

Standby Generator Safety and Connections

While standby generators can provide relief and convenience during a power outage, they can also be hazardous if used improperly. To keep your family safe when using a standby generator, please follow these basic rules.

1. Never operate a portable generator inside a home, garage, or other closed building.

Just like your car's engine, your generator produces carbon monoxide when it's running. This is an odorless, invisible and deadly gas that will overtake you in minutes. To keep fumes away from people and pets, operate the generator outdoors and away from air intakes to the home. Also consider installing a carbon monoxide alarm (with battery backup) in the home, especially in sleeping areas.

2. Never plug a portable electric generator into a regular household outlet or breaker box.

Connecting a portable generator directly into your home's circuitry can send electricity back through power lines, creating lethal hazards for utility crews working to restore power. It can also damage your home's electrical wiring or may even destroy the generator when power returns.

Instead, connect individual appliances into the receptacle outlets on the generator. Use heavy duty, outdoor-rated extension cords with a wire size (gauge) adequate for the appliance load. Your generator should be started first, then connected to individual appliances



3. Permanently-installed generators for homes or businesses should only be installed by a certified electrician and have a properly wired transfer switch.

Once the decision is made to purchase a permanently-installed generator, most of the hazards tied to portable units disappear. Rather than extension cords, the generator will provide power to critical loads through a transfer switch and wiring that is now part of the home's electrical system. The issue of carbon monoxide is also gone, because the certified installer will locate the generator at a safe distance from the home.

The key is to select a qualified and experienced installer. They will need to conduct a complete inventory of the loads to be powered, to determine proper sizing of the generator, transfer switch and conductors. The installation must conform to both local codes and the stipulations of your electric utility.

Before investing in a back-up generator, consider purchasing our guide for homeowners, farmers and small businesses titled **Sizing and Selecting Your Standby Generator**. This 20-page full-size booklet is available on this site. Click [here](#) to read a full description and prices in our shopping cart. The explanations, tips and useful images will help you properly select and install a standby generator system.

