BELL SYSTEM PRACTICES Plant Series

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28 PERFORATOR-TRANSMITTER BASE

DISASSEMBLY AND REASSEMBLY

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1. GENERAL

1.01 This section has been reissued to add the latest engineering changes and to rearrange the text. Since this is a general revision, marginal arrows have been omitted.

1.02 The technician should refer to the exploded views found in the appropriate parts literature for an illustration of the mechanism to be disassembled, for location and visual identification of parts and detailed disassembly and reassembly features.

Most maintenance, lubrication and adjustments can be accomplished simply by removing the subject component from the cabinet. If possible, disassembly should be confined to subassemblies, which can, in some cases, be removed without disturbing adjustments. When reassembling the subassemblies, be sure to check all associated adjustments, clearances and spring tensions.

1.04 If a part that is mounted on shims is removed, the number of shims used at each of its mounting screws should be noted so that the same shim pile-up can be replaced when the part is remounted.

1.05 Retaining rings are made of spring steel and have a tendency to release suddenly when being removed. Loss of these retainers can be minimized as follows: Hold the retainer with the left hand to prevent it from rotating. Place the blade of a suitable screwdriver in one of the slots of the retainer. Rotate the screwdriver in a direction to increase the diameter of the retainer for removal.

1.06 Raise cabinet lid or enclosure cover and remove the typing unit from its base by removing the four screws that secure it to its keyboard or base. Remove the cable plug connector from the side frame. Lift the typing unit off.

Note: On sets equipped with a form supply container on the rear of the cabinet, rearward foot extensions should be in position to prevent the cabinet from tilting when any of the components are removed.

1.07 Remove the four TP151549 screws that secure the base to the cradle or subbase. Disconnect the cable plug from the connector at the rear of the keyboard base. Remove the base with the motor unit, typing or nontyping perforator still in position.

2. DISASSEMBLY AND REASSEMBLY

2.01 In removing a subassembly from the unit, the procedure followed and the location from which parts are removed must be carefully noted so that the reassembly can be done correctly. Where no specific instructions are given for reassembly, reverse the procedure used in removing it. Disconnect any electrical connections (connectors, leads, etc), that would interfer with the removal of the particular subassembly and proceed in accordance with the appropriate disassembly routine.

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Figure 1 - 28 Perforator-Transmitter Base

CHARACTER COUNTER

2.02 To remove the character counterassembly, remove the two screws that hold the TP179279 character counter bracket to the keyboard base. Raise the character counter and remove the two screws that hold the TP158050 switch to its TP158021 bracket. Remove the character counter assembly.

TAPE CONTAINER

2.03 To remove the tape container assembly, remove the four screws which hold the TP158233 panel mounting bracket to the base.

PERFORATOR (TYPING AND NONTYPING)

2.04 To remove the perforator assembly, loosen the two set screws on the TP193565 coupling located on the TP144992 rear shaft and slide the coupling to the rear to disengage it.

 (a) Remove the three screws which hold the TP158169 nontyping or the TP159861
typing perforator frames to the base, and remove the screw which holds the TP156184
bracket to the base. Raise the perforator slightly from the base being careful not to injure the codebar extension or associated springs.

(b) If unit is equipped with power backspace, unscrew the leads from under the magnet assembly before entirely removing the perforator.

MARGIN INDICATOR

2.05 To remove the margin indicator assembly, remove the two screws which hold the TP158162 switch mounting bracket to the TP158160 reset cam follower lever assembly bracket.

RESET CAM FOLLOWER

2.06 To remove the reset cam follower lever assembly, remove the screws which hold the TP158160 reset cam follower lever assembly bracket to the TP158113 basket frame.

- (a) Remove the screws that hold bracket to base.
- (b) Disengage the follower lever assembly from the selector lever assembly.

AUXILIARY ELECTRICAL SWITCH

2.07 To remove the auxiliary electrical switch and housing assembly, disconnect the cable leads from the TP158250 terminal board located just to the right of the perforator drive shafting.

- (a) Remove the three screws which hold the TP158202 auxiliary switch housing to the base.
- (b) Slide the housing to the rear and disengage the TP158208 gear from the TP158210 shaft and lift the housing out.
- (c) Disengage the drive shaft from the TP158114 extension basket control cam.

CODEBAR EXTENSION BASKET

2.08 To remove the codebar extension basket assembly, remove the screw which holds the left end of the TP158113 extension basket to the base.

Note: For reassembly purposes, observe how the TP158061 link guide pin and the TP158060 trip bar link latch spring which encases it are engaged between the TP158135 clutch trip bar link and the TP158103 trip bar link latch.

Slide the extension basket to the left and disengage the TP158116 reset lever from the TP158099 keyboard control selection lever assembly.

Note: When reassembling, be sure that the selection lever assembly straddles the clutch trip bar extension lever, and that the selection lever fork engages its mating pin.

SIGNAL GENERATOR

2.09 To remove the signal generator assembly, remove the typing unit, if it is pres-

ent, the TP154131 contact box cover, and disconnect the signal line leads from the TP154042, TP154043 contact terminals.

- (a) Remove the two screws at the front of the TP154200 signal generator frame and screw at the right rear of the frame.
- (b) Lift the signal generator carefully, while holding the TP154179 universal bail back so that the TP154237 nonrepeat lever clears and its spring will not be excessively stretched.

CAUTION: IF THE NONREPEAT LEVER IS PULLED DOWN APPROXIMATELY 90 DEGREES FROM THE NORMAL POSITION, ITS SPRING MIGHT BE STRETCHED BEYOND ELASTIC LIMITS WHICH WILL RESULT IN ASSEMBLY MALFUNCTION. MAKE SURE THE LEVER IS IN ITS SLOT BEFORE SET-TING IT DOWN.

KEYBOARD HOOD

2.10 To remove the plastic windows and labels, hood, seals and seal plates, remove the four screws which secure the TP154198 windows and labels.

- (a) Remove the two screws underneath the TP154110 hood which hold the hood to the TP154203 hood mounting bracket; and remove the four screws on top of the hood which hold it to the TP154210, TP154211 left and right frame mounting brackets. Pull the hood forward to remove.
- (b) Stretch the TP154020 rubber keyboard seal off its TP154057, TP154058 plates.
- (c) Remove four screws and two TP154203 hood mounting brackets.
- (d) Remove the TP154058 upper seal plate by removing the three screws at its rear.
- (e) Remove the TP154057 lower seal plate by removing the screws at its front.

CONTACT BOX

2.11 To remove the contact box assembly, remove the TP154131 contact box cover and disconnect the signal line leads.

- (a) Unhook the TP86304 drive link spring.
- (b) Remove the two screws at the front of the TP154009 front plate which hold the contact box assembly.
- (c) Disengage the TP156644 drive link from the transfer bail and lift off the assembly.
 It is more economical to replace the entire contact assembly if the contacts need replacement.

KEYBOARD

2.12 Remove the typing unit, signal generator assembly and keyboard hood assembly.

Note: It is easier to disassemble and reassemble the keyboard assembly with the base standing on its rear.

 (a) Remove the four screws which hold the TP154210, 154211 front frames to the front of the TP158000 base.

(b) Remove the two screws which hold the TP154068, TP154069 right and left codelever guide brackets at the top of the base, and the two screws at the extreme right and left of the TP154055 front bracket which hold it on the base.

(c) When these four screws infront and four on top of the base have been removed, tip up the front of the keyboard assembly and pull it forward, disengaging the function levers.

- (d) Note that all function levers are under their corresponding function bails except the keyboard lock function lever which fits on top of its function bail.
- (e) When reassembling, depress the keyboardlock keylever so that the lock function lever will go in over its bail instead of under as the other function levers should.

TRANSFER LEVER LOCKING BAIL

- 2.13 Remove the signal generator assembly from the keyboard (see 2.09).
 - (a) Remove the contact assembly (see 2.11).
 - (b) Remove the TP70388 transfer lever locking bail spring.
 - (c) To remove the TP151140 locking bail, trip the clutch and rotate the shaft until the cam is positioned so that the bail can be unhooked and dropped from its guide post. Turn the locking bail clockwise until it is at right angles to the guide, and extractitfrom the bottom of the frame.

<u>Note</u>: It may be necessary to move the shaft back and forth to position the cam for maximum clearance.

SIGNAL GENERATOR SHAFT

2.14 Remove the transfer lever locking bail (see 2.13).

 (a) Remove the two screws which mount the TP154101 clutch shaft rear mounting plate to the TP154200 signal generator frame, and remove the nut which locks the shaft to the front of the frame.

(b) Hold the TP154033 clutch latchlever and the TP154034 clutch stop lever away and pull back on the shaft rear mounting plate to disengage the shaft from the front plate.

 (c) Remove the entire cam, clutch, and shaft assembly by rotating it to clear the various transfer levers. The TP154019 code bar bail eccentric follower, the TP154138 felt

washer and the TP154083 cam spacer will fall free. These must be repositioned before reassembly.

(d) To take the cam (with clutch assembly) off the shaft, disengage the clutch by holding the clutch shoelever against the stop lug and slide the cam and clutch off.

KEYLEVER GUIDE PLATE

- 2.15 Remove the keyboard hood assembly (see 2.10).
 - (a) Remove the TP151045 space bar by unscrewing the two shoulder screws that fasten it to the TP154117 space bar bail.
 - (b) Remove the screw on the keylever guide plate under the space bar and the two screws in the upper corners of the plate which hold the plate to the frame.
 - (c) Work the guide plate off the keytops and let them fall free.

(d) To replace the guide plate over the keylevers, flop all levers to the rear. Place the front end of the guide plate down on the frame; push the keylevers into their respective holes starting with the bottom row and proceeding upward to the top row.

