28 REPERFORATOR AND TAPE PRINTER BASES

ADJUSTMENTS

CONTENTS PAGE

1. GENERAL

1.01 This section contains the sepcific adjustments for the following 28 reperforator and tape printer bases:

Prepared for American Telephone and Telegraph Company by Teletype Corporation

(a) Receive-only base

(b) Multiple receive-only base

(c) Auxiliary receive-only base

(d) Receive-only miniaturized tape printer base

(e) Receive-only miniaturized typing reperforator base

(f) Sliding subbase

Note: Remove power from set (or unit) before making adjustment.

1.02 This section has been revised to include recent engineering changes and additions, and to rearrange the text so as to bring the section generally up-to-date. Since this is an extensive revision, marginal arrows ordinarily used to indicate changes have been omitted.

1.03 Maintenance procedures which apply only to mechanisms of a particular design, or to certain models of 28 bases, are so indicated in the titles of the paragraphs which contain these particular adjustment requirements.

1.04 The adjustments are arranged in a sequence that should be followed if a complete readjustment of the unit were undertaken. The tools and spring scales required to perform these adjustments are listed in the applicable section. After an adjustment is completed, be sure to tighten any nuts or screws that are loosened. The adjusting illustrations indicate tolerances, positions of moving parts, spring tensions and the angles at which scales should be applied when measuring spring tension. If a part mounted on shims is removed, the number of shims used at each of its mounting screws should be noted so that the same number is replaced when the part is remounted.

1.05 References made to left or right, up or down, front or rear, etc apply to the unit as viewed from the front (Figures 1, 2, 3 and 4).

1.06 All electrical contact points should meet squarely. Contacts with the same diameter should not be out of alignment more than 25 per cent of the contact diameter. Check contacts for pitting and corrosion and clean or burnish them before making specified adjustment or tolerance measurement. Avoid sharp kinks or bends in the contact springs.

CAUTION: KEEP ALL ELECTRICAL CONTACTS FREE OF OIL AND GREASE.

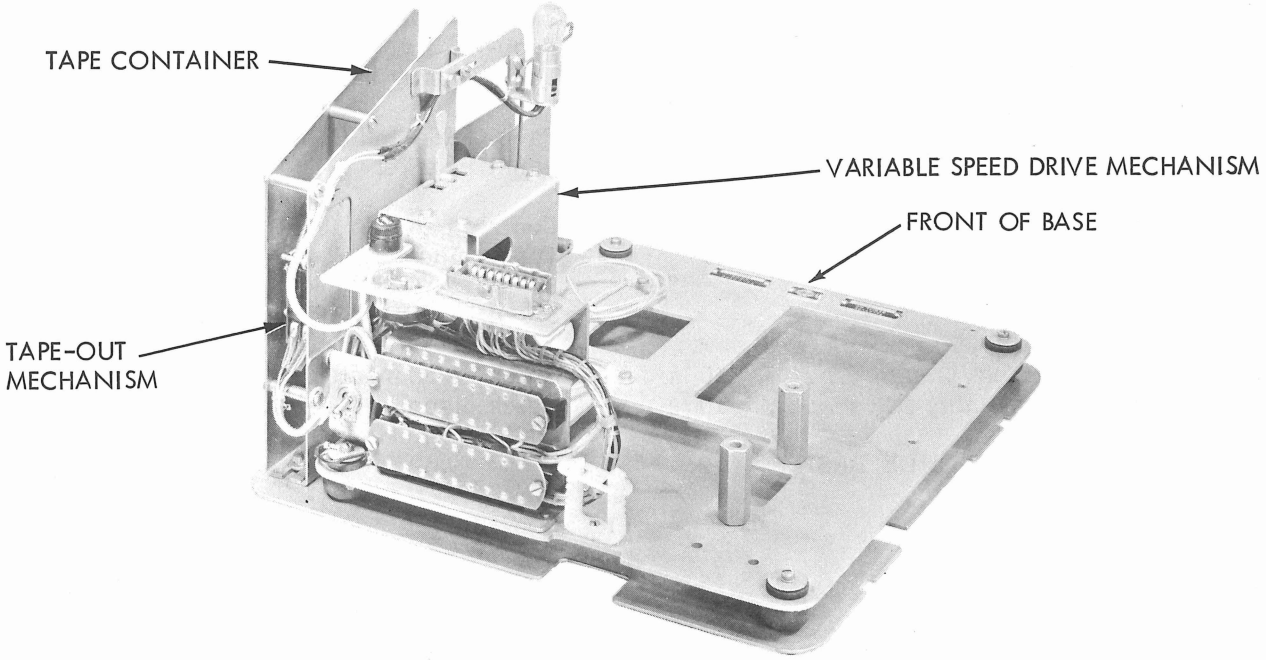


Figure 1 - 28 Receive-Only Reperforator Base (Rear View)

2. RECEIVE-ONLY BASES

2.01 Tape-Out Mechanism

(A) TAPE-OUT LEVER

REQUIREMENT

TAPE-OUT LEVER SHOULD BE ABLE TO PUSH BOTH SWITCH LEVERS AWAY FROM SWITCH ACTUATORS BUT SHOULD NOT BE ABLE TO LIFT WOOD FILLER WITH DEPLETED TAPE ROLL OUT OF SLOTS IN TAPE CONTAINER.

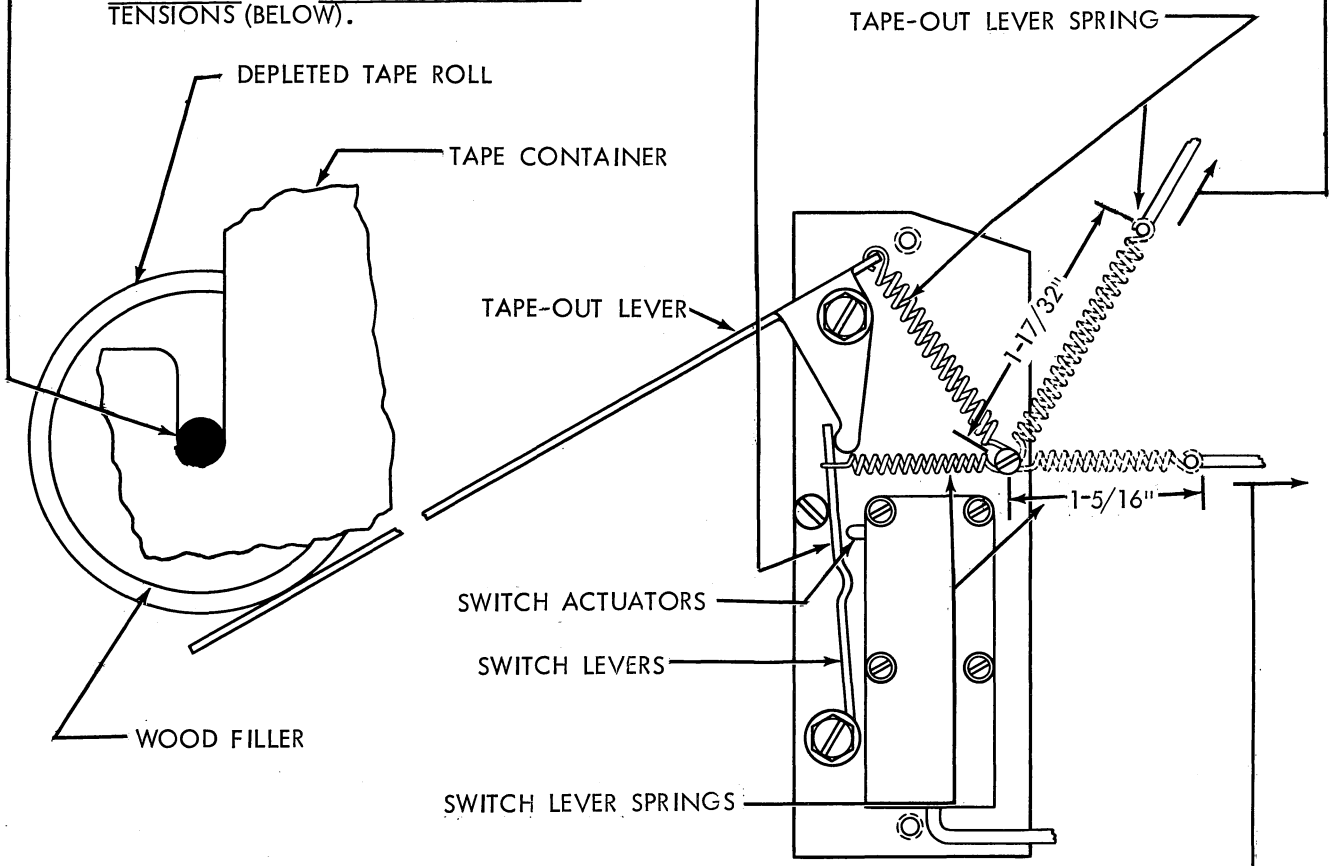
TO ADJUST

IF REQUIREMENT IS NOT MET, CHECK TAPE-OUT LEVER AND SWITCH LEVER SPRING TENSIONS (BELOW).

(B) TAPE-OUT LEVER SPRING

REQUIREMENT

MIN. 6 OZS.-----MAX. 8 OZS. TO PULL SPRING TO LENGTH OF 1-17/32 INCHES.



(RIGHT SIDE VIEW)

(C) SWITCH LEVER SPRINGS (2).

REQUIREMENT

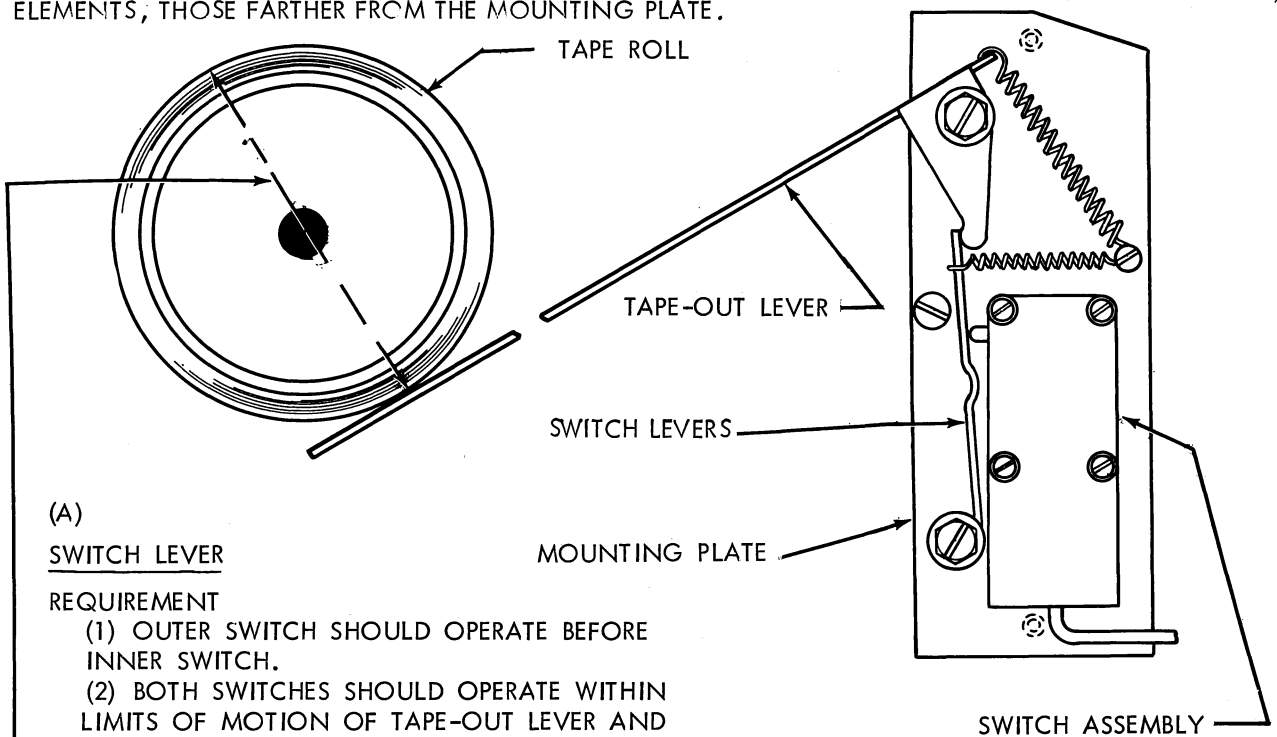
MIN. 1-3/4 OZS.----MAX. 2-1/4 OZS. TO PULL SPRING TO LENGTH OF 1-5/16 INCHES.

2.02 Tape-Out Mechanism continued

NOTE 1:

THE INNER ELEMENTS ARE THESE NEARER THE MOUNTING PLATE; THE OUTER ELEMENTS, THOSE FARTHER FROM THE MOUNTING PLATE.

(RIGHT SIDE VIEW)



(A)

SWITCH LEVER

REQUIREMENT

(1) OUTER SWITCH SHOULD OPERATE BEFORE INNER SWITCH.

(2) BOTH SWITCHES SHOULD OPERATE WITHIN LIMITS OF MOTION OF TAPE-OUT LEVER AND WHEN DIAMETER OF TAPE ROLL IS REDUCED TO FIRST 1-5/16 INCHES DIAMETER, THEN TO 1-3/16 INCHES DIAMETER (WHEN USING A 1 INCH DIAMETER CORE).
FIRST 2-7/16 INCHES DIAMETER, THEN TO 2-5/16 INCHES DIAMETER (WHEN USING A 2 INCH DIAMETER CORE)

TO ADJUST

BEND OUTER SWITCH LEVER TOWARD SWITCH ASSEMBLY.

NOTE 2:

ADJUSTMENT CAN BE FACILITATED BY REMOVING SWITCH MECHANISM FROM TAPE CONTAINER.

(B)

SWITCH MECHANISM MOUNTING PLATE

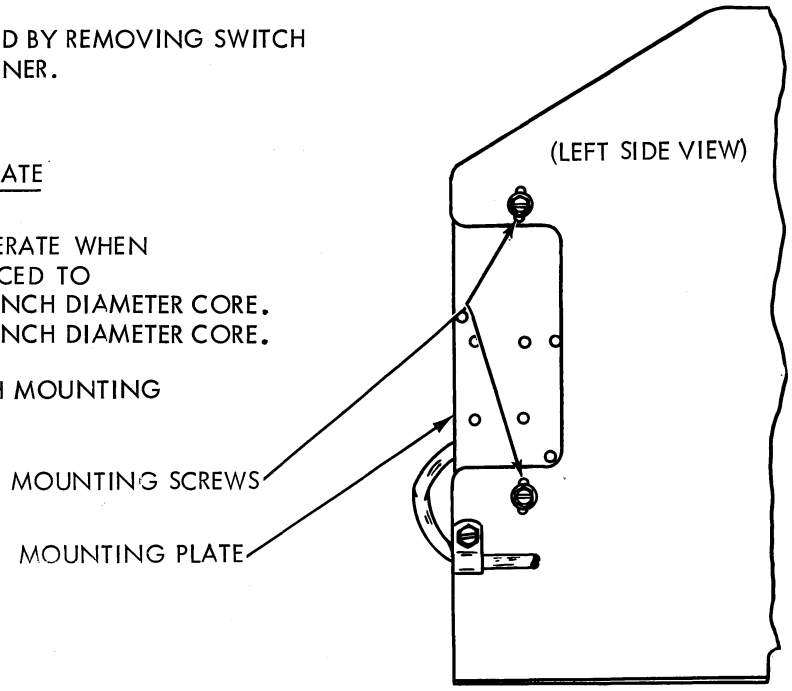
REQUIREMENT

OUTER SWITCH SHOULD JUST OPERATE WHEN DIAMETER OF TAPE ROLL IS REDUCED TO 1-5/16 INCHES WHEN USING A 1 INCH DIAMETER CORE.
2-3/8 INCHES WHEN USING A 2 INCH DIAMETER CORE.

TO ADJUST

POSITION MOUNTING PLATE WITH MOUNTING SCREWS LOOSENED.

(LEFT SIDE VIEW)



2.03 Intermediate Drive Mechanism

(A) TIMING BELT

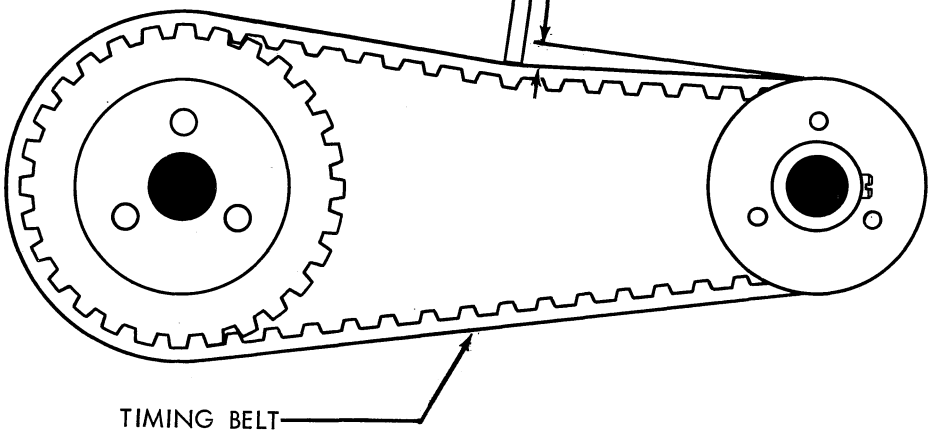
REQUIREMENT

SLIGHT PRESSURE (8 ± 1 OZ.) AT CENTER OF SPAN SHOULD DEFLECT BELT:
MIN. 3/32 INCH---MAX. 5/32 INCH

CAUTION: BELT SHOULD NOT BE TIGHT.

TO ADJUST

POSITION INTERMEDIATE DRIVE ASSEMBLY WITH MOUNTING SCREWS LOOSENED.



(B) GEAR MESH

REQUIREMENT

MOTOR DRIVE GEAR AND INTERMEDIATE SHAFT DRIVEN GEAR SHOULD MESH AT RIGHT ANGLES.

TO ADJUST

POSITION DRIVE ASSEMBLY WITH MOUNTING SCREWS LOOSENED. RE-CHECK TIMING BELT ADJUSTMENT (ABOVE).

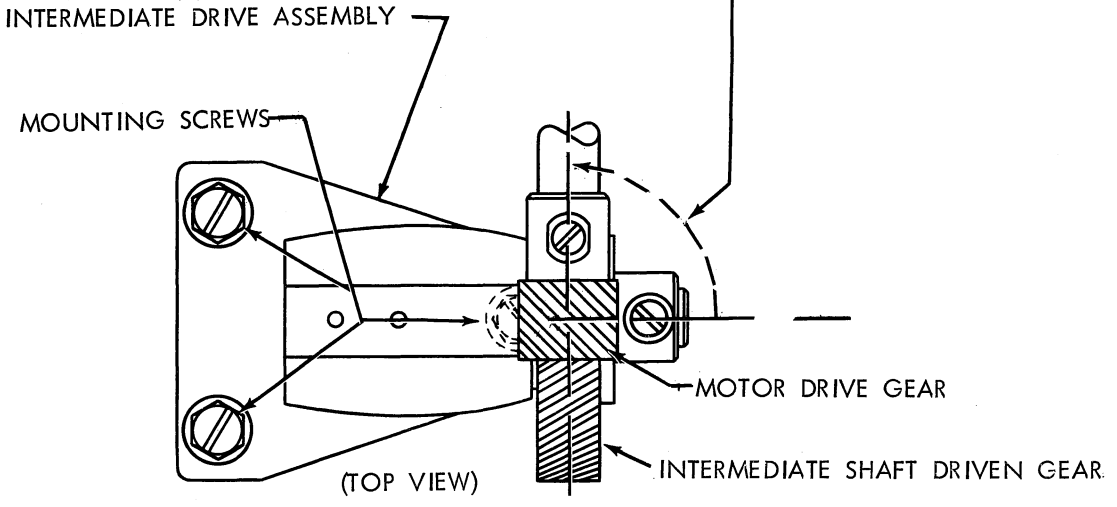
(C)
WIRE TAPE GUIDE

REQUIREMENT

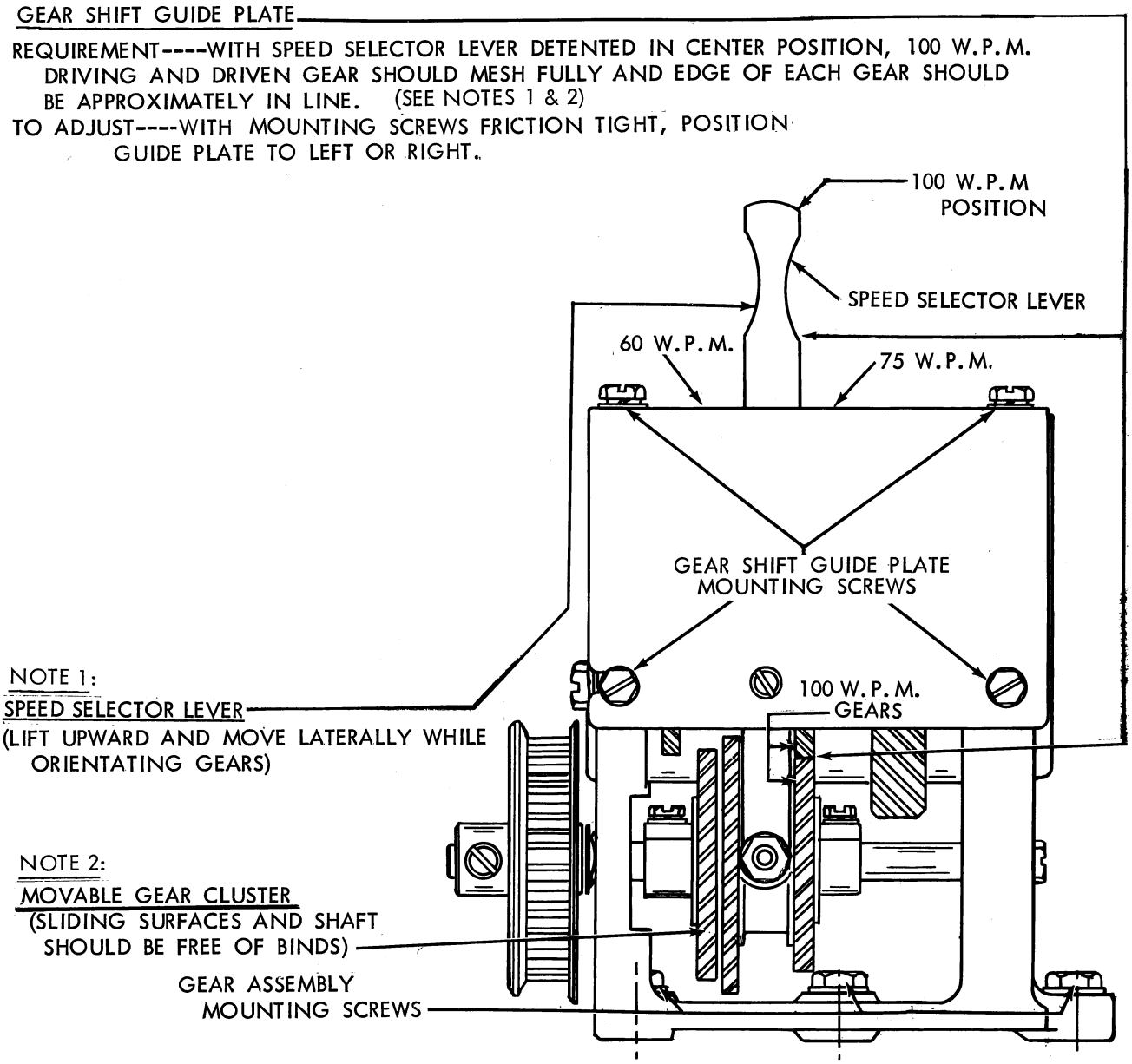
TAPE SHOULD PASS FREELY THROUGH WIRE GUIDE AND BE ALIGNED WITH PERFORATOR GUIDE ASSEMBLY.

TO ADJUST

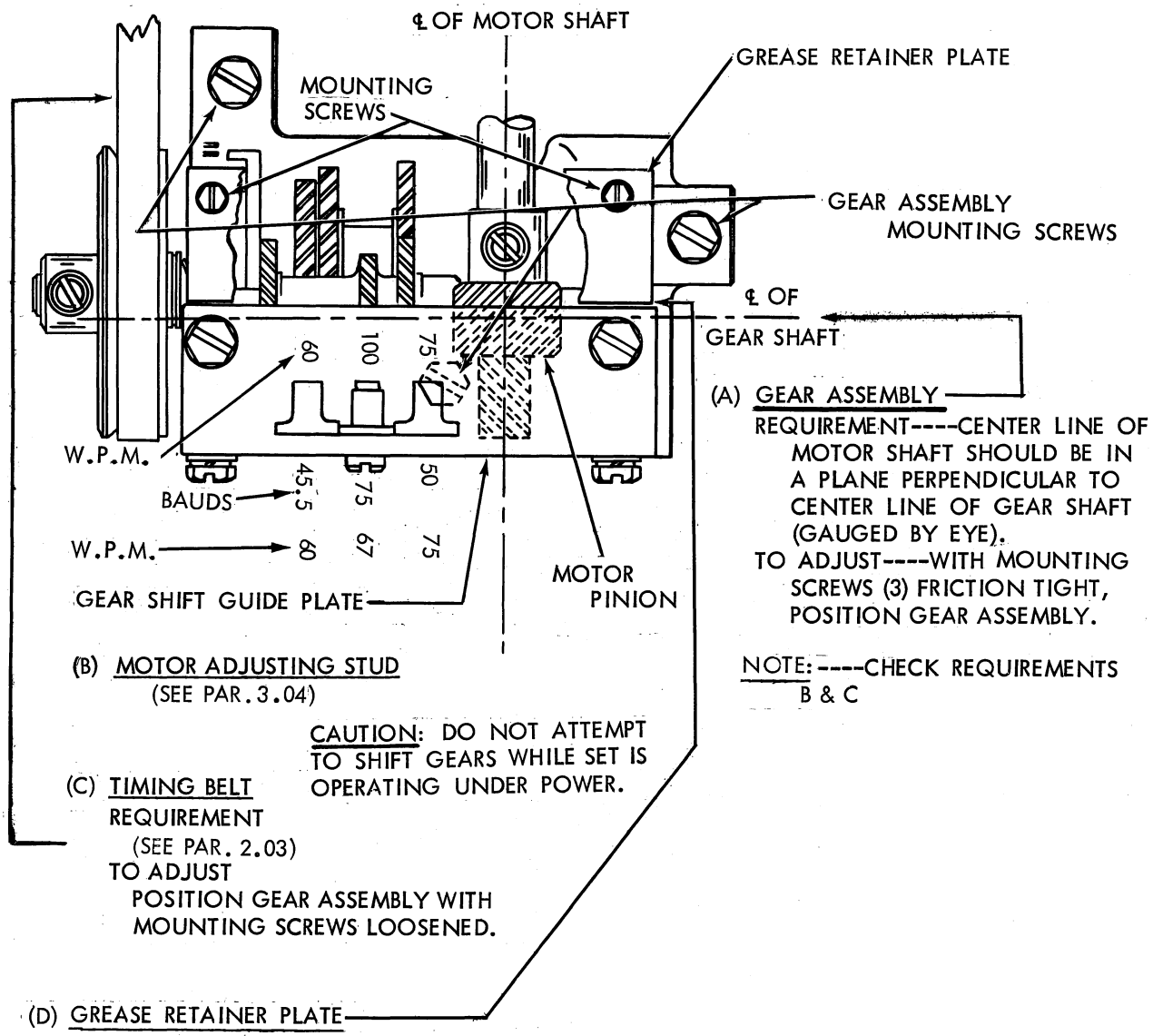
BEND OR POSITION WIRE GUIDE



2.04 Variable Speed Drive Mechanism



2.05 Variable Speed Drive Mechanism continued



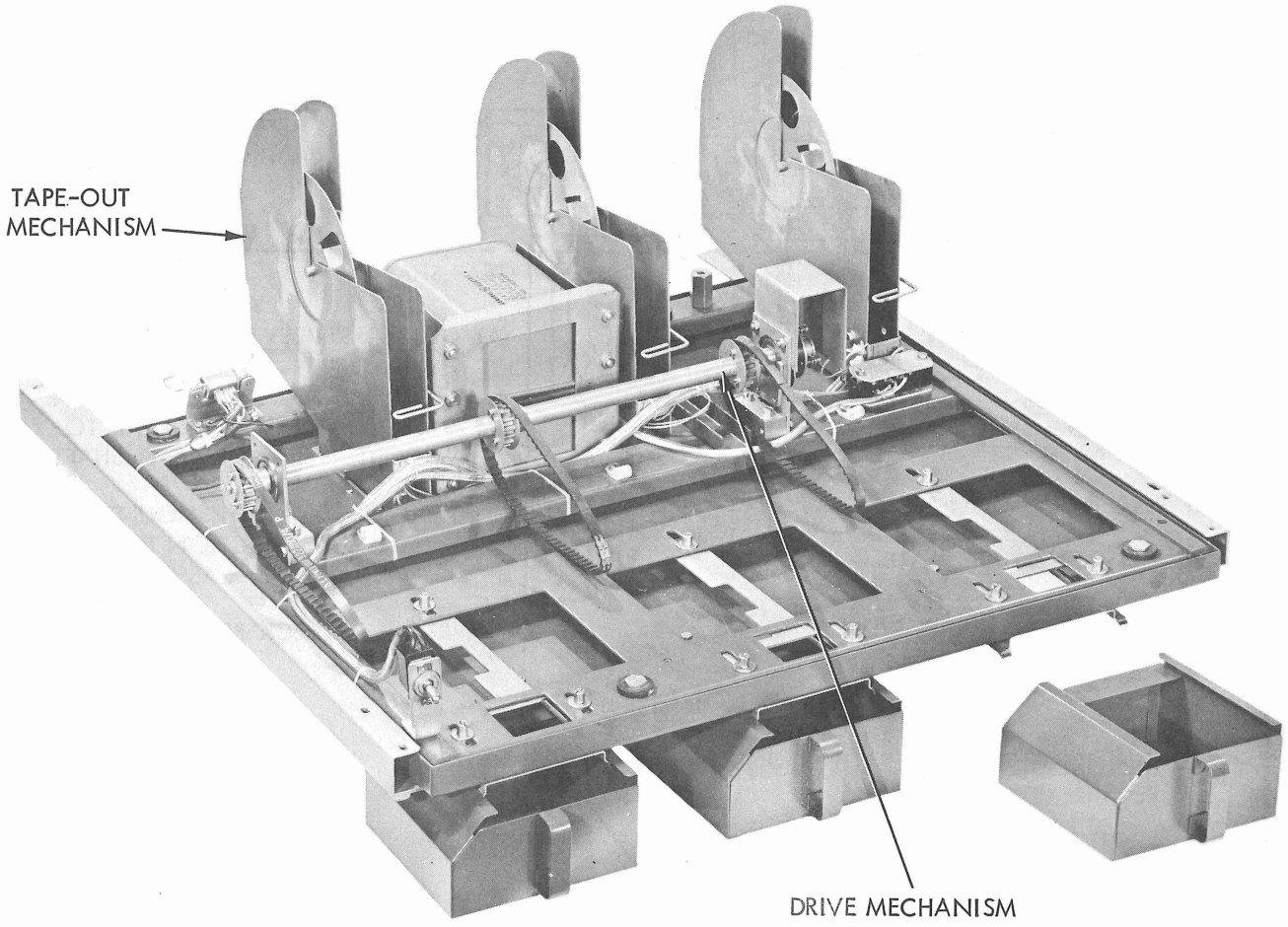
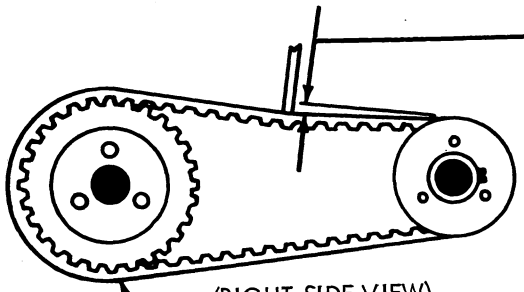


Figure 2 - 28 Multiple Reperforator Receive-Only Base (Front View)

3. MULTIPLE RECEIVE-ONLY BASES

3.01 Drive Mechanism

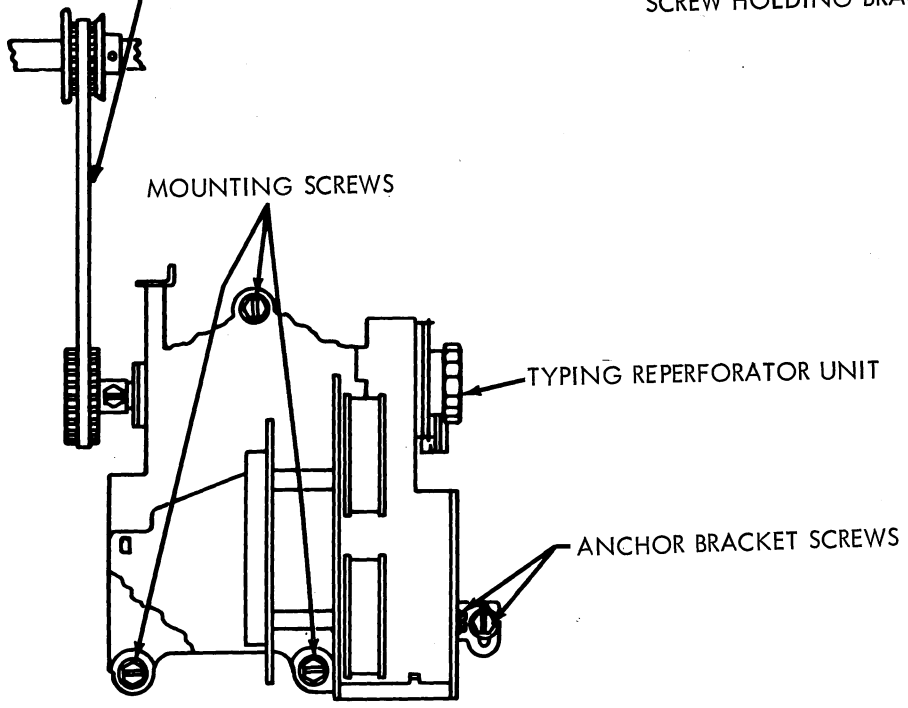
NOTE: THIS ADJUSTMENT SHOULD BE MADE FOR EACH TYPING REPERFORATOR UNIT.



(RIGHT SIDE VIEW)

REQUIREMENT
SLIGHT PRESSURE AT CENTER OF SPAN (8 ± 1 OZ.) SHOULD DEFLECT BELT.
MIN. 3/32 INCH ---MAX. 5/32 INCH
CAUTION: BELT SHOULD NOT BE TIGHT.

TO ADJUST:
WITH TWO ANCHOR BRACKET SCREWS AND THREE MOUNTING SCREWS LOOSENED, POSITION TYPING REPERFORATOR UNIT. TIGHTEN THREE MOUNTING SCREWS. PRESS ANCHOR BRACKET AGAINST BASE PLATE AND TIGHTEN SCREW HOLDING BRACKET TO REPERFORATOR. TIGHTEN SCREW HOLDING BRACKET TO BASE.



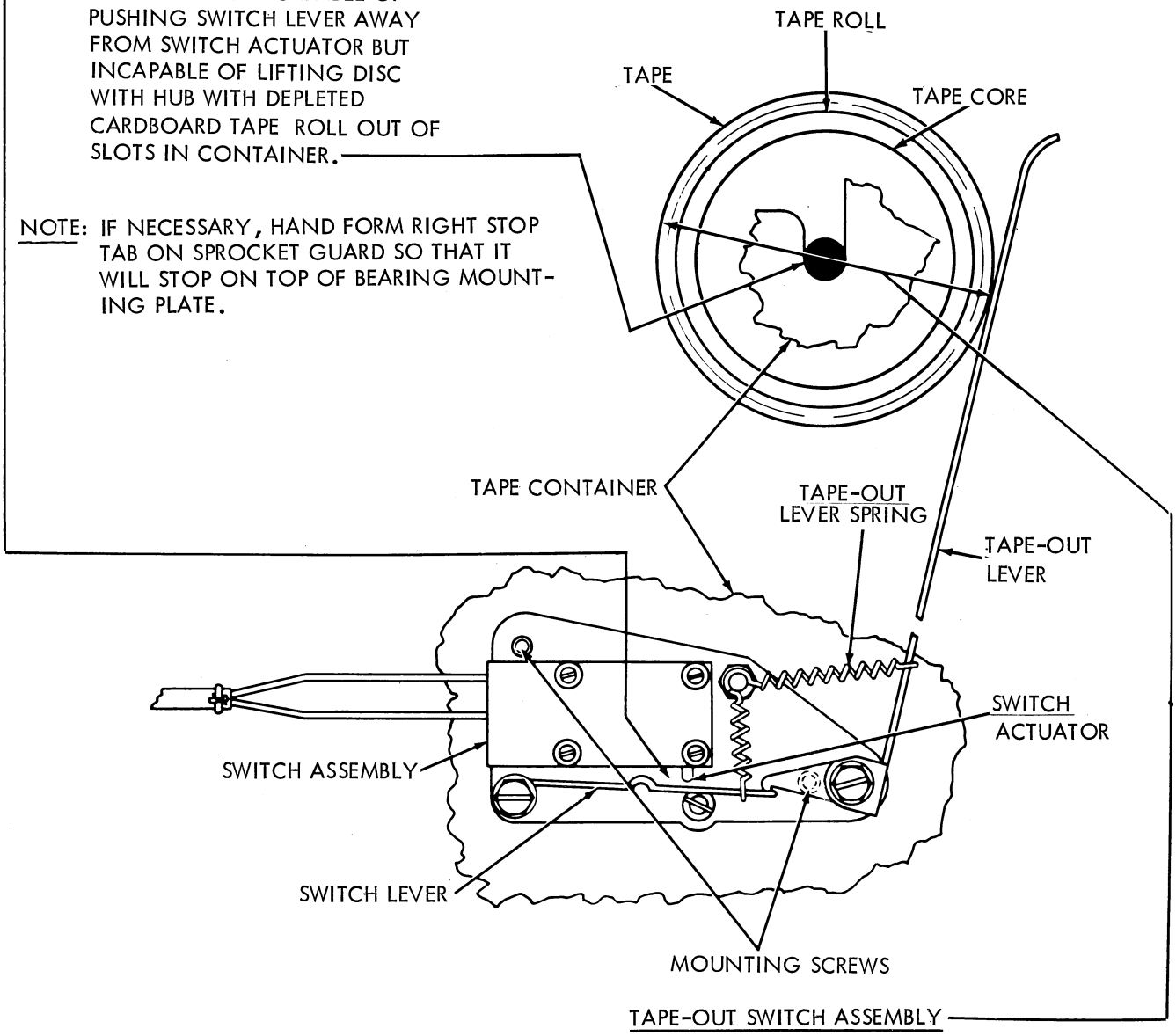
(TOP VIEW)

3.02 Tape-Out Mechanism

TAPE-OUT LEVER SPRING

REQUIREMENT
TAPE-OUT LEVER CAPABLE OF PUSHING SWITCH LEVER AWAY FROM SWITCH ACTUATOR BUT INCAPABLE OF LIFTING DISC WITH HUB WITH DEPLETED CARDBOARD TAPE ROLL OUT OF SLOTS IN CONTAINER.

NOTE: IF NECESSARY, HAND FORM RIGHT STOP TAB ON SPROCKET GUARD SO THAT IT WILL STOP ON TOP OF BEARING MOUNTING PLATE.



TAPE-OUT SWITCH ASSEMBLY

REQUIREMENT
SWITCH SHOULD OPERATE WHEN DIAMETER OF TAPE ROLL IS
MIN. 2-3/8 INCH---MAX. 2-5/8 INCH
(CHECK WITH TEST LAMP.)

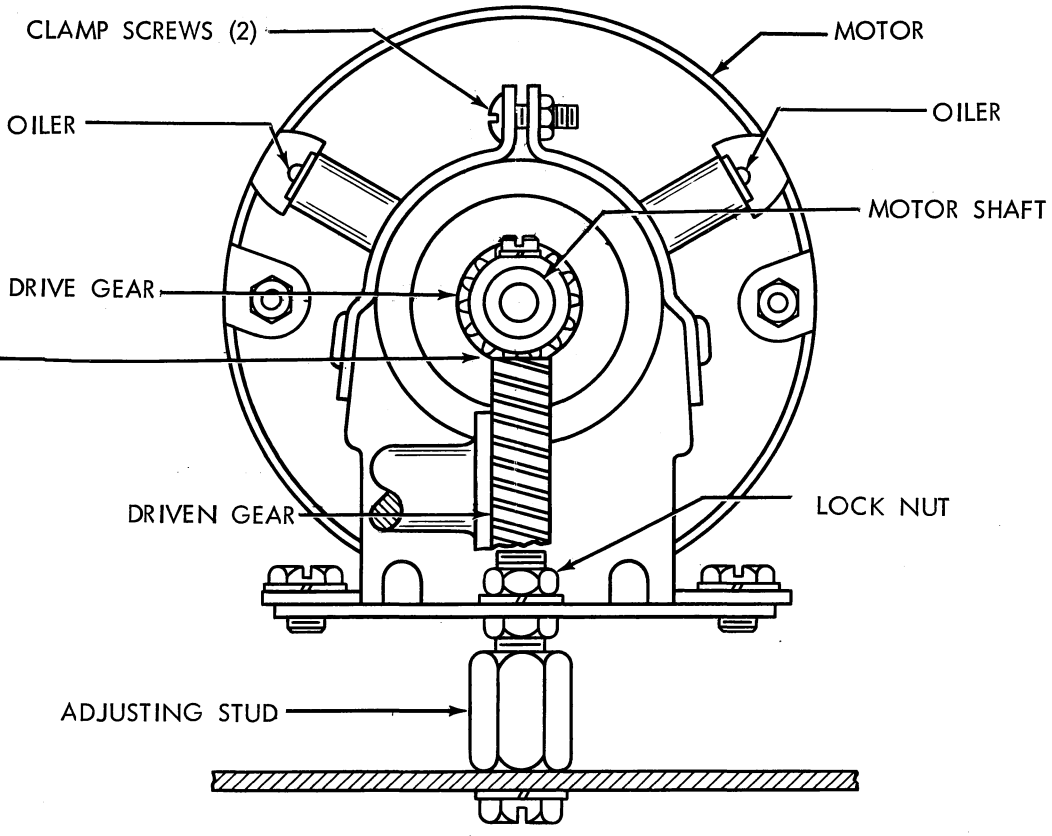
TO ADJUST
WITH TWO MOUNTING SCREWS LOOSENED, POSITION SWITCH ASSEMBLY ON TAPE CONTAINER.

3.03 Motor Adjusting Stud

MOTOR ADJUSTING STUD

REQUIREMENT
BARELY PERCEPTIBLE BACKLASH BETWEEN DRIVE GEAR AND DRIVEN GEAR AT THEIR CLOSEST POINT.

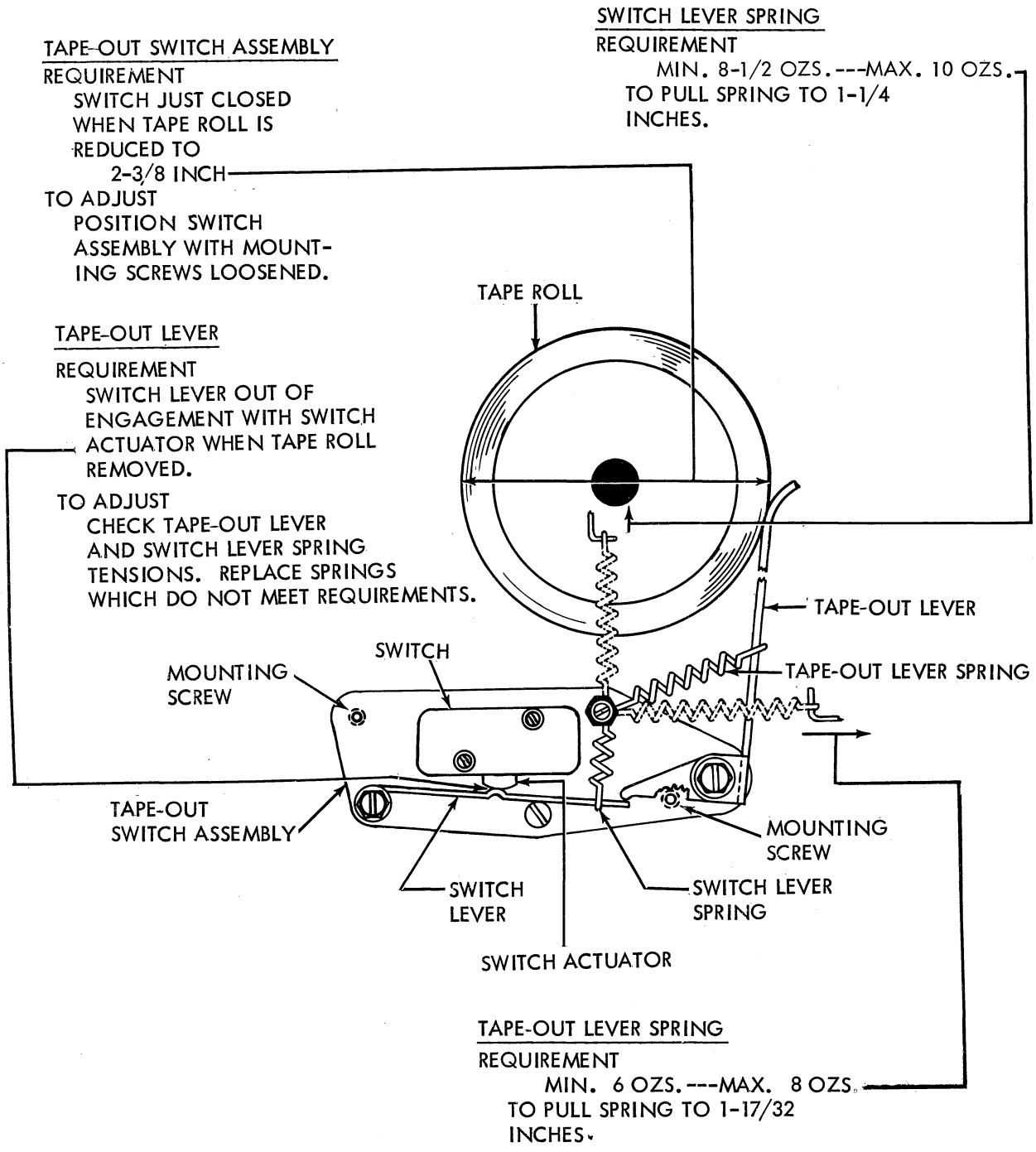
TO ADJUST
WITH LOCK NUT LOOSENED, POSITION ADJUSTING STUD. TIGHTEN NUT WHILE HOLDING STUD IN POSITION.



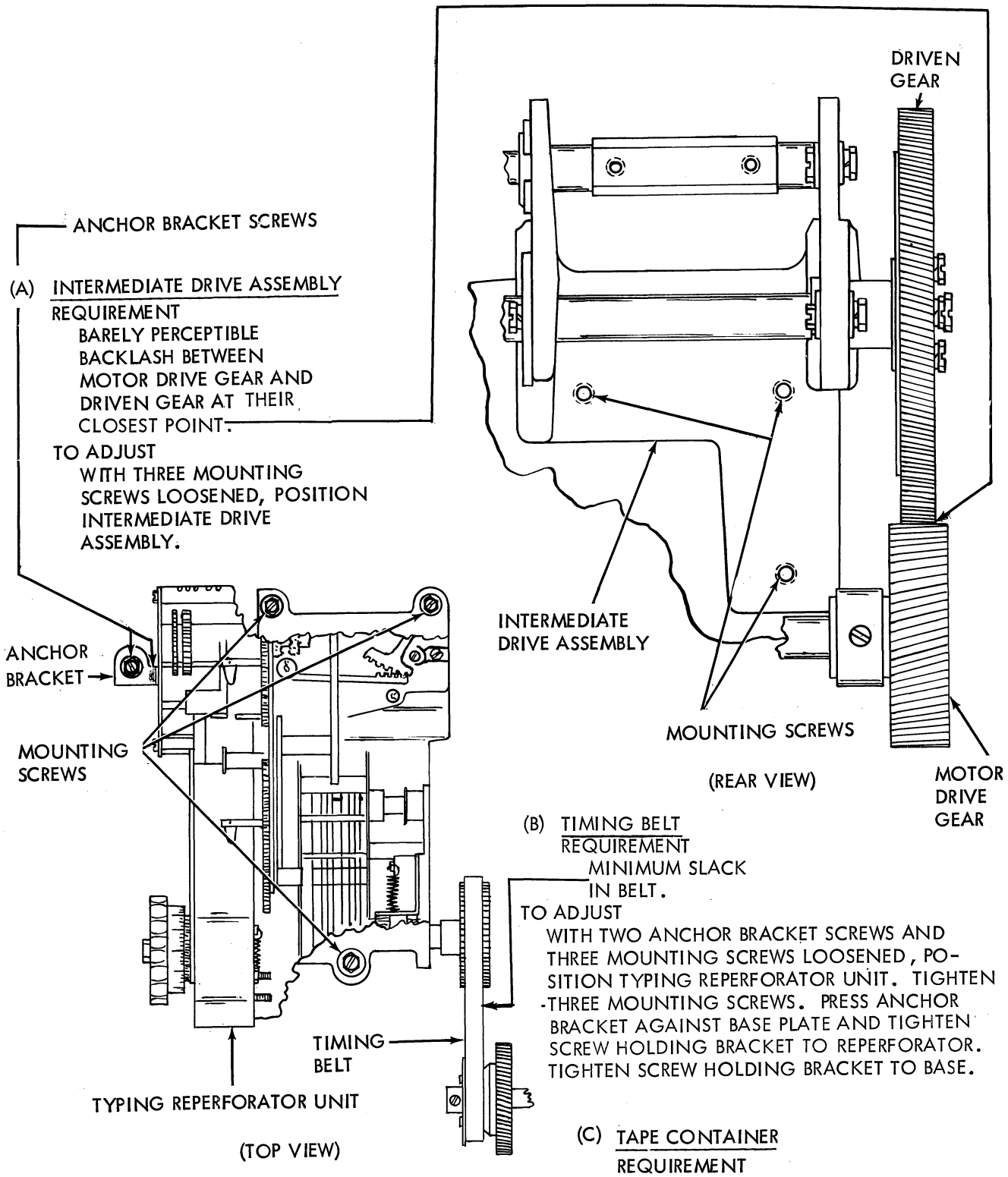
CAUTION:
IF MOTOR BECOMES BLOCKED FOR SEVERAL SECONDS, THERMAL CUT-OUT SWITCH WILL BREAK CIRCUIT. SHOULD THIS HAPPEN, ALLOW MOTOR TO COOL AT LEAST 5 MINUTES BEFORE DEPRESSING RED RESET BUTTON. CHECK UNIT TO SEE WHY MOTOR WAS BLOCKED.

4. AUXILIARY RECEIVE-ONLY BASE

4.01 Tape-Out Mechanism



4.02 Drive Mechanism



5. RECEIVE-ONLY MINIATURIZED TAPE PRINTER BASE

5.01 Pinion and Gear

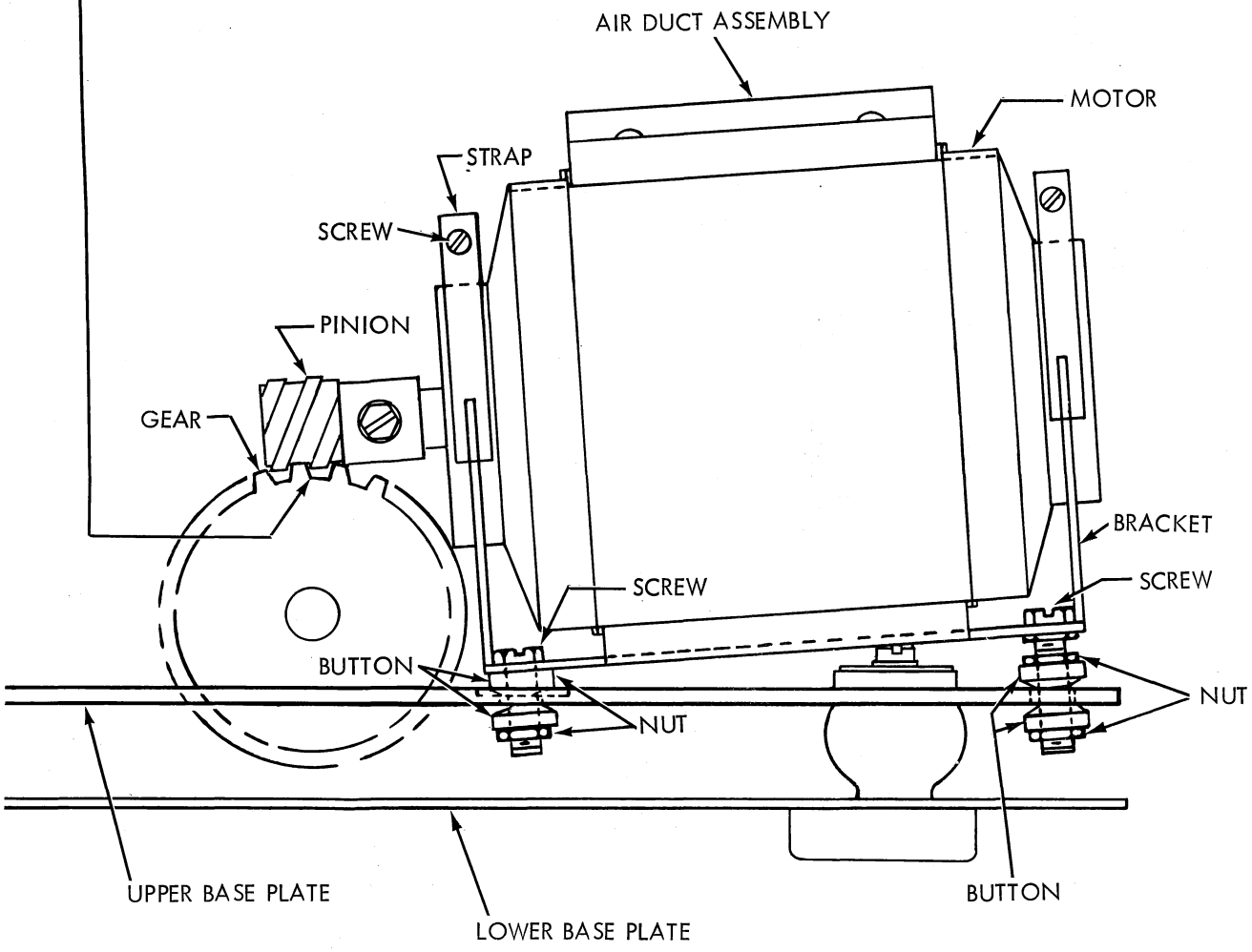
PINION-GEAR (FOR RECEIVE-ONLY MINIATURIZED TAPE PRINTER SET)

REQUIREMENT

BARELY PERCEPTIBLE BACKLASH BETWEEN MOTOR PINION AND DRIVEN GEAR MOUNTED IN SINGLE SPEED DRIVE ASSEMBLY.

TO ADJUST

LOOSEN FOUR MOUNTING SCREWS SECURING MOTOR TO UPPER BASE PLATE. INCREASE OR DECREASE BACKLASH BY ROTATING MIDDLE NUTS ON MOUNTING SCREWS OPPOSITE PINION END. TO INSURE MOTOR IS PROPERLY ALIGNED WITH DRIVEN GEAR, THE BOTTOM EDGE OF THE MOTOR MOUNT BRACKET OPPOSITE THE PINION END SHALL BE PARALLEL WITH UPPER BASE PLATE.



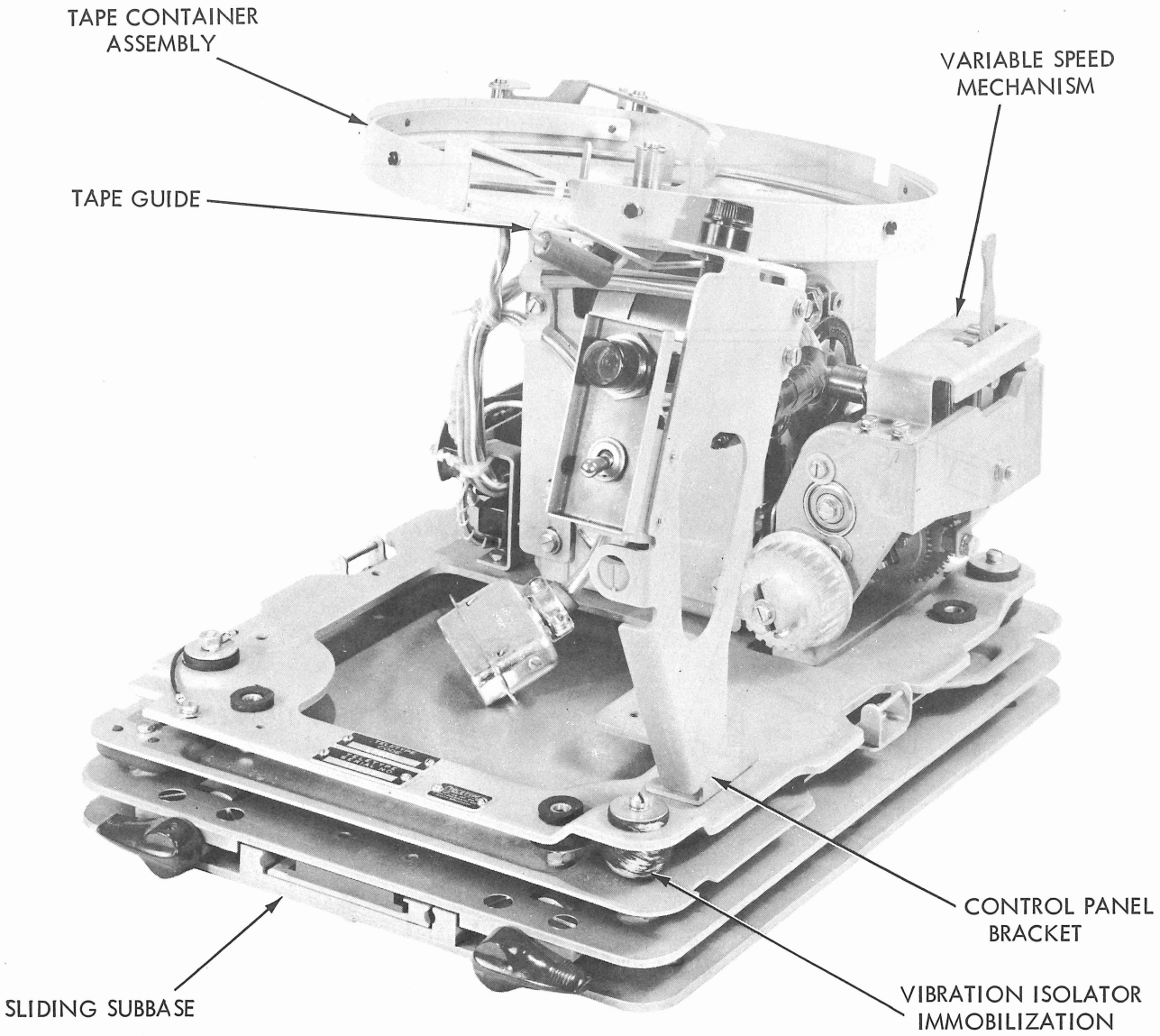
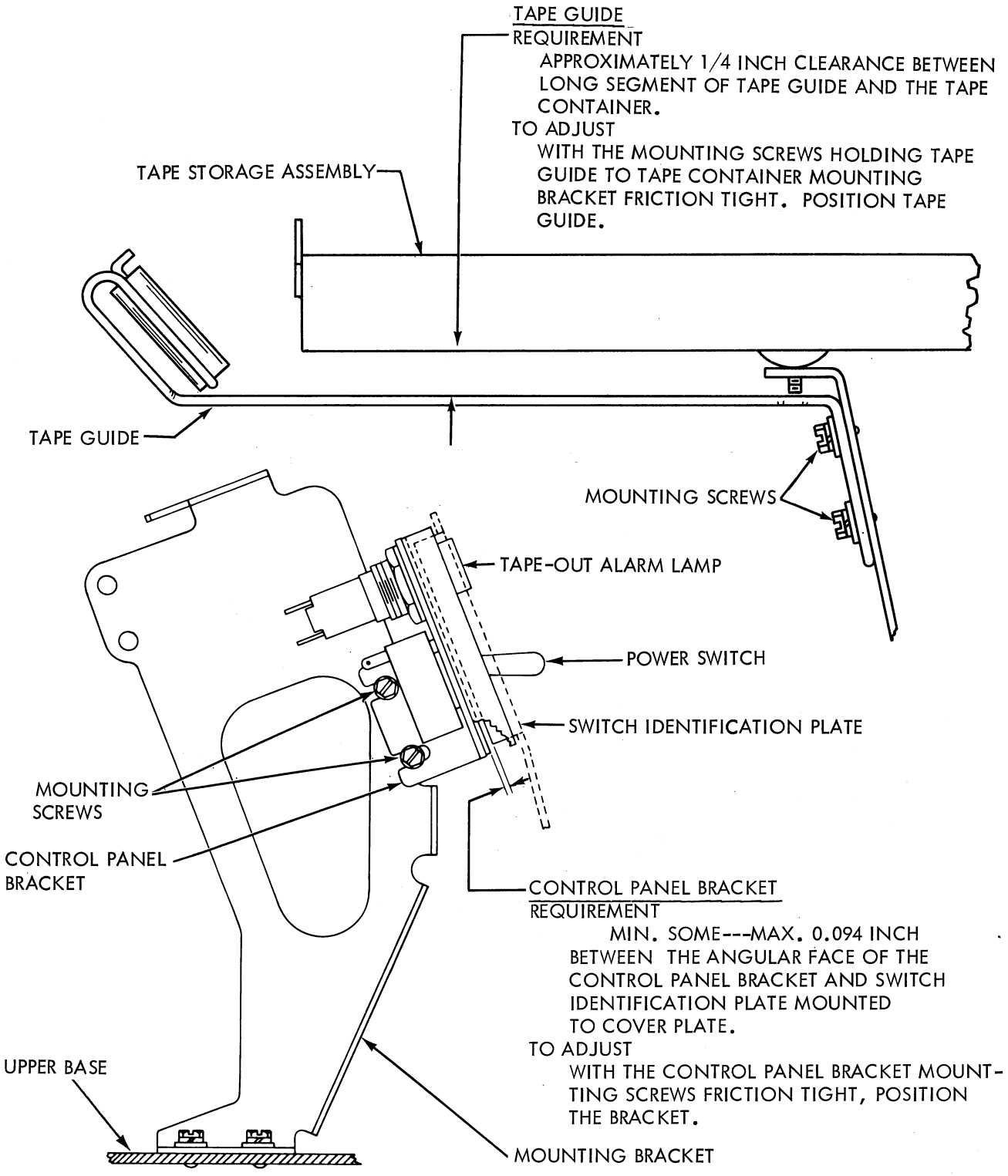


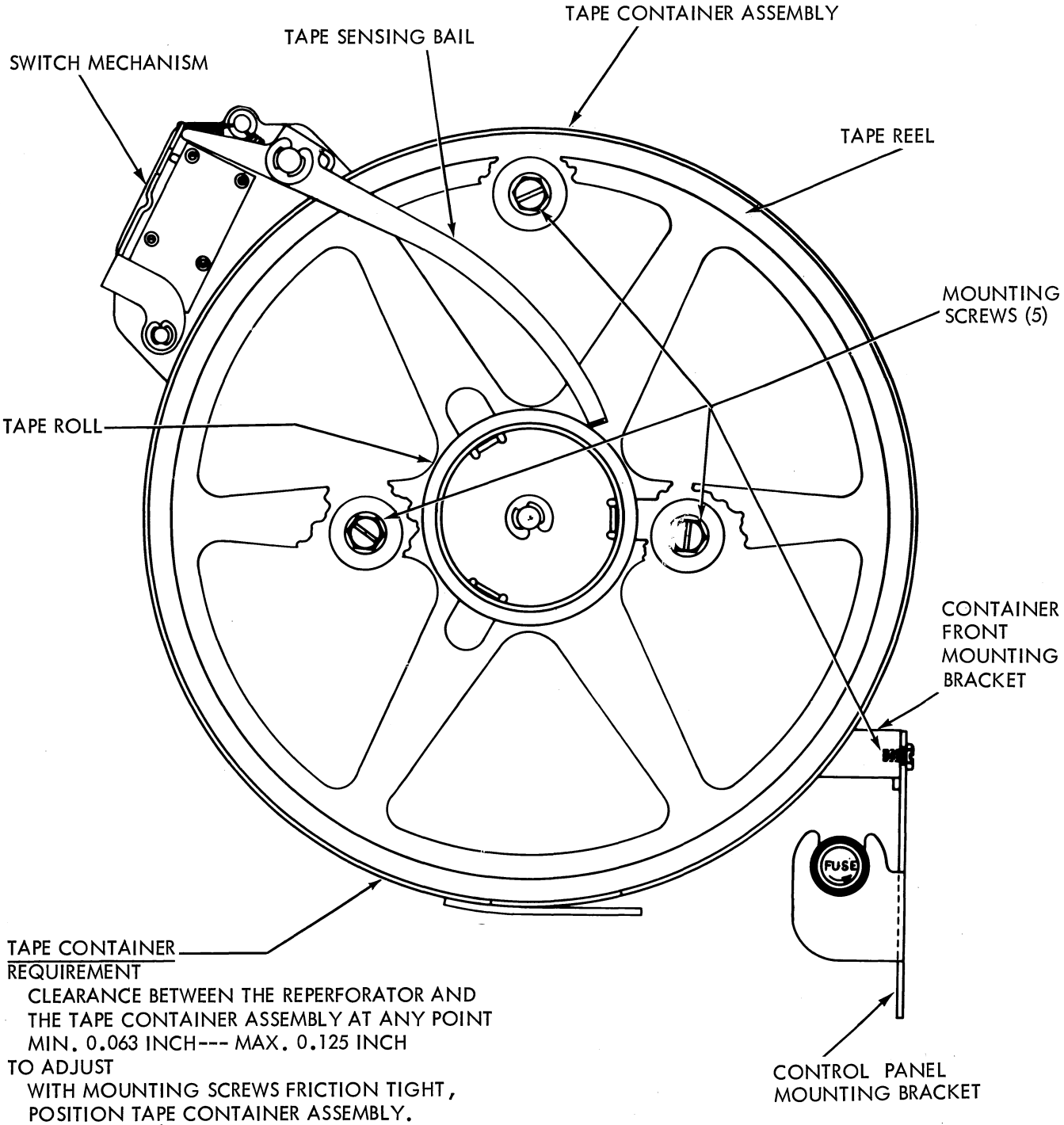
Figure 3 - 28 Receive-Only Miniaturized Base with Motor and Subbase (Front View)

6. RECEIVE-ONLY MINIATURIZED TYPING REPERFORATOR BASE

6.01 Tape Guide and Control Panel Bracket



6.02 Tape Container Assembly



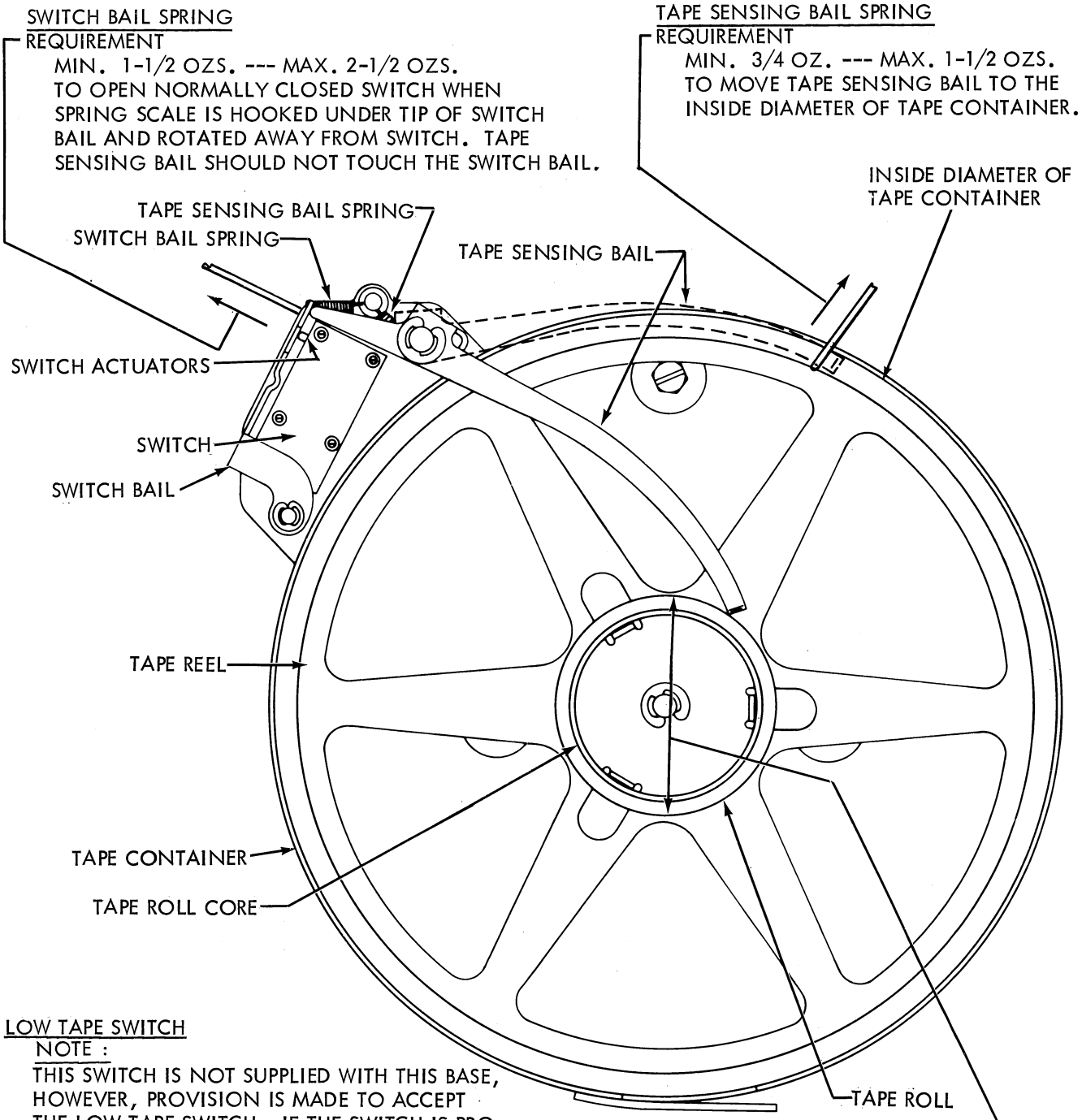
REQUIREMENT
CLEARANCE BETWEEN THE REPERFORATOR AND THE TAPE CONTAINER ASSEMBLY AT ANY POINT
MIN. 0.063 INCH--- MAX. 0.125 INCH

TO ADJUST
WITH MOUNTING SCREWS FRICTION TIGHT, POSITION TAPE CONTAINER ASSEMBLY.

6.03 Tape Container Assembly continued

SWITCH BAIL SPRING
REQUIREMENT
MIN. 1-1/2 OZS. --- MAX. 2-1/2 OZS.
TO OPEN NORMALLY CLOSED SWITCH WHEN SPRING SCALE IS HOOKED UNDER TIP OF SWITCH BAIL AND ROTATED AWAY FROM SWITCH. TAPE SENSING BAIL SHOULD NOT TOUCH THE SWITCH BAIL.

TAPE SENSING BAIL SPRING
REQUIREMENT
MIN. 3/4 OZ. --- MAX. 1-1/2 OZS.
TO MOVE TAPE SENSING BAIL TO THE INSIDE DIAMETER OF TAPE CONTAINER.



LOW TAPE SWITCH
NOTE :
THIS SWITCH IS NOT SUPPLIED WITH THIS BASE, HOWEVER, PROVISION IS MADE TO ACCEPT THE LOW TAPE SWITCH. IF THE SWITCH IS PROVIDED THE ADJUSTMENT IS AS FOLLOWS:
REQUIREMENT
THE SECOND OR TOP SWITCH LOCATED ON THE TAPE CONTAINER ASSEMBLY SHOULD OPERATE WHEN THE TAPE ROLL IN THE CONTAINER IS REDUCED TO 2-7/16 INCHES.
TO ADJUST
BEND THE UPPER PRONG OF SWITCH BAIL. RECHECK TAPE OUT SWITCH ADJUSTMENT.

TAPE-OUT SWITCH
REQUIREMENT
THE SWITCH SHOULD OPERATE WHEN THE TAPE ROLL IN THE CONTAINER IS REDUCED IN DIAMETER TO 2-5/16 INCHES.
TO ADJUST
BEND THE LOWER PRONG OF THE SWITCH BAIL.

6.04 Base Assembly and Variable Speed Mechanism

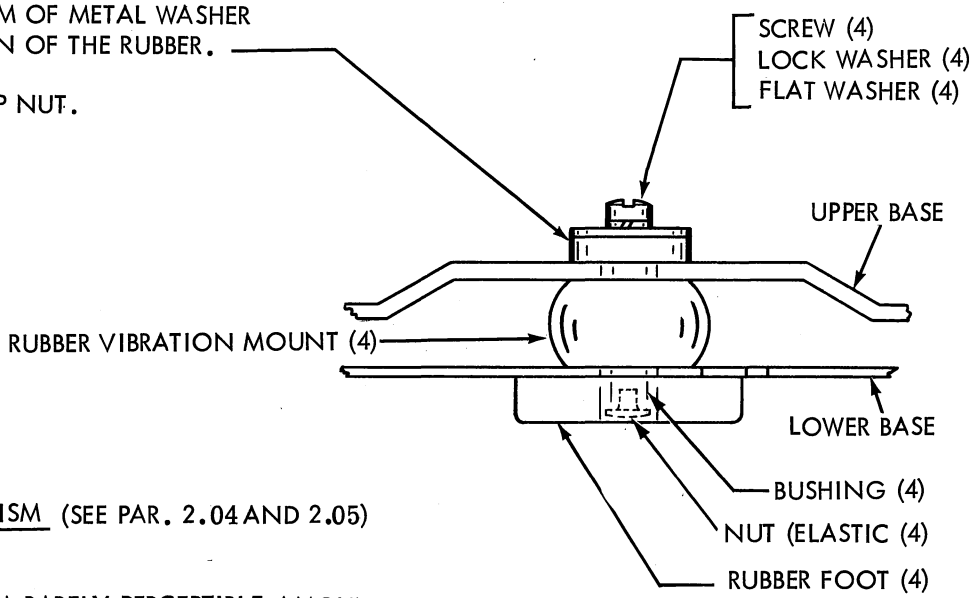
VIBRATION ISOLATOR IMMOBILIZATION

REQUIREMENT

NO CLEARANCE BETWEEN TOP OF RUBBER ISOLATOR AND BOTTOM OF METAL WASHER WITH NO COMPRESSION OF THE RUBBER.

TO ADJUST

TURN THE ELASTIC STOP NUT.



VARIABLE SPEED MECHANISM (SEE PAR. 2.04 AND 2.05)

(1) REQUIREMENT

THERE SHOULD BE A BARELY PERCEPTIBLE AMOUNT OF BACKLASH BETWEEN THE MOTOR PINION AND THE DRIVEN GEAR AT THEIR CLOSEST POINT.

TO ADJUST

WITH THE FOUR MOUNTING SCREWS FASTENING THE VARIABLE SPEED DEVICE TO THE VIBRATION ISOLATORS FRICTION TIGHT, POSITION THE VARIABLE SPEED ASSEMBLY.

(2) REQUIREMENT

WITH SPEED SELECTOR LEVER DETENTED IN CENTER POSITION 100 W.P.M. THERE SHALL BE FULL MESH BETWEEN GEARS.

TO ADJUST

WITH THE GEAR SHIFT BRACKET MOUNTING SCREWS FRICTION TIGHT, POSITION GEAR SHIFT BRACKET.

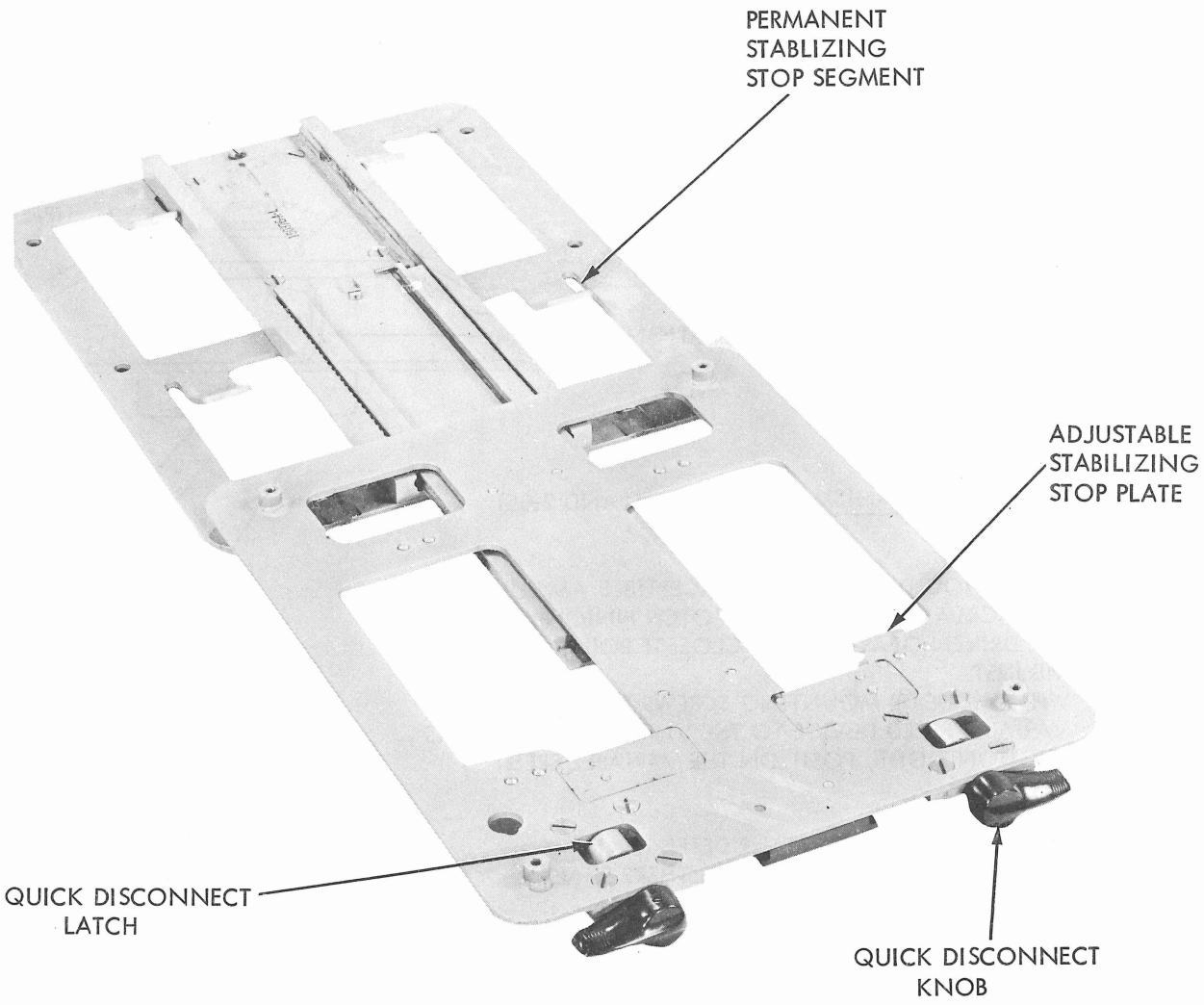
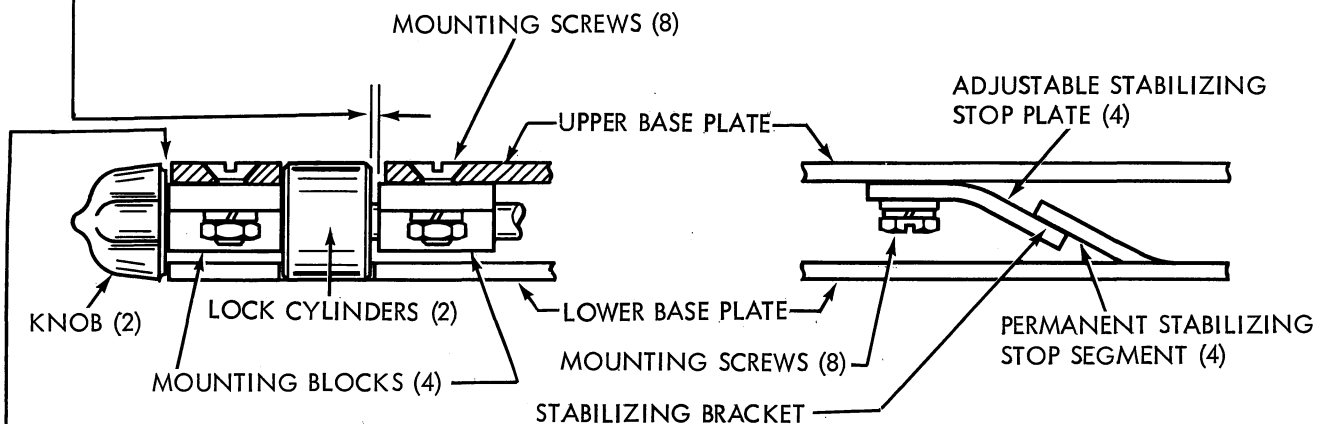


Figure 4 - 28 Sliding Subbase Assembly For Miniaturized Receiving-Only Typing Reperforator Set (Extended - Front View)

7. SLIDING SUBBASE FOR MINIATURIZED RECEIVING-ONLY TYPING REPERFORATOR SET

7.01 Sliding Subbase

QUICK DISCONNECT LATCH
REQUIREMENT
WITH SLIDE IN THE FULLY RETRACTED POSITION THE LOCKING CYLINDER OF THE QUICK - DISCONNECT DEVICE SHALL BE FIRMLY SEATED AGAINST THE STOP SURFACE OF THE BOTTOM PLATE:
MIN. 0.002 INCH --- MAX. 0.012 INCH
END PLAY BETWEEN LOCKING CYLINDER AND THE TWO MOUNTING BLOCKS.
TO ADJUST
WITH THE MOUNTING SCREWS OF THE TWO BLOCKS FRICTION TIGHT AND THE SLIDE FULLY DEPRESSED, POSITION THE TWO BLOCKS.



STABILIZING BRACKET
REQUIREMENT
NO CLEARANCE BETWEEN THE PERMANENT STABILIZING SEGMENT OF LOWER BASE PLATE AND THE ADJUSTABLE STABILIZING STOP PLATE OF THE UPPER BASE PLATE WHEN THE SLIDE IS IN THE FULLY RETRACTED LOCKED POSITION.
TO ADJUST
WITH MOUNTING SCREWS OF EACH OF THE FOUR STABILIZING STOP PLATES FRICTION TIGHT, POSITION EACH STABILIZING STOP PLATE.
CHECK
TO INSURE THAT THERE IS NO ROTATION WHEN THE TOP AND BOTTOM PLATES ARE "ROTATED" TOWARD EACH OTHER WITHOUT BENDING EITHER OF THE PLATES.

QUICK DISCONNECT KNOB
REQUIREMENT
WITH KNOBS IN THE OPEN POSITION:
MIN. 0.093 INCH --- MAX. 0.140 INCH
CLEARANCE BETWEEN COVER AND LOCKING DEVICE KNOBS.
TO ADJUST
WITH THE TWO SET SCREWS IN EACH KNOB FRICTION TIGHT, POSITION KNOBS.

NOTE:
THE KNOB LOCKING CYLINDER ASSEMBLY MUST SNAP INTO THE LOCKED POSITION WHEN THE KNOBS ARE RELEASED FROM AN ANGULAR DISPLACEMENT OF APPROXIMATELY 45° FROM THE HORIZONTAL.