Safety Information

For your own safety and the safety of others, and to prevent damage to the equipment and vehicles, read this manual thoroughly before operating your tester. The safety messages presented below and throughout this user's manual are reminders to the operator to exercise extreme care when using this device. Always follow all BCI (Battery Council International) safety recommendations. Read, understand and follow all safety messages and instructions in this manual.

Safety Message Conventions Used

We provide safety messages to help prevent personal injury and equipment damage. Below are signal words we used to indicate the hazard level in a condition.

⚠ DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury to the operator or to bystanders.

⚠ WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or to bystanders.

⚠ CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury to the operator or to bystanders.

Important Safety Instructions

And always use your tester as described in the user's manual, and follow all safety messages.

⚠ WARNING

Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals know to the state of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

Table of Contents

1 Using This Manual

We provide tool usage instructions in this manual. Below is the conventions we used in the manual.

1.1 Bold Text

Bold text is used to highlight selectable items such as buttons and menu options.

Example:

Press the **ENTER** button to select.

1.2 Symbols and Icons

1.2.1 Solid Spot

Operation tips and lists that apply to specific tool are introduced by a solid spot ●.

Example:

When System Setup is selected, a menu that lists all available options displays. Menu options include:

- Languages
- Unit
- Beep
- Keypad Test
- LCD Test
- About
- Shortcuts

1.2.2 Arrow Icon

▶ An arrow icon indicates a procedure.

Example:

▶ To change menu language:

1. Scroll with the arrow keys to highlight **Language** on the menu.
2. Press the **ENTER** button to select.

1.2.3 Note and Important Message

Note

A NOTE provides helpful information such as additional explanations, tips, and comments.

Example:

NOTE

Test results do not necessarily indicate a faulty component or system.

Important

IMPORTANT indicates a situation which, if not avoided, may result in damage to the test equipment or vehicle.

Example:

IMPORTANT

Do not soak product as water might find its way into the tester.

2 Introductions

The latest BT100 12 Volt Automotive Battery Analyzer from Foxwell is dedicatedly developed to test 6V & 12V regular flooded, AGM flat plate, AGM spiral and gel batteries. It provides a quick, easy and affordable solution for technicians to view battery charging status, check battery health and detect faults.

2.1 Tester Descriptions

This section illustrates external features, ports and connectors of the tester.

A **LCD Display** - shows menus, test results and operation tips.

B **ESC Button** - exits a screen and generally returns to previous screen.

C **UP and Down Buttons** - scroll to select an option or change the values. UP Button is also used to call up the language setup menu when starting the tester.

D **ENTER Button** - executes a selected option and generally goes to the next screen.

E **Test Cable** - Connects the tester to battery for testing.

IMPORTANT

Do not use solvents such as alcohol to clean keypad or display. Use a mild nonabrasive detergent and a soft cotton cloth**.**

2.2 Accessory Descriptions

This section lists the accessories that go with the tester. If you find any of the following items missing from your package, contact your local dealer for assistance.

1 **BT100 12 Volt Automotive Battery Analyzer main unit**

2 **User's Guide** - provides operation instructions for the usage of the tester.

2.3 Specifications

Display: 128 * 64 pixels, backlit display screen

Working Temperature: 0 to 60°C (32 to 140°F)

Storage Temperature: -20 to 70°C (-4 to 158°F)

Dimensions (L*W*H**)**: 103*75*20mm

Gross Weight: 0.2 KG

Gross Weight: 0.35KG

3 Operations

This section describes how to use the tester to perform tests on car batteries. The menu-driven display will guide you step by step through the test process.

3.1 Connecting the Tester

The tester powers on automatically when it is correctly connected to the battery. The preferred test position is at the battery terminals. If the battery is not accessible, you may test at the jumper post; however, the power measurement may be lower than the actual value.

▶ To connect the tester:

1. Clean the battery posts or side terminals.
2. Connect the red clamp to the positive (+) terminal and the black clamp to the negative (-) terminal.
3. Rock the clamps back and forth to make sure the clamps are firmly connected.
4. When the tester is correctly connected, it boots up automatically and shows the voltage of the battery.

NOTE

Do not connect the tester to a voltage source greater than 18V DC; otherwise you may damage the tester.

NOTE

If you are testing inside a vehicle, make sure all accessory loads are cut off, the key is not in the ON position and the doors are closed.

3.2 Battery Test

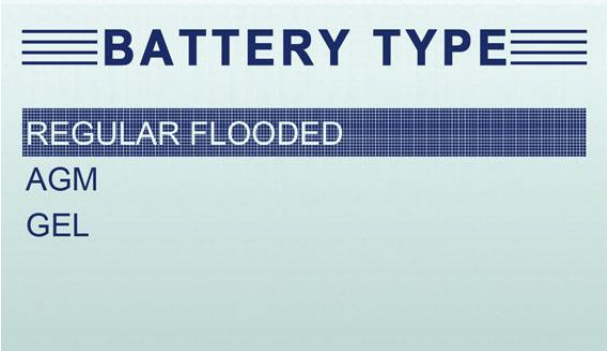
BT100 12 Volt Automotive Battery Analyzer allows you to analyze the battery healthy status and view battery charging status.

▶ To start a battery test:

1. Press the **ENTER** button to start the test. **BAT. LOCATION** Menu will display.

2. Scroll with the **UP** or **DOWN** button to highlight **OUT OF VEHICLE** or **IN VEHICLE** from BATTERY LOCATION menu and press **ENTER** to select the battery location.

3. Scroll with the **UP** or **DOWN** button to select the battery type from **BATTERY TYPE** menu and press **ENTER** to confirm.



4. Scroll with the **UP** or **DOWN** button to select the battery standard from **BATTERY STANDARD** menu and press **ENTER** to confirm. Not all rating systems are available for each application.

You may find the battery type and battery rating label on every battery.

Global Rating Systems

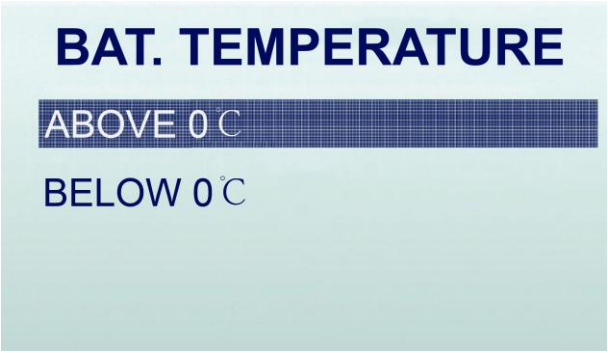
No.	Standard	Description	BT100 Testing Range
1	CCA	Cold Cranking Amps, as specified by SAE. The most common rating for cranking batteries at 0°F (-18°C)	100-800
2	BCI	Battery Council International standard	100-800
3	CA	Cranking Amps standard. The effective starting current value at 0°C (32°F).	100-800

4	MCA	Marine Cranking Amps standard. The effective starting current value at 0°C (32°F).	100-800
5	JIS	Japanese Industry Standard, shown on a battery as a combination of numbers and letters	26A17--245H52
6	DIN	Deutsche Industrie-Norm	100-800
7	IEC	International Electrotechnical Commission	100-800
8	EN	Europa-Norm	100-800
9	SAE	Society of Automotive Engineers	100-800
10	GB	China National Standard	100-800

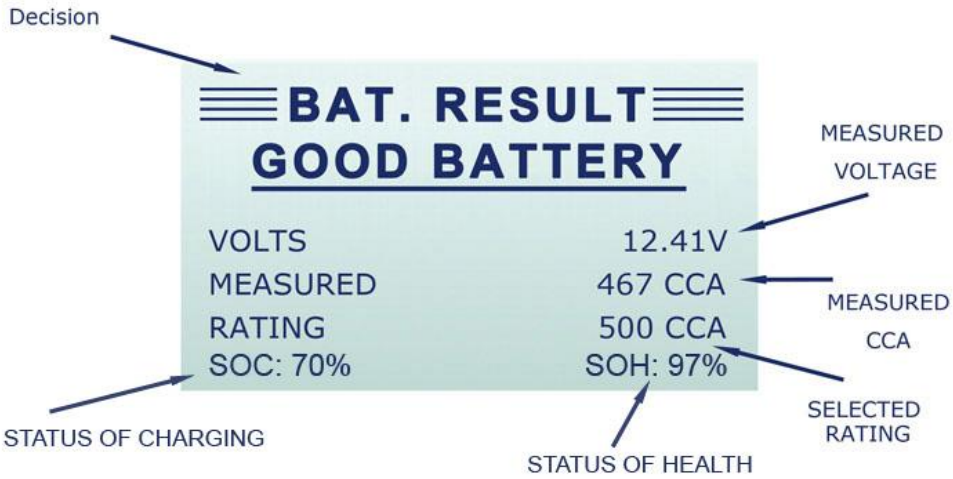
5. Use **UP** or **DOWN** button to change measure range till you enter the correct range of your battery. Press **ENTER** to start the test.

If the battery belongs to CCA standard, just select the corresponding CCA standard value and press **ENTER** to start the testing.

6. The **BAT. TEMPERATURE** menu will display to make sure the battery test result more accurate. Scroll with the **UP** and **DOWN** button to select the right battery temperature to confirm.



7. View test results on the screen. Depending on battery status, one of the following test results may display.



No.	Test Results	Interpretation
1	GOOD BATTERY	The battery is in good condition.
2	GOOD-RECHARGE	The battery is in good condition but low current. Fully charge the battery and return it to service.
3	CHARGE & RETEST	Fully charge the battery and retest. Failure to fully charge the battery before testing may result in inaccurate results. If you still get CHARGE & RETEST message after you fully charge the battery, replace it.

4	REPLACE BATTERY	The battery is almost dead or the connection between the battery and battery cable is poor. Replace the battery and retest; or disconnect the battery cables and retest the battery using the out-of-vehicle test before replacing it.
5	BAD CELL-REPLACE	The battery may be damaged such as broken cell or short circuit. Replace the battery and retest.

8. Press the **ESC** button to exit the test.

NOTE:

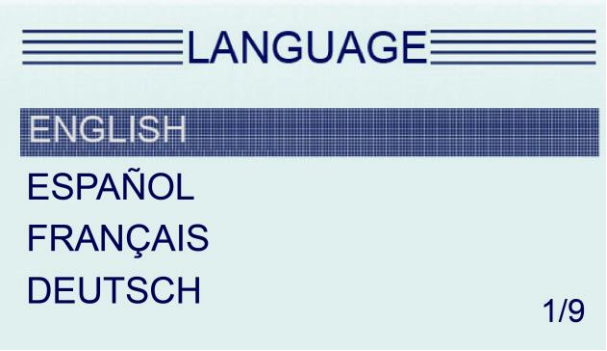
The tester keeps the results of last test only. When you start a new test, the last results are overwritten.

4 Language

Language menu lets you choose system language. The device is set to English menu by default.

To change the language setting:

1. Scroll with the **UP** button when the tester starts to go to the **LANGUAGE** menu.



2. Use the **UP** or **DOWN** button to select the language you need and press the **ENTER** key to confirm and return. Or press **ESC** button to return.