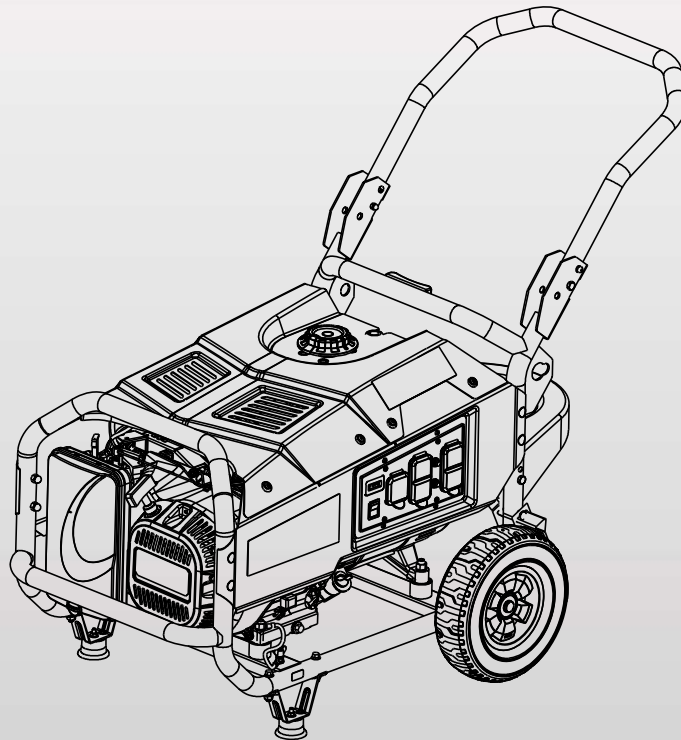


Owner's Manual

5500 Watt LP Series Portable Generator

Model No. 006001-0



⚠ DANGER!

- ⚠ DEADLY EXHAUST FUMES! ONLY use OUTSIDE far away from windows, doors and vents!**
- ⚠ NOT INTENDED FOR USE IN CRITICAL LIFE SUPPORT APPLICATIONS.**
- ⚠ SAVE this manual. Provide this manual to any operator of the generator.**

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Thank you for purchasing this model by Generac Power Systems, Inc. This model is a compact, high performance, air-cooled, engine driven generator designed to supply electrical power to operate electrical loads where no utility power is available or in place of utility due to a power outage.

1.1 — READ THIS MANUAL THOROUGHLY

If any portion of this manual is not understood, contact the nearest Authorized Dealer for starting, operating and servicing procedures.

The operator is responsible for proper and safe use of the equipment. We strongly recommend that the operator read this manual and thoroughly understand all instructions before using the equipment. We also strongly recommend instructing other users to properly start and operate the unit. This prepares them if they need to operate the equipment in an emergency.

The generator can operate safely, efficiently and reliably only if it is properly located, operated and maintained. Before operating or servicing the generator:

- Become familiar with and strictly adhere to all local, state and national codes and regulations.
- Study all safety warnings in this manual and on the product carefully.

Become familiar with this manual and the unit before use.

The manufacturer cannot anticipate every possible circumstance that might involve a hazard. The warnings in this manual, and on tags and decals affixed to the unit are, therefore, not all inclusive. If using a procedure, work method or operating technique that the manufacturer does not specifically recommend, ensure that it is safe for others. Also make sure the procedure, work method or operating technique utilized does not render the generator unsafe.

THE INFORMATION CONTAINED HEREIN WAS BASED ON MACHINES IN PRODUCTION AT THE TIME OF PUBLICATION. GENERAC RESERVES THE RIGHT TO MODIFY THIS MANUAL AT ANY TIME.

Save these instructions for future reference. If you loan this device to someone, ALWAYS loan these instructions to the individual as well.

1.2 — SAFETY RULES

Throughout this publication, and on tags and decals affixed to the generator, DANGER, WARNING, CAUTION and NOTE blocks are used to alert personnel to special instructions about a particular operation that may be hazardous if performed incorrectly or carelessly. Observe them carefully. Their definitions are as follows:

⚠ DANGER!

INDICATES A HAZARDOUS SITUATION OR ACTION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.

⚠ CAUTION!

Indicates a hazardous situation or action which, if not avoided, could result in death or serious injury.

⚠ WARNING!

Indicates a hazardous situation or action which, if not avoided, could result in minor or moderate injury.

NOTE:

Notes contain additional information important to a procedure and will be found within the regular text body of this manual.

These safety warnings cannot eliminate the hazards that they indicate. Common sense and strict compliance with the special instructions while performing the action or service are essential to preventing accidents.

Four commonly used safety symbols accompany the **DANGER**, **WARNING** and **CAUTION** blocks. The type of information each indicates is as follows:



This symbol points out important safety information that, if not followed, could endanger personal safety and/or property of others.



This symbol points out potential explosion hazard.



This symbol points out potential fire hazard.




This symbol points out potential electrical shock hazard.

1.2.1 — General Hazards

- NEVER operate in an enclosed area, in a vehicle, or indoors EVEN IF doors and windows are open.
- For safety reasons, the manufacturer recommends that the maintenance of this equipment is carried out by an Authorized Dealer. Inspect the generator regularly, and contact the nearest Authorized Dealer for parts needing repair or replacement.
- Operate generator only on level surfaces and where it will not be exposed to excessive moisture, dirt, dust or corrosive vapors.
- Keep hands, feet, clothing, etc., away from drive belts, fans, and other moving parts. Never remove any fan guard or shield while the unit is operating.
- Certain parts of the generator get extremely hot during operation. Keep clear of the generator until it has cooled to avoid severe burns.
- Do NOT operate generator in the rain.
- Do not alter the construction of the generator or change controls which might create an unsafe operating condition.
- Never start or stop the unit with electrical loads connected to receptacles AND with connected devices turned ON. Start the engine and let it stabilize before connecting electrical loads. Disconnect all electrical loads before shutting down the generator.
- Do not insert objects through unit's cooling slots.
- When working on this equipment, remain alert at all times. Never work on the equipment when physically or mentally fatigued.
- Never use the generator or any of its parts as a step. Stepping on the unit can stress and break parts, and may result in dangerous operating conditions from leaking exhaust gases, fuel leakage, oil leakage, etc.

1.2.2 — Exhaust & Location Hazards

Never operate in an enclosed area or indoors! NEVER use in the home, in a vehicle, or in partly enclosed areas such as garages, EVEN IF doors and windows are open! ONLY use outdoors and far from open windows, doors, vents, and in an area that will not accumulate deadly exhaust.

⚠ DANGER	
Using a generator indoors CAN KILL YOU IN MINUTES.	
Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.	
	
NEVER use inside a home or garage, EVEN IF doors and windows are open.	Only use OUTSIDE and far away from windows, doors, and vents.

- The engine exhaust fumes contain carbon monoxide, which you cannot see or smell. This poisonous gas, if breathed in sufficient concentrations, can cause unconsciousness or even death.
- Adequate, unobstructed flow of cooling and ventilating air is critical to correct generator operation. Do not alter the installation or permit even partial blockage of ventilation provisions, as this can seriously affect safe operation of the generator. The generator **MUST** be operated outdoors.
- This exhaust system must be properly maintained. Do nothing that might render the exhaust system unsafe or in noncompliance with any local codes and/or standards.
- Always use a battery operated carbon monoxide alarm indoors, installed according to the manufacturers instructions.
- If you start to feel sick, dizzy, or weak after the generator has been running, move to fresh air **IMMEDIATELY**. See a doctor, as you could have carbon monoxide poisoning.

1.2.3 — Electrical Hazards

- The generator produces dangerously high voltage when in operation. Avoid contact with bare wires, terminals, connections, etc., while the unit is running, even on equipment connected to the generator. Ensure all appropriate covers, guards and barriers are in place before operating the generator.
- Never handle any kind of electrical cord or device while standing in water, while barefoot or while hands or feet are wet. **DANGEROUS ELECTRICAL SHOCK MAY RESULT.**
- The National Electric Code (NEC) requires the frame and external electrically conductive parts of the generator be properly connected to an approved earth ground. Local electrical codes may also require proper grounding of the generator. Consult with a local electrician for grounding requirements in the area.
- Use a ground fault circuit interrupter in any damp or highly conductive area (such as metal decking or steel work).
- Do not use worn, bare, frayed or otherwise damaged electrical cord sets with the generator.
- Before performing any maintenance on the generator, disconnect the engine starting battery (if equipped) to prevent accidental start up. Disconnect the cable from the battery post indicated by a **NEGATIVE, NEG or (-)** first. Reconnect that cable last.
- In case of accident caused by electric shock, immediately shut down the source of electrical power. If this is not possible, attempt to free the victim from the live conductor. **AVOID DIRECT CONTACT WITH THE VICTIM.** Use a non-conducting implement, such as a rope or board, to free the victim from the live conductor. If the victim is unconscious, apply first aid and get immediate medical help.

1.2.4 — Fire Hazards

- LP gas is highly EXPLOSIVE.
- Flammable gas under pressure can cause a fire or explosion if ignited.
- LP gas is heavier than air and can settle in low places while dissipating.
- LP gas has a distinctive odor added to help detect potential leaks quickly.
- In any propane gas fire, flames should not be extinguished unless by doing so the fuel supply valve can be turned OFF.
- If the fire is extinguished and a supply of fuel is not turned OFF, an explosion hazard greater than the fire hazard could be created.
- When exchanging LP cylinders, be sure the cylinder valve is of the same type.
- Wipe up any fuel or oil spills immediately. Ensure that no combustible materials are left on or near the generator. Keep the area surrounding the generator clean and free from debris and keep a clearance of five (5) feet on all sides to allow for proper ventilation of the generator.
- Do not insert objects through unit's cooling slots.
- **Do not** operate the generator if connected electrical devices overheat, if electrical output is lost, if engine or generator sparks or if flames or smoke are observed while unit is running.
- Keep a fire extinguisher near the generator at all times.

NOTE:

This generator is equipped with a spark arrestor muffler. The spark arrestor must be maintained in effective working order by the owner/operator. In the state of California, a spark arrestor is required by law (Section 4442 of the Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands.

1.2.5 — Standards Index

1. National Fire Protection Association (NFPA) 70: The NATIONAL ELECTRIC CODE (NEC) available from www.nfpa.org
2. National Fire Protection Association (NFPA) 5000: BUILDING CONSTRUCTION AND SAFETY CODE available from www.nfpa.org
3. International Building Code available from www.iccsafe.org
4. Agricultural Wiring Handbook available from www.nerc.org, Rural Electricity Resource Council P.O. Box 309 Wilmington, OH 45177-0309
5. ASAE EP-364.2 Installation and Maintenance of Farm Standby Electric Power available from www.asabe.org, American Society of Agricultural & Biological Engineers 2950 Niles Road, St. Joseph, MI 49085

This list is not all inclusive. Check with the Authority Having Local Jurisdiction (AHJ) for any local codes or standards which may be applicable to your jurisdiction.

Model Number	
Serial Number	



Figure 1: Unit ID Location

CALIFORNIA PROPOSITION 65 WARNING
 Engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

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

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2.1 — Unpacking

- Remove all packaging material.
- Remove separate accessory box.
- Remove the generator from carton.

2.1.1 — Accessories

Check all contents. If any parts are missing or damaged, locate an authorized dealer at 1-888-436-3722.

- Product Registration and Warranty Cards
- 1 - Owner's Manual
- 1 - Liter Oil SAE 10W-30
- 2 - Never-Flat Wheels
- 2 - Frame Foot
- 1 - Fuel Cylinder Retaining Strap
- 1 - Oil Funnel
- 1 - Hardware Bag (containing the following):
 - 2-Rubber Feet (A)
 - 2-5/8" Axle Pins (B)
 - 2-Cotter Pins (Hairpin) (C)
 - 2-5/8" Flat Washers (D)
 - Spark Plug Service Tool
 - 4-M8 Bolt (Long) (E)
 - 2-M6 Bolts (Long) (F)
 - 4-Hex Flanged M8 Nuts (G)
 - 2-Hex Flanged M6 Nuts (H)
 - 1- Cotter Pin (Strap)

2.2 — Assembly

The generator requires some assembly prior to using it. If problems arise when assembling the generator, please call the Generator Help-line at 1-888-436-3722.

2.2.1 — Assembling the Accessory Kit

The wheels are designed into the unit to greatly improve the portability of the generator.

You will need the following tools to properly install the accessory kit.

- Needle Nose Pliers
- Ratchet and 8mm, 10mm, and 13mm sockets
- 12mm, 10mm, and 13mm box wrenches

NOTE:

The wheels are not intended for over-the-road use.

1. Refer to Figure 2-1 and install the Wheels as follows:
 - Slide the Axle Pin through the Wheel, Wheel Bracket on the frame and 5/8" Flat Washer.
 - Insert the Cotter Pin through the Axle Pin to lock into place.

2. Refer to Figure 2-2 and install the Frame Feet and Rubber Bumpers as shown.
 - Slide the Rubber Bumper M6 Bolts through the Frame Foot, Rubber Bumper. Then install the Locking Flange Nuts. Tighten securely.
 - Slide the Hex Head Bolts through the holes in the Frame Rail.
 - Slide the Frame Foot onto the Hex Head Bolts then install the Locking Flange Nuts. Tighten securely.

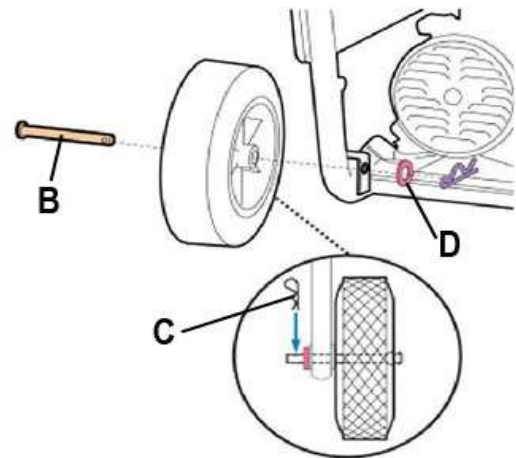


Figure 2-1: Wheel & Feet Assembly

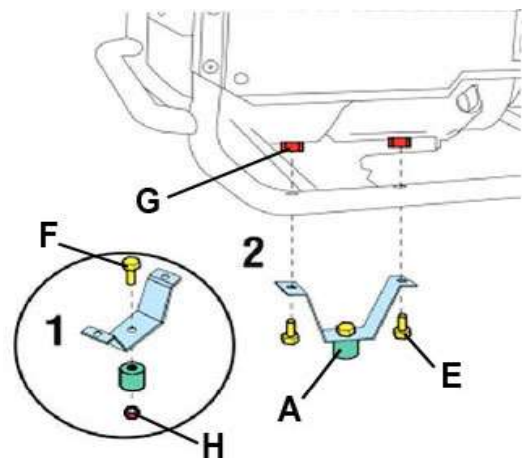


Figure 2-2: Frame Feet and Rubber Bumpers



Figure 2-3: Fuel Cylinder Retaining Strap

2.3 — Emissions Information

The Environmental Protection Agency (and California Air Resource Board for generators certified to CA standards) requires that this generator comply with exhaust and evaporative emission standards. Locate the emissions compliance decal on the engine to determine what standards the generator meets, and to determine which warranty applies. This generator is certified to operate on gasoline. The emission control system includes the following components (if equipped):

- Air Induction System
 - Intake Pipe / Manifold
 - Air Cleaner
- Fuel System
 - Carburetor/Mixer Assembly
 - Fuel Regulator
- Ignition System
 - Spark Plug
 - Ignition Module
- Exhaust System
 - Exhaust Manifold
 - Muffler
 - Pulsed Air Valve
 - Catalyst

2.4 — Product Specifications

2.4.1 — Generator Specifications

Rated Power	5.5 kW***
Surge Power	6.875 kW
Rated AC Voltage	120/240
Rated AC Load	
Current @ 240V	22.9 Amps**
Current @ 120V	45.8 Amps**
Rated Frequency	60 Hz @3600 RPM
Phase.....	Single Phase
Operating Temperature Range	0° F (-17° C) to 110° F (43° C)*

* Operating temperature range: -18° C (0° F) to 40° C (104° F). When operated above 25° C (77° F) there may be a decrease in power.

** Maximum wattage and current are subject to, and limited by, such factors as fuel Btu content, ambient temperature, altitude, engine condition, etc.. Maximum power decreases about 3.5% for each 1,000 feet above sea level; and will also decrease about 1% for each 6° C (10° F) above 16° C (60° F) ambient temperature.

2.4.2 — Engine Specifications

Displacement	389 cc
Spark Plug Type	NHSP LDF7TC or Champion N9YC
Spark Plug Part No.	0G84420101
Spark Plug Gap	0.028-0.031 inch or (0.70-0.80 mm)
Fuel Capacity	20 or 30 Pounds LP Tank
Oil Type.....	See Chart in "Before Starting the Generator" Section
Oil Capacity	1.0 L (1.06 Qt.)
Run Time at 50% Load	
20 lb. LP Tank	4 Hours, 46 Min.
30 lb. LP Tank	7 Hours, 9 Min.

2.4.3 — High Altitude Operation

At high altitude, the standard carburetor air-fuel mixture will be too rich. Performance will decrease and fuel consumption will increase. A very rich mixture will also foul the spark plug and cause hard starting. Operation at an altitude that differs from that at which this engine was certified, for extended periods of time, may increase emissions. High altitude performance can be improved by specific modifications to the carburetor. If you always operate your engine at altitudes above 5,000 feet (1,500 meters), have your servicing dealer perform this carburetor modification. This engine, when operated at high altitude with the carburetor modifications for high altitude use, will meet each emission standard throughout its useful life.

See the table below to determine when an altitude kit is required..

Units	Fuel	Altitude Range*	Kit Part Numbers
5.5kW	LP	0 - 5000 ft	Not Required
		5000 - 7000 ft	0K2111
* Elevation above sea level. ** At elevations above 7000 feet the engine may experience decreased performance.			

NOTE:

Call 1-888-GENERAC to order an altitude kit if you are operating the generator at 5000 - 7000 feet.

2.5 — Know The Generator

Read the Owner's Manual and Safety Rules before operating this generator.

Compare the generator to Figures 2-4 through 2-8 to become familiarized with the locations of various controls and adjustments.

1. **120 Volt AC, 20 Amp, Duplex Receptacle** – Supplies electrical power for the operation of 120 Volt AC, 20 Amp, single-phase, 60 Hz electrical lighting, appliance, tool and motor loads.
2. **120/240 Volt AC, 30 Amp Locking Receptacle** – Supplies electrical power for the operation of 120 and/or 240 Volt AC, 30 Amp, single-phase, 60 Hz, electrical lighting, appliance, tool and motor loads.
3. **Circuit Breakers (AC)** – A 2-pole circuit breaker protects the rated output of the generator. Each duplex receptacle is provided with a push-to-reset circuit breaker to protect the generator against electrical overload.
4. **Hourmeter** - Tracks hours of operation to perform required maintenance.

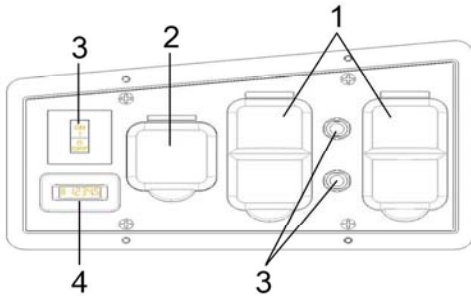


Figure 2-4: Control Panel

- 5. **Oil Drain** – Use to drain engine oil.
- 6. **Grounding Lug** – Ground the generator to an approved earth ground here. See "Grounding the Generator" for details.
- 7. **Oil Fill** – Add oil here and check level with dipstick.

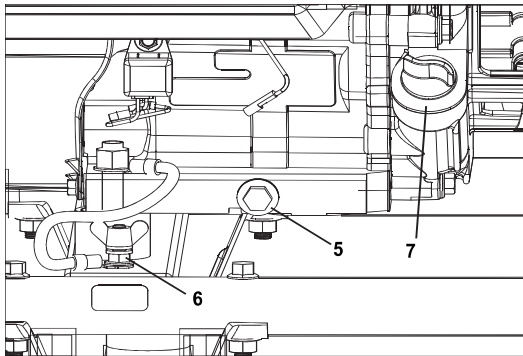


Figure 2-5: Generator Grounding & Oil Drain/Fill

- 8. **Air Filter** – Filters intake air as it is drawn into the engine.
- 9. **Muffler** – Quiets the engine, includes the spark arrestor.
- 10. **Recoil Starter Handle** – Use to start the engine manually.
- 11. **Handle** – Pivot and retract for storage. Press the spring-loaded button to move handles.
- 12. **Tank Bracket** – Supports the LP Fuel Cylinder with two (2) locking pins in place and folds up for transport or storage when not in use with one (1) locking pin.
- 13. **Fuel Tank** – Standard 20 or 30 pound capacity LP tank with Type 1, right hand Acme threads with protective cap (sold separately).
- 14. **Power Dial** – Combines the engine choke, the LP regulator Primer and the engine ignition On/Off switch in one location.
- 15. **Tank Strap** – Rubber strap assembly attaches to the cradle to with a Cotter Pin on one side and slides into a keyhole slot on the other side of the cradle. Secure the LP Fuel Cylinder in place.
- 16. **Fuel Shut Off** – Valve is on the fuel tank.

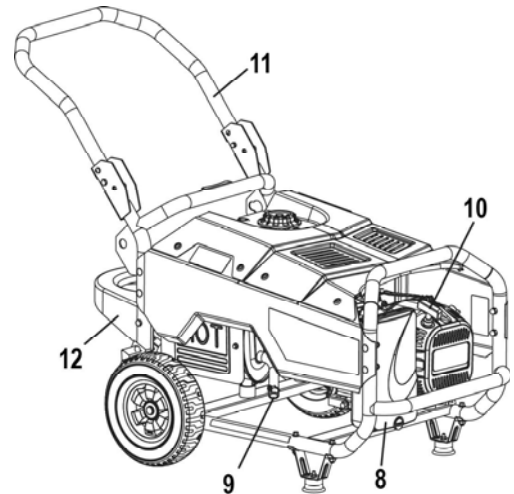


Figure 2-6: Generator Controls

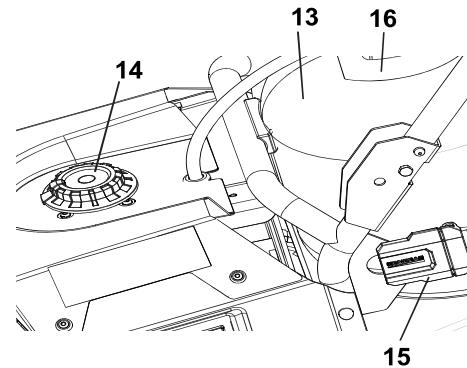


Figure 2-7: Generator Controls

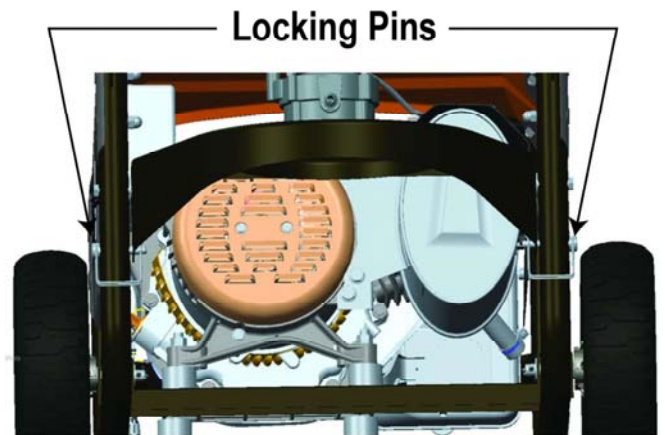


Figure 2-8: Tank Bracket

2.6 — Connection Plugs

2.6.1 — 120 VAC, 20 Amp, Duplex Receptacle

This is a 120 Volt outlet protected against overload by a 20 Amp push-to-reset circuit breaker (Figure 2-9). Use each socket to power 120 Volt AC, single phase, 60 Hz electrical loads requiring up to a combined 2400 watts (2.4 kW) or 20 Amps of current. Use only high quality, well-insulated, 3-wire grounded cord sets rated for 125 Volts at 20 Amps (or greater). Each outlet is protected by a 1-pole, 20 Amp, push-button circuit breaker.

Keep extension cords as short as possible, preferably less than 15 feet long, to prevent voltage drop and possible overheating of wires.

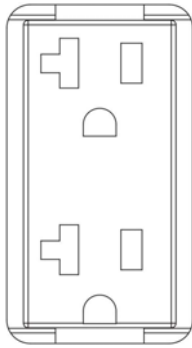


Figure 2-9: 120 Volt AC, 20 Amp, Duplex Receptacle

2.6.2 — 120/240 VAC, 30 Amp Receptacle

Use a NEMA L14-20R Plug with this receptacle (rotate to lock/unlock). Connect a suitable 4-wire grounded cord set to the plug and to the desired load. The cord set should be rated for 250 Volts AC at 30 Amps (or greater) (Figure 2-10).

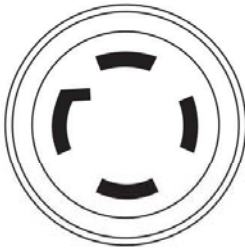


Figure 2-10: 120/240 VAC, 30 Amp Receptacle

Use this receptacle to operate 120 Volt AC, 60 Hz, single phase loads requiring up to 3000 watts (3.0 kW) of power at 25 Amps or 240 Volt AC, 60 Hz, single phase loads requiring up to 5500 watts (5.5 kW) of power at 22.9 Amps. The outlet is protected by a 2-pole 25 Amp rocker type circuit breaker.

2.7 — Hourmeter

The Hourmeter tracks hours of operation for scheduled maintenance (Figure 2-11):

There will be a "CHG OIL" message every 100 hours. The message will flash one hour before and one hour after each 100 hour interval, providing a two hour window to perform service.

This message will actually begin flashing at 99 hours and disable itself at 101 hours again, providing a two hour window to perform the service.

Every 200 hours the "SVC" icon on the lower left hand corner of the display will flash. The message will flash one hour before and one hour after each 200 hour interval providing a two hour window to perform service.

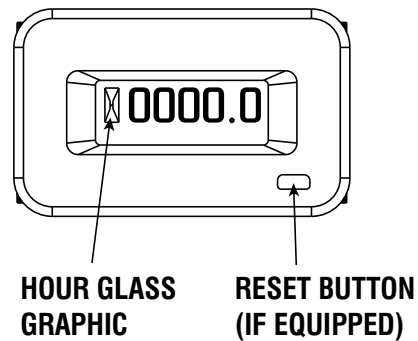


Figure 2-11: Hourmeter

When the hour meter is in the Flash Alert mode, the maintenance message will always alternate with elapsed time in hours and tenths. The hours will flash four times, then alternate with the maintenance message four times until the meter resets itself.

- 100 hours - CHG OIL — Oil Change Interval (Every 100 hrs)
- 200 hours - SVC — Service Air Filter (Every 200 hrs)

NOTE:

The hour glass graphic will flash on and off when the engine is running. This signifies that the meter is tracking hours of operation.

3.1 — How To Use The Generator

See the "To Start the Engine" section for how to safely start and stop the generator and how to connect and disconnect loads. If there are any problems operating the generator, please call the generator help-line at 1-888-436-3722.

⚠ DANGER!



Never operate in an enclosed area or indoors! NEVER use in the home, in a vehicle, or in partly enclosed areas such as garages, EVEN IF doors and windows are open! ONLY use outdoors and far from open windows, doors, vents, and in an area that will not accumulate deadly exhaust.



The engine exhaust fumes contain carbon monoxide, which you cannot see or smell. This poisonous gas, if breathed in sufficient concentrations, can cause unconsciousness or even death.



Adequate, unobstructed flow of cooling and ventilating air is critical to correct generator operation. Do not alter the installation or permit even partial blockage of ventilation provisions, as this can seriously affect safe operation of the generator. The generator MUST be operated outdoors.



This exhaust system must be properly maintained. Do nothing that might render the exhaust system unsafe or in noncompliance with any local codes and/or standards.



Always use a battery operated carbon monoxide alarm indoors, installed according to the manufacturer's instructions.

⚠ DANGER	
Using a generator indoors CAN KILL YOU IN MINUTES.	
Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.	
<p>NEVER use inside a home or garage, EVEN IF doors and windows are open.</p>	<p>Only use OUTSIDE and far away from windows, doors, and vents.</p>

3.1.1 — Grounding The Generator When Used As A Portable

This generator has an equipment ground that connects the generator frame components to the ground terminals on the AC output receptacles (see NEC 250.34 (A) for explanation). This allows the generator to be used as a portable without grounding the frame of the generator as specified in NEC 250.34.

3.1.1.1 — Special Requirements

There may be Federal 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.

3.1.2 — Connecting The Generator To A Building's Electrical System

Connections for standby power to a building's electrical system should be made by a qualified electrician and in strict compliance with all national and local electrical codes and laws. The connection must isolate the generator power from utility power or other alternative power sources.

NOTE:

Because the generator equipment ground is bonded to the AC neutral wires in the generator, either a 3-pole transfer switch or a 2 pole transfer switch with a switching neutral kit is required to connect this generator to a building load. In this application the generator becomes a separately derived system (see NEC 250.20 (D)), and must be grounded in accordance with the national or local electrical code requirements.

3.1.2.1 — Grounding The Generator In A Building Standby Application

⚠ WARNING!



The National Electrical Code requires that the frame and external electrically conductive parts of this generator be properly connected to an approved earth ground.

Local electrical codes may also require proper grounding of the unit (Figure 3-1). For that purpose, connecting a No. 10 AWG (American Wire Gauge) stranded copper wire to the grounding lug and to an earth-driven copper or brass grounding rod (electrode) provides adequate protection against electrical shock. However, local codes may vary widely. **Consult with a local electrician for grounding requirements in the area.**

Proper grounding of the generator will help prevent electrical shock in the event of a ground fault condition in the generator or in connected electrical devices. Proper grounding also helps dissipate static electricity, which often builds up in ungrounded devices.

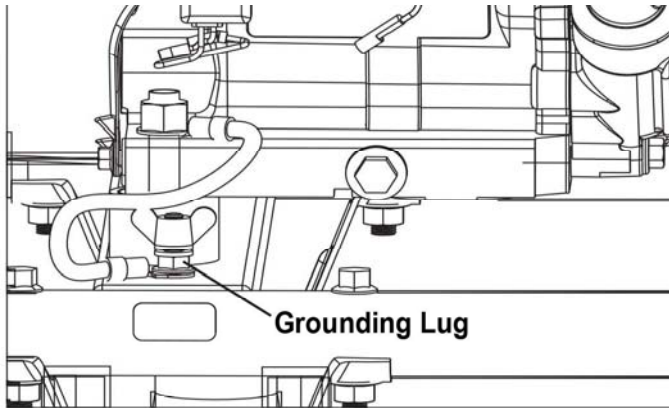


Figure 3-1: Grounding the Generator

3.2 — Don't Overload the Generator

Overloading a generator in excess of its rated wattage capacity can result in damage to the generator and to connected electrical devices. Observe the following to prevent overloading the unit:

- Add up the total wattage of all electrical devices to be connected at one time. This total should NOT be greater than the generator's wattage capacity.
- The rated wattage of lights can be taken from light bulbs. The rated wattage of tools, appliances and motors can usually be found on a data label or decal affixed to the device.
- If the appliance, tool or motor does not give wattage, multiply volts times ampere rating to determine watts (volts x amps = watts).
- Some electric motors, such as induction types, require about three times more watts of power for starting than for running. This surge of power lasts only a few seconds when starting such motors. Make sure to allow for high starting wattage when selecting electrical devices to connect to the generator:

1. Figure the watts needed to start the largest motor.
2. Add to that figure the running watts of all other connected loads.

The Wattage Reference Guide is provided to assist in determining how many items the generator can operate at one time.

NOTE:

All figures are approximate. See data label on appliance for wattage requirements.

3.3 — Wattage Reference Guide

Device	Running Watts
*Air Conditioner (12,000 Btu)	1700
*Air Conditioner (24,000 Btu)	3800
*Air Conditioner (40,000 Btu)	6000
Battery Charger (20 Amp)	500
Belt Sander (3")	1000
Chain Saw	1200
Circular Saw (6-1/2")	800 to 1000
*Clothes Dryer (Electric)	5750
*Clothes Dryer (Gas)	700
*Clothes Washer	1150
Coffee Maker	1750
*Compressor (1 HP)	2000
*Compressor (3/4 HP)	1800
*Compressor (1/2 HP)	1400
Curling Iron	700
*Dehumidifier	650
Disc Sander (9")	1200
Edge Trimmer	500
Electric Blanket	400
Electric Nail Gun	1200
Electric Range (per element)	1500
Electric Skillet	1250
*Freezer	700
*Furnace Fan (3/5 HP)	875
*Garage Door Opener	500 to 750
Hair Dryer	1200
Hand Drill	250 to 1100
Hedge Trimmer	450
Impact Wrench	500
Iron	1200
*Jet Pump	800
Lawn Mower	1200
Light Bulb	100
Microwave Oven	700 to 1000
*Milk Cooler	1100
Oil Burner on Furnace	300
Oil Fired Space Heater (140,000 Btu)	400
Oil Fired Space Heater (85,000 Btu)	225
Oil Fired Space Heater (30,000 Btu)	150
*Paint Sprayer, Airless (1/3 HP)	600
Paint Sprayer, Airless (hand-held)	150
Radio	50 to 200
*Refrigerator	700
Slow Cooker	200
*Submersible Pump (1-1/2 HP)	2800
*Submersible Pump (1 HP)	2000
*Submersible Pump (1/2 HP)	1500
*Sump Pump	800 to 1050
*Table Saw (10")	1750 to 2000
Television	200 to 500
Toaster	1000 to 1650
Weed Trimmer	500

* Allow 3 times the listed watts for starting these devices.

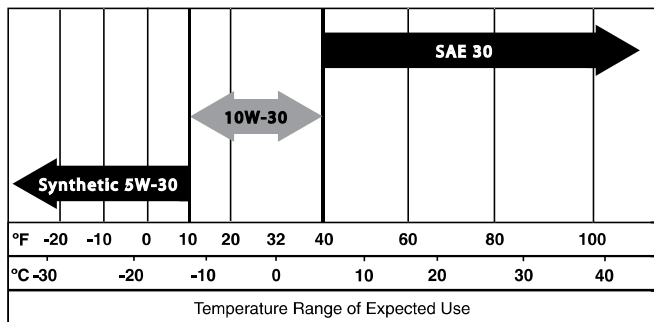
3.4 — Before Starting the Generator

Prior to operating the generator, engine oil and LP fuel will need to be added, as follows:

3.4.1 — Adding Engine Oil

All oil should meet minimum American Petroleum Institute (API) Service Class SJ, SL or better. Use no special additives. Select the oil's viscosity grade according to the expected operating temperature (also see chart).

- Above 40° F, use SAE 30
- Below 40° F and down to 10° F, use 10W-30
- Below 10° F, use synthetic 5W-30



⚠ CAUTION!

Any attempt to start the engine before it has been properly serviced with the recommended oil may result in an engine failure.

1. Place generator on a level surface (not to exceed 15° in any direction).
2. Clean area around oil fill and remove oil fill cap and dipstick.
3. Wipe dipstick clean.
4. Slowly fill engine with oil through the oil fill opening until it reaches the full mark. Stop filling occasionally to check oil level. **Be careful not to over fill.**
5. Install oil fill cap and finger tighten securely.
6. Check engine oil level before starting each time thereafter.

3.4.2 — Connecting LP Fuel Tank

⚠ DANGER!

Do not use or store LP cylinder in a building, garage or enclosed area except as authorized by NFPA 58 or B149.2 (in Canada).

Do not check for leaks with a match or flame.

The cylinder valve should be left off (closed) when the generator is not in use.

NOTE:

Regulator inlet pressure range from LP tank is : 30 to 100 psi.

- Use only standard 20 or 30 pound capacity LP tanks with Type 1, right hand Acme threads with this generator. Verify the re-qualification date on the tank has not expired. Do not use rusted or damaged cylinders.
- All new cylinders must be purged of air and moisture prior to filling. Used cylinders that have not been plugged or kept closed must also be purged.
- The purging process should be done by your propane gas supplier. (Cylinders from an exchange supplier should have been purged and filled properly already).
- Lift the tank and place carefully in the rear tank bracket with the connection point facing the front of the generator (Figure 3-2).
- Insert the fixed end into the side bracket with the smaller hole and slide cotter pin in place. Firmly grasping the pivot end, stretch the tank strap around the cylinder and slide the peg into the keyhole in the other bracket.
- Remove the safety plug or cap from the cylinder valve.
- Attach the connector snugly into the valve. Remember, turn the plastic coupling from the hose right to tighten or clockwise.
- Always position the cylinder so the connection between the valve and the regulator won't cause sharp bends or kinks in the hose.



Figure 3-2: Position Tank

- Check for leaks by spraying soapy water to the connections being tested.
- If bubbles appear, become larger in size or increase in number, a leak exists.
- This must be corrected before using the generator. Contact your local Authorized Service Facility for assistance.
- Contact with liquid contents of the cylinder will cause freeze burns to the skin.
- Do not allow children to tamper or play with the cylinder.

- When transporting and storing, keep cylinder secured in an upright position with cylinder valve turned off and the outlet plugged. (usually by a plastic protective cap). Keep cylinders away from heat and ventilated when in a vehicle.

3.5 — Starting the Generator

⚠ WARNING!

⚡ Never start or stop engine with electrical devices plugged into the receptacles AND devices turned on.

1. Unplug all electrical loads from the unit's receptacles before starting the engine.
2. Make sure the unit is in a level position (not to exceed 15° in any direction).
3. OPEN the Fuel Shut-off Valve on the cylinder (Figure 3-2).
4. Turn engine POWER DIAL (Figure 3-3) to the #1 PRIME position and press down on the dial for five (5) seconds to allow fuel to enter the mixer.
5. Grasp the recoil handle and pull slowly until increased resistance is felt. Brace one foot on the frame cross bar, and then pull rapidly up and away twice to PRIME the fuel system.
6. Turn the POWER DIAL to the #2 RUN position.
7. Grasp the recoil handle and pull slowly until increased resistance is felt. Brace one foot on the frame cross bar, and then pull rapidly up and away to start the engine. Pull recoil up to two (2) more times if necessary to start the engine.

NOTE:

If engine does not start or stay running, repeat the start sequence starting at Step 4 above.

IMPORTANT: Do not overload the generator. Also, do not overload individual panel receptacles. These outlets are protected against overload with push-to-reset-type circuit breakers. If amperage rating of any circuit breaker is exceeded, that breaker opens and electrical output to that receptacle is lost. Read "Don't Overload the Generator" carefully.



Figure 3-3: Power Dial

3.6 — Stopping The Engine

1. Shut off all loads, then unplug the electrical loads from generator panel receptacles. Never start or stop the engine with electrical devices plugged in and turned on.
2. Let engine run at no-load for several minutes to stabilize the internal temperatures of engine and generator.
3. Move the Power Dial to OFF position.
4. Close fuel valve.

3.7 — Low Oil Level Shutdown System

The engine is equipped with a low oil level sensor that shuts down the engine automatically when the oil level drops below a specified level. If the engine shuts down by itself and the cylinder has sufficient fuel, check engine oil level.

4.1 — Maintenance Schedule

Follow the calendar intervals. More frequent service is required when operating in adverse conditions noted below.

Check Oil Level.....	At Each Use
Change Oil ‡.....	*Every 100 hours or Every Season
Check Valve Clearance	***Every Season
Service Air Filter	** Every 200 hours or Every Season
Replace Spark Plug	Every Season

‡ Change oil after first 30 hours of operation then every season.

* Change oil and oil filter every month when operating under heavy load or in high temperatures.

** Clean more often under dirty or dusty operating conditions. Replace air filter parts if they cannot be adequately cleaned.

*** Check valve clearance and adjust if necessary after first 50 hours of operation and every 300 hours thereafter. This requires some engine disassembly. We recommend contacting an Authorized Service Dealer for this adjustment.

NOTE:

Once a year replace the spark plug and replace the air filter. A new spark plug and clean air filter assure proper fuel-air mixture and help the engine run better and last longer.

4.2 — General Recommendations

The warranty of the generator does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, the operator must maintain the generator as instructed in this manual.

Some adjustments will need to be made periodically to properly maintain the generator.

All adjustments in the Maintenance section of this manual should be made at least once each season. Follow the requirements in the "Maintenance Schedule".

4.2.1 — Generator Maintenance

Generator maintenance consists of keeping the unit clean and dry. Operate and store the unit in a clean dry environment where it will not be exposed to excessive dust, dirt, moisture or any corrosive vapors. Cooling air slots in the generator must not become clogged with snow, leaves, or any other foreign material.

Check the cleanliness of the generator frequently and clean when dust, dirt, oil, moisture or other foreign substances are visible on its exterior surface.

⚠ CAUTION!



Never insert any object or tool through the air cooling slots, even if the engine is not running.

4.2.2 — To Clean The Generator

- Use a damp cloth to wipe exterior surfaces clean.
- A soft, bristle brush may be used to loosen caked on dirt, oil, etc.
- A vacuum cleaner may be used to pick up loose dirt and debris.
- Low pressure air (not to exceed 25 psi) may be used to blow away dirt. Inspect cooling air slots and openings on the generator. These openings must be kept clean and unobstructed.

NOTE:

DO NOT use a garden hose to clean generator. Water can enter the engine fuel system and cause problems. In addition, if water enters the generator through cooling air slots, some water will be retained in voids and crevices of the rotor and stator winding insulation. Water and dirt buildup on the generator internal windings will eventually decrease the insulation resistance of these windings.

4.2.3 — Engine Maintenance

⚠ DANGER!



When working on the generator, always disconnect spark plug wire from spark plug and keep wire away from spark plug.

4.2.4 — Checking Oil Level

See the "Before Starting the Generator" section for information on checking the oil level. The oil level should be checked before each use, or at least every eight hours of operation. Keep the oil level maintained.

4.2.5 — Changing The Oil

Change the oil after the first 30 hours and every 100 hours thereafter. If running this unit under dirty or dusty conditions, or in extremely hot weather, change the oil more often.

⚠ CAUTION!



Hot oil may cause burns. Allow engine to cool before draining oil. Avoid prolonged or repeated skin exposure with used oil. Thoroughly wash exposed areas with soap.

Use the following instructions to change the oil after the engine cools down:

1. Clean area around oil drain plug (Figure 4-1).
2. Remove oil drain plug from engine and oil fill plug to drain oil completely into a suitable container.
3. When oil has completely drained, install oil drain plug and tighten securely.

4. Fill engine with recommended oil. (See "Before Starting the Generator" for oil recommendations).
5. Wipe up any spilled oil.
6. Dispose of used oil at a proper collection center.

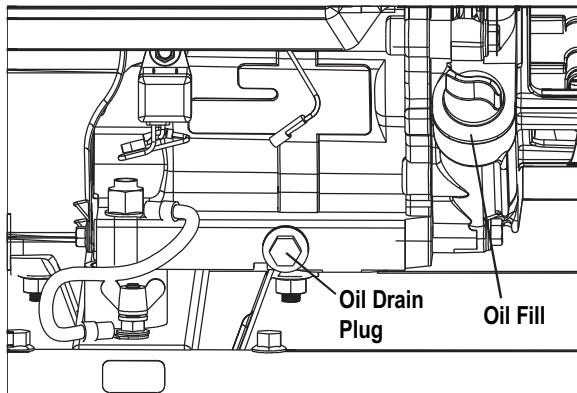


Figure 4-1: Oil Drain Plug

4.2.6 — Replacing The Spark Plug

Use Champion N9YC spark plug or equivalent. **Replace the plug every 200 hours.**

1. Stop the engine and shut off the fuel valve on the cylinder and remove.
2. Using a 5mm Allen wrench, remove the four (4) button head screws to the top cover and remove the front top cover to gain access to the spark plug (Figure 4-2).

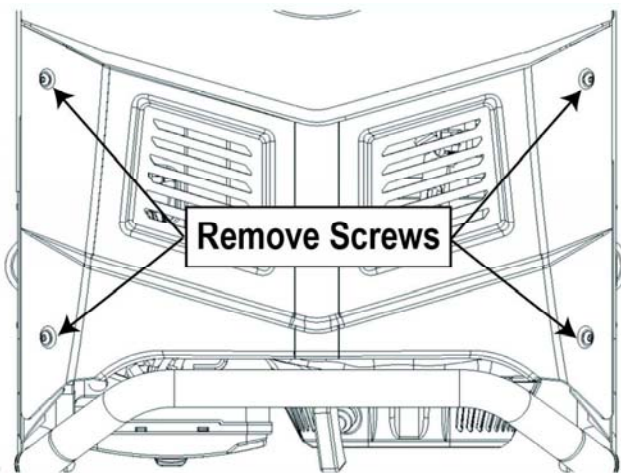


Figure 4-2: Remove Screws

3. Remove the spark plug wire off of the plug and clean that area of the cylinder head (Figure 4-3).

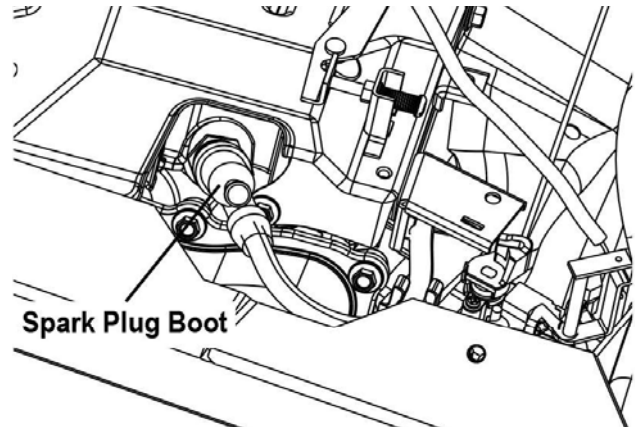


Figure 4-3: Remove Spark Plug Wire

4. Use a 21mm (13/16") spark plug tool (included) to remove the spark plug.
5. Set the new spark plug's gap to 0.70-0.80 mm (0.028 – 0.031 in). Install the correctly gapped spark plug into the cylinder head and tighten enough to ensure the gasket compresses at (18.0 to 21.6 Pound/Feet) (Figure 4-4).
6. Reconnect the spark plug wire and replace the front top cover and four (4) fasteners.

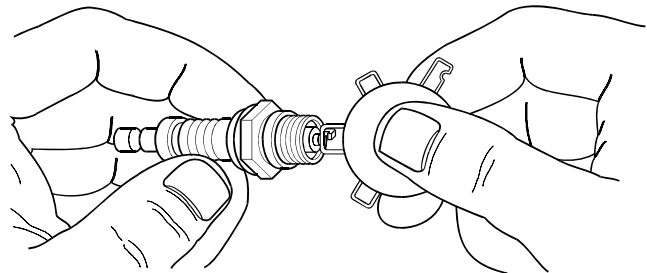


Figure 4-4: Spark Plug Gap

4.3 — Service Air Filter

The engine will not run properly and may be damaged if using a dirty air filter. Clean the air filter every 50 hours or once a year (Figure 4-5). Clean or replace more often if operating under dusty conditions. The air filter part number is 0J47870141.

1. Remove air filter cover.
2. Wash in soapy water. Squeeze filter dry in clean cloth (DO NOT TWIST).
3. Clean air filter cover before re-installing it.

NOTE:

To order a new air filter, please contact the nearest authorized service center at 1-888-436-3722.

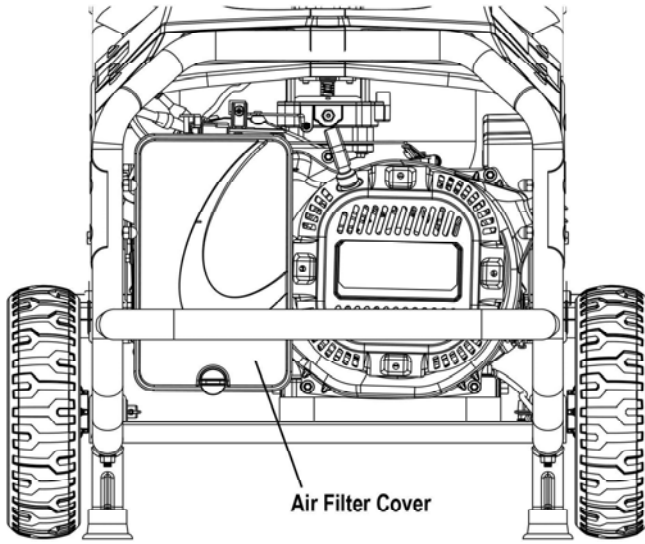


Figure 4-5: Air Filter

4.3.1 — Clean Spark Arrestor Screen

The engine exhaust muffler has a spark arrestor screen. Inspect and clean the screen at least once each year (Figure 4-6). If unit is used regularly, inspect and clean more often.

⚠ DANGER!



If using the generator on any forest-covered, brush-covered or grass-covered unimproved land, it must be equipped with a spark arrestor. The spark arrestor must be maintained in good condition by the owner/operator.

Clean and inspect the spark arrestor when the engine is at ambient temperature as follows:

1. Remove the spark arrestor screen from the muffler by loosening the clamp and removing the screw.
2. Inspect screen and replace if torn, perforated or otherwise damaged. **DO NOT USE** a defective screen. If screen is not damaged, clean it with commercial solvent.
3. Replace the spark arrestor and secure with the clamp and screw.

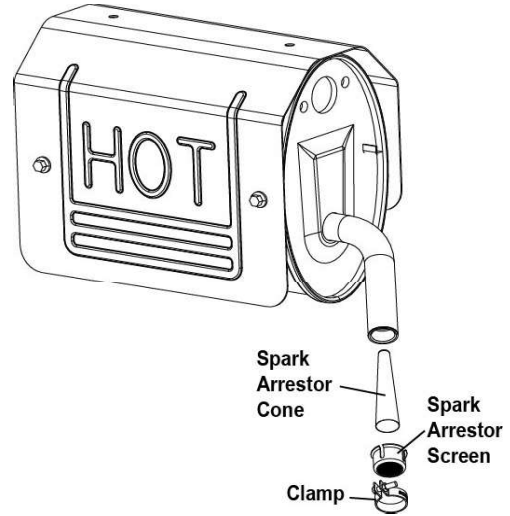


Figure 4-6: Spark Arrestor Screen

NOTE:

To order a new air filter or spark arrestor screen, please contact the nearest authorized service center at 1-800-333-1322.

4.4 — Valve Clearance

- Intake — $0.15 \pm 0.02\text{mm}$ (cold), ($0.006'' \pm 0.0008''$)
- Exhaust — $0.20 \pm 0.02\text{mm}$ (cold) ($0.008'' \pm 0.0008''$)

After the first 50 hours of operation, check the valve clearance in the engine and adjust if necessary.

Important: If feeling uncomfortable about doing this procedure or the proper tools are not available, please take the generator to the nearest service center to have the valve clearance adjusted. This is a very important step to ensure longest life for the engine.

4.5 — Generator Storage

The generator should be started at least once every 30 days and be allowed to run at least 30 minutes. If this cannot be done and the unit must be stored for more than 30 days, use the following information as a guide to prepare it for storage.

⚠ DANGER!



Allow unit to cool entirely before storage.

4.6 — Long Term Storage

1. Drain oil from crankcase after the engine cools down. Refill with recommended grade.
2. Remove spark plug and pour about 1/2 ounce (15 ml) of engine oil into the cylinder. Cover spark plug hole with rag. Pull the recoil starter a couple times to lubricate the piston rings and cylinder bore. A fogging agent can be used in place of oil.

⚠ CAUTION!



Avoid spray from spark plug hole when cranking engine.

3. Install and tighten spark plug. Do not connect spark plug wire.
4. Clean the generator outer surfaces. Check that cooling air slots and openings on generator are open and unobstructed.
5. Store the unit in a clean, dry place.

4.7 — Other Storage Tips

- If possible, store the unit indoors and cover it to give protection from dust and dirt. **BE SURE TO CLOSE THE VALVE ON THE FUEL TANK.**
- Cover the unit with a suitable protective cover that does not retain moisture.

⚠ DANGER!



NEVER cover the generator while engine and exhaust areas are warm.

5.1 — Troubleshooting Guide

PROBLEM	CAUSE	CORRECTION
Engine is running, but no AC output is available.	<ol style="list-style-type: none"> 1. Circuit breaker is open. 2. Poor connection or defective cord set. 3. Connected device is bad. 4. Fault in generator. 	<ol style="list-style-type: none"> 1. Reset circuit breaker. 2. Check and repair. 3. Connect another device that is in good condition. 4. Contact Authorized Service Facility.
Engine runs well but bogs down when loads are connected.	<ol style="list-style-type: none"> 1. Short circuit in a connected load. 2. Generator is overloaded. 3. Engine speed is too slow. 4. Shorted generator circuit. 	<ol style="list-style-type: none"> 1. Disconnect shorted electrical load. 2. See "Don't Overload the Generator". 3. Contact Authorized Service Facility. 4. Contact Authorized Service Facility.
Engine will not start; or starts and runs rough.	<ol style="list-style-type: none"> 1. Fuel Shut-off is OFF. 2. Dirty air filter. 3. Out of fuel. 4. Spark plug wire not connected to spark plug. 5. Bad spark plug. 6. Water in fuel or cylinder overfilled. 7. Low oil level. 8. Excessive rich fuel mixture. 9. Intake valve stuck open or closed. 10. Engine has lost compression. 	<ol style="list-style-type: none"> 1. Turn Fuel Shut-off ON. 2. Clean or replace air filter. 3. Replace the fuel tank. 4. Connect wire to spark plug. 5. Replace spark plug. 6. Replace fuel (LP) cylinder. 7. Fill crankcase to proper level. 8. Contact Authorized Service Facility. 9. Contact Authorized Service Facility. 10. Contact Authorized Service Facility.
Engine shuts down during operation.	<ol style="list-style-type: none"> 1. Out of fuel. 2. Low oil level. 3. Fault in engine. 	<ol style="list-style-type: none"> 1. Replace the fuel tank. 2. Fill crankcase to proper level. 3. Contact Authorized Service Facility.
Engine lacks power.	<ol style="list-style-type: none"> 1. Load is too high. 2. Dirty air filter. 3. Engine needs to be serviced. 	<ol style="list-style-type: none"> 1. Reduce load (see "Don't Overload the Generator"). 2. Clean or replace air filter. 3. Contact Authorized Service Facility.
Engine "hunts" or falters.	<ol style="list-style-type: none"> 1. Carburetor is running too rich or too lean. 	<ol style="list-style-type: none"> 1. Contact Authorized Service Facility.

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