

"DATASPEED®" PRINTER (RECEIVE-ONLY)

ENCLOSURES AND PAPER HANDLING

ADJUSTMENTS AND LUBRICATION

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1. GENERAL

1.01 This section provides the adjustments and lubrication procedures for the maintenance of the cover, base, cabinet, paper unwinder, and paper winder as used in the DATASPEED printer (receive-only). It is being reissued to change the title and to incorporate recent engineering changes. Since it is a general revision, marginal arrows used to indicate changes and additions are omitted. This section was formerly designated 592-820-701, but this number is now cancelled. Since this issue of Section 578-500-701 is a revision of Section 592-820-701, Issue 2, it is designated Issue 3.

**CAUTION: REMOVE POWER FROM SET BEFORE CHECKING OR MAKING ADJUSTMENTS UNLESS OTHERWISE STATED.**

1.02 The adjustments are arranged in a sequence that should be followed if a complete readjustment of the particular unit were undertaken. In following such a procedure, parts or assemblies that are removed to facilitate adjustments should not be replaced until all other adjustments, which would be facilitated by removal of these parts are made. If any ad-

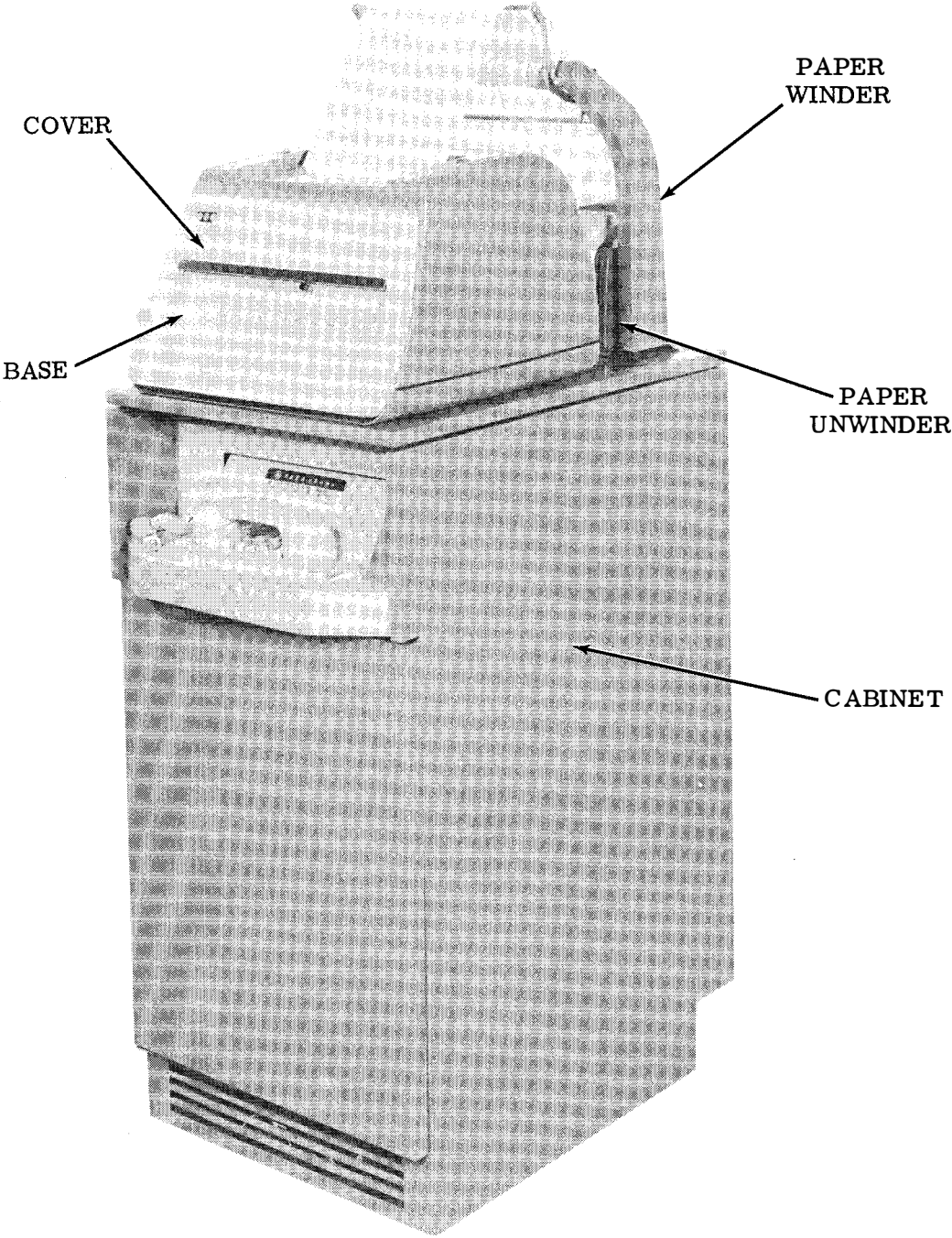
justment is changed, related adjustments should be checked. Before making any adjustment, read the adjustment instructions thoroughly. After an adjustment is completed, be sure to tighten any nuts or screws which may have been loosened.

1.03 The spring tension values indicated are scale readings which would be obtained when proper scales are used as specified. Springs that do not meet the requirements, and for which no adjusting procedure is given, should be replaced by new ones.

1.04 Check all moving parts to make sure they are free from binds before operating the units under power.

1.05 References to right or left, up or down, front or rear, apply to the units as viewed when facing them from the front or operators side.

1.06 Parts ordering information can be obtained from Section 578-500-801 (formerly Section 592-820-801). For the tools necessary in making the adjustments, refer to Section 570-005-800.



Typical DATASPEED Printer (Receive-Only)

2. ADJUSTMENTS

2.01 Cover

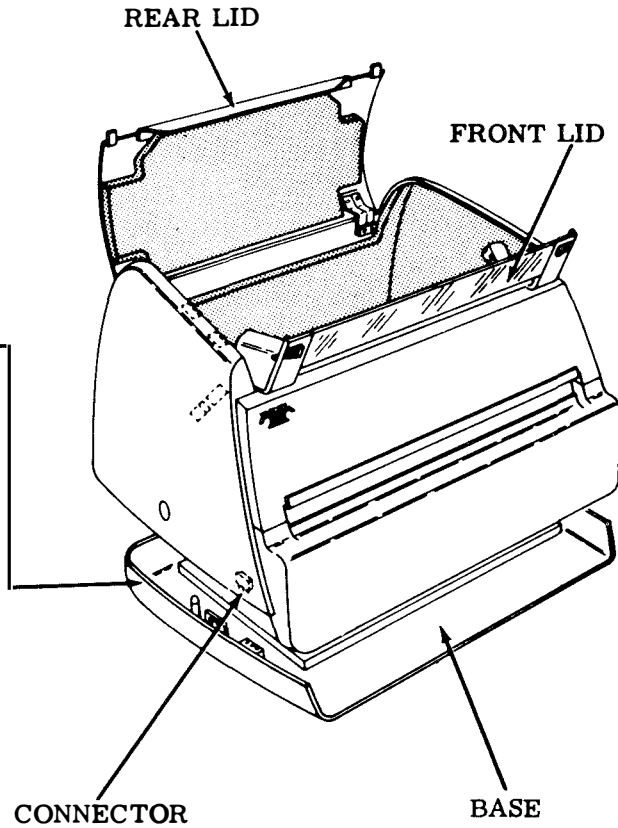
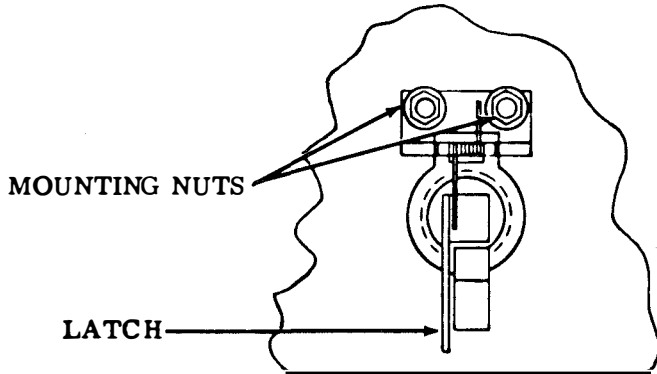
COVER AND BASE GASKET

Requirement

Bottom surface of cover should be in contact with gasket on base. Cover should compress gasket evenly around perimeter of cover so as to prevent air gaps along entire length of gasket.

To Adjust

With cover latch mounting nuts friction tight and connector mounting nuts friction tight (left side), position cover. Tighten mounting nuts.



COVER ALIGNMENT — PRELIMINARY

(1) Requirement

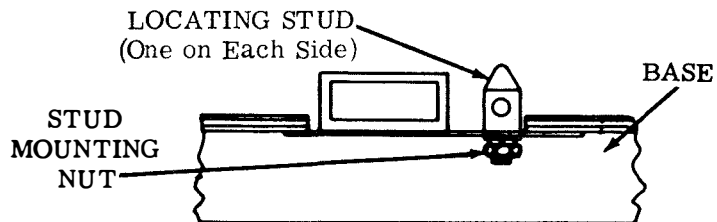
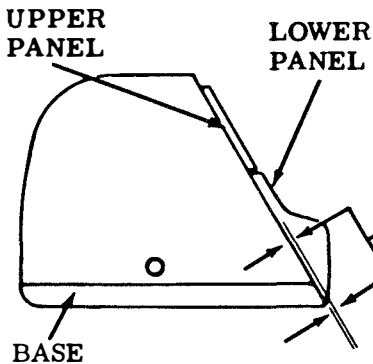
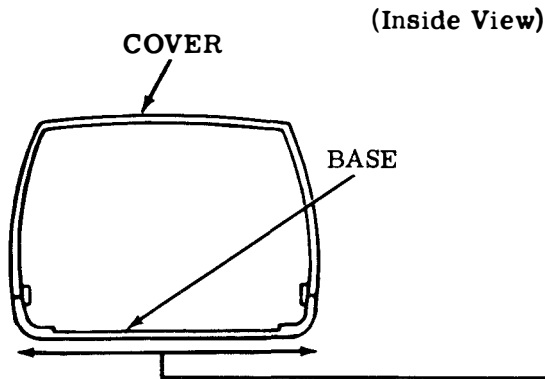
Cover should be centered (left to right) with respect to base, as gauged by eye.

(2) Requirement

Bottom leading edge of cover should be Min some---Max 0.078 inch under flush with base.

To Adjust

With both stud mounting nuts friction tight, position cover from left to right and/or front to rear. Tighten stud mounting nuts.



2.02 Cover (continued)

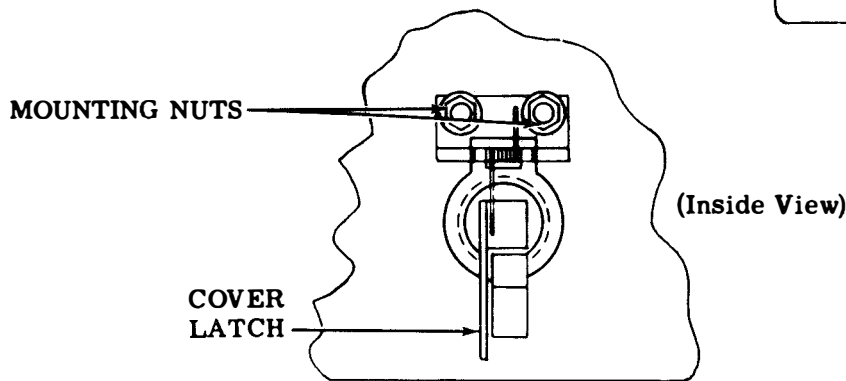
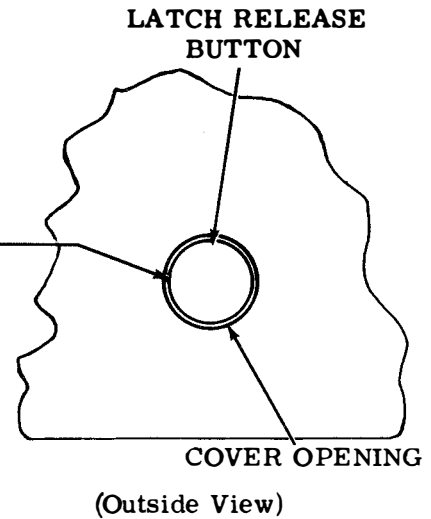
COVER LATCH (RIGHT AND LEFT)

Requirement

Latch release button should be centrally located in its cover opening. Check both buttons.

To Adjust

Position the latch with its mounting nuts loosened. Tighten mounting nuts.



COVER ALIGNMENT --- FINAL

(1) Requirement

Upper panel (on cover) and lower panel (on base) should align. Gauge by eye.

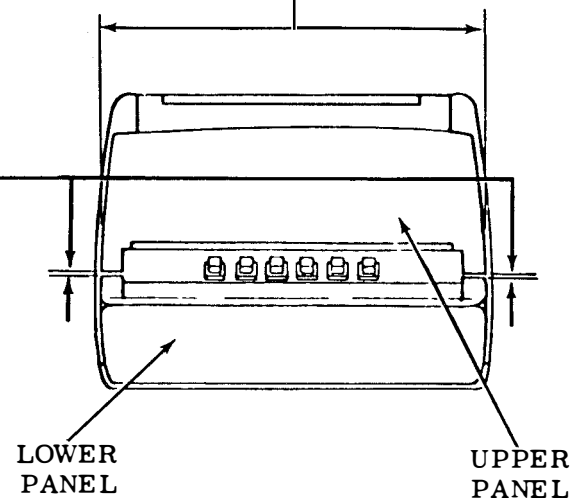
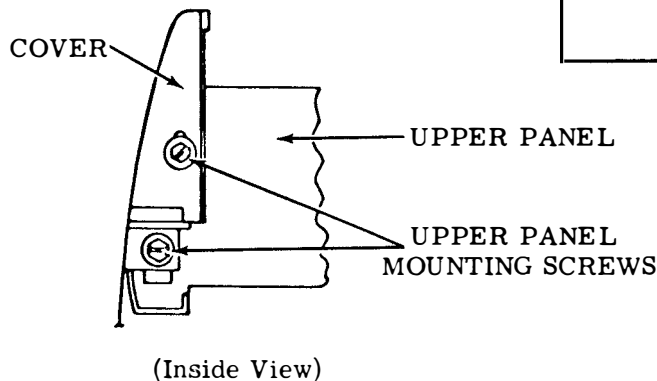
(2) Requirement

Clearance between upper panel and lower panel should be

Min 0.062 inch --- Max 0.094 inch  
Check both sides.

To Adjust

With upper panel and lower panel mounting screws friction tight, position panels to meet requirements. Tighten panel mounting screws.



2.03 Cover (continued)

SURFACE ALIGNMENT

Requirement

Top surface of front lid (at leading edge) should be within +0.031 inch and -0.031 inch from being flush with cover housing.

To Adjust

Position front lid with bracket mounting nuts friction tight. Tighten mounting nuts.

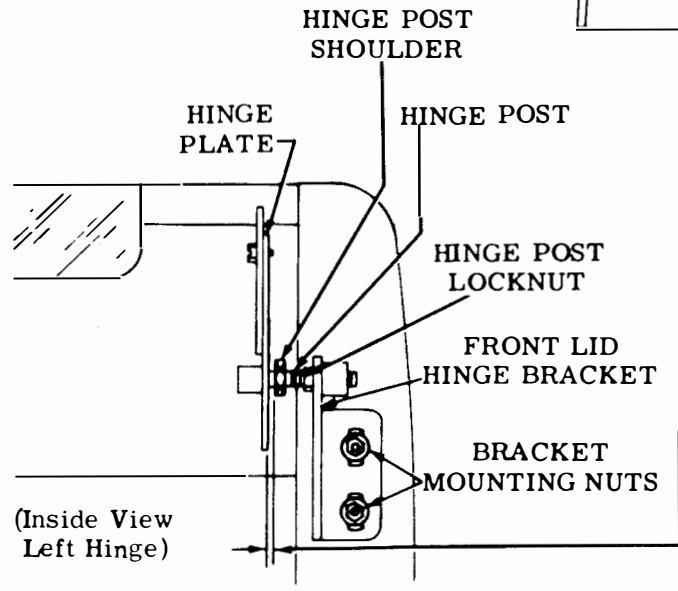
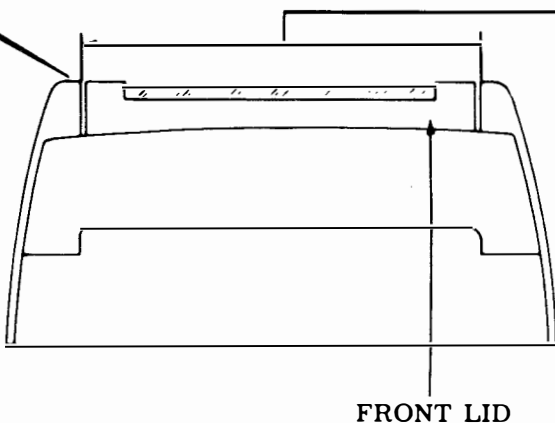
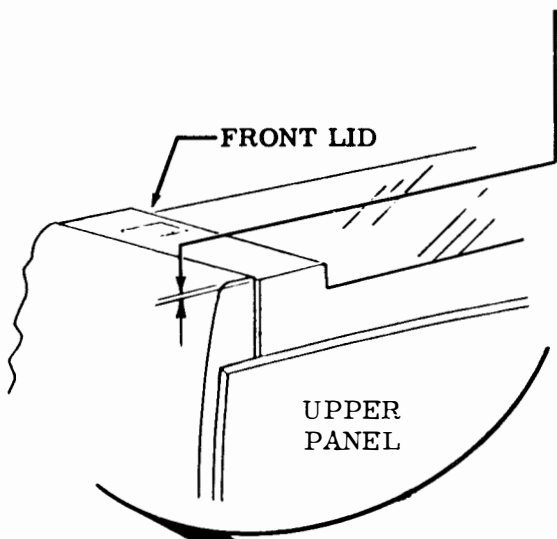
HINGE POST --- PRELIMINARY

Requirement

Front lid should be centered (left to right) in opening as gauged by eye.

To Adjust

With hinge post locknuts loose, turn hinge posts as required to center front lid. Tighten locknuts.



HINGE POST --- FINAL

Requirement

With front lid held toward either left or right side, endplay between hinge post shoulder and hinge plate should be Min some --- Max 0.010 inch

To Adjust

With lid held toward opposite side, loosen hinge post locknut, and turn hinge post to obtain required endplay. Tighten locknut.

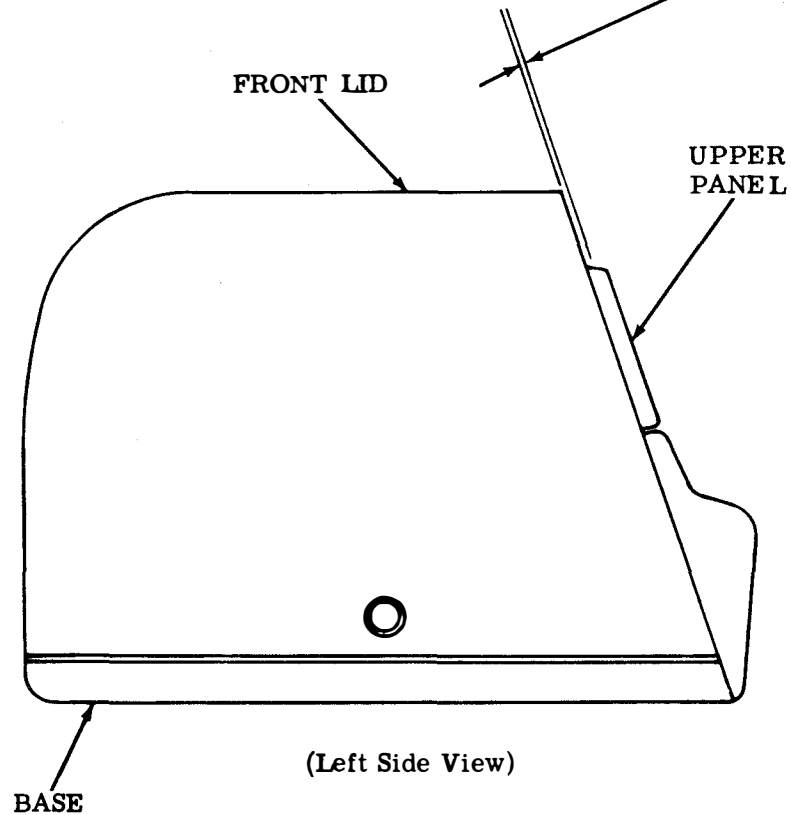
## 2.04 Cover (continued)

FRONT LID -- UPPER PANEL CLEARANCE**Requirement**

With front lid closed and latched, there should be minimum clearance between front surface of front lid and rear surface of upper panel.

**To Adjust**

With front lid hinge plate mounting screws loosened, position front lid. Tighten mounting screws.



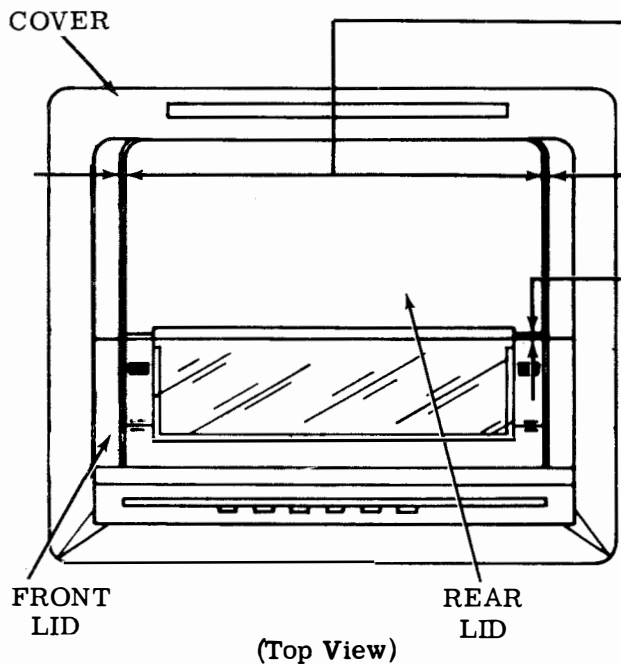
2.05 Cover (continued)

REAR LID ALIGNMENT

- (1) Requirement  
With front and rear lids closed and latched, clearance between front and rear lids should be  
Min some---Max 0.047 inch

- (2) Requirement  
Rear lid should be centered (left to right) in opening as gauged by eye.

To Adjust  
With four mounting nuts securing rear lid hinge to cover loosened, position rear lid front to rear and/or left to right. Tighten mounting nuts.

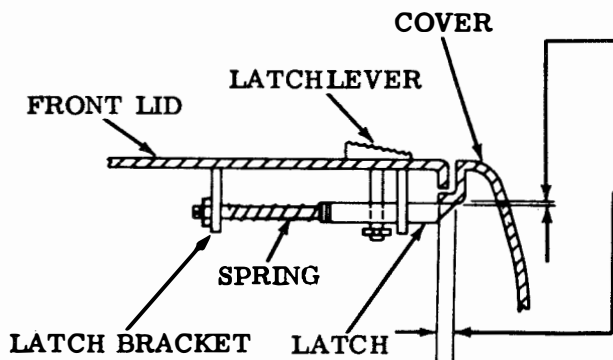


FRONT LID LATCHES

- (1) Requirement  
With front lid latched and held down against rear lid extension, clearance between front lid latch and cover latching surface should be  
Min some---Max 0.015 inch

- (2) Requirement  
With front lid closed, latch should engage cover latching surface by  
Min 0.047 inch---Max 0.094 inch

To Adjust  
Form latch bracket up or down, toward or away from cover, until requirements are met. Check both right and left latches.

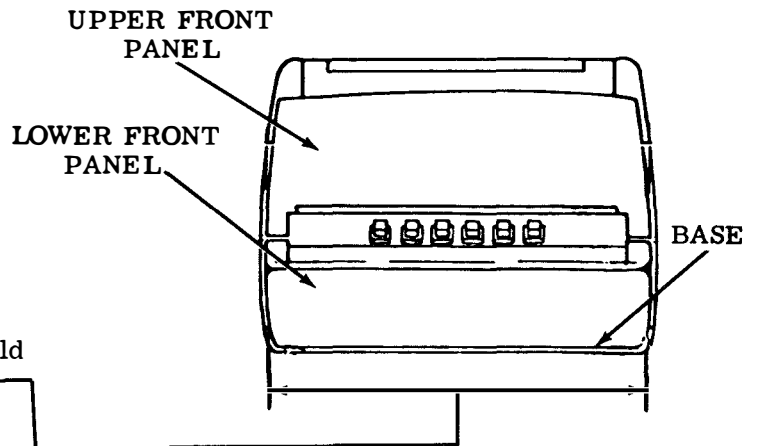




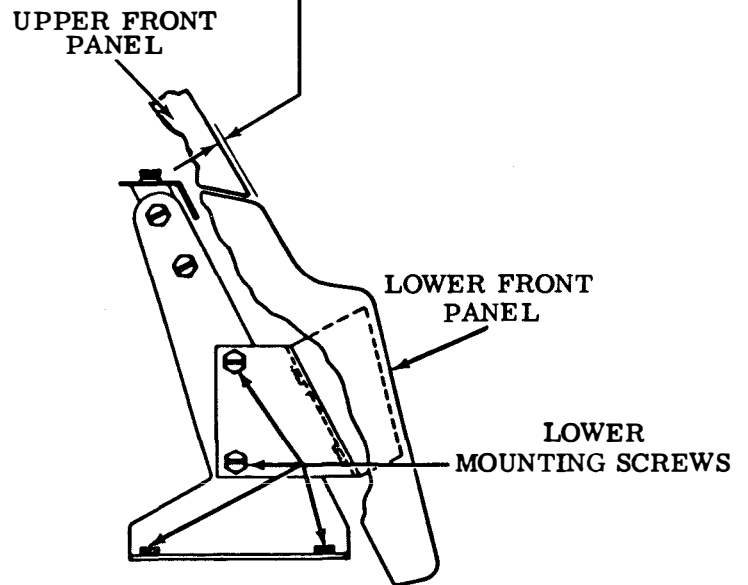
2.06 Base

LOWER FRONT PANEL

- (1) Requirement  
Lower front panel should be centered (left to right) with respect to base.  
Gauge by eye.
- (2) Requirement  
Bottom edge of lower front panel should be flush with base gasket.
- (3) Requirement  
Clearance between bottom leading edge of upper front panel and top leading edge of lower front panel should be  
Min some---Max 0.025 inch



To Adjust  
With lower front panel mounting screws loosened, position panel to meet requirements. Tighten mounting screws.



(Left Side View)

2.07 Base (continued)

FUNCTION STRIP

(1) Requirement

Clearance between pushbutton cover bracket and top forward edge of lower front panel should be

Min some ---Max 0.094 inch  
under flush, as gauged by eye.

(2) Requirement

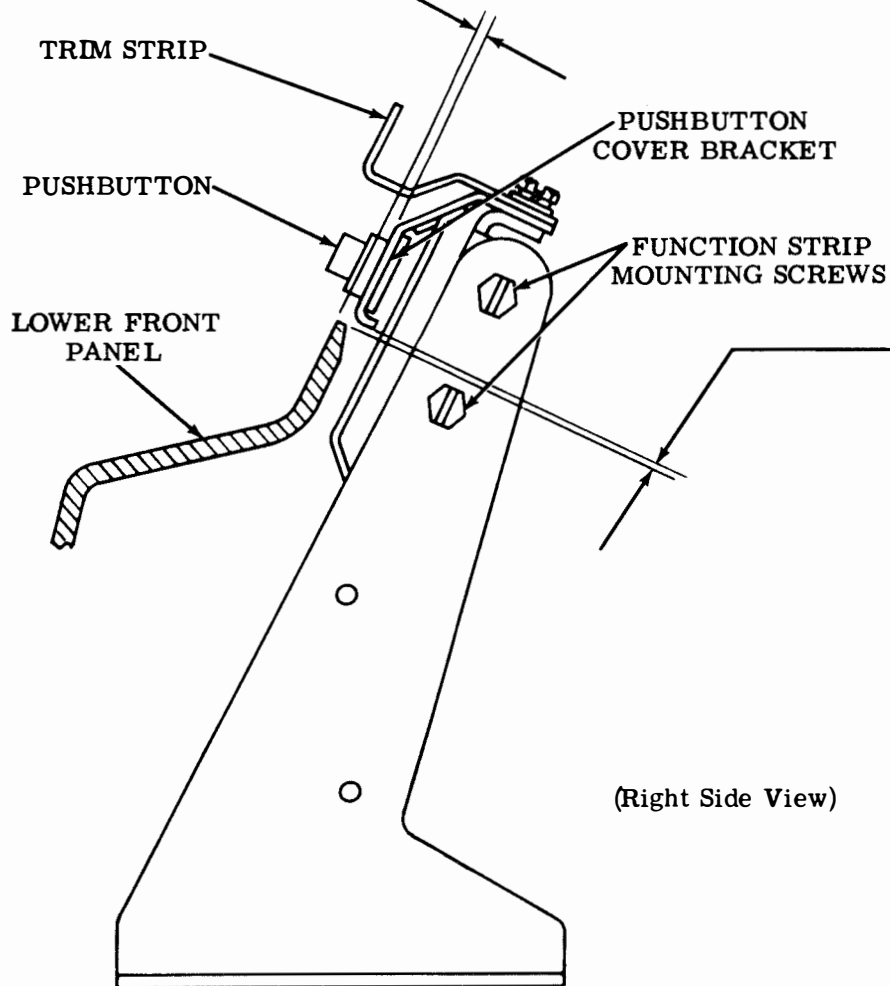
Clearance between pushbutton cover bracket and lower front panel should be minimum, as gauged by eye.

(3) Requirement

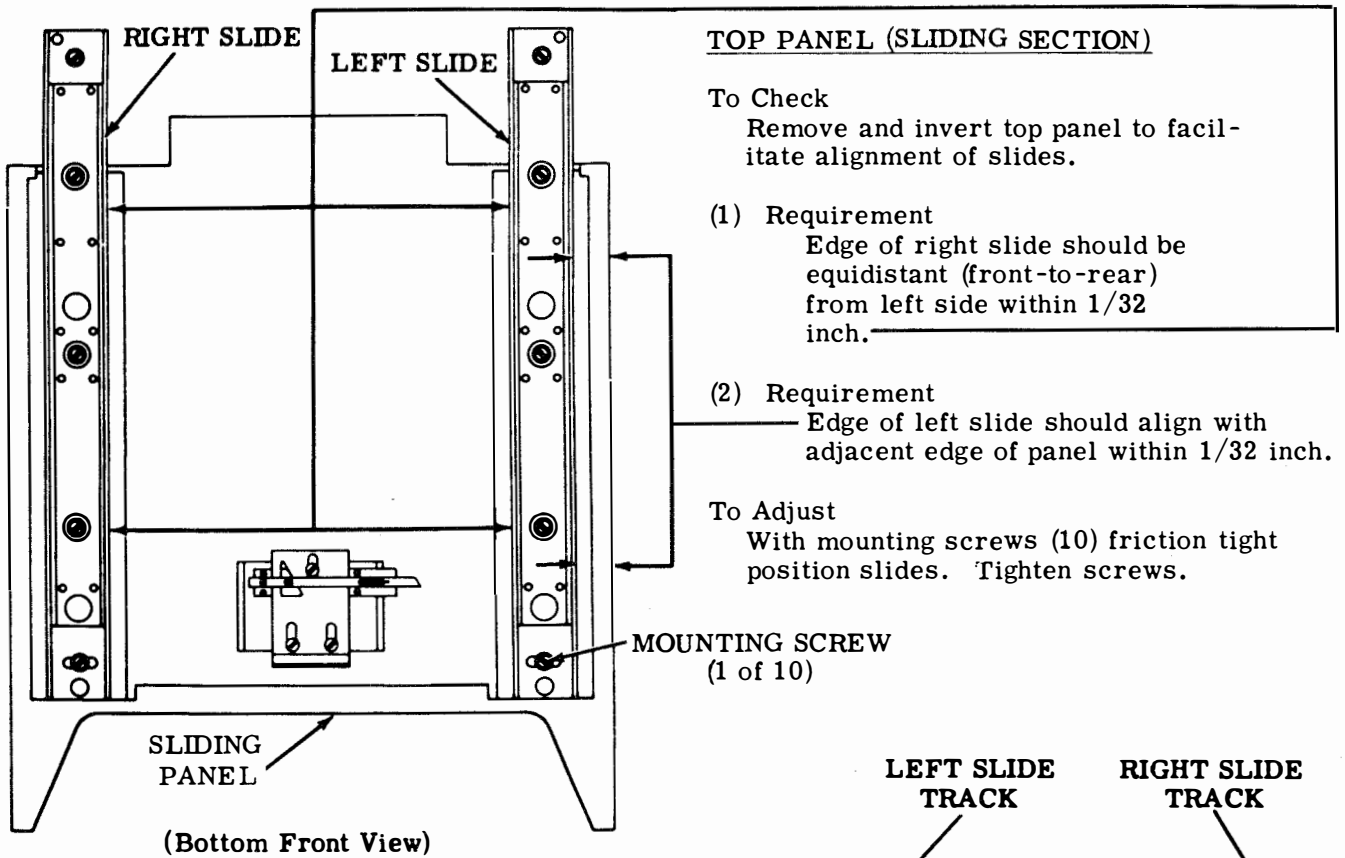
Function strip pushbuttons should have bind-free operation.

To Adjust

With function strip assembly mounting screws loosened, position function strip assembly to meet requirements. Tighten mounting screws and check pushbutton operation. Refine adjustment if necessary.



2.08 Cabinet

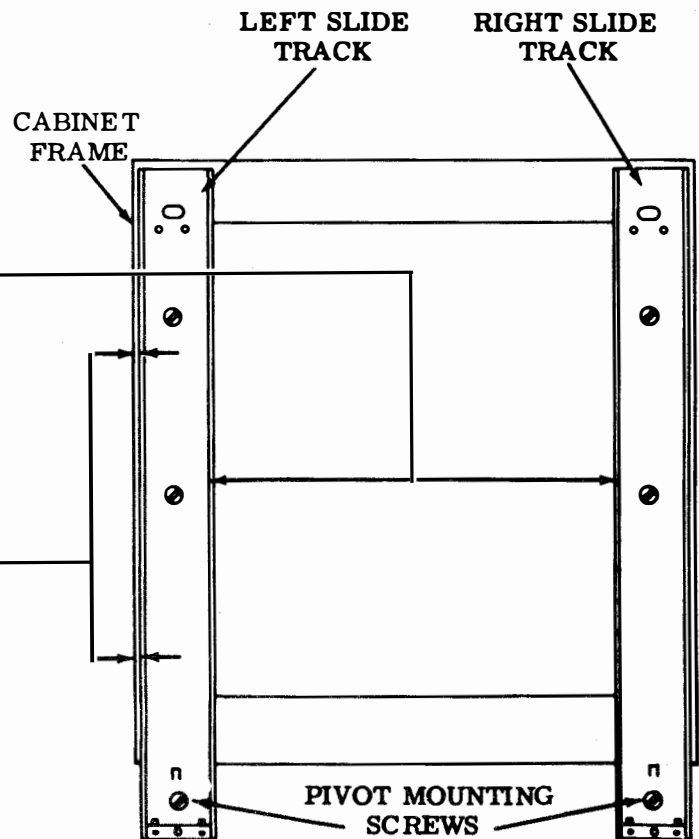


TOP PANEL SLIDE TRACKS

To Check  
Remove top panel. Note that front mounting screw of each track fixes the forward position of the track. Rear end pivots about this screw for adjustment.

- (1) Requirement  
Right track should align with left track within 1/32 inch.
- (2) Requirement  
Edge of left track should be parallel to left edge of cabinet frame within 0.062 inch.

To Adjust  
With rear mounting screws loosened, pivot rear end of left track to meet requirement (1). Tighten screws and position right track in same manner.



(Top Front View)

2.09 Cabinet (continued)

TOP PANEL LOCATION

**To Check**

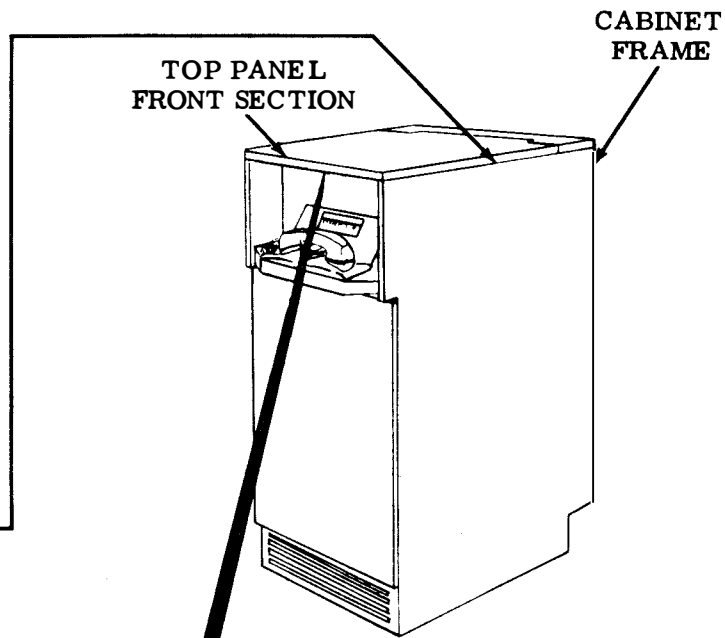
Engage each slide with its ball bearing assembly on respective track. Push top panel toward rear of cabinet frame until front end of track butts against flange of panel; secure slides with screws. Move panel inward and outward slowly to check for binds.

**Requirement**

Top panel should be centrally located on cabinet frame from left to right and front to rear. Bottom edge of panel normally clears frame by approximately 1/8 inch. Slides should move freely in their tracks.

**To Adjust**

With only screws that secure right track loosened, refine requirement (2) of TOP PANEL SLIDE TRACKS (2.08) by gently closing panel as right track is shifted toward right or left.



TOP PANEL LATCH

**To Check**

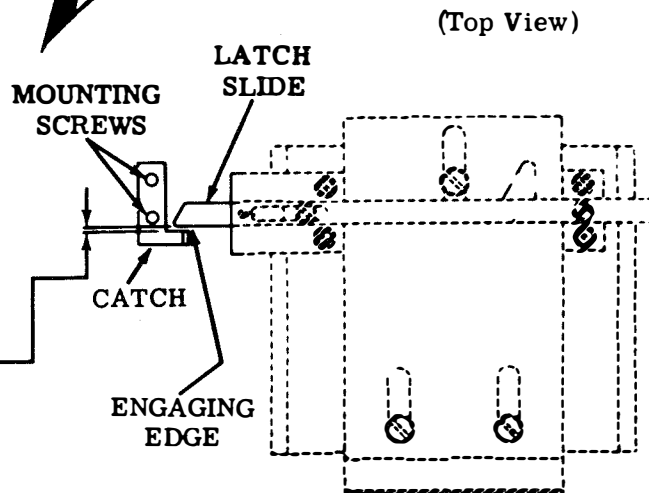
Top sliding panel should be in its normally closed position.

**Requirement**

Clearance between latch slide and engaging surface should be  
Min flush---Max 0.015 inch

**To Adjust**

With catch mounting screws loosened, position catch. Tighten screws.



2.10 Cabinet (continued)

TOP PANEL (REAR SECTION)

(1) Requirement (panel alignment)

Lower edge of rear top panel (left and right side) should lie on a plane that is parallel to upper edge of front top panel and above it by approximately 0.062 inch.

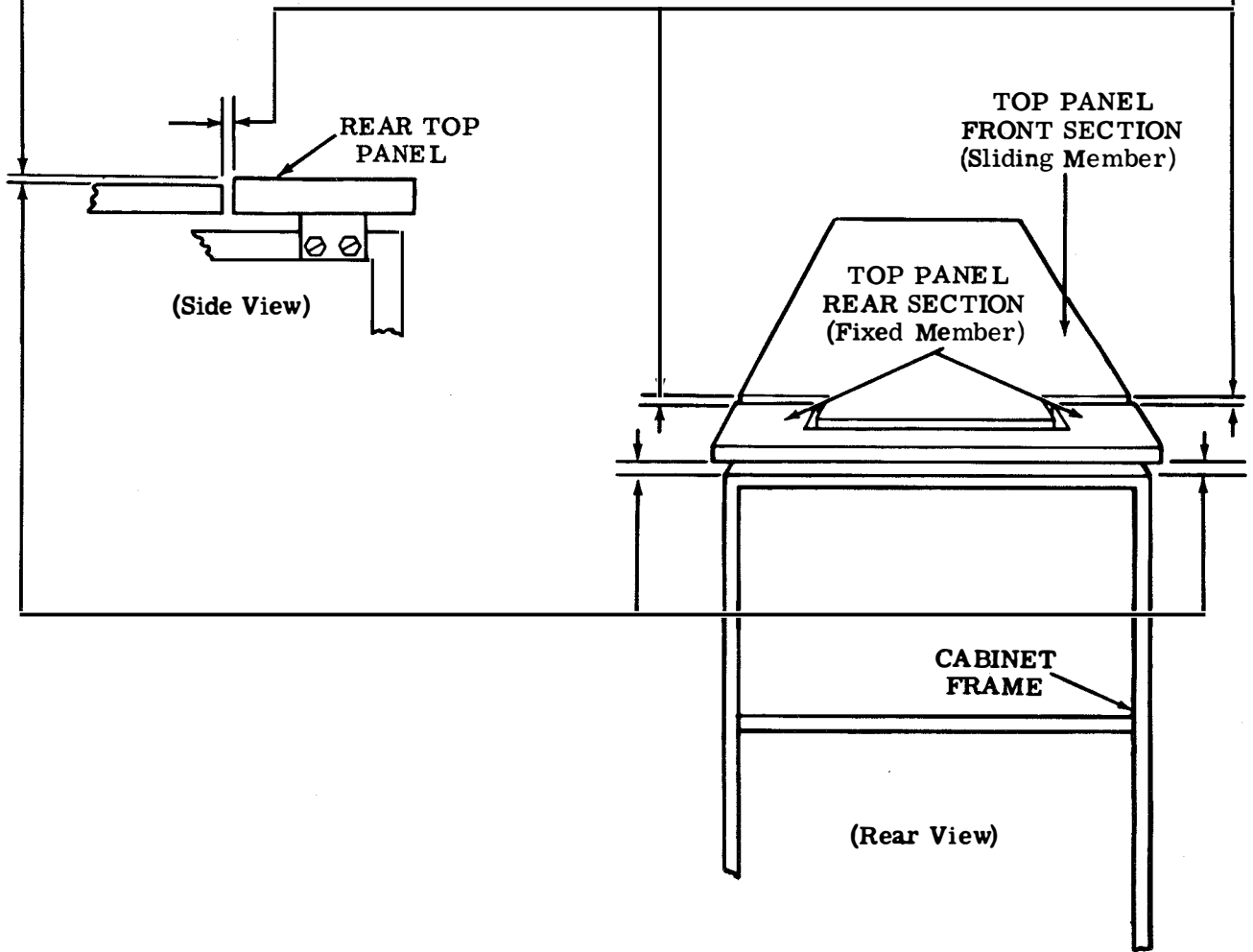
(2) Requirement

With front panel in its fully closed position, clearance between rear edge of front section and adjacent edge at rear section should be

Min some---Max 0.060 inch

To Adjust

With rear top panel mounting screws loosened, position rear top panel. Tighten mounting screws.



2.11 Cabinet (continued)

HIGH VOLTAGE INTERLOCK — OVERRIDE SWITCH

To Check

Front door should be removed.

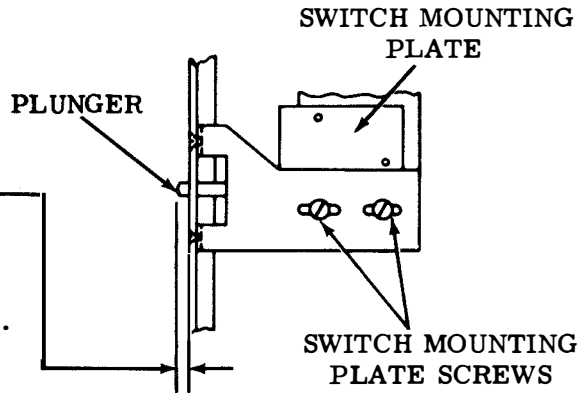
Requirement

Switch plunger should extend past mounting cabinet frame member by  
Min 0.035 inch---Max 0.078 inch

To Adjust

With switch mounting plate screws loosened, position switch mounting plate. Tighten screws.

Note: Front door normally hinged at left.



(Right Side View)

2.12 Paper Unwinder

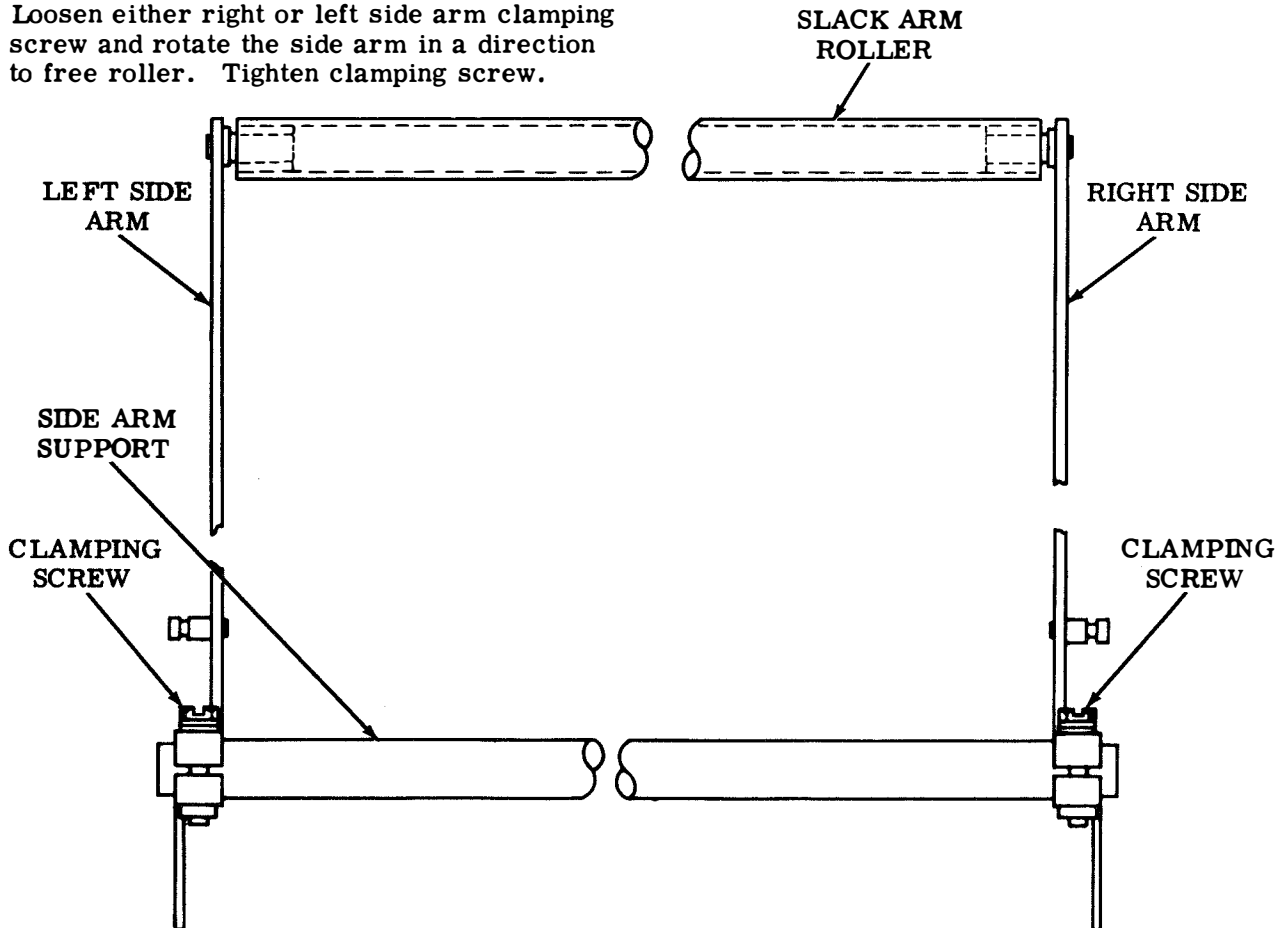
SLACK ARM ROLLER

Requirement

Slack arm roller should be free to rotate.

To Adjust

Loosen either right or left side arm clamping screw and rotate the side arm in a direction to free roller. Tighten clamping screw.



2.121 Paper Unwinder (continued)

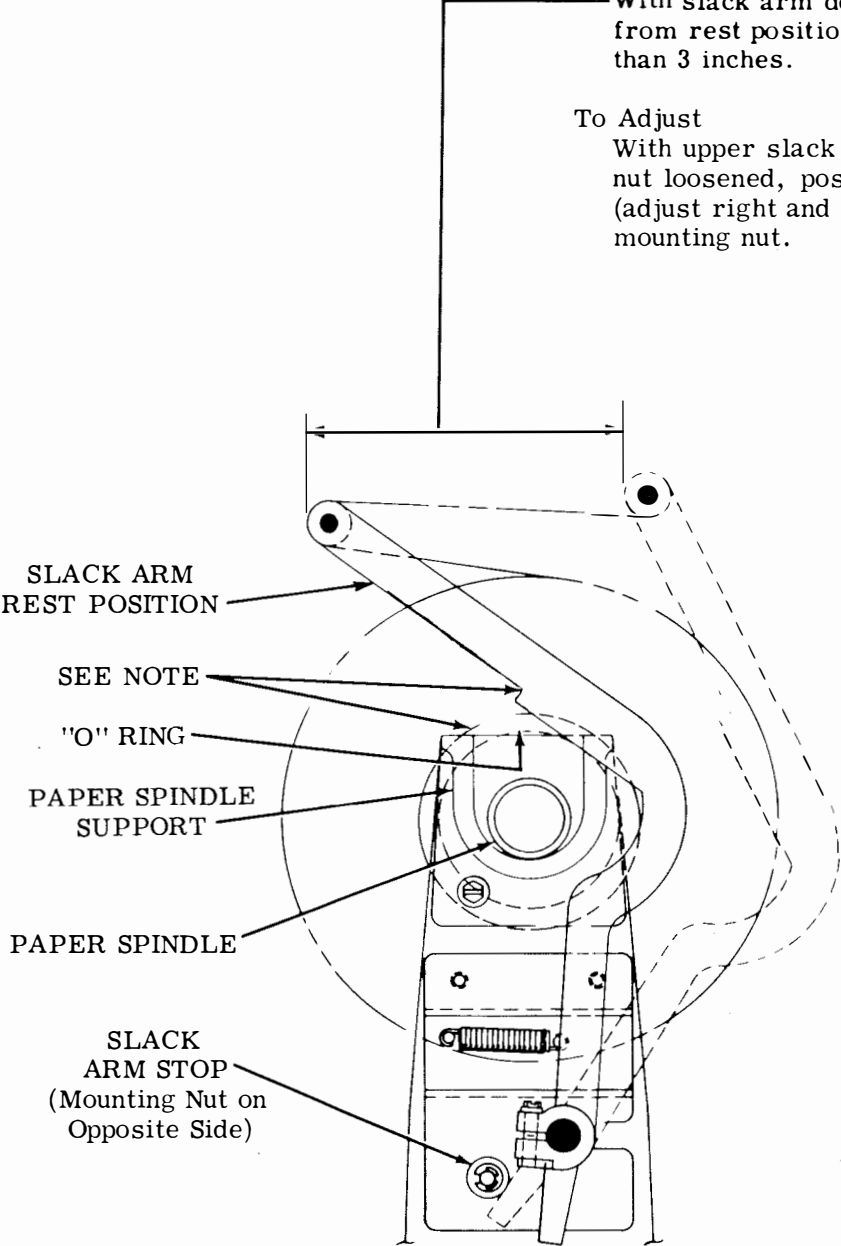
Note: "V" pulley with an "O" ring added to spindle, and insert added to slack arm to arrest overtravel of reel in its idle mode.

SLACK ARM STOP (Latest Design)

To Check  
Paper spindle should be empty and slack arm should be in rest position.

Requirement  
With slack arm depressed, deflection from rest position should be no more than 3 inches.

To Adjust  
With upper slack arm stop mounting nut loosened, position slack arm stop (adjust right and left stops). Tighten mounting nut.



(Left Side View)





2.13 Paper Unwinder (continued)

SLACK ARM STOPS — PRELIMINARY  
→ (Early Design)

To Check  
Paper spindle should be empty and slack arm should be in rest position.

Requirement  
Clearance between slack arm and paper spindle supports (right and left) should be approximately 3/8 inch.

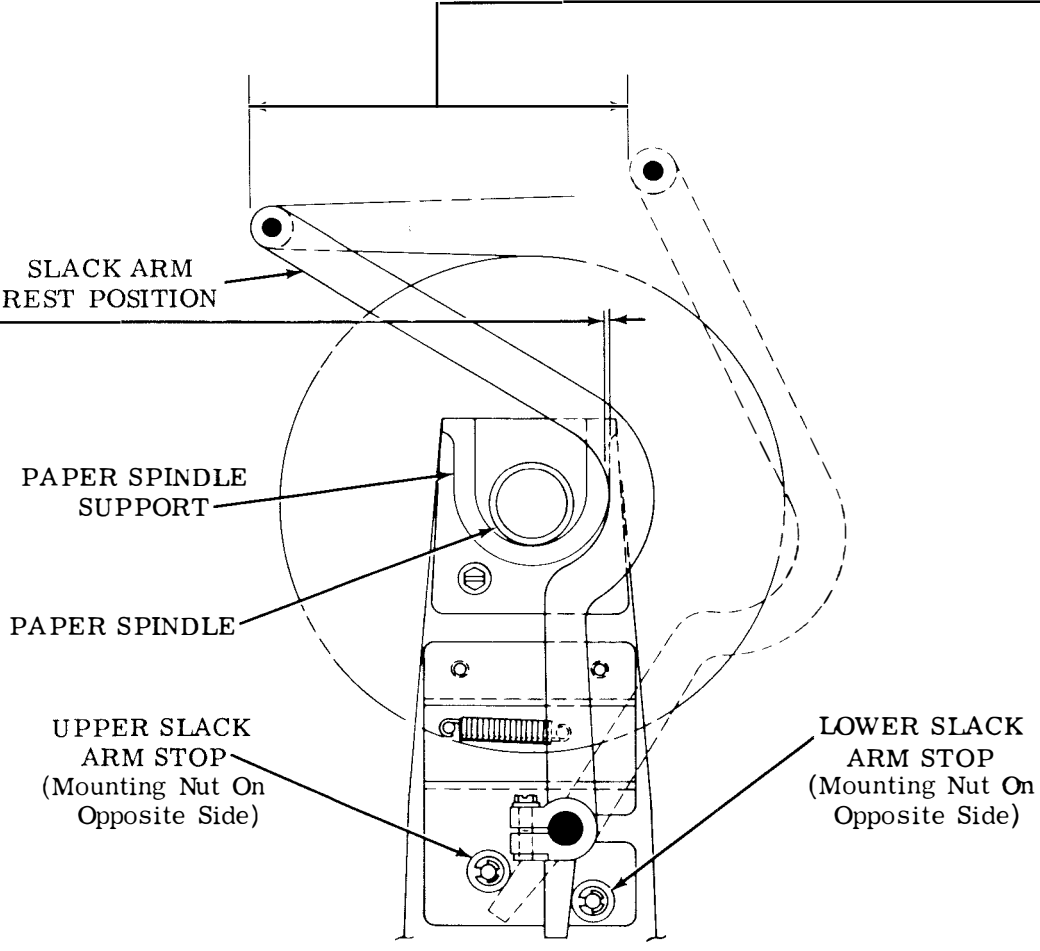
To Adjust  
With lower slack arm stop mounting nut loosened, position lower slack arm stop (adjust right and left stops). Tighten mounting nut.

→ SLACK ARM STOPS -- FINAL (Early Design)

To Check  
Paper spindle should be empty and slack arm should be in rest position.

Requirement  
With slack arm depressed, deflection from rest position should be no more than 3 inches.

To Adjust  
With upper slack arm stop mounting nut loosened, position upper slack arm stop (adjust right and left stops). Tighten mounting nut.



(Left Side View)

2.14 Paper Unwinder (continued)

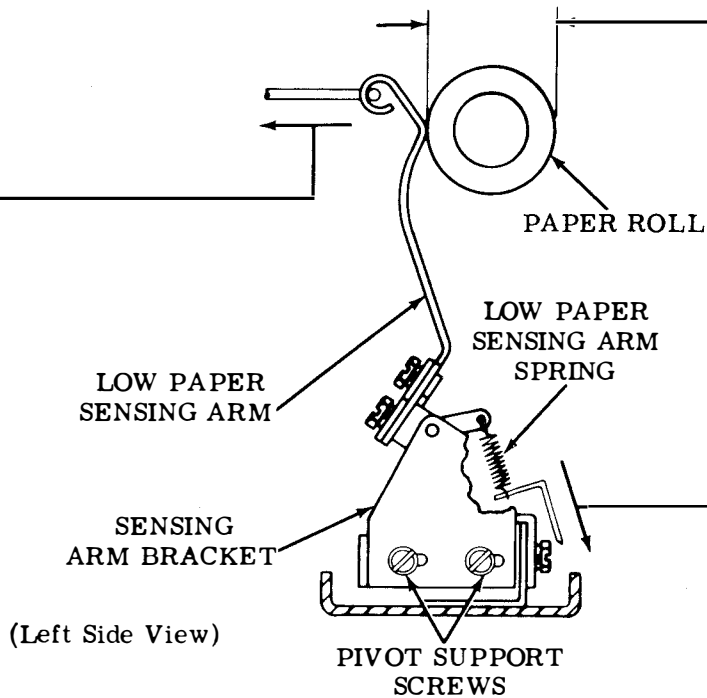
LOW PAPER SENSING ARM

Requirement

With paper roll biased toward cover, low paper alarm switch should close when diameter of paper roll is 1-1/2 inches.

To Adjust

Loosen two screws which support pivot for low paper sensing arm. With continuity tester or voltmeter attached to switch contacts, position pivot support bracket toward right or left until requirement is met. Tighten screws.



LOW PAPER SENSING ARM SPRING

To Check

Paper roll should be approximately 1-1/2 inches in diameter.

Requirement

Amount of force to pull low paper sensing arm spring to installed length should be

Min 10 oz---Max 12 oz

This should result in a force of

Min 1/2 oz---Max 3/4 oz

against paper roll.

To Adjust

If requirement can not be met, replace low paper sensing arm spring.

2.141 Paper Unwinder (continued)

SLACK ARM RETURN SPRING (Latest Design)

To Check

Paper slack arm should be in normal rest position with no deflection.

Requirement

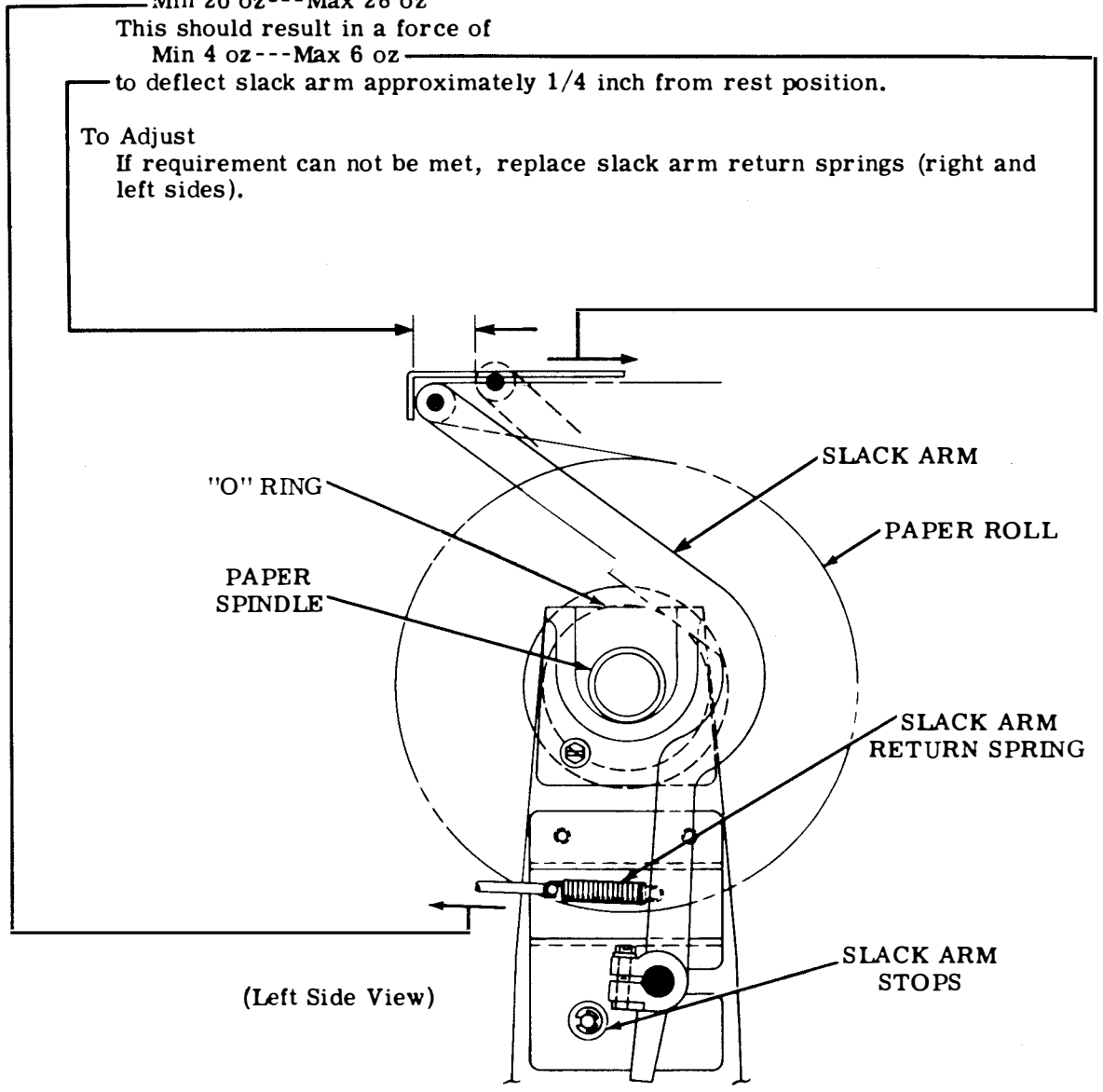
Amount of force to pull slack arm return spring to installed length should be  
 Min 20 oz---Max 28 oz

This should result in a force of  
 Min 4 oz---Max 6 oz

to deflect slack arm approximately 1/4 inch from rest position.

To Adjust

If requirement can not be met, replace slack arm return springs (right and left sides).



(Left Side View)



2.15 Paper Unwinder (continued)

SLACK ARM RETURN SPRING (Early Design)

To Check

Paper slack arm should be in normal rest position with no deflection.

Requirement

Amount of force to pull slack arm return spring to installed length should be  
 Min 20 oz---Max 28 oz

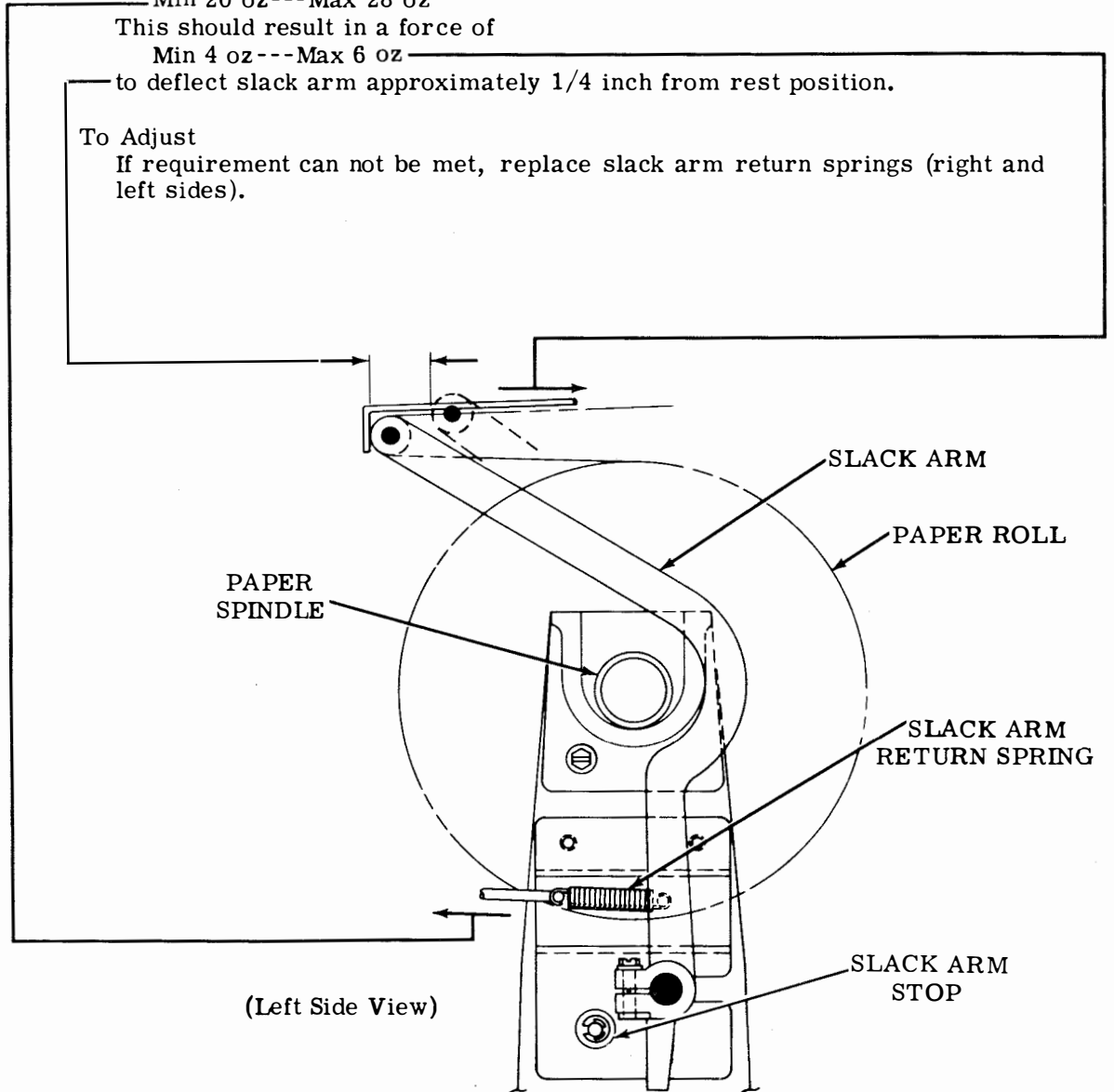
This should result in a force of

Min 4 oz---Max 6 oz

to deflect slack arm approximately 1/4 inch from rest position.

To Adjust

If requirement can not be met, replace slack arm return springs (right and left sides).



2.16 Paper Unwinder (continued)

PAPER ALIGNMENT

To Check

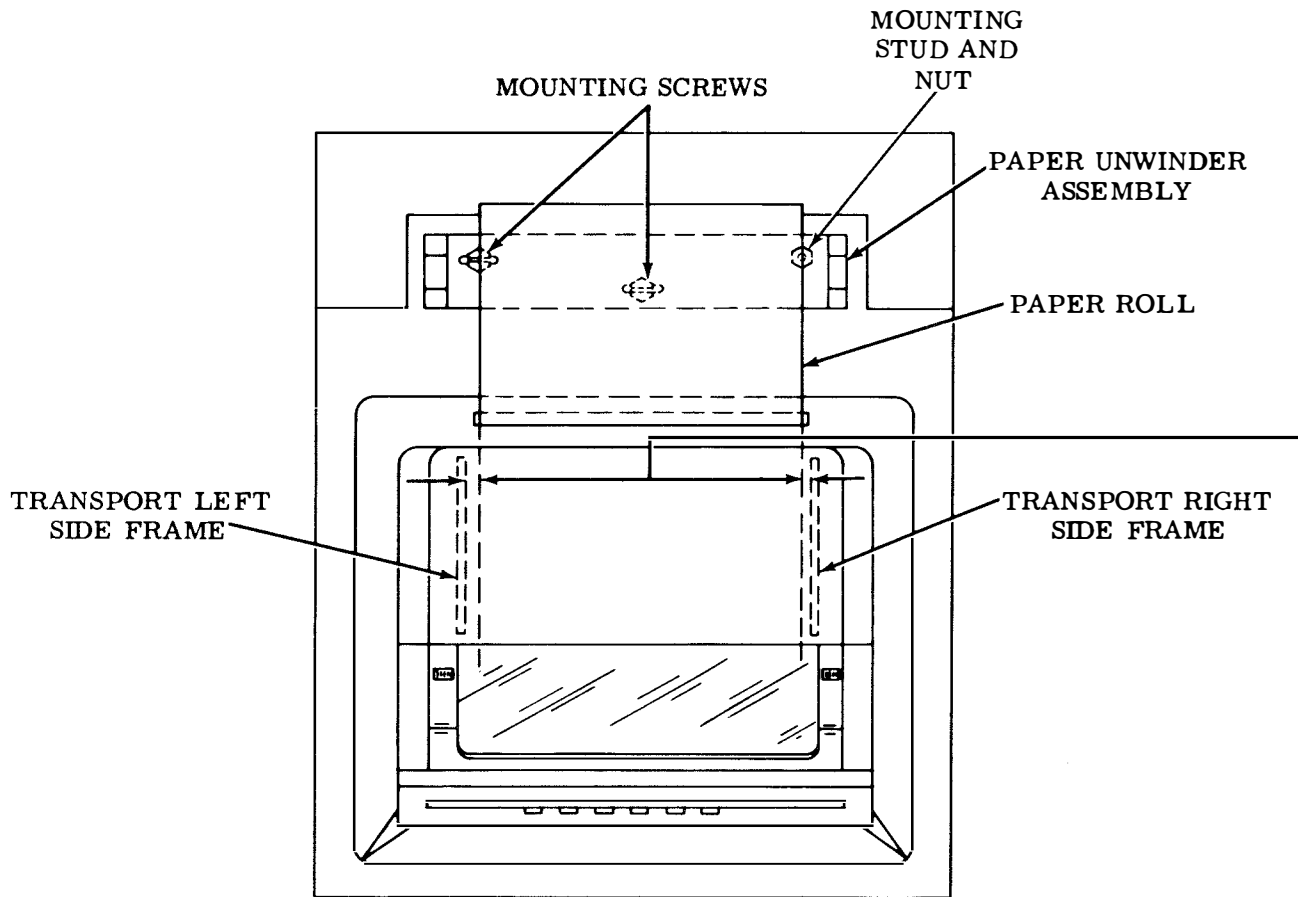
Feed paper through unit without necessarily printing.

Requirement

Paper should be centered with no more than 1/8 inch difference between side frames of transport mechanism and edge of paper on each side.

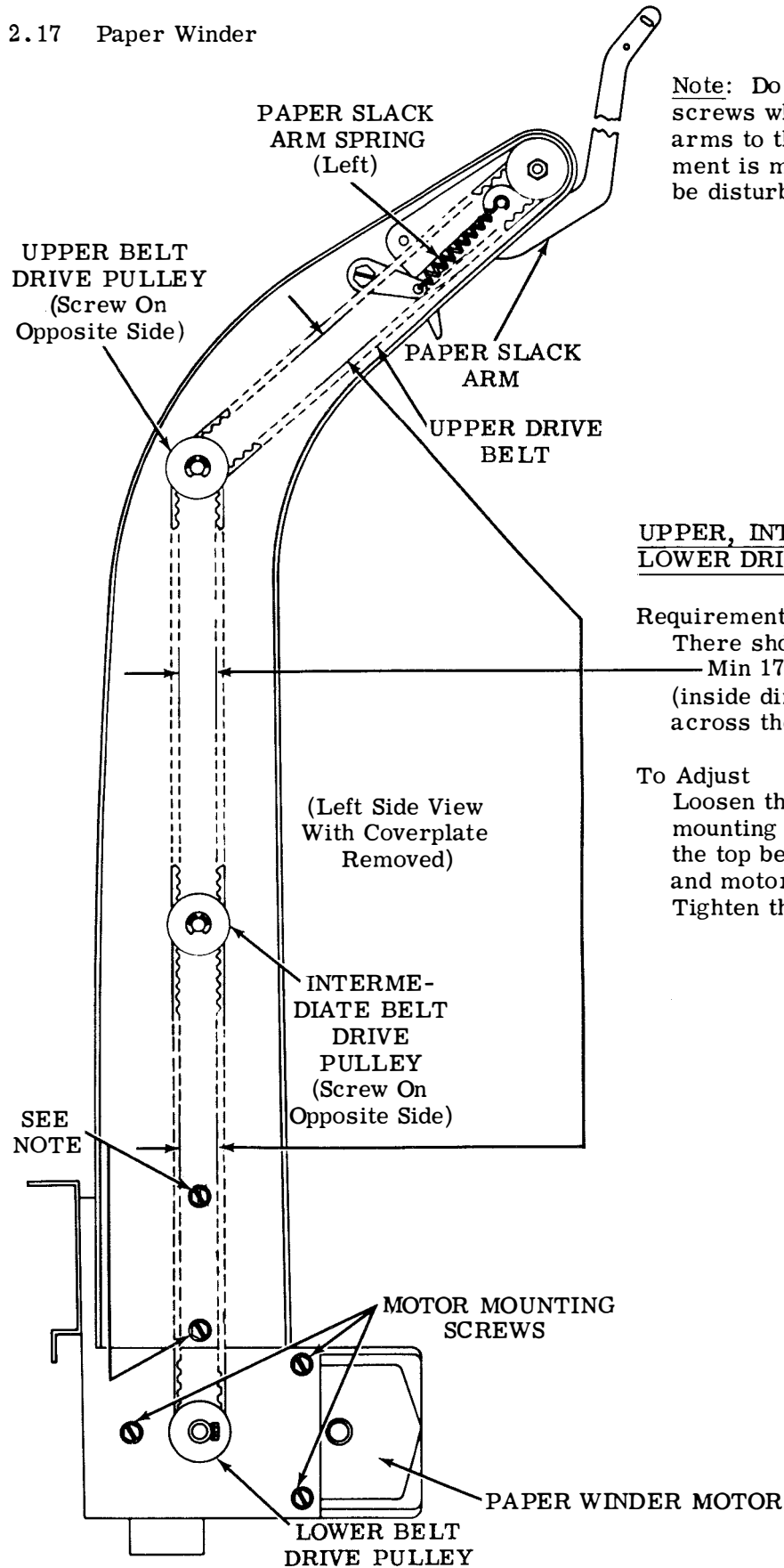
To Adjust

With paper unwinder mounting screws loosened, position paper unwinder assembly either right or left. Tighten mounting screws and nut.



(Top View)

2.17 Paper Winder



Note: Do not attempt to loosen or adjust screws which secure the paper winder arms to the mounting bracket. This adjustment is made at the factory and should not be disturbed.

UPPER, INTERMEDIATE, AND LOWER DRIVE BELTS

Requirement

There should be  
 Min  $17/32$  inch---Max  $19/32$  inch  
 (inside dimension tooth to tooth)  
 across the center of the belt loops.

To Adjust

Loosen the pulleys and winder motor mounting screws. Then starting at the top belt position, adjust the pulleys and motor to meet the requirement. Tighten the mounting screws.

SEE NOTE

(Left Side View  
 With Coverplate  
 Removed)

INTERMEDIATE BELT  
 DRIVE  
 PULLEY  
 (Screw On  
 Opposite Side)

MOTOR MOUNTING  
 SCREWS

PAPER WINDER MOTOR

LOWER BELT  
 DRIVE PULLEY

2.18 Paper Winder (continued)

WINDER MOTOR ACTUATING SWITCH

To Check

Paper slack arm should be in raised position.

Requirement

Switch should open power line to motor when paper slack arm is lowered

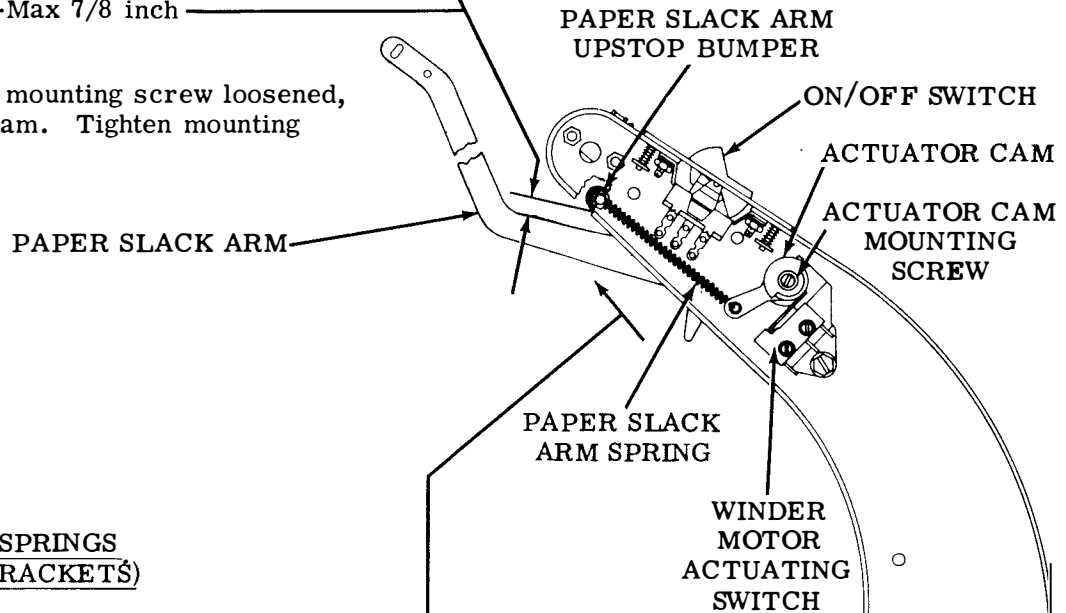
Min 1-1/16 inches---Max 1-3/16 inches

Note: On late design units having an antiback-up feature

Min 3/4 inch---Max 7/8 inch

To Adjust

With actuator cam mounting screw loosened, position actuator cam. Tighten mounting screw.



PAPER SLACK ARM SPRINGS  
(RIGHT AND LEFT BRACKETS)

To Check

Paper slack arm should be in raised position.

Requirement

Min 18 oz---Max 20 oz

to pull paper slack arm spring to its installed length (check both right and left springs).

Note: On late design units having an antiback-up feature

Min 20 oz---Max 23 oz

To Adjust

If requirement is not met, replace right and left paper slack arm springs.

(Right Side Bracket  
with Coverplate  
Removed)



### 3. LUBRICATION

3.01 The cover, base, cabinet, paper unwinder, and paper winder should be lubricated as directed in this portion of the section.

3.02 The photographs show paragraph numbers referring to particular line drawings of mechanisms and illustrates the location of these mechanisms on the particular unit. Parts are shown in an upright position, viewed from the front, unless otherwise stated.

3.03 Spring loops, felt washers, and certain shafts should be oiled. The friction surfaces of all exposed moving parts should be lubricated; however, overlubrication should be avoided. Exercise care to prevent oil or grease from getting between magnet armature pole faces. Keep all electrical contacts free of ink, oil, or grease. Also, keep the cover gasket free of contamination.

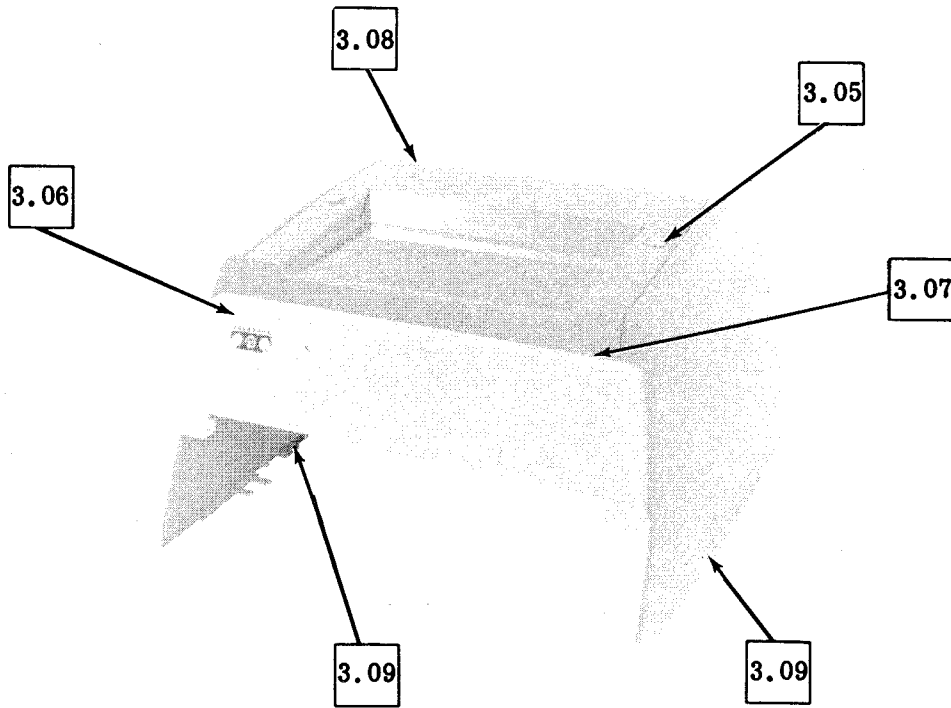
**CAUTION: REMOVE POWER FROM SET BEFORE AN ATTEMPT IS MADE TO INSPECT, LUBRICATE, OR CLEAN ANY PORTION OF THE UNITS.**

3.04 Refer to Section 570-005-800 for lubricant ordering information. The following symbols are used to indicate the type and amount of lubricant required:

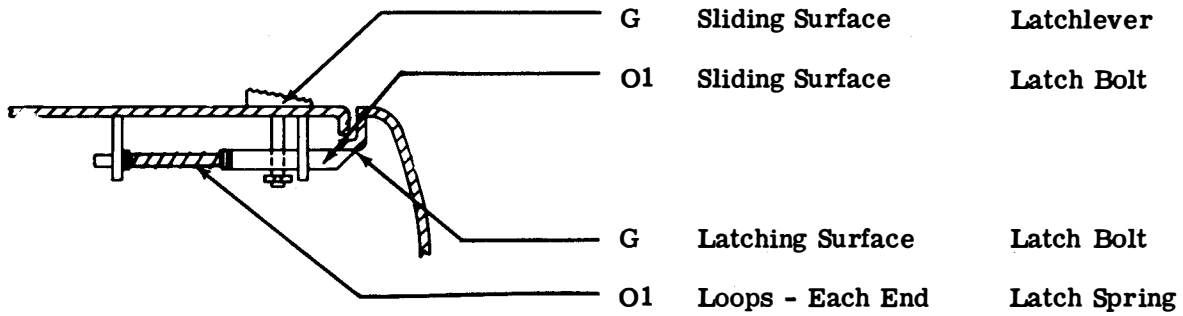
<u>Symbol</u>	<u>Meaning</u>
O1	One drop of oil (KS7470)
O2	Two drops of oil (KS7470)
G	Thin coat of grease (KS7471)
GM	Tacky grease (TP145867)
AL	Aero Lubriplate (TP301313)

Note: Use TP194853 oil injector to lubricate ventilation fans as specified.

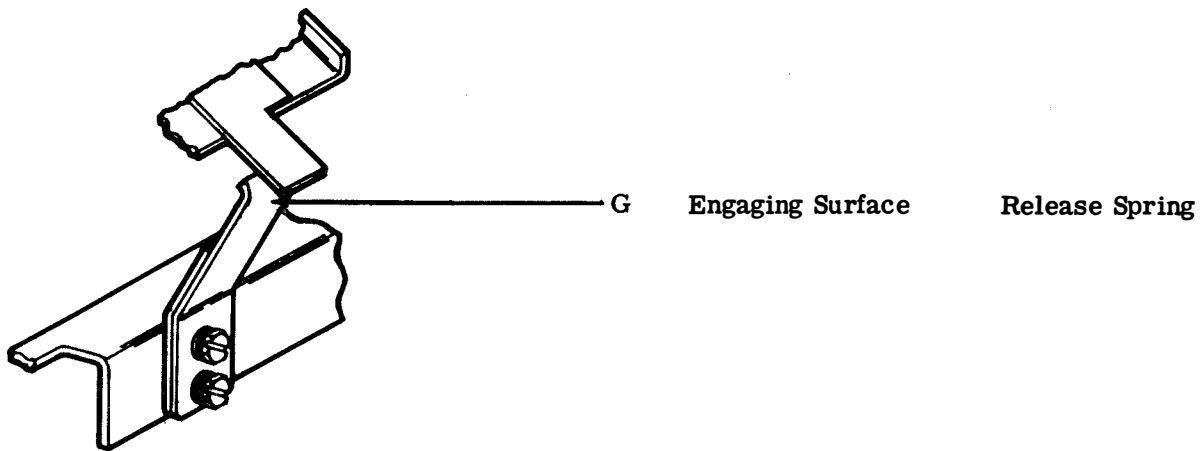
COVER



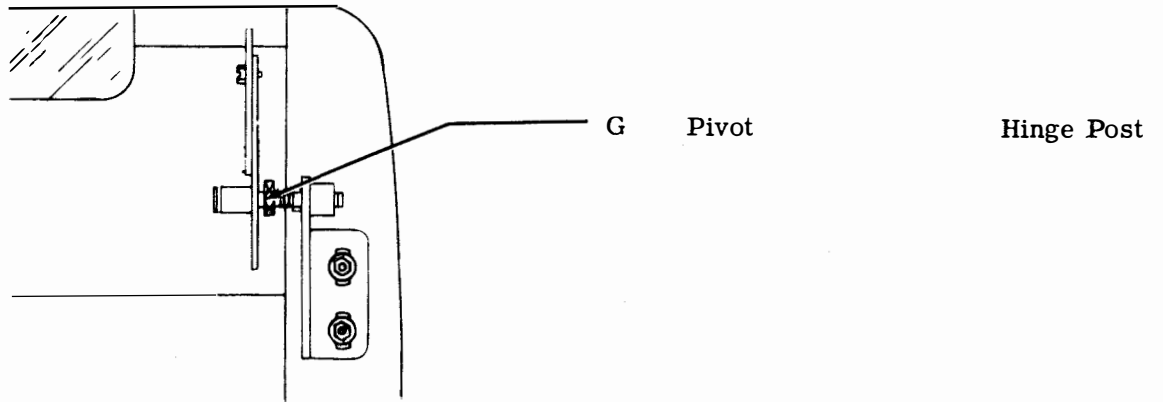
3.05 Front Lid Latches



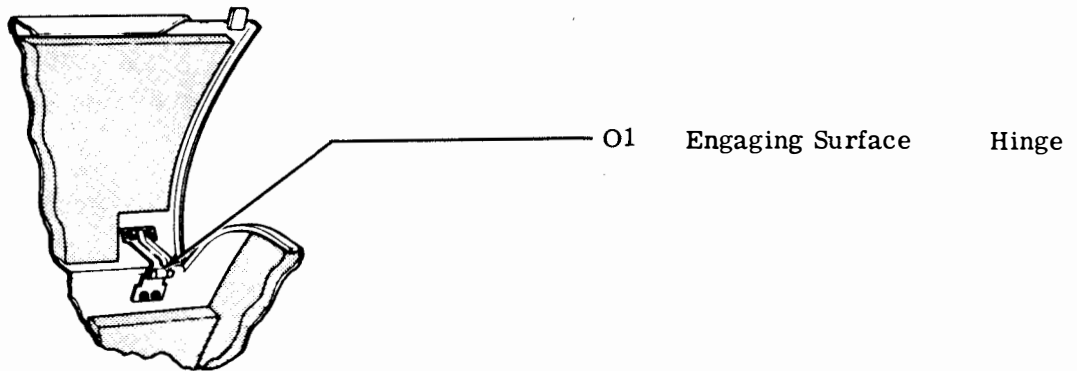
3.06 Front Lid Release Spring



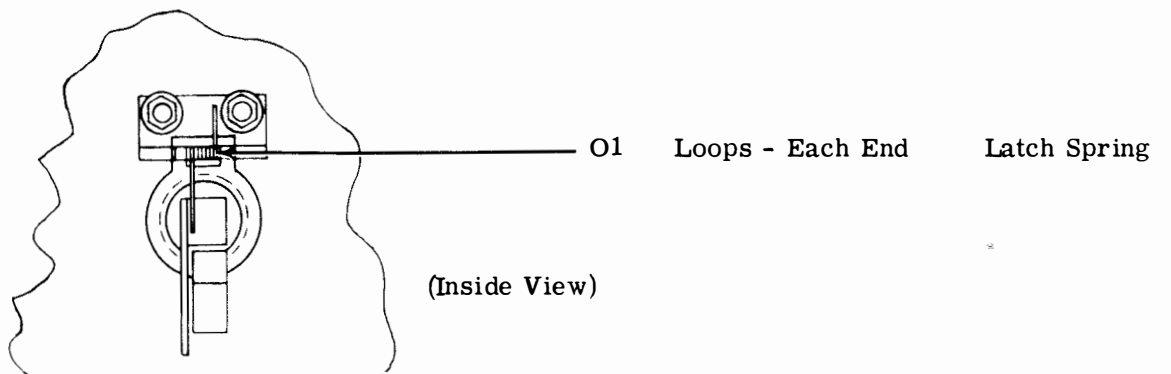
3.07 Front Lid Hinge Post



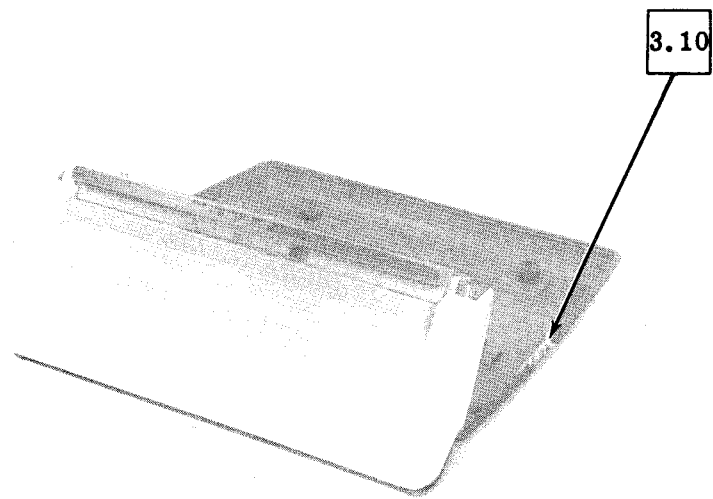
3.08 Rear Lid Hinges (Right and Left)



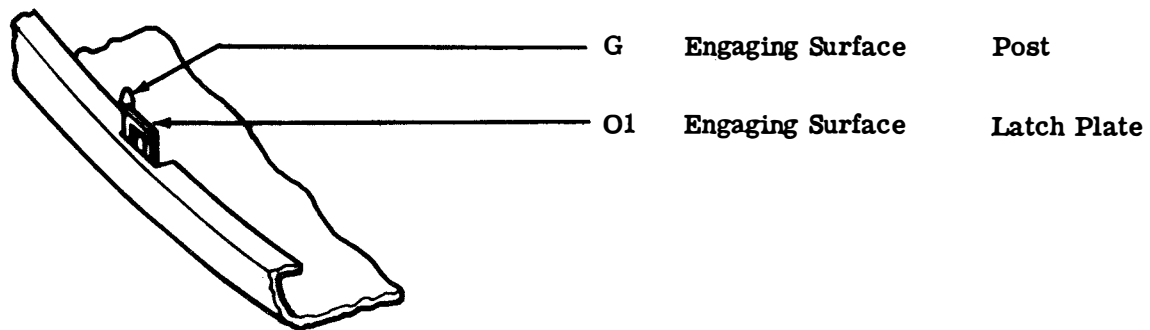
3.09 Cover Latches (Right and Left)



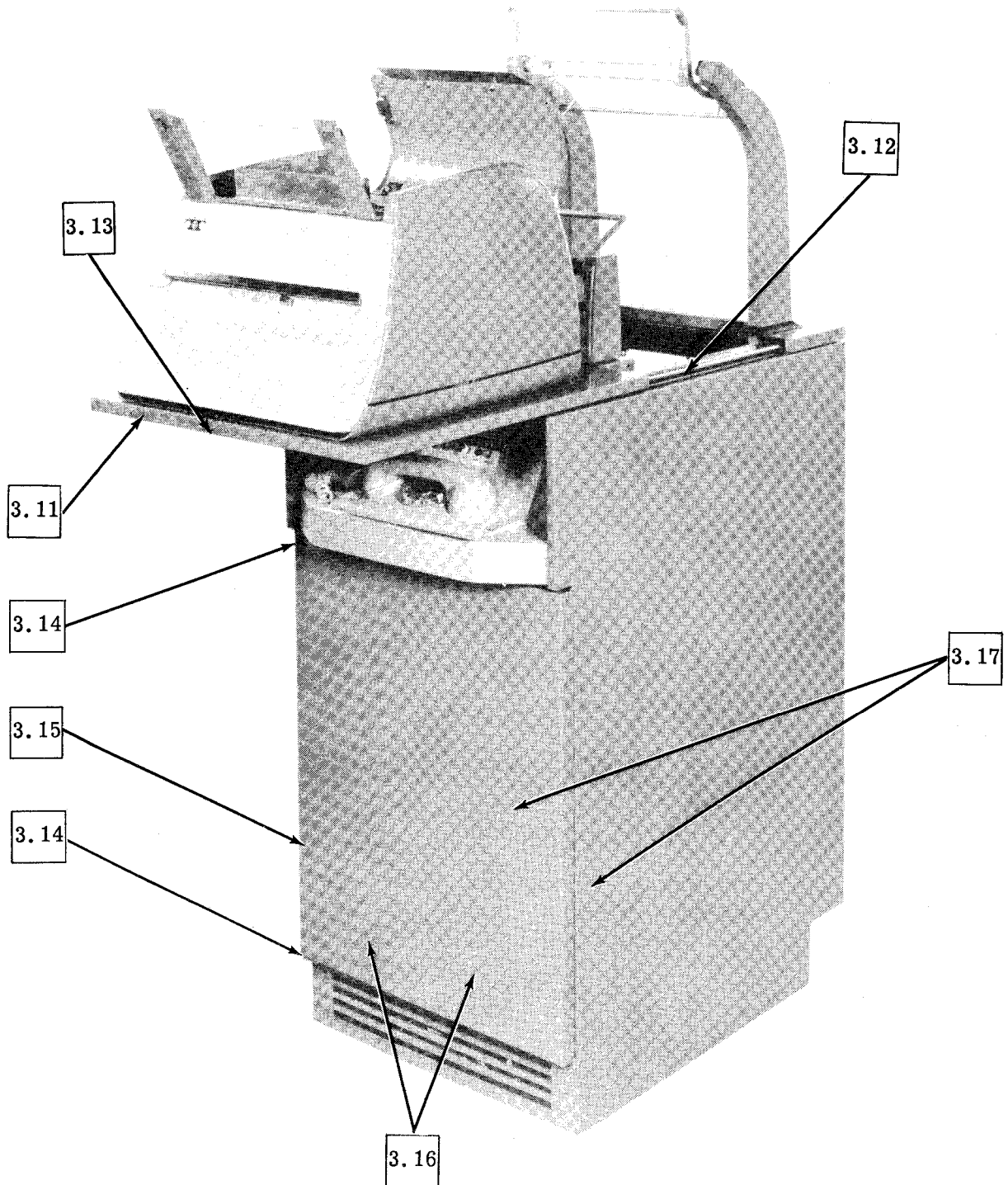
BASE



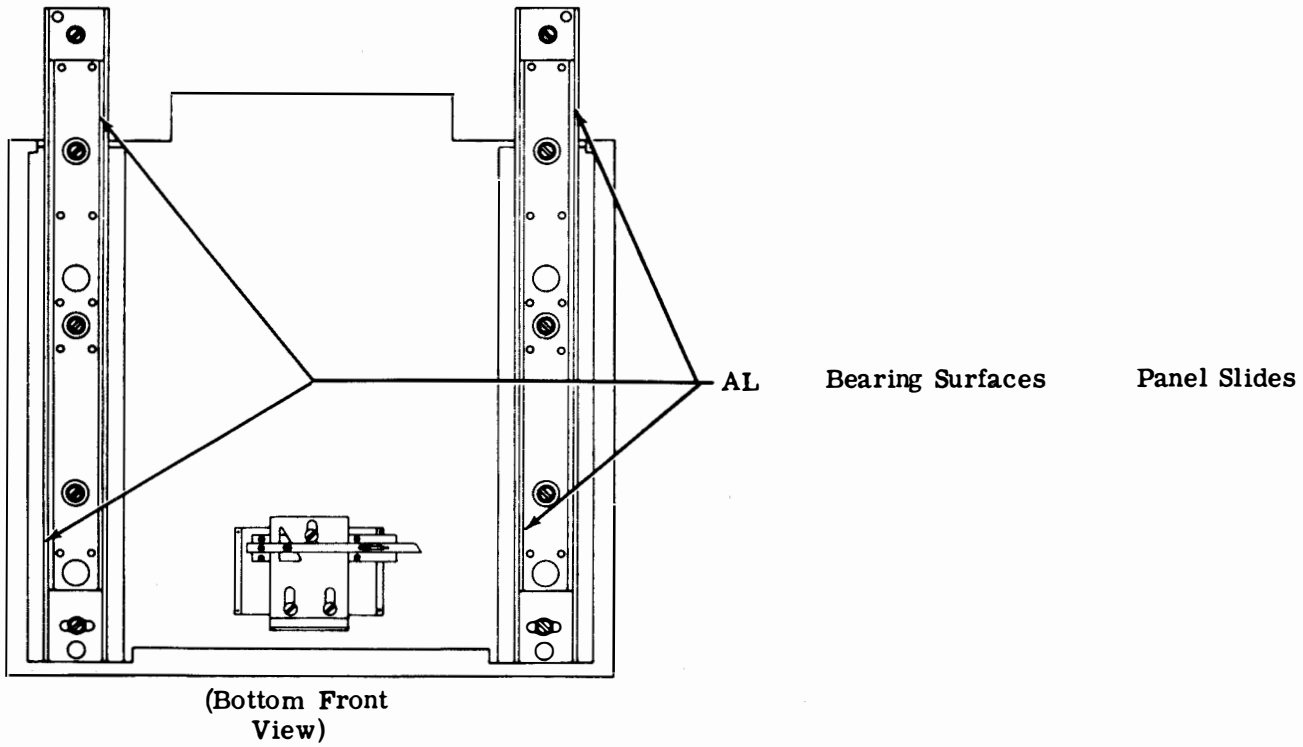
3.10 Cover Guide Posts



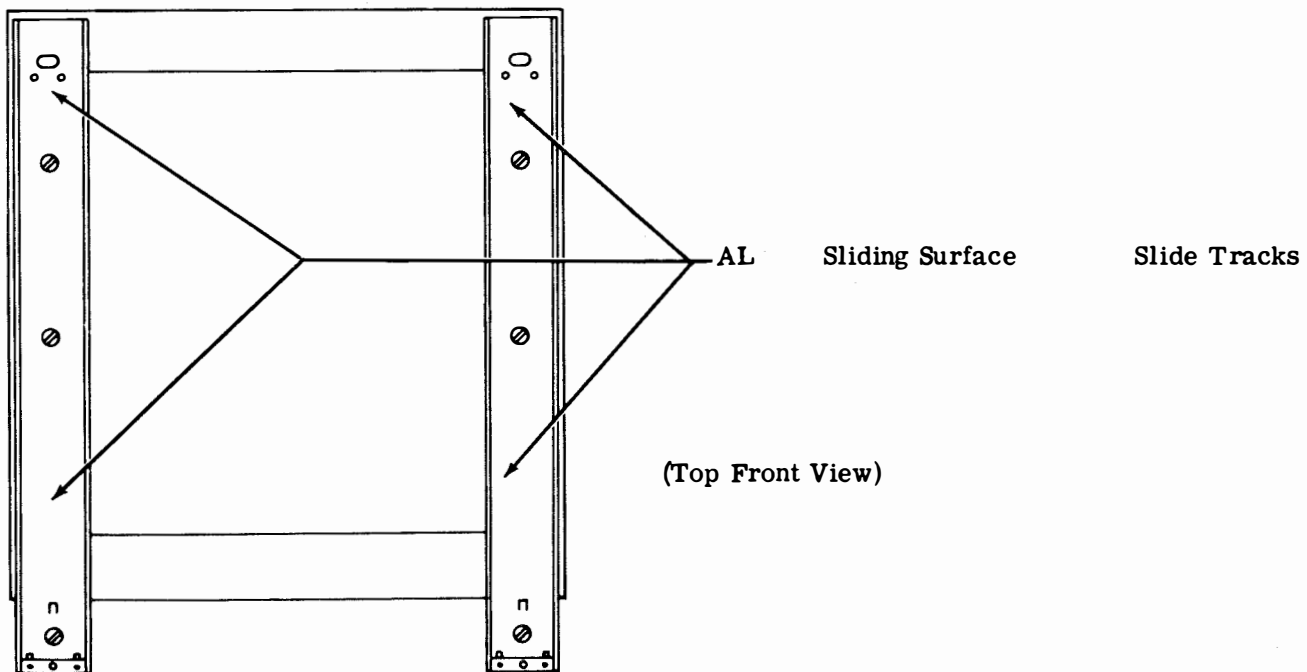
CABINET



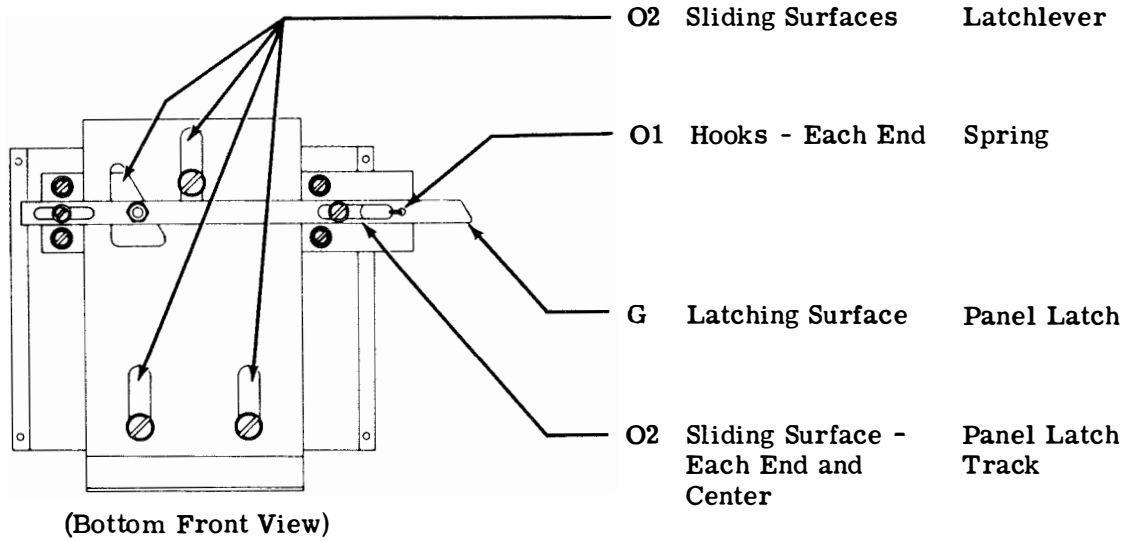
3.11 Top Panel Slides



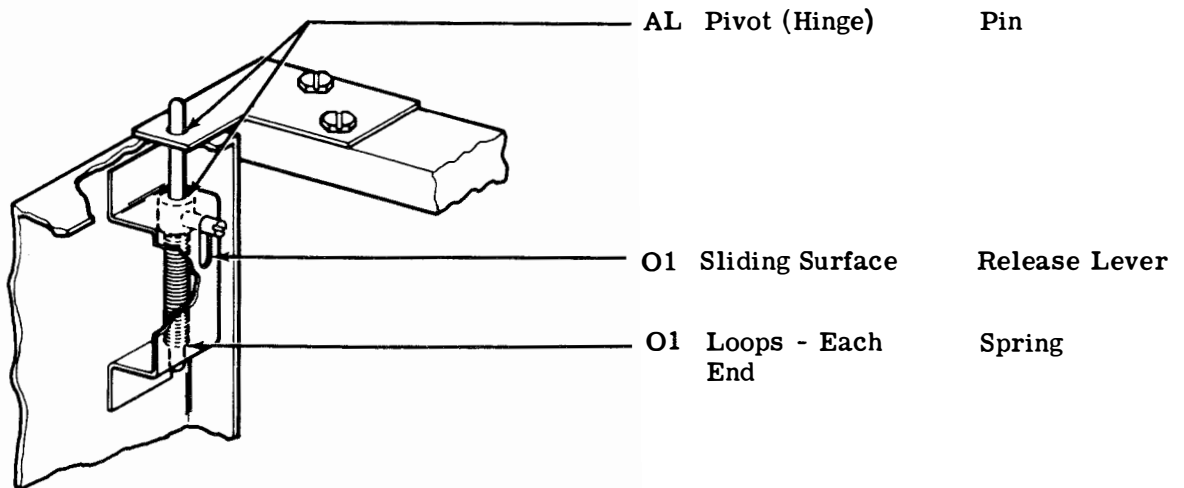
3.12 Top Panel Slide Tracks



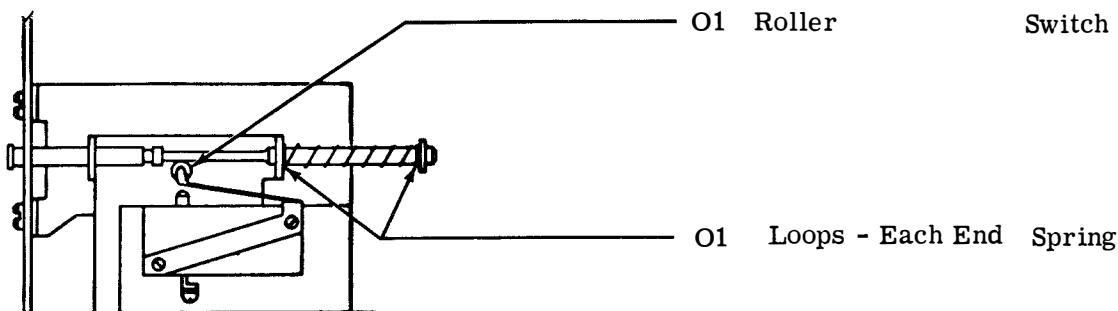
3.13 Sliding Panel Latch



3.14 Front Door Pivots (Hinge) — Upper and Lower

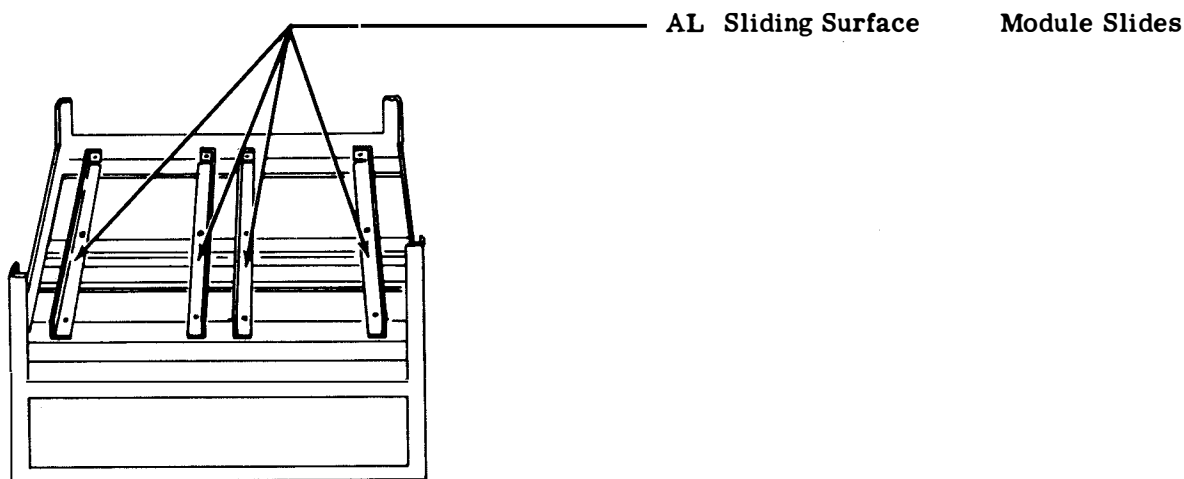


3.15 Interlock Override Switch

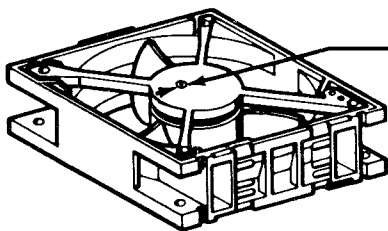


(Right Side View)

3.16 Module Slides



3.17 Ventilation Fans



Lubricate the fans every 10,000 hours using the TP194853 oil injector.

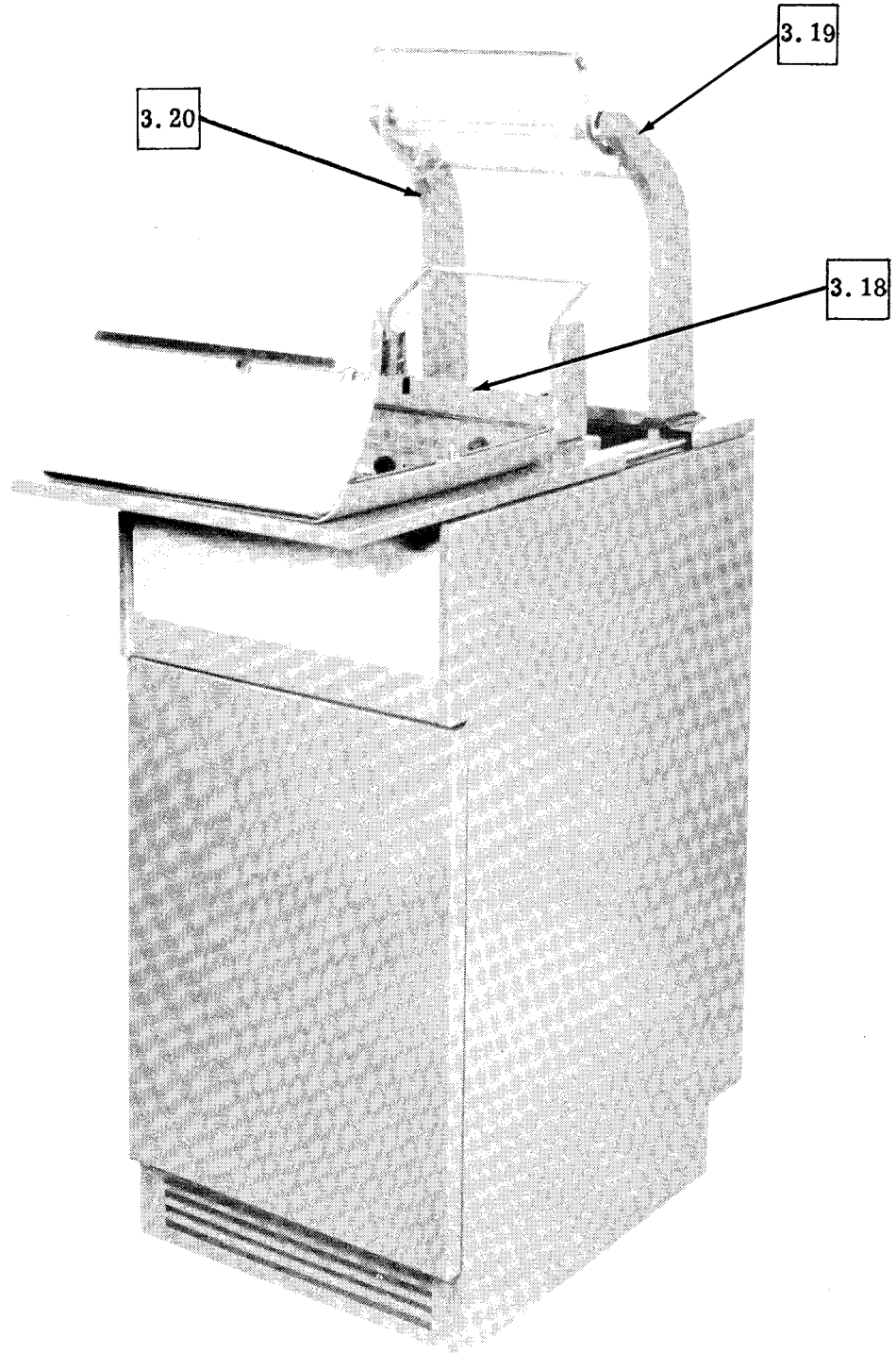
To lubricate:

- (1) Remove cap from end of oil injector.
- (2) Place needle at the center of the circle marked on the gold label.
- (3) Position the needle at an angle of approximately 45° to the surface of the label.
- (4) Pierce the label and the concealed self-sealing rubber cap located under the label.
- (5) Depress the oil injector plunger slowly to release approximately 1/8 inch of oil.

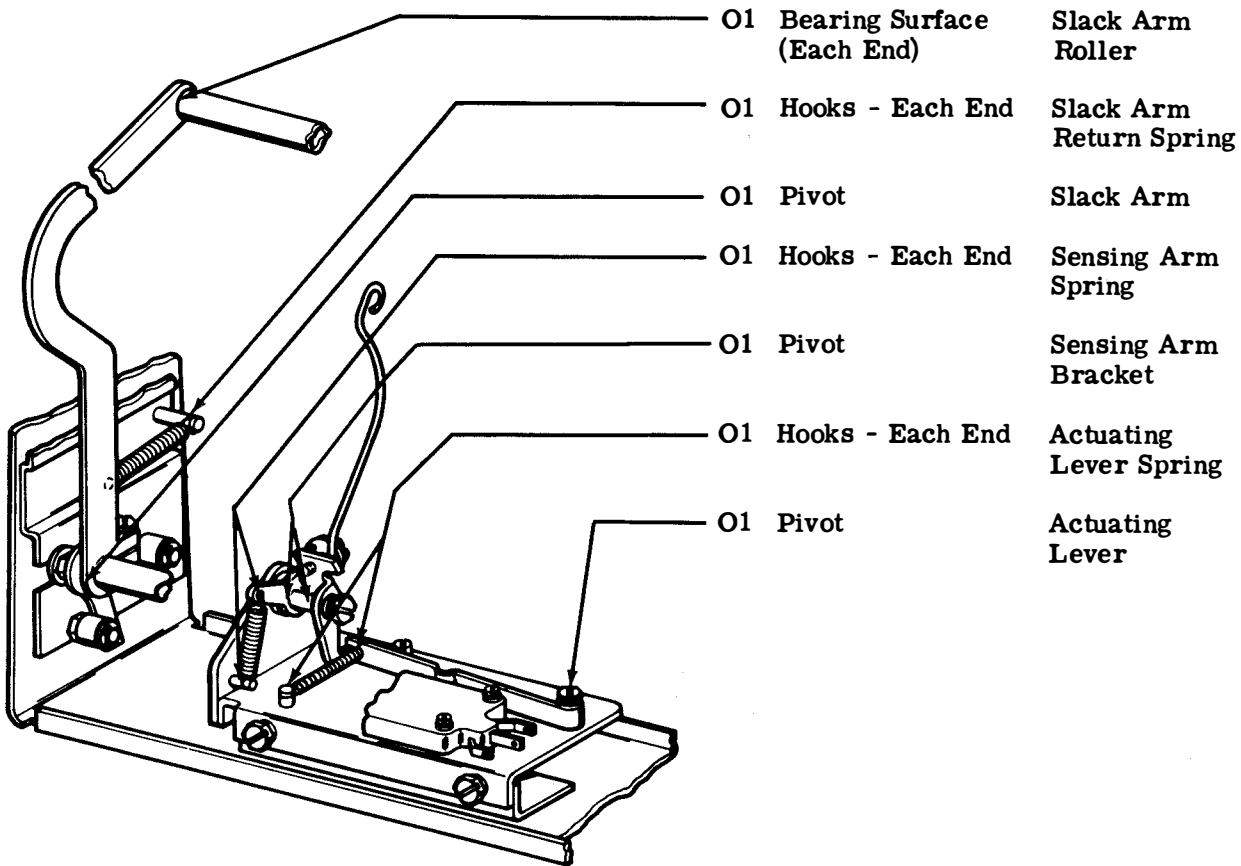
Note: Two fans are located in the cabinet base.



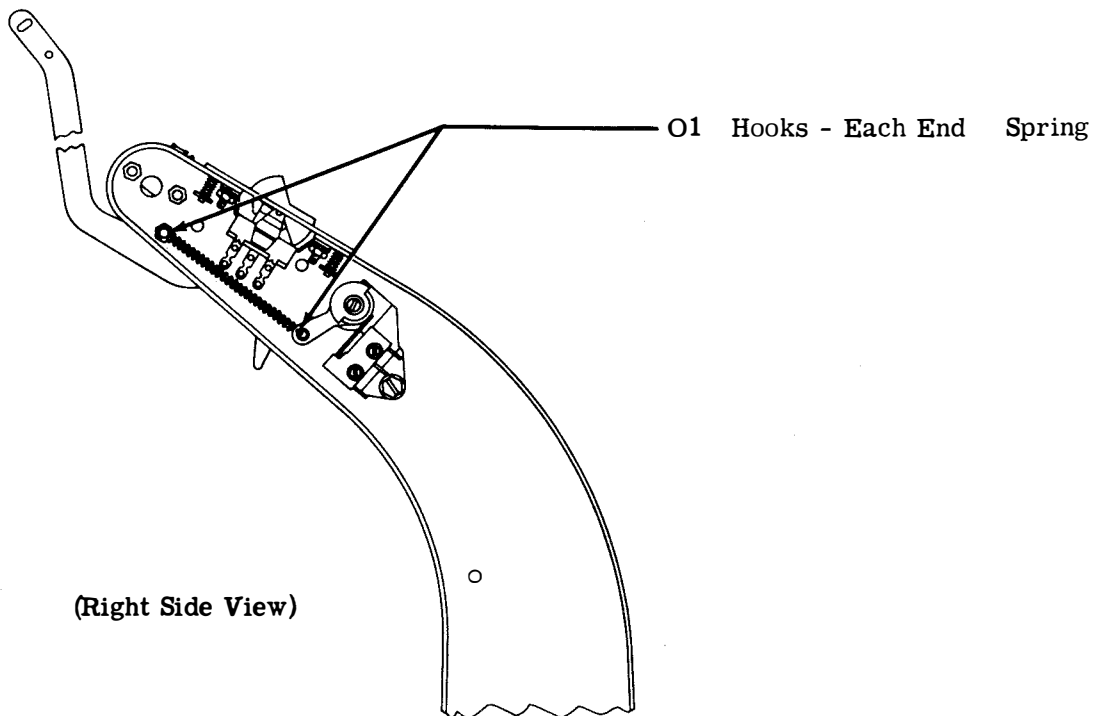
PAPER UNWINDER AND WINDER



3.18 Slack and Sensing Arms



3.19 Right Bracket



3.20 Left Bracket

