

STORE JUMPER CABLES PROPERLY

Booster cables conduct electricity, but corrosion can cripple them. A bit of surface corrosion on the clamps isn't the end of the world, but if corrosion occurs inside the cables, it can cause overheating or even a fire. To keep your jumper cables in good shape, store them neatly coiled in a bag someplace dry in your car (inside the spare tire is usually a good spot). Keeping them dry is key to ensuring they last and are safe to use.

CONNECT JUMPER CABLES CORRECTLY

Connecting booster cables seems easy enough: red to red, black to black. Many people get away with this method, but the risks are high. Incorrect jumper cable connections can cause fires and explosions, which can lead to injury or damage to your vehicle. For maximum safety, follow these four steps when connecting jumper cables:

Connect one **red** clamp to the positive terminal of the dead vehicle's battery.
Connect the other **red** clamp to the positive terminal of the donor vehicle's battery.
Connect one **black** clamp to the negative terminal of the donor vehicle's battery.
Connect the other **black** clamp to some bare metal, such as the cylinder head or engine block, of the dead vehicle.

After letting the donor vehicle run for 5 to 10 minutes to charge the dead vehicle's battery, start the dead vehicle and disconnect the jumper cable clamps in the **opposite order** from the way they were connected.

Disconnect the **black** clamp from the bare metal, such as the cylinder head or engine block, of the dead vehicle where it was connected.
Disconnect the **black** clamp to the negative terminal of the donor vehicle's battery.
Disconnect the **red** clamp from the positive terminal of the donor vehicle's battery.
Disconnect one **red** clamp from the positive terminal of the dead vehicle's battery.

NEVER BOOST A FROZEN BATTERY

Lead acid batteries work even in the far north. A fully charged lead acid battery freezes at -69°C, but a battery at 11.6 V freezes at just 0°C, because most of the acid is locked up in the lead plates. Attempting to jump-start a frozen battery could cause an explosion. A frozen battery needs to be thawed out and checked for damage. If the battery isn't cracked, recharging may be possible.

DON'T LEAN OVER A CHARGING BATTERY

Even if you avoid the first four mistakes, boosting a dead battery is still dangerous. Heat, pressure, internal arcing, and acid spills can occur without warning, and you don't want to be leaning over a battery if they do.

Jump-starting a car battery is relatively simple, but it isn't without its dangers. Now that you know what jumper cable mistakes to avoid, you're ready to help a neighbor or get yourself out of a jam without getting hurt. Of course, if you don't have a donor vehicle, then all of this is moot. What about portable jump boxes? Check out the next article in this series for more information on portable jump boxes.