

DESIGN and FUNCTION

A clamp on ground resistance tester is a major breakthrough in traditional ground resistance measuring. It is widely needed in the power, telecommunications, meteorology, oilfield, construction, industrial, and electrical utility industry. For a loop grounding system, the operator can measure the ground resistance and test for continuity without having to break down the grounding wire, or use auxiliary electrodes (sometime referred to as “stakes”). It is safe, fast and simple in use.

The clamp head is specially designed to reduce calibration errors by increasing the clamp pressure and the robust design of the transformers. Snapping the jaws or opening and closing several times should not be needed.

How it Works: One transformer induces a voltage on the conductor while the other transformer provides a current measurement through the loop allowing a resistance measurement to be displayed.

NOTE 1: The maximum resistance value that can be displayed is 1000 Ω . A resistance value in excess of the maximum will display as OL Ω . A resistance measurement of less than 0.01 Ω will display as L0.01 Ω

NOTE 2: To ensure accuracy and safety, the maximum voltage present on the conductor to be tested shall not exceed 150V and the maximum current through the conductor shall not exceed 5A for resistance measurements and 15A for current measurements.

TESTING the Ground Resistance Tester & Functions

1. Before pressing the “Power” button make sure the clamp head closes securely and is not clamped around anything.
2. Press the “Power” button and wait until “OL ” displays.
3. Using the test ring provided, clamp around the ring. 5.1 Ω +/- .3 Ω should display on the meter indicating the meter is in good operating condition
4. Press the “Hold” button on the panel and remove the ring from the tester, the value should remain on the display. Press the “Hold” button again to release the display.

NOTE 3: If the device does not test properly, see panel display information for troubleshooting on back page / repair and calibration contact information.

NOTE 4: While the device is powered, it is common to hear a presence of noise coming from the tester; this is normal.

OPERATION INSTRUCTION

Ground Resistance Measurement

1. See “Testing the Ground Resistance Tester” before operating tool. Measurement range is 0.01 Ω to 1000 Ω .
2. Press “Power” button and wait for tester to display “OL”. During this time no conductor should be under test and the jaw shall not be opened.
3. Clamp on to the conductor under test and read the display to obtain the loop resistance measurement.
4. If you cannot see the display, press the “Hold” button to lock the display. After the reading is obtained, press the “Hold” button again to release the display.

Current Measurement

1. See “Testing the Ground Resistance Tester” before operating tool. Measurement range is 0.00mA to 15.0A.
2. Press “Power” button and wait for tester to display “OL ”. During this time no conductor should be under test and the jaw shall not be opened. Firmly press the “ Ω /A” for “0.00mA”
3. Clamp on to the conductor under test and read the display to obtain the current measurement.
4. If you cannot see the display, press the “Hold” button to lock the display. After the reading is obtained, press the “Hold” button again to release the display.

Data Memory Entry

1. When measuring resistance or current press and hold “Power” button for 3 seconds. “MEM” should appear and the sequence number in the upper right hand corner of the display.
2. Press “Power” button momentarily to exit data storage.

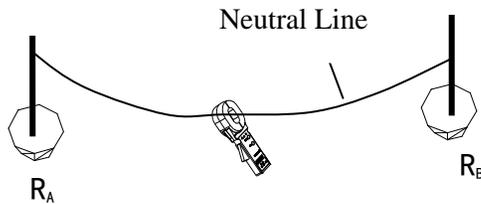
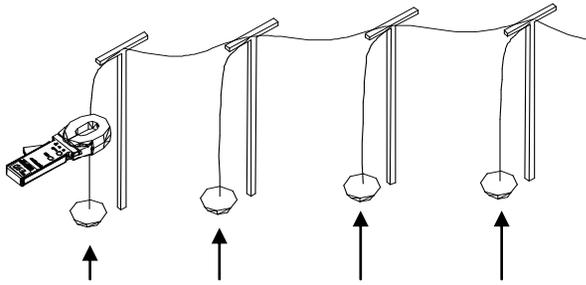
Data Memory Review

1. To review all stored measurements press and hold “Hold” button for 3 seconds. “MR” will display and the sequence number in the upper right hand corner and the respective data on the display
2. Press “Hold” button momentarily to cycle through data storage.
3. To exit memory review press “Hold” button for 3 seconds.

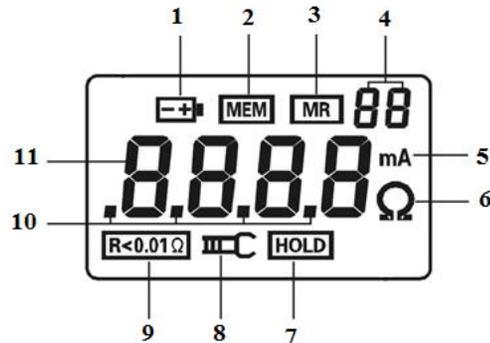
Deleting Data Memory

1. Enter Data Memory Review by pressing and holding the “Hold” button for 3 seconds.
2. To delete all stored data press the “Power” button.

COMMON USES:



- (1) Low Battery Symbol
- (2) Memory Entry
- (3) Memory Review
- (4) Sequence # of Data
- (5) Current Mode
- (6) Resistance Mode
- (7) Hold Display
- (8) Jaw is not closed good
- (9) Resistance value is less than .01Ω
- (10) Metrication decimal point
- (11) 4-digit 7 segment LCD display



This product is warranted to be free from defects in workmanship and material, under normal use and service conditions for a period of one year.

Sales

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OPERATING INSTRUCTIONS

GRT-1000A™

Ground Resistance/Current Tester

CAUTION

The equipment covered in these operating instructions should be used by qualified employees trained in and familiar with the safety related work practices, safety rules and other safety requirements associated with this type of equipment. These instructions are not intended as a substitute for adequate training, nor do they cover all details or situations which could be encountered in relation to the operation of this type of equipment.

WARNING

Before powering the device an inspection shall be made to ensure the jaws of the device are free of contaminants and will close sufficiently. During the powering process the jaws should remain closed until the calibration routine is completed and the "OL Ω" is displayed. Failure to do so could result in false reading and equipment damage. The dismantling, calibration, or maintenance of this device shall be performed by an authorized repair facility.

NOTICE

Before operating this equipment, read, understand and follow all instructions contained in this manual. Keep instructions with equipment