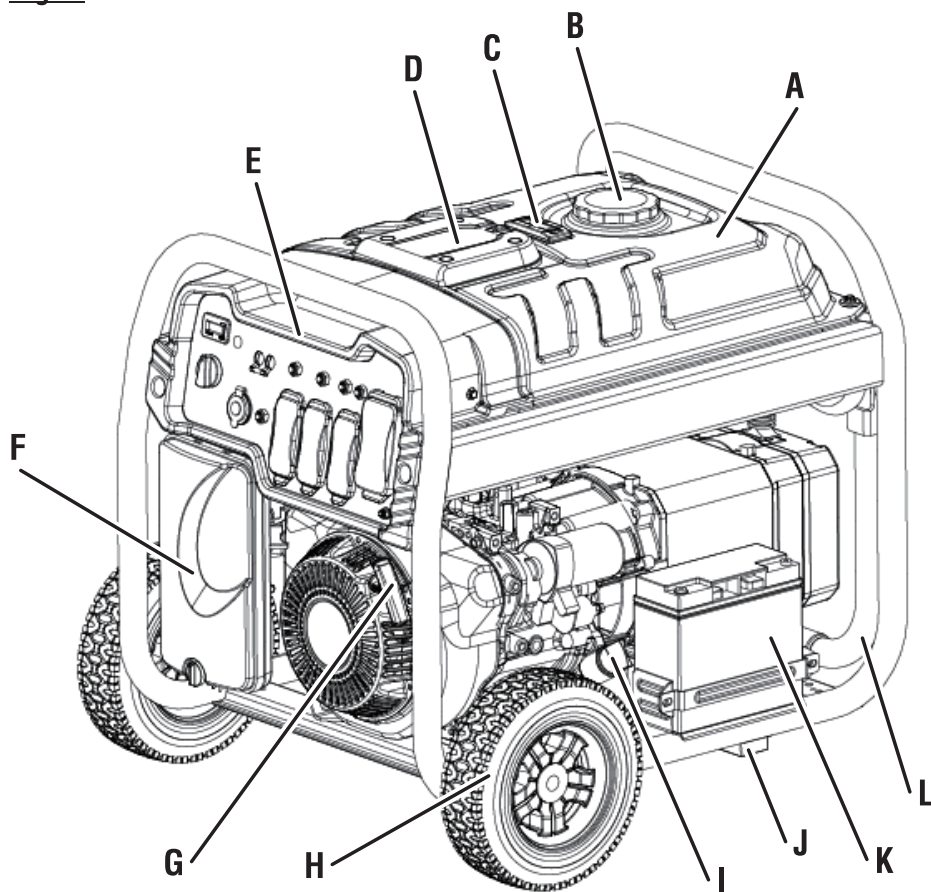


Fig. 1



A - Fuel tank / B - Fuel cap / C - Fuel Gauge / D - EFI / E - Power Panel
F - Air filter / G - Recoil starter grip / H - Wheel / I - Oil cap/dipstick
J - Foot bracket / K - Battery / L - Handle

Fig. 2

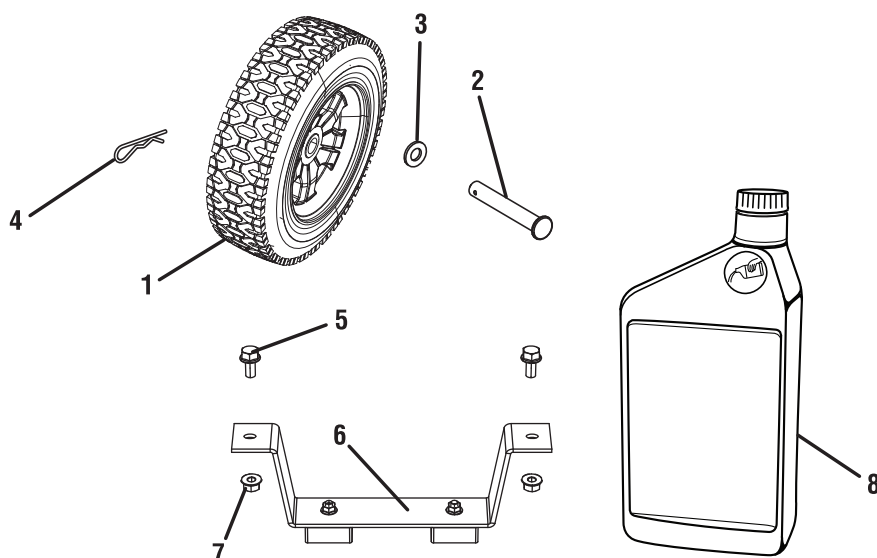
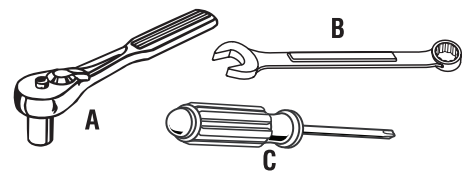
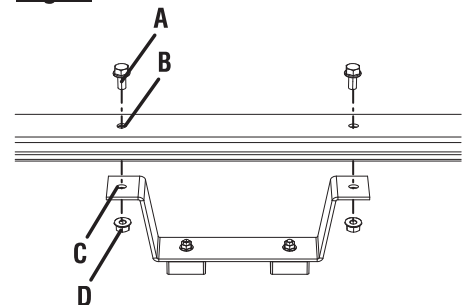


Fig. 3



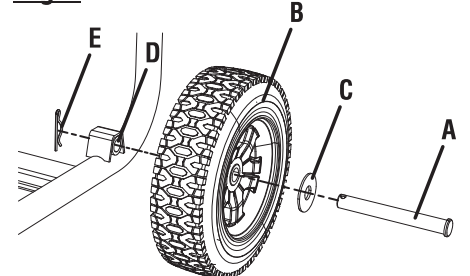
A - Socket wrench
B - Combination wrench
C - Phillips screwdriver

Fig. 4



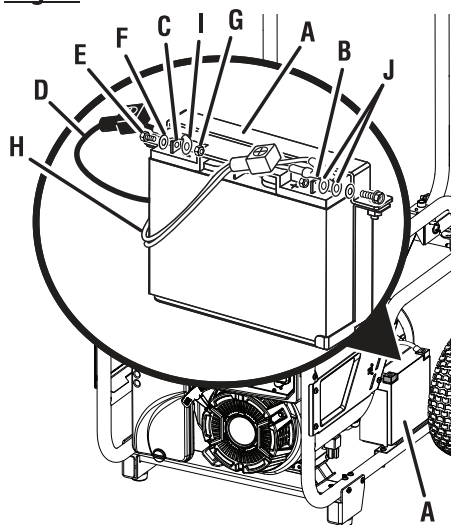
A - Bolt
B - Frame
C - Foot bracket
D - Lock nut

Fig. 5



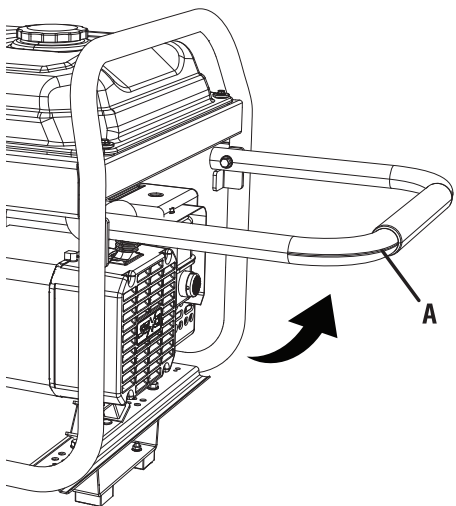
A - Axle
B - Wheel
C - Washer
D - Bracket
E - Hitch pin

Fig. 6



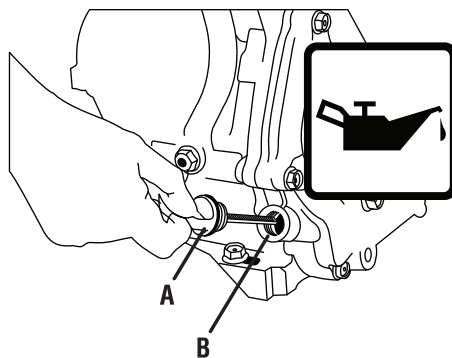
- A - Battery bracket
- B - Positive (+) terminal
- C - Negative (-) terminal
- D - Black wire (-)
- E - Screw
- F - Washer
- G - Nut
- H - Red wires (+)
- I - Negative terminal connection
- J - Positive terminal connections

Fig. 7



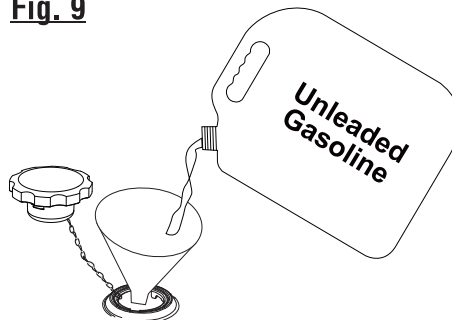
- A - Handle

Fig. 8



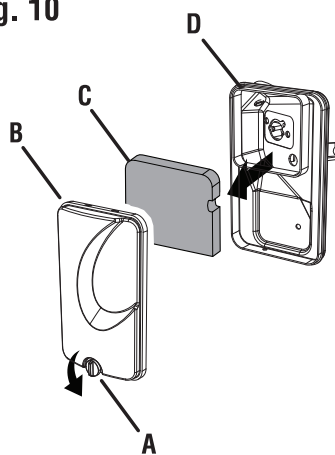
- A - Oil cap/dipstick
- B - Oil fill hole

Fig. 9



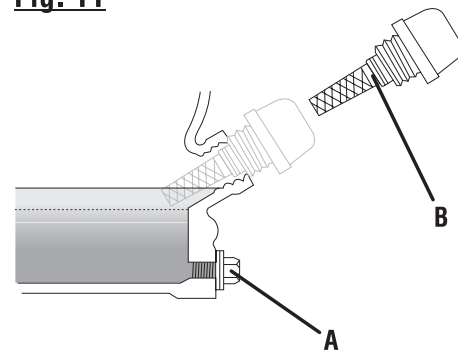
- A - Fuel cap
- B - Fuel tank

Fig. 10



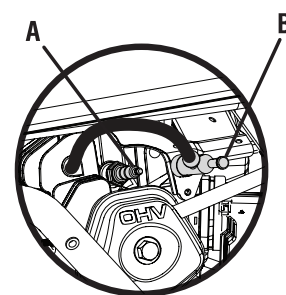
- A - Knob
- B - Air filter cover
- C - Filter element
- D - Air filter unit

Fig. 11



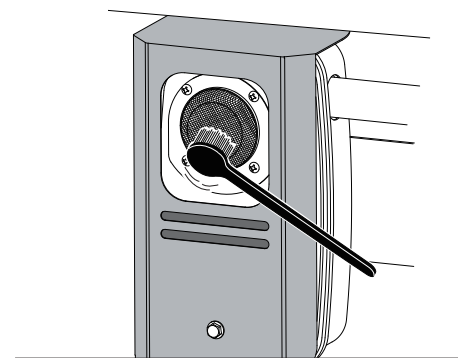
- A - Oil drain plug
- B - Oil cap/dipstick

Fig. 12



- A - Spark plug
- B - Spark plug cap

Fig. 13



FEATURES

KNOW YOUR GENERATOR

See Figure 1.

The safe use of this product requires an understanding of the information on the product and in this operator's manual as well as a knowledge of the project you are attempting. Before use of this product, familiarize yourself with all operating features and safety rules.

AC CIRCUIT BREAKERS

The circuit breakers are provided to protect the generator against electrical overload. The circuit breaker may be reset by pressing the circuit breaker reset button.

AIR FILTER

The air filter helps to limit the amount of dirt and dust drawn into the unit during operation.

DIGITAL DISPLAY

The digital display shows AC voltage output, frequency, how long the engine has been running during the current usage period, and the total number of hours the unit has been used.

ENGINE SWITCH

The engine switch is used alone or in combination with the recoil starter grip to start the engine. It is also used to turn the engine off.

FUEL VALVE

Fuel flow from the fuel tank to the engine is turned on and off using the fuel valve.

GROUND TERMINAL

The ground terminal is used to assist in properly grounding the generator to help protect against electrical shock. Consult with a qualified local electrician for grounding requirements in your area.

LOW OIL SHUT DOWN PROTECTOR

The low oil sensor causes the engine to stop if the level of lubricant in the crankcase is insufficient.

OIL CAP/DIPSTICK

Remove the oil fill cap to check and add lubricant to the generator when necessary.

OIL DRAIN PLUG

When changing the engine lubricant, unscrew and remove the oil drain plug to allow old engine lubricant to be drained.

RECEPTACLES

These can be used for operating appropriate appliances, electrical lighting, tools, and motor loads.

RECOIL STARTER GRIP

The recoil starter grip is used (along with the engine switch) to start the generator's engine.

EFI

Electronic fuel injection (EFI), an onboard electronic engine management system that can greatly reduce CO emissions generated by the portable generator's engine. By significantly reducing the amount of CO a portable generator emits, the likelihood of CO poisoning and death is greatly reduced.

CO SENSOR

The CO Sensor is able to detect the carbon monoxide. If the CO concentration in a certain range, the CO Sensor will immediately "bleep" and the light will blink; If the concentration in a high range, the CO Sensor will shut the generator off.

ASSEMBLY

UNPACKING

This product requires assembly.

- Carefully cut the box down the sides then remove the machine and any accessories from the box. Make sure that all items listed in the loose parts list are included.

NOTE: This machine is heavy and requires a minimum of two people to lift. To avoid back injury, lift with your legs and not your back.



WARNING:

Do not use this product if any parts in the Loose Parts List are already assembled to your product when you unpack it. Parts on this list are not assembled to the product by the manufacturer and require customer installation. Use of a product that may have been improperly assembled could result in serious personal injury.

- Inspect the unit carefully to make sure no damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the product.

ASSEMBLY



WARNING:

If any parts are damaged or missing do not operate this product until the parts are replaced. Use of this product with damaged or missing parts could result in serious personal injury.



WARNING:

Do not attempt to modify this product or create accessories not recommended for use with this product. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.



WARNING:

Do not attempt to operate the generator until assembly is complete. Failure to comply could result in possible serious personal injury.

LOOSE PARTS LIST

See Figure 2.

The following items are included with the generator:

Key

No.	Description	Qty.
1	Wheel.....	2
2	Axle.....	2
3	Washer.....	2
4	Hitch Pin.....	2
5	Bolt.....	2
6	Foot Bracket.....	1
7	Lock Nut.....	2
8	Engine Lubricant.....	1
	Operator's Manual (not shown).....	1

TOOLS NEEDED

See Figure 3.

The following tools (not included or drawn to scale) are needed for assembly:

- Socket Wrenches and/or Combination Wrenches
- Philips Screwdriver

NOTE: Do not put fuel or lubricant in the generator before installing the feet, frame support, wheels and handle.

INSTALLING THE FEET

See Figure 4.

- Locate the following items:

Foot bracket
2 lock nuts
2 bolts

- Insert bolts through the foot bracket and holes in the generator frame as shown.
- Thread lock nuts onto bolts and tighten one full turn past snug.

NOTE: Be careful not to overtighten so that foot material collapses.

INSTALLING THE WHEELS

See Figure 5.

Wheels are provided to assist in moving the generator to the desired location and should be installed on the same side as the handle.

- Locate the following items:

2 axles
2 hitch pins
2 washers
2 wheels

- Raise the end of the generator where the handle is located high enough to gain access to the frame bottom; securely position props underneath to support.
- Slide the axle through the hole in the center of the wheel.
- Slide a washer onto the axle, then slide the axle into the wheel mounting hole as shown.
- Insert hitch pin to secure.
NOTE: The hitch pin should be pushed into the axle until the center of the pin rests on top of the axle.
- Repeat with the second wheel.

CONNECTING/DISCONNECTING BATTERY

See Figure 6.



WARNING:

To reduce the risk of electrocution or explosion, do not short circuit the battery terminals or charge in a sealed container. Keep sparks and flame away.



WARNING:

Keep metal objects away from the battery terminals. Metal objects can make a connection from one terminal to another. Shorting the battery terminals together can cause sparks, burns, or a fire.

ASSEMBLY

NOTICE:

The battery may require charging before the generator can be started using either the engine switch or the recoil starter. Once the generator is started, the battery will charge as the unit runs.

The battery cables must be connected before the generator can be operated.

To connect battery cables:

- Connect the red wires to the positive (+) terminal first, then connect the black wire to the negative (-) terminal. Make sure all connections are tight.

NOTE: Be careful not to short across the terminals when installing. Shorting the terminals together can cause sparks, damage to the battery or generator, or even burns or explosions.

- Cover the terminals with the rubber covers.

When removing the battery for replacement: disconnect the negative (black) post, then the positive (red) post, being careful not to short across the terminals. Always abide by the safety warnings provided with the battery. Remove the battery and dispose of according to local and state regulations.

OPERATION



DANGER:

Carbon Monoxide. Using a generator indoors CAN KILL YOU IN MINUTES.

Generator exhaust contains high levels of carbon monoxide (CO), a poisonous 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, crawlspaces, or other partly 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 outdoors and far away from open windows, doors, and vents. These openings can pull in generator exhaust.

Even when 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 could have carbon monoxide poisoning.



WARNING:

If this generator will be used **only** with cord and plug-connected equipment, National Electric Code does not require that the unit be grounded. However, other methods of using the generator may require grounding to reduce the risk of shock or electrocution. Consult a qualified electrician, electrical inspector, or local agency having jurisdiction for local codes or ordinances to find out if grounding is needed in your situation before using the generator.



WARNING:

Do not use any attachments or accessories not recommended by the manufacturer of this product. The use of attachments or accessories not recommended can result in serious personal injury.



WARNING:

Do not allow familiarity with this product to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.



NOTICE:

This product is equipped with a spark arrestor that has been evaluated by the USDA Forest Service; however, product users must comply with Federal, State, and local fire prevention regulations. Check with appropriate authorities. Contact customer service or a qualified service center to purchase a replacement spark arrestor.

OPERATION

NOTICE:

Before each use, inspect the entire product for damaged, missing, or loose parts such as screws, nuts, bolts, caps, etc. Tighten securely all fasteners and caps and do not operate this product until all missing or damaged parts are replaced. Please contact customer service or a qualified service center for assistance.

APPLICATIONS

This generator is designed to supply electrical power for operating compatible electrical lighting, appliances, tools, and motor loads.

BEFORE OPERATING THE UNIT

- Only use OUTSIDE and at least 20 feet away from windows, doors, and vents as recommended by the U.S. Department of Health and Human Services Centers for Disease Control and Prevention. Your specific home and/or wind conditions may require additional distance.
- NEVER use inside a home or garage, EVEN IF doors and windows are open.
- Always position the generator on a flat firm surface.

SPECIAL REQUIREMENTS:

There may be General or State Occupational Safety and Health Administration (OSHA) regulations, local codes or ordinances that apply to the intended use of the generator. Please consult a qualified electrician, electrical inspector, or the local agency having jurisdiction:

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

RAISING AND LOWERING THE HANDLE

See Figure 7.

- To raise the handle (for moving the generator)
- To lower the handle (for storing or transporting the generator)

Never use the handle to lift the generator. The handle should only be used for moving the unit by rolling it on its wheels.

CHECKING/ADDING LUBRICANT

See Figure 8.

NOTICE:

Attempting to start the engine before it has been properly filled with lubricant will result in equipment failure.

NOTE: If a separate engine manual is provided for this product, please follow the instructions provided in the engine manual instead of the information listed below.

Engine lubricant has a major influence on engine performance and service life. For general, all-temperature use, SAE 10W-30 full synthetic is recommended. Always use a 4-stroke motor lubricant that meets or exceeds the requirements for API service classification SJ.

This engine comes with a feature that will shut off the engine when a specific lubricant level is not maintained. The engine will not restart until an appropriate lubricant level is reached.

NOTE: Non-detergent or 2-stroke engine lubricants will damage the engine and should not be used.

- Unscrew the oil cap/dipstick and remove.
- Wipe dipstick clean and re-seat in hole; do not re-thread.
- Remove dipstick again and check lubricant level. Lubricant level should fall between the hatched areas on the dipstick.
- If level is low, add engine lubricant until the fluid level rises to the upper portion of the dipstick.
- Replace and secure the oil cap/dipstick.

USING FUEL STABILIZER

Fuel gets old, oxidizes, and breaks down over time. Adding a fuel stabilizer (not included) extends the usable life of fuel and helps prevent deposits from forming that can clog the fuel system. Follow fuel stabilizer manufacturer's directions for correct ratio of stabilizer to fuel.

- Mix fuel stabilizer and gasoline prior to filling the tank by using a gas can or other approved fuel container and shaking gently to combine.

NOTE: To control the amount of fuel stabilizer being added to the engine, always mix fuel stabilizer with gasoline before fueling the tank rather than adding fuel stabilizer directly into the generator's fuel tank.

- Replace and secure the fuel tank cap.
- Start and run the engine for at least 5 minutes to allow stabilizer to treat the entire fuel system.

ETHANOL-BLENDED FUELS

NOTICE:

Do not use E15 or E85 fuel in this product. It is a violation of federal law and will damage the unit and void your warranty. Only use unleaded gasoline containing up to 10% ethanol.

OPERATION

ADDING FUEL

See Figure 9.



DANGER:

Risk of fire and serious burns: Never remove fuel cap when unit is running. Shut off engine and allow the unit to cool at least five minutes. Remove cap slowly.



WARNING:

Gasoline and its vapors are highly flammable and explosive. To prevent serious personal injury and property damage, handle gasoline with care. Keep away from ignition sources, handle outdoors only, do not smoke while adding fuel, and wipe up spills immediately.

When adding gas to the generator, make sure the unit is sitting on a flat, level surface. If the engine is hot, let the generator cool for five minutes before adding gas. ALWAYS fill the fuel tank outdoors with the machine turned off.

- Remove the fuel cap slowly.
- Fill the fuel tank to 1 in. below the top of the fuel neck.
- Replace and secure the fuel cap.



WARNING:

Always shut off engine before fueling. Never remove fuel cap or add fuel to a machine with a running or hot engine. Make sure the unit is sitting on a flat, level surface and only add fuel outdoors. If the engine is hot, let the unit cool for at least five minutes before adding fuel. After fueling, immediately replace fuel cap and tighten securely. Move at least 30 ft. from refueling site before starting engine. Do not smoke and stay away from open flames and sparks! Failure to follow these instructions could result in a fire and cause serious personal injury.

NOTE: Always use unleaded gasoline with a pump octane rating of 86 or higher. Never use old, stale, or contaminated gasoline, and do not use a lubricant/gas mixture. Do not allow dirt or water into the fuel tank. **Do not use E85 fuel.**

DIGITAL DISPLAY

Press and release the mode button to cycle through the following displays:

Voltage (V) displays the operating voltage of the generator.

Frequency (F) displays the frequency in hertz at which the generator is running.

The **Run/Maintenance Timer** displays the amount of time the generator has run since being started. This timer resets each time the generator is shut off.

When a cumulative run time of 25 hours has been reached, P25 will display on the meter as a reminder to change the engine lubricant after the initial 25 hours of run time.

When a cumulative time of 50 hours is reached, P50 will display on the meter to remind you to clean the air filter.

When a cumulative time of 100 hours is reached, P100 will display on the meter to remind you to change/clean the fuel filter, clean the air filter, and change the engine lubricant.

ELECTRIC START

This generator model is provided with both electric start and recoil start capabilities. Avoid prolonged cranking, as it can damage the engine.

The battery provided is a nominal 12 volt sealed rechargeable lead-acid battery and can be operated in any position without leakage. It complies with non-spillable battery regulations.

NOTE: Brand new generators are shipped with the battery connections disconnected. The positive and negative terminals must be connected to the battery before the Electric Start feature will work.

For initial battery connection, see **Connecting/Disconnecting Battery**.

STARTING THE ENGINE

NOTICE:

On a level surface with the engine off, check the lubricant level before each use of the generator.

NOTE: If location of generator is not level, the unit may not start or may shut down during operation.

This generator is equipped with electronic fuel injection. Starting the generator will require a brief wait to allow the fuel to travel from the tank.

- Unplug all loads from the generator.
- To start the engine using the electric start:
 - ① Put the engine switch in the **ON** position.
 - ② Wait 30 seconds to allow fuel to travel through the line.

NOTE: The engine will not start until the fuel has reached the fuel injector and the proper operating pressure is achieved.
 - ③ Turn and hold the engine switch to the **START** position. Do not hold the engine switch in **START** position for more than 15 seconds. Allow 1 minute between starting attempts.

NOTE: The battery may require charging before the generator can be started using either the engine switch or the recoil starter. Once the generator is started, the battery will charge as the unit runs.

OPERATION

- To start the engine using the recoil starter:

- ① Put the engine switch in the **ON** position.
- ② Wait 30 seconds to allow fuel to travel through the line.

NOTE: The engine will not start until the fuel has reached the fuel injector and the proper operating pressure is achieved.

- ③ Pull the recoil starter grip until the engine runs.

NOTE: Do not allow the grip to snap back after starting; return it gently to its original place.

STOPPING THE ENGINE

To stop the engine under normal operating conditions:

- Remove any load from the generator.
- Turn the engine switch to the **OFF** position.



WARNING:

While operating and storing, keep at least 3 feet of clearance on all sides of this product, including overhead. Allow a minimum of 30 minutes of “cool down” time before storage. Heat created by muffler and exhaust gases could be hot enough to cause serious burns and/or ignite combustible objects.

MAINTENANCE

Normal maintenance, replacement or repair of emission control devices and systems may be performed by any qualified repair establishment or individual with original or equivalent parts. Warranty and recall repairs must be performed by an authorized service center; please contact customer service for assistance.



WARNING:

Before inspecting, cleaning, or servicing the machine, shut off engine, wait for all moving parts to stop, and disconnect spark plug wire and move it away from spark plug. Allow 30 minutes of cool down time before performing any maintenance. Failure to follow these instructions can result in serious personal injury or property damage.



WARNING:

When servicing, use only recommended or equivalent replacement parts. Service or maintenance performed by unqualified personnel or use of any other parts could result in a personal injury hazard or property damage.

NOTICE:

Periodically inspect the entire product for damaged, missing, or loose parts such as screws, nuts, bolts, caps, etc. Tighten securely all fasteners and caps and do not operate this product until all missing or damaged parts are replaced. Please contact customer service or a qualified service center for assistance.

GENERAL MAINTENANCE

Keep the generator in a clean and dry environment where it is not exposed to dust, dirt, moisture, or corrosive vapors. Do not allow the cooling air slots in the generator to become clogged with foreign material such as leaves, etc.

Do not use a garden hose to clean the generator. Water entering the fuel system or other internal parts of the unit can cause problems that will decrease the life of the generator.

To clean the unit:

- Use a soft bristle brush and/or vacuum cleaner to loosen and remove dirt and debris.
- Clean air vents with low pressure air that does not exceed 25 psi.
- Wipe the exterior surfaces of the generator with a damp cloth.

CHECKING/CLEANING AIR FILTER

See Figure 10.

For proper performance and long life, keep air filter clean.

- Turn the knob on the bottom of air the filter cover to release. Remove cover and set aside.
- Remove the filter element.
- If the filter element is dirty, clean with warm, soapy water. Rinse and let dry.
- Apply a light coat of engine lubricant to the element, then squeeze it out.
- Replace the element in the air filter unit.
- Replace the air filter cover and latch to secure.

NOTE: Do not run the generator without the air filter. Rapid engine wear will result.