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HABOTEST HT103

HABOTEST HT103 Non-Contact Voltage Detector

USER MANUAL

1. Introduction

The HABOTEST HT103 is a non-contact AC voltage detector designed for electrical professionals and DIY enthusiasts. It provides a safe and convenient method for detecting the presence of AC voltage in wires, cables, circuit breakers, lighting fixtures, switches, and outlets without direct contact. Featuring a digital LCD, flashlight, and sound and light alarms, the HT103 offers reliable voltage detection with enhanced safety and usability.

A front view of the HABOTEST HT103 Non-Contact Voltage Detector, showcasing its compact pen-style design, LCD screen, and control buttons.

2. Safety Information

Please read and understand all safety instructions before operating the HABOTEST HT103. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always assume that any circuit is live until proven otherwise.
- Do not use the device if it appears damaged or is not operating correctly.
- Ensure the battery compartment is securely closed before use.
- Do not attempt to measure voltages exceeding the specified range (AC 1000V).
- This device is designed for non-contact detection. Do not use it as a substitute for proper lockout/tagout procedures.
- Keep the device dry and clean.
- Replace batteries promptly when the low-battery indicator appears.

3. Product Overview and Parts Identification

Familiarize yourself with the components of your HT103 voltage detector:

A detailed diagram labeling the key components of the HABOTEST HT103, including the battery compartment cover, pen clip, sensitivity switch/flashlight key, power switch key, display, signal indicator, and NCV sensing head.

1. **Battery Compartment Cover:** Located at the top, for battery access.
2. **Pen Clip:** For convenient carrying.
3. **Sensitivity Switch / Flashlight Key:** Toggles sensitivity modes and activates the flashlight.
4. **Power Switch Key:** Turns the device on and off.
5. **Display:** LCD screen showing voltage percentage, sensitivity, and other indicators.
6. **Signal Indicator:** LED light that illuminates during voltage detection.
7. **NCV Sensing Head:** The tip of the detector used for non-contact voltage sensing.

4. Setup

4.1 Battery Installation

The HABOTEST HT103 requires two 1.5V AAA batteries (not included).

1. Unscrew the battery compartment cover at the top of the device.
2. Insert two 1.5V AAA batteries, ensuring correct polarity (+/-).
3. Securely screw the battery compartment cover back into place.

A view of the open battery compartment of the HABOTEST HT103, showing where two 1.5V AAA batteries are inserted.

5. Operating Instructions

5.1 Power On/Off

- To power on, press the **Power Switch Key** ( ). The LCD will illuminate.
- To power off, press and hold the **Power Switch Key** ( ) for approximately 2 seconds.

5.2 Voltage Detection

The HT103 offers two sensitivity modes for AC voltage detection:

- **Low Sensitivity (Default):** AC 70-1000V. Suitable for general household wiring and higher voltage applications.
- **High Sensitivity:** AC 12-1000V. Ideal for detecting lower voltages, such as those in low-voltage circuits or behind thicker insulation.

To switch sensitivity modes, briefly press the **Sensitivity Switch Key** (⌘). The display will indicate the current sensitivity setting.

A visual guide demonstrating how to switch between high sensitivity (AC 12-1000V) and low sensitivity (AC 70-1000V) modes on the HABOTEST HT103 using the sensitivity switch.

To detect voltage:

1. Turn on the device and select the desired sensitivity.
2. Place the NCV sensing head near the wire, cable, or electrical component you wish to test.
3. If AC voltage is detected, the device will emit a sound alarm (from slow to fast), the backlight will change from green to red, the signal indicator will flash, and the LCD will show a numerical percentage and analog bar graph indicating signal intensity.

The HABOTEST HT103 Non-Contact Voltage Detector being used to detect AC voltage in an electrical panel, demonstrating its non-contact intelligent identification of live and neutral lines.

5.3 Live and Neutral Wire Identification

When detecting voltage, the LCD display will show a numerical percentage. A higher percentage indicates the live wire (fire line), while a lower percentage indicates the neutral wire (zero line).

5.4 Flashlight Operation

To activate the built-in LED flashlight, briefly press the**Sensitivity Switch Key** (⌘) once. Press it again to turn off the flashlight. This feature is useful for working in dimly lit areas.

The HABOTEST HT103's integrated LED flashlight illuminating a dark electrical box, highlighting its utility for measurements in low-light conditions.

5.5 Automatic Power Off

The HT103 features an automatic power-off function to conserve battery life. If there is no operation or sensing signal for approximately 3 minutes, the device will automatically shut down.

An image illustrating the automatic shutdown feature of the HABOTEST HT103, which powers off after 5 minutes of no operation to conserve battery.

6. Maintenance

6.1 Cleaning

Wipe the device with a dry, clean cloth. Do not use abrasive cleaners or solvents. Ensure the device is dry before storage or use.

6.2 Battery Replacement

When the low-battery indicator appears on the LCD, replace the batteries as described in the 'Battery Installation' section (4.1). Always use fresh 1.5V AAA batteries.

6.3 Storage

Store the device in a cool, dry place away from direct sunlight and extreme temperatures. If storing for an extended period, remove the batteries to prevent leakage.

7. Troubleshooting

- **Device does not power on:** Check battery installation and ensure batteries are not depleted. Replace if necessary.
- **Inconsistent voltage detection:** Ensure the NCV sensing head is close enough to the conductor.

Check for environmental interference. Try switching sensitivity modes.

- **Low-battery indicator:** Replace batteries immediately to ensure accurate readings and proper device function.

8. Specifications

Feature	Specification
Model	HT103
Display	LCD
Voltage Detection Range	High Sensitivity: AC 12-1000V Low Sensitivity: AC 70-1000V
Frequency	50 / 60Hz
Alarm Mode	Sound and Light Alarm
Probe Shape	Oblate
Backlight	Red and Green Double Color Backlight
Live/Neutral Indication	By numerical percentage on LCD (higher for live)
Signal Intensity Display	Numerical percentage + Analog strip
Signal Indication Method	Sound (slow to fast), Backlight (green to red), Bargraph (low to high), Percentage (small to big)
Flashlight	Yes (White LED)
Auto Power Off	Approx. 3 minutes of no operation/sensing
Low-Battery Indication	Yes
Waterproof Grade	IP66
Power Supply	2 x 1.5V AAA Batteries (not included)
Product Weight (without batteries)	Approx. 41g
Product Dimensions (L x W x H)	156mm x 30mm x 24mm
Safety Rating	EN61010-1-2-030, EN61326-1, CAT III 1000V
Manufacturer	Shenzhen Habotest Instrument Technology Company Limited
Country of Origin	China

An illustration showing the physical dimensions of the HABOTEST HT103, measuring 156mm in length, 24mm in width at the tip, and 30mm in width at the body.

9. Warranty Information

The HABOTEST HT103 Non-Contact Voltage Detector comes with a**1-Year Warranty** from the date of purchase. This warranty covers manufacturing defects and malfunctions under normal use. It does not cover damage caused by misuse, accident, unauthorized modification, or improper battery installation.

10. Support and Contact

For technical support, warranty claims, or further inquiries regarding your HABOTEST HT103, please contact your retailer or the manufacturer directly.

Manufacturer: Shenzhen Habotest Instrument Technology Company Limited
Importer (India): MDS Automech Solutions
Address: Q-106, Phase 3, Shivalik Nagar, BHEL, Haridwar, Uttarakhand-249403
Contact: +91-9870694636
Email: mohit@mdsautomech.in

Related Documents - HT103

	[HABOTEST HT100P Non-Contact Voltage and Phase Tester - User Manual] Comprehensive user manual for the HABOTEST HT100P non-contact voltage and phase tester. Includes safety instructions, operation guide, device features, technical specifications, and maintenance information.
	[HABOTEST HT100P Bezkontaktný detektor napätia a fázy - Návod na obsluhu] Tento návod na obsluhu poskytuje pokyny a bezpečnostné usmernenia pre bezkontaktný detektor napätia a fázy HABOTEST HT100P. Zoznámte sa s jeho funkciami, prevádzkou a údržbou.
	[Návod k obsluze Habotest HT101 Bezkontaktní zkoušečka napětí a fáze] Uživatelský manuál pro bezkontaktní zkoušečku napětí a fáze Habotest HT101. Popisuje funkce, provoz, bezpečnostní pokyny a technické parametry přístroje.
	[Habotest Electrical Socket Tester User Manual] Comprehensive user manual for the Habotest Electrical Socket Tester, detailing operation, safety guidelines, technical specifications, and troubleshooting for socket and RCD/GFCI testing.
	[Habotest HT 106D: Návod k obsluze a specifikace elektrické zásuvky] Kompletní návod k použití testeru elektrických zásuvek Habotest HT 106D. Zjistěte informace o bezpečnosti, parametrech, funkcích a správné likvidaci.
	[Habotest HT5910 Loop and RCD Tester User Manual] Comprehensive user manual for the Habotest HT5910, a versatile loop and RCD tester. Learn about its features, safety instructions, operation, technical specifications, and maintenance.

说明书做货要求：

序号	项目	内容
1	尺寸	展开尺寸：210x148mm，折叠后尺寸：52.5x148mm
2	材质	80克书纸
3	颜色	黑色，双面印刷
4	外观要求	印刷完整清晰，版面整洁，无分层，残损，毛边等缺陷。
5	装订方式	折页
6	表面处理	/
7	其它	
版本		V02

DWN 设计	林枝	MODEL 机型： HT103	Part NO. 物料编号：X
CHK 审核		HABOTEST© 东莞市华博精测仪表科技有限公司	
APPRO. 批准			

此页不印刷，只供参考

[pdf] User Manual Instructions

HT103 V02 20230210 Admin HABOTEST HT103 user manual Untitled 27 mar 2024 — listed in the instruction Safety High sensitivity 12V~1KV Low 70V~1KV negative instructions of battery Warning To habotest emichos gr image data |||

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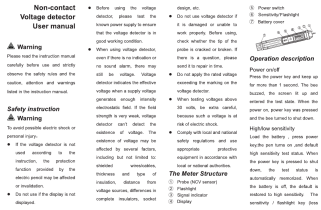

Non-contact Voltage detector User manual

Warning

Please read the instruction manual carefully before use and strictly observe the safety rules and the caution, attention and warnings listed in the instruction manual.

Safety instruction

Warning

To avoid possible electric shock or personal injury:

- If the voltage detector is not used according to the instruction, the protective function provided by the electric preoti may be affected or invalidation.
- Do not use if the display is not displayed.
- Before using the voltage detector, please test the known power supply to ensure that the voltage detector is in good working condition.
- When using voltage detector, even if there is no indication or no sound alarm, there may still be voltage. Voltage detector indicates the effective voltage when a supply voltage generates enough intensity electrostatic field. If the field strength is very weak, voltage detector can't detect the existence of voltage. The existence of voltage may be affected by several factors, including but not limited to: shielded wires/cables, thickness and type of insulation, distance from voltage sources, differences in complex insulators, socket design, etc.
- Do not use voltage detector if it is damaged or unable to work properly. Before using, check whether the tip of the probe is cracked or broken. If there is a question, please send it to repair in time.
- Do not apply the rated voltage exceeding the marking on the voltage detector.
- When testing voltages above 30 volts, be extra careful, because such a voltage is at risk of electric shock.
- Comply with local and national safety regulations and use appropriate protective equipment in accordance with local or national authorities.

The Meter Structure

① Probe (NCV sensor)
② Flashlight
③ Signal indicator
④ Display
⑤ Power switch
⑥ Sensitivity/Flashlight
⑦ Battery cover

Operation description

Power on/off

Press the power key and keep up for more than 1 second. The biez buzzed, the screen lit up and entered the test state. When the power on, power key was pressed and the bee turned to shut down.

High/low sensitivity

Load the battery , press power key,the zem turns on ,and default high sensitivity test status. When the power key is pressed to shut down, the test status is automatically reinitialized. When the battery is off, the default is restored to high sensitivity. The sensitivity / flashlight key (low

[pdf] User Manual

HT103 V02 20230210 Admin User manual HABOTEST HT103HABOTEST HT103 Voltage Tester 12 1000V Non Contact IP66 Waterproof Digital High Sensitivity AC Detector With Flashlight HT103Sb35a8e9fdda141faa17f1f33e88387a6Tae01 alicdn kf Sb35a8e9fdda141faa17f1f33e88387a6T |||

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