Title: Calibration Of Megger DET5 / 2D Earth Tester

Scope

Work Instruction for the internal calibration of Megger DET5 / 2D Earth Tester. To be used in the absence of a manufacturers calibration instruction.

Preparation

Calibration must be carried out using Category A Master instruments as required.
Equipment required;-
1.1 Fluke DMM Model 8842A.
1.2 Decade Resistance Box.

Method

2.1 All calibration results must be entered on the results sheets (see appendix A).

2.2 Note the lab temp / relative humidity and enter on calibration results sheet.

2.3 Carry out tests 1 and 2, which require no additional test equipment.

2.4 Carry out tests 3 and 4 using item 1.1.

2.5 Carry out test 5 using item 1.2 connected in three-wire measurement mode.

2.6 Carry out tests 6 to 17 using item 1.2 connected in four-wire measurement mode.

2.7 Complete the results sheet header and enter Pass / Fail.

- All records must be kept for audit purposes

References

Appendix A Calibration Results for Megger DET5 / 2D Earth Tester

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Appendix A

Calibration Results for Megger DET5 / 2D Earth Tester

Model ……Serial No ……..

Date ……..Result ……

Lab Temp / RH ……Operator ……

User Location ……Certificate No ……

Accuracies quoted are from the manufacturer's specification or relevant British Standard.

Preliminary Checks

Test 1 With test leads disconnected, switch UUT to 20 ohm range: Does "Rc" display segment illuminate and "1" over-range symbol appear? Pass / Fail

Test 2 With test leads disconnected and UUT switched to 20 ohms range, press "Test Rp" push button. Does "Rp" display segment illuminate? Pass / Fail

Output Volts

Test 3 Output volts =
Is the output voltage between 40v and 55v? Pass / Fail

Short Circuit Test Current

Test 4 20 ohm range test current =
Is the test current 10mA ± 1 mA? Pass / Fail

Three Terminal Measurement

Test 5 Make a three terminal connection between UUT and the decade resistance box ensuring that the "C1" terminal lead is as short as possible. Press "C1 – P1" push button and select 20 ohm range on UUT. Set the decade resistance box to 10 ohm.
Does the UUT read between 9.79 ohms and 10.25 ohms? Pass / Fail

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