

INSTRUCTIONS FOR INSTALLING THE 87593, 89960 or 92272
MODIFICATION KIT ON A MODEL 14 PRINTER AND THE 97367
MODIFICATION KIT ON A MODEL 14 TYPING REPERFORATOR
TO PROVIDE MECHANICAL END-OF-LINE INDICATOR

1. GENERAL

a. The 87593 modification kit (not for Bell System) equips a Model 14 printer equipped with an eight-terminal slip connection block with end-of-line indicating mechanism which enables it to operate in conjunction with page printers in the system. A counter assembly replaces the right ribbon spool bracket assembly and actuates a contact that illuminates an end-of-line signal lamp attached to the right side of the keyboard.

b. The 89960 or 92272 (not for Bell System) modification kit equips a Model 14 printer, the 97367 modification kit equips a Model 14 Typing Reperforator with end-of-line indicating mechanism which enables it to operate in conjunction with page printers in the system. A counter assembly replaces the right ribbon spool bracket assembly and actuates a contact that illuminates an end-of-line signal lamp attached to the right side of the keyboard. An eight-terminal slip connection block replaces the six-terminal slip connection block on the keyboard. The 92272 modification kit also includes a number of special type pallets and keytops.

*c. The modification kit consists of:

		87593	89960	92272	97367
1	1169 Screw 6-40 x 7/16 Fil.	X	X	X	X ✓
1	2191 Washer, Lock	X	X	X	X ✓
1	7002 Washer				X ✓
1	8287 Type Pallet J			X	
1	33038 Spring	X	X	X	X ✓
1	41974 Spring	X	X	X	
1	72824 Keytop M.			X	
1	72827 Keytop J			X	
1	72830 Keytop N,			X	
1	73151 Keytop, Car. Ret.			X	
1	73152 Keytop, Line Feed			X	
1	78501 Type Pallet M.			X	
1	78506 Type Pallet N,			X	
1	80400 Bracket, Spring	X	X	X	
1	82491 Guard		X	X	
1	82492 Slip Connection Strip Assembly		X	X	X ✓
1	82619 Terminal Block Assembly		X	X	X ✓
1	82624 Guard		X	X	
1	82709 Cable, Lamp	X	X	X	X ✓
1	83540 Keytop F#			X	
1	83897 Type Bar (With Pallet)	X	X	X	
1	87594 Counter Assembly	X	X	X	

		87593	89960	92272	97367
1	89080				X ✓
1	89233	X	X	X	X ✓
1	92204	X	X	X	X ✓
1	93898			X	
1	97296	X	X	X	
1	97297	X	X	X	
1	97332				X ✓
1	97333				X ✓
1	98642	X	X	X	
1	99021				X ✓
1	111781	X	X	X	
1	114959BA	X	X	X	X ✓
1	121575	X	X	X	

d. For part numbers referred to and for parts ordering information, see Teletype Model 14 Printer or Model 14 Typing Reperforator Parts Bulletin.

2. INSTALLATION

a. KEYBOARD

(1) Remove base cover plate.

(2) Before any assembly work is started, three holes must be drilled (one of these holes **must** be tapped), and the side of the casting notched as shown on diagram 1588WD attached. A drill fixture 82775 may be used for locating the holes.

(3) Mount the 114959BA signal lamp assembly on the outside of the keyboard casting, by means of the new holes, using two 8539 screws and two 2191 lock washers furnished with the signal lamp assembly.

(4) For the 89960 or 92272 modification kit:

(a) Remove the 82491 or 7257 contact guard.

(b) Remove and discard the six-terminal connection strip and replace with the 82492 slip connection strip. This may be done without breaking any soldered connections by removing the six clips from the old block and remounting them on the new block in the same order.

(5) Remove the cover of the signal lamp, unscrew the socket shell, and connect the 82709 lamp cable to the socket terminals as shown on the attached wiring diagram 1587WD. Replace the socket shell and cover.

NOTE: If the 114959BA signal lamp assembly contains a 126776 lamp socket, the two wires should be spliced to the lamp cable. The splices must be taped and the excess wire should be folded and tied to the cable.

(6) Run the lamp cable under the casting and through the hole at the line contact as shown on diagram 1588WD and tie it to the keyboard cable near the slip connections so that there will be no interference with the keyboard

shaft or other moving parts. Connect the lamp cable wires as shown on wiring diagram 1587WD and secure it by means of the new tapped hole using the 92204 cable clamp, the 1169 screw, 2191 lock washer, and 7002 washer furnished as shown on drawing 1588WD.

(7) For the 89960 or 92272 modification kit, if the contact guard forms a part of the relay bracket, replace it, mounting the 82491 guard on top of it. Otherwise discard the old guard and use the new 82491 guard only.

(8) For the 97367 modification kit, replace the contact guard and install the 89080 guard under the forward mounting screw. The offset should extend downward.

(9) Replace the base cover plate.

b. TYPING UNIT OR TYPING REPERFORATOR UNIT

(1) For the 87593, 89960, 92272 modification kit, remove the carriage and unhook the "comma" (position No. 30) pull bar spring. Remove and discard the "comma" type bar and pull bar in slot 30. Install the 89233 pull bar and the 83897 type bar with the spring just removed. Replace the carriage. Remove and discard the right-hand handle when using the 87593 or 89960 modification kit.

(2) For the 97367 modification kit, remove the platen block and shaft and unhook the spring from the pull bar in slot 30. Remove and discard the type bar and pull bar in slot 30. Install the 89233 pull bar and the 99021 type bar with the spring previously removed. Replace the platen block and shaft.

(3) For the 92272 modification kit, remove and discard the 7414 gear guard.

(4) For the 89960 or 92272 modification kit, remove and discard the terminal block guard.

(5) For the 89960, 92272 or 97367 modification kit, remove and discard the front terminal block and transfer its connections to the corresponding positions on the 82619 terminal block assembly. It is not necessary to break any soldered connections. Simply remove the four terminals, and reassemble on the new block in the corresponding positions.

(6) Loosen the right-hand 7044 reverse arm at the reverse arm shaft. Unhook the 3610 locking lever spring.

(7) For the 87593, 89960 or 92272 modification kit, remove the entire ribbon spool bracket and replace with the 87594 counter assembly; use the mounting screw, nut and lock washer previously removed and the spring bracket. The rear mounting screw is assembled in the 87594 counter assembly.

(8) For the 97367 modification kit, disconnect the 95484 punch arm from the 95488 link, unhook the spring from the punch arm and drop the punch arm out of the way. Remove the entire ribbon spool bracket and replace with the 97333 counter unit, using the old nut, lock washer, and spring bracket.

(9) Replace the locking lever spring and the reverse arm.

(10) Tie wires leading to the selector coils securely or reroute so that there will be no interference with the bracket or the set screws on the bevel gear and collar.

(11) For the 97367 modification kit, attach the 97332 cable as shown on wiring diagram 1587WD running it from the contacts downward to the right of the worm shaft and toward the rear, under the counter unit, to the right leg of the typing reperforator main frame. From that point it should follow the selector magnet cable downward to the slip connection block. Fasten it in place with the cable clamp on the counter unit so that the cable will not interfere with any moving parts.

(12) For the 87593, 89960 or 92272 modification kit.

(a) Attach the 111781 counter cable as shown on wiring diagram 1587WD, running it from the contacts downward to the right of the worm shaft, under the counter assembly, under the terminal block guard, if present, and wire it to the terminals as shown in 1587WD. Secure the cable with the cable clamp located on the underside of the counter assembly so that the cable will not interfere with any moving parts.

(b) Install the 97297 handle on the main shaft bracket using the 97296 screw in the lower hole and the 121575 screw and 98642 washer in the upper hole.

*(13) For the 97367 modification kit, if not already available on the typing reperforator unit, order and install the 97297 handle using the 97296 screw, 98642 washer and 121575 screw.

*(14) Attach the 33038 spring between the cam lever and spring bracket which is a part of the 97297 right-hand handle.

(15) For the 89960 or 92272 modification kit, install the 82624 guard.

*(16) For the 87593, 89960 or 92272 modification kit, fasten the 80400 spring bracket under the front mounting screw of the terminal block guard so that the spring hole lines up with the spring hole of the release bail on the counter unit. Attach the 41974 spring.

(17) For the 92272 modification kit, install the 8287, 78501, 78506, and 93898 type pallets, and the 72824, 72827, 72830, 73151, 73152 and 83540 keytops in their proper positions.

3. ADJUSTMENTS AND LUBRICATION

a. For standard adjustment and lubrication procedure refer to standardized information. Make the following adjustments:

(1) Model 14 Printer

- (a) Right-hand Ribbon Feed Mechanism
- (b) Ribbon Reverse Mechanism
- (c) Mechanical End-of-Line Indicator Mechanism

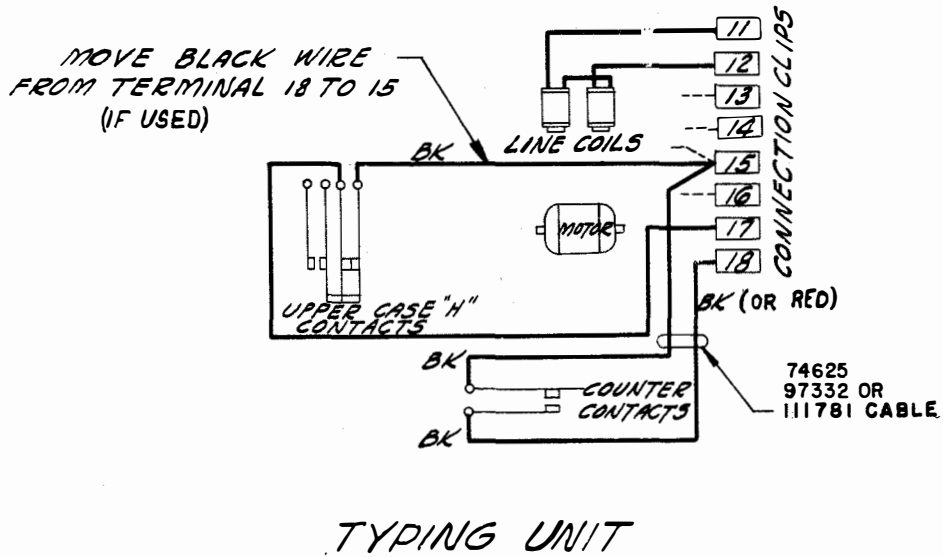
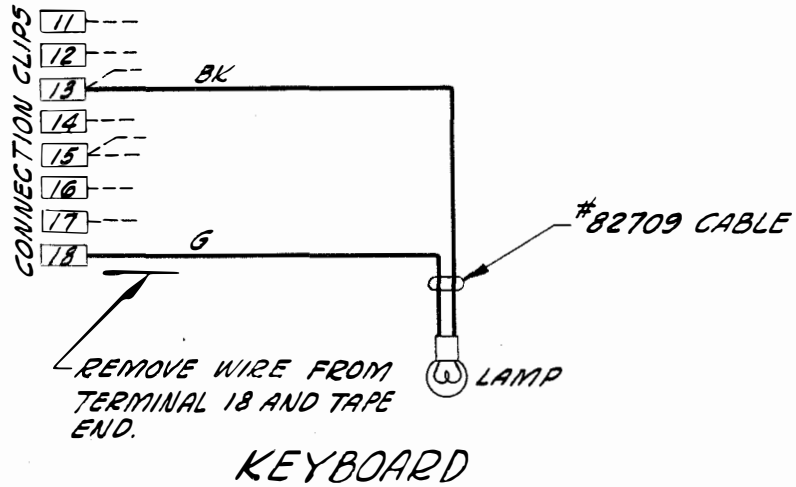
(2) Model 14 Typing Reperforator

- (a) (Code Bar) Locking Lever Spring
- (b) Ribbon Spool Shaft
- (c) Ribbon Reversing Arm
- (d) Mechanical End-of-Line Indicator

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REVISIONS		
B	2-21-45	37081
C	6-8-56	63370



TELETYPE CORPORATION

~~EWD-591-A~~
~~11-19-34~~
WD-1587-
NOV. 18, 1933

WIRING DIAGRAM

END-OF-LINE INDICATORS
87593, 89960
92272 & 97367

DRAWN A.E.H.
TRACED
CHECKED H.A.W.
ENG'D. H.A.W.
APPROVED E.S.L.

REVISIONS

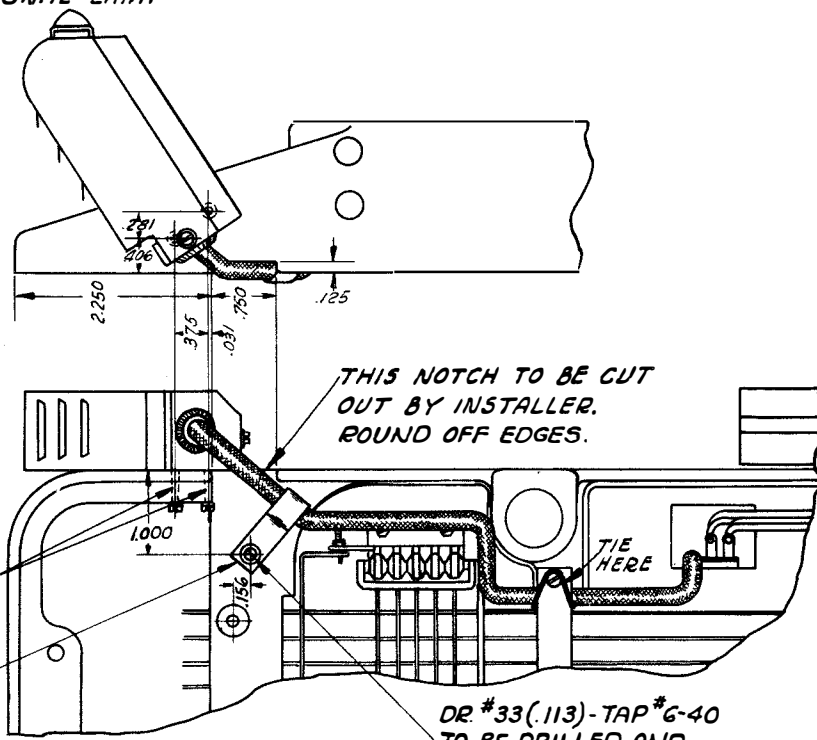
Ⓐ CHANGED POSITION OF CABLE AT CONTROL CONTACT TERMS.

11-19-35 A.E.H.

Ⓑ ADDED CABLE CLAMP

10-26-37 H.C.A.

SIGNAL LAMP



DR. #25 (.1495) TO BE DRILLED BY INSTALLER

CABLE CLAMP

DR. #33 (.113) - TAP #6-40 TO BE DRILLED AND TAPPED BY INSTALLER

TELETYPE CORPORATION

~~EWD-592-A~~
~~11-20-34~~

~~EWD-592-B~~
~~11-17-35~~ H.C.A.

WD-1588-B

INSTALLATION OF MECHANICAL END-OF-LINE INDICATOR

DRAWN A.E.H.
TRACED H.A.W.
CHECKED H.A.W.
ENGR. H.A.W.
APPROVED E.S.S.