

Daewoo "K" mechanism manual  
models using this deck are:

Daewoo DV-K284 (VCR)

304 "

384 "

484 "

504 "

584 "

784 "

804 "

884 "

DVN-14F6N (TV-VCR Combo)

DVN-20F6N "

Portland PLV2010B

Emerson EV-304 (VCR)

EV-504 "

EV-804 "

EVT-20F7 (TV-VCR Combo)

White-Westinghouse

323

523

823

WVT11311 (TV-VCR Combo)

WVT12505 "

Daewoo parts list should be used for Models listed above & parts ordered from Daewoo.

Also included are scans of the RCA/GE parts list with models using this same deck

Parts lists TCEA.pcx is for RCA models VR339,VR348, VR509 & GE models

VG2056, VG2058, VG2056

Parts lists TCEb.pcx is for RCA models VR342,VR518, & GE models

VG2040, VG4040, VG4061

There are some differences in the parts lists. Some parts are available from TCE that are not from Daewoo. It appears that Daewoo left a couple of parts list pages out of their manual???

The basic mechanisms appear to be the same.

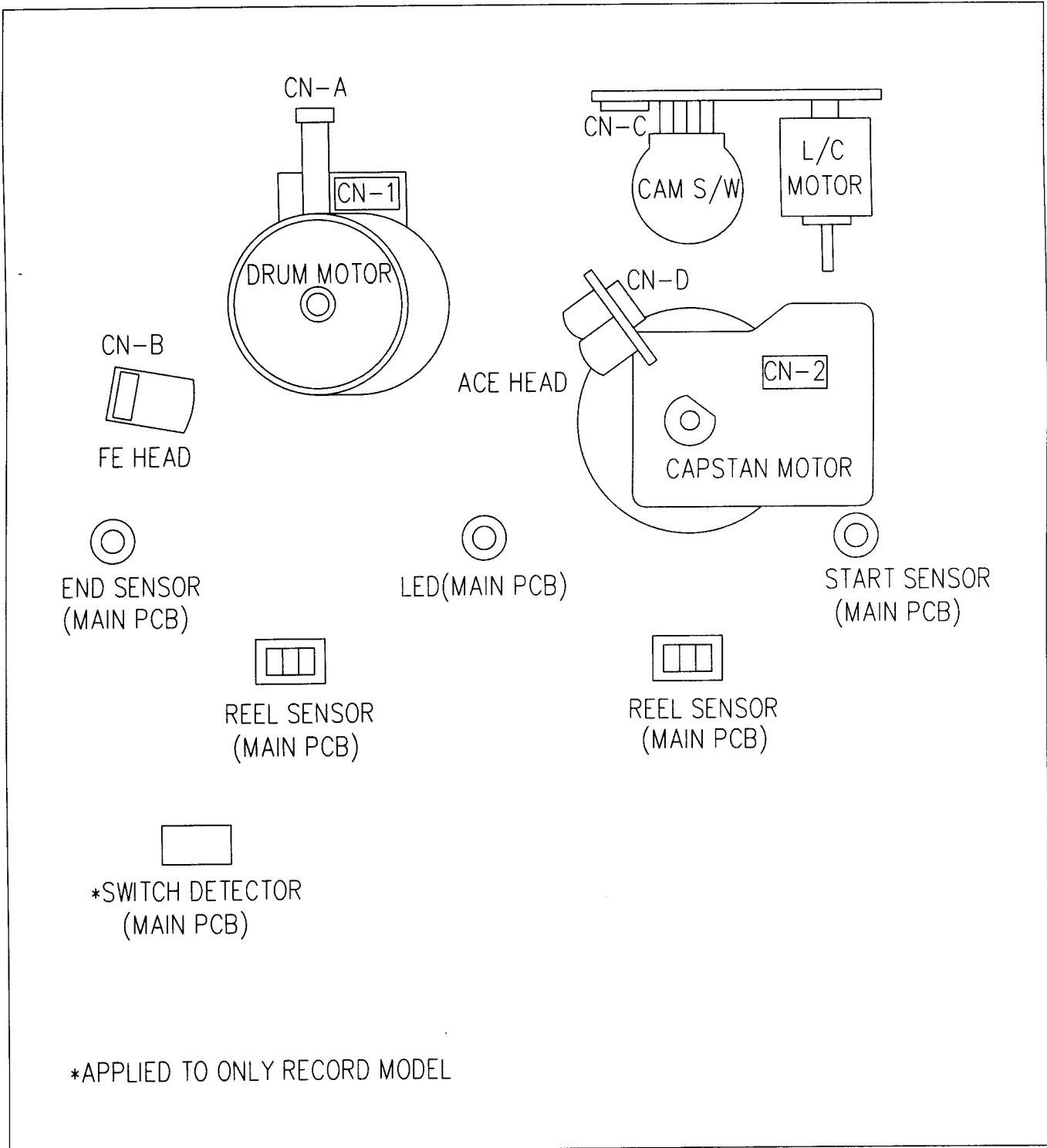
# 1. DESCRIPTION OF THE MECHANISM

## 1-1 CHARACTERISTIC OF THE K-DECK MECHANISM

- 1) K-MECHA DECK follows the VHS standard and NTSC standard.
- 2) K-MECHA DECK uses three motors (DRUM MOTOR, CAPSTAN MOTOR and L/C MOTOR)
- 3) K-MECHA DECK uses L/C MOTOR to drive FRONT LOADING.
- 4) K-MECHA DECK recognizes the mode by the 4-BIT MODE signal. This 4-BIT MODE signal is generated by the CAM SWITCH which is driven by the L/C MOTOR.
- 5) K-MECHA DECK is operated by 7 MODES (EJECT/INITIAL/REV/IDLE/PLAY, STOP, SLOW/BRAKE/FF & REW).
- 6) K-MECHA DECK reduces the mode shifting time, that is, picture playing time by using the FULL LOADING SYSTEM that has the wrapped DRUM by the tape.
- 7) K-MECHA DECK is separated from Main PCB. When assembling, it is connected by B-B TYPE CONNECTOR. The CAPSTAN MOTOR and DRUM MOTOR of K-MECHA DECK and the MAIN PCB DECK are directly connected without using cable.

# 1-2 WIRE DIAGRAM

## 1-2-1) WIRE DIAGRAM



## 1-2-2) CONNECTOR PIN ARRANGEMENT

CN-A (2 HEAD MONO)

1	VR1
2	COMMON
3	VL1
4	GND

CN-B

1	FE HEAD
2	GND

CN-1

1	DRUM M/T 12V
2	DRUM SPP CTL
3	DRUM PG
4	NON CONTACT
5	GND
6	DRUM FG

CN-A (4 HEAD MONO)

1	VL2
2	COMMON
3	VR2
4	GND
5	VR1
6	COMMON
7	VL1
8	GND

CN-C

1	L/C MT (+)
2	L/C MT (-)
3	GND
4	CAM D
5	CAM C
6	CAM B
7	CAM A

CN-2

1	EVER 5V
2	CAPSTAN F/R
3	CAPSTAN FG
4	CTL-REF
5	CTL
6	I-LIMIT
7	CAPSTAN MT 12V
8	GND
9	IC GND
10	NON CONTACT

CN-A (4 HEAD HI-FI)

1	VL2
2	COMMON
3	VR2
4	GND
5	VR1
6	COMMON
7	VL1
8	GND
9	AL1
10	COMMON
11	AR1
12	GND

CN-D

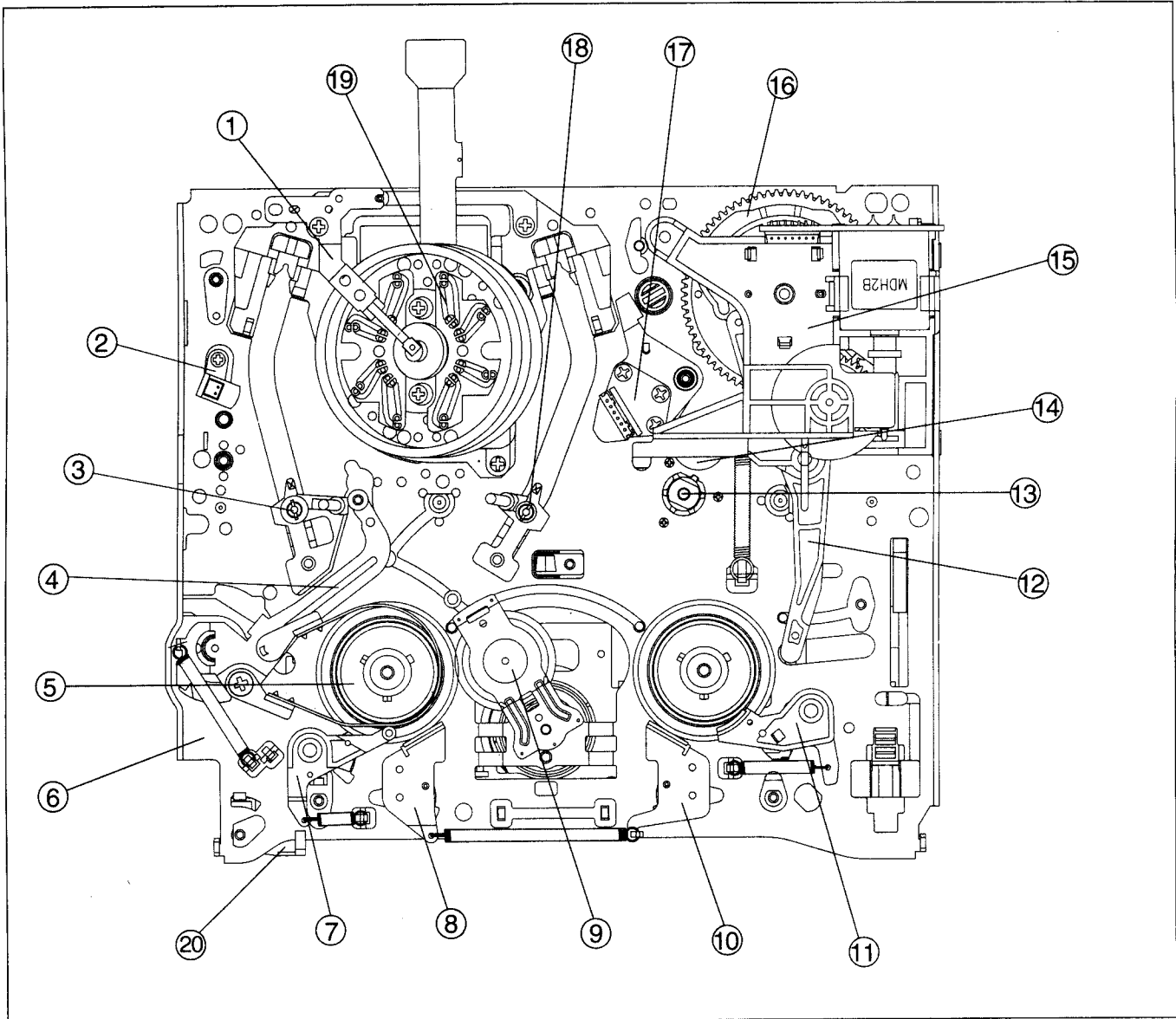
1	CTL
2	CTL
3	AUDIO
4	AUDIO
5	A ERASE
6	GND

# 2. ASSEMBLING DIAGRAM & CHECK FOR THE MAJOR PARTS

## 2-1. ASSEMBLING DIAGRAM

### 2-1-1) ASSEMBLING DIAGRAM OF DECK ASS'Y

#### A. TOP VIEW



1. EARTH BRKT ASS'Y

2. FE HEAD

3. S SLANT POLE ASS'Y

4. TENSION BAND ASS'Y

5. REEL TABLE

6. MAIN BASE ASS'Y

7. S SUB BRAKE ASS'Y

8. S MAIN BRAKE ASS'Y

9. IDLER PLATE TOTAL ASS'Y

10. T MAIN BRAKE ASS'Y

11. T-SUB BRAKE ASS'Y

12. RELAY LEVERL

13. CAPSTAN MOTOR

14. PINCH LEVER TOTAL ASS'Y

15. L/C BRKT TOTAL ASS'Y

16. CAM GEAR

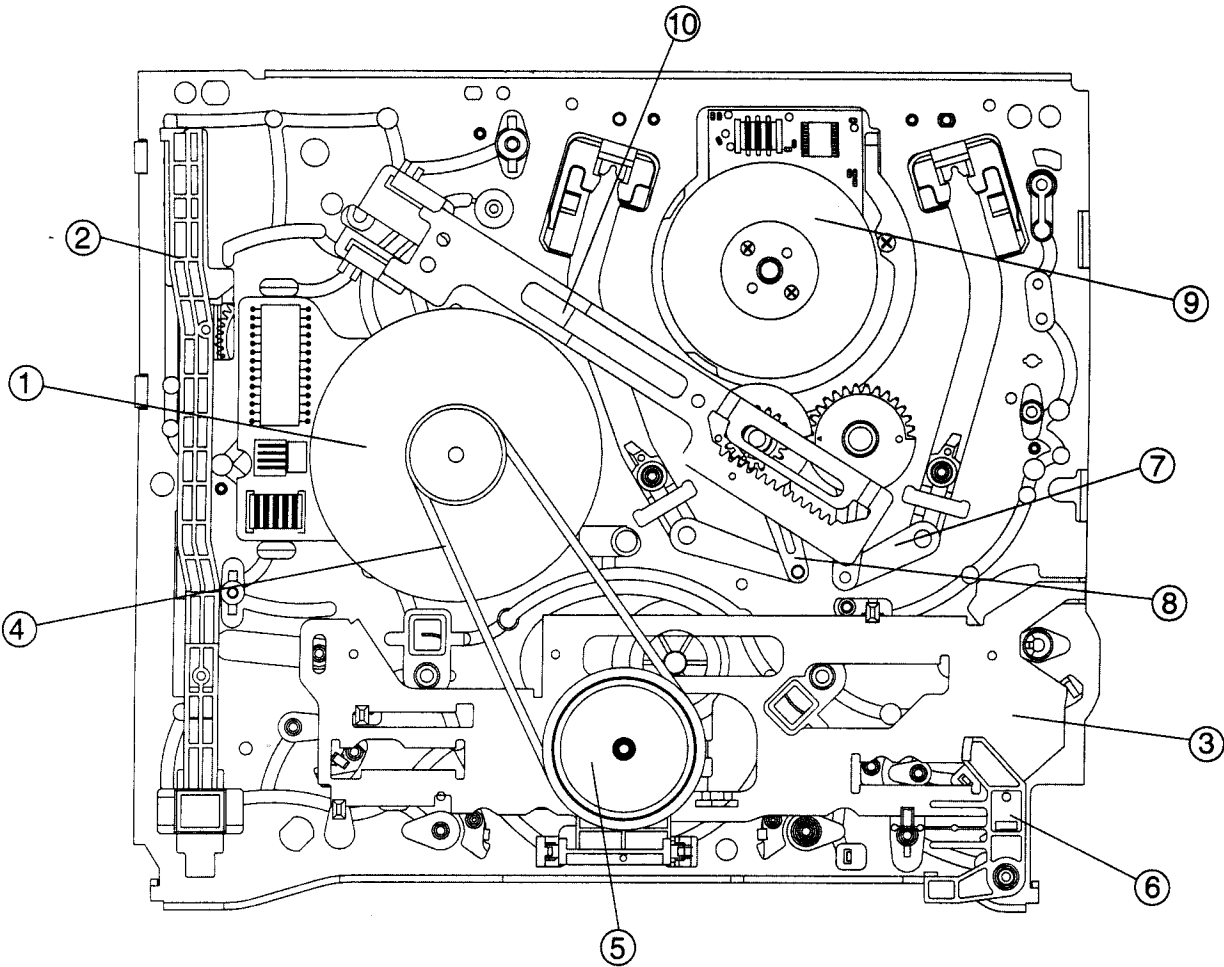
17. A/C HEAD TOTAL ASS'Y

18. T SLANT POLE ASS'Y

19. DRUM TOTAL ASS'Y

20. RECORD SAFETY LEVER

## B. BOTTOM VIEW

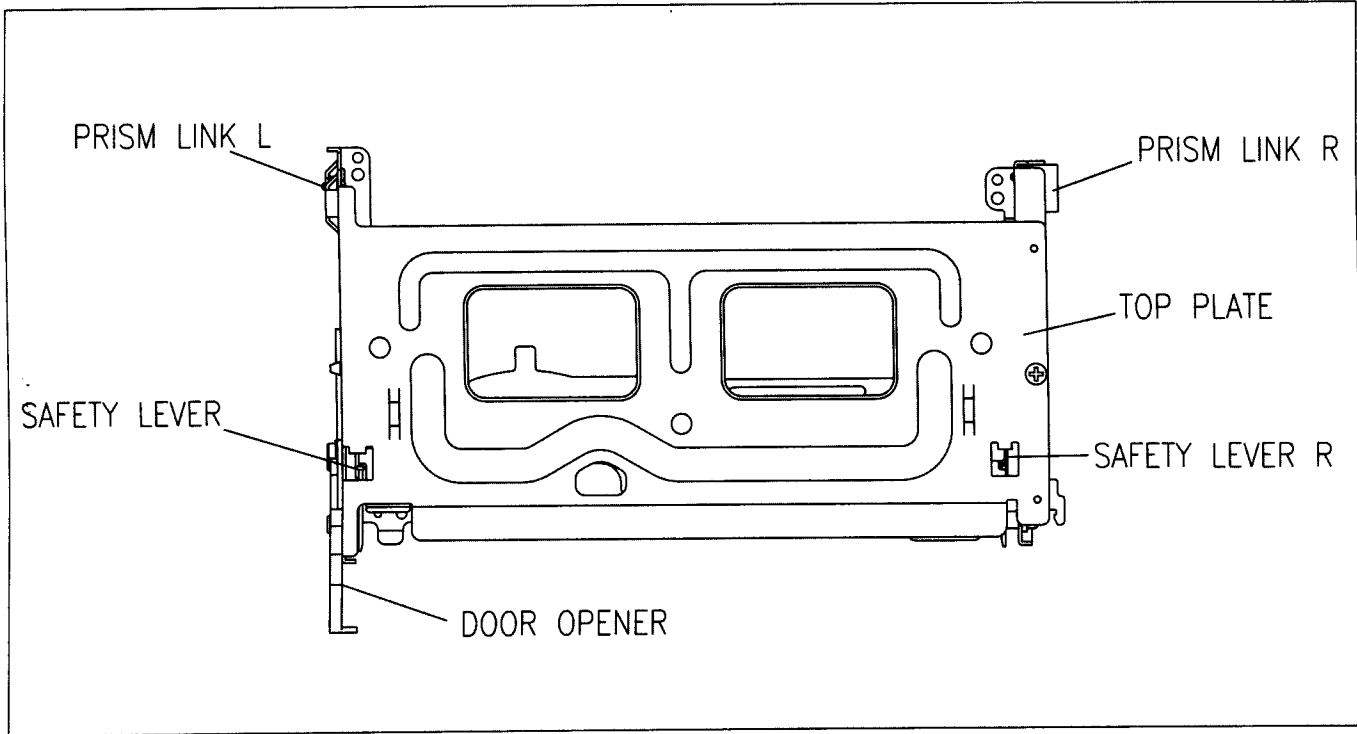


- 1. CAPSTAN MOTOR
- 2. F/L RACK
- 3. CONNECT PLATE
- 4. REEL BELT
- 5. REEL GEAR TOTAL ASS'Y

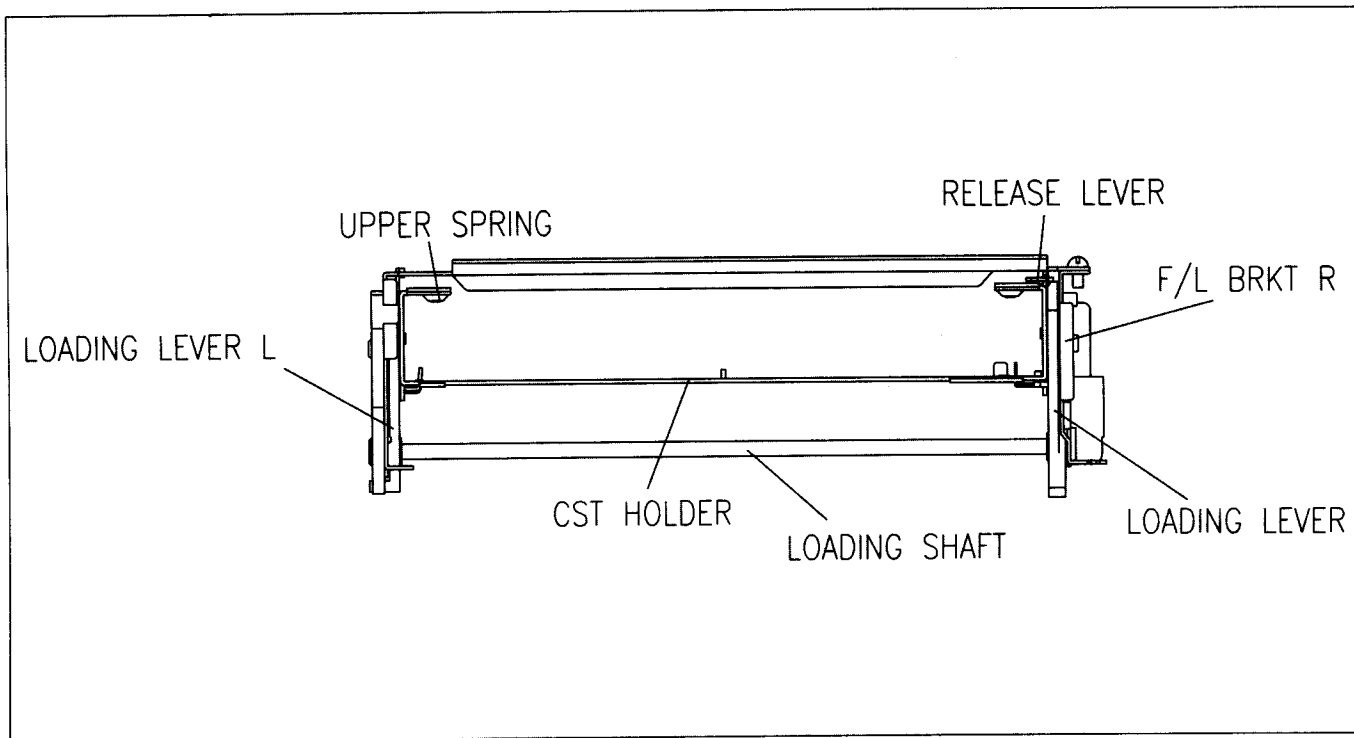
- 6. RECORD SAFETY LEVER
- 7. L LOADING ASS'Y
- 8. R LOADING ASS'Y
- 9. DRUM TOTAL ASS'Y
- 10. LOADING RACK ASS'Y

## 2-1-2) PARTS LOCATION OF FRONT LOADING ASS'Y

### A. TOP VIEW



### B. FRONT VIEW



## 2-2. PERIODIC MAINTENANCE AND SERVICE SCHEDULE

### 2-2-1) PERIODIC MAINTENANCE AND SERVICE SCHEDULE

A. In order to effectively maintain the excellent performance and fully utilize the features of this apparatus, and to lengthen the life of mechanism and tapes, we strongly urge you to perform the periodic maintenance and inspection as described below.

※ After repairing, do the maintenance as described below irrespective of the length of time in use.

B. Cleaning of the Head Drum Ass'y

— Clean the Drum assembly with a cleaning cloth soaked in liquid cleaner (alcohol) by placing lightly against the Drum slowly revolving the rotating HEAD DRUM Ass'y by hand (Do not rotate the upper Drum by applying the electric power to the motor for cleaning).

— Do not move the cleaning cloth in the vertical direction against the heat-tip.

C. Cleaning of the tape transporting section.

— Clean the tape transporting parts with a cleaning cloth soaked in the alcohol.

D. Cleaning of driving section

— Clean the driving section with a cloth soaked in the alcohol.

E. Routine inspection

— Perform the maintenance and inspection as separately described depending on the period of time in use.

— Refer to the table of 2-2-3.

### 2-2-2) CLEANING AND LUBRICATION

A. Cleaning of Tape Transporting section and Driving section

a. Cleaning of Tape Transporting section

— The following parts should be cleaned after every 500 hours of use.

- TENSION POLE
- S SLANT POLE
- AC HEAD/AE HEAD
- S GUIDE POST
- VIDEO HEAD/DRUM
- T GUIDE POST
- FE HEAD
- T SLANT POLE
- CAPSTAN SHAFT
- S GUIDE ROLLER
- T GUIDE ROLLER
- PINCH ROLLER
- VERTICAL POST

— As the above parts contact with video tape, they tend to collect dust particles if they are stained with dust or foreign substance it have a bad effect on the picture and lead to damage of the tape.

— After cleaning with alcohol, allow the parts to dry thoroughly before using a cassette tape.

b. Cleaning of Driving section

- REEL TABLE
- CAPSTAN FLYWHEEL/PULLEY
- REEL PULLEY

B. LUBRICATION

- S REEL POST
- T REEL TABLE POST
- REEL GEAR POST

— After cleaning the parts with alcohol, lubricate these with one or two drops oil.



## 2-2-3) SERVICE SCHEDULE FOR THE MAJOR PARTS

Following parts should be receive periodic service according to the recommended intervals.

NAME	PERIODIC SERVICE (TIME) /				
	1000	2000	3000	4000	5000
DRUM TOTAL ASS'Y	★	◎	★	◎	★
CAPSTAN MOTOR		◎		◎	
L/C BRKT TOTAL ASS'Y		◎		◎	
REEL BELT		◎		◎	
IDLER PLATE TOTAL ASS'Y		◎		◎	
REEL TABLE			◎		
T SUB BRAKE ASS'Y		◎		◎	
TENSION BAND ASS'Y		◎		◎	
S MAIN BRAKE ASS'Y		◎		◎	
T MAIN BRAKE ASS'Y		◎		◎	
PINCH ROLLER ASS'Y		★	◎	★	
AC HEAD ASS'Y			◎		
FE HEAD					◎
REEL GEAR TOTAL ASS'Y		◎		◎	

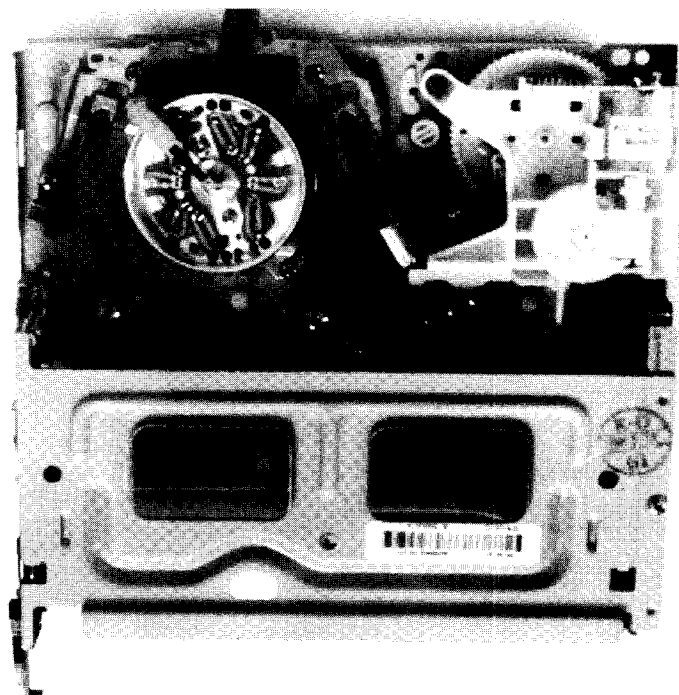
★ : Check and Replace if necessary.      ◎ : Replace

**Note:** Even though the unit is not used frequently, cleaning, lubrication and replacement of the belt should be undertaken every 2 years.

**DAEWOO**

# Technical Service Guide

**VCR MECHANISM UNIT  
(K-MECHA DECK)**



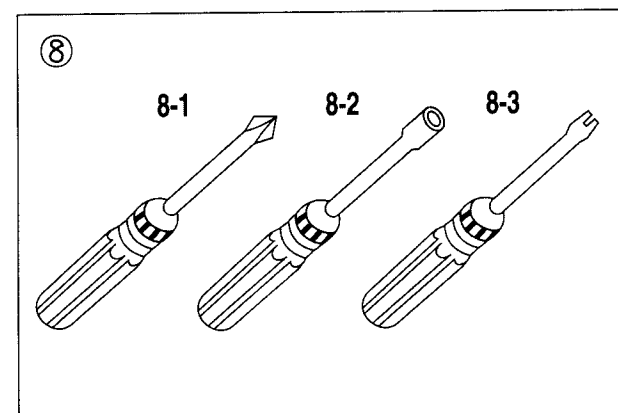
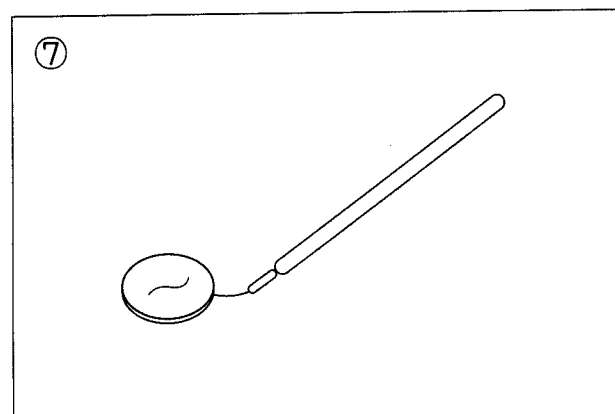
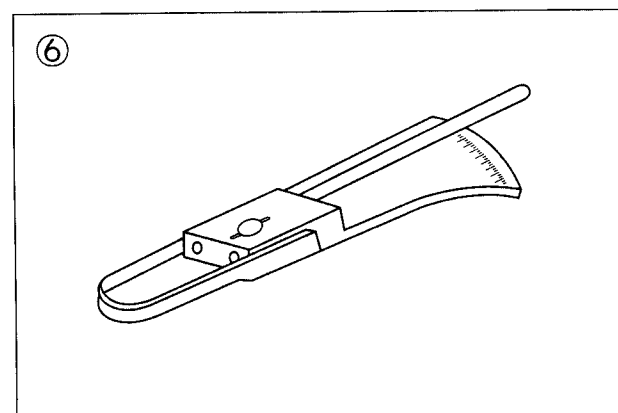
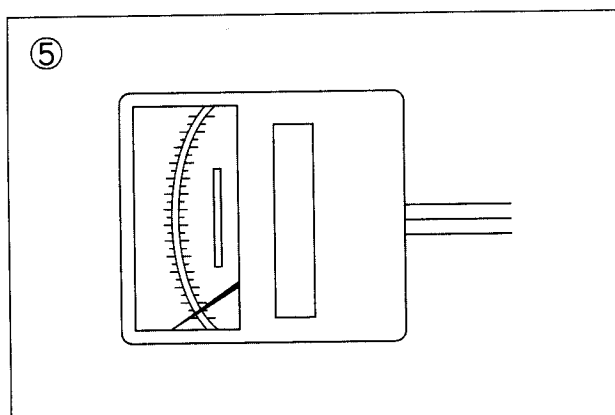
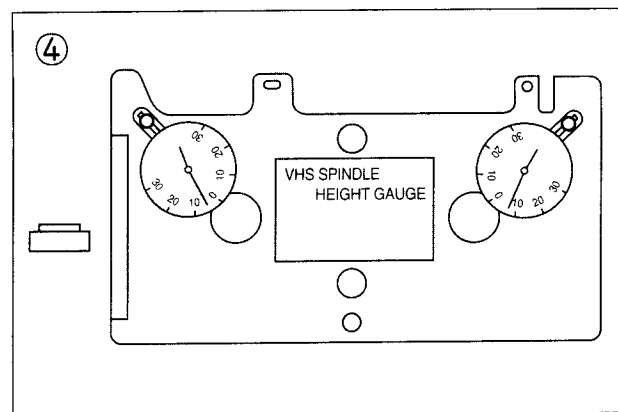
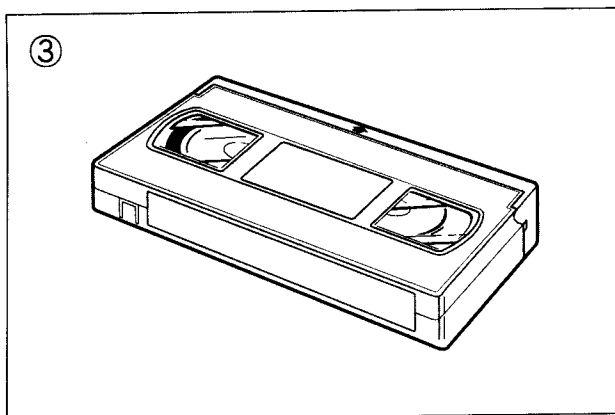
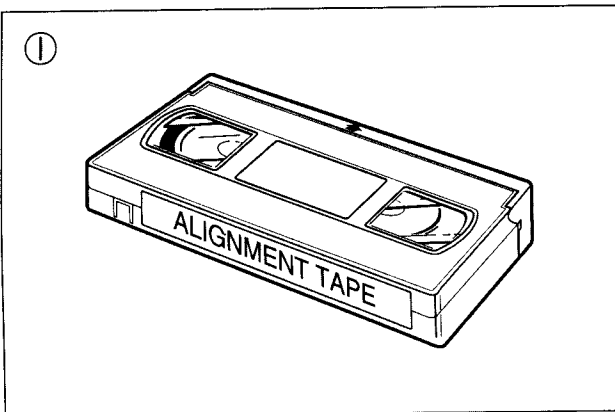
**DAEWOO ELECTRONICS CO., LTD.**

## 2-3. JIGS AND TOOLS

### 2-3-1) LIST OF JIGS AND TOOLS

NO	ITEMS	MODEL	FIG. NO	REMARKS
1	ALIGNMENT TAPE	NTSC: SP MONOSCOPE 7KHz SP COLOR BAR 1KHz (EP MONOSCOPE)	①	CHECKING OF THE TAPE TRANSPORTING SYSTEM
2	CLEANING TAPE (DAEWOO)	DHC-602V	②	CHECKING OF THE TAPE TRANSPORTING SYSTEM
3	CASSETTE TAPE (KOKUSAI)	KT-300NV KT-300RV	③	MEASUREMENT OF REEL TORQUE
4	VHS SPINDLE HEIGHT GAUGE	TSH-V4	④	MEASUREMENT OF REEL HEIGHT
5	TENTELO METER (TENTELO)	T2-H7-UM	⑤	MEASUREMENT OF THE BACK TENSION
6	FAN TYPE TENSION METER	BELOW 3KG	⑥	MEASUREMENT OF THE PRESSING FORCE FOR THE PINCH ROLLER
7	DENTAL MIRROR		⑦	CHECKING OF THE TAPE TRANSPORTING SYSTEM
8	+DRIVER		⑧-1	ASSEMBLY, DISASSEMBLY AND ADJUSTMENT
	HEX DRIVER		⑧-2	
	ADJUSTMENT DRIVER		⑧-3	

### 2-3-2) SKETCH OF JIGS AND TOOLS



# 3. DISASSEMBLY AND REPLACEMENT

## 3-1. FRONT LOADING ASS'Y REMOVAL (See Fig. 3-1)

**NOTE:**

The FRONT LOADING ASSEMBLY can be removed only in the eject position.

- a. Remove 2 screws ① fixing THE FRONT LOADING ASS'Y.
- b. Lift the rear of THE FRONT LOADING ASSEMBLY to separate it from the MAIN BASE.

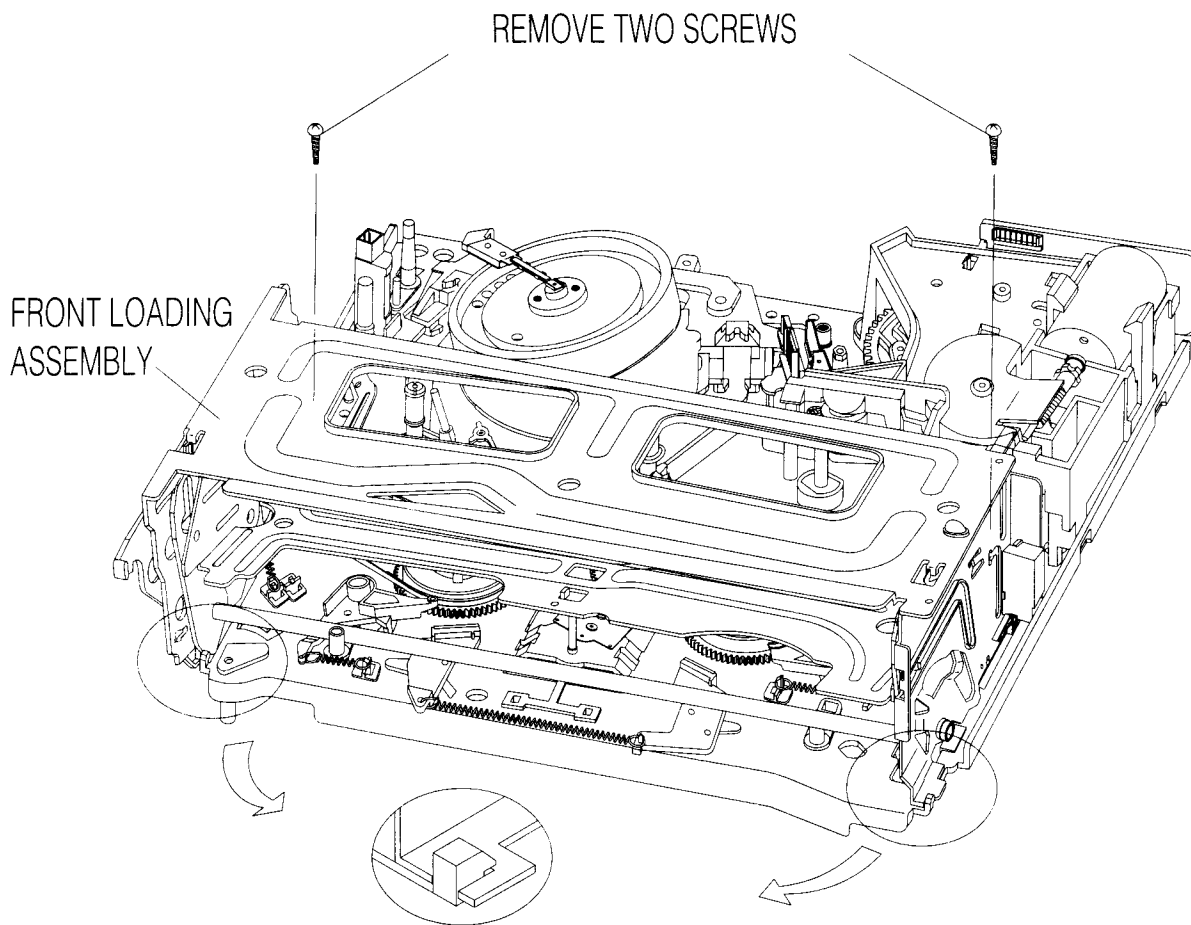


Fig.3-1 FRONT LOADING ASS'Y SEPARATION

## 3-2. DISASSEMBLY OF THE FRONT LOADING ASS'Y (See Fig. 3-2~3-6)

- a. Remove one screw holding the F/L BRACKET R and move the F/L BRACKET R in the direction of arrow to separate it from the TOP PLATE and CASSETTE HOLDER ASSEMBLY.
- b. Remove the CASSETTE HOLDER ASSEMBLY. (Fig. 3-2)

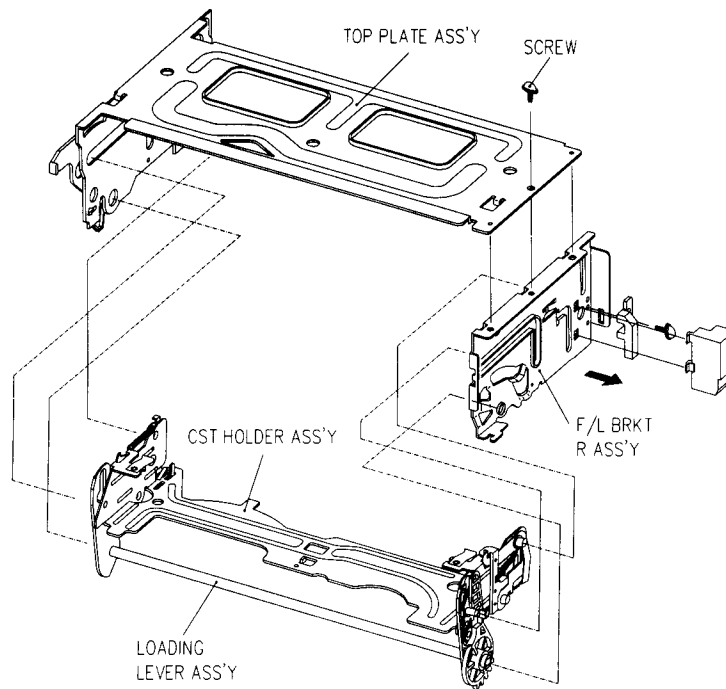


Fig.3-2 DISASSEMBLY OF THE FRONT LOADING ASS'Y

- c. Remove the PRISM CAP and remove one screw holding the PRISM LINK R and remove the PRISM LINK R from the F/L BRACKET R. (Fig. 3-3)

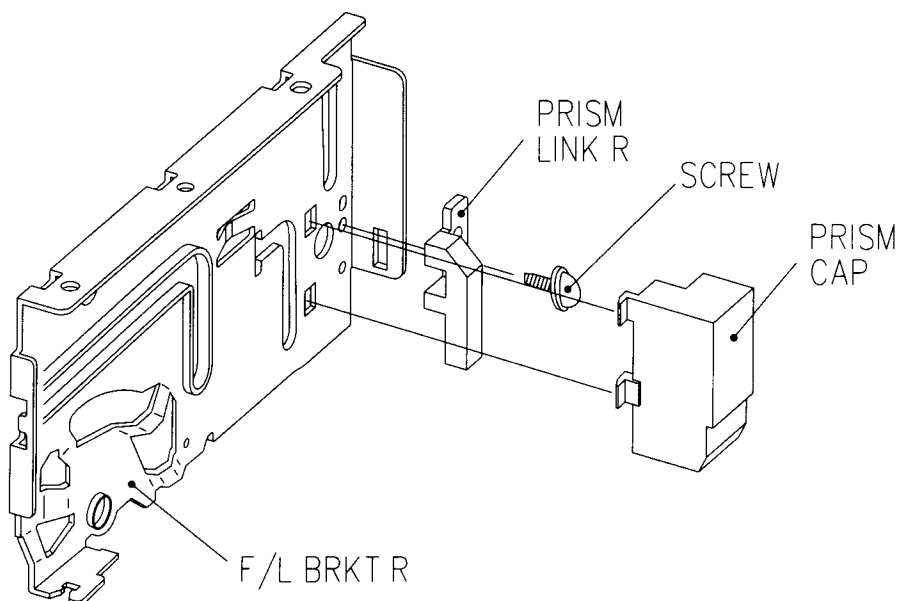


Fig.3-3 DISASSEMBLY OF THE F/L BRKT R

- d. Remove one screw holding the PRISM LINK L. (Fig. 3-4)
- e. Release the hook B by pushing it in the direction of the arrow and remove the DOOR OPENER. (Fig. 3-4)

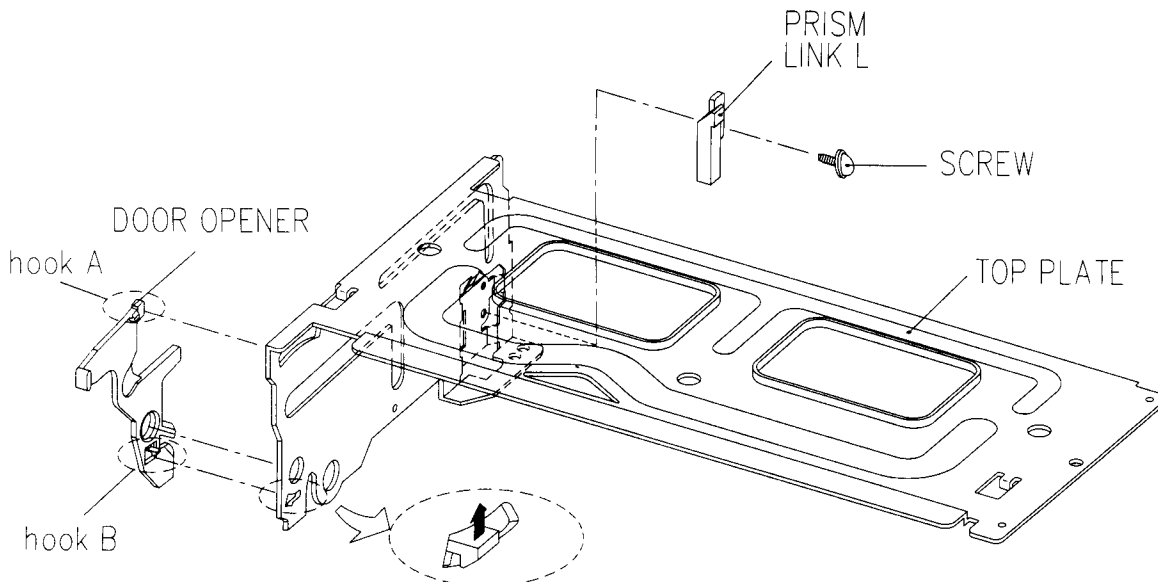


Fig. 3-4 DISASSEMBLY OF THE TOP PLATE

- f. Remove the LOADING LEVER ASSEMBLY by pressing the connected section of the loading lever assembly in the directions of the arrows. (Fig. 3-5)
- g. Remove the SAFETY SPRING between the SAFETY LEVER and the CASSETTE HOLDER PLATE. (Fig. 3-5)
- h. Remove the RELEASE SPRING between the RELEASE LEVER and the SAFETY LEVER R. (Fig. 3-5)

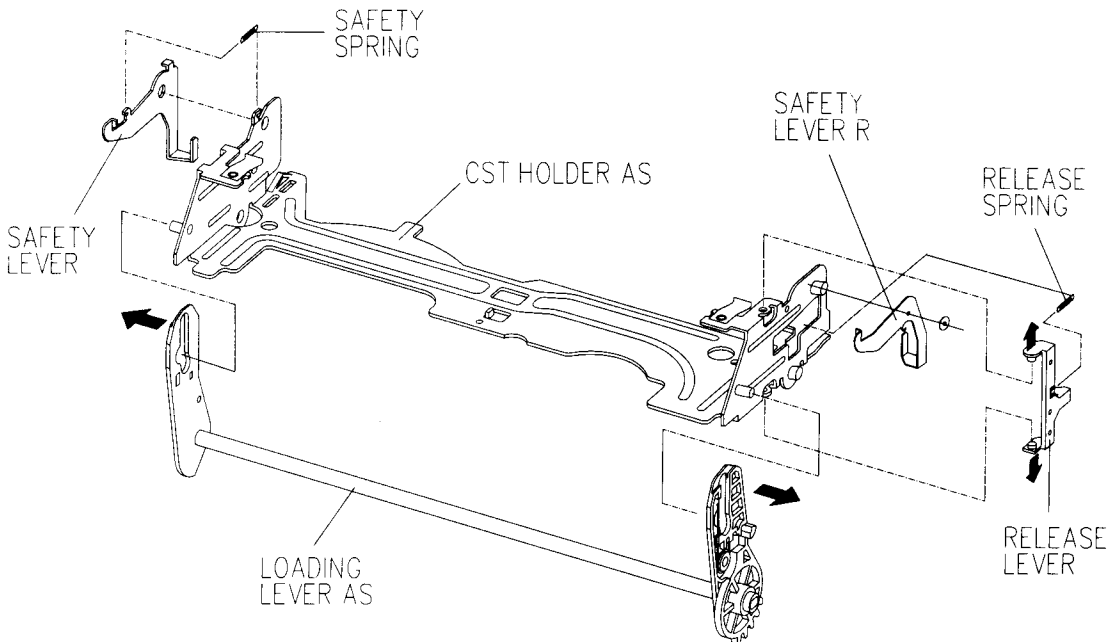


Fig.3-5 DISASSEMBLY OF THE CASSETTE HOLDER ASS'Y

**NOTE:**

Reassemble the FRONT LOADING MECHANISM in the reverse order. Confirm that two bosses on the left side of the CASSETTE HOLDER AS are inserted into the groove on the left side of the top plate. Insert two bosses on the right side of the cassette holder into the groove of the F/L BRACKET R (Fig. 3-6)

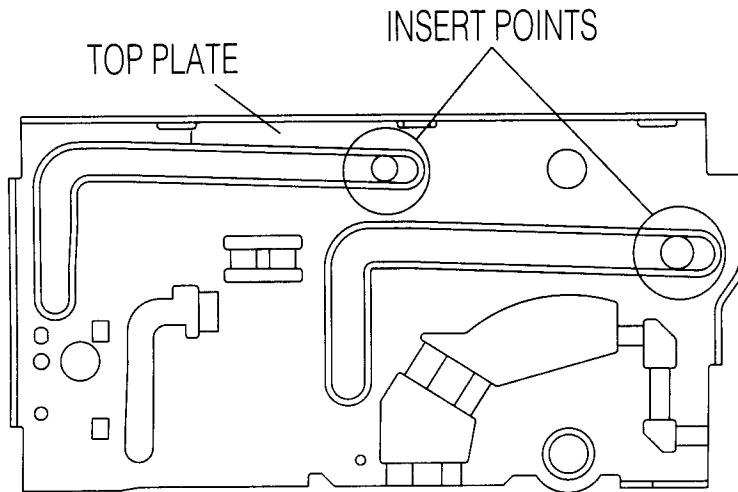
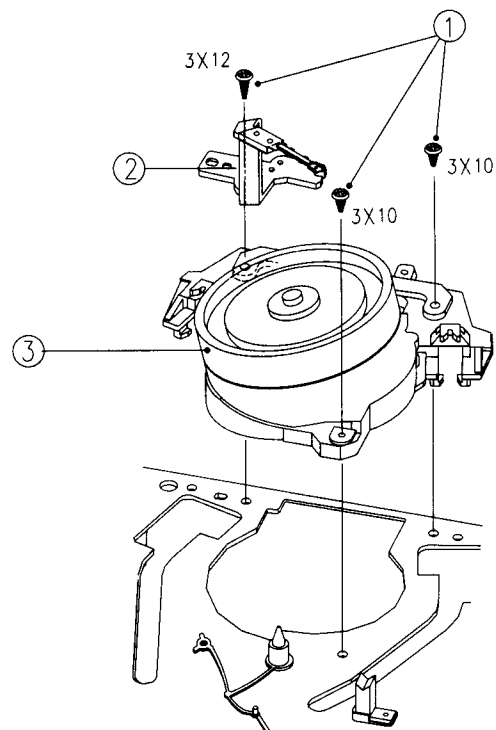


Fig.3-6 ASSEMBLY OF THE F/L ASS'Y

### 3-3. DRUM ASS'Y/EARTH BRACKET ASS'Y REMOVAL (See Fig.3-7)

- a. Remove three screws ① fixing the DRUM TOTAL ASSEMBLY.
- b. Remove the EARTH BRACKET ASSEMBLY ②.
- c. Carefully lift the DRUM TOTAL ASSEMBLY ③ from the DECK MECHANISM taking care not to damage or touch the VIDEO HEAD.



**NOTE:**

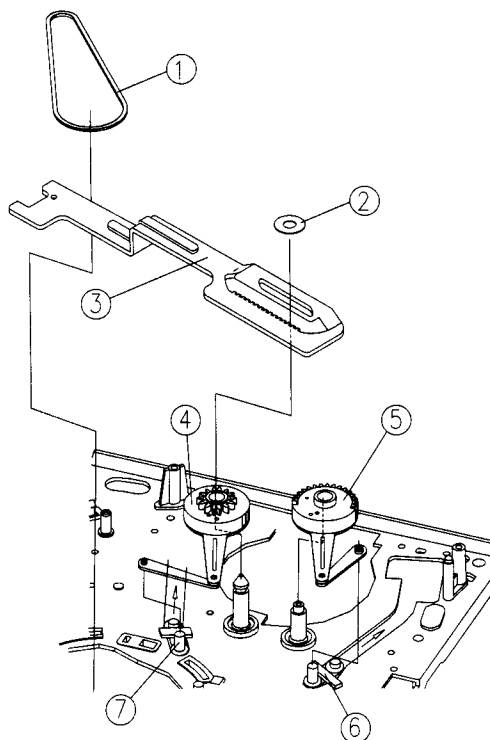
- After assembling the DRUM TOTAL ASSEMBLY, confirm that the TAPE runs smooth and check the chapter 5 "ADJUSTMENT OF THE TAPE TRANSPORTING SYSTEM".
- When assembling the EARTH BRACKET ASSEMBLY, the 3x12 screw should be used and at the other parts, the 3x10 screws should be used.

Fig.3-7 DRUM TOTAL ASS'Y & EARTH BRKT ASS'Y REMOVAL



### 3-4. REEL BELT, LOADING RACK ASS'Y, LOADING ASS'Y, S/T SLANT POLE ASS'Y REMOVAL (See Fig.3-8)

- a. Turn over the DECK MECHANISM and remove the REEL BELT ①.
- b. Remove one POLY WASHER ②.
- c. Remove the LOADING RACK ASS'Y ③.
- d. Remove R & L LOADING ASS'YS ④ and ⑤.
- e. Remove the S and T SLANT POLES ⑥ and ⑦ by pulling them in the directions of the arrows.



**CAUTION:**

- Take care not to get the GUIDE ROLLERS of the S/T SLANT POLES stained with the GREASE
- When reassembling, refer to Fig. 3-9

Fig.3-8 REEL BELT, LOADING RACK ASS'Y, R & L LOADING ASS'YS, S/T SLANT POLE ASS'Y REMOVAL

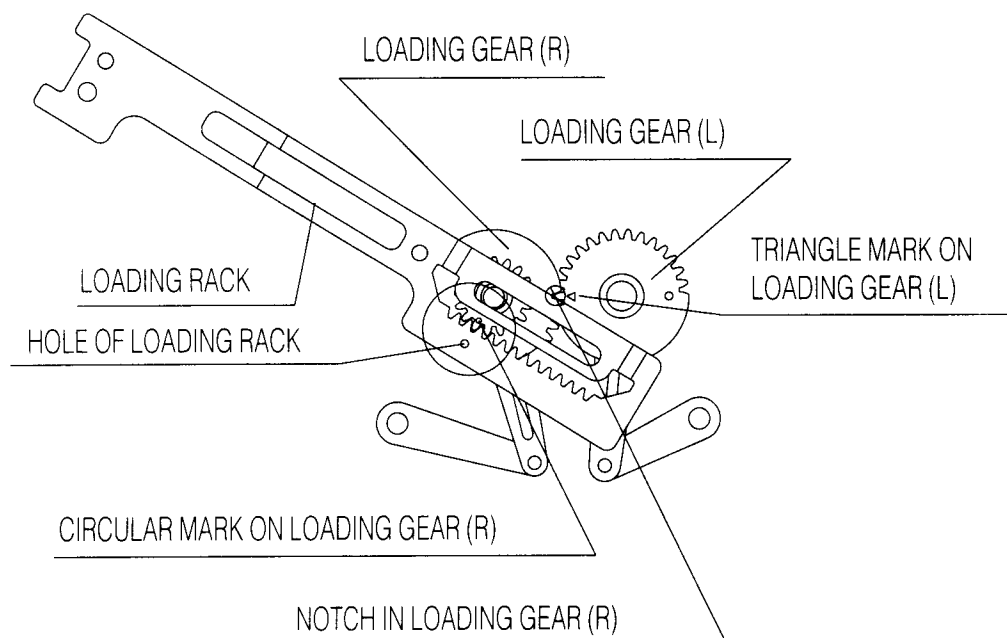


Fig.3-9 ASSEMBLY OF the R.L LOADING ASS'Y & LOADING RACK ASS'Y

### 3-5. A/C HEAD ASS'Y REMOVAL (See Fig.3-10)

- a. Remove one nut hex ① from the A/C HEAD POST ④ of the MAINBASE.
- b. Remove the A/C HEAD ASSEMBLY ② from the MAINBASE.
- c. Remove the A/C HEAD SPRING ③ from the A/C HEAD ASSEMBLY ②.

**NOTE:**

- After reassembling, adjust the TAPE TRANSPORTING SYSTEM referring to the chapter 5 "ADJUSTMENT OF THE TAPE TRANSPORTING SYSTEM".
- After adjusting the TAPE TRANSPORTING SYSTEM, spread the A/C HEAD/NUT, AZIMUTH SCREW, and TILT SCREW with LOCKING PAINT.

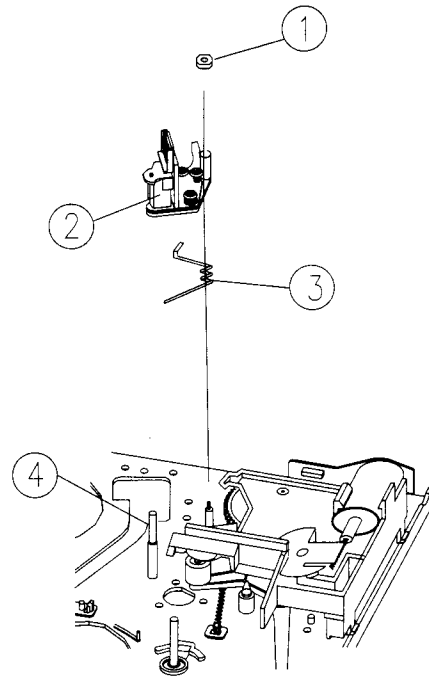


Fig.3-10 DISASSEMBLY OF THE AC HEAD ASS'Y

### 3-6. L/C BRACKET ASS'Y REMOVAL (See Fig.3-11)

- a. Remove one screw ① from the L/C BRACKET ASSEMBLY ②.
- b. Remove the L/C BRACKET ASSEMBLY ② from the MAINBASE.

### 3-7. PINCH LEVER TOTAL ASS'Y REMOVAL (See Fig.3-11)

- a. Remove one POLY WASHER ③ from the PINCH LEVER POST of the MAINBASE.
- b. Unhook the PINCH LEVER SPRING ④ from the hook of MAINBASE ⑤ and remove the PINCH LEVER TOTAL ASSEMBLY ⑨.

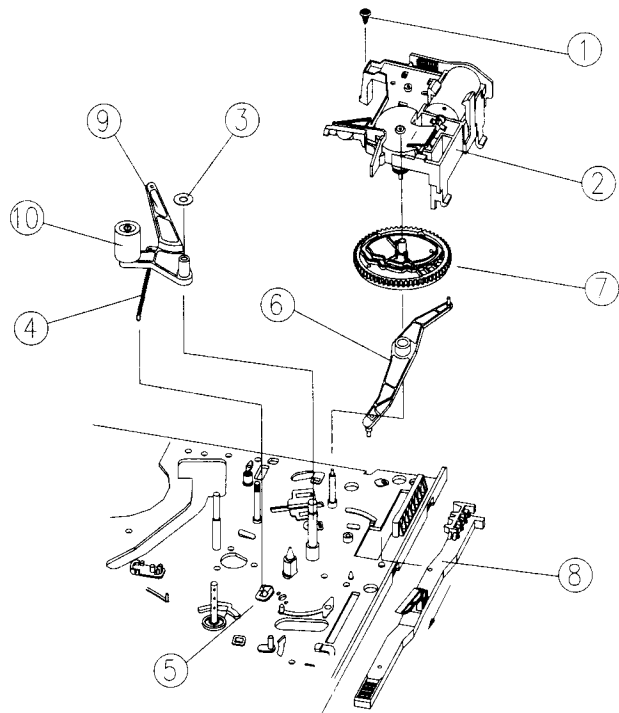


Fig.3-11 L/C BRKT, PINCH LEVER, CAM GEAR, RELAY LEVER, F/L RACK REMOVAL

**CAUTION:**

Take care not to coat the GREASE, the OIL or the other substances on the surface of the PINCH ROLLER ⑩.

### 3-8. CAM GEAR, RELAY LEVER AND F/L RACK REMOVAL (See Fig.3-11)

- a. Remove the CAM GEAR ⑦ from the MAINBASE. (Fig.3-11)
- b. Remove the RELAY LEVER ⑥ from the MAINBASE. (Fig. 3-11)
- c. Remove the F/L RACK ⑧ from the MAINBASE by pulling it in the direction of the arrow.

**NOTE:**

When reassembling, refer to Fig. 3-12, 13.

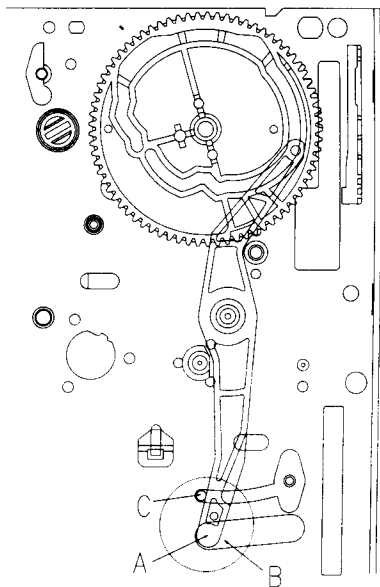


Fig.3-12 ASSEMBLY OF THE CAM GEAR & RELAY LEVER

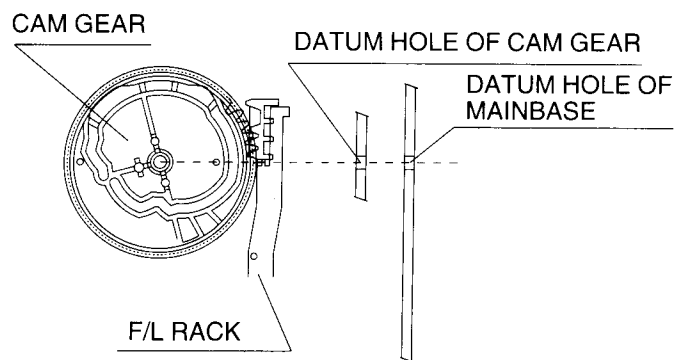


Fig.3-13 ASSEMBLY OF THE CAM GEAR & F/L RACK

### 3-9. S/T MAIN & SUB BRAKE ASS'Y REMOVAL (See Fig.3-14)

- a. Unhook the MAIN BRAKE SPRING ① from the T MAIN BRAKE LEVER ③ and remove the T MAIN BRAKE ASSEMBLY ③.
- b. Remove the S MAIN BRAKE ASSEMBLY ② from the MAINBASE ⑧.
- c. Unhook the S SUB BRAKE SPRING ④ from the MAINBASE and remove the S SUB BRAKE LEVER ASSEMBLY ⑤ from the MAINBASE ⑧.
- d. Unhook the T SUB BRAKE SPRING ⑥ from the MAINBASE and remove the T SUB BRAKE LEVER ASSEMBLY ⑦.

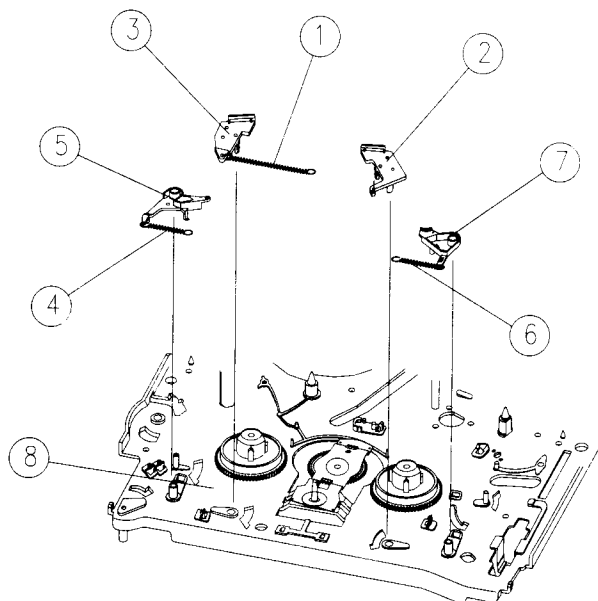


Fig.3-14 S/T MAIN & SUB BRAKES REMOVAL

### 3-10. TENSION BAND ASS'Y REMOVAL (See Fig.3-15, 3-16)

- a. Remove the TENSION SPRING ② from the MAINBASE ①. (Fig.3-15)
- b. Turn the DECK MECHANISM over. (Fig.3-16)
- c. After separating the tab of hook 'A', remove the TENSION BAND ASSEMBLY ③. (Fig.3-16)

**NOTE:**

- After assembling the TENSION BAND ASSEMBLY on the MAINBASE, adjust the position of TENSION POLE as shown Fig. 3-17.
- Avoid getting GREASE, OIL or foreign substance on the FELT of the BAND BRAKE.
- Take care not to deform the tab 'A' when separating the tab 'A'.

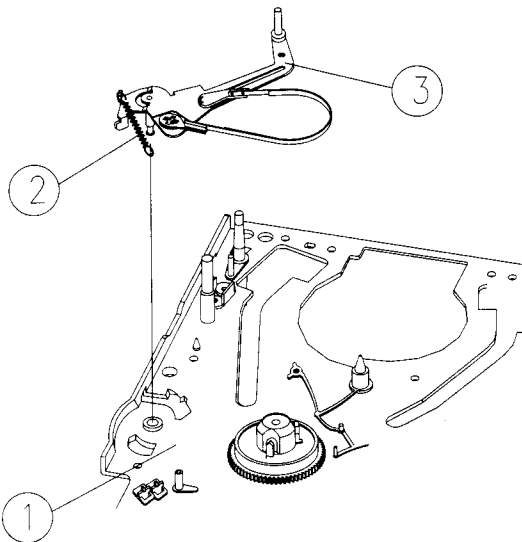


Fig.3-15 TENSION BAND ASS'Y REMOVAL ( I )

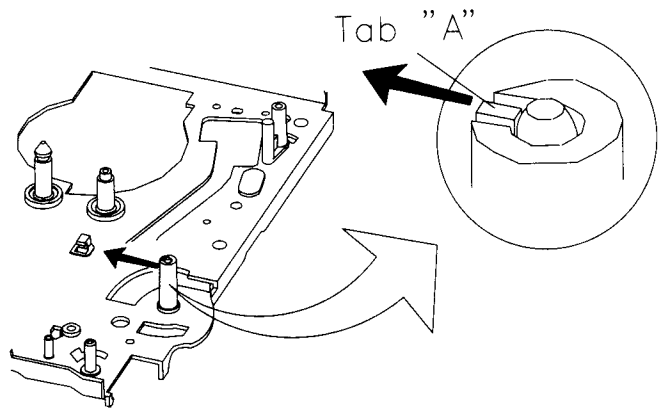


Fig.3-16 TENSION BAND ASS'Y REMOVAL ( II )

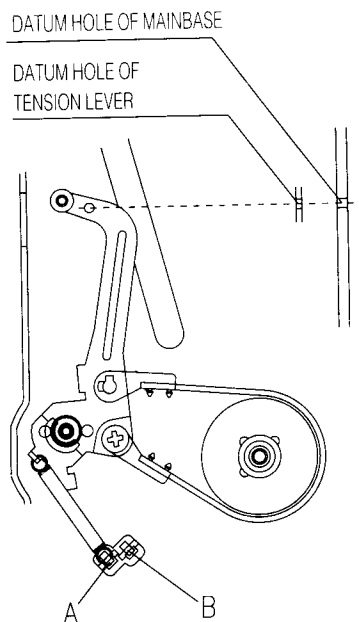


Fig.3-17 ADJUSTMENT OF THE TENSION POLE POSITION

### 3-11. CAPSTAN MOTOR REMOVAL (See Fig.3-18)

Remove 3 screws fixing the CAPSTAN MOTOR and separate the CAPSTAN MOTOR.

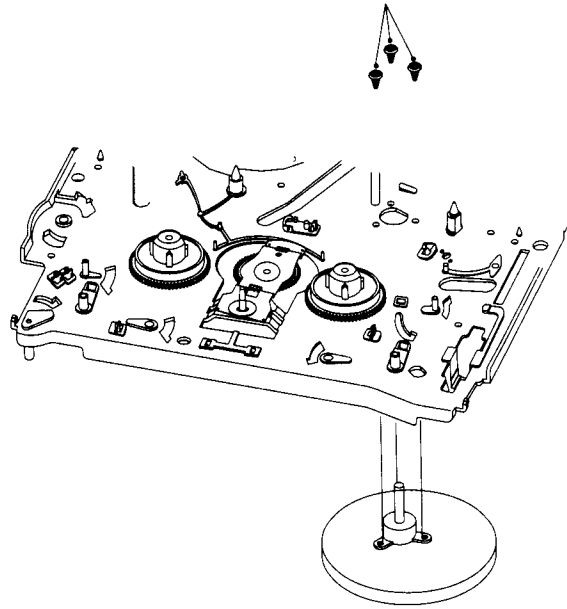


Fig.3-18 CAPSTAN MOTOR REMOVAL

### 3-12. IDLER PLATE TOTAL ASS'Y & S/T REEL TABLE REMOVAL (See Fig.3-19)

- a. Remove one POLY WASHER ① from the REEL GEAR POST ② and remove the IDLER PLATE TOTAL ASSEMBLY ③ from the MAIN BASE.
- b. Remove the S/T REEL TABLES ④ and two POLY SLIDERS ⑤ from the DECK MECHANISM.

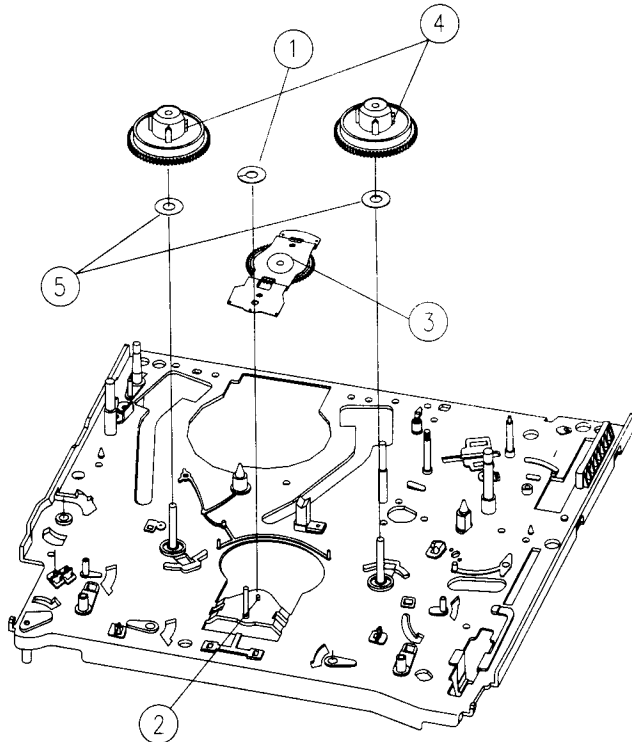


Fig.3-19 IDLER PLATE TOTAL ASS'Y & S/T REEL TABLES REMOVAL

**CAUTION:**

- When disassembling or assembling the IDLER PLATE TOTAL ASSEMBLY, take care not to bend it.

### 3-13. FE HEAD REMOVAL (See Fig.3-20)

Remove one screw ① fixing the FE HEAD and remove the FE HEAD ② from the MAINBASE.

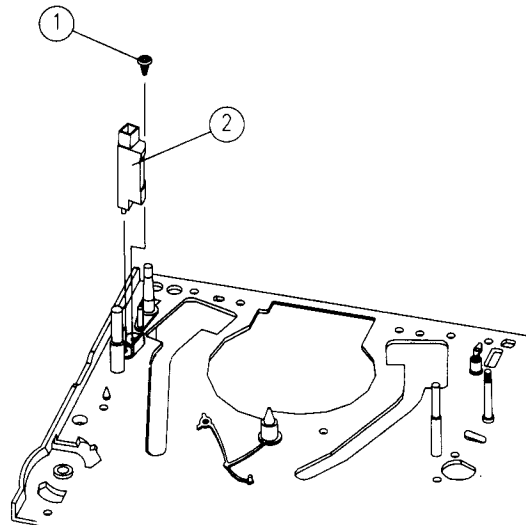


Fig.3-20 FE HEAD REMOVAL

### 3-14. REEL GEAR TOTAL ASS'Y & CONNECT PLATE REMOVAL (Fig.3-21)

- a. Turn over the DECK MECHANISM and remove one POLY WASHER ① from the REEL GEAR POST ②.
- b. After separating the tab 'B' of MAINBASE, remove the REEL GEAR TOTAL ASSEMBLY ③ from the MAINBASE.
- c. Remove the CONNECT PLATE ④ from the MAINBASE by pushing CONNECT PLATE in the direction of the arrow.

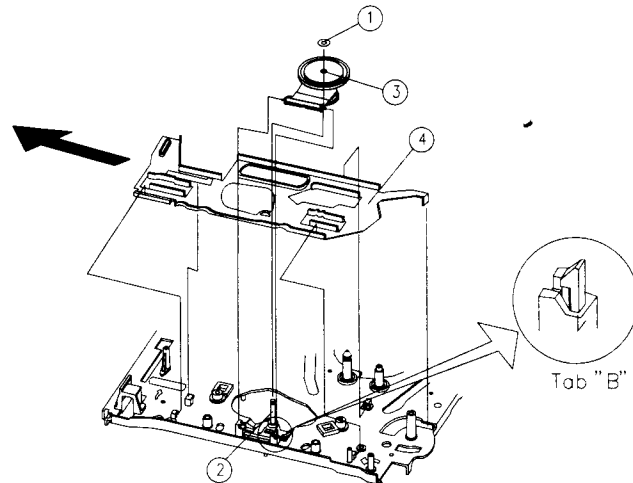


Fig.3-21 REEL GEAR TOTAL ASS'Y & CONNECT PLATE REMOVAL

#### NOTE:

- When removing the CONNECT PLATE with the F/L RACK installed, take care not to damage or bend the CONNECT PLATE.
- After assembling or disassembling the REEL GEAR TOTAL ASSEMBLY, take care not to get the OIL, the GREASE or the other substances on the REEL BELT.
- Take care not to change or break the tab "B".
- Check the assembly state & the operating state of the REEL GEAR TOTAL ASSEMBLY before assembling.
- After reassembling, check the FF, REW, PLAY and REVIEW MODE and the existence of noise during operating the MODES.

# 4. MECHANICAL ADJUSTMENT

## 4-1. MECHANICAL ADJUSTMENT (See Fig.4-1~4-5)

When operational problems occur or the mechanism reassembles, be sure to confirm the following INSTRUCTIONS.

- a. Make sure that the DATUM HOLE of the CAM GEAR is aligned with the DATUM HOLE in the MAINBASE in the EJECT mode as shown in Fig.4-1.

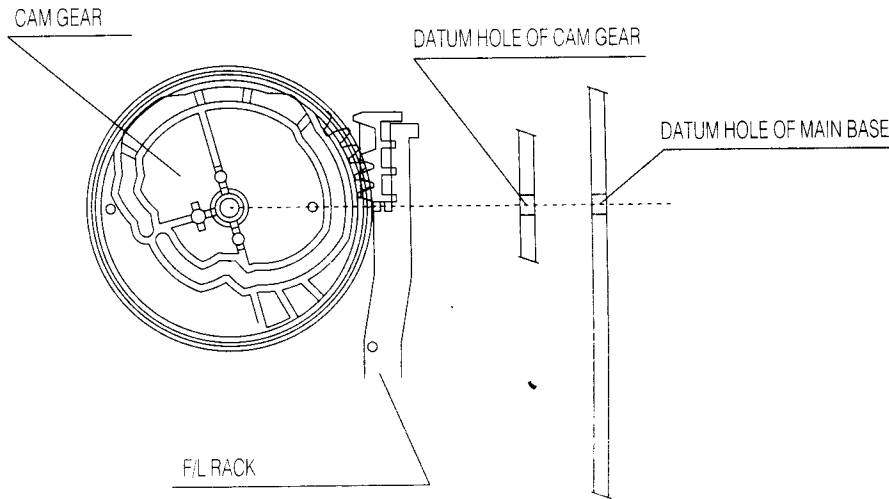


Fig.4-1 DATUM POSITION OF F/L RACK & CAM GEAR

- b. Make sure that the ending part "A" of the RELAY LEVER assembled in the CONNECT PLATE is fully rotated up to the left side of "B" of the MAINBASE and is attached to the boss "C" of the MAINBASE as shown in Fig.4-2.

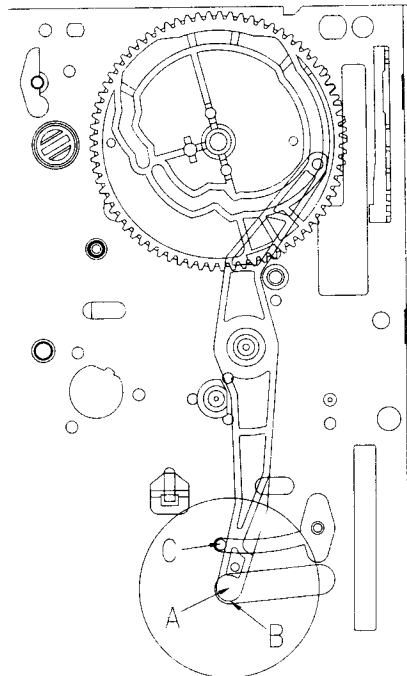


Fig.4-2 DATUM POSITION OF RELAY LEVER & CAM GEAR

- c. When reassembling the L/C BRACKET TOTAL ASSEMBLY on the MAINBASE, make sure that the two triangular marks of CAM SWITCH are aligned with each other as shown in Fig.4-3.

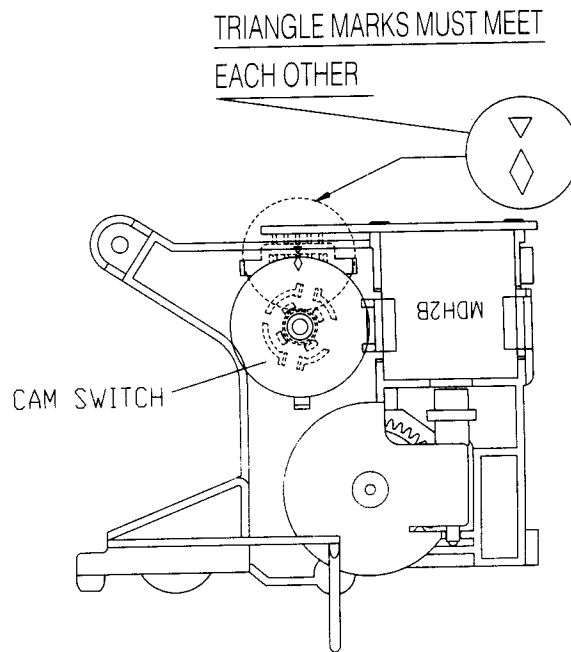


Fig.4-3 DATUM POSITION OF CAM SWITCH TRIANGULAR MARKS

- d. Make sure that the boss "A" of the PINCH LEVER TOTAL ASSEMBLY is positioned at the point "B" of the CAM GEAR as shown in Fig.4-4.

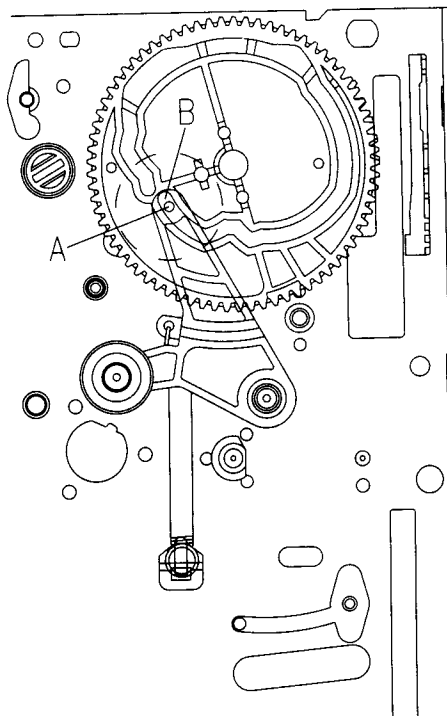


Fig.4-4 DATUM POSITION OF PINCH LEVER TOTAL ASS'Y & CAM GEAR



- e. Make sure that the triangular mark "A" on the L LOADING ASSEMBLY is aligned with the notch "B" on the R LOADING ASSEMBLY as shown in Fig. 4-5.
- f. Make sure that the teeth of the LOADING RACK ASSEMBLY is aligned with the those of the R LOADING ASSEMBLY so that the hole of the LOADING RACK ASSEMBLY aligns with the circular mark on the R LOADING ASSEMBLY as shown in Fig.4-5.

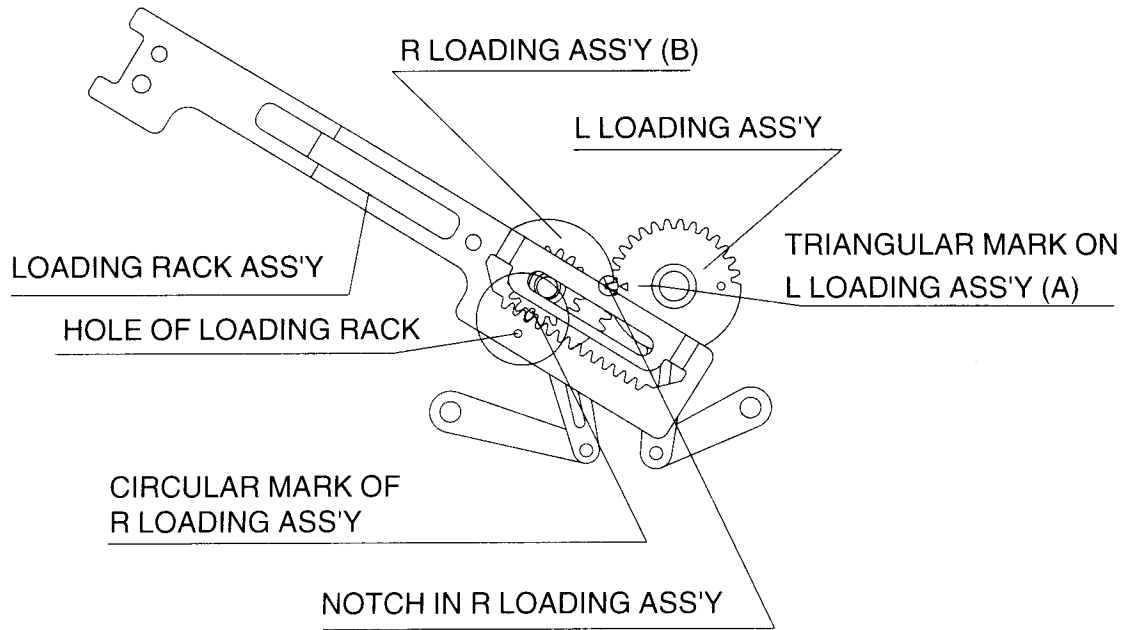


Fig.4-5 DATUM POSITION OF LOADING RACK ASS'Y & R/L LOADING LEVER ASS'YS

## 4-2. BACK TENSION MEASUREMENT (See Fig.4-6~4-7)

- Confirm that the position of the TENSION POLE is correctly POSITIONED. Refer to the "4-4 TENSION POLE POSITION ADJUSTMENT".
- Play back a T-120 TAPE at its center position without assembling F/L ASSEMBLY and wait until the TAPE running is stabilized (about 5~10 seconds).
- Bring the TENTELOMETER into contact with the TAPE (Fig.4-6) and measure the BACK TENSION. The measuring result should be between 25 and 33 grams.
- If the measuring result is not within this specification, refer to the below NOTE or repeat "4-4 TENSION POLE POSITION ADJUSTMENT". (Fig. 4-7)

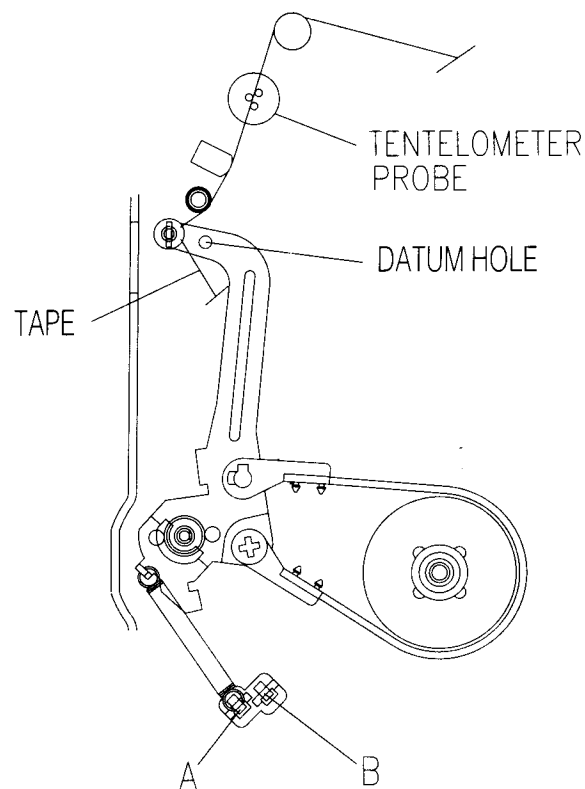


Fig.4-6 BACK TENSION MEASUREMENT

### NOTE:

- If the measuring result is not within the specification, change the TENSION SPRING position. (To decrease the result, choose hook A. Otherwise, choose hook B).
- Confirm that all of the three probes of the TENSION METER are in contact with the TAPE. During this process, don't touch any other parts of the MECHANISM (i.e, MAINBASE).
- It is recommended that this measurement be repeated at least three times for an accurate reading.

### 4-3. MECHANICAL MODE (OPERATING THE VCR WITHOUT A CASSETTE TAPE)

- a. Remove the FRONT LOADING MECHANISM from the DECK MECHANISM.
- b. Pull the F/L RACK.
- c. The S/T POLE BASE are loaded and PLAY BACK MODE starts.
- d. Turn off the power when the MECHANISM is in the desired position.

### 4-4. TENSION POLE POSITION ADJUSTMENT

- a. Place the MECHANICAL MODE in the PLAY MODE. Refer to the "4-3 MECHANICAL MODE".
- b. Confirm that the datum hole of TENSION LEVER is aligned with the datum hole of the MAIN BASE.
- c. If the requirement "b" is not satisfied, turn the BAND BRAKE ADJUST CAP clockwise or counter-clockwise until two datum holes aligns with each other.

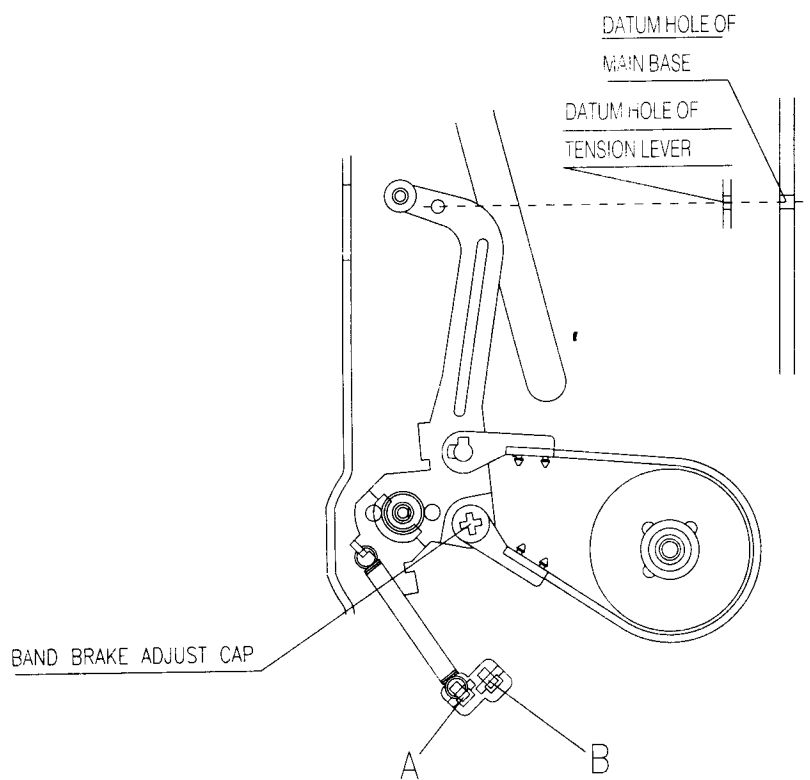


Fig. 4-7 TENSION POLE POSITION ADJUSTMENT

# 5. ADJUSTMENT OF TAPE TRANSPORTING SYSTEM

Generally the TAPE TRANSPORTING SYSTEM has been precisely adjusted in the factory and does not require the ordinary readjustment. But when the noise and the tape damage take place and part assemblies that compose the TAPE TRANSPORTING SYSTEM are replaced, check and readjust the TAPE TRANSPORTING SYSTEM. Refer to the following FLOW CHART in order to adjust the TAPE TRANSPORTING SYSTEM.

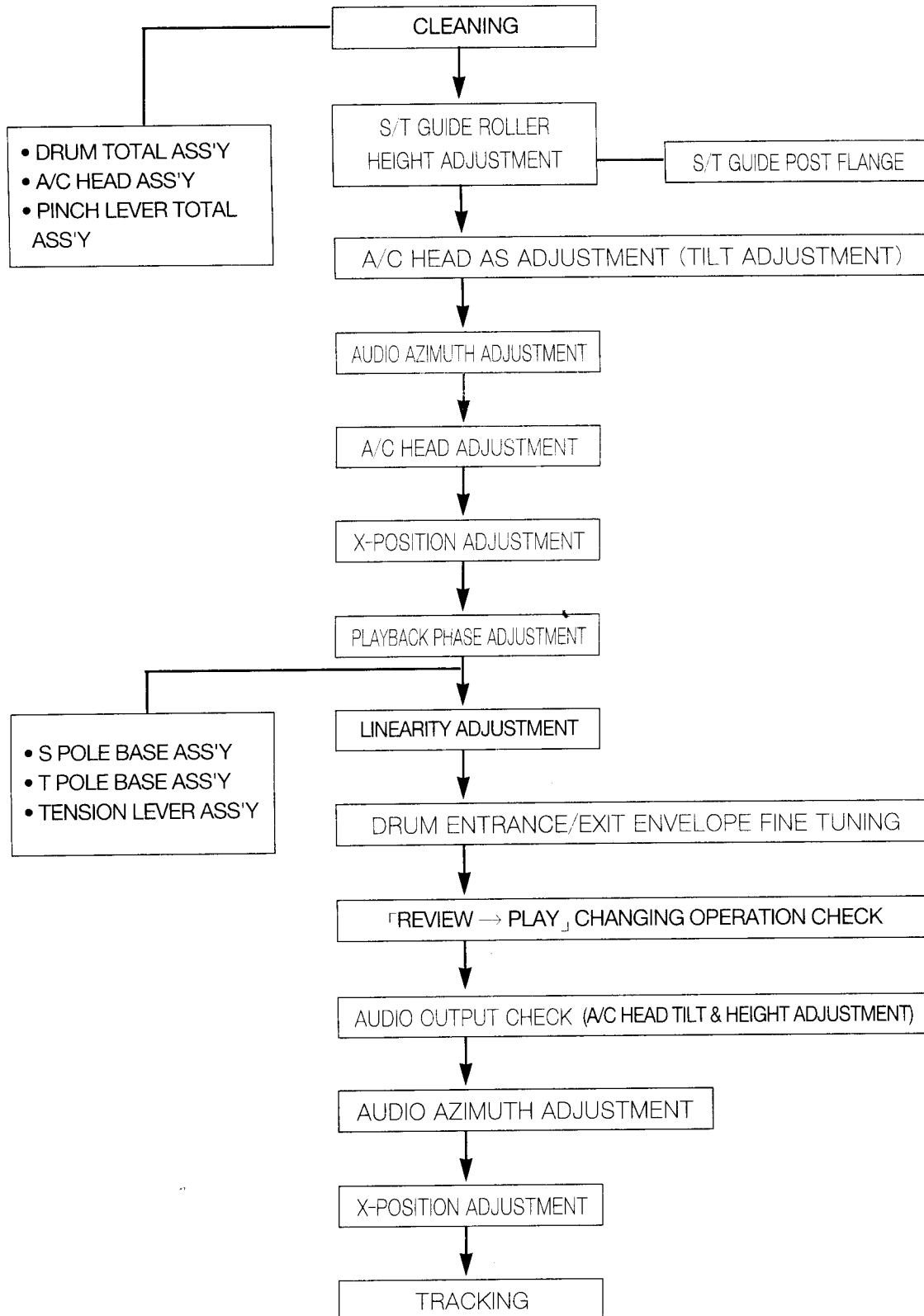


Table.1 ADJUSTMENT FLOW DIAGRAM OF THE TAPE TRANSPORTING SYSTEM

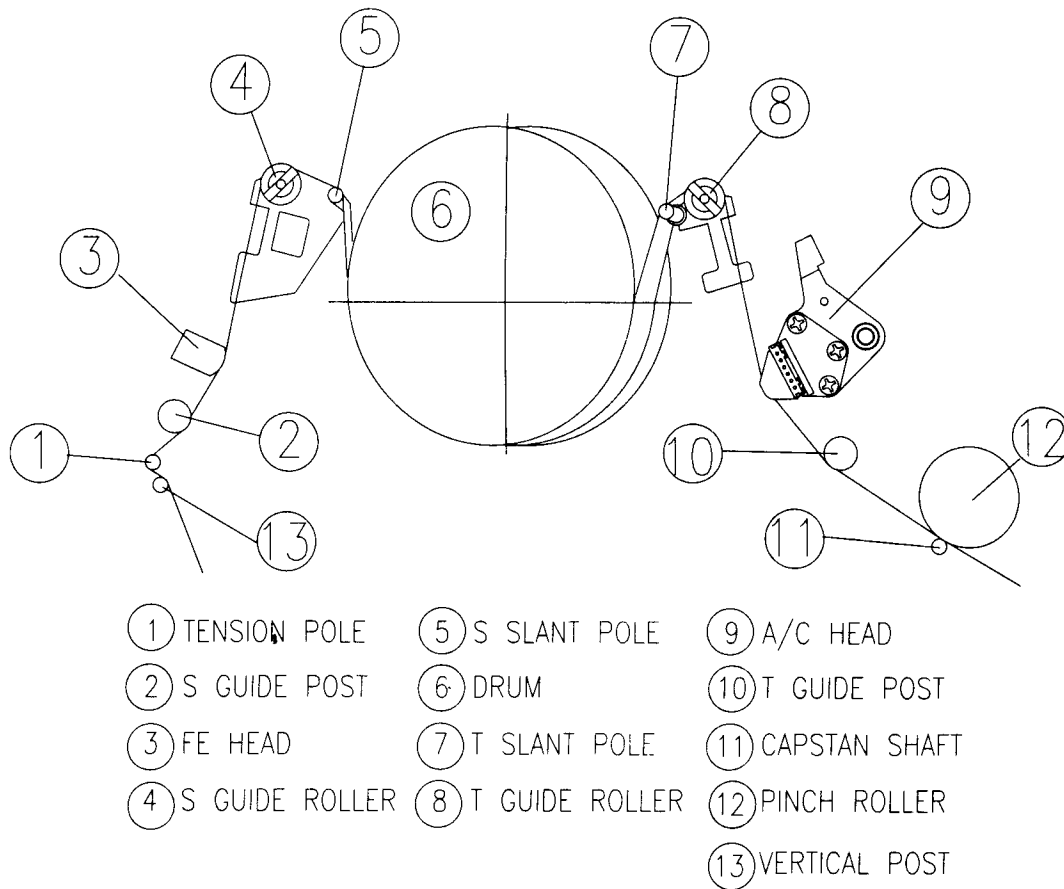


Fig. 5-1 THE SCHEMATIC DIAGRAM OF TAPE TRANSPORTING SYSTEM

When the parts as shown in Fig. 5-1 are replaced, the TAPE TRANSPORTING SYSTEM is changed. To prevent this, it is essential to know well thoroughly and observe the following INSTRUCTIONS.

**A. ADJUSTMENT OF THE S/T GUIDE ROLLER**

- a. Play back a T-120 TAPE.
- b. Make sure that the excessive TAPE wrinkle does not occur at each S/T GUIDE ROLLER.
- c. If TAPE wrinkle is observed at the S/T GUIDE ROLLER, turn them for no wrinkle.

## B. ADJUSTMENT OF THE A/C HEAD ASS'Y (TILT ADJUSTMENT)

- Play back a T-120 Tape and see the running condition of the TAPE at the lower flanges of the T GUIDE POST ASS'Y ① in Fig. 5-1.
- Adjust the A/C HEAD TILT SCREW until TAPE runs stable as shown in Fig. 5-2

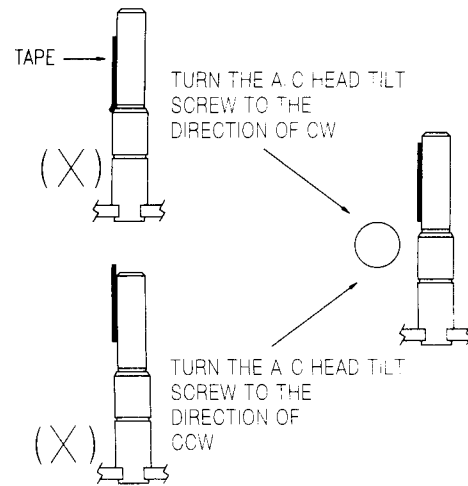
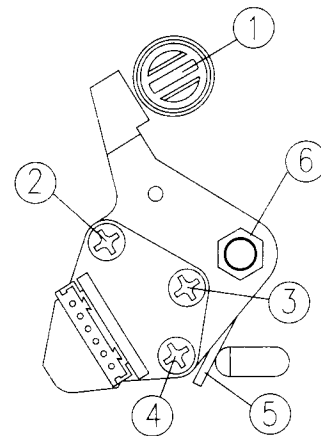


Fig. 5-2 A/C HEAD ASS'Y ADJUSTMENT (TILT ADJUSTMENT)

## C. ADJUSTMENT OF THE AUDIO AZIMUTH (See Fig.5-3)

- Play back the ALIGNMENT CASSETTE TAPE (DN2: SP, NTSC, 7KHz).
- Observe audio signals on an OSCILLOSCOPE.
- Turn the A/C HEAD AZIMUTH SCREW to obtain the maximum audio output signal (-9~-3dBm).



- |                         |                  |
|-------------------------|------------------|
| ① ADJUST BOSS           | ④ FIXING SCREW   |
| ② AC HEAD AZIMUTH SCREW | ⑤ AC HEAD SPRING |
| ③ AC HEAD TILT SCREW    | ⑥ AC HEAD NUT    |

Fig. 5-3 A/C HEAD ASS'Y

## D. THE HEIGHT ADJUSTMENT OF A/C HEAD

- Play back a T-120 TAPE.
- Make sure that the gap is 0.25mm between the lower end of TAPE and that of A/C HEAD.
- When the gap is longer than 0.25mm, turn the A/C HEAD HEIGHT ADJUST NUT counter-clockwise. When the gap is shorter than 0.25mm, turn it clockwise. Repeat this procedure until 0.25mm is obtained.

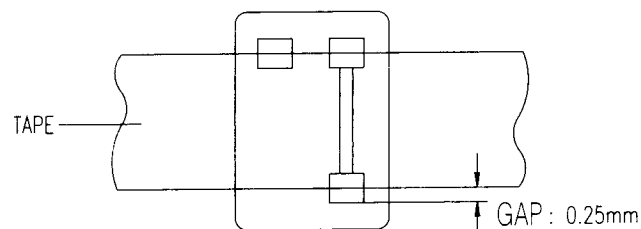


Fig. 5-4 A/C HEAD ASS'Y ADJUSTMENT (HEIGHT ADJUSTMENT)

## E. X-POSITION ADJUSTMENT

TEST POINTS	S/W PULSE TEST PIN	PATH ADJ. FIXTURE
	ENVELOPE TEST PIN	PATH ADJ. FIXTURE
MEASURING EQUIPMENT	OSCILLOSCOPE	
ADJUSTMENT	VR CONTROL	PATH ADJ. FIXTURE
	ADJUST BOSS	MAIN BASE.

- Connect path adjustment fixture to PT01 of the MAIN CIRCUIT BOARD.
- Play back the ALIGNMENT TAPE (COLOR BAR ALIGNMENT).
- Connect channel-1 scope probe to S/W PULSE TEST PIN of PATH ADJ, FIXTURE.
- Connect channel-2 scope probe to ENVELOPE TEST PIN of PATH ADJ, FIXTURE.
- Turn the VR CONTROL to the center point. (If the VR CONTROL is completely turned to counter-clockwise, it is positioned on another tracking center.)
- In the state that the position of the VR CONTROL is on the center, turn the ADJUST BOSS by using FLAT TYPE SCREW DRIVER and adjust the X-POSITION to obtain the maximum envelope waveform.

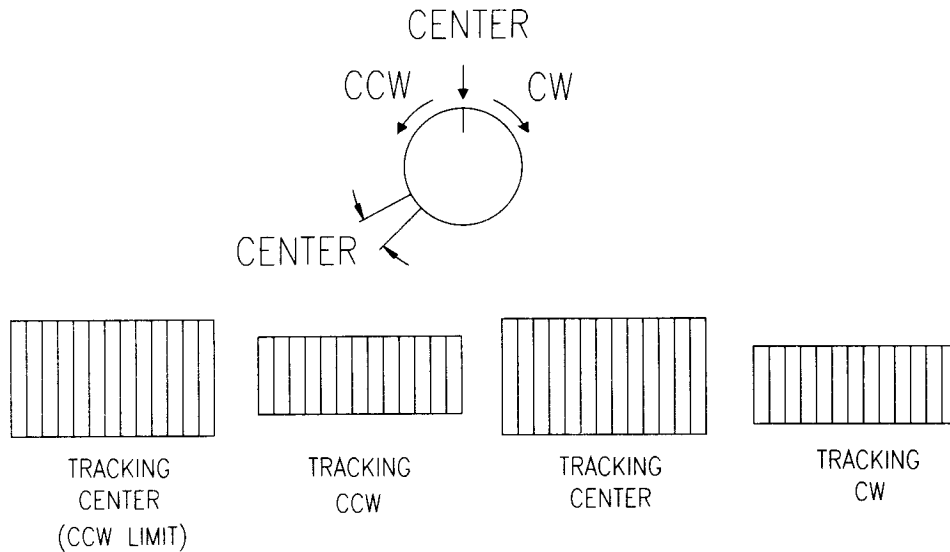


Fig. 5-5 X-POSITION ADJUSTMENT

## F. PLAYBACK PHASE ADJUSTMENT (See Fig. 5-6)

TEST POINTS	S/W PULSE TEST PIN	PATH ADJ. FIXTURE
	VIDEO OUT	MAIN CIRCUIT BOARD
MEASURING EQUIPMENT	OSCILLOSCOPE	
ADJUSTMENT	VR595 (PG SHIFTER)	MAIN CIRCUIT BOARD

Phase generator (PG) shifter decides the VIDEO HEAD switching point when a TAPE is played back. In case the Phase generator (PG) shifter isn't correctly tuned, the HEAD switching noise or vertical jitter may occur.

- Connect the PATH ADJ. FIXTURE to PT01 of the MAIN CIRCUIT BOARD.
- Play the ALIGNMENT TAPE (COLOR BAR SIGNAL OR MONOSCOPE SIGNAL)
- Connect the channel-1 scope probe to the S/W PULSE TEST PIN of the PATH ADJ. FIXTURE.
- Connect the channel-2 scope probe(1V/div.) to the VIDEO OUT of the MAIN CIRCUIT BOARD.
- Play back the ALIGNMENT TAPE.
- Adjust the PG volume for time interval of  $6.5H \pm 0.5H$  between switching pulse and V-sync signal.

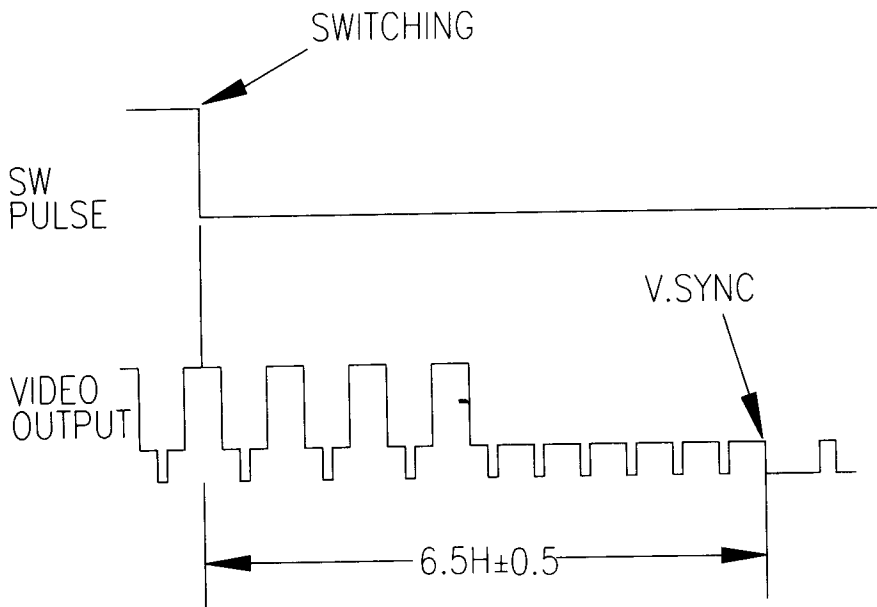


Fig. 5-6 PLAYBACK PHASE ADJUSTMENT



## G. LINEARITY ADJUSTMENT

TEST POINTS	S/W PULSE TEST PIN	PATH ADJ. FIXTURE
	ENVELOPE TEST PIN	PATH ADJ. FIXTURE
MEASURING EQUIPMENT	OSCILLOSCOPE	
ADJUSTMENT	VR CONTROL	PATH ADJ. FIXTURE
	S/T GUIDE ROLLER	TAPE TRANSPORTING SYSTEM

- a. Connect the PATH ADJ. FIXTURE to PT01 of the MAIN CIRCUIT BOARD.
- b. Play back the ALIGNMENT TAPE (COLOR BAR SIGNAL).
- c. Connect the channel-1 scope probe to the S/W PULSE TEST PIN of the PATH ADJ. FIXTURE.
- d. Connect the channel-2 scope probe to the ENVELOPE TEST PIN of the PATH ADJ. FIXTURE.
- e. Adjust the VR CONTROL of the PATH ADJ. FIXTURE for maximum envelope signal output of the alignment tape.
- f. Adjust the S/T GUIDE ROLLER until the envelope signal waveforms of the entrance and the exit sides are as shown in Fig. 5-7.

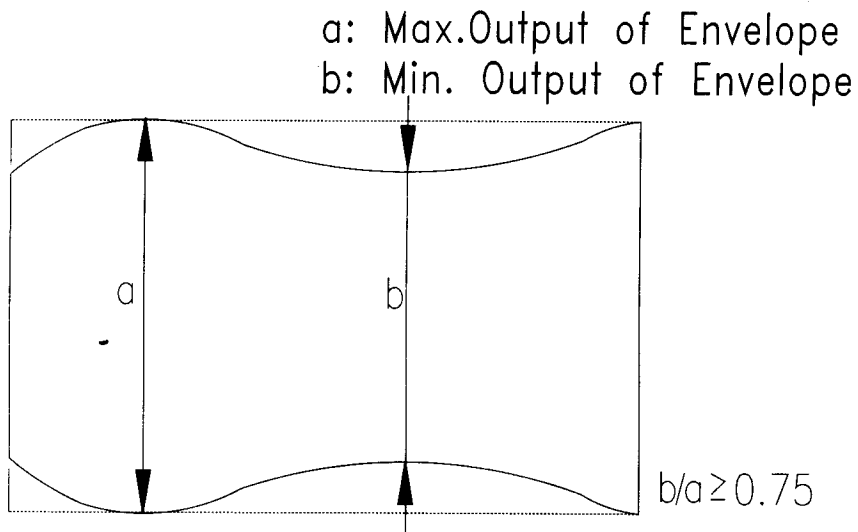


Fig. 5-7 LINEARITY ADJUSTMENT

## H. DRUM ENTRANCE /EXIT (See Fig. 5-8, 5-9)

TEST POINTS	S/W PULSE TEST PIN	PATH ADJ. FIXTURE
	ENVELOPE TEST PIN	PATH ADJ. FIXTURE
MEASURING EQUIPMENT	OSCILLOSCOPE	
ADJUSTMENT	VR CONTROL	PATH ADJ. FIXTURE
	S/T GUIDE ROLLER	TAPE TRANSPORTING SYSTEM

- Connect the PATH ADJ. FIXTURE to PT01 the MAIN CIRCUIT BOARD.
- Play back the ALIGNMENT TAPE (COLOR BAR SIGNAL).
- Connect the channel-1 scope probe to the S/W PULSE TEST PIN of the PATH ADJ. FIXTURE.
- Connect the channel-2 scope probe to the ENVELOPE TEST PIN of the PATH ADJ. FIXTURE.
- When turning the VR CONTROL of the PATH ADJ. FIXTURE clockwise or counter-clockwisw, affirm that the envelope is generally changed in equal thickness.
- If the envelope is not uniform and regular, adjust the S/T GUIDE ROLLER.

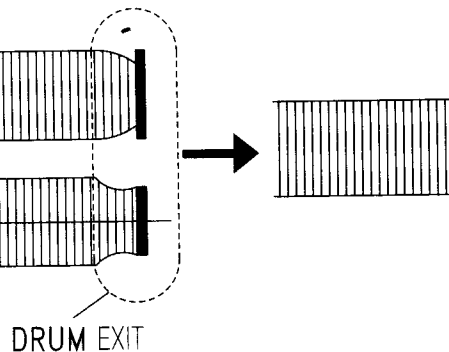
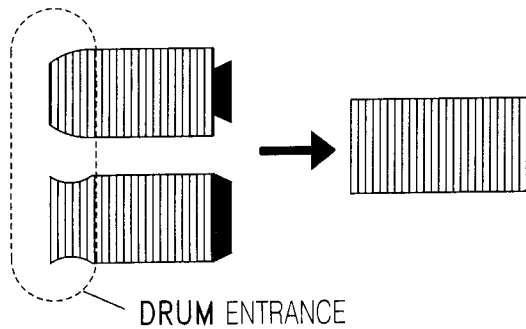


Fig. 5-8 FINE TUNING OF THE ENVELOPE AT THE DRUM ENTRANCE/EXIT (I)

Fig.5-9 FINE TUNING OF THE ENVELOPE AT THE DRUM ENTRANCE/EXIT (II)

**I. REVIEW → PLAY (See Fig. 5-10)**

TEST POINTS	S/W PULSE TEST PIN	PATH ADJ. FIXTURE
	ENVELOPE TEST PIN	PATH ADJ. FIXTURE
MEASURING EQUIPMENT	OSCILLOSCOPE	
ADJUSTMENT	VR CONTROL	PATH ADJ. FIXTURE
	S/T GUIDE ROLLER	TAPE TRANSPORTIN SYSTEM

- a. Connect the PATH ADJ. FIXTURE to PT01 of the MAIN CIRCUIT BOARD.
- b. Play back the ALIGNMENT TAPE (SP, COLOR BAR SIGNAL).
- c. Connect the channel-1 scope probe to the S/W PULSE TEST PIN of the PATH ADJ. FIXTURE.
- d. Connect the channel-2 scope probe to the ENVELOPE TEST PIN of the PATH ADJ. FIXTURE.
- e. Adjust the VR CONTROL of the PATH ADJ. FIXTURE to the center to obtain the maximum envelope signal of the ALIGNMENT TAPE.
- f. After operating the VCR in the REVIEW MODE about 15 secs, change the REVIEW MODE to the PLAY BACK MODE.
- g. Change operation mode from REVIEW MODE to PLAY MODE and then make sure that the envelope waveform is restored to the maximum condition within 3 seconds.
- h. If the requirement is not satisfied, make sure that the TAPE runs normal at the lower part of the T GUIDE POST. Then adjust the S/T GUIDE ROLLER precisely.

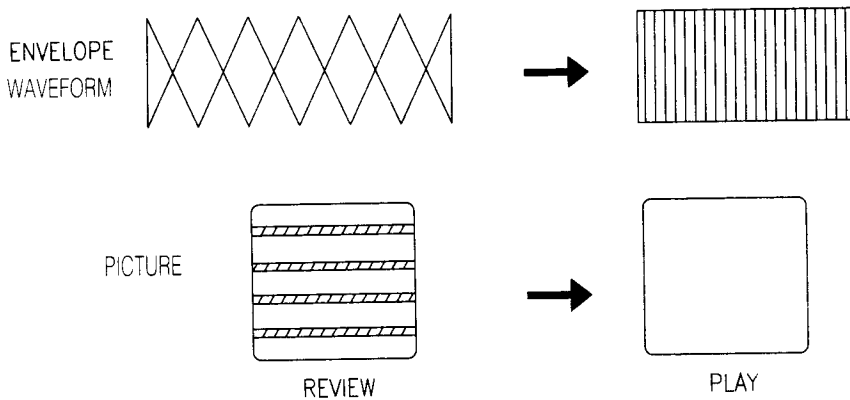


Fig. 5-10 CHECK OF TRANSITIONAL OPERATION (FROM REVIEW WAVEFORM TO PLAY WAVEFORM)

## J. AUDIO OUTPUT (A/C HEAD TILT & HEIGHT ADJUSTMENT)

TEST POINTS	AUDIO OUTPUT	AUDIO OUTPUT JACK
MEASURING EQUIPMENT	OSCILLOSCOPE	

- a. Connect the OSCILLOSCOPE to the AUDIO OUTPUT JACK.
- b. Play back the ALIGNMENT TAPE (DN1, 1KHz).
- c. Check the AUDIO OUTPUT SIGNAL is -9~-3dBm.
- d. If the requirement "c" is not satisfied, adjust the A/C HEAD TILT SCREW and A/C HEAD HEIGHT NUT to obtain the maximum audio output. (Fig. 5-3)

## K. A/C HEAD AZIMUTH ADJUSTMENT

- a. Connect the OSCILLOSCOPE to the AUDIO OUTPUT JACK.
- b. Play back the ALIGNMENT TAPE (STAIR STEPS, 7KHZ).
- c. Adjust the A/C HEAD AZIMUTH SCREW to obtain the audio output -9~-3dBm. (Fig. 5-3)
- d. Repeat the process "H. DRUM ENTRANCE/EXIT".

TEST POINTS	AUDIO OUTPUT	AUDIO OUTPUT JACK
MEASURING EQUIPMENT	OSCILLOSCOPE	

### L. X-POSITION (See Fig. 5-11)

TEST POINTS	S/W PULSE TEST PIN	PATH ADJ. FIXTURE
	ENVELOPE TEST PIN	PATH ADJ. FIXTURE
MEASURING EQUIPMENT	OSCILLOSCOPE	
ADJUSTMENT	VR CONTROL	PATH ADJ. FIXTURE
	ADJUST BOSS	MAIN BASE.

- Connect the PATH ADJ. FIXTURE to PT01 of the MAIN CIRCUIT BOARD.
- Play back the ALIGNMENT TAPE (COLOR SIGNAL BAR).
- Connect the channel-1 scope probe to the S/W PULSE TEST PIN of the of the PATH ADJ. FIXTURE.
- Connect the channel-2 scope probe to the ENVELOPE TEST PIN of the PATH ADJ. FIXTURE.
- Adjust the VR CONTROL to the center position. (When the VR CONTROL is completely turned counter-clockwise, it is set at another tracking center position).
- When the VR CONTROL is fully rotated clockwise or counter-clockwise, turn the ADJUST BOSS of the MAINBASE and adjust the X-POSITION for the envelope waveform to be as shown in Fig. 5-11
- Repeat the process "F. PLAYBACK PHASE ADJUSTMENT".

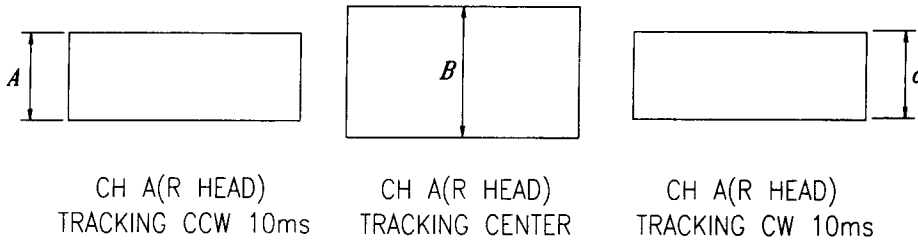
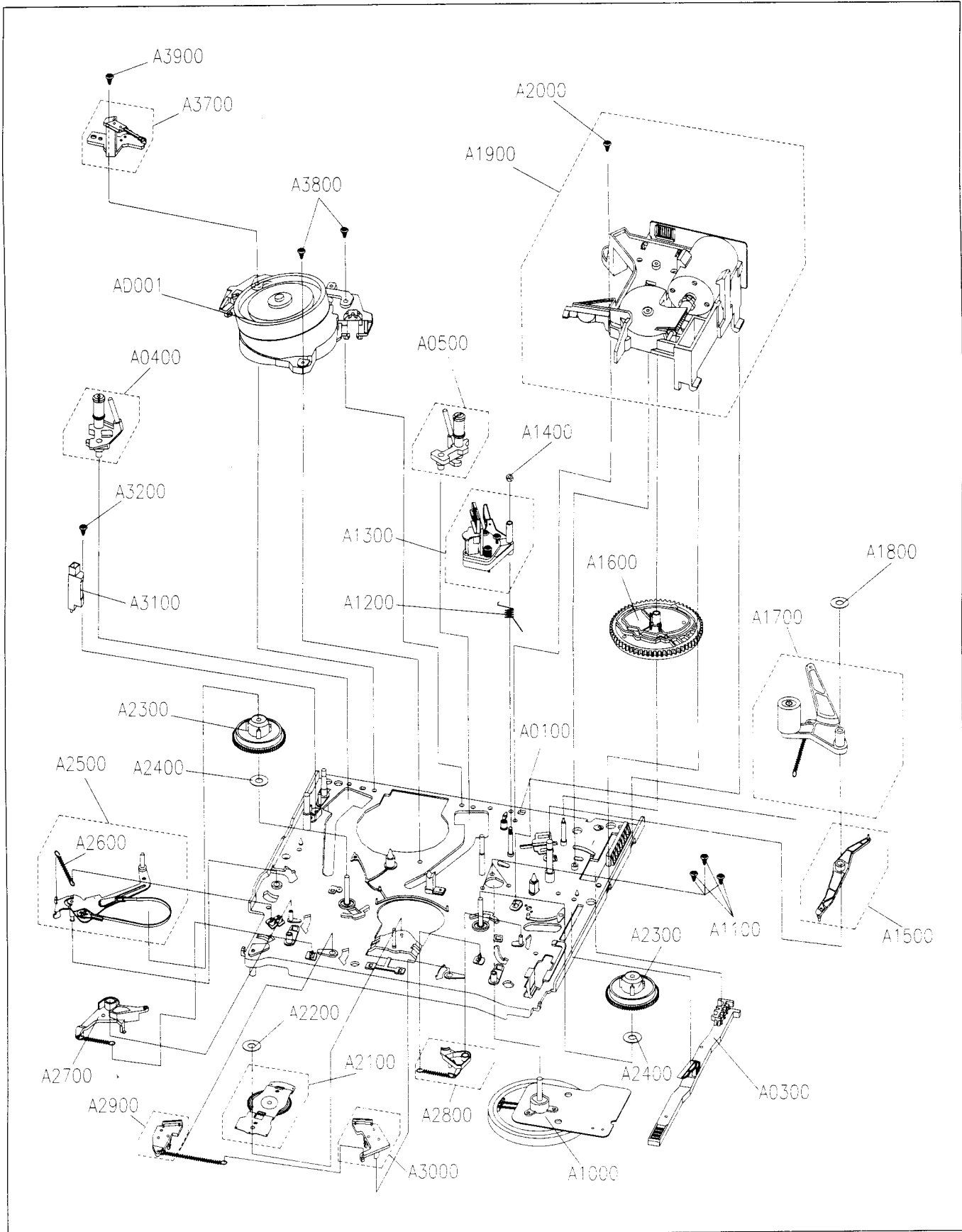


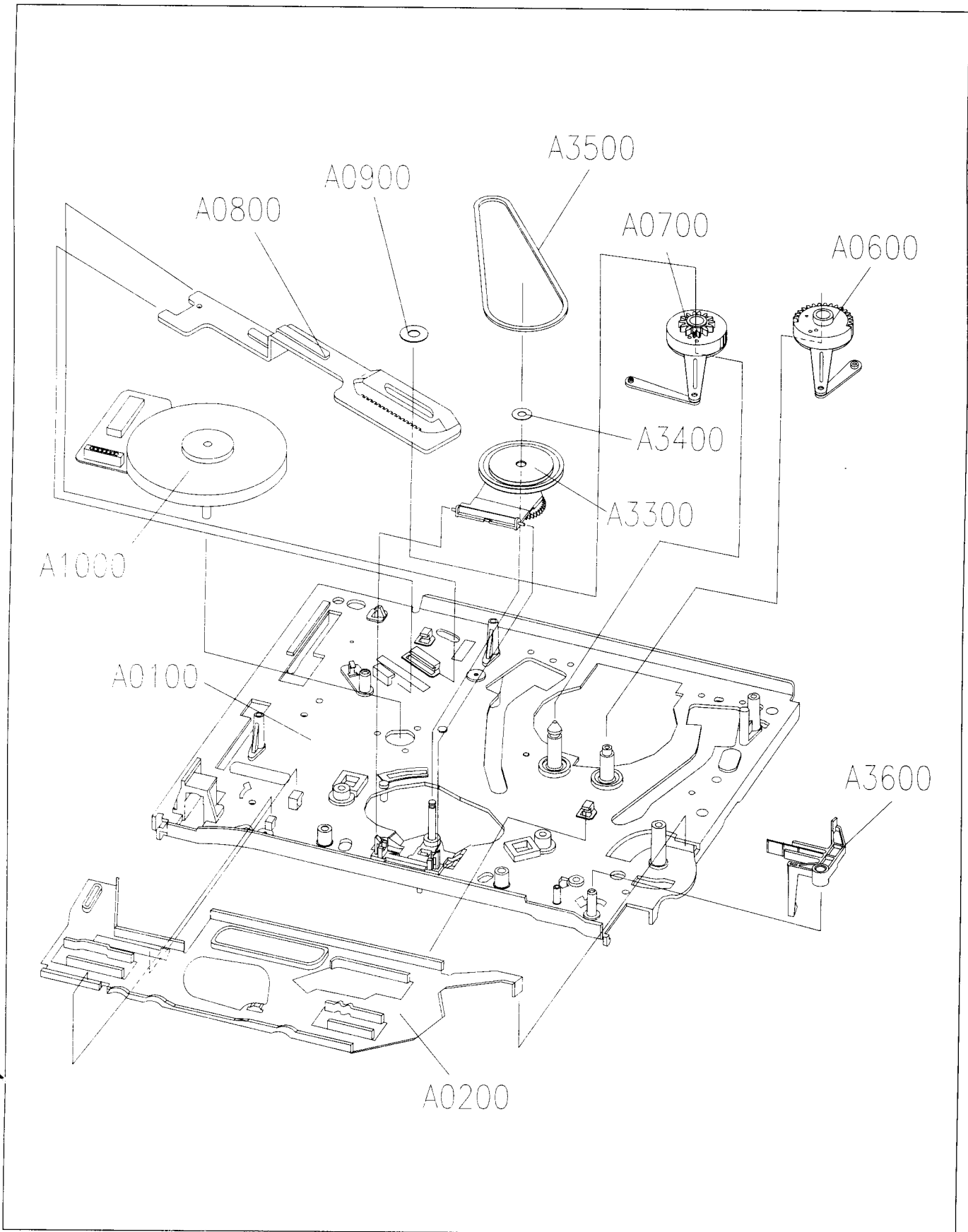
Fig. 5-11 X-POSITION ADJUSTMENT

# 6. EXPLODED VIEW AND PARTS LIST

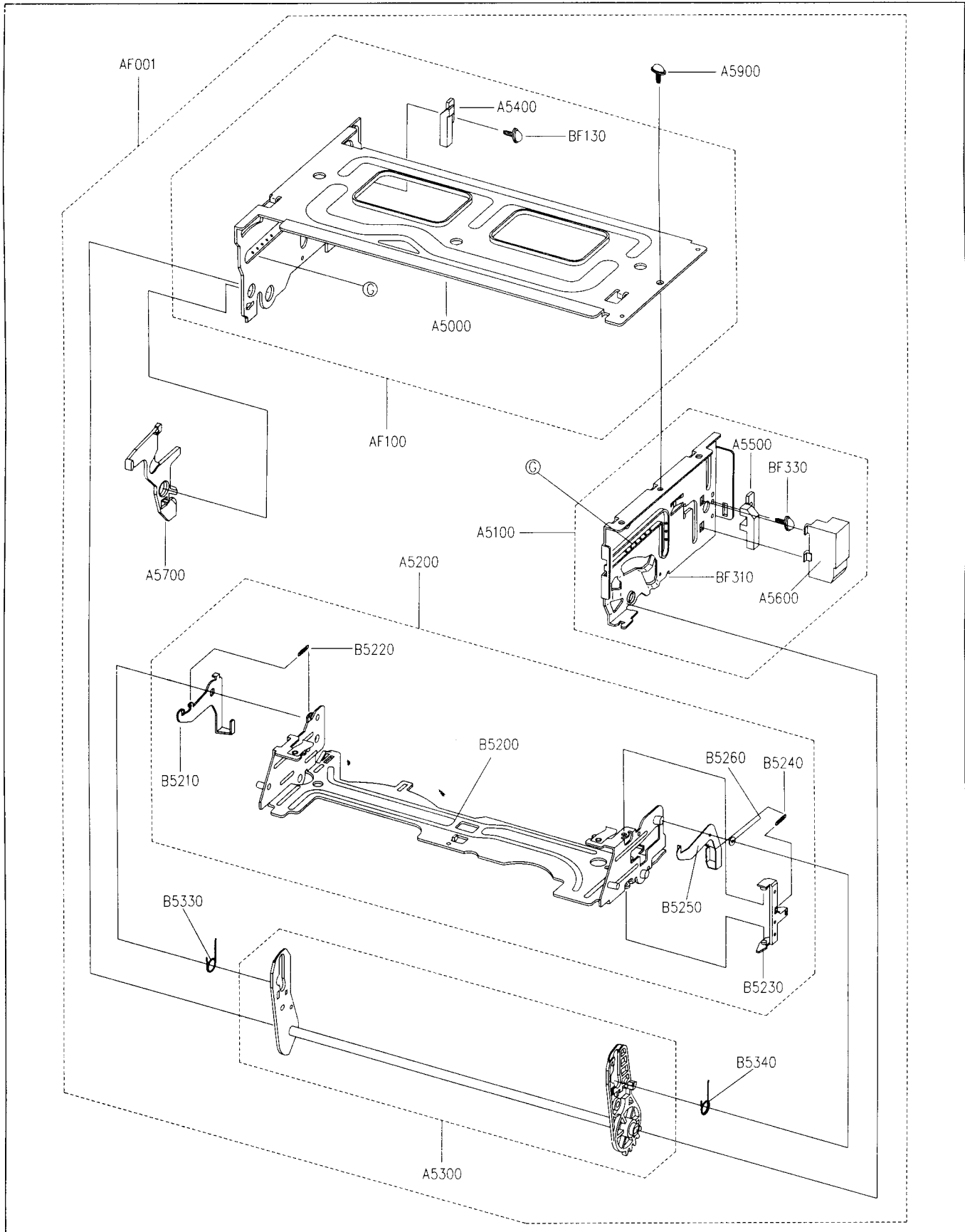
## 6-1. EXPLODED VIEW OF DECK ASS'Y (TOP VIEW)



## 6-2. EXPLODED VIEW OF DECK ASS'Y (BOTTOM VIEW)



# 6-3. EXPLODED VIEW OF F/L ASS'Y





## 6-4. PARTS LIST OF DECK ASS'Y

LOC.	STOCK NO.	PART NAME	DESCRIPTION
M01	97PB0891D-	DECK TOTAL AS	VDN-72201/K22 (2HD SP/EP DLC)
M01	97PB0892D-	DECK TCTAL AS	VDN-74201/K52 (4HD MONO DLC)
M01	97PB0893D-	DECK TOTAL AS	VDN-76201/K82 (4HD HIFI DLC)
AD001	97PA252371	DRUM PRICE AS	2HD SP/EP DLC (K22)
AD001	97PA254301	DRUM PRICE AS	2HD HIFI DLC
AD001	97PA252471	DRUM PRICE AS	4HD MONO DLC (K52)
AD001	97PA252571	DRUM PRICE AS	4HD HIFI DLC (K82)
AD001	97PA252671	DRUM PRICE AS	6HD MONO DLC (SP 고화질)
AF001	97SA251400	F/L AS	K-MECHA
AM001	97SA252100	DECK AS	K-MECHA
A0100	97SA309700	MAIN BASE AS	K-MECHA
A0200	97S0901400	PLATE CONNECT	SECC T1.0
A0300	97S2701800	RACK F/L	PBT (KP213G30) NATURAL
A0400	97SA310900	S SLANT POLE AS	K-MECHA
A0500	97SA311000	T SLANT POLE AS	K-MECHA
A0600	97SA308500	L LOADING AS	K-MECHA
A0700	97SA308600	R LOADING AS	K-MECHA
A0800	97SA308400	LOADING RACK AS	K-MECHA
A0900	97S3101800	WASHER POLY	K-MECHA
A1000	97S8100700	MOTOR CAPSTAN	F2QTB12
A1000	97S8100800	MOTOR CAPSTAN	DMVCMC06D
A1100	97S3102000	SCREW TAPTITE	P-TITE 2.6X7 MFZN
A1200	97S3004000	SPG AC HEAD	SUS304WPB D1.2
A1300	97SA311200	AC HEAD AS	K-MECHA
A1400	7391300211	NUT HEX	6N-1-5 MFZN
A1500	97S2604100	LEVER RELAY	ZDC-2
A1600	97S2701400	GEAR CAM	DELIN 100 BLACK

LOC.	STOCK NO.	PART NAME	DESCRIPTION
A1700	97SA310700	PINCH LEVER TOT AS	K-MECHA
A1800	97S3117300	WASHER POLY	D3.6XD8XT0.5
A1900	97SA310400	L/C BRKT TOT AS	K-MECHA
A2000	7274300611	SCREW TAPTITE	TT3 RND 3X6 MFZN
A2100	97SA311600	IDLER PLATE AS	K-MECHA
A2200	97S3108200	POLYWASHER	D2.6XD8XT0.5
A2300	97S2901600	TABLE REEL	POM (KEPITAL F20) BLACK
A2400	97S3903600	POLY SLIDER	D3.1XD6XT0.5
A2500	97SA310800	TENSION BAND AS	K-MECHA
A2600	97S3003500	SPG TENSION	SWPB D0.4
A2700	97SA309300	S SUB BRAKE AS	K-MECHA
A2800	97SA309400	T SUB BRAKE AS	K-MECHA
A2900	97SA309100	S MAIN BRAKE AS	K-MECHA
A3000	97SA309200	T MAIN BRAKE AS	K-MECHA
A3100	97S8012900	HEAD FE	HVFHF0004AK
A3200	97S3102100	SCREW TAPTITE	P-TITE 2.6X10 MFZN
A3300	97SA309000	REEL GEAR TOT AS	K-MECHA
A3400	97S3108200	POLYWASHER	D2.6XD6.0XT0.5
A3500	97S5500400	BELT REEL	CR73
A3600	97S2603500	LEVER RECORD SAFETY	F20-03 NATURAL
A3700	97SB381100	EARTH BRACKET AS	G-MECHA, K-MECHA
A3800	7274301011	SCREW TAPTITE	TT3 RND 3X10 MFZN
A3900	7274301211	SCREW TAPTITE	TT3 RND 3X12 MFZN
A4000	7274300611	SCREW TAPTITE	TT3 RND 3X6 MFZN
A4100	2291129004	OIL LUBRICANT	OA-305A
A4200	2291131304	GREASE	DELUXE 5221G (NAM-YOUNG)

**DAEWOO**

**DAEWOO ELECTRONICS CO., LTD.**

686, AHYEON-DONG, MAPO-GU

SEOUL, KOREA.

C.P.O. BOX 8003 SEOUL KOREA

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**S022GBA**

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**THOMSON CONSUMER ELECTRONICS**  
**Video Cassette Recorder**  
**Basic Service Data**

VR339  
Additional Models:  
VR348/VR509/  
VG2056/VG2058/VG4056



Technical Publications  
P.O. Box 1976 / Indianapolis, Indiana 46206

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*Daewoo 710 Book*

**SAFETY NOTICE**

**USE ISOLATION TRANSFORMER WHEN SERVICING**

Components having special safety characteristics are identified by a (Δ) on schematics and on the parts list in this Service Data and its bulletins. Before servicing this instrument, it is important that the service technician read and follow the "Safety Precautions" and in the Basic Service Data.

## REPLACEMENT PARTS (Continued)

(See Product Safety Note on first page of this parts list)

SYMBOL NO.	STOCK NO.	DRAWING NO.	DESCRIPTION	SYMBOL NO.	STOCK NO.	DRAWING NO.	DESCRIPTION
R628	235571		RES CF 1/6W 5% 200R				
R629	230608		RES CCF 1/10W 5% 27K	SM801	235586		△ CIRCUIT, POWER SUPPLY
R630	230621		RES CCF 1/10W 5% 200R				
R631	229681		RES CF 1/6W 5% 1K	SW151	229708		SWITCH SLIDE
R632	229681		RES CF 1/6W 5% 1K	SW601	229709		SWITCH REC SAFETY
R633	229681		RES CF 1/6W 5% 1K	T201	229710		COIL BIAS OSC
R634	235572		RES CF 1/6W 5% 270R				
R635	229681		RES CF 1/6W 5% 1K	VA801	230560		△ VARISTOR
R636	229681		RES CF 1/6W 5% 1K	VA802	230560		△ VARISTOR
R637	229681		RES CF 1/6W 5% 1K				
R638	229681		RES CF 1/6W 5% 1K	X301	229712		CRYSTAL
R639	229681		RES CF 1/6W 5% 1K	X601	235587		CRYSTAL
R640	229679		RES CF 1/6W 5% 47K	X602	229714		CRYSTAL
R641	231849		RES CCF 1/10W 5% 150K	X701	229721		RESONATOR
R642	229681		RES CF 1/6W 5% 1K				
R647	229707		△ RES MF 2W 5% 3.9R	XS01	229711		CRYSTAL
R648	229681		RES CF 1/6W 5% 1K				
R649	229681		RES CF 1/6W 5% 1K				
R650	229681		RES CF 1/6W 5% 1K				
R651	230590		RES CCF 1/10W 5% 100K				
R652	230586		RES CCF 1/10W 5% 75K				
R653	235569		RES CF 1/6W 5% 82K				
R654	229681		RES CF 1/6W 5% 1K				
R655	229681		RES CF 1/6W 5% 1K				
R656	229681		RES CF 1/6W 5% 1K				
R658	230591		RES CCF 1/10W 5% 10K	030	235709		● CIRCUIT, LOGIC VG2056/4056
R659	230591		RES CCF 1/10W 5% 10K				
R661	229681		RES CF 1/6W 5% 1K	030	235737		● CIRCUIT, LOGIC VG2058
R701	163691		RES CF 1/6W 5% 1M	030	235710		● CIRCUIT, LOGIC VR339/509
R702	229679		RES CF 1/6W 5% 47K	030	235716		● CIRCUIT, LOGIC VR348
R703	229679		RES CF 1/6W 5% 47K	032	235718		● CIRCUIT, MAIN VGA4056/VR509
R704	229679		RES CF 1/6W 5% 47K				
R705	229679		RES CF 1/6W 5% 47K	032	235701		● CIRCUIT, MAIN VG2056/VR339
R706	184838		RES CF 1/6W 5% 10K				
R707	229754		△ RES CF 1/6W 5% 5.1R	032	235714		● CIRCUIT, MAIN VG2058/VR348
R708	229747		RES CF 1/6W 5% 1.2K				
R709	195370		RES CF 1/6W 5% 100K				
R710	195370		RES CF 1/6W 5% 100K	A001			NON-STOCK PART
R711	195370		RES CF 1/6W 5% 100K	A004	230531		FOOT
R712	195370		RES CF 1/6W 5% 100K	A005	231840		CLAMP, CORD
R801	181986		RES CF 1/2W 5% 3.3M	A006			NON-STOCK PART
R820	229748		RES CF 1/6W 5% 2.7K	A007	229655		SCREW, 4MMD X 12MM
R829	184838		RES CF 1/6W 5% 10K	A008	229659		SCREW, 3MMD X 10MM
R831	229755		RES CF 1/6W 5% 510R	A010	229655		SCREW, 4MMD X 12MM
R832	235736		RES CF 1/6W 5% 20R	A011	235633		COVER, BOTTOM
				A012	229659		SCREW, 3MMD X 10MM
RA01	230624		RES CCF 1/10W 5% 22K	A013	230533		BRACKET
RA02	230624		RES CCF 1/10W 5% 22K	A015	229655		SCREW, 4MMD X 12MM
RA03	235579		RES CCF 1/10W 5% 560R	A016	235711		COVER, TOP VG4056/VR339/348/509
RA03	230620		RES CCF 1/10W 5% 510R				
RA04	229756		RES CCF 1/10W 5% 430R	A016	235721		COVER, TOP VG2056/2058
RA05	230620		RES CCF 1/10W 5% 510R	A018	235635		SCREW, 4MMD X 12MM
RA09	230611		RES CCF 1/10W 5% 1.6K	A0100			NON-STOCK PART
			VG4056/VR509	A0200	235602		PLATE
RA09	230606		RES CCF 1/10W 5% 1.8K	A0300	235603		RACK, FL
			VG2056/2058/VR339/348	A0400	235604		POLE, S SLANT
RA11	230587		RES CCF 1/10W 5% 30K	A0500	235605		POLE, T SLANT
RA30	230608		RES CCF 1/10W 5% 27K	A0600	235606		ARM, LOADING ASY (L)
				A0700	235607		ARM, LOADING ASY (R)
RF101	235576		CIRCUIT, TUNER	A0800	235608		RACK, LOADING ASY
				A0900	235609		WASHER
RS01	230603		RES CCF 1/10W 5% 1K	A1000	235610		MOTOR, CAPSTAN
RS02	230615		RES CCF 1/10W 5% 1.5K	A1100	235611		SCREW, 2.6MMD X 6MM
RS03	235581		RES CCF 1/10W 5% 6.8K	A1200	235612		SPRING
RS05	229750		RES CF 1/6W 5% 2K	A1300	235613		HEAD, AC ASY
RS10	230594		RES CCF 1/10W 5% 120R	A1400	235614		NUT
RS11	235582		RES CCF 1/10W 5% 200K	A1500	235615		RELAY, LEVER
				A1600	235616		GEAR, CAM
S601	235583		SENSOR, SUPPLY REEL	A1700	235617		LEVER, PINCH ASY
S602	235583		SENSOR, TAKEUP REEL	A1800	235618		WASHER
S603	235585		TRANSISTOR START SENSOR	A1900	235619		BLOCK, LOADING MOTOR
S603A	235584		HOLDER TR				W/MODE SW
S604	235585		TRANSISTOR END SENSOR	A2000	229660		SCREW, 3MMD X 6MM
S604A	235584		HOLDER TR	A2100	235620		PLATE, W/IDLER ASY
S701	229720		SWITCH	A2200	229769		WASHER
S702	229720		SWITCH	A2300	235621		REEL, TABLE
S703	229720		SWITCH	A2400	230546		SLIDER
S704	229720		SWITCH	A2500	235622		BAND, TENSION
S705	229720		SWITCH	A2600	235623		SPRING, TENSION
S706	229720		SWITCH	A2700	235624		BRAKE, SUB (S)
S707	229720		SWITCH	A2800	235625		BRAKE, SUB (T)
S708	229720		SWITCH	A2900	235626		BRAKE, MAIN (S)
				A3000	235627		BRAKE, MAIN (T)

## MECHANICAL ASSEMBLY

NOTE: SOME PARTS WITH ITEM NUMBERS ON EXPLODED VIEWS MAY NOT BE AVAILABLE SEPARATELY, OR MAY BE AVAILABLE ONLY AS PART OF AN ASSEMBLY.

**REPLACEMENT PARTS (Continued)**

(See Product Safety Note on first page of this parts list)

SYMBOL NO.	STOCK NO.	DRAWING NO.	DESCRIPTION
A3100	235628		HEAD, FULL ERASE
A3200	229677		SCREW, 2.6MMD X 10MM
A3300	235629		CLUTCH, GEAR REEL ASY
A3400	229769		WASHER
A3500	235630		BELT, REEL
A3600	235631		LEVER, RECORD SAFETY
A3700	235632		BRACKET
A3800	229773		SCREW, 3MMD X 10MM
A3900	229772		SCREW, 3MMD X 12MM
A4000	229660		SCREW, 3MMD X 6MM
A5000			NON-STOCK PART
A5100	236105		BRACKET
A5200	236106		HOLDER
A5300	236107		LEVER, LOADING ASY
A5400	231838		COLLIMETER, (L)
A5500	231839		COLLIMETER, (R)
A5600	236120		CAP, PRISM
A5700	236108		BRACKET, DOOR OPENER
A5800	229674		SCREW, 2.6MMD X 6MM
A5900	229663		SCREW, 3MMD X 6MM
AD001			NON-STOCK PART
AF001	235601		HOLDER, CASSETTE ASY
AM001			NON-STOCK PART
B000	235722		PANEL, FRONT ASY VG2056
B000	235738		PANEL, FRONT ASY VG2058
B000	235739		PANEL, FRONT ASY VG4056
B000	235712		PANEL, FRONT ASY VR339
B000	235717		PANEL, FRONT ASY VR348
B000	235719		PANEL, FRONT ASY VR509
B005	235723		DOOR, F/L VG2056/2058
B005	235740		DOOR, F/L VG4056
B005	235713		DOOR, F/L VR339/348
B005	235720		DOOR, F/L VR509
B006	231743		SPRING, CASSETTE DOOR
B009	235702		PLATE, REAR JACK
B010	231837		PLATE, GROUND
B011	229682		SCREW, 3MMD X 8MM
B0020	236109		BASE, DRUM
B0030	231744		SCREW, 3MMD X 8MM
B0040	231831		HEAD, HEADWHEEL & MOTOR ASY VG2056/2058/VR339/348
B0040	231845		HEAD, HEADWHEEL & MOTOR ASY VG4056/VR509
B0050	236111		MOTOR, LOWER ASY
B0060	231745		SCREW, 2/6MM X 10MMD
B0070	231746		SCREW, 2.6MMD X 8MM
B0090	236112		WASHER
B1900			NON-STOCK PART
B1910	236113		MOTOR, L/C
B1920	236452		CIRCUIT, LOADING
B1930	236114		CONNECTOR
B1940	236115		SWITCH
B1960	236116		GEAR
B5200			PART OF #A5200
B5210			PART OF #A5200
B5220			PART OF #A5200
B5230			PART OF #A5200
B5240			PART OF #A5200
B5250			PART OF #A5200
B5260			PART OF #A5200
B5330	236117		SPRING
B5340	236118		SPRING
BF130			SCREW, USE #A5800
BF330			SCREW, USE #A5800
M01			NON-STOCK PART

**SERVICING AIDS**

- 144386 • ADAPTER, TORQUE GAUGE USE W/GAUGE MODEL NO. 600ATG
- 230747 • CABLE, EXT

SYMBOL NO.	STOCK NO.	DRAWING NO.	DESCRIPTION
	146918		• CHUCK, FOR 144396 GAUGE (MODEL 600ATG ONLY)
	147002		• DRIVER, HEX KEY 1.5MM
	144401		• DRIVER, HEX KEY KIT CONTAINS 0.77MM HEX KEY DRIVER
	146917		• DRIVER, RF ADJ TOOL
	230748		• FIXTURE, PATH ADJ
	144396		• GAUGE, TORQUE W/ADAPTER
	147001		• JIG, REEL TABLE HEIGHT
	156391		• METER, BACK TENSION TEST TAPE
	184949		• PLATE, HEIGHT REFERENCE
	153829		• SCREWDRIVER, JEWELER 0.8MMD SHAFT
	156504		• TAPE, MONOSCOPE/7KHZ (MONO)
	192847		• TAPE, COLOR BARS/1KHZ (MONO)
	156502		• TAPE, MULTIBURST/3KHZ (STEREO)
	156501		• TAPE, KIT OF 3 (MONOSCOPE, COLOR BARS & MULTIBURST)
	144297		• WASHER, 3.2MM ID .5MM THICK REEL HEIGHT ADJUST 10/PKG
	152460		• WASHER, 3.2MM ID .25MM THICK REEL HEIGHT ADJUST 5/PKG
			<b>SERVICING MATERIALS</b>
	147347		• GREASE, VCR MECHANISM
	199076		• KIT, INCLUDES ALL LUBES & CLEANING MATERIALS
	194359		• TIP, USED WITH SOLDER CREAM APPLICATOR, 2 PKGS
	145871		• WIPES, 5 X 8 1/2 INCH

**INCLUDED ACCESSORIES**

- BOOK, INSTRUCTION
  - 96-VG2056-001
  - 96-VG2058-001
  - 96-VG4056-001
  - 96-VR339-001
  - 96-VR348-001
  - 96-VR509-001
- CABLE, RF
- TRANSMITTER, REMOTE VG4056
- TRANSMITTER, REMOTE VG2056/2058
- TRANSMITTER, REMOTE VR509
- TRANSMITTER, REMOTE VR339/348

**THOMSON CONSUMER ELECTRONICS**  
**Video Cassette Recorder**  
**Basic Service Data**

VR342  
Additional Models:  
VR518/VG2040/  
VG4040/VG4061



Technical Publications  
P.O. Box 1976 / Indianapolis, Indiana 46206

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**Schematic/Circuit Board Index**

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\* Not Available

**SAFETY NOTICE**  
**USE ISOLATION TRANSFORMER WHEN SERVICING**

Components having special safety characteristics are identified by a (Δ) on schematics and on the parts list in this Service Data and its bulletins. Before servicing this instrument, it is important that the service technician read and follow the "Safety Precautions" in the Basic Service Data.

**REPLACEMENT PARTS**

Symbol	Stock	Drawing	Description	Symbol	Stock	Drawing	Description
RS02	230615		RES CCF 1/10W 5% 1.5K (VR342, VR518, VG204, VG404, VG406)	X601	229714		CRYSTAL (VR342, VR518, VG204, VG404, VG406)
RS03	235581		RES CCF 1/10W 5% 6.8K (VR342, VR518, VG204, VG404, VG406)	X602	238833		CRYSTAL (VR342, VR518, VG204, VG404, VG406)
RS04	230594		RES CCF 1/10W 5% 120R (VR342, VR518, VG204, VG404, VG406)	XS01	229711		CRYSTAL (VR342, VR518, VG204, VG404, VG406)
RS05	235559		RES CCF 1/10W 5% 2K (VR342, VR518, VG204, VG404, VG406)	<b>INCLUDED ACCESSORIES</b>			
S601	235583		SENSOR, SUPPLY REEL (VR342, VR518, VG204, VG404, VG406)	CAB	221392		CABLE, RF (VR342, VR518, VG204, VG404)
S602	235583		SENSOR, TAKEUP REEL (VR342, VR518, VG204, VG404, VG406)	CAB	221392		CABLE, RF (VG406)
S603	235585		TRANSISTOR SUPPLY SENSOR (VR342, VR518, VG204, VG404, VG406)	TRA	238097		TRANSMITTER, REMOTE (VR342)
S603A	235584		HOLDER TR (VR342, VR518, VG204, VG404, VG406)	TRA	238861		TRANSMITTER, REMOTE (VG406)
S604	235585		TRANSISTOR END SENSOR (VR342, VR518, VG204, VG404, VG406)	TRA	238858		TRANSMITTER, REMOTE (VR518)
S604A	235584		HOLDER TR (VR342, VR518, VG204, VG404, VG406)	TRA	238096		TRANSMITTER, REMOTE (VG204, VG404)
SM801			SEE CBA ASSEMBLIES COMPLETE (VR342, VR518, VG204, VG404, VG406)	<b>MECHANICAL ASSEMBLY</b>			
SW151	229708		SWITCH SLIDE (VR342, VR518, VG204, VG404, VG406)	1			SEE CBA ASSEMBLIES COMPLETE (VR518, VG204, VG404, VG406)
SW601	229709		SWITCH (VR342, VR518, VG204, VG404, VG406)	A001			NON-STOCK PART (VR342, VR518, VG204, VG404, VG406)
SW701	238830		SWITCH (VR342, VR518, VG204, VG404, VG406)	A004	230531		FOOT (VR342, VR518, VG204, VG404, VG406)
SW702	238830		SWITCH (VR342, VR518, VG204, VG404, VG406)	A005	231840		CLAMP, CORD (VR342, VR518, VG204, VG404, VG406)
SW703	238830		SWITCH (VR342, VR518, VG204, VG404, VG406)	A007	229655		SCREW, 4MMD X 12MM (VR518, VR342, VG204, VG404, VG406)
SW704	238830		SWITCH (VR342, VR518, VG204, VG404, VG406)	A008	229659		SCREW, 3MMD X 10MM (VR518, VR342, VG204, VG404, VG406)
SW705	238830		SWITCH (VR342, VR518, VG204, VG404, VG406)	A010	238838		COVER, BOTTOM (VR518, VR342, VG204, VG404, VG406)
SW706	238830		SWITCH (VR342, VR518, VG204, VG404, VG406)	A0100			NON-STOCK PART (VR518, VR342, VG204, VG404, VG406)
SW707	238830		SWITCH (VR342, VR518, VG204, VG404, VG406)	A011	238839		SCREW, 3MMD X 12MM (VR518, VR342, VG204, VG404, VG406)
SW708	238830		SWITCH (VR342, VR518, VG204, VG404, VG406)	A012	238840		BRACKET (VR518, VR342, VG204, VG404, VG406)
T201	238831		COIL (VR342, VR518, VG204, VG404, VG406)	A013	229655		SCREW, 4MMD X 12MM (VR518, VR342, VG204, VG404, VG406)
VA801	230560		▲ VARISTOR (VR342, VR518, VG204, VG404, VG406)	A014	238841		COVER, TOP (VR518, VR342, VG204, VG404, VG406)
VA802	230560		▲ VARISTOR (VR342, VR518, VG204, VG404, VG406)	A016	235635		SCREW, 4MMD X 12MM (VR518, VR342, VG204, VG404, VG406)
X301	238832		CRYSTAL (VR342, VR518, VG204, VG404, VG406)	A018	229659		SCREW, 3MMD X 10MM (VR518, VR342, VG204, VG404, VG406)
				A0200	235602		PLATE (VR518, VR342, VG204, VG404, VG406)
				A0300	235603		RACK, FL (VR518, VR342, VG204, VG404, VG406)
				A0400	235604		POLE, S SLANT (VR518, VR342, VG204, VG404, VG406)
				A0500	235605		POLE, T SLANT (VR518, VR342, VG204, VG404, VG406)
				A0600	235606		ARM, LOADING ASY (L) (VR518, VR342, VG204, VG404, VG406)



## REPLACEMENT PARTS

Symbol	Stock	Drawing	Description	Symbol	Stock	Drawing	Description
A0700	235607		ARM, LOADING ASY (R) (VR518, VR342, VG204, VG404, VG406)	A3300	235629		CLUTCH, GEAR REEL ASY (VR342, VR518, VG204, VG404, VG406)
A0800	235608		RACK, LOADING ASY (VR518, VR342, VG204, VG404, VG406)	A3400	229769		WASHER (VR342, VR518, VG204, VG404, VG406)
A0900	235609		WASHER (VR518, VR342, VG204, VG404, VG406)	A3500	235630		BELT, REEL (VR342, VR518, VG204, VG404, VG406)
A1000	235610		MOTOR, CAPSTAN (VR518, VR342, VG204, VG404, VG406)	A3600	235631		LEVER, RECORD SAFETY (VR342, VR518, VG204, VG404, VG406)
A1100	235611		SCREW, 2.6MMD X 6MM (VR518, VR342, VG204, VG404, VG406)	A3700	235632		BRACKET (VR342, VR518, VG204, VG404, VG406)
A1200	235612		SPRING (VR518, VR342, VG204, VG404, VG406)	A3800	229773		SCREW, 3MMD X 10MM (VR342, VR518, VG204, VG404, VG406)
A1300	235613		HEAD, AC ASY (VR518, VR342, VG204, VG404, VG406)	A3900	229772		SCREW, 3MMD X 12MM (VR342, VR518, VG204, VG404, VG406)
A1400	235614		NUT (VR342, VR518, VG204, VG404, VG406)	A4000	229660		SCREW, 3MMD X 6MM (VR342, VR518, VG204, VG404, VG406)
A1500	235615		LEVER, RELAY (VR342, VR518, VG204, VG404, VG406)	A5000	238957		PLATE (VR342, VR518, VG204, VG404, VG406)
A1600	235616		GEAR, CAM (VR342, VR518, VG204, VG404, VG406)	A5100	236105		BRACKET (VR342, VR518, VG204, VG404, VG406)
A1700	235617		LEVER, PINCH ASY (VR342, VR518, VG204, VG404, VG406)	A5200	236106		HOLDER (VR342, VR518, VG204, VG404, VG406)
A1800	235618		WASHER (VR342, VR518, VG204, VG404, VG406)	A5300	236107		LEVER, LOADING ASY (VR342, VR518, VG204, VG404, VG406)
A1900	235619		BLOCK, LOADING MOTOR W/MODE SW (VR342, VR518, VG204, VG404, VG406)	A5400	231838		LENS, TAPE END SENSOR (L) (VR342, VR518, VG204, VG404, VG406)
A2000	229660		SCREW, 3MMD X 6MM (VR342, VR518, VG204, VG404, VG406)	A5500	231839		LENS, TAPE END SENSOR (R) (VR342, VR518, VG204, VG404, VG406)
A2100	235620		PLATE, W/IDLER ASY (VR342, VR518, VG204, VG404, VG406)	A5700	236108		BRACKET, DOOR OPENER (VR342, VR518, VG204, VG404, VG406)
A2200	229769		WASHER (VR342, VR518, VG204, VG404, VG406)	A5800	229674		SCREW, 2.6MMD X 6MM (VR342, VR518, VG204, VG404, VG406)
A2300	235621		REEL, TABLE (VR342, VR518, VG204, VG404, VG406)	A5900	229663		SCREW, 3MMD X 6MM (VR342, VR518, VG204, VG404, VG406)
A2400	230546		SLIDER (VR342, VR518, VG204, VG404, VG406)	AD001			NON-STOCK PART (VR342, VR518, VG204, VG404, VG406)
A2500	235622		BAND, TENSION (VR342, VR518, VG204, VG404, VG406)	AF001	235601		HOLDER, CASSETTE ASY (VR342, VR518, VG204, VG404, VG406)
A2600	235623		SPRING, TENSION (VR342, VR518, VG204, VG404, VG406)	AM001			NON-STOCK PART (VR342, VR518, VG204, VG404)
A2700	235624		BRAKE, SUB (S) (VR342, VR518, VG204, VG404, VG406)	B0020	236109		BASE, DRUM (VR342, VR518, VG204, VG404, VG406)
A2800	235625		BRAKE, SUB (T) (VR342, VR518, VG204, VG404, VG406)	B003	238798		COVER, JACK (VR342, VR518, VG204, VG404, VG406)
A2900	235626		BRAKE, MAIN (S) (VR342, VR518, VG204, VG404, VG406)	B0030	231744		SCREW, 3MMD X 8MM (VR342, VR518, VG204, VG404, VG406)
A3000	235627		BRAKE, MAIN (T) (VR342, VR518, VG204, VG404, VG406)	B004	229682		SCREW, 3MMD X 8MM (VR342, VR518, VG204, VG404, VG406)
A3100	235628		HEAD, FULL ERASE (VR342, VR518, VG204, VG404, VG406)	B0040	238836		HEAD, HEADWHEEL & MOTOR ASY (VR342, VG204)
A3200	229677		SCREW, 2.6MMD X 10MM (VR342, VR518, VG204, VG404, VG406)				

**REPLACEMENT PARTS**

Symbol	Stock	Drawing	Description	Symbol	Stock	Drawing	Description
B0040	231845		HEAD, HEADWHEEL & MOTOR ASY (VR518, VG404, VG406)	M1000			NON-STOCK PART (VR342, VR518, VG204, VG404, VG406)
B005	238865		DOOR, CASSETTE (VR342)	<b>SERVICING AIDS</b>			
B005	238843		DOOR, CASSETTE (VG404, VG406)	ADA	144386		• ADAPTER, TORQUE GAUGE USE W/GAUGE MODEL NO. 600ATC (VR342, VR518, VG204, VG404, VG406)
B005	238854		DOOR, CASSETTE (VG204)	CAB	238992		• CABLE, EXT (1) (VR342, VR518, VG204, VG404, VG406)
B005	238860		DOOR, CASSETTE (VR518)	CAB	238993		• CABLE, EXT (2) (VR342, VR518, VG204, VG404, VG406)
B0050	236111		MOTOR, LOWER ASY (VR342, VR518, VG204, VG404, VG406)	CAB	238994		• CABLE, EXT (3) (VR342, VR518, VG204, VG404, VG406)
B006	238844		SPRING, CASSETTE DOOR (VR342, VR518, VG204, VG404, VG406)	CAB	230747		• CABLE, EXT FOR MF MECHA CONNECTING (VR342, VR518, VG204, VG404, VG406)
B0060	231745		SCREW, 2/6MM X 10MMD (VR342, VR518, VG204, VG404, VG406)	CHU	146918		• CHUCK, FOR 144396 GAUGE (MODEL 600ATC ONLY) (VR342, VR518, VG204, VG404, VG406)
B0070	231746		SCREW, 2.6MMD X 8MM (VR342, VR518, VG204, VG404, VG406)	DRI	147002		• DRIVER, HEX KEY 1.5MM (VR342, VR518, VG204, VG404, VG406)
B0090	236112		WASHER (VR342, VR518, VG204, VG404, VG406)	DRI	144401		• DRIVER, HEX KEY KIT CONTAINS 0.77MM HEX KEY DRIVER (VR342, VR518, VG204, VG404, VG406)
B1900			NON-STOCK PART (VR342, VR518, VG204, VG404, VG406)	DRI	146917		• DRIVER, RF ADJ TOOL (VR342, VR518, VG204, VG404, VG406)
B1910	236113		MOTOR, LOADING (VR342, VR518, VG204, VG404, VG406)	FIX	230748		• FIXTURE, PATH ADJ (VR342, VR518, VG204, VG404, VG406)
B1920			SEE CBA ASSEMBLIES COMPLETE (VR518, VG204, VG404, VG406)	GAU	144396		• GAUGE, TORQUE W/ADAPTER (VR342, VR518, VG204, VG404, VG406)
B1930	236114		CONNECTOR (VR342, VR518, VG204, VG404, VG406)	JIG	147001		• JIG, REEL TABLE HEIGHT (VR342, VR518, VG204, VG404, VG406)
B1940	236115		SWITCH (VR342, VR518, VG204, VG404, VG406)	MET	156391		• METER, BACK TENSION TEST TAPE (VR342, VR518, VG204, VG404, VG406)
B1960	236116		GEAR (VR342, VR518, VG204, VG404, VG406)	PLA	184949		• PLATE, HEIGHT REFERENCE (VR342, VR518, VG204, VG404, VG406)
B5200			NON-STOCK PART (VR342, VR518, VG204, VG404, VG406)	SCR	153829		• SCREWDRIVER, JEWELER 0.8MMD SHAFT (VR342, VR518, VG204, VG404, VG406)
B5210			NON-STOCK PART (VR342, VR518, VG204, VG404, VG406)	TAP	192847		• TAPE, COLOR BARS/1KHZ (MONO) (VR342, VR518, VG204, VG404, VG406)
B5220	238862		SPRING (VR342, VR518, VG204, VG404, VG406)	TAP	156501		• TAPE, KIT OF 3 (MONOSCOPE, COLOR BARS & MULTIBURST) (VR342, VR518, VG204, VG404, VG406)
B5230			NON-STOCK PART (VR342, VR518, VG204, VG404, VG406)	TAP	156504		• TAPE, MONOSCOPE/7KHZ (MONO) (VR342, VR518, VG204, VG404, VG406)
B5240	238863		SPRING (VR342, VR518, VG204, VG404, VG406)				
B5250			NON-STOCK PART (VR342, VR518, VG204, VG404, VG406)				
B5260	238837		WASHER (VR342, VR518, VG204, VG404, VG406)				
B5330	236117		SPRING (VR342, VR518, VG204, VG404, VG406)				
B5340	236118		SPRING (VR342, VR518, VG204, VG404, VG406)				
D100	238861		TRANSMITTER, REMOTE (VG406)				
M01	238864		PANEL, FRONT ASY (VR342)				
M01	238856		PANEL, FRONT ASY (VG204)				
M01	238842		PANEL, FRONT ASY (VG406)				
M01	238853		PANEL, FRONT ASY (VR518, VG404)				

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