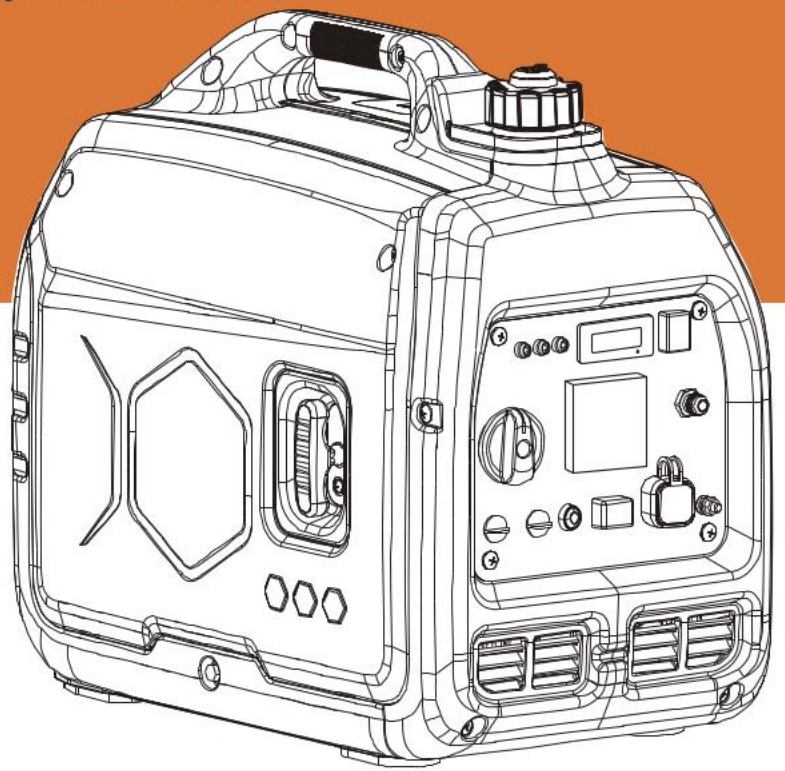
MAXPEEDINGRODS
Since 2006

Owner's Manual

MXR3800DF

Dual Fuel Inverter Generator

Gasoline: 3200 Running Watts | 3500 Peak Watts
Propane: 2800 Running Watts | 3100 Peak Watts



MAXPEEDINGRODS
Since 2006

UK REP	Company Name: Sea & Mew Accounting Ltd
	Address: Electric Avenue Vision 25, London, Enfield EN3 7GD
	Email Address: support@maxpeedingrods.com

Chongqing Guoyu Technology Co., Ltd

WARNING



This manual contains important instructions for operating this inverter generator. For your safety and the safety of others, be sure to read this manual thoroughly before operating the generator. Failure to properly follow all instructions and precautions can cause you and others to be seriously hurt or killed.

INTRODUCTION

DISCLAIMERS

All information, illustrations and specifications in this manual are based on the latest information available at the time of publishing. The illustrations used in this manual are intended as representative reference views only. Moreover, because of our continuous product improvement policy, we may modify information, illustrations and/or specifications to explain and/or exemplify a product, service or maintenance improvement. If it affects your use and maintenance of this product, please do contact us via your purchasing channel for quick help.

SPECIFICATIONS			
Model	MXR3800DF	Oil Capacity	0.45L
Running Watts	3200W(Gas) 2800W(LPG)	Total Harmonic Distortion(THD)	<3%
Peak Watts	3500W(Gas) 3100W(LPG)	Fuel Type	Gasoline Propane(LPG)
Rated Voltage	230V	Oil Type	SAE 10W-30
Rated Frequency	50Hz	Spark Plug	A5RTC
Phase	Single Phase	Maximum Ambient Temperature	104°F (40°C)
Engine Displacement	145cc	Net Weight	22kg
Rated Speed	4850RPM	Length	480(mm)
Starting Type	Recoil	Width	290(mm)
Fuel Tank Capacity	4L	Height	440(mm)
Engine Adjustable Parameters: No			

LIMITED WARRANTY

❶ DURATION:
Maxpeedingrods warrants all the inverter generators against defects in workmanship under normal use for a period of 2 years from the date of first retail purchase ("Warranty Period"), and provides free lifetime technical support and customer service. If the product is purchased by a commercial entity or under a business-to-business (B2B) agreement, the warranty period is limited to ninety (90) days from the date of purchase.

❷ WHO GIVES THIS WARRANTY (WARRANTOR):
Chongqing Guoyu Technology Co., Ltd

❸ WHAT PRODUCTS ARE COVERED BY THIS WARRANTY:
Any portable generator supplied or manufactured by Warrantor.

❹ WHAT IS COVERED UNDER THIS WARRANTY:
Substantial defects on material and workmanship which occur within the duration of the warranty period.

❺ WHAT IS NOT COVERED UNDER THIS WARRANTY:
A. Damages caused by abuse, accident, shipping, misuse, overloading, modification, and the effects of corrosion, erosion and normal wear and tear.
B. Warranty is voided if the customer fails to install, maintain and operate the product in accordance with the instructions and recommendations set forth in the owner's manual(s), or if the product is used as rental equipment. NOTE: This warranty does not apply to equipment used for rental purposes or commercial hire, unless otherwise agreed in writing.
C. Pre-delivery service, i.e. assembly, oil or lubricants, and adjustment.
D. Items or service that are normally required to maintain the product, i.e. lubricants and filters.
E. Warrantor will not pay for repairs or adjustments to the product, or for any costs or labour, performed without Warrantor's prior authorization.
EXCLUSIONS AND LIMITATIONS: Warrantor makes no other warranty of any kind, express or implied. Implied warranties, including warranties of merchantability and of fitness for a particular purpose, are hereby disclaimed.

This warranty service described above is the exclusive remedy under this warranty; liability for incidental and consequential damages is excluded to the extent permitted by law. For sales within the European Union, this exclusion or limitation of incidental or consequential damages shall apply only to the extent permitted under applicable national consumer protection laws.

❻ RESPONSIBILITIES OF PURCHASER UNDER THIS WARRANTY:
A. The purchaser must retain and provide a dated proof of purchase (such as an invoice or order confirmation) and notify the Warrantor within the applicable warranty period if service is needed.
B. The purchaser is responsible for delivering or shipping the defective generator or its components to a Warrantor-authorized service location, as instructed by our support team. Unauthorized shipments may not be accepted.

❼ NEED ASSISTANCE?
If you have any questions or need support, please contact us through your original purchasing channel (e.g., platform message, or order page). Our team will respond promptly and provide you with the most efficient solution.

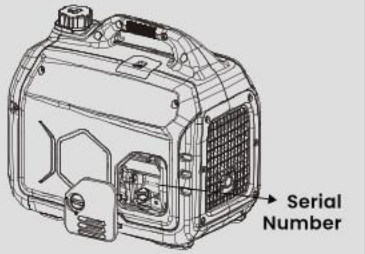
CONSUMER RIGHTS NOTICE:
This limited warranty gives you specific legal rights. You may also have other rights which vary from country to country. In particular, for customers in the European Union, the United Kingdom, Canada, and Australia, this limited warranty does not affect any statutory rights you may have under applicable consumer protection laws, including rights relating to the conformity of goods. Where applicable law provides for a longer statutory warranty period, such period shall apply.

FOR YOUR RECORDS

Date of Purchase: _____

Place of Purchase: _____

Serial Number: _____



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GENERATOR SAFETY

SAFETY DEFINITIONS

The words DANGER, WARNING, CAUTION and NOTICE are used through out this manual to highlight important information. Be certain that the meanings of these alerts are known to all who work on or near the equipment.

DANGER

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

WARNING

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

CAUTION

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

NOTICE

Indicates a situation which can cause damage to the generator, personal property and/or the environment, or cause the equipment to operate improperly.

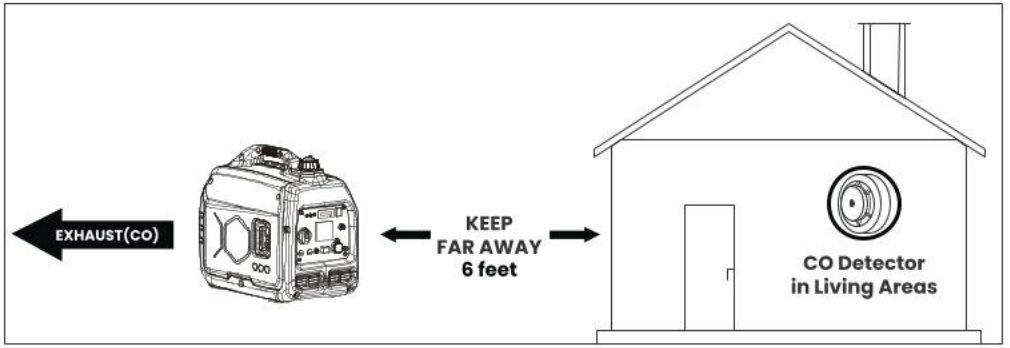
SAFETY SYMBOLS

Symbol	Description
	Safety Alert Symbol
	Electrical Shock Hazard
	Exhaust Gas is Poisonous
	Fire Hazard
	Explosion Hazard
	Burn Hazard. (Do not touch hot surfaces)
	Read Manufacturer's Instructions
	Lifting Hazard

CORRECT USAGE

Example location to reduce risk of carbon monoxide poisoning.

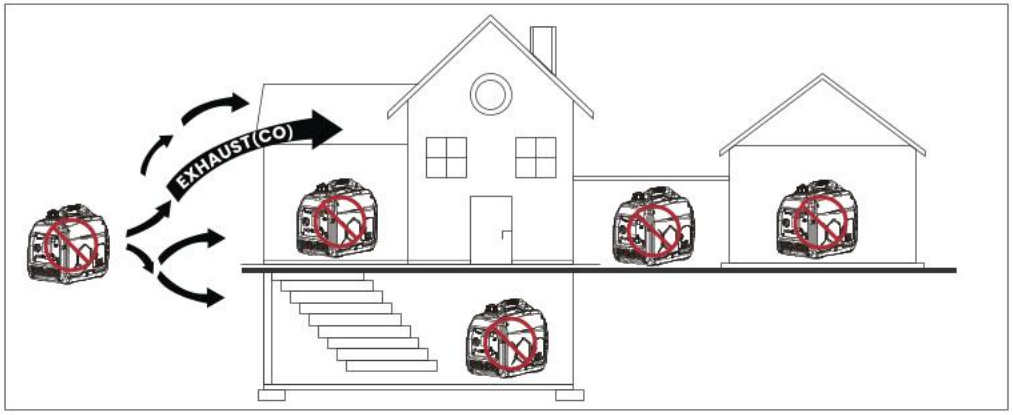
ONLY use the generator outside and downwind, far away from windows, doors and vents.



INCORRECT USAGE

Don't use the generator in any of the following locations:

Near any door, window or vent
Garage
Basement
Crawl Space
Living Room
Entry Way
Porch
Attic



USAGE NOTES



Please do not use in humid environment



Please do not smoke when refueling



Please do not spill when refueling



Please shut down the generator before refueling

IMPORTANT SAFETY INSTRUCTIONS

⚠ DANGER

Using a generator indoors CAN KILL YOU IN MINUTES. Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.



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.

DANGER

Engine exhaust contains carbon monoxide, a poisonous gas that could kill you in minutes. You CANNOT smell it, see it, or taste it. Even if you do not smell exhaust fumes, you could still be exposed to carbon monoxide gas.

DANGER

Never use the inverter in a location that is wet or damp. Never expose the inverter to rain, snow, water spray or standing water while in use. Protect the inverter from all hazardous weather conditions. Moisture or ice can cause a short circuit or other malfunction in the electrical circuit.

DANGER

Powerful voltage produced by the inverter could result in death or serious injury.

DO NOT touch bare wires or receptacles.
DO NOT operate generator in wet weather.
DO NOT use worn or damaged electrical cords.
DO NOT touch an operating inverter if the inverter is wet or if you have wet hands.
DO NOT allow children or unqualified persons to operate or service the generator.
Be sure the inverter is properly grounded before operating.
When using generator for backup power,notify utility company.

DANGER

Gasoline and its vapors are extremely flammable and explosive under certain conditions, could cause burns, fire, or explosion resulting in death or serious injury and/or property damage.

Fill or drain fuel tank outdoors, in a well-ventilated area.
DO NOT refuel the generator while the engine is running.
DO NOT remove the fuel cap with the engine running.
DO NOT light a cigarette or smoke when add fuel.
DO NOT tip engine or equipment at angle which causes fuel to spill.
DO NOT overfill the fuel tank. Allow space for fuel expansion.Overfilling the fuel tank can result in a sudden overflow of gasoline and result in spilled gasoline coming in contact with HOT surfaces. Spilled fuel can ignite.
Check for fuel leaks after refueling. Never operate the generator if a fuel leak is discovered.
If fuel is spilled on the generator, wipe up any spills immediately. Dispose of rag properly. Allow area of spilled fuel to dry before operating the generator.
Keep fuel away from sparks, open flames or other form of ignition (such as match, cigarette, pilot lights, static electric source).

WARNING

Starter cord kickback (rapid retraction) will pull hand and arm toward engine faster than you can let go which could cause broken bones, fractures, bruises, or sprains resulting in serious injury.

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

NEVER start or stop engine with electrical devices plugged in and turned on.

WARNING

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

DO NOT touch hot muffler area.

Allow equipment to cool before touching.

CAUTION

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

DO NOT overload the generator.

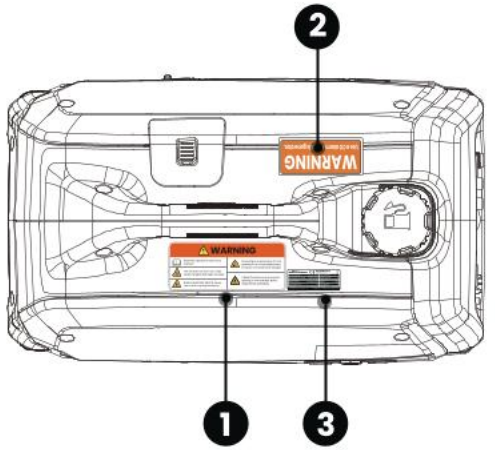
DO NOT tamper with the governed speed.

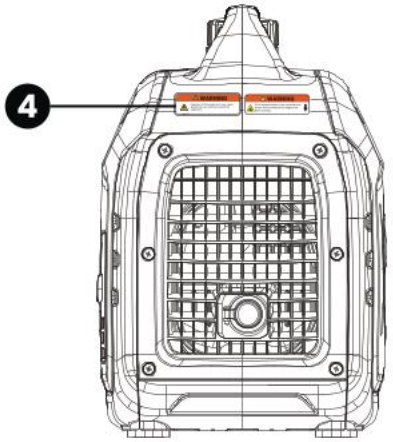
DO NOT modify the generator in any way.

DO NOT tamper with governor spring, links or other parts to increase engine speed.

Start generator and let engine stabilize before connecting electrical loads.

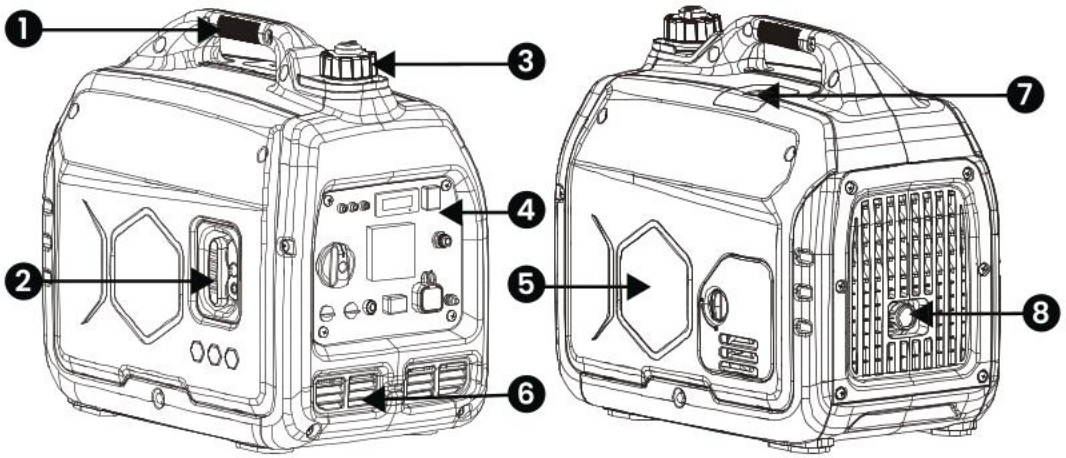
SAFETY LABELS AND DECALS





	LABEL	DESCRIPTION
1		CO DANGER
2		CO WARNING
3		PARAMETERS TABLE
4		HOT SURFACE

GENERATOR BASIC FEATURES



1 Carrying Handle
Used to lift or carry the unit

2 Recoil Handle
Pull to start the engine

3 Fuel Cap and Vent
Open the fuel cap to add the gasoline; Open the fuel vent before starting the generator and close the fuel vent after shutting down the generator

4 Control Panel
See Control Panel section

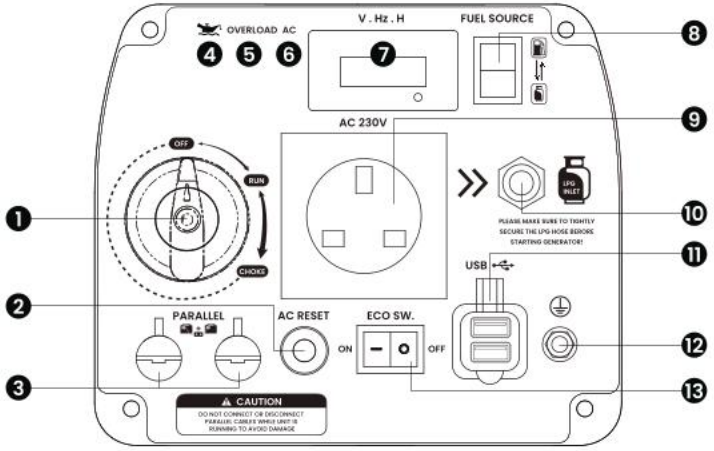
5 Maintenance Cover
Remove the cover to access the generator for maintenance

6 Engine Cooling Vents
Helps move airflow in unit to regulate engine temperatures

7 Spark Plug Access Cover
Remove the cover to service the spark plug

8 Muffler and Spark Arrestor
Avoid contact until the engine is cooled down. The spark arrestor prevents sparks from exiting the muffler. It must be removed for servicing

CONTROL PANEL



1 THREE-IN-ONE SWITCH: It's the fuel switch, choke switch and engine switch. Start and stop the generator.

2 AC RESET : The inverter generator will automatically switch OFF, when all AC output to protect the generator if overloaded or if there is a short circuit in a connected appliance.Unplug the devices and reduce the load. Press the RESET button to reset the generator.

3 PARALLEL OPERATION OUTLETS: A compatible Inverter Generator can be connected for additional power output. The power output of two generators connected in parallel is: the sum of the power of the two generators x 90%. (The special parallel kit shall be purchase separately.)

4 LOW OIL LIGHT: When the oil level in the crankcase falls below the safe operating limit, the low oil level indicator will illuminate yellow light and the generator will automatically shut off the engine.

5 OVERLOAD LIGHT: Red light Indicates that the generator is overloaded.

6 OUTPUT READY LIGHT: Green light Indicates that the generator is operating normally.

7 DIGITAL DISPLAY METER: Display output voltage, frequency and running time.

8 FUEL SELECTOR SWITCH: Selects between gasoline and LPG operation modes.

9 230-VOLT, 13-AMP UK OUTLET: The outlet is capable of carrying a maximum of 13 amps.

10 LPG CONNECTION PORT: The LPG supply hose must be securely connected when operating in LPG mode.

11 USB DUPLEX: 5V DC that come in 1 amps and 2.1 amps.

12 GROUND TERMINAL: The ground terminal is used to externally ground the generator.

13 ECO MODE SWITCH: When turned to the ON position, the engine will sense the load needed and run at a slower RPM to save fuel. If the appliance power exceeds half of the rated power of the generator, recommended to turn off the ECO switch of the generator, and let the generator run at full speed.

UNPACKING

1. Set the shipping carton on a solid, flat surface.
2. Carefully cut the packing tape on top of the carton.
3. Remove everything from the carton except the generator.
4. Using the carrying handles of the unit, carefully remove the generator from the box (two people lifting is recommended).

PACKAGE CONTENTS

Your generator comes with the items listed below.
Inverter Generator * 1
Owner Manual * 1
Spark Plug Socket Wrench * 1
Oil Funnel * 1
Screwdriver * 1
Generator Parallel Cables * 1
Generator Dust Cover * 1
UK Plug * 1
Pressure Relief Valve Kit * 1

BEFORE START THE GENERATOR

Location Selection - Before starting the inverter, avoid exhaust and location hazards by verifying:
• You have selected a location to operate the inverter that is outdoors and well ventilated.
• You have selected a location with a level and solid surface on which to place the inverter.
• You have selected a location that is at least 6 feet (1.8 m) away from any building, other equipment or combustible material.
• If the inverter is located close to a building, make sure it is not located near any windows, doors and/ or vents.

Weather - Never operate your inverter outdoors during rain, snow or any combination of weather conditions that could lead to moisture collecting on, in or around the generator.

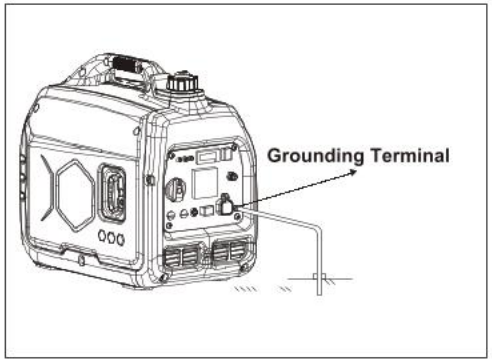
Dry Surface - Always operate the inverter on a dry surface free of any moisture.

No Connected Loads - Make sure the inverter has no connected loads before starting it. To ensure there are no connected loads, unplug any electrical extension cords that are plugged into the control panel receptacles.

GENERATOR GROUNDING

In order to prevent any damage to the generator caused by electric shock or improper electrical application, it is recommended that the generator is grounded with good conductor with insulating sheath.

1. Please use grounding wire with sufficient electrical energy capacity;
2. Connect one end of grounding wire reliable to grounding bolt on control panel of the generator set;
3. Insert grounding body (iron rod with a diameter of 5 ~ 10mm) 200mm below into the earth and lead it out with conductor;
4. Connect the other end of the grounding wire reliable to the led wire of grounding body.



WARNING

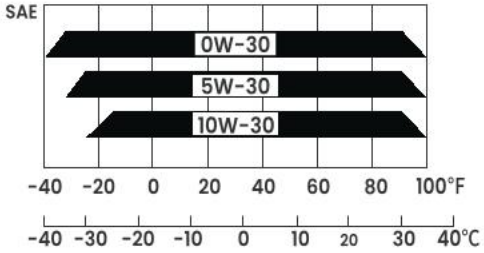
Failure to properly ground the generator can result in electrocution.

ADD ENGINE OIL

NOTICE

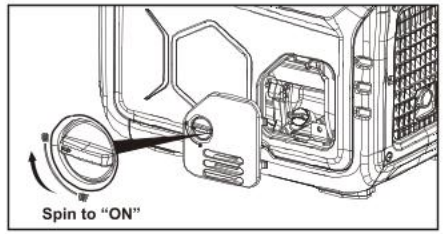
THIS GENERATOR HAS BEEN SHIPPED WITHOUT OIL. Do not attempt to crank or start engine before it has been properly serviced with recommended oil. Failure to add engine oil before starting will result in serious engine damage.

Recommended oil type for typical use is SAE 10W-30 engine oil. If running the generator in extreme temperatures, refer to the following chart.

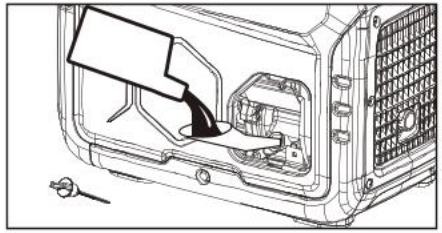


1.Place the generator on a flat, level surface.

2.Unscrew the knob and remove the oil maintenance cover.



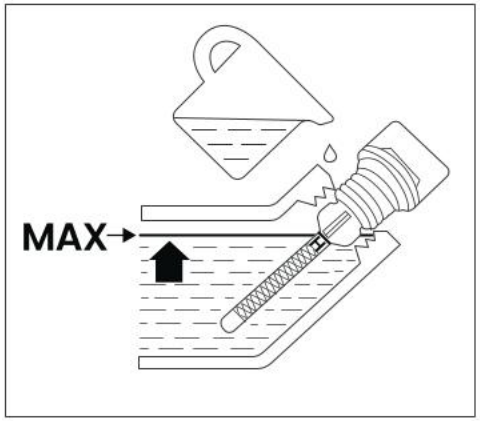
3.Remove the oil dipstick, and use the oil funnel to add 0.45L oil. DO NOT OVERFILL.



4.Check engine oil level before use and add as needed.

NOTICE

DO NOT screw in the dipstick while checking oil level.
Oil cannot exceed the upper limit of the oil level.



5.Tighten the oil dipstick and install the oil maintenance cover.

NOTICE

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

ADD FUEL: GASOLINE

WARNING

Never refuel the inverter while the engine is running.

Always turn the engine off and allow the inverter to cool before refueling.

Required Gasoline - Only use gasoline that meets the following requirements:
- Unleaded gasoline only
- Gasoline with maximum 10% ethanol added
- Gasoline with an 87 octane rating or higher

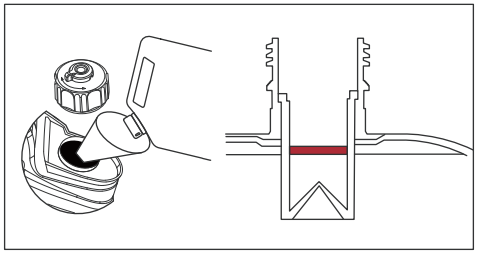
DO NOT use E85 or E15.
DO NOT use a gasoline oil mix.
DO NOT modify the engine to run on alternate fuels.
DO NOT fuel indoors.
DO NOT create a spark or flame while fueling.

Filling the Fuel Tank - Follow the steps below to fill the fuel tank:
Fuel Tank Capacity: **4L**
1. Shut off the generator.
2. Allow the generator to cool down so all surface areas of the muffler and engine are cool to the touch.
3. Move the generator to a flat surface.
4. Clean area around the fuel cap.
5. Remove the fuel cap by rotating counterclockwise.

NOTICE

Do not overfill the fuel tank. Spilled fuel will damage some plastic parts.

6.Slowly add gasoline into the fuel tank. Be very careful not to overfill the tank. The gasoline level should NOT be higher than the red ring.



7.Install the fuel cap by rotating clockwise.

OPERATION

DANGER

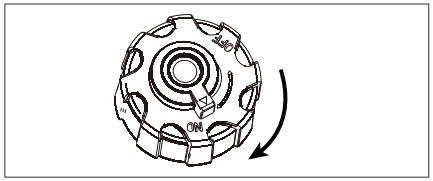
Never use the inverter in a location that is wet or damp. Never expose the inverter to rain, snow, water spray or standing water while in use. Protect the inverter from all hazardous weather conditions. Moisture or ice can cause a short circuit or other malfunction in the electrical circuit.

Never operate the inverter in an enclosed area. Engine exhaust contains carbon monoxide. Only operate the inverter outside and away from windows, doors and vents.

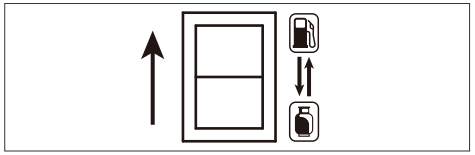
Before attempting to start the inverter, verify the following:
The engine is filled with engine oil.
The generator is situated in a proper location.
The generator is on a dry surface.
All loads are disconnected from the generator.
The generator is properly grounded.

START THE GENERATOR

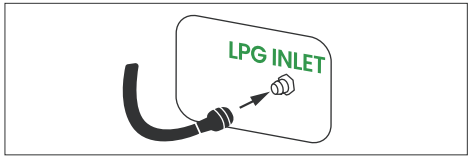
❶ Turn the fuel cap vent knob to the "ON" position.



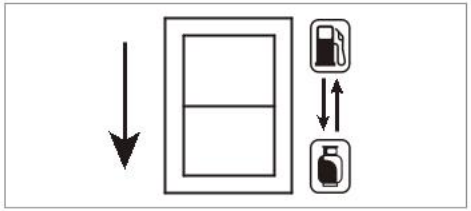
❷ Select fuel
The fuel selector switch is located on the upper right side of the control panel.
(1)Select gasoline fuel: Press the fuel selector switch to the gasoline position.



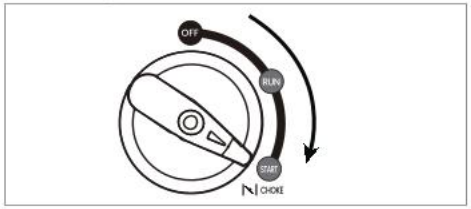
(2)Select LPG Fuel:
A. Connect propane hose: Connect the propane hose to both the inlet and the propane tank. Open the propane tank.



B.Press the fuel selector switch to the LPG position.



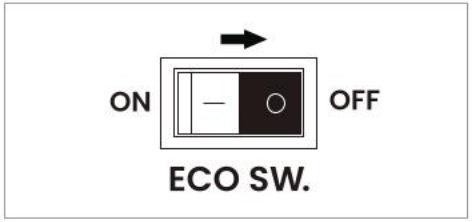
❸ Turn the three-in-one switch to the "CHOKE" position.



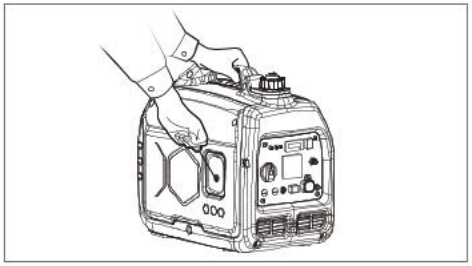
NOTICE

When warm starts, it is not necessary to turn off the choke, only turn the three-in-one switch to the "RUN" position.

❹ Press the ECO switch to the "OFF" position.

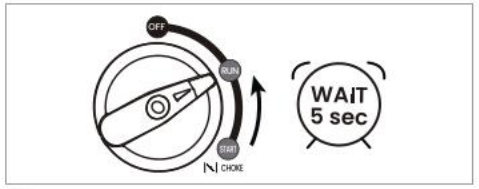


❺ Firmly grasp and pull the recoil handle slowly until you feel increased resistance, then pull rapidly.



Tip: When pulling the hand starter, hold the the generator carrying handle firmly, to prevent the generator from overturning.

❻ After the engine starts and runs smoothly turn the three-in-one switch to the "RUN" position.



❼ The AC indicator turns green, plug in device plug.



NOTICE

Before connect the appliance, if the appliance power exceeds half of the rated power of the generator, recommended to turn off the ECO switch of the generator, and let the generator run at full speed.

NOTICE

Please adjust the position of the choke according to the ambient temperature.

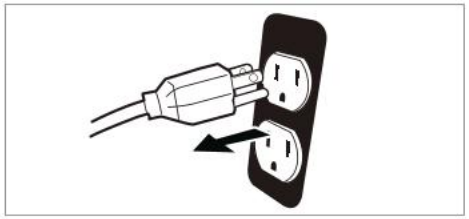
1.For starting in hot ambient temperature>15°C: Turn the three-in-one switch to "CHOKE" position for three pulls of the recoil cord. If generator does not start after three pulls, turn the three-in-one switch to the "RUN" position for the next three pulls. Excessive use of choke may result in spark plug fouling or engine flooding due to insufficient air intake, preventing the engine from starting.

2.For starting in cold ambient temperature < 15°C : Turn the three-in-one switch to the "CHOKE" position until engine starts. When the engine starts and runs smoothly turn the three-in-one switch to the "RUN" position. (In extreme cold temperatures, this may take more seconds to wait.)

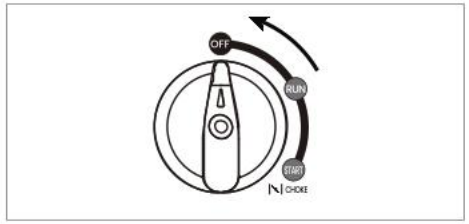
STOP THE GENERATOR

During normal operation, use the following steps to stop your generator:

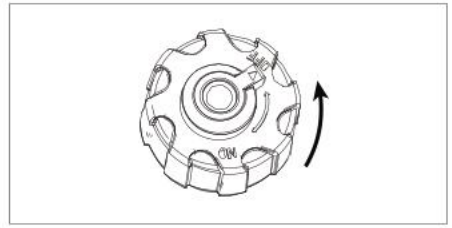
❶ Remove all the loads out of the output.



❷ Turn the three-in-one switch to the "OFF" position.



❸ Turn the fuel cap vent knob to the "OFF" position.



NOTICE

Remove or consume all untreated gasoline if you plan to store the generator longer than 3 months.

⚠ WARNING

WHEN USING THE GENERATOR WITH LPG MAKESURE THERE IS NO POSSIBLE IGNITION SOURCECLOSE TO THE GENERATOR.

1. Before using, make sure all of the LPG connectors and hoses are well connected and sealed.
2. Connect electrical devices to the generator ONLY after the engine runs smoothly. (There may be remnant gasoline in the carburetor; this can cause unsteady engine performance for several minutes).
3. If the propane gas leaks, shut off the LPG supply first and then quickly unplug or turn off any electrical devices powered by the unit.

NOTICE

1.If it is difficult to start the generator with LPG fuel, you can choose to start the generator with gasoline first and then switch the fuel from gasoline to LPG when there is no load.

2.After the generator is turned off, it is recommended to turn off the switch of the propane tank; when switching from propane fuel to gasoline fuel, the switch of the propane tank must be turned off.

ECO MODE

NOTICE

Always start the generator with ECO MODE OFF.

The inverter is equipped with an efficiency mode switch to minimize fuel consumption. In efficiency mode, the inverter will sense the load and adjust the engine RPM to the current load requirements.

1. To turn on the efficiency mode, press the switch to the ON position.
2. If no load is present, the inverter RPM will drop down to an idle speed.
3. As a load is applied, the inverter will sense the load and engine RPM will increase according to the load applied.
4. To run the inverter at maximum power and RPM, press the efficiency mode switch to the OFF position.

AC RESET

The inverter will trip the breaker and automatically disconnect from the load when the controls sense a predetermined overload condition. The generator engine will continue to run, but there will not be any electrical output.

1. Turn off all devices and unplug them from the inverter;
2. Press in the reset breaker to reset it until the OVERLOAD LED goes OFF and the OUTPUT READY LED is illuminated.
3. Determine the wattage required from the devices being powered by the inverter Make sure the wattage required does not exceed the maximum output of the inverter.
4. Reconnect electrical loads sequentially.

USE THE GENERATOR

Service Environment Of the Generator:

- Applicable temperature: -5°C~ 40°C;
- Applicable humidity: below 95%;
- Applicable altitude: regions below 5000 feet.

Standard Atmospheric Condition:

- Ambient temperature Tr: 298k (25°C)
- Relative air humidity Φr: 30%
- Absolute atmospheric pressure Pr: 100kPa

When actual environmental condition is inconsistent with the condition of output power of the generator set:

- Every 5°C of increase in ambient temperature will reduce the power of generator by about 2%.
- Every 30% of increase in relative humidity of air will reduce the power of generator by about 1.5%.
- Every 1000 feet rising of ASL will reduce the power the generator by about 4.5%.

USE GENERATOR AT HIGH ALTITUDE

1.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. Output will be reduced approximately 4.5% for every 1000 feet of increased altitude from sea level.
2.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.
3. The performance of gasoline engines can be improved by replacing the carburetor with a slightly smaller main injector or by adjusting the adjusting screw.If you often use the generator at an altitude of more than 1000 feet, you can buy special high-altitude parts to replace for use.Otherwise, the load power should be reduced to use the generator.
4.Even with the suitable carburetor, a 1000 feet rise in altitude reduces petrol engine power by about 4.5%. Without the replacement of a suitable carburetor, this decline would be even greater.

NOTICE

If a carburetor suitable for high altitude use is fitted to a gasoline engine for low altitude use, too thin mixture will reduce the power output of the gasoline engine, cause overheat or even serious damage.

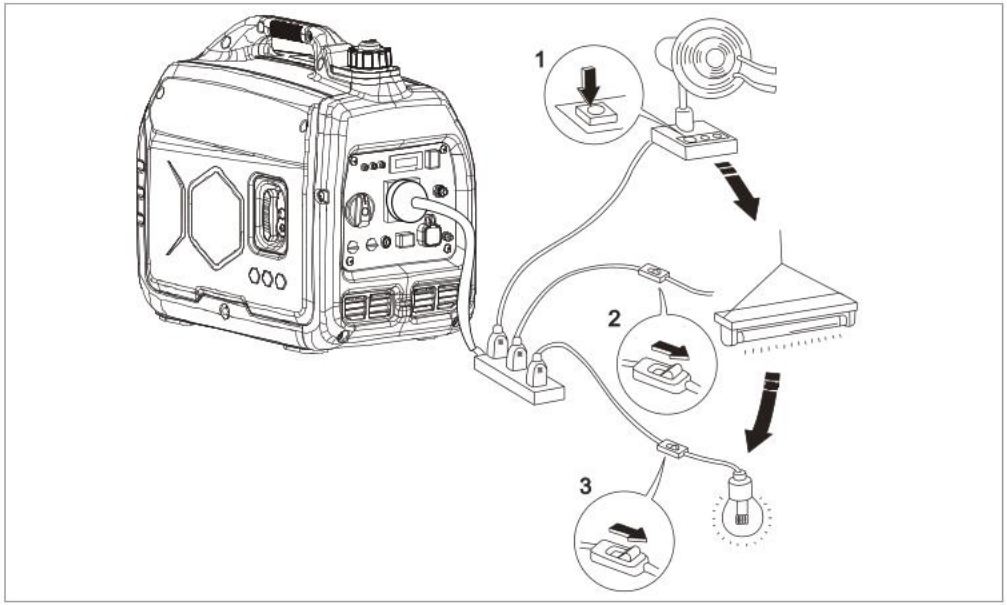
CONNECTION OF AC POWER

⚠ WARNING

All electrical equipment shall be disconnected before inserting the plug.

Make sure before starting the generator:
1. The total power of the load apparatus (the sum of resistive, capacitive and inductive load) shall not exceed the rated power of the generator.Exceeding the generator's wattage/amperage capacity can damage the generator and/or electrical devices connected to it.

2. Make sure the generator can supply enough continuous (running) and surge (starting) watts for the items you will power at the same time.
3. Appliance and power tool manufacturers usually list rating information near the model or serial number.
4. Before increasing engine speed, energy-saving switch must be switched to "OFF". If more than one load or electrical equipment is connected to the generator set, remember that the one with the highest starting load is connected first,and the one with the lowest starting current is connected last.



To determine power requirements:
1. Select the items you will power at the same time.
2. Total the continuous (running) watts of these items. This is the amount of power the generator must produce to keep the items running.
3. Estimate how many surge (starting) watts you will need. Surge wattage is the short burst of power needed to start electric motor-driven tools or appliances such as a circular saw or refrigerator. Because not all motors start at the same time, total surge watts can be estimated by adding only the item(s) with the highest additional surge watts to the total rated watts from step.

For example

TOOL OR APPLIANCE	RATED (RUNNING) WATTS	STARTING (PEAK)WATTS
RV Refrigerator	200	600
Coffee Maker	600	
Radio	200	
	1000 Total Running Watts	600 Highest Starting Watts
1000 Total Running Watts+600 Highest Starting Watts=Total Starting Watts Need 1600		
*Wattages listed are approximate. Verify actual wattage.		

In general, capacitive and inductive load, especially motor drive device, produce a large starting current when starting up. The following table is for your reference when you connect these electrical appliances to the generator set.

Type	Wattage		Typical Equipment	Example		
	Start	Rated		Device	Start	Rated
Incandescent Lamp Heating Apparatus	x1	x1	Incandescent Lamp/ TV set	Incandescent Lamp 100w	100VA (W)	100VA (W)
Fluorescent Lamp	x2	x1.5	Fluorescent Lamp	Fluorescent Lamp 40W	80VA (W)	60VA (W)
Electromotor Drive Device	x3-5	x2	Refrigerator/ Electric Fan	Refrigerator 150W	450-750VA (W)	300VA (W)

*Wattages listed are approximate.Verify actual wattage.

MAINTENANCE

WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL STARTING: Turn the Combination Switch of the equipment to its “OFF” position, wait for the engine to cool, and disconnect the spark plug cap before performing any inspection, maintenance, or cleaning procedures.

TO PREVENT SERIOUS INJURY FROM EQUIPMENT FAILURE:Do not use damaged equipment. If abnormal noise, vibration, or excess smoking occurs, have the problem corrected before further use.

Follow all service instructions in this manual.
The engine may fail critically if not serviced properly.

WARNING

Many maintenance procedures, including any not detailed in this manual, will need to be performed by a qualified technician for safety. If you have any doubts about your ability to safely service the equipment or engine, have a qualified technician service the equipment instead.

Note: This maintenance schedule is intended solely as a general guide. If performance decreases or if equipment operates unusually, check systems immediately. The maintenance needs of each piece of equipment will differ depending on factors such as duty cycle, temperature, air quality, fuel quality, and other factors.

Note: The following procedures are in addition to the regular checks and maintenance explained as part of the regular operation of the engine and equipment.

Item \ Maintenance Cycle		Each	First in 1 month or 20 hours	every 3 months or every 50 hours	1 years or every 100 hours
Engine Oil*	Check-Fill	✓			
	Replace		✓	✓	
Gearbox gear Oil(if any)**	Check Oil	✓			
	Replace		✓	✓	
Air Filter Element*	Inspection	✓			
	Clean			✓	
	Replace			✓	
Sediment Cup (if any)**	Clean				✓
Spark Plug*	Clean-Adjust				✓
Spark Eliminator*	Clean			✓	
Idling Speed (if any)**	Check-Adjust				✓
Valve Clearance**	Check-Adjust				✓
Fuel Tank and Fuel Filter**	Clean				✓
Fuel Line**	Inspection	Every two years (Please replace if ecessary)			
Cylinder Head, Piston**	Remove carbon deposit**	Displacement < 225cc, every 125 hours; displacement capacity ≥ 225cc, every 250 hours.			

* These items shall be replaced if necessary;

** These items shall be maintained by the dealer authorzed by the Company, unless the user has proper tools and maintenance ability.

Tip: Increased air filter maintenance in dusty environments.

CHANGE THE ENGINE OIL

⚠ WARNING

Oil is very hot during operation and can cause burns. Wait for engine to cool before changing oil.

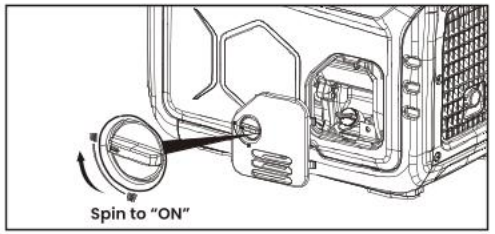
NOTICE

- Always maintain proper engine oil level. Failure to maintain proper engine oil level could result in severe damage to the engine and/or shorten the life of the engine.
- Always use the specified engine oil. Failure to use the specified engine oil can cause accelerated wear and/ or shorten the life of the engine.

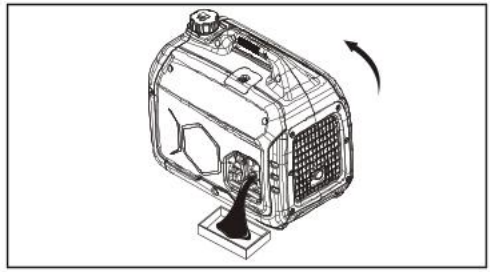
1.Always operate or maintain the generator on a flat surface.

2.Turn off the generator and let it cool for several minutes.

3.Take off the oil maintenance cover.



4.Remove the oil dipstick and tilt the generator to discharge the oil.



5.Fill the new engine oil and check the oil level.

6.Tighten the oil dipstick.

7.Install the oil maintenance cover.

NOTICE

- Long-term and frequent skin contact with engine oil may lead to skin cancer. Although this is not inevitable, it is recommended to wash the skin exposed to engine oil immediately and thoroughly with soap and water.
- From the perspective of environmental protection, please properly dispose of the used engine oil after use. We strongly recommend that you put the waste engine oil in a sealed container and send it to the local service station or waste oil recovery center.
- **Remember:** do not throw it into a garbage or dump it on the ground or in a ditch.

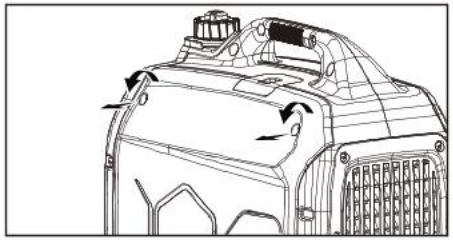
CLEAN THE AIR FILTER

NOTICE

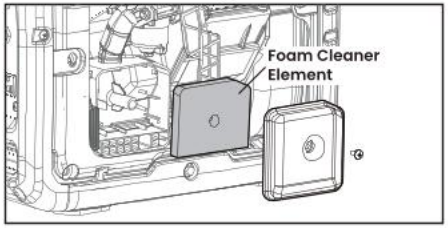
- Dirty air filter will affect air flowing into carburetor. To prevent carburetor failure, please regularly maintain the air filter. If used in dusty environment, it should be maintained more frequently.
- It is forbidden to start the generator without installing an air filter, otherwise the gasoline engine will be worn-out quickly.

The air filter must be cleaned after every 50 hours of use or 3 months (frequency should be increased if inverter is operated in a dusty environment).

1.Always operate or maintain the generator on a flat surface.
2.Turn off the generator and let it cool for several minutes.
3.Remove the bolts and take off the maintenance cover.



4.Unscrew the screw on the air filter cover, then remove the air filter cover.
5.Take out the foam element from the air cleaner housing.



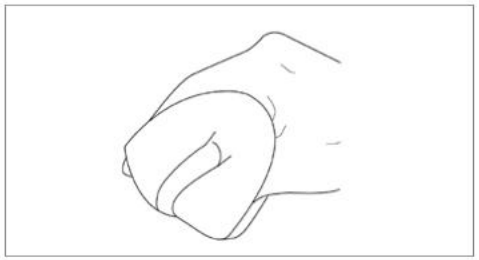
6.Wash the foam air filter element by submerging the element in a solution of household detergent soap and warm water. Slowly squeeze the foam to thoroughly clean.

NOTICE

Never dispose of soap cleaning solution used to clean the air filter by dumping the solution into a sewer, on the ground, or into ground water or waterways. Always be environmentally responsible. Follow the guidelines or other governmental agencies for proper disposal of hazardous materials. Consult local authorities or reclamation facility.

7.Rinse in clean water by submerging the air filter element in fresh water and applying a slow squeezing action.

8. Squeeze out excess water slowly, air dry naturally, then drop a few drops of engine oil.



NOTICE

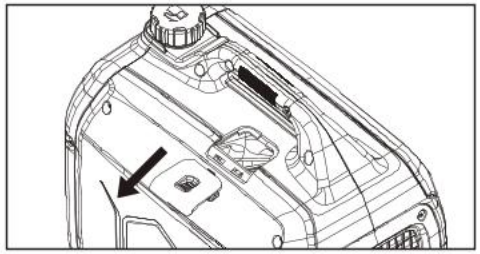
NEVER twist or tear the foam air filter element during cleaning or drying. Only apply slow but firm squeezing action.

9.Return the air filter element to its position in the air cleaner housing.
10. Install the air cleaner cover.
11. Install the maintenance cover.

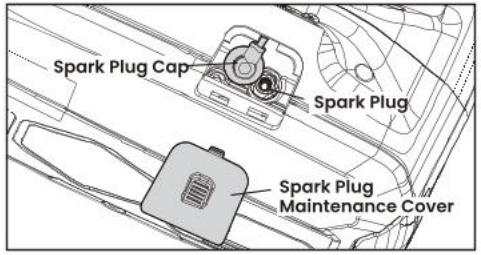
REPLACE THE SPARK PLUG

Clean and replace the spark plug after every 100 hours of use or every year.

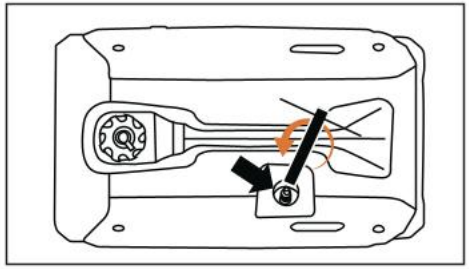
1.Always operate or maintain the generator on a flat surface.
2.Turn off the generator and let it cool for several minutes.
3.Slide the spark plug access cover off the housing.



4.Remove the spark plug cap of the generator.



5.Using the spark plug socket wrench provided, remove the spark plug from the cylinder head.



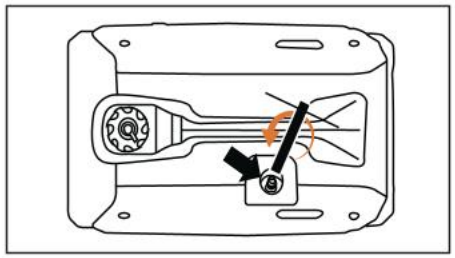
6. Place a clean rag over the opening created by the removal of the spark plug to make sure no dirt can get into the combustion chamber.
7. Inspect the spark plug. Replace it if the electrodes are pitted or burned, or if the insulator is cracked. Additionally, replace the spark plug if the gap is not within 0.7-0.8 mm (0.028-0.031 inch).

Recommended spark plug: A5RTC
Recommended spark plug gap: 0.7-0.8mm(0.028-0.031 inch)

NOTICE

Only use the recommended spark plug. Using a non- recommended spark plug could result in damage to the engine.

Install the spark plug by carefully following the steps outlined below:
a. Carefully thread the new spark plug into the engine by hand. Hand-thread the spark plug until it bottoms out.
b. Using the spark plug socket wrench provided, turn the spark plug to ensure it is fully seated.

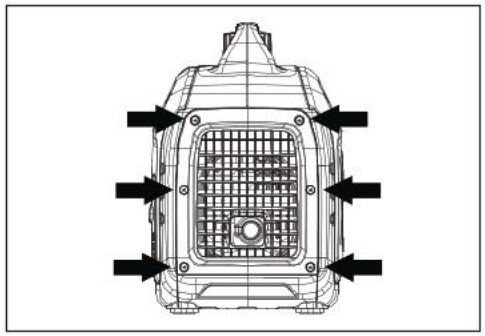


c. Install the spark plug cap.
d. Install the spark plug access cover.

CLEAN THE SPARK ARRESTOR

Check and clean the spark arrestor after every 50 hours of use or 3 months.

1.Always operate or maintain the generator on a flat surface.
2.Turn off the generator and let it cool for several minutes.
3.Remove the screws holding the muffler cover in place.



4. Loosen the clamp holding the spark arrestor onto the muffler.
5. Slide the spark arrestor band clamp off the spark arrestor screen.
6. Pull the spark arrestor screen off the muffler exhaust pipe.
7. Using a wire brush, remove any dirt and debris that may have collected on the spark arrestor screen.
8. If the spark arrestor screen shows signs of wear (rips, tears or large openings in the screen), replace the spark arrestor screen.
9. Install the spark arrestor components in the following order:
a. Place spark arrestor screen over the muffler exhaust pipe. Push on the screen until it fully bottoms out.
b. Place the spark arrestor band clamp over the screen and tighten with a flathead screwdriver.
10. Replace the discharge gate.

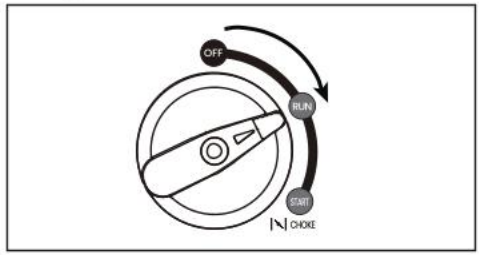
DRAIN THE GASOLINE

Storing Generators for Long Term(Over 30 Days), must drain the fuel tank and carburetor.

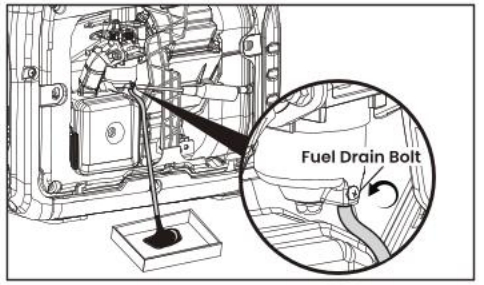
NOTICE

Gasoline stored for long term can deteriorate, causing gum, varnish, and corrosive buildup in fuel lines, fuel passages, and the engine. This corrosive buildup restricts the flow of fuel, which can prevent the engine from starting after a prolonged storage period.

1.Always operate or maintain the generator on a flat surface.
2.Turn off the generator and let it cool for several minutes.
3.Remove the bolts and take off the maintenance cover.
4.Locate the clear plastic hose from the float that is exiting out the bottom of the carburetor, and place a suitable container under it to catch the drained fuel.
5.Turn the three-in-one switch to the "RUN" position.



6.Loosen the float bowl drain screw until fuel is seen draining from the float bowl.



7.Allow fuel to drain into the container, and then tighten the float bowl drain screw.
8.Install the maintenance cover.

NOTICE

Never dispose of fuel by dumping fuel into a sewer, on the ground, or into groundwater or waterways. Always be environmentally responsible. Follow the guidelines or other governmental agencies for proper disposal of hazardous materials. Consult local authorities or reclamation facility.

TRANSPORT THE GENERATOR

NOTICE

- Fire hazard. DO NOT turn the generator upside down. Fuel or oil can leak and damage to the generator may occur.
- Avoid direct sunlight inside a vehicle. If the generator is left in an enclosed vehicle for many hours, the high temperature could cause the fuel to vaporize and result in a possible explosion.

1. Turn off the generator, tighten the fuel cap, and allow the generator to cool a minimum of 30 minutes.

2. Only use the generator' s fixed handle(s) to lift the unit or attach any load restraints such as ropes or tie-down straps. Do not attempt to lift or secure the generator by holding onto any of its other components.

3. Keep the unit level and upright during transport to minimize the possibility of fuel leakage or, if possible, drain the fuel or run the engine until the fuel tank is empty before transport.

STORAGE THE GENERATOR

WARNING

- In order to avoid burning or fire caused by contact with high-temperature parts of the generator, the generator must be cooled before storage. (Turn off the generator and allow the unit to cool a minimum of 30 minutes.)
- NEVER place any type of storage cover on the generator while it is still hot. Do not obstruct any ventilation openings.

Follow the procedures below for properly storing your generator. We highly recommend running your generator once a month for 20 to 30 minutes. Plug in a small load to ensure there is proper power output.

STORAGE PERIOD	STORAGE PREPARATION
For Short Periods (Less than 30 days)	**1.** Turn off the generator, allow the generator to cool. **2.** Add fuel stabilizer to the gasoline remaining in the tank. **3.** Place the generator set in a clean and dry area.
For long Periods (Over 30 Days)	**1.** Turn off the generator, allow the generator to cool. **2.** Drain the fuel tank and carburetor. **3.** Change the engine oil. **4.** Remove the spark plug and place about 2 tablespoon of oil in the spark plug opening. While placing a clean rag over the spark plug opening, slowly pull the recoil handle to allow the engine to turn over several times. This will distribute the oil and protect the cylinder wall from corroding during storage. **5.** Place the generator set in a clean and dry area.

TROUBLE SHOOTING

Before attempting to service or troubleshoot the generator, the owner or service technician must first read the owner's manual and understand and follow all safety instructions. Failure to follow all instructions may result in conditions that can lead to voiding certification or product warranty, serious personal injury, property damage or even death.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Generator will not start.	Engine is out of fuel.	Add gasoline to the generator.
	Fuel is old or contaminated.	Change fresh fuel.
	Oil is low or added Incorrect oil.	Add or change correct oil.
	In cold state, the three-in-one switch is set to the “RUN” position.	Turn the three-in-one switch to the “CHOKE” position.
	In warm state, the three-in-one switch is set to the ” CHOKE” position.	Turn the the three-in-one switch to the “RUN” position.
	Spark plug is dirty or broken.	Clean or replace the spark plug.
	Fuel system malfunction, ignition malfunction, choke stuck, etc.	Contact customer service.
Engine is running, but no electrical output.	Reset breaker is tripped.	Reset the reset breaker.
	Faulty or defective power cord.	Replace the extension cords.
	The power cord's plug connector is not fully engaged in the generator's outlet.	Verily plug connector is firmly engaged in the generator's outlet.
Generator suddenly stops running.	Engine is out of fuel.	Add gasoline to the generator.
	Low oil shutdown.	Add enough engine oil.
	Generator overloaded.	Unplug some devices.
Generator Backfire/Backfiring.	Old or low quality gasoline.	Add correct gasoline.
	Spark plug cap loose.	Cover the spark plug cap tightly.
	Defective spark plug.	Replace the spark plug.
	Dirty air filter.	Clean or replace the air filter.
	Carburetor blockage.	Clean or replace carburetor.
	Dirty air filter.	Clean or replace the air filter.
	Generator overloaded.	Unplug some devices.
	Carburetor damage.	Replace new carburetor.

ELECTRICAL SCHEMATICS

