

INSTRUCTIONS FOR INSTALLING MODIFICATION KITS 182196 AND
182197 TO PERMIT OPERATION OF MODELS 32 AND 33 (RESPECTIVE-
LY) PERFORATOR UNITS WITH DRY NONOILED TAPE

1. GENERAL

1.01 Modification kits 182196 and 182197 permit operation of Models 32 and 33 perforator units with dry nonoiled tape. Perforation of dry tape causes a greater load on the punch mechanism causing yield and some loss of motion. To eliminate this yield, a support plate is provided to give more rigidity to the perforator unit. In addition, a modified punch block and new punch pin retraction springs eliminate sticky punch pins normally encountered with the use of dry tape.

1.02 Modification kit 182196, used with Model 32 perforator unit, consists of:

1	2034	Washer, flat	1	182980	Punch block assy (5 level)
1	3598	Nut	1	185776	Spring, tension
2	7002	Washer, flat	8	185777	Spring, tension
1	110743	Lockwasher	1	185846	Post
1	124177	Lockwasher	1	185847	Post
1	153817	Screw	1	185848	Plate, support
1	181242	Screw with lockwasher			

1.03 Modification kit 182197, used with Model 33 perforator unit, consists of:

1	2034	Washer, flat	1	182983	Punch block assy (8 level)
1	3598	Nut	1	185776	Spring, tension
2	7002	Washer, flat	11	185777	Spring, tension
1	110743	Lockwasher	1	185846	Post
1	124177	Lockwasher	1	185847	Post
1	153817	Screw	1	185848	Plate, support
1	181242	Screw with lockwasher			

1.04 For parts referred to other than those included in the modification kits, refer to Teletype Parts Bulletin 1184B. (Bell - refer to standard publication.)

2. INSTALLATION

Note 1: Reference to left or right, front or rear, top or bottom, etc is made from the operator's position, facing the machine.

Note 2: To facilitate installation of the modification kit, remove the perforator unit from the printer casting. Retain all mounting hardware for subsequent assembly.

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- 2.01 See Figures 1 and 2 for parts referenced in subsequent paragraphs.
- 2.02 Remove and retain the two 4-40 hex screws and associated lockwashers securing the punch block to the casting. Discard the existing punch block assembly. Discard the spacer 182838, if used, but retain chad chute 182908, its mounting hardware, and chad chute extension 182915.

Note: New style units already have posts 185846 and 185847 in place. Post 185846 has a 6-40 thread and uses a nut and washers to retain the feed wheel detent roller mechanism (old style uses retainer ring 119652). Post 185847 has a 6-40 tapped hole in the end closest to the two retainer ring grooves. Should the unit being modified have posts 185846 and 185847, discard the two posts, 185846 and 185847, one flat washer 7002, one lock-washer 124177, and one nut 3598 furnished with modification kit 182196. Proceed to specific instructions for assembly of support plate 185848 (Paragraph 2.10).
- 2.03 Unhook all springs 182909 from both ends and retain them. Remove all levers, and felt washers 182925 from post 182391 and retain them. Note the various slot positions for subsequent assembly.
- 2.04 Remove and discard post 182391. Replace it with post 185847 using the existing 6-40 mounting screw.
- 2.05 Remove and discard retaining ring 119652 from post 182392.
- 2.06 Remove and discard all springs 42661.
- 2.07 Unhook and retain spring 45104 from the feed pawl lever.
- 2.08 Unhook spring 90054 from the feed pawl detent roller assembly. Swing the feed pawl lever down to remove the feed pawl detent lever assembly from post 182392. Remove hook 182853 and spring 82999. Then, remove retaining ring 119649 and backspace lever assembly from post 182858. Retain all parts except spring 90054.
- 2.09 Remove all punch pin levers with their associated felt washers 182925 and their pawls 182810 or 182811. Retain all these parts and note their relative positions for subsequent assembly.
- 2.10 Remove and discard post 182392 and substitute post 185846 using the existing mounting hardware. Tighten this post friction tight only.
- 2.11 Remove screw 181244 used to fasten one end of spring bracket 182455 to post 182427 and retain this screw. Next loosen, but do not remove, the other screw 181244 fastening the other end of the spring bracket.

- 2.12 Insert support plate 185848 over the post 182427. Replace screw 181244 holding spring bracket 182455 and tighten both mounting screws.
- 2.13 Pivot support plate 185848 out of the way to facilitate subsequent reassembly operations. Reassemble the levers and felt washers 182925 on the post 185847 being careful to insure that the levers are replaced in the proper sequence with respect to their proper slot position. Pivot these levers toward the front of the unit to facilitate the following assembly.
- 2.14 To facilitate reassembly of pawls 182810 and 182811 with their associated punch pin levers the following procedure is recommended. Loosen the screw 181244 mounting the pawl upstop assembly and pivot it at approximately a forty-five degree angle toward the front of the unit. Tighten the screw. Loosen the screw mounting bracket 182854, pivot it toward the front of the unit, and tighten the screw. Reassemble the punch pin levers and felt washers 182925 on the post 185846 being careful to replace them in the proper sequence with respect to their slot guide positions. Pivot the long end of the levers toward the front of the unit. Reinsert the first pawl into its bottom guide and pivot the first punch pin lever toward it. Assemble the ball of the punch pin lever into the socket of the pawl insuring that both are held guided by the pawl upstop assembly. Hook one of the new springs 185777 on the pawl and its associated punch pin lever repeating this procedure until all of the pawls 182810 and 182811 are reassembled with their punch pin levers and new springs 185777. Loosen the screws holding the pawl upstop assembly and carefully move it back approximately to its original position. Also, do the same for the bracket 182854.

Note: Some units do not require all of the springs 185777 furnished with this kit; use only the quantity required and discard the remainder.
- 2.15 Pivot the levers back into position carefully and align them with their slotted guides, insuring that the associated pawls 182810 and 182811 engage their levers properly. Replace springs 182909.
- 2.16 Reassemble the feed pawl detent roller subassembly onto the new post 185846. Replace hook 182853 and springs 82999 and 45104, then use a new spring 185776 in place of the spring 90054 which was previously discarded.
- 2.17 Replace the backspace lever assembly onto the post 182858 and secure it with its retainer ring 119649.
- 2.18 Assemble chad chute 182908 and its associated mounting hardware onto the new punch block assembly 182980. Align the punch pin levers with their respective slots in the punch pins and slide this assembly into place. Fasten with the screws and washers that were formerly used for the old punch block.
- 2.19 Place a flat washer 7002 over the shoulder of post 185846 and pivot the support plate 185848 into position over the threaded portion of the post. Use another flat washer 7002 with a lockwasher 124177 and nut 3598 to secure the support plate to the post. Note that this nut should be friction tight only.

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- 2.20 Use the screw with lockwasher 181242 to secure the support plate on post 185847. This screw should be tightened.
- 2.21 Secure the remaining free portion of the support plate to the punch block assembly with a screw 153817, lockwasher 110743, and flat washer 2034. This screw should be tightened.
- 2.22 Replace chad chute extension 182915 and remount the perforator unit on the printer casting using the existing mounting hardware to complete this installation.
- 2.23 Since modification kit 182197 is similar to modification kit 182196 except for the punch block assembly, follow the same procedures as outlined for modification kit 182196 with the exception that a punch block assembly 182983 is used, rather than punch block assembly 182980.
- 2.24 Units with automatic control require the disassembly of additional parts not referred to in the installation instructions. The removal of these parts from the old style posts and their reassembly on the new posts is direct replacement of parts.

3. ADJUSTMENTS

- 3.01 Refer to Bulletin 273B Volume 2 for complete readjustment requirements except for those listed below and check or remake any adjustments which have been disturbed during the installation of either modification kit 182196 or modification kit 182197.
- 3.02 The punch penetration adjustment has been modified. Use the following procedures and requirements.

Requirement

With the perforator in the ON position, the RUBOUT combination in the 8-level perforator or with either figures D or RUBOUT combination in 5-level perforator and the printer function shaft and power bail in its forwardmost position, there should be at least 0.017 inch but not more than 0.037 inch clearance between the top surface of any code lever and the bottom surface of the punch block.

To Adjust

Loosen the code lever post mounting screw and the support plate nut both friction tight. Position the post with a screwdriver held against the pry point to meet the requirement and then tighten both the screw and nut.

- 3.03 The tape punch drive requirement has been changed to a minimum of 0.030 inch and a maximum of 0.080 inch between the rear roller and the highest point on the tape nudger.

3.04 The new pawl and lever spring 185777 tension requirements are:

Upper Spring

Lower Spring

Min 1 oz
Max 2 oz

Min 1-1/2 oz
Max 2-1/2 oz

3.05 The new detent lever spring 185776 tension requirement has been modified as follows:

With a spring scale located on the inside lever at the roller, it should require
Min 13 oz - Max 17 oz
to start the pawl moving.

3.06 Early design units equipped with modification kit 185705 for fan-fold tape require that bracket 185706 furnished with that modification kit be modified to prevent interference with support plate 185848 (Figure 3).

3.07 Refer to applicable lubrication instructions prior to operation of the perforator unit.

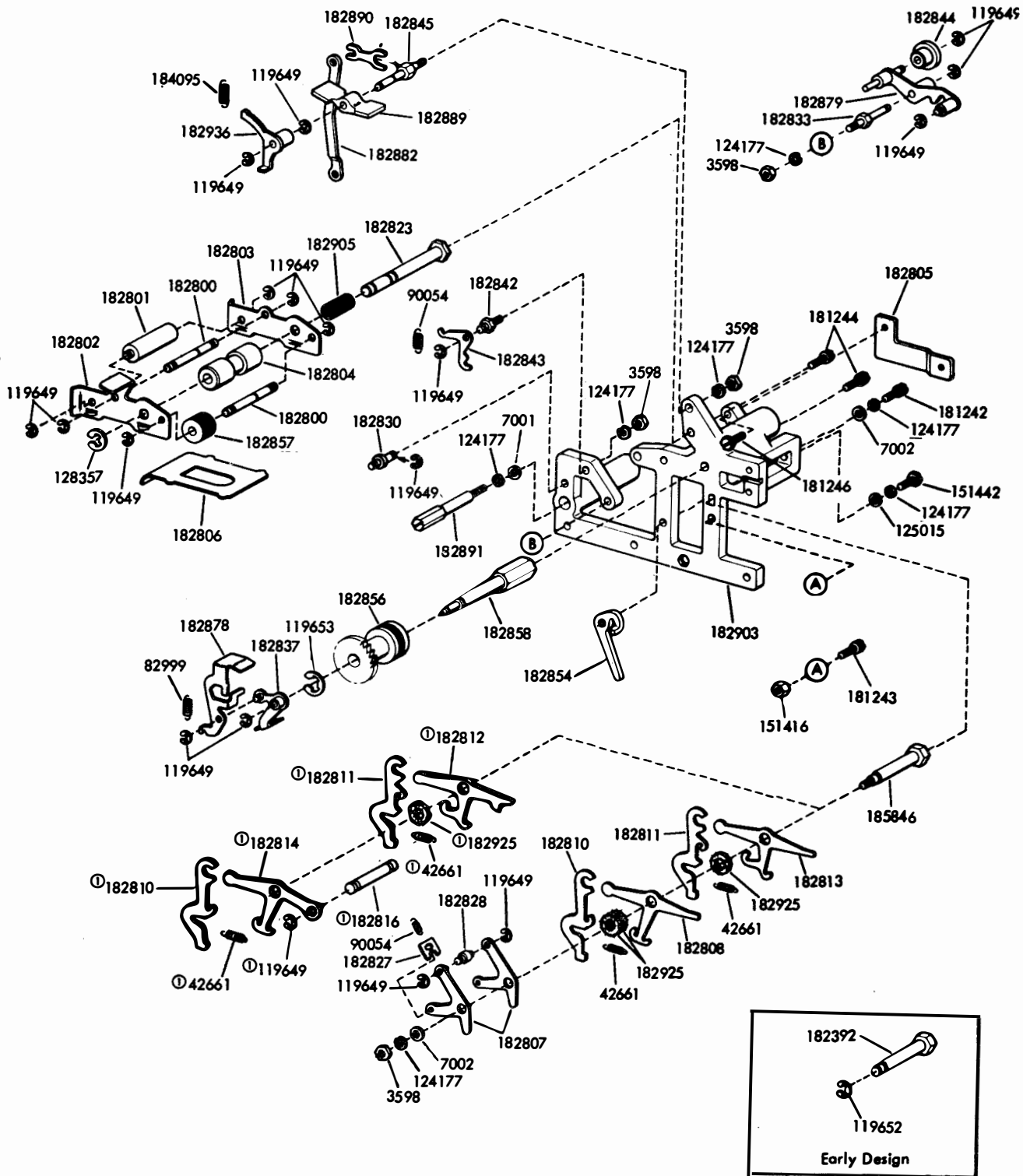
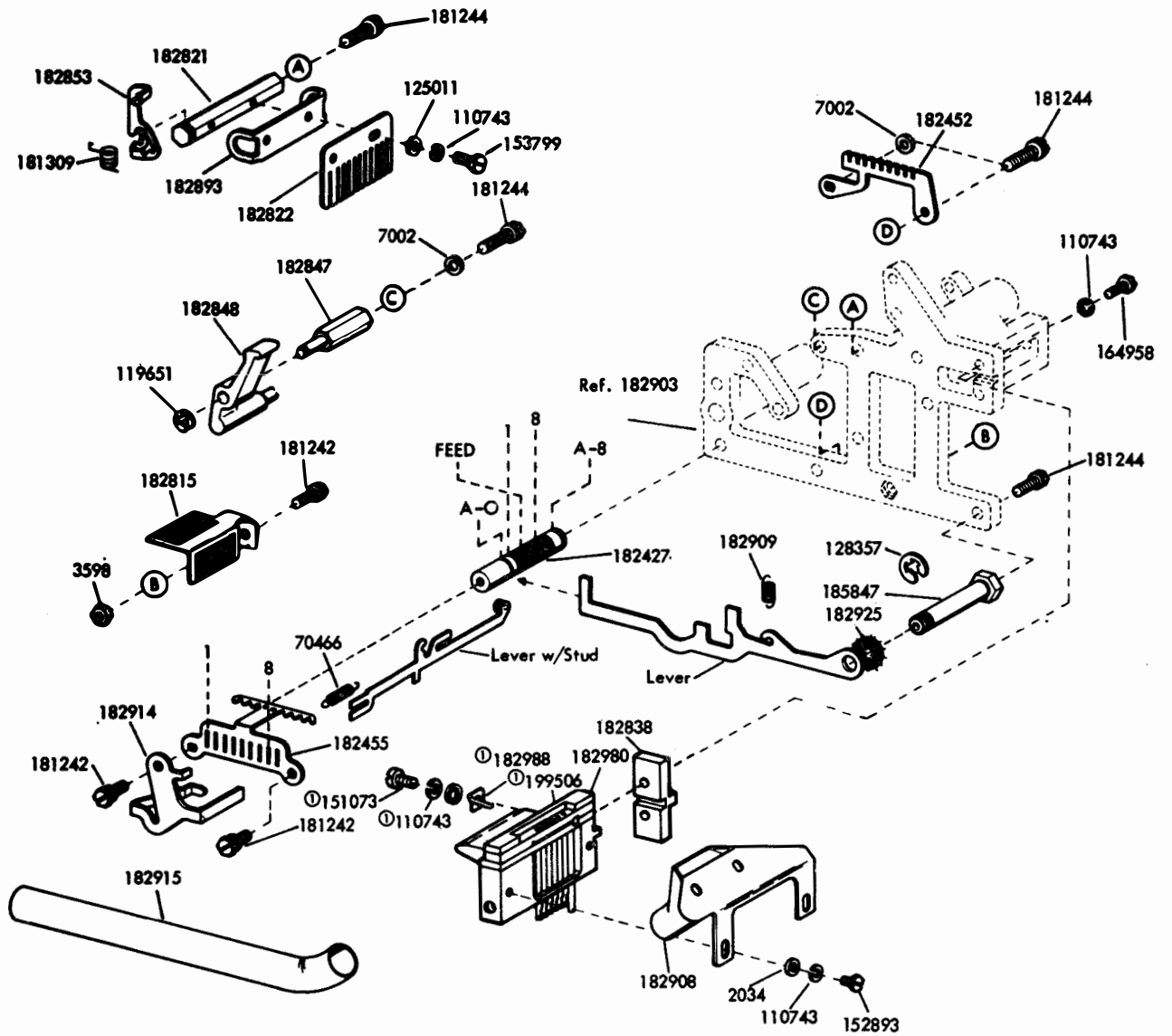


Figure 1 - Punch Mechanism



Ⓛ Supplied w/182980

Figure 2 - Punch Mechanism (continued)

MODIFICATION INSTRUCTIONS FOR 185706 BRACKET
REQUIRED ONLY ON OLD STYLE UNITS EQUIPPED WITH THE
MODIFICATION KIT 185705 FOR FAN-FOLD TAPE

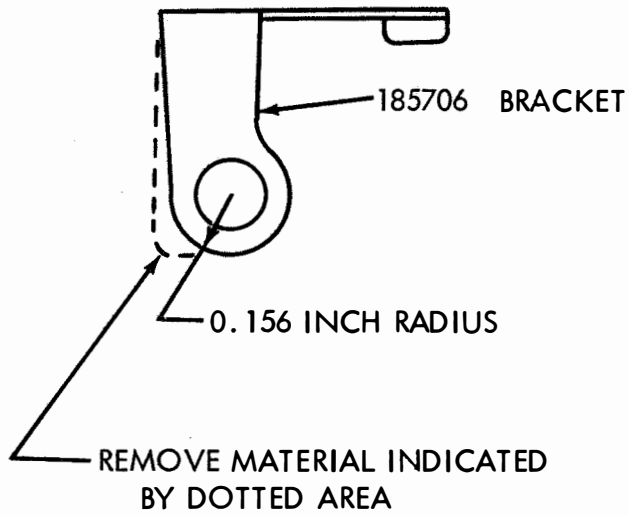


Figure 3 - Modified 185706 Bracket