

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

The chart below pertains to Bell System only.

<u>Teletype Unit</u>	<u>Teletype Code</u>	<u>Bell System Reference</u>	<u>Bell Code</u>
Keyboard (Send-Receive)	LK	Base (Send-Receive)	28D 28E

1. GENERAL

1.01 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	86 seconds	172 seconds
75 wpm	69 seconds	138 seconds
100 wpm	53 seconds	106 seconds

The time delay mechanism is operated by the momentary closing (not less than 45 milliseconds) of a pair of normally open electrical contacts.

1.02 The 154142 modification kit consists of:

2	2191	Lockwasher	1	151246	Washer, spacing
2	7002	Washer, flat	2	151632	Screw
1	101386	Spring	1	154136	Pawl, eccentric follower
1	121245	Clamp, cable	1	154143	Delay assembly, time
1	151244	Bushing, eccentric	2	155750	Sleeve insulating
1	151245	Washer, felt	1	306996	Washer, spacing

\*General revision.

## SPECIFICATION 5892S

### 2. INSTALLATION (Figure 1)

Note: Check the tension adjustments listed in Section 3 before making the installation.

2.01 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 lockwashers, 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 (0.020 inch minimum).

2.02 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.

2.03 Remove the 154224 for early design, 326727 late design, intermediate gear assembly from the base.

2.04 Remove the 151632 screw, 2191 lockwasher, and 8330 flat washer that secure the 151129 printer drive gear to the 306994 intermediate gear shaft. Remove the 112626 nut, 2669 lockwasher, and 3438 flat washer from the end of the shaft. Partially withdraw the intermediate gear shaft so that the 306996 spacer, 306995 spacer, 151129 gear, and 306995 spacer can be removed. Discard one 306995 spacer.

2.05 Slide the 151246 or 306996 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, 306995 spacer, and 306996 spacing washer onto the shaft and secure the assembly with the fasteners previously removed.

- 2.06 Hook the 101386 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 101386 spring into the hole in the eccentric follower pawl arm.
- 2.07 Replace the 121244 cable clamp located to the left of the 152467 connector and mounted on the underside of the keyboard base with the 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 Wiring Diagram 2928WD. 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

- 3.01 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

