1. Operation

1-1 Nomenclature

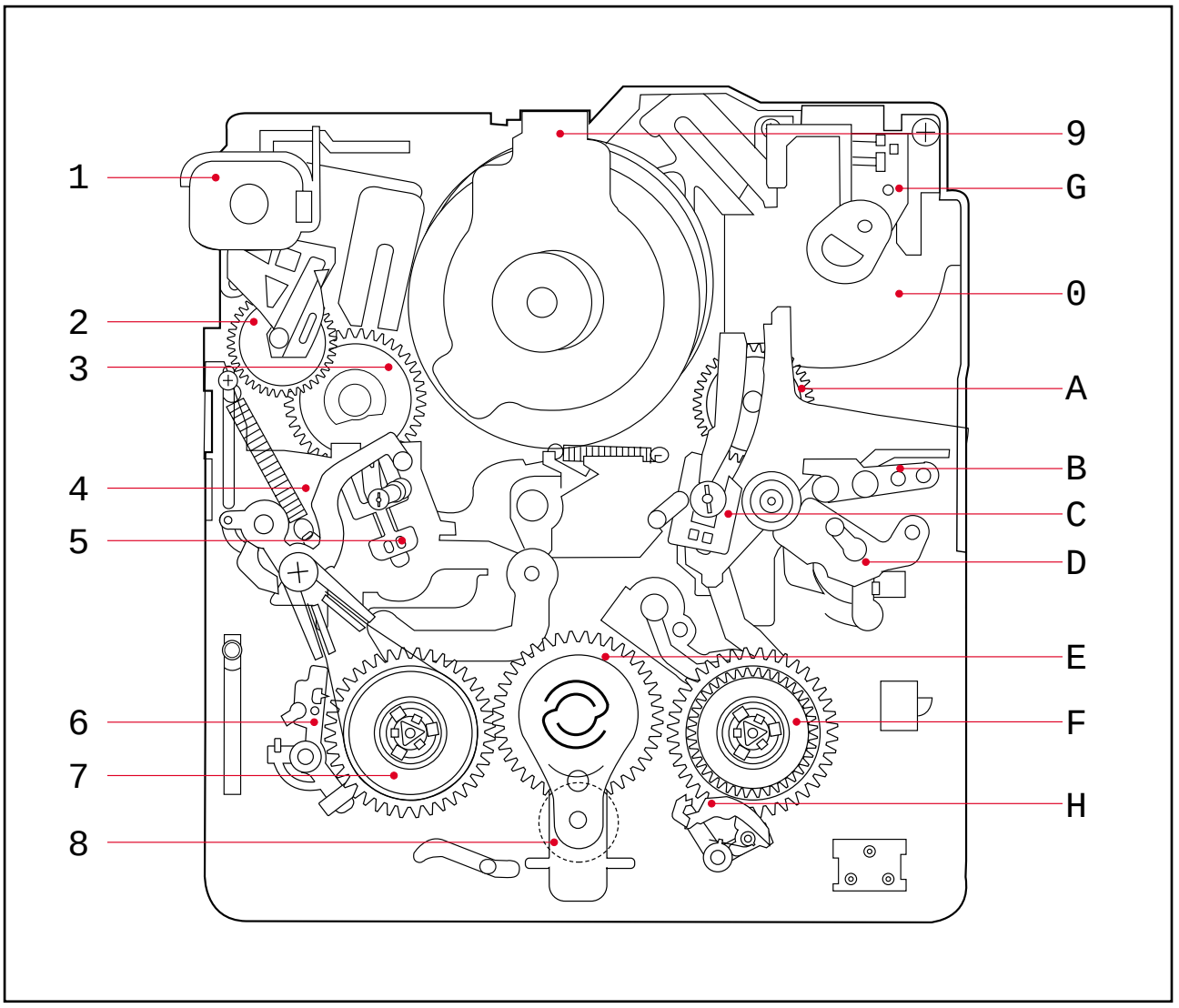


Fig. 1-1

1 **MOTOR LOADING**	7 **REEL S**	C **POLE BASE T**
2 **GEAR LOADING**	8 **GEAR PULLEY**	D **ARM PINCH ROLLER**
3 **SWITCH MODE**	9 **DRUM**	E **GEAR IDLER**
4 **ARM TENSION**	0 **MOTOR CAPSTAN**	F **REEL T**
5 **POLE BASE S**	A **GEAR CAPSTAN**	G **HOLDER FPC SUB**
6 **BRAKE SUB S ASS'Y**	B **ARM REVIEW**	H **BRAKE SOFT T**

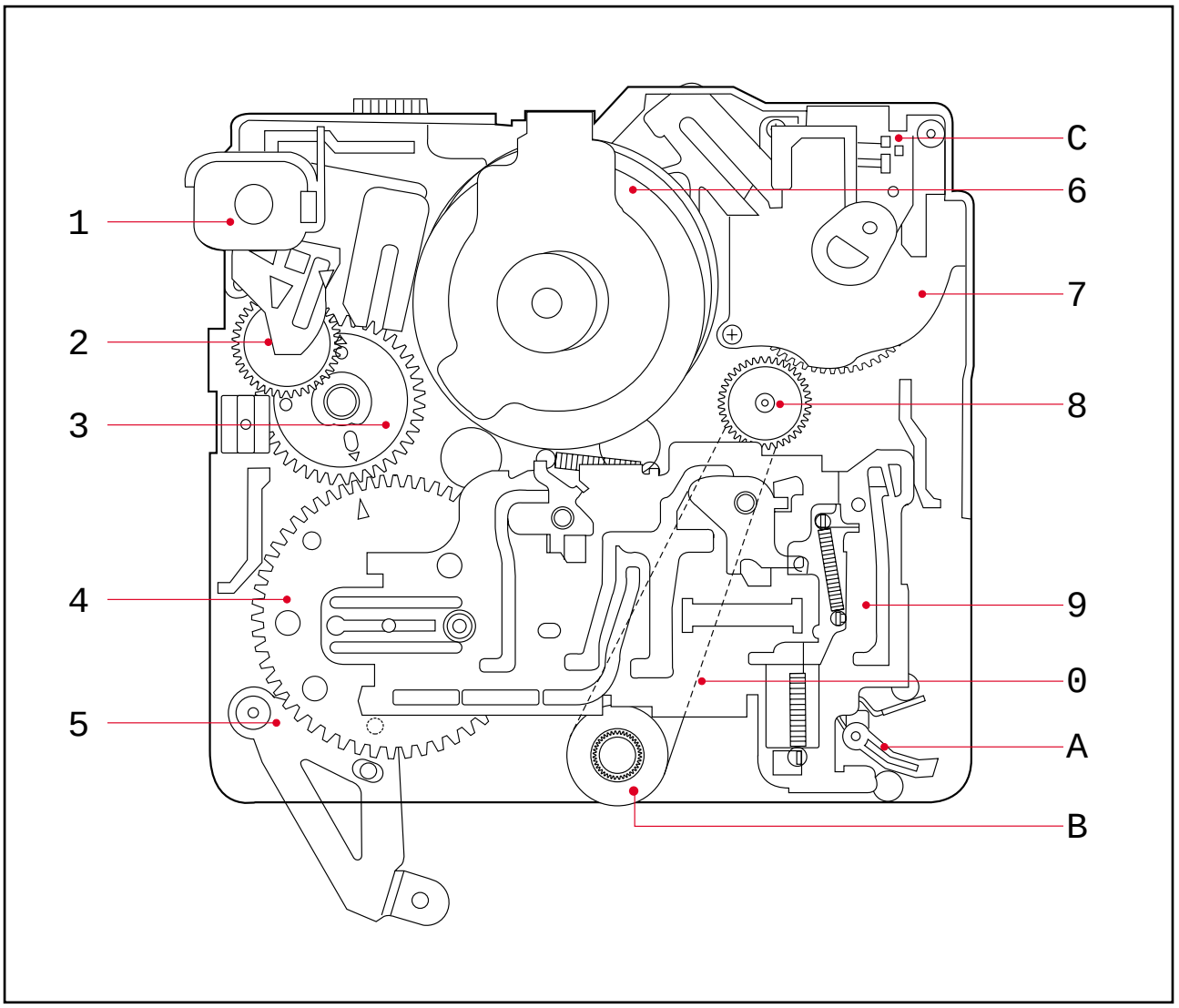


Fig. 1-2

1 **MOTOR LOADING**
2 **GEAR LOADING**
3 **SWITCH MODE**
4 **GEAR CAM MAIN**
5 **LEVER CAM**
6 **DRUM**
7 **MOTOR CAPSTAN**
8 **GEAR CAPSTAN**
9 **SLIDER MAIN**
0 **BELT TIMING**
A **LEVER EJECT**
B **GEAR PULLEY**
C **HOLDER FPC SUB**

1-2 Switch Mode

Table 1-1 Switch Mode Code

Modes	1	2	3	Rotation angle of Switch Mode	Mechanical status
EJECT	0	0	1	-30° ~ -22.5°	Ejected
BL 2	0	0	0		
UNLOAD	0	1	1	-2.5° ~ 5°	Standby Cassette down
BL 3	0	0	0		
SUB LOAD	0	1	0	97.5° ~ 173°	Chassis Sub loading
BL 4	0	0	0		
STOP	1	1	0	202° ~ 208°	Stopped
BL 5	0	0	0		
PLAY	1	0	0	262.5° ~ (287°)	In REC/CUE/REV/FF/REW/PAUSE

NOTE : 0 : Opened 1 : Connected with COMMON

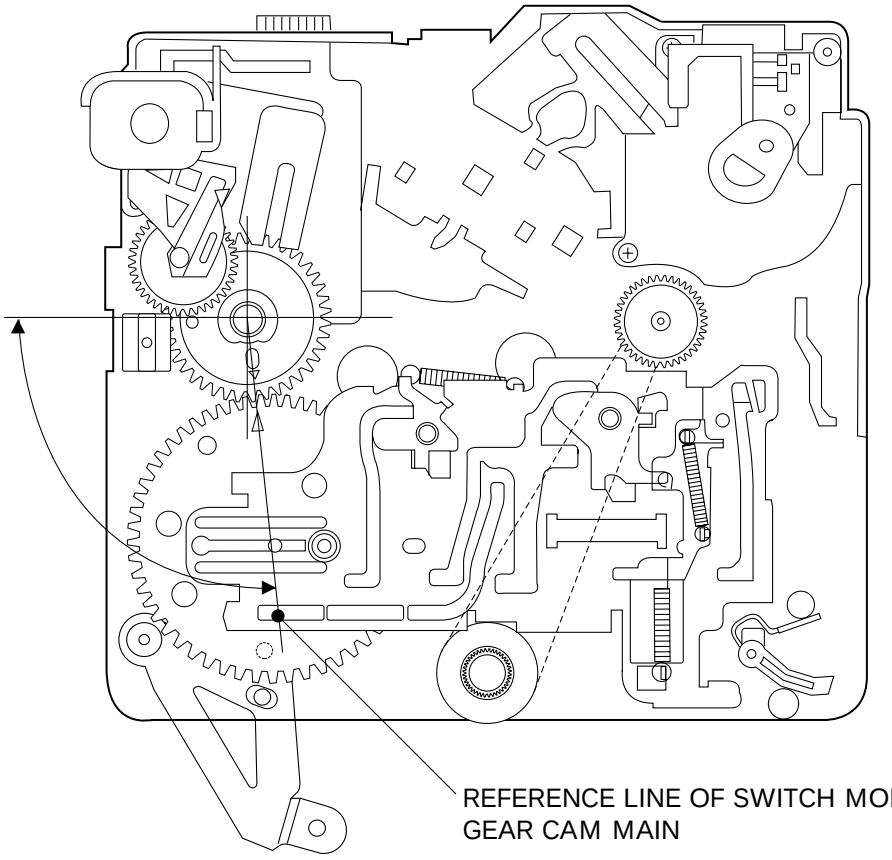


Fig. 1-3

1-3 Operation Description

1-3-1 Gear Train

Motor Loading 1 rotates.
(Gear Wheel Motor 2 Gear Worm Loading 3)
↓
Gear Loading 4 rotates.
↓
Switch Mode 5 rotates.
↓
Gear Cam Main 6 rotates.

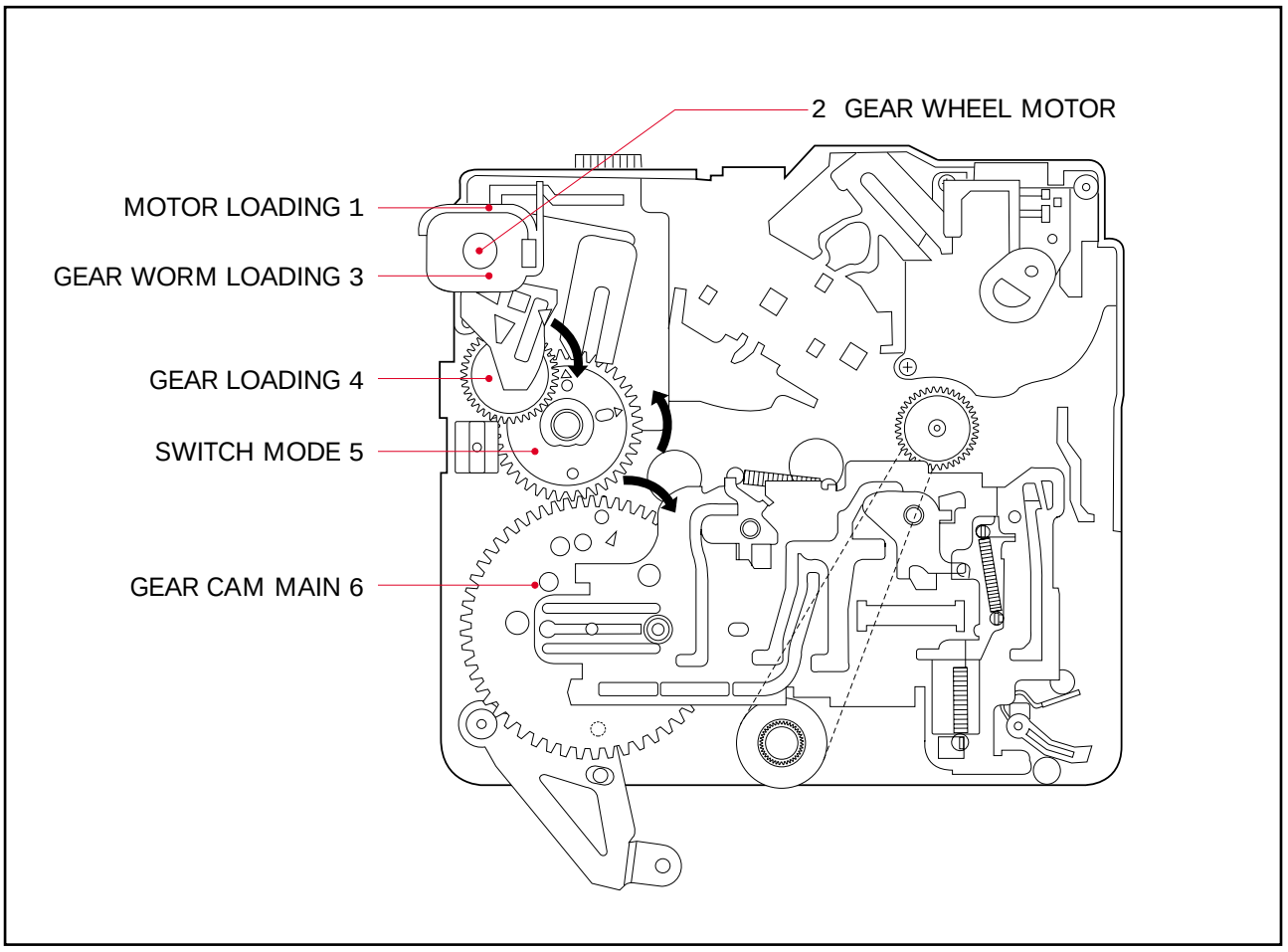


Fig. 1-4

1-3-2 Sub Chassis

Motor Loading 1 rotates.
↓
Gear Loading 2 rotates.
↓
Switch Mode 3 rotates.
↓
Gear Cam Main 4 rotates.
↓
Lever Cam 5 turns.
↓
Chassis Sub 6 slides.

Mode	Chassis Sub
	OFF ON
EJECT	
UNLOAD	
SUB LOAD	
STOP	
PLAY	

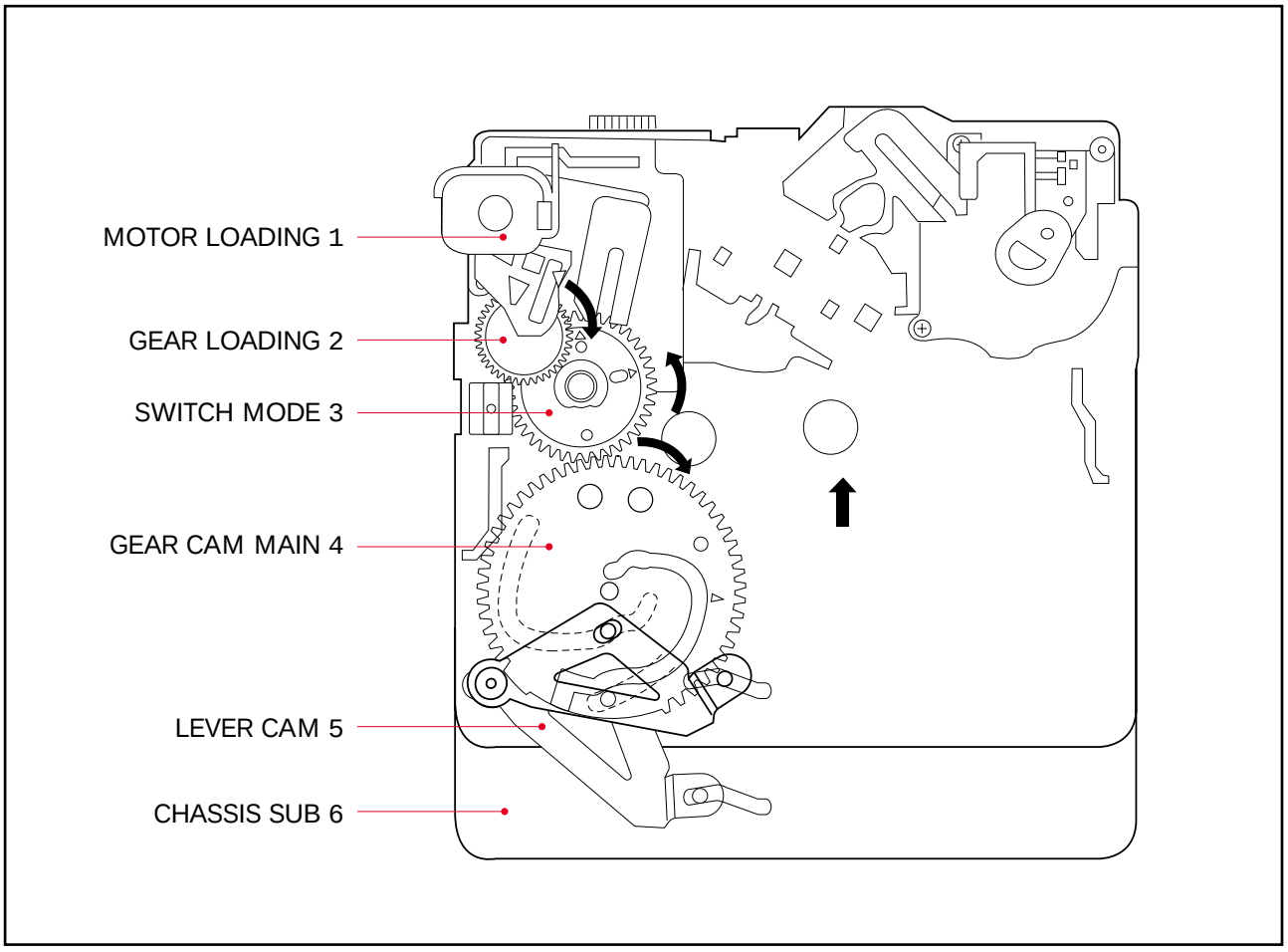


Fig. 1-5

1-3-3 Brake Sub S Ass'y (Brake Sub S, Lever Brake S)

Motor Loading 1 rotates.
↓
Chassis Sub 2 slides.
↓
Slider Main 3 slides in direction of arrow.
↓
Lever Brake S 5 contacts with Reel S 6 by Slider Main 3 and Brake Sub S 4 released.
↓
Slider Main 3 slides in direction of arrow.
↓
Lever Brake S 5 released by Slider Main 3 .

Mode	Brake Sub S		Lever Brake S	
	OFF	ON	OFF	ON
EJECT				
UNLOAD				
SUB LOAD				
STOP				
PLAY				

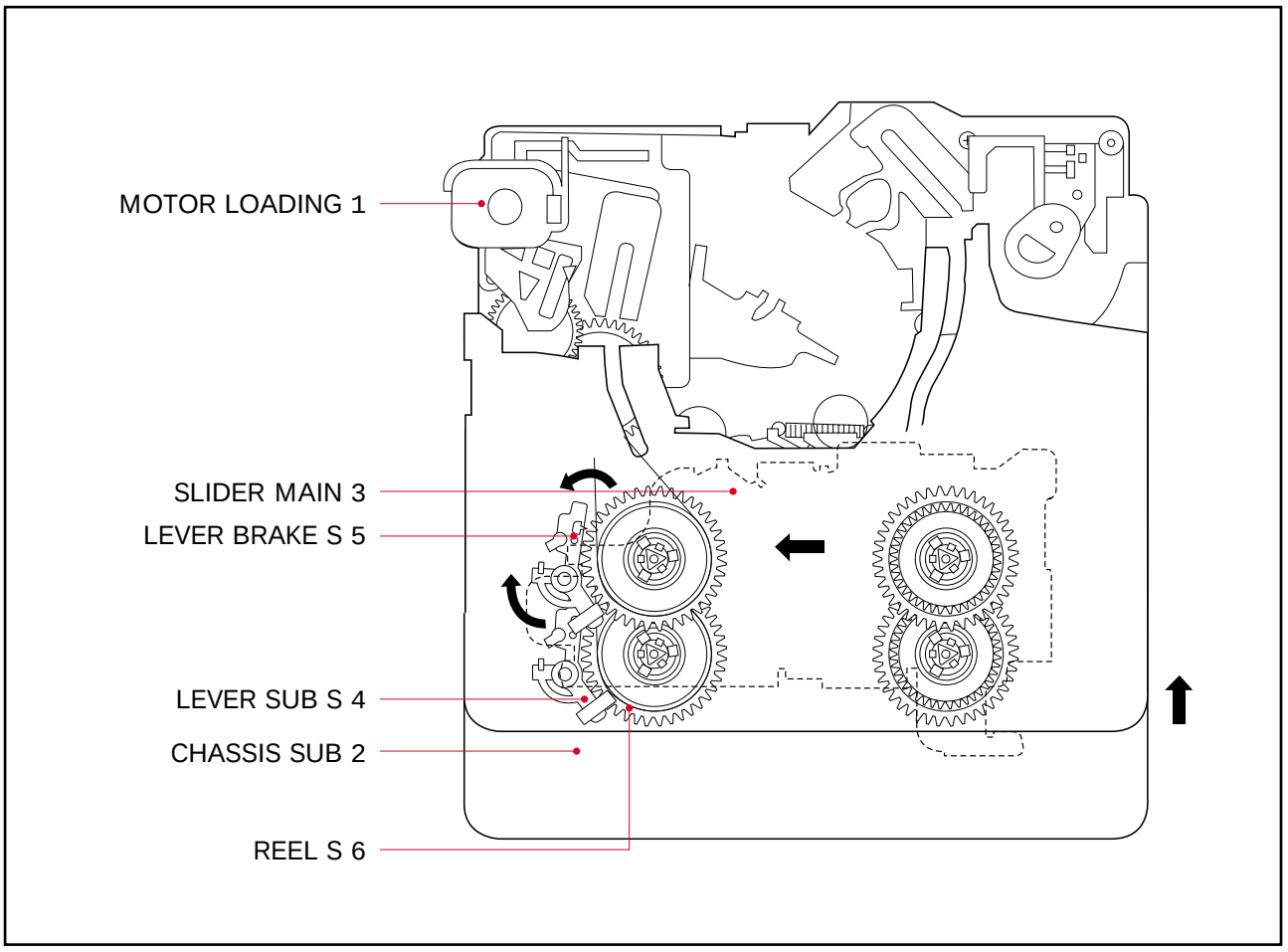


Fig. 1-6

1-3-4 Brake T (Brake Soft T)

Motor Loading 1 rotates.
↓
Chassis Sub 2 moves.
↓
Slider Main 3 move to left.
↓
Brake Soft T 5 released by Slider Main 3 .
(One-way effect of Brake Soft T 5 .)

◆ Brake Soft T 5 (One-way effect)
- -----; Reel T rotates clockwise.
- ——; Reel T rotates counterclockwise.

Mode	Brake Soft T
	OFF ON
EJECT	
UNLOAD	
SUB LOAD	
STOP	
PLAY	

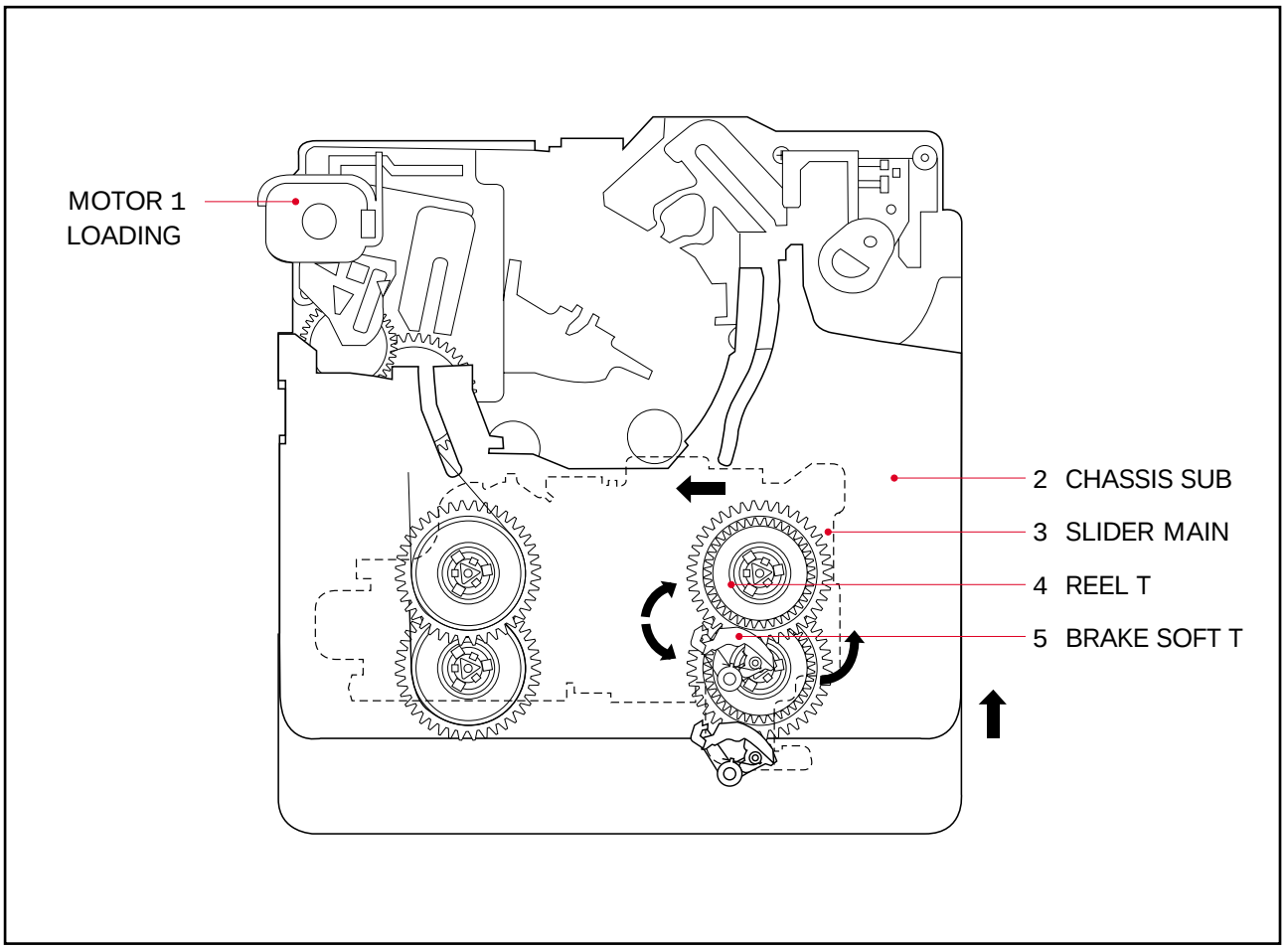


Fig. 1-7

1-3-5 Arm Tension

Motor Loading 1 rotates.
↓
Chassis Sub 2 moves.
↓
Arm Tension 3 operates, (caused by Cam Curve 4 of Chassis Main 7 and Spring Tension 6).
↓
After loading is complete, Arm Tension 3 moves by S/W Mode Cam Curve 5 .

Mode	Arm Tension
	OFF ON
EJECT	
UNLOAD	
SUB LOAD	
STOP	
PLAY	

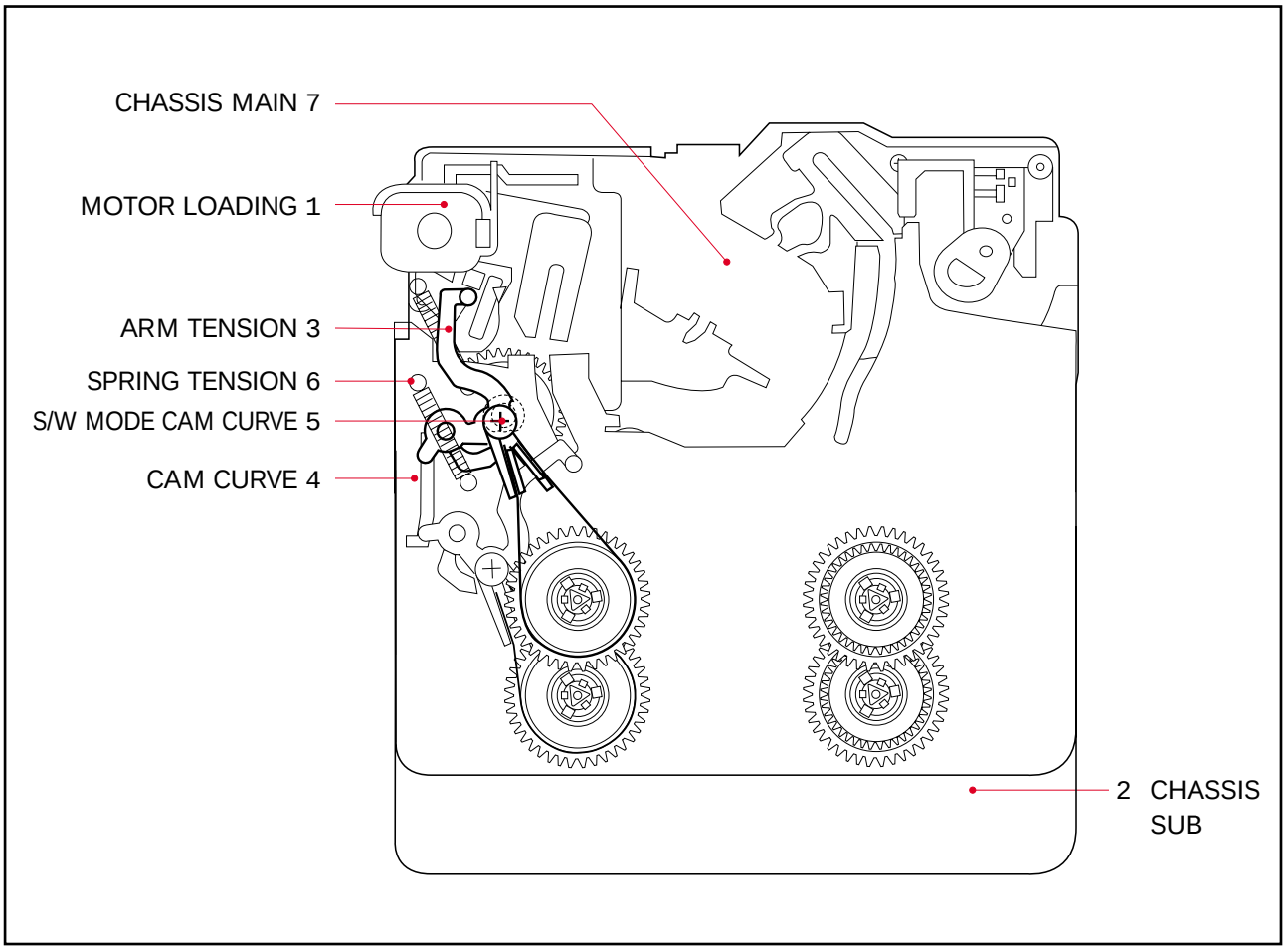


Fig. 1-8

1-3-6 Arm Pinch Roller

Motor Loading 1 rotates.
↓
Chassis Sub 2 moves in direction of arrow.
↓
Arm Pinch Roller 3 rotates clockwise by Cam Curve of Slider Main 4 .
(Chassis Sub 2 stops at loading-complete position)
↓
Slider Main 4 moves in direction of arrow.
↓
Pinch Roller 6 contacts shaft of Motor Capstan 5 . ; PLAY Mode
↓
Motor Loading 1 rotates in reverse.
↓
Slider Main 4 moves to right.
↓
Pinch Roller 6 released from shaft of Motor Capstan 5 . ; Return to STOP

Mode	Arm Pinch Roller
	OFF ON
EJECT	
UNLOAD	
SUB LOAD	
STOP	
PLAY	

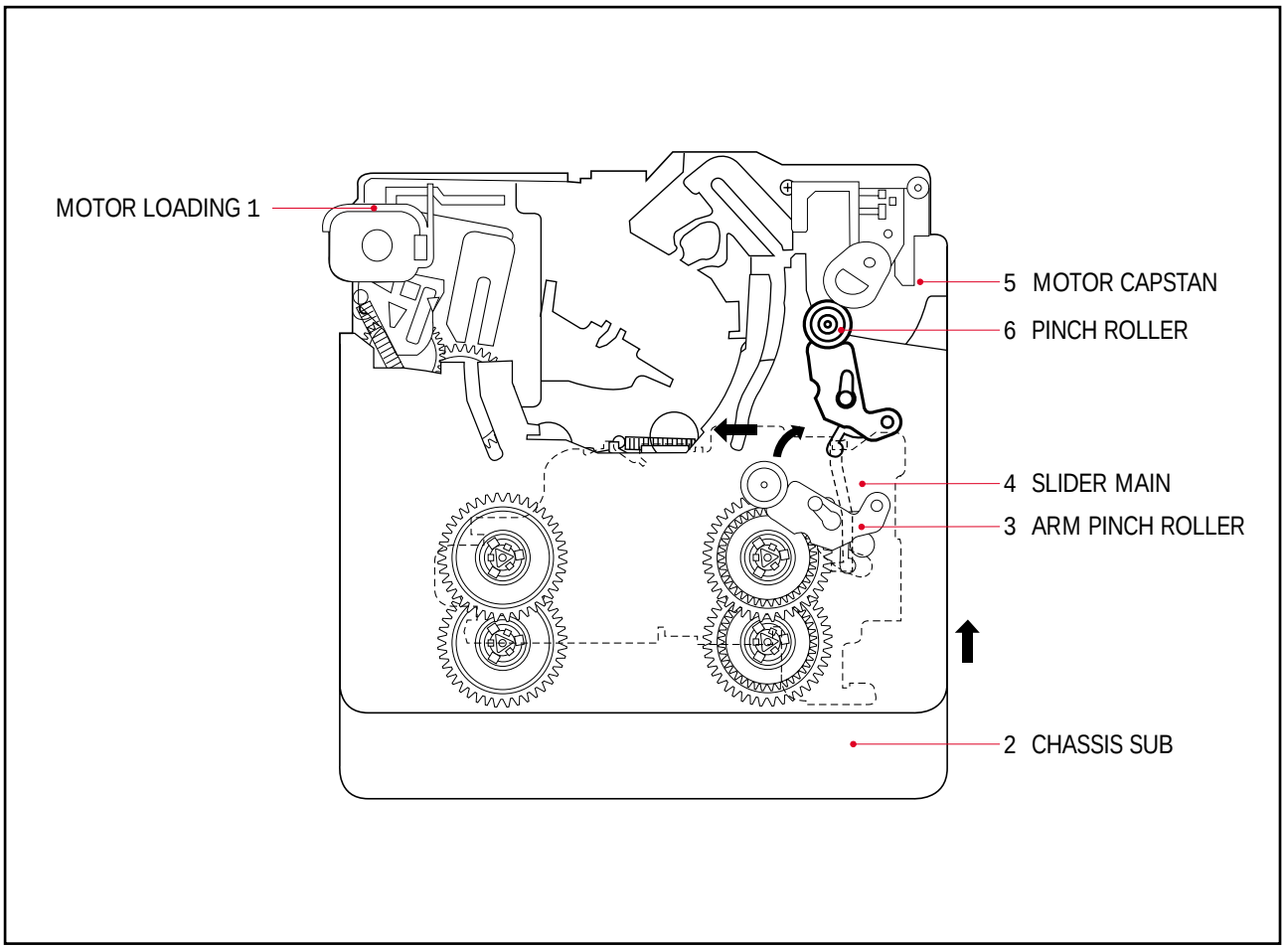


Fig. 1-9

1-3-7 Pole Base S, T

Motor Loading 1 rotates.
↓
Chassis Sub 2 moves.
↓
Arm Loading S 4 and T 5 are actuated by Cam Curve of Slider Main 3 .
↓
Pole Base S 6 , T 7 slides along S rail and T rail.
↓
Slider Main 3 moves to left.
↓
Pole Base S 6 , T 7 attaches to “V” groove of Main Chassis 8 .

Mode	Pole Base S,T
	OFF ON
EJECT	
UNLOAD	
SUB LOAD	
STOP	
PLAY	

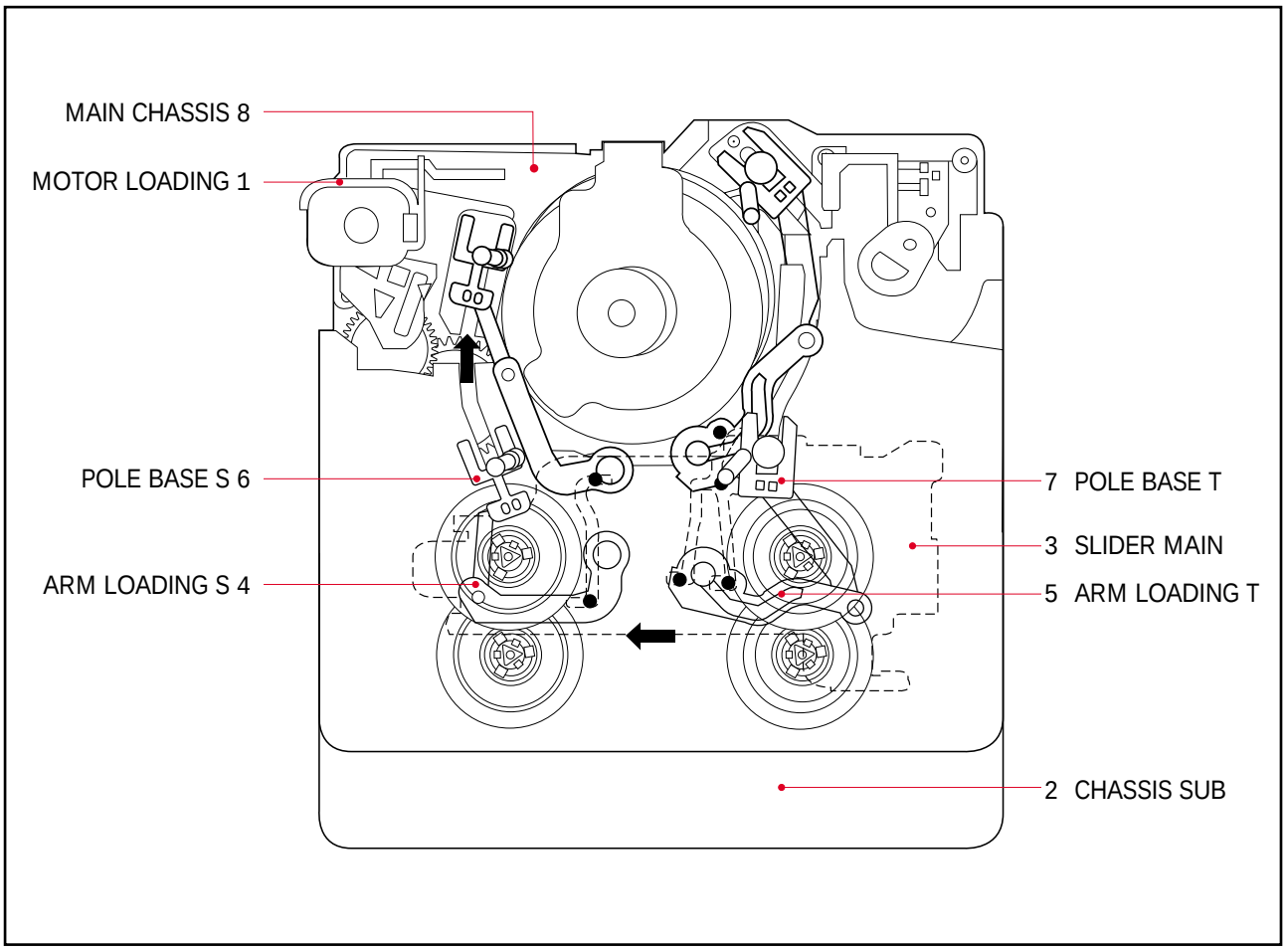


Fig. 1-10

1-3-8 Arm Review

Motor Loading 1 rotates.
↓
Chassis Sub 2 moves in direction of arrow.
↓
Arm Review 5 simulaneously rotates and translates by Cam Curve 4 of Chassis Main 3 .

Mode	Arm Review
	OFF ON
EJECT	
UNLOAD	
SUB LOAD	
STOP	
PLAY	

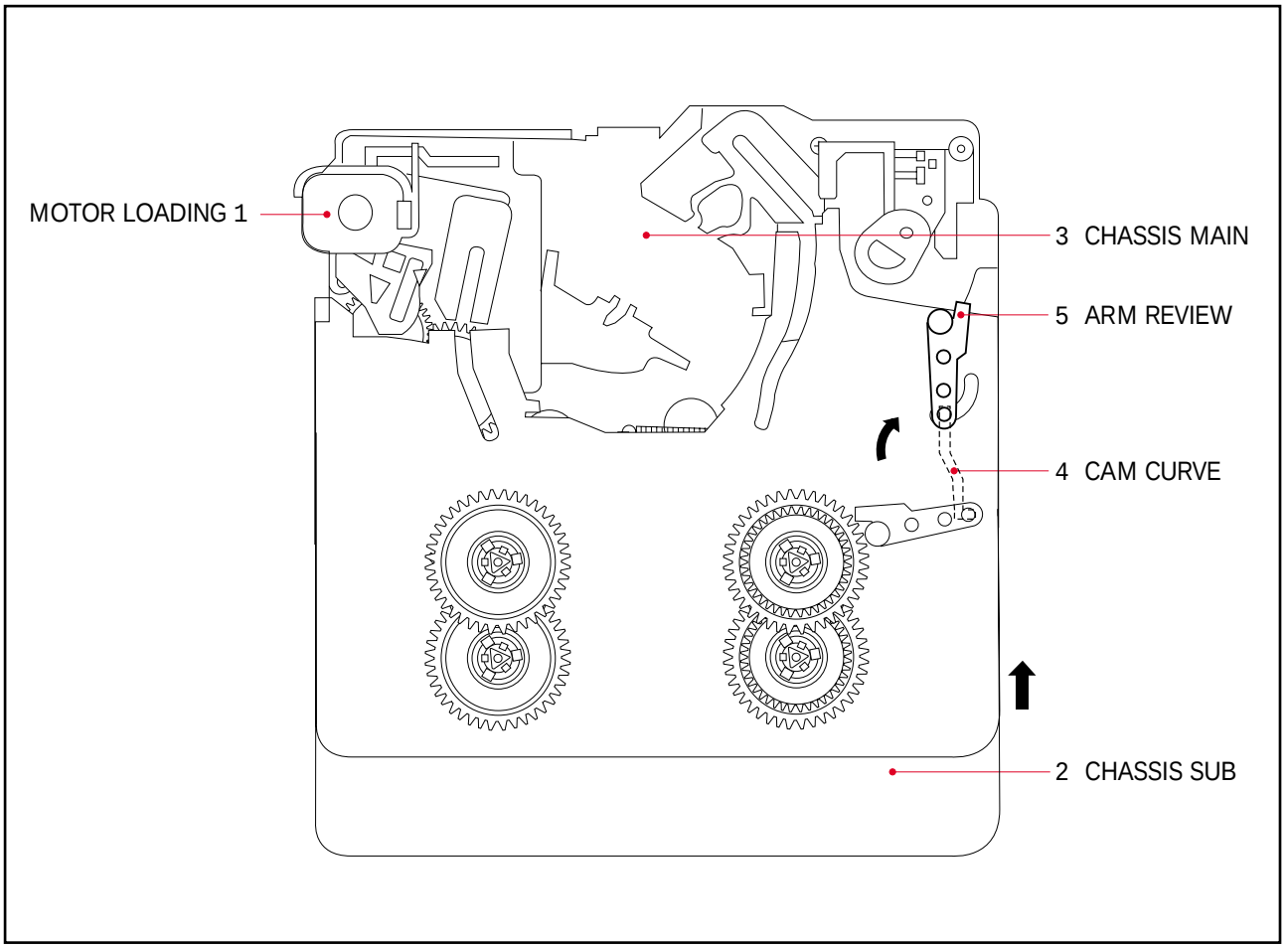


Fig. 1-11

1-3-9 Reel Driving

Motor Capstan 1 rotates.
↓
Gear Capstan 2 rotates.
↓
Belt Timing 3 transmits rotation to Gear Pulley 4 .
↓
Gear Idler 5 engages Reel T 6 or Reel S 7 .
↓
Reel T 6 or Reel S 7 rotates.

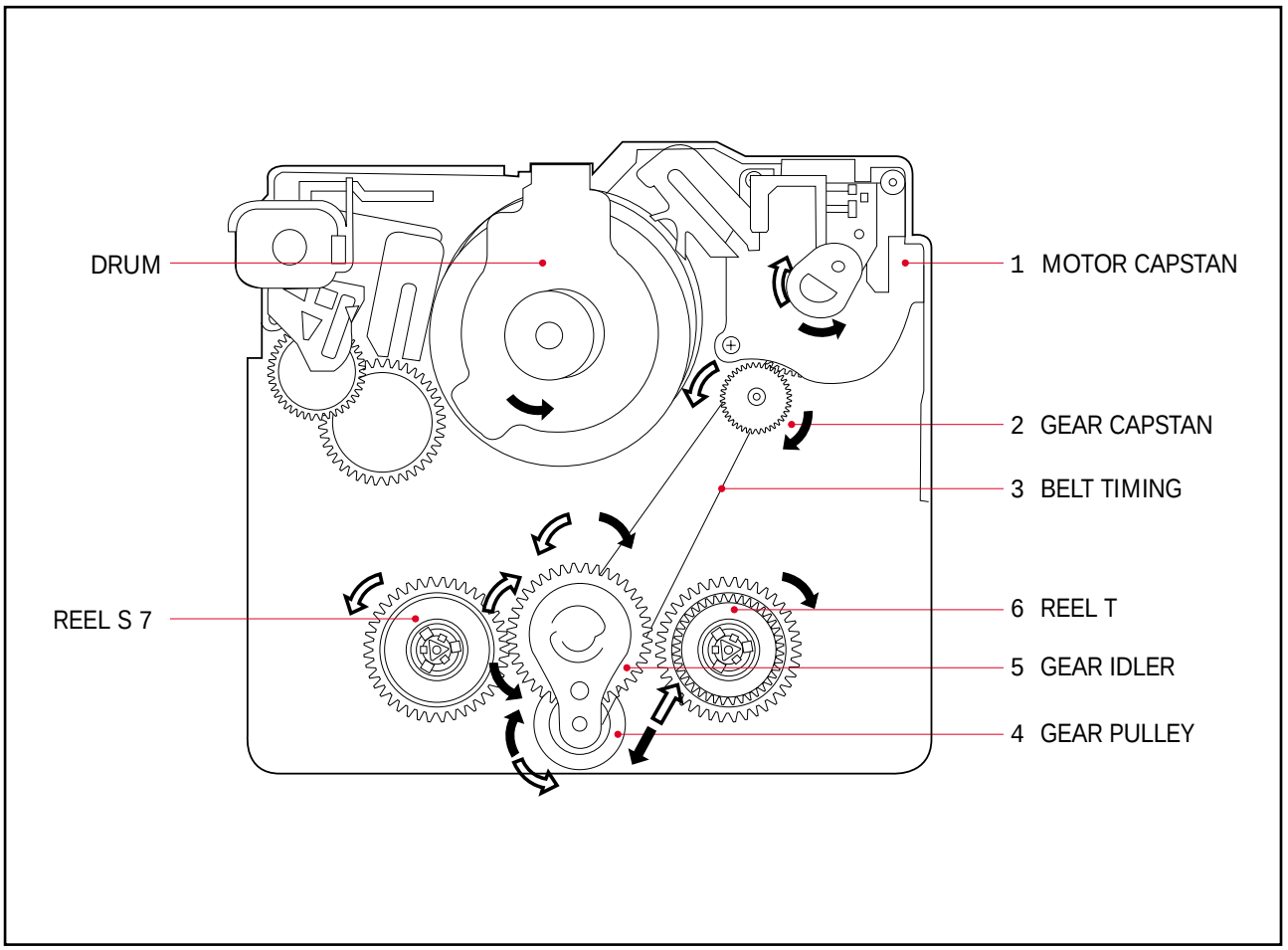
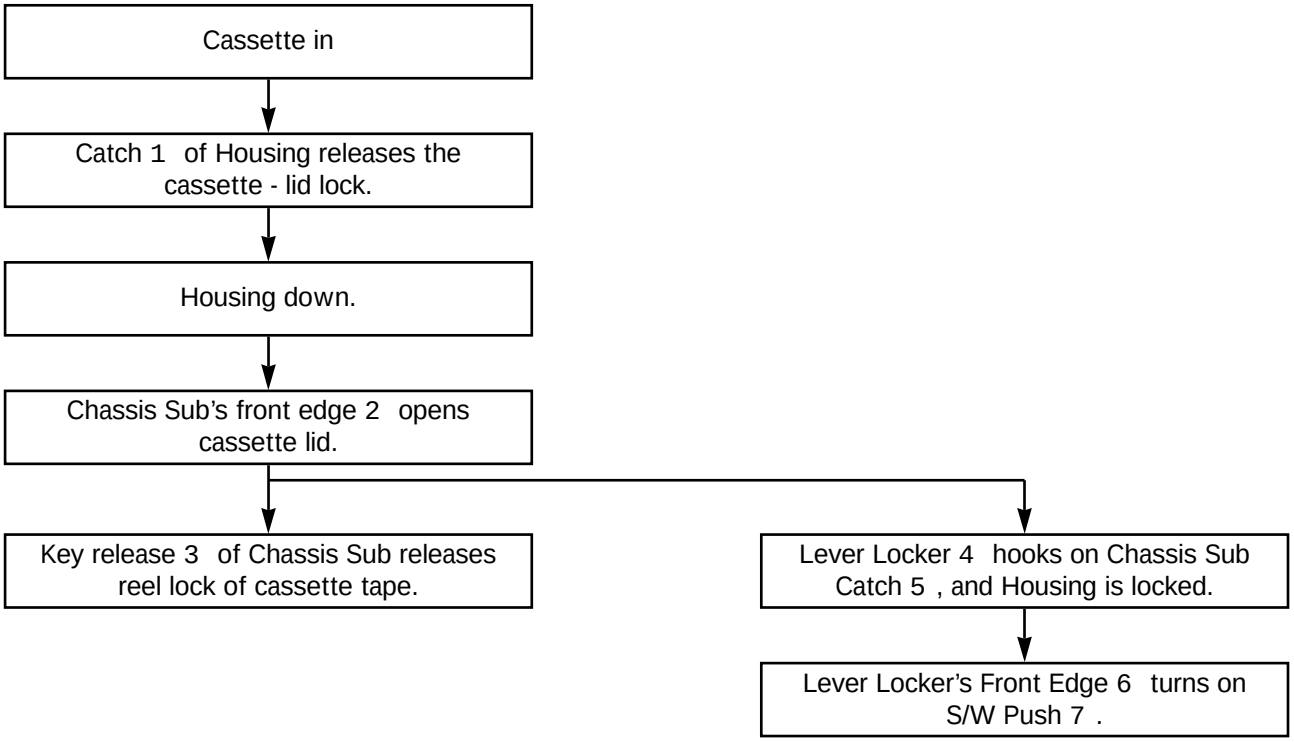


Fig. 1-12

1-4 Mode Position Change

1-4-1 Cassette in Cassette down



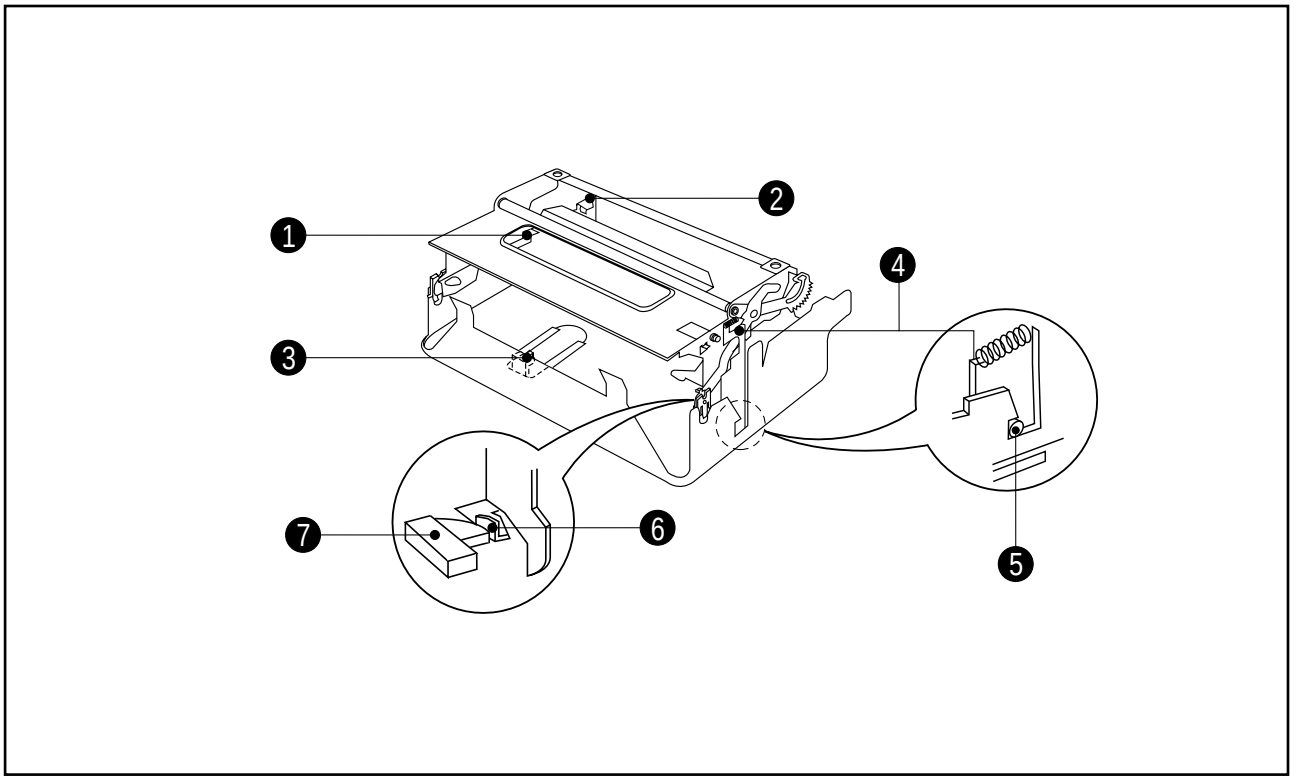


Fig. 1-13

1-4-2 Loading

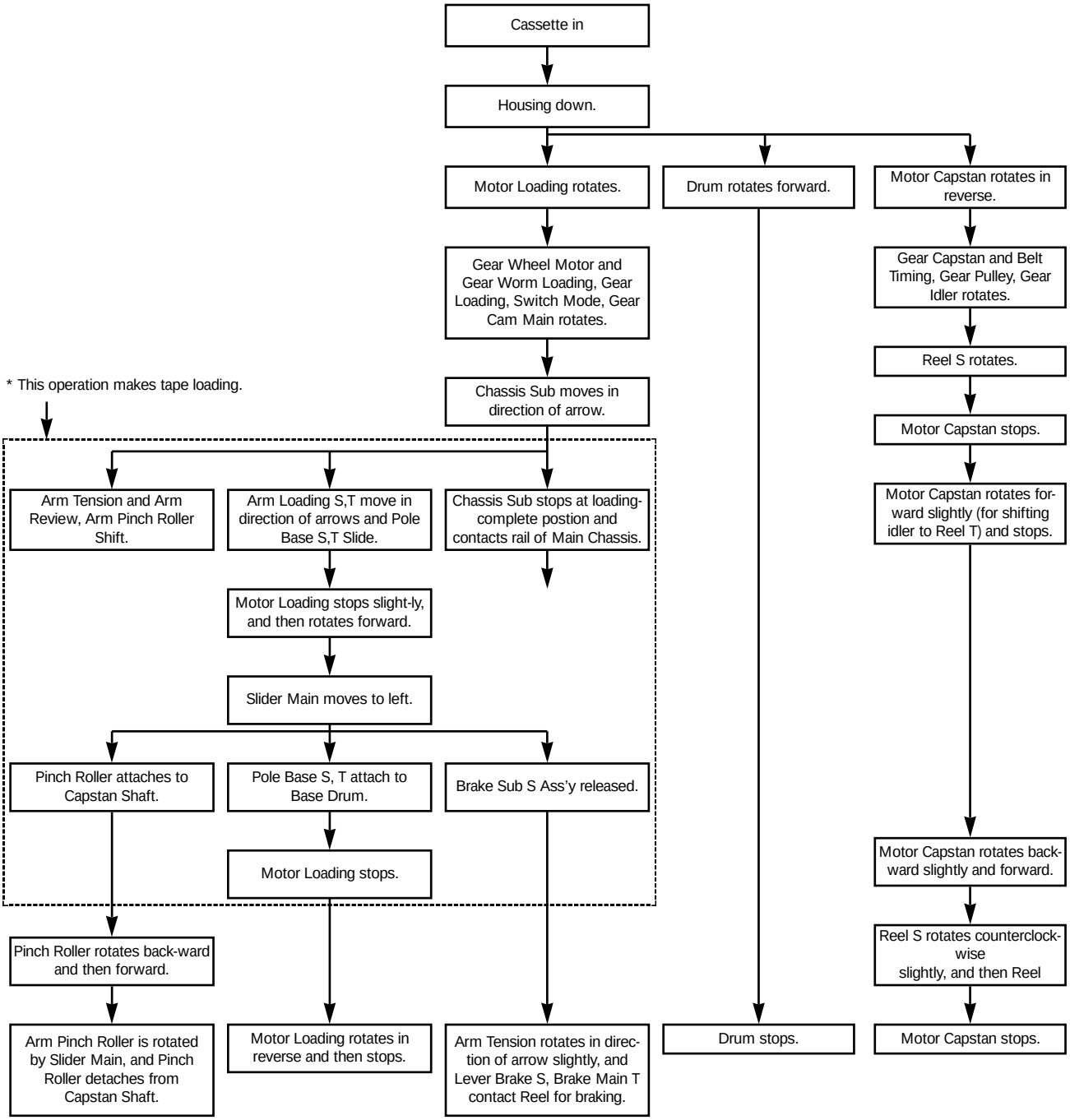


Fig. 1-14

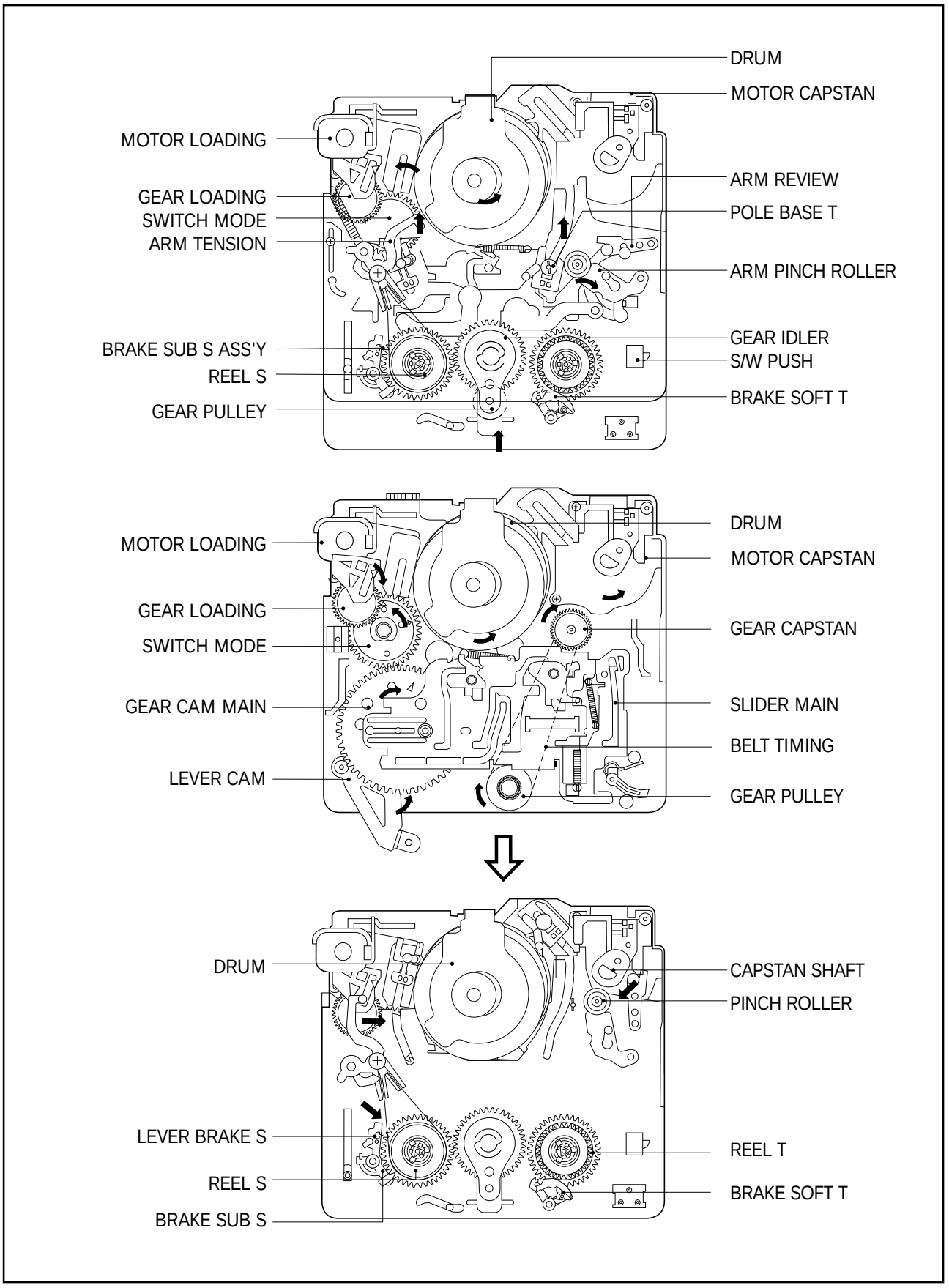
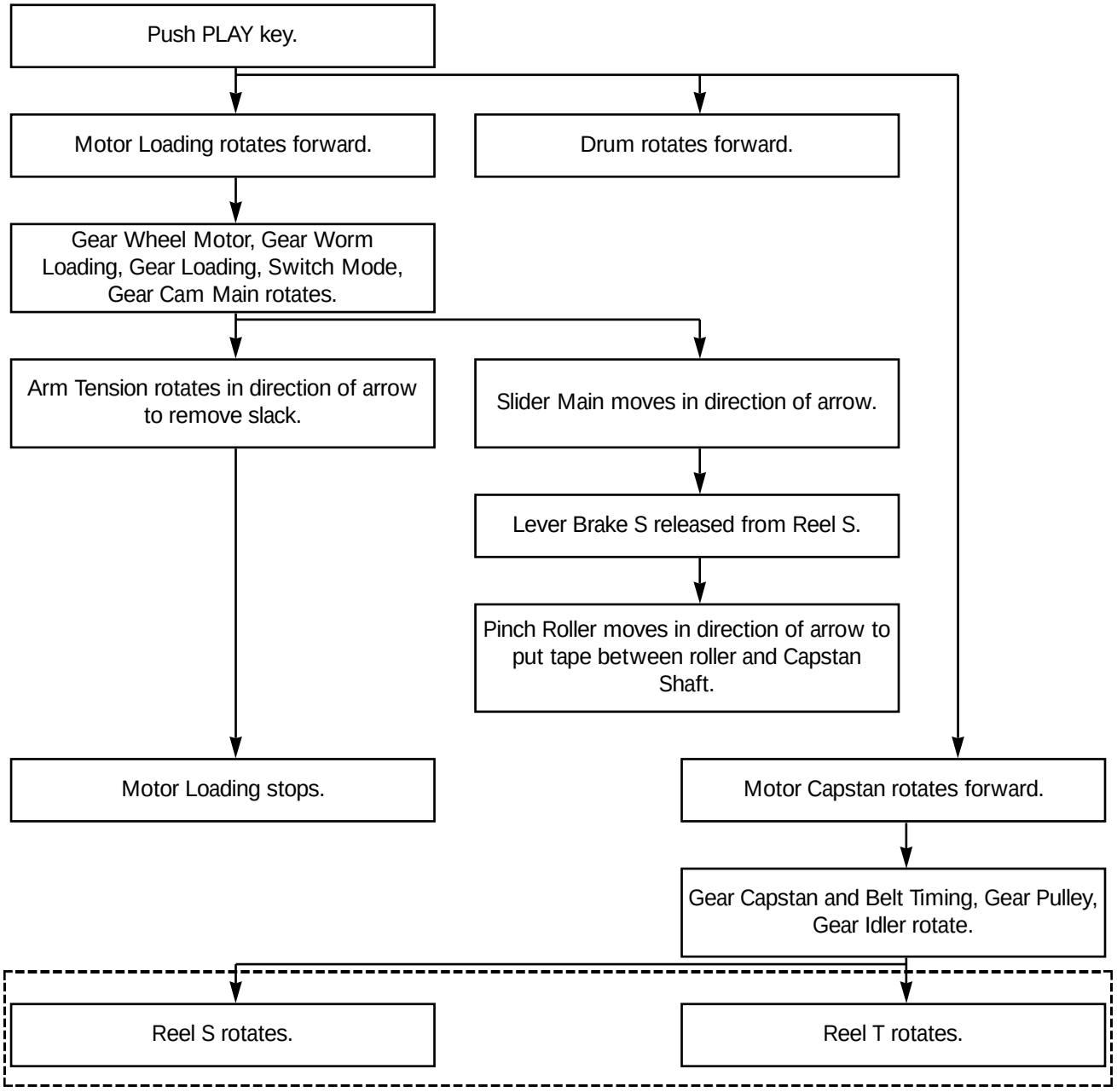

DRUM
MOTOR CAPSTAN
MOTOR LOADING
ARM REVIEW
GEAR LOADING
POLE BASE T
SWITCH MODE
ARM TENSION
ARM PINCH ROLLER
GEAR IDLER
BRAKE SUB S ASS'Y
S/W PUSH
REEL S
BRAKE SOFT T
GEAR PULLEY
DRUM
MOTOR LOADING
MOTOR CAPSTAN
GEAR LOADING
GEAR CAPSTAN
SWITCH MODE
GEAR CAM MAIN
SLIDER MAIN
BELT TIMING
LEVER CAM
GEAR PULLEY
DRUM
CAPSTAN SHAFT
PINCH ROLLER
LEVER BRAKE S
REEL T
REEL S
BRAKE SOFT T
BRAKE SUB S

Fig. 1-15

1-4-3 Stop → Play



* The tape fed from the Motor Capstan is wound by this operation.

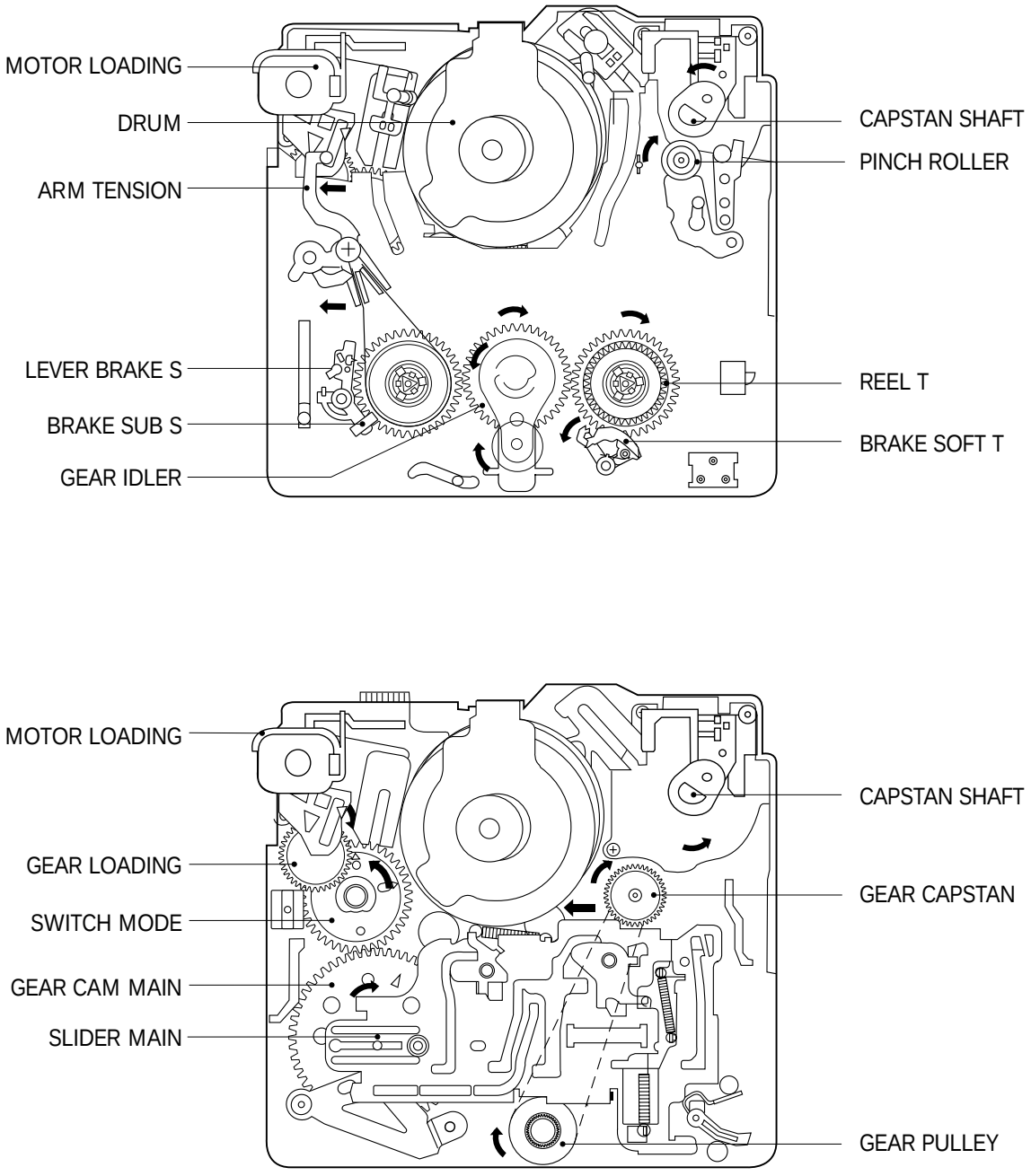
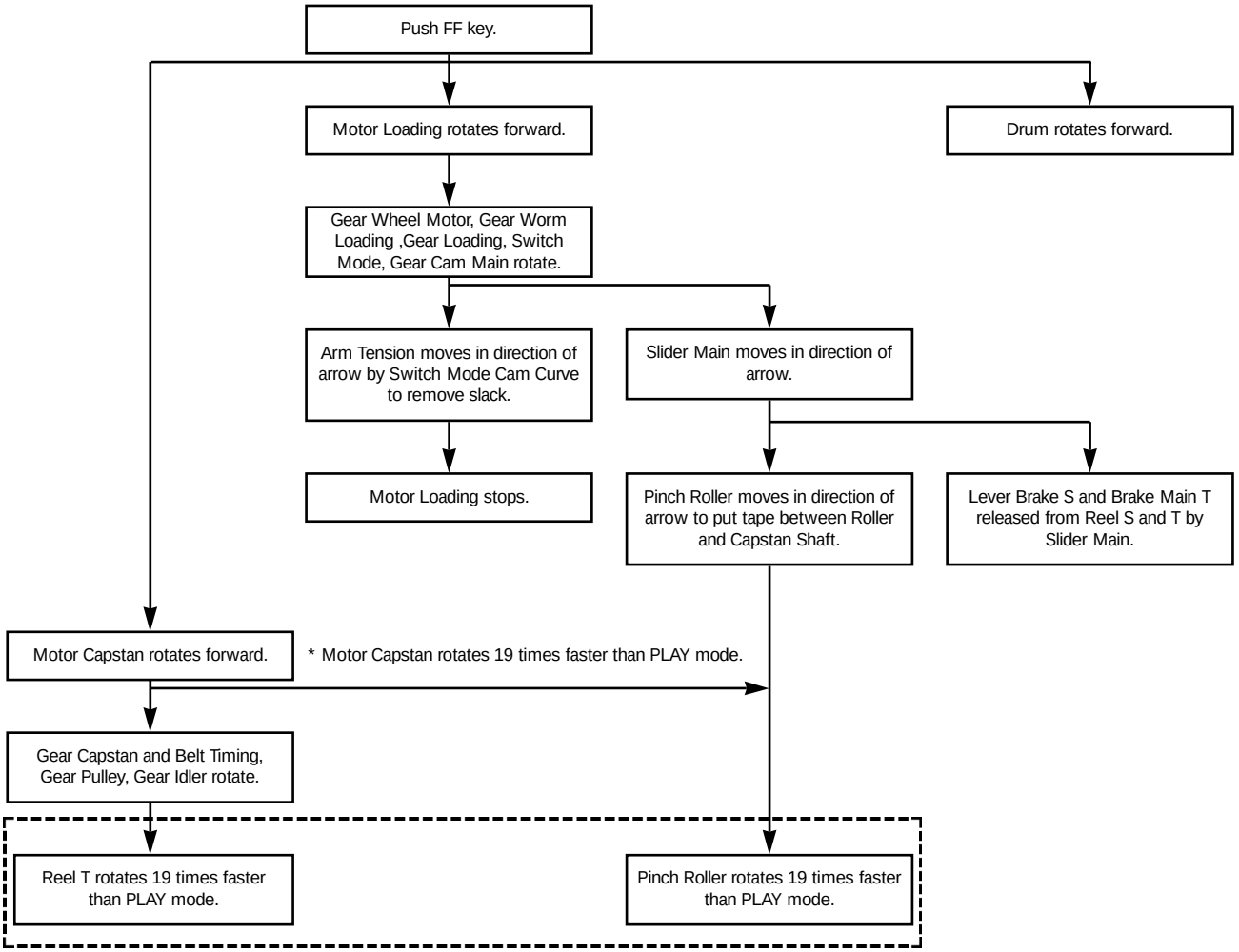

MOTOR LOADING
DRUM
ARM TENSION
LEVER BRAKE S
BRAKE SUB S
GEAR IDLER
CAPSTAN SHAFT
PINCH ROLLER
REEL T
BRAKE SOFT T
MOTOR LOADING
GEAR LOADING
SWITCH MODE
GEAR CAM MAIN
SLIDER MAIN
CAPSTAN SHAFT
GEAR CAPSTAN
GEAR PULLEY

Fig. 1-16

1-4-4 Stop → FF



* This operation feeds tape 19 times faster than PLAY mode.

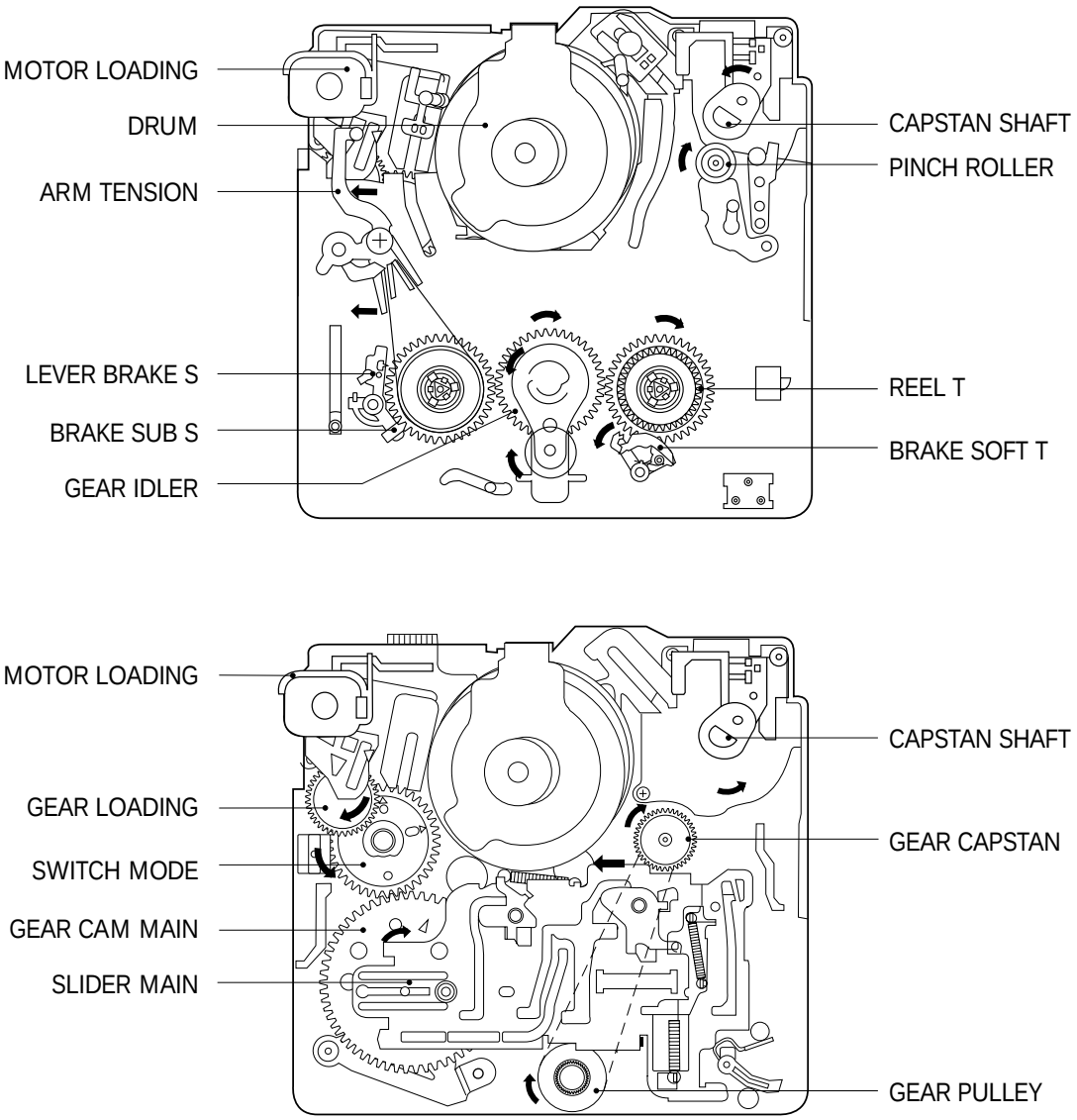
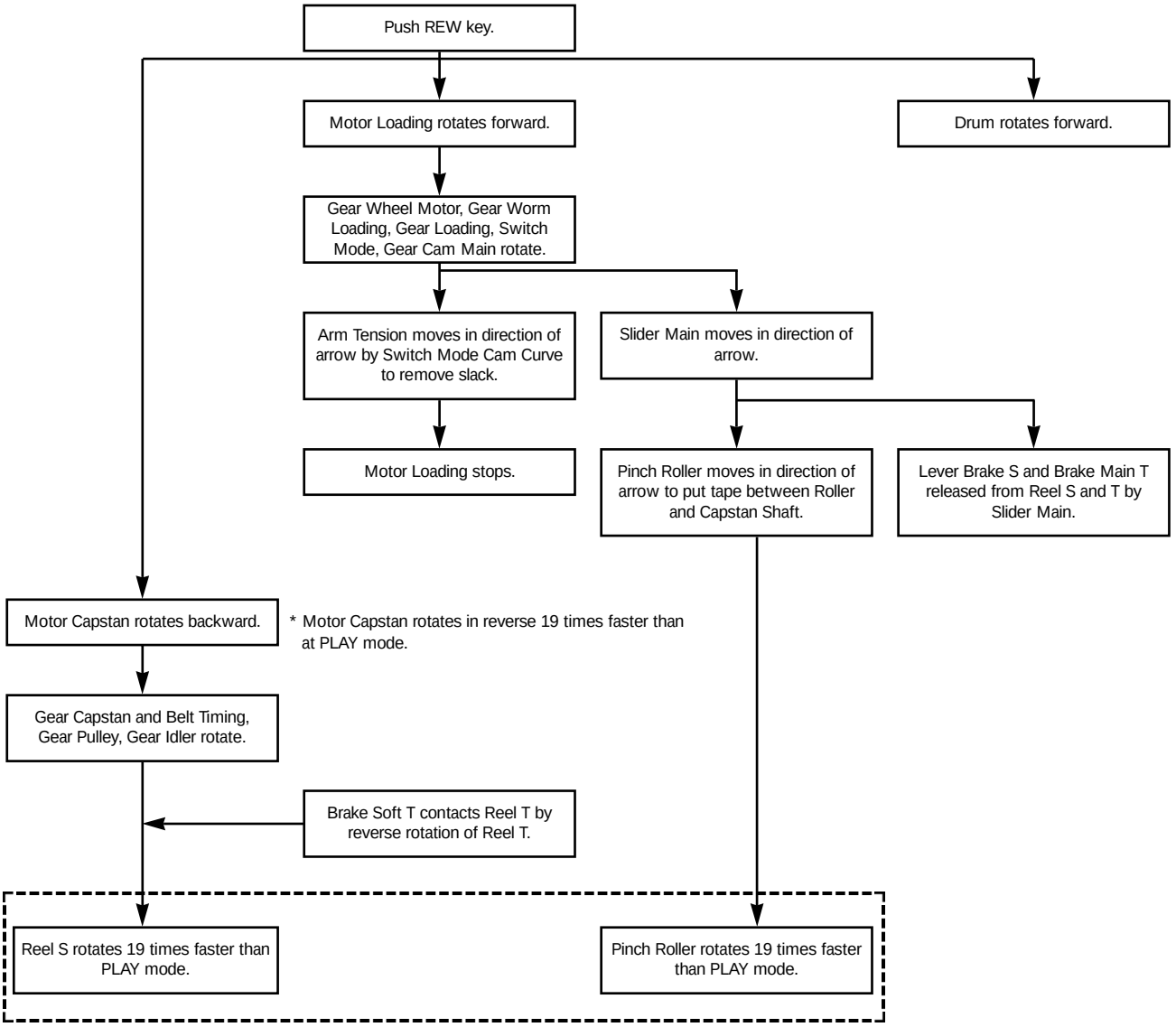
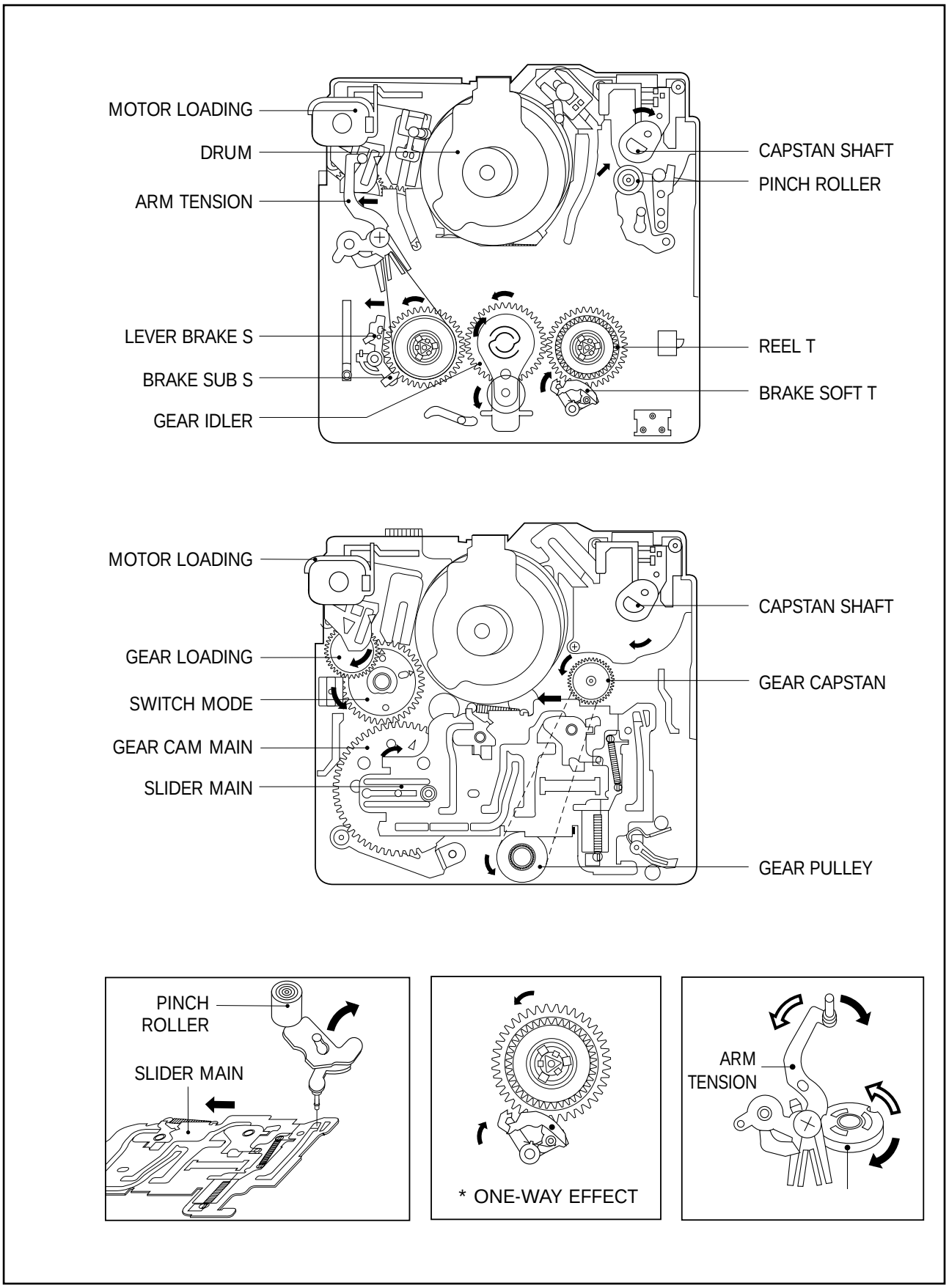

MOTOR LOADING
DRUM
ARM TENSION
LEVER BRAKE S
BRAKE SUB S
GEAR IDLER
CAPSTAN SHAFT
PINCH ROLLER
REEL T
BRAKE SOFT T
MOTOR LOADING
GEAR LOADING
SWITCH MODE
GEAR CAM MAIN
SLIDER MAIN
CAPSTAN SHAFT
GEAR CAPSTAN
GEAR PULLEY
PINCH ROLLER
SLIDER MAIN
ARM
TENSION

Fig. 1-17

1-4-5 Stop → REW



* This operation feeds tape backward 19 times faster than PLAY mode.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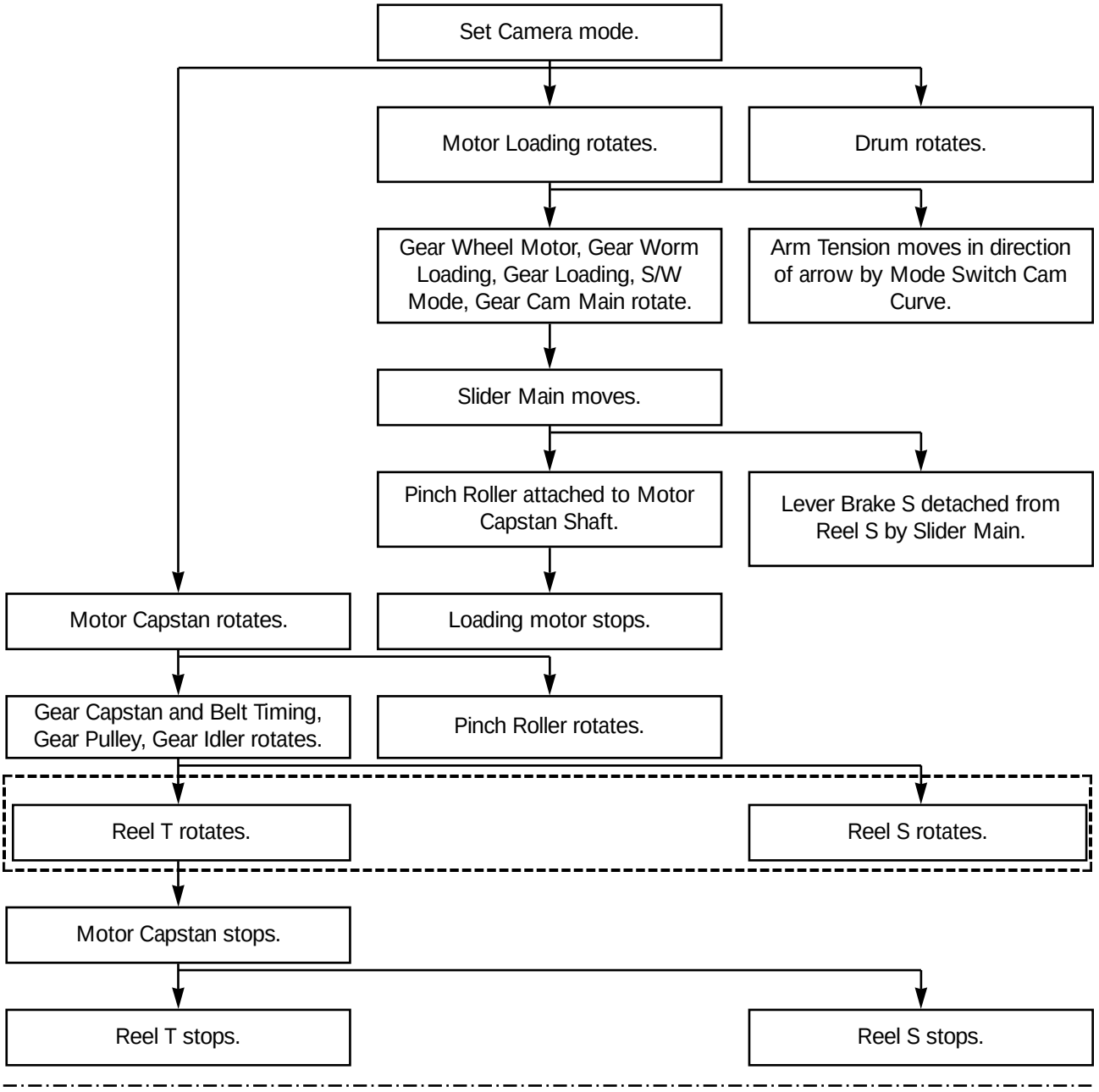
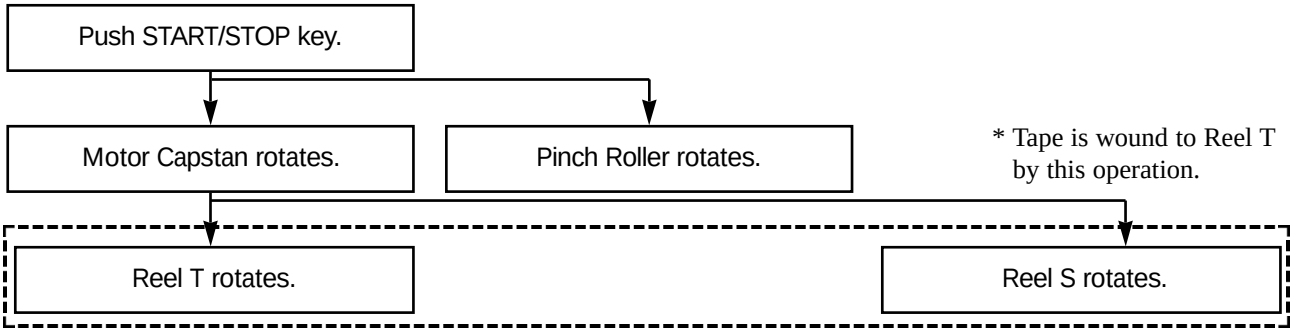
DRUM
ARM TENSION
LEVER BRAKE S
BRAKE SUB S
GEAR IDLER
CAPSTAN SHAFT
PINCH ROLLER
REEL T
BRAKE SOFT T
MOTOR LOADING
GEAR LOADING
SWITCH MODE
GEAR CAM MAIN
SLIDER MAIN
CAPSTAN SHAFT
GEAR CAPSTAN
GEAR PULLEY
PINCH ROLLER
SLIDER MAIN
* ONE-WAY EFFECT
ARM TENSION

Fig. 1-18

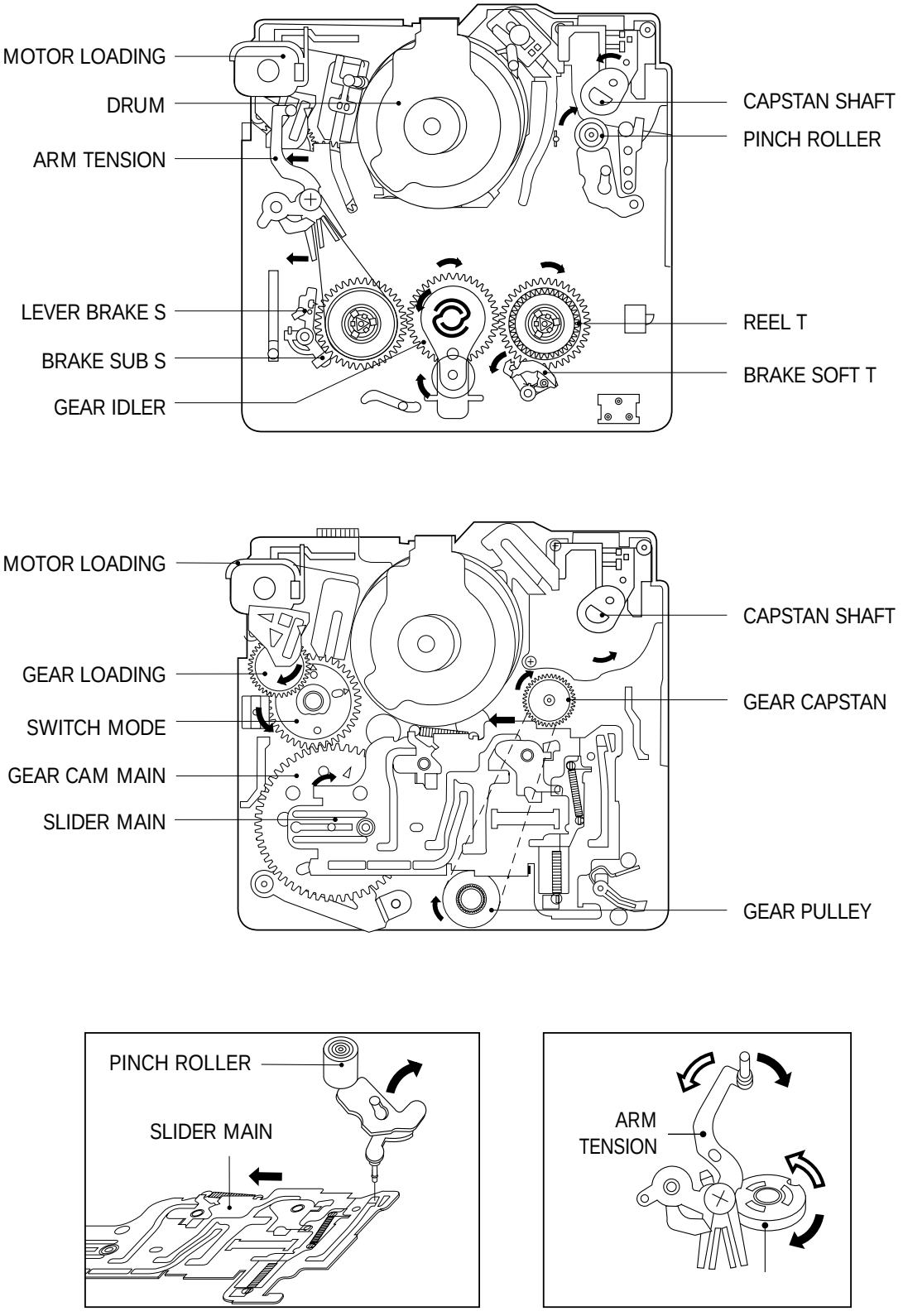
1-4-6 Stop → REC



* Drum is still rotating during REC/PAUSE .



* Tape is wound to Reel T by this operation.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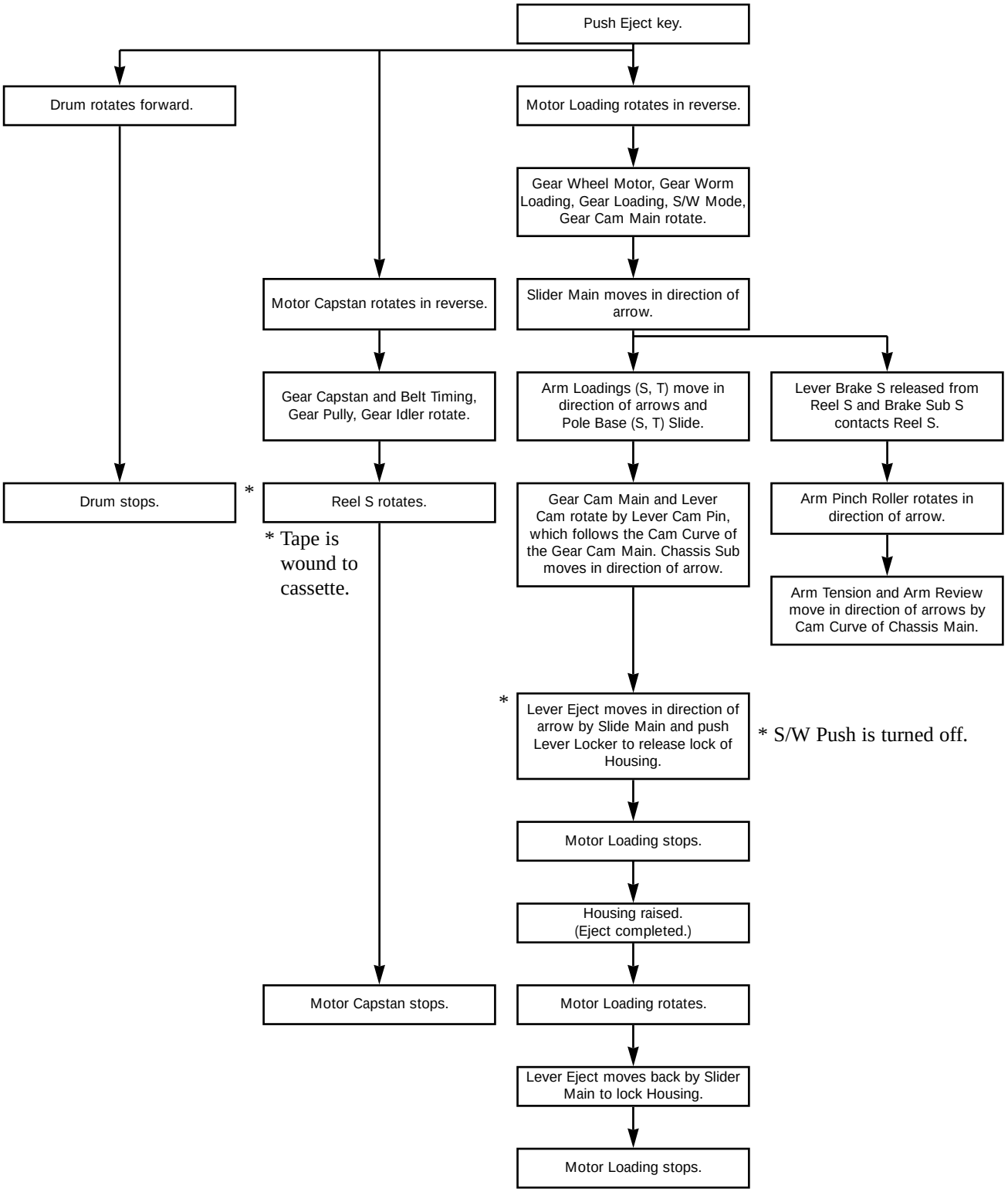
DRUM
ARM TENSION
LEVER BRAKE S
BRAKE SUB S
GEAR IDLER
CAPSTAN SHAFT
PINCH ROLLER
REEL T
BRAKE SOFT T
MOTOR LOADING
GEAR LOADING
SWITCH MODE
GEAR CAM MAIN
SLIDER MAIN
CAPSTAN SHAFT
GEAR CAPSTAN
GEAR PULLEY
PINCH ROLLER
SLIDER MAIN
ARM
TENSION

Fig. 1-19

1-4-7 Stop → Unload



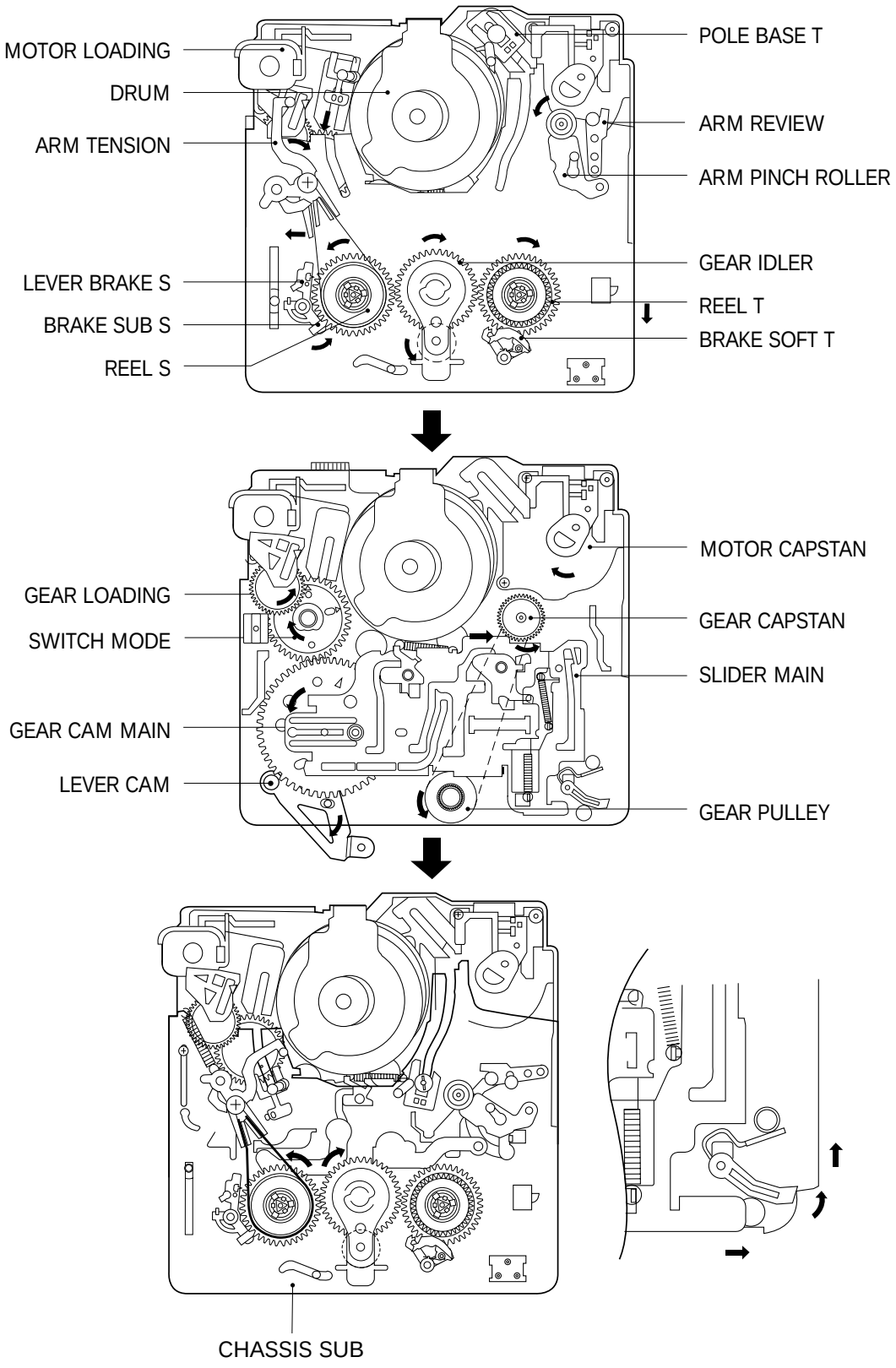
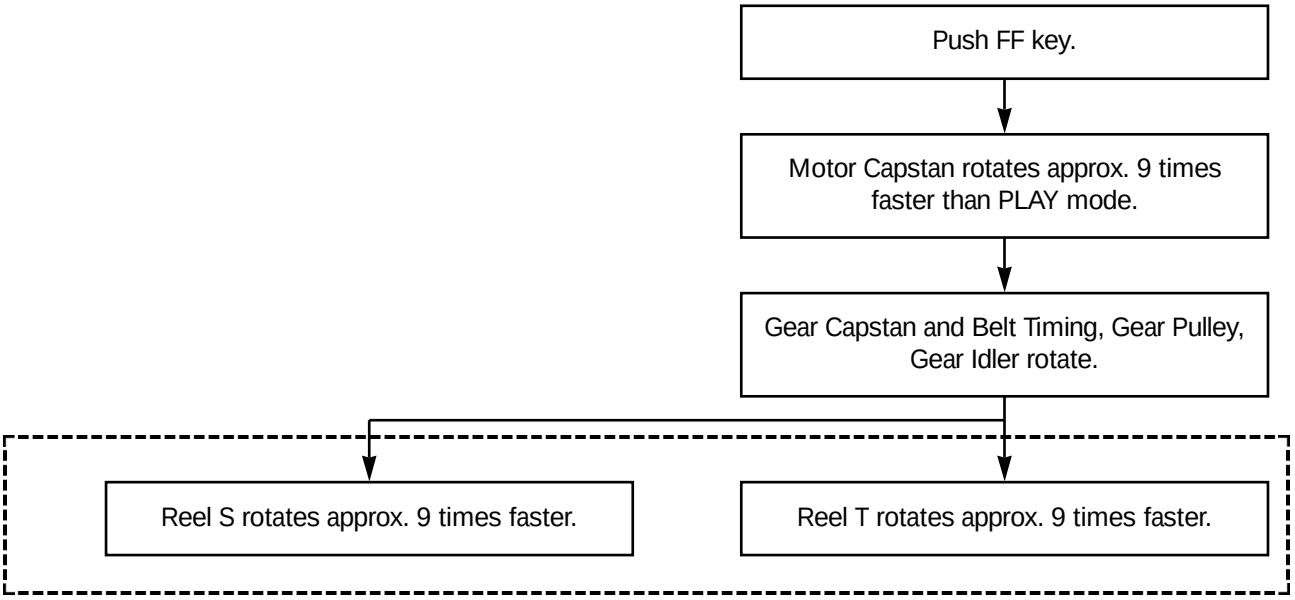

MOTOR LOADING
DRUM
ARM TENSION
LEVER BRAKE S
BRAKE SUB S
REEL S
POLE BASE T
ARM REVIEW
ARM PINCH ROLLER
GEAR IDLER
REEL T
BRAKE SOFT T
GEAR LOADING
SWITCH MODE
GEAR CAM MAIN
LEVER CAM
MOTOR CAPSTAN
GEAR CAPSTAN
SLIDER MAIN
GEAR PULLEY
CHASSIS SUB

Fig. 1-20

1-4-8 CUE



* Tape which is fed by Motor Capstan is wound up to Reel T.

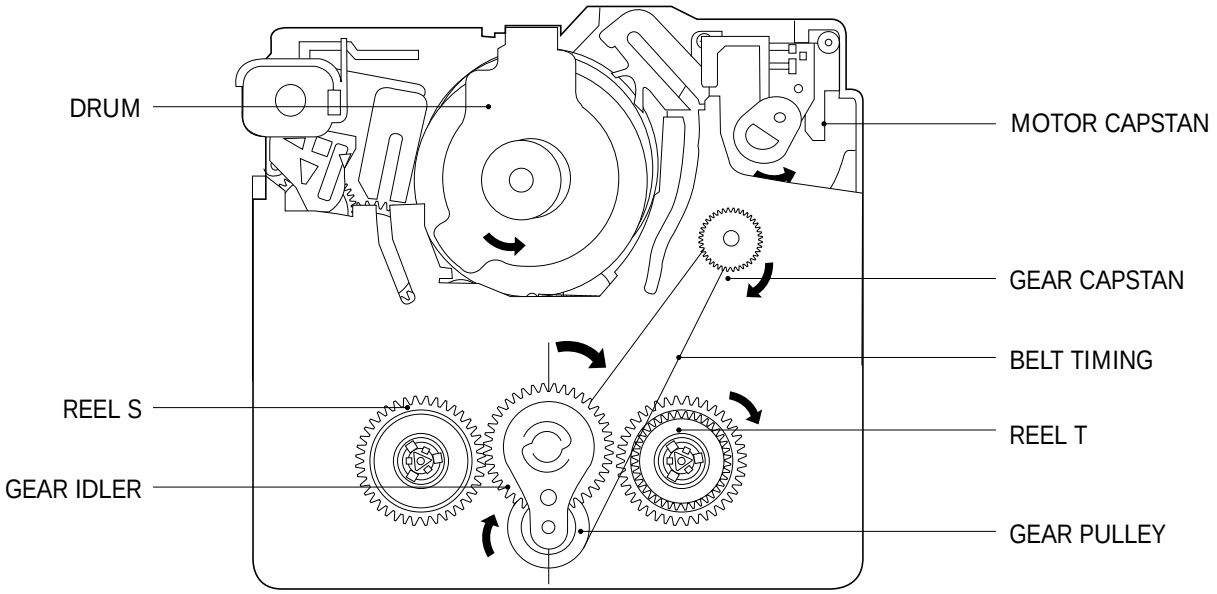
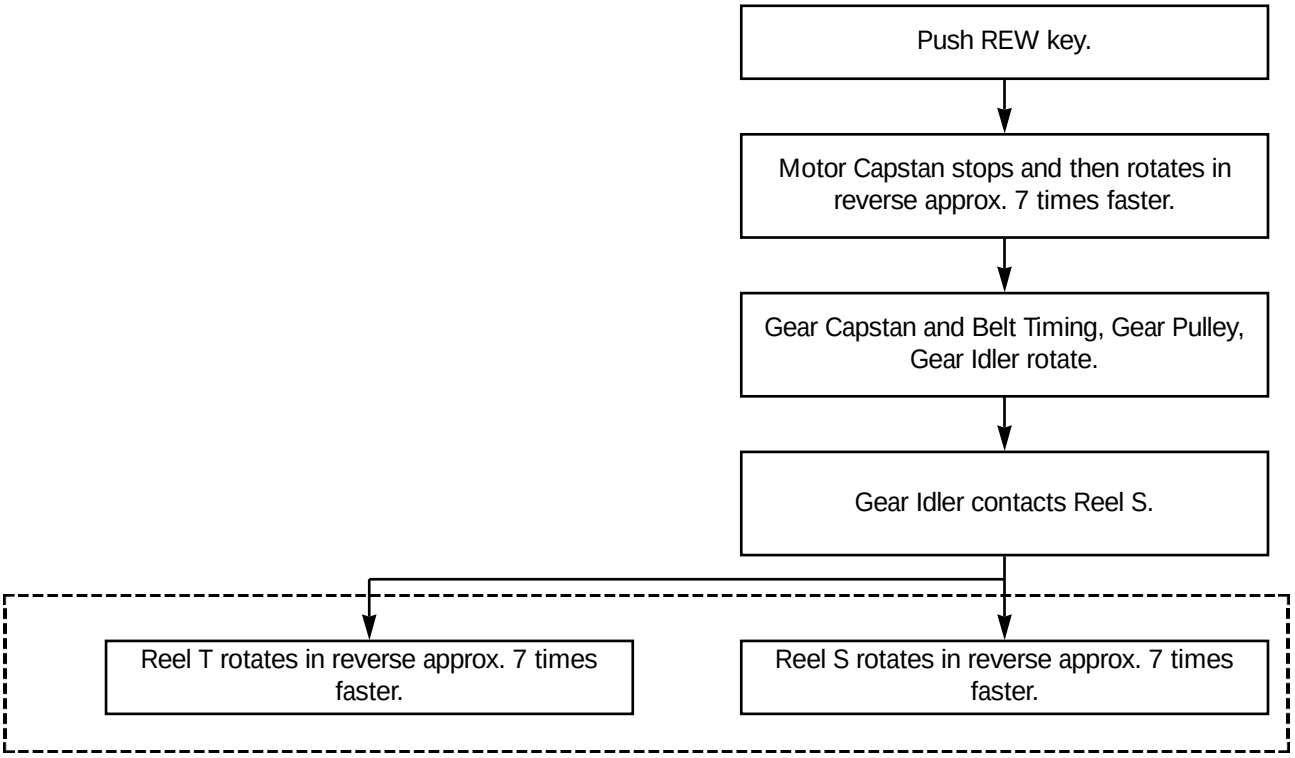

DRUM
MOTOR CAPSTAN
GEAR CAPSTAN
BELT TIMING
REEL S
REEL T
GEAR IDLER
GEAR PULLEY

Fig. 1-21

1-4-9 REV



* Tape which is fed by Motor Capstan is wound up to Reel S.

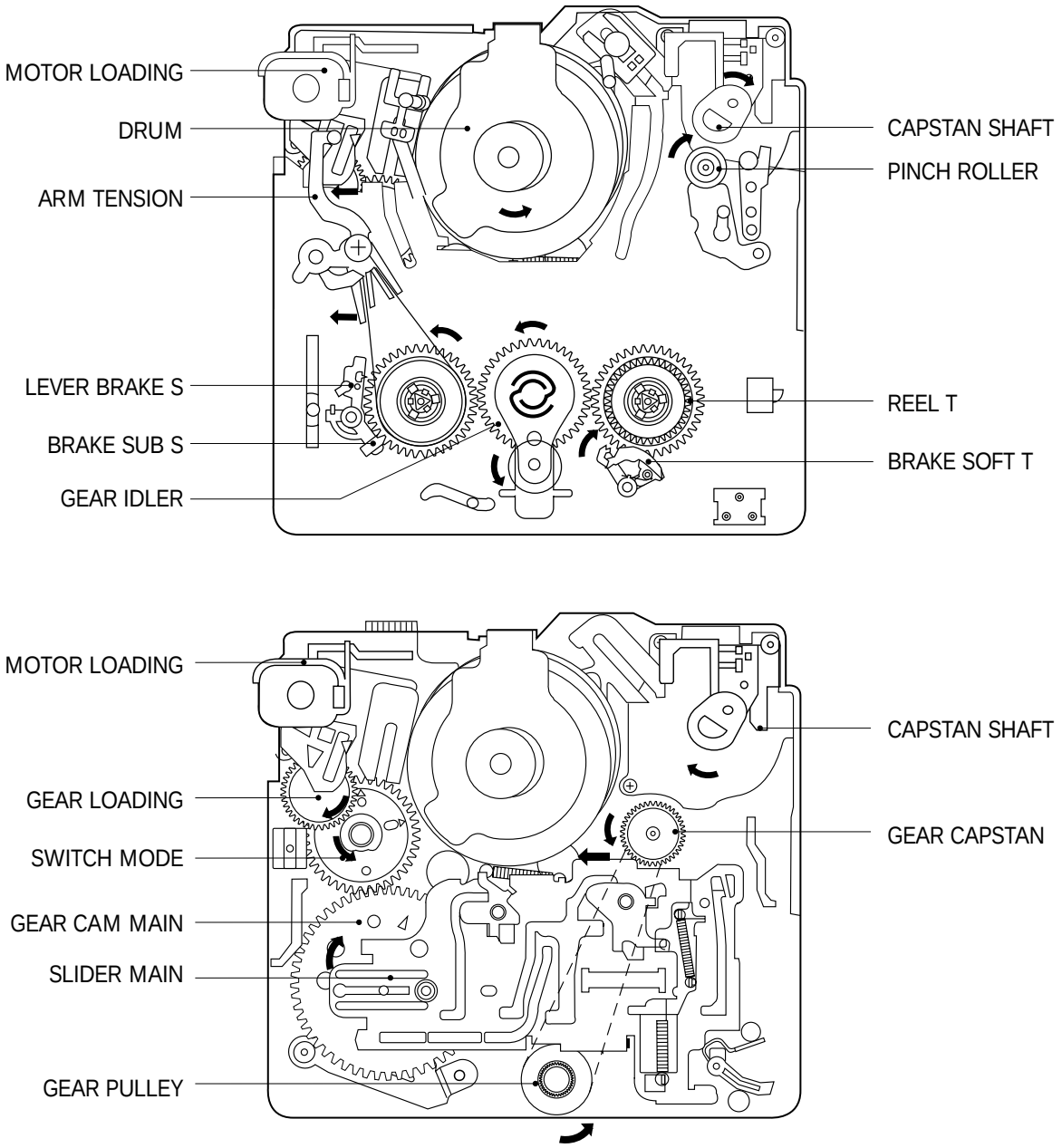

MOTOR LOADING
DRUM
ARM TENSION
LEVER BRAKE S
BRAKE SUB S
GEAR IDLER
CAPSTAN SHAFT
PINCH ROLLER
REEL T
BRAKE SOFT T
MOTOR LOADING
GEAR LOADING
SWITCH MODE
GEAR CAM MAIN
SLIDER MAIN
GEAR PULLEY
CAPSTAN SHAFT
GEAR CAPSTAN

Fig. 1-22

MEMO