

Power for your life

Portable generator safety



What is a portable generator?

Portable generators offer a reliable back-up source of power during electrical power outages, and can provide relief during times of severe weather such as ice or wind storms. However, these helpful devices must be used and maintained properly to avoid very serious health and safety risks. The best way to ensure you and co-op line crews stay safe when you are using a generator is to educate yourself and plan ahead.

What are the safety risks?

The main risks to be aware of when using a portable generator are electrocution, carbon monoxide poisoning, electrical accidents and fire.

When should portable generators be used?

A portable generator should only be used when necessary, and only to power essential equipment or appliances. Do not overload the generator by operating more appliances and equipment than the generator can handle.

*Here is one example of a double-throw transfer switch. It should **ONLY** be installed by a professional.*

Contact your local electric cooperative for specific requirements in your area.



Proper installation is critical

Properly connecting the generator is a critical step for your safety since improper installation or use could be deadly. A licensed electrician should be consulted to determine the best equipment for your needs to be sure it meets local codes.

Never connect a generator directly to your home's wiring without having an appropriate transfer switch installed. Many electric cooperatives require a double-throw transfer switch, but you should contact your co-op for specific requirements. The transfer switch breaks the path of electricity between the power lines and your main electrical panel. This is the best way to protect you, your neighbors and utility crews from 'back feed.' Back feed occurs when an improperly connected generator begins feeding electricity "back" through the power lines.

**Nearly 70 percent
of deaths caused by
portable generators
occur at home.¹**

¹Source: Electrical Safety Foundation International (ESFI)

Generators must be kept outdoors

Always place your generator outdoors and away from open windows and secure it from moving while in operation. When used in a confined space, generators can rapidly produce deadly levels of carbon monoxide. Never use a generator indoors or in partially enclosed spaces, including homes, garages, basements and crawl spaces. Never run a generator in areas where people or animals are present. Opening doors and windows or using fans will not prevent carbon monoxide build-up in the home. You cannot see or smell this potentially deadly gas so be sure to install carbon monoxide detectors in your home and test them frequently to be sure they are working.



Avoid electrical accidents & fire

To prevent electric shock, make sure your generator is properly grounded and always kept dry. The operation manual should provide correct grounding procedures.

Individual appliances should be plugged directly into the receptacle outlet of the generator using appropriately sized extension cords to carry the electric load. Make sure the cords are rated for outdoor use, have a grounded, three-pronged plug, and are in good condition; and do not run extension cords under rugs.

Powering down and safe storage

Turn off all appliances powered by the generator before shutting it down, and before refueling the generator always turn it off and let it cool down. Make sure you store the fuel for your generator away from living areas in properly labeled child-proof containers, and away from fuel-burning appliances. Be sure to keep children away from portable generators at all times and educate them about potential dangers. *Contact your local electric cooperative for more information and specific requirements for portable generators in your area.*



Critical facts to remember:

- Never run a generator indoors
- Do not overload a generator
- Consult a professional to install or help install your generator
- Never connect generators to household wiring without installing a proper transfer switch
- Keep a working carbon monoxide detector and check it monthly
- Always keep your generator dry
- Observe all recommended maintenance schedules
- Keep children away from generators at all times



Missouri's Electric Cooperatives