

PLAY IT SAFE!

To avoid injuring someone or damaging your generator or appliances, it's important to follow the manufacturer's instructions and the safety tips provided in this brochure. If you still have questions about how to install or operate your portable generator, call an electrical contractor or a generator retailer, manufacturer, or rental company. Get your questions answered before you connect or operate the generator. When you follow this advice, your portable generator can provide safe, temporary power until your service is restored.



SAFELY OPERATING PORTABLE GENERATORS

Your guide for
safe emergency power

This brochure provides tips on how to safely operate a portable generator. The operator is solely responsible for the safe and proper operation of a portable generator.



If you're planning to use a portable generator for temporary power, we have some important safety tips to share with you.



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DTE Energy works hard to provide you with reliable electric service, but you just never know when Mother Nature may cause a power outage. If you're planning to use a portable generator for temporary power, we have some important safety tips to share with you.

A portable generator can be a good temporary power supply for lighting, vital medical equipment, refrigerators, sump pumps, or other essential appliances, provided it's installed and operated properly. When not used properly, a generator can pose a real threat to you, your neighbors and our line crews.

Always follow the manufacturer's instructions when installing and operating a portable generator. In addition, we urge you to follow the advice in this brochure.



SELECTING YOUR GENERATOR

Determine the “constant wattage.”

When you use a portable generator, you can only operate a limited number of appliances and lights. Determine what items you need to operate and add up that wattage. That total is your “constant wattage” - the energy you will constantly need to keep the selected items running.

Determine the “start-up wattage.”

Motor-driven appliances, such as refrigerators, freezers, air conditioners and furnace blowers require up to three times their normal wattage to start or to periodically cycle a compressor. Choose a generator that meets or exceeds your “constant wattage” needs and that also has a surge rating that meets or exceeds your “start-up wattage” needs.

Match voltage ratings.

The generator’s voltage rating must also match the voltage ratings of the items you want to operate. Portable generators may be rated for 120 volts only or a combination of 120 and 240 volts. Most household appliances are rated at 120 volts. Some larger electric appliances, such as ranges, dryers and well pumps, are rated at 240 volts. These appliances cannot be operated on a 120-volt generator.

WATTAGE REFERENCE GUIDE

Appliance	Average wattage*
Air conditioner (room)**	
- 6,000 BTU	750 - 1200
- 12,000 BTU	1,700
Freezer**	500
Furnace blower** (1/3 HP)	1200
Lamp	Check bulb wattage
Microwave	700
Radio	50 - 200
Refrigerator**	600
Space heater (portable)	1,300
Sump pump	250 - 600
Television	200 - 500
Window fan	200

* *Appliance wattages vary. These figures represent averages only.*

** *Allow up to three times the normal running watts for starting these appliances or cycling their compressors.*

HOW MANY WATTS?

Generator

Look for a label on the equipment indicating its wattage capacity and check the operating manual.

Appliances

Look for labels inside or on the back of the appliance, check operating manuals or contact the manufacturer.



If you are unable to find a wattage label, you can compute the running wattage of an appliance by multiplying its AMPS by its VOLTS. Remember, motor-driven appliances (refrigerators, freezers, air conditioners, furnace blowers) require up to three to ten times their normal wattage to start or to periodically cycle a compressor.

CONNECTING YOUR GENERATOR

Get some expert advice.

If you purchase a generator, have a qualified electrician properly size and install it. If you install the generator yourself, have a local electrical inspector check the installation for compliance with safety codes. A permit may be required for installation. If you're renting a generator for temporary use, choose equipment that is properly sized for your needs and that comes with complete operating instructions.



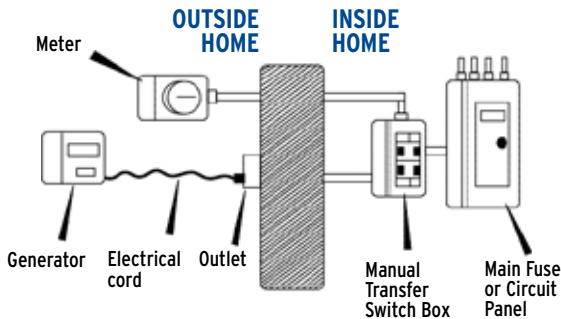
Prevent backfeed.

Backfeed occurs when an improperly connected generator begins feeding electricity back into the power lines. Protect repair crews and your neighbors. Backfeed can seriously injure, or even kill. It can also cause damage to the generator when electric service is restored.

To prevent backfeed and operate your generator safely, we recommend you use one of the following hookup methods:

- **USE A TRANSFER SWITCH**

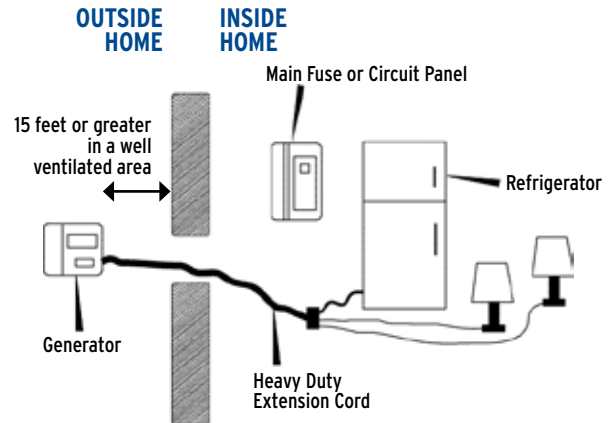
Have a qualified electrician install a transfer switch. This is the best way to protect you, your neighbors and our repair crews from backfeed. The transfer switch allows closure of the path of electricity between our lines and your main electrical panel and opens the path between the generator and the panel.



Have an electrician install a transfer switch to prevent backfeed. This is the safest way to hook up a portable generator.

- **USE A DIRECT HOOKUP**

If you do not install a transfer switch, plug the appliances you want to operate directly into the generator. For an extra measure of safety, switch your main fuses or circuit breakers to the "off" position.



OPERATING YOUR GENERATOR

Read all instructions.

And make sure you understand them before hooking up the generator. Always operate the generator in accordance with the manufacturer's instructions.

Properly ground the generator.

The manufacturer's instructions should tell you how to do this.

Good ventilation is critical.

Generators emit carbon monoxide. Never operate a generator indoors or in an unventilated area. Place it in a dry, outside location. Turn the generator off to refuel.

Protect yourself.

Avoid dangerous electric shocks. Make sure that your hands are dry and you're standing in a dry place whenever you operate the generator.

Protect your appliances.

Turn off or disconnect all appliances and lights before you begin operating the portable generator. Once the generator is running, turn your appliances and lights on one at a time to avoid overloading the unit.

Share the power.

If your electric load is greater than your generator's capacity, shut source of power off before physically connecting/disconnecting appliances and lights. This shared approach may help maintain temperatures in freezers and refrigerators while alternately operating sump pumps or furnaces until power is restored.

Use the right extension cord. Use only UL-listed, three-prong extension cords. Be sure the extension cord is the proper size (wire gauge) to handle the electric load that will be plugged into it.

WHEN POWER IS RESTORED

If you hooked up your generator using a transfer switch, shut the generator off in accordance with the manufacturer's instructions. Follow manufacturer's instructions to resume normal electric supply from our lines.

If you have used the direct hookup method, first turn off or unplug all lights and appliances operated by the portable generator. Next, turn off the generator in accordance with the manufacturer's instructions. Return the main fuses or circuit breakers to the normal "on" position. Finally, plug in and turn on your appliances and lights.