

OBDResource BM800

OBDResource BM800 Automotive Battery Tester with Printer User Manual

1. INTRODUCTION

The OBDResource BM800 is a professional automotive battery tester designed for comprehensive analysis of 6V, 12V, and 24V lead-acid batteries. This device integrates battery testing, cranking system testing, charging system testing, and a built-in thermal printer for instant result documentation. It provides accurate data on battery health, state of charge, voltage, resistance, and more, supporting various battery standards including CCA, IEC, EN, DIN, CA, BCI, MCA, SAE, GB, and JIS.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the device. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always wear appropriate eye protection (safety goggles) when working near batteries.
- Ensure adequate ventilation in the work area to disperse explosive gases.
- Avoid creating sparks or flames near the battery.
- Do not touch battery terminals or clamps with bare hands while testing.
- The BM800 features reverse polarity protection, but always ensure correct connection (red to positive, black to negative) to prevent potential damage to the device or vehicle.
- Keep the device dry and clean. Do not expose it to rain or moisture.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- OBDResource BM800 Automotive Battery Tester with Printer
- 3 Rolls of Thermal Printing Paper

- USB Cable (for software updates)
- User Manual (this document)

4. PRODUCT FEATURES

The OBDResource BM800 offers a range of advanced features for comprehensive battery diagnostics:

- **3-in-1 Functionality:** Combines battery testing, cranking system testing, and charging system testing in one device.
- **Wide Battery Compatibility:** Supports 6V, 12V, and 24V batteries with CCA ratings from 100 to 2000. Compatible with various battery types including Regular Flooded, AGM Flat Plate, AGM Spiral, GEL, and EFB.
- **Integrated Thermal Printer:** Allows for immediate printing of test results for record-keeping or customer reports. Includes 3 rolls of printing paper.
- **Multiple Test Modes:** Performs Standard Test, Cranking Test, Charging Test, Load Test, and Ripple Test.
- **Professional Battery Analyzer:** Provides accurate and real-time data on State of Health (SOH), State of Charge (SOC), CCA value, voltage, and internal resistance.
- **User-Friendly Operation:** Simple interface with clear navigation and reverse polarity protection for safe use.
- **Advanced Data Functions:** Built-in battery multimeter, waveform display, playback of up to 10 test records, and a screenshot function (press 'Up' and 'Down' buttons simultaneously for 5 seconds).
- **Broad Standard Support:** Compatible with CCA, IEC, EN, DIN, CA, BCI, MCA, SAE, GB, and JIS battery testing standards.
- **2.8-inch Color Screen:** Large, clear display for easy reading of data and graphical representations.
- **Lifetime Software Updates:** Simple update process via USB connection to a computer (Windows, Mac, Linux, Android compatible) without requiring special drivers or applications.

6V 12V 24V BATTERY TESTER WITH PRINTER

Professional Live data & 2.8 in Color Screen



Print Test Result



Cranking Test



Charging Test



State of Health



State of Charge



Load Test



Voltage



Resistance



Playback

Support all 100-200CCA batteries:

• AGM

• GEL

• EFB

• Regular Flooded

• AGM Flat Plate

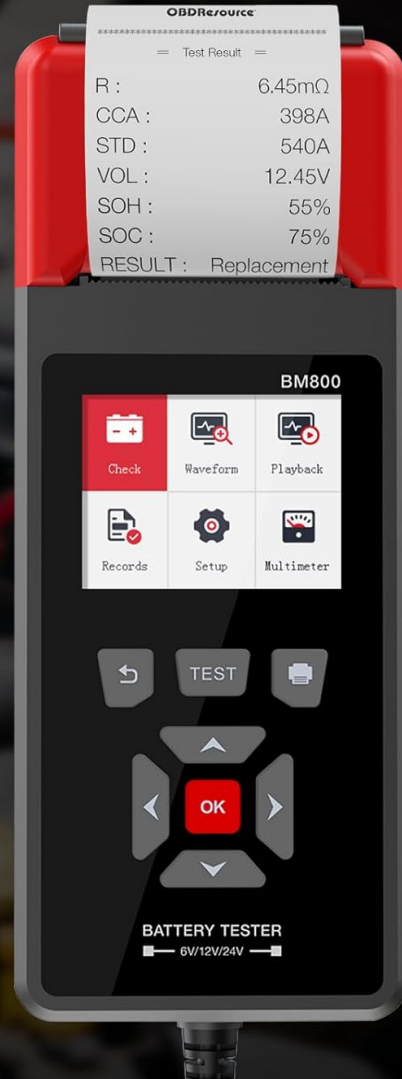


Figure 4.1: Overview of BM800 functions including Print Test Result, Cranking Test, Charging Test, Load Test, SOH, SOC, Voltage, Resistance, and Playback. It supports AGM, GEL, EFB, Regular Flooded, and AGM Flat Plate batteries.

5. SETUP

Follow these steps to prepare your BM800 for use:

1. **Unpack the Device:** Carefully remove the BM800 from its packaging.
2. **Connect to Battery:** Attach the red clamp to the positive (+) terminal of the battery and the black clamp to the negative (-) terminal. Ensure a secure connection. The device will power on automatically.
3. **Initial Screen:** The device will display the main menu. Use the 'Up' and 'Down' buttons to navigate and 'OK' to select.

Upgraded Design Battery Tester with Printer

- Print all results of testing as you need
- Come with 3 rolls of printer paper



One-key to print

You can use it test:

- ✓ 6V Batteries
- ✓ 12V Batteries
- ✓ 24V Batteries



Figure 5.1: The BM800 connected to a battery, demonstrating the one-key print function and its compatibility with 6V, 12V, and 24V batteries.

6. OPERATING INSTRUCTIONS

The BM800 offers various testing modes. Navigate through the menu using the directional buttons and confirm selections with the 'OK' button. The 'Back' button returns to the previous screen.

6.1. Main Menu Navigation

Upon powering on, the main menu typically displays options such as 'Battery Test', 'Cranking Test', 'Charging Test', 'Load Test', 'Records', 'Setup', and 'Multimeter'.

6.2. Battery Test (Standard Test)

This test evaluates the overall health of the battery.

1. From the main menu, select 'Battery Test'.
2. Select the battery type (e.g., Regular Flooded, AGM, GEL).
3. Input the battery's rated CCA (Cold Cranking Amps) value, usually found on the battery label.
4. The tester will perform the analysis and display results including State of Health (SOH), State of



Figure 6.1: Standard Battery Test results showing SOH (State of Health) at 100%, SOC (State of Charge), CCA, Voltage, and Resistance values.

6.3. Cranking Test

This test analyzes the vehicle's starting system.

1. From the main menu, select 'Cranking Test'.
2. Follow the on-screen prompts to start the vehicle's engine.
3. The tester will measure the cranking voltage and time, providing an assessment of the starter motor's performance.

6.4. Charging Test

This test evaluates the vehicle's charging system (alternator, rectifier, regulator).

1. From the main menu, select 'Charging Test'.
2. Follow the on-screen prompts, which may include revving the engine to a specific RPM.
3. The tester will measure loaded and unloaded voltage, ripple voltage, and provide a 'Good' or 'Bad' indication for the charging system.

6.5. Load Test

This test assesses the battery's ability to maintain voltage under a simulated load.

1. From the main menu, select 'Load Test'.
2. The tester will apply a simulated load and measure the battery's response.
3. Results will indicate the battery's capacity under load.



Figure 6.2: Display examples for Standard Test, Cranking Test, Charging Test, and Load Test, illustrating the data provided for each test type.

6.6. Printing Test Results

After any test, you can print the results directly from the device.

- Once a test is complete and results are displayed, press the 'Print' button (often indicated by a printer icon) on the device.
- The BM800 will print a detailed report of the test.

6.7. Waveform Display

The waveform display allows for visual analysis of voltage fluctuations.

- From the main menu, select 'Waveform'.
- The screen will show a real-time graph of voltage over time.



Figure 6.3: The 2.8-inch color screen displaying a voltage waveform, illustrating the device's graphical capabilities.

6.8. Records Playback

The device stores up to 10 test records for later review.

- From the main menu, select 'Records'.
- Use the 'Up' and 'Down' buttons to scroll through saved test results.
- Press 'OK' to view a detailed report of a selected record.

6.9. Multimeter Function

The BM800 includes a basic multimeter function for measuring voltage.

- From the main menu, select 'Multimeter'.
- The screen will display the current voltage reading.

6.10. Screenshot Function

To capture a screenshot of the current display:

- Simultaneously press and hold the 'Up' and 'Down' buttons for approximately 5 seconds.
- The screenshot will be saved internally and can be accessed during software updates via USB.

7. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your BM800.

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Printer Paper Replacement:** When the printer runs out of paper, open the printer cover, remove the old roll, and insert a new thermal paper roll with the print-sensitive side facing the print head. Close the cover securely.
- **Software Updates:** Periodically check the OBDResource website for software updates. Connect the device to a computer via the USB cable and follow the instructions provided on the website to copy update files to the device's removable disk.
- **Storage:** Store the device in a clean, dry environment away from extreme temperatures and direct sunlight.

8. TROUBLESHOOTING

If you encounter issues with your BM800, refer to the following common problems and solutions:

- **Device Not Powering On:**
 - Ensure the battery clamps are securely connected to the correct battery terminals (red to positive, black to negative).
 - Verify the vehicle battery has sufficient voltage (above 6V for 6V batteries, 8V for 12V batteries, etc.) to power the device.
- **Inaccurate Readings:**
 - Check for loose or corroded battery connections. Clean terminals if necessary.
 - Ensure the correct battery type and CCA value are entered for the test.
 - Make sure the battery is fully charged before performing a standard battery test for most accurate results.
- **Printer Not Working:**
 - Check if the thermal paper roll is installed correctly and not empty.
 - Ensure the printer cover is closed securely.
 - Verify there are no paper jams.
- **Device Freezes or Responds Slowly:**
 - Disconnect and reconnect the device from the battery to perform a soft reset.
 - Ensure the software is up to date.

9. SPECIFICATIONS

Feature	Specification
Brand	OBDRsource
Model Number	BM800
Power Source	Battery Powered (from vehicle battery)
Supported Battery Voltages	6V, 12V, 24V
Supported CCA Range	100-2000 CCA
Display	2.8 inch Color Screen
Item Dimensions (L x W x H)	25.4 x 8.1 x 38.1 Centimeters
Supported Standards	CCA, IEC, EN, DIN, CA, BCI, MCA, SAE, GB, JIS
Connectivity	USB (for updates)
Included Components	BM800 Unit, 3 Thermal Paper Rolls, USB Cable

Support all 6V 12V 24V 100-2000CCA batteries

CCA (100-2000)	IEC (100-1400)		
BIC (100-2000)	MCA (100-2000)		
EN (100-2000)	DIN (100-1400)		
SAE (100-2000)	GB (2-220 Ah)		
CA (100-2000)	JIS (26A17-245H52)		
Car	SUV	Truck	Boat
ATV	Motorcycle	Golf Car	Lawn Mower

Figure 9.1: The BM800 supports various battery standards (CCA, IEC, BIC, MCA, EN, DIN, SAE, GB, CA, JIS) and is suitable for cars, SUVs, trucks, boats, ATVs, motorcycles, golf carts, and lawn mowers.

10. WARRANTY AND SUPPORT

OBDResource products are designed for reliability and performance. For warranty information, technical support, or service inquiries, please contact OBDResource customer support through their official website or the retailer from whom you purchased the product. Please have your model number (BM800) and purchase details ready when contacting support.