

HABOTEST HT5910

# HABOTEST HT5910 Digital RCD/LOOP Tester User Manual

Model: HT5910 | Brand: HABOTEST

## 1. INTRODUCTION

The HABOTEST HT5910 is a professional digital RCD/LOOP tester designed for electricians. This multifunctional instrument accurately measures trip current, trip time, loop resistance, contact voltage, and AC phase voltage/frequency. It features a 4.7-inch LCD with backlight for clear readings and data storage capabilities for up to 1000 test results, which can be uploaded to a PC via a USB 2.0 interface. Its compact and portable design ensures ease of use in various electrical testing environments.

## 2. SAFETY INFORMATION

**Always read and understand all safety instructions before operating the device.**

- **Safety Level:** CAT III 1000V, CAT IV 600V. Adhere to these safety ratings during all operations.
- **Electrical Shock Hazard:** To avoid electrical shock, remove test leads before opening the case or battery cover.
- **Power Supply:** Use only the specified 8 x 1.5V AA batteries. Do not mix old and new batteries or different battery types.
- **Operating Environment:** Operate the device within the specified temperature and altitude ranges (0~40 °C, 2,000 m).
- **Inspection:** Before each use, inspect the device and test leads for any damage. Do not use if damaged.
- **Qualified Personnel:** This device should only be used by qualified personnel familiar with electrical testing procedures and safety standards.



**Safety Level: CAT III 1000V, CAT IV 600**

Over Voltage  
Indication

Overheat  
Indication

Low Battery  
Indication

Over Range  
Indication



Image: The HABOTEST HT5910 tester displaying its safety level: CAT III 1000V, CAT IV 600V.

### 3. PACKAGE CONTENTS

Upon unpacking, please verify that all items listed below are present and undamaged:

- 1 x HABOTEST HT5910 Digital RCD/LOOP Tester
- 1 x Test Lead Set (3 probes: black, green, red)
- 1 x USB Cable
- 1 x CD (Software/Drivers)
- 1 x Storage Bag/Cover
- 1 x User Manual



Image: All components included in the HABOTEST HT5910 package.

## 4. PRODUCT OVERVIEW

Familiarize yourself with the main components and controls of the HT5910 tester.



Image: Front panel layout of the HT5910 with labeled controls.

- **LCD Screen:** 4.7-inch display for showing measurement results and settings.
- **Display/Set Button:** Used to change display modes or enter settings.
- **Backlight/Forward Button:** Activates backlight and navigates forward in menus.
- **Slow/Backward Button:** Adjusts test speed (e.g., for RCD tests) and navigates backward.
- **Measure Button:** Initiates a measurement.
- **Memo/Read Button:** Saves current readings or recalls stored data.
- **Clear Button:** Clears current data or settings.
- **Enter Button:** Confirms selections.
- **Rotary Knob:** Selects measurement functions (OFF, U L-PE, U L-N, LOOP, RCD x1/2, RCD x1, RCD x5, AUTORAMP).



Image: Rear view of the HT5910, highlighting the AC IN port and USB interface.

## 5. SETUP

### 5.1 Battery Installation

1. Ensure the device is powered OFF.
2. Locate the battery compartment on the back of the tester.
3. Open the battery compartment cover.
4. Insert 8 x 1.5V AA batteries, observing correct polarity.
5. Close the battery compartment cover securely.

### 5.2 Connecting Test Leads

Connect the provided test leads to the appropriate input terminals on the tester. Ensure a secure connection for accurate measurements and safety.



Image: The HT5910 tester with connected test leads.

## 6. OPERATING INSTRUCTIONS

The HT5910 offers various measurement functions selected via the rotary knob.

### 6.1 Power On/Off

Press the power button (usually located near the LCD) to turn the device ON or OFF.

### 6.2 Function Selection

Rotate the knob to select the desired measurement function:

- **U L-PE / U L-N:** For AC phase voltage measurement (0-440V) and frequency (45-65Hz).
- **LOOP:** For measuring loop resistance.
- **RCD x1/2, RCD x1, RCD x5:** For Residual Current Device (RCD) trip current and trip time measurements at different current magnifications (0.5, 1, and 5). Test current gears: 10, 30, 100, 300, 500 mA.
- **AUTORAMP:** For automatic ramp testing of RCDs to determine the precise trip current.

## 6.3 Performing a Measurement

1. Select the desired function with the rotary knob.
2. Connect the test leads to the circuit or component to be measured according to safety guidelines.
3. Press the **MEASURE** button to initiate the test.
4. Read the results on the LCD screen.



**Misurazione della corrente di avviamento**  
**Misurazione del tempo di partenza**  
**Misura della tensione di contatto**  
**Misurazione della resistenza del loop**

Misurazione della tensione di fase AC: 0V-440V  
Misurazione della frequenza: DC 45Hz ~ 65Hz  
Ingrandimento corrente di prova: 0,5, 1 e 5  
Attrezzature di prova a corrente veloce/lenta: 10, 30, 100, 300, 500 mA  
È possibile memorizzare 1000 set di risultati dei test  
I dati memorizzati nell'host possono essere caricati su un PC tramite l'interfaccia USB 2.0

Image: Overview of the HT5910's measurement capabilities.

## 7. DATA MANAGEMENT

### 7.1 Data Storage

The HT5910 can store up to 1000 sets of test results. After a measurement is completed, press the **MEMO/READ** button to save the data. Follow on-screen prompts if any.

### 7.2 Data Recall

To recall stored data, rotate the knob to a measurement function, then press the **MEMO/READ** button and use the navigation buttons (Backlight/Forward, Slow/Backward) to browse through the stored records.

### 7.3 PC Upload

The stored data can be uploaded to a PC via the USB 2.0 interface. Connect the tester to your computer using the provided USB cable. Install the software from the included CD to manage and analyze the data.

## 8. MAINTENANCE

### 8.1 Cleaning

Wipe the device with a dry, soft cloth. Do not use abrasive cleaners or solvents. Ensure the device is powered off and disconnected from any circuits before cleaning.

### 8.2 Battery Replacement

When the low battery indicator appears on the LCD, replace all 8 x 1.5V AA batteries as described in Section 5.1. Remove batteries if the device will not be used for an extended period.

### 8.3 Storage

Store the device in its protective carrying case in a cool, dry place, away from direct sunlight and extreme temperatures (-20~70 °C, 12,000 m altitude).



Image: The HT5910 and its accessories stored in the carrying case.

## 9. TROUBLESHOOTING

- **Device does not power on:** Check if batteries are correctly installed and have sufficient charge. Replace if necessary.
- **Inaccurate readings:** Ensure test leads are securely connected and not damaged. Verify the correct function is selected for the measurement.
- **Display shows ">":** This indicates an out-of-range measurement. Select a higher range if available, or ensure the input is within the device's specifications.
- **Data transfer issues:** Ensure the USB cable is properly connected and the PC software is installed correctly. Refer to the software manual for specific instructions.

## 10. SPECIFICATIONS

| Feature | Specification |
|---------|---------------|
|---------|---------------|

| Feature                          | Specification                                 |
|----------------------------------|-----------------------------------------------|
| Model                            | HT5910                                        |
| AC Phase Voltage Measurement     | 0 ~ 440 V                                     |
| Frequency Measurement            | DC, 45 ~ 65 Hz                                |
| Test Current Magnification       | 0.5, 1, and 5                                 |
| Fast/Slow Test Current Gears     | 10, 30, 100, 300, 500 mA                      |
| Safety Level                     | CAT III 1000V, CAT IV 600V                    |
| Common Mode Voltage              | 600 V AC RMS                                  |
| Display Type                     | LCD with Backlight                            |
| Range Selection                  | Fully Automatic Range                         |
| Frequency Detection              | Automatic                                     |
| Out of Range Display             | ">"                                           |
| Power Consumption                | 100 mW                                        |
| Operating Temperature & Altitude | 0~40 °C, 2,000 m                              |
| Storage Temperature & Altitude   | -20~70 °C, 12,000 m                           |
| Power Supply                     | 8 * 1.5V AA Batteries (NOT included)          |
| Item Dimensions                  | 190 * 140 * 68 mm / 7.48 * 5.51 * 2.68 inches |
| Item Weight                      | 948 g / 33.47 oz                              |

## 11. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or contact the retailer. Keep your purchase receipt as proof of purchase.

### ASK A QUESTION ABOUT THIS MANUAL

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Email

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### Question

Example: How do I reset this device or fix this error?

### Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

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