UNI-T®

UT620C+

Quick Start Guide

Preface

Thank you for purchasing this brand new product. In order to use this product safely and correctly, please read the Quick Start Guide thoroughly, especially the Safety Information part.

After reading the Quick Start Guide, it is recommended to keep the guide at an easily accessible place, preferably close to the device, for future reference.

Limited warranty and liability

This Uni-Trend product will be free from defects in material and workmanship for one year from the date of purchase. This warranty does not cover fuses, disposable batteries, or damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Resellers are not authorized to extend any other warranty on behalf of Uni-Trend. To obtain service during the warranty period, contact your nearest Uni-Trend authorized service center to obtain return authorization information, then send the product to that service center with a description of the problem.

This warranty is your only remedy. No other warranties, such as fitness for a particular purpose, are expressed or implied. Uni-Trend is not liable for any special, indirect, incidental or consequential damages or losses, arising from any cause or theory. Since some states or countries do not allow the limitation of an implied warranty and of incidental or consequential damages, this limitation of liability may not apply to you.

1. Overview

DC Low Resistance Meter (also known as "Micro Ohm Meter", "Ohmmeter", and "DC Resistance Tester") is designed with microprocessor technology and 4-wire testing method, which ensures safety and delivers accurate and reliable testing results. The Meter is mainly used to measure the conductor resistance of cable; the contact resistance of switch, connector, and relay; the riveting resistance of metal, and to test the connection resistance between metallic components; the low resistance, the resistance of connection conductors between the ground poles of grounding grid; the contact resistance; etc.UT620C+ consists of the Meter (designed with large LCD), PC software, test leads, communication cable, etc. Up to 499 groups of data can be saved and the resistance measurement range is 0.001mΩ~300.0kΩ. The PC software has multiple functions including data reading, data saving, report generation, and more.

2. Packing List

Meter ---------- 1 pc
Carrying case ---------- 1 pc
USB-C cable ---------- 1 pc
Test leads ---------- 2 pcs (Red × 1; Black × 1)
Charger ---------- 1 pc
Quick start guide ---------- 1 pc

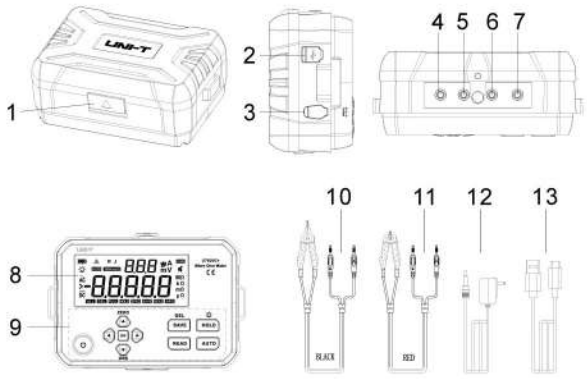
3. Safety Information

To better use the product, please read the User Manual carefully and strictly follows all safety rules and precautions listed in the Manual.

- Pay special attention to the safety when using the Meter.
- Do not measure any energized object. Please be sure that the measured resistor or metallic object is not energized before measurement, otherwise it may pose a risk of damaging the Meter.
- When the low battery symbol appears, please charge the battery for 5~8 hours in time.
- If the Meter is not used for a long time, please charge the battery once every 1 to 2 months.
- Please stop using the Meter if the test lead is broken during use.
- Do not place or store the Meter in environments with high temperature/humidity , dew, direct sunlight.
- The Meter is a precision instrument, please perform regular servicing on it. Keep the Meter and test leads clean. Do not drop the Meter.
- The use, disassembly and repair of the Meter must be performed by authorized professionals.
- If the use of the Meter presents a risk due to the Meter itself, please stop using the Meter and seal it immediately, then send it to authorized body for maintenance.
- The dangerous symbol "&" at the Meter and User Manual warns that the user must perform safe operations according to the instructions.
- Before each use verify tester operation by measuring a known resistance that is within the rating of this unit
- Use approved by IEC/EN 61010-031 standard test leads .

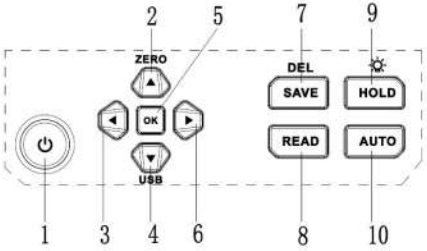
4. Structure

4.1 External structure



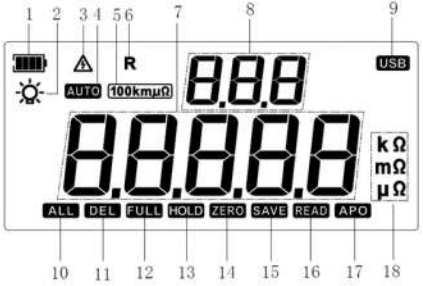
1	Slider for opening the cover	8	Display screen
2	USB communication port	9	Functional buttons
3	Charging port	10	Black test clip
4	C2 terminal	11	Red test clip
5	P2 terminal	12	5V/2A charger
6	P1 terminal	13	USB Type-C cable
7	C1 terminal		

4.2 Functional buttons



1	POWER button	6	Right arrow button
2	Up arrow button/Zeroing button	7	Data saving/deletion
3	Left arrow button	8	Data reading
4	Down arrow button/USB communication button	9	Data hold/Backlight
5	OK button	10	Auto/Manual mode switching

4.3 LCD display



1	Battery power indicator (Indicating real-time battery power)
2	Backlight lights up (This symbol appears when turning on the backlight)
3	Dangerous operation symbol (This symbol appears when performing measurement with external voltage)
4	Automatic measurement symbol (This symbol appears in the auto mode and disappears in manual mode)
5	Measurement position symbol (Current position is displayed. There are 10 positions: 100uΩ~100kΩ)
6	Resistance measurement symbol (The symbol indicates the Meter is in resistance measurement state)
7	Displaying measured resistance
8	Displaying the total number of saved data
9	USB symbol (Displayed when starting USB communication)
10	ALL symbol (Flashing when all saved data are selected)
11	DEL symbol (This symbol indicates the data is to be deleted. Press the "OK" button to perform deletion operation.)
12	FULL symbol (Indicating full data storage)
13	HOLD symbol (Current displayed measured value is locked)
14	ZERO symbol (Flashing once when zeroing operation is completed)
15	SAVE symbol (Flashing once each time a set of measurement data is saved.)
16	READ symbol (Displayed in data reading mode)
17	APO symbol (Powering off automatically after 15 minutes of inactivity)
18	Displaying the unit of measured value

5. Technical Specifications

Ambient temperature: 23±5℃
Ambient humidity: 45~75%RH
External magnetic field: None (Earth's magnetic field)
Battery voltage: Available effective battery voltage
Temperature coefficient: A testing error of ±0.01% will be added per degree (Celsius) if test is performed in temperature of >28°C or <18°C.

Range	Accuracy	Resolution	Max. testing current
0.001mΩ~10.000mΩ	18℃ 28℃; < 75%rh: ±(0.1%FS+20dgt)	0.001mΩ	1A
10.01mΩ~100.00mΩ		0.01mΩ	1A
100.1mΩ~1000.0mΩ		0.1mΩ	100mA
1.001Ω~10.000Ω		0.001Ω	10mA
10.01Ω~100.00Ω		0.01Ω	1mA
100.1Ω~1000.0Ω		0.1Ω	100μA
1.001KΩ~10.000kΩ		0.001kΩ	10μA
10.01KΩ~100.00kΩ		0.01kΩ	10μA
100.1KΩ~300.0kΩ		0.1kΩ	3μA

- 1Ω (ohm)=1000 mΩ
- Overrange indication: "OL" is displayed if the measurement range is exceeded.

6. Operating Instructions

6. 1 Power on/off

Long press the " ⏻ " button for 2 seconds to power on/off the Meter. The symbol "APO" is displayed at the bottom right corner of the display screen after the Meter is powered on. The Meter will be powered off automatically in 15 minutes of inactivity.

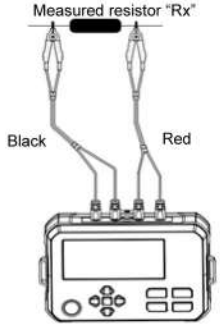
6.2 Precision test of resistance

⚠ Precautions:

1. Please remove the insulation and oxidation layers on the surface of measured object before test.
2. It is forbidden to perform energized test for measuring resistance or DC resistance. Energized test may pose a risk of damaging the Meter.
3. Please ensure a reliable connection between test clip and measured resistor or conductor during test.
4. The components and parts heat up significantly during operation for low resistance measurement (measured resistance: <100mΩ). It is recommended that the test time shall not exceed 2 minutes and the test interval shall be 10 seconds.

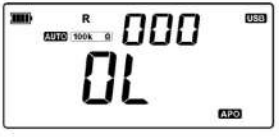
6.3 Testing step

Power on the Meter, connect the test leads with the measured resistor, then measure the resistance of the resistor. The default mode is automatic mode, so the Meter will display a reading once the resistor is connected.



6.4 Data upload

Connect the Meter to a computer via USB Type-C cable, power on the Meter, then run the PC software on the computer. After successful connection, long press the "▼" button to enter USB communication mode, then the symbol "USB" appears on the display screen. The PC software can read and save the storage data.



The PC software has multiple functions including data reading, data saving, and more.

7. Troubleshooting

If "OL" appears on the LCD and no resistance is displayed for resistance measurement, then the reasons may include exceeding the resistance measurement range, poor contact between test clip and measured resistor, poor contact between test clip and binding post, etc.

The contents in the Quick Start Guide are subject to change without further notice!

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