

VEHLIVE BT910

VEHLIVE BT910 Car Battery Tester User Manual

Model: BT910

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1. INTRODUCTION

The VEHLIVE BT910 Car Battery Tester is a multi-functional diagnostic tool designed for testing 6V and 12V batteries, including lithium, regular liquid-filled, AGM flat, AGM wound, GEL, and EFB types. It provides comprehensive analysis of battery health, charging systems, and cranking systems for various vehicles such as automobiles, boats, SUVs, ATVs, motorcycles, and light trucks. This manual provides detailed instructions for the proper use and maintenance of your BT910 tester.

6V & 12V Multi-Functional Battery Analyzer



Figure 1: VEHLIVE BT910 Multi-Functional Battery Analyzer showing its display and various test functions.

2. SETUP AND INITIAL USE

2.1 Package Contents

Verify that all items are present in the package:

- VEHLIVE BT910 Car Battery Tester unit
- Diagnostic cable with high-quality clips
- User Manual (this document)

PRODUCT PACKAGING



Figure 2: The VEHLIVE BT910 Car Battery Tester and its packaging, including the user manual and diagnostic cables.

2.2 Connecting the Tester

The BT910 tester is designed for plug-and-play operation. It draws power directly from the battery being tested. Ensure a secure connection for accurate results.

1. Ensure the vehicle's ignition is off.
2. Connect the **red** positive (+) clamp to the positive terminal of the battery.
3. Connect the **black** negative (-) clamp to the negative terminal of the battery.
4. The tester will power on automatically once connected correctly.

The device features reverse polarity, short-circuit, over-current, and over-voltage protection for user and battery safety.



Figure 3: The BT910 tester highlighting its multiple protection features, including reverse polarity and short circuit protection.

2.3 Lithium Battery Detection System Upgrade

For lithium battery testing functionality, an upgrade is required. This is a free and straightforward process.

1. Visit the official VEHLIVE website: www.vehlive.com.
2. Locate and download the upgrade package for the BT910 model.
3. Follow the provided upgrade guide video on the website to update your device.

This upgrade enables the BT910 to accurately test lithium batteries in addition to other battery types.

3. OPERATION

The BT910 features a 2.8-inch high-contrast color LCD screen and intuitive button navigation for ease of use. It supports 12 language options.



Figure 4: The BT910 display showing various supported languages and vehicle types for testing.

3.1 Main Menu Navigation

Use the directional buttons and the "OK" button to navigate through the menu options on the display. The main menu typically includes options for different tests (Car, Motorcycle, etc.) and settings.

3.2 Battery Test

This function provides a comprehensive analysis of the battery's health. The BT910 can test all 6V and 12V batteries with a CCA range of 5-3000, including:

- Lithium Battery (after upgrade)
- Regular Liquid-filled Batteries (VRLA/Flooded)
- AGM Flat Plate Batteries
- AGM Wound Batteries (Spiral)
- GEL Batteries
- EFB Batteries

The test results include:

- **SOH** (State of Health)
- **SOC** (State of Charge)
- **CCA Value** (Cold Cranking Amps)
- **CCA Rating**
- **Voltage**
- **Internal Resistance**



Figure 5: The BT910 tester demonstrating its compatibility with various 6V and 12V battery types, including GEL, AGM, SLA, EFB, Lithium, and VRLA.

BATTERY TEST

Real Time Waveform Analysis And Dataplayback For Car & Motorcycle



Figure 6: The BT910 screen showing detailed battery test results, including SOH, internal resistance, CCA, and voltage, alongside a real-time voltage waveform analysis.

3.3 Cranking System Test

This test analyzes the vehicle's starting system by measuring the actual starting voltage and starting time. It helps diagnose the performance of the battery during engine start-up and the overall health of the starter motor.

CRANKING TEST

- Analyze the actual starting voltage and starting time of the vehicle
- Diagnose the performance of the battery and the health status of the startup system



Figure 7: A mechanic using the BT910 to perform a cranking test on a vehicle battery, analyzing starting voltage and time.

3.4 Charging System Analysis

The BT910 can also be used to test the charging system, specifically the alternator's performance. It detects changes in battery voltage under load and no-load conditions to assess the alternator's charging capabilities.



Figure 8: The BT910 display showing results from a charging system analysis, indicating load, no-load voltage, and ripple.

3.5 Waveform Analysis Function

The unique waveform analysis function allows real-time tracking of voltage changes. This feature helps identify intermittent battery problems or issues within the electrical system. Continuous voltage monitoring results can be uploaded to a computer for further analysis by professional repair shops.

Your browser does not support the video tag.

Video 1: Demonstration of the VEHLIVE BT910's waveform analysis function, showing real-time voltage changes.

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Video 2: Overview of the VEHLIVE BT910's various testing capabilities and features.

4. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your VEHLIVE BT910 Car Battery Tester.

- **Cleaning:** Wipe the device with a soft, dry cloth. Avoid using abrasive cleaners or solvents.

- **Storage:** Store the tester in a dry, cool place away from direct sunlight and extreme temperatures.
- **Cable Care:** Inspect the diagnostic cables and clamps regularly for any signs of wear or damage. Replace if necessary to ensure safe and accurate operation.
- **Software Updates:** Periodically check the official VEHLIVE website (www.vehlive.com) for any available software updates to ensure optimal performance and compatibility with new battery technologies.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your BT910 tester.

- **Tester does not power on:**
 - Ensure the positive and negative clamps are securely connected to the correct battery terminals.
 - Verify the battery has sufficient charge to power the device. If the battery is completely dead, the tester may not power on.
- **Inaccurate readings:**
 - Check for clean and tight connections between the clamps and battery terminals. Corrosion or loose connections can affect accuracy.
 - Ensure the battery type selected on the tester matches the battery being tested.
 - If testing a lithium battery, confirm that the lithium battery detection system upgrade has been performed.
- **Display issues:**
 - If the screen is unreadable, ensure the device is not exposed to extreme temperatures.
 - Restart the device by disconnecting and reconnecting the clamps.
- **Error messages:**
 - Refer to the on-screen error code or message for specific guidance. If the issue persists, contact customer support.

6. SPECIFICATIONS

Feature	Detail
Model Number	BT910
Supported Battery Voltage	6V, 12V
CCA Testing Range	5-3000 CCA
Supported Battery Types	Lithium, Regular Flooded, AGM Flat, AGM Wound, GEL, EFB
Measurement Accuracy	+/-0.5%
Display	2.8-inch High-Contrast Color LCD
Power Source	Corded Electric (powered by battery under test or USB-C)

Feature	Detail
Item Weight	350 g
Parcel Dimensions	20.7 x 13.3 x 4.6 cm
Safety Features	Reverse Polarity, Short-Circuit, Over-Current, Over-Voltage Protection, Reinforced ABS Case
Supported Standards	CCA, IEC, EN, DIN, CA, BCI, MCA, SAE, JIS
Supported Languages	12 options (e.g., English, Chinese, Japanese, Korean, Italian, Dutch, German, Russian, Portuguese, Spanish, French, Polish)

7. WARRANTY AND SUPPORT

7.1 Warranty Information

The VEHLIVE BT910 Car Battery Tester comes with a **1-Year Repair Warranty** from the date of purchase. This warranty covers manufacturing defects and malfunctions under normal use. Please retain your proof of purchase for warranty claims.

Additionally, VEHLIVE offers a **30-Day Free Returns** policy for eligible purchases.

7.2 Customer Support

For technical assistance, troubleshooting, or warranty inquiries, please contact our professional client support team. We are available 24/7 to assist you.

- **Website:** www.vehlive.com
- **Email:** (Please refer to the official website for the most current contact email)
- **Phone:** (Please refer to the official website for the most current contact number)

When contacting support, please have your product model (BT910) and purchase details ready.