

# UT625A/B

## 100A/200A Low Resistance Ohmmeter

### User Manual



## Preface

Thank you for purchasing a brand-new Uni-Trend instrument, in order to use this instrument correctly, please read the full text of this manual carefully before use, especially the "Safety Information" section.

If you have read the full text of this manual, it is recommended that you keep it in a safe place, preferably with the instrument or in a place where you can access it at any time, so that you can refer to it in future use.

## Limited warranties and liability statement

The Company warrants that this product will be free from any defects in materials and workmanship for a period of one year from the date of purchase. This warranty does not apply to damage caused by accident, negligence, misuse, modification, contamination and abnormal operation or handling. The Distributor is not entitled to any other warranties in the name of the Company. If warranty service is required during the warranty period, please contact the nearest authorized service center to obtain the product return authorization information, and then send the product to the service center with a description of the product problem.

This guarantee is your sole remedy. Otherwise, the Company disclaims all warranties, express or implied, such as those applicable to a particular purpose. The Company shall not be liable for any special, indirect, incidental or consequential damages or losses arising from any cause or presumption, and the above limitations and provisions of liability may not apply to you because some states or countries do not allow limitations on implied warranties and incidental or consequential damages.

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## 1. Overview

UT625A/B desktop 100A/200A circuit resistance tester, used to detect a variety of high-voltage circuit breakers, disconnect switches and other equipment, circuit resistance, can be measured on the conductor resistance of power cables, to determine whether the conductivity of the cable is good; for the power of the motor, you can test the stator and rotor circuit resistance, is an important parameter; in industrial production, the electrical control cabinet of the The connection resistance between various electrical components can also be tested.

This instrument can measure the circuit resistance of high-voltage switches, circuit breakers, splitters and other electrical equipment, and can be widely used in power systems and industrial fields of measurement and testing.

The instruction manual of this product contains warning information and safety regulations, when using this instrument, please read carefully and strictly abide by the relevant regulations to ensure the user's operational safety and the safety of the instrument.

### 1.1 Product Model

Product Model	Current range	Current step	Open circuit voltage	Range
UT625A	5A(min)~100A(max)	5A/10A	Approx. 5V	0.1 $\mu\Omega$ ~1000m $\Omega$
UT625B	5A(min)~200A(max)	5A/10A	Approx. 10V	0.1 $\mu\Omega$ ~2000m $\Omega$

### 1.2 Product Features

1. Loop resistance measurement: Kelvin four-wire method (output: I+ and I-/input: U+ and U-);
2. Resistance measurement range: 0.1 $\mu\Omega$ ~1000m $\Omega$ (UT625A)/0.1u $\Omega$ ~2000m $\Omega$ (UT625B);
3. Output current range: 5A~100A(UT625A)/5A~200A(UT625B), step: 5A/10A;
4. Comparison measurement: support arbitrary setting of the comparison value, the measurement result is less than the comparison value is "PASS", otherwise "FAIL";
5. Continuous Measurement: Support to set the test time from 10s to 60s, with a step of 1s. 6;
6. Low Limit Alert: When the loop resistance measurement is low limit, the measurement interface will display "LO";Over-limit indication: when the loop resistance measurement exceeds the limit, the measurement interface will display "OL";
7. data storage: default auto-save, can be changed to cycle save or manual save, up to 200 groups of data storage;
8. data access: support for access to the saved data and time and date and other information;
9. data deletion: support for deleting single or all saved data and time and date information. 10. time and date: support for setting the appropriate time and date;
10. time and date: support for setting the appropriate time and date and real-time display, save the test data and record the time and date;
11. language settings: support for Chinese and English language;
12. Brightness Adjustment: Support 5 levels of backlight brightness adjustment;

- 13. USB communication: support the connection between the device and PC, two-way transmission (uploading data and downloading commands);
- 14. Bluetooth communication: support (need to enter the setting mode to turn on or off), reserved Bluetooth module, support for customers to carry out secondary development app;
- 15. thermal printer: support printing data under test or saved data and time and date information;
- 16. Buzzer alert: with key sound (key valid sound: "drop"; key invalid sound: "drop");
- 17. high temperature prompt: if the internal temperature is too high, the device displays a high temperature symbol and stops the test automatically;
- 18. Help: support the device end to consult the relevant operating guidelines;
- 19. Restore Factory Settings: support to restore the default parameters of the device system.

## 2. Unpack to check

- ◆ Open the package box, please double-check whether the following items are missing or damaged. If you find any item is missing or damaged, please contact your supplier immediately to confirm.
  - 1. Tester: 1 pc
  - 2. User manual: 1 pc
  - 3. Warrant Certificate/Certificate of Conformity: 1 pc
  - 4. Red and black test leads with clips: 1 pair
  - 5. Black grounding wire with clip: 1 pc
  - 6. Power cord with three-pin plug: 1 pc
  - 7. Dual-ended USB communication cable: 1 pc
  - 8. Thermal printing paper (inside the Tester): 2 roll
  - 9. Shunt with wire (test accessory: 100A/75mV (UT625A) or 200A/75mV (UT625B)): 1 pc
  - 10. Cloth bag: 1pc

## 3. Safety Information

Thank you for purchasing our company's 100A (UT625A)/200A (UT625B) Low Resistance Ohmmeter, in order to use this instrument correctly, please be sure to read this manual carefully and understand its contents before use. This manual contains warning information and safety regulations, please strictly follow the relevant regulations when using this device to ensure the safety of the user and instrument.

- ◆ Please read and understand the contents of the manual carefully before use, and operate in strict accordance with the content of the "Guidelines for Safety Operation".
- ◆ Please keep the manual with you to ensure that you can refer to it at any time.
- ◆ Understand and follow the instructions for safe operation, and must strictly follow the above operation instructions. Failure to comply may result in personal injury and damage to the instrument.
- ◆ This instrument must be operated by a properly trained and qualified technician and used under the conditions specified in this manual.
- ◆ The company does not assume any responsibility for any damage or other losses caused by improper use or violation of this manual and safety operation regulations.

**The safety symbol "⚠" has three meanings in this manual, and the user should pay special attention to**

the operation of the "⚠" symbol when reading.

⚠ **Danger:** Indicates that a certain environment and operation are likely to cause serious or fatal injury!

⚠ **Warning:** Indicates that a certain condition and operation can cause serious or fatal injury!

⚠ **Caution:** Indicates that a certain environment and operation can cause minor injury or damage to this instrument!

⚠ **Danger**

- The power supply of this instrument is AC220V (50Hz/60Hz).
- When conducting the test, do not touch any exposed wires, connectors, crocodile clips, etc.
- When conducting the test, ensure that the test lead is only accessible to the body in a safe environment.
- When the test is carried out, it is strictly forbidden to disassemble the instrument, there is a dangerous voltage inside the instrument, and electric shock accidents may occur.

⚠ **Warning**

- Do not change the internal wiring of the instrument without authorization, to avoid damaging the instrument and endangering safety.
- Do not use when the surface of the instrument is wet or the operator's hands are wet.
- Do not store or use the instrument in high temperature, high humidity, flammable, explosive and strong electromagnetic field environments.
- Do not exceed the allowable maximum measurement range.
- Do not measure live objects, please disconnect the power before measurement.
- Do not press the test button if the test lead is not connected well.
- When the instrument is measuring, the output current will be large, do not plug and unplug the test lead at will, it is easy to produce discharge sparks, and the wrong operation may cause test interruption, damage to the instrument or the measured object.
- The instrument and test lead should be inspected before use, and beware of any damage or abnormal phenomenon. Please stop use if you find that the test line and housing insulation of this instrument have been obviously damaged, and the TFT screen displays nothing, or you think that this instrument cannot work normally.
- If the instrument is faulty (e.g., incomplete display, garbled characters, damaged body and abnormal noise during testing), please send it to a professional for inspection and maintenance.

⚠ **Caution**

- To ensure safety, please use the test leads provided by the company that has passed strict certification and assessment, and it is strictly forbidden to use other test leads for measurement.
- Do not expose this instrument to harsh environments such as the sun, extreme temperatures, and humidity.

- Please use soft cloth and neutral detergent to clean the instrument housing, do not use abrasives and solvents to prevent the housing from being corroded, damaging the instrument and endangering safety.
- When the instrument is wet, please allow it to dry before storing.

## 4. Specifications

- ◆ Error limit:  $\pm (a\% \text{ of reading} + b \text{ counts})$ , the warranty period is one year.
- ◆ Ambient temperature:  $23 \pm 5^\circ\text{C}$
- ◆ Ambient humidity: 45~75%RH
- ◆ External electric field: None (earth's magnetic field)
- ◆ Power supply: AC 220V (50Hz/60Hz)
- ◆ Temperature coefficient: When tested outside the temperature range of the specification (i.e. above  $28^\circ\text{C}$  or below  $18^\circ\text{C}$ ), the test error increases by  $\pm 0.25\%$  per degree Celsius.

### 4.1 Specifications for low resistance measurement

Model	UT625A	UT625B
<b>Output current</b>	5A(min)~100A(max) Step: 5A/10A	5A(min)~200A(max) Step: 5A/10A
<b>Measurement range</b>	0.1uΩ~1000mΩ	0.1uΩ~2000mΩ
<b>200A</b>	/	0.1uΩ~1999.9uΩ (0.1uΩ)
<b>100A</b>	0.1uΩ~1999.9uΩ (0.1uΩ)	2.000mΩ~9.999mΩ (0.001mΩ)
	2.000mΩ~9.999mΩ (0.001mΩ)	
<b>50A</b>	10.00mΩ~99.99mΩ (0.01mΩ)	10.00mΩ~99.99mΩ (0.01mΩ)
<b>5A</b>	100.0mΩ~499.9mΩ (0.1mΩ)	100.0mΩ~499.9mΩ (0.1mΩ)
	500mΩ~1000mΩ (1mΩ)	500mΩ~2000mΩ (1mΩ)
<b>Accuracy</b>	$\pm (0.4\% \text{rdg} + 0.04\% \text{FS})$ ( $\geq 10\text{A}$ )	$\pm (0.4\% \text{rdg} + 0.6\% \text{FS})$ (5A)
	$\pm (0.4\% \text{rdg} + 0.6\% \text{FS})$ (5A)	
<b>Open-circuit voltage</b>	About 5V	About 10V
<b>Test time</b>	10s~60s (can be set)	10s~60s (can be set)

- ◆  $1\Omega=1000\text{m}\Omega$ ;  $1\text{m}\Omega=1000\text{u}\Omega$
- ◆ Low Limit Alert: When the loop resistance measurement is low limit, the measurement interface will display "LO";
- ◆ Over-limit indication: when the loop resistance measurement exceeds the limit, the measurement interface will display "OL";
- ◆ Note: When the Tester measures high current output continuously, the measured object is easy to heat, this may cause the resistance of the measured object to change, which will affect the measurement result.

## 4.2 Other function parameters

<b>Supply voltage</b>	AC198V~242V(50Hz/60Hz)
<b>Display screen</b>	7-inch TFT
<b>Test time</b>	10s~60s (the time can be set. Step: 1s)
<b>Comparative measurement</b>	√ (Comparison values can be set)
<b>Data storage</b>	√ (Up to 200 groups of data with time and date can be stored)
<b>Data storage modes</b>	Supports 3 modes (Automatic storage, cyclic storage, and manual storage)
<b>Data viewing</b>	√ (Up to 200 groups of data with time and date can be viewed)
<b>Data deletion</b>	√ (Current or all stored data can be deleted)
<b>Thermal printer</b>	√ (The data under test or the stored data can be printed)
<b>USB communication</b>	√ (Connect the Tester to PC, enabling two-way transmission)
<b>Bluetooth communication</b>	√(need to enter the setting mode to turn on or off), reserved Bluetooth module, support for customers to carry out secondary development of apps
<b>Time and data setting</b>	√ (need to enter the setting mode)
<b>Language setting</b>	Support switching Chinese and English (need to enter the setting mode)
<b>Backlight setting</b>	Supports adjusting 5 levels of brightness (need to enter the setting mode)
<b>Resistance comparison switch</b>	√ (need to enter the setting mode to turn on/off)
<b>USB switch</b>	√ (need to enter the setting mode to turn on/off)
<b>Bluetooth switch</b>	√(must be enabled or disabled in settings mode), reserved Bluetooth module, supports customer secondary development of apps
<b>Help</b>	√ (need to enter the setting mode to view the operation method of the Tester)
<b>Factory reset</b>	√ (Restore the default parameter)
<b>Buzzer prompt</b>	√ (Sound of enabled key: "Beep"; Sound of disabled key: "Beep, Beep")
<b>High temperature prompt</b>	√ (If the internal temperature is too high, the Tester will display a high temperature symbol)
<b>Operating environment</b>	0°C~35°C; below 75%RH (no condensation)

<b>Storage environment</b>	-20°C~60°C; below 80%RH (no condensation)
<b>Operating altitude</b>	≤2000m
<b>Dimensions</b>	357mm (L) *293mm(W)*193mm(D)
<b>Weight (UT625A/UT625B)</b>	about 6.4kg / about 7.5kg

## 5. External Structure and Accessories

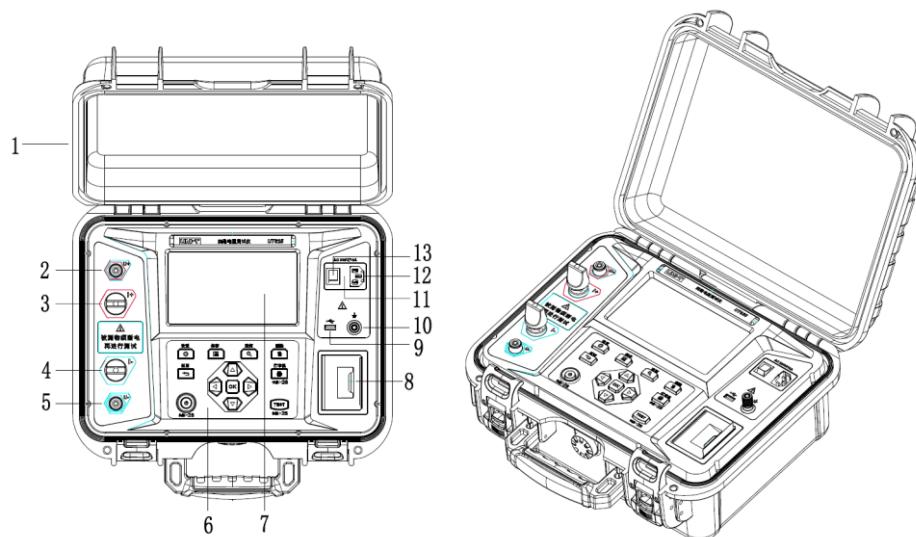


Figure 5.1 External structure

1	Tester housing
2	Positive terminal of sampling voltage (U+)
3	Positive terminal of excitation current (I+)
4	Negative terminal of excitation current (I-)
5	Negative terminal of sampling voltage (U-)
6	Buttons operation panel
7	7-inch TFT
8	Thermal printer
9	USB communication port
10	Earth terminal
11	Power fuse (250V/10A)
12	Power supply socket (Power input)
13	Power switch (with power indicator light)

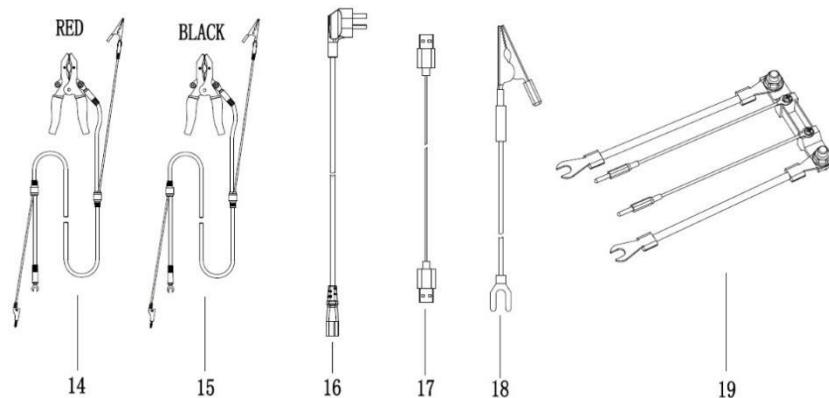


Figure 5.2 Accessories

14	Red test lead with clip: 100A (UT625A), 200A (UT625B)
15	Black test lead with clip: 100A (UT625A), 200A (UT625B)
16	Power cord
17	Dual-ended USB communication cable
18	Grounding wire with clip
19	Shunt with wire (test accessory: 100A/75mV (UT625A) or 200A/75mV (UT625B) )

## 6. Buttons

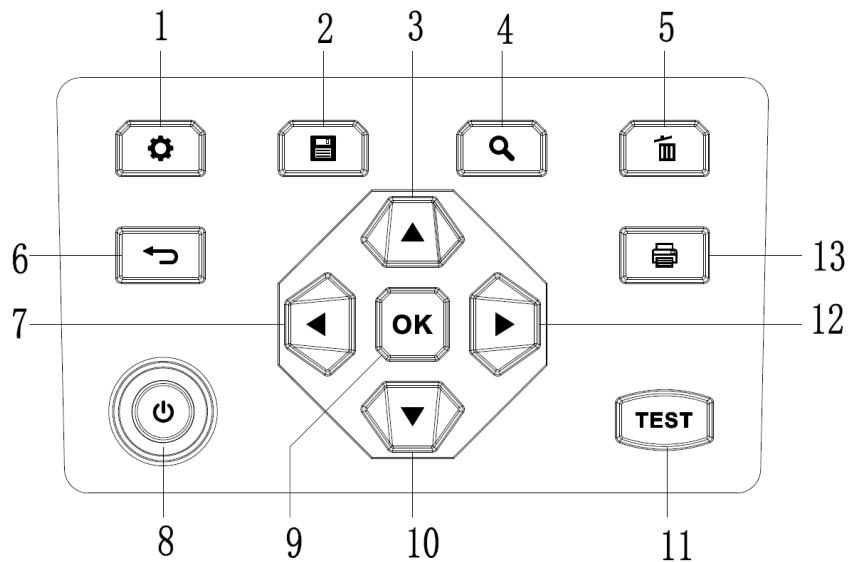


Figure 6.1 Buttons

1	Setting button (short press to enter the system setting mode; disabled for long press)
2	Save button (long press to select a saving mode; short press to save data manually)
3	Select upward (enabled for long or short press)

4	Viewing button (short press to enter the data viewing mode; disabled for long press)
5	Deletion button (short press to pop up the data deletion window; disabled for long press)
6	Return button (short press to return to the main interface; disabled for long press)
7	Select leftwards (enabled for long or short press)
8	Power on/off (long press >2s to power on/off the Tester)
9	OK button (short press to confirm the selection; disabled for long press)
10	Select downward (enabled for long or short press)
11	TEST button (long press >2s to start test and short press to stop test)
12	Select rightwards (enabled for long or short press)
13	Printer button (long press >2s to start printing data; disabled for short press)

## 7. Check for the Tester

### ◆ Check for powering on the Tester

Open the Tester cabinet, connect the power cord (supplied) and plug it into the AC220V three-pin socket, turn on the power switch, observe whether the power indicator is on and pay attention to whether the cooling fan is activated, if the power indicator is not lit and the cooling fan is not activated, you need to check whether the socket is live or whether the fuse is damaged or whether the power cord is damaged to ensure that the power supply of the Tester is normal, as shown in Figure 7.1.



Figure 7.1 Connection of powering on the Tester

### ◆ Check for turning on the Tester

After the Tester is powered normally, long press the power button for >2s, the Tester will be turned on normally and enter the main interface, at this time, the functional buttons can be operated along with the sound effect prompt, if the Tester cannot be turned on or the key operation is disabled (or such situation still occurs after the above operations are repeated), please contact the distributor or the after-sales service center in time to repair or replace the Tester, as shown in Figure 7.2.



Figure 7.2 Main interface of turning on the Tester

#### ◆ Check for measurement

When the Tester is turned on normally and the key operation is normal, connect the shunt with wire (test accessory: 200A/75mV) to the wiring terminal of the Tester and ensure good contact, long press the TEST button to start the test, the main interface will display the tested current and shunt resistance (about 0.375mΩ). In the case of correct wiring, if the interface does not display the tested current and shunt resistance or the value deviation is too large (or such situation still occurs after repeating the above operations), please contact the distributor or the after-sales service center in time to repair or replace the Tester, as shown in Figure 7.3.

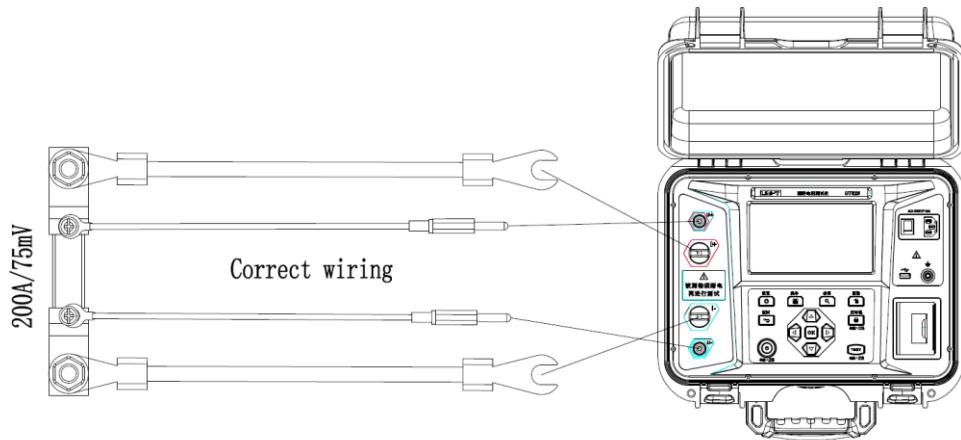


Figure 7.3 Connecting the shunt with wire

## 8. Measurement Principle

The Tester adopts the Kelvin four-wire method for measurement, that is, a set of current output lines and a set of voltage input lines are connected to the measured object separately, so as to solve the problem of temperature drift due to the introduction of the error of wire internal resistance and the wire heating caused by the large output current, and ensure the accuracy and stability of measurement.

**Measurement principle:** The Tester outputs a constant current ( $I_o$ ) to excite the measured object ( $R_x$ ), so that the both ends of the tested object generates a voltage ( $U_i$ ) and input it to the Tester, then the Tester process and calculate it, finally, the resistance value (i.e., the low resistance value) of the tested object is obtained, as shown in Figure 8.1.

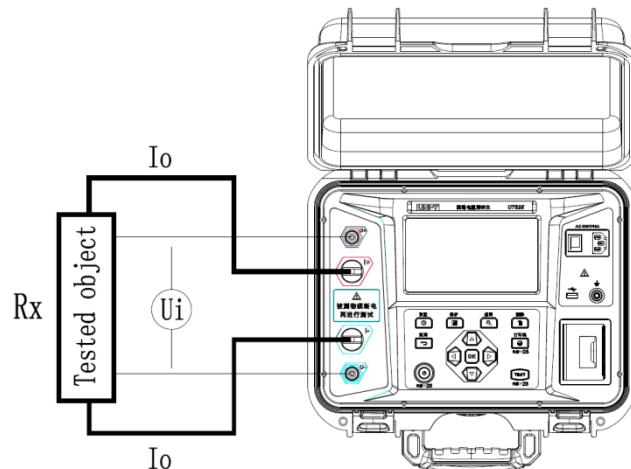


Figure 8.1 Diagram of the principle of measuring low resistance

## 9. Operating Instructions

### 9.1 Wiring for measurement

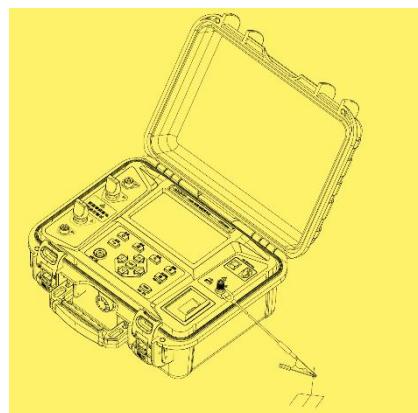
#### Precaution:

- Please wear insulated gloves and take personal protective measures before wiring and measuring.
- The measured object must be powered off before test, and do not measure the resistance of the charged object or live circuit.
- In order to ensure the safety of persons and equipment, reliable grounding is required before using this instrument
- There is a high current output in this instrument, please operate carefully, make sure the object under test has good contact with the test wire clamp (the Y-type terminal of the test wire and the terminal of the device need to be contacted to the end and lock the terminal), avoid poor contact resulting in high temperature, hands off the After leaving the test wire clamp, press the TEST button on the instrument to start the test. Do not touch the test lead clip or the measured object during test (i.e., when large current is outputted), otherwise it can cause personal injury, fire, or damage to the Tester.
- Because the internal temperature of the Tester will rise due to the continuous output measurement of large current for a long time, the single measurement time of should not exceed 60s for large current output measurement. When the internal temperature is too high, the Tester displays a high temperature symbol and automatically stops the test, and the test can only be performed again after the high temperature symbol disappears (i.e., the internal temperature has dropped).

#### ◆ Reliable grounding of equipment:

Connect and lock the open terminal of the black grounding wire to the equipment grounding post, and then clamp the other end to an exposed metal location that has a good ground to ensure that the equipment is reliably

grounded, as shown in the following figure.



Grounding wire

◆ **Connect standard test leads to the Tester:**

Connect the open terminal of the red test lead with the red current binding post (I+) of the Tester and lock it tightly, then insert the red plug of the test lead into the red voltage port (U+) of the Tester, and then connect the black test lead with the black current binding post (I-) and black voltage port (U-) of the Tester according to the above operation, as shown in Figure 9.1.

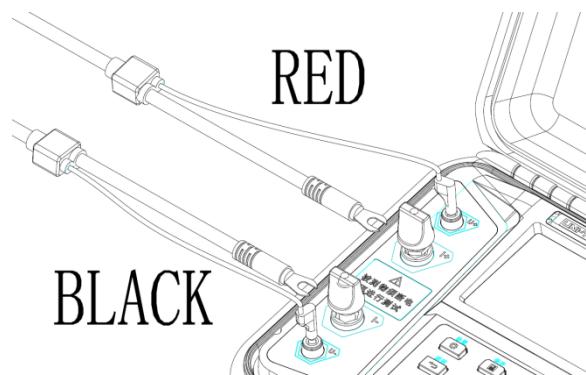


Figure 9.1 Connecting standard test leads to the Tester

◆ **Connect standard test leads to the measured object:**

Clamp the big clip of the red test line to the current input terminal of the measured object and keep it in good contact, then clamp the small red clip of the test lead near the current input terminal and keep the metal part of the measured object in good contact, and then connect the black test wire with the other end of the measured object (current output terminal) and keep it in good contact, as shown in Figure 9.2.

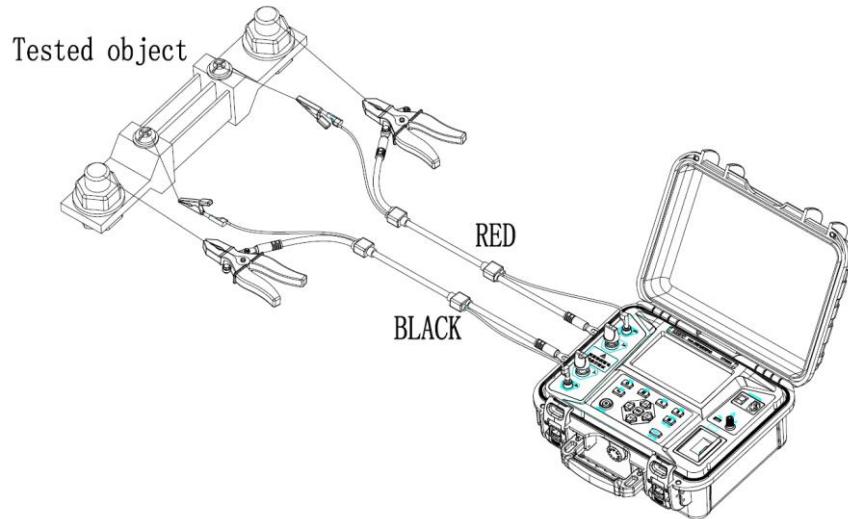


Figure 9.2 Connecting standard test leads to the measured object

◆ **Prompt for high internal temperature:**

When measuring with high current output consecutively for several times, the internal temperature of the Tester will be too high, and the Tester will display the high temperature symbol and automatically stop the test, and the test can only be performed again after the high temperature symbol disappears (that is, the internal temperature has dropped), as shown in Figure 9.3.

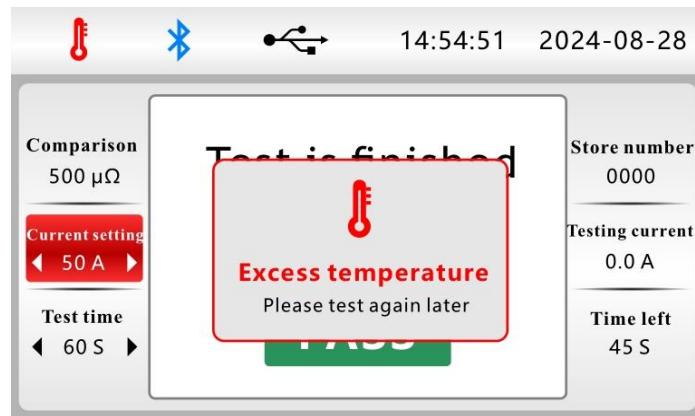


Figure 9.3 Prompt for high internal temperature

## 9.2 Regular measurement

◆ **Output current setting:**

After the Tester is powered on normally and enters the main interface, move the red background block by short pressing the up or the down button to select the current setting, determine the approximate current range according to the characteristics of the measured object, and then switch the current value by short pressing the left or right button (long press the left button and the right button to quickly switch the current value), as shown in Figure 9.4.



Figure 9.4 Output current setting

◆ **Test time setting:**

Move the red background block by short pressing the up or down button to select the test time, and then adjust the test time by short pressing the left and right buttons (long press the left button and right button to quickly adjust the test time value), as shown in Figure 9.5.

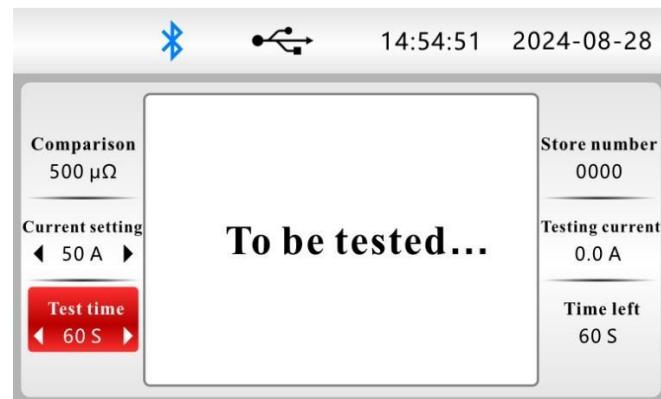


Figure 9.5 Test time setting

◆ **Start or stop testing:**

Connect the Tester with the measured object by using the standard test leads, make sure the contact is good, then set the output current and test time, long press the "TEST" button for more than 2s to start the test, and the test is automatically stopped after the countdown is over, or press the "TEST" button to stop the test, as shown in Figure 9.6.

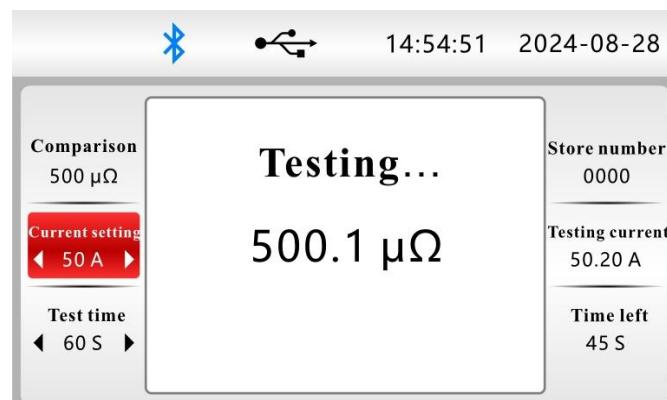


Figure 9.6 500 μΩ measurement

## 9.3 Comparative measurement

### ◆ Open “Resistance Comparison”:

Short press the setting button to enter the system settings interface, move the red background bar by short pressing the up or down button to select resistance comparison, and then turn off/on the resistance comparison function by short pressing the left or right button, as shown in Figure 9.7.

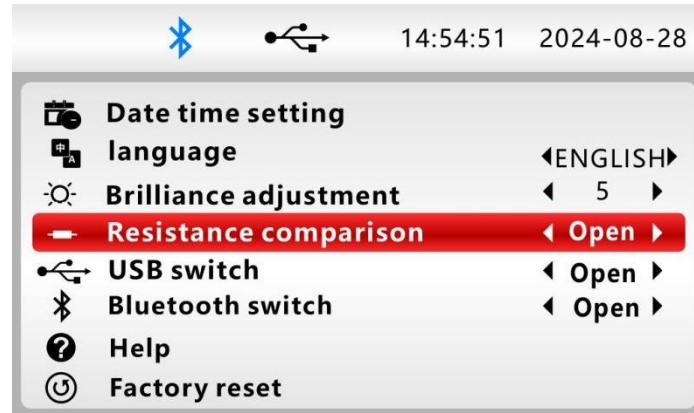


Figure 9.7 Select “Resistance Comparison”

### ◆ “Comparative Value” setting:

Short press the back button to exit the system setting interface and enter the main interface, move the red background block by short pressing the up or down button to select the comparison value, as shown in Figure 9.8.



Figure 9.8 Select “Comparative Value”

Short press the "OK" button to enter the comparison value setting interface, short press the left or right button to cycle through the value place (i.e., bit selection), long press the left or right button to cycle through the decimal point, select the appropriate value place and short press the up or down button to set the value (0~9) by step, long press the up or down button to quickly set the value (0~9). When the appropriate value and decimal point are set, short press the "OK" button to confirm the setting and switch to the resistance unit selection, short press the left or right button to select the appropriate unit (uΩ or mΩ). The set resistance value is displayed in the lower right corner of the interface. After selecting the appropriate unit, short press the "OK" button to confirm the setting and return to the main interface, as shown in Figure 9.9.

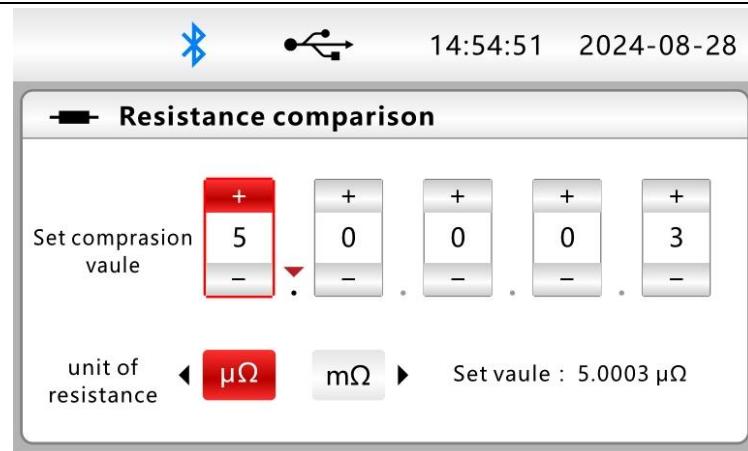


Figure 9.9 Setting comparative resistance value

◆ **Comparative resistance measurement:**

Connect the Tester with the measured object by using the standard test leads, make sure the contact is good, after setting it up according to the above operations, long press the "TEST" button for >2s to start the test. When the test result is greater than the comparison value, the measurement comparison fails and the interface displays "FAIL". Conversely, if the test result is less than or equal to the comparison value, the measurement comparison passes and the interface displays "PASS", as shown in Figure 9.10.

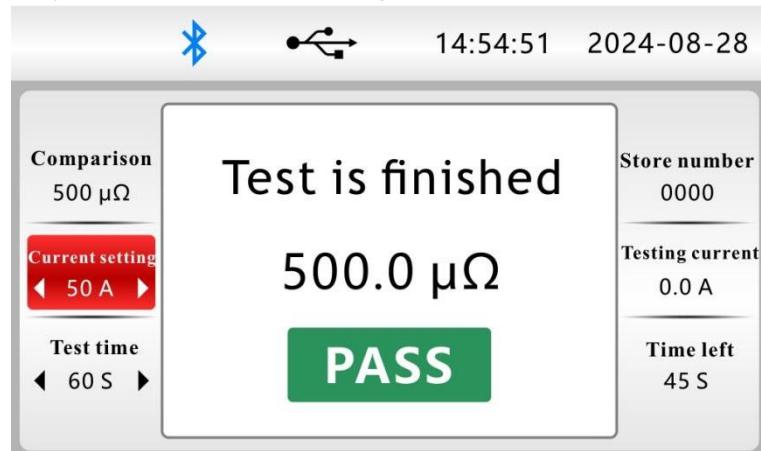


Figure 9.10 Comparative measurement is PASS

## 9.4 Data saving

There are three data saving modes: Auto Save (default), Cyclic Save, and Manual Save. The Tester can store up to 200 groups of data (with time and date records), and when the stored data reaches 200 groups, the Tester cannot continue to store new data. The upper right corner of the main page displays the number of stored groups.

◆ **Auto Save (default):**

In the main interface and when the Tester is not measuring, long press the save button to pop up the saving modes selection window, move the red background block by short pressing the left or right button to select Auto Save (when the test is over, the Tester will automatically save a group of current valid data), and then press the "OK" button to confirm and exit the pop-up window, as shown in Figure 9.11.



Figure 9.11 Select “Auto-saving”

◆ **Cyclic Save:**

In the main interface and when the Tester is not measuring, long press the save button to pop up the saving modes selection window, move the red background block by short pressing the left or right button to select Cyclic Save (when continuous measurement is carried out, the Tester will automatically save a group of current valid data at intervals of 5s until the end of the measurement), and then press the "OK" button to confirm and exit the pop-up window, as shown in Figure 9.12.

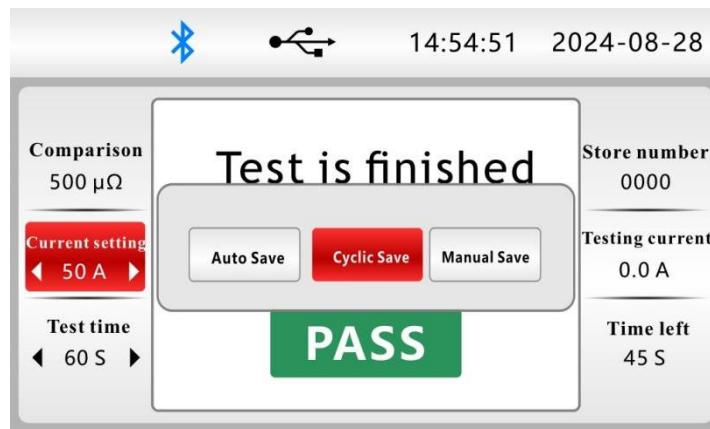


Figure 9.12 Select “Cyclic Save”

◆ **Manual Save:**

In the main interface and when the Tester is not measuring, long press the save button to pop up the saving modes selection window, move the red background block by short pressing the left or right button to select Manual Save (when the measurement is carried out or the measurement is finished and the interface displays valid data, save a group of current valid data by short pressing the save button), and then press the "OK" button to confirm and exit the pop-up window, as shown in Figure 9.13.



Figure 9.13 Select “Manual Save”

## 9.5 Data viewing

### ◆ Enter the data viewing mode:

In the main interface and when the Tester is not measuring, short press the viewing button to enter the data viewing interface, short press the left or right button to view the stored data, and long press the left or right button to quickly view the stored data, as shown in Figure 9.14.

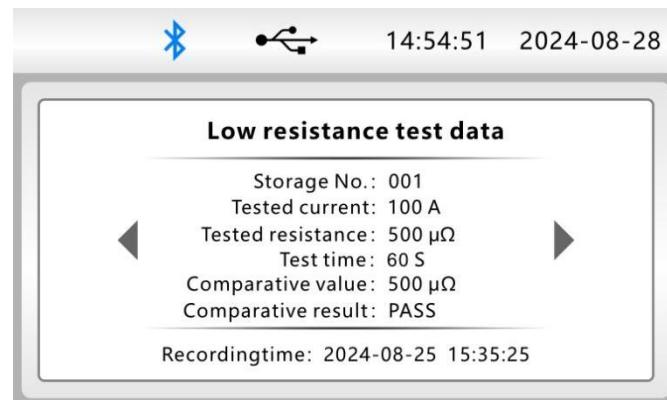


Figure 9.14 Viewing the stored data

### ◆ Exit the data viewing mode:

In the data viewing interface, short press the back button to exit the data viewing mode and return to the main interface, as shown in Figure 9.15.



Figure 9.15 Return to main interface

## 9.6 Data deletion

### ◆ Deletes current data:

In the data viewing interface, short press the delete button to pop up the data deletion selection window, move the red background block by short pressing the left or right button, select Delete Current and short press the "OK" button to confirm the deletion of the current data, as shown in Figure 9.16.

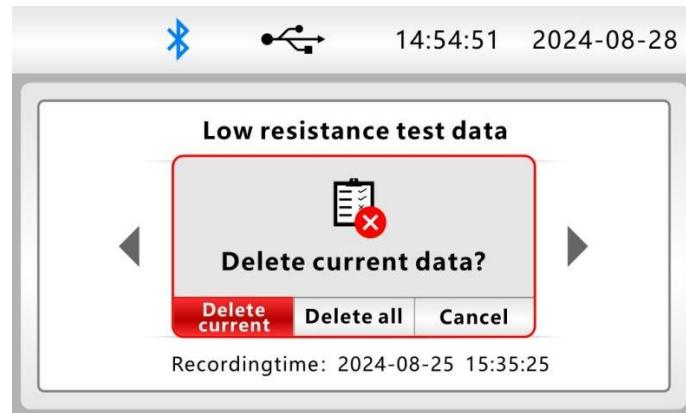


Figure 9.16 Deleting current data

### ◆ Deletes all data:

In the data viewing interface, short press the delete button to pop up the data deletion selection window, move the red background block by short pressing the left or right button, select Delete All and short press the "OK" button to confirm the deletion of all data, as shown in Figure 9.17.

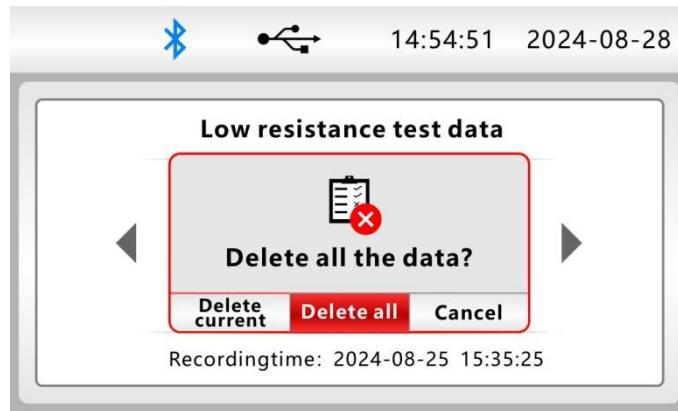


Figure 9.17 Deleting all data

### ◆ Cancel data deletion:

In the data viewing interface, short press the delete button to pop up the data deletion selection window, move the red background block by short pressing the left or right button, select Cancel and short press the "OK" button to confirm canceling the deletion of the data, as shown in Figure 9.18.

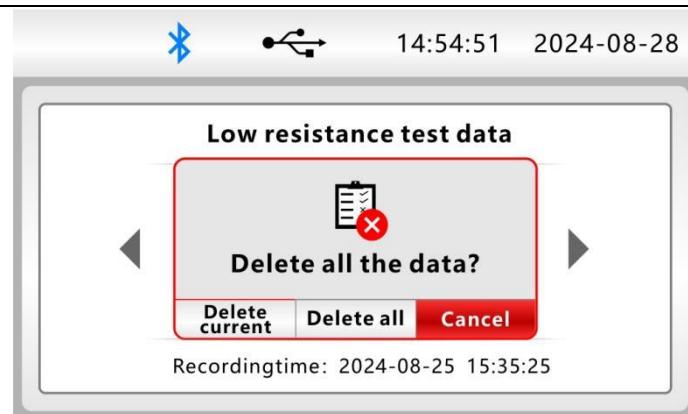


Figure 9.18 Canceling data deletion

## 9.7 Data printing

### ◆ Prints measurement data:

When the measurement is in progress or the measurement is over and the measurement data is displayed on the interface, long press the printer key > for 2s to pop up the question dialog box of whether to print, move the red background block by short pressing the left or right button to select Yes or Cancel, the default selection is Yes, and then short press the "OK" button to confirm the selection and print the measurement data, as shown in Figure 9.19.

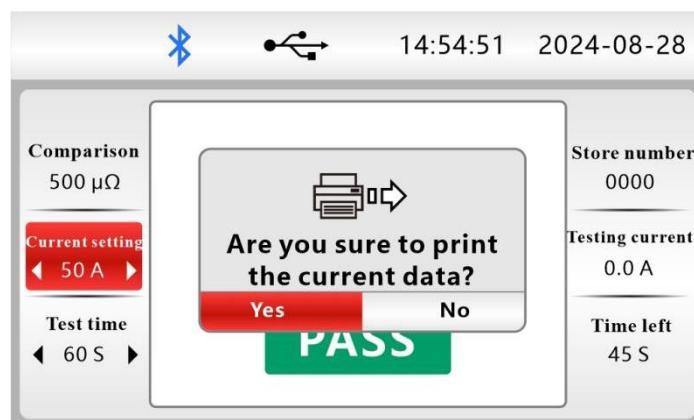


Figure 9.19 Measurement data printing

### ◆ Prints stored data:

Enter the data viewing mode and switch to the page of stored data to be printed, long press the printer key for more than 2s to pop up the question dialog box of whether to print, short press the left or right button to move the red background block to select Yes or Cancel, the default selection is Yes, short press the "OK" key to confirm the selection and print the stored data, as shown in Figure 9.20.

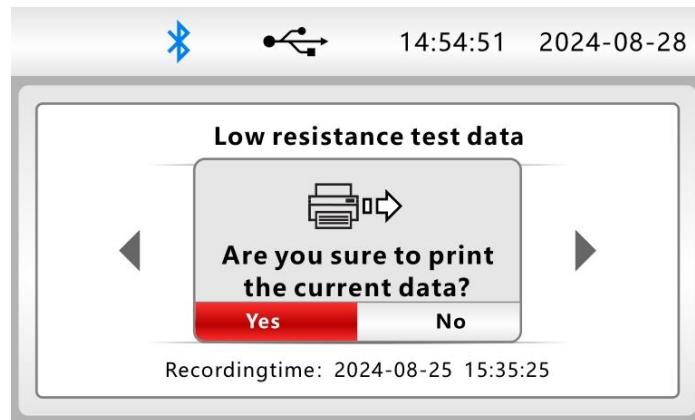


Figure 9.20 Stored data printing

◆ **Prompt for “Printing Failed”:**

When the printer is abnormal or cannot print data, the interface pops up the window of “Printing Failed” (with a prompt for the cause of failure) and flashes 5 times, the causes for “Printing Failed” include lack of paper, paper jam, printing overheating or others, as shown in Figure 9.21.



Figure 9.21 Prompt for “Printing Failed”

## 9.8USB communication

◆ **PC software:**

Obtain the PC software of the Tester model on the official website of Uni-Trend and install it to the PC. The PC software supports Windows 7 and newer operating systems.

◆ **Connects the Tester to PC:**

Use the supplied dual-ended USB cable, one end of which is plugged into the USB port of the Tester and the other end into the USB port of the PC, as shown in Figure 9.22.

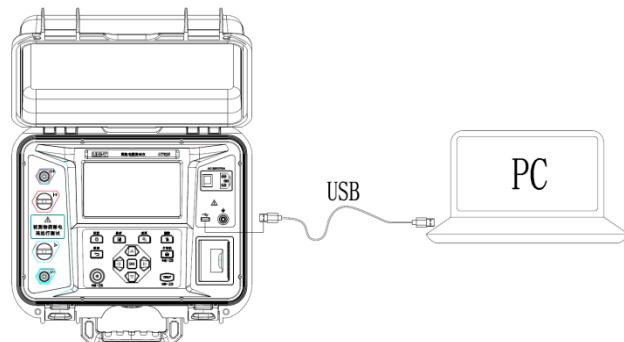


Figure 9.22 Connecting the Tester to PC

◆ Turn on the USB function:

Press the setting button to enter the system setting interface, press the up or down button to move the red background bar to select the USB switch, and then press the left or right button to turn off or turn on the USB function. When the USB function is enabled, the USB symbol is displayed at the top of the interface, as shown in Figure 9.23.



Figure 9.23 Selecting USB switch

◆ Software operation:

Run the PC software and click Connect. The Tester uploads data to the PC in real time, and can send operation commands on the PC to control the operation of each function of the Tester.

## 9.9 Other settings

◆ Date and time setting:

Short press the setting button to enter the system settings interface, then short press the up or down button to move the red background bar to select the date and time setting, as shown in Figure 9.24.

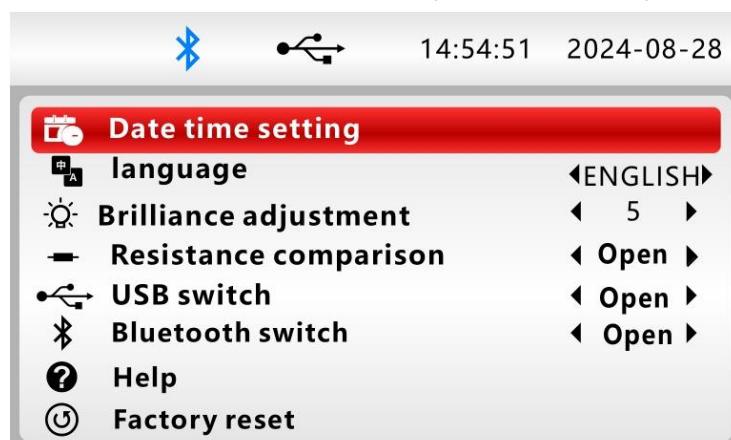


Figure 9.24 Select the date and time setting

Short press the "OK" button to enter the date and time setting page, short press the left or right button to cycle through the year, month, day, hour, minute, and second digits (i.e., bit selection), and short press the up or down button to adjust the value. When the date and time are set appropriately, short press the "OK" button to confirm and return to the system setting interface, and you can cancel the current setting and return to the system setting interface by short pressing the back button, as shown in Figure 9.25.

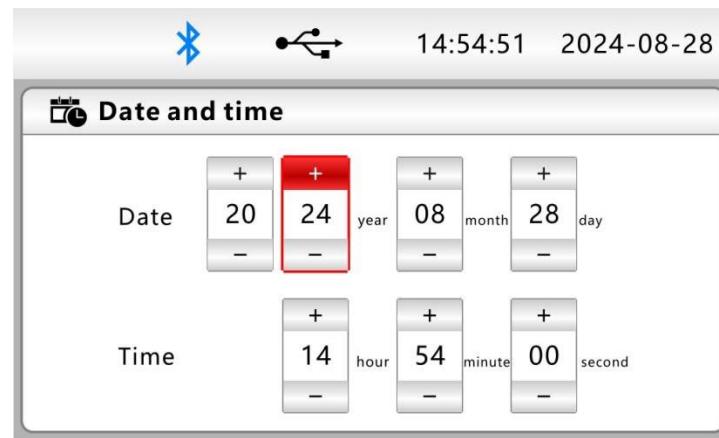


Figure 9.25 Date and time setting page

#### ◆ Language setting:

Short press the setting button to enter the system setting interface, short press the up or down button to move the red background bar to select the language, and then short press the left or right button to switch Chinese or English, as shown in Figure 9.26.

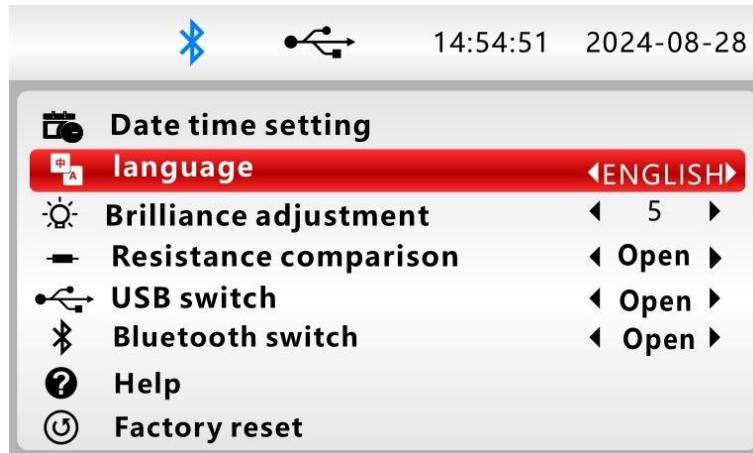


Figure 9.26 Select language

#### ◆ Brightness adjustment:

Short press the setting button to enter the system setting interface, short press the up or down button to move the red background bar to select brightness adjustment, and then short press the left or right button to cycle through the brightness level (1~5), as shown in Figure 9.27.



Figure 9.27 Select brightness level

#### ◆ Bluetooth switch (for secondary development by users):

This product has Bluetooth transmission communication function for user's secondary development (no Bluetooth app function).

Short press setup key to enter the system setup interface, move the red background bar by short press up key or down key to select Bluetooth switch, then short press left key or right key to turn off or turn on Bluetooth. When bluetooth is on but not connected, the bluetooth symbol flashes at the top of the interface, when connected, it is always displayed, and when bluetooth is off, the symbol disappears, as shown in Figure 9.28.

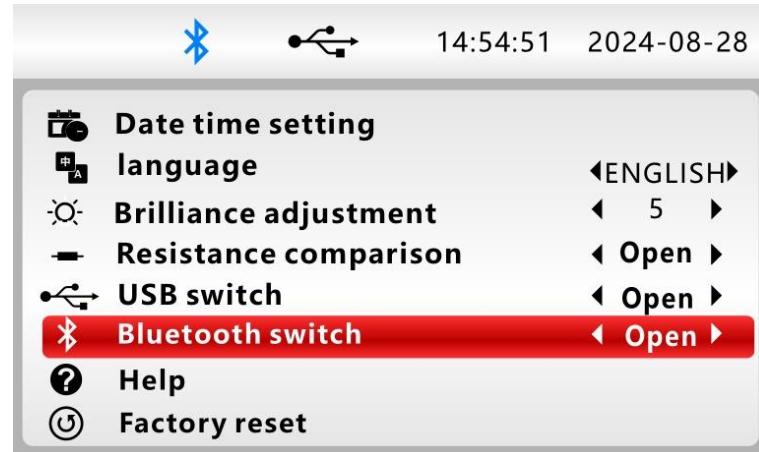


Figure 9.28 Select Bluetooth switch

◆ **Help:**

Short press the setting button to enter the system setting interface, short press the up or down button to move the red background bar to select Help, and then press the "OK" button to enter the operation review page, as shown in Figure 9.29.

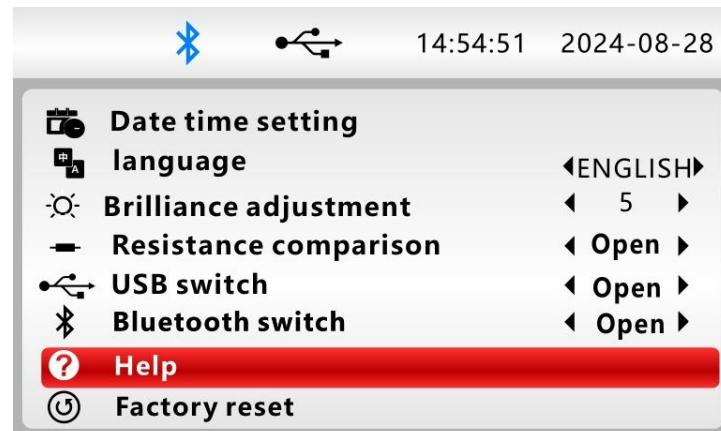


Figure 9.29 Select Help

On the Help page, short press the left or right button to view the operation diagram and the instructions, and short press the back button to exit the Help page, as shown in Figure 9.30.

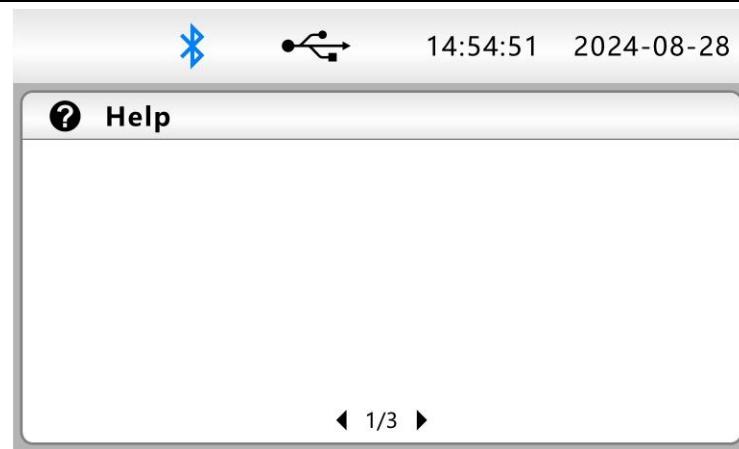


Figure 9.30 Help page

◆ **Factory reset:**

Short press the setting button to enter the system setting interface, short press the up or down button to move the red background bar to select factory reset, and then short press the "OK" button to pop up the question dialog box of whether to restore factory settings (default to Yes), and short press the "OK" button again to confirm the selection to restore factory settings, as shown in Figure 9.31.

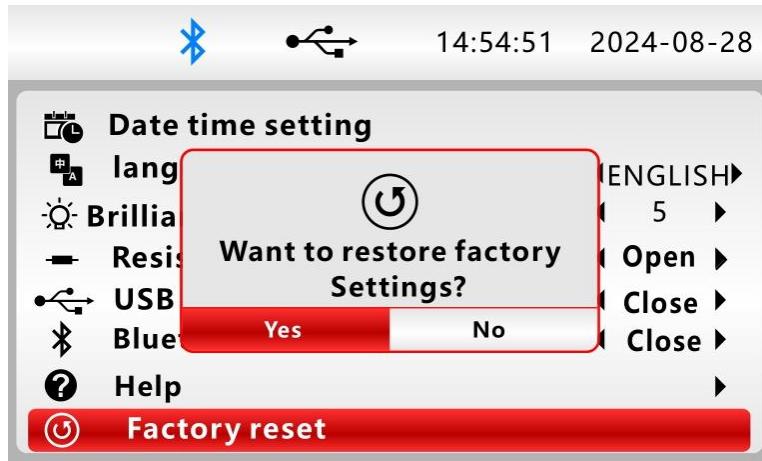


Figure 9.31 Factory reset

## 10. Maintenance and Repair

### 10.1 Maintenance

- ◆ Wipe the surface of the Tester with a soft cloth or sponge moistened with water
- ◆ To avoid damaging the Tester, never immerse it in water.
- ◆ When the instrument is wet, please dry it before storing.

### 10.2 Repair

The Tester shall be calibrated or repaired by a qualified professional or designated service center. If there are any of the following problems with the Tester, please contact the distributor or the after-sales service center in time.

- ◆ The housing or component is damaged.
- ◆ The display screen shows abnormal data and is garbled or blurred.
- ◆ The buttons are malfunctioning.
- ◆ The Tester makes noises during test.

WARNING: Cancer and reproductive harm- See [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov) for more information

<http://www.uni-trend.com>

\*The contents of this manual are subject to change without notice\*