

33 KEYBOARD

DISASSEMBLY AND REASSEMBLY

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1. GENERAL	
1.01 This section provides disassembly and reassembly for the 33 type keyboard. It is reissued to incorporate disassembly and reassembly information for the locking mechanism in keyboards for Computer Input/Output (I/O) Sets. Marginal arrows are used to indicate additions and changes.	
1.02 References to left, right, front, rear, etc, consider the keyboard to be viewed from a position where the spacebar faces up and the contact mechanism is located to the viewer's right.	
1.03 Disassembly, as outlined in this section, covers the procedure for removing the principle subassemblies which make up the unit. If further disassembly is required, refer to the appropriate illustrated parts section which shows detailed arrangements of parts. Where it will	

help in determining their location, the numbers of the parts are given in the instructions.

**CAUTION: BEFORE BEGINNING DISASSEMBLY, REMOVE CONNECTORS FROM EXTERNAL RECEPTACLES (POWER SOURCE, DATA SET, ETC).**

1.04 When self-tapping screws are used to mount mechanisms onto castings, do not remove the self-tapping screws. Merely loosen them enough to remove the mechanisms unless specifically instructed otherwise.

1.05 Retaining rings are made of spring steel and have a tendency to release suddenly. To avoid loss of these rings when removing them, proceed as follows:

- (a) Hold retaining ring to prevent its rotating.
- (b) Place blade of screwdriver in one of ring's slots and rotate screwdriver to increase diameter.
- (c) Ring will come off easily in fingers without flying.

1.06 All tools used to remove the mechanisms referred to in this section can be found in the 570-005-800TC standard tool section.

1.07 All damaged, worn, or distorted parts should be replaced if encountered in the disassembly and reassembly procedures.

2. DISASSEMBLY AND REASSEMBLY

Note: For information concerning the proper procedure to remove the keyboard assemblies from the set, refer to appropriate disassembly and reassembly set section.

## KEYBOARD COVER

2.01 To remove the keyboard cover (Figure 2), proceed as follows.

- (a) Remove TP119652 retaining ring and TP41663 flat washer from the left side of the keyboard cover, and rotate the left side bracket away.
- (b) Hold the right side bracket firmly in place against the two TP180031 compression springs of keyboard contact mechanism, and remove the TP119652 retaining ring and TP41663 flat washer from the right side of the keyboard cover.
- (c) Continue to hold the right side bracket firmly in place, and disengage the keyboard cover from the right side bracket by moving it up and to the left. Lift the keyboard cover off the keys.

Note: With the keyboard cover removed, the right side bracket may be pushed un-

expectedly from its assembled position, due to the spring load of two compression springs. If this happens, certain parts may prematurely fall off. To prevent this, always keep the right side bracket firmly against the two compression springs of the keyboard contact mechanism, i e, either hold the right side bracket in place by hand or place it firmly against a fixed vertical surface.

- (d) To replace the keyboard cover, reverse the procedure used to remove it.

## KEYLEVER

2.02 To remove any keylever (Figure 1), proceed as follows.

- (a) Depress the front end of the TP182240 (early design) or TP185766 universal lever, or the TP186253 (late design) universal lever.

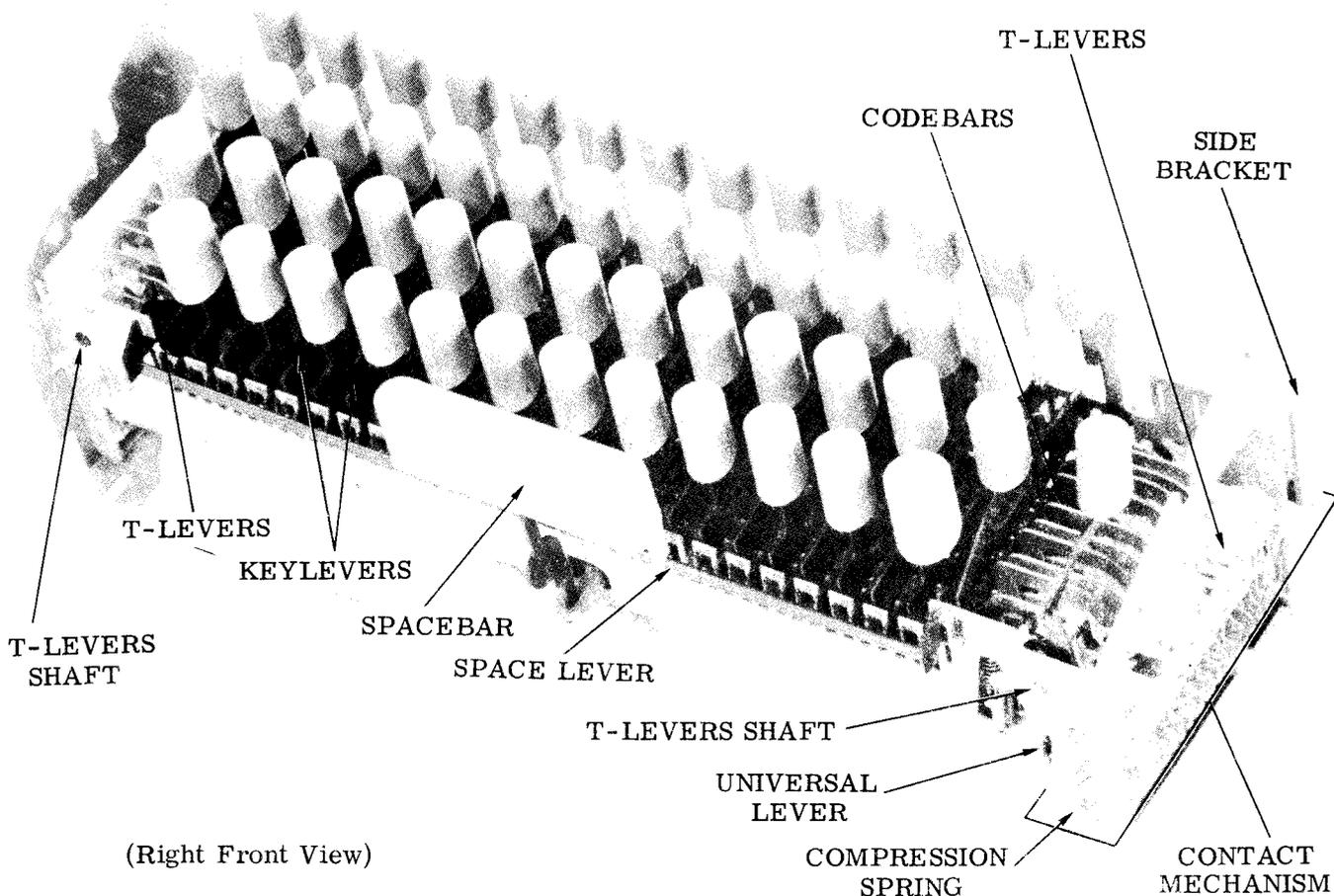


Figure 1 - Keyboard (Cover Removed)

- (b) Depress keylever and disengage it from front or rear guide slot.
- (c) Lift keylever out of keyboard frame.
- (d) To replace any keylever, reverse procedure used to remove it.

Note: Certain levers have compression springs on their lower stems. Make sure that the springs are properly replaced during reassembly.

## SPACEBAR MECHANISM

2.03 To remove spacebar mechanism (Figure 1), proceed as follows.

- (a) Remove the TP180057 spacebar with the attached TP180054 keylever.
- (b) Bow the TP180056 space lever and disengage it from the two TP180055 space keylevers.

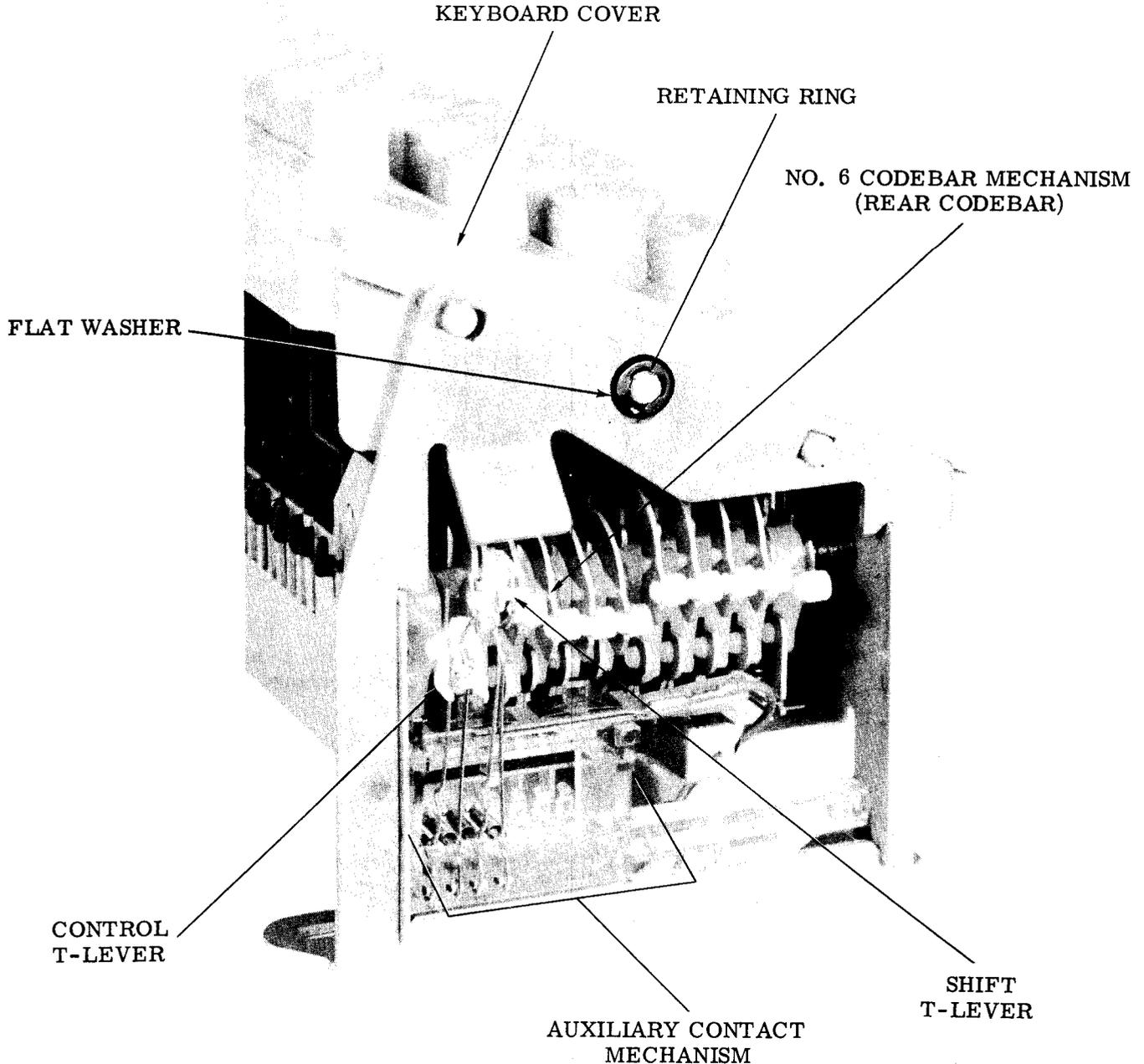


Figure 2 - Auxiliary Contact Mechanism

- (c) Disengage space keylevers from guide slots and remove them from frame.

Note: Careful attention should be given to the position of compression springs on keylever's lower stems so that they can be properly replaced during reassembly.

- (d) To replace spacebar, reverse procedure used to remove it.

**CODEBAR**

- 2.04 To remove any codebar (Figure 1), proceed as follows.

- (a) Remove all keylevers from typing unit.
- (b) Disengage codebars from left and right T-levers and remove them from keyboard frame.
- (c) To replace codebars, reverse procedure used to remove them.

**KEYBOARD CONTACT MECHANISM**

- 2.05 To remove keyboard contact mechanism (Figure 1), proceed as follows.

- (a) Disengage the TP185798 (early design) or TP186437 nonrepeat lever spring and the TP82442 (early design) or TP186435 universal lever spring.
- (b) Remove the right side bracket by snapping it off the frame.
- (c) Remove the contact mechanism.

Note: Careful attention should be given to the position of the TP180031 compression springs so that they may be properly replaced during reassembly.

- (d) To replace the keyboard contact mechanism, reverse the procedure used to remove it.

Note: Be sure that the TP180046 contact reset bail operating arm is located beneath the TP182240, TP185766 or TP186253 universal lever after reassembly.

**AUXILIARY CONTACT MECHANISM**

- 2.06 To remove auxiliary contact mechanism (Figure 2), proceed as follows.

Note: These instructions apply only to parity keyboards.

- (a) Remove left side bracket by snapping it off frame.
- (b) Disengage the TP42661 (early design) or the TP186339 (late design) shift codebar link spring.
- (c) Spread keyboard frame and remove the auxiliary contact.
- (d) To replace the auxiliary contact mechanism, reverse the procedure used to remove it.

**T-LEVER SHAFTS**

- 2.07 To remove the T-lever shafts (Figure 1), proceed as follows.

- (a) Disengage the TP84575 universal link spring.
- (b) Remove corresponding side bracket; spread the frame and lift out.

Note: If it is desired to remove T-levers, remove the TP119653 retaining rings and slide levers off their shafts.

- (c) To replace the T-lever shafts, reverse the procedure used to remove it.

**3. DISASSEMBLY AND REASSEMBLY OF LOCKING MECHANISM IN KEYBOARDS FOR COMPUTER INPUT/OUTPUT SETS (Figure 3)**

- 3.01 Remove TP119648 retaining ring. Remove TP186834 lever from post. Remove TP86079 felt washer.
- 3.02 Remove the solenoid plunger with the TP186834 lever attached to it.

- (a) Remove TP119648 retaining ring from the TP183852 pin.
- (b) Remove the TP183852 pin.

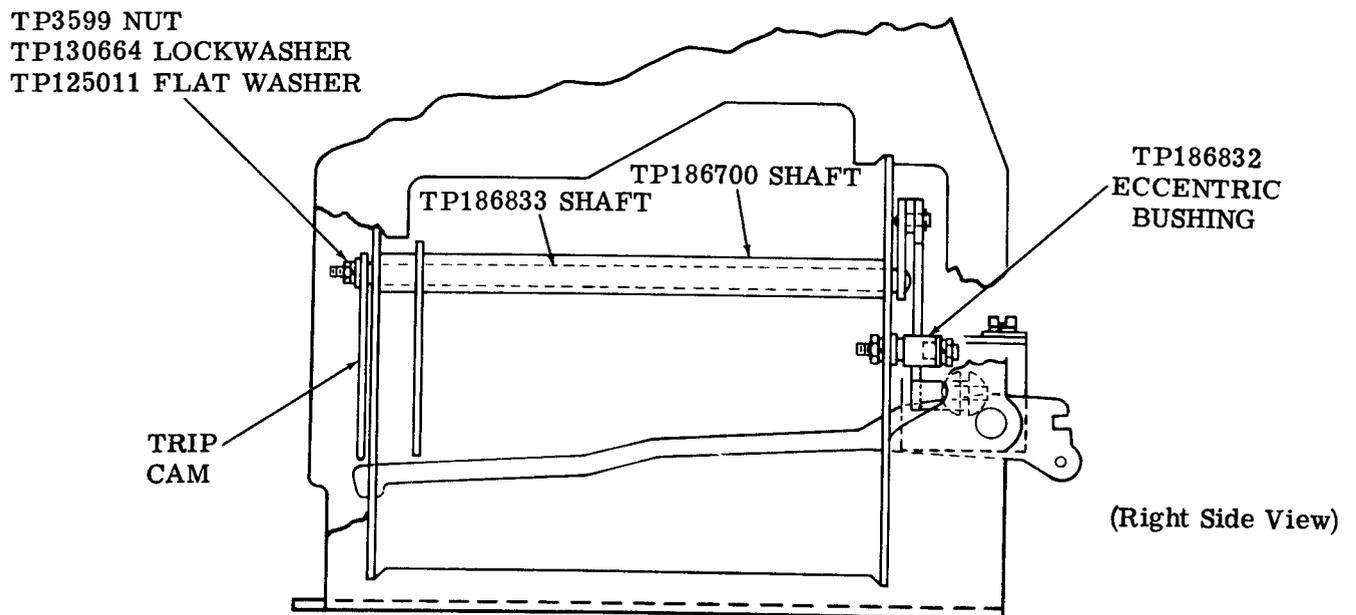
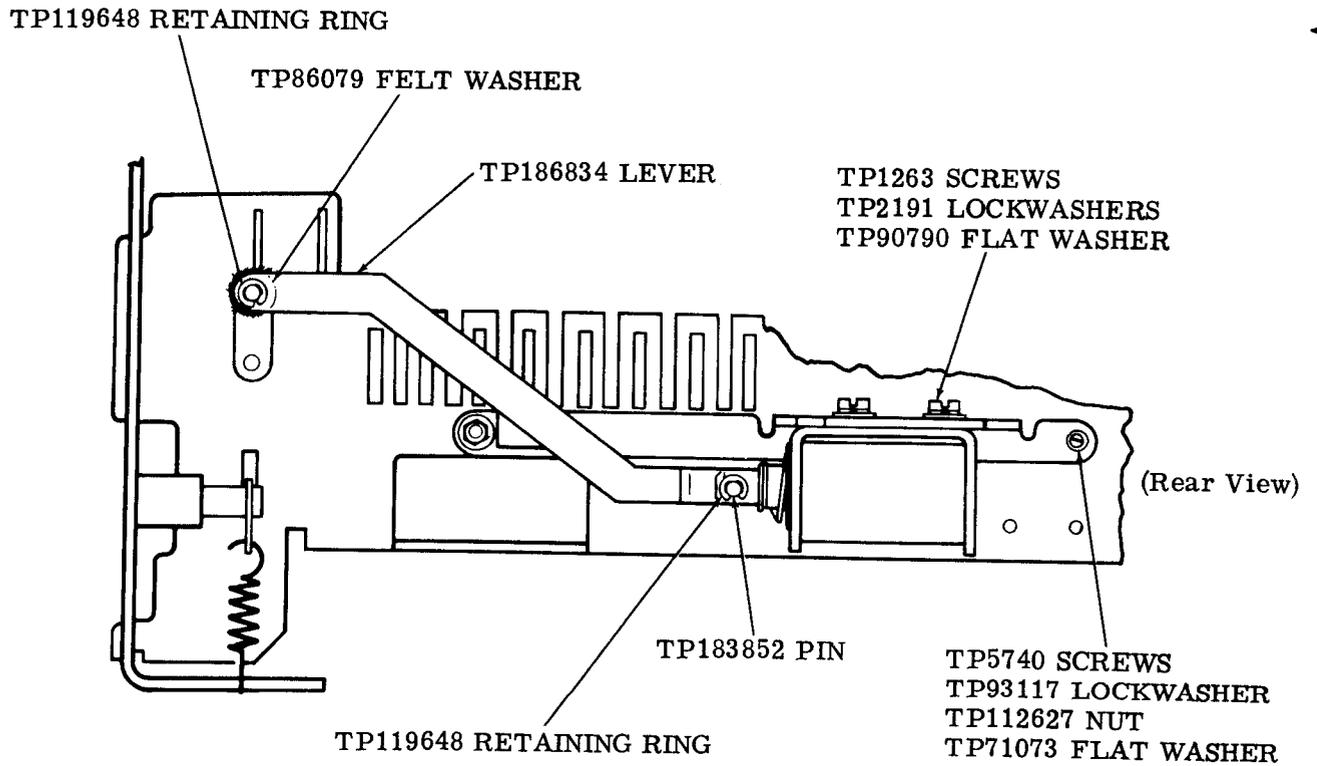


Figure 3 - Locking Mechanism for Keyboards of Computer I/O Sets

- (c) Remove the TP186834 lever from the slot in the solenoid plunger.
- 3.03 Remove TP186832 eccentric bushing from the stud on the TP186830 mounting bracket.
- 3.04 Disassemble trip cam by removing TP3599 nut, TP130664 lockwasher, and TP125011 flat washer.
- 3.05 Remove TP186833 shaft with lever from within the TP186700 shaft by pulling at → the TP186833 from the rear of the keyboard.
- 3.06 Remove solenoid from its mounting bracket by removing two TP1263 screws, two TP2191 lockwashers, and two TP90790 flat washers.
- 3.07 Remove the solenoid mounting bracket with stud from the keyboard frame by removing the TP5740 screw, two TP93117 lockwashers, two TP112627 nuts, and TP71073 flat washer.
- 3.08 To reassemble the locking mechanism → it. reverse the procedures used to remove