

⚠ DANGER:



Never operate in an enclosed area or indoors! NEVER use in the home, in a vehicle, or in partly enclosed areas such as garages, EVEN IF doors and windows are open! ONLY use outdoors and far from open windows, doors, vents, and in an area that will not accumulate deadly exhaust.



The engine exhaust fumes contain carbon monoxide, which you cannot see or smell. This poisonous gas, if breathed in sufficient concentrations, can cause unconsciousness or even death.



Adequate, unobstructed flow of cooling and ventilating air is critical to correct generator operation. Do not alter the installation or permit even partial blockage of ventilation provisions, as this can seriously affect safe operation of the generator. The generator MUST be operated outdoors.



This exhaust system must be properly maintained. Do nothing that might render the exhaust system unsafe or in noncompliance with any local codes and/or standards.



Always use a battery operated carbon monoxide alarm indoors, installed according to the manufacturer's instructions.

⚠ DANGER

Using a generator indoors CAN KILL YOU IN MINUTES. Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.



NEVER use inside a home or garage, EVEN IF doors and windows are open.



Only use OUTSIDE and far away from windows, doors, and vents.

Special Requirements

There may be Federal or State Occupational Safety and Health Administration (OSHA) regulations, local codes, or ordinances that apply to the intended use of the generator.

Please consult a qualified electrician, electrical inspector, or the local agency having jurisdiction:

- In some areas, generators are required to be registered with local utility companies.
- If the generator is used at a construction site, there may be additional regulations which must be observed.

Connecting the generator to a building's electrical system

When connecting directly to a building's electrical system, it is recommended that a manual transfer switch is used. Connections for a portable generator to a building's electrical system must be made by a qualified electrician and in strict compliance with all national and local electrical codes and laws.

⚠ WARNING:

You must isolate the generator from electric utility by opening the electrical system's main circuit breaker or main switch if the generator is used for backup power. Failure to isolated the generator from the power utility may result in injury or death to electric utility workers and damage to the generator due to backfeed of electrical energy.

WATTAGE REFERENCE GUIDE

Device	Running Watts
*Air Conditioner (12,000 Btu)	1700
*Air Conditioner (24,000 Btu)	3800
*Air Conditioner (40,000 Btu)	6000
Battery Charger (20 Amp)	500
Belt Sander (3")	1000
Chain Saw	1200
Circular Saw (6-1/2")	800 to 1000
*Clothes Dryer (Electric)	5750
*Clothes Dryer (Gas)	700
*Clothes Washer	1150
Coffee Maker	1750
*Compressor (1 HP)	2000
*Compressor (3/4 HP)	1800
*Compressor (1/2 HP)	1400
Curling Iron	700
*Dehumidifier	650
Disc Sander (9")	1200
Edge Trimmer	500
Electric Blanket	400
Electric Nail Gun	1200
Electric Range (per element)	1500
Electric Skillet	1250
*Freezer	700
*Furnace Fan (3/5 HP)	875
*Garage Door Opener	500 to 750
Hair Dryer	1200
Hand Drill	250 to 1100
Hedge Trimmer	450
Impact Wrench	500
Iron	1200
*Jet Pump	800
Lawn Mower	1200
Light Bulb	100
Microwave Oven	700 to 1000
*Milk Cooler	1100
Oil Burner on Furnace	300
Oil Fired Space Heater (140,000 Btu)	400
Oil Fired Space Heater (85,000 Btu)	225
Oil Fired Space Heater (30,000 Btu)	150
*Paint Sprayer, Airless (1/3 HP)	600
Paint Sprayer, Airless (handheld)	150
Radio	50 to 200
*Refrigerator	700
Slow Cooker	200
*Submersible Pump (1-1/2 HP)	2800
*Submersible Pump (1 HP)	2000
*Submersible Pump (1/2 HP)	1500
*Sump Pump	800 to 1050
*Table Saw (10")	1750 to 2000
Television	200 to 500
Toaster	1000 to 1650
Weed Trimmer	500

* Allow 3 times the listed watts for starting these devices.

⚠ CAUTION:

To minimize gum deposits in your fuel system and to insure easy starting, do not use gasoline left over from the previous season.

⚠ CAUTION:

Pressure can build up in the fuel tank. Allow the generator to cool for at least two minutes before removing fuel cap. Loosen the fuel cap slowly to relieve any pressure in the tank.

Electrical devices

- Disconnect all electrical devices from the generator and switch off the circuit breaker before starting the engine.
- The generator may be hard to start with electrical devices connected. Damage to electrical devices may occur.
- The power needed to run connected electrical devices can not be over the limit of generator max power, see parameter sheet for reference.

Grounding

- The generator must be properly connected to an appropriate ground. It helps prevent electrical shock if a ground fault condition exists in the generator or in connected electrical devices, especially with a wheel kit. Proper grounding also helps dissipate static electricity, which often builds up in ungrounded devices.

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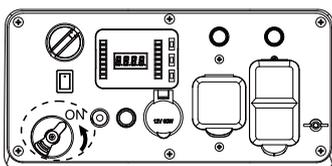
Electric Shock

Failure to properly ground the generator can result in electric shock.

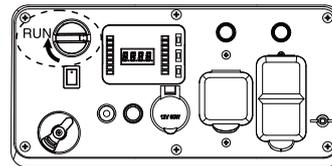
- A ground terminal has been provided on the generator. For remote grounding, connect a length of heavy gauge (12 AWG) copper wire between the generator ground terminal and a copper rod driven into the ground.
- The National Electrical Code requires that the frame and external electrically conductive parts of this generator be properly connected to an approved earth ground. Local electrical codes may also require proper grounding of the unit. We strongly recommend that you consult with a qualified electrician for grounding requirements in your area.

Starting the generator

1. Turn the fuel switch to the "ON" position.

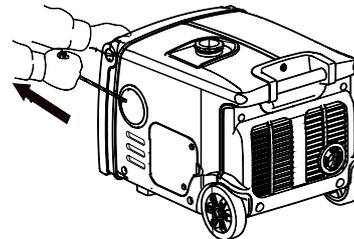


2. Turn the engine switch to "RUN" position.



3. Starting the engine.

Manual start - Pull the starter grip slowly until it is engaged, then pull it quickly.



⚠ CAUTION:

Return the starter grip slowly by hand. Do not let the starter grip spring back quickly.



⚠ WARNING:

Kickback

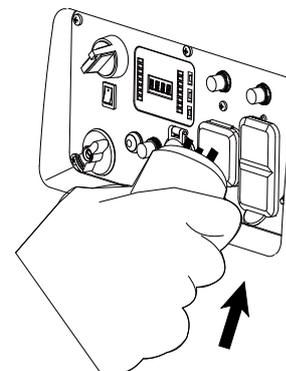
Rapid retraction of the starter cord will pull hand and arm towards the engine faster than you can let go.

Unintentional startup can result in entanglement, traumatic amputation or laceration. Broken bones, fractures, bruises or sprains could result.

⚠ CAUTION:

If the engine fails to start after attempt for 3 times or flames out after starting, inspect and ensure that the generator is placed on horizontal surface and enough engine oil is included.

4. After all above operations, The unit is ready for use.



⚠ WARNING:

Do not start or stop the generator when the output terminal of generator is connected to an electric device and the electric device is in "ON" state.

Connect to electrical devices

- Inspect power cord for damage before using. There is a hazard of electrical shock from crushing, cutting or heat damage.
- Make sure that the generator has been properly grounded. If the electric devices require grounding, the generator must be grounded.
- Allow the engine to stabilize and warm up for a few minutes after starting.
- Make sure that the electric devices are in "OFF" position.
- Connect and start the electric devices.
- If the generator supplies for several loads or electric devices, start the smallest one first and the largest one last.

⚠ CAUTION:

If connected devices overheat, turn them off and disconnect them from generator.



⚠ DANGER:

Electric Shock

To reduce the risk of electrical shock, DO NOT use electrical cords that are worn, frayed, bare or otherwise damaged.

DO NOT touch bare wires of receptacles.

DO NOT handle generating set or electrical cords while standing in water, while barefoot, while hand or feet are wet.

⚠ WARNING:

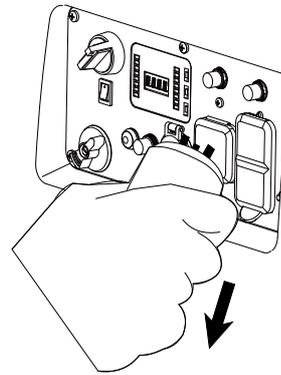
DO NOT overload the generator

Exceeding the capacity of generator can damage the generator and/or electrical devices connected to it.

- You must make sure your generator can supply enough rated (running) and surge (starting) watts for the electrical devices you will power at the same time. Follow these simple steps to calculate the running and starting watts necessary for your purposes.
 1. Select the electrical devices you will power at the same time.
 2. The amount of power you need to run all the devices is the total rated (running) watts of these items.
 3. Identify how many surge (starting) watts you will need. Surge wattage is the short burst of power needed to start electric motor-driven tools or appliances such as a circular saw or refrigerator.
- Because not all motors start at the same time, total surge watts can be estimated by adding only the electrical device(s) with the highest additional surge watts to the total rated watts, refer to page 2.

Stopping the generator

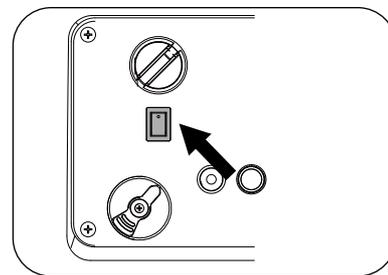
1. Turn off loads first.
2. Remove all loads on generator by Removing the plugs of all electric equipment from the generator panel.



⚠ WARNING:

NEVER stop the engine with electrical devices connected and with the connected devices turned "ON".

3. Turn the energy saving switch to the "ON" position.



4. Allow the generator run at no load for a few minutes to stabilize internal temperatures of the engine and generator.

5. Turn off generator, turn off fuel.

⚠ CAUTION:

When the generator is overloaded, the red light will blink. If the generator continues to be overloaded, the light will be on continuously. This overload condition may damage the generator and shorten the service life.

When continuously operating the generator, power cannot exceed the rated power of generator.

The total power of electric devices cannot exceed the rated power of generator. The manufacturers of electric devices or tools always list the rated power of similar models or by serial number.

Transportation

To prevent fuel spillage when transporting or during temporary storage, the generating set should be secured upright in its normal operating position, with the engine switch OFF. The fuel valve lever should be turned OFF.

⚠ WARNING:

When transporting:

DO NOT overfill the tank.

DO NOT operate the generator while it is on vehicle. Take the generator off the vehicle and use it in a well-ventilated place. Avoid a place exposed to direct sunlight when putting the generator on a vehicle. If the generator is left in an enclosed vehicle for many hours, high temperature inside the vehicle could cause fuel to vaporize resulting in a possible explosion.

DO NOT drive on a rough road for an extended period with the generator on board. If you must transport the generator on a rough road, drain the fuel from the generator beforehand.