

1. Follow the on-screen prompts to Rev the engine.
2. Turn on high beams headlights and the blower fan.

CHARGING RESULT	
NO PROBLEMS	
NO LOAD	14.23V
LOADED	13.28V
RIPPLE PEAK	0.32mV

- Alternator Decision
- Loads-off Dc Voltage at rev
- Maximum Ripple Voltage
- Loads-off Dc Voltage at rev

3. Rev engine with loads on.
4. Idle engine and turn off loads.

5. The Charging System decision is displayed at the end of the procedure.

No.	Test Results	Interpretation
1	NO PROBLEMS	System is showing normal output from the alternator.
2	NO OUTPUT	No alternator output detected. Check all connections to and from the alternator, especially the connection to the battery. If the connection is loose or heavily corroded, clean or replace the cable and retest. If the belts and connections are in good working condition, replace the alternator. (Older vehicles use external voltage regulators, which may require only replacement of the voltage regulator.)
3	LOW OUTPUT	Alternator not providing sufficient to power the system's electrical loads and charge the battery. Check the belts to ensure the alternator is rotating with the engine running. Replace broken or slipping belts and retest. Check the connections from the alternator to the battery. If the connection is loose or heavily corroded, clean or reparable the cable and retest.
4	HIGH OUTPUT	Alternator voltage output exceeds the normal limits. Make sure there are no loose connections and the ground connection is normal. If there are no connection problems, replace the regulator. Most alternators have a built-in regulator that requires replacing the alternator. In older vehicles that use external voltage regulators, you may need to replace only the voltage regulator.
5	EXCESSIVE RIPPLE	Excessive AC ripple detected. One or more diodes in the alternator are not functioning or there is stator damage.
6	CHARGE BATTERY	The starter voltage is low and the battery is discharged. Fully charge the battery and repeat the starter system test.
7	REPLACE BATTERY	Battery must be replaced before the starting system can be tested.

View the latest record of testing

Enter View to check the latest record of battery testing.

Language and Version Info

Select the Language from **Menu** and press the **ENTER** key to confirm and return, or press **BACK** button to return without saving. And select **Version Info** to check the version information.

Contact Us

For service and support, please contact us.

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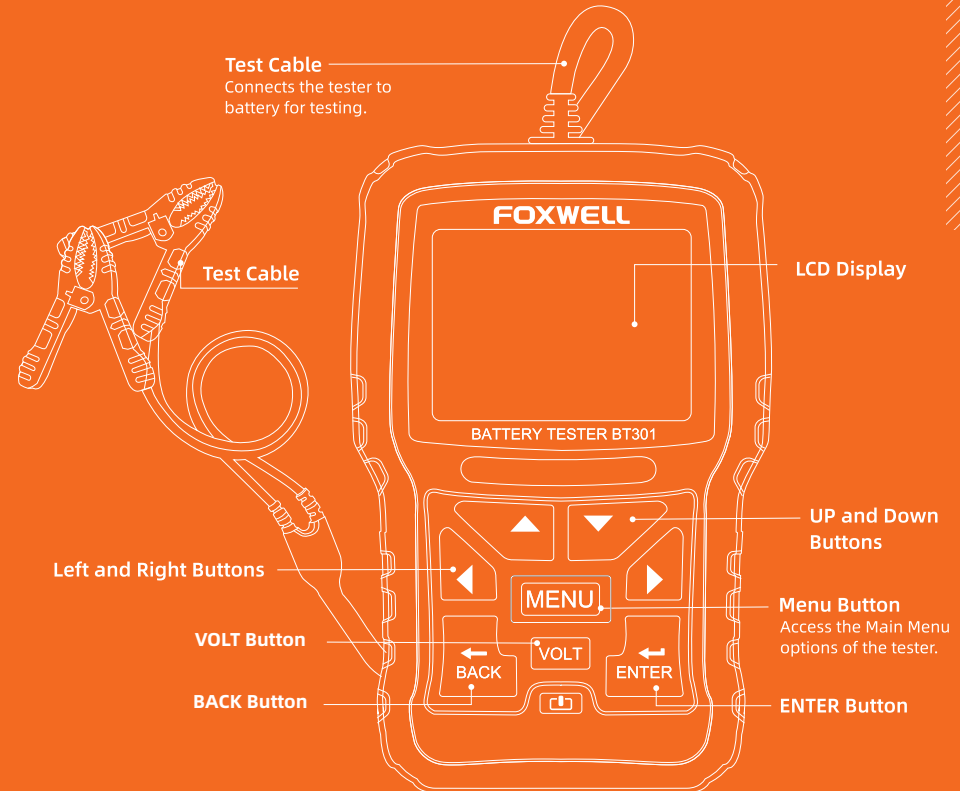
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QUICK START GUIDE FOR Battery Tester BT301

QUICK START GUIDE



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Pictures illustrated here are for reference only and this Quick Start Guide is subject to change without prior notice.

BT301 Battery Tester

The latest BT301 Battery Tester from Foxwell is dedicatedly developed to test 12V regular flooded, AGM flat plate, AGM spiral and gel batteries and 6V & 12V starting and charging system. It provides a quick, easy and affordable solution for technicians to check battery health and detect faults of starting and charging system. Main functions include battery test, cranking test, and charging system test.

Operations

1. Connecting 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. In case the connection is poor, a "CHECK CONNECTION" message displays.
- ▶4 When the tester is correctly connected, it boots up automatically and show the voltage of the battery.

2. Battery Test

- ▶1 Press the MENU button to go to the Main Menu.
- ▶2 Enter BATTERY TEST, TEST TYPE, BAT Location, BATTERY TYPE, BATTERY STANDARD and the corrected Battery Rating.

No.	Standard	Description	BT301 Testing Range
1	CCA	Cold Cranking Amps, as specified by SAE. The most common rating for cranking batteries at 0°F (-18°C)	100-2000
2	CA	Cranking Amps standard. The effective starting current value at 0°C (32°F).	100-2000
3	MCA	Marine Cranking Amps standard. The effective starting current value at 0°C (32°F).	100-2000
4	JIS	Japanese Industry Standard, shown on a battery as a combination of numbers and letters	26A17--245H52
5	DIN	Deutsche Industrie-Norm	100-1800
6	IEC	International Electrotechnical Commission	100-1800
7	EN	European Norm	100-2000
8	SAE	Society of Automotive Engineers	100-2000

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

BATTERY RESULT	
REPLACE BATTERY	
MEASURED VOLTAGE	VOLTS 14.61V
MEASURED CCA	MEASURED 21CCA
	RATING 500CCA
	SOH 5%
	SOC 100 %

— SELECTED RATING
 — STATUS OF HEALTH
 — STATUS OF CHARGING

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.

3. Cranking Test

Before starting the test, inspect the alternator drive belt. A belt that is glazed or worn, or lacks the proper tension, will prevent the engine from achieving the rpm levels needed for the test. After an in-car battery test, the display alternates between the battery test results and the message PRESS FOR CRANKING TEST displays.

1. Press the ENTER button for cranking test.
2. Start the engine when prompted.
3. The tester displays the decision on the starter system, cranking voltage, and cranking time in seconds.
4. Press ENTER button to proceed with the charging system test, BACK button to return to the main menu.

No.	Test Results	Interpretation
1	CRANKING NORMAL	The starter voltage is normal and the battery is fully charged.
2	LOW VOLTAGE	The starter voltage is low and the battery is fully charged.
3	CHARGE BATTERY	The starter voltage is low and the battery is discharged. Fully charge the battery and repeat the starter system test.
4	REPLACE BATTERY	Battery must be replaced before the starting system can be tested.
5	NO START	No vehicle starting detected.
6	CRANKING SKIPPED	A start was not detected.

4. Charging System test

Once you have completed an in-vehicle test, the display alternates between the battery test results and the message press ENTER for charging test. Press ENTER to proceed with the charging test.