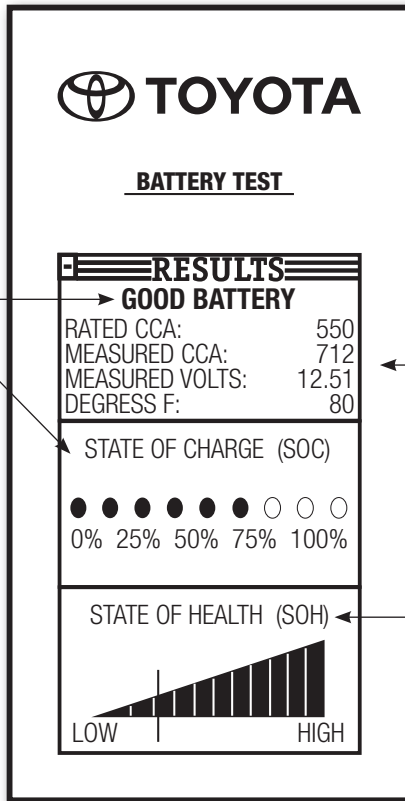


Understanding Your Battery Test Results

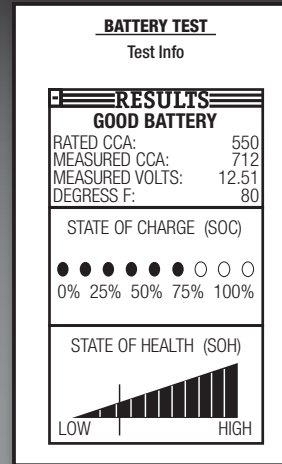


After your Toyota dealer tests the condition of your battery, there are four possible results:



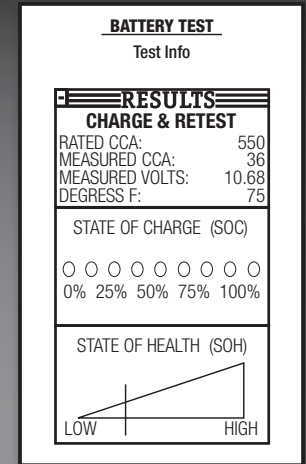
Good Battery

Your battery is measuring within the manufacturer's specification for required Cold Cranking Amps or "CCA" (the measuring standard of battery power). Your battery should reliably start the vehicle.



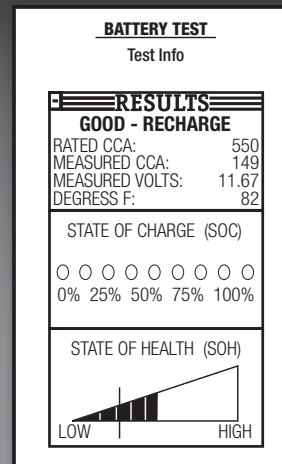
Charge & Retest

The battery tester is unable to complete an accurate test because the battery voltage is low. The battery will need to be charged prior to a retest. Your Toyota Dealer has a GR8 charger to recharge your battery.



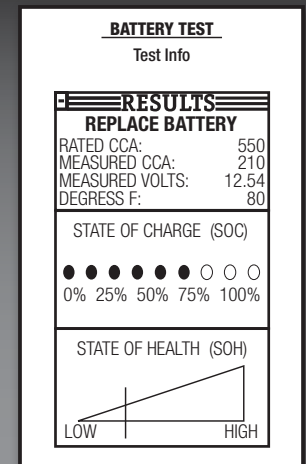
Good - Recharge

The battery tester has determined that your battery is in good condition, but the voltage or charge level is low. The battery should be charged.



Replace Battery

While the vehicle may have started today there is an increasing likelihood of vehicle malfunction due to battery failure. We highly recommend replacing your battery.



What Does It Mean?

- Battery "State-of-Charge":** The possible battery conditions and test results are: Good Battery, Good - Recharge, Charge & Retest and Replace Battery. The recommended service will be determined appropriate to your test result.
- Battery Performance vs. Specification:** Indicates your battery's current Cold Cranking Amps (CCA) vs. the CCA of a new battery.
- Battery "State-of-Health":** Indicates the overall condition of the battery relative to a new battery.

Step-by-Step Guide to Communicating Battery Test Results

1. Always show the printout to the customer.

The printout lends credibility to the test result.

2. Review with the customer two main points on the tester printout:

- The rated (OEM) CCA vs. the measured (tested) CCA
- The two test-result graphics — State-of-charge & State-of-health

Using a highlighter to emphasize critical points has been shown to help the customer focus on these.

3. Report all test results to the customer, good or bad.

Reporting a good battery result shows the value of the battery test and also builds credibility for the inevitable day when the test indicates battery replacement is needed.

4. In the case of a marginally good or bad/replace battery test result, explain what this means in terms of the battery's susceptibility to failure under extreme temperature conditions (both cold and hot). Once a battery's condition begins to deteriorate, an inconvenient failure may occur sooner or later.

Keep in mind that heat causes the real damage to a battery by accelerating internal corrosion and water loss, but that damage isn't always evident until very high or low temperatures cause the vehicle to place a higher demand for current on the battery. Consider how old the battery is (is it 3-4+ years old?) and if seasonally cold or hot weather is just around the corner. Also determine whether the customer has had any recent starting problems or has recently severely drained down the battery. If the test result or any other

indication is that a battery problem may soon occur, simply let the customer know that replacing the battery now can avoid the inconvenience of a failure later.

Conductance Technology

Toyota battery testers use conductance technology to measure a battery's performance. In simple terms, conductance technology sends a small amount of AC (alternating current) signal through the battery in order to measure the conductance of its internal components (plates). The conductance tester then takes this basic measurement and performs various algorithms (mathematical calculations) to determine the battery's performance and how the measured conductance compares to a new battery at OEM CCA specifications. The algorithm also takes into account battery temperature, voltage and state of charge.

