

# Portable Generators

## If You Want to Use a Generator, Play it Safe



Portable fuel-burning generators may be used to supply electricity for the operation of small electrical appliances in the event of a power outage. While a generator can be convenient during an outage, potentially serious hazards exist if a generator is not used or connected properly. No matter how you plan to use a generator, always review all manufacturer's recommendations for safe use and maintenance of the system.

### Direct Panel Plug-In

A very common method for using a portable generator is to plug the appliance, tool or motor directly into the proper electrical outlet on the generator.

It is important to use only high quality, well insulated, ground-  
ed cord sets rated at the same or higher voltage and current than the generator outlet being used. If the generator outlet is protected by a circuit breaker, the cord set should be rated at the **same** amperes as the circuit breaker or **higher**. Do not use worn, bare, frayed or damaged electrical cord sets with the generator. Using defective cord sets may result in electrical shock or damage to equipment and/or property.

### Standby Electrical System

If the generator is to be connected to the building's circuits or wiring, the installation must be made by a qualified, licensed electrician and the following precautions must be taken.

Never connect the generator's electrical output to any live home or building electrical circuits. Never plug a generator into a wall outlet. A positive method of isolating utility power circuits from the generator circuits must be provided. A very common isolation method is to install a transfer switch.

### Generator Hazards

The following hazards exist which require that different power sources be isolated:

- Electrocutation of power company or other emergency personnel can result if the generator circuit is not properly isolated from the electric utility power circuit.

- If generator and utility power are not isolated from each other and utility power is restored while the generator is still supplying power, utility power can backfeed through the generator. Damage to the generator and a possible electrical fire can then occur.

### Play it Safe

- Observe manufacturer's recommendations for safe, efficient installation, operation and maintenance of your generator.
- Do not plug the generator into a wall outlet.
- Use a licensed electrician to hook up generators and other standby electrical systems.
- Never operate a generator in the rain; in any enclosed compartment; if changes in engine speed are evident; if connected electrical devices overheat; if generator electrical output is lost; if sparking is evident; if flame or smoke is observed; or if the generator vibrates excessively.
- Generator exhaust gases contain deadly carbon monoxide gas, so operate only in areas with adequate ventilation.
- Use a ground fault circuit interrupter (GFCI) in a damp or wet location.
- Avoid contact with bare wires, terminals, etc. The generator supplies a very powerful voltage that can cause dangerous and possibly fatal electric shock.