

INSTRUCTIONS FOR INSTALLING THE 154142 TIME DELAY
MECHANISM MODIFICATION KIT ON A MODEL 28 KEY-
BOARD OR BASE (LAK, LK6 AND UP)

*The chart below pertains to Bell System only.

Teletype Unit	Teletype Code	Bell System Reference	Bell Code
Keyboard (Send-Receive)	LK	Base (Send-Receive)	28D 28E
Perforator Transmitter Base	LAK	Perforator Transmitter Base	28A, 28B 28D, 28E 28F, 28G 28G-1

1. GENERAL

*a. The 154142 Time Delay Mechanism is used on a Model 28 Keyboard in conjunction with the Electrical Motor Control Mechanism on the Electrical Service Unit (LESU1, 2, 5, 6, 7 and subsequent later models) to stop the motor automatically when there is no break in the signal line current for a set period of time. An interruption of the current by depression of the local or any distant keyboard break (KBD BREAK) key (in the loop circuit) which opens and closes the line will start the motor again. Operation of the mechanism, to energize the stop magnet of the associated Electrical Motor Control Mechanism and thereby stop the motor, occurs after the signal line has been idle for the following intervals:

<u>Speed</u>	<u>Minimum Delay</u>	<u>Maximum Delay</u>
60 WPM	75 seconds	150 seconds
75 WPM	60 seconds	120 seconds
100 WPM	45 seconds	90 seconds

The Time Delay Mechanism is operated by the momentary closing (not less than 45 milliseconds) of a pair of normally open electrical contacts.

*b. The 154142 Modification Kit consists of:

2	2191	Washer, Lock	1	121245	Clamp, Cable
2	7002	Washer, Flat	1	151244	Bushing, Eccentric
1	3598	Nut 6-40 Hex.	1	151245	Washer, Felt
1	76295	Spring	1	151246	Washer, Spacing

*Indicates Change

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2	151632	Screw 6-40 x 3/8 Hex.	2	155750	Sleeve, Insulating
1	154136	Pawl	1	2928WD	Diagram, Wiring
1	154143	Time Delay Assembly			

2. INSTALLATION (Figure 1)

NOTE

Check the tension adjustments listed in Paragraph 3 before making the installation.

*a. Place the 154143 Time Delay Assembly on the dismantled keyboard to which it is to be attached, in a position such that the switch and cable extends to the right, (from front of keyboard). Place the rear lug of the 154134 Mount Bracket on top of the base and the front lug under the projection provided in the base. Secure the assembly with the 151632 Screws, 2191 Lock Washers, and 7002 Flat Washers, inserting the screws from the top, threading the front one into the time delay mount bracket and the rear one into the base. Check the position of the contact pawl with relation to the associated typing unit on the base in accordance with standard practice. Move the entire time delay assembly forward or backward to obtain clearance (.020 minimum).

*b. Route the cable through the base as shown in Wiring Diagram 2928WD. Slip one 155750 Insulating Sleeve over each of the wires before soldering, the white wire to Terminal 17 and the blue wire to Terminal 19 of the 152467 Connector. Push the insulating sleeves back over the soldered connections.

NOTE

The connector terminals may be exposed by removing the two 151658 Screws that hold it in place, lifting it out and inverting it. When reassembling, be sure other parts, such as the 152462 and 152463 Latches and 152464 Insulators are properly mounted in place.

c. Remove the 154224 Intermediate Gear Assembly from the base.

d. Remove the 151346 Screw and 2191 Lock Washer that secure the 151129 Printer Drive Gear to the 154663 Intermediate Gear Shaft. Remove the 112626 Nut, 2669 Lock Washer and 3438 Flat Washer from the end of the shaft. Partially withdraw the intermediate gear shaft so that the 154662 Spacer, 151129 Gear, and 151126 Spacer can be removed.

e. Slide the 151246 Spacing Washer onto the gear shaft. Hold the 154136 Eccentric Follower Pawl with its spring hole down and slip it onto the gear shaft with the longer arm forward. Put the 151245 Felt Washer over the larger (concentric) surface of the 151244 Eccentric Bushing then slide it onto the shaft

with the eccentric portion to the right (toward larger bearing). Fit the pawl arm over the eccentric position of the bushing. Reassemble the 151129 Gear and 154662 Spacer onto the shaft and secure the assembly with the fasteners previously removed. Discard the 151126 Spacer.

f. Hook the 76295 Spring onto the 154134 Bracket so that it will clear the 154137 Adjustment Lever. Remount the intermediate gear assembly onto the base, with the 154136 Pawl Arm fitted into the slot provided in the top of the 154134 Bracket. Hook the free end of 76295 Spring into the hole in the eccentric follower pawl arm.

*g. Replace the 121244 Cable Clamp located to the left of the 152467 Connector and mounted on the underside of the keyboard base with the 121245 Cable Clamp contained in the modification kit. Route the time delay cable through the cable clamp along with the keyboard cable and the signal line break switch cable. Then wrap the other end of the cable one turn around the rib in the base as shown on 2928WD Wiring Diagram. Check to make certain the two switch terminals are covered with the two 155751 Insulation Sleeves. (NOTE: This tubing can be heat sealed with needle nose pliers heated with a soldering iron).

3. ADJUSTMENTS AND LUBRICATION

For adjustment and lubrication procedures refer to standardized information. Make the following adjustments.

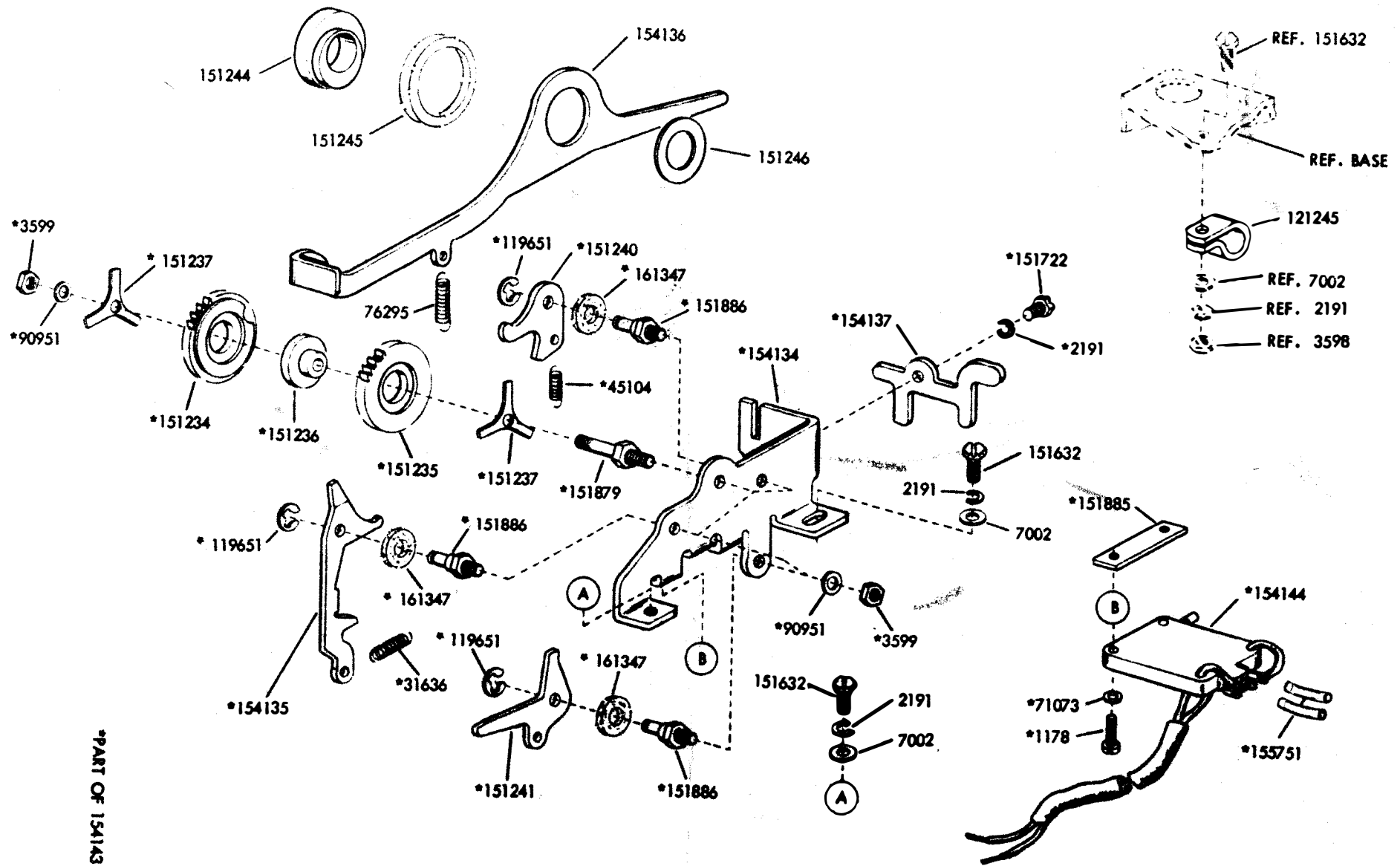
Time Delay Ratchet Wheel Tension
Time Delay Switch Position
Contact Latch Pawl Spring Tension
Contact Pawl Spring Tension
Time Delay Mechanism Position
Time Delay Disabling Device
Eccentric Follower Spring
Intermediate Gear Bracket

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FIGURE 1



*PART OF 154143