

## APPARATUS FOR FAULT LOCATING TESTER SA 9083

1 GENERAL. The Tester SA 9083 is a portable instrument intended for use by faultsmen who do not have access to a test desk. The tester should always be secured (by the two screws provided) within a case instrument No.6A; straps carrying No.5 & No.6 are available for attaching to the case.

Various testing cords and clips etc., are available for use with the tester, (see Table 2). The cords have a threaded socket at each end to take the clips etc.

The tester is designed as a 1000 ohms per volt instrument, a current of 1 mA flowing via the 100 ohm moving coil gives a full scale deflection.

Two types of tester SA 9083 are shown in the Rate Book, ie Mk1 and Mk2, these notes refer to the Mk 2 unless otherwise stated.

2 DESCRIPTION. The face of the tester shows three scales:- 0 to 50 and 0 to 250 for volts and milli-amperes, and 0 to infinity for ohms. Below the scales are a ten position range switch (7 position for Mk1), line reversing and test cells switches. Beneath these are three terminals labelled A, B and E. Pointer zeroing facilities are provided by a screw at the pointer base for the voltage and current ranges, and a milled disk at the side for the ohms range (later Mk 2 have a knob at the front).

At the rear are two compartments, the lower contains the tester components and is sealed, while the upper houses a 1.5V cell (Cell, Dry No. R20; for Mk 1: - cell, Dry No. DS7A) used for the ohms test range, and a 67.5V battery (Battery, Dry No.18) for the ohms X 100 range.

3 OPERATING THE TESTER. For line testing, the line is connected to terminals A and B; terminal E is connected to earth.

To prevent overloading and damaging the tester, always use the highest range provided. A lower range can be switched to if necessary.

When the tester is not in use the range switch should always be in position 1 ie 250 volts AC.

3.1 To zero the ohms scale:- select the range required, short circuit terminals A & B, adjust the milled disk until a FSD is obtained after removing the short circuit from the terminals the tester is ready for use.

3.2 Cell testing facilities are provided by operating the non-locking "test cells" switch. When using the 5V range a 4 ohm shunt is switched in, and 20 ohms when using the 50V range.

3.3 By operation of the range switch, tests can be made for battery on the "B" wire or earth on the "B" wire. To test the "A" wire the non-locking "line reverse" switch is operated and the tests repeated.