HABOTEST HT5910

HABOTEST HT5910 RCD/Loop Tester User Manual

Model: HT5910
Brand: HABOTEST

1. Safety Information

Please read and understand all safety instructions before operating the HABOTEST HT5910 RCD/Loop Tester. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always ensure the device is in good working condition before use.
- Do not use the tester if it appears damaged or if the insulation of the test leads is compromised.
- Observe all local and national safety regulations.
- The HT5910 is rated for CAT III 1000V and CAT IV 600V. Adhere to these voltage categories during testing.
- Before performing loop or RCD measurements, always verify the correct L-N-E (Line-Neutral-Earth) connection to prevent inaccurate readings or potential hazards.
- Do not attempt to repair or modify the device. Refer all servicing to qualified personnel.

2. What's in the Box

The HABOTEST HT5910 RCD/Loop Tester package includes the following items:

- 1x HT5910 RCD/Loop Tester
- 1x Storage Bag
- 1x User Manual
- 1x USB Data Cable
- 1x Set of Test Leads
- 1x Set of Alligator Clips
- 8x 1.5V AA Batteries (may vary by region/package)

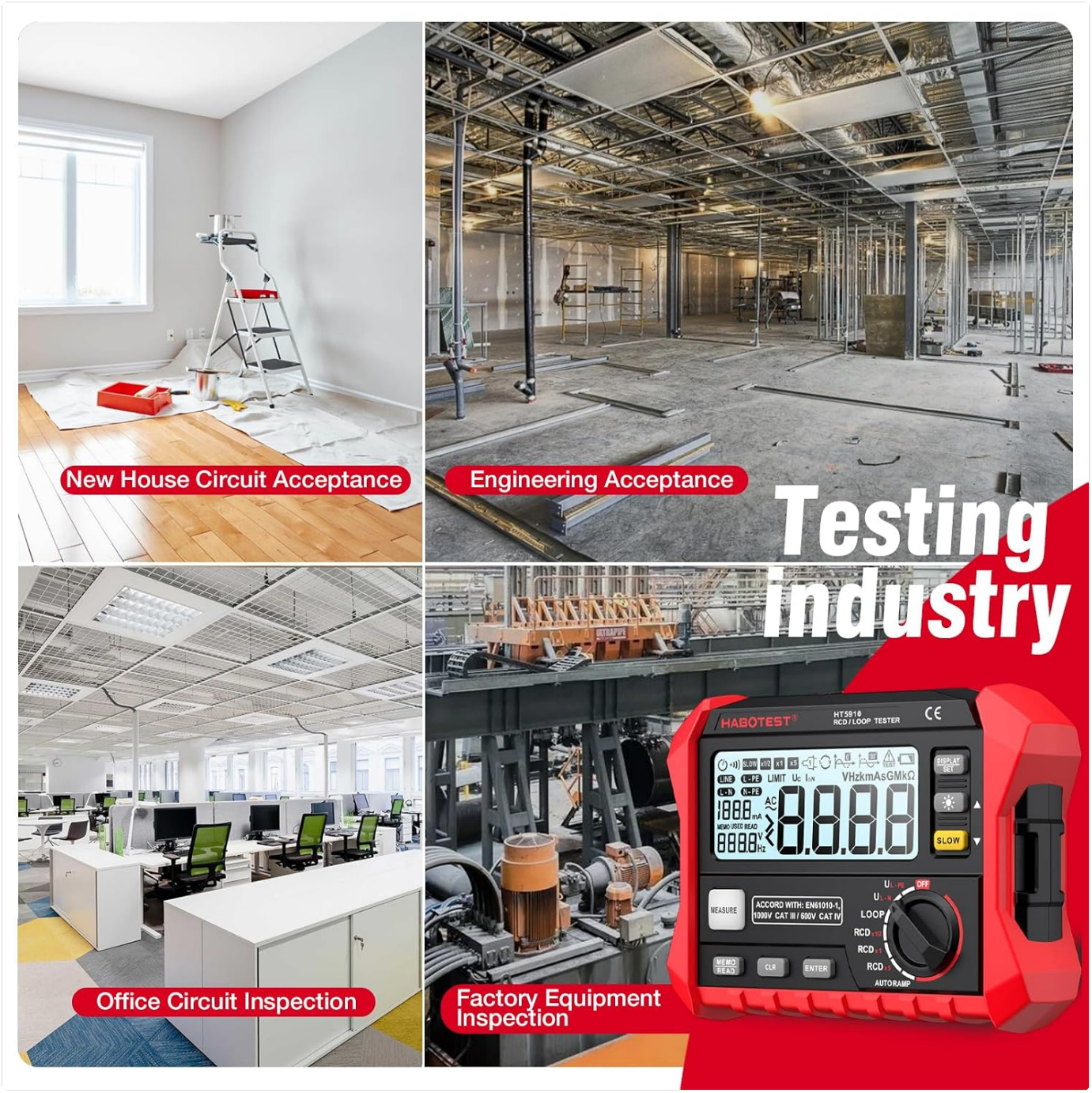


Image: The complete package contents of the HT5910 RCD/Loop Tester, showing the device, its carrying bag, test leads, alligator clips, USB cable, and the user manual.

3. Product Features

The HT5910 RCD/Loop Tester is designed with several features to facilitate accurate and safe electrical testing:

- **Easy to Use:** Checks RCD performance at 50%, 100%, and 500% power levels at both 0 and 180 degrees.
- **Loop & Line Resistance Measurement:** Designed to verify earth connection and ensure sufficient fault current for circuit protection.
- **Optional Power Levels:** Selectable testing currents (10mA/30mA/100mA/300mA/500mA) for versatile application.
- **Data Storage:** Stores up to 1000 sets of data, transferable to PC via USB.
- **Large Backlit Display:** Ensures clear readings even in dark environments.
- **Auto Shutdown:** Conserves battery life by automatically turning off after 10 minutes of inactivity.

- **Low Battery Indicator:** Alerts users when batteries need replacement.



Image: The HABOTEST HT5910 RCD/Loop Tester, showcasing its robust design and included accessories.



Image: A detailed view of the HT5910 RCD/Loop Tester, emphasizing its safety ratings for industrial and home use.

Video: An overview of the HABOTEST HT5910 RCD/Loop Tester, demonstrating its key features including the LCD display, multiple measurement functions, data storage, protective cover, USB interface, low battery warning, and auto shutdown.

4. Setup

Before using your HT5910 tester, follow these setup steps:

4.1. Battery Installation

1. Locate the battery compartment on the back of the device.
2. Open the battery cover.
3. Insert 8x 1.5V AA batteries, ensuring correct polarity.
4. Close the battery cover securely.

4.2. Connecting Test Leads

1. Connect the provided test leads to the input terminals on the tester.
2. Ensure a firm connection for accurate measurements.



Image: A close-up of the HT5910's input terminal design, indicating the AC IN test terminals and the USB port for PC connection.

5. Operating Instructions

This section provides guidance on how to operate your HT5910 tester for various measurements.

5.1. RCD Testing

To test Residual Current Devices (RCDs):

1. Turn the function knob to the RCD setting.

2. Use the 'SET' button to select the desired testing current (10mA, 30mA, 100mA, 300mA, or 500mA).
3. Select the desired power level (50%, 100%, or 500%) and phase angle (0 or 180 degrees).
4. Connect the test leads to the circuit's appropriate points.
5. Press the 'MEASURE' button to initiate the test. The device will display the trip current and time.

5.2. Loop & Line Resistance Measurement

To measure loop and line resistance:

1. Turn the function knob to the LOOP setting.
2. Ensure the L-N-E connection is correct before proceeding.
3. Connect the test leads to the circuit.
4. Press the 'MEASURE' button. The device will display the resistance value.



Image: The HT5910 performing a Line-to-Earth voltage measurement within an electrical distribution panel.



Image: The HT5910 performing a Line-to-Neutral voltage measurement within an electrical distribution panel.

5.3. Data Storage and Transfer

The HT5910 can store up to 1000 sets of measurement data.

- To save data, press the 'MEMO' button after a measurement.
- To recall stored data, press 'MEMO READ'. Use the arrow keys to navigate through records.
- To clear data, press 'CLR'.
- Connect the tester to a PC using the provided USB cable to transfer stored data. Refer to the included CD-ROM for software installation and detailed instructions on data transmission.

Specifications

FUNCTION	RANGE	ACCURACY	RESOLUTION
Jump off time	x1:IAN300(slow 500ms) x5:IAN40ms(slow 150ms)	±3ms	0.1ms
Jump off current	(0.2-1.1)IΔN	±0.1IΔN	0.5IAN
Contact Voltage	0~99.9V	±(10%+0.2V)	0.01~0.1V
AC current (U_{L-N},U_{L-L},U_{L-E})	0~440V	±(3%+3V)	1V
Frequency	DC,45~65Hz	±1Hz	1Hz
Loop resistance(RL)	0.1~2000Ω	±(10%+0.2V)	0.1Ω
RL Test Current	0.5 IΔN	±(10%+10d)	0.5IΔN
Test current multiplier	x0.5,x1,x5		
Current Stages (IΔN)	10mA,30mA,100mA.300mA,500mA		
Trigger Phase Angle	0°or 180°		
Auto power off	✓		
Backlight	✓		
USB	✓		
Low battery indication	✓		
Data memory	✓		
Power	8x1.5V AA batteries		
Weight	Approx.708g		
Size	188x145x73mm		
Safety Rating	EN61010-1.EN61557-3,EN61326-1.CATIV 600V.CAT II 1000V		

Image: Illustrates diverse applications of the HT5910 tester across different industries, including residential, commercial, and industrial settings.

6. Maintenance

Proper care and maintenance will ensure the longevity and accuracy of your HT5910 tester.

- **Cleaning:** Wipe the device with a dry, soft cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the tester in its provided storage bag in a cool, dry place when not in use.
- **Battery Replacement:** Replace batteries promptly when the low battery indicator appears on the display to ensure continuous operation and prevent data loss. Remove batteries if the device will not be used for an extended period.
- **Test Leads:** Inspect test leads and alligator clips regularly for any signs of wear or damage. Replace them if necessary to maintain safety and measurement integrity.

7. Troubleshooting

If you encounter issues with your HT5910 tester, refer to the following common problems and solutions:

- **Device does not power on:** Check battery installation and ensure batteries are not depleted. Replace if necessary.
- **Inaccurate readings:** Verify test lead connections are secure. Ensure the correct measurement function is selected. Check for proper L-N-E connection for loop/RCD tests.
- **Display is dim or blank:** The low battery indicator may be active. Replace batteries.
- **No data transfer to PC:** Ensure the USB cable is properly connected to both the tester and the PC. Verify that the necessary software from the CD-ROM is installed on your computer.
- **Auto shutdown occurs too quickly:** This is a normal feature to conserve battery life. The device automatically shuts down after 10 minutes of no operation.

For persistent issues not covered here, please contact HABOTEST customer support.

8. Specifications

Detailed technical specifications for the HABOTEST HT5910 RCD/Loop Tester:

Feature	Value/Range
Product Dimensions	7.09 x 5.51 x 2.56 inches
Item Weight	1.57 Pounds (710 Grams)
Power Source	Battery Powered (8x 1.5V AA batteries)
Color	Black & Red
Safety Rating	EN61010-1, EN61557-3, CAT III 1000V, CAT IV 600V
AC Current Range	0-440V
Frequency Range	DC, 45-65Hz
Loop Resistance (RL)	0.1-2000Ω
Test Current Multiplier	x0.5, x1, x5
Current Stages (IΔN)	10mA, 30mA, 100mA, 300mA, 500mA
Data Memory	Up to 1000 sets



Image: The HT5910 package contents, highlighting the user manual and CD-ROM for software and detailed instructions.

9. Warranty and Customer Support

HABOTEST is committed to providing high-quality products and excellent customer service. For warranty information, technical assistance, or any inquiries regarding your HT5910 RCD/Loop Tester, please contact HABOTEST customer support through the official channels.

You can find more information and contact details on the official HABOTEST store page on Amazon: HABOTEST Official Store

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Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

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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