LRM 200

True DC Micro Ohmmeter

Outstanding Features

- Selectable rise and fall time of the true DC current eliminates the mal-operation of connected relays to the current transformer
- "Fast Test" mode to check multiple contact joints in the current circuit, improving productivity
- Full-size keyboard, color display and built-in thermal printer with user friendly interface for efficient and quick testing
- Internal Storage of 150 test records with 75 readings each, along with nameplate details, eliminating the need for a computer
- Ability to export test results to PDF and Excel format

The LRM 200 is a microprocessor-based, true DC micro ohmmeter designed to test the contact resistance of circuit breaker contacts, switchgear, and bus bar joints. It is the instrument every test technician needs to have to maintain circuit breakers, switch gear and busbars. The LRM 200 is designed to meet the IEEE C37.09-1999, IEC62271-100 for GIS factory test and IEC62271-200 for high voltage switchboard factory test for testing circuit breaker contact resistance.

The LRM 200's wide measuring range is 1 micro Ohm to 5 Ohms with 0.1 micro ohm resolution with a current range of 10 A to 200 A.

The LRM 200 injects a true DC current through the contacts under test and measures the contact resistance. It can compare the test results against the prescribed limit and make the pass/fail decision. As the rise and fall time is configurable for each test, no transients are induced in the associated apparatus such as current transformers. This avoids tripping of the associated relays. The LRM 200 is a lightweight (15 Lbs/7.5 kgs) instrument designed for portability and field use.

For increased productivity, the "Fast Test" mode can test multiple contact joints in the current path of the LRM 200 by connecting sense cables across the joints under test. "Fast Test" is a very useful feature that can increase the productivity of the test personnel for testing multiple joints in a circuit.

The LRM 200 can also perform CB testing in Dual Ground mode. In Dual Ground mode, both sides of the circuit breaker are grounded and some current is diverted in to the ground via a ground cable. An external current sensor connected to the ground cable provides input to the LRM 200 which eliminates the effect of the diverted current and produces good and accurate results. The LRM 200 then calculates the actual resistance value of the circuit breaker main contact.

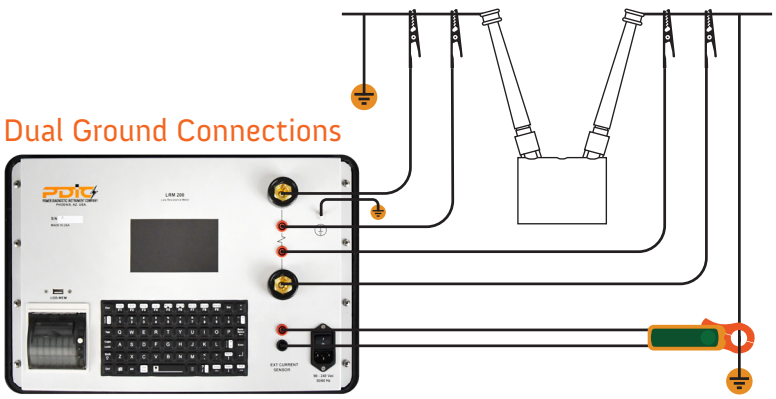
The LRM 200 provides a full 44-key "QWERTY" keyboard, a color display with a user-friendly interface, and a built-in 2.5" thermal printer, eliminating the need for a computer. The user-friendly interface enables users to quickly get familiar with the test menus. The full-size keypad enables users to quickly add the nameplate information of the apparatus under test.

The internal memory of the LRM 200 can store up to 150 records of 75 readings each. These results can be transferred to a USB flash drive or to a computer directly via the USB PC interface.

The LRM 200 software can export the test results in PDF and Excel formats for further analysis.

A 33' (10 m) test cable set is provided with LRM 200 along with the sense cables. Optionally, 15' (4.57 m) cables are also available.

Dual Ground Connections



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LRM 200

Technical Specifications

Physical Specifications	**Dimensions:** 18"W x 7"H x 15" D (45.7 cm x 17.8 cm x 38.1 cm) **Weight:** 19.8 lbs. (8.9 Kg)
Resistance Reading Range	1 micro-ohm to 5 ohms (max 10 milliohms @ 200A and 5 ohms @ 1A)
Test Current Range	1A – 200A (selectable in 1A steps)
Resolution	0.1 μΩ – 999.9 μΩ: 0.1 μΩ 1.000 mΩ – 9.999 mΩ: 1 μΩ 10.00 mΩ – 99.99 mΩ: 10 μΩ 100.0 mΩ – 999.9 mΩ: 0.1 mΩ
Typical Accuracy	±(0.15% of reading + 0.15% FS) at test current of 10–200 A
User Interface	**Screen:** Back-lit LCD color screen (800 x 480 pixels) viewable in bright sunlight and low-light **Keypad :** 44-key "QWERTY" back-lit keypad **Printer:** Built-in 2.5" thermal printer
Computer Interfaces	One USB PC interface One USB flash drive interface
PC Software	Windows®-based analysis software is included
Internal Test Record Storage	150 test records; each record can contain up to 75 readings
Input Power	100 – 240 Vac, 50/60 Hz
Temperature	**Operating:** -10°C to +50°C (+15°F to +122°F) **Storage:** -30°C to +70°C (-22°F to +158°F)
Humidity	90% RH @ 40°C (104°F) non-condensing
Altitude	2,000 m (6,562 ft) to full safety specifications
Included Cables	33 ft (10 m), #1 AWG test cables, power cord, ground cable, USB cable
Safety	Designed to meet IEC 61010 (1995), UL 61010-a, and CAS-C22.2 standards
Options	Shipping case, 15 ft (4.57 m) test cables, hand spike set, dual ground option
Warranty	One year on parts and labor

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