



MAINTENANCE

How To Safely Use Portable Generator Safety Checklist | 12 Key Tips From Experts

BySaad Ahmed • October 10, 2024

Generators are a great way to power your whole house and office, but they can also pose a severe risk to your safety if you don't follow the proper safety precautions. This is especially true if you don't know what you're doing.

Were you aware that generators accounted for 81% of fatalities associated with engine-driven tools, as reported by [cpsc.gov](https://www.cpsc.gov)? Suppose you want to understand the correct usage of gasoline and diesel generators, especially in emergencies. In that case, it can be a crucial factor between life and death in a few minutes.

How To Safely Use Power Generator Safety Checklist (12) Points

Using an open or closed-frame generator can be invaluable during power outages or in areas without electricity. However, improper handling can be hazardous, so it's essential to operate them carefully to ensure your safety and that of everyone around you.

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Before using a generator, it's important to read and understand the user manual provided by the manufacturer. The manual contains [essential safety rules](#), operational guidelines, maintenance tips, and specific information about your generator model.

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1. Use Outdoors Only

All generators should only be used outdoors, never indoors or in enclosed spaces like garages, basements, or sheds. Operating a generator indoors can lead to a buildup of toxic carbon monoxide (CO) gas, which is odorless and deadly. Maintain the generator in a space that has adequate airflow and ventilation.

It's silent and odorless, making it difficult to detect. Its effects might not become apparent until it is too late. Carbon monoxide (CO) buildup can be

lethal within minutes. In 2020, more lives were [claimed](#) by CO poisoning from generators in Louisiana and Texas.

Avoid The Risk Of CO Poisoning

Install [carbon monoxide](#) (CO) alarms in **your home**. On the other hand, opt for a generator with an automatic CO shut-off feature. or any model mentioned on this list.

| Brand | Model | Watt |
|--------------|------------|------------|
| Generac | 7676 | 4000-watt |
| Generac | 8011 | 7500 watts |
| WEN | 56400iX | 4000-watt |
| DuroMax | XP5500HX | 5500-watt |
| Champion | 100416 | 8000-watts |
| Champion | 201085 | 5500-watts |
| Honda | EU2200iTAn | 2200-watt |
| Westinghouse | WGen7500c | 7500-watts |

However, if you experience dizziness, fatigue, or nausea while the generator is running, promptly move to an open area with **fresh air** and dial (your local emergency number).

For additional details regarding the hazards of carbon monoxide, [please visit](#).

2. Keep In A Dry Location

Place the generator on a dry and **level surface** to prevent water from getting into the electrical components. Moisture can damage the generator and create an electrical hazard. Avoid operating the generator in **wet conditions**, especially with an **open-frame model**, if necessary, use **running covers or canopy** to prevent electrical shorts or malfunctioning.

3. Proper Grounding

Properly ground the generator according to the manufacturer's instructions. Grounding helps protect against electric shocks and reduces the risk of electrical fires. If the generator is not grounded correctly, there's a higher chance of electrical accidents, especially during wet conditions.

Avoid using generators in wet, damp, or muddy conditions. Ideally, position your generator on a **level surface under a canopy**. Check that no puddles or water buildup around the unit. If a cover or canopy is unavailable, do not operate the generator in rainy or snowy weather.

4. Don't Refuel It When Running

Always shut off the generator and allow it to cool before refueling. Refuel in a well-ventilated area, away from open flames, sparks, or other ignition sources.

Use the type of fuel the manufacturer recommends (**usually gasoline**) and avoid using old or stale fuel. Be sure not to overfill the fuel tank.

5. Use Secure Power Cords

Avoid plugging devices directly into the generator. Alternatively, use **heavy-duty extension cords** that are **UL-listed** and have three prongs. Ensure that the extension cord is properly sized (wire gauge) to handle the electrical load it will bear. Remember, a hot cord indicates overload.

Use a Ground Fault Circuit Interrupter (**GFCI**). Keep all extension cords safely secured or taped down to prevent tripping hazards. Never route extension cords beneath carpeting or other flammable materials, as heat accumulation in such areas may pose a fire hazard.

Ensure the cables are free from **cuts, abrasions**, or other damage that may compromise their safety.

6. Use Transfer Switch

Always use a transfer switch, **automatic or manual**, when connecting your generator to your home circuit, avoid plugging it directly into a power socket to prevent back feeding.

If you wish for a permanent connection between your generator and your home wiring, it is advisable to **engage an electrician** for the installation of a power transfer switch.

Ensure that the installation complies with the National Electrical Code (NEC) provided by the National Fire Protection [Association](#), along with adhering to all relevant state and local electrical codes.

7. Use Generator Outlets Properly

Follow the proper procedures for connecting appliances to the generator's outlets. Avoid loose connections that can lead to electrical sparks or shorts. Use appropriate plugs and adapters to match the generator's outlets with the appliance's power cords.

8. Don't Overload

Overloading the generator can damage the appliances and the generator itself. Use a power strip to connect multiple appliances safely. Make sure the total power requirements of the appliances you plan to connect to the generator are met. Do not exceed the generator's rated wattage capacity.

For accurate **load calculations**, utilize our complimentary **wattage calculator**. If you find it challenging to assess or understand your power requirements, it's advisable to seek assistance from a qualified electrician.

9. Turn On Before Disconnecting

Before plugging or unplugging any appliances, it is imperative to have the generator in the **'ON'** state. This means starting the generator and ensuring that it is running. Additionally, it is crucial to perform these operations **without any electrical load connected** to the generator.

Starting the generator without a load means initiating its operation without any devices or appliances **drawing power** from it. This is done to ensure a smooth and stable start up process. **Similarly**, stopping the generator **without a load connected** helps prevent any potential issues that might **arise from abrupt** disconnection.

10. Use Fire Extinguisher

Have a fire extinguisher close by in case there are any possible fire threats. Make sure you understand **how to use it properly**, and routinely check the **expiration** date. However, avoid using a **water-based** fire extinguisher.

11. Cool Down Before Storage

If using it temporarily, before **storing the generator**, allow it to cool down completely. Keeping a hot generator can be a **fire hazard** and may also cause fuel or **oil** spills. Use storage covers to save on your investment.

12. Keep Children And Pets Away

Generators are not toys and should be treated as potentially hazardous equipment. Keep **children and pets away** from the generator area to avoid accidents. While the generator is working, warn them about the dangers of touching or playing near it

Regular Maintenance Is Key

Perform regular maintenance tasks as recommended by the manufacturer. This includes an **oil change**, **air filter cleaning**, replacement, and **spark plug checks**. Servicing maintains the generator operating at full capacity and avoids the possibility of unexpected failures.

Conclusion

Generators **are not dangerous** if they are used correctly. However, many things people do can cause serious injuries or death. To avoid these risks, follow a simple safety checklist before starting your generator.

This checklist will ensure that you don't cause any harm to yourself or others.

It's important to be aware of the potential hazards of using traditional generators. If they are not used well, they can be dangerous. You must follow the safety guidelines provided by [Generator Fixer](#).

If you are confused and do not understand or if you have any different discussion, please [reach out](#) to an expert as soon as possible so they can assist you.

See [OSHA.gov](#) safety standards for portable gas generators for additional information on the organization's regulations on generator safety.