



INVERTER GENERATOR



User Manual

[Revision 1.0]

THE BATTERY MAY HAVE SOME CHARGE ON ARRIVAL, IT IS IMPORTANT HOWEVER THAT THE BATTERY IS CHARGED PRIOR TO USE.

READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description, and packaging.

The product is NOT supplied with engine oil, although traces of oil from the manufacturing process may be present. It is essential to add adequate engine oil of the correct type to the engine before use. **Failure to add engine oil will void the product warranty.**

Safety

Safety messages are designed to alert you to possible dangers or hazards that could cause death, injury or equipment or property damage if not understood or followed. Safety messages have the following symbols:



You **WILL** be KILLED or SERIOUSLY INJURED if you do not follow instructions.

It is vital that you read and understand this user manual before using the product, including safety warnings, and any assembly and operating instructions. Keep the manual for future reference.

Safety precautions and recommendations detailed here must be fully understood and followed to reduce the risk of injury, fire, explosion, electrical hazard, and/or property damage.

Safety information presented here is generic in nature – some advice may not be applicable to every product. The term "equipment" refers to the product, be it electrical mains powered, battery powered or combustion engine powered.

- **Before Use** - If you are not familiar with the safe operation/handling of the equipment or are in any way unsure of any aspect of suitability or correct use for your application, you should complete training conducted by a person or organization qualified in safe use and operation of this equipment, including fuel/electrical handling and safety.
- Do NOT operate the equipment in flammable or explosive environments, such as in the presence of flammable liquids, gases, or dust. The equipment may create sparks or heat that may ignite flammable substances.
- Keep clear of moving parts.
- Equipment may be a potential source of electric shock or injury if misused.
- Do NOT operate the equipment if it is damaged, malfunctioning or is in an excessively worn state.
- Do NOT allow others to use the equipment unless they have read this manual and are adequately trained.
- Keep packaging away from children - risk of suffocation! Operators must use the equipment correctly. When using the equipment, consider conditions and pay due care to persons and property.

General Work Area Safety

- Work areas should be clean and well lit.
- Do not operate the equipment if bystanders, animals etc are within operating range of the equipment or the general work area.
- If devices are provided for connecting dust extraction / collection facilities, ensure these are connected and used properly. Dust collection can reduce dust-related hazards.



You **CAN** be KILLED or SERIOUSLY INJURED if you do not follow instructions.

General Personal Safety

- Wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect from eye and ear injury, poisoning, burns, cutting and crush injuries. Protective equipment such as safety goggles, respirators, non-slip safety footwear, hard hat, hearing protection etc should be used for appropriate equipment / conditions. Other people nearby should also wear appropriate personal protective equipment. Do not wear loose clothing or jewellery, which can be caught in moving parts. Keep hair and clothing away from the equipment.
- Stay alert and use common sense when operating the equipment. Do not over-reach. Always maintain secure footing and balance.
- Do not use the equipment if tired or under the influence of drugs, alcohol, or medication.
- This equipment is not intended for use by persons with reduced physical, sensory, or mental capabilities.

General Fuel Safety

- Petrol/fuel/gasoline is extremely flammable – keep clear of naked flames or other ignition sources.
- Do not spill fuel. If you spill fuel, wipe it off the equipment immediately – if fuel gets on your clothing, change clothing.
- Do NOT smoke near fuel or when refuelling.
- Always shut off the engine before refuelling.
- Do NOT refuel a hot engine.
- Open the fuel cap carefully to allow any pressure build-up in the tank to release slowly.
- Always refuel in well-ventilated areas.
- Always check for fuel leakage. If fuel leakage is found, do not start, or run the engine until all leaks are fixed.

General Carbon-Monoxide Safety

- Using a combustion engine indoors **CAN KILL IN MINUTES**. Engine exhaust contains carbon-monoxide – a poison you cannot smell or see.
- Use combustion engines OUTSIDE only, and far away from windows, doors, and vents.



You **CAN** be INJURED if you do not follow instructions or equipment damage may occur.

General Equipment Use and Care

- Keep packaging away from children and pets, potential risk of suffocation or choking.
- The equipment is designed for domestic use only.
- Handle the equipment safely and carefully.
- Before use, inspect the equipment for misalignment or binding of moving parts, loose components, damage, or any other condition that may affect its operation. If damaged, have the equipment repaired by an authorised service centre or technician before use.
- Prevent unintentional starting of the equipment - ensure equipment and power switches are in the OFF position before connecting or moving equipment. Do not carry equipment with hands or fingers touching any controls. Remove any tools or other items that are not a part of the equipment from it before starting or switching on.
- Do not force the equipment. Use the correct equipment for your application. Equipment will perform better and be safer when used within its design and usage parameters.
- Use the equipment and accessories etc. in accordance with these instructions, considering working conditions and the work to be performed. Using the equipment for operations different from those intended could result in hazardous situations.
- Always keep equipment components (engines, hoses, handles, controls, frames, housings, guards etc) and accessories (cutting tools, nozzles, bits etc) properly maintained. Keep the equipment clean and, where applicable, properly lubricated.
- Store the equipment out of reach of children or untrained persons. To avoid burns or fire hazards, let the equipment cool completely before transporting or storing. Never place or store the equipment near flammable materials, combustible gases, or liquids etc.
- The equipment is not weather-proof, and should not be stored in direct sunlight, at high ambient temperatures or locations that are damp or humid.
- Do not clean equipment with solvents, flammable liquids, or harsh abrasives.
- For specific equipment safety use and care, see Equipment Safety.

General Electrical Safety

- Inspect electrical equipment, extension cords, power bars, and electrical fittings for damage or wear before each use. Repair or replace damaged equipment immediately.
- Ensure all power sources conform to equipment voltage requirements and are disconnected before connecting or disconnecting equipment.
- When wiring electrically powered equipment, follow all electrical and safety codes.
- Always use a Residual Current Device (RCD) (GFCI) / Earth Leakage Circuit Breaker / Safety Switch when operating this item (electrical items only).
- High voltage / high current power lines may be present. Use extreme caution to avoid contact or interference with power lines. Electrical shock can be fatal.

General Electrical Safety

- Electrically grounded equipment must have an approved cord and plug and be connected to a grounded electrical outlet.
- Do NOT bypass the ON/OFF switch and operate equipment by connecting and disconnecting the electrical cord.
- Do NOT use equipment that has exposed wiring, damaged switches, covers or guards.
- Do NOT use electrical equipment in wet conditions or in damp locations.
- Do NOT use electrical cords to lift, move or carry equipment.
- Do NOT coil or knot electrical cords, and ensure electrical cords are not trip hazards.

General Service Information

- The equipment must be serviced or repaired at authorised service centres by qualified personnel only.
- Replacement parts must be original equipment manufacturer (OEM) to ensure equipment safety is maintained.
- Do NOT attempt any maintenance or repair work not described in this manual.
- After use, the equipment and components may still be hot – allow the equipment to cool and disconnect spark plugs and/or electrical power sources and/or batteries from it before adjusting, changing accessories, or performing repair or maintenance.
- Do NOT adjust while the equipment is running.
- Perform service-related activities in suitable conditions, such as a workshop.
- Replace worn, damaged or missing warning/safety labels immediately.

Child Choking Hazard!



• **WARNING: CHOKING HAZARD - CHILDREN UNDER 8 YRS. CAN CHOKO OR SUFFOCATE ON SMALL PARTS. ADULT SUPERVISION REQUIRED.**

- Carefully inspect anything a baby or child could gain access to, including this product & packaging.

- Dangers include anything of a size that could become stuck or lodged in a baby or child's airway.

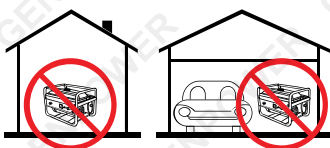
• Dangers include things like raw, hard fruit and vegetable pieces, large pieces of meat, bones or sausage skins, popcorn, nuts, hard lollies and corn chips, small magnets and batteries, coins, beads, marbles and small uninflated balloons, broken toys and smaller toys, buttons, keys, and coins. But there are also many more.

- Pay particular attention to accessories, nuts, bolts, screws, washers, caps, covers, loose parts, parts that could be removed or break off, pieces of packaging, staples, tape etc.

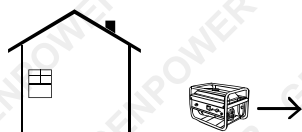
- In the case of any doubt, secure the item of concern in an appropriate manner, or completely remove the possibility of access by a baby or child.

⚠ DANGER ⚠

**Using an engine or wood/charcoal/gas fuelled appliance indoors CAN KILL YOU IN MINUTES.
Engine exhaust and wood/charcoal/gas fumes contain carbon monoxide. This is a poison you cannot see or smell.**



NEVER use inside a building, home, garage, boat, caravan or tent EVEN IF doors and windows are open.



Only use OUTSIDE and far away from windows, doors, and vents.

Avoid other hazards - READ MANUAL BEFORE USE.

GENERAL:

- Do not operate in a hazardous location. Such areas include where there is a risk of explosion of petrol fumes, leaking gas or explosive dusts.
- Do not operate in a confined area where exhaust gases or wood/charcoal/gas fumes could reach dangerous concentrations.

PRODUCTS FEATURING AN ENGINE

- Follow all warnings in the section titled "GENERAL".
- Explosion hazard - never smoke while refuelling.
- Take care not to spill fuel. When refuelling the engine, ensure that the engine has been allowed to cool. Prevent spilling of fuel as this may also ignite with a hot engine.
- Never refuel while engine is running.

GENERATORS

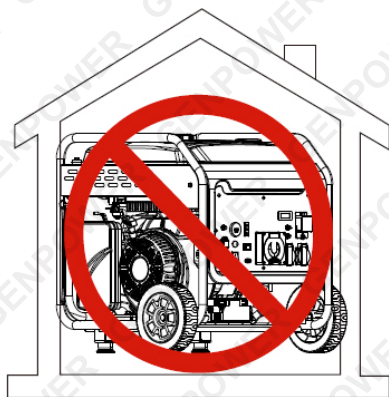
- Follow all warnings in the sections titled "GENERAL" and "PRODUCTS FEATURING AN ENGINE".
- The output of this generator is potentially lethal. The generator should not be connected to a fixed electrical installation except by an appropriately licensed person.
- Not weatherproof – protect your machine. This machine is not weatherproof and should not be exposed to direct sunlight, high ambient temperature, damp conditions, wet conditions or high humidity conditions.

Inverter Generator Safety

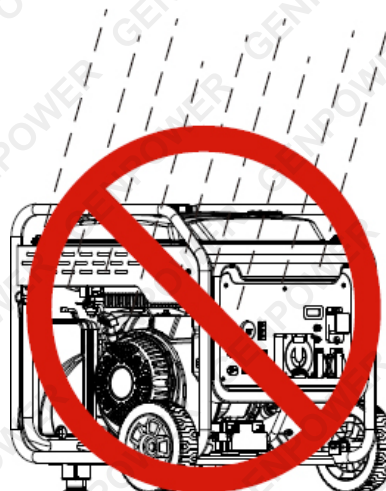
• **WARNING! FAILURE TO FOLLOW THE INSTRUCTIONS IN THIS MANUAL MAY RESULT IN SERIOUS EQUIPMENT DAMAGE, PERSONAL INJURY, OR DEATH. BE SURE TO READ ALL LABELS AND MANUALS CAREFULLY BEFORE USING THE UNIT.**

- Please use this product in a well-ventilated area, as the exhaust contains toxic carbon monoxide, which can be fatal.
- Be sure to turn off the engine when refuelling and wait five minutes before restarting. Check for any fuel leaks or spills. If there are any, clean them up or repair the issue before use. Do not place other flammable items or materials near the engine.
- If you have any questions, please contact your dealer.
- Generators are safe and reliable as long as you follow the instructions in this manual. Read and understand the manual before use; otherwise, incorrect operation may cause personal injury or damage to the equipment.
- Instructions may vary depending on the generator type and configuration. Please read and understand the instructions carefully before operating the generator set. Familiarising yourself with the safe operation procedures of the generator set is essential to avoid accidents.

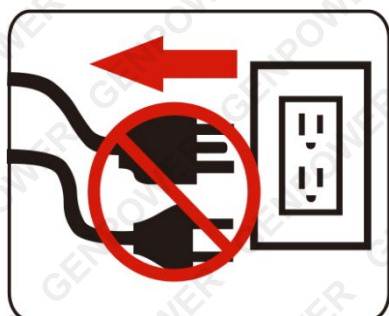
DO NOT USE INDOORS



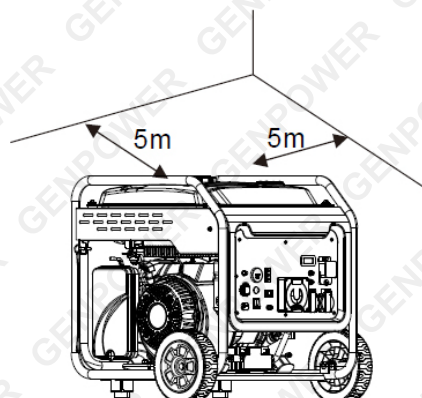
DO NOT USE IN WET/HUMID ENVIRONMENT



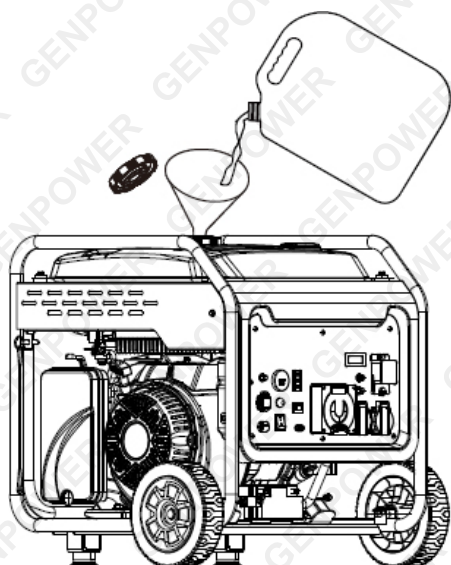
DO NOT CONNECT DIRECTLY TO HOME CIRCUIT



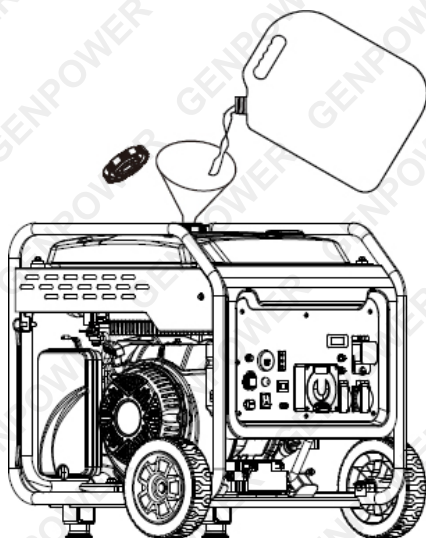
KEEP COMBUSTIBLE MATERIAL AT LEAST 5 METERS AWAY



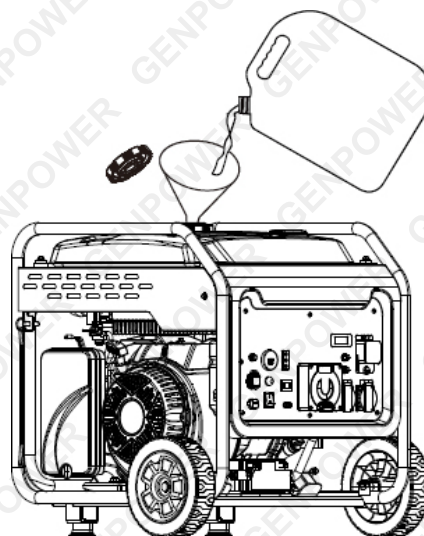
DO NOT SMOKE WHILE ADDING FUEL



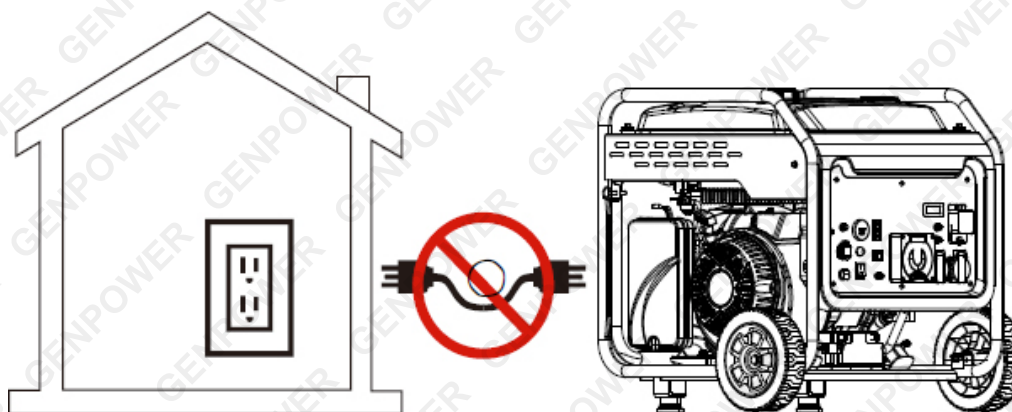
SHUT OFF THE ENGINE WHILE ADDING FUEL



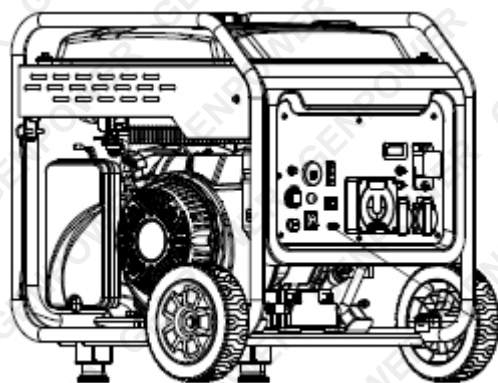
DO NOT OVERFILL



- **Connecting to the Home Power Supply.** When connecting the generator to the home power supply as a backup power source, the connection should be made by a professional electrician or someone familiar with electrical systems. After connecting the load to the generator, carefully check that the electrical connection is secure. An incorrect electrical connection may cause damage to the generator, lead to burns, fire, or even an explosion.



- **Grounding.** To prevent electric shock caused by faulty electrical appliances or improper use of electricity, the generator should be grounded using a quality insulated wire.



GROUNDING

- **Ventilation and Cleanliness.** The air filter, starting tray, muffler exhaust port, inverter air intake port, and motor air intake port should be kept well-ventilated and free of debris, mud, water, particles, and excessive dust. If these vents become blocked, the engine, inverter, or motor may be damaged. Do not place other items near the generator when handling, storing, or using it. If a leak occurs, it could damage the engine or your property.

Safety Symbols

The product may have safety warning labels attached to it, explained below. Understand the symbols on your product and their meanings. If any stickers become unreadable, unattached etc., replace them.

 Flammable Material Hazard Flammable liquids, gases, or substances etc may present. Avoid ignition sources and open flames. Danger of fire.	 Read User Manual Read and fully understand product safety warnings, operation, procedures etc before using the product.	 Use Hand Protection Wear appropriate hand protection and take due care as the product or use of the product may present hand hazards.	 Carbon-Monoxide Hazard Do not use the product in confined areas or without adequate ventilation. Carbon-monoxide poisoning can be fatal.
 Electrocution / Electrical Shock Hazard High voltage or high current electricity may be present or required by the product. Take due care when handling electrical products, cables, plugs and leads. Electrical shock can be fatal.	 Toxic Fumes / Dust Hazard Using the product or by-products from use may produce fumes, smoke or particles that could be harmful if inhaled. Wear appropriate breathing protection and have adequate ventilation.	 Explosive Material Hazard Combustible liquids, gases, or substances etc may be present. Avoid ignition sources and open flames. Danger of explosion.	 Cutting / Amputation Hazard The product may have blades, edges or mechanical devices that can cause severe cut injury to fingers, limbs etc. Take due care when handling and using the product.
 Crush Hazard The product may have blades, edges or mechanical devices that can cause severe crush injury to fingers, limbs etc. Take due care when handling and using the product.	 Single Operator Only The product must be operated by a single person only. More than one person operating the product may introduce additional hazards.	 Use Face Protection Wear appropriate full-face protection and take due care as the product or use of the product may present face and eye hazards.	 Use Foot Protection Wear appropriate foot protection and take due care as the product or use of the product may present foot hazards.
 Use Eye / Ear / Head Protection Wear appropriate eye and / or ear and / or head protection and take due care as the product or use of the product may present eye, hearing, and head hazards.	 Running Hazard Do not run on or near the product as doing so may present a fall hazard.	 Diving Hazard Do not dive into the product as doing so may present a neck / head injury hazard.	 Adult Supervision Required Always supervise children and other users of a product to prevent drowning or injury.
 Skin Penetration / Puncture Hazard The product may produce pressure, emit liquids or objects that can cause severe injury to fingers, limbs, blood etc. Take due care when handling and using the product.	 Hot Surface Hazard Be aware that the product may produce high temperatures and hot surfaces that can cause burn injuries.	 Flying Debris Hazard Be aware that the product or use of the product may present hazards produced by flying debris. Wear appropriate clothing and protective devices.	 Moving Parts Hazard Be aware that the product contains or uses mechanical devices that move or rotate. Always wait for moving parts to stop fully before handling the product, adjusting, maintenance etc.

 Carbon-Monoxide Hazard Do not use the product in confined areas or without adequate ventilation. Carbon-monoxide poisoning can be fatal.	 Pull Hazard Be aware that the product contains or uses mechanical devices that can pull in objects and can cause severe injury to fingers, limbs etc. Take due care when handling and using the product.	 Slope / Fall Injury Hazard Be aware that using the product on sloping surfaces or in slippery conditions may present additional dangers from falls and contact with blades, moving parts, hot surfaces etc.	 "Slam Dunk" Warning Do NOT attempt "slam dunk" manoeuvres as this may result in severe injury due to falling, product breakage or collapse etc.
 Electrocution / Electrical Shock Hazard - Outdoor High voltage or high current electricity may be present or required by the product. Do NOT use in rain, damp, or wet conditions. Electrical shock can be fatal.	 Electrocution / Electrical Shock Hazard - Disconnect High voltage or high current electricity may be present or required by the product. Always disconnect the product from the electrical supply before handling the product, adjusting, maintenance etc.	 Power Line Electrocution Hazard High voltage / high current power lines may be present. Use extreme caution to avoid contact or interference with power lines. Electrical shock can be fatal.	 "Kick-Back" Hazard High level of "kick-back" hazard that can cause the machine to suddenly rotate towards operator. Kick-back injury can be fatal.
 Winch Operator Position Hazard Do NOT stand between winch and load. Do NOT use winch to move people.	 Winch Lift Hazard Do NOT LIFT load vertically. Use machine to PULL only.	 Cable Hazard Ensure that load bearing cable is not kinked or knotted.	 Winch Cable Hazard Ensure that there is a minimum number of cable coils on winching mechanism.
 Winch Hook Hazard Carry hook to load – do NOT throw or run.	 Flash / Blinding Hazard Wear appropriate eye protection for welding. Direct exposure to weld arcs may cause permanent eye injury.	 Laser Hazard Laser may be in use – do NOT look directly at laser or allow others to.	 Choking Hazard Children under 8 yrs. Can choke or suffocate on small parts. Adult supervision required.

Table of Contents

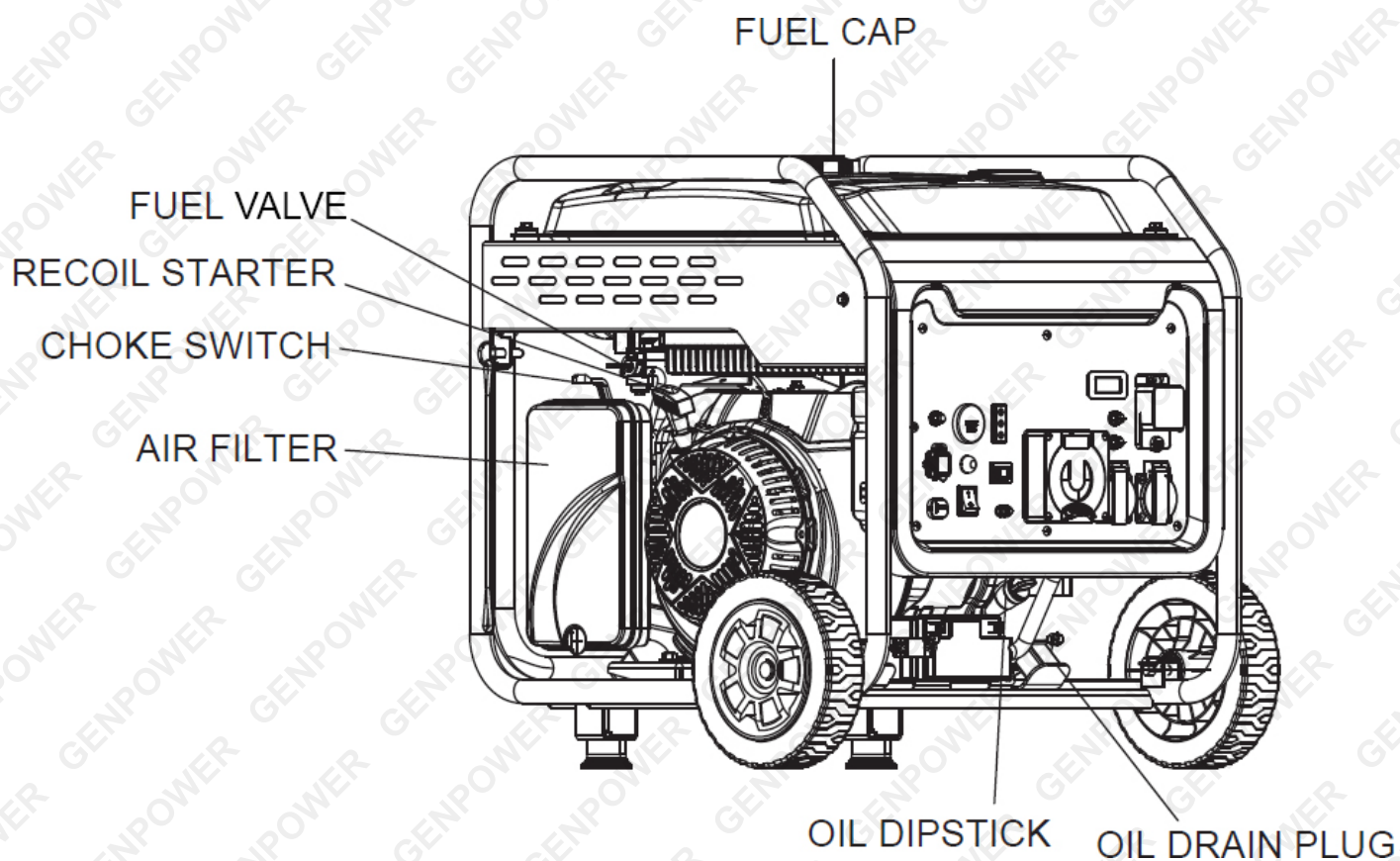
Safety	2
Safety Symbols	6
Parts Identification	10
Control Functions	11
One Push Start	11
Fuel Switch	11
Choke Switch	11
Preparation	12
Economy Switch (ECO)	12
Fuel Cap	12
Grounding Terminal	13
Fuel Safety Warning	13
Adding Fuel	14
Engine Oil	14
Checks Before Operation	15
Fuel	15
Engine Oil	15
Abnormal Conditions During Operation	15
Standard Atmospheric Conditions	15
Operation	16
Connecting the Battery	16
Starting the Generator (One Push Start)	17
Starting the Generator (Recoil Start)	17
Open Choke Valve	17
Connecting Appliances	18
Stopping the Engine	18
Turning Off the Engine	19
AC Connection Instructions	19
Battery Charging	20
Battery Safety Warning	20
Lithium Battery Care and Maintenance	21
Top 3 Battery Care Requirements	21
Maintenance	23
Regular Inspection and Maintenance	23
Maintenance Schedule	23
Spark Plug Check	24
Replacing Engine Oil	25
Air Filter Maintenance	26



GF8500ie Inverter Generator

Muffler Enclosure and Spark Arrester Maintenance.....	27
Fuel Tank Filter Maintenance.....	27
Storage Instructions.....	28
Troubleshooting.....	29
Specifications.....	30

Parts Identification



Control Functions

One Push Start

Press the start button once, and the engine will attempt to start twice automatically. If it fails to start successfully, press the button again. *Please note: Push start will not activate until the battery has been connected.



Fuel Switch

When the fuel switch is in the "On" position, fuel flows from the tank through the fuel valve and into the carburettor. When shutting down, set the fuel switch to the "Off" position.



Choke Switch

The choke switch controls the airflow into the cylinder during startup:

- **Choke Closed:** When the unit is cold, set the choke to the "Start" position. If the unit is warm, close the choke halfway.
If the generator fails to start after two attempts, open the choke to the "Run" position, then operate the switch or pull the starter manually.
- **Choke Open:** The choke should be open when the machine is running.

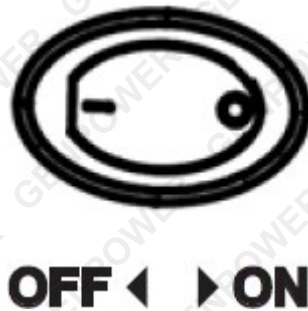


Preparation

Economy Switch (ECO)

- **On:** When the economy switch is set to the "On" position, the engine speed ranges from 2600 to 3800 RPM. During operation, the speed gradually increases according to the load size to achieve better fuel efficiency and reduced noise.
- **Off:** When the economy switch is set to the "Off" position, the engine speed ranges from 3100 to 3800 RPM. During operation, the engine speed increases gradually based on the load.

Reminder: When using devices with high-impact loads, such as air compressors or submersible pumps, the economy switch must be set to the "Off" position due to the requirement for a larger starting current.



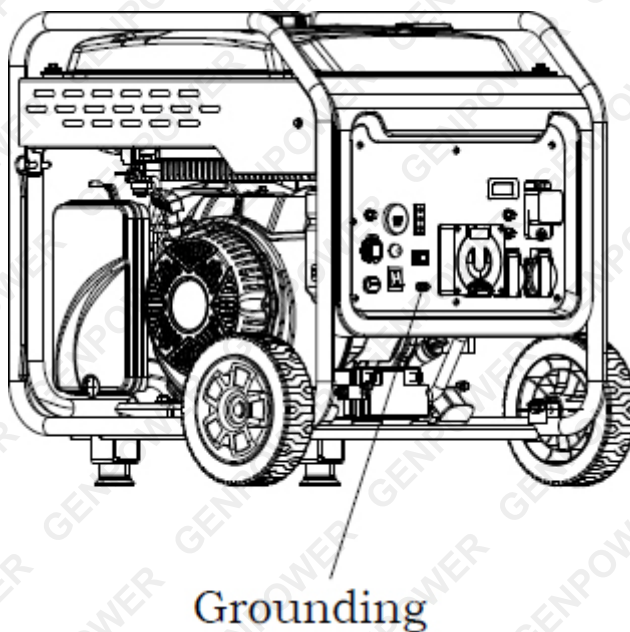
Fuel Cap

Remove the fuel cap by turning it counterclockwise.



Grounding Terminal

When connecting the grounding terminal to the ground wire, ensure proper grounding to prevent electric shock. If the electrical equipment is grounded, the generator must also be grounded.



NOTE: Grounding wire not included.

Fuel Safety Warning

FUEL IS FLAMMABLE AND TOXIC. PLEASE READ THE SAFETY INSTRUCTIONS CAREFULLY BEFORE REFUELLING.

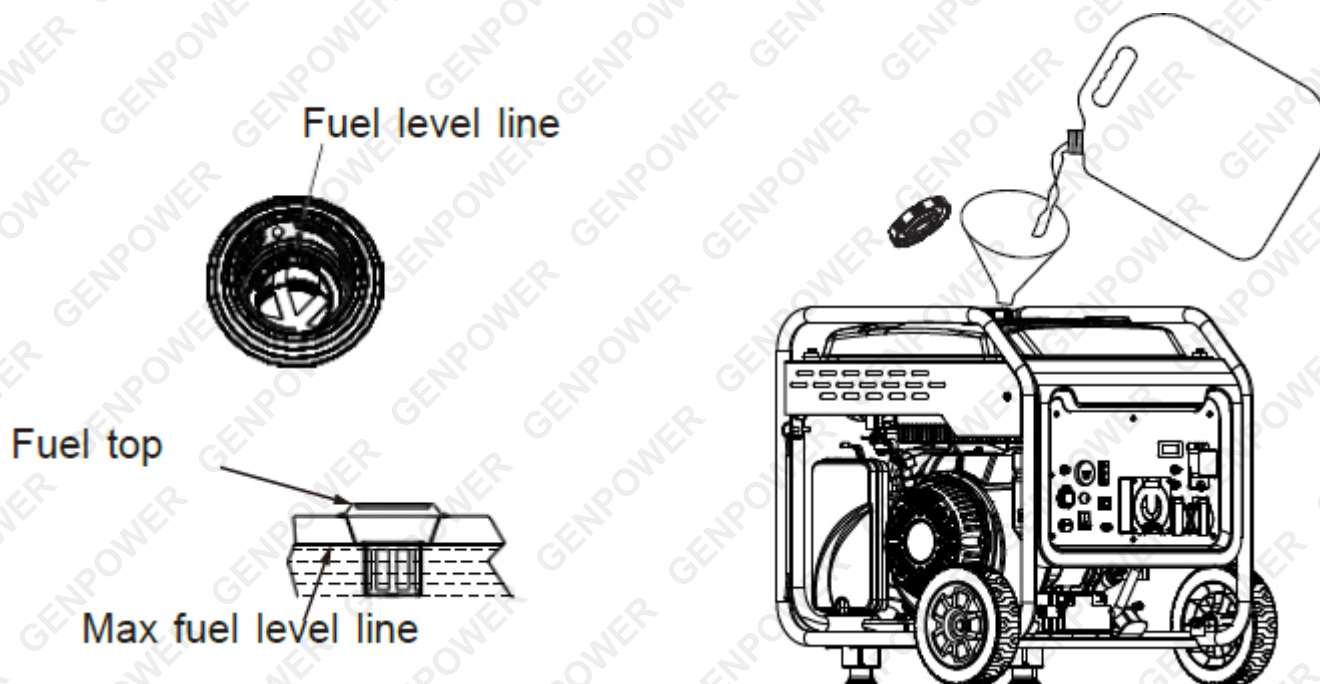
1. Do not overfill the fuel tank.
2. After refuelling, ensure that the fuel tank cap is securely tightened.



Adding Fuel

3. After adding petrol, wipe off any remaining fuel with a clean, soft cloth to avoid damaging the plastic casing.
4. Only use unleaded petrol, as leaded petrol can severely damage the internal components of the engine.
5. Remove the fuel tank cap and fill the tank with petrol up to the indicated level.

Recommended Fuel: Unleaded petrol



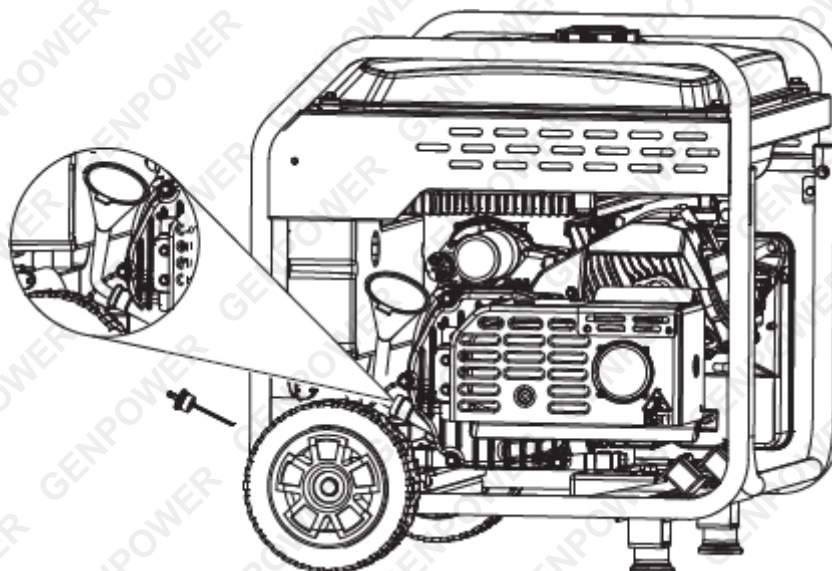
Engine Oil

The generator is not pre-filled with oil when delivered from the factory. Do not start the generator before adding the required amount of oil, as this could damage the generator.

1. Place the generator on a level surface.
2. Unscrew the oil dipstick.
3. Add the recommended engine oil and securely tighten the dipstick.

Recommended Engine Oil: SAE 10W-30

Recommended Oil Grade: API standard SE Type



Checks Before Operation

WARNING! If any of the following components do not function properly, carefully inspect and repair the engine before starting it. Users should always be attentive to the generator's condition, as even when not in use, its critical components can suddenly fail.

Tip: A pre-operation check should be carried out every time the generator is used.

Fuel

- Check the fuel line in the fuel tank.
- Add fuel if necessary.

Engine Oil

- Check the engine oil level.
- Add engine oil to the required level if needed.
- Check for any engine oil leaks.

Abnormal Conditions During Operation

- Monitor the generator for any unusual conditions during operation.
- Assess the running condition of the generator.
- Consult with a dealer if necessary.

WARNING! Do not use the generator in a confined space. The exhaust gas from the generator can cause unconsciousness or even death in a short time. Always use the generator in a well-ventilated area.

Notice! Do not connect any electrical equipment before starting the engine. The engine is not pre-filled with oil during transportation. Do not start the engine until sufficient oil is added. When adding oil, do not tilt the engine to avoid insufficient or excessive oil levels, as this could damage the engine.

Note: The engine can operate at its rated output load under standard atmospheric conditions.

Standard Atmospheric Conditions

- Ambient temperature: 25°C
- Atmospheric pressure: 100 kPa
- Humidity: 30%

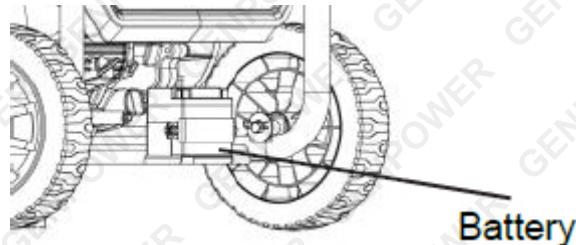
The generator's output may vary slightly depending on ambient temperature, altitude (higher altitudes result in lower air pressure), and humidity. When temperature, humidity, and altitude exceed standard atmospheric conditions, the generator's output decreases. Additionally, reduce the load when using the generator in confined spaces, where cooling may be compromised.

Operation

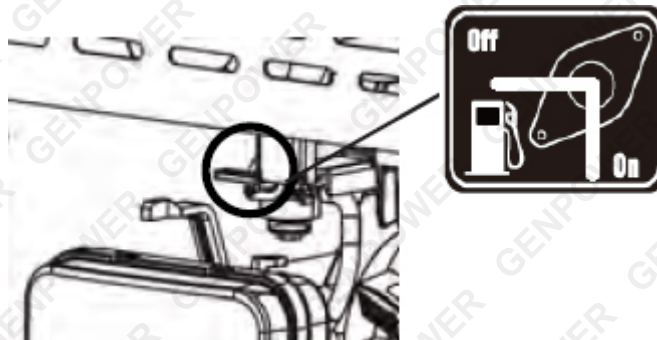
Connecting the Battery

NOTE: Push start will not operate until the battery has been connected.

1. Connect the battery cable to the battery.



2. Connect the red terminal to the positive terminal and the black terminal to the negative terminal.
3. Tighten the nut. Ensure that the positive and negative terminals do not come into contact to avoid a short circuit.
4. After making the connection, maintain a minimum safety distance of 15 mm between the metal parts of the two wires and cover them with rubber protective sleeves.
5. Open Fuel Switch. Turn the fuel switch to the "On" position to allow fuel to enter the carburettor.



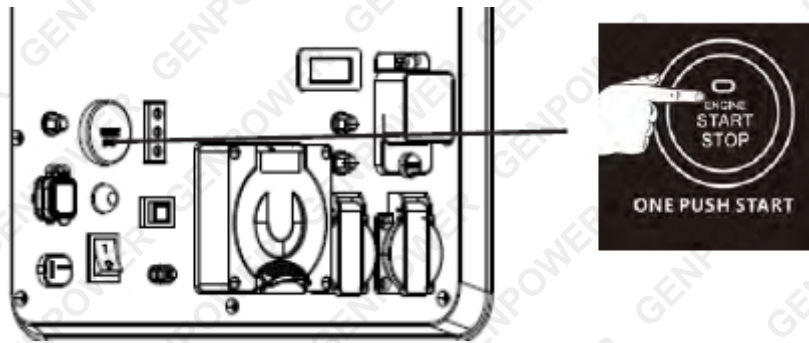
6. Close Choke Switch.
 - a. If the unit is cold, set the choke to the "Start" position.
 - b. If the unit is warm, close the choke halfway.



7. If the generator fails to start after two attempts, open the choke fully and then operate the switch or pull the starter.

Starting the Generator (One Push Start)

Press the start button once, and the engine will attempt to start twice automatically. If it fails to start successfully, press the button again.



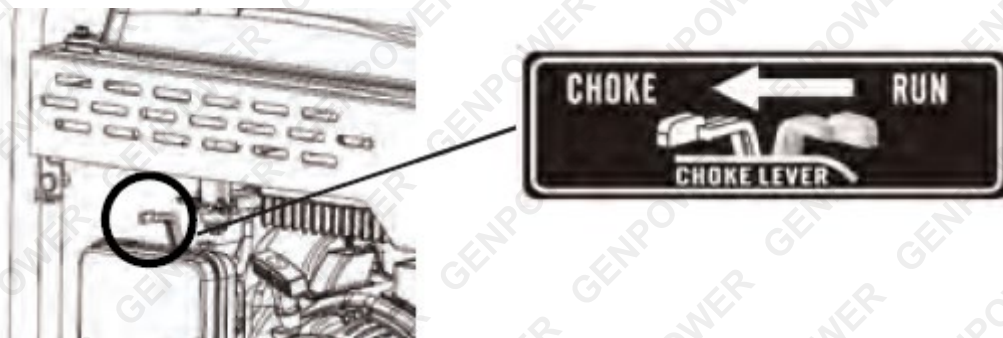
Starting the Generator (Recoil Start)

1. For a cold engine, turn the choke switch to the fully closed position.
2. Gently pull the starter rope to engage the puller with the starting ring inside the machine.
3. Then, pull the rope sharply to start the generator within two attempts.
4. If the generator does not start, repeat the process with the appropriate choke position.



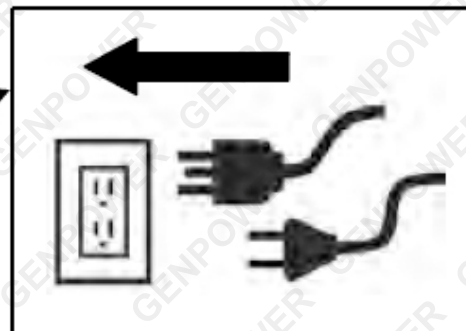
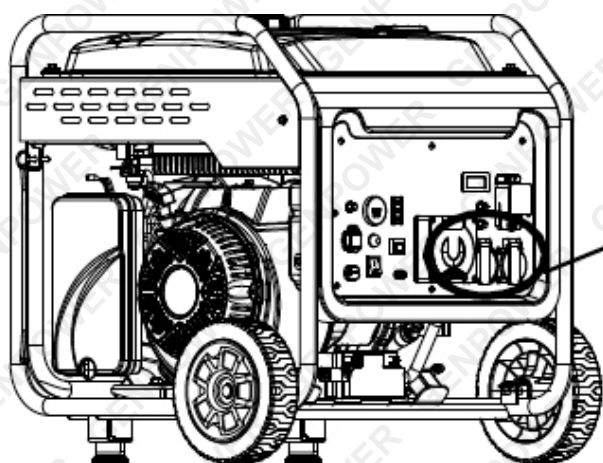
Open Choke Valve

After the unit starts, set the choke switch to the "Run" position. Allow the engine to run for five minutes without a load before connecting any equipment.



Connecting Appliances

1. Connect the electrical equipment to the generator.
2. Switch the circuit breaker protector to the "On" position.



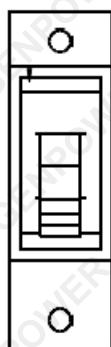
Note: When using multiple loads, connect each additional load only after the previous one is running normally. Ensure that the total power of the loads does not exceed the generator's rated power.

Stopping the Engine

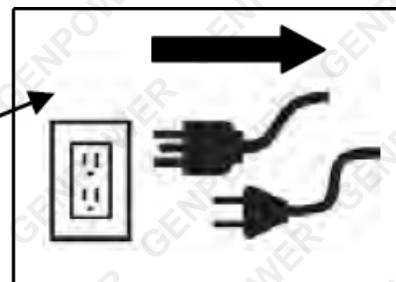
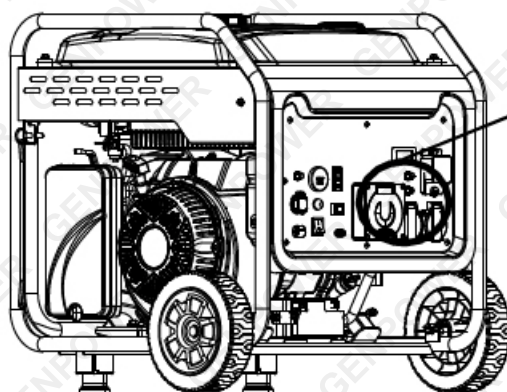
Off-Load Procedure

1. Turn off the circuit breaker by setting it to the "Off" position.
2. Disconnect the power setting from the generator control panel.

Circuit Breaker

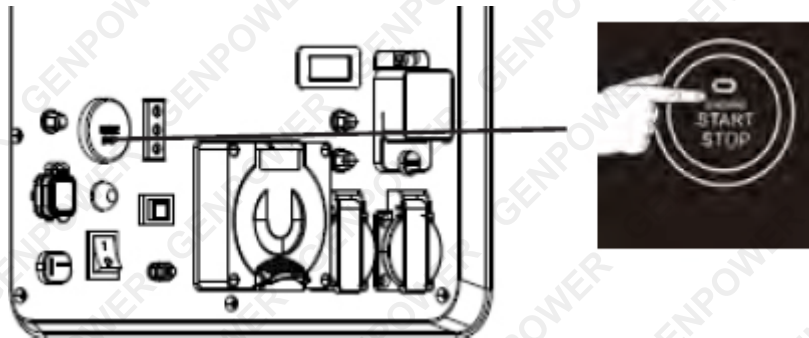


ON

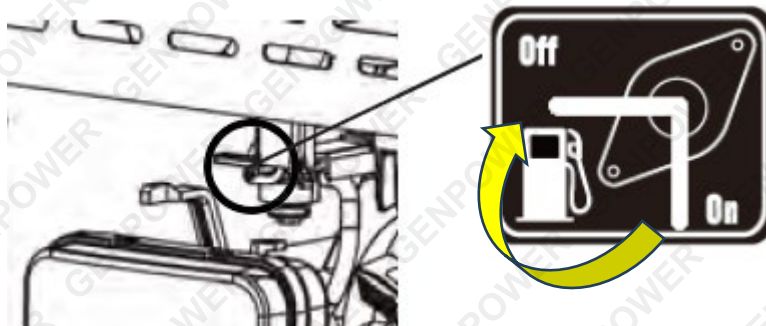


Turning Off the Engine

1. Press the engine switch for one second, then release it to turn off the generator set.



2. Ensure that the engine switch is in the "Off" position to prevent continuous battery discharge.
3. Turning Off the Fuel Switch. When stopping the generator, turn the fuel switch to the "Off" position.



WARNING! After shutdown, the surface temperature of the generator set remains very high. Allow the generator to cool down before moving or performing any other operations to avoid the risk of burns.

AC Connection Instructions

- Disconnect all electrical equipment before inserting the plug into the generator.
- Ensure that all electrical equipment, including wires and plugs, is in good condition before connecting it to the generator.

Notice! Confirm that the total load carried by the generator is within its rated capacity. Ensure that the load current is within the rated current range of the socket.

Note: Ensure that the generator unit is grounded. If the connected electrical equipment requires grounding, the unit must also be grounded.

Steps for Connecting AC Load:

1. Make sure that the circuit breaker is in the "Off" position.
2. Start the generator.
3. Turn on the ECO switch to the "On" position.
4. Verify that the output indicator is on.
5. Insert the plug into the AC socket.
6. Flip the circuit breaker handle to the "On" position (closed state).
7. Turn on the electrical equipment.

Note: The Power Saving mode switch must be set to "Off" before increasing engine speed.

8. If powering multiple loads: Start the unit in descending order based on the load size of each piece of electrical equipment.

Battery Charging

Note: The rated DC voltage for this generator is 14V.

1. Connect the red wire to the positive (+) terminal of the battery.
2. Connect the black wire to the negative (-) terminal of the battery.
3. Start the generator.
4. Turn the ECO switch to the "Off" position and begin charging the battery.

Notice! Ensure the ECO switch is in the "Off" position when charging the battery.

5. Verify that the red conductor of the charger is connected to the positive terminal of the battery (+) and the black wire is connected to the negative terminal (-). Do not reverse the connections.
6. Ensure that the charger cable and battery terminals are securely connected to prevent disconnection due to vibration or other circumstances. Follow the steps in the user manual for proper operation.

Note: To determine if the battery is fully charged, measure the electrolyte's specific gravity, which should be between 1.26 and 1.28, and the voltage should be between DC 12.6V and 12.8V. If the voltage shows around 12.1V after charging, this is due to the battery's charging protection function. The battery voltage will typically increase to around 12.6V after one use.

Battery Safety Warning

WARNING! Check the electrolyte's specific gravity and battery voltage at least once every hour to prevent overcharging. Do not smoke, connect, or disconnect the battery during charging, as a spark can ignite the gas around the battery. The battery electrolyte contains sulfuric acid, which is toxic and can cause burns. Avoid contact with skin, eyes, and clothing.

Solution for Contact with Battery Electrolyte:

- For external contact: Flush the affected area with plenty of water.
- If ingested: Drink plenty of water or milk, and consume milk, egg whites, or vegetable oil containing magnesium oxide. Seek medical attention immediately.
- For eye contact: Rinse the eyes with water for at least 15 minutes and seek medical attention promptly.

WARNING! Batteries can produce explosive gases. Keep them away from sparks, flames, and cigarettes. Ensure the battery is well-ventilated when charging or using it in a confined space. Wear protective gear or close your eyes when working near batteries. Keep the battery out of reach of children.

Lithium Battery Care and Maintenance

Top 3 Battery Care Requirements

1. **Charge battery before first use.** The battery may arrive with some charge, regardless of this the battery must be charged on the initial charge and for each subsequent charge. 
2. **Charge battery immediately when it is depleted.** Do not store a depleted battery. This will permanently impact the life of the battery. If the battery is going to be stored for a period of time, fully charge the battery before storing. 

To ensure the battery maintains optimum performance, follow the guidelines outlined below.

- For best results, charge batteries in temperatures between 10°C and 30°C
- When battery is charged, disconnect the charger from the power supply and remove the battery from the charger.
- If a battery is stored or otherwise unused for an extended period, and the battery has no charge remaining when you check it, consider it to be damaged. Do not attempt to recharge it or to use it. Replace it with a new battery.
- Use only with the battery charger specified by the manufacturer.
- Ensure that the battery charger electrical cord is not subjected to damage or stress. Do not operate the battery charger if it has a damaged electrical cord or plug.
- Do not use the charger in wet areas or expose it to rain or water.
- The typical estimated life of a Lithium-Ion battery is about two to three years or 300 to 500 charge cycles, whichever occurs first. One charge cycle is a period of use from fully charged, to fully discharged, and fully recharged again.
- Explosion hazard – protect the battery against heat, for example, direct sunlight and fire. Do not store batteries in vehicles or locations subject to heat.
- Batteries can explode in the presence of an ignition source, such as a pilot light. To reduce the risk of serious personal injury, never use any cordless product in the presence of open flame. Exploding batteries can propel debris and chemicals.
- Do not open the battery – danger of short-circuiting and/or explosion.
- Do not attempt to destroy or disassemble the battery pack or remove any of its components.
- Do not touch the battery terminals with metal objects and/or body parts as short-circuit and/or personal injury may result.
- Explosion hazard – do not open and/or short-circuit the battery.
- Poison hazard – battery leakage (liquid ejection). Under extreme conditions, liquid may be ejected from the battery – avoid contact. If contact accidentally occurs, immediately seek medical attention, and flush with water. If liquid contacts eyes, immediately seek medical attention, flush with clean water for at least 10 minutes. Liquid ejected from the battery may cause irritation or burns.
- Dispose of non-serviceable batteries in an environmentally responsible manner and according to local regulations.

Failure to adhere to the requirements above may result in the battery becoming inoperative or battery life being reduced. In extreme cases or abuse, battery overheating, or fire may result.

DANGER - BATTERY CHARGING, USE AND STORAGE

Like mobile phones, laptops, cordless vacuum cleaners etc, this product may contain or be related to a lithium ion battery pack (lithium ion batteries and lithium ion battery related items only). Lithium ion batteries allow fast charging and high capacities, however care must be taken to reduce chances of a fault, and increase safety in case a fault occurs. Catastrophic incidents involving lithium ion batteries have a tendency to result in large amounts of smoke and fire. Be sure to follow the points below to reduce the likelihood of danger whenever you use, charge or store any lithium ion battery.

- Never charge a battery that has been damaged or subjected to a forceful impact.
- Never charge a battery that has been exposed to moisture or water.
- Never charge a battery with a charger that wasn't supplied with the battery.
- Never use a battery in a device that it wasn't specifically designed for.
- Never use a battery with a modified or damaged device.
- Never modify the battery, product, charger, circuitry or wiring.
- Never charge a battery in an exit path that may be used by people to leave a room or building in case of an emergency, for example, the hallway or foyer of a residence.
- Never charge a battery in an area or building that doesn't have the recommended number of working smoke detectors that have been tested in accordance with local guidelines.
- Never charge a battery when the battery or charger is displaying a problem or charging incorrectly.
- Always charge batteries on a non-combustible surface, for example, on a concrete floor.
- Always charge batteries at least 3m away from anything combustible, such as floors, wall surfaces, furniture, storage shelves etc.
- Always charge batteries in an open area (outside if possible) ensuring the battery and charger are away from moisture and water.
- Always disconnect batteries from the charger after charging.
- Always remove or disconnect batteries from the device/product when not in use.
- Always ensure batteries are charged under adult supervision. Do not charge unattended. Do not charge batteries while no one is home or while people are sleeping.
- Keep batteries away from heat and moisture.
- Damaged batteries should be disposed of through your local e-waste collection service.
- Avoid mixing and matching chargers. Unplug products when fully charged, and charge batteries in a cool, dry place away from combustible materials like beds, lounges, or carpet.
- During charging and use, check your lithium-ion batteries for overheating, signs of swelling, leaking, or venting gas. Immediately stop using your product if these signs are present.
- Allow batteries to cool after use and before charging.

Maintenance

Regular Inspection and Maintenance

- Operating the generator safely is essential. Regular inspections, adjustments, and lubrication help ensure that the generator operates safely and efficiently. Below are the key maintenance items for generators:
- If you are not familiar with maintenance work, it is recommended to consult a designated dealer for service.

WARNING! Stop the generator before performing any maintenance.

WARNING! Only specified genuine components should be used for replacements. Contact the designated distributor for detailed precautions and assistance.

Maintenance Schedule

Category	Check	Check Before Usage	Maintain	
			6M or 100H	12M or 300H
Spark Plug	Check, clean, or replace		○	
Engine Oil	Check oil line	○	☆	
Fuel Pipe	Check damage and replace	○		
Fuel	Check line replace	○		
Air Filter	Check, clean		△	
Muffler	Check, clean		○	
Spark Arrester	Check, clean		○	
Fuel Filter	Check, clean			○
Cylinder Head	Check, clean			▲
Valve Gap	Check and adjust			▲
Fasteners	Check if loose			▲

☆: First oil change should be done after the initial month or after 20 hours of operation.

△: The air filter should be checked and cleaned frequently, especially when used in damp and dusty environments, with maintenance recommended every 50 hours.

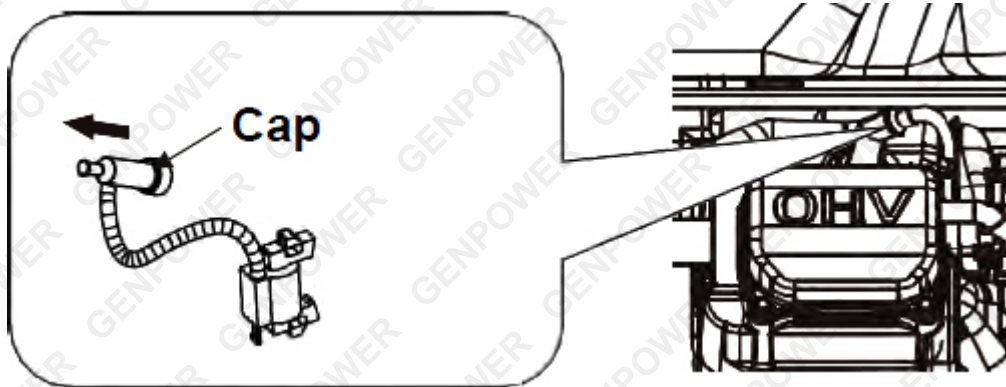
▲: These items should be maintained by designated dealers.

○: Indicates items that require regular inspection.

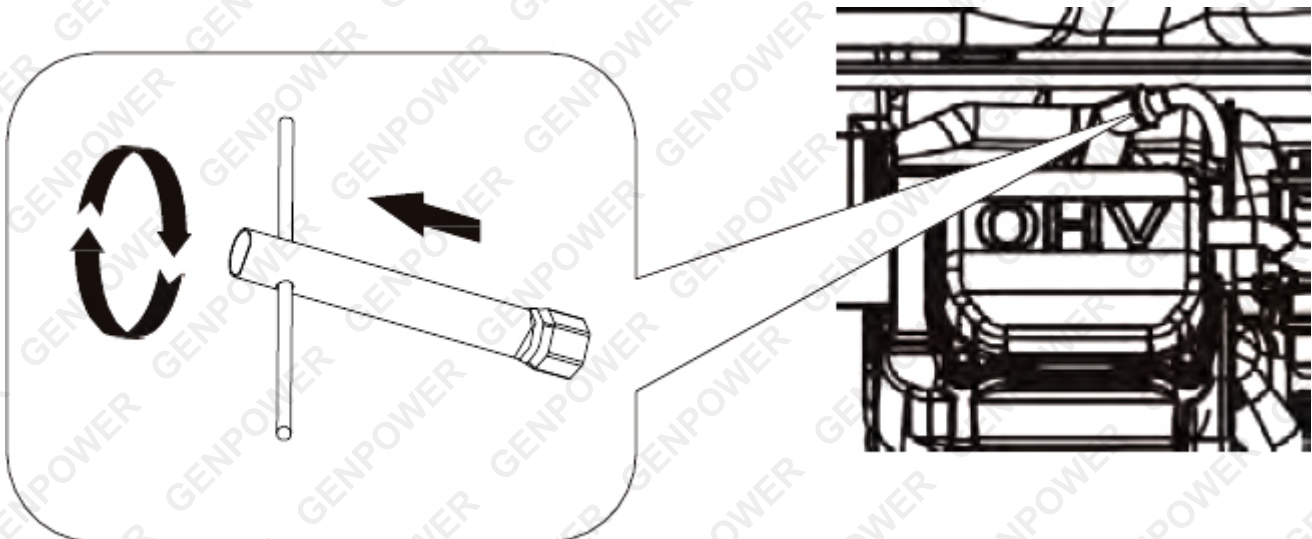
Spark Plug Check

The spark plug is an important component of the generator and must be checked regularly.

1. Remove the spark plug maintenance cap and spark plug cap. Insert the socket wrench into the hole from outside the cap.



2. Insert the cylindrical rod into the socket wrench and turn it counterclockwise to remove the spark plug.



3. Inspect the spark plug for signs of wear and remove any carbon deposits. The porcelain insulator surrounding the spark plug's centre electrode should be a medium to light brown colour.

4. Check the spark plug model and gap.

- Spark plug gap: 0.6-0.8 mm (0.024-0.031 inches)

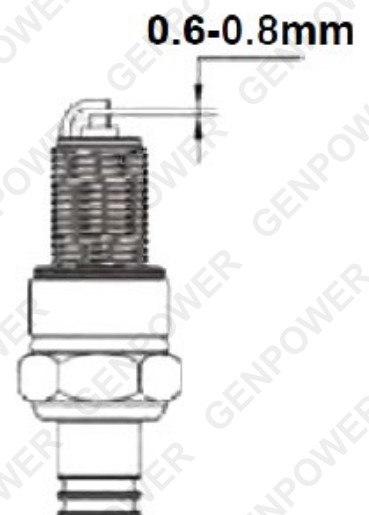
Note: Measure the spark plug gap with a thickness gauge and adjust it if necessary.

5. Reassemble the spark plug.

- Spark plug torque: 20.0 N·m (14.8 lbf·ft)

Note: If you do not have a torque wrench when installing the spark plug, a good estimate is to tighten it by hand 1/4 to 1/2 turns.

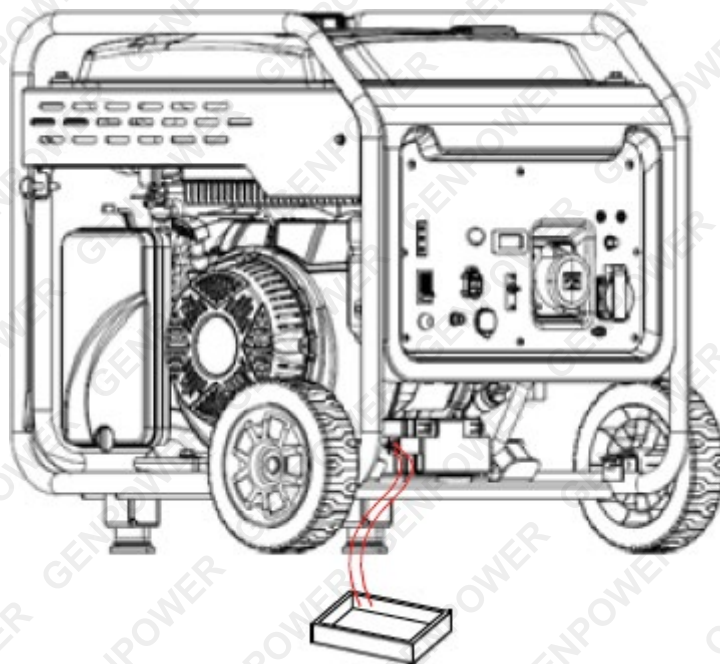
6. Reinstall the spark plug cap and maintenance cover.



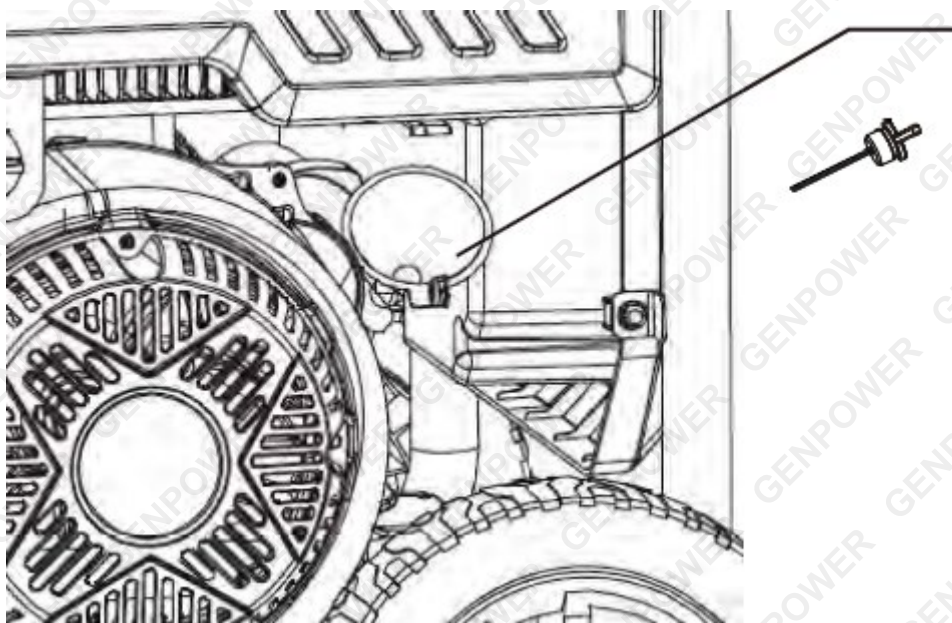
Replacing Engine Oil

WARNING! Do not drain the oil immediately after shutting down the engine, as the oil temperature will be very high. Take care to prevent burns during this operation.

1. Place the generator on a level surface and run it for a few minutes to raise its temperature, then turn off the generator.
2. Position an oil pan beneath the engine, unscrew the drain bolt, and allow the oil to drain quickly.



3. Re-tighten the drain bolt.
4. Unscrew the oil dipstick.



Note! Do not tilt the machine when adding oil, as this could result in either too much or too little oil, potentially damaging the engine.

5. Add oil to the appropriate level.
 - Recommended oil: SAE 10W-30
 - Oil grade: API standard SE or higher
6. Wipe the oil cap clean to remove any spills.

Note! Ensure that no foreign matter enters the engine casing.

7. Tighten the oil dipstick securely.

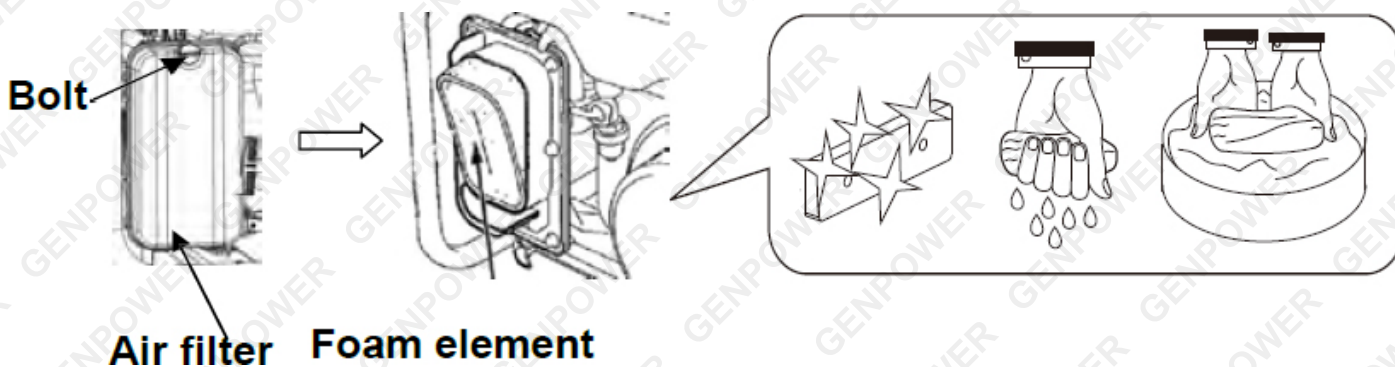
Air Filter Maintenance

1. Remove the bolt and take off the air filter cover.
2. Remove the foam filter element.
3. Clean the foam filter element with a suitable solvent and allow it to dry completely.
4. Apply oil to the foam filter element and squeeze out any excess oil. The foam filter should be damp but not dripping with oil.

Notice! Do not twist the foam filter element forcibly to avoid damaging it.

5. Place the foam filter back into the air filter housing.

Notice: Ensure that the foam filter element fits snugly against the air filter housing, with no gaps that could cause air leakage. Do not start the engine without the air filter in place, as this may cause excessive gas production and lead to cylinder wear.

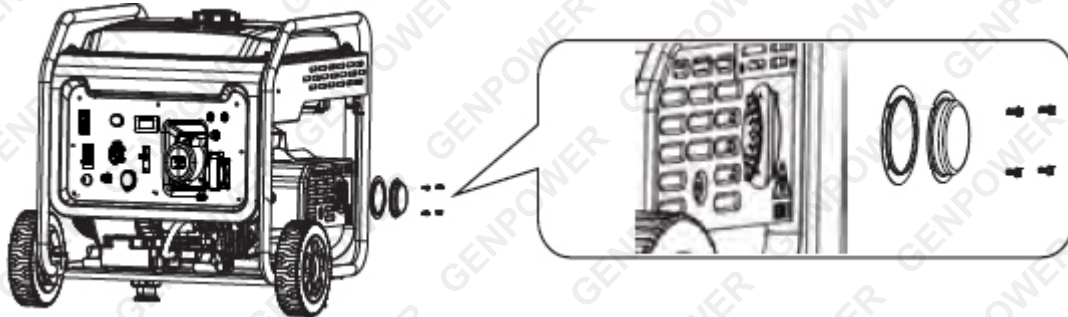


6. Reinstall the air filter cover to its original position and tighten the bolts securely.

Muffler Enclosure and Spark Arrester Maintenance

WARNING! The engine and muffler can become extremely hot after operation. Avoid direct contact with the engine and muffler to prevent burns during inspection and maintenance.

1. Loosen the bolt and remove the muffler cover and spark arrester.



2. Use a wire brush to gently remove carbon deposits from the spark arrester.

Notice! Clean lightly with the wire brush to avoid damaging or scratching the spark arrester.

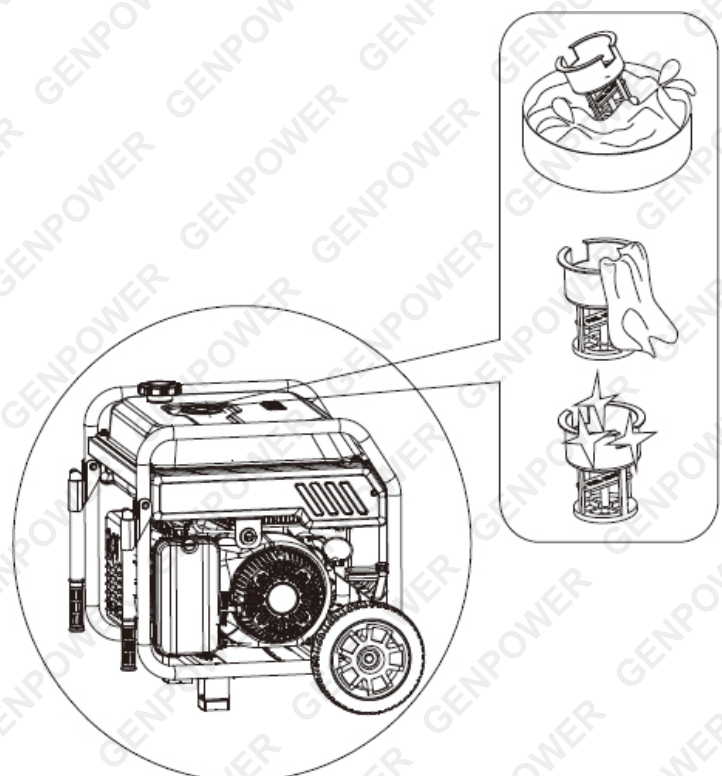
3. Inspect the spark arrester and replace it immediately if it is damaged.
4. Reinstall the spark arrester.
5. Reinstall the muffler cover.

Fuel Tank Filter Maintenance

WARNING! Never handle gasoline near smoke or open flames.

1. Remove the fuel tank cap and filter.
2. Clean the fuel tank filter with gasoline.
3. Allow the filter to dry completely, then return it to the fuel tank.
4. Reinstall the fuel tank cap.

Notice! Ensure that the fuel tank cap is tightened securely.

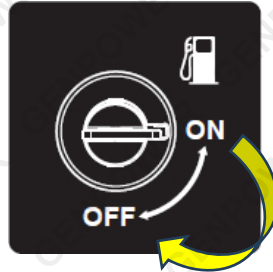


Storage Instructions

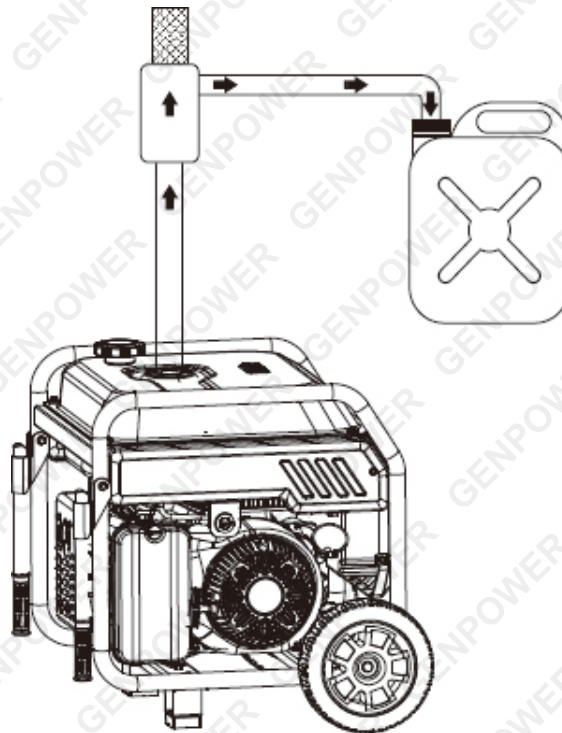
If you plan to store this generator for an extended period, you should take specific measures to prevent aging.

Draining the Fuel

1. Turn the fuel switch knob to the "Off" position.



2. Open the fuel tank cap and remove the filter. Drain all the fuel from the tank into a dedicated fuel container, then securely tighten the tank cap.



WARNING! Fuel is highly volatile and toxic. Please read the safety instructions carefully.

Notice! Use a clean, soft cloth to immediately wipe off any spilled fuel to prevent damage to the plastic cover.

3. Start the generator and allow it to run until it stops automatically after all the fuel is completely used up.

Note: Do not connect any electrical equipment during this process. The running time of the engine will depend on the amount of fuel remaining in the tank.

4. Remove the spark plug, pour in a spoonful of SAE 10W-30 oil, reinstall the spark plug, and ensure the cylinder is lubricated by the engine oil.
5. Pull the recoil starter handle until you feel resistance.
6. Wipe down the surface of the unit, place it in a well-ventilated and dry location, and cover it with a protective cover.

Troubleshooting

1. Fuel System

- Problem: There is no gasoline in the fuel chamber.
- Possible Causes and Solutions:
 - No fuel in the tank: Refuel the tank.
 - Fuel filter blocked: Clean the fuel filter.
 - Carburettor blocked: Clean the carburettor.

2. Engine Oil System

- Problem: Oil level is too low.
- Solution: Add oil to the appropriate level.

3. Electrical System

- Problem: The generator does not start, or the spark plug does not ignite.
- Possible Causes and Solutions:
 - Ensure the fuel switch knob is in the "Run" position.
 - Pull the starter normally. If there is no ignition:
 - Spark plug carbon deposit or wet: Clean and dry the spark plug.
 - If the ignition system problem persists, please contact the designated dealer.

Specifications

Power Type	Petrol
Peak Output	8500W
Continuous Rated Output	7200W
Fuel Tank Capacity	20L
Oil Capacity	1.1L
Engine Displacement	420cc
Engine Type	4-Stroke, Air-Cooled, OHV
Engine Output	12hp/3600rpm
Fuel Type	Regular Unleaded 95+RON
Engine Oil Type	SAE 10W-30 (not included in purchase)
Runtime	12 hr (25% load), 7.5 hr (50% load), 4 hr (100% load)
Noise Level	76dB (50% load @ 7m), 81dB (100% load @ 7m)
Starting System	Button / Recoil
Alternator Type	Brushless Copper Wire
Power Outlets	2 x 15A Australian sockets, 1 x 32A Australian socket (230V/50Hz)
USB Outlets	2 x 5V (2.1A & 1.0A)
DC Output	12V 8A
Warranty (Months)	36 (based on typical non-commercial use)



Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see www.datastreamserver.com/safety

- Consult all documentation, packaging, and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.
- Before each use, check the product for loose/broken/damaged/missing parts, wear, or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear, or leaks.
- Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.
- Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business, or employee, or financially affect the user, business, or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement, or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.
- If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.

