37 TAPE CABINET

ADJUSTMENTS

CONTENTS PAGE

1. GENERAL

1.01 This section provides adjustment procedures for the 37 tape cabinet (Figure 1).

1.02 The adjustments are arranged in a sequence which should be followed if a complete readjustment of the cabinet is undertaken. No single adjustment should be undertaken without first completely understanding the procedure and knowing the requirements. Therefore, read a procedure all the way through before making an adjustment. If one adjustment is changed, related adjustments should be checked.

1.03 Some tape cabinet adjustments are installation type adjustments and their performance depends upon the position of the transmitter (reader) and/or reperforator (punch). These installation type adjustments must be performed with an assembled and adjusted reader and/or punch. For other reader and punch adjustments, see Section 592-801-700 and 574-320-700 respectively.

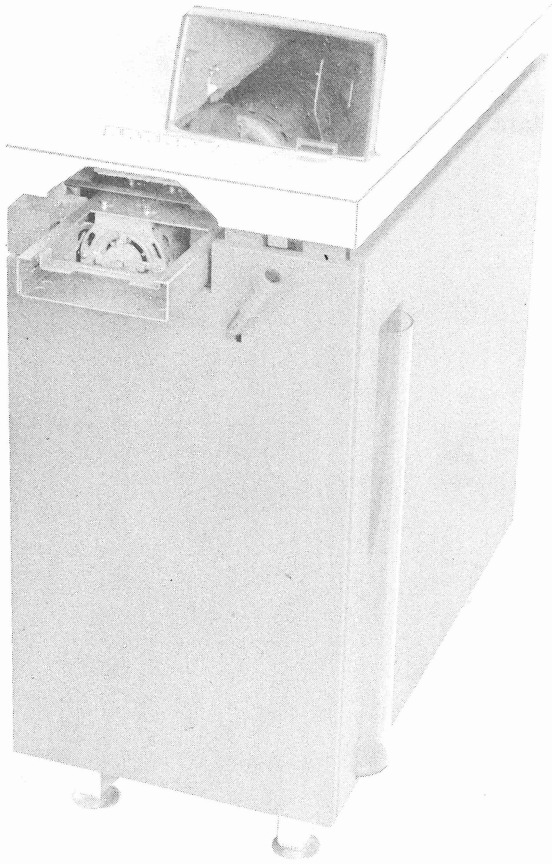


Figure 1 - Tape Cabinet

Prepared for American Telephone and Telegraph Company by Teletype Corporation

1.04 In the adjustment procedures, the location of clearances and position of parts are illustrated by line drawings. Requirements and procedures are presented in the several texts accompanying the line drawings. Tools necessary to maintain this equipment are illustrated in Section 570-005-800.

1.05 References made to left or right, front or rear, top or bottom, etc, apply to the cabinet in its normal operating position as viewed by the operator from the front of the cabinet (Figure 1).

1.06 When parts are removed to facilitate the making of an adjustment and subsequently replaced, check any adjustments which may have been affected by such removal and replacement of parts.

1.07 Unless specifically stated otherwise, make screws or nuts friction tight to make an adjustment and tighten them securely once the adjustment has been made.

1.08 The spring tensions specified in this section are indications, not exact values. Therefore to obtain reliable readings, it is important that spring tensions be measured by spring scales placed in the positions shown on pertinent line drawings. Springs that do not meet their requirements should be replaced by new ones. Only those springs that directly affect the operation of the cabinet are measured, however, others may be measured indirectly in the process. If, at first, the spring tension requirement cannot be met, replace the indicated spring being directly measured. Then, if the requirement is not met, any springs that are indirectly measured should be replaced, one at a time with the performance of requirement checks each time a spring is replaced.

Note: Use only spring scales found in Maintenance Tools Section 570-005-800.

1.09 When cleaning plastic parts such as the plastic window of the reperforator (punch) cover, use soap or detergent and water. Do not use solvents containing alcohol or chlorinated ingredients.

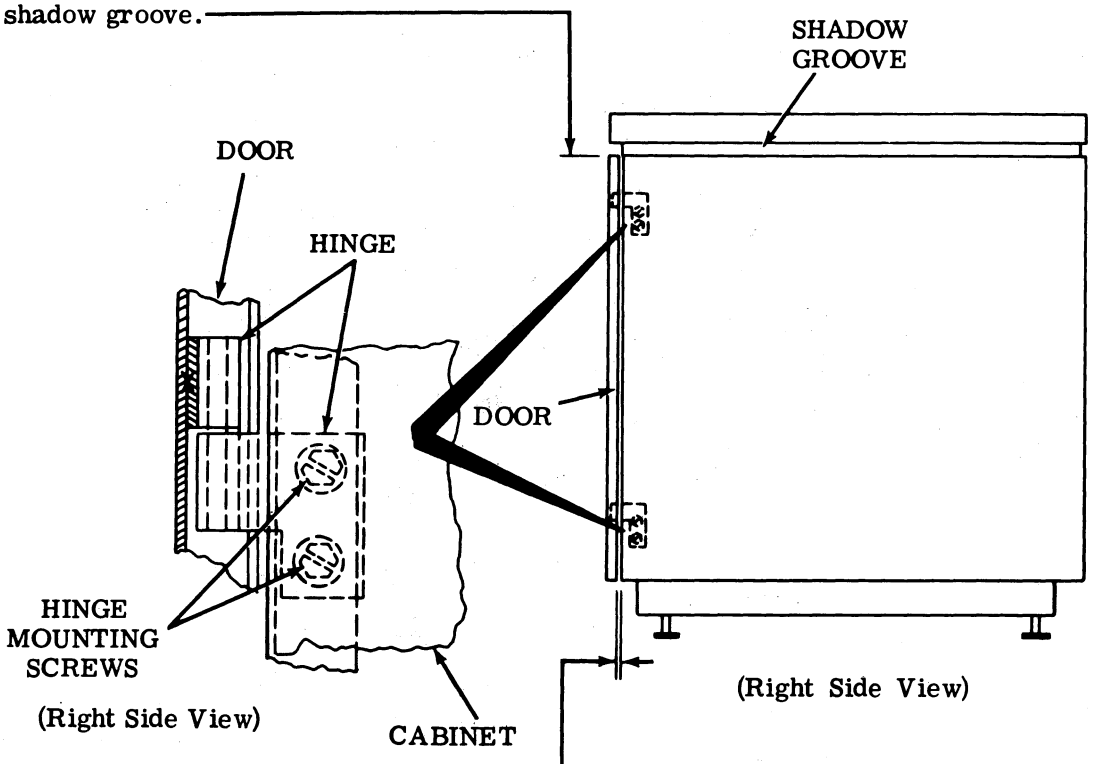
CAUTION: WHEN THE ASSEMBLY IS FUNCTIONALLY UTILIZED WITH A TYPING UNIT ETC, REMOVE POWER FROM EQUIPMENT BEFORE MAKING ANY ADJUSTMENTS.

2. BASIC UNIT

2.01 Door Mechanism

DOOR POSITION

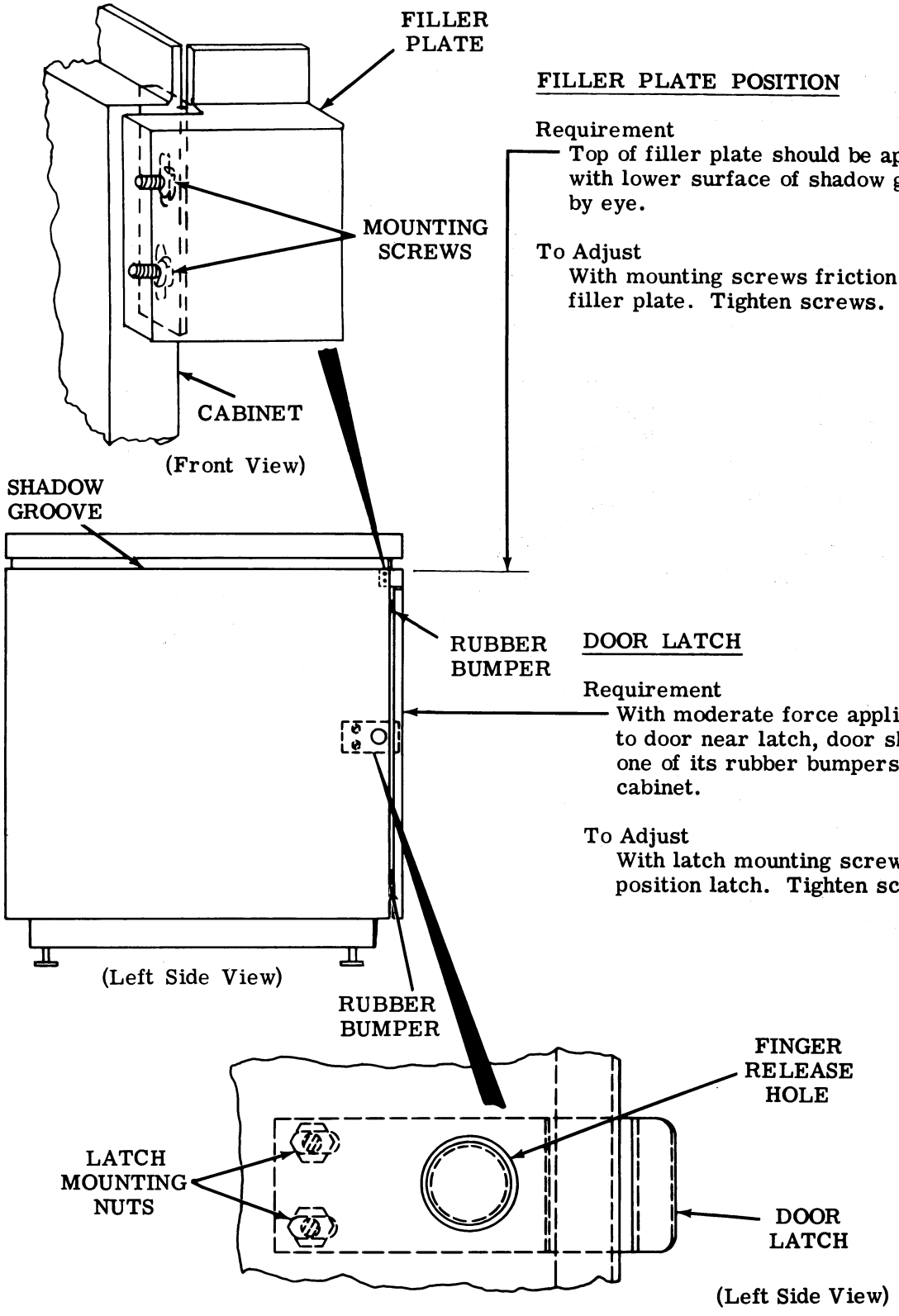
(1) Requirement
Top of door should be approximately even with lower surface of cabinet shadow groove.



(2) Requirement
Gap between door and cabinet should be parallel, as gauged by eye.

To Adjust
With hinge mounting screws loosened, position door. Tighten screws.

2.02 Door Mechanism (continued)



FILLER PLATE POSITION

Requirement

Top of filler plate should be approximately even with lower surface of shadow groove, as gauged by eye.

To Adjust

With mounting screws friction tight, position filler plate. Tighten screws.

DOOR LATCH

Requirement

With moderate force applied perpendicular to door near latch, door should latch and one of its rubber bumpers should contact cabinet.

To Adjust

With latch mounting screws friction tight, position latch. Tighten screws.

2.03 Cabinet Top Mechanism

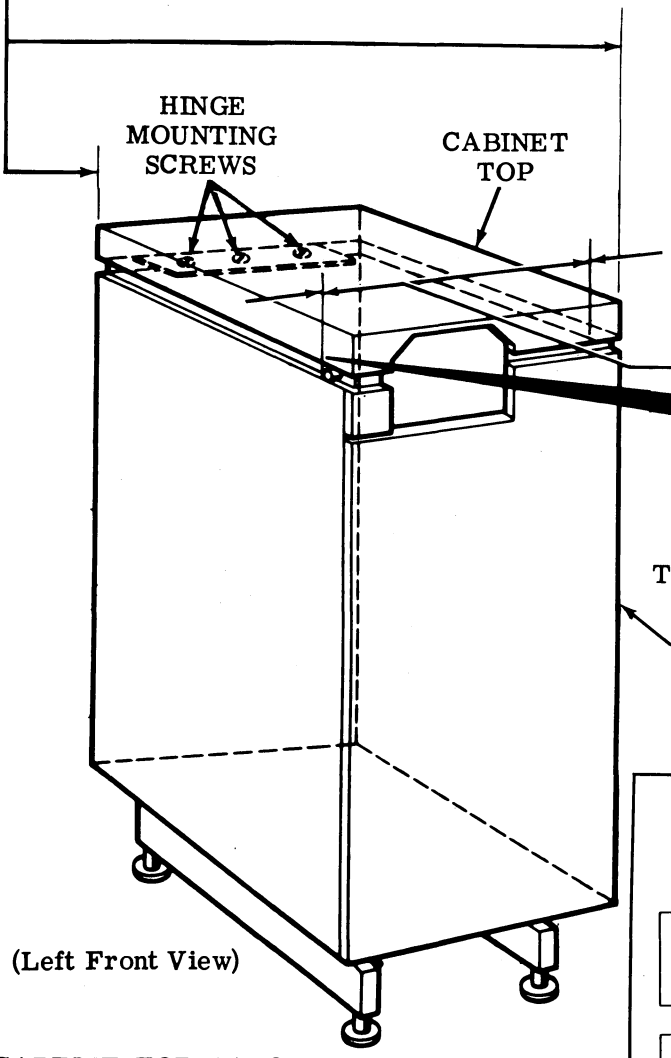
CABINET TOP HINGE

Requirement

Cabinet top should be centered over cabinet sides and approximately flush with cabinet door front surface.

To Adjust

With hinge mounting screws friction tight, position cabinet top. Tighten screws.



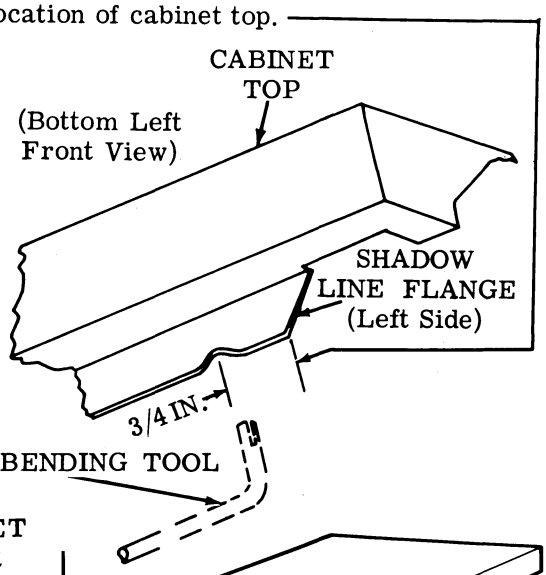
CABINET TOP SIDE PLAY

Requirement

There should be minimum cabinet top side play between front left and right shadow line flanges.

To Adjust

Place TP72575 bending tool approximately 3/4-inch from front edge of one shadow line flange and twist bending tool to form an outward projection on flange. Repeat for either or both flanges until requirement is met. Take care to retain central location of cabinet top.



CABINET TOP LATCH

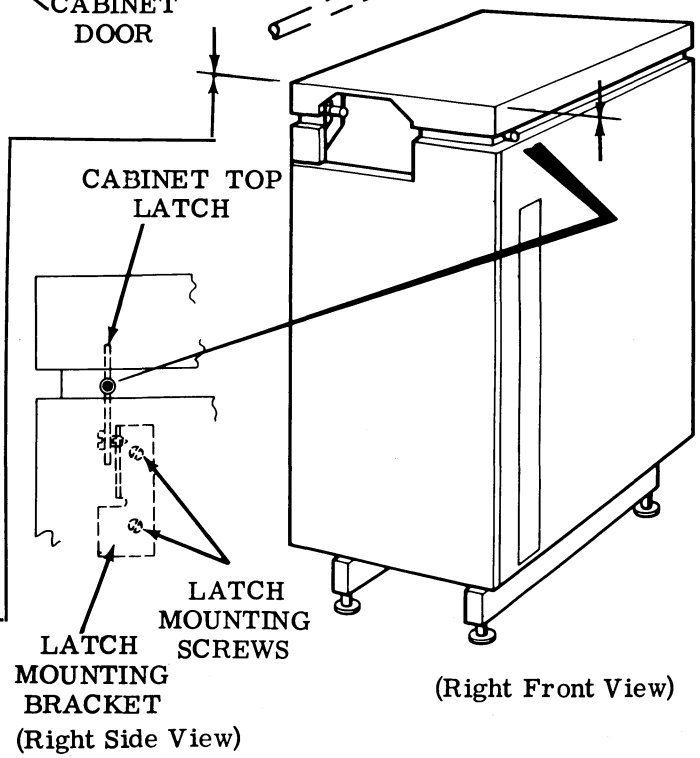
Note: Adjustment must be made with reader mounting bracket removed.

Requirement

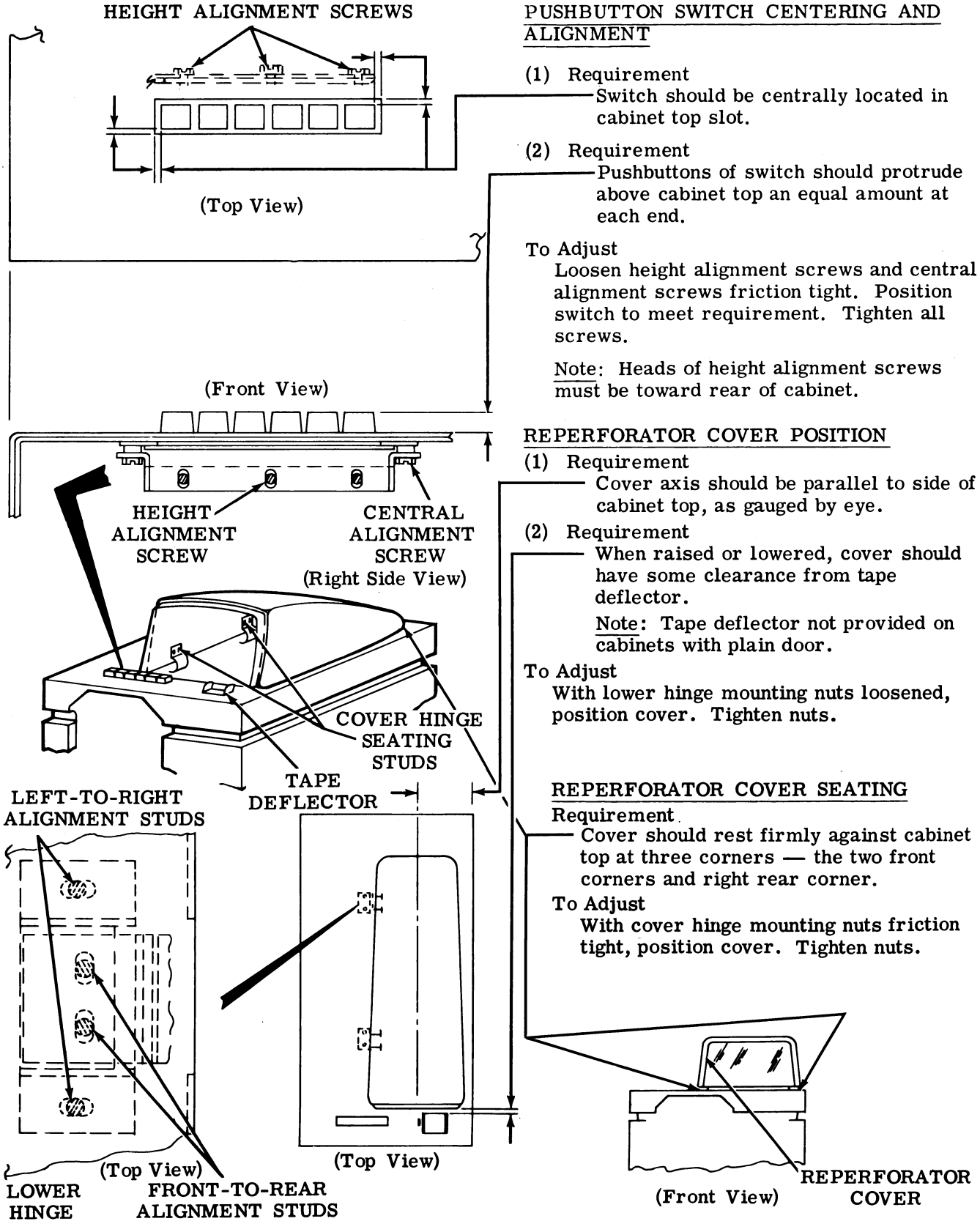
Both sides of cabinet top should latch with little vertical play.

To Adjust

With latch mounting screws friction tight, and cabinet top down, position latches. Tighten screws.



2.04 Pushbutton Switch and Reperforator Cover



PUSHBUTTON SWITCH CENTERING AND ALIGNMENT

(1) Requirement
Switch should be centrally located in cabinet top slot.

(2) Requirement
Pushbuttons of switch should protrude above cabinet top an equal amount at each end.

To Adjust
Loosen height alignment screws and central alignment screws friction tight. Position switch to meet requirement. Tighten all screws.

Note: Heads of height alignment screws must be toward rear of cabinet.

REPERFORATOR COVER POSITION

(1) Requirement
Cover axis should be parallel to side of cabinet top, as gauged by eye.

(2) Requirement
When raised or lowered, cover should have some clearance from tape deflector.

Note: Tape deflector not provided on cabinets with plain door.

To Adjust
With lower hinge mounting nuts loosened, position cover. Tighten nuts.

REPERFORATOR COVER SEATING

Requirement
Cover should rest firmly against cabinet top at three corners — the two front corners and right rear corner.

To Adjust
With cover hinge mounting nuts friction tight, position cover. Tighten nuts.

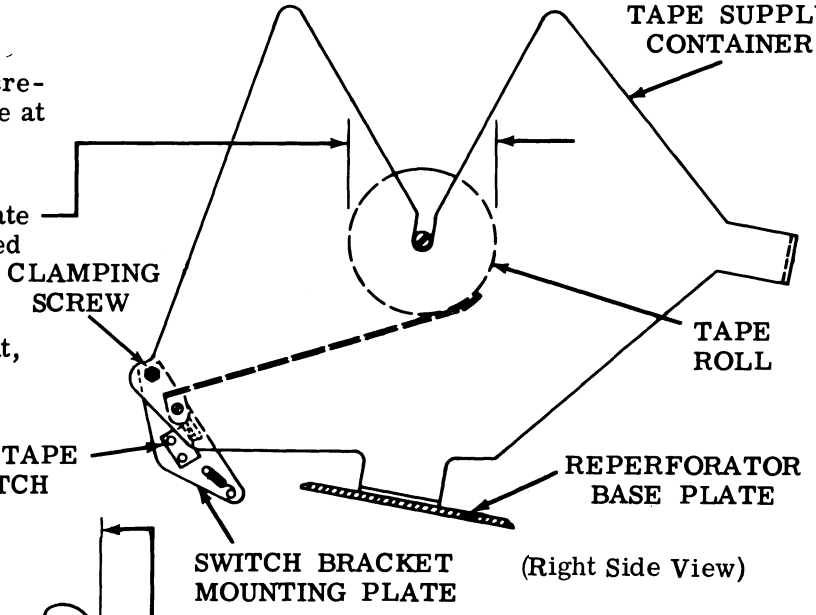
2.05 Low Tape, Tight Tape, and Motor Mechanism

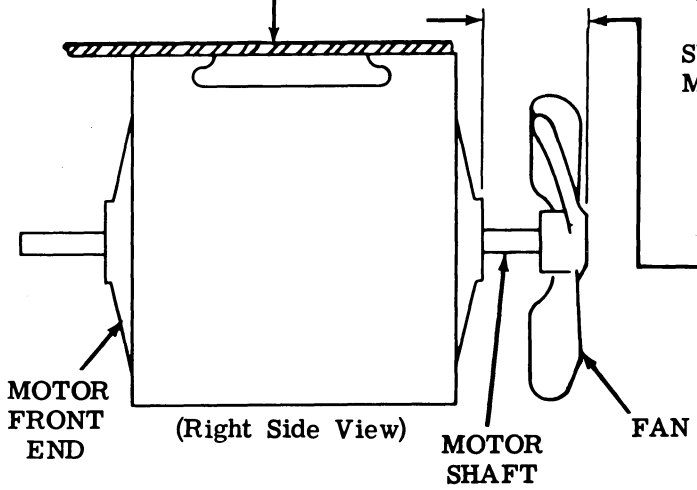
LOW TAPE ALARM (Preliminary)

Note: Final adjustment is at discretion of customer and may be made at time of installation.

Requirement
Low tape switch should just operate when tape roll diameter is reduced to approximately 2-1/2 inches.

To Adjust
With clamping screw friction tight, position switch bracket mounting plate. Tighten screw.





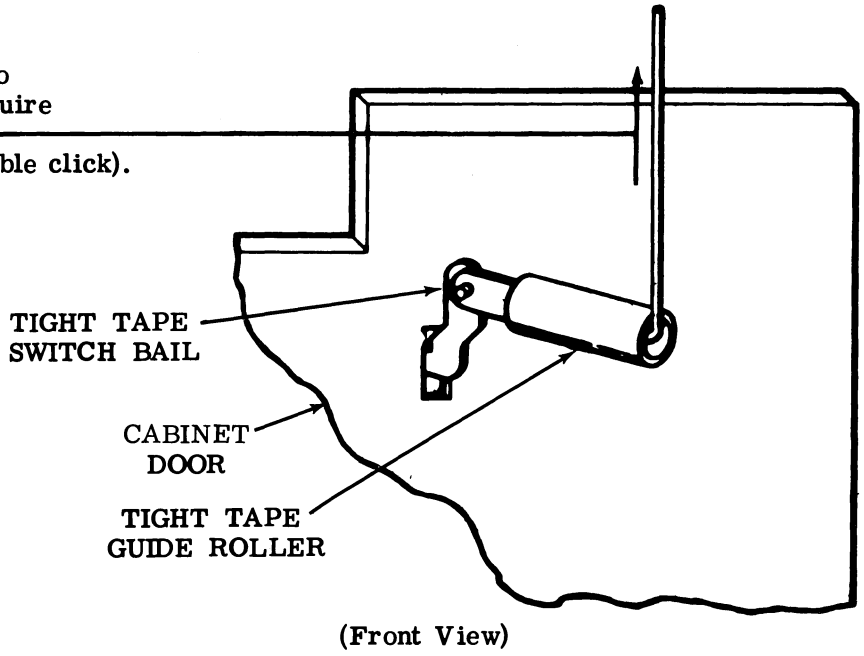
MOTOR FAN LOCATION

Requirement
Rear surface of fan should be Min 0.875 inch---Max 1 inch from rear motor bearing housing.

To Adjust
Slide fan along motor shaft to meet requirement.

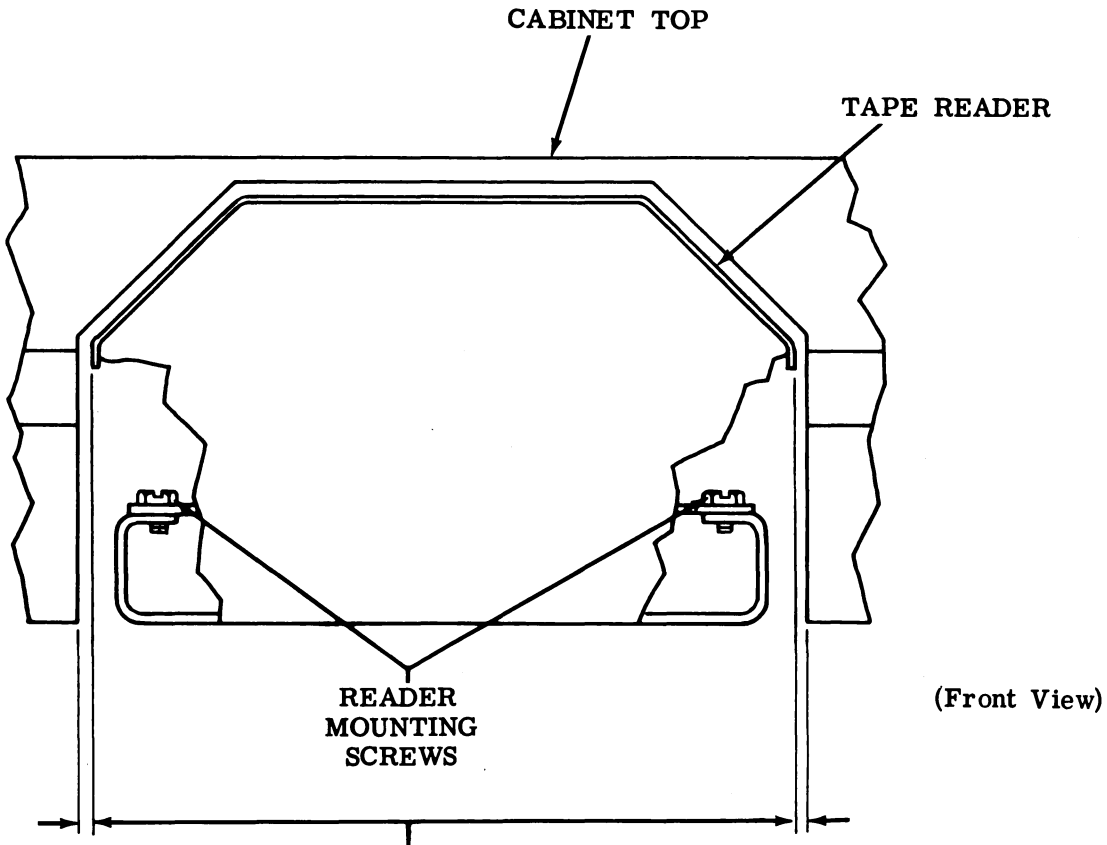
TIGHT TAPE SWITCH BAIL

Requirement
With tight tape guide roller set to horizontal position, it should require Min 3-1/4 oz---Max 4 oz to operate tight tape switch (audible click).



2.06 Tape Reader Base

Note: This adjustment is required only at time of installation or upon reassembly.



READER POSITIONING — LEFT TO RIGHT

Requirement
Reader should be approximately centered in cabinet opening provided.

To Adjust
With three reader mounting screws loosened, position reader left or right. Tighten screws.

2.07 Tape Reader Base (continued)

Note: This adjustment is required only at time of installation or upon reassembly.

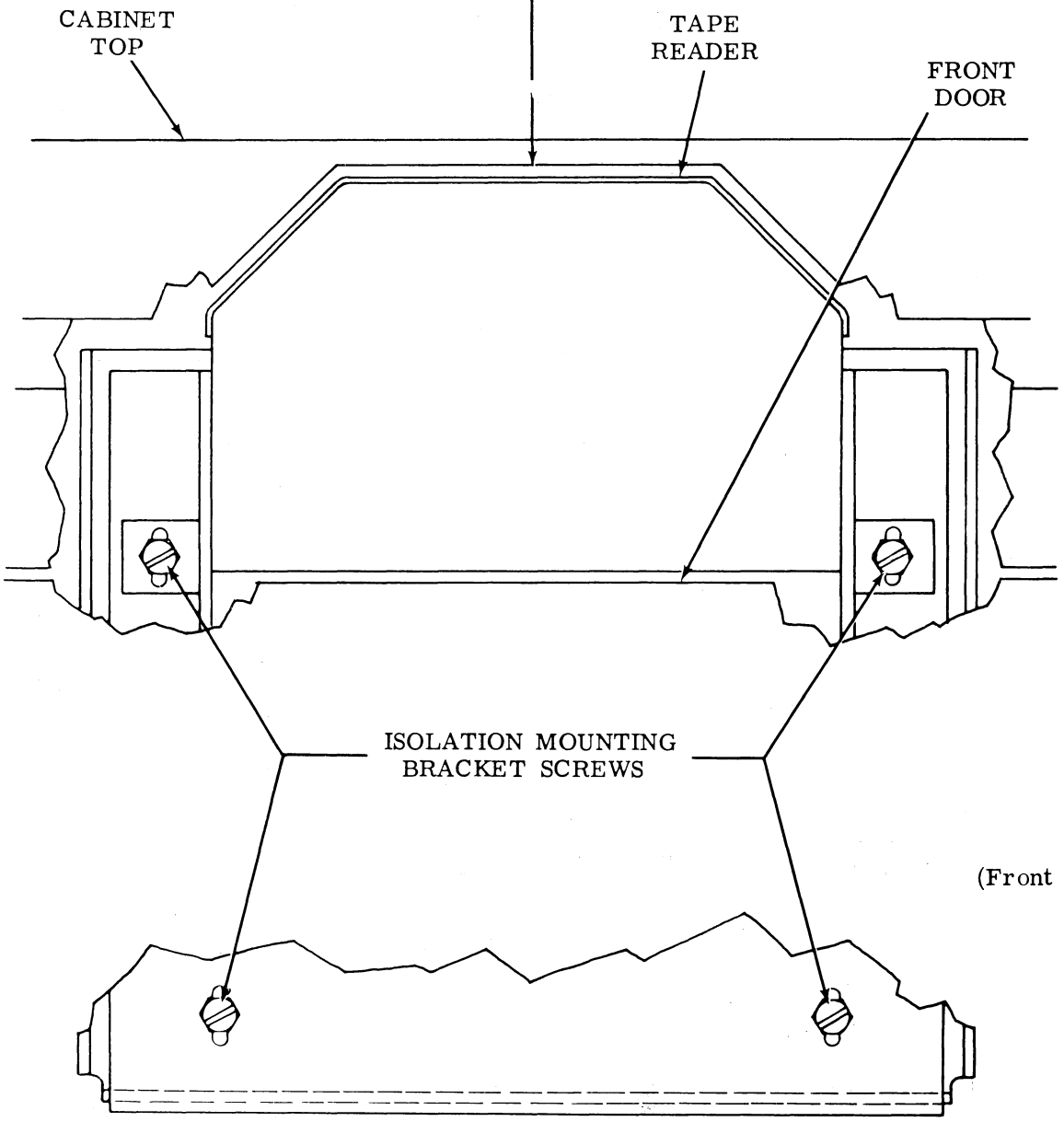
READER POSITIONING — VERTICAL

Requirement

Reader should be approximately centered vertically in cabinet opening provided.

To Adjust

With four isolation mounting bracket screws and two motor start capacitor mounting bracket nuts loosened, swing capacitor aside and position reader vertically. Tighten four isolation mounting bracket screws. Replace capacitor and tighten two motor start capacitor mounting bracket nuts.



(Front View)

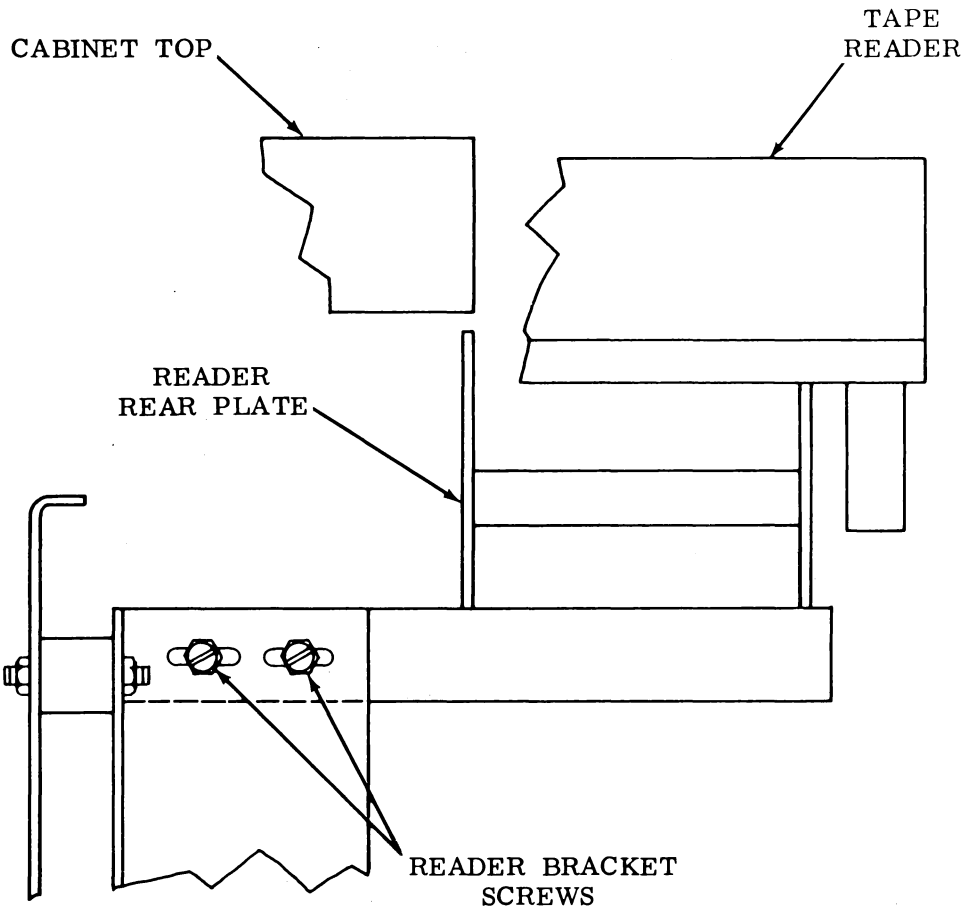
2.08 Tape Reader Base (continued)

Note: This adjustment is required only at time of installation or upon reassembly.

READER POSITIONING — FRONT TO REAR

Requirement
Reader rear plate should be approximately in line with cabinet top front surface.

To Adjust
With four reader bracket screws loosened, position reader to front or rear. Tighten screws.



(Left Side View)

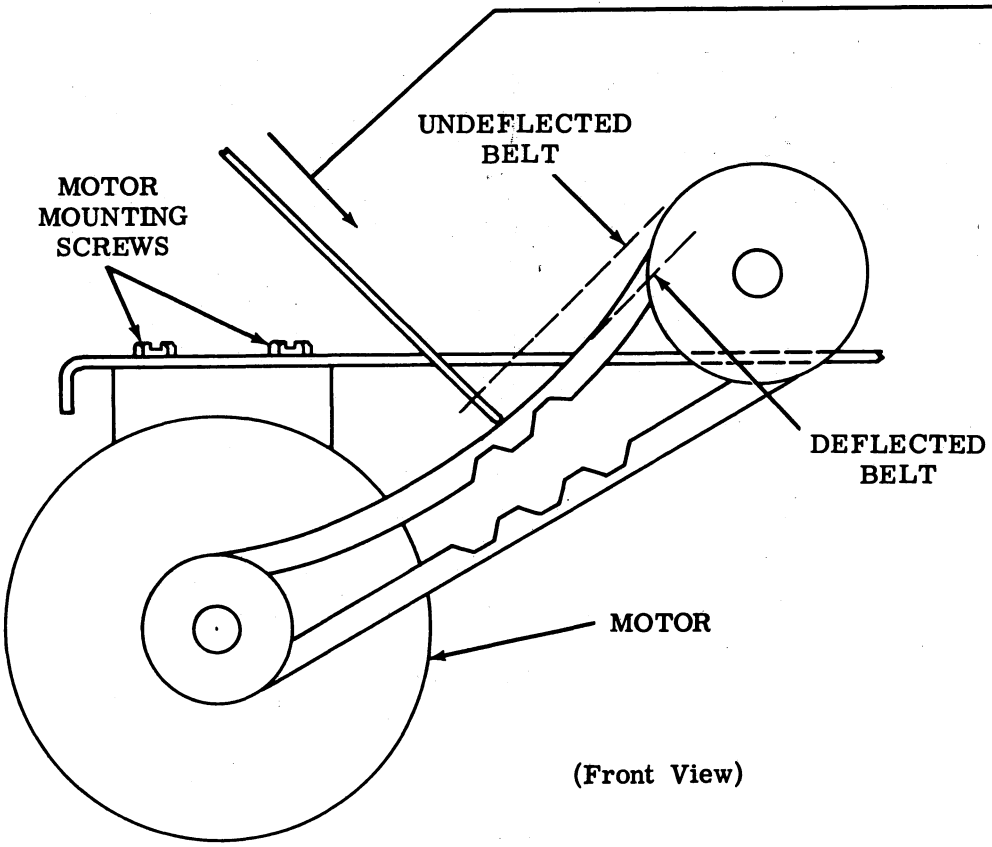
2.09 Tape Reader Base (continued)

Note: This adjustment is required only at time of installation or upon reassembly.

READER DRIVE BELT TENSION

Requirement
Belt should deflect
Min 3/8 inch---Max 5/8 inch
with 5 oz force applied at center of belt span.

To Adjust
Loosen motor mounting screws. Position motor to meet requirement. Tighten mounting screws.



(Front View)

2.10 Reperforator Gear Mechanism

Note: This adjustment required only at time of installation or upon reassembly.

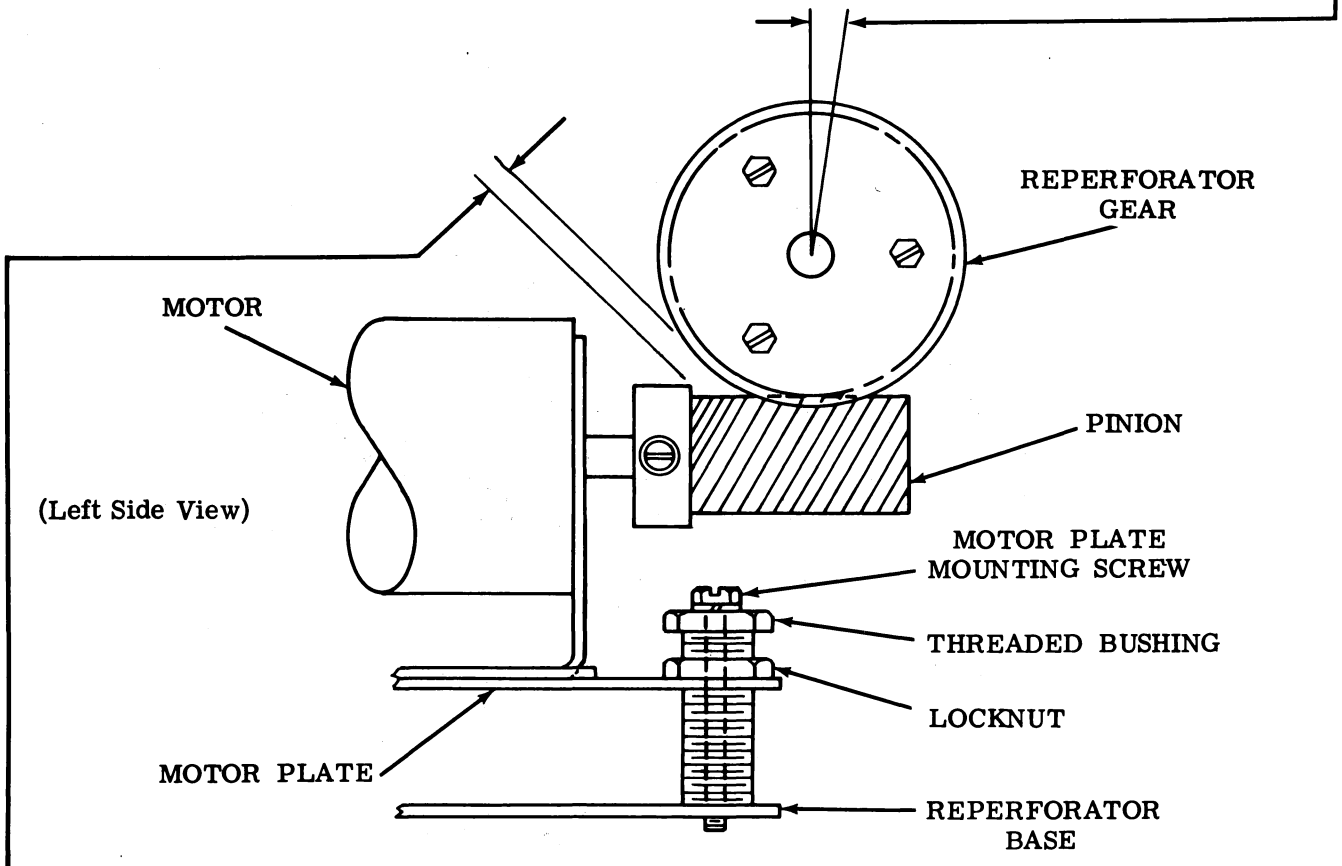
REPERFORATOR GEAR MESH

Requirement

Min 0.004 inch---Max 0.008 inch backlash, as gauged by feel, between reperforator gear and motor pinion at point(s) of least backlash.

To Adjust

With two motor plate mounting screws and two bushing locknuts loosened, turn both threaded bushings up or down. Tighten nuts and screws and recheck.



PINION RETAINER AND GEAR CLEARANCE

Requirement

There should be some clearance between pinion retainer and reperforator gear.

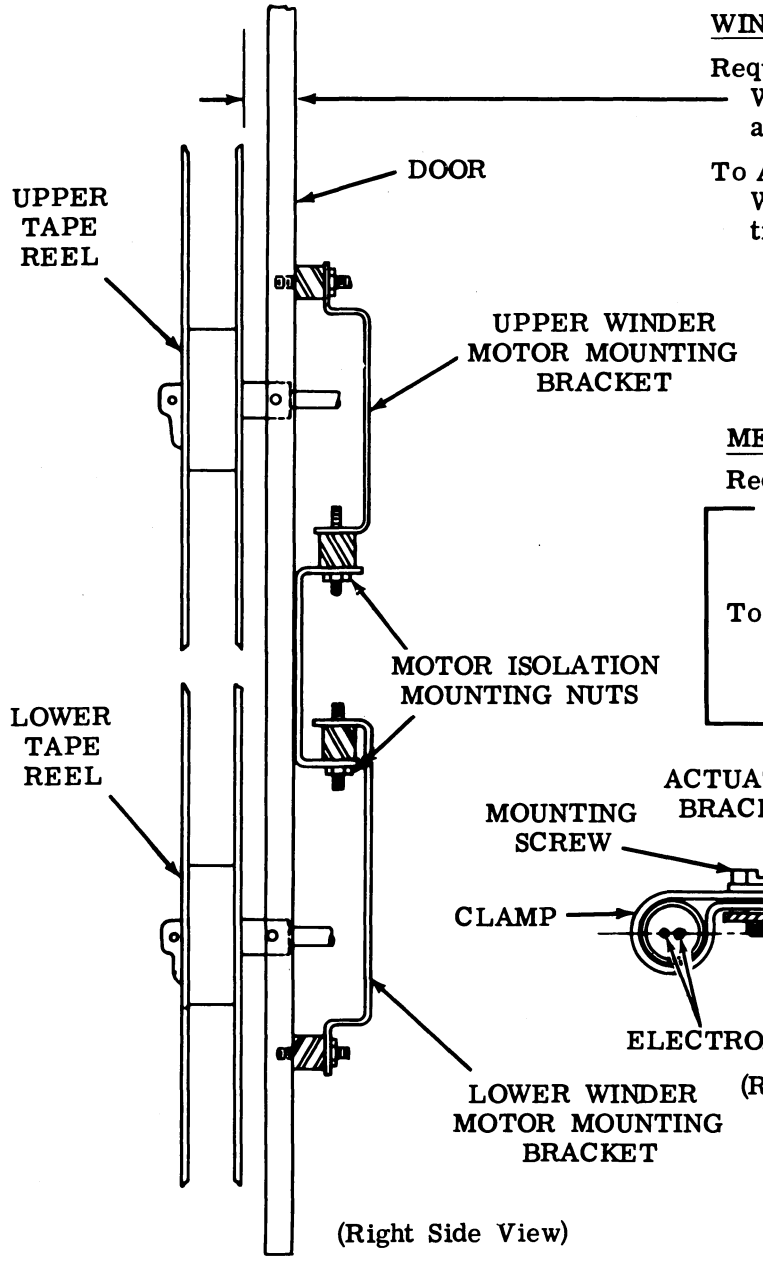
To Adjust

With its four mounting screws loosened, position motor mounting plate.

3. TAPE HANDLING DOORS

3.01 Tape Handling Mechanisms

Note: These adjustments apply to cabinets equipped with a tape handling door.



(Right Side View)

WINDER MOTOR MOUNTING

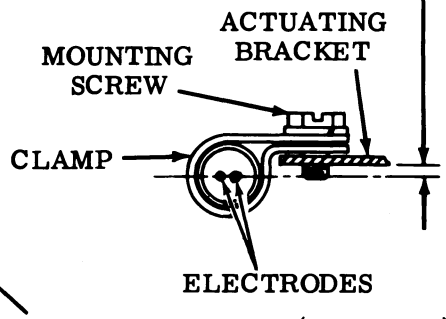
Requirement
Winder tape reel should be parallel to door as gauged by eye.

To Adjust
With motor isolation mounting nuts friction tight, position motor. Tighten nuts.

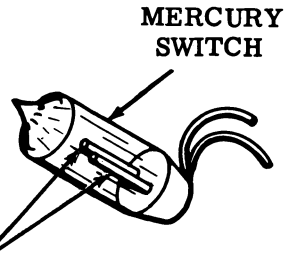
MERCURY SWITCH

Requirement
Switch or switches should be clamped to respective actuating bracket with both electrodes in a horizontal plane.

To Adjust
With clamp mounting screw friction tight, rotate switch in its clamp. Tighten screw.



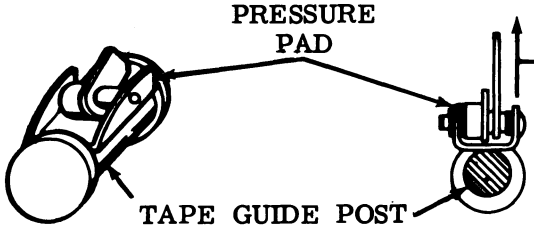
(Rear View)



(Left Rear View)

TAPE PRESSURE PAD SPRING

Requirement
Min 22 oz---Max 25 oz to start pressure pad moving away from tape guide post.

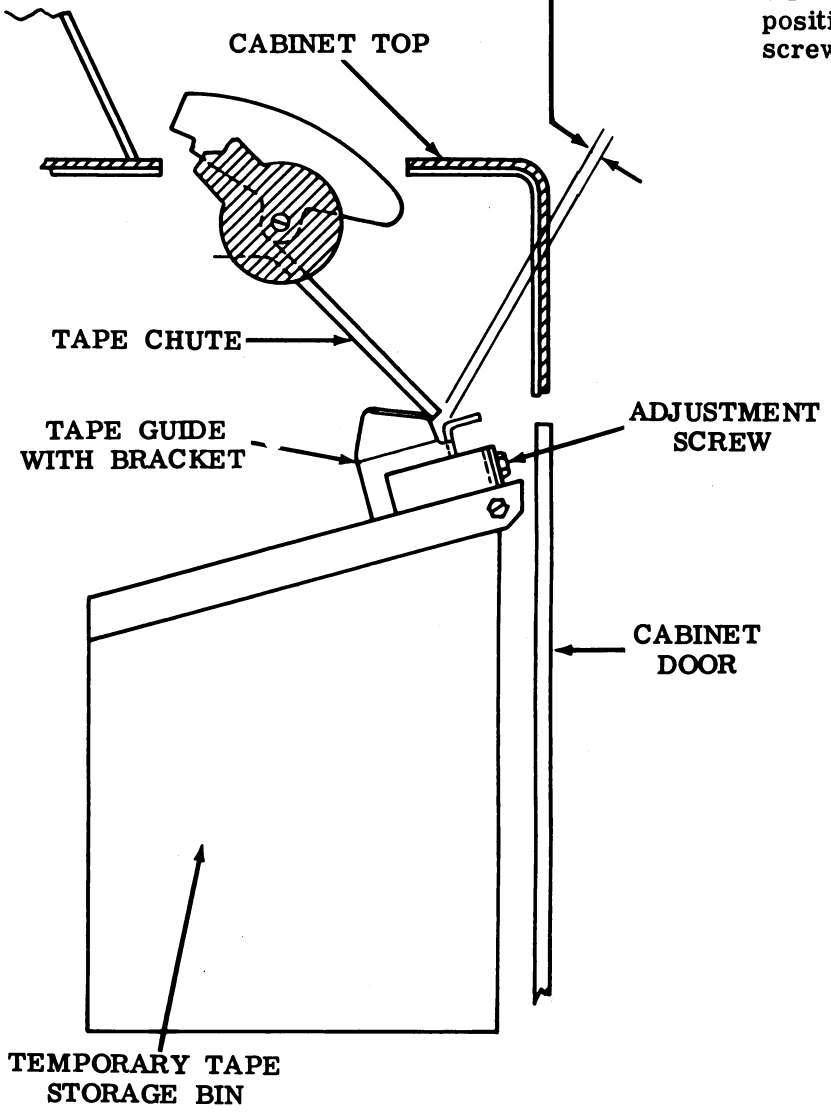


(Right Front View)

(Front View)

3.02 Tape Handling Mechanisms (continued)

Note: This adjustment applies to cabinets equipped with a temporary tape storage bin.



(Left Side View)

TAPE GUIDE

Requirement

With tape bin fully inserted in cabinet there should be

Min 0.030 inch---Max 0.125 inch clearance between tape chute and tape guide.

To Adjust

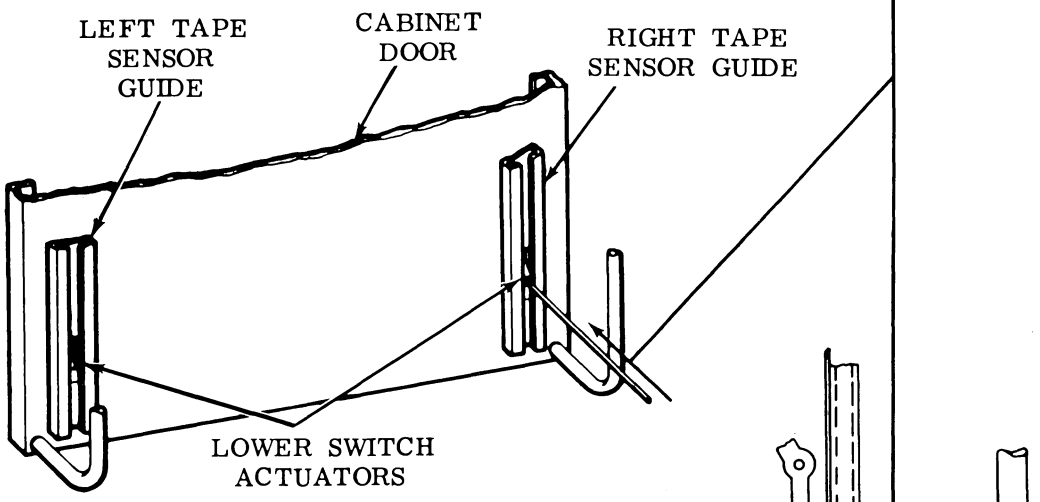
With adjustment screw friction tight, position tape guide bracket. Tighten screw.

3.03 Tape Handling Mechanisms (continued)

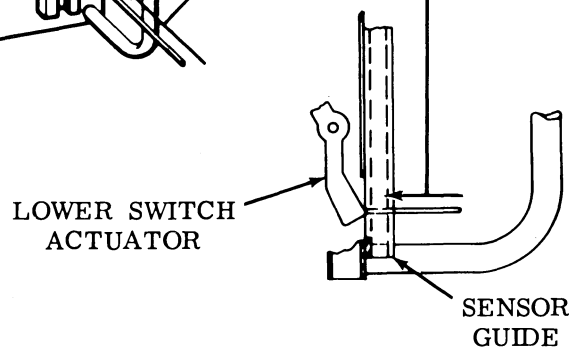
Note: These adjustments apply to cabinets equipped with a tape handling door.

LOWER MERCURY SWITCH ACTUATOR

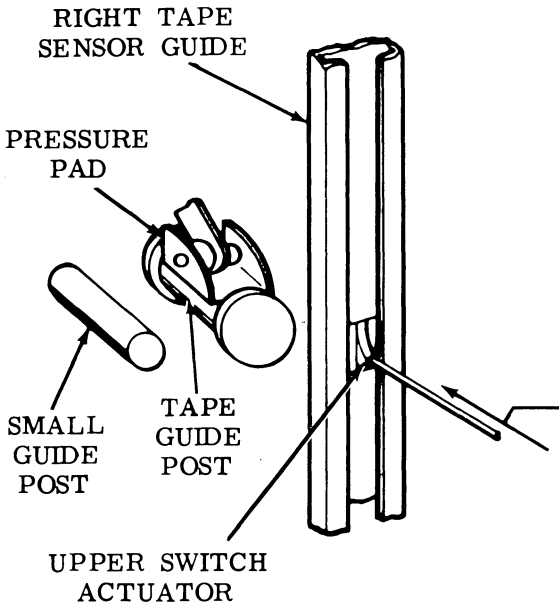
Requirement
With respective tape sensor latched, it should require
Min 1/4 oz---Max 1 oz
to move actuator tip approximately flush
with tape sensor guide opening.



(Left Front View)



(Left Side View)



(Left Front View)

UPPER MERCURY SWITCH ACTUATOR

Requirement
With right tape sensor unlatched, it should require
Min 1/4 oz---Max 1 oz
to move actuator tip approximately flush with right
tape sensor guide opening.