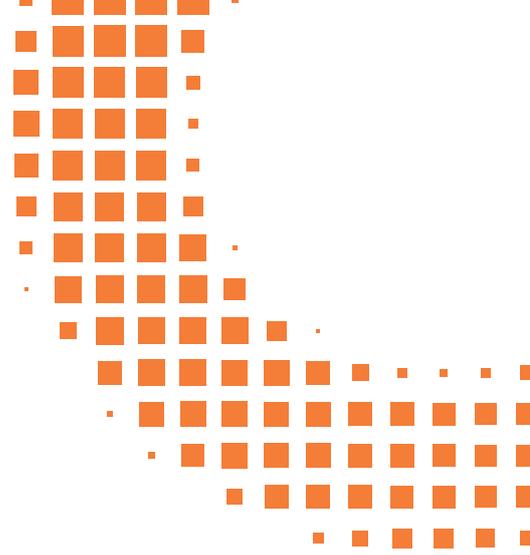




TSR | ELSITE



ORIGINAL INSTRUCTIONS

TSR-7500i

707010002

INVERTER GENERATING SET

OPERATOR'S MANUAL

Read this manual carefully before operation.
This manual includes important guidance for safety operation.

Introduction

Thank you for purchasing the TSR-7500i Inverter Generator. This manual provides essential instructions for the safe and efficient operation of your generator. Please read it carefully before using the equipment.

For your safety and the safety of others, ensure that you fully understand the contents of this manual. Keep it in a secure place for future reference.

Table of Contents

I	Safety Instructions	3
II	Getting started	4
	Unpacking	4
	Assembly	4
	Handling the generator	5
III	Features and controls	6
	Control panel	7
IV	Operating the generator	9
	1. Operating check list	9
	2. Starting the generating set	11
	3. Connecting electrical devices	12
	4. Stopping the generating set	13
IV	Maintenance	14
	1. Generating set maintenance	14
	2. Maintenance schedule	15
	3. Engine maintenance	15
V	Trouble-shooting	17
VI	Storage and transportation	18
VII	Specifications	19
	1. Specification parameter tables	19
	2. Wiring diagram	20

I. SAFETY INSTRUCTIONS

To ensure your safety and the proper operation of the generator, this manual categorizes warnings into three levels:

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

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

CAUTION: Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury or equipment damage.

Please pay close attention to these warnings throughout the manual.

WARNING: READ THIS MANUAL COMPLETELY BEFORE OPERATING
Failure to read and follow all safety instructions in this manual may result in property damage, serious injury, or death.

WARNING: Air-cooled generating sets are not designed for continuous operation. Do not modify any part of the generating set or use it in an unsuitable manner.

DANGER: TOXIC FUMES

Always operate the generator in a well-ventilated area to avoid carbon monoxide poisoning. Never operate the generator indoors or in enclosed spaces, as this can cause serious injury or death.

WARNING: BATTERY ACID

Be cautious when using any battery. The battery must be kept away from heat, sparks, or open flames.

The battery emits hydrogen gas (which is harmful to the human body) when charging. Please charge the battery in a well-ventilated area to avoid battery acid overflow. If battery acid comes into contact with skin, rinse immediately with clean water.

WARNING: FIRE

Operation of the generator may create sparks that can ignite flammable materials. Keep flammable objects at least 1.5 meters away. Use a spark arrestor if required by local laws.

WARNING: HOT SURFACE

The engine and generator generate heat during operation. Avoid contact with high-temperature surfaces and exhaust gases to prevent severe burns.

DANGER: FIRE OR EXPLOSION

Gasoline is highly flammable and extremely explosive. Fire or explosion can cause severe burns or death.

- Keep flammable items away while handling the generator.
- Fill the fuel tank outdoors in a well-ventilated area with the

generator turned off.

- Always wipe off spilled fuel and wait for it to dry completely before starting the generator.
- **DO NOT** operate the generator with known leaks in the fuel system.
- Use proper fuel storage and handling procedures. **DO NOT** store fuel or other flammable materials nearby.
- Empty the fuel tank before storing or transporting the generator.
- Keep a fire extinguisher handy and be prepared to extinguish a fire if one starts.

Open Flame Alert: Fuel and its vapors are extremely flammable and explosive. Keep fuel away from smoking, open flames, sparks, pilot lights, heat, and other ignition sources.

DANGER: ELECTRICAL SHOCK

This generator produces powerful voltage, and the electricity **CAN KILL YOU.**

- The generator must be properly connected to an appropriate ground to prevent electric shock. Failure to ground the generator properly can result in electrocution, especially if the generator is equipped with a wheel kit. Consult an electrician for local grounding requirements.
- Installation must be performed by a certified electrician. Improper installation can result in electrical shock and death.
- To reduce the risk of electrical shock:
- **DO NOT** use electrical cords that are worn, frayed, bare, or otherwise damaged.
- **DO NOT** touch bare wires or receptacles.
- **DO NOT** handle the generator or electrical cords while standing in water, barefoot, or with wet hands or feet.
- **DO NOT** allow unqualified persons or children to operate or service the generator.
- **DO NOT** connect the generator to a building electrical system without using a properly installed transfer switch by a qualified electrician.
- When using the generator for backup power, notify the utility company. Use an approved transfer switch to isolate the generator from the electric utility.
- Failure to isolate the generator from the power utility can result in death or injury to utility workers due to backfeed of electrical energy.

Wet Conditions Alert:

DO NOT expose the generator to rain or use it in damp locations.

WARNING: KICKBACK

Rapid retraction of the starter cord will pull your hand and arm towards the engine faster than you can release it. Unintentional startup can result in an accident.

WARNING: Before each use, carefully check all parts for looseness or damage. Observe the oil or fuel system for leaks or any other conditions that may affect normal operation.

- Repair or replace all damaged or defective parts without delay.
- Familiarize yourself with the location of all controls and safety signs.
- Ensure that all safety indicators are in the correct positions and functioning properly.
- Always run the generator on a level surface.
- DO NOT block the cooling channels with objects.

- DO NOT expose the generator to excessive humidity or large amounts of dust.
- DO NOT allow children or untrained individuals to operate the generator.
- DO NOT leave the generator running unattended; always turn it off before leaving.
- Avoid touching the generator while it is running or immediately after stopping.

II. GETTING STARTED

1. Unpacking

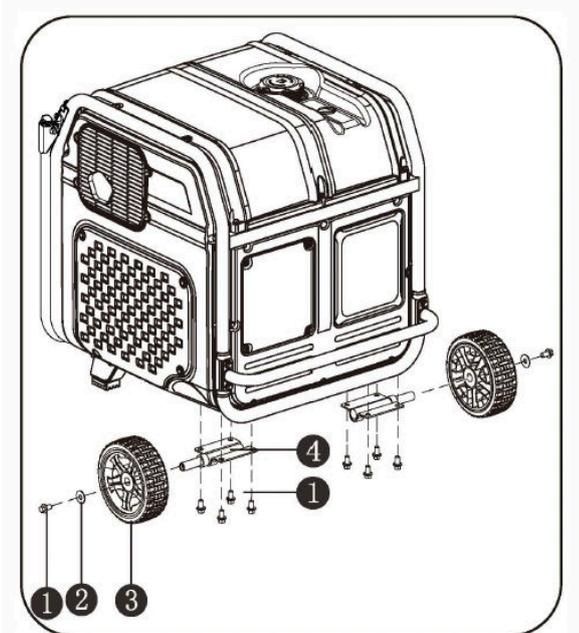
Remove the generator from the shipping carton.

- Place the shipping carton on a stable, flat surface.
- Carefully cut each side of the carton from top to bottom. Fold each side flat on the floor.
- Remove everything from the carton except for the generator.

2. Assembly

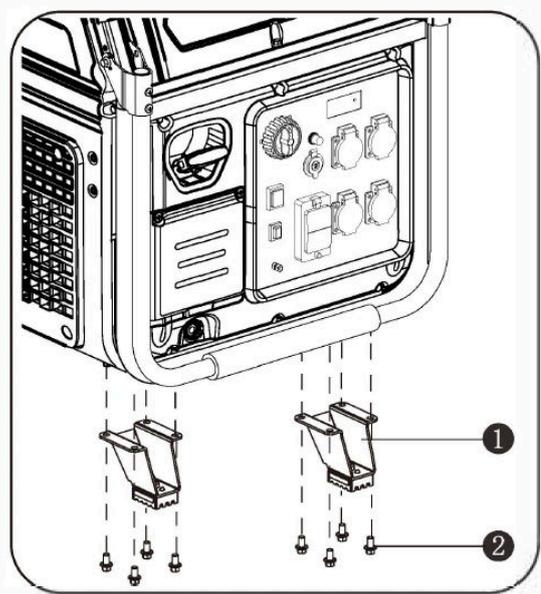
Install the wheels and support feet.

1. After fixing the wheel axle assembly to the frame, install the wheels and spacers on the wheel axle assembly and fix them with bolts.



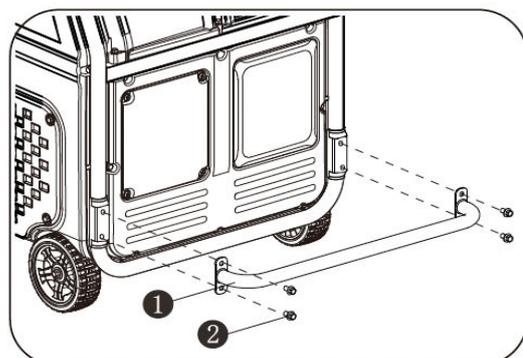
1: Bolt M8x14 2: Washer 3: Wheels
4: Wheels axle assembly

2. Install the support feet. Align the mounting holes of the support feet with the mounting holes at the back of the frame, then fix the support feet with bolts.



1: Support feet assembly 2: Bolt M8x14

3. Assemble the rear armrest. After aligning the rear armrest mounting holes with the generator's mounting holes, fasten them with bolts.

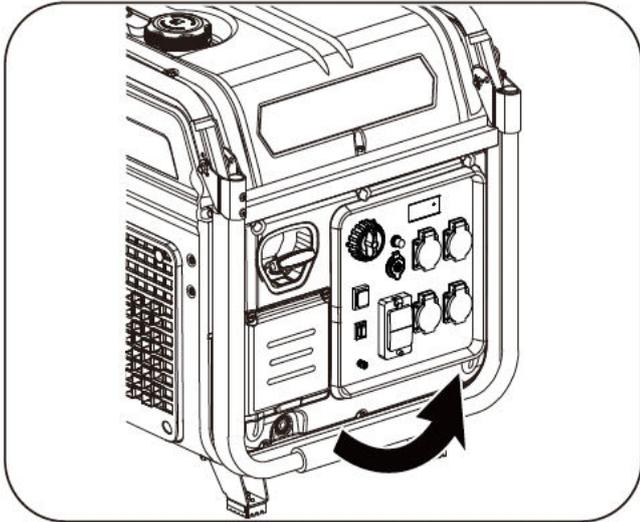


1: Rear armrest 2: Bolt M8x14

3. Handling the Generator

Use of Pushing Hands

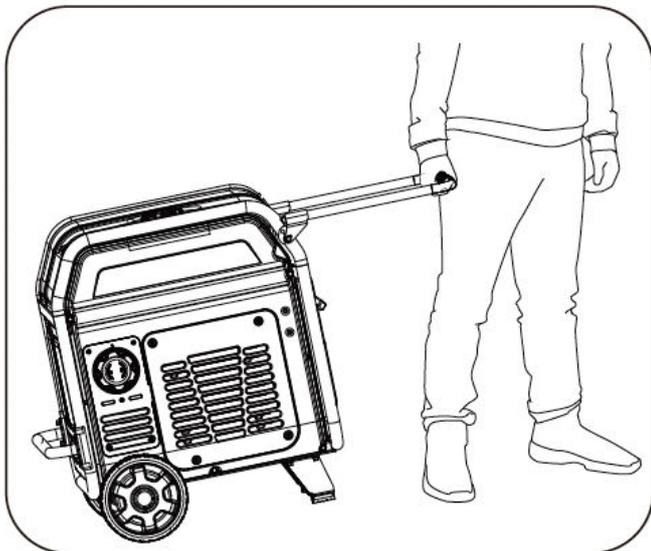
The handle can be unfolded by directly lifting it up, and the handle has a self-locking function. After the handle is fully lifted, the position of the handle will be locked and will not fall freely.



WARNING: Failure to follow these instructions could result in personal injury or damage to the generator.

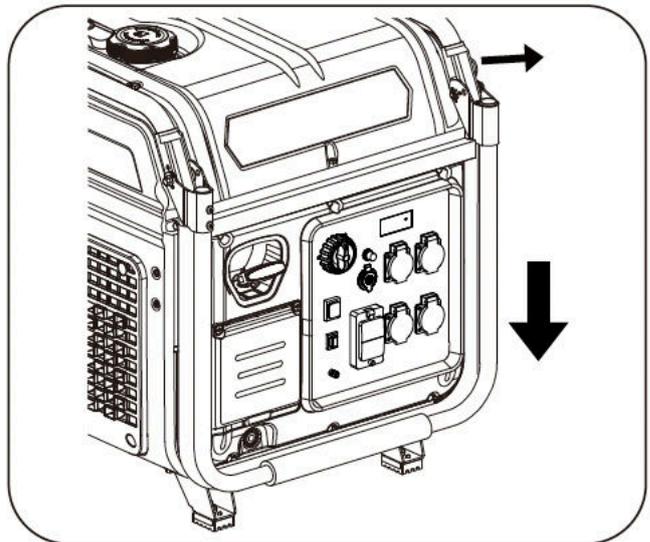
Mode 1:

Using the handle, tilt the end of the generator slightly off the ground until it is balanced on the wheels. While maintaining balance, roll the generator to the desired location.



Using the Handle

The handle can be unfolded and locked into place by lifting it. To lower the handle, first pull the pin outward to release the self-locking function and then press the handle downward to lower it.



Mode 2:

Lift the unit up by the frame with two people and move it to the desired location.

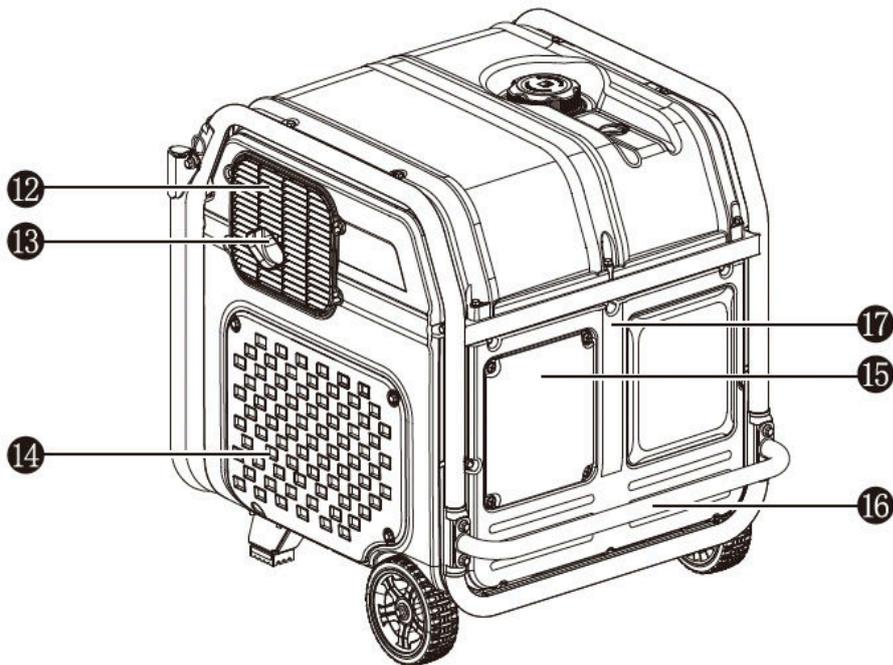
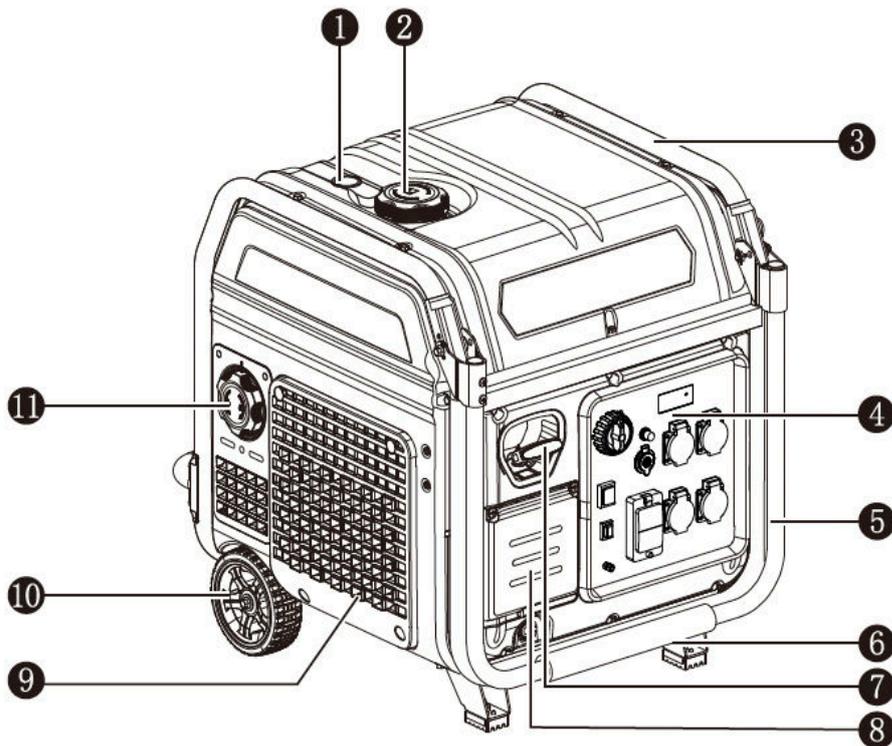
CAUTION:

Always turn off the generator and ensure the fuel valve is closed.

Always make sure the engine and muffler have cooled down before handling the generator safely (typically 15-30 minutes).

Do not drop or strike the unit or place it under heavy objects.

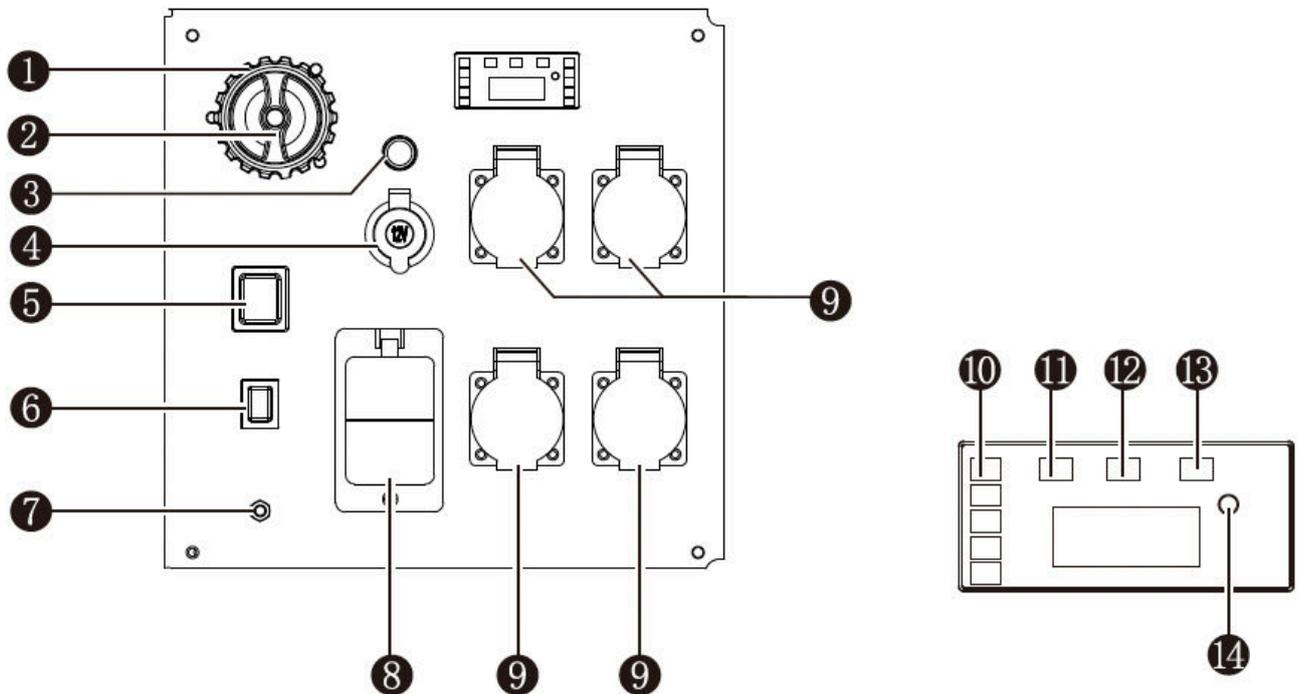
III FEATURES AND CONTROLS



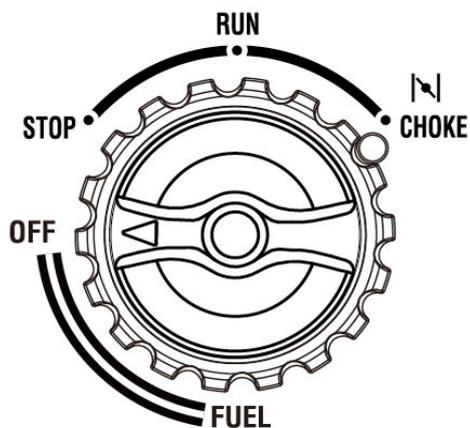
- | | | | |
|-----|---------------------------|-----|------------------------------|
| 1. | Lever indicator | 11. | Air filter maintenance cover |
| 2. | Fuel tank cap | 12. | Muffler blind window |
| 3. | Rack | 13. | Muffler |
| 4. | Control Panel | 14. | Oil drain cover |
| 5. | Push handle | 15. | Oil maintenance cover |
| 6. | Support feet assembly | 16. | Rear armrest |
| 7. | Recoil starter | 17. | Rear end cover |
| 8. | Battery maintenance cover | | |
| 9. | Engine inlet shutter | | |
| 10. | Wheel | | |

Control panel

- | | | | |
|----|---------------------------|-----|----------------------|
| 1. | Start/Stop switch (outer) | 8. | RCD |
| 2. | Fuel switch (inner) | 9. | AC output receptacle |
| 3. | DC Breaker | 10. | Power indicator |
| 4. | DC 12V | 11. | Overload indicator |
| 5. | Engine switch | 12. | Running indicator |
| 6. | ECO mode | 13. | Oil level indicator |
| 7. | Ground terminal | 14. | Reset button |



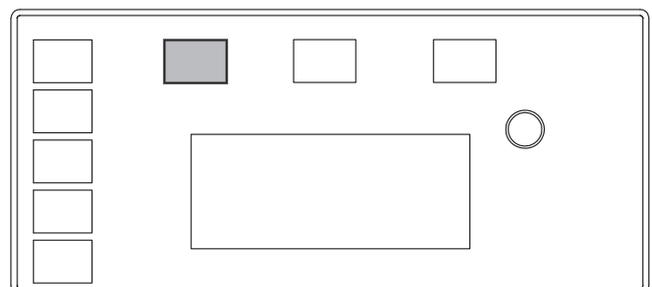
Fuel switch (inner)
Start/Stop switch (outer)



The fuel switch: fuel ON/OFF
The start/stop switch: STOP/RUN/CHOKE

Overload indicator (red)

The overload indicator (red) lights up when the generator is overloaded, meaning that the total electrical load exceeds the generator's rated capacity. If the overload indicator turns on, you should reduce the electrical load immediately to avoid damaging the generator. When the generator set has no output and the overload indicator is on, follow these steps:



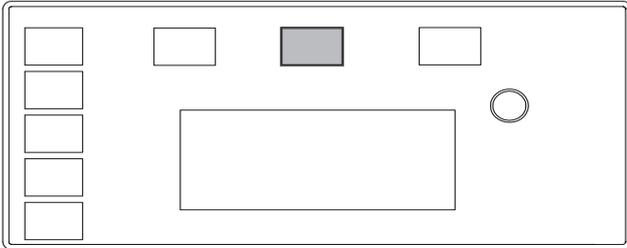
1. Lower the total power demand by unplugging some of the connected electrical devices from the generator.
2. Check the air intake for any impurities and ensure there are no

abnormal conditions affecting airflow or the generator's cooling system.

3. Press the reset button located on the control panel to reset the overload condition.

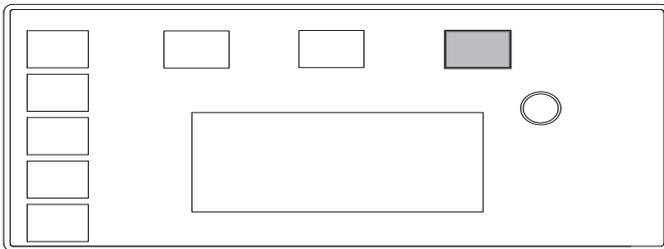
Running indicator (green)

The running indicator (green) lights up when the generator is operating normally. This indicator should be illuminated whenever the generator is in operation.



Oil level indicator (yellow)

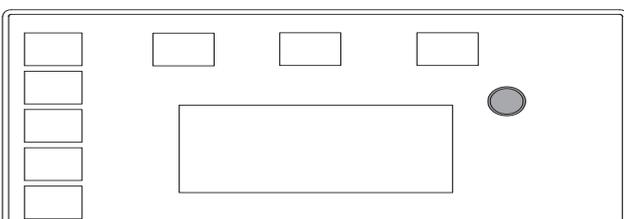
The oil level indicator (yellow) shows the current oil level in the engine. If the oil level is within the proper range, the indicator will be off. If the oil level is too low, the indicator will light up, signaling that oil needs to be added. Ensure that the oil is checked regularly and kept at the proper level to prevent engine damage.



Note! If the generator fails to start when the engine is turned off, turn the start-stop knob to the "RUN" position and then pull the starter handle. If the oil level indicator lights up, it means that the oil capacity is insufficient. Please add oil and restart.

Reset Button

The reset button is used to clear an overload condition or to reset the generator after a fault occurs. If the generator fails to start and the overload indicator is on, press the reset button to reset the system. During normal operation, press the reset button to alternately display voltage, frequency, running time, etc.



ECO Mode

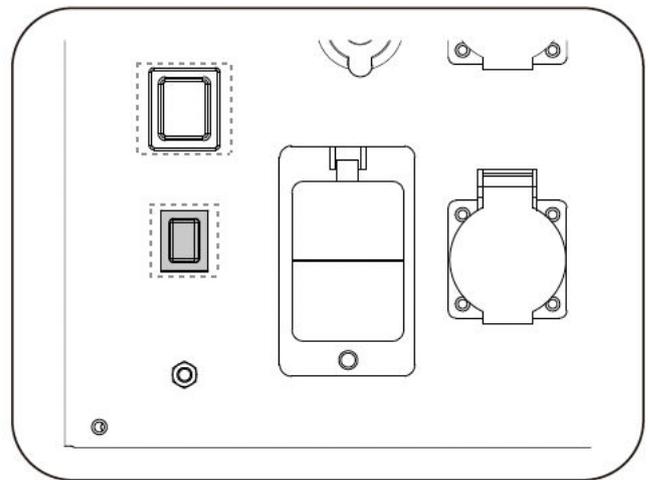
The ECO mode is designed to improve fuel efficiency by adjusting the engine's speed based on the load. When ECO mode is activated, the engine speed automatically adjusts to the electrical demand, reducing fuel consumption and engine wear when the generator is not under heavy load.

To activate or deactivate ECO mode:

- Set the ECO mode switch to the "ON" position for fuel-saving operation under light load conditions.
- Set the switch to the "OFF" position when using high-power equipment or devices with large starting currents (such as air compressors or water pumps).

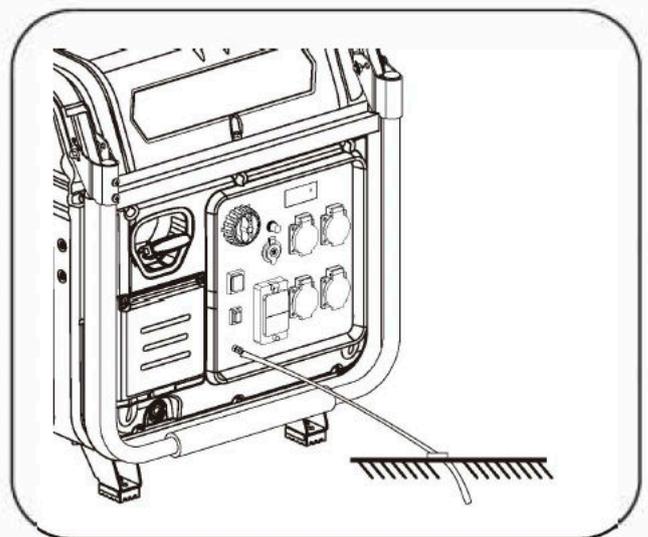
Note:

For optimal performance, always turn off ECO mode when using equipment that requires high starting current, as the generator may not be able to maintain stable operation with ECO mode enabled.



Ground terminal

The grounding terminal is designed to prevent electric shock. It is essential to connect the generator to the grounding wire before operation. Proper grounding of the generator is required to reduce the risk of electrical shock. Always ensure that the generator is grounded properly before starting.



IV OPERATING THE GENERATOR

1. Operating checklist

1.1 Operating location

Always use the generator outside and place it in a well-ventilated area.

The generator must be placed on a solid, flat surface, and the surrounding environment should be clean, dry, and well-ventilated. Ensure there is at least 0,6m of clearance on all sides of the generator.

Operate the generator only in specified areas. If any problem arises during operation, please consult the authorized dealer.

DANGER: TOXIC FUMES

The exhaust from the generating set contains carbon monoxide, an odorless and deadly gas. Using the engine indoors **CAN KILL YOU!**

NEVER operate the generator inside any building or enclosure, **EVEN IF** doors and windows are open.

Place the generating set in a well-ventilated, clean area. Consider wind direction and air currents when positioning the generator to ensure safe ventilation.

High Altitude

This generating set may require a high-altitude carburetor kit to ensure proper operation at high altitudes. Consult an authorized local dealer for information on high-altitude kits if you frequently operate the generator at altitudes above 1,500 meters.

CAUTION: Even with a carburetor modification, the generating set's horsepower will decrease by approximately 3.5% for every 300 meters increase in altitude. The effect on horsepower will be even greater if no carburetor modification is made.

CAUTION: Operating the engine at altitudes below 1,500 meters with a modified carburetor may cause the generating set to overheat and result in severe engine damage. Restore the carburetor to factory specifications at an authorized dealer when using the generator in low-altitude areas.

1.2 Operating condition

Before operating the generator, check for any loose or damaged parts, signs of oil or fuel leaks, and any other condition that might affect its operation. If any issues are found, repair or replace damaged parts immediately.

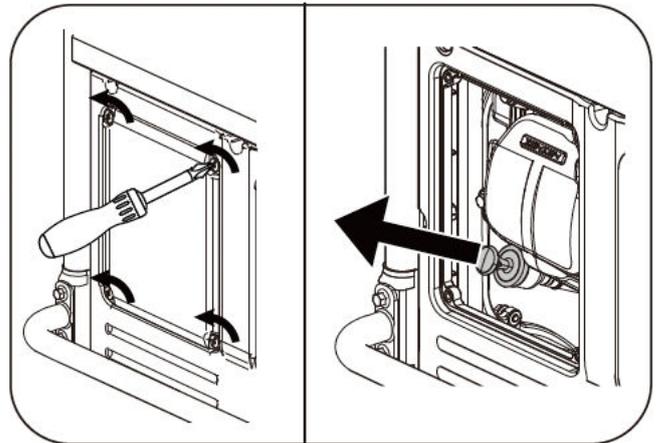
WARNING:

Failure to correct any problems before operating the generator could result in property damage, serious injury, or death.

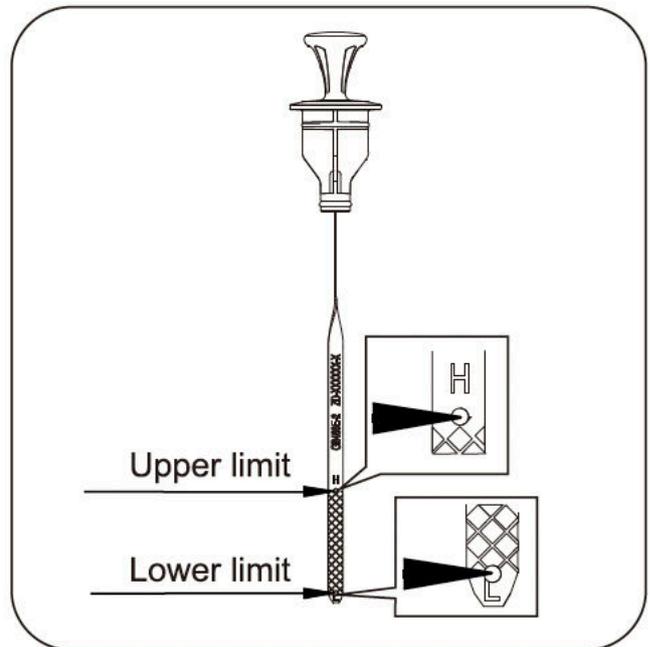
Check the dirt or foreign objects on the surface around the air intake of the generator. Do not operate the generator if dirt or foreign objects are blocking the cooling system. Clean the intake area regularly to ensure proper ventilation and prevent overheating. Do not move or tip the generating set during operation.

1.3 Engine oil check

Place the generator on a level surface with the engine stopped. Check the engine oil level by removing the oil dipstick.



Remove the oil service cover, unscrew the dipstick, and clean it. Reinsert the dipstick and check the oil level. If the oil level is low, add the recommended oil.



Recommended oil model: SAE 10W-30

WARNING:

Oil is a major factor affecting performance and service life. Use 4-stroke automotive oil as recommended in the MAINTENANCE section of this manual.

CAUTION:

Do not operate the generator on level surfaces. The engine is equipped with a low oil sensor (applicable types) that will automatically

shut down the engine when the oil level falls below the safe limit. To avoid inconvenience, check the oil level before operation.

WARNING:

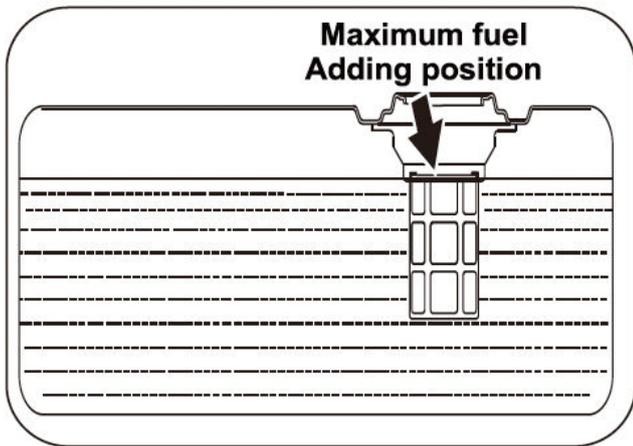
This engine is not filled with oil before shipment. Any attempt to crank the engine without sufficient oil could result in severe engine damage. Always follow the recommended type and amount of oil, and check the oil level before starting the engine.

1.4 Fuel check

With the engine stopped, check the fuel level in the fuel tank. Always ensure that the fuel tank is filled correctly. Use clean, fresh, regular unleaded gasoline.

DO NOT mix oil with gasoline. Always wipe up any spilled fuel.

Do not overfill the fuel tank. Always leave some room for fuel expansion.



CAUTION:

Pressure can build up in the fuel tank. Allow the generator to cool for at least two minutes before removing the fuel cap when adding fuel.

Loosen the fuel cap slowly to relieve any pressure in the tank.

DANGER: FIRE OR EXPLOSION

Gasoline is highly flammable and extremely explosive. Fire or explosion can cause severe burns or death.

- Keep flammable items away while handling the generator.
- Fill the fuel tank outdoors in a well-ventilated area with the generator turned off.
- Always wipe off spilled fuel and wait for it to dry completely before starting the generator.
- DO NOT operate the generator with known leaks in the fuel system.
- Use proper fuel storage and handling procedures. DO NOT store fuel or other flammable materials nearby.
- Keep a fire extinguisher handy and be prepared to extinguish a fire if one starts.

DANGER: Do not fill the fuel tank above the upper limit. Overfilling may cause the engine to stop or damage the carbon canister (if equipped), and will void your warranty.

NEVER use engine or carburetor cleaner products in the fuel tank or carburetor, as this may cause permanent damage to the engine.

Fuel system problems caused by the use of these products will not be covered by the warranty. The use of engine or carburetor cleaner can lead to severe damage to the fuel tank, fuel filter, fuel lines, or carburetor. This can result in clogged fuel lines, poor engine performance, or failure to start. Always ensure that only clean, regular unleaded gasoline is used in the generator, and avoid using any fuel system additives not recommended in this manual.

Only use gasoline with a maximum ethanol content of 10% (E10).

Higher ethanol concentrations (such as E15 or E85) can cause damage to the fuel system and engine components, and should not be used.

CAUTION:

To minimize gum deposits in the fuel system, it is recommended to use fuel stabilizer if the generator is not going to be used for an extended period of time. Follow the manufacturer's instructions for proper use of the stabilizer to ensure optimal performance and prevent clogging in the fuel system.

CAUTION:

Allow the generator to cool for at least two minutes before removing the fuel cap when adding fuel.

Loosen the fuel cap slowly to relieve any pressure in the tank.

1.5 Generating Set Grounding

The generator must be properly grounded before operation to minimize the risk of electric shock. A properly grounded generator will provide a safer environment for operation and help protect the user from electrical hazards.

Grounding procedure:

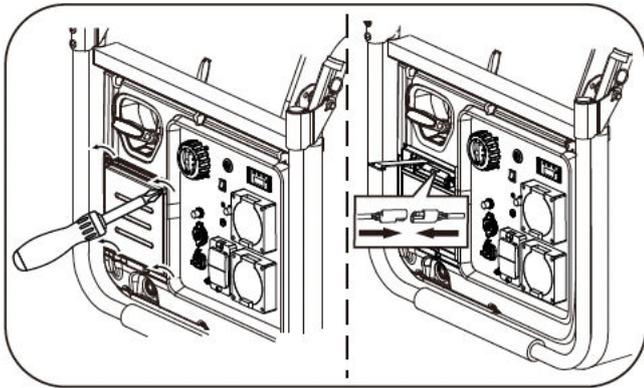
1. Connect the ground terminal of the generator to a suitable ground point using a ground wire. Ensure the wire is of proper gauge (4mm²) and securely connected to both the generator and the ground point.
2. Check that the grounding system is working properly before operating the generator.
3. Never operate the generator without grounding it first.

WARNING:

Improper grounding can result in electrical shock, which may cause serious injury or death. Always ensure the generator is properly grounded before use.

1.6 Battery Connection

Remove the fixing bolts and the battery maintenance cover. Loosen the battery rubber belt, connect the battery terminals to the motor terminals, and then reinstall the battery maintenance cover.



Note! This product is equipped with an electric starter, powered by a battery within the product. If left unused for more than 3 months, the battery should be charged in time to prevent damage.

1.7. Disconnect all electrical devices

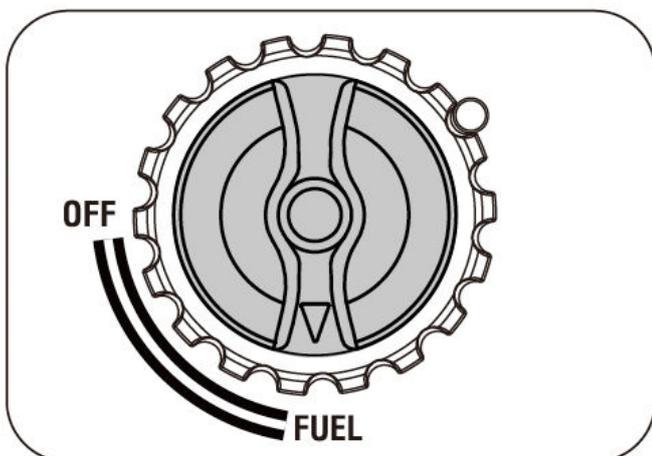
Disconnect all electrical devices from the generator and switch off the AC circuit breaker before starting the engine. The generator may be hard to start with electrical devices connected.

The power draw of the connected electrical equipment cannot exceed the maximum capacity of the generator. Please refer to the specification table for details.

2. Starting the generating set

2.1 Perform Operating check list and remove all loads.

2.2 Turn the fuel switch to "FUEL" position.



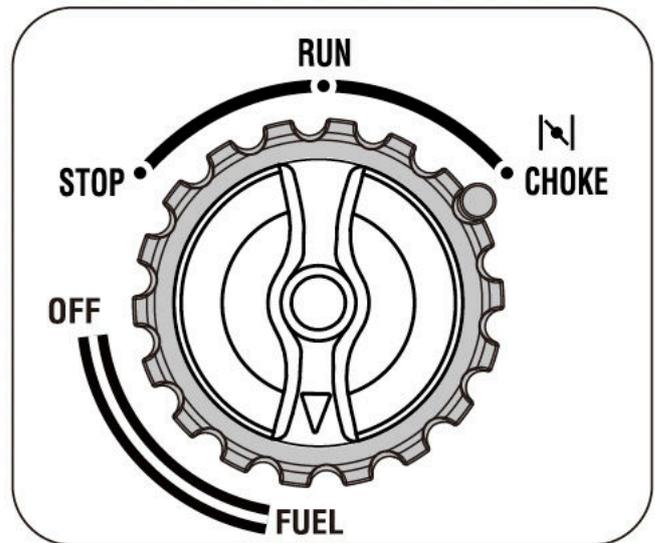
2.3 Cold start

Turn the start/stop switch to the "CHOKE" position to shut off the choke.

Warm start

Turn the start/stop switch to the "RUN" position. If the generator

does not start, turn the start/stop switch to the "CHOKE" position before attempting to restart.

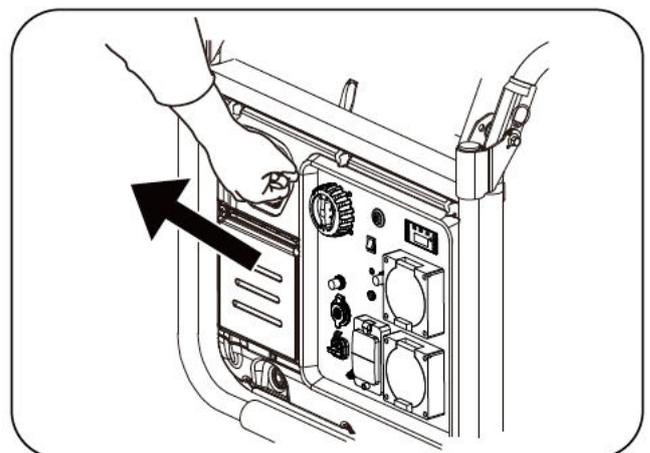


2.4 Select according to the actual configuration of the user

Manual start

WARNING: Check started cord conditions before operating. Have it replaced immediately by local authorized dealer if cord is frayed.

When starting the engine, grasp the recoil starter handle and pull slowly until resistance is felt. Then pull rapidly to avoid kickback.



WARNING: KICKBACK

Rapid retraction of the starter cord will pull your hand and arm towards the engine faster than you can release it. Unintentional startup can result in an accident.

CAUTION:

The choke plate should be set to a different width depending on the temperature and other factors.

Electric start

Set the switch to "RUN," press and hold the start button for 0.3-5 seconds, then release it to start the generator.

CAUTION:

If the engine fails to start after three attempts or flames out after starting, inspect and ensure that the generator is placed on a horizontal surface and that enough engine oil has been added.

During startup, do not keep the start switch in the "start" position for more than 5 seconds, as this could damage the motor. If the unit fails to start on the first attempt, restart after about 10 seconds. If the motor's starting speed decreases over time, replace the battery.

During operation, the battery supplies power to the solenoid valve of the carburetor. Therefore, when the unit is turned off, make sure the start switch is in the "STOP" position. If left in the "RUN" position, the solenoid valve will continue to operate, which can reduce the battery voltage and affect the next startup.

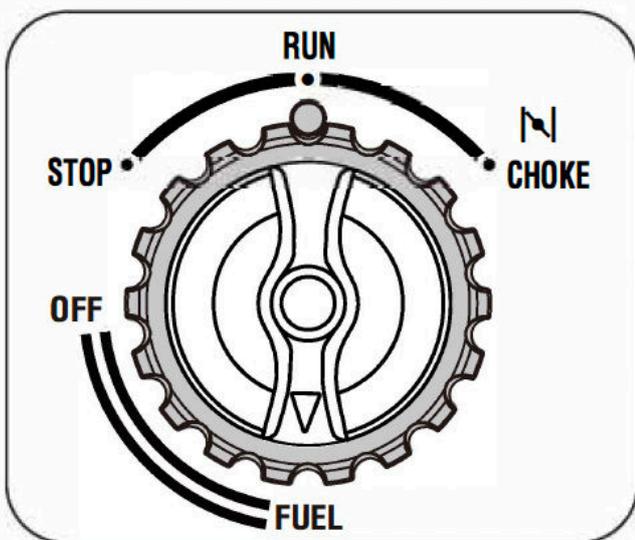
If the engine is equipped with an engine oil alarm, it may prevent the engine from starting if the oil level in the crankcase is below the minimum level.

During the break-in period, regularly check the engine oil. Refer to the maintenance section for the recommended maintenance intervals.

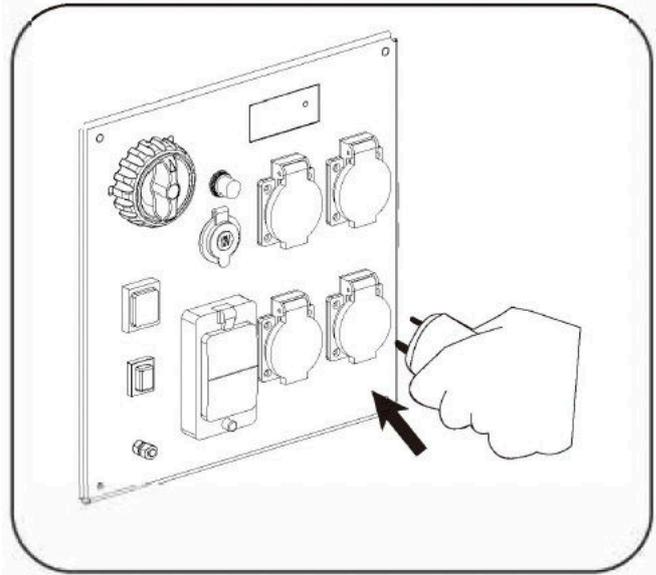
WARNING:

If the generator remains idle for a long time, or if improper use or other factors cause the battery to undercharge, the generator may not start electrically. In this case, follow the manual start procedure to control the choke and start the generator manually. The generator will automatically charge the battery during operation.

2.5 Turn the start/stop switch to "RUN" position.



2.6 After completing the above operations, the generator can be connected to electrical equipment.



WARNING: It is prohibited to start or stop the generating set when the output terminal of the generator is connected to an electric device and the electric device is in the "ON" state.

3. Connect to electrical devices

1. Inspect the power cord for damage before use. There is a risk of electrical shock from crushing, cutting, or heat damage.
2. Ensure that the generating set is properly grounded. If the electric devices require grounding, the generating set must also be grounded.
3. Ensure that the electric devices are in the "OFF" position.
4. Allow the engine to stabilize and warm up for a few minutes after starting.
5. Connect and start the electric devices.
6. Turn off all electric devices and disconnect them from the generating set.
7. If the generating set supplies power to several loads or electric devices, start the smallest one first and the largest one last.

DANGER: If connected devices overheat, turn them off and disconnect them from the generating set.

DANGER: ELECTRICAL SHOCK

To reduce the risk of electrical shock, DO NOT use electrical cords that are worn, frayed, bare, or otherwise damaged.

DO NOT touch bare wires or receptacles.

DO NOT handle the generating set or electrical cords while standing in water, while barefoot, or while your hands or feet are wet.

LOADING CAPACITY

You must ensure that your generating set can supply enough rated (running) and starting watts for the electrical devices at the same time. Follow these simple steps to calculate the running and starting watts necessary for your needs.

- a. Count the electrical devices you will power at the same time.
- b. The amount of power you need to run the devices is the total rated (running) watts of these items.
- c. Starting power is the power needed shortly when electric devices start. Since not all devices start at the same time, starting power can be estimated by adding the maximum power of all devices plus the total power calculated in step b.

WARNING: DO NOT overload the generating set.
 Exceeding the generating set's capacity can damage the generator and/or the electric devices connected to it.

Wattage Reference Chart

Electric equipment	Running power (W)	Starting power (W)
Energy saving lamp	5-50	5-50
Computer	250	250
Electric fan	50	100
Refridgerator	50	300
Air-conditioner	1600	3200
Electric hammer	1000	1500
Impact hammer	3000	6000
Water pump	2200	5000
Electric welding machine	5000	7500
Air compressor	5000	10000

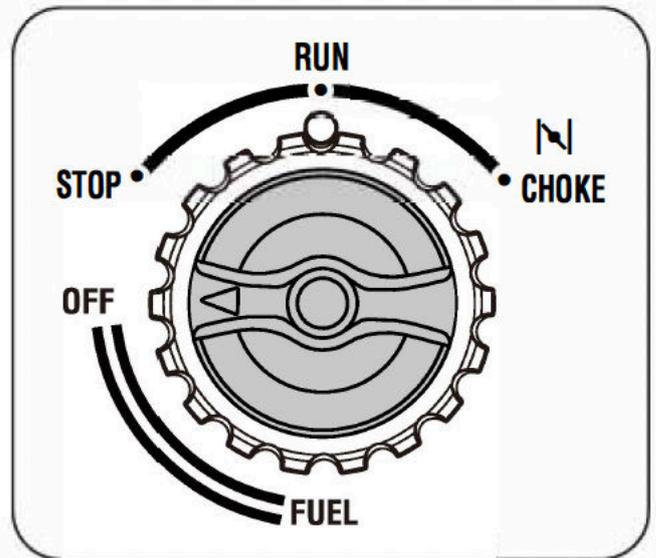
WARNING: It is necessary to equip the generating set with a circuit protector or switch to isolate it from the electric utility when the generating set is mainly used for backup. Failure to isolate the generating set from the power utility may result in injury or death to utility workers and damage to the generating set due to backfeed of electrical energy.

4. Stopping the generating set

4.1 Remove the connectors of all electric equipment from the generating set panel.

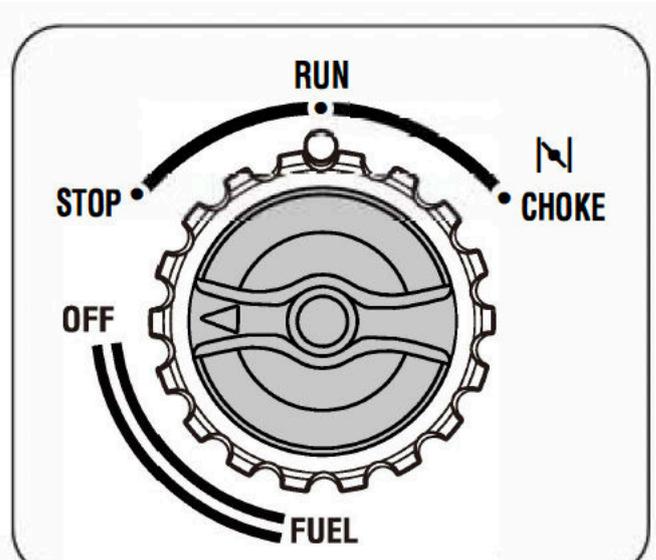
WARNING: NEVER stop the engine with electrical devices connected and running.

4.2 Turn fuel switch to "OFF" position.



WARNING: Generator long-term storage:
 If the generator needs to be stored for an extended period, turn the fuel switch to the "OFF" position. Once the fuel in the carburetor fuel cup is used up and the generator automatically stops, turn the start/stop knob to the "STOP" position.
 If the start/stop switch is not placed in the "STOP" position and is left for a long time, the battery will be depleted, making it impossible to start the generator normally.

4.3 Turn the start/stop knob to "STOP" position to stop the generator.



V MAINTENANCE

It is the operator's responsibility to complete all scheduled maintenance in a timely manner. Correct any issues before operating the generating set. Always follow the inspection and maintenance recommendations and schedules outlined in this manual.

DANGER: Accidental starts can cause severe injury or death. Remove the spark plug cap and ground the generating set before performing any service.

CAUTION: The filter element may contain PAHs, which are harmful to your health. Please wear gloves for protection during air filter maintenance.

WARNING: Improper maintenance or failure to correct a problem before operation can cause a malfunction and result in property damage, serious injury, or death.

Improper maintenance will void your warranty.

1. Maintenance Schedule

Maintenance Schedule for Engines ≤225 cc

Follow the service intervals outlined in the chart 1. Perform maintenance more frequently when operating the engine in adverse conditions.

For assistance with engine maintenance, contact your local authorized service dealer.

Note 1: Check the engine oil level every time before use and add oil as needed to maintain the specified range. Failure to do so may result in engine damage.

Note 2: A break-in period is required when the engine is first used. During this time, oil consumption and deterioration will accelerate. It is essential to change the oil after the first 20 hours of use to prevent engine damage.

Note 3: If the engine is operated under heavy-duty or dirty conditions, inspect and clean the air filter as needed when it becomes dirty.

Note 4: If the engine is operated under heavy-duty or dirty conditions, inspect, clean, adjust, or replace the spark plug as necessary if it is dirty or defective.

Note 5: A dirty spark arrestor increases exhaust back-pressure and can negatively impact engine performance. Clean or replace the spark arrestor when it becomes dirty or damaged.

Note 6: Cleaning the combustion chamber should be performed by knowledgeable, experienced owners or certified service centers. This procedure is not required for emissions compliance or performance during the engine's service life unless the engine has been operating long-term under heavy-duty and dirty conditions.

		Each time before use	After 20 hours of first use	Every 50 hours or annually	Every 100 hours or annually	Every 125 hours or annually	250 hours after use or annually	500 hours after use or annually	750 hours after use or annually	1000 h after use or annually	Long storage or necessary
Oil	Check	X ^{Note 1}									
	Replace		X ^{Note 2}			X					
Air filter	Inspect			X ^{Note 3}							
	Replace						X	X	X	X	
Spark plug	Inspect					X ^{Note 4}					
	Replace						X	X	X	X	
Spark arrestor (if equipped)	Clean/ Replace				X ^{Note 5}						
Combustion chamber	Clean						X ^{Note 6}		X ^{Note 6}		
Fuel/Oil	Drain										X

2. Generating set maintenance

- Use a damp cloth to clean exterior surfaces of the generating set. Use a soft brush to clean the dirt and oil.
- Use an air compressor (25 PSI) to clear dirt and debris from the generating set.
- Inspect all air vents and cooling slots to ensure that they are clean and unobstructed.

WARNING:

- **DO NOT** use water to clean the generating set. Water can enter the generating set through the cooling slots and damage the generating set windings.
- **DO NOT** tamper with the generator in any way.

IMPORTANT:

- Do not alter the inverter speed. The generator is calibrated to the correct rated frequency and voltage before leaving the factory.
- Unauthorized tampering with the factory settings of the inverter will void the product warranty.

3. Engine maintenance

Engine oil

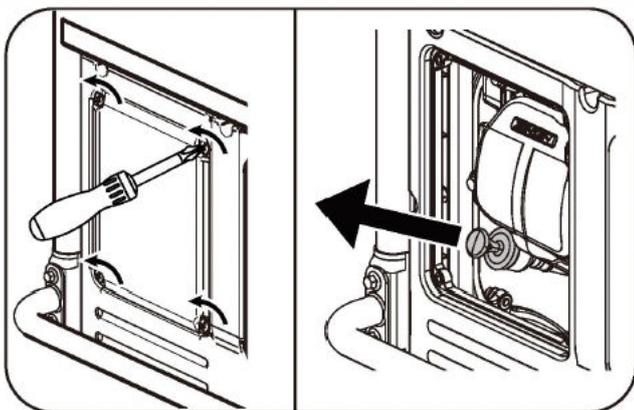
Only use four-stroke engine oil of SJ, SL, or equivalent grade, which complies with or exceeds the API standard.

Check the API label on the oil bottle or other container, and make sure the "SJ, SL" or equivalent grade is indicated on the label.

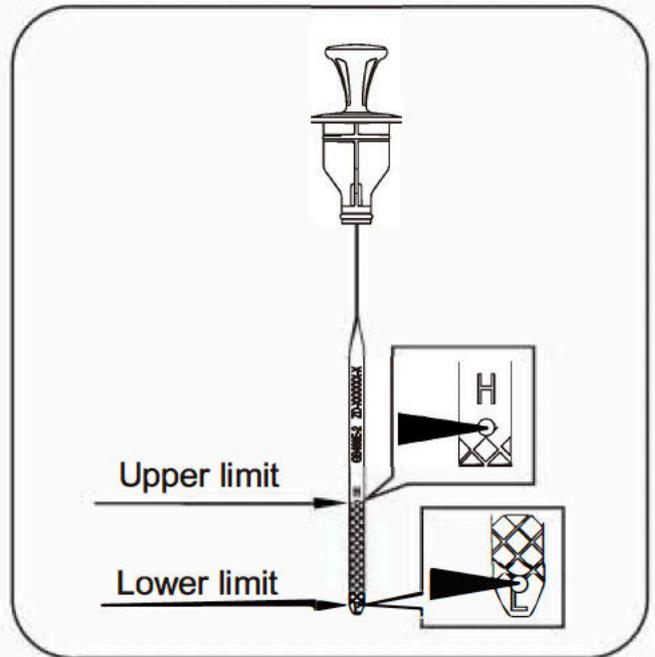
SAE 10W-30 is recommended for general, all-temperature use. Other viscosities listed in the chart may be used if the average temperature in your area falls within the indicated range.

Add oil

- a. Place the engine on a level surface.
- b. Remove the oil maintenance cover and oil dipstick, then wipe the dipstick clean.



- c. Add the recommended oil up to the upper limit.



CAUTION: Oil level check

Insert the dipstick into the filler port, making sure it rests at the filler neck. Do not screw the dipstick into the port. Then, remove the dipstick and check the oil level.

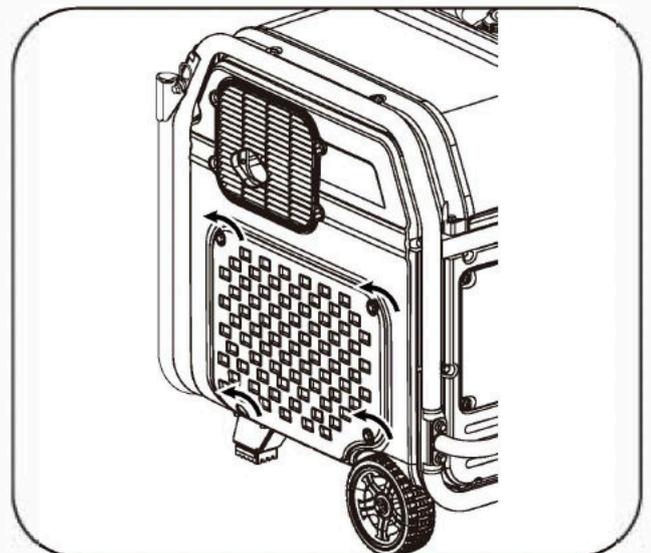
d. Insert the dipstick back into its seal position and secure the oil maintenance cover.

e. Properly dispose of any used oil at an approved waste management facility.

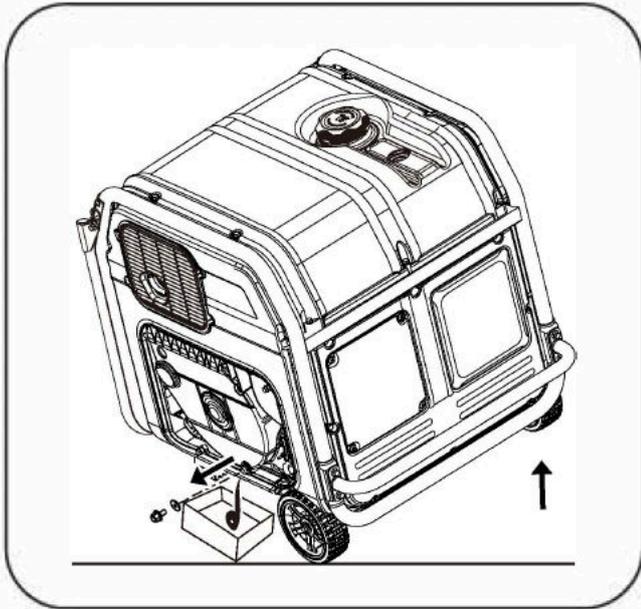
Change oil

CAUTION: When the generator is in a hot state, the oil temperature is likely to exceed 100°C. Caution should be exercised when changing the oil to prevent burns.

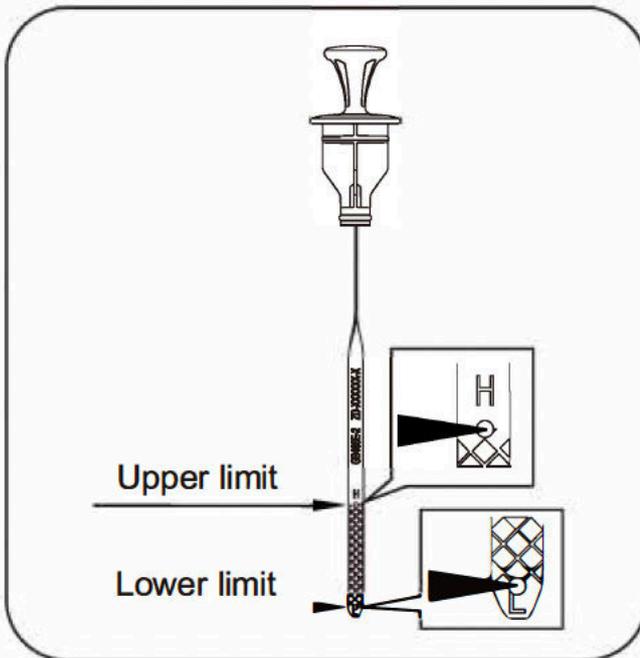
1. Place the engine on a level surface.
2. Remove the oil drain cover.



3. Place an oil container under the oil drain hole of the generator and remove the drain bolt to drain all the used oil.



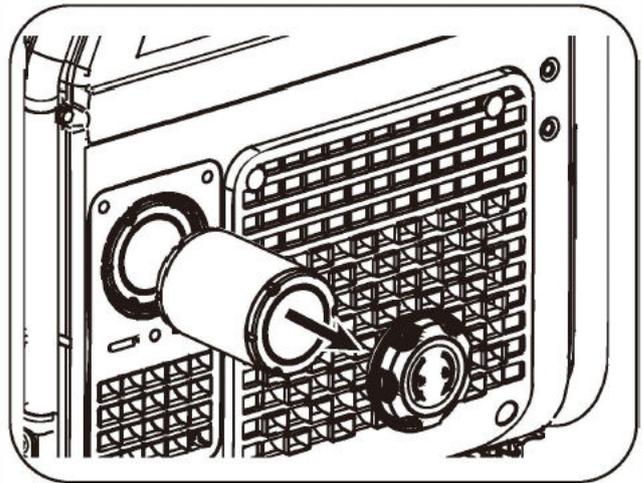
4. Tighten the drain plug securely and reinstall the oil drain cover.
5. Remove the oil maintenance cover.
6. f. Remove the oil dipstick and add the recommended oil up to the upper limit.



7. Fully insert the dipstick into the oil filling hole and reinstall the oil maintenance cover.
8. Properly dispose of any used oil at an approved waste management facility.

WARNING: The engine is not filled with oil at the factory. Any operation before it has been properly filled with the recommended type and amount of oil may result in engine damage and void your warranty.

Air filter



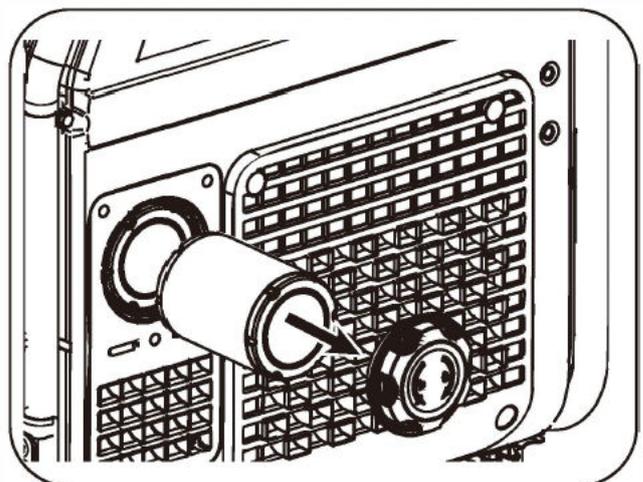
1. Unscrew the air filter maintenance cover.
2. Remove the air filter element.
3. Check whether the paper filter element is damaged. If damaged, replace it promptly.
4. Gently tap the filter element to remove any dust or debris attached to it.
5. Place the filter element back into the assembly and secure it tightly with the air filter maintenance cover.

WARNING: DO NOT run the engine without the air filter, as serious damage may result.

Spark plug

1. After loosening the fixing bolts, remove the rear end cover.
2. Clean the spark plug cap and remove any impurities around the spark plug hole.
3. Unplug the spark plug cap and use a special sleeve to remove the spark plug.
4. Inspect the spark plug and spark plug gasket for damage. If necessary, replace them.
5. Check the spark plug gap. If needed, carefully bend one end of the electrode to adjust the clearance.

Spark plug cap: 0,6-0,8mm



6. Carefully thread the spark plug into the engine by hand.

7. After the spark plug is seated, use a spark plug wrench to tighten the plug.

Spark Plug Tightening Torque: 20-25 Nm

8. Attach the spark plug cap to the plug and connect the spark plug wire to the plug.

WARNING: Only use the recommended spark plug or an equivalent. DO NOT use spark plugs with an improper heat range.

9. Install rear end cover.

Spark arrester (applicable types)

1. Allow the generating set to cool completely before servicing the spark arrester.
2. Remove the anti-stripping bolts before removing the muffler shutters.
3. Remove the set screw that attaches the fixed cover to the end of the spark arrester and keep it inside the muffler.
4. Carefully remove the carbon deposits from the spark arrester screen using a wire brush.

5. Replace the spark arrester if it is damaged.
6. Reinstall the spark arrester in the muffler and reattach the muffler blind window.

Speed

The speed has been pre-set at the factory and should rarely require readjustment. Consult your local authorized dealer if readjustment is necessary.

WARNING: Unapproved adjustments may damage your engine and/or electrical devices and void the warranty.

Adjustment

There is no other service and/or adjustment required for your generator.

Unapproved adjustments or tampering can damage your generator and electrical devices and will void your warranty. Contact your local dealer for such needs.

WARNING: Tampering with the factory-set governor will damage your generator and void your warranty.

V TROUBLE SHOOTING

Description of flashing mode of controller status light		
Flashing mode	Description	Status
Green light on continuously	Proper function	With output
Green light on continuously, red light flashing	Overload	With output
Green light off, red light flashes once, then flashes once every 3 seconds	Overload protection	No output
Green light off, red light flashes twice, then flashes twice every 3 seconds	Output short-circuited	No output
Green light off, red light flashes three times, then flashes three times every 3 seconds	Inverter overheat	No output
Green light off, red light flashes four times, then flashes four times every 3 seconds	Low engine speed	With output
Green light off, red light on continuously	Insufficient engine power or other failures	No output

Failure	Trouble	Solution
Generating set fails to start	Start/Stop switch is in "STOP" or fuel switch is in "OFF" position.	<ul style="list-style-type: none"> Turn start/stop switch to "RUN", and follow starting procedure to start the generating set Turn fuel switch to "FUEL", and follow starting procedure to start the generating set.
	Lack of fuel.	<ul style="list-style-type: none"> Fill the fuel tank according to the instructions in this manual.
	Lack of engine oil.	<ul style="list-style-type: none"> Check the oil level. This engine is equipped with a low-oil sensor and will not start if the oil level is below the prescribed lower limit.
	No ignition.	<ul style="list-style-type: none"> Remove the spark plug cap and clean any dirt around the spark plug base. Remove the spark plug and install it in the plug cap. Turn the Start/Stop switch to "RUN." Ground the electrode to any engine ground and pull the recoil starter to check if sparks jump across the gap. If there is no spark, replace the spark plug. Reinstall the spark plug and restart the engine according to the instructions in this manual.
	Spark plug is splashed by fuel.	<ul style="list-style-type: none"> Remove the spark plug and wipe off any fuel before reinstalling.
	Battery undercharge (electric start)	<ul style="list-style-type: none"> Charge the battery by starting the generator manually (at least 30 minutes)
Generating set has no output	Breaker trip	<ul style="list-style-type: none"> Reset circuit breakers.
	Inadequate cord sets or extension cords.	<ul style="list-style-type: none"> Verify that the cord sets or extension cords meet the requirements outlined in the Controls section of this manual, including proper cable size. Consult Customer Service if further assistance is needed.

VI STORAGE AND TRANSPORTATION

Storage

The generating set should be started at least once every 2 weeks and allowed to run for at least 20 minutes. For longer-term storage, follow the instructions below if the generating set will be out of service for 2 months or more.

DANGER: Fire or Explosion

Gasoline is highly flammable and extremely explosive.

Empty the fuel tank and shut off the fuel valve before storing or transporting the generating set.

- Allow the generating set to cool completely before storage.
- Clean the generating set according to the instructions in the Maintenance section.
- Drain all fuel completely from the fuel tank, fuel hose, and carburetor to prevent gum from forming.
- Turn the start/stop switch to the "STOP" position to cut off the fuel.

- Drain the oil.
- Remove the spark plug and pour 15ml of fresh oil into the cylinder. Slowly crank the crankshaft to distribute the oil and lubricate the cylinder. Reinstall the spark plug.
- Disconnect the battery.
- Store the generator in a clean, dry area, away from direct sunlight.

Transportation

When transporting or storing the generator for a short period of time, to prevent fuel leakage, place the generator in the normal operating position and secure it vertically. The start/stop switch should be in the "OFF" position, and the fuel switch should also be in the "OFF" position.

WARNING: When transporting:

Do not overfill the tank. Do not operate the generating set while it is on the vehicle. Remove the generating set from the vehicle and use it in a well-ventilated area. Avoid placing the generating set in direct sunlight when it is on a vehicle. If the generating set is left in an enclosed vehicle for many hours, the high temperature inside the

vehicle could cause the fuel to vaporize, potentially leading to an explosion. Do not drive on rough roads for an extended period with the generating set on board. If you must transport the generating set on a rough road, drain the fuel from the generating set beforehand.

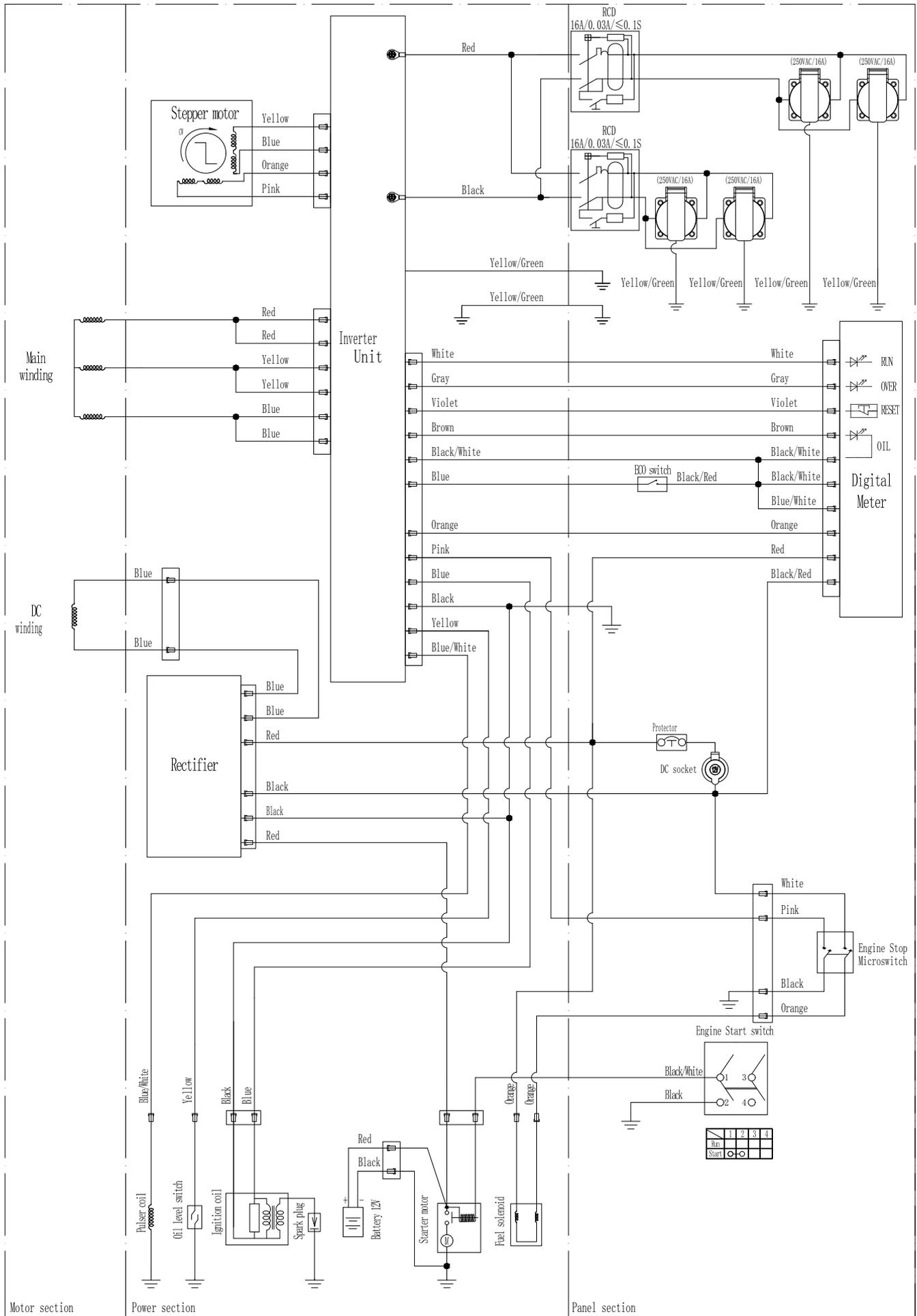
VII SPECIFICATION

1. Specification parameter table

Engine parameter	Engine model	GB460BE-2
	Style	OHV, forced cooling, four stroke, single cylinder
	Displacement (cm ³)	459
	Ignition style	TCI
	Start style	Recoil or Electric starter
	Oil capacity (L)	1,1
Generator parameter	Generator model	TSR-7500i
	Frequency (Hz)	50
	Voltage (V)	230
	Rated power (kW)	7,2
	Maximum power (kW)	7,5
	Power factor	1
	Insulation grade	F
	Fuel capacity (L)	23
	Operating temperature (°C)	-10 ~ 40
	Max. site altitude of installation (m)	1500
	Measured sound pressure level [dB(A)]	≤73
	Measurement uncertainty [dB(A)]	≤1,5
	Guaranteed sound power level [dB(A)]	≤96
	Net weight (kg)	87

Note: The generating set with different specification and configurations may have different parameters and may change at any time without notice.

2. Wiring diagram





DECLARATION OF CONFORMITY

We: TSR-ELSITE Oy
Orikedonkatu 17, 20380 Turku, Finland

Hereby declare that the following appliances comply with the relevant basic safety and health requirements of the EC Directives based on their design and type, as brought into circulation by us.

This declaration applies exclusively to the machinery in the condition in which it was placed on the market and excludes any components added or modifications made by the end user after delivery.

1. Type: Gasoline generating set TSR-7500i Product code: 707010002
2. Serial number: xxxxx-xxxxx (on cylinder head cover or on air filter cover)

3. Used harmonized standards: ISO 8528-13:2016

4. Applicable EC Directives:

Machinery Directive 2006/42/EC
Directive (EU) 2016/1628
Noise Directive 2000/14/EC (Amended by 2005/88/EC)
Low Voltage Directive 2014/35/EU
EMC Directive 2014/30/EU
RoHS Directive 2011/65/EU
Reach Regulations (EC) NO.1907/2006

Guaranteed sound power level: 96 dB(A) for TSR-7500i

5. Responsible for documentation: TSR-ELSITE Oy, Orikedonkatu 17, 20380 Turku, Finland

6. Person responsible for compiling the technical files established within the EU: Toni Raivo

Turku 30.12.2024

CEO
TSR-ELSITE Oy