

KINGBOLEN BM550 PLUS

KINGBOLEN BM550 PLUS Car Battery Tester User Manual

Model: BM550 PLUS (KBL551)

1. INTRODUCTION

This manual provides detailed instructions for the KINGBOLEN BM550 PLUS Car Battery Tester. This device is designed to accurately test 6V, 12V, and 24V automotive batteries, including regular flooded, AGM flat plate, AGM spiral, GEL, and EFB types. It offers comprehensive analysis of battery health (SOH), state of charge (SOC), internal resistance, voltage, and includes a real-time waveform monitoring function. The BM550 PLUS is suitable for a wide range of vehicles such as cars, trucks, motorcycles, ATVs, SUVs, and boats.

What's in the Box

- 1 x KINGBOLEN BM550 PLUS Car Battery Tester
- 1 x English Instruction Manual

2. SAFETY INFORMATION

Always wear eye protection and gloves when working with batteries. Ensure proper ventilation. Do not smoke or allow sparks or flames near batteries. The BM550 PLUS features reverse polarity protection; however, always connect the red clamp to the positive (+) terminal and the black clamp to the negative (-) terminal to prevent damage and ensure accurate readings. If the clamps are connected incorrectly, the device will not operate, protecting its internal circuits. If a clamp is not securely attached, the screen may flash.



Figure 2.1: Reverse Polarity Protection Diagram

This image illustrates the correct and incorrect ways to connect the battery clamps, highlighting the device's reverse polarity protection feature. Correct connection shows the red clamp on the positive terminal and the black clamp on the negative terminal, while incorrect connection shows them reversed, indicating the device will not function in this state.

3. PRODUCT FEATURES

- **Universal Compatibility:** Tests 6V, 12V, and 24V batteries, including regular flooded, AGM flat plate, AGM spiral, GEL, and EFB types. Supports 2Ah-220Ah capacity and 100-2000 CCA range.
- **Multi-functional Testing:** Provides quick and accurate data for State of Health (SOH), State of Charge (SOC), internal resistance, and voltage tests.
- **Real-time Voltage Waveform Monitoring:** Visualizes real-time voltage changes, displaying maximum, minimum, and current voltage values on a 1.8-inch color display for detailed analysis.
- **Reverse Polarity Protection:** Designed with safety in mind, the tester will not function if clamps are connected incorrectly, preventing internal circuit damage.
- **Plug and Play Operation:** Easy to use; simply connect the clamps to the battery. No internal batteries required as it draws power from the tested battery.
- **Wide Application:** Ideal for DIY enthusiasts, automotive factories, garages, and battery manufacturers for various vehicles.

Multiple Test Functions For Your Batteries



6V 12V 24V
Battery Tester



Startup Test



Charging Test



Load Test



Waveform Test



Voltage Test



Resistance
Test(R)



DIYE Enthusiasts



Auto Maintenance



Auto Repair Shops

Figure 3.1: Multiple Test Functions

This image displays the KINGBOLEN BM550 PLUS device and icons representing its various test functions, including battery voltage, startup, charging, load, waveform, voltage, and resistance tests. It also shows images of DIY enthusiasts, auto maintenance, and auto repair shops, indicating its broad applicability.

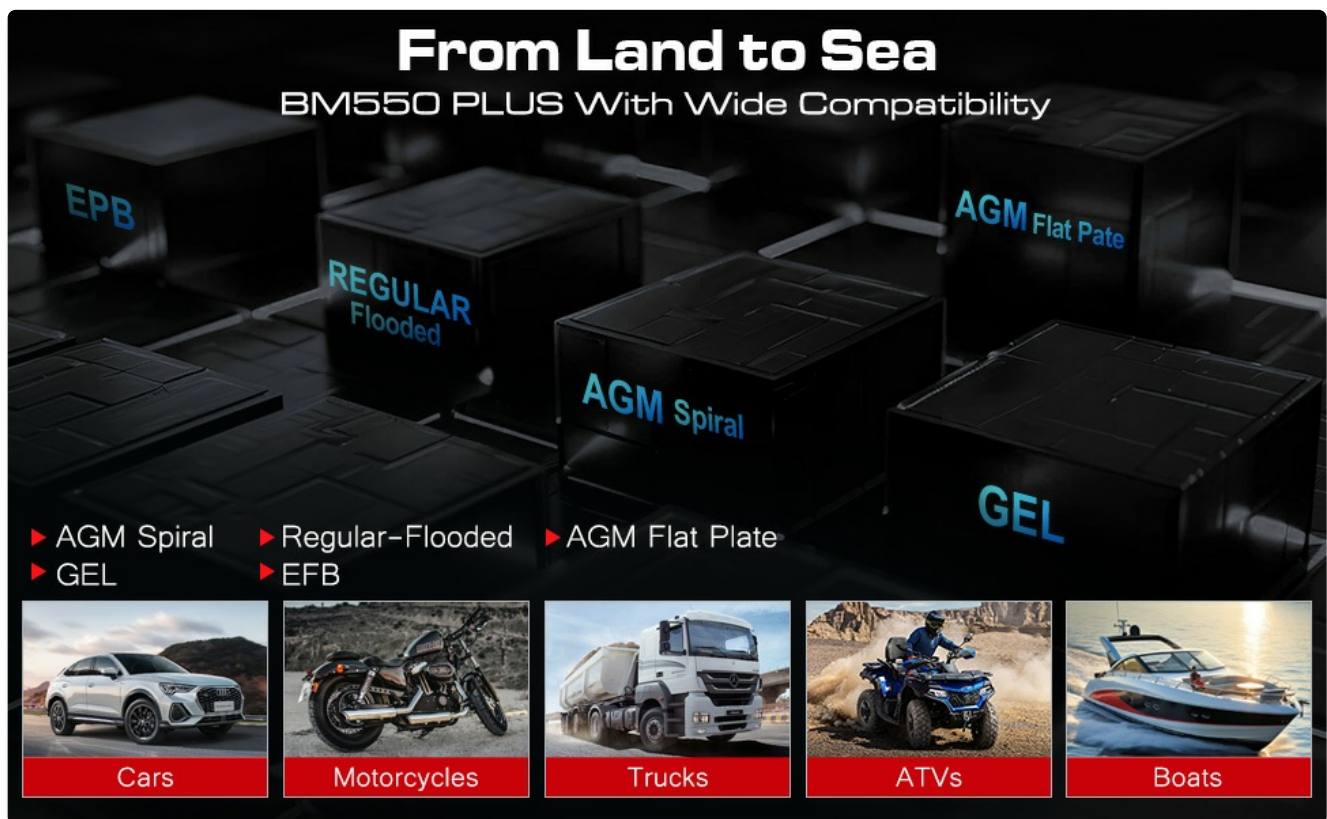


Figure 3.2: Wide Usage Range

This image illustrates the broad compatibility of the BM550 PLUS, showing it can be used with cars, motorcycles, trucks, ATVs, and boats, emphasizing its versatility for different vehicle types.

4. SETUP

To set up your KINGBOLEN BM550 PLUS battery tester:

1. Ensure the vehicle's ignition is off and all accessories are disconnected.
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 device will power on automatically. If the screen flashes, ensure the clamps are securely attached.
5. Select the appropriate battery type (e.g., Regular Flooded, AGM, GEL) and input the battery's CCA or AH value as prompted on the screen.



Figure 4.1: Setup and Connection Steps

This image provides a visual guide to the setup process, showing the connection of the tester to a battery, the screen for inputting CCA/AH values, and the final display of battery life data.

5. OPERATING INSTRUCTIONS

The BM550 PLUS offers various testing modes:

Battery Test

1. From the main menu, select 'BAT Test'.
2. Follow the on-screen prompts to confirm battery type and input CCA/AH values.
3. The tester will display results including SOH (State of Health), SOC (State of Charge), internal resistance (R), CCA value, and voltage (U).
4. Interpret results: 'Good' (battery is healthy), 'Normal' (battery can still be used but monitor closely), 'Poor' (battery needs replacement).

ACCURATE TEST AND DISPLAY CAR BATTERY STATUS

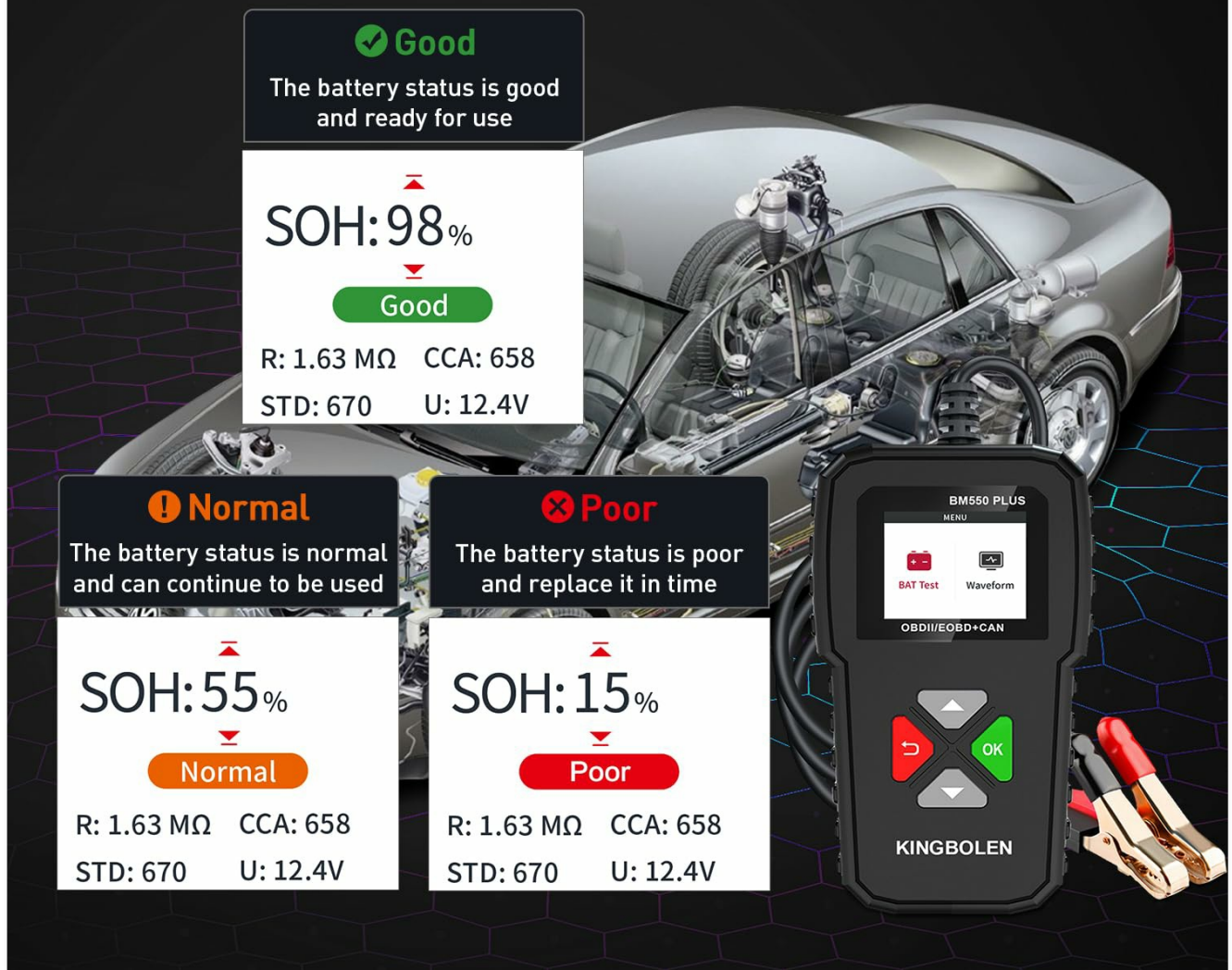


Figure 5.1: Battery Test Results Display

This image shows the BM550 PLUS screen displaying different battery status results: 'Good' with 98% SOH, 'Normal' with 55% SOH, and 'Poor' with 15% SOH, along with corresponding resistance, CCA, and voltage readings.

Waveform Monitoring

1. From the main menu, select 'Waveform'.
2. The screen will display a real-time graph of the battery's voltage over time.
3. Observe the voltage fluctuations to identify potential issues with the battery or charging system. The display shows minimum and maximum voltage values.

Fonction de test de forme d'onde

Surveillance et affichage en temps réel de la tension



Figure 5.2: Real-time Voltage Waveform Monitoring

This image shows the BM550 PLUS screen displaying a real-time voltage waveform graph, indicating voltage fluctuations over time, along with minimum and maximum voltage readings. It highlights the device's capability to monitor voltage dynamics.

6. MAINTENANCE

To ensure the longevity and accuracy of your BM550 PLUS:

- Keep the device clean and dry. Wipe with a soft, damp cloth if necessary.
- Store in a cool, dry place away from direct sunlight and extreme temperatures.
- Inspect the clamps and cables regularly for any signs of wear or damage. Replace if necessary.
- Do not attempt to open or repair the device yourself. Refer to qualified service personnel.

7. TROUBLESHOOTING

- **Device does not power on:** Ensure the battery clamps are correctly and securely connected to the battery terminals. The device draws power directly from the battery being tested. If the battery is completely dead (below 4.9V), the tester may not power on.
- **Screen is flashing:** This indicates that one or both clamps are not securely attached to the battery terminals. Re-attach the clamps firmly.
- **Inaccurate readings:** Ensure the battery terminals are clean and free of corrosion. Verify that the correct battery type and CCA/AH values have been entered into the tester.
- **Reverse connection:** The device is equipped with reverse polarity protection. If connected incorrectly, the device will not operate, preventing damage. Correct the connection (red to positive, black to negative) to proceed.

8. SPECIFICATIONS

Feature	Value
Brand	KINGBOLEN
Model	BM550 PLUS (KBL551)
Test Range	6V, 12V, 24V
CCA Range	100-2000 CCA
Ah Range	2Ah-220Ah
Supported Battery Types	Regular Flooded, AGM Flat Plate, AGM Spiral, GEL, EFB
Display	1.8-inch TFT Color Display
Operating Voltage	4.9V - 32V
Measurement Types	Ammeter, Ohmmeter, Voltmeter
Compatible Devices	Cars, Trucks, Motorcycles, ATVs, SUVs, Boats
Power Source	Electric Cable (powered by tested battery)
Safety Compliance	CE Marking, RoHS compliant
Components Included	English Instructions
Color	Black

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 directly. Keep your purchase receipt for warranty claims.

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question