

INSTRUCTIONS FOR INSTALLING THE 183986 A TO D
MODIFICATION KITS TO PROVIDE PRINT-NONPRINT
MECHANISM ON MODEL 33 ASR TYPING UNITS

Chart below pertains to Bell only.

<u>Modification Kit</u>	<u>ASR Set Used On</u>
183986-A	33C1
183986-B	33C2
183986-C	33C3
183986-D	33C4

1. GENERAL

- 1.01 The 183986 A to D kits permit suppression of functions and printing while transmitting or receiving.
- 1.02 Selection of the print or nonprint mode is controlled by a toggle switch located on the cover just to the right of the platen. When in the nonprint mode, a red indication lamp adjacent to the switch is illuminated.
- (a) When it is desired to transmit or receive tape without printed copy, a maintained contact toggle switch is thrown to the "on" position which energizes a solenoid and lights an indicator lamp.
 - (b) As the solenoid is energized, it pulls the nonprint codebar to the right which allows the codebar extensions to block the rise of all the function levers except one. This prevents actions occurring in the function box.
 - (c) The function lever, not blocked as mentioned above, is actually unblocked when the codebar is operated. This function lever rises every cycle to act upon the normal print suppression codebar to prevent printing in the carriage.
 - (d) When the print-nonprint mechanism is switched off, the indicator light goes out and the nonprint codebar returns to the unoperated position under spring tension.
- 1.03 When applied to a Model 33 ASR with UPE 802 automatic perforator, the addition of 185703 modification kit will permit the perforator to be turned "on" when in the "nonprint" mode and render it incapable of automatic "off" until back into the "print" mode. This feature would be desirable if foreign or computer tapes are to be sent because an "off" code in the tape would turn the automatic perforator off.

SPECIFICATION 50460S

1.04 The kits consist of:

<u>Quantity</u>	<u>Part No.</u>	<u>Description</u>	<u>Quantity</u>	<u>Part No.</u>	<u>Description</u>
2	1171	Screw	1	183557	Solenoid
2	3598	Nut	2	183558	Post
4	7002	Washer	1	183563	Bracket
2	82392	Shim	1	183565	Bar, Code
1	91120	Spring	1	183852	Pin
1	105803	Switch, Toggle	1	185736	Bracket, Spring
4	110743	Washer	1	185737	Plate, Pilot
1	119648	Ring, Retainer	1	185738	Cable Assembly
2	119651	Ring, Retainer	1	185739	Cable Assembly
2	124177	Washer	1	185745	Face Plate (Kit 183986-A Only)
1	143613	Lamp			
1	145281	Ring, Locking	1	185746	Face Plate (Kit 183986-B Only)
2	151880	Nut			
8	155753	Sleeving	1	185747	Face Plate (Kit 183986-C Only)
2	180926	Ring, Retainer			
1	180950	Tie Bar, Front	1	185748	Face Plate (Kit 183986-D Only)
1	181581	Lever, Function			
1	182461	Bracket, Upstop	1	185755	Spring
1	182658	Socket	1	185980	Retainer, Right
1	182715	Cap, Lens	1	198670	Screw

2. INSTALLATION (Figures 1 to 3 and 7831WD)

Note: Remove cover assembly from unit. Disconnect all necessary cables and wires and remove printer with perforator from the pedestal and place on workbench per Bulletin 273B. Remove 183853 right retainer and two 152893 screws (if present) and discard.

2.01 If two 0.116 inch diameter holes are provided on the 180950 front tie bar proceed to assembly instructions Paragraph 2.02. If it does not have two 0.116 inch diameter holes provided for the mounting of the 183565 codebar, replace the old 180950 front tie bar with the new 180950 front tie bar provided by the following procedure.

- (a) Disconnect the carriage return spring from the carriage.
- (b) Loosen and remove spacing belt bracket at each side of printer (181072 and 181084).
- (c) Remove 180465 shaft.

- (d) Give the carriage a twist in the counterclockwise direction and remove.
- (e) Loosen four clampscrews, remove 180925 clamps, and entire codebar basket.

Note: To aid later reassembly, measure and record the gap between the rear tie bar and the casting frame.

- (f) Remove all codebars noting location of each for later reassembly.
- (g) Remove the two 180926 ring retainers by applying pressure at the rear of the front tie bar and the front end of the codebar basket shaft with two pairs of pliers. See Figure 1.
- (h) Remove the tie bar and replace with the new 180950 front tie bar.
Apply a slight amount of grease to the ends of the codebar basket shafts. Discard the used 180926 ring retainer and replace with new 180926 ring retainer provided. Position the rings at the end of the shaft and start on the shaft by gently tapping with a small hammer.

Note: Be sure not to force rings on so tight as to cause the ring retainers on the rear side of the tie bar to come off.

- (i) Mount 183558 posts with 110743 lockwashers and 151880 nuts to front tie bar. See Figure 2.
 - (j) Mount 82392 shims and 183565 codebar to the posts and retain with 119651 ring retainers. See Figure 2.
 - (k) Reassemble all codebars to basket, and reassemble basket in printer using the previous measured gaps in note after Paragraph 2.01 (e) to reset the codebar basket. Reassemble the carriage and carriage return spring, proceed to Paragraph 2.04 of instructions.
- 2.03 Place the typewheel in its uppermost position. Place one 82392 shim on each post and assemble 183565 codebar to posts with two 119651 ring retainers. See Figure 2.

2.04 Installation of the 181581 function lever.

- (a) Loosen clampscrews so that 180782 shaft can rotate freely.
- (b) Rotate flat side of 180782 shaft toward front of printer very slowly until it is almost vertical.

SPECIFICATION 50460S

CAUTION: IF SHAFT IS ROTATED TOO FAR, OTHER FUNCTION LEVERS MAY COME OFF. IN THIS EVENT, IT WILL BE NECESSARY TO REMOVE THE SPRINGS FROM ALL FUNCTION LEVERS AND REPOSITION THEM ON THE 180782 SHAFT.

- (c) Place open end of 181581 function lever on 180782 shaft in position 4 and apply slight downwards pressure while rotating 180782 shaft until function lever falls into place.
 - (d) Rotate 180782 shaft back to original position and tighten clampscrews. Assemble 91120 spring to function lever.
- 2.05 Place two 155753 sleeves over the wires without terminals of the 185738 cable. Solder these wires to the terminals of 183557 solenoid, cover terminals with sleeving. See 7831WD. Insert the terminal on the orange-slate wire into Position 2 of the Number 4 Plug, and the terminal on the white-black wire into Position 6 of the Number 4 Plug.
- 2.06 Install 183557 solenoid to 183563 bracket with two 1171 screws, 7002 flat washers, and 124177 lockwashers. Tighten friction tight.
- 2.07 Remove 180797 clamp from center position, and replace with 183563 bracket. Be sure casting fits in cutout of bracket and that the codebar extension fits into the armature slot.
- 2.08 Install 183852 pin and 119648 ring retainer in armature so that the pin passes through the slot in the codebar extension. Tighten screws of the bracket.
- 2.09 Loosen 180798 screw and remove 180682 upstop bracket. Replace with 182461 upstop bracket.
- Note: Be sure to seat upstop bracket completely in its slot. Tighten screw.
- 2.10 Screw 185736 spring bracket to tapped hole on left side of the upstop bracket with one 198670 screw with lockwasher. Tighten screw. Hook 185755 spring between 185736 spring bracket and 183565 codebar.
- 2.11 Remove 182706 pilot plate from the call control unit. Remove the threaded rings on the 3 sockets and remove sockets. Remove screw securing 182688 switch and withdraw from pilot plate. Be sure to identify each socket for reassembly. Discard pilot plate and reassemble original sockets and switch plus 182658 socket and 105803 toggle switch with 145281 locking ring on new 185737 pilot plate as shown in Figure 3.

2. 12 Install 185739 cable assembly as follows: Remove circuit card holder and circuit cards. Remove the Number 4 connector from the frame of the call control unit. (Refer to 7831WD.) Insert the terminals of the yellow-black and white-brown wires into Positions 2 and 6 respectively. Snap connector into frame. Connect the terminals of the white-brown, orange-slate, green-slate, and green-black wires to Terminal Positions 2, 7, 5, and 1 respectively of the power transformer.
2. 13 Before performing each of the following soldering steps, slip a 155753 sleeve over the wire and cover the connection with the sleeve after soldering. Solder the red-yellow and the orange-slate wires to the pring-nonprint lamp. Solder the red-yellow wire to Terminal 1 of the toggle switch. Solder the green-black wire to Terminal 2 of the toggle switch. Solder the green-slate wire to Terminal 3 of the toggle switch. Solder the yellow-black wire to Terminal 4 of the toggle switch.
2. 14 Replace circuit cards and circuit card holder. Place 185737 pilot plate on call control frame and secure with original mounting screws and washers. At this point, make adjustment 3.02 of Section 3.
2. 15 Assemble 185980 retainer to the posts on 183563 bracket with two 7002 flat washers, two 124177 lockwashers, and two 3598 nuts. Make adjustment 3.03 of Section 3.
2. 16 Replace printer and connect proper cables and wires. Replace cover assembly (printer, reader, and perforator covers). Install the appropriate face plate (Paragraph 1.04) and secure with the existing phillips head screws.

3. ADJUSTMENTS AND LUBRICATION

- 3.01 For standard adjustments and lubrication procedure, refer to Teletype Bulletin 273B (Bell System refer to the standardized information).

3.02 Codebar - Solenoid Adjustment (Figure 4) Requirement

With the mechanism operated (solenoid energized and held, there must be 0.010 inch to 0.020 inch clearance between the edge of the function lever in Slot Number 4 and the edge of the codebar tine.

To Adjust

Loosen solenoid mounting screws and position solenoid by means of the pry points.

SPECIFICATION 50460S

3.03 Function Lever Retainer Adjustment (Right side only) (Figure 5)

Requirement

With the "rub out" combination selected and the 180780 blade in its lowest position, there should be some to 0.020 inch clearance between the 185980 retainer and the function levers at the closest point.

To Adjust

Position the retainer per the above requirement and tighten nuts.

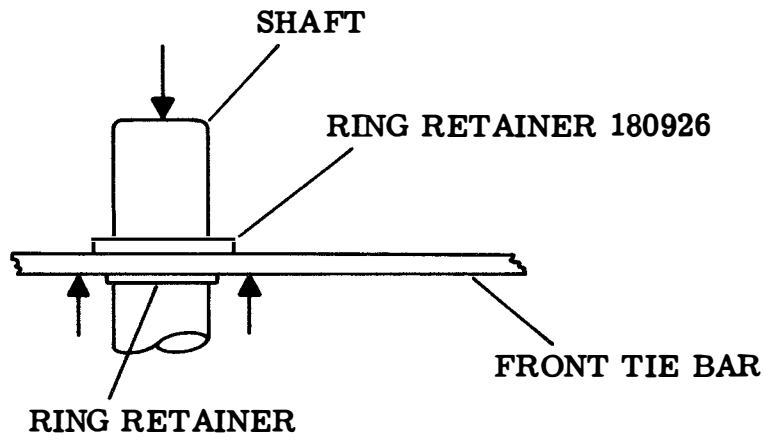
3.04 Codebar Return Spring Adjustment

Requirement

With the print-nonprint codebar in the unoperated position and the scale hooked to the left end of the spring, it should take a minimum of 3 ounces and a maximum of 3.5 ounces to pull the spring to its installed length.

3.05 Lubricate 151880 posts and the ends of 185755 spring with a drop of KS7470 oil.

CAUTION: MAKE CERTAIN THERE IS NO OIL ON THE SOLENOID.



APPLY FORCE AT ARROWS ↑

FIGURE 1

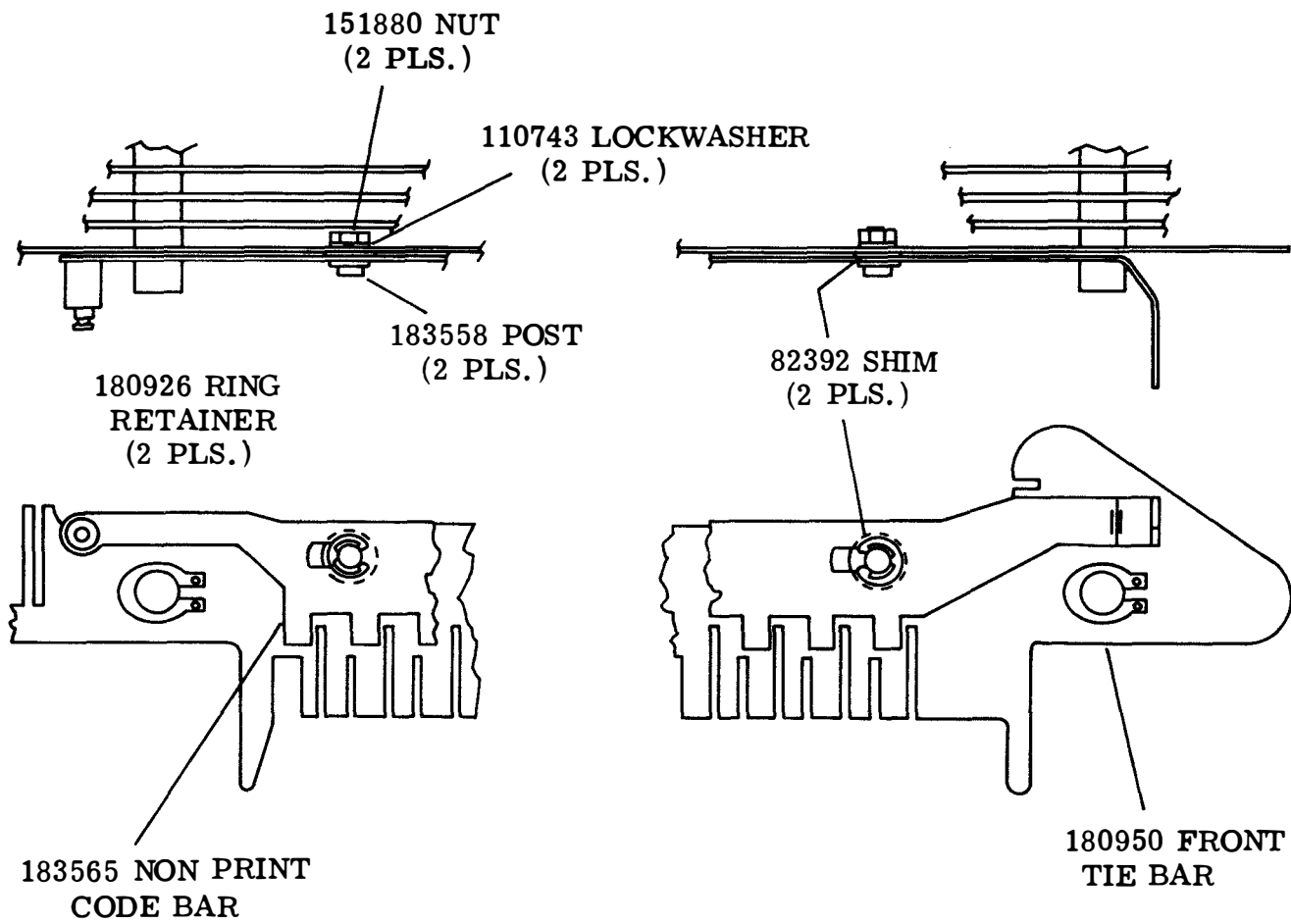


FIGURE 2

50460S

BREAK RELEASE

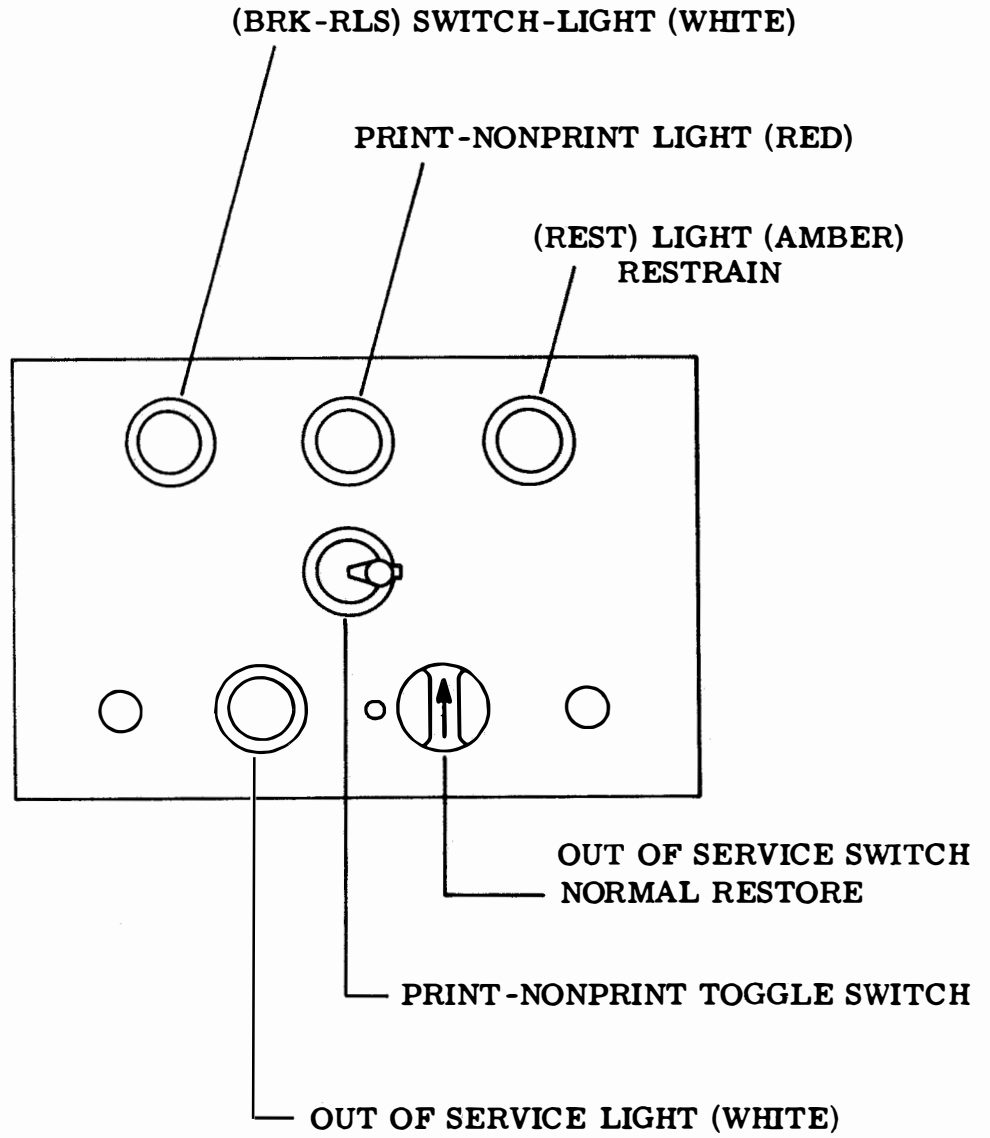
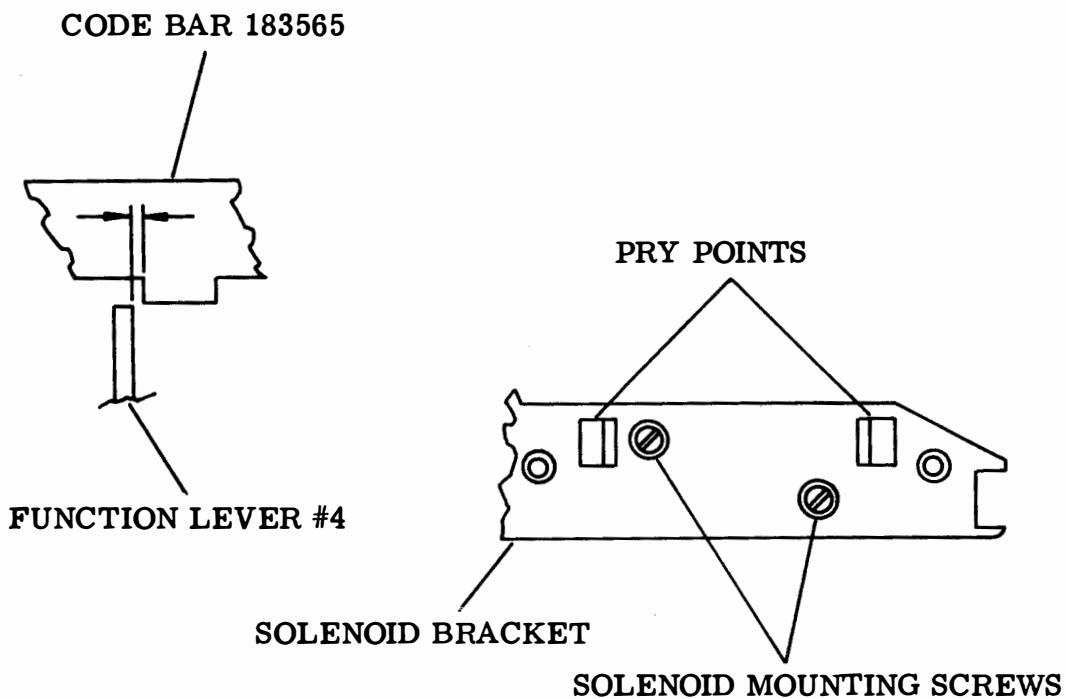


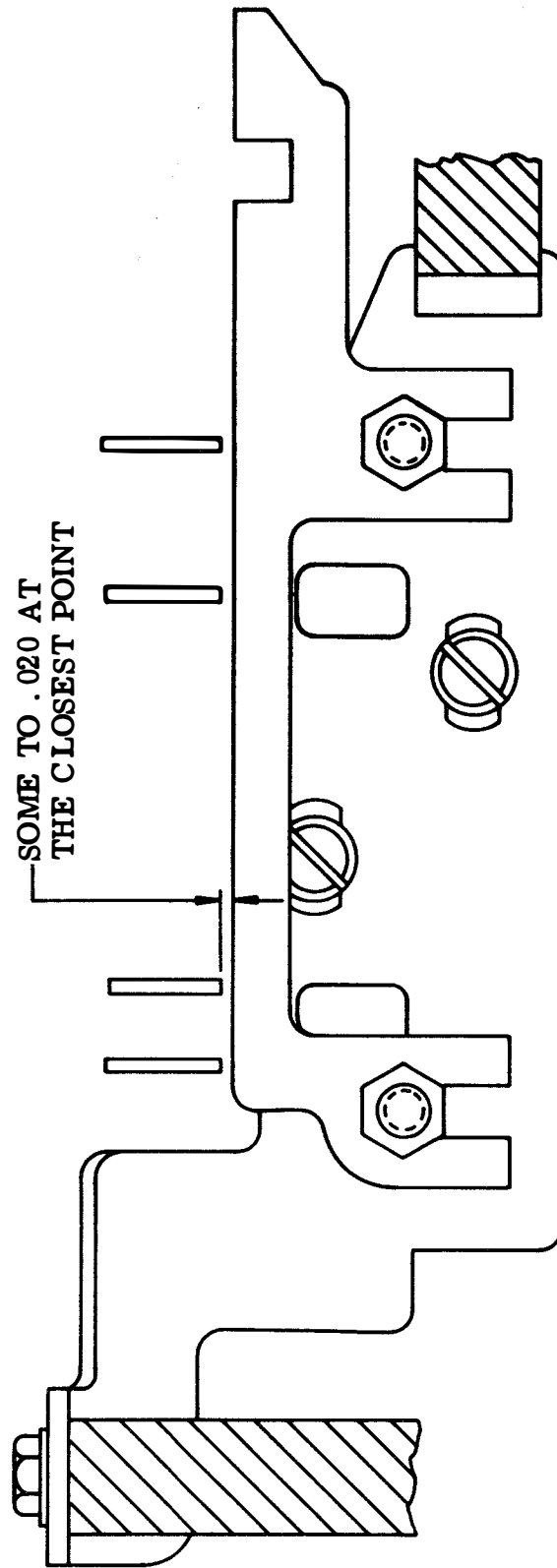
FIGURE 3



CODE BAR-SOLENOID ADJUSTMENT

FIGURE 4

50460S



FUNCTION LEVER RETAINER
ADJUSTMENT

FIGURE 5

