

Be prepared

How to Safely Use a Portable Generator

Storms can disrupt the flow of electrical power to your home or business. In recent years people increasingly have bought backup generators to provide temporary power during such outages.

But portable generators can be dangerous if they're not used properly. The two main hazards are carbon monoxide poisoning from exhaust fumes and electrocution. The American Red Cross reports that during the Northeastern Ice Storm of early 1997, as many as 100 people were killed and 5,000 injured in accidents involving portable generators.

Here are tips for safely choosing, installing and operating a generator.

Choosing a generator

- ◆ Determine the "constant" or "run" wattage you need a generator to provide. A generator will operate a limited number of appliances and lights. Decide what items you need most and add up their total wattage; that's the "constant" or "run" wattage.
- ◆ Determine the "start-up" wattage. Refrigerators, freezers, air conditioners and furnace blowers require up to three times their normal, constant wattage to start. Choose a generator that has a surge rating that meets or exceeds your "start-up" wattage needs, too.
- ◆ Compare the generator's voltage ratings with those of the appliances to which you want to provide power. Portable generators may be rated for 120 volts only – or for a combination of 120 and 240 volts. Most household appliances are rated at 120 volts, but some larger appliances may require 240 volts.

Installing a generator

- ◆ Never install a portable generator indoors – not even in a garage. Its exhaust fumes could kill you.
- ◆ Buy a carbon monoxide alarm. If the exhaust fumes do somehow seep into your building, the alarm will warn you.
- ◆ Never hook up a generator directly to your building's main wiring. This creates "backfeed." That's where a generator sends electricity to outside power lines, which may have been downed by a storm or turned off by utility employees. Backfeed can electrocute you or workers repairing nearby lines.

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- ◆ Instead, have a qualified electrician install a transfer switch. It will isolate your generator's power from utility lines.

If for some reason you don't add a transfer switch, then at least use outdoor-rated, three-pronged extension cords to plug your appliances and lights directly into the generator, rather than connecting the generator to your building's main wiring.

Using a generator

- ◆ Be careful with the fuel. Turn the generator off to refuel; gas vapors can ignite if they touch hot machinery. Store fuel in a secure location.
- ◆ Keep the generator, cords and appliances away from water. Make sure you're standing in a dry place when you switch the generator on or off.
- ◆ Turn off or unplug appliances before you start the generator. Once the generator is running, turn the appliances on one at a time to avoid overloading the unit.
- ◆ When regular electric power is restored, turn off the generator.

Sources: We Energies; American Red Cross; DTE Energy; Atlanta Journal-Constitution; U.S. Consumer Product Safety Commission.