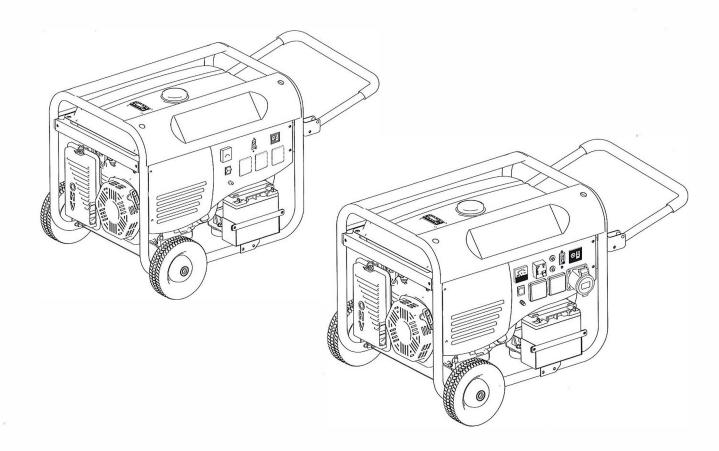
Notes



6KVA Generator **8.5KVA Generator**



TSG9&TSG10









www.thetoolshed.co.nz 0800 94 8665

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warrants to the original purchaser that the mechanical and electrical components will be free of defects in material and workmanship for a period of two (1) years from the original date of purchase (90 days for commercial & industrial use). Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.

Repair/Replacement Warranty

Warranty Exclusions

This warranty does not cover the following repairs and equipment:

Normal Wear

Generators need periodic parts and service to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment as a whole.

Installation, Use and Maintenance

This warranty will not apply to parts and/or labor if this generator is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the generator's limits, modified, installed improperly or connected incorrectly to any electrical component. Normal maintenance such as spark plugs, air filters, adjustments, fuel system cleaning and obstruction due to buildup is not covered by this warranty.

Other Exclusions

This warranty excludes:

Cosmetic defects such as paint, decals, etc. Wear items such as filter elements, o-rings, etc. Accessory parts such as starting batteries, and storage covers.

Failures due to acts of God and other force majeure events beyond the manufacturer's control.

Problems cause by parts that are not original Champion Power Equipment parts.

This warranty does not apply to generators used for prime power in place of a utility.

Limits of Implied Warranty and Consequential Damage

Champion Power Equipment disclaims any obligation to cover any loss of time, use of this product, freight, or any incidental or consequential claim by anyone from using this

generator. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

Warranty

A unit provided as an exchange will be subject to the warranty of the original unit. The length of the warranty governing the exchanged unit will remain calculated by reference to the purchase date of the original unit.

This warranty gives you certain legal rights which may change from state to state. Your state may also have other rights you may be entitled to that are not listed within this warranty.

1

Troubleshooting

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

Introduction

Congratulations on your purchase of our designs and builds generators to strict specifications. With proper use and maintenance, this generator will bring years of satisfying service.

This Owner's Manual contains important safety instructions and information. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

Portable Power Generator

This unit is an electric-start gasoline engine driven, alternating current (AC) generator. It is designed to supply electrical power for lighting, appliances, tools and similar equipment.

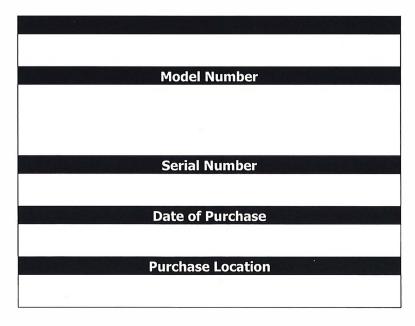
Accessories

our's manufactures and sells accessories designed to help you get the most from your purchase. To find out more about our covers, power cables and storm kits, please visit our web site at

This Booklet

Every effort has been made to ensure the accuracy and completeness of the information in this manual. We reserve the right to change, alter and/or improve the product and this document at any time without prior notice.

Record the model and serial numbers as well as date and place of purchase for future reference. Have this information available when ordering parts and when making technical or warranty inquiries.



Manual Conventions

Manual Conventions

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

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

⚠ DANGER

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

⚠ WARNING

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

A CAUTION

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

CAUTION

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

2

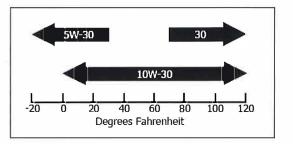
Specifications

Fuel

Fuel capacity is 6.6 gallons (25L). Use regular unleaded gasoline with a minimum octane rating of 85.

Oil

Oil capacity is 1.16 qt (1.1 L).



Safety Rules

Storage

The generator should be started at least once every 14 days and allowed to run for at least 20 minutes. For longer term storage, please follow these guidelines.

Engine Storage

- 1. Allow the engine to cool completely before storage.
- 2. Clean the engine according to the instructions in the Maintenance section.
- 3. Drain all fuel completely from the fuel line and carburetor to prevent gum from forming.
- 4. Add a fuel stabilizer into the fuel tank.
- 5. Change the oil.

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- 6. Remove the spark plug and pour about ½ ounce of oil into the cylinder. Crank the engine slowly to distribute the oil and lubricate the cylinder.
- 7. Reattach the spark plug.

Generator Storage

- 1. Allow the generator to cool completely before storage.
- 2. Turn off the fuel supply at the fuel valve.
- 3. Clean the generator according to the instructions in the Maintenance section.
- 4. Store the unit in a clean, dry area.
- 5. Store in a clean, dry place out of direct sunlight.

Safety Rules

⚠ WARNING

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

⚠ WARNING

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

⚠ DANGER

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

Operate generator outdoors only in a well ventilated area

DO NOT operate the generator inside any building, including garages, basements, crawlspaces and sheds, enclosure or compartment, including the generator compartment of a recreational vehicle.

DO NOT allow exhaust fumes to enter a confined area through windows, doors, vents or other openings.

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

A DANGER

Rotating parts can entangle hands, feet, hair, clothing and/or accessories.

Traumatic amputation or severe laceration can result.

Keep hands and feet away from rotating parts.

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

A DANGER

Generator produces powerful voltage.

DO NOT touch bare wires or receptacles.
DO NOT use electrical cords that are worn,
damaged or frayed.

DO NOT operate generator in wet weather.
DO NOT allow children or unqualified persons to operate or service the generator
Use a ground fault circuit interrupter (GFCI) in damp areas and areas containing conductive material such as metal decking.

Use approved transfer equipment to isolate generator from your electric utility and Notify your utility company before connecting your generator to your power system.

⚠ WARNING

Sparks can result in fire or electrical shock.

When servicing the generator:

Disconnect the spark plug wire and place it where it cannot contact the plug.

DO NOT check for spark with the plug removed.
Use only approved spark plug testers.

∆ WARNING

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

DO NOT touch hot surfaces.

Avoid contact with hot exhaust gases.

Allow equipment to cool before touching.

Maintain at least three feet of clearance on all sides to ensure adequate cooling.

Maintain at least five feet of clearance from combustible materials.

WARNING

Operation of This Equipment May Create Sparks
That Can Start Fires Around Dry Vegetation.

A Spark Arrestor May be Required. The Operator Should Contact Local Fire Agencies For Laws or Regulations Relating to Fire Prevention Requirements.

⚠ DANGER

Fuel and fuel vapors are highly flammable and extremely explosive.

Fire or explosion can cause severe burns or death.

Unintentional startup can result in entanglement, traumatic amputation or laceration.

When adding or removing fuel

Turn the generator off and let it cool for at least two minutes before removing the fuel cap. Loosen the cap slowly to relieve pressure in the tank.

Only fill or drain fuel outdoors in a well-ventilated area.

DO NOT overfill the fuel tank.

Always keep fuel away from sparks, open flames, pilot lights, heat and other sources of ignition. DO NOT light or smoke cigarettes.

When starting the generator

DO NOT attempt to start a damaged generator. Make certain that the gas cap, air filter, spark plug, fuel lines and exhaust system are properly in place.

Allow spilled fuel to evaporate fully before attempting to start the engine.

Make certain that the generator is resting firmly on level ground.

When operating the generator:

DO NOT move or tip the generator during operation.

DO NOT tip the generator or allow fuel or oil to snill

When transporting or servicing the generator:

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

When storing the generator:

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

⚠ WARNING

Rapid retraction of the starter cord will pull hand and arm towards the engine faster than you can let go.

Unintentional startup can result in entanglement, traumatic amputation or laceration.

Broken bones, fractures, bruises or sprains could result.

When starting engine, pull the starter cord slowly until resistance is felt and then pull rapidly to avoid kickback.

DO NOT start or stop the engine with electrical devices plugged in.

A CAUTION

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

DO NOT overload the generator.
Start the generator and allow the engine to stabilize before connecting electrical loads.
Connect electrical equipment in the off position, and then turn them on for operation.
Turn electrical equipment off and disconnect before stopping the generator.

DO NOT tamper with the governed speed. DO NOT modify the generator in any way.

A CAUTION

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

Use the generator only for intended uses.

Operate only on level surfaces.

DO NOT expose generator to excessive moisture, dust, or dirt.

DO NOT allow any material to block the cooling slots.

If connected devices overheat, turn them off and disconnect them from the generator.

DO NOT use the generator if:

Electrical output is lost

Equipment sparks, smokes or emits flames Equipment vibrates excessively

Maintenance

Spark Arrester

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

A CAUTION

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

Cleaning

A CAUTION

DO NOT spray engine with water.

Water can contaminate the fuel system.

Use a damp cloth to clean exterior surfaces of the engine.

Use a soft bristle brush to remove dirt and oil.

Use an air compressor (25 PSI) to clear dirt and debris from the engine.

Adjustments

The air-fuel mixture is not adjustable. Tampering with the governor can damage your generator and your electrical devices and will void your warranty. CPE recommends that you contact Sun Shine Impex for all other service and/or adjustment needs.

Maintenance Schedule

Follow the service intervals indicated in the schedule below.

Service your generator more frequently when operating in adverse conditions. Contact our help line locate the nearest Champion Power Equipment certified service dealer for your generator or engine maintenance needs.



To be performed by knowledgeable, experienced owners or Champion Power Equipment certified service dealers

Generator Maintenance

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

A CAUTION

DO NOT use a garden hose to clean the generator.

Water can enter the generator through the cooling slots and damage the generator windings.

Use a damp cloth to clean exterior surfaces of the generator.

Use a soft bristle brush to remove dirt and oil.

Use an air compressor (25 PSI) to clear dirt and debris from the generator.

Inspect all air vents and cooling slots to ensure that they are clean and unobstructed.

Maintenance

The owner/operator is responsible for all periodic maintenance.

⚠ NOTICE

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

WARNING

Never operate a damaged or defective generator.

⚠ WARNING

Tampering with the factory set governor will void your warranty.

⚠ WARNING

Improper maintenance will void your warranty.

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

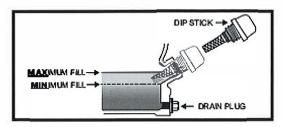
Engine Maintenance

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

Oil

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

- 1. Remove the oil drain plug with a 15 mm socket and extension.
- 2. Allow the oil to drain completely.
- 3. Replace the drain plug.
- 4. Remove oil fill cap/dipstick to add oil.
- 5. Add 1.16 qt (1.1 L) of oil and replace oil fill cap/dipstick.
- 6. Dispose of used oil at an approved waste management facility.



Spark Plugs

- 1. Remove the spark plug cable from the spark plug.
- 2. Remove the spark plug.
- 3. Inspect the electrode on the plug. It must be clean and not worn to produce the spark required for ignition.
- 4. Make certain the spark plug gap is 0.7 0.8mm (0.028 0.031 in.).
- 5. Refer to the spark plug recommendation chart when replacing the plug.
- 6. Carefully thread the plug into the engine.
- 7. Use the spark plug tool to firmly install the plug.
- 8. Attach the spark plug wire to the plug.

Air Filter

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

Controls and Features

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

Parts Included

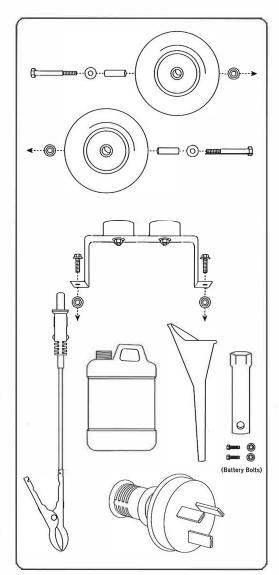
Your Model Gasoline Powered Generator ships with the following parts:

Wheel Kit

| 44 1 | וסטו ווונ |
|------|---|
| _ | 10 in. (25.4 cm) Wheel |
| - | Bushing |
| - | Flange Bolt (M10x120 for Wheel) 2 |
| - | Flat Washer ø10 |
| - | Lock Nut (M10) |
| - | Support Leg w/vibration mounts |
| - | Flange Bolt (M8x16 for Support Leg) 2 |
| - | Flange Lock Nut (M8) |
| Ot | her |
| _ | Oil Funnel |
| - | Spark Plug Socket |
| - | Cap Screw (M5x10 for Battery Terminals) 2 |
| - | Flange Nut (M5) |
| - | Plug |
| - | 0il 1 |
| _ | Automotive style battery charge cables |
| | |







Assembly

Operation

11

Assembly

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

Remove the Generator from the Shipping Carton

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

Install the Wheel Kit

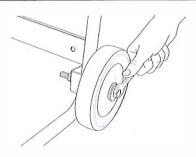


The wheel kit is not intended for over-the-road use.

You will need the following tools to install the wheel kit:

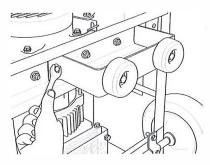
17 mm wrench OR adjustable wrench (not included) Socket wrench with a 16 mm socket Pliers (not included)

- 1. Before adding fuel and oil, tip the generator on it's side.
- 2. Slide the M10x120 wheel bolt through the washer, sleeve and wheel.
- 3. Slide the bolt through the mount point on the frame.
- 4. Fasten securely with the 10mm nut.
- 5. Repeat steps 2-4 to attach the second wheel.



Install the Support Leg

- 1. Attach the rubber vibration mount to the support leg with a cap screw (M8x25) and lock nut (M8).
- 2. Attach the support leg to the generator frame with cap screws (M8x16) and lock nuts (M8).
- 3. Tip the generator slowly so that it rests on the wheels and support leg.



Connect the Battery

- 1. Remove the protective cover from the red battery lead.
- 2. Attach the red lead to the red terminal on the battery with the cap screw (M5x12) and secure with the lock washer (M5)
- 3. Repeat step 2 for the black battery lead.

Wattage Reference Chart

Use the chart to determine approximate wattage requirements for your equipment.

PNOTE

Starting watts can exceed three times the running watts. The values in the following table are approximate. Refer to your tool or appliance for actual wattage consumption.

| | | Charle | | | |
|------------------------------|------------------|-------------------|--|--|--|
| Item | Running Watts | Starting Watts | | | |
| Essential | S | | | | |
| Light Bulb 100W | 100 | | | | |
| Refrigerator/Freezer | 1200 | 2400 | | | |
| Freezer | 500 | 500 | | | |
| Sump Pump | 600 | 1800 | | | |
| Well Pump 1 HP | 2000 | 4000 | | | |
| Water Heater | 4000 | | | | |
| Security System | 180 | | | | |
| AM/FM Radio | 300 | | | | |
| Garage Door Opener 1/2 HP | 500 | 600 | | | |
| Battery Charger 12V DC | 110 | | | | |
| Heating/Cooling | | | | | |
| Air Conditioner 12000 BTU | 1700 | 2500 | | | |
| Fan | 300 | 600 | | | |
| Furnace Fan 1/3 HP | 1200 | 2000 | | | |
| Home Appliances | | | | | |
| Microwave 1000W | 1000 | | | | |
| Electric Range - One Element | 1500 | | | | |
| Electric Skillet | 1250 | | | | |
| Coffee Maker | 1500 | | | | |
| Clothes Washer | 1200 | | | | |
| Entertainm | ent | | | | |
| CD/DVD Player | 100 | | | | |
| VCR | 100 | | | | |
| Stereo Receiver | 450 | | | | |
| Television 27" | 500 | | | | |
| PC with 15" Monitor | 800 | | | | |
| Job Site | | | | | |
| Belt Sander 3" | 1000 | 1500 | | | |
| Bench Grinder 6" | 700_ | 1500 | | | |
| Circular Saw | 1500 | 1500 | | | |
| Compressor 1 1/2 HP | 2500 | 2500 | | | |
| Edge Trimmer | 500 | 500 | | | |
| Hand Drill 1/2" | 1000 | 1000 | | | |
| Lawn Mower | 1200 | 1800 | | | |
| Paint Sprayer | 600 | 1200 | | | |
| Table Saw | 2000 | 2000 | | | |

PNOTE

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

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

Stopping the Engine

- 1. Turn off and unplug all electrical loads. Never start or stop the generator with electrical devices plugged in or turned on.
- 2. Let the generator run at no-load for several minutes to stabilize internal temperatures of the engine and generator.
- 3. Turn the ignition switch to the "Off" position.
- 4. Turn the fuel valve to the "Off" position.

Do Not Overload Generator

Capacity

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

- 1. Select the electrical devices you plan on running at the same time.
- 2. Total the running watts of these items.
 This is the amount of power you need to keep your items running.
- 3. Identify the highest starting wattage of all devices identified in step 1. Add this

number to the number calculated in step 2. Surge wattage is the extra burst of power needed to start some electric driven equipment. Following the steps listed under "Power Management" will guarantee that only one device will be starting at a time.

Power Management

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

Volts x Amps = Watts

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

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

PNOTE

Never exceed the generator capacity when adding loads.

Install the Spark Arrester

Insert the spark arrester screen into the muffler outlet. Secure the spark arrester by placing the cover plate over the end of the screen, with the lettering facing outward. Secure the cover plate with the two screws and lock washers provided with the spark arrester kit.

A CAUTION

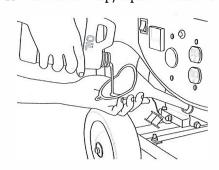
Failure to install the spark arrester may result in an increased risk of fire..

Add Engine Oil

A CAUTION

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

- 1. Place the generator on a flat, level surface.
- 2. Remove oil fill cap/dipstick to add oil.



- 3. Add 1.16 qt (1.1 L) of oil and replace oil fill cap/dipstick. See "Specifications" for oil recommendations based on operating conditions.
- 4. Check engine oil level daily and add as needed.

CAUTION

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

PNOTE

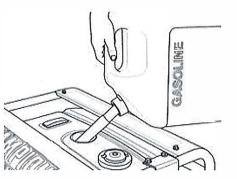
Check oil often during the break-in period. Refer to the Maintenance section for recommended service intervals.

PNOTE

The generator rotor has a sealed, pre-lubricated ball bearing that requires no additional lubrication for the life of the bearing.

Add Fuel

- 1. Use clean, fresh, regular unleaded fuel with a minimum octane rating of 85.
- 2. DO NOT mix oil with fuel.
- 3. Clean the area around the fuel cap.
- 4. Remove the fuel cap
- Slowly add fuel to the tank. DO NOT overfill. Allow approximately ¼ inch of space for fuel expansion.



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

A CAUTION

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

Do not mix oil and gasoline.

Fill tank to approximately 1/4" below the top of the tank to allow for fuel expansion.

DO NOT fill fuel tank indoors.

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

DO NOT overfill the fuel tank.

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

Grounding

8

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

⚠ WARNING

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

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

Operation

Generator Location

Please consult your local authority. In some areas, generators must be registered with the local utility.

Generators used at construction sites may be subject to additional rules and regulations. This generator must have at least five feet of clearance from combustible material. Leave at least three feet of clearance on all sides of the generator to allow for adequate cooling, maintenance and servicing.

Place the generator in a well-ventilated area. DO NOT place the generator near vents or intakes where exhaust fumes could be drawn into occupied or confined spaces. Carefully consider wind and air currents when positioning generator.

Surge Protection

CAUTION

Voltage fluctuation may impair the proper functioning of sensitive electronic equipment.

Electronic devices, including computers and many programmable appliances use components that are designed to operate within a narrow voltage range and may be affected by momentary voltage fluctuations. While there is no way to prevent voltage fluctuations, you can take steps to protect sensitive electronic equipment.

- Install UL1449, CSA-listed, plug-in surge suppressors on the outlets feeding your sensitive equipment.
 Surge suppressors come in single- or multi-outlet styles. They're designed to protect against virtually all shortduration voltage fluctuations.
- 2. Obtain an Uninterruptible Power
 Supply (UPS) device.
 Most UPS devices come with a
 rechargeable battery between the
 electronic equipment and power supply
 source. The device buffers the voltage
 and protects against virtually all shortduration voltage fluctuations.

Starting the Engine

- 1. Make certain the generator is on a flat, level surface.
- 2. Disconnect all electrical loads from the generator. Never start or stop the generator with electrical devices plugged in or turned on.
- 3. Turn the fuel valve to the "On" position.
- 4. Move the choke lever to the "Choke" position.
- 5. ELECTRIC START: Press the switch to the "START" position. Release as the engine begins to roll over.
- 6. RECOIL START: Pull the starter cord slowly until resistance is felt and then pull rapidly.
- 7. As engine warms up, move the choke lever to "Run".

PNOTE

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

Connecting Electrical Loads

- 1. Let the engine stabilize and warm up for a few minutes after starting
- 2. Plug in and turn on the desired 220 Volt AC single phase, 50 Hz electrical loads.

DO NOT connect 3-phase loads to the generator.

DO NOT connect 60 Hz loads to the generator.

DO NOT overload the generator.