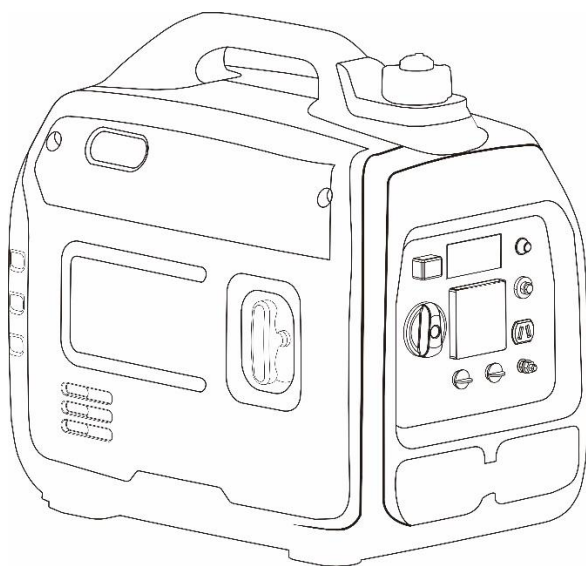


INVERTER GENERATOR

User's Manual



Kindly Remind: Please read this User's Manual carefully before using, to operate it under the premise of ensuring the safety and environmental protection!

Thank you very much for choosing generator set product manufactured by our Company!

This Manual will instruct you how to operate and use the generator set safely and properly. Please be sure to read it carefully before using.

All technical data and diagrammatic presentations in this User's Manual are consistent with the latest product at the time of publication.

Due to the revision and other changes, contents of this Manual may be slightly different from actual situation. The Company is entitled to revise it at any time, and the revised version will be developed without prior notice, please understand that. The copyright of this User's Manual belongs to the Company, and this Manual is not allowed to be reproduced without written consent of the Company, violators must be prosecuted.

This Manual is a permanent part of the generator set. If the generator set is resold, the Manual will be resold together with the generator set.

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Safety Warning

Personal and property safeties of you and others are very vital. Please read the Safety Warning in the User's Manual and the decals of the generator set carefully.

The Safety Warning can alert you to those potential hazards that could harm you and others. In front of each Safety Warning, there is one of four words "DANGER", "WARNING", "ATTENTION", and "CAREFUL". Details are as follows:

DANGER Failure to follow the instruction will result in being in peril of your life or extremely serious injury.


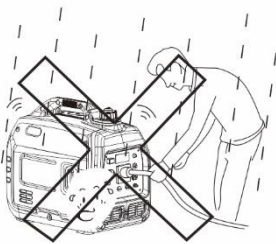
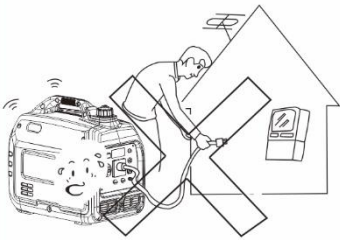



WARNING Failure to follow the instruction will result in being in peril of your life or very serious injury.

CAREFUL Failure to follow the instruction will result in minor injury.

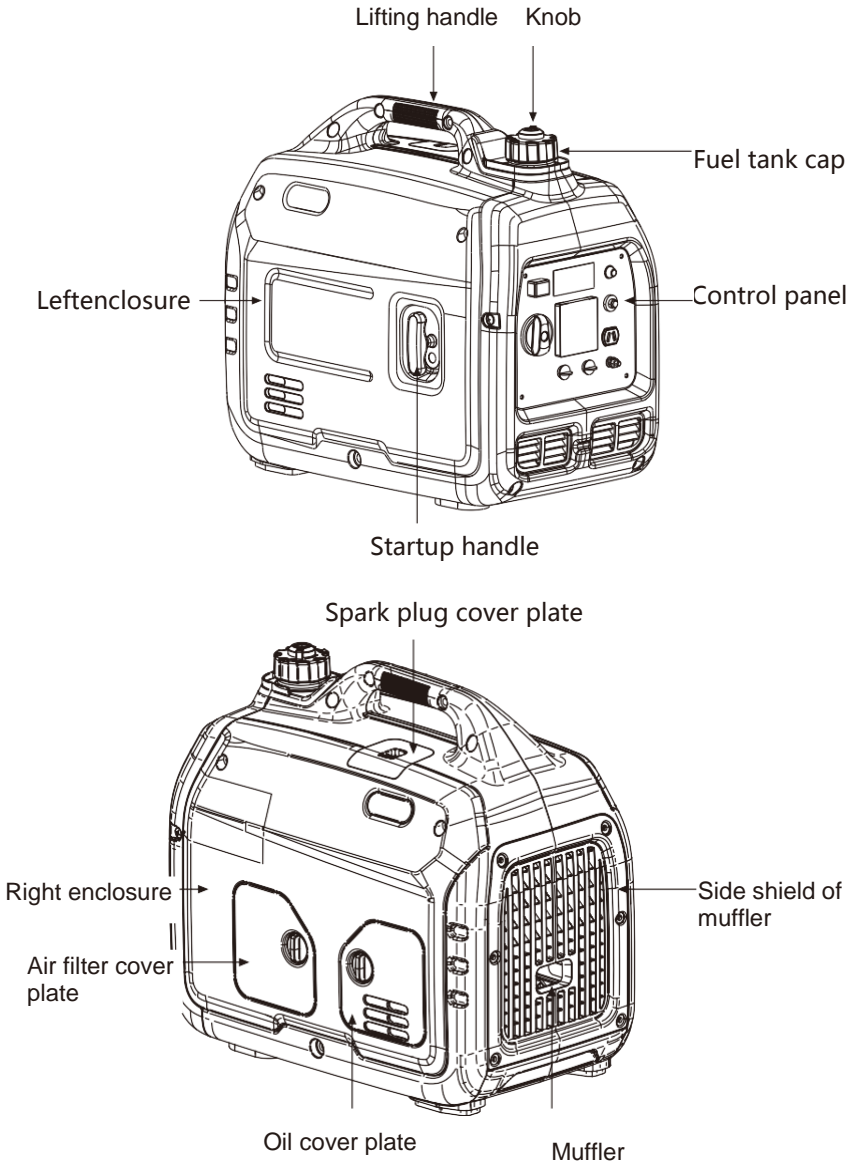
ATTENTION Failure to follow the instruction will result in the damage to your generator set and other properties.

I. Safety Instructions

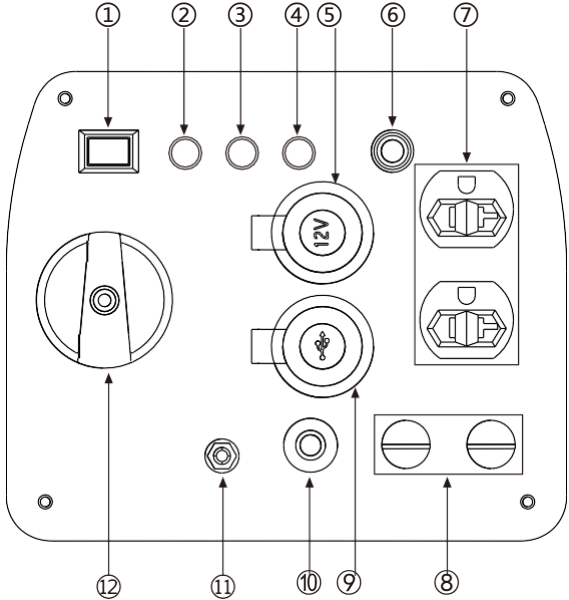
Before operating the generator, it will help you avoid accidents to read and understand the Manual and familiarize yourself with the safe operation procedures of the generator.

	
<p>Please do not use indoors</p>	<p>Please do not use in humid environment</p>
	
<p>Please do not connect it to household appliances directly</p>	<p>Please do not smoke when refueling</p>
	
<p>Please do not spill when refueling</p>	<p>Please shut down the generator before refueling</p>

II. Names of Components



Control Panel



① Idle switch	② Oil alarm indicator	③ Overload indicator
④ AC output indicator	⑤ DC cigarette lighter socket	⑥ AC resume switch
⑦ AC socket	⑧ DC socket	⑨ USB socket
⑩ DC protection	⑪ Earthing terminal	⑫ Three-in-one combination switch

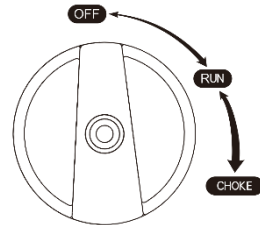
III. Control Functions

(1) Three-in-one combination switch (hereinafter referred to as combination switch)

① Engine and fuel switch: Ignition circuit is off and the fuel switch is off, the engine will be unable to run.

② Engine, fuel switch and choke valve switch: Ignition circuit is in working status, fuel switch is on and the choke valve is in fully opening status, the engine can run normally.

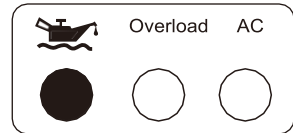
③ Engine, fuel switch and choke valve switch: Ignition circuit is in working status, fuel switch is on and choke valve is in closing status, the engine can run normally.



ATTENTION The engine is hot, it does not need to switch off the choke switch.

(2) Oil indicator (red)

When the oil in the crankcase drops below safety line, oil protection system will automatically shut down the engine, and oil alarm indicator lights up; the engine can be restarted up only after the oil is filled to oil level.



Tip: In the case of flame-out of the engine or being unable to be started up, turn the combination switch to "RUN" position, and then pull startup handle. If oil indicator flashes a few seconds, the oil volume is insufficient, fill oil and restart it.

(3) Overload indicator (red)

When the overload indicator lights up, the generator has detected that the output of connected electrical equipment has been overloaded, causing frequency converter to be overheated or AC voltage to rise. At this moment, AC protector works and stops generating, to protect the generator and

connected electrical equipment. AC indicator (green) is off and overload indicator (red) lights up, but the engine will not stop running.

When overload indicator is on and the generator has no output, please take following counter measures:

- ① Switch off electrical equipment connected, and shut down the generator.
- ② Reduce total power of electrical equipment connected to the range of rated output.
- ③ Check whether there is any foreign matter blocking in cooling air inlet, and whether there is any abnormality in related control components. If there is any problem, eliminate it immediately.
- ④ After checking, restart the engine.

Tip: When using electrical equipment with high starting current (such as compressors, submersible pump, etc.), the overload indicator may start to light up for a few seconds at the beginning, but this is not the failure mentioned earlier.

(4) AC indicator (green)

The AC indicator lights when the engine is started and output normally.

(5) DC protection

When electronic equipment connected to DC of the generator is running, if current is beyond rated current, DC switch automatically switches off to "OFF" position. When operating the generator again, please press DC switch to "ON" position.

- 1) "ON" DC normal outputs.
- 2) "OFF" DC does not output.

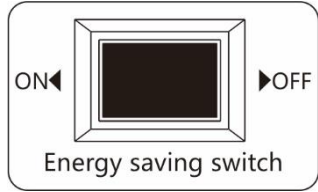


ATTENTION If DC protection is in off status, reduce the load of electronic device connected to rated output range of the generator. If DC protection is still in off status, please stop using electrical equipment directly and consult your dealer.

(6) Energy-saving switch

1) "ON"

When energy-saving switch is switched to "ON" position, the device controls engine speed based on the load connected, thus very good fuel consumption and low noise can be obtained.



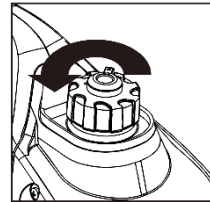
2) "OFF"

When the energy-saving switch is set to the "OFF" position, the engine will run at rated speed, regardless of whether being connected to a load.

Tip: When using following devices, such as air compressor and submersible pump, the energy-saving switch must be in "OFF" position, because it requires great startup current.

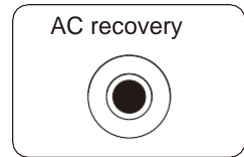
(7) Fuel tank cap

Remove fuel cap by unscrewing it counterclockwise.



(8) AC recovery

When the output is overloaded, the generator will protect automatically to output no voltage. Reduce the load, press the AC recovery switch, and the generator will resume output.



(9) Grounding terminal

Grounding terminal shall be connected to grounding wire to prevent electric shock. When an electrical equipment is grounded, the generator must be grounded.



IV. Preparations

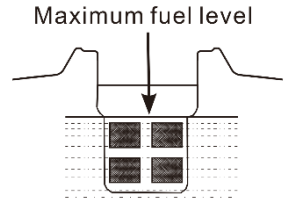
(1) Fuel

DANGER

- Fuel is flammable and toxic, please read the Safety Instruction carefully before refueling;
- Do not fuel too full, otherwise fuel will spill after fuel tank is warmed;
- After refueling, confirm that the fuel tank cap has been tightened.

ATTENTION

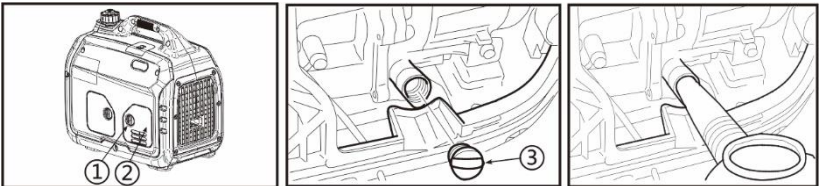
- After refueling, dry gasoline residue with a clean and soft cloth in time to avoid damaging plastic enclosure;
- Unleaded gasoline must be used, as leaded gasoline can seriously damage internal parts of the generator;
- Remove fuel tank cap, and add gasoline to red horizontal indicating line oil level.
- Fuel tank capacity: 4L



(2) Oil

No oil is filled into this generator when being delivered. Do not start up the generator without filling sufficient oil.

- 1) Please place the generator onto a horizontal plane surface;
- 2) Unscrew the knob ① to remove oil cover plate ② ;
- 3) Unscrew oil dipstick ③;



- 4) Fill in 0.35L oil (SAE 10W/30 oil is recommended, of which the grade is API standard Type SE or higher);
- 5) Reassemble oil cover plate and tighten the knob.

(3) Pre-use inspection

WARNING

Even if the generator is not in service, its important component may suddenly fails. Before the generator is started up, if any of following components is unable to work properly, please inspect and repair carefully.

Tip: The condition of the generator shall be inspected before using every time.

Pre-operation inspection

Fuel

- Check fuel level in fuel tank of the generator, and fuel it if necessary.

Oil

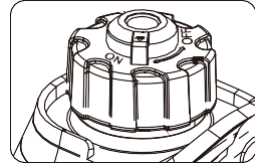
- Check oil level of the generator, and fill oil if necessary;
- Check whether there is oil leaking.

Abnormal conditions during operation

- Check operating condition of the generator;
- If there is any need, please do not hesitate to consult your dealer.

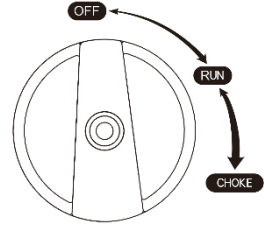
V. Starting up the Generator

- (1) Remove the load from all output ends;
- (2) Switch energy-saving switch to "OFF";
- (3) Turn ventilation knob of fuel tank cap to "ON";



- (4) Turn combination switch control to "CHOKE VALVE" position;

1. Fuel is on;
2. Ignition system is on;
3. The choke valve is closed, and it is in normal cool-generator OFF status.



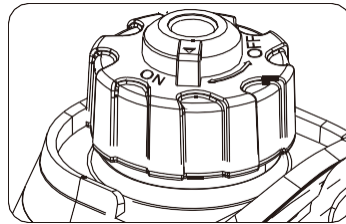
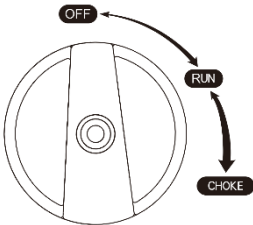
Tip: When hot engine is started up, it is unnecessary to close the choke valve, but turn the combination switch to "RUN".

- (5) First gently pull startup handle, until guy cable is hooked tight, and then pull it with effort.

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

VI. Shutting Down the Generator

- (1) Turn the combination switch to "OFF" position;
- (2) After the generator has completely cooled down, turn ventilation knob on fuel tank cap to "OFF".



VII. Using the Generator

(1) Service environment of the generator

- Applicable temperature: -5 ~ 40°C;
- Applicable humidity: below 95%;
- Applicable altitude: regions below 1,500 m (It shall be used by reducing power in regions above 1,000 m).

Standard atmospheric condition

- Ambient temperature T_r : 298k (25°C)
- Relative air humidity Φ_r : 30%
- Absolute atmospheric pressure P_r : 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 300 m rising of ASL will reduce the power the generator by about 4.5%

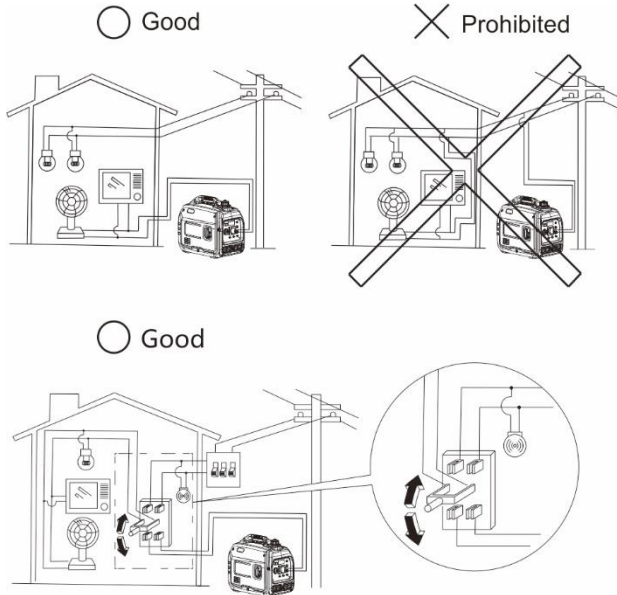
(2) Generator wiring

- When the generator is connected to household power source as a backup power supply, the connection shall be carried out by a professional electrician or a person familiar with electricity.
- After connecting the load to the generator, check carefully whether electrical connection is safe and reliable. Improper electrical connection may cause generator damage, burning or fire.
- Avoid connecting this generator to commercial power outlet.
- When extending the cable, be sure not to exceed its length.

① 60m cross-section area is 1.5mm²

② 100m cross-section area is 2.5mm²

- The appearance of extension cable shall be protected by a layer of tough and elastic rubber cover (IEC25) or other substitutes



Connection of AC power

WARNING All electrical equipment shall be disconnected before inserting the plug.

ATTENTION

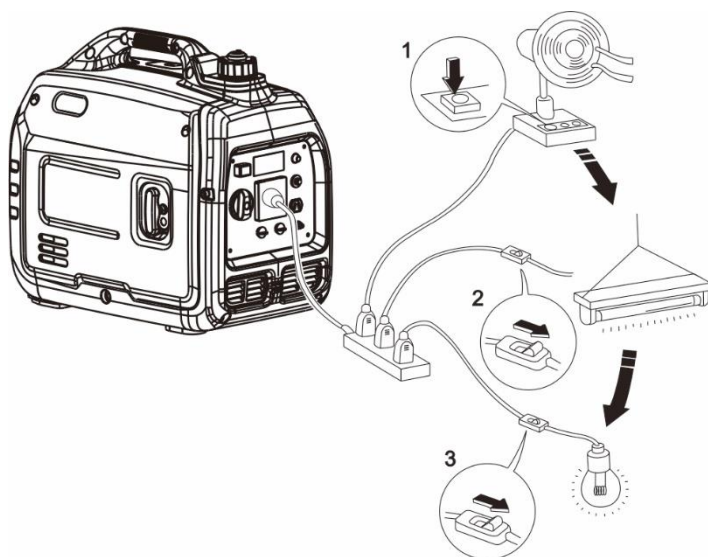
- Make sure that all electrical equipment, including wires and plugs, are in good condition before connecting to the generator;
- Make sure that all loads driven by the generator are within rated load range;
- Make sure that load current is within rated current range of rated socket.

Tip: Make sure that the generator set is grounded, and if electrical equipment requires grounding, the generator set must be grounded.

- ① Start up the engine;

- ② Turn energy-saving switch to "ON";
- ③ Insert the plug into AC outlet;
- ④ Make sure that AC indicator is lit up;
- ⑤ Switch on electrical equipment.

Tip: Before increasing engine speed, energy-saving switch must be switched to "OFF". If the generator set supplies power to multi loads or electrical equipment, start from large to small according to the size of each electrical equipment.

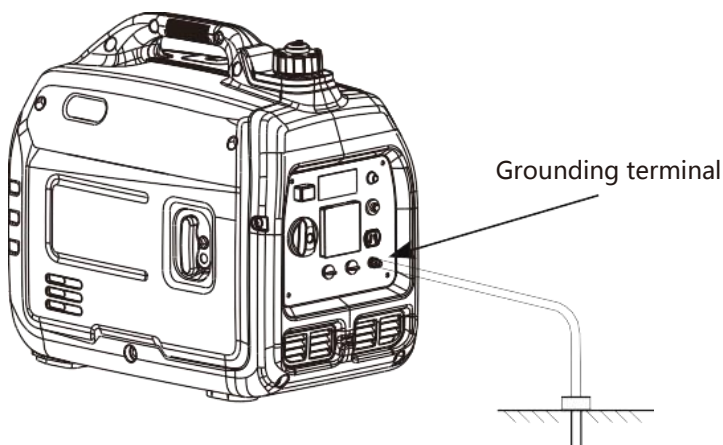


(3) Generator grounding

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.



(4) Battery charging

Tip:

- Rated DC voltage of this generator is 12V;
- After the generator is started up, connect the battery to the generator;
- Before charging, make sure that DC protector has been switched on.

- ① Start up the generator.
- ② Connect red conductor of the battery to positive (+) terminal of the battery.
- ③ Connect black conductor of the battery to negative (-) terminal of the battery.

ATTENTION

- Make sure that red conductor of the charger is connected to positive terminal (+) of the battery, and black wire and negative terminal shall not be connected reverse.

- The connection between charger cable and battery terminal shall be reliable, to prevent the generator from moving or loosening.
- Follow steps in the User's Manual for proper operation.
- In the process of charging, if current exceeds the value of rated current, DC protector will switch off the output. Press DC protector to "ON" to restart charging. If the DC protector switches off again, stop charging immediately and contact your dealer.

Tip: Measure specific gravity of electrolyte to determine whether the battery is charged full. In the case of full charging, the specific gravity of electrolyte is between 1.26 and 1.28. It is recommended to check specific gravity of electrolyte at least once an hour, to prevent the battery from being overcharged.

WARNING

Never smoke, and never connect or disconnect the connection to the battery during charging. The spark generated will ignite gas around the battery.

Battery electrolyte contains sulfuric acid, which is toxic and with the risk of burning. Please avoid expose to skin, eyes and clothing.

In the case of exposing to sulfuric acid accidentally, treatment method is:





- External exposing: flush with large amount of water
- Ingestion by mistake: Drink large amount of water or milk, and drink milk, egg liquid or vegetable oil containing magnesium oxide. Send the victim to hospital immediately
- Eye exposing by mistake into eyes: Flush with water for 15 minutes, and seek medical treatment timely.

Tip: The battery can generate explosive gas, so please keep it far away from spark, flame or cigarette, etc. Please keep ventilation when charging or using the battery in a confined space. Close your eyes as far as possible when working near the battery.

Please keep the battery out of the reach of children.

(5) Range of application

Before using the generator, please make sure that total load is within rated load range of the generator, otherwise the generator may be damaged.

AC				DC 
Power Factor	1	0.8~0.95	0.4~0.75 (Efficiency0.85)	
Output Power	≤1800W	≤1350W	≤600W	Rated Voltage 12V

Tip:

- AC and DC can be used at the same time, but total power amount shall not exceed rated output power.
- When total power exceeds rated power, overload indicator will light up.



VIII. Service and Maintenance

Good maintenance and service is the best guarantee for safe, economical and zero-failure operation. It also contributes to environmental protection.

In order to keep the generator in good condition, you must inspect and maintain it regularly. The maintenance schedule is as follows:

Maintenance cycle		Each	First maintenance is carried out after 1 month or 20 hours of use	Afterwards, the maintenance is carried out every three months or every 50 hours	Every year or use of 100 hours
Item					
Engine oil	Check - fill	√			
	Replace		√	√	
Gearbox gear oil (if any)	Check oil level	√			
	Replace		√	√	
Air cleaner element	Inspection	√			
	clean		√		
	Replace			√	
Settling bowl (if any)	Clean				√
Spark plug	Clean - adjust				√*
Spark eliminator	Clean			√	
Idle speed (if any) **	Check - adjust				√
Valve clearance **	Check - adjust				√
Fuel tank and fuel filter ***	Clean				√
Fuel hose	Inspection	Every two years (Please replace if necessary)			
Cylinder head, piston	Remove carbon deposit **	Displacement <225cc, every 125 hours; displacement ≥225cc, every 250 hours.			
<p>* These items shall be replaced if necessary;</p> <p>** These items shall be maintained by the dealer authorized by the Company, unless the user has proper tools and maintenance ability.</p>					

ATTENTION

- If it often works under high temperature or high load, oil shall be changed every 25 hours;
- If it often works in dusty or harsh environment, air cleaner element shall be cleaned every 10 hours. If necessary, the air cleaner element shall be replaced every 25 hours;
- It shall be maintained on spot-inspection cycle and time, whichever is earlier;
- If maintenance cycle time has elapsed, perform the maintenance as soon as possible as per the table above.

! WARNING

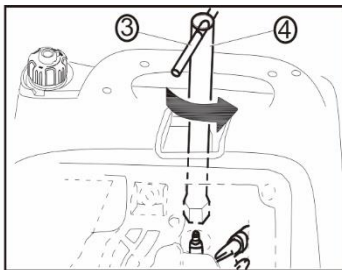
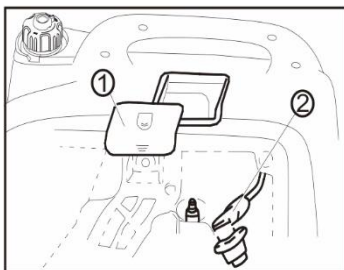
Please shut down the engine first before performing any maintenance. The engine shall be placed in a horizontal position. In order to prevent the engine from starting up, separate spark plug cap shall be separated from spark plug.

Do not use it indoors or use it in a tunnel, cave or other places ventilated poorly. Make sure that work area is well ventilated. Exhaust gas from the engine contains toxic gases, carbon oxides, and the inhalation can cause shock, loss of consciousness, and even death.

(1) Spark plug inspection

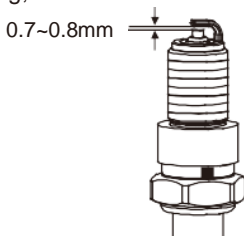
Spark plug is an important part of the generator, which must be inspected regularly.

- ① Remove decorative cover and spark plug cap of the generator;
- ② Insert the screwdriver into the sleeve, to screw it counterclockwise, and then remove the spark plug;



- ③ Check whether there is discoloration, and remove carbon deposits. Check whether there is little pale to moderate brown on ceramic cores around center electrode of the spark plug;
- ④ Check the model of spark plug and clearance.

Standard spark: A5RTC
Spark plug gap: 0.7-0.8mm



Tip: The spark plug clearance is required to be measured by line thickness gauge, which shall be adjusted if necessary.

⑤ Installation of spark plug

Spark cold torque: 12.5 N.m

Tip: If there is no torque wrench when installing the spark plug, a better estimation method is to screw it 1/4-1/2 turns by force after screwing it in place, but the spark plug shall be screwed to specified torque as soon as possible.

(2) Adjustment of the carburetor

The carburetor is an important components of the engine. The adjustment shall be carried out by a dealer with professional knowledge, professional data and equipment, to ensure that the adjustment is proper.

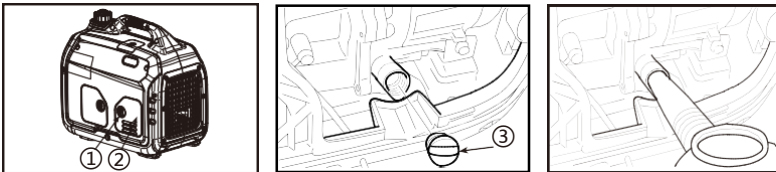
(3) Replacement of oil

WARNING Do not drain the oil immediately after turning off the generator. Oil temperature is very high, when operating, take care to avoid scalding.

1) . Place the generator on a horizontal plane surface, to start up the generator, running for a few minutes, to increase its temperature, and then shut down the engine and turn the three-in-one combination switch knob to "OFF";

2) . Unscrew the knob ①, to remove oil cover plate②;

3) . Unscrew oil dipstick ③;



4) . Place an oil pan under the engine, tilt the generator to quickly pour out oil;

5) . Place the generator to a horizontal plane surface.

ATTENTION: When filling oil, do not tilt the generator frequently to prevent damage to the power by filling too much oil.

6) . Refill oil to a proper level;

Recommended oil: SAE S10W/30
Oil grade: API standard Model SJ
or higher Volume: 035L

7) . Tighten oil dipstick, cover external cover plate and tighten the knob.

(4) Air filter

Dirty air cleaner may prevent air from flowing into the carburetor. In order to prevent failure of the carburetor, please maintain air cleaner regularly. If being used in a dusty environment, it shall be maintained frequently.

- 1). Unscrew the knob ①, to remove cover plate of air cleaner ②;
- 2). Remove screws ③, to remove cover plate of air cleaner ④;
- 3). Remove foam cleaner element ⑤;

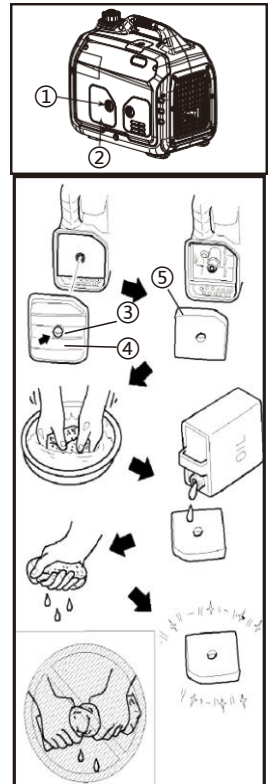
- 4). Clean foam cleaner element with cleaning solvent and blow it dry;
- 5). Drip a few drops of oil to foam filter element and squeeze off excess oil. The foam cleaner element shall be wet, but there shall not be oil dripping;

ATTENTION Be sure not to twist the foam cleaner element forcibly to avoid damage.

- 6). Put foam cleaner element into air cleaner;

Tip: Make sure that the surface of foam cleaner element is in close contact with air cleaner, and there shall be no gap leaking air.

Be sure not to start the engine before air cleaner is assembled, because it will generate excessive toxic gas and wear the cylinder;



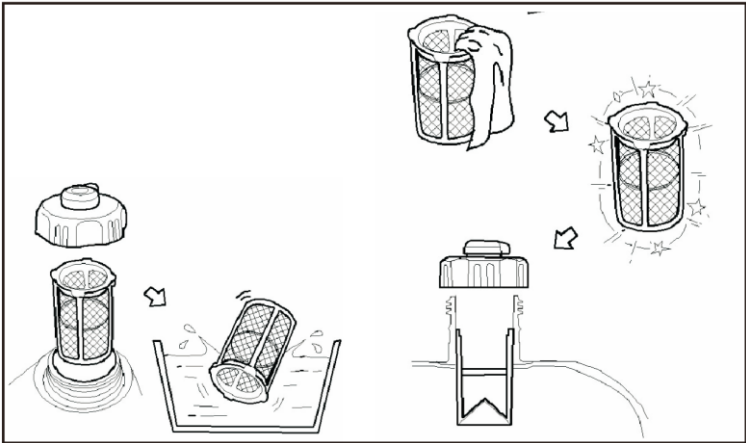
- 7). Reassemble empty air cleaner cap back to original position, and tighten screws;
- 8). Assemble air cleaner cover and tighten the knob.

(5) Fuel filter screen

WARNING Be sure not to open fuel tank of the generator in a place where smoking or with flame.

1. Remove fuel tank cap and fuel tank filter screen;
2. Clean fuel tank filter screen with gasoline;
3. Wipe filter screen dry, and put it back into fuel tank;
4. Reassemble fuel tank cap.

ATTENTION: Be sure to screw fuel tank cap tight.

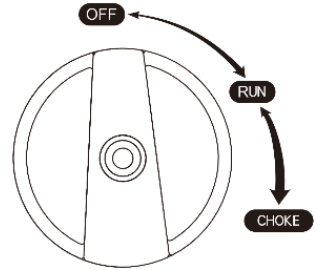


IX. Storage and Transport

(1) Generator storage

If it is stored long-term, in order to prevent aging, you shall take some storage measures.

- 1). Turn the three-in-one switch to "OFF".
- 2). Open fuel tank cap, to take out fuel filter screen. Pump all fuel in fuel tank into special fuel tank, and then reassemble fuel tank cap back;
- 3). Start up the engine to burn off fuel in the carburetor, and then shut it down;



Tip: Do not connect any electrical equipment. Running time of the engine depends on remaining fuel in the fuel tank.

- 4). Remove bolts of right enclosure;
- 5). Unscrew fuel drain bolt on the carburetor, and drain fuel in the carburetor into special fuel tank.
- 6). Turn three-in-one switch to "OFF";
- 7). Tighten fuel drain bolt;
- 8). Assemble right enclosure back, and tighten bolts;
- 9). After the engine is completely cooled, switch off ventilation knob of fuel tank cap;
- 10). Unscrew oil dipstick, and drain oil in the crankcase off. Fill new oil to upper oil limit, and then assemble oil dipstick.
- 11). Remove spark plug, to pour a spoon of clean oil into combustion chamber. Rotate the crankshaft a few turns, to distribute oil everywhere, and then reassemble spark plug;
- 12). Gently pull startup handle until you feel resistance, allowing both inlet valve and exhaust valve to be closed;
- 13). Place the generator set in a clean and dry area.

(2)Generator transport

- When the generator set is transported, it shall be ensured that there is no fuel spilling;

- Do not fill excessive fuel into fuel tank;
- Do not run the generator, and avoid direct sunlight;
- Do not transport the generator set on rough road for long time.

X. Troubleshooting

Not startup of the engine

(1)Fuel system

- 1)There is no fuel in combustion chamber.
- 2)There is no fuel in fuel tank. . . . Fuel it.
- 3)Oil tube blocking. . . . Clean oil tube.
- 4)There is foreign matter entered fuel valve. . . . Clean fuel valve.
- 5)Carburetor blocking. . . . Clean the carburetor.

(2)Insufficient filling of oil system

Oil level is too low. . . . Fill oil.

(3)Circuit system

- 1) Switch on engine switch (running).
- 2)Bad spark.
- 3)The spark plug is stained with carbon deposit and moisture. . . .
Remove carbon deposit and wipe spark plug dry.
- 4)Bad ignition system. . . . Enquiry your agency shop for service.

(4)Bad compression

- 1)Abrasion of the piston and cylinder. . . . Enquire your agency dealer for service.
- 2)Screws on the top of cylinder head are loose. . . . Tighten nuts properly.
- 3) Sealing gasket is damaged. . . . Replace the gasket.

(5) Non-generation of generator set

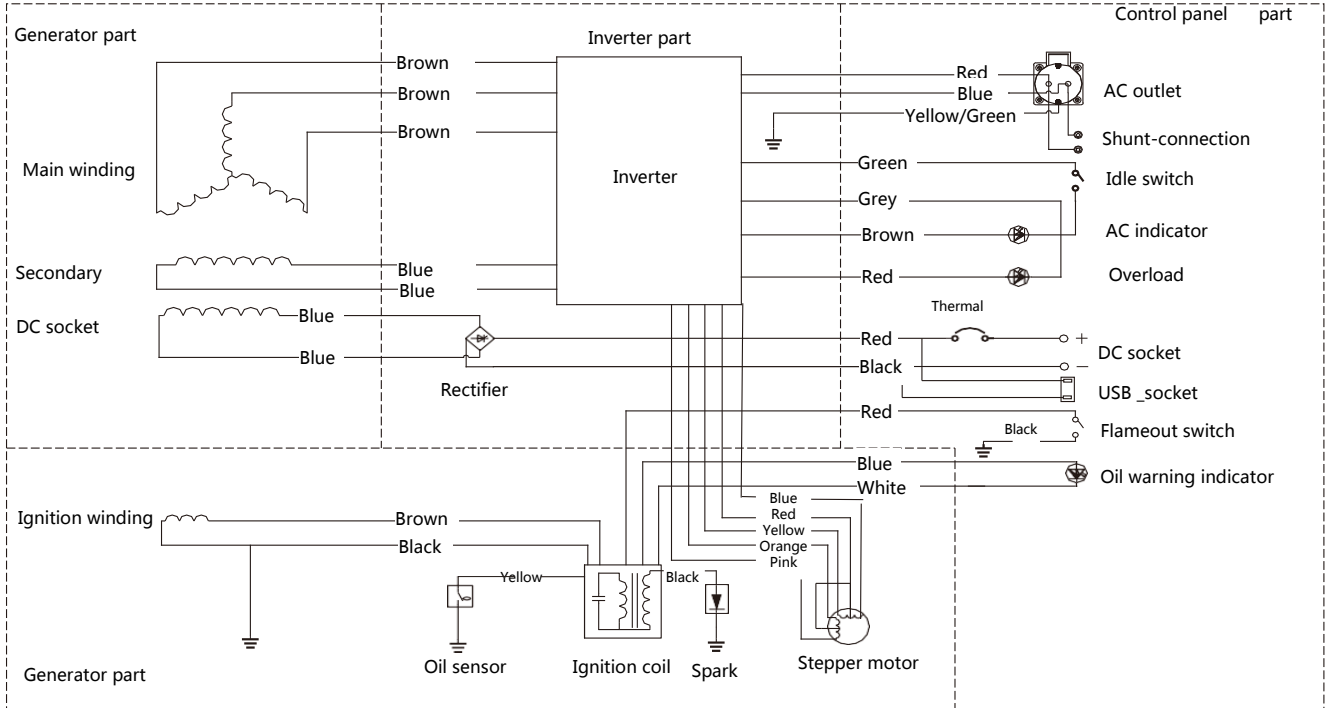
- 1)Whether the generator is affected with damp. . . . Dry the generator.
- 2)Whether there is loosening of circuit connector. . . . Insert loose connector.
- 3)Whether output socket is damaged. . . . Replace the socket.
- 4)Whether the load is overloaded. . . . Remove the load and shutdown, to restart the engine.

XI. Technical Parameters

Item		Parameter	
Engine	Engine model	148F/P-2	164F/P
	Engine type	Single-cylinder, four-stroke, air-cooled, overhead valve, tilted 25° of the center of gasoline engine cylinder	
	Bore size × Stroke (mm)	48.6×43	64×45
	Displacement (cc)	79.7	145
	Compression ratio	8.7± 0.2	8.7± 0.2
	Gas distribution mode	OHV	OHV
	Cooling mode	Forced cooling wind	Forced cooling wind
	Output power (kW/r/min)	2.1/4500	3.8/4650
	Starting method	Recoil start	
	Fuel tank volume (L)	4L	3.7L
	Fuel type and grade	Vehicle-use unleaded gasoline	
	Lubricating oil capacity	0.35	0.45
	Lubricating oil model	SAE 10W /30	SAE 10W /30
	Lubrication mode	Splash lubrication	Splash lubrication
Noise dB (at 7m)	62	63	
Generator	Rated power (kW)	1.8	2.8
	Rated voltage (V)	100/120/230	100/120/230
	Rated frequency (Hz)	50/60/50&60	50/60/50&60
	Rated power factor	1	1
	Phase number	Single phase	Single phase
	DC output	12V 8.3A	12V 8.3A
Configuration	Motor	Brushless (permanent magnet)	
	Voltage regulation	Inverter regulation	
	Frequency regulation	Inverter regulation	
Overall dimension (mm)		480x290x430	480x290x430
Net weight (kg)		18	21

XII.Circuit diagram

50Hz, 230V Electrical Schematic Diagram



XIII. Rules for Three Guarantees

"Three Guarantees" period

- 1) General-purpose engine: Since the date of purchase of the user (subject to the date of invoice issuance), the Three Guarantees valid for complete machines of four-stroke engine and two-stroke engine is six months, and that for major parts and components is 12 months. Major parts and components include: crankshaft, piston, connecting rod, cylinder head, crankcase body, crankcase cover and camshaft.

"Three Guarantees" Policy

- 1) Products within the "Three Guarantees" period, where any quality failure caused due to manufacturing, packaging and other reasons has affected the appearance, integrity, safety, power and serviceability of complete machine, shall be mainly adjusted and repaired, and repaired products shall meet relevant technical standards.
- 2) Components other than following normal wearing ones are guaranteed for repair:
Normal wearing components: various plugs, switches, pulling cords, oil filter elements, air cleaner elements, fuel filter elements, filters, oil seals, water seals, piston rings, spark plugs, carbon brushes, fuses, indicators, clutch friction plates, cutting tools, straw collection bags, water pump inlet/outlet joints, various rubber and plastic parts, gaskets, greases, decals and standard fasteners.
- 3) It is implemented strictly in accordance with provisions of the Three Guarantees Law and the Law on Protection of the Rights and Interests of Consumers, to conscientiously protect the interests of consumers.
- 4) In principle, the user shall handle the "Three Guarantees" formality at the place of purchase and fill in the Three Guarantees Certificate in accompanied "User's Manual" on the purchase date.
- 5) During the validity of Three Guarantees, in case that any failure of series of products is caused due to quality problems, please bring purchase invoice and Three Guarantees Certificate to local or the nearest product dealer or authorized maintenance station for identification and handling.

Items Not Covered in the Guarantees

Any product meeting one of following regulations will not enjoy rights and interests of the Three Guarantees, but only paid service. Users are asked to understand.

- 1) The product is beyond warranty period.
- 2) The product is damaged caused due to the failure of the purchaser to use, maintain and store in accordance with the requirements in the "User's Manual".
- 3) The product is damaged caused due to the modification that violates national laws and regulations and that is not approved by the Company.
- 4) The product is damaged in the use exceeding working limit specified by this product (such as maximum matching, maximum continuous working duration and maximum engine speed, etc.).
- 5) The product is damaged caused due to the failure of using genuine accessories supplied by the Company.
- 6) The product is damaged caused due to the failure of using oil or gasoline recommended in the User's Manual.
- 7) Natural consumption and abrasion of vulnerable parts.
- 8) The product is damaged caused due to smoke, drugs, bird droppings, chemicals and corrosion, etc.
- 9) Defects caused due to the change of time (natural fading on the surface, rust on electroplated surface, etc.).
- 10) Defects, incompleteness or deterioration caused due to the poor storage or handling or long-term non-use of the user.
- 11) Sensory phenomena that have no impact on mechanical properties (such as noise, vibration or oil leakage, etc.).
- 12) Test products and products of discounted sale.
- 13) The product is damaged caused due to the repair at any maintenance station not authorized by the Company.

- 1 4) After the failure occurs, the buyer failed to maintain original condition of the damage or handled it by self without obtained the consent the seller or repairer, to make it impossible to make a technical identification of the cause of failure.
- 1 5) The user has no Three Guarantees Certificate or valid invoice, or the model on the Three Guarantees Certificate does not match actual model, or there is any sign of alteration (except that it can prove that the product is within the warranty).
- 1 6) Gasoline engines used in contest are not covered by the warranty.

Disclaimer

- 1) The user is responsible for all kinds of indirect costs caused due to the repair.
- 2) The Company shall not be responsible for any inconvenience or loss caused due to that the machine is unable to be used (such as the loss from suspension of business or business loss, etc.).
- 3) The Company shall not be responsible for any loss caused by the earthquake, typhoon, flood, fire and other force majeure factors.

Precautions

The "Three Guarantees Certificate" in the "User's Manual" is in three pages, of which Page _ shall be filled in by the user when purchasing the product, which will be collected by the dealer and returned to the Company.

Warranty Record Form

	Service life	Time of returning for repair	Receiving time	Signature of repair personne	Signature of the customer
1					
2					
3					

Product Warranty Certificate

Product information

Product name: _____ Product specification: _____
Product model: _____ Purchase price: _____
Engine No.: _____ Frame No.: _____

User information

Name: _____ Tel: _____

Purpose: Public Household Lease (check “√” in)

Address: _____ County, _____ City, _____ Province _____

Purchasing date _____ MM _____ DD _____ YY

<p>Dealer name</p> <p>_____ (Signature)</p> <p>_____ (Tel)</p> <p>Name of authorized maintenance station</p> <p>_____ (Signature)</p> <p>_____ (Tel)</p> <p>_____ (Contact)</p>

This copy for technical dept

- Note: 1. Page 1 shall be mailed back to Technical Service Department of the Company, Page 2 shall be kept by the authorized maintenance station and Page 3 is shall be kept by the user.
2. In principle, the user's contact telephone No. is given priority to fixed-line phone No.. If the user has both fixed-line and mobile phone numbers, both are required to be filled. If the user has only a mobile phone, the user's detailed address must be filled in.
3. It is not allowed to fill in the user's contact phone No. and address of the dealer or authorized maintenance station or the method of telephone No. transferred to _.
4. In order to guarantee that the customer enjoys subsequent warranty service, please fill in all contents authentic.

Product Warranty Certificate

Product information

Product name: _____ Product specification: _____

Product model: _____ Purchase price: _____

Engine No.: _____ Frame No.: _____

User information

Name: _____ Tel: _____

Purpose: Public Household Lease (check “√” in)

Address: _____ County, _____ City, _____ Province _____

Purchasing date _____ MM _____ DD _____ YY

<p>Dealer name</p> <p>_____ (Signature)</p> <p>_____ (Tel)</p> <p>Name of authorized maintenance station</p> <p>_____ (Signature)</p> <p>_____ (Tel)</p> <p>_____ (Contact)</p>	This copy for service station
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Purchasing date _____ MM _____ DD _____ YY

<p>Dealer name</p> <p>_____ (Signature)</p> <p>_____ (Tel)</p> <p>Name of authorized maintenance station</p> <p>_____ (Signature)</p> <p>_____ (Tel)</p> <p>_____ (Contact)</p>	This copy for user
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