TEST SET 81AW
TEST PROCEDURES

1. GENERAL

1.01 This practice describes the 81AW test set used for conductor identification and continuity tests on inside wire, drop wire, block wires, inside wiring cable, etc.

1.02 Store the test set in a dry location.

2. DESCRIPTION

2.01 The 81AW test set (Figure 1) consists of a buzzer, switch and capacitor which are contained in the top of a plastic case. The bottom of the case houses two type D dry cell batteries.

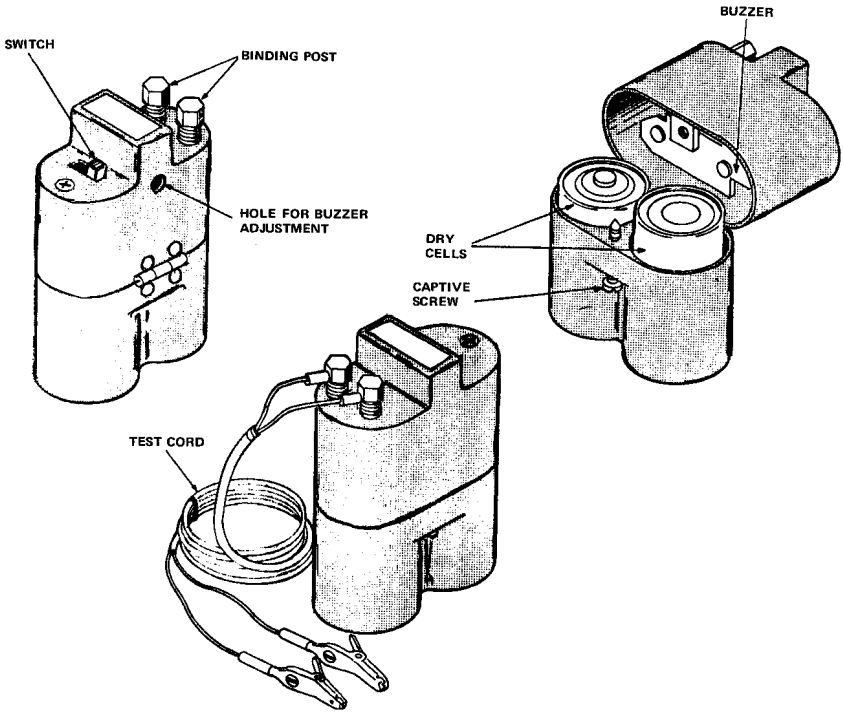

FIGURE 1. 81AW Test Set.

2.02 The switch on top of the case has three positions.

a. OFF

b. C = For DC continuity tests

c. T = For buzzer tone

2.03 A test cord assembly attaches to the binding posts. It consists of cord tips on one end and test clips on the other end.

3. OPERATION

3.01 Care should be exercised when using this test set that foreign potentials, either AC or DC, are not present. Carelessness will result in damage to the buzzer or annoyance to customers.

3.02 The switch must be placed in the OFF position when the set is not in use.

3.03 *Shorted Conductors:* With the switch in the OFF position, connect the test set to the conductors to be tested, either directly or by using the test cord.

3.04 Operate switch to the C position. If the buzzer operates, there is a short across the pair. If the buzzer does not operate, a further test should be made by placing a hand test set in series with the 81AW test set. If there is a click in the receiver, the pair is shorted.

3.05 Connect the 81AW test set across the pair of conductors to be tested, and operate the switch to T to start the buzzer.

3.06 Assuming the locations of both ends of the pair are known, go to the other end with a hand test set and connect it across the pair.

a. If the buzzer tone is heard, the pair is not open.

b. If the buzzer tone is not heard, the pair is open on one side or both sides.

c. Each side can be checked if a good conductor (metallic or ground) is available between the two points.

3.07 Connect the test set between one side of the pair to be tested and the good conductor.

3.08 Connect the hand test set between the side of the pair being tested and the good conductor at the other location.

a. Buzzer tone is an indication the side is not open.

b. No buzzer tone is an indication that the side is open.

3.09 *Tracing Conductors:* Connect the 81AW test set to the pair to be traced, and test to be sure the pair is not shorted.

3.10 Operate the switch to the T position to start the buzzer, and go to the location where it is desired to identify the pair.

3.11 Connect the hand test set (switch in the C, or capacitor position) across each pair of wires until the buzzer tone is heard. If tone cannot be heard on any pair, this indicates the pair to be located does not appear at the point being tested, or one or both sides of the pair are open.

4. MAINTENANCE

4.01 Do not mishandle or drop the test set.

4.02 Replace weak cells immediately. The dry cells must be placed in the test set in series: one right side up and the other upside down. Occasionally it may be necessary to clean the cell contact springs. They are readily removable.

4.03 The upper section of the test set contains a hole to be used for screw driver access to the buzzer for adjustment. The correct adjustment procedures are:

a. Operate the switch to the T position; the buzzer should operate.

b. Set the adjusting screw until the volume and pitch of the tone are highest; then turn the adjusting screw counterclockwise 1/8 turn.

4.04 To test the set:

a. Operate the switch to the T position; the buzzer should operate.

b. Operate the switch to the C position; the buzzer should not operate.

c. With the switch in the C position, short the two terminals; the buzzer should operate.