# Quick Start Guide

## UT5470 Withstand Voltage Testers

V1.0

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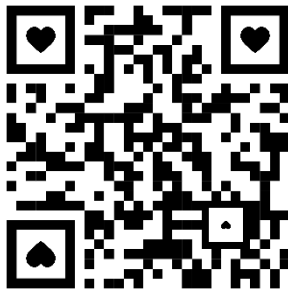
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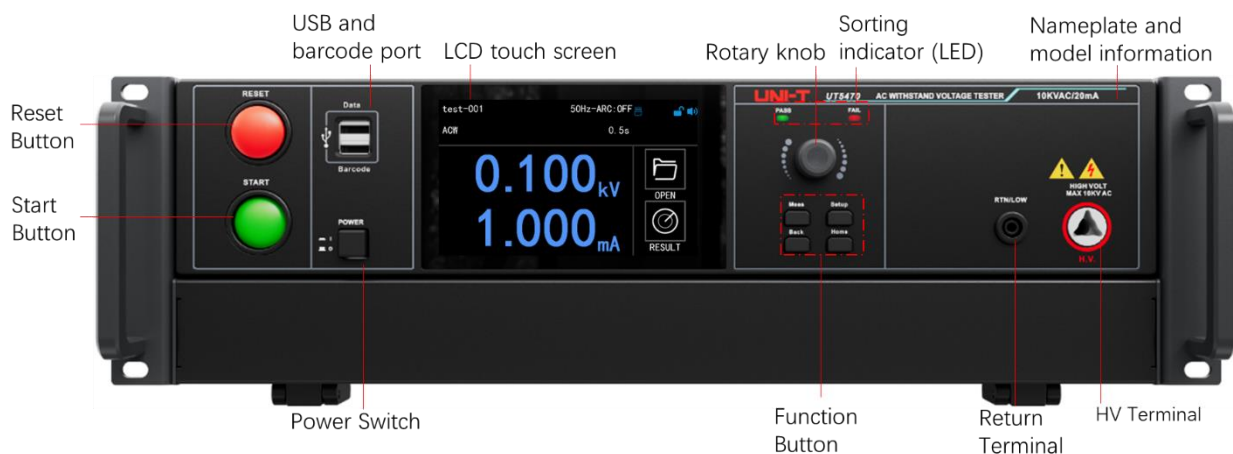Address: Steinerne Furt 62, 86167 Augsburg, Germany
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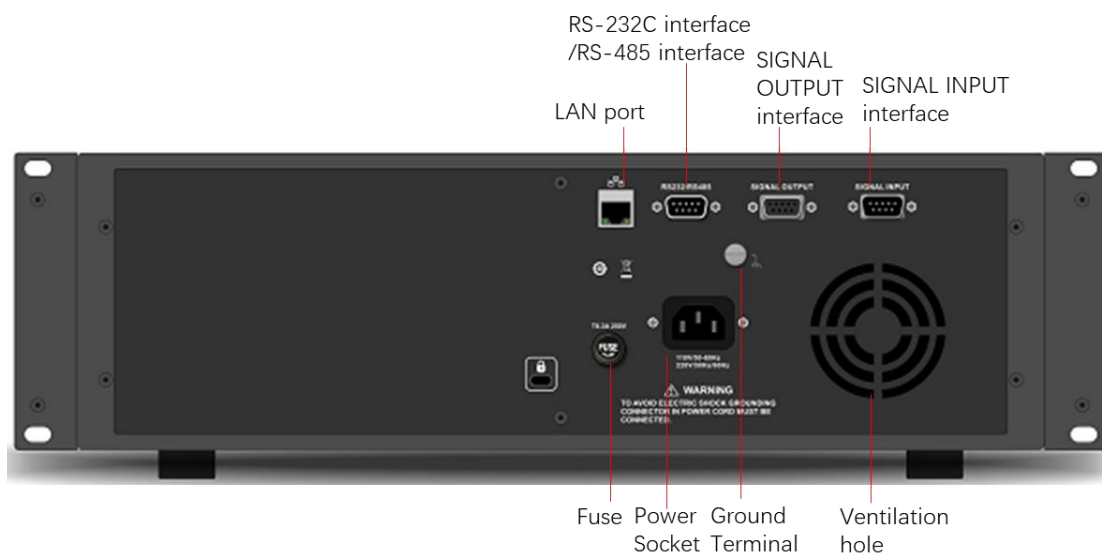Tel: +1-888-668-8648

# Chapter 1    Panel Overview

## 1.1 Front Panel

The product has a simple, intuitive and easy to use front panel, as shown in the following figure.



## 1.2 Rear Panel



For more details of both the front panel and rear panel, please refer to *UT5470 series withstand voltage tester-User Manual*.

# Chapter 2 Instructions Manual

This manual includes safety requirements and the operation of UT5470 series withstand voltage tester.

## 2.1 Inspecting Packaging and List

Upon receiving the instrument, please check the packaging and list as follows.

● Check whether the shipping box and cushioning materials show any signs of compression or damage from external impact. Also, inspect the instrument's exterior for visible damage. If you have any concerns about the product or require assistance, please contact your distributor or local service office.

● Carefully remove the instrument from the package and compare the items received against the packing list.

## 2.2 Environmental Requirements

This instrument is suitable for the following environment:

| Operating Environment | Requirements |
|---|---|
| Operating temperature | 0℃ to 40℃ |
| Operating humidity | 20% to 80% (non-condensation) |
| Storage temperature | -20℃ to 60℃ |
| Altitude | ≤2000 meters |
| Pollution degree | 2 |

Ventilation openings are on the instrument's rear and side panels. Ensure that airflow through these vents remains unobstructed. To prevent excessive dust accumulation, clean the instrument housing regularly. The housing is not waterproof, always disconnect the power supply before cleaning. Use a dry cloth or a soft cloth slightly moistened with water.

## 2.3 Connect Power Supply

The AC power supply specifications are shown in the following table.

| Model | Voltage Range | Frequency |
|---|---|---|
| UT5470/UT5472 | 200-240 VAC or 100-120VAC | 50/60 Hz |

Please use the attached power lead to connect to the power port.

Connecting to service cable

The supplied power lead has good performance in terms of case ground. This power supply is equipped with a three-prong power cable that meets international safety standards. It provides good case grounding performance for the specification of your country or region.

To install the AC power cable:

■ Ensure the power cable is in a good condition.

■ Leave enough space for connecting the power cord.

■ Plug the attached three-prong power cable into a well-grounded power socket.

## 2.4 Electrostatic Protection

Electrostatic discharge may cause damage to component. Components can be damaged invisibly by electrostatic discharge during transportation, storage and use.

The following measure can reduce the damage of electrostatic discharge.

■ Testing in anti-static area as far as possible

■ Before connecting the power cable to the instrument, inner and outer conductors of the instrument should be briefly grounded to discharge static electricity;

■ Ensure all the instruments are properly grounded to prevent the accumulation of static.

## 2.5 Preparation Work

1. Connect the power supply wire.

2. Press the power switch  on the front panel to turn on the instrument.

## 2.6 Remote Control

UT5470 series withstand voltage tester supports communication with the computer via RS232, RS485, or LAN interface. The instrument can be remotely controlled using SCPI or Modbus commands over any of these interfaces.

For detailed information about programming, please refer to *UT5470 Series Programming Manual* at the official website http:// www.uni-trend.com

# Chapter 3 Quick Start Guide

## 3.1 Product Overview

UT5470 series Withstand Voltage testers are designed to meet the high-voltage and insulation-material component testing requirements. The series provides a high-range output voltage of up to 12 kV and a current resolution of 0.1 μA, addressing customers' stringent testing needs.

This series includes two models: UT5470 for AC withstand testing (10 kV / 20 mA); UT5472 for DC withstand testing (12 kV / 10 mA)
The UT5470 is equipped with an OSC (Open/Short Check) function, which verifies the integrity of the DUT connection before high-voltage testing. The UT5472 features an insulation resistance measurement function, offering a rated output capability of 6 kV / 50 GΩ.

For operation, the instrument incorporates a 5-inch multi-touch display and supports barcode-scanner connectivity, providing a more intuitive and efficient user experience. The series also offers a variety of communication interfaces, enabling seamless integration into automated test systems with high safety and reliability requirements.

## 3.1 Parameter Setting

Press the [Setup] button on the front panel to enter the parameter settings page.

Scroll up or down to view and configure the available parameters. Tap any parameter to modify its value. After completing the configuration, swipe left to return to the main parameter settings interface.

| Test Type | Voltage | Frequency |
|-----------|---------|-----------|
| ACW | 0.100 kV | 50Hz |
| HI-Limit | LO-Limit | Arc Detect |
| 1.000 mA | 0.000 mA | OFF |
| Arc Sense | Ramp Up | Dwell Time |
| Level 5 | 0.5 s | 0.5 s |
| Ramp Down | Offset | Range |
| 0.5 s | 0.000 mA | Auto |

Press the [Meas] button to exit the parameter settings interface and enter the test interface.
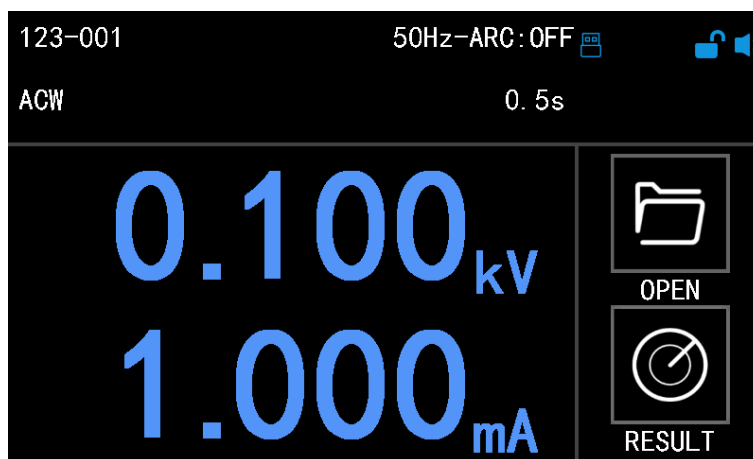


Once all parameters have been set, connect the device under test (DUT). Press the green Start button to begin testing.

# Chapter 4 Troubleshooting

Possible faults that may occur during the use of the UT5470 series and their corresponding troubleshooting methods are listed below. Please follow the steps provided. If the issue cannot be resolved, contact your distributor or local office and provide the instrument model information.

To obtain the device information, press [Home] on the front panel, tap [SYSTEM], scroll to the bottom, and select [INFORMATION]).

The Withstand Voltage Tester cannot start properly.

Follow the procedure below to inspect and resolve the issue:

1. Check whether the power cable is connected correctly and make sure the power supply is powered on.
2. Check whether the UT5140 power switch is turned on.
3. Check whether the fuse has blown.

If the fuse has blown, replace it as follows:

1) Turn off the power switch, unplug the power cable, and use tweezers or a screwdriver to remove the fuse holder.

   Note: Fuse location can be found in the *Rear Panel* illustration.

2) Inspect the fuse to confirm whether it is damaged. If it is, replace it with a fuse of the same model.

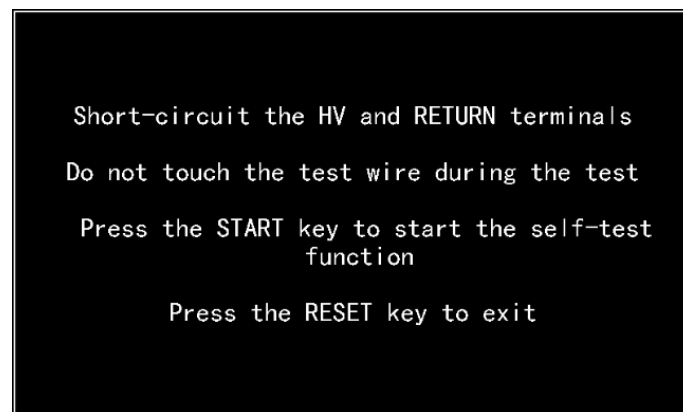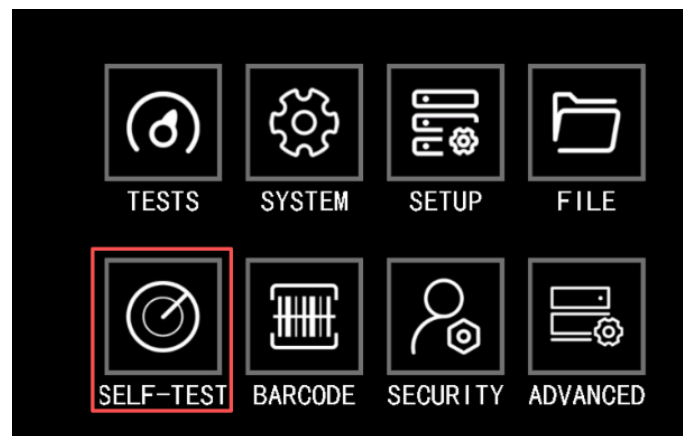   Fuse specification: 250 V / T6.3A

3) Install the replacement fuse into the holder, reinsert the fuse holder, and power the instrument back on.

Before using the tester, users may perform a Self-Check to verify basic functionality.

1.  Press the [Home] button on the front panel and tap [SELF-TEST].





2.  Short-circuit the HV and RETURN terminals, press the START key to start the self-test.

    If the Self-TEST reports an error, the tester may have an internal circuit issue. Please contact your distributor or local office for further inspection.

| Test Result: Pass | Test Result: Failed |
|---|---|
|  |  |

# Chapter 5 Maintenance

## 5.1 Maintenance and Cleaning

(1)  General Maintenance

Keep the instrument away from the direct sunlight.

Caution

Keep sprays, liquids and solvents away from the instrument or probe to avoid damaging the instrument or probe.

(2)  Cleaning

Inspect the instrument regularly according to its operating conditions. Follow these steps to clean the external surfaces:

a)  Use a soft cloth to remove dust from the exterior of the instrument.

b)  When cleaning the LCD screen, handle it carefully to protect the transparent display.

c)  When cleaning the dust screen, remove the screws of the dust cover with a screwdriver, then take out the dust screen. After cleaning, reinstall the dust screen in the correct sequence.

d)  Disconnect the power supply before cleaning. Wipe the instrument with a damp, but not dripping, soft cloth. Do not use abrasive chemical cleaners on the instrument or probes.

Warning

Please confirm that the instrument is completely dry before use, to avoid electrical shorts or even personal injury caused by moisture.