

Testboy TV 456

Installation Tester TV 456 User Manual

Model: TV 456 | Brand: Testboy

1. INTRODUCTION

The Testboy TV 456 is a comprehensive installation tester designed for professional testing of electrical systems. It is capable of performing a wide range of measurements including loop resistance, mains internal resistance, short circuit current, low ohm and continuity, insulation, RCD/FI tests for various types (A, AC, B, B+, F), and RCD/FI for electric car charging stations (6mA DC). The device features a 3.5-inch TFT color display and supports standard-compliant test protocols via included software. Its robust design and intuitive interface make it an essential tool for electrical professionals.

2. SAFETY INFORMATION

Always observe the following safety precautions when operating the Testboy TV 456:

- Read and understand all instructions before use.
- Do not use the device if it appears damaged or is not functioning correctly.
- Ensure proper personal protective equipment (PPE) is worn, such as insulated gloves and safety glasses.
- Always disconnect power to the circuit before performing any tests that require it.
- Do not exceed the maximum input ratings of the device.
- Only qualified personnel should operate this equipment.
- Avoid contact with live circuits.

3. PRODUCT OVERVIEW

The Testboy TV 456 features a user-friendly layout with a clear display and tactile buttons for easy operation.



Figure 1: Front view of the Testboy TV 456 Installation Tester. The device features a central color display, navigation buttons on the left, function buttons (MEM, COM, HLP) on the top left, and a rotary selector switch on the right for selecting measurement modes (RPE, MΩ, LINE, LOOP, RCD, V). A large red "TEST" button is prominent on the left side.

3.1. Controls and Display

- **Display:** 3.5-inch TFT color display showing measurement results, settings, and menu navigation.
- **Navigation Buttons:** Up, Down, Left, Right arrows for menu navigation and value adjustment.
- **TEST Button:** Initiates a measurement or test sequence.
- **MEM Button:** Accesses memory functions to save or recall test results.
- **COM Button:** Communication interface for data transfer.
- **HLP Button:** Provides on-screen help or information.
- **Rotary Selector Switch:** Used to select different measurement functions such as RPE (Protective Earth Resistance), MΩ (Insulation Resistance), LINE (Line Voltage), LOOP (Loop Impedance), RCD (Residual Current Device), and V (Voltage).
- **Power Button:** Turns the device on or off.
- **Settings Button:** Accesses device settings and configurations.

4. SETUP

4.1. Initial Charging

Before first use, ensure the Testboy TV 456 is fully charged. Connect the provided charging column adapter to the device and a suitable power source. The battery indicator on the display will show the charging status.

4.2. Powering On/Off

Press and hold the **Power Button** (marked with a circle and vertical line) located on the top right of the device to turn it on or off. The display will illuminate upon successful power-on.

4.3. Language and Basic Settings

Upon first power-on, you may be prompted to select a language. Use the navigation buttons to select your preferred language and confirm. Further settings such as date, time, and display brightness can be adjusted via the **Settings Button** (marked with a gear icon).

5. OPERATING INSTRUCTIONS

The Testboy TV 456 offers various test options. Select the desired test mode using the rotary selector switch.

5.1. Loop Resistance Measurement

1. Turn the rotary selector switch to **LOOP**.
2. Connect the test leads to the circuit according to the on-screen diagram.
3. Press the **TEST** button to initiate the measurement.
4. The loop resistance value will be displayed.

5.2. Insulation Resistance Measurement

1. Turn the rotary selector switch to **MΩ**.
2. Ensure the circuit is de-energized and safely isolated.
3. Connect the test leads to the conductors to be tested.
4. Press the **TEST** button. The device will apply a test voltage and display the insulation resistance.

5.3. RCD/FI Testing

The device supports RCD/FI testing for types A, AC, B, B+, F, and 6mA DC for EV charging stations.

1. Turn the rotary selector switch to **RCD**.
2. Use the navigation buttons to select the RCD type (A, AC, B, B+, F, 6mA DC) and desired test current/multiplier (e.g., x1, x5).
3. Connect the test leads to the RCD circuit.
4. Press the **TEST** button. The device will perform the test and display the tripping time and current.

5.4. Data Logging and Software

The Testboy TV 456 allows for saving test results. Press the **MEM** button to access memory functions. Saved data can be transferred to a computer using the **COM** button and the provided software (Excel platform) for generating standard-compliant test protocols.

6. MAINTENANCE

6.1. Cleaning

Clean the device regularly with a soft, damp cloth. Do not use abrasive cleaners or solvents. Ensure the device is powered off and disconnected from any power source before cleaning.

6.2. Battery Care

To prolong battery life, avoid fully discharging the battery frequently. Store the device in a cool, dry place when not in use for extended periods. Recharge the battery periodically if stored for a long time.

6.3. Calibration

For accurate measurements, it is recommended to have the Testboy TV 456 calibrated by an authorized service center periodically, typically annually or as required by local regulations.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Low or depleted battery.	Charge the device using the provided adapter.
Inaccurate readings.	Dirty test leads or probes; device needs calibration.	Clean test leads; contact service center for calibration.
Display is blank or frozen.	Software error; extreme temperature.	Perform a hard reset (refer to specific reset procedure in full manual); move to a suitable operating temperature.
Cannot save test results.	Memory full; incorrect operation.	Delete old data from memory; refer to "Data Logging" section.

8. SPECIFICATIONS

- **Model:** Testboy TV 456
- **Display:** 3.5 inch TFT color display
- **Test Options:** Loop resistance, mains internal resistance, short circuit current, low ohm and continuity, insulation, RCD/FI (Types A, AC, B, B+, F), RCD/FI for EV charging stations (6mA DC), TRMS voltage, rotary field, frequency, grounding.
- **Measurements:** Up to 1000 measurements
- **Dimensions:** 10.04 x 3.74 x 5.31 inches (25.5 x 9.5 x 13.5 cm)
- **Weight:** 7.22 pounds (3.27 kg)
- **Manufacturer:** Testboy
- **Country of Origin:** Taiwan
- **First Available:** January 5, 2024

9. WARRANTY AND SUPPORT

9.1. Warranty Information

The Testboy TV 456 comes with a standard manufacturer's warranty. Please refer to the warranty card included with your product or visit the official Testboy website for detailed terms and conditions regarding warranty coverage and duration.

9.2. Technical Support

For technical assistance, troubleshooting beyond this manual, or service inquiries, please contact Testboy customer support. Contact information can typically be found on the manufacturer's official website or on the product packaging.



 Testboy® 15 Version 1.0	Testboy® 15: Bedienungsanleitung und Sicherheitshinweise Erfahren Sie mehr über das Testboy® 15 Magnetfeld-Messgerät. Diese Anleitung enthält wichtige Informationen zur Bedienung, Sicherheitshinweisen und technischen Daten des Geräts von Testboy GmbH.
 Testboy® 113 Version 1.0	Testboy 113: Bedienungsanleitung, Sicherheitshinweise und technische Daten Die offizielle Bedienungsanleitung für das Testboy 113 Messgerät. Erfahren Sie mehr über berührungslose Spannungsprüfung, Sicherheitshinweise, technische Daten und die fachgerechte Anwendung dieses elektrischen Prüfgeräts von Testboy GmbH.
 Testboy® 110 Version 1.0	Testboy® 110: Bedienungsanleitung für berührungslosen Spannungsprüfer Umfassende Bedienungsanleitung für den Testboy® 110, einen berührungslosen Spannungsprüfer. Enthält Sicherheitshinweise, Bedienung, technische Daten und Anwendungsrichtlinien.
 TESTBOY 40 SIMPLE Zweipoliger Spannungsprüfer	Testboy 40 Simple Two-Pole Voltage Tester - Specifications and Features Detailed information on the Testboy 40 Simple, a robust and user-friendly two-pole voltage tester with LED display, 12-690V AC/DC range, continuity testing up to 500 kΩ, and single-pole phase detection. Features CAT IV 300V / CAT III 600V rating and IP54 protection.
 Testboy® 15 Version 1.0	Testboy® 15: Präziser Magnetfelddetektor - Bedienungsanleitung Die Bedienungsanleitung für den Testboy® 15, ein präziser Magnetfelddetektor von Testboy GmbH. Erfahren Sie mehr über Funktionen, Sicherheitshinweise und technische Daten.
 Testboy® TV 297 Version 1.0	Testboy TV 297: Bedienungsanleitung und technische Daten Diese umfassende Bedienungsanleitung für das Testboy TV 297 Thermalkamera-Modul deckt App-Installation, Gerätebedienung, Sicherheitshinweise und detaillierte technische Spezifikationen ab. Erfahren Sie, wie Sie genaue Temperaturmessungen durchführen und thermische Daten effektiv verwalten.

