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KAIWEETS KVB02

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Model: KVB02

1. INTRODUCTION

Thank you for choosing the KAIWEETS KVB02 Car Battery Tester. This device is a professional automotive diagnostic tool designed to accurately assess the health of 12V and 24V vehicle batteries. It supports a wide range of battery types and provides essential information for effective battery maintenance.

The KVB02 tester works with all 12V and 24V batteries with a Cold Cranking Amp (CCA) rating from 50 to 2000. Compatible battery types include Standard (Flooded) Battery, EFB, AGM, and GEL. It is suitable for various vehicles such as cars, motorcycles, trucks, RVs, ATVs, SUVs, boats, yachts, lawn mowers, and golf carts.

The package includes: 1 × Car Battery Tester and 1 × User Manual.

2. PRODUCT OVERVIEW

The KAIWEETS KVB02 features a user-friendly design with a 2.68-inch color display for clear readability in various lighting conditions. Its robust construction ensures durability for long-lasting use.

CAR BATTERY TESTER



12V/24V DC
Maximum detectable 48V

SOH

State of
Health

SOC

State of
Charge

CCA

50-1999
CCA

VOLT

Voltage
Test

I.R

Internal
Resistance Test

Figure 2.1: KAIWEETS KVB02 Car Battery Tester connected to a vehicle battery.

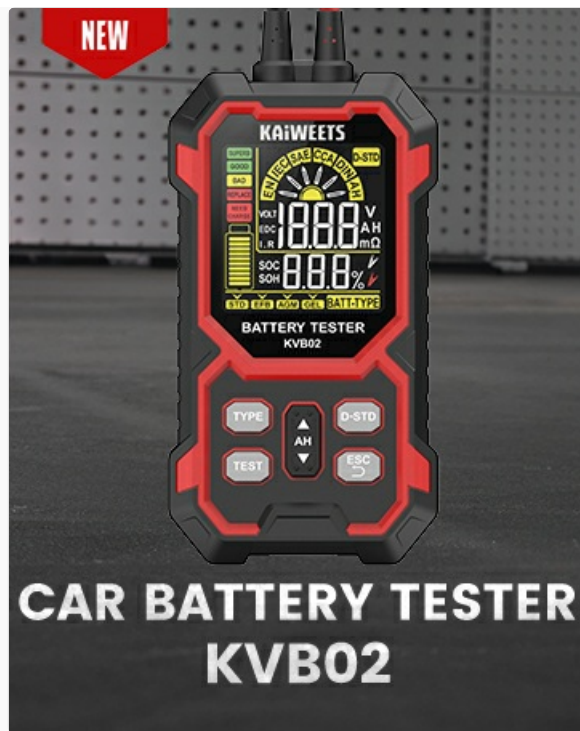


Figure 2.2: Detailed view of the KVB02 tester's interface.

UNIVERSAL COMPATIBILITY



Car



ATV



Motorcycle



Boat



Truck



Golf-Cart

FLA

EFB

AGM

GEL



Figure 2.3: Universal compatibility with different battery types.

2.68 IN LCD SUNLIGHT-PROOF HD COLOR DISPLAY



Figure 2.4: The 2.68-inch color display offers clear visibility even in direct sunlight.

Video 2.1: Official product video demonstrating the KAIWEETS KVB02 Car Battery Tester in use.

3. SAFETY PRECAUTIONS

- The product does not include a battery. If the test lead or battery is not connected correctly, the device will not turn on.
- **Avoid Short Circuits:** Ensure that the tester is in good contact with the battery during tests to prevent short

circuits, equipment damage, or battery overheating.

- **Environmental Conditions:** Use this tester in a dry, well-ventilated area. To avoid equipment damage or inaccurate measurements, do not use it in humid or extreme-temperature conditions.
- **Avoid High Voltage:** Handle high-voltage batteries with care, and ensure that the tester's specifications are compatible with the type and voltage range of the battery being tested.
- **Storage Conditions:** Store the tester in a dry, cool area when not in use. This helps prevent damage from moisture or high temperatures.
- Turn off the main power of the device before testing, and remove any keys or switches.
- Do not use the tester on batteries exceeding 48V. Testing batteries over 48V may damage the tester or cause personal injury.

MULTIPLE PROTECTIONS



- **Reverse Polarity Protection**
- **Over Temperature Protection**
- **Short Circuit Protection**
- **Over Current Protection**

Figure 3.1: KVB02 features multiple built-in safety protections.

4. SETUP

Before use, ensure that any dirt or foreign substances on the positive and negative terminals of the battery are thoroughly cleaned to avoid affecting measurement accuracy. For optimal accuracy, fully charge the battery and allow it to rest for two hours before testing.

The battery tester can only be activated when voltage is above 6.5V and the positive and negative terminals are correctly connected. If the tester does not respond after these steps, consider recharging the battery or cleaning the

terminals.

1. **Connect the Alligator Clips:** Connect the red alligator clip to the positive (+) terminal of the battery and the black alligator clip to the negative (-) terminal. The tester will automatically power on.
2. **Select Battery Type:** Press the 'TYPE' button to select the correct battery type (STD, EFB, AGM, GEL) that matches your vehicle's battery.
3. **Select Test Standard:** Press the 'D-STD' button to select the appropriate test standard (EN, IEC, SAE, CCA, DIN, AH).
4. **Enter CCA Value:** Use the up/down arrow buttons to enter the Cold Cranking Amp (CCA) value corresponding to your battery. This value is usually found on the battery label.

STURDY CLAMPS AND WIRES



Figure 4.1: Sturdy Kelvin 4-wire clamps ensure precise readings.

SIMPLE OPERATION

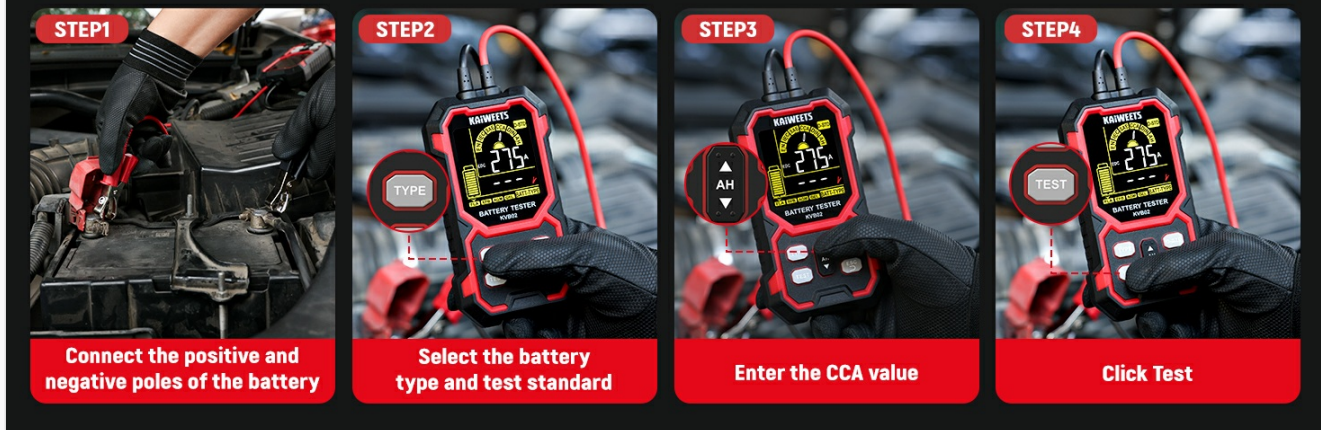


Figure 4.2: Simple plug-and-play operation for quick setup.

5. OPERATING INSTRUCTIONS

Once the setup is complete, you can proceed with testing your battery.

1. **Start Test:** Press the 'TEST' button to initiate the battery test.
 2. **View Results:** Wait for 2 seconds. After this, the measurement result will display the battery voltage, resistance (I.R), State of Charge (SOC), and State of Health (SOH).
 3. **Interpret SOH:** The State of Health (SOH) indicates the battery's overall condition.
 - SOH > 80%: **SUPERB**
 - SOH 60%–79%: **GOOD**
 - SOH 45%–59%: **BAD**
 - SOH < 44%: **REPLACE** (Replace battery as soon as possible)
- **Interpret SOC:** The State of Charge (SOC) indicates the current charge level of the battery. If the current charge is too low, the tester will indicate 'NEED CHARGE'.
 - **Return to Previous Step:** Press the 'ESC' button to go back to the previous menu or measurement.

BATTERY HEALTH DIAGNOSIS IN SECONDS



Figure 5.1: Battery health diagnosis (SOH) in seconds.



Figure 5.2: State of Charge (SOC) test indicating if charging is needed.

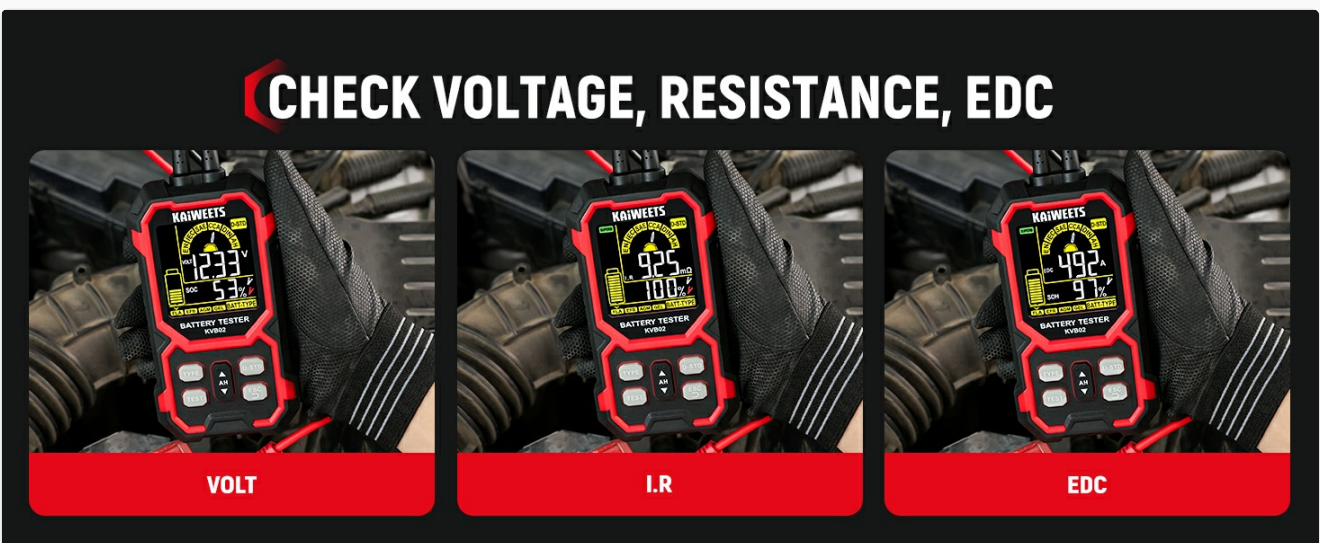


Figure 5.3: Displaying Voltage, Internal Resistance (I.R), and EDC.

6. MAINTENANCE

- Keep the product clean, dry, and far away from oils or other corrosive substances.
- Keep the product out of children's reach.
- The product can only be repaired by trained professionals. Regularly inspect the equipment and cables, and ensure they are in good condition.
- Please do not operate the product in an overloaded state, or use incompatible accessories.
- Do not use the tester on batteries exceeding 48V.

7. TROUBLESHOOTING

- **Cannot Turn On:** Ensure the alligator clips are properly connected to the positive and negative poles and check that the clips and terminals are intact.
- **Display Error:** Ensure that the equipment is connected correctly, clean the display screen, and restart the equipment.
- **Inaccurate Measurement:** Check whether the clip is in good contact and recalibrate the equipment again.

8. SPECIFICATIONS

Feature	Specification
Brand	KAIWEETS
Model	KVB02
Power Source	Vehicle Battery
Style	Car Battery Tester
Color	Black/Red
Item Dimensions (L x W x H)	5.51 x 2.6 x 1.18 inches
Minimum Operating Voltage	12 Volts
Maximum Operating Voltage	36 Volts
Measurement Type	Voltmeter
Measurement Range	12V/24V
Accuracy	±1%
Display Type	LCD screen
Operating Temperature	-10°C–50°C
Weight	0.7416 lb (335 g)
Specification Met	CE, ETL, IP 67, NIST

9. WARRANTY AND SUPPORT

KAIWEETS provides a **3-year warranty** for the KVB02 Car Battery Tester. For any questions, technical assistance, or support, please feel free to contact KAIWEETS customer service.

Contact Us: support@kaiweets.com