



12V 100-2000CCA Digital Battery Analyser Q 2118

2. PRODUCT DESCRIPTION

2.1 PRODUCT INTRODUCTION

Battery tester adopts the world's most advanced conductance test technology, which can conveniently, quickly and accurately measure the cold cranking current capacity and battery health of the vehicles battery without damaging the battery performance.

It has the ability to quickly detect the car common faults of cranking system and charging system.

2.2 FUNCTION DESCRIPTION

- Test the battery CCA and the state of health.
- Quickly input battery Ah value to test batteries in batches.
- Test cranking system and charging system of vehicles.
- Record test result and review.
- Built-in protection of short circuit and reverse connection.
- Support English, German, Spanish, French, Polish and Italian etc.

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2.3 TECHNICAL PARAMETERS

Cold Cranking Amps Measure Range

Measure Standard	Description	Measure Range
CCA	Cold Cranking Amps	100-2000
BCI	Battery Council International Standard	100-2000
CA	Cranking Amps Standard	100-2000
MCA	Marine Cranking Amps Standard	100-2000
JIS	Japan Industrial Standard	26A17-245H52
DIN	German Auto Industry Committee Standard	100-1400
IEC	Internal Electro Technical Commission Standard	100-1400
EN	European Automobile Industry Association Standard	100-2000
SAE	Society of Automotive Engineers Standard	100-2000
GB	China National Standard	30-220Ah

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1. SAFETY NOTE

1.1 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 battery 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 refer to and follow safety messages and test procedures provided by vehicle manufacturer.

Read, understand and follow all safety messages and instructions in this manual.

1.2 IMPORTANT SAFETY INSTRUCTIONS

WARNING

- Do not smoke, strike a match, or cause a spark near the vehicle while testing and keep all sparks, heated items and open flames away from the battery and fuel / fuel vapours as they are highly flammable.

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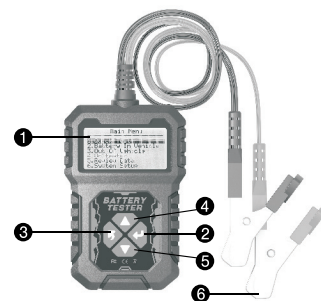
2.4 TECHNICAL SPECIFICATIONS

- Input Voltage Range: 8V ~ 30V
- Tester Working Temperature: -10°C to 60°C (14°F to 140°F)
- Storage Temperature: -20°C to 70°C (-4°F to 158°F)
- Dimensions: (L)122 x (W)78 x (H)22 mm

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2.5 PRODUCT INFORMATION

- (1) LCD display
- (2) Enter button
- (3) Back button
- (4) Up button
- (5) Down button
- (6) Alligator clamps (red & black) — Connect the red clamp to the positive pole and the black clamp to the negative pole.



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3. BATTERY TESTER SETUP

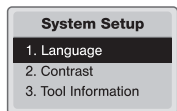
3.1 TESTER SETUP

System setup

From main menu, select the system setup, and press ENTER button.

3.1.1 LANGUAGE

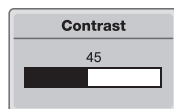
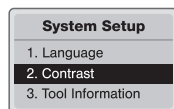
- From system setup menu, use ENTER button to select Language.
- Use UP and DOWN button to select the desired language and press ENTER button to save your selection and return to previous menu.



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3.1.2 CONTRAST

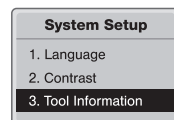
- From System Setup menu, use ENTER button to select contrast.
- Use UP and DOWN button to select the contrast value and press ENTER button to save your selection setting and return to previous menu.



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3.1.3 TOOL INFORMATION

- From System Setup menu, use ENTER button to select Tool Information.
- Press exit to return the previous menu.



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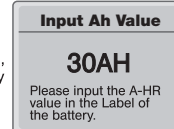
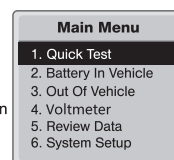
4. BATTERY TESTER OPERATION

4.1 QuickTest

It can make sure the battery status, including voltage, CCA, electronic resistance, rated CCA, charging value, healthy value and testing result in one second. Once input the AH value—battery rated capacity, which is marked in the label of the battery.

- Press UP/DOWN button to select the Quick test, then press ENTER button to confirm.

- Input the rated battery capacity —xx AH, in general, the battery capacity for 12V vehicle is above 30AH.

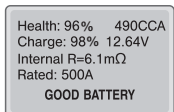


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- Then press ENTER button, the testing result will show one of these, as below .
- Battery test includes five results as following.

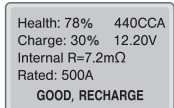
(1) GOOD BATTERY

- The battery is without any problem, please be relaxed to use.



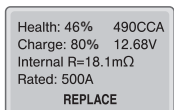
(2) GOOD, RECHARGE

- Good battery but low power, recharge before using.



(3) REPLACE

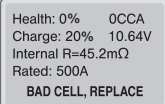
- The battery is near to or already reached the end of the using life, replace battery, otherwise, bigger danger will be followed.



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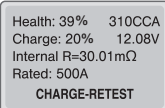
(4) BAD CELL, REPLACE

- Battery interior damaged, bad cell or short circuit, replace battery.



(5) CHARGE-RETEST

- Unstable battery shall be recharged and retested to avoid error. If same test result appears after recharge and retest, the battery is regarded as damaged, replace the battery.

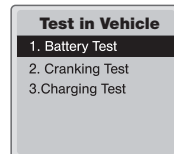
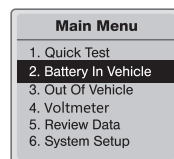


4.2 BATTERY TEST IN VEHICLE

Choose the battery in vehicle and press ENTER button, then it will enter the below menu. Battery in vehicle means battery is connected with vehicle generator or vehicle electrical appliance.

4.2.1 BATTERY TEST

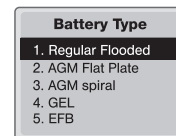
Choose the battery test and press ENTER button, then it will enter the below menu.



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Select Battery Type

- After the battery charge status selected, tester will prompt to select battery type, Regular Flooded, AGM Flat Plate or AGM Spiral, Gel and EFB battery. Press UP/DOWN button to select battery type, then press ENTER button to confirm.



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Battery System Standard and Rating

- Battery tester will test each battery according to the selected system and rating.
- Use UP/DOWN button to select according to the actual system standard and rating marked on the battery.
- See in the below picture, the arrow indicated location.



→ **CCA:** Cold Cranking Amps, specified by SAE&BCI, most frequently used value for starting battery at 0°F (-18°C).

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BCI: Battery Council International Standard.

CA: Cranking Amps Standard, effective starting current value at 0°C.

MCA: Marine Cranking Amps Standard, effective starting current value at 0°C.

JIS: Japan Industrial Standard, displayed on the battery as combination of the numbers and letters, e.g. 55D23,80D26.

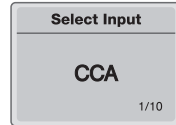
DIN: German Auto Industry Committee Standard.

IEC: Internal Electro Technical Commission Standard.

EN: European Automobile Industry Association Standard.

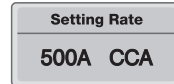
SAE: Society of Automotive Engineers Standard.

GB: China National Standard.



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- Input correct test rating, press ENTER button.



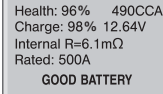
- Tester starts to test, and dynamic interface "TESTING" prompted.
Note: It takes around 5 seconds to display the battery test result.

BATTERY TEST RESULT

Battery test includes five results as following.

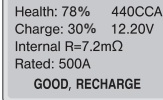
(1) GOOD BATTERY

- The battery is without any problem, please be relaxed to use.



(2) GOOD, RECHARGE

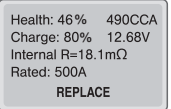
- Good battery but low power, recharge before using.



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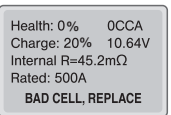
(3) REPLACE

- The battery is near to or already reached the end of the using life, replace battery, otherwise, bigger danger will be followed.



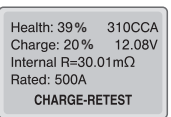
(4) BAD CELL, REPLACE

- Battery interior damaged, bad cell or short circuit, replace battery.



(5) CHARGE-RETEST

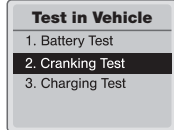
- Unstable battery shall be recharged and retested to avoid error. If same test result appears after recharge and retest, the battery is regarded as damaged, replace the battery.



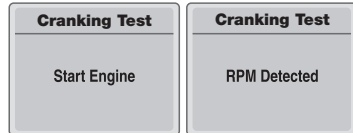
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4.2.2 CRANKING TEST

Choose the Cranking test and press ENTER button, then it will enter the below menu.

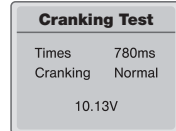


Starting the engine as prompted, tester will automatically complete the cranking test and display the result.



- Test result of the tester includes actual cranking voltage and actual cranking time.
- Normally a cranking voltage value lower than 9.6V is regarded as abnormal.

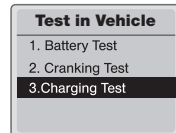
• 19 •



- This is for the convenience of the maintenance personnel to quickly know the whole state of the starting system according to the data.
- After testing finished, do not shut down the engine, press ENTER button to enter Charging Test.

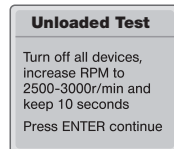
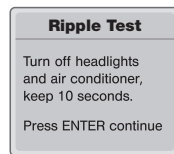
4.2.3 CHARGING TEST

Choose the Charging test and press ENTER button, then it will enter the below menu.

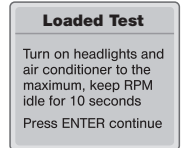


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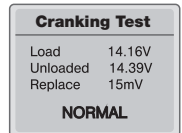
Note: Do not shut down the engine during the test. Follow the steps according to the on screen instructions.



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- After the test has finished, the tester displays the loaded and unloaded charging voltages, ripple voltage and charging test result.

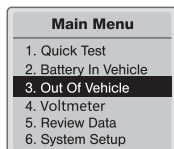


Note: "NO OUTPUT" means Charging system is no output. The vehicle will stop working when the battery is exhausted. Please check the alternator or contact the maintenance service center immediately.

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4.3 BATTERY OUT OF VEHICLE TEST

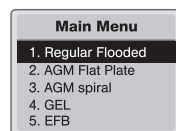
OUT-OF-VEHICLE means battery is not connected with any of the vehicle loaded battery connection is cut off. Choose the battery out of vehicle test.



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Select Battery Type

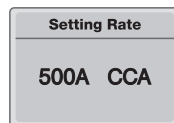
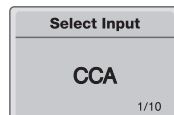
- After the battery charge status selected, tester will prompt to select battery type, Regular Flooded, AGM Flat Plate or AGM Spiral, Gel and EFB battery. Press UP/DOWN button to select battery type, then press ENTER button to confirm.



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Battery System Standard and Rating

- Battery tester will test each battery according to the selected system and rating.
- Use UP/DOWN button to select according to the actual system standard and rating marked on the battery.



- Tester starts to test, and dynamic interface "TESTING" prompted.
Note: It takes around 5 seconds to display the battery test result.

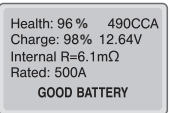
• 25 •

BATTERY TEST RESULT

Battery test includes five results as following.

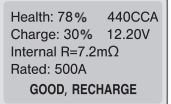
(1) GOOD BATTERY

- The battery is without any problem, please be relaxed to use.



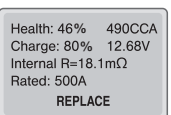
(2) GOOD, RECHARGE

- Good battery but low power, recharge before using.



(3) REPLACE

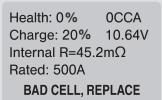
- The battery is near to or already reached the end of the using life, replace battery, otherwise, bigger danger will be followed.



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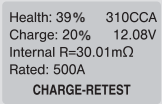
(4) BAD CELL, REPLACE

- Battery interior damaged, bad cell or short circuit, replace battery.



(5) CHARGE-RETEST

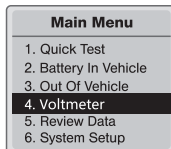
- Unstable battery shall be recharged and retested to avoid error. If same test result appears after recharge and retest, the battery is regarded as damaged, replace the battery.



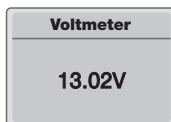
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4.4 VOLTmeter

- Choose the Voltmeter and press ENTER button, then it will enter the below menu.



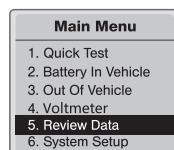
- Display real-time voltage value.



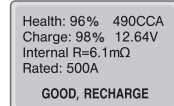
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4.5 REVIEW DATA

- Choose the function of review data to review last time test results.



- Check the history of battery testing result.



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