

# Portable Electric Generator Safety Tips

Portable electric generators offer great benefits when outages affect your home. Below are guidelines for safely connecting and operating portable generators. Additional information is available about [selecting and purchasing generators](#).



## **Don't connect your generator directly to your home's wiring.**

Connecting a portable electric generator directly to your household wiring can be deadly to you and others. A generator that is directly connected to your home's wiring can 'backfeed' onto the power lines connected to your home.

Utility transformers can then "step-up" or increase this backfeed to thousands of volts—enough to kill a utility lineman making outage repairs a long way from your house. You could also cause expensive damage to utility equipment and your generator.

The only safe way to connect a portable electric generator to your existing wiring is to have a licensed electrical contractor install a transfer switch. The transfer switch transfers power from the utility power lines to the power coming from your generator.

## **Never plug a portable electric generator into a regular household outlet.**

Plugging a generator into a regular household outlet can energize "dead" power lines and injure neighbors or utility workers. Connect individual appliances that have their outdoor-rated power cords directly to the receptacle outlet of the generator, or connect these cord-connected appliances to the generator with the appropriate outdoor-rated power cord having a sufficient wire gauge to handle the electrical load.

## **Don't overload the generator.**

Do not operate more appliances and equipment than the output rating of the generator. Overloading your generator can seriously damage your valuable appliances and electronics. Prioritize your needs. A portable electric generator should be used only when necessary, and only to power essential equipment.

## **Never use a generator indoors or in an attached garage.**

Just like your automobile, a portable generator uses an internal combustion engine that emits deadly carbon monoxide. Be sure to place the generator where exhaust fumes will not enter the house. Only operate it outdoors in a well-ventilated, dry area, away from air intakes to the home, and protected from direct exposure to rain and snow, preferably under a canopy, open shed or carport.

## **Use the proper power cords.**

Plug individual appliances into the generator using heavy-duty, outdoor-rated cords with a wire gauge adequate for the appliance load. Overloaded cords can cause fires or equipment damage. Don't use extension cords with exposed wires or worn shielding. Make sure the cords from the generator don't present a tripping hazard. Don't run cords under rugs where heat might build up or cord damage may go unnoticed.

## **Read and adhere to the manufacturer's instructions for safe operation.**

Don't cut corners when it comes to safety. Carefully read and observe all instructions in your portable electric generator's owner manual.

## **To prevent electrical shock, make sure your generator is properly grounded.**

Consult your manufacturer's manual for correct grounding procedures.

## **Do not store fuel indoors or try to refuel a generator while it's running.**

Gasoline (and other flammable liquids) should be stored outside of living areas in properly labeled, non-glass

safety containers. They should not be stored in a garage if a fuel-burning appliance is in the garage. The vapor from gasoline can travel invisibly along the ground and be ignited by pilot lights or electric arcs caused by turning on the lights. Avoid spilling fuel on hot components. Put out all flames or cigarettes when handling gasoline. Always have a fully charged, approved fire extinguisher located near the generator. Never attempt to refuel a portable generator while it's running.

**Turn off all equipment powered by the generator before shutting down your generator.**

**Avoid getting burned.**

Many generator parts are hot enough to burn you during operation.

**Keep children away from portable electric generators at all times.**