



HITACHI

SERVICE MANUAL

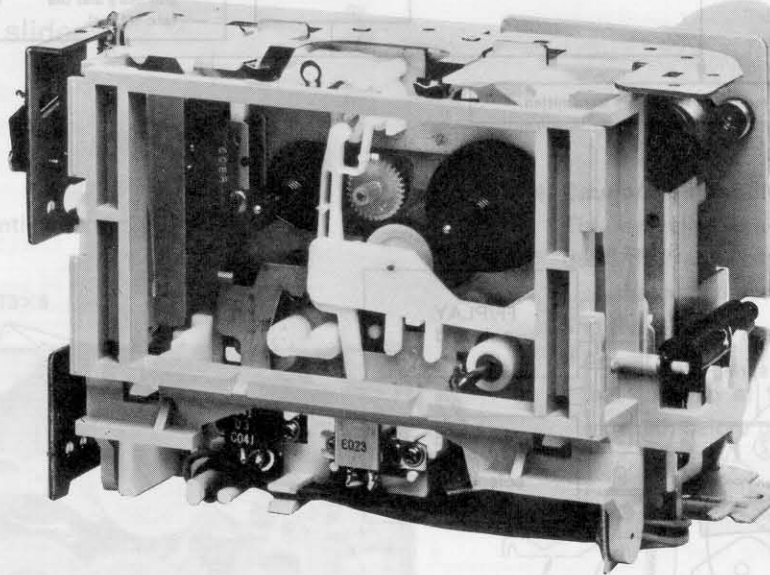
TK

No. 1474E

FL-12 Mechanism

TECHNICAL INFORMATION

This information manual describes Cassette Deck Chassis FL-12 for model D-E55, so read this together with the Service Manual No. 1470.



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SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

FL-12 Mechanism

January 1981

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DISASSEMBLY

1. Cassette holder

Press the stopper shown inside the circle in Fig. 1 in the direction of the arrow to remove it, and then push the cassette holder forward and down.

Next, remove the spring shown in Fig. 2, adjust the direction of the stopper inside the circle and remove the cassette holder.

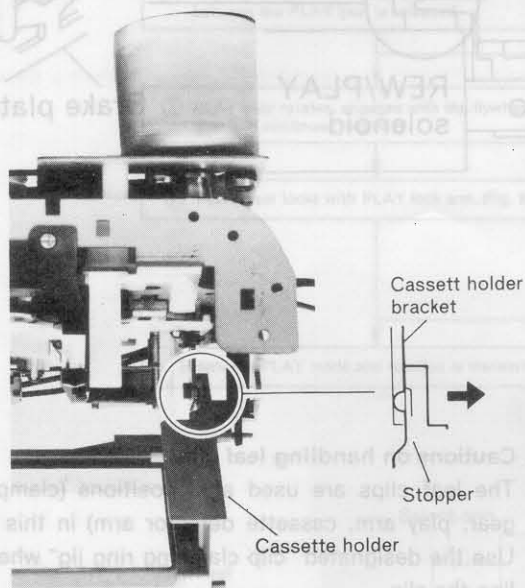


Fig. 1

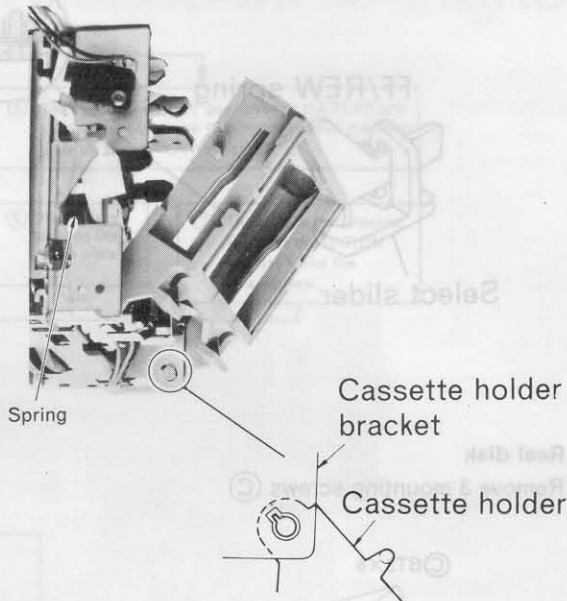


Fig. 2

2. Flywheel bracket ass'y and solenoid plate

1) Flywheel bracket ass'y

Remove the take-up belt from the take-up pulley and set it in the groove of the flywheel bracket ass'y, then set the flywheel belt in the groove of the chassis, and remove the mounting screw (A).

2) Solenoid plate

Remove the 3 mounting screws (B).

*Check the position shown in Fig. 4 when installing the solenoid plate.

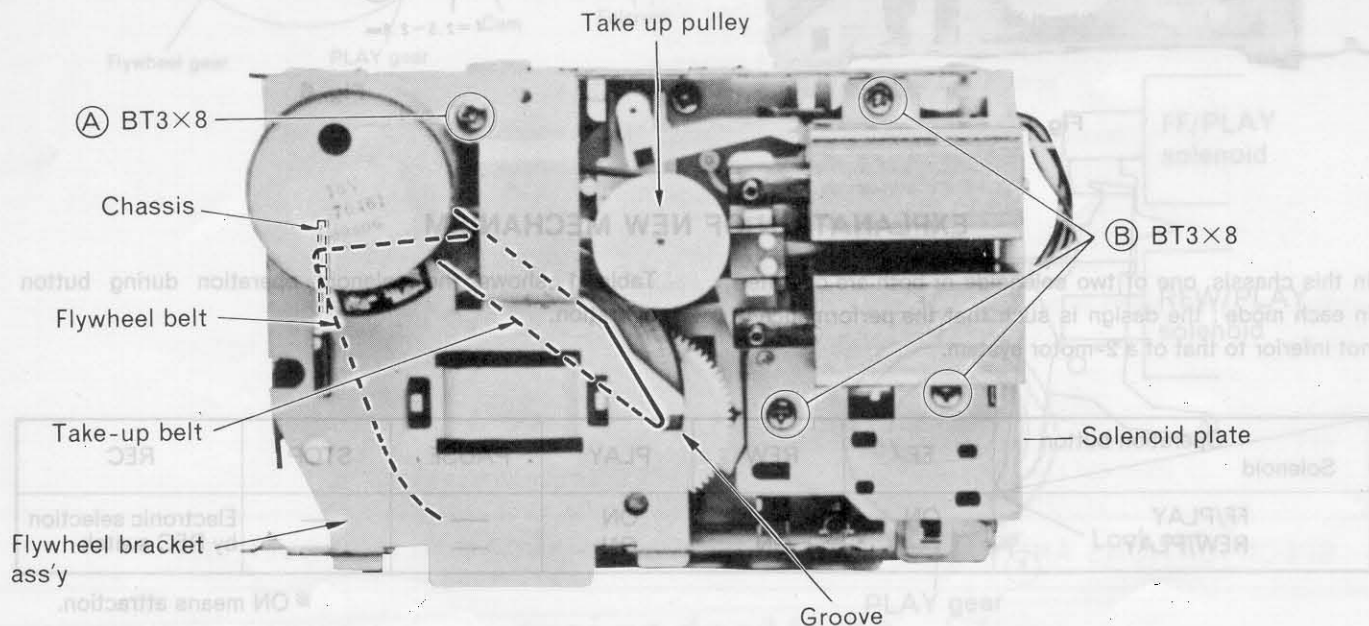


Fig. 3



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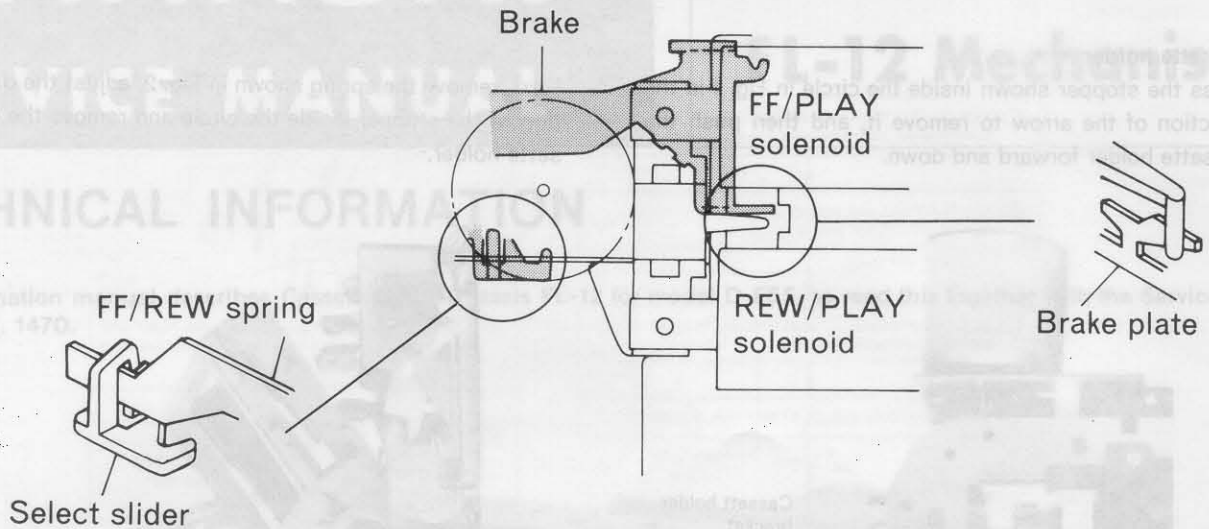


Fig. 4

3. Reel disk

Remove 3 mounting screws (C)

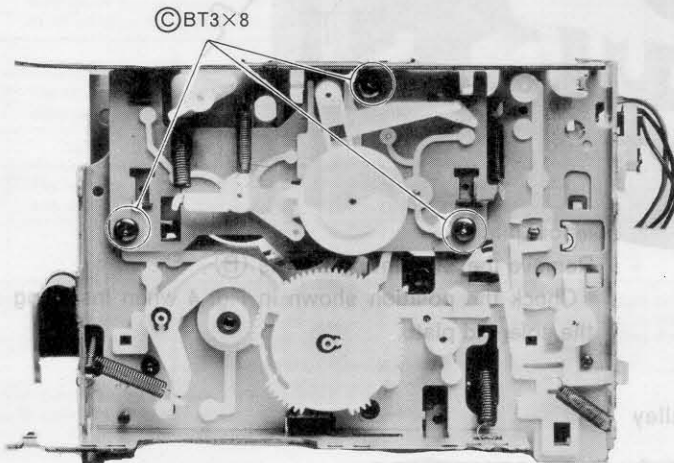


Fig. 5

4. Cautions on handling leaf clip

The leaf clips are used at 3 positions (clamping play gear, play arm, cassette detector arm) in this chassis. Use the designated "clip clamping ring jig" when installing the clip.

* Adjust rattling of the jig using an adjustment screw so that the gap at the tip (l) is 2.5–2.8mm when it is widened, before using it.

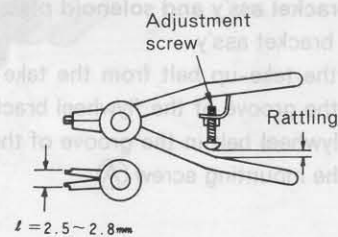


Fig. 6

EXPLANATION OF NEW MECHANISM

In this chassis, one of two solenoids or both are operated in each mode: the design is such that the performance is not inferior to that of a 2-motor system.

Table 1 shows the solenoid operation during button operation.

Operation button \ Solenoid	FF	REW	PLAY	PAUSE	STOP	REC
FF/PLAY	ON	—	ON	—	—	Electronic selection by REC switch
REW/PLAY	—	ON	ON	—	—	

* ON means attraction.

Table 1

1. PLAY mode

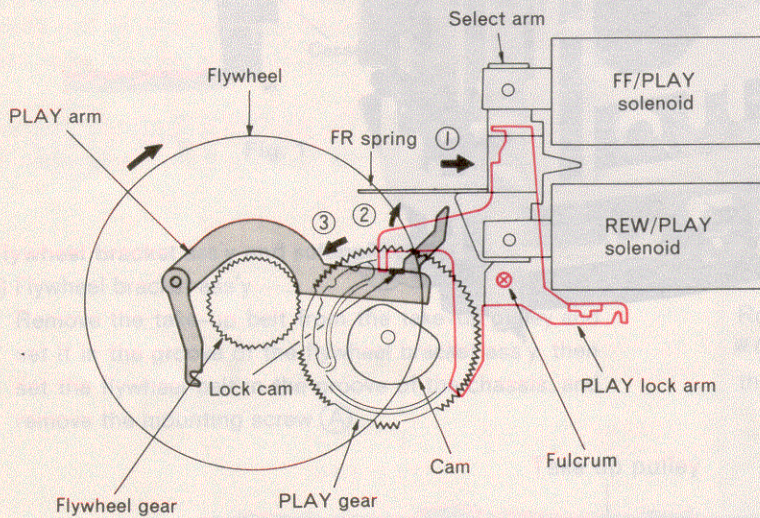
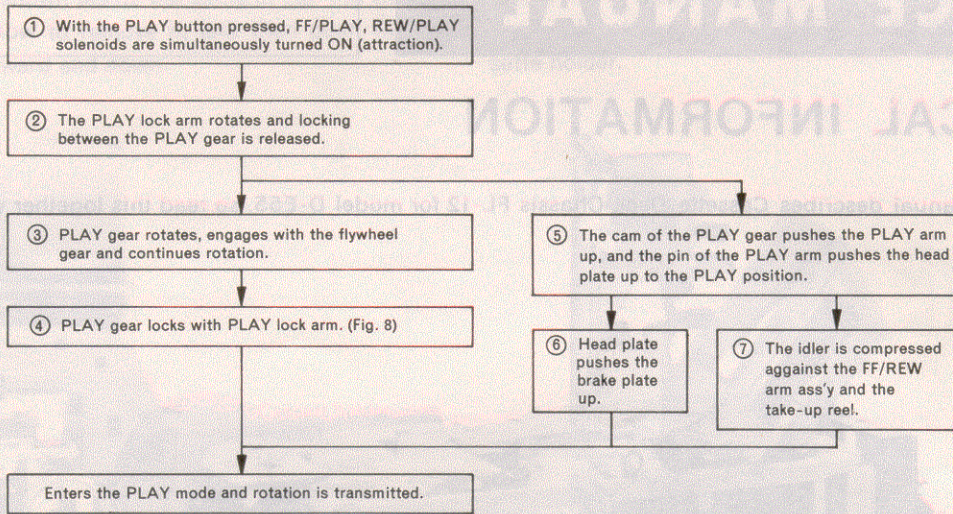


Fig. 7

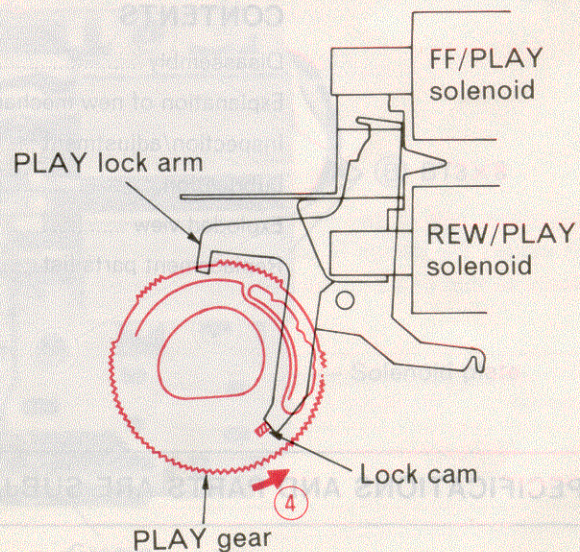


Fig. 8

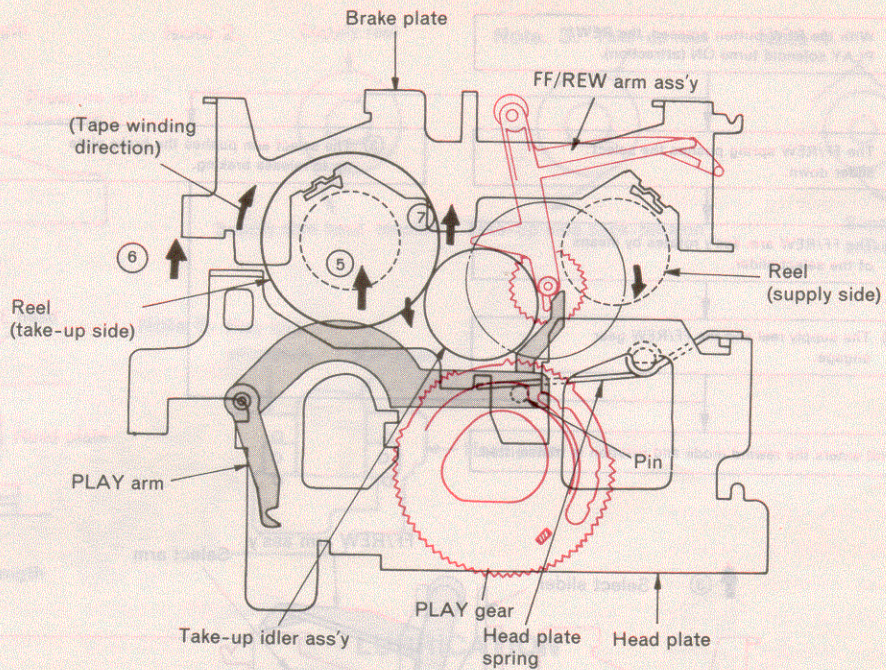


Fig. 9

2. Fast-forward mode

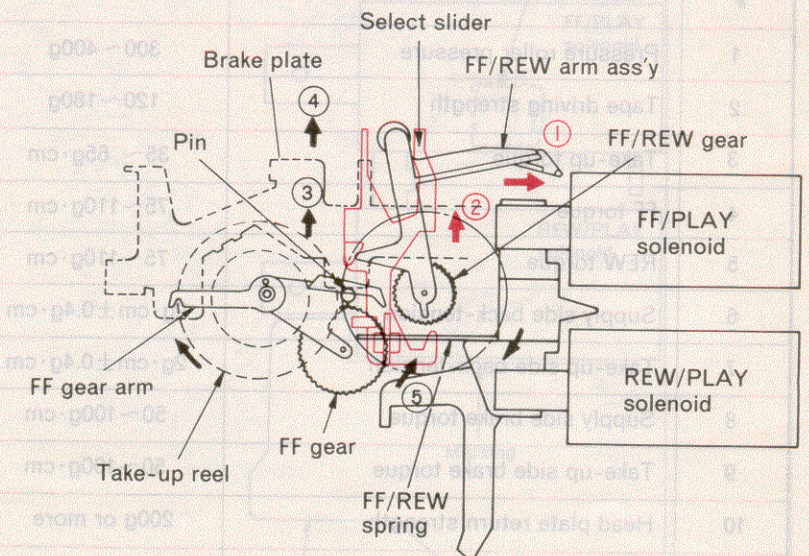
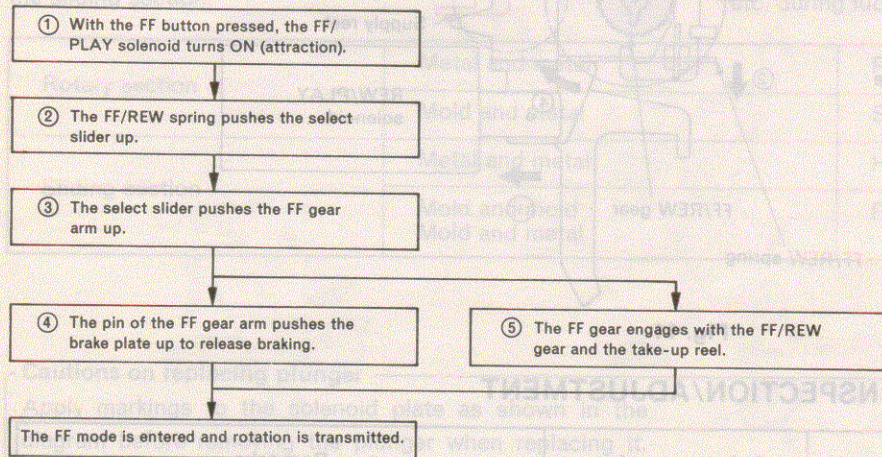


Fig. 10

3. REWIND mode

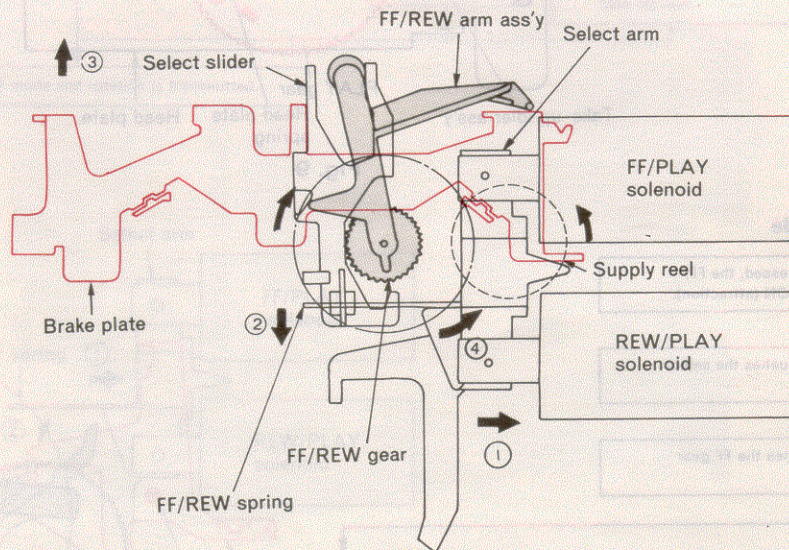
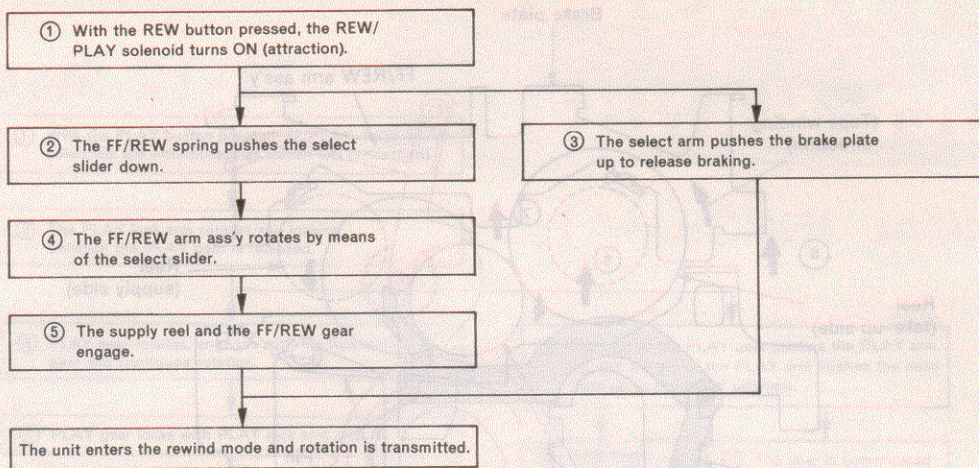
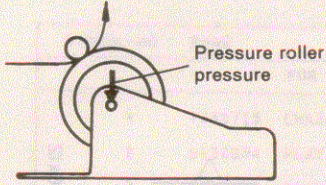


Fig. 11

INSPECTION/ADJUSTMENT

Item #	Inspection item	Reference value	Remarks
1	Pressure roller pressure	300~400g	Note 1
2	Tape driving strength	120~180g	Note 1, After cleaning with alcohol
3	Take-up torque	35~65g·cm	
4	FF torque	75~110g·cm	
5	REW torque	75~110g·cm	
6	Supply side back-tension	2g·cm±0.4g·cm	Note 2, PLAY mode
7	Take-up side back-tension	2g·cm±0.4g·cm	Note 3, PLAY mode
8	Supply side brake torque	50~100g·cm	Note 4, STOP mode
9	Take-up side brake torque	50~100g·cm	Note 4, STOP mode
10	Head plate return strength	200g or more	Note 5, STOP mode
11	Play lock allowance	300g or more	Note 6, PLAY mode

Note 1. Driving strength



Note 2. Supply reel

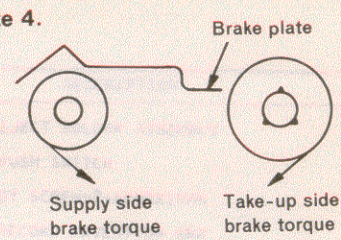
Supply reel



Note 3. Take-up reel

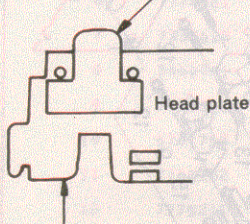


Note 4.



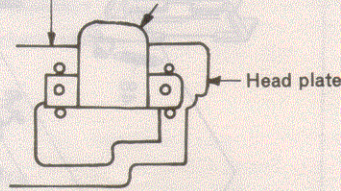
Note 5.

E head



Note 6. Play lock allowance

R/P head



Head plate return strength

LUBRICATION

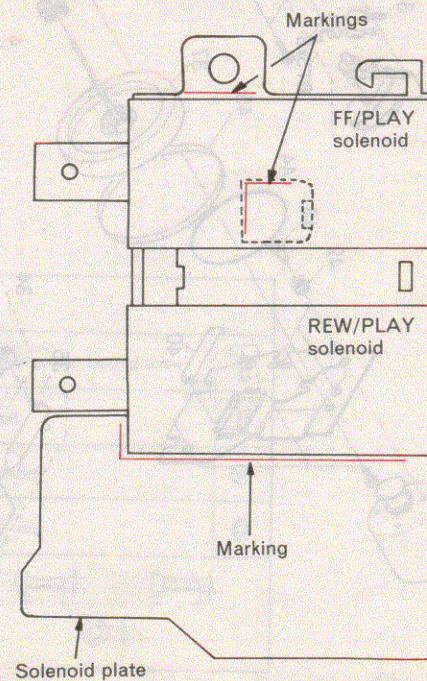
Lubricate the rotary section with 1 or 2 drops of Pan motor oil or Sonic slider oil, and apply Hitasol or white grease to the sliding section.

Lubricate with oil once a year or once 1,000 hours in ordinary use. Be careful that no oil adheres to the belt and idler, etc. during lubrication.

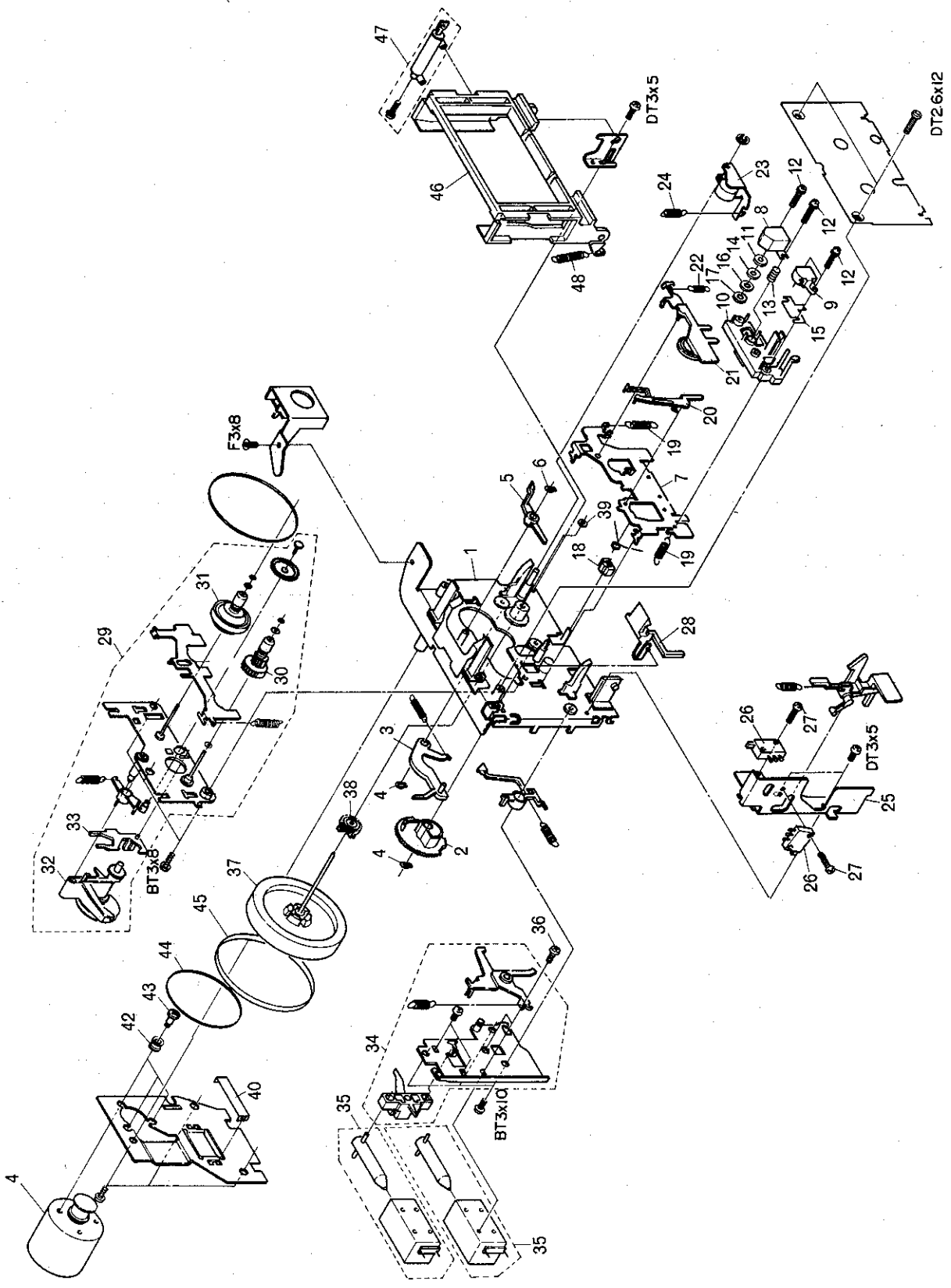
Rotary section	Metal and metal	Pan motor oil (10W-40)
	Mold and metal	Sonic slider oil (#1600)
Sliding section	Metal and metal	Hitasol (MO-138)
	Mold and mold Mold and metal	Froil (GB-TS-1)

Cautions on replacing plunger

Apply markings to the solenoid plate as shown in the diagram before removing the plunger when replacing it. Mount the plunger while matching the markings.

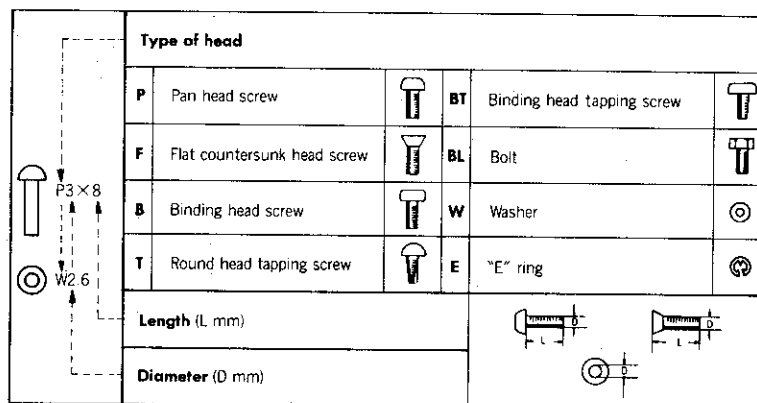


EXPLODED VIEW



REPLACEMENT PARTS LIST

SYMBOL-NO	P-NO	DESCRIPTION	SYMBOL-NO	P-NO	DESCRIPTION
FOR CASSETTE DECK ASSEMBLY (A)					
1	7330715	CHASSIS BASE HOLDER ASSEMBLY	25	7330662	EJECT HOLDER ASSEMBLY
2	6430884	PLAY GEAR	26	5633361	PUSH SWITCH
3	6761782	PLAY ARM	27	0671310	DT SCREW-2.6MMDX10MM
4	7774761	CLIP	28	6761814	RECORD PRVENTION ARM
5	6761821	PICK UP ARM	29	6761694	REEL BASE ASSEMBLY
6	7774761	CLIP	30	6414202	TURNTABLE ASSEMBLY (SUPPLY)
7	7330628	HEAD PLATE ASSEMBLY	31	6414212	TURNTABLE ASSEMBLY (TAKE UP)
8	5449041	RECORD PLAYBACK HEAD	32	6761671	FF/REWIND ARM ASSEMBLY
9	5445342	ERASE HEAD	33	6761732	SELECT SLIDER
10	6761753	HEAD PLATE	34	7330724	SOLENOID PLATE ASSEMBLY
11	7768182	SPACER	35	5642831	DC SOLENOID
12	7775211	SPECIAL SCREW	36	8741403	BIND SCREW-3MMDX3MM
13	6321733	HEAD SPRING C	37	6373751	FLYWHEEL ASSEMBLY
14	7771441	WASHER - 2 MMD	38	6430932	FLYWHEEL GEAR
15	7768181	HEAD SPACER	39	7786623	POLY SLIDER WASHER
16	7771442	WASHER-2MMD	40	6534162	FLYWHEEL SUPPORT SPRING
17	7771444	WASHER-2MMD	41	5576761	DC MOTOR ASSEMBLY
18	6581042	RUBBER FOR RECORD PRVENTION	42	6589591	RUBBER PLATE
19	6302375	SPRING	43	7539007	SPECIAL SCREW
20	6761741	REWIND ARM	44	6355193	BELT
21	6761704	TAKE UP IDLER ASSEMBLY	45	6357301	FLYWHEEL BELT
22	6320578	SPRING FOR TAKE UP IDLER	46	6761844	CASSETTE HOLDER
23	7330581	PRESSURE ROLLER ARM ASS	47	6763431	DAMPER ASSEMBLY
24	6301361	SPRING	48	6301721	SPRING



When ordering hardware excluding stated on these lists, be sure to make your orders with type and size.