

Do You Need New Battery Cables?

Here are a few things to look for that are dead giveaways that it's time for new cables:

CORROSION

This is most often caused by the cables being attacked by the sulfuric acid in the battery. Batteries can leak acidic fumes where the battery posts come thru the plastic housing. It gets worse when someone at the local discount parts store beats the battery terminal on with a hammer; this will cause cracks and damage to the fragile post-to-case seal. Using the battery washers helps create another barrier to the fumes. Sometimes the corrosion is hidden under the insulation. Look for wires that are swelled up near the ends or near cracks in the insulation. **The green fuzz that forms on the wires is copper sulfate and is poisonous to both plants and animals. Protect yourself from the green fuzz. Wear safety glasses, other protective gear, and always wash your hands.**



CRACKS

Cracks in the insulation are points where acid can enter and attack the wire. If they haven't started corroding yet, you can pretty much bet that they will eventually.



BURNT CABLES

Cables can burn from contact with headers or other exhaust components. If the cables are undersized they can quickly get very hot especially during extended or excessive cranking. Sometimes they get so hot that the insulation actually melts or burns. Also, look for insulation that is misshapen or deformed from melting and then cooling into its new shape.



ELECTRICAL ISSUES

Electrical issues are much harder to find than physical issues. You can't always just look at the wire and tell if there's an electrical problem. If the wire is getting hot during cranking, it probably has a hidden defect or is undersized.

DAMAGED TERMINALS

Those 99-cent, bolt-on battery terminals are typically very low quality. Use them in an emergency but replace them as soon as possible. It's hard to get a good connection and the exposed copper strands are a welcome invitation for corrosion.



TESTING

The rule of thumb is there should be less than 0.5V voltage drop, round-trip, during cranking. This can be measured with a common multimeter on the voltage setting. Put one lead on the positive battery post (not the terminal, the actual post) and the other on the starter stud (not the cable lug, the starter stud). Have an assistant crank the engine and record the voltage while the engine is cranking. Do the same thing for the negative side. Put one lead on the starter case and the other on the negative post of the battery and measure the voltage with the engine cranking. Add the two numbers together and the sum should be less than 0.5 V. If the number is greater than 0.5V one or both cables are bad.



Questions? We're only a phone call away!

770-886-2500 Monday-Friday 8:30AM-5:30PM EST

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Thanks to Custom Battery Cables for this troubleshooting guide. Visit custombatteryables.com for their full line of heavy-duty battery terminals and cables.