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KINGBOLEN BM580

KINGBOLEN BM580 6V/12V Car Battery Tester Instruction Manual

Model: BM580

1. PRODUCT OVERVIEW

The KINGBOLEN BM580 is a professional 6V/12V battery tester designed to accurately assess the health and performance of various vehicle batteries and their charging systems. It provides quick and precise test results for a wide range of battery types and applications.



Figure 1: KINGBOLEN BM580 Battery Tester showing main menu options for various tests.

Key Features:

- Supports 6V and 12V batteries, including Regular Flooded, AGM Flat Plate, AGM Spiral, GEL, and EFB types.
- Tests batteries with CCA ratings from 100 to 2000, and capacities from 2AH to 200AH.
- Performs four main test functions: Battery Health Test, Cranking Test, Charging System Test, and Load Test.
- Features a 2.4-inch color LCD screen for clear display of results.
- Intelligent polarity identification prevents damage from incorrect connections.
- Multilingual support for enhanced user experience.
- Capable of testing various vehicles including cars, motorcycles, ATVs, trucks, and boats.

Multi-Functional Analyser



Figure 2: The BM580 offers a comprehensive suite of diagnostic functions.

CRANKING TEST

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



Figure 3: The BM580 is suitable for testing 6V/12V batteries in a variety of vehicles.

2. SAFETY INFORMATION

Please read and understand all safety instructions before using the KINGBOLEN BM580 battery tester. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Eye Protection:** Always wear ANSI-approved eye protection when working near batteries.
- **Ventilation:** Ensure adequate ventilation when working with lead-acid batteries, as they can produce explosive gases.
- **Avoid Sparks:** Do not smoke or allow sparks or flames in the vicinity of the battery or engine.
- **Clean Terminals:** Ensure battery terminals are clean and free of corrosion before connecting the tester.
- **Proper Connection:** Connect the red clamp to the positive (+) terminal and the black clamp to the negative (-)

terminal. Although the BM580 features polarity reverse protection, correct connection is always recommended.

- **Insulation:** Do not touch uninsulated parts of the clamps or wires when the tester is connected to a battery.
- **Children and Pets:** Keep the device out of reach of children and pets.
- **Damaged Equipment:** Do not operate the tester if it has been dropped or damaged.

3. PACKAGE CONTENTS

The KINGBOLEN BM580 package typically includes the following items:

- KINGBOLEN BM580 Battery Tester Unit
- User Manual (this document)
- USB Cable (for data transfer and software updates)

4. SETUP AND CONNECTION

Follow these steps to properly connect the KINGBOLEN BM580 battery tester to your vehicle's battery.

1. Ensure the vehicle's ignition is off and all accessories are turned off.
2. Locate the vehicle's battery.
3. Connect the red positive (+) clamp of the tester to the positive (+) terminal of the battery.
4. Connect the black negative (-) clamp of the tester to the negative (-) terminal of the battery.
5. The tester will power on automatically once connected.

Polarity Reverse Protection

Both battery and instrument won't be damaged when polarity reverse connection

Simple and Safe Connection !



Figure 4: Proper connection of the BM580 to a vehicle battery. The device features polarity reverse protection.

The BM580 is designed with intelligent polarity identification, meaning it will function correctly even if the clamps are connected in reverse. This feature helps prevent damage to the tester and the battery.

5. OPERATING INSTRUCTIONS

The KINGBOLEN BM580 offers several testing functions accessible via its intuitive menu. Use the navigation buttons (Up, Down, Left, Right, OK, Return) to navigate through the menus.

5.1. Battery Test (Health 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 "Battery Test" or "Check".

2. Select the battery type (e.g., Regular Flooded, AGM Flat Plate, AGM Spiral, GEL, EFB).
3. Enter the battery's CCA (Cold Cranking Amps) rating as indicated on the battery label.
4. The tester will perform the analysis and display results such as voltage, measured CCA, SOH, and SOC.



Figure 5: The BM580 allows selection of various battery types for accurate testing.

5.2. Cranking Test (Starting System Test)

This test evaluates the vehicle's starting system, including the starter motor, by analyzing the cranking voltage and time.

1. From the main menu, select "Crank Test".
2. Follow the on-screen prompts to start the engine.
3. The tester will record and display the cranking voltage and cranking time, indicating the starter's performance.

A Must Tool for Pros & Individual

Test **6V/12V** lead-acid batteries of multi gasoline ordiesel types, including car, motorcycle, boat and atv.



ATV



Truck



Car



Motorcycle



Boat



Figure 6: The BM580 screen during a cranking test, prompting the user to start the engine.

5.3. Charging System Test (Alternator Test)

This test checks the vehicle's charging system, including the alternator, rectifier diode, and charging current, to ensure it's functioning correctly.

1. From the main menu, select "Charge Test".
2. Follow the on-screen instructions, which typically involve starting the engine and revving it to a specified RPM.
3. The tester will analyze the charging voltage and ripple, providing a diagnosis of the charging system's health.

CHARGING TEST

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



Figure 7: The BM580 showing ripple test results, part of the charging system analysis.

5.4. Load Test

This test determines if the battery has sufficient capacity to power all electrical equipment under load.

1. From the main menu, select "Load Test".
2. Follow the on-screen instructions, which may involve turning on specific vehicle accessories.
3. The tester will measure the battery's voltage under load and provide an assessment of its capacity.

5.5. Screenshot Function

The BM580 allows users to capture screenshots of test results for later review or printing.

- To take a screenshot, press and hold the "Return" button and simultaneously press the "Up" arrow button.
- Screenshots are saved internally and can be transferred to a computer via the USB cable.



Figure 8: Instructions for using the screenshot function on the BM580.

6. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your KINGBOLEN BM580 battery tester.

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the tester in a dry, cool place, away from direct sunlight and extreme temperatures.
- **Cable Care:** Inspect the test cables and clamps regularly for any signs of damage. Replace if necessary.
- **Software Updates:** The BM580 supports firmware updates via USB. Check the official KINGBOLEN website for the latest software versions and instructions.

7. TROUBLESHOOTING

If you encounter issues with your BM580, refer to the following common troubleshooting steps:

- **Device does not power on:**
 - Ensure the clamps are securely connected to the battery terminals.
 - Verify the battery has sufficient voltage (above 6V for 6V batteries, above 12V for 12V batteries) to power the device.
 - Check for any damage to the cables or clamps.
- **Inaccurate test results:**
 - Ensure battery terminals are clean and free of corrosion.
 - Verify the correct battery type and CCA rating have been entered into the tester.
 - Ensure all vehicle accessories are off during testing.
- **Screen frozen or unresponsive:**
 - Disconnect the tester from the battery, wait a few seconds, and reconnect it.
 - If the issue persists, contact customer support.

8. SPECIFICATIONS

Technical specifications for the KINGBOLEN BM580 battery tester.

Specification	Value
Model Number	KBL580
Voltage Type	6V/12V
Voltage Range	4.9V~20V
CCA Range	100-2000 CCA
AH Range	2AH~220AH
Temperature Range	-20°C~50°C
LCD Display	2.4 inch Color LCD
Battery Types Supported	Regular Flooded, AGM Flat Plate, AGM Spiral, GEL, EFB
Test Standards	CCA, IEC, EN, DIN, CA, BCI, MCA, SAE, GB, JIS
Power Source	Battery Powered (from tested battery)
Dimensions	17.3 x 8.8 x 5.4 cm
Weight	300 grams

Specification	Value
UPC	756029668614

		
	BM580	BM560
Voltage Type	6V/12V	6V/12V
Voltage Range	4.9~20V	4.9~20V
CCA Range	100-2000	100-2000
AH Range	2~220Ah	2~220Ah
Temperature Range	-20~50°C	-20~50°C
LCD Display	2.4 inch	1.8 inch
Battery Analyzer	😊	😊
Cranking Test	😊	😊
Charging Test	😊	😊
Load Test	😊	😊
Ripple Test	😊	😊
SOH / SOC	😊	😊
Voltage Records	😊	😊
Screen Capture	10	10
Battery Multimeter	😊	😞
Reverse Protection	😞	😞
Regardless Polarity Test	😊	😞
Language	English, Spanish, French, German, Italian, Polish, Portuguese, Russian, Japanese, Chinese, Traditional Chinese	
Battery Type	Regular flooded, AGM flat plate, AGM spiral, GEL, EFB batteries	
Test Standard	CCA, IEC, EN, DIN, CA, BCI, MCA, SAE, GB, JIS	


Figure 9: Detailed specifications comparison between BM580 and BM560 models.

9. WARRANTY AND SUPPORT

KINGBOLEN products are designed for reliability and performance. For warranty information, technical support, or service inquiries, please refer to the official KINGBOLEN website or contact their customer service department.

Please retain your purchase receipt as proof of purchase for warranty claims.

Related Documents - BM580

	<p>KINGBOLEN BM580 Professional Battery Diagnostic Device User Manual</p> <p>User manual for the KINGBOLEN BM580 Professional Battery Diagnostic Device, detailing its features, operation, technical specifications, and troubleshooting for 6V/12V batteries.</p>
	<p>User Manual: Professional Battery Diagnostic Equipment for 6V/12V Support Battery Detection</p> <p>This user manual provides instructions for the safe operation, maintenance, and testing procedures of the professional battery diagnostic equipment. It covers various battery tests including quick tests, accurate tests, charging system tests, starting system tests, and load tests, along with explanations of results and common troubleshooting.</p>
	<p>Kingbolen BM580 Professional Battery Diagnostic Device User Manual</p> <p>User manual for the Kingbolen BM580 Professional Battery Diagnostic Device, providing comprehensive instructions for operation, safety, and battery testing of 6V/12V systems.</p>
	<p>KINGBOLEN BM520 Professional Battery Diagnostic Device User Manual</p> <p>This comprehensive user manual provides detailed instructions for operating the KINGBOLEN BM520 Professional Battery Diagnostic Device. It covers safety precautions, device overview, technical specifications, various testing procedures (battery, charging system, starter system, load), waveform monitoring, record management, settings, frequently asked questions, battery specification tables, and analysis of car batteries. The device supports 6V, 12V, and 24V battery detection.</p>
	<p>KINGBOLEN S Smart Diagnostic Tool User Manual</p> <p>This user manual provides comprehensive instructions for operating the KINGBOLEN S Smart Diagnostic Tool, covering its features, package contents, compatibility, and step-by-step guides for various diagnostic functions.</p>
	<p>KINGBOLEN K10 Pro/Elite User Manual: Comprehensive Guide to Vehicle Diagnostics</p> <p>This comprehensive user manual provides detailed instructions and information for the KINGBOLEN K10 Pro and K10 Elite automotive diagnostic tools. It covers initial setup, features, advanced diagnostic functions, service procedures, and troubleshooting for professional vehicle maintenance and repair.</p>