

Winter Maintenance and Testing for Batteries

No one wants to get stranded with a dead battery at any time of the year, especially during winter with snow, ice, and freezing temperatures. So now that winter is here, this is a great time to perform some maintenance and testing on your vehicle's battery.

While batteries can fail at any time, cold temperatures can make the engine more difficult to start. The chemical reaction in a battery to produce current slows down in colder temperatures, making it more difficult for the battery to perform during cold weather.

First, start with a visual inspection of the battery. Look for signs of apparent damage, such as a cracked battery case or housing or leaking electrolyte. Any of these conditions would indicate replacement of the battery is needed.

Make sure the battery is securely mounted. If the battery is not secure, this can be a safety hazard and lead to internal battery damage from excessive road shock and vibration.

The initial inspection should also include a visual inspection and check of the battery cables and connections for looseness and any signs of corrosion, oxidation, or damage, such as frayed wires or worn connectors and battery terminals.

Next, we should test the battery state of charge with a DVOM or battery tester.

A battery with a state of charge of less than 75% will need to be recharged first before any further testing is performed.

Measure State of Charge with the Ignition and all electrical accessories off.

Suppose the battery has a state of charge over 75%. In that case, we can proceed with final testing of the battery with a high current load type battery tester or an electronic conductance battery tester to determine the overall state of health of the battery and make a final determination as to whether it needs to be replaced.

Some statistics indicate that 1 of 4 batteries in service needs to be replaced. As a general rule, any battery 5 or more years old is probably close to the end of its life.



Battery State of Charge

Battery Voltage	Approx. State of Charge
12.60 Volts or above	100%
12.45 Volts	75%
12.30 Volts	50%
12.15 Volts	25%

TECHNICAL SUPPORT: 800-228-9672

ASE Certified Technicians are Standing by 7 days a week.

