

# The reason why the battery sometimes has current

What happens if a battery carries a current?

When a battery or power supply sets up a difference in potential between two parts of a wire, an electric field is created and the electrons respond to that field. In a current-carrying conductor, however, the electrons do not all flow in the same direction.

Why do batteries need to be connected in a circuit?

With this analogy, it is plainly obvious why both the positive and negative ends of a battery must be connected in a circuit. If, say, you connect only the negative electrode to ground, there is no current because there is no electricity coming in on the positive electrode that can be pumped out.

Can a current flow in a battery?

Maybe something like "Current flow in batteries"? Actually a current will flow if you connect a conductor to any voltage, through simple electrostatics.

Why does no current flow in a battery?

In your battery example, there is no return current path so no current will flow. There is obviously a more deep physics reason for why this works but as the question asked for a simple answer I'll skip the math, google Maxwell's Equations and how they are used in the derivation of Kirchhoff's voltage law.

What happens if there is a difference between a battery and a wire?

If the difference is small, little/no current will flow. This holds true for any wire connected between any two terminals, anywhere. However, current more than likely won't (depending upon the age/use of the battery).

Does a battery have a voltage difference?

However, current more than likely won't (depending upon the age/use of the battery). The reason why is because the voltage potential difference - the "excess holes on the positive end" and the "excess electrons on the negative end" - is relative to a given battery.

all of the following statements are true except a. when the engine is on, the battery provides power for electrical accessories that are turned on. b. during cranking, the battery supplies current to the starter c. the battery works like a capacitor, absorbing high-voltage surges that sometimes happen in the electrical system. d, when the engine is running, and electrical ...

But heat makes batteries more efficient/effective. Batteries have a chemical solution inside them that stores electrons. When the temperature of the battery is low, the chemical processes inside the battery is slower meaning the movement of those electrons is also slower. When you warm up a battery, you're able to speed all of that up.

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So, understanding the basics of how your car battery works and what affects its charge is the first step in solving the mystery of why it sometimes leaves you stranded. 1. Human Mistake. One of the top reasons car batteries ...

So Why Do Batteries Produce DC Current? The chemistry in batteries delivers a smooth, steady flow of energy for as long as the ions last. Therefore, it follows that a battery ...

No 12V power, no power to battery monitoring, meaning no positive ensuring of safe battery condition, battery is isolated by default. 12V power in supply, battery protection and monitoring controller and vehicle safety controller get power, boot up, do their measurements and checks, everything looks okay, battery protection circuit feeds 12V to the battery contactor pilot, HV ...

floating charge voltage. And it will charge the battery to 100% If you have any problem when using lead acid battery with old firmware, please contact Luxpower for firmware update Q11: Why does the SOC drop without discharging any power? Why is the battery 52V with 15% SOC ? (Lead-acid) A: The SOC calculation of the lead-acid battery is not ...

Let's take a look at each of the reasons why a multimeter is reading the wrong voltage in more detail. Reason #1 a multimeter is reading the wrong voltage: Low battery. The first and most possible reason why your ...

To understand why your car battery might not be charging while driving, it helps to have a basic understanding of how the charging system works. There are three key components involved in keeping your battery charged: Battery: The battery stores electrical energy that is used to start the engine and power electrical components when the car is off.

If a vehicle has high mileage, the reason may be quite often the alternator failure. As a rule, an appropriate warning should appear on the dashboard, but sometimes we may not notice it. The starter may also be the reason, i.e., because of the rundown bearing or ...

With some batteries the current should be artificially limited to protect the battery from self-destruction. It may be able to produce a high ...

There can be various reasons why your laptop battery is not charging. Here are some of the common causes: ... Sometimes, the battery may not be calibrated correctly, and ...

Here are some of the most common issues that can prevent a car from starting even when the battery has some power: 1. Faulty Battery Or Low Battery Voltage. A faulty battery is one of the most common reasons why a ...

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Give two reasons why this is useful? 1) Sometimes there is no wind by the battery can still be charged using the generator 2) when there is less wind fuel is burned. ... The person could get an electric shock because there is current in the person. See an expert-written answer.

Why does the charging current not drop when charging the battery? During the first 8-10 hours of charging a completely discharged battery, the charging current remains ...

No, the meter has a very high resistance and draws very little current from the battery. instead of letting the wire connect to the positive side of the same battery, I let the wire attach to the positive side of a DIFFERENT ...

A flow of charge is known as a current. Batteries put out direct current, as opposed to alternating current, which is what comes out of a wall socket. With direct current, the charge flows only in ...

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