



True DC Micro Ohmmeter

- Continuous 0 - 200 A DC output
- Full-size keyboard, Touch enabled color display and built-in thermal printer
- Dual grounding option for enhanced safety and simpler testing
- Internal Storage of 150 test records with up to 75 readings
- Ability to export test results to PDF and Excel format
- Settable rise and fall time of test current to avoid mal operation of associated relays
- Field portable rugged housing

Introduction: LRM 200 – Precision DC Micro-Ohmmeter

The LRM 200 employs state of the art hardware, redefines precision in contact resistance testing. Powered by advanced microprocessor technology, it delivers true DC resistance measurements for circuit breakers, switchgear, and busbar joints — ensuring your high-voltage equipment performs flawlessly and lasts longer.

Whether in the lab or at a substation, the LRM 200 is the essential tool for every test technician maintaining critical electrical assets.

Engineered for Compliance and Confidence

The LRM 200 meets major international testing standards, giving you peace of mind:

- IEEE C57.09-1999 – Circuit Breaker Contact Resistance
- IEC 62271-100 – Gas-Insulated Switchgear (GIS)
- IEC 62271-200 – High-Voltage Switchyards

With certified performance to the highest industry standards, you can trust every reading.

Performance That Gets Results

- Wide Measurement Range: 1 $\mu\Omega$ to 5 Ω
- Ultra-High Resolution: 0.1 $\mu\Omega$ for pinpoint accuracy
- True DC Current Output: 20 A to 200 A
- Stable & Repeatable Readings — even in demanding environments

By injecting a true DC current and precisely measuring resistance, the LRM 200 **eliminates noise and errors** that can compromise lesser instruments.

The Smarter Way to Test

Compact, rugged, and intuitive, the LRM 200 blends cutting-edge technology with field-proven reliability. For professionals who demand accuracy, durability, and ease of use, this is the instrument that never compromises.

Test Cables

The LRM 200 comes standard with a 30 ft. test cable set, designed for durability and ease of use.

Custom cable lengths up to 50 ft. available upon request.

- Heavy-duty welding-type clamps with isolated test current and voltage sense leads for secure connections.
- Optional separate voltage sense cables for flexible testing setup.
- Heavy-duty C-clamps and special connectors available to fit Various bushing sizes, Busbars or large conductor

A special interface connector as shown here, can be provided as an option, allowing users to test with their own cables — as long as a spade connector is available at one end.



Dual Ground Mode Test: Simpler and safer

During testing, typically only one end of a circuit breaker is grounded to ensure accurate readings. However, in high-voltage substations, overhead transmission lines can induce unwanted voltages on the breaker under test — posing a safety risk.

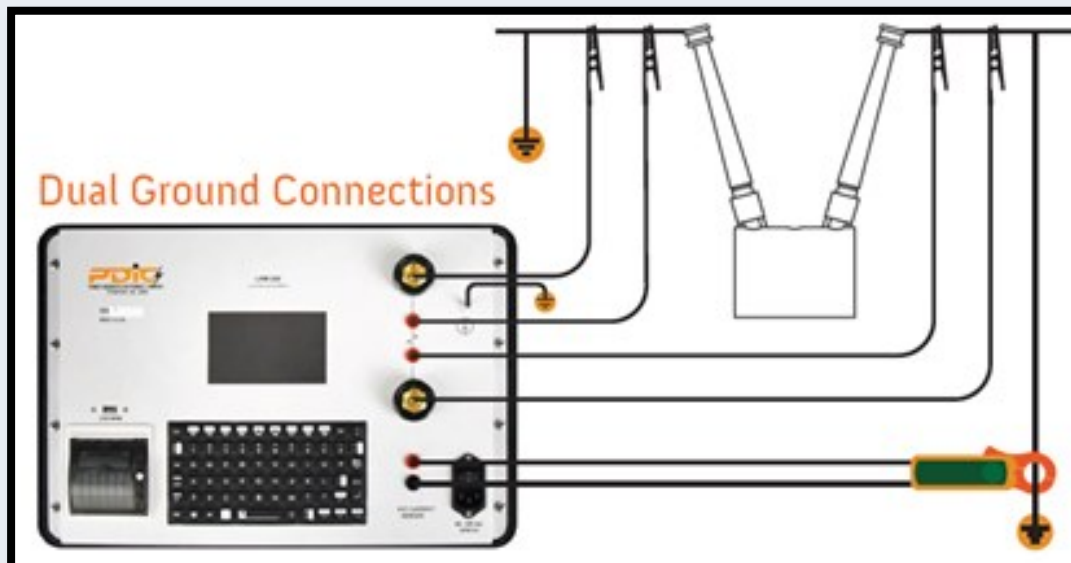
To enhance safety and maintain accuracy, the LRM 200 features Dual Ground Mode, allowing both sides of the circuit breaker to be grounded during testing.

In this mode:

- A small portion of the test current flows through the ground cable.
- An external current sensor connected to the ground cable detects and compensates for the diverted current.
- The LRM 200 automatically corrects for this effect, providing accurate, reliable results every time.

Benefits of Dual Ground Mode

- Enhanced operator safety
- Accurate test results even with both sides grounded
- Simpler and faster contact resistance testing



User-Friendly Interface & Effortless Data Entry:

The LRM 200 features a backlit color LCD touchscreen (800 x 480 pixels) that remains crisp and readable in bright sunlight or low-light conditions. Its intuitive menu structure lets you start a test in just a few taps. A full-sized industrial keyboard makes entering critical information—like nameplate and setting details—quick and effortless.

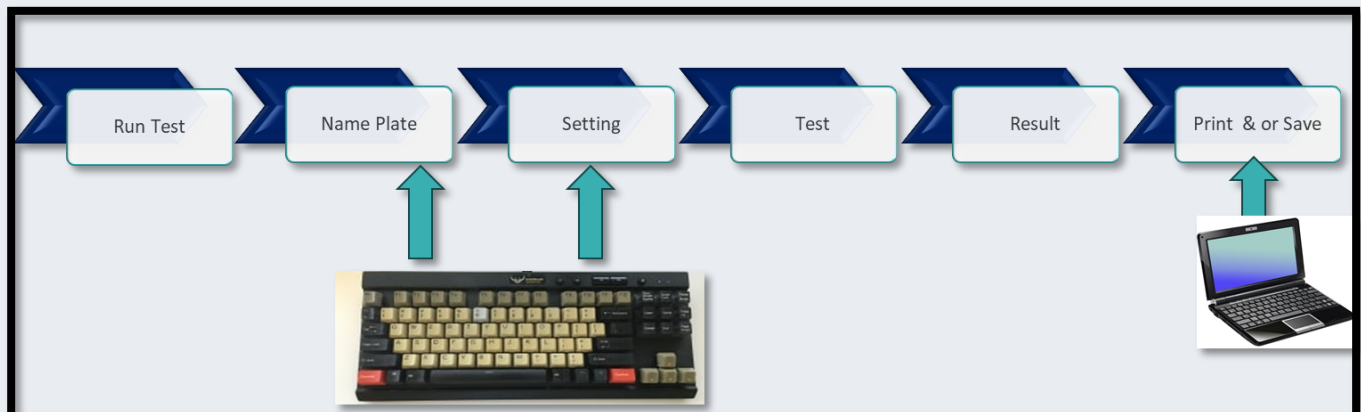


Comprehensive Test Records & Built-In Thermal Printer

- Record Storage: Up to 150 records, each with 75 readings
- Easy Data Transfer: Export results via USB flash drive or direct USB PC interface
- Instant Printouts: Built-in 2.0" thermal printer provides on-site printouts for immediate documentation

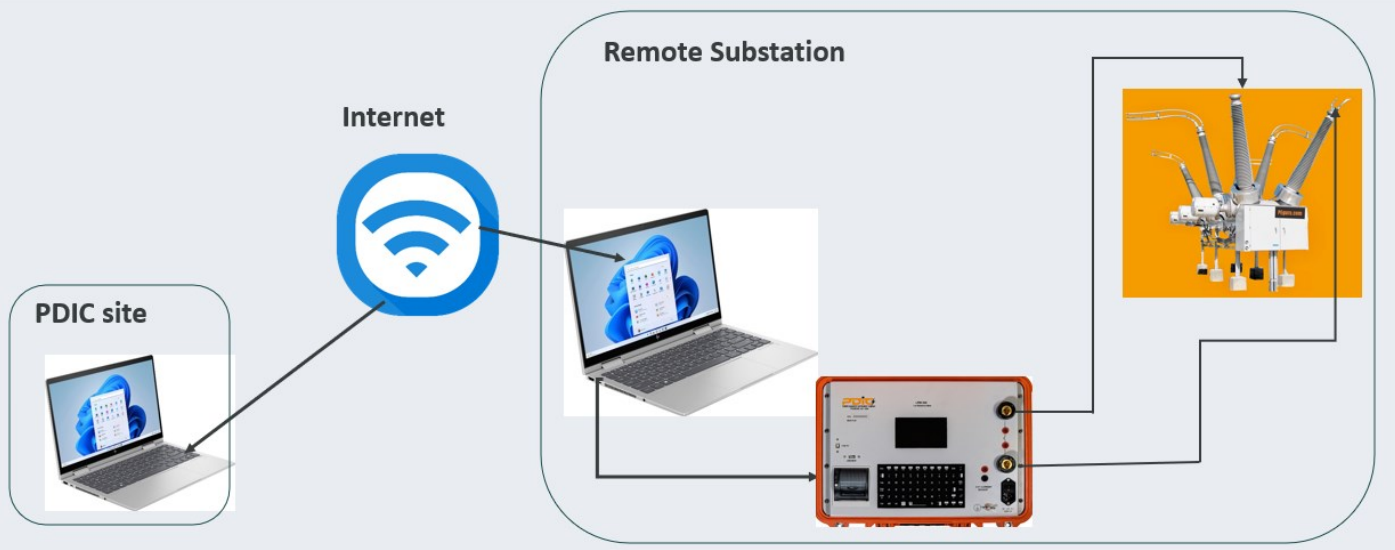
Fast, Intuitive Testing

The LRM 200 combines a touchscreen display with a full-size keyboard, making testing quick, simple, and efficient. Its Self-Test and Quick Test features streamline field operations, boosting productivity for test personnel.



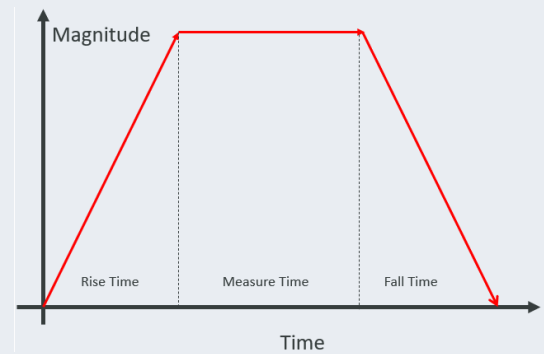
Remote Diagnostics and Technical Support

In field applications, users may occasionally require technical assistance. The LRM 200 supports remote connectivity, allowing PDIC application engineers to access the instrument via a PC connected to the internet and linked to the unit through a USB interface. This enables remote diagnostics, firmware verification, or test supervision under local operator observation. Additionally, online demonstrations for performing contact resistance measurements can be conducted in real time. This capability enhances field efficiency, minimizes downtime, and ensures expert assistance whenever required.




Test Current Configuration

The LRM 200 allows users to configure key test current parameters, including rise time, fall time, burn-in time, and current amplitude. Adjustable rise and fall times enable precise control over how quickly the test current increases or decreases, helping to prevent unintended operation of protection relays connected to bushing current transformers in circuit breakers. This level of control ensures safe, accurate, and reliable resistance measurements in field applications.



PC Connectivity and Test Reporting

The LRM 200 can be easily connected to a PC via a USB interface. Once connected, the PDIC software automatically establishes communication with the instrument, allowing seamless transfer of test data. Users can quickly generate comprehensive test reports in PDF format and personalize them with their company name and logo. This feature simplifies documentation and enhances the professionalism of test reports prepared in the field.



Power Diagnostic Instrument Company
www.PDICUS.com

Date: 05 18 2025	Manufacture: qnt
Time: 21 58 38.461	Model: smx
FileName: MOM-Results-RecordNumber: 1	Serial #: yz12
Company: abcd	Firmware Version: 01.18.23.0105A
Station: wgh	Hardware Version: 01.02.210205A
Circuit: qh	
Operator: mnop	

Test	Resistance [μΩ]	Upper Limit [μΩ]	Lower Limit [μΩ]	Pass / Fail	Rise Time (S)	Fall Time (S)	Burn In Time (S)	Current Measured [A]	Current Target [A]
1	249.3	μΩ	μΩ		5 secs	5 secs	5 secs	200.58 A	200 A
2	250.8	μΩ	μΩ		5 secs	5 secs	5 secs	200.53 A	200 A
3	201.3	μΩ	μΩ		5 secs	5 secs	5 secs	200.61 A	200 A

Technical Specifications : LRM 200

Input Power	
Operating Voltage	84-264 Vac, 50/60 Hz
Measuring Method	IEEE C57.09-1999
Typical Accuracy	
Resistance Reading Range	0 $\mu\Omega$ ~ 5 Ω
Test Current Range	1 -200 A in 1 A steps (Thermally protected DC power supply)
Accuracy	$\pm(0.10\%$ of reading + 0.15% FS) at test current of 200 A
Resolution	1 $\mu\Omega$ ~ 999.9 $\mu\Omega$: 0.1 $\mu\Omega$
	1.000 m Ω ~ 9.999 m Ω : 1 $\mu\Omega$
	10.00 m Ω ~ 99.99 m Ω : 10 $\mu\Omega$
	100.0 m Ω ~ 999.9 m Ω : 0.1 m Ω
USER INTERFACE	
Printer	Built-in 2" wide thermal printer
Display & keyboard	Color touch-screen LCD (800 x 480 pixels) & "QWERTY"-style keyboard
Computer Interface & software	One USB PC interface for downloading test records and generate report via USB 2.0
SAFETY STANDARD	IEC/EN 61010-1
DATA STORAGE AND ANALYSIS	
Internal Test Record Storage	Up to 150 records with max 75 results per record (8,000 test records)
External Test Record Storage	USB Flash drive interface to copy test records and firmware updates
Operating/Storage Temperature	
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)
Physical Specifications	
Dimensions	18"W x 7"H x 15" D (45.7 cm x 17.8 cm x 38.1 cm)
Weight	19.6 Lbs. (8.9 Kgs)
Test Cables	2 x 30' (10 m) high current cable , 2 x 30' (10 m) voltage sense cable, power cord, USB cable, 10' ground cable and one cable bag