

UNI-T UT526

UNI-T UT526 Multifunction Electrical Installation Tester User Manual

1. INTRODUCTION

The UNI-T UT526 is a multifunction electrical installation tester designed for comprehensive electrical system analysis. It accurately measures insulation resistance, RCD (Residual Current Device) status, low resistance continuity, and AC/DC voltage. This device is suitable for testing power distribution systems, lightning protection systems, and wiring systems to ensure safe operation and compliance with electrical standards.



Figure 1: Front view of the UNI-T UT526 Multifunction Electrical Installation Tester.

2. SAFETY INFORMATION

Before operating the UT526, read and understand all safety warnings and operating instructions. Failure to follow these instructions may result in electric shock, fire, or serious injury. Keep this manual for future reference.

- Always ensure the device is in good working condition before use.
- Do not use the tester if it appears damaged or if the test leads are compromised.
- Verify the correct function of the tester on a known voltage source before and after use.
- Adhere to all local and national safety codes.
- Wear appropriate personal protective equipment (PPE), including safety glasses and insulated gloves.
- Avoid working alone when performing electrical tests.
- Do not exceed the maximum input ratings for any function.
- Ensure the circuit under test is de-energized and locked out before making connections for resistance or continuity measurements.

3. PACKAGE CONTENTS

Carefully unpack the box and ensure all items listed below are present and undamaged. If any item is missing or damaged, contact your supplier immediately.

- 1 x UT526 Earth Resistance Tester
- 1 x Test Lead Set
- 1 x Alligator Clip Set
- 1 x English Manual
- 1 x Shoulder Strap
- 1 x Carrying Bag
- 1 x Color Box

Note: Batteries are not included and must be purchased separately (1.5V AA batteries x 6).



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|------------------------------------|------------------------|
| ① 1*UT526 Earth Resistance Testers | ② ③ 1*Test Lead |
| ④ 1* Alligator Clip | ⑤ 1*Shoulder Strap |
| ⑥ 1*English Manual | ⑦ 1*Carrying Bag |
| ⑧ 1*Color Box | ⚠ Battery not included |

Figure 2: Included components of the UT526 package.

4. PRODUCT FEATURES

The UNI-T UT526 offers a range of features for reliable electrical installation testing:

- **Display Count:** 10000 for precise readings.
- **Manual Range:** Allows for specific range selection.
- **Phase Switch (RCD):** Supports 0° and 180° phase testing.
- **Low Battery Indication:** Alerts when batteries need replacement.
- **Auto AC/DC Voltage Identification:** Simplifies voltage measurements.
- **Red Warning Lights:** Visual alert for hazardous conditions.
- **Certifications:** CE, UKCA compliant.

5. SETUP

Before first use, install the batteries and prepare the test leads.

5.1 Battery Installation

1. Locate the battery compartment on the rear of the device.
2. Use a screwdriver to open the battery cover.
3. Insert 6 x 1.5V AA batteries, observing the correct polarity.
4. Replace the battery cover and secure it with the screw.

5.2 Connecting Test Leads

Connect the test leads to the appropriate input terminals on the UT526. The terminals are color-coded and labeled for clarity (e.g., LINE, N, E, L).

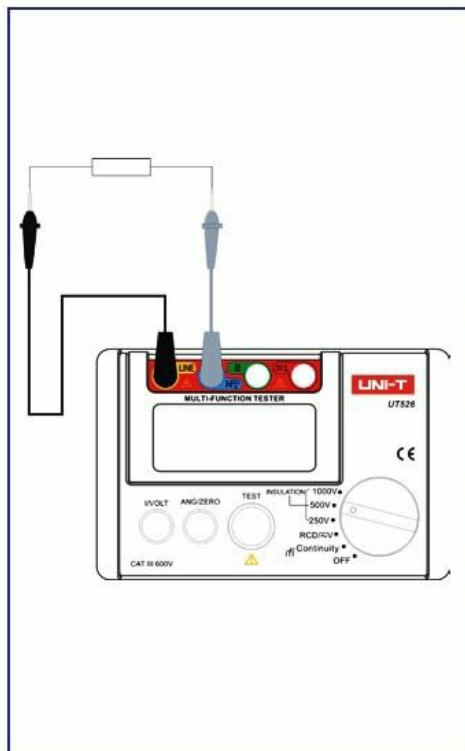
6. OPERATING INSTRUCTIONS

The UT526 offers various measurement functions. Select the desired function using the rotary switch.

6.1 Measuring Insulation Resistance

This function measures the insulation resistance of electrical circuits and equipment.

1. Turn the rotary switch to one of the insulation test voltage settings: 100V, 250V, 500V, or 1000V.
2. Insert test leads into the input terminals (Red to LINE, Black to N) and connect them to the circuit under test. High voltage is output from the LINE terminal.
3. For continuous measurement, press the **TEST** button. The tester will self-lock, output the test voltage, and emit a warning light simultaneously.
4. Once the measurement is finished, press **TEST** again to unlock and stop the continuous measurement.



Measuring Insulation Resistance

1. Turn the rotary switch to one of 100V/250V/500V (UT525) or 250V/500V/1000V (UT526) test voltage.
2. Insert test leads into input terminals (Red to LINE, Black to N) and connect them to the tested circuit. High voltage is output from LINE terminal.
3. Continuous Measurement: Press TEST button, the Tester will self-lock, output the test voltage and emit warning light simultaneously. With the measurement finished, press TEST to unlock and stop the continuous measurement.

Figure 3: Setup for measuring insulation resistance.



Figure 4: UT526 performing an insulation resistance test with warning light activated.

6.2 RCD Test (Residual Current Device)

The RCD test function verifies the proper operation of Residual Current Devices, ensuring they trip within specified parameters.

1. Turn the rotary switch to the RCD function.
2. Connect the test leads to the appropriate terminals of the RCD or circuit.

3. Select the desired test current and phase (0° or 180°) using the function buttons.
4. Initiate the test. The device will measure the trip time and display the result.

Video 1: Demonstration of the RCD test function using the UNI-T UT526. This video shows the connection and operation of the RCD test, illustrating how the device measures the trip time of a residual current device.



Figure 5: UT526 connected for an RCD test.

6.3 Low Resistance Continuity Measurement

This function checks for continuity in circuits and measures low resistance values.

1. Turn the rotary switch to the Continuity function.
2. Connect the test leads across the component or circuit to be tested.
3. The display will show the resistance value. An audible beep indicates continuity (typically below a certain resistance threshold).



Figure 6: UT526 performing a low resistance continuity test on a motor.

6.4 AC/DC Voltage Measurement

The UT526 can measure both AC and DC voltages.

1. Turn the rotary switch to the V (Voltage) function. The device will automatically identify AC or DC voltage.
2. Connect the test leads in parallel with the circuit or component where voltage is to be measured.
3. The display will show the measured voltage value.

6.5 Ground Resistance Measurement

While the UT526 is primarily a multifunction electrical installation tester, it also supports ground resistance measurements.

1. Turn the rotary switch to the appropriate ground resistance setting (if available, or use continuity for basic

checks).

2. Connect the test leads according to the specific ground resistance testing method (e.g., 3-pole or 4-pole method, if supported by the model).
3. Initiate the measurement and read the ground resistance value from the display.



Figure 7: UT526 connected for ground resistance testing.

7. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your UT526 tester.

- **Cleaning:** Wipe the device with a damp cloth and mild detergent. Do not use abrasive cleaners or solvents. Ensure the device is dry before storage.
- **Battery Replacement:** Replace batteries promptly when the low battery indicator appears. Remove batteries if the device will not be used for an extended period to prevent leakage.
- **Storage:** Store the tester in a cool, dry place, away from direct sunlight and extreme temperatures. Use the provided carrying bag for protection.
- **Calibration:** For professional use, periodic calibration by an authorized service center is recommended to maintain measurement accuracy.

8. TROUBLESHOOTING

If you encounter issues with your UT526, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not power on	Dead or incorrectly installed batteries	Replace batteries, ensuring correct polarity.
Inaccurate readings	Poor test lead connection, out of calibration, environmental interference	Ensure secure connections. Check against a known source. Consider professional calibration.
RCD test fails to trip	Faulty RCD, incorrect test parameters, wiring issue	Verify RCD functionality independently. Check test current and phase settings. Inspect circuit wiring.

Problem	Possible Cause	Solution
Display shows "OL" (Overload)	Measurement exceeds selected range or device capability	Select a higher range or ensure the measurement is within the device's specifications.

9. SPECIFICATIONS

Detailed technical specifications for the UNI-T UT526 Multifunction Electrical Installation Tester are provided below.

UT526 **UNI-T** Multifunction Electrical Meter

UT526 is a multifunctional electrical installation tester. It can be used to test insulation resistance, RCD status, low resistance continuity, and voltage measurements. **UT526** can also be used to test power distribution system, lightning protection system and wiring systems to ensure safe operations.



UT526

Specifications	Range	UT526
Certificates	CE, UKCA	
Test voltages	Insulation resistance (Ω)	
250V	0.05MΩ~200MΩ	±(5%+5)
500V	0.05MΩ~300MΩ	±(5%+5)
1000V	0.05MΩ~500MΩ	±(5%+5)
Load current	1mA	±10%
Short circuit current	<2mA	✓
RCD		
Operating voltage (Freq.)	220V (45Hz~65Hz)	±10%
Test current	10mA/30mA/100mA/300mA	0~20%
Trip time	0ms~2000ms (10mA)	±(5%+2)
	0ms~500ms (30mA)	±(5%+2)
	0ms~300ms (100mA, 300mA)	±(5%+2)
Low resistance continuity	Range: 0Ω~2000Ω	±(2%+5)
	Test voltage: around 5V	✓
	Test current: >200mA (R<2Ω)	✓
AC/DC Voltage measurement	0~440V	±(5%+2)
Frequency measurement	20~100Hz (for reference only)	✓
Display count		10000
Manual range		✓
Phase switch (RCD)	0°and 180°	✓
Low battery indication		✓
Auto AC voltage identification		✓
Auto DC voltage identification		✓
Red warning lights		✓
Category ratings	CAT III 600V	

Characteristics	
Standard accessories	Batteries, carrying bag, elastic strap, test leads, alligator clips, test line, English manual
Power	1.5V battery (LR6) x 6
Display	71 x 34mm
Product size	160 x 100 x 71mm
Product net weight	380g
Standard individual packing	Gift box
Standard quantity per carton	10pcs
Standard carton measurement	445 x 440 x 180mm
Standard carton gross weight	12.8kg

Figure 8: Comprehensive specifications for the UT526.

Specification	Value
Brand	UNI-T
Model	HY-UT526
Power Source	Battery Powered (6 x 1.5V AA)
Item Weight	0.6 kg
Item Dimensions	6.5 x 4.33 x 4.72 inches
Specification Met	CE, ISO 9001, RoHS, UKCA
Display Count	10000
Insulation Resistance Test Voltages	100V, 250V, 500V, 1000V
RCD Phase Switch	0° and 180°
Low Battery Indication	Yes
Auto AC/DC Voltage Identification	Yes
Red Warning Lights	Yes

10. WARRANTY

The UNI-T UT526 Multifunction Electrical Installation Tester comes with a **1-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by misuse, accident, unauthorized modification, or neglect. Please retain your proof of purchase for warranty claims.

11. SUPPORT

For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact UNI-T customer support. Refer to the official UNI-T website or your product packaging for the most current contact information.

UNI-T Official Website: www.uni-trend.com

