

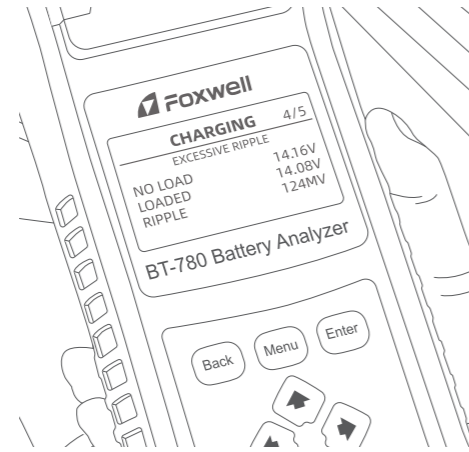
results and the message press ENTER for charging test. Press ENTER to proceed with the charging test.

1. Follow the on-screen prompts to Rev the engine.

2. Turn on high beams headlights and the blower fan.

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

4. The Charging System decision is displayed at the end of the procedure. check the RIPPLE.



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.

View/Print Test Results

- ▶1 Select View/Print from Main Menu, review the test results on the screen, and press Print button on the unit.
- ▶2 Select Yes to type in the plate number so the test ticket could show test result with the exact plate number. Or select No to quit typing plate number.
- ▶3 Follow the on-screen prompt to input the plate number. The test result will be printed.

NOTE

Build-in Battery is Alkaline Zinc-Manganese Dry Battery 9 volt. If the battery has no power please change it.

The results will be recorded even the battery has no power.

Please connect to a vehicle battery if need to print the test results

Volts Meter, Store Name, Technician, Language and Version Info

Select Volts Meter to view the voltage of the battery; Select the Language you need and press the ENTER key to confirm and return; And Select Version Info to check the version information.

Store name and Technician menu lets you input your workshop name, which will be printed with the test results.

Firmware Update

- ▶1 Format the TF Card on the tester. Connect the TF Card with computer via card reader.



- ▶2 Download the software from BT780 web page of FOXWELL official website, unzip it, pick up the language you want and put the MS files into the card.
- ▶3 Put the TF card into the tool and turn on, then select the FIRWARE UPDATE from the Main menu.
- ▶4 Input the password 1234 and click the Enter button. After the machine restart automatically, the software is updated successfully.

Contact Us

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QUICK START GUIDE FOR Battery Analyzer BT780

QUICK START GUIDE



Shenzhen Foxwell Technology Co., Ltd.

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

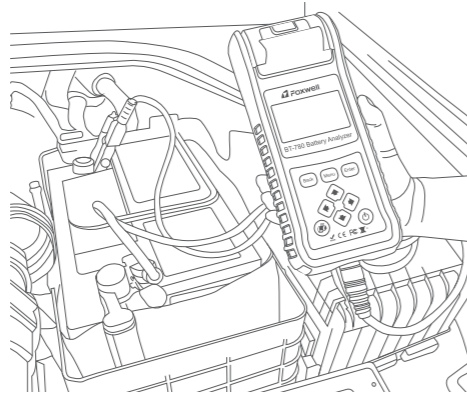
BT780 BATTERY ANALYZER

The new BT780 Battery Analyzer from Foxwell is delicately developed to test start-stop AGM and EFB batteries, 12V regular flooded, AGM flat plate, AGM spiral and gel batteries and 12V & 24V starting and charging system. Advanced conductance test and ripple voltage test provide a quick, easy and affordable solution for technicians to check battery health and detect faults of starting and charging system. Besides, built-in thermal printer allows technicians to print the test data at anytime and anywhere.

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 Move 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 shows the voltage of the battery.



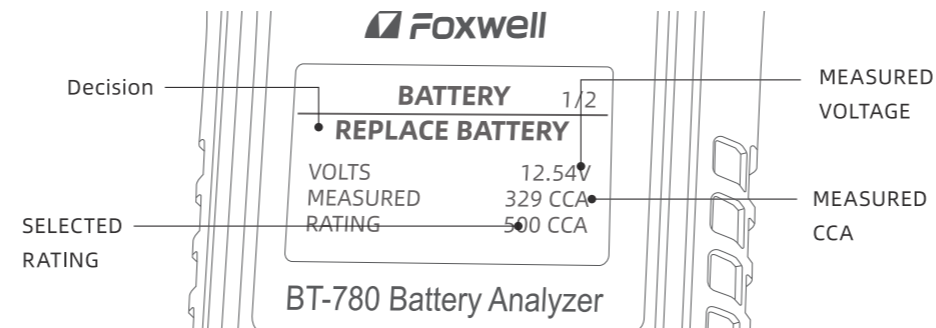
2. Battery Test

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

No.	Standard	Description	BT780 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

No.	Standard	Description	BT715 Testing Range
5	DIN	Deutsche Industrie-Norm	100-2000
6	IEC	International Electrotechnical Commission	100-2000
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.

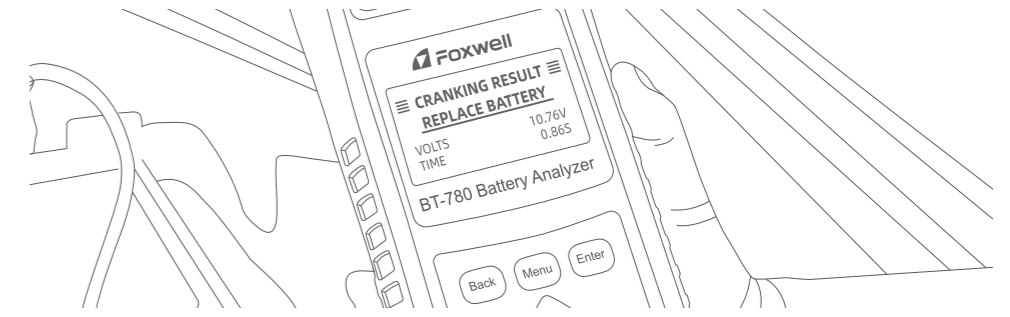


No.	Test Results	Interpretation
1	GOOD BATTERY	The battery is in good condition.
2	GOOD-RECHARGE	The battery is in good condition but low current. Fully charge the battery.
3	CHARGE & RETEST	Fully charge the battery and retest. Failure to fully charge the battery before testing may result in inaccurate 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 the battery cable is poor. Replace the battery and retest; or disconnect the battery cables and retest the battery with the out-of-vehicle test mode before replacing it.
5	BAD CELL-REPLACE	The battery may be damaged such as broken cell or short circuit. Replace the battery and retest.

- ▶4 Check the second page of battery test result which include state of health (SOH), state of charge (SOC), and resistance (RES).

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. For instance, as below display, the starter system is REPLACE BATTERY, cranking voltage is 10.76 V, and cranking time in second is 0.86 S.
4. Press ENTER button to proceed with the charging system test, Print button to print the test results, 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