

SECTION 1 GENERAL DESCRIPTIONS

1-1. SERVICE INFORMATION

1-1-1. CHANNEL MEMORY IC INITIALIZATION

When replacing the channel memory IC6702, its IC should be initialized.

Note:

- 1) It should be performed before tuning.
- 2) Meaning of "INITIALIZATION" is to make dependency in different models and to distinguish between different features.

Method:

- 1) Connect a jumper wire between TL SERV and TL TEST as shown Location of Test Points & Controls (Page: 2-4).
- 2) Turn the Shuttle Ring to FF then push the Eject button to set the Service Mode (Test Mode will be appeared on the monitor TV.)
- 3) Set the Model Code for this model by using 10-key on the Remote Controller Unit as follows.
- 4) After finishing the initialization, and cancel the Service Mode.

		NV-HS900F
Code No.	IR	177

- Note:1) Set to IR No. when there is OSD button on the Remote Controller.
 2) Set to OSD No. when there is not OSD button on the Remote Controller.

1-1-2. SERVICE POSITION

A. CHECKING OF MAIN C.B.A.

When servicing the MAIN C.B.A., take out the MAIN C.B.A. and mechanism from the frame and turn over.

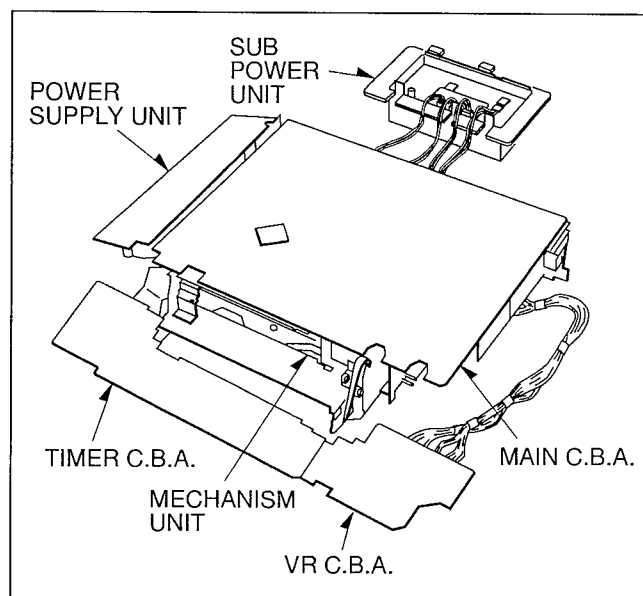


Fig. S1

B. MECHANISM SERVICE POSITION

When servicing the K-Mechanism, take out the mechanism from the MAIN C.B.A. and connect Extension Cable (VFK0889) between the loading-motor connector and P2001 as shown below.

In this position, the following services are possible.

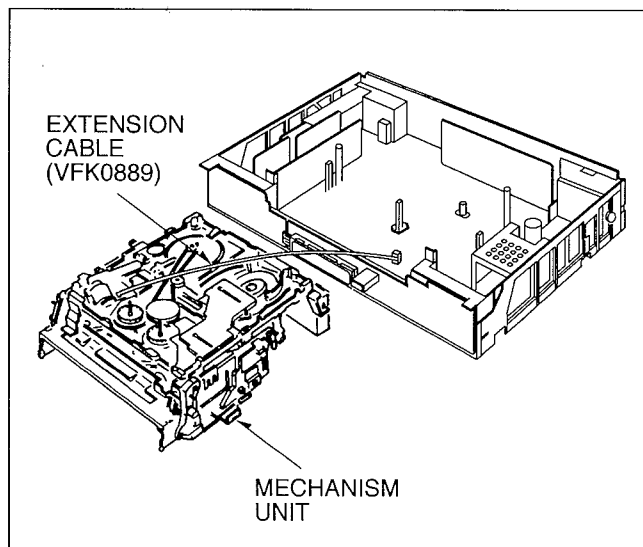


Fig. S2

B-1. CHECKING OF GEAR PHASE ALIGNMENT
CONDITION

- 1) Check gear phase Alignment Condition of Mechanism.

B-2. CHECKING OF LOADING/UNLOADING OPERATION

There are 3 methods for manual operation of load-
ing/unloading operation as follows.

1. HAND OPERATION

- 1) Turn the Worm Gear or the Worm Wheel Gear
(Remove the Loading Motor Unit) manually.

2. BATTERY OPERATION

- 1) Remove the Extention Cable (VFK0889).
- 2) Connect the Battery (Manganes-Type R6 (AA)
3pcs./+4.5V) to the Loading Motor terminals.

3. SERVICE INFORMATION DISPLAY OPERATION

- 1) Set the Service Information Display mode.
Turn the Shuttle Ring to FF then push the EJECT
button.
- 2) Turn the Shuttle Ring to FF then push the EJECT
button 7 times to set the Service Mode 7. (The end
of display on the Display becomes “-.”.)
- 3) In the above Service Information Display mode, the
Loading Motor rotates for Loading operation when
the “PLAY” button is pressed.
The Loading Motor rotates for unloading operation
when the “STOP” button is pressed.

Remark:
Use the “SERVICE INFORMATION DISPLAY” mode for
a final check of mechanism movement.

B-3. CHECKING OF REEL GEARS OPERATION

- 1) Move the mechanism to “PLAY” position by loading
operation. (Refer to B-2)
- 2) Turn the Capstan Rotor Unit to check movement of
reel gears.

1-1-3. POWER SUPPLY UNITs SERVICE POSITION

Use the extension cables when checking.

PART NO.	PART NAME	PCS	CONNECTION
VFK1140	11-PIN WIRE CABLE	1	P1001 (MAIN) – P1102 (POWER)

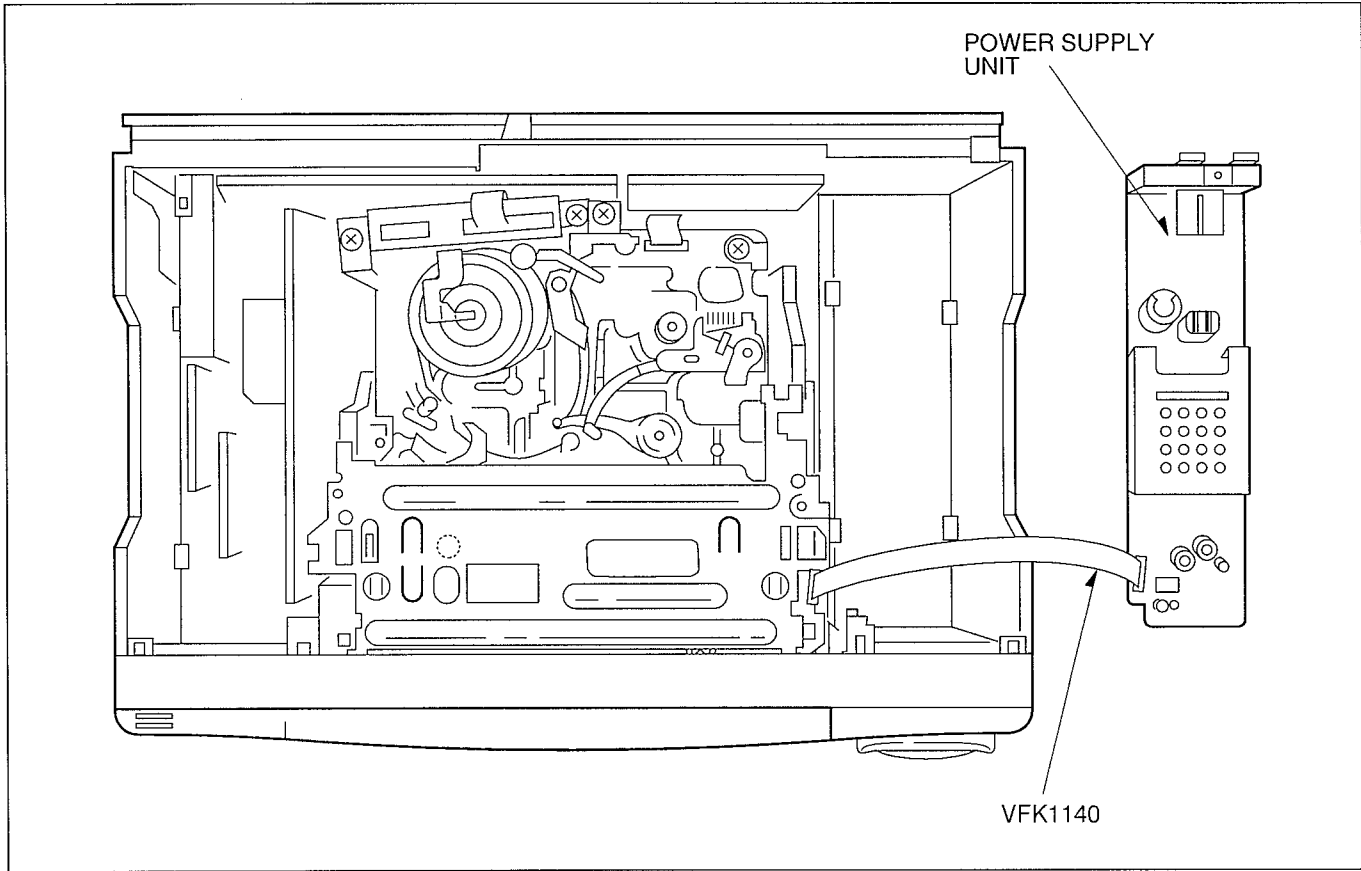


Fig. S3

1-1-4. UPPER CYLINDER REPLACEMENT

A. NEW GLDD CYLINDER

1) GLDD and New GLDD Cylinder

The construction of New GLDD Cylinder has been designed simpler than GLDD Cylinder, and the general performance has been improved.

2) The difference between GLDD Cylinder and conventional cylinder.

(1) GLDD has improved linearity, higher stability of head revolution with oil sealing and higher serviceability with the simpler structure.

GLDD and New GLDD Cylinders are used for step-up range VCR.

(2) GLDD enables less working time to replace upper cylinder unit and cylinder unit due to the following reasons.

1) No Soldering

2) No Screws

Please refer to "Upper Cylinder Replacement" for the detailed replacement procedure.

Note: "GLDD" cylinder stands for the following.

G: GLDD has been developed and introduced from VCRs using G- Mechanism.

LDD: Liquid Direct Drive.

B. UPPER CYLINDER DISASSEMBLY

1) Remove the Top Panel.

2) Remove the Screw (A) and Earth Plate.

3) Lift up the Upper Cylinder.

Note: Do not remove 3 Screws on the Upper Cylinder.

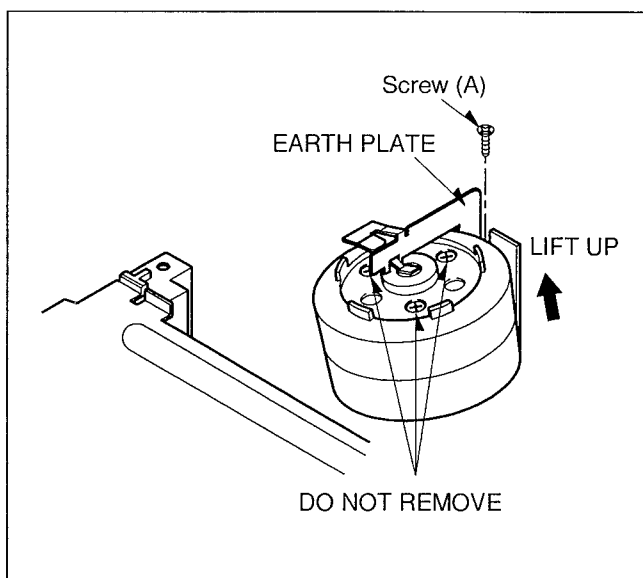


Fig. S4

Do not remove the Rotor Magnet which fixed by 3 screws on the Upper Cylinder.

If it is removed, refer to following method.

1) Install the Rotor Magnet so that the hole (C) on the Rotor Magnet fits to the small projection (D) on bottom of the Upper Cylinder.

2) Tighten 3 screws on top of the Upper Cylinder.

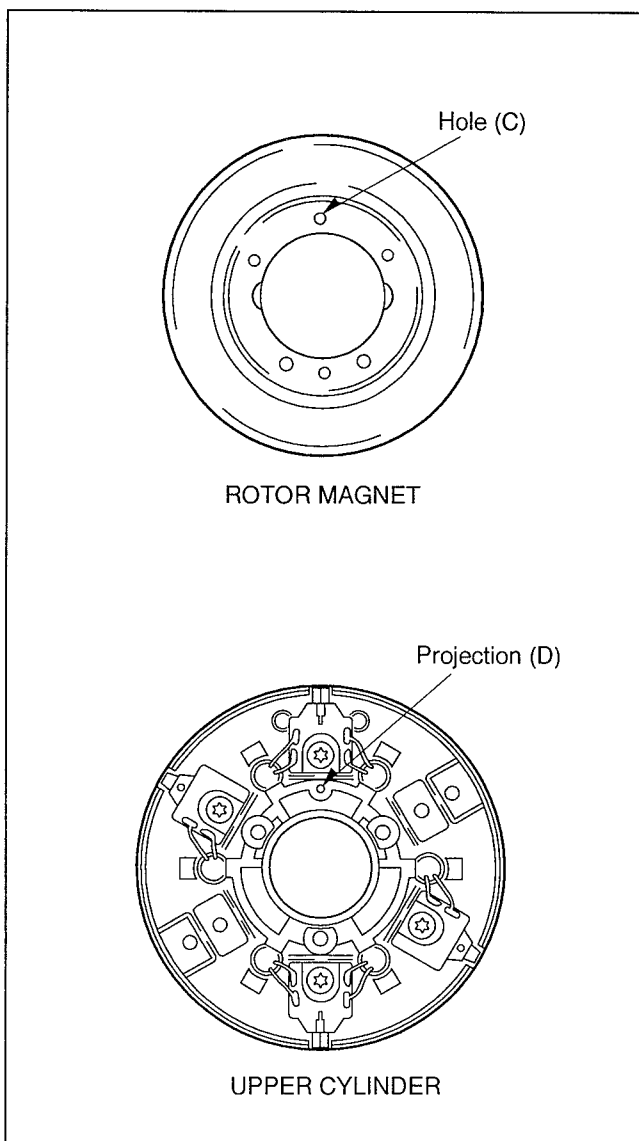


Fig. S5

C. UPPER CYLINDER ASSEMBLY

When reassembling, perform the steps in the reverse order of the DISASSEMBLY METHOD.

1-1-5. NEW GLDD CYLINDER UNIT REPLACEMENT

The Cylinder Unit can be replaced easily by the following method.

- 1) Remove the Top Panel.
- 2) Remove the Front Panel Unit.
- 3) Remove the Mechanism Unit.
- 4) Remove the Screw (A) and Earth Plate. (Fig. S4)
- 5) Remove the 3 screws (E) of the Cylinder Unit with a magnetized screw driver.

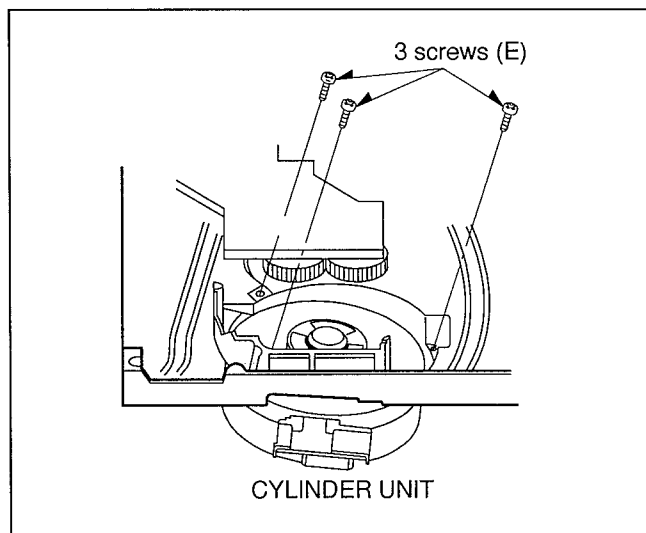


Fig. S6

1-1-6. FLAT CARD CABLE INSTLLATION

When installing the Flat Card Cable on the connector, install the Flat Card Cable with the cable contacts facing the connector contacts.

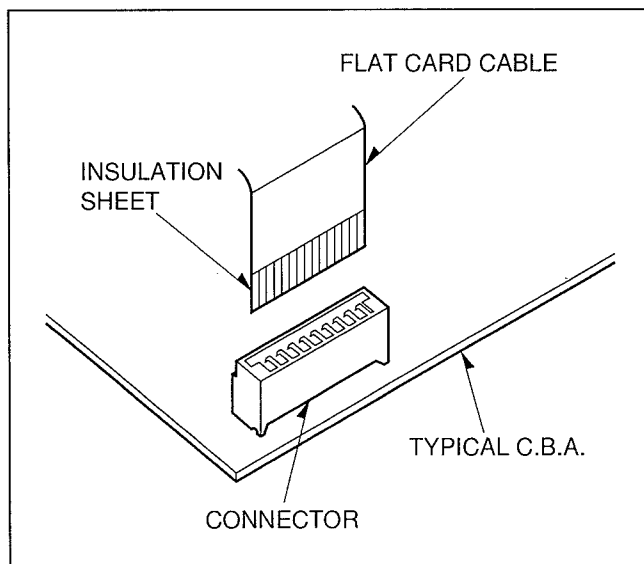


Fig. S7

1-1-7. CAPSTAN STATOR UNIT ASSEMBLY

When replacing the Capstan Stator Unit, the Centre Fixing Tool (VFK0851) must be used to fix the centre of Capstan Stator Unit.

Method:

- 1) Place the Capstan Stator Unit into position.
- 2) Loosely tighten the 3 screws.
- 3) Insert the Centre Fixing Tool (VFK0851) as shown below.
- 4) Tighten the 3 screws.
- 5) Remove the Centre Fixing Tool.

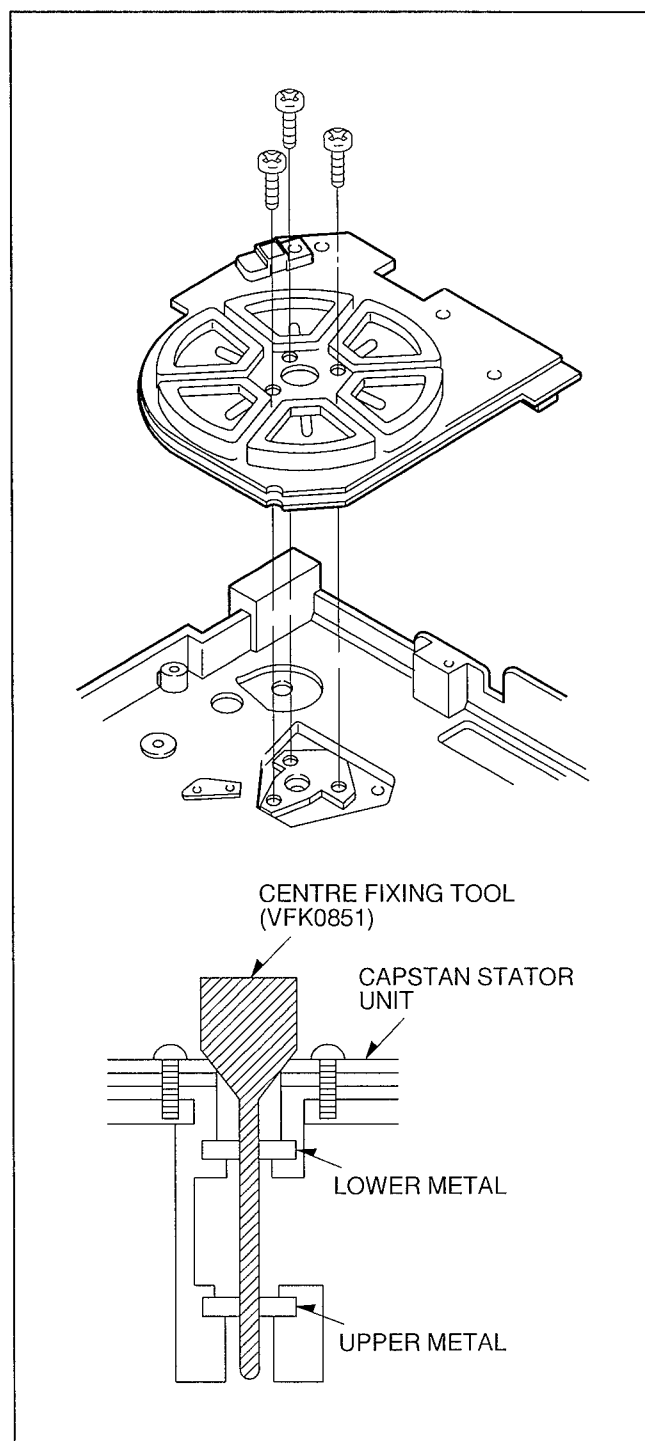


Fig. S8

1-1-8. EJECT OPERATION

The main cam gear rotates in the direction of the arrow. The projection (B) of the carriage connection gear engages with the recession (A) of the main cam gear. The carriage connection gear rotates in the direction of the arrow to perform the Eject operation.

<NOTE>

If the Eject operation is performed without the cassette carriage installed while repairing or making the mechanical phase alignment, the main cam gear will not engage with the carriage connection gear and will not rotate.

To perform the Eject operation with the cassette carriage not installed, it is necessary to rotate the carriage connection gear by hand in the direction of the arrow.

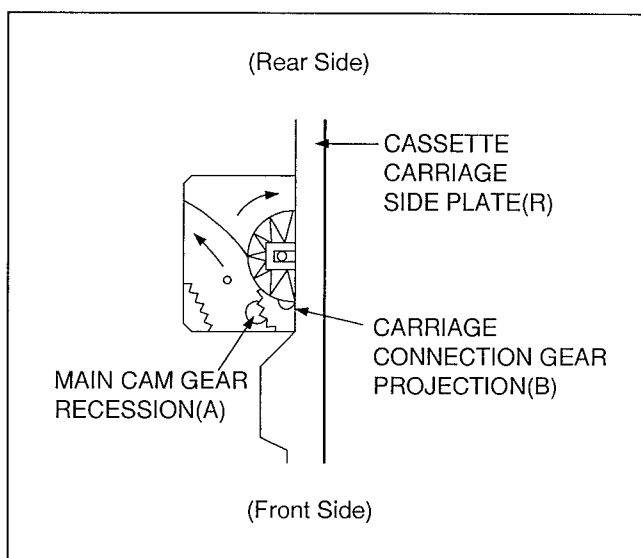


Fig. S9 Top View of Eject Operation

1-1-9. TAKE-UP PHOTO SENSOR OPERATION

Note the following matters for Take-up Photo Sensor Operation.

- 1) While servicing of the K-Mechanism, the unit will not operate properly if a strong light (ex, Fluorescent light, Spot light) falls on the Take-up Photo Sensor. In this case, cover the Take-up Photo Sensor to prevent the light from falling on it.
- 2) While servicing of the K-Mechanism with "Power On" and without cassette tape inserted, the Unit does not operate properly.

1-1-10. REMOVAL OF THE CASSETTE TAPE

If the electrical circuit is defective and the action of unloading and front unloading do not work properly, it is possible to remove the cassette manually. There are 2 methods of removing the cassette.

1. HAND OPERATION

- 1) Take out the mechanism from MAIN C.B.A.
- 2) Turn the Worm Gear manually, moving the Loading Post to the unloaded position.
- 3) Turn the Capstan Rotor Unit clockwise to take up the tape.
- 4) Turn the Worm Gear again to eject the cassette.

2. BATTERY OPERATION

- 1) Take out the mechanism from Main C.B.A.
- 2) Connect the Battery (Manganese-Type R6 (AA) 3pcs./ +4.5V) to the Loading Motor terminals as shown below.
- 3) After moving the Loading Post to the unloaded position, disconnect the battery to stop the motor.
- 4) Turn the Capstan Rotor Unit to clockwise to take up the tape.
- 5) Reconnect the battery to eject the cassette.

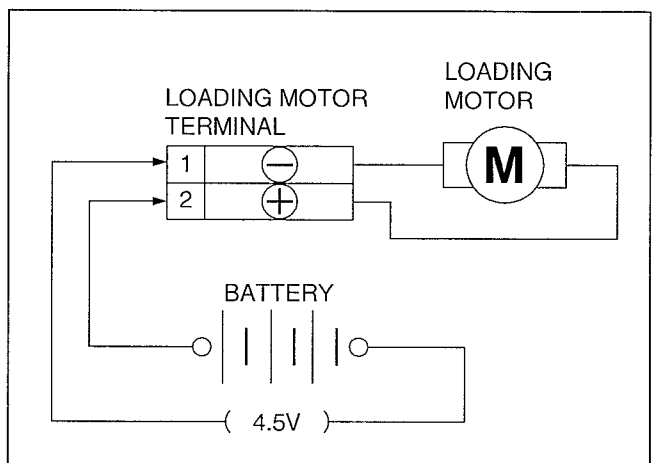


Fig. S10

If the cassette tape can not be removed by the above 2 methods, remove it by the following method.

- 1) Remove the Top Panel.
- 2) Remove the Front Panel Unit.
- 3) Lift up the Pinch Arm after removing spring.
- 4) Push the P5 Arm and remove the cassette tape from tape transportation (P1, P2, P3 and P5 Posts).
- 5) Turn the Capstan Rotor Unit to take up the tape.
- 6) Remove 1 screw from the Side Plate (R) Unit to disconnect the Rack Gear from the Carriage Connection Gear.
- 7) Take out the cassette tape from the Cassette Compartment.