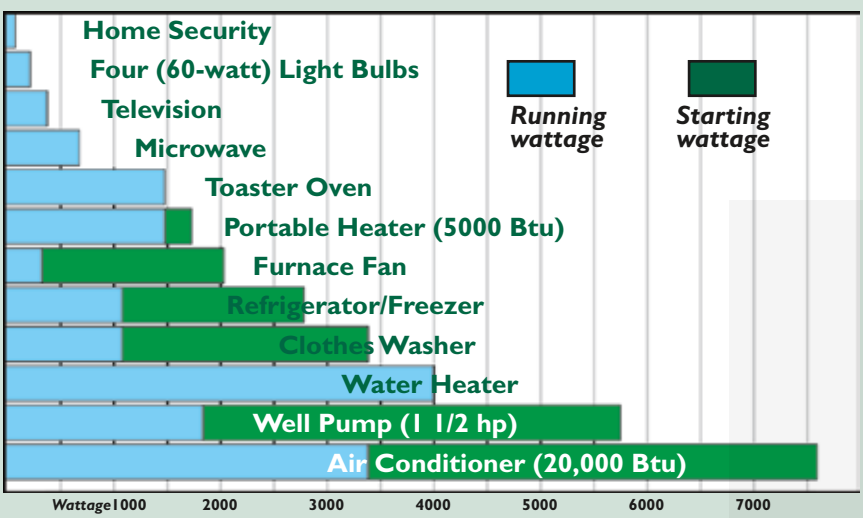
Generator Safety

You can use a portable generator to supply electricity to your appliances if an emergency exists during a power outage. But if used improperly, it can kill you and the people who are restoring service to your home or business.

Generator sizes vary. Common units can be from 8 to 14 horsepower and capable of handling from 4,000 to 8,400 watts (including starting surge requirements). Prices may range from $800 to $3,000.

Connecting a generator to the main electrical supply for your house requires the services of a qualified, licensed electrician. Installing the connection and switch (as explained below) can cost $600 to $1,000.

For information on the safe and proper installation of your portable generator, contact your electric utility.



Determining Wattage Requirements and Generator Size

Never exceed the rated capacity of your generator. Overloading can cause serious damage to the generator or appliances. Determine the size of the generator by the appliances you want to operate. Before operating a generator, list all of the appliances that are going to operate at the same time. Then determine the starting wattage requirements and the running wattage requirements. The starting load lasts only for a few seconds, but is very important when figuring your total wattage to be used. Your generator must be rated to handle the total wattage.

Ratings shown here are samples. Wattage requirements vary with different brands of appliances. Be sure to check the name plate on the appliances you plan to use. Always start your largest electric motor first, then plug in other items one at a time.

7-step plan to prevent generator accidents

1. A qualified, licensed electrician must install a double-pole, double-throw transfer switch to connect the generator to a building's electrical system. This is required by the National Electrical Code. Connection must meet local ordinances. A minimum of 10-gauge wiring must be used.

2. Make sure that the unit is connected to an appropriate electrical ground, in accordance with the National Electric Code. Follow instructions supplied with the generator.

3. Operate generator in a clean, dry, well ventilated area. Make sure your hands are dry.

4. Inspect extension cords before use and replace with new if required. Use proper size (wire gauge) cordset for application. Follow instructions supplied with your unit. Always use electrically grounded cordsets.

5. Turn engine off and allow it to cool before adding fuel. Make sure there's a fire extinguisher in the immediate area certified to handle gasoline or fuel fires.

6. Keep objects away from unit during operation. Do not operate unit in a confined area, such as garages, basements, storage sheds, etc., which lack a steady exchange of air. Never operate unit in a location occupied by humans or animals. Keep children, pets and others away from where it's operating.

7. Never attempt to "speed-up" the engine to obtain more performance. Both the output voltage and frequency will be thrown out of standard by this practice, endangering you and the attachments.