

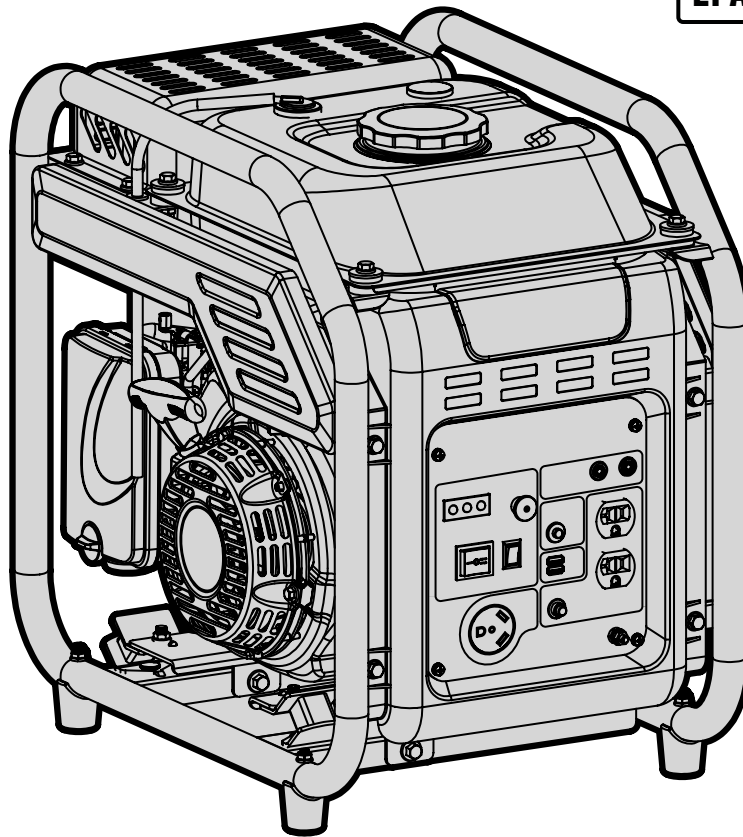


**MODEL GN400iX**

# **4000-WATT INVERTER GENERATOR**

**Instruction Manual**

**EPA III & CARB CERTIFIED**



## ***NEED HELP? CONTACT US!***

Have product questions? Need technical support? Please feel free to contact us:



**1-800-232-1195 (M-F 8AM-5PM CST)**



**TECHSUPPORT@WENPRODUCTS.COM**

**IMPORTANT:** Your new tool has been engineered and manufactured to WEN's highest standards for dependability, ease of operation, and operator safety. When properly cared for, this product will supply you years of rugged, trouble-free performance. Pay close attention to the rules for safe operation, warnings, and cautions. If you use your tool properly and for its intended purpose, you will enjoy years of safe, reliable service.

For replacement parts and the most up-to-date instruction manuals, visit ***WENPRODUCTS.COM***

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To purchase accessories for your tool, visit ***WENPRODUCTS.COM***

**Magnetic Oil Dipstick** (Model No. 55201), and **Generator Cover** (Model No. 56310iC).

# ***SPECIFICATIONS***

## **GENERATOR**

Model Number	GN400iX
Surge (Starting) Wattage	4000 Watts
Rated (Running) Wattage	3500 Watts
Rated Voltage	120V AC
Rated Amperage	29.2A
Phase	Single
Frequency	60Hz
Product Weight	66.1 lbs
Product Dimensions	19.8 in. × 13.8 in. × 18.9 in.

## **ENGINE**

Engine Type	4 stroke, OHV, single cylinder with forced air cooling system
Engine Displacement	212cc
Fuel Tank Capacity	1.85 US gallons (7 L), 87 octane minimum
Oil Capacity	17.0 fl. oz. (0.5 L)
Half-Load Run Time	7 hours
Lubrication System	Forced Splash
Spark Plug Type	Torch F6RTC (NGK BPR6ES)
Spark Plug Gap	0.7 - 0.8 mm (0.028 - 0.031 in.)
Spark Plug Torque	½ - ¾ turn after gasket contacts base or 15 ft-lbs (20.33 Nm)

# INTRODUCTION

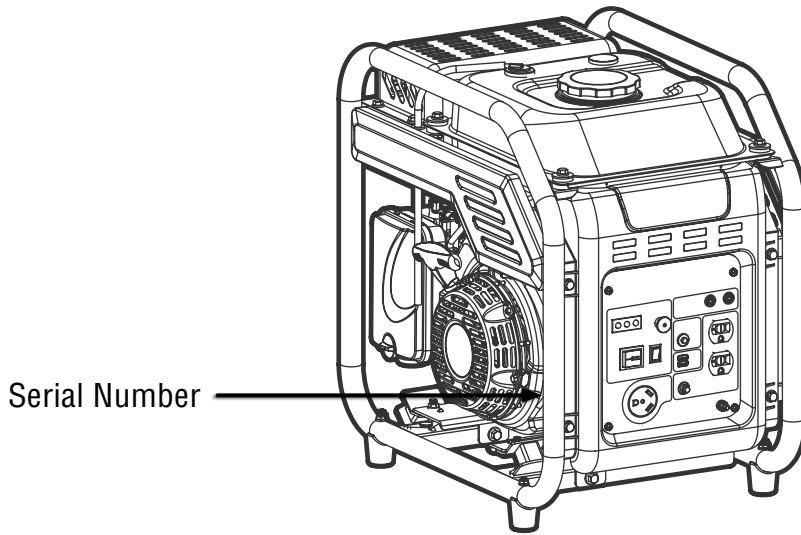
Thanks for purchasing the WEN 4000-Watt Portable Generator. Refer to the illustration below for the locations of the serial number on the side of the engine or on the serial number label. Record the generator information in the spaces provided below. If assistance for information or service is required, please contact customer service by calling **1-800-232-1195**, M-F 8-5 CST; you will be asked to provide the following generator information when calling.

**Generator Model Number:** GN400iX

**Date of Purchase:** \_\_\_\_\_

**Purchased From:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_




## SERVICE RECORD

Record the service dates of your generator in the chart below. Please perform maintenance checks and operations according to this manual. Refer to "Maintenance" on page 24.

Service Record	Date	Date	Date	Date	Date	Date
Change Oil						
Change Spark Plug						
Clean Fuel Tank						
Clean Air Cleaner						
Clean Spark Arrestor						

**TO MAXIMIZE THE LIFESPAN OF YOUR GENERATOR:** We recommend running your generator at least once a month for 20 to 30 minutes. Start the generator according to the instructions and plug a small load in to make sure the outlet is producing electricity.

# SAFETY INFORMATION

 **WARNING:** Before operating the generator, make sure to read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire or serious injury.

## SAFETY INTRODUCTION

Safety is a combination of common sense, staying alert, and knowing how your tool works. This manual contains important information regarding the generator's potential safety concerns, as well as preparation, operation, and maintenance instructions. Before operating this generator, be sure to read and observe all warnings and instructions both on the generator labels and in this instruction manual. Failure to follow all instructions listed below may result in personal injury.

**NOTE:** The following safety information is not meant to cover all possible conditions and situations that may occur. WEN reserves the right to change this product and specifications at any time without prior notice.


At WEN, we are continuously improving our products. If you find that your tool does not exactly match this manual, please visit [wenproducts.com](http://wenproducts.com) for the most up-to-date manual or contact customer service at **1-800-232-1195**, M-F 8-5 CST.


**Keep this manual available to all users during the entire life of the tool and review it frequently to maximize safety for both yourself and others.**


## SAVE THESE SAFETY INSTRUCTIONS.

## SAFETY SYMBOLS

The purpose of following safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

 **DANGER:** indicates a hazard, which, if not avoided, will result in death or serious injury.

 **WARNING:** indicates a hazard, which, if not avoided, could result in death or serious injury.

 **CAUTION:** indicates a hazard, which, if not avoided, might result in minor or moderate injury.

**CAUTION:** when used without the alert symbol, indicates a situation that could result in damage to the machine.

## NOTICE REGARDING EMISSIONS

Engines that are certified to comply with U.S. EPA emission regulations for SORE (Small Off Road Equipment), are certified to operate on regular unleaded gasoline, and may include the following emission control systems: (EM) Engine Modifications and (TWC) Three-Way Catalyst (if so equipped).

## QUESTIONS? PROBLEMS?

In order to answer questions and solve problems in the most efficient and speedy manner, contact customer service at **1-800-232-1195**, M-F 8-5 CST or email [techsupport@wenproducts.com](mailto:techsupport@wenproducts.com).

## GENERATOR SAFETY WARNINGS


### **DANGER: CARBON MONOXIDE**

Using a generator indoors **CAN KILL YOU IN MINUTES**. Generator exhaust contains carbon monoxide (CO). This is a poison gas you cannot see or smell. If you can smell the generator exhaust, you are breathing CO. But even if you cannot smell the exhaust, you could be breathing CO.





**NEVER** use a generator inside homes, garages, crawl spaces, or other partially enclosed areas. Deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors does **NOT** supply enough fresh air. **ONLY** use a generator outside and far away from windows, doors, and vents. These openings can pull in generator exhaust.

Even if you use a generator correctly, CO may leak into the home. **ALWAYS** use a battery-powered or battery-backup CO alarm in the home. If you start to feel sick, dizzy, or weak after the generator has been running, move to fresh air **RIGHT AWAY**. See a doctor. You may have carbon monoxide poisoning.

 **WARNING: RISK OF EXPLOSION. HIGHLY FLAMMABLE:** This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death, if ignited. A nearby open flame can lead to explosion even if not directly in contact with gasoline.

- Do not operate near open flame, heat, or any other ignition source. Do not smoke near the generator.
- Always operate on a firm, level surface.
- Always turn generator off before refueling. Allow generator to cool for at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.
- Do not overfill fuel tank. Gasoline may expand during operation. Do not fill to the top of the tank. Allow for expansion. Always check for spilled fuel before operating.
- If fuel spills, move the generator at least 30 feet away from the spill and wipe clean any spilled fuel before starting the engine.
- Empty fuel tank before storing or transporting the generator.

 **WARNING:** If this generator is used as a supply for a building's wiring system, the generator must be installed by a qualified electrician and connected to a transfer switch as a separately derived system in accordance with all applicable laws and electrical codes and the National Electrical Code, NFPA 70. The generator shall be connected to a transfer switch that switches all conductors excluding the equipment grounding conductor. The frame of the generator shall be connected to an approved grounding electrode.

 **CALIFORNIA PROPOSITION 65 WARNING:** This product contains chemicals and produces exhaust known to the State of California to cause cancer, birth defects and other reproductive harm.

# GENERATOR SAFETY WARNINGS

**⚠ WARNING!** Do not let comfort or familiarity with the product replace strict adherence to product safety rules. Failure to follow the safety instructions may result in serious personal injury.

## OPERATING ENVIRONMENT

1. **Using a generator indoors can kill you in minutes.** Only use a generator outside and far away from windows, doors and vents.

2. **Do not smoke near the generator.**

3. **Do not operate near open flame, heat, or flammable materials.** This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to an explosion even if it isn't directly in contact with gasoline.

4. **Do not expose the generator to rainy or wet conditions; doing so significantly increases the risk of electrical shock.** Never handle the generator, electronic devices, or any cord while standing in water, while bare-foot, or when hands or feet are wet.

5. **Always operate the generator on a dry, firm, level surface.**

6. **The generator should have at least 5 feet of clearance from buildings or other equipment during operation.**

7. **Do not allow children or non-qualified persons to operate the generator.**

## GENERATOR PREPARATION

1. **Always ground the generator before using it to maximize safety** (see "Ground the Generator" section).

2. **Do not overfill fuel tank, as gasoline may expand during operation.** Do not fill to the very top of the tank. Leave room for gasoline expansion. Always check for spilled fuel before operating.

3. **If any part of the generator, electrical device or power cord is broken, damaged, or defective, make sure it is repaired or replaced before operation.** Service should only be performed by a qualified technician. Do not use receptacles or cords that show signs of damage, such as broken or cracked insulation.

4. **Use a ground fault circuit interrupter (GFCI) in highly conductive areas such as metal decking or steel work.** Extension cords with in-line GFCIs are recommended for these operations to maximize safety.

5. **If connecting the generator to a building's electrical system for standby power, you MUST consult a qualified electrician and install a transfer switch.** Such connections must comply with local electrical laws and codes. Failure to comply can create a back-feed, which may result in serious injury or death to utility workers.

6. **Never modify the generator in any way.** Modifying or using the machine for any other purpose for which it is not designed may result in serious injuries, machine damage and voiding of the warranty.

## GENERATOR OPERATION

1. **Only use the generator for its intended purposes.** Modifying or using the generator for operations for which it was not designed may cause hazards and personal injury.

2. **Do not touch bare wires or receptacles (outlets).**

3. **Do not exceed the wattage capacity of the generator by plugging in more electrical devices than the unit can handle.** This could damage the generator and/or connected electrical devices. Check the operating voltage and frequency requirements of all electrical devices prior to plugging them into the generator.

**Generator safety warnings continue on the next page.**

## GENERATOR SAFETY WARNINGS

**⚠ WARNING!** Do not let comfort or familiarity with the product replace strict adherence to product safety rules. Failure to follow the safety instructions may result in serious personal injury.

**TO MAXIMIZE THE LIFESPAN OF YOUR GENERATOR:** We recommend running your generator at least once a month for 20 to 30 minutes. Start the generator according to the instructions and plug a small load in to make sure the outlet is producing electricity. If you do not run it often, it will greatly shorten the generator's lifespan and void the warranty.

4. **Allow generator to run for several minutes before connecting electrical devices.** Do not start or stop engine with electrical devices plugged in to the receptacles. Failure to do so could damage the generator and/or connected electrical devices.
5. **Do not turn on electrical devices until after they are connected to the generator.**
6. **Generators vibrate in normal use.** During and after the use of the generator, inspect both the generator as well as extension and power supply cords for damage resulting from vibration.
7. **Do not touch hot parts.** This generator produces heat when running. Temperatures near exhaust can exceed 150°F (65°C). Allow generator to cool down after use before touching engine or areas of the generator that become hot during use.
8. **Turn off all connected electrical devices before stopping the generator.**
9. **Always turn generator off before refueling.** Allow generator to cool for at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.
10. **Turn the engine switch to “STOP” position when the engine is not running.**
11. **Empty fuel tank before storing or transporting the generator.** Do not store generator or gasoline near furnaces, water heaters, or any other appliances that produce heat or have automatic ignitions. Store the generator and fuel away from sparks, open flames, pilot lights, heat and other sources of ignition.
12. **Always wash hands after handling generator.**

**CAUTION:** Misuse of this generator can damage it or shorten its lifespan.

## UNPACKING & PACKING LIST

### UNPACKING

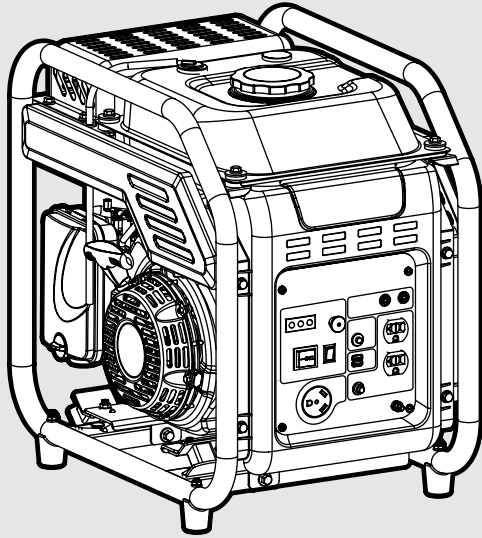
With the help of a friend or trustworthy foe, carefully remove the generator from the packaging and place it on a sturdy, flat surface. Make sure to take out all contents and accessories. Do not discard the packaging until everything is removed. Check the packing list on page 9 to make sure you have all of the parts and accessories. If any part is missing or broken, please contact customer service at **1-800-232-1195** (M-F 8-5 CST), or email [techsupport@wenproducts.com](mailto:techsupport@wenproducts.com).



# UNPACKING & PACKING LIST

## PACKING LIST

### Components



**Generator (1)**

### Spark Plug Wrench

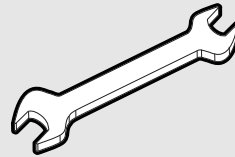


**Wrench (1)**

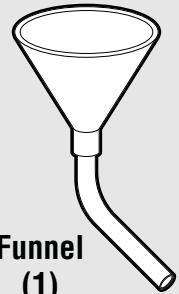


**Handle (1)**

### Tools

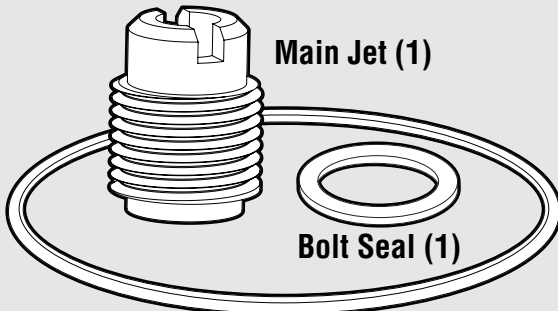


**Wrench  
8mm/10mm (1)**



**Funnel  
(1)**

### High Altitude Kits

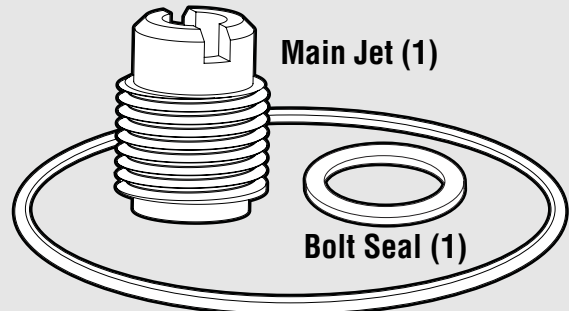


**Main Jet (1)**

**Bolt Seal (1)**

**Fuel Cup Seal (1)**

**3000 - 6000 ft High Altitude Kit (1)**



**Main Jet (1)**

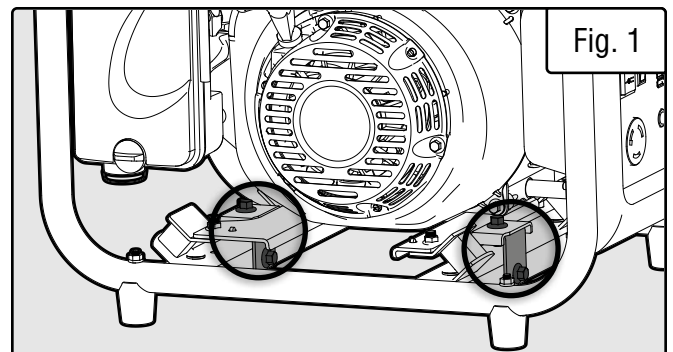
**Bolt Seal (1)**

**Fuel Cup Seal (1)**

**6000 - 8000 ft High Altitude Kit (1)**

## REMOVING THE SHIPPING BRACKETS

Your generator comes with two shipping brackets that protect the generator during delivery. These brackets should be removed before using the generator. The shipping brackets are located on the two lower beams of the generator (Fig. 1). Use the included 8mm/10mm wrench to remove the two bolts on each bracket, then slide the brackets off. You will not need the bracket or bolts, please discard appropriately.



## ASSEMBLY & ADJUSTMENTS

### HIGH ALTITUDE OPERATION ABOVE 3000 FEET

The fuel system on this generator may be affected by operation at high altitudes. Proper operation can be ensured by installing an altitude kit at altitudes higher than 3000 feet above sea level. At elevations above 8000 feet, the engine may experience a decrease in performance, even with the proper altitude kit. Operating this generator without the high altitude kit at elevations above 3000 feet may increase the engine's emissions and decrease both fuel economy and performance.

### INSTALLING THE HIGH ALTITUDE KIT

This kit should be installed by a qualified mechanic. Contact customer service at **1-800-232-1195** (M-F 8-5 CST), or email [techsupport@wenproducts.com](mailto:techsupport@wenproducts.com) for information about service centers near you.

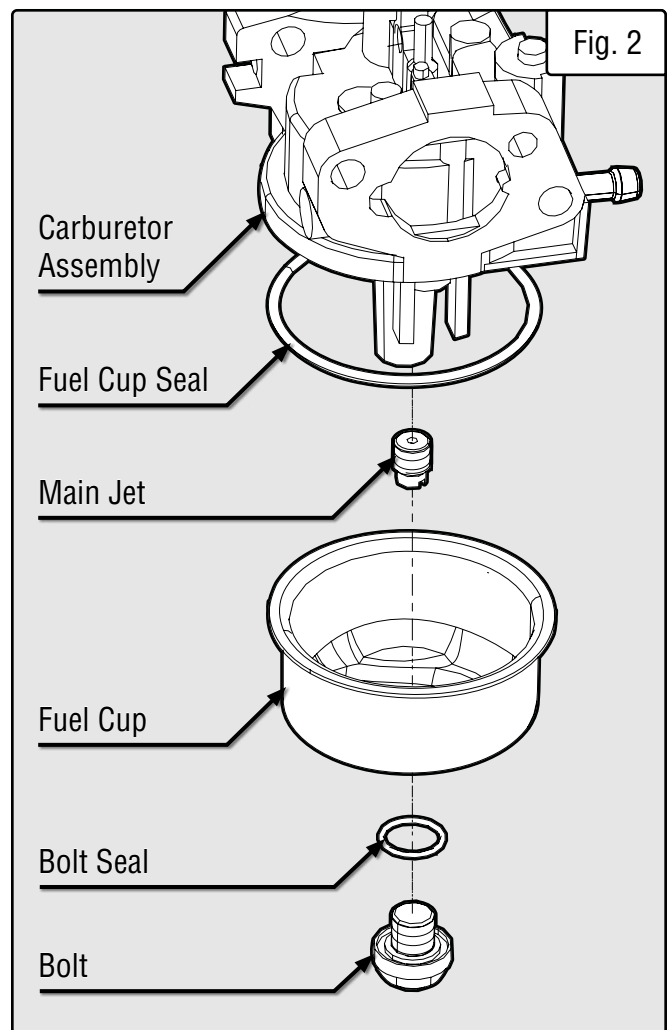
Gather the parts in the high altitude kit. Refer to page. 9.

1. Flip the engine switch to the STOP position.
2. Turn the fuel valve to the OFF position.
3. Prepare an approved gasoline-storage container to catch any spilled fuel. Place it near the fuel valve.
4. The carburetor can be accessed from the backside of the generator between the engine and the air filter. Loosen the bolt (Fig. 2) on the bottom of the carburetor with a Phillips-head screwdriver (not included). **CAUTION! The carburetor bowl may have gas in it which will leak upon removing the bolt.**
5. Remove the bolt, bolt seal, fuel cup, fuel cup seal, and main jet from the body of the carburetor assembly. Refer to See Fig. 2.
6. Replace the main jet with the replacement jet needed for your altitude range (3000-6000 ft or 6000-8000 ft). **NOTE: The fuel cup seal and bolt seal may be damaged during removal and should be replaced with the new ones from the kit.**
7. Reassemble the fuel cup seal, fuel cup, bolt seal, and bolt. Tighten with a Phillips-head screwdriver to secure.

8. Wipe up any spilled fuel and allow excess to evaporate before starting the engine. **WARNING! To prevent fire, do not start the engine while the smell of fuel hangs in the air.**

**⚠ WARNING!** To prevent serious injury from fire, follow the kit installation procedures in a well-ventilated area away from ignition sources. If the engine is hot from use, shut the engine off and wait for it to cool before proceeding. Do not smoke near the generator. Warranty will be void if adjustments are not made for high altitude use.

**CAUTION!** UNINSTALL the high altitude kit when operating at altitudes below 3000 feet.



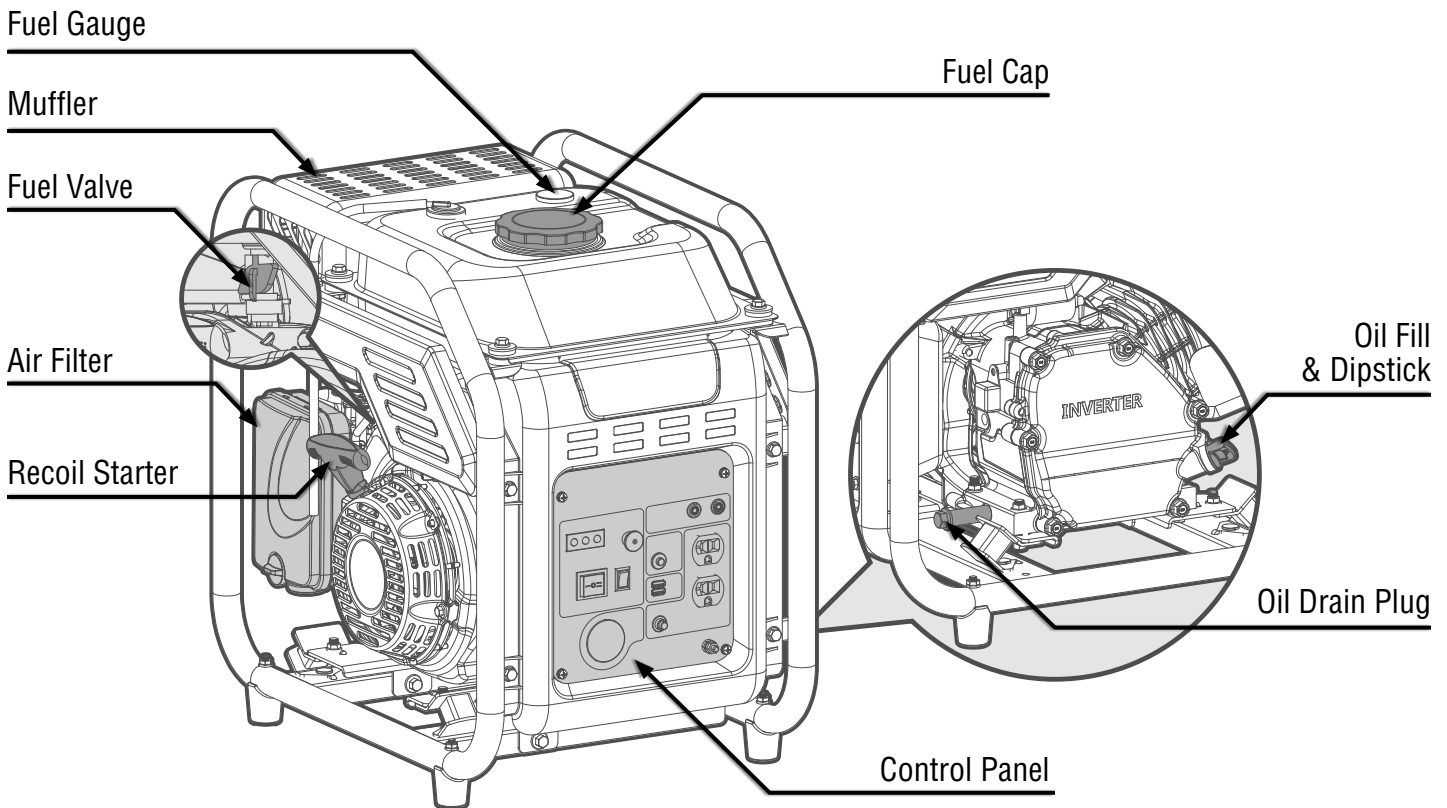
**CAUTION!** UNINSTALL the high altitude kit when operating at altitudes below 3000 feet.

# KNOW YOUR GENERATOR

## KNOW YOUR GENERATOR

Refer to the following diagrams to become familiarized with all the parts and controls of your generator. The components will be referred to later in the manual for assembly and operation instructions.

## GENERATOR



- **FUEL GAUGE**

Indicates amount of fuel inside the fuel tank. E indicates empty, F indicates full.

- **MUFFLER**

Dampens the noise level of the generator.

- **FUEL VALVE**

Allows fuel to enter the engine from the fuel tank.

- **AIR FILTER**

A case with a sponge-like element that filters the air entering the engine.

- **RECOIL STARTER**

Pull the cord to start the engine.

- **FUEL CAP**

Access to the fuel tank to add gasoline.

- **OIL FILL AND DIPSTICK**

Access to the oil tank to check oil levels and add oil.

- **OIL DRAIN PLUG**

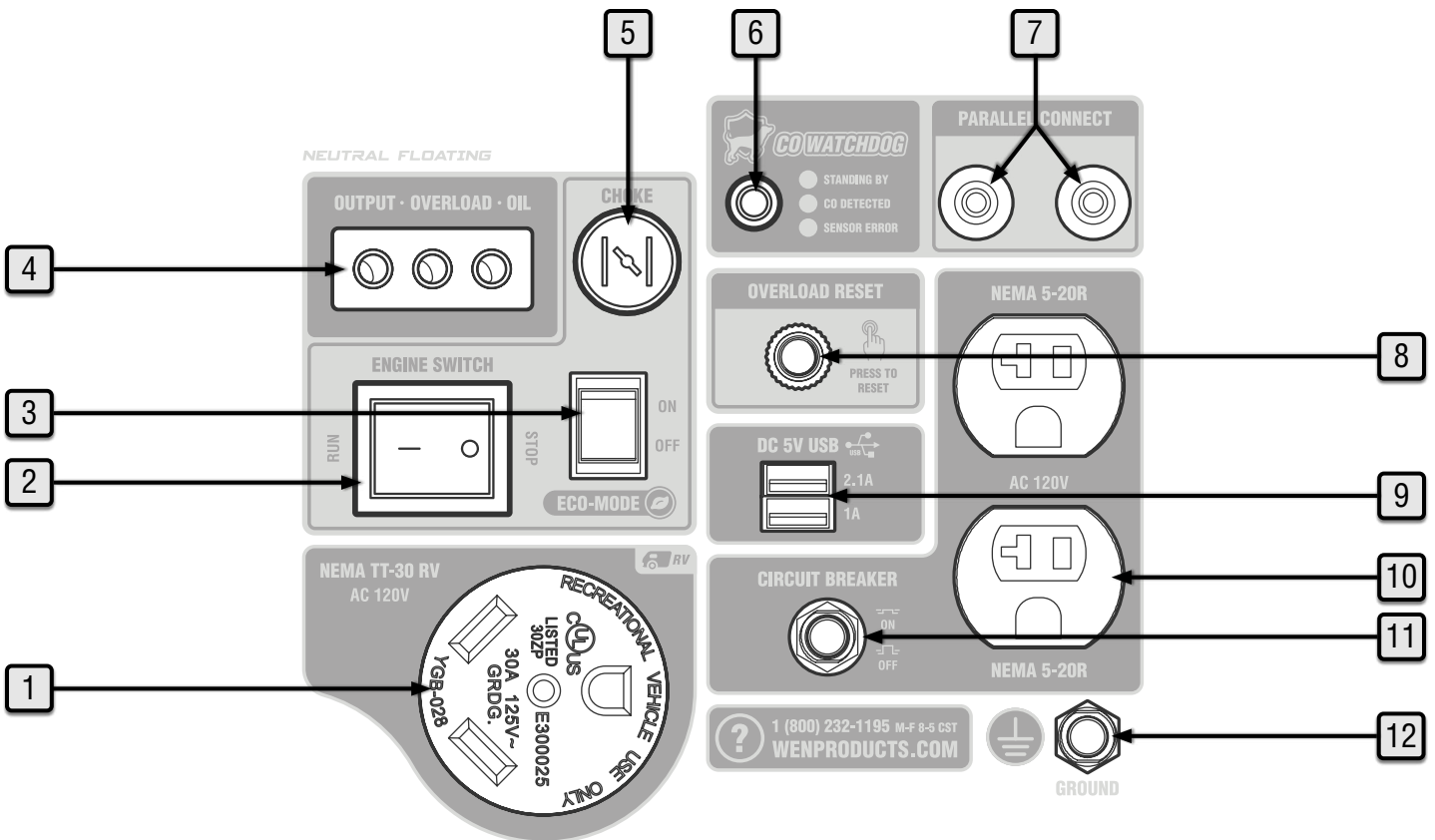
Drain oil, refer to maintenance on p. 23.

- **CONTROL PANEL**

Refer to the next page for more information.

# KNOW YOUR GENERATOR

## CONTROL PANEL



**1. AC 120V NEMA TT-30RV Receptacle**  
Standard RV connector.

**2. Engine Switch**  
This switch makes the engine run or stop.

**3. Eco-Mode Switch**  
Flip this switch to ON to increase fuel economy and runtime when the load is below 2400W (75% load).

**4. Indicator Lights**  
The output light (green) will turn on when the receptacles have power, the overload light (red) will turn on if the generator is overloaded, the oil light (yellow) will turn on if the oil is low.

**5. Choke Button**  
Adjusts the amount of air allowed into the engine during startup.

**6. CO WATCHDOG Carbon Monoxide Monitor**  
Measures the accumulation of poisonous CO gas while the generator is running. If the level of CO gas gets too high, the CO Watchdog system will automatically shut down the generator. See p. 22 for more information.

**7. Parallel Connection**  
Connect your generator to another generator with a parallel kit to gain more power.

**8. Overload Reset**  
If the overload light is ON, press this button to reset your generator.

**9. DC 5V USB Ports**  
The upper USB port provides 2.1A, while the lower port provides 1A of power.

**10. AC 120V NEMA 5-20R Duplex Receptacles (20A)**  
Standard household outlets provide 120V 60Hz power.

**11. Circuit Breaker**  
Push the button to reset the NEMA 5-20R circuit.

**12. Grounding Nut**  
Ground the generator to reduce the risk of electric shock. Refer to "Step 3 - Ground The Generator" on page 15.

# GENERATOR PREPARATION

The following section describes the necessary steps to prepare the generator for use. If you are unsure about how to perform any of the steps please call **1-800-232-1195** (M-F 8-5 CST) for customer service. Failure to perform these steps properly can damage the generator or shorten its life.

## STEP 1 - ADD/CHECK OIL

The generator is shipped without oil. User must add the proper amount of oil before operating the generator for the first time. The oil capacity of the engine crankcase is **17.0 fl. oz.** (0.5 L).

**ENGINE OIL RECOMMENDATIONS** - Select good quality detergent oil bearing the American Petroleum Institute (API) service classifications SJ, SL, or SM (synthetic oils may be used). Select the SAE viscosity grade of oil that matches the expected operating temperature. For general use (above 40° F), we recommend using 30W engine oil.

- **30W Engine Oil**  
Temperatures above 40°F.
- **10W-30 Engine Oil**  
Temperatures between 0°F - 40°F.
- **Synthetic 5W-30 Engine Oil**  
All temperature ranges.

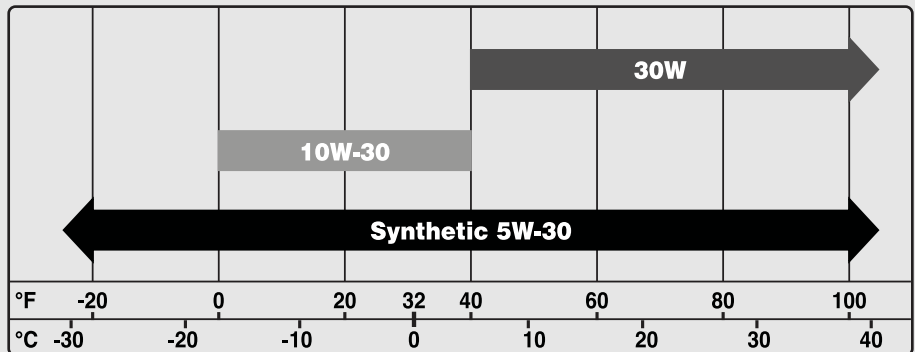


Fig. 3

### TO ADD OIL:

1. Place the generator on a level surface. Make sure the engine is OFF before adding or checking oil.

**CAUTION!** Keep the generator level. Tilting the generator to assist in filling will cause oil to flow into the wrong areas of the engine and cause damage.

2. Unscrew the oil dipstick (Fig. 4) from the engine.
3. Using an oil funnel or appropriate dispenser, slowly add oil into the oil fill, being careful not to overfill the unit. Fill the crankcase to the upper fill line so you can visually see the oil coming halfway up the oil fill threads. See Fig. 5.
4. Reinstall the oil dipstick and firmly tighten it. Wipe clean any spilled oil.

**CAUTION!** For subsequent operation, the oil level should be checked before each use, or after every 8 hours of operation. The generator is equipped with a low-oil sensor and will not start without a sufficient amount of oil. Follow the instructions on the next page to check the oil level.

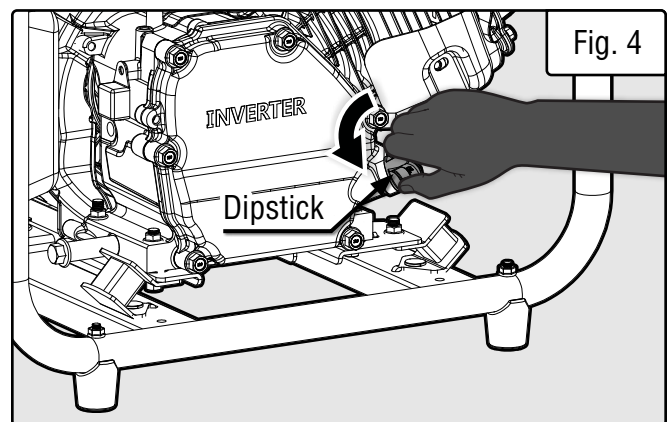


Fig. 4

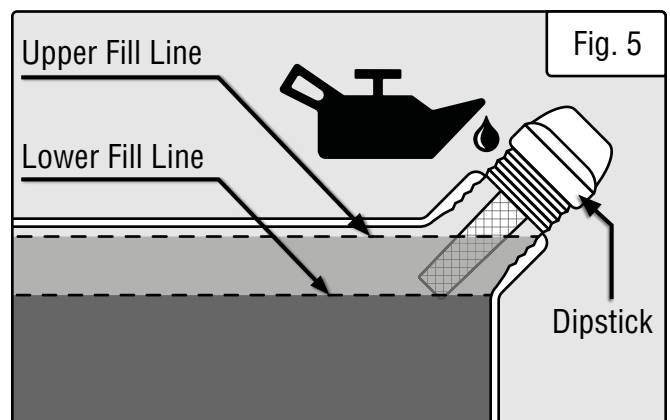


Fig. 5

## GENERATOR PREPARATION

### TO CHECK OIL LEVEL (before every subsequent start):

1. Place the generator on a level surface. Make sure the engine is OFF before adding or checking oil.
2. Remove and wipe the dipstick with a clean rag.
3. Insert the dipstick into the oil fill without screwing it in. Remove the dipstick to check the oil mark.
4. If the oil mark covers **less than one half** of the dipstick, slowly **add oil** until the oil mark reaches the top of the dipstick (or when you can see the oil coming halfway up the oil fill threads). See Fig. 6.

### OIL LEVEL SHUTDOWN

To protect the unit from damage, the generator is equipped with a low-oil-pressure shutoff that will automatically shut down the engine when the oil level is too low. The oil level of the engine should be checked before each start to ensure that the engine crankcase contains sufficient lubricant.

### STEP 2 - ADD/CHECK FUEL

**⚠ WARNING: RISK OF EXPLOSION. HIGHLY FLAMMABLE:** This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death, if ignited. A nearby open flame can lead to explosion even if not directly in contact with gasoline.

- Do not operate near open flame, heat, or any other ignition source. Do not smoke near the generator.
- Always operate on a firm, level surface.
- Always turn generator off before refueling. Allow generator to cool for at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.
- Do not overfill fuel tank. Gasoline may expand during operation. Do not fill to the top of the tank. Allow for expansion. Always check for spilled fuel before operating.
- If fuel spills, move the generator at least 30 feet away from the spill and wipe clean any spilled fuel before starting the engine.
- Empty fuel tank before storing or transporting the generator.

**ONLY** use fresh (within 30 days from purchase), lead-free gasoline with a **minimum of 87 octane rating**. The generator performs best with ethanol-free gasoline. **DO NOT** use gasoline with over 10% ethanol.

The capacity of the fuel tank is **1.85 US gallons (7L)**. Do not mix oil with gasoline.

**Follow the instructions on the next page to add gasoline.**

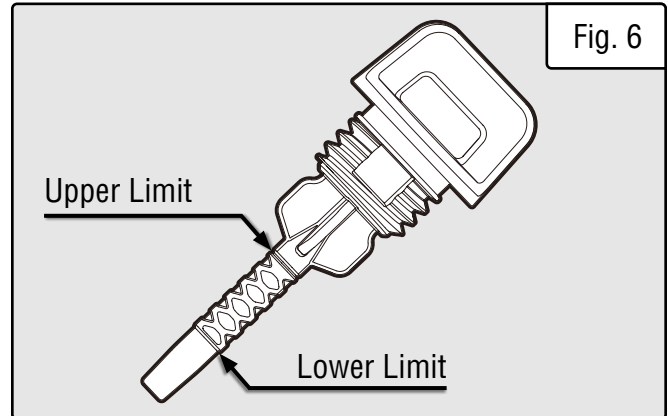


Fig. 6

**TIP:** Your WEN generator is compatible with the **WEN 55201** Magnetic Oil Dipstick (not included), available for purchase at [wenproducts.com](http://wenproducts.com). The dipstick's industrial-strength magnetic tip will collect metal shavings from your generator's oil tank to help preserve the engine and extend your generator's lifespan.

### IMPORTANT:

- Avoid getting dirt or water into the fuel tank.
- Keep gasoline away from sparks, open flames, pilot lights, heat, and other sources of ignition.
- Gasoline can age in the tank and make starting difficult. Never store the generator for more than 2 months with fuel in the tank.
- Never use an oil/gasoline mixture.
- Never use old gasoline.



# GENERATOR PREPARATION

## TO ADD GASOLINE:

1. Place the generator on a level surface. Make sure the engine is OFF before adding or checking the fuel.
2. Unscrew the fuel cap (Fig. 7) and set it aside. The fuel cap may be tight and hard to unscrew.
3. Slowly add unleaded gasoline to the fuel tank. Be careful not to overfill. Reinstall fuel cap and wipe clean any spilled gasoline with a dry cloth.

**NOTE:** Do not fill the fuel tank to the very top. If you do so, gasoline will expand and spill during use, even with the fuel cap in place.

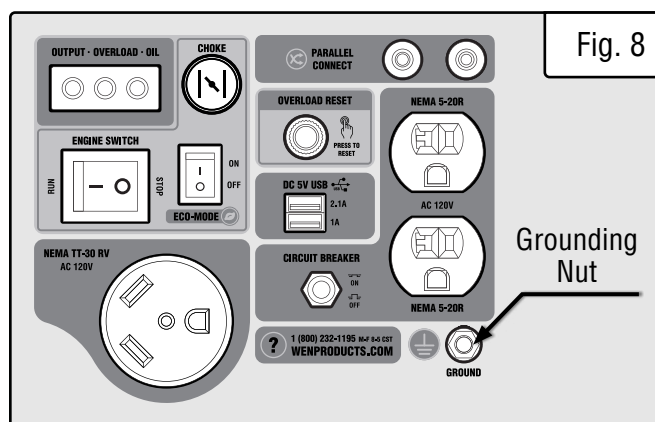
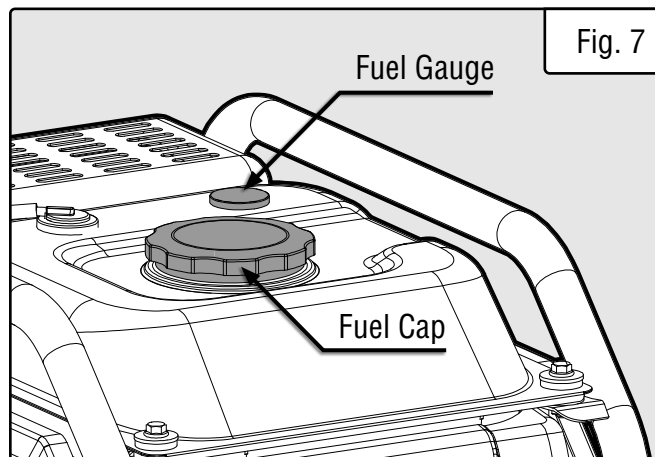
## TO CHECK GAS LEVEL (before every subsequent start):

1. Before starting the generator, check the fuel gauge (Fig. 7) to see if there is sufficient fuel inside the tank:
  - E = Empty
  - F = Full
2. If the tank is empty add gasoline to the gas tank. See above section, "To Add Gasoline".

## STEP 3 - GROUND THE GENERATOR

To reduce the risk of electric shock and to maximize safety, the generator should be properly grounded.

1. Attach one end of the grounding wire to the grounding nut (Fig. 8). Tighten the nut to secure the grounding wire.
2. Connect the other end of the grounding wire to a copper, brass, or steel-grounding rod that is driven into the earth.



**⚠ WARNING!** Failure to properly ground the generator increases your risk of electric shock.

**NOTE:** Grounding wire and grounding rods are not included with the generator. A generally acceptable grounding wire is a **No. 12 AWG (American Wire Gauge) stranded copper wire**. Grounding codes can vary by location. Contact a local electrician to check the area codes.

## STARTING YOUR GENERATOR

Before starting the generator, make sure you have read and performed the steps in the “Generator Preparation” section of this manual, pages 14-16. If you are unsure about how to perform any of the steps in this manual please call **1-800-232-1195** (M-F 8-5 CST) for customer service.


### **DANGER: CARBON MONOXIDE**

Using a generator indoors **CAN KILL YOU IN MINUTES**. Generator exhaust contains carbon monoxide (CO). This is a poison gas you cannot see or smell. If you can smell the generator exhaust, you are breathing CO. But even if you cannot smell the exhaust, you could be breathing CO.


**NEVER** use a generator inside homes, garages, crawl spaces, or other partially enclosed areas. Deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors does NOT supply enough fresh air. **ONLY** use a generator outside and far away from windows, doors, and vents. These openings can pull in generator exhaust.


Even if you use a generator correctly, CO may leak into the home. **ALWAYS** use a battery-powered or battery-backup CO alarm in the home. If you start to feel sick, dizzy, or weak after the generator has been running, move to fresh air **RIGHT AWAY**. See a doctor. You may have carbon monoxide poisoning.

 **WARNING:** The exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

 **WARNING:** Do not operate generator near open flame or flammable materials. This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to explosion even if it isn't directly in contact with gasoline. Do not smoke near the generator.

 **WARNING:** This generator produces powerful voltage, which can result in electrocution.

 **WARNING:** Do not use in rainy or wet conditions. Do not touch bare wires or receptacles (outlets). Do not allow children or non-qualified persons to operate.

 **WARNING:** Generator should only be connected to electrical devices, either directly or with an extension cord. **NEVER** connect to a building electrical system without a qualified electrician and connected to a transfer switch as a separately derived system. Such connections must comply with local electrical laws and codes. Failure to comply can create a back-feed, which may result in serious injury or death to utility workers.

To maximize safety, **ALWAYS** ground the generator before using it. Refer to "Step 3 - Ground The Generator" on page 15.

Use a ground fault circuit interrupter (GFCI) in highly conductive areas such as metal decking or steel work. GFCIs are available in-line with some extension cords.

**CAUTION!** Disconnect all electrical loads from the generator before attempting to start it.

**Follow the instructions on the next page to start your generator.**



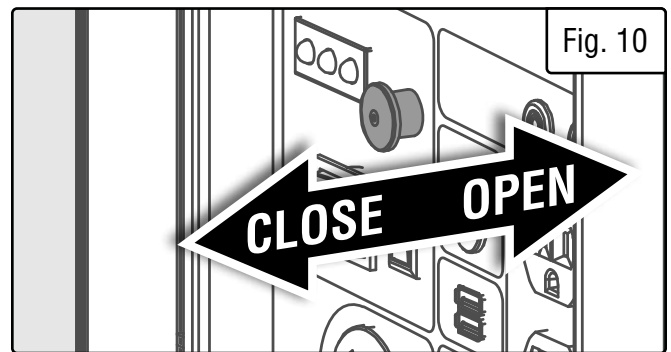
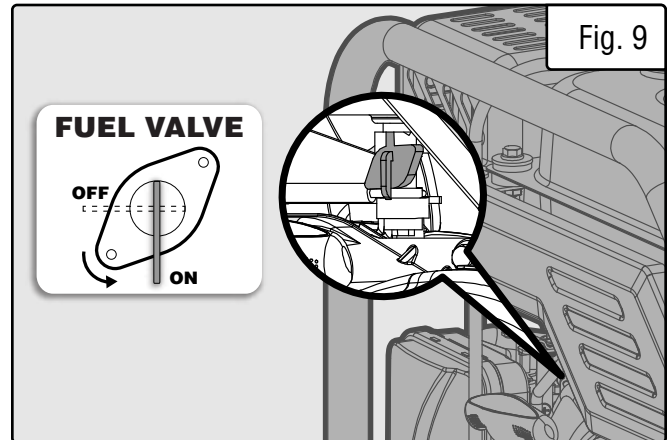
# STARTING YOUR GENERATOR

## BEFORE STARTING THE GENERATOR

1. Verify that the generator is outside on a dry, level surface. Allow at least two feet of clearance on all sides of the generator.
2. To maximize safety, check that the generator is properly grounded. Refer to "Step 3 - Ground The Generator" on page 15.
3. Check that there is a sufficient level of oil in the crankcase. Add oil if necessary. Refer to "Step 1 - Add/Check Oil" on page 13.
4. Check that there is a sufficient level of fuel in the fuel tank. Add gas if necessary. Refer to "Step 2 - Add/Check Fuel" on page 14.
5. Make sure all electrical devices are unplugged from the generator during ignition. Otherwise it will be difficult for the engine to start.

## STARTING THE GENERATOR

1. Turn the fuel valve to the ON position (Fig. 9).
2. Pull the choke button out to the CLOSE/START position (Fig. 10).
3. Flip the engine switch (page 12) to the RUN position.
4. Pull on the recoil starter handle (page 11) slowly until a slight resistance is felt, then pull quickly to start the engine. Return cord gently into the recoil starter. Never allow the cord to snap back.
5. If engine fails to start, repeat this step.
6. Once the engine has started, slowly push the choke button into the OPEN/RUN position (Fig. 10).
7. Allow the engine to run for several minutes before attempting to connect any electrical devices. This allows the generator to stabilize its speed and temperature. Follow the instructions in the next section for properly connecting your electrical devices.



**NOTE:** In case you have had repeated failed attempts to start the engine, please consult the troubleshooting guide before attempting to start the generator. If problems persist please call 1-800-232-1195, M-F 8-5 CST.

# USING YOUR GENERATOR

## CALCULATING THE WATTAGE OF YOUR DEVICE(S)

Connect electrical devices running on AC current according to their wattage requirements. Calculate the total running wattage and starting wattage of the device(s) you wish to connect, and **MAKE SURE** that they are within the capacity of your generator and the capacity of each individual outlet.

	GENERATOR RUNNING (RATED) WATTS	GENERATOR STARTING (SURGE) WATTS
	<b>Generator Wattage Capacity</b>	<b>3500W</b>
	<p><b>What this means:</b> The generator can produce a maximum of 3500W on a continuous basis to supply on-going power to your electronic devices.</p> <p><b>NOTE:</b> Also check the rated amperage for each outlet and make sure not to overload the individual outlets.</p>	<p><b>What this means:</b> Some devices such as box fans require short bursts of extra power in addition to the rated wattage listed by the device to start their motors.</p> <p>The generator can produce a maximum wattage of 4000W for a short period of time (seconds) to cover the extra starting power required by your electronic devices.</p>
<b>Electronic Device Wattage Calculation</b>	<p>Find the wattage information of each device you plan to connect. The information should be listed on the device or in its instruction manual, or you may refer to page 19, Table 2 - Estimated Wattages of Common Electrical Appliances.</p> <p style="text-align: center;">The wattage can be calculated using this equation: <b>Watts = Volts x Amperes</b></p>	
	<p><b>To calculate the total running watts of your devices:</b></p> <p>+ Add up the running wattages of all the device(s) you plan to connect.</p> <p>= The total running (rated) wattage.</p> <p>This wattage should NOT exceed the running wattage of <b>3500W</b>.</p> <p>It is recommended to maintain a load at or below 3150W (90% of the rated output) to ensure steady voltage output and to prolong the generator's lifespan.</p>	<p><b>To calculate the total starting watts of your devices:</b></p> <p>+ Add up the total running wattage of all the device(s) you plan to connect.</p> <p>+ Add the single highest <b>ADDITIONAL</b> starting wattage out of the device(s) you plan to connect.</p> <p>= The total starting (surge) wattage.</p> <p>This wattage should NOT exceed the starting wattage of 4000W.</p>
	<p>If any of either of the total calculated running watts or starting watts is higher than the capacity of your generator, adjust the load until both wattage requirements are met. Otherwise you will overload the generator, and cause damage to the engine and your electrical device(s).</p>	

Table 1 - How to Calculate Wattages

## **USING YOUR GENERATOR**

### **CALCULATING THE WATTAGE OF YOUR DEVICE(S) - CONTINUED**

The chart below serves as a reference for the estimated wattage requirements of common electrical devices. However, do not solely rely on this chart - all electronics and appliances are built differently. Always check the wattage listed on the electrical device before consulting this chart.

<b>Tool or Appliance</b>	<b>Rated (Running) Watts</b>	<b>Surge (Starting) Watts</b>
Hot Plate	2500	0
Saw - Radial Arm	2000	2000
Electric Stove (Each Element)	1500-2800	0
Saw - Circular	1500	1500
Air Compressor (1 HP)	1500	3000
Window Air Conditioner	1200	1800
Saw - Miter	1200	1200
Microwave	1000	0
Well Water Pump	1000	1000
Sump Pump	800	1200
Refrigerator Freezer	800	1200
Furnace Blower	800	1300
Computer	800	0
Electric Drill	600	900
Television	500	0
Deep Freezer	500	500
Garage Door Opener	480	0
Stereo	400	0
Box Fan	300	600
Clock Radio	300	0
Security System	180	0
DVD Player / VCR	100	0
Common Light Bulb	75	0

Table 2 - Estimated Wattages of Common Electrical Appliances

**NOTE:** Become familiar with the functions and capacity of each component on the control panel before connecting electrical devices. See page 12 for more information about the components of the control panel. Do not overload generator or individual panel receptacles. Do not connect 50Hz or 3-phase loads to the generator.

# USING YOUR GENERATOR

## CONNECTING ELECTRICAL DEVICES

1. Before connecting electrical devices, allow the generator to run for a few minutes to stabilize the speed and voltage output.
2. Select the device with the highest wattage, and make sure it is turned off. Plug the device into the matching generator outlet and then turn the device on. Allow the engine to stabilize.
3. Repeat step 2 to plug in each additional device. Do not attempt to plug in or start multiple devices at the same time.

## ECO-MODE SWITCH

This generator is equipped with an Eco-Mode Idle Control Switch (page 12). Engaging this switch allows the system to regulate the engine speed and automatically adjust its fuel consumption to match the required load. When the electrical load changes, the generator engine will automatically speed up and slow down as needed. This reduces fuel consumption and noise levels, while extending runtime and engine's lifespan.

Keep this switch engaged ONLY when the power load requirement is less than 2400W (75% of the rated watts). Do not engage the Eco-Mode Switch when the total load is more than 2400W. The generator engine must run at full speed to supply power for anything over 2400W.

## PARALLEL OPERATION

The parallel connection ports (page 12) allow you to connect two WEN generators to increase the total available electrical power. The WEN Parallel Connection Kit can be purchased from [wenproducts.com](http://wenproducts.com). Follow the instructions included with your parallel connection kit for proper installation and operation.

## CIRCUIT BREAKER

The 20A AC circuit breaker will activate when the load on the NEMA 5-20R outlets exceeds 20A. When the circuit breaker activates, turn off and disconnect the device from its respective outlet, and press the circuit breaker to reset.

## IN CASE OF OVERLOAD

If your generator becomes overloaded from too much drawn wattage, the overload light (red) on the control panel will light up. Follow the instructions below when an overload occurs:

- When you're close to overloading the generator, the overload light will start to flash. Reduce the load by turning off and disconnecting your electronic device(s) until the overload light turns off. Then you may continue to operate your generator.
- When you've overloaded the generator, the overload light will stay on and the overload reset button (page 12) will activate to cut off the output in 3 to 16 seconds, depending on the load. Reduce the load by turning off and disconnecting your electrical device(s) until the overload light turns off. Wait about five minutes and then press the activated reset button to reset the circuit. If no power is produced after resetting, turn off and disconnect all electrical devices and restart your generator.
- The pattern in which the overload light blinks gives diagnostic information about the problem. Refer to the chart on the next page.

## USING YOUR GENERATOR

LIGHT		MEANING	RESOLUTION
GREEN (POWER INDICATOR)	RED (OVERLOAD)		
ON	OFF	Generator output is normal.	No action needed.
ON	Flashing continuously	Generator is exceeding rated output.	Reduce load on generator.
OFF	Flashes 1x, repeating every 3 sec	Voltage at alternator is too low. No electrical output.	Check for loose connections. Call <b>1-800-232-1195</b> for assistance.
OFF	Flashes 2x, repeating every 3 sec	Engine speed is too low. No electrical output.	Check carburetor and stepper motor. Ensure Eco-Mode is OFF. Have generator serviced; call <b>1-800-232-1195</b> for assistance.
OFF	Flashes 3x, repeating every 3 sec	Inverter temperature is too high. No electrical output.	Turn generator off and let it cool down fully (1 – 2 hours) before restarting.
OFF	Flashes 5x, repeating every 3 sec	Voltage at alternator is too high. No electrical output.	Have generator serviced; call <b>1-800-232-1195</b> for assistance.
OFF	Flashes 6x, repeating every 3 sec	Generator has exceeded rated output and cut off power to protect itself. No electrical output.	Turn OFF and disconnect loads. Press RESET button on panel. Reduce load on generator.

### SOME NOTES ABOUT POWER CORDS

Refer to the following chart in determining the necessary gauge extension cord for each of your devices. Round up to the higher amperage in the chart to maximize safety.

Device Requirements			Max. Cord Length (ft) by Wire Gauge				
Amps	Watts (120V)	Watts (240V)	#8 wire	#10 wire	#12 wire	#14 wire	#16 wire
2.5	300	600	NR	NR	NR	375	250
5	600	1200	NR	NR	300	200	125
7.5	900	1800	NR	350	200	125	100
10	1200	2400	NR	250	150	100	50
15	1800	3600	NR	150	100	65	NR
20	2400	4800	175	125	75	50	NR
25	3000	6000	150	100	60	NR	NR
30	3600	7200	125	65	NR	NR	NR
40	4800	9600	90	NR	NR	NR	NR

\*NR = Not Recommended

Table 3 - Power Cord Requirement Guide

**⚠ WARNING!** Generator should **only** be connected to electrical devices, either directly or with an extension cord. NEVER CONNECT TO A BUILDING ELECTRICAL SYSTEM without a qualified electrician and connected to a transfer switch as a separately derived system. Such connections must comply with local electrical laws and codes. Failure to comply can create a back-feed, which may result in serious injury or death to utility workers.

**NOTE:** For power outages, permanently installed, stationary generators are better suited for providing backup power to your home. Even a properly connected portable generator can become overloaded. This may result in overheating or stressing the machine's components, possibly leading to generator failure.

## USING YOUR GENERATOR

### CO SENSOR INFORMATION

The CO Watchdog carbon monoxide monitoring system (Fig. 11 - 1) measures the accumulation of poisonous CO gas while the generator is running. If the level of CO gas gets too high, the CO Watchdog system will automatically shut down the generator. **This system is not a substitute for an indoor CO alarm.**

Whenever the CO Watchdog system shuts down the generator, the LED on the generator control panel (Fig. 11 - 1) will **blink red** for at least 5 minutes after the generator is shut down. **If you notice that the LED is blinking red, vacate the area immediately.** Go to an open, outdoor area. Ventilate the area around the generator thoroughly before returning. Let the generator stay shut down for a few minutes before restarting the engine. This should allow carbon monoxide to dissipate from the area. If you restart the generator and the CO Watchdog detects that CO levels are still too high, it will shut down the generator again. If CO levels are low enough, the generator will run normally.

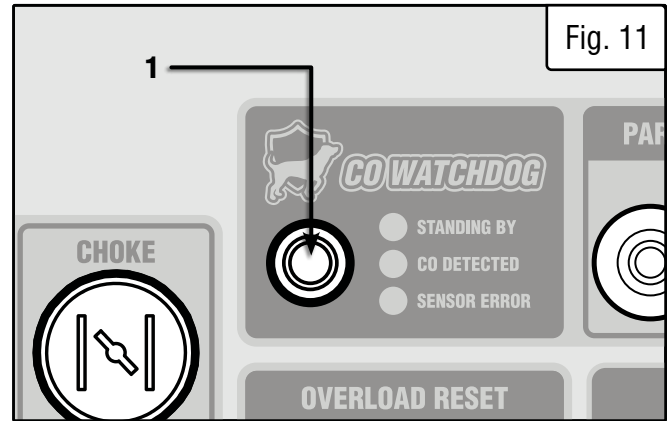
Ensure that the generator is located in an open outdoor area, with the exhaust pointing away from occupied structures, and pointing away from the prevailing winds, such that those winds do not blow engine exhaust towards the sensor module. If anyone experiences dizziness, headaches, nausea, fatigue, or other symptoms of CO poisoning, get to fresh air immediately and seek the attention of a qualified medical professional. Follow all other directions in this manual regarding the connection and disconnection of electrical devices when starting or shutting down the generator.

When starting the generator, the CO Watchdog LED on the panel may flash. This indicates that the system is running a self-test procedure, and does not indicate a problem.

If the CO Watchdog LED on the panel is **yellow**, a system error has occurred, or the CO sensor has reached the end of its life. Contact WEN customer service (**1-800-232-1195**, M – F 8 – 5 CST, or **techsupport@wenproducts.com**) for assistance.

#### When operating your generator, please note the following:

- The CO Watchdog does not discriminate in its input; any source of carbon monoxide in the area around the generator could cause it to activate. If the CO Watchdog LED is blinking red, safety measures should be taken immediately.
- Tampering with, disconnecting, or bypassing the CO sensor could cause hazardous conditions, including but not necessarily limited to injury or death, and will void your warranty. The generator will not run with the CO sensor disconnected or bypassed, or if the CO sensor indicates an error.
- The CO sensor has a lifetime of about 7 years, and is capable of monitoring its lifetime. If your generator shows an error light several years after purchase, it may be time to replace the CO sensor. Contact WEN customer service for assistance.



**NOTE:** if the generator is oriented so that the engine exhaust is blown towards the CO sensor, the generator may shut down.

## SHUTTING OFF YOUR GENERATOR

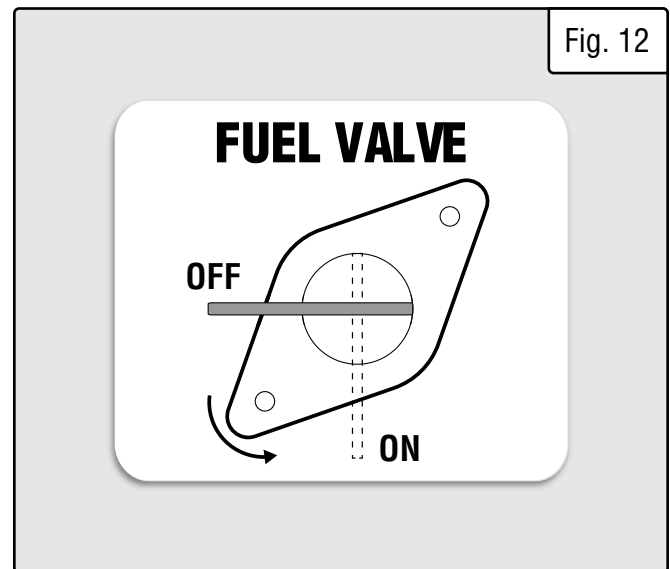
**CAUTION!** Unplugging running devices can cause damage to the generator. Never stop the engine with electrical devices connected and running.

**WARNING!** Allow the generator to cool down before touching areas that become hot during use.

**CAUTION!** Allowing gasoline to sit in the fuel tank for long periods of time can make it difficult to start the generator in the future. Never store the generator for extended periods of time (over 2 months) with fuel in the fuel tank. Refer to "Storing The Generator" on page 29.

### MANUAL SHUTOFF

1. Turn off all electrical devices prior to unplugging them from the generator. Unplugging running devices can cause damage to the generator. Never start or stop the generator with electrical devices plugged in or turned on.
2. Let engine run at no-load for several minutes to stabilize internal temperatures of engine and generator.
3. Turn the fuel valve to the OFF position (Fig. 12). Let the generator run until the fuel is used up.
4. Flip the engine switch (page 12) to the STOP position.
5. Drain the carburetor. Refer to "Draining The Carburetor" on page 26.



**IMPORTANT:** Always ensure that the fuel valve and the engine switch are in the OFF position when the generator is not in use.

**NOTE:** If for some reason (e.g. refueling, moving the generator, etc.) you need to shut down the generator quickly, simply flip the engine switch to STOP. However, doing this will allow fuel to remain in the carburetor, and will lead to problems if the carburetor is not drained after use.

# MAINTENANCE

## RECOMMENDED MAINTENANCE SCHEDULE

Proper routine maintenance of the generator will help prolong the life of the machine. Please perform maintenance checks and operations according to the maintenance schedule below, Table 4. If there are any questions about the maintenance procedures listed in this manual, please contact customer service at **1-800-232-1195** (M-F 8-5 CST), or email [techsupport@wenproducts.com](mailto:techsupport@wenproducts.com).

**⚠ WARNING!** Never perform maintenance operations while the generator is running. Before maintaining or servicing the generator, turn OFF the generator, disconnect all devices and allow the generator to cool down.

Recommended Maintenance Schedule		Every 8 Hours or Daily	Every 25 Hours	Every 3 Months or 50 Hours	Every 6 Months or 100 Hours	Before Storage	As Necessary
<b>Engine Oil</b>	Check Level	X					
	Replace		X*				X
<b>Air Filter</b>	Check			X*			
	Clean			X*			
<b>Spark Plug</b>	Check/Clean/Regap				X		
	Change				X		X
<b>Fuel</b>	Check Level	X					
	Drain					X	X
<b>Carburetor</b>	Drain	X					X
<b>Spark Arrestor</b>	Check/Clean				X		

\* Clean/change more often under dusty conditions or operating under heavy load.

Table 4 - Recommended Maintenance Schedule

### IMPORTANT GENERATOR MAINTENANCE TIPS:

- Drain your carburetor after each use and before storage to prevent it from clogging.
- Do not store the generator with fuel inside the tank for more than 2 months - the fuel will go bad.
- Run the generator for 20 to 30 minutes every month to maximize its lifespan.

**NOTE:** Failure to properly maintain the generator will void the warranty.



# MAINTENANCE

## CLEANING YOUR GENERATOR

Keep the generator clean to prevent improper operation or machine damage from dirt and debris. Inspect all ventilation openings on the generator. These openings must be kept clean and unobstructed.

If the generator becomes dirty, use a damp cloth to wipe exterior surfaces. Use a soft bristle brush to loosen dirt and oil and use a vacuum to pick up loose dirt. Use low pressure air (not to exceed 25 PSI) to blow away dirt.

**⚠ WARNING!** Never clean the generator when it is running! Never clean with a bucket of water or a hose. Water can get inside the working parts of the generator and cause corrosion or a short circuit.

## CHECKING/ADDING OIL

**Check the oil level before each use and every 8 hours of operation** (refer to page 24, Table 4). The oil capacity of the generator engine is **17.0 fl. oz. (0.5 L)**. Add oil when the oil level is low. For the proper type and weight of oil refer to page 13, Fig. 3. This is a critical step for proper engine starting. The generator is equipped with a low-oil shut down to protect it from running without oil.

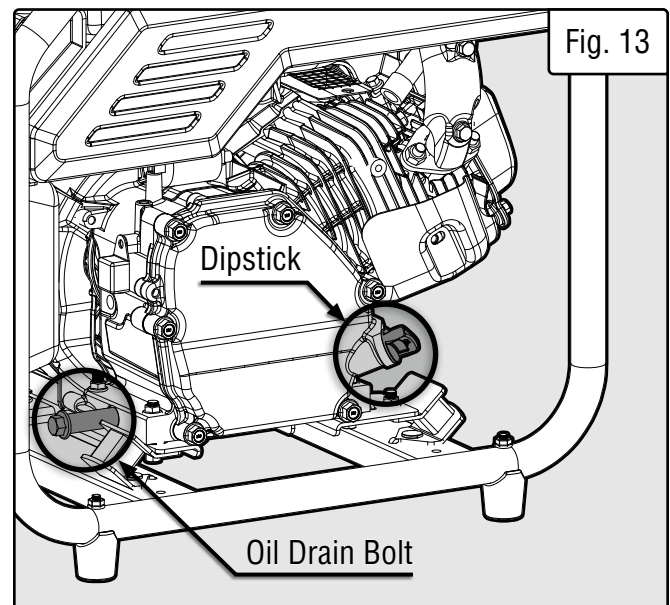
To check the oil level and/or add oil refer to "Step 1 - Add/Check Oil" on page 13.

**TIP:** Your WEN generator is compatible with the **WEN 55201** Magnetic Oil Dipstick (not included), available for purchase at **wenproducts.com**. The dipstick's industrial-strength magnetic tip will collect metal shavings from your generator's oil tank to help preserve the engine and extend your generator's lifespan.

## DRAINING/CHANGING OIL

**Change the oil according to the Recommended Maintenance Schedule** (refer to page 24, Table 4). Change the oil **more often** if operating under heavy load or high ambient temperatures. It is also necessary to drain the oil from the crankcase if it has become contaminated with water or dirt. Changing the oil when the engine is warm allows for complete drainage.

1. Place generator on a level, elevated platform. Prepare an approved oil-storage container underneath the oil drain bolt next to the oil dipstick to catch the oil as it drains. See Fig. 13. **NOTE:** To avoid possible fuel spills from the carburetor bowl, drain the carburetor (refer to "Draining The Carburetor" on page 26) before draining the oil.
2. Unscrew the oil drain bolt and allow oil to drain from the engine completely.
3. Reinstall the oil drain bolt and tighten it securely. Wipe clean any oil spillage.
4. To add new oil, refer to "Step 1 - Add/Check Oil" on page 13.



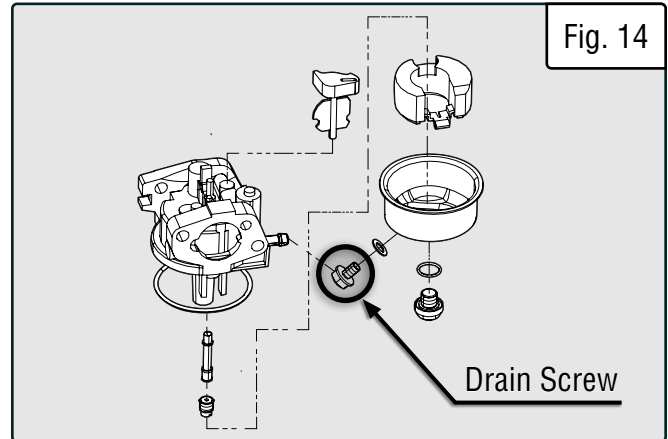
**NOTE:** Never dispose of used engine oil in the trash or down a drain. Please call a local recycling center or auto garage to arrange proper oil disposal.

# MAINTENANCE

## DRAINING THE CARBURETOR

**Drain the carburetor after every use and before storing the generator** (refer to page 24, Table 4). Draining the carburetor can help prevent build-up and blockages caused by stagnant fuel inside of the carburetor.

1. Prepare an approved gasoline-storage container under the carburetor to collect the drained fuel.
2. The carburetor can be accessed from the backside of the generator between the engine and the air filter. To drain the carburetor, open up the carburetor drain screw with a Phillips-head screwdriver (not included) and drain out any gasoline that has built up inside. See Fig. 14.
3. Once the fuel has drained, close the drain screw.



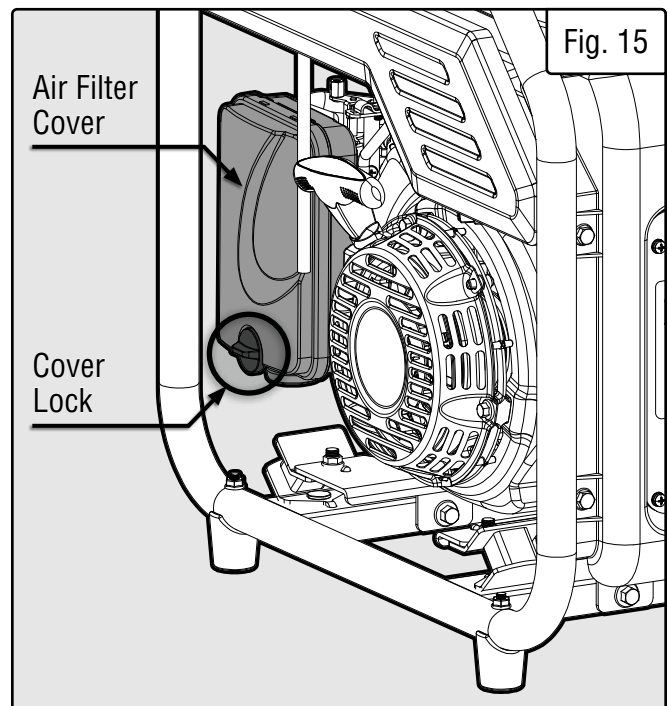
**NOTE:** Make sure to drain your carburetor before storing the generator for long periods of time.

## INSPECTING/CLEANING THE AIR FILTER

**Inspect and clean the air filter every 50 hours of operation** (refer to page 24, Table 4). Routine maintenance of the air filter helps maintain proper airflow to the carburetor. Occasionally check that the air filter is free of excessive dirt. Clean air filter more frequently in dirty or dusty conditions.

**⚠ WARNING!** Running the engine with a dirty, damaged or missing air filter element can result in danger to the operator and cause the engine to wear out prematurely.

1. Remove the air filter cover by unscrewing the cover lock knob at the bottom of the air filter cover. See Fig. 15.
2. Remove the foam, sponge-like air filter element from the casing. Wipe excessive oil and any dirt from inside of the air filter casing.
3. Check the foam, sponge-like air filter element.
  - a) **Good elements** can be washed in soapy water. Dry the element in clean cloth (do not twist it). Add a few drops of engine oil to the air filter element and spread it evenly. A small amount of oil left in the element is normal and necessary for the engine to work properly.
  - b) **Damaged elements** should be replaced with a new one. Replacement air filters can be purchased from [wenproducts.com](http://wenproducts.com) by searching part number **GN400i-1002**.
4. Reinstall the air filter element and air filter cover.

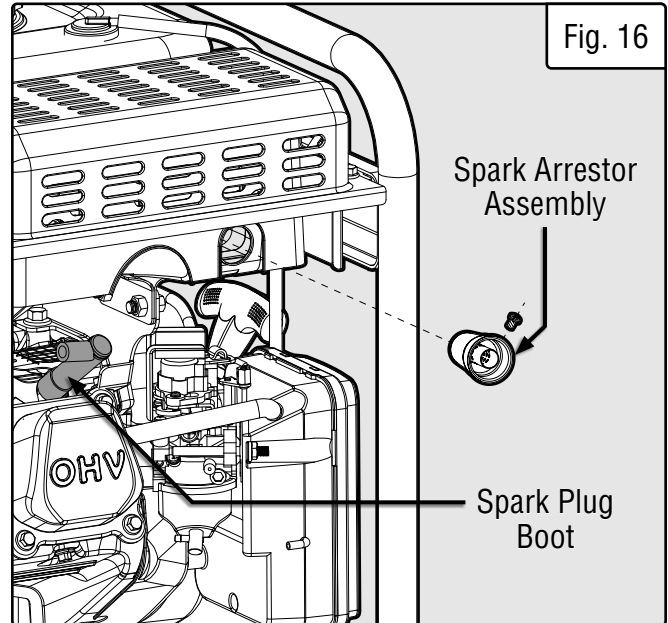


## MAINTENANCE

### INSPECTING/CLEANING THE SPARK ARRESTOR

Inspect and clean the spark arrestor every 100 hours of operation (refer to page 24, Table 4). The spark arrestor is located outside the muffler, which gets very hot during operation. Allow the engine to cool completely before servicing the spark arrestor.

1. Remove the Phillips-head screw that secures the spark arrestor to the muffler. See Fig. 16.
2. Remove the spark arrestor screen.
3. Carefully clean and remove the carbon deposits from the spark arrestor screen with a wire brush. Replace the spark arrestor if it is damaged. Replacement spark arrestors can be purchased from **wenproducts.com** by searching the part number **GN400i-1101.1**.
4. Reinstall the spark arrestor in the muffler and secure it in place with the screws.



### SPARK PLUG MAINTENANCE

Inspect and change the spark plug every 100 hours of operation (refer to page 24, Table 4). The spark plug is important for proper engine operation. Check the spark plug regularly to maintain proper engine operation. A good spark plug should be intact, free of deposits, and properly gapped.

1. Gently pull on the spark plug boot to remove it (Fig. 16). Be careful not to tear insulation or wire.
2. Use the included spark plug wrench (page 9, slide the handle into the hole on the wrench) to unscrew the spark plug from the engine. Remove the spark plug from the engine. **TIP:** There is limited space for the wrench to turn. Use both rows of holes in the spark plug wrench to gain leverage to loosen the plug.
3. Visually inspect the spark plug. If it is cracked or chipped, or if the electrodes are worn or burned, discard it and replace with a new spark plug. We recommend replacing it with an **F6RTC** spark plug. These can be purchased from **wenproducts.com** by searching part number **56310i-0104**.
4. If re-using the spark plug, use a wire brush to clean any dirt from around the spark plug base, then re-gap the spark plug.

**Instructions continue on the next page.**

## MAINTENANCE

5. Measure the plug gap with a spark plug gap gauge. The gap should be **0.7 to 0.8 mm (0.028-0.031 in)**. Carefully adjust the gap if necessary. See Fig. 17.

6. Screw the spark plug back into the spark plug hole using the spark plug wrench. Do not over-tighten spark plug. Recommended tightening of the spark plug is **½ to ¾ of a turn** (15 ft-lb torque/20.33 Nm) after the spark plug gasket contacts the spark plug hole.

7. Reinstall the spark plug boot over the spark plug.

### DRAINING THE FUEL TANK

**Drain and clean the fuel tank each year, or before storing the generator for longer than two months.**

1. Prepare an approved gasoline-storage container to collect the drained fuel. Place it near the fuel valve (Fig. 18).

2. Turn the fuel valve to the OFF position.

3. Locate the fuel line between the fuel valve and the carburetor (Fig. 18). Disconnect the fuel line from the fuel valve. See Fig. 17. **NOTE:** A small amount of fuel may leak from the fuel line during removal.

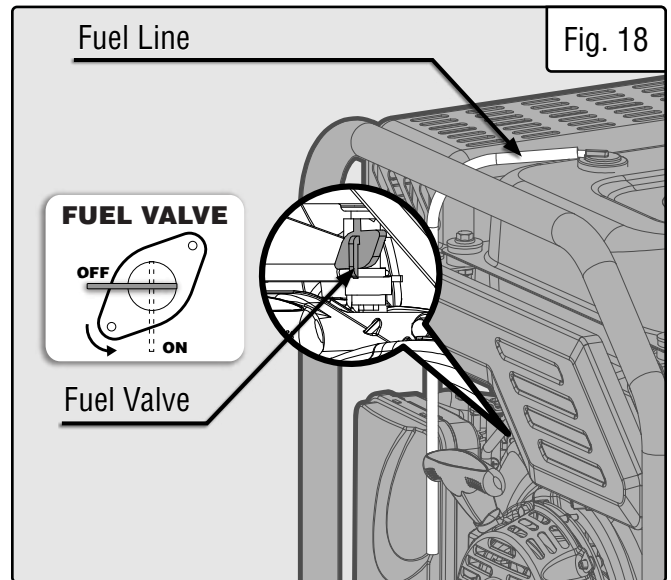
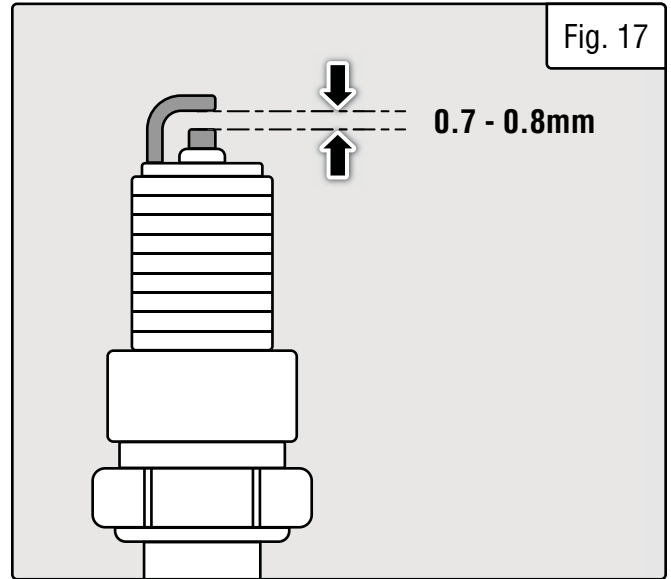
4. Place a funnel below the fuel valve opening, and direct the other end of the funnel over the prepared container.

5. Turn the fuel valve to the ON position to start draining the fuel from the fuel valve opening. **NOTE:** The draining process may take a few hours, depending on the amount of fuel in your gas tank.

6. Once the fuel is completely drained, turn the fuel valve to the OFF position.

7. Start and run the engine until the fuel runs out.

8. Drain the carburetor. Refer to "Draining The Carburetor" on page 26.




**CAUTION!** Store the emptied gasoline in a suitable place. Never store fuel for more than 2 months.

## TRANSPORTATION & STORAGE

### TRANSPORTING THE GENERATOR

To prevent fuel spillage when transporting, be sure to perform the following:

1. Tighten the fuel cap and turn the fuel valve to the OFF position.
2. Flip the engine switch to the STOP position.
3. Drain the fuel tank if possible. Refer to "Draining The Fuel Tank" on page 28.
4. Keep the generator upright. Never place the generator on its side or upside down - doing so could damage the internal components of the generator and make it difficult to start.

 **WARNING!** Avoid direct sunlight inside a vehicle. If the generator is left in an enclosed vehicle for many hours, the high temperature could cause the fuel to vaporize and result in a possible explosion.

### STORING THE GENERATOR

Shut off the generator and allow the unit to cool to room temperature before storing it. NEVER place any type of storage cover on the generator while it is still hot. Do not obstruct any ventilation openings.

Follow the procedures below for properly storing your generator. We highly recommend running your generator once a month for 20 to 30 minutes. Plug in a small load in to ensure there is proper power output.

**TIP:** Your WEN generator is compatible with the **WEN 56310iC** Generator Cover (not included). It is available for purchase at [wenproducts.com](http://wenproducts.com).

#### For Short Periods (30 to 60 Days):

- Drain the carburetor. Refer to "Draining The Carburetor" on page 26.
- **Add fuel stabilizer:** Follow the suggested portions and instructions of your preferred stabilizer. Run the engine for 15 to 20 minutes, allowing the fuel stabilizer to mix with the gasoline and circulate through the carburetor, and then top off with fuel. Filling the fuel tank full reduces the amount of air in the tank and helps fight deterioration of fuel.

#### For Extended Periods (Over 60 Days):

- Drain the fuel tank and carburetor. Refer to "Draining The Fuel Tank" on page 28, and "Draining The Carburetor" on page 26.
- Never store generator with fuel in the tank for more than two months.
- Change the engine oil. Refer to "Checking/Adding Oil" on page 25.

 **WARNING!** Store the generator upright in a cool and dry location, away from sources of heat, open flames, sparks or pilot lights.

### PRODUCT DISPOSAL

Do not dispose of used generator or parts with your household waste. This product contains electrical or electronic components that should be recycled. Please take this product to your local recycling facility for responsible disposal to minimize its environmental impact.

Do not dispose of used oil or fuel in the trash or down a drain. Please contact your local recycling center or auto garage to arrange proper oil/fuel disposal.



**Please recycle the packaging and electronic components where facilities exist. Please contact your local auto garage or recycling facility to properly dispose of oil/fuel.**

## TROUBLESHOOTING GUIDE

**⚠ WARNING!** Stop using the generator immediately if any of the following problems occur or risk serious personal injury. If you have any questions, please contact customer service at **1-800-232-1195** (M-F 8-5 CST), or email [techsupport@wenproducts.com](mailto:techsupport@wenproducts.com).

PROBLEM	POSSIBLE CAUSE	SOLUTION
<b>Engine will not start.</b>	1. Engine switch is set to STOP.	1. Set engine switch to RUN.
	2. Fuel valve is turned to OFF.	2. Turn fuel valve to ON.
	3. Oil is low.	3. Add or replace oil. Refer to "Step 1 - Add/Check Oil" on page 13.
	4. Engine is out of fuel.	4. Add fuel. Refer to "Step 2 - Add/Check Fuel" on page 14.
	5. Engine is filled with contaminated or old fuel.	5. Drain the fuel in the tank and fill with fresh fuel. Refer to "Draining The Fuel Tank" on page 28.
	6. Spark plug is dirty or broken.	6. Clean or replace the spark plug. Refer to "Spark Plug Maintenance" on page 27.
	7. Carburetor is air locked.	7. Shut off the fuel valve. Remove the bolt from the bottom of the carburetor. Take off the carburetor bowl to allow it to reset. Replace carburetor bowl and reinstall the bolt.
	8. Ghost in the generator.	8. Persuade the ghost to leave.
<b>Engine runs but there is no electrical output.</b>	1. Circuit breaker has been tripped due to overload.	1. Turn off and unplug electrical device(s). Wait 5 minutes, then press the circuit breaker to reset. Check the total wattage of the devices and reduce the load if it exceeds the capacity of the generator. Then plug the loads back in one by one.
	2. Bad connecting cords/wires.	2. Check the power cords and extension cords. Do not use if any cord is damaged. Replace damaged cords immediately.
	3. Bad electrical device connected to the generator.	3. Try connecting a different device.
	4. Internal generator problem.	4. Consult chart on p. 21 for troubleshooting the overload light.



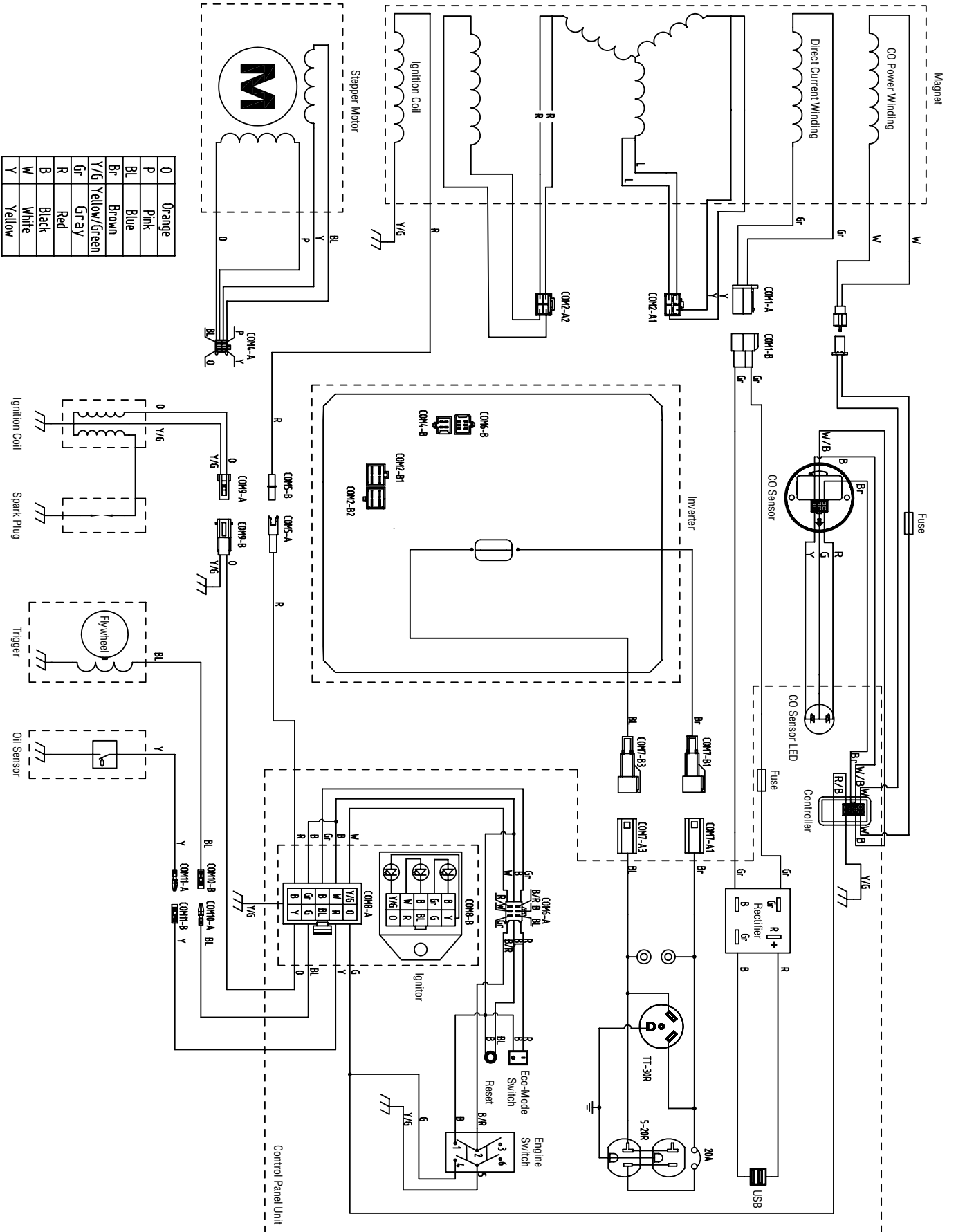
## TROUBLESHOOTING GUIDE

**⚠ WARNING!** Stop using the generator immediately if any of the following problems occur or risk serious personal injury. If you have any questions, please contact customer service at **1-800-232-1195** (M-F 8-5 CST), or email [techsupport@wenproducts.com](mailto:techsupport@wenproducts.com).

PROBLEM	POSSIBLE CAUSE	SOLUTION
<b>Generator runs but does not support all electrical devices connected.</b>	1. Generator is overloaded.	1. Turn off and unplug all electrical devices. Wait 5 minutes, then press the circuit breaker to reset. Reduce load as necessary, then plug devices back in one by one.
	2. Short circuit in one of the devices.	2. Try disconnecting any faulty or short-circuited electrical loads.
	3. Air filter is dirty.	3. Clean or replace the air filter element. Refer to "Inspecting/Cleaning The Air Filter" on page 26.
<b>Engine is "hunting" during operation (engine RPM is fluctuating).</b>  <b>NOTE:</b> Turn off the generator and wait for it to cool down before performing the maintenance solutions.	1. The fuel isn't running through the fuel valve.	1. Check if the fuel is properly and consistently going through the fuel valve
	2. The air filter is clogged.	2. Check for any blockage in the air filter. Check and clean the air filter as necessary.
	3. The muffler or spark arrester is blocked.	3. Check if the spark arrester is blocked. Clean with metal brush as necessary.
	4. There is gunk in the carburetor preventing a consistent fuel/air mixture.	4. Use "gunk remover" spray on the carburetor jets.

**IMPORTANT:** Repairs and replacements should only be performed by an authorized technician. Parts and accessories that wear down over the course of normal use are not covered by the two-year warranty.

# WIRING DIAGRAM

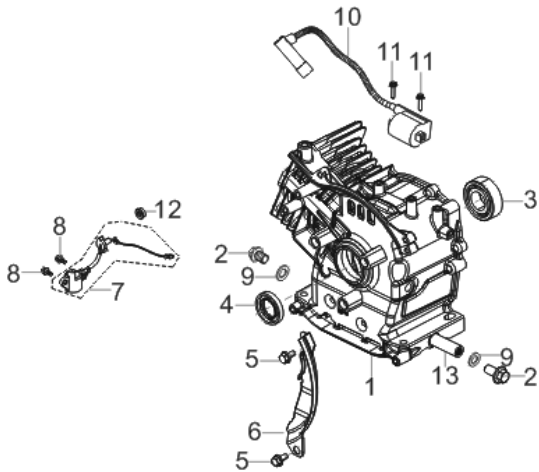




## EXPLODED VIEW & PARTS LIST

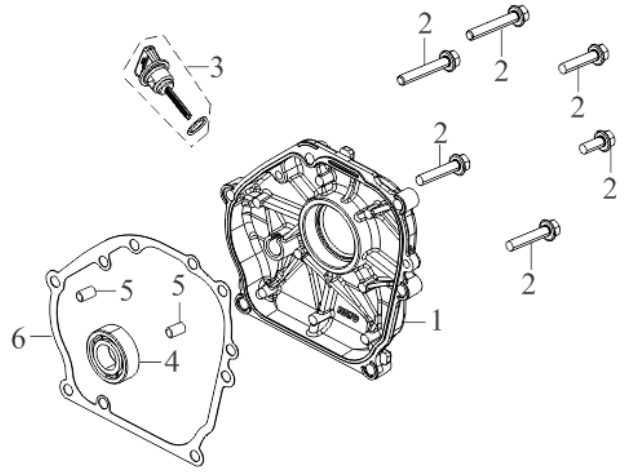
**NOTE:** Replacement parts can be purchased from [wenproducts.com](http://wenproducts.com), or by calling our customer service at (800) 232-1195, M-F 8-5 CST. Parts and accessories that wear down over the course of normal use are not covered by the two-year warranty.

### ASSEMBLY 1 - CRANKCASE



No.	Part No.	Description	Qty.
1-1	GN400i-0101	Crankcase Subassembly	1
1-2	GN400i-0102	Drain Plug Bolt	2
1-3	GN400i-0103	Deep Groove Ball Bearing	1
1-4	56310i-0306	Oil Seal	1
1-5	56200-1202	Bolt	2
1-6	GN400i-0106	Lower Shield	1
1-7	56310i-0211	Engine Oil Sensor	1
1-8	56200-0502	Hex Head Bolt	2
1-9	56380i-0102	Flat Washer	2
1-10	GN400i-0110	Ignition Coil	1
1-11	GN400i-0111	Bolt	2
1-12	56310i-0210	Nut	1
1-13	GN400i-0113	Oil Drain Tube	1

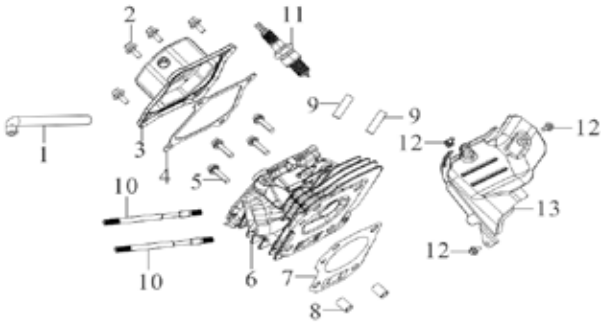
### ASSEMBLY 2 - CRANKCASE COVER



No.	Part No.	Description	Qty.
2-1	GN400i-0201	Crankcase Cover	1
2-2	56310i-0307	Bolt	6
2-3	GN400i-0203	Oil Dipstick Subassembly	1
2-4	GN400i-0204	Deep Groove Ball Bearing	1
2-5	GN400i-0205	Positioning Pin	2
2-6	GN400i-0206	Crankcase Gasket	1

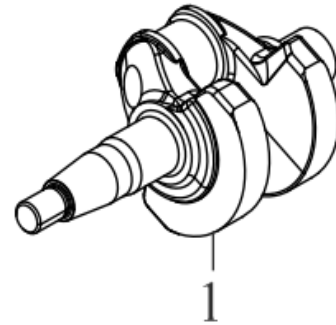
## EXPLODED VIEW & PARTS LIST

### ASSEMBLY 3 - CYLINDER HEAD



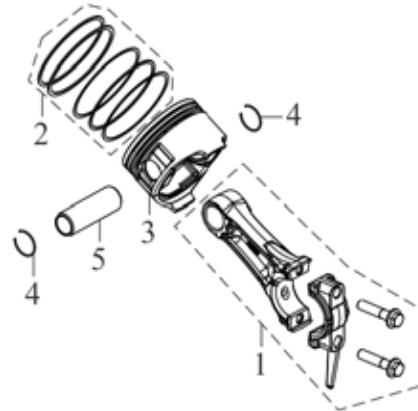
No.	Part No.	Description	Qty.
3-1	GN400i-0301	Breather Tube	1
3-2	56200-1202	Bolt	4
3-3	GN400i-0303	Cylinder Head Cover Assembly	1
3-4	GN400i-0304	Cylinder Head Cover Gasket	1
3-5	56310i-0106	Cylinder Head Bolt	4
3-6	GN400i-0306	Cylinder Head Subassembly	1
3-7	GN400i-0307	Cylinder Head Gasket	1
3-8	56380i-0311	Positioning Pin	2
3-9	56310i-0109	Stud Bolt	2
3-10	56380i-0309	Stud Bolt	2
3-11	56310i-0104	Spark Plug	1
3-12	56200-0706	Bolt	3
3-13	GN400i-0313	Cylinder Body Shroud	1

### ASSEMBLY 4 - CRANKSHAFT



No.	Part No.	Description	Qty.
4-1	GN400i-0401	Crankshaft Assembly	1

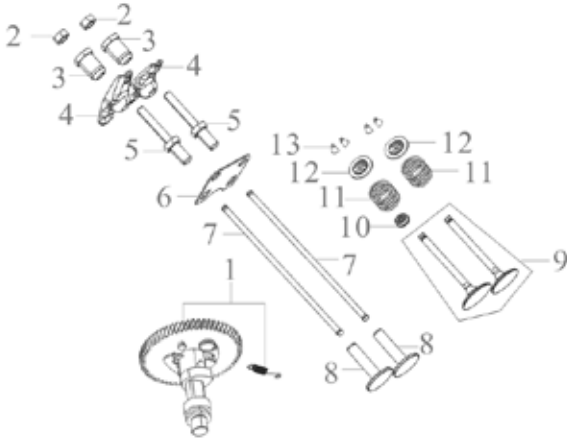
### ASSEMBLY 5 - PISTON RING



No.	Part No.	Description	Qty.
5-1	GN400i-0501	Connecting Rod	1
5-2	56310i-0501	Piston Ring Assembly	1
5-3	GN400i-0503	Piston	1
5-4	56310i-0505	Piston Pin Clip	2
5-5	56310i-0504	Piston Pin	1

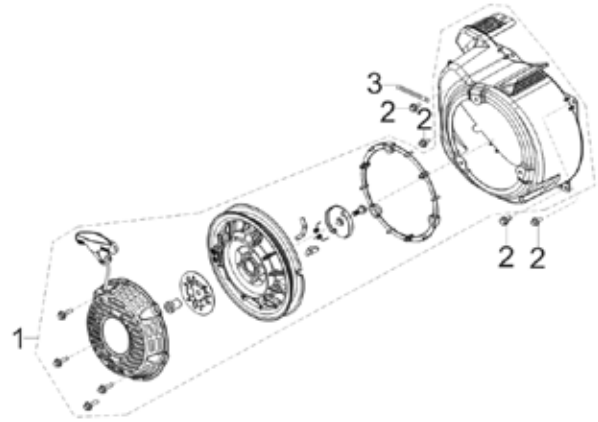
## EXPLODED VIEW & PARTS LIST

### ASSEMBLY 6 - VALVE & CAMSHAFT



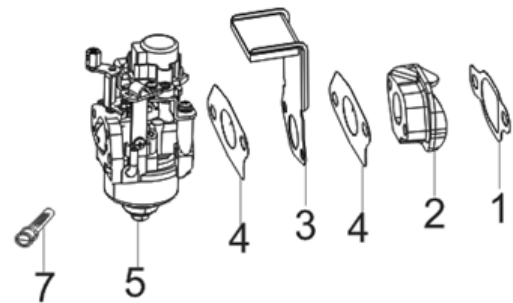
No.	Part No.	Description	Qty.
6-1	GN400i-0601	Camshaft Assembly	1
6-2	GN400i-0602	Valve Lock Nut	2
6-3	GN400i-0603	Adjusting Valve Nut	2
6-4	GN400i-0604	Valve Rocker	2
6-5	GN400i-0605	Rockshaft Bolt	2
6-6	GN400i-0606	Lifter Stopper Plate Subassembly	1
6-7	GN400i-0607	Valve Lifter	2
6-8	56310i-0607	Valve Tappet	2
6-9	GN400i-0609	Set Valves	1
6-10	56310i-0603	Seal Guide	1
6-11	56310i-0604	Valve Spring	2
6-12	56380i-0605	Valve Spring Seat	2
6-13	56310i-0606	Valve Lock Clamp	4

### ASSEMBLY 7 - RECOIL STARTER



No.	Part No.	Description	Qty.
7-1	GN400i-0701	Manual Starting Assembly	1
7-2	56200-1202	Bolt	4
7-3	GN400i-0703	Wire Clip	1

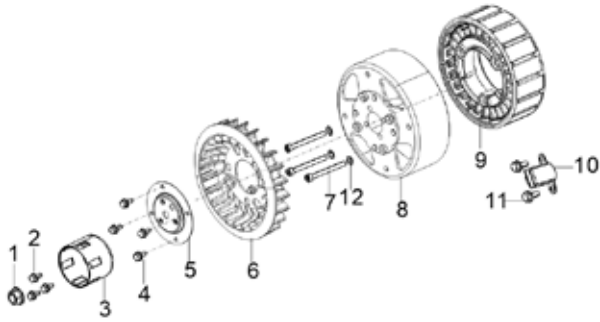
### ASSEMBLY 8 - CARBURETOR



No.	Part No.	Description	Qty.
8-1	GN400i-0801	Carburetor Insulator Gasket	1
8-2	GN400i-0802	Carburetor Insulator Plate	1
8-3	GN400i-0803	Step Motor Heat-Proof Plate	1
8-4	56380i-0803	Carburetor Seal Gasket	2
8-5	GN400i-0805	Carburetor Assembly	1
8-7	56200-1305	Fuel Strainer	1

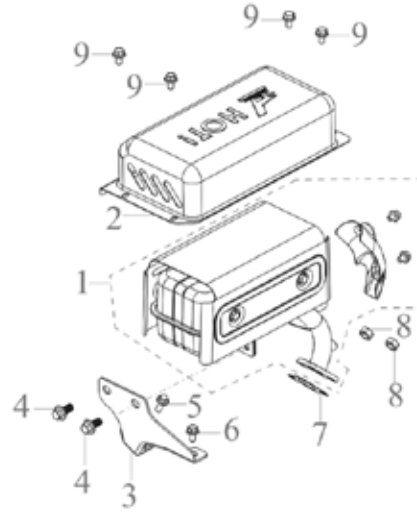
## EXPLODED VIEW & PARTS LIST

### ASSEMBLY 9 - FLYWHEEL



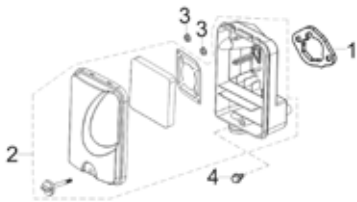
No.	Part No.	Description	Qty.
9-1	56310i-1101	Flywheel Nut	1
9-2	56200-0706	Bolt	3
9-3	GN400i-0903	Starter Pulley	1
9-4	56200-1202	Hex Bolt	4
9-5	56380i-0705	Starter Cup Seat	1
9-6	GN400i-0906	Impeller	1
9-7	56310i-1103	Hex Cap Screw	3
9-8	GN400i-0908	Magneto Roller Case Subassembly	1
9-9	GN400iX-0909	Magneto Stator Subassembly	1
9-10	GN400i-0910	Trigger Assembly	1
9-11	56310i-1106	Bolt	2
9-12	GN400iX-0912	Flat Washer	3

### ASSEMBLY 11 - MUFFLER



No.	Part No.	Description	Qty.
11-1	GN400i-1101	Muffler Assembly	1
11-2	GN400i-1102	Muffler Outer Cover	1
11-3	GN400i-1103	Muffler Bracket	1
11-4	GN400i-1104	Hex Flange Bolt	2
11-5	56200-1202	Hex Flange Face Bolt	1
11-6	GN400i-1106	Hex Flange Bevel Bolt	1
11-7	GN400i-1107	Exhaust Outlet Gasket	1
11-8	GN400i-1108	Hex Nut	2
11-9	56380i-0313	Hex Flange Face Bolt	4

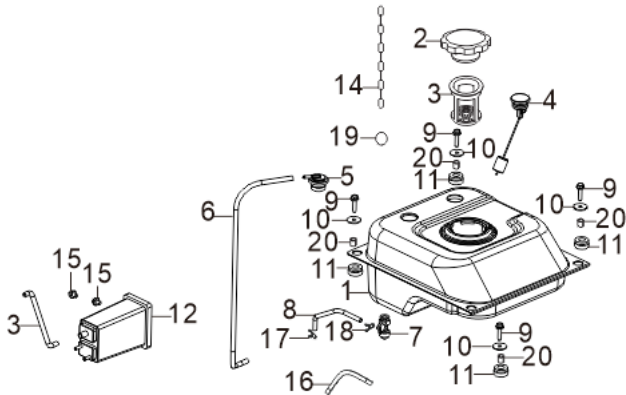
### ASSEMBLY 10 - AIR FILTER



No.	Part No.	Description	Qty.
10-1	GN400i-1001	Air Cleaner Seal Gasket	1
10-2	GN400i-1002	Air Cleaner Seal Gasket	1
10-3	56200-0506	Hex Flange Nut	2
10-4	56310i-1420	Bolt	1

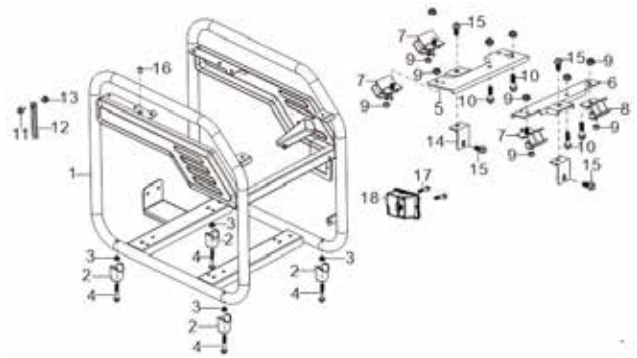
## EXPLODED VIEW & PARTS LIST

### ASSEMBLY 12 - FUEL TANK



No.	Part No.	Description	Qty.
12-1	GN400i-1201	Fuel Tanke	1
12-2	GN400i-1202	Fuel Tank Cover	1
12-3	GN400i-1203	Fuel Strainer	1
12-4	GN400i-1204	Oil Leveler Assembly	1
12-5	GN400i-1205	One-way Valve	1
12-6	GN400i-1206B	Fuel Steam Rubber Hose	1
12-7	GN400i-1207	Fuel Cock Assembly	1
12-8	GN400i-1208	Fuel Tube	1
12-9	GN400i-1209	Bolt	4
12-10	GN400i-1210	Flat Washer	4
12-11	56380i-1207	Fuel Tank Rubber Sleeve	4
12-12	GN400i-1212	Fuel Steam Collector	1
12-13	GN400i-1213	Air Cleaner Rubber Hose	1
12-14	GN400i-1214	Fuel Cap Chain	1
12-15	GN400i-1215	Bolt	2
12-16	GN400i-1216	Rubber Jacket	1
12-17	GN400i-1217	Pipe Clamp	1
12-18	GN400i-1218	Collar	1
12-19	GN400iX-1219	Fuel Cap Chain Clip	1
12-20	GN400i-1220	Bushing	4

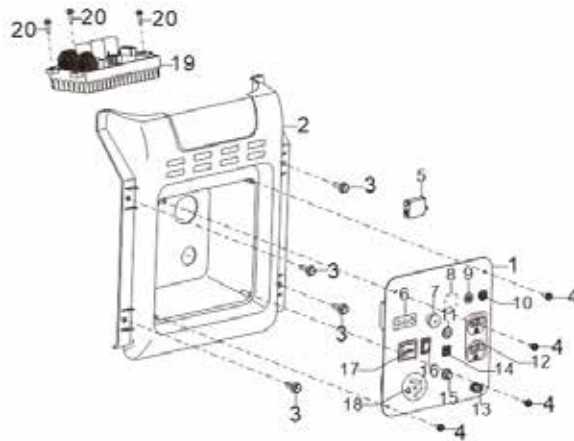
### ASSEMBLY 13 - FRAME



No.	Part No.	Description	Qty.
13-1	GN400iX-1301	Engine Frame Assembly	1
13-2	GN400i-1302	Engine Frame Shock Absorber Seat	4
13-3	GN400i-1303	Hex Flange Nut	4
13-4	GN400i-1304	Hex Flange Bolt	4
13-5	GN400i-1305	Engine Fixed Bottom Plate, Back	1
13-6	GN400i-1306	Engine Fixed Bottom Plate, Front	1
13-7	56310i-1409	Enginer Frame Left Cushion	3
13-8	56310i-1411	Enginer Frame Right Cushion	1
13-9	56310i-1404	Hex Flange Nut	11
13-10	GN400i-1310	Hex Flange Bolt	4
13-11	GN400i-1311	Bolt	1
13-12	GN400i-1312	Wire Clip	1
13-13	GN400i-1313	Nut	1
13-14	GN400i-1314	Transportation Support Block	2
13-15	GN400i-1315	Hex Flange Bolt	4
13-16	GN400i-1316	Protective Rubber Sleeve	1
13-17	GN400iX-1317	Pan Head Screw	2
13-18	GN625iX-1430	CO Sensor Module	1
13-19	GN400iX-1319	Thermal Baffle	1

## EXPLODED VIEW & PARTS LIST

### ASSEMBLY 14 - CONTROL PANEL



No.	Part No.	Description	Qty.
14-1	GN400iX-1401	Control Panel Assembly	1
14-2	GN400i-1402	Panel Seat	1
14-3	GN400i-1403	Bolt	4
14-4	GN400i-1404	Screw	4
14-5	GN625iX-1430	CO Sensor Module	1
14-6	GN400i-1406	Ignitor	1
14-7	GN400i-1407	Choke	1
14-8	GN400i-1408	Rectification Bridge	1
14-9	56380i-1423	Power Supply Socket Subassembly	1
14-10	56380i-1424	Power Supply Socket Subassembly	1
14-11	GN400i-1411	Resetting Button	1
14-12	56380i-1421	Power Supply Socket Subassembly	1
14-13	GN400i-1413	Grounding Terminal Subassembly	1
14-14	GN400i-1414	DC Socket Subassembly	1
14-15	GN400i-1415	Overcurrent Protector	1
14-16	56380i-1422	Switch Subassembly	1
14-17	GN400i-1417	Switch Subassembly	1
14-18	GN400i-1418B	Power Supply Socket Subassembly	1
14-19	GN400i-1419	Inverter	1
14-20	GN400i-1420	Bolt	3



# **WARRANTY STATEMENT**

WEN Products is committed to building tools that are dependable for years. Our warranties are consistent with this commitment and our dedication to quality.

## **LIMITED WARRANTY OF WEN PRODUCTS FOR HOME USE**

GREAT LAKES TECHNOLOGIES, LLC (“Seller”) warrants to the original purchaser only, that all WEN consumer power tools will be free from defects in material or workmanship during personal use for a period of two (2) years from date of purchase or 500 hours of use; whichever comes first. Ninety days for all WEN products if the tool is used for professional or commercial use. Purchaser has 30 days from the date of purchase to report missing or damaged parts.

SELLER’S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY under this Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the replacement of parts, without charge, which are defective in material or workmanship and which have not been subjected to misuse, alteration, careless handling, misrepair, abuse, neglect, normal wear and tear, improper maintenance, improper storage, incorrect lubricants/fuels, or other conditions adversely affecting the Product or the component of the Product, whether by accident or intentionally, by persons other than Seller. To make a claim under this Limited Warranty, you must make sure to keep a copy of your proof of purchase that clearly defines the Date of Purchase (month and year) and the Place of Purchase. Place of Purchase must be a direct vendor of Great Lakes Technologies, LLC. Purchasing through third party vendors, including but not limited to garage sales, pawn shops, resale shops, or any other secondhand merchant, voids the warranty included with this product. Contact [techsupport@wenproducts.com](mailto:techsupport@wenproducts.com) or 1-800-232-1195 with the following information to make arrangements: your shipping address, phone number, serial number, required part numbers, and proof of purchase. Damaged or defective parts and products may need to be sent to WEN before the replacements can be shipped out.

Upon the confirmation of a WEN representative, your product may qualify for repairs and service work. When returning a product for warranty service, the shipping charges must be prepaid by the purchaser. The product must be shipped in its original container (or an equivalent), properly packed to withstand the hazards of shipment. The product must be fully insured with a copy of the proof of purchase enclosed. There must also be a description of the problem in order to help our repairs department diagnose and fix the issue. Repairs will be made and the product will be returned and shipped back to the purchaser at no charge for addresses within the contiguous United States.

THIS LIMITED WARRANTY DOES NOT APPLY TO ITEMS THAT WEAR OUT FROM REGULAR USAGE OVER TIME, INCLUDING FILTERS, SPARK PLUGS, VOLTAGE REGULATORS, BRUSHES, GASKETS, O-RINGS, WHEEL KITS, BATTERIES, RECOIL STARTERS, HIGH PRESSURE HOSES, SPRAY GUNS, ETC. ANY IMPLIED WARRANTIES SHALL BE LIMITED IN DURATION TO TWO (2) YEARS FROM DATE OF PURCHASE. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO LIABILITY FOR LOSS OF PROFITS) ARISING FROM THE SALE OR USE OF THIS PRODUCT. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE IN THE U.S., PROVINCE TO PROVINCE IN CANADA AND FROM COUNTRY TO COUNTRY.

THIS LIMITED WARRANTY APPLIES ONLY TO ITEMS SOLD WITHIN THE UNITED STATES OF AMERICA, CANADA AND THE COMMONWEALTH OF PUERTO RICO. FOR WARRANTY COVERAGE WITHIN OTHER COUNTRIES, CONTACT THE WEN CUSTOMER SUPPORT LINE. FOR WARRANTY PARTS OR PRODUCTS REPAIRED UNDER WARRANTY SHIPPING TO ADDRESSES OUTSIDE OF THE CONTIGUOUS UNITED STATES, ADDITIONAL SHIPPING CHARGES MAY APPLY.

**THANKS FOR  
REMEMBERING**  <sup>®</sup>