

20 TRANSMITTER-DISTRIBUTOR
REQUIREMENTS AND ADJUSTMENTS

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1. GENERAL

1.01 This section contains the requirements and adjustments for the 20 transmitter-distributor. This section, sections referred to in this section, and the teletypewriter general requirements and adjustments section provide the information for the maintenance of the 20 transmitter-distributor.

1.02 This section is reissued to:

- (1) Revise adjustments for the TP84136 tape stop switch assembly.
- (2) Include the adjustments for the TP113717 rubout deleting mechanism.

1.03 The 20 transmitter-distributor is the same as the 14 transmitter-distributor except that it is designed to transmit six-unit code and, accordingly, is equipped with a sixth contact tongue and corresponding contact lever and tape pin. Also, advanced feed-holes are used.

2. REQUIREMENTS AND ADJUSTMENTS

2.01 The requirements and adjustments given in Section 572-103-700 for the 14 transmitter-distributor apply to the 20 transmitter-distributor except when modified as indicated herein.

2.02 When the 20 transmitter-distributor is equipped with the TP84136 tape-stop switch assembly, the following adjustments (2.03 to 2.06) should be applied instead of those given in Section 572-103-700 for the tight-tape stoplever.

2.03 Contact-bracket Arm: With the contact bracket in contact with its right-hand eccentric screw, it should require a pull of minimum 3 ounces, maximum 10 ounces to start the bracket moving. (See Figure 1.)

2.04 Contact Springs: With the operating arm held away from the left-hand contact-spring insulator, there should be a clearance of minimum 0.015 inch, maximum 0.025 inch between the contact points. Also, a clearance of minimum 0.015 inch, maximum 0.025 inch should exist between the right-hand contact-spring insulator and the extension on the contact bracket. (See Figure 1.)

To Adjust: Bend the contact springs.

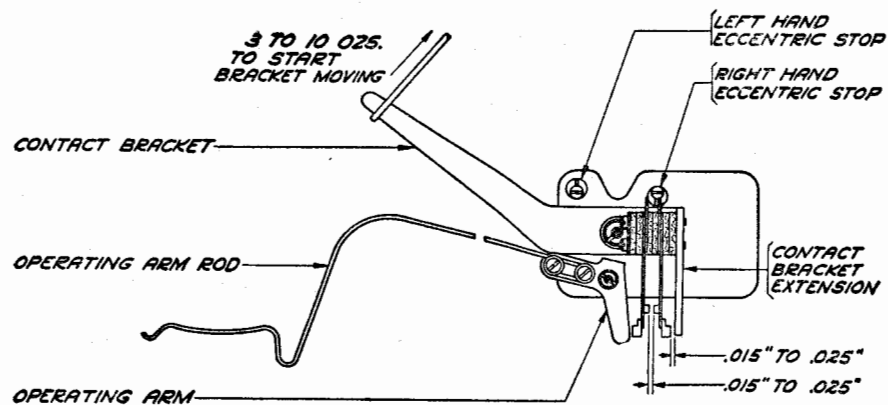


Figure 1

2.05 Left-hand Contact-bracket Eccentric Stop:

With the contact bracket up against the left-hand eccentric stop, that portion of the operating-arm rod which is engaged by the tape should be minimum 3/4 inch, maximum 1-1/4 inches below the upper surface of the tape guide on the transmitter top plate.

To Adjust: Loosen the left-hand eccentric-stop mounting screw and position the eccentric stop. Tighten the mounting screw. (See Figure 1.)

2.06 Right-hand Contact-bracket Eccentric Stop: The right-hand eccentric stop should be positioned to the customer's requirements. To increase the amount of slack tape between the perforator and the transmitter-distributor, the eccentric should be positioned higher. To decrease the amount of slack tape, lower the eccentric.

To Adjust: Loosen the right-hand eccentric-stop mounting screw and position the stop. Tighten the mounting screw. (See Figure 1.)

2.07 When the transmitter-distributor is equipped with the TP113717 rubout deleting mechanism, the following adjustments apply. If a complete readjustment of a transmitter-distributor is undertaken, these adjustments should be made following the operating cam adjustment in the section covering 14 transmitter-distributor requirements and adjustments.

2.08 Operating Lever and Lever Assembly:

The rollers on the operating lever and lever assembly should engage full width of their respective cams.

To Adjust: Loosen cam mounting screw, position cam and tighten cam mounting screw.

2.09 Rubout-bail Position: With the tape play on the feed roll taken up toward the left, the rubout-bail sensing pins should just clear the leading edge of the perforations in the tape, and simultaneously be in line with the regular tape sensing-pins when sensing a rubout.

To Adjust: Loosen the rubout-bail shaft mounting screws and position the rubout-bail shaft. Tighten the mounting screws and recheck.

2.10 Control Assembly Contact Spring Clearance: There should be some, but not more than 0.010 inch clearance between the contact-spring insulating extension and the contact-insulating button. (See Figure 2.)

To Adjust: Bend the thick contact-spring farthest away from the mounting bracket.

2.11 Control Assembly Contact Spring Tension: Hook a scale on each contact spring in line with the associated contact. It should require a pull of minimum 2 ounces, maximum 4 ounces to just open each set of contacts. (See Figure 2.)

To Adjust: Bend the contact springs.

2.12 Control-assembly Camfollower Position: The control-assembly camfollower should ride fully on the control cam.

To Adjust: Position the contact pile-up in the mounting holes.

2.13 Control Assembly Position:

(a) When the camfollower is approximately halfway down the slope of its cam, the trailing edge of the distributor brush should be clear of the sixth segment, and the leading edge of the distributor brush should just be entering the leading edge of the stop segment.

Note: It may be necessary to reposition the cam assembly 180 degrees.

(b) With the camfollower on the highest part of its cam, there should be a clearance of minimum 0.015 inch, maximum 0.025 inch between the contact points. (See Figure 3.)

To Adjust [for (a) and (b)]: Loosen the control-assembly mounting nuts and position the assembly. Tighten the nuts and recheck.

2.14 Rubout-lever Mounting Bracket: The rubout sensing-pins should start to move downward simultaneously with the regular tape sensing-pins.

To Adjust: Loosen the bracket mounting screws and position the bracket in the elongated mounting holes.

2.15 Rubout-lever Adjusting Screw: With the rubout-lever roller on the lowest part of its cam, the rubout pins sensing the rubout combination, and the rubout bail held in the fully

operated position, the lowest rubout-bail sensing pin should be minimum 0.010 inch, maximum 0.015 inch below the top of the tape guide. (See Figure 4.)

To Adjust: Loosen the rubout-lever adjusting screw nut and position the adjusting screw. Tighten the nut and recheck.

2.16 Rubout Inner-contact Spring Tension: With the push end of a scale applied in line with the contact point, it should require a push, minimum 1 ounce, maximum 3 ounces, to start the inner-contact spring moving away from its stiffener. (See Figure 5.)

To Adjust: Bend the inner-contact spring.

2.17 Rubout-contact Gap: With the rubout-bail lower extension held away from the contact spring, there should be a clearance of minimum 0.010 inch, maximum 0.020 inch between contact points. (See Figure 5.)

To Adjust: Bend the contact stiffener.

2.18 Rubout Contact Assembly: When rotating the motor-fan wheel by hand in the direction of normal motor rotation, the rubout contacts should not open until after both control-assembly contacts have closed.

To Adjust: Position the rubout-contact assembly in its elongated holes in the top plate.

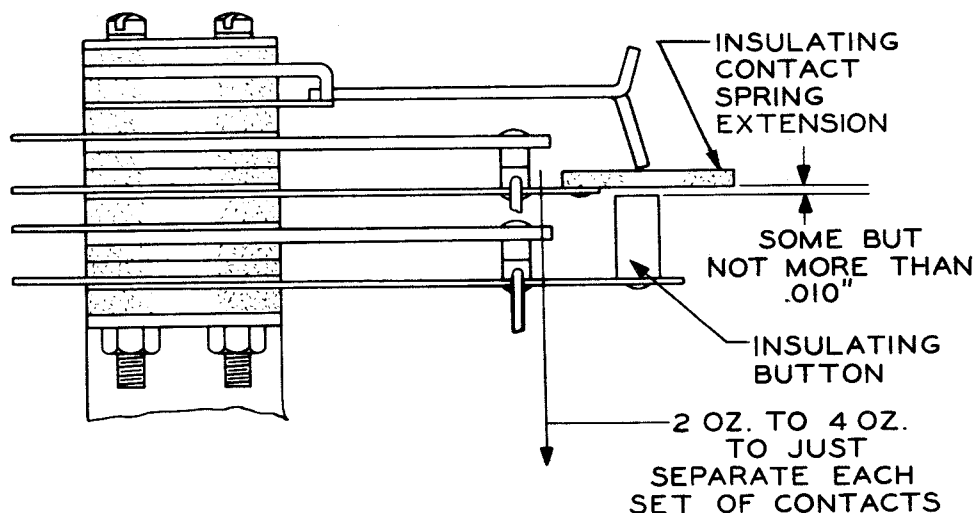


Figure 2

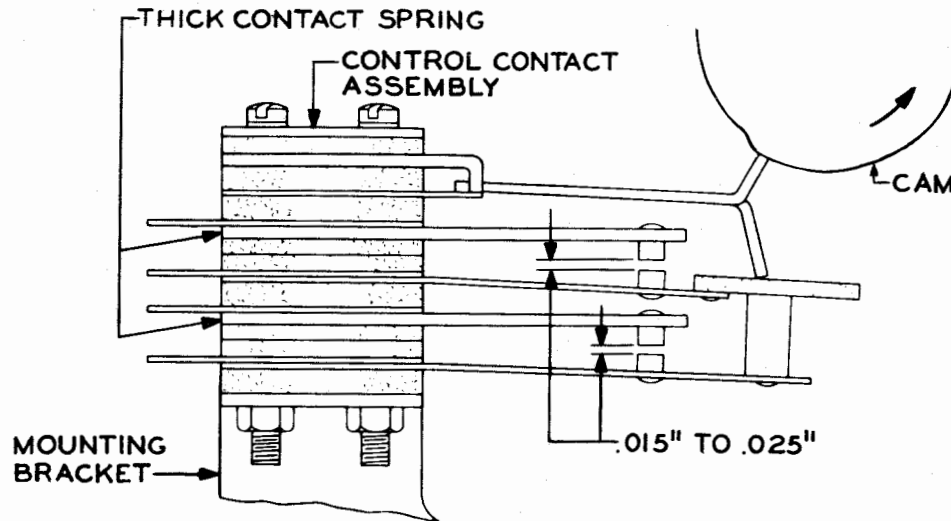


Figure 3

2.19 Control Relay:

(a) With both contact points just touching, there should be a clearance of minimum 0.005 inch, maximum 0.010 inch between the armature and the armature core at the closest point. (See Figure 6A.)

To Adjust: Bend the contact springs.

(b) With the armature against its backstop, there should be a clearance of minimum 0.020 inch, maximum 0.030 inch between contact points. (See Figure 6B.)

To Adjust: Bend the backstop.

2.20 Control-relay Armature Spring Tension:

Position the relay so that the armature spring is on the bottom. Apply the push end of a scale horizontally to the armature, just in front of the backstop. It should require between

1/2 ounce to 1 ounce to hold both contact points just touching. (See Figure 6A.)

To Adjust: Bend the armature-spring mounting bracket.

2.21 Rubout Bail Spring Tension: Hook a scale over the spring post and pull in line with the spring. With the rubout-bail camfollower on the low part of the cam and the presensing contacts held away from the rubout-bail lower extension, it should require minimum 8 ounces, maximum 10 ounces to just move the rubout bail. (See Figure 7.)

2.22 Intermediate-lever Spring Tension: Unhook the spring and insert a scale in the spring eye. With the rubout camfollower on the low portion of the cam, it should require a pull of minimum 3 ounces, maximum 5 ounces to stretch the spring to installed length. (See Figure 7.)

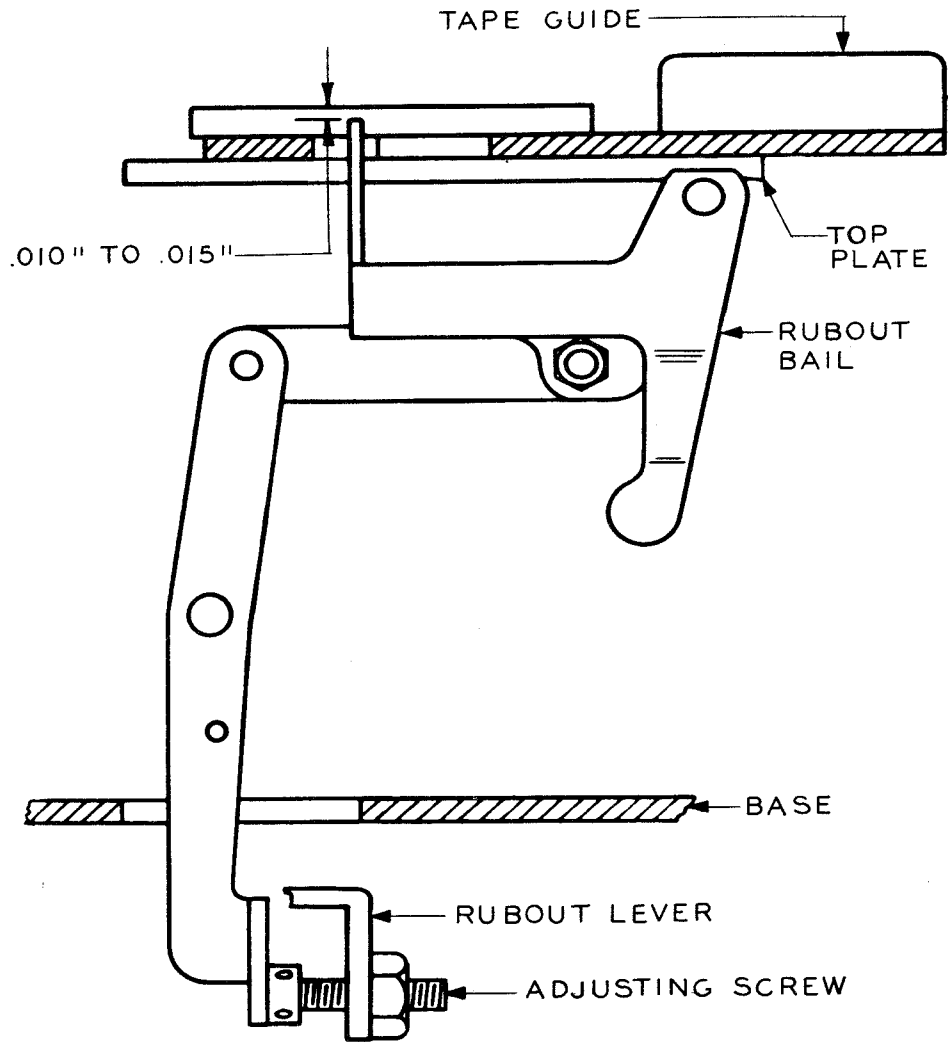


Figure 4

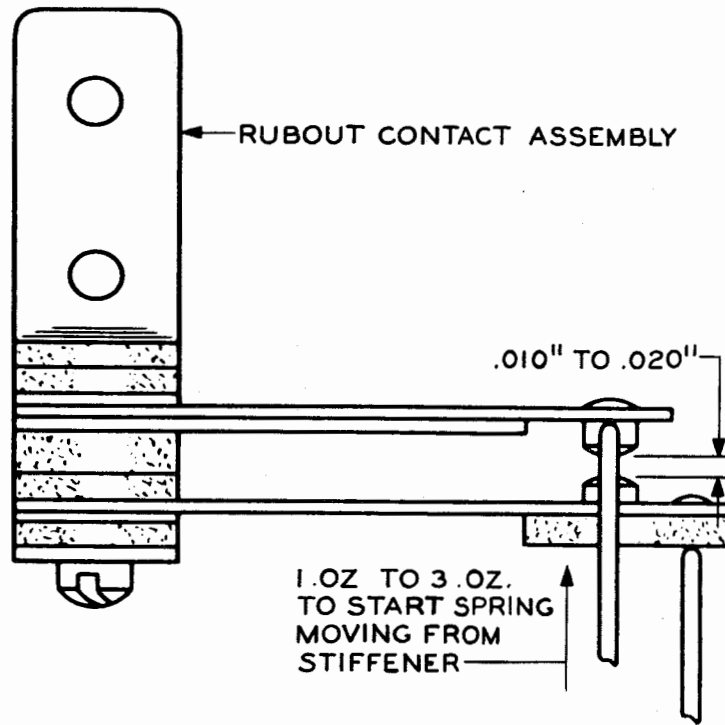


Figure 5

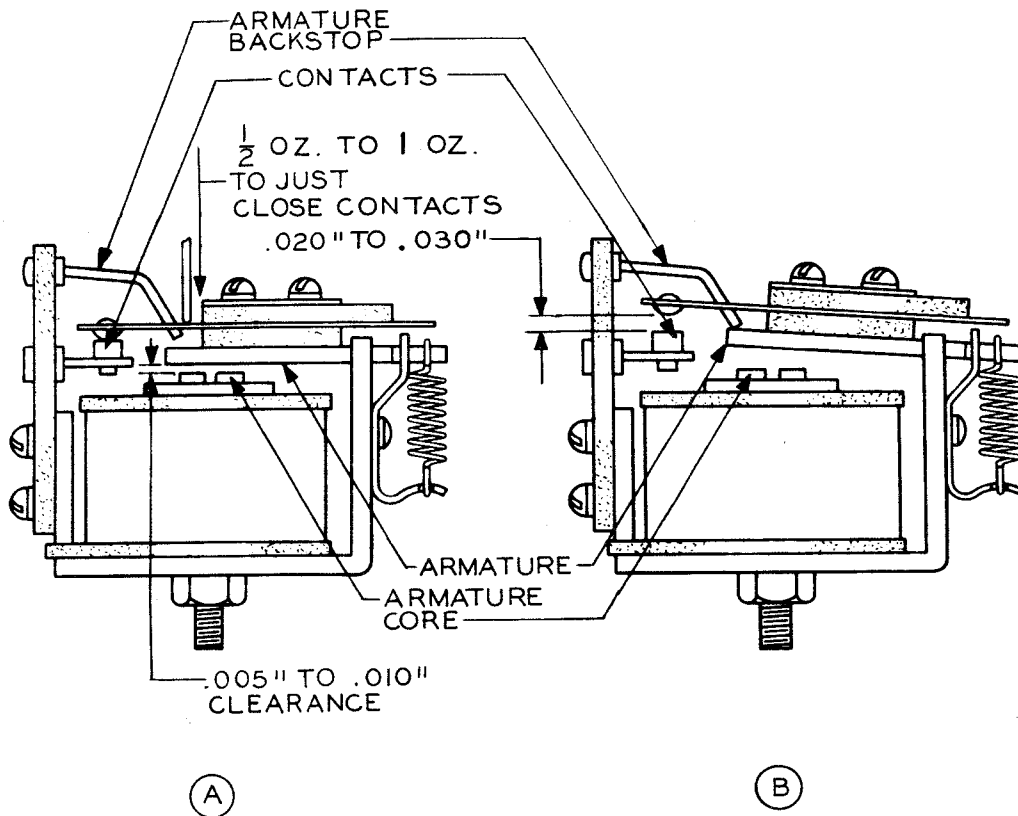


Figure 6

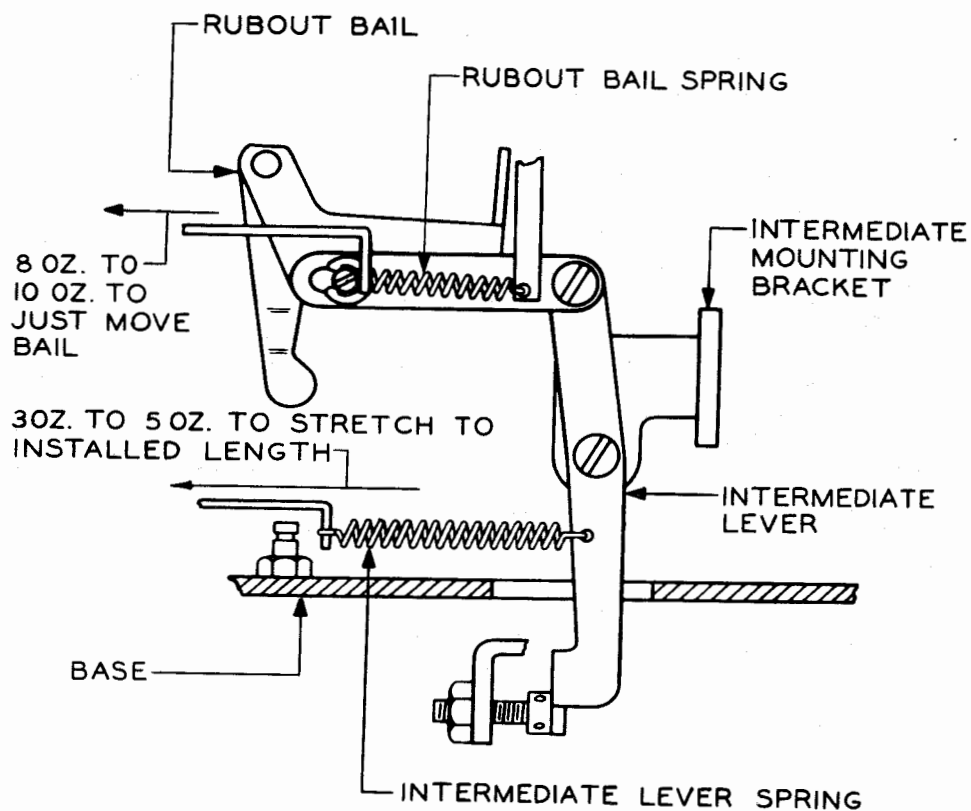


Figure 7