

DATASPEED TAPE RECEIVER 5B

ADJUSTMENT, LUBRICATION, AND DISASSEMBLY

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Tape drive roller spring	8	
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Tape sensing arm clearance	6 ←	1.06 The tools and spring scales required to perform these adjustments are listed in the applicable section. The standard tool kit (eg. TP171312 tool kit) will suffice for the mechanical cabinet and tape punch adjustments. A TP148370 punch pin penetration gauge is also useful. Adjustment of the punch driver should seldom (if ever) be required. This adjustment however would require an oscilloscope.
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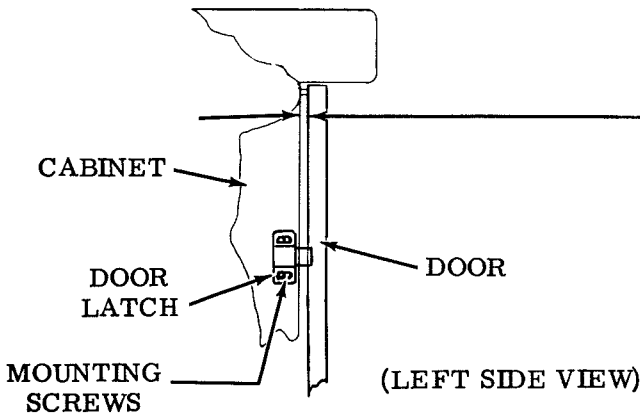
2. ADJUSTMENTS

TAPE PUNCH

2.01 For adjustment information pertaining to the tape punch, refer to the appropriate tape punch (DRPE type) section.

CABINET

2.02 Cabinet Structure



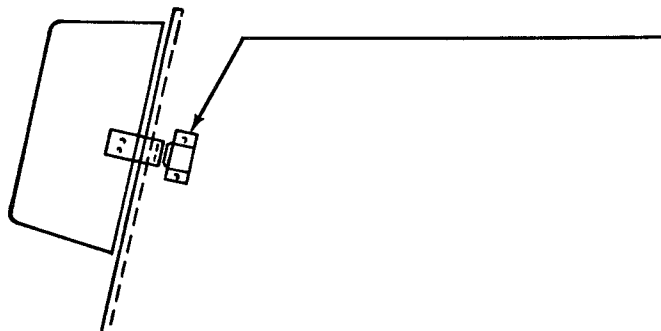
DOOR LATCH

Requirement

Minimum clearance between door and rubber bumpers with door latched.

To Adjust

Position latch to front or rear with its mounting screws loosened.



PUNCH COVER LATCHES

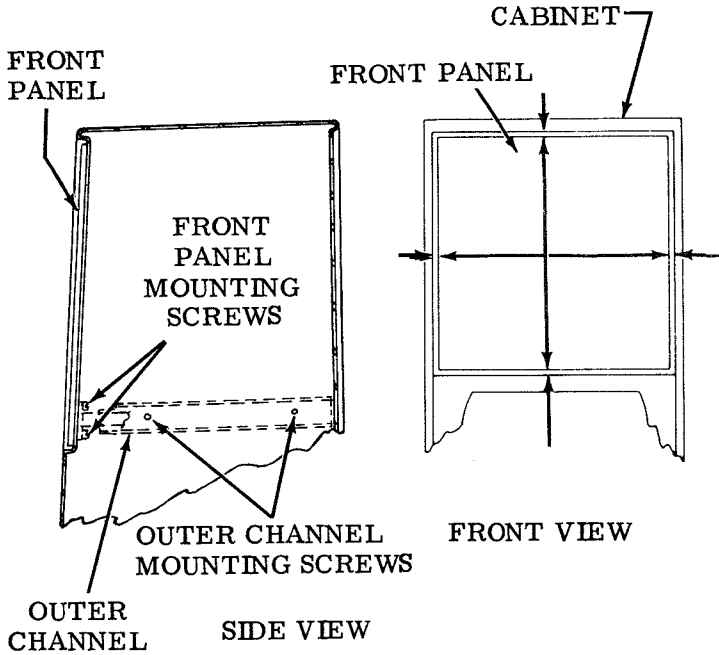
Requirement

Cover to be held firmly against the front panel at the top and two sides.

To Adjust

With the magnetic latch mounting screws friction tight, move the magnet latches in or out to meet requirement. Tighten the screws.

2.03 Cabinet Structure (Continued)



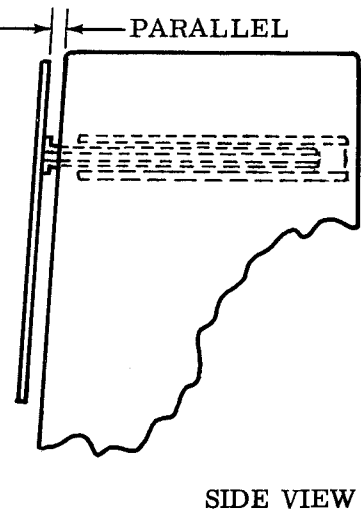
FRONT PANEL CLEARANCE

Requirement

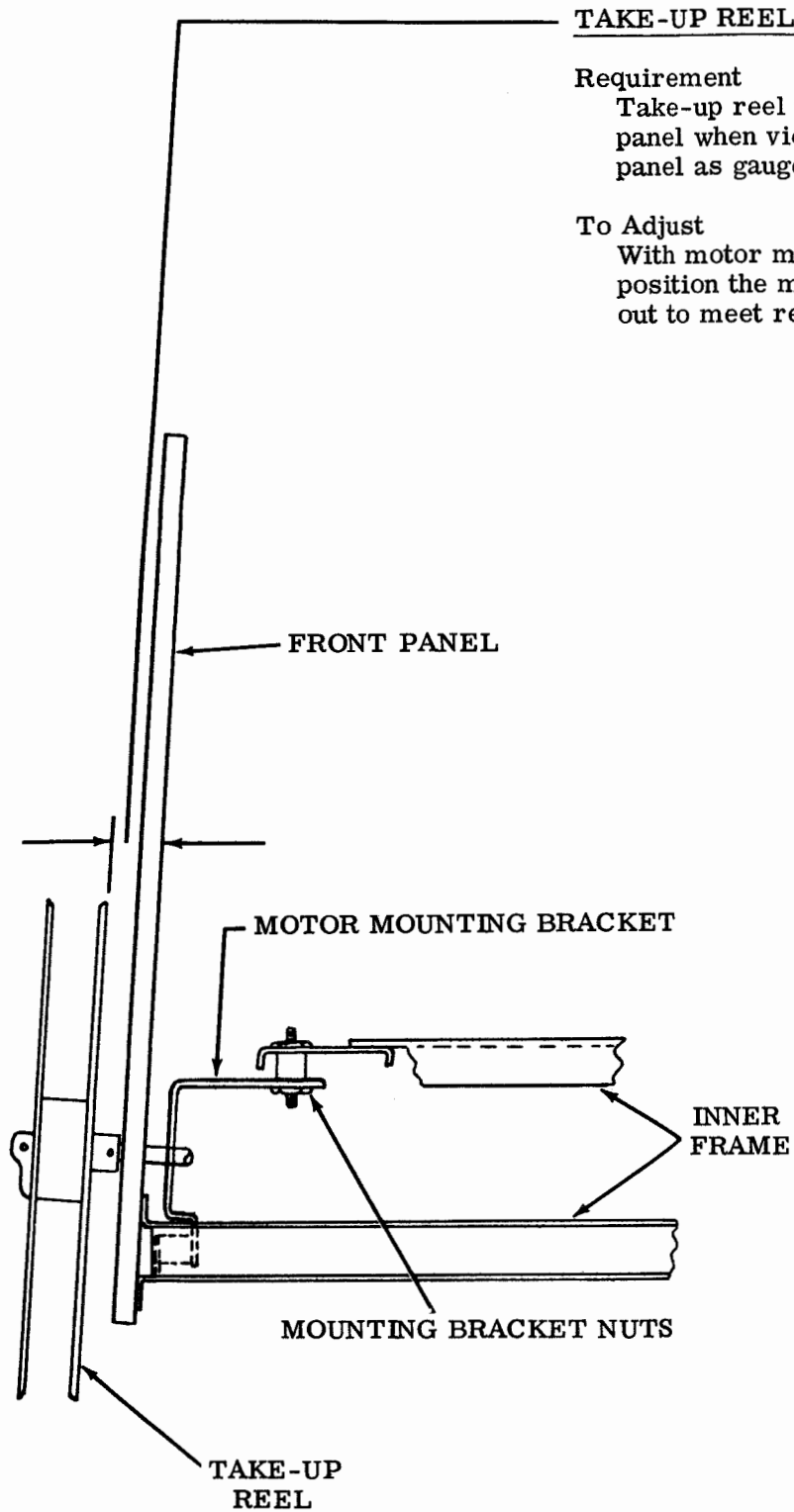
Equal gap between front panel and cabinet shell measured all around front panel. Panel should be parallel to cabinet shell as viewed from side. Gauge by eye.

To Adjust

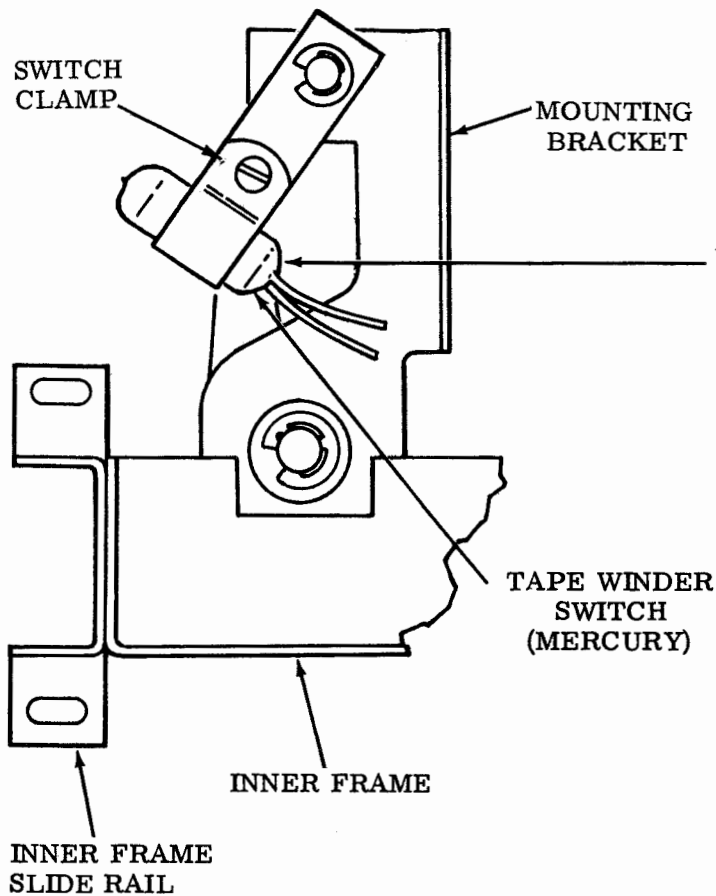
- (1) Loosen right and left outer channel mounting screws friction tight. Position channels up or down until top and bottom gap between front panel and cabinet are about equal and panel is parallel. Tighten screws.
- (2) With front panel mounting screws loosened, position panel to left or right until gaps between sides of panel and cabinet are about equal.



2.04 Tape Handling Mechanism



2.05 Tape Handling Mechanism (Continued)



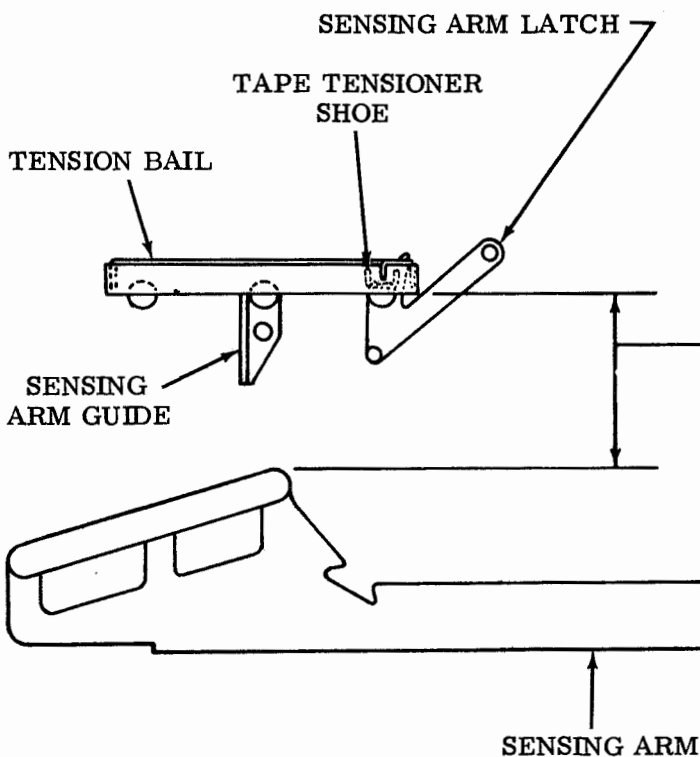
WINDER SWITCH CONTACT POSITIONING

Requirement

The two electrodes of the tape winder switch should be positioned in a horizontal plane.

To Adjust

Loosen the switch clamp and rotate the switch within its clamp to meet requirement.



WINDER SWITCH POSITIONING

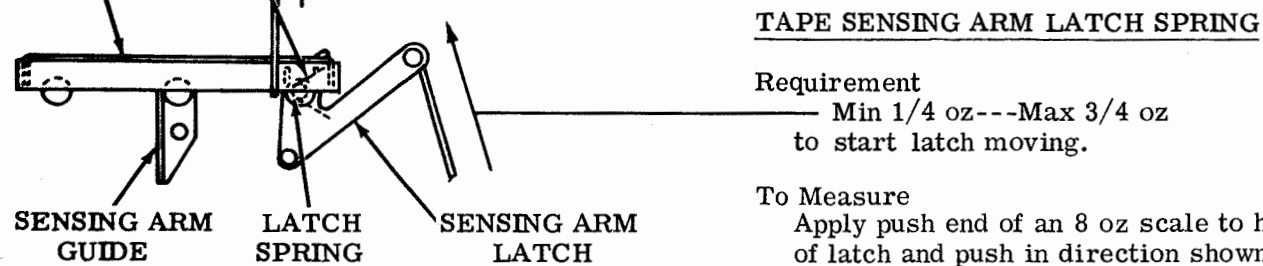
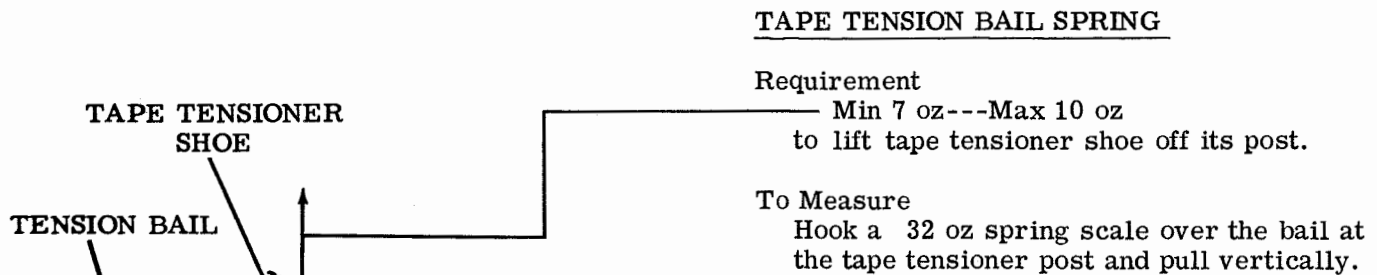
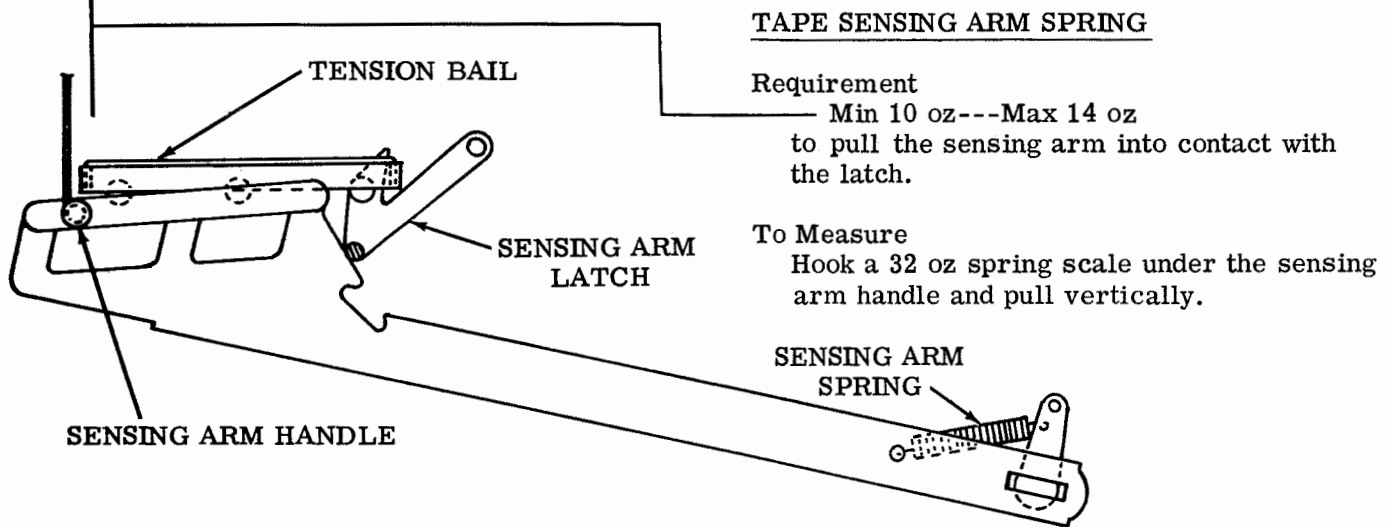
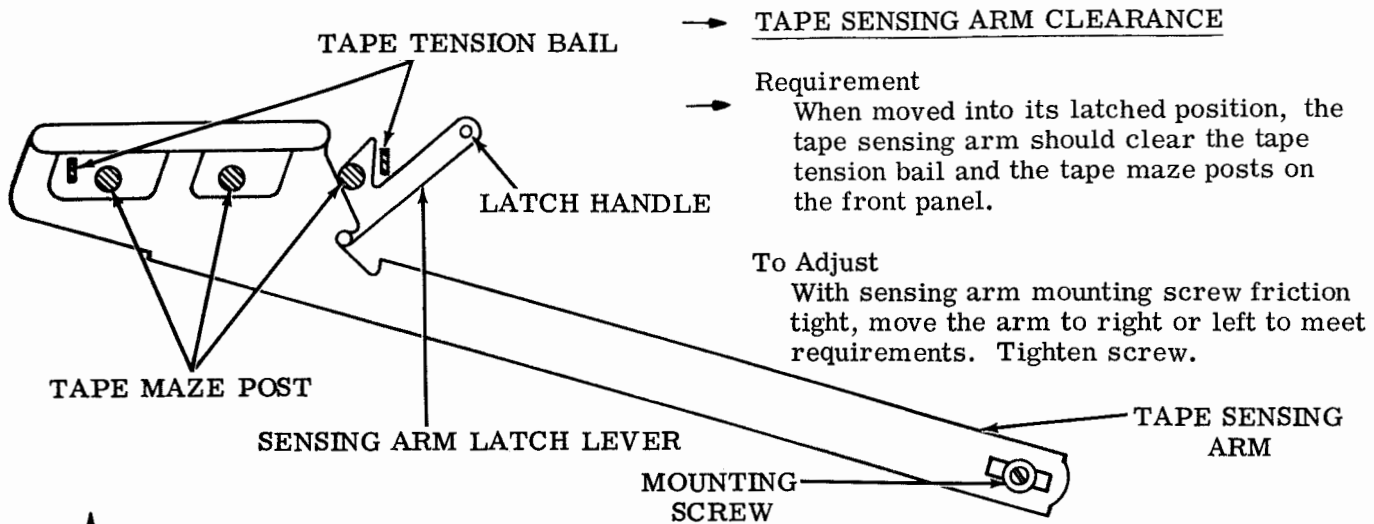
Requirement

Winder motor should start when inner post on tape sensing arm is
 Min 3-3/4 inch---Max 4-1/2 inch
 from tape tensioner bail.

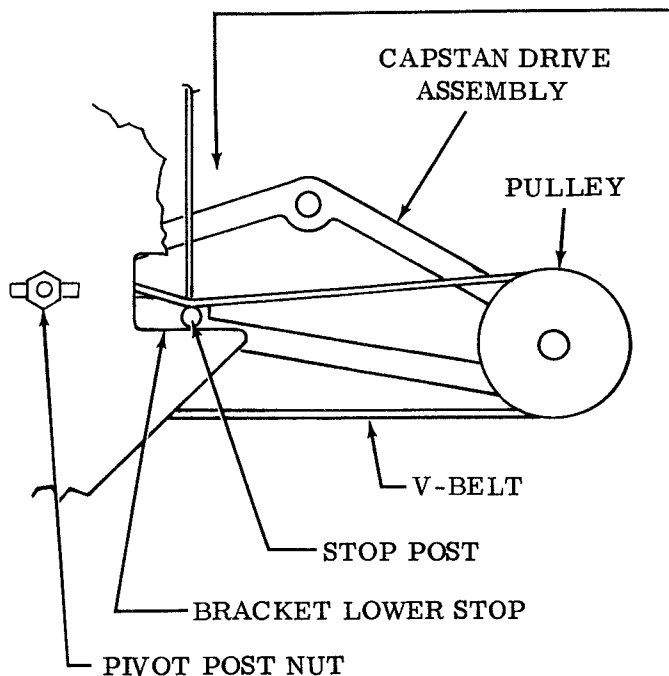
To Adjust

With clamp-anchor screw loosened, rotate switch clamp (and switch) about screw to meet requirement. Tighten mounting screw.

2.06 Tape Handling Mechanism (Continued)



2.07 Tape Handling Mechanism (Continued)



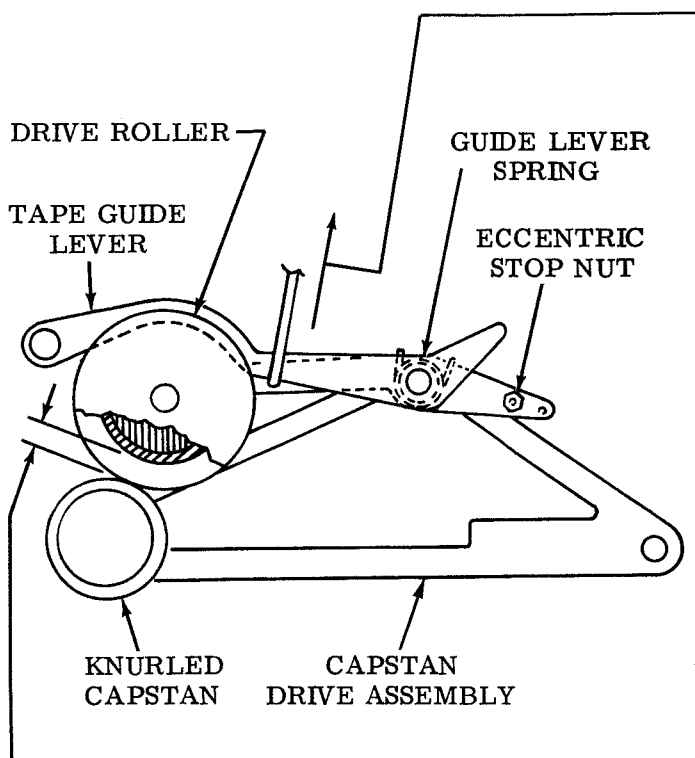
V-BELT TENSION

Requirement

With capstan drive assembly held against its lower stop, and a 32 oz scale applied to the top of the belt above the stop post,
 Min 7 oz---Max 17 oz
 required to force V-belt against stop post.

To Adjust

Loosen the pivot post nut and position the capstan drive assembly to front or rear to meet requirement.



TAPE GUIDE LEVER

Requirement

Min 1/2 oz---Max 2 oz
 to lift the lever away from the drive roller.

To Measure

Hook an 8 oz spring scale over the lever and pull at right angles to the pivot point.

To Adjust

Unhook one end of the guide lever spring and wind or unwind the spring to meet requirement.

CAPSTAN CLEARANCE

Requirement

With the drive lever against its eccentric stop
 Min 0.040 inch---Max 0.080 inch
 gap between the drive roller sleeve and the knurled capstan.

To Adjust

With the eccentric locknut loosened, rotate eccentric to meet requirement. Tighten nut.

2.08 Tape Handling Mechanism (Continued)

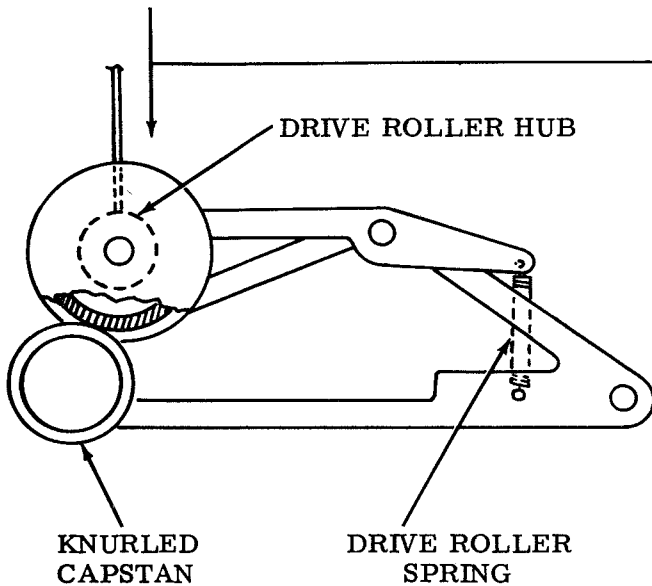
TAPE DRIVE ROLLER SPRING

Requirement

Min 3 oz---Max 5 oz
to engage drive roller with knurled capstan.

To Measure

Apply push end of scale to drive roller hub and push in line with spring.



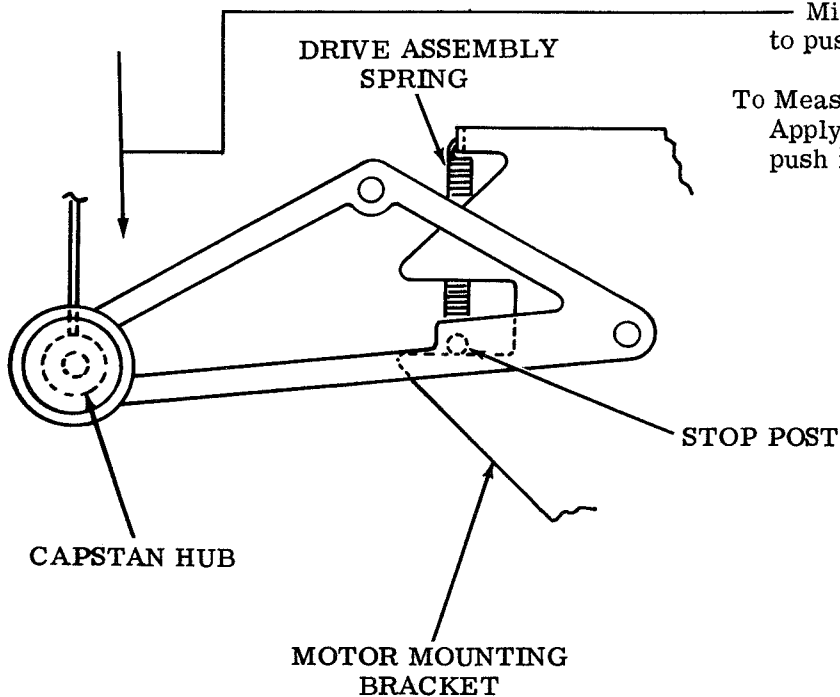
CAPSTAN DRIVE ASSEMBLY SPRING

Requirement

Min 25 oz---Max 30 oz
to push assembly to lower limit.

To Measure

Apply push end of scale to capstan hub and push in line with spring.



2.09 Fan Assembly

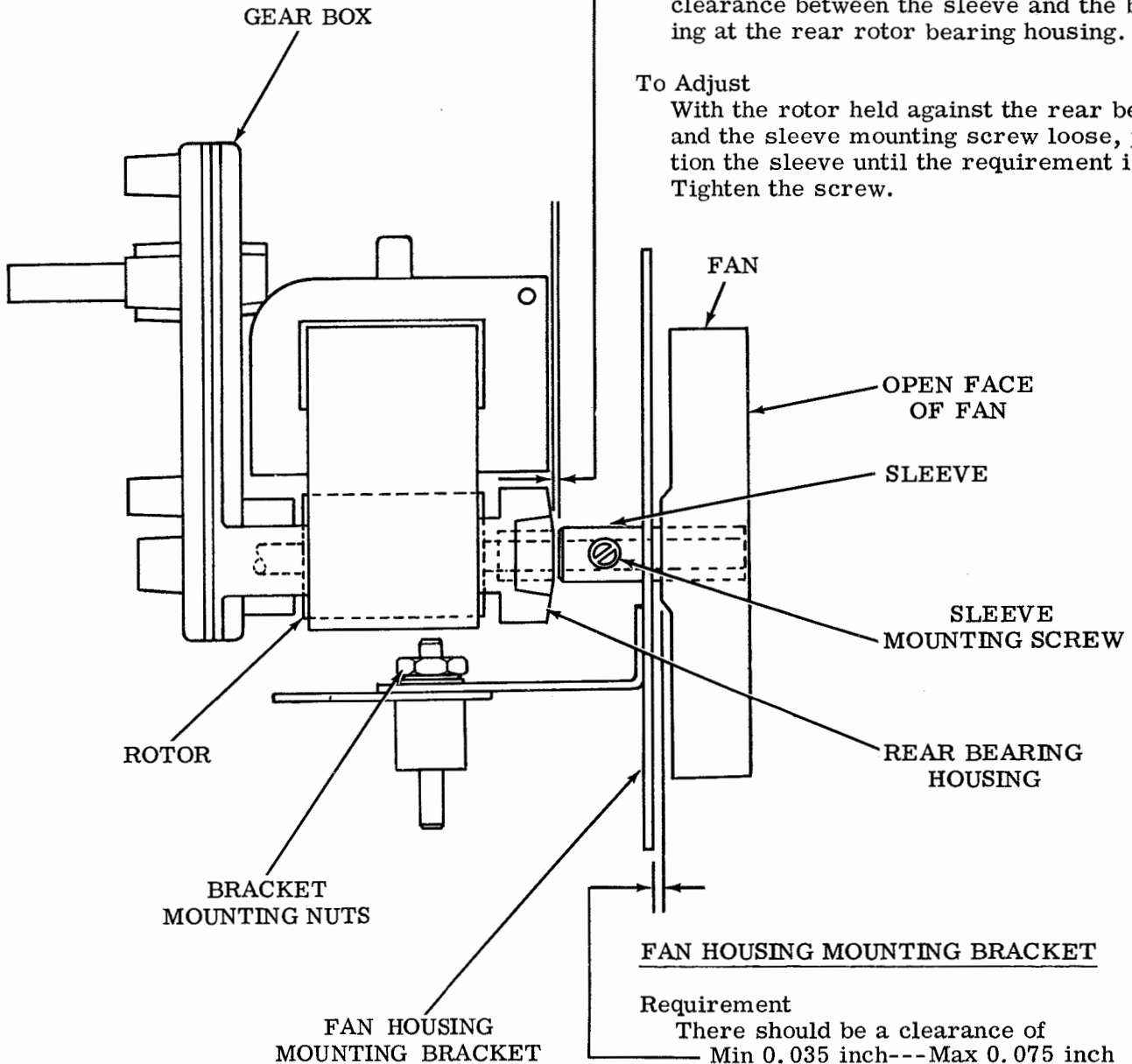
FAN SLEEVE

Requirement

With the rotor endplay taken up away from the gear box, there should be
 Min some---Max 0.015 inch
 clearance between the sleeve and the bearing at the rear rotor bearing housing.

To Adjust

With the rotor held against the rear bearing and the sleeve mounting screw loose, position the sleeve until the requirement is met. Tighten the screw.



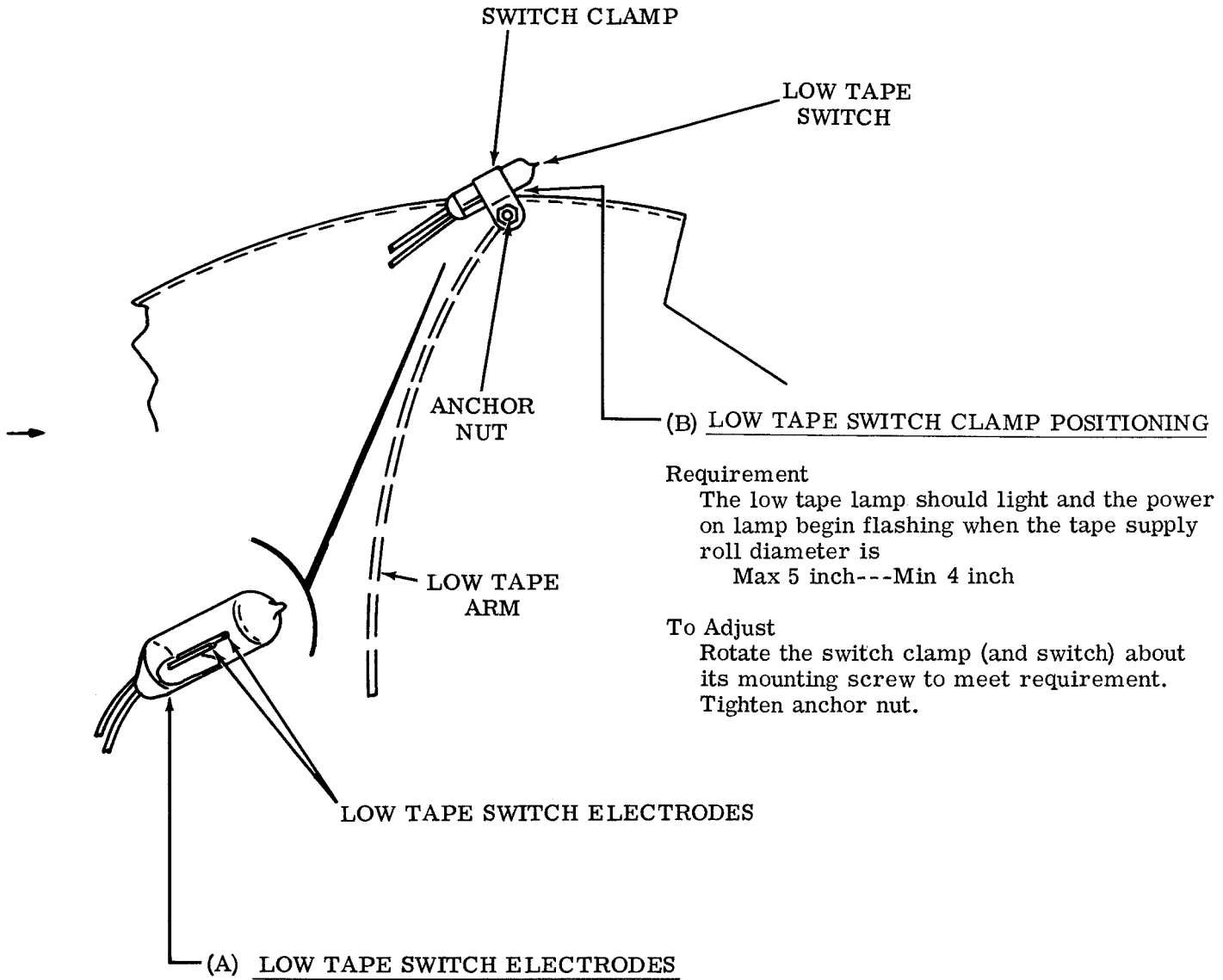
Requirement

There should be a clearance of
 Min 0.035 inch---Max 0.075 inch
 between the fan hub and mounting bracket when the rotor shaft endplay is taken up to make the clearance a minimum.

To Adjust

With the two nuts securing the housing mounting bracket friction tight, position the bracket to meet requirement. Tighten the nuts.

2.10 Tape Handling Mechanism (Continued)



Requirement

The low tape lamp should light and the power on lamp begin flashing when the tape supply roll diameter is

Max 5 inch---Min 4 inch

To Adjust

Rotate the switch clamp (and switch) about its mounting screw to meet requirement. Tighten anchor nut.

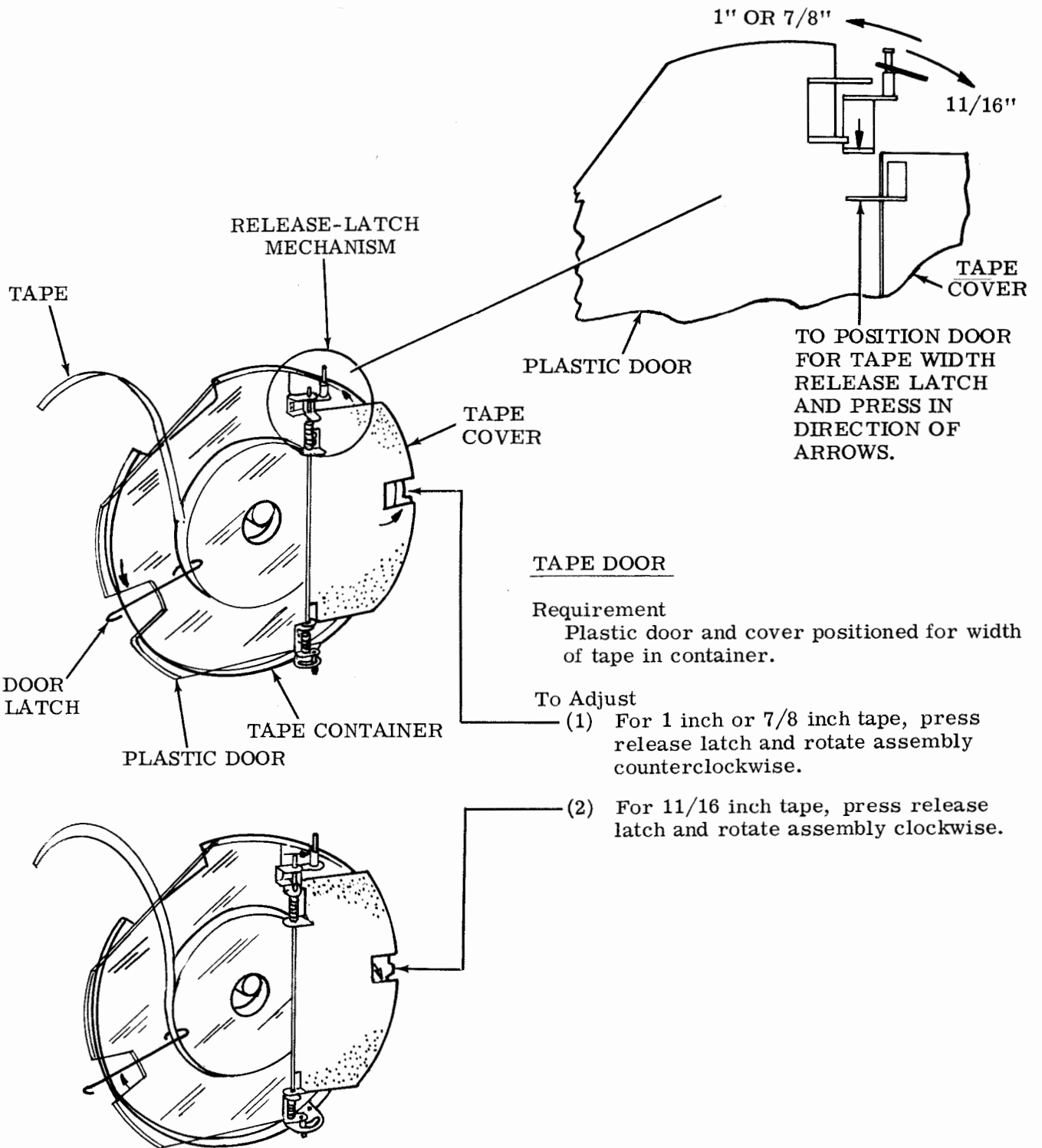
Requirement

The two electrodes of the low tape switch should be positioned in a horizontal plane.

To Adjust

With the switch clamp anchor nut loose, rotate the mercury switch within its clamp.

2.11 Tape Handling Mechanism (Continued)



RECEIVER MODULE

2.12 To compensate for variations in voltage, components, and mechanical tolerances it is necessary to make an initial (factory) adjustment of all punch magnet driver cards (EC672) and of the logic card (EC675). These adjustments are made as follows:

- (1) Set the potentiometer (R13) on all nine magnet driver cards (Z104 through Z112) to mid-range.
- (2) Transmit an all marking signal to the reperfector control (at the maximum required rate).
- (3) Use an oscilloscope to monitor pin 13 of logic and Z113. The monitored waveform should be a negative pulse occurring at the marking signal rate. Adjust potentiometer R13 on Z113 so that the negative pulse width is 1.9 milliseconds.
- (4) Turn R13 on the feed magnet driver card (Z112) counterclockwise until a failure occurs in the tape. Now back off the potentiometer adjustment 5 turns (clockwise).

- (5) Repeat step (4) for magnet driver cards Z104 through Z111.

3. LUBRICATION

GENERAL

- 3.01 The following lubrication symbols are used throughout this section.

- O1 - one drop of oil (KS7470)
- O3 - three drops of oil (KS7470)
- G - thin coat of grease (Lubriplate)

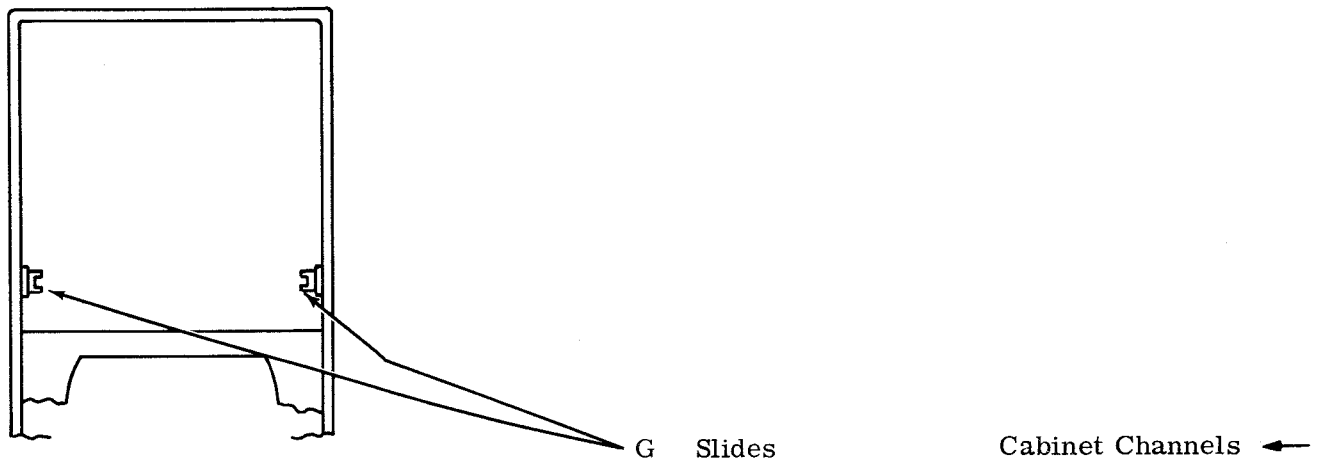
- 3.02 No lubrication is required at the receiver module. The punch and cabinet should be lubricated before they are placed in service, again within a few weeks, and thereafter at intervals specified for the punch.

TAPE PUNCH

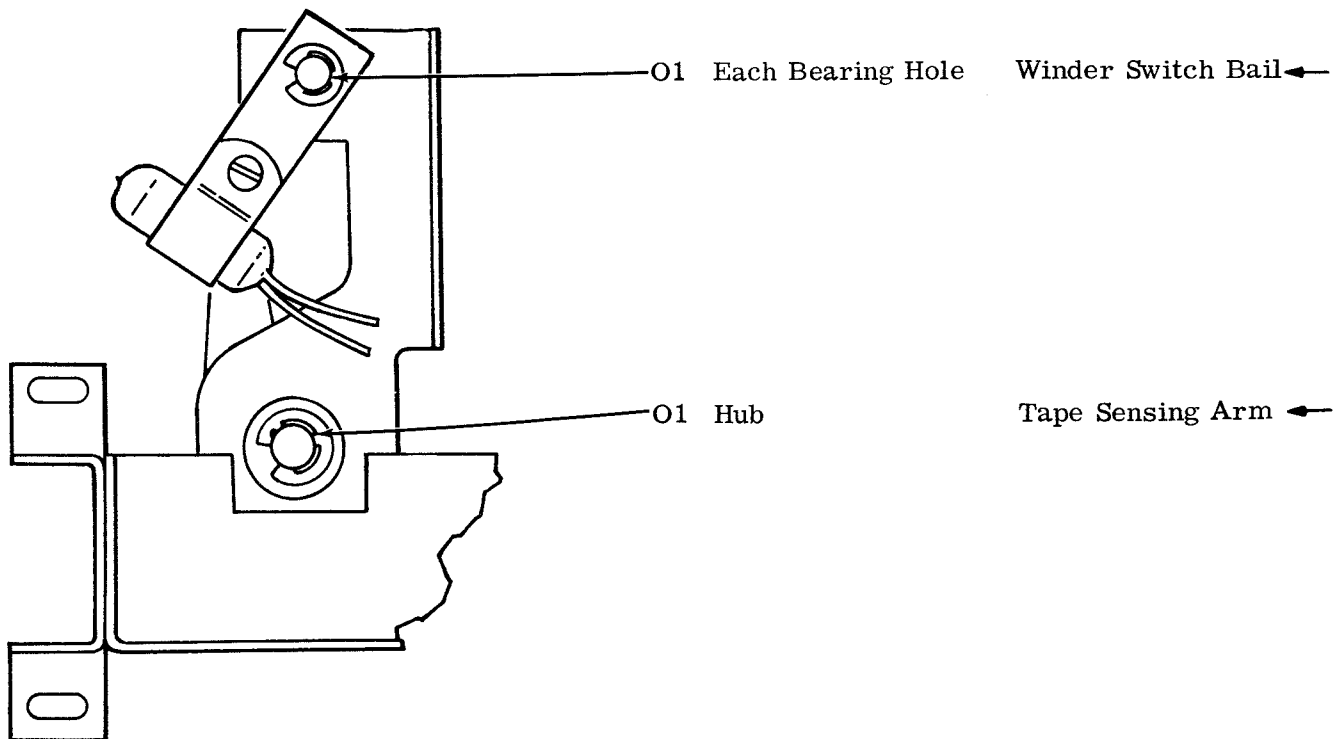
- 3.03 Refer to the appropriate tape punch (DRPE type) section.

CABINET

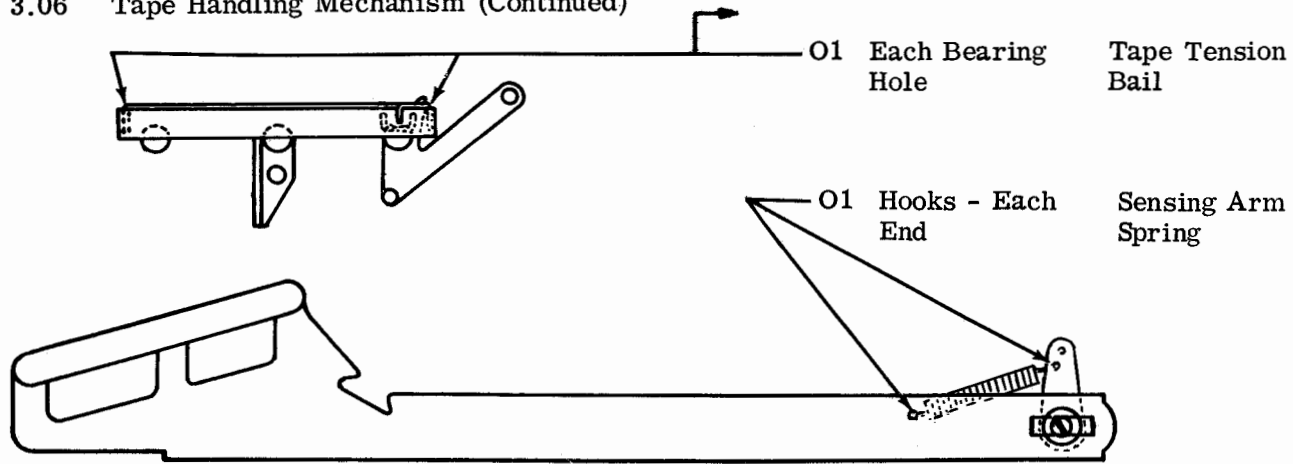
3.04 Cabinet Structure



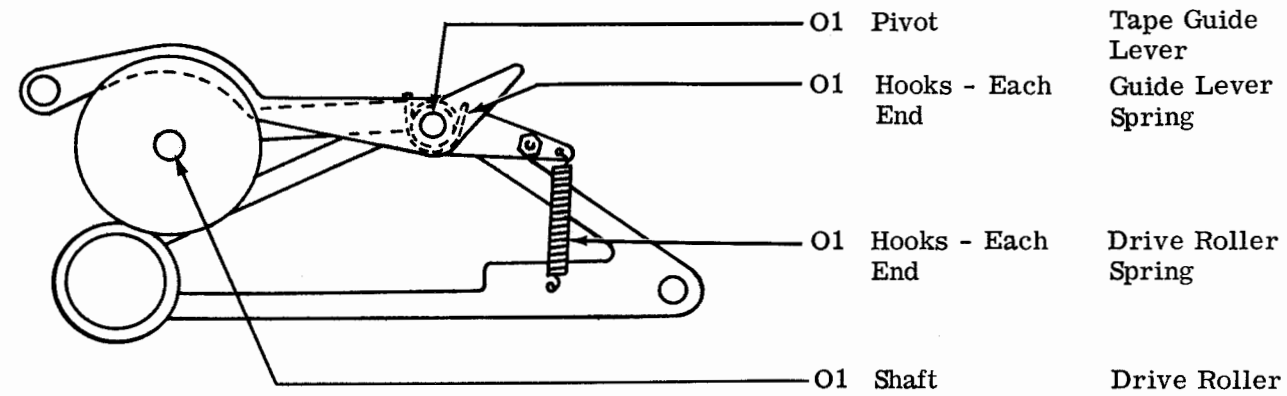
3.05 Tape Handling Mechanism



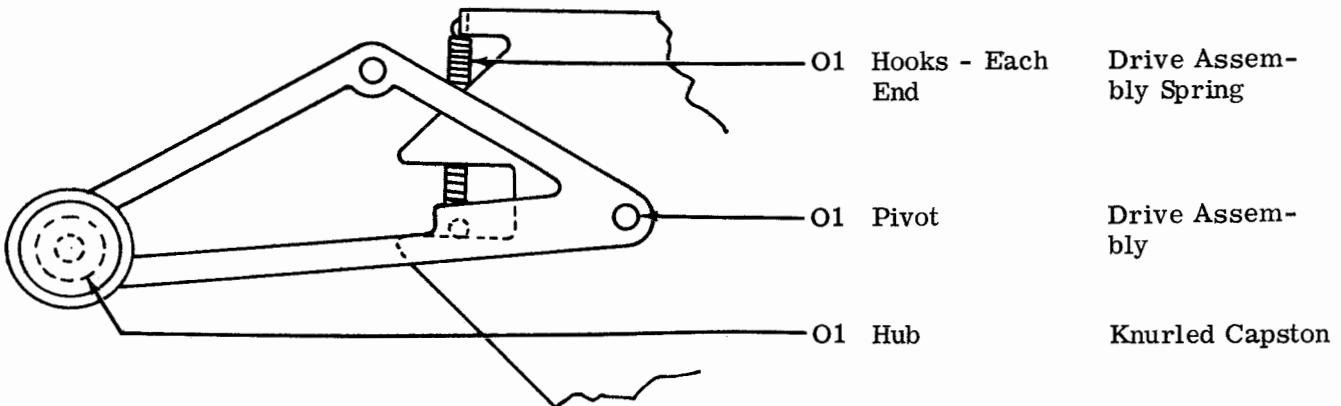
3.06 Tape Handling Mechanism (Continued)



3.07 Tape Handling Mechanism (Continued)



3.08 Tape Handling Mechanism (Continued)



RECEIVER MODULE

3.09 No lubrication is required.

4. DISASSEMBLY

4.01 Disassembly of the Tape Receiver is straightforward and requires no instructions. Refer to the appropriate tape punch (DRPE type) section for information regarding that unit. Check adjustments after reassembly wherever they apply.