720	
2	6357082	Motor belt		$\overline{A B}$	6357161	Motor belt for D-720	
				$\overline{A B}$	5572553	Motor for D-550BS/FS W	
				$\overline{A B}$	6420221	MOTOR PULLEY for D-550BS/FS/W	

* Interchangeability

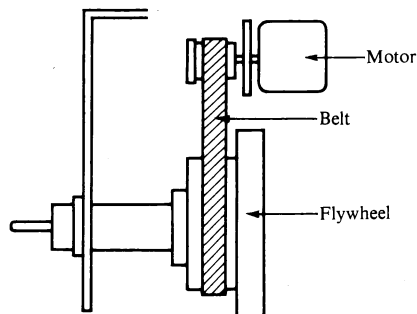
 $\overrightarrow{A B}$: A can be a substitute for B. $\overleftarrow{A B}$: B can be a substitute for A. $\overleftrightarrow{A B}$: Both $\overrightarrow{A B}$ and $\overleftarrow{A B}$ are possible. $\overline{A B}$: Not interchangeable.

3. Illustration

After changes



Before changes



4. How to dispose of original parts in stock. (1) Use (2) Scrap

5. Execution

Model	Serial No.	When	Model	Serial No.	When
D-550	from XXXX3100	from 3100		from	from
D-720	from XXXX1700	from 1700		from	from

6. Remarks

No. 	HITACHI SERVICE BULLETIN				Issued on <u>June 9 '78</u> Issued by <u>TOKAI</u> Serial No. <u>T-104</u> (of factory)		
MODELS <u>D-900</u>							
DESTINATIONS _____							
SUBJECT <u>Change of Pressure Roller</u>							
1. Reasons The following is a modification preventing the cassette shelf and pressure roller touching. _____ _____ _____ _____ _____							
2. Details of changes							
(A) New parts after changes				(B) Original parts before changes			
No.	Parts No.	Description	FOR ¥ Japan	*	Parts No.	Description	FOR ¥ Japan
1	6383381	Pressure roller 12.5 mmφ		— A B	6383157	Pressure roller 13 mmφ	
				— A B			
				— A B			
				— A B			
* Interchangeability $\overrightarrow{A B}$: A can be a substitute for B. $\overleftarrow{A B}$: B can be a substitute for A. $\overleftrightarrow{A B}$: Both $\overrightarrow{A B}$ and $\overleftarrow{A B}$ are possible. $\overleftarrow{A B}$: B can be a substitute for A. $\overleftrightarrow{A B}$: Not interchangeable.							
3. Illustration							
After changes				Before changes			
4. How to dispose of original parts in stock. (1) Use (2) Scrap							
5. Execution							
Model	Serial No.	When		Model	Serial No.	When	
D-900	from XXXX4301	from Jun. of '78			from	from	
	from	from			from	from	
6. Remarks							

No.

HITACHI SERVICE BULLETIN

Issued on July 20 '78

Issued by TOKAI

Serial No. T-110
(of factory)

MODELS D-550/720 SDT-9600/7785

DESTINATIONS

SUBJECT Improvement of Auto Stop Malfunctioning

1. Reasons

Tape transportation is stopped by operation of Auto stop mechanism in playback mode. To improve it the following modification has been made.

2. Details of changes

(A) New parts after changes

(B) Original parts before changes

No.	Parts No.	Description	FOR ¥ Japan	*	Parts No.	Description	FOR ¥ Japan
				$\overline{A B}$			
				$\overline{A B}$			
				$\overline{A B}$			
				$\overline{A B}$			

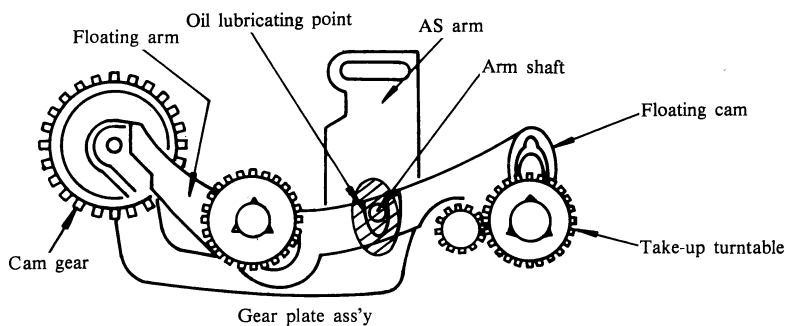
* Interchangeability

 $\overline{A B}$: A can be a substitute for B. $\overleftarrow{A B}$: B can be a substitute for A. $\overleftrightarrow{A B}$: Both $\overline{A B}$ and $\overleftarrow{A B}$ are possible. $\overline{\overline{A B}}$: Not interchangeable.

3. Illustration

After changes

Before changes



Procedure

1. Remove gear plate ass'y. Lubricate pan motor oil to contact surface of floating arm and arm shaft and AS arm.
2. Make sure that AS arm moves smoothly.

4. How to dispose of original parts in stock. (1) Use (2) Scrap

5. Execution

Model	Serial No.	When	Model	Serial No.	When
All of above	from 804XXXXX	from		from	from
	from	from		from	from

6. Remarks

No.

HITACHI SERVICE BULLETIN

Issued on July 20 '78

Issued by TOKAI

Serial No. T-109
(of factory)

MODELS D-550/720/850 SDT-9600/7785

DESTINATIONS

SUBJECT Improvement of Mechanical Sound

1. Reasons

Mechanical sound is produced from F gear of gear plate. To improve it, the following modification has been made.

2. Details of changes

(A) New parts after changes

(B) Original parts before changes

No.	Parts No.	Description	FOR ¥ Japan	*	Parts No.	Description	FOR ¥ Japan
	6308941	F arm spring		$\overline{A B}$			
				$\overline{A B}$			
				$\overline{A B}$			
				$\overline{A B}$			

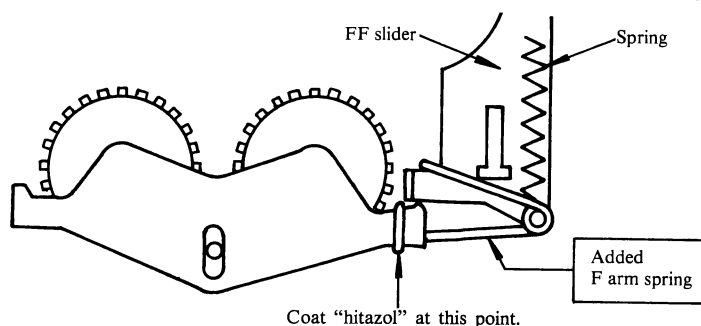
* Interchangeability

 $\overrightarrow{A B}$: A can be a substitute for B. $\overleftarrow{A B}$: B can be a substitute for A. $\overleftrightarrow{A B}$: Both $\overrightarrow{A B}$ and $\overleftarrow{A B}$ are possible. $\overline{A B}$: Not interchangeable.

3. Illustration

After changes

Before changes



4. How to dispose of original parts in stock. (1) Use (2) Scrap

5. Execution

Model	Serial No.	When	Model	Serial No.	When
All of above	from 804XXXXX	from		from	from
	from	from		from	from

6. Remarks

No.

HITACHI SERVICE BULLETIN

Issued on July 20 '78

Issued by TOKAI

Serial No. T-111
(of factory)

MODELS D-550/720 SDT-9600/9610/7785

DESTINATIONS

SUBJECT Improvement of Pause Mechanism

1. Reasons

In former pause mechanism, when pause button was depressed to stop the tape transportation temporarily during playing back or recording, heads and pressure roller return to original position.

This caused slow tape speed at beginning when pause mode was released.

To solve this problem, pause mechanism has been changed as described below.

2. Details of changes

Description	New parts	FOR Y Japan	Original parts	Remarks
Pressure roller	6743589		6383154	D-550AU/RW/W/BS/FS, SDT-7785E
			6743587	D-550U
			6383152	D-720 ALL/SDT-9600
Pause lever	7305281		—	ALL
Pause change arm	7297225		—	ALL
Playback plate ass'y	7296068		7287038	D-550AU/RW/W/BS/FS, SDT-7785
			7296065	D-550U
			7287034	D-720U/AU/W/FS
			7287036	D-720C/RW
			7287032	SDT-9600
Pause slider	7287138		7287133	D-550AU/RW/W/BS/FS, D-720ALL SDT-9600, SDT-7785E

3. Illustration

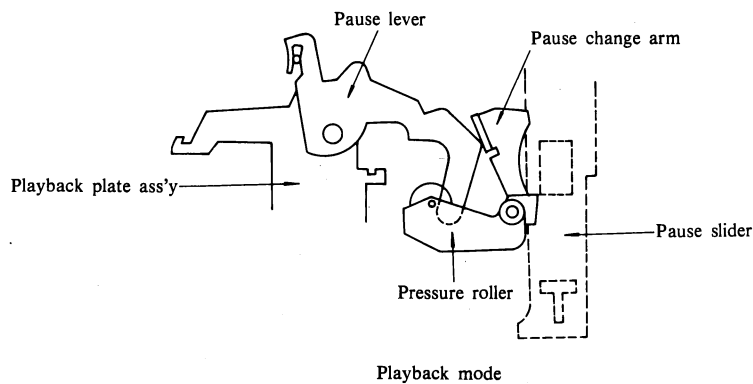
After changes

When pause button is depressed to release pause mode:

1. Heads keep touching tape surface.
2. Pressure roller comes away from capstan.

4. Execution

D-550	from 71107501	Nov. '77
D-720	from 71107001	Nov. '77
SDT-7785	from 71104001	Nov. '77
SDT-9600	from 71105001	Nov. '77
OTHER	from 1	



No.

HITACHI SERVICE BULLETIN

Issued on July 20 '78

Issued by TOKAI

Serial No. T-108
(of factory)

MODELS D-900

DESTINATIONS

SUBJECT Improvement of Hum

1. Reasons

To decrease hum wiring of secondary wire (P.T) is changed.

Wire "Blue" is paralleled with "Black" on original model.

After changing, "Black" is left as in the original, and "Blue" is changed as below.

2. Details of changes

(A) New parts after changes

(B) Original parts before changes

No.	Parts No.	Description	FOR Y Japan	*	Parts No.	Description	FOR Y Japan
				$\overline{A B}$			
				$\overline{A B}$			
				$\overline{A B}$			
				$\overline{A B}$			

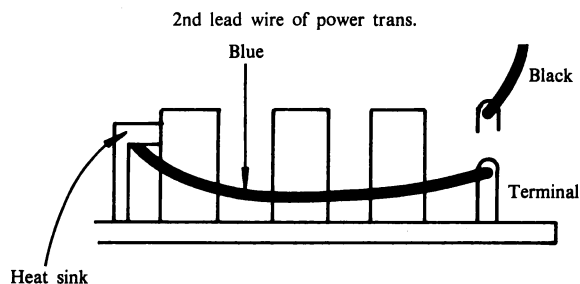
* Interchangeability

 $\overrightarrow{A B}$: A can be a substitute for B. $\overleftarrow{A B}$: B can be a substitute for A. $\overleftrightarrow{A B}$: Both $\overrightarrow{A B}$ and $\overleftarrow{A B}$ are possible. $\overline{A B}$: Not interchangeable.

3. Illustration

After changes

Before changes



4. How to dispose of original parts in stock. (1) Use (2) Scrap

5. Execution

Model	Serial No.	When	Model	Serial No.	When
D-900	from XXXX2083	from		from	from
	from	from		from	from

6. Remarks

No.

HITACHI SERVICE BULLETIN

Issued on July 20 '78

Issued by TOKAI

Serial No. T-107
(of factory)

MODELS D-900

DESTINATIONS

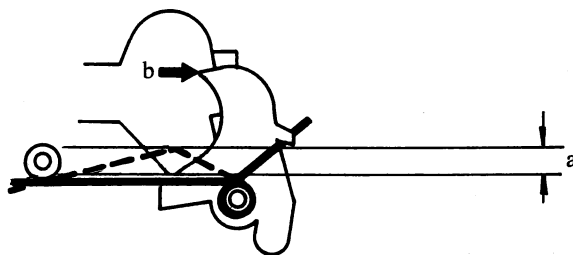
SUBJECT Improvement of Mechanical Sound

1. Purpose

Mechanical sound occurs in STOP mode. To improve it, the following modification has been made.

2. Details of changes

- 1) Crook AS spring as shown below.



Procedure

1. Bend AS spring as shown by dotted line.

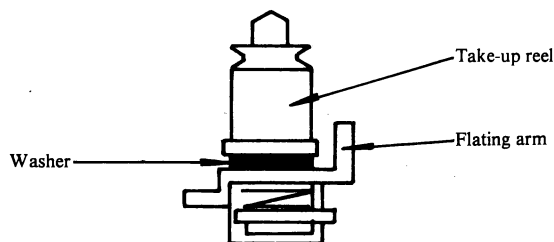
Dimension of "a" is 1—2 mm from AS control spring to point where AS control plate and chassis intersect.

2. Check tension at point "b" with tension gauge that AS control plate starts to rotate with 4—6 gram tension. If measured tension is not within 4—6 gram, readjust the bend of AS spring.
3. After assembling, turn on the power.

Confirm that mechanical sound is not produced in STOP mode.

- 2) Change of Take-up reel

Addition of washer.



3. Execution

Model	Serial No.	When	Model	Serial No.	When
D-900	from 804XXXXX	from		from	from

**PARTS LIST AFTER CHANGE FOR D-550/720
SDT-9600/9610/7785 (EXTRACT)**

RUBBER SHEET FOR MOTOR	6576083
PLAYBACK ARM.....	6741497
PLAYBACK GEAR	6348665
GEAR MOVING ARM	6741516
HEAD PLATE SPRING.....	6302221
RUBBER FOR BRAKE PLATE	6586072
GROUND PLATE	7450941
F ARM SPRING	6308941
AS (AUTO STOP) SPRING	6308301
AS (AUTO STOP) CONTROL PLATE	7295951
GEAR PLATE ASS'Y	6413004
PRESSURE ROLLER	6743589
PAUSE LEVER	7305281
PAUSE CHANGE ARM	7297225
PLAYBACK PLATE ASS'Y	7296068
PAUSE SLIDER	7287138

This page intentionally left blank.



Head Office : 5-1, 1-chome, Marunouchi, Chiyoda-ku, Tokyo
Tel. Tokyo (212) 1111 (80 lines)
Cable Address : "HITACHY" TOKYO
Codes : All Codes Used