ToolShed TSGI9E Inverter Generator Instruction Manual

Contents

ToolShed TSGI9E Inverter Generator

Product Information

- **Specifications**
  - **Noise Rating:** 97 dBA
  - **Starting Watts:** 8200W
  - **Running Watts:** 7500W
  - **AC Load:** 230 Volts
  - **Frequency:** 50 Hz
  - **Fuel Capacity:** 33 Litres
  - **Net Weight:** 80 KGs
  - **Dimensions (LxWxH):** 690 x 565 x 580 mm
  - **Engine Model:** YF192FD
  - **Engine Displacement:** 459 cc/rev
  - **Engine Type:** 4-Stroke OHV
  - **Engine Start Type:** Remote
- **Product Identification**
  - Fuel Cap
  - Fuel Tank
  - Recoil Starter
  - Power Panel
  - Choke
  - Durable Steel Frame
  - Folding Handle
- **Wheel Kit:**
  - 25.4cm (10) Wheel x2
  - Pin Roll (For Wheel) x2

    - R Shaped Pin x2
    - Support Leg w/ Vibration Mounts x1
    - Flange bolt M8x16 (For Leg) x2
    - Flange Lock Nut M8 x2
- **Other:**
    - Oil Funnel x1
    - Spark Plug Socket x1
    - Cap Screw M5x10 (For Battery Terminal) x2
    - Flange Nut x2
    - Plug x2
    - Oil x1
    - Remote x1
    - Automotive Style Battery Charge Cables x1
- **Safety Guidelines**
    - **WARNING:** Read all safety warnings and instructions. Failure to follow instructions and warnings could lead to serious injury, electric shock, or fire.
- **Work Area Safety**
    - Ensure the work area is well-lit and clean. Lack of visibility and clutter greatly increase the risk of accidents when using tools.
- **Operating Conditions**
    - Do not operate power tools or machinery under the influence of any substances like alcohol or drugs, including prescription medications.
    - Lack of focus could lead to injury or accidents while operating these power tools.
- **Hazardous Materials**
    - Avoid using power tools or machinery near flammable liquids, flammable gases, or anything that creates an explosive atmosphere.
    - Sparks from power tools and machinery can lead to ignition and fire hazards in such environments.
- **Personal Protective Equipment (PPE)**
    - Always use appropriate personal protective equipment such as safety glasses, gloves, and hearing protection when operating a power tool or machine.
    - This can help prevent injuries from flying debris, loud noises, and other potential hazards.
- **Dust Extraction**
    - If available, use dust extraction attachments and wear dust masks to protect yourself from dust particles.
    - Keeping your work area clear of hazards can help prevent accidents and ensure a safe working environment.

Product Usage Instructions

- **Assembly**
    - Attach the wheels to the wheel kit using the provided pin rolls and R-shaped pins.
    - Install the support leg with vibration mounts using the flange bolts and flange lock nuts.
- **Operation**
    - Check the fuel level and ensure there is enough fuel in the tank.
    - Turn the fuel cap counterclockwise to open it and fill the tank with the appropriate fuel.

    - Turn the fuel cap clockwise to close it securely.
    - Make sure the choke is in the correct position for starting (refer to the manual for specific instructions).
    - Connect the remote start and automotive-style battery charge cables if necessary.
    - Turn on the power panel and follow the instructions for starting the engine using the remote start or recoil starter.
    - Once the engine is running, adjust the choke as needed and allow it to warm up.
    - Connect your AC load to the generator's power outlets.
    - Monitor the generator's performance and adjust settings as necessary.
- **Maintenance**
    - Regularly check and clean the air filter to ensure optimal performance.
    - Change the oil according to the recommended intervals specified in the manual.
    - Inspect and tighten any loose bolts or connections.
    - Keep the generator clean and free from debris.
- **Storage**
    - Turn off the generator and disconnect any connected loads.
    - Allow the generator to cool down before storing.
    - Store the generator in a dry and well-ventilated area.
    - Cover the generator to protect it from dust and debris.
- **Troubleshooting**
    - If you encounter any issues with the generator, refer to the troubleshooting section in the manual or contact the manufacturer for assistance.

FAQs

- **Q: Where can I find replacement parts for the ToolShed Inverter Generator 8200W Electric/Remote Start?**
    - **A:** You can contact The ToolShed through their website or by calling 0800 948 665 for any servicing or replacement parts.
- **Q: Is the ToolShed Inverter Generator 8200W covered under warranty?**
    - **A:** This product may be covered under The ToolShed warranty. For more information, refer to the Terms & Conditions on their website.

PRODUCT DETAILS

- **Product Model** ToolShed Inverter Generator 8200W Electric/Remote Start
- **Product Code** TSGI9E
- **DISTRIBUTED BY:**
    - **Note:** This manual is for your reference only. Due to the continuous improvement of the ToolShed products, changes may be made at any time without obligation or notice.
- **Warranty:**
    - This product may be covered under The ToolShed warranty. For more information, see our Terms & Conditions at www.thetoolshed.co.nz.

SPECIFICATIONS

- **Generator Specifications**
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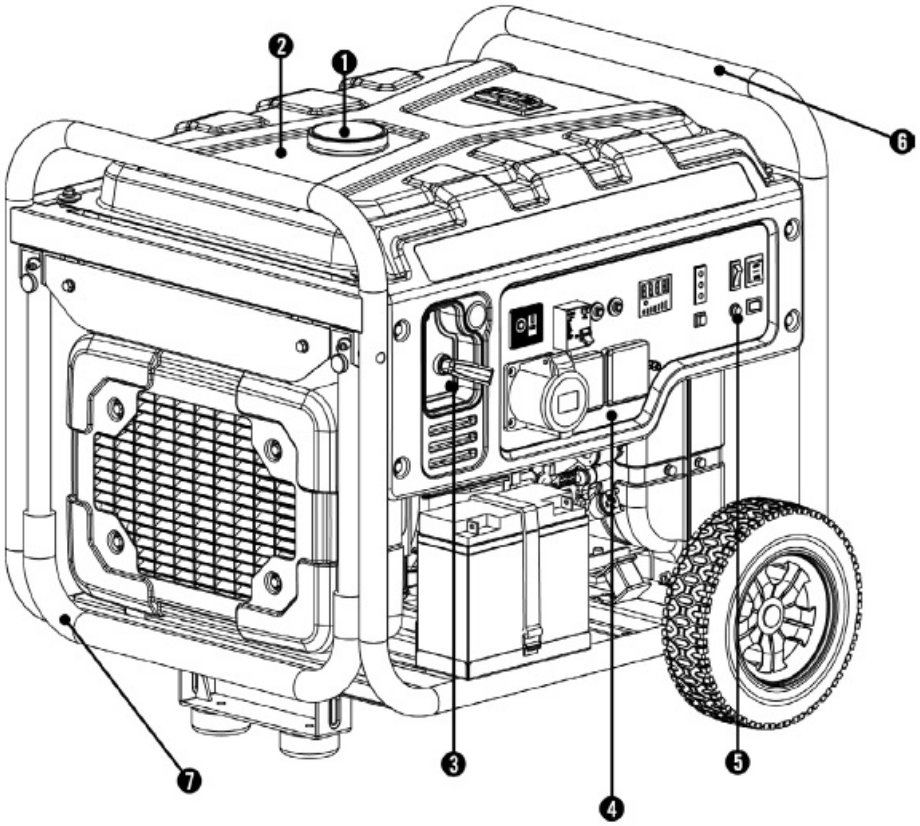
  - **Start Type** Remote

PRODUCT IDENTIFICATION

1. Fuel Cap
2. Fuel Tank
3. Recoil Starter
4. Power Panel
5. Choke
6. Durable Steel Frame
7. Folding Handle



Wheel Kit

- 25.4cm (10”) Wheel x2
- Pin Roll (For Wheel) x2
- “R” Shaped Pin x2
- Support Leg w/ Vibration Mounts x1
- Flange bolt M8x16 (For Leg) x2
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Other

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- Spark Plug Socket x1
- Cap Screw M5x10 (For Battery
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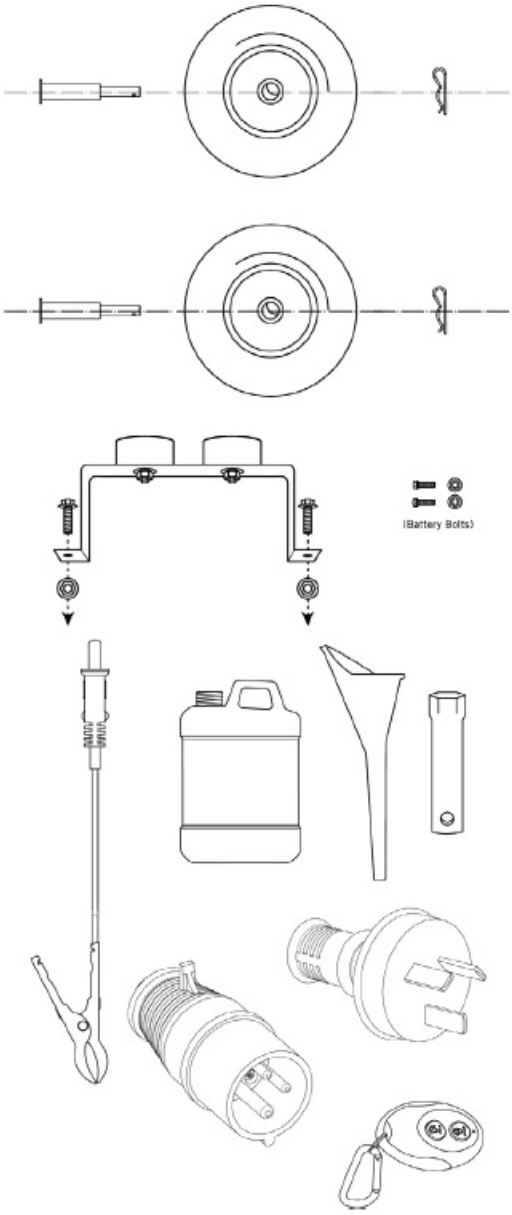
- Plug x2
- Oil x1
- Remote x1
- Automotive Style Battery Charge
- Cables x1



SAFETY GUIDELINES

WARNING

- READ ALL SAFETY WARNINGS & INSTRUCTIONS. Failure to follow instructions and warnings could lead to serious injury, electric shock, or fire.

Work Area Safety

- Ensure that your work area is kept well lit and clean. Lack of visibility and clutter greatly increase the risk of accidents when using tools.
- Keep bystanders, pets, and children clear when operating a power tool or machine. They can cause distraction or risk injury to themselves.
- Ensure you are not operating the power tool or machinery in the presence of dust, liquids, flammable gases, or anything that creates an explosive atmosphere. Power tools and machinery can create sparks which can lead to ignition and fire hazards in working environments.

Personal Safety

- Always wear personal protective equipment (PPE). Eye protection, ear protection, dust masks, and other protective equipment will help to reduce the risk of personal injury or long-term illnesses.
- Dress appropriately. DO NOT wear loose clothing that can get caught in moving parts. Keep hair, loose clothing, jewellery, and anything else that could be of risk, away from moving parts in the machine, or they could be caught therein.
- Always remain alert and DO NOT operate power tools or machinery under the influence of any substances like alcohol or drugs, including prescription medications. Lack of focus could lead to injury or accident while operating these power tools and machinery.
- Always ensure proper footing and balance. Overreaching can lead to slipping and falling which can result in injury or accident.
- Ensure the power switch is in the OFF position before connecting any battery, or power source to the power tool or machinery. This can cause injury as tools and machinery can suddenly fire incidentally when live, causing accidents.
- Use all provided dust collection and extraction attachments, if included. This equipment, along with the use of PPE dust masks, can help keep you safe from dust, and keep your work site clear from hazards.
- Ensure loose parts such as wrenches or adjusting keys are removed before starting the power tool or machinery.

DANGER

- Rotating parts can entangle hands, feet, hair, clothing, and/or accessories.
- This may result in amputation, severe injury, or fatalities.

Electrical Safety

- DO NOT use the power tool or machinery in rainy conditions or wet areas where the power tool or machinery could get wet. Water in the power tool or machinery can lead to electric shock.
- Only use the power tool or machinery when the plug correctly matches the power outlet. Modifying plugs greatly increases the risk of electric shock.
- Keep the power cord away from anything that could damage it such as sharp edges, moving parts or heat. A damaged power cord increases the risk of electric shock.
- Only operate outdoors with the use of an outdoor extension lead. Not all extension leads are suited to outdoor use and using one which is not can greatly increase the risk of electric shock.
- Avoid body contact with grounded or earthed surfaces. Surfaces such as radiators, ranges, pipes, and refrigerators can increase the risk of electric shock due to your body being earthed or grounded.

WARNING Electric shock can cause serious injury or, in some cases be fatal.

Power Tool & Machinery Use & Care

- Use the correct tool for the job. Forcing a tool to do a job it was not designed for increases the risk of accident or injury.

- Disconnect tools and machinery from power, or remove batteries before making any changes or adjustments, or before storing the tools and machinery.
- This reduces or removes the risk of a power connection that causes the tool or machinery to accidentally fire, which can help prevent injury or accident.
- Check the general condition of the power tool for damage or any problems that could affect the way the tool or machine works. An unrepaired tool or machine can lead to accident and injury. Only have your tool or machine repaired with genuine parts from The ToolShed.
- Only use the power tool and machinery with genuine parts or accessories that are designed to be used with the power tool and machinery. Failure to do so could result in an accident injury or damage to your tool or machinery.
- Store your tool or machinery out of reach of children, and away from untrained personnel when not in use. Use by somebody untrained, or a child, could lead to an accident or serious injury.

Fuel & Engine Safety

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

WARNING

- Operate the machinery outdoors only in a well-ventilated area and point the exhaust away from you.
- DO NOT operate the machine inside any building, including garages, basements, crawlspaces and sheds, enclosures, or compartments, including the storage compartment of a recreational vehicle.
- DO NOT allow exhaust fumes to enter a confined area through windows, doors, vents, or other openings.
- 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.

WARNING

- Using an engine indoors CAN KILL YOU IN MINUTES.
- Engine exhaust contains Carbon Monoxide. This is a poison you cannot see or smell.

Gasoline & Vapours

- **DANGER**
  - GASOLINE AND GASOLINE VAPOURS ARE HIGHLY FLAMMABLE AND EXPLOSIVE.
  - Fire or explosion can cause severe burns or death.
  - Gasoline is highly flammable and explosive.
  - Gasoline can cause a fire or explosion if ignited.
  - Gasoline is a liquid fuel, but its vapours can ignite.
  - Gasoline is a skin irritant and needs to be cleaned up immediately if spilled on skin or clothes.
  - Gasoline has a distinctive odour; this will help detect potential leaks quickly.
  - In any petroleum gas fire, you should not attempt to extinguish the flames unless it can be done in such a

way by turning the fuel supply valve OFF.
    - This is because if a fire is extinguished and a supply of fuel is not turned OFF, then an explosion hazard could be created.
    - Never fill the gas tank as gasoline needs room to expand if the temperature rises.
    - Never use gasoline that is stale, contaminated, or mixed. Avoid getting dirt or water in the fuel tank.
- **When Adding or Removing Gasoline**
    - DO NOT light or smoke cigarettes.
    - Turn the engine off and let it cool for at least two minutes before removing the gasoline cap. Loosen the cap slowly to relieve pressure in the tank.
    - Only fill or drain gasoline outdoors in a well-ventilated area.
    - DO NOT pump gasoline directly into the engine at the gas station. Use an approved container to transfer fuel to the engine.
    - DO NOT overfill the gasoline tank.
    - Always keep gasoline away from sparks, open flames, pilot lights, heat, and other sources of ignition.
    - DO NOT refill the fuel tank while the engine is running or while the engine is still hot.
    - When spills of fuel or oil occur, they must be cleaned up immediately. Dispose of fluids and cleaning materials as per local regulations.
- **When Starting the Engine**
    - DO NOT attempt to start a damaged engine.
    - Make certain that the gasoline cap, air filter, spark plug, fuel lines, and exhaust system are properly in place.
    - Allow spilled gasoline to evaporate fully before attempting to start the engine.
    - Make certain that the water pump is resting firmly on level ground.
    - Spark from a removed spark plug wire can result in fire or electrical shock.

WARNING

- Running engines product heat. Severe burns can occur on contact.
- Combustible materials may catch on fire on contact.

Service

- Have your tools and machinery serviced at The ToolShed with ToolShed replacement parts.
- This will ensure that the safety of the power tool or machine is maintained.

WARNING

- The warnings and precautions discussed in this manual cannot cover all possible conditions and situations that may occur.
- It must be understood by the operator that common sense and caution are factors that cannot be built into this product, but must be supplied by the operator.

Always Use Common Sense

- It is not possible to cover every conceivable situation you can face.
- Always exercise care and use your common sense.
- If you get into a situation where you feel unsafe, stop and seek expert advice.
- Contact your dealer, service agent, or an experienced user. Do not attempt any task you feel unsure of!

CAUTION

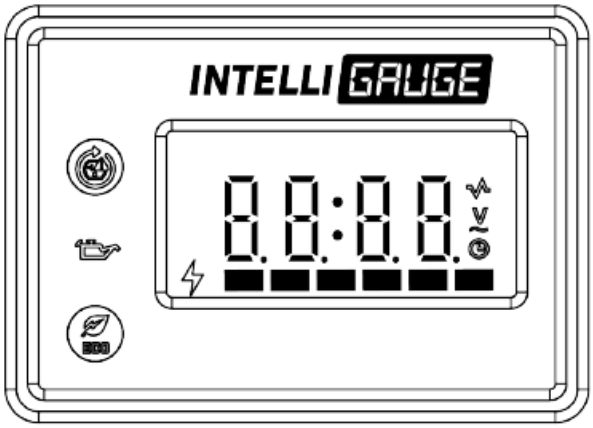
- Exceeding the generator’s running capacity can damage the generator or any electrical devices connected to it.
- Improper treatment or use of this generator can damage it, shorten its life, and void your warranty.

Generator Specific Safety

- Rapid retraction of the starter cord will pull your hand and arm towards the engine faster than you can let go.
- Unintentional start-up can result in entanglement, traumatic amputation or laceration.
- Broken bones, fractures, bruises or sprains could result.
- When starting the engine, pull the starter cord slowly until you feel sufficient resistance, and then pull rapidly to avoid kickback.
- DO NOT start or stop the engine with electrical devices plugged in.
- DO NOT overload the generator.
- Start the generator, and give the engine time to stabilise before connecting any electrical loads to the generator.
- Connect all electrical equipment in the OFF position, and then turn them on for operation.
- Turn the electrical equipment off before stopping the generator.
- DO NOT tamper with the governed speed.
- DO NOT modify the generator in any way.
- Use the generator only for intended uses.
- Operate only on level surfaces.
- DO NOT expose the 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 smoke or emits flames,
- Equipment vibrates excessively.

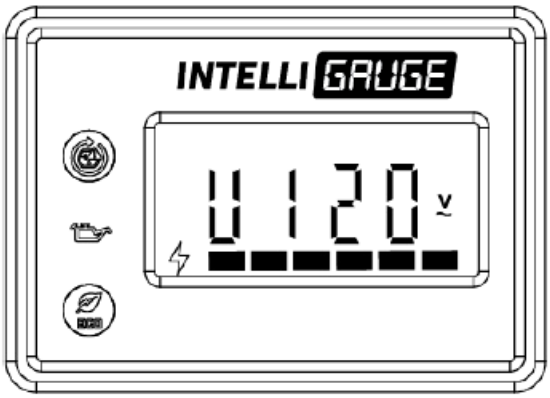
CONTROLS

Intelligence

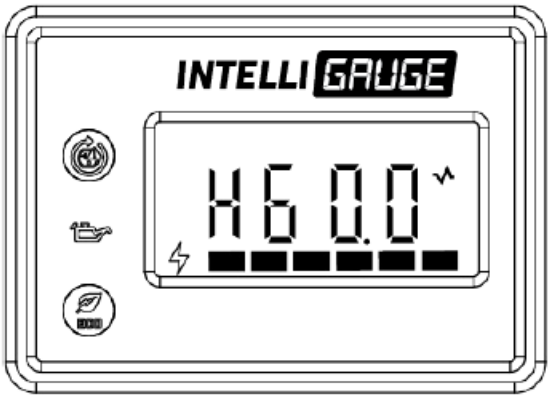


- Four-mode digital meter for displaying voltage, frequency (hertz), run time, and total run time.

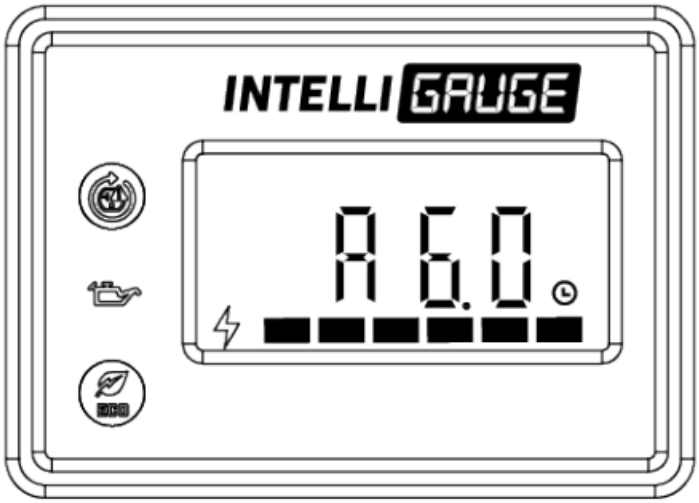
Output Voltage of the Generator



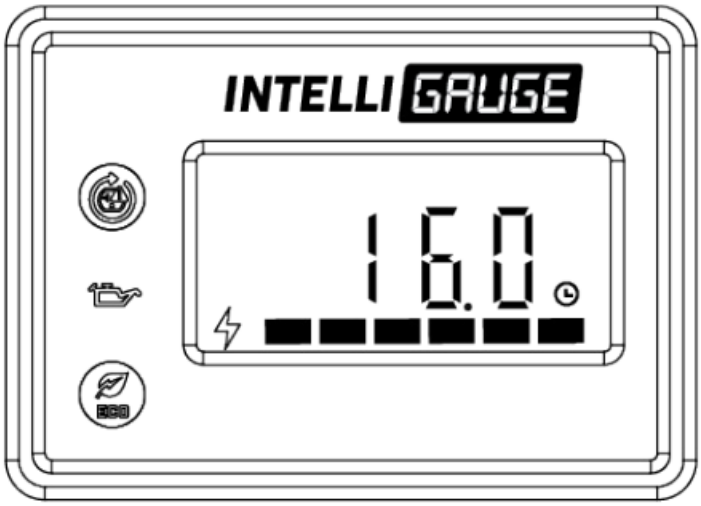
Output Frequency in Hertz.



Run Time of the Generator for the Current Session



Total Run Time of the Generator Since First Operation



Continually Displays Generator Output

- The output power will be displayed at all times on the bottom.
- The output power is shown based on the electrical load connected to the generator.
- As the output increases, more white LED lights are shown until the generator is overloaded at which time all LED lights and a lightning logo will be flashing one time per second.

ASSEMBLY

Unboxing

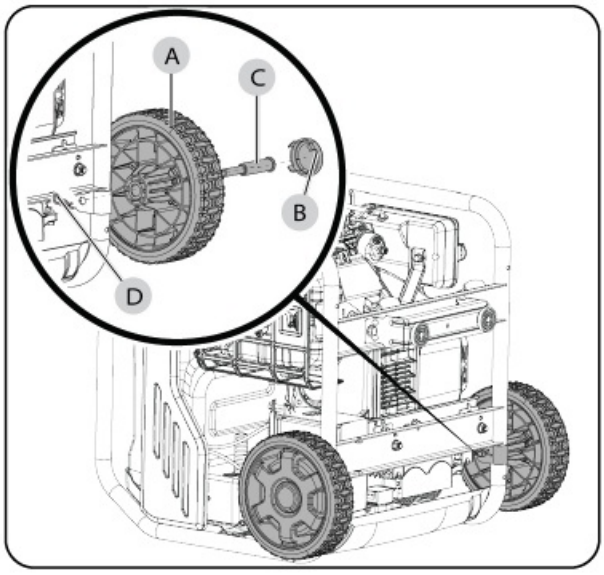
- Set the shipping carton on a solid, flat surface.
- Remove everything from the carton except the generator.
- Using the frame of the unit, carefully remove the generator from the box, (Two people lifting is recommended).

Installing the Wheel Kit

- Before adding fuel and oil, carefully tip the generator onto the control panel side.
- Remove wheel hub cap (B) from the wheel by inserting a small screwdriver into the slot provided and pry

upward.

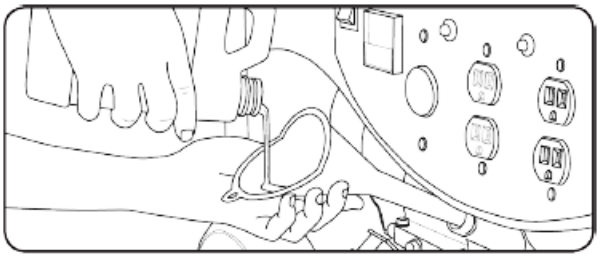
- Slide the roll pin (C) through the wheel (A) from the outside.
- Slide the roll pin through the mount point on the frame.
- Insert R-clip (D) into the hole at the end of the roll pin.
- Re-install the hub cap on the wheel.
- Repeat to attach the second wheel.



Adding Engine Oil

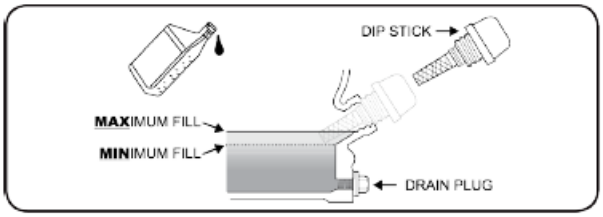
CAUTION: DO NOT attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil. Damage to the generator as a result of failure to follow these instructions will void your warranty.

- Place the generator on a flat, level surface.
- Remove the oil fill cap/dipstick to add oil
- Add up to 1.1 Litres of oil (not included).
- Replace the oil fill cap/dipstick. DO NOT OVERFILL.
- Check engine oil level daily and add as needed.



NOTE

- The generator rotor has a sealed, pre-lubricated ball bearing that requires no additional lubrication for the life of the bearing.
- The recommended oil type is 1OW-30 automotive oil.
- Once oil has been added, a visual check should show oil about 1-2 threads from running out of the fill hole.
- If using the dipstick to check the oil level, DO NOT screw in the dipstick while checking.

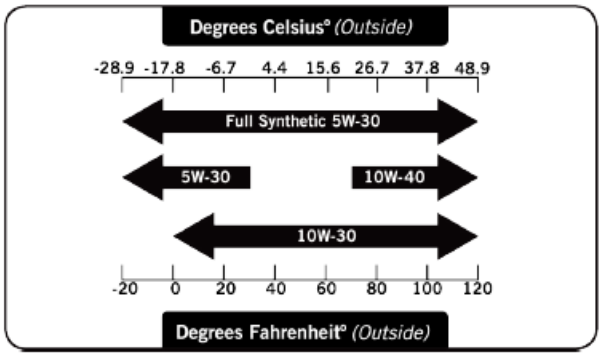


CAUTION

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

NOTE

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



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

NOTE

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

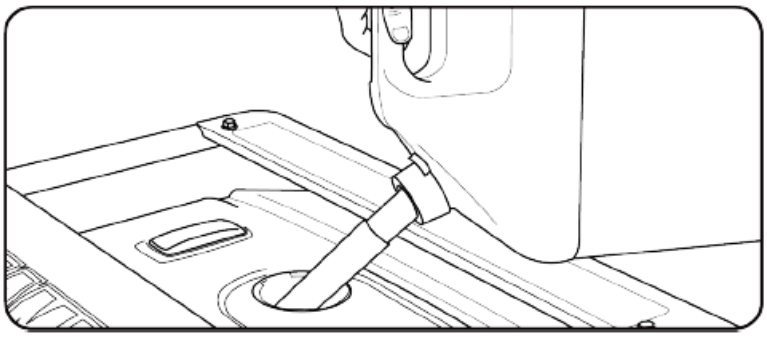
WARNING

- Pouring fuel too fast through the fuel screen may result in a blowback of fuel at the operator while filling.

Adding Fuel

- Use clean, fresh, regular unleaded fuel with a minimum octane rating of 85 and an ethanol content of less than 10% by volume.
- DO NOT mix oil with fuel.
- Clean the area around the fuel cap.

- Remove the fuel cap.
- Slowly add fuel to the tank. DO NOT OVERFILL.
- Fuel can expand after filling. A minimum of 6.4 mm (1/4”) of space left in the tank is required for fuel expansion. Fuel can be forced out of the tank as a result of expansion if it is overfilled, and can affect the stable running condition of the product. When filling the tank, it is recommended to leave enough space for the fuel to expand.
- Screw on the fuel cap and wipe away any spilled fuel.



- Our engines work best with 10% or less ethanol blended fuels. When using blended fuels there are some issues worth noting:
- Ethanol-gasoline blends can absorb more water than gasoline alone.
- These blends can eventually separate, leaving water or a watery goo in the tank, fuel valve and carburettor.
- With gravity-fed fuel supplies, this compromised fuel can be drawn into the carburettor and cause damage to the engine and/or create potential hazards.
- There are only a few suppliers of fuel stabilisers that are formulated to work with ethanol blend fuels.
- Any damages or hazards caused by using improper fuel, improperly stored fuel, and/ or improperly formulated stabilisers, are not covered by the manufactures warranty.
- It is advisable to always shut off the fuel supply, run the engine to fuel starvation and drain the tank when the equipment is not in use for more than 30 days.

Grounding

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

WARNING

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

OPERATION

Generator Location

- NEVER operate the generator inside any building; including garages, basements, crawlspaces and sheds, enclosures or compartments, including the generator compartment of a recreational vehicle.

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

Electric & Recoil Start

- Ensure the generator is on a flat, level surface.
- Disconnect all electrical loads from the generator.
- Never start or stop the generator with electrical devices plugged in or turned on.
- Turn the fuel valve to the “ON” position.

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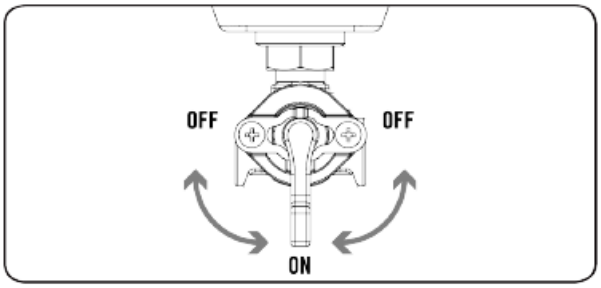
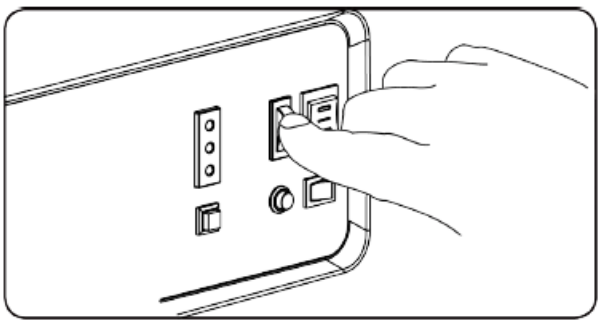
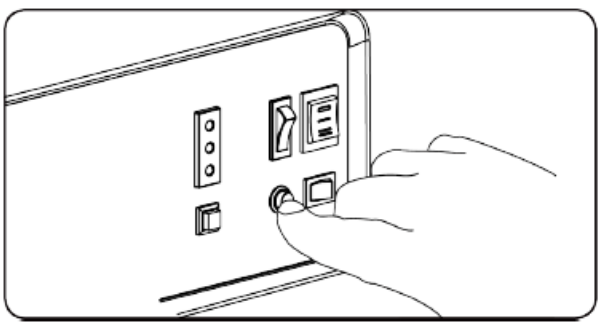


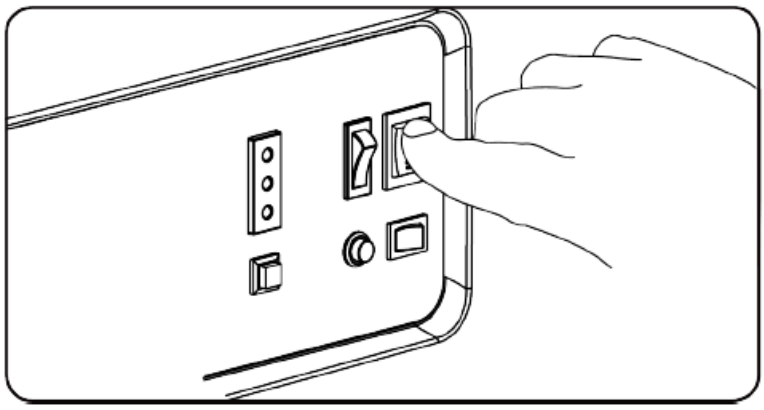
- Turn the battery switch to the “ON” position.



- Push the Choke button in to the “Choke” position.



- Turn the ignition switch to the “On” position.



- **ELECTRIC START:** Press and hold the ignition switch to the “START” position. Release as the engine begins to roll over. If the engine fails to start within five seconds, release the switch and wait at least ten seconds before attempting to start the engine again.
- **RECOIL START:** Pull the starter cord slowly until resistance is felt and then pull rapidly.
- As the engine warms up, push the choke button to the “Run” position.

NOTE

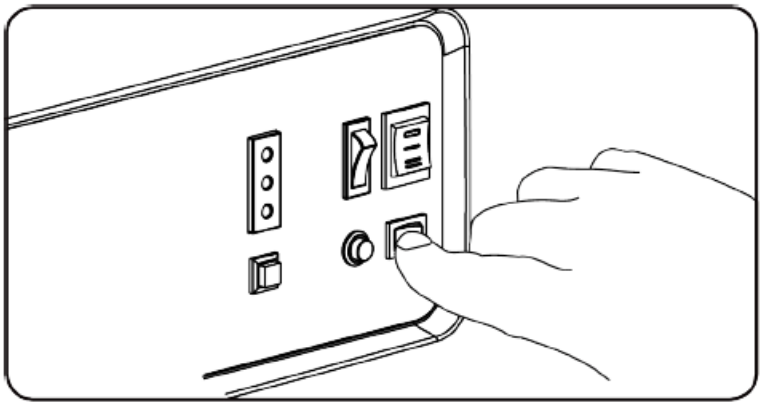
- Keep the choke button in the “Choke” position for only 1 pull of the recoil starter.
- After the first pull, push the choke button to the “Run” position for up to the next 3 pulls of the recoil starter.
- Too much choke leads to spark plug fouling/engine flooding due to the lack of incoming air. This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

NOTE

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

Economy Control Switch

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



WARNING

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

Connecting Electrical Loads

- Let the engine stabilize and warm up for a few minutes after starting.
- Plug in and turn on the desired 230 Volt AC single phase, 50 Hz electrical loads.
- DO NOT connect 3-phase loads to the generator.
- DO NOT connect 60 Hz loads to the generator.
- DO NOT overload the generator.

NOTE

- 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’s power lines.
- You are responsible for ensuring that your generator’s electricity does not feed back into the electric utility power lines.
- If the generator will be connected to a building electrical system, consult your local utility company or a qualified electrician.
- Connections must isolate generator power from utility power and must comply with all applicable laws and codes.

12V DC Outlet

- The 12V DC outlet can be used with the supplied charge cable, also a USB charger and other commercially available 12V DC automotive-style plugs.
- The DC output is unregulated and can damage some products. Confirm your accessory input voltage range is at least 12–24V DC. When using the DC outlet turn the Economy mode switch to the “OFF” position.
- Do Not operate a device while it is plugged into the 12V DC Outlet.

WARNING

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

Stopping the Engine

- Turn off and unplug all electrical loads. Never start or stop the generator with electrical devices plugged in or turned on.
- Let the generator run at no load for several minutes to stabilize the internal temperatures of the engine and generator.
- Turn the fuel valve to the “OFF” position.
- Let the engine run until fuel starvation has stopped the engine. This usually takes a few minutes.
- Turn the engine switch to the “OFF” position.
- **Important:** Always ensure that the fuel valve and the engine switch are in the “OFF” position when the engine is not in use.

Do Not Overload Generator

- **Capacity:**
  - Follow these simple steps to calculate the running and starting watts necessary for your purposes.
  - Select the electrical devices you plan on running at the same time.
  - Total the running watts of these items. This is the amount of power you need to keep your items running.
  - 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.
  - Ensure 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:
    - Start the generator with no electrical load attached.
    - Allow the engine to run for several minutes to stabilize.
    - Plug in and turn on the first item. It is best to attach the item with the largest load first.
    - Allow the engine to stabilise.
    - Plug in and turn on the next item.
    - Allow the engine to stabilise.
    - Repeat the last two steps for each additional item.

Overload Operation

- The overload indicator light will turn on when the rated load is exceeded. When the maximum load is reached,

the LED will blink and cut power to the receptacles.
- To recover the power, shut down the generator, wait until the light turns off and restart the generator.

Operation at High Altitude

- The density of air at high altitudes is lower than at sea level.
- Engine power is reduced as the air mass and air-fuel ratio decrease.
- Engine power and generator output will be reduced by approximately 3.5% for every 1000 feet of elevation above sea level.
- This is a natural trend and cannot be changed by adjusting the engine.
- At high altitudes increased exhaust emissions can also result due to the increased enrichment of the air-fuel ratio.
- Other high-altitude issues can include hard starting, increased fuel consumption and spark plug fouling.

WARNING

- For operation at lower elevations, the standard main jet must be used.
- Operating the engine with the wrong engine configuration at a given altitude may increase its emissions and decrease fuel efficiency and performance.

MAINTENANCE

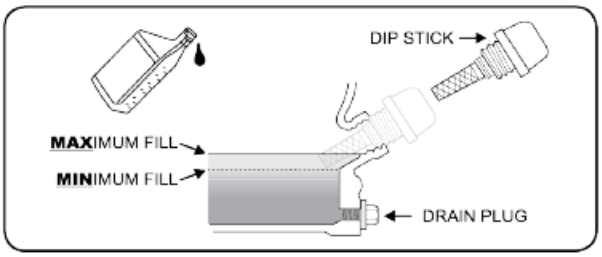
- Before cleaning or performing any maintenance, you must ensure the tool is switched off and disconnected from the power supply.
- Compressed air is the most effective way to clean this tool. Always wear PPE safety goggles when cleaning tools with compressed air.
- Check the carbon brushes of the machine in the event of excessive sparking.
- Ventilation openings and switch levers must be kept clean. DO NOT attempt to clean by inserting pointed objects through openings.
- Do not use chemicals when cleaning this tool.
- To prevent accidental starting, remove and ground the spark plug wire before performing any service.
- If you discover any damaged or broken parts, consult your nearest ToolShed for replacements and advice.

Oil

- Change the oil when the engine is warm. Refer to the oil specification to select the proper grade of oil for your operating environment.
- Remove the oil drain plug with a 12 mm socket and extension (not included).
- Allow the oil to drain completely.
- Replace the drain plug.
- Remove the oil fill cap/dipstick to add oil.
- Add up to 1.1 Litres of oil and replace the oil fill cap/dipstick. DO NOT OVERFILL.
- Dispose of used oil at an approved waste management facility.

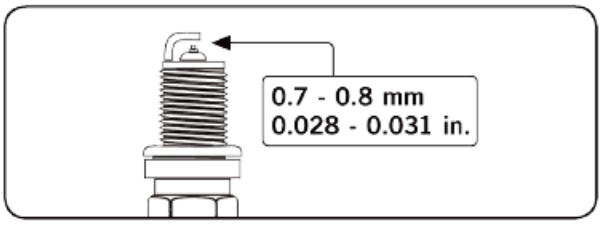
WARNING

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



Spark Plugs

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



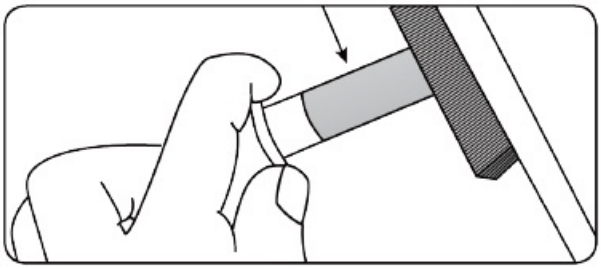
- Carefully thread the plug into the engine.
- Use a spark plug socket tool, a 21mm or a 13/16 in. socket (not included) to firmly install the plug.
- Attach the spark plug wire to the plug.

Air Filter

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

Spark Arrester

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



WARNING

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

Adjustments

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

Maintenance Schedule

- Follow the service intervals indicated in the following maintenance schedule.
- Service your generator more frequently when operating in adverse conditions.

Every 8 Hours, or Daily	
	Check Oil Level
	Clean around the Air intake & Muffler
First 5 Hours	
	Change Oil
Every 50 Hours, or Every Season	
	Clean Air Filter
	Change oil if operating under heavy load or in hot environments
Every 100 Hours, or Every Season	
	Change Oil
	Clean/Adjust Spark Plug
	Check/Adjust Valve Clearance
	Clean Spark Arrester
	Clean Fuel Tank and Filter
Every 250 Hours	
	Clean Combustion Chamber
Every 3 Years	
	Replace Fuel Line

STORAGE

Generator Maintenance

- Ensure 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 vapours.

Cleaning

- Use a damp cloth to clean the 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.
- DO NOT spray the engine with water.

Short-Term Storage (< 1 year)

- Gasoline in the fuel tank has a maximum shelf life of up to 1 year with the addition of properly formulated fuel stabilisers and if stored in a cool, dry place.

- Gasoline in the carburettor, however, WILL gum up and clog the carburettor if it isn't used or drained within 2 weeks.

WARNING

- Gasoline, gasoline vapours, and liquid petroleum gas are highly flammable and extremely explosive.
- Be sure all appliances are disconnected from the generator.
- Add a properly formulated fuel stabilizer to the tank (2-3 times the manufacturer's recom-mended amount).
- Run the generator for 10 minutes so the treated fuel cycles through the fuel system and carburettor.
- With the generator running, turn the fuel valve to the "OFF" position and let the generator run until fuel starvation has stopped the engine. This usually takes a few minutes.
- Turn the engine switch to the "OFF" position.
- Allow the generator to cool completely before continuing.
- **Optional:** to ensure fuel is completely drained from the carburettor, use the drain bolt on the carburettor to empty any excess gasoline into an appropriate container.
- Remove the spark plug cap and spark plug and pour about a tablespoon of oil into the cylinder.
- Pull the recoil slowly to crank the engine to distribute the oil and lubricate the cylinder.
- Reattach the spark plug and spark plug cap.
- Clean and store the generator in a cool, dry place out of direct sunlight.

Short Term Storage (> 1 year)

- For storage over 1 year, the fuel tank and carburettor must be completely drained of gasoline.
- Ensure all appliances are disconnected from the generator.
- Add a properly formulated fuel stabiliser to the fuel tank.
- Run the generator for 10 minutes so the treated fuel cycles through the fuel system and carburettor.

Run Dry Option:

- **a.** Let the generator run to fuel complete starvation.
- **b.** Turn the engine switch to the "OFF" position.
- **c.** Allow the generator to cool completely.

Drain Fuel Option:

- **a.** Turn the engine switch to the "OFF" position.
- **b.** Allow the generator to cool completely.
- **c.** Use the drain bolt on the carburettor to empty gasoline from the fuel tank and carburettor into an appropriate container.
- **d.** Replace and tighten the carburettor drain bolt.
    - Turn the fuel valve to the "OFF" position.
    - Remove the spark plug and pour about a tablespoon of oil into the cylinder. Crank the engine slowly to distribute the oil and lubricate the cylinder.
    - Reattach the spark plug and spark plug cap.

- Clean and Store the generator in a cool, dry place out of direct sunlight.

Remove From Storage

- If the generator has been improperly stored for a long period with gasoline in the fuel tank and/or carburettor, all fuel must be drained and the carburettor must be thoroughly cleaned. This process involves technically advanced tasks.
- If the fuel tank and carburettor were properly emptied of all fuel before the generator was stored, follow the below steps when removing from storage.
- Add fuel to the generator according to the Add Fuel Section.
- With the engine switch in the “OFF” position, turn the fuel valve to the “ON” position. After 5 minutes check the carburettor and air filter areas for any leaking gasoline.
- If found, the carburettor will need to be disassembled and cleaned or replaced. If no fuel leaks are found, turn the fuel valve to the “OFF” posi-tion.
- Check the oil level and add clean, fresh oil if needed.
- Check and clear the air filter of any obstructions such as bugs or cobwebs. If necessary, clean according to the Air Filter section.
- Start the generator according to the Starting the Engine Section.

WARNING

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

TROUBLESHOOTING

FAULT	POSSIBLE CAUSE	SUGGESTED SOLUTION
Generator Will Not Start	No fuel	Add fuel.
	Faulty spark plug	Replace spark plug.
	Unit loaded during start up	Remove load from unit.
Generator Will Not Start; Generator Starts But Runs Roughly	Low oil level	Fill crankcase to the proper level.
		Place generator on a flat, level surface.
	Choke in the wrong position	Adjust choke.
	Spark plug wire loose	Attach wire to spark plug.
Generator Shuts Down During Operation	Out of fuel	Fill fuel tank.
	Low oil level	Fill crankcase to the proper level. Place generator on a flat, level surface.
Generator Cannot Supply Enough Power Or Overheating	Generator is overloaded	Review load and adjust. See "Power Management".
	Insufficient ventilation	Check for air restriction. Move to a well ventilated area.
No AC Output	Cable not properly connected	Check all connections.
	Connected device is defective	Replace defective device.
	Circuit breaker is open	Reset circuit breaker.
	Loose wiring	Inspect and tighten wiring connections.
	Other	Contact your nearest ToolShed.
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.

Thank You

- For the purchase of this ToolShed product. We try our hardest to supply customers like you with the best quality products available, at the best price possible.
- We can't wait to continue working together in the future.
- Please contact us for any servicing, replacement parts, or questions you might have about your ToolShed product by visiting our website or calling: 0800 948 665.

WWW.THETOOLSHED.CO.NZ.

Documents / Resources

	**ToolShed TSGI9E Inverter Generator** [pdf] Instruction Manual TSGI9E Inverter Generator, TSGI9E, Inverter Generator, Generator

References

- The ToolShed - NZ | Power Tools | Hand Tools | Air Tools
- User Manual

Manuals+, Privacy Policy

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