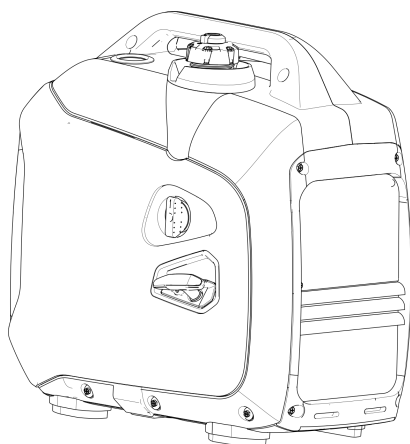




# INVERTER GENERATOR

**S3200iS**



Please read and save this manual.



- Be sure to read the manual before using, otherwise the wrong operation will lead to safety risks or equipment damage. As long as follow the operation of this manual book, the company's inverter generator is safe and reliable.

## Safety Warning

- The personal and property safety of you and others is very important. Please read carefully the extremely important safety warnings we have written in the manual and the label of the generator set.
- Safety warnings can alert you to potential dangers that may harm you and others.
- There are one of these three symbols: "Danger", "Warning", "Notice" in front of safety warning. Details as below:



If you do not follow the instructions, your life will be in danger or you will be seriously injured.



If you do not follow the instructions, your life could be in danger or you will be seriously injured.



If you do not follow the instructions, you will be slightly injured.

If you do not follow the instructions, your generator set and other property may be damaged.

# CONTENTS

|                                    |    |
|------------------------------------|----|
| 1. SAFETY INFORMATION .....        | 3  |
| 2. LABELS .....                    | 9  |
| 3. COMPONENTS IDENTIFICATION ..... | 11 |
| 4. PRE-OPERATION CHECK .....       | 17 |
| 5. STARTING THE ENGINE .....       | 20 |
| 6. USING THE GENERATOR .....       | 23 |
| 7. STOPPING THE ENGINE .....       | 26 |
| 8. MAINTENANCE .....               | 28 |
| 9. TRANSPORTING / STORING .....    | 35 |
| 10. Troubleshooting .....          | 38 |
| 11. TECHNICAL SPECIFICATIONS ..... | 39 |
| 12. ELECTRICAL DIAGRAMS .....      | 40 |

To ensure personal and property safety, please read the following content carefully.

## 1. SAFETY INFORMATION

- Before use, add gasoline to the red ring in the tank!
- Check the oil level before use!



### TOXIC FUMES

- The engine tail gas contains carbon monoxide, and it is strictly prohibited to run the generator at the place where the indoor or the ventilation is not good.
- Ensure that adequate ventilation is provided while the generator is in operation.
- The muffler is hot when the generator is running and just stopping. Be careful not to touch it.



### FIRE

- Under certain circumstances, gasoline and LPG(if equipped) is extremely flammable and explosive.
- Be sure to add gasoline in a well-ventilated place. Turn off the engine and let it cool before filling.
- When refuelling, keep away from the open fire.
- If there is oil spill while refuelling, wipe the spilled gasoline immediately.
- Use in places with high fire risk should be prohibited.



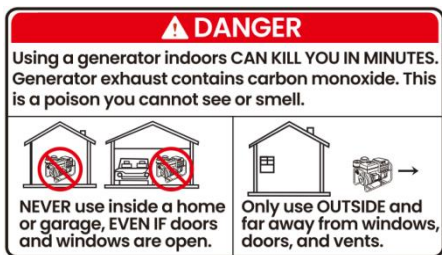
## **ELECTRICAL SHOCK**

- Do not connect the generator to building's electrical system, or it may cause people to die from electric shock when they come into contact with the wire; damage the generator or damage the home appliance.
- This generator produces powerful voltage and the electricity CAN KILL YOU.
- This generator must be properly connected to an appropriate ground to help prevent electric shock. Failure to properly ground generator can result in electrocution, especially if the generator is equipped with a wheel kit. Consult an electrician for local grounding requirements.
- Installation should be performed by a certified electrician. Improper installation can result in electrical shock and death.
- The portable generator stator winding is isolated from the frame and from the AC receptacle ground pin;and
- Electrical devices that require a connection between one conductor pin and the grounded receptacle pin may not function properly.



## HOT SURFACE

- Running engines generators produce heat. Severe burns can occur on contact.
- DO NOT touch generator while operating or just after stopping. Avoid contact with hot exhaust gases.
- Maintain at least three feet of clearance on all sides to ensure adequate cooling.
- Combustible material can catch fire on contact. Maintain at least five feet of clearance from combustible materials.
- Place the appliance on stable surfaces only.
- The load must not exceed the power marked on the rating label of the generator. Overloading may result in damage to, or a shorter life of the appliance.
- The motor must not be operated with excessive rotary speed. The operation of the motor with excessive rotary speed raises the risk of injury. Parts which affect the rotary speed must not modified or replaced.
- Do not operate or store the appliance in wet or humid surroundings or on highly conductive surfaces such as metal coatings or steel constructions.



## Poisonous gas!

- Engine exhaust gas is poisonous; don't operate in an unventilated room. When installed in ventilated room, additional requirement for fire and explosion protection shall be observed.



- A pre-operation check must be performed before starting the engine to avoid accidents or equipment damage.
- Generators must operate at least one meter away from the building and other equipment.
- Please put the generator on the horizontal ground. If the generator is tilted, it may cause gasoline overflow.
- Be sure to master how to quickly shut off generators and understand the operation of all control components.
- Children and pets must stay away from the operating area. While the engine is running, all personnel must be away from its rotating

parts.

- If the operation is not proper, there is a potential danger to the generator. Do not operate the generator with a wet hand.
- Do not operate in the rain, snow, lest wet generator.
- Maintenance of generators should be by professionals only.



- It is strictly forbidden to use in an indoor or enclosed environment.
- Do not use in environments with explosion hazard.
- The operation and maintenance of equipment requires the use of personal protective equipment such as gloves, earmuffs, etc.
- These labels warn you of potential dangers that can cause serious casualties. Please read carefully the label contents described in this manual, as well as safety warnings and comments. If the label has fallen off or cannot be seen clearly, please contact our distributor and replace it.



### **Electrical safety**

- Before use, the generating set and its electrical equipment (including lines and plug connections) should be checked to ensure that they are not defective.
- Protection against electrical shock depends on circuit breakers specially matched to the generating set. If the circuit breakers require

replacement, they should be replaced with a circuit breaker having identical ratings and performances characteristics

- Due to high mechanical stresses, only tough rubber-sheathed flexible cable or the equivalent should be used.
- If you need extension cords, use flexible cables such as rubber sleeves (compliant with IEC245 or corresponding requirements). Specification:  $\geq 14\text{AWG}/20\text{ft.}$  the extension lines should be special used for power supply cord line.
- The choice of protection arrangement to be carried out depending on characteristic of the generator, running conditions and scheme of grounded liaisons determined by the user. The user that he shall conform to regulations of electrical safety applicable to the place where the generating sets are used. And the requirements and the precautions to be respected by the user in the case of re-supply by generating sets of an installation, depending on existing protective measures in this installation and applicable regulations.
- The generator produces enough electric power to cause a serious shock or electrocution if misused.
- Using a generator or electrical appliance in wet conditions, such as rain or snow, or near a pool or sprinkler system, or when your hands are wet, could result in electrocution. Keep the generator dry.
- If the generator is stored outdoors, unprotected from the weather, check all electrical components on the control panel, before each use. Moisture or ice can cause a malfunction or short circuit in electrical components which could result in electrocution.

- Do not connect to a building electrical system unless an isolation switch has been installed by a qualified electrician.

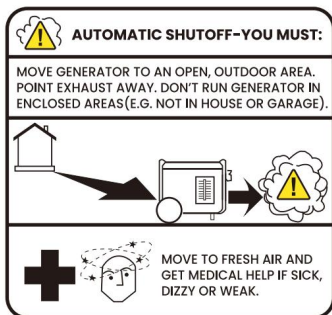
## Grounding

- The portable generator stator winding is isolated from the frame and from the AC receptacle ground pin;and
- Electrical devices that require a connection between one conductor pin and the grounded receptacle pin may not function properly.
- Status of the AC neutral conductor is NEUTRAL FLOATING.
- Status of DC output receptacle(s) is BONDED TO FRAME.

## 2. LABELS

### 2.1 Warning labels

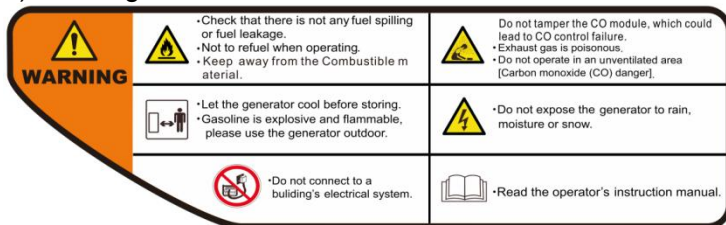
#### 1) User instruction label



#### 2) CO poisoning hazard label



### 3) Warning labels



### 4) Direction of engine exhaust label



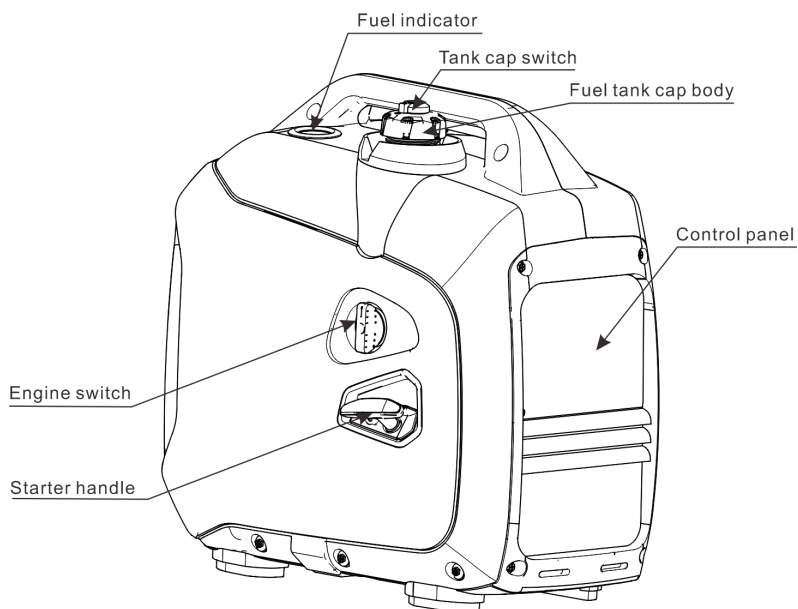
### 5) Burning hazard label



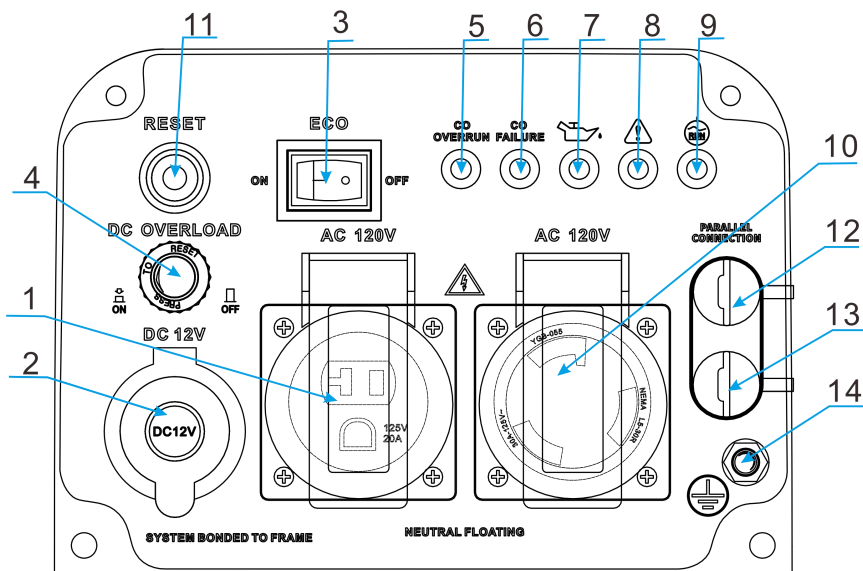
## 2.2 Nameplate



### 3. COMPONENTS IDENTIFICATION



### 3.1 Control Panel



|                                                                                                                                                          |                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.AC output socket<br>2.DC Socket<br>3.ECO Switch<br>4.DC overload protector<br>5.CO OVERRUN light<br>6.CO FAILURE light<br>7.Low oil indicator (yellow) | 8.Overload indicator (red)<br>9.Running indicator (green)<br>10.AC output socket<br>11.AC reset<br>12.Parallel socket<br>13.Parallel socket<br>14.Ground protection |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 3.1.1 ECO switch

## Energy conservation

When the energy-saving switch is in the energy-saving position, the generator is in the energy-saving state. When disconnecting or using low power, the engine automatically returns to a low speed state, thus reducing engine fuel consumption.

## Full speed

When the energy-saving switch is in full-speed position, the engine will remain in a high speed state.



- In order to reduce the change of voltage, the energy saving switch should be in the position of "full speed" when the electrical equipment needs a large instantaneous power, or when the generator is connected with the load of the high power apparatus at the same time.
- "Full speed" means that the energy-saving state is off and the engine is always at high speed, which is suitable for the situation where the negative load of electrical appliances varies greatly.

### 3.1.2 Parallel connectors

Using two same model inverter generators output with special PARALLEL KIT by parallel connector.

#### **Note:**

Above parallel kit allows two approved inverter generators to be connected for additional power. The parallel kit is an optional accessory, please contact your dealer.

### 3.1.3 AC RESET

- 1) Under the condition of protection, the Overload Indicator (red) is on, the "RESET" button can recover the output of the generator, and unnecessary to restart engine overall.
- 2) Press and hold the "RESET" button for 5 seconds, until the Overload Indicator (red) will be off, and Output Indicator (green) will

be on.

3) Under the non-overloading condition, the "RESET" is supposed to be ineffective.



- In the non-overload state, the output can not be recovered by pressing the reset key.
- Each time the engine is started, the number of effective operation times of the protection cut-off switch is 5 times, otherwise the engine needs to be restarted.

### 3.1.4 Indicator Light

#### 1) CO OVERRUN light

When the CO OVERRUN light is flashing red light, the CO concentration has reached dangerous levels, please ventilate and leave immediately until the CO concentration drops to a safe level, then the CO OVERRUN light will be off. If the CO concentration reaches the set value, the CO sensor will shut down the engine.

#### 2) CO FAILURE light

If the CO FAILURE light is flashing yellow light, the CO sensor may need service.



### ■ Carbon Monoxide (CO) Detection and Auto-shutoff System

1) CO technology monitors the accumulation of carbon monoxide (CO), a poisonous gas produced by engine exhaust when the generator is running. If CO monitors detects unsafe elevated levels of CO gas, it automatically shuts off the engine.

2) DO NOT allow engine exhaust fumes to enter a confined area

through windows, doors, vents or other openings. Generators must ALWAYS be used outdoors, far away from occupied buildings with engine exhaust pointed away from people and buildings.

3) In the event the CO monitor detects an accumulation of carbon monoxide, the engine will shut down and the red indicator will blink. The indicator will continue to blink for five minutes. After this point the generator may be restarted or if it is relocated and the monitor determines the CO level is low, the engine may be restarted.

4) Every time the generator is started, the yellow and red CO monitor indicator lights will blink for ten seconds. This is normal and not a cause for alarm; the monitor is performing a self-check.

5) Should the CO monitor fail during operation, the engine will shut down and the yellow indicator will blink. The engine cannot be restarted until the CO monitor is serviced.

### 3) Low Oil Indicator (yellow)

- When the Low Oil Indicator turns yellow, the engine oil is insufficient. The generator will automatically shut down to protect the engine from damage.
- Fill engine oil to the required level before you can re-start the engine.
- Yellow light will go OFF after adding engine oil to a sufficient level.
- When the yellow light is ON, the engine can not be started. Trying to force the engine to start will damage the engine.

### 4) Overload Indicator (red)

- The Overload Indicator (red) will turn on and glow when the AC circuit of the generator is overloaded, or if the connected electrical equipment is short-circuited, all AC power outputs will automatically cut off and the generator will produce no power, but the engine will continue to run. The Running Indicator (green) will go off at the same time.
- Turn off and disconnect all electrical devices when the Overload Indicator (red) is on.
- DO NOT exceed the rated output wattage of this generator - (refer to Technical Specifications of this manual).

- After overload current has been rectified and removed, press the reset button. The Overload Indicator (red) will then go off and the Running Indicator (green) will turn on.

#### 5) Running Indicator (green)

- The Running Indicator (green) is always ON when the generator and its output is running correctly.
- When the Running Indicator (green) goes OFF while the engine is still running, the generator will produce no power. The AC outlets will have no output.
- When the Running Indicator (green) is OFF, the Overload Indicator (red) will glow at the same time, this indicates the AC circuit is overloaded. Refer to (3.1.3 AC Reset) to resolve this problem if it happens.

## 4. PRE-OPERATION CHECK

Before using, make sure the generator is on the horizontal floor and do not start the engine.

### 4.1 Check oil level

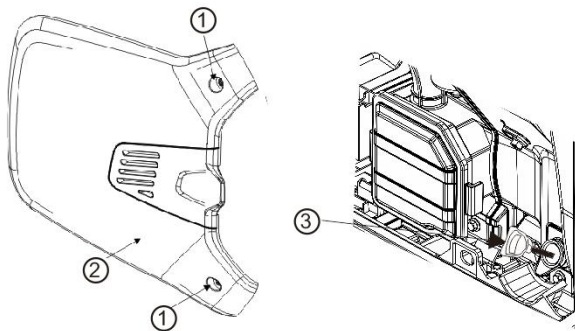
The generator has no oil in the engine prior to leaving the factory. Please do not start it before filling it with enough engine oil.

1) Use high-quality 4-stroke oil that meets or exceeds the classification of the American Petroleum Association required by American automakers.

2) Please place the generator on the flat surface.

3) Loosen the screws ① and remove the maintenance cover ②.

Take out the oil dipstick ③ and check the oil level. If the oil level is below the oil dipstick indicator line, please add oil.



4) Fill with the recommended amount of oil and tighten the oil dipstick and screw the maintenance cover.



- Do not use 2-stroke oil or detergents-free oil, otherwise the engine life will be shortened.
- Use high-quality 4-stroke oil that meets or exceeds the SG, SF classification of the American Petroleum Association required by American automakers.
- Select oil suitable viscosity according to the average temperature in your area.

The SAE viscosity grade is shown in the following table:

| Environmental temperature | Oil type |
|---------------------------|----------|
| -25°C-30°C                | 10W-30   |
| -15°C-40°C                | 15W-40   |



- Store and use oil carefully to prevent dirt or dust from falling into the oil. When adding oil, wipe the area around the refuelling opening. Do not mix different specifications of oil to prevent negative effects on oil performance.



- Running the engine with low oil level can seriously damage the engine.

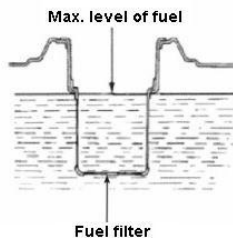
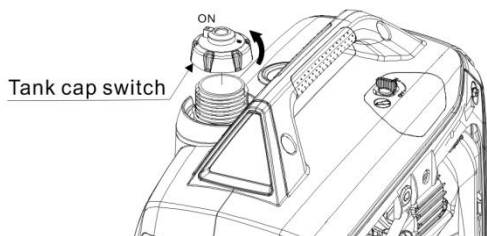
- The engine oil alarm system can automatically shut off the engine when the oil level is lower than safety limits. However, in order to avoid inconvenience caused by unexpected shutdown, we recommend that you check the oil level regularly.

## 4.2 Check fuel

- 1) Please use unleaded gasoline, E10 or higher level.
- 2) Do not use a mixture of oil and gasoline or dirty gasoline.
- 3) Prevent dirt and water from entering the tank.
- 4) Do not use gasoline containing more than 10% ethanol or gasoline containing methanol, otherwise the engine will be seriously damaged.



- Under certain circumstances, gasoline is extremely flammable and explosive.
- Please refuel in a well-ventilated place and shut down the engine. Smoking or open flames are prohibited in the engine refuelling area and gasoline storage area.
- Gasoline shall not overflow the tank (the fuel level is lower than the red level indicator). After refuelling, tighten the tank cover.
- After refuelling, dry the remaining gasoline with a piece of clean and soft cloth.
- Avoid prolonged, repeated contact with gasoline or inhalation of gasoline vapor.
- Do not allow children to touch gasoline.



## 5. STARTING THE ENGINE

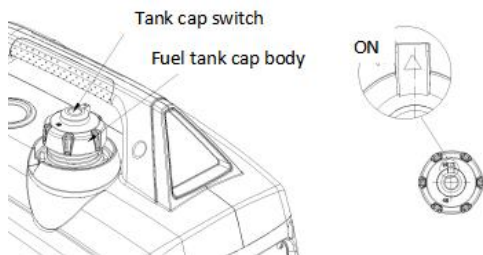


- Disconnect the electrical equipment from the alternator's AC socket before starting the engine.
- For initial use (long unused, start after gasoline is used up), turn the engine switch knob to "ON" position for 10 to 20 seconds before starting, so that gasoline can enter the engine carburetor.
- It is strictly forbidden to use in indoor and closed environment.

### 5.1 Recoil start

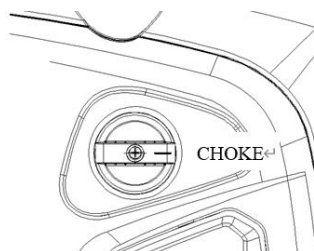
- 1) Turn the tank cap switch to "ON" position.

Note: When the generator is being transported, the fuel tank cap switch shall be turned to "OFF" position.

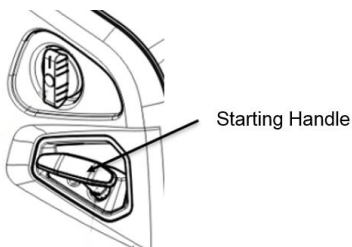


2) Turn the engine switch knob of the generator to the "CHOKE" position.

- Notice: When the engine is hotter or the ambient temperature is higher, the choke does not need to be closed. The engine switch shall be turned to "ON" position.

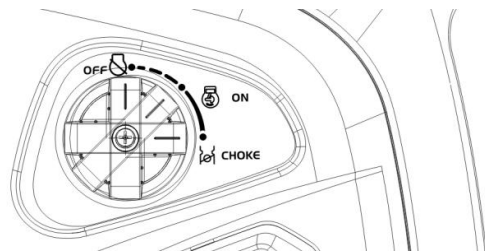


3) When you start the engine, gently pull the starting handle until the resistance is felt, and then pull it quickly.



4) When the engine start, turn the engine switch knob to the

"ON" position.



- Notice: The dangers of injury caused by the sudden change of rotation direction of the engine.
- Notice: When the engine is hotter or the ambient temperature is higher, the choke does not need to be closed. The engine switch shall be turned to "ON" position.



- Pay attention to pull the starting handle, the pull angle should not be too large, so as not to wear the housing shell.
- Do not allow the starting handle to rebound and retract automatically to avoid damage to the shell. Slowly put the starting handle back.
- Against the dangers of injury caused by the sudden change of rotation direction of the engine.
- If the engine fails to start after shutdown, check the engine switch and operation steps, if all invalid, check the oil level.
- Turn the engine switch to the running position while the engine is running.



- For generators above 1500 meters above sea level, please contact our distributor to replace plateau carburetor. The plateau carburetor cannot be used at low altitude, otherwise the engine will be damaged by overheating.

## 6. USING THE GENERATOR



- In order to prevent electric shock due to improper use, the generator shall be grounded.
- As a backup power source, the generator cannot be connected to the grid company's power system.
- Before use, the generating set and its electrical equipment (including lines and plug connections) should be checked to ensure that they are not defective.
- Except for another same model generating set, the generating set shall not be connected to other power sources, such as the power company supply mains. In special cases where stand-by connection to existing electrical systems is intended, it shall only be performed by a qualified electrician who has to consider the differences between operating equipment using the public electrical network and operating the generating set.
- The user shall conform to regulations of electrical safety applicable to the place where the generating sets are used.
- Do not overload the generator.

- Do not connect the generator to the power grid company's household power system, otherwise it may cause people to die from electric shock when they come into contact with the wire; and damage the generator or the household appliances.
- Do not run in parallel with other model generators.



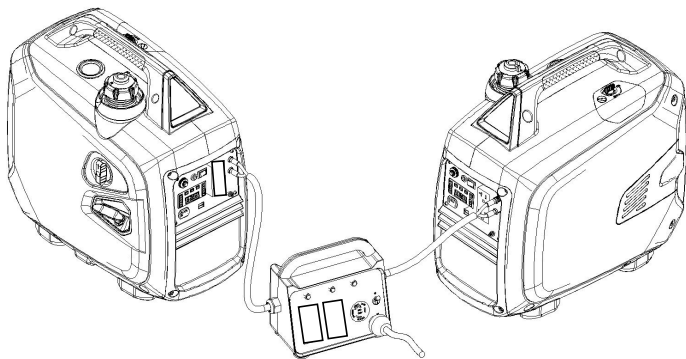
- Do not lengthen engine exhaust pipe.
- For extended cables, use flexible cables such as rubber sleeves (compliant with IEC245 or corresponding requirements). Cable length limit: 2.5mm<sup>2</sup> cable length 60 m; 4.0mm<sup>2</sup> cable length 100m.
- Keep generators away from other wires and cables, such as distribution networks
- When using AC power, you can use DC power at the same time.
- For both AC and DC sockets, note that the total power does not exceed the sum of AC and DC power.
- The output voltage of DC socket is 5V USB: one port is 1A, another is 2.1A.



- Before connecting the alternator output, make sure the electrical equipment is working properly. If, during use, the electrical equipment suddenly stops working or is not working properly, the electrical equipment is immediately disconnected and the engine is stopped.

## 6.1 AC Parallel Operation

- Connect two same model generators with special PARALLEL KIT according to the instructions provided.



- Make sure the ECO switch is in the same position on both generators.
- All electric devices should be turned “OFF” and disconnected from generators prior to starting generator engines.
- Start generator engines. Make sure the green output indicator light comes on for each generator.
- When engines have stabilized, plug in electric device to AC receptacle and turn on first load.
- Allow generator output to stabilize (engine and attached devices run evenly) before plugging in the next load.

## **6.2 Rated Power in Parallel Operation:**

3.4kW.

For continuous operation, do not exceed the rated output.

### **Note:**

**Only connect electric devices to the generator that are in good working order and do not exceed the rated power supply of the parallel generators or the desired receptacle.**

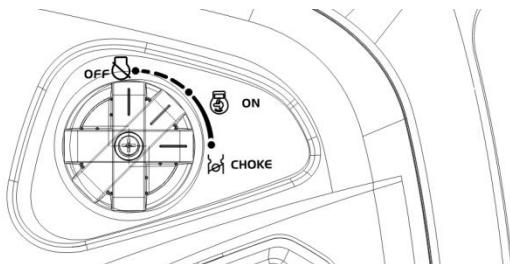
- A faulty appliance or power cord can create an electric shock. Do not use electric devices that have a damaged cord or plug.
- If an appliance begins to operate abnormally, becomes sluggish, or stalls, turn off and disconnect appliance immediately. The appliance may have a fault or its rated load capacity exceeds the power supply of the generator.
- To avoid damage to generator or electric device, do not connect a load to the generator if its electrical rating exceeds that of the receptacle.

**Never connect generators that are different models.**

- The parallel cable must be removed if operating only one generator.
- Never disconnect or remove the parallel operation cable while generator is still running.

## **7. STOPPING THE ENGINE**

- 1) Switch off the connected electrical appliances and pull out the plug.
- 2) Turn the engine switch to "OFF" position.



## **WARNING**

- To stop the engine in an emergency, turn the Engine Switch to the "OFF" position directly.
- Be sure the engine switch is in the "OFF" position when stopping, transporting and storing the generator.
- Always store your generator in a dry, cool environment.
- Always run your carburetor dry, prior to storage, to avoid any gasoline to be left in the carburetor jet.

## 8. MAINTENANCE

The purpose of the maintenance and adjustment schedule is to keep the generator in the best operating condition.



- Stop the engine before performing any maintenance. If the engine must run, be sure the area is well ventilated because of the exhaust contains poisonous carbon monoxide gas.



- To ensure the quality, please use our original spare parts or the same quality parts when replacing damaged parts.

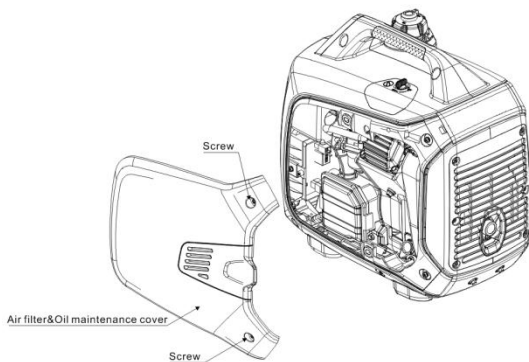
| Regular Service <u>Period</u> (3) |              | Each use                                 | First month or 10 hrs | Every 3 months or 50 hrs. | Every 6 months or 100hrs | Every 2 years or 200 hrs |
|-----------------------------------|--------------|------------------------------------------|-----------------------|---------------------------|--------------------------|--------------------------|
| Item                              |              |                                          |                       |                           |                          |                          |
| Engine oil                        | Check level  | ⊙                                        |                       |                           |                          |                          |
|                                   | Replace      |                                          |                       |                           | ⊙                        |                          |
| Air cleaner                       | Check        | ⊙                                        |                       |                           |                          |                          |
|                                   | Clean        |                                          |                       | ⊙(1)                      |                          |                          |
| Spark plug                        | Check-adjust |                                          |                       | ⊙                         |                          |                          |
|                                   | Replace      |                                          |                       |                           |                          | ⊙                        |
| Spark Collector                   | Clean        |                                          |                       |                           | ⊙                        |                          |
| Valve Clearance                   | Check-adjust |                                          |                       |                           |                          | ⊙(2)                     |
| Fuel tank& filter                 | Clean        |                                          |                       |                           | ⊙                        |                          |
| Cylinder                          | Clean        | After every 300 hrs (2)                  |                       |                           |                          |                          |
| Fuel line                         | Check        | Every 2 years ( Replace if necessary)(2) |                       |                           |                          |                          |

- (1) Maintenance more frequently when used in dusty areas.
- (2) The maintenance items in this part need professional maintenance tools and skills.
- (3) If it is used commercially, the maintenance frequency can be increased due to long-term use.

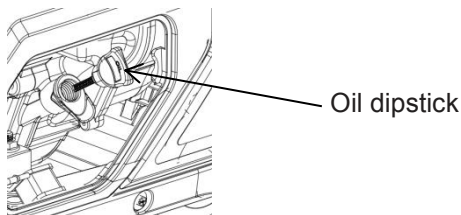
## 8.1 Change Oil

- It is always best to complete an oil change while the engine is warm, not too hot and not too cold. This will help the oil to ensure all of it comes out quickly and completely.
- When you drain the engine oil, try pulling the recoil starter gently for several time, it can help to drain the oil quickly and cleanly.

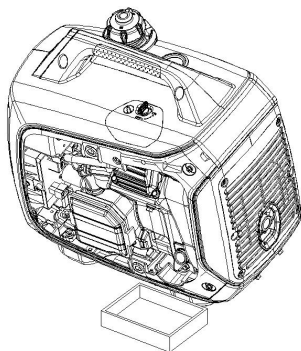
① Loosen the maintenance cover screws and remove the maintenance cover.



② Take out the oil dipstick.

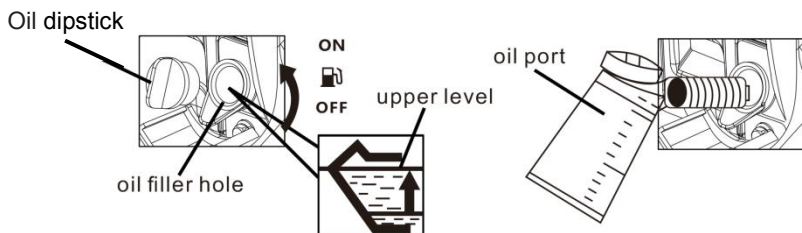


- ③ Drain out dirty oil in a suitable container.



- ④ Refill the recommended oil and check the oil level.

**Engine oil capacity: 0.35L**



- ⑤ Install and tighten the oil dipstick. Re-install the maintenance cover.



- For conforming to the environment requirement, the used oil will be put into a sealed container and then be transported to the service station for recycle. Do not throw it into the trash or pour it on the ground.

## 8.2 Air Cleaner

A dirty Air Cleaner will restrict air flow into the carburetor. Please clean and maintain the air cleaner regularly to prevent carburetor from breaking down. If generators are often used in high dust areas, they need to be maintained more frequently.

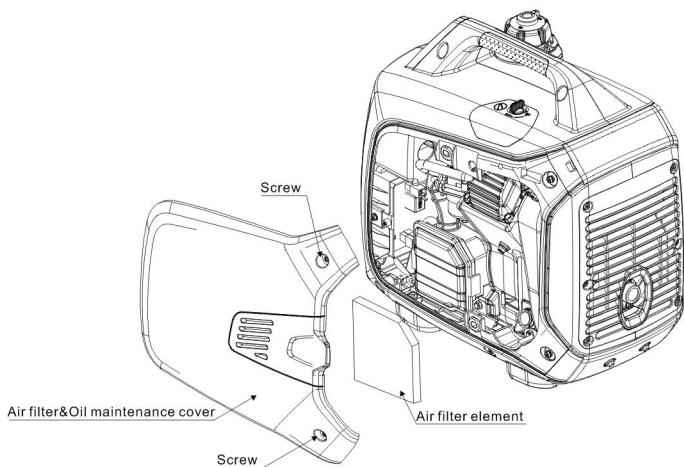


Do not use gasoline or low ignition point solvents for cleaning. They are flammable and explosive under certain conditions.



Never run the generator without air cleaner, otherwise that result in engine abrasion rapidly.

- 1) Open the connecting button of the air cleaner cover and open the cover.
- 2) Take out the Air Cleaner element and clean it with non-flammable or high flash point solvent (for example kerosene or motorcycle engine oil), then dry it.
- 3) Clean the filter element with clean oil and squeeze out the any extra oil.
- 4) Re-install the Air Cleaner element and cover.

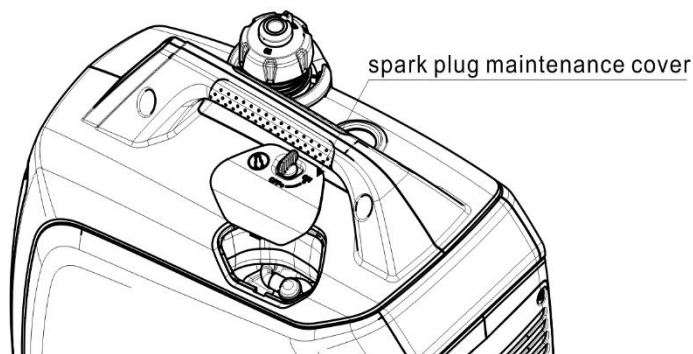


### 8.3 Spark Plug

Recommendation Spark Plug: E5TC/E5RTC

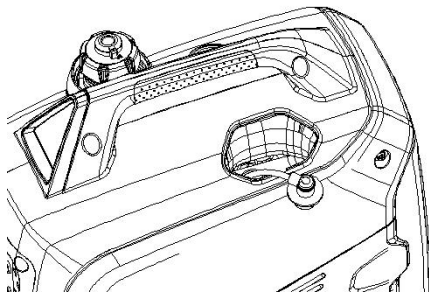
In order to ensure normal engine operation, the Spark Plug clearance must be appropriate, spark plug without carbon on it.

1) Remove the spark plug cap.



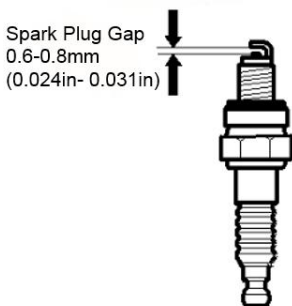
2) Use the spark plug socket wrench to remove the spark plug.

3) Check the Spark Plug visually. Replace the Spark Plug if its insulator is cracked or chipped. Clean it with a wire brush if the Spark Plug is still in good working condition to remove any carbon that may be built up on it.



4) Measure the Spark Plug Gap with a feeler gauge. The normal value: 0.6mm- 0.8mm (0.024in- 0.031in).

5) Check if the spark plug gasket is in good condition.





■ The Spark Plug must be securely tightened. Tightening in wrong way will cause Spark Plug hot, even damage the engine. Never use a spark plug with an improper heat range.

- (1) Install the Spark Plug carefully, by hand, to avoid cross-threading.
- (2) A new Spark plug ,by hand ,should be tightened 1/2 turn with a spanner, and press the washer. A used Spark plug should be tightened 1/8 to 1/4 turn with spanner.
- (3) Re-install the spark plug cap .
- (4) Re-install the spark plug maintenance cover, and tighten the screws.

## 8.4 Spark Collector



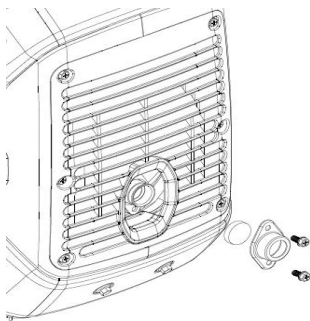
The spark collector must be maintained for every 100 hours of engine operation.

8.4.1 Loosen the six screws in the muffler cover and take off the maintenance cover.

8.4.2 When the muffler is cooled, loosen the screws from the muffler outlet and take off the spark collector.

8.4.3 Use a brush to clean the carbon deposits on the spark collector. If the spark collector is damaged, and replace it.

8.4.4 Re-install the spark collector.



## 9. TRANSPORTING / STORING

- In order to avoid gasoline leakage during transporting or temporary storage of the generator, make sure to turn off the generator fuel tank cover switch and engine switch in the "OFF" position.
- Keep the generator in position under normal operation. After the engine is completely cooled, turn the fuel tank cap switch to "OFF" Location.



### **Transporting of the generator:**

- Do not overfill the fuel tank. (No residual fuel on the neck of tank).
- Do not use the generator in a transport vehicle. The generator should be removed from the cars. And the generator should be used under a good ventilated condition.
- Avoid direct sunlight.

- Do not place the generator in an enclosed compartment for a long time, because the high temperature inside may cause gasoline to vaporize and resulting in a possible explosion.
- The generator must not be transported for long time periods on rough road. If you must drive on a road like this, drain off the gasoline and oil beforehand.
- **Storage for a long period:**
  - 1) Make sure the storage area is without excessive humidity and dust.
  - 2) Drain out of gasoline.



Under certain circumstances, gasoline is flammable and explosive, smoking and fireworks are strictly prohibited near gasoline.

- A. Drain off the gasoline from the fuel tank, storing it into the suitable containers.
  - B. Turn the engine switch to “ON” position, and loosen the carburetor drain screw to discharge gasoline with a suitable container.
  - C. Take off the Spark Plug cap, pull the Starter handle three or four times, discharge the gasoline from the fuel pipe and carburetor.
  - D. Turn the engine switch to “OFF” position and tighten the drain screw of carburetor.
  - E. Re-install the Spark Plug cap.
- 3) Change the engine oil. Unscrew the oil dipstick and drain it. Then fill new oil to the upper limit, and then re-install the oil dipstick.
  - 4) Remove the Spark Plug and fill 10-20ml engine oil into the

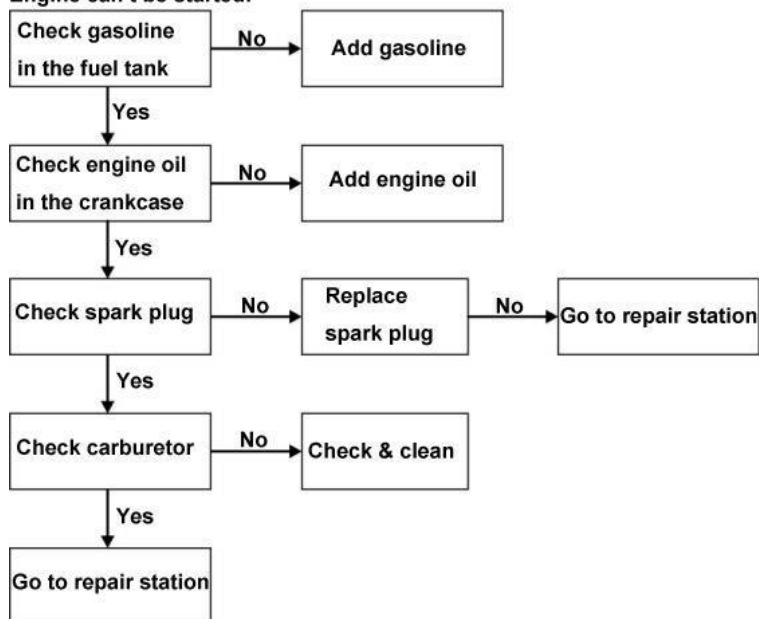
cylinder. Slowly pull up the handle and give the engine a few turns to evenly distribute the oil, and then reinstall the spark plug.

5) Pull the Starter handle slowly till resistance is felt. At this point, the piston is coming up on its compression stroke and both intake and exhaust valves are closed. It helps to protect the engine from internal corrosion.

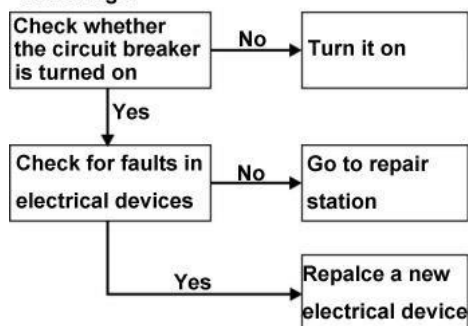
6) Place the generator set in a flat, clean and dry area.

## 10. Troubleshooting

Engine can't be started:



No voltage



# 11. TECHNICAL SPECIFICATIONS

|                  | Specifications                    | Parameters                                                    |
|------------------|-----------------------------------|---------------------------------------------------------------|
| <b>Engine</b>    | Model                             | H122i                                                         |
|                  | Type                              | 4-stroke, overhead valve, single cylinder, forced-air cooling |
|                  | Engine Displacement(CC)           | 121.6                                                         |
|                  | Bore*Stroke (mm)                  | 60×43                                                         |
|                  | Compression Ratio                 | 9.5:1                                                         |
|                  | Rated Power ( kW/rpm )            | 3.6/4800                                                      |
|                  | Ignition System                   | TCI                                                           |
|                  | Start System                      | Recoil start                                                  |
|                  | Fuel Type                         | Gasoline                                                      |
|                  | Oil Model                         | SE 10W-30                                                     |
| <b>Generator</b> | Model                             | S3200iS                                                       |
|                  | Rated Frequency ( Hz )            | 60                                                            |
|                  | Rated Voltage ( V )               | 120                                                           |
|                  | Rated Current ( A )               | 23.3                                                          |
|                  | Rated Speed ( min <sup>-1</sup> ) | 4800                                                          |
|                  | Rated Power(kW)                   | 2.8                                                           |
|                  | Max. Power(kW)                    | 3.2                                                           |

## 12. ELECTRICAL DIAGRAMS

