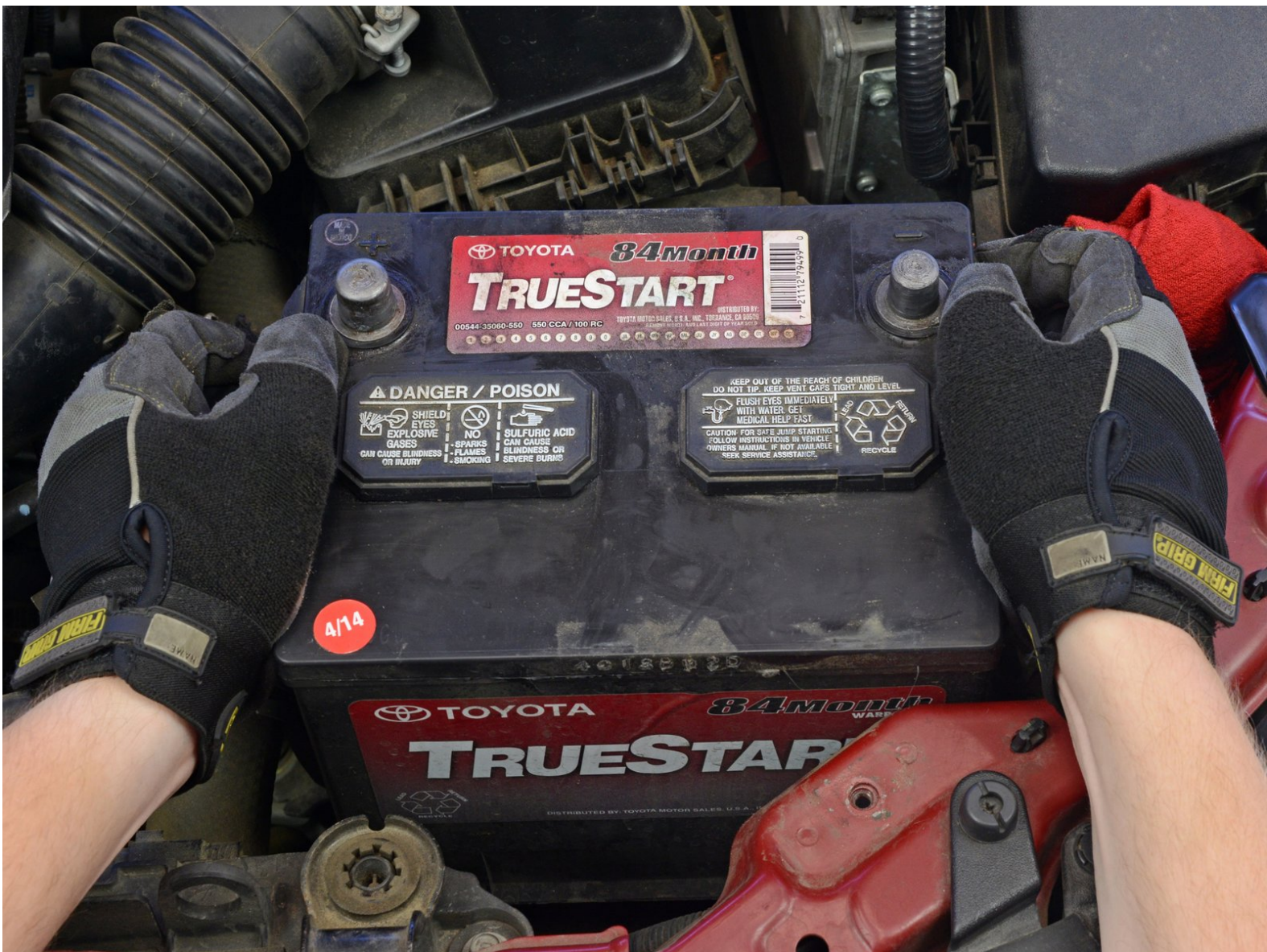




Car and Truck Battery Replacement

Change a dead battery in your vehicle, or remove it temporarily for better access to other components.

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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 for most motor vehicles.

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

Note: Disconnecting your battery may erase certain stored settings, such as radio/navigation presets and power window memory. 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)
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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.

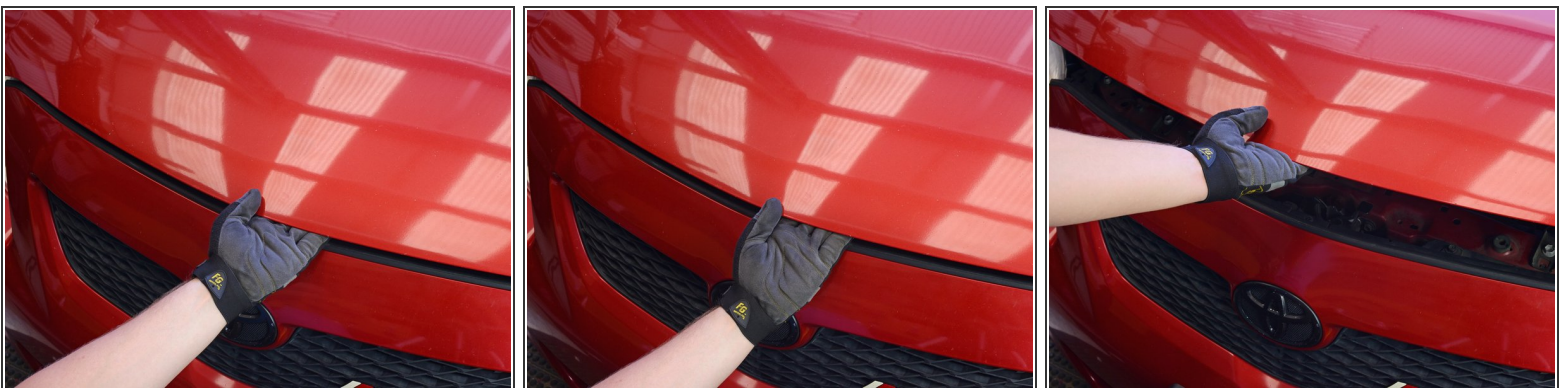
- In addition to being dirty, the battery contains corrosive agents and may release flammable gases.
- Gloves can also help protect you from an unpleasant shock if you accidentally mishandle the battery.

Step 2 — Open the hood (bonnet)



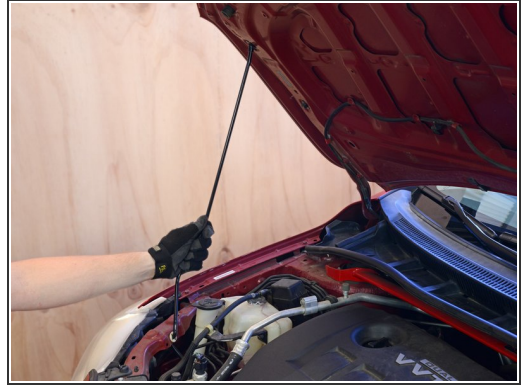
- i** Most motor vehicle batteries are located in the engine bay, under the hood (a.k.a. bonnet). If your battery is located elsewhere, [skip to Step 5](#).
- If you're not sure, simply continue reading.
 - Pull the hood release lever. It's usually located inside the car, near the steering wheel.

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



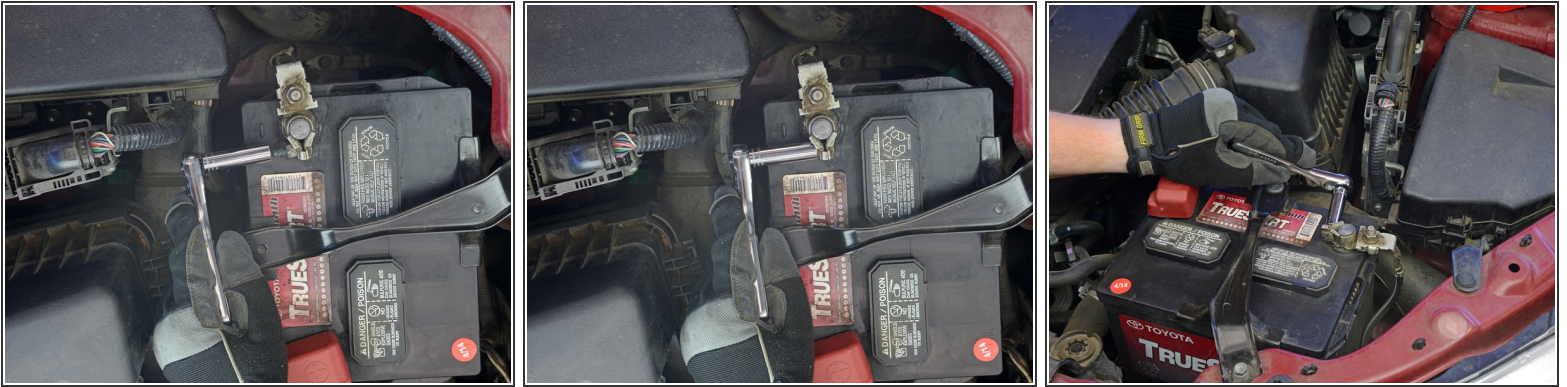
- i** At this point, depending on the vehicle, your hood may raise and support itself automatically.
- If not, use one hand to hold the hood open temporarily while securing the hood with the prop rod:
 - Lift one end of the prop rod up or out to release it from the front area of the engine bay.
 - Swing 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.
- i** 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).

i 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.

Step 8



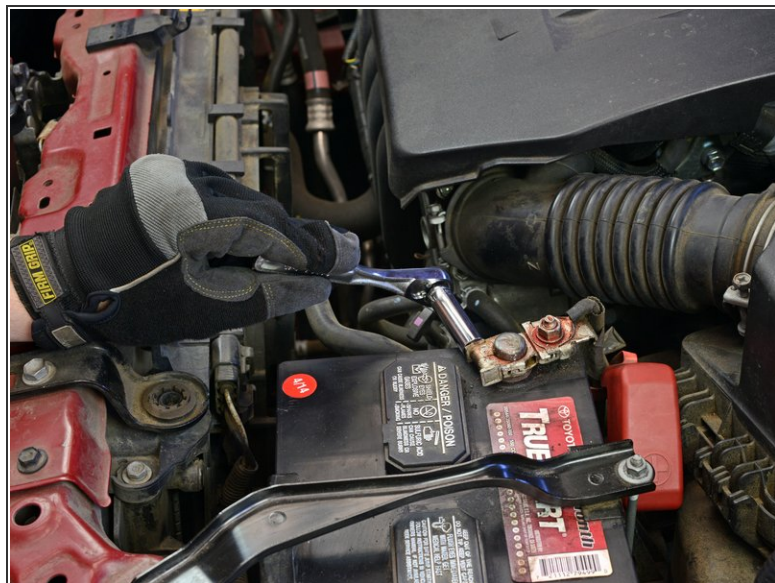
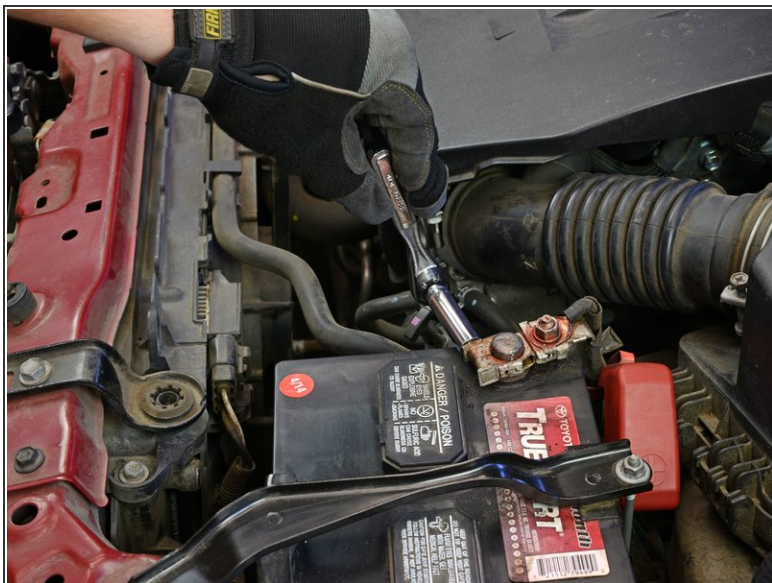
- ⚠ Prevent the cable from making accidental contact with the terminal by pushing it aside and/or wrapping the cable clamp with a dry rag.

Step 9 — Battery



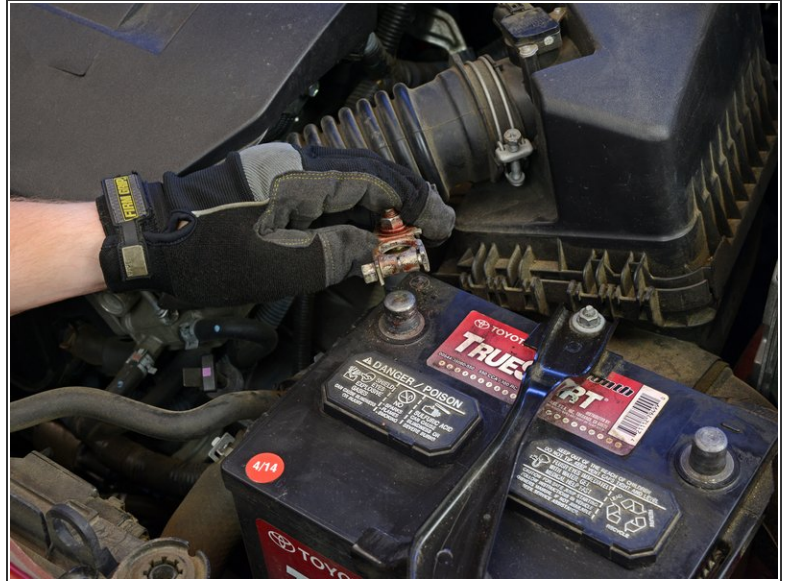
- Remove the insulating cover from the positive battery terminal (if one is present).

Step 10



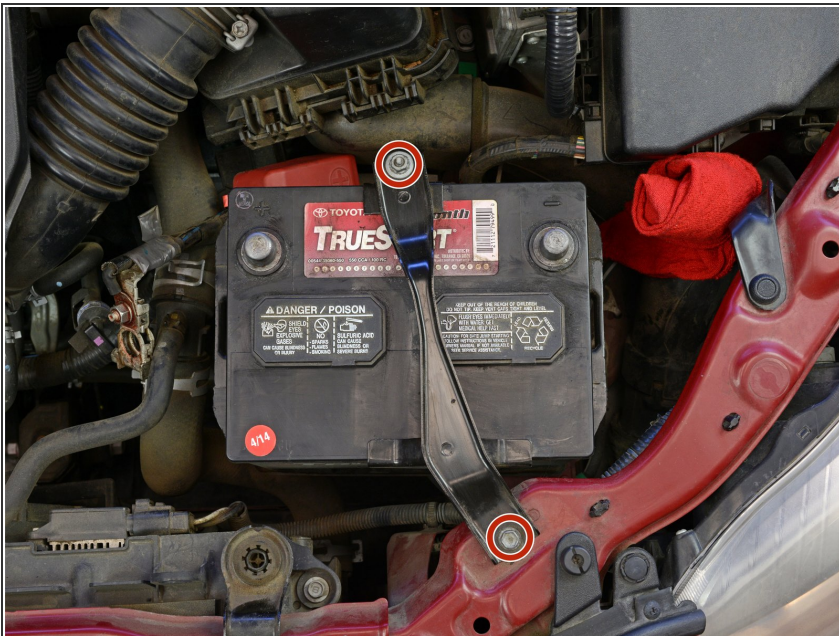
- Using a correctly sized wrench or socket, loosen the nut/bolt securing the cable on the **positive** battery terminal.
- ⓘ If the nut or bolt spins without loosening, it may be necessary to counter-hold the opposite side with a second wrench or socket.

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



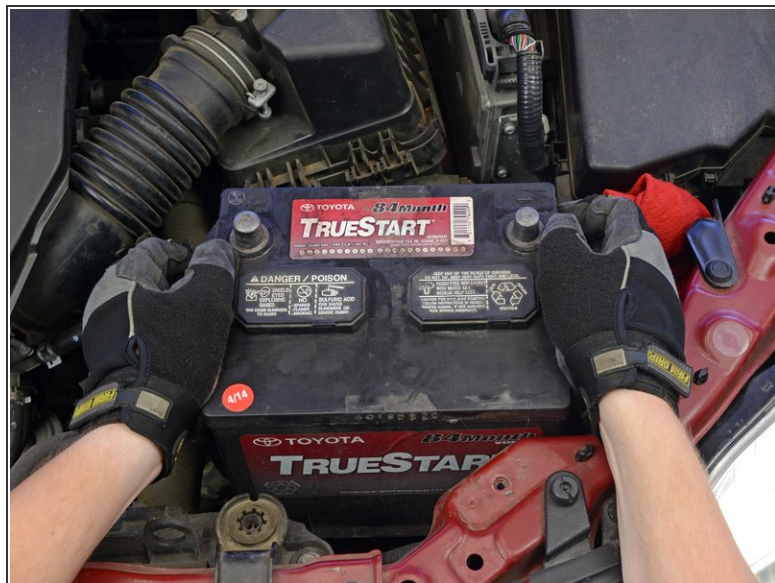
- Remove any bolts securing the battery.

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 safe disposal.

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