

DTE Energy®



Detroit Edison

safely operating
portable
generators



safety

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



We strongly encourage you to always follow the manufacturer's instructions, and these important safety rules, whenever you operate a portable generator.

selecting your generator

Determine the "constant wattage."

A generator can operate a limited number of items. Determine what lights and appliances you need to operate and add up that wattage. That total is your "constant wattage" – the energy you 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 five times their normal wattage to start or to periodically cycle a compressor.

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Choose a generator that meets or exceeds your "constant wattage" needs and 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 volts 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 and cannot be operated on a 120-volt generator.

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.

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 five times their normal wattage to start or periodically cycle a compressor.

Appliance	Average wattage*
Air conditioner (central)** - 48,000 Btu	6000
Air conditioner (room)** - 6000 Btu	750 - 1200
- 12,000 Btu	1700
Coffeemaker	900
Freezer**	500
Furnace blower**(1/3 HP)	1200
Hair dryer	1500
Lamp	Check bulb wattage
Microwave	1450
Personal computer	350
Radio	50 - 200
Refrigerator**	600
Space heater (portable)	1500
Sump pump	250 - 600
Television	200 - 500
Window fan	200

*Appliance wattages vary. These figures represent averages only.

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

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 and ensure the generator is properly grounded. 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 outside power lines. Protect repair crews and your neighbors. Backfeed can seriously injure and even kill! It can also cause damage to the generator when electric service is restored.

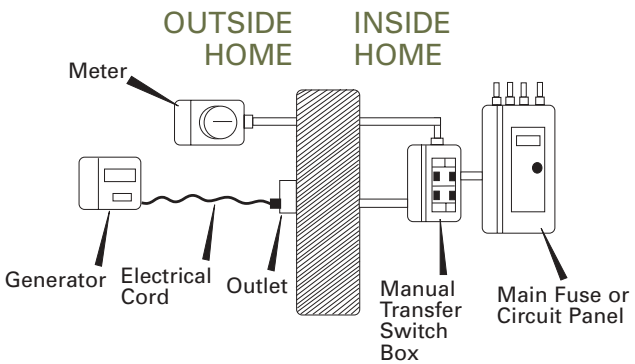


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To prevent backfeed and operate your generator safely, we recommend you use one of the following hookup methods:

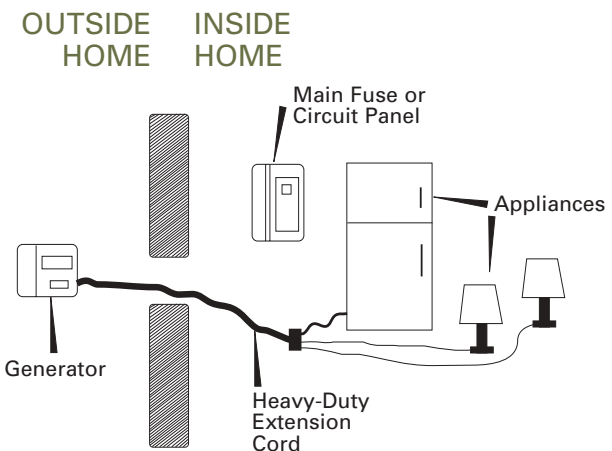
- **Use a transfer switch.**

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 disconnects the path of electricity between our power lines and your main electrical panel and connects the path between the generator and the panel.



- **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.

Be sure you understand all instructions before hooking up the generator. Follow the manufacturer's instructions to properly ground the generator.

Good ventilation is important.

Generators emit carbon monoxide. Never operate a generator in your home, garage or other enclosed building. Place it in a dry, outside location. Position the generator away from open windows and away from your neighbors' windows.

Handle fuel carefully.

Turn the generator off and wait for it to cool before refueling. Gasoline and its vapors may ignite if they come in contact with hot components or an electrical spark. Store fuel in a properly designed container in a secure location.

Water conducts electricity.

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 generator. Once the generator is running, turn your appliances and lights on one at a time to avoid overloading the unit and damaging your appliances.



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Share the power.

If your electric load is greater than your generator's capacity, temporarily disconnect some appliances and lights when you connect others. 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 plug 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

Transfer switch.

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

Direct hookup.

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.

play it safe

To avoid fatal injuries and damage to 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. The operator is solely responsible for the safe and proper operation of a portable generator.

Get your questions answered before you connect and operate the generator. When you follow this advice, your generator can provide safe, temporary power until your service is restored.

For more information about electrical safety, please visit my.dteenergy.com.



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