

## TYPE 800 HAND TEST TELEPHONE

### 1. GENERAL

1.01 This section describes the Type 800 Hand Test Telephone. The instrument is a self-contained portable dial-handset intended for use by installers, repairmen, linemen, switchmen and other authorized employees for test or temporary communication use. Such usage is covered in Section 100-202-500.

1.02 This section is reissued to incorporate a description of the cord assemblies which are standard with the Type 801 hand test telephone. The cord assemblies now can also be used with the Type 800 hand test telephone. Marginal arrows are used to identify the new material. Remove the previous issue of this section from the binder or microfiche file and replace it with this issue.

### 2. DESCRIPTION

2.01 The housing of the Type 800 Hand Test Telephone is a lightweight, impact-resistant structure molded of bright red nonconductive polycarbonate fastened together with four thread-cutting screws. The principal half of the shell contains the transmitter contacts at one end, an inductor and three-position slide switch in the handle, and a Type 51A dial at the opposite end, as well as a resistor and capacitor. A mating half houses a standard Type 810 receiver (varistor protected) at the dial end and serves to retain a Type 810 transmitter at the other. A chrome-plated brass finger wheel provides resistance to corrosion, wear, and impact.

2.02 The Type 800 can use all of the spade-terminated cord assemblies associated with the Type 801 (Figure 1 and Table 1). The Type 800 can be used with the central office test cords referred to in Figure 2 and Table 2, but certain modifications are necessary to offer this capability.

2.03 The modifications necessary to change the Type 800 for central office use will dedicate this hand test telephone for central office use only. After this modification, the hand test telephone should be marked "for central office use only." Perform the following procedures to modify a Type 800 for this use:

- (a) Drill a 0.116-inch pilot hole for a No. 6 plastite screw (HD-765600-PB06). (Refer to Figure 3.)
- (b) Attach the red and black leads of resistor plug assembly HD-570008-B to the outside screw terminals and rundown screw.
- (c) Attach the stay cord hook of the resistor assembly to the drilled hole in the housing for strain relief.

2.04 To eliminate the 1500-ohm resistance from the Type 800 circuit perform the following steps:

- (a) Remove the Type 800 housing.
- (b) Cut and splice the two brown resistor leads together (Figure 4).
- (c) Replace the housing.

NOTE: This 1500-ohm resistor must be removed because the HD-570008-B resistor plug assembly has a 1500-ohm resistance built into it.

2.05 A formed-wire belt clip is attached behind the transmitter of the hand test telephone to simplify its being carried by field personnel. When the set is in use, the clip may be retracted against the handset handle where it snaps over the head of a thread-cutting screw mounted near the transmitter end. For central office use the clip may be detached from the set, which can then be suspended from the hole in a housing web from which the clip was removed. Mounting plate D-780869-A (Figure 5) is available separately for attachment to distributing frames or switching equipment support structures and provides a hook for such indoor storage.

2.06 The slide switch provided in the handset handle has three positions:

- (a) With the switch in its unmarked center or neutral position, a talk path exists from terminal 1 (Figure 6) over the dial pulse springs, transmitter, 95-ohm inductor and the C and R contacts of the switch to terminal 2. The receiver is connected in series with a 0.47 microfarad capacitor across the potential drop created by the inductor. When the dial is used, two of its off-normal springs shunt both the receiver and the transmitter, leaving only the pulse springs connected across the line terminals.
- (b) With the switch moved toward the receiver to its C position, the C contacts open the dc path through the transmitter and inductor, leaving the receiver capacitively connected in a monitor circuit.
- (c) With the switch moved toward the transmitter to its R position, a loop test 1500-ohm resistor is inserted in series with the normal circuit as its shunting contacts (R) open. This permits simulating a long loop for tests of switching equipment.

### 3. CLEANING

3.01 Avoid the use of chlorinated hydrocarbon solvents (trichlorethylene or 1, 1, 1-trichloroethane, for example), benzene, gasoline or methanol (denatured or wood alcohol) when cleaning the housing of the hand test telephone. Ethanol (grain alcohol) or naphtha is safe for use on the plastic material of the housing.

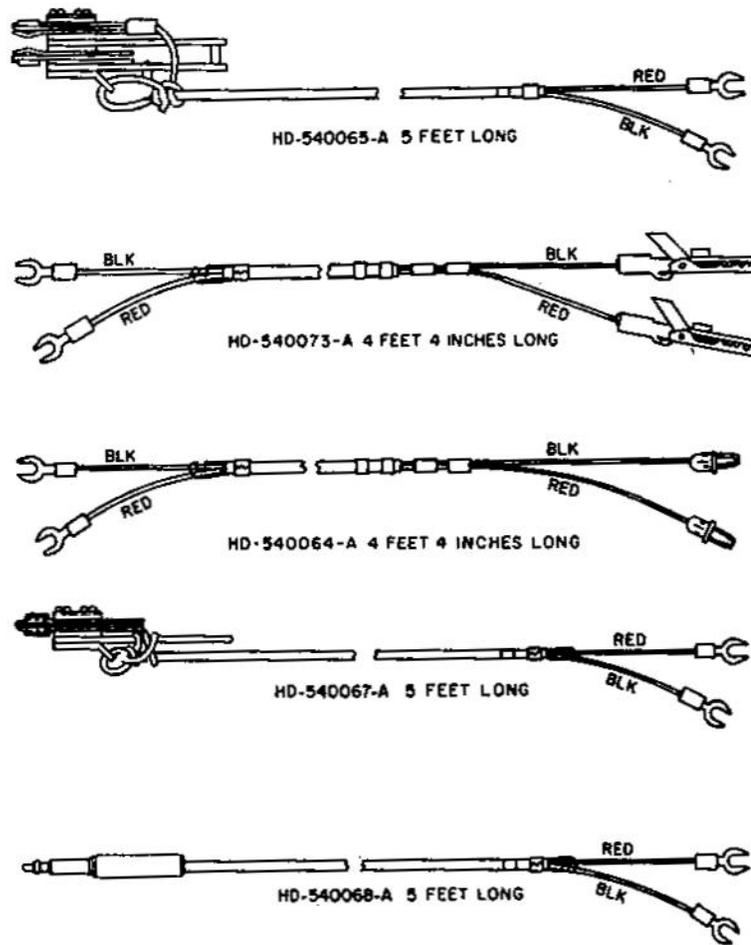


Figure 1. Miscellaneous Test Cords.

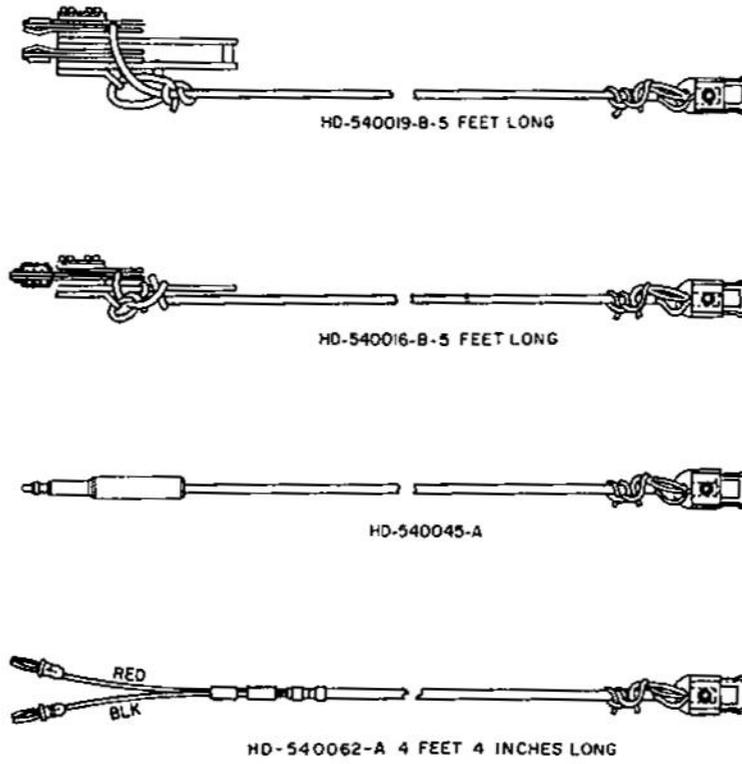


Figure 2. Central Office Test Cords.

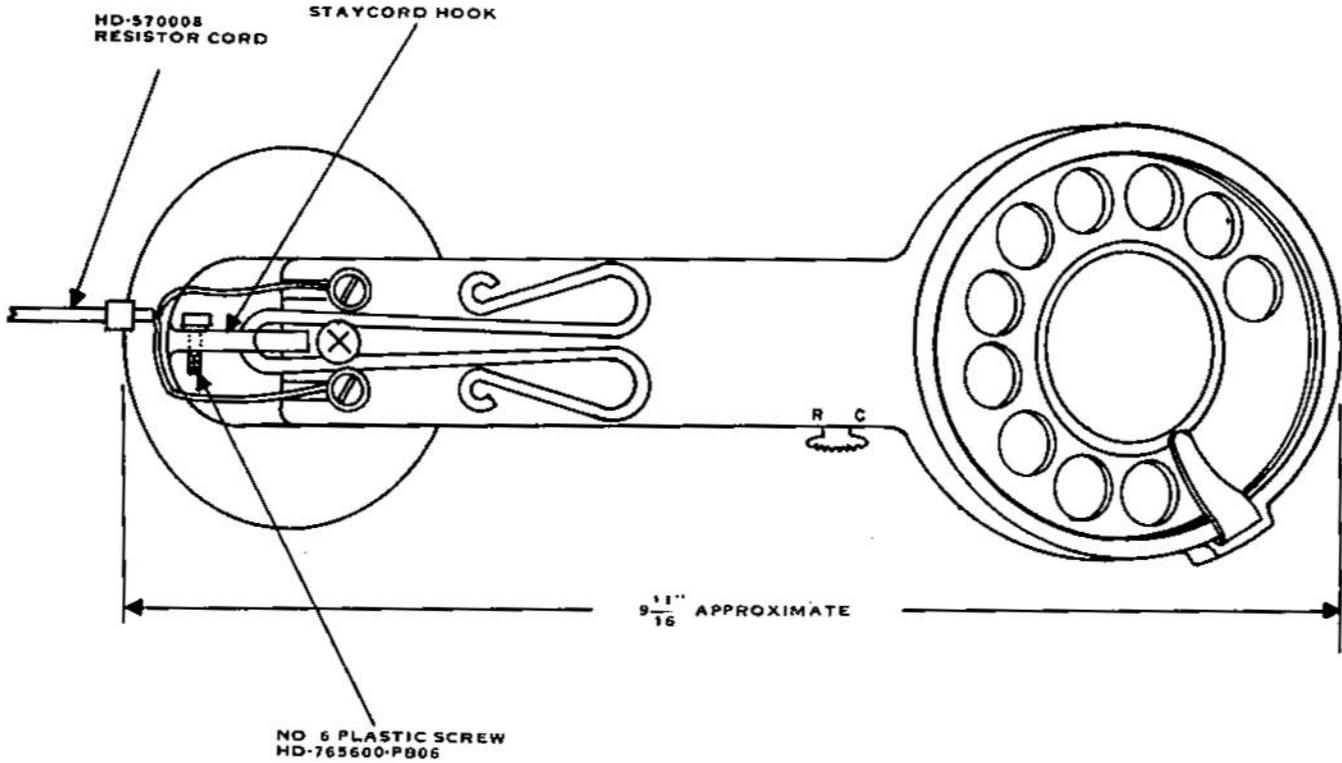


Figure 3. Modification for Resistor Plug Addition.

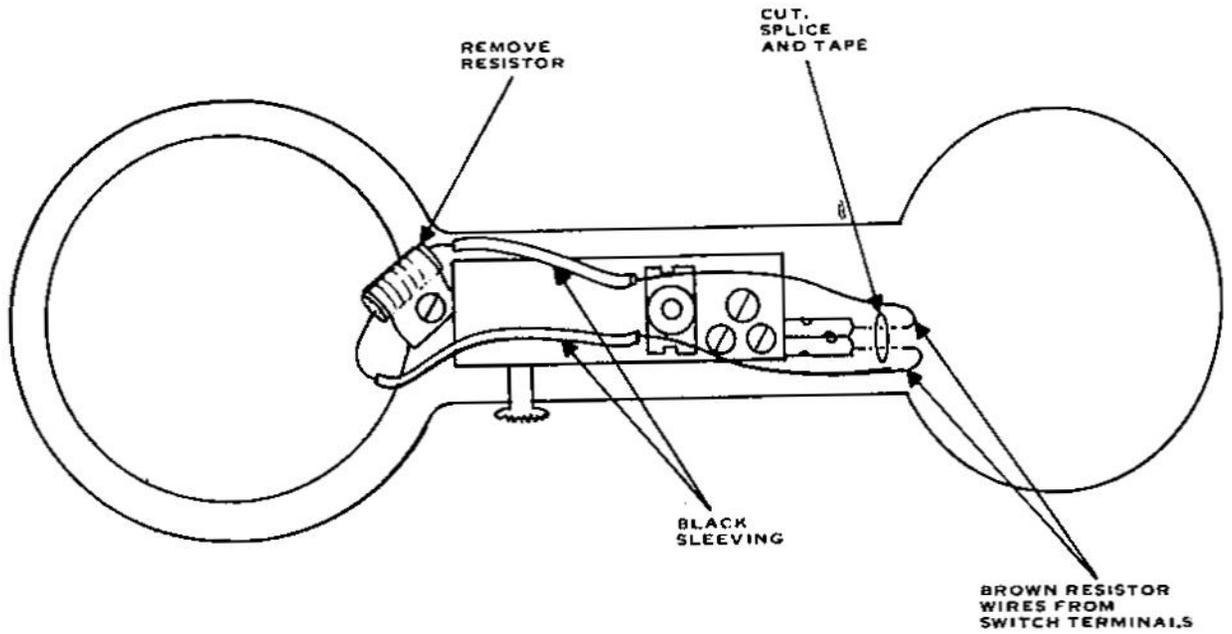


Figure 4. Removal of 1500 Ohm Resistor.

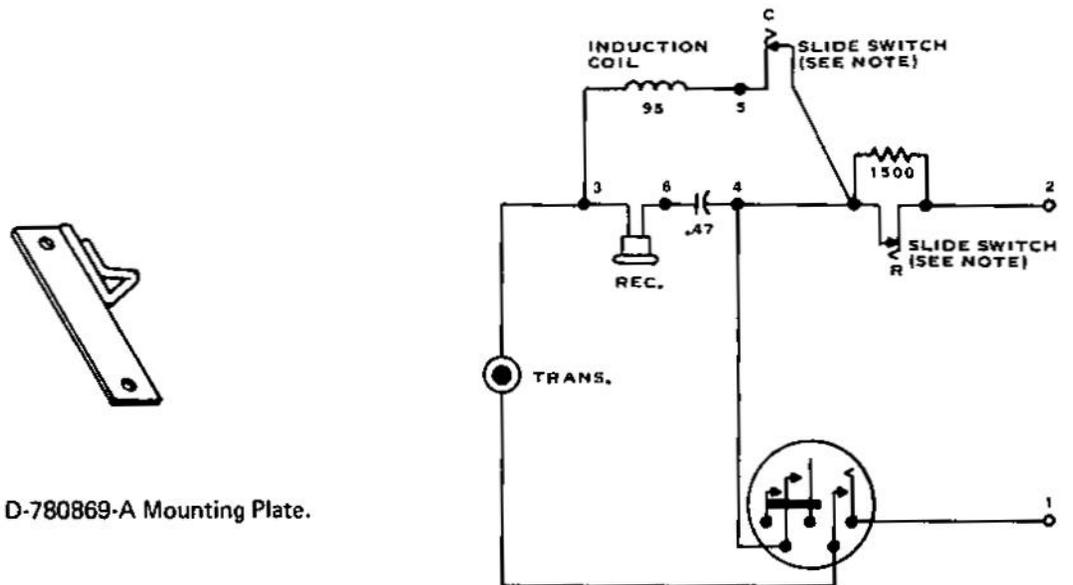


Figure 5. D-780869-A Mounting Plate.

NOTE:  
SLIDE SWITCH SHOWN IN CENTER OR TALK POSITION.

Figure 6. Schematic Diagram.

Table 1. Miscellaneous Test Cord Assemblies.

| ORDER NUMBER | DESCRIPTION   |
|--------------|---|
| HD-540073-A  | A 4-foot 4-inch-long, two-conductor cord, equipped with insulation-piercing alligator clips at one end and spade terminals at the other end (Figure 2).   |
| HD-540067-A  | A 5-foot-long, two-conductor cord (Figure 2), one end terminated with a two-contact plug for insertion into switch test jacks, the other end is terminated with spare terminals.  |
| HD-540064-A  | A 4-foot 4-inch-long, two-conductor cord (Figure 2), one end terminated with banana plugs, the other end with spare terminals.  |
| HD-540068-A  | A 5-foot-long, two-conductor cord; one end terminated with a switchboard type plug, the other end terminated with spare terminals (Figure 2).   |
| HD-540065-A  | A 5-foot-long, two-conductor cord, one end terminated with a four-contact plug (Figure 2) for insertion into switch test jacks, the other end terminated with spade terminals. A pushbutton on the four-contact plug is used to short two of the contacts on the switch being tested. |

Table 2. Central Office Test Cord Assemblies.

| ORDER NUMBER | DESCRIPTION  |
|--------------|--|
| HD-570008-A  | A 2.5-inch-long, two-conductor cord. Cord is equipped with spade terminals at one end and a plug at the other end. The plug receives the jack of other test cords. This cord has a 1500-ohm resistor wired in series with one of the conductors to simulate a long line loop. A mode switch either inserts or removes the 1500-ohm resistor from the line. This cord is used in central office testing to simulate a long line loop. |
| HD-540019-B  | A 5-foot-long, two-conductor cord, one end terminated with a four-contact plug (Figure 3) for insertion into switch test jacks, the other end terminated with a jack to mate with the plug of the HD-570008-A cord. A pushbutton on the four-contact plug is used to short two of the contacts on the switch being tested.   |
| HD-540016-B  | A 5-foot-long, two-conductor cord, one end terminated with a two-contact plug (Figure 3) for insertion into switch jacks, the other end terminated with a jack to mate with the plug of the HD-570008-A cord.  |
| HD-540045-A  | A 5-foot-long, two-conductor cord, one end terminated with a switchboard type plug, the other end terminated with a jack (Figure 3) to mate with the plug of the HD-570008-A cord. This cord is used for test of central office and PBX equipment accessed by test or patch jacks.   |
| HD-540062-A  | A 4-foot 4-inch-long, two-conductor cord (Figure 3), one end terminated with banana plugs, the other end terminated with a jack to mate with the plug of the HD-570008-A cord.   |