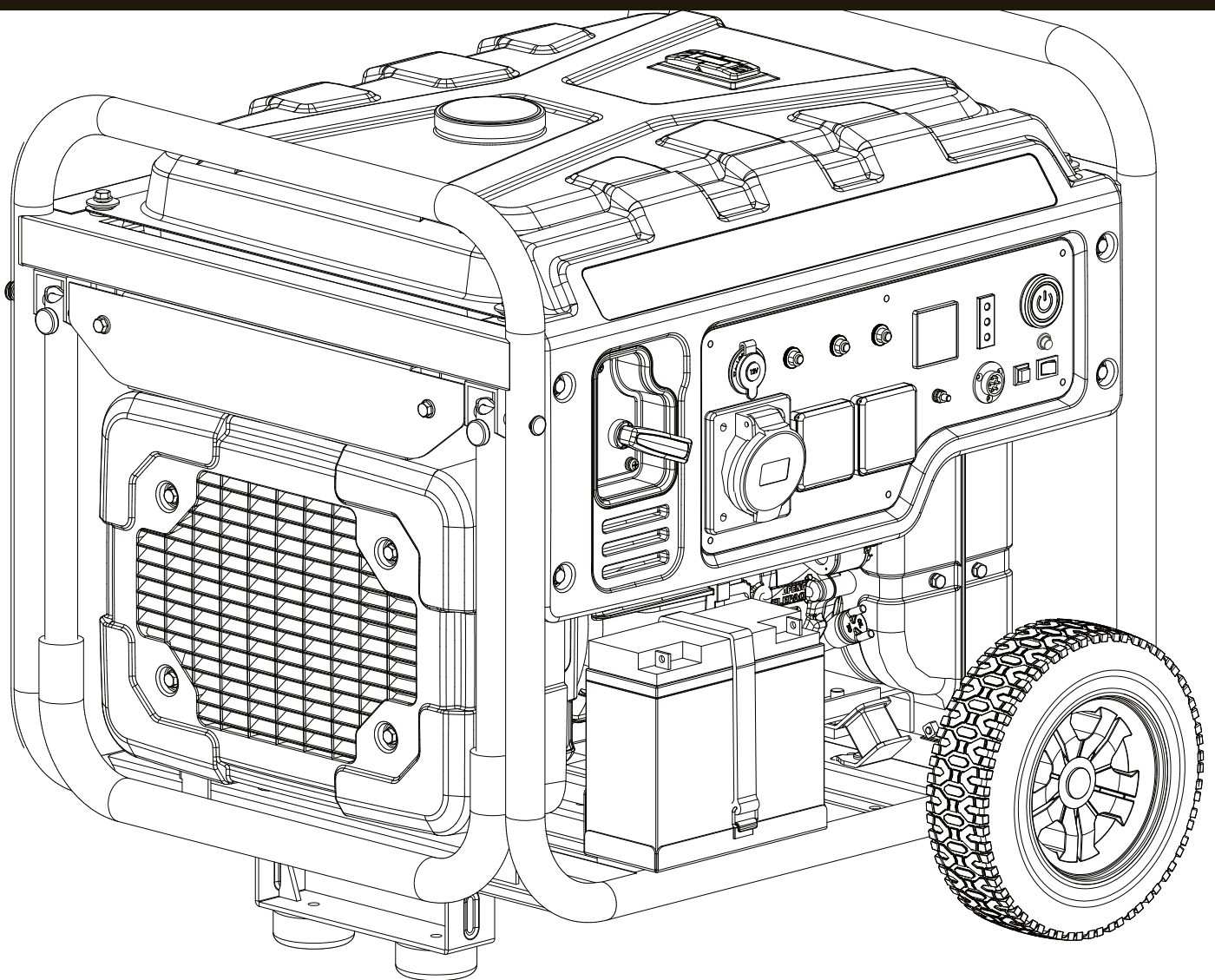


# NEWMAN

**8000W INVERTER GENERATOR**



**SAVE THESE INSTRUCTIONS**

Important Safety Instructions are included in this manual.

**955045**



This manual uses the following symbols to help differentiate between different kinds of information. The safety symbol is used with a key word to alert you to potential hazards in operating and owning power equipment.

Follow all safety messages to avoid or reduce the risk of serious injury or death.

## **DANGER**

DANGER indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury.

## **WARNING**

WARNING indicates a potentially hazardous situation which, if not avoided, **could** result in death or serious injury.

## **CAUTION**

CAUTION indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury.

## **CAUTION**

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **may** result in property damage.

# SAFETY RULES

## **WARNING**

Read this manual thoroughly before operating your generator. Failure to follow instructions could result in serious injury or death.

## **WARNING**

The engine exhaust from this product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

## **DANGER**

Generator exhaust contains carbon monoxide, a colourless, odourless, poison gas. Breathing carbon monoxide will cause nausea, dizziness, fainting or death. If you start to feel dizzy or weak, get to fresh air immediately.

Operate generator outdoors only in a well ventilated area.

DO NOT operate the generator inside any building, including garages, basements, crawlspaces and sheds, enclosure or compartment, including the generator compartment of a recreational vehicle. DO NOT allow exhaust fumes to enter a confined area through windows, doors, vents or other openings.

**DANGER CARBON MONOXIDE:** using a generator indoors **CAN KILL YOU IN MINUTES.**

## **DANGER**

Rotating parts can entangle hands, feet, hair, clothing and/or accessories.  
Traumatic amputation or severe laceration can result.

Keep hands and feet away from rotating parts.  
Tie up long hair and remove jewelry.  
Operate equipment with guards in place.  
DO NOT wear loose-fitting clothing, dangling drawstrings or items that could become caught.

## **DANGER**

Generator produces powerful voltage.

DO NOT touch bare wires or receptacles.  
DO NOT use electrical cords that are worn, damaged or frayed.  
DO NOT operate generator in wet weather.  
DO NOT allow children or unqualified persons to operate or service the generator  
Use a ground fault circuit interrupter (GFCI) in damp areas and areas containing conductive material such as metal decking.  
Use approved transfer equipment to isolate generator from your electric utility and notify your utility company before connecting your generator to your power system.

## **WARNING**

Sparks can result in fire or electrical shock.

### **When servicing the generator:**

Disconnect the spark plug wire and place it where it cannot contact the plug.  
DO NOT check for spark with the plug removed.  
Use only approved spark plug testers.

## **WARNING**

Running engines produce heat. Severe burns can occur on contact.  
Combustible material can catch fire on contact.

DO NOT touch hot surfaces.  
Avoid contact with hot exhaust gases.  
Allow equipment to cool before touching.  
Maintain at least 3 ft. (91.4 cm) of clearance on all sides to ensure adequate cooling.  
Maintain at least 5 ft. (1.5 m) of clearance from combustible materials.

## DANGER

Fuel and fuel vapours are highly flammable and extremely explosive.  
Fire or explosion can cause severe burns or death.  
Unintentional startup can result in entanglement, traumatic amputation or laceration.

### **When adding or removing fuel:**

Turn the generator off and let it cool for at least two minutes before removing the fuel cap. Loosen the cap slowly to relieve pressure in the tank.  
Only fill or drain fuel outdoors in a well-ventilated area. DO NOT pump gas directly into the generator at the gas station. Use an approved container to transfer the fuel to the generator.  
DO NOT overfill the fuel tank.  
Always keep fuel away from sparks, open flames, pilot lights, heat and other sources of ignition.  
DO NOT light or smoke cigarettes.

### **When starting the generator:**

DO NOT attempt to start a damaged generator.  
Make certain that the gas cap, air filter, spark plug, fuel lines and exhaust system are properly in place.  
Allow spilled fuel to evaporate fully before attempting to start the engine.  
Make certain that the generator is resting firmly on level ground.

### **When operating the generator:**

DO NOT move or tip the generator during operation.  
DO NOT tip the generator or allow fuel or oil to spill.

### **When transporting or servicing the generator:**

Make certain that the fuel shutoff valve is in the off position and the fuel tank is empty.  
Disconnect the spark plug wire.

### **When storing the generator:**

Store away from sparks, open flames, pilot lights, heat and other sources of ignition.

## WARNING

Operation of this equipment may create sparks that can start fires around dry vegetation.

A spark arrestor may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.

## WARNING

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.

When starting engine, pull the starter cord slowly until resistance is felt and then pull rapidly to avoid kickback.  
DO NOT start or stop the engine with electrical devices plugged in.

## CAUTION

Exceeding the generator's running capacity can damage the generator and/or electrical devices connected to it.

DO NOT overload the generator.  
Start the generator and allow the engine to stabilize before connecting electrical loads.  
Connect electrical equipment in the off position, and then turn them on for operation.  
Turn electrical equipment off before stopping the generator.  
DO NOT tamper with the governed speed.  
DO NOT modify the generator in any way.

## CAUTION

Improper treatment or use of the generator can damage it, shorten its life and void your warranty.

Use the generator only for intended uses.  
Operate only on level surfaces.  
DO NOT expose generator to excessive moisture, dust, or dirt.  
DO NOT allow any material to block the cooling slots.  
If connected devices overheat, turn them off and disconnect them from the generator.  
DO NOT use the generator if:  
– Electrical output is lost  
– Equipment sparks, smokes or emits flames  
– Equipment vibrates excessively

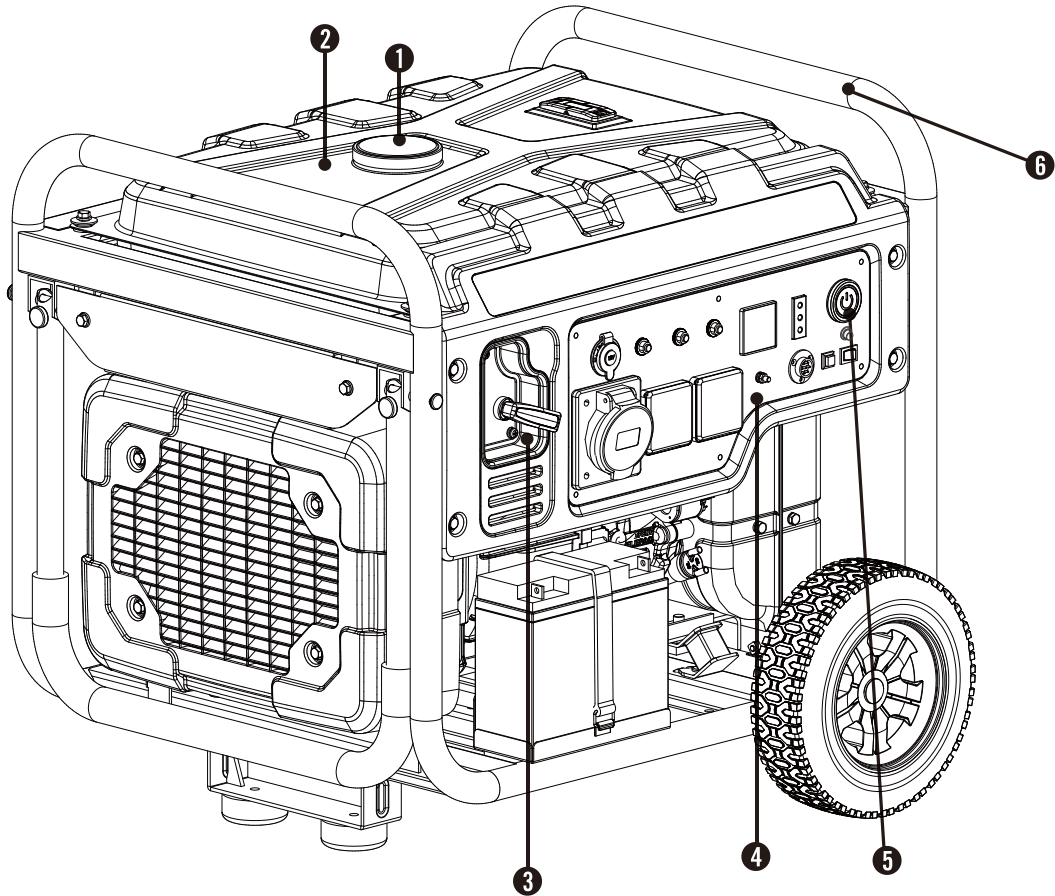
# CONTROLS AND FEATURES

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Read this owner's manual before operating your generator. Familiarize yourself with the location and function of the controls and features. Save this manual for future reference.

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## Generator

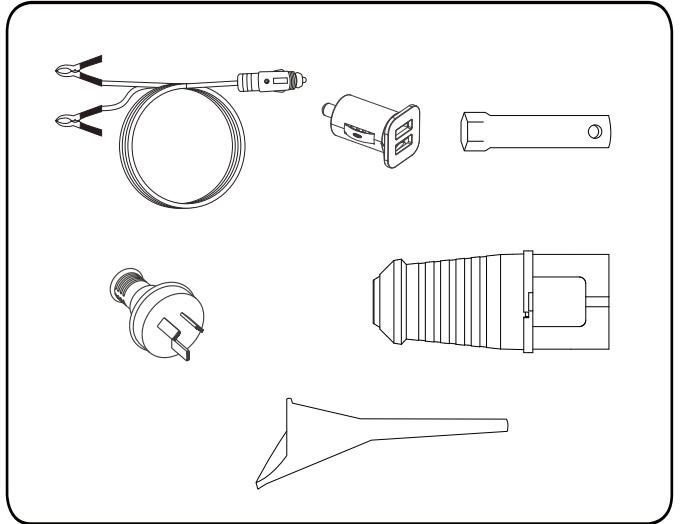


- |   |                                |
|---|--------------------------------|
| (1) <b>Fuel Cap</b> – Remove to add fuel.             | (4) <b>Power Panel</b>         |
| (2) <b>Fuel Tank</b> – 33L                            | (5) <b>START/STOP Button</b>   |
| (3) <b>Recoil Starter</b> – Used to start the engine. | (6) <b>Durable Steel Frame</b> |

## Parts Included

Your digital hybrid portable generator ships with the following parts:

- Spark Plug Socket . . . . . 1
- 12V DC Battery Charging Cable . . . . . 1
- Plug . . . . . 2
- Automotive style USB adapter . . . . . 1
- Oil Funnel . . . . . 1



# ASSEMBLY

Your generator requires some assembly. This unit ships from our factory without oil and fuel. It must be properly serviced with fuel and oil before operation.

## Remove the Generator from the Shipping Carton

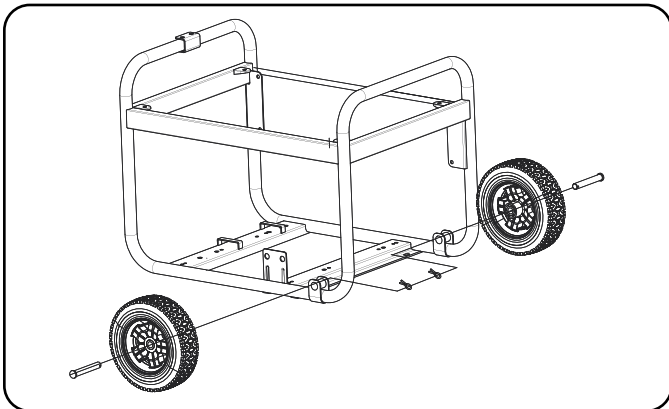
1. Set the shipping carton on a solid, flat surface.
2. Remove everything from the carton except the generator.
3. Carefully cut each corner of the box from top to bottom. Fold each side flat on the ground to provide a surface area to install the wheel kit and support leg.

## Install the Wheel Kit

### ⚠ CAUTION

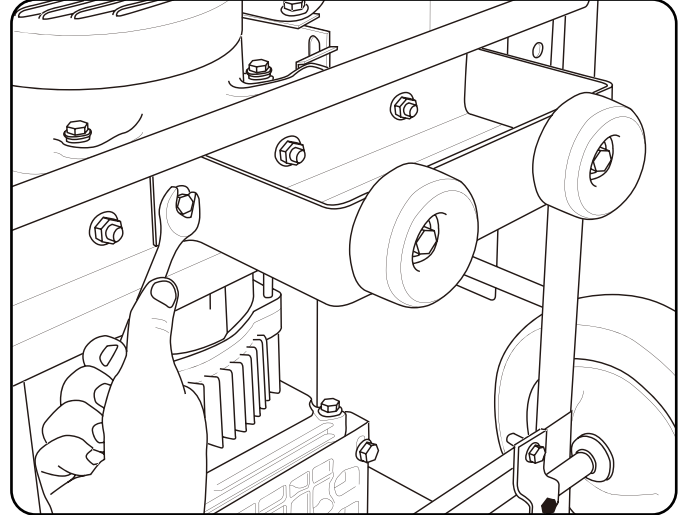
The wheel kit is not intended for over-the-road use.

1. Before adding fuel and oil, tip the generator on its side.
2. Slide the wheel pin roll through the wheel from the outside.
3. Slide the wheel pin roll through the mount point on the frame.
4. Secure with the R-Pin  $\varnothing 2 \times 33$ .
5. Repeat steps 2-4 to attach the second wheel.



## Install the Support Leg

1. Attach the support leg to the generator frame with flange bolts (M8x16) and flange lock nuts (M8).
2. Tip the generator slowly so that it rests on the wheels and support leg.



## Connect the Battery

1. Remove the protective cover from the red (+) lead on the battery.
2. Attach the red (+) lead to the red (+) terminal on the battery with the screw/washer (M5x10) and secure with the flange lock nut (M5).
3. Repeat steps 1-2 for the black (-) battery lead.

## Add Engine Oil

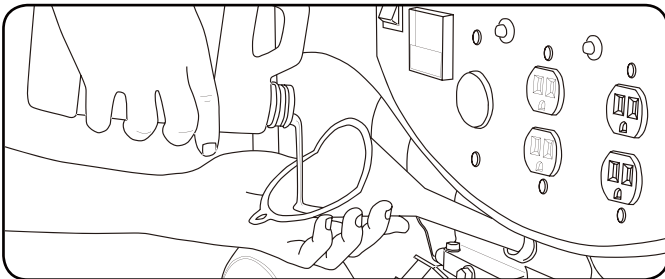
### CAUTION

DO NOT attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil. Damage to the generator as a result of failure to follow these instructions will void your warranty.

### NOTE

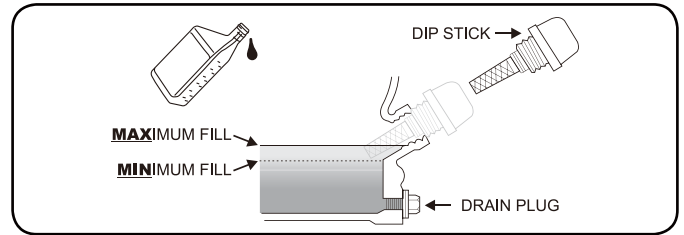
The recommended oil type is 10W-30 automotive oil.

1. Place the generator on a flat, level surface.



2. Remove oil fill cap/dipstick to add oil.
3. Add up to 1.1L of oil (not included) and replace oil fill cap/dipstick. DO NOT OVERFILL.
4. Check engine oil level daily and add as needed.

## Add Engine Oil Cont'd.



### NOTE

Once oil has been added, a visual check should show oil about 1-2 threads from running out of the fill hole. If using the dipstick to check oil level, DO NOT screw in the dipstick while checking.

### CAUTION

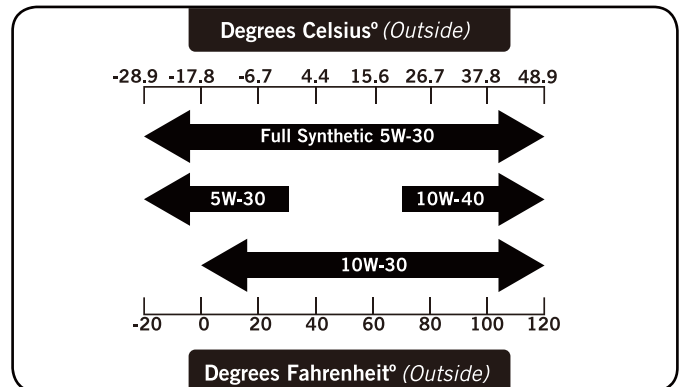
The engine is equipped with a low oil shut-off and will stop when the oil level in the crankcase falls below the threshold level.

### NOTE

Check oil often during the break-in period. Refer to the Maintenance section for recommended service intervals.

### NOTE

We consider the first 5 hours of run time to be the break-in period for the unit. During the break in period stay at or below 50% of the running watt rating and vary the load occasionally to allow stator windings to heat and cool. Adjusting the load will also cause engine speed to vary and help seat piston rings. After the 5 hour break-in period, change the oil.



# ASSEMBLY

## Add Engine Oil Cont'd.

### NOTE

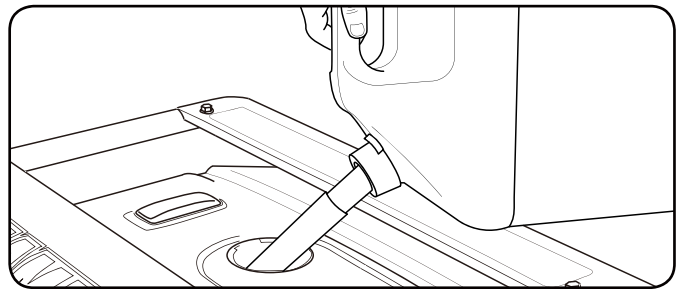
Weather will affect engine oil and engine performance. Change the type of engine oil used based on weather conditions to suit the engine needs.

### NOTE

Synthetic oil may be used after the 5 hour initial break-in period. Using synthetic oil does not increase the recommended oil change interval.

## Add Fuel

1. Use clean, fresh, regular unleaded fuel with a minimum octane rating of 85 and an ethanol content of less than 10% by volume.
2. DO NOT mix oil with fuel.
3. Clean the area around the fuel cap.
4. Remove the fuel cap.
5. Slowly add fuel to the tank. DO NOT OVERFILL. Fuel can expand after filling. A minimum of 1/4 in. (6.4 mm) of space left in the tank is required for fuel expansion, more than 1/4 in. (6.4 mm) is recommended. Fuel can be forced out of the tank as a result of expansion if it is overfilled, and can affect the stable running condition of the product. When filling the tank, it is recommended to leave enough space for the fuel to expand.



6. Screw on the fuel cap and wipe away any spilled fuel.

### CAUTION

Use regular unleaded gasoline with a minimum octane rating of 85.

Do not mix oil and gasoline.

Fill tank to approximately 1/4 in. (6.4 mm) below the top of the tank to allow for fuel expansion.

DO NOT pump gas directly into the generator at the gas station. Use an approved container to transfer the fuel to the generator.

DO NOT fill fuel tank indoors.

DO NOT fill fuel tank when the engine is running or hot.

DO NOT overfill the fuel tank.

DO NOT light cigarettes or smoke when filling the fuel tank.

### WARNING

Pouring fuel too fast through the fuel screen may result in blow back of fuel at the operator while filling.

## Add Fuel Cont'd.

### NOTE

Our engines work well with 10% or less ethanol blend fuels. When using blended fuels there are some issues worth noting:

- Ethanol-gasoline blends can absorb more water than gasoline alone.
- These blends can eventually separate, leaving water or a watery goo in the tank, fuel valve and carburetor.
- With gravity-fed fuel supplies, this compromised fuel can be drawn into the carburetor and cause damage to the engine and/or potential hazards.
- There are only a few suppliers of fuel stabilizer that are formulated to work with ethanol blend fuels.
- Any damages or hazards caused by using improper fuel, improperly stored fuel, and/or improperly formulated stabilizers, are not covered by manufacture's warranty.

It is advisable to always shut off the fuel supply, run the engine to fuel starvation and drain the tank when the equipment is not in use for more than 30 days.

## Grounding

Your generator must be properly connected to an appropriate ground to help prevent electric shock.

### WARNING

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

A ground terminal connected to the frame of the generator has been provided on the power panel. For remote grounding, connect of a length of heavy gauge (12 AWG minimum) copper wire between the generator ground terminal and a copper rod driven into the ground. We strongly recommend that you consult with a qualified electrician to ensure compliance with local electrical codes.

# OPERATION

## Generator Location

NEVER operate the generator inside any building, including garages, basements, crawlspaces and sheds, enclosure or compartment, including the generator compartment of a recreational vehicle. Please consult your local authority. In some areas, generators must be registered with the local utility. Generators used at construction sites may be subject to additional rules and regulations. Generators should be on a flat, level surface at all times (even while not in operation). Generators must have at least 5 ft. (1.5 m) of clearance from all combustible material. In addition to clearance from all combustible material, generators must also have at least 3 ft. (91.4 cm) of clearance on all sides to allow for adequate cooling, maintenance and servicing. Generators should never be started or operated in the back of a SUV, camper, trailer, in the bed of a truck (regular, flat or otherwise), under staircases/stairwells, next to walls or buildings, or in any other location that will not allow for adequate cooling of the generator and/or the muffler. DO NOT contain generators during operation. Allow generators to properly cool before transport or storage. Place the generator in a well-ventilated area. DO NOT place the generator near vents or intakes where exhaust fumes could be drawn into occupied or confined spaces. Carefully consider wind and air currents when positioning generator.

**Failure to follow proper safety precautions may void manufacturer's warranty.**

### **WARNING**

Do not operate or store the generator in rain, snow, or wet weather.

Using a generator or electrical appliance in wet conditions, such as rain or snow, or near a pool or sprinkler system, or when your hands are wet, could result in electrocution.

### **WARNING**

During operation the muffler and exhaust fumes produced will become hot. If adequate cooling and breathing space are not supplied, or if the generator is blocked or contained, temperatures can become extremely heated and may lead to fire.

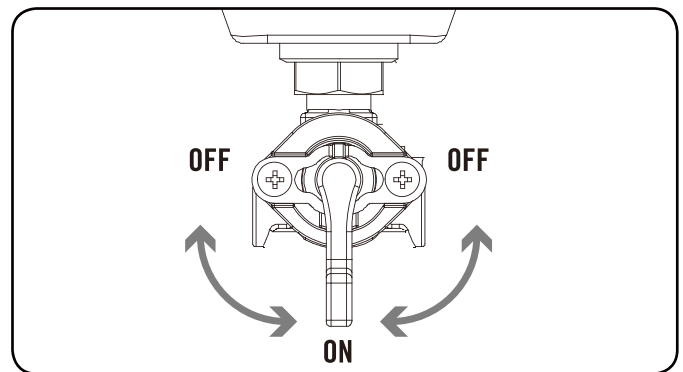
## Grounding

The generator system ground connects the frame to the ground terminals on the power panel.

- The generator (stator winding) is isolated from the frame and from the AC receptacle ground pin.
- Electrical devices that require a grounded receptacle pin connection will not function if the receptacle ground pin is not functional.

## Starting the Engine

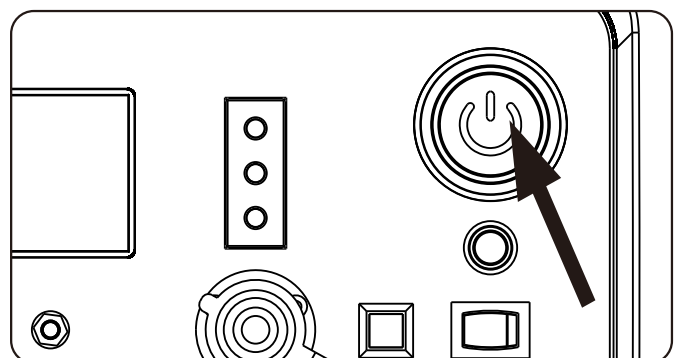
1. Make certain the generator is on a flat, level surface.
2. Disconnect all electrical loads from the generator. Never start or stop the generator with electrical devices plugged in or turned on.
3. Turn the fuel valve to the "On" position.



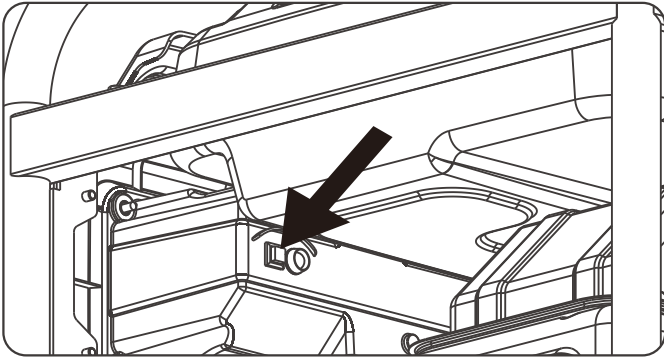
## Wireless Set Button

The wireless set button is a feature that lets the user synchronize the remote key fob to the generator. Up to two remote key fobs can be synchronized to the generator at a time. Follow the proceeding steps to reset a remote or synchronize two remotes:

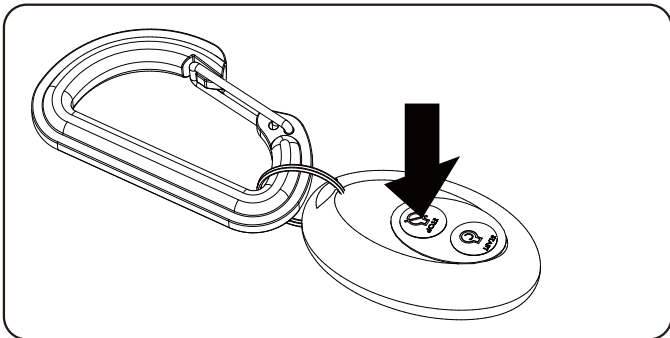
4. Press the START/STOP button once.



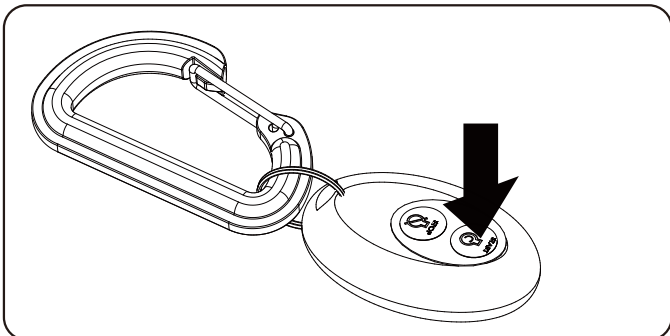
5. Push and hold the wireless set button control panel for approximately three seconds until the red light turns on.



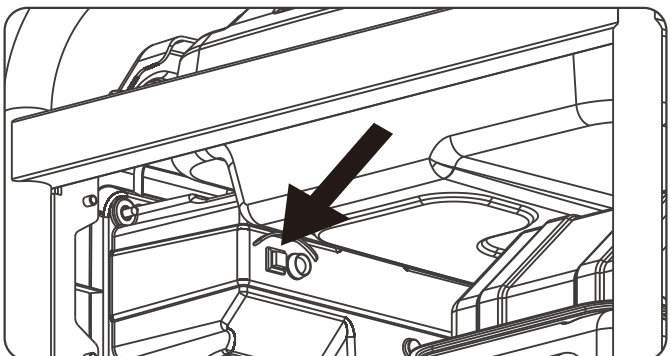
6. Push and release the STOP button on the remote key fob. The red light blinks once to erase the remote program.



7. Push and release the START button on the remote key fob. The red light blinks once to program the remote.



8. Push and hold the programming button approximately three seconds until the red light turns off.



9. Follow the remote START and STOP instructions to verify the remote(s) are working properly.

## NOTE

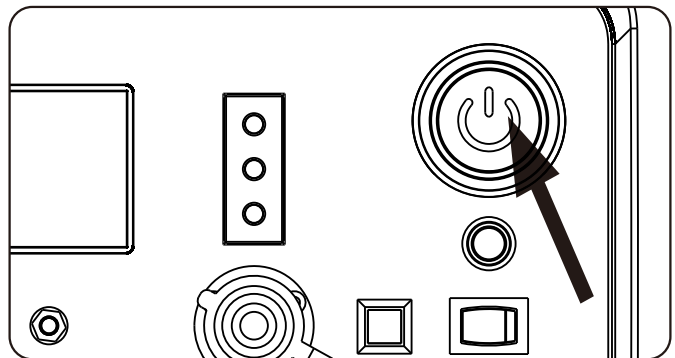
Two remote key fobs can be synchronized to the generator at one time.

## NOTE

Changing a remote key fob battery may not require the user to reset the remote. If remote does not function after changing the battery, proceed with Wireless Set Button instructions.

## Electric Start

4. Press the start switch once to activate the power supply. Press the start switch again to start. The button will flash green and the generator will attempt to start. There will be (6) starting attempts. After generator starts, the button will turn solid green.

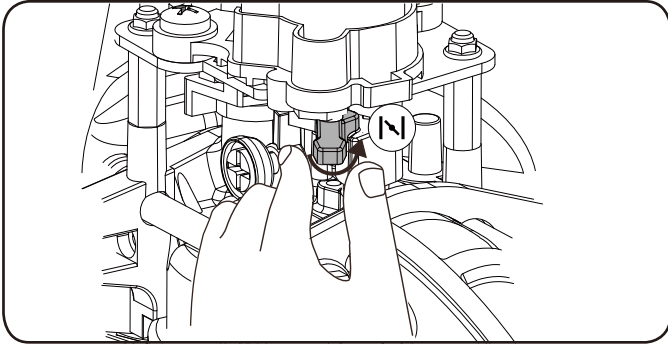


5. If the start fails, the indicator light will flash red light, relick the start switch or press down the START/STOP button for 5 seconds until the switch light goes off. Repeat step 4 until the engine starts normally.

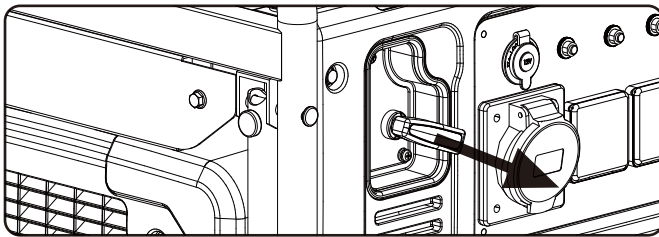
# OPERATION

## Manual Start

4. Turn the choke lever to the **CHOKE** (right) position.



5. Pull the recoil cord slowly until resistance is felt and then pull rapidly.



### NOTE

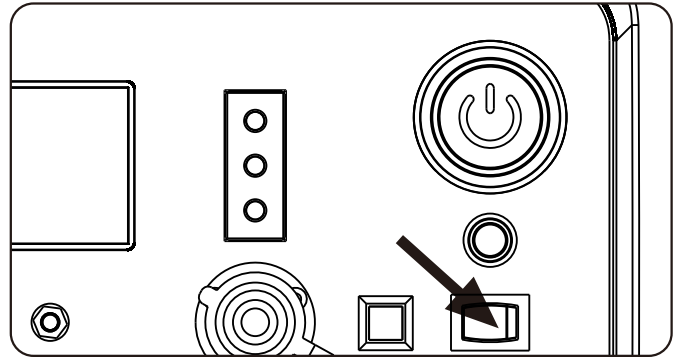
Keep choke in “Choke” position for only 1 pull of the recoil starter. After first pull, push choke in for up to the next 3 pulls of the recoil starter. Too much choke leads to sparkplug fouling/engine flooding due to the lack of incoming air. This will cause the engine not to start.

### NOTE

If the engine starts but does not continue to run make certain that the generator is on a flat, level surface. The engine is equipped with a low oil sensor that will prevent the engine from running when the oil level falls below a critical threshold.

## Economy Control Switch

The Economy Control switch can be activated in order to minimize fuel consumption and noise while operating the unit during times of **reduced electrical output**, allowing the engine speed to idle during periods of non-use. The engine speed automatically returns to normal when an electrical load is connected. When the economy switch is off, the engine runs at normal operating speed.



### WARNING

For periods of high electrical load or momentary fluctuations, the Economy Control Switch should be turned OFF.

## Connecting Electrical Loads

1. Let the engine stabilize and warm up for a few minutes after starting
2. Plug in and turn on the desired 240 Volt AC single phase, 50 Hz electrical loads.
  - DO NOT connect 3-phase loads to the generator.
  - DO NOT connect 60 Hz loads to the generator.
  - DO NOT overload the generator.

### NOTE

Connecting a generator to your electric utility company's power lines or to another power source may be against the law. In addition this action, if done incorrectly, could damage your generator and appliances and could cause serious injury or even death to you or a utility worker who may be working on nearby power lines. If you plan to run a portable electric generator during an outage, please notify your electric utility company immediately and remember to plug your appliances directly into the generator. Do not plug the generator into any electric outlet in your home. Doing so could create a connection to the utility company power lines. You are responsible for ensuring that your generator's electricity does not feed back into the electric utility power lines.

If the generator will be connected to a building electrical system, consult your local utility company or a qualified electrician. Connections must isolate generator power from utility power and must comply with all applicable laws and codes.

## 12V DC Outlet

The 12V DC outlet can be used with the supplied charge cable and USB charger and other commercially available 12V DC automotive style plugs. The DC output is unregulated and can damage some products. Confirm your accessory input voltage range is at least 12-24V DC. When using the DC outlet turn the Economy mode switch to the “OFF” position.

### WARNING

Do not operate a device while it is plugged in to the 12V DC outlet.

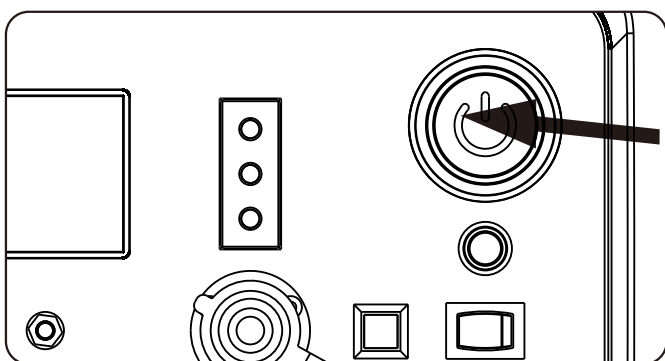
Prolonged exposure to engine exhaust can cause serious injury or death.

### WARNING

While charging a device do not place on the exhaust side of the generator. Extreme heat caused by exhaust can damage the device, and cause a potential fire hazard.

## Stopping the Engine

1. Turn off and unplug all electrical loads. Never start or stop the generator with electrical devices plugged in or turned on.
2. Let the generator run at no-load for several minutes to stabilize internal temperatures of the engine and generator.
3. Press the START/STOP button once.



### NOTE

If the engine will not be used for a period of two (2) weeks or longer, please see the storage section for proper engine and fuel storage.

## Do Not Overload Generator

### Capacity

Follow these simple steps to calculate the running and starting watts necessary for your purposes.

1. Select the electrical devices you plan on running at the same time.
2. Total the running watts of these items. This is the amount of power you need to keep your items running.
3. Identify the highest starting wattage of all devices identified in step 1. Add this number to the number calculated in step 2. Surge wattage is the extra burst of power needed to start some electric driven equipment. Following the steps listed under “Power Management” will guarantee that only one device will be starting at a time.

### Power Management

Use the following formula to convert voltage and amperage to watts:

$$\text{Volts} \times \text{Amps} = \text{Watts}$$

To prolong the life of your generator and attached devices, follow these steps to add electrical load:

1. Start the generator with no electrical load attached.
2. Allow the engine to run for several minutes to stabilize.
3. Plug in and turn on the first item. It is best to attach the item with the largest load first.
4. Allow the engine to stabilize.
5. Plug in and turn on the next item.
6. Allow the engine to stabilize.
7. Repeat steps 5-6 for each additional item.

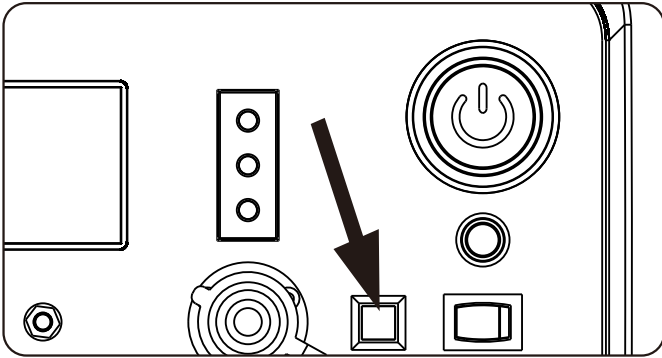
### NOTE

Never exceed the specified capacity when adding loads to the generator.

# OPERATION

## Overload Operation

If the generator power output is cut off due to an overload condition indicated by the AC overload blinking light, lower the load by unplugging one or more items, then press the AC overload reset button before restarting the generator for continued normal operation.



## Operation at High Altitude

The density of air at high altitude is lower than at sea level. Engine power is reduced as the air mass and air-fuel ratio decrease. Engine power and generator output will be reduced approximately 3½% for every 1000 feet of elevation above sea level. This is a natural trend and cannot be changed by adjusting the engine. At high altitudes increased exhaust emissions can also result due to the increased enrichment of the air fuel ratio. Other high altitude issues can include hard starting, increased fuel consumption and spark plug fouling. To alleviate high altitude issues other than the natural power loss, We can provide a high altitude carburetor main jet. The alternative main jet and installation instructions can be obtained by contacting Customer Support. Installation instructions are also available in the Technical Bulletin area of our internet site.

The part number and recommended minimum altitude for the application of the high altitude carburetor main jet is listed in the table below.

In order to select the correct high altitude main jet it is necessary to identify the carburetor model. For this purpose, a code is stamped on the side of the carburetor. Select the correct main jet part number corresponding to the carburetor code found on your particular carburetor.

### **WARNING**

Operation using the alternative main jet at elevations lower than the recommended minimum altitude can damage the engine. For operation at lower elevations, the standard main jet must be used. Operating the engine with the wrong engine configuration at a given altitude may increase its emissions and decrease fuel efficiency and performance.

The owner/operator is responsible for all periodic maintenance.

## **WARNING**

Never operate a damaged or defective generator.

## **WARNING**

Tampering with the factory set governor will void your warranty.

## **WARNING**

Improper maintenance will void your warranty.

## **NOTE**

Maintenance, replacement, or repair of emission control devices and systems may be performed by any non-road engine repair establishment or individual.

Complete all scheduled maintenance in a timely manner. Correct any issue before operating the generator.

## Engine Maintenance

To prevent accidental starting, remove and ground spark plug wire before performing any service.

### Oil

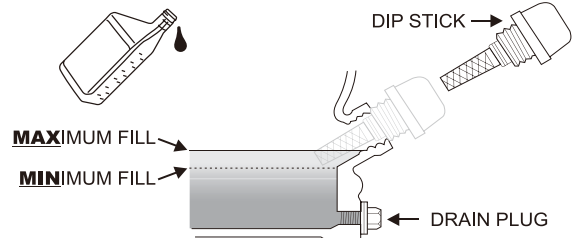
Change oil when the engine is warm. Refer to the oil specification to select the proper grade of oil for your operating environment.

1. Remove the oil drain plug with a 12 mm socket and extension. (not included)
2. Allow the oil to drain completely.
3. Replace the drain plug.
4. Remove oil fill cap/dipstick to add oil.
5. Add up to 1.1L of oil and replace oil fill cap/dipstick. **DO NOT OVERFILL.**
6. Dispose of used oil at an approved waste management facility.

### Oil Cont'd.

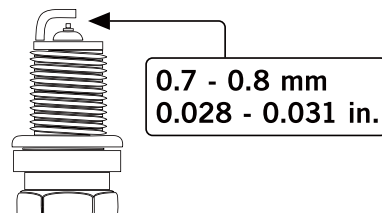
## **NOTE**

Once oil has been added, a visual check should show oil about 1-2 threads from running out of the fill hole. If using the dipstick to check oil level, **DO NOT** screw in the dipstick while checking.



### Spark Plugs

1. Remove the spark plug cable from the spark plug.
2. Use a spark plug socket tool (not included), or a 13/16 in. or 21 mm socket (not included) to remove the plug.
3. Inspect the electrode on the plug. It must be clean and not worn to produce the spark required for ignition.
4. Make certain the spark plug gap is 0.7 - 0.8 mm or (0.028 - 0.031 in.).



5. Refer to the spark plug recommendation chart when replacing the plug.
6. Carefully thread the plug into the engine.
7. Use the spark plug socket tool (not included) or a 13/16 in. or 21 mm socket (not included) to firmly install the plug.
8. Attach the spark plug wire to the plug.

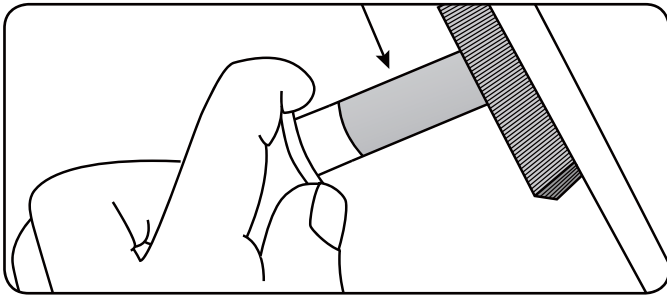
### Air Filter

1. Remove the snap-on cover holding the air filter to the assembly.
2. Remove the foam element.
3. Wash in liquid detergent and water. Squeeze thoroughly dry in a clean cloth.
4. Saturate in clean engine oil.
5. Squeeze in a clean, absorbent cloth to remove all excess oil.
6. Place the filter in the assembly.
7. Reattach the air filter cover and snap in place.

# MAINTENANCE AND STORAGE

## Spark Arrester

1. Allow the engine to cool completely before servicing the spark arrester.
2. Remove the two (2) screws holding the cover plate which retains the end of the spark arrester to the muffler.
3. Remove the spark arrester screen.
4. Carefully remove the carbon deposits from the spark arrester screen with a wire brush.
5. Replace the spark arrester if it is damaged.
6. Position the spark arrester in the muffler and attach with the two (2) screws.



### ⚠ CAUTION

Failure to clean the spark arrester will result in degraded engine performance.

## Adjustments

The air-fuel mixture is not adjustable. Tampering with the governor can damage your generator and your electrical devices and will void your warranty.

## Maintenance Schedule

Follow the service intervals indicated in the following maintenance schedule.

Service your generator more frequently when operating in adverse conditions.

Every 8 hours or daily	
	Check oil level
	Clean around air intake and muffler
First 5 Hours	
	Change oil
Every 50 hours or every season	
	Clean air filter
	Change oil if operating under heavy load or in hot environments
Every 100 hours or every season	
	Change oil
	Clean/Adjust spark plug
	Check/Adjust valve clearance*
	Clean spark arrester
	Clean fuel tank and filter*
Every 250 hours	
	Clean combustion chamber*
Every 3 years	
	Replace fuel line

\*To be performed by knowledgeable, experienced owners or our certified dealers.

## Generator Maintenance

Make certain that the generator is kept clean and stored properly. Only operate the unit on a flat, level surface in a clean, dry operating environment. DO NOT expose the unit to extreme conditions, excessive dust, dirt, moisture or corrosive vapors.

### Cleaning

#### CAUTION

DO NOT spray engine with water.

Water can enter the generator through the cooling slots and damage the generator windings. It can also contaminate the fuel system.

Use a damp cloth to clean exterior surfaces of the generator. Use a soft bristle brush to remove dirt and oil. Use an air compressor (25 PSI) to clear dirt and debris from the generator. Inspect all air vents and cooling slots to ensure that they are clean and unobstructed.

### Storage

#### DANGER

Gasoline, gasoline vapors and liquid petroleum gas (LPG/propane) are highly flammable and extremely explosive.

Fire or explosion can cause severe burns or death. Only fill or drain fuel outdoors in a well-ventilated area. Do not pump gasoline directly into the generator. Use an approved container to transfer the fuel to the generator. Never use a fuel container, hose, cylinder or any other fuel related item that is damaged or appears damaged. Do not overfill the fuel tank. Always keep fuel away from sparks, open flames, pilot lights, heat and other sources of ignition. Do not light or smoke cigarettes.

### Short Term Storage (up to 1 year)

Gasoline in the fuel tank has a maximum shelf life of up to 1 year with the addition of properly formulated fuel stabilizers and if stored in a cool, dry place. Gasoline in the carburetor, however, WILL gum up and clog the carburetor if it isn't used or drained within 2 weeks.

### Short Term Storage Cont'd.

1. Be sure all appliances are disconnected from the generator.
2. Add a properly formulated fuel stabilizer to the tank (2-3 times manufacturer's recommended amount).
3. Run the generator for 10 minutes so the treated fuel cycles through the fuel system and carburetor.
4. With the generator running, turn the fuel valve to the "OFF" position and let the generator run until fuel starvation has stopped the engine. This usually takes a few minutes.
5. Turn engine switch to the "OFF" position.
6. Allow generator to cool completely before continuing.
7. Optional: to ensure fuel is completely drained from the carburetor, use the drain bolt on the carburetor to empty any excess gasoline into an appropriate container.
8. Remove the spark plug cap and spark plug and pour about a tablespoon of oil into the cylinder.
9. Pull the recoil slowly to crank the engine to distribute the oil and lubricate the cylinder.
10. Reattach the spark plug and spark plug cap.
11. If the generator includes a battery, disconnect and charge according to [Generator Battery](#).
12. Clean the generator according to [Generator Maintenance](#).
13. Store the generator in a cool, dry place out of direct sunlight.

### Long Term Storage (over 1 year)

For storage over 1 year, the fuel tank and carburetor must be completely drained of gasoline.

1. Be sure all appliances are disconnected from the generator.
2. Add a properly formulated fuel stabilizer to the fuel tank.
3. Run the generator for 10 minutes so the treated fuel cycles through the fuel system and carburetor.
4. Run Dry Option:
  - a. Let the generator run to fuel complete starvation.
  - b. Turn engine switch to the "OFF" position.
  - c. Allow generator to cool completely.
5. Drain Fuel Option:
  - a. Turn engine switch to the "OFF" position.
  - b. Allow generator to cool completely.

# MAINTENANCE AND STORAGE

## Long Term Storage Cont'd.

- c. Use the drain bolt on the carburetor to completely empty gasoline from the fuel tank and carburetor into an appropriate container.
- d. Replace and tighten the carburetor drain bolt.
6. Turn the fuel valve to the "OFF" position.
7. Remove the spark plug and pour about a tablespoon of oil into the cylinder. Crank the engine slowly to distribute the oil and lubricate the cylinder.
8. Reattach the spark plug and spark plug cap.
9. If the generator includes a battery, disconnect and charge according to [Generator Battery](#).
10. Clean the generator according to [Generator Maintenance](#).
11. Store the generator in a cool, dry place out of direct sunlight.

## Removing from Storage

If the generator has been improperly stored for a long period of time with gasoline in the fuel tank and/or carburetor, all fuel must be drained and the carburetor must be thoroughly cleaned. This process involves technically advanced tasks. If the fuel tank and carburetor were properly emptied of all fuel prior to the generator being stored, follow the below steps when removing from storage.

1. Add fuel to the generator according to [Add Fuel](#).
2. With the engine switch in the "OFF" position, turn the fuel valve to the "ON" position. After 5 minutes check the carburetor and air filter areas for any leaking gasoline. If found, the carburetor will need to be disassembled and cleaned or replaced. If no fuel leaks are found, turn the fuel valve to the "OFF" position.
3. Check oil level and add clean, fresh oil if needed.
4. Check and clear air filter of any obstructions such as bugs or cobwebs. If necessary, clean according to [Air Filter section](#).
5. If the generator includes a battery, connect according to [Connect the Battery](#)
6. Start the generator according to [Starting the Engine](#).

## NOTE

Our engines work well with 10% or less ethanol blend fuels. When using blended fuels there are some issues worth noting:

- Ethanol-gasoline blends can absorb more water than gasoline alone.
- These blends can eventually separate, leaving water or a watery goo in the tank, fuel valve and carburetor.
- With gravity-fed fuel supplies, this compromised fuel can be drawn into the carburetor and cause damage to the engine and/or potential hazards.
- There are only a few suppliers of fuel stabilizer that are formulated to work with ethanol blend fuels.
- Any damages or hazards caused by using improper fuel, improperly stored fuel, and/or improperly formulated stabilizers, are not covered by manufacture's warranty.

## DANGER

Generator exhaust contains odorless and colorless carbon monoxide gas.

To avoid accidental or unintended ignition of your generator during periods of storage, the following precautions should be followed:

- When **storing the generator** make sure the engine switch and fuel valve are set to the "OFF" position.
- If your generator includes a battery, disconnect according to the Generator Battery section.

## Engine Specifications

- Displacement . . . . . 459cc
- Type . . . . . 4-Stroke OHV
- Start Type . . . . . Wireless, Electric, Manual

## Generator Specifications

- Running watts . . . . . 7200
- Starting watts . . . . . 8000
- AC Load . . . . . 240V
- Phase . . . . . Single
- Frequency . . . . . 50Hz
- Fuel Capacity . . . . . 33L
- Gross Weight . . . . . 85Kg
- Net Weight . . . . . 80Kg
- Height . . . . . 66.1 cm
- Width . . . . . 73 cm
- Length . . . . . 68.9 cm

\*Product carton styles may vary.

## Fuel

Fuel capacity is 33L . Use regular unleaded gasoline with a minimum octane rating of 85 and an ethanol content of less than 10% by volume.

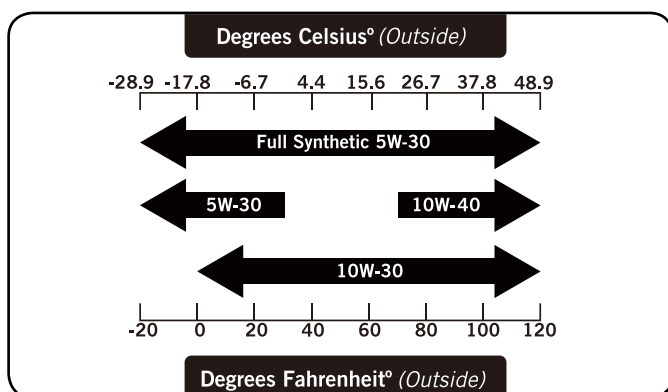
## Oil

Use 10W-30 automotive oil.

Oil capacity is up to 1.1L.

**DO NOT OVERFILL**

Please reference the following chart for recommended oil types for use in the generator.



**NOTE**  
Weather will affect engine oil and engine performance. Change the type of engine oil used based on weather conditions to suit the engine needs.

## Spark Plugs

**OEM spark plug:** NHSP F6RTC

**Replacement spark plug:** NGK BPR6ES or equivalent  
Make certain the spark plug gap is 0.7 - 0.8 mm or (0.028 - 0.031 in.).

## Maintenance Valve Clearance

- Intake: 0.13 - 0.17 mm (0.005 - 0.007 in.)
- Exhaust: 0.18 - 0.22 mm (0.007 - 0.009 in.)

## An Important Message About Temperature

Your product is designed and rated for continuous operation at ambient temperatures up to 40°C (104°F). When your product is needed your product may be operated at temperatures ranging from -15°C (5°F) to 50°C (122°F) for short periods. If the product is exposed to temperatures outside this range during storage, it should be brought back within this range before operation. In any event, the product must always be operated outdoors, in a well-ventilated area and away from doors, windows and other vents.

# TROUBLESHOOTING

Problem	Cause	Solution
Generator will not start	No fuel	Add fuel
	Faulty spark plug	Replace spark plug
	Unit loaded during start up	Remove load from unit
Generator will not start; Generator starts but runs roughly	Low oil level	Fill crankcase to the proper level Place generator on a flat, level surface
	Choke in the wrong position	Adjust choke
	Spark plug wire loose	Attach wire to spark plug
Generator shuts down during operation	Out of fuel	Fill fuel tank
	Low oil level	Fill crankcase to the proper level. Place generator on a flat, level surface
Generator cannot supply enough power or overheating	Generator is overloaded	Review load and adjust. See "Power Management"
	Insufficient ventilation	Check for air restriction. Move to a well ventilated area
No AC output	Cable not properly connected	Check all connections
	Connected device is defective	Replace defective device
	Circuit breaker is open	Reset circuit breaker
	Loose wiring	Inspect and tighten wiring connections
	Other	Contact the help line
Repeated circuit breaker tripping	Overload	Review load and adjust. See "Power Management"
	Faulty cords or device	Check for damaged, bare or frayed wires. Replace defective device