

INSTRUCTION FOR INSTALLING THE 164077
MODIFICATION KIT ON A MODEL 28 KEY-
BOARD (LK3 THROUGH LK6, LK8 AND UP)
TO PROVIDE A UNIVERSAL KEYBOARD SWITCH

The following chart pertains to Bell System only

Unit	Teletype Code	Bell System Code
Keyboard	LK3	28A
	LK5	28C

1. GENERAL

1.01 The 164077 modification kit when installed on a Model 28 keyboard provides an electrical switch which can be used under any or all keys in the keyboard. The switch can be wired normally open or closed. The contacts are capable of passing 1 amp of ac or 1/2 amp of dc current at 120 volts. Arc suppression should be provided when necessary.

1.02 The keyboard switch mounts directly under the lobe of codebar lever in the keyboard. As the key is pressed, it performs its standard function and opens or closes the keyboard switch. As in some cases there is no function lever or keylever in the particular slot required, it will be necessary to include these items separately. The function lever 174246 differs from the standard function levers and will not perform the standard functions. It is designed for easy installation into the keyboard.

1.03 The 164077 modification kit consists of:

Quantity	Part	Description	Quantity	Part	Description
1	1178	Screw	2	121473	Stud
2	2191	Lockwasher	2	153817	Screw
2	3599	Nut	2	156740	Screw
2	7002	Washer, flat	1	174246	Lever w/stud codebar
1	7603	Spring			
1	71073	Washer, flat	1	309507	Contact assembly
2	85976	Spacer	1	309508	Bracket
1	93117	Lockwasher	1	309509	Bracket, right
2	110743	Lockwasher	2	309510	Bar, retainer
1	112627	Nut, hex	1	321727	Guide

*Complete Revision

SPECIFICATION 5972S

1.04 For part numbers referred to and for parts ordering information, see Teletype Model 28 Printer Parts Bulletin 1149B.

2. INSTALLATION

2.01 Remove the 151354 screws holding the 151353 label covers and remove the label holders.

2.02 Remove the six 151346 screws holding the 151325 keylever assembly cover and remove cover.

2.03 This paragraph is only involved when there is no keylever in the location desired. The keylever and associated 174246 function lever and 7603 spring must be ordered separately if required.

(1) Remove the 151346 screws holding the 151834 keytop guideplate to the front frame.

(2) Install the 174246 and 7603 spring function lever into the corresponding slot in the 151849 code lever guide. Use caution in installing this lever as there is only a very small clearance to get this lever in and the part is quite thin in that area.

(3) Should the installation of the 174246 function lever be impaired by the 151844 screw stop, it should be removed and discarded.

(4) Reassemble the keyboard by reversing the procedure outlined in Paragraph (1) above.

2.04 Install the 309507 contact assembly in its approximate position on the 309510 retainer bars. Fasten the contact friction tight with the 321727 guide, 1178 screw, 71073 flat washer, 93117 lockwasher, and 112627 nut. (Refer to Figures 2 and 3.)

2.05 Install the 309510 retainer bars on the 309508 and 309509 brackets and fasten friction tight using two 153817 screws, two 110743 lockwashers and two 3599 nuts.

2.06 Remove the two 151630 screws, 2191 lockwashers, and 7002 flat washers (one at a time) holding the 151841 lock ball channel. Be careful not to disturb the adjustment of the lock ball channel. Install two 121473 studs with the same lockwashers and flat washers just removed.

- 2.07 Fasten the 309508 and 309509 brackets (with attached 309510 retainer bars) friction tight to the 121473 studs with two 156740 screws, two 2191 lockwashers, and two 7002 flat washers.
- 2.08 Should the location of a particular switch be impaired by the 111343 lock ball retainer clamp, the clamp should be removed and installed in one of the nearby holes.
- 2.09 Drill one 0.375 inch diameter hole in the 151326 sealing plate. Locate as indicated in Figure 4.

3. ADJUSTMENTS

- 3.01 For adjustment procedure refer to standardized adjustment information, for other than Bell System see Bulletin 217B. Make the following adjustments.

3.02 KEYBOARD SWITCH HORIZONTAL ADJUSTMENT Requirement

With the contact assembly, guide and code lever assembly lined up per Figure 2, there should be some to 0.020 inch clearance (gauge by eye) between the right edge of the contact swinger insulator and the extension of the code lever assembly in the unoperated position.

To Adjust

Loosen the 1178 screw holding the contact assembly to the 309510 retainer bars and adjust. Tighten the screw.

Note: When the horizontal adjustment is completed, check for 0.050 inch to 0.075 inch clearance between the contact assembly spring and the keyboard wedge retainer. Bend the 312995 retainer bars if necessary.

3.03 KEYLEVER SWITCH VERTICAL ADJUSTMENT Requirement

With the unit in the stop position and the keylever depressed to a point where the clutch engages or the intended function selected, the center and lower contact should just close or have a maximum gap of 0.008 inch.

To Adjust

Loosen the two 156740 screws which fasten the 309508 and 309509 brackets on the two 121473 studs and position the complete mounting assembly.

SPECIFICATION 5972S

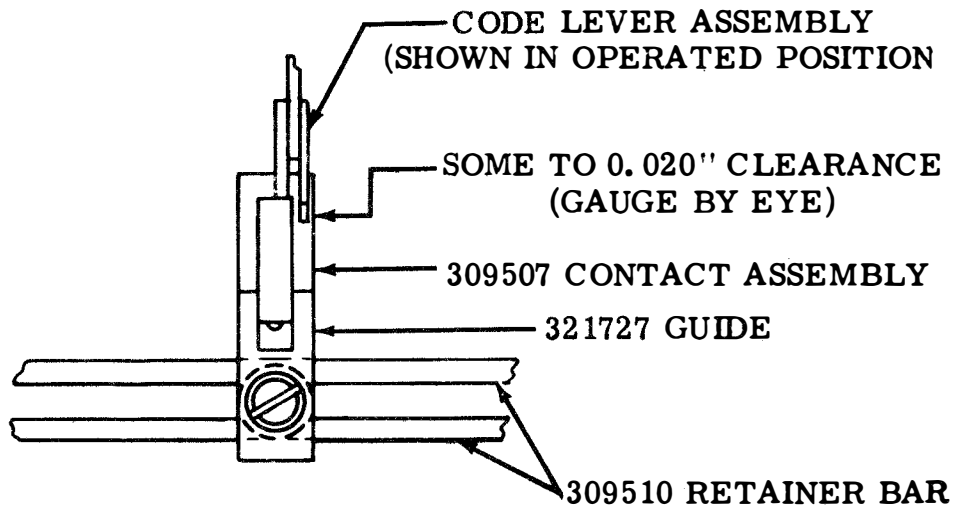
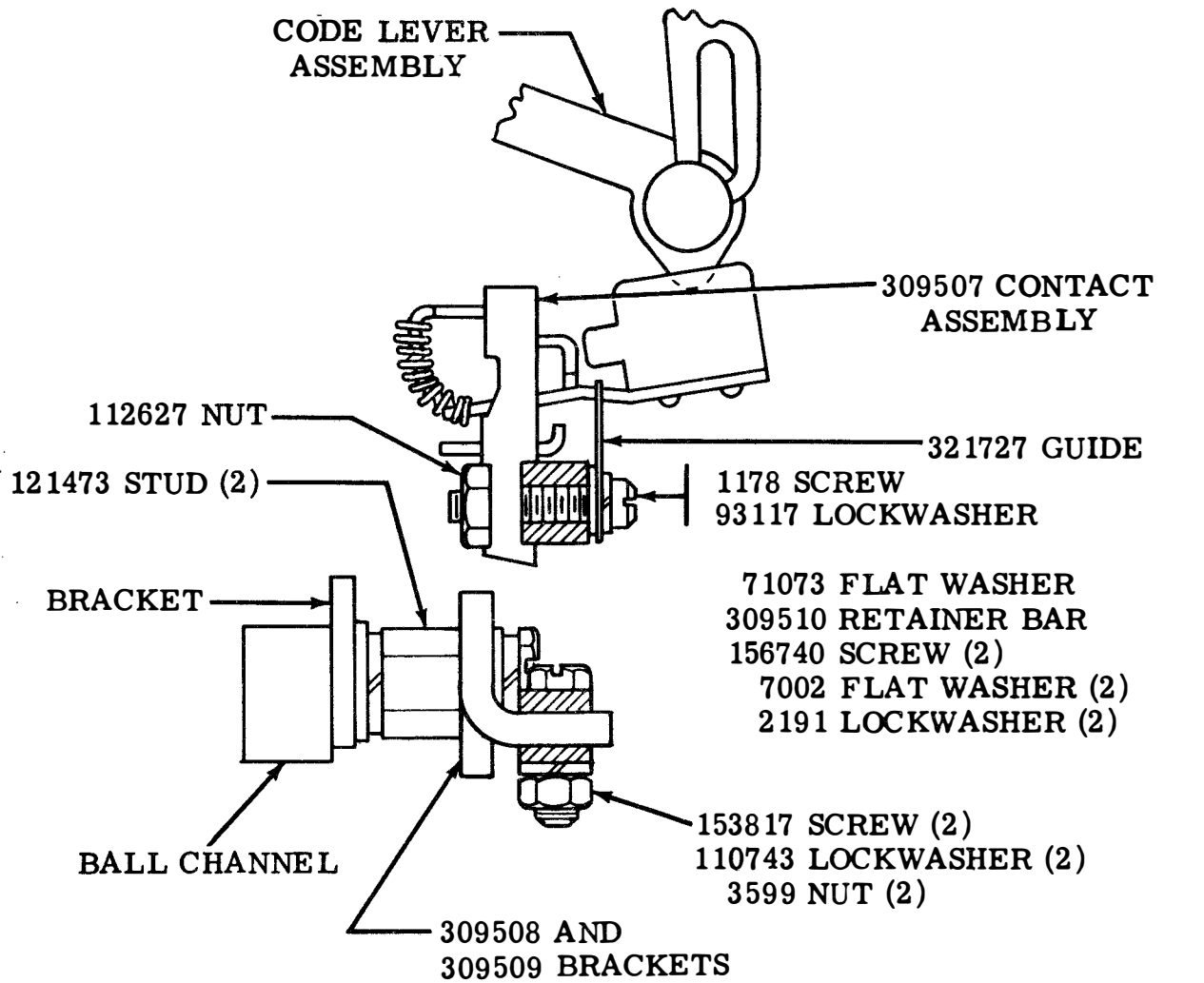
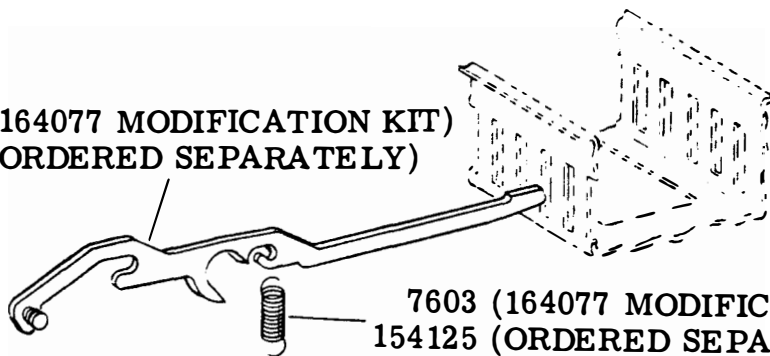
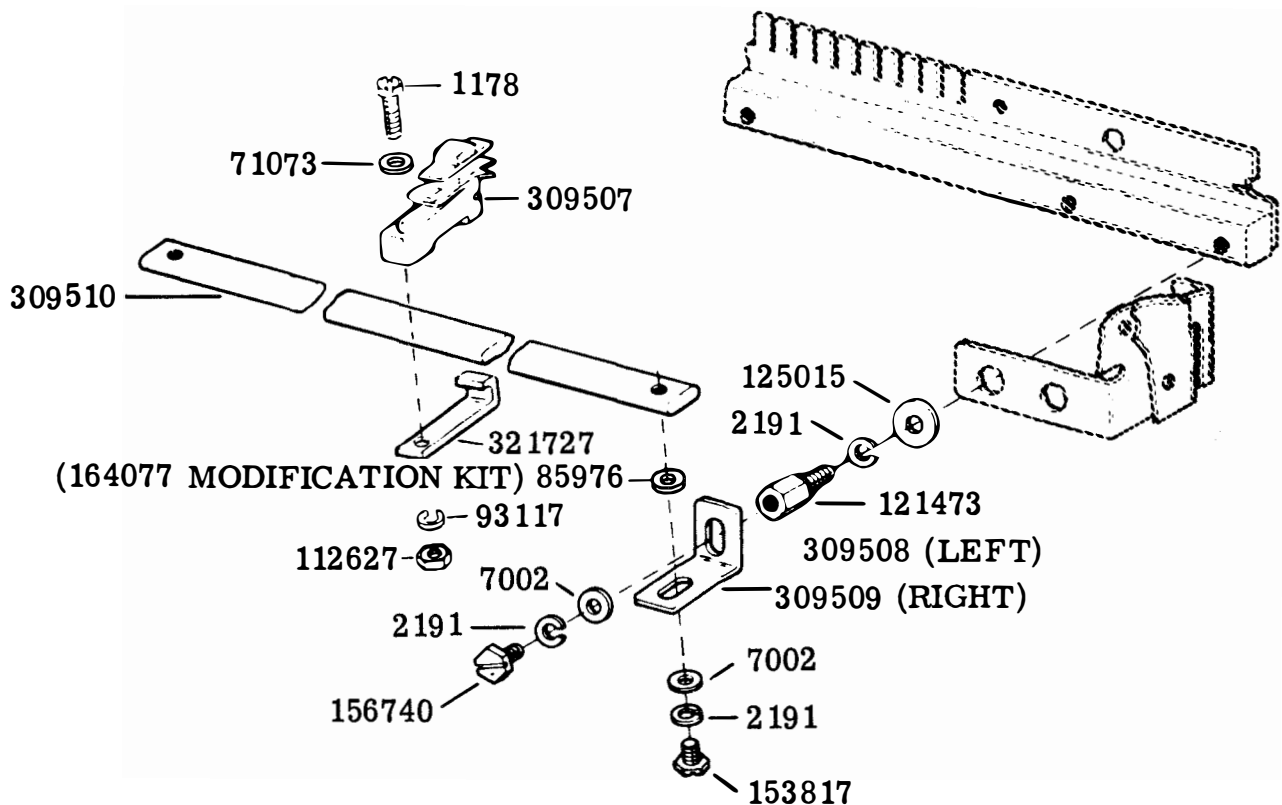


Figure 1

174246 (164077 MODIFICATION KIT)
 163979 (ORDERED SEPARATELY)



7603 (164077 MODIFICATION KIT)
 154125 (ORDERED SEPARATELY)



164077 MODIFICATION KIT TO PROVIDE UNIVERSAL
 KEYBOARD SWITCH MECHANISM

Figure 2

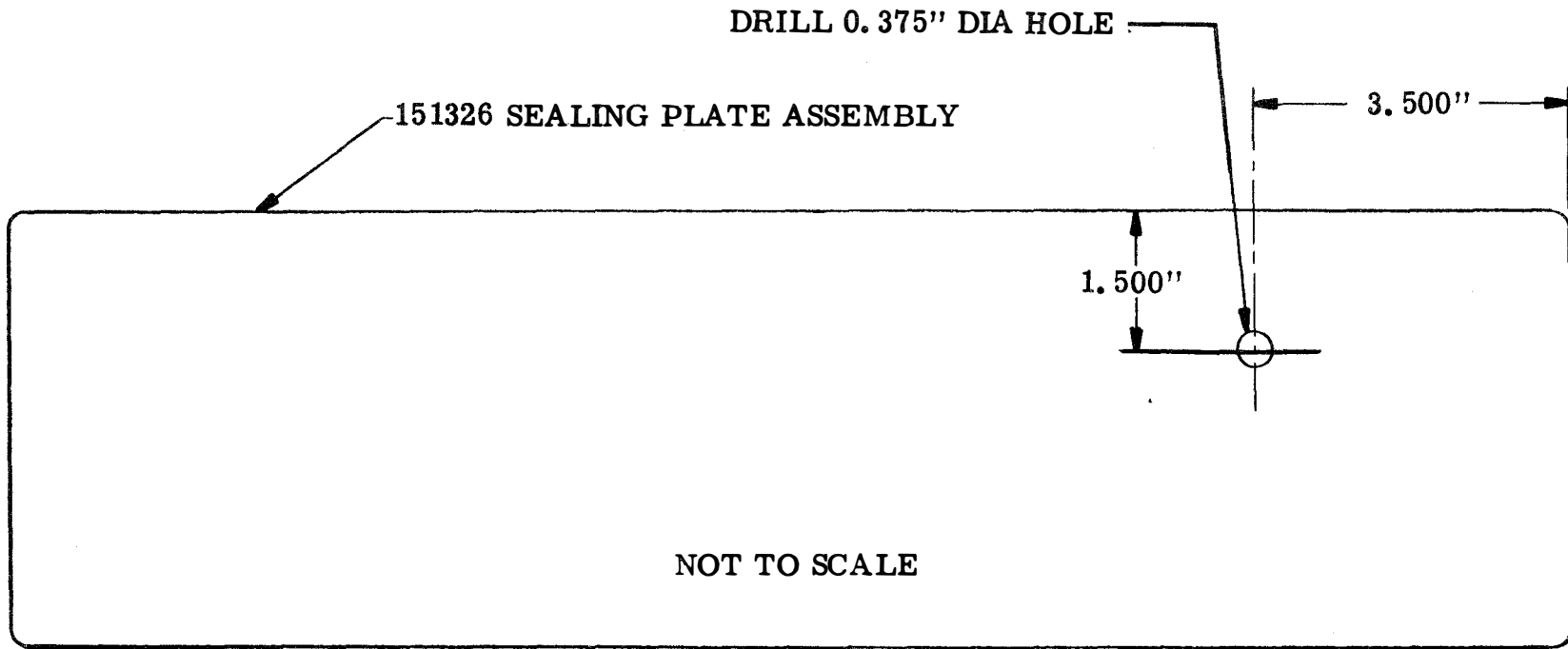


Figure 3

(Front View)