CARSMART™

Jump-Starting a Battery

Before you jump-start a battery, be aware of the following:

If done incorrectly, jump starting can cause personal injury and can result in damage to the vehicle's charging system.

Explosive hydrogen gas is always present in the vicinity of the battery. Keep all sparks and flames away from the battery.

Do not allow battery fluid to come into contact with eyes, skin, cloth, or painted surfaces. Battery fluid is a corrosive sulphuric acid solution which can cause severe burns. If the fluid should come into contact with anything, immediately flush the contacted area with water.

Do not attempt to recharge or jump-start a battery when the battery indicator is clear. This could mean the battery has no water, or is low on water. A spark in this situation could cause an explosion. Check water level first!

A battery rated above 12 volts should not be used for a booster (the "live" helper battery).

Whenever working on or near a battery, always wear suitable eye protectors (such as goggles or industrial safety glasses) and remove rings, metal bands, or any other metal jewelry.

Batteries and jumper cables are universally color-coded. Red indicates positive; black indicates negative.

Keep battery out of reach of children.

To jump-start a dead battery, follow the instructions below.

1. Position the two vehicles (with the "dead" battery and the "live" battery) to bring their batteries into close proximity to each other. Do not allow the vehicles to touch.

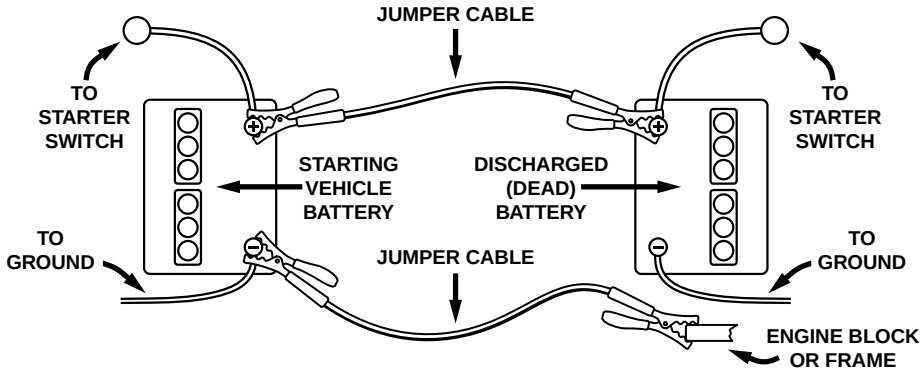
2. Turn off your ignition and all electrical accessories except for emergency flashers. Apply the parking brake. On manual transmissions, move the shift lever to "Neutral", or on automatic transmissions, move the lever to "P" (park).

3. Remove vent caps on the battery (if so equipped). Cover the battery with an old cloth to reduce explosion hazard.

4. Remove your jumper cables from your trunk or inside tire well. If you don't have jumper cables in your car, you will have to locate someone who has jumper cables.

5. Remove dirt and debris to locate positive (+) and negative (–) terminals on both vehicles' batteries.

6. Turn off engine of "live" vehicle.



MAKE CERTAIN VEHICLES DO NOT TOUCH

Jump-Starting a Battery, cont'd

7. Connect jumper cables in the following sequence:
Clamp red cable to "live" car. Find red "positive +" battery terminal. Place red "positive +" clamp.
Clamp red cable to "dead" car. Find red "positive +" battery terminal. Place red "positive +" clamp.
Clamp black cable to "dead" car. Find black "negative –" terminal. Place black "negative –" jumper cable clamp.
Clamp black cable to "live" car engine block (NOT to negative terminal).This will avoid sparks near the battery.

CAUTION: *Make sure that cables do not touch moving parts in the engine compartment and that clamps do not contact any other metal.*

7. Start the engine of the "live" vehicle and let it run for a few minutes. Keep the engine speed of the "live" vehicle at about 2,000 rpm, and start your engine in the normal manner.

8. Do not keep the "live" motor engaged for more than 10 seconds. If your engine does not start right away, turn the key off and wait 3 to 4 seconds before trying again.

9. After starting your engine, carefully disconnect the negative cable and then the positive cable. (If the "dead" vehicle still won't start, something else is probably wrong with it. Call for service.) Then disconnect the negative cable and then the positive cable from the other car. Never touch the ends of the clamps together.

10. Replace the vent caps (if so equipped). Be sure to dispose of the cloth used to cover the vent holes, as it may be contaminated with corrosive acid.

TIPS:

Keep your battery terminals free of debris by applying a light coating of petroleum jelly to each one, and then replacing the cable. Do not touch both terminals at the same time. If your vehicle has a computer, you may want to remove the dead battery when you charge it to avoid damaging the circuit board.

If you find that your battery has died while your vehicle is in your garage, you may find it helpful to attach a "trickle" charge to your battery overnight. Check first to make sure the battery has ample water; then attach the cables according to the manufacturer's instructions, and trickle charge overnight.

If your battery is consistently losing its charge, you may need to replace it. Check the date of purchase (indicated on the battery) and life length of the battery and note if a replacement is due.