

INSTRUCTIONS FOR INSTALLING THE 319385
MODIFICATION KIT TO ADD TWO SPEED GEARSHIFT
TO MODEL 35 KSR

1. GENERAL

- 1.01 The 319385 modification kit provides a two speed (67 and 100 wpm) gearshift for Model 35 KSR Sets.
- 1.02 The 319385 modification kit is not compatible with keyboards equipped with either an LD or an answer-back mechanism.
- 1.03 Shifting of gears must be done with the motor turned off. A lever located to the rear and left of the unit provides the shifting of the gear speeds.
- 1.04 The 319385 modification kit consists of the following parts:

<u>Qty.</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>	<u>Part No.</u>	<u>Description</u>
6	2191	Lockwasher	1	151442	Screw
1	1118	Screw	4	151722	Screw
4	2669	Lockwasher	1	153304	Shoulder bushing
2	3598	Nut	1	159287	Retainer
2	7002	Flat washer	2	161301	Post
2	74805	Screw	1	319380	Gearshift assembly
2	95841	Screw	1	319386	Bracket with post
4	112626	Nut	1	319387	Bracket
2	117535	Flat washer	1	319388	Lever
1	119652	Retaining ring	1	319389	Gearshift link
1	145365	Pinion Gear	1	319390	Connector bracket
1	151346	Screw			

- 1.05 For parts ordering information, other than the parts listed in the kit, see Teletype Bulletin 1187B.

2. THEORY OF OPERATION

- 2.01 The 145365 pinion gear is fastened to the motor shaft and drives the 145366 driven gear and shaft. This shaft has two fixed gears.

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2.02 Rotation of the fixed shaft rotates the two gears on variable speed shaft. When the 145386 collar is moved, the 145383 key engages with one of the two gears rotating on the variable shaft. Since the two gears provide a different ratio and speed, the variable shaft rotates at the speed determined by the gear set with which the key is engaged.

2.03 A 145376 gear is fastened to the variable speed shaft which meshes with the 145390 gear on the third shaft. This idler gear meshes with the printer main shaft gear.

3. INSTALLATION

3.01 Remove from the keyboard and discard the intermediate gear assembly. Retain both 144769 pivot buttons and 2669 lockwashers.

3.02 Remove and discard the connector and motor terminal block mounting bracket. Retain all connector and terminal block hardware.

Note: To make subsequent assembly easier, the motor must be removed in accordance with standard practice. See Teletype Bulletin 280B.

3.03 Insert two 95841 screws and 2669 lockwashers through the 319386 bracket and fasten to the top of the keyboard by securing the existing nut plate to the underside of the keyboard base (see Figure 1). Also secure the 151442 screw, 7002 flat washer, 2191 lockwasher and 3598 nut to the 319386 bracket and fasten to the top of the keyboard.

3.04 Assemble the 319388 lever to the 319386 bracket with a 151346 screw, 153304 bushing, 2191 lockwasher, and 7002 flat washer. Assemble the 319387 bracket to the 319386 bracket with two 151722 screws and 2191 lockwashers. At the same time fasten the 319389 link to the 319388 lever with the 1118 shoulder screw and 3598 nut. The other end should be placed over the stud on the 145386 sleeve. Fasten link in place with a 119652 retainer ring when gearshift assembly is installed.

3.05 With the 319380 gearshift assembly in position slide the two retained 144769 pivot buttons between the gearshift casting and the keyboard mounting plate. Fasten with two retained 2669 lockwashers and two 74805 screws. Fasten the rear of the gearshift casting with two 117535 flat washers, 2669 lockwashers, and 112626 nuts.

3.06 Fasten the 145365 motor pinion gear to the motor with a 159287 retainer and two 161301 posts.

3.07 Mount the connector and the motor terminal block to the 319390 bracket using retained mounting hardware.

- 3.08 Fasten the 319390 bracket to the 319386 bracket which is mounted to the keyboard base. Use two 151722 screws and 2191 lockwashers.
- 3.09 Connect power cable and check associated wiring diagram of the unit on which kit is being installed for all correct connections to motor terminal block. Check cable routing clearance to moving parts. Replace motor.

4. ADJUSTMENTS AND LUBRICATION

Note: For standard adjustments and lubrication procedure of related equipment, see Teletype Bulletin 280B.

4.01 GEARSHIFT ASSEMBLY GEAR PLAY Adjustment

- (a) Requirement - There should be 0.004 inch to 0.008 inch backlash between the printer main shaft gear and the driving gear of the gearshift assembly at the closest point.
- (b) To Adjust - Loosen the 95841 and 74805 gearshift mounting screws and position gearshift assembly.
- (c) Requirement - There should be 0.004 inch to 0.008 inch backlash between the motor pinion and its mating gear on the gearshift assembly at the closest point.
- (d) To Adjust - Loosen the two 112626 nuts and two 74805 screws. Raise or lower the rear end of the gearshift assembly by loosening clampnut and turning adjusting bushing. Recheck (a).

4.02 LUBRICATION

- (a) Apply a thick coat of grease around the periphery of all gears.
- (b) Saturate felt washers in gearshift assembly with oil.
- (c) Apply two drops of oil on bronze bearing in gearshift assembly.

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AS VIEWED FROM LEFT SIDE

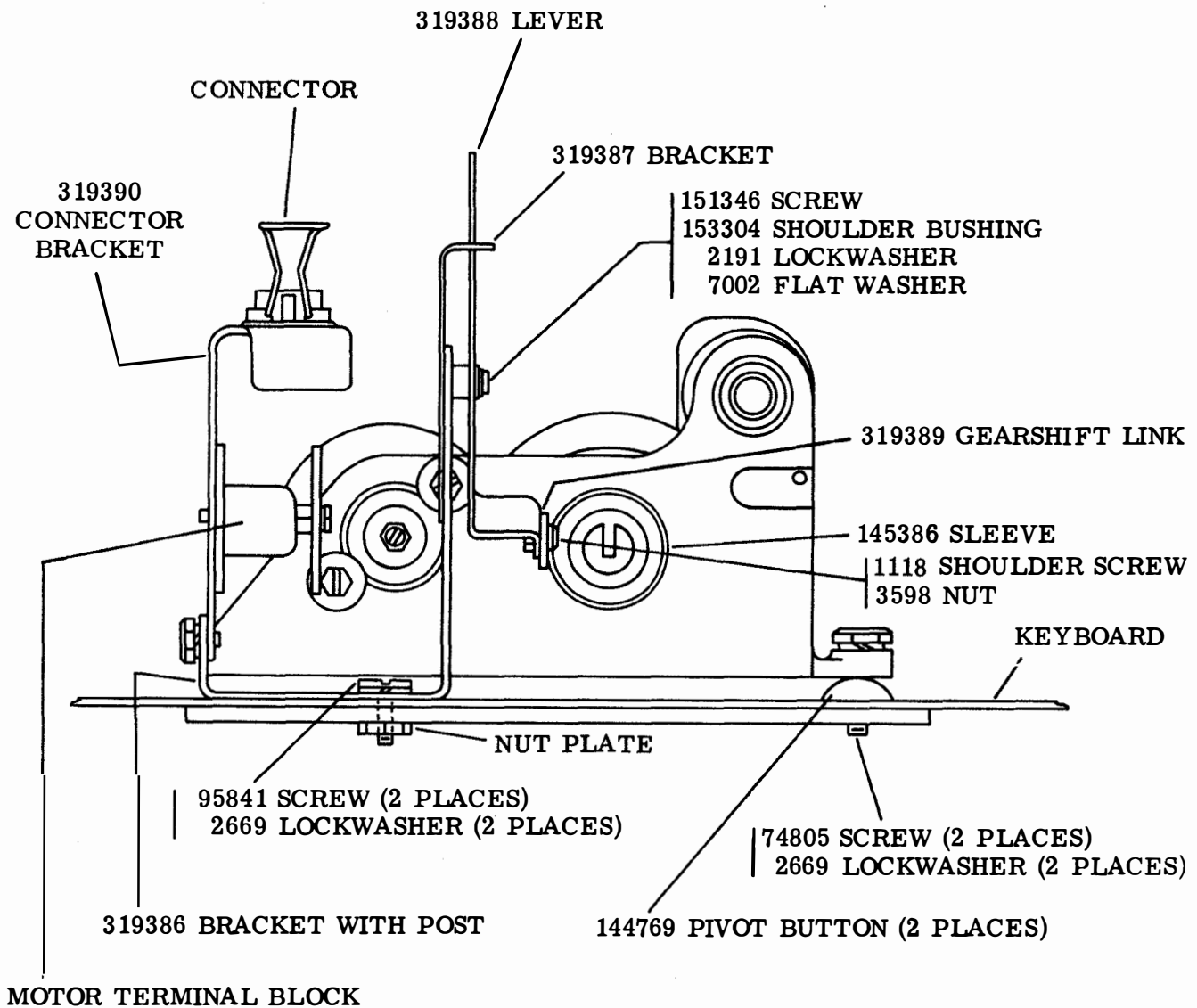


Figure 1

AS VIEWED FROM TOP REAR

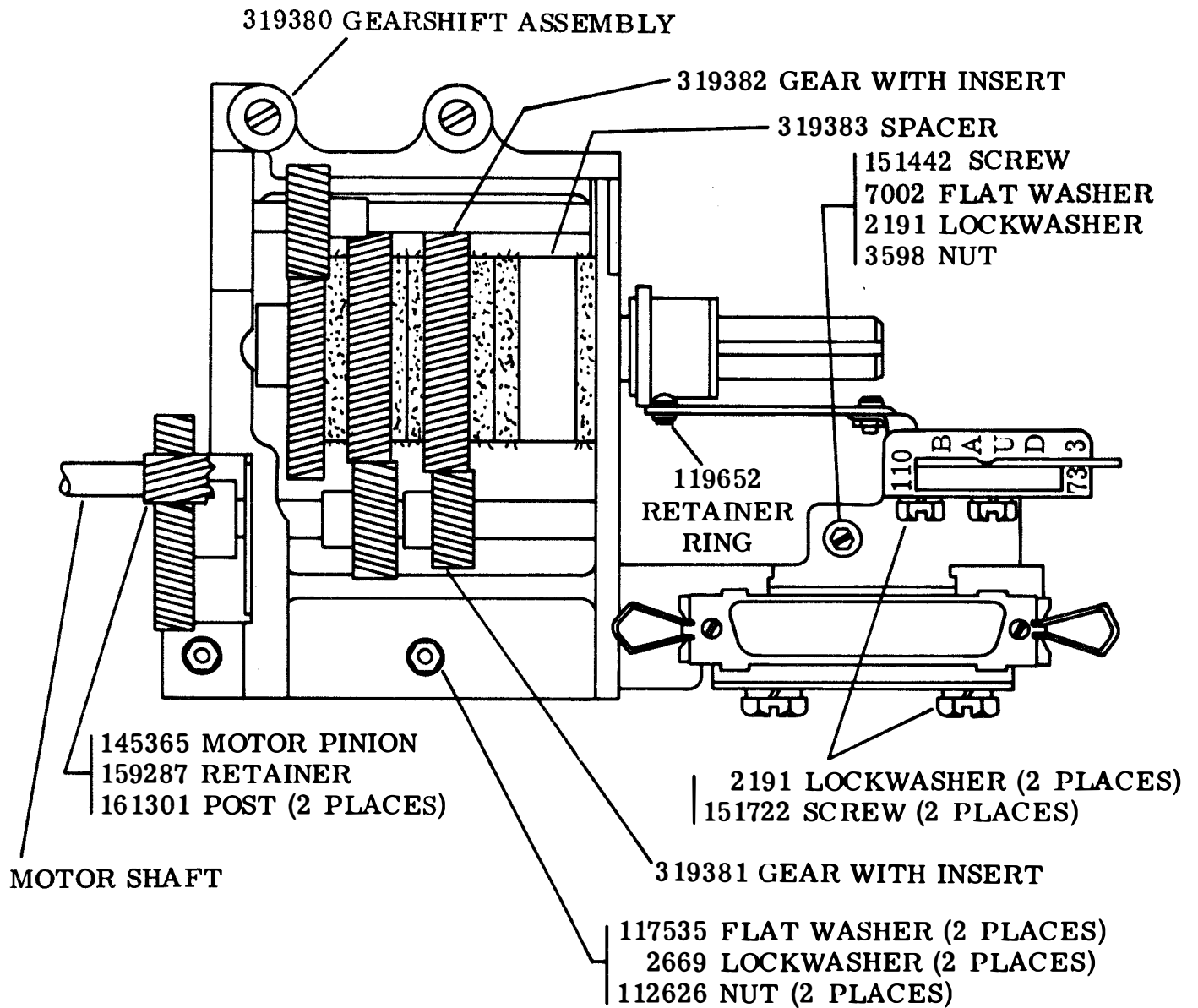


Figure 2

