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› KINGBOLEN BM580 6V 12V Car Battery Tester User Manual

KINGBOLEN KBL580

KINGBOLEN BM580 6V 12V Car Battery Tester User Manual

Model: KBL580

Brand: KINGBOLEN

INTRODUCTION

The KINGBOLEN BM580 is a professional automotive battery analyzer designed to test 6V and 12V batteries, as well as the cranking and charging systems of various vehicles. It provides accurate and quick results for battery health, starting ability, and charging system performance. This manual will guide you through the setup, operation, maintenance, and troubleshooting of your BM580 battery tester.

SAFETY INFORMATION

Please read all safety warnings and instructions before using this product to prevent personal injury or damage to the device or vehicle.

- Always wear eye protection and protective clothing when working with batteries.
- Ensure good ventilation when testing batteries, as they can produce explosive gases.
- Do not smoke or allow sparks or open flames near the battery.
- Avoid contact with battery acid. If contact occurs, flush the affected area with water immediately and seek medical attention.
- Connect the clamps correctly: Red to the positive (+) terminal and Black to the negative (-) terminal. The device features intelligent polarity protection to prevent damage from incorrect connections.

PRODUCT COMPONENTS

The KINGBOLEN BM580 package typically includes the following items:

- KINGBOLEN BM580 Battery Tester Unit with integrated test leads
- User Manual (this document)

A Must Tool for Pros & Individual

Test a variety of gasoline or diesel type **6V/12V** lead-acid batteries, the battery capacity range of **2AH-200AH**, including cars, motorcycles, ships and atv.



Image showing the BM580 battery tester unit, its user manual, and the product packaging.

SETUP

Follow these steps for the initial setup of your BM580 battery tester:

1. **Connecting the Tester:** Connect the red clamp to the positive (+) terminal of the battery and the black clamp to the negative (-) terminal. The device will power on automatically.

Intelligently identify battery positive and negative poles

The battery tester can quickly identify the two poles of the copper clamp connection and work normally, without worrying about the battery tester being damaged due to the wrong copper clamp connection.



The BM580 features intelligent identification of positive and negative poles, allowing for correct operation even if clamps are initially reversed.

2. **Language Selection:** If prompted, select your preferred language from the available options.
3. **System Settings:** Navigate to the "Setup" menu to adjust settings such as backlight brightness, sound alerts, and unit of measurement (e.g., Celsius/Fahrenheit) if desired.

OPERATING INSTRUCTIONS

The KINGBOLEN BM580 offers multiple testing modes to comprehensively assess your battery and vehicle's electrical system. Use the navigation buttons (Up, Down, Left, Right, OK) to move through the menus.

Multi-Functional Analyser



Overview of the multi-functional analysis capabilities of the BM580, including battery health, cranking, charging, and ripple tests.

1. Battery Test

This test assesses the overall health of the battery, including its State of Health (SOH) and State of Charge (SOC).

1. From the main menu, select "Check" or "Battery Test".
2. Choose the battery type (e.g., Regular Flooded, AGM Flat Plate, AGM Spiral, GEL, EFB).
3. Enter the Cold Cranking Amps (CCA) rating of your battery. This information is usually found on the battery label.
4. The tester will display the battery's SOH, SOC, internal resistance, and voltage.

6V/12V BATTERY TESTER 100-2000 CCA

- Regular-flooded
- AGM Flat Plate
- AGM Spiral
- GEL
- EFB



The BM580 supports testing of various 6V and 12V battery types, including regular flooded, AGM, GEL, and EFB.

This video provides a detailed guide on operating the BM580 car battery tester, covering various test procedures.

2. Cranking Test

This test evaluates the vehicle's starting system, including the starter motor.

1. Select "Cranking Test" from the menu.
2. Follow the on-screen prompts to start the vehicle.
3. The tester will analyze the cranking voltage and time, providing results on the starter's performance.

CRANKING TEST

Analyze the actual cranking voltage and the cranking time to help you quickly figure out the whole state of the starting system.



The cranking test analyzes the actual cranking voltage and time to assess the state of the starting system.

3. Charging Test

This test checks the vehicle's charging system, including the alternator, rectifier, and voltage regulator.

1. Select "Charging Test" from the menu.
2. Follow the on-screen prompts, which may include revving the engine.
3. The tester will display the charging voltage, ripple voltage, and overall charging system status.

CHARGING TEST

Test different parts of charging system, including alternator, starter, generator, rectifier diode and so on for a reliable charging volt value.



The charging test evaluates components like the alternator and rectifier diode for reliable charging voltage.

4. Load Test

This function checks the battery's ability to maintain voltage under a simulated load.

1. Select "Load Test" from the menu.
2. Follow the instructions to apply a load (e.g., turn on headlights, fan).
3. The tester will measure the voltage drop under load.

5. Multimeter Function

The BM580 can also function as a basic multimeter to display real-time battery voltage.

1. Select "Multimeter" from the main menu.
2. The screen will show the current voltage reading.

6. Ripple Test

The ripple test measures the AC ripple voltage from the alternator, indicating the efficiency of the rectifier.

1. Select "Ripple Test" from the menu.
2. The device will display a waveform and voltage readings. A smaller waveform indicates more stable voltage.

This video showcases the comprehensive features of the KINGBOLEN BM580, including its ability to perform ripple tests and other diagnostic functions.

MAINTENANCE

Proper care and maintenance will ensure the longevity and accuracy of your BM580 battery tester.

- Keep the device clean and dry. Wipe with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- Store the tester in a cool, dry place away from direct sunlight, excessive dust, and extreme temperatures.
- Do not expose the device to corrosive liquids or strong impacts.
- Regularly check the test leads and clamps for any signs of damage, such as frayed wires or corroded clamps. Replace if necessary.

TROUBLESHOOTING

If you encounter issues with your KINGBOLEN BM580, refer to the table below for common problems and their solutions.

Problem	Possible Cause	Solution
No Power	Incorrect connection; Battery voltage too low	Ensure clamps are securely connected to the correct battery terminals. Charge the battery if its voltage is below 6V, as the tester draws power from the battery.
"Clips Error!!!" message	Poor connection; Reversed polarity	Re-attach clamps firmly to ensure good contact. While the device is designed to prevent damage from reversed polarity, correct connection is needed for accurate testing.
Inaccurate Readings	Incorrect battery type/CCA entered; Loose connections; Battery not fully charged	Verify battery specifications and re-enter them accurately. Ensure all connections are tight. Ensure the battery is adequately charged for testing.

SPECIFICATIONS

Below are the technical specifications for the KINGBOLEN BM580 Battery Tester:

- **Model:** KBL580
- **Product Dimensions:** 5.67 x 3.08 x 0.79 inches; 9.59 ounces

- **Min. Operating Voltage:** 6 Volts
- **Test Range:** 6V & 12V batteries, 100-2000 CCA, 2AH-200AH
- **Battery Types Supported:** Regular flooded, AGM flat plate, AGM spiral, GEL, EFB
- **Display:** Digital
- **Power Source:** Battery Powered (from tested battery)

WARRANTY AND SUPPORT

For warranty claims, technical support, or further assistance, please refer to the official KINGBOLEN website or contact your authorized retailer. Keep your purchase receipt as proof of purchase.

A detailed user guide in PDF format is also available for download:

[Download User Guide \(PDF\)](#)

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