

Portable Generators FAQ

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Table of Contents

Section 1: Introduction

Section 2: Portable Generator Electricity

Section 3: Portable Generator Safety

Section 4: Generator Operation

Section 5: Generator Maintenance

Section 6: General Questions

Section 7: Generator Troubleshooting

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Section 1: Introduction

Welcome to the Portable Generators FAQ provided by Generac Power Systems, Inc. This document serves as a comprehensive guide addressing common inquiries related to portable generators. For detailed information tailored to your specific product, we recommend consulting the owner's manual.

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Section 2: Portable Generator Electricity

Q:	What is an alternator?
A:	<p>An alternator in a generator is a component that generates electrical power by converting mechanical energy into electrical energy. It works by using a magnetic field and a conductor to generate an alternating current (AC) output. The alternator is a key component in a generator and is responsible for producing the electrical power that the generator delivers to its output. The alternator turns the engine's mechanical energy into electrical energy in the form of Alternating Current (AC).</p> <p>As the engine turns the rotor, the rotor's magnetic field passing through the stator's windings induces voltage into the stator windings, and electricity is delivered to the generator's main line circuit breaker (MLCB).</p> <p>In a direct current (DC) circuit, electricity is from in one direction. And an alternating current (AC) circuit electricity periodically changes direction. while our home appliances run on AC power, some devices such as cell phones, flashlights, and hybrid electric vehicles run on DC power.</p>
Q:	What is a watt, volt, and amp?
A:	<p>A watt is a unit of measurement for power, which is the rate at which energy is used or produced. It measures how much energy is used or produced per unit of time. For example, if you turn on a 100-watt light bulb, it will use 100 watts of power per second. The higher the wattage, the more power is being used or produced.</p> <p>A volt is a unit of measurement used to describe the electrical potential difference between two points in an electrical circuit. In simpler terms, it's a measure of the force that drives the flow of electric charge in a circuit. It's named after the Italian physicist Alessandro Volta who invented the first battery, and it's commonly used to describe the electrical output of batteries, power supplies, and other electrical sources. In simple terms, a volt is a unit used to measure the electrical force that pushes electrons through a wire or circuit. It's like the pressure that pushes water through a hose. The higher the voltage, the more powerful the electrical force, and the more electricity can flow through the wire or circuit.</p> <p>An amp, or ampere, is a unit of measurement used to quantify the electric current flowing in a circuit. It is defined as the amount of electric charge passing through a given point in a circuit per unit time, with one ampere equal to one Coulomb of charge passing through a circuit per second. Amps are an important measurement in determining the electrical capacity and safety of various devices and circuits and are commonly used in both residential and industrial settings. In simpler terms, an amp is a unit of measurement used to measure the flow of electrical current in a circuit. It is like how we measure the flow of water through a pipe, except that amps measure the flow of electricity. An amp measures how many electrons are flowing through a wire or circuit per second, and it is used to determine the amount of power being used or delivered by an electrical device.</p> <p>Watts can be calculated by multiplying the voltage (Volts) by the current (Amps) in a circuit. The formula for calculating watts is:</p> <p>Watts = Volts x Amps</p> <p>For example, if you have a device that operates at 120 volts and draws 1 amp of current, the power consumption would be:</p> <p>120 Volts x 1 Amps = 120 Watts</p> <p>So, the device would consume 120 watts of power.</p>
Q:	What is an electrical load? How do I know what load I'm using?
A:	<p>A load is the electrical power that the generator is required to produce by which appliances are running at the same time. A 16kw generator (16,000 watts) running 8,000 watts of electrical appliances is running at "half load" or 50% load. Most appliances have the wattage usage on a data label which allows for easy calculation on load requirements and usage.</p>
Q:	Is my generator internally or externally regulated?
A:	<p>Kobalt portable generators are externally regulated by utilizing either an automatic voltage regulator or a capacitor. An externally regulated generator is a generator where the voltage output is regulated by an external device, such as a voltage regulator or stabilizer. This device is connected to the generator through electrical wiring and monitors the voltage output to ensure it remains within a certain range. If the voltage output exceeds or falls below the preset range, the voltage regulator adjusts the voltage output accordingly.</p>

Q:	What is an Automatic Voltage Regulator (AVR)?
A:	<p>In brushed units, it is a part of the alternator that senses and regulates the voltage of the unit (typically 120V/240V) by sending DC voltage to the rotor via the brushes to increase the magnetic field when needed.</p> <p>In a brushless alternator, the capacitor regulates voltage but does not use brushes to do this. A brushed alternator uses carbon brushes and an automatic voltage regulator to regulate voltage output, while a brushless alternator uses a capacitor to regulate voltage. To visually determine whether the unit is brushed or brushless, inspect the alternator assembly. A brushless unit will have a capacitor inside the end of the alternator assembly. This capacitor will look like a soup can. If this capacitor is not there, that means the unit is brushed. Alternatively, checking the unit's Exploded View (EV) will show brushes or a capacitor.</p>
Q:	What does running/rated wattage mean?
A:	<p>A generator's Running or Rated Wattage is the continuous power needed to run an appliance or the maximum power a generator can produce for an extended period. Appliances with electric motors may require Surge or Starting Wattage, which is additional power required for starting, typically lasting 2-3 seconds. Generators can also provide surge wattage, which is the maximum power a generator can deliver for a short time.</p> <p>Knowing the Running and Surge Wattage of an appliance can help determine the right generator size for use during a power outage. For example, a refrigerator/freezer requires 700 running watts but can surge to 2200 watts, while an electric clothes dryer requires 5400 running watts and can surge to 6750 watts.</p>
Q:	What does surge/starting wattage mean?
A:	<p>Surge or Starting Wattage refers to the additional power required to start an electric motor load. This wattage lasts for a short period, typically two to three seconds, before dropping down to the typical running wattage. Generators are also capable of providing surge wattage, which is the maximum wattage the generator can deliver for a brief period.</p> <p>For example, a refrigerator/freezer typically requires 700 running watts but can surge to 2200 watts, while a clothes dryer (electric) requires 5400 running watts and can surge to 6750 watts. This information can be used to determine the appropriate generator size for powering these tools and appliances during a power outage.</p>
Q:	Does my portable generator need to be grounded?
A:	<p>The need to ground a portable generator depends on its intended use. If using extension cords alone, grounding with a ground rod is not necessary, provided that the generator has a bonded neutral (as specified in the owner's manual).</p> <p>However, when connecting the generator to an electrical panel, building electrical system, manual transfer switch, RV, or similar applications, grounding with a ground rod is required. For proper grounding, the rod should be driven at least 8ft into the earth and connected to the ground lug on the generator via a ground cable.</p> <p>It is important to note that adhering to all applicable federal, state, and local regulations regarding grounding is strongly recommended. Please consult the appropriate guidelines to ensure that all relevant regulations are met.</p>
Q:	What is total harmonic distortion (THD)?
A:	<p>Total Harmonic Distortion (THD) is a measure of how much an electrical signal has been distorted from its original shape. This distortion happens when extra frequencies are added to the original frequency, which can cause problems in electrical devices. THD is usually measured as a percentage, and lower THD values are better because they indicate that the signal is cleaner and more accurate. Essentially, THD is a way to check if an electrical signal is good or bad, and lower THD means better quality power.</p> <p>"Clean Power" or a "Pure Sine Wave" is power with a THD of less than 6% Units with THD over 6% can cause sensitive electronics like computers, televisions, and cell phones to fail prematurely. The electrical distortion may cause components to malfunction or operate improperly.</p> <p>The Total Harmonic Distortion (THD) of standard portable generators is typically in the range of 9% to 15%, and some generators may produce as much as 30% THD. As the cost of the generator decreases, the THD is more likely to increase.</p>

Section 3: Portable Generator Safety

Q:	Is your product EMP tested and safe?
A:	We take every measure to manufacture products that can withstand environmental situations and climatic phenomena. However, we currently do not test the effects of an EMP on our products.
Q:	What is the difference between Carbon Monoxide (CO) and Carbon Dioxide (CO ₂)
A:	<p>If you confuse the two, you're not alone. You're probably aware that they are two different gases, but which one is the good one and which is the bad one? Both gases are a combination of carbon and oxygen, which is why their names are similar. But these gases are created through different chemical reactions.</p> <p>CO₂: Humans and animals produce carbon dioxide when they breathe, and plants use it to produce oxygen. While carbon dioxide naturally occurs in the atmosphere and is not toxic to humans, high concentrations in poorly ventilated spaces may make occupants drowsy, potentially displacing oxygen and making it harder to breathe.</p> <p>CO: Carbon monoxide is not naturally occurring and is considered toxic to humans. It is a result of the combustion of fossil fuels, oil, coal and natural gas. Carbon monoxide is an odorless and tasteless gas. When areas are not properly ventilated, carbon monoxide poisoning is a real risk, which is why we see Carbon Monoxide detectors in homes and on generators (CO Sense).</p> <p>Carbon monoxide poisoning sets in very quickly and may lead to death if not treated immediately.</p> <p>Symptoms of CO poisoning are similar to the flu, which can cause victims to ignore the early signs which include:</p> <ul style="list-style-type: none"> • Headache • Lightheadedness • Weakness • Dizziness • Stomachache • Nausea or vomiting • Shortness of breath • Confusion • Blurred vision • Loss of consciousness
Q:	Can I vent the exhaust from my portable generator out of an enclosed area?
A:	<p>Under no circumstances should a portable generator be operated indoors, in a garage, or in an enclosed area. Portable generators are specifically designed to run outside where there is ample ventilation. It is essential to position portable generators away from doors and windows to prevent exhaust fumes from entering the house. Carbon monoxide gas, which is produced by the generator, can cause serious poisoning.</p> <p>In addition to proper ventilation, it is important to protect a portable generator from moisture, rain, and snow by positioning it in a safe location. Taking these precautions can help ensure that the generator operates efficiently and safely and that everyone near the generator is protected from the harmful effects of carbon monoxide gas.</p>
Q:	Can I use a running cover or housing for my portable generator while it is running?
A:	We do not recommend using a running cover or any type of housing for portable generators. Our clearance recommendation is 5' on all sides of the generator. Deadly carbon monoxide gas created by the engine's combustion process can build up in an enclosed space.
Q:	Can I make my generator quieter?
A:	Our portable generators feature a low-tone muffler straight from the factory. We do not offer a kit or recommend making any changes to the generator or exhaust system for noise reduction other than the above listed advice on preventative maintenance and appliance usage.

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Section 4: Generator Operation

Q:	How do I prepare my portable generator for a storm?
A:	<ol style="list-style-type: none"> 1. Check and charge the battery (if applicable). Ensure the generator's starter battery is fully charged. A well-charged battery is essential for starting the generator, especially in cold weather. Portable generator battery charging guidelines vary by model. To review specific charging guidelines for your portable device, see your owner's manual 2. Perform a test run. Conduct a test run to ensure the generator operates smoothly, and check for any unusual noises or vibrations. See our portable troubleshooting guide for help addressing any issues here Portable generator troubleshooting guide. 3. Inspect and maintain. <ul style="list-style-type: none"> • Regularly inspect the generator for any wear and tear. • Replace worn-out or damaged parts. • Check oil levels. • Ensure air filters are clean and replace them if required. • Ensure the spark plug is good. 4. Have an adequate supply of fresh fuel stored in a safe location. Use approved fuel containers to avoid moisture contamination. 5. Placement. Set up the generator a minimum of 20 feet from any doors, windows, vents, or other openings into the home. 6. Review operational procedure <p>Starting operation:</p> <ul style="list-style-type: none"> • Ensure safety first - Before starting the generator, double-check that it is placed in a well-ventilated area to avoid carbon monoxide buildup • Verify that the engine oil level is correct. • Verify fuel level is correct. • Verify that the unit is secure on level ground. 7. Inspect extension cords for damage. Never use frayed or defective extension cords, as they may cause electrocution. Always be sure the extension cord is sized appropriately for the appliance.

Q:	What is the best way to operate my portable generator during a storm?
A:	<p>IMPORTANT NOTE: Operating a generator in wet conditions can be extremely hazardous and is strongly advised against. Never run a generator directly in the rain, snow, or any other wet conditions.</p> <p>IMPORTANT NOTE: For carbon monoxide (CO) safety, always operate the generator outdoors in an open area. Never use it inside homes, garages, or enclosed spaces.</p> <ol style="list-style-type: none"> 1. Monitor operation <ul style="list-style-type: none"> • Never allow the unit to run out of fuel while supporting a load. Doing so can damage the unit and/or any connected loads. • Regularly check the generators for warning signs. • Keep the generator dry and out of the rain. 2. Electrical safety <ul style="list-style-type: none"> • Only use outdoor-rated extension cords of an amperage equal to or greater than the rated amperage of the appliance being powered. • Ensure the total amperage of all devices does not exceed the rated amperage of the receptacle being used or the capabilities of the generator. 3. Periodic Shutdowns. During prolonged, continuous operation, the generator must be shut down to perform maintenance checks and refuel 4. Refueling safety. Always shut down the generator before refueling. Always disconnect any loads from the generator before shutting it down. 5. Shutting down the generator Step by step: <ul style="list-style-type: none"> • Remove all loads from the generator before shutting down. • Cool Down - Allow generator to run without a load for a few minutes to stabilize internal temperatures before shutting down • Place the generator in the OFF position. • Turn the generator fuel valve OFF (if equipped). 6. In case of an emergency, it is permissible to run the generator under an overhang, carport, or covered area if all four sides are open and there is five feet of clearance from the top of the unit.
Q:	While the generator is being used, how do I connect or disconnect electrical devices?
A:	Never start or stop the generator's engine with running electrical devices plugged into the generator. When the generator is turned off, you can only connect electrical devices that are turned off. When the generator is turned on, you may connect electrical devices that turned on or off.
Q:	Do I need to remove loads before I turn off my generator?
A:	Remove all loads before turning the generator off. First, turn off all appliances, lights, and items being powered by the generator. Then, unplug the items from the generator's receptacles and allow the generator to cool. Once you've done this, it is safe to turn the generator off. NEVER turn the generator off while loads are applied. Refer to the Generator Loads section of the owner's manual for complete instructions on adding and removing electrical devices. And while your generator has breakers that can be flipped or pushed, you shouldn't do that instead of unplugging all appliances. Breaker types vary across generator models, which often have a combination of switch and push button-style breakers. While switch-style breakers can be used to disconnect appliances, the push button breakers only disengage when they pop. This means breakers alone cannot be used to remove 100% of loads. Additionally, if the breaker is faulty for any reason, the owner risks damage to the generator and their appliances. Manually powering off and removing the appliances is always the safest recommended method.

Q:	How long can I operate the generator, and does it need a break?
A:	<p>Our generators are designed to run continuously, if needed, during extended outage scenarios. However, heavy use and long run times do necessitate the need to perform regular maintenance and operation checks, as well as follow safe procedures when powering down your generator and disconnecting it from electrical loads.</p> <p>After the first 25 hours of use, most generators require an oil change.</p> <p>After that, assuming you are running it continuously, we recommend checking the oil level, and refilling, if necessary, every time the unit runs out of fuel.</p> <p>Additionally, when the unit is close to empty after a long run, you need to power down and disconnect all electrical equipment connected to it, then turn the generator off. This would be an ideal time to check oil levels as well, and then refill with fuel if necessary.</p> <p>Please see your owner's manual for more precise information specific to your generator.</p>

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Section 5: Generator Maintenance

Q:	How do I maintain my generator?
A:	The owner's manual will include steps to properly maintain a generator. Please ensure that you follow proper safety precautions before attempting to service a generator.
Q:	How do I change the oil in my portable generator?
A:	<p>Please refer to your owner's manual for oil type and more specific information regarding your generator.</p> <ol style="list-style-type: none"> 1. Run the generator for a few minutes to allow the oil to heat up and become more viscous with the engine's heat. 2. Wait until the engine is cool enough to be touched. 3. Disconnect the spark plug wire from the spark plug and place the wire where it cannot contact the spark plug. 4. Clean the area around the oil fill and oil drain plug. 5. Remove the oil fill cap/dipstick. 6. Remove the oil drain plug and drain the oil completely into a suitable container. 7. Install the oil drain plug and tighten it securely. 8. Refill the crankcase with oil to the entire line (H). Refrain from overfilling. 9. Install an oil fill cap/dipstick and hand-tighten. 10. Wipe up any spilled oil. 11. Properly dispose of oil following all applicable regulations.
Q:	What type of fuel should I use in my portable generator?
A:	Our portable generators are equipped with 4-stroke engines that require clean, fresh, unleaded gasoline. It's important to use fuel with a minimum rating of 87 octane and no more than 10% ethanol. E85 fuel should never be used. Do not use a fuel and oil mixture as 4-stroke engines do not require a fuel/oil mixture. Never modify a generator to run on alternative fuels. Any modification to an engine's fuel system will put the unit's warranty at risk. If the generator allows for propane or diesel usage, please follow the guidelines found within your owner's manual.
Q:	How do I clean my portable generator's carburetor?
A:	<ol style="list-style-type: none"> 1. The unit should be OFF (not running). 2. Locate the carburetor and the fuel petcock (shut-off valve). <ul style="list-style-type: none"> • The carburetor is typically located behind the air filter. • On the carburetor, the bolt(s) at the very bottom, is the bowl fastener. Just above that, on an angle, is the drain bolt. 3. Turn the fuel petcock to OFF and place a container underneath the carburetor to collect any fuel in the line when removing the bowl. 4. Remove the float bowl from the carburetor by removing the bottom fastener(s). 5. Check the float bowl and jets for any debris or varnish. Clean as needed with carb cleaner. 6. To confirm the float is working, with the FLOAT PUSHED UP, turn the fuel petcock to ON. At this point, no fuel should be flowing. 7. When the float is released, fuel should flow. 8. If the results of fuel flow do not meet the above descriptions, the needle valve components need to be cleaned and/ or replaced. 9. If the results are as expected, turn the fuel petcock to OFF and reassemble. The unit should be ready for use.

Q:	What should I do with the fuel when I want to store my generator for more than 30 days?
A:	<p>Generator fuel does not last indefinitely, so there are two options: add a fuel stabilizer or drain the fuel completely.</p> <p>Treating the fuel with a stabilizer - Treating the fuel for storage using a fuel stabilizer is a better option than draining the fuel. The treated fuel can then be left in the tank.</p> <p>Drain the fuel - Fuel can also be removed through the fill opening using an automotive-style siphon. Exercise all appropriate caution when handling fuel.</p>
Q:	How do I fill the oil on my portable generator?
A:	<ol style="list-style-type: none"> 1. Make sure the generator is on level ground. This ensures the oil level is properly measured by the generator's oil sensor. 2. Unscrew the oil cap and fill the generator to the fill line. 3. Check the dipstick to make sure the oil level is at the FULL marker. <p>Oil should be filled to the fill line. Oil quantity can be verified using the dipstick. Oil capacities vary by model so please check the specifications listed in your owner's manual.</p>
Q:	What type of oil is recommended for use with my portable generator?
A:	<p>To ensure optimal performance, it is important to select the appropriate oil for portable generators based on the ambient temperature. When temperatures are above 32°F, it is recommended to use SAE 30 oil. For temperatures between 40°F and -10°F, it is suggested to use 10W-30 oil. Alternatively, synthetic 5W-30 oil can be utilized in all temperatures for added convenience and versatility.</p> <p>Proper oil type can be confirmed using the generator's user manual.</p>
Q:	How do I prepare my portable generator for long-term storage?
A:	<p>Fuel stored over 30 days can go bad and damage fuel system components. Keep fuel fresh, use a fuel stabilizer. If a fuel stabilizer is added to the fuel system, prepare and run the engine for long-term storage.</p> <p>Run the engine for 10-15 minutes to circulate the stabilizer throughout the fuel system. Adequately prepared fuel can be stored for up to 24 months.</p> <p>Note: If fuel has not been treated with a fuel stabilizer, it must be drained into an approved container. Run the engine until it stops from lack of fuel. The use of fuel stabilizers in fuel storage containers is recommended to keep fuel fresh.</p> <ol style="list-style-type: none"> 1. Change the engine oil. 2. Remove the spark plug. 3. Pour a tablespoon (5-1 Occ) of clean engine oil or spray a suitable fogging agent into the cylinder. 4. Pull the starter recoil several times to distribute oil in the cylinder. 5. Install the spark plug. 6. Pull the recoil slowly until resistance is felt. This will close the valves so moisture cannot enter the enter cylinder. Gently release the recoil.
Q:	How do I adjust the valve clearance on my portable generator?
A:	<p>Valve clearance adjustment is critical to proper engine operation and requires special tools and training. Instructions are covered in the Valve Clearance Adjustment section of your owner's manual.</p>
Q:	How often should the oil be changed in my portable generator?
A:	<p>Routine maintenance is crucial to ensure the longevity and efficiency of portable generators. For optimal performance, it is recommended to change the oil after the initial 20-30 hours of operation and every subsequent 100 hours of run time thereafter. By adhering to this recommended maintenance schedule, the life of a portable generator can be extended and it can be ensured that the generator continues to operate at peak performance levels.</p>

Section 6: General Questions

Q:	How loud is my portable generator?
A:	<p>There is no universally accepted method for accurately measuring the sound output, or decibel level, of a portable generator. Because there are many variables that influence how loud a portable generator can be, it is impossible to provide an exact number that represents volume.</p> <p>Some of the variables that influence volume of a portable generator include:</p> <ul style="list-style-type: none"> • Portable generator size and/or age • Electrical load demand • Fuel level and quality • Environmental acoustics • Surrounding Objects • Ambient Temperature <p>To manage your generator's sound output and reduce noise levels in a safe way, we recommend keeping up on preventative maintenance. Additionally, it's important to only power essential appliances and reduce load, and place your generator in an open, unobstructed location.</p>
Q:	Where was the engine for my generator made?
A:	<p>The OHV engines in our generators are manufactured overseas. It is important to note, however, that while our OHV engines are not engineered or manufactured in the United States, they still meet the same high standards of quality and performance as our domestic products.</p>
Q:	What does it mean when a generator is 49ST or 50ST compliant
A:	<p>When a generator says it is 49ST compliant, it means that it does not meet the emission standards set by the California Air Resources Board (CARB) for small engines. This indicates that the generator is not authorized for sale or use in the state of California due to increased emissions regulations put in place by the state. It is important to note that some generators may be labeled as 50ST/CARB compliant, indicating that they meet both federal and California emissions standards and are authorized for sale in all 50 states.</p>

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Section 7: Generator Troubleshooting

Q:	Why does my portable generator keep shutting down?
A:	<p>Here are the initial checks you can perform to see what might be causing it to shut down.</p> <ol style="list-style-type: none"> How many loads are plugged into the generator? Overloading a generator in excess of its wattage capacity can damage the generator and the connected electrical devices. Try unplugging loads and running the generator with less power applied. Is the fuel shut-off valve turned on? Without the fuel valve turned completely on, gas cannot get to the engine for proper function. If the fuel valve is on, check the fuel filter and fuel line for clogs. Clogged fuel lines may be restricting the amount of fuel getting to the engine. Is the oil full? Oil capacity is documented in the owner's manual. If the recommended amount is added and it still does not reach the threads on the crankcase, add enough oil to reach the bottom of the threads even if it's more than the manual recommends. Kobalt generators are equipped with a low-oil shutdown system to protect the engine from low-oil damage. Is the generator being directly exposed to inclement weather? Portable generators should not be run directly exposed to inclement weather, such as rain or snow. Avoid contact with water, whether from rain, snow, or puddles, as it can lead to operational issues or electrical hazards. Snow entering the generator's air intake can block airflow, causing the generator to shut down. Preventative measures include regularly clearing the area around the generator to prevent snow and debris from accumulating near the air intake and exhaust. Is the air filter damaged or clogged? You can open the air filter housing and inspect the air filter. Look for damage to the filter or particles that might be restricting air flow. Clean or replace the filter as necessary. Is the spark plug appropriately spaced and clean? Consult your owner's manual for how to check and clean the spark plug if necessary. Is the gas tank at least a quarter full? Most portable generators have gravity-fed gas systems. Ensure that you have enough gas in the fuel tank for proper operation of the generator.
Q:	What are some standard troubleshooting tips when my generator won't produce power?
A:	<ol style="list-style-type: none"> Make sure everything is unplugged from the generator before starting it. If the engine was started cold, wait for the engine to start up, then put the choke in the RUN (or OPEN) position. Use a working appliance to test output. Plug a known-working appliance directly into the generator outlet (do not use an extension cord). Check the generator's breakers. If any breakers are tripped, reset them. For push button breakers, the button will pop out when tripped. Push them in to reset them. For switch-style breakers, make sure they are fully engaged in the ON position (when the switch is flipped up). Try field-flashing the generator with a corded power drill.
Q:	Why won't my generator produce power?
A:	<p>A portable generator may not start if appliances are plugged in when starting the generator. Allow the generator to warm up and ensure the choke is in the RUN (or OPEN) position with no load applied. Once up and running, a generator can be tested using a known working appliance.</p> <p>Also, check the generator's breakers to see if any have been tripped and to reset them. Check the status of the GFCI receptacles and reset if needed. Finally, field-flashing with an electric drill may resolve issues with the generator's magnetism.</p>

Q:	What can I check if my portable generator does not start?
A:	<ol style="list-style-type: none"> 1. Check and add the correct fuel. <ul style="list-style-type: none"> • If fuel has been stored in the generator for more than 30 days without fuel stabilizer, or more than 6 months with fuel stabilizer, then the carburetor may need to be cleaned. • Only use 87 octane fuel or higher. • Always use fresh, unleaded fuel. • Ensure there is at least a quarter tank of fuel to start the generator. 2. Set the fuel valve properly. <ul style="list-style-type: none"> • Ensure the fuel valve is in the ON position • Partially closing the fuel valve does not conserve fuel, it will only cause the engine to run improperly. 3. Check and fill the oil. <ul style="list-style-type: none"> • Ensure the generator is on level ground before checking the oil. • Check the oil dipstick to confirm the oil is at a sufficient level. 4. Check the spark plug connection. <ul style="list-style-type: none"> • Make sure the spark plug wire is attached and secure. The boot should be pushed down and clicked into place over the spark plug (see image below). • Replace the spark plug, if needed. 5. Set the choke. <ul style="list-style-type: none"> • For a warm, recently run unit, set it to half or no choke. • For a cold unit, set it to full choke. 6. Make sure the on/off switch is in the ON position (if applicable). <p>Additional Notes</p> <p>Do not start the unit under load. Before starting the unit, make sure there are no appliances or extension cords plugged into the generator.</p> <p>If the cord is being pulled and the engine will not rotate:</p> <ul style="list-style-type: none"> • Remove the spark plug to release pressure built up in the engine • Or wait 30 minutes for the pressure to dissipate naturally. <p>If using the electric start (if applicable), make sure the battery is charged and connected.</p>
Q:	Why is my portable generator running rough?
A:	<ol style="list-style-type: none"> 1. Make sure there is enough fuel in the generator. <ul style="list-style-type: none"> • Drain the fuel if you suspect it is stale or has been contaminated with water and replace with fresh fuel. 2. Ensure the fuel valve is fully open. 3. Check the air filter. Clean or replace if needed. 4. Set the choke. <ul style="list-style-type: none"> • Make sure the choke is in the run position. • Over-choking the generator will starve it for fuel

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