193A TEST SET

DESCRIPTION AND USE

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1. GENERAL

1.01 This section covers the description and use of the 193A test set. This test set is used to provide the proper voltage for performing the threshold (sensitivity) test for the 188A test set.

1.02 This section is reissued to clarify the use of the 193A test set, to add test requirements, and to add ordering information. Revision arrows are used to emphasize significant changes.

2. DESCRIPTION

2.01 The 193A test set (Fig. 1) consists of an ac plug which contains a current limiting voltage divider circuit and a test contact.

2.02 When inserted into a 120 Vac outlet, this test set provides a current-limited voltage of approximately 60 Vac. An exploded view of the test set is shown in Fig. 2. The resistors of the voltage divider circuit are of such value that the current is limited below the threshold of feeling; therefore, the test contact is safe if touched.

2.03 The 193A test set consumes less than 30 milliwatts of energy and may be left plugged into a 120 Vac 60-Hz outlet indefinitely. The ac outlet should be ground referenced, not isolated, and the user should not be isolated from ground (standing on a wooden stool, etc).

3. USE

3.01 The 193A test set is used to provide a reference test voltage which is used to verify proper operation of the 188A test set circuit.

3.02 To test the 188A test set, hold it in the bare hand and touch the 188A probe tip to the energized contact of the 193A test set. With the operating switch depressed on the 188A test set, the red light should flash, indicating the presence of voltage. Failure to flash indicates a faulty 188A test set. Immediately mark the set “defective” and return it for repair.

4. TEST REQUIREMENTS

4.01 The integrity of the 193A test set can be verified by an ohmmeter. The resistance measured from the test contact to each prong of the plug should be 300K ohms. The 188A test set should be tested with a 193A test set monthly, or at any time the integrity of the 188A test set is questionable. The 188A test set should always be tested with the 193A test set after being dropped or when the batteries are changed.

5. ORDERING

5.01 Orders for the 193A test set shall be worded as follows: (Quantity) Set, Test, 193A.
Fig. 1—Test Set

TEST POINT
(SCREW HEAD)

R1 \ R2
120 VAC IN

R1 301K \ 1%
R2 1/4 WATT

Fig. 2—Exploded View of Test Set