



# USER MANUAL

# CATALOG

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## Safety Instruction

Thank you for purchasing our Transformer Ohmmeter, DC Resistance Tester. Operator must read and understand this entire Manual Instruction prior to operating the equipment. Safety instruction and precautions of this Manual Instruction must be strictly followed.

- Under any circumstance, observe safety while using the equipment.
- For safety purpose, only use the conductor and apparatus supplied for the equipment, in compliance with IEC61010-031(2002) standard
- Before using, make sure the transformer ohmmeter and apparatus complete, no damage of test leads insulation. In case there is metal exposure due to breakage of the test leads or device cover, stop using it.
- Never connect the test equipment to energized equipment.
- Do not contact all the testing and running circuit while conducting test.
- Make sure test leads, ohmmeter and all the testing well connected.
- Do not touch the output terminals to avoid getting an electric shock.
- Pay attention to the text and symbols indicated on the front panel and back panel of the ohmmeter.
- Do not place the ohmmeter in a high temperature and humidity environment with direct sunlight for a long time.
- Only authorized and qualified personnel can disassemble, repair and operate the ohmmeter.
- Do not test in flammable places, sparks may cause explosions.
- Maintain the ohmmeter regularly and keep clean. Corrosives and rough objects are not allowed to wipe it.

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- If the ohmmeter is not used for a long time, please charge the battery every 2 months.
- Only use the power adapters or battery packs provided by the manufacturer with specific safety level.
- Continuing to use the ohmmeter brings hazard due to the reason of itself, stop using immediately, seal it at once and transfer to an authorized and qualified institution for handling.
- The symbol“  on the instrument and manual is a hazard warning. User must follow the instructions for safe operation.
- The symbol“  on the instrument and manual is an extreme danger warning. User must follow the instructions for safe operation.

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### Introduction

#### **S451 DC Resistance Tester/ Transformer Ohmmeter /Micro-ohmmeter**

The measurement of DC resistance is essential for the various tests, such as the ex-factory test, installation, handover test and preventive test of power sector for semi-finished products and finished products related with inductive coils, such as transformers, voltage and current transformers, inductors and electromagnetic operating mechanism, which can effectively detect manufacturing defects and hazards after operation, for example, the material of the inducting wire, welding, loose connection, lack of leads and wire breakage. The measurement is also essential for the test of transformer handover, repair and tap changer. Similar to dry-type transformers and amorphous alloy transformers, the use of copper foil winding for low-voltage coils and the extremely low resistance value requires higher accuracy and resolution. Using traditional methods to measure the transformer winding and the DC winding resistance of high-power inducting devices is a time-consuming and labor-intensive task. The transformer ohmmeter is specially developed with maximum output current 10A, which solves the problem of low-value resistance measurement, meets the needs for fast measurement of inductive coils DC resistance, improves the measurement accuracy of DC resistance, shortens the measurement time and reduces the testing burden. The ohmmeter also extends the DC resistance measurement range to 1M $\Omega$ , which is an ideal device for testing the DC resistance of transformer winding and high-power inductive equipment, such as current and voltage transformer with high resistance.

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### Configuration:

- 5.6-inch color LCD display;
- Simple key-operated interface;
- High-speed micro controller core;
- Built-in rechargeable lithium battery;
- High-speed A/D converter;
- Program-controlled current source technology;
- Dedicated Android APP for uploading and processing data;
- Bluetooth Connection.

### ● Function:

- Resistance temperature conversion;
- Opposing electromotive force protection;
- Disconnection protection;
- Power failure protection;
- Overheating alarm;
- High-precision, high-stable measurement;
- Highly automated measurement
- Automatic self-checking, reducing operation and maintenance difficulty;
- Data processing;
- Automatic discharge;
- Discharging indication.

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## Technical specifications

<b>Function</b>	Transformer winding resistance test, low resistance test, equipotential bonding resistance test, metal connection resistance test, micro-ohmmeter
<b>Power</b>	Built-in rechargeable lithium battery: 22.2V 5.2Ah Add-ins: AC 220V/2A 50Hz/60Hz
<b>Testing Method</b>	Four-wire measurement
<b>Charger</b>	25.2V/3A
<b>Display Mode</b>	5.6 inch LCD color screen, 640dots×480dots, display domain:116mm×88mm
<b>Testing Interface</b>	I+,I-,U+,U-
<b>Output Current</b>	10A、5A、1A、400mA、200mA、40mA、<5mA
<b>Measurement Range of Resistance</b>	10A, 500 $\mu\Omega$ ~1.5 $\Omega$
	5A, 1m $\Omega$ ~4 $\Omega$
	1A, 5m $\Omega$ ~20 $\Omega$
	400mA, 0.1 $\Omega$ ~50 $\Omega$
	200mA, 0.2 $\Omega$ ~100 $\Omega$
	40mA, 1 $\Omega$ ~500 $\Omega$
	<5mA, 1 $\Omega$ ~1M $\Omega$
<b>Max Resolution</b>	0.1 $\mu\Omega$
<b>Resistance Accuracy</b>	500 $\mu\Omega$ ~500 $\Omega$ , 0.2%±5dgt; 1 $\Omega$ ~1M $\Omega$ , 2%±5dgt (23 $^{\circ}\text{C}$ ±5 $^{\circ}\text{C}$ , below 80%RH)

## CHAPTER 3

<b>Printers</b>	The instrument panel is embedded with a printer, press the print button to print the test results
<b>Data storage</b>	Upon completion of the test, the data is saved automatically and circularly, which can store up to 9999 sets of data
<b>Size</b>	320mm(L)×275mm(c)×145mm(H)
<b>Size of outer package</b>	400mm(L)×L245mm(W)×335mm(H)
<b>Weight</b>	9.2kg including package
<b>Toolkit</b>	Military tool box design, bearing 200kg
<b>Testing Leads</b>	Easy connection, connect test leads in both terminals
<b>Current and Voltage</b>	Constant Current: 10 A、5 A、1A、400 mA、200 mA、40mA Constant Voltage: <5mA; Auto Switch
<b>Output Power</b>	Max 150W
<b>Delete Data</b>	In the data review column, you can choose to delete the current data or delete all data
<b>Data Access</b>	Press the up and down buttons to browse the stored data in the data review column
<b>Firmware Upgrade</b>	The user can upgrade the instrument firmware through the U disk
<b>Auto shut-down</b>	When using battery power, it will automatically shut down if there is no operation lasting about ten minutes.

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<b>Battery Voltage</b>	There is a battery indicator in the upper right corner of the ohmmeter, when indicating“  ”, it means that battery is exhausted and it will automatically shut down, please charge in time.
<b>Temperature conversion</b>	The instrument automatically processes the test data and has the function of resistance temperature conversion
<b>Cloud Service</b>	Android APP, Bluetooth connection; upload on-site pictures, upload test data, generate test reports and data curves, share test equipment, and view data simultaneously
<b>Data Transmission</b>	It can be transmitted through RS232, U disk, Bluetooth, etc.
<b>Backlit</b>	High, medium and low brightness
<b>Test type</b>	Cu, Al material
<b>Temperature Conversion</b>	The tested resistance value can be converted into the value at the temperatures of 75°C and 115°C
<b>Tapping</b>	00-99
<b>Working current</b>	The working current is 200mA when there is no test operation.
<b>Circuit protection</b>	Opposing electromotive force protection, disconnection protection, power failure protection, overheating protection, etc.
<b>Working Temperature and Humidity</b>	-20°C ~ 40°C ; below 80%RH, no condensation

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<b>Storage Temperature and Humidity</b>	-10°C ~ 60°C ; below 70%RH
<b>Safety Regulations</b>	IEC61010-1,CAT III 600V,Pollution degree 2,JJG724-1991,Verification Regulation of D. C. Digital Ohmmeter ,JJG166-1993, Verification Regulation of D. C. Resistor, DL/T967-2005, Verification Regulation of loop resistance tester and D. C. resistance high-speed tester

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## Structure



- |                               |                                  |
|-------------------------------|----------------------------------|
| 1.U disk socket               | 12.3A fuse (input protection)    |
| 2.Printer                     | 13.220V AC input switch          |
| 3.RS232 interface             | 14.CD screen                     |
| 4.U+binding post              | 15.Print key                     |
| 5.I+binding post              | 16.Return key                    |
| 6.30A fuse(Output protection) | 17.Up, down, left, right, OK key |
| 7.I-binding post              | 18.TEST key                      |
| 8.U-binding post              | 19.ON/OFF                        |
| 9.GND, grounding interface    |                                  |
| 10.Charging interface         |                                  |
| 11.220V AC input interface    |                                  |


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## Operation

	<p>Only under good weather conditions, it is allowed to operate the instrument. In the case of rain, snow, fog, and high air humidity, it is forbidden to operate to avoid danger.</p>
	<p>Only trained and authorized personnel can operate the instrument and the operator must strictly follow the safety rules.</p>
	<p>The user should charge the instrument in time, at least once every 2 months, otherwise it will cause irreversible damage to the battery, shorten the service life of the battery, and affect the normal use of the instrument.</p>

### 5.1 Basic operation



#### 5.1.1 ON/OFF

**When powered by the instrument's built-in battery**, press and hold the “” button for 0.5 seconds to turn on it to enter the test mode, press and hold the “” button for 0.5 seconds to shut down. If the instrument connects with 220V AC current and forms a closed circuit, it will automatically switch to 220V power supply.

**When powered by external 220V AC**, turn on the red mains input switch on the AC 220V/2A socket. When the light is on, press the “” button for 0.5 seconds to turn on. When using 220V power supply, if there is a sudden power failure, the ohmmeter will automatically shut down, and it is necessary to press the “” key again to turn on the


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power supply before switching to battery power supply.

After booting, it will enter the test interface by default, press the “” return key to return to the menu interface. Without operation for about 10 minutes, the ohmmeter will automatically shut down after 30s. When the battery power is low, indicating “” symbol, it will automatically shut down. Please charge it in time. After booting, the display interface is shown as follows (test interface)






## 5.1.2 Main menu

After booting, press “” return key to return to the menu interface. The main menu is divided into three sections, including test, record query and system setting.



## 5.1.3 System Setting

Press the “” or “” to choose system setting in the menu interface, click the “” to enter system setting interface. System settings are divided into the following sections:

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Chinese and English switching, brightness settings, "U disk settings, Bluetooth settings, firmware upgrade, time settings and Information.



**Chinese and English switching:** press “←” key to switch to Chinese or English

**Brightness settings:** press “←” key to choose high, medium or low brightness.

**Continuous test, Bluetooth settings:** press “←” key to enable or disable it.

**Firmware upgrade:** press “←” key to enter firmware upgrade interface, when needing to upgrade the firmware, please contact Eaglotest to get the firmware required for upgrade.

The upgrade method is explained in detail in the manual instruction.



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## Time Setting:

press the “←” key to choose time setting, press the “◀” or “▶” key to move the cursor, press the “▲” or “▼” key to change number size, press the “↩” key to confirm.



**Information:** description of instrument structure, test wiring diagram and instrument QR code.

### 5.1.4 Test

When the power is on, enter the test interface by default or enter in the menu interface.

In the test interface, press the “◀” or “▶” key to move the “▲” cursor to the parameter that needs to be modified, press the “▲” or “▼” key to change it. Press the “TEST” key for about 2 seconds to start testing.

#### Continuous test mode:

The test will not automatically stop after starting the test in this mode, press “TEST” key to stop testing. When the test is stopped, the current result is automatically saved. During the test, the screen displays the resistance value and the test current value in real time. If the battery power is insufficient, the test will be automatically stopped. In this mode,

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please wait for the test value to stabilize to get the correct result.









### Single test mode :

Upon the completion of the test, it will automatically stop and discharge. If the buzzer rings, it means it is discharging. Once completing, the next test can be performed. During the test, press the  key to stop the test in advance to prepare for the next test



### 5.1.5 Data Storage

Upon the completion of the test, the data will be automatically numbered and stored, a maximum of 9999 sets of data can be stored.

### 5.1.6 Record Query

After booting, press the  return key to enter the main menu interface. Press the  or  key to move the cursor to Record Query, press the  key to enter the record query page, it jumps to the latest test value to start the query by default, press the  or  key to browse the saved test data page by page. Press the  or  for several seconds to quickly flip to the next page.

### 5.1.7 Delete Data

In the date query interface, press the  or  key to delete partial or all record and download records.

**Delete single record:** delete the current piece of data, the deletion time is related to the amount of data stored. When there are 35 pieces of stored data, the time required for deletion is about 10s.

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**Delete all:** it takes about 0.1 seconds to delete all existing data

**Download Record:** When the instrument is connected to the U disk, the data can be downloaded to the U disk.


After pressing the delete button, press the “”key to confirm, it will pop up the delete dialog box“  s the “”or“”key to move the cursor to choose YES or NO, press the “”key to confirm deletion or cancel deletion.


**Note:** When the amount of data is large, upon the completion of data backup, it is recommended to delete all data.

### 5.1.8 Download Data

In the data record query interface, insert the U disk, press the “”or“”key to move the cursor to data download item, press the “”key to download data to the U disk in TXT format.

### 5.1.9 Printing

**Real-time test data printing:** Upon the completion of a set of valid data,if needing to print the test data, press the “”key to print the current test data.









**Print saved data:** Flip to the page of data needed to be printed in the data query interface, press the “”key to print it.

### 5.1.10 Firmware Upgrade

Upgrading the firmware, the user should copy the firmware provided by the manufacturer into the specific directory of the U disk, and insert it into the USB interface

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of the instrument, press the "" return key to enter the main menu; press the "" or "" key to move the cursor to system setting, press the "" key to enter system setting; press the "" or "" key to move the cursor to firmware upgrade. If U disk has been inserted, it will pop up firmware upgrade dialogue box, press the "" or "" key to move the cursor to choose YES to start upgrading, NO to reject upgrading. If there is no correct firmware in U disk, it will indicate that no firmware is detected. It takes about 10 seconds to upgrade the software. Upon successful upgrade, the instrument needs to shut down, and then restart it.

**Note: Do not turn off the computer during the upgrade process, otherwise it is easy to cause writing failure and cannot be turned on again.**

### 5.1.11 Bluetooth Connection

The instrument has various functions, such as uploading on-site pictures and test data, generating test reports and data curves, sharing test equipment, and viewing data simultaneously by multiple people. Turn on the Bluetooth connection, and the instrument can apply the dedicated APP to process and share various data.

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	Sample material:	AL	<b>Cu</b>
	Reduced temperature:	75°C	▼
	Test code:	2	
	Test temperature:	25.0	°C
	Current setting:	10A	▼
	Coil:	High voltage	<b>Low voltage</b>
	Phase:	B0	▼
	Tap switch:	9	
<div style="text-align: center;">- - - -</div>			
<b>Confirm</b>	<b>TEST</b>	<b>STOP</b>	


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## 5.2 Test

	<p>Before testing, check whether there's power failure of all the testing. If it is on, please open the circuit and discharge it before testing. When testing the transformer, the untested winding of the transformer needs to form an open circuit.</p>
	<p>Before testing the reverse tapping connection of the unloaded voltage regulating transformer, it is necessary to wait for the completion of discharging and warning alarm and then switch the tapping point .</p>
	<p>Before removing the wire, be sure to wait for completion of discharging and warning alarm and turn off the power.</p>
	<p>When selecting the current, refer to the measurement range of the technical specification, do not choose the over-range and under-range. The current of over-range cannot reach the default value, if continue to test,the result is unstable. The current of under-range is too small, the data is unstable for large-capacity transformers.When both states appear, need to confirm measurement range and choose the appropriate range for testing.</p>

### 5.2.1 Test Wiring

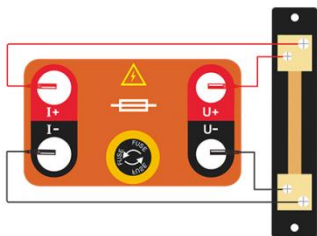
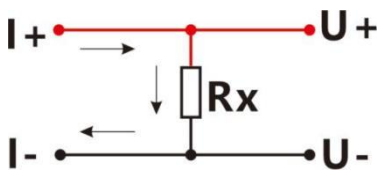
The dedicated test leads are respectively clamped to the terminals of the tested product. Check whether there is an oxide layer on the surface of the clamped test sample. Clean oxide layer before clamping, otherwise it will affect the test accuracy. Make sure that the connection of the test current clamp is firm and reliable to prevent clipping

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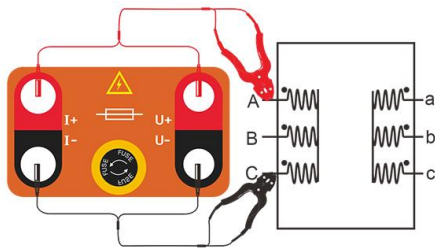
during the test. Connect the other end of the test leads to the red and black binding post of the ohmmeter according to the color.



Use grounding wire to connect the grounding terminal to earth, four terminals connecting methods below to connect  $I+$ ,  $I-$ ,  $U+$  and  $U-$  with terminals of the test product. For easy wire connection and testing, it is equipped with dedicated testing leads with two terminal tapping, connecting current and voltage lines to both terminals of the test clamp.



Wiring Method for Self-checking



Wiring Method for Normal Test

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## 5.2.2 Test Operation



When connecting the test clip and the grounding wire, it is necessary to clean the oxide film covered on the surface of connecting terminal due to long-term exposure to the air, which may cause unstable or inaccurate test results, or twist the test clip forcefully a few times to break the oxide film to ensure good contact after the test clip is connected to the terminal.

During the test, if there is a sudden automatic shutdown, it may be caused by insufficient power. Need to charge or set the output current below 5A for emergency test.



Before testing, first determine whether the sample number is from 000 to 999, sample material Cu or Al, winding high voltage or low voltage, phase difference A0, B0, C0, AB, BC or AC and number of taps from 00 to 99. Also need to confirm test temperature and test mode which can be set in the setting interface. In the test interface, press the “◀” or “▶” key to move the cursor to choose sample number, sample material, current setting, winding, phase difference, tapping, temperature conversion 75°C or 15°C and temperature setting. Press the “▲” or “▼” key to set the parameters, not accurate parameters will affect the test results. When setting the current, please refer to the measurement range setting described in the technical specifications, set different current gears according to different power supply schemes and the resistance value needed to measure.

After setting, press “” key for several seconds to start testing.

## 5.2.3 Single Test Mode:


when starting the test, it will indicate charging; charging to the specified current value, it will indicate testing; Completing the test , it will display the resistance value of the test. If it is over-range, it will displays OL.

## Continuous Test Mode:

Press the “”key for several seconds to start testing. The instrument displays the measured resistance value and current value in real time. When resistance value stabilizes , press the “”key to stop test and save the data. If the connection is poor, it will indicate poor connection.

When testing resistances with large inductance, such as transformer winding, there will be a buzzer sound upon the completion of the test, indicating that it is discharging.

**Note: the next test can only be performed after the discharge is completed.**

If need to discontinue the test during testing, press the “”key to discontinue , then the ohmmeter will stop the test and start discharging immediately. Start the next test upon the completion of discharging. When testing ordinary resistance, there is no buzzer sound to indicate discharging the user needs to test again after the valid value displays for 5 seconds.

## 5.2.4 Self-checking

The user can use the self-checking resistance provided with the instrument to conduct the self-checking test of the instrument. If the tolerance between the tested resistance value and the standard resistance is within 0.1%, it means that the function of the DC resistance test is normal.

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### S451 Transformer Ohmmeter

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# CHAPTER 5

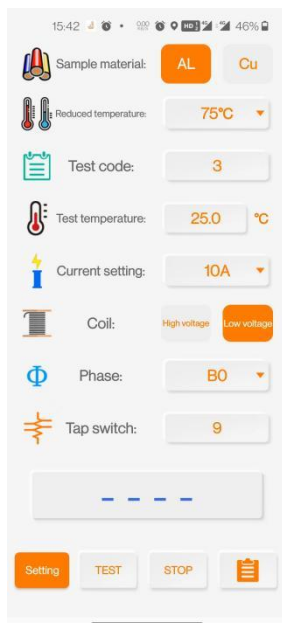
## 5.2.5 Protection Measures

In order to protect the safety of operators and equipment, take several protection measures, such as input over current protection, output over current protection, instrument high temperature protection, test load discharge protection, and low battery power protection.

## 5.3 APP Introduction

APP is used in conjunction with the meter, connecting via Bluetooth to realize the uploading, processing, exporting and sharing of test data.

the APP test interface is as follows:



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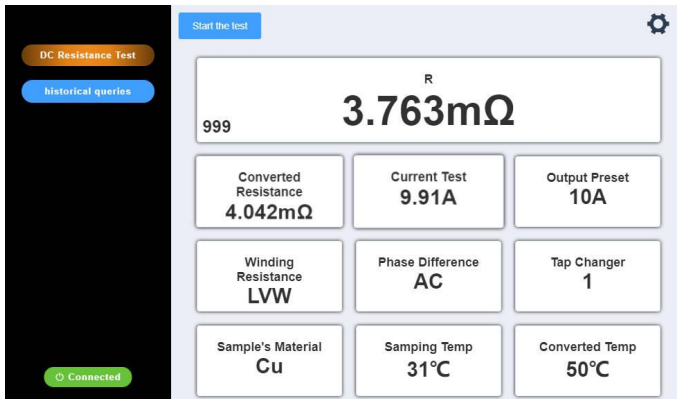
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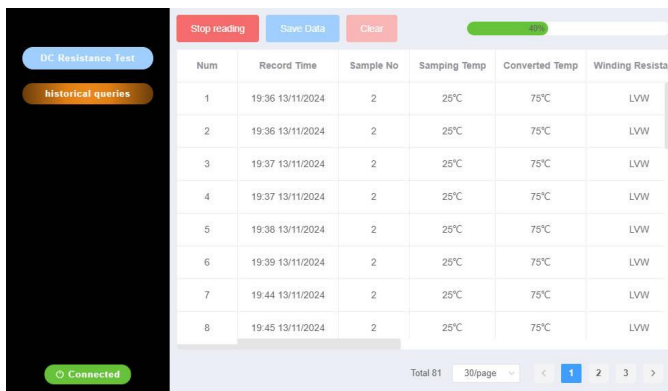
## 5.4 Computer Software

The USB port on the side of the instrument uses a USB cable to connect to the computer and then open the host computer software.

**Test Interface:**



**History Query:**



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## Export data:

#	A	B	C	D	E	F	G	H	I	J	K	L	M
Num	Record Time	Sample No	Sampling Temp	Converted Temp	Winding Resistance	Phase Difference	Tap Changer	Sample's Material	Output Preset	R	Converted Resistance		
2	1 19:36	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	400.3mA	99.983mΩ	119.98mΩ		
3	2 19:36	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	993.6mA	100.1mΩ	120.12mΩ		
4	3 19:37	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	400.3mA	900.079mΩ	1.08Ω		
5	4 19:37	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	993.6mA	900.263mΩ	1.08Ω		
6	5 19:38	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	400.3mA	9.001Ω	10.8Ω		
7	6 19:39	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	992.9mA	9.007Ω	10.8Ω		
8	7 19:44	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	992.9mA	9.007Ω	10.8Ω		
9	8 19:45	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	400.3mA	30Ω	36.01Ω		
10	9 19:45	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	992.9mA	30.02Ω	36.02Ω		
11	10 19:46	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	4.96A	0.199mΩ	0.239mΩ		
12	11 19:46	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	9.91A	0.2mΩ	0.24mΩ		
13	12 19:47	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	4.96A	8.995mΩ	10.795mΩ		
14	13 19:48	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	9.91A	9.001mΩ	10.802mΩ		
15	14 19:48	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	4.96A	90.072mΩ	108.086mΩ		
16	15 19:49	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	9.91A	90.023mΩ	108.026mΩ		
17	16 19:49	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	4.96A	901.093mΩ	1.081Ω		
18	17 19:50	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	9.91A	898.822mΩ	1.078Ω		
19	18 19:50	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	9.91A	3.001Ω	3.602Ω		
20	19 19:51	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	4.96A	3.003Ω	3.604Ω		
21	20 19:51	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	40.2mA	899.225mΩ	1.079Ω		
22	21 19:52	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	200.7mA	900.109mΩ	1.08Ω		
23	22 19:52	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	40.2mA	8.995Ω	10.79Ω		
24	23 19:53	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	200.7mA	8.999Ω	10.79Ω		
25	24 19:53	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	40.2mA	99.96Ω	119.9Ω		
26	25 19:53	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	200.7mA	100Ω	120Ω		
27	26 19:54	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	40.2mA	100Ω	120Ω		
28	27 19:54	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	40.2mA	300.1Ω	360.1Ω		
29	28 19:55	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	2.2mA	1.988Ω	2.386Ω		
30	29 19:55	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	2.2mA	300.2Ω	360.3Ω		
31	30 19:55	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	2.2mA	3Ω	3.6Ω		
32	31 19:57	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	4.96A	901.827mΩ	1.082Ω		
33	32 19:57	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	9.91A	900.991mΩ	1.08Ω		
34	33 19:57	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	992.9mA	903.381mΩ	1.084Ω		
35	34 19:57	13/11/2024	2 25°C	75°C	LWV	80		9 Cu	992.9mA	900.752mΩ	1.08Ω		

### Battery Management

	<b>If not using the ohmmeter for a long time, charge the battery every 2 months.</b>
	<b>When the battery power is low, please charge it in time. Over-charging or over-discharging the battery will damage the battery</b>
	<b>Use the standard charger to charge.</b>

1. A blank indicator on the battery means the battery is almost running out, indicating “”, the ohmmeter will automatically shut down. Use the charger to charge as soon as possible to maintain the battery. Over discharging, it may cause permanent damage to the battery.
2. Press the “” key for 0.5 seconds to check whether the ohmmeter can be turned on normally. If it still cannot be turned on, please contact Eaglotest.
3. If need to replace the battery, please contact Eaglotest.

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### Packing List

Transformer Ohmmeter	1
5m Test Clamp	2 pieces, black and red
Resistance	1
Power Cord	1
Printing Paper	1 roll
Charger	1, 25.2V 3A
Tool Kit	1
Fuse	4, 2 with 3A and 2 with 30A
Grounding Wire	1
RS232 Data Cable	1
Manual Instruction/Warranty/certificate	1

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