



Car and Truck Battery Replacement

If your car or truck won't start, it may be...

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INTRODUCTION

If your car or truck won't start, it may be time to change the battery. A typical motor vehicle battery lasts about 3-4 years, but this lifespan can vary greatly depending on the conditions and your driving habits.

This guide uses a Toyota Corolla to demonstrate the procedure, which is similar to most common motor vehicles.

If you just need to temporarily disconnect the battery rather than remove or replace it, [follow this shorter guide](#).

Warning: Modern vehicles with a start-stop system often have a battery management system (BMS) that makes it necessary to pair the battery with special equipment after a replacement. A disconnected battery can cause infotainment, powered windows, and other vehicle electronics to lose their settings and require re-initialization. In some cases, error codes must also be resolved. Consult your owner's manual for details.

TOOLS:

[Socket Set](#) (1)

[Adjustable Wrench](#) (1)

[Leather Work Gloves](#) (1)

[Shop Towels or Rags](#) (1)

[Wire Brush](#) (1)

Step 1 — How to Disconnect a Car or Truck Battery



 Before you begin, switch the ignition **off** and remove the key.

- Make sure the transmission is in Park (or first gear if you have a manual gearbox) and that the parking brake is engaged.

 Put on work gloves and safety goggles if you have them available.

- In addition to being dirty, the battery contains corrosive agents and may release flammable gases.
- Gloves can also help protect you from an unpleasant shock if you accidentally mishandle the battery.

Step 2 — Open the hood (bonnet)



i Most motor vehicle batteries are located in the engine bay, under the hood (a.k.a. bonnet). If your battery is located elsewhere, [skip to Step 5](#).

- If you're not sure, simply continue reading.
- Pull the hood release lever. It's usually located inside the car, near the steering wheel.

Step 3



- Raise the hood by simultaneously lifting and pressing up on the hood latch release (usually located beneath the front edge of the hood, near the center or center-right).

Step 4



i At this point, depending on the vehicle, your hood may raise and support itself automatically.

- If not, use one hand to hold the hood open temporarily while securing the hood with the prop rod:
 - Lift one end of the prop rod up or out to release it from the front area of the engine bay.
 - Swing the end of the prop rod up and slide it into the cutout on the underside of the hood.

⚠ Make sure the hood is well secured before you let go with your other hand, or it may fall and injure you.

Step 5



- Locate the battery. It's normally rectangular and roughly 8-14" across.
 - ⓘ The battery may be easy to spot, or it may lie under a plastic cover—usually marked with positive (+) and/or negative (-) symbols.
- On some models, the battery may be located in the trunk—usually under or behind the trunk lining. Look around or consult your owner's manual.

Step 6



- Using a correctly sized wrench or socket, loosen the nut/bolt securing the cable on the **negative** battery terminal.
 - ⚠ Always disconnect the negative cable **first** (before removing the positive cable).
 - ⓘ The negative terminal may be marked with a minus (-) symbol, or it may be unmarked. The positive terminal is almost always marked with a plus (+) symbol, often in red.
- If the nut or bolt spins without loosening, it may be necessary to counter-hold the opposite side with a second wrench or socket.

Step 7



- Remove the cable from the negative battery terminal.
- ⓘ When connecting the battery, it is advised to roughen up the battery terminals and clean the cable clamp beforehand.
- ☑ Upon reconnecting the battery, make sure to seal the pole connections with an appropriate terminal grease or terminal spray.

Step 8



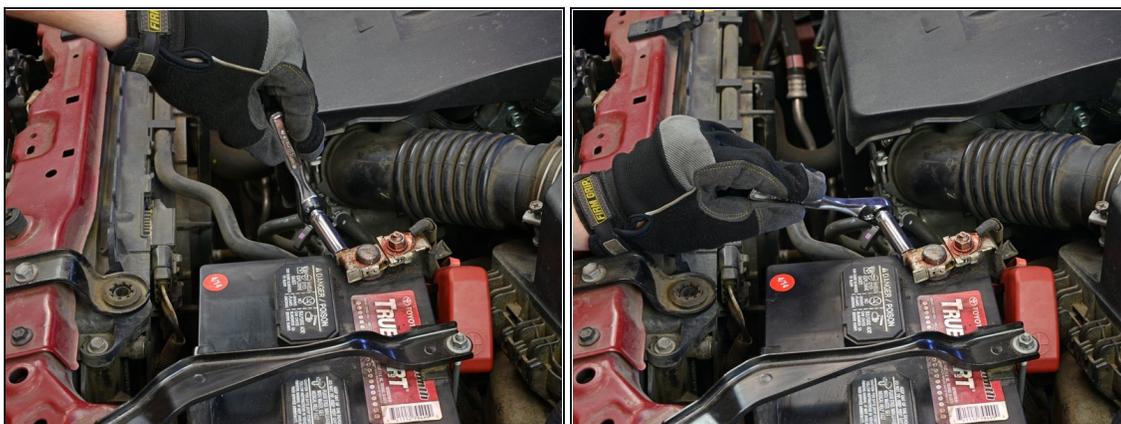
- ⚠ Prevent the cable from making accidental contact with the terminal by pushing it aside and/or wrapping the cable clamp with a dry rag.

Step 9 — Battery



- Remove the insulating cover from the positive battery terminal (if one is present).

Step 10



- Using a correctly sized wrench or socket, loosen the nut/bolt securing the cable on the **positive** battery terminal.
 - ⓘ If the nut or bolt spins without loosening, it may be necessary to counter-hold the opposite side with a second wrench or socket.

Step 11



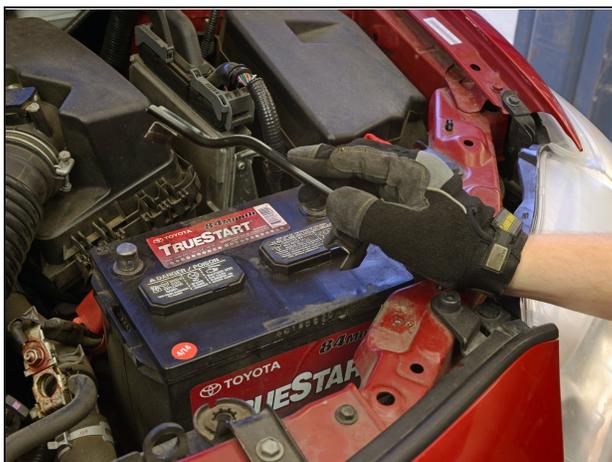
- Remove the cable from the positive battery terminal.
 - ☒ During reassembly, be sure to reconnect and tighten the positive cable clamp **first** (before the negative cable clamp).

Step 12



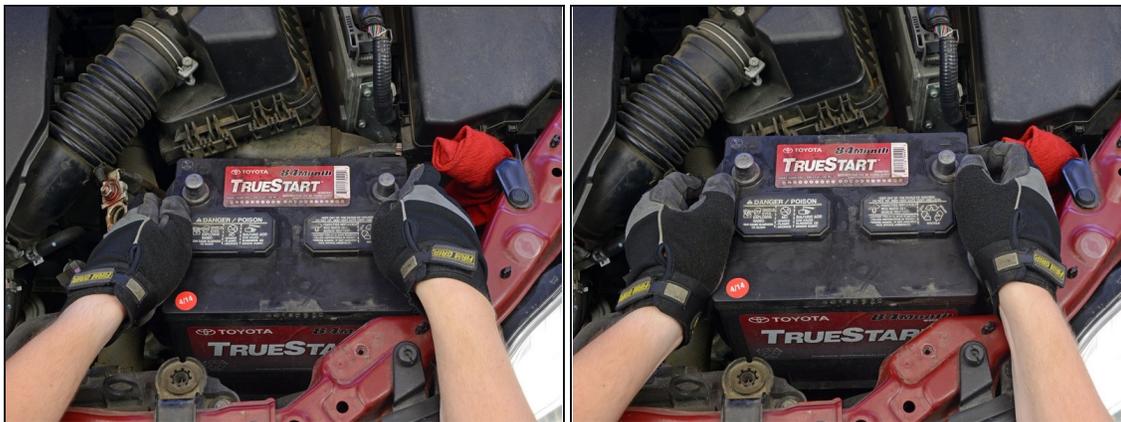
- Remove any bolts securing the battery.

Step 13



- Remove any bars or brackets securing the battery.

Step 14



- Remove the battery.

⚠ A typical car battery can weigh 50 pounds or more, so lift carefully and get help if needed. Do **not** drop the battery, as this can release dangerous chemicals.

- If your battery cable clamps look dirty and/or corroded, clean them up with a wire brush and a mixture of water and baking soda before installing your new battery.
- To prevent corrosion in the future, coat the new battery's terminals with a little dielectric grease or petroleum jelly.

⚠ **Don't throw the old battery in the trash.** Many auto parts stores and service stations will accept old batteries for free safe disposal.

To reassemble your device, follow these instructions in reverse order.