HABOTEST HT106B

HABOTEST HT106B Socket Tester User Manual

Model: HT106B

1. Introduction

The HABOTEST HT106B Socket Tester is a compact and portable device designed for quick and accurate detection of socket wiring status. It features RCD (Residual Current Device) or GFCI (Ground Fault Circuit Interrupter) testing capabilities and voltage measurement with an LCD display. This manual provides essential information for safe and effective use of the device in various settings, including schools, laboratories, and factories.

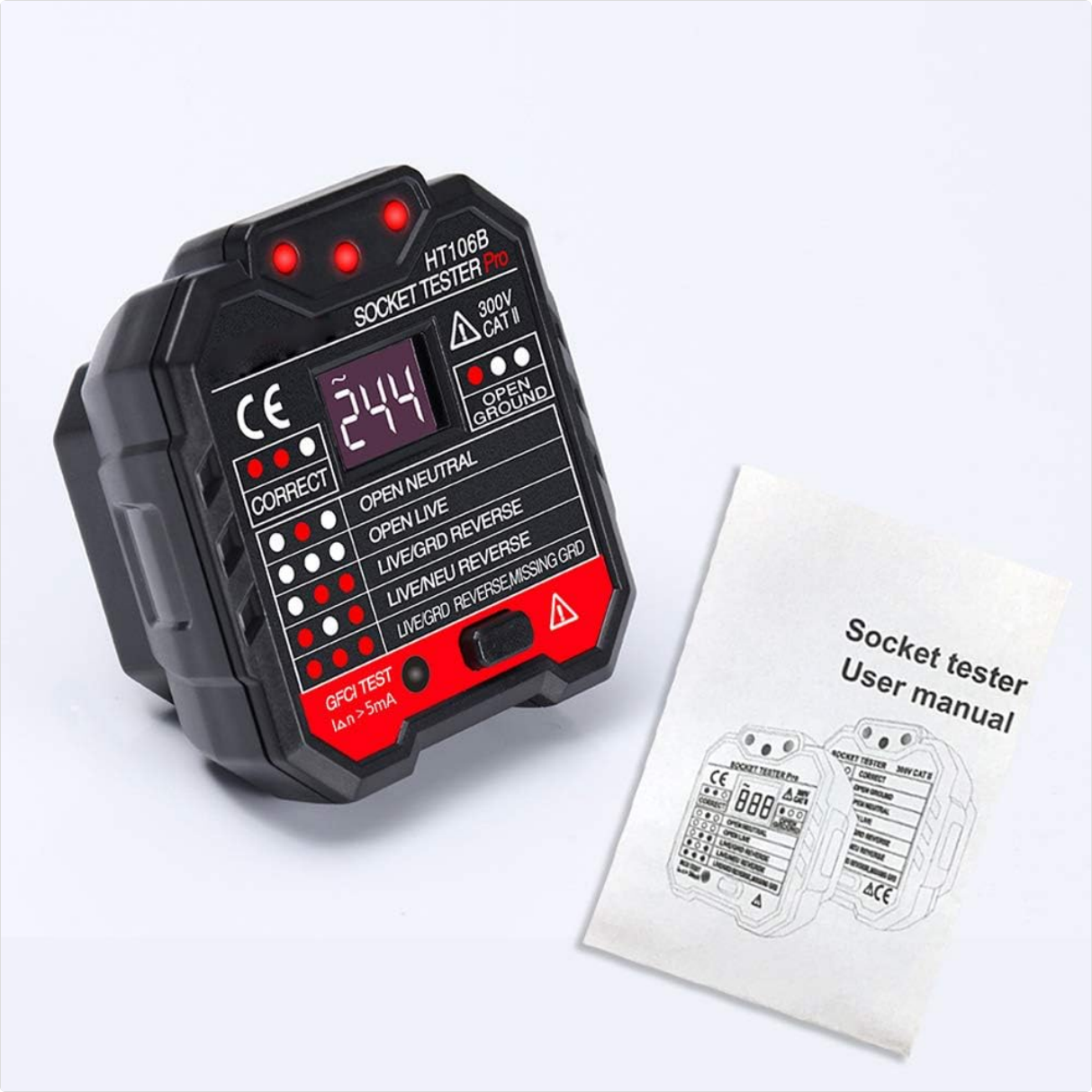

Image 1: HABOTEST HT106B Socket Tester alongside its user manual.

2. Safety Instructions

⚠ Warning:

- Always read this instruction manual carefully before use and strictly observe all safety rules, cautions, and warnings.
- To avoid possible electric shock or personal injury, always check the tester carefully for any damage before use. If any damage is found, discontinue use immediately and send it for repair.
- Ensure the RCD test is performed only under correct wiring conditions.
- When performing an RCD test, ensure all equipment on the power line is closed to prevent power failure or harm. Obtain permission if testing in public places.

3. Setup

The HT106B Socket Tester is designed for immediate use. Simply plug the device into a standard three-hole power outlet to begin testing.

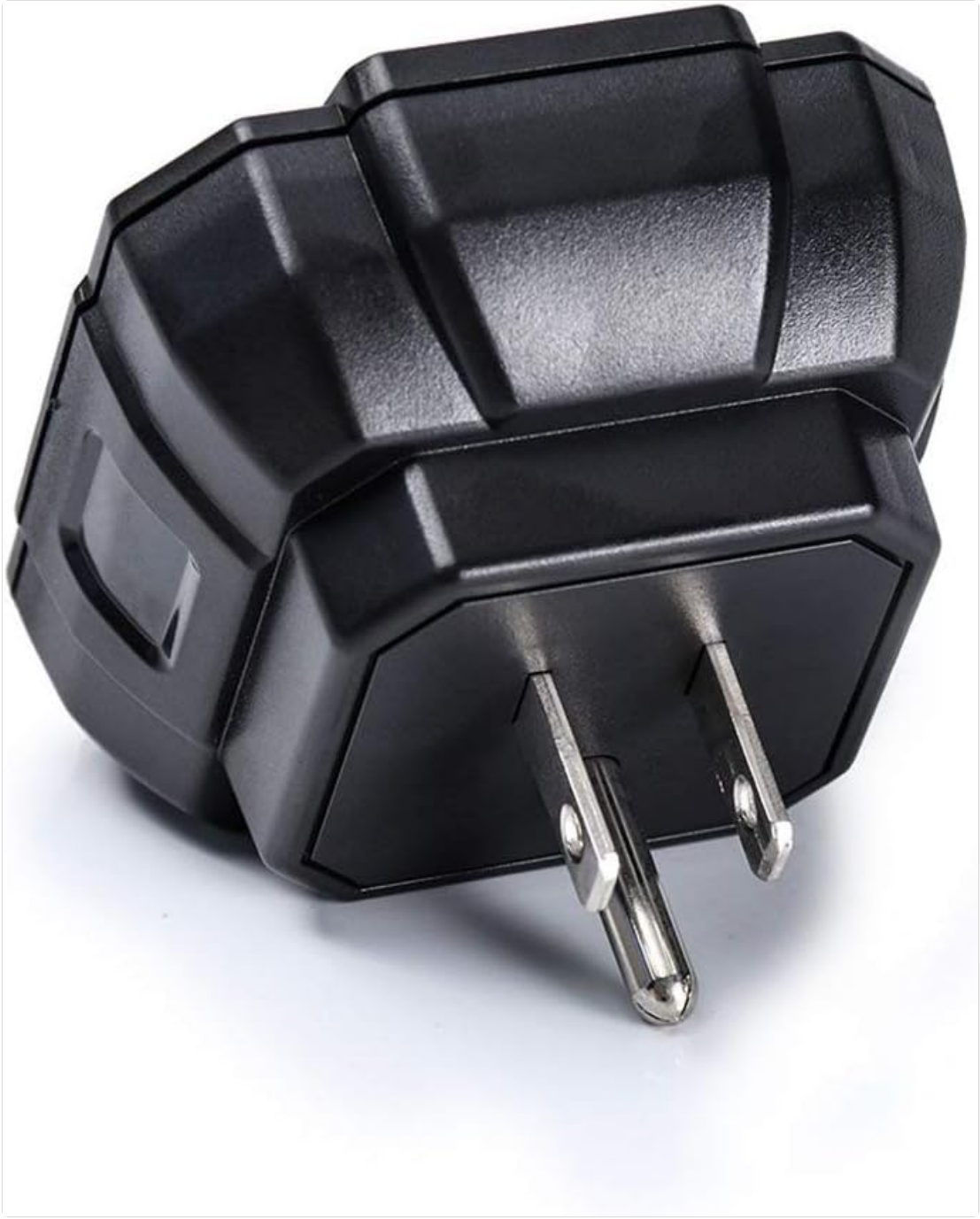

Image 2: Side view of the HT106B Socket Tester, showing the plug pins.

4. Operating Instructions

4.1. Voltage Test

Insert the tester into a standard three-hole power outlet. The socket voltage value will be displayed on the tester's LCD screen in Volts (V).

- The test duration should not exceed 5 minutes.
- Exercise caution to avoid touching the RCD button during voltage testing to prevent accidental tripping of the leakage protection switch.

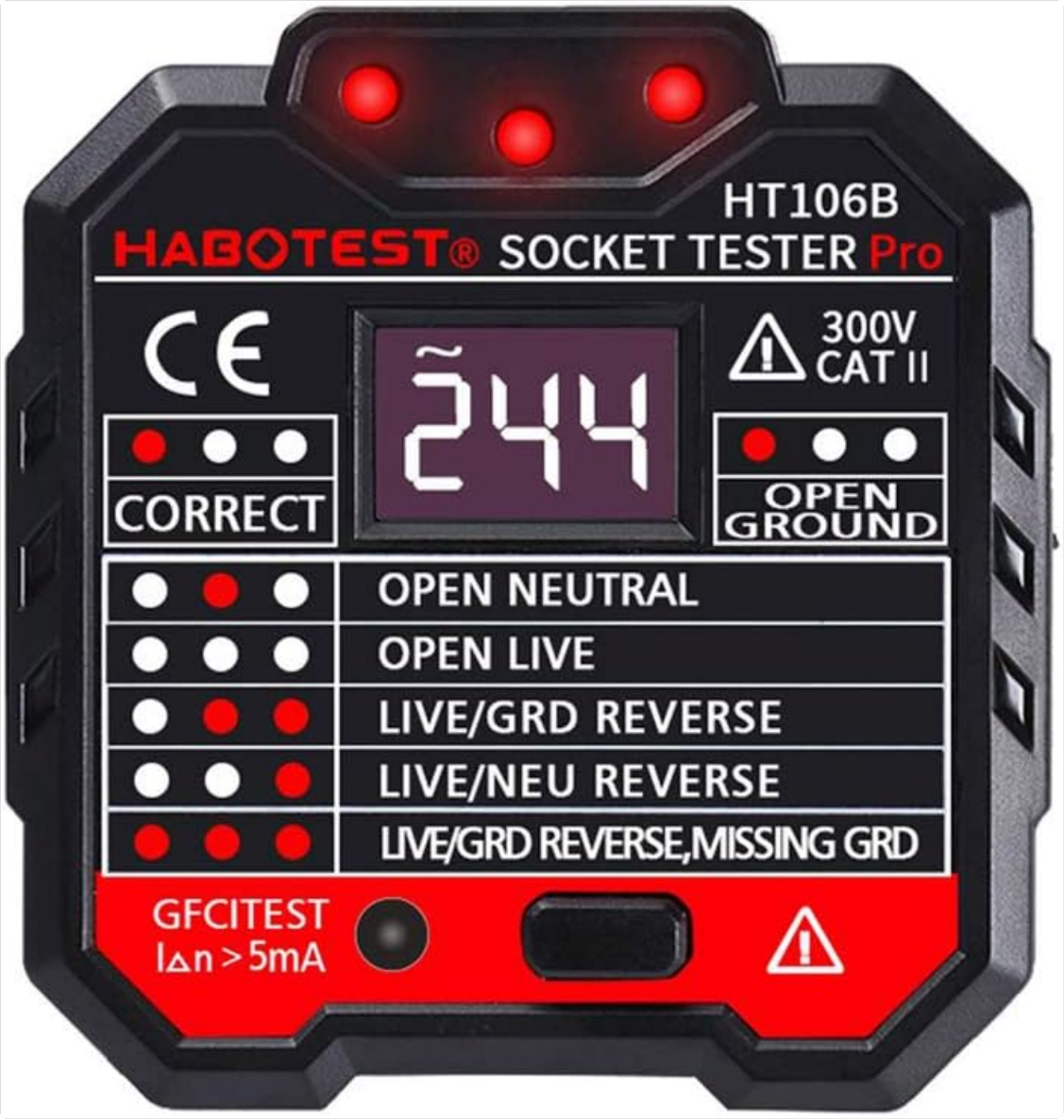

Image 3: Front view of the HT106B Socket Tester displaying a voltage reading on its LCD screen.

4.2. RCD (or GFCI) Test

Insert the tester into a correctly wired three-hole power socket. Press the RCD/GFCI test button for less than 3 seconds. A properly functioning RCD/GFCI should trip (turn off the power) at this time. If the RCD/GFCI does not trip, it indicates a failure and requires professional electrician maintenance.

- The test duration should not exceed 5 minutes.
- RCD and GFCI functions cannot be used simultaneously.

4.3. Wiring Status Detection

The HT106B Socket Tester uses a series of indicator lights to quickly identify the wiring status of the socket. Refer to the functional control table and indicator results below to interpret the findings.

then pull out the tester. When the wrong connection is detected, please find a professional electrician to repair the wiring.

Note:

1. **the test time is not more than 5 minutes**
2. **When using, please be careful not to touch the RCD button, so as not to trigger the leakage protection switch, causing unnecessary losses.**

Voltage test (with LCD)

Insert the tester into a standard three hole power outlet. Read the socket voltage value from the tester screen, the unit is V.

Note:

1. **the test time is not more than 5 minutes**
2. **When using, please be careful not to touch the RCD button, so as not to trigger the leakage protection switch, causing unnecessary losses.**

RCD (or GFCI) Test

Insert the tester into the correctly connected three hole power socket, press the button (less than 3 seconds), and the normal RCD will trip off at this time, if it does not trip off, it indicates that the RCD has failed. Please find professional electrician maintenance in time.

Functional control table

	Red	Red	Red
CORRECT	●	●	○
OPEN GROUND	●	○	○
OPEN NEUTRAL	○	●	○
OPEN LIVE	○	○	○
LIVE/GRD REVERSE	○	●	●
LIVE/NEU REVERSE	●	○	●
LIVE/ GRD REVERSE; missing GRD	●	●	●

Note:

1. **LIVE/GRD RESVERSE, missing GRD: It is the reverse connection between the live line and ground line, and the ground line is unconnected.**
2. **This tester cannot distinguish between neutral line and ground wire resverse.**

Clean

Clean with a wet cloth, Cleanliness or other chemicals are not available

Notes：After cleaning, the tester must be dried before it can be used.

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Image 4: Excerpt from the manual detailing RCD test instructions and the functional control table.

Socket tester User manual

Socket tester is mainly used for power socket wiring detection and RCD test. It can detect the wiring status of the socket quickly and accurately. With LCD, it can also measure the voltage of the socket and display it.

⚠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.

With LCD

Without LCD

Safety instruction

⚠Warning

To avoid possible electric shock or personal injury：

- Please check the tester carefully before using it and confirm if there is any damage. If there is any damage, please stop using it immediately and send it to repair.
- Check whether the tester is correct. Insert the tester into a known correct socket for testing and check that the test function is correct before using it.
- The RCD test must be properly operated under the correct wiring.
- When testing RCD, please close the equipment on the power line to ensure that power failure does not cause any harm. When testing in public places, it must be permitted to test.
- When using the tester to detect the wrong wiring of the socket, please find professional electrician maintenance wiring.

Technical specifications

- operating voltage：48~250V/45~65Hz
- Measure voltage (with LCD)：48~250V/45~65Hz
- accuracy：± (2.0%+2)
- operating temperature：0°C~40°C
- operating Humidity：20%~75%RH
- Storage temperature：-10°C~50°C
- Storage Humidity：20%~80%RH
- Altitude：•2000m
- RCD test：>30mA
- RCD working voltage：220V±20V
- GFCI test：>5mA
- GFCI working voltage：110V±20V

Note: RCD and GFCI functions do not coexist

Operation description

Socket tester

Insert the tester into the standard three hole power socket, then observe the indicator light and the function table, judge whether the socket connection is correct, and

Image 5: Chart illustrating the indicator light patterns and their corresponding wiring test results.

Functional Control Table & Indicator Results

Indicator Pattern	Wiring Status
Two red lights (top row)	**CORRECT**: Lines are connected normally.
Red light in the middle (top row)	**OPEN GROUND**: The ground line is missing.
Red light on the left (top row)	**OPEN NEUTRAL**: The neutral wire is missing.
No red light (top row)	**OPEN LIVE**: Lack of "fire line" (live wire).
Two red lights on the right (top row)	**LIVE/GRD REVERSE**: Live and ground wires are misconnected.
Red lights on the left and right (top row)	**LIVE/NEU REVERSE**: Wrong connection of live and neutral wires.
All three red lights (top row)	**LIVE/GRD REVERSE, MISSING GRD**: Faulty phase connection and missing ground.

Note: This tester cannot distinguish between neutral line and ground wire reverse.

5. Maintenance

Cleaning

Clean the tester with a soft, damp cloth. Do not use abrasive cleaners or other chemicals, as they may damage the device. Ensure the tester is completely dry before its next use.

6. Troubleshooting

- **RCD/GFCI does not trip during test:** This indicates that the RCD/GFCI has failed. Immediately contact a professional electrician for inspection and repair.
- **Wiring fault detected (e.g., Open Ground, Live/GRD Reverse):** If the tester indicates a wrong connection, consult a professional electrician to repair the wiring. Do not attempt to fix faulty wiring yourself unless you are qualified.

7. Specifications

Brand	HABOTEST
Model	HT106B
Operating Voltage	48 - 250V / 45 - 65Hz
Measuring Voltage	48 - 250V / 45 - 65Hz
Accuracy	(2.0% + 2)
Altitude	< 2000m
RCD Test Current	30mA

RCD Working Voltage	220V ± 20V
GFCI Test Current	> 5mA
GFCI Working Voltage	110V ± 20V
Operating Temperature	0°C - 40°C
Operating Humidity	20% - 75% RH
Storage Temperature	-10°C - 50°C
Storage Humidity	20% - 80% RH
Item Weight	59g
Item Size	58 x 64 x 60mm
Power Source	Corded Electric