EAGLOTEST

S452

MICRO-OHMMETER



USER MANUAL

CATALOG

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SECTION 1

Safety Warnings

Thank you for purchasing the S452 Micro-ohmmeter. To ensure optimal use of this product, please ensure you read this user manual thoroughly. Operators must fully understand the manual's instructions and be proficient in operating the instrument before conducting actual tests.

1.1 General Safety

- Strictly observe the safety rules and precautions outlined in this manual.
- Under all circumstances, prioritize safety when using this instrument.
- For your safety, only use the test leads and corresponding accessories supplied with the equipment.

1.2 Electrical Safety

- Before use, verify that the instrument and accessories are in good condition. Use the instrument only if the insulation of the device and test leads is intact, with no exposed metal or broken wires. Stop using the instrument immediately if the casing or test leads are broken, exposing metal parts.
- Ensure the resistor under test is completely de-energized before testing.
- During testing, strictly avoid touching the resistor under test and the active test loop.
- Confirm that the test leads are securely and tightly connected to both the instrument and the device under test (DUT).
- If the casing or test leads break and expose metal during use, cease operation immediately.
- Do not touch the exposed metal parts of the output jacks and ports to prevent electric shock.
- Pay attention to the warning labels and symbols on the front and rear panels of the

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instrument.

1.3 Environmental and Storage

- Do not leave the instrument in high temperature, high humidity, or direct sunlight for extended periods.
- Disassembly, maintenance, and operation of this instrument must only be performed by authorized and qualified personnel.
- Do not conduct tests in flammable environments, as sparks may cause explosions.

1.4 Maintenance

- The instrument must be maintained regularly and kept clean. Do not use corrosive agents or abrasive materials for cleaning.
- Store the instrument in a dry, well-ventilated indoor environment free from corrosive gases.
- If the instrument is stored unused for a long period, charge the battery once every two months.
- Only use the power adapter and battery pack provided by the manufacturer, as they meet specific safety ratings.
- If continued use of the instrument poses a hazard due to an internal fault, stop using it immediately, seal it, and hand it over to an authorized agency for handling.
- The "  " symbol on the instrument and in the manual indicates danger; users must follow the instructions for safe operation.
- The "  " symbol on the instrument and in the manual indicates extreme danger; users must strictly follow the instructions for safe operation.

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SECTION2

Introduction

2.1 Product Overview

The S452 Micro-ohmmeter is a handheld, battery-powered instrument designed for field and laboratory measurement of low DC resistance. It delivers output currents up to 100 A with a resolution of 0.01 μΩ using the four-wire (Kelvin) method. The instrument and its accessories comply with IEC 61010-1 safety standards.

Key Differentiators

Wide current range with fine-step control: Six fixed current levels (≤5 A through 100 A) plus 2.5 A fine-step adjustment across 40 levels allow the operator to match the test current precisely to the resistance under test, minimising heating while maintaining measurement accuracy.

Integrated data ecosystem: Wireless export via Bluetooth to the Android app (Excel format), real-time monitoring and control via PC software, and an optional thermal printer provide a complete on-site documentation workflow without additional hardware.

Self-contained power: The built-in 12.6 V / 9000 mAh lithium battery pack enables fully cordless operation, eliminating dependence on site power and making the instrument well-suited for substation and outdoor environments.

2.2 Applications

Applications: Measurement of contact resistance in high-voltage switches and circuit breakers, connection resistance of metallic welding components, and loop resistance of various metallic conductors.

Precision Testing: Capable of high-precision micro-ohm resistance measurements.

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2.3 Key Features

Wide current range with fine-step control: Six fixed current levels (5 A through 100 A) plus 2.5 A fine-step adjustment across 40 levels, allowing the operator to match the test current precisely to the resistance under test.

Integrated data ecosystem: Wireless export via Bluetooth to the Android app (Excel format), real-time monitoring via PC software, and an optional thermal printer provide a complete on-site documentation workflow.

Self-contained power: The built-in 12.6 V / 9000 mAh lithium battery pack enables fully cordless operation.

2.4 Measurement Parameters

- Test Method: Utilizes the Four-wire (Kelvin) method for accurate measurement
- Current Output:

Coarse Adjustments: ≤5A, 10A, 30A, 50A, 80A, 100A.

Fine Adjustments: Supports up to 40 levels with a 2.5A step value

- Measurement Range: 1μΩ ~ 3.5Ω (Overall range supported by built-in battery)
- Minimum Resolution: 0.01μΩ
- Test Accuracy:

30A to 100A (0.01μΩ~20mΩ): ±(Reading × 0.1% + Range × 0.2% + 1μΩ)

10A (0.1μΩ~200mΩ): ±(Reading × 0.5% + Range × 0.2% + 10μΩ)

≤5A (1μΩ~1000mΩ): ±(Reading × 0.5% + Range × 0.2% + 10μΩ)

≤5A (1Ω~3.5Ω): ±(Reading × 0.5% + Range × 0.2% + 0.1Ω)

- Test Duration:

Quick (recommended), 10s, 20s, 30s, 40s, 50s, 60s. At the 100 A level, the "Quick" mode is recommended to limit thermal rise and conserve battery.

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2.5 Connectivity and Data Management

- Data Storage: Cyclic storage for up to 999 groups of data, automatically saved upon test completion
- Mobile App (Android): Connects via Bluetooth for Excel data export, real-time viewing, and generating test reports/curves
- PC Software: Connects via USB to export data, log readings every second, and control instrument testing
- Printer (Optional): Supports external printer for immediate test result documentation

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SECTION 3

Specification

Item	Specification
Function	Contact resistance testing of high-voltage switches and circuit breakers; connection resistance of metallic welding components; circuit resistance of conductors; precision micro-ohm resistance measurement
Power Supply	Built-in 12.6V 9000mAh rechargeable lithium battery
Measurement Method	Four-wire method (Kelvin measurement)
Charger	12.6V / 2A
Display	5.6-inch industrial-grade high-brightness color LCD screen
Test Terminals	I+ (Current Positive), I− (Current Negative), U+ (Voltage Positive), U− (Voltage Negative)
Output Current	≤5A, 10A, 30A, 50A, 80A, 100A Step: 2.5A, up to 40 current levels
Measurement Range	≤5A: 1μΩ ~ 3.5Ω 10A: 0.1μΩ ~ 200mΩ 30A: 0.1μΩ ~ 20mΩ 50A: 0.01μΩ ~ 15mΩ 80A: 0.01μΩ ~ 10mΩ 100A: 0.01μΩ ~ 5mΩ
Resolution	0.01μΩ
Accuracy	30A~100A (0.01μΩ~20mΩ): ±(Reading×0.1%+Range×0.2%+1μΩ)

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SECTION 3

Item	Specification
	10A (0.1μΩ~200mΩ): ±(Reading×0.5%+Range×0.2%+10μΩ) ≤5A (1μΩ~1000mΩ): ±(Reading×0.5%+Range×0.2%+10μΩ) ≤5A (1Ω~3.5Ω): ±(Reading×0.5%+Range×0.2%+0.1Ω)
Test Duration	Quick (Recommended), 10s, 20s, 30s, 40s, 50s, 60s. At the 100 A level, "Quick" mode is recommended to limit thermal rise.
Printer	Optional; print results via the “Print” key
Data Storage	999 groups; automatic storage upon test completion
Dimensions (L×W×H)	Instrument: 188mm × 85mm × 312mm Package: 550mm × 420mm × 215mm
Weight	Instrument: approx. 2.2kg Total (with accessories): approx. 9.3kg
Test Leads	Standard 3m (5m optional); total resistance <10mΩ
Data Delete	Select “Format Memory” in the settings interface to delete all data
Data Query	Enter the Data Query interface and press the up/down/left/right keys to browse stored data
Data Export	Bluetooth connection via Android APP; export as Excel file
Cloud Service	Android APP via Bluetooth; upload on-site pictures and test data, generate test reports and graphs, share test equipment, view data simultaneously by multiple users
PC Software	Export test data, continuous logging, real-time display, and instrument control via PC
Auto Power-off	Automatically shuts down after 15 minutes of inactivity

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Item	Specification
Battery Indicator	Real-time status icon; low battery symbol triggers auto-shutdown
Backlight	High, Medium, Low
Working Current	Non-test state: 230mA; Test state: subject to current setting
Protection	Open-circuit protection, overheat protection, internal temperature monitoring
Operating Environment	-10°C ~ 50°C; below 90% RH (non-condensing)
Storage Environment	-10°C ~ 60°C; below 70% RH
Safety Standard	IEC61010-1

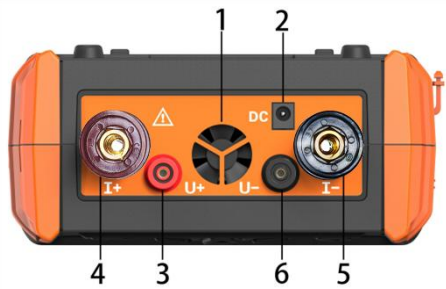
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SECTION 4

Structure





1. Cooling Fan
2. Charging Port
3. U+ (Voltage Positive Terminal)
4. I+ (Current Positive Terminal)
5. I- (Current Negative Terminal)
6. U- (Voltage Negative Terminal)
7. Print Key
8. Power Button
9. Navigation Keys
10. TEST Key
11. Return Key
12. Screen
13. Hand Strap

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SECTION 5

Operation

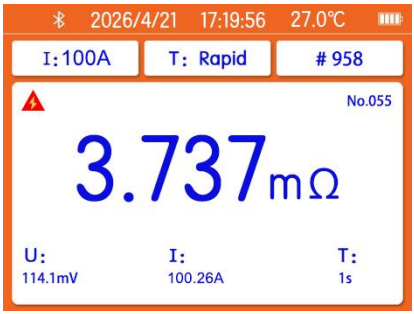
5.1 Basic Operation

	When using this instrument, testing must be conducted under favorable weather conditions. To prevent potential hazards, it is strictly prohibited to operate the device in rain, snow, fog, or environments with high air humidity.
⚠	This instrument must be operated exclusively by trained and authorized personnel. Operators are required to strictly adhere to all safety regulations.
	Users must charge the instrument promptly (recharging the device at least once every two months). Failing to charge a severely depleted battery will result in irreversible battery damage, significantly shorten its service life, and impair the normal operation of the instrument.

5.1.1 Power ON/OFF

When powered by the built-in battery: Press the button for 0.5 seconds to turn on the instrument and enter Test Mode. Long press the button again to shut it down.

By default, the instrument enters the Test Interface upon powering on. Press the button to go back to the Menu Interface. After approximately 15 minutes of inactivity, the instrument will automatically shut down following a 30-second countdown. When the battery level is critically low, the 0% symbol will be displayed, and the instrument will automatically shut down. Please charge it promptly.



Test Interface

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5.1.2 Menu

After powering on, press the button to access the Main Menu interface. The main menu options are divided into: "Test" , "Record Query", and "System Settings".



Main Menu

5.1.3 System Settings

In the main menu interface, press the or keys to select "System Settings", and press the key to confirm and enter the settings interface. The system settings include: Language Switch, Brightness Setup, Time Setup, Factory Settings, Format Memory, About, Printer Setup, Bluetooth Setup, and Firmware Upgrade.



Settings Interface

- **Language Switch**: Toggles the instrument's operating interface between Chinese and English modes.
- **Brightness Setting**: Adjusts the LCD backlight intensity, allowing for the selection between High, Medium, and Low brightness levels.

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- **Time Setting**: Press the ↵ key to enter the date and time settings. Press the ◀ or ▶ keys to move the cursor, press the ▲ or ▼ keys to adjust the numerical values, and press the ↵ key to confirm.



Time Setting

- **Factory Settings** : Accesses the internal factory configuration interface. Utilization of this function requires direct technical support from the manufacturer.
- **Format Memory**: Clears all stored measurement data from the instrument's memory. A confirmation dialog will prompt the user to select YES or NO to proceed with or cancel the deletion.
- **About**: Displays device information and provides access to the operational wiring diagram for reference.
- **Bluetooth Setup**: Toggles the Bluetooth connection ON or OFF for interfacing with the mobile application. Note: The Android APP and the external printer cannot be enabled simultaneously.
- **Printer Setup**: Toggles the external printer function ON or OFF for data documentation. Note: The printer and the Android APP cannot be enabled simultaneously.
- **Firmware Upgrade**: Accesses the system interface for updating the instrument's firmware. When an update is required, the necessary firmware files must be obtained from the manufacturer.

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5.1.4 Test

The instrument opens the test interface on power-up. Navigate to the desired parameter and adjust its value. To start a measurement, press and hold the TEST button for approximately two seconds. A flashing icon indicates testing is in progress. When the test completes, the resistance value appears on screen. Press the button briefly to abort a running test.

5.1.5 Data Storage

Upon test completion, the measurement data is automatically numbered and saved. The instrument's internal memory is capable of storing a maximum of 999 groups of test data.

5.1.6 Record Query

To review historical data after powering on, navigate back to the main menu and select the "Record Query" option to access the saved records page. The interface automatically defaults to the most recently saved test value. Operators can scroll through the saved test data sequentially or utilize the directional controls for quick paging.



Record Query

5.1.7 Printing (Optional)

For real-time data documentation, operators can trigger the print function immediately after acquiring a valid set of test data to output the current results. To print previously stored records, navigate to the desired data page within the record query interface and execute the print command to document the currently displayed data.

5.1.8 Bluetooth connection

The instrument features advanced connectivity capabilities, including uploading on-site

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photos and test data, generating comprehensive test reports and data curves, sharing test equipment access, and enabling simultaneous multi-user data viewing. By activating the Bluetooth connection, operators can interface with the dedicated APP to process, share, and export data, with all exported files formatted as Excel spreadsheets. Please note that the Android APP and the external printer cannot be operated simultaneously; users must toggle between these two modes within the system settings interface.

5.2 Test

	Prior to testing, verify that the Device Under Test (DUT) is fully de-energized. If it is energized, ensure the circuit is opened and completely discharged before proceeding with the measurement.
⚠	When selecting the test current, please refer to the measurement ranges provided in the technical specifications section. Avoid operating the instrument beyond or below its specified measurement range. In an over-range scenario, the output current cannot reach the preset value; forcing a test under these conditions will yield highly unstable results. Conversely, in an under-range scenario, the test current is insufficient. If this state occurs, reconfirm the parameters and select an appropriate measurement range to conduct the test.

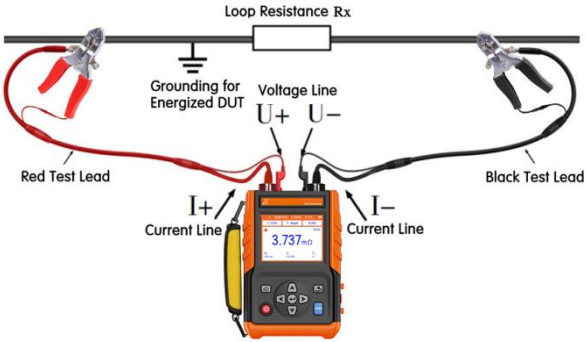
5.2.1 Connect the Micro-ohmmeter to the object under test

Securely attach the specialized test leads to both ends of the test object. It is essential to inspect the clamping points for any oxide layers; if oxidation is present, it must be removed prior to connection to ensure measurement accuracy. Ensure that the test clamps are firmly secured to prevent accidental detachment during the test cycle. Connect the test leads to the instrument's red and black terminals according to their corresponding color codes.

In environments with high-voltage proximity or potential induced voltage, use a grounding cable to connect one end of the test object (or its dedicated grounding terminal) to the earth. The I+, U+, I-, and U- terminals must be connected to the test object using the four-wire (Kelvin) method as illustrated in the following wiring diagram.

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Important Note

1. The I+ and I- terminals are designated for current output, while U+ and U- are for voltage input, with a maximum allowable voltage input of 2.0V. To properly connect the test leads, attach the two clamps to both ends of the Device Under Test (DUT), ensuring the red leads are connected to the positive (I+, U+) side and the black leads to the negative (I-, U-) side. Specifically, the thick red and black current wire lugs should be secured to the I+ and I- terminals, while the thin red and black voltage wire plugs must be inserted into the U+ and U- terminals.

1. Always use the supplied low-resistance test leads. Ensure all current terminals (I+/I-) and voltage terminals (P+/P-) are fully tightened and securely clamped to minimize contact resistance and conserve power. If lead impedance is too high to reach the preset current, the system will trigger a "Poor Test Lead Contact" warning and terminate the test.



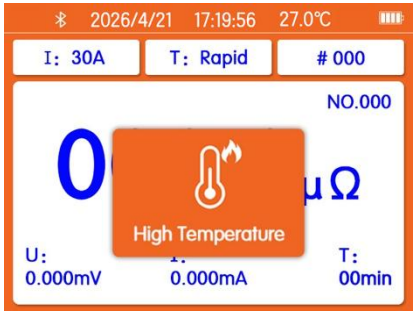
Poor contact Interface

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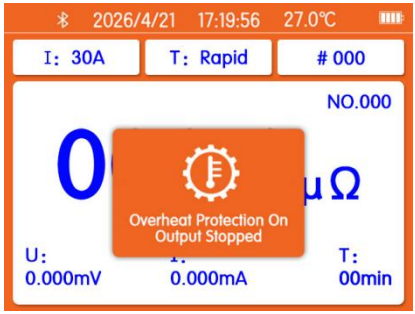
3. In live environments, it is essential to ensure that one end of the DUT is grounded; if this is not possible, either the U+ or U- terminal must be manually connected to ground.

4. Prolonged high-current measurements (at or near the 100 A level) will cause the internal temperature of the device to rise. While the instrument may still provide data during this period, it will display a "High Temperature" prompt.



High Temperature Interface

5. Continuing to test in this state will trigger the automatic overheat protection mechanism, causing the device to cease current output. Therefore, following any continuous high-current measurement session, the instrument must be allowed to cool for at least 10 minutes before beginning the next test.



High Temperature Interface

6. For charging, utilize only the dedicated 12.6V lithium battery charger. The charger's indicator light will remain **red** during the charging process and turn **green** once the battery is fully charged. Using a 2A charger, a full charge typically requires approximately 3 hours. If the instrument is to be stored for an extended period, maintain the battery at approximately 50% capacity and perform periodic charge and discharge cycles. Battery levels should be inspected monthly and recharged as necessary to prevent depletion.

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Test Operation

⚠	When connecting test clamps and grounding leads, it is critical to note that contact surfaces exposed to air for prolonged periods develop an oxide film, which may lead to unstable or inaccurate measurement results. To ensure optimal contact, the oxide layer should be removed during the wiring process. Alternatively, once the clamps are secured to the terminals, twist them forcefully several times to pierce the oxide film and establish a reliable electrical connection.
	If the instrument undergoes a sudden automatic shutdown during testing, it is likely due to insufficient battery power. Under these circumstances, the instrument should be connected to its charger, or the output current should be adjusted to below 5A for emergency testing.

Operation Step

Step 1: Select the test current (5 A Auto, 10 A, 30 A, 50 A, 80 A, or 100 A). Fine-tune as needed in 2.5 A increments.

Step 2: Select the test duration (Quick recommended, or 10 s to 60 s). Note: at the 100 A level, "Quick" mode is recommended to limit thermal rise and conserve battery.

Step 3: Set the test object ID (000–999).

Step 4: Press and hold the TEST key for approximately 2 seconds to start the measurement.

Step 5: Read the displayed resistance value. If over-range, the screen shows “--OL--”.

Before beginning a test, first select the appropriate current level: 5A (Auto), 10A, 30A, 50A, 80A, or 100A. The output current can also be fine-tuned for specific requirements. Next, choose the test duration: Quick (recommended), 10s, 20s, 30s, 40s, 50s, or 60s. Note that at the 100A level, the "Quick" mode is recommended to limit thermal rise and conserve battery. Finally, set the test object ID from 000 to 999.

Within the test interface, use the navigation keys to move the cursor between the

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current settings, test duration, and test object ID. It is essential to configure these parameters correctly, as incorrect settings will impact the accuracy of the test results. For current adjustments, a short press of the adjustment keys will switch between fixed levels, while a long press will increase or decrease the value in steps of 2.5A. Release the key to stop the adjustment. Please refer to the Technical Specifications for range settings to ensure the selected level is appropriate for your power supply and the resistance of the object under test.

Once the configuration is complete, long press the TEST key for approximately two seconds to initiate the measurement. The display will show "Testing..." while the measurement is in progress. Upon completion, the measured resistance value will be displayed; if the resistance exceeds the instrument's range limit, the screen will display "--OL--" (Over-range). If a test needs to be interrupted, a short press of the designated key will terminate the operation.

The "Rapid" mode is highly recommended to maximize battery life. When using "Quick" or timed modes up to 50 seconds, the measurement can be manually stopped at any time. This testing method is particularly effective at overcoming the instability caused by thermal electromotive force (EMF) in the measurement loop, ensuring high precision while reducing power consumption and instrument temperature rise.

When operating at the 100A level, avoid selecting the 60-second test duration unless necessary, as it results in high power consumption. After a high-current measurement, the instrument should be allowed to cool for at least 10 minutes before the next test to prevent triggering the overheat protection. If the device overheats, it will display "High Temperature" and disable further testing until it has cooled. If a full 60-second cycle is not required, the test can be stopped early without compromising the accuracy of the acquired data.

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5.2.2 Single-Side Grounded Circuit Breaker

A. Pre-Test Safety Checks

- Circuit Isolation: Before testing a high-voltage circuit breaker, strictly ensure it is completely disconnected from the power circuits on both sides in accordance with national safety regulations.
- Grounding Verification: Verify that the circuit breaker is properly connected to the Protective Earth (PE).
- Operational State: Confirm that the circuit breaker is in the closed state before initiating the test.
- Personnel Protection: Testing personnel must strictly adhere to local safety regulations and wear appropriate Personal Protective Equipment (PPE) before proceeding.

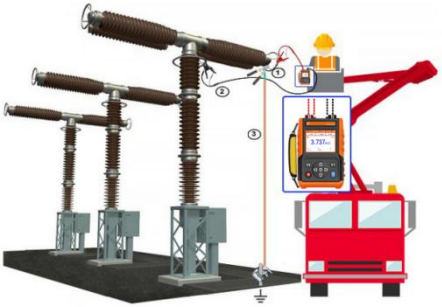
B. Connection Procedure

- Prerequisites: Ensure the high-voltage circuit breaker is connected to the Protective Earth (PE) and remains in the closed state.
- Dedicated Leads: Utilize the specialized test leads provided by our company for the connection.
- Red Lead Placement: Connect the red test lead from the microhmmeter to the circuit breaker bushing located nearest to the operator and testing equipment.
- Black Lead Placement: Connect the black test lead from the microhmmeter to the remote bushing on the opposite side of the contact break.

Note: The presence of the grounding cable will not impact the accuracy of the test results.

The connection method of the single grounded circuit breaker is shown in the figure below:

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Wiring diagram of Circuit Breaker

5.2.3 MV Circuit Breaker

When measuring the MV circuit breaker, clamp the red test line clip to the handle of the circuit breaker, and the black test line clip to the other handle.



Wiring diagram of Circuit Breaker

5.2.4 Both-Sides Grounded Circuit Breaker

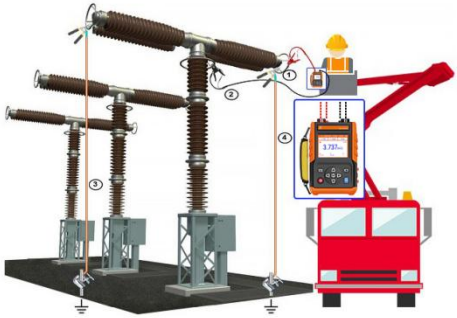
Before measuring the circuit breaker, connect the ground terminals at both ends of the circuit breaker with a ground cable. The connection method of the two-sided grounded circuit breaker is the same as that of the single-side grounded circuit breaker.

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The measurement result of the two-sided grounding may show relatively small errors. The reason is that a small amount of current will flow through the tester when both sides are grounded, and the resistance of the ground loop will interfere, so the measurement result will show the sum of the test resistance and the resistance of the ground loop.

The connection method of the grounding circuit breaker on both sides is shown in the figure below：



1. Red Test Lead （the thick wire is current lead、 the thin wire is the voltage lead）
2. Black Test Lead （the thick wire is current lead、 the thin wire is the voltage lead）
3. grounding wire

5.2.5 Self-Test

Users can perform an instrument self-test using the standard reference resistor (shunt) provided with the device. If the resistance value measured by the instrument matches the known value of the standard resistor, it verifies that the instrument's loop resistance measurement function is operating normally.

5.2.6 Instrument Protection Measures

To ensure the safety of both the operating personnel and the equipment, this instrument is equipped with several built-in protection mechanisms, including high-temperature (overheat) protection and low battery power protection.

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SECTION 6

APP

The Micro-ohmmeter features advanced Bluetooth connectivity, allowing for seamless integration with a dedicated Android application. This interface transforms your mobile device into a powerful data management hub for on-site testing.

6.1 Key Features

Real-Time Monitoring: View live test readings, measurement curves, and instrument status directly on your mobile screen.

Remote Control: Configure test parameters (Current, Duration, and Instrument Number) and initiate measurements wirelessly.



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6.2 Connectivity and Setup

- Enable Bluetooth: Navigate to the System Settings on the instrument and toggle Bluetooth Setup to "ON".
- Device Pairing: Open the Android APP and scan for the S452 hardware to establish a link.
- Mode Conflict Note: The Android APP and the external thermal printer cannot be used simultaneously. You must select the desired output mode within the instrument's settings interface.

6.3 Data Management and Export

The application simplifies the transition from field data to office analysis:

- Memory Access: Retrieve and process all 999 groups of data stored in the instrument’s internal memory.
- Excel Export: All exported data is formatted as standard Excel spreadsheets (.xlsx), ensuring compatibility with PC-based analysis tools.

Test Report

Num	Test Current	Test Resistance	Test voltage	Test time	Temperature	Device code	Test Date	Remarks
1	519.1 mA	3.771 Ω	1.958 V	1S	21.5℃	0	25-11-27 14:0:49	
2	519.1 mA	3.772 Ω	1.958 V	10S	21.5℃	0	25-11-27 14:1:15	
3	30.65 A	6.151 mΩ	188.5 mV	1S	22.8℃	0	25-12-4 10:41:47	
4	30.59 A	5.701 mΩ	174.4 mV	1S	23.0℃	0	25-12-4 10:42:19	
5	30.58 A	5.694 mΩ	174.1 mV	1S	23.0℃	0	25-12-4 10:42:30	
6	50.81 A	5.587 mΩ	283.9 mV	1S	23.3℃	0	25-12-4 10:42:55	
7	30.58 A	5.509 mΩ	168.5 mV	1S	24.2℃	0	25-12-4 10:43:53	
8	30.58 A	5.514 mΩ	168.6 mV	1S	24.4℃	0	25-12-4 10:44:49	
9	30.51 A	3.739 mΩ	114.1 mV	1S	23.2℃	0	25-12-10 9:17:34	
10	30.56 A	3.631 mΩ	110.9 mV	1S	21.6℃	0	25-12-16 11:50:35	

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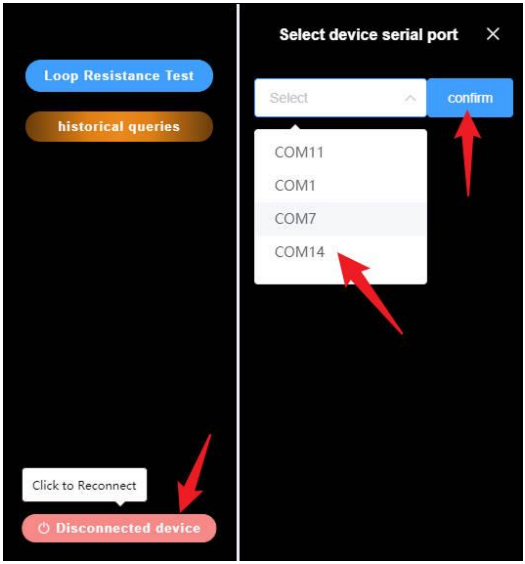
SECTION 7

PC Software

7.1 PC Software Overview

The S452 PC software provides a comprehensive interface for controlling the instrument, monitoring live measurements, and managing stored test data from a Windows computer. Connect the instrument to the PC using the supplied USB data cable (USB-A to USB-B). Once the driver is installed and the connection is established, launch the PC software to begin.

7.1.1 Connecting to the PC

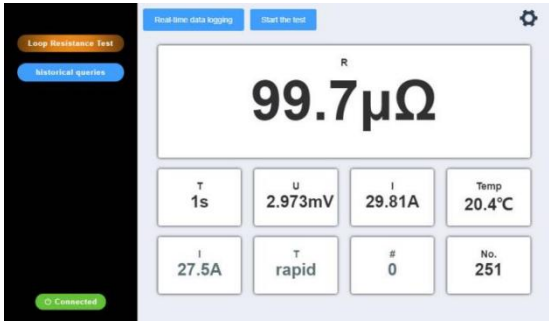


In the serial port connection dialog, select the COM port assigned to the instrument from the drop-down list (check Device Manager if unsure), then click Connect. A successful connection is confirmed by a status indicator in the software. If no COM port appears, ensure the USB driver is installed and the cable is securely connected.

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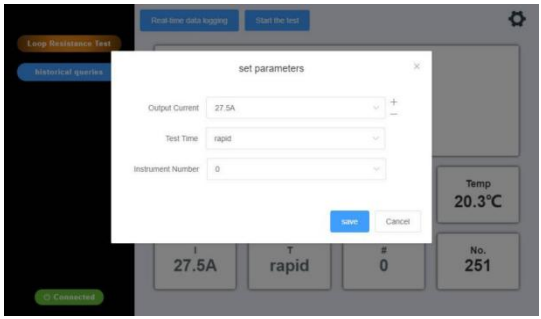
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7.1.2 Test Interface



The Test Interface is the main operational screen. It displays the current test parameters (test current, test duration, and measurement mode), the live resistance reading, and the test status. Use the Start/Stop button to initiate or halt a test. The real-time resistance value and current waveform are updated each second during an active test. Previously stored records can be reviewed by navigating to the “historical queries” section.

7.1.3 Setting Interface

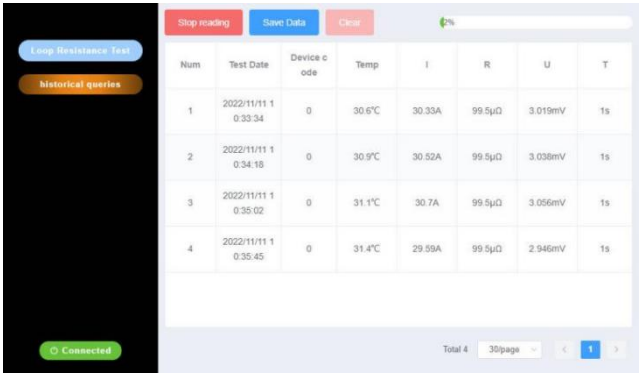


The Settings Interface allows the operator to configure test parameters before initiating a measurement. Adjustable parameters include: test current level (coarse and fine adjustment), test duration (Quick, 10 s, 20 s, 30 s, 40 s, 50 s, or 60 s), and COM port selection. Changes take effect immediately and are retained for subsequent tests until modified.

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7.1.4 Historical Queries



The Historical Queries section displays all records stored in the instrument's memory (up to 999 groups). Each record shows the test date/time, test current, measured resistance value, and test duration. Records can be browsed by scrolling through the list. To clear the displayed records, use the Delete function on the instrument itself. For permanent data archiving, export the stored records to the PC software or to the Android app.

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Battery Management

⚠	If the instrument is not used for an extended period, charge the battery once every two months.
	When the battery level is low, recharge it promptly. Overcharging or over-discharging may damage the battery
	Only use the supplied charger for charging

1. When the battery indicator shows "

", it means the battery is almost fully discharged. The battery low symbol will appear and the instrument will automatically shut down. Please recharge the battery as soon as possible to protect it. Excessive discharge may cause permanent battery damage.

2. Press and hold the  Power button for 0.5 seconds to check whether the instrument can start normally. If the instrument still cannot power on, please contact the manufacturer for support.

3. If the battery needs to be replaced, please contact the manufacturer for service.

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SECTION 9

Packing List

Tool Box	1
Micro-ohmmeter	1
Test Leads	1 set (Red and Black, 3 m each)
USB Cable	1
Self-Check Resistor	1
Printer (Optional)	Printer ×1 Printer Charging Cable ×1 Printer Paper ×1 Printer User Manual ×1
Charger	12.6V, 2A
Manual	User Manual ×1 Factory Test Report ×1 Quality Certificate ×1

Note:

- **We are not responsible for other damages caused by the use of this product.**
- **The contents of this user manual do not justify the use of the product for special purposes.**
- **The Company reserves the right to modify the contents of the user manual. In case of modification, no further notice will be given.**

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